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General Service Information

Diagnosis and Maintenance Method

Diagnosis Information

Fault Diagnosis and Troubleshooting

1. Diagnosis basis and troubleshooting method

| Procedure type | Detailed information | Troubleshooting method |
|---|--|---|
| Diagnosis based on DTC | The diagnosis program is based on stored DTCs. | <ol style="list-style-type: none"> 1. Identify the faulty parts by elimination method based on DTC set conditions. 2. Check the data of relevant parts by using VDS, and eliminate possible faults one by one. |
| Symptom-based diagnosis (DTC is not stored) | The diagnostic program is based on symptom. | <ol style="list-style-type: none"> 1. Determine the faulty parts by troubleshooting according to the symptom. Check relevant parts by using VDS and eliminate possible faults one by one. 2. Check the data of relevant parts by using VDS, and eliminate possible faults one by one. |

2. Detailed troubleshooting steps

| Step | Description |
|--------|---|
| Step 1 | Obtain detailed information when electrical faults occur. |
| Step 2 | <ol style="list-style-type: none"> 1. Operate the affected system and road test is done if necessary. 2. Confirm the fault parameters. 3. If the fault cannot be reproduced, refer to "circuit simulation test". |
| Step 3 | <ol style="list-style-type: none"> 1. Collect appropriate diagnostic data, including: <ol style="list-style-type: none"> a. System circuit diagram b. System schematic diagram c. Corresponding section of the maintenance manual. d. Other information 2. Make diagnosis according to the mastered knowledge of system operation and customer feedback. |
| Step 4 | <ol style="list-style-type: none"> 1. Check the system for problems such as bonding, connector loose or harness damage. 2. Confirm the circuit and parts involved, and diagnose according to the system circuit diagram and harness layout. |
| Step 5 | Repair circuits and replace the faulty components as required. |
| Step 6 | Operate the system in various modes, confirm that the system can work normally under all conditions, and ensure that other new faults are not caused by negligence during diagnosis or maintenance steps. |

Simulation Test for Circuit

1. Sporadic and other faults that cannot be detected by road test can be detected by circuit simulation test, to identify the possible vehicle fault by simulating the conditions / circumstances under which the fault occurs.

i Reminder:

- It is important to listen carefully to the customer's description of the fault in order to simulate the conditions under which the symptoms occur.

2. Simulation tests are generally divided into the following 6 categories:

- Vehicle vibration test
- Thermal test
- Freezing test
- Leakage test
- Load tests
- Voltage drop test

3. Vehicle vibration test: The vehicle may break down when driving on a rough road. In this case, check the conditions related to vibration and check the following parts of the vehicle:

- a. Connectors and harnesses: determine which connectors and harnesses may affect the electrical system under inspection. Gently vibrate or oscillate each connector and harness when observing whether the system has the fault that you are trying to simulate. This test may reveal loose or poor electrical connection.

i Reminder:

When the connector is exposed to moisture for a long time, a corrosive film may form on its terminals. This condition may not be found by visual inspection when the connector is not disconnected. If the intermittent fault occurs, it may be caused by corrosion. It is recommended to check and clean the terminals of relevant connectors in the system after disconnecting.

- b. Sensors and relays: gently vibrate the sensors and relays in the system you are checking. This test may find loose or poorly installed sensors or relays.

- c. There are many reasons for electrical faults caused by vehicle vibration, among which the following should be checked:

i Reminder:

First, ensure the harness is properly grounded, lightly vibrate the parts or harness as described previously to check for loose connections, check the conductivity of the wiring harness regarding the circuit diagram, and perform a voltage drop test.

- The connector is installed improperly.
- The harness is not long enough so that it will be stretched by vibration or shaking.
- The harness rests on a bracket or movable parts.
- The ground wire is loose, dirty or corroded.
- The harness is too close to the high temperature parts.

- d. Rear instrument panel

- Improper fixing of the harness can cause the harness to screw together when installing the accessory. Vibration can cause excessive wear of the harness near the bracket or mounting screws.
- Unsecured or loose harness can get caught in seat parts (e. g. sliding rails) when the vehicle vibrates. If the harness passes under the installation site, check the harness for damage or jam.

4. Thermal test

- a. The failure of the vehicle after summer exposure or long-term operation may be related to the high temperature of some parts of the harness / electrical system. The thermal sensitivity test method shall be used.
- b. Use the heating gun or similar tools to heat the faulty system parts and components for thermal sensitivity test.

Caution:

- Do not heat the parts above 60° C (140° F).
- If the parts fails during the heat test, the parts should be properly insulated and replaced as necessary.

5. Freezing test

- a. If the failure of vehicles disappears after warming up in winter, the reason may be related to the freezing of some parts of the harness/electrical system. Check this situation by the following two methods:
 - Method 1: Leave the vehicle outdoors all night. Ensure that the temperature is low enough to cause the fault to recur. Quickly and thoroughly diagnose the parts that may be affected in the morning.
 - Method 2: put the suspicious parts in the refrigerator for a long enough time to freeze. Reinstall the parts on the vehicle and check whether the fault is repeated. If the fault occurs, repair or replace the parts.

6. Leakage test

- a. Check the cooling system for leaks.
- b. Check the A/C system for leaks.
- c. If the fault occurs only in high humidity or rain or snow weather, it may be caused by water entering the electrical parts, you can check the car body for leaks by spraying water on the vehicle (similar to washing the car).


7. Load tests

- a. Only when the electrical equipment is turned on, the electrical equipment (including A/C, audio, fog light, etc.) is turned on in turn and the relationship between the electrical equipment and the fault is determined by load test.

8. Voltage drop test

- a. Voltage drop testing is often used to find out what may be affecting the proper operation of electrical parts or circuits.
- b. Check the circuit with a multimeter.
- c. If the resistance of a single-strand harness measured by a multimeter is very small (0 Ω or close to 0 Ω), and the voltage drop test is normal, then the harness or circuit is normal.

Precautions for Checking Control Module and Electrical Parts

 Caution:

- Turn off all electrical appliances when disconnecting the negative end of the start iron battery.
- Before electrical operation, turn off the vehicle power supply, disconnect the negative pole of the start iron battery, and wait for 2 min to let the backup power of the airbag module run out of electricity.
- Disconnecting the negative terminal of the start iron battery may delete the clock, audio, and DTC memory. Therefore, it is necessary to confirm these storages before disconnecting the cable.
- Only install the original genuine parts.
- Do not connect the terminal electrode of the start iron battery reversely.

1. Before replacing the control module, check the input and output of the parts and the function of the parts
 - a. When disconnecting the component:
 - Do not apply excessive force when disconnecting the connector.
 - If the connector is installed by a fastening bolt, loosen the bolt and disconnect the connector.
 - b. When connecting components:
 - Before installing the connector, make sure that the terminals are not bent or damaged, and then connect them properly.
 - When installing the connector by fastening bolt, tighten the installing bolt to the specified torque.
 - c. Do not drop or hit the control module to avoid damage.
 - d. Pay attention to prevent the control module from condensing due to the rapid change of temperature, and avoid being stained with water drops or raindrops. If moisture is found on the control module, dry it completely before installing it on the vehicle.
 - e. Be careful not to have oil liquid stick to the control module connector.
 - f. Avoid cleaning the control module with volatile fluids.
 - g. When using a multimeter, be careful not to short circuit the test probes in contact with each other. Avoid damaging the start iron battery due to short circuit of the power transistor in the control module.
 - h. When checking the input and output signals of the control module, use the specified test adapter.
2. Check the fuse
 - a. Check that the fuse link is not blew.
 - b. and if the fuse link is blew, check for short circuit.
 - c. When the fuse is replaced, a fuse of the same rated amperes must be used.

How to Check the Connector

Reminder:

Many electrical faults may be caused by fault of electrical connections or harnesses, or by conglutinating of parts or relays. Before checking whether the fault is caused by problem of part or harness assembly, check whether the connectors are well connected.

1. Check the connector with a multimeter.
 - a. Detect from the harness side:
 - If the connector has a back cover, remove the back cover before detecting the terminal.
 - Do not probe the waterproof connector from the harness side, or the seal between the harness and the connector may be damaged.
 - b. Probe from the terminal side:
 - Female terminal: do not insert any object larger than the male terminal into the cathode connector.
 - Male terminal: use a "T" pin to carefully probe the contact surface of each terminal, and don't bend the terminal.
2. Check whether the tension of the terminal contact spring plate is suitable.
 - a. Contact shrapnels at terminals may generate intermittent signals in the circuit.
 - b. If an intermittent open circuit occurs, check the open circuit harness and the contact reed at the female terminal as follows.
 - Use a male terminal that matches the female terminal.
 - Disconnect the suspected faulty connector and fix the terminal side upward.
 - While fixing the male terminal harness, try to insert the male terminal into the female terminal.
 - Unplug and plug the connector and check whether the male terminal can be easily inserted into the female terminal.

Repair Instructions

Operating Tips

1. Dressing
 - a. Please wear clean overalls and meet workshop standards.
 - b. Be sure to wear labor protection equipment, and wear safety helmet when working under vehicle.
2. Vehicle protection
 - a. Prepare the radiator grille cover, fender cover, seat cover and floor mat etc. before starting the work.
3. Safe operation
 - a. When two or more technicians are working together, they must check the safety of each other.
 - b. If you work under high temperature and high voltage environment, or operate rotating, moving or vibrating parts, you must wear necessary protective equipment and pay attention not to injure yourself or others.
 - c. When jacking the vehicle with a jack, the designated part must be supported by a safety bracket.
 - d. Use a suitable safety equipment to lift the vehicle.
4. Preparing tools and measuring equipment
 - a. Before starting the operation, prepare tool supports, special tools, measuring tools, oil and replacement parts.
5. Removal and installation, decomposition and assembly operations
 - a. Diagnose after fully understanding the correct steps and the problem reflected.
 - b. Before removing the parts, check the overall condition, deformation and damage of the assembly.
 - c. Records must be kept well when assembly construction is complex. For example, record the total number of all electrical connectors, bolts, or hoses removed. Add matching marks to reassemble the components to the original position. If necessary, temporarily mark the hoses and their connectors.
 - d. If necessary, clean the removed from parts and check them thoroughly before installation.
6. Take out parts
 - a. Place the removed parts in separate boxes to avoid confusion with or contamination of new parts.
 - b. Non-reusable parts such as gaskets, O-rings and self-locking nuts shall be replaced after removal.
 - c. If required by the customer, the removed parts shall be retained for inspection by the customer.
7. Inspections to be carried out after completion of work
 - a. Ensure that the replaced parts are properly installed and fastened.

- b. Make sure that tools and materials used are not left in the front compartment, the vehicle, or the trunk.
- c. Check and make sure that there is no liquid leakage.

 Caution:

After completion of the work, the above checks must be carried out correctly; Failure in performing the above checks may result in serious accidents or injuries.

8. Precoating parts

- a. Pre-coated parts are bolts and nuts that are coated with dense sealing glue in the factory.
- b. If the pre-painted part is re-tightened, loosened or moved in any way, it must be reapplied with the specified threadlocker.
- c. When using the pre-painted part again, always remove the old threadlocker and blow dry the part with compressed air, then apply an appropriate amount of new threadlocker to the part.
- d. Some sealants cure slowly and you may need to wait a while.

9. Gasket

- a. If necessary, apply sealant to the gasket to prevent leakage.

10Bolts, nuts, and screws

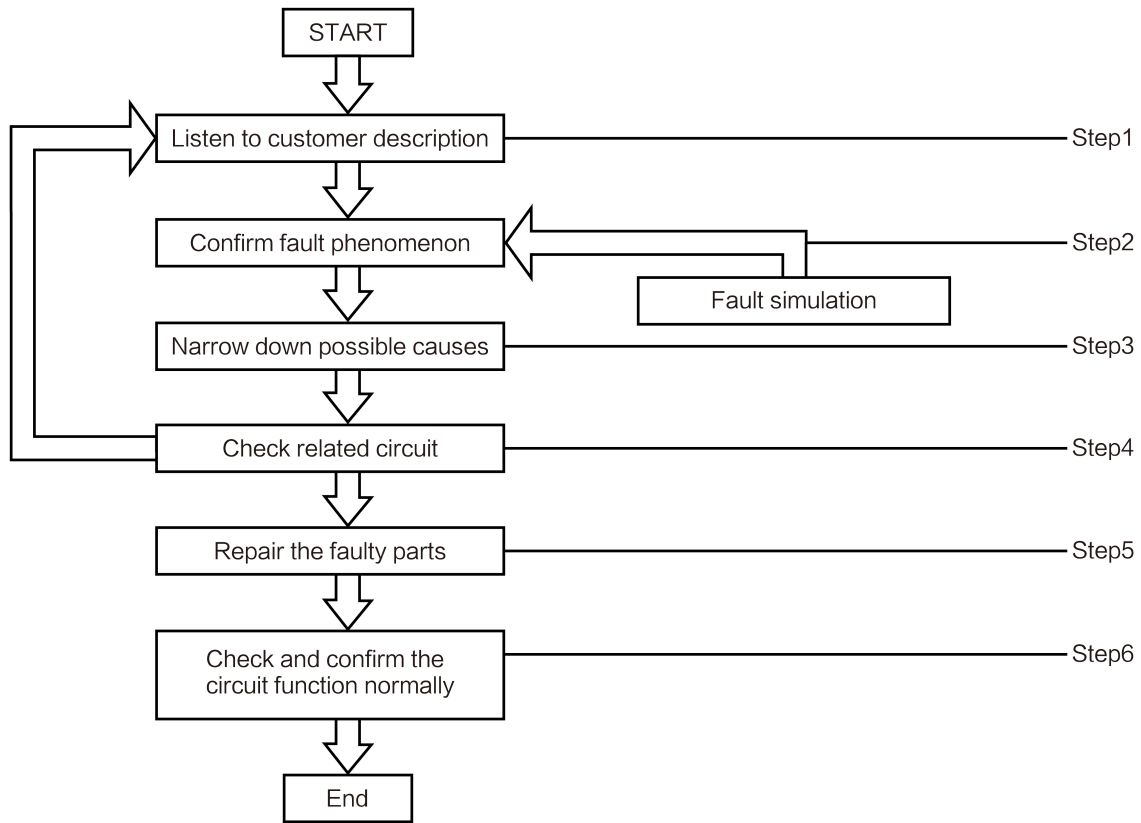
- a. Meet all torque requirements for the fasteners and always use a torque wrench.
- b. When fastening bolt and nuts, make sure that there is no foreign matter (burr, paint, etc.) accumulated on the underside of the bolts and nuts.
- c. When removing nuts or bolts, please follow the following basic principles: loosen the nuts or bolts for several times diagonally from outside to inside. If there are special regulations, please operate as required.
- d. When tightening nuts or bolts, please follow the following basic principles: pre-tighten the nuts or bolts diagonally for several times from inside to outside. If there are special regulations, please operate as required.

11Fuse

- a. When checking the fuse, check whether the fuse link is not blown.
- b. When replacing the fuse, conduct the short circuit test first, and then replace it after confirming that there is no short circuit fault of line.
- c. Fuses with the same rated current must be used.

Maintenance for Circuit Fault

Working Procedure



| Step | Description | |
|--------|---|--|
| Step 1 | Know about the relevant conditions and environmental conditions when the fault occurs in detail. The following key information can help in making a proper analysis: | |
| | Type of Vehicle and Fault | Vehicle model, faulty system. |
| | When | Date, time, weather conditions, frequency of occurrence. |
| | GND | Road surface conditions, altitude and traffic conditions. |
| Step 2 | How | System symptoms, operating conditions (impact of other parts), maintenance history and whether other accessories are installed after sale. |
| Step 3 | Run the system and conduct road tests if necessary. Confirm the fault parameters. If the fault cannot be reproduced, refer to "how to handle intermittent fault". | |
| | Collect appropriate diagnostic material, including: – System Circuit Diagram | |

| Step | Description |
|--------|---|
| | <ul style="list-style-type: none"> – Working Principle System – The corresponding section of the maintenance manual. – Check the service maintenance bulletin. <p>Determine where to start based on the customer's description and your knowledge.</p> |
| Step 4 | <p>Check the system for faults such as line entanglement, loose connector or damaged line.</p> <p>Determine the circuit and parts involved in the fault and diagnose according to the system circuit diagram and harness layout.</p> |
| Step 5 | <p>Repair or replace the damaged circuits or parts.</p> |
| Step 6 | <p>Operate the system in all modes to ensure that the system can work normally under all conditions, and confirm that no new faults are caused by carelessness during diagnosis and maintenance.</p> |

Inspection and Maintenance of Fuse

1. Check the circuit of blown fuse

- a. Remove the blown fuse, measure the resistance between the load end of the blown fuse and the ground, and turn off all circuit switches connected to the fuse. In this case, if the resistance is about 0Ω , there may be a short circuit between the switch and the load. When the displayed resistance is "OL", it indicates that there is no short circuit, but the fuse may be blown due to the instantaneous high voltage of the load.

Reminder:

The main causes of short circuit include the following:

- Damage to the outer surface of the harness due to abrasion or overheating.
- Water ingress into connectors.
- Man-made faults.

- b. When replacing the fuse, make sure that the current rating of the new fuse is correct, and do not use fuses that exceed or lower than the rated value.

How to handle Intermittent Fault

Reminder:

To identify the intermittent fault, first ask the customer about driving, weather conditions, frequency and symptom of the fault, and then try to simulate the fault. Determine if the detection loop is damaged or normal, as well as confirm and troubleshoot. Refer to the general symptom table of each system to narrow down the range of possible failures.

1. Vibration

- a. Gently vibrate the sensor that may have failed with your finger and check if the fault recurs.
- b. Gently shake the connector horizontally and vertically to determine whether the fault recurs.
- c. Gently shake the harness and connector horizontally and vertically to determine whether the fault recurs.

2. Heating

- a. Heat the possible fault position with a hair dryer or similar articles to determine whether the fault recurs.

Caution:

Never damage the structure of parts during heating.

3. Water spray method

- a. Spray water on the vehicle to determine whether the fault reappears.

Caution:

- Never spray water directly on the front compartment and high and low voltage components.
- If the vehicle leaks water, some electrical components will be damaged, so special care must be taken when conducting water spray test on the vehicle.

4. Other

- a. Switch on all loads and determine whether the fault reappears.

How to Handle Historical Fault

Although the fault is not shown in the current state, the fault does occur. If this happens, the related fault may always exist. When there is a historical fault, the following detection steps shall be performed:

1. Check whether the user has replaced the fuse or disconnected the connector.
2. If the relevant fuse has been replaced or the connector has been disconnected, clear the DTC and check whether the DTC has been reset. If the DTC is not reset, complete the diagnosis.
3. If the DTC is reset, the relevant diagnostic DTC procedures need to be performed. Then check the harness and connector, see "how to handle intermittent fault".

Noise, Vibration and Comfort (NVH)

Description and Operation

Description

This part is intended to assist in the diagnosis, testing and maintenance of noise, vibration and abnormal sound.

1. Noise is defined as sound that is not relevant to the operation of the equipment in the cab and is not acceptable to passengers.
2. Vibration is defined as the fluctuation felt by passengers not caused by road surface changes.
3. Comfort is a ride quality issue, and passengers can clearly feel the response from the road.

Principles for diagnosis

Diagnosis is not just based on a series of related steps to solve a specific problem. It is a way to examine a system that is not functioning as it should and find out why. It should also be able to understand how the system works and whether it is working properly. Diagnosis has some basic rules. If these rules are observed, the cause of the problem can usually be found out at the first time.

Understand the system

1. Understand how the parts are assembled.
2. Understand the operation and limitations of the system and what happens when the system goes wrong.
3. Sometimes it is necessary to check the system with possible faults against the known good system.

Know about the history of the system

Any clues about the following items can save diagnostic time:

1. How old is the system?
2. What has been done?
3. Has it been serviced in the past and is the current condition related to past services?
4. How about the maintenance record?

Know about the history of the condition

Any clues about the following items can save diagnostic time:

1. Did it happen suddenly or come into being gradually?
2. Was it related to other events, such as a crash or replacement of parts?
3. Understanding how the condition was discovered can be an important clue to why.

Understand the possibility of the development of certain conditions

Pay attention to simple problems rather than complex ones. For example:

1. Circuit problems usually occur due to the connection rather than the parts themselves.
2. The motor's failure to start is more likely to be caused by loose wires or small adjustments than by mechanical failure.
3. Understand the difference between impossible and unlikely, and the failure of some systems, although unlikely, still occurs.
4. New parts are new, but that doesn't mean they work well.

Eliminate the symptoms but not find the cause of the fault

For example, reducing the tyre pressure of one front wheel may solve the problem that the vehicle inclines to one side, but this does not solve the real reason.

Confirm that the cause of the fault has been found out

Repeatedly confirm the problem found. What is causing the component to wear out? For example:

- When one fixing seat of the powertrain is loose, it may indicate that other fixing seats are loose as well.

Diagnosis and Test

Inspection

1. Operate the vehicle to reproduce the fault, and then confirm the problem reflected by the customer.
2. Visually inspect if obvious cause of failure can be found.
3. If visual inspection or customer-described problem reveals obvious cause, fix it (if possible) before proceeding to next step.
4. The road test and customer specifications provide relevant information that can help identify the problem and provide direction to begin the correct diagnosis.
5. If the problem still exists after the inspection, eliminate it according to the fault phenomenon.

Inspection

1. Noise and vibration usually occur in four areas:
 - a. Tyre.
 - b. Suspension.
 - c. Driving System
 - d. Interior trim
2. It is necessary to identify location of the NVH problems as soon as possible, and the simplest and fastest way for this is to carry out a road test and use an appropriate approved NVH diagnostic scan tool to provide support for the diagnosis and testing procedures.

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| P268700 Power Supply Relay Loop Check Fault..... | 345 | P268A00 DC Charging Anode Contactor Loop Check Fault..... | 433 |
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|---|-----|
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| P1AD698 Temperature of Charging Port 3 Generally High..... | 880 |
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High Voltage System

Power Battery

Diagnosis Description

Introduction

Power battery is one of the main power sources of vehicle, which provides electric energy for vehicle driving and other electrical appliances. When a systemic fault occurs, before diagnosing the fault of the power battery system, it is necessary to understand and be familiar with the working principle of the power battery system, and then start diagnosing the power battery system. In addition to checking the system circuit, it is also important to check the mechanical properties. For example, the power battery pack has obvious collision deformation marks or other problems in the power battery system.

Diagnosing intermittent faults can be more difficult than diagnosing persistent faults. Most intermittent faults are caused by poorly contacted electrical connection or faulty line. Therefore, checking the circuit suspected to be causing the fault can help to avoid replacing a functional part.

If the visual inspection does not reveal the cause of the fault, a road test may be required. Be patient with the customer before performing the actual inspection. Customers are the best source of information on such faults, especially for intermittent faults. Talk to customers to identify the symptoms and occurrences.

Any fault diagnosis of the power battery system should start with the inspection of the power battery system, and please check the relevant service notification information.

General equipment

- VDS
- Multimeter
- Socket wrench kit
- Insulating tool kit
- Insulating Gloves
- Insulated shoe
- Power battery lifting platform
- Clamp flow meter

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Precautions

Danger:

- The bus voltage of the power battery is high. During the removal and installation of the high voltage components, the operators with low voltage electrician certificate must wear the high voltage insulating gloves. The metal objects on the human body shall not contact the vehicle body.
- Never touch the positive and negative terminals of the power battery at the same time.

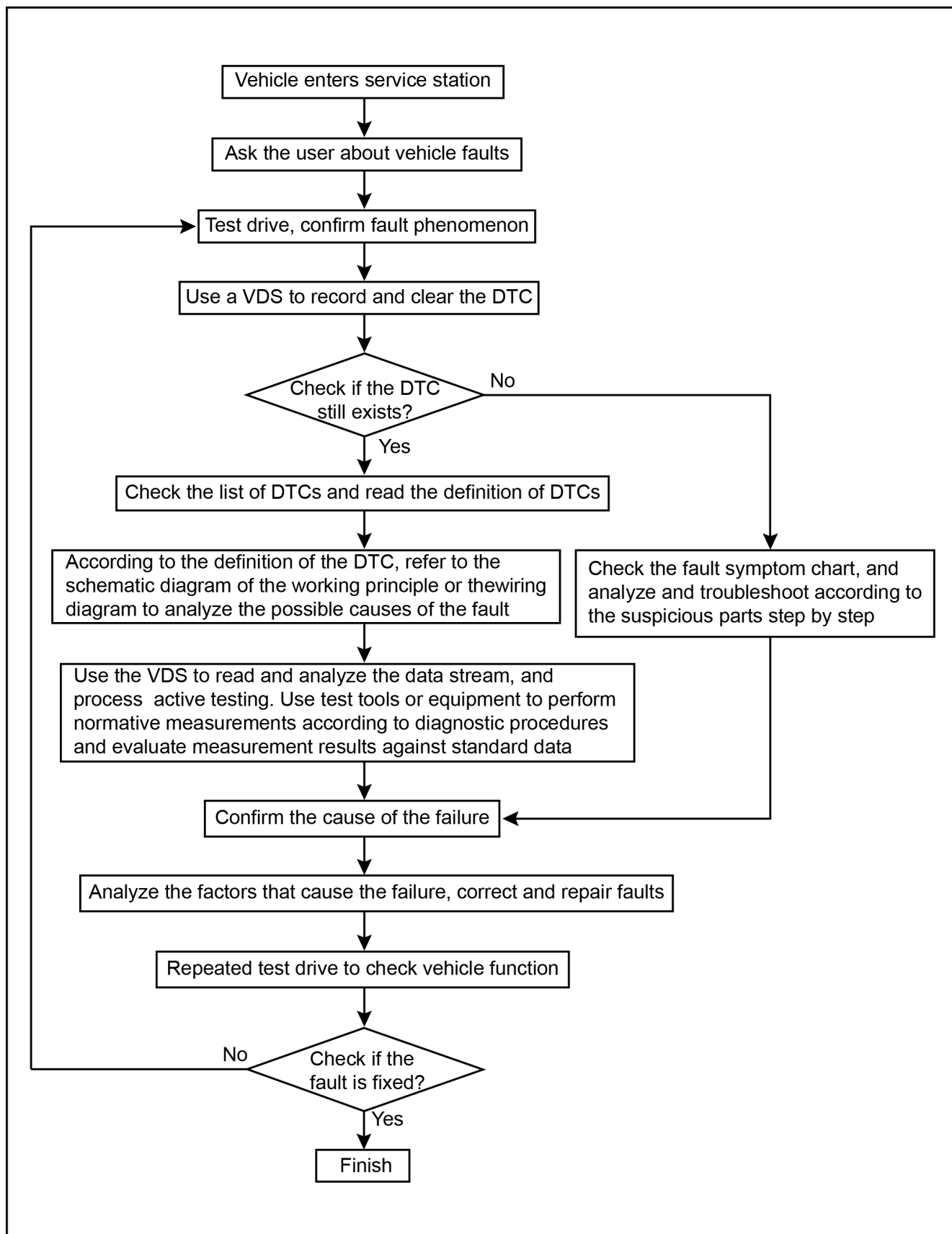
Warning:

- Before repairing or removing and installing the high voltage components, the high voltage power-off procedure must be carried out to confirm that the 12 V power supply and the high voltage power connector have been disconnected. And after the power-off, the vehicle should stand for more than 5 minutes.
- It is forbidden for maintenance technicians who have not participated in the training on the high voltage system knowledge for this model to dismantle the high voltage systems (including power battery, electric hybrid system, A/C compressor, DC fast charging socket, AC slow charging socket, high voltage distribution box and two-way on-board power supply, etc.).
- Before starting maintenance work, the maintenance technician must wear labor protection equipment, including insulating gloves and high voltage insulating shoes. Before wearing insulating gloves, it is necessary to check whether the insulating gloves are damaged and ensure that there is no insulation failure of the gloves.
- It is forbidden to remove, fall, collide or step on the power battery by force.
- Never puncture, extrude, place at high temperature, or bake the power battery.

Caution:

- The high voltage area must be de-energized in all maintenance operations involving the high voltage electrical appliances and high voltage harness.
- Never start the operation within 5min after the high voltage power supply is disconnected.
- Insulate and seal the removed and disconnected high voltage electrical appliances plug connector to avoid the ingress of sundries.
- During the removal, do not damage the parts with locking function.
- During the removal, properly protect the power battery.
- The harness connector should be kept dry. If coolant or fluid splashed into the high voltage harness or electrical appliances, it should be cleaned and dried with compressed air. And use a multimeter to measure the insulation resistance of the high voltage electrical apparatus or harness, and install it after it meets the standard.

Process of Fault Inspection and Troubleshooting



DTC Diagnosis of Battery Execution and Sampling Unit

List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|---|--|
| P1A0000 | Serious Electric Leakage | P1A0000 Serious Electric Leakage Fault |
| P1A0100 | General Electric Leakage | P1A0100 Common Electric Leakage Fault |
| P1A4100 | Main Contactor Sintering Fault | P1A4100 Main Contactor Sintering |
| P1A4200 | Negative Contactor Sintering | P1A4200 Cathode Contactor Sintering |
| P1AC400 | Serious Imbalance at Battery | P1AC400 Serious Imbalance at Battery |
| U029787 | Communication with On-board Charger Failed | U029787 Communication with On-board Charger Failed |
| U029800 | Communication between Battery Management System and DC Failed | U029800 Communication between Battery Manager System and DC Failed |
| U012187 | Communication with ABS failed | U012187 Communication with ABS Failed |
| P1A0C00 | BIC1 Voltage Sampling Abnormal | P1A0C00 BIC1 Voltage Sampling Abnormal |
| P1A0D00 | BIC2 Voltage Sampling Abnormal | P1A0D00 BIC2 Voltage Sampling Abnormal |
| P1A0E00 | BIC3 Voltage Sampling Abnormal | P1A0E00 BIC3 Voltage Sampling Abnormal |
| P1A0F00 | BIC4 Voltage Sampling Abnormal | P1A0F00 BIC4 Voltage Sampling Abnormal |
| P1A1000 | BIC5 Voltage Sampling Abnormal | P1A1000 BIC5 Voltage Sampling Abnormal |
| P1A1100 | BIC6 Voltage Sampling Abnormal | P1A1100 BIC6 Voltage Sampling Abnormal |
| P1A1200 | BIC7 Voltage Sampling Abnormal | P1A1200 BIC7 Voltage Sampling Abnormal |
| P1A1300 | BIC8 Voltage Sampling Abnormal | P1A1300 BIC8 Voltage Sampling Abnormal |
| P1A0200 | BIC1 Working Abnormal | P1A0200 BIC1 Working Abnormal |

| DTC: | Meaning | Diagnostic Process |
|---------|--|---|
| P1A0300 | BIC2 Working Abnormal | P1A0300 BIC2 Working Abnormal |
| P1A0400 | BIC3 Working Abnormal | P1A0400 BIC3 Working Abnormal |
| P1A0500 | BIC4 Working Abnormal | P1A0500 BIC4 Working Abnormal |
| P1A0600 | BIC5 Working Abnormal | P1A0600 BIC5 Working Abnormal |
| P1A0700 | BIC6 Working Abnormal | P1A0700 BIC6 Working Abnormal |
| P1A0800 | BIC7 Working Abnormal | P1A0800 BIC7 Working Abnormal |
| P1A0900 | BIC8 Working Abnormal | P1A0900 BIC8 Working Abnormal |
| U20B000 | BIC1CAN Communication Timeout | BIC1CAN Communication Timeout |
| U20B100 | BIC2CAN Communication Timeout | BIC2CAN Communication Timeout |
| U20B200 | BIC3CAN Communication Timeout | BIC3CAN Communication Timeout |
| U20B300 | BIC4CAN Communication Timeout | BIC4CAN Communication Timeout |
| U20B400 | BIC5CAN Communication Timeout | BIC5CAN Communication Timeout |
| U20B500 | BIC6CAN Communication Timeout | BIC6CAN Communication Timeout |
| U20B600 | BIC7CAN Communication Timeout | BIC7CAN Communication Timeout |
| U20B700 | BIC8CAN Communication Timeout | BIC8CAN Communication Timeout |
| P2B7200 | Temperature Sampling Wire Broken (general fault) | P2B7200 General Fault of Temperature Sampling Wire Broken |
| P2B7300 | Temperature Sampling Wire Broken (serious fault) | P2B7300 Serious Fault of Temperature Sampling Wire Broken |
| P2B7100 | Voltage Sampling Wire Broken (serious fault) | P2B7100 Serious Fault of Voltage Sampling Wire Broken |
| P2B9213 | High Side Drive Open-circuited | P2B9213 High Side Drive Open-circuited |
| P2B9298 | High Side Drive Overtemperature | P2B9298 High Side Drive Overtemperature |
| P1A2000 | BIC1 Temperature Sampling Abnormal | P1A2000 BIC1 Temperature Sampling Abnormal |
| P1A2100 | BIC2 Temperature Sampling Abnormal | P1A2100 BIC2 Temperature Sampling Abnormal |
| P1A2200 | BIC3 Temperature Sampling Abnormal | P1A2200 BIC3 Temperature Sampling Abnormal |

| DTC: | Meaning | Diagnostic Process |
|---------|--|--|
| P1A2300 | BIC4 Temperature Sampling Abnormal | P1A2300 BIC4 Temperature Sampling Abnormal |
| P1A2400 | BIC5 Temperature Sampling Abnormal | P1A2400 BIC5 Temperature Sampling Abnormal |
| P1A2500 | BIC6 Temperature Sampling Abnormal | P1A2500 BIC6 Temperature Sampling Abnormal |
| P1A2600 | BIC7 Temperature Sampling Abnormal | P1A2600 BIC7 Temperature Sampling Abnormal |
| P1A2700 | BIC8 Temperature Sampling Abnormal | P1A2700 BIC8 Temperature Sampling Abnormal |
| U018087 | Communication with High Side Drive Lost | U018087 Communication with High-side Drive Lost |
| P2B9211 | High Side Short to Ground SC (contactor channel) | P2B9211 High Side Short to Ground SC (Contactor Channel) |
| P2B9212 | High Side Short to Power OS (contactor channel) | P2B9212 High Side Short to Power OS (Contactor Channel) |
| P2B9000 | High Side Drive Overcurrent (contactor channel) | P2B9000 High Side Drive Overcurrent (Contactor Channel) |
| P2B8F12 | High Side Drive Undervoltage OV | P2B8F12 High Side Drive Overvoltage OV |
| P2B8E00 | High Side Drive Undervoltage UV | P2B8E00 High Side Drive Undervoltage UV |
| U027E01 | BIC1 Cascade Communication Failed | U027E01 BIC1 Cascade Communication Fault |
| U027E02 | BIC2 Cascade Communication Failed | U027E02 BIC2 Cascade Communication Fault |
| U027E03 | BIC3 Cascade Communication Failed | U027E03 BIC3 Cascade Communication Fault |
| U027E04 | BIC4 Cascade Communication Failed | U027E04 BIC4 Cascade Communication Fault |
| U027E05 | BIC5 Cascade Communication Failed | U027E05 BIC5 Cascade Communication Fault |
| U027E06 | BIC6 Cascade Communication Failed | U027E06 BIC6 Cascade Communication Fault |
| U027E07 | BIC7 Cascade Communication Failed | U027E07 BIC7 Cascade Communication Fault |

| DTC: | Meaning | Diagnostic Process |
|---------|--|--|
| U027E08 | BIC8 Cascade Communication Failed | U027E08 BIC8 Cascade Communication Fault |
| P2B7000 | Voltage Sampling Broken Line (general fault) | P2B7000 General Fault of Voltage Sampling Wire Broken |
| P2B9219 | High Side Drive Overcurrent (HVSU channel) | P2B9219 High Side Drive Overcurrent (HVSU Channel) |
| U016400 | Communication with Air Conditioner Failed | U016400 Communication with A/C Failed |
| P1ADE00 | Battery cooling not available due to air conditioner system fault | P1ADE00 Battery Cooling Failure Due to Air Conditioner System Fault |
| P1ADF00 | Battery internal circulation not available due to air conditioner system fault | P1ADF00 Inner Cycle Failure at Battery Due to Air Conditioner System Fault |
| P1AE000 | Battery Heating Failure Due to Air Conditioner System Fault | P1AE000 Battery Heating Failure Due to Air Conditioner System Fault |
| P1A5B00 | Contactor Disconnected Due to Dual-circuit Power Supply Fault | P1A5B00 Contactor Disconnected Due to Dual-circuit Power Supply Fault |
| P1A5600 | 12V Supply Input of Battery Management System Too Low | P1A5600 12V Supply Input of Battery Management System Too Low |
| U110287 | Communication with BCM failed | U110287 Communication with BCM Failed |
| U02A200 | Communication with active bleed module failed | U02A200 Communication with Active Release Module Failed |
| P1AF800 | Battery data not updated | P1AF800 Non-update Battery Data |
| P2B7516 | Power battery pack undervoltage | P2B7516 Power Battery Pack Undervoltage |
| P1AE400 | High Voltage Process Ended Due to Abnormal Low-voltage Supply | P1AE400 High Voltage Process Ended Due to Abnormal Low-voltage Supply |
| P2B7C00 | Serious Overtemperature at Shunt | P2B7C00 Shunt Temperature Seriously High |
| P2B7900 | Battery pack charging overcurrent alarm | P2B7900 Battery Pack Charging Overcurrent |
| P1AF200 | Voltage output of DC charger abnormal | P1AF200 Voltage Output at DC Charger Abnormal |

| DTC: | Meaning | Diagnostic Process |
|---------|--|--|
| P1AF300 | DC charging cabinet stops charging actively | P1AF300 DC Charging Cabinet Stops Charging Actively |
| P1AF400 | Insufficient Capacity of DC Charging Cabinet | P1AF400 Insufficient Capacity of DC Charging Cabinet |
| P2B8A00 | BIC configuration inconsistent with module state | P2B8A00 BIC Configuration Inconsistent with Module State |
| U011000 | Communication with motor control unit failed | U011000 Communication with Motor Control Unit Failed |
| P2B7B00 | General Overtemperature at Shunt | P2B7B00 Shunt Temperature Generally High |
| P2B7E00 | Large Deviation at Current Sampling of Shunt | P2B7E00 Large Deviation at Current Sampling of Shunt |
| P2B7D00 | Temperature Sampling Fault of Shunt | P2B7D00 Temperature Sampling Fault of Shunt |
| P1A3522 | Severely high voltage of power battery cell | P1A3522 Power Battery Cell Voltage Seriously High |
| P1A3622 | Generally high voltage of power battery cell | P1A3622 Power Battery Cell Voltage Generally High |
| P1A3721 | Severely low voltage of power battery cell | P1A3721 Power Battery Cell Voltage Seriously Low |
| P1A3922 | Severely high temperature of power battery cell | P1A3922 Power Battery Cell Temperature Seriously High |
| P1A3B21 | Severely low temperature of power battery cell | P1A3B21 Power Battery Cell Temperature Seriously Low |
| P1A3E00 | Main contactor recheck fault | P1A3E00 Main Contactor Loop Check Fault |
| P1A3F00 | Pre-charge contactor recheck fault | P1A3F00 Pre-charging Contactor Loop Check Fault |
| P1A3D00 | Negative contactor recheck fault | P1A3D00 Negative Contactor Loop Check Fault |
| P2B7400 | Power battery overcharged | P2B7400 Power Battery Overcharge |
| P2B7517 | Power battery pack overvoltage | P2B7517 Power Battery Pack Overvoltage |
| P2B8000 | HVSU_PACK+voltage sampling fault | P2B8000 HVSU_PACK+ Voltage Sampling Fault |

| DTC: | Meaning | Diagnostic Process |
|---------|----------------------------------|---|
| P2B8100 | HVSU_LINK+voltage sampling fault | P2B8100 HVSU_LINK+ Voltage Sampling Fault |
| P2B8200 | HVSU_LINK-voltage sampling fault | P2B8200 HVSU_LINK- Voltage Sampling Fault |
| P2B8500 | Power Supply of HVSU Abnormal | P2B8A00 Power Supply of HVSU Abnormal |
| P2B9400 | Power battery overdischarged | P2B9400 Power Battery Overdischarge |
| P2B9200 | Power Supply of HVSU Abnormal | P2B8A00 Power Supply of HVSU Abnormal |

P1A0000 Serious Electric Leakage Fault

DTC Description

| P1A0000 Serious Electric Leakage Fault | |
|--|---|
| Symptom | “EV function limited” alarm is displayed on the instrument. |
| Possible Cause | The insulation resistance value of any high voltage component is low. |
| Fault setting conditions | Insulation resistance lower than 100 Ω/V |
| Trigger fault conditions | When the vehicle is powered on and the system detects that the insulation resistance of high voltage components is lower than 100 Ω / V , a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the battery execution and sampling unit software version. |
|---|---|

1. Use a VDS to check whether the software of battery execution and sampling unit has been updated to the latest version.

Yes

Go to step 4

No

| | |
|---|---|
| 3 | Upgrade battery execution and sampling unit, check the DTC. |
|---|---|

1. Use a VDS to update the battery execution and sampling unit to the latest version.
2. Clear DTCs.
3. Place the start/stop button in the OFF position and wait for a few seconds.
4. Place the start/stop button in ON position again, and read the DTC.
5. Check whether the same DTC is displayed.

No

The system is normal.

Yes

| | |
|---|--|
| 4 | Check the insulation resistance of battery pack. |
|---|--|

1. Read the insulation resistance of the power battery pack with VDS.
2. Is the inspection result greater than 100 Ω/V?

No

Replace the power battery pack.

Yes

| | |
|---|--|
| 5 | Check the insulation resistance of compressor. |
|---|--|

1. Disconnect the negative pole of battery.
2. Disconnect the high-pressure connector of the integrated intelligent front drive control module compressor.
3. Measure the insulation resistance of compressor.
4. Is the measured value higher than $2M\Omega$?

No

| |
|-------------------------|
| Replace the compressor. |
|-------------------------|

Yes

| | |
|---|---|
| 6 | Check the insulation resistance of the integrated AC/DC charging vehicle socket sub-assembly. |
|---|---|

1. Disconnect the high voltage connector of the AC charging port for the integrated intelligent front drive control module.
2. Disconnect the high voltage connector of the DC charging port of the integrated intelligent front drive control module.
3. Measure the insulation resistance of the integrated AC/DC charging vehicle socket sub-assembly.
4. Is the measured value higher than $2M\Omega$?

No

| |
|--|
| Replace the integrated AC and DC charging socket subassembly |
|--|

Yes

| | |
|---|---|
| 7 | Check the insulation resistance of the integrated intelligent front drive control module. |
|---|---|

1. Disconnect the integrated intelligent front drive control module from the drive motor copper bar.
2. Measure the insulation resistance of the integrated intelligent front drive control module.
3. Is the measured value higher than $2M\Omega$?

No

| |
|--|
| Replace the smart integrated front drive control unit. |
|--|

Yes

| | |
|---|--|
| 8 | Check the insulation resistance of drive motor assembly. |
|---|--|

1. Measure the insulation resistance of drive motor assembly.
2. Is the measured value higher than $2M\Omega$?

No

Replace the drive motor assembly.

Yes

Replace the power battery pack.

P1A0100 Common Electric Leakage Fault

DTC Description

| P1A0100 Common leakage fault | |
|------------------------------|---|
| Symptom | When EV function limited” alarm is displayed on the instrument, the discharging power is limited. |
| Possible Cause | The insulation resistance value of any high voltage component is low. |
| Fault setting conditions | Insulation resistance lower than 500 Ω/V |
| Trigger fault conditions | When the vehicle is powered on and the system detects that the insulation resistance of high voltage components is lower than 500 Ω / V , a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the battery execution and sampling unit software version. |
|---|---|

1. Use VDS to check if the battery execution and sampling unit software version are upgraded.

No

[Go to step 4](#)

Yes

| | |
|---|---|
| 3 | Upgrade battery execution and sampling unit, check the DTC. |
|---|---|

1. Upgrade the battery execution and sampling unit with VDS.
2. Clear DTCs.
3. Place the start/stop button in the OFF position and wait for a few seconds.
4. Place the start/stop button in ON position again, and read the DTC.
5. Check whether the same DTC is displayed.

No

The system is normal.

Yes

| | |
|---|--|
| 4 | Check the insulation resistance of battery pack. |
|---|--|

1. Read the insulation resistance of the power battery pack with VDS.
2. Is the inspection result greater than 500 Ω/V ?

No

Replace the power battery pack.

Yes

| | |
|---|--|
| 5 | Check the insulation resistance of compressor. |
|---|--|

1. Disconnect the negative pole of battery.
2. Disconnect the high-pressure connector of the integrated intelligent front drive control module compressor.
3. Measure the insulation resistance of compressor.
4. Is the measured value higher than $2M\Omega$?

No

| |
|-------------------------|
| Replace the compressor. |
|-------------------------|

Yes

| | |
|---|---|
| 6 | Check the insulation resistance of the integrated AC/DC charging vehicle socket sub-assembly. |
|---|---|

1. Disconnect the high voltage connector of the AC charging port for the integrated intelligent front drive control module.
2. Disconnect the high voltage connector of the DC charging port of the integrated intelligent front drive control module.
3. Measure the insulation resistance of the integrated AC/DC charging vehicle socket sub-assembly.
4. Is the measured value higher than $2M\Omega$?

No

| |
|--|
| Replace the integrated AC and DC charging socket subassembly |
|--|

Yes

| | |
|---|---|
| 7 | Check the insulation resistance of the integrated intelligent front drive control module. |
|---|---|

1. Disconnect the integrated intelligent front drive control module from the drive motor copper bar.
2. Measure the insulation resistance of the integrated intelligent front drive control module.
3. Is the measured value higher than $2M\Omega$?

No

| |
|--|
| Replace the smart integrated front drive control unit. |
|--|

Yes

| | |
|---|--|
| 8 | Check the insulation resistance of drive motor assembly. |
|---|--|

1. Measure the insulation resistance of drive motor assembly.
2. Is the measured value higher than $2M\Omega$?

No

Replace the drive motor assembly.

Yes

Replace the power battery pack.

P1A4100 Main Contactor Sintering

DTC Description

| P1A4100 Main Contactor Sintering | |
|----------------------------------|---|
| Symptom | The instrument displays "EV function is limited", and charging and discharging are prohibited. |
| Possible Cause | The main contactor of the power battery pack is sintered. |
| Fault setting conditions | The main contactor cannot be disconnected normally. |
| Trigger fault conditions | When the vehicle is powered on and the system detects that the main contactor cannot be disconnected normally, a DTC will be generated. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check whether the main contactor of the power battery pack is sintered. |
|---|---|

1. Set the start/stop button to OFF.
2. Disconnect all high voltage connectors other than the power battery pack.
3. Set the start/stop button to ON.
4. Connect VDS to the diagnosis interface.
5. The VDS is used to enter the battery execution and sampling unit.
6. Enter the maintenance mode interface.
7. Enter the negative contactor active control interface.
8. Execute the pull-in action of "Active Control of Negative Contactor".
9. Measure the voltage between the positive and negative terminals of the power battery pack with a multimeter.
10. Check whether the power battery pack outputs voltage.

Yes

The main contactor is sintered.
Replace the power battery pack.

No

| | |
|---|-------------------------------------|
| 2 | Check battery management system DTC |
|---|-------------------------------------|

1. Connect VDS to the diagnosis interface.
2. Set the START/STOP button to ON.
3. Scanning ECU module
4. Enter the Battery management system, record and clear the DTC
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again.
7. Re-enter the Battery management system, and read the DTC.
8. Check whether the same DTC is displayed.

No

Check the "intermittent fault" .

Yes





Replace the power battery pack.

P1A4200 Cathode Contactor Sintering

DTC Description

| P1A4200 Cathode Contactor Sintering | |
|-------------------------------------|---|
| Symptom | The instrument displays "EV function is limited", and charging and discharging are prohibited. |
| Possible Cause | The main contactor of the power battery pack is sintered. |
| Fault setting conditions | The negative contactor cannot be disconnected normally. |
| Trigger fault conditions | When the vehicle is powered on and the system detects that the negative contactor cannot be disconnected normally, a DTC will be generated. |

Diagnostic Steps

| | |
|---|---|
| 1 | <p>Check whether the negative contactor of the power battery pack is sintered.</p> <ol style="list-style-type: none"> 1. Set the start/stop button to OFF. 2. Disconnect all high voltage connectors other than the power battery pack. 3. Set the start/stop button to ON. 4. Connect VDS to the diagnosis interface. 5. Use a VDS to enter the Battery manager. 6. Enter the maintenance mode interface. 7. Enter the main contactor active control interface. 8. Execute the pull-in action of "active control of the main contactor". 9. Measure the voltage between the positive and negative terminals of the power battery pack with a multimeter. 10. Check whether the power battery pack outputs voltage. <p>Yes  The negative contactor is sintering, replace the power battery pack.</p> <p>No </p> |
| 2 | <p>Check the battery execution and sampling unit DTC.</p> <ol style="list-style-type: none"> 1. Connect VDS to the diagnosis interface. 2. Set the START/STOP button to ON. 3. Scanning ECU module 4. Enter battery execution and sampling, record and clear the DTC 5. Place the start/stop button in the OFF position and wait for a few seconds. 6. Set the start/stop button to ON position again. 7. Re-enter battery execution and sampling, read the DTC. 8. Check whether the same DTC is displayed. <p>No  Check the "intermittent fault" .</p> <p>Yes  Replace the power battery pack.</p> |

P1AC400 Serious Imbalance at Battery

DTC Description

| P1AC400 Serious Imbalance at Battery | |
|--------------------------------------|--|
| Symptom | The instrument displays “Power battery failure” . |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Poor battery consistency. |
| Trigger fault conditions | When the vehicle is powered on and the system detects that the battery consistency is poor, a DTC will be generated. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the consistency of power batteries. |
|---|---|

1. Keep the vehicle instrument SOC between 40% and 60% by charging and discharging.
2. Use the VDS to read the battery execution and sample unit data flow.
3. Check whether the difference between "maximum voltage of single section" and "minimum voltage of single section" is greater than 0.09 V.

No

The system is normal.

Yes

| | |
|---|--|
| 2 | Check the power battery self-balancing status. |
|---|--|

1. Use AC charge to fully charge the vehicle.
2. Normal use for one week.
3. Check whether the power battery voltage difference is reduced.

No

Replace the power battery pack.

Yes

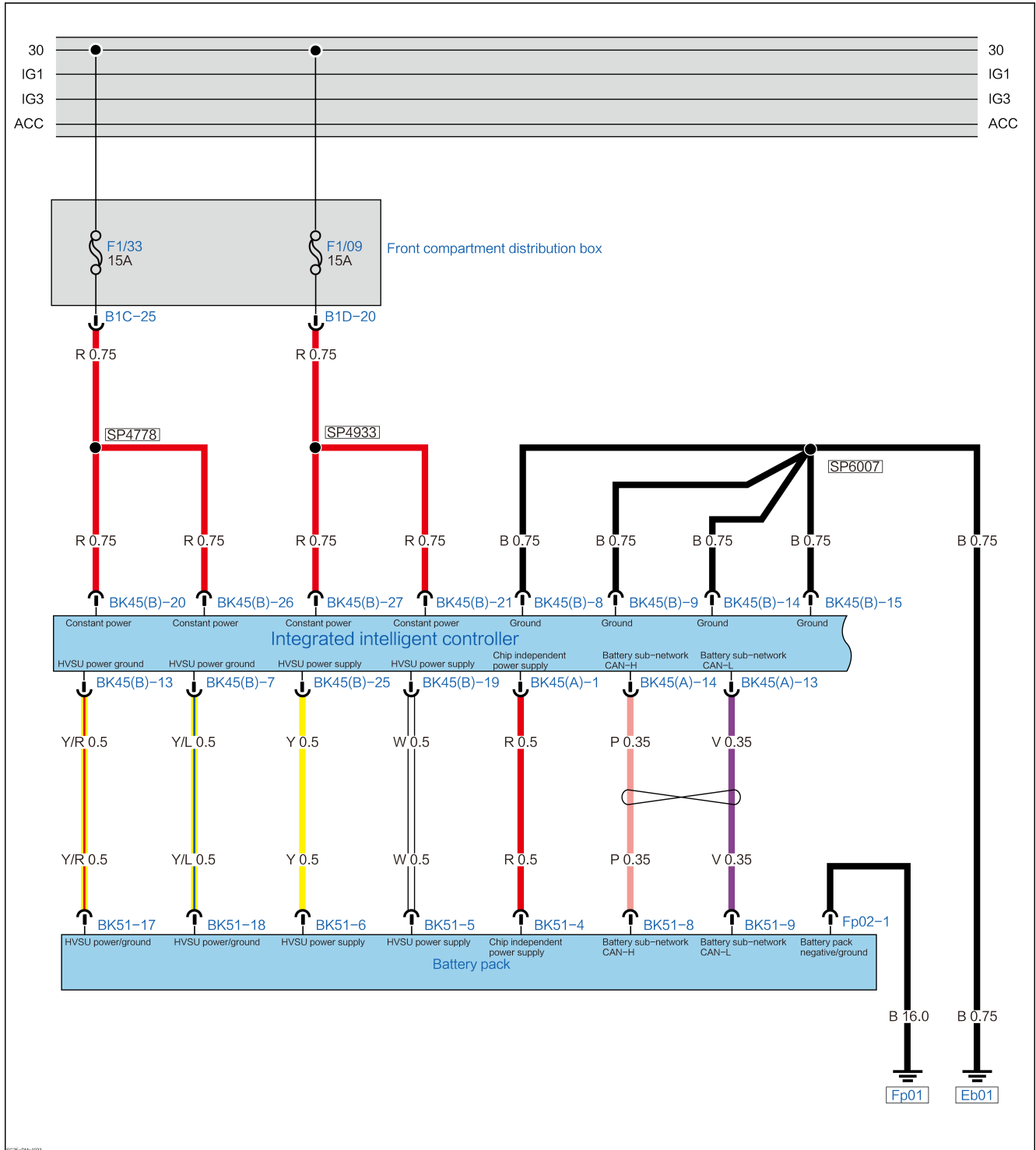
Repeat the equalization to normalize the differential pressure.

U029787 Communication with On-board Charger Failed

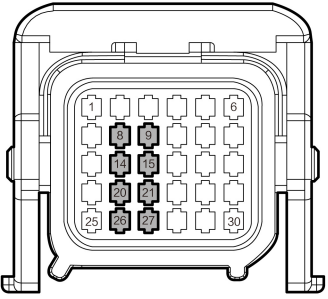
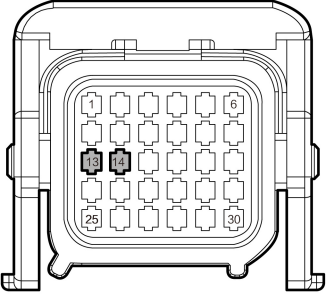
DTC Description

| U029787 Communication with On-board Charger Failed | |
|--|--|
| Symptom | Do Not Charge. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Harness or connector fault. 3. Charger breakdown 4. Power battery packet fault. |
| Fault setting conditions | Communication loss with on-board charger. |
| Trigger fault conditions | When AC charging / AC VTOL discharging, the communication with the on-board charger is lost, a DTC will be generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|-----------------------------|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> <p><small>EMEF-TM-100</small></p> | BK45(B)-8 | Ground |
| | BK45(B)-9 | |
| | BK45(B)-14 | |
| | BK45(B)-15 | |
| | BK45(B)-20 | Constant power |
| | BK45(B)-21 | |
| | BK45(B)-26 | |
| | BK45(B)-27 | |
| <p>Smart integrated front drive control unit</p>  <p>BK45(A)</p> <p><small>EMEF-TM-102</small></p> | BK45(A)-13 | Battery sub-network (CAN)_L |
| | BK45(A)-14 | Battery sub-network (CAN)_H |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the on-board charger communication network. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the on-board charger passes the network detection?

Yes

Go to step 8

No

| | |
|---|--|
| 2 | Check the fuse of integrated intelligent front drive control module. |
|---|--|

1. Check whether the front compartment fuse box fuse F1/33(1A) and F1/09(15A) are normal.

No

Replace the fuse

Yes

| | |
|---|--|
| 3 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

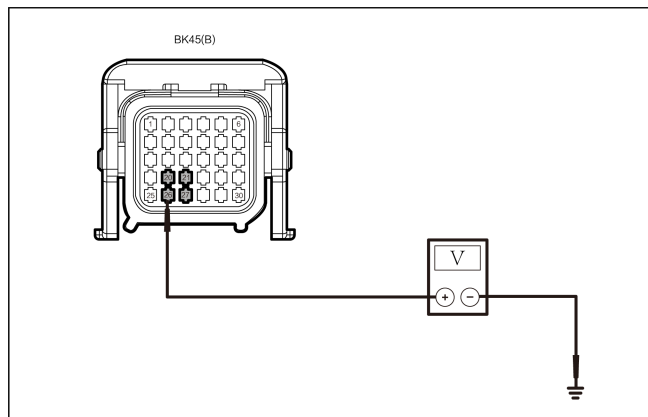
1. Set the START/STOP button to “OFF” .
2. Disconnect the integrated intelligent front drive control module harness connector BK45 (A).
3. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
4. Check whether the integrated intelligent front drive control module connector is normal or not.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the constant power of the integrated intelligent front drive control module. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the harness connector BK45 (B)–20 of integrated intelligent front drive control module and the grounding.
3. Measure the voltage value between the harness connector BK45 (B)–21 of integrated intelligent front drive control module and the grounding.
4. Measure the voltage value between the harness connector BK45 (B)–26 of integrated intelligent front drive control module and the grounding.
5. Measure the voltage value between the harness connector BK45 (B)–27 of integrated intelligent front drive control module and the grounding.

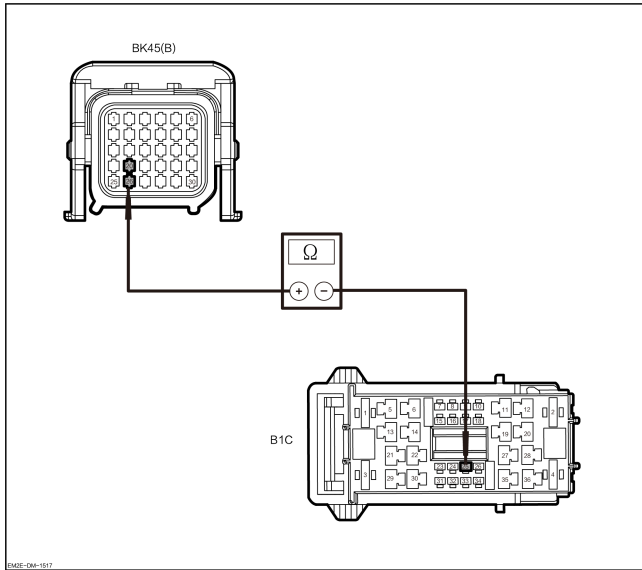
| Connector | | Condition | Voltage value |
|------------|--------|------------|---------------|
| (+) | (-) | | |
| BK45(B)–20 | Ground | Throughout | 11~14V |
| BK45(B)–21 | | | |
| BK45(B)–26 | | | |
| BK45(B)–27 | | | |

6. Check whether the results are normal.

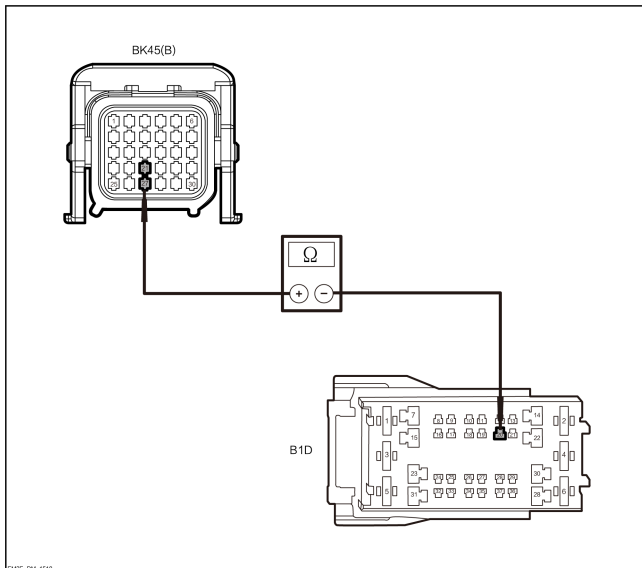
Yes Go to step 6

No

| | |
|---|--|
| 5 | Check whether the power supply of the integrated intelligent front drive control module is open-circuited. |
|---|--|



1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connectors B1 C and B1 D of front compartment fuse box.
3. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)–20 and B1C–25.
4. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)–26 and B1C–25.
5. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)–27 and B1D–20.
6. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)–21 and B1D–20.



| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)–20 | B1C–25 | Through- out | Lower than 1 Ω |
| BK45(B)–26 | | | |
| BK45(B)–27 | B1D–20 | | |
| BK45(B)–21 | | | |

7. Check whether the results are normal.

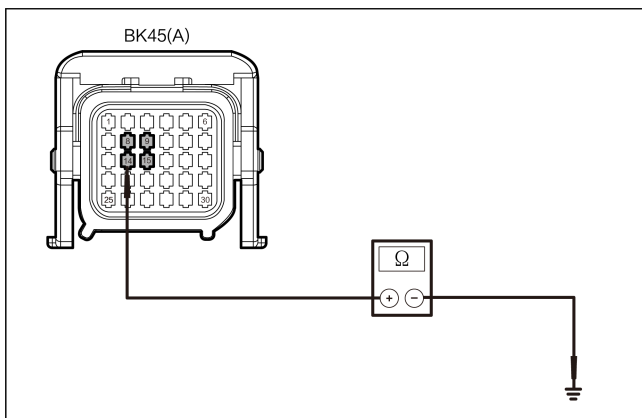
No

Repair or replace the wire harness

Yes

Replace the front compartment fuse box.

6 Check the ground line of the integrated intelligent front drive control module.



1. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)–8 and the ground.
2. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)–9 and the ground.
3. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)–14 and the ground.

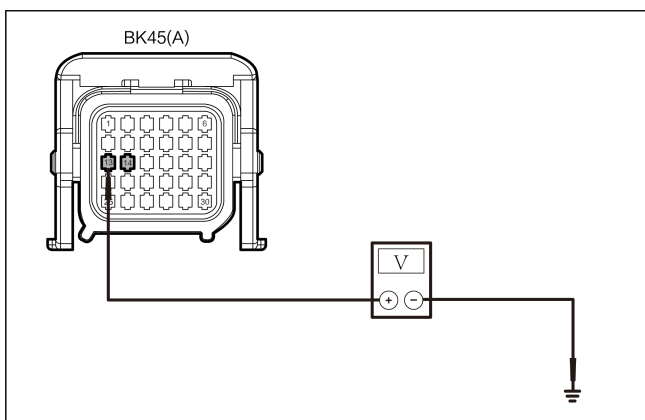
4. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)-15 and the ground.
5. Check whether the results are normal.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-8 | Ground | Through- out | Lower than 1 Ω |
| BK45(B)-9 | | | |
| BK45(B)-14 | | | |
| BK45(B)-15 | | | |

No → Repair or replace the wire harness

Yes

7 Check the battery sub-network CAN line of integrated intelligent front drive control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the integrated intelligent front drive control module harness connector BK45 (A)-13 and the ground.
3. Measure the voltage value between the integrated intelligent front drive control module harness connector BK45 (A)-14 and the ground.

| Connector | | Condition | Voltage value |
|------------|--------|-----------------|------------------|
| (+) | (-) | | |
| BK45(A)-13 | Ground | Through- out | 1.5~2.5V |
| BK45(A)-14 | | | 2.5~3.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the smart integrated front drive control unit.

8 Check the on-board charger DTC.

1. Read the DTC of on-board charger with VDS.
2. Check whether other DTC exists.

Yes 


Enter the “On-board charger” diagnosis.

No 

9

Check the battery execution and sampling unit DTC.

1. Read the DTC of battery execution and sampling unit with VDS.
2. Check whether other DTC exists.

Yes 


Enter "Battery Execution and Sampling Unit" to diagnose.

No 


10

Check the DTC of other modules.

1. Whether the DTC that is lost in communication with the on-board charger is read in other modules?

Yes 

Replace the smart integrated front drive control unit.

No 

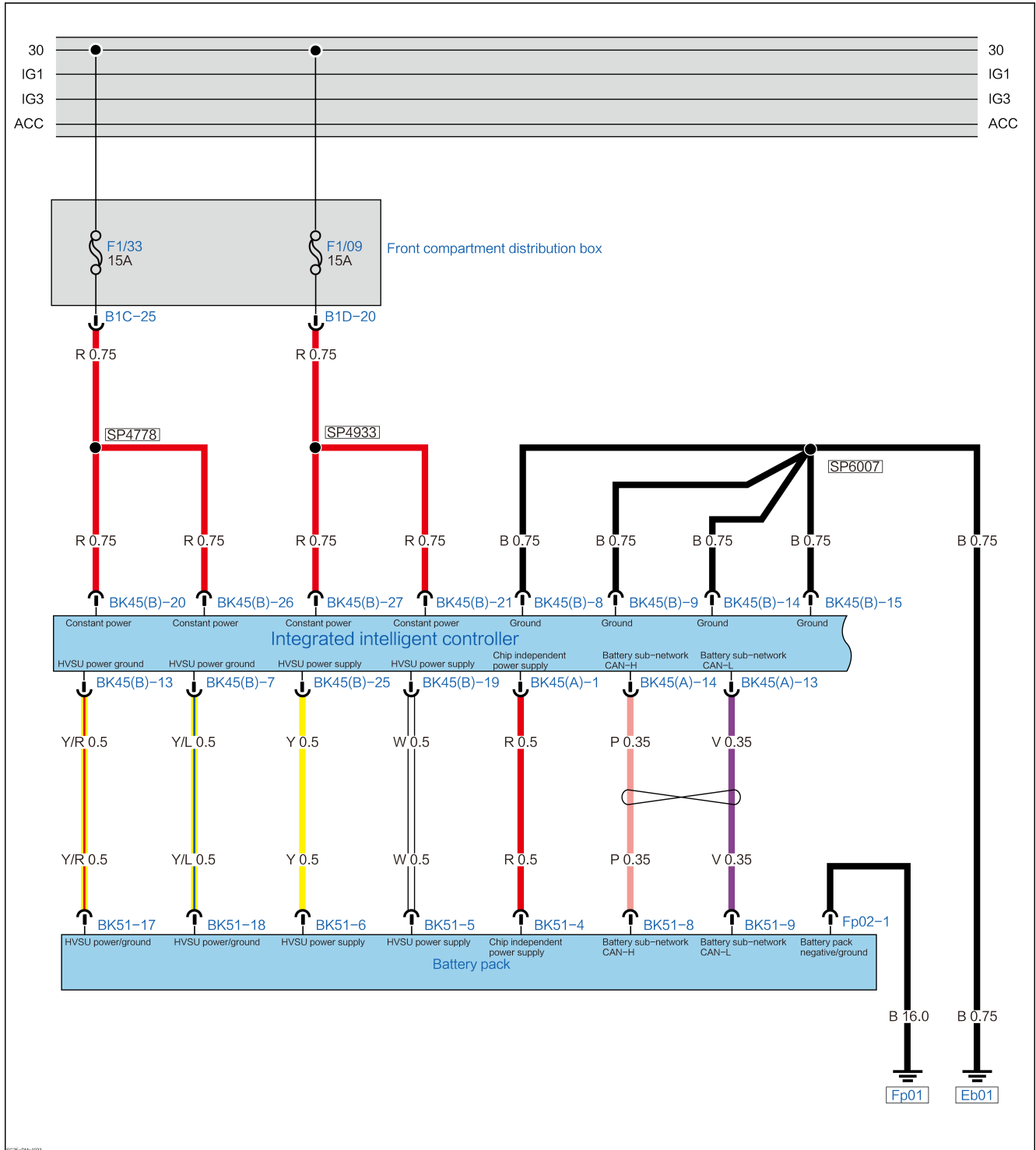
Replace the power battery pack.

U029800 Communication between Battery Manager System and DC Failed

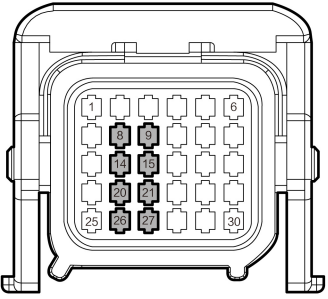
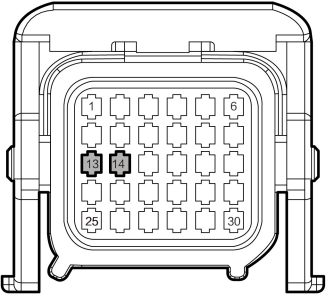
DTC Description

| U029800 Communication between Battery Manager System and DC Failed | |
|--|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Harness or connector fault. 3. Smart integrated front drive control unit fault. 4. Power battery packet fault. |
| Fault setting conditions | Loss of communication with DC |
| Trigger fault conditions | During the vehicle powered on process, if the battery execution and sampling unit fails to receive DC–DC assembly message, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-----------------------------|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> <p><small>EMSE-DM-1000</small></p> | BK45(B)-8 | Ground |
| | BK45(B)-9 | |
| | BK45(B)-14 | |
| | BK45(B)-15 | |
| | BK45(B)-20 | Constant power |
| | BK45(B)-21 | |
| | BK45(B)-26 | |
| | BK45(B)-27 | |
| <p>Smart integrated front drive control unit</p>  <p>BK45(A)</p> <p><small>EMSE-DM-1073</small></p> | BK45(A)-13 | Battery sub-network (CAN)_L |
| | BK45(A)-14 | Battery sub-network (CAN)_H |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the on-board charger communication network. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the on-board charger passes the network detection?

Yes

Go to step 8

No

| | |
|---|--|
| 2 | Check the fuse of integrated intelligent front drive control module. |
|---|--|

1. Check whether the front compartment fuse box fuse F1/33(1A) and F1/09(15A) are normal.

No

Replace the fuse

Yes

| | |
|---|--|
| 3 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

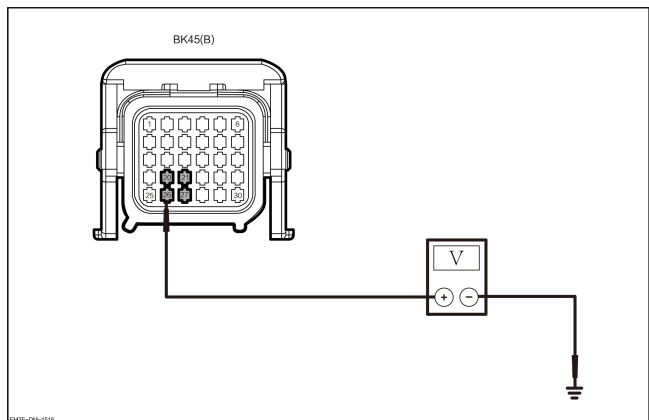
1. Set the START/STOP button to “OFF” .
2. Disconnect the integrated intelligent front drive control module harness connector BK45 (A).
3. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
4. Check whether the integrated intelligent front drive control module connector is normal or not.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the constant power of the integrated intelligent front drive control module. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the harness connector BK45 (B)–20 of integrated intelligent front drive control module and the grounding.
3. Measure the voltage value between the harness connector BK45 (B)–21 of integrated intelligent front drive control module and the grounding.
4. Measure the voltage value between the harness connector BK45 (B)–26 of integrated intelligent front drive control module and the grounding.
5. Measure the voltage value between the harness connector BK45 (B)–27 of integrated intelligent front drive control module and the grounding.

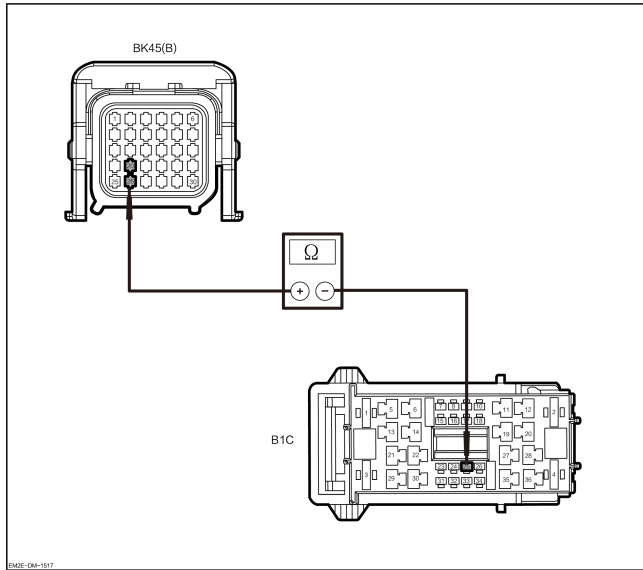
| Connector | | Condition | Voltage value |
|------------|--------|------------|---------------|
| (+) | (-) | | |
| BK45(B)–20 | Ground | Throughout | 11~14V |
| BK45(B)–21 | | | |
| BK45(B)–26 | | | |
| BK45(B)–27 | | | |

6. Check whether the results are normal.

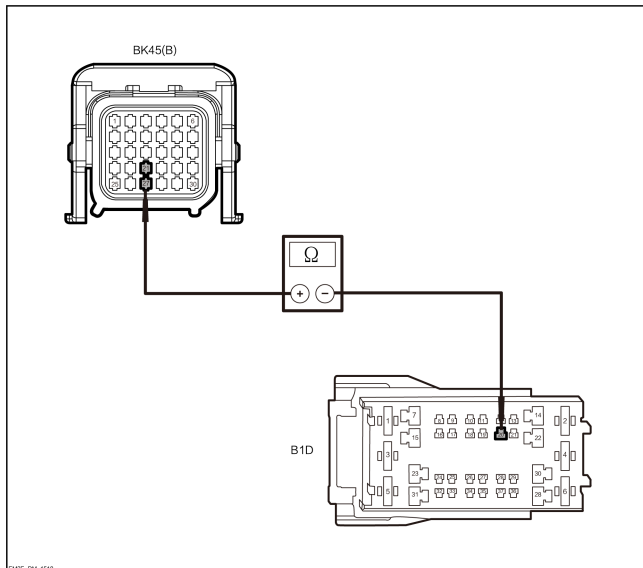
Yes Go to step 6

No

| | |
|---|--|
| 5 | Check whether the power supply of the integrated intelligent front drive control module is open-circuited. |
|---|--|



1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connectors B1 C and B1 D of front compartment fuse box.
3. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)–20 and B1C–25.
4. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)–26 and B1C–25.
5. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)–27 and B1D–20.
6. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)–21 and B1D–20.

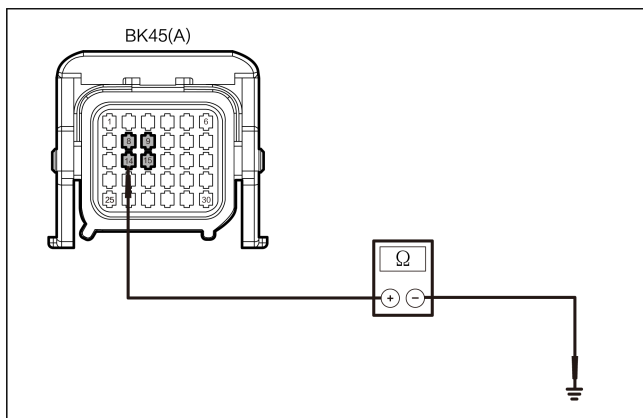


| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)–20 | B1C–25 | Through- out | Lower than 1 Ω |
| BK45(B)–26 | | | |
| BK45(B)–21 | B1D–20 | | |
| BK45(B)–27 | | | |

7. Check whether the results are normal.

- No → Repair or replace the wire harness
- Yes → Replace the front compartment fuse box.

6 Check the ground line of the integrated intelligent front drive control module.



1. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)–8 and the ground.
2. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)–9 and the ground.
3. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)–14 and the ground.

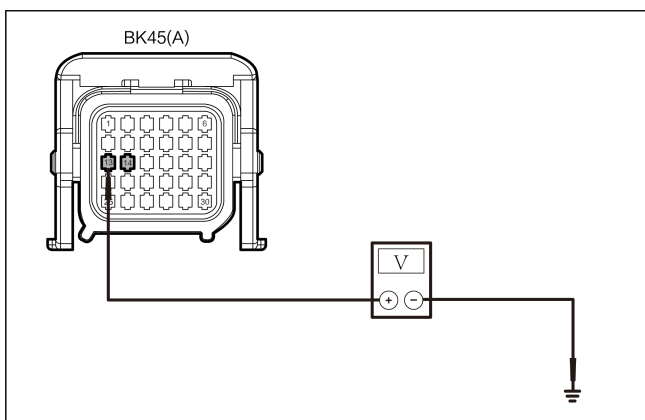
4. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)-15 and the ground.
5. Check whether the results are normal.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-8 | Ground | Through- out | Lower than 1 Ω |
| BK45(B)-9 | | | |
| BK45(B)-14 | | | |
| BK45(B)-15 | | | |

No → Repair or replace the wire harness

Yes

7 Check the battery sub-network CAN line of integrated intelligent front drive control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the integrated intelligent front drive control module harness connector BK45 (A)-13 and the ground.
3. Measure the voltage value between the integrated intelligent front drive control module harness connector BK45 (A)-14 and the ground.

| Connector | | Condition | Voltage value |
|------------|--------|-----------------|------------------|
| (+) | (-) | | |
| BK45(A)-13 | Ground | Through- out | 1.5~2.5V |
| BK45(A)-14 | | | 2.5~3.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the smart integrated front drive control unit.

8 Check the DTC of DC-DC assembly.

1. Use a VDS to read the DC – DC assembly DTC.
2. Check whether other DTC exists.

Yes

Enter “DC-DC Assembly” diagnosis.

No

| | |
|---|--|
| 9 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Read the DTC of battery execution and sampling unit with VDS.
2. Check whether other DTC exists.

Yes

Enter "Battery Execution and Sampling Unit" to diagnose.

No

| | |
|----|---------------------------------|
| 10 | Check the DTC of other modules. |
|----|---------------------------------|

1. Whether the “communication with DC failed” DTC is read in other modules?

Yes

Replace the smart integrated front drive control unit.

No

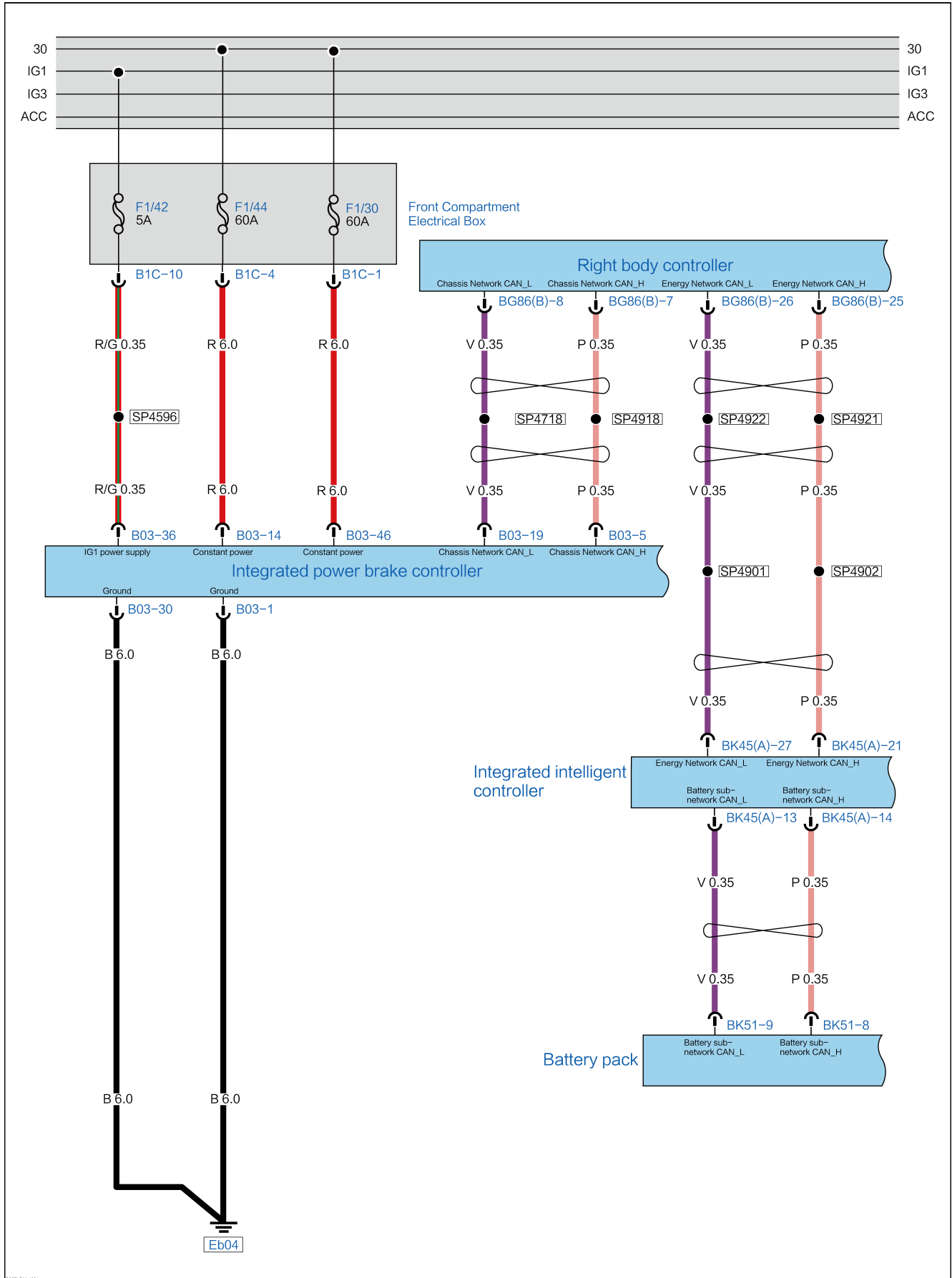
Replace the power battery pack.

U012187 Communication with ABS Failed

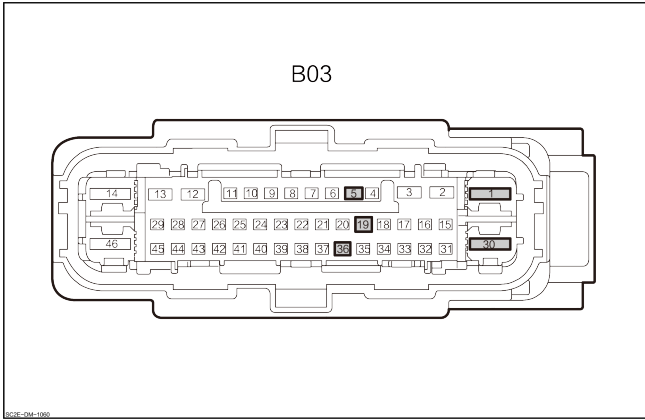
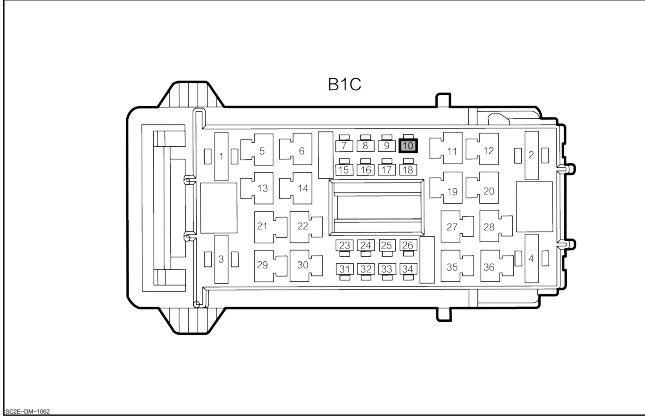
DTC Description

| U012187 Communication with ABS Failed | |
|---------------------------------------|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Harness or connector fault. 3. Smart power brake controller fault. 4. Power battery packet fault. |
| Fault setting conditions | Abnormal communication with vehicle awakening ABS. |
| Trigger fault conditions | When the vehicle is powered on, abnormal communication with vehicle awakening ABS will generate DTC. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p>Smart power brake controller</p> <p>B03</p>  <p><small>BYD-DM-1000</small></p> | 1 | Ground |
| | 5 | Chassis network CAN_H |
| | 19 | Chassis network CAN_L |
| | 30 | Ground |
| | 36 | IG1 power supply |
| <p>Front compartment fuse box</p> <p>B1C</p>  <p><small>BYD-DM-1000</small></p> | 10 | Intelligent power brake control module IG1 power supply |

Diagnostic Steps

1 Check the communication network.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the EHB module passes the network detection.

Yes → Go to step 8

No

2 Check the fuse of the intelligent power brake control module.

1. Check whether the front compartment fuse box fuse F1/42 (5 A) is normal.

No → Replace the fuse

Yes

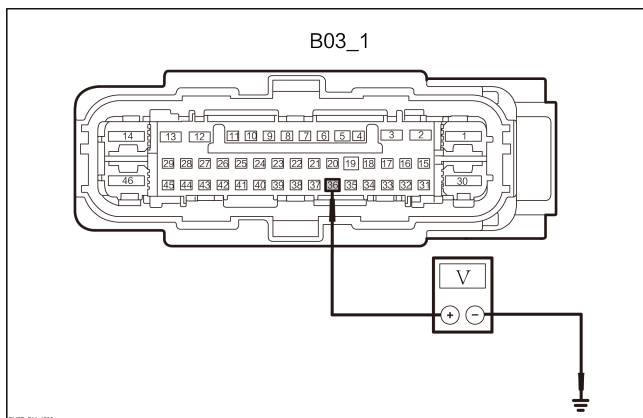
3 Check the intelligent power brake control module harness and connector.

1. Disconnect the intelligent power brake control module harness connector B03.
2. Check whether the intelligent power brake control module harness connector is normal or not.

No → Repair or replace the wire harness

Yes

4 Check the power supply of the intelligent power brake control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of intelligent power brake control module B03–36 and the ground.

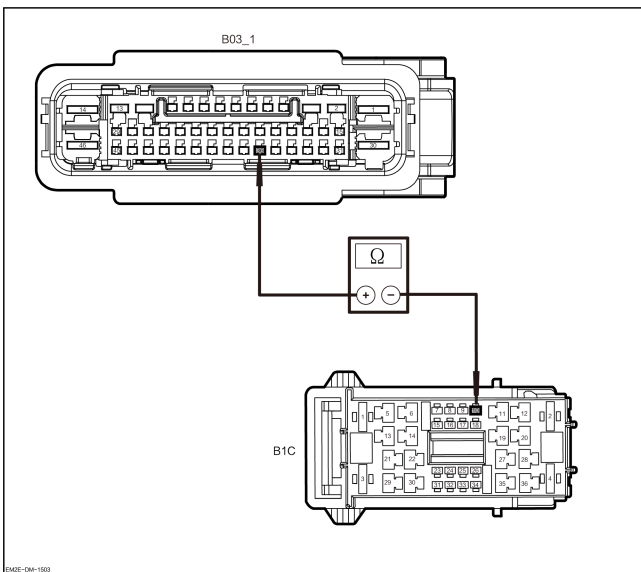
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B03–36 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Go to step 6

No

5 Check whether the constant power supply of intelligent power brake control module is open-circuited.



1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1C.
3. Measure the resistance between the harness connector of intelligent power brake control module B03-36 and the harness connector of front compartment fuse box B1C-10.

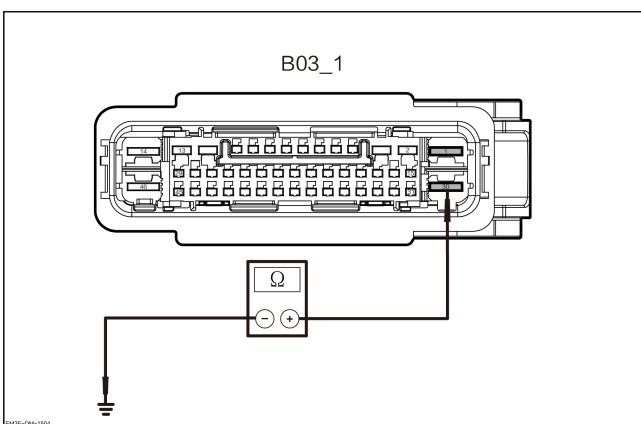
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-36 | B1C-10 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the front compartment fuse box.

6 Check the ground line of intelligent power brake control module.



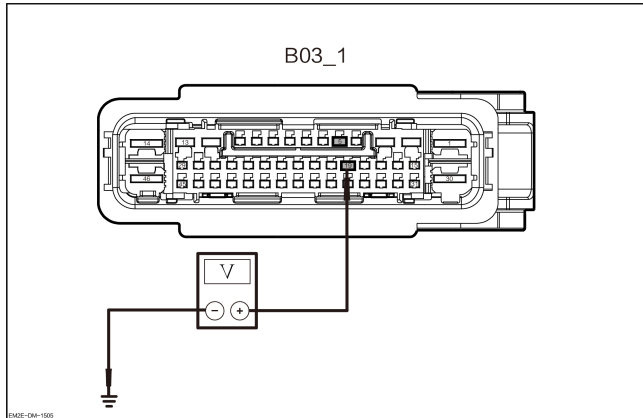
1. Measure the resistance of the harness connector of intelligent power brake control module B03-1 to ground.
2. Measure the resistance of the harness connector of intelligent power brake control module B03-30 to ground.
3. Check whether the results are normal.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-1 | Ground | Through- out | Lower than 1 Ω |
| B03-30 | | | |

No → Repair or replace the wire harness

Yes

7 Check the CAN line of the intelligent power brake control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of intelligent power brake control module B03–19 and the ground.
3. Measure the voltage between the harness connector of intelligent power brake control module B03–5 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B03–19 | Ground | Through-out | 1.5~2.5V |
| B03–5 | | | 2.5~3.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the smart power brake controller.

8 Check the DTC of EHB module.

1. Read the DTC of the EHB module with VDS.
2. Check whether other DTC exists.

Yes → Enter the "EHB module" diagnosis.

No

9 Check the battery execution and sampling unit DTC.

1. Read the DTC of battery execution and sampling unit with VDS.
2. Check whether other DTC exists.

Yes → Enter "Battery Execution and Sampling Unit" to diagnose.

No

10 Check the DTC of other modules.

1. Does the other module read the DTC that the communication with ABS is lost?

Yes → Replace the smart power brake controller.

No

Replace the power battery pack.

P1A0C00 BIC1 Voltage Sampling Abnormal

DTC Description

| P1A0C00 BIC1 Voltage Sampling Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | BIC works normally with voltage sampling disconnection. |
| Trigger fault conditions | When the vehicle is powered on, the communication and operation of the battery collector are normal. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes → The system is normal.

No → Replace the power battery pack.

P1A0D00 BIC2 Voltage Sampling Abnormal

DTC Description

| P1A0D00 BIC2 Voltage Sampling Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | BIC works normally with voltage sampling disconnection. |
| Trigger fault conditions | When the vehicle is powered on, the communication and operation of the battery collector are normal. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes → The system is normal.

No → Replace the power battery pack.

P1A0E00 BIC3 Voltage Sampling Abnormal

DTC Description

| P1A0E00 BIC3 Voltage Sampling Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | BIC works normally with voltage sampling disconnection. |
| Trigger fault conditions | When the vehicle is powered on, the communication and operation of the battery collector are normal. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes → The system is normal.

No → Replace the power battery pack.

P1A0F00 BIC4 Voltage Sampling Abnormal

DTC Description

| P1A0F00 BIC4 Voltage Sampling Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | BIC works normally with voltage sampling disconnection. |
| Trigger fault conditions | When the vehicle is powered on, the communication and operation of the battery collector are normal. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes → The system is normal.

No → Replace the power battery pack.

P1A1000 BIC5 Voltage Sampling Abnormal

DTC Description

| P1A1000 BIC5 Voltage Sampling Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | BIC works normally with voltage sampling disconnection. |
| Trigger fault conditions | When the vehicle is powered on, the communication and operation of the battery collector are normal. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes

The system is normal.

No

Replace the power battery pack.

P1A1100 BIC6 Voltage Sampling Abnormal

DTC Description

| P1A1100 BIC6 Voltage Sampling Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | BIC works normally with voltage sampling disconnection. |
| Trigger fault conditions | When the vehicle is powered on, the communication and operation of the battery collector are normal. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes → The system is normal.

No → Replace the power battery pack.

P1A1200 BIC7 Voltage Sampling Abnormal

DTC Description

| P1A1200 BIC7 Voltage Sampling Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | BIC works normally with voltage sampling disconnection. |
| Trigger fault conditions | When the vehicle is powered on, the communication and operation of the battery collector are normal. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes → The system is normal.

No → Replace the power battery pack.

P1A1300 BIC8 Voltage Sampling Abnormal

DTC Description

| P1A1300 BIC8 Voltage Sampling Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | BIC works normally with voltage sampling disconnection. |
| Trigger fault conditions | When the vehicle is powered on, the communication and operation of the battery collector are normal. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes

The system is normal.

No

Replace the power battery pack.

P1A0200 BIC1 Working Abnormal

DTC Description

| P1A0200 BIC1 Working Abnormal | |
|-------------------------------|--|
| Symptom | The instrument displays “Power battery failure” . |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | BIC working abnormality. |
| Trigger fault conditions | When the vehicle is powered on, the system detects abnormal operation of the BIC, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

P1A0300 BIC2 Working Abnormal

DTC Description

| P1A0300 BIC2 Working Abnormal | |
|-------------------------------|--|
| Symptom | The instrument displays “Power battery failure” . |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | BIC working abnormality. |
| Trigger fault conditions | When the vehicle is powered on, the system detects abnormal operation of the BIC, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

P1A0400 BIC3 Working Abnormal

DTC Description

| P1A0400 BIC3 Working Abnormal | |
|-------------------------------|--|
| Symptom | The instrument displays “Power battery failure” . |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | BIC working abnormality. |
| Trigger fault conditions | When the vehicle is powered on, the system detects abnormal operation of the BIC, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | <p>Check the battery execution and sampling unit DTC.</p> <ol style="list-style-type: none">1. Connect the VDS to the diagnostic interface.2. Set the START/STOP button to ON.3. Clear DTCs.4. Place the start/stop button in the OFF position and wait for a few seconds.5. Place the start/stop button in ON position again, and read the DTC.6. Check whether the same DTC is displayed. <p>No → Check the “intermittent fault” .</p> <p>Yes → Replace the power battery pack.</p> |
|---|--|

P1A0500 BIC4 Working Abnormal

DTC Description

| P1A0500 BIC4 Working Abnormal | |
|-------------------------------|--|
| Symptom | The instrument displays “Power battery failure” . |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | BIC working abnormality. |
| Trigger fault conditions | When the vehicle is powered on, the system detects abnormal operation of the BIC, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

P1A0600 BIC5 Working Abnormal

DTC Description

| P1A0600 BIC5 Working Abnormal | |
|-------------------------------|--|
| Symptom | The instrument displays “Power battery failure” . |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | BIC working abnormality. |
| Trigger fault conditions | When the vehicle is powered on, the system detects abnormal operation of the BIC, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

P1A0700 BIC6 Working Abnormal

DTC Description

| P1A0700 BIC6 Working Abnormal | |
|-------------------------------|--|
| Symptom | The instrument displays “Power battery failure” . |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | BIC working abnormality. |
| Trigger fault conditions | When the vehicle is powered on, the system detects abnormal operation of the BIC, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

P1A0800 BIC7 Working Abnormal

DTC Description

| P1A0800 BIC7 Working Abnormal | |
|-------------------------------|--|
| Symptom | The instrument displays “Power battery failure” . |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | In the vehicle powered on state, if the battery execution and sampling unit receives the signal indicating abnormal BIC function, this DTC is generated. |
| Trigger fault conditions | The vehicle is in power-on status. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

P1A0900 BIC8 Working Abnormal

DTC Description

| P1A0900 BIC8 Working Abnormal | |
|-------------------------------|--|
| Symptom | The instrument displays “Power battery failure” . |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | BIC working abnormality. |
| Trigger fault conditions | When the vehicle is powered on, the system detects abnormal operation of the BIC, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

U20B000 BIC1 CAN Communication Timeout

DTC Description

| U20B000 BIC1 CAN Communication Timeout | |
|--|---|
| Symptom | -- |
| Possible Cause | 1. Harness or connector fault. 2. Battery pack failure |
| Fault setting conditions | BIC communication timeout |
| Trigger fault conditions | If it does not receive the message of the BIC within a certain period of time, DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the START/STOP button to ON.
3. Scanning ECU module
4. Enter battery execution and sampling, record and clear the DTC.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again.
7. Re-enter battery execution and sampling, read the DTC
8. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

U20B100 BIC2 CAN Communication Timeout

DTC Description

| U20B100 BIC2 CAN Communication Timeout | |
|--|---|
| Symptom | -- |
| Possible Cause | 1. Harness or connector fault. 2. Battery pack failure |
| Fault setting conditions | BIC communication timeout |
| Trigger fault conditions | If it does not receive the message of the BIC within a certain period of time, DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the START/STOP button to ON.
3. Scanning ECU module
4. Enter battery execution and sampling, record and clear the DTC.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again.
7. Re-enter battery execution and sampling, read the DTC
8. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the power battery pack.

U20B200 BIC3 CAN Communication Timeout

DTC Description

| U20B200 BIC3 CAN Communication Timeout | |
|--|---|
| Symptom | -- |
| Possible Cause | 1. Harness or connector fault. 2. Battery pack failure |
| Fault setting conditions | BIC communication timeout |
| Trigger fault conditions | If it does not receive the message of the BIC within a certain period of time, DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the START/STOP button to ON.
3. Scanning ECU module
4. Enter battery execution and sampling, record and clear the DTC.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again.
7. Re-enter battery execution and sampling, read the DTC
8. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

U20B300 BIC4 CAN Communication Timeout

DTC Description

| U20B300 BIC4 CAN Communication Timeout | |
|--|---|
| Symptom | -- |
| Possible Cause | 1. Harness or connector fault. 2. Battery pack failure |
| Fault setting conditions | BIC communication timeout |
| Trigger fault conditions | If it does not receive the message of the BIC within a certain period of time, DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the START/STOP button to ON.
3. Scanning ECU module
4. Enter battery execution and sampling,record and clear the DTC.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again.
7. Re-enter battery execution and sampling,read the DTC
8. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

U20B400 BIC5 CAN Communication Timeout

DTC Description

| U20B400 BIC5 CAN Communication Timeout | |
|--|---|
| Symptom | -- |
| Possible Cause | 1. Harness or connector fault. 2. Battery pack failure |
| Fault setting conditions | BIC communication timeout |
| Trigger fault conditions | If it does not receive the message of the BIC within a certain period of time, DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the START/STOP button to ON.
3. Scanning ECU module
4. Enter battery execution and sampling, record and clear the DTC.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again.
7. Re-enter battery execution and sampling, read the DTC
8. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the power battery pack.

U20B500 BIC6 CAN Communication Timeout

DTC Description

| U20B500 BIC6 CAN Communication Timeout | |
|--|---|
| Symptom | -- |
| Possible Cause | 1. Harness or connector fault. 2. Battery pack failure |
| Fault setting conditions | BIC communication timeout |
| Trigger fault conditions | If it does not receive the message of the BIC within a certain period of time, DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the START/STOP button to ON.
3. Scanning ECU module
4. Enter battery execution and sampling,record and clear the DTC.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again.
7. Re-enter battery execution and sampling,read the DTC
8. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

U20B600 BIC7 CAN Communication Timeout

DTC Description

| U20B600 BIC7 CAN Communication Timeout | |
|--|---|
| Symptom | -- |
| Possible Cause | 1. Harness or connector fault. 2. Battery pack failure |
| Fault setting conditions | BIC communication timeout |
| Trigger fault conditions | If it does not receive the message of the BIC within a certain period of time, DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the START/STOP button to ON.
3. Scanning ECU module
4. Enter battery execution and sampling,record and clear the DTC.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again.
7. Re-enter battery execution and sampling,read the DTC
8. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

U20B700 BIC8 CAN Communication Timeout

DTC Description

| U20B700 BIC8 CAN Communication Timeout | |
|--|---|
| Symptom | -- |
| Possible Cause | 1. Harness or connector fault. 2. Battery pack failure |
| Fault setting conditions | BIC communication timeout |
| Trigger fault conditions | If it does not receive the message of the BIC within a certain period of time, DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the START/STOP button to ON.
3. Scanning ECU module
4. Enter battery execution and sampling, record and clear the DTC.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again.
7. Re-enter battery execution and sampling, read the DTC
8. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the power battery pack.

P2B7200 General Fault of Temperature Sampling Wire Broken

DTC Description

| P2B7200 General Fault of Temperature Sampling Wire Broken | |
|---|---|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | The number of thermal breakages is less than specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and the number of temperature wire breaks is less than the specified threshold, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes → The system is normal.

No → Replace the power battery pack.

P2B7300 Serious Fault of Temperature Sampling Wire Broken

DTC Description

| P2B7300 Serious Fault of Temperature Sampling Wire Broken | |
|---|---|
| Symptom | The instrument displays "Powertrain Fault". "Power battery fault warning lamp" goes on. Do not discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | The number of thermal breakages is greater than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and the number of temperature disconnections is greater than the specified threshold, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes → The system is normal.

No → Replace the power battery pack.

P2B7100 Serious Fault of Voltage Sampling Wire Broken

DTC Description

| P2B7100 Serious Fault of Voltage Sampling Wire Broken | |
|---|---|
| Symptom | The instrument displays "Powertrain Fault". "Power battery fault warning lamp" goes on. Do not discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Voltage breakage is greater than specified threshold. |
| Trigger fault conditions | When the vehicle is powered on, the number of voltage disconnection is greater than the specified threshold, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes

The system is normal.

No

Replace the power battery pack.

P2B9213 High Side Drive Open-circuited

DTC Description

| P2B9213 High Side Drive Open-circuited | |
|--|---|
| Symptom | The instrument displays "Powertrain Fault". Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | High side drive is open-circuited. |
| Trigger fault conditions | In the vehicle powered on state, the signal of high side drive for open circuit is received, this DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | <p>Check the battery execution and sampling unit DTC.</p> <ol style="list-style-type: none">1. Connect the VDS to the diagnostic interface.2. Set the START/STOP button to ON.3. Clear DTCs.4. Place the start/stop button in the OFF position and wait for a few seconds.5. Place the start/stop button in ON position again, and read the DTC.6. Check whether the same DTC is displayed. <p>No → Check the “intermittent fault” .</p> <p>Yes → Replace the power battery pack.</p> |
|---|--|

P2B9298 High Side Drive Overtemperature

DTC Description

| P2B9298 High Side Drive Overtemperature | |
|---|--|
| Symptom | The instrument displays "Powertrain Fault". Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | High side drive over temperature. |
| Trigger fault conditions | In the vehicle powered on state, the high side drive overcurrent signal is received,, this DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

P1A2000 BIC1 Temperature Sampling Abnormal

DTC Description

| P1A2000 BIC1 Temperature Sampling Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Disconnection of the temperature sampling line or capacitor breakdown. |
| Trigger fault conditions | When the vehicle is powered on, the communication and operation of the battery collector are normal. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes → The system is normal.

No → Replace the power battery pack.

P1A2100 BIC2 Temperature Sampling Abnormal

DTC Description

| P1A2100 BIC2 Temperature Sampling Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Disconnection of the temperature sampling line or capacitor breakdown. |
| Trigger fault conditions | When the vehicle is powered on, the communication and operation of the battery collector are normal. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes

The system is normal.

No

Replace the power battery pack.

P1A2200 BIC3 Temperature Sampling Abnormal

DTC Description

| P1A2200 BIC3 Temperature Sampling Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Disconnection of the temperature sampling line or capacitor breakdown. |
| Trigger fault conditions | When the vehicle is powered on, the communication and operation of the battery collector are normal. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes

The system is normal.

No

Replace the power battery pack.

P1A2300 BIC4 Temperature Sampling Abnormal

DTC Description

| P1A2300 BIC4 Temperature Sampling Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Disconnection of the temperature sampling line or capacitor breakdown. |
| Trigger fault conditions | When the vehicle is powered on, the communication and operation of the battery collector are normal. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes

The system is normal.

No

Replace the power battery pack.

P1A2400 BIC5 Temperature Sampling Abnormal

DTC Description

| P1A2400 BIC5 Temperature Sampling Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Disconnection of the temperature sampling line or capacitor breakdown. |
| Trigger fault conditions | When the vehicle is powered on, the communication and operation of the battery collector are normal. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes

The system is normal.

No

Replace the power battery pack.

P1A2500 BIC6 Temperature Sampling Abnormal

DTC Description

| P1A2500 BIC6 Temperature Sampling Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Disconnection of the temperature sampling line or capacitor breakdown. |
| Trigger fault conditions | When the vehicle is powered on, the communication and operation of the battery collector are normal. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes

The system is normal.

No

Replace the power battery pack.

P1A2600 BIC7 Temperature Sampling Abnormal

DTC Description

| P1A2600 BIC7 Temperature Sampling Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Disconnection of the temperature sampling line or capacitor breakdown. |
| Trigger fault conditions | When the vehicle is powered on, the communication and operation of the battery collector are normal. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes

The system is normal.

No

Replace the power battery pack.

P1A2700 BIC8 Temperature Sampling Abnormal

DTC Description

| P1A2700 BIC8 Temperature Sampling Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Disconnection of the temperature sampling line or capacitor breakdown. |
| Trigger fault conditions | When the vehicle is powered on, the communication and operation of the battery collector are normal. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes

The system is normal.

No

Replace the power battery pack.

U018087 Communication with High-side Drive Lost

DTC Description

| U018087 Communication with High-side Drive Lost | |
|---|--|
| Symptom | The instrument displays "Powertrain Fault". Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Communication fault with high-side drive SPI. |
| Trigger fault conditions | In the vehicle powered on state, the signal of communication with high side drive SPI failed is received, this DTC is generated. |

Diagnostic Steps

| | | | | | |
|-----|--|----|----------------------------------|-----|---------------------------------|
| 1 | Check the battery execution and sampling unit DTC. <ol style="list-style-type: none">1. Connect the VDS to the diagnostic interface.2. Set the START/STOP button to ON.3. Clear DTCs.4. Place the start/stop button in the OFF position and wait for a few seconds.5. Place the start/stop button in ON position again, and read the DTC.6. Check whether the same DTC is displayed. <table border="1" style="margin-left: 20px;"><tr><td style="text-align: center;">No</td><td>Check the “intermittent fault” .</td></tr><tr><td style="text-align: center;">Yes</td><td>Replace the power battery pack.</td></tr></table> | No | Check the “intermittent fault” . | Yes | Replace the power battery pack. |
| No | Check the “intermittent fault” . | | | | |
| Yes | Replace the power battery pack. | | | | |

P2B9211 High Side Short to Ground SC (Contactor Channel)**DTC Description**

| P2B9211 High Side Short to Ground SC (Contactor Channel) | |
|--|--|
| Symptom | The instrument displays "Powertrain Fault". Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | The high side is short to ground SC. |
| Trigger fault conditions | In the vehicle powered on state, if the system detects the SC signal of the high side short to ground , this DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | <p>Check the battery execution and sampling unit DTC.</p> <ol style="list-style-type: none">1. Connect the VDS to the diagnostic interface.2. Set the START/STOP button to ON.3. Clear DTCs.4. Place the start/stop button in the OFF position and wait for a few seconds.5. Place the start/stop button in ON position again, and read the DTC.6. Check whether the same DTC is displayed. <p>No → Check the “intermittent fault” .</p> <p>Yes → Replace the power battery pack.</p> |
|---|--|

P2B9000 High Side Drive Overcurrent (Contactor Channel)**DTC Description**

| P2B9000 High Side Drive Overcurrent (Contactor Channel) | |
|---|--|
| Symptom | The instrument displays "Powertrain Fault". Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | High side drive is overcurrent. |
| Trigger fault conditions | In the vehicle powered on state, the high side drive overcurrent signal is received,, this DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

P2B9212 High Side Short to Power OS (Contactor Channel)

DTC Description

| P2B9212 High Side Short to Power OS (Contactor Channel) | |
|---|--|
| Symptom | The instrument displays "Powertrain Fault". Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | High-side drive overtemperature. |
| Trigger fault conditions | When the vehicle is powered on, the communication between the battery execution and sampling unit is normal, it receives the high-side short circuit to the power supply OS signal, and then it generates a DTC. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

P2B8F12 High Side Drive Overvoltage OV

DTC Description

| P2B8F12 High Side Drive Overvoltage OV | |
|--|---|
| Symptom | The instrument displays "Powertrain Fault". Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | High-side drive overvoltage. |
| Trigger fault conditions | When the vehicle is powered on, the communication between battery execution and sampling unit is normal, it receives the high side drive overvoltage signal, and then it generates a DTC. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

P2B8E00 High Side Drive Undervoltage UV

DTC Description

| P2B8E00 High Side Drive Undervoltage UV | |
|---|---|
| Symptom | The instrument displays "Powertrain Fault". Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | High-side drive undervoltage. |
| Trigger fault conditions | When the vehicle is powered on, the communication of battery execution and sampling unit is normal, which receives the high side drive undervoltage signal and generates DTC. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

U027E01 BIC1 Cascade Communication Fault

DTC Description

| U027E01 BIC1 Cascade Communication Fault | |
|--|---|
| Symptom | "Power Battery Fault Warning Light" goes on. "Powertrain Fault" is displayed. Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Loss of communication with BIC. |
| Trigger fault conditions | The DTC will be generated when the vehicle is powered on and cannot receive the BIC message. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

U027E02 BIC2 Cascade Communication Fault

DTC Description

| U027E02 BIC2 Cascade Communication Fault | |
|--|---|
| Symptom | "Power Battery Fault Warning Light" goes on. "Powertrain Fault" is displayed. Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Loss of communication with BIC. |
| Trigger fault conditions | The DTC will be generated when the vehicle is powered on and cannot receive the BIC message. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

U027E03 BIC3 Cascade Communication Fault

DTC Description

| U027E03 BIC3 Cascade Communication Fault | |
|--|---|
| Symptom | "Power Battery Fault Warning Light" goes on. "Powertrain Fault" is displayed. Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Loss of communication with BIC. |
| Trigger fault conditions | The DTC will be generated when the vehicle is powered on and cannot receive the BIC message. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

U027E04 BIC4 Cascade Communication Fault

DTC Description

| U027E04 BIC4 Cascade Communication Fault | |
|--|---|
| Symptom | "Power Battery Fault Warning Light" goes on. "Powertrain Fault" is displayed. Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Loss of communication with BIC. |
| Trigger fault conditions | The DTC will be generated when the vehicle is powered on and cannot receive the BIC message. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

U027E05 BIC5 Cascade Communication Fault

DTC Description

| U027E05 BIC5 Cascade Communication Fault | |
|--|---|
| Symptom | "Power Battery Fault Warning Light" goes on. "Powertrain Fault" is displayed. Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Loss of communication with BIC. |
| Trigger fault conditions | The DTC will be generated when the vehicle is powered on and cannot receive the BIC message. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

U027E06 BIC6 Cascade Communication Fault

DTC Description

| U027E06 BIC6 Cascade Communication Fault | |
|--|---|
| Symptom | "Power Battery Fault Warning Light" goes on. "Powertrain Fault" is displayed. Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Loss of communication with BIC. |
| Trigger fault conditions | The DTC will be generated when the vehicle is powered on and cannot receive the BIC message. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

U027E07 BIC7 Cascade Communication Fault

DTC Description

| U027E07 BIC7 Cascade Communication Fault | |
|--|---|
| Symptom | "Power Battery Fault Warning Light" goes on. "Powertrain Fault" is displayed. Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Loss of communication with BIC. |
| Trigger fault conditions | The DTC will be generated when the vehicle is powered on and cannot receive the BIC message. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

U027E08 BIC8 Cascade Communication Fault

DTC Description

| U027E08 BIC8 Cascade Communication Fault | |
|--|---|
| Symptom | "Power Battery Fault Warning Light" goes on. "Powertrain Fault" is displayed. Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Loss of communication with BIC. |
| Trigger fault conditions | The DTC will be generated when the vehicle is powered on and cannot receive the BIC message. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

P2B7000 General Fault of Voltage Sampling Wire Broken

DTC Description

| P2B7000 General Fault of Voltage Sampling Wire Broken | |
|---|--|
| Symptom | The instrument "Power Battery Fault Warning Light" goes on. And discharging, power limitation and charging are prohibited. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | The number of voltage disconnection is less than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on, and the number of voltage disconnection is less than the specified threshold value, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the information of the battery execution and sampling unit. |
|---|---|

1. The VDS is used to check the sampling of battery execution and sampling unit.
2. Check whether the sampling status is normal

Yes → The system is normal.

No → Replace the power battery pack.

P2B9219 High Side Drive Overcurrent (HVSU Channel)**DTC Description**

| P2B9219 High Side Drive Overcurrent (HVSU Channel) | |
|--|---|
| Symptom | The instrument displays "Powertrain Fault". Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | High side drive is overcurrent. |
| Trigger fault conditions | In the vehicle powered on state, and there is free of BASU communication fault. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

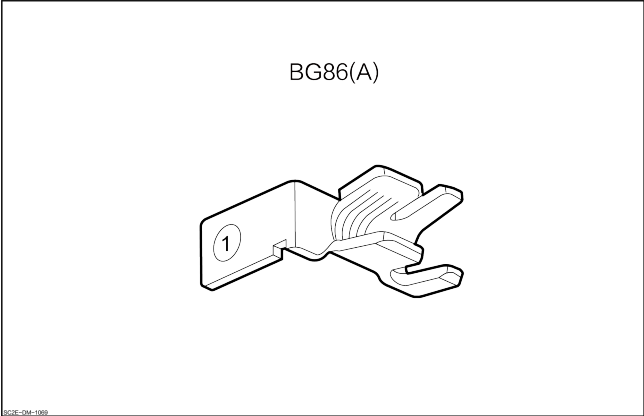
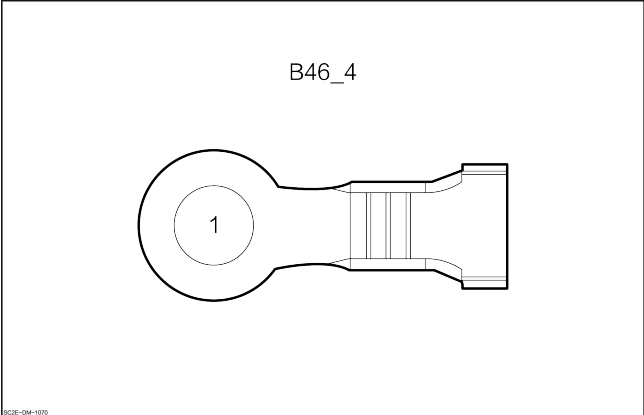
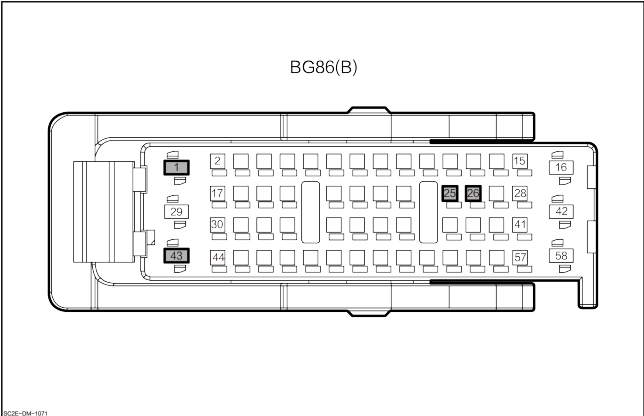
| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the power battery pack. |

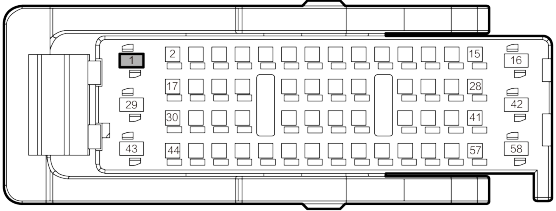
U016400 Communication with A/C Failed

DTC Description

| U016400 Communication with A/C Failed | |
|---------------------------------------|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Fuse fault.2. Harness or connector fault.3. The right body control module fails.4. Power battery packet fault. |
| Fault setting conditions | Abnormal communication with A/C |
| Trigger fault conditions | When the vehicle is powered on, and the battery execution and sampling unit A/C system does not receive the message from the air conditioning system, a DTC will be generated. |

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Right body control module</p> <p style="text-align: center;">BG86(A)</p>  <p style="text-align: center;">1</p> | 1 | Right body control module constant power |
| <p style="text-align: center;">Positive fuse box</p> <p style="text-align: center;">B46_4</p>  <p style="text-align: center;">1</p> | 1 | Constant power |
| <p style="text-align: center;">Right body control module</p> <p style="text-align: center;">BG86(B)</p>  | 1 | Power ground 1 |
| | 25 | Energy network CAN_H |
| | 26 | Energy network CAN_L |
| Right body control module | 43 | Power ground 2 |
| Right body control module | 1 | Power ground 3 |

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">KG64(D)</p>  <p style="font-size: small; margin-top: 10px;">EMR-126-102</p> | | |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the right body control module has passed the network test.

Yes

Go to step 8

No

| | |
|---|---|
| 2 | Check the fuse for right body control module. |
|---|---|

1. Check the fuse F4/04(100A) in the positive fuse box for normal function.

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the harness and connector of right body control module. |
|---|---|

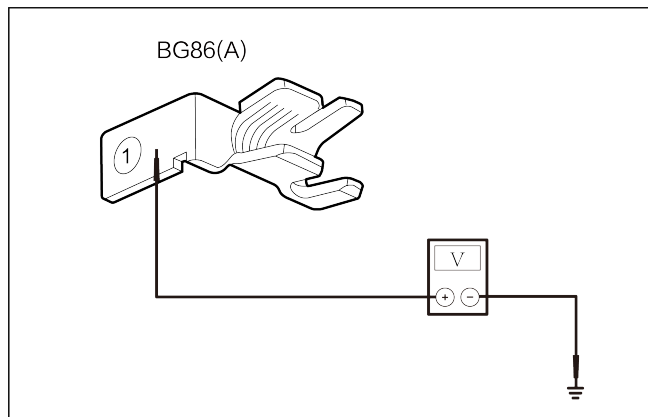
1. Set the START/STOP button to “OFF” .
2. Disconnect the power terminal of right body control module BG86(A).
3. Disconnect the harness connector of right body control module BG86(B).
4. Disconnect the harness connector of right body control module KG86(D).
5. Check the power terminal and connector of right body control module of normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the constant power of right body control module. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the power terminal of right body control module BG86(A)-1 and the ground.

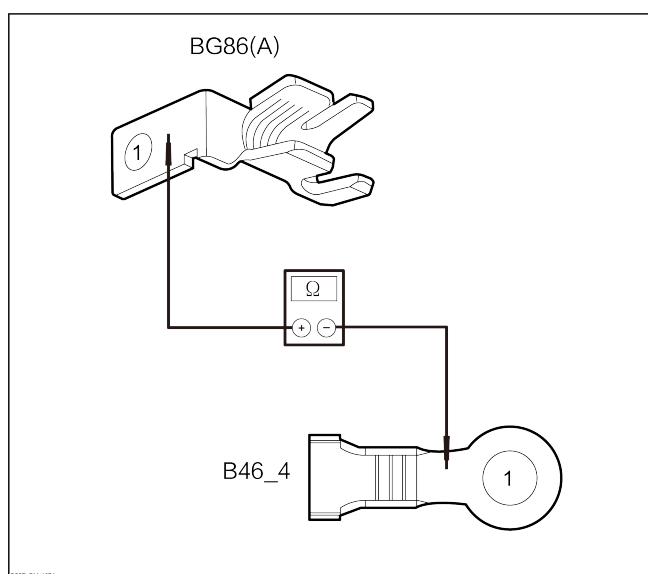
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG86(A)-1 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → [Go to step 6](#)

No

5 Check the power supply of right body control module for open circuit.



1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of positive fuse box B46_4.
3. Measure the resistance between the harness connectors of right body control module BG86(A)-1 and B46_4-1.

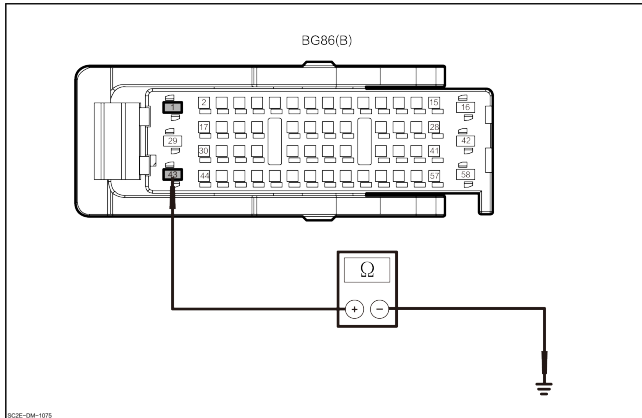
| Connector | | Condition | Resistance value |
|-----------|---------|-------------|------------------|
| (+) | (-) | | |
| BG86(A)-1 | B46_4-1 | Through-out | Lower than 1Ω |

4. Check whether the results are normal.

No → Repair or replace the wire harness

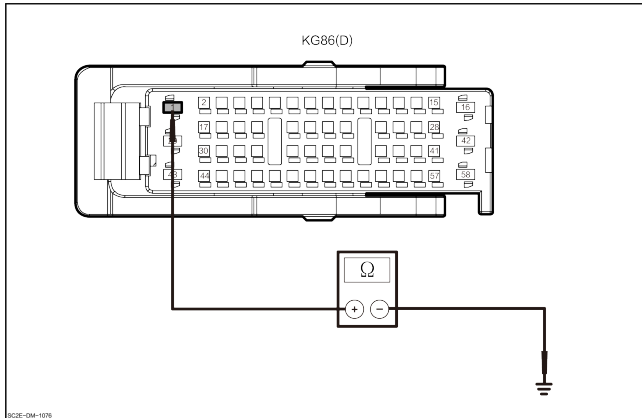
Yes → Replace the positive fuse box.

6 Check the ground line of right body control module.



1. Measure the resistance between the harness connector of right body control module BG86(B)-1 and the ground.
2. Measure the resistance between the harness connector of right body control module BG86(B)-43 and the ground.
3. Measure the resistance between the harness connector of right body control module KG86(D)-1 and the ground.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG86(B)-1 | Ground | Through- out | Lower than 1 Ω |
| BG86(B)-43 | | | |
| KG86(D)-1 | | | |



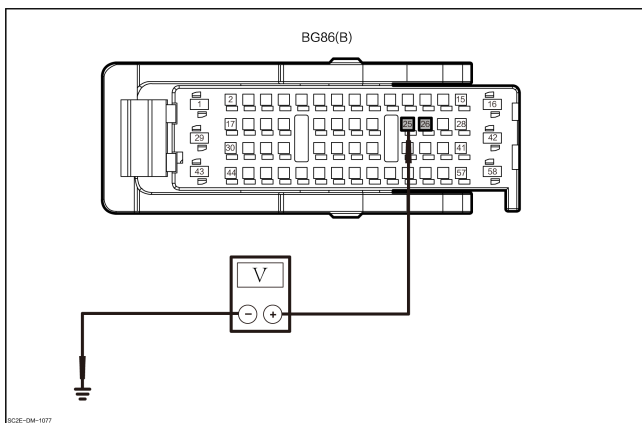
4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Check the CAN line of right body control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of right body control module BG86(B)-25 and the ground.
3. Measure the voltage between the harness connector of right body control module BG86(B)-26 and the ground.

| Connector | | Condition | Voltage value |
|------------|--------|-----------------|------------------|
| (+) | (-) | | |
| BG86(B)-25 | Ground | Through- out | 2.5~3.5V |
| BG86(B)-26 | | | 1.5~2.5V |

4. Check whether the results are normal.

No

Enter the “CAN diagnosis”

Yes

Replace the right body control module.

| | |
|---|---|
| 8 | Check the DTC of right body control module. |
|---|---|

1. Use a VDS to read the right body control module DTC.
2. Check whether other DTC exists.

Yes 

| |
|--|
| Enter “right body control module” diagnosis. |
|--|

No 

| | |
|---|--|
| 9 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Read the DTC of battery execution and sampling unit with VDS.
2. Check whether other DTC exists.

Yes 

| |
|--|
| Enter "Battery Execution and Sampling Unit" to diagnose. |
|--|

No 

| | |
|----|---------------------------------|
| 10 | Check the DTC of other modules. |
|----|---------------------------------|

1. Read the DTC of other modules with VDS.
2. Check whether the DTC of communication failure with the A/C is read in other modules.

Yes 

| |
|--|
| Replace the right body control module. |
|--|

No 

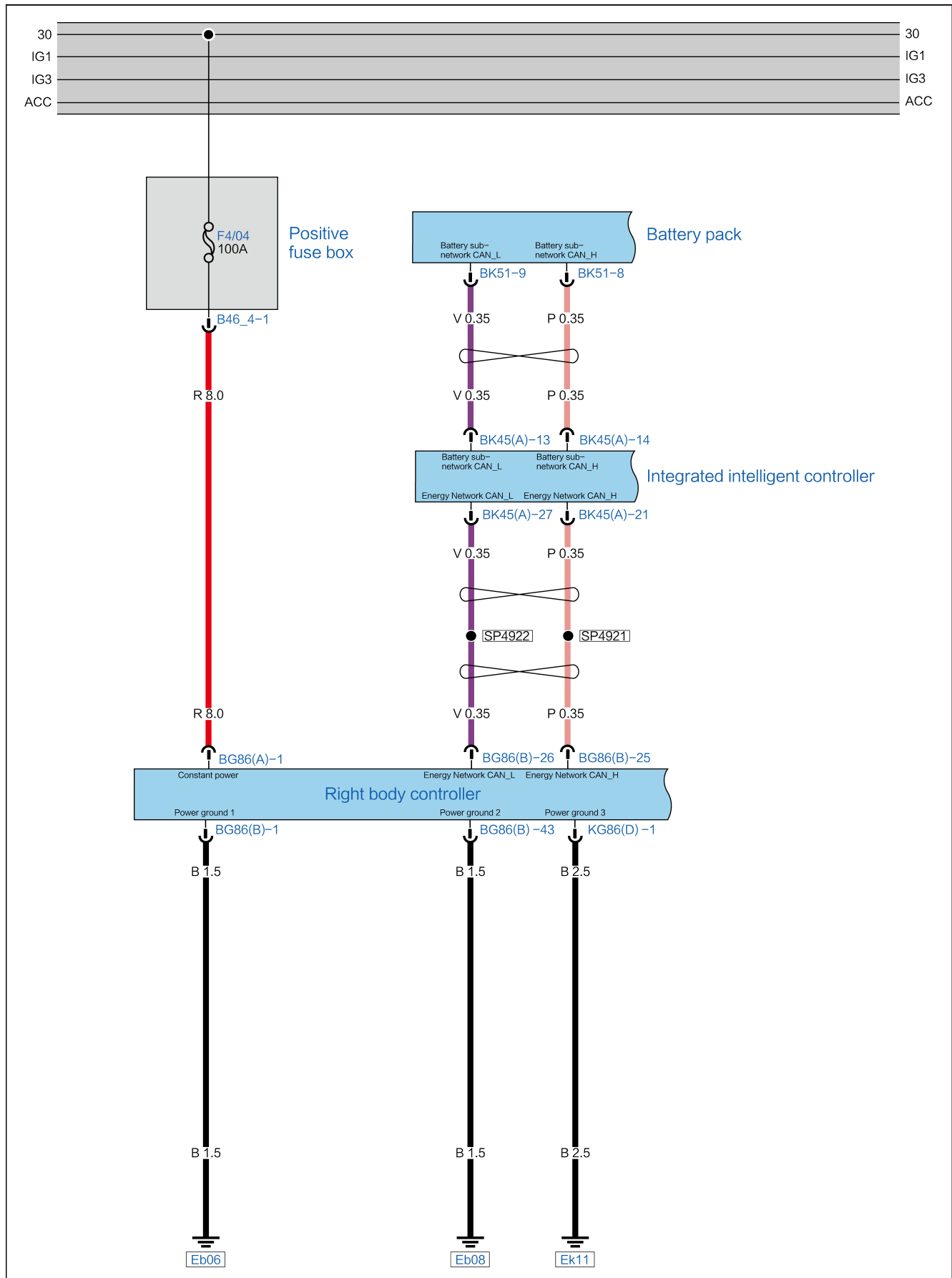
| |
|---------------------------------|
| Replace the power battery pack. |
|---------------------------------|

P1ADE00 Battery Cooling Failure Due to Air Conditioner System Fault

DTC Description

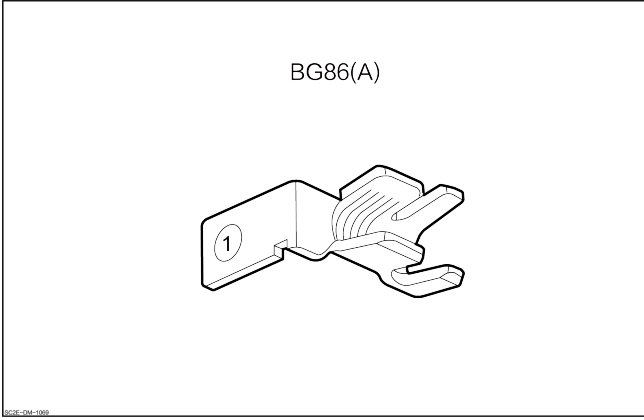
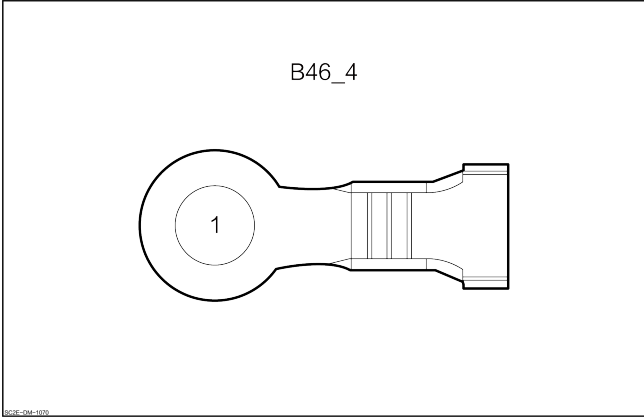
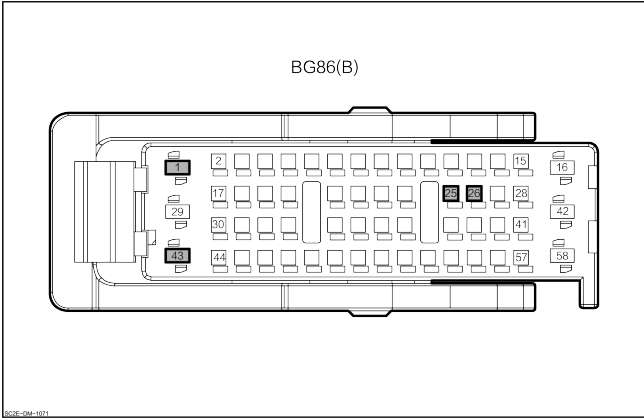
| P1ADE00 Battery Cooling Failure Due to Air Conditioner System Fault | |
|---|--|
| Symptom | The power battery cannot be cooled. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The right body control module fails. 3. There is an HVAC system failure. 4. Power battery packet fault. |
| Fault setting conditions | After the battery is turned on to cool, you will receive a message of the cooling failure of A/C battery. |
| Trigger fault conditions | When the vehicle is powered on, the battery is turned on for cooling, and the A/C battery cooling fault message is received, a DTC will be generated. |

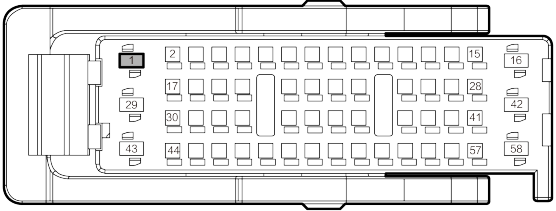
Circuit Diagram



SCALE: 10A:100%

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;"> <p>BG86(A)</p>  </div> | 1 | Right body control module constant power |
| <p style="text-align: center;">Positive fuse box</p> <div style="text-align: center;"> <p>B46_4</p>  </div> | 1 | Constant power |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;"> <p>BG86(B)</p>  </div> | 1 | Power ground 1 |
| | 25 | Energy network CAN_H |
| | 26 | Energy network CAN_L |
| <p style="text-align: center;">Right body control module</p> | 1 | Power ground 3 |

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">KG64(D)</p>  <p style="font-size: small; margin-top: 10px;">EMR-126-102</p> | | |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the right body control module has passed the network test.

Yes

Go to step 8

No

| | |
|---|---|
| 2 | Check the fuse for right body control module. |
|---|---|

1. Check the fuse F4/04(100A) in the positive fuse box for normal function.

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the harness and connector of right body control module. |
|---|---|

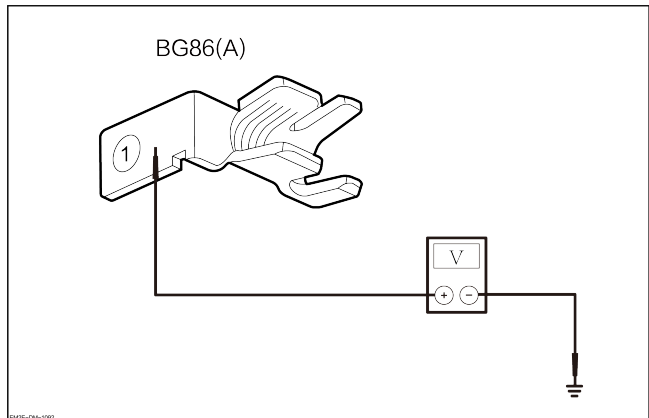
1. Set the START/STOP button to “OFF” .
2. Disconnect the power terminal of right body control module BG86(A).
3. Disconnect the harness connector of right body control module BG86(B).
4. Disconnect the harness connector of right body control module KG86(D).
5. Check the power terminal and connector of right body control module of normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the constant power of right body control module. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the power terminal of right body control module BG86(A)-1 and the ground.

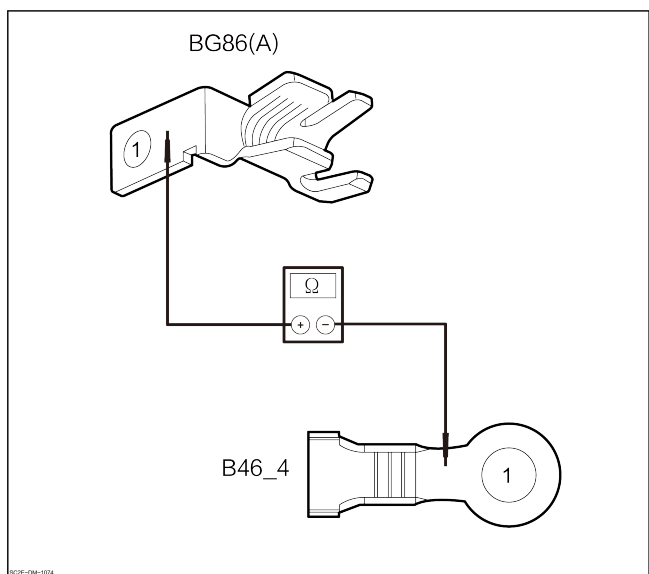
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG86(A)-1 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → [Go to step 6](#)

No

5 Check the power supply of right body control module for open circuit.



1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of positive fuse box B46_4.
3. Measure the resistance between the harness connectors of right body control module BG86(A)-1 and B46_4-1.

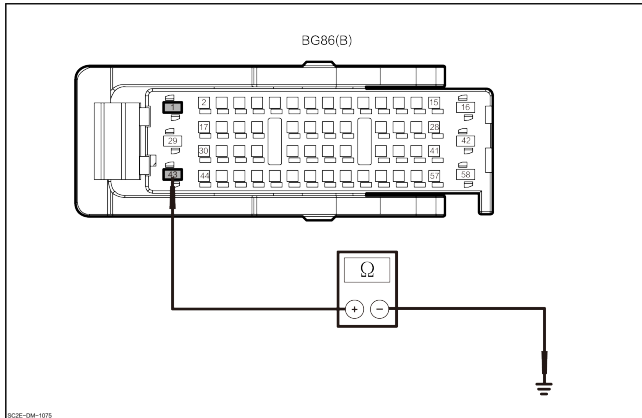
| Connector | | Condition | Resistance value |
|-----------|---------|-------------|------------------|
| (+) | (-) | | |
| BG86(A)-1 | B46_4-1 | Through-out | Lower than 1Ω |

4. Check whether the results are normal.

No → Repair or replace the wire harness

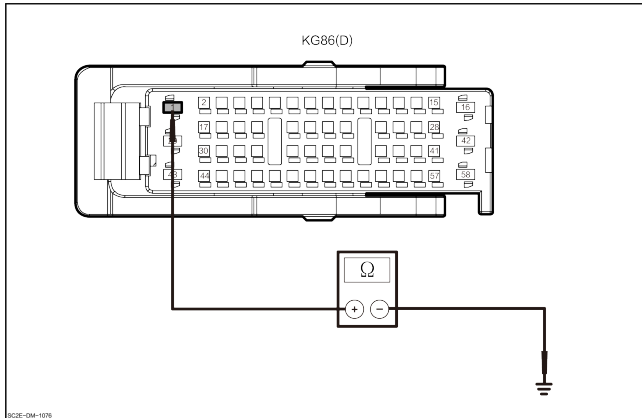
Yes → Replace the positive fuse box.

6 Check the ground line of right body control module.



1. Measure the resistance between the harness connector of right body control module BG86(B)-1 and the ground.
2. Measure the resistance between the harness connector of right body control module BG86(B)-43 and the ground.
3. Measure the resistance between the harness connector of right body control module KG86(D)-1 and the ground.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG86(B)-1 | Ground | Through- out | Lower than 1 Ω |
| BG86(B)-43 | | | |
| KG86(D)-1 | | | |



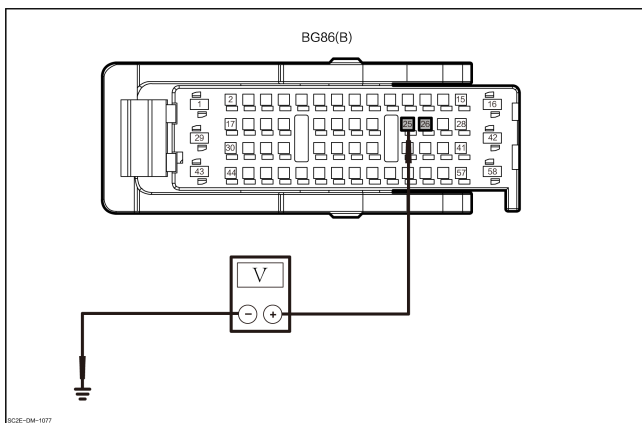
4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Check the CAN line of right body control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of right body control module BG86(B)-25 and the ground.
3. Measure the voltage between the harness connector of right body control module BG86(B)-26 and the ground.

| Connector | | Condition | Voltage value |
|------------|--------|-----------------|----------------------|
| (+) | (-) | | |
| BG86(B)-25 | Ground | Through- out | 2.5~3.5V 1.5~2.5V |
| BG86(B)-26 | | | |

4. Check whether the results are normal.

No

Enter the “CAN diagnosis”

Yes

Replace the right body control module.

8

Check the DTC of right body control module.

1. Use a VDS to read the right body control module DTC.
2. Check whether other DTC exists.

Yes

Enter “right body control module diagnosis” .

No

9

Check the battery execution and sampling unit DTC.

1. Read the DTC of battery execution and sampling unit with VDS.
2. Check whether other DTC exists.

Yes

Enter “battery execution and sampling unit diagnosis” .

No

10

Check the DTC of other modules.

1. Read the DTC of other modules with VDS.
2. Check whether the DTC of communication failure with the A/C is read in other modules.

Yes

Replace the right body control module.

No

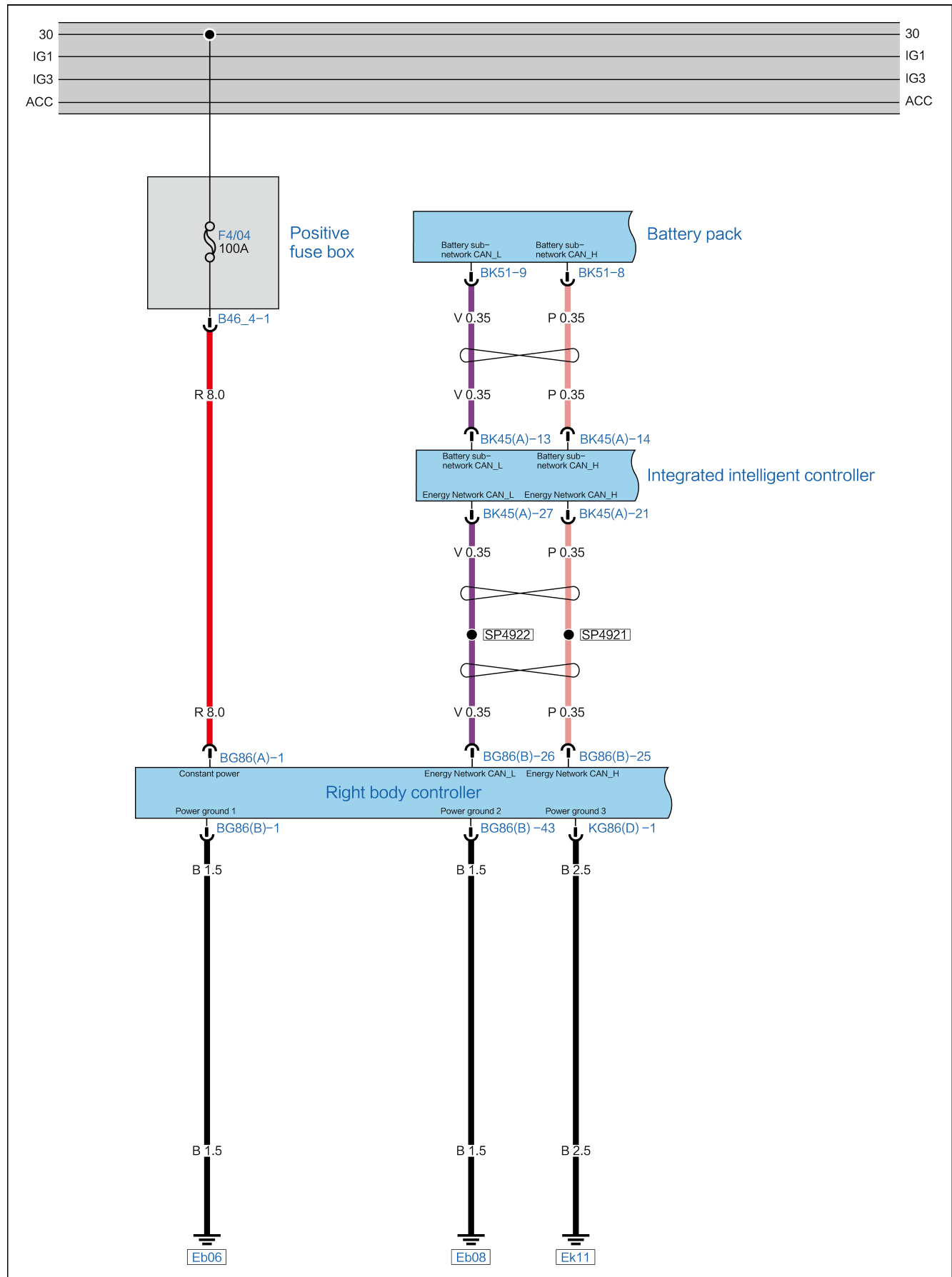
Replace the power battery pack.

P1ADF00 Inner Cycle Failure at Battery Due to Air Conditioner System Fault

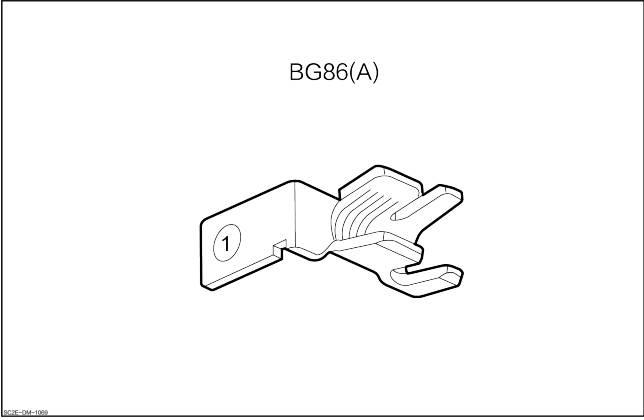
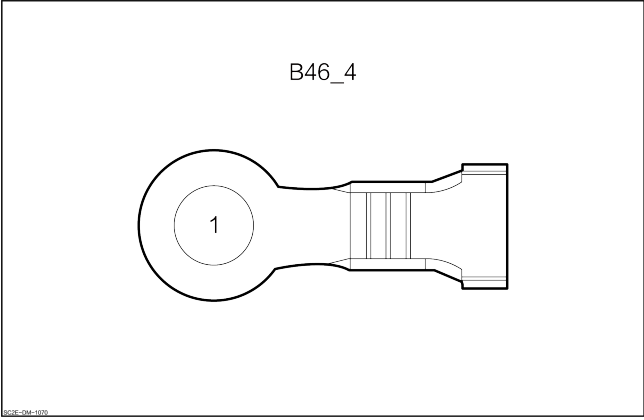
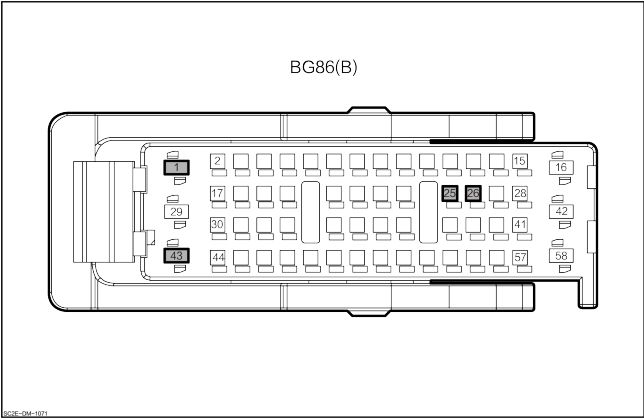
DTC Description

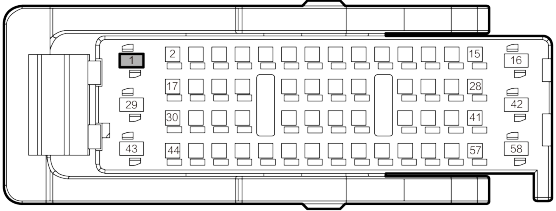
| P1ADF00 Inner Cycle Failure at Battery Due to Air Conditioner System Fault | |
|--|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The right body control module fails. 3. There is an HVAC system failure. 4. Power battery packet fault. |
| Fault setting conditions | The battery starts internal circulation and receives the fault message of internal circulation of A/C battery. |
| Trigger fault conditions | When the vehicle is powered on, the battery is turned on for internal circulation, and the A/C battery internal circulation fault message is received, a DTC will be generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;"> <p>BG86(A)</p>  </div> | 1 | Right body control module constant power |
| <p style="text-align: center;">Positive fuse box</p> <div style="text-align: center;"> <p>B46_4</p>  </div> | 1 | Constant power |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;"> <p>BG86(B)</p>  </div> | 1 | Power ground 1 |
| | 25 | Energy network CAN_H |
| | 26 | Energy network CAN_L |
| <p style="text-align: center;">Right body control module</p> | 1 | Power ground 3 |

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">KG64(D)</p>  <p style="font-size: small; margin-top: 10px;">EMR-126-102</p> | | |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the right body control module has passed the network test.

Yes

Go to step 8

No

| | |
|---|---|
| 2 | Check the fuse for right body control module. |
|---|---|

1. Check the fuse F4/04(100A) in the positive fuse box for normal function.

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the harness and connector of right body control module. |
|---|---|

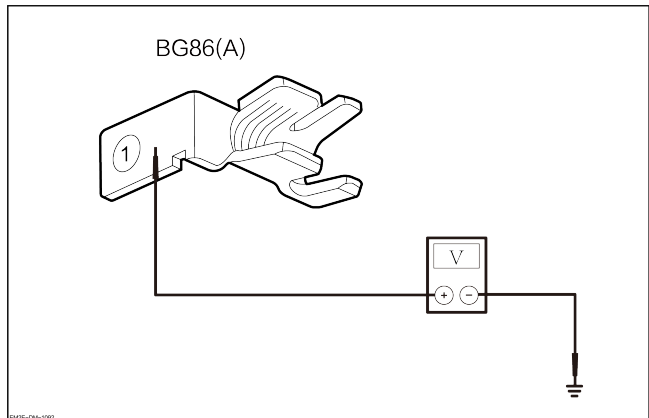
1. Set the START/STOP button to “OFF” .
2. Disconnect the power terminal of right body control module BG86(A).
3. Disconnect the harness connector of right body control module BG86(B).
4. Disconnect the harness connector of right body control module KG86(D).
5. Check the power terminal and connector of right body control module of normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the constant power of right body control module. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the power terminal of right body control module BG86(A)-1 and the ground.

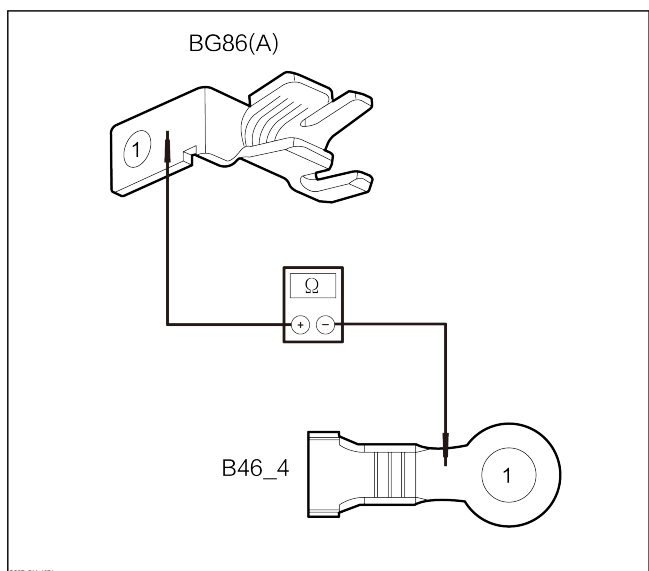
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG86(A)-1 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → [Go to step 6](#)

No

5 Check the power supply of right body control module for open circuit.



1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of positive fuse box B46_4.
3. Measure the resistance between the harness connectors of right body control module BG86(A)-1 and B46_4-1.

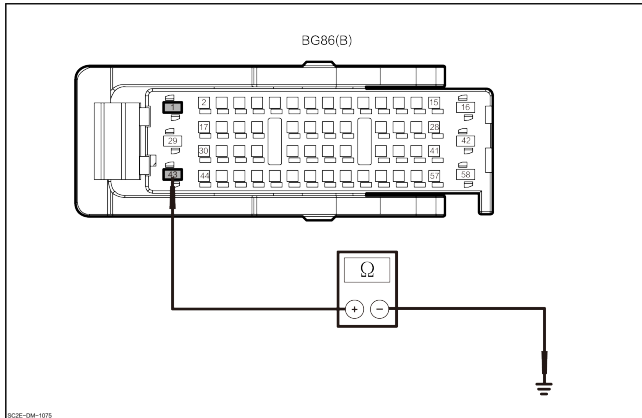
| Connector | | Condition | Resistance value |
|-----------|---------|-------------|------------------|
| (+) | (-) | | |
| BG86(A)-1 | B46_4-1 | Through-out | Lower than 1Ω |

4. Check whether the results are normal.

No → Repair or replace the wire harness

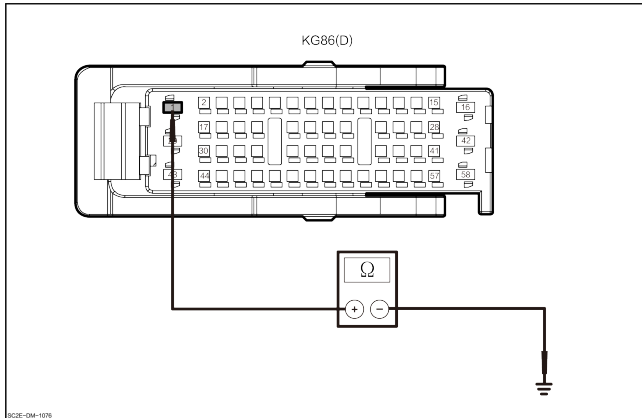
Yes → Replace the positive fuse box.

6 Check the ground line of right body control module.



1. Measure the resistance between the right body control module BG86(B)-1 and the ground.
2. Measure the resistance between the right body control module BG86(B)-43 and the ground.
3. Measure the resistance between the right body control module KG86(D)-1 and the ground.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG86(B)-1 | Ground | Through- out | Lower than 1 Ω |
| BG86(B)-43 | | | |
| KG86(D)-1 | | | |



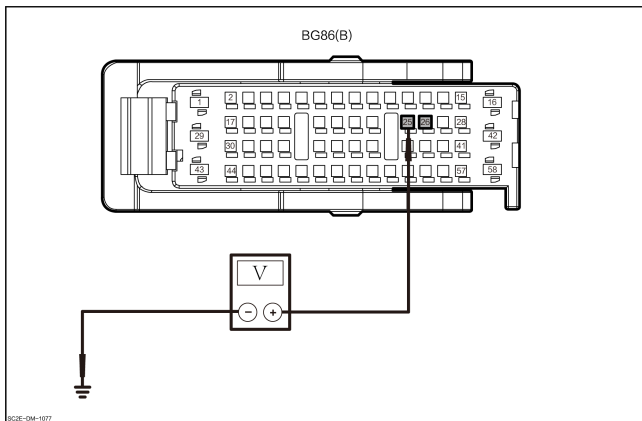
4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Check the CAN line of right body control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of right body control module BG86(B)-25 and the ground.
3. Measure the voltage between the harness connector of right body control module BG86(B)-26 and the ground.

| Connector | | Condition | Voltage value |
|------------|--------|-----------------|----------------------|
| (+) | (-) | | |
| BG86(B)-25 | Ground | Through- out | 2.5~3.5V 1.5~2.5V |
| BG86(B)-26 | | | |

4. Check whether the results are normal.

No

Enter the “CAN diagnosis”

Yes

Replace the right body control module.

8

Check the DTC of right body control module.

1. Use a VDS to read the right body control module DTC.
2. Check whether other DTC exists.

Yes

Enter “right body control module diagnosis” .

No

9

Check the battery execution and sampling unit DTC.

1. Read the DTC of battery execution and sampling unit with VDS.
2. Check whether other DTC exists.

Yes

Enter “battery execution and sampling unit diagnosis” .

No

10

Check the DTC of other modules.

1. Read the DTC of other modules with VDS.
2. Check whether the DTC of communication failure with the A/C is read in other modules.

Yes

Replace the right body control module.

No

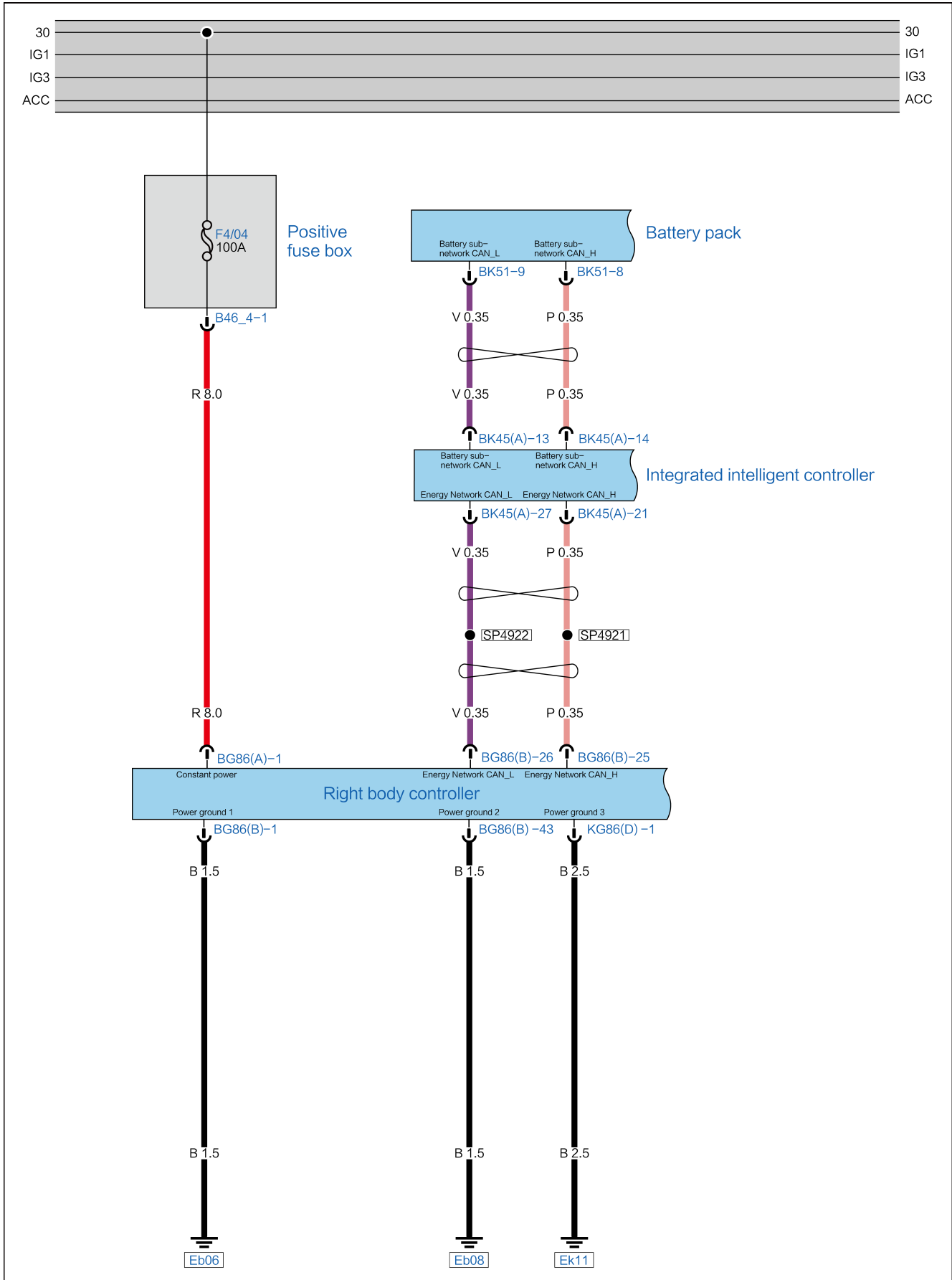
Replace the power battery pack.

P1AE000 Battery Heating Failure Due to Air Conditioner System Fault

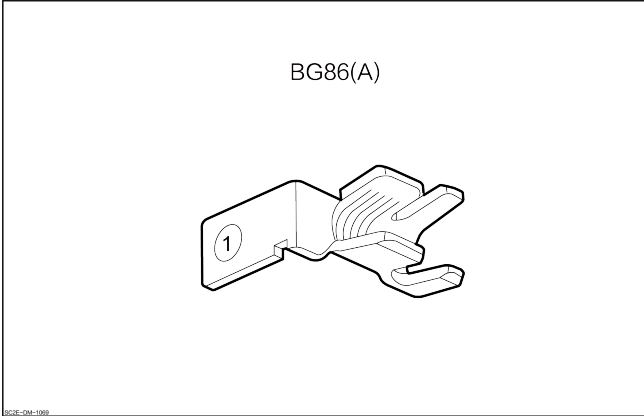
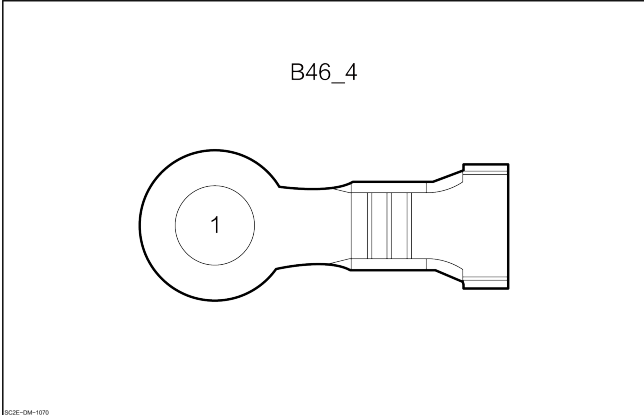
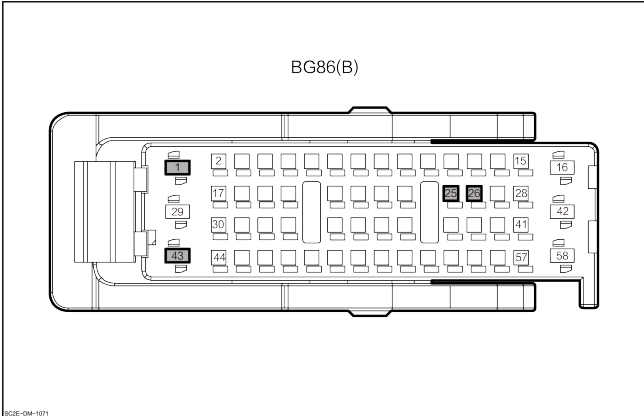
DTC Description

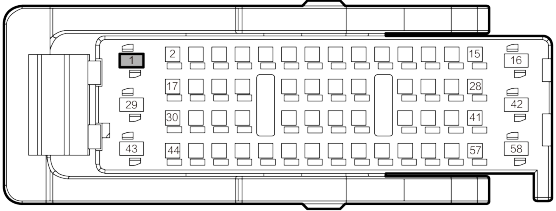
| P1AE000 Battery Heating Failure Due to Air Conditioner System Fault | |
|---|---|
| Symptom | Battery heating is not possible. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. The right body control module fails.3. There is an HVAC system failure.4. Power battery packet fault. |
| Fault setting conditions | After the battery is heated, the A/C internal circulation fault message is received. |
| Trigger fault conditions | When the vehicle is powered on, and the current program is running in the common heater configuration, a DTC will be generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;"> <p>BG86(A)</p>  </div> | 1 | Right body control module constant power |
| <p style="text-align: center;">Positive fuse box</p> <div style="text-align: center;"> <p>B46_4</p>  </div> | 1 | Constant power |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;"> <p>BG86(B)</p>  </div> | 1 | Power ground 1 |
| | 25 | Energy network CAN_H |
| | 26 | Energy network CAN_L |
| <p style="text-align: center;">Right body control module</p> | 1 | Power ground 3 |

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">KG64(D)</p>  <p style="font-size: small; margin-top: 10px;">EMR-126-102</p> | | |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the right body control module has passed the network test.

Yes

Go to step 8

No

| | |
|---|---|
| 2 | Check the fuse for right body control module. |
|---|---|

1. Check the fuse F4/04(100A) in the positive fuse box for normal function.

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the harness and connector of right body control module. |
|---|---|

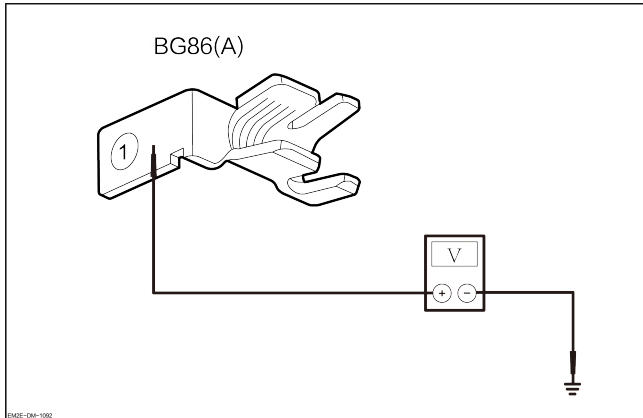
1. Set the START/STOP button to “OFF” .
2. Disconnect the power terminal of right body control module BG86(A).
3. Disconnect the harness connector of right body control module BG86(B).
4. Disconnect the harness connector of right body control module KG86(D).
5. Check the power terminal and connector of right body control module of normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the constant power of right body control module. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the power terminal of right body control module BG86(A)-1 and the ground.

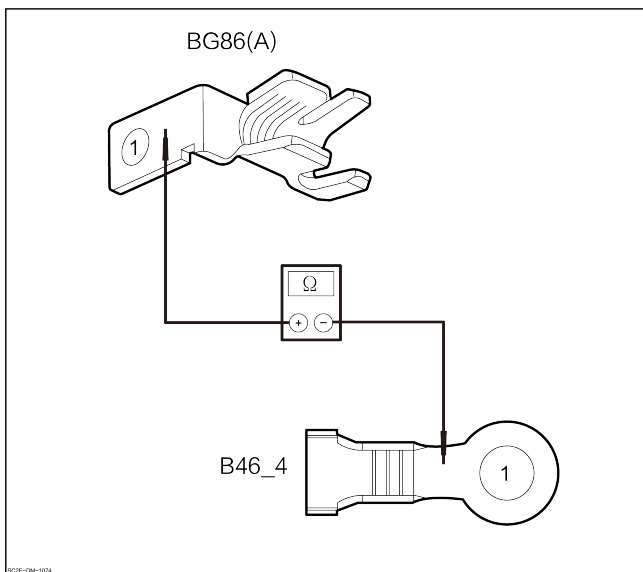
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG86(A)-1 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes

No

5 Check the power supply of right body control module for open circuit.



1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of positive fuse box B46_4.
3. Measure the resistance between the harness connectors of right body control module BG86(A)-1 and B46_4-1.

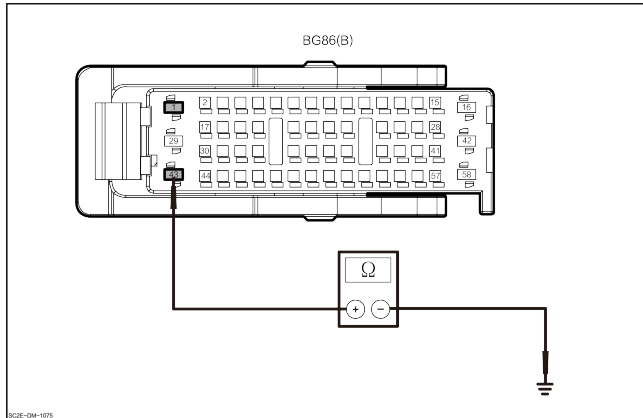
| Connector | | Condition | Resistance value |
|-----------|---------|-------------|------------------|
| (+) | (-) | | |
| BG86(A)-1 | B46_4-1 | Through-out | Lower than 1Ω |

4. Check whether the results are normal.

No

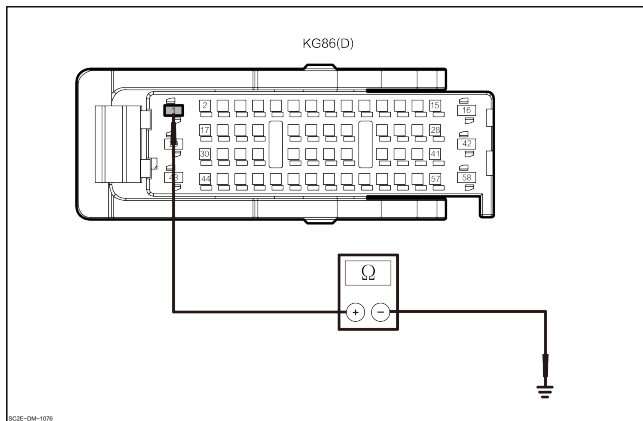
Yes

6 Check the ground line of right body control module.



1. Measure the resistance value between BG86(B)-1 and ground.
2. Measure the resistance value between BG86(B)-43 and ground.
3. Measure the resistance between KG86(D)-1 and the ground.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG86(B)-1 | Ground | Through- out | Lower than 1 Ω |
| BG86(B)-43 | | | |
| KG86(D)-1 | | | |



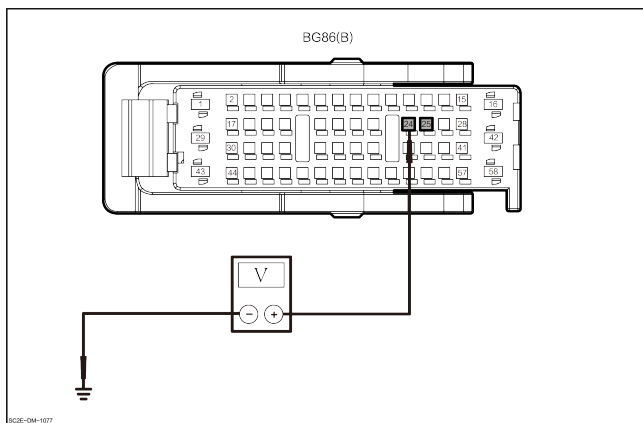
4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Check the CAN line of right body control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of right body control module BG86(B)-25 and the ground.
3. Measure the voltage between the harness connector of right body control module BG86(B)-26 and the ground.

| Connector | | Condition | Voltage value |
|------------|--------|-----------------|----------------------|
| (+) | (-) | | |
| BG86(B)-25 | Ground | Through- out | 2.5~3.5V 1.5~2.5V |
| BG86(B)-26 | | | |

4. Check whether the results are normal.

No

Enter the “CAN diagnosis”

Yes

Replace the right body control module.

8

Check the DTC of right body control module.

1. Use a VDS to read the right body control module DTC.
2. Check whether other DTC exists.

Yes

Enter “right body control module diagnosis” .

No

9

Check the battery execution and sampling unit DTC.

1. Read the DTC of battery execution and sampling unit with VDS.
2. Check whether other DTC exists.

Yes

Enter “battery execution and sampling unit diagnosis” .

No

10

Check the DTC of other modules.

1. Read the DTC of other modules with VDS.
2. Check whether the DTC of communication failure with the A/C is read in other modules.

Yes

Replace the right body control module.

No

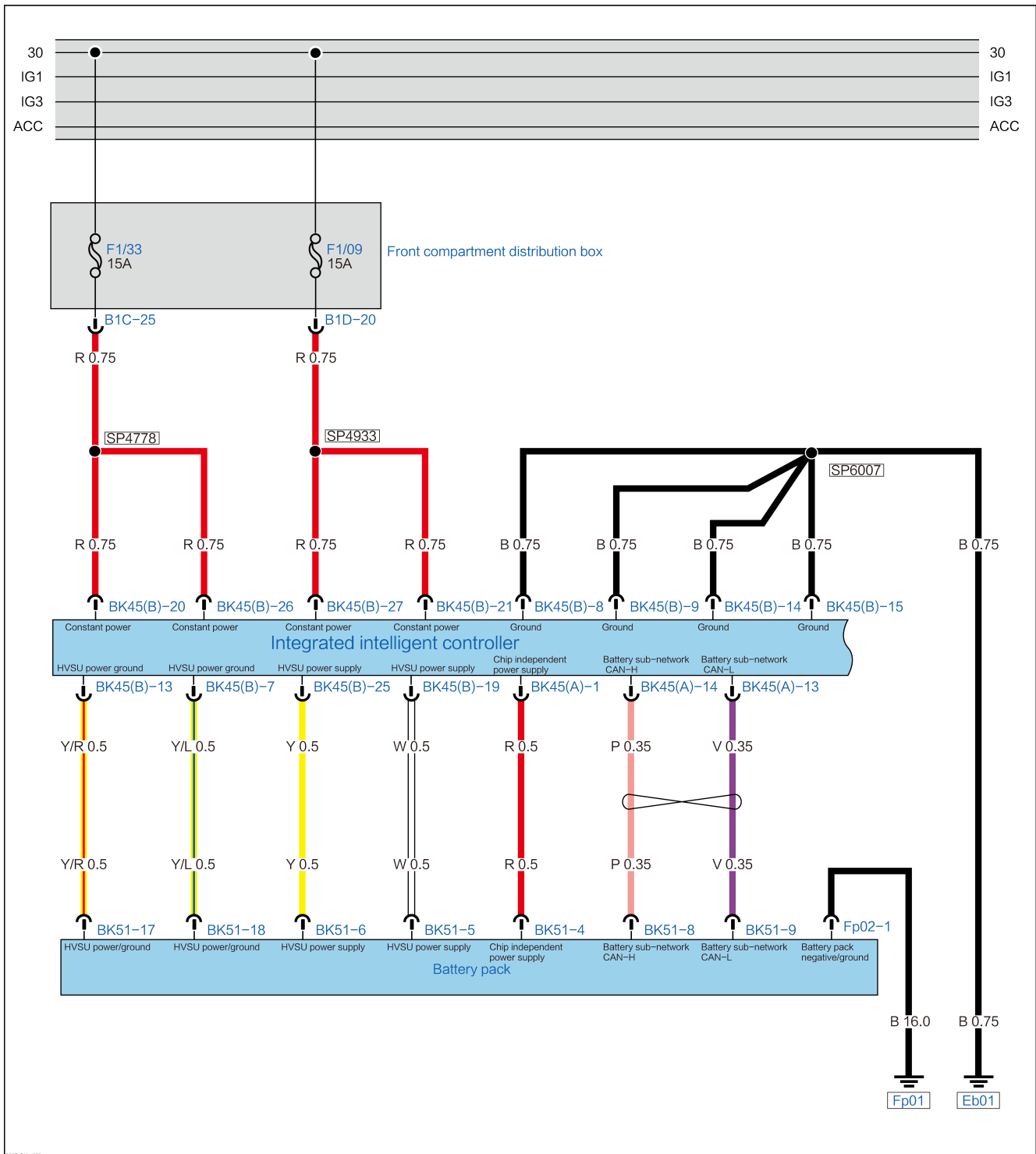
Replace the power battery pack.

P1A5B00 Contactor Disconnected Due to Dual-circuit Power Supply Fault

DTC Description

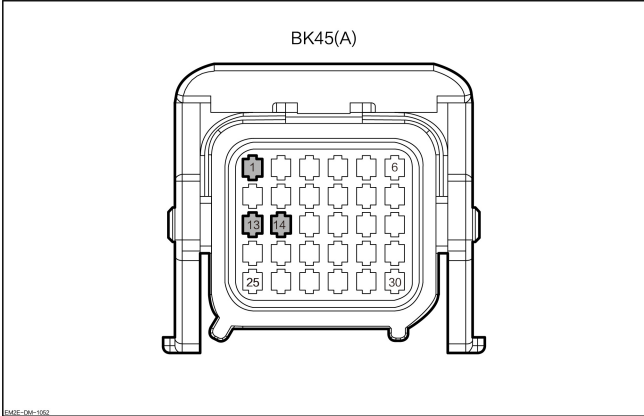
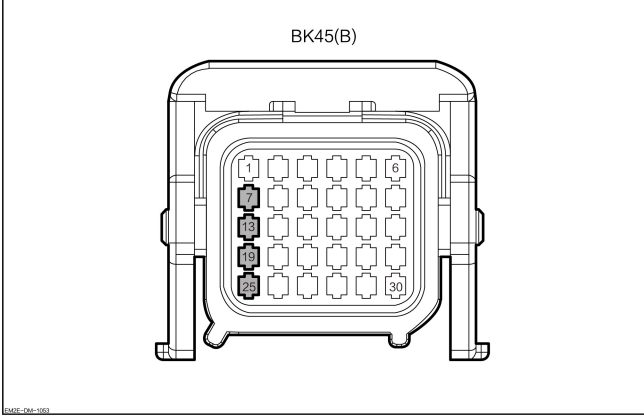
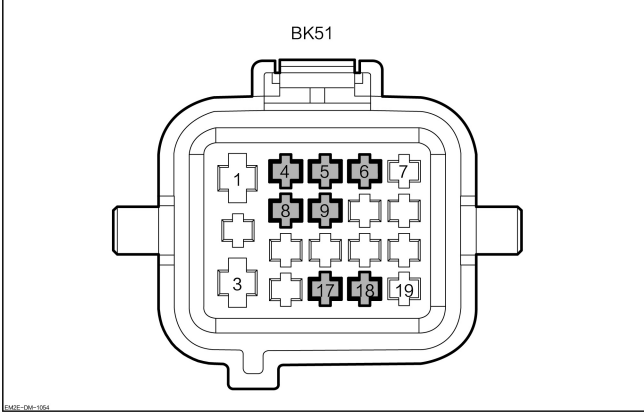
| P1A5B00 Contactor Disconnected Due to Dual-circuit Power Supply Fault | |
|---|---|
| Symptom | The instrument displays “power system fault” . |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Power battery packet fault.3. Smart integrated front drive control unit fault. |
| Fault setting conditions | The voltage is less than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on, and the voltage is lower than the specified threshold, a DTC will be generated. |

Circuit Diagram



SCHE-EM-1003

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|----------------------------------|
| Smart integrated front drive control unit  | 1 | Independent power supply of chip |
| | 13 | Battery sub-network (CAN)_H |
| | 14 | Battery sub-network CAN-L |
| Smart integrated front drive control unit  | 7 | HVSU GND |
| | 13 | HVSU GND |
| | 19 | HVSU power supply |
| | 25 | HVSU power supply |
| Power battery pack  | 4 | Independent power supply of chip |
| | 5 | HVSU power supply |
| | 6 | HVSU power supply |
| | 8 | Battery sub-network CAN-H |
| | 9 | Battery sub-network CAN-L |
| | 17 | HVSU GND |
| 18 | HVSU GND | |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Inspection of the battery state |
|---|---------------------------------|

1. Set the START/STOP button to “OFF” .
2. Perform a battery condition test.
3. Does the status of the battery pass the test?

No

Replace the battery

Yes

| | |
|---|--|
| 3 | Check the harness connector of power battery pack. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector BK51 of power battery pack.
3. Check whether the harness connector of power battery pack is normal?

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the harness connector of the integrated intelligent front drive control module. |
|---|---|

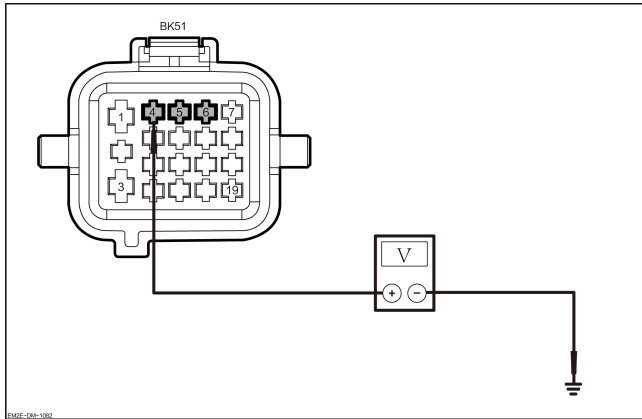
1. Disconnect the integrated intelligent front drive control module harness connectors BK45(A) and BK45(B).
2. Check whether the integrated intelligent front drive control module harness connector is normal.

No

Repair or replace the wire harness

Yes

5 Check the power line of power battery pack.



1. Connect the integrated intelligent front drive control module harness connectors BK45 (A) and BK45 (B).
2. Set the start/stop button to ON.
3. Measure the voltage value between the harness pack connector BK51-4 of power battery and the grounding.
4. Measure the voltage value between the harness connector BK51-5 of power battery pack and the grounding.
5. Measure the voltage value between the harness connector BK51-6 of power battery pack and the grounding.

| Connector | | Condition | Voltage value |
|-----------|--------|------------|---------------|
| (+) | (-) | | |
| BK51-4 | Ground | Throughout | 11~14V |
| BK51-5 | | | |
| BK51-6 | | | |

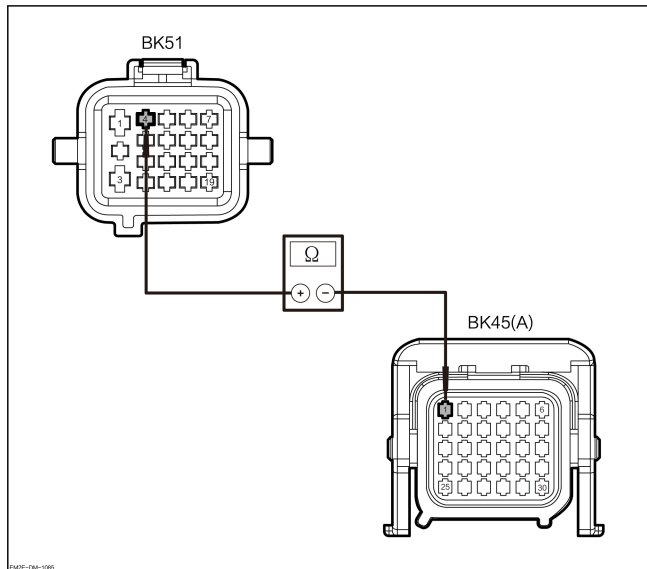
6. Check whether the results are normal.

Yes

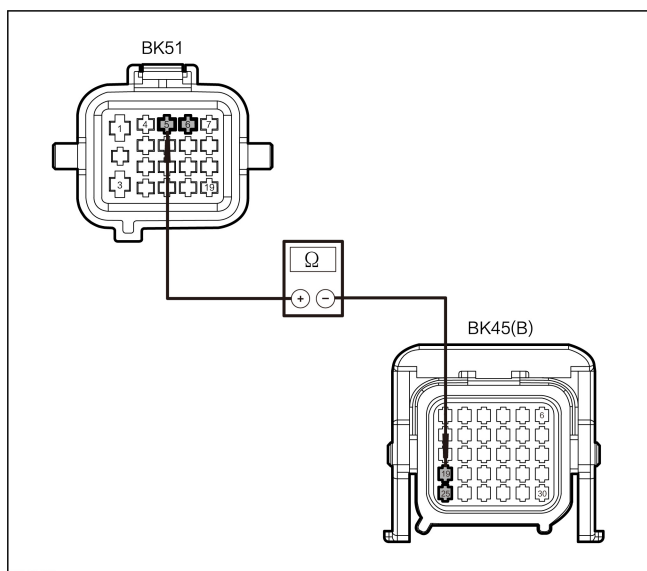
[Go to step 7](#)

No

6 Check whether the power supply line of power battery pack is open-circuited.



1. Disconnect the harness connectors BK45 (A) and BK45 (B) of the integrated intelligent control module.
2. Measure the resistance between the harness connector of power battery pack BK51-4 and the harness connector of integrated intelligent front drive control module BK45(A)-1.
3. Measure the resistance between the harness connector of power battery pack BK51-5 and the harness connector of integrated intelligent front drive control module BK45(B)-19.
4. Measure the resistance between the harness connector of power battery pack BK51-6 and the harness connector of integrated intelligent front drive control module BK45(B)-25.

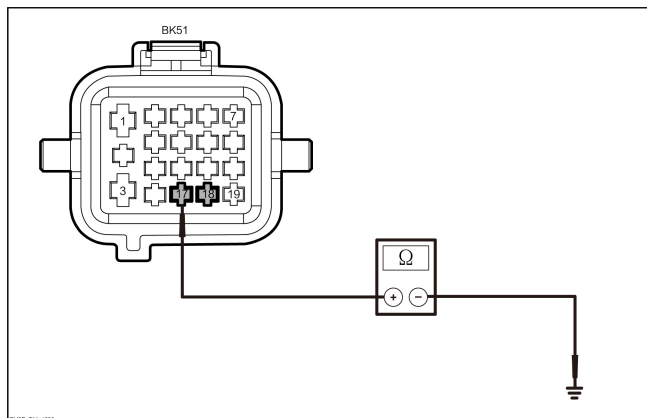


| Connector | | Condition | Resist- ance value |
|-----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| BK51-4 | BK45(A)-1 | Through- out | Lower than 1 Ω |
| BK51-5 | BK45(B)-19 | | |
| BK51-6 | BK45(B)-25 | | |

5. Check whether the results are normal.

| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the smart integrated front drive control unit. |

7 Check whether the power battery pack ground line is open.



1. Measure the resistance between the harness connector of power battery pack BK51-17 and the ground.
2. Measure the resistance between the harness connector of power battery pack BK51-18 and the ground.

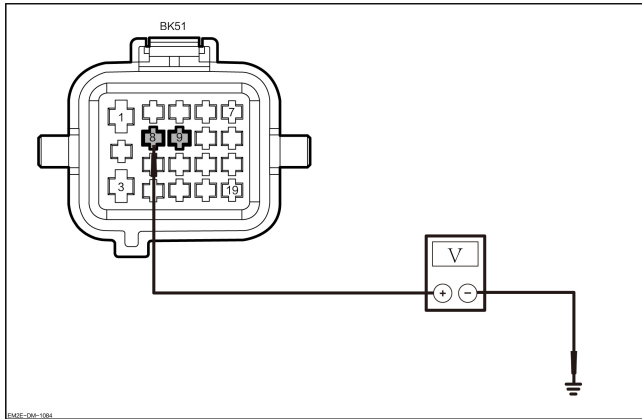
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK51-17 | Ground | Through- out | Lower than 1 Ω |
| BK51-18 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Inspect the CAN line of the power battery pack.



1. Connect the integrated intelligent front drive control module harness connectors BK45 (A) and BK45 (B).
2. Set the START/STOP button to “ON” .
3. Measure the voltage value between the harness pack connector BK51-8 of power battery and the grounding.
4. Measure the voltage value between the harness pack connector BK51-9 of power battery and the grounding.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BK51-8 | Ground | Through-out | 2.5~3.5V |
| BK51-9 | | | 1.5~2.5V |

5. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes

9 Replace the smart integrated front drive control unit.

1. Replace the integrated intelligent front drive control module, and recover the car.
2. Set the START/STOP button to ON.
3. Read the DTC of battery execution and sampling unit with VDS.
4. Clear DTCs.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → The system is normal.

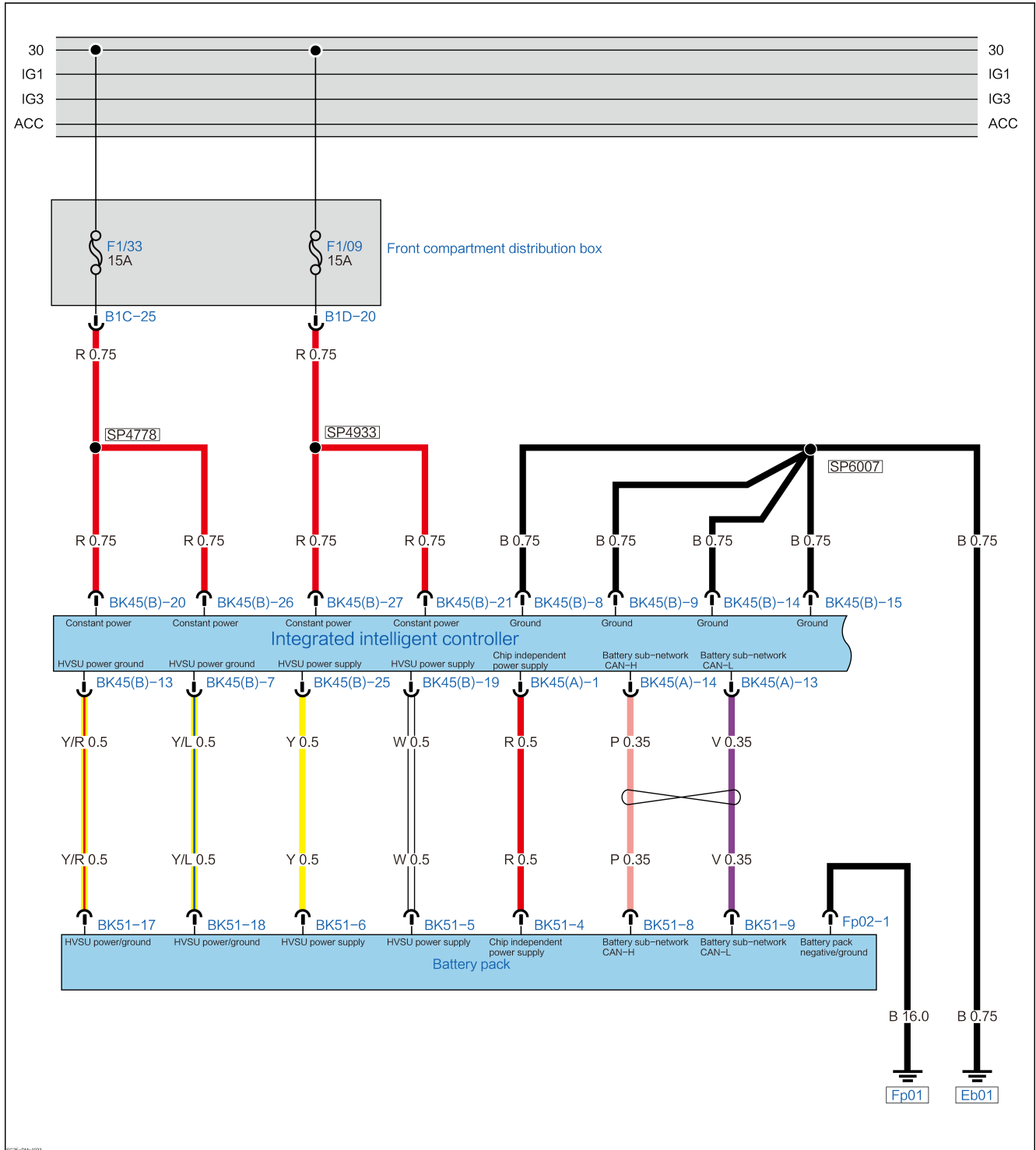
Yes → Replace the power battery pack.

P1A5600 12V Supply Input of Battery Management System Too Low

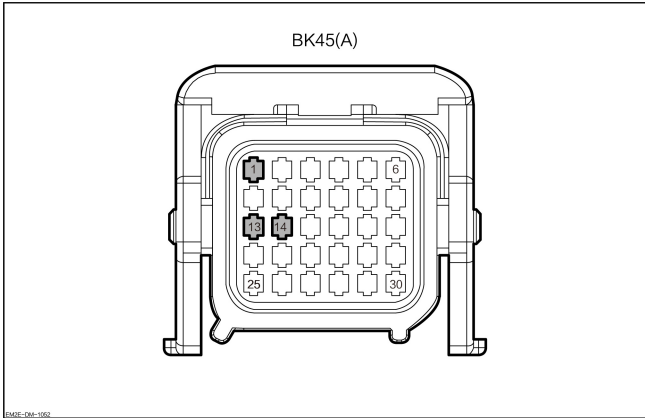
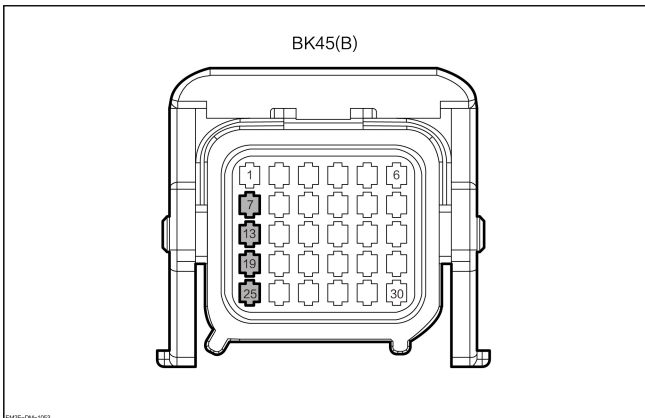
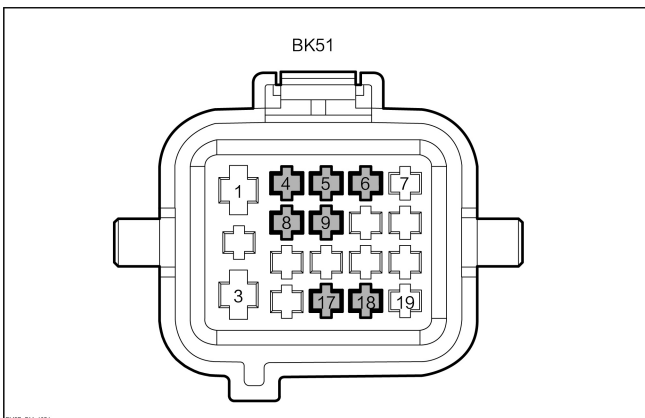
DTC Description

| P1A5600 12V Supply Input of Battery Management System Too Low | |
|---|---|
| Symptom | Do Not Charge. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Power battery packet fault. 3. Smart integrated front drive control unit fault. |
| Fault setting conditions | Under high voltage condition on the vehicle, the high side drive 12 V voltage is less than the specified threshold. |
| Trigger fault conditions | The vehicle is powered on, and only in the flow of AC charging, DC charging, AC VTOL discharge, AC VTOV discharge, DC VTOV discharge. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|----------------------------------|
| <p>Smart integrated front drive control unit</p>  <p>BK45(A)</p> | 1 | Independent power supply of chip |
| | 13 | Battery sub-network CAN-H |
| | 14 | Battery sub-network CAN-L |
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 7 | HVSU GND |
| | 13 | HVSU GND |
| | 19 | HVSU power supply |
| | 25 | HVSU power supply |
| <p>Power battery pack</p>  <p>BK51</p> | 4 | Independent power supply of chip |
| | 5 | HVSU power supply |
| | 6 | HVSU power supply |
| | 8 | Battery sub-network CAN-H |
| | 9 | Battery sub-network CAN-L |
| | 17 | HVSU GND |
| | 18 | HVSU GND |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Inspection of the battery state |
|---|---------------------------------|

1. Set the START/STOP button to “OFF” .
2. Perform a battery condition test.
3. Does the status of the battery pass the test?

No

Replace the battery

Yes

| | |
|---|--|
| 3 | Check the harness connector of power battery pack. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector BK51 of power battery pack.
3. Check whether the harness connector of power battery pack is normal?

No

Repair or replace the wire harness

Yes

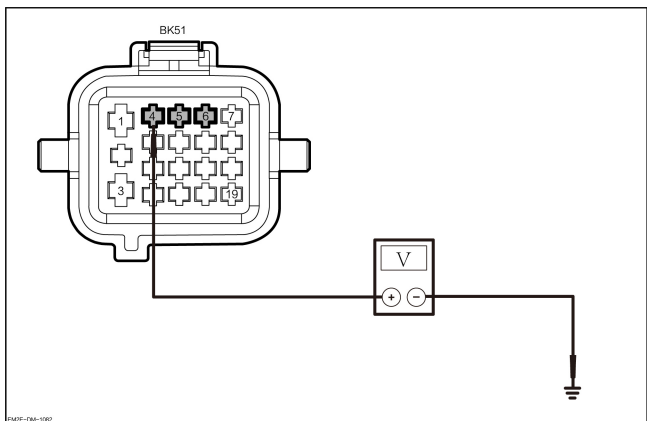
| | |
|---|---|
| 4 | Check the harness connector of the integrated intelligent front drive control module. |
|---|---|

1. Disconnect the integrated intelligent front drive control module harness connectors BK45(A) and BK45(B).
2. Check whether the integrated intelligent front drive control module harness connector is normal.

No → Repair or replace the wire harness

Yes

5 Check the power line of power battery pack.



1. Connect the integrated intelligent front drive control module harness connectors BK45 (A) and BK45 (B).
2. Set the start/stop button to ON.
3. Measure the voltage value between the harness pack connector BK51-4 of power battery and the grounding.
4. Measure the voltage value between the harness connector BK51-5 of power battery pack and the grounding.
5. Measure the voltage value between the harness connector BK51-6 of power battery pack and the grounding.

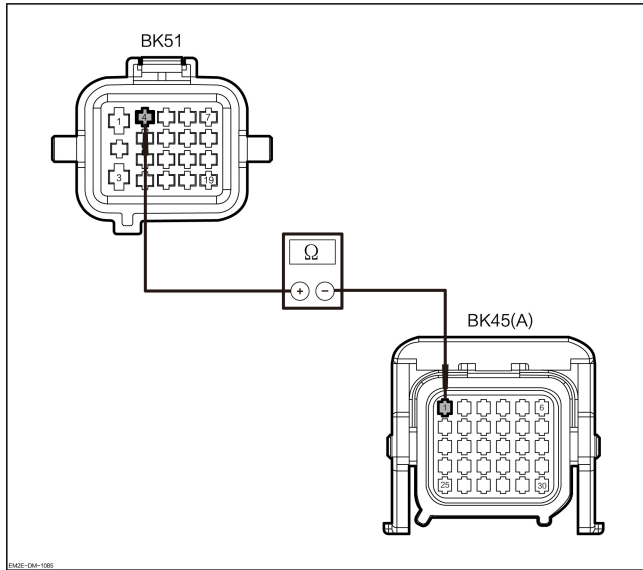
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BK51-4 | Ground | Through-out | 11~14V |
| BK51-5 | | | |
| BK51-6 | | | |

6. Check whether the results are normal.

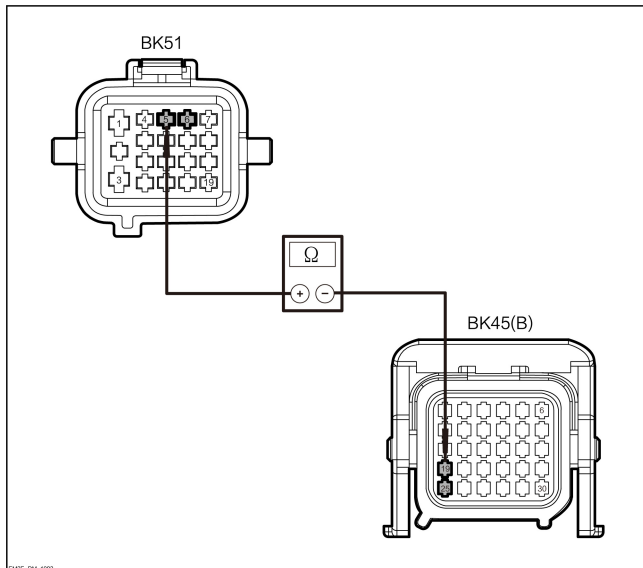
Yes → [Go to step 7](#)

No

6 Check whether the power supply line of power battery pack is open-circuited.



1. Disconnect the harness connectors BK45 (A) and BK45 (B) of the integrated intelligent control module.
2. Measure the resistance between the harness connector of power battery pack BK51-4 and the harness connector of integrated intelligent front drive control module BK45(A)-1.
3. Measure the resistance between the harness connector of power battery pack BK51-5 and the harness connector of integrated intelligent front drive control module BK45(B)-19.
4. Measure the resistance between the harness connector of power battery pack BK51-6 and the harness connector of integrated intelligent front drive control module BK45(B)-25.

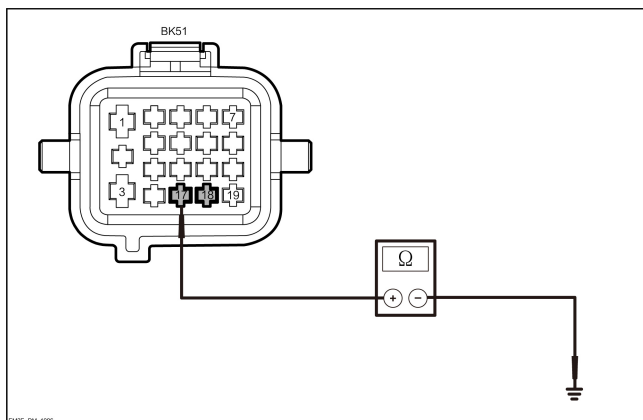


| Connector | | Condition | Resist- ance value |
|-----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| BK51-4 | BK45(A)-1 | Through- out | Lower than 1 Ω |
| BK51-5 | BK45(B)-19 | | |
| BK51-6 | BK45(B)-25 | | |

5. Check whether the results are normal.

- No → Repair or replace the wire harness
- Yes → Replace the smart integrated front drive control unit.

7 Check whether the power battery pack ground line is open.



1. Measure the resistance between the harness connector of power battery pack BK51-17 and the ground.
2. Measure the resistance between the harness connector of power battery pack BK51-18 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK51-17 | Ground | Through- out | Lower than 1 Ω |

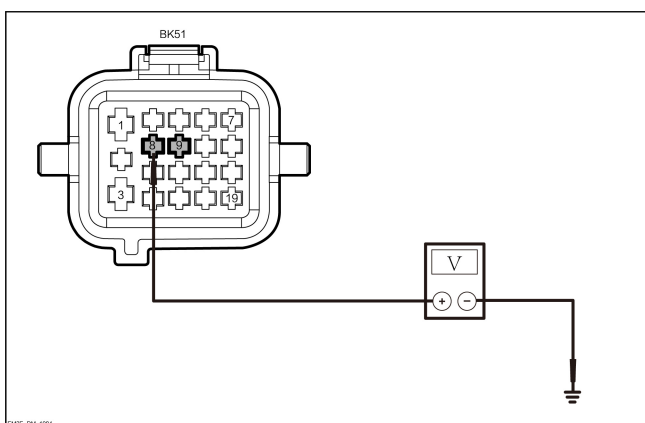
| | | | |
|---------|--|--|--|
| BK51-18 | | | |
|---------|--|--|--|

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Inspect the CAN line of the power battery pack.



1. Connect the integrated intelligent front drive control module harness connectors BK45 (A) and BK45 (B).
2. Set the START/STOP button to “ON” .
3. Measure the voltage value between the harness pack connector BK51-8 of power battery and the grounding.
4. Measure the voltage value between the harness pack connector BK51-9 of power battery and the grounding.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BK51-8 | Ground | Through-out | 2.5~3.5V |
| BK51-9 | | | 1.5~2.5V |

5. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes

9 Replace the smart integrated front drive control unit.

1. Replace the integrated intelligent front drive control module, and recover the car.
2. Set the START/STOP button to ON.
3. Read the DTC of battery execution and sampling unit with VDS.
4. Clear DTCs.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → The system is normal.

Yes

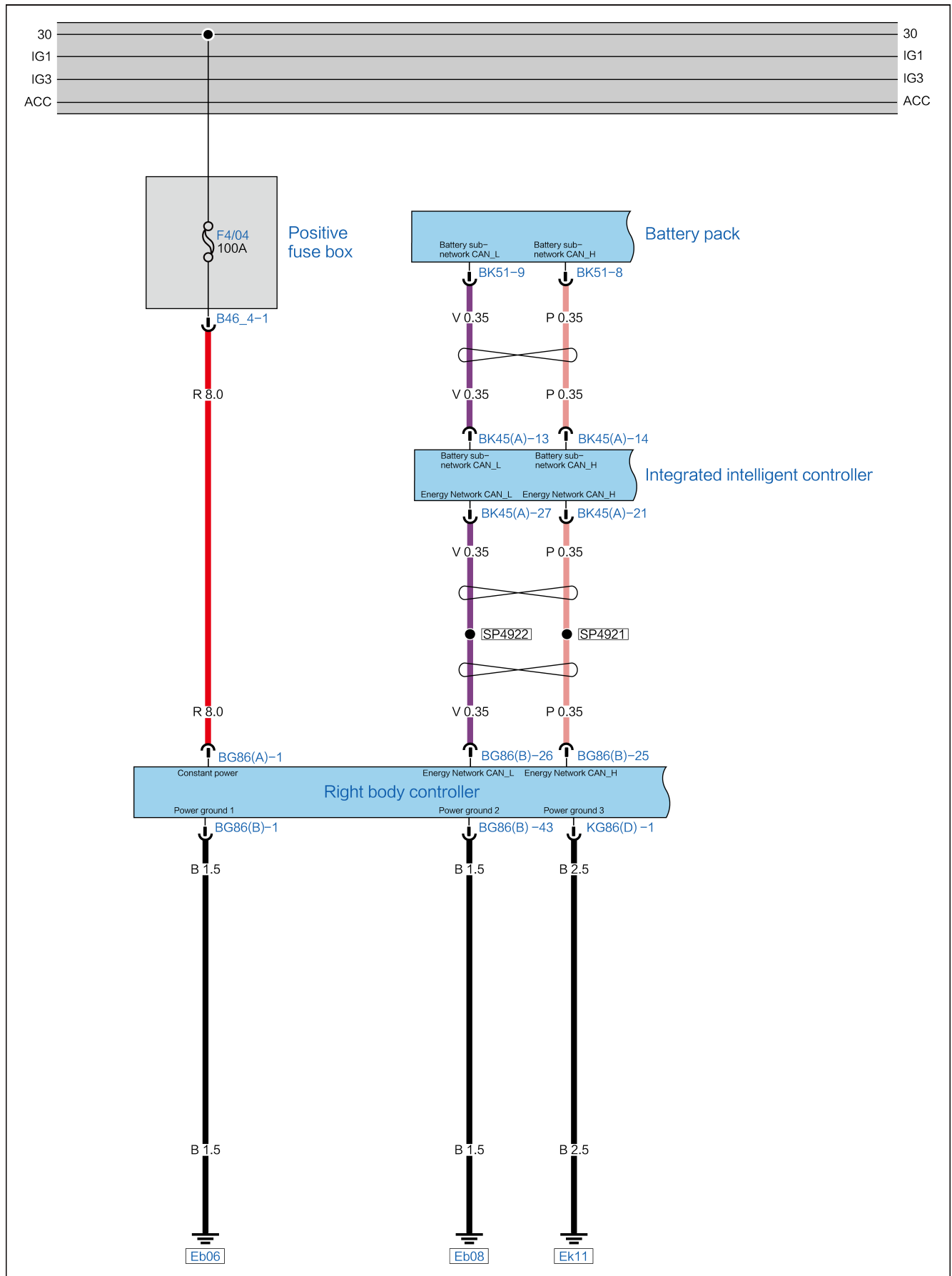
Replace the power battery pack.

U110287 Communication with BCM Failed

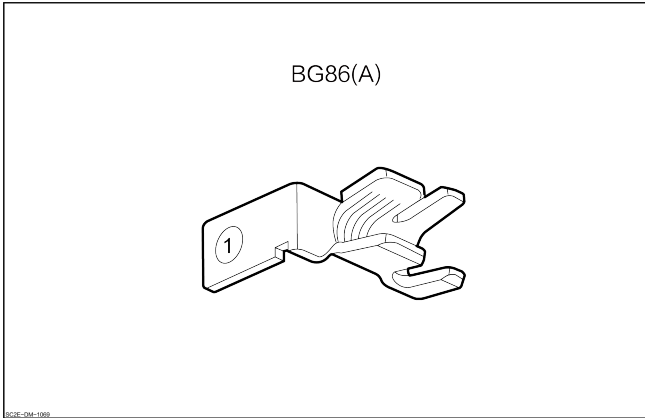
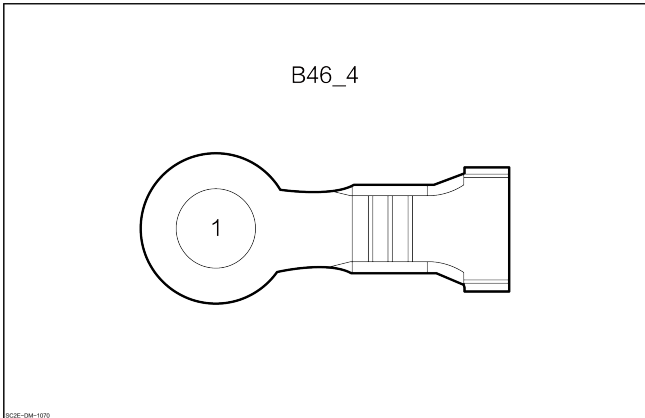
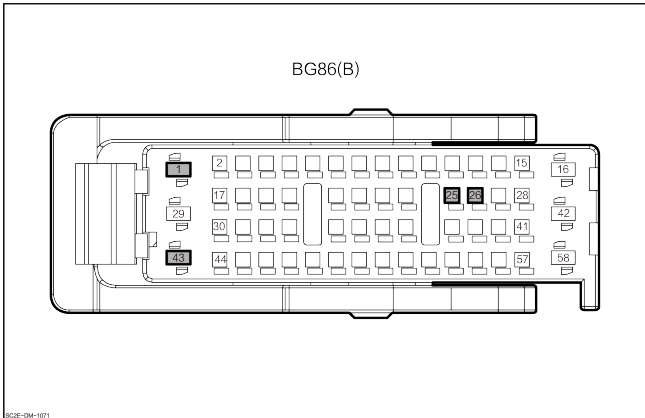
DTC Description

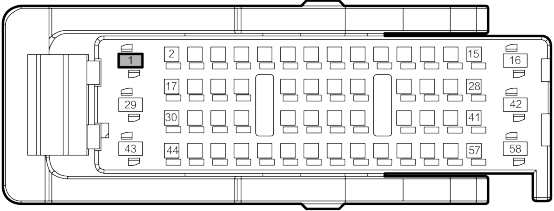
| U110287 Communication with BCM Failed | |
|---------------------------------------|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The left body control module fails. 3. Power battery packet fault. |
| Fault setting conditions | The communication with left body control module is abnormal. |
| Trigger fault conditions | During the vehicle powered on process, if the system fails to receive the left body control module message, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;"> <p>BG86(A)</p>  </div> | 1 | Right body control module constant power |
| <p style="text-align: center;">Positive fuse box</p> <div style="text-align: center;"> <p>B46_4</p>  </div> | 1 | Constant power |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;"> <p>BG86(B)</p>  </div> | 1 | Power ground 1 |
| | 25 | Energy network CAN_H |
| | 26 | Energy network CAN_L |
| <p style="text-align: center;">Right body control module</p> | 1 | Power ground 3 |

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">KG64(D)</p>  <p style="font-size: small; margin-top: 10px;">1202E-DWG-1072</p> | | |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the right body control module has passed the network test.

Yes

Go to step 8

No

| | |
|---|---|
| 2 | Check the fuse for right body control module. |
|---|---|

1. Check the fuse F4/04(100A) in the positive fuse box for normal function.

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the harness and connector of right body control module. |
|---|---|

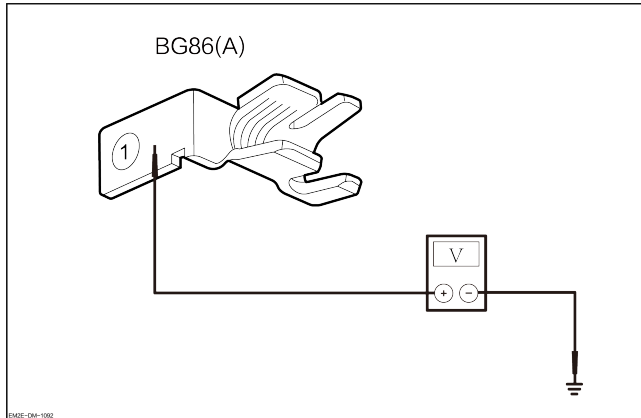
1. Set the START/STOP button to “OFF” .
2. Disconnect the power terminal of right body control module BG86(A).
3. Disconnect the harness connector of right body control module BG86(B).
4. Disconnect the harness connector of right body control module KG86(D).
5. Check the power terminal and connector of right body control module of normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the constant power of right body control module. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the power terminal of right body control module BG86(A)-1 and the ground.

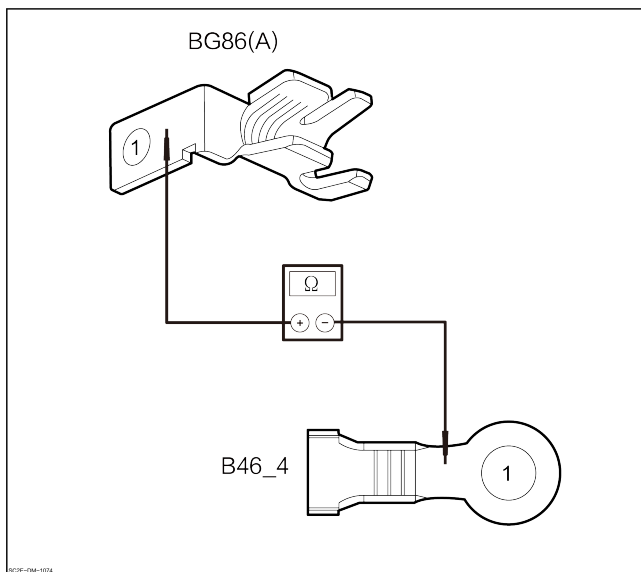
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG86(A)-1 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes Go to step 6

No

5 Check the power supply of right body control module for open circuit.



1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of positive fuse box B46_4.
3. Measure the resistance between the harness connectors of right body control module BG86(A)-1 and B46_4-1.

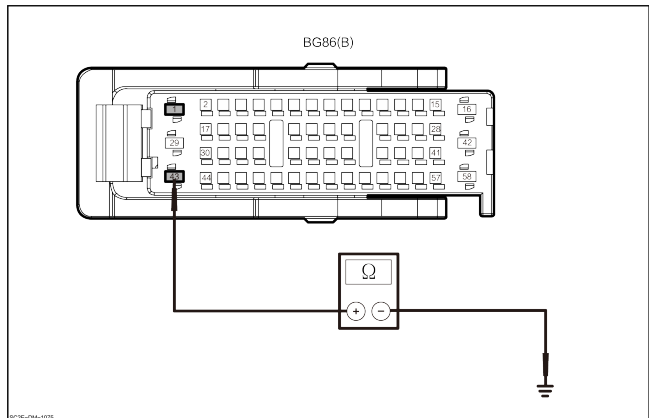
| Connector | | Condition | Resistance value |
|-----------|---------|-------------|------------------|
| (+) | (-) | | |
| BG86(A)-1 | B46_4-1 | Through-out | Lower than 1 Ω |

4. Check whether the results are normal.

No Repair or replace the wire harness

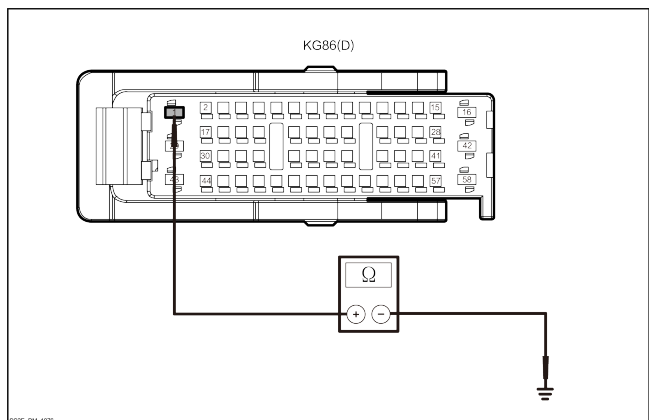
Yes Replace the positive fuse box.

6 Check the ground line of right body control module.



1. Measure the resistance value between BG86(B)-1 and ground.
2. Measure the resistance value between BG86(B)-43 and ground.
3. Measure the resistance between KG86(D)-1 and the ground.

| Connector | | Condition | Resistance value |
|------------|--------|-------------|------------------|
| (+) | (-) | | |
| BG86(B)-1 | Ground | Through-out | Lower than 1Ω |
| BG86(B)-43 | | | |
| KG86(D)-1 | | | |

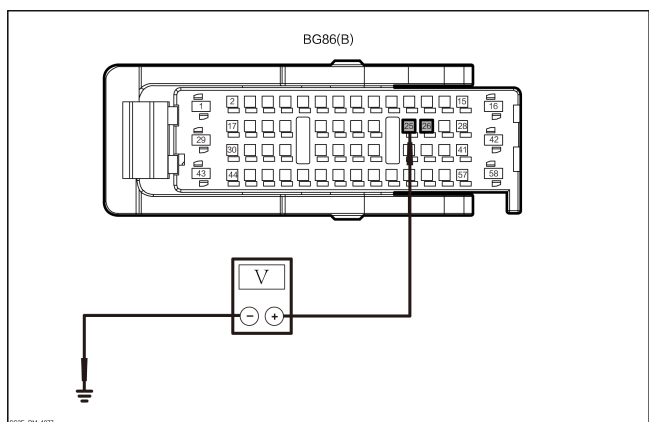


4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the CAN line of right body control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of right body control module BG86(B)-25 and the ground.
3. Measure the voltage between the harness connector of right body control module BG86(B)-26 and the ground.

| Connector | | Condition | Voltage value |
|------------|--------|-------------|---------------|
| (+) | (-) | | |
| BG86(B)-25 | Ground | Through-out | 2.5~3.5V |
| BG86(B)-26 | | | 1.5~2.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes

Replace the right body control module.

8

Check the DTC of right body control module.

1. Use a VDS to read the right body control module DTC.
2. Check whether other DTC exists.

Yes

Enter “right body control module diagnosis” .

No

9

Check the battery execution and sampling unit DTC.

1. Read the DTC of battery execution and sampling unit with VDS.
2. Check whether other DTC exists.

Yes

Enter “battery execution and sampling unit diagnosis” .

No

10

Check the DTC of other modules.

1. Read the DTC of other modules with VDS.
2. Check whether the DTC of communication failure with BCM is read in other modules?

Yes

Replace the right body control module.

No

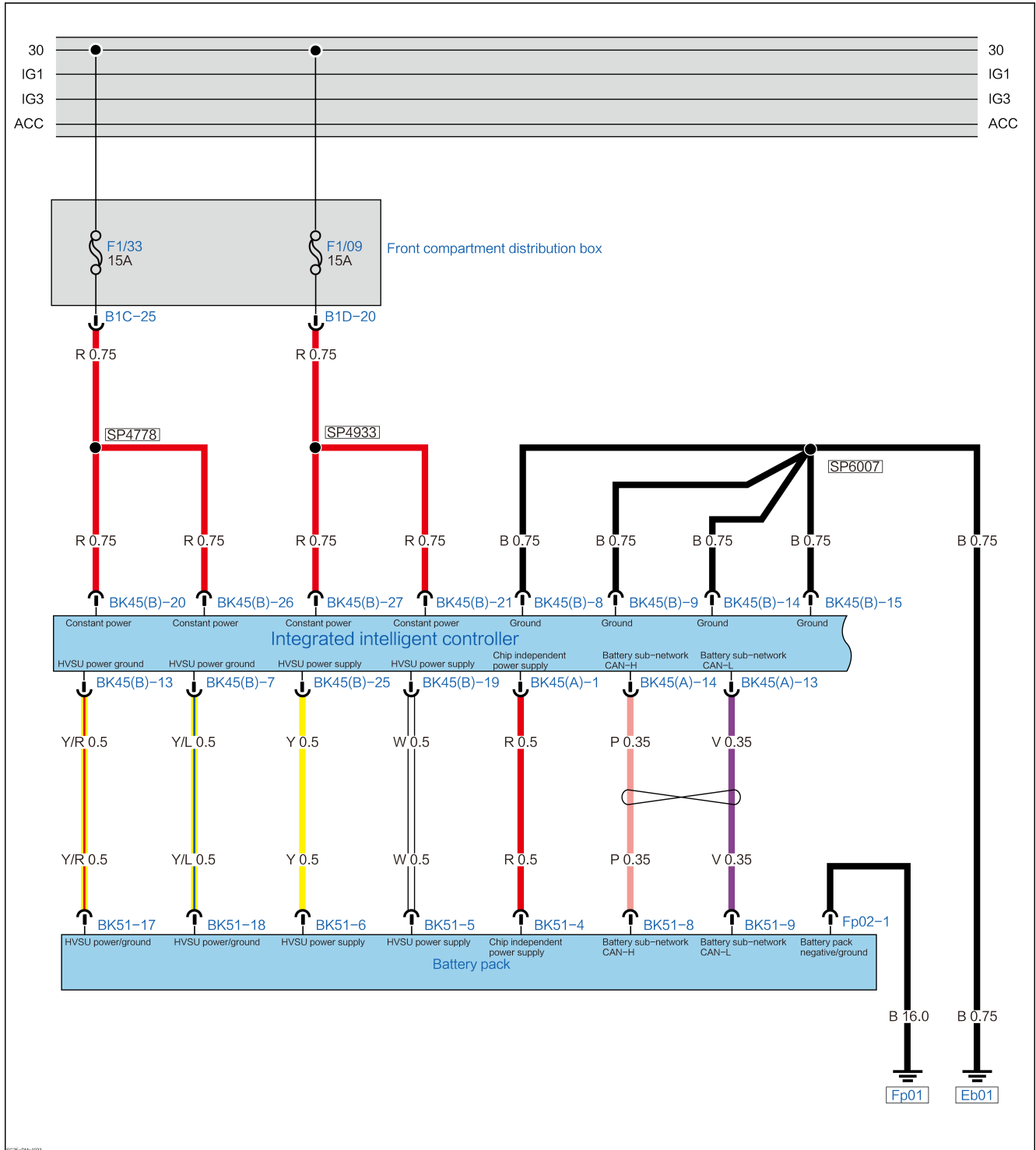
Replace the power battery pack.

U02A200 Communication with Active Release Module Failed

DTC Description

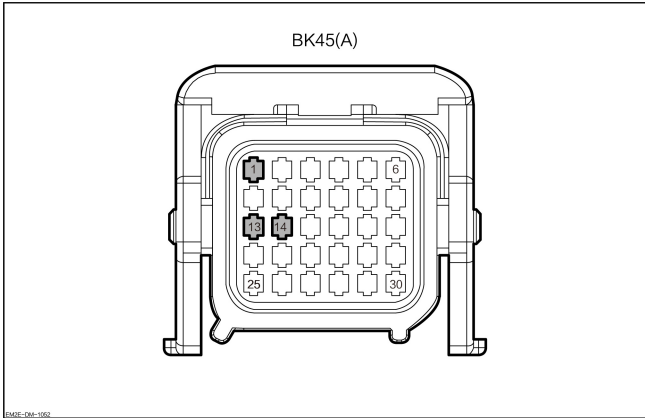
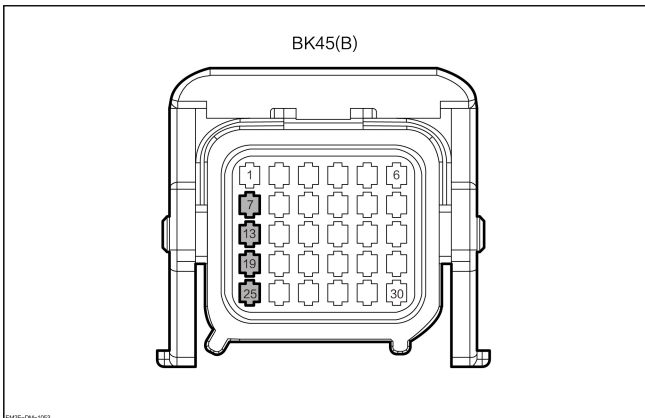
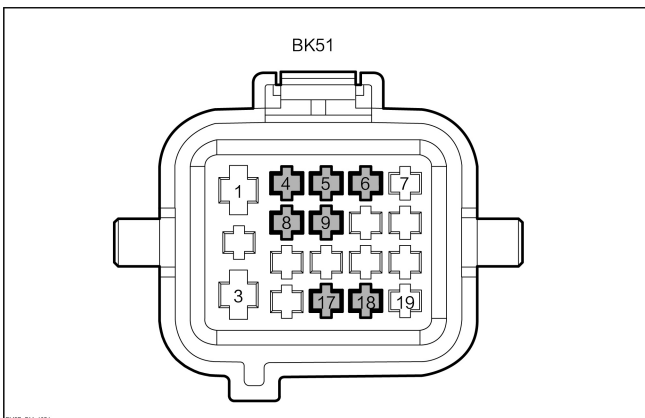
| U02A200 Communication with Active Release Module Failed | |
|---|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Smart integrated front drive control unit fault. 3. Power battery packet fault. |
| Fault setting conditions | Abnormal communication with electronic control and PDC. |
| Trigger fault conditions | When the vehicle is powered on and the communication between electric control and PDC is abnormal, a DTC will be generated. |

Circuit Diagram



SCHE-DM-1003

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|----------------------------------|
| <p>Smart integrated front drive control unit</p>  | 1 | Independent power supply of chip |
| | 13 | Battery sub-network CAN-H |
| | 14 | Battery sub-network CAN-L |
| <p>Smart integrated front drive control unit</p>  | 7 | HVSU GND |
| | 13 | HVSU GND |
| | 19 | HVSU power supply |
| | 25 | HVSU power supply |
| <p>Power battery pack</p>  | 4 | Independent power supply of chip |
| | 5 | HVSU power supply |
| | 6 | HVSU power supply |
| | 8 | Battery sub-network CAN-H |
| | 9 | Battery sub-network CAN-L |
| | 17 | HVSU GND |
| | 18 | HVSU GND |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Inspection of the battery state |
|---|---------------------------------|

1. Set the START/STOP button to “OFF” .
2. Perform a battery condition test.
3. Does the status of the battery pass the test?

No

Replace the battery

Yes

| | |
|---|--|
| 3 | Check the harness connector of power battery pack. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector BK51 of power battery pack.
3. Check whether the harness connector of power battery pack is normal?

No

Repair or replace the wire harness

Yes

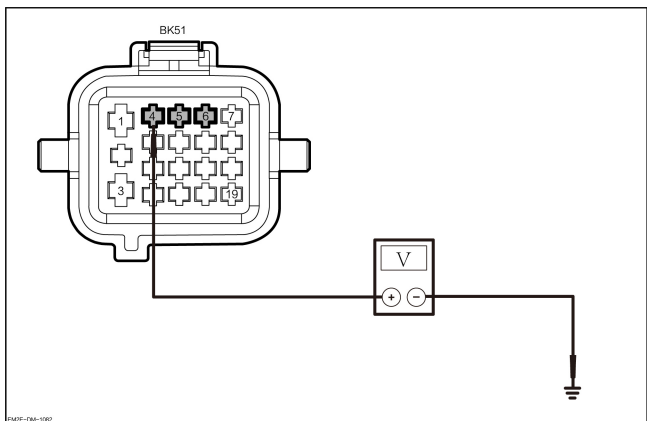
| | |
|---|---|
| 4 | Check the harness connector of the integrated intelligent front drive control module. |
|---|---|

1. Disconnect the integrated intelligent front drive control module harness connectors BK45(A) and BK45(B).
2. Check whether the integrated intelligent front drive control module harness connector is normal.

No → Repair or replace the wire harness

Yes

5 Check the power line of power battery pack.



1. Connect the integrated intelligent front drive control module harness connectors BK45 (A) and BK45 (B).
2. Set the start/stop button to ON.
3. Measure the voltage value between the harness pack connector BK51-4 of power battery and the grounding.
4. Measure the voltage value between the harness connector BK51-5 of power battery pack and the grounding.
5. Measure the voltage value between the harness connector BK51-6 of power battery pack and the grounding.

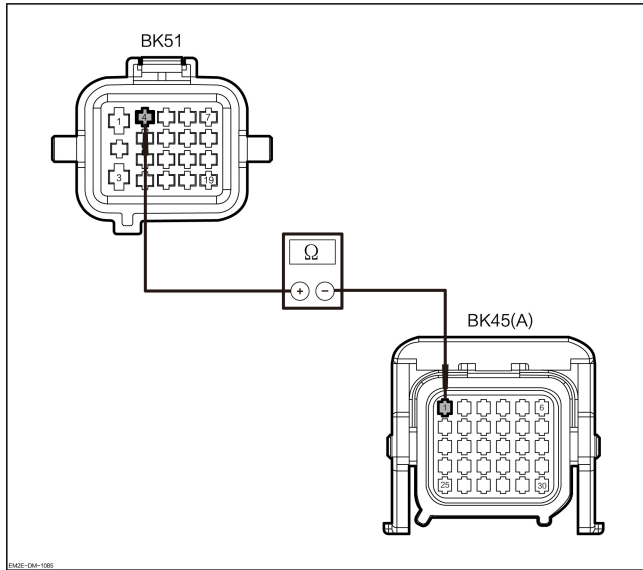
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BK51-4 | Ground | Through-out | 11~14V |
| BK51-5 | | | |
| BK51-6 | | | |

6. Check whether the results are normal.

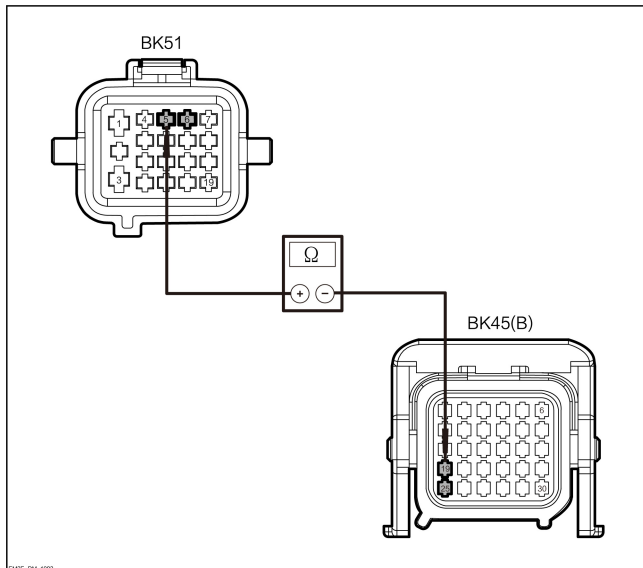
Yes → [Go to step 7](#)

No

6 Check whether the power supply line of power battery pack is open-circuited.



1. Disconnect the harness connectors BK45 (A) and BK45 (B) of the integrated intelligent control module.
2. Measure the resistance between the harness connector of power battery pack BK51-4 and the harness connector of integrated intelligent front drive control module BK45(A)-1.
3. Measure the resistance between the harness connector of power battery pack BK51-5 and the harness connector of integrated intelligent front drive control module BK45(B)-19.
4. Measure the resistance between the harness connector of power battery pack BK51-6 and the harness connector of integrated intelligent front drive control module BK45(B)-25.

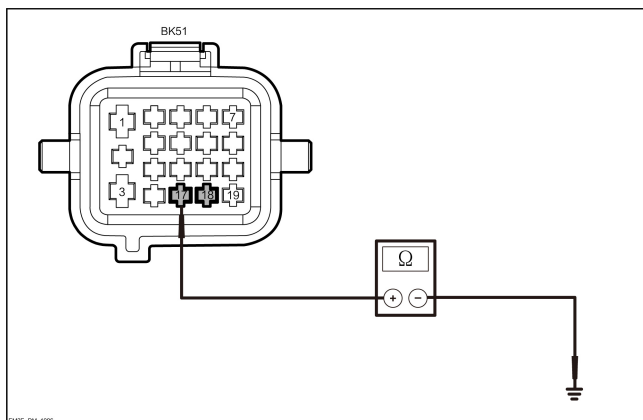


| Connector | | Condition | Resist- ance value |
|-----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| BK51-4 | BK45(A)-1 | Through- out | Lower than 1 Ω |
| BK51-5 | BK45(B)-19 | | |
| BK51-6 | BK45(B)-25 | | |

5. Check whether the results are normal.

- No → Repair or replace the wire harness
- Yes → Replace the smart integrated front drive control unit.

7 Check whether the power battery pack ground line is open.



1. Measure the resistance between the harness connector of power battery pack BK51-17 and the ground.
2. Measure the resistance between the harness connector of power battery pack BK51-18 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK51-17 | Ground | Through- out | Lower than 1 Ω |

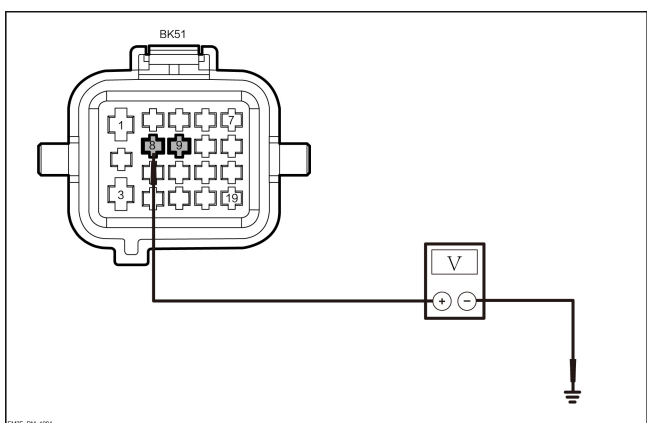
| | | | |
|---------|--|--|--|
| BK51-18 | | | |
|---------|--|--|--|

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Inspect the CAN line of the power battery pack.



1. Connect the integrated intelligent front drive control module harness connectors BK45 (A) and BK45 (B).
2. Set the START/STOP button to “ON” .
3. Measure the voltage value between the harness pack connector BK51-8 of power battery and the grounding.
4. Measure the voltage value between the harness pack connector BK51-9 of power battery and the grounding.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BK51-8 | Ground | Through-out | 2.5~3.5V |
| BK51-9 | | | 1.5~2.5V |

5. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes

9 Replace the smart integrated front drive control unit.

1. Replace the integrated intelligent front drive control module, and recover the car.
2. Set the START/STOP button to ON.
3. Read the DTC of battery execution and sampling unit with VDS.
4. Clear DTCs.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → The system is normal.

Yes

Replace the power battery pack.

P1AF800 Non-update Battery Data

DTC Description

| P1AF800 Non-update Battery Data | |
|---------------------------------|---|
| Symptom | When “power battery fault” and “power system fault” displayed on the instrument, charging and discharging are prohibited. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Maximum/minimum voltage and battery number remain unchanged for a long time. |
| Trigger fault conditions | When the vehicle is powered on with non-update fault of battery data, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the data flow of the battery execution and sampling unit. |
|---|---|

1. Use the VDS to read the "maximum cell voltage" of the data flow of the battery execution and sampling unit.
2. Does the battery data change after driving for 15 min?

Yes

The system is normal.

No

Replace the power battery pack.

P2B7516 Power Battery Pack Undervoltage

DTC Description

| P2B7516 Power Battery Pack Undervoltage | |
|---|---|
| Symptom | The instrument displays "Powertrain Fault". "Power Battery Fault Warning Light" goes on. Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | The total voltage of battery pack is less than the specified threshold. |
| Trigger fault conditions | In the vehicle powered on state, if the total voltage of battery pack is lower than the specified threshold, this DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the voltage data of the power battery pack after charging. |
|---|--|

1. Use the slow charging at room temperature for one hour.
2. Use the VDS to read the battery execution and sample unit data flow.
3. Check whether the difference between minimum voltage of single section is greater than 2.00 V.

No

The system is normal.

Yes

Replace the power battery pack.

P1AE400 High Voltage Process Ended Due to Abnormal Low-voltage Supply

DTC Description

| P1AE400 High Voltage Process Ended Due to Abnormal Low-voltage Supply | |
|---|---|
| Symptom | Do Not Charge. |
| Possible Cause | 1. Smart integrated front drive control unit fault. 2. Power battery packet fault. |
| Fault setting conditions | DC fault |
| Trigger fault conditions | The vehicle is powered on, and only in the flow of AC charging, DC charging, AC VTOL discharge, AC VTOV discharge, DC VTOV discharge. |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the DTC of DC-DC assembly. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Set the start/stop button to ON position again.
6. Read the DTC of DC -DC assembly.
7. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Enter “DC-DC Assembly” diagnosis.

P2B7C00 Shunt Temperature Seriously High

DTC Description

| P2B7C00 Shunt Temperature Seriously High | |
|--|---|
| Symptom | Instrument "EV function limited" alarm, discharge and charging limit power. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | The temperature of the diverter exceeds specified threshold. |
| Trigger fault conditions | When the vehicle is powered on, the battery execution and sampling unit have no power supply fault or chip abnormal operation fault that affects the temperature sampling, and no communication fault or fault that affects the temperature sampling. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the DTC of the power battery pack after cooling. |
|---|--|

1. Place the vehicle at room temperature for 12 hours.
2. Set the START/STOP button to ON.
3. Read the battery execution and sampling unit DTC.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Place the start/stop button in ON position again, and read the DTC.
7. Check whether the same DTC is displayed.

No

The system is normal.

Yes

Replace the power battery pack.

P2B7900 Battery Pack Charging Overcurrent

DTC Description

| P2B7900 Battery Pack Charging Overcurrent | |
|---|---|
| Symptom | Do Not Charge. |
| Possible Cause | <ol style="list-style-type: none"> 1. DC charging pile fault. 2. Smart integrated front drive control unit fault. 3. Power battery packet fault. |
| Fault setting conditions | The actual charging current exceeds the specified threshold. |
| Trigger fault conditions | In the DC charging state, when the actual charging current exceeds the specified threshold value, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to read the power body control module DTC.
4. Check whether DTC exists.

Yes

Enter “power body control module ” diagnosis.

No

| | |
|---|---|
| 2 | Replace the DC charging pile for charging test. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Clear the DTC of the battery execution and the sampling unit.
3. Replace the DC charging pile for charging test.
4. Check whether DTC exists.

No

Diagnosis completes, and the result indicates DC charging pipe fault.

Yes

Replace the power battery pack.

P1AF200 Voltage Output at DC Charger Abnormal

DTC Description

| P1AF200 Voltage Output at DC Charger Abnormal | |
|---|---|
| Symptom | Do Not Charge. |
| Possible Cause | <ol style="list-style-type: none"> 1. DC charging pile fault. 2. Smart integrated front drive control unit fault. 3. Power battery packet fault. |
| Fault setting conditions | It is received that the DC charging pile voltage output exceeds the specified threshold. |
| Trigger fault conditions | When DC charging is connected, and it is received that the DC charging pile voltage output exceeds the specified threshold, a DTC will be generated. |

Diagnostic Steps

| | |
|---|---|
| 1 | Replace the DC charging pile for charging test. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Clear the DTC of the battery execution and the sampling unit.
3. Replace the DC charging pile for charging test.
4. Check whether DTC exists.

No

Diagnosis completes, and the result indicates DC charging pipe fault.

Yes

| | |
|---|--|
| 2 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Read the power body control module DTC.
4. Check whether DTC exists.

Yes

Enter “dynamic body control module” diagnosis.

No

Replace the power battery pack.

P1AF300 DC Charging Cabinet Stops Charging Actively

DTC Description

| P1AF300 DC Charging Cabinet Stops Charging Actively | |
|---|---|
| Symptom | – |
| Possible Cause | 1. DC charging pile fault. 2. Smart integrated front drive control unit fault. 3. Power battery packet fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Replace the DC charging pile for charging test. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Clear the DTC of the battery execution and the sampling unit.
3. Replace the DC charging pile for charging test.
4. Check whether DTC exists.

No

Diagnosis completes, and the result indicates DC charging pipe fault.

Yes

| | |
|---|--|
| 2 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Read the power body control module DTC.
4. Check whether DTC exists.

Yes

Enter “dynamic body control module” diagnosis.

No

Replace the power battery pack.

P1AF400 Insufficient Capacity of DC Charging Cabinet

DTC Description

| P1AF400 Insufficient Capacity of DC Charging Cabinet | |
|--|---|
| Symptom | – |
| Possible Cause | 1. DC charging pile fault. 2. Smart integrated front drive control unit fault. 3. Power battery packet fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Replace the DC charging pile for charging test. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Clear the DTC of the battery execution and the sampling unit.
3. Replace the DC charging pile for charging test.
4. Check whether DTC exists.

No

Diagnosis completes, and the result indicates DC charging pipe fault.

Yes

| | |
|---|--|
| 2 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Read the power body control module DTC.
4. Check whether DTC exists.

Yes

Enter “dynamic body control module” diagnosis.

No

Replace the power battery pack.

P2B8A00 BIC Configuration Inconsistent with Module State

DTC Description

| P2B8A00 BIC Configuration Inconsistent with Module State | |
|--|---|
| Symptom | When the instrument "power battery fault warning light" is illuminated, discharging and charging are prohibited. |
| Possible Cause | 1. There is BMC software update error. 2. Power battery packet fault. |
| Fault setting conditions | BIC sampling quantity is inconsistent with BMC configuration. |
| Trigger fault conditions | When the manager enters the vehicle power on state from the sleep state, there shall be no cascade communication fault within the specified time. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the software version of battery execution and sampling module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Check whether the software version of battery execution and sampling module is correct.

No

Update to the correct software version.

Yes

| | |
|---|---|
| 2 | Check the DTC of the battery execution and sampling module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

The system is normal.

Yes

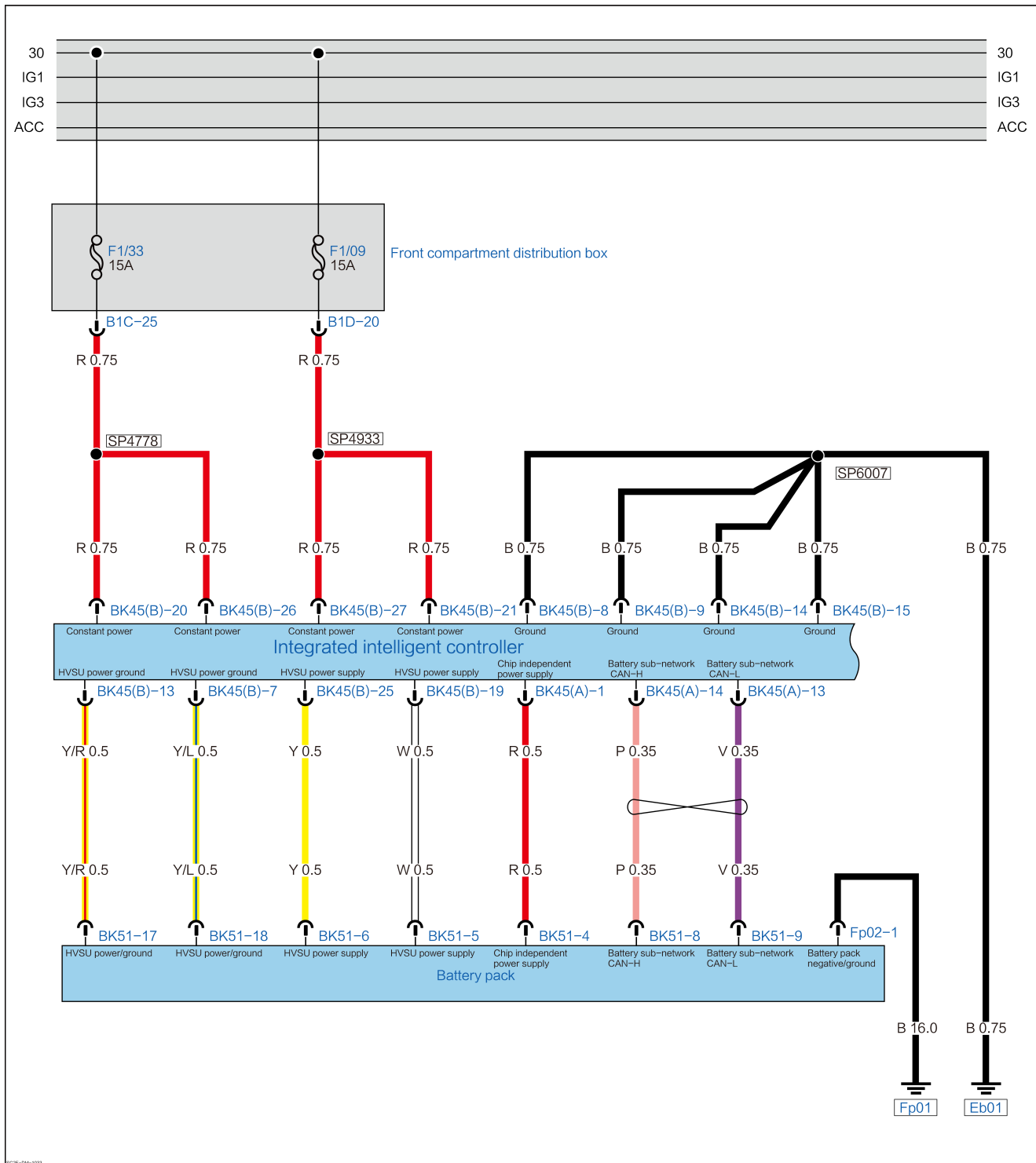
Replace the power battery pack.

U011000 Communication with Motor Control Unit Failed

DTC Description

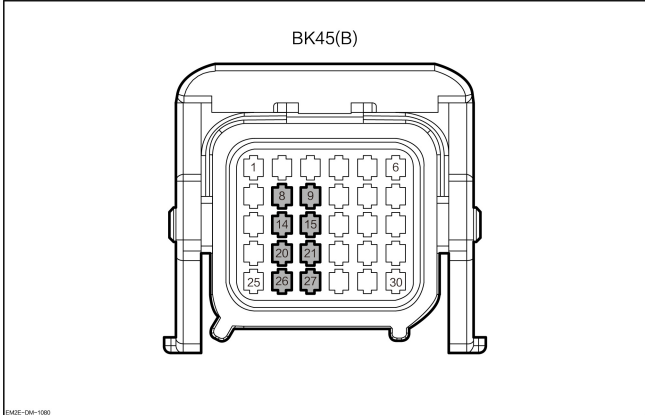
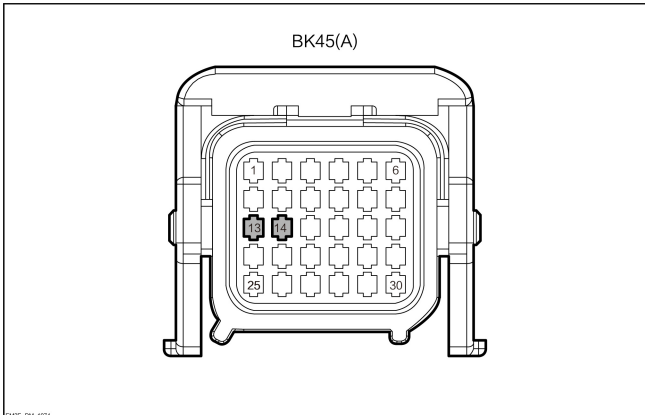
| U011000 Communication with Motor Control Unit Failed | |
|--|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Front drive motor control unit fault. 3. Power battery packet fault. |
| Fault setting conditions | Communication loss with front drive motor control unit (FMCU). |
| Trigger fault conditions | During the vehicle powered on process, if the communication between battery execution and sampling unit and motor control module fails, this DTC is generated. |

Circuit Diagram



SCHE-DM-1003

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------------|
| <p>Smart integrated front drive control unit</p>  <p style="text-align: center;">BK45(B)</p> | BK45(B)-8 | Ground |
| | BK45(B)-9 | Ground |
| | BK45(B)-14 | Ground |
| | BK45(B)-15 | Ground |
| | BK45(B)-20 | Constant power |
| | BK45(B)-21 | Constant power |
| | BK45(B)-26 | Constant power |
| | BK45(B)-27 | Constant power |
| <p>Smart integrated front drive control unit</p>  <p style="text-align: center;">BK45(A)</p> | BK45(B)-13 | Battery sub-network CAN-L |
| | BK45(B)-14 | Battery sub-network CAN-H |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check if the front drive motor control module passes the network detection?

Yes

Go to step 7

No

| | |
|---|---|
| 2 | Check the harness connector of the integrated intelligent front drive control module. |
|---|---|

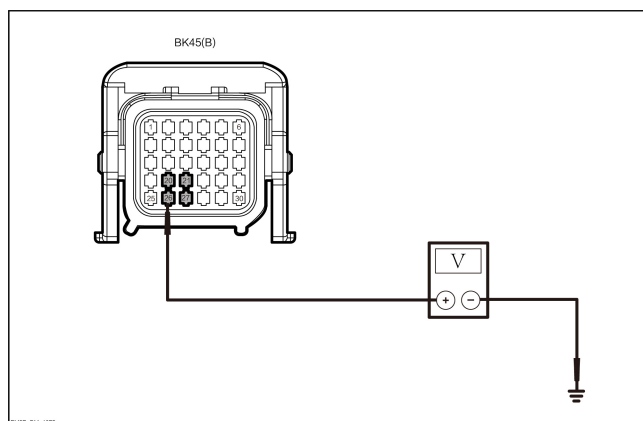
1. Set the START/STOP button to “OFF” .
2. Disconnect the integrated intelligent front drive control module harness connector BK45 (A).
3. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
4. Check whether the integrated intelligent front drive control module connector is normal or not.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the constant power of the integrated intelligent front drive control module. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the harness connector BK45 (B)–20 of integrated intelligent front drive control module and the grounding.
3. Measure the voltage value between the harness connector BK45 (B)–26 of integrated intelligent front drive control module and the grounding.
4. Measure the voltage value between the harness connector BK45 (B)–27 of integrated intelligent front drive control module and the grounding.
5. Measure the voltage value between the harness connector BK45 (B)–21 of integrated intelligent front drive control module and the grounding.

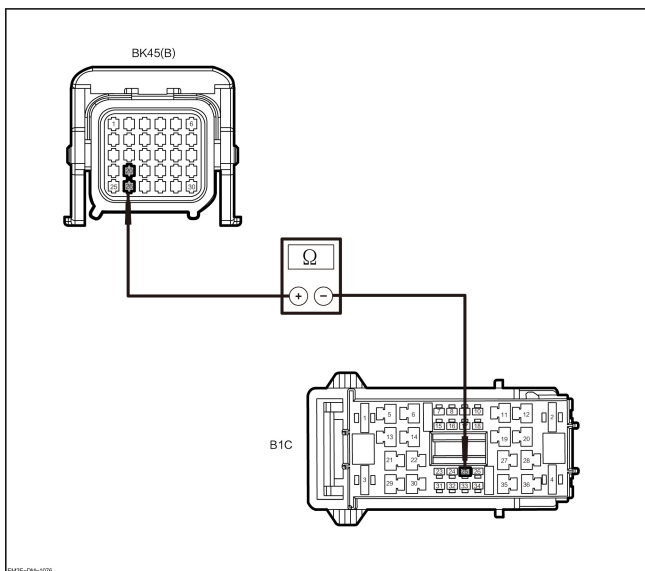
| Connector | | Condition | Voltage value |
|------------|--------|-------------|---------------|
| (+) | (-) | | |
| BK45(B)-20 | Ground | Through-out | 11~14V |
| BK45(B)-26 | | | |
| BK45(B)-27 | | | |
| BK45(B)-21 | | | |

6. Check whether the results are normal.

Yes Go to step 5

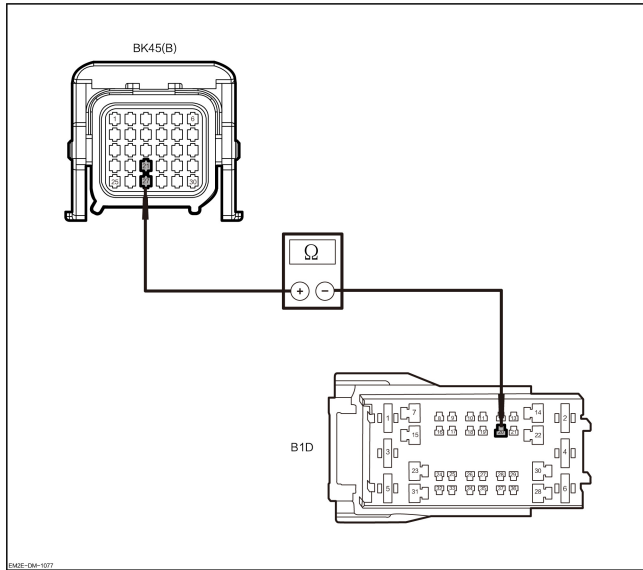
No

4 Check whether the power supply of the integrated intelligent front drive control module is open-circuited.



1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connectors B1 C and B1 D of front compartment fuse box.
3. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-20 and B1C-25.
4. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-26 and B1C-25.
5. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-27 and B1D-20.
6. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-21 and B1D-20.

| Connector | | Condition | Voltage value |
|------------|--------|-------------|---------------|
| (+) | (-) | | |
| BK45(B)-20 | B1C-25 | Through-out | Lower than 1Ω |

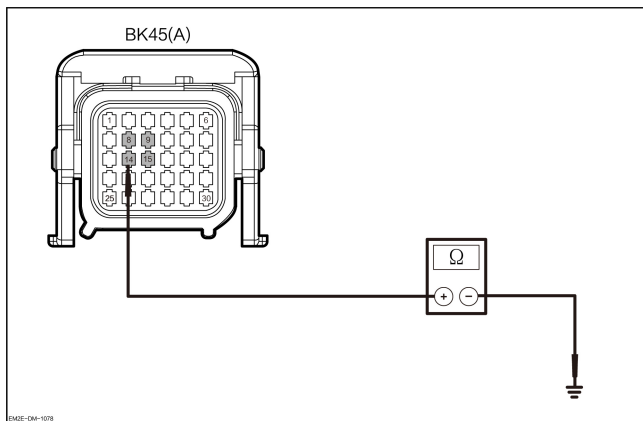


| | | | |
|------------|--------|--|--|
| BK45(B)-26 | | | |
| BK45(B)-27 | B1D-20 | | |
| BK45(B)-21 | | | |

7. Check whether the results are normal.

| | |
|-----|---|
| No | Repair or replace the wire harness |
| Yes | Replace the front compartment fuse box. |

5 Check the ground line of the integrated intelligent front drive control module.



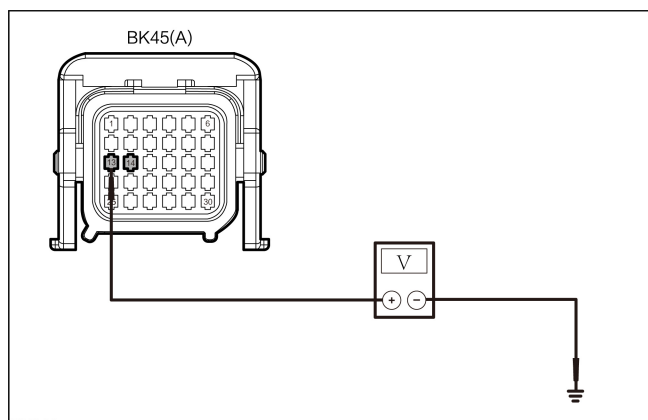
1. Check the resistance value between BK45(B)-8 and ground.
2. Check the resistance value between BK45(B)-9 and ground.
3. Check the resistance value between BK45(B)-14 and ground.
4. Check the resistance value between BK45(B)-15 and ground.
5. Check whether the results are normal.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-8 | Ground | Through- out | Lower than 1Ω |
| BK45(B)-9 | | | |
| BK45(B)-14 | | | |
| BK45(B)-15 | | | |

| | |
|----|------------------------------------|
| No | Repair or replace the wire harness |
|----|------------------------------------|

Yes

6 Check the CAN line of the integrated intelligent front drive control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the integrated intelligent front drive control module harness connector BK45 (A)–13 and the ground.
3. Measure the voltage value between the integrated intelligent front drive control module harness connector BK45 (A)–14 and the ground.

| Connector | | Condition | Voltage value |
|------------|--------|-------------|---------------|
| (+) | (-) | | |
| BK45(A)–13 | Ground | Through-out | 1.5~2.5V |
| BK45(A)–14 | Ground | Through-out | 2.5~3.5V |

4. Check whether the results are normal.

| | |
|-----|--|
| No | Enter the “CAN diagnosis” |
| Yes | Replace the smart integrated front drive control unit. |

| | |
|---|--|
| 7 | Check the DTC of front drive motor control unit. |
|---|--|

1. Read the DTC of front drive motor control module with VDS.
2. Check whether other DTC exists.

| | |
|-----|--|
| Yes | Enter “front drive motor control module diagnosis” . |
|-----|--|

No

| | |
|---|--|
| 8 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Read the DTC of battery execution and sampling unit with VDS.
2. Check whether other DTC exists.

| | |
|-----|---|
| Yes | Enter “battery execution and sampling unit diagnosis” . |
|-----|---|

No

| | |
|---|---------------------------------|
| 9 | Check the DTC of other modules. |
|---|---------------------------------|

1. Whether the “communication with motor control module lost” DTC is read in other modules?

Yes

Replace the smart integrated front drive control unit.

No

Replace the power battery pack.

P2B7B00 Shunt Temperature Generally High

DTC Description

| P2B7B00 Shunt Temperature Generally High | |
|--|---|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | The temperature of the diverter is within the specified threshold range. |
| Trigger fault conditions | When the vehicle is powered on, the battery execution and sampling unit have no power supply fault or chip abnormal operation fault that affects the temperature sampling, and no communication fault or fault that affects the temperature sampling. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the DTC of the power battery pack after cooling. |
|---|--|

1. Place the vehicle at room temperature for 12 hours.
2. Set the START/STOP button to ON.
3. Read the battery execution and sampling unit DTC.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Place the start/stop button in ON position again and read the battery execution and sampling unit DTC.
7. Check whether the same DTC is displayed.

No

The system is normal.

Yes

Replace the power battery pack.

P2B7E00 Large Deviation at Current Sampling of Shunt

DTC Description

| P2B7E00 Large Deviation at Current Sampling of Shunt | |
|--|---|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | The main contactor is disconnected and the current detected is outside the specified threshold wake-up range. |
| Trigger fault conditions | When the vehicle is powered on, there is no fault of power supply or abnormal chip operation that affects current sampling and no communication fault in the battery execution and sampling unit. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the data flow of the battery execution and sampling unit. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Read the battery execution and sampling unit data flow in the power-off state.
3. Check whether the current total battery pack current exceeds $\pm 3A$.

No

The system is normal.

Yes

| | |
|---|--|
| 2 | Check the data flow of the power battery pack after slow charging. |
|---|--|

1. Perform a slow charging process and then exit.
2. Read the battery execution and sampling unit data flow in the power-off state.
3. Check whether the current total battery pack current exceeds $\pm 3A$.

No

The system is normal.

Yes

Replace the power battery pack.

P2B7D00 Temperature Sampling Fault of Shunt

DTC Description

| P2B7D00 Temperature Sampling Fault of Shunt | |
|---|---|
| Symptom | Instrument "EV function limited" alarm, discharge and charging limit power. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | The temperature of the diverter is outside the normal range. |
| Trigger fault conditions | When the vehicle is powered on, the battery execution and sampling unit have no power supply fault or chip abnormal operation fault that affects the temperature sampling, and no communication fault or fault that affects the temperature sampling. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the DTC of the power battery pack after cooling. |
|---|--|

1. Place the vehicle at room temperature for 12 hours.
2. Set the START/STOP button to ON.
3. Read the battery execution and sampling unit DTC.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Place the start/stop button in ON position again and read the battery execution and sampling unit DTC.
7. Check whether the same DTC is displayed.

No

The system is normal.

Yes

Replace the power battery pack.

P1A3522 Power Battery Cell Voltage Seriously High

DTC Description

| P1A3522 Power Battery Cell Voltage Seriously High | |
|---|---|
| Symptom | When “power battery fault” and “power system fault” displayed on the instrument, charging and discharging are prohibited. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | The maximum voltage of the battery cell exceeds the specified threshold. |
| Trigger fault conditions | The vehicle is powered on and presents valid voltage data. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the data flow of the battery execution and sampling unit. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Read the "maximum battery cell voltage" data flow of the battery execution and sampling unit.
4. Is the inspection result greater than 3.85 volts?

No

The system is normal.

Yes

| | |
|---|--|
| 2 | Let the vehicle stand before checking the data flow. |
|---|--|

1. Leave the vehicle at normal atmospheric temperature and ceases to be charged for one hour.
2. Connect the VDS to the diagnostic interface.
3. Read the "maximum battery cell voltage" data flow of the battery execution and sampling unit.
4. Is the inspection result greater than 3.85 volts?

No

The system is normal.

Yes

Replace the power battery pack.

P1A3622 Power battery's single-cell voltage high

DTC Description

| P1A3622 Power Battery Cell Voltage Generally High | |
|---|--|
| Symptom | Vehicle power is limited, prohibit charging. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | The maximum voltage of the battery cell exceeds the specified threshold. |
| Trigger fault conditions | The vehicle is powered on and presents valid voltage data. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the data flow of the battery execution and sampling unit. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Read the "maximum battery cell voltage" data flow of the battery execution and sampling unit.
4. Is the inspection result greater than 3.8 volts?

No

The system is normal.

Yes

| | |
|---|--|
| 2 | Let the vehicle stand before checking the data flow. |
|---|--|

1. Leave the vehicle at normal atmospheric temperature and ceases to be charged for one hour.
2. Read the "maximum battery cell voltage" data flow of the battery execution and sampling unit.
3. Is the inspection result greater than 3.8 volts?

No

The system is normal.

Yes

Replace the power battery pack.

P1A3721 Power Battery Cell Voltage Seriously Low

DTC Description

| P1A3721 Power Battery Cell Voltage Seriously Low | |
|--|--|
| Symptom | Discharge is forbidden |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | The minimum voltage of the battery cell is lower than the specified threshold. |
| Trigger fault conditions | The vehicle is powered on and presents valid voltage data. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the data flow of the battery execution and sampling unit. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Read the "minimum single battery voltage" data flow from battery execution and sampling unit.
4. Is the result less than 2.00 V?

No

The system is normal.

Yes

| | |
|---|---|
| 2 | Check the data flow after charging the vehicle. |
|---|---|

1. Stop the discharge and after using the slow charging at room temperature for one hour.
2. Read the "minimum single battery voltage" data flow from battery execution and sampling unit.
3. Is the result less than 2.00 V?

No

The system is normal.

Yes

Replace the power battery pack.

P1A3922 Power Battery Cell Temperature Seriously High

DTC Description

| P1A3922 Power Battery Cell Temperature Seriously High | |
|---|--|
| Symptom | When “extra high battery pack temperature alarm” or “power system fault” is displayed on the instrument, charging and discharging are not allowed. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | The maximum temperature of the battery cell exceeds the specified threshold. |
| Trigger fault conditions | The vehicle is powered on and has valid temperature data. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the data flow of the battery execution and sampling unit. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Read the "maximum temperature" data flow of the battery execution and sampling unit.
4. Is the inspection result greater than 65° C?

No

The system is normal.

Yes

| | |
|---|--|
| 2 | Let the vehicle stand before checking the data flow. |
|---|--|

1. Stop charging and discharging, and place the vehicle at room temperature for 12 hours.
2. Read the "maximum temperature" data flow of the battery execution and sampling unit.
3. Is the inspection result greater than 65° C?

No

The system is normal.

Yes

Replace the power battery pack.

P1A3B21 Power battery's single-cell temperature seriously low

DTC Description

| P1A3B21 Power Battery Cell Temperature Seriously Low | |
|--|--|
| Symptom | The instrument displays "Severe Low Temperature Alarm", and charging and discharging are prohibited. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | The minimum temperature of the battery cell is lower than the specified threshold. |
| Trigger fault conditions | The vehicle is powered up and there is valid temperature data. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the data flow of the battery execution and sampling unit. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Read the "minimum temperature" data flow of the battery execution and sampling unit.
4. Is the inspection result lower than -30°C ?

No

The system is normal.

Yes

| | |
|---|--|
| 2 | Let the vehicle stand before checking the data flow. |
|---|--|

1. Stop charging and discharging, and place the vehicle at room temperature for 12 hours.
2. Read the "minimum temperature" data flow of the battery execution and sampling unit.
3. Is the inspection result lower than -30°C ?

No

The system is normal.

Yes

Replace the power battery pack.

P1A3E00 Main Contactor Loop Check Fault

DTC Description

| P1A3E00 Main Contactor Loop Check Fault | |
|---|--|
| Symptom | The instrument displays "EV function is limited", and charging and discharging are prohibited. |
| Possible Cause | Control end of the main contactor fault. |
| Fault setting conditions | The control end state of main contactor is inconsistent with the theoretical state. |
| Trigger fault conditions | The DTC will be generated when the state of the main contactor changes from closed to open. |

Diagnostic Steps

| | |
|---|------------------------------|
| 1 | Inspection of vehicle status |
|---|------------------------------|

1. Check whether the vehicle can enter the ON position.

No

Replace the power battery pack.

Yes

| | |
|---|--|
| 2 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Repeat the above steps for 3 times.
7. Check whether the same DTC is displayed.

No

The system is normal.

Yes

Replace the power battery pack.

P1A3F00 Pre-charging Contactor Loop Check Fault

DTC Description

| P1A3F00 Pre-charging Contactor Loop Check Fault | |
|---|---|
| Symptom | The instrument displays "EV function is limited", and charging and discharging are prohibited. |
| Possible Cause | Abnormal pre-charging contactor control end. |
| Fault setting conditions | The control end state of precharge contactor is inconsistent with the theoretical state. |
| Trigger fault conditions | When the state of the precharge contactor changes from closed to disconnected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|------------------------------|
| 1 | Inspection of vehicle status |
|---|------------------------------|

1. Check whether the vehicle can enter the ON position.

No

Replace the power battery pack.

Yes

| | |
|---|--|
| 2 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Repeat the above steps for 3 times.
7. Check whether the same DTC is displayed.

No

The system is normal.

Yes

Replace the power battery pack.

P1A3D00 Negative Contactor Loop Check Fault

DTC Description

| P1A3D00 Negative Contactor Loop Check Fault | |
|---|--|
| Symptom | – |
| Possible Cause | Abnormal cathode contactor control end. |
| Fault setting conditions | The control end state of negative contactor is inconsistent with the theoretical state. |
| Trigger fault conditions | When the state of the negative contactor changes from closed to disconnected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|------------------------------|
| 1 | Inspection of vehicle status |
|---|------------------------------|

1. Check whether the vehicle can enter the ON position.

No

Replace the power battery pack.

Yes

| | |
|---|--|
| 2 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Repeat the above steps for 3 times.
7. Check whether the same DTC is displayed.

No

The system is normal.

Yes

Replace the power battery pack.

P2B7400 Power Battery Overcharge

DTC Description

| P2B7400 Power Battery Overcharge | |
|----------------------------------|--|
| Symptom | The instrument displays "Powertrain Fault". "Power Battery Fault Warning Light" goes on. Never discharge or charge at this time. |
| Possible Cause | Power battery pack overcharge |
| Fault setting conditions | The maximum voltage of the battery cell exceeds the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on, the communication of all battery collectors is normal, the voltage sampling of all battery collectors is normal, and the maximum voltage of battery cell exceeds the specified threshold value, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

The system is normal.

Yes

Replace the power battery pack.

P2B7517 Power Battery Pack Overvoltage

DTC Description

| P2B7517 Power Battery Pack Overvoltage | |
|--|--|
| Symptom | When the instrument "power battery fault warning light" is illuminated, charging is prohibited. |
| Possible Cause | Power battery pack overcharge |
| Fault setting conditions | The total voltage of battery pack exceeds the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on, and all battery collectors communicate normally, all battery collectors voltage sampling works normally, and the total voltage of the battery pack exceeds the specified threshold value, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

The system is normal.

Yes

Replace the power battery pack.

P2B8000 HVSU_PACK+ Voltage Sampling Fault

DTC Description

| P2B8000 HVSU_PACK+ Voltage Sampling Fault | |
|---|--|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | The PACK voltage and the accumulated battery voltage exceed the specified threshold value. |
| Trigger fault conditions | The vehicle is in power on state, and there is no serious fault of voltage sampling disconnection, no abnormal operation of the battery collector, no power supply fault affecting voltage sampling and chip abnormal operation fault of the battery execution and sampling unit, and no communication fault. The PACK voltage and the accumulated battery voltage exceed the specified threshold, and a DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

The system is normal.

Yes

Replace the power battery pack.

P2B8100 HVSU_LINK+ Voltage Sampling Fault

DTC Description

| P2B8100 HVSU_LINK+ Voltage Sampling Fault | |
|---|---|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | Link voltage and accumulated battery voltage exceed the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on, there is no serious fault of voltage sampling disconnection, no abnormal operation of the battery collector, no power supply fault and chip abnormal operation fault affecting the voltage sampling of the battery execution and sampling unit, and no communication fault, but the total accumulated voltage of the link voltage and the battery exceeds the specified threshold, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

The system is normal.

Yes

Replace the power battery pack.

P2B8200 HVSU_LINK– Voltage Sampling Fault

DTC Description

| P2B8200 HVSU_LINK– Voltage Sampling Fault | |
|---|--|
| Symptom | – |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | After the negative contactor is engaged, the HVSU_LINK voltage is not within the specified threshold range. |
| Trigger fault conditions | When the vehicle is powered on, the battery execution and sampling unit has no power supply fault and chip abnormal operation fault affecting voltage sampling, and no communication fault, but the HVSU_LINK voltage is not within the specified threshold range after the negative contactor is closed, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

The system is normal.

Yes

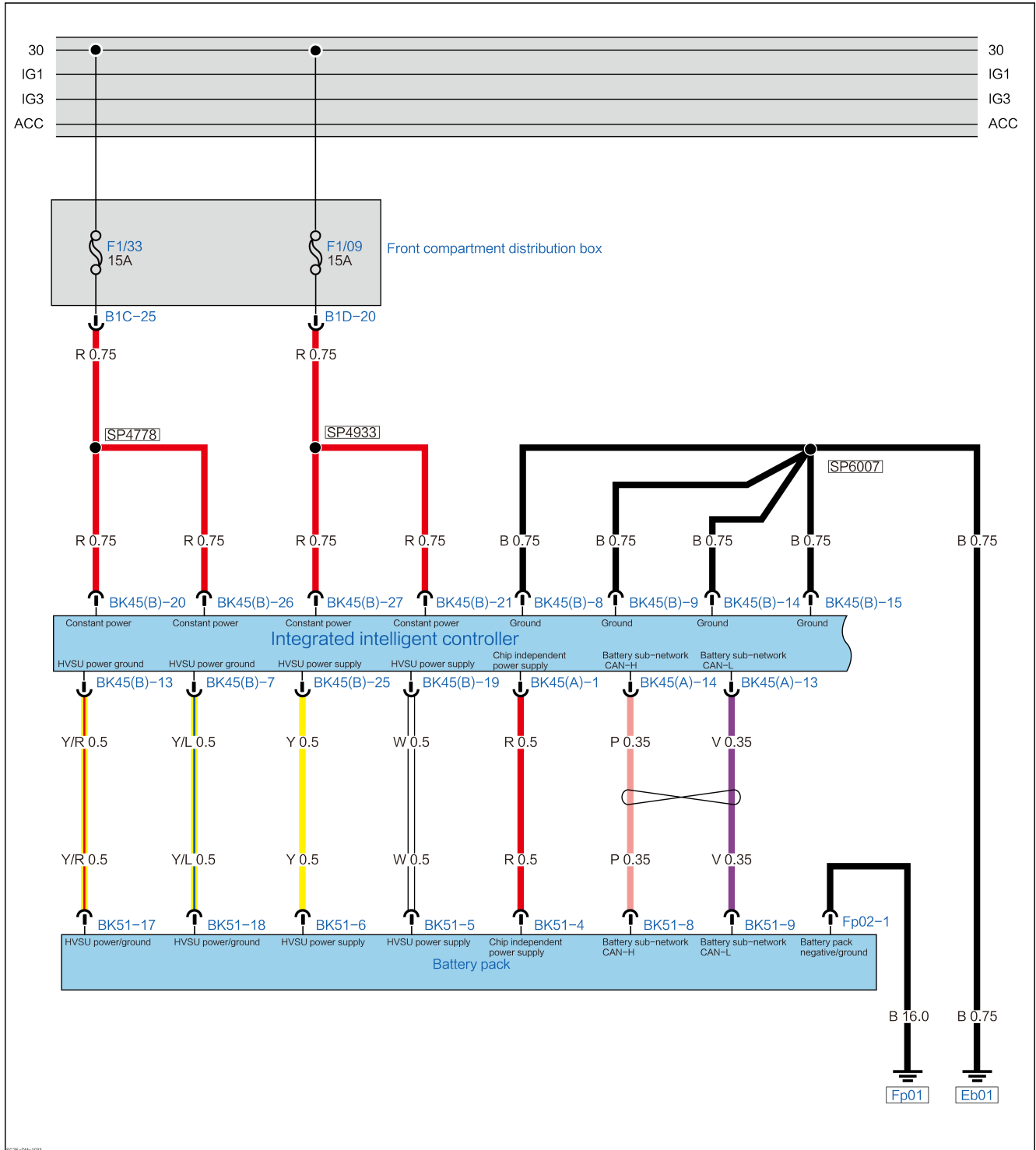
Replace the power battery pack.

P2B8A00 Power Supply of HVSU Abnormal

DTC Description

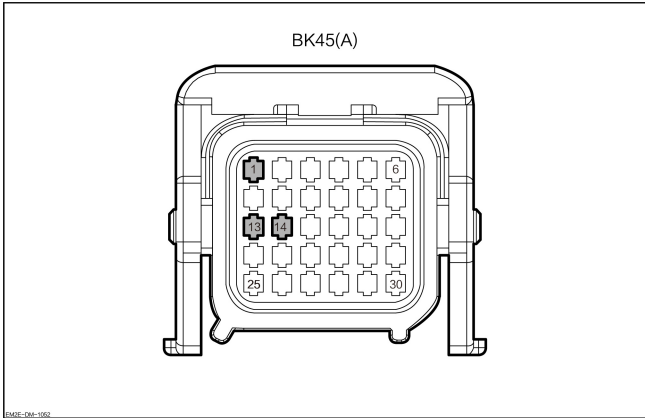
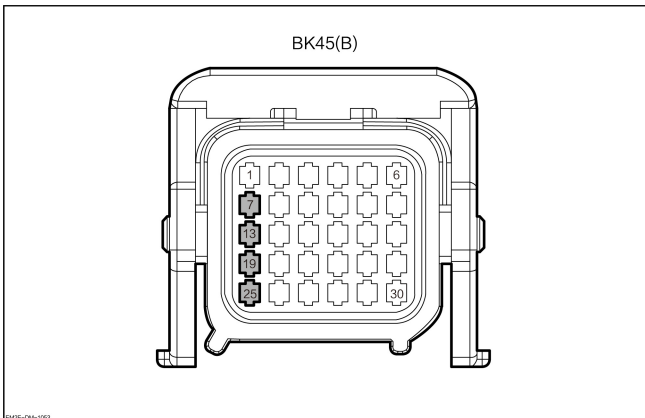
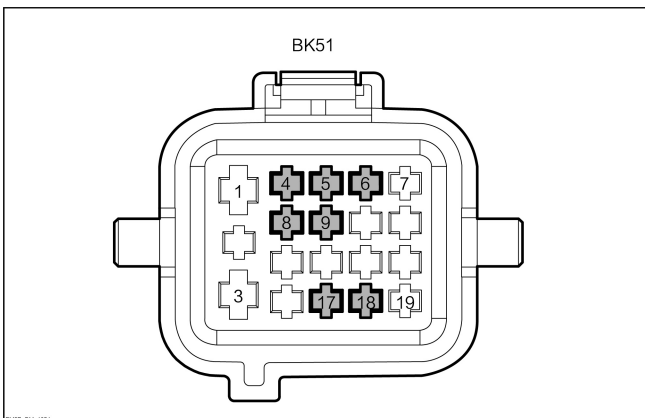
| P2B8A00 Power Supply of HVSU Abnormal | |
|---------------------------------------|---|
| Symptom | The instrument displays the alarm of "EV function limited", and the discharging and charging are prohibited. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Smart integrated front drive control unit fault. 3. Power battery packet fault. |
| Fault setting conditions | The high side drive voltage of 12 V is less than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on, and the high side drive 12V is lower than the specified threshold, a DTC will be generated. |

Circuit Diagram



SCHE-DM-1003

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|----------------------------------|
| <p>Smart integrated front drive control unit</p>  <p>BK45(A)</p> | 1 | Independent power supply of chip |
| | 13 | Battery sub-network (CAN)_H |
| | 14 | Battery sub-network (CAN)_L |
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 7 | HVSU GND |
| | 13 | HVSU GND |
| | 19 | HVSU power supply |
| | 25 | HVSU power supply |
| <p>Power battery pack</p>  <p>BK51</p> | 4 | Independent power supply of chip |
| | 5 | HVSU power supply |
| | 6 | HVSU power supply |
| | 8 | Battery sub-network (CAN)_H |
| | 9 | Battery sub-network (CAN)_L |
| | 17 | HVSU GND |
| 18 | HVSU GND | |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Inspection of the battery state |
|---|---------------------------------|

1. Set the START/STOP button to “OFF” .
2. Perform a battery condition test.
3. Does the status of the battery pass the test?

No

Replace the battery

Yes

| | |
|---|--|
| 3 | Check the harness connector of power battery pack. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector BK51 of power battery pack.
3. Check whether the harness connector of power battery pack is normal?

No

Repair or replace the wire harness

Yes

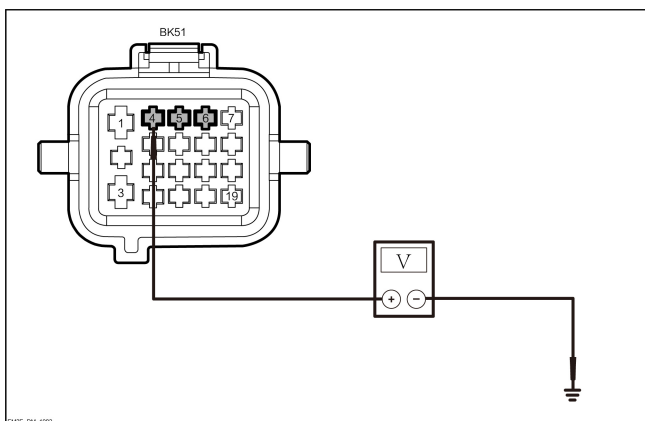
| | |
|---|---|
| 4 | Check the harness connector of the integrated intelligent front drive control module. |
|---|---|

1. Disconnect the integrated intelligent front drive control module harness connectors BK45(A) and BK45(B).
2. Check whether the integrated intelligent front drive control module harness connector is normal.

No → Repair or replace the wire harness

Yes

5 Check the power line of power battery pack.



1. Connect the integrated intelligent front drive control module harness connectors BK45 (A) and BK45 (B).
2. Set the start/stop button to ON.
3. Measure the voltage value between the harness pack connector BK51-4 of power battery and the grounding.
4. Measure the voltage value between the harness connector BK51-5 of power battery pack and the grounding.
5. Measure the voltage value between the harness connector BK51-6 of power battery pack and the grounding.

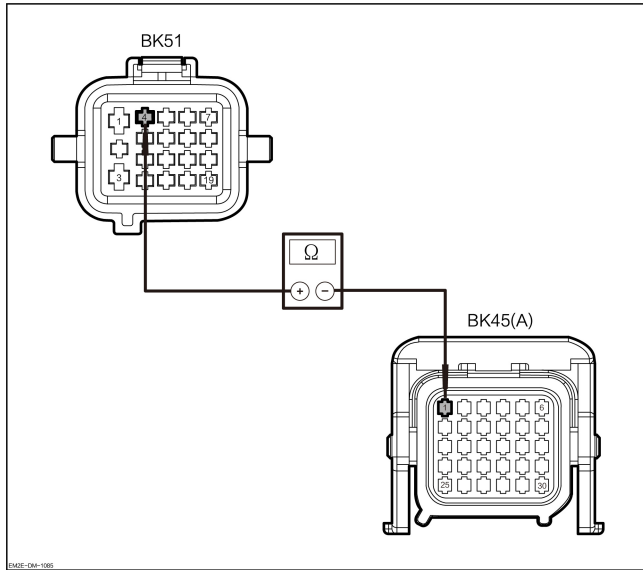
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BK51-4 | Ground | Through-out | 11~14V |
| BK51-5 | | | |
| BK51-6 | | | |

6. Check whether the results are normal.

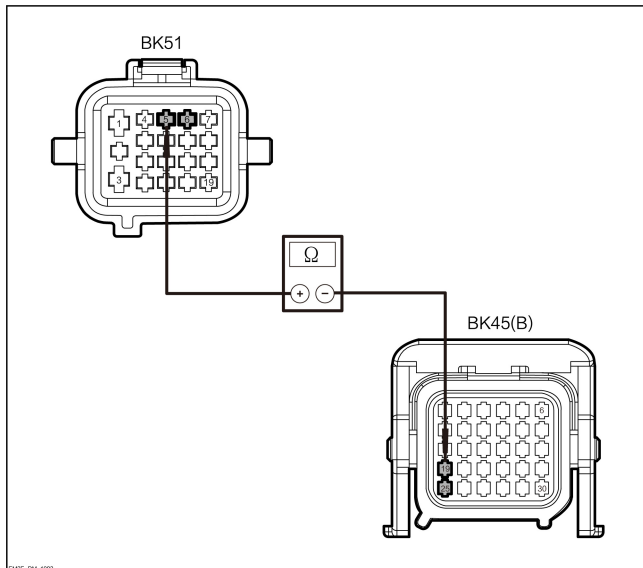
Yes → [Go to step 7](#)

No

6 Check whether the power supply line of power battery pack is open-circuited.



1. Disconnect the harness connectors BK45 (A) and BK45 (B) of the integrated intelligent control module.
2. Measure the resistance between the harness connector of power battery pack BK51-4 and the harness connector of integrated intelligent front drive control module BK45(A)-1.
3. Measure the resistance between the harness connector of power battery pack BK51-5 and the harness connector of integrated intelligent front drive control module BK45(B)-19.
4. Measure the resistance between the harness connector of power battery pack BK51-6 and the harness connector of integrated intelligent front drive control module BK45(B)-25.

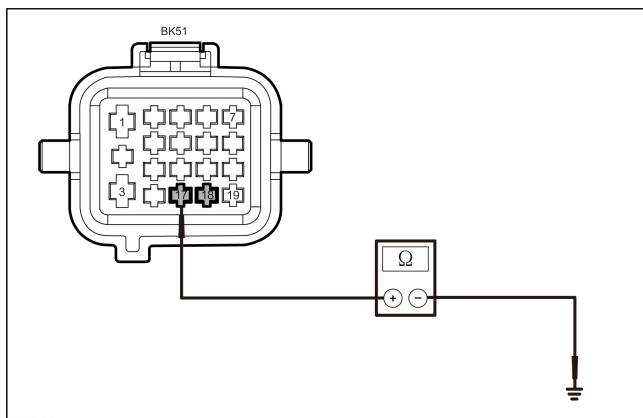


| Connector | | Condition | Resist- ance value |
|-----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| BK51-4 | BK45(A)-1 | Through- out | Lower than 1 Ω |
| BK51-5 | BK45(B)-19 | | |
| BK51-6 | BK45(B)-25 | | |

5. Check whether the results are normal.

- No → Repair or replace the wire harness
- Yes → Replace the smart integrated front drive control unit.

7 Check whether the power battery pack ground line is open.



1. Measure the resistance between the harness connector of power battery pack BK51-17 and the ground.
2. Measure the resistance between the harness connector of power battery pack BK51-18 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK51-17 | Ground | Through- out | Lower than 1 Ω |

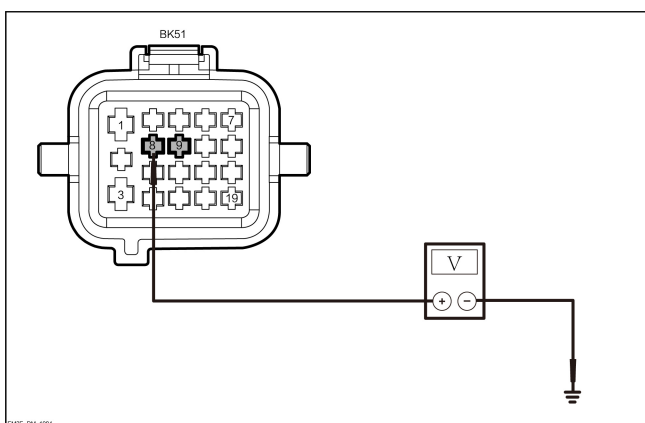
| | | | |
|---------|--|--|--|
| BK51-18 | | | |
|---------|--|--|--|

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Inspect the CAN line of the power battery pack.



1. Connect the integrated intelligent front drive control module harness connectors BK45 (A) and BK45 (B).
2. Set the START/STOP button to “ON” .
3. Measure the voltage value between the harness pack connector BK51-8 of power battery and the grounding.
4. Measure the voltage value between the harness pack connector BK51-9 of power battery and the grounding.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BK51-8 | Ground | Through-out | 2.5~3.5V |
| BK51-9 | | | 1.5~2.5V |

5. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes

9 Replace the smart integrated front drive control unit.

1. Replace the smart integrated front drive control unit.
2. Set the START/STOP button to ON.
3. Read the DTC of battery execution and sampling unit with VDS.
4. Clear DTCs.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → The system is normal.

Yes

Replace the power battery pack.

P2B9400 Power Battery Overdischarge

DTC Description

| P2B9400 Power Battery Overdischarge | |
|-------------------------------------|--|
| Symptom | The instrument displays "Powertrain Fault". "Power Battery Fault Warning Light" goes on. Never discharge or charge at this time. |
| Possible Cause | Power battery pack internal fault. |
| Fault setting conditions | The maximum voltage of the battery cell is lower than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on, the communication of all battery collectors is normal, the voltage sampling of all battery collectors is normal, but the maximum voltage of battery cell is lower than the specified threshold, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the power battery pack.

P2B9200 Abnormal battery temperature difference

DTC Description

| P2B8A00 Power Supply of HVSU Abnormal | |
|---------------------------------------|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Power battery pack internal fault. 2. There is an HVAC system failure. |
| Fault setting conditions | Temperature difference of battery exceeds specified threshold. |
| Trigger fault conditions | When the vehicle is powered on, the communication between the battery collector and temperature sampling is normal, and the battery temperature difference exceeds the threshold, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position and read the DTC.
3. Check whether DTC exists.

Yes

Enter “left body control module diagnosis” .

No

| | |
|---|---|
| 2 | Check the DTC after the vehicle is still. |
|---|---|

1. Stop charging/discharging.
2. Clear DTCs.
3. Place the vehicle at room temperature for 12 hours.
4. Read the battery execution and sampling unit DTC.
5. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the power battery pack.

High Voltage Electronic Control System

Diagnosis Description

Introduction

When diagnosing the fault of the integrated intelligent control module, in order to understand and get familiar with the working principle of each integrated system of the integrated intelligent control module, go to the description and operation overview. Before the diagnosis, confirm the symptom described by customers, and then analyze the cause of system fault, which can help determining the correct fault diagnosis procedure. Use the data flow function when inspecting and measuring integrated intelligent control module line and components to improve diagnostic efficiency and shorten maintenance time. After determining the fault, make sure to get familiar with all precautions and notices of the integrated intelligent control module system before carrying out the maintenance, and the standard operation procedures shall be followed. After the repair, check the system and ensure its working status.

General equipment

- VDS
- Multimeter
- Socket wrench kit
- Insulating tool kit
- Insulating Gloves
- Insulated shoe
- Power battery lifting platform
- Clamp flow meter

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Precautions

Danger:

- The bus voltage of the power battery is high. During the removal and installation of the high voltage components, the operators with low voltage electrician certificate must wear the high voltage insulating gloves. The metal objects on the human body shall not contact the vehicle body.
- Never touch the positive and negative terminals of the power battery at the same time.

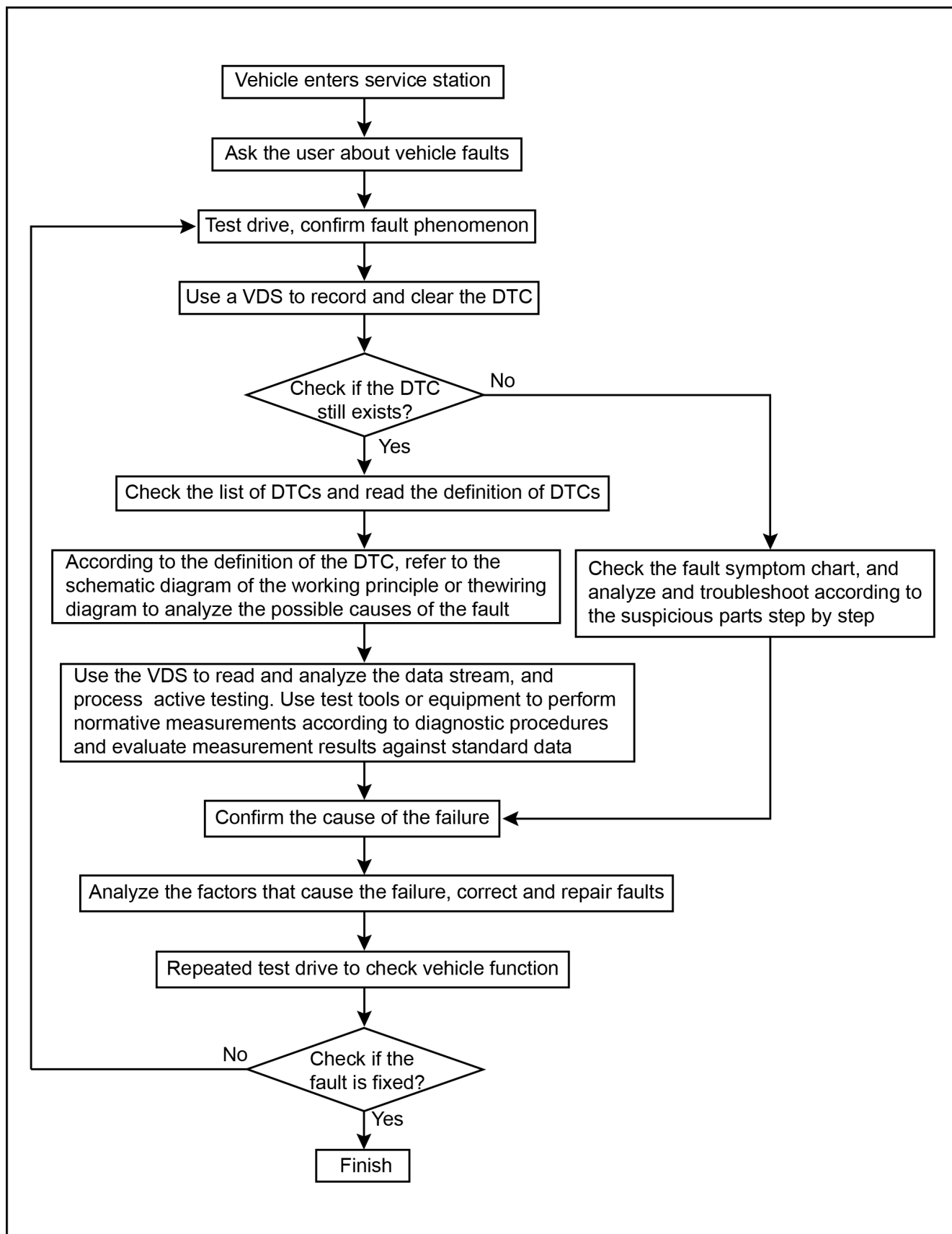
Warning:

- Before repairing or removing and installing the high voltage components, the high voltage power-off procedure must be carried out to confirm that the 12 V power supply and the high voltage power connector have been disconnected. And after the power-off, the vehicle should stand for more than 5 minutes.
- It is forbidden for maintenance technicians who have not participated in the training on the high voltage system knowledge for this model to dismantle the high voltage systems (including power battery, electric hybrid system, A/C compressor, DC fast charging socket, AC slow charging socket, high voltage distribution box and two-way on-board power supply, etc.).
- Before starting maintenance work, the maintenance technician must wear labor protection equipment, including insulating gloves and high voltage insulating shoes. Before wearing insulating gloves, it is necessary to check whether the insulating gloves are damaged and ensure that there is no insulation failure of the gloves.
- It is forbidden to remove, fall, collide or step on the power battery by force.
- Never puncture, extrude, place at high temperature, or bake the power battery.

Caution:

- The high voltage area must be de-energized in all maintenance operations involving the high voltage electrical appliances and high voltage harness.
- Never start the operation within 5min after the high voltage power supply is disconnected.
- Insulate and seal the removed and disconnected high voltage electrical appliances plug connector to avoid the ingress of sundries.
- During the removal, do not damage the parts with locking function.
- During the removal, properly protect the power battery.
- The harness connector should be kept dry. If coolant or fluid splashed into the high voltage harness or electrical appliances, it should be cleaned and dried with compressed air. And use a multimeter to measure the insulation resistance of the high voltage electrical apparatus or harness, and install it after it meets the standard.

Process of Fault Inspection and Troubleshooting



Diagnosis DTC of VCU

List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|---|--|
| P1D7902 | Collision alarm | P1D7902 Collision Alarm |
| B17A300 | SRS CAN Signal Abnormal | B17A300 SRS CAN Signal Abnormal |
| B17A400 | SRS Hardwire Signal Abnormal | B17A400 SRS Hardwire Signal Abnormal |
| P1D6D00 | DSP Reset Fault of VCU | P1D6D00 DSP Reset Fault of VCU |
| P268700 | Power Supply Relay Recheck Fault | P268700 Power Supply Relay Loop Check Fault |
| P1D8F00 | Stepless fan power supply overvoltage or undervoltage | P1D8F00 Stepless Fan Power Supply Overvoltage or Undervoltage |
| P1D8D00 | Stepless fan motor stalling, short-circuited and other faults | P1D8D00 Stepless Fan Motor Stalling, Short-circuited Etc |
| P1D8E00 | Stepless fan over temperature protection, electronic error and other faults | P1D8E00 Stepless Fan Overtemperature Protection, Electronic Error, Etc |
| U019780 | Communication failure with intelligent power brake control module | U019780 Communication with Intelligent Power Brake Control Module Failed |
| U012187 | Communication with ABS failed | U012187 Communication with ABS Failed |
| U029F87 | Communication with OBC failed | U029F87 Communication with OBC Failed |
| U016487 | Communication with Air Conditioner Failed | U016487 Communication with A/C Failed |
| U011187 | Communication with battery management system (BMS) failed | U011187 Communication with Battery Management System (BMS) Failed |
| U014087 | Communication with BCM failed | U014087 Communication with BCM Failed |
| U029887 | Communication with DC failed | U029887 Communication with DC Failed |
| U01A500 | Communication with front motor control unit (FMCU) failed | U01A500 Communication with Front Motor Control Unit (FMCU) Failed |
| P1D9216 | Total Voltage of Power Battery Seriously Low | P1D9216 Total Voltage of Power Battery Seriously Low |
| P1D9308 | Life frame of power battery abnormal | P1D9308 Life Frame of Power Battery Abnormal |
| P1D9200 | Total Voltage of Power Battery Too Low | P1D9200 Total Voltage of Power Battery Too Low |

| DTC: | Meaning | Diagnostic Process |
|---------|---|---|
| P1D9016 | Voltage of Power Battery Cell Too Low | P1D9016 Voltage of Power Battery Cell Too Low |
| P1D9100 | Total Voltage of Power Battery Too High | P1D9100 Total Voltage of Power Battery Too High |
| P1D9600 | Life frame of power battery abnormal – counter out of order | P1D9600 Life Frame of Power Battery Abnormal – Counter Out of Order |
| P1D9017 | Voltage of single power battery too high | P1D9017 Voltage of Power Battery Cell Too High |
| P1D9117 | Total Voltage of Power Battery Seriously High | P1D9117 Total Voltage of Power Battery Seriously High |
| P1D9700 | Life frame of power battery abnormal – check value abnormal | P1D9700 Life Frame of Power Battery Abnormal – Check Value Abnormal |
| P268D00 | Connection Signal of AC Charging Gun Inconsistent | P268D00 Connection Signal of AC Charging Gun Inconsistent |
| P268973 | DC Charging Negative Contactor Sintering | P268973 DC Charging Cathode Contactor Sintering |
| P268B00 | DC Charging Negative Contactor Recheck Fault | P268B00 DC Charging Cathode Contactor Loop Check Fault |
| P268C00 | Voltage of DC Charging Port Abnormal | P268C00 Voltage of DC Charging Port Abnormal |
| P268A00 | DC Charging Positive Contactor Recheck Fault | P268A00 DC Charging Anode Contactor Loop Check Fault |
| P268873 | DC Charging Positive Contactor Sintering | P268873 DC Charging Anode Contactor Sintering |
| U014B87 | Communication with DC Charging Cabinet Failed | U014B87 Communication with DC Charging Cabinet Failed |
| P26834B | Temperature rise of charging port general high | P26834B Temperature Rise of Charging Port Generally High |
| P26804B | Temperature of Charging Port 1 General High | P26804B Temperature of Charging Port 1 Generally High |
| P26814B | Temperature of Charging Port 2 General High | P26814B Temperature of Charging Port 2 Generally High |
| P26844B | Temperature Rise of Charging Port Serious High | P26844B Temperature Rise of Charging Port Seriously High |
| P26824B | Temperature of Charging Port 3 Severely High | P26824B Temperature Rise of Charging Port 3 Seriously High |

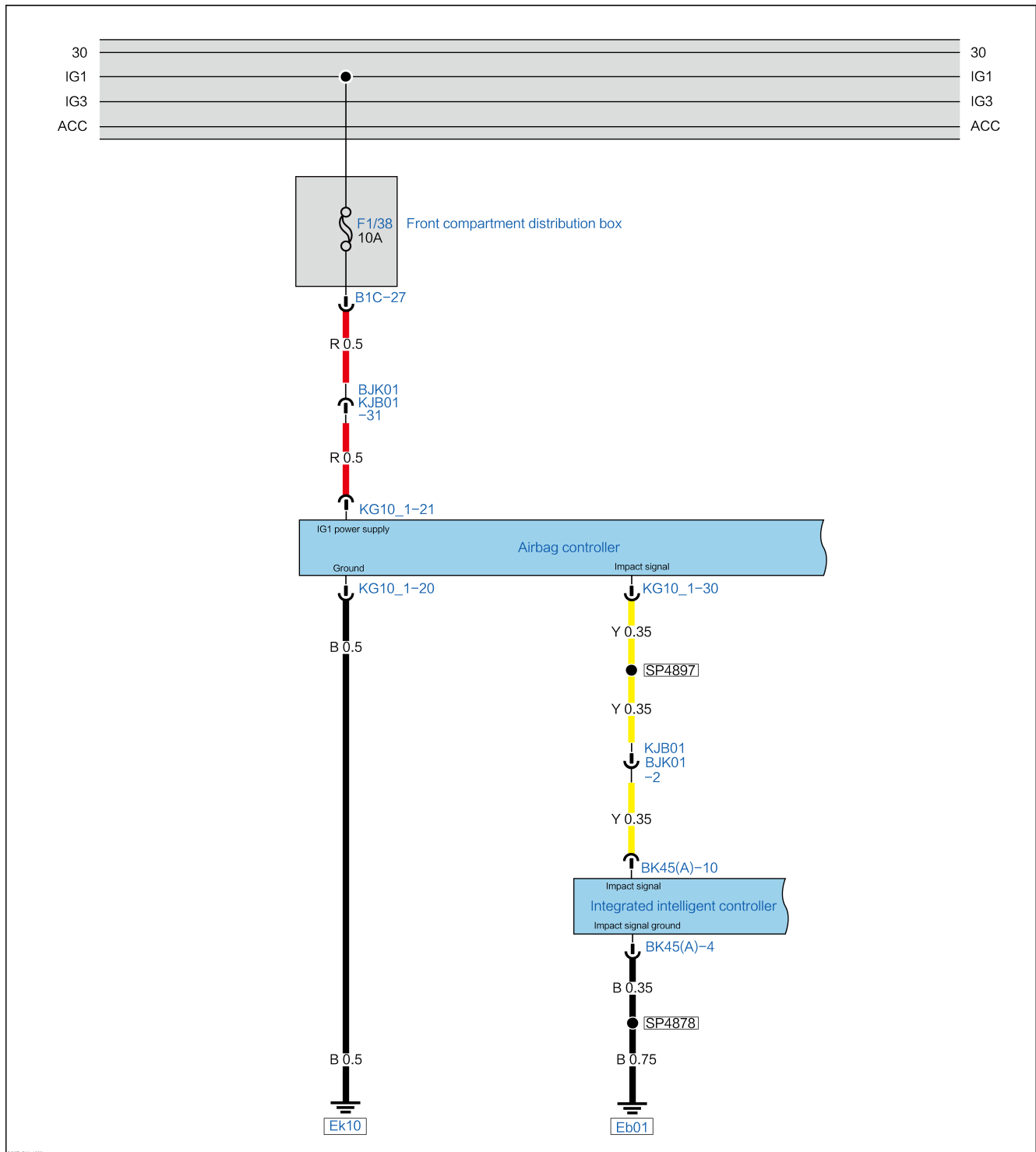
| DTC: | Meaning | Diagnostic Process |
|---------|---|---|
| P1D9516 | Supply voltage of LV too low | P1D9516 Supply Voltage at Low Voltage Side Too Low |
| P1D9400 | Low-voltage output line broken | P1D9400 Low Voltage Output Line Broken |
| B116212 | Water temperature sensor short-circuited | B116212 Water Temperature Sensor Short-circuited |
| B116214 | Water temperature sensor open-circuited | B116214 Water Temperature Sensor Open-circuited |
| P1D9B00 | Water temperature sensor fault | P1D9B00 Water Temperature Sensor Fault |
| P1D9C00 | Water Temperature Overtemperature | P1D9C00 Water Temperature Overtemperature |
| P1BA000 | Cruise configuration unwritten in | P1BA000 Cruise Configuration Unwritten In |
| P1D6200 | Cruise switch signal fault | P1D6200 Cruise Switch Signal Fault |
| P1D7B00 | Throttle Signal Fault-1 Signal Fault | P1D7B00 Throttle Signal Fault- 1 Signal Fault |
| P1D7C00 | Throttle Signal Fault-2 Signal Fault | P1D7C00 Throttle Signal Fault- 2 Signal Fault |
| P1D6600 | Throttle Signal Fault – Calibration Fault | P1D6600 Accelerator Signal Fault- Check Fault |
| P268E00 | Voltage output of DC charger abnormal | P268E00 Voltage Output at DC Charger Abnormal |
| P1D6144 | EEPROM Error at VCU | P1D6144 EEPROM Error at VCU |
| P1D8400 | Water temperature fault (OBC) | P1D8400 Water Temperature Fault(OBC) |
| P1B1F00 | Fail to Anti-theft Authentication | P1B1F00 Fail to Anti-theft Authentication |
| U024C87 | Communication with I-KEY failed | U024C87 Communication with I-KEY Failed |
| U014E87 | Communication with security gateway module failed | U014E87 Communication with Security Gateway Module Failed |
| P268600 | High-voltage interlock fault | P268600 High-voltage Interlock Fault |
| P1D8300 | Vehicle power limited | P1D8300 Limited Power of Vehicle |
| U029187 | Communication with gear control module failed | U029187 Communication with Gear Control Module Failed |

P1D7902 Collision Alarm

DTC Description

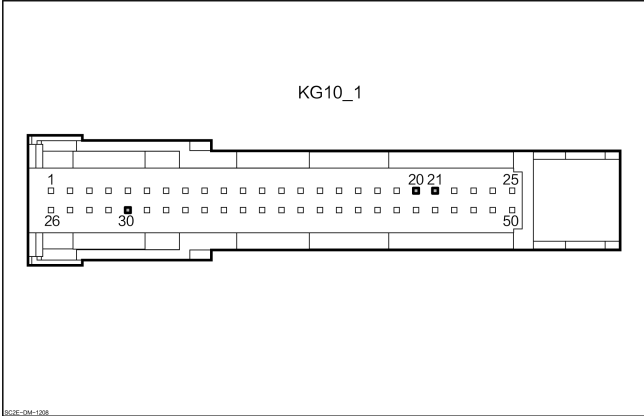
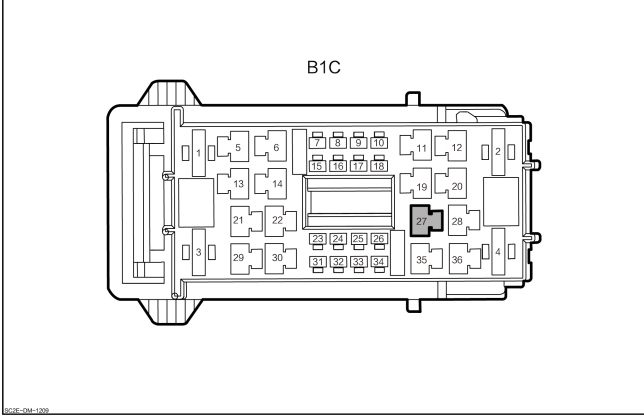
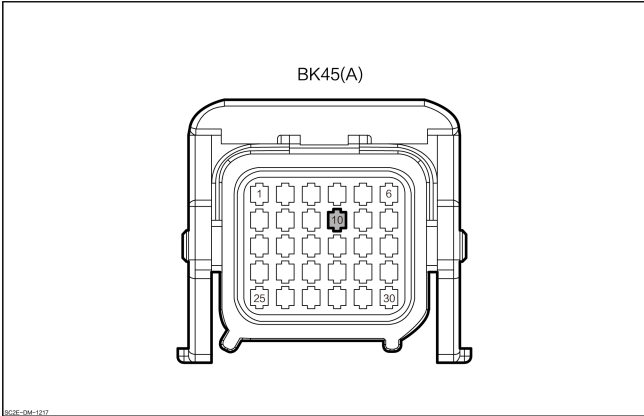
| P1D7902 Collision Alarm | |
|--------------------------|--|
| Symptom | The OK light goes off. And the instrument reports powertrain fault. |
| Possible Cause | <ol style="list-style-type: none">1. Fuse fault.2. Harness or connector fault.3. Airbag control unit fault.4. The power body control module fails.5. Vehicle control unit fault. |
| Fault setting conditions | SRS CAN impact signal is detected. |
| Trigger fault conditions | When the vehicle is powered on, and SRS CAN impact signal is detected, a DTC will be generated. |

Circuit Diagram



SCHE-DM-1000

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|------------------------------------|
| <p style="text-align: center;">Airbag</p> <p style="text-align: center;">KG10_1</p>  <p><small>62SE-094-1203</small></p> | 20 | Ground |
| | 21 | IG1 power supply |
| | 30 | Impact signal |
| <p style="text-align: center;">Front compartment fuse box</p> <p style="text-align: center;">B1C</p>  <p><small>62SE-094-1303</small></p> | 27 | Airbag control module power supply |
| <p style="text-align: center;">Smart integrated front drive control unit</p> <p style="text-align: center;">BK45(A)</p>  <p><small>62SE-094-1212</small></p> | 10 | Impact signal |

Diagnostic Steps

1 Check the communication network.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check if the airbag passes the network detection?

Yes → Go to step 7

No

2 Check the front compartment fuse box fuse.

1. Check whether the front compartment fuse box fuse F1/38 (10A) is normal or not.

No → Replace the fuse

Yes

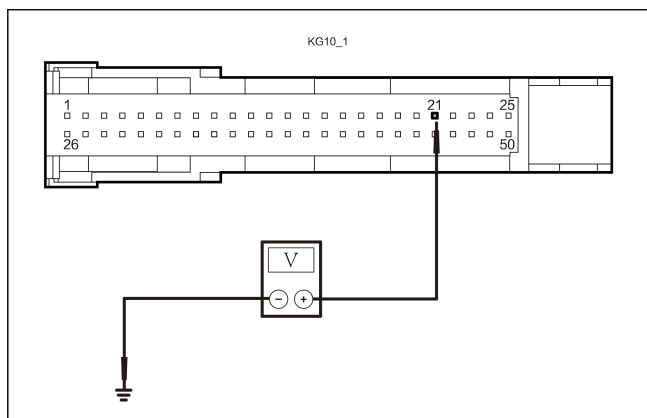
3 Check the airbag control module harness and connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of airbag control module KG10_1.
3. Check whether the airbag control module connector is normal.

No → Repair or replace the wire harness

Yes

4 Check the airbag control module IG1 power supply.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between ACU harness connector KG10_1-21 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| KG10_1-21 | Ground | Through-out | 11~14V |

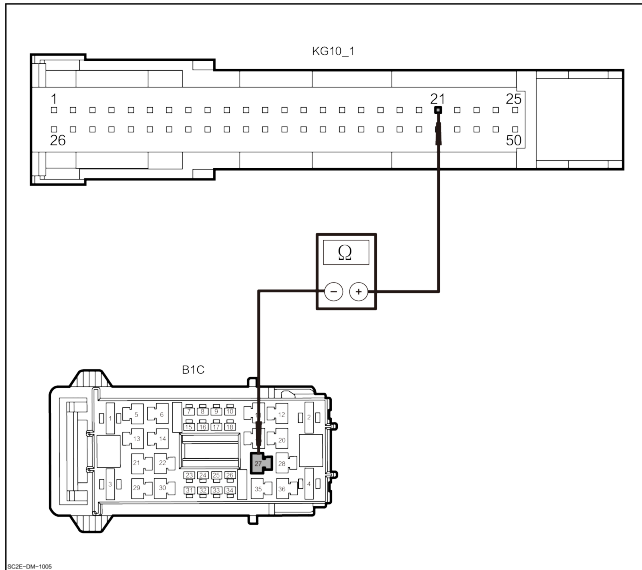
3. Check whether the results are normal.

Yes

Go to step 6

No

5 Check whether the power supply of the airbag control module is open circuited.



1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1C.
3. Check the resistance between the harness connector of airbag control module KG10_1-21 and the harness connector of front compartment fuse box B1C-27.

| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| KG10_1- 21 | B1C-27 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

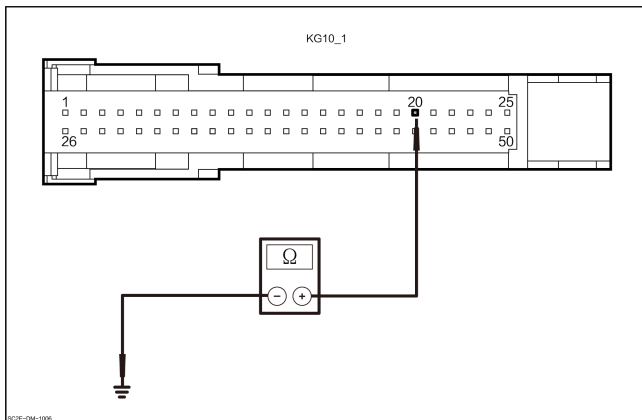
No

Repair or replace the wire harness

Yes

Replace the front compartment fuse box.

6 Check the airbag control module ground line.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance between ACU harness connector KG10_1-20 and the ground.

| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| KG10_1- 20 | Ground | Through- out | Lower than 1 Ω |

3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the airbag control unit.

7 Check the DTC of airbag system.

1. Read the DTC of airbag with VDS.
2. Check whether other DTC exists.

Yes

Enter the “Airbag system” .

No

8

Check the dynamic body control module DTC.

1. Disconnect the negative pole of low voltage battery, and wait for several seconds.
2. Connect the negative pole of low voltage battery.
3. Use a VDS to read the power body control module DTC.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Check whether the same DTC is displayed.

No

The system is normal.

Yes

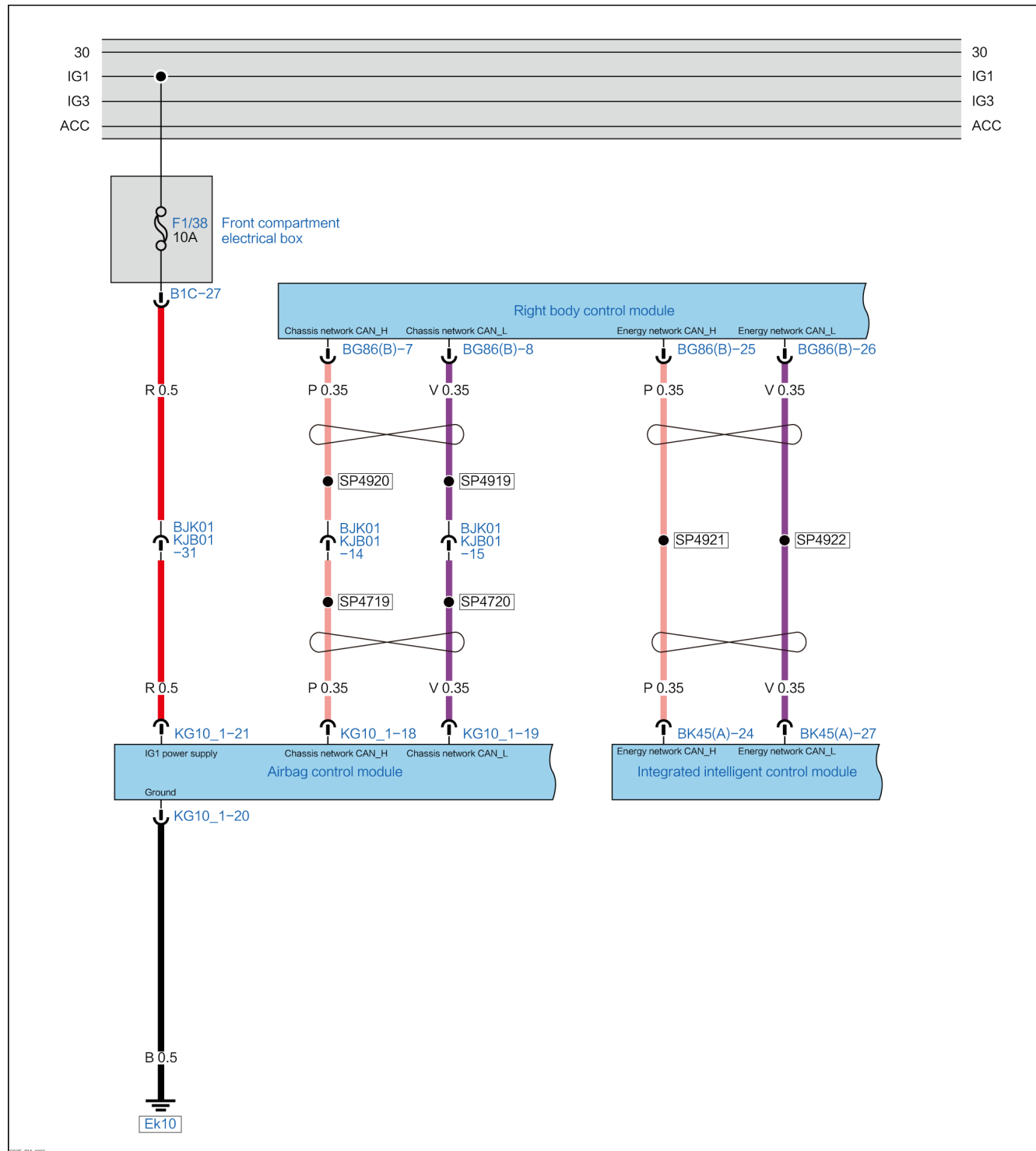
Replace the smart integrated front drive control unit.

B17A300 SRS CAN Signal Abnormal

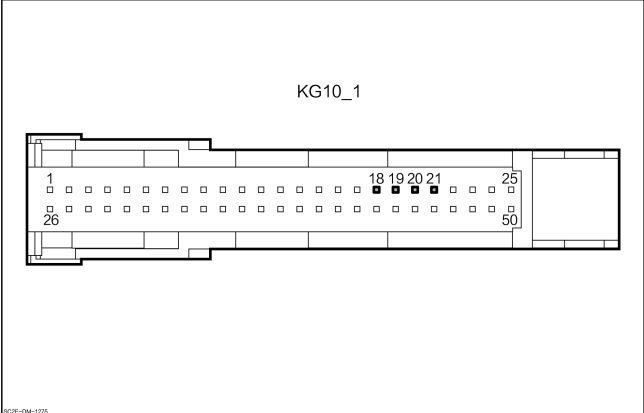
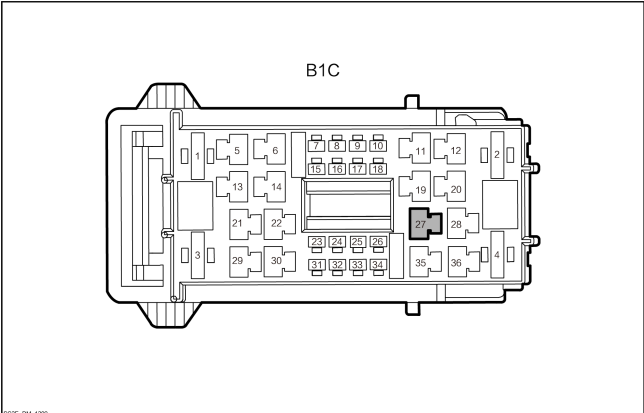
DTC Description

| B17A300 SRS CAN Signal Abnormal | |
|---------------------------------|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Harness or connector fault. 3. The gateway (integrated in the right body) fails. 4. Vehicle control unit fault. |
| Fault setting conditions | Abnormal SRS CAN signal is detected. |
| Trigger fault conditions | When the vehicle is powered on, and abnormal SRS CAN signal is detected, a DTC will be generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|------------------------------------|
| <p style="text-align: center;">Airbag control unit</p> <div style="text-align: center;">  <p>KG10_1</p> </div> | 18 | Chassis CAN_H |
| | 19 | Chassis CAN_L |
| | 20 | Ground |
| | 21 | IG1 power supply |
| <p style="text-align: center;">Front compartment fuse box</p> <div style="text-align: center;">  <p>B1C</p> </div> | 27 | Airbag control module power supply |

Diagnostic Steps

1 Check the communication network.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check if the airbag passes the network detection?

Yes → Go to step 8

No

2 Check the front compartment fuse box fuse.

1. Check whether the front compartment fuse box fuse F1/38 (10A) is normal or not.

No → Replace the fuse

Yes

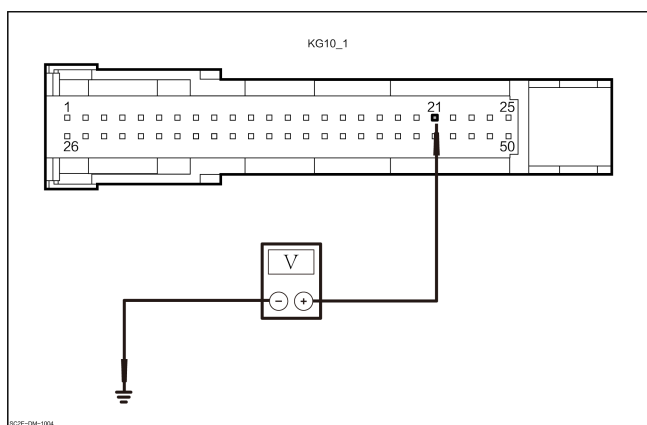
3 Check the airbag control module harness and connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of airbag control module KG10_1.
3. Check whether the airbag control module connector is normal.

No → Repair or replace the wire harness

Yes

4 Check the airbag control module IG1 power supply.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between ACU harness connector KG10_1-21 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| KG10_1-21 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

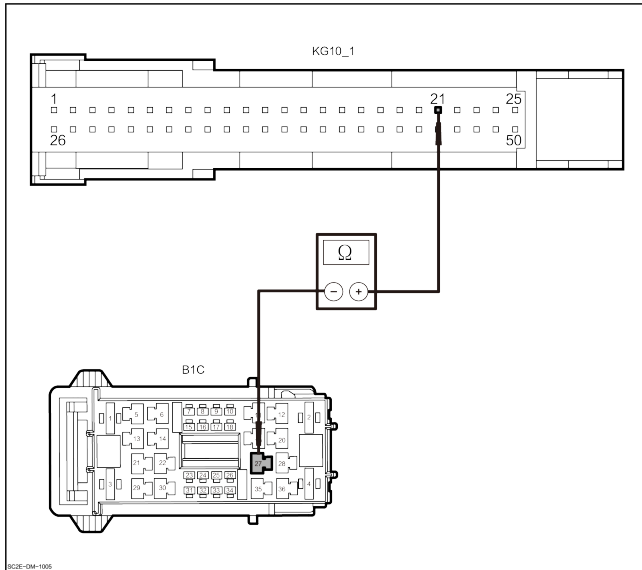
Yes

Go to step 6

No

5

Check whether the power supply of the airbag control module is open circuited.



1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1C.
3. Check the resistance between the harness connector of airbag control module KG10_1-21 and the harness connector of front compartment fuse box B1C-27.

| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| KG10_1- 21 | B1C-27 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

No

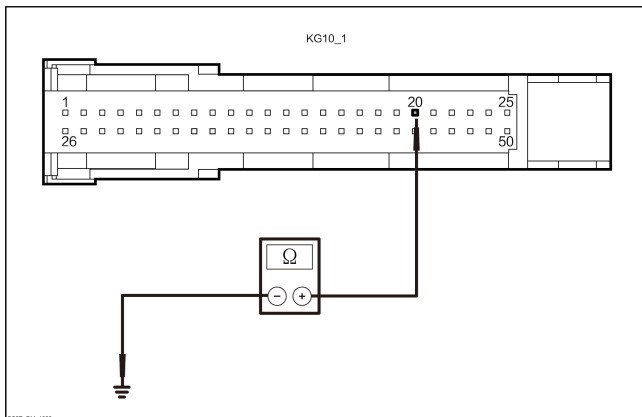
Repair or replace the wire harness

Yes

Replace the front compartment fuse box.

6

Check the airbag control module ground line.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance between ACU harness connector KG10_1-20 and the ground.

| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| KG10_1- 20 | Ground | Through- out | Lower than 1 Ω |

3. Check whether the results are normal.

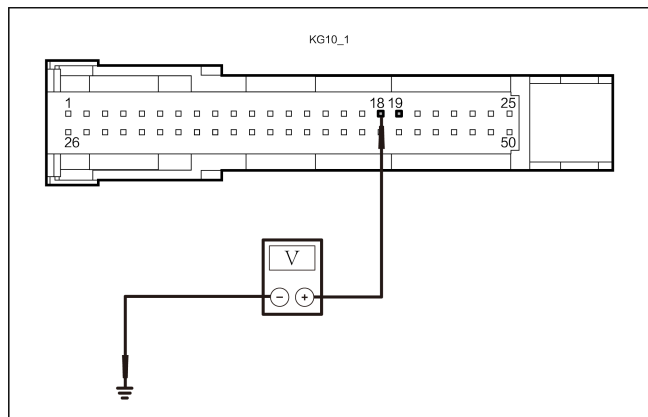
No

Repair or replace the wire harness

Yes

7

Check whether the airbag control module CAN is open circuited.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between ACU harness connector KG10_1-18 and the ground.
3. Measure the voltage between ACU harness connector KG10_1-19 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| KG10_1-18 | Ground | Through-out | 2.5~3.5V |
| KG10_1-19 | | | 1.5~2.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the airbag control unit.

8 Check the DTC of airbag system.

1. Read the DTC of airbag with VDS.
2. Check whether other DTC exists.

Yes → Enter the “Airbag system” .

No

9 Check the dynamic body control module DTC.

1. Use a VDS to read the power body control module DTC.
2. Check whether other DTC exists.

Yes → Enter “dynamic body control module” diagnosis.

No

10 Check the DTC of other modules.

1. Read the DTC of other modules with VDS.
2. Is the SRS CAN signal abnormal in other modules?

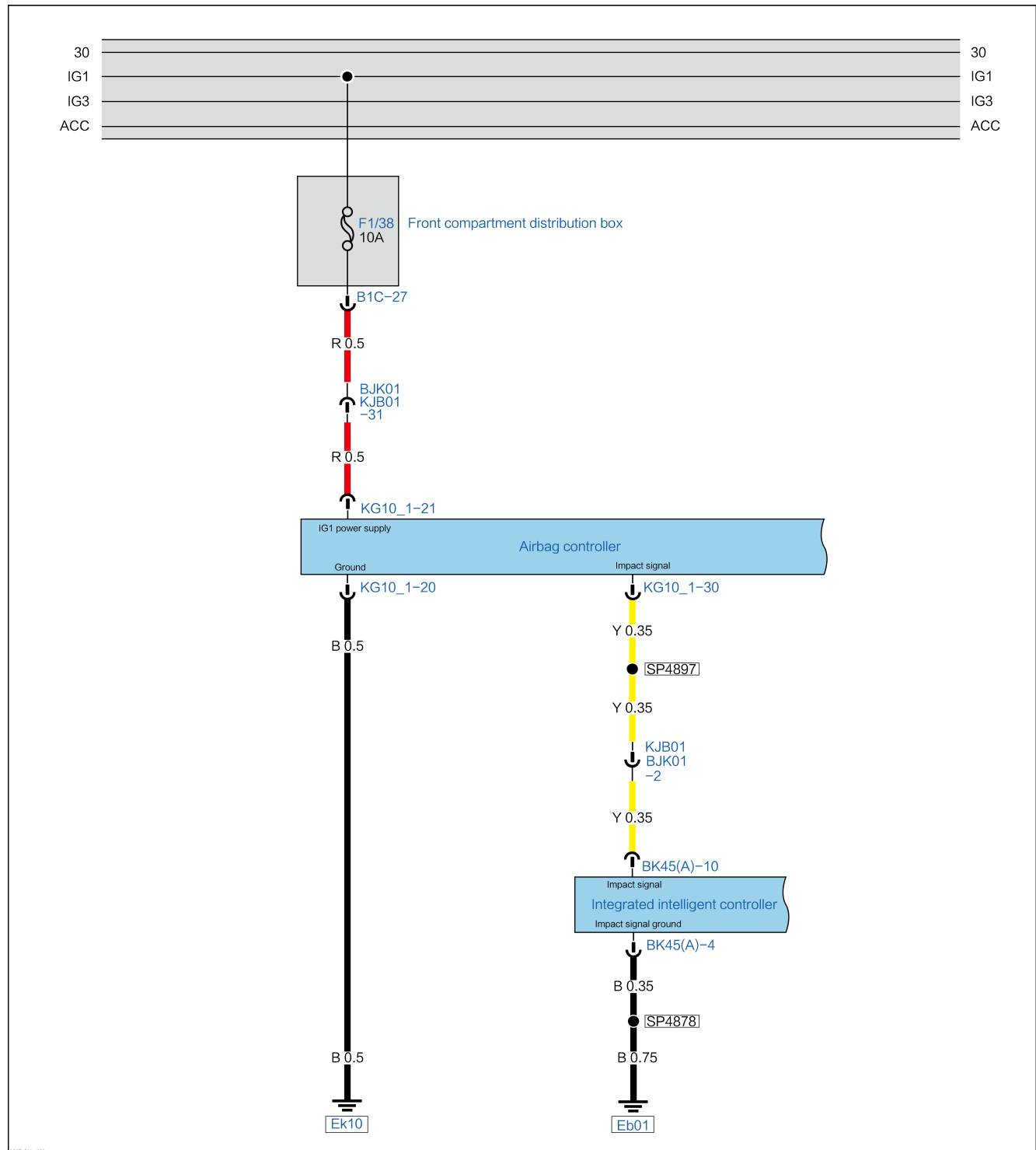
Yes → Replace the airbag control unit.

No → Replace the smart integrated front drive control unit.

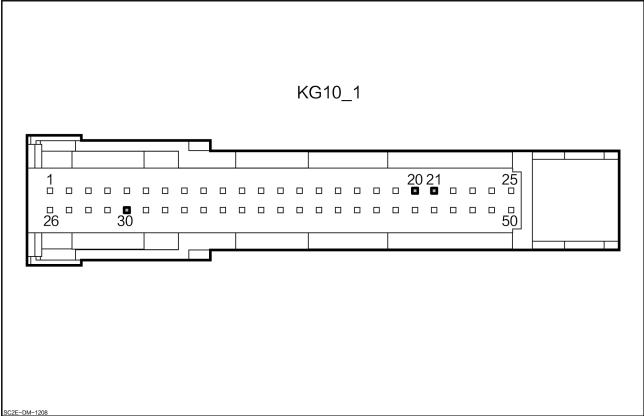
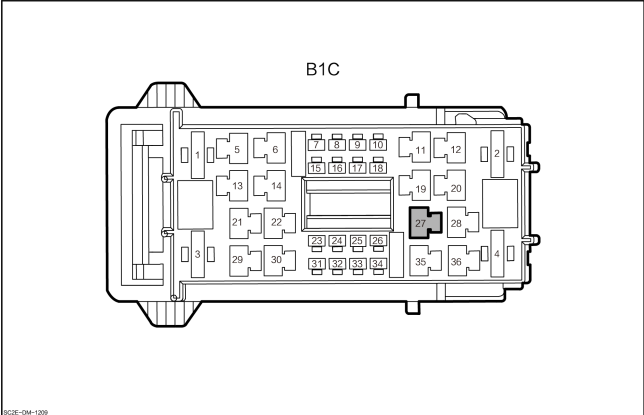
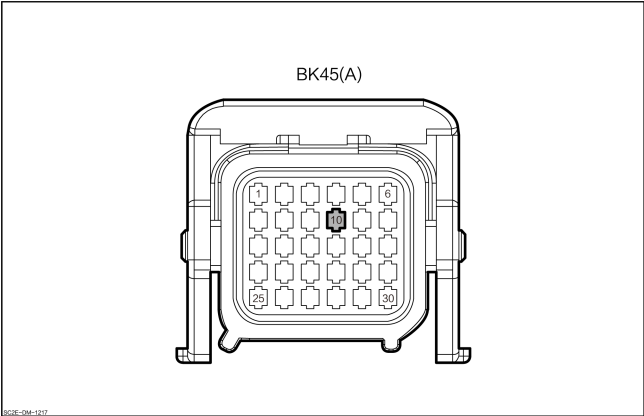
B17A400 SRS Hardwire Signal Abnormal**DTC Description**

| B17A400 SRS Hardwire Signal Abnormal | |
|--------------------------------------|---|
| Symptom | – |
| Possible Cause | 1. Harness or connector fault. 2. Airbag control unit fault. 3. Vehicle control unit fault. |
| Fault setting conditions | Abnormal SRS hard wire signal is detected. |
| Trigger fault conditions | When the vehicle is powered on, and abnormal SRS hardwire is detected, a DTC will be generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|------------------------------------|
| <p style="text-align: center;">Airbag control unit</p> <div style="text-align: center;">  <p>KG10_1</p> </div> | 20 | Ground |
| | 21 | IG1 power supply |
| | 30 | Impact signal |
| <p style="text-align: center;">Front compartment fuse box</p> <div style="text-align: center;">  <p>B1C</p> </div> | 27 | Airbag control module power supply |
| <p style="text-align: center;">Smart integrated front drive control unit</p> <div style="text-align: center;">  <p>BK45(A)</p> </div> | 10 | Impact signal |

Diagnostic Steps

1 Check the communication network.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check if the airbag passes the network detection?

Yes → Go to step 7

No

2 Check the front compartment fuse box fuse.

1. Check whether the front compartment fuse box fuse F1/38 (10A) is normal or not.

No → Replace the fuse

Yes

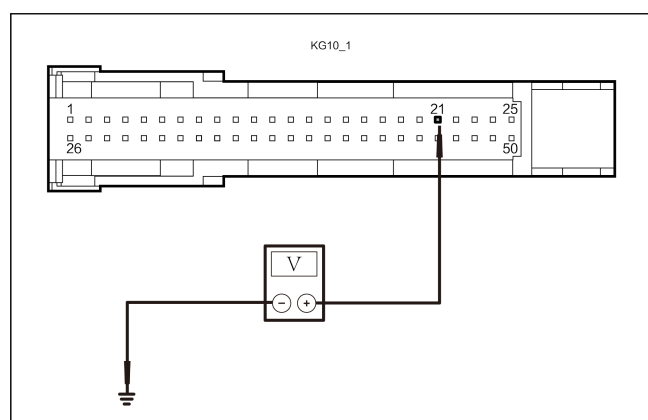
3 Check the airbag control module harness and connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of airbag control module KG10_1.
3. Check whether the airbag control module connector is normal.

No → Repair or replace the wire harness

Yes

4 Check the airbag control module IG1 power supply.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between ACU harness connector KG10_1-21 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| KG10_1-21 | Ground | Through-out | 11~14V |

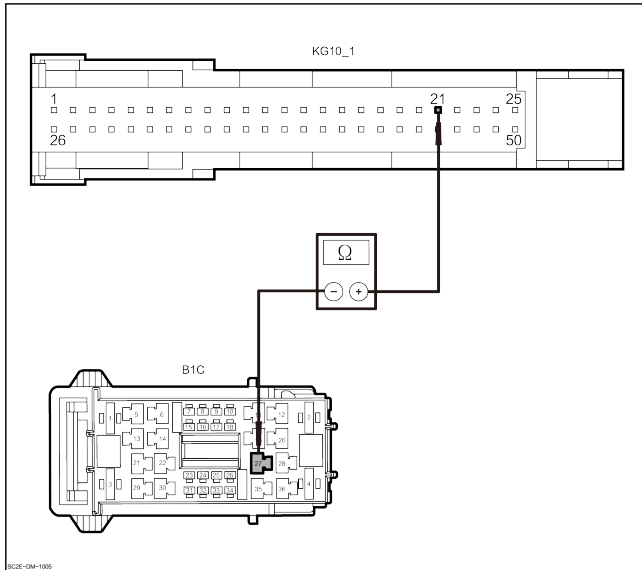
3. Check whether the results are normal.

Yes

Go to step 6

No

5 Check whether the power supply of the airbag control module is open circuited.



1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1C.
3. Check the resistance between the harness connector of airbag control module KG10_1-21 and the harness connector of front compartment fuse box B1C-27.

| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| KG10_1- 21 | B1C-27 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

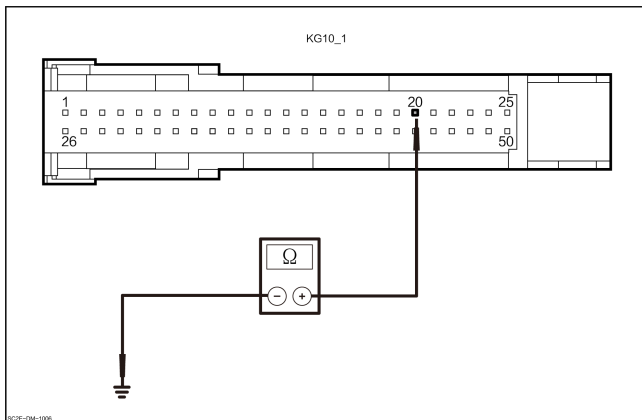
No

Repair or replace the wire harness

Yes

Replace the front compartment fuse box.

6 Check the airbag control module ground line.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance between ACU harness connector KG10_1-20 and the ground.

| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| KG10_1- 20 | Ground | Through- out | Lower than 1 Ω |

3. Check whether the results are normal.

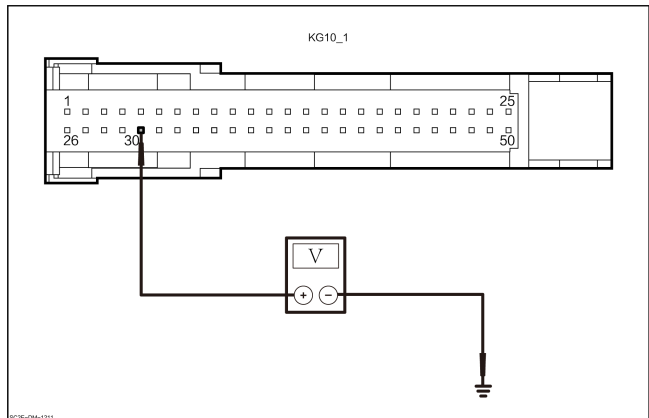
No

Repair or replace the wire harness

Yes

Replace the airbag control unit.

7 Check whether the airbag control module hardwired signal is shorted to power.



1. Disconnect the harness connector of airbag control module KG10_1.
2. Disconnect the harness connector BK45(A) of the integrated intelligent control module.
3. Set the START/STOP button to “ON” .
4. Measure the voltage between ACU harness connector KG10_1-30 and the ground.

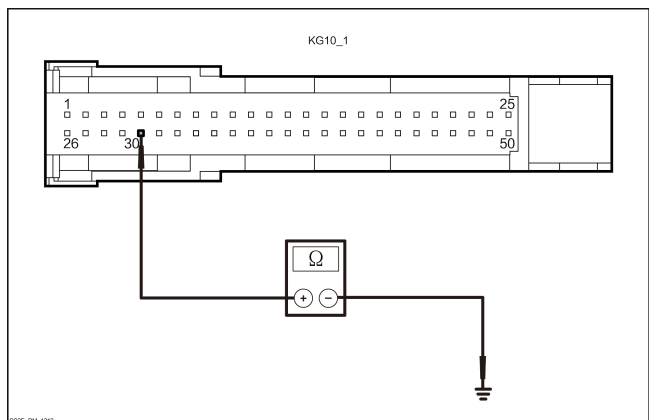
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| KG10_1-30 | Ground | Through-out | Less than 1V |

5. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check whether the airbag control module hardwired signal is shorted to ground.



1. Measure the resistance between ACU harness connector KG10_1-30 and the ground.

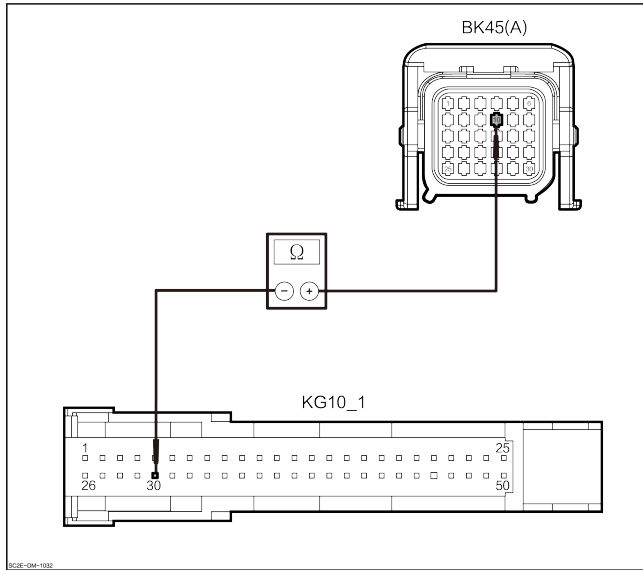
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| KG10_1-30 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

9 Check whether the airbag control module hardwired signal is open.



1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of airbag control module KG10_1.
3. Disconnect the harness connector BK45(A) of the integrated intelligent control module.
4. Measure the resistance between the harness connector of airbag control module KG10_1–30 and the harness connector of integrated intelligent control module BK45(A)–10.

| Connector | | Condition | Resist- ance value |
|----------------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(A)– 10 | KG10_1– 30 | Through- out | Lower than 1 Ω |

5. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

10 Replace the airbag control module and check the DTC.

1. Replace the airbag control module and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the power body control module DTC.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Check whether the same DTC is displayed.

No → The system is normal.

Yes → Replace the smart integrated front drive control unit.

P1D6D00 DSP Reset Fault of VCU

DTC Description

| P1D6D00 DSP Reset Fault of VCU | |
|--------------------------------|--------------------------------------|
| Symptom | – |
| Possible Cause | Vehicle control unit internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

P268700 Power Supply Relay Loop Check Fault

DTC Description

| P268700 Power Supply Relay Loop Check Fault | |
|---|--|
| Symptom | – |
| Possible Cause | 1. Harness or connector fault. 2. dynamic body control module |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the integrated intelligent front drive control module harness connectors BK45 (A) and BK45 (B).
2. Check the harness and connectors for aging, deformation, ablation, false connections, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

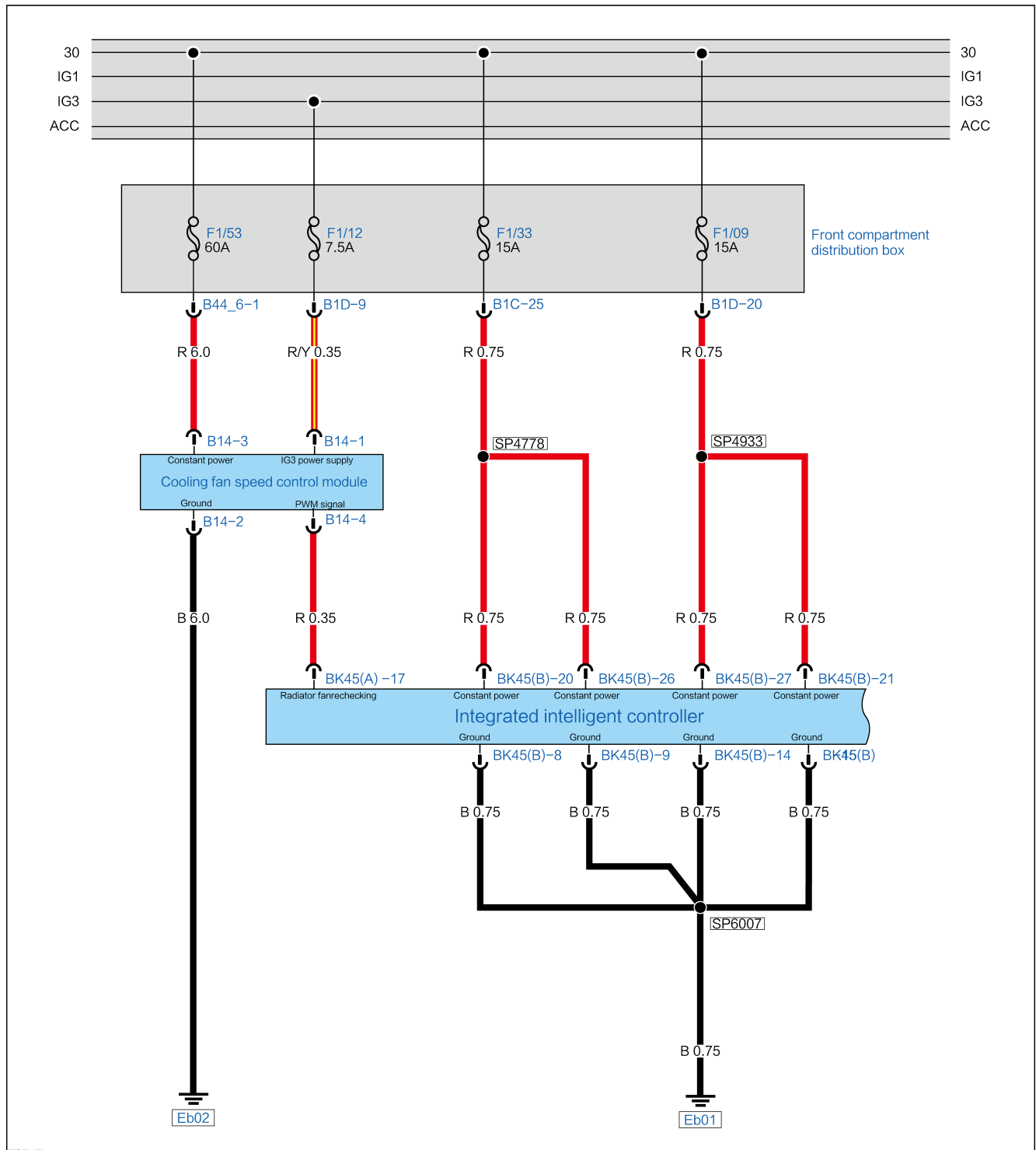
Replace the smart integrated front drive control unit.

P1D8F00 Stepless Fan Power Supply Overvoltage or Undervoltage

DTC Description

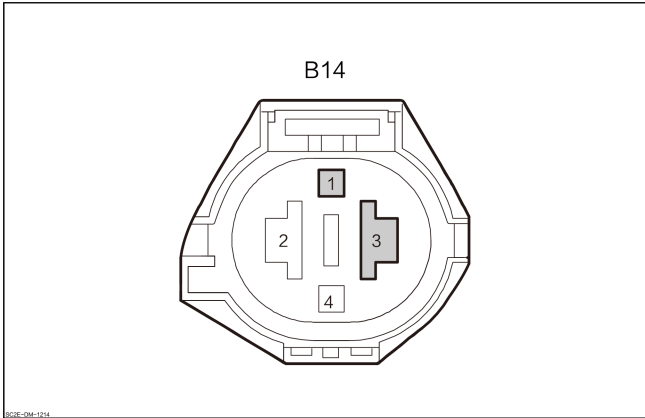
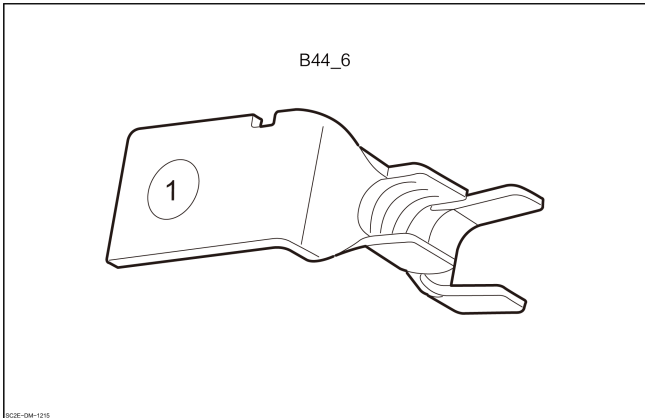
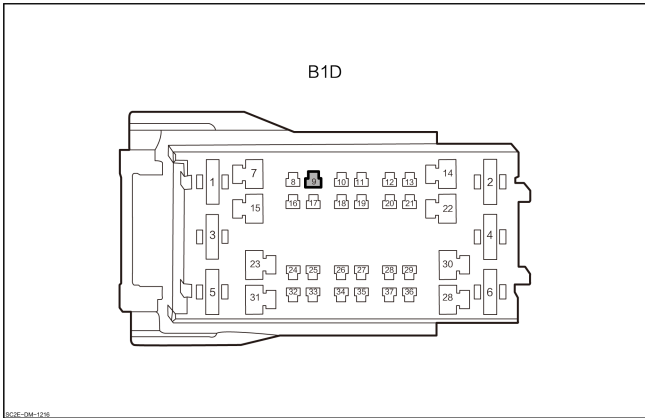
| P1D8F00 Stepless Fan Power Supply Overvoltage or Undervoltage | |
|---|--|
| Symptom | The cooling fan does not work, the heat dissipation is poor, or the coolant temperature rises abnormally. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Harness or connector fault. 3. Stepless fan fault. 4. Vehicle control unit fault. |
| Fault setting conditions | Abnormal voltage faults of stepless fan power supply. |
| Trigger fault conditions | When abnormal voltage of the stepless fan power supply is detected, a DTC will be generated. |

Circuit Diagram



SCHE-DM-1008

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|------------------------------|
| <p style="text-align: center;">Cooling fan</p>  <p style="text-align: center;">B14</p> | 1 | IG3 power supply |
| | 3 | Constant power |
| <p style="text-align: center;">Front compartment fuse box</p>  <p style="text-align: center;">B44_6</p> | 1 | Cooling fan constant power |
| <p style="text-align: center;">Front compartment fuse box</p>  <p style="text-align: center;">B1D</p> | 9 | Cooling fan IG1 power supply |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the cooling fan harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Check the harness connector of cooling fan B14 for corrosion, damage, pin failure and other faults.

Yes

Repair or replace the wire harness

No

| | |
|---|---|
| 3 | Check the harness connector of integrated intelligent control module. |
|---|---|

1. Disconnect the harness connector BK45(A) of the integrated intelligent control module.
2. Check the harness connector of integrated intelligent control module for corrosion, damage, pin failure and other faults.

Yes

Repair or replace the wire harness

No

| | |
|---|--|
| 4 | Check the front compartment fuse box fuse. |
|---|--|

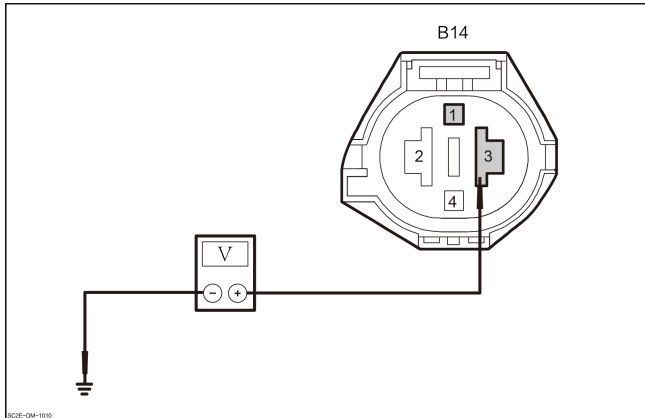
1. Check whether the front compartment fuse box fuse F1/53(60A) and F1/12(7.5A) are normal?

No

Replace the fuse

Yes

5 Check the power line of cooling fan for open circuit.



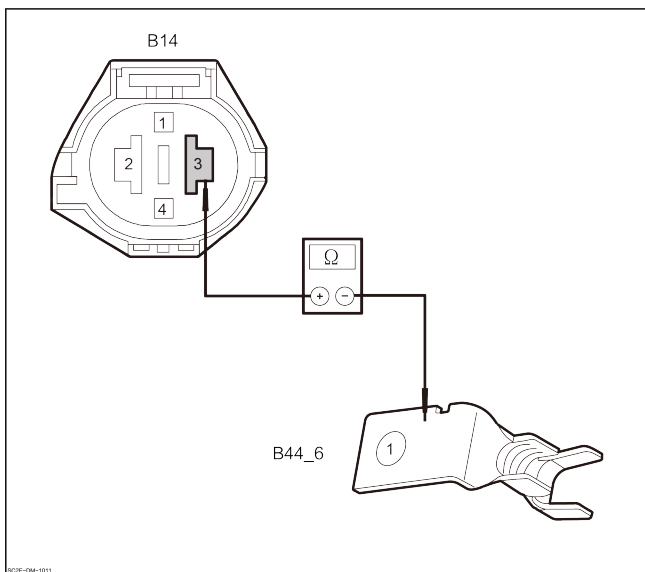
1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of cooling fan B14-3 and the ground.
3. Measure the voltage between the harness connector of cooling fan B14-1 and the ground.
4. Check whether the results are normal.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B14-3 | Ground | Through-out | 11~14V |
| B14-1 | | | |

Yes → Go to step 7

No

6 Check the power line of cooling fan for open circuit.

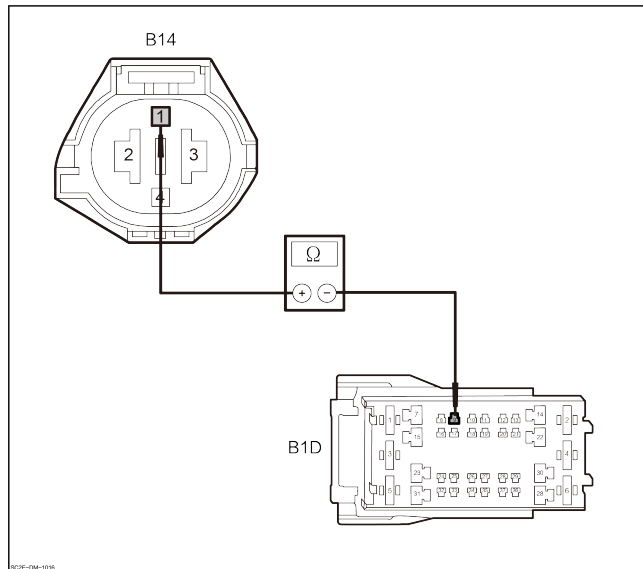


1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connectors of front compartment fuse box B44_6 and B1D.
3. Measure the resistance between the harness connector of cooling fan B14-3 and the harness connector of front compartment fuse box B44_6-1.
4. Measure the resistance value between the cooling fan harness connector B14-1 and the front compartment fuse box harness connector B1D-9.

| Connector | | Condition | Resistance value |
|-----------|---------|-------------|------------------|
| (+) | (-) | | |
| B14-3 | B44_6-1 | Through-out | Lower than 1Ω |
| B14-1 | B1D-9 | | |

5. Check whether the results are normal.

No → Repair or replace the wire harness



Yes

7

Replace the cooling fan, and check the DTC.

1. Replace the cooling fan, and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the power body control module DTC.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Check whether the same DTC is displayed.

No

The system is normal.

Yes

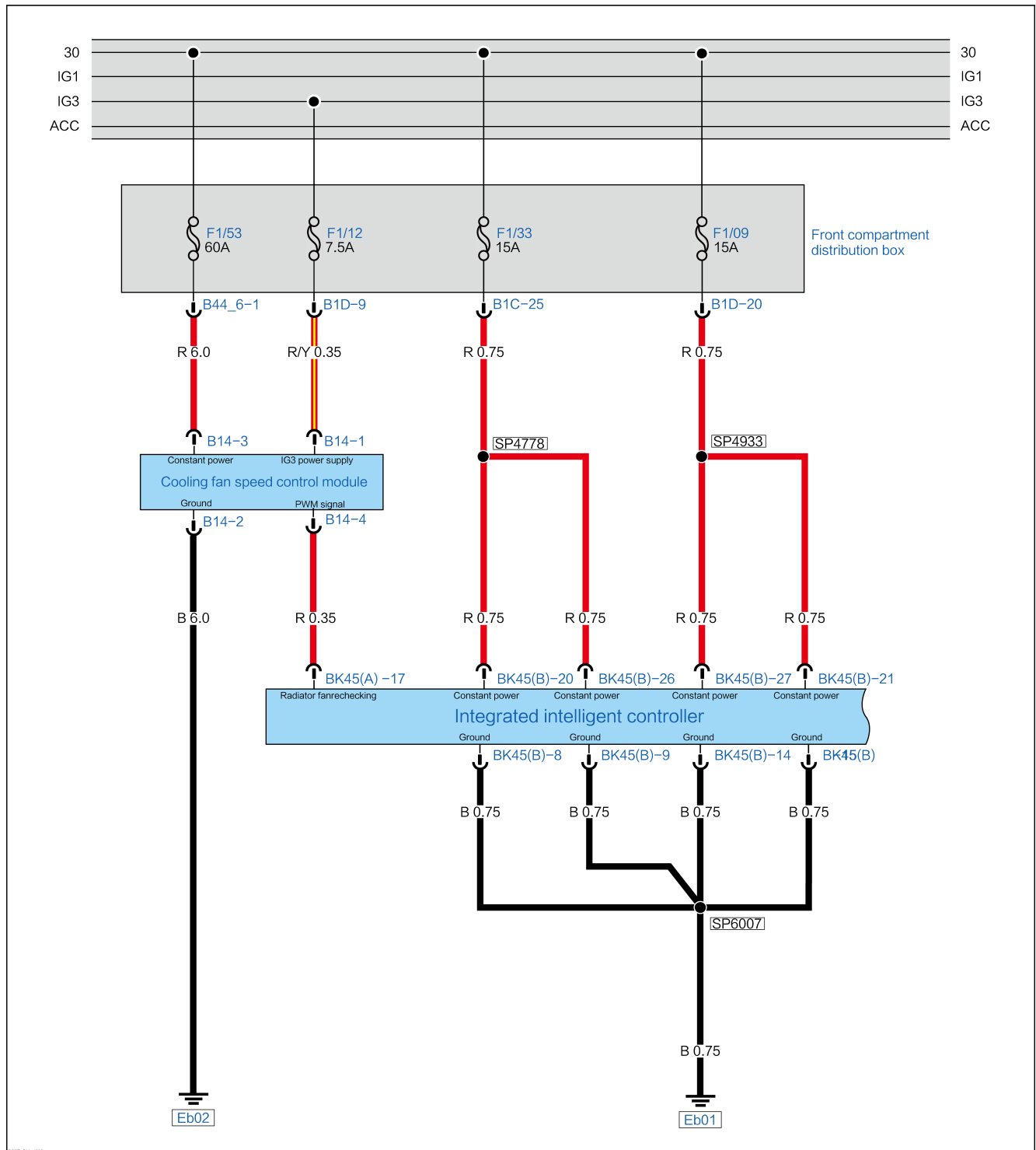
Replace the smart integrated front drive control unit.

P1D8D00 Stepless Fan Motor Stalling, Short-circuited Etc

DTC Description

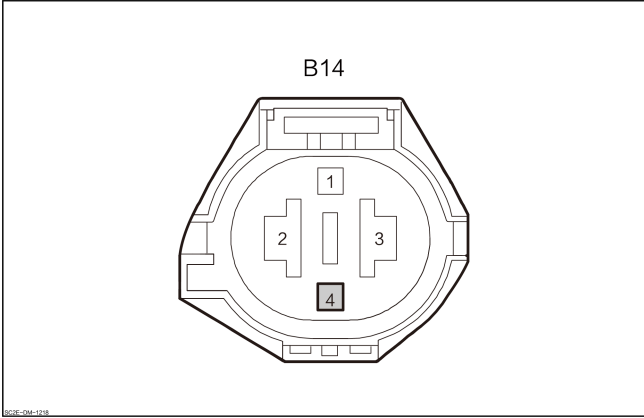
| P1D8D00 Stepless Fan Motor Stalling, Short-circuited Etc | |
|--|--|
| Symptom | The cooling fan does not work, the heat dissipation is poor, or the coolant temperature rises abnormally. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Harness or connector fault. 3. Stepless fan fault. 4. Vehicle control unit fault. |
| Fault setting conditions | Stepless fan fault. |
| Trigger fault conditions | When abnormal stepless fan is detected, a DTC will be generated. |

Circuit Diagram



SCHE-DM-1008

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|----------------------------|
| <p style="text-align: center;">Cooling fan</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B14</p> </div> <p><small>802E-DM-128</small></p> | 4 | Cooling fan recheck signal |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the front compartment fuse box fuse. |
|---|--|

1. Check whether the front compartment fuse box fuse F1/53(60A) and F1/12(7.5A) are normal?

No

Replace the fuse

Yes

| | |
|---|--|
| 3 | Check the cooling fan harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the cooling fan harness connector B14.
3. Check the cooling fan harness connector for corrosion, damage, pin withdrawing, etc.

Yes

Repair or replace the wire harness

No

| | |
|---|---|
| 4 | Check the harness connector of integrated intelligent control module. |
|---|---|

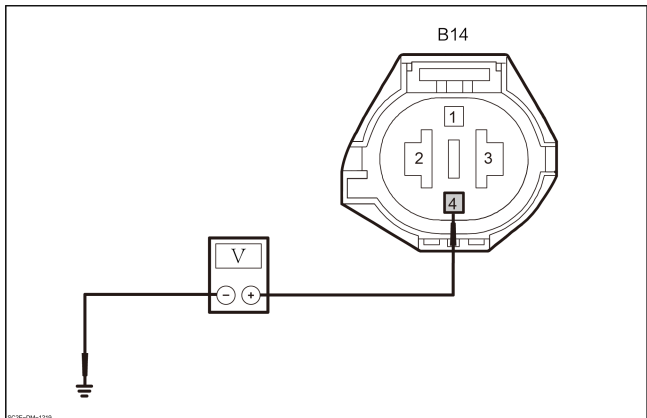
1. Disconnect the harness connector BK45(A) of the integrated intelligent control module.
2. Check the harness connector of integrated intelligent control module for corrosion, damage, pin failure and other faults.

Yes

Repair or replace the wire harness

No

5 Check the signal line of cooling fan power for short to power.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of cooling fan B14-4 and the ground.
3. Check whether the results are normal.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B14-4 | Ground | Through-out | Less than 1V |

No → Repair or replace the wire harness

Yes

6 Replace the cooling fan, and check the DTC.

1. Replace the cooling fan, and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the power body control module DTC.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Check whether the same DTC is displayed.

No → The system is normal.

Yes → Replace the smart integrated front drive control unit.

P1D8E00 Stepless Fan Overtemperature Protection, Electronic Error, Etc**DTC Description**

| P1D8E00 Stepless Fan Overtemperature Protection, Electronic Error, Etc | |
|--|---|
| Symptom | The cooling fan does not work, the heat dissipation is poor, or the coolant temperature rises abnormally. |
| Possible Cause | Stepless fan fault. |
| Fault setting conditions | Stepless fan fault. |
| Trigger fault conditions | When abnormal stepless fan is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the integrated intelligent front drive control module harness connectors BK45 (A) and BK45 (B).
2. Check the harness and connectors for aging, deformation, ablation, false connections, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

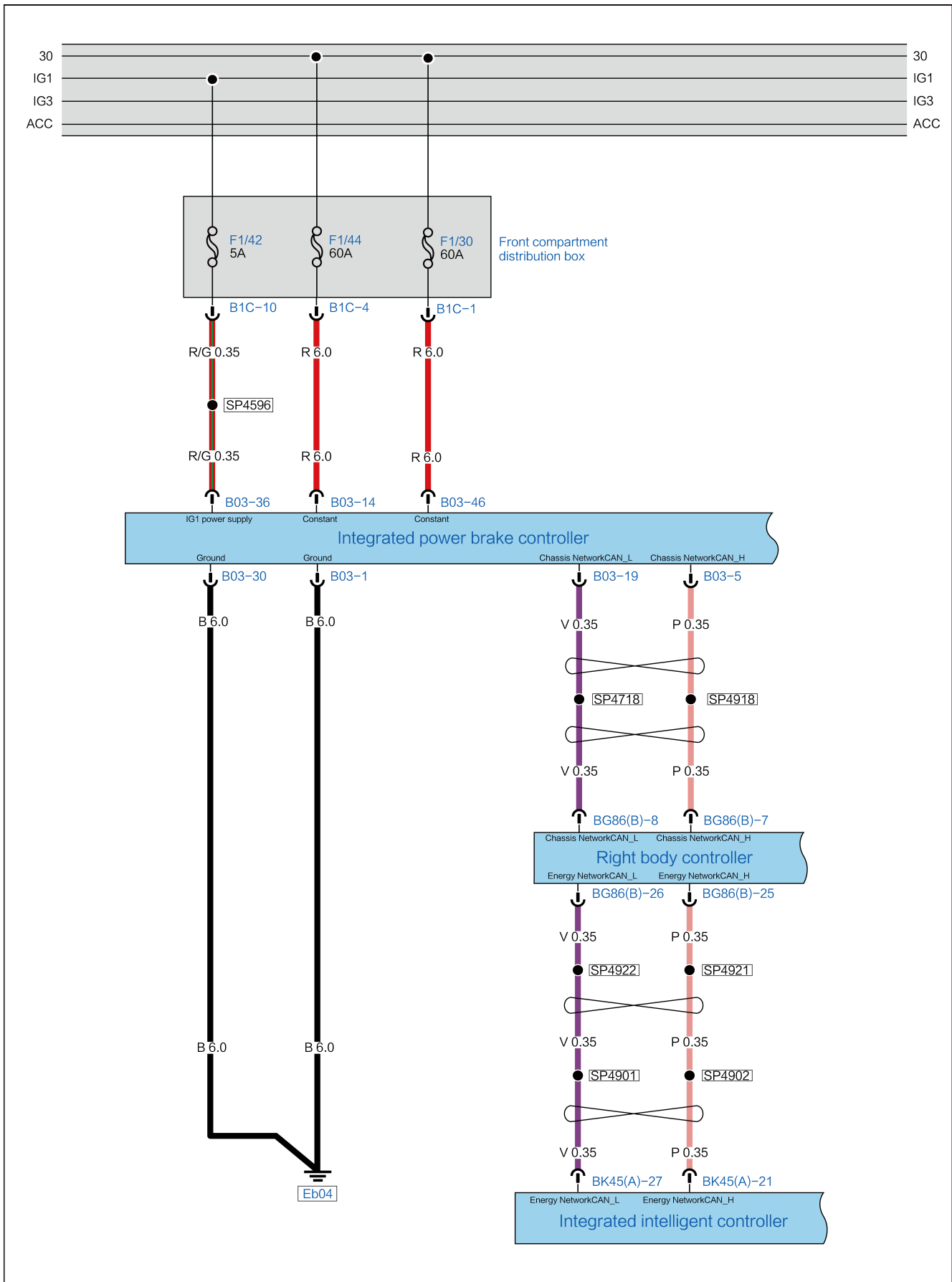
Replace the smart integrated front drive control unit.

U019780 Communication with Intelligent Power Brake Control Module Failed

DTC Description

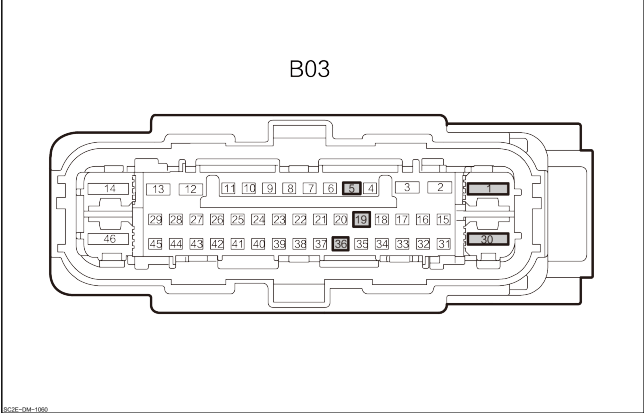
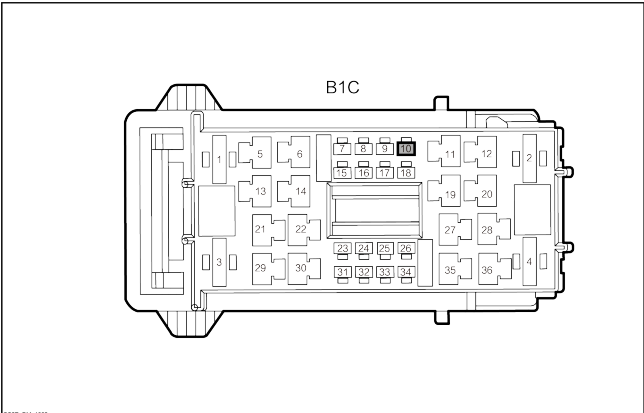
| U019780 Communication with Intelligent Power Brake Control Module Failed | |
|--|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Fuse fault.2. Harness or connector fault.3. Smart power brake controller fault.4. Vehicle control unit fault. |
| Fault setting conditions | The intelligent power brake control module is abnormal. |
| Trigger fault conditions | When the failure of intelligent power brake control module is detected, a DTC will be generated. |

Circuit Diagram



802E-DM-120

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p style="text-align: center;">Smart power brake controller</p> <p style="text-align: center;">B03</p>  <p style="font-size: small;">B03E-DM-1000</p> | 1 | Ground |
| | 5 | Chassis network CAN_H |
| | 19 | Chassis network CAN_L |
| | 30 | Ground |
| | 36 | IG1 power supply |
| <p style="text-align: center;">Front compartment fuse box</p> <p style="text-align: center;">B1C</p>  <p style="font-size: small;">B1C-E-DM-1000</p> | 10 | Intelligent power brake control module IG1 power supply |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the EHB module passes the network detection.

Yes
Go to step 8

No

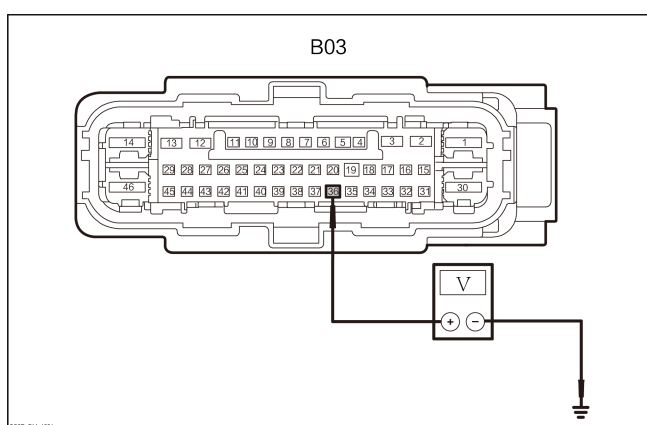
| | |
|---|---|
| 2 | Check the intelligent power brake control module harness and connector. |
|---|---|

1. Disconnect the intelligent power brake control module harness connector B03.
2. Check whether the intelligent power brake control module harness connector is normal or not.

No
Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the power supply of the intelligent power brake control module. |
|---|---|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of intelligent power brake control module B03–36 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-36 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes
Go to step 6

No

| | |
|---|---|
| 4 | Check the fuse of the intelligent power brake control module. |
|---|---|

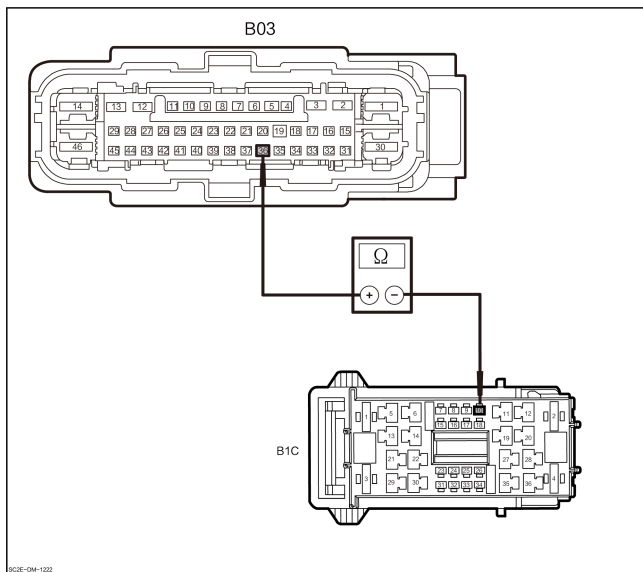
1. Check whether the front compartment fuse box fuse F1/42 (5 A) is normal.

No

Replace the fuse

Yes

5 Check whether the constant power supply of intelligent power brake control module is open-circuited.



1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1C.
3. Measure the resistance between the harness connector of intelligent power brake control module B03-36 and the harness connector of front compartment fuse box B1C-10.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-36 | B1C-10 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

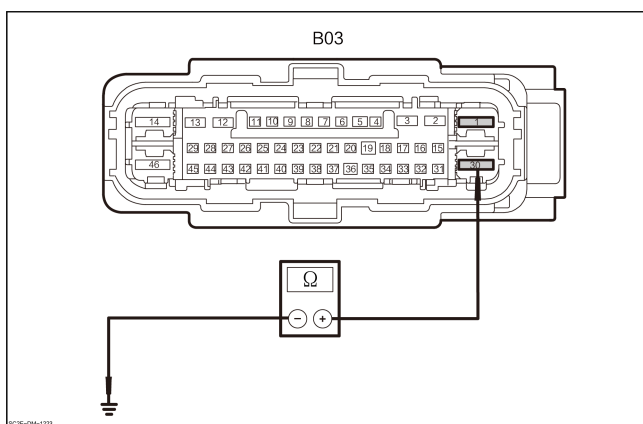
No

Repair or replace the wire harness

Yes

Replace the front compartment fuse box.

6 Check the ground line of intelligent power brake control module.



1. Measure the resistance of the harness connector of intelligent power brake control module B03-1 to ground.
2. Measure the resistance of the harness connector of intelligent power brake control module B03-30 to ground.
3. Check whether the results are normal.

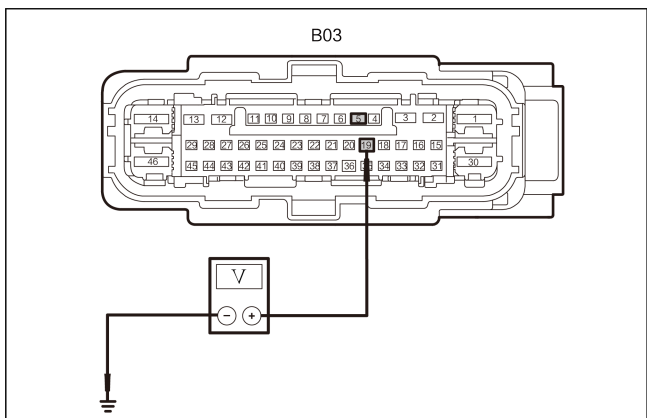
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-1 | Ground | Through- out | Lower than 1 Ω |
| B03-30 | | | |

No

Repair or replace the wire harness

Yes

7 Check the CAN line of the intelligent power brake control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of intelligent power brake control module B03–19 and the ground.
3. Measure the voltage between the harness connector of intelligent power brake control module B03–5 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-19 | Ground | Through-out | 1.5~2.5V |
| B03-5 | | | 2.5~3.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the smart power brake controller.

8 Check the DTC of EHB module.

1. Read the DTC of the EHB module with VDS.
2. Check whether other DTC exists.

Yes → Enter the "EHB module" diagnosis.

No

9 Check the dynamic body control module DTC.

1. Use a VDS to read the power body control module DTC.
2. Check whether other DTC exists.

Yes → Enter “dynamic body control module” diagnosis.

No

10 Check the DTC of other modules.

1. Whether the “communication with intelligent power brake control module lost” DTC is read in other modules?

Yes

Replace the smart power brake controller.

No

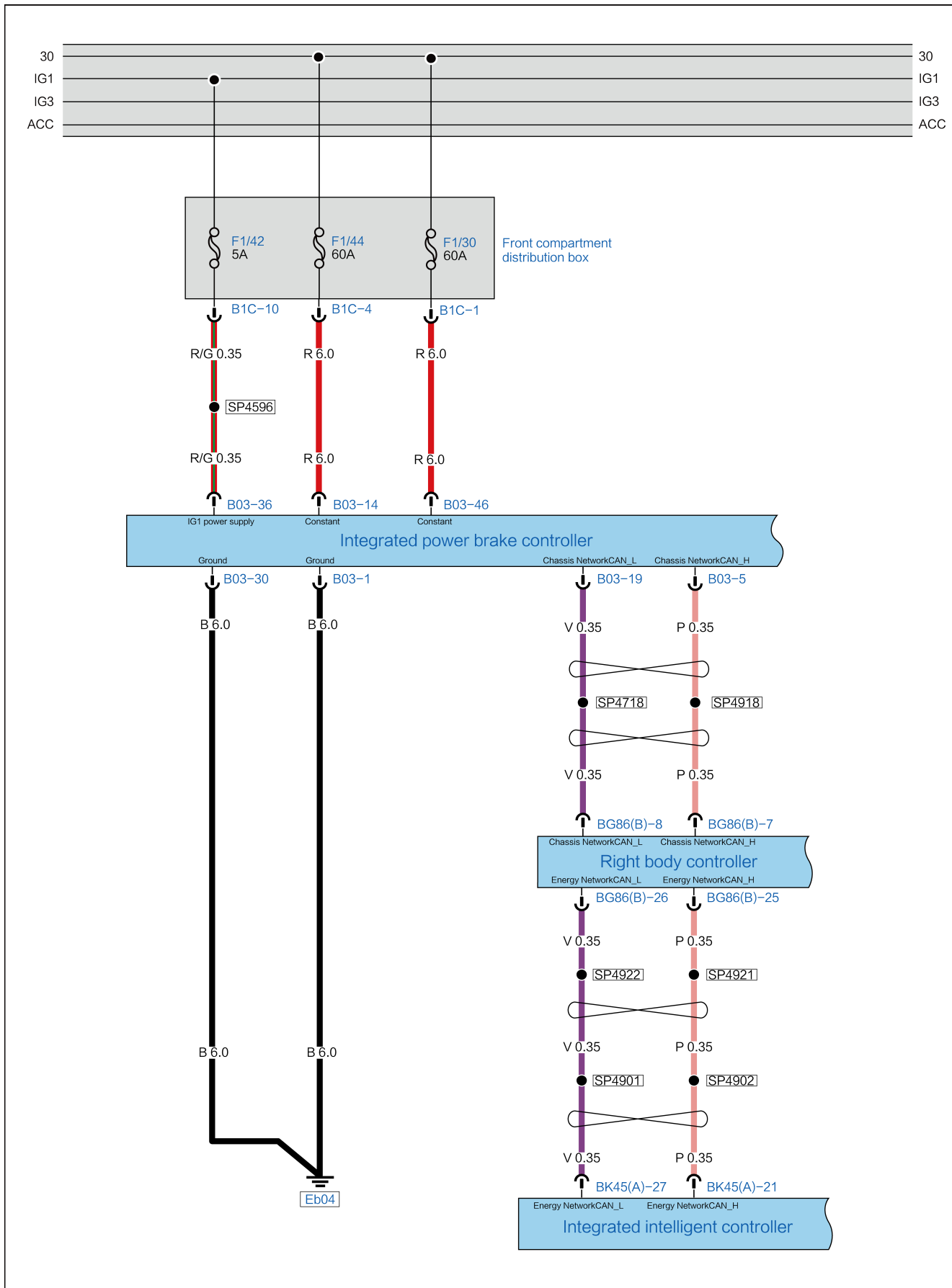
Replace the smart integrated front drive control unit.

U012187 Communication with ABS Failed

DTC Description

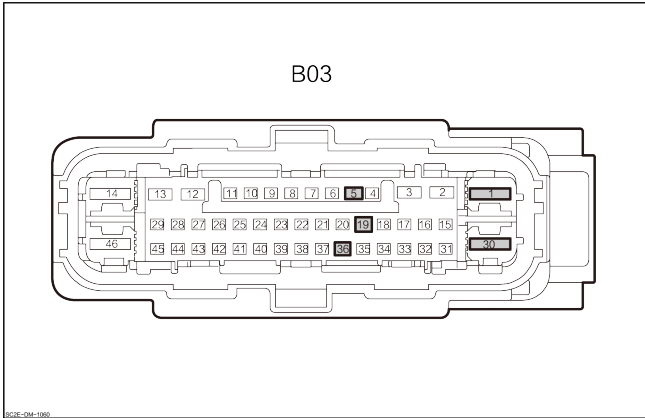
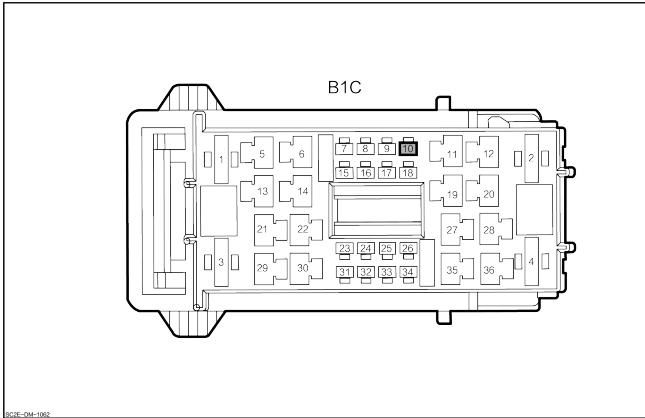
| U012187 Communication with ABS Failed | |
|---------------------------------------|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Harness or connector fault. 3. Smart integrated control unit fault. 4. Smart power brake controller fault. |
| Fault setting conditions | Abnormal smart integrated control unit. |
| Trigger fault conditions | When the communication failure of smart integrated control unit is detected, a DTC will be generated. |

Circuit Diagram



SG2E-DM-1200

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p style="text-align: center;">Smart power brake controller</p> <p style="text-align: center;">B03</p>  <p><small>801E-DM-190</small></p> | 1 | Ground |
| | 5 | Chassis network CAN_H |
| | 19 | Chassis network CAN_L |
| | 30 | Ground |
| | 36 | IG1 power supply |
| <p style="text-align: center;">Front compartment fuse box</p> <p style="text-align: center;">B1C</p>  <p><small>801E-DM-192</small></p> | 10 | Intelligent power brake control module IG1 power supply |

Diagnostic Steps

1 Check the communication network.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the EHB module passes the network detection.

Yes Go to step 8

No

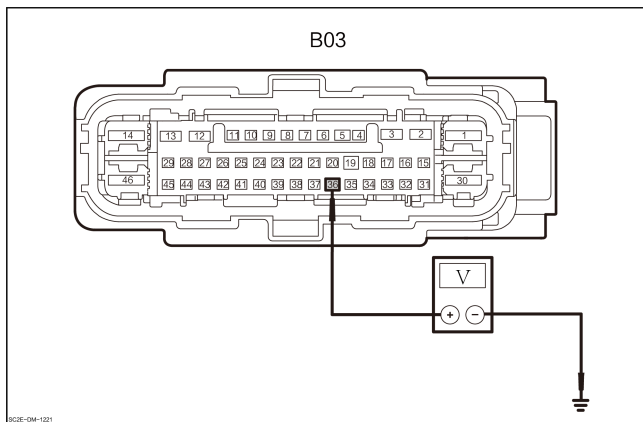
2 Check the intelligent power brake control module harness and connector.

1. Disconnect the intelligent power brake control module harness connector B03.
2. Check whether the intelligent power brake control module harness connector is normal or not.

No Repair or replace the wire harness

Yes

3 Check the power supply of the intelligent power brake control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of intelligent power brake control module B03-36 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-36 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes Go to step 6

No

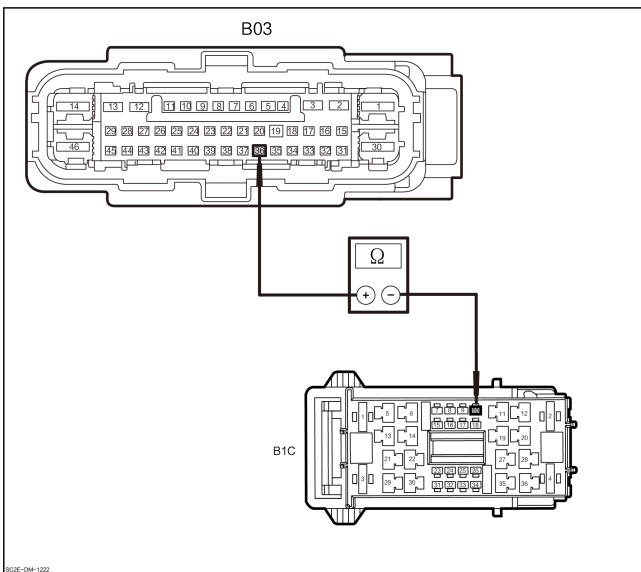
4 Check the fuse of the intelligent power brake control module.

1. Check whether the front compartment fuse box fuse F1/42 (5 A) is normal.

No → Replace the fuse

Yes

5 Check whether the constant power supply of intelligent power brake control module is open-circuited.



1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1C.
3. Measure the resistance between the harness connector of intelligent power brake control module B03-36 and the harness connector of front compartment fuse box B1C-10.

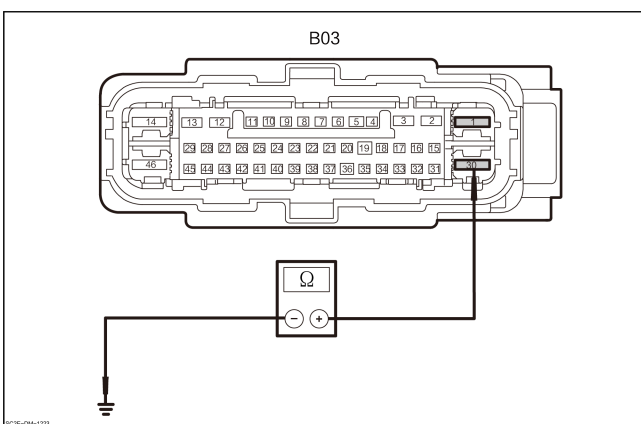
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-36 | B1C-10 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the front compartment fuse box.

6 Check the ground line of intelligent power brake control module.



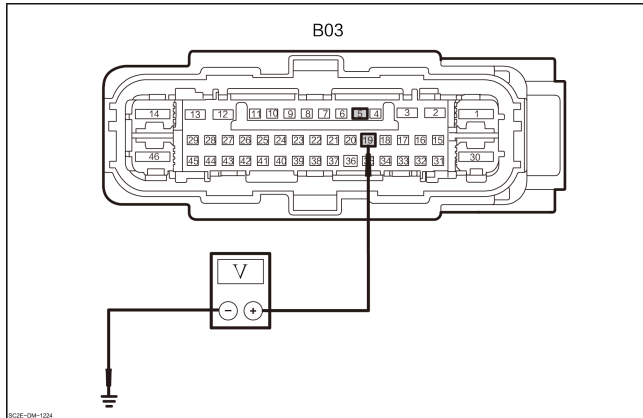
1. Measure the resistance of the harness connector of intelligent power brake control module B03-1 to ground.
2. Measure the resistance of the harness connector of intelligent power brake control module B03-30 to ground.
3. Check whether the result is normal.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-1 | Ground | Through- out | Lower than 1 Ω |
| B03-30 | | | |

No → Repair or replace the wire harness

Yes

7 Check the CAN line of the intelligent power brake control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of intelligent power brake control module B03–19 and the ground.
3. Measure the voltage between the harness connector of intelligent power brake control module B03–5 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B03–19 | Ground | Through-out | 1.5~2.5V |
| B03–5 | | | 2.5~3.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the smart power brake controller.

8 Check the DTC of EHB module.

1. Read the DTC of the EHB module with VDS.
2. Check whether other DTC exists.

Yes → Enter the "EHB module" diagnosis.

No

9 Check the dynamic body control module DTC.

1. Use a VDS to read the power body control module DTC.
2. Check whether other DTC exists.

Yes → Enter “dynamic body control module” diagnosis.

No

10 Check the DTC of other modules.

1. Does the other module read the DTC that the communication with ABS is lost?

Yes → Replace the smart power brake controller.

No

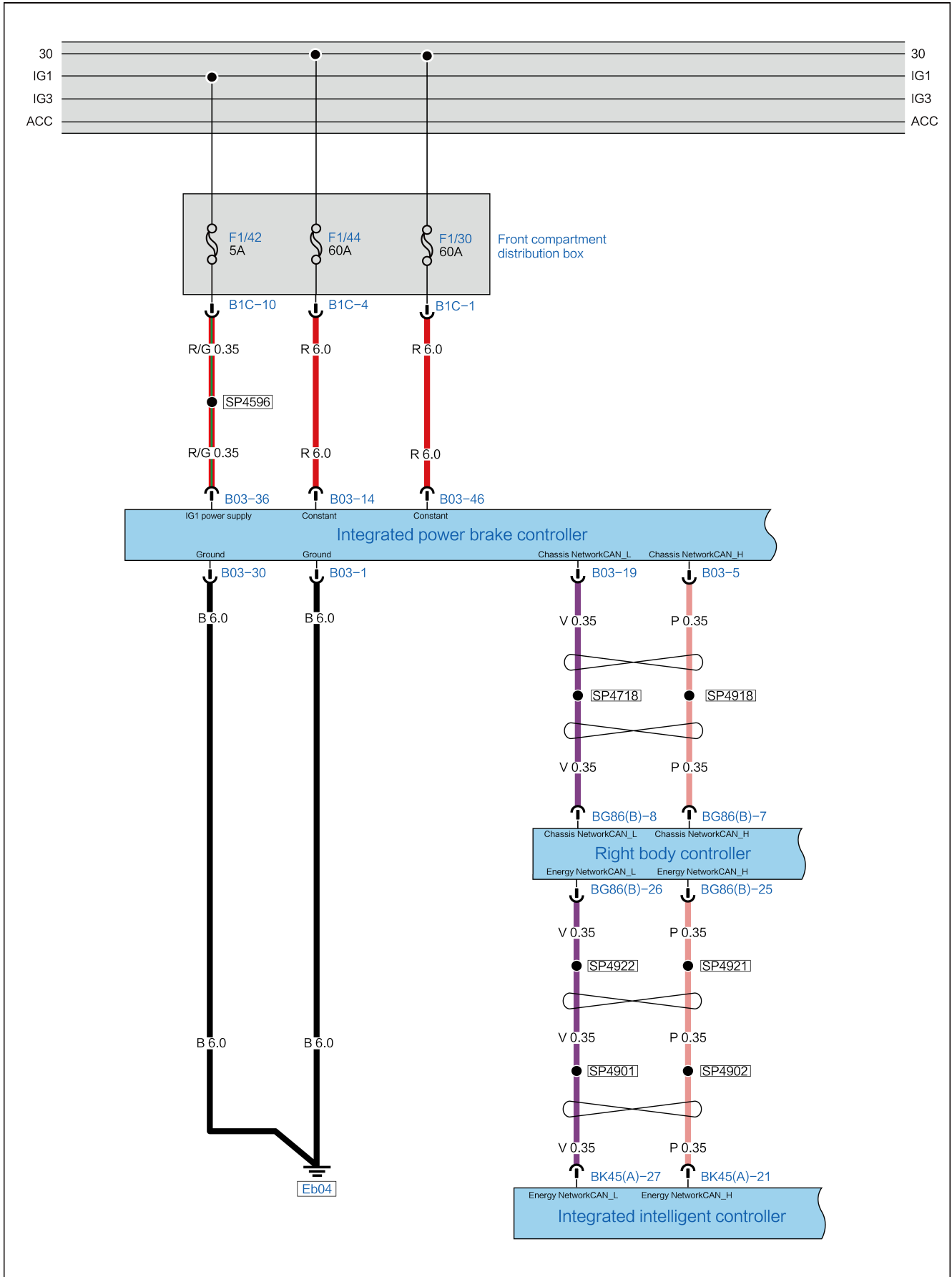
Replace the smart integrated front drive control unit.

U024E87 Communication with ESC Failed

DTC Description

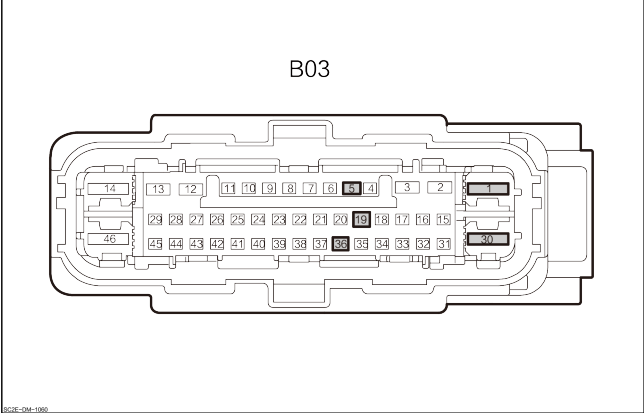
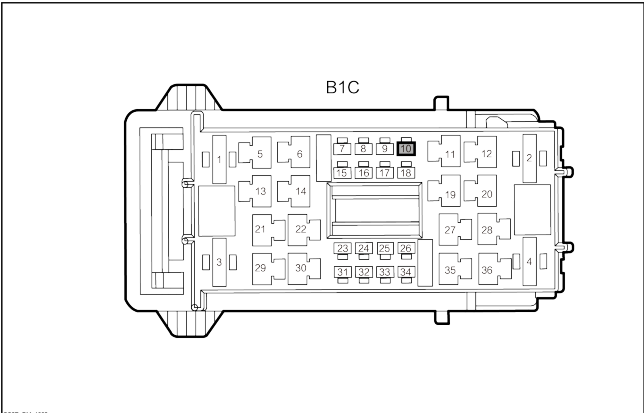
| U024E87 Communication with ESC Failed | |
|---------------------------------------|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Fuse fault.2. Harness or connector fault.3. Smart integrated control unit fault.4. Smart power brake controller fault. |
| Fault setting conditions | Abnormal smart integrated control unit. |
| Trigger fault conditions | When the communication failure of smart integrated control unit is detected, a DTC will be generated. |

Circuit Diagram



802E-DM-120

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p style="text-align: center;">Smart power brake controller</p> <p style="text-align: center;">B03</p>  <p style="font-size: small;">B03E-DM-1000</p> | 1 | Ground |
| | 5 | Chassis network CAN_H |
| | 19 | Chassis network CAN_L |
| | 30 | Ground |
| | 36 | IG1 power supply |
| <p style="text-align: center;">Front compartment fuse box</p> <p style="text-align: center;">B1C</p>  <p style="font-size: small;">B03E-DM-1000</p> | 10 | Intelligent power brake control module IG1 power supply |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the EHB module passes the network detection.

Yes
Go to step 8

No

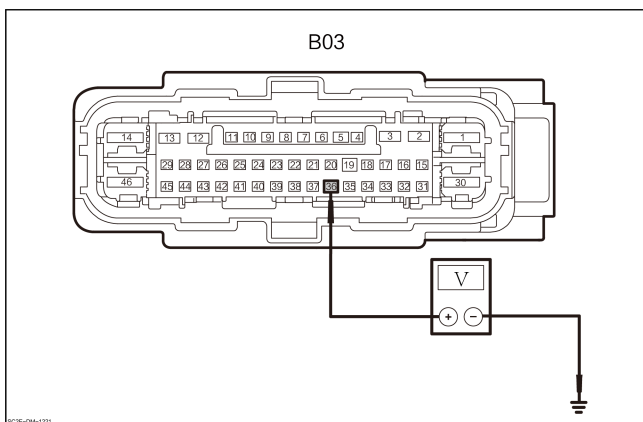
| | |
|---|---|
| 2 | Check the intelligent power brake control module harness and connector. |
|---|---|

1. Disconnect the intelligent power brake control module harness connector B03.
2. Check whether the intelligent power brake control module harness connector is normal or not.

No
Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the power supply of the intelligent power brake control module. |
|---|---|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of intelligent power brake control module B03–36 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-36 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes
Go to step 6

No

| | |
|---|---|
| 4 | Check the fuse of the intelligent power brake control module. |
|---|---|

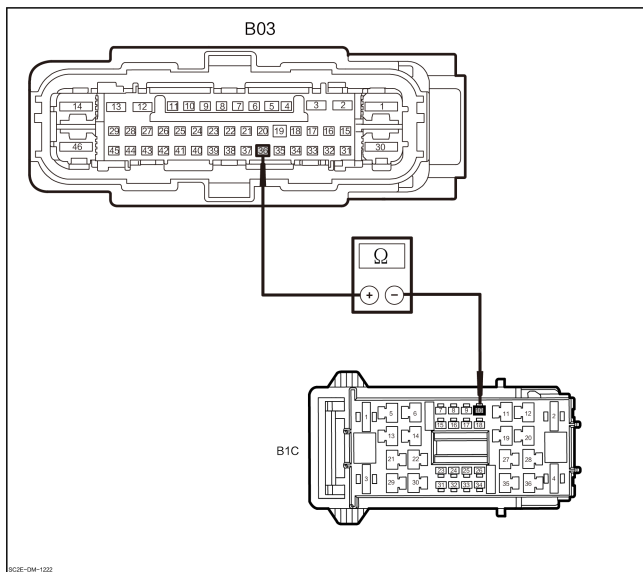
1. Check whether the front compartment fuse box fuse F1/42 (5 A) is normal.

No

Replace the fuse

Yes

5 Check whether the constant power supply of intelligent power brake control module is open-circuited.



1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1C.
3. Measure the resistance between the harness connector of intelligent power brake control module B03-36 and the harness connector of front compartment fuse box B1C-10.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-36 | B1C-10 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

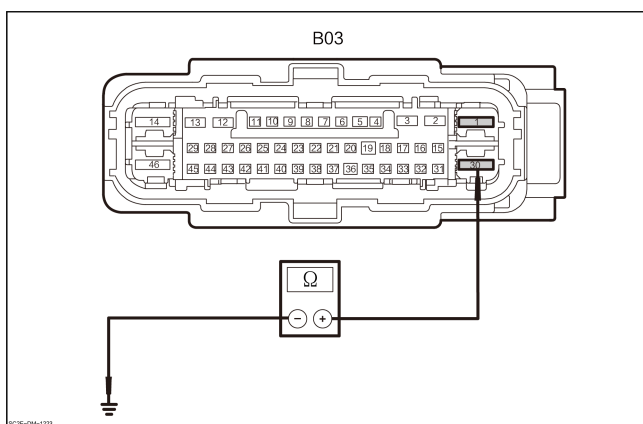
No

Repair or replace the wire harness

Yes

Replace the front compartment fuse box.

6 Check the ground line of intelligent power brake control module.



1. Measure the resistance of the harness connector of intelligent power brake control module B03-1 to ground.
2. Measure the resistance of the harness connector of intelligent power brake control module B03-30 to ground.
3. Check whether the results are normal.

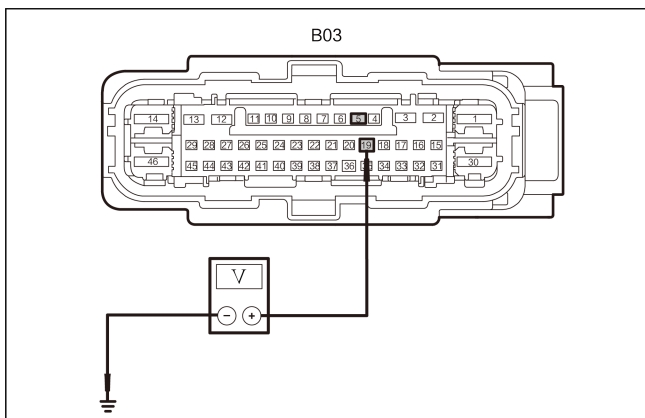
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-1 | Ground | Through- out | Lower than 1 Ω |
| B03-30 | | | |

No

Repair or replace the wire harness

Yes

7 Check the CAN line of the intelligent power brake control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of intelligent power brake control module B03–19 and the ground.
3. Measure the voltage between the harness connector of intelligent power brake control module B03–5 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B03–19 | Ground | Through-out | 1.5~2.5V |
| B03–5 | | | 2.5~3.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the smart power brake controller.

8 Check the DTC of EHB module.

1. Read the DTC of the EHB module with VDS.
2. Check whether other DTC exists.

Yes → Enter the "EHB module" diagnosis.

No

9 Check the dynamic body control module DTC.

1. Use a VDS to read the power body control module DTC.
2. Check whether other DTC exists.

Yes → Enter “dynamic body control module” diagnosis.

No

10 Check the DTC of other modules.

1. Does the other module read the DTC that the communication with ESC is lost?

Yes → Replace the smart power brake controller.

No

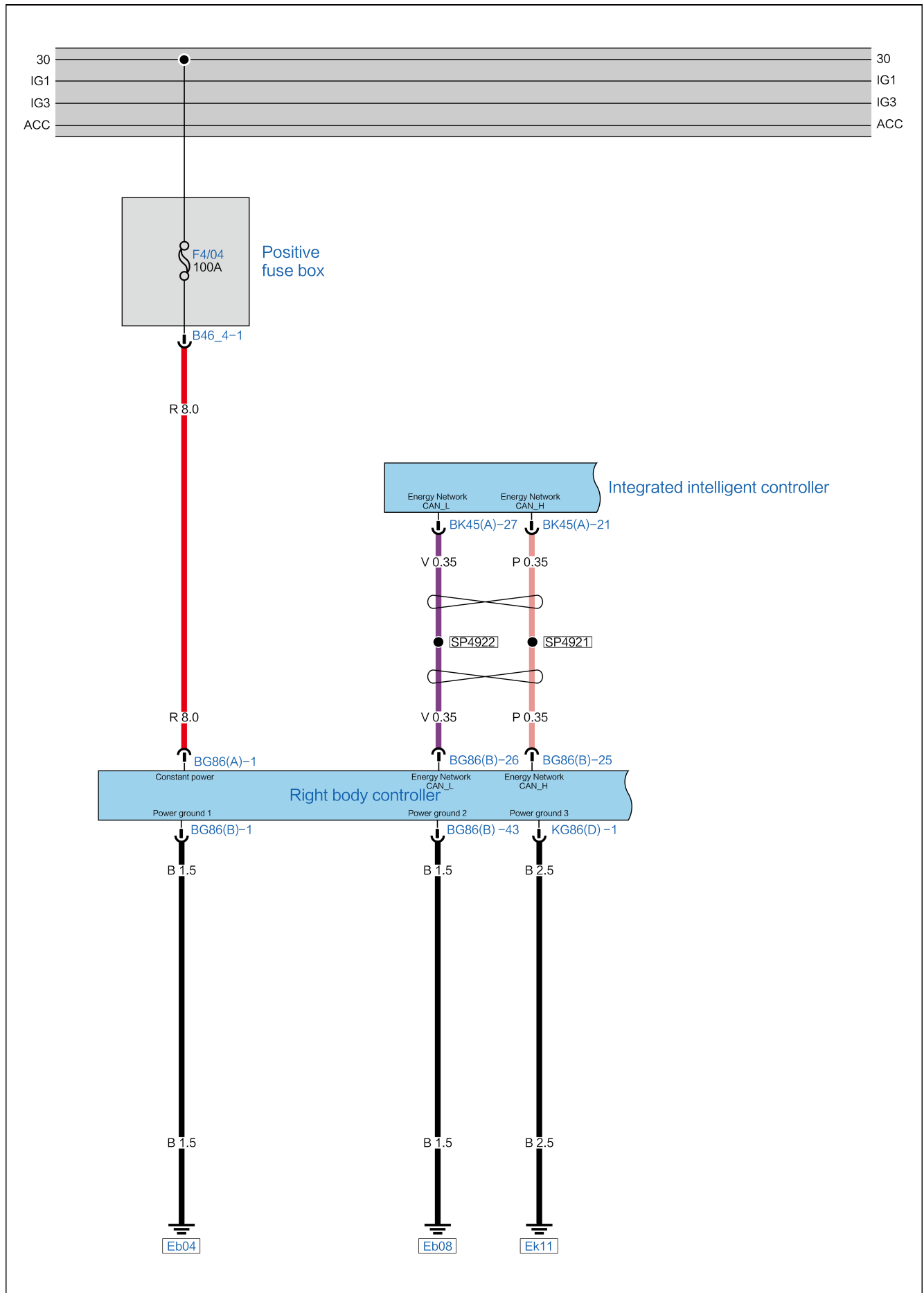
Replace the smart integrated front drive control unit.

U016487 Communication with A/C Failed

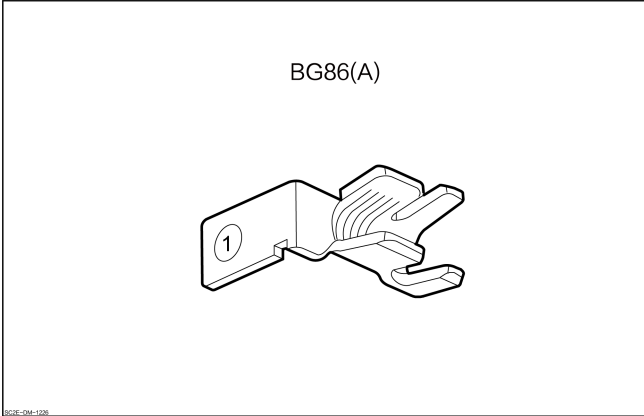
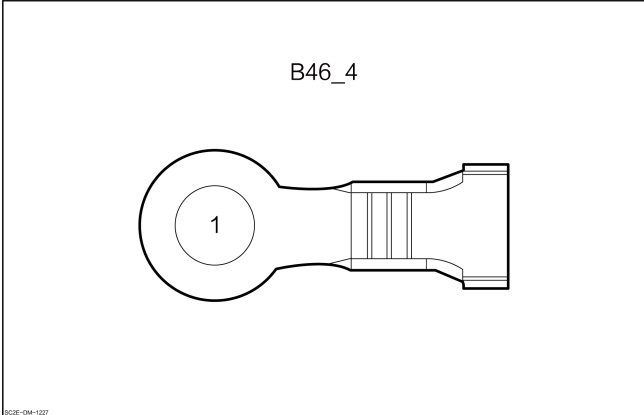
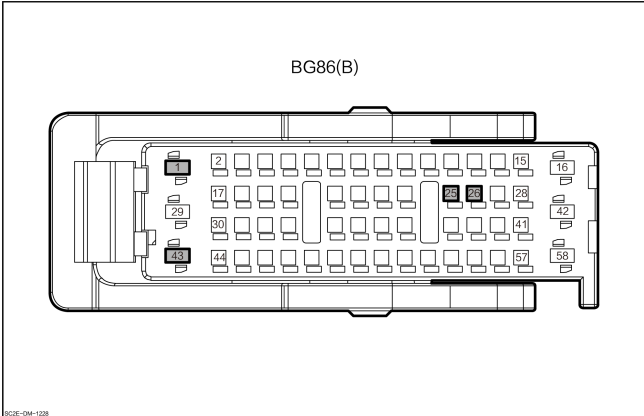
DTC Description

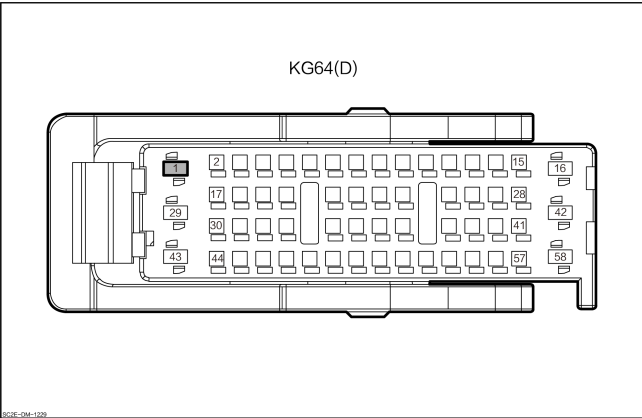
| U016487 Communication with A/C Failed | |
|---------------------------------------|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The right body control module fails. 3. Power battery packet fault. |
| Fault setting conditions | Abnormal communication with A/C |
| Trigger fault conditions | During the vehicle powered on process, if the dynamic body control module fails to receive any air conditioning system message, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;"> <p>BG86(A)</p>  </div> | 1 | Right body control module constant power |
| <p style="text-align: center;">Positive fuse box</p> <div style="text-align: center;"> <p>B46_4</p>  </div> | 1 | Constant power |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;"> <p>BG86(B)</p>  </div> | 1 | Power ground 1 |
| | 26 | Energy network CAN_L |
| | 25 | Energy network CAN_H |

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| | 43 | Power ground 2 |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p style="text-align: center;">KG64(D)</p> </div> | 1 | Power ground 3 |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the right body control module has passed the network test.

Yes

Go to step 8

No

| | |
|---|---|
| 2 | Check the fuse for right body control module. |
|---|---|

1. Check the fuse F4/04(100A) in the positive fuse box for normal function.

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the harness and connector of right body control module. |
|---|---|

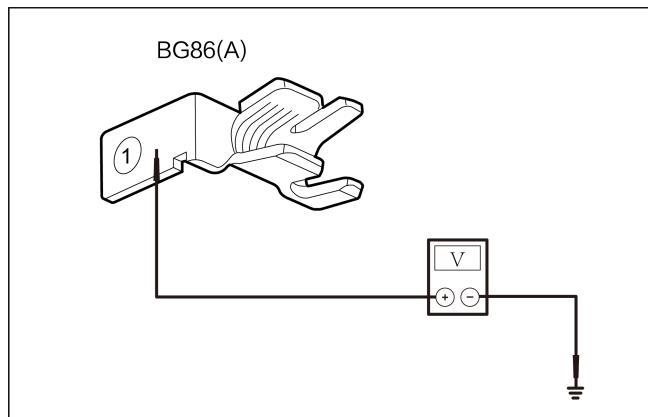
1. Set the START/STOP button to “OFF” .
2. Disconnect the power terminal of right body control module BG86(A).
3. Disconnect the harness connector of right body control module BG86(B).
4. Disconnect the harness connector of right body control module KG86(D).
5. Check the power terminal and connector of right body control module of normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the constant power of right body control module. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the power terminal of right body control module BG86(A)-1 and the ground.

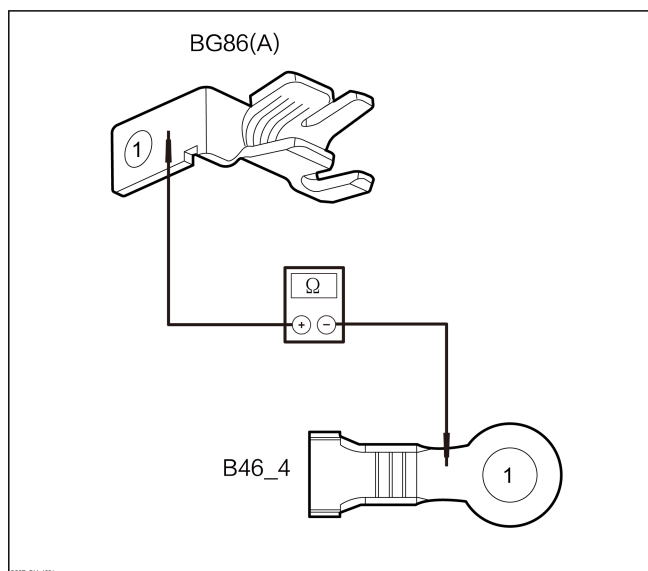
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG86(A)-1 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → [Go to step 6](#)

No

5 Check the power supply of right body control module for open circuit.



1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of positive fuse box B46_4.
3. Measure the resistance between the harness connector of right body control module BG86(A)-1 and the harness connector of positive fuse box B46_4-1.

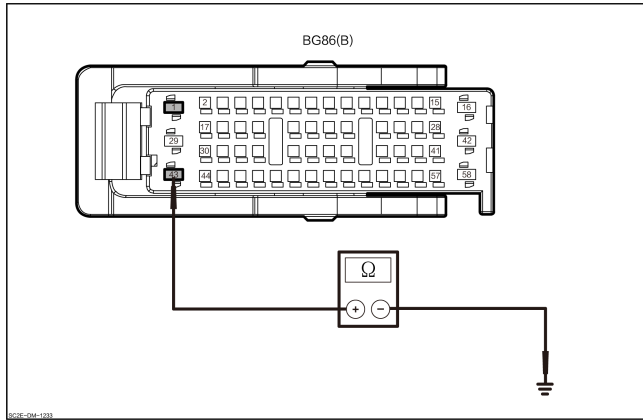
| Connector | | Condition | Resistance value |
|-----------|---------|-------------|------------------|
| (+) | (-) | | |
| BG86(A)-1 | B46_4-1 | Through-out | Lower than 1Ω |

4. Check whether the results are normal.

No → Repair or replace the wire harness

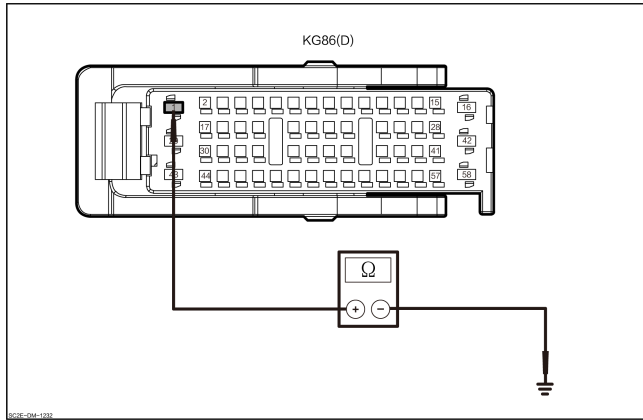
Yes → Replace the positive fuse box.

6 Check the ground line of right body control module.



1. Measure the resistance between the harness connector of right body control module BG86(B)-1 and the ground.
2. Measure the resistance between the harness connector of right body control module BG86(B)-43 and the ground.
3. Measure the resistance between the harness connector of right body control module KG86(D)-1 and the ground.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG86(B)-1 | Ground | Through- out | Lower than 1 Ω |
| BG86(B)-43 | | | |
| KG86(D)-1 | | | |

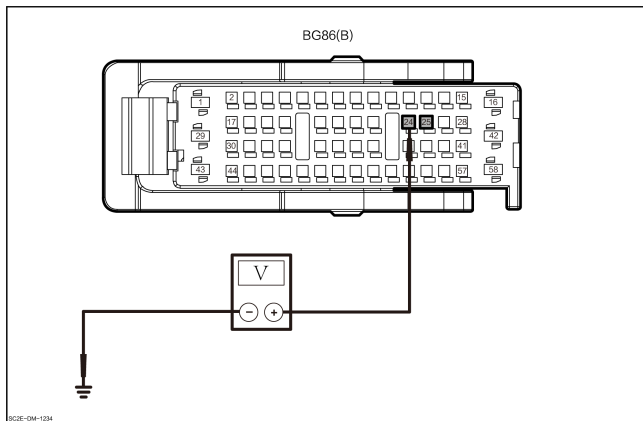


4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the CAN line of right body control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of right body control module BG86(B)-25 and the ground.
3. Measure the voltage between the harness connector of right body control module BG86(B)-26 and the ground.

| Connector | | Condition | Voltage value |
|------------|--------|-----------------|------------------|
| (+) | (-) | | |
| BG86(B)-25 | Ground | Through- out | 2.5~3.5V |
| BG86(B)-26 | | | 1.5~2.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the right body control module.

8 Check the DTC of right body control module.

1. Use a VDS to read the right body control module DTC.
2. Check whether other DTC exists.

Yes → Enter “right body control module” diagnosis.

No

9 Check the dynamic body control module DTC.

1. Use a VDS to read the power body control module DTC.
2. Check whether other DTC exists.

Yes → Enter “dynamic body control module” diagnosis.

No

10 Check the DTC of other modules.

1. Read the DTC of other modules with VDS.
2. Check whether the DTC of communication failure with the A/C is read in other modules.

Yes → Replace the right body control module.

No → Replace the smart integrated front drive control unit.

U029F87 Communication with OBC Failed

DTC Description

| U029F87 Communication with OBC Failed | |
|---------------------------------------|---|
| Symptom | – |
| Possible Cause | Smart integrated front drive control unit fault. |
| Fault setting conditions | OBC communication abnormality |
| Trigger fault conditions | When abnormal OBC communication is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|--|
| No | Check the “intermittent fault” . |
| Yes | Replace the smart integrated front drive control unit. |

U011187 Communication with Battery Management System (BMS) Failed

DTC Description

| U011187 Communication with Battery Management System (BMS) Failed | |
|---|--|
| Symptom | – |
| Possible Cause | Smart integrated front drive control unit fault. |
| Fault setting conditions | The battery management system (BMS) communication fails. |
| Trigger fault conditions | If communication with battery management system (BMS) failed is detected, this DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

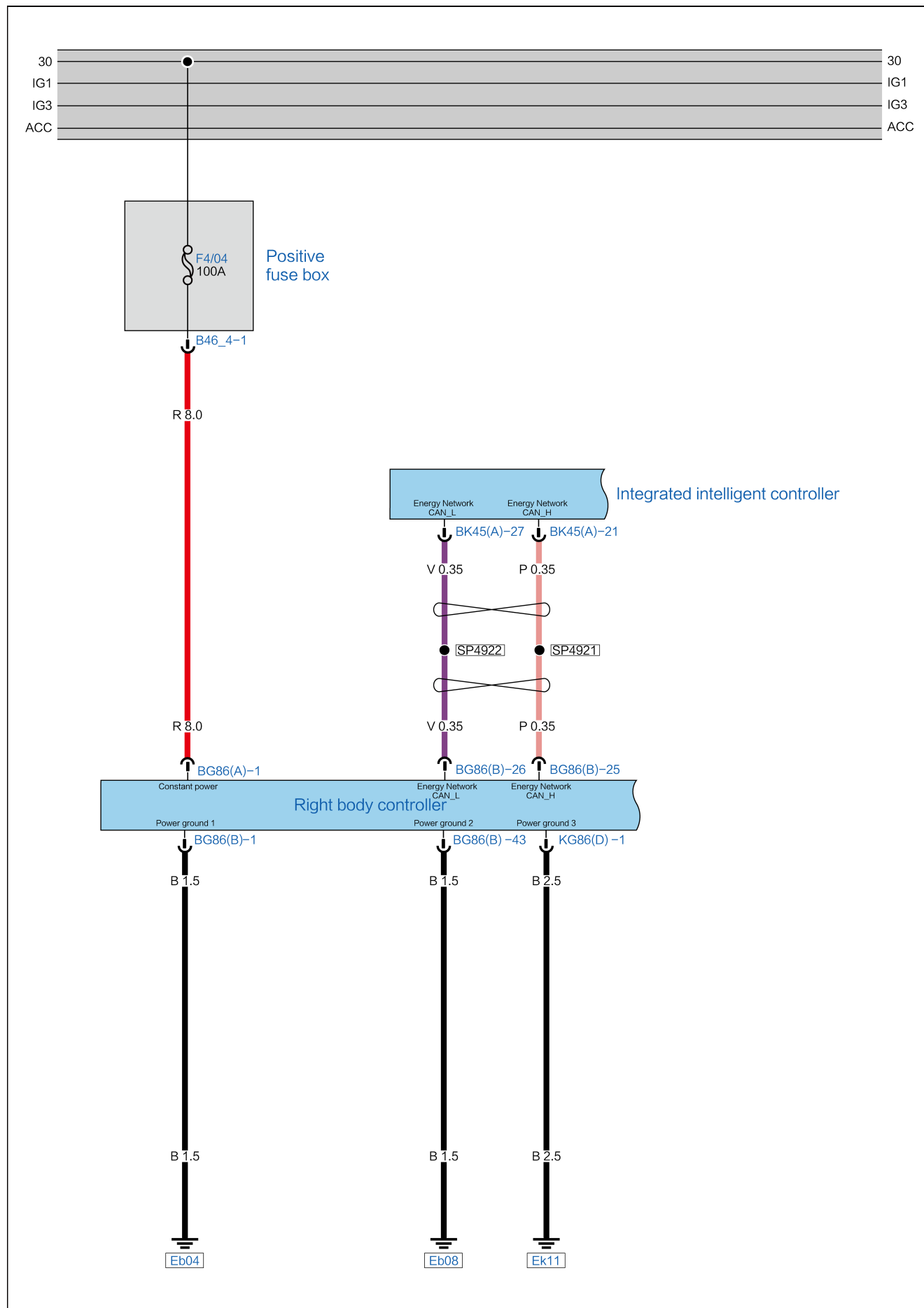
| | |
|-----|--|
| No | Check the “intermittent fault” . |
| Yes | Replace the smart integrated front drive control unit. |

U014087 Communication with BCM Failed

DTC Description

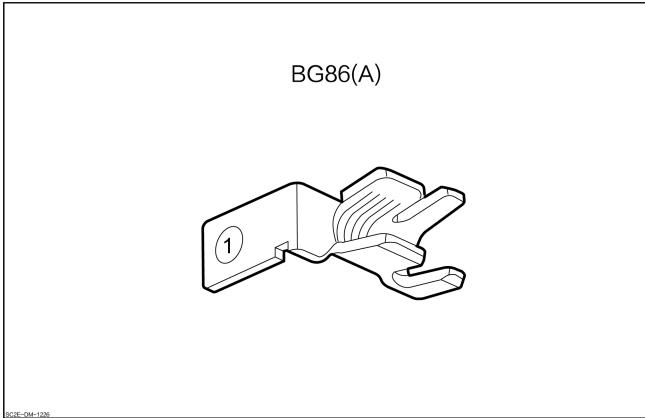
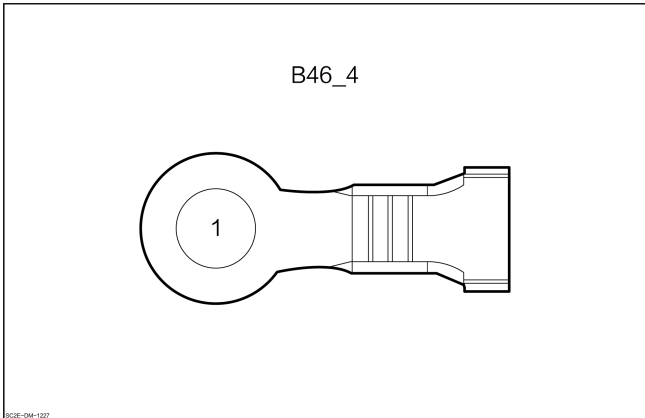
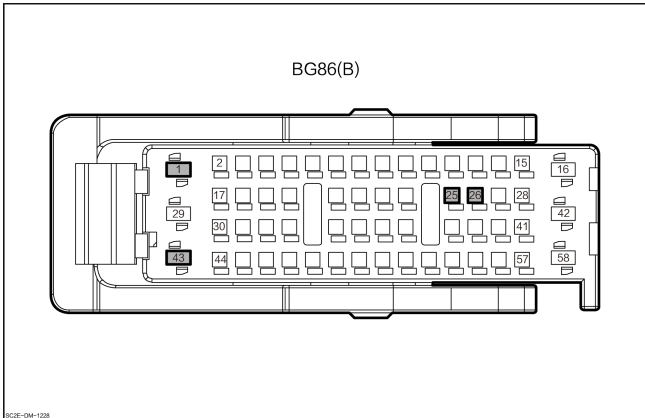
| U014087 Communication with BCM Failed | |
|---------------------------------------|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. The right body control module fails.3. Vehicle control unit fault. |
| Fault setting conditions | The communication with BCM failed. |
| Trigger fault conditions | During the vehicle powered on process, if the dynamic body control module fails to receive any BCM message, this DTC is generated. |

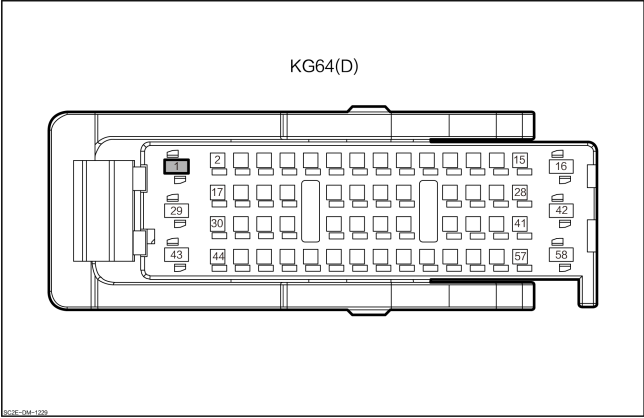
Circuit Diagram



6236-094-1135

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;"> <p>BG86(A)</p>  </div> | 1 | Right body control module constant power |
| <p style="text-align: center;">Positive fuse box</p> <div style="text-align: center;"> <p>B46_4</p>  </div> | 1 | Constant power |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;"> <p>BG86(B)</p>  </div> | 1 | Power ground 1 |
| | 26 | Energy network CAN_L |
| | 25 | Energy network CAN_H |

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| | 43 | Power ground 2 |
| <p style="text-align: center;">Right body control module</p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">KG64(D)</p>  <p style="font-size: small; margin-top: 5px;">KG64-DIM-1292</p> </div> | 1 | Power ground 3 |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the right body control module has passed the network test.

Yes

Go to step 8

No

| | |
|---|---|
| 2 | Check the fuse for right body control module. |
|---|---|

1. Check the fuse F4/04(100A) in the positive fuse box for normal function.

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the harness and connector of right body control module. |
|---|---|

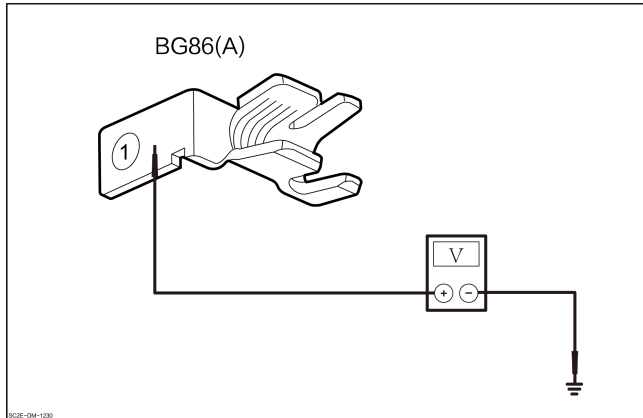
1. Set the START/STOP button to “OFF” .
2. Disconnect the power terminal of right body control module BG86(A).
3. Disconnect the harness connector of right body control module BG86(B).
4. Disconnect the harness connector of right body control module KG86(D).
5. Check the power terminal and connector of right body control module of normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the constant power of right body control module. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the power terminal of right body control module BG86(A)-1 and the ground.

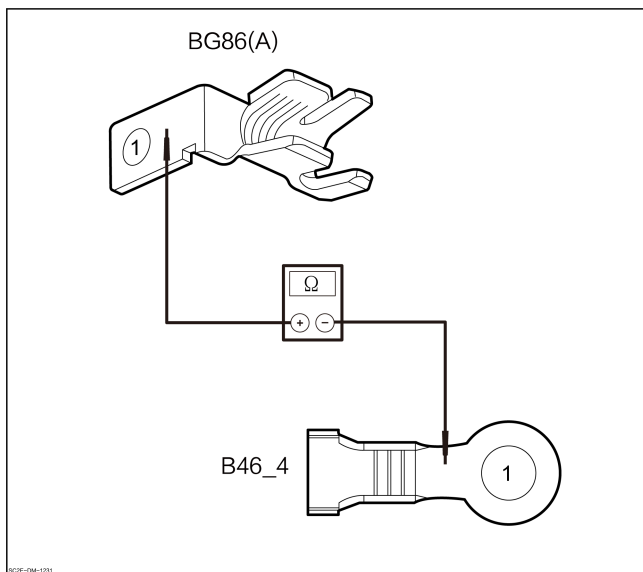
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG86(A)-1 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes Go to step 6

No

5 Check the power supply of right body control module for open circuit.



1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of positive fuse box B46_4.
3. Measure the resistance between the harness connector of right body control module BG86(A)-1 and the harness connector of positive fuse box B46_4-1.

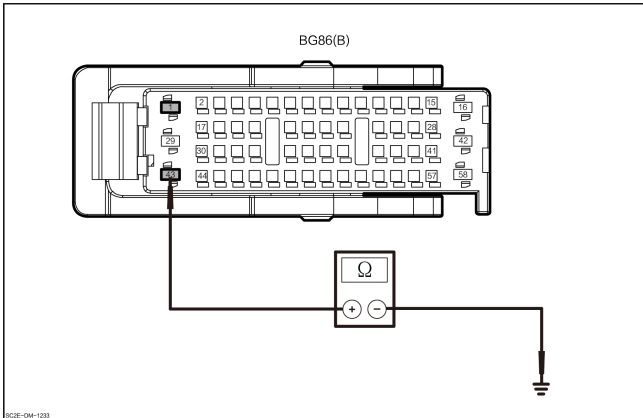
| Connector | | Condition | Resistance value |
|-----------|---------|-------------|------------------|
| (+) | (-) | | |
| BG86(A)-1 | B46_4-1 | Through-out | Lower than 1 Ω |

4. Check whether the results are normal.

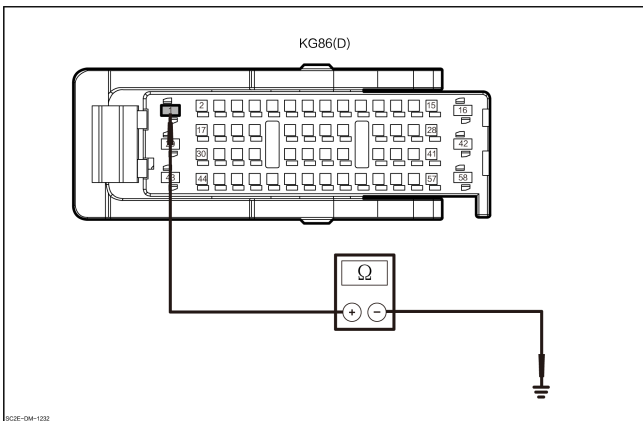
No Repair or replace the wire harness

Yes Replace the positive fuse box.

6 Check the ground line of right body control module.



1. Measure the resistance between the harness connector of right body control module BG86(B)-1 and the ground.
2. Measure the resistance between the harness connector of right body control module BG86(B)-43 and the ground.
3. Measure the resistance between the harness connector of right body control module KG86(D)-1 and the ground.



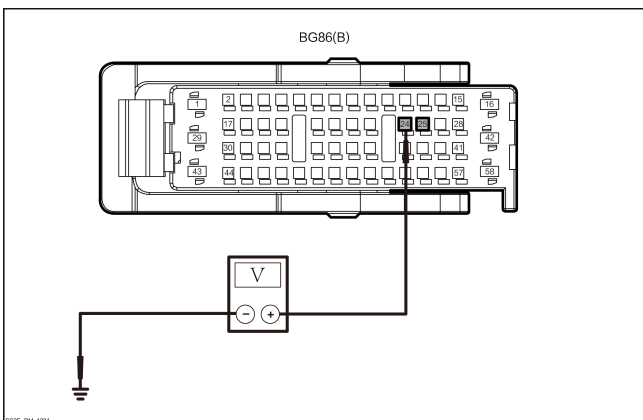
| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG86(B)-1 | Ground | Through- out | Lower than 1Ω |
| BG86(B)-43 | | | |
| KG86(D)-1 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the CAN line of right body control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of right body control module BG86(B)-25 and the ground.
3. Measure the voltage between the harness connector of right body control module BG86(B)-26 and the ground.

| Connector | | Condition | Voltage value |
|------------|--------|-----------------|------------------|
| (+) | (-) | | |
| BG86(B)-25 | Ground | Through- out | 2.5~3.5V |
| BG86(B)-26 | | | 1.5~2.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes

Replace the right body control module.

8

Check the DTC of right body control module.

1. Use a VDS to read the right body control module DTC.
2. Check whether other DTC exists.

Yes

Enter “right body control module” diagnosis.

No

9

Check the dynamic body control module DTC.

1. Use a VDS to read the power body control module DTC.
2. Check whether other DTC exists.

Yes

Enter “dynamic body control module” diagnosis.

No

10

Check the DTC of other modules.

1. Read the DTC of other modules with VDS.
2. Check whether communication failure with BCM is read in other modules.

Yes

Replace the right body control module.

No

Replace the smart integrated front drive control unit.

U029887 communication with DC failed

DTC Description

| U029887 Communication with DC Failed | |
|--------------------------------------|--|
| Symptom | – |
| Possible Cause | Smart integrated front drive control unit fault. |
| Fault setting conditions | Communication fault with DC |
| Trigger fault conditions | When communication failure with DC is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

U01A500 Communication with Front Motor Motor Control Unit (FMCU) Failed**DTC Description**

| U01A500 Communication with Front Motor Motor Control Unit (FMCU) Failed | |
|---|---|
| Symptom | – |
| Possible Cause | Smart integrated front drive control unit fault. |
| Fault setting conditions | Communication fault with front drive motor controller (FMCU) |
| Trigger fault conditions | When communication fault with front drive motor controller (FMCU) is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated control unit.

P1D9216 Total Voltage of Power Battery Seriously Low

DTC Description

| P1D9216 Total Voltage of Power Battery Seriously Low | |
|--|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Power battery failure 2. The battery execution and sampling unit fails. 3. Smart integrated front drive control unit fault. |
| Fault setting conditions | Power battery total voltage critically low |
| Trigger fault conditions | When critically low power battery total voltage is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Enter the "Battery Execution and Sampling System" for diagnosis.

P1D9308 Life Frame of Power Battery Abnormal

DTC Description

| P1D9308 Life Frame of Power Battery Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Power battery failure 2. The battery execution and sampling unit fails. 3. Smart integrated front drive control unit fault. |
| Fault setting conditions | Abnormality in power battery's lifespan |
| Trigger fault conditions | When abnormal power battery's lifespan is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Enter the "Battery Execution and Sampling System" for diagnosis.

P1D9200 Total Voltage of Power Battery Too Low

DTC Description

| P1D9200 Total Voltage of Power Battery Too Low | |
|--|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Power battery failure 2. The battery execution and sampling unit fails. 3. Smart integrated front drive control unit fault. |
| Fault setting conditions | Power battery total voltage critically low |
| Trigger fault conditions | When critically low power battery total voltage is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Enter the "Battery Execution and Sampling System" for diagnosis.

P1D9016 Voltage of Power Battery Cell Too Low

DTC Description

| P1D9016 Voltage of Power Battery Cell Too Low | |
|---|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Power battery failure 2. The battery execution and sampling unit fails. 3. Smart integrated front drive control unit fault. |
| Fault setting conditions | Power battery total voltage critically low |
| Trigger fault conditions | When critically low power battery total voltage is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Enter the "Battery Execution and Sampling System" for diagnosis.

P1D9100 Total Voltage of Power Battery Too High

DTC Description

| P1D9100 Total Voltage of Power Battery Too High | |
|---|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Power battery failure 2. The battery execution and sampling unit fails. 3. Smart integrated front drive control unit fault. |
| Fault setting conditions | Power battery total voltage high |
| Trigger fault conditions | If total voltage of power battery is too high is detected, this DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Enter the "Battery Execution and Sampling System" for diagnosis.

P1D9600 Life Frame of Power Battery Abnormal – Counter Out of Order

DTC Description

| P1D9600 Life Frame of Power Battery Abnormal – Counter Out of Order | |
|---|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Power battery failure 2. The battery execution and sampling unit fails. 3. Smart integrated front drive control unit fault. |
| Fault setting conditions | Life frame of power battery is abnormal – counter out-of-order. |
| Trigger fault conditions | If Life frame of power battery is abnormal– counter out-of-order is detected, this DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Enter the "Battery Execution and Sampling System" for diagnosis.

P1D9017 Voltage of Power Battery Cell Too High

DTC Description

| P1D9017 Voltage of Power Battery Cell Too High | |
|--|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Power battery failure 2. The battery execution and sampling unit fails. 3. Smart integrated front drive control unit fault. |
| Fault setting conditions | Power battery total voltage critically high |
| Trigger fault conditions | If total voltage of power battery is extremely high is detected, this DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Enter the "Battery Execution and Sampling System" for diagnosis.

P1D9117 Total Voltage of Power Battery Seriously High

DTC Description

| P1D9117 Total Voltage of Power Battery Seriously High | |
|---|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Power battery failure 2. The battery execution and sampling unit fails. 3. Smart integrated front drive control unit fault. |
| Fault setting conditions | Power battery total voltage critically low |
| Trigger fault conditions | When critically low power battery total voltage is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Enter the "Battery Execution and Sampling System" for diagnosis.

P1D9700 Life Frame of Power Battery Abnormal – Check Value Abnormal

DTC Description

| P1D9700 Life Frame of Power Battery Abnormal – Check Value Abnormal | |
|---|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Power battery failure 2. The battery execution and sampling unit fails. 3. Smart integrated front drive control unit fault. |
| Fault setting conditions | Life frame of power battery is abnormal – check value is abnormal . |
| Trigger fault conditions | If Life frame of power battery is abnormal – check value is abnormal is detected, this DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Enter the "Battery Execution and Sampling System" for diagnosis.

P268D00 Connection Signal of AC Charging Gun Inconsistent

DTC Description

| P268D00 Connection Signal of AC Charging Gun Inconsistent | |
|---|---|
| Symptom | – |
| Possible Cause | Smart integrated front drive control unit fault. |
| Fault setting conditions | The AC charger connection signal is inconsistent. |
| Trigger fault conditions | If AC charger connection signal is inconsistent is detected, this DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Enter the "Battery Execution and Sampling System" for diagnosis.

P268973 DC Charging Cathode Contactor Sintering

DTC Description

| P268973 DC Charging Cathode Contactor Sintering | |
|---|--|
| Symptom | – |
| Possible Cause | Smart integrated front drive control unit fault. |
| Fault setting conditions | DC charging cathode contactor sintering |
| Trigger fault conditions | When DC charging cathode contactor sintering is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

P268B00 DC Charging Cathode Contactor Loop Check Fault

DTC Description

| P268B00 DC Charging Cathode Contactor Loop Check Fault | |
|--|--|
| Symptom | – |
| Possible Cause | Smart integrated front drive control unit fault. |
| Fault setting conditions | DC charging negative contactor loop check fault |
| Trigger fault conditions | When DC charging negative contactor loop check fault is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

P268C00 Voltage of DC Charging Port Abnormal

DTC Description

| P268C00 Voltage of DC Charging Port Abnormal | |
|--|---|
| Symptom | – |
| Possible Cause | DC charging pile fault. |
| Fault setting conditions | After inserting the gun, it is judged that the voltage of the DC charging port exceeds the specified threshold. |
| Trigger fault conditions | During the DC charging status of the vehicle, after plugging in the charger, when the voltage of the DC charging port exceeds the specified threshold, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

P268A00 DC Charging Anode Contactor Loop Check Fault

DTC Description

| P268A00 DC Charging Anode Contactor Loop Check Fault | |
|--|--|
| Symptom | – |
| Possible Cause | Smart integrated front drive control unit fault. |
| Fault setting conditions | DC charging positive contactor loop check fault |
| Trigger fault conditions | When DC charging positive contactor loop check fault is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

P268873 DC charging anode contactor sintering

DTC Description

| P268873 DC Charging Anode Contactor Sintering | |
|---|--|
| Symptom | – |
| Possible Cause | Smart integrated front drive control unit fault. |
| Fault setting conditions | DC charging anode contactor sintering |
| Trigger fault conditions | When DC charging positive contactor loop check fault is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

U029887 Communication with DC Failed

DTC Description

| U029887 Communication with DC Failed | |
|--------------------------------------|--|
| Symptom | – |
| Possible Cause | Smart integrated front drive control unit fault. |
| Fault setting conditions | Communication fault with DC |
| Trigger fault conditions | When communication failure with DC is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

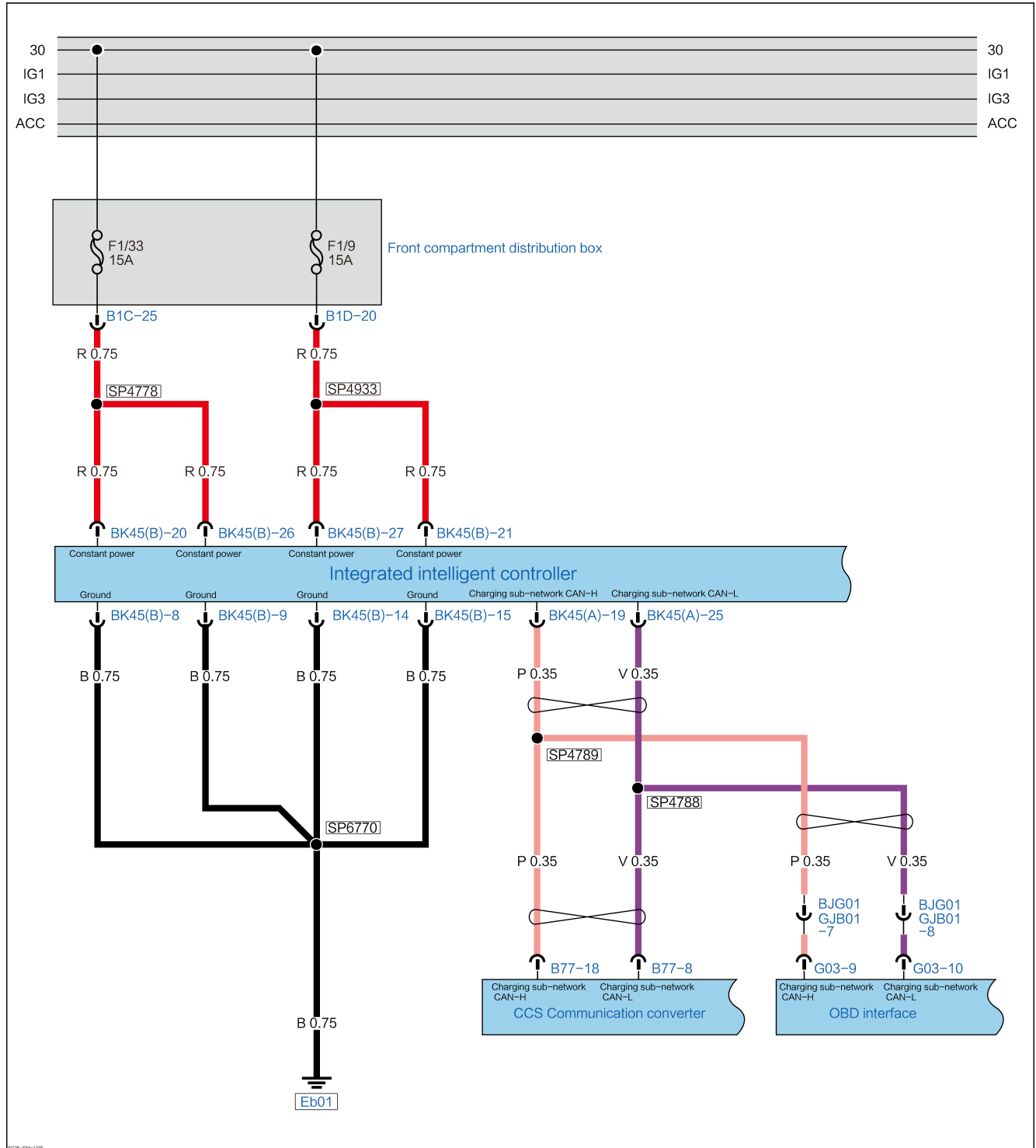
Replace the smart integrated front drive control unit.

U014B87 Communication with DC Charging Cabinet Failed

DTC Description

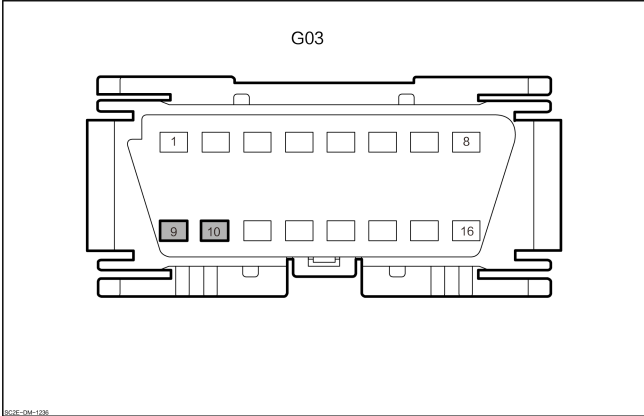
| U014B87 Communication with DC Charging Cabinet Failed | |
|---|---|
| Symptom | – |
| Possible Cause | 1. DC charging pile fault. 2. Smart integrated front drive control unit fault. |
| Fault setting conditions | Communication fault with DC charging cabinet |
| Trigger fault conditions | When communication fault with DC charging cabinet is detected, a DTC will be generated. |

Circuit Diagram



SCHE-DM-126

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|---------------------------------------|---|
| <p style="text-align: center;">OBD–Diagnosis port</p>  | <p style="text-align: center;">9</p> | <p style="text-align: center;">Charging sub–network CAN–H</p> |
| | <p style="text-align: center;">10</p> | <p style="text-align: center;">Charging sub–network CAN–L</p> |

Diagnostic Steps

1 Replace the DC charging pile for charging test.

1. Connect the VDS to the diagnostic interface.
2. Clean the dynamic body control module DTC.
3. Replace the DC charging pile for charging test.
4. Check the charging condition, and check the dynamic body control module for the existence of DTCs.

No → Diagnosis completes, and the result indicates DC charging pipe fault.

Yes

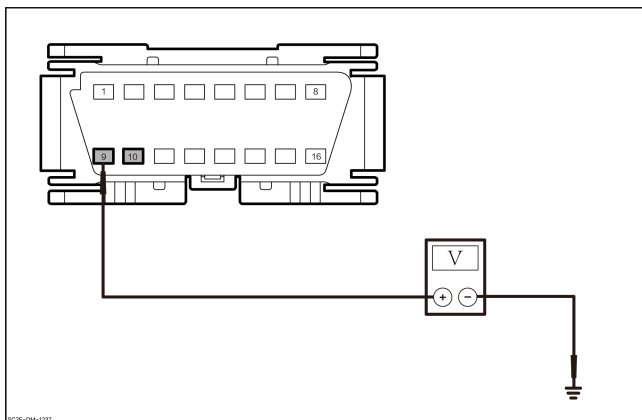
2 Check the harness connector.

1. Disconnect the harness connectors of integrated intelligent front drive control module BK45(A) and BK45(B).
2. Disconnect the harness connector of CCS communication converter B77.
3. Check whether the harness connector is normal.

No → Replace or maintain wire harness

Yes

3 Check the CAN line of CCS communication converter.



1. Connect the harness connectors of integrated intelligent front drive control module BK45(A) and BK45(B).
2. Connect the harness connector of CCS communication converter B77.
3. Set the START/STOP button to “ON” .
4. Measure the voltage between OBD interface G03-9 and the ground.
5. Measure the voltage between OBD interface G03-10 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G03-9 | Ground | Through-out | 2.5~3.5V |

| | | | |
|--------|--|--|----------|
| G03-10 | | | 1.5~2.5V |
|--------|--|--|----------|

6. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes

| | |
|---|---|
| 4 | Replace the CCS communication converter, and check the DTC. |
|---|---|

1. Replace the CCS communication converter.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Set the START/STOP button to “ON” again, and read the power body control module DTC.
6. Check whether the same DTC is displayed.

No → The system is normal.

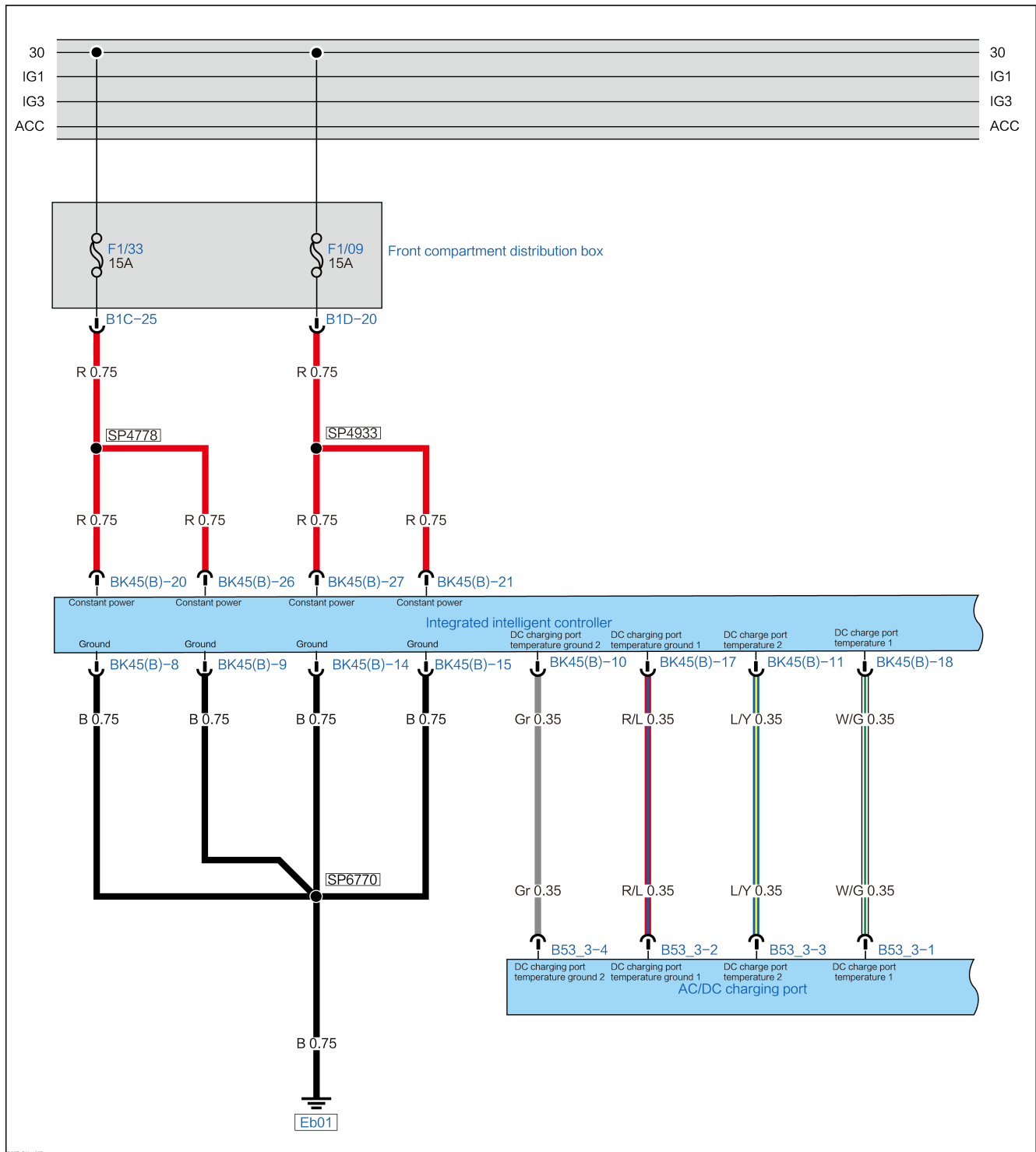
Yes → Replace the smart integrated front drive control unit.

P26834B Temperature Rise of Charging Port Generally High

DTC Description

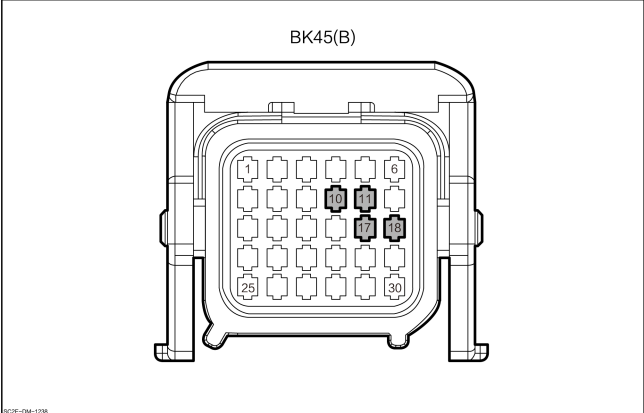
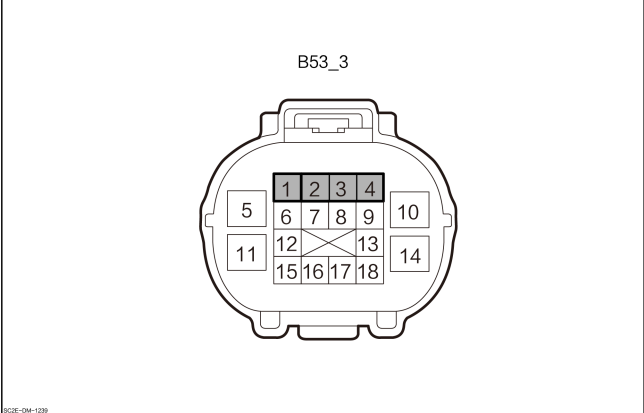
| P26834B Temperature Rise of Charging Port Generally High | |
|--|--|
| Symptom | Unable to charge/discharge. |
| Possible Cause | 1. AC/DC charging port fault. 2. AC/DC charging port temperature sampling harness fault. 3. Smart integrated front drive control unit fault. |
| Fault setting conditions | The temperature of the AC/DC charging port exceeds specified threshold. |
| Trigger fault conditions | When the charging port temperature exceeds the specified threshold, a DTC will be generated. |

Circuit Diagram



SCHE-DM-1005

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------------------------|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 10 | DC charging port temperature ground 2 |
| | 11 | DC charge port temperature 2 |
| | 17 | DC charging port temperature ground 1 |
| | 18 | DC charge port temperature 1 |
| <p>AC/DC charging port</p>  <p>B53_3</p> | 1 | DC charge port temperature 1 |
| | 2 | DC charging port temperature ground 1 |
| | 3 | DC charge port temperature 2 |
| | 4 | DC charging port temperature ground 2 |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--------------------------------|
| 2 | Check the AC/DC charging port. |
|---|--------------------------------|

1. Check the DC charging terminal for foreign matter, aging, deformation, ablation, fracture, etc.
2. Check whether the results are normal.

No

Clean the foreign matters or replace the DC charging port.

Yes

| | |
|---|----------------------------------|
| 3 | Check the harness and connector. |
|---|----------------------------------|

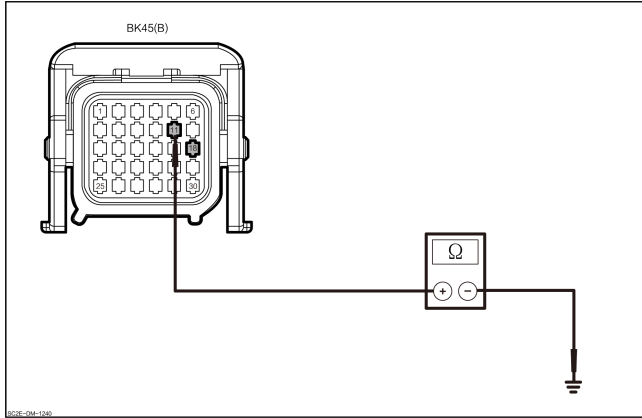
1. Disconnect the harness connector BK45(B) of intergrated intelligent front drive control module.
2. Disconnect AC/DC charging port B53_3.
3. Check the harness and connector for aging, deformation, ablation, fracture, etc.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the AC/DC charging harness is shorted to ground. |
|---|--|



1. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)–11 and the ground.
2. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)–18 and the ground.

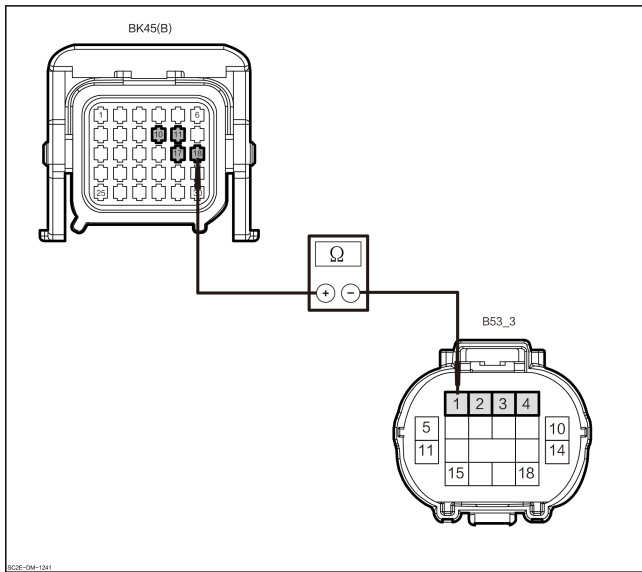
| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)–11 | Ground | Through- out | Above 10k Ω |
| BK45(B)–18 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check whether the dc charging harness is open circuited.



1. Set the START/STOP button to OFF.
2. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
3. Disconnect the AC/DC charging port harness connector harness connector B53_3.
4. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)–18 and the harness connector of AC/DC charging port B53_3–1.
5. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)–11 and the harness connector of AC/DC charging port B53_3–3.
6. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)–17 and the harness connector of AC/DC charging port B53_3–2.
7. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)–10 and the harness connector of AC/DC charging port B53_3–4.

| Connector | | Condition | Resist- ance value |
|-----------|-----|-----------|--------------------------|
| (+) | (-) | | |

| | | | |
|------------|---------|-------------|-----------------------|
| BK45(B)-18 | B53_3-1 | Through-out | Lower than 1 Ω |
| BK45(B)-11 | B53_3-3 | | |
| BK45(B)-17 | B53_3-2 | | |
| BK45(B)-10 | B53_3-4 | | |

8. Check whether the results are normal.

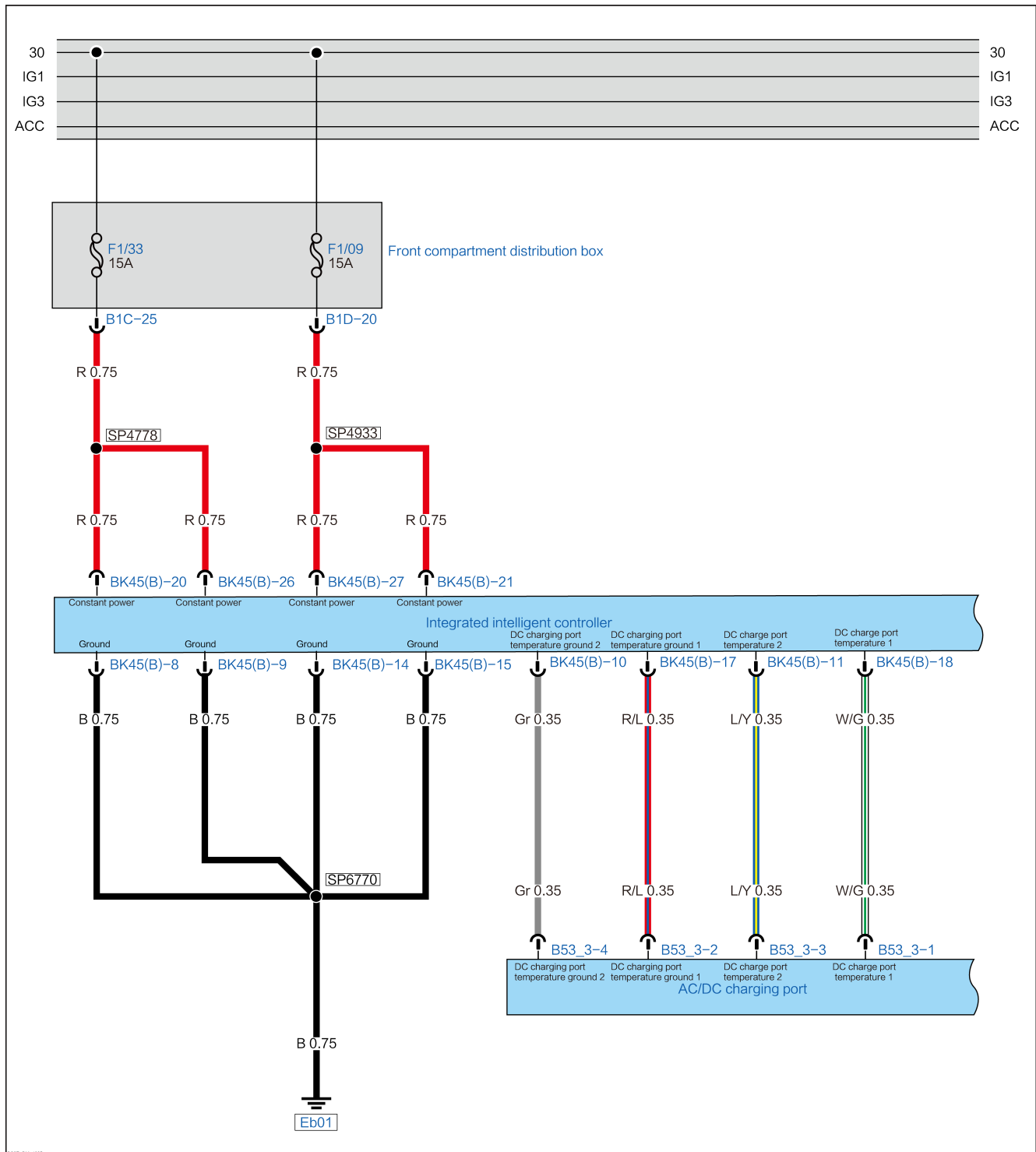
| | |
|-----|------------------------------------|
| No | Repair or replace the wire harness |
| Yes | Replace the AC/DC charging port. |

P26804B Temperature of Charging Port 1 Generally High

DTC Description

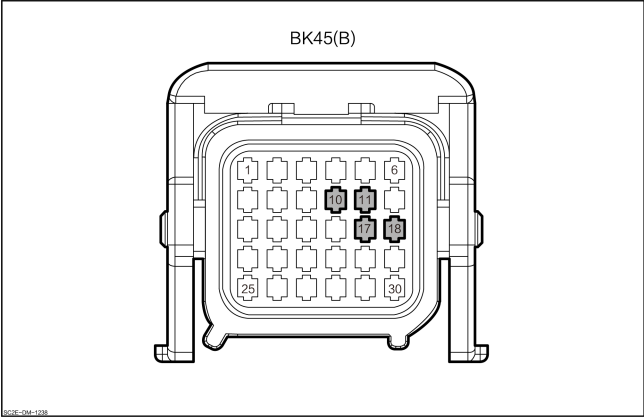
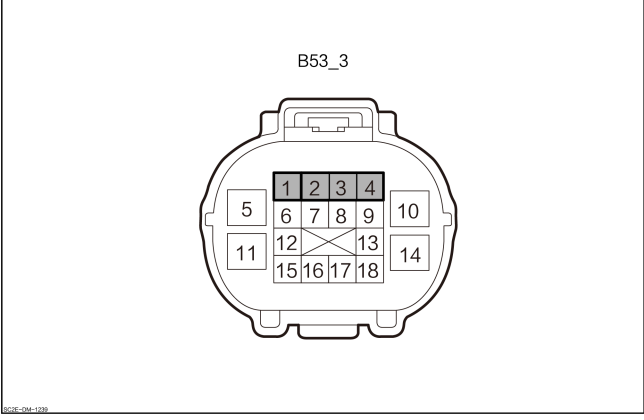
| P26804B Temperature of Charging Port 1 Generally High | |
|---|--|
| Symptom | Unable to charge/discharge. |
| Possible Cause | <ol style="list-style-type: none">1. AC/DC charging port fault.2. AC/DC charging port temperature sampling harness fault.3. Smart integrated front drive control unit fault. |
| Fault setting conditions | The temperature of the AC/DC charging port exceeds specified threshold. |
| Trigger fault conditions | When the charging port temperature exceeds the specified threshold, a DTC will be generated. |

Circuit Diagram



SCHE-DM-1005

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------------------------|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 10 | DC charging port temperature ground 2 |
| | 11 | DC charge port temperature 2 |
| | 17 | DC charging port temperature ground 1 |
| | 18 | DC charge port temperature 1 |
| <p>AC/DC charging port</p>  <p>B53_3</p> | 1 | DC charge port temperature 1 |
| | 2 | DC charging port temperature ground 1 |
| | 3 | DC charge port temperature 2 |
| | 4 | DC charging port temperature ground 2 |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--------------------------------|
| 2 | Check the AC/DC charging port. |
|---|--------------------------------|

1. Check the DC charging terminal for foreign matter, aging, deformation, ablation, fracture, etc.
2. Check whether the results are normal.

No

Clean the foreign matters or replace the DC charging port.

Yes

| | |
|---|----------------------------------|
| 3 | Check the harness and connector. |
|---|----------------------------------|

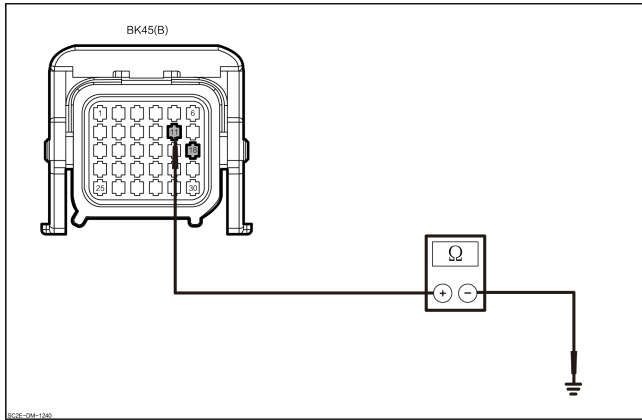
1. Disconnect the harness connector BK45(B) of intergrated intelligent front drive control module.
2. Disconnect AC/DC charging port B53_3.
3. Check the harness and connector for aging, deformation, ablation, fracture, etc.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the AC/DC charging harness is shorted to ground. |
|---|--|



1. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)-11 and the ground.
2. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)-18 and the ground.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-11 | Ground | Through- out | Above 10k Ω |
| BK45(B)-18 | | | |

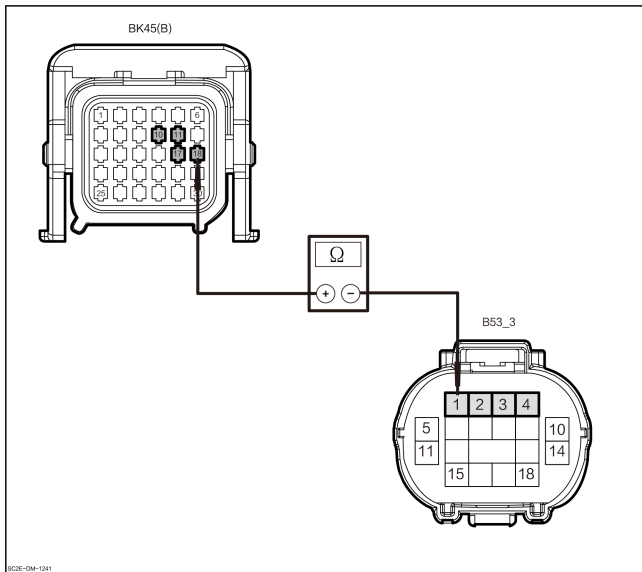
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check whether the dc charging harness is open circuited.



1. Set the START/STOP button to OFF.
2. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
3. Disconnect the AC/DC charging port harness connector B53_3.
4. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-18 and the harness connector of AC/DC charging port B53_3-1.
5. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-11 and the harness connector of AC/DC charging port B53_3-3.
6. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-17 and the harness connector of AC/DC charging port B53_3-2.
7. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-10 and the harness connector of AC/DC charging port B53_3-4.

| Connector | | Condition | Resist- ance value |
|----------------|---------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)- 18 | B53_3-1 | Through- out | Lower than 1Ω |
| BK45(B)- 11 | B53_3-3 | | |
| BK45(B)- 17 | B53_3-2 | | |
| BK45(B)- 10 | B53_3-4 | | |

8. Check whether the results are normal.

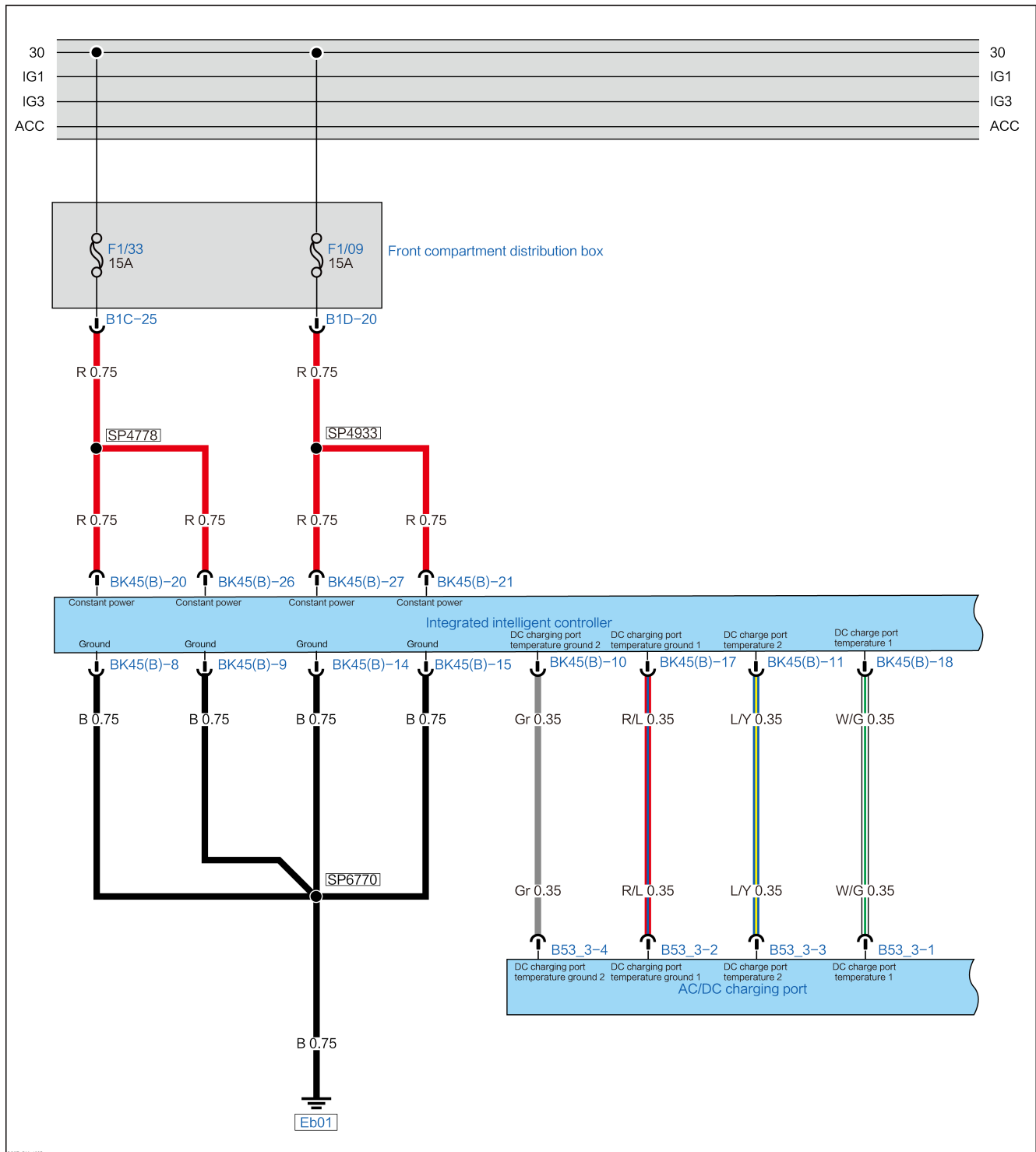
- No Repair or replace the wire harness
- Yes Replace the AC/DC charging port.

P26814B Temperature of Charging Port 2 Generally High

DTC Description

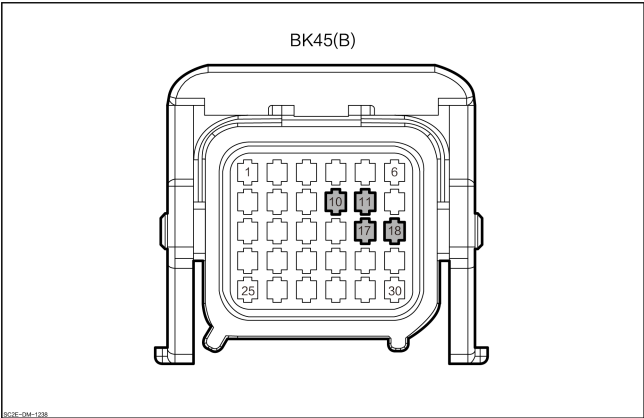
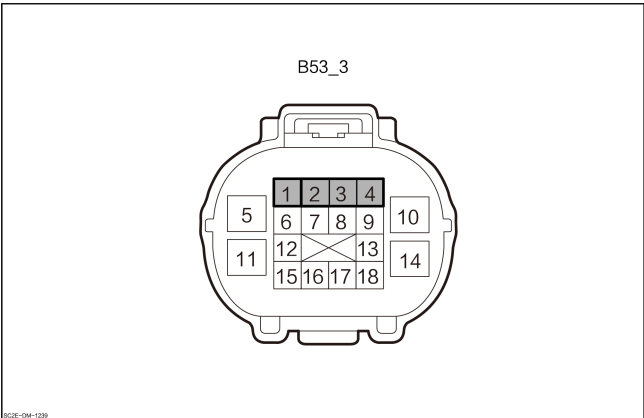
| P26814B Temperature of Charging Port 2 Generally High | |
|---|--|
| Symptom | Unable to charge/discharge. |
| Possible Cause | <ol style="list-style-type: none">1. AC/DC charging port fault.2. AC/DC charging port temperature sampling harness fault.3. Smart integrated front drive control unit fault. |
| Fault setting conditions | The temperature of the AC/DC charging port exceeds specified threshold. |
| Trigger fault conditions | When the charging port temperature exceeds the specified threshold, a DTC will be generated. |

Circuit Diagram



SCHE-DM-1005

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------------------------|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 10 | DC charging port temperature ground 2 |
| | 11 | DC charge port temperature 2 |
| | 17 | DC charging port temperature ground 1 |
| | 18 | DC charge port temperature 1 |
| <p>AC/DC charging port</p>  <p>B53_3</p> | 1 | DC charge port temperature 1 |
| | 2 | DC charging port temperature ground 1 |
| | 3 | DC charge port temperature 2 |
| | 4 | DC charging port temperature ground 2 |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|----|----------------------------------|
| No | Check the “intermittent fault” . |
|----|----------------------------------|

Yes

| | |
|---|--------------------------------|
| 2 | Check the AC/DC charging port. |
|---|--------------------------------|

1. Check the DC charging terminal for foreign matter, aging, deformation, ablation, fracture, etc.
2. Check whether the results are normal.

| | |
|----|--|
| No | Clean the foreign matters or replace the DC charging port. |
|----|--|

Yes

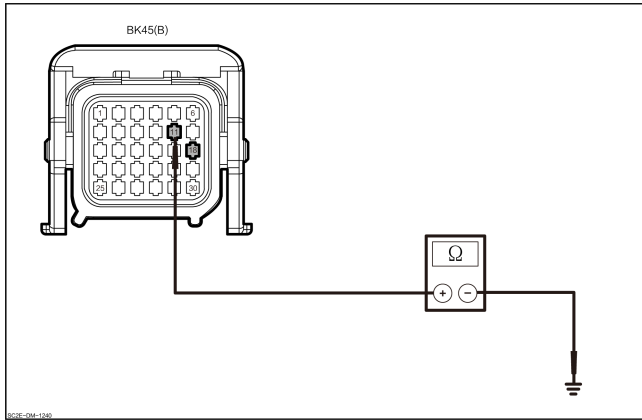
| | |
|---|----------------------------------|
| 3 | Check the harness and connector. |
|---|----------------------------------|

1. Disconnect the harness connector BK45(B) of intergrated intelligent front drive control module.
2. Disconnect AC/DC charging port B53_3.
3. Check the harness and connector for aging, deformation, ablation, fracture, etc.

| | |
|----|------------------------------------|
| No | Repair or replace the wire harness |
|----|------------------------------------|

Yes

| | |
|---|--|
| 4 | Check whether the AC/DC charging harness is shorted to ground. |
|---|--|



1. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)-11 and the ground.
2. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)-18 and the ground.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-11 | Ground | Through- out | Above 10k Ω |
| BK45(B)-18 | | | |

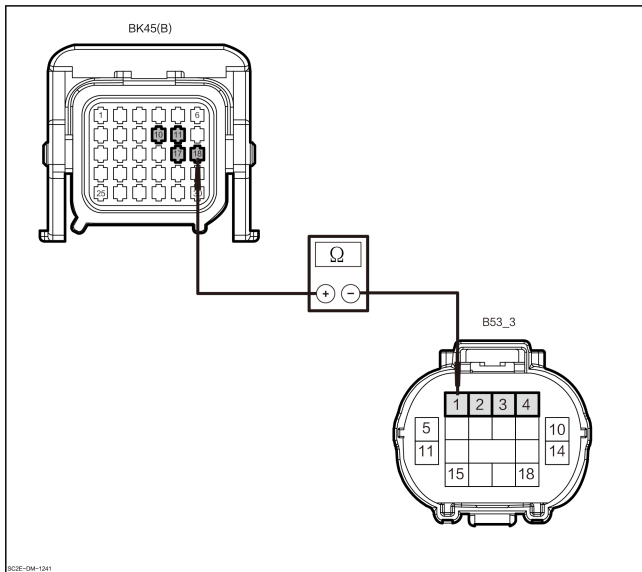
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check whether the dc charging harness is open circuited.



1. Set the START/STOP button to OFF.
2. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
3. Disconnect the AC/DC charging port harness connector B53_3.
4. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-18 and the harness connector of AC/DC charging port B53_3-1.
5. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-11 and the harness connector of AC/DC charging port B53_3-3.
6. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-17 and the harness connector of AC/DC charging port B53_3-2.
7. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-10 and the harness connector of AC/DC charging port B53_3-4.

| Connector | | Condition | Resist- ance value |
|----------------|---------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)- 18 | B53_3-1 | Through- out | Lower than 1Ω |
| BK45(B)- 11 | B53_3-3 | | |
| BK45(B)- 17 | B53_3-2 | | |
| BK45(B)- 10 | B53_3-4 | | |

8. Check whether the results are normal.

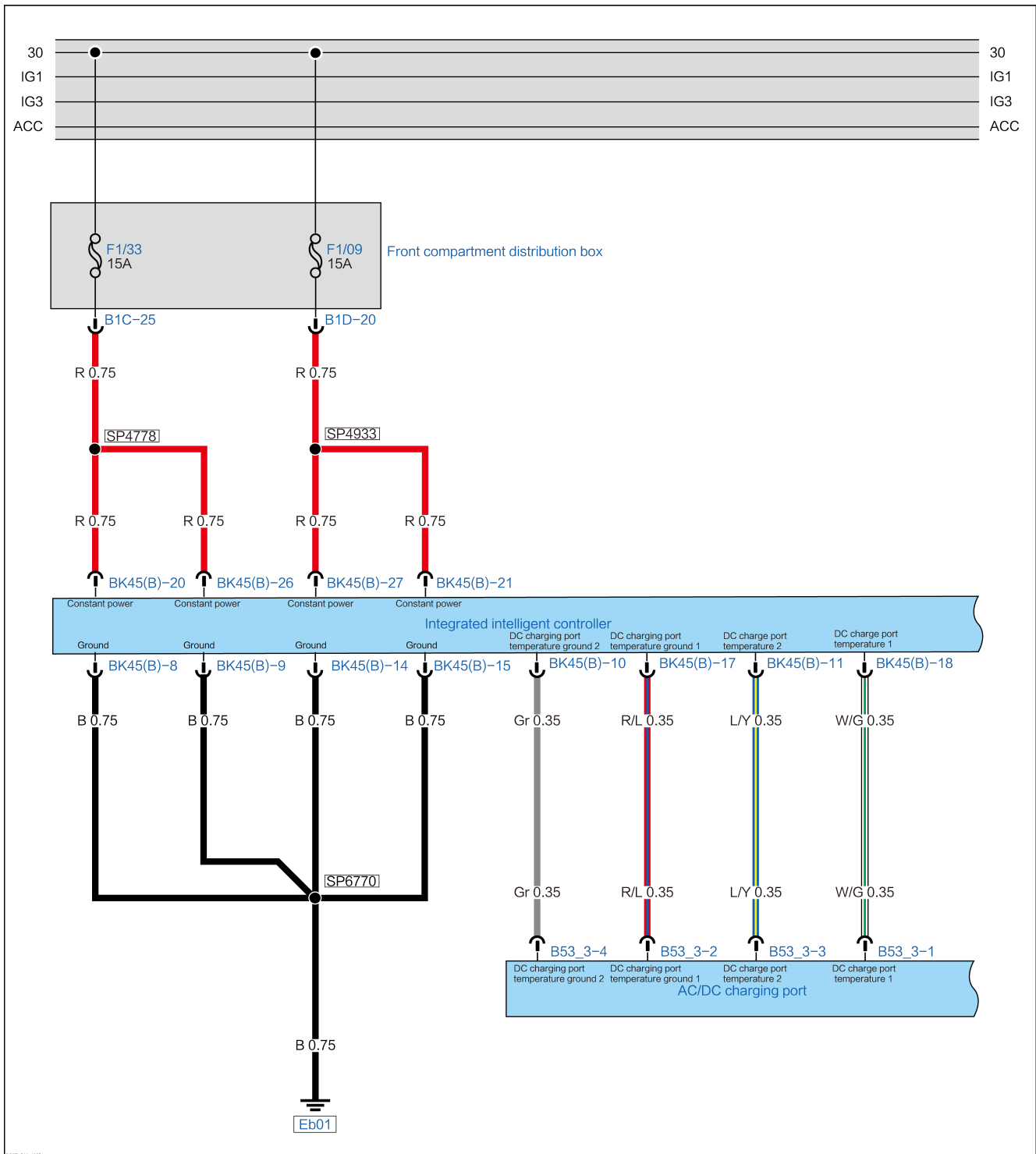
| | |
|-----|------------------------------------|
| No | Repair or replace the wire harness |
| Yes | Replace the AC/DC charging port. |

P26844B Temperature Rise of Charging Port Seriously High

DTC Description

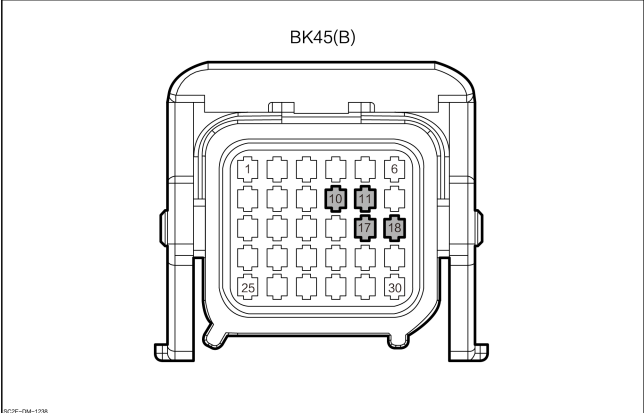
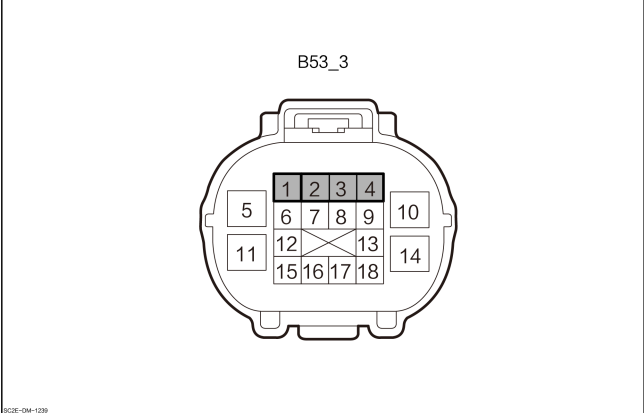
| P26844B Temperature Rise of Charging Port Seriously High | |
|--|--|
| Symptom | Unable to charge/discharge. |
| Possible Cause | <ol style="list-style-type: none">1. AC/DC charging port fault.2. AC/DC charging port temperature sampling harness fault.3. Smart integrated front drive control unit fault. |
| Fault setting conditions | The temperature of the AC/DC charging port exceeds specified threshold. |
| Trigger fault conditions | When the charging port temperature exceeds the specified threshold, a DTC will be generated. |

Circuit Diagram



SCHE-DM-1003

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------------------------|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 10 | DC charging port temperature ground 2 |
| | 11 | DC charge port temperature 2 |
| | 17 | DC charging port temperature ground 1 |
| | 18 | DC charge port temperature 1 |
| <p>AC/DC charging port</p>  <p>B53_3</p> | 1 | DC charge port temperature 1 |
| | 2 | DC charging port temperature ground 1 |
| | 3 | DC charge port temperature 2 |
| | 4 | DC charging port temperature ground 2 |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--------------------------------|
| 2 | Check the AC/DC charging port. |
|---|--------------------------------|

1. Check the DC charging terminal for foreign matter, aging, deformation, ablation, fracture, etc.
2. Check whether the results are normal.

No

Clean the foreign matters or replace the DC charging port.

Yes

| | |
|---|----------------------------------|
| 3 | Check the harness and connector. |
|---|----------------------------------|

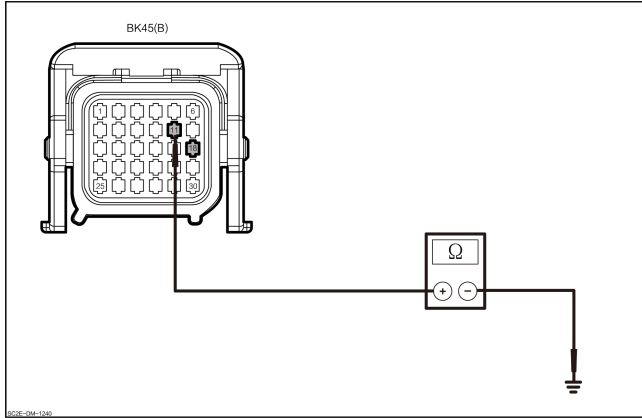
1. Disconnect the harness connector BK45(B) of intergrated intelligent front drive control module.
2. Disconnect AC/DC charging port B53_3.
3. Check the harness and connector for aging, deformation, ablation, fracture, etc.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the AC/DC charging harness is shorted to ground. |
|---|--|



1. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)-11 and the ground.
2. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)-18 and the ground.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-11 | Ground | Through- out | Above 10k Ω |
| BK45(B)-18 | | | |

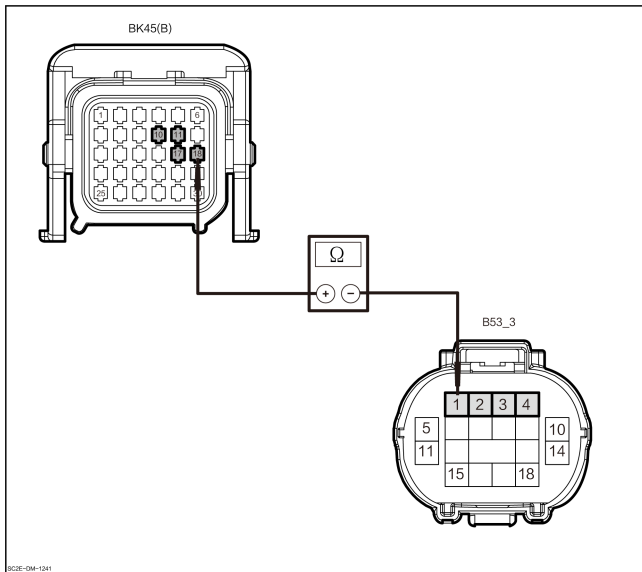
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check whether the dc charging harness is open circuited.



1. Set the START/STOP button to OFF.
2. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
3. Disconnect the AC/DC charging port harness connector B53_3.
4. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-18 and the harness connector of AC/DC charging port B53_3-1.
5. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-11 and the harness connector of AC/DC charging port B53_3-3.
6. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-17 and the harness connector of AC/DC charging port B53_3-2.
7. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-10 and the harness connector of AC/DC charging port B53_3-4.

| Connector | | Condition | Resist- ance value |
|----------------|---------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)- 18 | B53_3-1 | Through- out | Lower than 1Ω |
| BK45(B)- 11 | B53_3-3 | | |
| BK45(B)- 17 | B53_3-2 | | |
| BK45(B)- 10 | B53_3-4 | | |

8. Check whether the results are normal.

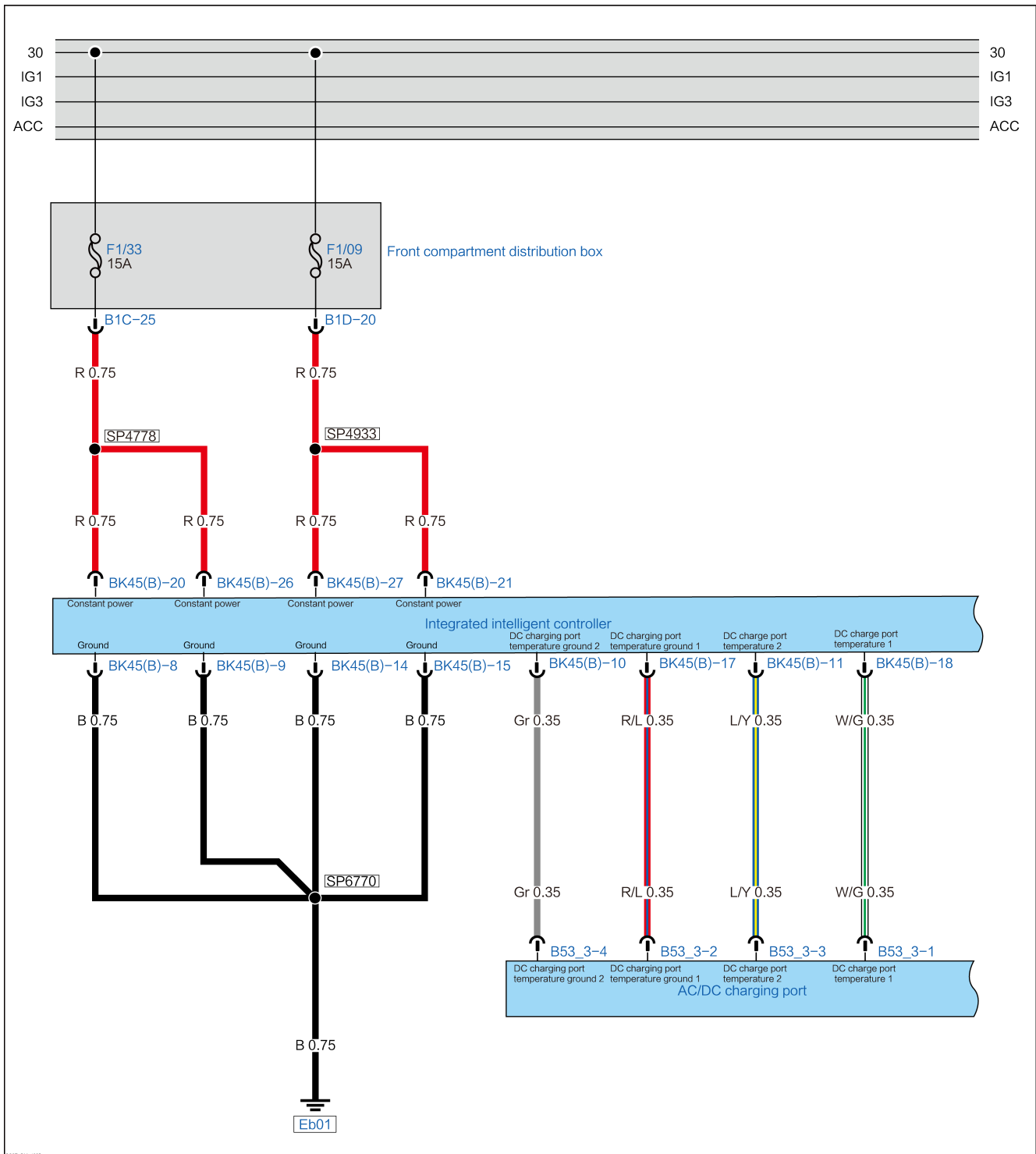
| | |
|-----|------------------------------------|
| No | Repair or replace the wire harness |
| Yes | Replace the AC/DC charging port. |

P26824B Temperature Rise of Charging Port 3 Seriously High

DTC Description

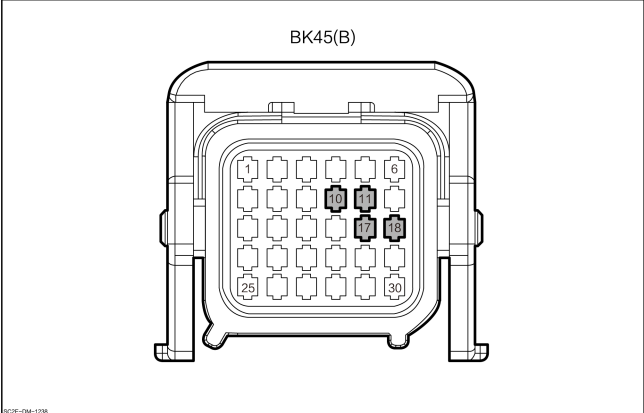
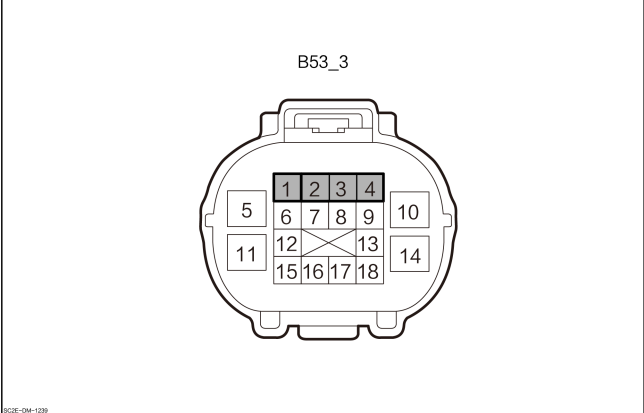
| P26824B Temperature Rise of Charging Port 3 Seriously High | |
|--|--|
| Symptom | Unable to charge/discharge. |
| Possible Cause | 1. AC/DC charging port fault. 2. AC/DC charging port temperature sampling harness fault. 3. Smart integrated front drive control unit fault. |
| Fault setting conditions | The temperature of the AC/DC charging port exceeds specified threshold. |
| Trigger fault conditions | When the charging port temperature exceeds the specified threshold, a DTC will be generated. |

Circuit Diagram



SCHE-DM-1003

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------------------------|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 10 | DC charging port temperature ground 2 |
| | 11 | DC charge port temperature 2 |
| | 17 | DC charging port temperature ground 1 |
| | 18 | DC charge port temperature 1 |
| <p>AC/DC charging port</p>  <p>B53_3</p> | 1 | DC charge port temperature 1 |
| | 2 | DC charging port temperature ground 1 |
| | 3 | DC charge port temperature 2 |
| | 4 | DC charging port temperature ground 2 |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--------------------------------|
| 2 | Check the AC/DC charging port. |
|---|--------------------------------|

1. Check the DC charging terminal for foreign matter, aging, deformation, ablation, fracture, etc.
2. Check whether the results are normal.

No

Clean the foreign matters or replace the DC charging port.

Yes

| | |
|---|----------------------------------|
| 3 | Check the harness and connector. |
|---|----------------------------------|

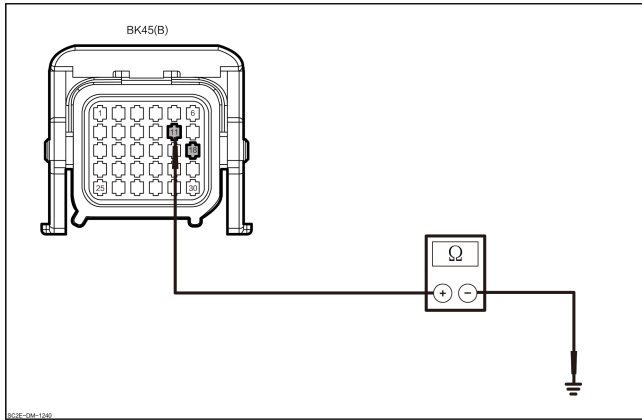
1. Disconnect the harness connector BK45(B) of intergrated intelligent front drive control module.
2. Disconnect AC/DC charging port B53_3.
3. Check the harness and connector for aging, deformation, ablation, fracture, etc.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the AC/DC charging harness is shorted to ground. |
|---|--|



1. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)-11 and the ground.
2. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)-18 and the ground.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-11 | Ground | Through- out | Above 10k Ω |
| BK45(B)-18 | | | |

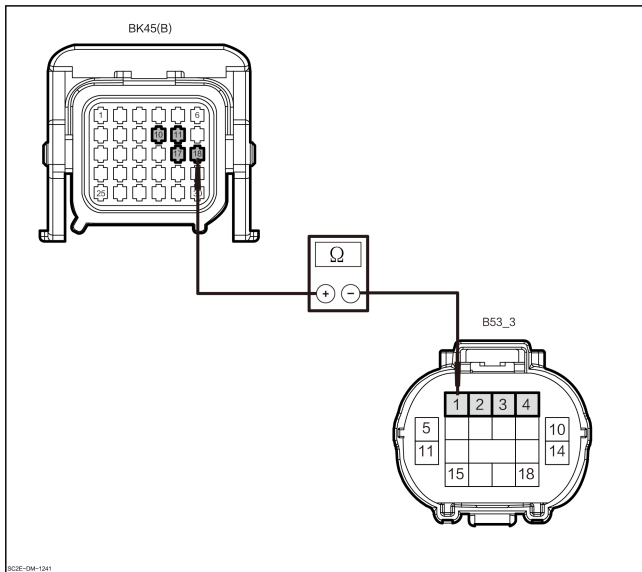
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check whether the dc charging harness is open circuited.



1. Set the START/STOP button to OFF.
2. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
3. Disconnect the AC/DC charging port harness connector B53_3.
4. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-18 and the harness connector of AC/DC charging port B53_3-1.
5. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-11 and the harness connector of AC/DC charging port B53_3-3.
6. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-17 and the harness connector of AC/DC charging port B53_3-2.
7. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-10 and the harness connector of AC/DC charging port B53_3-4.

| Connector | | Condition | Resist- ance value |
|----------------|---------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)- 18 | B53_3-1 | Through- out | Lower than 1Ω |
| BK45(B)- 11 | B53_3-3 | | |
| BK45(B)- 17 | B53_3-2 | | |
| BK45(B)- 10 | B53_3-4 | | |

8. Check whether the results are normal.

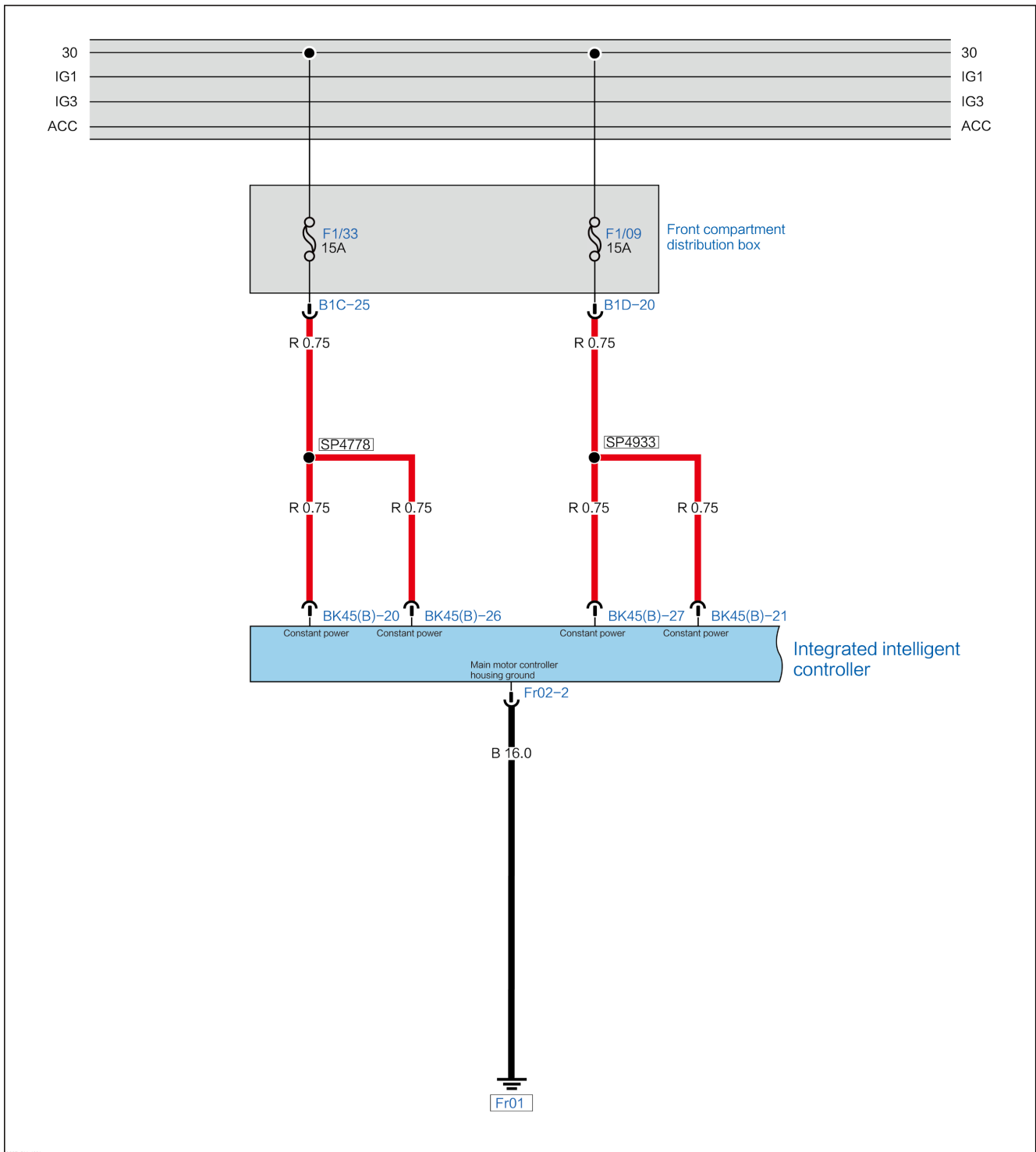
| | |
|-----|------------------------------------|
| No | Repair or replace the wire harness |
| Yes | Replace the AC/DC charging port. |

P1D9516 Supply Voltage at Low Voltage Side Too Low

DTC Description

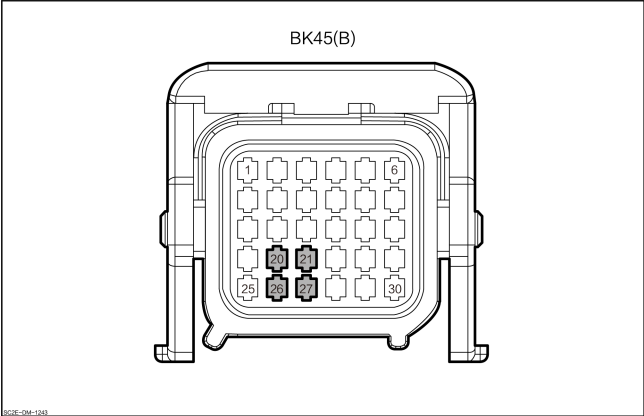
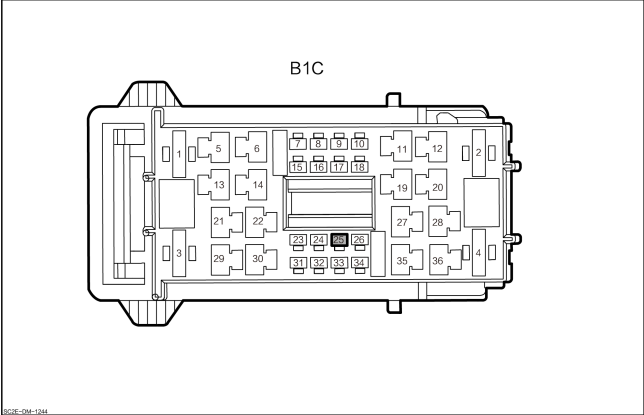
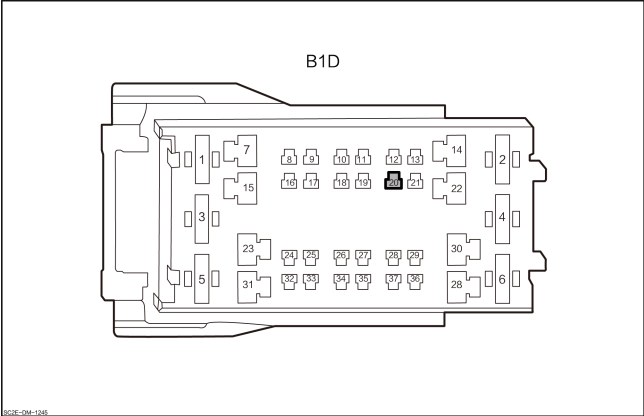
| P1D9516 Supply Voltage at Low Voltage Side Too Low | |
|--|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Fuse fault.2. Battery fault.3. Harness or harness connector fault.4. Charging system malfunction5. Motor controller internal fault. |
| Fault setting conditions | The low voltage is detected to be less than 9 V. |
| Trigger fault conditions | When the vehicle is powered on, and the system detects that the low voltage is less than 9 V, a DTC will be generated. |

Circuit Diagram



SCHE-DM-1001

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 20 | Constant power |
| | 21 | Constant power |
| | 26 | Constant power |
| | 27 | Constant power |
| <p>Front compartment fuse box</p>  <p>B1C</p> | 25 | Power supply of smart integrated front drive control unit |
| <p>Front compartment fuse box</p>  <p>B1D</p> | 20 | Power supply of smart integrated front drive control unit |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Inspection of the battery state |
|---|---------------------------------|

1. Set the START/STOP button to OFF.
2. Perform a battery condition test.
3. Does the battery pass the test?

No

Replace the battery

Yes

| | |
|---|----------------------------------|
| 3 | Check the DTC of DC-DC assembly. |
|---|----------------------------------|

1. Use a VDS to read the DC – DC assembly .
2. Check whether DTC exists.

Yes

Enter “DC-DC Assembly” diagnosis.

No

| | |
|---|--|
| 4 | Check the front compartment fuse box fuse. |
|---|--|

1. Check whether the front compartment fuse box fuse F1/33(15A) and F1/9(15A) are normal ?

No

Replace the fuse

Yes

| | |
|---|--|
| 5 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

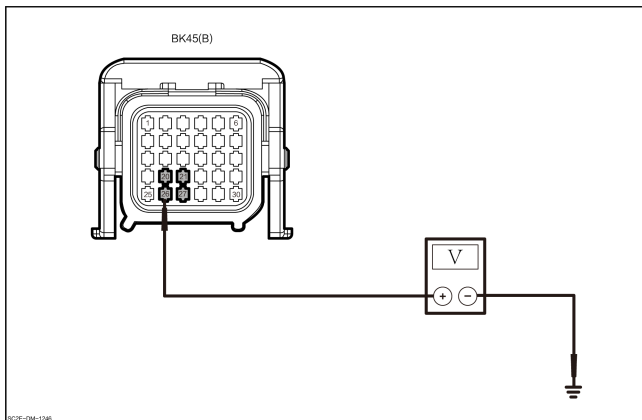
1. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
2. Check whether the harness and connector are normal.

No

Repair or replace the wire harness

Yes

6 Check the constant power supply of the integrated intelligent front drive control module.



1. Measure the voltage value between the harness connector BK45 (B)–20 of integrated intelligent front drive control module and the grounding.
2. Measure the voltage value between the harness connector BK45 (B)–26 of integrated intelligent front drive control module and the grounding.
3. Measure the voltage value between the harness connector BK45 (B)–27 of integrated intelligent front drive control module and the grounding.
4. Measure the voltage value between the harness connector BK45 (B)–21 of integrated intelligent front drive control module and the grounding.

| Connector | | Condition | Voltage value |
|------------|--------|------------|---------------|
| (+) | (-) | | |
| BK45(B)–20 | Ground | Throughout | 11~14V |
| BK45(B)–26 | | | |
| BK45(B)–27 | | | |
| BK45(B)–21 | | | |

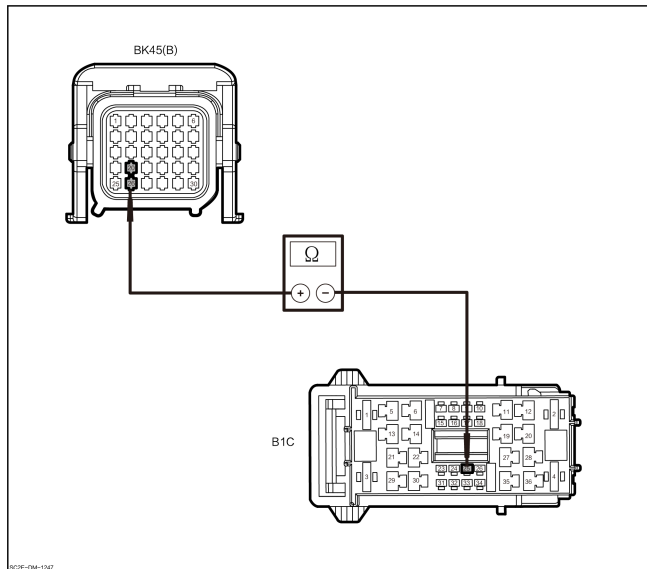
5. Check whether the results are normal.

Yes

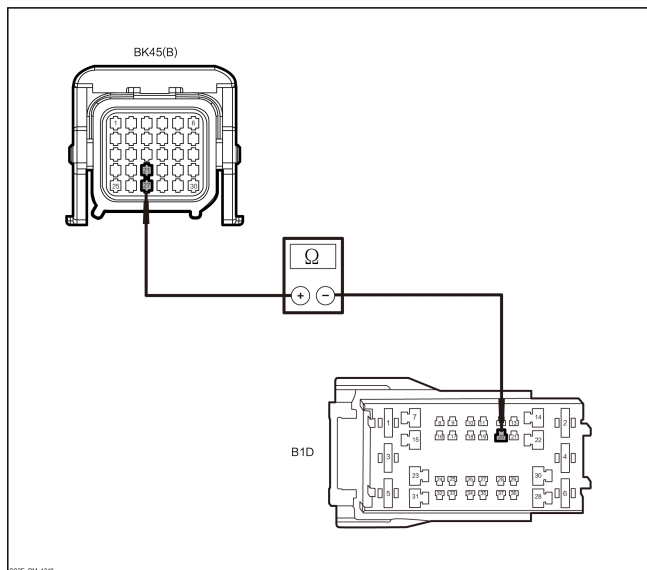
Replace the smart integrated front drive control unit.

No

7 Check whether the power supply of the integrated intelligent front drive control module is open-circuited.



1. Disconnect the harness connectors B1 C and B1 D of front compartment fuse box.
2. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-20 and B1C-25.
3. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-26 and B1C-25.
4. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-27 and B1D-20.
5. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-21 and B1D-20.



| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-20 | B1C-25 | Through- out | Lower than 1 Ω |
| BK45(B)-26 | | | |
| BK45(B)-27 | B1D-20 | | |
| BK45(B)-21 | | | |

6. Check whether the results are normal.

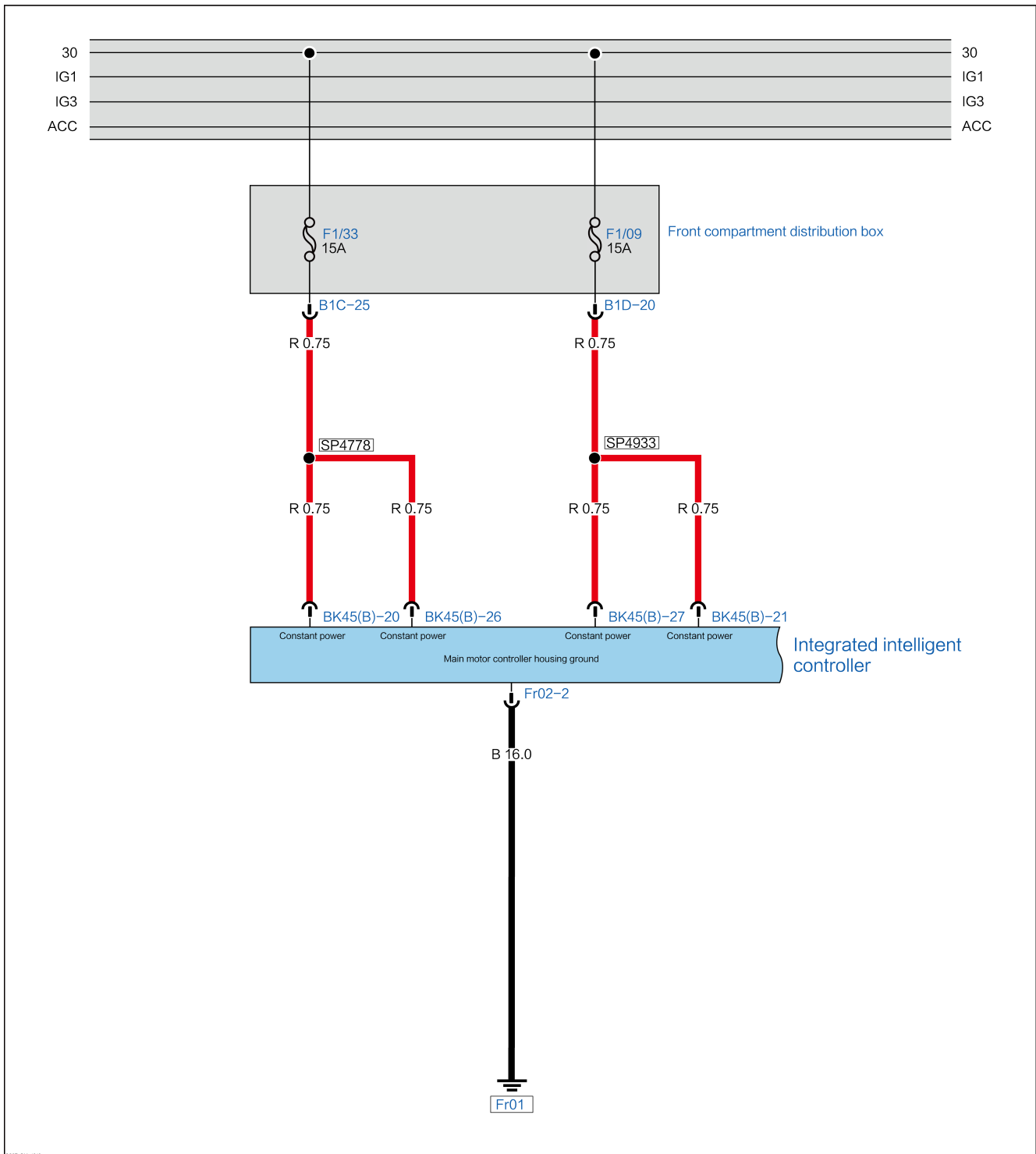
| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the smart integrated front drive control unit. |

P1B2517 Supply Voltage at Low Voltage Side Too High

DTC Description

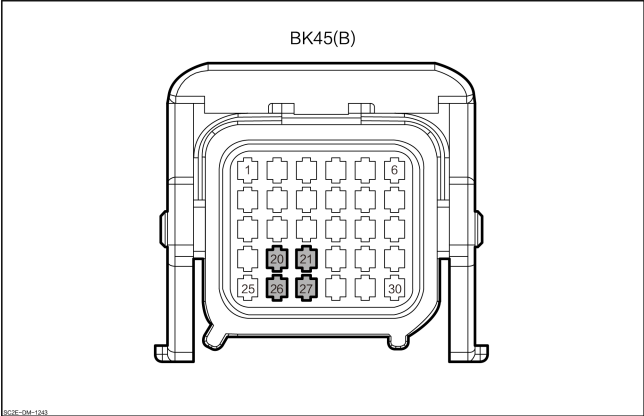
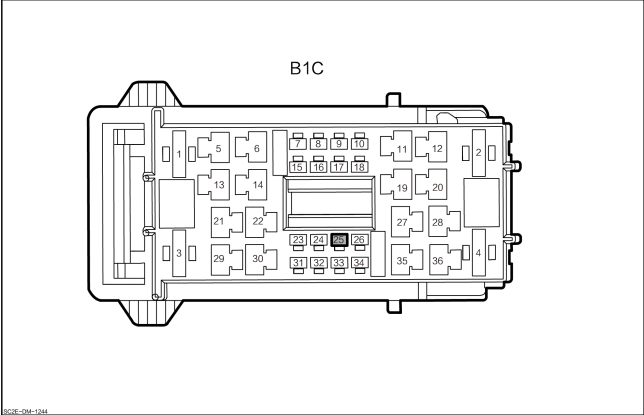
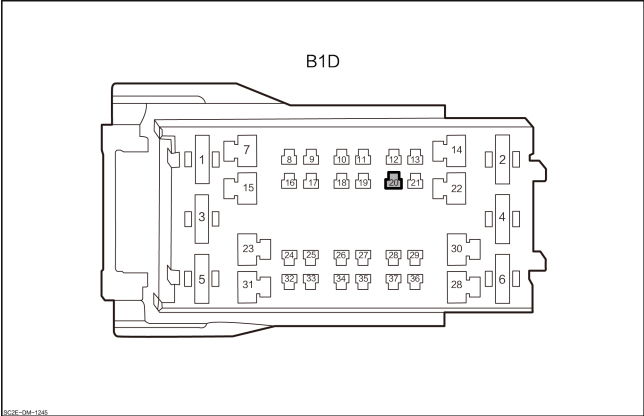
| P1B2517 Supply Voltage at Low Voltage Side Too High | |
|---|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Fuse fault.2. Battery fault.3. Harness or connector fault.4. Charging system malfunction5. Motor controller internal fault. |
| Fault setting conditions | The low voltage is detected to be greater than 18 V. |
| Trigger fault conditions | When the vehicle is powered on, and the system detects that the low voltage is greater than 18 V, a DTC will be generated. |

Circuit Diagram



SCHE-EM-1342

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 20 | Constant power |
| | 21 | Constant power |
| | 26 | Constant power |
| | 27 | Constant power |
| <p>Front compartment fuse box</p>  <p>B1C</p> | 25 | Power supply of smart integrated front drive control unit |
| <p>Front compartment fuse box</p>  <p>B1D</p> | 20 | Power supply of smart integrated front drive control unit |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Inspection of the battery state |
|---|---------------------------------|

1. Set the START/STOP button to OFF.
2. Perform a battery condition test.
3. Does the battery pass the test?

No

Replace the battery

Yes

| | |
|---|----------------------------------|
| 3 | Check the DTC of DC-DC assembly. |
|---|----------------------------------|

1. Use a VDS to read the DC – DC assembly .
2. Check whether DTC exists.

Yes

Enter “DC-DC Assembly” diagnosis.

No

| | |
|---|--|
| 4 | Check the front compartment fuse box fuse. |
|---|--|

1. Check whether the front compartment fuse box fuse F1/33(15A) and F1/9(15A) are normal ?

No

Replace the fuse

Yes

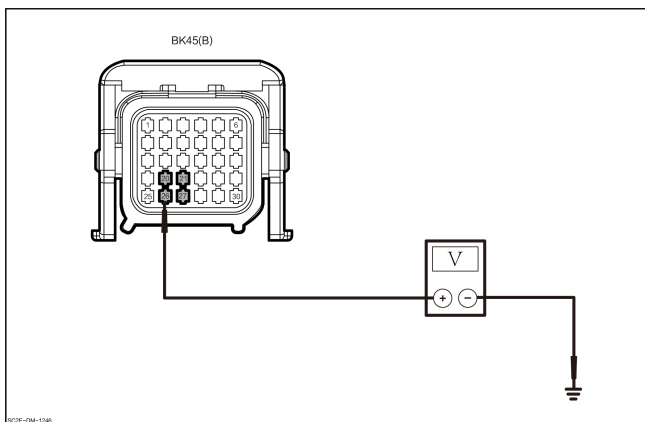
| | |
|---|--|
| 5 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
2. Check whether the harness and connector are normal.

No → Repair or replace the wire harness

Yes

6 Check the constant power supply of the integrated intelligent front drive control module.



1. Measure the voltage value between the harness connector BK45 (B)–20 of integrated intelligent front drive control module and the grounding.
2. Measure the voltage value between the harness connector BK45 (B)–26 of integrated intelligent front drive control module and the grounding.
3. Measure the voltage value between the harness connector BK45 (B)–27 of integrated intelligent front drive control module and the grounding.
4. Measure the voltage value between the harness connector BK45 (B)–21 of integrated intelligent front drive control module and the grounding.

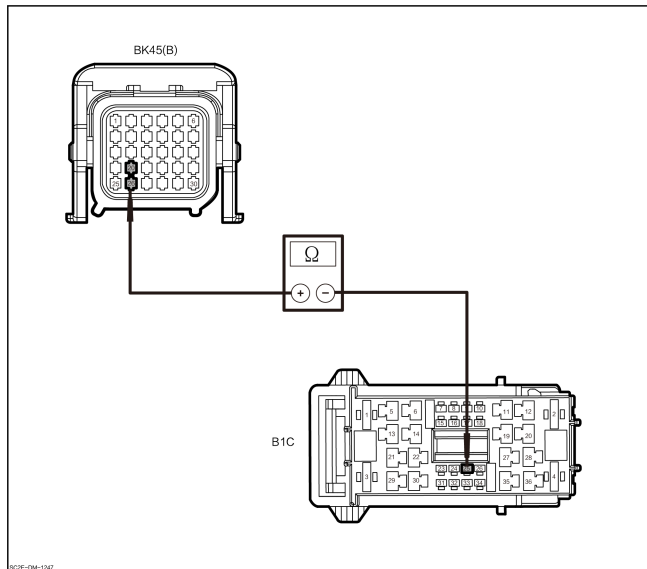
| Connector | | Condition | Voltage value |
|------------|--------|------------|---------------|
| (+) | (-) | | |
| BK45(B)–20 | Ground | Throughout | 11~14V |
| BK45(B)–26 | | | |
| BK45(B)–27 | | | |
| BK45(B)–21 | | | |

5. Check whether the results are normal.

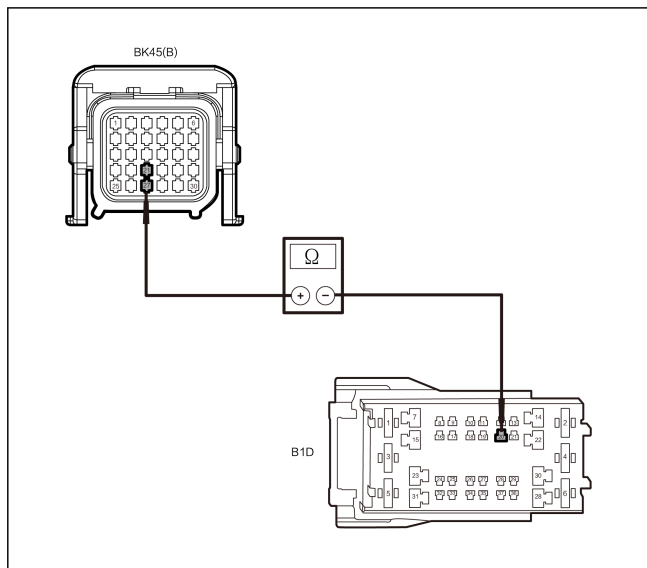
Yes → Replace the smart integrated front drive control unit.

No

7 Check whether the power supply of the integrated intelligent front drive control module is open-circuited.



1. Disconnect the harness connectors B1 C and B1 D of front compartment fuse box.
2. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-20 and B1C-25.
3. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-26 and B1C-25.
4. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-27 and B1D-20.
5. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-21 and B1D-20.



| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-20 | B1C-25 | Through- out | Lower than 1 Ω |
| BK45(B)-26 | | | |
| BK45(B)-27 | B1D-20 | | |
| BK45(B)-21 | | | |

6. Check whether the results are normal.

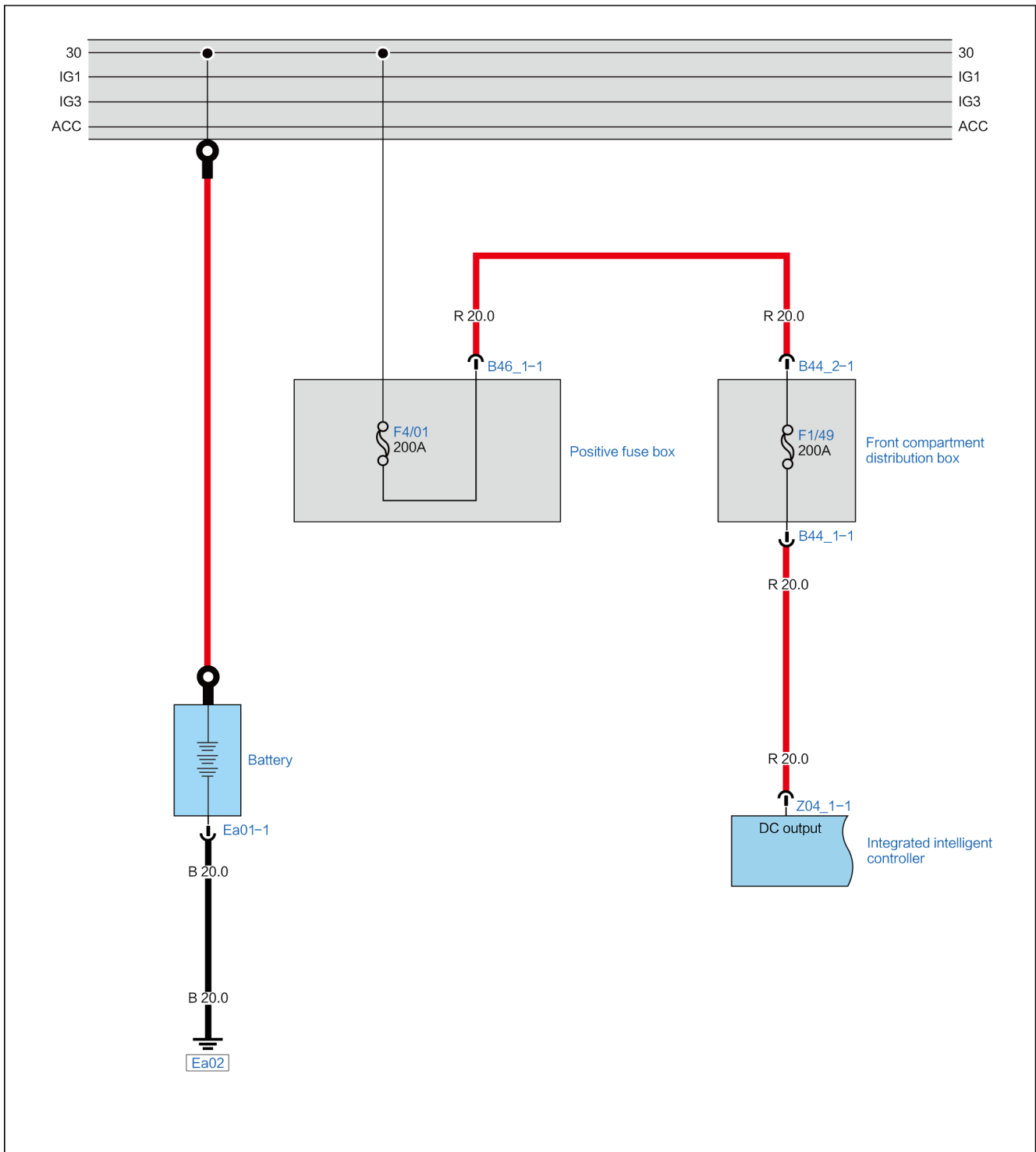
| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the smart integrated front drive control unit. |

P1D9400 Low Voltage Output Line Broken

DTC Description

| P1D9400 Low Voltage Output Line Broken | |
|--|---|
| Symptom | LV power supply system fault. |
| Possible Cause | 1. DC low voltage output line fault. 2. The DC-DC internal part fails |
| Fault setting conditions | DC output exceeds specified threshold. |
| Trigger fault conditions | When the vehicle is powered on, and the system detects that the DC output exceeds the specified threshold after the vehicle is powered on, a DTC will be generated. |

Circuit Diagram



SCHE-09A-1249

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the DTC of DC-DC assembly. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the low voltage output harness of DC-DC assembly. |
|---|---|

1. Set the START/STOP button to OFF.
2. Check the low voltage output harness of DC-DC assembly for loosening.

Yes → Tighten the low voltage output harness of DC-DC assembly.

No

| | |
|---|--|
| 3 | Check whether the DC output low-voltage harness is open circuited. |
|---|--|

1. Disconnect the front compartment fuse box harness connector B44_1.
2. Disconnect the harness connector of DC/DC assembly Z04_1.
3. Measure the resistance value between the front compartment fuse box harness connector B44_1-1 and the charging and distribution assembly harness connector Z04_1-1.

| Connector | | Condition | Resist- ance value |
|-----------|---------|-----------------|--------------------------|
| (+) | (-) | | |
| B44_1-1 | Z04_1-1 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

No → Replace or maintain wire harness

Yes

Replace the smart integrated front drive control unit.

B116212 Water Temperature Sensor Short-circuited**DTC Description**

| B116212 Water Temperature Sensor Short-circuited | |
|--|---|
| Symptom | – |
| Possible Cause | Coolant temperature sensor is faulty. |
| Fault setting conditions | Water temperature sensor is short circuited. |
| Trigger fault conditions | When the vehicle is powered on, and a short circuit in the water temperature sensor is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|--|
| No | Check the “intermittent fault” . |
| Yes | Replace the integrated intelligent front drive assembly. |

B116214 Water Temperature Sensor Open–circuited**DTC Description**

| B116214 Water Temperature Sensor Open–circuited | |
|---|---|
| Symptom | – |
| Possible Cause | Coolant temperature sensor is faulty. |
| Fault setting conditions | Open circuit of water temperature sensor |
| Trigger fault conditions | When the vehicle is powered on, and an open circuit in the water temperature sensor is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|--|
| No | Check the “intermittent fault” . |
| Yes | Replace the integrated intelligent front drive assembly. |

P1D9B00 Water Temperature Sensor Fault

DTC Description

| P1D9B00 Water Temperature Sensor Fault | |
|--|---|
| Symptom | – |
| Possible Cause | Coolant temperature sensor is faulty. |
| Fault setting conditions | Open circuit of water temperature sensor |
| Trigger fault conditions | When the vehicle is powered on, and an open circuit in the water temperature sensor is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|--|
| No | Check the “intermittent fault” . |
| Yes | Replace the integrated intelligent front drive assembly. |

P1D9C00 Water Temperature Overtemperature

DTC Description

| P1D9C00 Water Temperature Overtemperature | |
|---|---|
| Symptom | The “ Motor coolant overtemperature” warning light on the instrument lights up. |
| Possible Cause | <ol style="list-style-type: none">1. Lack of coolant.2. The water pump works improperly.3. The fan works improperly.4. Smart integrated control unit internal fault. |
| Fault setting conditions | The coolant temperature exceeds the specified threshold under the premise that the water temperature sensor is fault-free. |
| Trigger fault conditions | When the vehicle is powered on, the system detects that the coolant temperature exceeds the specified threshold, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|-----------------------|
| 2 | Inspection of coolant |
|---|-----------------------|

1. Check whether there is sufficient coolant.

No

Add coolant and check the cooling system for leaks.

Yes

| | |
|---|--|
| 3 | Check the working condition of the water pump. |
|---|--|

1. VDS enters the pump work support and operates the pump work.
2. Check whether the water pump is working properly.

No

Enter the “Fan fails not work” diagnosis.

Yes

| | |
|---|--------------------------|
| 4 | Check the fan operation. |
|---|--------------------------|

1. VDS enters the fan operation support and operates the fan work.
2. Check whether the fan is working properly.

No

Enter the diagnosis of "Fan Inoperative".

Yes

Replace the smart integrated front drive control unit.

P1BA000 Cruise Configuration Unwritten In

DTC Description

| P1BA000 Cruise Configuration Unwritten In | |
|---|---|
| Symptom | The instrument reports that the drive function is limited. |
| Possible Cause | Cruise calibration is not completed. |
| Fault setting conditions | Cruise configuration is not calibrated or calibration fails. |
| Trigger fault conditions | When the vehicle is powered on, the system detects that the cruise configuration is not calibrated or the calibration fails, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|---|
| No | Check the “intermittent fault” . |
| Yes | Calibrate the cruise configuration of the vehicle control module. |

P1D6200 Cruise Switch Signal Fault

DTC Description

| P1D6200 Cruise Switch Signal Fault | |
|------------------------------------|---|
| Symptom | – |
| Possible Cause | Cruise switch fault. |
| Fault setting conditions | Cruise switch signal fault. |
| Trigger fault conditions | When the system detects the cruise switch fault, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

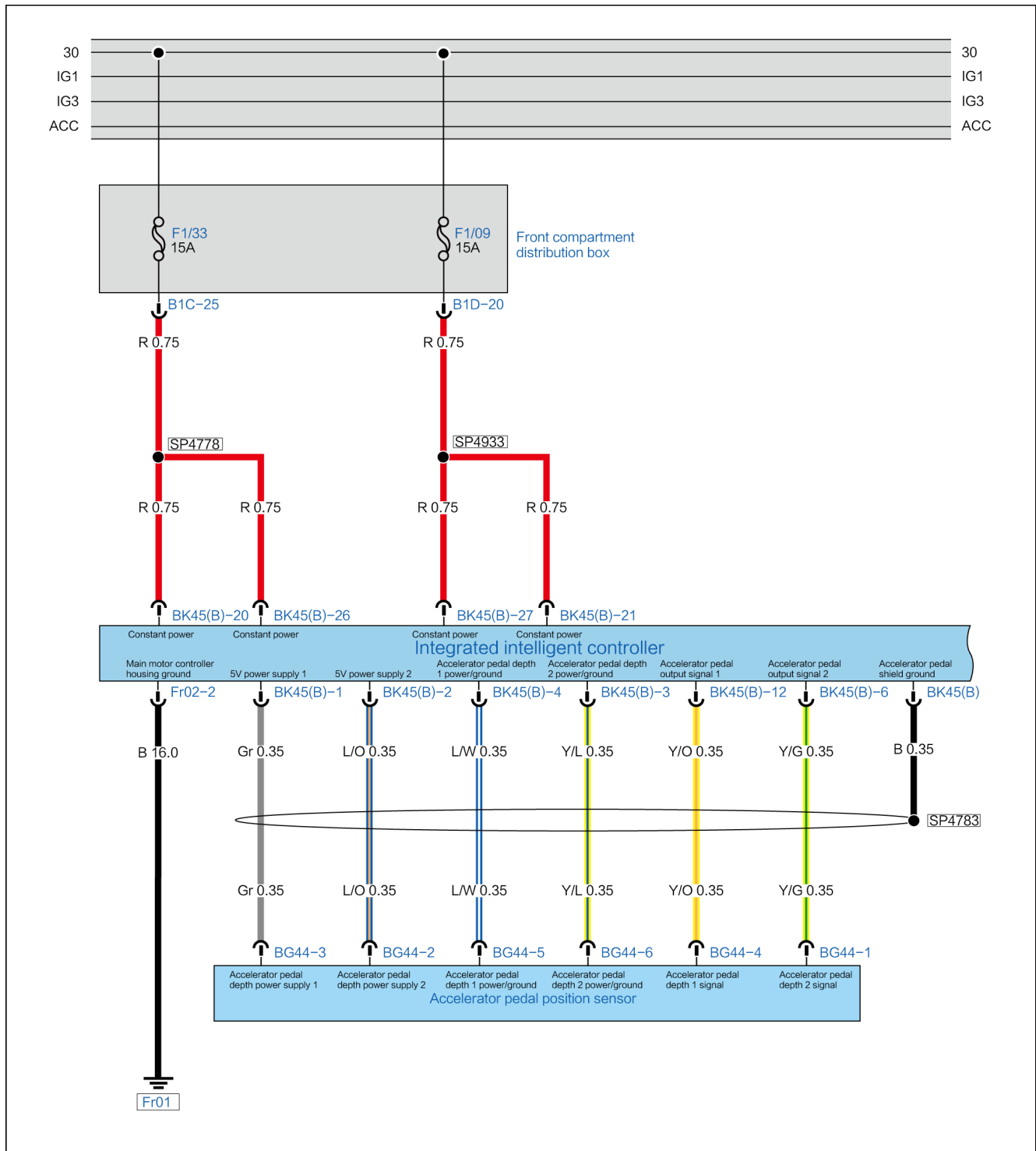
| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the cruise switch. |

P1D7B00 Throttle Signal Fault– 1 Signal Fault

DTC Description

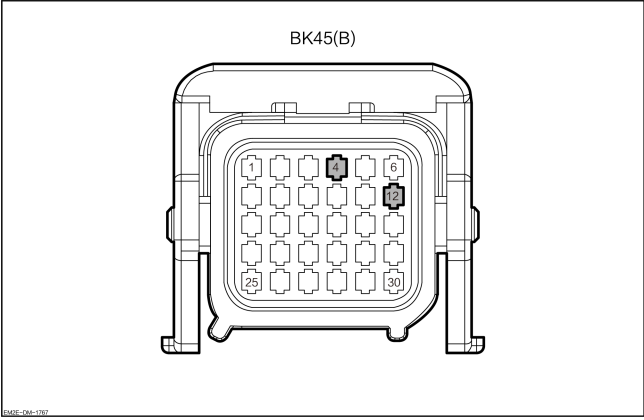
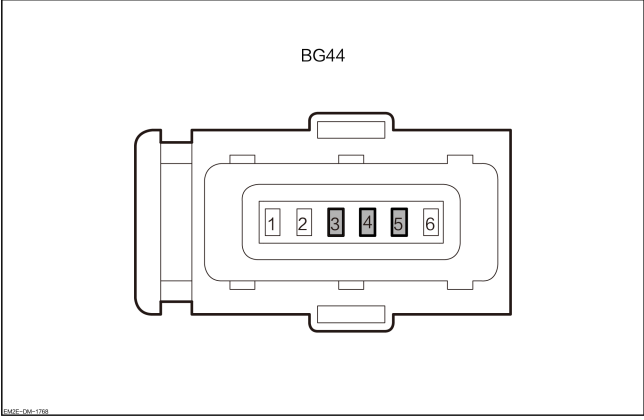
| P1D7B00 Throttle Signal Fault– 1 Signal Fault | |
|---|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector.2. Accelerator pedal fault3. Smart integrated front drive control unit fault. |
| Fault setting conditions | Throttle signal fault – 1 signal fault. |
| Trigger fault conditions | If the system detects throttle signal fault – 1 signal fault, this DTC is generated. |

Circuit Diagram



SCHE-DM-1200

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 4 | Accelerator pedal depth 1 power supply grounding |
| | 12 | Accelerator pedal output signal |
| <p>Accelerator pedal position sensor</p>  <p>BG44</p> | 3 | 5V power supply 1 |
| | 4 | Accelerator pedal depth 1 signal |
| | 5 | Accelerator pedal depth 1 power supply grounding |

Diagnostic Steps

1 Check the dynamic body control module DTC.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

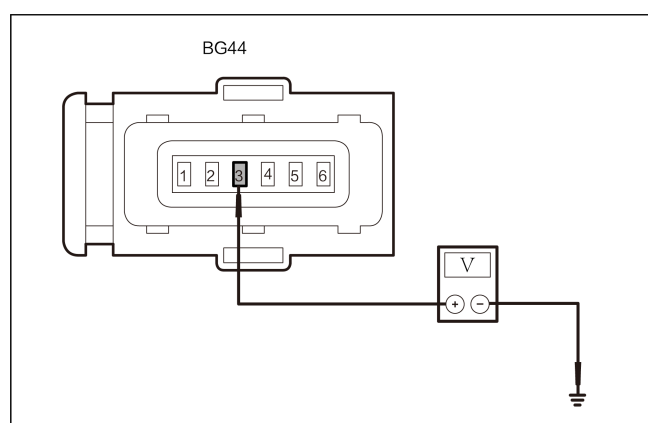
2 Check the accelerator pedal position sensor harness and connector.

1. Disconnect the accelerator pedal position sensor harness connector BG44.
2. Check the harness and connector for aging, deformation, withdrawing of the needle, fracture, etc.

Yes → Repair or replace the wire harness

No

3 Check the accelerator pedal position sensor.



1. Measure the voltage between the harness connector BG44-3 of accelerator pedal position sensor and grounding.

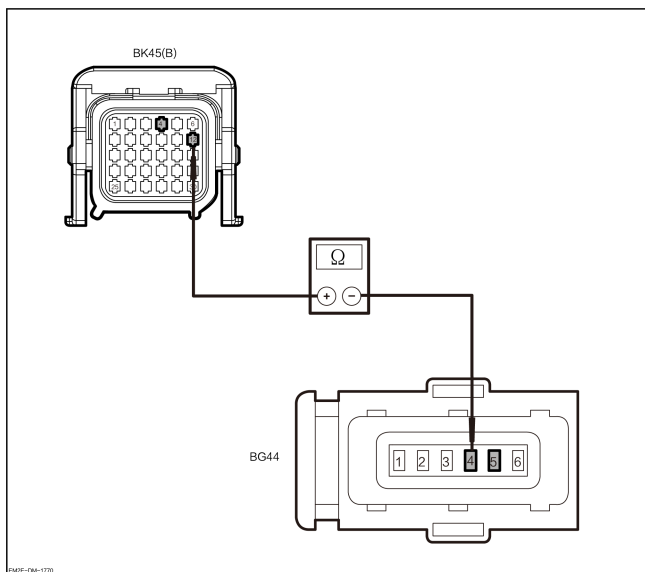
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG44-3 | Ground | Through-out | 4.5~5.5V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the harness of accelerator pedal position sensor for open circuit.



1. Measure the resistance value between the harness connector BK45 (B)–12 of integrated intelligent control module and the harness connector BG44–4 of accelerator pedal position sensor.
2. Measure the resistance value between the harness connector BK45 (B)–4 of integrated intelligent control module and the harness connector BG44–5 of accelerator pedal position sensor.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)–12 | BG44–4 | Through- out | Lower than 1 Ω |
| BK45(B)–4 | BG44–5 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Replace the accelerator pedal assembly and check the DTC.

1. Replace the accelerator pedal assembly and restore the vehicle.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → The system is normal.

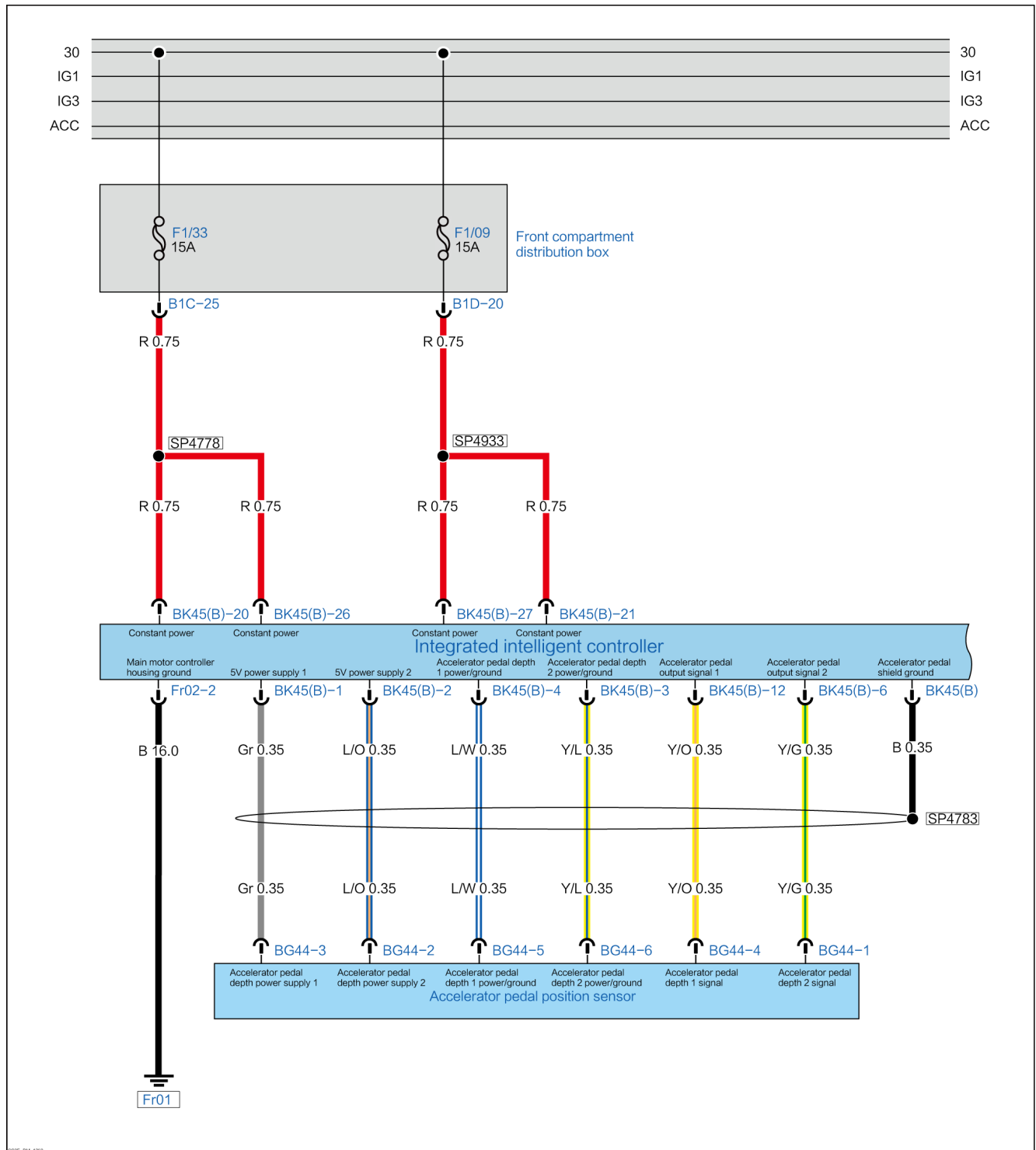
Yes → Replace the smart integrated control unit.

P1D7C00 Throttle Signal Fault– 2 Signal Fault

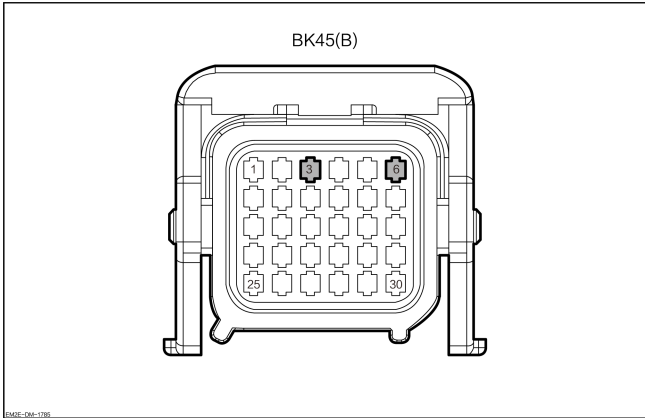
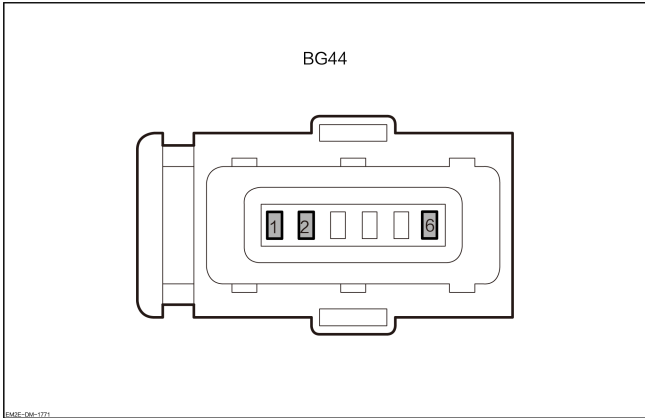
DTC Description

| P1D7C00 Throttle Signal Fault– 2 Signal Fault | |
|---|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Accelerator pedal fault 3. Smart integrated front drive control unit fault. |
| Fault setting conditions | Throttle signal fault – 2 signal fault. |
| Trigger fault conditions | If the system detects throttle signal fault – 2 signal fault, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 3 | Accelerator pedal depth 2 power supply grounding |
| | 6 | Accelerator pedal depth 2 signal |
| <p>Accelerator pedal position sensor</p>  <p>BG44</p> | 1 | Accelerator pedal depth 2 signal |
| | 2 | Accelerator Pedal Depth Power Supply 2 |
| | 6 | Accelerator pedal depth 2 power supply grounding |

Diagnostic Steps

1 Check the dynamic body control module DTC.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

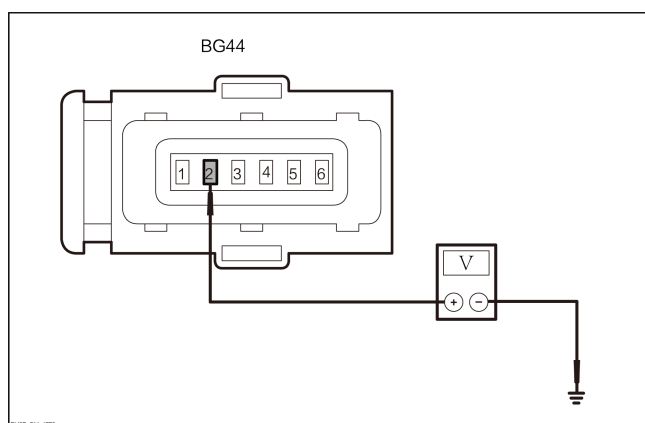
2 Check the accelerator pedal position sensor harness and connector.

1. Disconnect the accelerator pedal position sensor harness connector BG44.
2. Check the harness and connector for aging, deformation, withdrawing of the needle, fracture, etc.

Yes → Repair or replace the wire harness

No

3 Check the accelerator pedal position sensor.



1. Measure the voltage between the harness connector BG44-2 of accelerator pedal position sensor and grounding.

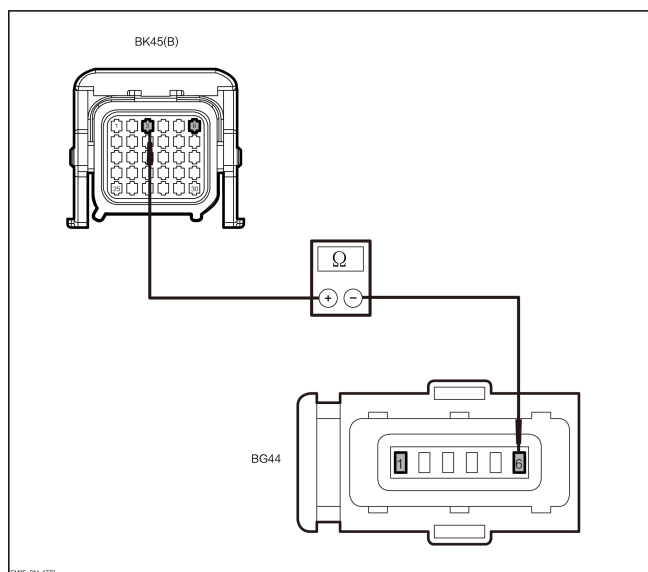
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG44-2 | Ground | Through-out | 4.5~5.5V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the harness of accelerator pedal position sensor for open circuit.



1. Measure the resistance value between the harness connector BK45 (B)–3 of integrated intelligent control module and the harness connector BG44–6 of accelerator pedal position sensor.
2. Measure the resistance value between the harness connector BK45 (B)–6 of integrated intelligent control module and the harness connector BG44–1 of accelerator pedal position sensor.

| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)– 3 | BG44–6 | Through- out | Lower than 1 Ω |
| BK45(B)– 6 | BG44–1 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Replace the accelerator pedal assembly and check the DTC.

1. Replace the accelerator pedal assembly and restore the vehicle.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → The system is normal.

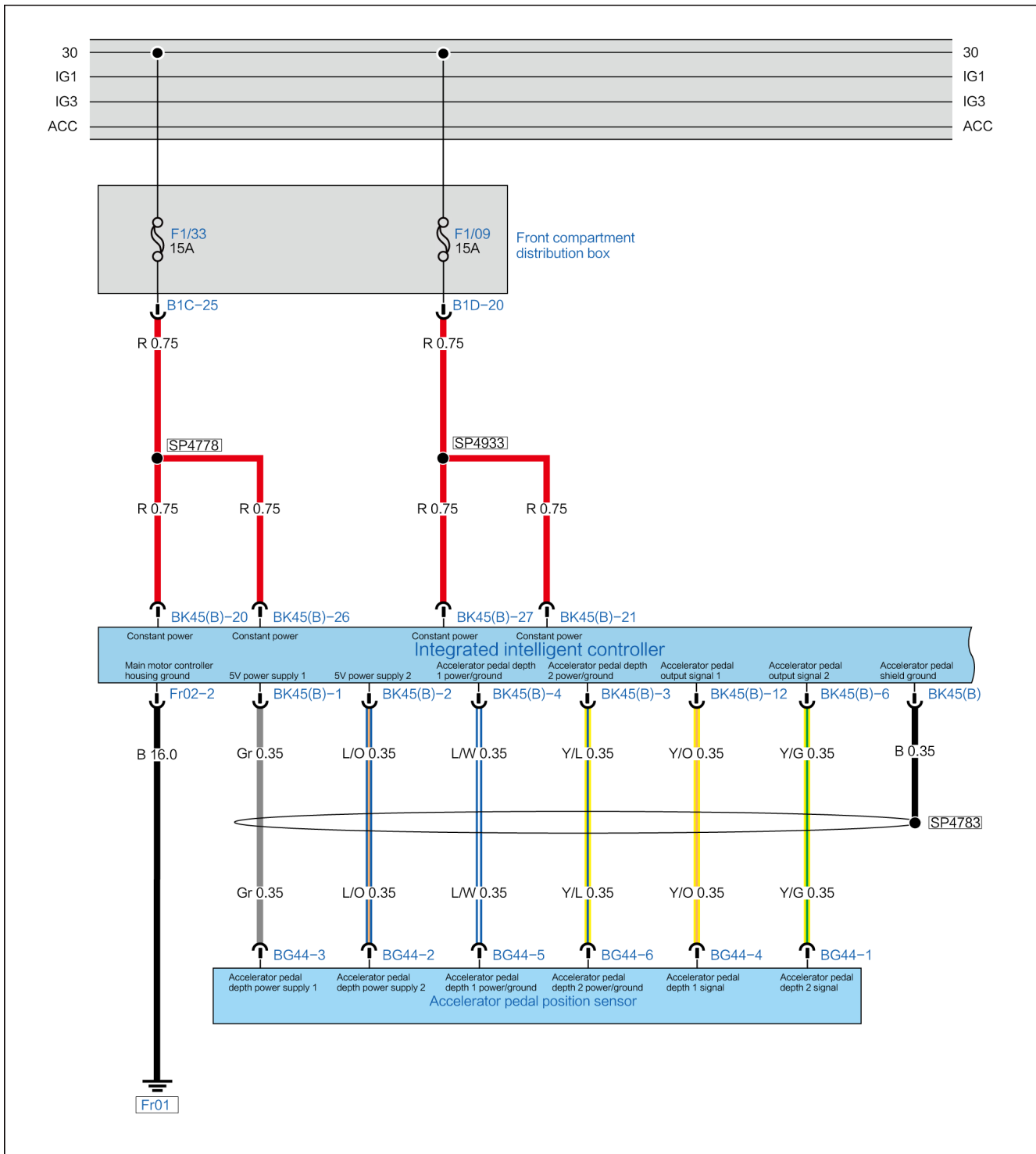
Yes → Replace the smart integrated control unit.

P1D6600 Accelerator Signal Fault– Check Fault

DTC Description

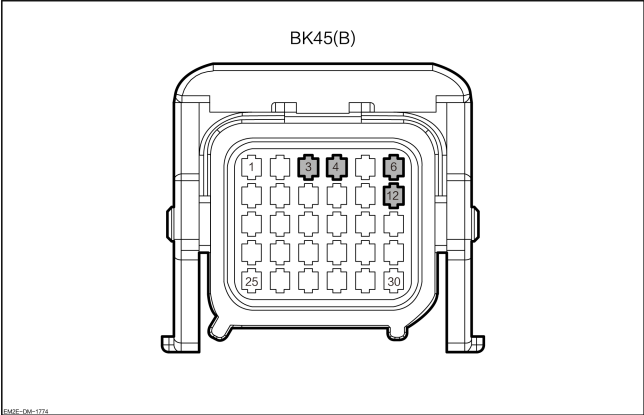
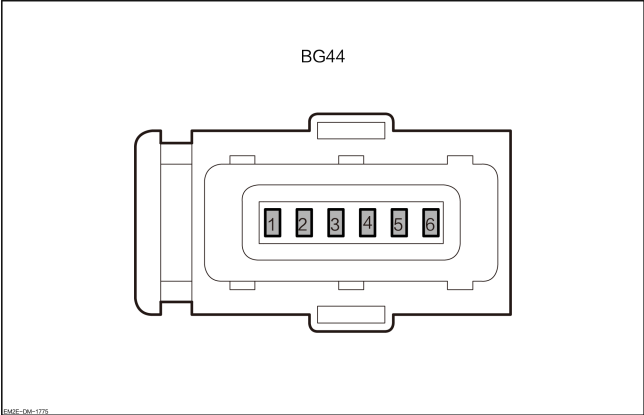
| P1D6600 Accelerator Signal Fault– Check Fault | |
|---|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector.2. Accelerator pedal fault3. Smart integrated front drive control unit fault. |
| Fault setting conditions | Accelerator signal failure –check fault |
| Trigger fault conditions | When accelerator signal failure –check fault is detected, a DTC will be generated. |

Circuit Diagram



SCHE-09A-1200

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 3 | Accelerator pedal depth 2 power supply grounding |
| | 4 | Accelerator pedal depth 1 power supply grounding |
| | 6 | Output signal 2 |
| | 12 | Output signal 1 |
| <p>Accelerator pedal position sensor</p>  <p>BG44</p> | 1 | Output signal 2 |
| | 2 | 5v power supply |
| | 3 | 5v power supply |
| | 4 | Output signal 1 |
| | 5 | Accelerator pedal depth 1 power supply grounding |
| | 6 | Accelerator pedal depth 2 power supply grounding |

Diagnostic Steps

1 Check the dynamic body control module DTC.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

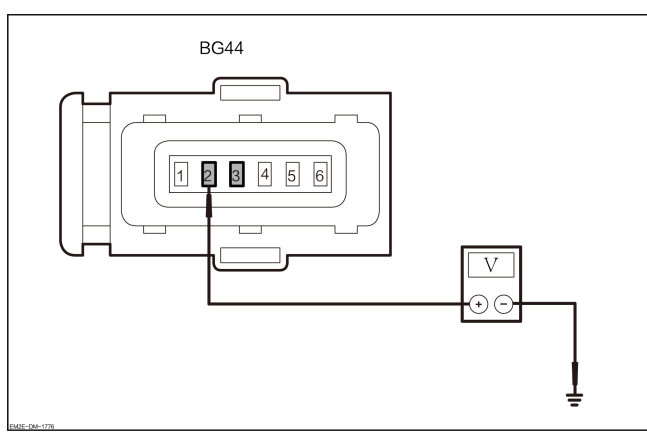
2 Check the accelerator pedal position sensor harness and connector.

1. Disconnect the accelerator pedal position sensor harness connector BG44.
2. Check the harness and connector for aging, deformation, withdrawing of the needle, fracture, etc.

Yes → Repair or replace the wire harness

No

3 Check the accelerator pedal position sensor.



1. Measure the voltage between the harness connector BG44-2 of accelerator pedal position sensor and grounding.
2. Measure the voltage between the harness connector BG44-3 of accelerator pedal position sensor and grounding.

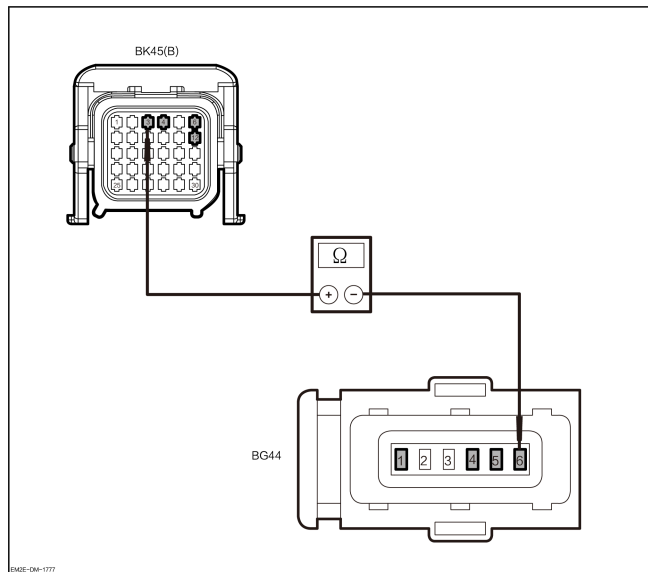
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG44-2 | Ground | Through-out | 4.5~5.5V |
| BG44-3 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the harness of accelerator pedal position sensor for open circuit.



1. Measure the resistance value between the harness connector BK45 (B)–3 of integrated intelligent control module and the harness connector BG44–6 of accelerator pedal position sensor.
2. Measure the resistance value between the harness connector BK45 (B)–4 of integrated intelligent control module and the harness connector BG44–5 of accelerator pedal position sensor.
3. Measure the resistance value between the harness connector BK45 (B)–6 of integrated intelligent control module and the harness connector BG44–1 of accelerator pedal position sensor.
4. Measure the resistance value between the harness connector BK45 (B)–12 of integrated intelligent control module and the harness connector BG44–4 of accelerator pedal position sensor.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)–3 | BG44–6 | Through- out | Lower than 1 Ω |
| BK45(B)–4 | BG44–5 | | |
| BK45(B)–6 | BG44–1 | | |
| BK45(B)–12 | BG44–4 | | |

5. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Replace the accelerator pedal assembly and check the DTC.

1. Replace the accelerator pedal assembly and restore the vehicle.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.

5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|--|
| No | The system is normal. |
| Yes | Replace the smart integrated control unit. |

P268E00 Voltage Output at DC Charger Abnormal

DTC Description

| P268E00 Voltage Output at DC Charger Abnormal | |
|---|---|
| Symptom | – |
| Possible Cause | 1. DC charging pile fault. 2. The power body control module fails. |
| Fault setting conditions | Abnormal DC charger voltage output |
| Trigger fault conditions | When abnormal DC charger voltage output is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|---|
| 1 | Replace the DC charging pile for charging test. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Clean the dynamic body control module DTC.
3. Replace the DC charging pile for charging test.
4. Check the charging condition, and check the dynamic body control module for the existence of DTCs.

No

Diagnosis completes, and the result indicates DC charging pipe fault.

Yes

Enter “dynamic body control module” diagnosis.

P1D8400 Water Temperature Fault(OBC)

DTC Description

| P1D8400 Water Temperature Fault(OBC) | |
|--------------------------------------|---|
| Symptom | – |
| Possible Cause | 1. Cooling system faults 2. DC–DC internal fault. |
| Fault setting conditions | Water temperature error (OBC) |
| Trigger fault conditions | When the system detects the water temperature fault, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Enter the “DC-DC” diagnosis.

P1D6144 EEPROM Error at VCU

DTC Description

| P1D6144 EEPROM Error at VCU | |
|-----------------------------|---|
| Symptom | – |
| Possible Cause | The power body control module fails. |
| Fault setting conditions | EEPROM error of vehicle controller |
| Trigger fault conditions | When EEPROM error of vehicle controller is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Enter the “DC-DC” diagnosis. |

P1B1F00 Fail to Anti-theft Authentication

DTC Description

| P1B1F00 Fail to Anti-theft Authentication | |
|---|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector.2. The left body control module fails.3. Smart integrated front drive control unit fault. |
| Fault setting conditions | Anti-theft verification failure |
| Trigger fault conditions | When the system detects that the anti-theft has failed, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

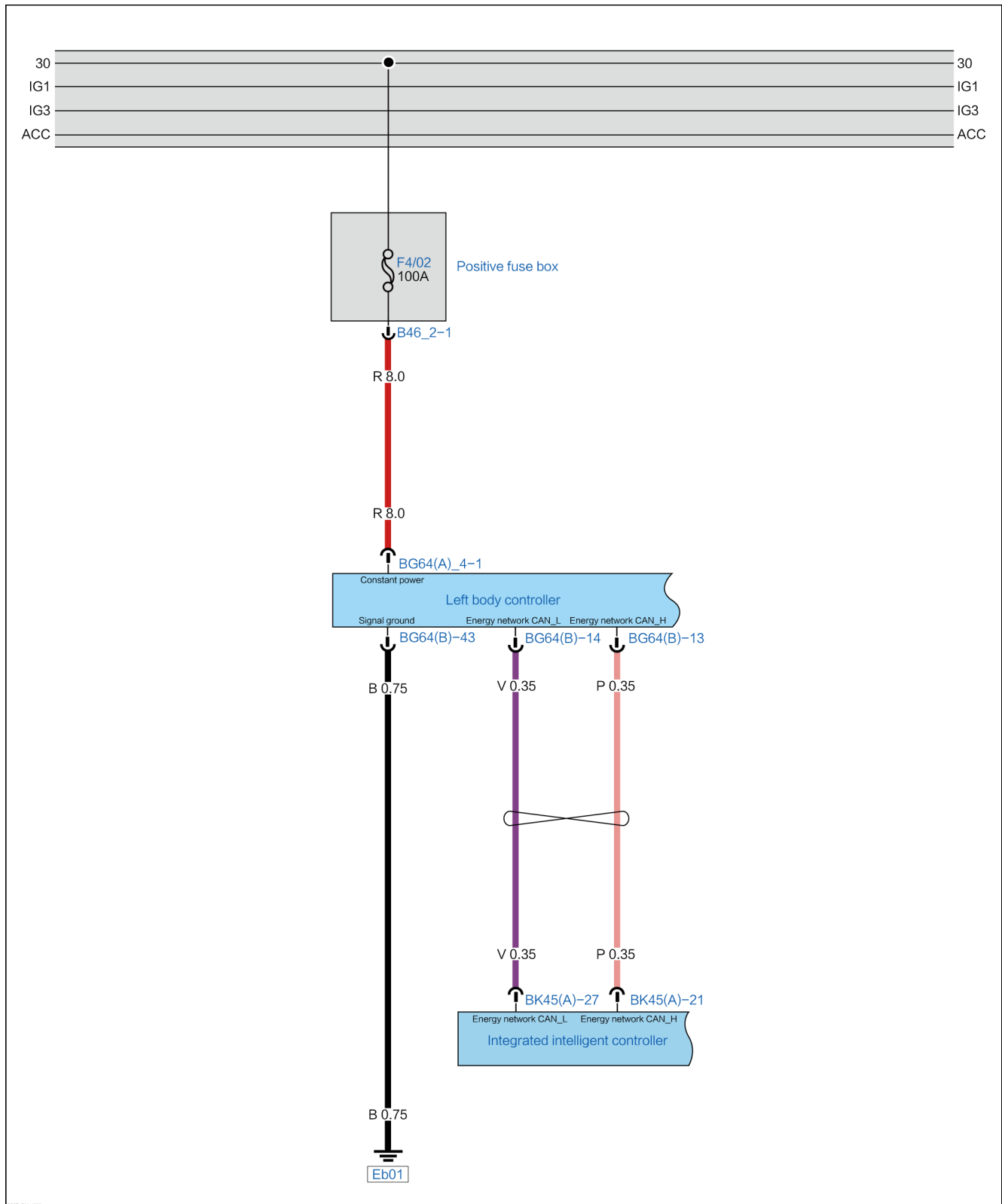
| | |
|-----|---|
| No | Check the “intermittent fault” . |
| Yes | Enter “left body control module” diagnosis. |

U024C87 Communication with I-KEY Failed

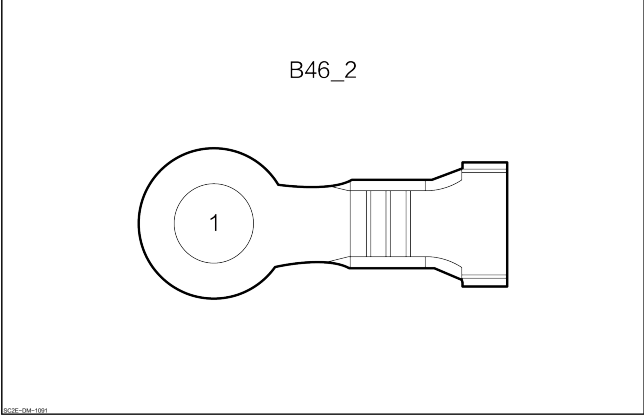
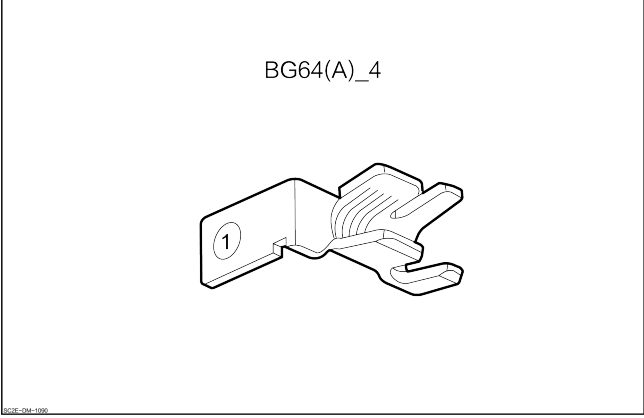
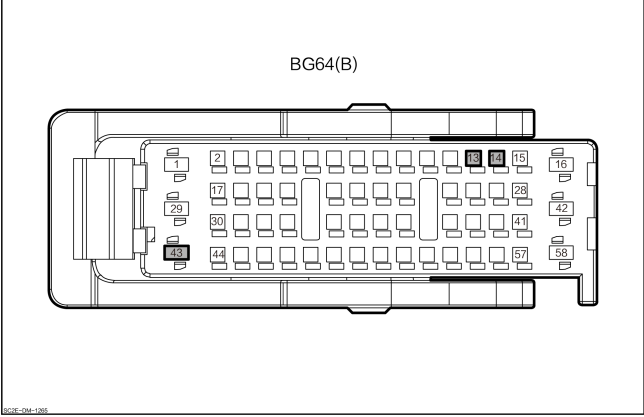
DTC Description

| U024C87 Communication with I-KEY Failed | |
|---|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. The left body control module fails.3. The power body control module fails. |
| Fault setting conditions | Communication fault with I-KEY |
| Trigger fault conditions | During the vehicle powered on process, if the dynamic body control module fails to receive I-KEY communication, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p style="text-align: center;">Positive fuse box</p> <div style="text-align: center;">  <p>B46_2</p> </div> | 1 | Left body control module constant power |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p>BG64(A)_4</p> </div> | 1 | Constant power |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p>BG64(B)</p> </div> | 13 | Energy network CAN_H |
| | 14 | Energy network CAN_L |
| | 43 | Signal ground |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the left body control module has passed the network test.

Yes

Go to step 8

No

| | |
|---|--|
| 2 | Check the fuse for the left body control module. |
|---|--|

1. Check the fuse F4/02(100A) in the positive fuse box for normal function.

No

Replace the fuse

Yes

| | |
|---|--|
| 3 | Check the harness and connector of left body control module. |
|---|--|

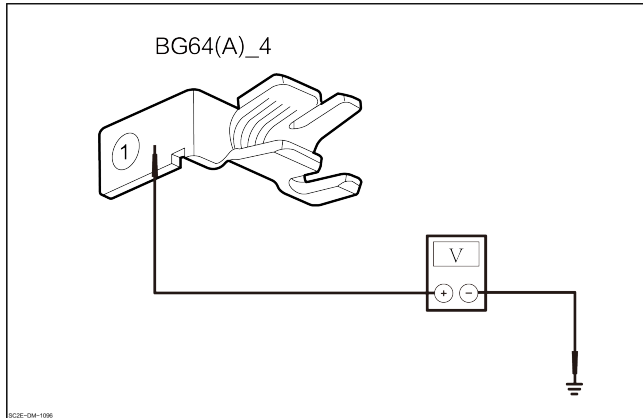
1. Set the START/STOP button to “OFF” .
2. Disconnect the power terminal of left body control module BG64(A)_4.
3. Disconnect the harness connector of left body control module BG64(B).
4. Check the power terminal and connector of left body control module of normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the constant power of left body control module. |
|---|---|



1. Measure the voltage between the power terminal of left body control module BG64(A)_4-1 and the ground.

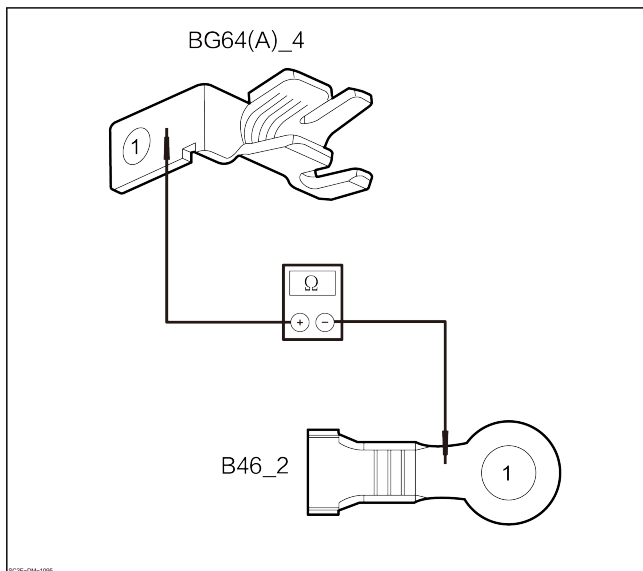
| Connector | | Condition | Voltage value |
|-------------|--------|-------------|---------------|
| (+) | (-) | | |
| BG64(A)_4-1 | Ground | Through-out | 11-14V |

2. Check whether the results are normal.

Yes Go to step 6

No

5 Check the power supply of left body control module for open circuit.



1. Disconnect the harness connector of positive fuse box B46_2.
2. Measure the resistance between the harness connector of left body control module BG64(A)_4-1 and the harness connector of positive fuse box B46_2-1.

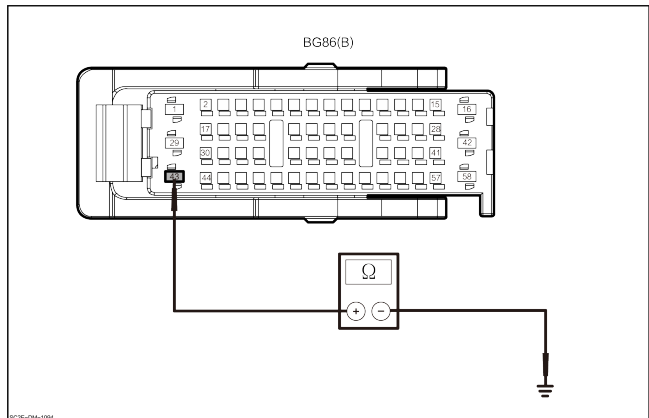
| Connector | | Condition | Resistance value |
|-------------|---------|-------------|------------------|
| (+) | (-) | | |
| BG64(A)_4-1 | B46_2-1 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the positive fuse box.

6 Check the ground line of left body control module.



1. Measure the resistance between the harness connector of left body control module BG64(B)-43 and the ground.

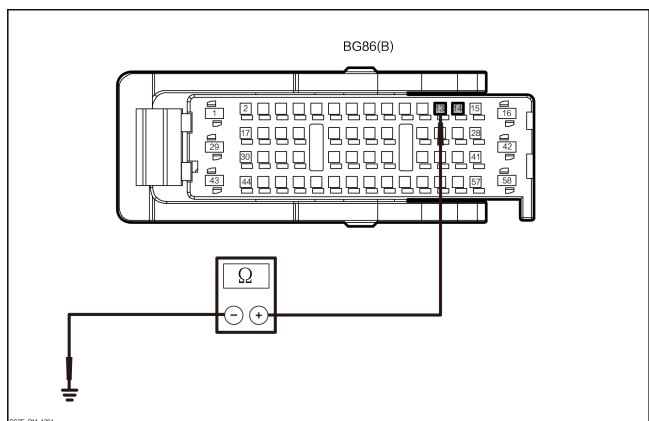
| Connector | | Condition | Resist- ance value |
|----------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG64(B)- 43 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the energy network CAN line of left body control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of left body control module BG64(B)-14 and the ground.
3. Measure the voltage between the harness connector of left body control module BG64(B)-13 and the ground.

| Connector | | Condition | Voltage value |
|----------------|--------|-----------------|------------------|
| (+) | (-) | | |
| BG64(B)- 14 | Ground | Through- out | 1.5~2.5V |
| BG64(B)- 13 | | | 2.5~3.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the left body control module.

8 Check the DTC of left body control module.

1. Read the DTC of airbag with VDS.
2. Check whether other DTC exists.

Yes → Enter “left body control module” diagnosis.

No

| | |
|---|--|
| 9 | Check the dynamic body control module DTC. |
|---|--|

1. Use a VDS to read the power body control module DTC.
2. Check whether other DTC exists.

Yes

Enter “dynamic body control module” diagnosis.

No

| | |
|----|---------------------------------|
| 10 | Check the DTC of other modules. |
|----|---------------------------------|

1. Read the DTC of other modules with VDS.
2. Whether the “communication with I-KEY failed” DTC is read in other modules?

Yes

Replace the left body control module.

No

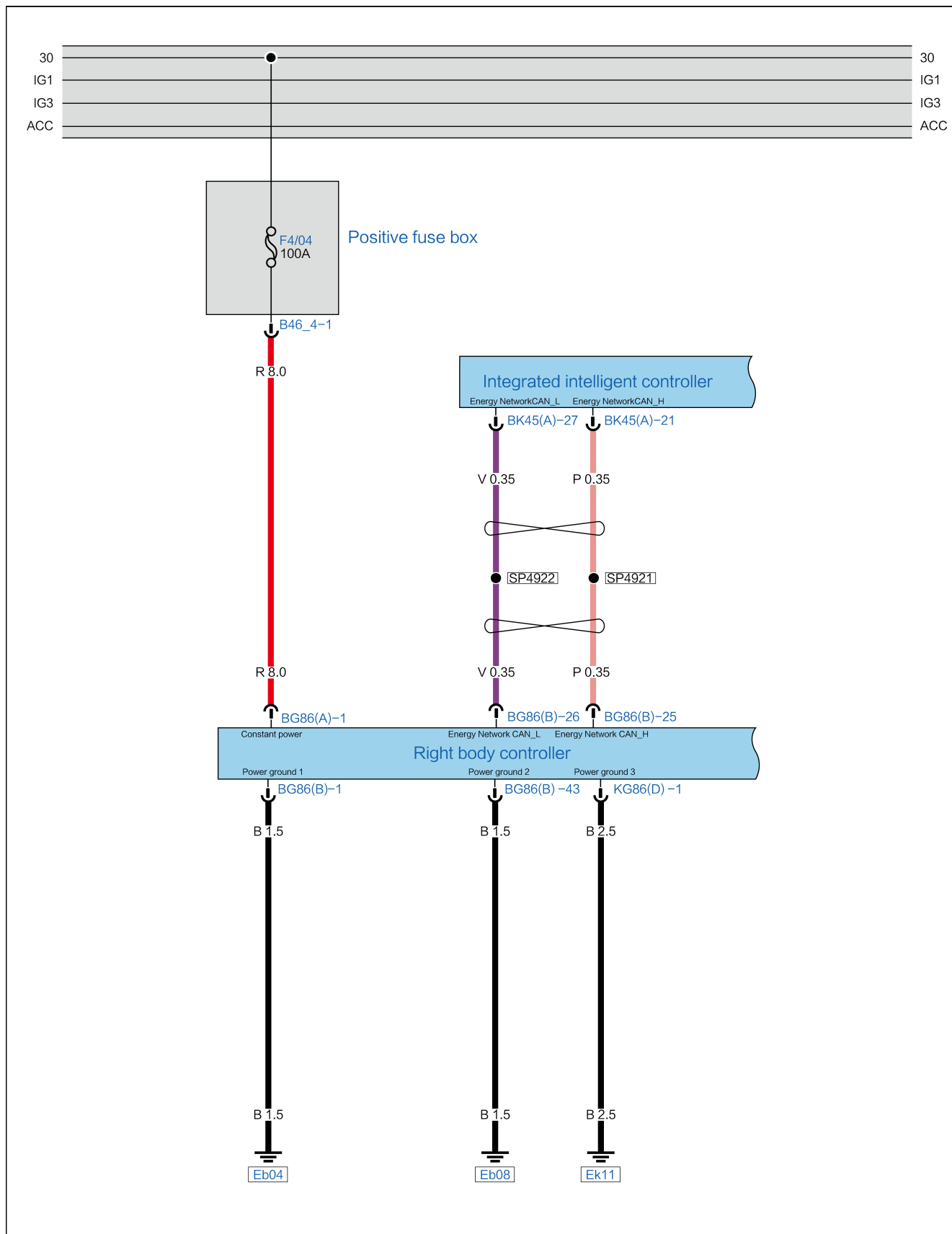
Replace the smart integrated front drive control unit.

U014E87 Communication with Security Gateway Module Failed

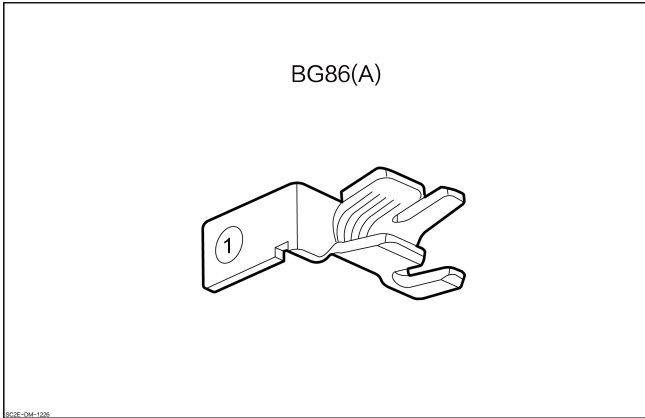
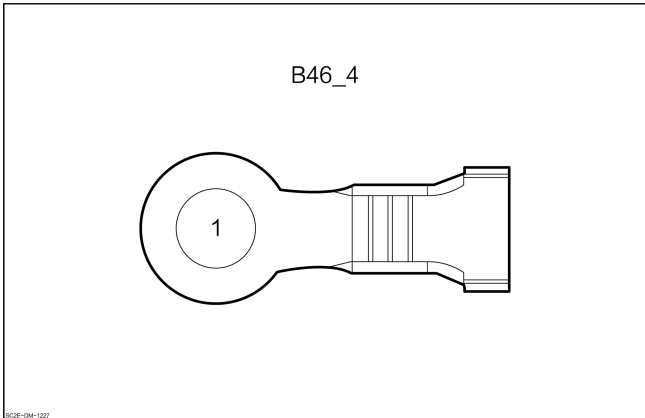
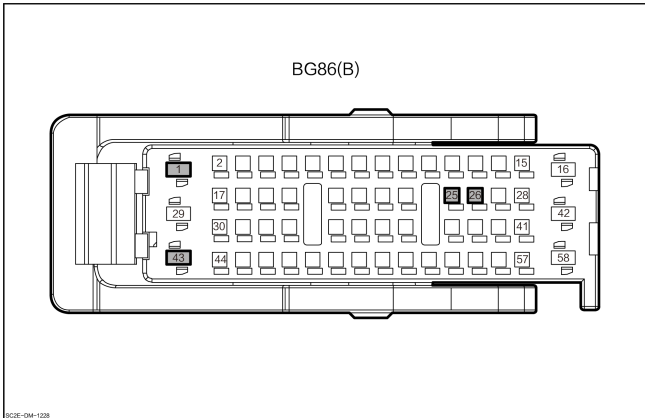
DTC Description

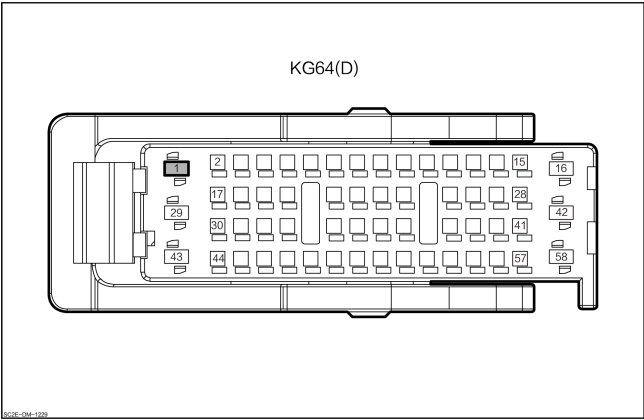
| U014E87 Communication with Security Gateway Module Failed | |
|---|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The right body control module fails. 3. The power body control module fails. |
| Fault setting conditions | Communication fault with security gateway module |
| Trigger fault conditions | During the vehicle powered on process, if the dynamic body control module fails to receive gateway communication, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;"> <p>BG86(A)</p>  </div> | 1 | Right body control module constant power |
| <p style="text-align: center;">Positive fuse box</p> <div style="text-align: center;"> <p>B46_4</p>  </div> | 1 | Constant power |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;"> <p>BG86(B)</p>  </div> | 1 | Power ground 1 |
| | 26 | Energy network CAN_L |
| | 25 | Energy network CAN_H |

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| | 43 | Power ground 2 |
| <p>Right body control module</p>  <p>KG64(D)</p> <p>646-094-102</p> | 1 | Power ground 3 |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the right body control module has passed the network test.

Yes

Go to step 8

No

| | |
|---|---|
| 2 | Check the fuse for right body control module. |
|---|---|

1. Check the fuse F4/04(100A) in the positive fuse box for normal function.

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the harness and connector of right body control module. |
|---|---|

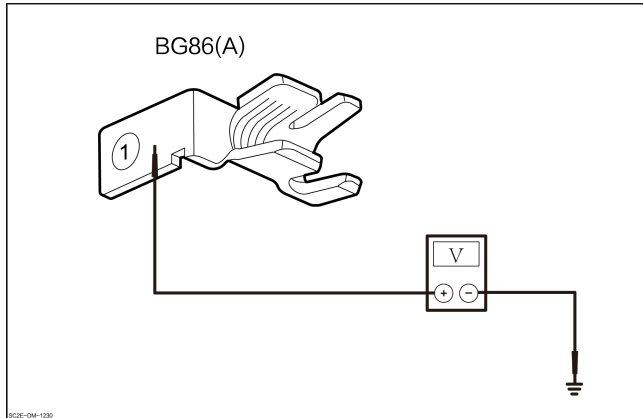
1. Set the START/STOP button to “OFF” .
2. Disconnect the power terminal of right body control module BG86(A).
3. Disconnect the harness connector of right body control module BG86(B).
4. Disconnect the harness connector of right body control module KG86(D).
5. Check the power terminal and connector of right body control module of normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the constant power of right body control module. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the power terminal of right body control module BG86(A)-1 and the ground.

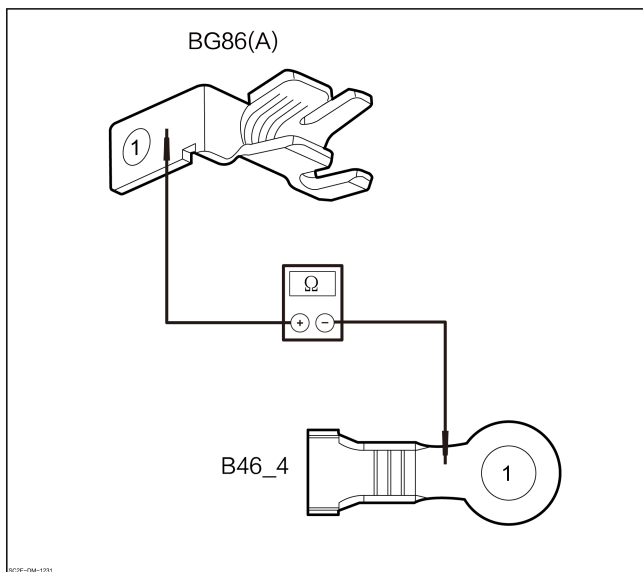
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG86(A)-1 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes Go to step 6

No

5 Check the power supply of right body control module for open circuit.



1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of positive fuse box B46_4.
3. Measure the resistance between the harness connector of right body control module BG86(A)-1 and the harness connector of positive fuse box B46_4-1.

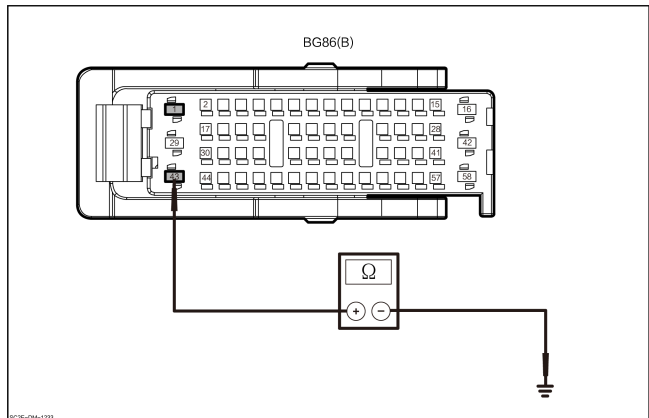
| Connector | | Condition | Resistance value |
|-----------|---------|-------------|------------------|
| (+) | (-) | | |
| BG86(A)-1 | B46_4-1 | Through-out | Lower than 1Ω |

4. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the positive fuse box.

6 Check the ground line of right body control module.



1. Measure the resistance between the harness connector of right body control module BG86(B)-1 and the ground.
2. Measure the resistance between the harness connector of right body control module BG86(B)-43 and the ground.
3. Measure the resistance between the harness connector of right body control module KG86(D)-1 and the ground.

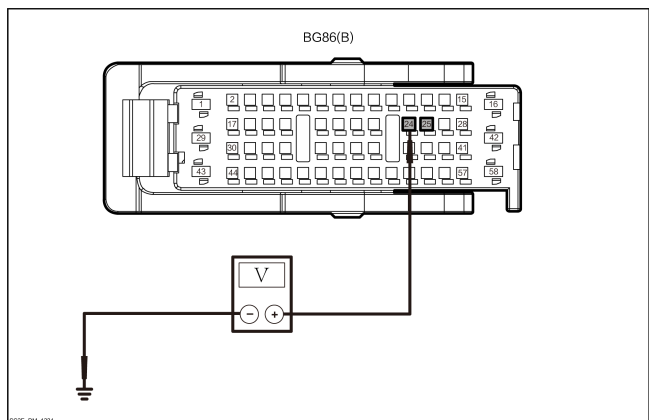
| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG86(B)-1 | Ground | Through- out | Lower than 1Ω |
| BG86(B)-43 | | | |
| KG86(D)-1 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the CAN line of right body control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of right body control module BG86(B)-25 and the ground.
3. Measure the voltage between the harness connector of right body control module BG86(B)-26 and the ground.

| Connector | | Condition | Voltage value |
|------------|--------|-----------------|------------------|
| (+) | (-) | | |
| BG86(B)-25 | Ground | Through- out | 2.5~3.5V |
| BG86(B)-26 | | | 1.5~2.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes

Replace the right body control module.

8

Check the DTC of right body control module.

1. Use a VDS to read the right body control module DTC.
2. Check whether other DTC exists.

Yes

Enter “right body control module” diagnosis.

No

9

Check the dynamic body control module DTC.

1. Use a VDS to read the power body control module DTC.
2. Check whether other DTC exists.

Yes

Enter “dynamic body control module” diagnosis.

No

10

Check the DTC of other modules.

1. Read the DTC of other modules with VDS.
2. Check whether communication failure with safety gateway module is read in other modules.

Yes

Replace the right body control module.

No

Replace the smart integrated front drive control unit.

P268600 High-voltage Interlock Fault

DTC Description

| P268600 High-voltage Interlock Fault | |
|--------------------------------------|--|
| Symptom | The instrument displays "Please check the connector", and charging and discharging is prohibited. |
| Possible Cause | <ol style="list-style-type: none"> 1. The DC bus connector of the integrated intelligent front drive control module is not properly connected. 2. Smart integrated front drive control unit fault. |
| Fault setting conditions | Detected high voltage interlock PWM signal duty cycle is not in the specified threshold range. |
| Trigger fault conditions | When the vehicle is powered on, and the PWM signal duty cycle is not in the specified threshold range, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the DC busbar connector of integrated intelligent front drive control module. |
|---|---|

1. Disconnect the negative terminal of the storage battery.
2. Disconnect DC busbar connector from the integrated intelligent front drive control module.
3. Check whether the harness and connector are aged, deformed, ablated, fractured and loosened.
4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the smart integrated front drive control unit.

P1D8300 Limited Power of Vehicle

DTC Description

| P1D8300 Limited Power of Vehicle | |
|----------------------------------|---|
| Symptom | Indicating the drive power limit indicator. |
| Possible Cause | <ol style="list-style-type: none"> 1. The battery output power is low. 2. The water pump does not work normally. 3. Three-way water valve does not work normally. 4. Cooling system water pipe is bent. |
| Fault setting conditions | <p>Meet any of the following conditions:</p> <ol style="list-style-type: none"> 1. The maximum allowable output torque is less than the specified threshold. 2. The maximum allowable output power of the battery is less than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and it detects that the maximum allowable output torque or power of the motor is less than the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|-----------------------|
| 2 | Inspection of coolant |
|---|-----------------------|

1. Set the start/stop button to OK.
2. Check whether the coolant of cooling system is sufficient.

Yes

Check whether the cooling system is leaked. Add the coolant.

No

| | |
|---|--|
| 3 | Check the working condition of the water pump. |
|---|--|

1. VDS enters the pump work support and operates the pump work.
2. Check whether the water pump is working properly.

No

Enter the “Fan fails not work” diagnosis.

Yes

| | |
|---|--------------------------|
| 4 | Check the fan operation. |
|---|--------------------------|

1. VDS enters the fan operation support and operates the fan work.
2. Check whether the fan is working properly.

No

Enter the diagnosis of "Fan Inoperative".

Yes

| | |
|---|--|
| 5 | Check the maximum allowable output power of the battery. |
|---|--|

1. Use the VDS to enter the battery execution and sampling system.
2. Check whether the "maximum allowable discharge power of battery" is normal.

No → Enter the "Battery Execution and Sampling System" for diagnosis.

Yes

| | |
|---|---------------------------------|
| 6 | Check the DTC of other modules. |
|---|---------------------------------|

1. Read the DTC of other modules.
2. Check whether existing related DTC in other modules.

No → Replace the smart integrated control unit.

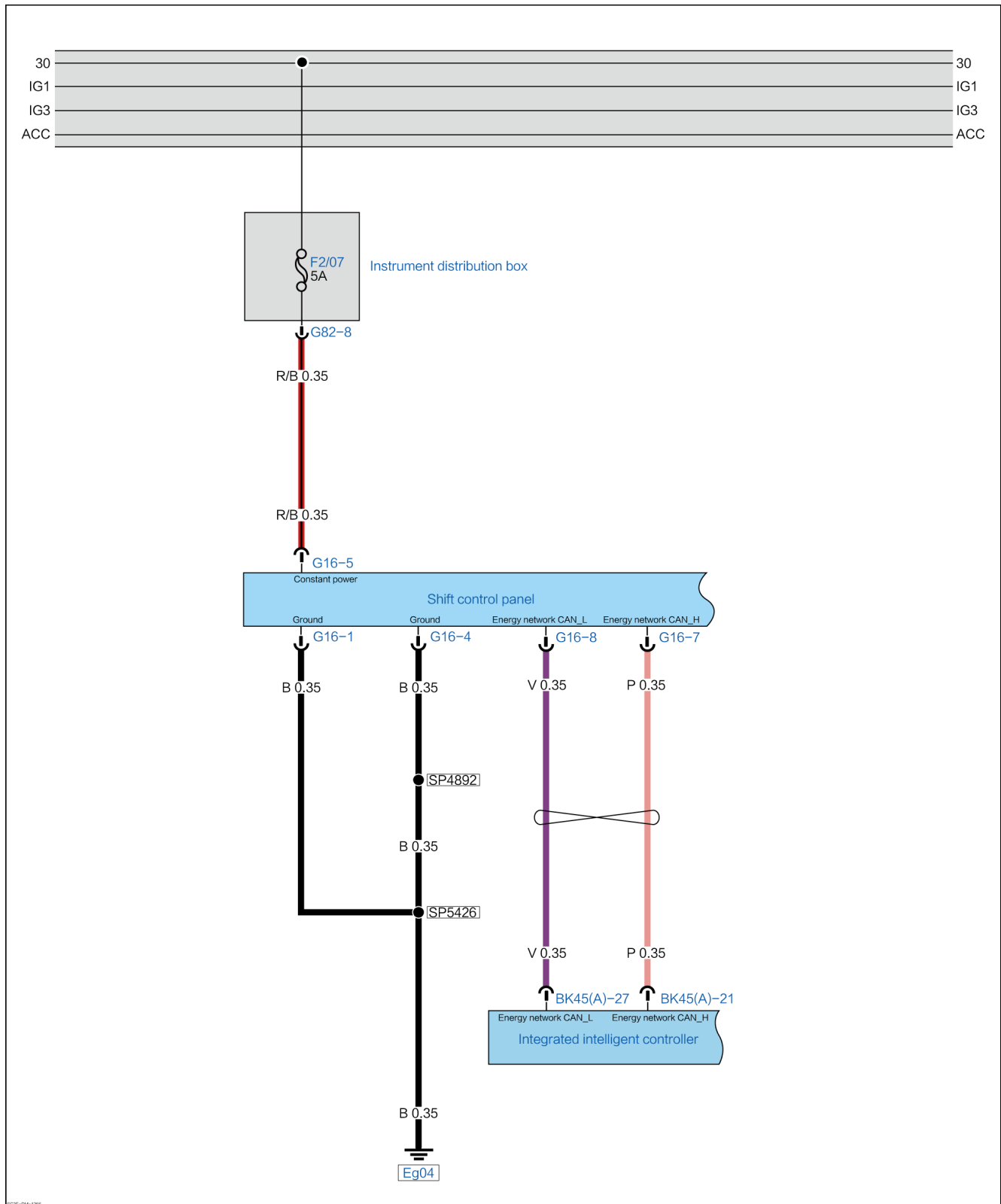
Yes → Enter the "Other module" diagnosis.

U029187 Communication with Gear Control Module Failed

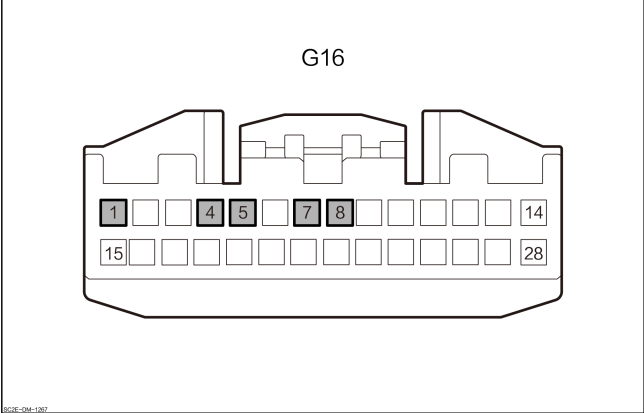
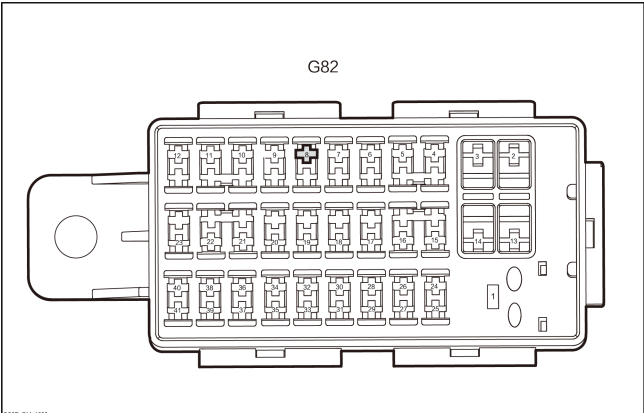
DTC Description

| U029187 Communication with Gear Control Module Failed | |
|---|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. The right body control module fails.3. The power body control module fails. |
| Fault setting conditions | No gear control module message is received. |
| Trigger fault conditions | During the vehicle powered on process, if the dynamic body control module fails to receive any gear control module message, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p style="text-align: center;">Shift control panel</p> <p style="text-align: center;">G16</p>  <p><small>80SE-DW-1262</small></p> | 1 | Ground |
| | 4 | Ground |
| | 5 | Constant power |
| | 7 | Energy network CAN_H |
| | 8 | Energy network CAN_L |
| <p style="text-align: center;">Instrument fuse box</p> <p style="text-align: center;">G82</p>  <p><small>80SE-DW-1263</small></p> | 8 | Constant power of the shift control panel |

Diagnostic Steps

1 Check the communication network.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the shift control panel passes the network detection?

Yes Go to step 8

No

2 Check the fuse of the shift control panel.

1. Check whether the fuse F2/07 (5A) of the instrument fuse box is normal.

No Replace the fuse

Yes

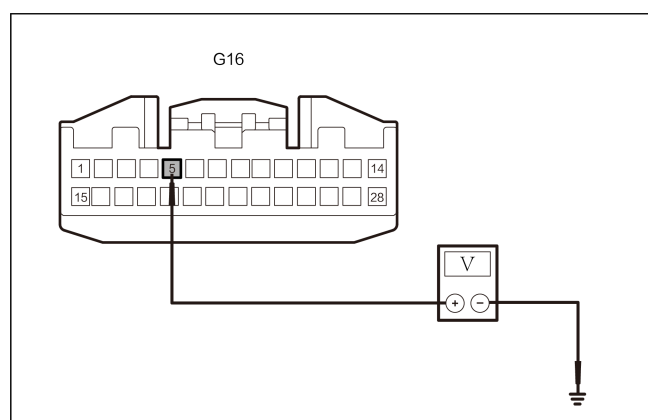
3 Check whether the harness and connector of the shift control panel are normal.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector G16 of the shift control panel.
3. Check whether the harness connector of the shift control panel is normal.

No Repair or replace the wire harness

Yes

4 Check the constant power of the shift control panel.



1. Measure the voltage between the harness connector of shift control panel G16-5 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G16-5 | Ground | Through-out | 11-14V |

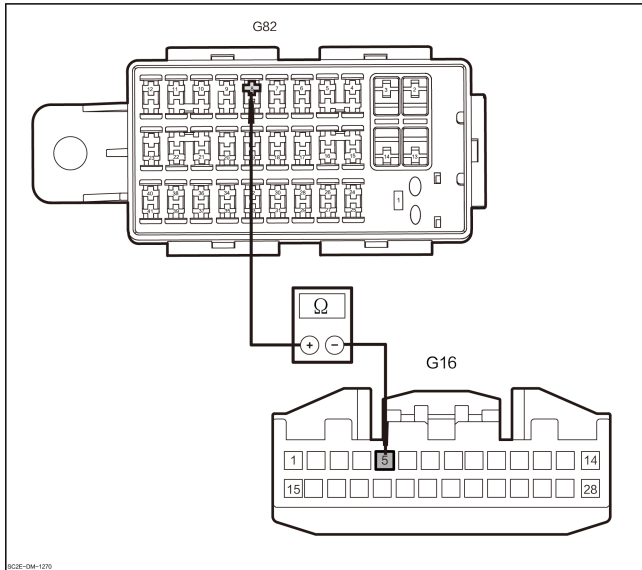
2. Check whether the results are normal.

Yes

Go to step 6

No

5 Check the power supply of the shift control panel module for open circuit.



1. Disconnect the harness connector of instrument fuse box G82.
2. Measure the resistance value between the instrument fuse box harness connector G82-8 and the shift control panel harness connector G16-5.

| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| G82-8 | G16-5 | Through- out | Lower than 1 Ω |

3. Check whether the results are normal.

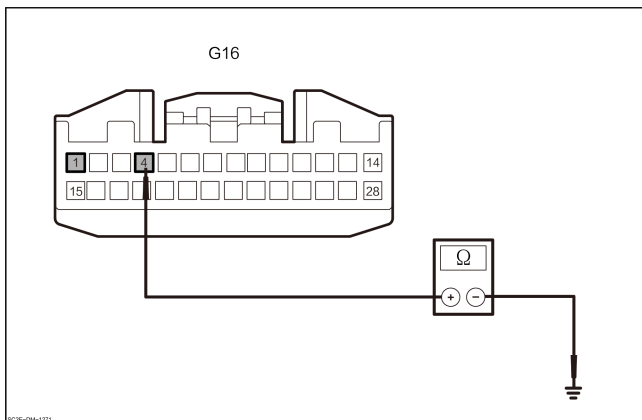
No

Repair or replace the wire harness

Yes

Replace the instrument fuse box.

6 Check the ground line of the shift control panel.



1. Measure the resistance between the harness connector of shift control panel G16-1 and the ground.
2. Measure the resistance between the harness connector of shift control panel G16-4 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G16-1 | Ground | Through- out | Lower than 1 Ω |
| G16-4 | | | |

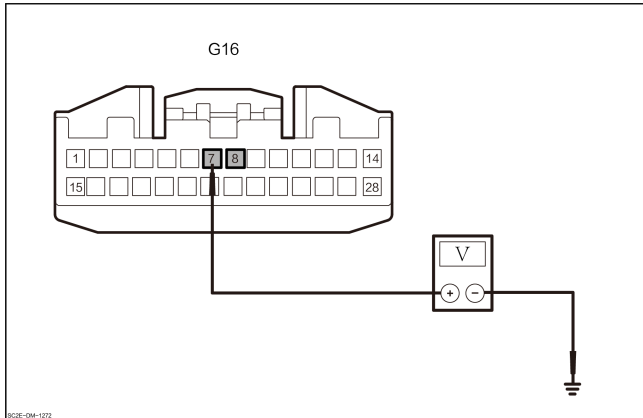
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Check the CAN line of the shift control panel.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of shift control panel G16-7 and the ground.
3. Measure the voltage between the harness connector of shift control panel G16-8 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G16-7 | Ground | Through-out | 2.5~3.5V |
| G16-8 | | | 1.5~2.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the shift panel.

8 Check the shift control panel DTC.

1. Read the DTC of airbag with VDS.
2. Check whether other DTC exists.

Yes → Enter the "Shift Control Panel" diagnosis.

No

9 Check the dynamic body control module DTC.

1. Use a VDS to read the power body control module DTC.
2. Check whether other DTC exists.

Yes → Enter “dynamic body control module” diagnosis.

No

10 Check the DTC of other modules.

1. Read the DTC of other modules with VDS.
2. Is the communication fault with gear control module read in other modules?

Yes → Replace the shift panel.

No

Replace the smart integrated control unit.

DTC of DC DC

List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|--|--|
| P1EC000 | Voltage of HV side too high when step-down | P1EC000 Voltage Too High at High Voltage Side during Step-down |
| P1EC100 | Voltage of HV side too low when step-down | P1EC100 Voltage Too Low at High Voltage Side during Step-down |
| P1EC600 | Current of HV side too high when step-down | P1EC600 Current Too High at High Voltage Side during Step-down |
| P1EC200 | Voltage of LV side too high when step-down | P1EC200 Voltage Too High at Low Voltage Side during Step-down |
| P1EC300 | Voltage of LV side too low when step-down | P1EC300 Voltage Too Low at Low Voltage Side during Step-down |
| P1EC400 | Current of LV side too high when step-down | P1EC400 Current Too High at Low Voltage Side during Step-down |
| P1EC700 | Hardware Fault When Step-down | P1EC700 Hardware Fault during Step-down |
| P1EE000 | DC overtemperature | P1EE000 DC Overtemperature |
| P1ED317 | Supply voltage of LV too low | P1ED317 Supply Voltage at Low Voltage Side Too Low |
| P1ED316 | Supply voltage of LV too high | P1ED316 Supply Voltage at Low Voltage Side Too High |
| P1ED400 | DC output positive line broken | P1ED400 DC Output Positive Line Broken |
| U029F87 | Communication with OBC failed | U029F87 Communication with OBC Failed |

P1EC000 Voltage Too High at High Voltage Side during Step-down**DTC Description**

| P1EC000 Voltage Too High at High Voltage Side during Step-down | |
|--|---|
| Symptom | LV power supply system fault. |
| Possible Cause | 1. Voltage of high voltage side is too high. 2. The DC-DC internal part fails |
| Fault setting conditions | The voltage of the high voltage side exceeds the stipulated threshold. |
| Trigger fault conditions | When the vehicle is powered on and the system detects that the high voltage on the high side exceeds the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of DC-DC assembly. |
| <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the START/STOP button to ON. 3. Clear DTCs. 4. Set the START/STOP button to OFF, and wait a few seconds. 5. Place the start/stop button in ON position again, and read the DTC. 6. Check whether the same DTC is displayed. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Check the “intermittent fault” .</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 2 | Check whether the vehicle normally shift to OK position. |
| <ol style="list-style-type: none"> 1. Can the vehicle normally shift to OK position? | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Enter “dynamic body control module” diagnosis.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 3 | Check the bus voltage of dynamic body. |
| <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the START/STOP button to ON. 3. Read data flow. 4. Check whether the bus voltage of dynamic body falls within the normal range. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Enter the "Battery Execution and Sampling System" for diagnosis.</div> </div> | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">Yes</div> <div style="border: 1px solid black; padding: 5px;">Replace the smart integrated front drive control unit.</div> </div> | |

P1EC100 Voltage Too Low at High Voltage Side during Step-down

DTC Description

| P1EC100 Voltage Too Low at High Voltage Side during Step-down | |
|---|---|
| Symptom | LV power supply system fault. |
| Possible Cause | 1. High-voltage load fuse fault. 2. The DC-DC internal part fails |
| Fault setting conditions | The voltage on the high voltage side is less than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and the system detects that the voltage on the high voltage side is less than the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the DTC of DC-DC assembly. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------|
| 2 | Check high-voltage fuses. |
|---|---------------------------|

1. Check whether the high-voltage fuse is normal.

No

Replace the high-voltage fuse.

Yes

Replace the smart integrated front drive control unit.

P1EC600 Current Too High at High Voltage Side during Step-down**DTC Description**

| P1EC600 Current Too High at High Voltage Side during Step-down | |
|--|---|
| Symptom | LV power supply system fault. |
| Possible Cause | The DC-DC internal part fails |
| Fault setting conditions | The current at high voltage side exceeds the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and the system detects that the current at high voltage exceeds the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|-----|--|
| 1 | Check the DTC of DC-DC assembly. <ol style="list-style-type: none">1. Connect the VDS to the diagnostic interface.2. Set the START/STOP button to ON.3. Clear DTCs.4. Set the START/STOP button to OFF, and wait a few seconds.5. Place the start/stop button in ON position again, and read the DTC.6. Check whether the same DTC is displayed. |
| No | Check the “intermittent fault” . |
| Yes | Replace the smart integrated front drive control unit. |

P1EC200 Voltage Too High at Low Voltage Side during Step-down**DTC Description**

| P1EC200 Voltage Too High at Low Voltage Side during Step-down | |
|---|---|
| Symptom | LV power supply system fault. |
| Possible Cause | 1. Battery fault. 2. The DC-DC internal part fails |
| Fault setting conditions | The voltage at low voltage side is greater than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and the system detects that the low voltage exceeds the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the DTC of DC-DC assembly. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Inspection of the battery state |
|---|---------------------------------|

1. Set the START/STOP button to “OFF” .
2. Perform a battery condition test.
3. Check whether the battery has passed the test.

No

Replace the battery

Yes

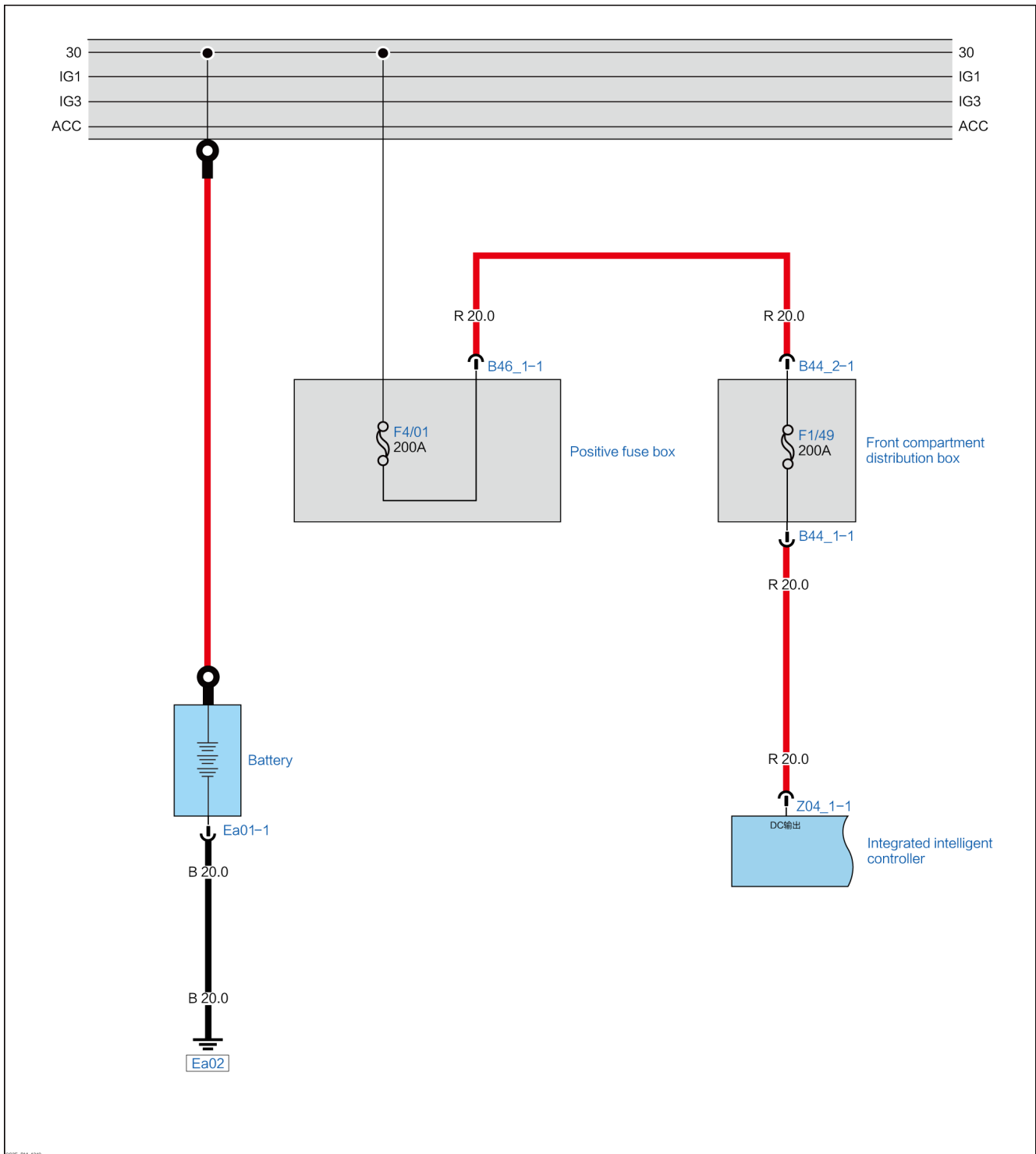
Replace the smart integrated front drive control unit.

P1EC300 Voltage Too Low at Low Voltage Side during Step-down

DTC Description

| P1EC300 Voltage Too Low at Low Voltage Side during Step-down | |
|--|---|
| Symptom | LV power supply system fault. |
| Possible Cause | <ol style="list-style-type: none">1. Battery fault.2. DC low voltage output line fault.3. The DC-DC internal part fails |
| Fault setting conditions | The voltage at low voltage side is less than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and the system detects that the voltage at low voltage side is less than the specified threshold, DTC is generated. |

Circuit Diagram



SCHE-DM-1349

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the DTC of DC-DC assembly. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the DC-DC assembly transmission harness voltage. |
|---|--|

1. Set the START/STOP button to OFF.
2. Disconnect DC-DC harness connector B44_1.
3. Set the start/stop button to ON.
4. Measure the voltage value between the front compartment fuse box harness connector B44_1-1 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B44_1-1 | Ground | Through-out | 11~14V |

5. Check whether the results are normal.

Yes

No

| | |
|---|--|
| 3 | Check the DC-DC low voltage output harness for open circuit. |
|---|--|

1. Disconnect the harness connector of charging and distribution assembly Z04.
2. Measure the resistance between the harness connector of front compartment fuse box B44_1-1 and the harness connector of charging and distribution assembly Z04-1.

| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| B44_1-1 | Z04-1 | Through- out | Lower than 1 Ω |

3. Check whether the results are normal.

No → Replace or maintain wire harness

Yes

| | |
|---|---------------------------------|
| 4 | Inspection of the battery state |
|---|---------------------------------|

1. Set the start/stop button to OFF.
2. Perform a battery condition test.
3. Check whether the battery has passed the test?

No → Replace the battery

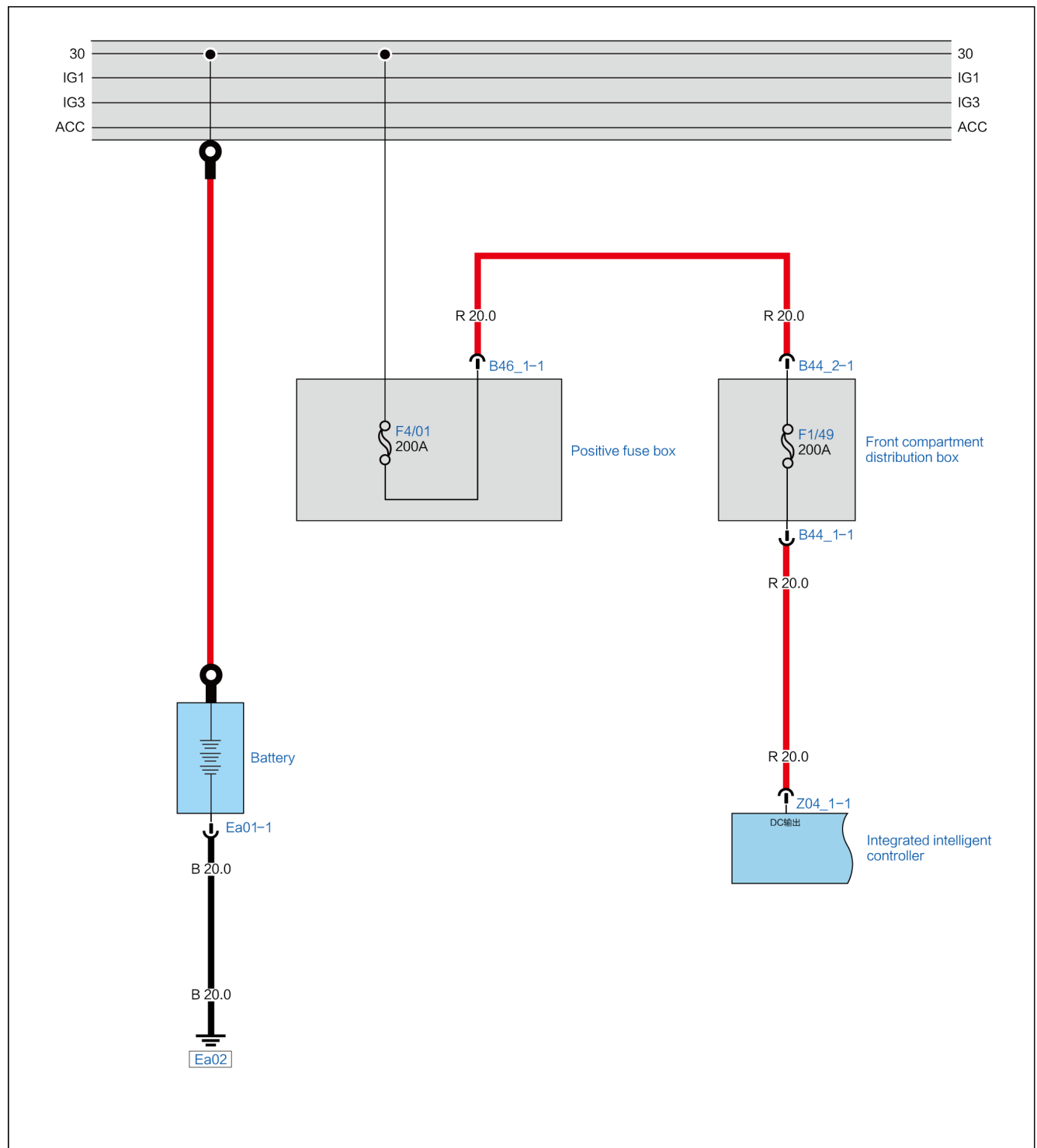
Yes → Replace the smart integrated front drive control unit.

P1EC400 Current Too High at Low Voltage Side during Step-down

DTC Description

| P1EC400 Current Too High at Low Voltage Side during Step-down | |
|---|---|
| Symptom | LV power supply system fault. |
| Possible Cause | <ol style="list-style-type: none">1. Battery fault.2. DC low voltage output line fault.3. The DC-DC internal part fails |
| Fault setting conditions | The current at low voltage exceeds the specified threshold. |
| Trigger fault conditions | After the vehicle is powered on, when the current at low voltage exceeds the specified threshold, DTC is generated. |

Circuit Diagram



SCHE-DM-1249

Diagnostic Steps

| | |
|---|--|
| 1 | Check the integrated intelligent front drive control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the low voltage output harness of the integrated intelligent front drive control module for short circuit to the ground. |
|---|--|

1. Disconnect the front compartment fuse box harness connector B44_1.
2. Measure the resistance value between the front compartment fuse box harness connector B44_1-1 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B44_1-1 | Ground | Through- out | Above 10k Ω |

3. Check whether the results are normal.

No Replace or maintain wire harness

Yes

| | |
|---|---------------------------------|
| 3 | Inspection of the battery state |
|---|---------------------------------|

1. Set the START/STOP button to “OFF” .
2. Perform a battery condition test.
3. Check whether the battery has passed the test.

No Replace the battery

Yes Replace the smart integrated front drive control unit.

P1EC700 Hardware Fault during Step-down

DTC Description

| P1EC700 Hardware Fault during Step-down | |
|---|--|
| Symptom | LV power supply system fault. |
| Possible Cause | The DC-DC internal part fails |
| Fault setting conditions | Internal fault. |
| Trigger fault conditions | After the vehicle is powered on, when an internal fault is detected, DTC is generated. |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the DTC of DC-DC assembly. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

P1EE000 DC Overtemperature

DTC Description

| P1EE000 DC Overtemperature | |
|----------------------------|--|
| Symptom | LV power supply system fault. |
| Possible Cause | <ol style="list-style-type: none"> 1. Lack of coolant. 2. The water pump works improperly. 3. The fan works improperly. 4. The DC-DC internal part fails |
| Fault setting conditions | The DC temperature exceeds the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and the system detects that DC temperature exceeds the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the DTC of DC-DC assembly. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|-----------------------|
| 2 | Inspection of coolant |
|---|-----------------------|

1. Check whether there is sufficient coolant.

No

Add coolant and check the cooling system for leaks.

Yes

| | |
|---|--|
| 3 | Check the working condition of the water pump. |
|---|--|

1. VDS enters the pump work support and operates the pump work.
2. Check whether the water pump is working properly.

No

Enter the “Fan fails not work” diagnosis.

Yes

| | |
|---|--------------------------|
| 4 | Check the fan operation. |
|---|--------------------------|

1. VDS enters the fan operation support and operates the fan work.
2. Check whether the fan is working properly.

No

Enter the diagnosis of "Fan Inoperative".

Yes

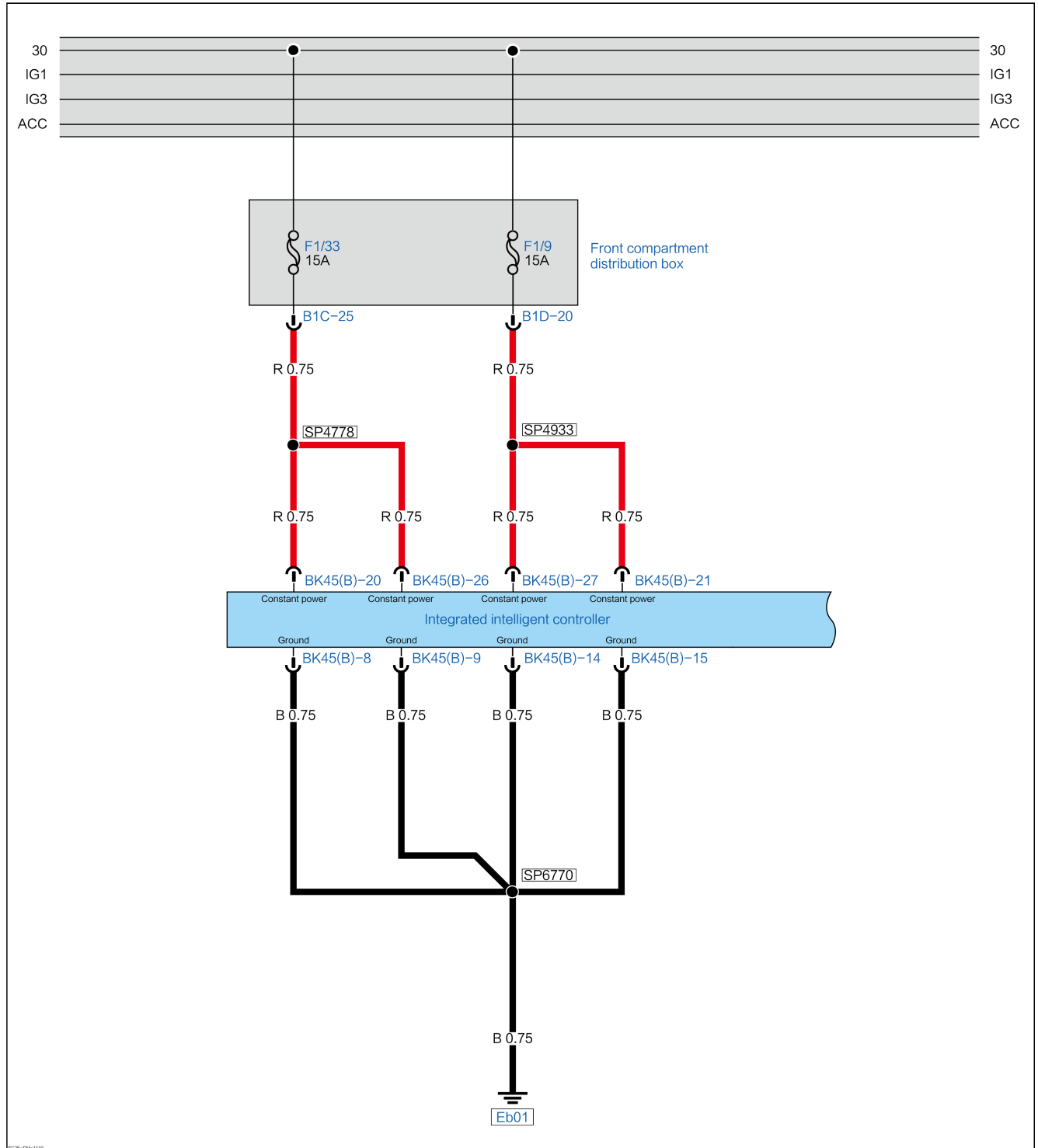
Replace the smart integrated front drive control unit.

P1ED317 Supply Voltage at Low Voltage Side Too Low

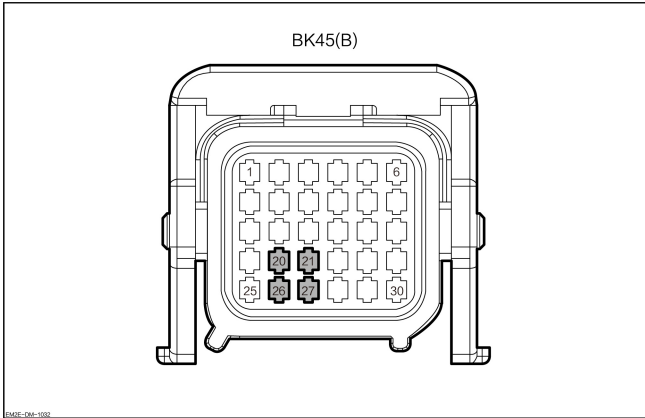
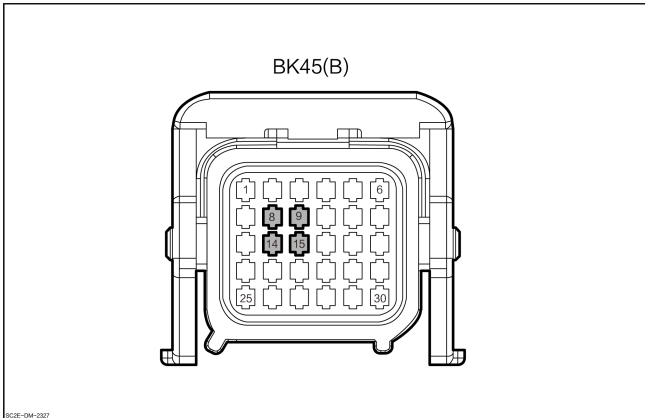
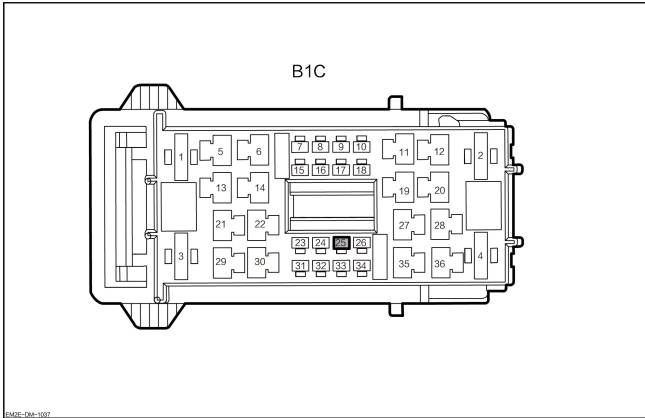
DTC Description

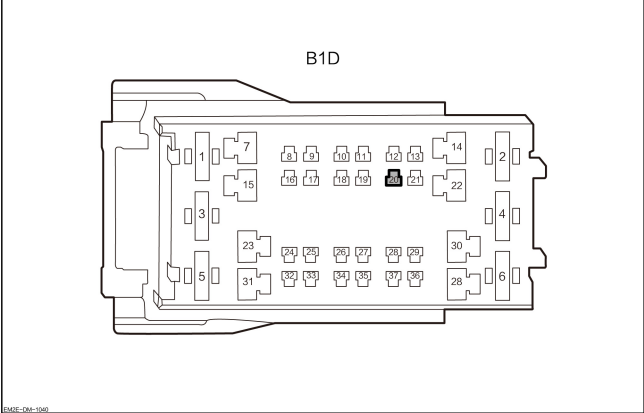
| P1ED317 Supply Voltage at Low Voltage Side Too Low | |
|--|---|
| Symptom | LV power supply system fault. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Battery fault. 3. Harness or connector fault. 4. The DC-DC internal part fails |
| Fault setting conditions | The low voltage at supply voltage is less than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and the system detects that the supply voltage at low voltage is less than the specified threshold, DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 20 | Constant power |
| | 21 | Constant power |
| | 26 | Constant power |
| | 27 | Constant power |
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 8 | Ground |
| | 9 | Ground |
| | 14 | Ground |
| | 15 | Ground |
| <p>Front compartment fuse box</p>  <p>B1C</p> | 25 | Power supply of smart integrated front drive control unit |

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p style="text-align: center;">Front compartment fuse box</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B1D</p> </div> <p style="font-size: small; margin-top: 10px;">648E-C04-100</p> | <p>20</p> | <p>Power supply of smart integrated front drive control unit</p> |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the DTC of DC-DC assembly. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

| | |
|----|----------------------------------|
| No | Check the “intermittent fault” . |
|----|----------------------------------|

| |
|-----|
| Yes |
|-----|

| | |
|---|---------------------------------|
| 2 | Inspection of the battery state |
|---|---------------------------------|

1. Set the START/STOP button to OFF.
2. Perform a battery condition test.
3. Does the battery pass the test?

| | |
|----|---------------------|
| No | Replace the battery |
|----|---------------------|

| |
|-----|
| Yes |
|-----|

| | |
|---|--|
| 3 | Check the front compartment fuse box fuse. |
|---|--|

1. Check whether the front compartment fuse box fuse F1/33(15A) and F1/9(15A) are normal?

| | |
|----|------------------|
| No | Replace the fuse |
|----|------------------|

| |
|-----|
| Yes |
|-----|

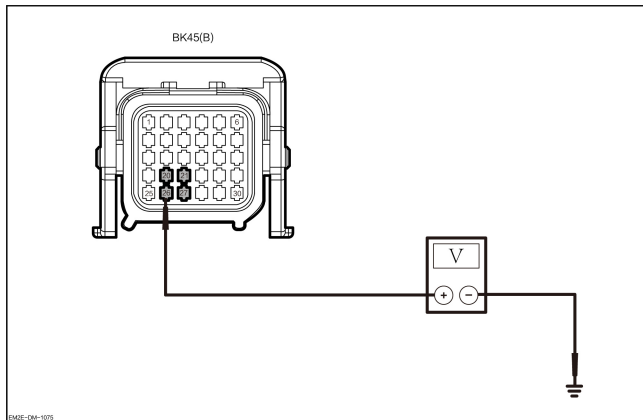
| | |
|---|--|
| 4 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
2. Check whether the harness and connector are normal.

| | |
|----|------------------------------------|
| No | Repair or replace the wire harness |
|----|------------------------------------|

| |
|-----|
| Yes |
|-----|

5 Check the constant power supply of the integrated intelligent front drive control module.



1. Measure the voltage value between the harness connector BK45 (B)–20 of integrated intelligent front drive control module and the grounding.
2. Measure the voltage value between the harness connector BK45 (B)–26 of integrated intelligent front drive control module and the grounding.
3. Measure the voltage value between the harness connector BK45 (B)–27 of integrated intelligent front drive control module and the grounding.
4. Measure the voltage value between the harness connector BK45 (B)–21 of integrated intelligent front drive control module and the grounding.

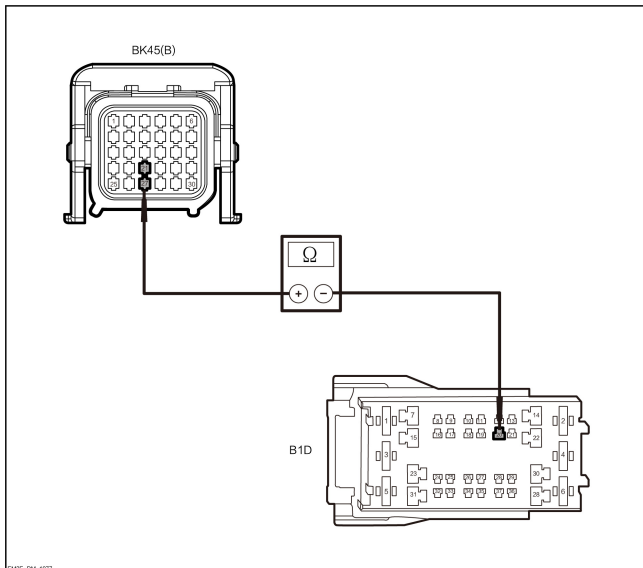
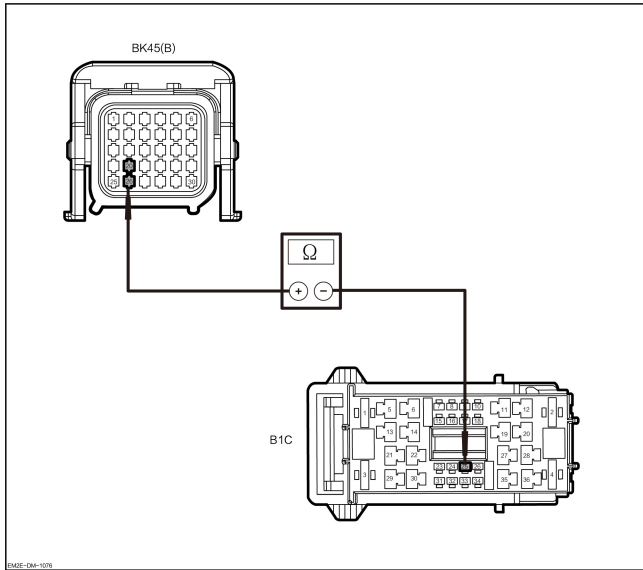
| Connector | | Condition | Voltage value |
|------------|--------|-------------|---------------|
| (+) | (-) | | |
| BK45(B)–20 | Ground | Through-out | 11~14V |
| BK45(B)–26 | | | |
| BK45(B)–27 | | | |
| BK45(B)–21 | | | |

5. Check whether the results are normal.

Yes Go to step 7

No

6 Check whether the power supply of the integrated intelligent front drive control module is open-circuited.



1. Disconnect the harness connectors B1 C and B1 D of front compartment fuse box.
2. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-20 and B1C-25.
3. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-26 and B1C-25.
4. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-27 and B1D-20.
5. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-21 and B1D-20.

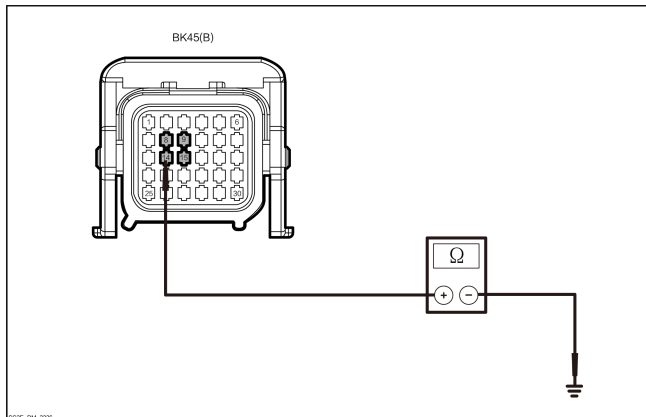
| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-20 | B1C-25 | Through- out | Lower than 1Ω |
| BK45(B)-26 | | | |
| BK45(B)-27 | B1D-20 | | |
| BK45(B)-21 | | | |

6. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

| | |
|---|---|
| 7 | Check the power supply ground line of integrated intelligent front drive control module for open circuit. |
|---|---|



1. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)-8 and the ground.
2. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)-9 and the ground.
3. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)-14 and the ground.
4. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)-15 and the ground.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-8 | Ground | Through- out | Lower than 1 Ω |
| BK45(B)-9 | | | |
| BK45(B)-14 | | | |
| BK45(B)-15 | | | |

5. Check whether the results are normal.

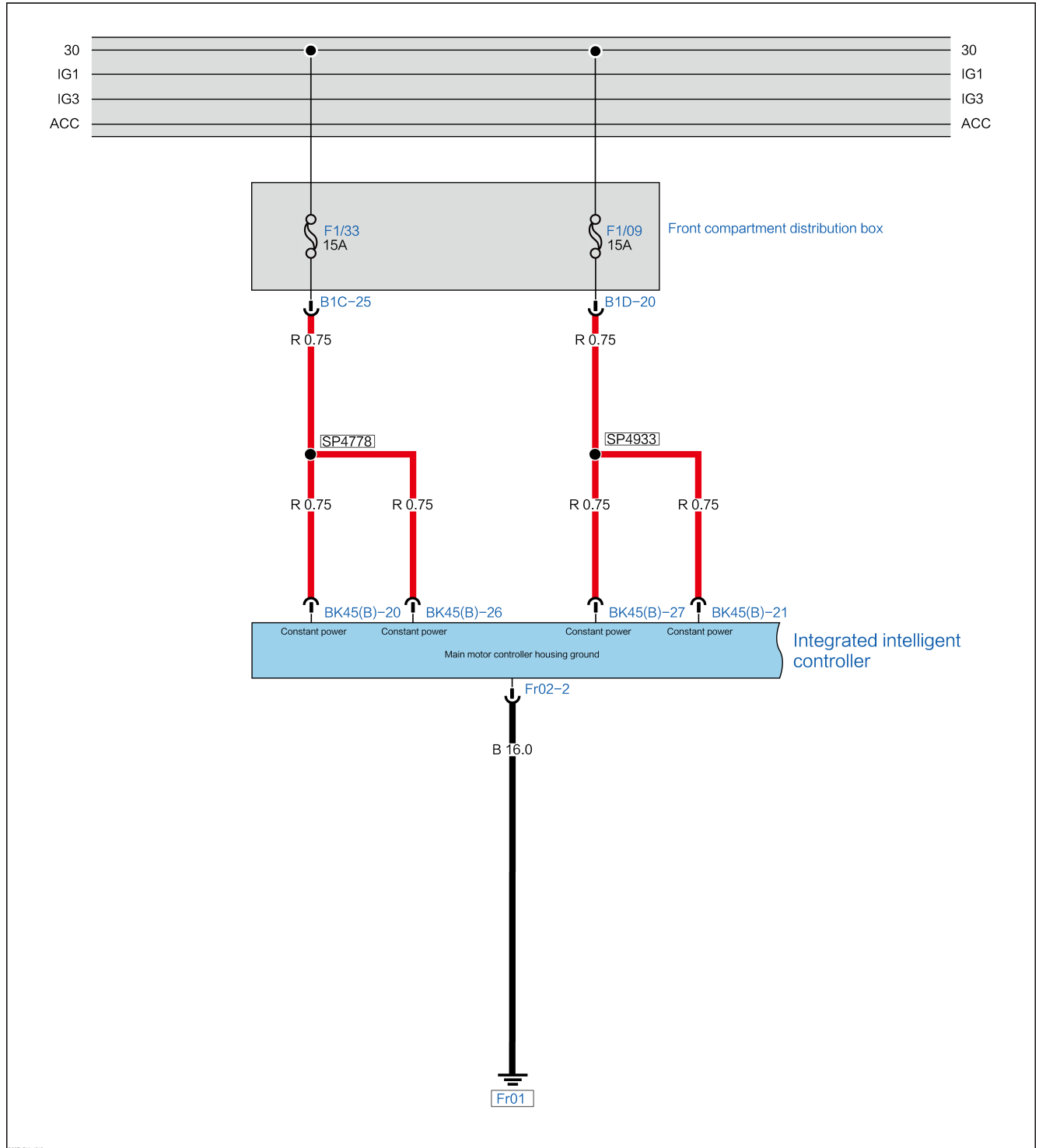
| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the smart integrated front drive control unit. |

P1ED316 Supply Voltage at Low Voltage Side Too High

DTC Description

| P1ED316 Supply Voltage at Low Voltage Side Too High | |
|---|--|
| Symptom | LV power supply system fault. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Battery fault. 3. Harness or harness connector fault. 4. Charging system malfunction 5. Motor controller internal fault. |
| Fault setting conditions | The low voltage at supply voltage is greater than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and the system detects that supply voltage at the low voltage is more than the specified threshold, DTC is generated. |

Circuit Diagram



Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Inspection of the battery state |
|---|---------------------------------|

1. Set the START/STOP button to OFF.
2. Perform a battery condition test.
3. Does the battery pass the test?

No

Replace the battery

Yes

| | |
|---|----------------------------------|
| 3 | Check the DTC of DC-DC assembly. |
|---|----------------------------------|

1. Use a VDS to read the DC – DC assembly .
2. Check whether DTC exists.

Yes

Enter “DC-DC Assembly” diagnosis.

No

| | |
|---|--|
| 4 | Check the front compartment fuse box fuse. |
|---|--|

1. Check whether the front compartment fuse box fuse F1/33(15A) and F1/9(15A) are normal ?

No

Replace the fuse

Yes

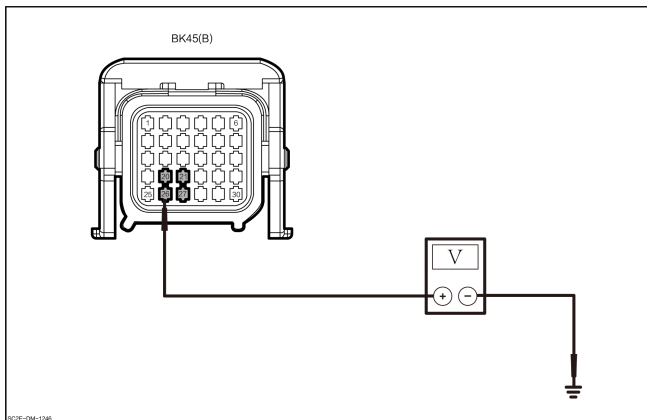
| | |
|---|--|
| 5 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
2. Check whether the harness and connector are normal.

No → Repair or replace the wire harness

Yes

6 Check the constant power supply of the integrated intelligent front drive control module.



1. Measure the voltage value between the harness connector BK45 (B)–20 of integrated intelligent front drive control module and the grounding.
2. Measure the voltage value between the harness connector BK45 (B)–26 of integrated intelligent front drive control module and the grounding.
3. Measure the voltage value between the harness connector BK45 (B)–27 of integrated intelligent front drive control module and the grounding.
4. Measure the voltage value between the harness connector BK45 (B)–21 of integrated intelligent front drive control module and the grounding.

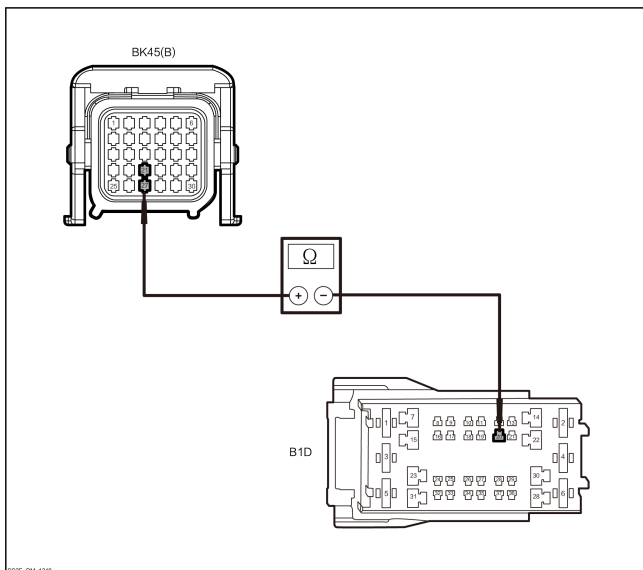
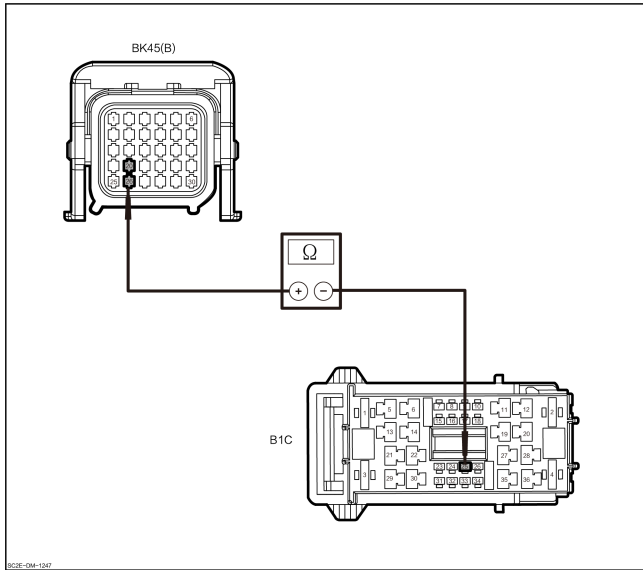
| Connector | | Condition | Voltage value |
|------------|--------|------------|---------------|
| (+) | (-) | | |
| BK45(B)–20 | Ground | Throughout | 11~14V |
| BK45(B)–26 | | | |
| BK45(B)–27 | | | |
| BK45(B)–21 | | | |

5. Check whether the results are normal.

Yes → Replace the smart integrated front drive control unit.

No

7 Check whether the power supply of the integrated intelligent front drive control module is open-circuited.



1. Disconnect the harness connectors B1 C and B1 D of front compartment fuse box.
2. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-20 and B1C-25.
3. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-26 and B1C-25.
4. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-27 and B1D-20.
5. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-21 and B1D-20.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-20 | B1C-25 | Through- out | Lower than 1 Ω |
| BK45(B)-26 | | | |
| BK45(B)-27 | B1D-20 | | |
| BK45(B)-21 | | | |

6. Check whether the results are normal.

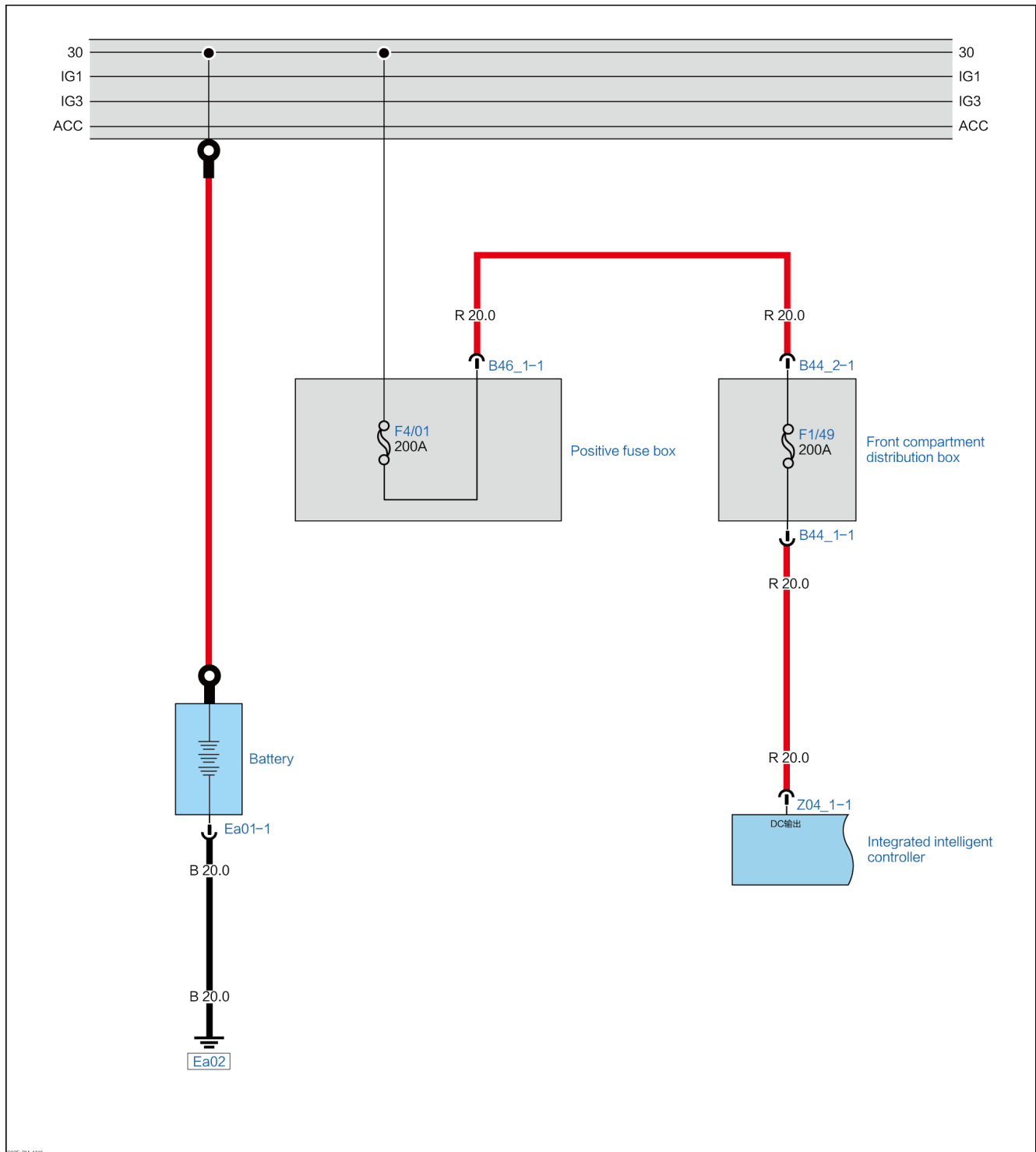
| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the smart integrated front drive control unit. |

P1ED400 DC Output Positive Line Broken

DTC Description

| P1ED400 DC Output Positive Line Broken | |
|--|---|
| Symptom | LV power supply system fault. |
| Possible Cause | 1. DC low voltage output line fault. 2. The DC-DC internal part fails |
| Fault setting conditions | DC output exceeds specified threshold. |
| Trigger fault conditions | When the vehicle is powered on, and the system detects that the DC output exceeds the specified threshold after the vehicle is powered on, a DTC will be generated. |

Circuit Diagram



SCHE-DM-1249

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the DTC of DC-DC assembly. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

 Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the low voltage output harness of the integrated intelligent front drive control module. |
|---|--|

1. Set the START/STOP button to OFF.
2. Check whether the integrated intelligent front drive control module low voltage output harness is loose.

Yes

 Tighten the low voltage output harness of the integrated intelligent front drive control module.

No

| | |
|---|--|
| 3 | Check whether the DC output low-voltage harness is open circuited. |
|---|--|

1. Disconnect the front compartment fuse box harness connector B44_1.
2. Disconnect the harness connector Z04_1 of the integrated intelligent front drive control module.
3. Measure the resistance between the harness connector of front compartment fuse box B44_1-1 and the harness connector of charging and distribution assembly Z04_1.

| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| B44_1-1 | Z04_1 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

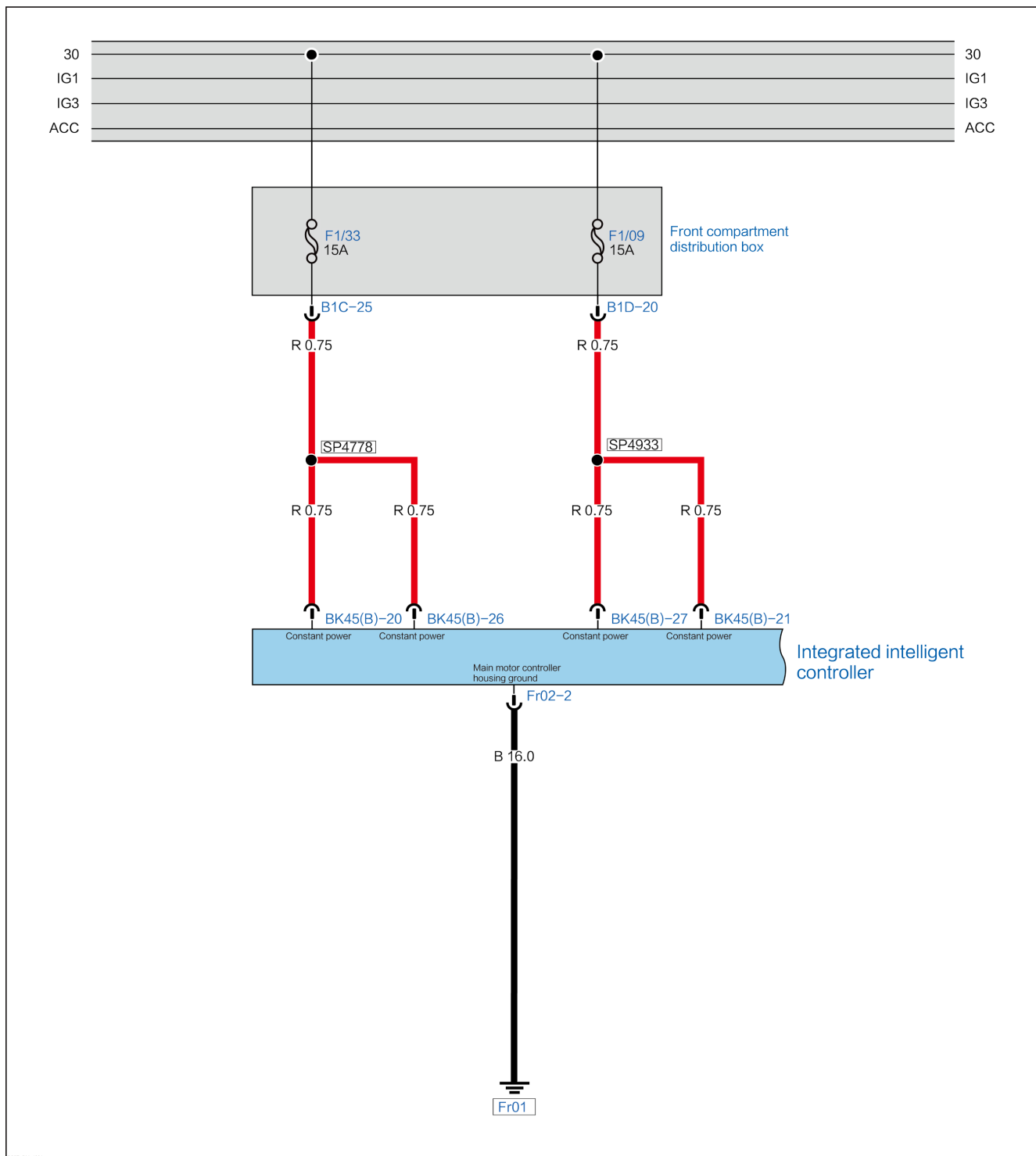
| | |
|-----|--|
| No | Replace or maintain wire harness |
| Yes | Replace the smart integrated front drive control unit. |

U029F87 Communication with OBC Failed

DTC Description

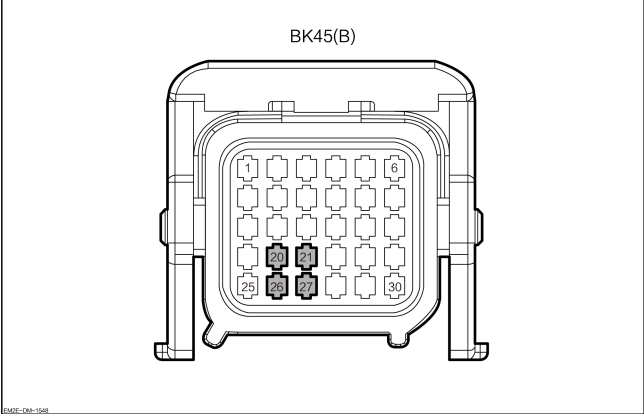
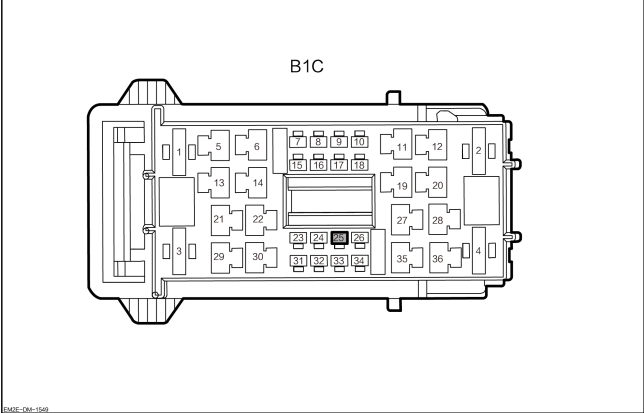
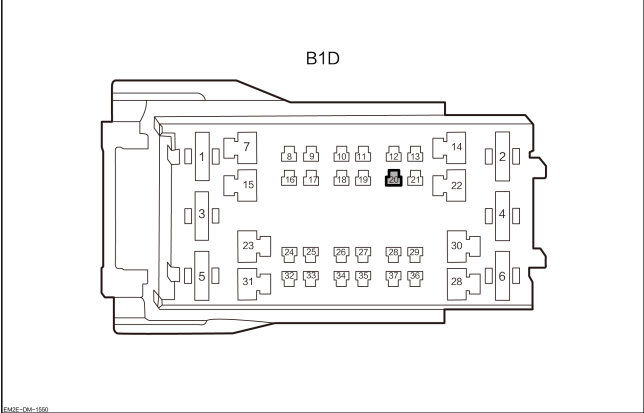
| U029F87 Communication with OBC Failed | |
|---------------------------------------|--|
| Symptom | LV power supply system fault. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Battery fault. 3. The harness or connector fails. 4. Vehicle control unit fault. 5. Battery management control module fails. |
| Fault setting conditions | No OBC message received by DC. |
| Trigger fault conditions | When the vehicle is powered on and the system detects that DC has not received OBC message, DTC is generated. |

Circuit Diagram



SCHE-DM-1001

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 20 | Constant power |
| | 21 | Constant power |
| | 26 | Constant power |
| | 27 | Constant power |
| <p>Front compartment fuse box</p>  <p>B1C</p> | 25 | Power supply of smart integrated front drive control unit |
| | | <p>Front compartment fuse box</p>  <p>B1D</p> |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the DTC of DC-DC assembly. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Inspection of the battery state |
|---|---------------------------------|

1. Set the START/STOP button to OFF.
2. Perform a battery condition test.
3. Does the battery pass the test?

No

Replace the battery

Yes

| | |
|---|--------------------------------|
| 3 | Check the DTC of DC-DC system. |
|---|--------------------------------|

1. Read the DC-DC system using the VDS.
2. Check whether DTC exists.

Yes

Enter the “DC-DC system” diagnosis.

No

| | |
|---|--|
| 4 | Check the front compartment fuse box fuse. |
|---|--|

1. Check whether the front compartment fuse box fuse F1/33(15A) and F1/09(15A) are normal ?

No

Replace the fuse

Yes

| | |
|---|--|
| 5 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

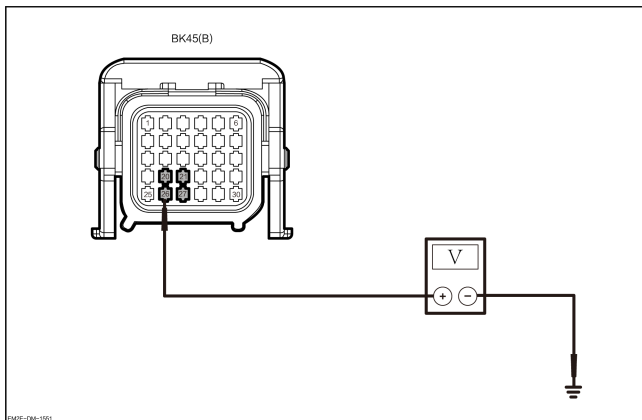
1. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
2. Check whether the harness and connector are normal.

No

Repair or replace the wire harness

Yes

6 Check the constant power supply of the integrated intelligent front drive control module.



1. Measure the voltage value between the harness connector BK45 (B)–20 of integrated intelligent front drive control module and the grounding.
2. Measure the voltage value between the harness connector BK45 (B)–26 of integrated intelligent front drive control module and the grounding.
3. Measure the voltage value between the harness connector BK45 (B)–27 of integrated intelligent front drive control module and the grounding.
4. Measure the voltage value between the harness connector BK45 (B)–21 of integrated intelligent front drive control module and the grounding.

| Connector | | Condition | Voltage value |
|------------|--------|-------------|---------------|
| (+) | (-) | | |
| BK45(B)–20 | Ground | Through-out | 11~14V |
| BK45(B)–26 | | | |
| BK45(B)–27 | | | |
| BK45(B)–21 | | | |

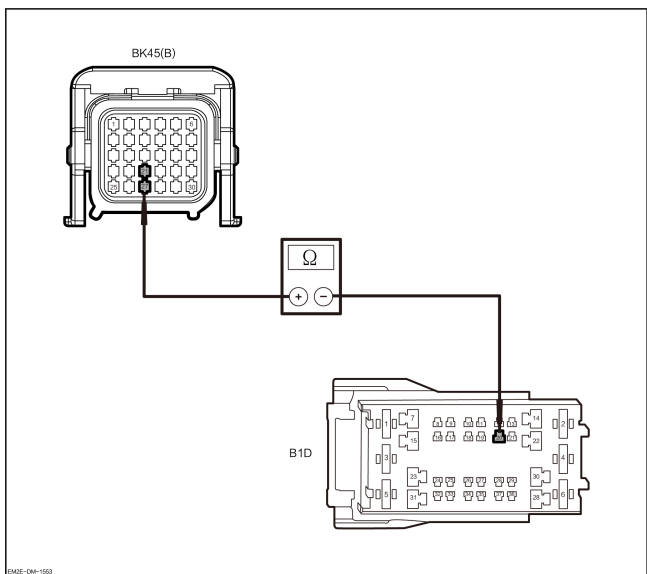
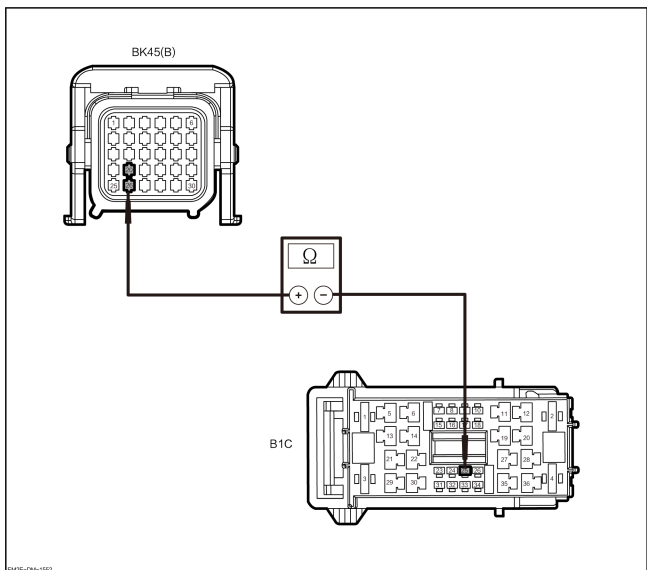
5. Check whether the results are normal.

Yes

Replace the smart integrated front drive control unit.

No

7 Check whether the power supply of the integrated intelligent front drive control module is open-circuited.



1. Disconnect the harness connectors B1 C and B1 D of front compartment fuse box.
2. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-20 and B1C-25.
3. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-26 and B1C-25.
4. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-27 and B1D-20.
5. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-21 and B1D-20.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-20 | B1C-25 | Through- out | Lower than 1Ω |
| BK45(B)-26 | | | |
| BK45(B)-27 | B1D-20 | | |
| BK45(B)-21 | | | |

6. Check whether the results are normal.

- No → Repair or replace the wire harness
- Yes → Replace the smart integrated front drive control unit.

DTCs of OBC

List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|--|--|
| P157016 | Low Voltage at AC Side | P157016 Low Voltage at AC Side |
| P157017 | High voltage at AC side | P157017 High Voltage at AC Side |
| P157219 | DC side overcurrent | P157219 DC Side Overcurrent |
| P157216 | Low Voltage at DC Side | P157216 Low Voltage at DC Side |
| P157217 | High Voltage at DC side | P157217 High Voltage at DC Side |
| P157400 | Power Supply Device Fault | P157400 Supply Device Fault |
| P157897 | CC Signal Abnormal | P157897 CC Signal Abnormal |
| P15794B | Temperature sampling 1 high | P15794B Temperature Sampling 1 High |
| P157A37 | High Frequency of Charging Grid | P157A37 High Frequency of Charging Grid |
| P157A36 | Low Frequency of Charging Grid | P157A36 Low Frequency of Charging Grid |
| P157B00 | AC side overcurrent | P157B00 AC Side Overcurrent |
| P157C00 | Hardware protection | P157C00 Hardware Protection |
| P157E11 | Outer of Charging Connection Signal Short to Ground | P157E11 Outer of Charging Connection Signal Short to Ground |
| P157E12 | Outer of Charging Connection Signal Short to Power | P157E12 Outer of Charging Connection Signal Short to Power |
| P157F11 | AC Output Short-circuited | P157F11 AC Output Short-circuited |
| P15834B | Temperature sampling 2 high | P15834B Temperature Sampling 2 High |
| P158798 | Phase Temperature of Charging Port Too High | P158798 Phase Temperature of Charging Port Too High |
| P158900 | Phase Temperature Sampling at Charging Port Abnormal | P158900 Phase Temperature Sampling at Charging Port Abnormal |
| P158A00 | Electric lock Abnormal | P158A00 Electric Lock Abnormal |
| P151100 | AC High-voltage Interlock Fault | P151100 AC High-voltage Interlock Fault |
| U011100 | Communication Timeout at BMC | U011100 Communication Timeout at BMC |
| U015500 | Communication Timeout at Combination Instrument | U015500 Communication Timeout at Combination Instrument |
| U024500 | Communication Timeout at Multimedia | U024500 Communication Timeout at Multimedia |

| DTC: | Meaning | Diagnostic Process |
|---------|---|---|
| P151500 | Water temperature sensor fault | P151500 Water Temperature Sensor Fault |
| P15FD00 | High Temperature of Cooling Water | P15FD00 High Temperature of Cooling Water |
| U014087 | Communication Timeout at BCM | U014087 Communication Timeout at BCM |
| U011181 | Message Data of BMC Abnormal | U011181 Message Data of BMC Abnormal |
| U015587 | Message Data of Combination Instrument Abnormal | U015587 Message Data of Combination Instrument Abnormal |
| U014081 | Message Data of BCM Abnormal | U014081 Message Data of BCM Abnormal |
| U011182 | Cycle Counter of BMC Abnormal | U011182 Cycle Counter of BMC Abnormal |
| P15FF00 | Internal temperature sensor fault | P15FF00 Internal Temperature Sensor Fault |
| P1ED500 | AC leaky | P1ED500 AC Electric Leakage |
| U024582 | Message Data of Multimedia Abnormal | U024582 Message Data of Multimedia Abnormal |
| U029887 | Communication with DC failed | U029887 Communication with DC Failed |

P157016 Low Voltage at AC Side

DTC Description

| P157016 Low Voltage at AC Side | |
|--------------------------------|---|
| Symptom | Fail to Charge. |
| Possible Cause | <ol style="list-style-type: none">1. AC charging pile fault.2. Low power grid voltage.3. On-board charger internal fault. |
| Fault setting conditions | The AC voltage is less than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and the system detects that the AC voltage is less than the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the on-board charger DTC. |
| <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the START/STOP button to ON. 3. Clear DTCs. 4. Set the START/STOP button to OFF, and wait a few seconds. 5. Place the start/stop button in ON position again, and read the DTC. 6. Check whether the same DTC is displayed. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 2px 10px;">Check the “intermittent fault” .</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 2 | Read the on-board charger data flow. |
| <ol style="list-style-type: none"> 1. Check whether the results are normal. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">Yes</div> <div style="border: 1px solid black; padding: 2px 10px; color: blue;">Go to step 6</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">No</div> | |
| 3 | Check whether the AC power supply is under voltage. |
| <ol style="list-style-type: none"> 1. Confirm that the power supply is normal. 2. Confirm that the vehicle is under charging normally. 3. Check whether the results are normal. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 2px 10px;">Replace the AC supply for charging.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 4 | Check the AC charging gun. |
| <ol style="list-style-type: none"> 1. Connect the AC charger to charge the vehicle, and observe the working indicator of the AC charger or AC charging pile. 2. Check whether the results are normal. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 2px 10px;">Replace the DC charging gun or DC charging pile.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 5 | Inspection of the charging port |

1. Check whether there is any foreign matter in charging port.
2. Check the charging port terminal for aging, deformation, ablation, fracture, etc.
3. Check whether the results are normal.

No

Clean the foreign matters or replace the charging port.

Yes

6

Check the integrated intelligent front drive control module harness and connector.

1. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
2. Check whether the harness and connector are aged, deformed, ablated, cracked, etc.
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the smart integrated front drive control unit.

DTC Description

| P157017 High Voltage at AC Side | |
|---------------------------------|---|
| Symptom | Fail to Charge. |
| Possible Cause | <ol style="list-style-type: none"> 1. AC charging pile fault. 2. Low power grid voltage. 3. On-board charger internal fault. |
| Fault setting conditions | The AC voltage is greater than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and the system detects that the AC voltage is greater than the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the on-board charger DTC. |
| | <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the START/STOP button to ON. 3. Clear DTCs. 4. Set the START/STOP button to OFF, and wait a few seconds. 5. Place the start/stop button in ON position again, and read the DTC. 6. Check whether the same DTC is displayed. |
| | <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px;">No</div> <div style="border: 1px solid black; padding: 2px 5px;">Check the “intermittent fault” .</div> </div> |
| | <div style="border: 1px solid black; padding: 2px 5px; width: fit-content;">Yes</div> |
| 2 | Read the on-board charger data flow. |
| | <ol style="list-style-type: none"> 1. Check whether the results are normal. |
| | <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px;">Yes</div> <div style="border: 1px solid black; padding: 2px 5px; color: blue;">Go to step 6</div> </div> |
| | <div style="border: 1px solid black; padding: 2px 5px; width: fit-content;">No</div> |
| 3 | Check whether the AC power supply is under voltage. |
| | <ol style="list-style-type: none"> 1. Confirm that the power supply is normal. 2. Confirm that the vehicle is under charging normally. 3. Check whether the results are normal. |
| | <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px;">No</div> <div style="border: 1px solid black; padding: 2px 5px;">Replace the AC supply for charging.</div> </div> |
| | <div style="border: 1px solid black; padding: 2px 5px; width: fit-content;">Yes</div> |
| 4 | Check the AC charging gun. |
| | <ol style="list-style-type: none"> 1. Connect the AC charger to charge the vehicle, and observe the working indicator of the AC charger or AC charging pile. 2. Check whether the results are normal. |
| | <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px;">No</div> <div style="border: 1px solid black; padding: 2px 5px;">Replace the DC charging gun or DC charging pile.</div> </div> |
| | <div style="border: 1px solid black; padding: 2px 5px; width: fit-content;">Yes</div> |
| 5 | Inspection of the charging port |

1. Check whether there is any foreign matter in charging port.
2. Check the charging port terminal for aging, deformation, ablation, fracture, etc.
3. Check whether the results are normal.

No → Clean the foreign matters or replace the charging port.

Yes

| | |
|---|--|
| 6 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
2. Check whether the harness and connector are aged, deformed, ablated, cracked, etc.
3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the smart integrated front drive control unit.

P157219 DC Side Overcurrent

DTC Description

| P157219 DC Side Overcurrent | |
|-----------------------------|---|
| Symptom | Fail to Charge. |
| Possible Cause | 1. Charging power supply fault. 2. On-board charger internal fault. |
| Fault setting conditions | The current on the high voltage side exceeds the specified threshold. |
| Trigger fault conditions | In the AC charging state of the vehicle, when the system detects that the current on the high voltage side exceeds the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------------|
| 2 | Check the on-board charger data flow. |
|---|---------------------------------------|

1. Read data flow.
2. Check whether the results are normal.

Yes

Go to step 4

No

| | |
|---|-------------------------------------|
| 3 | Check the DC charging power supply. |
|---|-------------------------------------|

1. Replace the DC supply for charging.
2. Confirm that the vehicle is under charging normally.
3. Check whether the results are normal.

Yes

Replace the DC supply for charging.

No

| | |
|---|--|
| 4 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the harness connector of the integrated intelligent front drive control module.
2. Check whether the harness and connector are aged, deformed, ablated, cracked, etc.
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the smart integrated front drive control unit.

P157216 Low Voltage at DC Side

DTC Description

| P157216 Low Voltage at DC Side | |
|--------------------------------|---|
| Symptom | Unable to charge/discharge. |
| Possible Cause | <ol style="list-style-type: none"> 1. HV fuse fault. 2. On-board charger internal fault. |
| Fault setting conditions | <ol style="list-style-type: none"> 1. The voltage at the rear end of the LLC is lower than the specified threshold before the charging starts. 2. The PFC back-end voltage is less than the specified threshold after charging. |
| Trigger fault conditions | In the DC charging state of the vehicle, when the system detects that the rear voltage of LLC is less than the specified threshold before charging or the rear voltage of PFC back-end voltage is less than the specified threshold after charging, DTC is generated. |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------------|
| 2 | Check the on-board charger data flow. |
|---|---------------------------------------|

1. Read data flow.
2. Check whether the results are normal.

Yes

Go to step 4

No

| | |
|---|-------------------------------------|
| 3 | Check the DC charging power supply. |
|---|-------------------------------------|

1. Replace the DC supply for charging.
2. Confirm that the vehicle is under charging normally.
4. Check whether the results are normal.

Yes

Replace the AC supply for charging.

No

| | |
|---|--|
| 4 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the harness connector of the integrated intelligent front drive control module.
2. Check whether the harness and connector are aged, deformed, ablated, cracked, etc.
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the smart integrated front drive control unit.

P157217 High Voltage at DC Side

DTC Description

| P157217 High Voltage at DC Side | |
|---------------------------------|--|
| Symptom | Unable to charge/discharge. |
| Possible Cause | 1. High-voltage fuse. 2. On-board charger internal fault. |
| Fault setting conditions | 1. The LLC back-end voltage is higher than the specified threshold before the charging starts. 2. The PFC back-end voltage is higher than the specified threshold after the charging starts. |
| Trigger fault conditions | When the vehicle is under DC charging state and the system detects that the LLC back-end voltage is higher than the specified threshold before the charging starts or the PFC back-end voltage is higher than the specified threshold after the charging starts, DTC is generated. |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------------|
| 2 | Check the on-board charger data flow. |
|---|---------------------------------------|

1. Read data flow.
2. Check whether the results are normal.

Yes

Go to step 4

No

| | |
|---|-------------------------------------|
| 3 | Check the DC charging power supply. |
|---|-------------------------------------|

1. Replace the DC supply for charging.
2. Confirm that the vehicle is under charging normally.
4. Check whether the results are normal.

Yes

Replace the AC supply for charging.

No

| | |
|---|--|
| 4 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the harness connector of the integrated intelligent front drive control module.
2. Check whether the harness and connector are aged, deformed, ablated, cracked, etc.
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the smart integrated front drive control unit.

P157400 Supply Device Fault

DTC Description

| P157400 Supply Device Fault | |
|-----------------------------|---|
| Symptom | Fail to Charge. |
| Possible Cause | 1. Charging power supply. 2. On-board charger internal fault. |
| Fault setting conditions | After closing switch S2, no AC voltage input is detected within the specified time. |
| Trigger fault conditions | In AC charging state of the vehicle, when the system detects that the AC voltage input is not detected within the specified time after the switch S2 is closed, DTC is generated. |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Check the charging power supply |
|---|---------------------------------|

1. Replace the supply for charging.
2. Confirm that the vehicle is under charging normally.
4. Check whether the results are normal.

Yes

Replace the supply for charging.

No

| | |
|---|--|
| 3 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the harness connector of the integrated intelligent front drive control module.
2. Check whether the harness and connector are aged, deformed, ablated, cracked, etc.
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

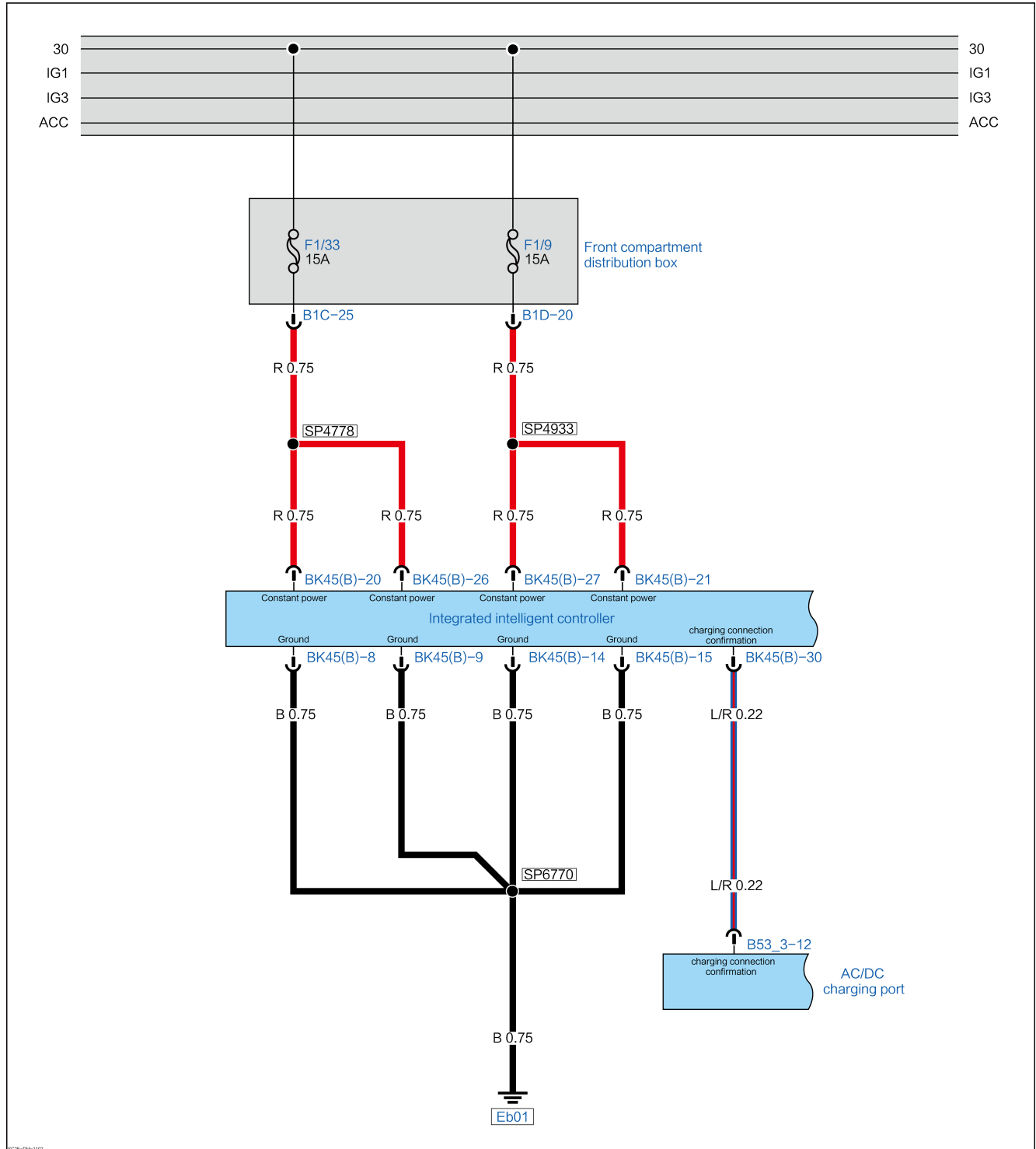
Replace the smart integrated front drive control unit.

P157897 CC Signal Abnormal

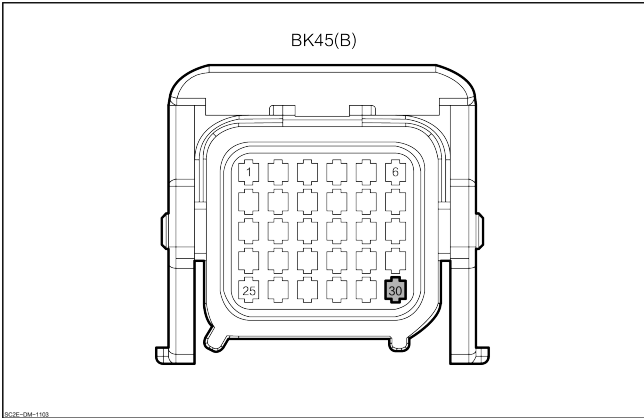
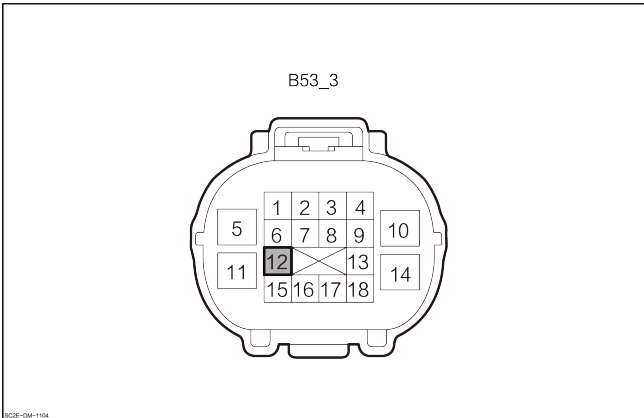
DTC Description

| P157897 CC Signal Abnormal | |
|----------------------------|--|
| Symptom | Fail to Charge. |
| Possible Cause | <ol style="list-style-type: none"> 1. Charging power supply fault. 2. Harness or connector fault. 3. On-board charger internal fault. |
| Fault setting conditions | The CC resistance is not within the specified threshold. |
| Trigger fault conditions | In the DC charging state of the vehicle, when the system detects that the CC resistance value is not within the specified threshold, DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> <p>Diagram showing a 30-pin connector with terminals numbered 1 through 30. Terminal 30 is highlighted with a black box.</p> | <p>30</p> | <p>charging connection confirmation</p> |
| <p>AC/DC charging port</p>  <p>B53_3</p> <p>Diagram showing an 18-pin connector with terminals numbered 1 through 18. Terminal 12 is highlighted with a black box.</p> | <p>12</p> | <p>charging connection confirmation</p> |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------------|
| 2 | Check the on-board charger data flow. |
|---|---------------------------------------|

1. Read data flow.
2. Check whether the results are normal.

Yes

Go to step 6

No

| | |
|---|-------------------------------------|
| 3 | Check the AC charging power supply. |
|---|-------------------------------------|

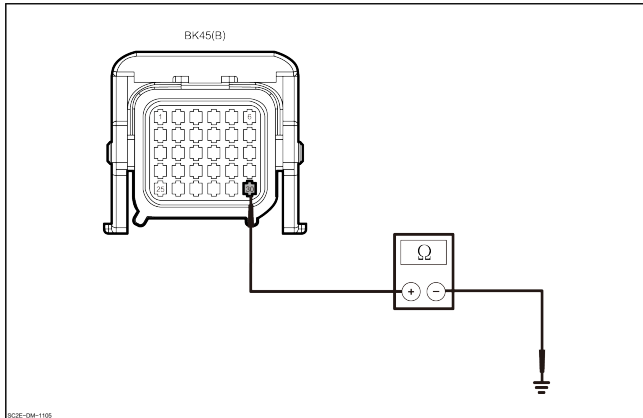
1. Replace the AC supply for charging.
2. Confirm that the vehicle is under charging normally.
4. Check whether the results are normal.

Yes

Replace the AC supply for charging.

No

| | |
|---|--|
| 4 | Check whether the CC signal line is shorted to ground. |
|---|--|



1. Set the START/STOP button to OFF.
2. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
3. Resistance value between the integrated intelligent front drive control module harness connector BK45(B)-30 and the ground.

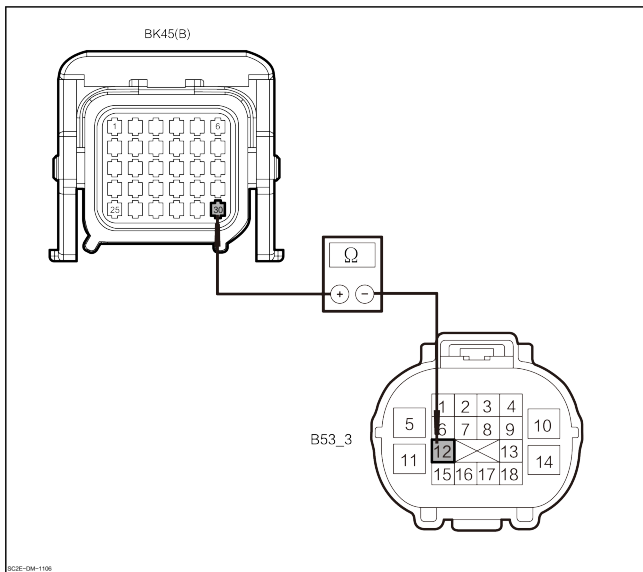
| Connector | | Condition | Resistance value |
|------------|--------|-------------|--------------------|
| (+) | (-) | | |
| BK45(B)-30 | Ground | Through-out | Above 10k Ω |

4. Check whether the results are normal.

No Repair or replace the wire harness

Yes

5 Check whether the CC signal line is open circuited.



1. Disconnect AC/DC charging port harness connector B53_3.
2. The resistance between the harness connector of integrated intelligent front drive control module BK45(B)-30 and the harness connector of AC/DC charging port B53_3-12.

| Connector | | Condition | Resistance value |
|------------|----------|-------------|-----------------------|
| (+) | (-) | | |
| BK45(B)-30 | B53_3-12 | Through-out | Lower than 1 Ω |

3. Check whether the results are normal.

No Repair or replace the wire harness

Yes

6 Check the integrated intelligent front drive control module harness and connector.

1. Disconnect the harness connector of the integrated intelligent front drive control module.
2. Check whether the harness and connector are aged, deformed, ablated, cracked, etc.
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the smart integrated front drive control unit.

P15794B Temperature Sampling 1 High

DTC Description

| P15794B Temperature Sampling 1 High | |
|-------------------------------------|--|
| Symptom | Unable to charge/discharge. |
| Possible Cause | <ol style="list-style-type: none"> 1. Lack of coolant. 2. The water pump works improperly. 3. The fan works improperly. 4. On-board charger internal fault. |
| Fault setting conditions | The transformer temperature sensor collect a temperature greater than the specified threshold. |
| Trigger fault conditions | In the AC charging state and discharge status of the vehicle, when the system detects that the temperature collected by transformer temperature sensor is more than the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|-----------------------|
| 2 | Inspection of coolant |
|---|-----------------------|

1. Check whether there is sufficient coolant.

No

Add coolant and check the cooling system for leaks.

Yes

| | |
|---|--|
| 3 | Check the working condition of the water pump. |
|---|--|

1. VDS enters the pump work support and operates the pump work.
2. Check whether the water pump is working properly.

No

Enter the “Fan fails not work” diagnosis.

Yes

| | |
|---|--------------------------|
| 4 | Check the fan operation. |
|---|--------------------------|

1. VDS enters the fan operation support and operates the fan work.
2. Check whether the fan is working properly.

No

Enter "Fan Failure Diagnosis".

Yes

Replace the smart integrated front drive control unit.

P15834B Temperature Sampling 2 High

DTC Description

| P15834B Temperature Sampling 2 High | |
|-------------------------------------|---|
| Symptom | Fail to Charge. |
| Possible Cause | <ol style="list-style-type: none"> 1. Lack of coolant. 2. The water pump works improperly. 3. The fan works improperly. 4. On-board charger internal fault. |
| Fault setting conditions | The temperature of the channel temperature sensor is higher than the specified threshold. |
| Trigger fault conditions | In AC charging state of the vehicle, when the system detects that the channel temperature sensor is more than the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|-----------------------|
| 2 | Inspection of coolant |
|---|-----------------------|

1. Check whether there is sufficient coolant.

No

Add coolant and check the cooling system for leaks.

Yes

| | |
|---|--|
| 3 | Check the working condition of the water pump. |
|---|--|

1. VDS enters the pump work support and operates the pump work.
2. Check whether the water pump is working properly.

No

Enter the “Fan fails not work” diagnosis.

Yes

| | |
|---|--------------------------|
| 4 | Check the fan operation. |
|---|--------------------------|

1. VDS enters the fan operation support and operates the fan work.
2. Check whether the fan is working properly.

No

Enter "Fan Failure Diagnosis".

Yes

Replace the smart integrated front drive control unit.

P15FD00 High Temperature of Cooling Water

DTC Description

| P15FD00 High Temperature of Cooling Water | |
|---|--|
| Symptom | Unable to charge/discharge. |
| Possible Cause | <ol style="list-style-type: none"> 1. Lack of coolant. 2. The water pump works improperly. 3. The fan works improperly. 4. On-board charger internal fault. |
| Fault setting conditions | The temperature detected by the channel temperature sensor exceeds the specified value. |
| Trigger fault conditions | When the vehicle is in a AC charging state or vehicle discharge status, and the system detects that the temperature detected by the channel temperature sensor exceeds a specified value, DTC is generated |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|-----------------------|
| 2 | Inspection of coolant |
|---|-----------------------|

1. Check whether there is sufficient coolant.

No

Add coolant and check the cooling system for leaks.

Yes

| | |
|---|--|
| 3 | Check the working condition of the water pump. |
|---|--|

1. VDS enters the pump work support and operates the pump work.
2. Check whether the water pump is working properly.

No

Enter the “Fan fails not work” diagnosis.

Yes

| | |
|---|--------------------------|
| 4 | Check the fan operation. |
|---|--------------------------|

1. VDS enters the fan operation support and operates the fan work.
2. Check whether the fan is working properly.

No

Enter "Fan Failure Diagnosis".

Yes

Replace the smart integrated front drive control unit.

P157A37 High Frequency of Charging Grid

DTC Description

| P157A37 High Frequency of Charging Grid | |
|---|--|
| Symptom | Fail to Charge. |
| Possible Cause | 1. Charging net frequency high 2. On-board charger internal fault. |
| Fault setting conditions | The AC grid frequency is greater than the specified threshold. |
| Trigger fault conditions | In AC charging state of the vehicle, when the system detects that the AC grid frequency is greater than the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|-----------------------------------|
| 2 | Check the charging net frequency. |
|---|-----------------------------------|

1. Use the multimeter to test the charging network frequency (45 HZ~65 HZ).
2. Check whether the results are normal.

No

Wait for the charging grid frequency to recover or replace the charging grid for charging.

Yes

Replace the smart integrated front drive control unit.

P157A36 Low Frequency of Charging Grid

DTC Description

| P157A36 Low Frequency of Charging Grid | |
|--|---|
| Symptom | Fail to Charge. |
| Possible Cause | 1. Charging net frequency low 2. On-board charger internal fault. |
| Fault setting conditions | The AC grid frequency is less than the specified threshold. |
| Trigger fault conditions | In the AC charging state of the vehicle, when the system detects that the AC grid frequency is less than the specified threshold, DTC be generated. |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|-----------------------------------|
| 2 | Check the charging net frequency. |
|---|-----------------------------------|

1. Use the multimeter to test the charging network frequency (45 HZ~65 HZ).
2. Check whether the results are normal.

No

Wait for the charging grid frequency to recover or replace the charging grid for charging.

Yes

Replace the smart integrated front drive control unit.

P157B00 AC Side Overcurrent

DTC Description

| P157B00 AC Side Overcurrent | |
|-----------------------------|---|
| Symptom | Fail to Charge. |
| Possible Cause | 1. Charging power supply fault. 2. On-board charger internal fault. |
| Fault setting conditions | The AC side current is greater than the specified threshold. |
| Trigger fault conditions | In AC charging state of the vehicle, when the system detects that the AC side current is more than the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------------|
| 2 | Check the on-board charger data flow. |
|---|---------------------------------------|

1. Read data flow.
2. Check whether the results are normal.

Yes

Go to step 4

No

| | |
|---|-------------------------------------|
| 3 | Check the AC charging power supply. |
|---|-------------------------------------|

1. Replace the AC supply for charging.
2. Confirm that the vehicle is under charging normally.
3. Check whether the results are normal.

Yes

Replace the AC supply for charging.

No

| | |
|---|--|
| 4 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the harness connector of the integrated intelligent front drive control module.
2. Check whether the harness and connector are aged, deformed, ablated, cracked, etc.
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the smart integrated front drive control unit.

P157C00 Hardware Protection

DTC Description

| P157C00 Hardware Protection | |
|-----------------------------|--|
| Symptom | Fail to Charge. |
| Possible Cause | On-board charger internal fault. |
| Fault setting conditions | On-board charger internal fault. |
| Trigger fault conditions | In AC charging state of the vehicle, when the system detects an internal fault of the on-board charger, DC is generated. |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the harness connector of the integrated intelligent front drive control module.
2. Check whether the harness and connector are aged, deformed, ablated, cracked, etc.
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

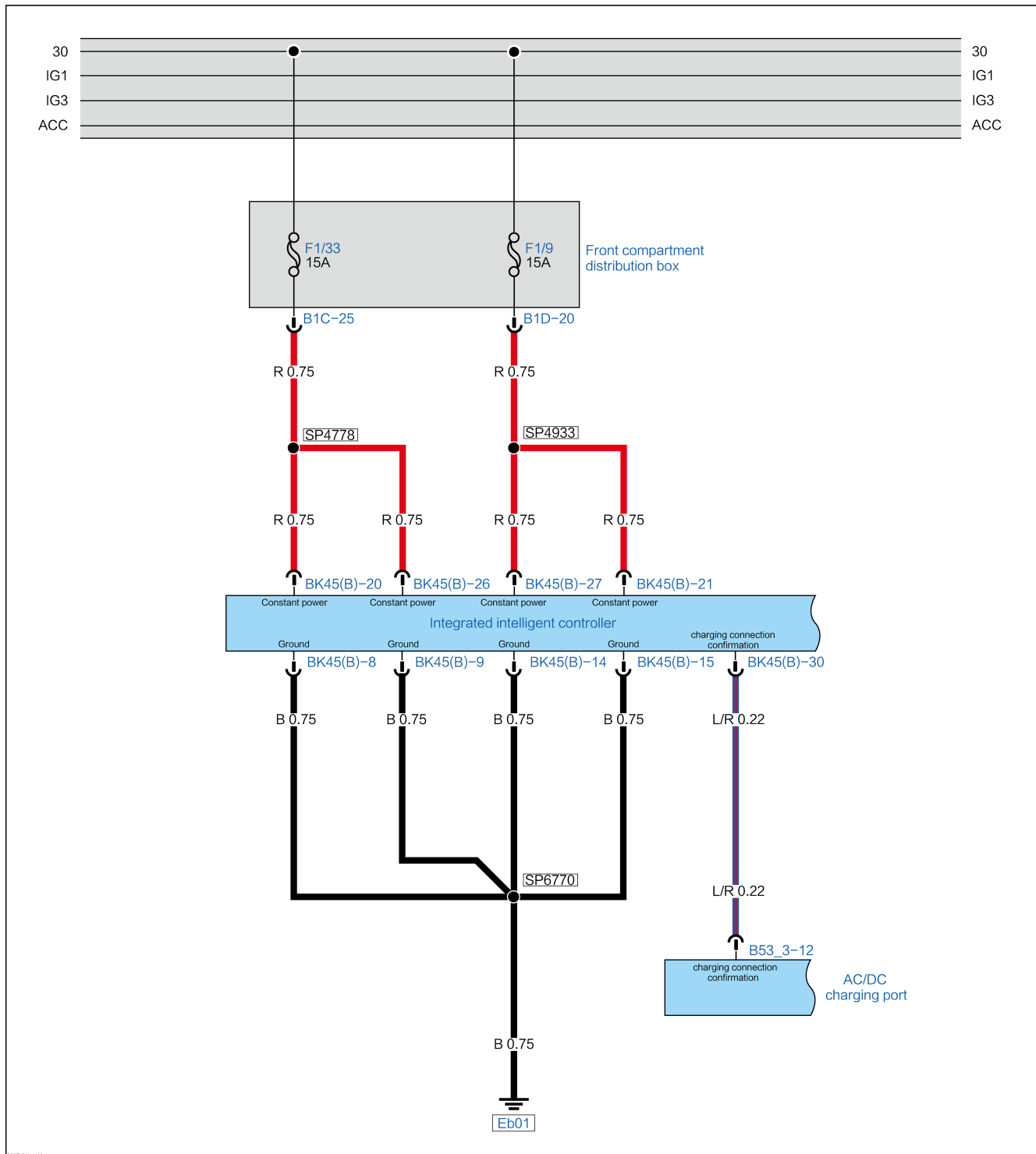
Replace the smart integrated front drive control unit.

P157E11 Outer of Charging Connection Signal Short to Ground

DTC Description

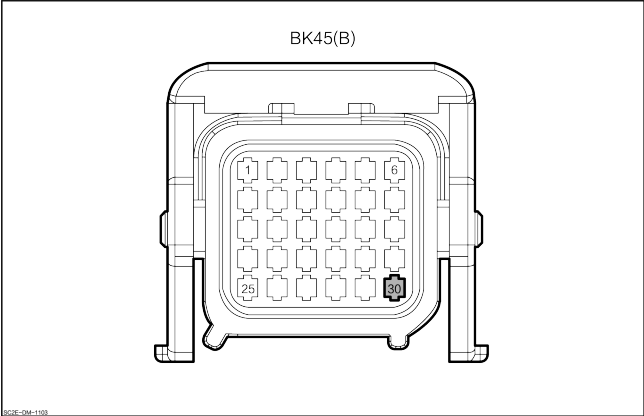
| P157E11 Outer of Charging Connection Signal Short to Ground | |
|---|---|
| Symptom | Fail to Charge. |
| Possible Cause | 1. Harness or connector fault. 2. On-board charger internal fault. |
| Fault setting conditions | The charging connection signal to the georesistance value is less than the specified threshold. |
| Trigger fault conditions | In DC charging state of vehicle, when the system detects that the resistance value for charging connection signal to the ground is less than the specified threshold, DTC is generated. |

Circuit Diagram



SCHE-DM-1102

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p style="text-align: center;">Smart integrated front drive control unit</p> <div style="text-align: center;">  <p style="margin-left: 100px;">BK45(B)</p> </div> <p style="font-size: small; margin-top: 10px;">638E-094-1003</p> | <p>30</p> | <p>charging connection confirmation</p> |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------------|
| 2 | Check the on-board charger data flow. |
|---|---------------------------------------|

1. Read data flow.
2. Check whether the results are normal.

Yes

Go to step 5

No

| | |
|---|-------------------------------------|
| 3 | Check the AC charging power supply. |
|---|-------------------------------------|

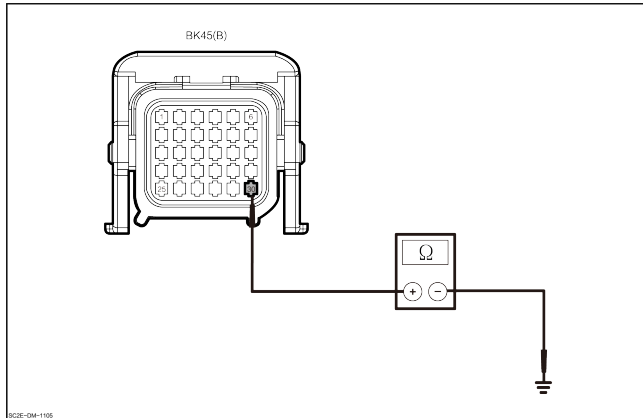
1. Replace the AC supply for charging.
2. Confirm that the vehicle is under charging normally.
4. Check whether the results are normal.

Yes

Replace the AC supply for charging.

No

| | |
|---|--|
| 4 | Check whether the CC signal line is shorted to ground. |
|---|--|



1. Set the START/STOP button to OFF.
2. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
3. Resistance value between the integrated intelligent front drive control module harness connector BK45(B)-30 and the ground.

| Connector | | Condition | Resist- ance value |
|----------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)- 30 | Ground | Through- out | Above 10k Ω |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the integrated intelligent front drive control module harness and connector.

1. Disconnect the harness connector of the integrated intelligent front drive control module.
2. Check whether the harness and connector are aged, deformed, ablated, cracked, etc.
3. Check whether the results are normal.

No → Repair or replace the wire harness

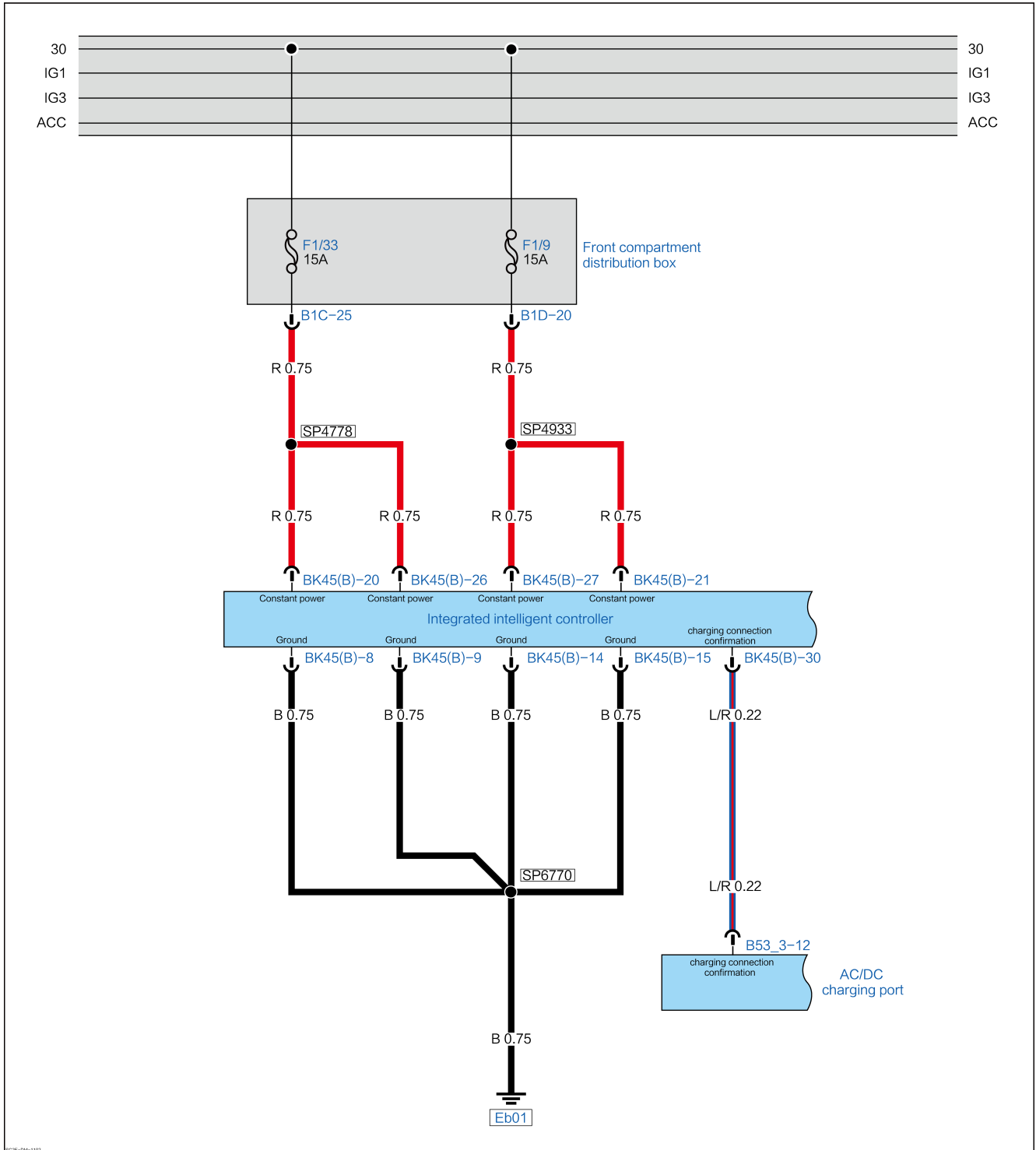
Yes → Replace the smart integrated front drive control unit.

P157E12 Outer of Charging Connection Signal Short to Power

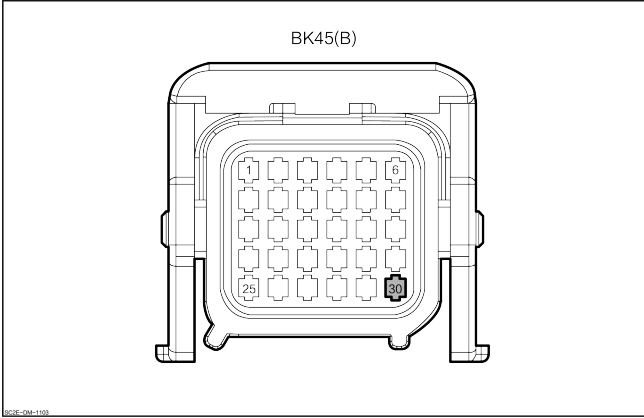
DTC Description

| P157E12 Outer of Charging Connection Signal Short to Power | |
|--|---|
| Symptom | Fail to Charge. |
| Possible Cause | 1. Harness or connector fault. 2. On-board charger internal fault. |
| Fault setting conditions | The resistance value of the charging connection signal to the positive pole of the power supply is less than the specified threshold. |
| Trigger fault conditions | In DC charging state of the vehicle, when the system detects that the resistance value of the charging connection signal to the positive pole of the power supply is less than specified threshold, DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p>Smart integrated front drive control unit</p>  <p>The diagram shows a BK45(B) connector with a grid of 30 terminals. Terminal 30 is highlighted in a darker box. The terminals are numbered 1 through 30 in a grid pattern. Terminal 1 is at the top left, and terminal 30 is at the bottom right. The connector is labeled 'BK45(B)' at the top.</p> | <p>30</p> | <p>charging connection confirmation</p> |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------------|
| 2 | Check the on-board charger data flow. |
|---|---------------------------------------|

1. Read data flow.
2. Check whether the results are normal.

Yes

No

| | |
|---|-------------------------------------|
| 3 | Check the AC charging power supply. |
|---|-------------------------------------|

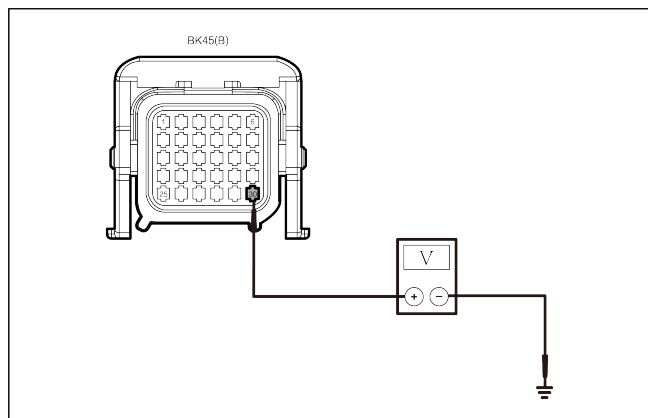
1. Replace the AC supply for charging.
2. Confirm that the vehicle is under charging normally.
4. Check whether the results are normal.

Yes

Replace the AC supply for charging.

No

| | |
|---|--|
| 4 | Check the CC signal line for short circuit to power. |
|---|--|



1. Set the START/STOP button to OFF.
2. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
3. The voltage value between harness connector BK45 (B)–30 of integrated intelligent front drive control module and the ground.

| Connector | | Condition | Voltage value |
|------------|--------|-------------|---------------|
| (+) | (-) | | |
| BK45(B)–30 | Ground | Through-out | Less than 1V |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the integrated intelligent front drive control module harness and connector.

1. Disconnect the harness connector of the integrated intelligent front drive control module.
2. Check whether the harness and connector are aged, deformed, ablated, cracked, etc.
3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the smart integrated front drive control unit.

P157F11 AC Output Short-circuited

DTC Description

| P157F11 AC Output Short-circuited | |
|-----------------------------------|--|
| Symptom | Unable to discharge |
| Possible Cause | <ol style="list-style-type: none">1. Discharging equipment fault.2. Charging port fault.3. On-board charger internal fault. |
| Fault setting conditions | The AC voltage after starting the discharge is less than the specified threshold. |
| Trigger fault conditions | In the DC charging state of the vehicle, DTC is generated when the system detects that the AC voltage after starting discharge is less than the specified threshold. |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--------------------------------|
| 2 | Check the discharge equipment. |
|---|--------------------------------|

1. Replace the discharge equipment for discharge.
2. Check whether the results are normal.

Yes

Replace the discharge equipment.

No

| | |
|---|---------------------------------|
| 3 | Inspection of the charging port |
|---|---------------------------------|

1. Check whether there is any foreign matter in charging port.
2. Check the charging port terminal for aging, deformation, ablation, fracture, etc.
3. Check whether the results are normal.

No

Clean the foreign matters or replace the charging port.

Yes

| | |
|---|--|
| 4 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the harness connector of the integrated intelligent front drive control module.
2. Check whether the harness and connector are aged, deformed, ablated, cracked, etc.
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the smart integrated front drive control unit.

P158798 Phase Temperature of Charging Port Too High

DTC Description

| P158798 Phase Temperature of Charging Port Too High | |
|---|---|
| Symptom | Unable to charge/discharge. |
| Possible Cause | 1. Charging port fault. 2. On-board charger internal fault. |
| Fault setting conditions | The phase temperature of the charging port exceeds specified threshold. |
| Trigger fault conditions | In AC charging state or discharge status of vehicle, when the system detects that the phase temperature of charging port exceeds the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--------------------------------------|
| 2 | Read the on-board charger data flow. |
|---|--------------------------------------|

1. Read data flow.
2. Check whether the results are normal.

Yes

Go to step 4

No

| | |
|---|---------------------------------|
| 3 | Inspection of the charging port |
|---|---------------------------------|

1. Check whether there is any foreign matter in charging port.
2. Check the charging port terminal for aging, deformation, ablation, fracture, etc.
3. Check whether the results are normal.

No

Clean the foreign matters or replace the charging port.

Yes

| | |
|---|--|
| 4 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the harness connector of the integrated intelligent front drive control module.
2. Check whether the harness and connector are aged, deformed, ablated, cracked, etc.
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

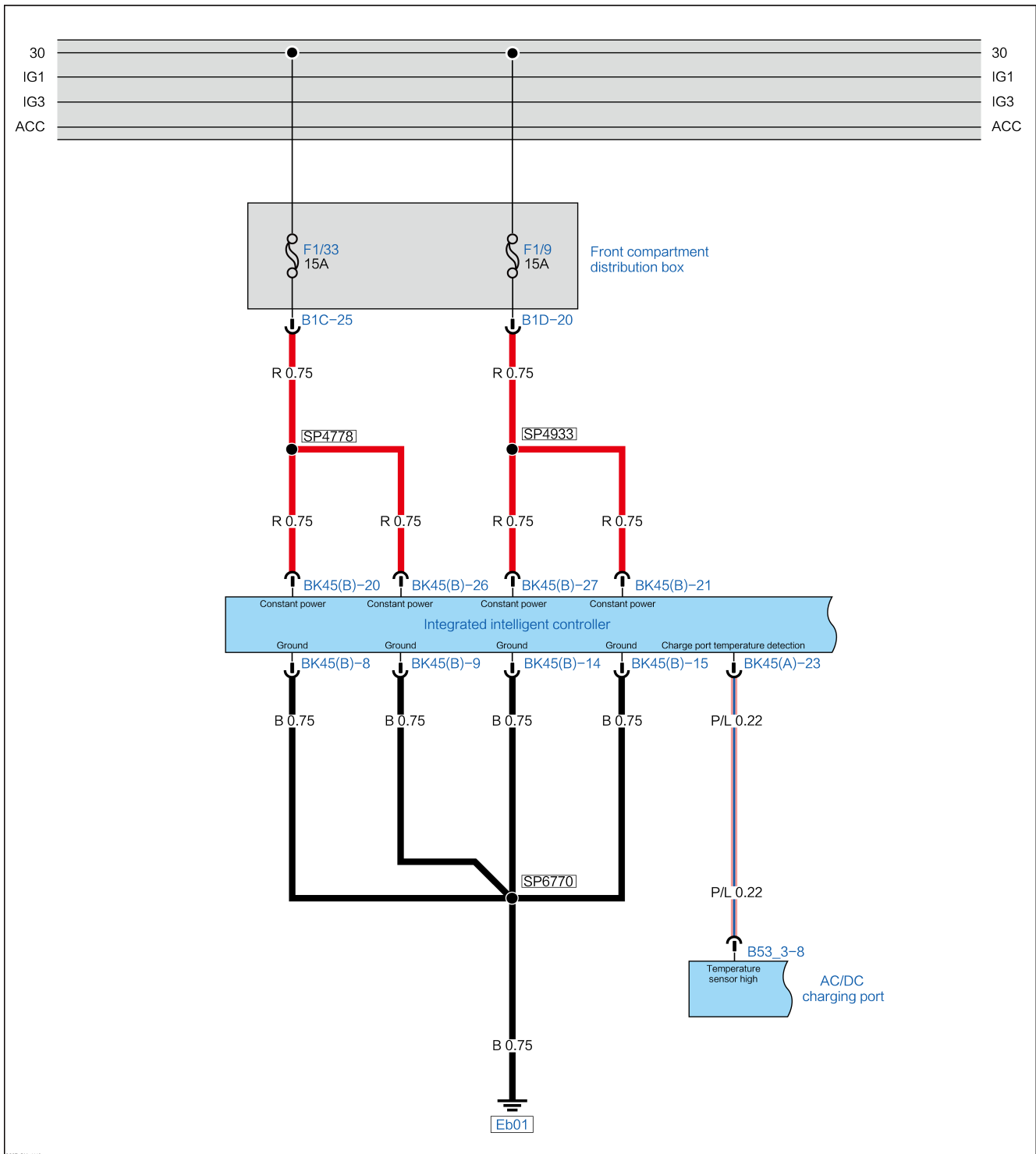
Replace the smart integrated front drive control unit.

P158900 Phase Temperature Sampling at Charging Port Abnormal

DTC Description

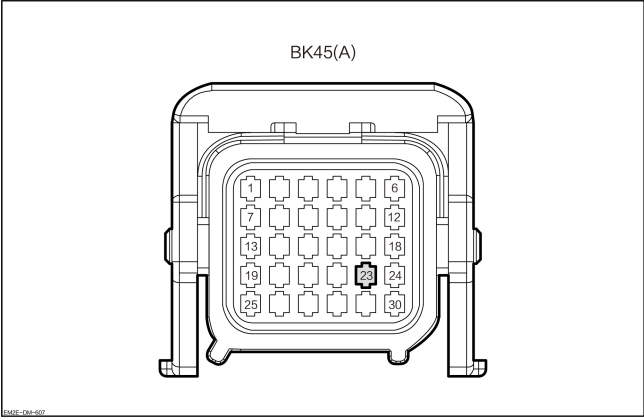
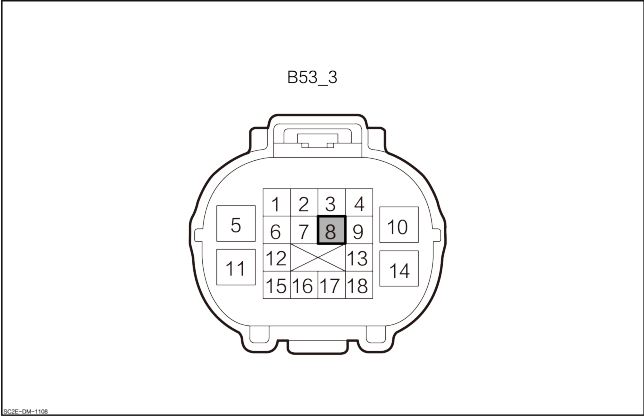
| P158900 Phase Temperature Sampling at Charging Port Abnormal | |
|--|---|
| Symptom | Unable to charge/discharge. |
| Possible Cause | 1. Charging port fault. 2. Charging port temperature sampling harness fault. 3. On-board charger internal fault. |
| Fault setting conditions | The phase temperature of the charging port exceeds specified threshold. |
| Trigger fault conditions | In AC charging state or discharge status of vehicle, when the system detects that the phase temperature of charging port exceeds the specified threshold, DTC is generated. |

Circuit Diagram



SCHE-DM-110

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Smart integrated front drive control unit</p> <div style="text-align: center;">  <p style="text-align: center;">BK45(A)</p> </div> | <p>23</p> | <p>Charge port temperature detection</p> |
| <p style="text-align: center;">AC/DC charging port</p> <div style="text-align: center;">  <p style="text-align: center;">B53_3</p> </div> | <p>8</p> | <p>Temperature sensor high</p> |

Diagnostic Steps

1 Check the on-board charger DTC.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

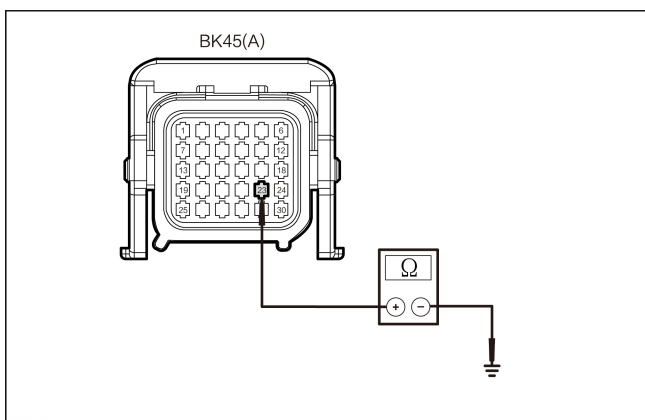
2 Inspection of the charging port

1. Check whether there is any foreign matter in charging port.
2. Check the charging port terminal for aging, deformation, ablation, fracture, etc.
3. Check whether the results are normal.

No → Clean the foreign matters or replace the charging port.

Yes

3 Check whether the charging harness is shorted to ground.



1. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45 (A)-23 and the ground.

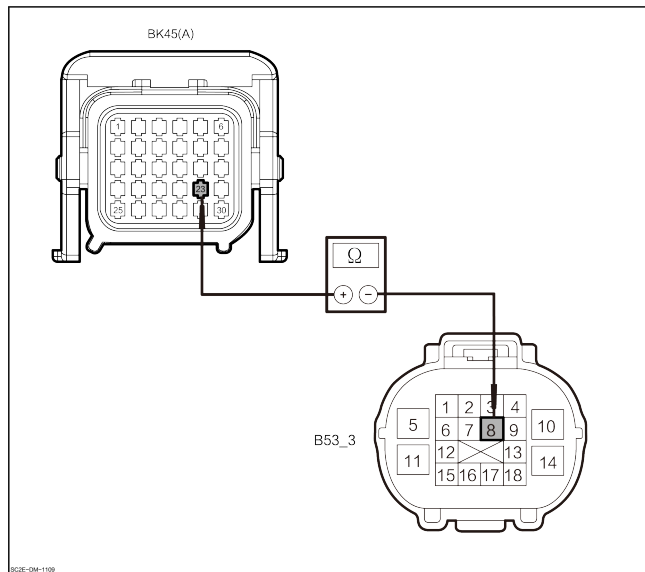
| Connector | | Condition | Resist- ance value |
|----------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(A)- 23 | Ground | Through- out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check whether the charging harness is open circuited.



1. Set the START/STOP button to OFF.
2. Disconnect the integrated intelligent front drive control module harness connector BK45 (A).
3. Disconnect AC/DC charging port harness connector B53_3.
4. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(A)–23 and the harness connector of AC/DC charging port B53_3–8.

| Connector | | Condition | Resist- ance value |
|----------------|---------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(A)– 23 | B53_3–8 | Through- out | Lower than 1 Ω |

5. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the integrated intelligent front drive control module harness and connector.

1. Disconnect the harness connector of the integrated intelligent front drive control module.
2. Check whether the harness and connector are aged, deformed, ablated, cracked, etc.
3. Check whether the results are normal.

No → Repair or replace the wire harness

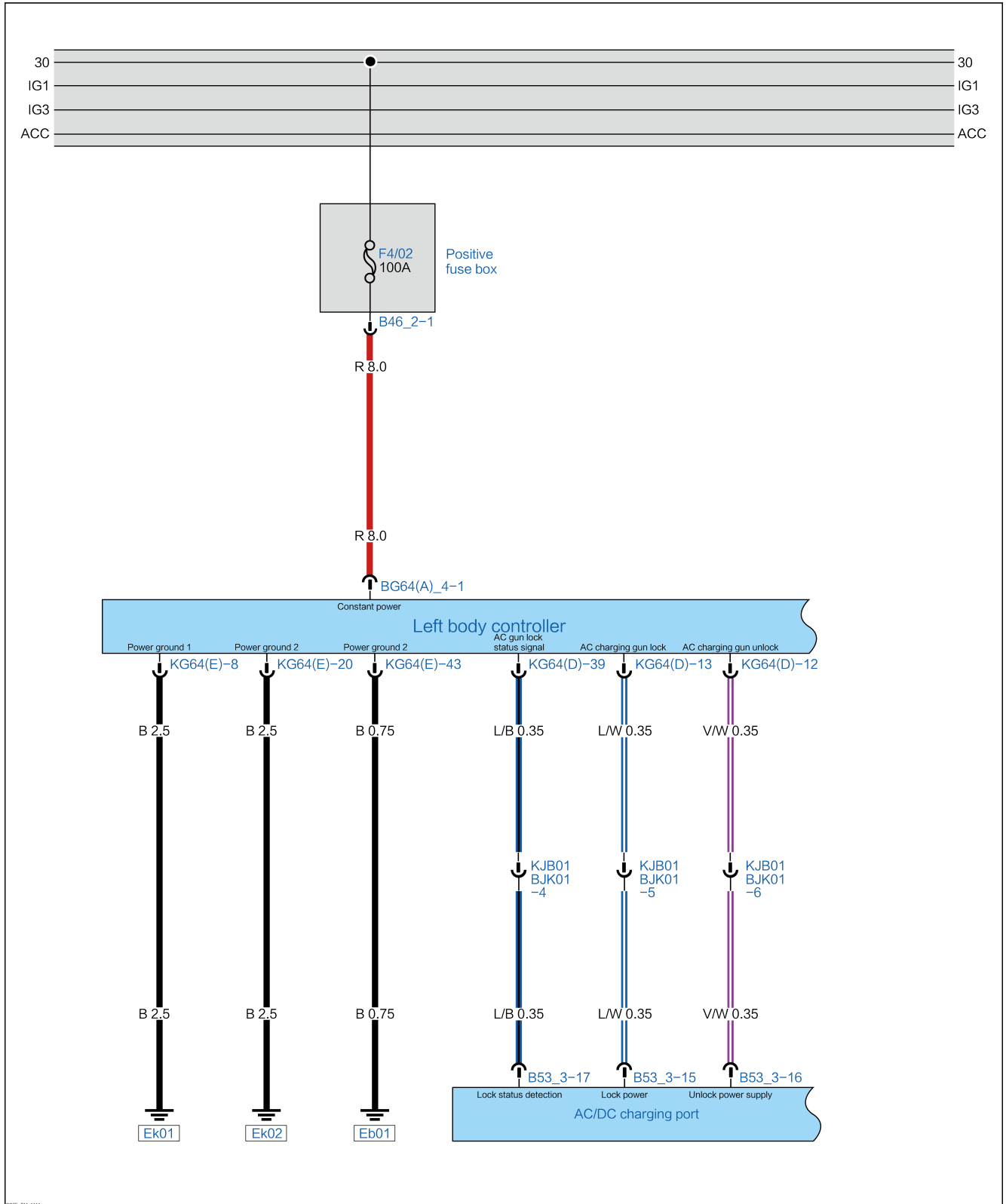
Yes → Replace the smart integrated front drive control unit.

P158A00 Electric Lock Abnormal

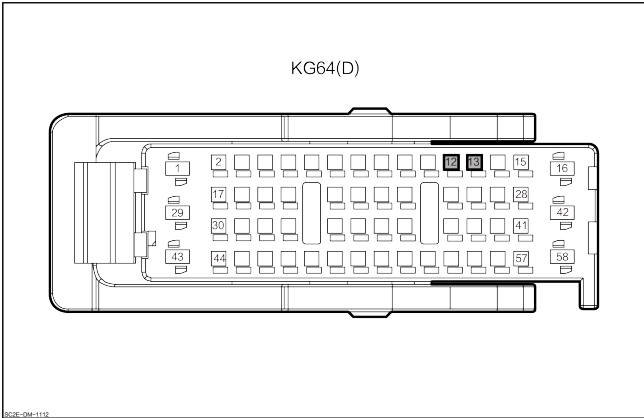
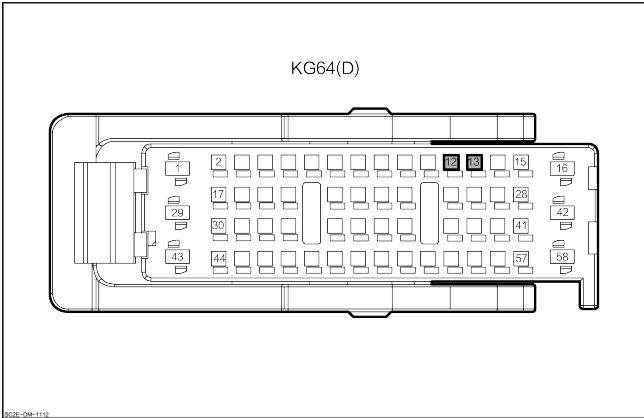
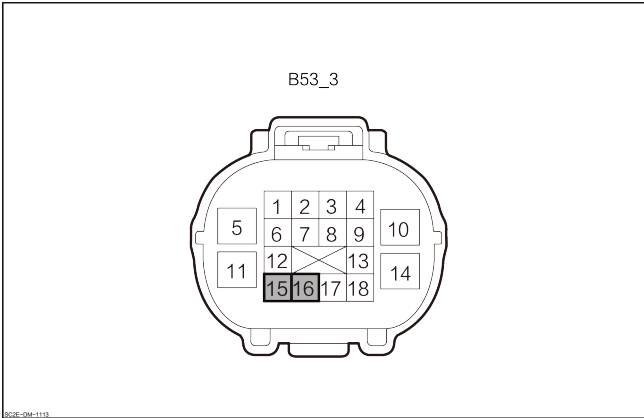
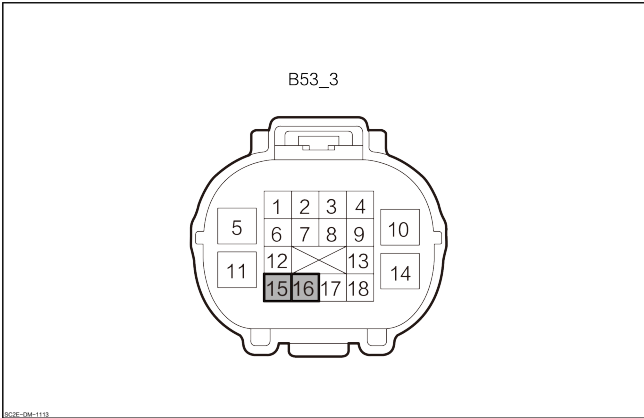
DTC Description

| P158A00 Electric Lock Abnormal | |
|--------------------------------|---|
| Symptom | Fail to Charge. |
| Possible Cause | <ol style="list-style-type: none"> 1. The charging gun is not properly plugged. 2. Electric lock fault 3. The left body control module fails. 4. On-board charger internal fault. |
| Fault setting conditions | The on-board charger is not in the latching status. |
| Trigger fault conditions | When the vehicle is in AC charging state and the on-board charger is not in the latching status, DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------------|
| <p>Left body control module</p>  <p>KG64(D)</p> <p><small>80E-QM-112</small></p> | 12 | AC charging gun unlocking |
|  | 13 | AC charging gun locking |
| <p>AC/DC charging port</p>  <p>B53_3</p> <p><small>80E-QM-113</small></p> | 15 | Lock power |
|  | 16 | Unlock power supply |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|------------------------|
| 2 | Check the charging gun |
|---|------------------------|

1. Check whether the charging gun is properly plugged.
2. Check whether the results are normal.

No

Plug in the charger again.

Yes

| | |
|---|---|
| 3 | Check the operation condition of the electric lock. |
|---|---|

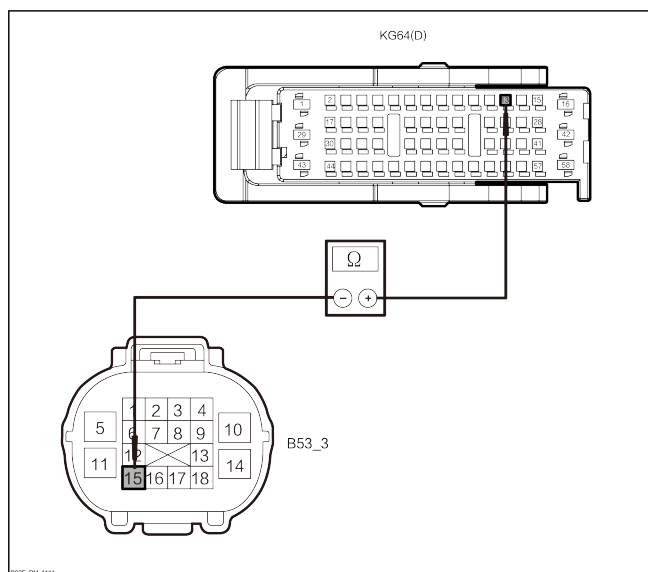
1. Use VDS to perform electric lock operation support test.
2. Check the operation condition of electric locking.
3. Check whether the results are normal.

Yes

Go to step 6

No

| | |
|---|---|
| 4 | Check the charger locking harness for open circuit. |
|---|---|



1. Set the START/STOP button to OFF.
2. Disconnect the harness connector of left body control module KG64(D).
3. Disconnect AC/DC charging port harness connector B53_3.
4. Measure the resistance between the harness connector of left body control module KG64(D)-13 and the harness connector of AC/DC charging port B53_3-15.

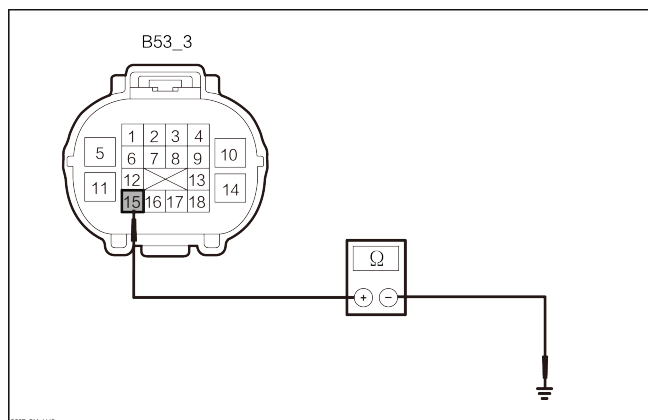
| Connector | | Condition | Resist- ance value |
|----------------|--------------|-----------------|--------------------------|
| (+) | (-) | | |
| KG64(D) -13 | B53_3-1 5 | Through- out | Lower than 1 Ω |

5. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check whether the charger locking harness is shorted to ground.



1. Measure the resistance between the harness connector of AC/DC charging port B53_3-15 and the ground.

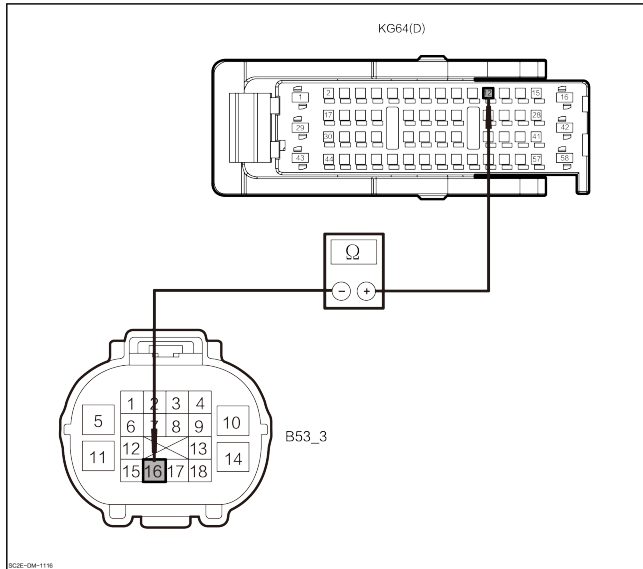
| Connector | | Condition | Resist- ance value |
|--------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B53_3-1 5 | Ground | Through- out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the charger locking state signal harness for open circuit.



1. Measure the resistance between the harness connector of left body control module KG64(D)-12 and the harness connector of AC/DC charging port B53_3-16.

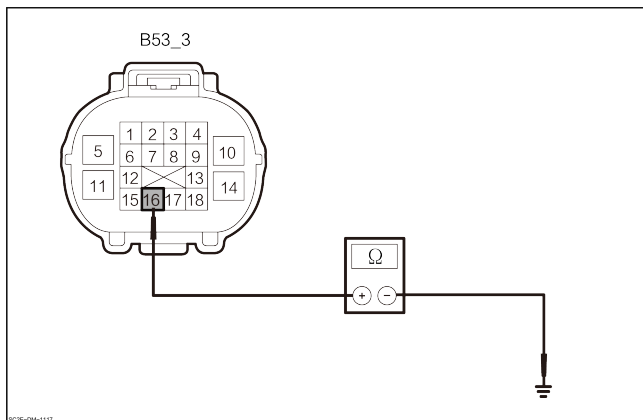
| Connector | | Condition | Resistance value |
|------------|----------|-------------|------------------|
| (+) | (-) | | |
| KG64(D)-12 | B53_3-16 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check whether the charger locking status signal harness is shorted to ground.



1. Measure the resistance between the harness connector of AC/DC charging port B53_3-16 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| B53_3-16 | Ground | Through-out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the AC/DC charging port.

1. Replace the AC/DC charging port.
2. After clearing the DTC, check the DTC again.
3. Check whether the results are normal.

Yes → At this time, the system is normal and the diagnosis is finished.

No

9 Check the left body control module.

1. Replace the left body control module.
2. After clearing the DTC, check the DTC again.
3. Check whether the results are normal.

Yes → At this time, the system is normal and the diagnosis is finished.

No

| | |
|----|--|
| 10 | Check the integrated intelligent front drive control module harness and connector. |
|----|--|

1. Disconnect the harness connector of the integrated intelligent front drive control module.
2. Check whether the harness and connector are aged, deformed, ablated, cracked, etc.
3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the smart integrated front drive control unit.

P151100 AC High-voltage Interlock Fault

DTC Description

| P151100 AC High-voltage Interlock Fault | |
|---|---|
| Symptom | Fail to Charge. |
| Possible Cause | 1. Interlock harness fault. 2. On-board charger internal fault. |
| Fault setting conditions | The on-board charger detects that the high voltage interlock fault signal is valid. |
| Trigger fault conditions | In the AC charging state of the vehicle, when the on-board charger detects that the high voltage interlock fault signal is valid, DTC is generated. |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the harness connector of the integrated intelligent front drive control module.
2. Check whether the harness and connector are aged, deformed, ablated, cracked, etc.
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the smart integrated front drive control unit.

U011100 Communication Timeout at BMC

DTC Description

| U011100 Communication Timeout at BMC | |
|--------------------------------------|--|
| Symptom | Unable to charge/discharge. |
| Possible Cause | <ol style="list-style-type: none">1. The CAN harness fault.2. The battery management system internally fails.3. On-board charger internal fault. |
| Fault setting conditions | The battery management system message is not received before charging. |
| Trigger fault conditions | In AC charging or external discharge state of the vehicle, the system detects that no message from the battery management system is received before the start of charging, DTC is generated. |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

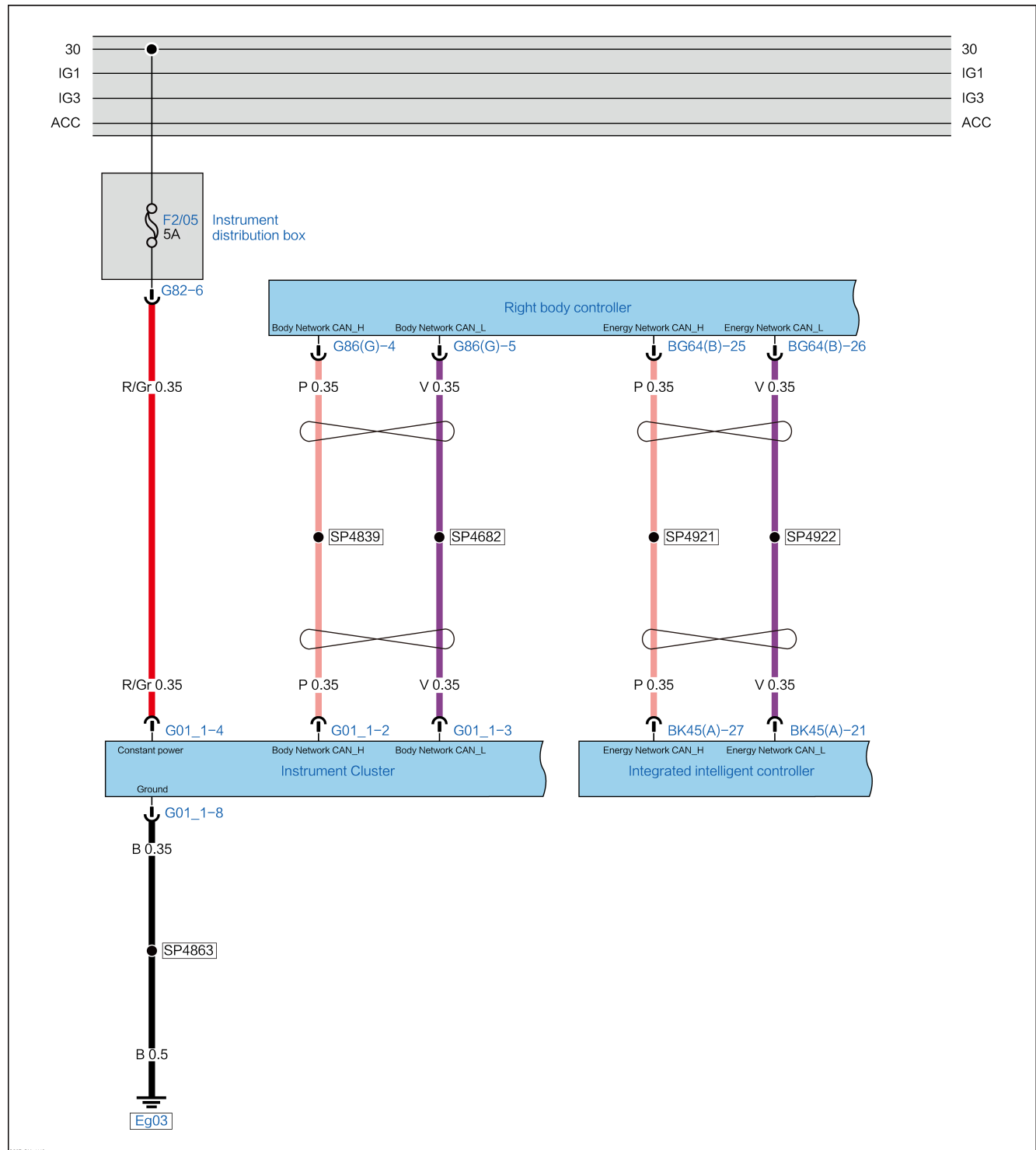
| | |
|-----|--|
| No | The system is normal. |
| Yes | Replace the smart integrated front drive control unit. |

U015500 Communication Timeout at Combination Instrument

DTC Description

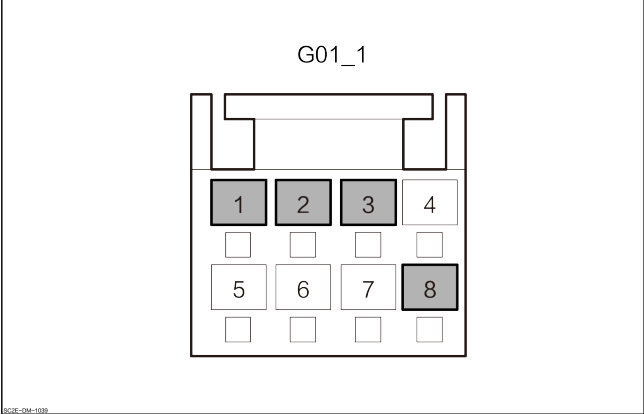
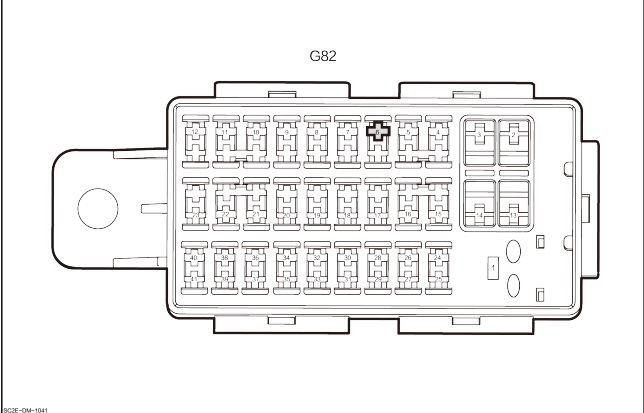
| U015500 Communication Timeout at Combination Instrument | |
|---|---|
| Symptom | Charging cannot be reserved, and directly enter the charging process. |
| Possible Cause | <ol style="list-style-type: none">1. Combination instrument fault..2. The CAN harness fault.3. On-board charger internal fault. |
| Fault setting conditions | Combination instrument message is not received before start of charging. |
| Trigger fault conditions | In AC charging state of vehicle, when the system detects that combination instrument message is not received before the start of charging, DTC is generated. |

Circuit Diagram



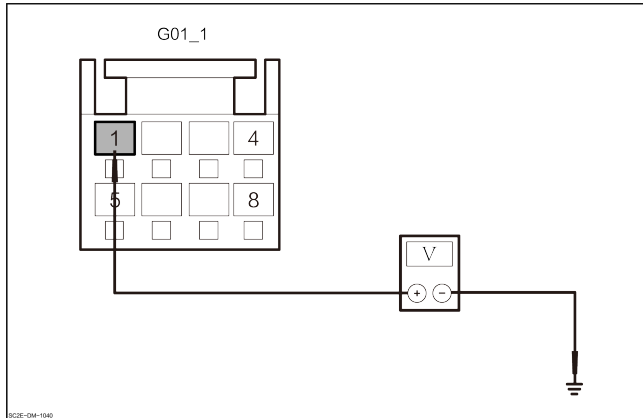
SCHE-DM-1118

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|-------------------------------------|
| <p style="text-align: center;">Combination Instrument</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G01_1</p> </div> <p><small>82CE-094-1032</small></p> | 2 | CAN-H |
| | 3 | CAN-L |
| | 4 | Constant power |
| | 8 | Ground |
| <p style="text-align: center;">Instrument fuse box</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G82</p> </div> <p><small>82CE-094-1041</small></p> | 6 | Combination instrument power supply |

Diagnostic Steps

| | |
|---|--|
| 1 | <p>Check the DTC of combination instrument.</p> <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the START/STOP button to ON. 3. Clear DTCs. 4. Set the START/STOP button to OFF, and wait a few seconds. 5. Place the start/stop button in ON position again, and read the DTC. 6. Check whether the same DTC is displayed? <p style="text-align: right;"> No Check the “intermittent fault” . </p> <p style="text-align: left;"> Yes </p> |
| 2 | <p>Check the communication network.</p> <ol style="list-style-type: none"> 1. Use a VDS to execute the network test. 2. Check whether the combination instrument passes the network detection. <p style="text-align: right;"> Yes Go to step 9 </p> <p style="text-align: left;"> No </p> |
| 3 | <p>Check the fuse of combination instrument.</p> <ol style="list-style-type: none"> 1. Check whether the front compartment fuse box fuse F2/05 (5 A) is normal. <p style="text-align: right;"> No Replace the fuse </p> <p style="text-align: left;"> Yes </p> |
| 4 | <p>Check the combination instrument harness and connector.</p> <ol style="list-style-type: none"> 1. Set the START/STOP button to “OFF” . 2. Disconnect the harness connector of combination switch G01_1–4. 3. Check whether the combination instrument harness connector is normal. <p style="text-align: right;"> No Repair or replace the wire harness </p> <p style="text-align: left;"> Yes </p> |
| 5 | <p>Check the combination instrument constant power supply.</p> |



1. Measure the voltage value between the combination instrument harness connector G01_1-4 and the ground.

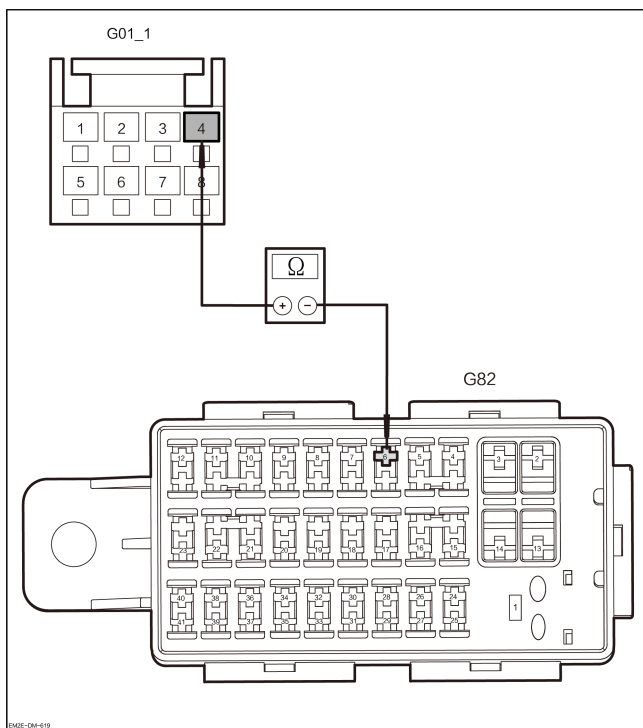
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G01_1-4 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

Yes Go to step 7

No

6 Check whether the constant power supply of combination instrument is open circuited.



1. Set the START/STOP button to “OFF” .
 2. Disconnect the harness connector of instrument fuse box G82.
 3. Measure the resistance value between the combination instrument harness connector G01_1-4 and the instrument fuse box harness connector G82-6.

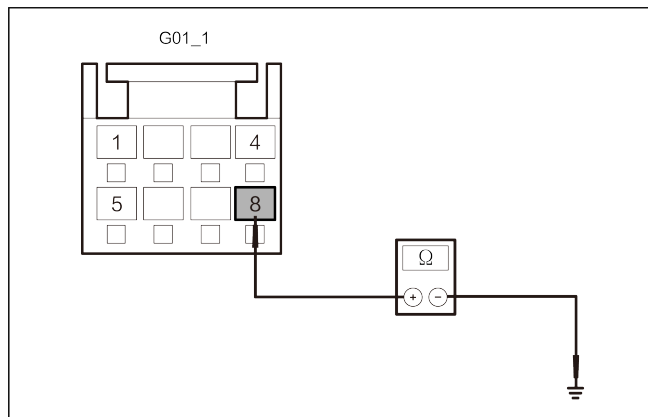
| Connector | | Condition | Resistance value |
|-----------|-------|-------------|------------------|
| (+) | (-) | | |
| G01_1-4 | G82-6 | Through-out | Lower than 1 Ω |

4. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the instrument fuse box.

7 Check the combination instrument ground circuit.



1. Measure the resistance value between the combination instrument harness connector G01_1-8 and the ground.

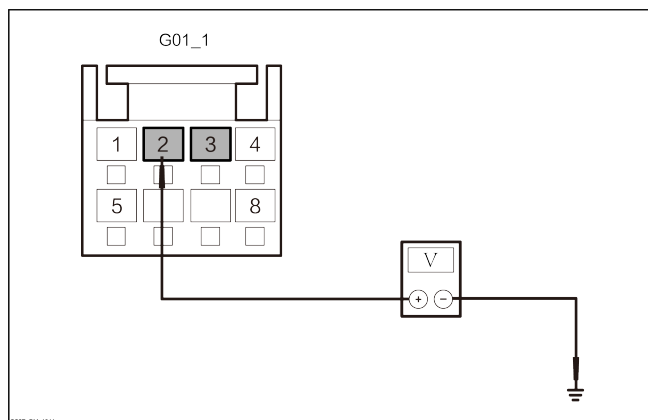
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G01_1-8 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the CAN line of combination instrument.



1. Set the START/STOP button to ON.
 2. Measure the voltage value between the combination instrument harness connector G01_1-2 and the ground.
 3. Measure the voltage value between the combination instrument harness connector G01_1-3 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G01_1-2 | Ground | Through- out | 2.5~3.5 |
| G01_1-3 | | | 1.5~2.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the smart integrated front drive control unit.

9 Check the DTC of combination instrument.

1. Read the combination instrument DTC using the tester.
 2. Check whether DTC exists.

Yes → Enter the “combination instrument” diagnosis.

No

| | |
|----|---|
| 10 | Check the DTC of right body control module. |
|----|---|

1. Read the right body control module DTC using the tester.
2. Check whether DTC exists.

Yes

Enter “right body control module” diagnosis.

No

| | |
|----|---------------------------------|
| 11 | Check the DTC of other modules. |
|----|---------------------------------|

1. Is the communication timeout fault with the combination instrument read in other modules?

Yes

Replace the dashboard.

No

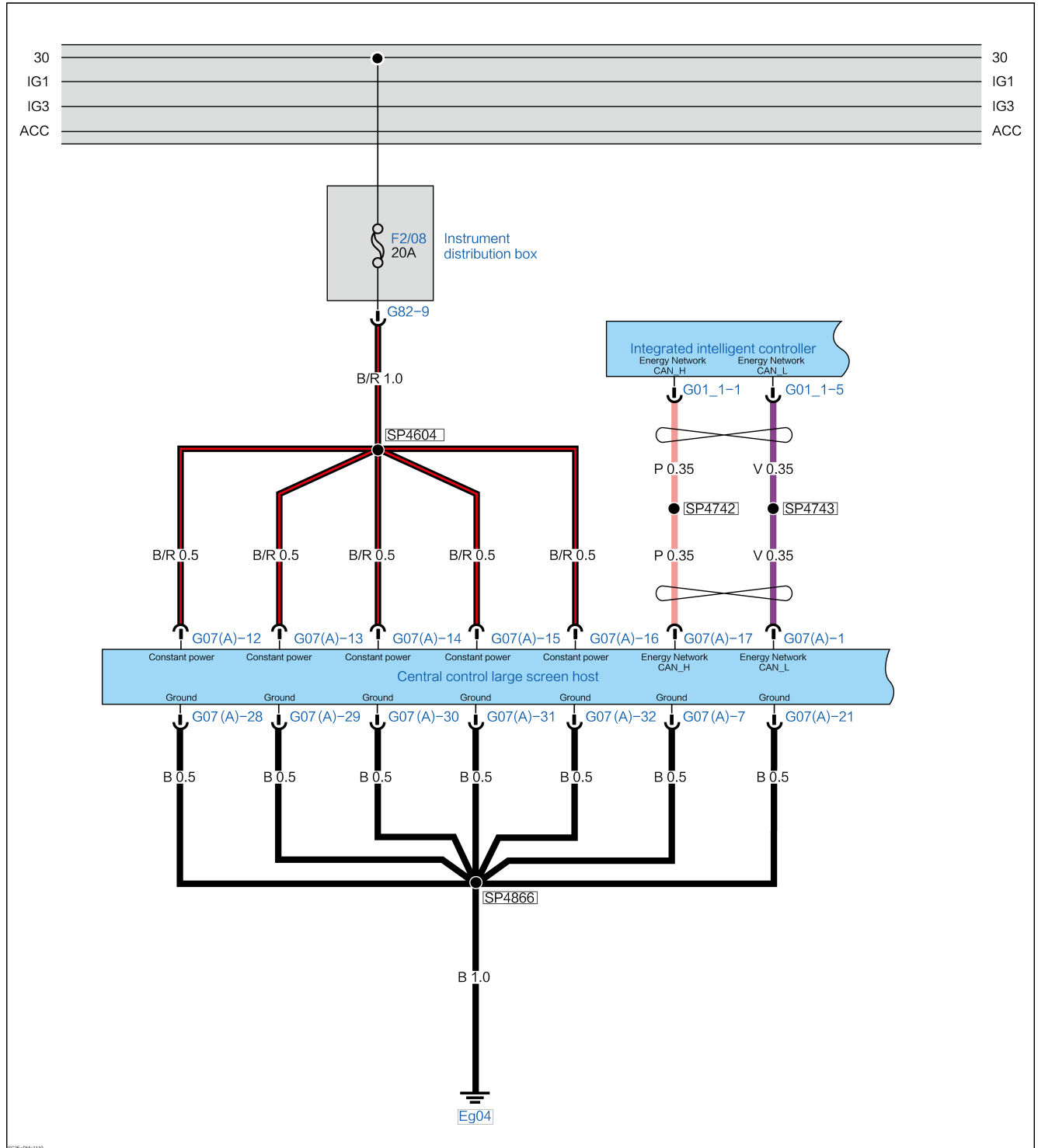
Replace the smart integrated front drive control unit.

U024500 Communication Timeout at Multimedia

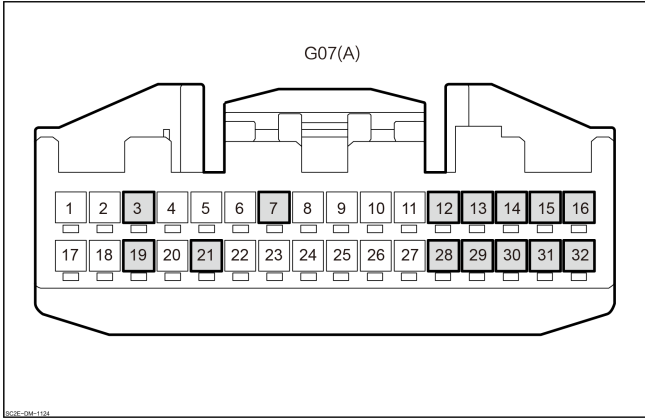
DTC Description

| U024500 Communication Timeout at Multimedia | |
|---|---|
| Symptom | – |
| Possible Cause | 1. Multi-media fault. 2. The CAN harness fault. 3. On-board charger internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|----------------------|
| <p style="text-align: center;">Central Control Large Screen Host</p>  <p style="text-align: center;">G07(A)</p> | 3 | Energy network CAN_L |
| | 7 | Ground |
| | 12 | Constant power |
| | 13 | Constant power |
| | 14 | Constant power |
| | 15 | Constant power |
| | 16 | Constant power |
| | 19 | Energy network CAN_H |
| | 21 | Ground |
| | 28 | Ground |
| | 29 | Ground |
| | 30 | Ground |
| | 31 | Ground |
| | 32 | Ground |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|----------------------------------|
| 2 | Check the communication network. |
|---|----------------------------------|

1. Use a VDS to execute the network test.
2. Check whether the central control large screen host has passed the network detection.

Yes

Go to step 9

No

| | |
|---|--|
| 3 | Check the fuse of the central control large screen host. |
|---|--|

1. Check whether the instrument fuse box fuse F2/08 (20 A) is normal?

No

Replace the fuse

Yes

| | |
|---|---|
| 4 | Check the central control large screen host harness and connector |
|---|---|

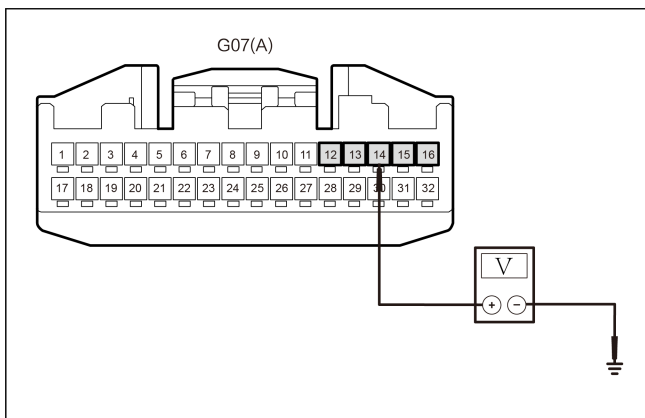
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of central control large screen host G07(A).
3. Check whether the central control large screen host harness connector is normal?

No

Repair or replace the wire harness

Yes

5 Check the constant power supply of the central control large screen host.



1. Measure the voltage value between the central control large screen host harness connector G07 (A) –12 and the ground.
2. Measure the voltage value between the central control large screen host harness connector G07 (A) –13 and the ground.
3. Measure the voltage value between the central control large screen host harness connector G07 (A) –14 and the ground.
4. Measure the voltage value between the central control large screen host harness connector G07 (A) –15 and the ground.
5. Measure the voltage value between the central control large screen host harness connector G07 (A) –16 and the ground.

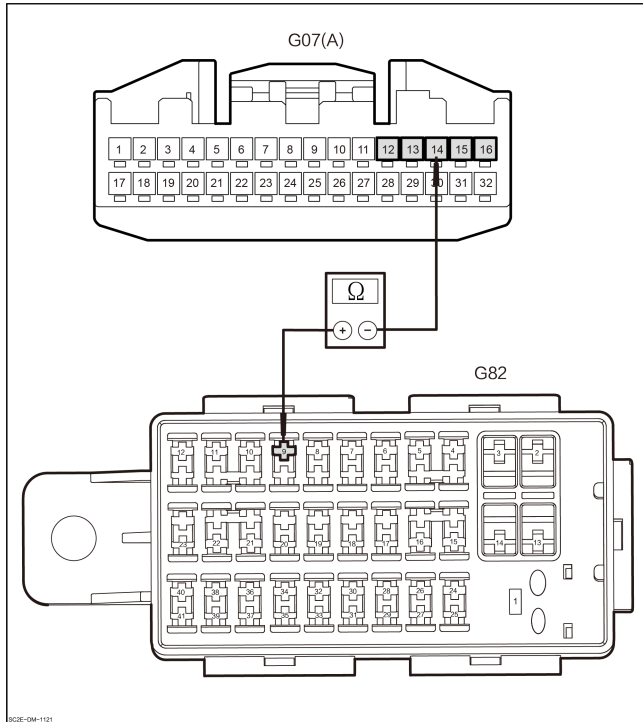
| Connector | | Condition | Voltage value |
|---------------|--------|-------------|---------------|
| (+) | (-) | | |
| G07(A)-1 2 | Ground | Through-out | 11~14V |
| G07(A)-1 3 | | | |
| G07(A)-1 4 | | | |
| G07(A)-1 5 | | | |
| G07(A)-1 6 | | | |

6. Check whether the results are normal.

Yes Go to step 7

No

6 Check the constant power supply of the central control large screen host for open circuit.



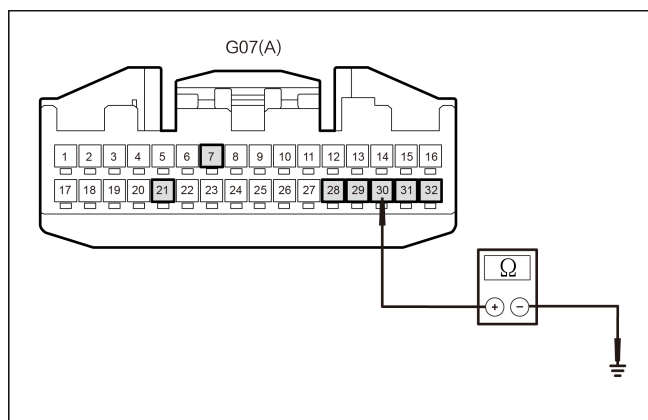
1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector G82.
3. Measure the resistance value between the central control large screen host harness connector G07 (A) –12 and the instrument fuse box harness connector G82–9.
4. Measure the resistance value between the central control large screen host harness connector G07 (A) –13 and the instrument fuse box harness connector G82–9.
5. Measure the resistance value between the central control large screen host harness connector G07 (A) –14 and the instrument fuse box harness connector G82–9.
6. Measure the resistance value between the central control large screen host harness connector G07 (A) –15 and the instrument fuse box harness connector G82–9.
7. Measure the resistance value between the central control large screen host harness connector G07 (A) –16 and the instrument fuse box harness connector G82–9.

| Connector | | Condition | Resist- ance value |
|---------------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| G07(A)-1 2 | G82-9 | Through- out | Lower than 1Ω |
| G07(A)-1 3 | | | |
| G07(A)-1 4 | | | |
| G07(A)-1 5 | | | |
| G07(A)-1 6 | | | |

8. Check whether the results are normal.

- No ➤ Repair or replace the wire harness
- Yes ➤ Replace the instrument fuse box, and the diagnosis is finished.

| | |
|---|--|
| 7 | Check the ground circuit of the central control large screen host. |
|---|--|



1. Measure the resistance value between the central control large screen host harness connector G07 (A)-7 and the ground.
2. Measure the resistance value between the central control large screen host harness connector G07 (A)-21 and the ground.
3. Measure the resistance value between the central control large screen host harness connector G07 (A)-28 and the ground.
4. Measure the resistance value between the central control large screen host harness connector G07 (A)-29 and the ground.
5. Measure the resistance value between the central control large screen host harness connector G07 (A)-30 and the ground.
6. Measure the resistance value between the central control large screen host harness connector G07 (A)-31 and the ground.
7. Measure the resistance value between the central control large screen host harness connector G07 (A)-32 and the ground.

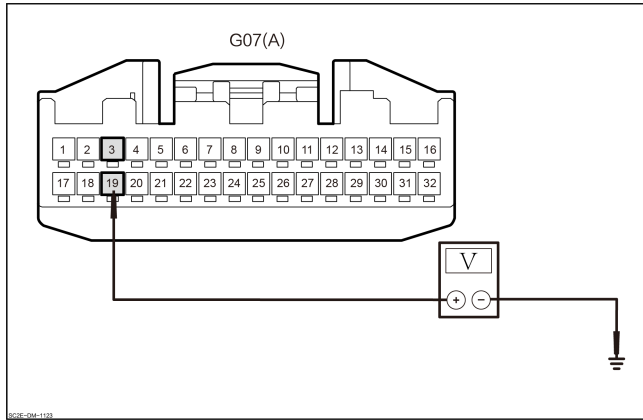
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G07(A)-7 | Ground | Through- out | Lower than 1Ω |
| G07(A)-21 | | | |
| G07(A)-28 | | | |
| G07(A)-29 | | | |
| G07(A)-30 | | | |
| G07(A)-31 | | | |
| G07(A)-32 | | | |

8. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

| | |
|---|---|
| 8 | Check the central control large screen host CAN line. |
|---|---|



1. Measure the voltage value between the central control large screen host harness connector G07 (A) –3 and the ground.
2. Measure the voltage value between the central control large screen host harness connector G07 (A) –19 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G07(A)-3 | Ground | Through-out | 1.5~2.5V |
| G07(A)-19 | | | 2.5~3.5V |

3. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the smart integrated front drive control unit.

9 Check the central control large screen host DTC.

1. Read the DTC of central control large screen host with scan tool.
2. Check whether DTC exists.

Yes → Enter the "Central Control Large Screen Host" diagnosis.

No

10 Check the DTC of right body control module.

1. Read the right body control module DTC using the tester.
2. Check whether DTC exists.

Yes → Enter “right body control module” diagnosis.

No

11 Check the DTC of other modules.

1. Is the communication timeout fault with the central control large screen host read in other modules?

Yes → Replace the central control large screen host.

No

Replace the smart integrated front drive control unit.

P151500 Water Temperature Sensor Fault

DTC Description

| P151500 Water Temperature Sensor Fault | |
|--|--|
| Symptom | Record the DTC and charge normally. |
| Possible Cause | On-board charger internal fault. |
| Fault setting conditions | The water channel temperature exceeds the specified threshold value. |
| Trigger fault conditions | When the vehicle is in AC charging or external discharge state, the system detects that the water channel temperature exceeds the specified threshold value, DTC is generated. |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

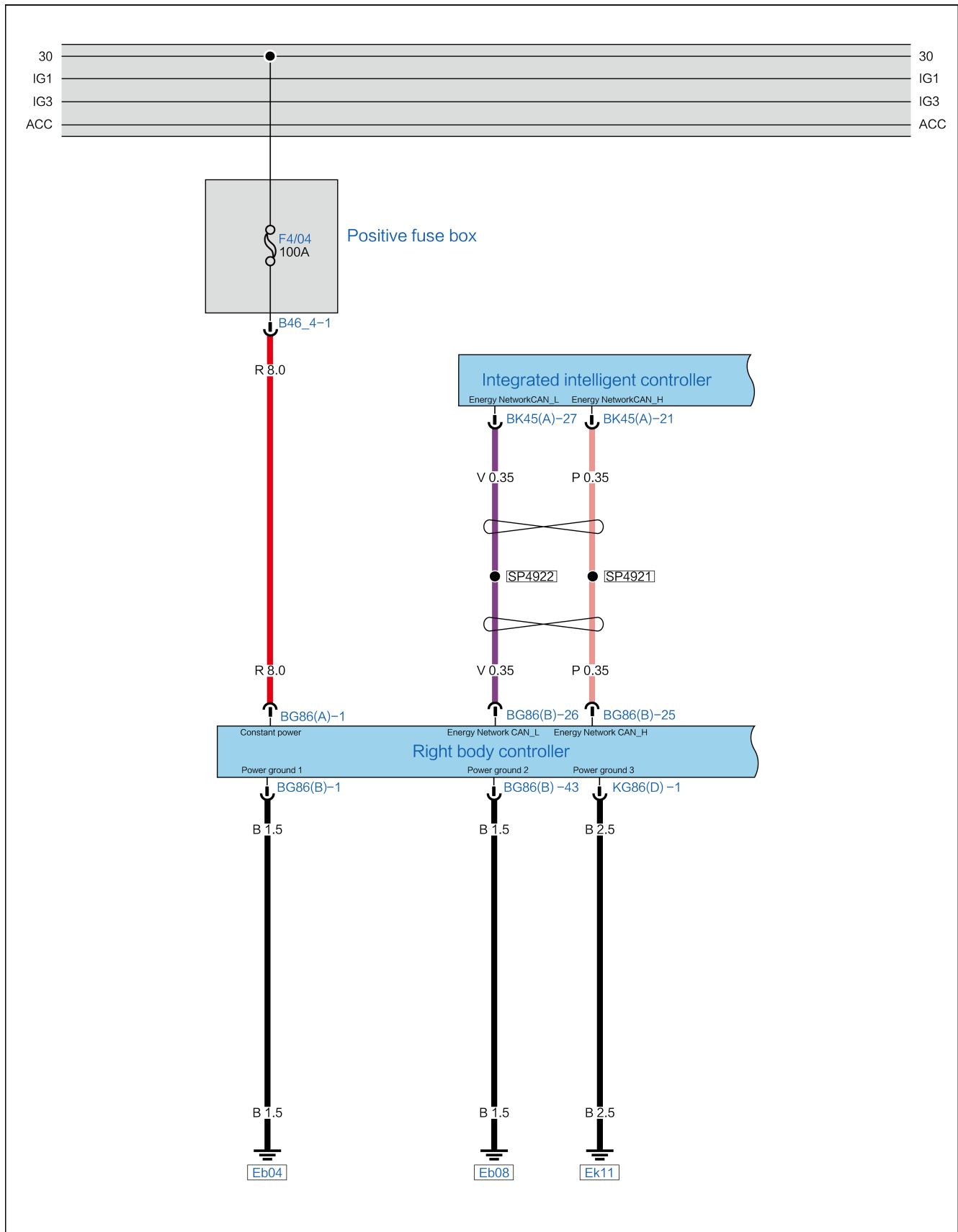
| | |
|-----|--|
| No | Check the “intermittent fault” . |
| Yes | Replace the smart integrated front drive control unit. |

U014087 Communication Timeout at BCM

DTC Description

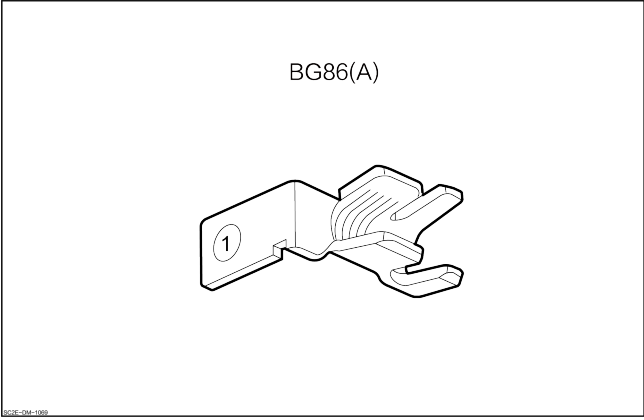
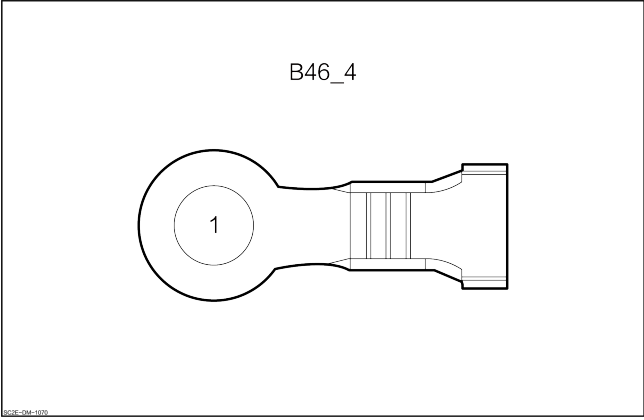
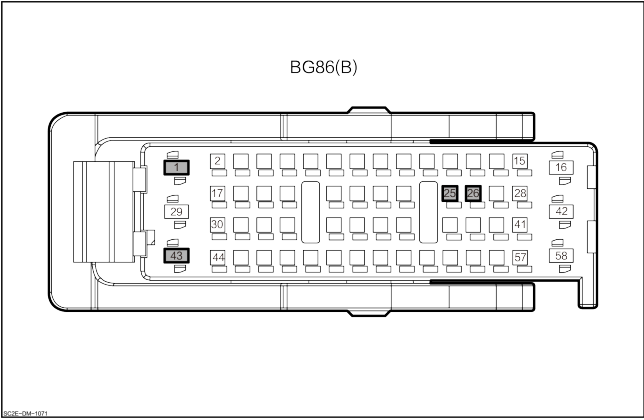
| U014087 Communication Timeout at BCM | |
|--------------------------------------|---|
| Symptom | Fail to Charge. |
| Possible Cause | <ol style="list-style-type: none">1. The right body control module fails.2. The CAN harness fault.3. On-board charger internal fault. |
| Fault setting conditions | BCM Message is not received within the time specified in the charge. |
| Trigger fault conditions | When the vehicle is under AC charging state and the system detects that BCM Message is not received within a specified time during charging, DTC is generated. |

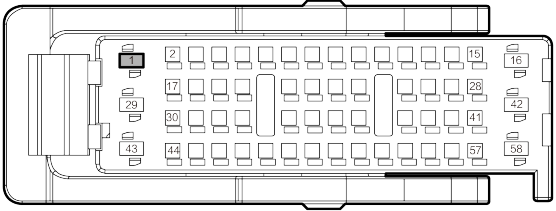
Circuit Diagram



602E-DM-122

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;"> <p>BG86(A)</p>  </div> | 1 | Right body control module constant power |
| <p style="text-align: center;">Positive fuse box</p> <div style="text-align: center;"> <p>B46_4</p>  </div> | 1 | Constant power |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;"> <p>BG86(B)</p>  </div> | 1 | Power ground 1 |
| | 26 | Energy network CAN_L |
| | 25 | Energy network CAN_H |
| <p style="text-align: center;">Right body control module</p> | 1 | Power ground 3 |

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">KG64(D)</p>  <p style="font-size: small; margin-top: 10px;">EMR-126-102</p> | | |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the right body control module has passed the network test.

Yes

Go to step 8

No

| | |
|---|---|
| 2 | Check the fuse for right body control module. |
|---|---|

1. Check the fuse F4/04(100A) in the positive fuse box for normal function.

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the harness and connector of right body control module. |
|---|---|

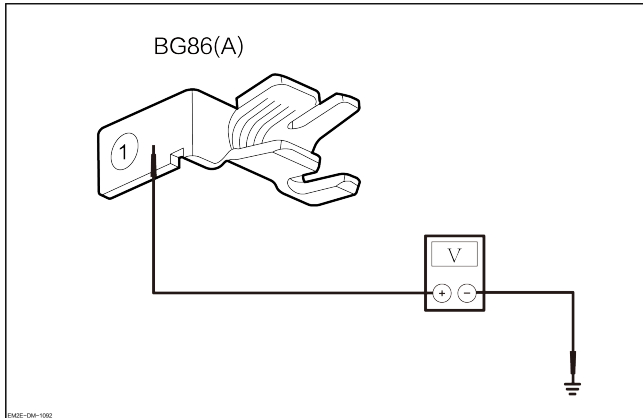
1. Set the START/STOP button to “OFF” .
2. Disconnect the power terminal of right body control module BG86(A).
3. Disconnect the harness connector of right body control module BG86(B).
4. Disconnect the harness connector of right body control module KG86(D).
5. Check the power terminal and connector of right body control module of normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the constant power of right body control module. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the power terminal of right body control module BG86(A)-1 and the ground.

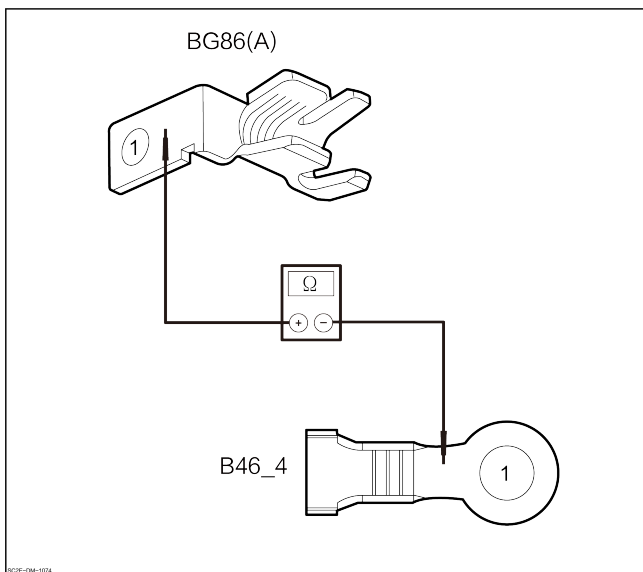
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG86(A)-1 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → [Go to step 6](#)

No

5 Check the power supply of right body control module for open circuit.



1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of positive fuse box B46_4.
3. Measure the resistance between the harness connectors of right body control module BG86(A)-1 and B46_4-1.

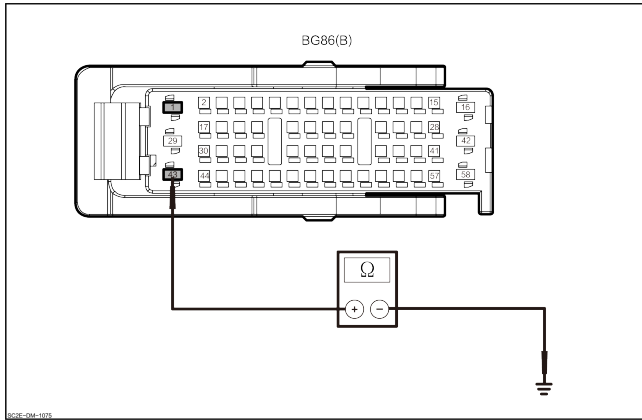
| Connector | | Condition | Resistance value |
|-----------|---------|-------------|------------------|
| (+) | (-) | | |
| BG86(A)-1 | B46_4-1 | Through-out | Lower than 1 Ω |

4. Check whether the results are normal.

No → Repair or replace the wire harness

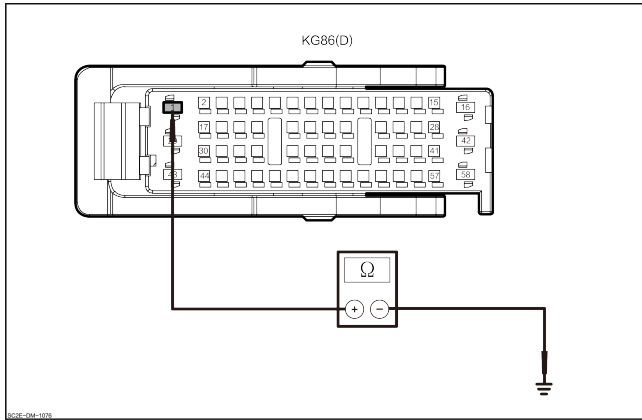
Yes → Replace the positive fuse box.

6 Check the ground line of right body control module.



1. Measure the resistance value between BG86(B)–1 and ground.
2. Measure the resistance value between BG86(B)–43 and ground.
3. Measure the resistance between KG86(D)–1 and the ground.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG86(B)–1 | Ground | Through- out | Lower than 1 Ω |
| BG86(B)–43 | | | |
| KG86(D)–1 | | | |



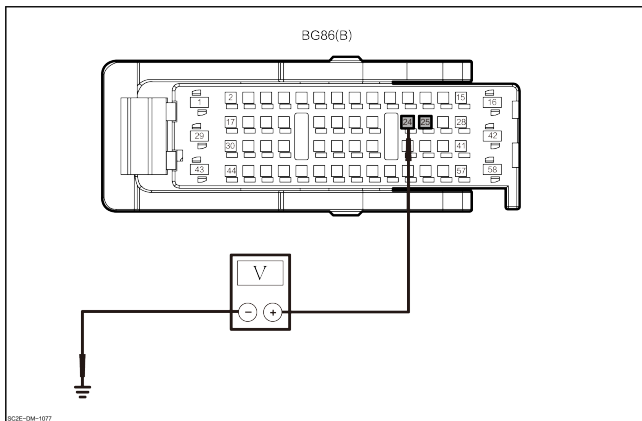
4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Check the CAN line of right body control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of right body control module BG86(B)–25 and the ground.
3. Measure the voltage between the harness connector of right body control module BG86(B)–26 and the ground.

| Connector | | Condition | Voltage value |
|------------|--------|-----------------|----------------------|
| (+) | (-) | | |
| BG86(B)–25 | Ground | Through- out | 2.5~3.5V 1.5~2.5V |
| BG86(B)–26 | | | |

4. Check whether the results are normal.

No

Enter the “CAN diagnosis”

Yes

Replace the right body control module.

| | |
|---|---|
| 8 | Check the DTC of right body control module. |
|---|---|

1. Use a VDS to read the right body control module DTC.
2. Check whether other DTC exists.

Yes 

| |
|--|
| Enter “right body control module” diagnosis. |
|--|

No 

| | |
|---|---------------------------------|
| 9 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Read the DTC of on-board charger with VDS.
2. Check whether other DTC exists.

Yes 

| |
|------------------------------------|
| Enter “on-board charger diagnosis” |
|------------------------------------|

No 

| | |
|----|---------------------------------|
| 10 | Check the DTC of other modules. |
|----|---------------------------------|

1. Read the DTC of other modules with VDS.
2. Check whether the DTC of communication failure with the A/C is read in other modules.

Yes 

| |
|--|
| Replace the right body control module. |
|--|

No 

| |
|--|
| Replace the smart integrated front drive control unit. |
|--|

U011181 Message Data of BMC Abnormal

DTC Description

| U011181 Message Data of BMC Abnormal | |
|--------------------------------------|---|
| Symptom | Unable to charge/discharge. |
| Possible Cause | 1. Battery pack internal fault. 2. On-board charger internal fault. |
| Fault setting conditions | Abnormal BMC message data receipt. |
| Trigger fault conditions | When the vehicle is under AC charging state and the system detects that the received BMC Message is abnormal, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check battery execution and sampling system DTC. |
|---|--|

1. Read the DTC of battery execution and sampling system with VDS.
2. Check whether DTC exists.

Yes → Enter the "Battery Execution and Sampling System" for diagnosis.

No

| | |
|---|---|
| 2 | Check the DTC of integrated intelligent control module. |
|---|---|

1. Read the DTC of smart integrated control unit with VDS.
2. Check whether DTC exists.

Yes → Enter the "Smart integrated control unit" diagnosis.

No

| | |
|---|---------------------------------|
| 3 | Check the DTC of other modules. |
|---|---------------------------------|

1. Are there any abnormal faults in the data of the BMC messages read in other modules?

Yes → Replace the power battery pack.

No → Replace the smart integrated control unit.

U015587 Message Data of Combination Instrument Abnormal

DTC Description

| U015587 Message Data of Combination Instrument Abnormal | |
|---|--|
| Symptom | Record the DTC and charge normally. |
| Possible Cause | 1. Combination instrument internal fault. 2. On-board charger internal fault. |
| Fault setting conditions | Abnormal combination instrument message data receipt. |
| Trigger fault conditions | When the vehicle is in AC charging state and the system detects that the messages received from the combination instrument are abnormal, DTC is generated. |

Diagnostic Steps

| | |
|---|---|
| 1 | <p>Check the DTC of combination instrument.</p> <p>1. Read the DTC of combination instrument with VDS 2. Check whether DTC exists.</p> <p>Yes → Enter the “Combination instrument diagnosis” .</p> <p>No</p> |
| 2 | <p>Check the DTC of integrated intelligent control module.</p> <p>1. Read the DTC of smart integrated control unit with VDS. 2. Check whether DTC exists.</p> <p>Yes → Enter the “Smart integrated control unit diagnosis” .</p> <p>No</p> |
| 3 | <p>Check the DTC of other modules.</p> <p>1. Are there any abnormal faults in the data of the combination instrument message data read in other modules?</p> <p>Yes → Replace the dashboard.</p> <p>No → Replace the smart integrated control unit.</p> |

U014081 Message Data of BCM Abnormal

DTC Description

| U014081 Message Data of BCM Abnormal | |
|--------------------------------------|---|
| Symptom | Unable to charge/discharge. |
| Possible Cause | 1. The left body control module internally fails. 2. On-board charger internal fault. |
| Fault setting conditions | Abnormal left body control module message data is received. |
| Trigger fault conditions | In the vehicle AC charging or discharging state, if the system detects abnormal left body control module message data, this DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Use a VDS to read the left body control module DTC.
2. Check whether DTC exists.

Yes → Enter “left body control module diagnosis” .

No

| | |
|---|---|
| 2 | Check the DTC of integrated intelligent control module. |
|---|---|

1. Read the DTC of smart integrated control unit with VDS.
2. Check whether DTC exists.

Yes → Enter the “Smart integrated control unit diagnosis” .

No

| | |
|---|---------------------------------|
| 3 | Check the DTC of other modules. |
|---|---------------------------------|

1. Are there any abnormal faults in the data of the BCM messages read in other modules?

Yes → Replace the left body control module.

No → Replace the smart integrated control unit.

U011182 Cycle Counter of BMC Abnormal

DTC Description

| U011182 Cycle Counter of BMC Abnormal | |
|---------------------------------------|--|
| Symptom | Unable to charge/discharge. |
| Possible Cause | 1. Battery pack internal fault. 2. On-board charger internal fault. |
| Fault setting conditions | Abnormal BMC cycle counter receipt. |
| Trigger fault conditions | In AC charging or external discharge state of the vehicle, when the system detects that the BMC cycle counter is abnormal, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check battery execution and sampling system DTC. |
|---|--|

1. Use a VDS to read battery pack DTC.
2. Check whether DTC exists.

Yes → Enter the "Battery Execution and Sampling System" for diagnosis.

No

| | |
|---|---|
| 2 | Check the DTC of integrated intelligent control module. |
|---|---|

1. Read the DTC of smart integrated control unit with VDS.
2. Check whether DTC exists.

Yes → Enter the "Smart integrated control unit diagnosis" .

No

| | |
|---|---------------------------------|
| 3 | Check the DTC of other modules. |
|---|---------------------------------|

1. Are there any abnormal faults in the data of the BMC messages read in other modules?

Yes → Replace the power battery pack.

No → Replace the smart integrated control unit.

P15FF00 Internal Temperature Sensor Fault

DTC Description

| P15FF00 Internal Temperature Sensor Fault | |
|---|--|
| Symptom | Fail to Charge. |
| Possible Cause | On-board charger internal fault. |
| Fault setting conditions | The on-board charger detects that the temperature exceeds the specified threshold. |
| Trigger fault conditions | When the vehicle is in AC charging or external discharge state, the on-board charger detects that the temperature exceeds the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the harness connector of the integrated intelligent front drive control module.
2. Check whether the harness connector is normal.

No → Repair or replace the wire harness

Yes → Replace the smart integrated front drive control unit.

P1ED500 AC Electric Leakage

DTC Description

| P1ED500 AC Electric Leakage | |
|-----------------------------|---|
| Symptom | Fail to Charge. |
| Possible Cause | 1. Charging port fault. 2. On-board charger internal fault. |
| Fault setting conditions | The on-board charger has detected an electrical leakage fault. |
| Trigger fault conditions | When the vehicle is under AC charging state and the on-board charger detects a leakage fault, DTC is generated. |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the on-board charger DTC. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Inspection of the charging port |
|---|---------------------------------|

1. Check whether there is any foreign matter in charging port.
2. Check the charging port terminal for aging, deformation, ablation, fracture, etc.
3. Check whether the results are normal.

No

Clean the foreign matters or replace the charging port.

Yes

| | |
|---|--|
| 3 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the harness connector of the integrated intelligent front drive control module.
2. Check whether the harness and connector are aged, deformed, ablated, cracked, etc.
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the insulation resistance of the integrated AC/DC charging vehicle socket sub-assembly. |
|---|---|

1. Disconnect the high voltage connector of the AC charging port for the integrated intelligent front drive control module.

2. Disconnect the high voltage connector of the DC charging port of the integrated intelligent front drive control module.
3. Measure the insulation resistance of the integrated AC/DC charging vehicle socket sub-assembly.
4. Is the measured value higher than $2M\Omega$?

No

Replace the integrated AC and DC charging socket subassembly

Yes

Replace the smart integrated front drive control unit.

U024582 Message Data of Multimedia Abnormal

DTC Description

| U024582 Message Data of Multimedia Abnormal | |
|---|--|
| Symptom | Record the DTC and charge normally. |
| Possible Cause | 1. Multi-media internal fault. 2. On-board charger internal fault. |
| Fault setting conditions | Abnormal multimedia message data receipt. |
| Trigger fault conditions | When the vehicle is under AC charging state and the system detects that the received multimedia message is abnormal, DTC is generated. |

Diagnostic Steps

| | |
|---|-------------------------------|
| 1 | Check the DTC of multi-media. |
|---|-------------------------------|

1. Read the DTC of multi-media with VDS
2. Check whether DTC exists.

Yes → Enter the “Multi-media diagnosis” .

No

| | |
|---|---|
| 2 | Check the DTC of integrated intelligent control module. |
|---|---|

1. Read the DTC of smart integrated control unit with VDS.
2. Check whether DTC exists.

Yes → Enter the “Smart integrated control unit diagnosis” .

No

| | |
|---|---------------------------------|
| 3 | Check the DTC of other modules. |
|---|---------------------------------|

1. Whether there is any abnormal fault in reading the multimedia message in other modules?

Yes → Replace the multi-media.

No → Replace the smart integrated control unit.

U029887 Communication with DC Failed

DTC Description

| U029887 Communication with DC Failed | |
|--------------------------------------|--|
| Symptom | Fail to Charge. |
| Possible Cause | 1. DC-DC internal fault. 2. On-board charger internal fault. |
| Fault setting conditions | The on-board charger does not receive the DC-DC message when it is working. |
| Trigger fault conditions | In the AC charging or external discharge state of the vehicle, when the system detects that the on-board charger does not receive DC message when working, DTC is generated. |

Diagnostic Steps

| | |
|---|-------------------------|
| 1 | Check the DTC of DC-DC. |
|---|-------------------------|

1. Use a VDS to read the DC DC DTC.
2. Check whether DTC exists.

Yes

Enter “DC DC diagnosis” .

No

| | |
|---|---|
| 2 | Check the DTC of integrated intelligent control module. |
|---|---|

1. Read the DTC of smart integrated control unit with VDS.
2. Check whether DTC exists.

Yes

Enter the “Smart integrated control unit diagnosis” .

No

Replace the smart integrated control unit.

DCT of Front Motor Control Module

List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|--|--|
| P1BB000 | Front drive motor overcurrent | P1BB000 Front Drive Motor Overcurrent |
| P1BB200 | Common Overtemperature Warning for Front Drive Motor | P1BB200 Common Overtemperature Warning for Front Drive Motor |
| P1BB298 | Serious Overtemperature Warning for Front Drive Motor | P1BB298 Serious Overtemperature Warning for Front Drive Motor |
| P1BF200 | Winding Temperature Sensor Sampling at Front Drive Motor Abnormal | P1BF200 Winding Temperature Sensor Sampling at Front Drive Motor Abnormal |
| P1BB300 | IGBT–NTC Common Overtemperature Warning for Front Drive Motor Control Module | P1BB300 IGBT–NTC Common Overtemperature Warning for Front Drive Motor Control Module |
| P1BB319 | IGBT–NTC Serious Overtemperature Warning for Front Drive Motor Control Module(chopper OFF) | P1BB319 IGBT–NTC Serious Overtemperature Warning for Front Drive Motor Control Module(chopper OFF) |
| P1BAC00 | IGBT Core Common Overtemperature Warning for Front Drive Motor Control Module | P1BAC00 IGBT Core Common Overtemperature Warning for Front Drive Motor Control Module |
| P1BAC19 | IGBT Core Serious Overtemperature Warning for Front Drive Motor Control Module (chopper OFF) | P1BAC19 IGBT Core Serious Overtemperature Warning for Front Drive Motor Control Module (chopper OFF) |
| P1BC800 | IGBT Three–phase Temperature Calibration Fault Alarm for Front Drive Motor Control Module | P1BC800 IGBT Three–phase Temperature Calibration Fault Alarm for Front Drive Motor Control Module |
| P1BB600 | High Voltage Side of Front Drive Motor Control Module Overvoltage | P1BB600 High Voltage Side of Front Drive Motor Control Module Overvoltage |
| P1BB500 | High Voltage Side of Front Drive Motor Control Module Undervoltage | P1BB500 High Voltage Side of Front Drive Motor Control Module Undervoltage |
| P1BB700 | Voltage Sampling Fault of Front Drive Motor Control Module | P1BB700 Voltage Sampling Fault of Front Drive Motor Control Module |
| P1BBA00 | EEPROM error of Front Drive Motor Control Module | P1BBA00 EEPROM Error of Front Drive Motor Control Module |
| P1BBC00 | DSP Reset Fault of Front Drive Motor Control Module | P1BBC00 DSP Reset Fault of Front Drive Motor Control Module |

| DTC: | Meaning | Diagnostic Process |
|---------|---|---|
| P1BF100 | IPM Temperature Sampling of Front Drive Motor Control Module Abnormal | P1BF100 IPM Temperature Sampling of Front Drive Motor Control Module Abnormal |
| P1BCF00 | Temperature Sensor Fault of Front Drive Motor– Torque Limited | P1BCF00 Temperature Sensor Fault of Front Drive Motor– Torque Limitation |
| P1BB100 | IPM Fault at Front Drive Motor Control Module | P1BB100 IPM Fault at Front Drive Motor Control Module |
| P1BC900 | Hall Current Sensor A Fault at Front Drive Motor Control Module | P1BC900 Hall Current Sensor A Fault at Front Drive Motor Control Module |
| P1BC500 | Hall Current Sensor B Fault at Front Drive Motor Control Module | P1BC500 Hall Current Sensor B Fault at Front Drive Motor Control Module |
| P1BC600 | Hall Current Sensor C Fault at Front Drive Motor Control Module | P1BC600 Hall Current Sensor C Fault at Front Drive Motor Control Module |
| U015229 | Motor Control Module Receiving SRS Hardwire Signal Abnormal | U015229 Motor Control Module Receiving SRS Hardwire Signal Abnormal |
| P1BB800 | Collision Signal Fault of Front Drive Motor Control Module | P1BB800 Collision Signal Fault of Front Drive Motor Control Module |
| P1BC200 | Phase A of Front Drive Motor Lost | P1BC200 Phase A of Front Drive Motor Lost |
| P1BC300 | Phase B of Front Drive Motor Lost | P1BC300 Phase B of Front Drive Motor Lost |
| P1BC400 | Phase C of Front Drive Motor Lost | P1BC400 Phase C of Front Drive Motor Lost |
| P1BBD00 | Active Release Fault of Front Drive Motor Control Module | P1BBD00 Active Release Fault of Front Drive Motor Control Module |
| U011100 | Communication with BMC failed | U011100 Communication with BMC Failed |
| U014187 | Communication with VCU failed | U014187 Communication with VCU Failed |
| P1BD119 | Drive CPLD Overcurrent of Front Drive Motor Control Module | P1BD119 Drive CPLD Overcurrent of Front Drive Motor Control Module |
| P1BD117 | Drive CPLD Overvoltage of Front Drive Motor Control Module | P1BD117 Drive CPLD Overvoltage of Front Drive Motor Control Module |
| P1BD000 | Drive DSP1 Crash Fault of Front Drive Motor Control Module | P1BD000 Drive DSP1 Crash Fault of Front Drive Motor Control Module |
| P1BD400 | Drive CPLD Running Fault of Front Drive Motor Control Module | P1BD400 Drive CPLD Running Fault of Front Drive Motor Control Module |

| DTC: | Meaning | Diagnostic Process |
|---------|--|--|
| P1BD200 | Drive CPLD Detecting IGBT On-axle Fault of Front Drive Motor Control Module | P1BD200 Drive CPLD Detecting IGBT On-axle Fault of Front Drive Motor Control Module |
| P1BD300 | Drive CPLD Detecting IGBT Off-axle Fault of Front Drive Motor Control Module | P1BD300 Drive CPLD Detecting IGBT Off-axle Fault of Front Drive Motor Control Module |
| P1B2516 | Supply voltage of LV too low | P1B2516 Supply Voltage at Low Voltage Side Too Low |
| P1B2517 | Supply voltage of LV too high | P1B2517 Supply Voltage at Low Voltage Side Too High |
| P1BC700 | IPM Radiator of Front Drive Motor Control Module Overtemperature | P1BC700 IPM Radiator of Front Drive Motor Control Module Overtemperature |
| U015129 | Motor Control Module Receiving SRS ,CAN Signal Abnormal | U015129 Motor Control Module Receiving SRS ,CAN Signal Abnormal |
| P1BC000 | Front Drive Motor Rotary Transformer Fault – Angle Abnormal | P1BC000 Front Drive Motor Rotary Transformer Fault – Angle Abnormal |
| P1BBF00 | Front drive motor rotary transformer fault – signal lost | P1BBF00 Front Drive Motor Rotary Transformer Fault – Signal Lost |
| P1BC100 | Front Drive Motor Rotary Transformer Fault– Signal Amplitude Decreasing | P1BC100 Front Drive Motor Rotary Transformer Fault– Signal Amplitude Decreasing |
| P1BB900 | Cap Opening Protection of Front Drive Motor Control Module | P1BB900 Cap Opening Protection of Front Drive Motor Control Module |
| P1D6A00 | Stepless fan motor open-circuited | P1D6A00 Stepless Fan Motor Open-circuited |

P1BB000 Front Drive Motor Overcurrent

DTC Description

| P1BB000 Front Drive Motor Overcurrent | |
|---------------------------------------|--|
| Symptom | The OK indicator on instrument cluster is not on. |
| Possible Cause | 1. Motor controller fault. 2. Drive motor assembly fault. |
| Fault setting conditions | The current Hall sensor detects that the three-phase peak current exceeds the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on, the current Hall sensor detects that the three-phase peak current exceeds the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check whether the vehicle normally shift to OK position. |
|---|--|

1. Check whether the vehicle normally shift to OK position.

No

Go to step 3

Yes

| | |
|---|--|
| 2 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear fault
4. Accelerate and decelerate sharply when it is safe to drive.
5. Re-check the DTC of front drive motor control unit.
6. Check whether the same DTC is displayed.

No

The system is normal.

Yes

| | |
|---|--|
| 3 | Replace the integrated intelligent front drive control module and check DTC. |
|---|--|

1. Set the start/stop button to ON position.
2. Clear DTCs.
3. Accelerate and decelerate sharply under safe conditions.
4. Set the start/stop button in the ON position again and read the front drive motor control module DTC.
5. Check whether the same DTC is displayed.

No

The system is normal

Yes

Replace the drive motor assembly.

P1BB200 Common Overtemperature Warning for Front Drive Motor

DTC Description

| P1BB200 Common Overtemperature Warning for Front Drive Motor | |
|--|--|
| Symptom | The instrument reports that the drive function is limited. |
| Possible Cause | <ol style="list-style-type: none">1. Cooling system faults2. Motor controller fault.3. Drive motor assembly fault. |
| Fault setting conditions | The motor temperature exceeds the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and the motor temperature exceeds the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|---------------------------|
| 1 | Check the cooling system; |
|---|---------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Use a VDS to read the left body control module DTC.
4. Check whether DTC exists.

Yes Enter “left body control module” diagnosis.

No

| | |
|---|--|
| 2 | Check the DTC of front drive motor control unit. |
|---|--|

1. Read the DTC of front drive motor control module with VDS.
2. Clear DTCs.
3. Drive the vehicle to an open field and drive it normally for about 10 min.
4. Read the DTC of front drive motor control module with VDS.
5. Check whether the same DTC is displayed.

No The system is normal.

Yes

| | |
|---|---|
| 3 | Check the motor winding temperature sensor. |
|---|---|

1. Set the start/stop button to OFF position.
2. Remove the end cover at the connection between the integrated intelligent front drive control module and the drive motor copper bar.
3. Disconnect the resolver connector.
4. Measure the resistance value between terminals 1 and 6 of the rotary transformer connector.

| Connector | | Temperature (°C) | Standard resistance (kΩ) |
|-----------|-----|------------------|--------------------------|
| (+) | (-) | | |
| 1 | 6 | 30 | 2280 |
| | | -20 | 1190 |

| | | | |
|--|--|-----|-------|
| | | -10 | 646.9 |
| | | 0 | 364.9 |
| | | 10 | 212.5 |
| | | 20 | 127.7 |
| | | 30 | 78.88 |
| | | 40 | 50.04 |

5. Check whether the results are normal.

No

Replace the drive motor assembly.

Yes

4

Replace the integrated intelligent front drive control module and check DTC.

1. Replace the smart integrated front drive control unit.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Drive the vehicle to an open field and drive it normally for about 10 min.
5. Use VDS to read the front drive motor control module DTC again.
6. Check whether the same DTC is displayed.

No

The system is normal.

Yes

Replace the drive motor assembly.

P1BB298 Serious Overtemperature Warning for Front Drive Motor

DTC Description

| P1BB298 Serious Overtemperature Warning for Front Drive Motor | |
|---|--|
| Symptom | The instrument reports that the drive function is limited. |
| Possible Cause | <ol style="list-style-type: none"> 1. Cooling system faults 2. Motor controller fault. 3. Drive motor assembly fault. |
| Fault setting conditions | The motor temperature exceeds the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and the motor temperature exceeds the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|---------------------------|
| 1 | Check the cooling system; |
|---|---------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Use a VDS to read the left body control module DTC.
4. Check whether DTC exists.

Yes

Enter “left body control module diagnosis” .

No

| | |
|---|--|
| 2 | Check the DTC of front drive motor control unit. |
|---|--|

1. Read the DTC of front drive motor control module with VDS.
2. Clear DTCs.
3. Drive the vehicle to an open field and drive it normally for about 10 min.
4. Read the DTC of front drive motor control module with VDS.
5. Check whether the same DTC is displayed.

No

The system is normal.

Yes

| | |
|---|---|
| 3 | Check the motor winding temperature sensor. |
|---|---|

1. Set the start/stop button to OFF position.
2. Remove the end cover at the connection between the integrated intelligent front drive control module and the drive motor copper bar.
3. Disconnect the resolver connector.
4. Measure the resistance value between terminals 1 and 6 of the rotary transformer connector.

| Connector | | Temperature (°C) | Standard resistance (kΩ) |
|-----------|-----|------------------|--------------------------|
| (+) | (-) | | |
| 1 | 6 | 30 | 2280 |
| | | -20 | 1190 |

| | | | |
|--|--|-----|-------|
| | | -10 | 646.9 |
| | | 0 | 364.9 |
| | | 10 | 212.5 |
| | | 20 | 127.7 |
| | | 30 | 78.88 |
| | | 40 | 50.04 |

5. Check whether the results are normal.

No → Replace the drive motor assembly.

Yes

4 Replace the integrated intelligent front drive control module and check DTC.

1. Replace the smart integrated front drive control unit.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Drive the vehicle to an open field and drive it normally for about 10 min.
5. Use VDS to read the front drive motor control module DTC again.
6. Check whether the same DTC is displayed.

No → The system is normal.

Yes → Replace the drive motor assembly.

P1BF200 Winding Temperature Sensor Sampling at Front Drive Motor Abnormal

DTC Description

| P1BF200 Winding Temperature Sensor Sampling at Front Drive Motor Abnormal | |
|---|--|
| Symptom | The instrument reports that the drive function is limited. |
| Possible Cause | <ol style="list-style-type: none">1. Cooling system faults2. Motor controller fault.3. Drive motor assembly fault. |
| Fault setting conditions | The motor temperature exceeds the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and the motor temperature exceeds the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|---------------------------|
| 1 | Check the cooling system; |
|---|---------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Use a VDS to read the left body control module DTC.
4. Check whether DTC exists.

Yes Enter “left body control module” diagnosis.

No

| | |
|---|--|
| 2 | Check the DTC of front drive motor control unit. |
|---|--|

1. Read the DTC of front drive motor control module with VDS.
2. Clear DTCs.
3. Drive the vehicle to an open field and drive it normally for about 10 min.
4. Read the DTC of front drive motor control module with VDS.
5. Check whether the same DTC is displayed.

No The system is normal.

Yes

| | |
|---|---|
| 3 | Check the motor winding temperature sensor. |
|---|---|

1. Set the start/stop button to OFF position.
2. Remove the end cover at the connection between the integrated intelligent front drive control module and the drive motor copper bar.
3. Disconnect the resolver connector.
4. Measure the resistance value between terminals 1 and 6 of the rotary transformer connector.

| Connector | | Temperature (°C) | Standard resistance (kΩ) |
|-----------|-----|------------------|--------------------------|
| (+) | (-) | | |
| 1 | 6 | 30 | 2280 |
| | | -20 | 1190 |

| | | | |
|--|--|-----|-------|
| | | -10 | 646.9 |
| | | 0 | 364.9 |
| | | 10 | 212.5 |
| | | 20 | 127.7 |
| | | 30 | 78.88 |
| | | 40 | 50.04 |

5. Check whether the results are normal.

No

Replace the drive motor assembly.

Yes

4

Replace the integrated intelligent front drive control module and check DTC.

1. Replace the smart integrated front drive control unit.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Drive the vehicle to an open field and drive it normally for about 10 min.
5. Use VDS to read the front drive motor control module DTC again.
6. Check whether the same DTC is displayed.

No

The system is normal.

Yes

Replace the drive motor assembly.

P1BB300 IGBT–NTC Common Overtemperature Warning for Front Drive Motor Control Module

DTC Description

| P1BB300 IGBT–NTC Common Overtemperature Warning for Front Drive Motor Control Module | |
|--|--|
| Symptom | The instrument reports that the drive function is limited. |
| Possible Cause | <ol style="list-style-type: none">1. Cooling system faults2. Motor controller fault.3. Drive motor assembly fault. |
| Fault setting conditions | The IGBT temperature exceeds the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on, the temperature of IGBT exceeds the specified threshold, generating a DTC. |

Diagnostic Steps

| | |
|---|---------------------------|
| 1 | Check the cooling system; |
|---|---------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Use a VDS to read the left body control module DTC.
4. Check whether DTC exists.

Yes

Enter “left body control module” diagnosis.

No

| | |
|---|--|
| 2 | Check the data flow of front drive motor control unit. |
|---|--|

1. Place the vehicle at room temperature for two hours.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Drive the vehicle to an open field and drive it normally for about 10 min.
5. Use VDS to read the IGBT temperature data flow of the front drive motor control module.
6. Check whether the temperature is normal.

Yes

The system is normal.

No

Replace the smart integrated front drive control unit.

P1BB319 IGBT–NTC Serious Overtemperature Warning for Front Drive Motor Control Module(chopper OFF)

DTC Description

| P1BB319 IGBT–NTC Serious Overtemperature Warning for Front Drive Motor Control Module(chopper OFF) | |
|--|--|
| Symptom | The instrument reports that the drive function is limited. |
| Possible Cause | <ol style="list-style-type: none"> 1. Cooling system faults 2. Motor controller fault. 3. Drive motor assembly fault. |
| Fault setting conditions | The IGBT temperature exceeds the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on, the temperature of IGBT exceeds the specified threshold, generating a DTC. |

Diagnostic Steps

| | |
|---|---------------------------|
| 1 | Check the cooling system; |
|---|---------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Use a VDS to read the left body control module DTC.
4. Check whether DTC exists.

Yes

Enter “left body control module” diagnosis.

No

| | |
|---|--|
| 2 | Check the data flow of front drive motor control unit. |
|---|--|

1. Place the vehicle at room temperature for two hours.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Drive the vehicle to an open field and drive it normally for about 10 min.
5. Use VDS to read the IGBT temperature data flow of the front drive motor control module.
6. Check whether the temperature is normal.

Yes

The system is normal.

No

Replace the smart integrated front drive control unit.

P1BAC00 IGBT Core Common Overtemperature Warning for Front Drive Motor Control Module

DTC Description

| P1BAC00 IGBT Core Common Overtemperature Warning for Front Drive Motor Control Module | |
|---|--|
| Symptom | The instrument reports that the drive function is limited. |
| Possible Cause | <ol style="list-style-type: none"> 1. Cooling system faults 2. Motor controller fault. 3. Drive motor assembly fault. |
| Fault setting conditions | The IGBT temperature exceeds the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on, the temperature of IGBT exceeds the specified threshold, generating a DTC. |

Diagnostic Steps

| | |
|---|---------------------------|
| 1 | Check the cooling system; |
|---|---------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Use a VDS to read the left body control module DTC.
4. Check whether DTC exists.

Yes

Enter “left body control module” diagnosis.

No

| | |
|---|--|
| 2 | Check the data flow of front drive motor control unit. |
|---|--|

1. Place the vehicle at room temperature for two hours.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Drive the vehicle to an open field and drive it normally for about 10 min.
5. Use VDS to read the IGBT temperature data flow of the front drive motor control module.
6. Check whether the temperature is normal.

Yes

The system is normal.

No

Replace the smart integrated front drive control unit.

P1BAC19 IGBT Core Serious Overtemperature Warning for Front Drive Motor Control Module (chopper OFF)

DTC Description

| | |
|--|--|
| P1BAC19 IGBT Core Serious Overtemperature Warning for Front Drive Motor Control Module (chopper OFF) | |
| Symptom | The instrument reports that the drive function is limited. |
| Possible Cause | <ol style="list-style-type: none"> 1. Cooling system faults 2. Motor controller fault. 3. Drive motor assembly fault. |
| Fault setting conditions | The IGBT temperature exceeds the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on, the temperature of IGBT exceeds the specified threshold, generating a DTC. |

Diagnostic Steps

| | |
|---|---------------------------|
| 1 | Check the cooling system; |
|---|---------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Use a VDS to read the left body control module DTC.
4. Check whether DTC exists.

Yes

Enter “left body control module” diagnosis.

No

| | |
|---|--|
| 2 | Check the data flow of front drive motor control unit. |
|---|--|

1. Place the vehicle at room temperature for two hours.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Drive the vehicle to an open field and drive it normally for about 10 min.
5. Use VDS to read the IGBT temperature data flow of the front drive motor control module.
6. Check whether the temperature is normal.

Yes

The system is normal.

No

Replace the smart integrated front drive control unit.

P1BC800 IGBT Three-phase Temperature Calibration Fault Alarm for Front Drive Motor Control Module

DTC Description

| | |
|---|--|
| P1BC800 IGBT Three-phase Temperature Calibration Fault Alarm for Front Drive Motor Control Module | |
| Symptom | The instrument reports that the drive function is limited. |
| Possible Cause | <ol style="list-style-type: none"> 1. Cooling system faults 2. Motor controller fault. 3. Drive motor assembly fault. |
| Fault setting conditions | The IGBT temperature exceeds the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on, the temperature of IGBT exceeds the specified threshold, generating a DTC. |

Diagnostic Steps

| | |
|---|---------------------------|
| 1 | Check the cooling system; |
|---|---------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Use a VDS to read the left body control module DTC.
4. Check whether DTC exists.

Yes

Enter “left body control module” diagnosis.

No

| | |
|---|--|
| 2 | Check the data flow of front drive motor control unit. |
|---|--|

1. Place the vehicle at room temperature for two hours.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Drive the vehicle to an open field and drive it normally for about 10 min.
5. Use VDS to read the IGBT temperature data flow of the front drive motor control module.
6. Check whether the temperature is normal.

Yes

The system is normal.

No

Replace the smart integrated front drive control unit.

P1BB600 High Voltage Side of Front Drive Motor Control Module Overvoltage

DTC Description

| P1BB600 High Voltage Side of Front Drive Motor Control Module Overvoltage | |
|---|--|
| Symptom | The OK indicator on instrument cluster is not on. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Motor controller fault. 3. Power battery packet fault. |
| Fault setting conditions | The motor control module detects that the busbar voltage exceeds the specified threshold |
| Trigger fault conditions | When the vehicle is powered on and the motor control module detects that the busbar voltage exceeds the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check whether the vehicle normally shift to OK position. |
|---|--|

1. Check whether the vehicle normally shift to OK position.

No

Enter "Battery Execution and Sampling Unit" to diagnose.

Yes

| | |
|---|--|
| 2 | Check the current total voltage of battery pack. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Drive the vehicle to an open field and drive it normally for about 10 min.
5. Use the VDS to read the battery execution and sampling unit.
6. Check the “current total voltage of battery pack” data flow.

| Lower limit (V) | Upper limit (V) |
|-----------------|-----------------|
| 180V | 450V |

7. Check whether the results are normal.

No

Enter "Battery Execution and Sampling Unit" to diagnose.

Yes

Replace the smart integrated front drive control unit.

P1BB500 High Voltage Side of Front Drive Motor Control Module Undervoltage

DTC Description

| P1BB500 High Voltage Side of Front Drive Motor Control Module Undervoltage | |
|--|--|
| Symptom | The OK indicator on instrument cluster is not on. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Motor controller fault. 3. Power battery packet fault. |
| Fault setting conditions | The busbar voltage is less than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and the motor control module detects that the busbar voltage is less than the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check whether the vehicle normally shift to OK position. |
|---|--|

1. Check whether the vehicle normally shift to OK position.

No → Enter "Battery Execution and Sampling Unit" to diagnose.

Yes

| | |
|---|--|
| 2 | Check the current total voltage of battery pack. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Drive the vehicle to an open field and drive it normally for about 10 min.
5. Use the VDS to read the battery execution and sampling unit.
6. Check the “current total voltage of battery pack” data flow.

| Lower limit (V) | Upper limit (V) |
|-----------------|-----------------|
| 180V | 450V |

7. Check whether the results are normal.

No → Enter "Battery Execution and Sampling Unit" to diagnose.

Yes → Replace the smart integrated front drive control unit.

P1BB700 Voltage Sampling Fault of Front Drive Motor Control Module

DTC Description

| P1BB700 Voltage Sampling Fault of Front Drive Motor Control Module | |
|--|---|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | Motor controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

P1BBA00 EEPROM Error of Front Drive Motor Control Module

DTC Description

| P1BBA00 EEPROM Error of Front Drive Motor Control Module | |
|--|---|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | Motor controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

P1BBC00 DSP Reset Fault of Front Drive Motor Control Module

DTC Description

| P1BBC00 DSP Reset Fault of Front Drive Motor Control Module | |
|---|---|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | Motor controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

P1BF100 IPM Temperature Sampling of Front Drive Motor Control Module Abnormal

DTC Description

| P1BF100 IPM Temperature Sampling of Front Drive Motor Control Module Abnormal | |
|---|---|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | Motor controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

P1BCF00 Temperature Sensor Fault of Front Drive Motor– Torque Limitation**DTC Description**

| P1BCF00 Temperature Sensor Fault of Front Drive Motor– Torque Limitation | |
|--|---|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | Motor controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

P1BB100 IPM Fault at Front Drive Motor Control Module

DTC Description

| P1BB100 IPM Fault at Front Drive Motor Control Module | |
|---|---|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | Motor controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

P1BC900 Hall Current Sensor A Fault at Front Drive Motor Control Module

DTC Description

| P1BC900 Hall Current Sensor A Fault at Front Drive Motor Control Module | |
|---|---|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | Motor controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

P1BC500 Hall Current Sensor B Fault at Front Drive Motor Control Module

DTC Description

| P1BC500 Hall Current Sensor B Fault at Front Drive Motor Control Module | |
|---|---|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | Motor controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

P1BC600 Hall Current Sensor C Fault at Front Drive Motor Control Module

DTC Description

| P1BC600 Hall Current Sensor C Fault at Front Drive Motor Control Module | |
|---|---|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | Motor controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

U015229 Motor Control Module Receiving SRS Hardwire Signal Abnormal

DTC Description

| U015229 Motor Control Module Receiving SRS Hardwire Signal Abnormal | |
|---|--|
| Symptom | The instrument displays "EV Function is Limited" and the discharge is prohibited. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Airbag control unit fault. 3. Smart integrated front drive control unit fault. |
| Fault setting conditions | Failure of reception of the collision signal. |
| Trigger fault conditions | When the vehicle is powered on and it receives the impact signal fault, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to read the power body control module DTC.
4. Check whether DTC exists.

Yes

Enter “dynamic body control module” diagnosis.

No

| | |
|---|---|
| 2 | Check the DTC of front drive motor controller system. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

P1BB800 Collision Signal Fault of Front Drive Motor Control Module

DTC Description

| P1BB800 Collision Signal Fault of Front Drive Motor Control Module | |
|--|--|
| Symptom | The instrument displays "EV Function is Limited" and the discharge is prohibited. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Airbag control unit fault. 3. Smart integrated front drive control unit fault. |
| Fault setting conditions | Failure of reception of the collision signal. |
| Trigger fault conditions | When the vehicle is powered on and it receives the impact signal fault, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to read the power body control module DTC.
4. Check whether DTC exists.

Yes

Enter “dynamic body control module” diagnosis.

No

| | |
|---|---|
| 2 | Check the DTC of front drive motor controller system. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the smart integrated front drive control unit.

P1BC200 Phase A of Front Drive Motor Lost

DTC Description

| P1BC200 Phase A of Front Drive Motor Lost | |
|---|---|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | Drive motor internal phase loss fault. |
| Fault setting conditions | Phase A loss of front drive motor |
| Trigger fault conditions | When the bus is powered on and the system detects that the motor lacks phase A, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check whether the vehicle normally shift to OK position. |
|---|--|

1. Set the START/STOP button to ON, observe whether the instrument is OK?

No

Replace the drive motor assembly.

Yes

| | |
|---|--|
| 2 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the drive motor assembly.

P1BC300 Phase B of Front Drive Motor Lost

DTC Description

| P1BC300 Phase B of Front Drive Motor Lost | |
|---|--|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | Drive motor internal phase loss fault. |
| Fault setting conditions | Phase B loss of front drive motor |
| Trigger fault conditions | When the vehicle is powered on and the system detects that the electrical machinery lacks phase B, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check whether the vehicle normally shift to OK position. |
|---|--|

1. Set the START/STOP button to ON, observe whether the instrument is OK?

No

Replace the drive motor assembly.

Yes

| | |
|---|--|
| 2 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the drive motor assembly.

P1BC400 Phase C of Front Drive Motor Lost

DTC Description

| P1BC400 Phase C of Front Drive Motor Lost | |
|---|--|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | Drive motor internal phase loss fault. |
| Fault setting conditions | Phase C loss of front drive motor |
| Trigger fault conditions | When the vehicle is powered on and the system detects that the electrical machinery lacks phase C, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check whether the vehicle normally shift to OK position. |
|---|--|

1. Set the START/STOP button to ON, observe whether the instrument is OK?

No

Replace the drive motor assembly.

Yes

| | |
|---|--|
| 2 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the drive motor assembly.

P1BBD00 Active Release Fault of Front Drive Motor Control Module

DTC Description

| P1BBD00 Active Release Fault of Front Drive Motor Control Module | |
|--|--|
| Symptom | – |
| Possible Cause | 1. The main contactor of the power battery is sintered. 2. Motor controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the battery execution and sampling unit DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Read the DTC of battery execution and sampling unit with VDS.
4. Check whether DTC exists.

Yes

Enter "Battery Execution and Sampling Unit" to diagnose.

No

| | |
|---|--|
| 2 | Check the DTC of front drive motor control unit. |
|---|--|

1. Read the DTC of front drive motor control module with VDS.
2. Clear DTCs.
3. Place the start/stop button in the OFF position and wait for a few seconds.
4. Set the start/stop button to ON position and read the DTC.
5. Check whether the same DTC is displayed.

No

Check the "intermittent fault" .

Yes

Replace the smart integrated front drive control unit.

U011100 Communication with BMC Failed

DTC Description

| U011100 Communication with BMC Failed | |
|---------------------------------------|---|
| Symptom | – |
| Possible Cause | Smart integrated front drive control unit fault. |
| Fault setting conditions | No BMC message received |
| Trigger fault conditions | When the vehicle is powered on and the BMC message is not received, DTC is generated. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of front drive motor control unit and vehicle status. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether there is the same DTC and the vehicle cannot be set to OK position?

No

The system is normal.

Yes

Replace the smart integrated front drive control unit.

U014187 Communication fault with the complete bus controller

DTC Description

| U014187 Communication with VCU Failed | |
|---------------------------------------|---|
| Symptom | – |
| Possible Cause | Smart integrated front drive control unit fault. |
| Fault setting conditions | No vehicle control module message is received. |
| Trigger fault conditions | When the vehicle is powered on and the message is not received from the control module, DTC is generated. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of front drive motor control unit and vehicle status. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether there is the same DTC and the vehicle cannot be set to OK position?

No

The system is normal.

Yes

Replace the smart integrated front drive control unit.

P1BD119 Drive CPLD Overcurrent of Front Drive Motor Control Module

DTC Description

| P1BD119 Drive CPLD Overcurrent of Front Drive Motor Control Module | |
|--|---|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | Smart integrated front drive control unit fault. |
| Fault setting conditions | The current exceeds the hardware overcurrent protection threshold. |
| Trigger fault conditions | When the vehicle is powered on and the current exceeds the hardware overcurrent protection threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check whether the vehicle can be powered on. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Check whether the vehicle can be set to OK position?

No

Replace the smart integrated front drive control unit.

Yes

| | |
|---|--|
| 2 | Check the DTC of front drive motor control unit. |
|---|--|

1. In the case of safety, make the vehicle undergo rapid acceleration, rapid deceleration.
2. Read the DTC of front drive motor control module with VDS.
3. Check whether the same DTC is displayed.

No

The system is normal.

Yes

Replace the smart integrated front drive control unit.

P1BD117 Drive CPLD Overvoltage of Front Drive Motor Control Module

DTC Description

| P1BD117 Drive CPLD Overvoltage of Front Drive Motor Control Module | |
|--|---|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | Smart integrated front drive control unit fault. |
| Fault setting conditions | The voltage exceeds the hardware overvoltage protection threshold. |
| Trigger fault conditions | When the vehicle is powered on and the voltage exceeds the hardware overvoltage protection threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check whether the vehicle can be powered on. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Check whether the vehicle can be set to OK position?

No

Replace the smart integrated front drive control unit.

Yes

| | |
|---|--|
| 2 | Check the DTC of front drive motor control unit. |
|---|--|

1. In the case of safety, make the vehicle undergo rapid acceleration, rapid deceleration.
2. Read the DTC of front drive motor control module with VDS.
3. Check whether the same DTC is displayed.

No

The system is normal.

Yes

Replace the smart integrated front drive control unit.

P1BD000 Drive DSP1 Crash Fault of Front Drive Motor Control Module

DTC Description

| P1BD000 Drive DSP1 Crash Fault of Front Drive Motor Control Module | |
|--|--|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | Smart integrated front drive control unit fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check whether the vehicle can be set to OK position. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Check whether the vehicle can be set to OK position?

No

Replace the smart integrated front drive control unit.

Yes

| | |
|---|--|
| 2 | Check the DTC of front drive motor control unit. |
|---|--|

1. In the case of safety, make the vehicle undergo rapid acceleration, rapid deceleration.
2. Read the DTC of front drive motor control module with VDS.
3. Check whether the same DTC is displayed.

No

The system is normal.

Yes

Replace the smart integrated front drive control unit.

P1BD400 Drive CPLD Running Fault of Front Drive Motor Control Module

DTC Description

| P1BD400 Drive CPLD Running Fault of Front Drive Motor Control Module | |
|--|--|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | Smart integrated front drive control unit fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of front drive motor control unit and vehicle status. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Check whether the vehicle normally shift to OK position.

No

Replace the smart integrated front drive control unit.

Yes

| | |
|---|--|
| 2 | Check the DTC of front drive motor control unit. |
|---|--|

1. In the case of safety, make the vehicle undergo rapid acceleration, rapid deceleration.
2. Read the DTC of front drive motor control module with VDS.
3. Check whether the same DTC is displayed.

No

The system is normal.

Yes

Replace the smart integrated front drive control unit.

P1BD200 Drive CPLD Detecting IGBT On-axle Fault of Front Drive Motor Control Module

DTC Description

| P1BD200 Drive CPLD Detecting IGBT On-axle Fault of Front Drive Motor Control Module | |
|---|--|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | Smart integrated front drive control unit fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check whether the vehicle can be set to OK position. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Check whether the vehicle can be set to OK position?

No

Replace the smart integrated front drive control unit.

Yes

| | |
|---|--|
| 2 | Check the DTC of front drive motor control unit. |
|---|--|

1. In the case of safety, make the vehicle undergo rapid acceleration, rapid deceleration.
2. Read the DTC of front drive motor control module with VDS.
3. Check whether the same DTC is displayed.

No

The system is normal.

Yes

Replace the smart integrated front drive control unit.

P1BD300 Drive CPLD Detecting IGBT Off-axle Fault of Front Drive Motor Control Module

DTC Description

| P1BD300 Drive CPLD Detecting IGBT Off-axle Fault of Front Drive Motor Control Module | |
|--|---|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | Smart integrated front drive control unit fault. |
| Fault setting conditions | The current exceeds the hardware overcurrent protection threshold. |
| Trigger fault conditions | When the vehicle is powered on and the current exceeds the hardware overcurrent protection threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check whether the vehicle can be set to OK position. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Check whether the vehicle can be set to OK position?

No

Replace the smart integrated front drive control unit.

Yes

| | |
|---|--|
| 2 | Check the DTC of front drive motor control unit. |
|---|--|

1. In the case of safety, make the vehicle undergo rapid acceleration, rapid deceleration.
2. Read the DTC of front drive motor control module with VDS.
3. Check whether the same DTC is displayed.

No

The system is normal.

Yes

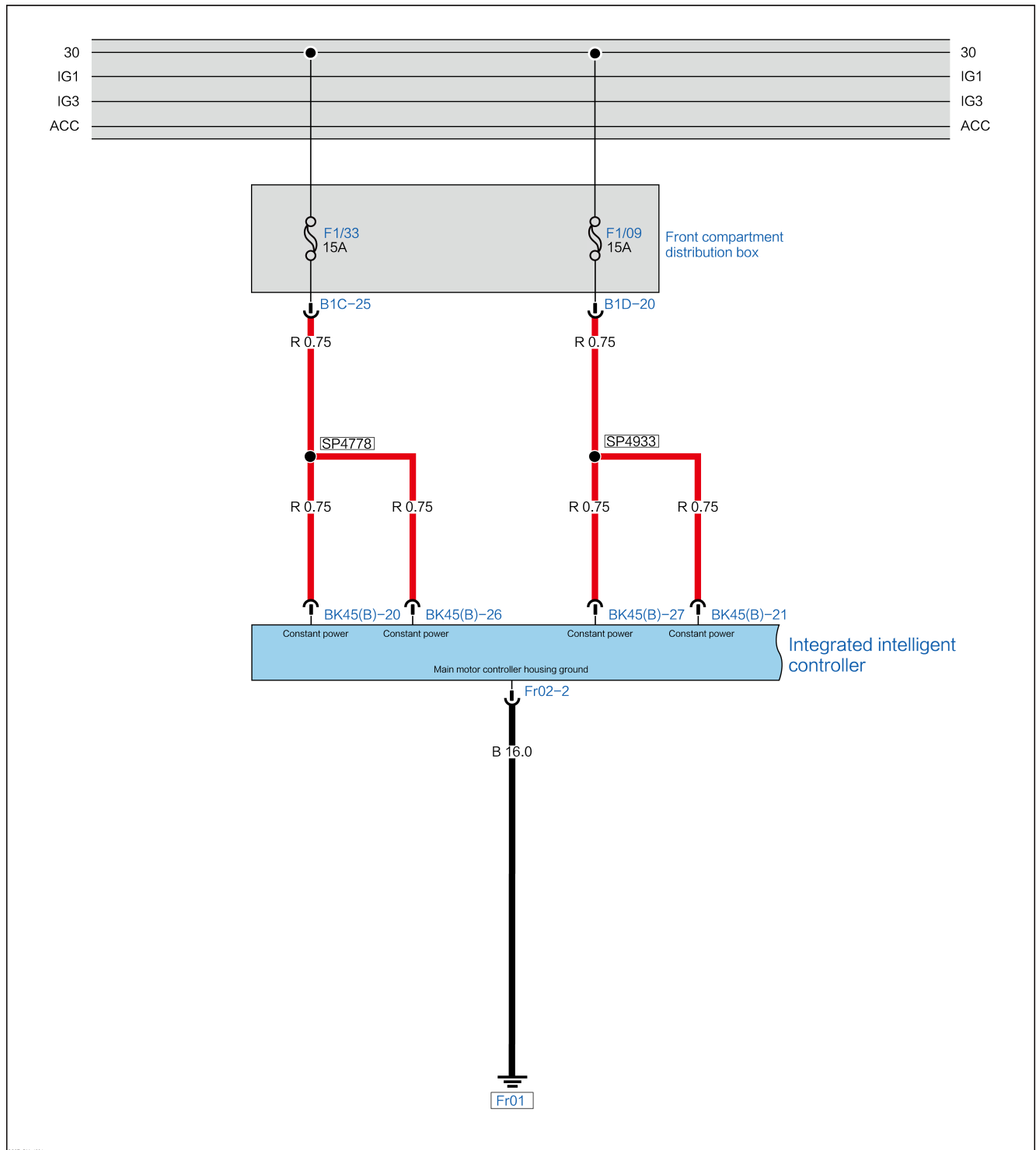
Replace the smart integrated front drive control unit.

P1B2516 Supply Voltage at Low Voltage Side Too Low

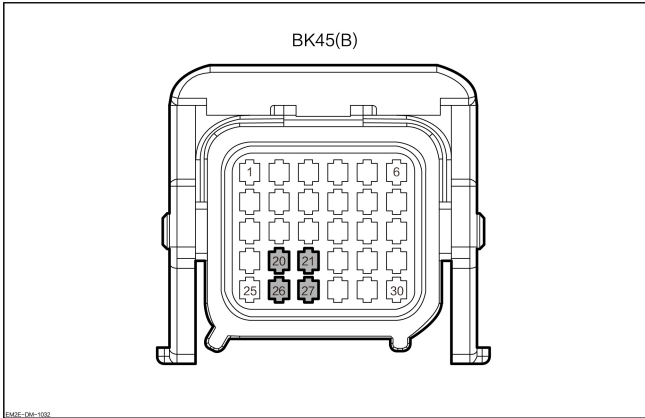
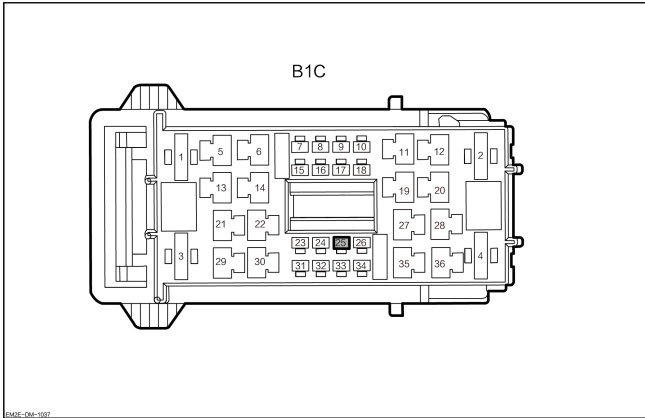
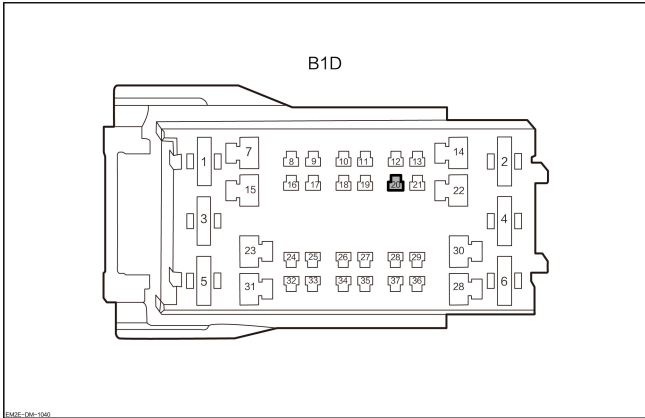
DTC Description

| P1B2516 Supply Voltage at Low Voltage Side Too Low | |
|--|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Battery fault. 3. Harness or connector fault. 4. Charging system malfunction 5. Motor controller internal fault. |
| Fault setting conditions | The low voltage is detected to be less than 9 V. |
| Trigger fault conditions | When the vehicle is powered on, and the system detects that the low voltage is less than 9 V, a DTC will be generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 20 | Constant power |
| | 21 | Constant power |
| | 26 | Constant power |
| | 27 | Constant power |
| <p>Front compartment fuse box</p>  <p>B1C</p> | 25 | Power supply of smart integrated front drive control unit |
| <p>Front compartment fuse box</p>  <p>B1D</p> | 20 | Power supply of smart integrated front drive control unit |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Inspection of the battery state |
|---|---------------------------------|

1. Set the START/STOP button to OFF.
2. Perform a battery condition test.
3. Does the battery pass the test?

No

Replace the battery

Yes

| | |
|---|--------------------------------|
| 3 | Check the DTC of DC-DC system. |
|---|--------------------------------|

1. Read the DC-DC system using the VDS.
2. Check whether DTC exists.

Yes

Enter the “DC-DC system” diagnosis.

No

| | |
|---|--|
| 4 | Check the front compartment fuse box fuse. |
|---|--|

1. Check whether the front compartment fuse box fuse F1/33(15A) and F1/9(15A) are normal?

No

Replace the fuse

Yes

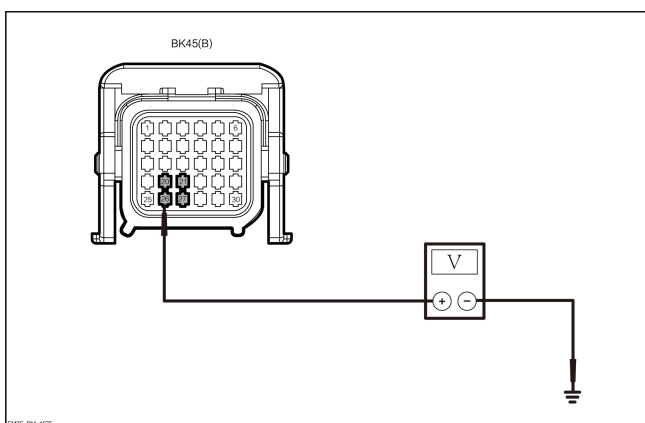
| | |
|---|--|
| 5 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
2. Check whether the harness and connector are normal.

No → Repair or replace the wire harness

Yes

6 Check the constant power supply of the integrated intelligent front drive control module.



1. Measure the voltage value between the harness connector BK45 (B)–20 of integrated intelligent front drive control module and the grounding.
2. Measure the voltage value between the harness connector BK45 (B)–26 of integrated intelligent front drive control module and the grounding.
3. Measure the voltage value between the harness connector BK45 (B)–27 of integrated intelligent front drive control module and the grounding.
4. Measure the voltage value between the harness connector BK45 (B)–21 of integrated intelligent front drive control module and the grounding.

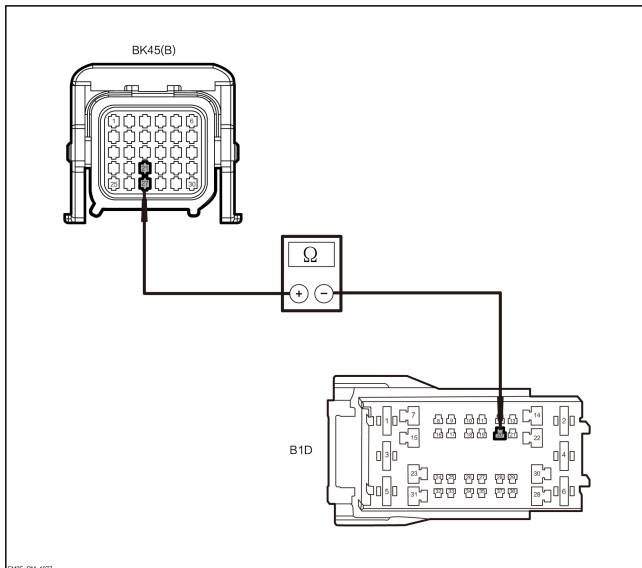
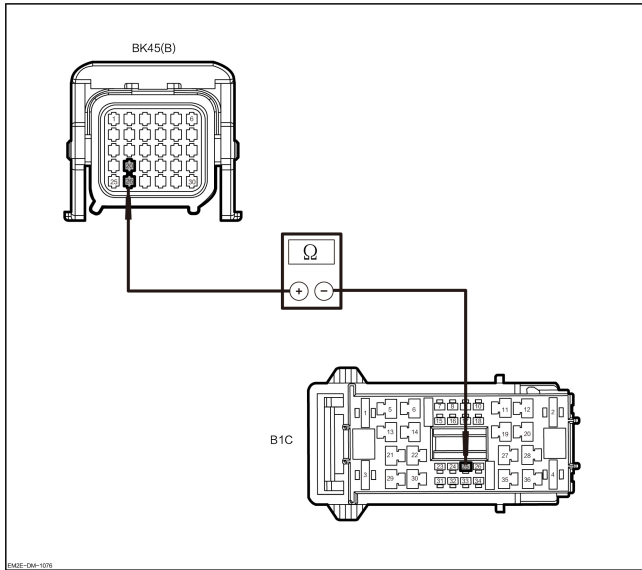
| Connector | | Condition | Voltage value |
|------------|--------|-------------|---------------|
| (+) | (-) | | |
| BK45(B)–20 | Ground | Through-out | 11~14V |
| BK45(B)–26 | | | |
| BK45(B)–27 | | | |
| BK45(B)–21 | | | |

5. Check whether the results are normal.

Yes → Go to step 8

No

7 Check whether the power supply of the integrated intelligent front drive control module is open-circuited.



1. Disconnect the harness connectors B1 C and B1 D of front compartment fuse box.
2. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-20 and B1C-25.
3. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-26 and B1C-25.
4. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-27 and B1D-20.
5. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-21 and B1D-20.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-20 | B1C-25 | Through- out | Lower than 1 Ω |
| BK45(B)-26 | | | |
| BK45(B)-27 | B1D-20 | | |
| BK45(B)-21 | | | |

6. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the ground line of integrated intelligent front drive control module.

1. Disconnect the ground line of motor control module housing Fr02.
2. Measure the resistance between the ground line of main motor control module housing Fr02-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|-----|-----------|--------------------------|
| (+) | (-) | | |
| | | | |

| | | | |
|--------|--------|-------------|-----------------------|
| Fr02-2 | Ground | Through-out | Lower than 1 Ω |
|--------|--------|-------------|-----------------------|

3. Check whether the results are normal.

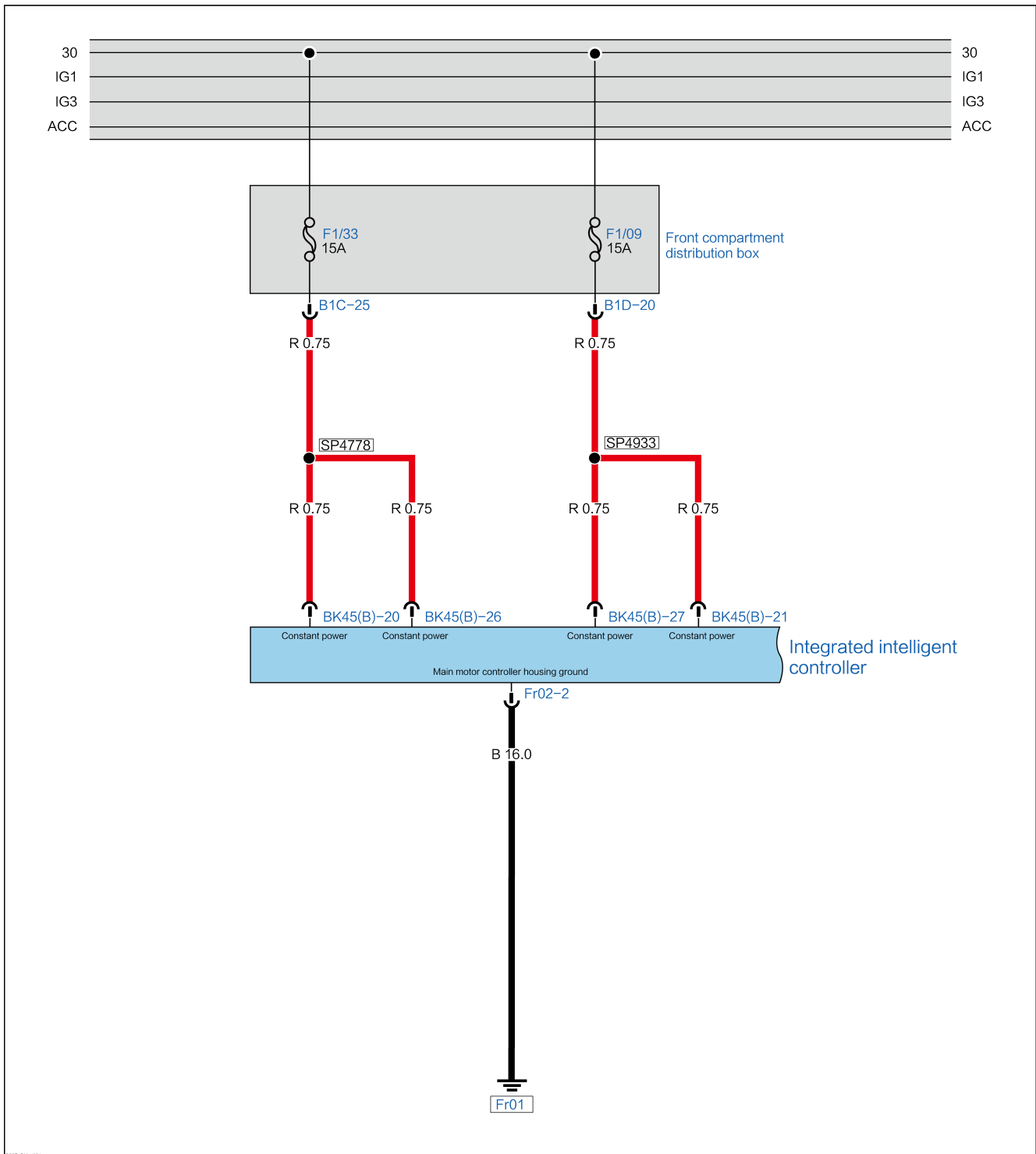
| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the smart integrated front drive control unit. |

P1B2517 Supply Voltage at Low Voltage Side Too High

DTC Description

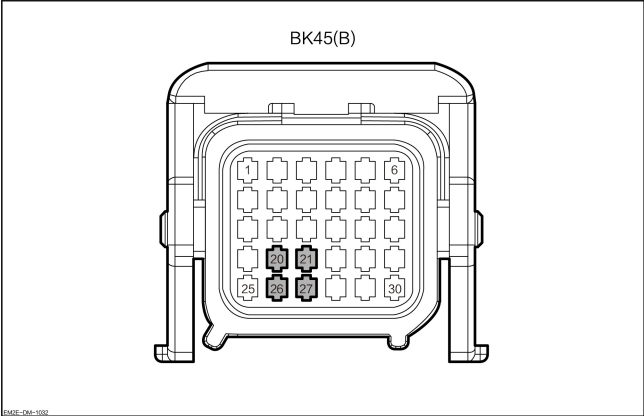
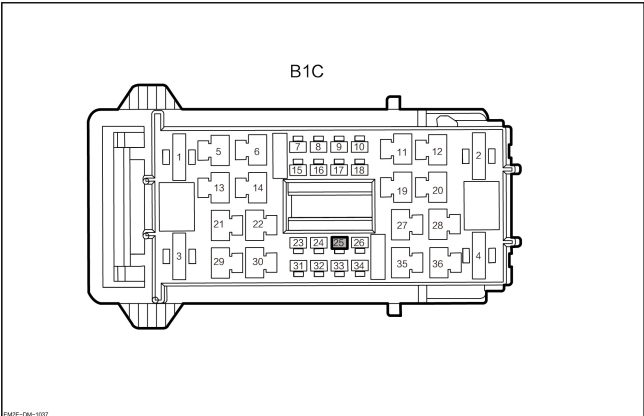
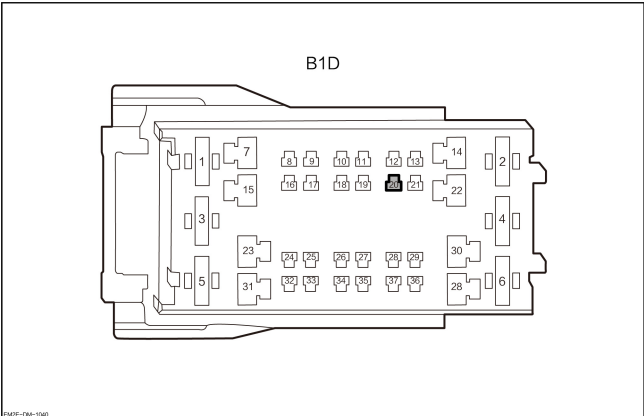
| P1B2517 Supply Voltage at Low Voltage Side Too High | |
|---|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Fuse fault.2. Battery fault.3. Harness or connector fault.4. Charging system malfunction5. Motor controller internal fault. |
| Fault setting conditions | The low voltage is detected to be greater than 18 V. |
| Trigger fault conditions | When the vehicle is powered on, and the system detects that the low voltage is greater than 18 V, a DTC will be generated. |

Circuit Diagram



SCHE-EM-1001

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|--|---|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 20 | Constant power |
| | 21 | Constant power |
| | 26 | Constant power |
| | 27 | Constant power |
| <p>Front compartment fuse box</p>  <p>B1C</p> | 25 | Power supply of smart integrated front drive control unit |
| | <p>Front compartment fuse box</p>  <p>B1D</p> | 20 |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Inspection of the battery state |
|---|---------------------------------|

1. Set the START/STOP button to OFF.
2. Perform a battery condition test.
3. Does the battery pass the test?

No

Replace the battery

Yes

| | |
|---|--------------------------------|
| 3 | Check the DTC of DC-DC system. |
|---|--------------------------------|

1. Read the DC-DC system using the VDS.
2. Check whether DTC exists.

Yes

Enter the “DC-DC system” diagnosis.

No

| | |
|---|--|
| 4 | Check the front compartment fuse box fuse. |
|---|--|

1. Check whether the front compartment fuse box fuse F1/33(15A) and F1/9(15A) are normal ?

No

Replace the fuse

Yes

| | |
|---|--|
| 5 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

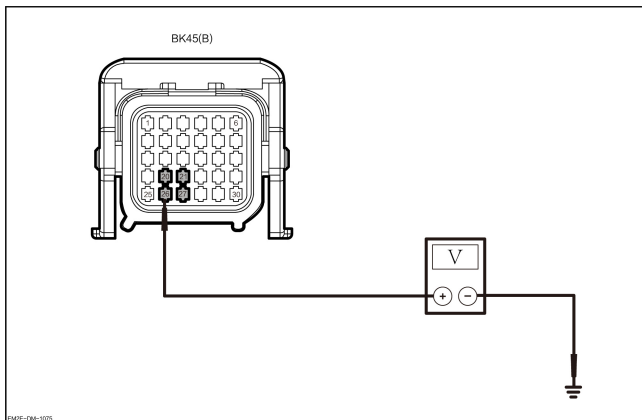
1. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
2. Check whether the harness and connector are normal.

No

Repair or replace the wire harness

Yes

6 Check the constant power supply of the integrated intelligent front drive control module.



1. Measure the voltage value between the harness connector BK45 (B)–20 of integrated intelligent front drive control module and the grounding.
2. Measure the voltage value between the harness connector BK45 (B)–26 of integrated intelligent front drive control module and the grounding.
3. Measure the voltage value between the harness connector BK45 (B)–27 of integrated intelligent front drive control module and the grounding.
4. Measure the voltage value between the harness connector BK45 (B)–21 of integrated intelligent front drive control module and the grounding.

| Connector | | Condition | Voltage value |
|------------|--------|-------------|---------------|
| (+) | (-) | | |
| BK45(B)–20 | Ground | Through-out | 11~14V |
| BK45(B)–26 | | | |
| BK45(B)–27 | | | |
| BK45(B)–21 | | | |

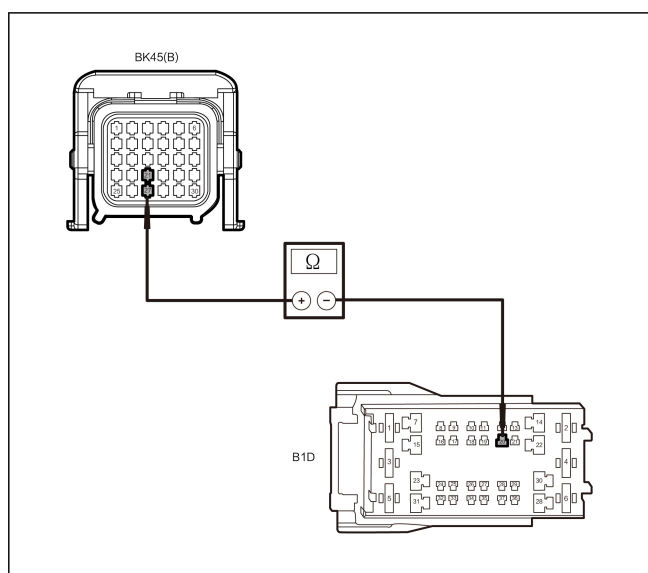
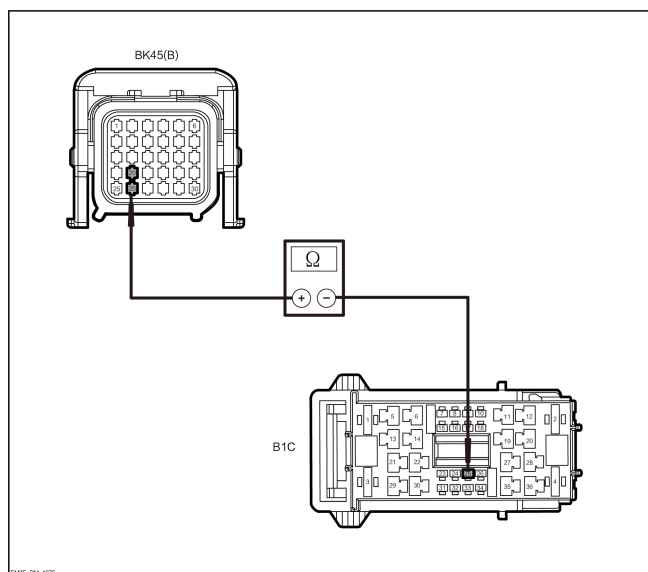
5. Check whether the results are normal.

Yes

Go to step 8

No

7 Check whether the power supply of the integrated intelligent front drive control module is open-circuited.



1. Disconnect the harness connectors B1 C and B1 D of front compartment fuse box.
2. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-20 and B1C-25.
3. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-26 and B1C-25.
4. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-27 and B1D-20.
5. Measure the resistance value between the integrated intelligent front drive control module harness connectors BK45(B)-21 and B1D-20.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-20 | B1C-25 | Through- out | Lower than 1Ω |
| BK45(B)-26 | | | |
| BK45(B)-27 | B1D-20 | | |
| BK45(B)-21 | | | |

6. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the ground line of integrated intelligent front drive control module.

1. Disconnect the ground line of motor control module housing Fr02.
2. Measure the resistance between the ground line of main motor control module housing Fr02-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|-----|-----------|--------------------------|
| (+) | (-) | | |
| | | | |

| | | | |
|--------|--------|-------------|-----------------------|
| Fr02-2 | Ground | Through-out | Lower than 1 Ω |
|--------|--------|-------------|-----------------------|

3. Check whether the results are normal.

| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the smart integrated front drive control unit. |

P1BC700 IPM Radiator of Front Drive Motor Control Module Overtemperature

DTC Description

| P1BC700 IPM Radiator of Front Drive Motor Control Module Overtemperature | |
|--|--|
| Symptom | The instrument displays the power system fault. |
| Possible Cause | 1. Cooling system faults 2. Motor controller internal fault. |
| Fault setting conditions | The temperature of the radiator exceeds specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and the radiator temperature exceeds the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the DTC of cooling system. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Use a VDS to read the left body control module DTC.
4. Check whether DTC exists.

Yes

Enter “left body control module” diagnosis.

No

| | |
|---|--|
| 2 | Check the DTC of front drive motor control unit. |
|---|--|

1. Place the vehicle at room temperature for 2 hours.
2. Set the start/stop button to ON position.
3. Read the front drive motor control module with VDS.
4. Clear DTCs.
5. Drive the vehicle to an open field and drive it normally for about 10 min.
6. Read the DTC with VDS
7. Check whether the same DTC is displayed.

No

The system is normal.

Yes

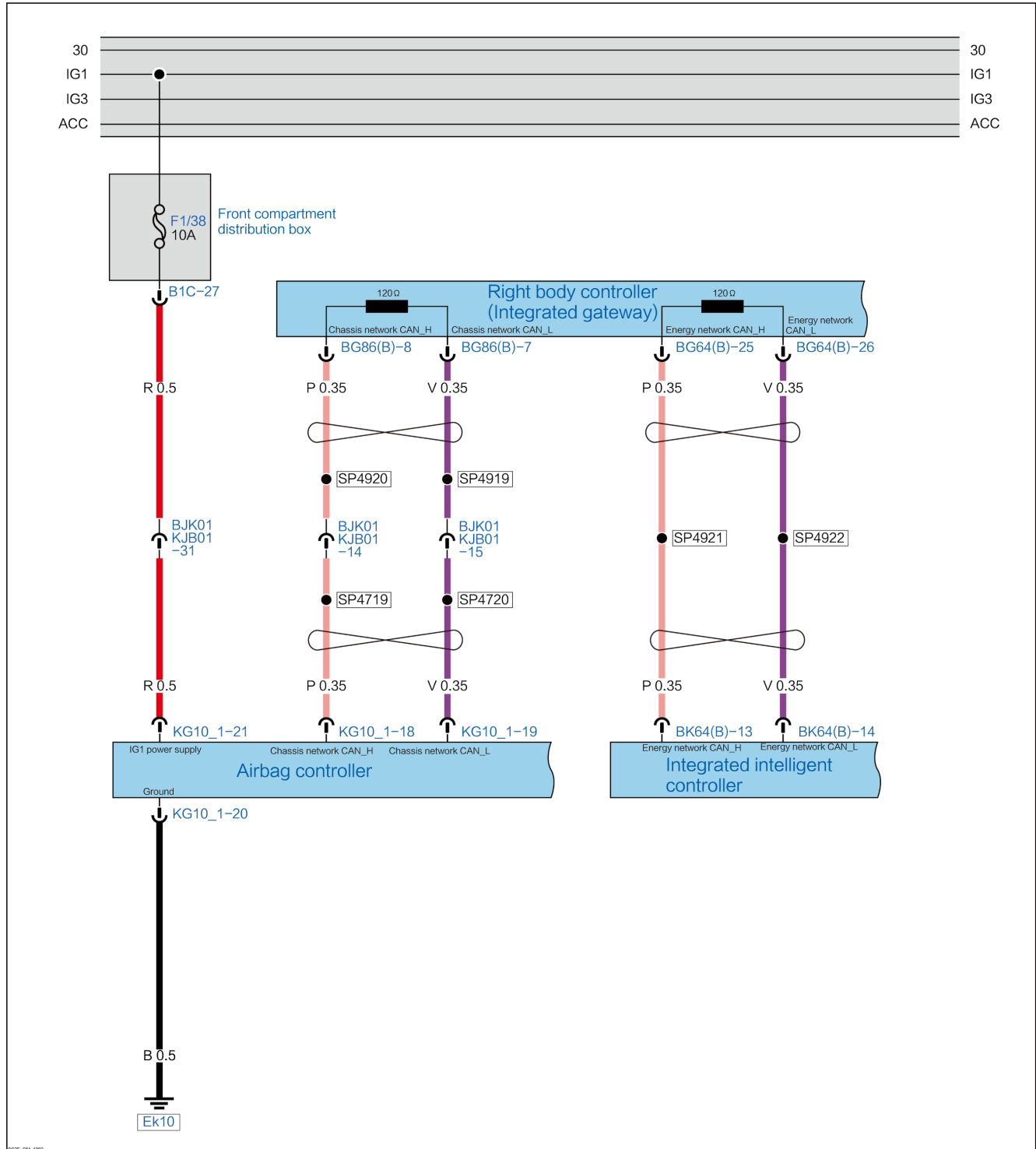
Replace the smart integrated front drive control unit.

U015129 Motor Control Module Receiving SRS ,CAN Signal Abnormal

DTC Description

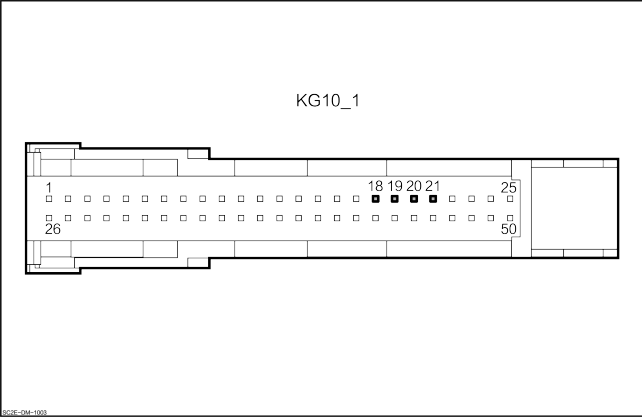
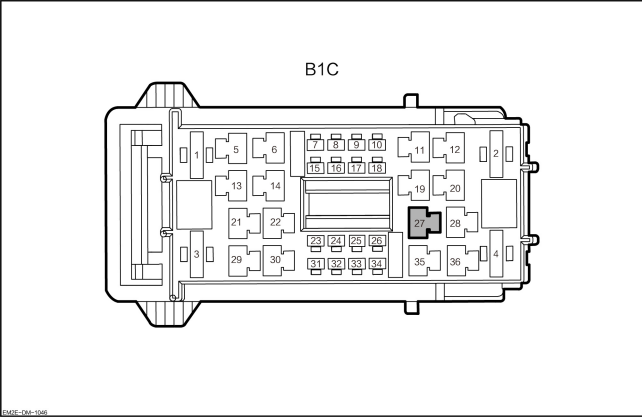
| U015129 Motor Control Module Receiving SRS ,CAN Signal Abnormal | |
|---|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Harness or connector fault. 3. Airbag control unit fault. 4. The right body control module fails. 5. Battery management system fault. |
| Fault setting conditions | No SRS message received |
| Trigger fault conditions | When the vehicle is powered on and the SRS message is not received, DTC is generated. |

Circuit Diagram



SC2E-DM-1002

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|------------------------------------|
| <p style="text-align: center;">Airbag control unit</p> <p style="text-align: center;">KG10_1</p>  <p style="font-size: small;">BME-DW-1003</p> | 18 | Chassis CAN_H |
| | 19 | Chassis CAN_L |
| | 20 | Ground |
| | 21 | IG1 power supply |
| <p style="text-align: center;">Front compartment fuse box</p> <p style="text-align: center;">B1C</p>  <p style="font-size: small;">BME-DW-1006</p> | 27 | Airbag control module power supply |

Diagnostic Steps

1 Check the communication network.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check if the airbag passes the network detection?

Yes → Go to step 8

No

2 Check the front compartment fuse box fuse.

1. Check whether the front compartment fuse box fuse F1/38 (10A) is normal or not.

No → Replace the fuse

Yes

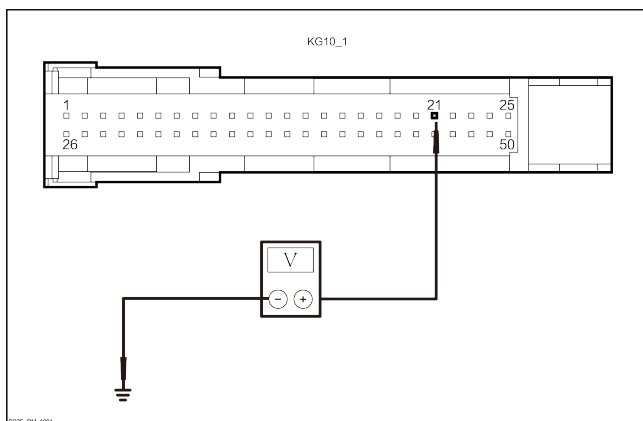
3 Check the airbag control module harness and connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of airbag control module KG10_1.
3. Check whether the airbag control module connector is normal.

No → Repair or replace the wire harness

Yes

4 Check the airbag control module IG1 power supply.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between ACU harness connector KG10_1-21 and the ground.

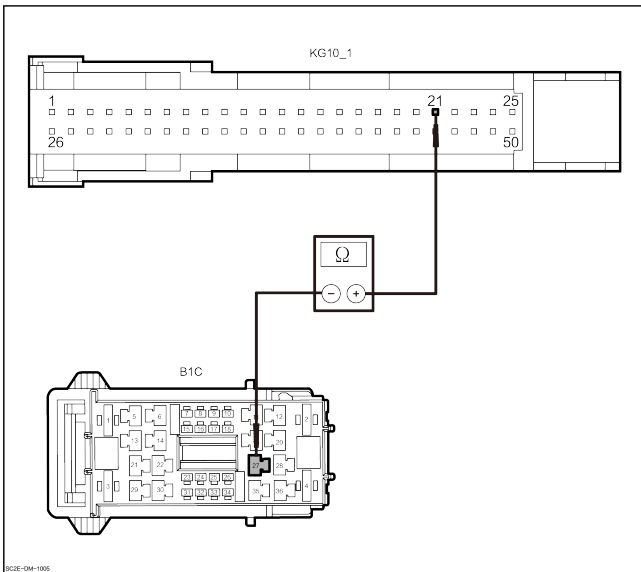
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| KG10_1-21 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes Go to step 6

No

5 Check whether the power supply of the airbag control module is open circuited.



1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1C.
3. Measure the resistance between the harness connector of airbag control module KG10_1-21 and the harness connector of front compartment fuse box B1C-27.

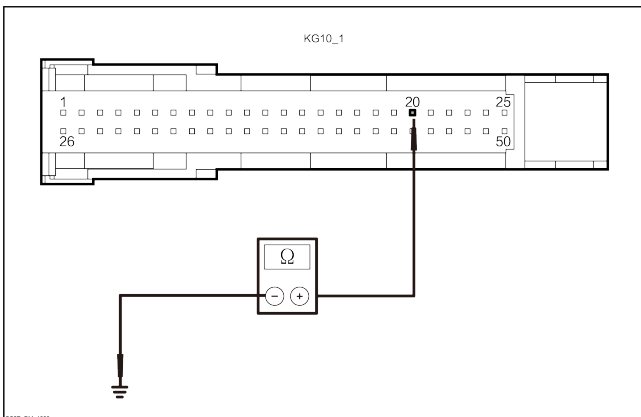
| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| KG10_1- 21 | B1C-27 | Through- out | Lower than 1Ω |

4. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the front compartment fuse box.

6 Check the airbag control module ground line.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance between the harness connector KG10_1-20 and the ground.

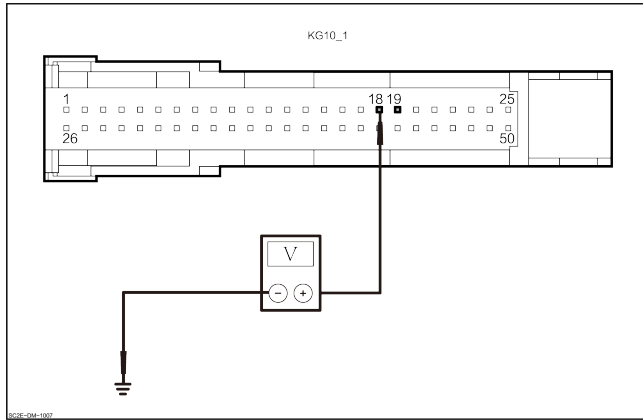
| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| KG10_1- 20 | Ground | Through- out | Lower than 1Ω |

3. Check whether the results are normal.

No Repair or replace the wire harness

Yes

7 Check whether the airbag control module CAN is open circuited.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between ACU harness connector KG10_1-18 and the ground.
3. Measure the voltage between ACU harness connector KG10_1-19 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| KG10_1-18 | Ground | Through-out | 2.5~3.5V |
| KG10_1-19 | | | 1.5~2.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the airbag control unit.

8 Check the DTC of airbag system.

1. Read the DTC of airbag with VDS.
2. Check whether other DTC exists.

Yes → Enter the “Airbag” diagnosis.

No

9 Check the DTC of front drive motor control unit.

1. Read the DTC of front drive motor control module with VDS.
2. Check whether other DTC exists.

Yes → Enter the “Front drive motor control unit” diagnosis.

No

10 Check the DTC of other modules.

1. Does the other module read the fault code of communication failure with the airbag ECU?

Yes → Replace the airbag control unit.

No → Replace the smart integrated front drive control unit.

P1BC000 Front Drive Motor Rotary Transformer Fault – Angle Abnormal

DTC Description

| P1BC000 Front Drive Motor Rotary Transformer Fault – Angle Abnormal | |
|---|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Drive motor fault. 3. Motor controller fault. |
| Fault setting conditions | loss of front drive motor rotary transformer signal. |
| Trigger fault conditions | When the vehicle is powered on and the system receives that the rotary transformer signal of the front drive motor is lost, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the motor rotary transformer connector harness and connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Remove the end cover at the connection between the integrated intelligent front drive control module and the drive motor copper bar.
3. Check whether the motor rotary transformer harness and connector is normal?

No → Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Inspect the motor resolver connector resistance. |
|---|--|

1. Measure the resistance value between terminals 3 and 8 of the rotary transformer connector.
2. Measure the resistance value between terminals 4 and 9 of the rotary transformer connector.
3. Measure the resistance value between terminals 5 and 10 of the rotary transformer connector.

| Connector | | Wire color | Resist- ance value |
|-----------|-----|--------------------|--------------------------------|
| (+) | (-) | | |
| 3 | 8 | White and green | Excita- tion: 20 Ω ± 5 Ω |

| | | | |
|---|----|-----------------|---------------------------------------|
| 4 | 9 | Red and black | Cosine: $60\ \Omega \pm 5\ \Omega$ |
| 5 | 10 | Yellow and blue | Sine: $60\ \Omega \pm 5\ \Omega$ |

4. Check whether the results are normal.

| | |
|-----|--|
| No | Replace the drive motor assembly. |
| Yes | Replace the smart integrated front drive control unit. |

P1BBF00 Front Drive Motor Rotary Transformer Fault – Signal Lost

DTC Description

| P1BBF00 Front Drive Motor Rotary Transformer Fault – Signal Lost | |
|--|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Drive motor fault.3. Motor controller fault. |
| Fault setting conditions | loss of front drive motor rotary transformer signal. |
| Trigger fault conditions | When the vehicle is powered on and the system receives that the rotary transformer signal of the front drive motor is lost, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the motor rotary transformer connector harness and connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Remove the end cover at the connection between the integrated intelligent front drive control module and the drive motor copper bar.
3. Check whether the motor rotary transformer harness and connector is normal?

No → Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Inspect the motor resolver connector resistance. |
|---|--|

1. Measure the resistance value between terminals 3 and 8 of the rotary transformer connector.
2. Measure the resistance value between terminals 4 and 9 of the rotary transformer connector.
3. Measure the resistance value between terminals 5 and 10 of the rotary transformer connector.

| Connector | | Wire color | Resist- ance value |
|-----------|-----|-----------------|--------------------------------|
| (+) | (-) | | |
| 3 | 8 | White and green | Excita- tion: 20 Ω ± 5 Ω |

| | | | |
|---|----|-----------------|---------------------------------------|
| 4 | 9 | Red and black | Cosine: $60\ \Omega \pm 5\ \Omega$ |
| 5 | 10 | Yellow and blue | Sine: $60\ \Omega \pm 5\ \Omega$ |

4. Check whether the results are normal.

No

Replace the drive motor assembly.

Yes

Replace the smart integrated front drive control unit.

P1BC100 Front Drive Motor Rotary Transformer Fault– Signal Amplitude Decreasing

DTC Description

| P1BC100 Front Drive Motor Rotary Transformer Fault– Signal Amplitude Decreasing | |
|---|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Drive motor fault. 3. Motor controller fault. |
| Fault setting conditions | loss of front drive motor rotary transformer signal. |
| Trigger fault conditions | When the vehicle is powered on and the system receives that the rotary transformer signal of the front drive motor is lost, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the motor rotary transformer connector harness and connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Remove the end cover at the connection between the integrated intelligent front drive control module and the drive motor copper bar.
3. Check whether the motor rotary transformer harness and connector is normal?

No Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Inspect the motor resolver connector resistance. |
|---|--|

1. Measure the resistance value between terminals 3 and 8 of the rotary transformer connector.
2. Measure the resistance value between terminals 4 and 9 of the rotary transformer connector.
3. Measure the resistance value between terminals 5 and 10 of the rotary transformer connector.

| Connector | | Wire color | Resist- ance value |
|-----------|-----|-----------------|--------------------------------|
| (+) | (-) | | |
| 3 | 8 | White and green | Excita- tion: 20 Ω ± 5 Ω |

| | | | |
|---|----|-----------------|---------------------------------------|
| 4 | 9 | Red and black | Cosine: $60\ \Omega \pm 5\ \Omega$ |
| 5 | 10 | Yellow and blue | Sine: $60\ \Omega \pm 5\ \Omega$ |

4. Check whether the results are normal.

| | |
|-----|--|
| No | Replace the drive motor assembly. |
| Yes | Replace the smart integrated front drive control unit. |

P1BB900 Cap Opening Protection of Front Drive Motor Control Module

DTC Description

| P1BB900 Cap Opening Protection of Front Drive Motor Control Module | |
|--|--|
| Symptom | – |
| Possible Cause | The front drive motor control module maintenance cap is not assembled in place. |
| Fault setting conditions | Cap opening protection of front drive motor control unit |
| Trigger fault conditions | When the system receives the signal that the front drive motor control module maintenance cap is not assembled in place, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Inspect the integrated intelligent front drive control module maintenance cap. |
|---|--|

1. Check whether the integrated intelligent front drive control module maintenance cap is properly assembled.

No

Reassemble and assemble the maintenance cap.

Yes

| | |
|---|---|
| 3 | Check the protective switch of integrated intelligent front drive control module cover. |
|---|---|

1. Disconnect the negative pole of battery.
2. Remove maintenance cap from the integrated intelligent front drive control module.
3. Check whether the cap protection switch of the integrated intelligent front drive control module is normal.

No

Repair or replace the maintenance cap.

Yes

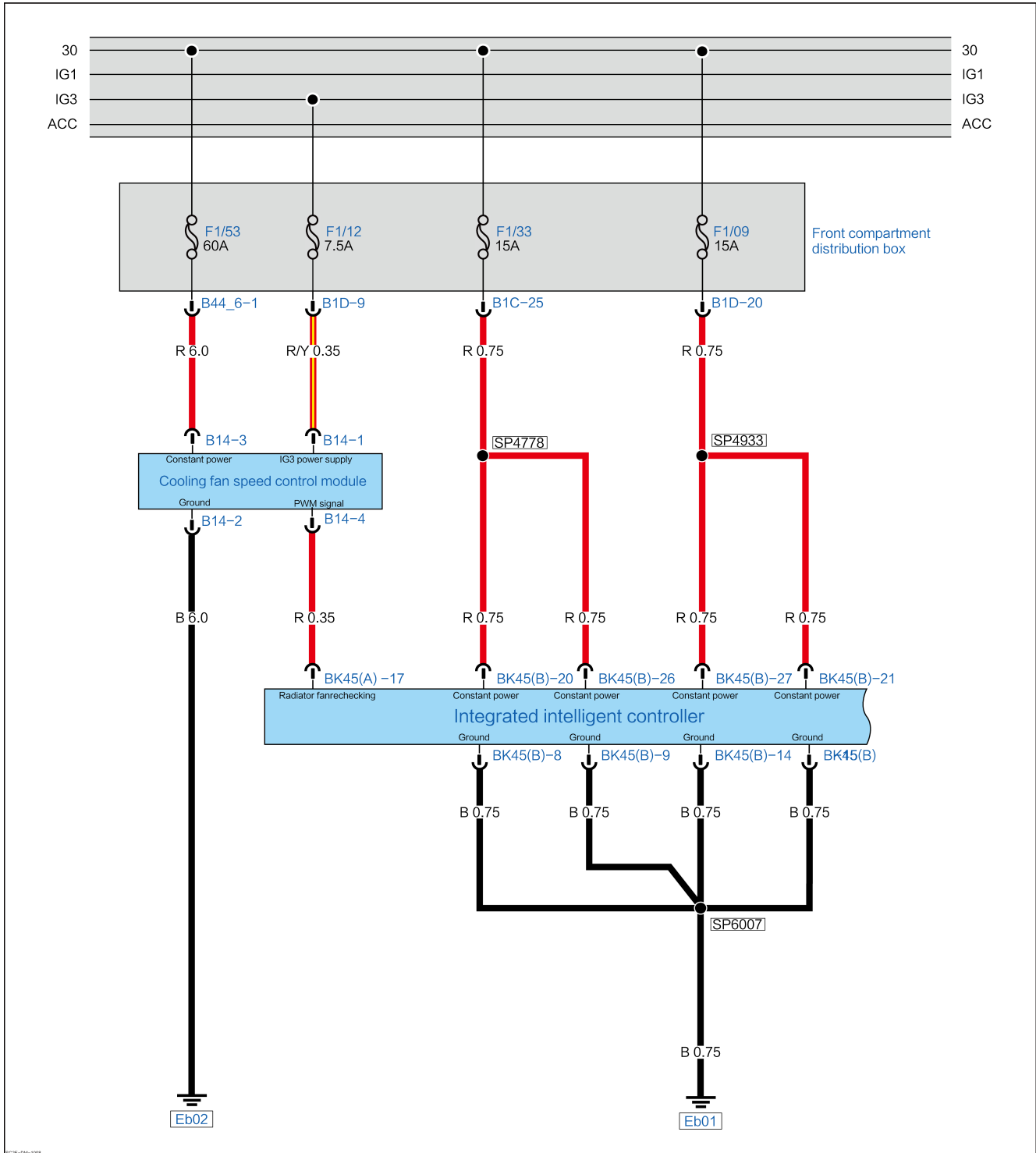
Replace the smart integrated front drive control unit.

P1D6A00 Stepless Fan Motor Open-circuited

DTC Description

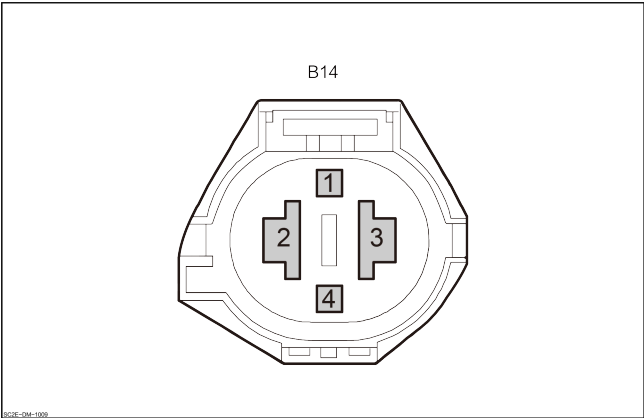
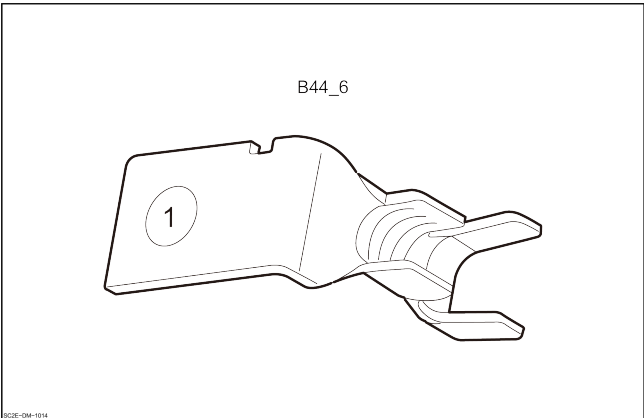
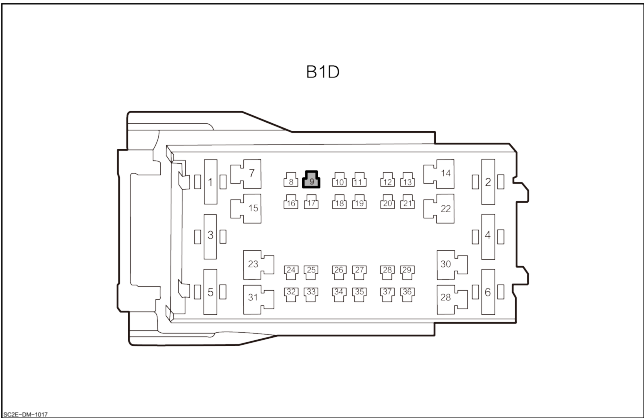
| P1D6A00 Stepless Fan Motor Open-circuited | |
|---|---|
| Symptom | The cooling fan does not work, the heat dissipation is poor, or the coolant temperature rises abnormally. |
| Possible Cause | <ol style="list-style-type: none">1. Fuse fault.2. Harness or connector fault.3. Radiator fan failure4. Smart integrated front drive control unit fault. |
| Fault setting conditions | Open circuit of stepless fan motor. |
| Trigger fault conditions | When the system receives the motor open circuit signal of the stepless fan, DTC is generated. |

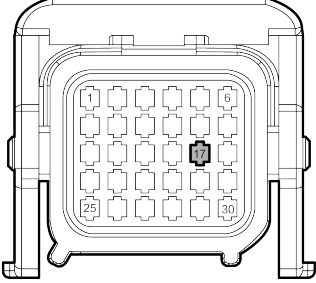
Circuit Diagram



SCHE-DM-1008

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|------------------------------|
| <p>Radiator fan speed regulation module</p>  <p>B14</p> | 1 | IG3 power supply |
| | 2 | Ground |
| | 3 | Constant power |
| | 4 | PWM signal |
| <p>Front compartment fuse box</p>  <p>B44_6</p> | 1 | Cooling fan constant power |
| <p>Front compartment fuse box</p>  <p>B1D</p> | 9 | Cooling fan IG1 power supply |
| <p>Integrated intelligent control module</p> | 17 | Cooling fan recheck |

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">BK45(A)</p>  <p style="font-size: small; margin-top: 10px;">6032-094-010</p> | | |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of front drive motor control unit. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the cooling fan harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the cooling fan harness connector B14.
3. Check the cooling fan harness connector for corrosion, damage, pin withdrawing, etc.

Yes

Repair or replace the wire harness

No

| | |
|---|---|
| 3 | Check the harness connector of integrated intelligent control module. |
|---|---|

1. Disconnect the harness connector BK45(A) of the integrated intelligent control module.
2. Check the harness connector of integrated intelligent control module for corrosion, damage, pin failure and other faults.

Yes

Repair or replace the wire harness

No

| | |
|---|--|
| 4 | Check the front compartment fuse box fuse. |
|---|--|

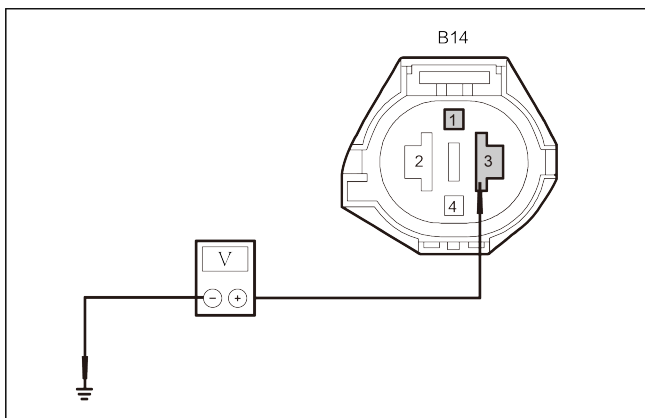
1. Check whether the front compartment fuse box fuse F1/53(60A) and F1/12(7.5A) are normal?

No

Replace the fuse

Yes

5 Check the power line of cooling fan for open circuit.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of cooling fan B14-3 and the ground.
3. Measure the voltage between the harness connector of cooling fan B14-1 and the ground.

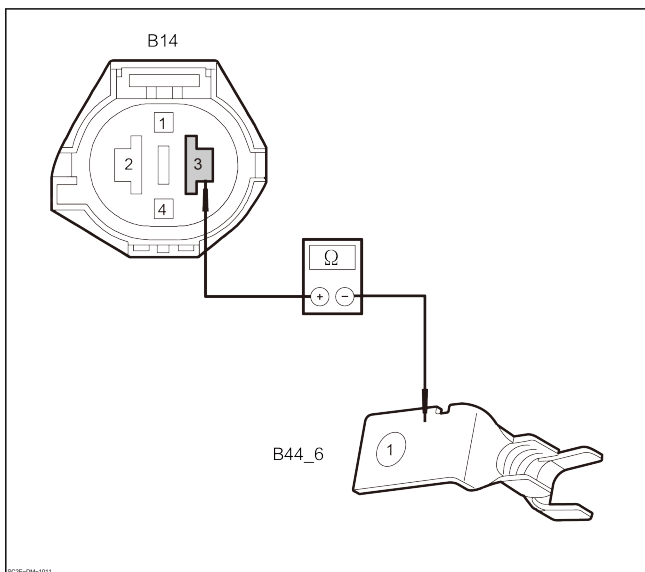
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B14-3 | Ground | Through-out | 11~14V |
| B14-1 | | | |

4. Check whether the results are normal.

Yes Go to step 7

No

6 Check the power line of cooling fan for open circuit.



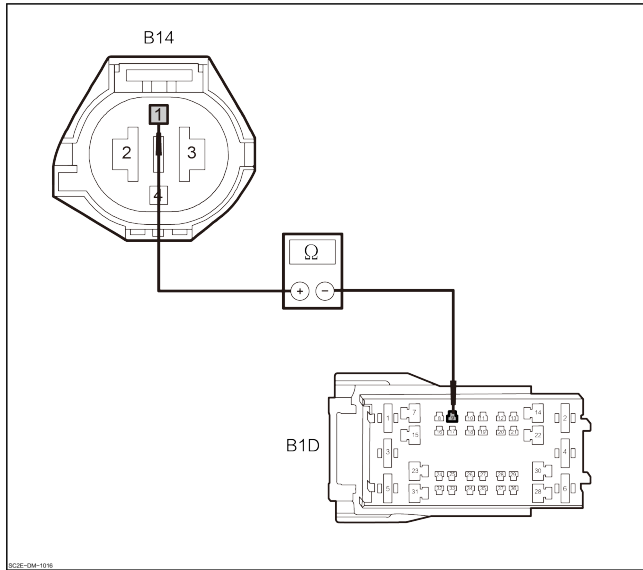
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connectors of front compartment fuse box B44_6 and B1D.
3. Measure the resistance between the harness connector of cooling fan B14-3 and the harness connector of front compartment fuse box B44_6-1.
4. Measure the resistance value between the cooling fan harness connector B14-1 and the front compartment fuse box harness connector B1D_9.

| Connector | | Condition | Resistance value |
|-----------|---------|-------------|------------------|
| (+) | (-) | | |
| B14-3 | B44_6-1 | Through-out | Lower than 1Ω |
| B14-1 | B1D_9 | | |

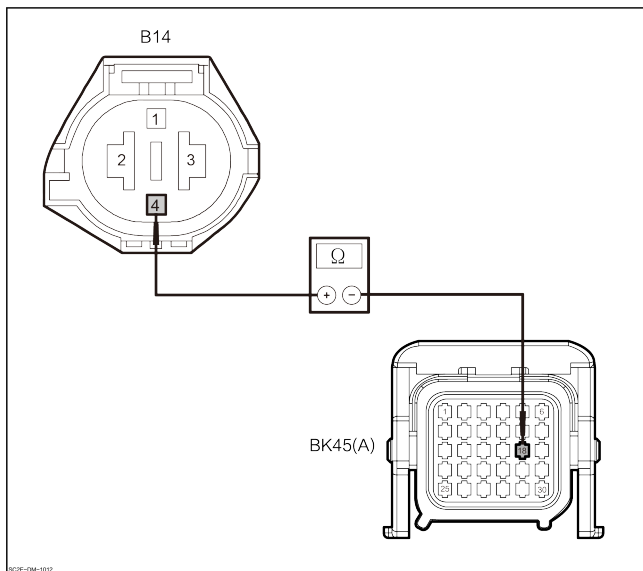
5. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the front compartment fuse box.



7 Check the signal line of cooling fan for open circuit.



1. Measure the resistance between the harness connector of cooling fan B14-4 and the integrated intelligent control module BK45(A)-17.

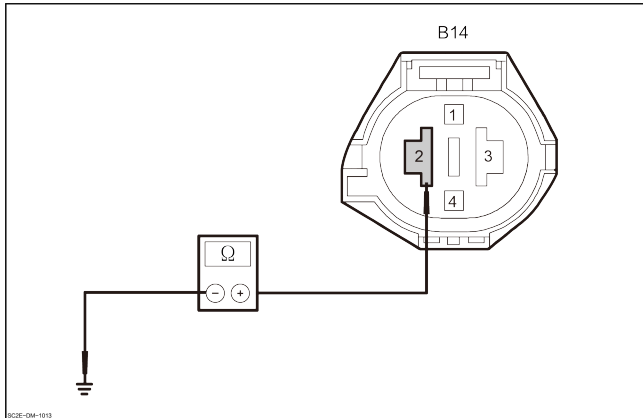
| Connector | | Condition | Resistance value |
|-----------|------------|-------------|------------------|
| (+) | (-) | | |
| B14-4 | BK45(A)-17 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the cooling fan ground line.



1. Measure the resistance value between the cooling fan harness connector B14-2 and ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B14-2 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

- No → Repair or replace the wire harness
- Yes → Replace the cooling fan.

DTC of Battery Management Control Module

List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|--|--|
| U110387 | Communication with airbag ECU failed | U110387 Communication with Airbag ECU Failed |
| P1AC000 | Collision Alarm of Airbag ECU | P1AC000 Collision Alarm of Airbag ECU |
| P1A6000 | High Voltage Interlock (HVIL) 1 Fault | P1A6000 High Voltage Interlock 1 Fault |
| P1AFC00 | On-board Charger High Voltage Interlock Fault | P1AFC00 On-board Charger High Voltage Interlock Fault |
| P1AFD00 | DC-DC High Voltage Interlock Fault | P1AFD00 DC-DC High Voltage Interlock Fault |
| P1AFB00 | Air Conditioner System High Voltage Interlock Fault | P1AFB00 A/C System High Voltage Interlock Fault |
| U014B87 | Communication with DC Charging Cabinet Failed | U014B87 Communication with DC Charging Cabinet Failed |
| P1AD900 | Temperature Sampling Point at Charging Port Abnormal | P1AD900 Temperature Sampling Point of Charging Port Abnormal |
| P1AD44B | Temperature of Charging Port 1 General High | P1AD44B Temperature of Charging Port 1 Generally High |
| P1AD54B | Temperature of Charging Port 2 General High | P1AD54B Temperature of Charging Port 2 Generally High |
| P1AD698 | Temperature of Charging Port 3 General High | P1AD698 Temperature Rise of Charging Port 3 Seriously High |
| U015587 | Communication with Combination Instrument Failed –HMFD | U015587 Communication with Combination Instrument Failed |
| P1AC900 | DC Charging Inductive Signal Circuit Broken | P1AC900 DC Charging Inductive Signal Circuit Broken |
| P1AE800 | DC Charging Positive Contactor Recheck Fault | P1AE800 DC Charging Anode Contactor Loop Check Fault |
| P1AE900 | DC Charging Negative Contactor Recheck Fault | P1AE900 DC Charging Cathode Contactor Loop Check Fault |
| P1ACB07 | DC Charging Positive Contactor Sintering | P1ACB07 DC Charging Anode Contactor Sintering |
| P1ACC07 | DC Charging Negative Contactor Sintering | P1ACC07 DC Charging Cathode Contactor Sintering |

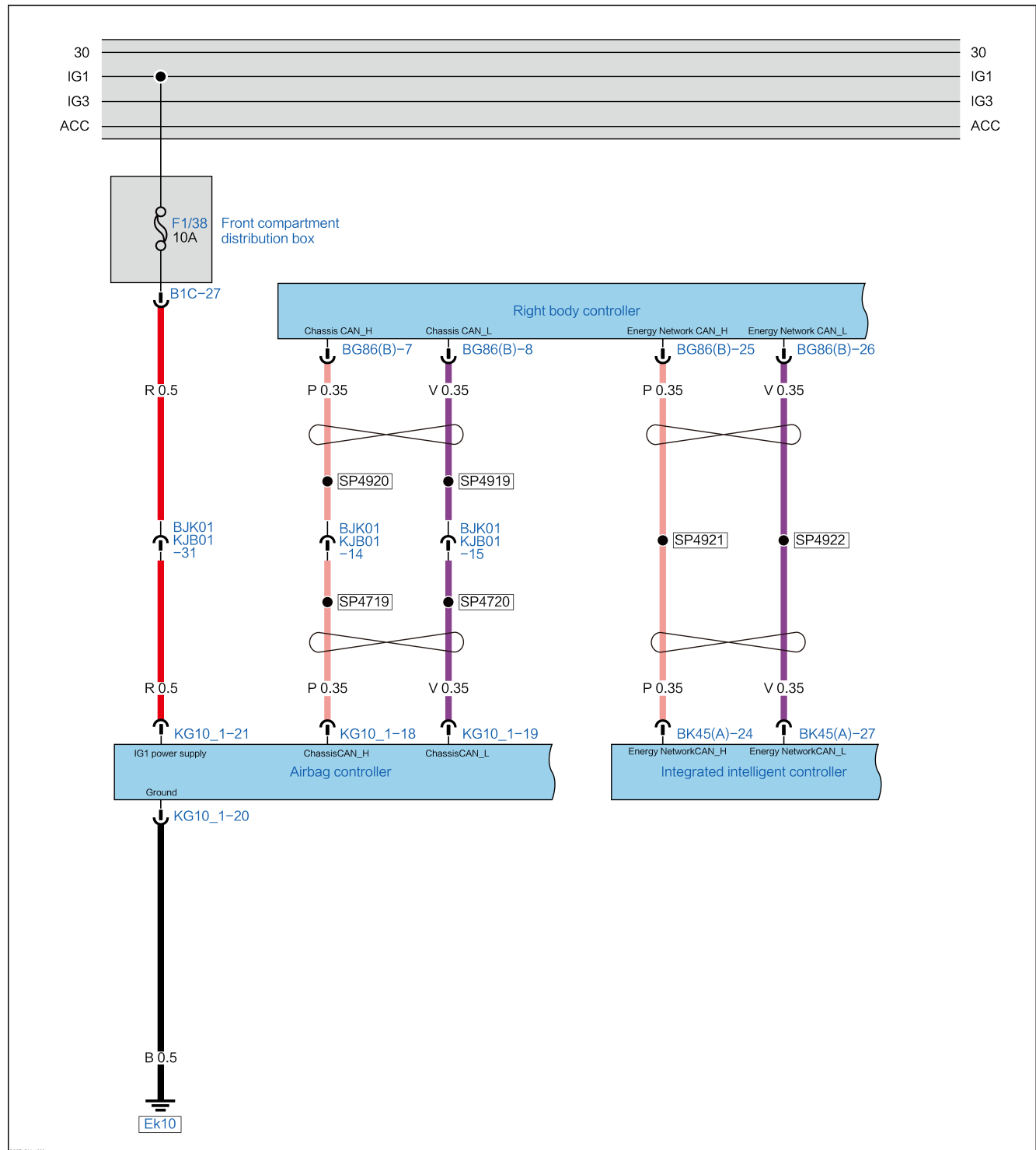
| DTC: | Meaning | Diagnostic Process |
|---------|--------------------------------------|--|
| P2B9100 | Voltage of DC Charging Port Abnormal | P2B9100 Voltage of DC Charging Port Abnormal |

U110387 Communication with Airbag ECU Failed

DTC Description

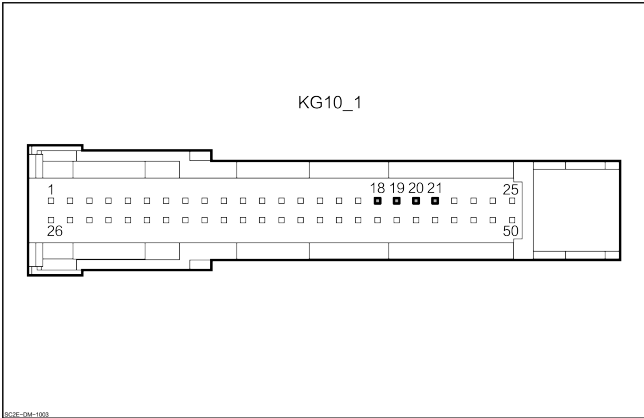
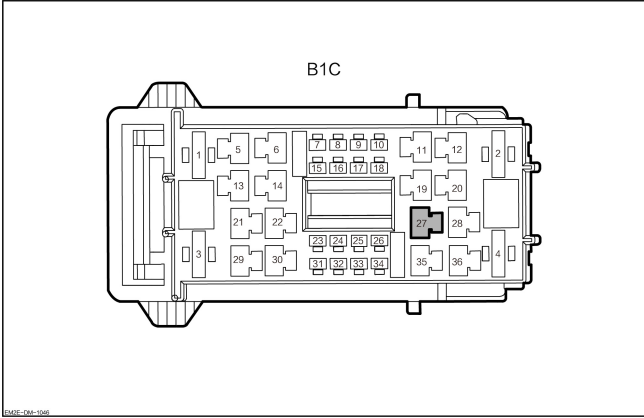
| U110387 Communication with Airbag ECU Failed | |
|--|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Harness or connector fault. 3. Airbag control unit fault. 4. The right body control module fails. 5. Battery management system fault. |
| Fault setting conditions | Abnormal communication with airbag ECU. |
| Trigger fault conditions | During the vehicle powered on process, if the dynamic body control module fails to receive any message from the airbag ECU, this DTC is generated. |

Circuit Diagram



SCHE-EM-1902

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|------------------------------------|
| <p style="text-align: center;">Airbag control unit</p> <p style="text-align: center;">KG10_1</p>  <p><small>828E-DIM-1003</small></p> | 18 | Chassis CAN-H |
| | 19 | Chassis CAN-L |
| | 20 | Ground |
| | 21 | IG1 power supply |
| <p style="text-align: center;">Front compartment fuse box</p> <p style="text-align: center;">B1C</p>  <p><small>828E-DIM-1002</small></p> | 27 | Airbag control module power supply |

Diagnostic Steps

1 Check the communication network.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check if the airbag passes the network detection?

Yes → Go to step 8

No

2 Check the front compartment fuse box fuse.

1. Check whether the front compartment fuse box fuse F1/38 (10A) is normal or not.

No → Replace the fuse

Yes

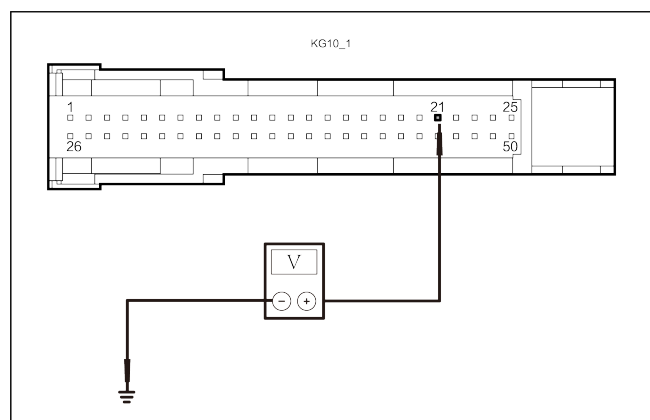
3 Check the airbag control module harness and connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of airbag control module KG10_1.
3. Check whether the airbag control module connector is normal.

No → Repair or replace the wire harness

Yes

4 Check the airbag control module IG1 power supply.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between ACU harness connector KG10_1-21 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| KG10_1-21 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

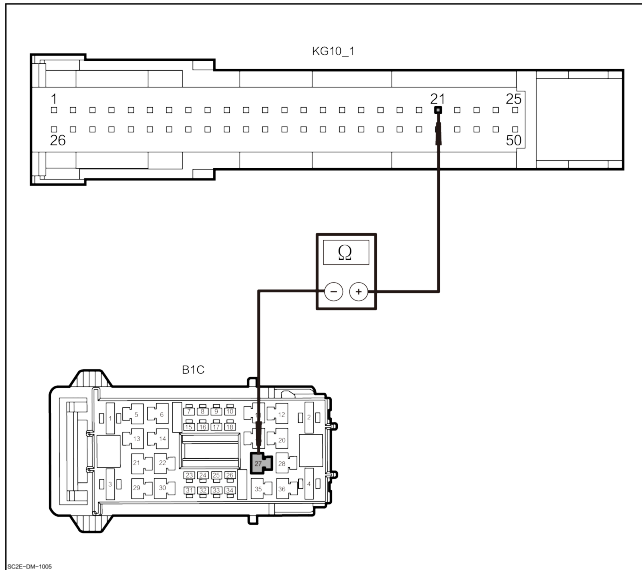
Yes

Go to step 6

No

5

Check whether the power supply of the airbag control module is open circuited.



1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1C.
3. Measure the resistance between the harness connector of airbag control module KG10_1–21 and the harness connector of front compartment fuse box B1C–27.

| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| KG10_1- 21 | B1C-27 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

No

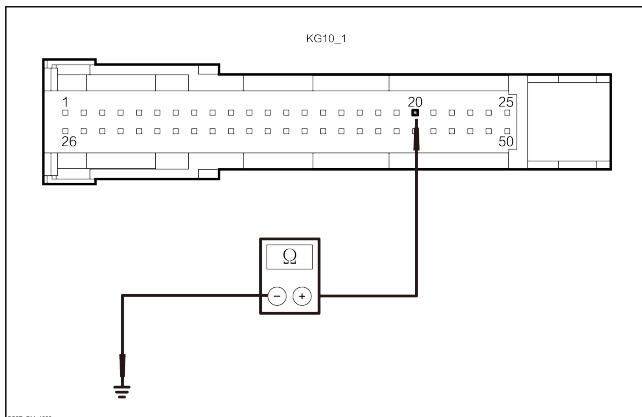
Repair or replace the wire harness

Yes

Replace the front compartment fuse box.

6

Check the airbag control module ground line.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance between the harness connector KG10_1–20 and the ground.

| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| KG10_1- 20 | Ground | Through- out | Lower than 1 Ω |

3. Check whether the results are normal.

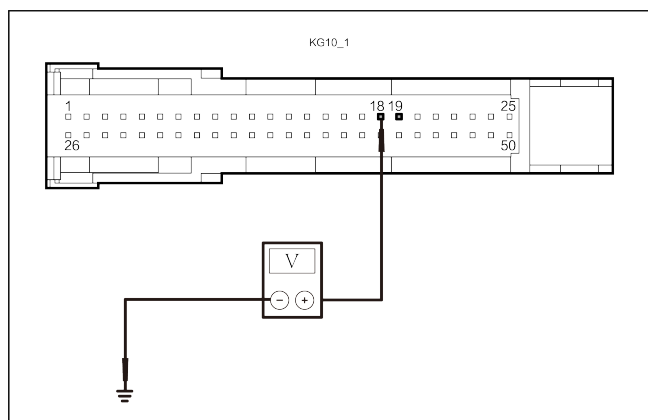
No

Repair or replace the wire harness

Yes

7

Check whether the airbag control module CAN is open circuited.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between ACU harness connector KG10_1-18 and the ground.
3. Measure the voltage between ACU harness connector KG10_1-19 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| KG10_1-18 | Ground | Through-out | 2.5~3.5V |
| KG10_1-19 | | | 1.5~2.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the airbag control unit.

8 Check the DTC of airbag system.

1. Read the DTC of airbag with VDS.
2. Check whether other DTC exists.

Yes → Enter “airbag diagnosis” .

No

9 Check the dynamic body control module DTC.

1. Use a VDS to read the power body control module DTC.
2. Check whether other DTC exists.

Yes → Enter “power body control module diagnosis” .

No

10 Check the DTC of other modules.

1. Does the other module read the fault code of communication failure with the airbag ECU?

Yes → Replace the airbag control unit.

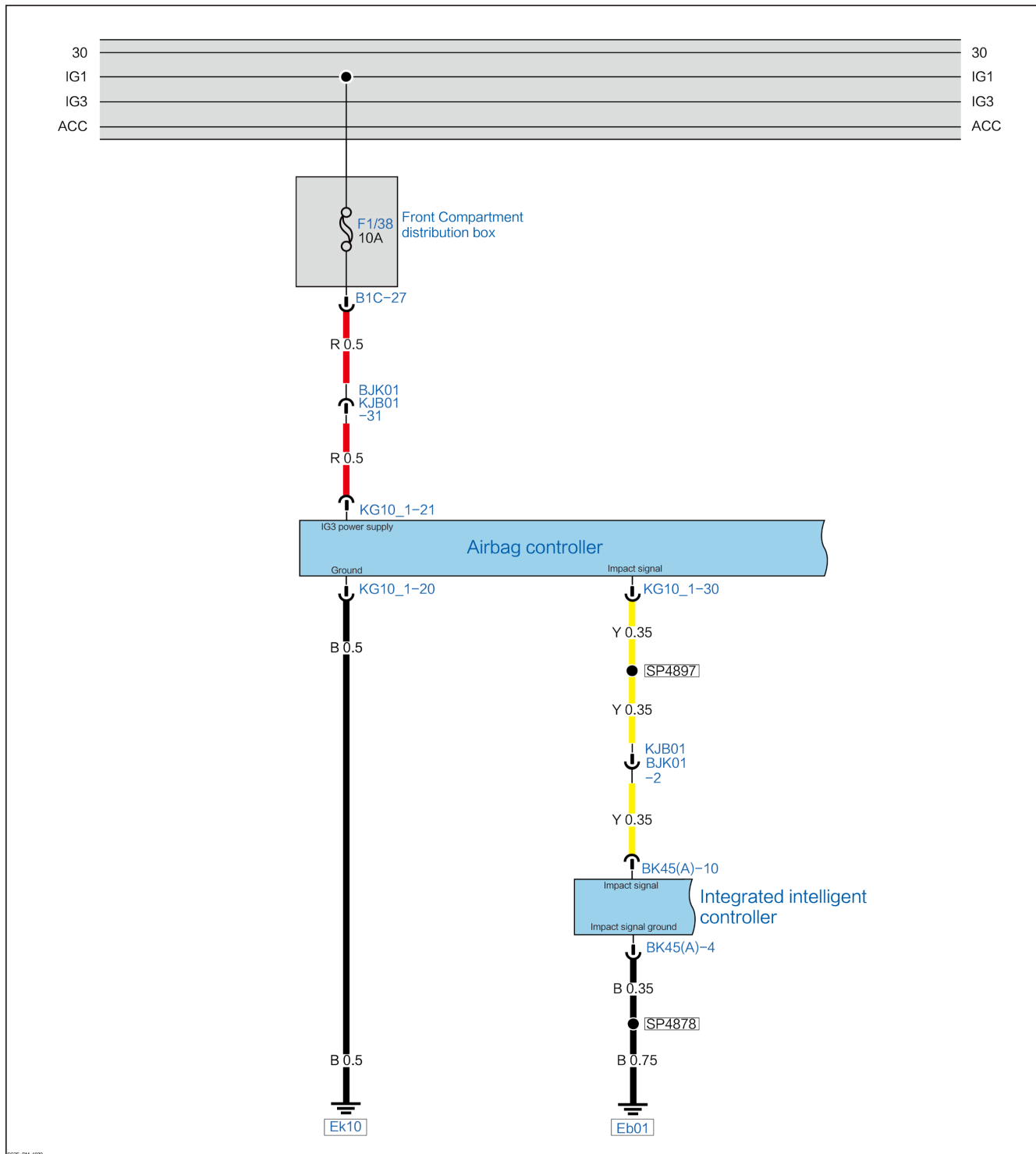
No → Replace the smart integrated front drive control unit.

P1AC000 Airbag ECU collision alarm

DTC Description

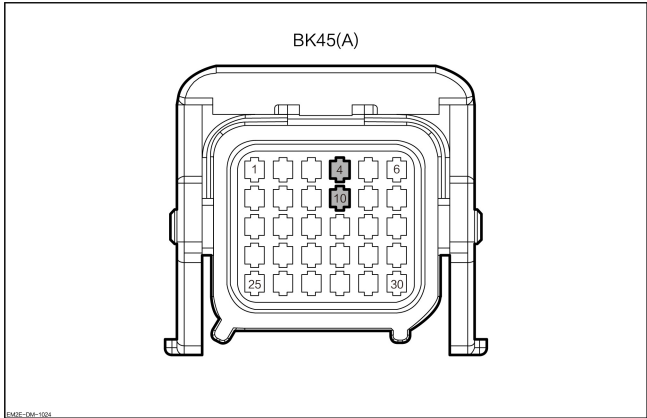
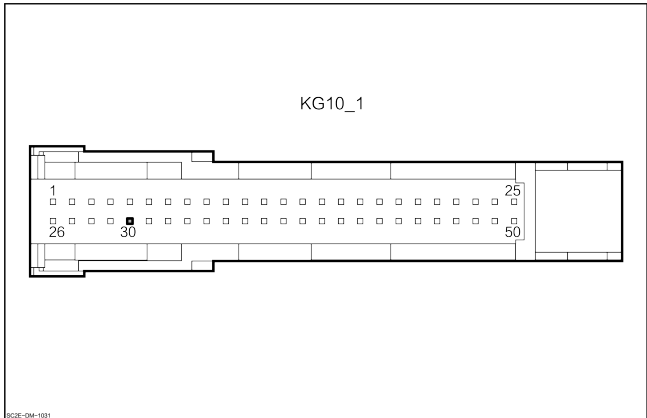
| P1AC000 Airbag ECU collision alarm | |
|------------------------------------|--|
| Symptom | The instrument gives an alarm of "EV function limited", and the discharging is prohibited. |
| Possible Cause | 1. Harness or connector fault. 2. Airbag control unit fault. 3. Smart integrated front drive control unit fault. |
| Fault setting conditions | Receive the impact signal of the airbag. |
| Trigger fault conditions | When the vehicle is powered on and it receives the impact signal of the airbag, DTC is generated. |

Circuit Diagram



SCHE-DM-1000

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|--|--|
| <p style="text-align: center;">Smart integrated front drive control unit</p> <div style="text-align: center;">  <p style="text-align: center;">BK45(A)</p> </div> | <p style="text-align: center;">4</p> <hr/> <p style="text-align: center;">10</p> | <p style="text-align: center;">Collision signal GND</p> <hr/> <p style="text-align: center;">Impact signal</p> |
| <p style="text-align: center;">Airbag control unit</p> <div style="text-align: center;">  <p style="text-align: center;">KG10_1</p> </div> | <p style="text-align: center;">30</p> | <p style="text-align: center;">Impact signal</p> |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the airbag system for DTC. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to read the supplemental restraint system DTC.
4. Check whether DTC exists.

Yes → Enter the “Airbag system” .

No

| | |
|---|--|
| 2 | Reconnect the battery and check the DTC. |
|---|--|

1. Disconnect the negative terminal of the storage battery.
2. Re-connect the negative terminal of the storage battery.
3. Use a VDS to read the power body control module DTC.
4. Clear DTCs.
5. Set the START/STOP button to ON, read DTC again.
6. Check whether the same DTC is displayed.

No → The system is normal.

Yes

| | |
|---|---|
| 3 | Check the harness connector of the integrated intelligent front drive control module. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector BK45(A) of the integrated intelligent front drive control module.
3. Check whether the connector is normal.

No → Repair or replace the wire harness

Yes

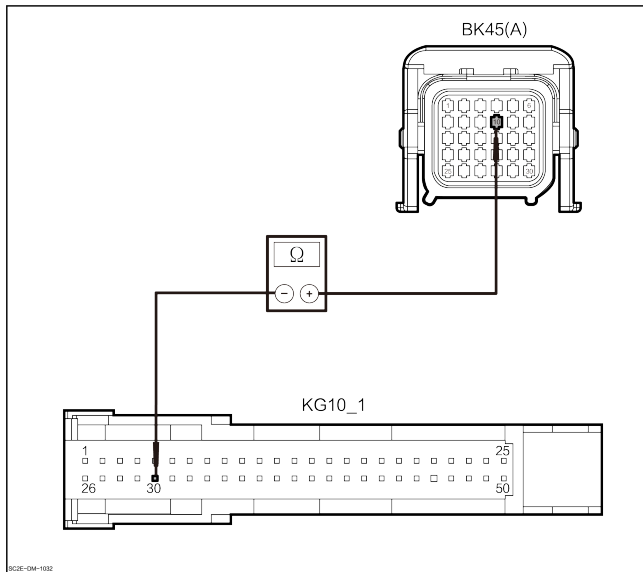
| | |
|---|--|
| 4 | Check whether the airbag control module harness connector is normal. |
|---|--|

1. Disconnect the harness connector KG10_1 of the airbag control module.
2. Check whether the connector is normal.

No → Repair or replace the wire harness

Yes

5 Check the impact signal for open circuit.



1. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(A)-10 and the harness connector of airbag control module KG10_1-30.

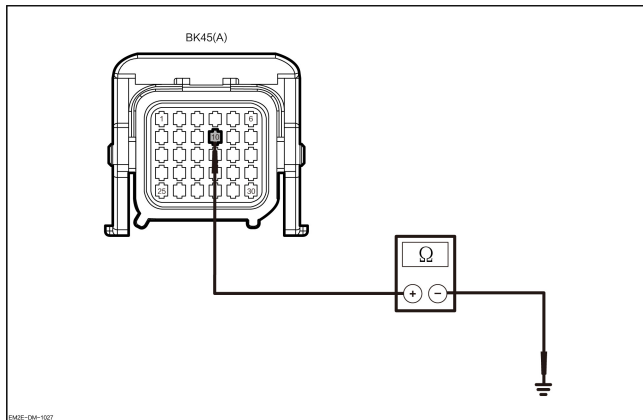
| Connector | | Condition | Resist- ance value |
|----------------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(A)- 10 | KG10_1- 30 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check whether the collision signal line is shorted to ground.



1. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(A)-10 and the ground.

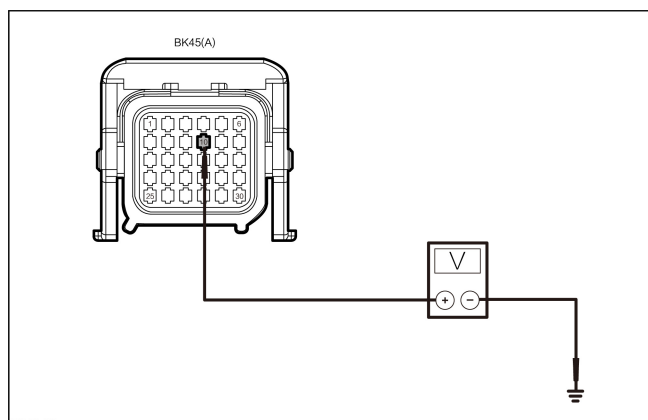
| Connector | | Condition | Resist- ance value |
|----------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(A)- 10 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the impact signal cable for short circuit to power



1. Measure the voltage value between the integrated intelligent front drive control module harness connector BK45(A)-10 and the ground.

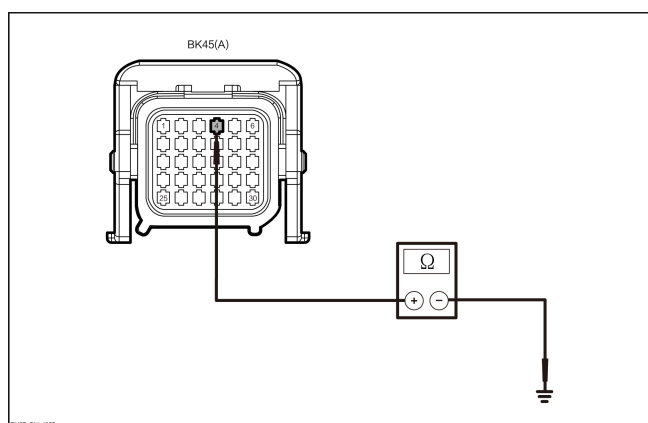
| Connector | | Condition | Voltage value |
|------------|--------|-------------|---------------|
| (+) | (-) | | |
| BK45(A)-10 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the impact signal ground line for open circuit.



1. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(A)-4 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| BK45(A)-4 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

9 Replace the airbag control module and check the DTC.

1. Replace the airbag control unit.
2. Connect the harness connector of integrated intelligent front drive control module BK45(A).
3. Connect the harness connector of airbag control module KG10_1.
4. Use a VDS to read the power body control module DTC.
5. Clear DTCs.
6. Set the start/stop button to OFF position and wait a few seconds.
7. Set the start/stop button to ON position again and read the DTC.

8. Check whether the same DTC is displayed.

No

The system is normal.

Yes

Replace the smart integrated front drive control unit.

P1A6000 High Voltage Interlock 1 Fault

DTC Description

| P1A6000 High Voltage Interlock 1 Fault | |
|--|--|
| Symptom | The instrument displays "Please check the connector", and charging and discharging is prohibited. |
| Possible Cause | <ol style="list-style-type: none"> 1. The DC bus connector of the integrated intelligent front drive control module is not properly connected. 2. Smart integrated front drive control unit fault. |
| Fault setting conditions | The hardwired high voltage interlock status sent by the receiving motor control module is faulty. |
| Trigger fault conditions | When the vehicle is powered on, the dynamic body control system receives the signal indicating high voltage interlock state failed. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the DC busbar connector of integrated intelligent front drive control module. |
|---|---|

1. Disconnect the negative terminal of the storage battery.
2. Disconnect DC busbar connector from the integrated intelligent front drive control module.
3. Check whether the harness and connector are aged, deformed, ablated, fractured and loosened.
4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the smart integrated front drive control unit.

P1AFC00 On-board Charger High Voltage Interlock Fault

DTC Description

| P1AFC00 On-board Charger High Voltage Interlock Fault | |
|---|---|
| Symptom | The instrument displays "Please Check the Connector". |
| Possible Cause | <ol style="list-style-type: none"> 1. The AC charging connector of integrated intelligent front drive control module is not connected properly. 2. Smart integrated front drive control unit fault. |
| Fault setting conditions | The voltage of on-board charger is less than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and in the discharge process, and the on-board charger voltage is less than the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the connector on the AC charging port of the integrated intelligent front drive control module. |
|---|---|

1. Disconnect the negative terminal of the storage battery.
2. Disconnect the connector from the AC charging port of the integrated intelligent front drive control module.
3. Check whether the harness and connector are aged, deformed, ablated, fractured and loosened.
4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the smart integrated front drive control unit.

P1AFD00 DC-DC High Voltage Interlock Fault

DTC Description

| P1AFD00 DC-DC High Voltage Interlock Fault | |
|--|---|
| Symptom | The instrument displays "Please Check the Connector" and the discharge power is limited. |
| Possible Cause | <ol style="list-style-type: none"> 1. The AC charging connector of integrated intelligent front drive control module is not connected properly. 2. Smart integrated front drive control unit fault. |
| Fault setting conditions | The DC-DC voltage is less than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and in the discharge process, and the on-board charger voltage is less than the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the connector on the AC charging port of the integrated intelligent front drive control module. |
|---|---|

1. Disconnect the negative terminal of the storage battery.
2. Disconnect the connector from the AC charging port of the integrated intelligent front drive control module.
3. Check whether the harness and connector are aged, deformed, ablated, fractured and loosened.
4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the smart integrated front drive control unit.

P1AFB00 A/C System High Voltage Interlock Fault

DTC Description

| P1AFB00 A/C System High Voltage Interlock Fault | |
|---|---|
| Symptom | The instrument displays "Please Check the Connector". |
| Possible Cause | <ol style="list-style-type: none"> 1. The integrated intelligent front drive control module compressor connector is not connected properly. 2. Air condition compressor fault. 3. Smart integrated front drive control unit fault. |
| Fault setting conditions | The A/C high voltage module is less than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and in the discharge process, and the on-board charger voltage is less than the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the connector of the integrated intelligent front drive control module compressor. |
|---|--|

1. Disconnect the negative terminal of the storage battery.
2. Disconnect the connector of the integrated intelligent front drive control module compressor.
3. Check whether the harness and connector are aged, deformed, ablated, fractured and loosened.
4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Replace the compressor and check the DTC. |
|---|---|

1. Replace the compressor.
2. Connect the integrated intelligent front drive control module compressor connector.
3. Connect the negative terminal of the storage battery.
4. Set the START/STOP button to ON.
5. Clear DTCs.
6. Set the START/STOP button to OFF, and wait a few seconds.
7. Set the START/STOP button to “ON” again, and read the power body control module DTC.
8. Check whether the same DTC is displayed.

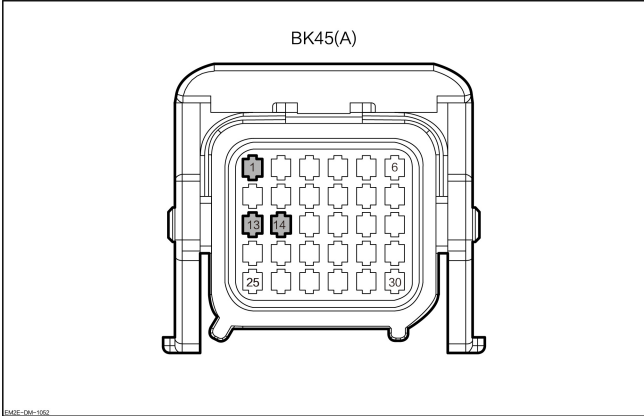
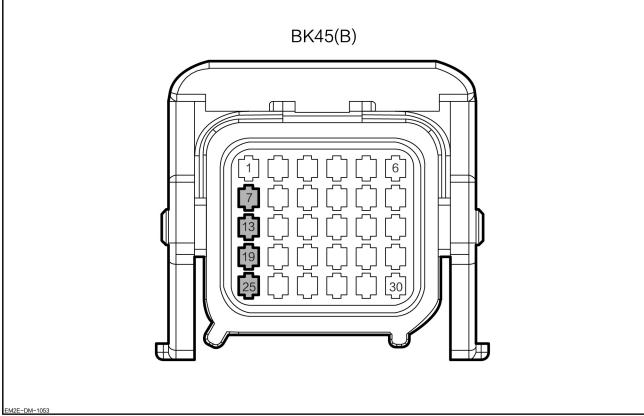
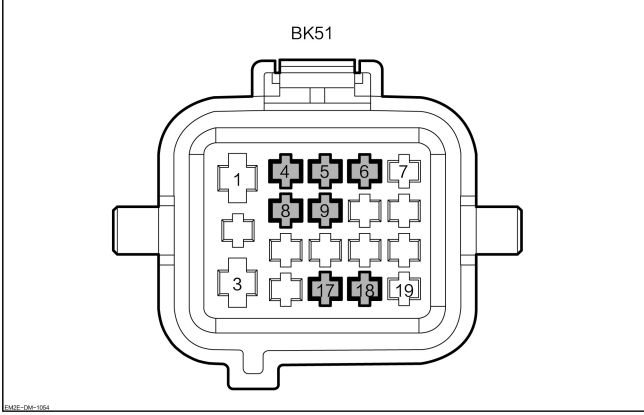
- No → The system is normal.
- Yes → Replace the smart integrated front drive control unit.

U20B800 BIC9 CAN Communication Timeout Fault

DTC Description

| U20B800 BIC9 CAN Communication Timeout Fault | |
|--|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Battery pack failure3. Smart integrated front drive control unit fault. |
| Fault setting conditions | BIC communication timeout |
| Trigger fault conditions | If it does not receive the message of the BIC within a certain period of time, DTC will be generated. |

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|----------------------------------|
| Smart integrated front drive control unit  | 1 | Independent power supply of chip |
| | 13 | Battery sub-network (CAN)_L |
| | 14 | Battery sub-network CAN-H |
| Smart integrated front drive control unit  | 7 | HVSU GND |
| | 13 | HVSU GND |
| | 19 | HVSU power supply |
| | 25 | HVSU power supply |
| Battery Pack  | 4 | Independent power supply of chip |
| | 5 | HVSU power supply |
| | 6 | HVSU power supply |
| | 8 | Battery sub-network CAN-H |
| | 9 | Battery sub-network CAN-L |
| | 17 | HVSU GND |
| 18 | HVSU GND | |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the battery execution and sampling unit passes the network detection?

Yes Go to step 7

No

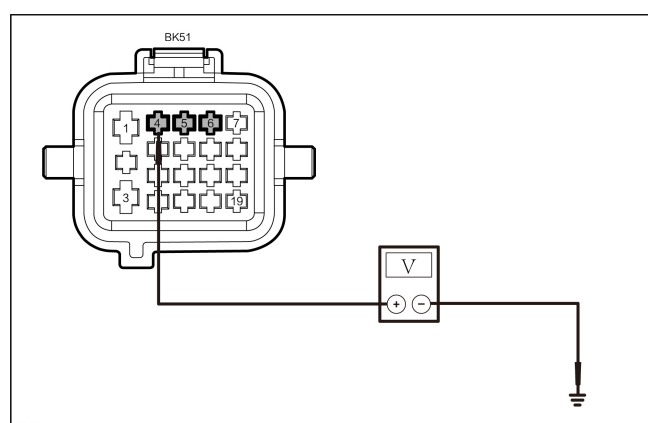
| | |
|---|----------------------------------|
| 2 | Check the harness and connector. |
|---|----------------------------------|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector BK51 of battery pack.
3. Disconnect the integrated intelligent front drive control module harness connectors BK45(A) and BK45(B).
4. Check whether the harness connector is normal.

No Repair or replace the wire harness

Yes

| | |
|---|---------------------------------------|
| 3 | Check the power line of battery pack. |
|---|---------------------------------------|



1. Connect the integrated intelligent front drive control module harness connectors BK45 (A) and BK45 (B).
2. Set the START/STOP button to “ON” .
3. Measure the voltage value between the harness pack connector BK51–4 of power battery and the grounding.
4. Measure the voltage value between the battery pack harness connector BK51–5 and the ground.
5. Measure the voltage value between the battery pack harness connector BK51–6 and the ground.

| Connector | | Condition | Voltage value |
|-----------|-----|-----------|---------------|
| (+) | (-) | | |
| | | | |

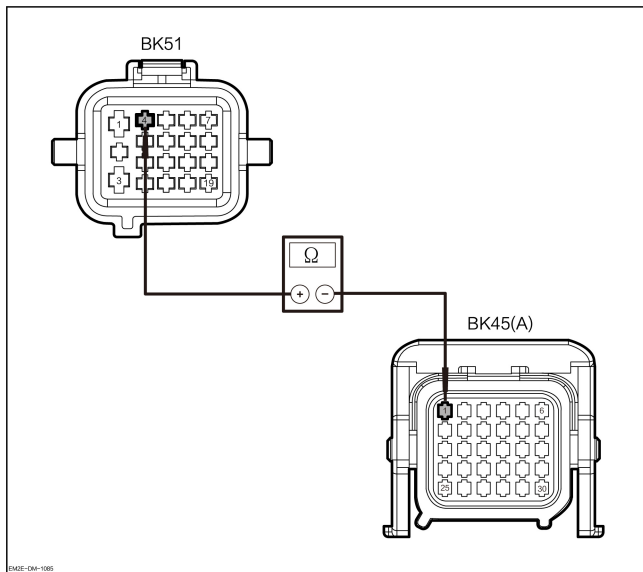
| | | | |
|--------|--------|-------------|--------|
| BK51-4 | Ground | Through-out | 11~14V |
| BK51-5 | | | |
| BK51-6 | | | |

6. Check whether the results are normal.

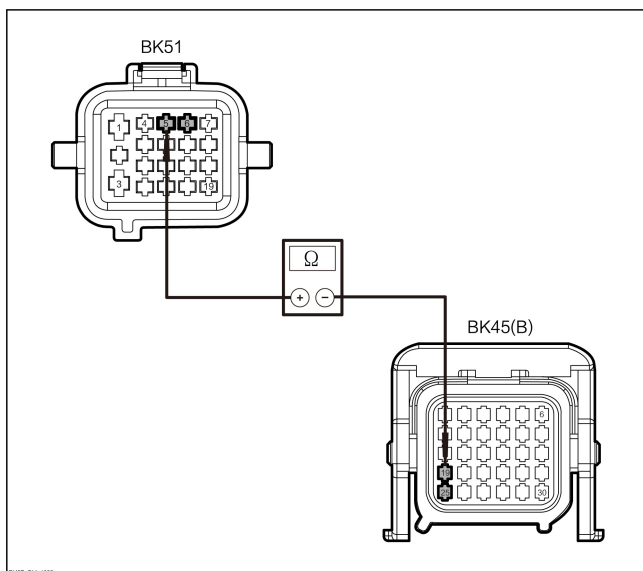
Yes Go to step 5

No

4 Check the power line of the battery pack for short circuit.



1. Disconnect the harness connectors BK45 (A) and BK45 (B) of the integrated intelligent control module.
2. Measure the resistance value between the battery pack harness connector BK51-4 and the integrated intelligent front drive control module harness connector BK45(A)-1.
3. Measure the resistance value between the battery pack harness connector BK51-5 and the integrated intelligent front drive control module harness connector BK45(B)-19.
4. Measure the resistance value between the battery pack harness connector BK51-6 and the integrated intelligent front drive control module harness connector BK45(B)-25.



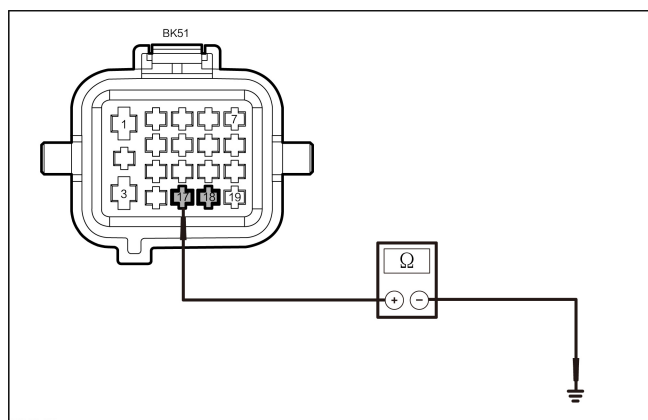
| Connector | | Condition | Resist- ance value |
|-----------|------------|-------------|--------------------------|
| (+) | (-) | | |
| BK51-4 | BK45(A)-1 | Through-out | Lower than 1Ω |
| BK51-5 | BK45(B)-19 | | |
| BK51-6 | BK45(B)-25 | | |

5. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the smart integrated front drive control unit.

5 Check the battery pack ground line for open circuit.



1. Measure the resistance value between the battery pack harness connector BK51-17 and the ground.
2. Measure the resistance value between the battery pack harness connector BK51-18 and the ground.

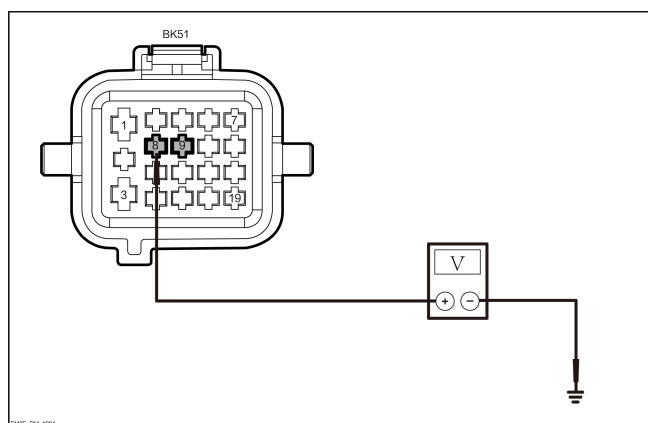
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK51-17 | Ground | Through- out | Lower than 1Ω |
| BK51-18 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Inspect the CAN line of the battery pack.



1. Connect the integrated intelligent front drive control module harness connectors BK45 (A) and BK45 (B).
2. Measure the voltage value between the harness pack connector BK51-8 of power battery and the grounding.
3. Measure the voltage value between the harness pack connector BK51-9 of power battery and the grounding.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| BK51-8 | Ground | Through- out | 2.5~3.5V |
| BK51-9 | | | 1.5~2.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the power battery pack.

7 Check battery execution and sampling unit DTC.

1. Read the DTC of battery execution and sampling unit with VDS.
2. Check whether other DTC exists.

Yes

Enter "Battery Execution and Sampling Unit" to diagnose.

No

8

Check the dynamic body control module DTC.

1. Use a VDS to read the power body control module DTC.
2. Check whether other DTC exists.

Yes

Enter "dynamic body control module" diagnosis.

No

9

Check the DTC of other modules.

1. Does the other module read the DTC of timeout with the BIC?

Yes

Replace the power battery pack.

No

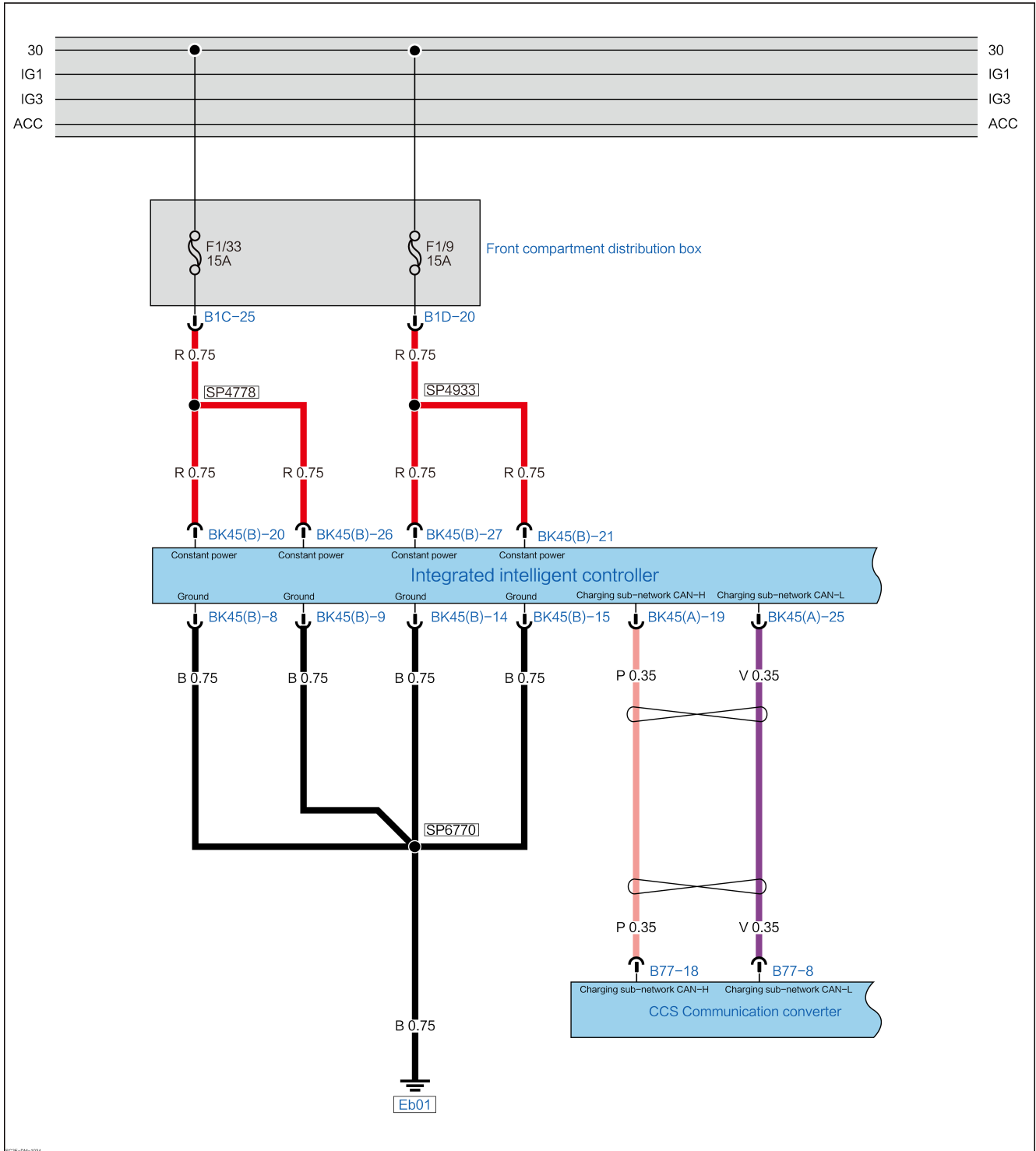
Replace the smart integrated front drive control unit.

U014B87 Communication with DC Charging Cabinet Failed

DTC Description

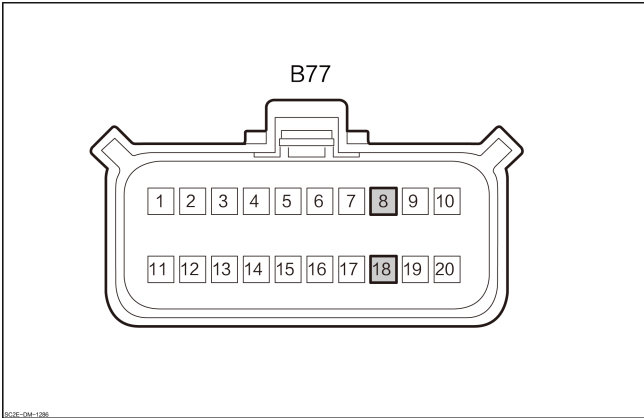
| U014B87 Communication with DC Charging Cabinet Failed | |
|---|---|
| Symptom | – |
| Possible Cause | 1. DC charging pile fault. 2. Smart integrated front drive control unit fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



SCHE-DM-1084

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|----------------------------|
| <p style="text-align: center;">CCS Communication Converter</p> <div style="text-align: center;">  <p style="text-align: center;">B77</p> </div> <p style="font-size: small; margin-top: 10px;">B07E-DM-128</p> | 8 | Charging sub-network CAN-H |
| | 18 | Charging sub-network CAN-L |

Diagnostic Steps

1 Replace the DC charging pile for charging test.

1. Connect the VDS to the diagnostic interface.
2. Clean the dynamic body control module DTC.
3. Replace the DC charging pile for charging test.
4. Check whether DTC exists.

No → Diagnosis completes, and the result indicates DC charging pipe fault.

Yes

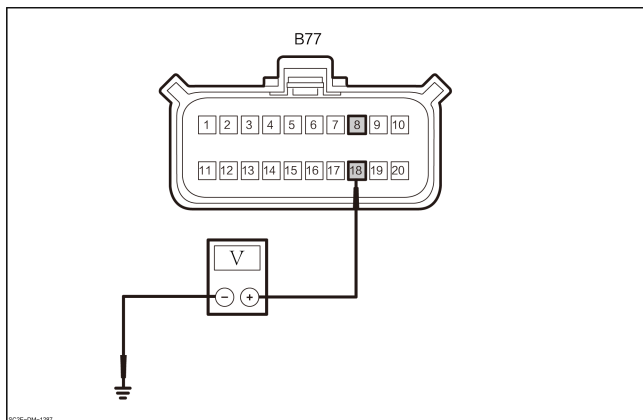
2 Check the harness connector of CCS communication converter.

1. Disconnect the harness connector of CCS communication converter B77.
2. Check whether the harness connector is normal.

No → Replace or maintain wire harness

Yes

3 Check the CAN line .



1. Measure the voltage between harness connector of CCS Communication Converter B77-8 and the ground.
2. Measure the voltage between harness connector of CCS Communication Converter B77-18 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B77-8 | Ground | Through-out | 2.5~3.5V |
| B77-18 | | | 1.5~2.5V |

3. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes

4 Replace the CCS communication converter, and check the DTC.

1. Replace the CCS communication converter, and restore the car.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Set the START/STOP button to “ON” again, and read the power body control module DTC.
6. Check whether the same DTC is displayed.

No

The system is normal.

Yes

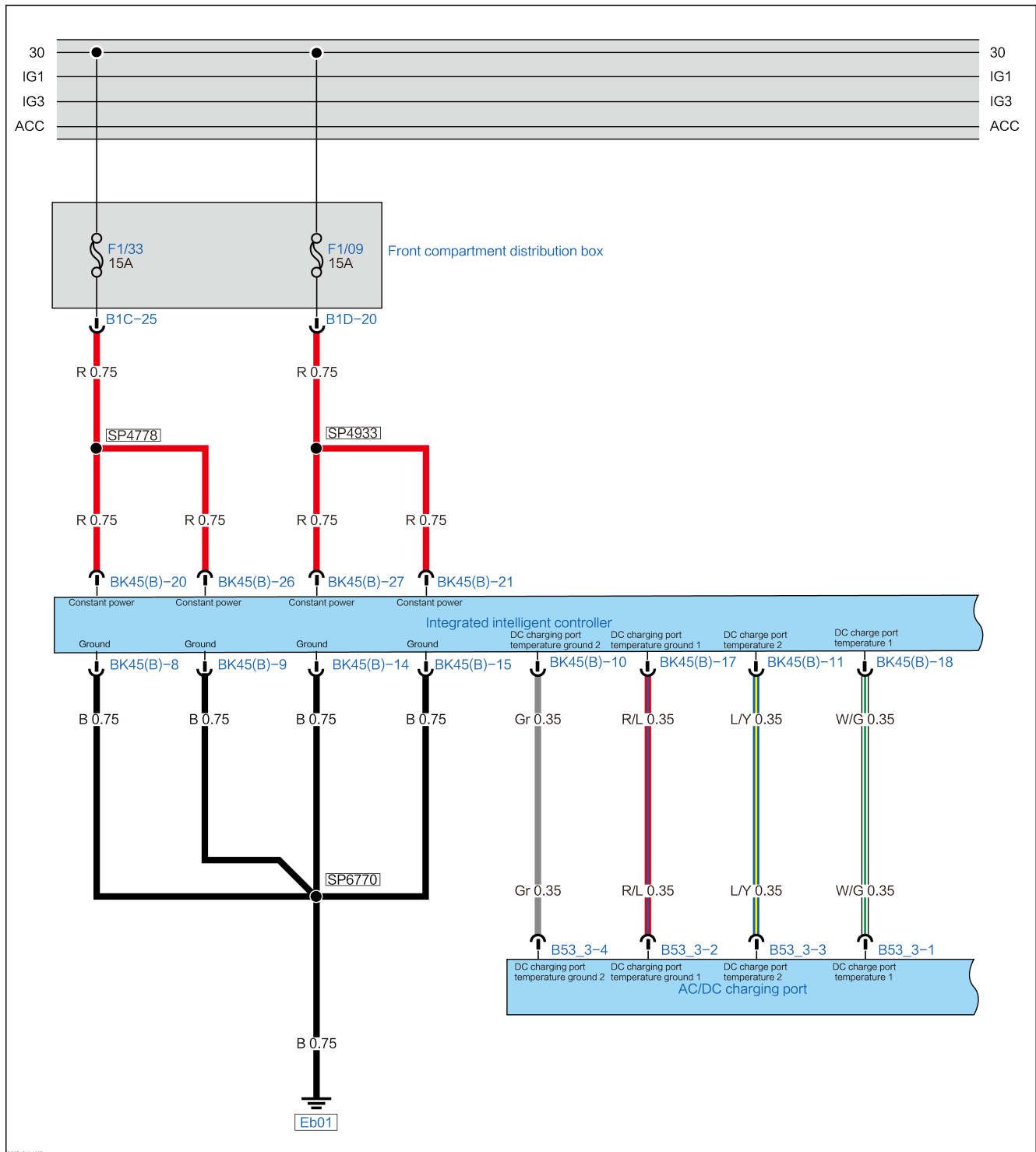
Replace the smart integrated front drive control unit.

P1AD900 Temperature Sampling Point of Charging Port Abnormal

DTC Description

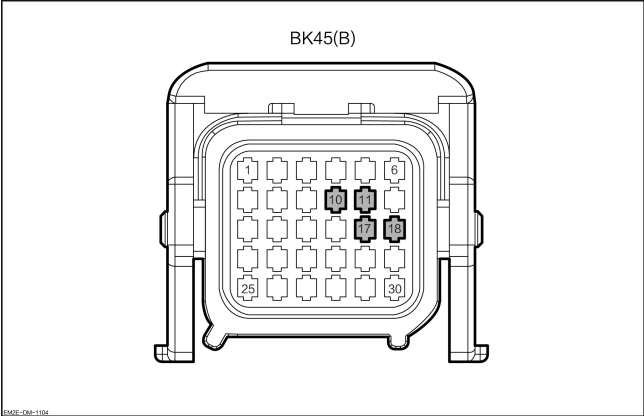
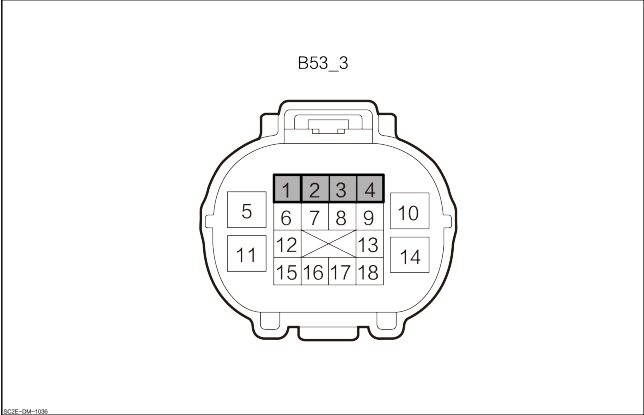
| P1AD900 Temperature Sampling Point of Charging Port Abnormal | |
|--|--|
| Symptom | Unable to charge/discharge. |
| Possible Cause | <ol style="list-style-type: none">1. AC/DC charging port fault.2. AC/DC charging port temperature sampling harness fault.3. Smart integrated front drive control unit fault. |
| Fault setting conditions | The temperature of the AC/DC charging port exceeds specified threshold. |
| Trigger fault conditions | When the charging port temperature exceeds the specified threshold, a DTC will be generated. |

Circuit Diagram



SCHE-DM-1003

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------------------------|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 10 | DC charging port temperature ground 2 |
| | 11 | DC charge port temperature 2 |
| | 17 | DC charging port temperature ground 1 |
| | 18 | DC charge port temperature 1 |
| <p>AC/DC charging port</p>  <p>B53_3</p> | 1 | DC charge port temperature 1 |
| | 2 | DC charging port temperature ground 1 |
| | 3 | DC charge port temperature 2 |
| | 4 | DC charging port temperature ground 2 |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--------------------------------|
| 2 | Check the AC/DC charging port. |
|---|--------------------------------|

1. Check the DC charging terminal for foreign matter, aging, deformation, ablation, fracture, etc.
2. Check whether the results are normal.

No

Clean the foreign matters or replace the DC charging port.

Yes

| | |
|---|----------------------------------|
| 3 | Check the harness and connector. |
|---|----------------------------------|

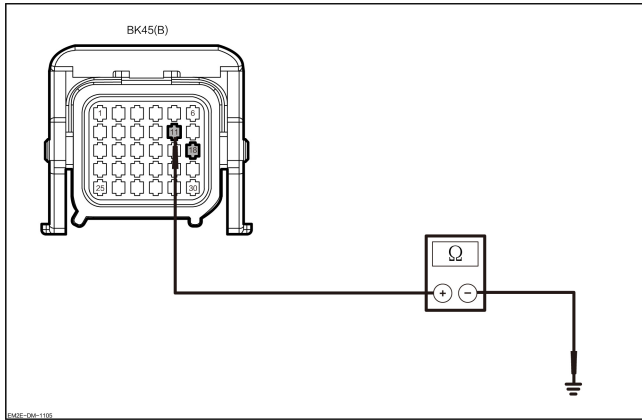
1. Disconnect the harness connector BK45(B) of intergrated intelligent front drive control module.
2. Disconnect AC/DC charging port B53_3.
3. Check the harness and connector for aging, deformation, ablation, fracture, etc.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the AC/DC charging harness is shorted to ground. |
|---|--|



1. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)–11 and the ground.
2. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)–18 and the ground.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)–11 | Ground | Through- out | Above 10k Ω |
| BK45(B)–18 | | | |

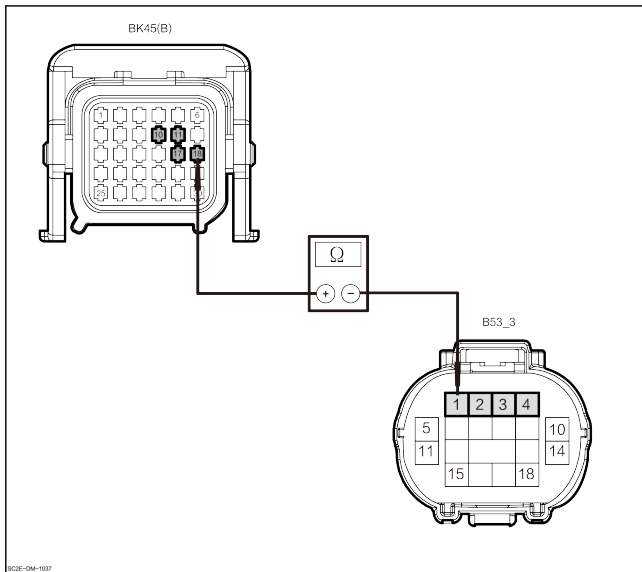
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check whether the dc charging harness is open circuited.



1. Set the START/STOP button to OFF.
2. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
3. Disconnect the AC/DC charging port harness connector B53_3.
4. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)–18 and the harness connector of AC/DC charging port B53_3–1.
5. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)–11 and the harness connector of AC/DC charging port B53_3–3.
6. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)–17 and the harness connector of AC/DC charging port B53_3–2.
7. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)–10 and the harness connector of AC/DC charging port B53_3–4.

| Connector | | Condition | Resist- ance value |
|----------------|---------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)- 18 | B53_3-1 | Through- out | Lower than 1Ω |
| BK45(B)- 11 | B53_3-3 | | |
| BK45(B)- 17 | B53_3-2 | | |
| BK45(B)- 10 | B53_3-4 | | |

8. Check whether the results are normal.

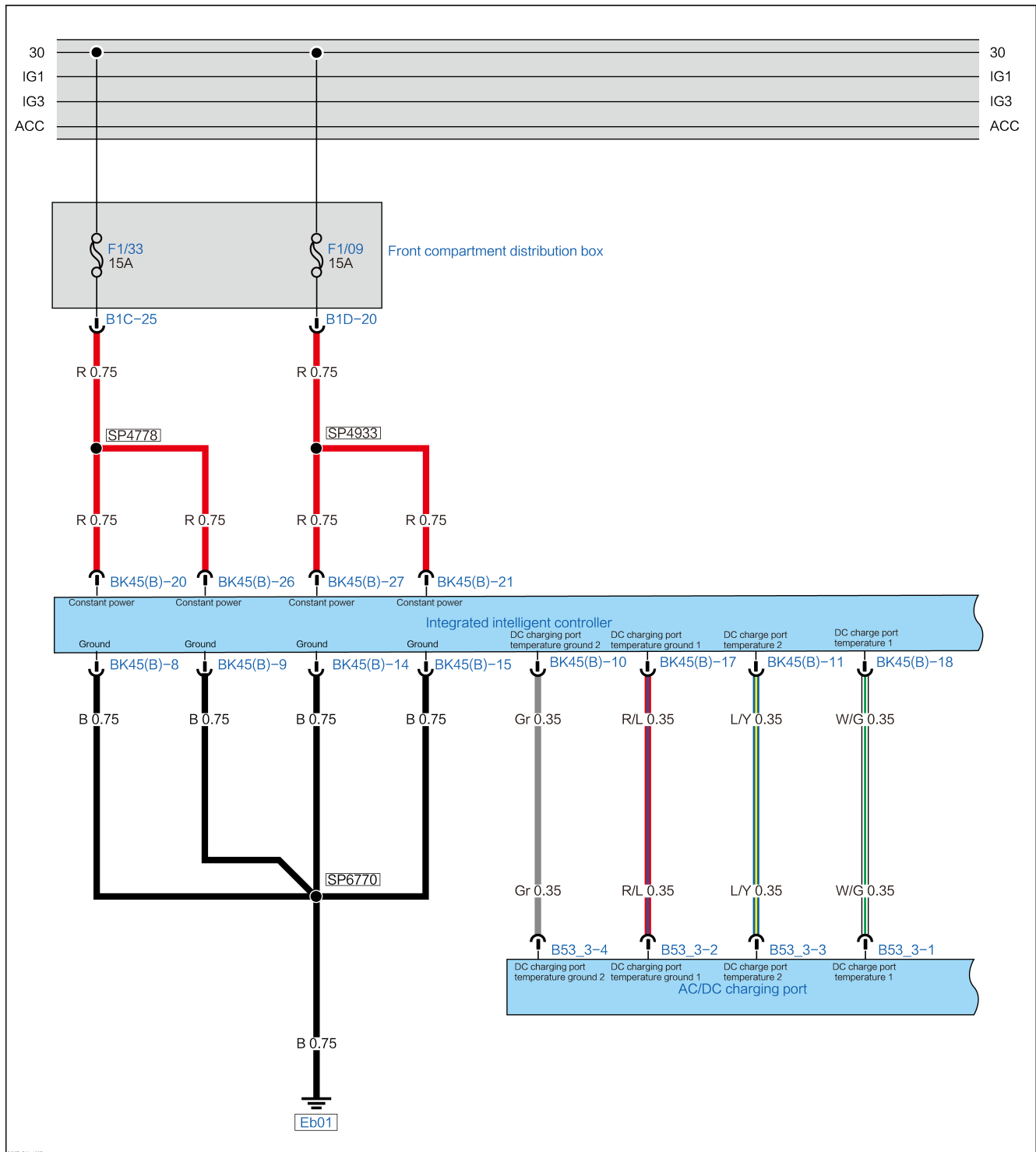
| | |
|-----|------------------------------------|
| No | Repair or replace the wire harness |
| Yes | Replace the AC/DC charging port. |

P1AD44B Temperature of Charging Port 1 Generally High

DTC Description

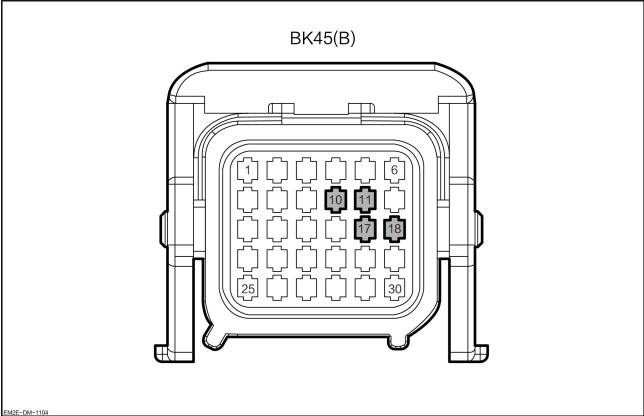
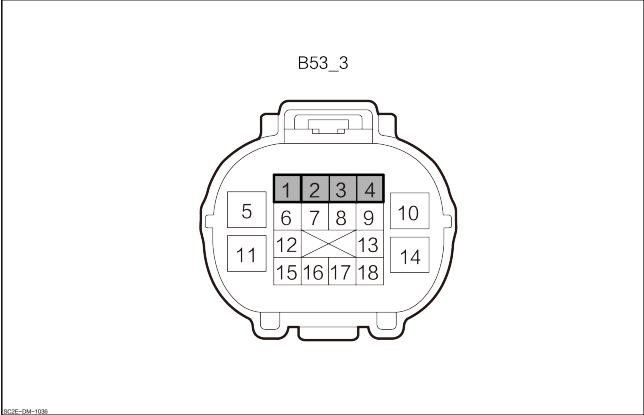
| P1AD44B Temperature of Charging Port 1 Generally High | |
|---|--|
| Symptom | Unable to charge/discharge. |
| Possible Cause | 1. AC/DC charging port fault. 2. AC/DC charging port temperature sampling harness fault. 3. Smart integrated front drive control unit fault. |
| Fault setting conditions | The temperature of the AC/DC charging port exceeds specified threshold. |
| Trigger fault conditions | When the charging port temperature exceeds the specified threshold, a DTC will be generated. |

Circuit Diagram



SCHE-DM-1003

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------------------------|
| <p style="text-align: center;">Smart integrated front drive control unit</p>  <p style="text-align: center;">BK45(B)</p> | 10 | DC charging port temperature ground 2 |
| | 11 | DC charge port temperature 2 |
| | 17 | DC charging port temperature ground 1 |
| | 18 | DC charge port temperature 1 |
| <p style="text-align: center;">AC/DC charging port</p>  <p style="text-align: center;">B53_3</p> | 1 | DC charge port temperature 1 |
| | 2 | DC charging port temperature ground 1 |
| | 3 | DC charge port temperature 2 |
| | 4 | DC charging port temperature ground 2 |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--------------------------------|
| 2 | Check the AC/DC charging port. |
|---|--------------------------------|

1. Check the DC charging terminal for foreign matter, aging, deformation, ablation, fracture, etc.
2. Check whether the results are normal.

No

Clean the foreign matters or replace the DC charging port.

Yes

| | |
|---|----------------------------------|
| 3 | Check the harness and connector. |
|---|----------------------------------|

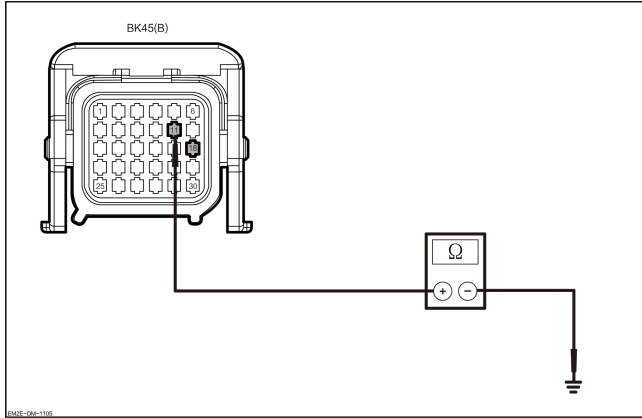
1. Disconnect the harness connector BK45(B) of intergrated intelligent front drive control module.
2. Disconnect AC/DC charging port B53_3.
3. Check the harness and connector for aging, deformation, ablation, fracture, etc.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the AC/DC charging harness is shorted to ground. |
|---|--|



1. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)-11 and the ground.
2. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)-18 and the ground.

| Connector | | Condition | Resist- ance value |
|----------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)- 11 | Ground | Through- out | Above 10k Ω |
| BK45(B)- 18 | | | |

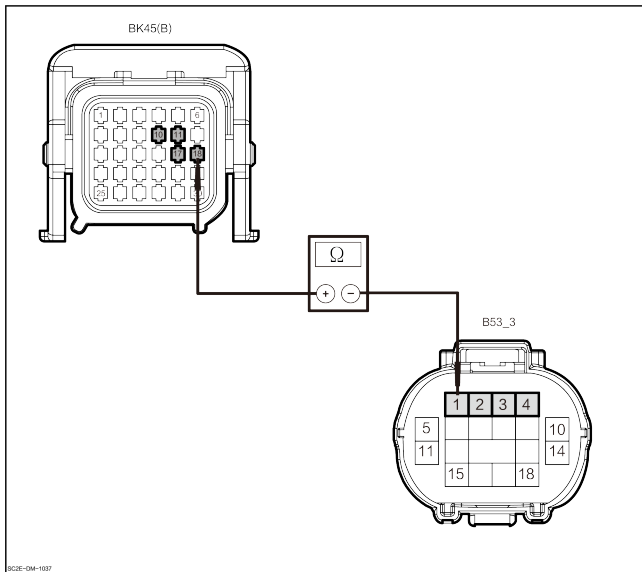
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check whether the dc charging harness is open circuited.



1. Set the START/STOP button to OFF.
2. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
3. Disconnect the AC/DC charging port harness connector B53_3.
4. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-18 and the harness connector of AC/DC charging port B53_3-1.
5. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-11 and the harness connector of AC/DC charging port B53_3-3.
6. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-17 and the harness connector of AC/DC charging port B53_3-2.
7. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-10 and the harness connector of AC/DC charging port B53_3-4.

| Connector | | Condition | Resist- ance value |
|----------------|---------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)- 18 | B53_3-1 | Through- out | Lower than 1Ω |
| BK45(B)- 11 | B53_3-3 | | |
| BK45(B)- 17 | B53_3-2 | | |
| BK45(B)- 10 | B53_3-4 | | |

8. Check whether the results are normal.

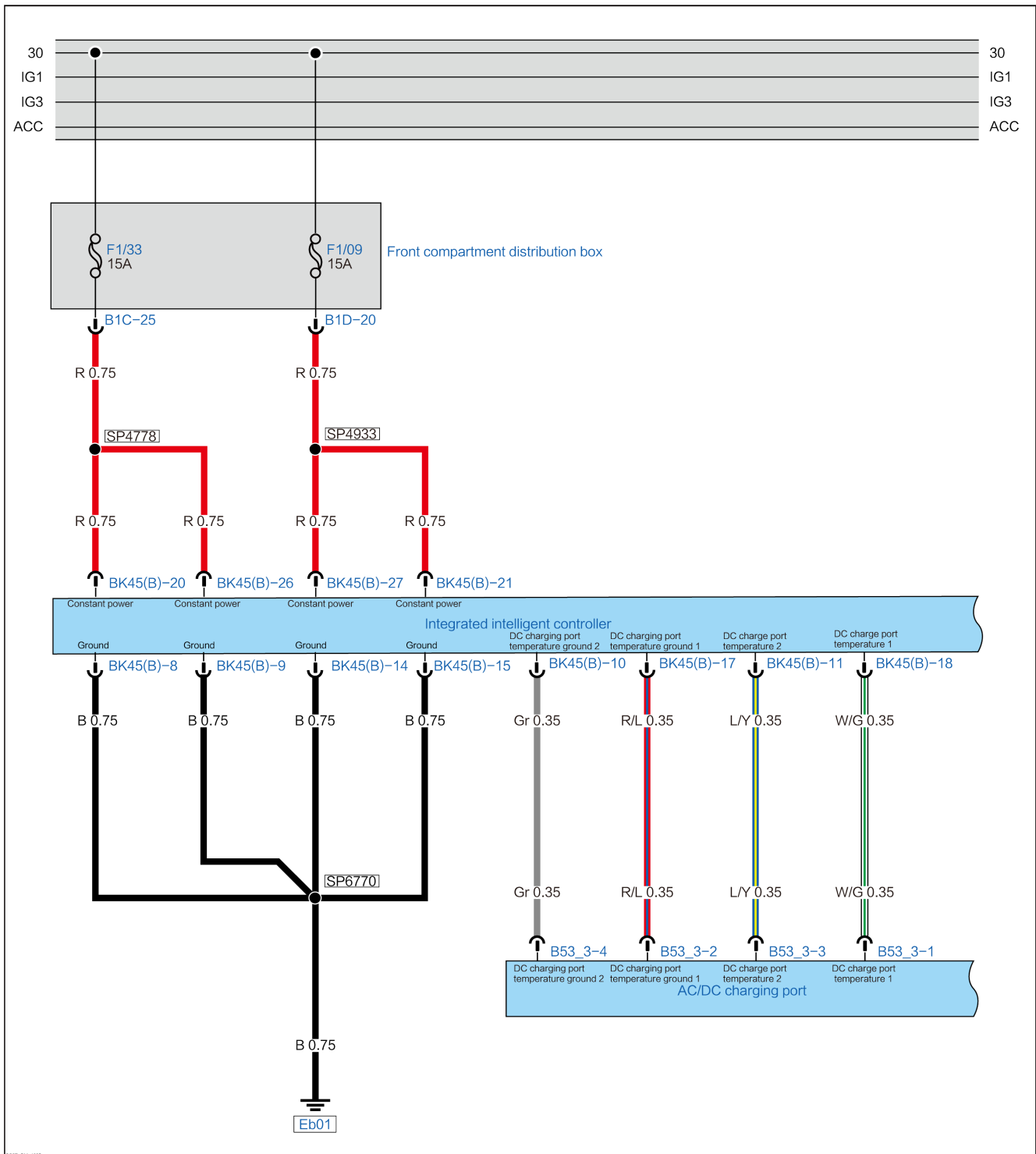
| | |
|-----|------------------------------------|
| No | Repair or replace the wire harness |
| Yes | Replace the AC/DC charging port. |

P1AD54B Temperature of Charging Port 2 Generally High

DTC Description

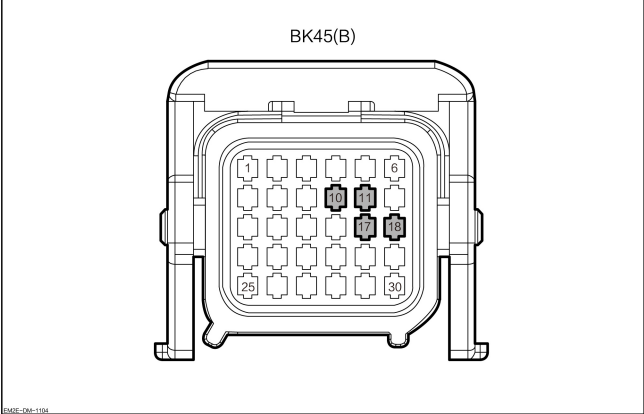
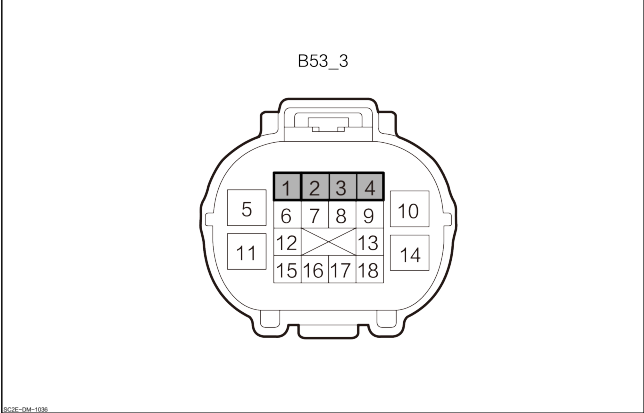
| P1AD54B Temperature of Charging Port 2 Generally High | |
|---|--|
| Symptom | Unable to charge/discharge. |
| Possible Cause | <ol style="list-style-type: none">1. AC/DC charging port fault.2. AC/DC charging port temperature sampling harness fault.3. Smart integrated front drive control unit fault. |
| Fault setting conditions | The temperature of the AC/DC charging port exceeds specified threshold. |
| Trigger fault conditions | When the charging port temperature exceeds the specified threshold, a DTC will be generated. |

Circuit Diagram



SCHE-194-1035

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------------------------|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 10 | DC charging port temperature ground 2 |
| | 11 | DC charge port temperature 2 |
| | 17 | DC charging port temperature ground 1 |
| | 18 | DC charge port temperature 1 |
| <p>AC/DC charging port</p>  <p>B53_3</p> | 1 | DC charge port temperature 1 |
| | 2 | DC charging port temperature ground 1 |
| | 3 | DC charge port temperature 2 |
| | 4 | DC charging port temperature ground 2 |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--------------------------------|
| 2 | Check the AC/DC charging port. |
|---|--------------------------------|

1. Check the DC charging terminal for foreign matter, aging, deformation, ablation, fracture, etc.
2. Check whether the results are normal.

No

Clean the foreign matters or replace the DC charging port.

Yes

| | |
|---|----------------------------------|
| 3 | Check the harness and connector. |
|---|----------------------------------|

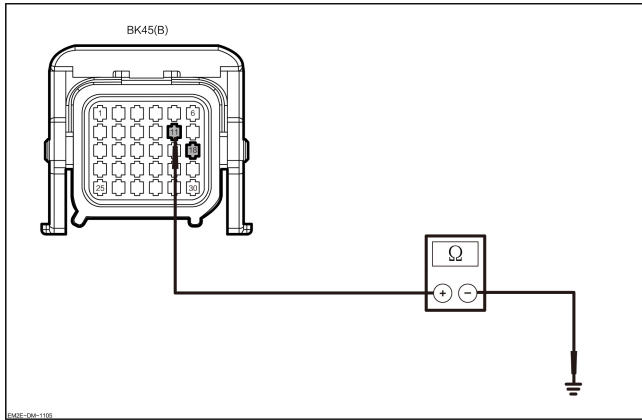
1. Disconnect the harness connector BK45(B) of intergrated intelligent front drive control module.
2. Disconnect AC/DC charging port B53_3.
3. Check the harness and connector for aging, deformation, ablation, fracture, etc.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the AC/DC charging harness is shorted to ground. |
|---|--|



1. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)–11 and the ground.
2. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)–18 and the ground.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)–11 | Ground | Through- out | Above 10k Ω |
| BK45(B)–18 | | | |

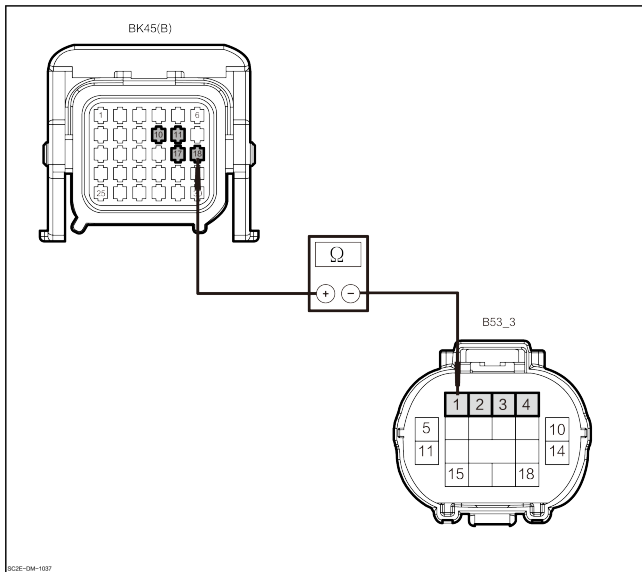
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check whether the dc charging harness is open circuited.



1. Set the START/STOP button to OFF.
2. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
3. Disconnect the AC/DC charging port harness connector harness connector B53_3.
4. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)–18 and the harness connector of AC/DC charging port B53_3–1.
5. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)–11 and the harness connector of AC/DC charging port B53_3–3.
6. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)–17 and the harness connector of AC/DC charging port B53_3–2.
7. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)–10 and the harness connector of AC/DC charging port B53_3–4.

| Connector | | Condition | Resist- ance value |
|----------------|---------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)- 18 | B53_3-1 | Through- out | Lower than 1Ω |
| BK45(B)- 11 | B53_3-3 | | |
| BK45(B)- 17 | B53_3-2 | | |
| BK45(B)- 10 | B53_3-4 | | |

8. Check whether the results are normal.

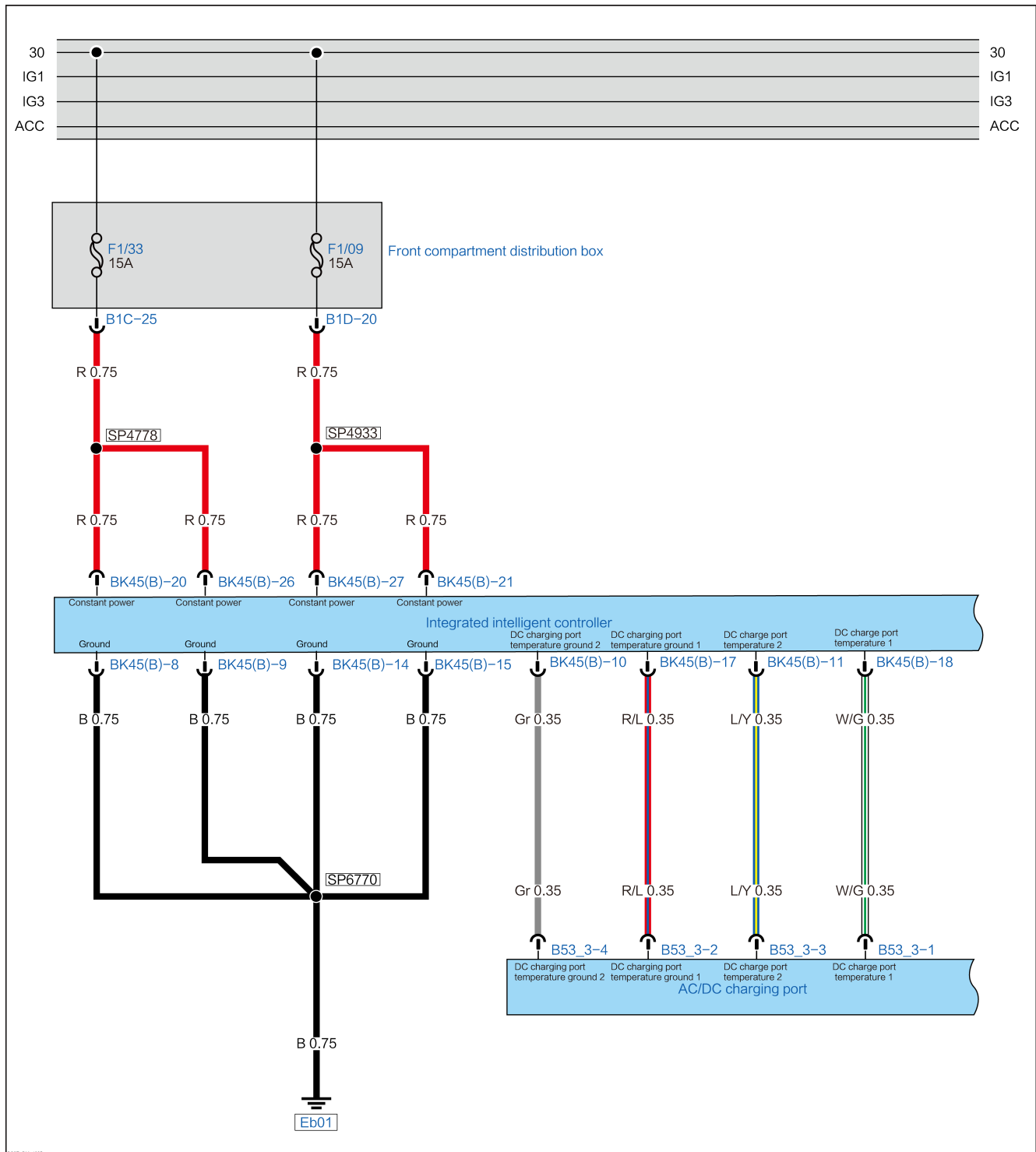
- No Repair or replace the wire harness
- Yes Replace the AC/DC charging port.

P1AD698 Temperature of Charging Port 3 Generally High

DTC Description

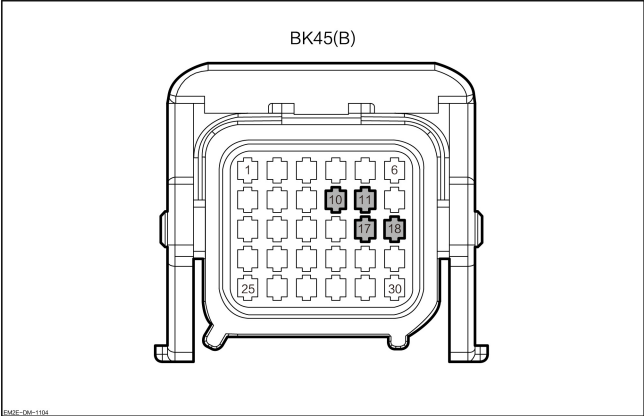
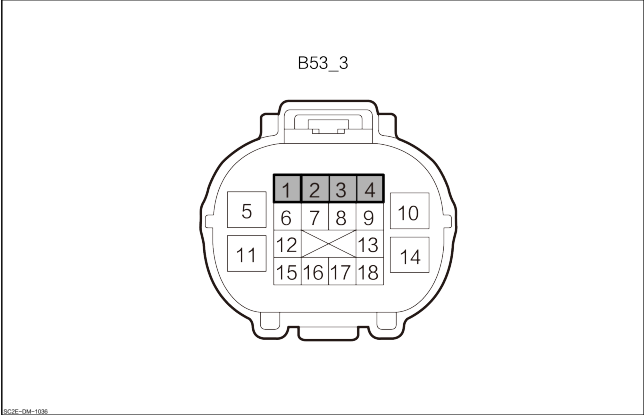
| P1AD698 Temperature of Charging Port 3 Generally High | |
|---|--|
| Symptom | Unable to charge/discharge. |
| Possible Cause | <ol style="list-style-type: none">1. AC/DC charging port fault.2. AC/DC charging port temperature sampling harness fault.3. Smart integrated front drive control unit fault. |
| Fault setting conditions | The temperature of the AC/DC charging port exceeds specified threshold. |
| Trigger fault conditions | When the charging port temperature exceeds the specified threshold, a DTC will be generated. |

Circuit Diagram



SCHE-DM-1003

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------------------------|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 10 | DC charging port temperature ground 2 |
| | 11 | DC charge port temperature 2 |
| | 17 | DC charging port temperature ground 1 |
| | 18 | DC charge port temperature 1 |
| <p>AC/DC charging port</p>  <p>B53_3</p> | 1 | DC charge port temperature 1 |
| | 2 | DC charging port temperature ground 1 |
| | 3 | DC charge port temperature 2 |
| | 4 | DC charging port temperature ground 2 |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--------------------------------|
| 2 | Check the AC/DC charging port. |
|---|--------------------------------|

1. Check the DC charging terminal for foreign matter, aging, deformation, ablation, fracture, etc.
2. Check whether the results are normal.

No

Clean the foreign matters or replace the DC charging port.

Yes

| | |
|---|----------------------------------|
| 3 | Check the harness and connector. |
|---|----------------------------------|

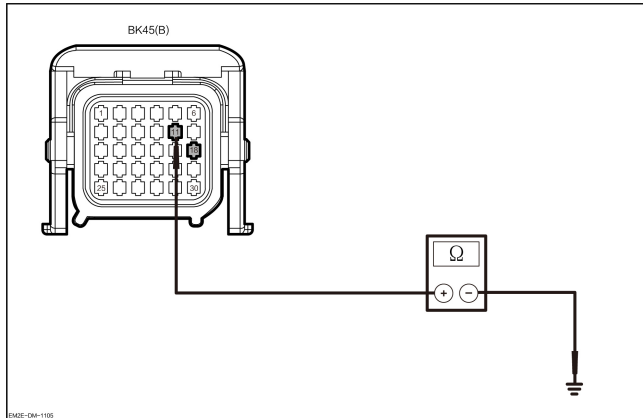
1. Disconnect the harness connector BK45(B) of intergrated intelligent front drive control module.
2. Disconnect AC/DC charging port B53_3.
3. Check the harness and connector for aging, deformation, ablation, fracture, etc.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the AC/DC charging harness is shorted to ground. |
|---|--|



1. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)-11 and the ground.
2. Measure the resistance value between the integrated intelligent front drive control module harness connector BK45(B)-18 and the ground.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-11 | Ground | Through- out | Above 10k Ω |
| BK45(B)-18 | | | |

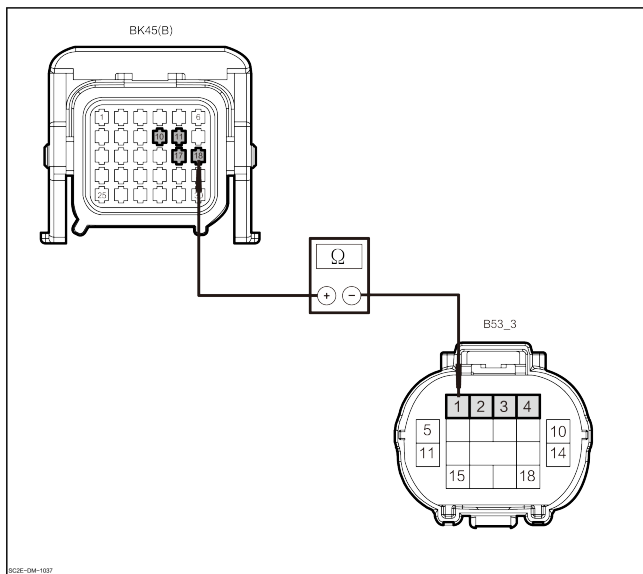
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check whether the dc charging harness is open circuited.



1. Set the START/STOP button to OFF.
2. Disconnect the integrated intelligent front drive control module harness connector BK45 (B).
3. Disconnect the AC/DC charging port harness connector B53_3.
4. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-18 and the harness connector of AC/DC charging port B53_3-1.
5. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-11 and the harness connector of AC/DC charging port B53_3-3.
6. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-17 and the harness connector of AC/DC charging port B53_3-2.
7. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(B)-10 and the harness connector of AC/DC charging port B53_3-4.

| Connector | | Condition | Resist- ance value |
|----------------|---------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)- 18 | B53_3-1 | Through- out | Lower than 1Ω |
| BK45(B)- 11 | B53_3-3 | | |
| BK45(B)- 17 | B53_3-2 | | |
| BK45(B)- 10 | B53_3-4 | | |

8. Check whether the results are normal.

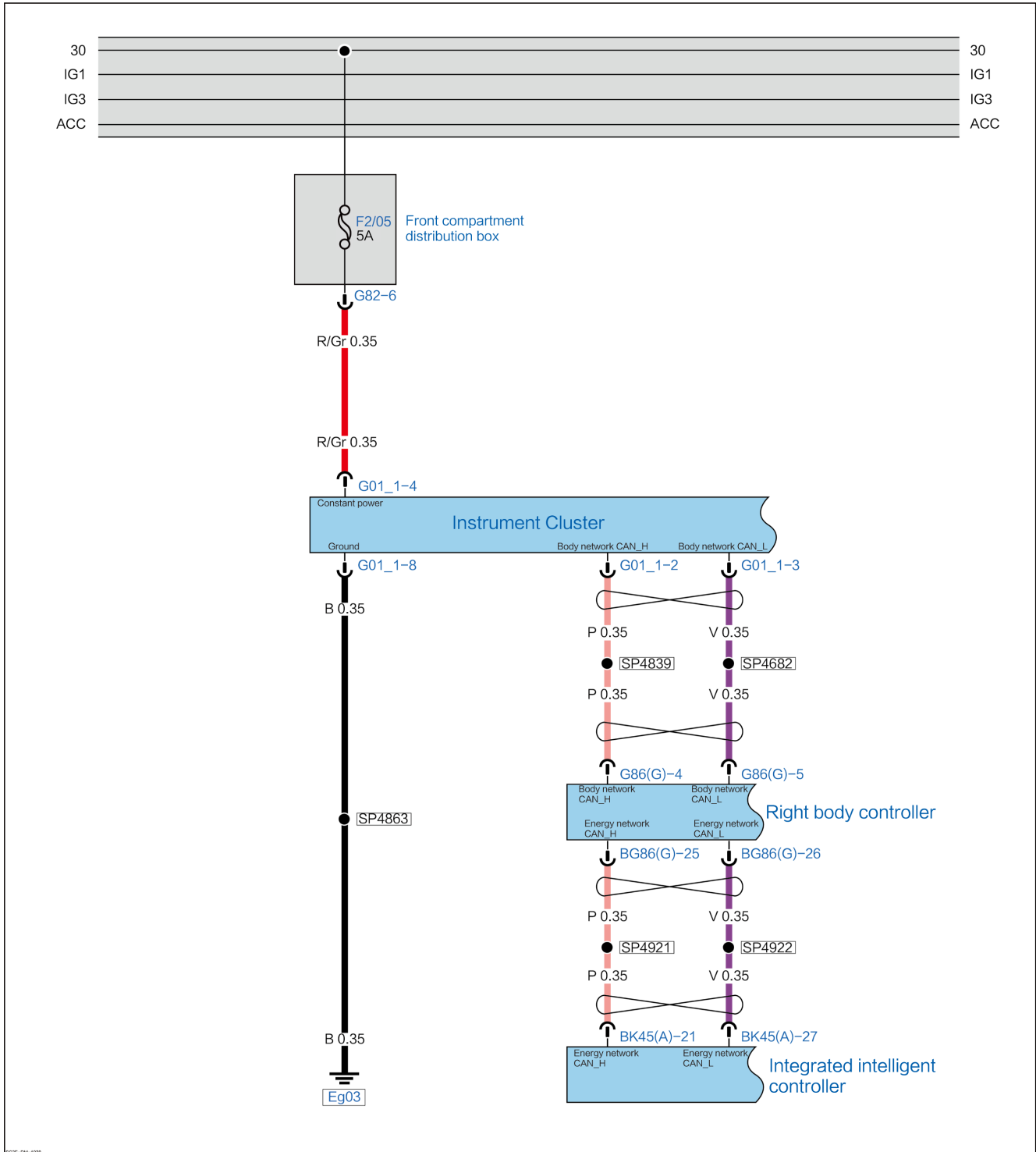
- No Repair or replace the wire harness
- Yes Replace the AC/DC charging port.

U015587 Communication with Combination Instrument Failed

DTC Description

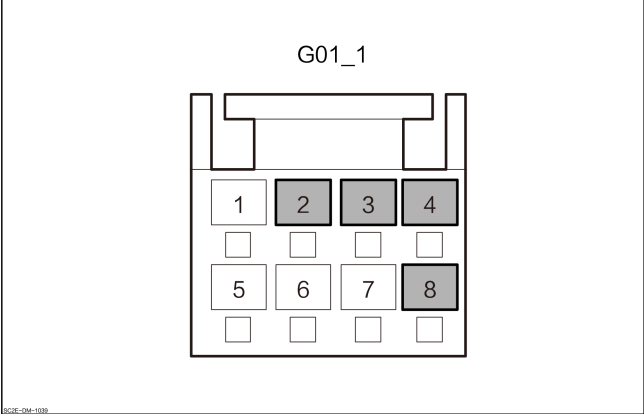
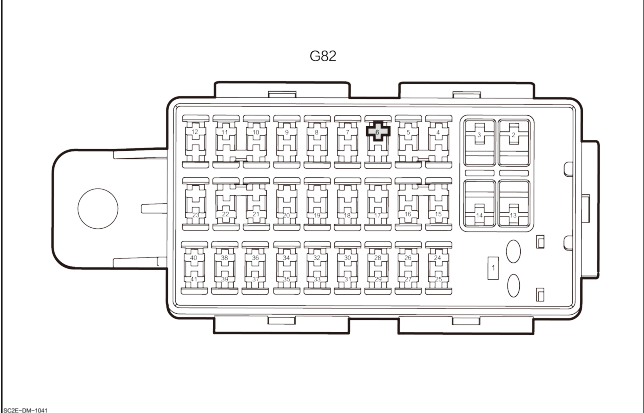
| U015587 Communication with Combination Instrument Failed | |
|--|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Combination instrument fault..2. The CAN harness fault.3. Smart integrated control unit fault. |
| Fault setting conditions | Communication fault with combination instrument. |
| Trigger fault conditions | DTC is generated if the system does not receive the combination instrument message within a certain time. |

Circuit Diagram



SCHE-DM-1038

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-------------------------------------|
| <p style="text-align: center;">Combination Instrument</p> <p style="text-align: center;">G01_1</p>  <p><small>82CE-004-1032</small></p> | 2 | CAN_-H |
| | 3 | CAN_L |
| | 4 | Constant power |
| | 8 | Ground |
| <p style="text-align: center;">Front compartment fuse box</p> <p style="text-align: center;">G82</p>  <p><small>82CE-004-1041</small></p> | 6 | Combination instrument power supply |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of combination instrument. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|----------------------------------|
| 2 | Check the communication network. |
|---|----------------------------------|

1. Use a VDS to execute the network test.
2. Check whether the combination instrument passes the network detection.

Yes

Go to step 9

No

| | |
|---|-------------|
| 3 | Check fuses |
|---|-------------|

1. Check whether the front compartment fuse box fuse F2/05 (5 A) is normal.

No

Replace the fuse

Yes

| | |
|---|---|
| 4 | Check the combination instrument harness and connector. |
|---|---|

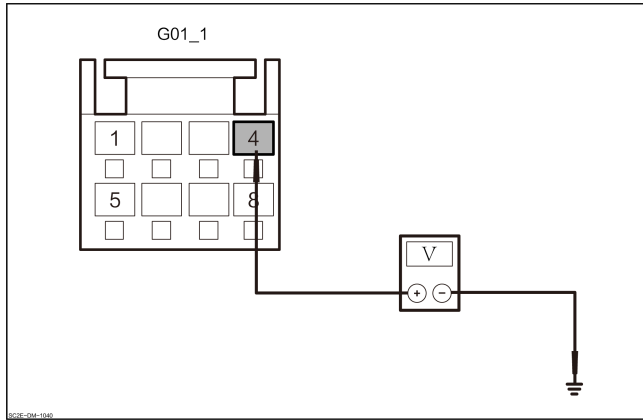
1. Set the START/STOP button to “OFF” .
2. Disconnect the combination switch harness connector G01_1.
3. Check whether the combination instrument harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 5 | Check the combination instrument constant power supply. |
|---|---|



1. Measure the voltage value between the combination instrument harness connector G01_1-4 and the ground.

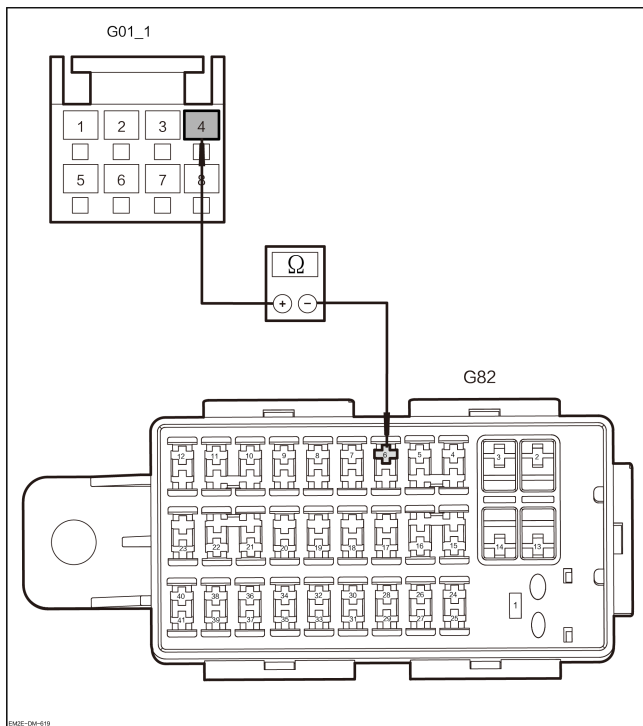
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G01_1-4 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

Yes Go to step 7

No

6 Check whether the constant power supply of combination instrument is open circuited.



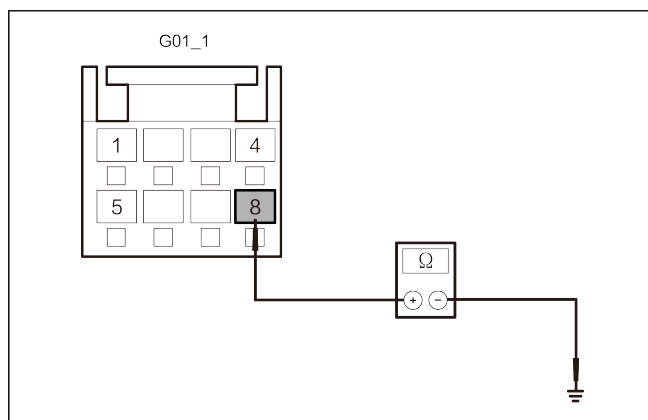
1. Set the START/STOP button to “OFF” .
 2. Disconnect the front compartment fuse box harness connector G82.
 3. Measure the resistance value between the combination instrument harness connector G01_1-4 and the instrument fuse box harness connector G82-6.

| Connector | | Condition | Resistance value |
|-----------|-------|-------------|------------------|
| (+) | (-) | | |
| G01_1-4 | G82-6 | Through-out | Lower than 1 Ω |

4. Check whether the results are normal.

No Repair or replace the wire harness
 Yes Replace the instrument fuse box, and the diagnosis is finished.

7 Check the combination instrument ground circuit.



1. Measure the resistance value between the combination instrument harness connector G01_1-8 and the ground.

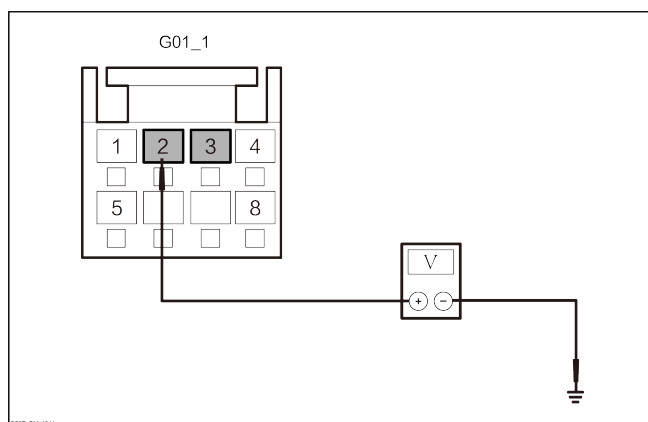
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G01_1-8 | Ground | Through- out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the combination instrument CAN line.



1. Set the START/STOP button to ON.
 2. Measure the voltage value between the combination instrument harness connector G01_1-2 and the ground.
 3. Measure the voltage value between the combination instrument harness connector G01_1-3 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G01_1-2 | Ground | Through- out | 1.5~2.5V |
| G01_1-3 | | | 2.5~3.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the smart integrated control unit.

9 Check the DTC of combination instrument.

1. Read the DTC of combination instrument with VDS
 2. Check whether other DTC exists.

Yes → Enter the “combination instrument” diagnosis.

No

| | |
|----|---|
| 10 | Check the DTC of right body control module. |
|----|---|

1. Use a VDS to read the right body control module DTC.
2. Check whether other DTC exists.

Yes

Enter “right body control module” diagnosis.

No

| | |
|----|---------------------------------|
| 11 | Check the DTC of other modules. |
|----|---------------------------------|

1. Is the communication timeout fault with the combination instrument read in other modules?

Yes

Replace the dashboard.

No

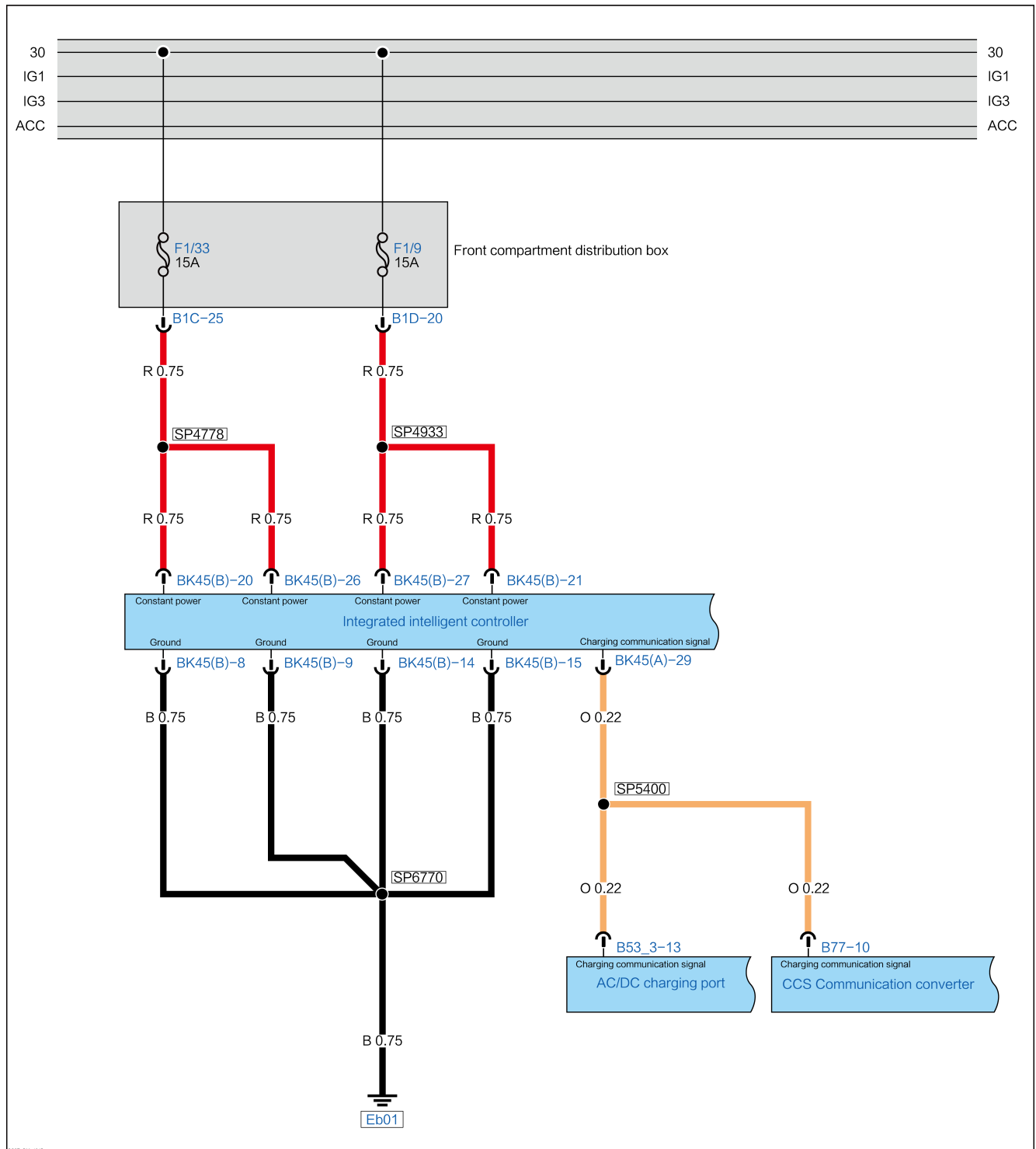
Replace the smart integrated control unit.

P1AC900 DC Charging Inductive Signal Circuit Broken

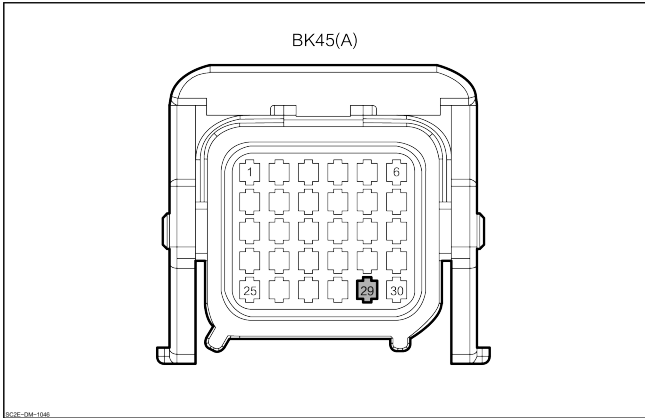
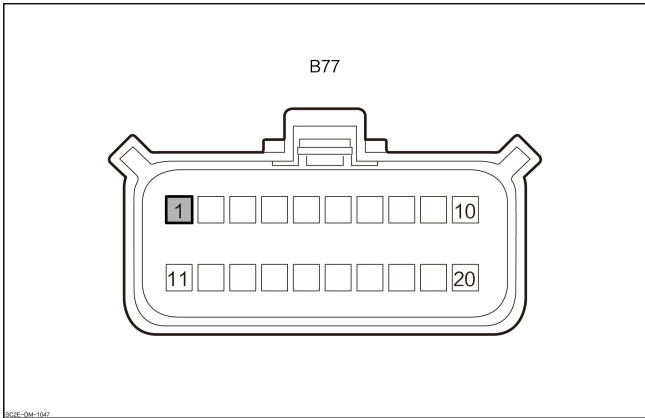
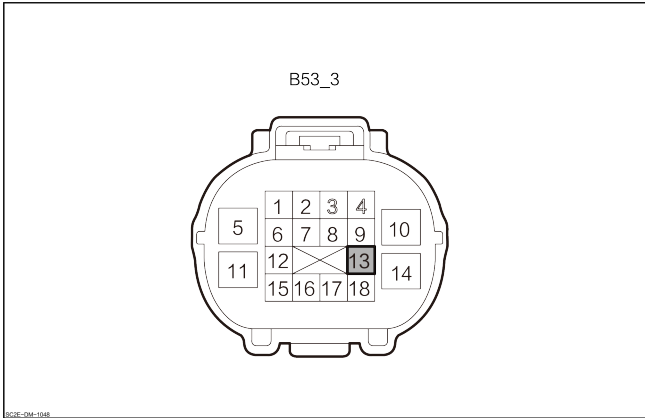
DTC Description

| P1AC900 DC Charging Inductive Signal Circuit Broken | |
|---|---|
| Symptom | The vehicle shows that it cannot be charged, and the instrument shows "Please check the on-board charging system". |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Smart integrated front drive control unit fault. |
| Fault setting conditions | DC charging induction signal interruption |
| Trigger fault conditions | When DC charging induction signal interruption is detected, a DTC will be generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--------------------------------------|
| <p>Smart integrated front drive control unit</p>  <p>BK45(A)</p> | <p>29</p> | <p>Charging communication signal</p> |
| <p>CCS Communication Converter</p>  <p>B77</p> | <p>1</p> | <p>Charging communication signal</p> |
| <p>AC/DC charging port</p>  <p>B53_3</p> | <p>13</p> | <p>Charging communication signal</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of combination instrument. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness connector of the integrated intelligent front drive control module. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the integrated intelligent front drive control module harness connector BK45 (A).
3. Check whether the integrated intelligent front drive control module harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the AC/DC charging port harness connector. |
|---|--|

1. Disconnect AC/DC charging port harness connector B53_3.
2. Check whether the integrated intelligent front drive control module harness connector is normal.

No

Repair or replace the wire harness

Yes

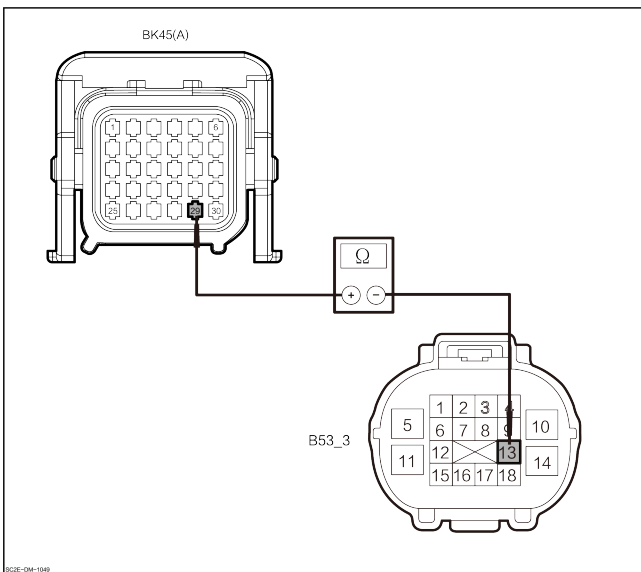
| | |
|---|---|
| 4 | Check the harness connector of CCS communication converter. |
|---|---|

1. Disconnect the harness connector of CCS communication converter B77.
2. Check the harness connector of CCS communication converter for normal function.

No → Repair or replace the wire harness

Yes

5 Check the signal line between the integrated intelligent control module and the DC charging for open circuit.



1. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(A)-29 and the harness connector of DC charging port B53_3-13.

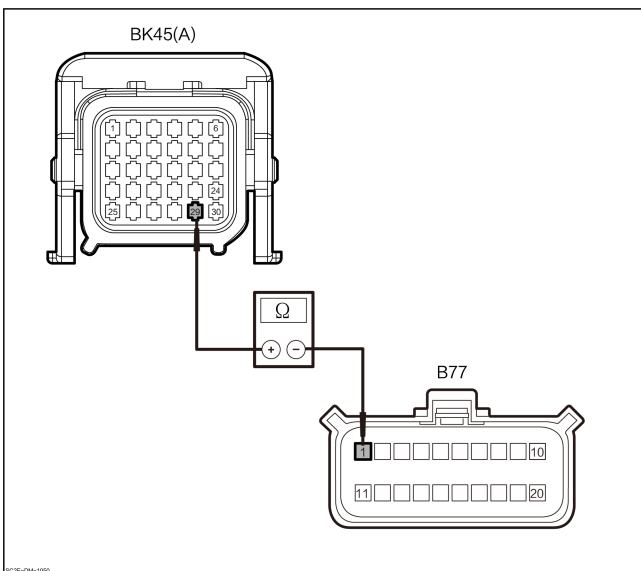
| Connector | | Condition | Resistance value |
|------------|----------|-------------|------------------|
| (+) | (-) | | |
| BK45(A)-29 | B53_3-13 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the signal line between the integrated intelligent control module and the CCS communication converter for open circuit.



1. Measure the resistance between the harness connector of integrated intelligent front drive control module BK45(A)-29 and the harness connector of CSS communication converter B77-1.

| Connector | | Condition | Resistance value |
|------------|-------|-------------|------------------|
| (+) | (-) | | |
| BK45(A)-29 | B77-1 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the smart integrated front drive control unit.

P1AE800 DC Charging Anode Contactor Loop Check Fault

DTC Description

| P1AE800 DC Charging Anode Contactor Loop Check Fault | |
|--|--|
| Symptom | DC charging is impossible when the meter displays "Please check the on-board charging system". |
| Possible Cause | 1. Harness or connector fault. 2. Smart integrated front drive control unit fault. |
| Fault setting conditions | Abnormal DC charging positive contactor loop check. |
| Trigger fault conditions | When DC charging positive contactor loop check fault is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No → Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the integrated intelligent front drive control module harness connectors BK45 (A) and BK45 (B).
2. Check the harness and connectors for aging, deformation, ablation, false connections, pin withdrawing, etc.
3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the smart integrated front drive control unit.

P1AE900 DC Charging Cathode Contactor Loop Check Fault

DTC Description

| P1AE900 DC Charging Cathode Contactor Loop Check Fault | |
|--|--|
| Symptom | DC charging is impossible when the meter displays "Please check the on-board charging system". |
| Possible Cause | 1. Harness or connector fault. 2. Smart integrated front drive control unit fault. |
| Fault setting conditions | Abnormal DC charging positive contactor loop check. |
| Trigger fault conditions | When DC charging positive contactor loop check fault is detected, a DTC will be generated. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the dynamic body control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the integrated intelligent front drive control module harness and connector. |
|---|--|

1. Disconnect the integrated intelligent front drive control module harness connectors BK45 (A) and BK45 (A).
2. Check the harness and connectors for aging, deformation, ablation, false connections, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes







Replace the smart integrated front drive control unit.

P1ACB07 DC Charging Anode Contactor Sintering

DTC Description

| P1ACB07 DC Charging Anode Contactor Sintering | |
|---|--|
| Symptom | The instrument displays the alarm of "EV function limited", and the discharging and charging are prohibited. |
| Possible Cause | 1. DC charging anode contactor sintering 2. Electric leakage of smart integrated front drive control unit. |
| Fault setting conditions | DC charging cathode contactor sintering |
| Trigger fault conditions | When the vehicle is in powered on and the system detects the sintering signal of the DC charging positive contactor, DTC is generated. |

Diagnostic Steps

| | |
|--|---|
| 1 | Check the DC charging positive contactor. |
| <ol style="list-style-type: none"> 1. Disconnect all connectors of the integrated intelligent front drive control module. 2. Measure the resistance value between the positive pole of the integrated intelligent front drive control module DC bus interface and the positive pole of the DC charging. 3. Is the result less than 1 Ω? | |
| <p>Yes  Replace the smart integrated front drive control unit.</p> | |
| <p>No </p> | |
| 2 | Check the insulation resistance of the integrated intelligent front drive control module. |
| <ol style="list-style-type: none"> 1. Measure the insulation resistance of the integrated intelligent front drive control module. 2. Is the measured value higher than 2MΩ? | |
| <p>No  Replace the smart integrated front drive control unit.</p> | |
| <p>Yes </p> | |
| 3 | Check the dynamic body control module DTC. |
| <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the START/STOP button to ON. 3. Clear DTCs. 4. Set the START/STOP button to OFF, and wait a few seconds. 5. Place the start/stop button in ON position again, and read the DTC. 6. Check whether the same DTC is displayed. | |
| <p>No  Check the “intermittent fault” .</p> | |
| <p>Yes  Replace the smart integrated front drive control unit.</p> | |

P1ACC07 DC Charging Cathode Contactor Sintering

DTC Description

| P1ACC07 DC Charging Cathode Contactor Sintering | |
|---|--|
| Symptom | The instrument displays the alarm of "EV function limited", and the discharging and charging are prohibited. |
| Possible Cause | 1. DC charging cathode contactor sintering 2. Electric leakage of smart integrated front drive control unit. |
| Fault setting conditions | DC charging cathode contactor sintering |
| Trigger fault conditions | When the vehicle is powered on and the system detects DC charging negative contactor sintering signal, DTC is generated. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DC charging positive contactor. |
| <ol style="list-style-type: none"> 1. Disconnect all connectors of the integrated intelligent front drive control module. 2. Measure the resistance value between the negative pole of the DC bus interface of the integrated intelligent front drive control module and the negative pole of the DC charging. 3. Is the result less than 1 Ω? | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">Yes</div> <div style="border: 1px solid black; padding: 5px;">Replace the smart integrated front drive control unit.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">No</div> | |
| 2 | Check the insulation resistance of the integrated intelligent front drive control module. |
| <ol style="list-style-type: none"> 1. Measure the insulation resistance of the integrated intelligent front drive control module. 2. Is the measured value higher than 2MΩ? | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Replace the smart integrated front drive control unit.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 3 | Check the dynamic body control module DTC. |
| <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the START/STOP button to ON. 3. Clear DTCs. 4. Set the START/STOP button to OFF, and wait a few seconds. 5. Place the start/stop button in ON position again, and read the DTC. 6. Check whether the same DTC is displayed. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Check the “intermittent fault” .</div> </div> | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">Yes</div> <div style="border: 1px solid black; padding: 5px;">Replace the smart integrated front drive control unit.</div> </div> | |

P2B9100 Abnormal DC charging port voltage


DTC Description

| P2B9100 Abnormal DC charging port voltage | |
|---|--|
| Symptom | The instrument displays the alarm of "EV function limited", and the discharging and charging are prohibited. |
| Possible Cause | 1. DC charging positive or negative contactor is sintered at the same time. 2. Serious electric leakage of high voltage parts. |
| Fault setting conditions | DC charging cathode contactor sintering or serious electric leakage. |
| Trigger fault conditions | When the vehicle is powered on and the system detects the sintering signal or serious leakage of the DC charging negative contactor, DTC is generated. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DC charging positive contactor. |
|---|---|

1. Disconnect all connectors of the integrated intelligent front drive control module.
2. Measure the resistance value between the negative pole of the DC bus interface of the integrated intelligent front drive control module and the negative pole of the DC charging.
3. Is the result less than 1 Ω ?

Yes  Replace the smart integrated front drive control unit.

No 

| | |
|---|--|
| 2 | Check the insulation resistance of battery pack. |
|---|--|


1. Read the insulation resistance of the power battery pack with VDS.
2. Is the inspection result greater than 100 Ω/V ?

No  Replace the power battery pack.

Yes 

| | |
|---|--|
| 3 | Check the insulation resistance of compressor. |
|---|--|

1. Disconnect the negative pole of battery.
2. Disconnect the high-pressure connector of the integrated intelligent front drive control module compressor.
3. Measure the insulation resistance of compressor.
4. Is the inspection result more than 2 M Ω ?

No  Replace the compressor.

Yes 

| | |
|---|---|
| 4 | Check the insulation resistance of the integrated AC/DC charging vehicle socket sub-assembly. |
|---|---|

1. Disconnect the high voltage connector of the AC charging port for the integrated intelligent front drive control module.
2. Disconnect the high voltage connector of the DC charging port of the integrated intelligent front drive control module.

3. Measure the insulation resistance of the integrated AC/DC charging vehicle socket sub-assembly.
4. Is the inspection result more than 2 M Ω ?

No

Replace the integrated AC and DC charging socket subassembly

Yes

| | |
|---|---|
| 5 | Check the insulation resistance of the integrated intelligent front drive control module. |
|---|---|

1. Disconnect the integrated intelligent front drive control module from the drive motor copper bar.
2. Measure the insulation resistance of the integrated intelligent front drive control module.
3. Is the inspection result more than 2 M Ω ?

No

Replace the smart integrated front drive control unit.

Yes

| | |
|---|--|
| 6 | Check the insulation resistance of drive motor assembly. |
|---|--|

1. Measure the insulation resistance of drive motor assembly.
2. Is the inspection result more than 2 M Ω ?

No

Replace the drive motor assembly.

Yes

Replace the smart integrated front drive control unit.

| | | | |
|---|-----|--|------|
| Suspension System..... | 913 | C050800 Short Circuit between Signal Wire and Ground Wire of Right Front Wheel Speed Sensor..... | 997 |
| Front Subframe..... | 913 | C003400 Right Front Wheel Speed Sensor Signal Fault..... | 1002 |
| Diagnosis Description..... | 913 | C050B76 Incorrect Installation Direction of Right Front Wheel Speed Sensor..... | 1004 |
| Diagnosis of General Faults..... | 914 | C050A00 Right Front Wheel Speed Sensor Air Gap Abnormal..... | 1006 |
| Rear Suspension Arm..... | 918 | C050C00 Left Rear Wheel Speed Sensor Open-circuited..... | 1009 |
| Diagnosis Description..... | 918 | C003800 Supply Voltage of Left Rear Wheel Speed Sensor Low..... | 1015 |
| Diagnosis of General Faults..... | 919 | C050F00 Short Circuit between Left Rear Wheel Speed Sensor Signal Line and Power Supply Line..... | 1021 |
| Drive System..... | 921 | C050E00 Short Circuit between Signal Wire and Ground Wire of Left Rear Wheel Speed Sensor..... | 1026 |
| Transmission Shaft..... | 921 | C003700 Left Rear Wheel Speed Sensor Signal Fault..... | 1031 |
| Diagnosis Description..... | 921 | C051176 Incorrect Installation Direction of Left Rear Wheel Speed Sensor..... | 1033 |
| Diagnosis of General Faults..... | 922 | C051000 Left Rear Wheel Speed Sensor Air Gap Abnormal..... | 1035 |
| Wheel System..... | 924 | C051200 Right Rear Wheel Speed Sensor Open-circuited..... | 1038 |
| Diagnosis Description..... | 924 | C003B00 Supply Voltage of Right Rear Wheel Speed Sensor Low..... | 1044 |
| Diagnosis of General Faults..... | 925 | C051500 Short Circuit between Right Rear Wheel Speed Sensor Signal Line and Power Supply Line..... | 1050 |
| Brake System..... | 927 | C051400 Short Circuit between Signal Wire and Ground Wire of Right Rear Wheel Speed Sensor..... | 1055 |
| Intelligent Power Braking System..... | 927 | C003A00 Right Rear Wheel Speed Sensor Signal Fault..... | 1060 |
| Diagnosis Description..... | 927 | C051776 Incorrect Installation Direction of Right Rear Wheel Speed Sensor..... | 1062 |
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| C050300 Short Circuit between Left Front Wheel Speed Sensor Signal Line and Power Supply Line..... | 963 | | |
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| C050576 Incorrect Installation Direction of Left Front Wheel Speed Sensor..... | 975 | | |
| C050400 Left Front Wheel Speed Sensor Air Gap Abnormal..... | 977 | | |
| C050600 Right Front Wheel Speed Sensor Open-circuited..... | 980 | | |
| C003500 Supply Voltage of Right Front Wheel Speed Sensor Low..... | 986 | | |
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| C052901 Steering Angle Sensor Module Lost..... | 1083 | C05C24B Temperature of Brake Booster Motor Too High..... | 1157 |
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| C001500 Right Front Outlet Valve Fault | 1129 | C05B001 Brake Hydraulic Circuit L1 Leaky | 1211 |
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| C057A00 Circuit Voltage of Brake Booster Temperature Sensor B Too High..... | 1153 | | |
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| | | | |
|---|-------------|--|-------------|
| P060400 ECU Internal Control Module Fault(RAM)..... | 1221 | C11A006 Actuator Overload(integrated) | 1320 |
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| C055000 ECU Fault..... | 1231 | Diagnosis of General Faults..... | 1325 |
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|---|------|
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| C1B9000 power supply lost – TRW.... | 1425 |

Suspension System

Front Subframe

Diagnosis Description

Before fault diagnosis for front subframe, understand and get familiar with the front subframe before front subframe diagnosis, and then start diagnosis for front subframe, so as to be helpful to confirm the correct fault diagnosis procedure in the event of a fault and, more importantly, to confirm whether the operating condition described by the customer is normal. Any diagnosis of a front subframe should start with a front subframe to guide the maintenance technician to take out the next logical step for fault diagnosis.

Diagnosis of General Faults

Visual Inspection

1. Confirm problems of customers.
2. Make visual inspection for obvious signs of mechanical damage and collision deformation.
3. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
4. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

| Symptom | Possible cause | Suggested maintenance measures |
|--|---|--|
| The height of the left and right side of the body is not consistent. | <ol style="list-style-type: none"> 1. Wheel, tyre and tyre pressure 2. Front Shock Absorber 3. Front shock absorber coil spring 4. Rear coil spring 5. Front swing arm | <ol style="list-style-type: none"> 1. Check wheel and tyre specifications and tyre pressure, and if abnormal, replace wheel and tyre or adjust tyre pressure. 2. Check whether the shock absorber rubber base is worn and replace the damaged parts of the shock absorber if abnormal. 3. Check the front shock absorber screw spring and replace the front shock absorber screw spring if abnormal. 4. Check the rear coil spring and replace it if it is abnormal. 5. Check the ball head and rubber bushing of the front swing arm. Replace the front swing arm if it is abnormal. |
| Incorrect wheel base | <ol style="list-style-type: none"> 1. Front suspension parts 2. Rear suspension parts 3. Front wheel bearing 4. The wheel alignment is improper. | <ol style="list-style-type: none"> 1. Check the front suspension components, and replace the damaged component if it is abnormal. 2. Check the rear suspension components and replace the damaged parts if abnormal. 3. Grasp the bottom and top of the wheel and shake it vigorously to check whether the bearing is excessively loose, and replace the front wheel bearing if abnormal. 4. Perform four-wheel alignment. |
| Abnormal wear of front tyre | <ol style="list-style-type: none"> 1. Wheel, tyre and tyre pressure 2. Front suspension parts 3. Front wheel bearing 4. The wheel alignment is improper. | <ol style="list-style-type: none"> 1. Check wheel and tyre specifications and tyre pressure, and if abnormal, replace wheel and tyre or adjust tyre pressure. 2. Check the front suspension components, and replace the damaged component if it is abnormal. 3. Grasp the bottom and top of the wheel and shake it vigorously to check whether the bearing is excessively loose, and replace the front wheel bearing if abnormal. 4. Perform four-wheel alignment. |
| Body running swing | <ol style="list-style-type: none"> 1. Wheel and tyre 2. Front suspension parts | <ol style="list-style-type: none"> 1. Check the wheel and tyre specifications, and replace the wheel and tyre if abnormal. 2. Check the front suspension components, and replace the damaged component if it is abnormal. |

| Symptom | Possible cause | Suggested maintenance measures |
|---------------------------------|---|--|
| | <ul style="list-style-type: none"> 3. Rear suspension parts 4. Front wheel bearing 5. Steering system component | <ul style="list-style-type: none"> 3. Check the rear suspension components and replace the damaged parts if abnormal. 4. Grasp the bottom and top of the wheel and shake it vigorously to check whether the bearing is excessively loose, and replace the front wheel bearing if abnormal. 5. Check the steering fastener and components, if abnormal, fasten or replace the damaged components. |
| Front suspension noise | <ul style="list-style-type: none"> 1. The fastener of the front suspension component is loosened 2. Front shock absorber, rubber base and plane bearing 3. Front swing arm 4. Front wheel bearing 5. Front horizontal stabilizer bar 6. Connecting rod ball joint | <ul style="list-style-type: none"> 1. Check the front suspension fasteners. If abnormal, tighten or replace the front suspension fasteners. 2. Check the front shock absorber, rubber base and plane bearing. If abnormal, replace the front shock absorber. 3. Check the rubber bushing and ball joint of front swing arm. If abnormal, replace the front swing arm. 4. Grasp the bottom and top of the wheel and shake it vigorously to check whether the bearing is excessively loose, and replace the front wheel bearing if abnormal. 5. Check the fasteners of the front stabilizer bar and rubber bushing. If abnormal, replace the front stabilizer bar or rubber bushing. 6. Check the connecting rod fastener and ball joint, if abnormal, tighten or replace the connecting rod ball joint. |
| Unable to keep straight driving | <ul style="list-style-type: none"> 1. Wheel and tyre 2. Front swing arm 3. Rear suspension parts 4. Front wheel bearing 5. Steering system component 6. The wheel alignment is improper. | <ul style="list-style-type: none"> 1. Check the wheel and tyre specifications, and replace the wheel and tyre if abnormal. 2. Check the rubber bushing and ball joint of front swing arm. If abnormal, replace the front swing arm. 3. Check the rear suspension components and replace the damaged parts if abnormal. 4. Grasp the bottom and top of the wheel and shake it vigorously to check whether the bearing is excessively loose, and replace the front wheel bearing if abnormal. 5. Check the steering fastener and components, if abnormal, fasten or replace the damaged components. 6. Perform four-wheel alignment. |

| Symptom | Possible cause | Suggested maintenance measures |
|---|---|---|
| Driving vibration | <ol style="list-style-type: none"> 1. Wheel, tyre and tyre pressure 2. Front swing arm 3. Front suspension parts 4. Rear suspension parts 5. Front and rear wheel bearing 6. Steering system component 7. The wheel alignment is improper. | <ol style="list-style-type: none"> 1. Check wheel and tyre specifications and tyre pressure, and if abnormal, replace wheel and tyre or adjust tyre pressure. 2. Check the rubber bushing and ball joint of front swing arm. If abnormal, replace the front swing arm. 3. Check the front suspension components, and replace the damaged component if it is abnormal. 4. Check the rear suspension components and replace the damaged parts if abnormal. 5. Grasp the bottom and top of the wheel and shake it vigorously to check whether the bearing is excessively loose, and replace the front and rear wheel bearings if abnormal. 6. Check the steering fastener and components, if abnormal, fasten or replace the damaged components. 7. Perform four-wheel alignment. |
| The front suspension is too soft or too hard. | <ol style="list-style-type: none"> 1. Wheel, tyre and tyre pressure 2. Front Shock Absorber | <ol style="list-style-type: none"> 1. Check wheel and tyre specifications and tyre pressure, and if abnormal, replace wheel and tyre or adjust tyre pressure. 2. Check the wear of the shock absorber rubber base. If abnormal, replace the damaged parts of the shock absorber. |

Rear Suspension Arm

Diagnosis Description

Before fault diagnosis for the rear suspension arm, understand and get familiar with the structure of the rear suspension arm, and then start diagnosis for the rear suspension arm, so as to be helpful to confirm the correct fault diagnosis procedure in the event of a failure, and more importantly, to confirm whether the operating condition described by the customer is normal. Any fault diagnosis of the rear suspension arm should start with a rear suspension arm inspection to guide the maintenance technician to take the next logical step for fault diagnosis.

Diagnosis of General Faults

Visual Inspection

1. Confirm problems of customers.
2. Make visual inspection for obvious signs of mechanical damage and collision deformation.
3. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
4. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

| Symptom | Possible cause | Suggested maintenance measures |
|---|--|---|
| Noise of rear suspension while driving | <ol style="list-style-type: none"> 1. The fasteners of the rear suspension are loosened. 2. Rear shock absorber 3. Rear suspension parts bushing 4. Rear coil spring rubber base | <ol style="list-style-type: none"> 1. Check the rear suspension fasteners. If abnormal, tighten or replace the damaged parts. 2. Check the wear of the shock absorber rubber base. If abnormal, replace the damaged parts of the shock absorber. 3. Check the rear suspension component bushing and replace the rear suspension component bushing if abnormal. 4. Check the rubber base of the rear coil spring and replace the rear coil spring if abnormal. |
| The rear suspension is too soft or too hard | <ol style="list-style-type: none"> 1. Wheel, tyre and tyre pressure 2. Rear shock absorber 3. Rear coil spring rubber base | <ol style="list-style-type: none"> 1. Check the front suspension parts. If abnormal, repair or replace the damaged parts. 2. Check the rear shock absorber rubber base for wear. If it is abnormal, replace the damaged parts of the rear shock absorber. 3. Check the rubber base of the rear coil spring and replace the rear coil spring if abnormal. |

Drive System

Transmission Shaft

Diagnosis Description

Before fault diagnosis for the drive shaft, understand and get familiar with the working principle of the drive shaft, and then start the diagnosis of the drive shaft, so as to be helpful to confirm the correct fault diagnosis procedure in the event of fault, and more importantly, to confirm whether the operating condition described by the customer is normal. Any diagnosis of a drive shaft should start with the inspection of drive shaft to guide the maintenance technician to take the next logical step for fault diagnosis.

Diagnosis of General Faults

Visual Inspection

1. Confirm problems of customers.
2. Make visual inspection for obvious signs of mechanical damage and collision deformation.
3. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
4. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

| Symptom | Possible cause | Suggested maintenance measures |
|--|---|--|
| Transmission shaft has abnormal sound. | <ol style="list-style-type: none"> 1. Insufficient lubrication for drive shaft universal joint 2. The drive shaft is in contact with other parts. | <ol style="list-style-type: none"> 1. Check whether the dust cover of drive shaft is damaged, whether the lubricating oil leaks, etc. If abnormal, repair the faulty part. 2. Check whether the drive shaft is entangled by other sundries and contact with other components, if abnormal, clean the sundries or repair the faulty part. |
| Vibration at high speed | <ol style="list-style-type: none"> 1. Wheel out of balance 2. Excessive radial run-out of front wheel 3. Drive shaft is installed incorrectly. | <ol style="list-style-type: none"> 1. Balance the wheels. 2. Replace or maintain the wheel. 3. Reinstall or replace the drive shaft. |

Wheel System

Diagnosis Description

Before fault diagnosis for the wheel system, understand and get familiar with the working principle of the wheel system, and then start the diagnosis of the wheel system, so as to be helpful to confirm the correct fault diagnosis procedure in the event of fault, more importantly, to confirm whether the operating condition described by the customer is normal. Any fault diagnosis of the wheel system shall start with the wheel system inspection to guide the maintenance technician to take the next logical step for fault diagnosis.

Diagnosis of General Faults

Visual Inspection

1. Confirm problems of customers.
2. Make visual inspection for obvious signs of mechanical damage and collision deformation.
3. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
4. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

| Symptom | Possible cause | Recommended measures for maintenance |
|--|---|---|
| Excessive wear of tyre edges | <ol style="list-style-type: none"> 1. Inadequate tyre pressure 2. The wheel alignment is improper. | <ol style="list-style-type: none"> 1. Adjust tyre pressure. 2. Perform four-wheel alignment. |
| Vehicle vibration caused by wheel or tires | <ol style="list-style-type: none"> 1. Tyre pressure is too high. 2. Wheel or tyre out of balance. 3. Abnormal tyre wear. 4. Accumulated water in tyre tread. 5. The wheel is deformed. 6. Tyre rim is installed incorrectly. 7. Excessive wheel or tyre radial run-out. 8. Loose wheel nuts or enlarged wheel bolt holes. 9. There are foreign matters between the wheel mounting surface and the wheel hub. 10The brake disc is out of balance. 11The wheel bearing is loose or is damaged. | <ol style="list-style-type: none"> 1. Adjust tyre pressure. 2. Balance the tires and wheels. 3. Check the cause of abnormal wear and tear, and replace the tyre if necessary. 4. Remove the accumulated water in the tyre tread. 5. Replacement of wheel 6. Rotate the wheel on the vehicle and check the joint between the tyre and the wheel. If it is found that a certain part swings during rotation, it may be that the wheel and the tyre are not assembled properly. Remove the tyre and clean the junction between the wheel and the tyre. 7. Measure the radial run-out of wheel or tyre with dial indicator. If the radial runout of wheel or tyre is out of specified range, check the radial run-out of wheel bolt further, and replace the wheel bolt if the radial run-out of wheel bolt is out of specified range. 8. Fasten or replace the damaged parts. 9. Clean the mounting surface. 10Check whether the brake disc has soil, debris or other serious dirt, and check whether the brake disc has excessive wear and damage resulting in imbalance. 11Repair or replace the damaged parts. |

Brake System

Intelligent Power Braking System

Diagnosis Description

Introduction

When diagnosing the faults of the intelligent power braking system, in order to understand and get familiar with the working principle of the intelligent power braking system, go to the description and operation overview. Before diagnosis, confirm the fault phenomenon described by the customer, and then analyze the cause of the fault in the intelligent power braking system, so as to be helpful to confirm the correct fault diagnosis procedures. For inspection and measurement on the lines and components of the intelligent power braking system, give priority to the use of functions such as data flow and action test in order to improve diagnosis efficiency and shorten maintenance time. After the fault is confirmed, the precautions and warnings should be understood when repairing the intelligent power braking system, and the standard operation procedure should be implemented. Check the intelligent power braking system and confirm its working condition after repair.

General equipment

- Multimeter
- VDS

ⓘ Reminder:

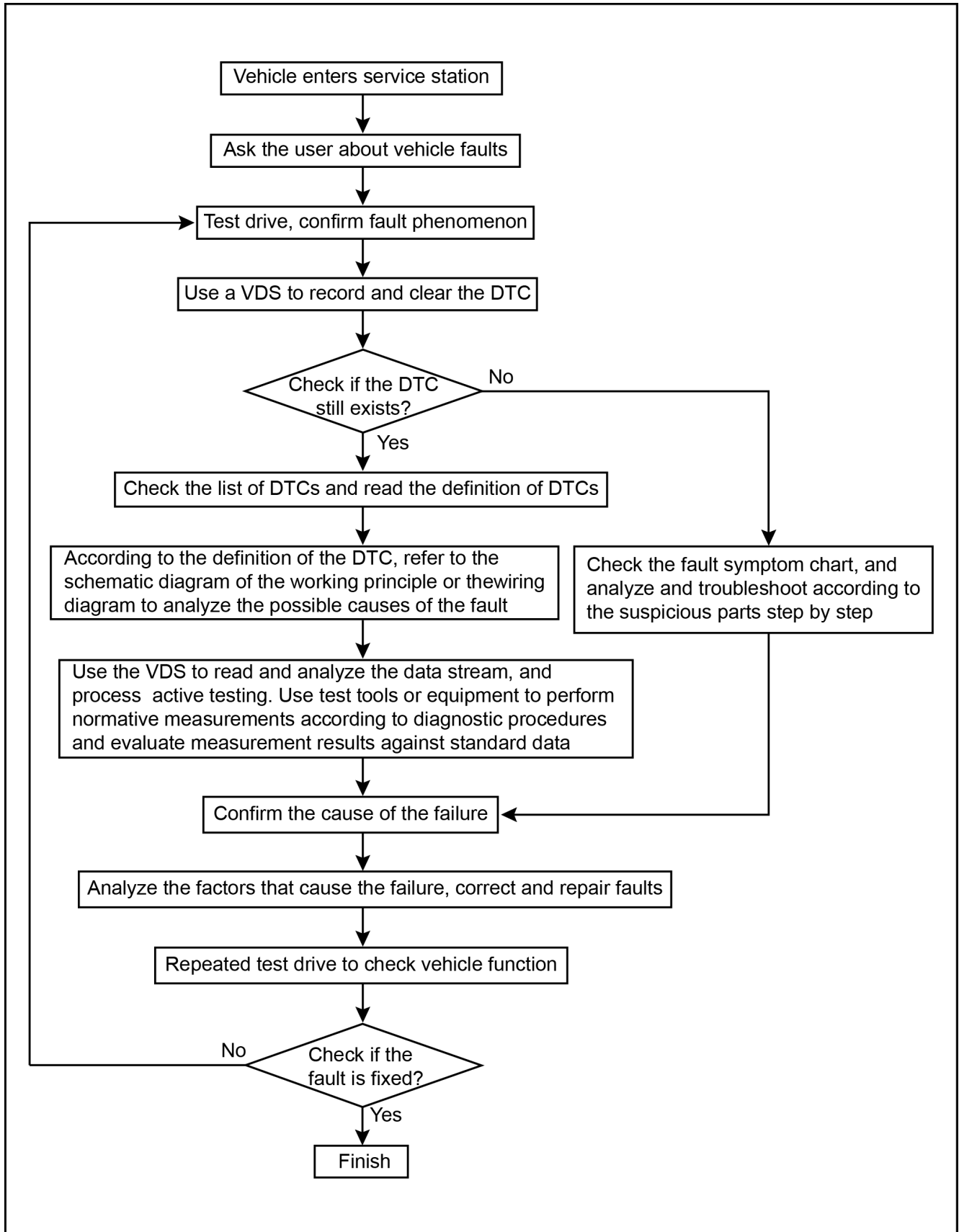
- When measuring the voltage value with a multimeter, select the closest range to the voltage value.
- When measuring the resistance value with a multimeter, select the closest range to the resistance value.

Precautions

The smart power brake system is a safety related component. Therefore, for the maintenance and diagnosis, in addition to the general safe and preventive measures, the following precautions must be observed.

1. The smart power brake system must be repaired by technicians who have undergone professional trainings and mastered repair skills and only parts and components from the manufacturer are allowed to be used for replacement.
2. Before the diagnosis of the smart power brake system, if there is a fault in the basic braking system, it must be eliminated, including:
 - a. The noise exists in the brake system
 - b. The brake pedal is difficult to be pressed.
 - c. The brake pedal or the vehicle vibrate during normal braking.
 - d. The vehicle brake deviates.
 - e. The braking system fails.
3. The smart power brake system assembly (including the ESP ECU and HCU assembly and excluding auxiliary devices such as brake lines and sensors) can only be replaced as a whole, and cannot be disassembled or partially replaced/interchanged.
4. The following two situations indicate a smart power brake system fault:
 - a. The warning light remains on after turning the power supply ON.
 - b. The warning light stays on while driving.
5. The following points should be paid attention to when connecting the smart power brake system and sensor harnesses:
 - a. Before disconnecting the smart power brake system and sensor harnesses, turn the power OFF.
 - b. Make sure the connectors are dry and clean, and pay attention to prevent any foreign matter from entering.
 - c. Smart power brake system The connector of the ESP harness must be installed properly in the horizontal and vertical directions to prevent damage to the connector.
6. The smart power brake system may generate noises in the following situations:
 - a. In addition, when the vehicle is powered on, it will produce a transient “buzz” sound, which is normal because the smart power brake system is performing the self-test.
 - b. In addition, when the vehicle accelerates to about 15 km/h, it will produce a transient “buzz” sound, which is normal because the smart power brake system is performing the dynamic self-test.
 - c. Sound produced by the actions of the motor, the solenoid valve and the reflux pump in the smart power brake system hydraulic unit
 - d. Sound caused by the brake pedal rebound.
 - e. Sound caused by the impact between the suspension and the body due to emergency braking.

Process of Fault Inspection and Troubleshooting



DTC Diagnosis

List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|--|--|
| P056200 | System voltage too low | P056200 System Voltage Too Low |
| P056300 | System voltage too high | P056300 System Voltage Too High |
| C004900 | Brake brake fluid level lower than threshold | C004900 Brake Fluid Level Under Normal Value |
| C050000 | Left front wheel speed open-circuited | C050000 Left Front Wheel Speed Sensor Open-circuited |
| C003200 | Low supply voltage of left front wheel speed sensor | C003200 Supply Voltage of Left Front Wheel Speed Sensor Low |
| C050300 | Left front wheel speed sensor signal line is short to power line | C050300 Short Circuit between Left Front Wheel Speed Sensor Signal Line and Power Supply Line |
| C050200 | Left front wheel speed sensor signal line is short to ground line | C050200 Short Circuit between Left Front Wheel Speed Sensor Signal Line and Ground Line |
| C003100 | Left front wheel speed sensor signal fault | C003100 Left Front Wheel Speed Sensor Signal Fault |
| C050576 | Installation Direction Of Left Front Wheel Speed Sensor Incorrect | C050576 Incorrect Installation Direction of Left Front Wheel Speed Sensor |
| C050400 | Left front wheel speed sensor air gap abnormal | C050400 Left Front Wheel Speed Sensor Air Gap Abnormal |
| C050600 | Right front wheel speed open-circuited | C050600 Right Front Wheel Speed Sensor Open-circuited |
| C003500 | Low supply voltage of right front wheel speed sensor | C003500 Supply Voltage of Right Front Wheel Speed Sensor Low |
| C050900 | Right front wheel speed sensor signal line is short to power line | C050900 Short Circuit between Right Front Wheel Speed Sensor Signal Line and Power Supply Line |
| C050800 | Right front wheel speed sensor signal line is short to ground line | C050800 Short circuit between right front wheel speed sensor signal line and ground line |
| C003400 | Right front wheel speed sensor signal fault | C003400 Right Front Wheel Speed Sensor Signal Fault |
| C050B76 | Installation Direction Of Right Front Wheel Speed Sensor Incorrect | C050B76 Incorrect Installation Direction of Right Front Wheel Speed Sensor |

| DTC: | Meaning | Diagnostic Process |
|---------|---|---|
| C050A00 | Right front wheel speed sensor air gap abnormal | C050A00 Right Front Wheel Speed Sensor Air Gap Abnormal |
| C050C00 | Left rear wheel speed open-circuited | C050C00 Left Rear Wheel Speed Sensor Open-circuited |
| C003800 | Low supply voltage of left rear wheel speed sensor | C003800 Supply Voltage of Left Rear Wheel Speed Sensor Low |
| C050E00 | Left rear wheel speed sensor signal line is short to ground line | C050 E00 Short circuit between left rear wheel speed sensor signal line and ground line |
| C050F00 | Left rear wheel speed sensor signal line is short to power line | C050F00 Short Circuit between Left Rear Wheel Speed Sensor Signal Line and Power Supply Line |
| C003700 | Left rear wheel speed sensor signal fault | C003700 Left Rear Wheel Speed Sensor Signal Fault |
| C051176 | Installation Direction Of Left Rear Wheel Speed Sensor Incorrect | C051176 Incorrect Installation Direction of Left Rear Wheel Speed Sensor |
| C051000 | Left rear wheel speed sensor air gap abnormal | C051000 Left Rear Wheel Speed Sensor Air Gap Abnormal |
| C051200 | Right rear wheel speed open-circuited | C051200 Right Rear Wheel Speed Sensor Open-circuited |
| C003B00 | Low supply voltage of right rear wheel speed sensor | C003B00 Supply Voltage of Right Rear Wheel Speed Sensor Low |
| C051500 | Right rear wheel speed sensor signal line is short to power line | C051500 Short Circuit between Right Rear Wheel Speed Sensor Signal Line and Power Supply Line |
| C051400 | Right rear wheel speed sensor signal line is short to ground line | C051400 Short circuit between right rear wheel speed sensor signal line and ground line |
| C003A00 | Right rear wheel speed sensor signal fault | C003A00 Right Rear Wheel Speed Sensor Signal Fault |
| C051776 | Installation Direction Of Right Rear Wheel Speed Sensor Incorrect | C051776 Incorrect Installation Direction of Right Rear Wheel Speed Sensor |
| C051600 | Right rear wheel speed sensor air gap abnormal | C051600 Right Rear Wheel Speed Sensor Air Gap Abnormal |
| U043204 | Communication of yaw rate sensor timeout | U043204 Communication Timeout at Yaw Rate Sensor |
| C006A01 | Yaw rate sensor parameter wrongly configured | C006 A01 Yaw Rate Sensor Parameter Wrongly Configured |

| DTC: | Meaning | Diagnostic Process |
|---------|---|---|
| C051D01 | Yaw rate sensor calibration error | C051D01 Yaw Rate Sensor Wrongly Calibrated |
| C006A02 | Yaw rate sensor signal error | C006A02 Yaw Rate Sensor Signal Error |
| C052901 | Angle sensor module lost | C052901 Steering Angle Sensor Module Lost |
| C106600 | Angle sensor not calibrated | C106600 Angle Sensor Not Calibrated |
| C05CB00 | Master cylinder position sensor A circuit voltage low | C05CB00 Circuit Voltage of Master Cylinder Position Sensor A Too Low |
| C05CA00 | Master cylinder position sensor A circuit voltage high | C05CA00 Circuit Voltage of Master Cylinder Position Sensor A Too high |
| C007500 | Master cylinder position sensor A fault/short circuit | C007500 Master Cylinder Position Sensor A Fault/Short Circuit |
| P229900 | Master cylinder position sensor signal calibration error | P229900 Master Cylinder Position Sensor Signal Calibration Error |
| C05CE00 | Master cylinder position sensor B circuit voltage low | C05CE00 Circuit Voltage of Master Cylinder Position Sensor B Too Low |
| C05CD00 | Master cylinder position sensor B circuit voltage high | C05CD00 Circuit Voltage of Master Cylinder Position Sensor B Too High |
| C05D000 | Master cylinder position sensor signal value is incorrect | C05D000 Master Cylinder Position Sensor Signal Value Incorrect |
| C05D200 | Master cylinder stroke exceeding the expected value | C05D200 Master Cylinder Stroke Exceed Expected Value |
| C000100 | CSV valve 1 fault | C000100 CSV Valve 1 Fault |
| C000200 | PSV valve 1 fault | C000200 PSV Valve 1 Fault |
| C000300 | CSV valve 2 fault | C000300 CSV Valve 2 Fault |
| C000400 | PSV valve 2 fault | C000400 PSV Valve 2 Fault |
| C05D500 | TSV valve fault | C05D500 TSV Valve Fault |
| C002400 | SSV valve fault | C002400 SSV Valve Fault |
| C001000 | Left front inlet valve fault | C001000 Left Front Inlet Valve Fault |
| C001100 | Left front outlet valve fault | C001100 Left Front Outlet Valve Fault |
| C001400 | Right front inlet valve fault | C001400 Right Front Inlet Valve Fault |
| C001500 | Right front outlet valve fault | C001500 Right Front Outlet Valve Fault |
| C001800 | Left rear inlet valve fault | C001800 Left Rear Inlet Valve Fault |

| DTC: | Meaning | Diagnostic Process |
|---------|---|---|
| C001900 | Left rear outlet valve fault | C001900 Left Rear Outlet Valve Fault |
| C001C00 | Right rear inlet valve fault | C001C00 Right Rear Inlet Valve Fault |
| C001D00 | Right rear outlet valve fault | C001D00 Right Rear Outlet Valve Fault |
| P25C600 | Brake booster temperature sensor A circuit voltage low | P25C600 Circuit Voltage of Brake Booster Temperature Sensor A Too Low |
| P25C700 | Brake booster temperature sensor A circuit voltage high | P25C700 Circuit Voltage of Brake Booster Temperature Sensor A Too High |
| C057900 | Brake booster temperature sensor B circuit voltage low | C057900 Circuit Voltage of Brake Booster Temperature Sensor B Too Low |
| C057A00 | Brake booster temperature sensor B circuit voltage high | C057A00 Circuit Voltage of Brake Booster Temperature Sensor B Too High |
| C057F00 | Brake booster motor open–circuited | C057F00 Brake Booster Motor Open–circuited |
| C05C24B | Brake booster motor overtemperature | C05C24B Temperature of Brake Booster Motor Too High |
| C059400 | Brake booster motor load abnormal | C059400 Brake Booster Motor Load Abnormal |
| C058200 | Circuit signal of Brake booster motor abnormal | C058200 Circuit Signal of Brake Booster Motor Abnormal |
| C059000 | Supply current of brake booster motor too high | C059000 Supply Current of Brake Booster Motor Too High |
| C058900 | Brake booster motor position sensor A circuit voltage high | C058900 Circuit Voltage of Brake Booster Motor Position Sensor A Too High |
| C058800 | Brake booster motor position sensor A circuit voltage low | C057900 Circuit Voltage of Brake Booster Temperature Sensor B Too Low |
| C058A00 | Circuit voltage of brake booster motor position sensor A abnormal | C058A00 Circuit Voltage of Brake Booster Motor Position Sensor A Abnormal |
| C059100 | Low supply current of brake booster motor | C059100 Supply Current of Brake Booster Motor Too Low |
| C05C200 | Brake booster motor A overtemperature | C05C200 Brake Booster Motor A Overtemperature |
| C002192 | Brake booster module pipeline hydraulic pressure below normal value | C002192 Brake Booster Module Pipeline Hydraulic Pressure Below Normal Value |

| DTC: | Meaning | Diagnostic Process |
|---------|---|---|
| C056B00 | Brake booster module pressure sensor fault | C056B00 Brake Booster Module Pressure Sensor Fault |
| C053F00 | Pressure sensor A circuit voltage high | C053F00 Circuit Voltage of Pressure Sensor A Too High |
| C053E00 | Pressure sensor A circuit voltage low | C053E00 Circuit Voltage of Pressure Sensor A Too Low |
| C053D00 | Pressure sensor B signal abnormal | C053D00 Pressure Sensor B Signal Abnormal |
| C054100 | Pressure sensor B signal abnormal | C054100 Pressure Sensor B Signal Abnormal |
| C054200 | Pressure sensor B circuit voltage LOW | C054200 Circuit Voltage of Pressure Sensor B Too Low |
| C054300 | Pressure sensor B circuit voltage high | C054300 Circuit Voltage of Pressure Sensor B Too High |
| C12F909 | Brake hydraulic circuit blocked | C12F909 Brake Hydraulic Circuit Blocked |
| C055E00 | Brake hydraulic circuit A leaky | C055E00 Brake Hydraulic Circuit A Leaky |
| C05B001 | Brake hydraulic circuit L1 leaky | C05B001 Brake Hydraulic Circuit L1 Leaky |
| C2A1700 | Brake fluid pressure L1 loop overcompensation (air present) | C2A1700 Brake Hydraulic Circuit L1 Overcompensation (air Present) |
| P060B00 | ECU hardware fault (A/D processor) | P060B00 ECU Hardware Fault(A/D processor) |
| P060700 | ECU Hardware Failure | P060700 ECU Hardware Fault |
| P06B800 | ECU internal control module fault (NVRAM memory) | P06B800 ECU Internal Control Module Fault(NVRAM memory) |
| P060400 | ECU internal control module fault (RAM) | P060400 ECU Internal Control Module Fault(RAM) |
| P060500 | ECU internal control module fault (ROM) | P060500 ECU Internal Control Module Fault(ROM) |
| P060C00 | ECU internal control module fault (program running) | P060C00 ECU Internal Control Module Fault(program running) |
| U030000 | ECU internal control module software fault | U030000 ECU Internal Control Module Software Fault |
| U300000 | ECU microprocessor error | U300000 Microprocessor Error in ECU |
| C055000 | ECU fault | C055000 ECU Fault |
| P060600 | Control processor fault | P060600 ECM/PCM processor fault |

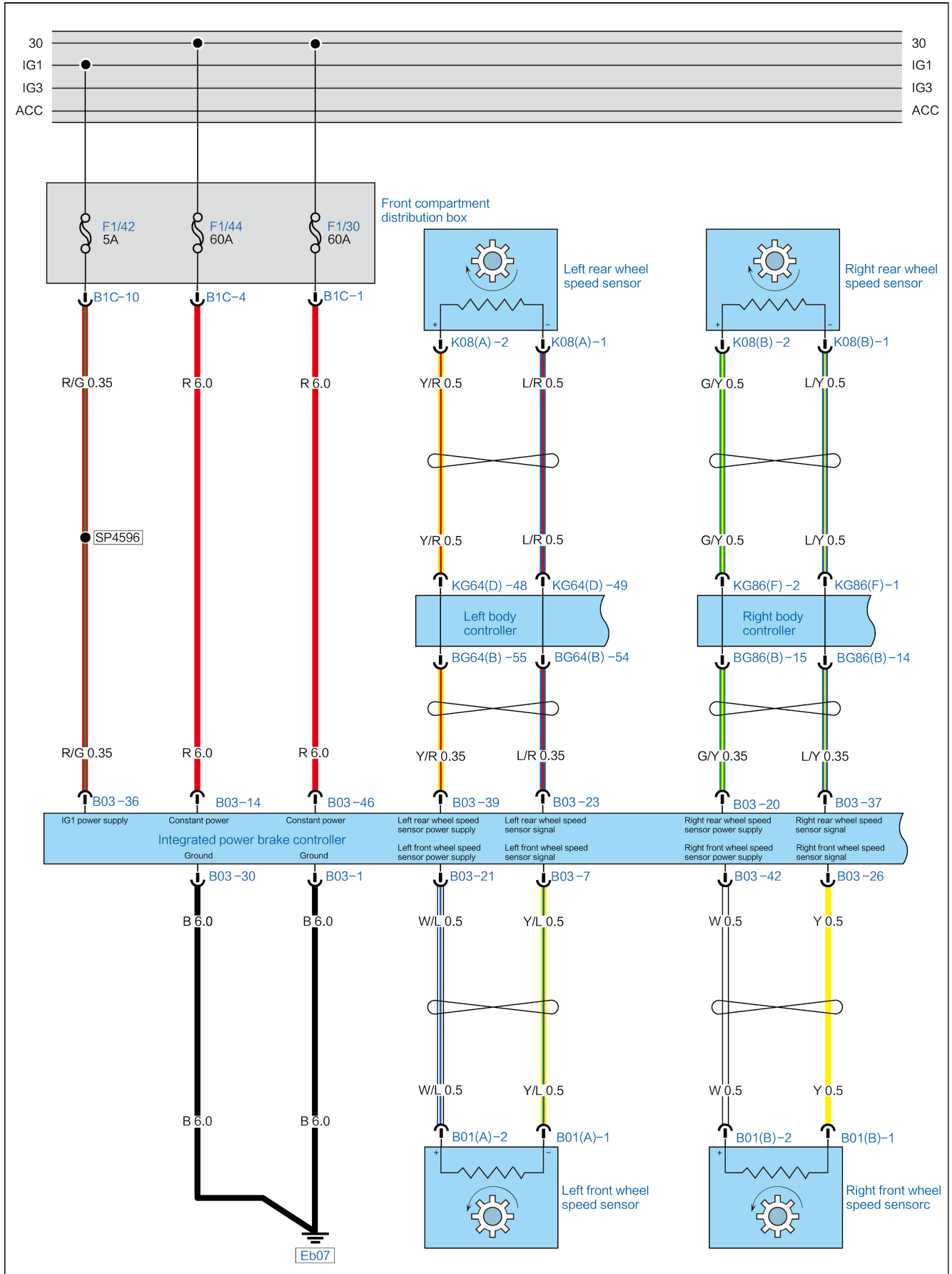
| DTC: | Meaning | Diagnostic Process |
|---------|-------------------------------------|--|
| C1A3800 | System initialization not completed | C1A3800 System Not Fully Initialized |
| C120700 | Fail to pump reset | C120700 Pump Not Returnable |
| C055F92 | Hydraulic unit fault | C055F92 Hydraulic Unit Fault |

P056200 System Voltage Too Low

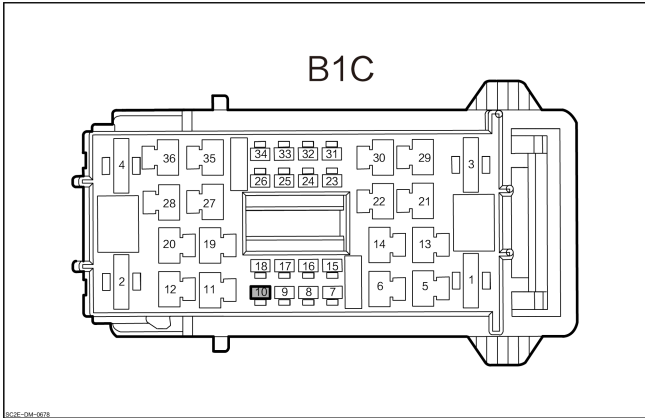
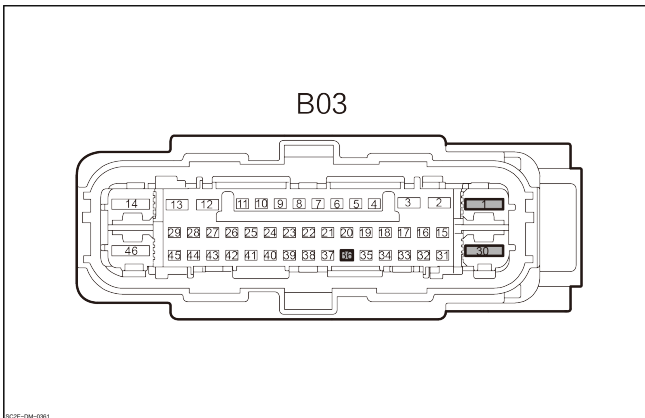
DTC Description

| P056200 System Voltage Too Low | |
|--------------------------------|--|
| Symptom | Failure of intelligent power braking system function. |
| Possible Cause | <ol style="list-style-type: none"> 1. Battery fault. 2. Fuse has blew. 3. Harness or connector fault. 4. Charging system malfunction 5. Smart power brake controller fault. |
| Fault setting conditions | The supply voltage is lower than 9V for 2s or more. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p style="text-align: center;">Front compartment fuse box</p>  <p style="text-align: center;">B1C</p> | 10 | Intelligent power brake control module IG1 power supply |
| <p style="text-align: center;">Smart power brake controller</p>  <p style="text-align: center;">B03</p> | 1 | Ground |
| | 30 | Ground |
| | 36 | IG1 power supply |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

The fault is triggered by disconnecting the negative pole of the battery or by low voltage.

Yes

| | |
|---|----------------------------|
| 2 | Check the charging system. |
|---|----------------------------|

1. Set the start/stop button to OK.
2. Check whether the fault warning light of charging system is on.

Yes

Enter the “Charging system” diagnosis.

No

| | |
|---|--------------------------|
| 3 | Test the battery status. |
|---|--------------------------|

1. Set the START/STOP button to OFF.
2. Perform a battery condition test.
3. Does the status of the battery pass the test?

No

Replace the battery

Yes

| | |
|---|---|
| 4 | Check the fuse of the intelligent power brake control module. |
|---|---|

1. Check whether the front compartment fuse box fuse F1/42 (5 A) is normal.

No

Replace the fuse

Yes

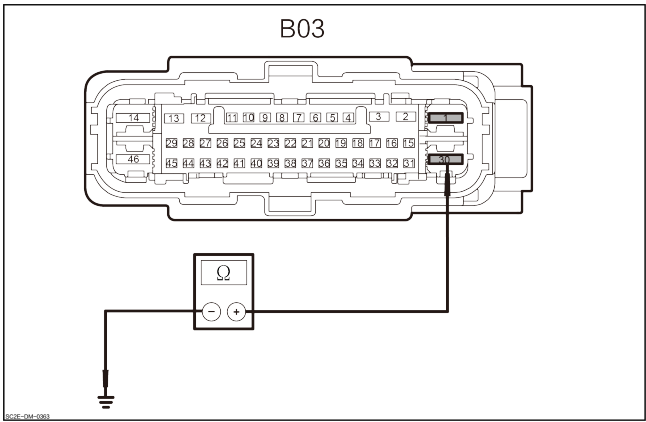
| | |
|---|---|
| 5 | Check the intelligent power brake control module harness and connector. |
|---|---|

1. Disconnect the harness connector of intelligent power brake control module B03.
2. Check the harness connector of integrated power brake control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the intelligent power brake control module ground line for open circuit.



1. Measure the resistance of the harness connector of intelligent power brake control module B03-1, B03-30 to ground.

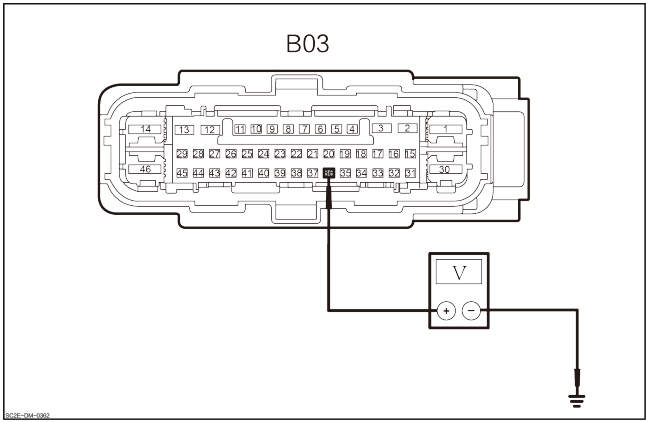
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| B03-1 | Ground | Through-out | Lower than 1Ω |
| B03-30 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the IG1 power supply of the intelligent dynamic brake controller.



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of intelligent power brake control module B03-36 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-36 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace the smart power brake controller.

No

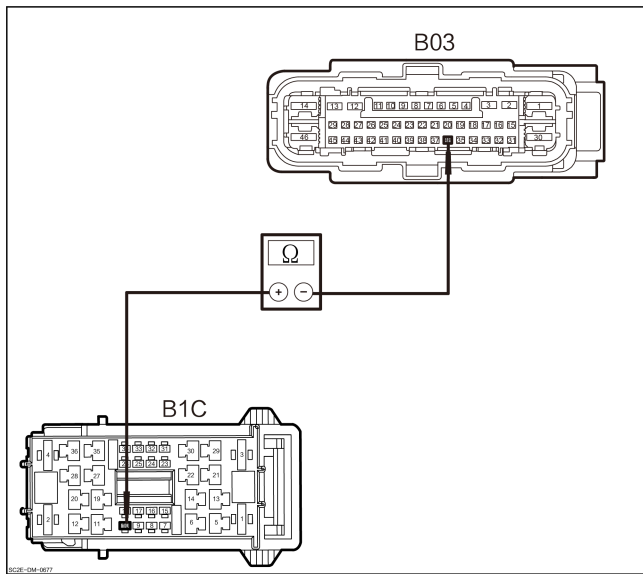
8 Check the front compartment fuse box harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the front compartment fuse box harness connector B1C.
3. Check the harness connector of front compartment fuse box for corrosion, damage, pin withdrawing, etc.
4. Check whether the front compartment fuse box harness connector is normal.

No → Repair or replace the wire harness

Yes

9 Check the intelligent power brake control module IG1 power supply for open circuit.



1. Measure the resistance between the harness connector of front compartment fuse box B1C-10 and the harness connector of integrated power brake control module B03-36.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B1C-10 | B03-36 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the front compartment fuse box.

P056300 System Voltage Too High

DTC Description

| P056300 System Voltage Too High | |
|---------------------------------|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none">1. Charging system malfunction2. Causing accidental alarm by others fails.3. Smart power brake controller fault. |
| Fault setting conditions | Voltage is more than 16V for a duration $\geq 2s$. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No Check the “intermittent fault” .

Yes

| | |
|---|----------------------------|
| 2 | Check the charging system. |
|---|----------------------------|

1. Set the start/stop button to ON.
2. Measure the charging system voltage value.

| Battery | | Condition | Voltage value |
|--------------------|--------------------|-------------|---------------|
| (+) | (-) | | |
| Positive electrode | Negative electrode | Through-out | 11~14V |

3. Check whether the results are normal.

No Enter the “Charging system” diagnosis.

Yes

| | |
|---|---------------------------|
| 3 | Check DTC of all systems. |
|---|---------------------------|

1. Others system if the DTC still exists?

Yes Diagnosis others fails preferentially.

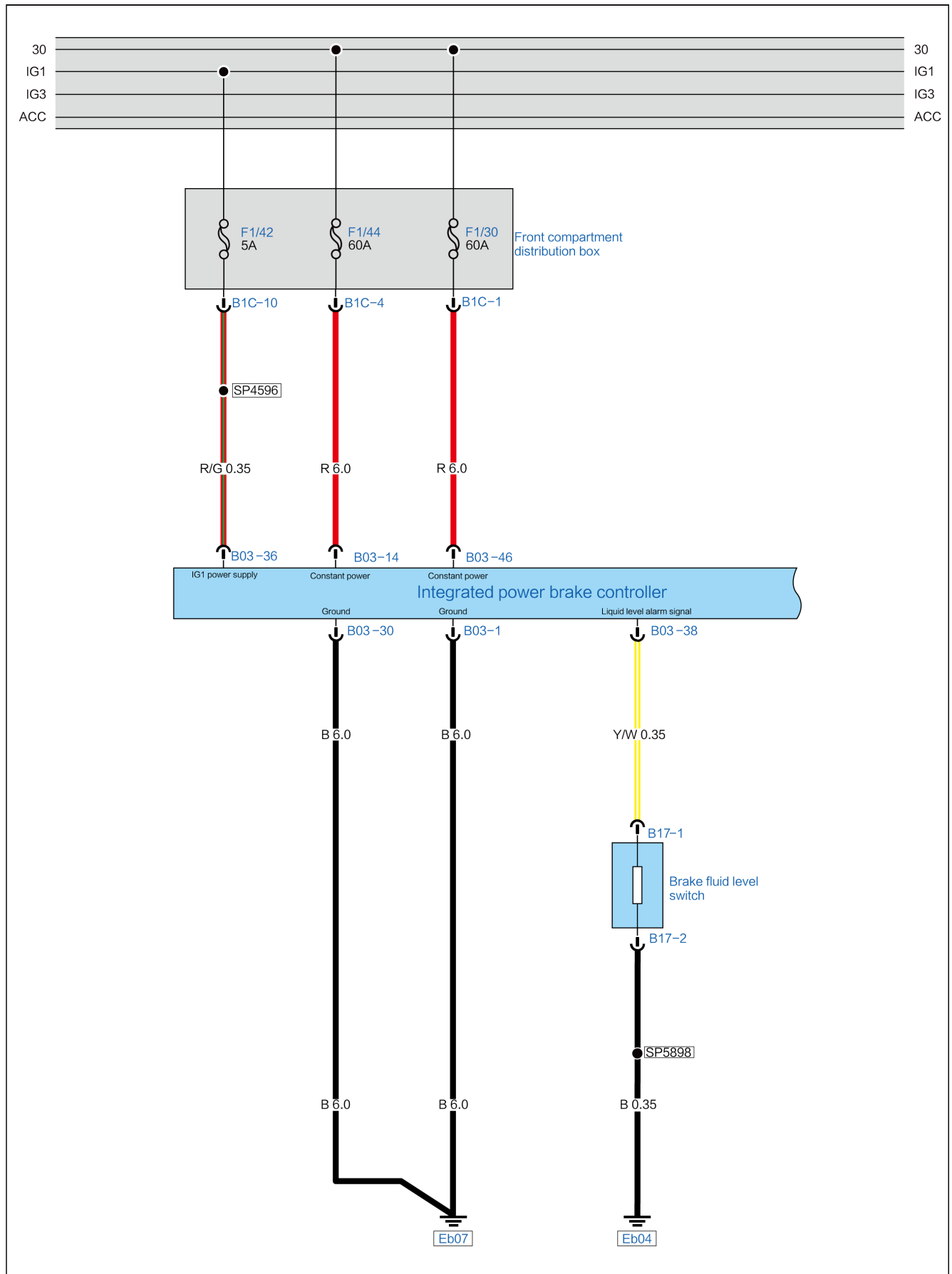
No Replace the smart power brake controller.

C004900 Brake Fluid Level Under Normal Value

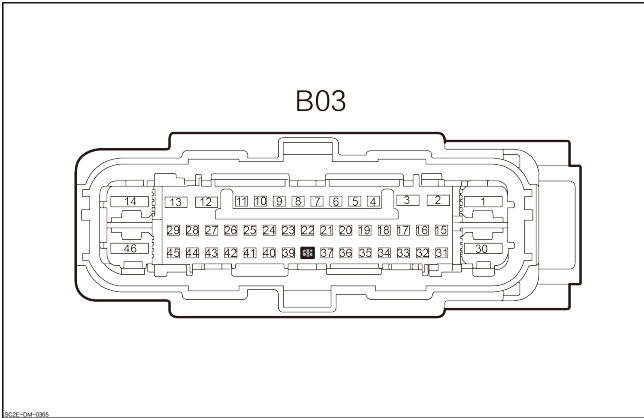
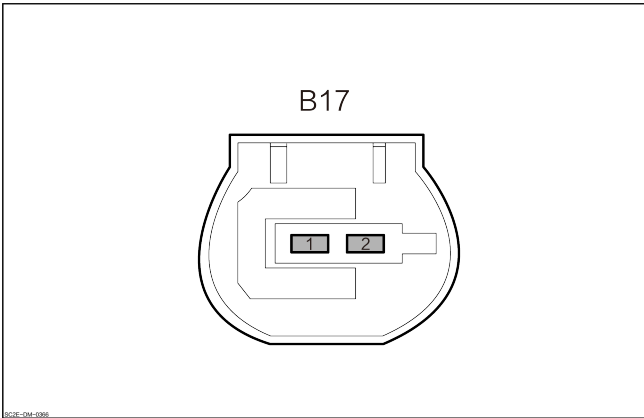
DTC Description

| C004900 Brake Fluid Level Under Normal Value | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | 1. Harness or connector fault. 2. Brake fluid level sensor fault. 3. Smart power brake controller fault. |
| Fault setting conditions | Detect that the sensor output voltage is inconsistent with the target set value. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|----------------------|
| <p style="text-align: center;">Smart power brake controller</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B03</p> </div> | 38 | Level warning signal |
| <p style="text-align: center;">Brake fluid level switch</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B17</p> </div> | 1 | Level warning signal |
| | 2 | Ground |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|------------------------------|
| 2 | Check the brake fluid level. |
|---|------------------------------|

1. Checking Brake Fluid Level is lower than minimum scale or not .

Yes

Add brake fluid.

No

| | |
|---|---|
| 3 | Check the brake fluid level sensor harness and connector. |
|---|---|

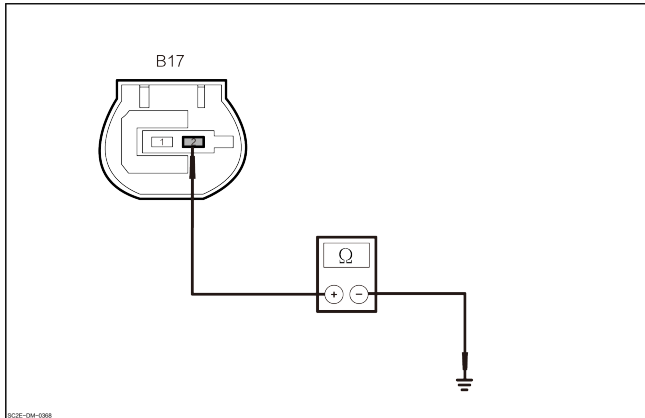
1. Set the start/stop button to OFF.
2. Disconnect the brake fluid sensor harness connector B17.
3. Check whether the brake fluid level sensor harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the fluid level alarm grounding for open circuit. |
|---|---|



1. Measure the resistance value between the brake fluid level sensor harness connector B17-2 and ground.

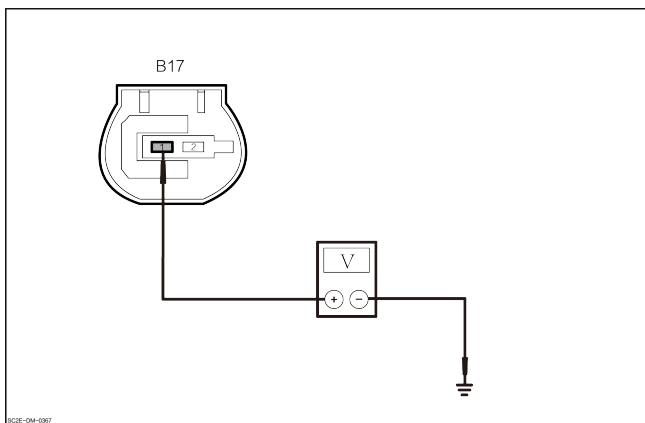
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B17-2 | Ground | Through- out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the power supply of the level alarm signal line.



1. Set the start/stop button to ON.
2. Measure the voltage value between the brake fluid level sensor harness connector B17-1 and grounding.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| B17-1 | Ground | Through- out | 11~14V |

3. Check whether the results are normal.

Yes → Replace the brake fluid level sensor.

No

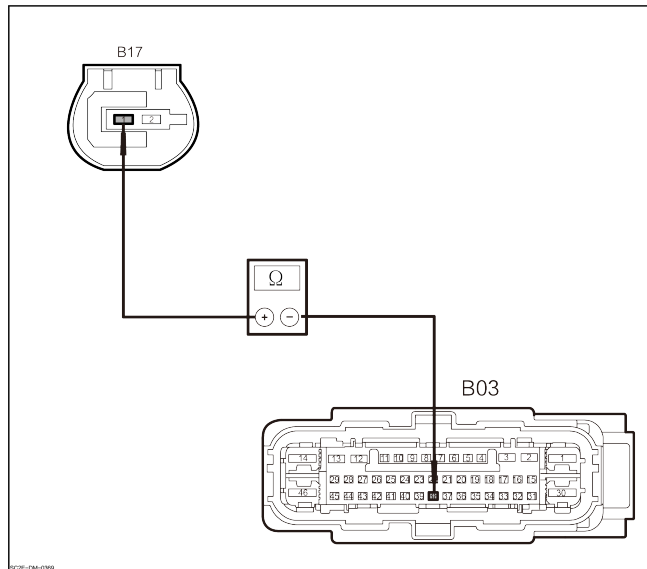
6 Check the intelligent power brake control module harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the harness connector of intelligent power brake control module B03.
3. Check whether the intelligent power brake control module harness connector is normal or not.

No → Repair or replace the wire harness

Yes

7 Check the liquid level alarm signal line for open circuit.



1. Measure the resistance between the harness connector of brake fluid level sensor B17-1 and the harness connector of Intelligent control module B03-38.

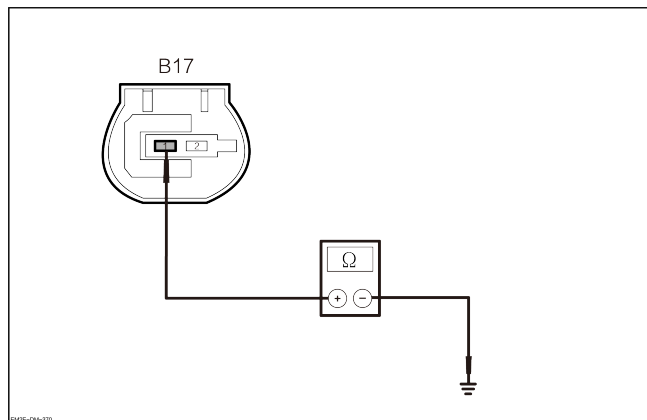
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B17-1 | B03-38 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check whether the liquid level alarm signal line is shorted to ground.



1. Measure the resistance value between the brake fluid level sensor harness connector B17-1 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B17-1 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

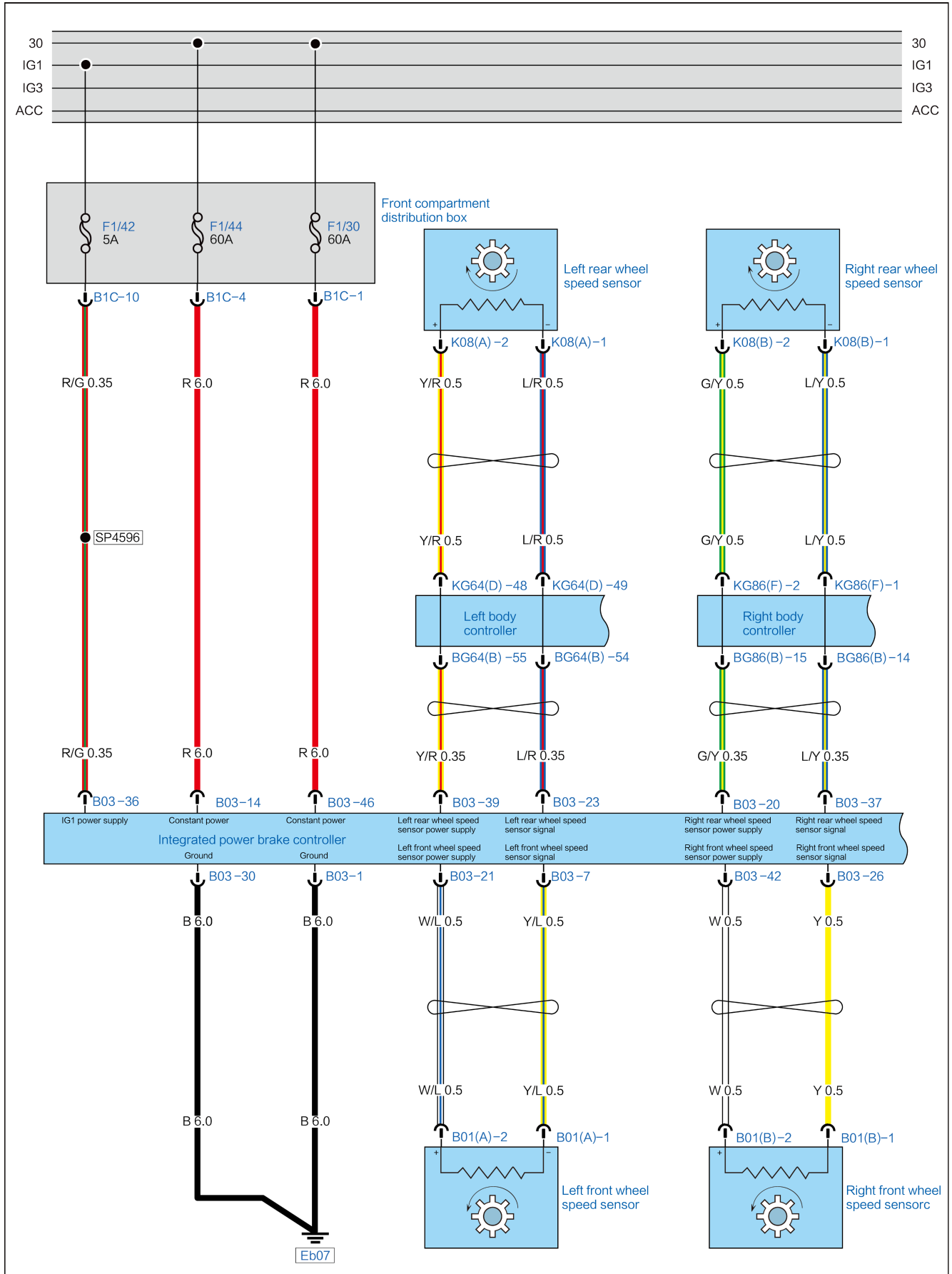
Yes → Replace the smart power brake controller.

C050000 Left Front Wheel Speed Sensor Open-circuited

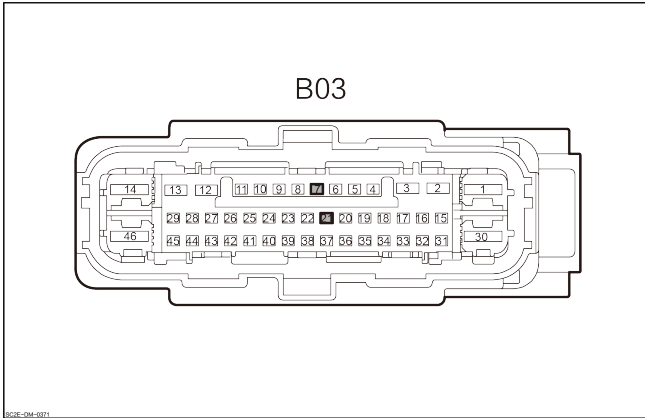
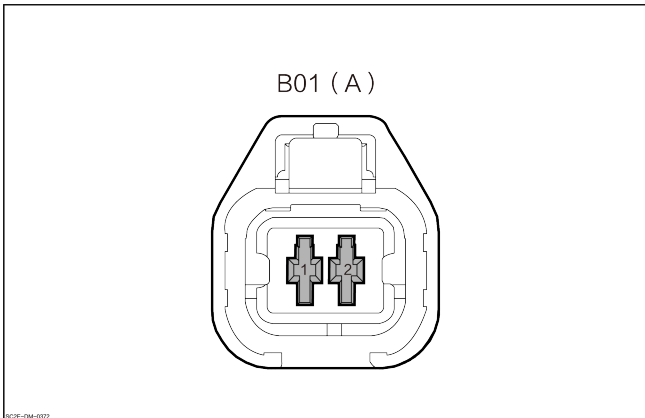
DTC Description

| C050000 Left Front Wheel Speed Sensor Open-circuited | |
|--|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | 1. Harness or connector fault. 2. Left front wheel speed sensor fault. 3. Smart power brake controller fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|--|
| <p style="text-align: center;">Smart power brake controller</p> <p style="text-align: center;">B03</p>  <p><small>801E-0M-0171</small></p> | <p style="text-align: center;">7</p> | <p style="text-align: center;">Left front wheel speed sensor signal line</p> |
| | <p style="text-align: center;">21</p> | <p style="text-align: center;">Left front wheel speed sensor power line</p> |
| <p style="text-align: center;">Left front wheel speed sensor</p> <p style="text-align: center;">B01 (A)</p>  <p><small>801E-0M-0172</small></p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Left front wheel speed sensor signal line</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Left front wheel speed sensor power line</p> |

Diagnostic Steps

1 Check the DTC of intelligent power brake control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

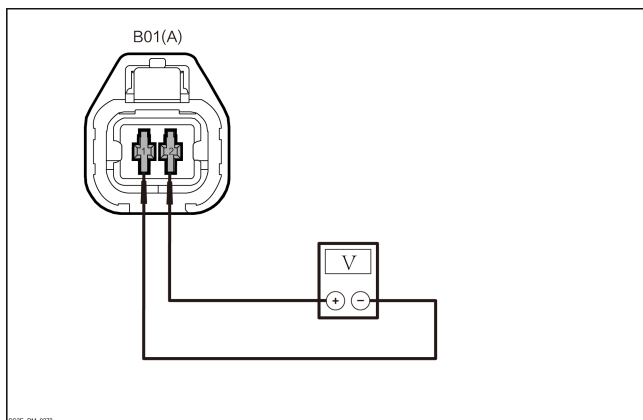
2 Check the left front wheel sensor harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the left front wheel sensor harness connector B01(A).
3. Check whether the left front wheel sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check the power supply of left front wheel speed sensor power line.



1. Set the start/stop button to ON.
2. Measure the voltage value between the left front wheel speed sensor harness connector B01 (A)-2 and the left front wheel speed sensor harness connector B01 (A)-1.

| Connector | | Condition | Voltage value |
|-----------|----------|-------------|---------------|
| (+) | (-) | | |
| B01(A)-2 | B01(A)-1 | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace front left speed sensor.

No

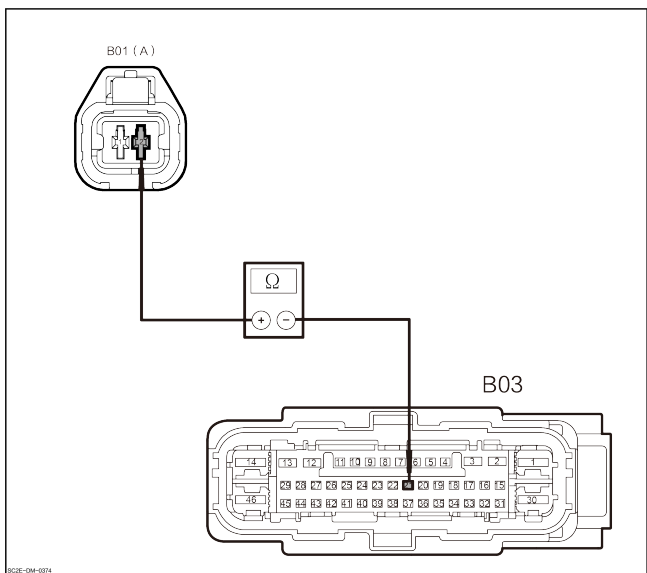
4 Check the intelligent power brake control module harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the harness connector of intelligent power brake control module B03.
3. Check whether the intelligent power brake control module harness connector is normal or not.

No Repair or replace the wire harness

Yes

5 Check whether the left front wheel speed sensor power line is open circuited.



1. Measure the resistance between the harness connector of left front wheel speed sensor B01(A)-2 and the harness connector of Intelligent control module B03-21.

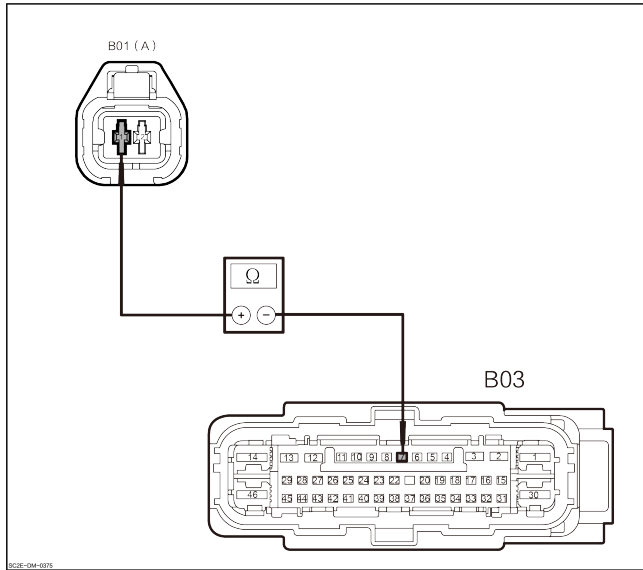
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B01(A)-2 | B03-21 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

6 Check whether the left front wheel speed sensor signal line is open circuited.



1. Measure the resistance between the harness connector of left front wheel speed sensor B01(A)-1 and the harness connector of Intelligent control module B03-7.

| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| B01(A)-1 | B03-7 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

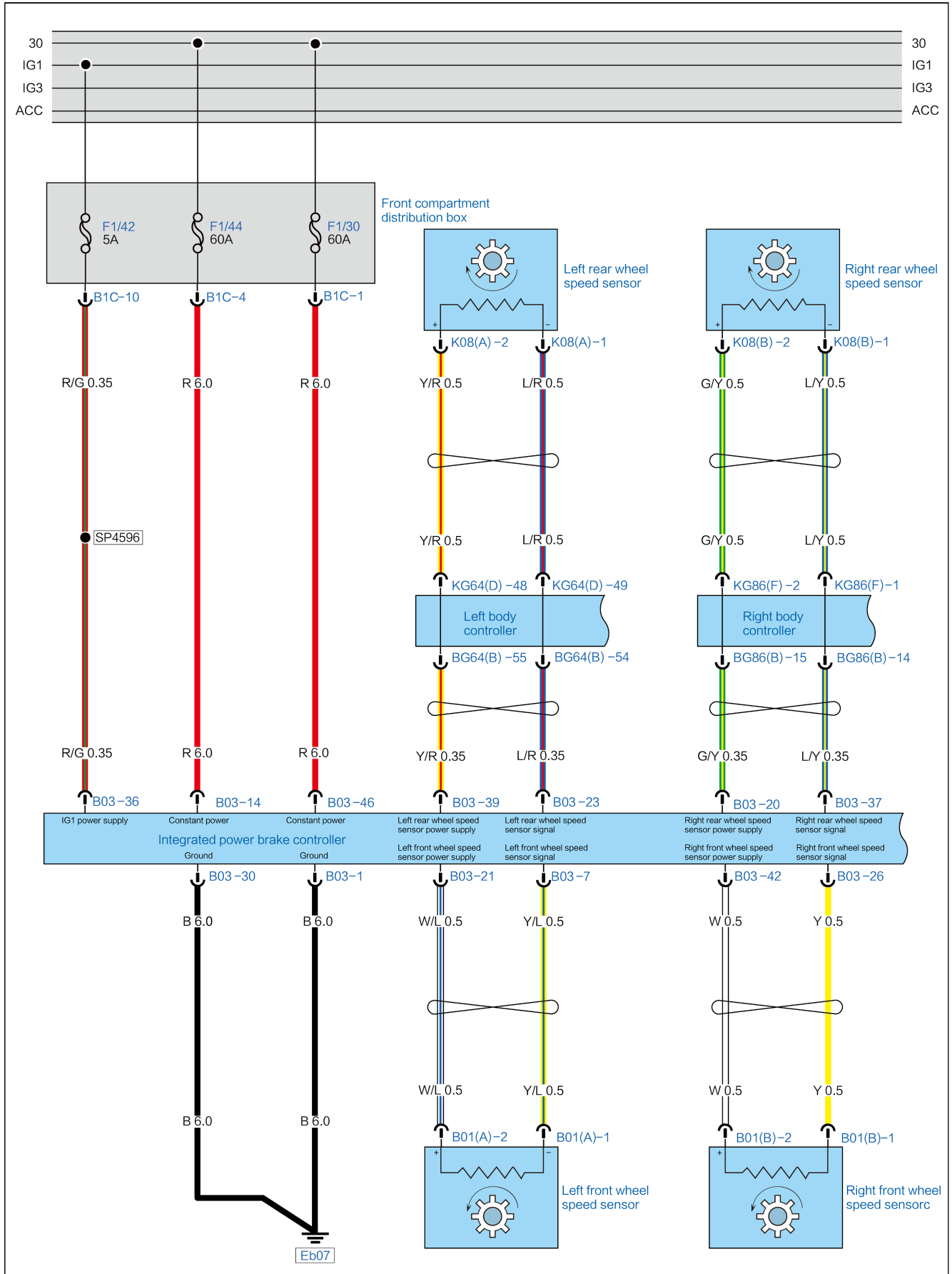
- No
Repair or replace the wire harness
- Yes
Replace the smart power brake controller.

C003200 Supply Voltage of Left Front Wheel Speed Sensor Low

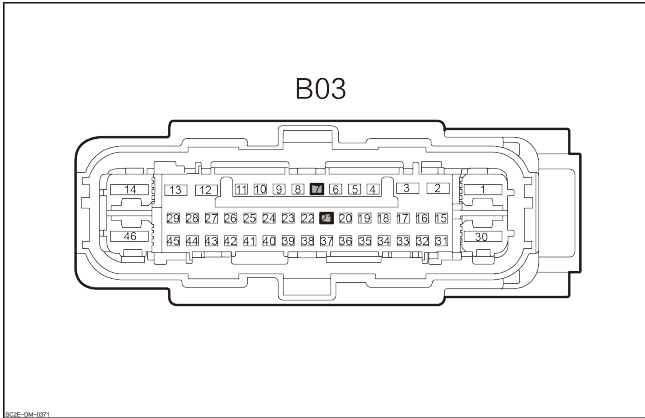
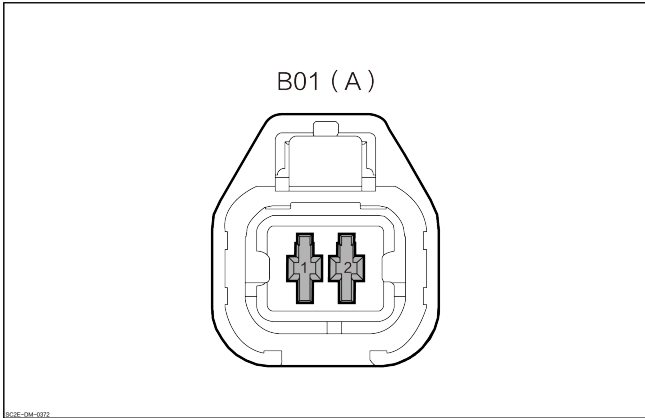
DTC Description

| C003200 Supply Voltage of Left Front Wheel Speed Sensor Low | |
|---|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Left front wheel speed sensor fault. 3. Smart power brake controller fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p>Smart power brake controller</p> <p>B03</p>  <p><small>809E-0M-0974</small></p> | 7 | Left front wheel speed sensor signal line |
| | 21 | Left front wheel speed sensor power line |
| <p>Left front wheel speed sensor</p> <p>B01 (A)</p>  <p><small>809E-0M-0972</small></p> | 1 | Left front wheel speed sensor signal line |
| | 2 | Left front wheel speed sensor power line |

Diagnostic Steps

1 Check the DTC of intelligent power brake control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

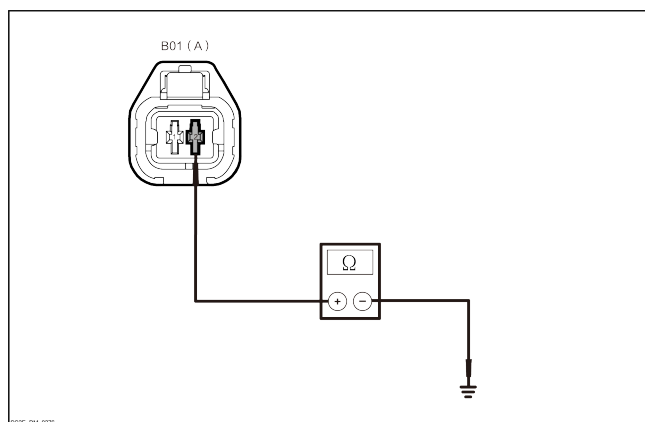
2 Check the left front wheel sensor harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the left front wheel sensor harness connector B01(A).
3. Check whether the left front wheel sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check whether the left front wheel speed sensor power line is shorted to ground.



1. Measure the resistance value between the left front wheel speed sensor harness connector B01 (A)-2 and ground.

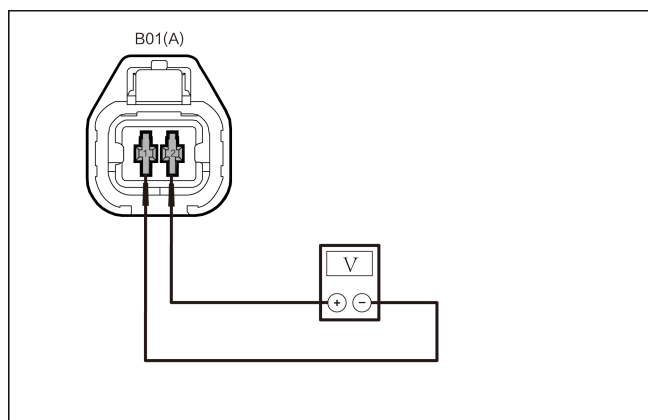
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B01(A)-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the power supply of left front wheel speed sensor power line.



1. Set the start/stop button to ON.
2. Measure the voltage value between the left front wheel speed sensor harness connector B01 (A)-2 and the left front wheel speed sensor harness connector B01 (A)-1.

| Connector | | Condition | Voltage value |
|-----------|----------|-------------|---------------|
| (+) | (-) | | |
| B01(A)-2 | B01(A)-1 | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace front left speed sensor.

No

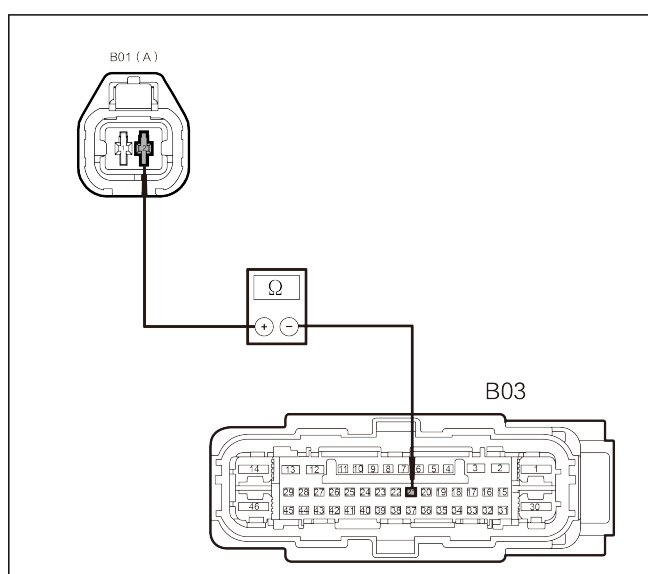
5 Check the intelligent power brake control module harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the harness connector of intelligent power brake control module B03.
3. Check whether the intelligent power brake control module harness connector is normal or not.

No → Repair or replace the wire harness

Yes

6 Check whether the left front wheel speed sensor power line is open circuited.



1. Measure the resistance between the harness connector of left front wheel speed sensor B01(A)-2 and the harness connector of Intelligent control module B03-21.

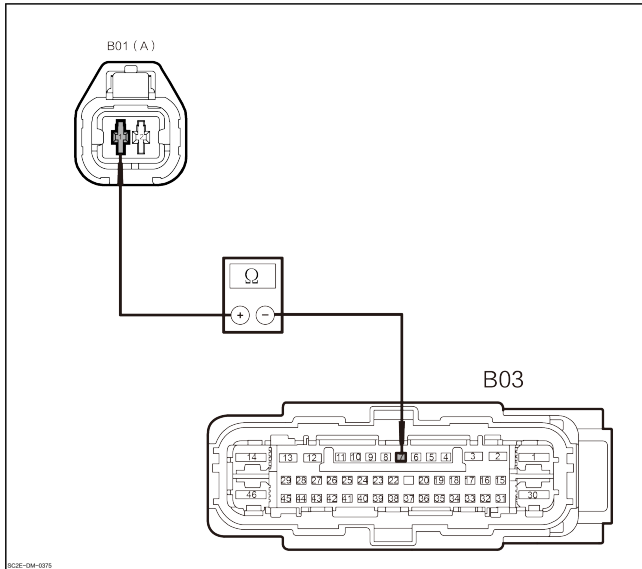
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| B01(A)-2 | B03-21 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check whether the left front wheel speed sensor signal line is open circuited.



1. Measure the resistance between the harness connector of left front wheel speed sensor B01(A)-1 and the harness connector of Intelligent control module B03-7.

| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| B01(A)-1 | B03-7 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

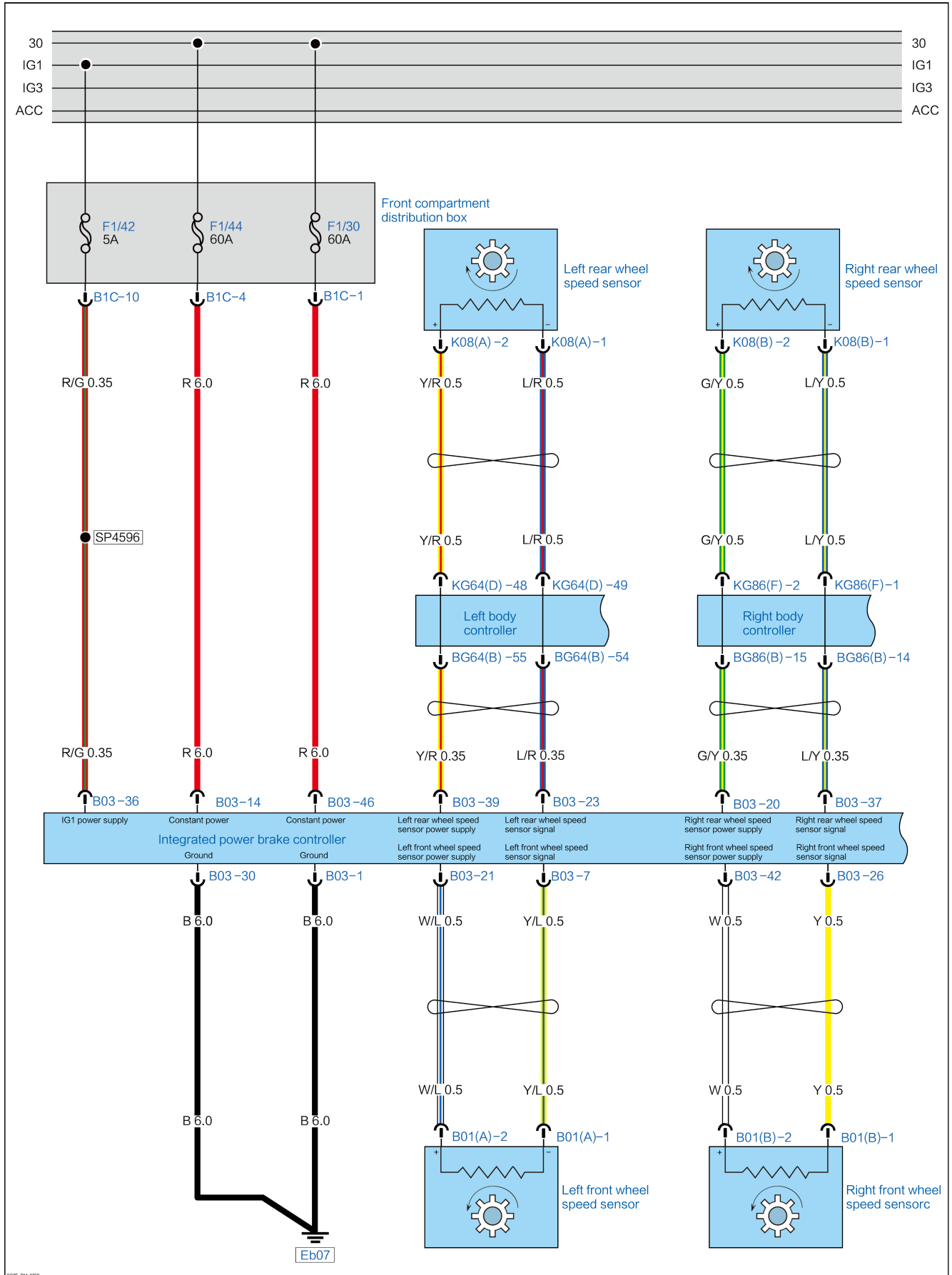
Replace the smart power brake controller.

C050300 Short Circuit between Left Front Wheel Speed Sensor Signal Line and Power Supply Line

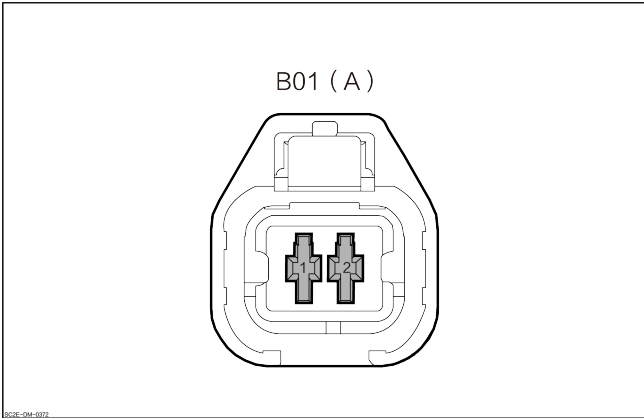
DTC Description

| | |
|---|---|
| C050300 Short Circuit between Left Front Wheel Speed Sensor Signal Line and Power Supply Line | |
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | 1. Harness or connector fault. 2. Left front wheel speed sensor fault. 3. Smart power brake controller fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p style="text-align: center;">Left front wheel speed sensor</p> <div style="text-align: center;">  <p style="text-align: center;">B01 (A)</p> </div> <p style="font-size: small; margin-top: 10px;">B01E-04-012</p> | 1 | Left front wheel speed sensor signal line |
| | 2 | Left front wheel speed sensor power line |

Diagnostic Steps

1 Check the DTC of intelligent power brake control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

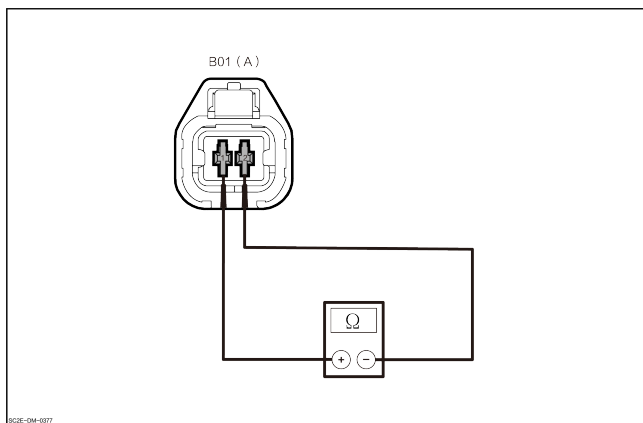
2 Check the left front wheel sensor harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the left front wheel sensor harness connector B01(A).
3. Check whether the left front wheel sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check the left front wheel speed sensor signal line and power supply line.



1. Measure the resistance value between the left front wheel speed sensor wire harness connector B01 (A)-1 and the left front wheel speed sensor wire harness connector B01 (A)-2.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| B01(A)-1 | B01(A)-2 | Through- out | Above 10K Ω |

2. Check whether the results are normal.

Yes → Replace front left speed sensor.

No

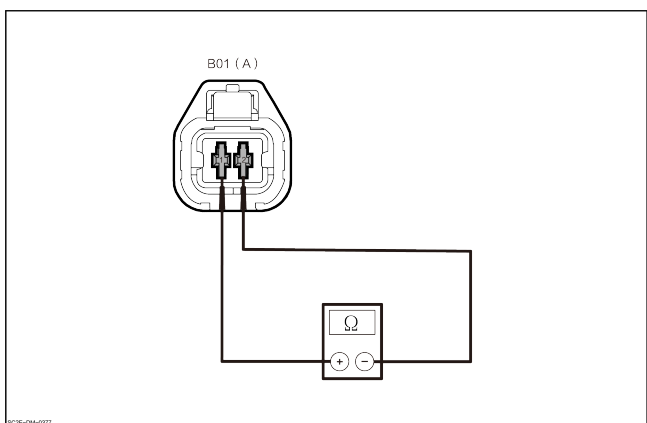
4 Check the intelligent power brake control module harness and connector.

1. Disconnect the harness connector of intelligent power brake control module B03.
2. Check whether the intelligent power brake control module harness connector is normal or not.

No → Repair or replace the wire harness

Yes

5 Check the left front wheel speed sensor signal line and power supply line.



1. Measure the resistance value between the left front wheel speed sensor wire harness connector B01 (A)-1 and the left front wheel speed sensor wire harness connector B01 (A)-2.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| B01(A)-1 | B01(A)-2 | Through- out | Above 10K Ω |

2. Check whether the results are normal.

Yes → Replace the smart power brake controller.

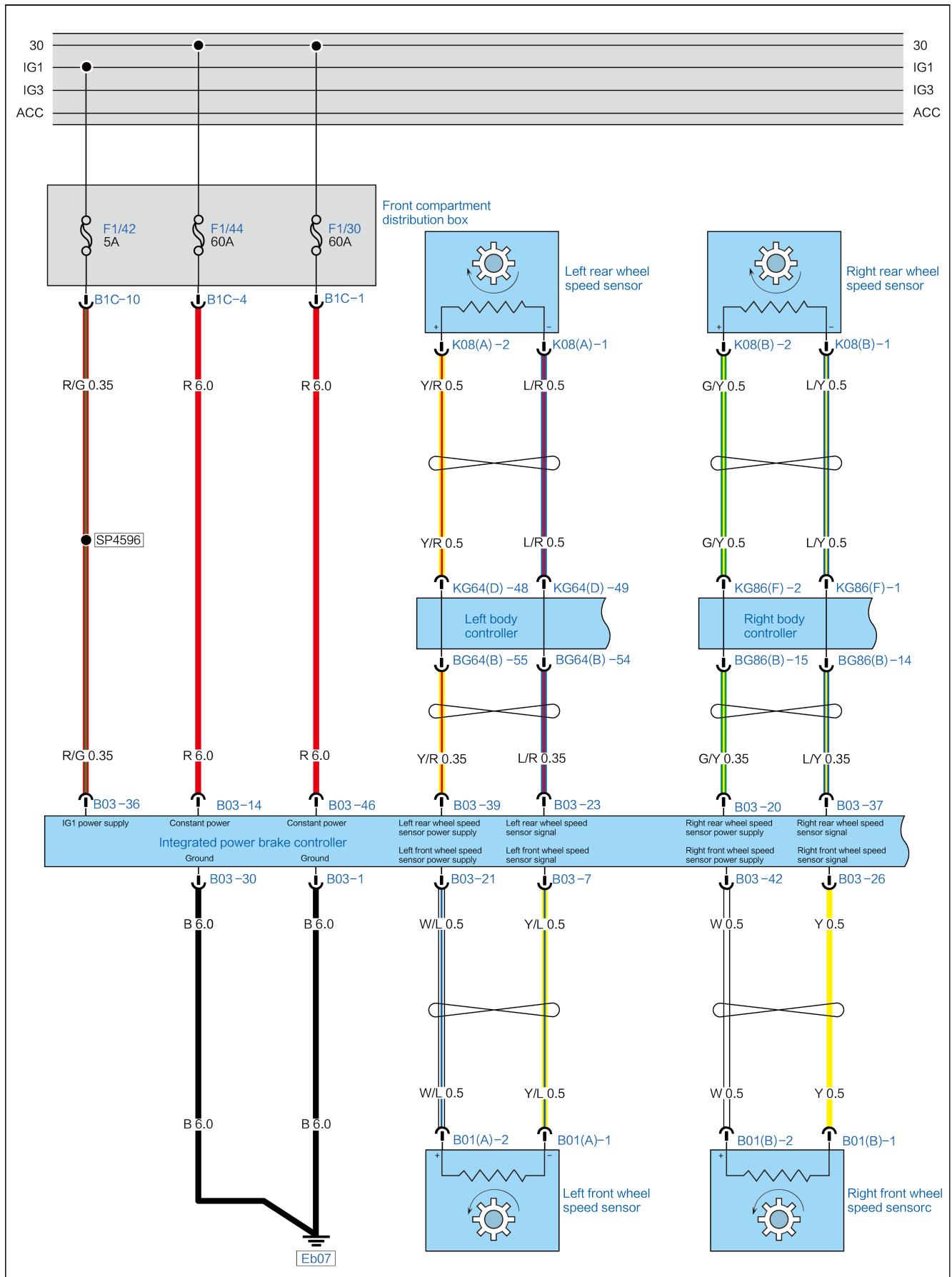
No → Repair or replace the wire harness

C050200 Short Circuit between Left Front Wheel Speed Sensor Signal Line and Ground Line

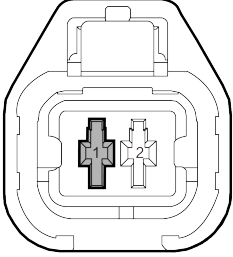
DTC Description

| C050200 Short Circuit between Left Front Wheel Speed Sensor Signal Line and Ground Line | |
|---|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | 1. Harness or connector fault. 2. Left front wheel speed sensor fault. 3. Smart power brake controller fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|--------------------------------------|--|
| <p>Left front wheel speed sensor</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>B01 (A)</p>  <p><small>BYD-DM-0073</small></p> </div> | <p>1</p> | <p>Left front wheel speed sensor signal line</p> |

Diagnostic Steps

1 Check the DTC of intelligent power brake control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

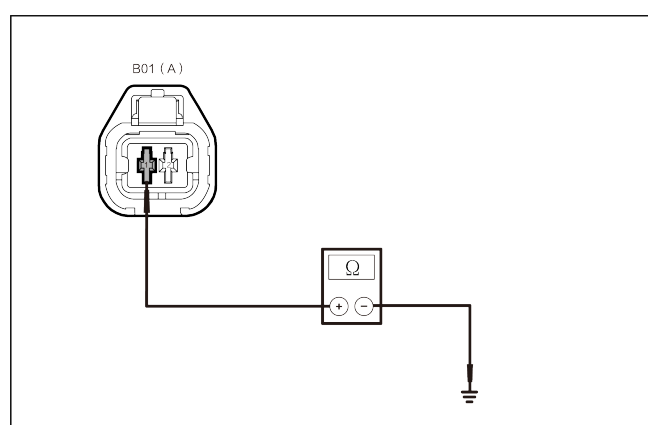
2 Check the left front wheel sensor harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the left front wheel sensor harness connector B01(A).
3. Check whether the left front wheel sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check whether the left front wheel speed sensor signal line is shorted to ground.



1. Measure the resistance value between the left front wheel speed sensor harness connector B01 (A)-1 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B01(A)-1 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

Yes → Replace front left speed sensor.

No

4 Check the intelligent power brake control module harness and connector.

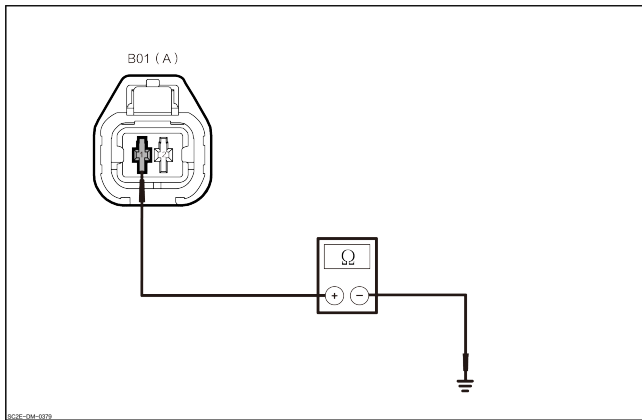
1. Disconnect the harness connector of intelligent power brake control module B03.
2. Check whether the intelligent power brake control module harness connector is normal or not.

No

Repair or replace the wire harness

Yes

5 Check whether the left front wheel speed sensor signal line is shorted to ground.



1. Measure the resistance between the harness connector of left front wheel sensor B01(A)-1 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B01(A)-1 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

Yes

Replace the smart power brake controller.

No

Repair or replace the wire harness

C003100 Left Front Wheel Speed Sensor Signal Fault

DTC Description

| C003100 Left Front Wheel Speed Sensor Signal Fault | |
|--|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none">1. Left front wheel speed sensor fault.2. There is excessive dirt on the drive shaft of the drive motor.3. The drive shaft ring gear of drive motor is damaged. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the drive shaft ring gear of drive motor and the left front wheel speed sensor. |
|---|---|

1. Check whether there are excessive dirt on the drive motor drive shaft ring gear and the left front wheel speed sensor ?

Yes

Clean the drive motor drive shaft ring gear and left front wheel speed sensor.

No

| | |
|---|---|
| 3 | Check the drive shaft ring gear of drive motor. |
|---|---|

1. Check whether the drive motor drive shaft ring gear is damaged.

Yes

Replace the drive motor drive shaft.

No

Replace front left speed sensor.

C050576 Incorrect Installation Direction of Left Front Wheel Speed Sensor**DTC Description**

| C050576 Incorrect Installation Direction of Left Front Wheel Speed Sensor | |
|---|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Left front wheel speed sensor installation direction incorrect. |
| Fault setting conditions | Left front wheel speed sensor installation direction incorrect. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the left front wheel speed sensor. |
|---|--|

1. Check whether the left front wheel speed sensor is installed correctly.

No

Re-install the left front wheel speed sensor.

Yes

| | |
|---|--|
| 3 | Replace left front wheel speed sensor and check DTC of the intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

The system is normal.

Yes

Replace the smart power brake controller.

C050400 Left Front Wheel Speed Sensor Air Gap Abnormal

DTC Description

| C050400 Left Front Wheel Speed Sensor Air Gap Abnormal | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Left front wheel speed sensor fault. 2. Front left steering knuckle deformation. 3. Smart power brake controller fault. |
| Fault setting conditions | Abnormal left front wheel speed sensor gap |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the left front wheel speed sensor. |
|---|--|

1. Check whether the left front wheel speed sensor is installed correctly.

No

Re-install the left front wheel speed sensor.

Yes

| | |
|---|--|
| 3 | Check the left front steering knuckle. |
|---|--|

1. Check whether the left front steering knuckle is deformed.

Yes

Replace the left front steering knuckle.

No

| | |
|---|--|
| 4 | Replace left front wheel speed sensor and check DTC of the intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

The system is normal.

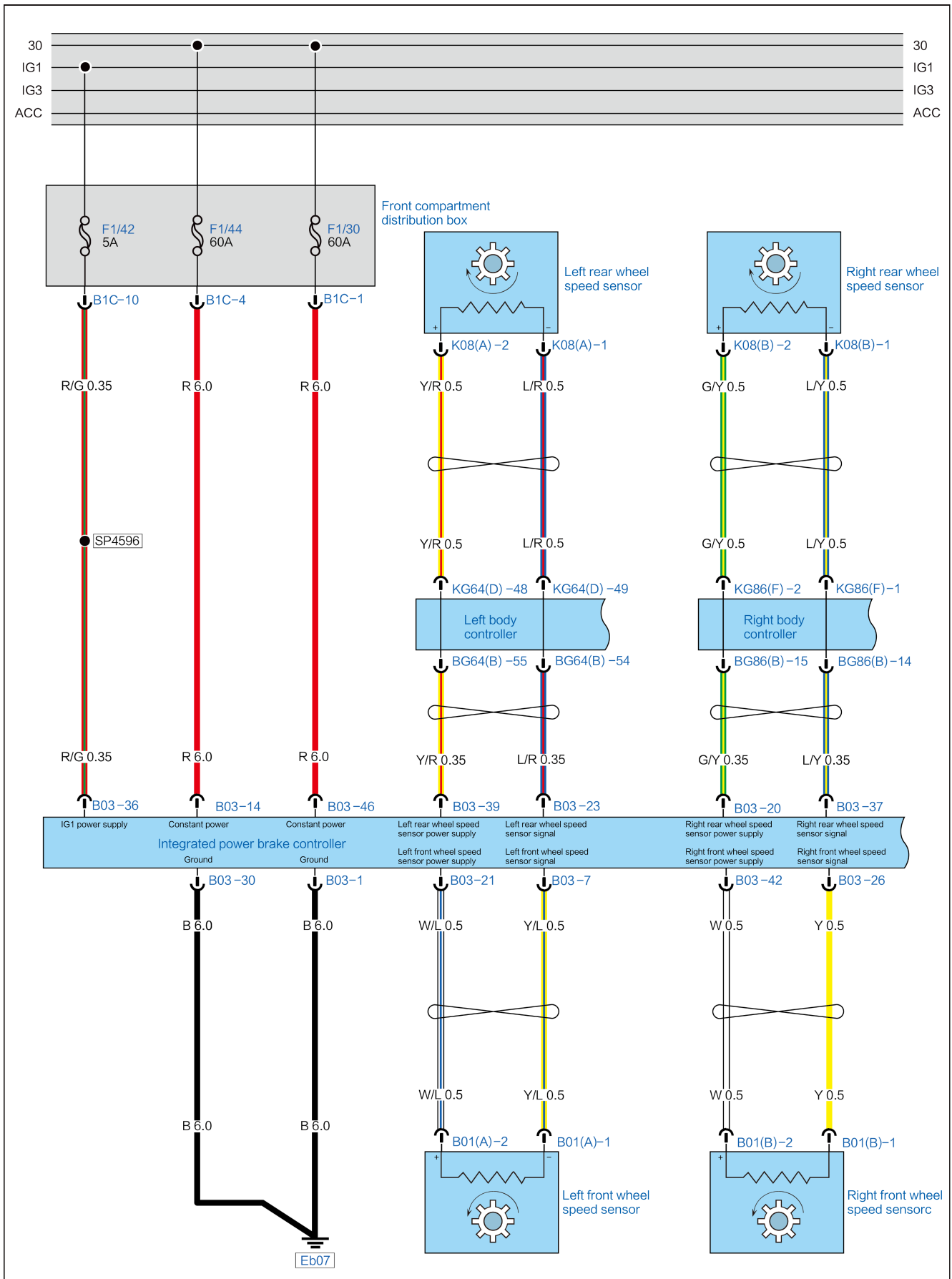
Yes

Replace the smart power brake controller.

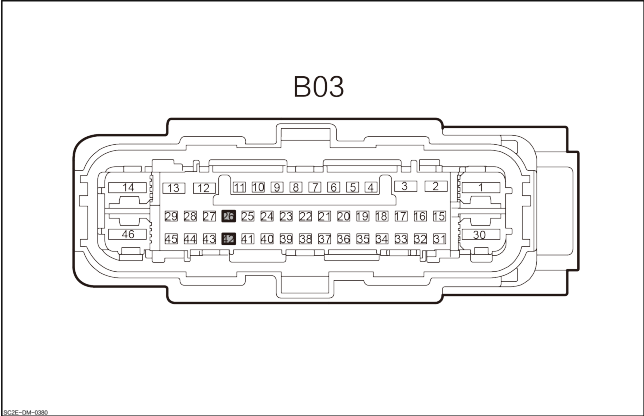
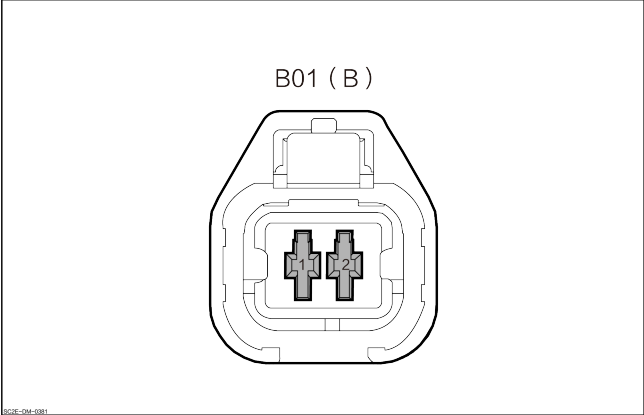
C050600 Right Front Wheel Speed Sensor Open-circuited**DTC Description**

| C050600 Right Front Wheel Speed Sensor Open-circuited | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | 1. Harness or connector fault. 2. Right front wheel speed sensor fault. 3. Smart power brake controller fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p style="text-align: center;">Smart power brake controller</p> <p style="text-align: center;">B03</p>  <p><small>SCSE-DM-0385</small></p> | 26 | Right front wheel speed sensor signal line |
| | 42 | Right front wheel speed sensor power line |
| <p style="text-align: center;">Right front wheel speed sensor</p> <p style="text-align: center;">B01 (B)</p>  <p><small>SCSE-DM-0381</small></p> | 1 | Right front wheel speed sensor signal line |
| | 2 | Right front wheel speed sensor power line |

Diagnostic Steps

1 Check the DTC of intelligent power brake control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

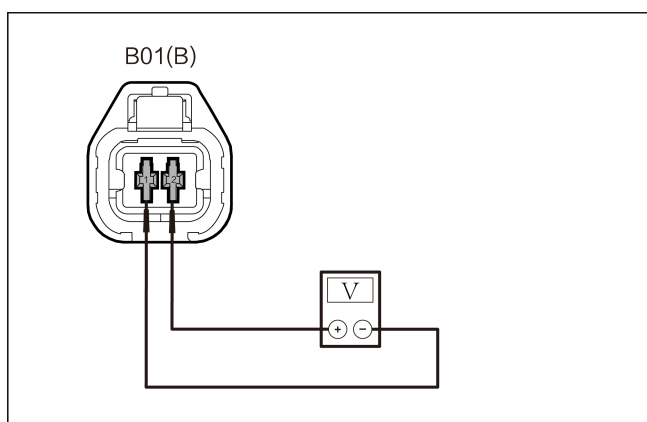
2 Check the right front wheel sensor harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the right front wheel sensor harness connector B01(B).
3. Check whether the right front wheel sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check the power supply of right front wheel speed sensor power line.



1. Set the start/stop button to ON.
2. Measure the voltage value between the right front wheel speed sensor harness connector B01(B)-2 and the right front wheel speed sensor harness connector B01 (B)-1.

| Connector | | Condition | Voltage value |
|-----------|----------|-------------|---------------|
| (+) | (-) | | |
| B01(B)-2 | B01(B)-1 | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace front right speed sensor.

No

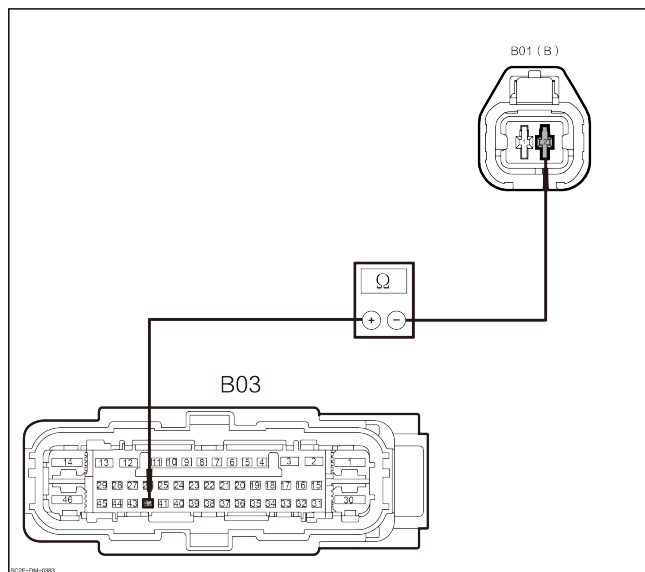
4 Check the intelligent power brake control module harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the harness connector of intelligent power brake control module B03.
3. Check whether the intelligent power brake control module harness connector is normal or not.

No → Repair or replace the wire harness

Yes

5 Check whether the right front wheel speed sensor power line is open circuited.



1. Measure the resistance of the harness connector of intelligent brake control module B03-42 and the harness connector of right front wheel speed sensor B01(B) -2.

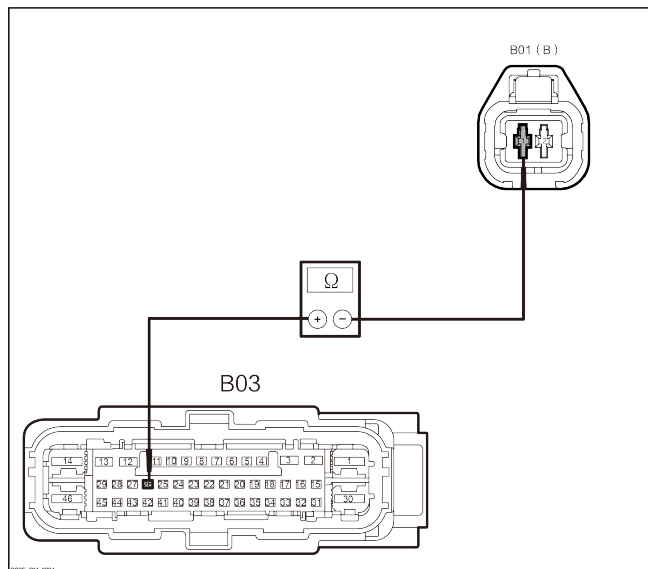
| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| B03-42 | B01(B)-2 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check whether the right front wheel speed sensor signal line is open circuited.



1. Measure the resistance of the harness connector of intelligent brake control module B03-26 and the harness connector of right front wheel speed sensor B01(B) -1.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-26 | B01(B)-1 | Through- out | Lower than 1 Ω |

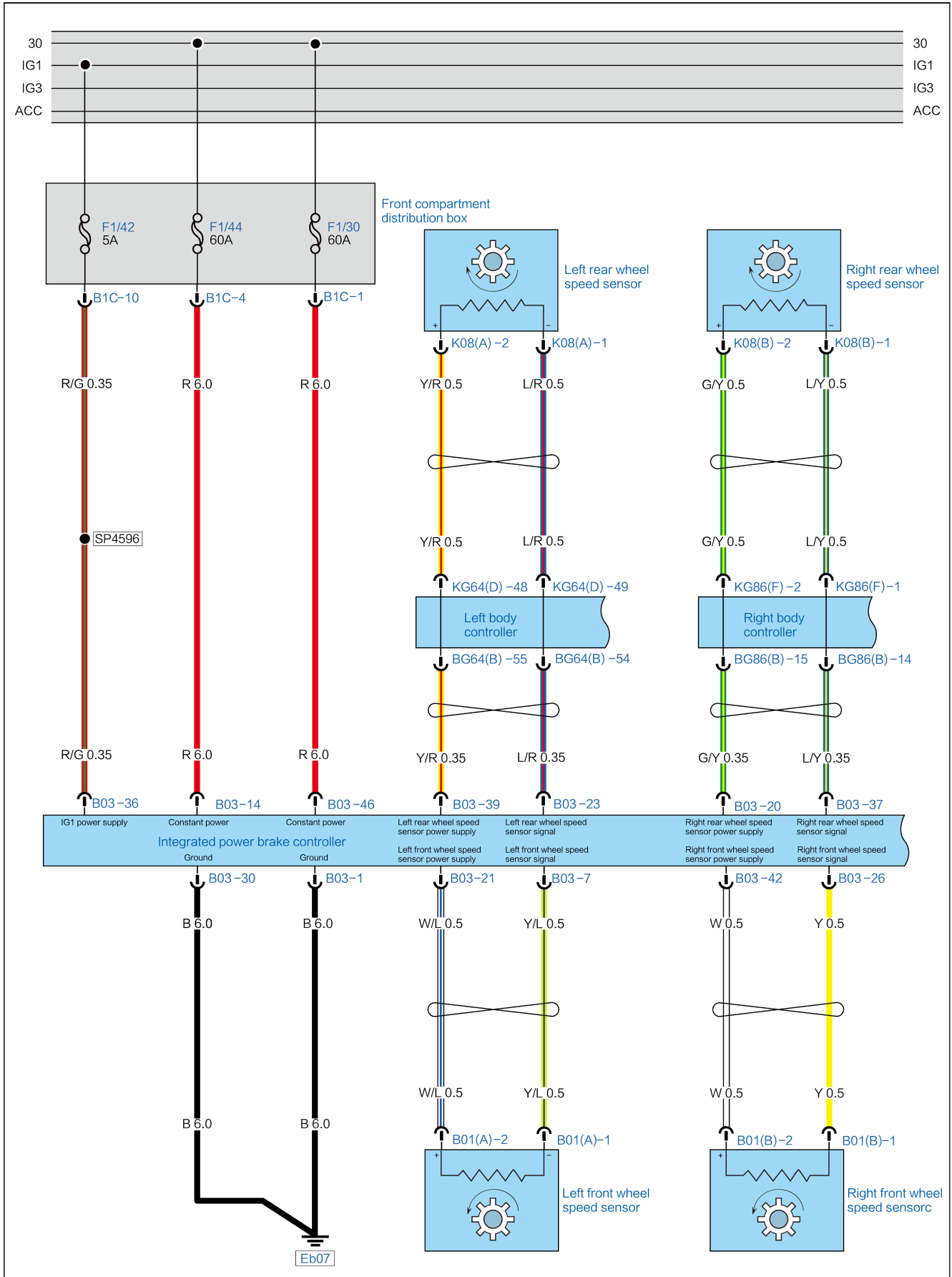
2. Check whether the results are normal.

| | |
|-----|---|
| No | Repair or replace the wire harness |
| Yes | Replace the smart power brake controller. |

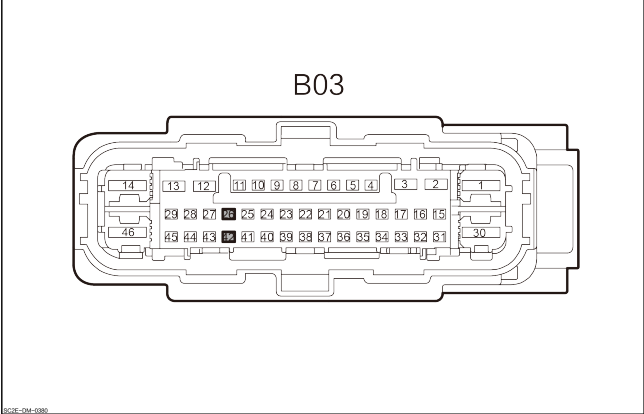
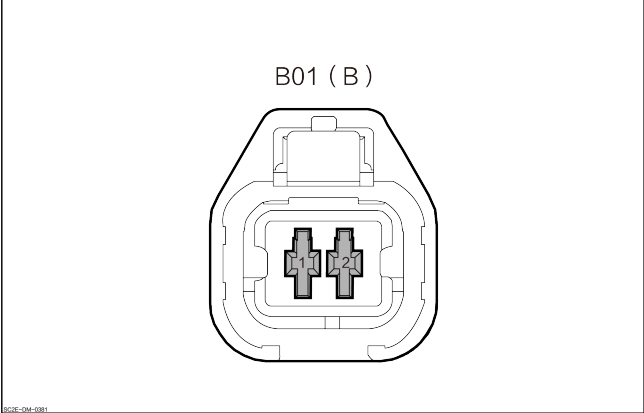
C003500 Supply Voltage of Right Front Wheel Speed Sensor Low**DTC Description**

| C003500 Supply Voltage of Right Front Wheel Speed Sensor Low | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | 1. Harness or connector fault. 2. Right front wheel speed sensor fault. 3. Smart power brake controller fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Smart power brake controller</p> <p style="text-align: center;">B03</p>  <p style="text-align: center;"><small>B03E-004-0380</small></p> | 26 | Right front wheel speed sensor signal line |
| | 42 | Right front wheel speed sensor power line |
| <p style="text-align: center;">Right front wheel speed sensor</p> <p style="text-align: center;">B01 (B)</p>  <p style="text-align: center;"><small>B03E-004-0381</small></p> | 1 | Right front wheel speed sensor signal line |
| | 2 | Right front wheel speed sensor power line |

Diagnostic Steps

1 Check the DTC of intelligent power brake control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

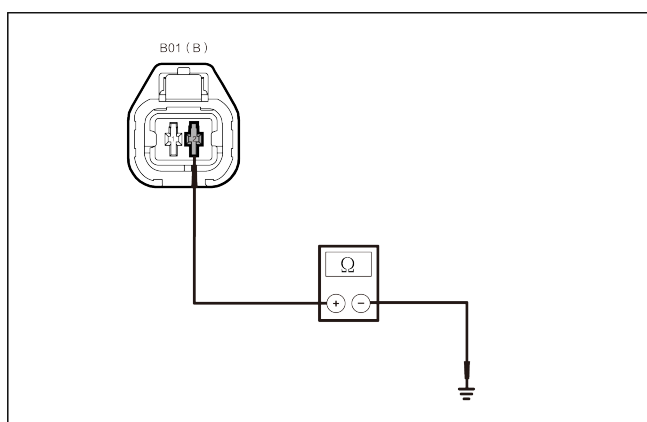
2 Check the right front wheel sensor harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the right front wheel sensor harness connector B01(B).
3. Check whether the right front wheel sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check whether the right front wheel speed sensor power line is shorted to ground.



1. Measure the resistance value between the right front wheel speed sensor harness connector B01 (B)-2 and the ground.

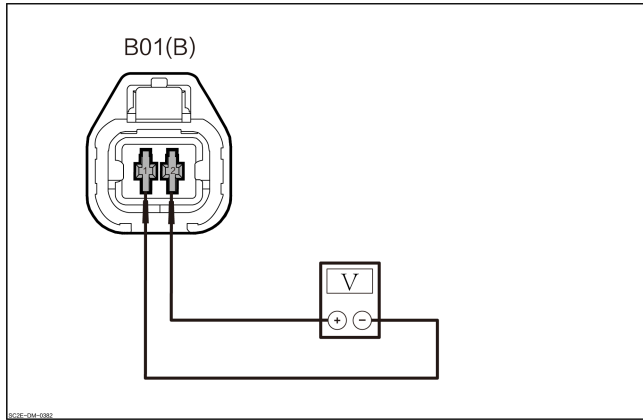
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B01(B)-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the power supply of right front wheel speed sensor power line.



1. Set the start/stop button to ON.
2. Measure the voltage value between the right front wheel speed sensor harness connector B01(B)-2 and the right front wheel speed sensor harness connector B01 (B)-1.

| Connector | | Condition | Voltage value |
|-----------|----------|-------------|---------------|
| (+) | (-) | | |
| B01(B)-2 | B01(B)-1 | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace front right speed sensor.

No

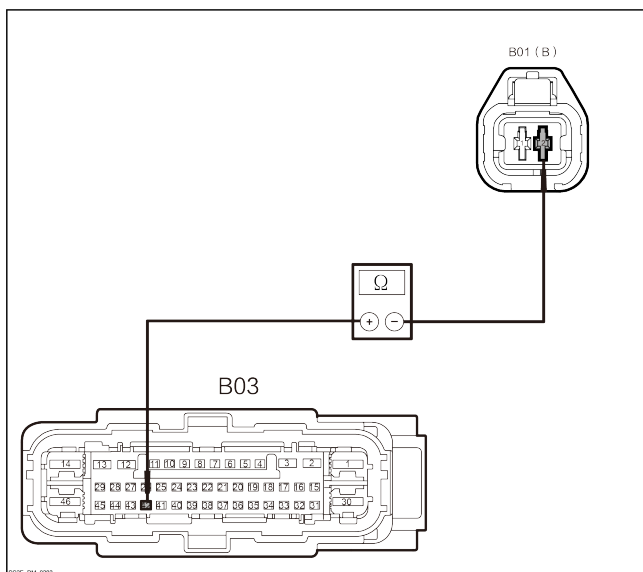
5 Check the intelligent power brake control module harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the harness connector of intelligent power brake control module B03.
3. Check whether the intelligent power brake control module harness connector is normal or not.

No → Repair or replace the wire harness

Yes

6 Check whether the right front wheel speed sensor power line is open circuited.



1. Measure the resistance of the harness connector of intelligent brake control module B03-42 and the harness connector of right front wheel speed sensor B01(B) -2.

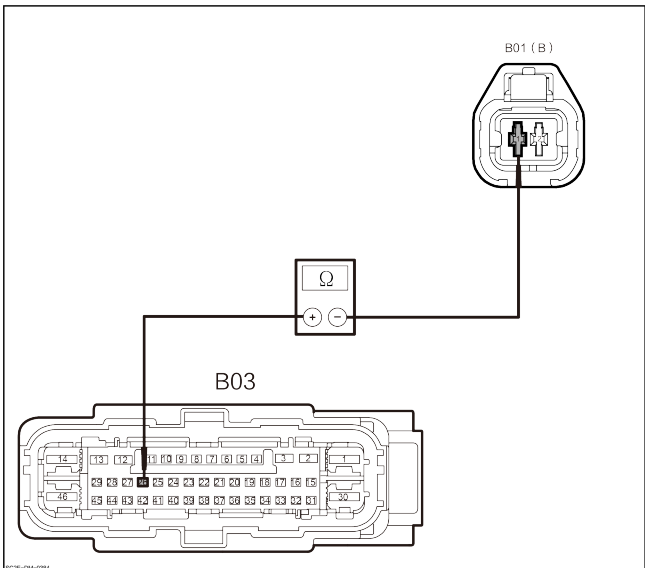
| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| B03-42 | B01(B)-2 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check whether the right front wheel speed sensor signal line is open circuited.



1. Measure the resistance of the harness connector of intelligent brake control module B03-26 and the harness connector of right front wheel speed sensor B01(B) -1.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-26 | B01(B)-1 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

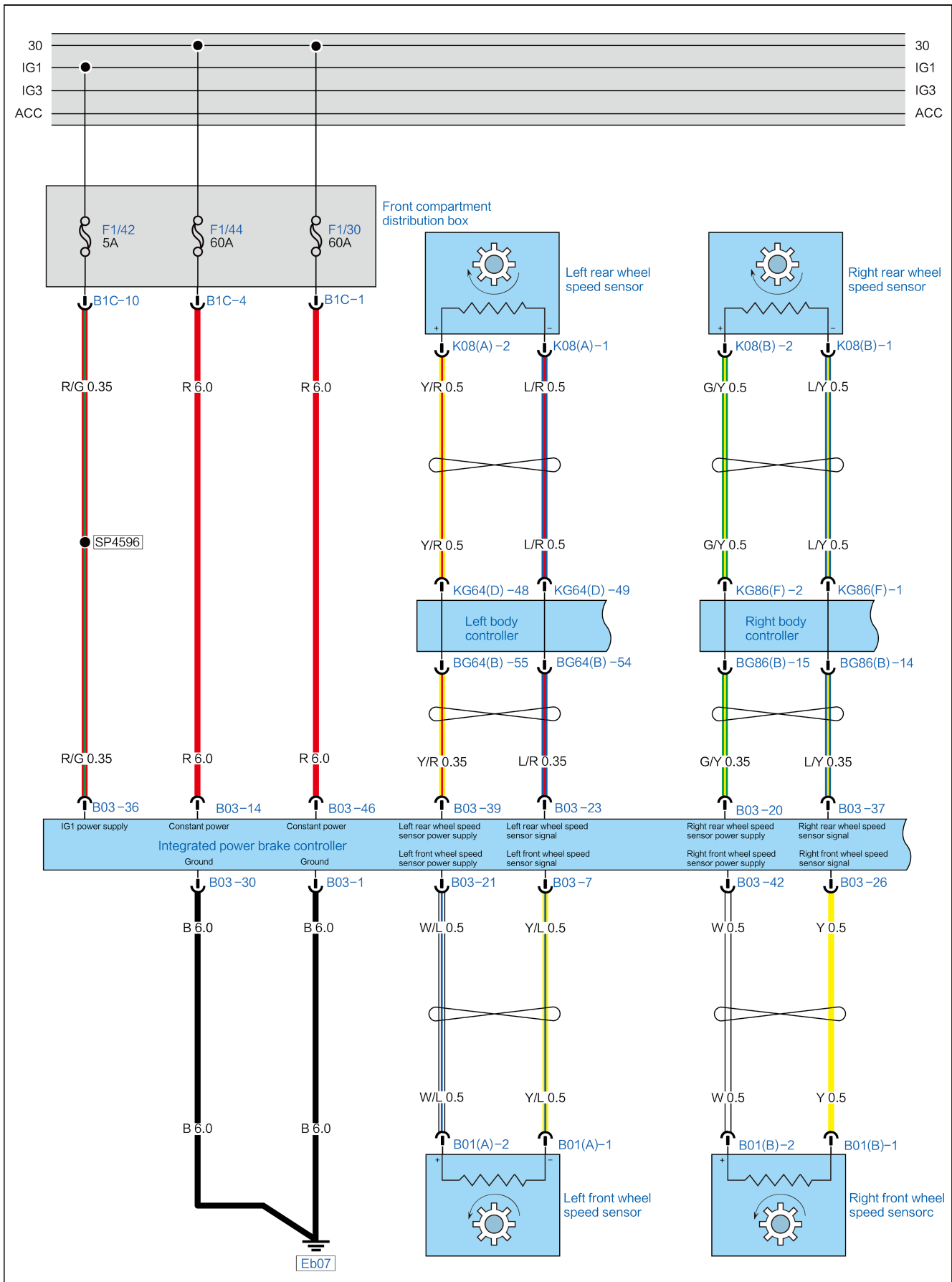
- No → Repair or replace the wire harness
- Yes → Replace the smart power brake controller.

C050900 Short Circuit between Right Front Wheel Speed Sensor Signal Line and Power Supply Line

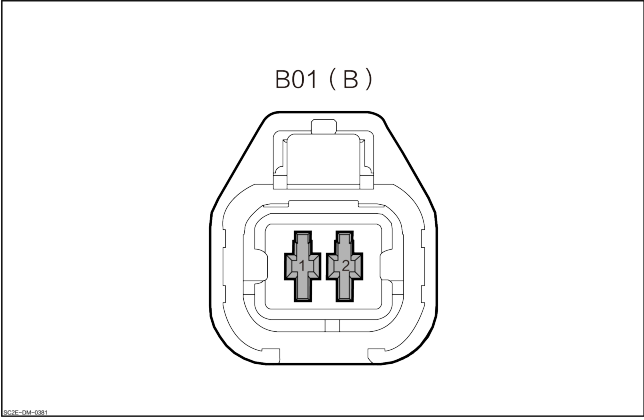
DTC Description

| | |
|--|--|
| C050900 Short Circuit between Right Front Wheel Speed Sensor Signal Line and Power Supply Line | |
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | 1. Harness or connector fault. 2. Right front wheel speed sensor fault. 3. Smart power brake controller fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Right front wheel speed sensor</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B01 (B)</p> </div> <p style="font-size: small; margin-top: 10px;">B01 (B)</p> | 1 | Right front wheel speed sensor signal line |
| | 2 | Right front wheel speed sensor power line |

Diagnostic Steps

1 Check the DTC of intelligent power brake control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

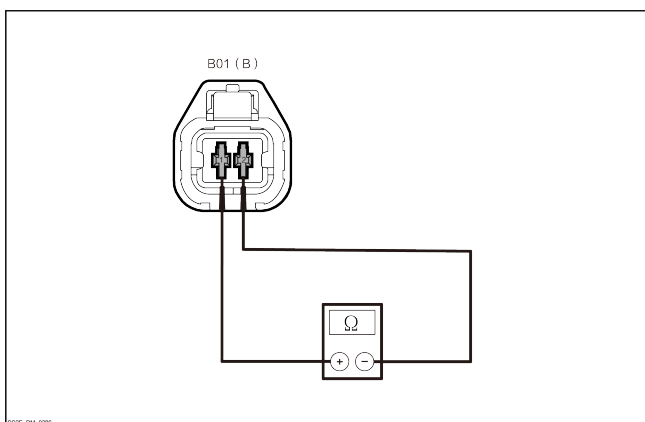
2 Check the right front wheel sensor harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the right front wheel sensor harness connector B01(B).
3. Check whether the right front wheel sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check the right front wheel speed sensor signal line and power supply line.



1. Measure the resistance value between the right front wheel speed sensor harness connector B01 (B) –1 and the right front wheel speed sensor harness connector B01 (B) –2.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| B01(B)-1 | B01(B)-2 | Through- out | Above 10K Ω |

2. Check whether the results are normal.

Yes → Replace front right speed sensor.

No

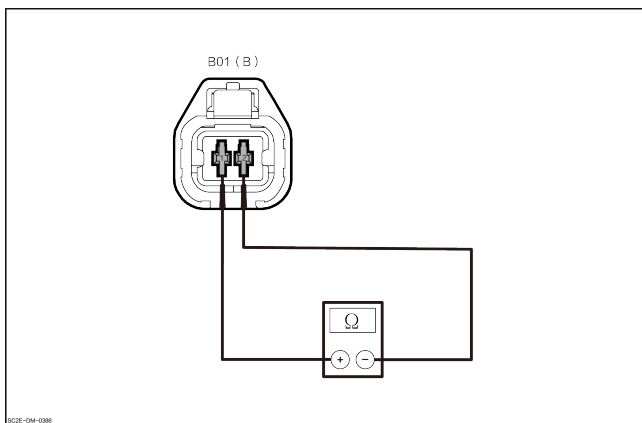
4 Check the intelligent power brake control module harness and connector.

1. Disconnect the harness connector of intelligent power brake control module B03.
2. Check whether the intelligent power brake control module harness connector is normal or not.

No → Repair or replace the wire harness

Yes

5 Check the right front wheel speed sensor signal line and power supply line.



1. Measure the resistance value between the right front wheel speed sensor harness connector B01 (B) -1 and the right front wheel speed sensor harness connector B01 (B) -2.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| B01(B)-1 | B01(B)-2 | Through- out | Above 10K Ω |

2. Check whether the results are normal.

Yes → Replace the smart power brake controller.

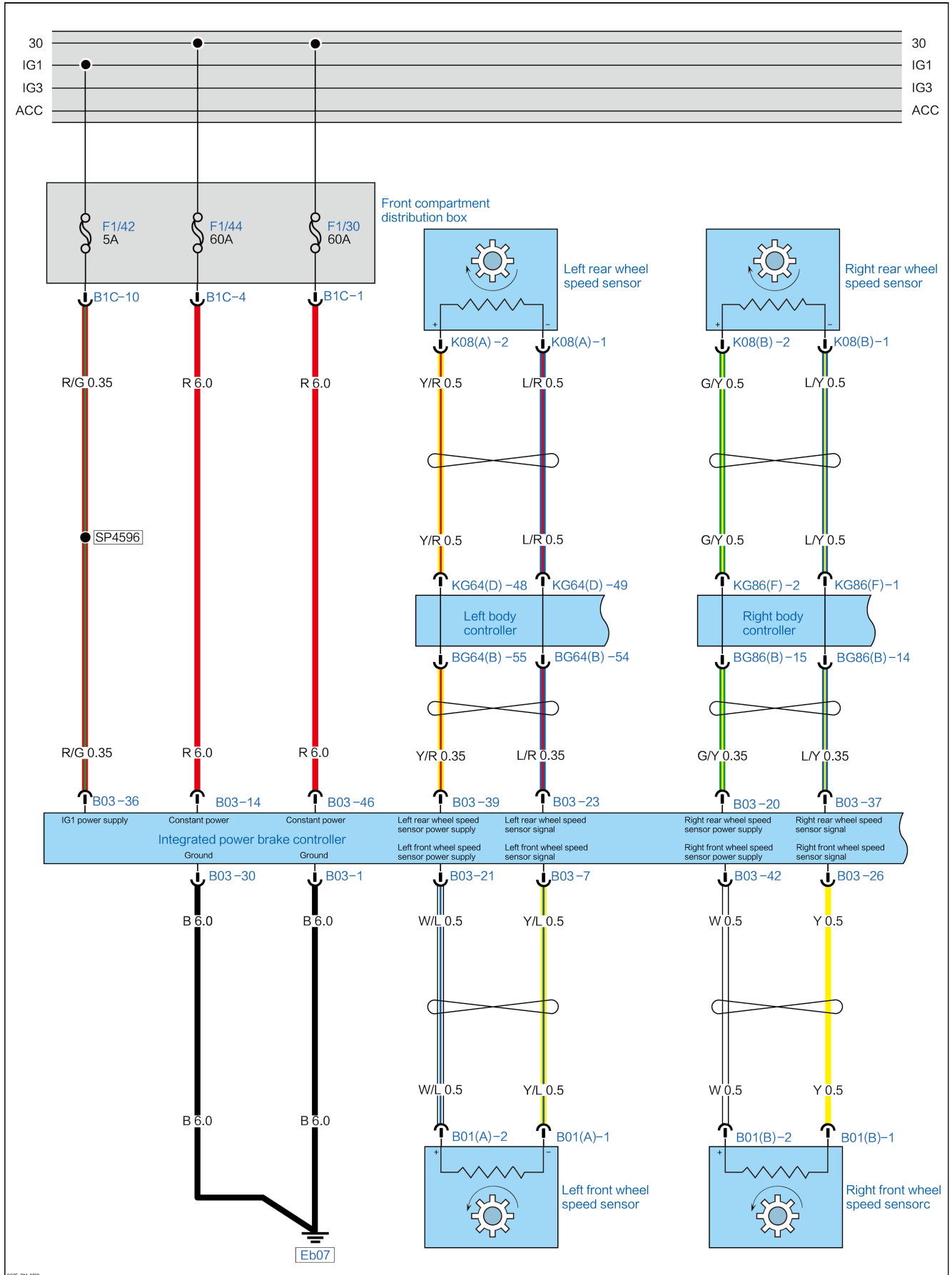
No → Repair or replace the wire harness

C050800 Short Circuit between Signal Wire and Ground Wire of Right Front Wheel Speed Sensor

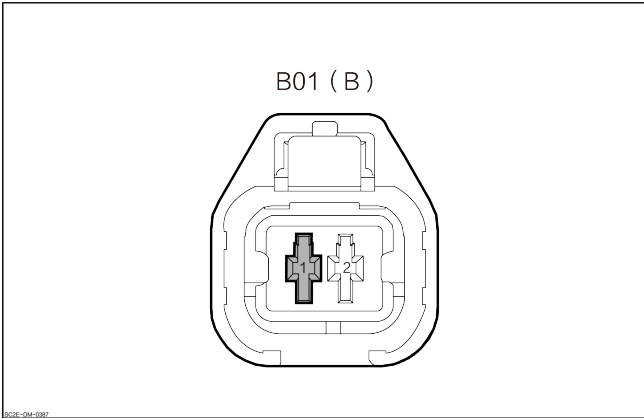
DTC Description

| C050800 Short Circuit between Signal Wire and Ground Wire of Right Front Wheel Speed Sensor | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | 1. Harness or connector fault. 2. Right front wheel speed sensor fault. 3. Smart power brake controller fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p style="text-align: center;">Smart power brake controller</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B01 (B)</p> </div> <p style="font-size: small; margin-top: 10px;">B01E-014-0307</p> | <p>1</p> | <p>Right front wheel speed sensor signal line</p> |

Diagnostic Steps

1 Check the DTC of intelligent power brake control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

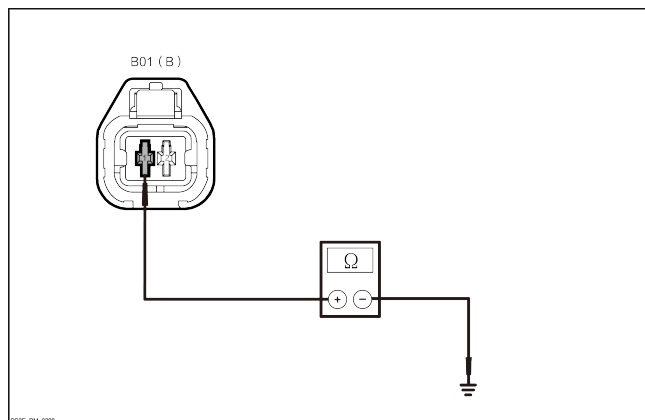
2 Check the right front wheel sensor harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the right front wheel sensor harness connector B01(B).
3. Check whether the right front wheel sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check whether the right front wheel speed sensor signal line is shorted to ground.



1. Measure the resistance value between the right front wheel speed sensor harness connector B01 (B)–1 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B01(B)-1 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

Yes → Replace front right speed sensor.

No

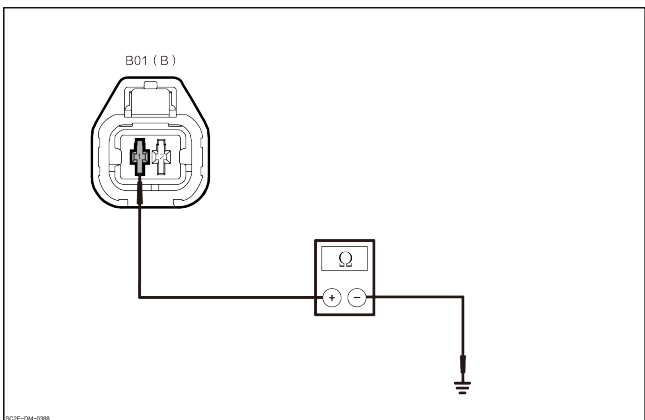
4 Check the intelligent power brake control module harness and connector.

1. Disconnect the harness connector of intelligent power brake control module B03.
2. Check whether the intelligent power brake control module harness connector is normal or not.

No → Repair or replace the wire harness

Yes

5 Check whether the right front wheel speed sensor signal line is shorted to ground.



1. Measure the resistance value between the right front wheel speed sensor harness connector B01 (B)-1 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| B01(B)-1 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

Yes → Replace the smart power brake controller.

No → Repair or replace the wire harness

C003400 Right Front Wheel Speed Sensor Signal Fault

DTC Description

| C003400 Right Front Wheel Speed Sensor Signal Fault | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none">1. Right front wheel speed sensor fault.2. There is excessive dirt on the drive shaft of the drive motor.3. The drive shaft ring gear of drive motor is damaged. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the drive shaft ring gear of drive motor and right front wheel speed sensor. |
|---|--|

1. Check whether there are excessive dirt on the drive motor drive shaft ring gear and right front wheel speed sensor ?

Yes → Clean the drive shaft ring gear of drive motor and right front wheel speed sensor.

No

| | |
|---|---|
| 3 | Check the drive shaft ring gear of drive motor. |
|---|---|

1. Check whether the drive motor drive shaft ring gear is damaged.

Yes → Replace the drive motor drive shaft.

No → Replace front right speed sensor.

C050B76 Incorrect Installation Direction of Right Front Wheel Speed Sensor**DTC Description**

| C050B76 Incorrect Installation Direction of Right Front Wheel Speed Sensor | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Right front wheel speed sensor installation direction incorrect. |
| Fault setting conditions | Right front wheel speed sensor installation direction incorrect. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the right front wheel speed sensor. |
|---|---|

1. Check whether the right front wheel speed sensor is installed correctly.

No

Re-install the right front wheel speed sensor.

Yes

| | |
|---|---|
| 3 | Replace the right front wheel speed sensor and check the integrated power brake control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

The system is normal.

Yes

Replace the smart power brake controller.

C050A00 Right Front Wheel Speed Sensor Air Gap Abnormal

DTC Description

| C050A00 Right Front Wheel Speed Sensor Air Gap Abnormal | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none">1. Right front wheel speed sensor fault.2. Right front steering knuckle deformation.3. Smart power brake controller fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of intelligent power brake control module. |
| <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the start/stop button to ON. 3. Clear DTCs. 4. Place the start/stop button in the OFF position and wait for a few seconds. 5. Place the start/stop button in ON position again, and read the DTC. 6. Check whether the same DTC is displayed? | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Check the “intermittent fault” .</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 2 | Check the right front wheel speed sensor. |
| <ol style="list-style-type: none"> 1. Check whether the right front wheel speed sensor is installed correctly. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Re-install the right front wheel speed sensor.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 3 | Check the right front steering knuckle. |
| <ol style="list-style-type: none"> 1. Check whether the right front steering knuckle is deformed. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">Yes</div> <div style="border: 1px solid black; padding: 5px;">Replace the right front steering knuckle.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">No</div> | |
| 4 | Replace the right front wheel speed sensor and check the integrated power brake control module DTC. |
| <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the start/stop button to ON. 3. Clear DTCs. 4. Place the start/stop button in the OFF position and wait for a few seconds. 5. Place the start/stop button in ON position again, and read the DTC. 6. Check whether the same DTC is displayed? | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">The system is normal.</div> </div> | |

Yes

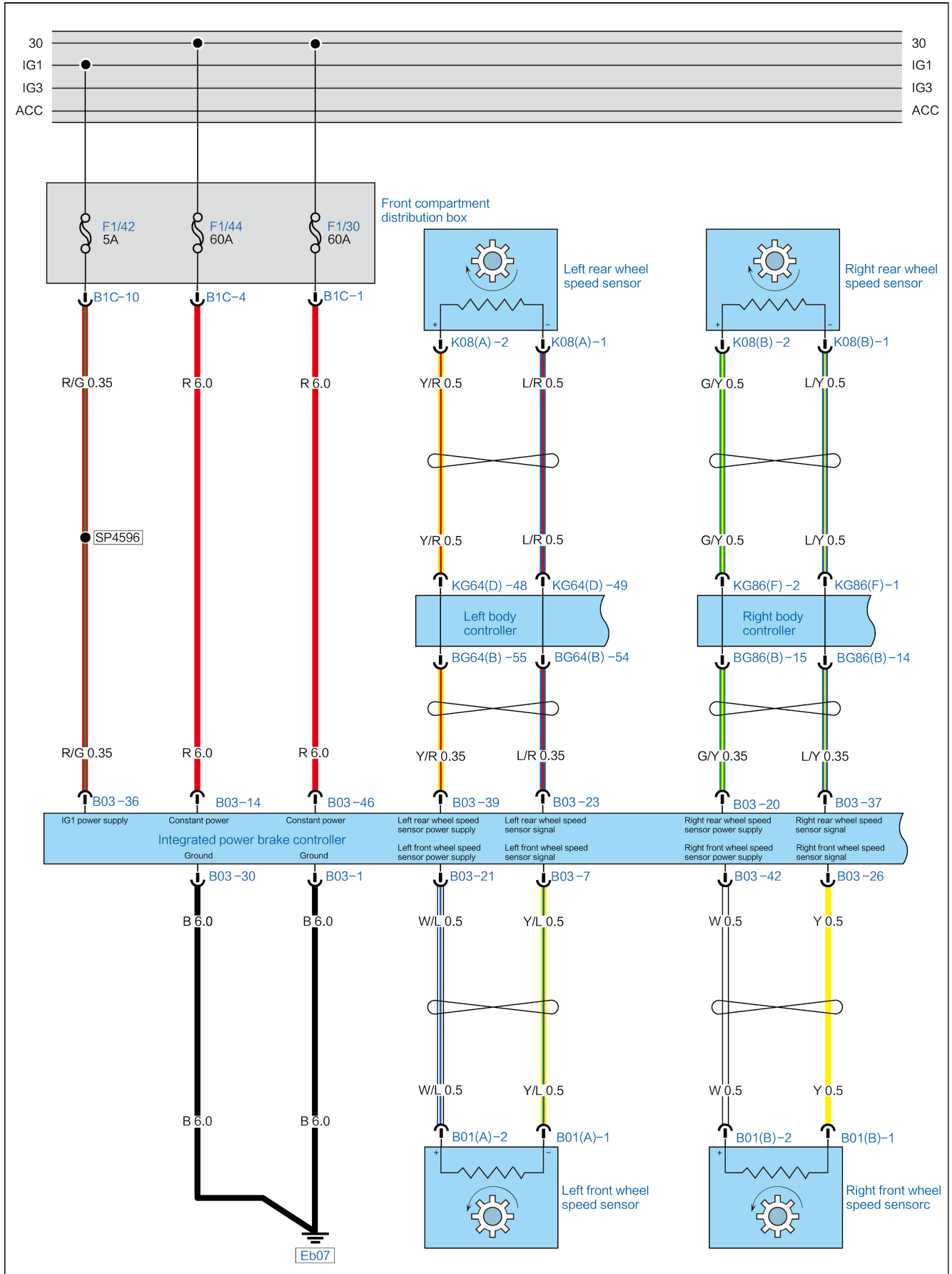
Replace the smart power brake controller.

C050C00 Left Rear Wheel Speed Sensor Open-circuited

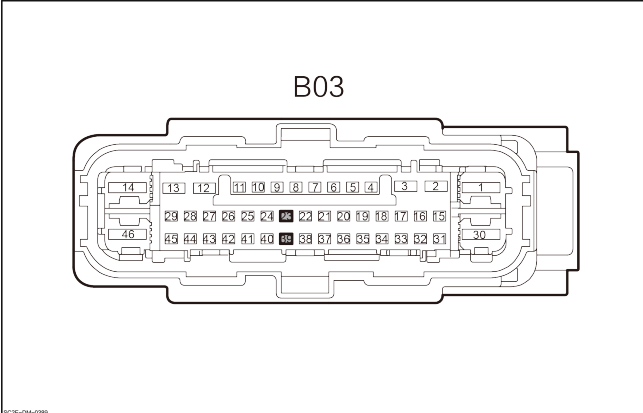
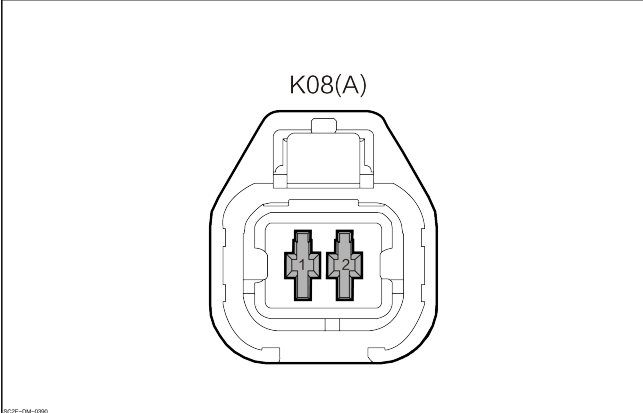
DTC Description

| C050C00 Left Rear Wheel Speed Sensor Open-circuited | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Left rear wheel speed sensor fault. 3. Smart power brake controller fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p style="text-align: center;">Smart power brake controller</p> <p style="text-align: center;">B03</p>  <p><small>801E-04-030</small></p> | 23 | Left rear wheel speed sensor signal line |
| | 39 | Left rear wheel speed sensor power supply line |
| <p style="text-align: center;">The left rear wheel speed sensor</p> <p style="text-align: center;">K08(A)</p>  <p><small>801E-04-030</small></p> | 1 | Left rear wheel speed sensor signal line |
| | 2 | Left rear wheel speed sensor power supply line |

Diagnostic Steps

1 Check the DTC of intelligent power brake control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

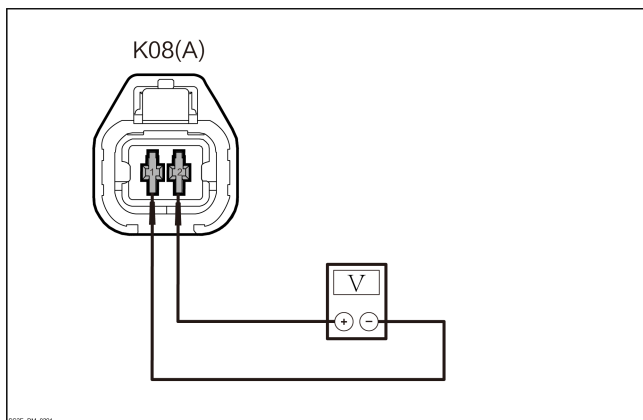
2 Check the left rear wheel sensor harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the left rear wheel sensor harness connector K08(A).
3. Check whether the left rear wheel sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check the power supply of left rear wheel speed sensor power line.



1. Set the start/stop button to ON.
2. Measure the voltage value between the left rear wheel speed sensor harness connectors K08 (A)-2 and K08 (A)-1.

| Connector | | Condition | Voltage value |
|-----------|----------|-------------|---------------|
| (+) | (-) | | |
| K08(A)-2 | K08(A)-1 | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace rear left speed sensor.

No

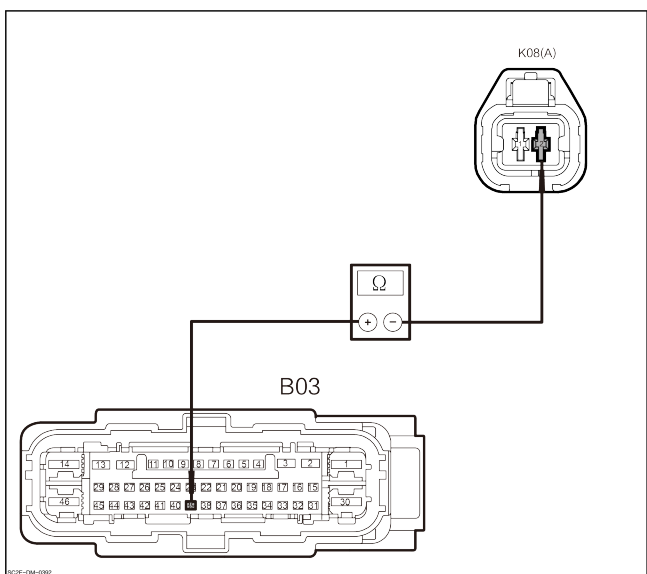
4 Check the intelligent power brake control module harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the harness connector of intelligent power brake control module B03.
3. Check whether the intelligent power brake control module harness connector is normal or not.

No Repair or replace the wire harness

Yes

5 Check whether the left rear wheel speed sensor power line is open circuited.



1. Measure the resistance of the harness connector of intelligent brake control module B03-39 and the harness connector of left rear wheel speed sensor K08(A) -2.

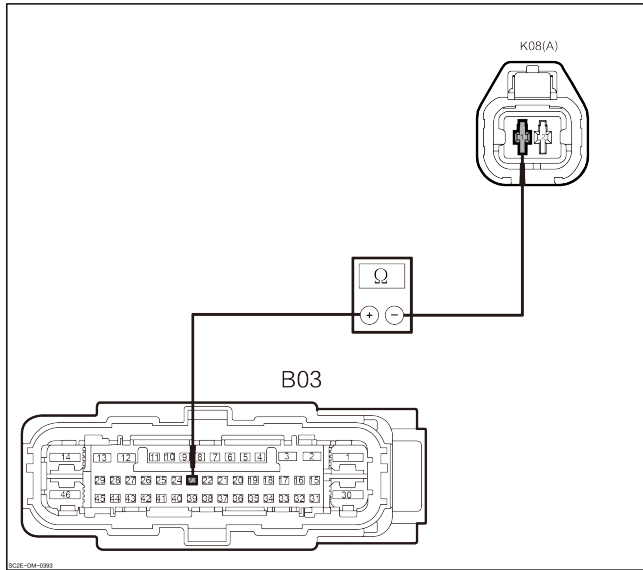
| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-39 | K08(A)-2 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

6 Check whether the left rear wheel speed sensor signal line is open circuited.



1. Measure the resistance of the harness connector of intelligent brake control module B03-23 and the harness connector of left rear wheel speed sensor K08(A) -1.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-23 | K08(A)-1 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

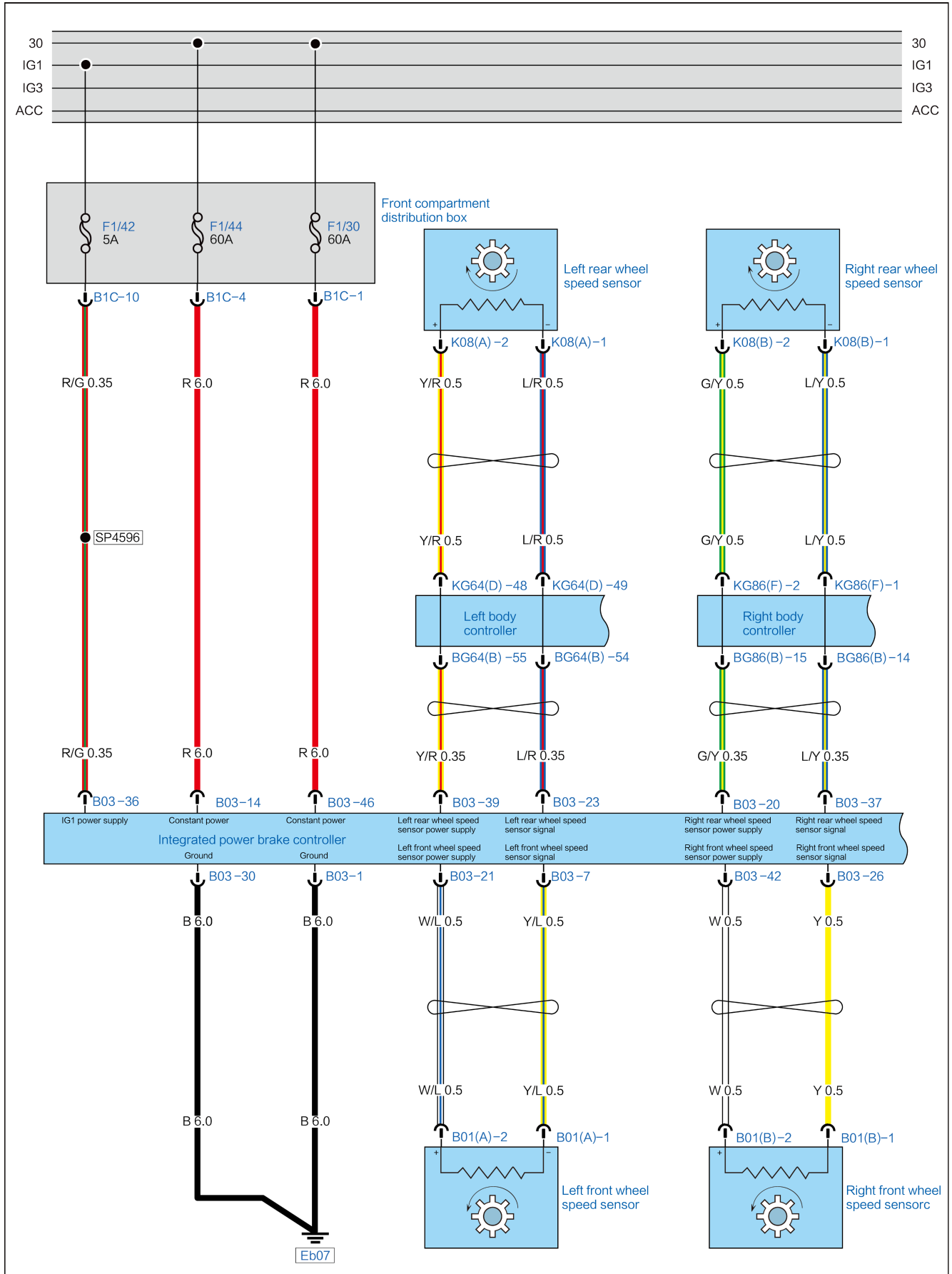
| | |
|-----|---|
| No | Repair or replace the wire harness |
| Yes | Replace the smart power brake controller. |

C003800 Supply Voltage of Left Rear Wheel Speed Sensor Low

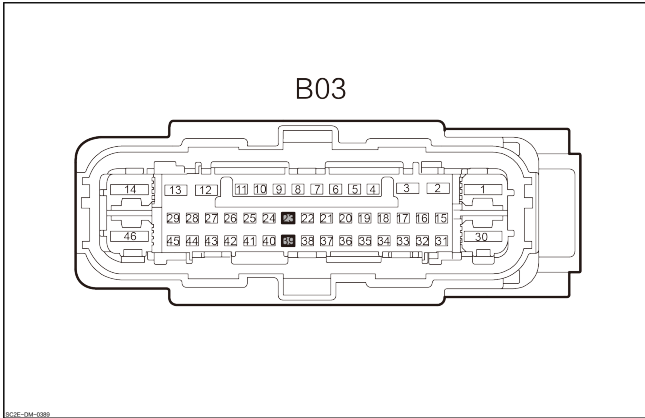
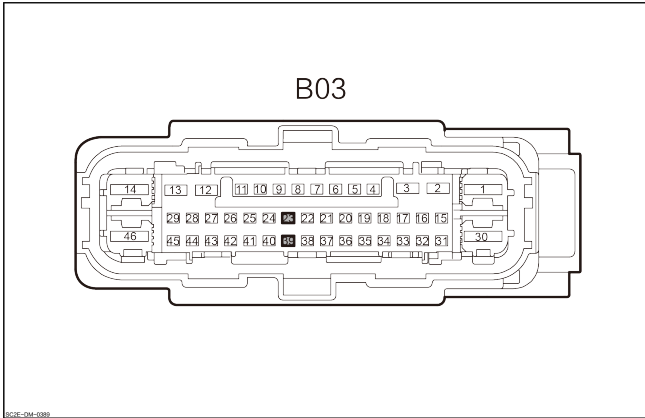
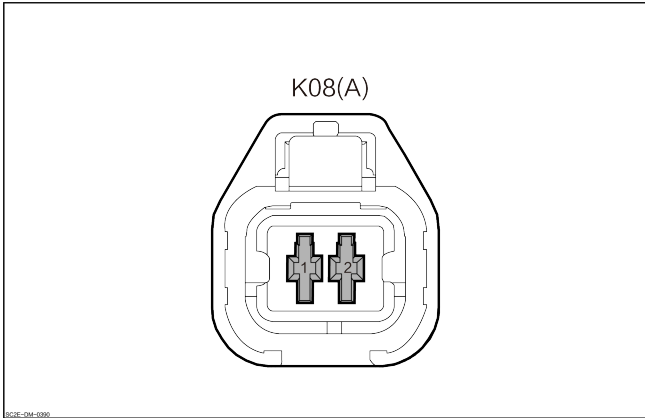
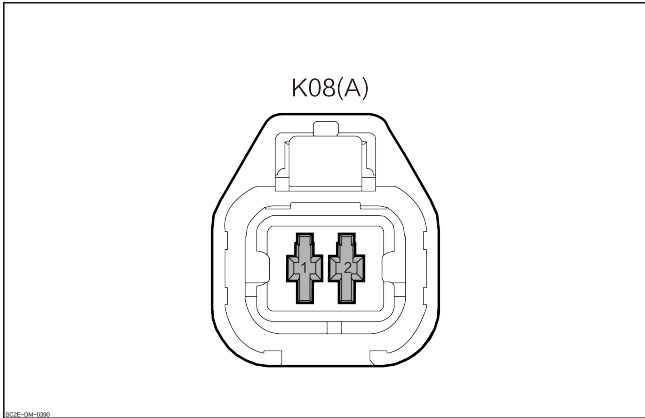
DTC Description

| C003800 Supply Voltage of Left Rear Wheel Speed Sensor Low | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | 1. Harness or connector fault. 2. Left rear wheel speed sensor fault. 3. Smart power brake controller fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p>Smart power brake controller</p> <p>B03</p>  <p><small>801E-04-090</small></p> | <p>23</p> | <p>Left rear wheel speed sensor signal line</p> |
| <p>Smart power brake controller</p> <p>B03</p>  <p><small>801E-04-090</small></p> | <p>39</p> | <p>Left rear wheel speed sensor power supply line</p> |
| <p>The left rear wheel speed sensor</p> <p>K08(A)</p>  <p><small>801E-04-090</small></p> | <p>1</p> | <p>Left rear wheel speed sensor signal line</p> |
| <p>The left rear wheel speed sensor</p> <p>K08(A)</p>  <p><small>801E-04-090</small></p> | <p>2</p> | <p>Left rear wheel speed sensor power supply line</p> |

Diagnostic Steps

1 Check the DTC of intelligent power brake control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

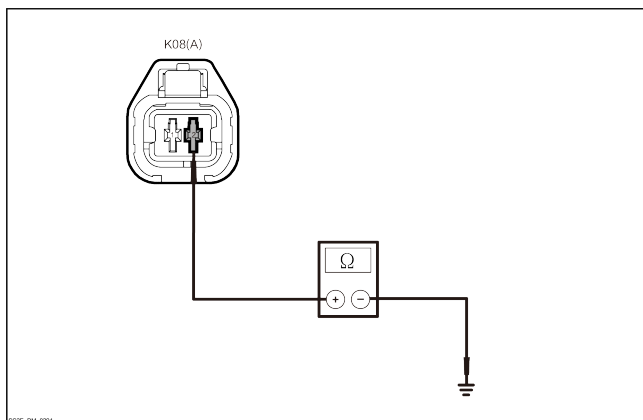
2 Check the left rear wheel sensor harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the left rear wheel sensor harness connector K08(A).
3. Check whether the left rear wheel sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check whether the left rear wheel speed sensor power line is shorted to ground.



1. Measure the resistance value between the left rear wheel speed sensor harness connector K08 (A)-2 and the ground.

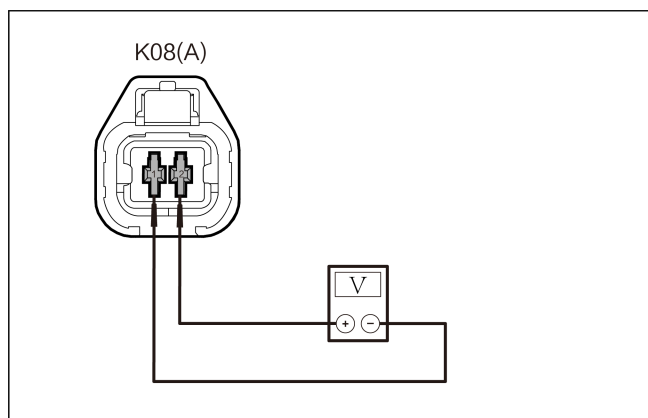
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K08(A)-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the power supply of left rear wheel speed sensor power line.



1. Set the start/stop button to ON.
2. Measure the voltage value between the left rear wheel speed sensor harness connectors K08 (A)-2 and K08 (A)-1.

| Connector | | Condition | Voltage value |
|-----------|----------|-------------|---------------|
| (+) | (-) | | |
| K08(A)-2 | K08(A)-1 | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace rear left speed sensor.

No

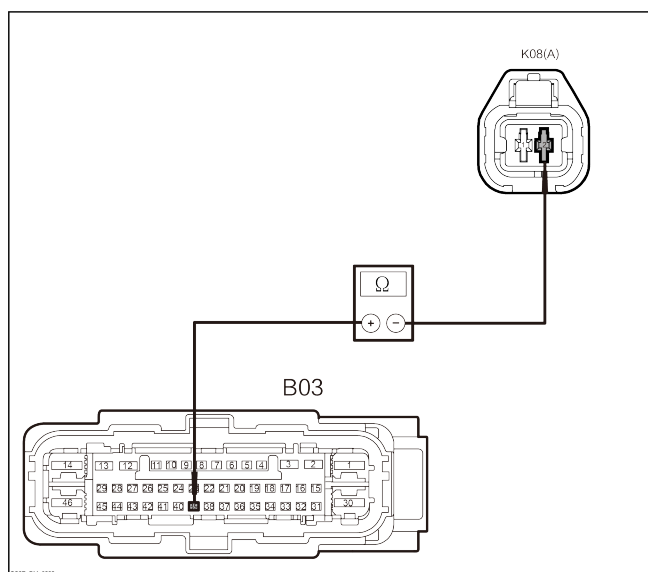
5 Check the intelligent power brake control module harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the harness connector of intelligent power brake control module B03.
3. Check whether the intelligent power brake control module harness connector is normal or not.

No → Repair or replace the wire harness

Yes

6 Check whether the left rear wheel speed sensor power line is open circuited.



1. Measure the resistance of the harness connector of intelligent brake control module B03-39 and the harness connector of left rear wheel speed sensor K08(A) -2.

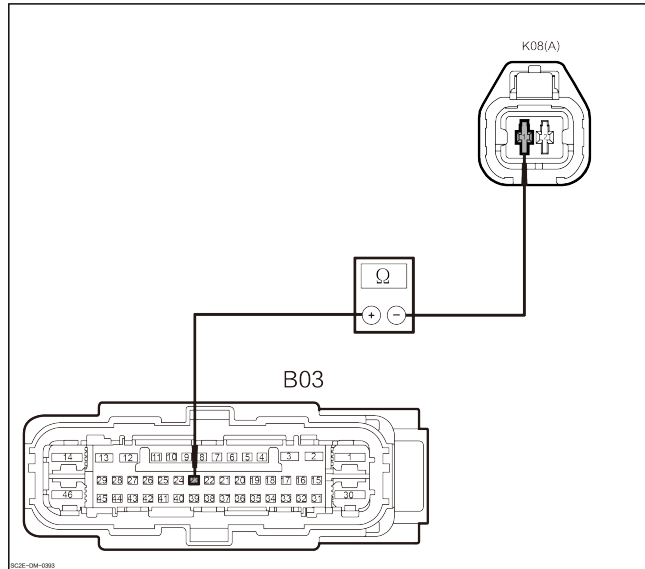
| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| B03-39 | K08(A)-2 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check whether the left rear wheel speed sensor signal line is open circuited.



1. Measure the resistance of the harness connector of intelligent brake control module B03-23 and the harness connector of left rear wheel speed sensor K08(A) -1.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-23 | K08(A)-1 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

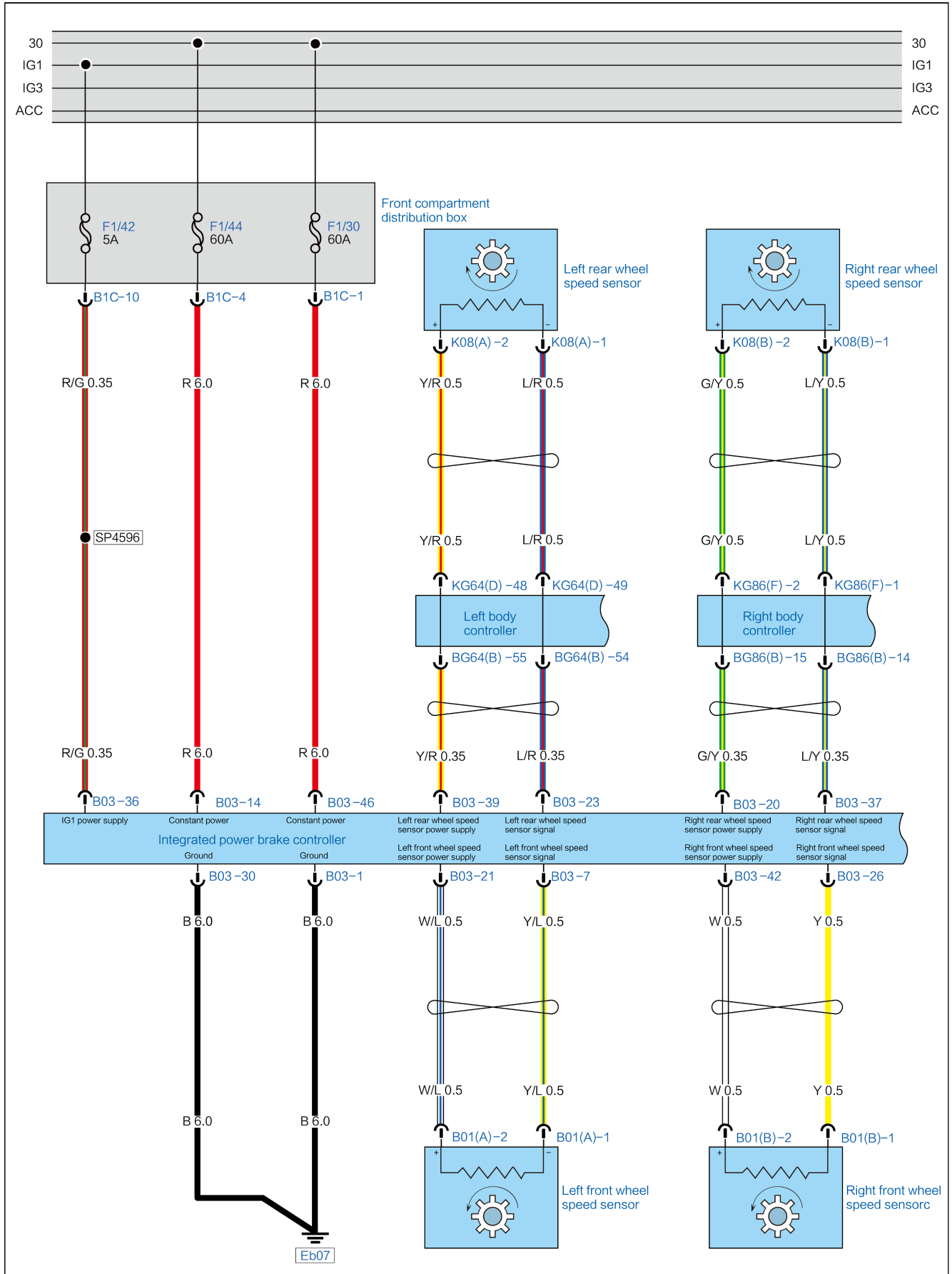
- No → Repair or replace the wire harness
- Yes → Replace the smart power brake controller.

C050F00 Short Circuit between Left Rear Wheel Speed Sensor Signal Line and Power Supply Line

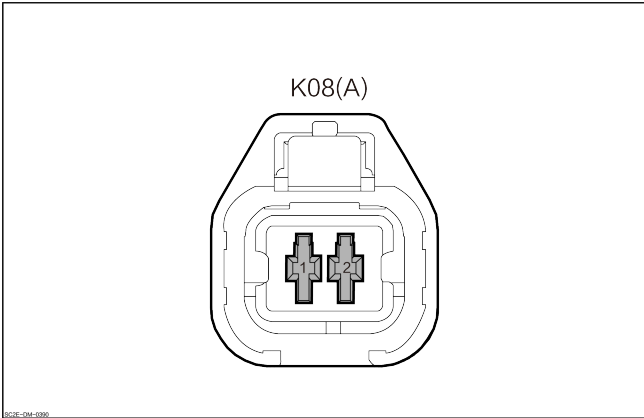
DTC Description

| | |
|--|--|
| C050F00 Short Circuit between Left Rear Wheel Speed Sensor Signal Line and Power Supply Line | |
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Left rear wheel speed sensor fault. 3. Smart power brake controller fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p>The left rear wheel speed sensor</p>  <p style="text-align: center;">K08(A)</p> | 1 | Left rear wheel speed sensor signal line |
| | 2 | Left rear wheel speed sensor power supply line |

Diagnostic Steps

1 Check the DTC of intelligent power brake control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

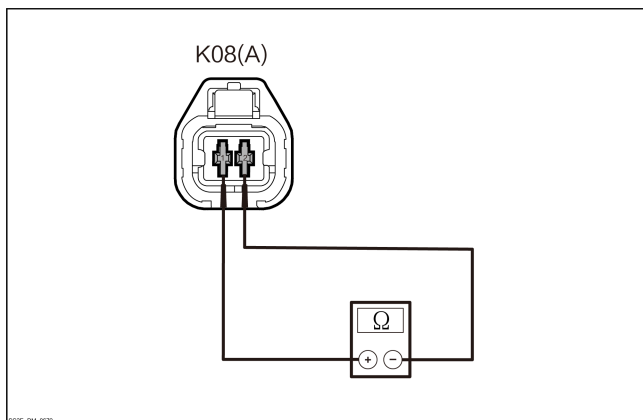
2 Check the left rear wheel sensor harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the left rear wheel sensor harness connector K08(A).
3. Check whether the left rear wheel sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check the left rear wheel speed sensor signal line and power supply line.



1. Measure the resistance value between the left rear wheel speed sensor harness connectors K08(A) -1 and K08(A) -2.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| K08(A)-1 | K08(A)-2 | Through- out | Above 10K Ω |

2. Check whether the results are normal.

Yes → Replace rear left speed sensor.

No

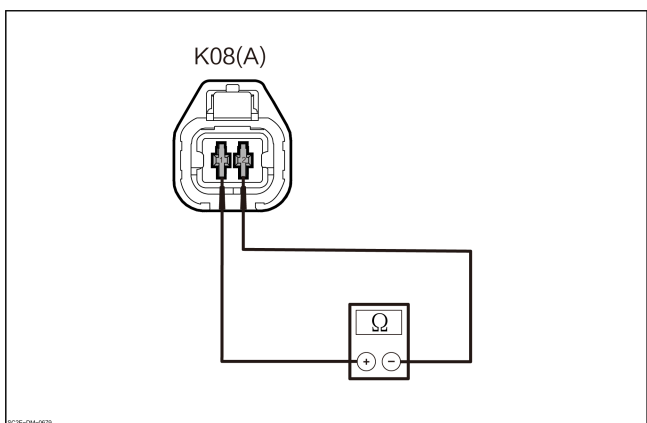
4 Check the intelligent power brake control module harness and connector.

1. Disconnect the harness connector of intelligent power brake control module B03.
2. Check whether the intelligent power brake control module harness connector is normal or not.

No → Repair or replace the wire harness

Yes

5 Check the left rear wheel speed sensor signal line and power supply line.



1. Measure the resistance value between the left rear wheel speed sensor harness connectors K08(A) –1 and K08(A) –2.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| K08(A)-1 | K08(A)-2 | Through- out | Above 10K Ω |

2. Check whether the results are normal.

Yes → Replace the smart power brake controller.

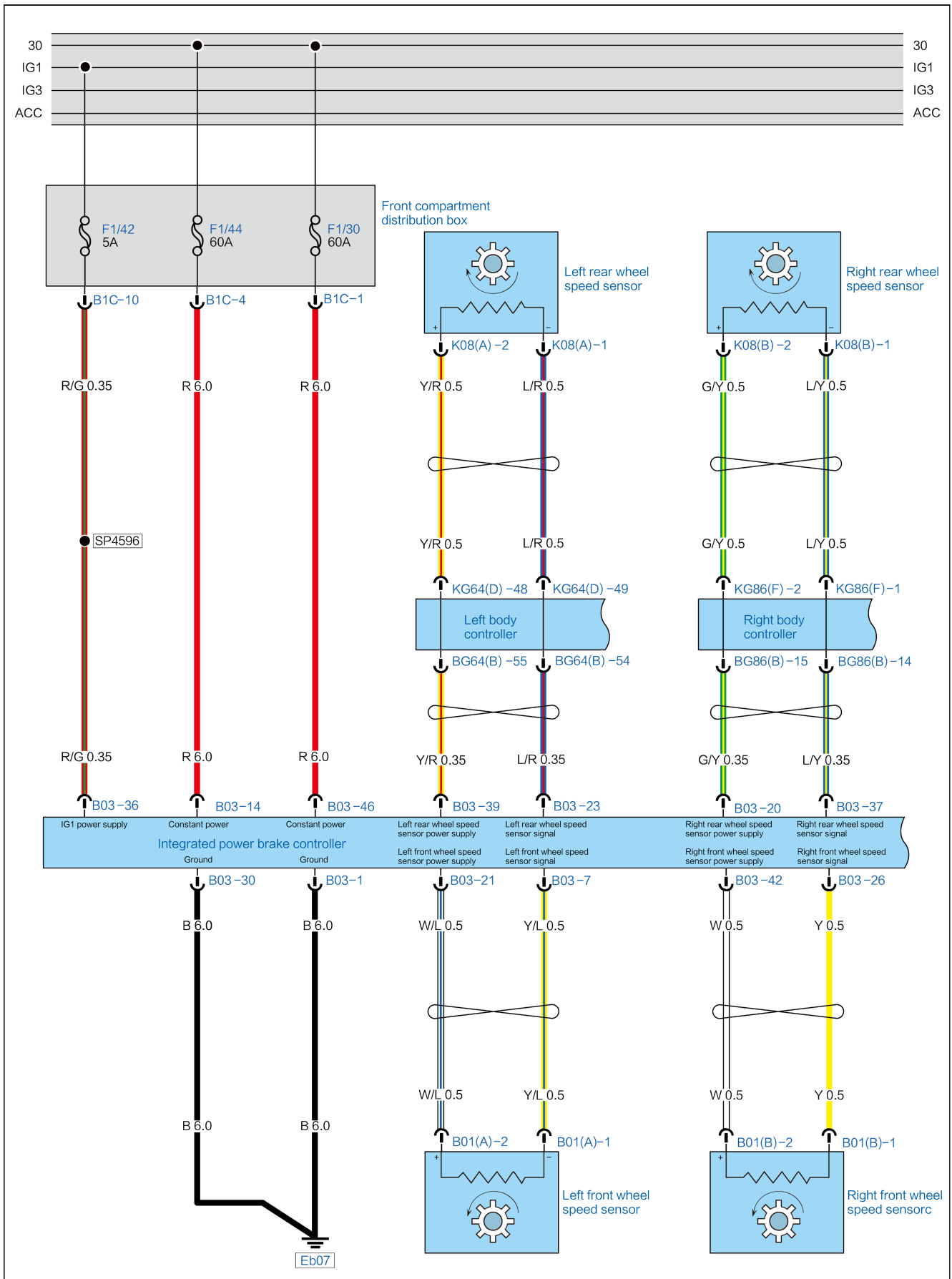
No → Repair or replace the wire harness

C050E00 Short Circuit between Signal Wire and Ground Wire of Left Rear Wheel Speed Sensor

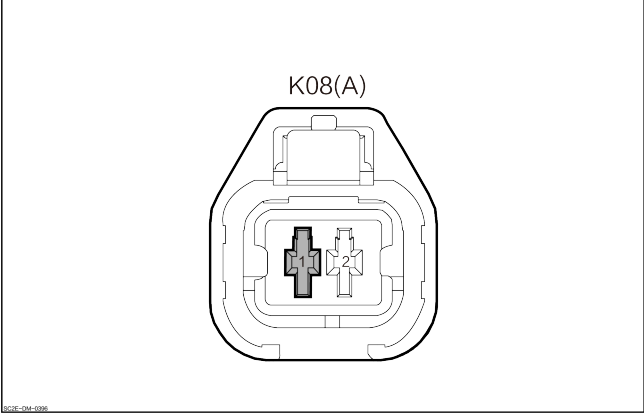
DTC Description

| C050E00 Short Circuit between Signal Wire and Ground Wire of Left Rear Wheel Speed Sensor | |
|---|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | 1. Harness or harness connector. 2. The left rear wheel speed sensor. 3. Integrated power brake control module. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
|  <p>The diagram shows a top-down view of a multi-pin connector labeled K08(A). It features a central cross-shaped terminal labeled '1' and another terminal labeled '2' to its right. The connector housing is rectangular with rounded corners and a central opening for the terminals.</p> | 1 | Left rear wheel speed sensor signal line |

Diagnostic Steps

1 Check the DTC of intelligent power brake control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

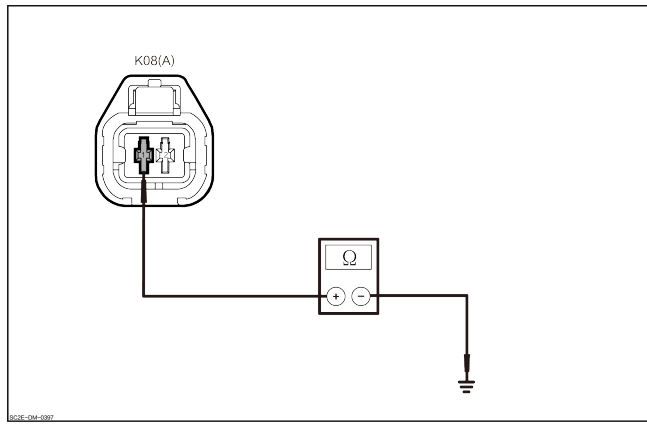
2 Check the left rear wheel sensor harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the left rear wheel sensor harness connector K08(A).
3. Check whether the left rear wheel sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check whether the left rear wheel speed sensor signal line is shorted to ground.



1. Measure the resistance value between the left rear wheel speed sensor harness connector K08(A)-1 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| K08(A)-1 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

Yes → Replace rear left speed sensor.

No

4 Check the intelligent power brake control module harness and connector.

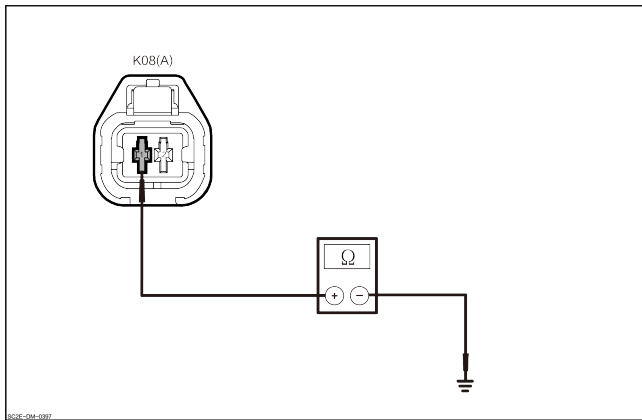
1. Disconnect the harness connector of intelligent power brake control module B03.
2. Check whether the intelligent power brake control module harness connector is normal or not.

No

Repair or replace the wire harness

Yes

5 Check whether the left rear wheel speed sensor signal line is shorted to ground.



1. Measure the resistance value between the left rear wheel speed sensor harness connector K08(A)-1 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| K08(A)-1 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

Yes

Replace the smart power brake controller.

No

Repair or replace the wire harness

C003700 Left Rear Wheel Speed Sensor Signal Fault

DTC Description

| C003700 Left Rear Wheel Speed Sensor Signal Fault | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none">1. Left rear wheel speed sensor fault.2. Excessive accumulation of dirt in the left rear wheel bearing3. The left rear wheel bearing ring gear is damaged. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the left rear wheel bearing ring gear and left rear wheel speed sensor. |
|---|---|

1. Check the left rear wheel bearing ring gear and left rear wheel speed sensor for excessive dirt accumulation.

Yes

Clean the left rear wheel bearing ring gear and left rear wheel speed sensor.

No

| | |
|---|--|
| 3 | Check the left rear wheel bearing ring gear. |
|---|--|

1. Check the left rear wheel bearing ring gear for damage.

Yes

Replace the left rear wheel bearing.

No

Replace rear left speed sensor.

C051176 Incorrect Installation Direction of Left Rear Wheel Speed Sensor**DTC Description**

| C051176 Incorrect Installation Direction of Left Rear Wheel Speed Sensor | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Left rear wheel speed sensor installation direction incorrect. |
| Fault setting conditions | Left rear wheel speed sensor installation direction incorrect. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the left rear wheel speed sensor. |
|---|---|

1. Check whether the left rear wheel speed sensor is installed correctly.

No

Re-install the left rear wheel speed sensor.

Yes

| | |
|---|--|
| 3 | Replace the left rear wheel speed sensor and check the intelligent power brake control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

The system is normal.

Yes

Replace the smart power brake controller.

C051000 Left Rear Wheel Speed Sensor Air Gap Abnormal

DTC Description

| C051000 Left Rear Wheel Speed Sensor Air Gap Abnormal | |
|---|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none">1. Left rear wheel speed sensor fault.2. Left rear wheel bearing deformation.3. Smart power brake controller fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the left rear wheel speed sensor. |
|---|---|

1. Check whether the left rear wheel speed sensor is installed correctly.

No

Re-install the left rear wheel speed sensor.

Yes

| | |
|---|------------------------------------|
| 3 | Check the left rear wheel bearing. |
|---|------------------------------------|

1. Check whether the left rear wheel bearing is deformed.

Yes

Replace the left rear wheel bearing.

No

| | |
|---|--|
| 4 | Replace the left rear wheel speed sensor and check the intelligent power brake control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

The system is normal.

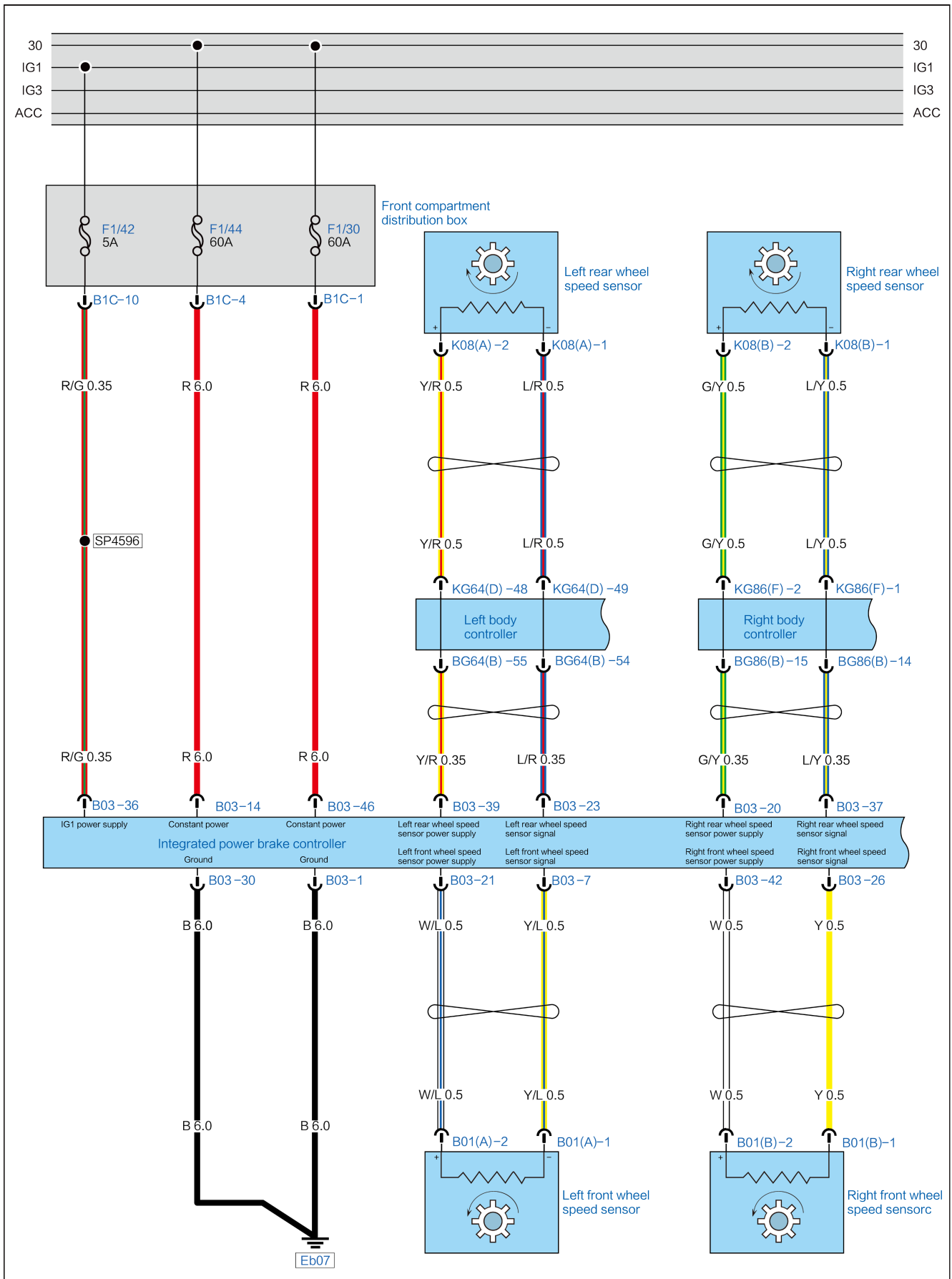
Yes

Replace the smart power brake controller.

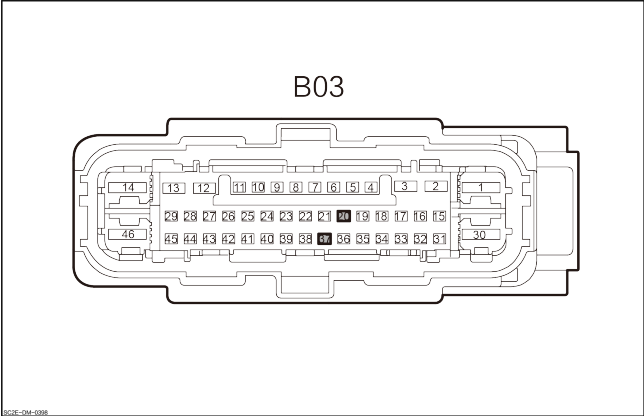
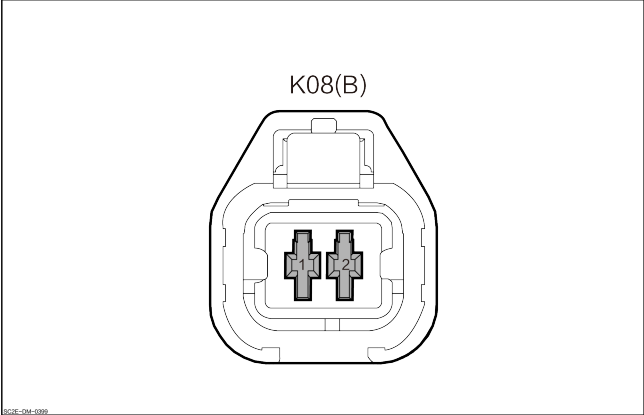
C051200 Right Rear Wheel Speed Sensor Open–circuited**DTC Description**

| C051200 Right Rear Wheel Speed Sensor Open–circuited | |
|--|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | 1. Harness or connector fault. 2. Right rear wheel speed sensor fault. 3. Smart power brake controller fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p style="text-align: center;">Smart power brake controller</p> <p style="text-align: center;">B03</p>  <p style="text-align: center;"><small>626E-004-0099</small></p> | 20 | Right rear wheel speed sensor signal line |
| | 37 | Right rear wheel speed sensor power line |
| <p style="text-align: center;">Right rear wheel speed sensor</p> <p style="text-align: center;">K08(B)</p>  <p style="text-align: center;"><small>626E-004-0099</small></p> | 1 | Right rear wheel speed sensor signal line |
| | 2 | Right rear wheel speed sensor power line |

Diagnostic Steps

1 Check the DTC of intelligent power brake control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

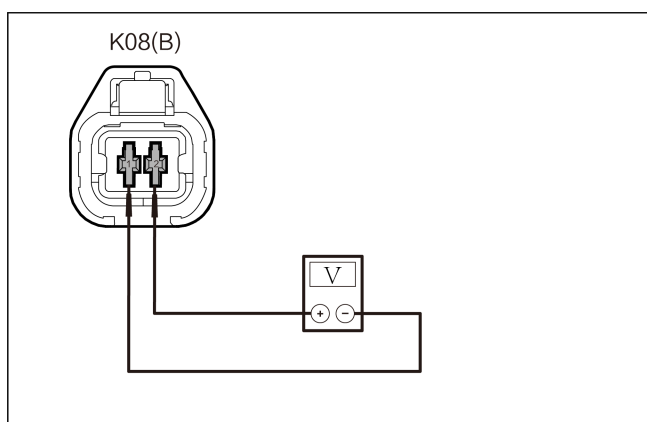
2 Check the right rear wheel sensor harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the right rear wheel sensor harness connector K08(B).
3. Check whether the right rear wheel sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check the power supply of right rear wheel speed sensor power line.



1. Set the start/stop button to ON.
2. Measure the voltage value between the right rear wheel speed sensor harness connector K08 (B)-2 and the right rear wheel speed sensor harness connector K08 (B)-1.

| Connector | | Condition | Voltage value |
|-----------|----------|-------------|---------------|
| (+) | (-) | | |
| K08(B)-2 | K08(B)-1 | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace rear right speed sensor.

No

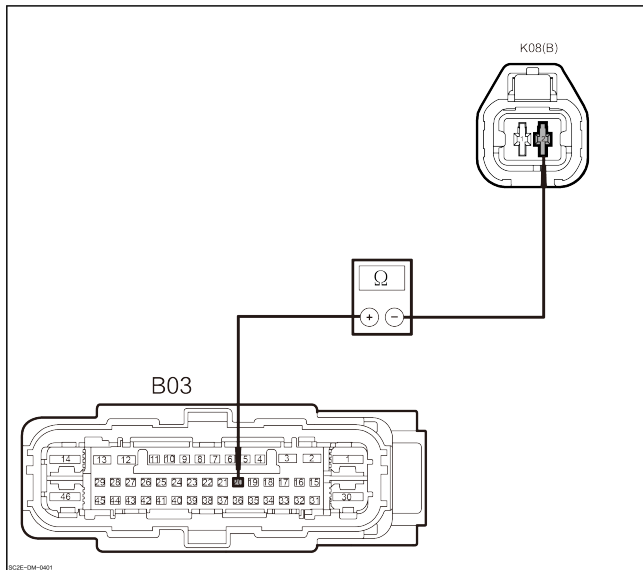
4 Check the intelligent power brake control module harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the harness connector of intelligent power brake control module B03.
3. Check whether the intelligent power brake control module harness connector is normal or not.

No → Repair or replace the wire harness

Yes

5 Check whether the right rear wheel speed sensor power line is open circuited.



1. Measure the resistance of the harness connector of intelligent brake control module B03-20 and the harness connector of right rear wheel speed sensor K08(B) -2.

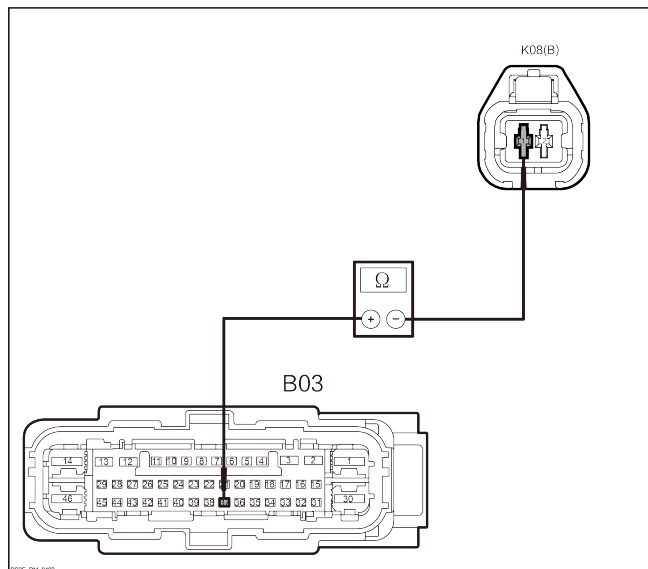
| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-20 | K08(B)-2 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check whether the right rear wheel speed sensor signal line is open circuited.



1. Measure the resistance of the harness connector of intelligent brake control module B03-37 and the harness connector of right rear wheel speed sensor K08(B) -1.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-37 | K08(B)-1 | Through- out | Lower than 1 Ω |

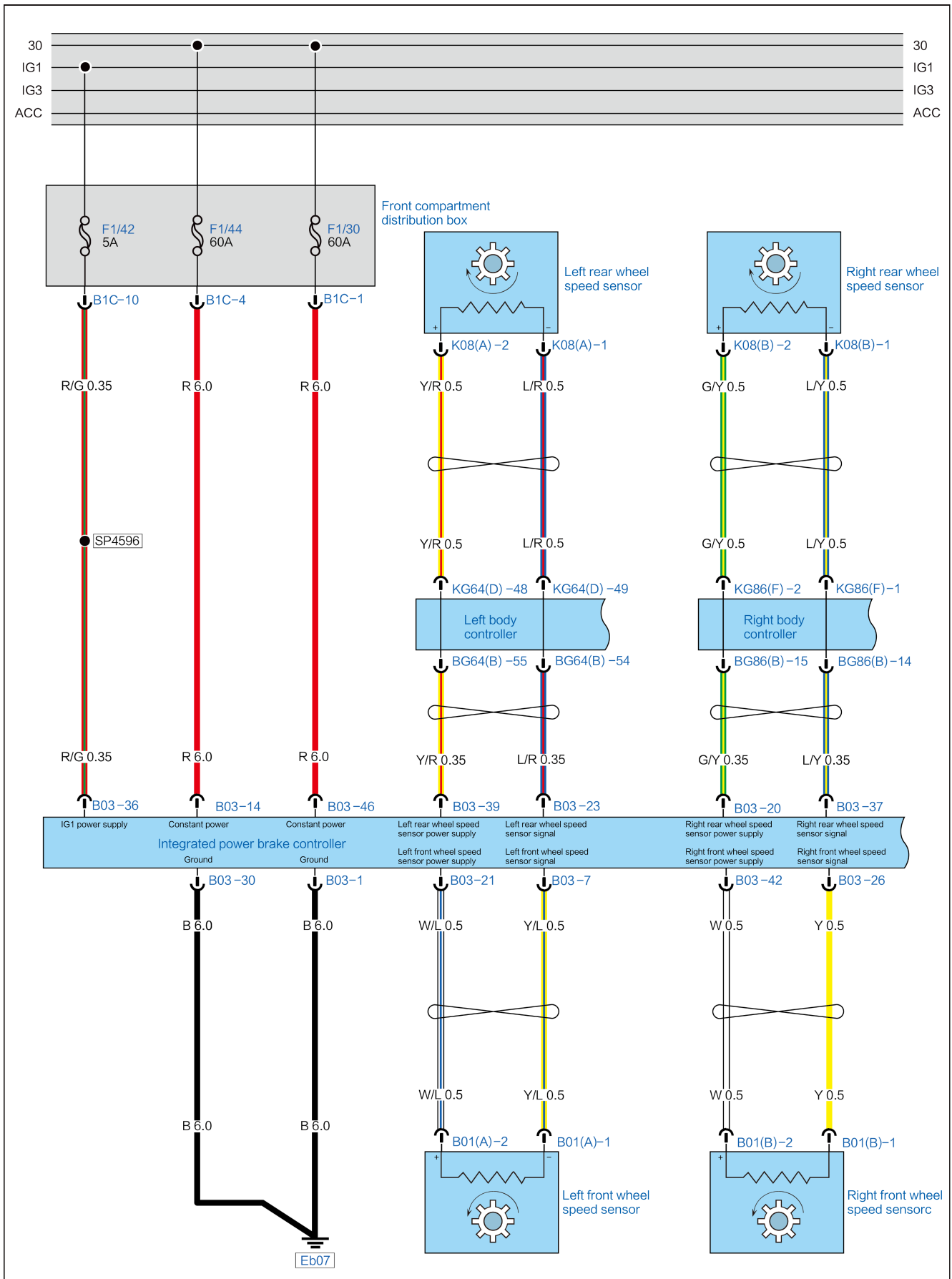
2. Check whether the results are normal.

| | |
|-----|---|
| No | Repair or replace the wire harness |
| Yes | Replace the smart power brake controller. |

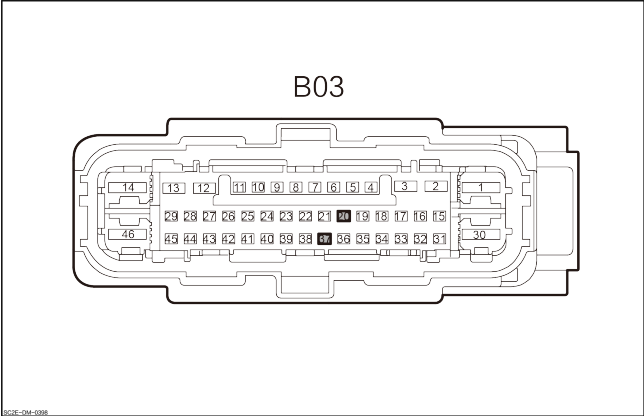
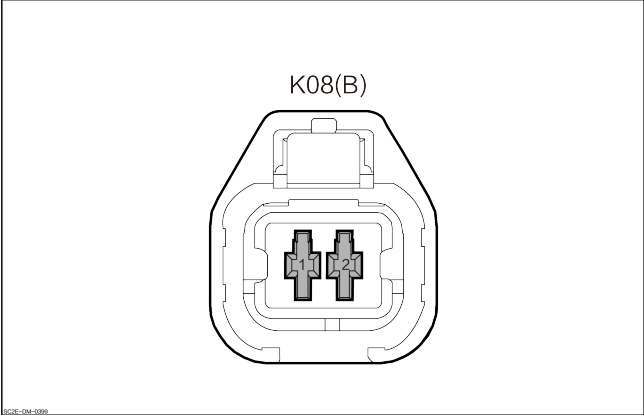
C003B00 Supply Voltage of Right Rear Wheel Speed Sensor Low**DTC Description**

| C003B00 Supply Voltage of Right Rear Wheel Speed Sensor Low | |
|---|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | 1. Harness or connector fault. 2. Right rear wheel speed sensor fault. 3. Smart power brake controller fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|--|
| <p style="text-align: center;">Smart power brake controller</p> <p style="text-align: center;">B03</p>  <p><small>626E-004-0001</small></p> | <p style="text-align: center;">20</p> | <p style="text-align: center;">Right rear wheel speed sensor signal line</p> |
| | <p style="text-align: center;">37</p> | <p style="text-align: center;">Right rear wheel speed sensor power line</p> |
| <p style="text-align: center;">Right rear wheel speed sensor</p> <p style="text-align: center;">K08(B)</p>  <p><small>626E-004-0001</small></p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Right rear wheel speed sensor signal line</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Right rear wheel speed sensor power line</p> |

Diagnostic Steps

1 Check the DTC of intelligent power brake control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

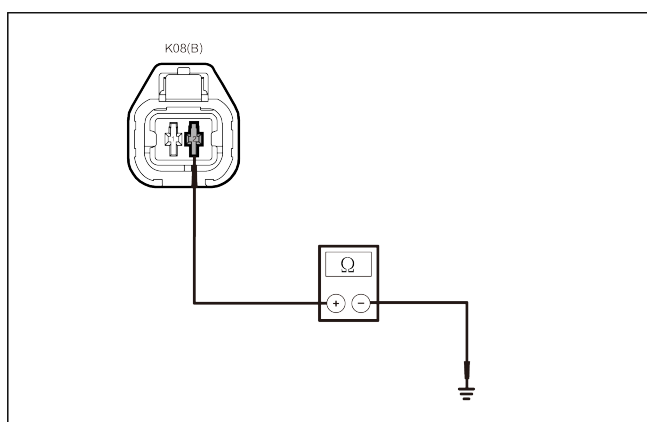
2 Check the right rear wheel sensor harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the right rear wheel sensor harness connector K08(B).
3. Check whether the right rear wheel sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check whether the right rear wheel speed sensor power line is shorted to ground.



1. Measure the resistance value between the right rear wheel speed sensor harness connector K 08 (B)–2 and ground.

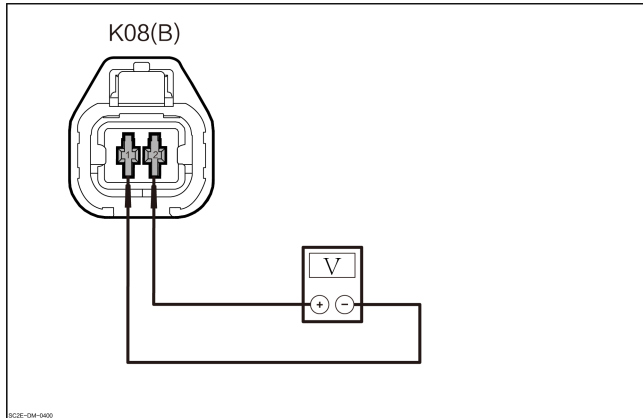
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K08(B)-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the power supply of right rear wheel speed sensor power line.



1. Set the start/stop button to ON.
2. Measure the voltage value between the right rear wheel speed sensor harness connector K08 (B)-2 and the right rear wheel speed sensor harness connector K08 (B)-1.

| Connector | | Condition | Voltage value |
|-----------|----------|-------------|---------------|
| (+) | (-) | | |
| K08(B)-2 | K08(B)-1 | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace rear right speed sensor.

No

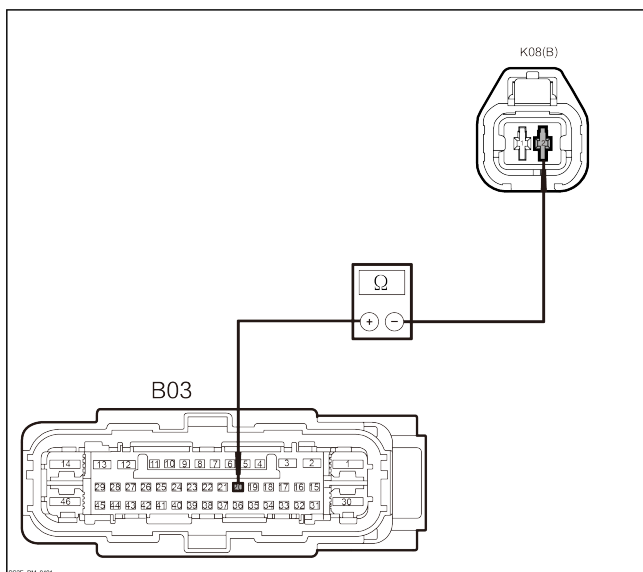
5 Check the intelligent power brake control module harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the harness connector of intelligent power brake control module B03.
3. Check whether the intelligent power brake control module harness connector is normal or not.

No → Repair or replace the wire harness

Yes

6 Check whether the right rear wheel speed sensor power line is open circuited.



1. Measure the resistance of the harness connector of intelligent brake control module B03-20 and the harness connector of right rear wheel speed sensor K08(B) -2.

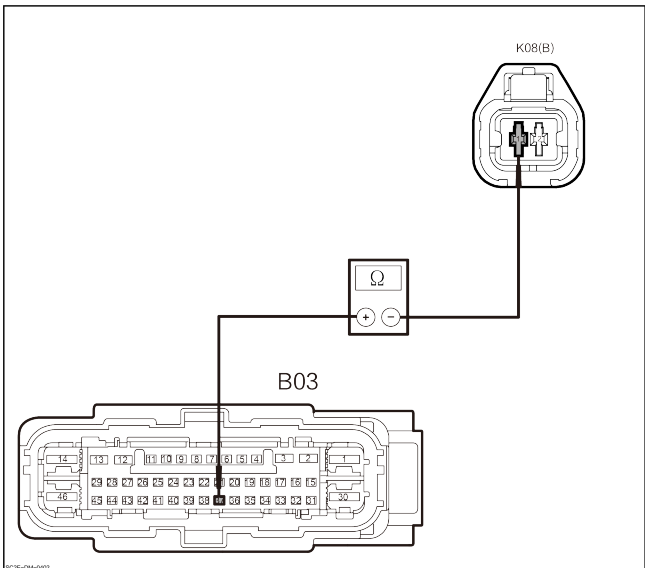
| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| B03-20 | K08(B)-2 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check whether the right rear wheel speed sensor signal line is open circuited.



1. Measure the resistance of the harness connector of intelligent brake control module B03-37 and the harness connector of right rear wheel speed sensor K08(B) -1.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-37 | K08(B)-1 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

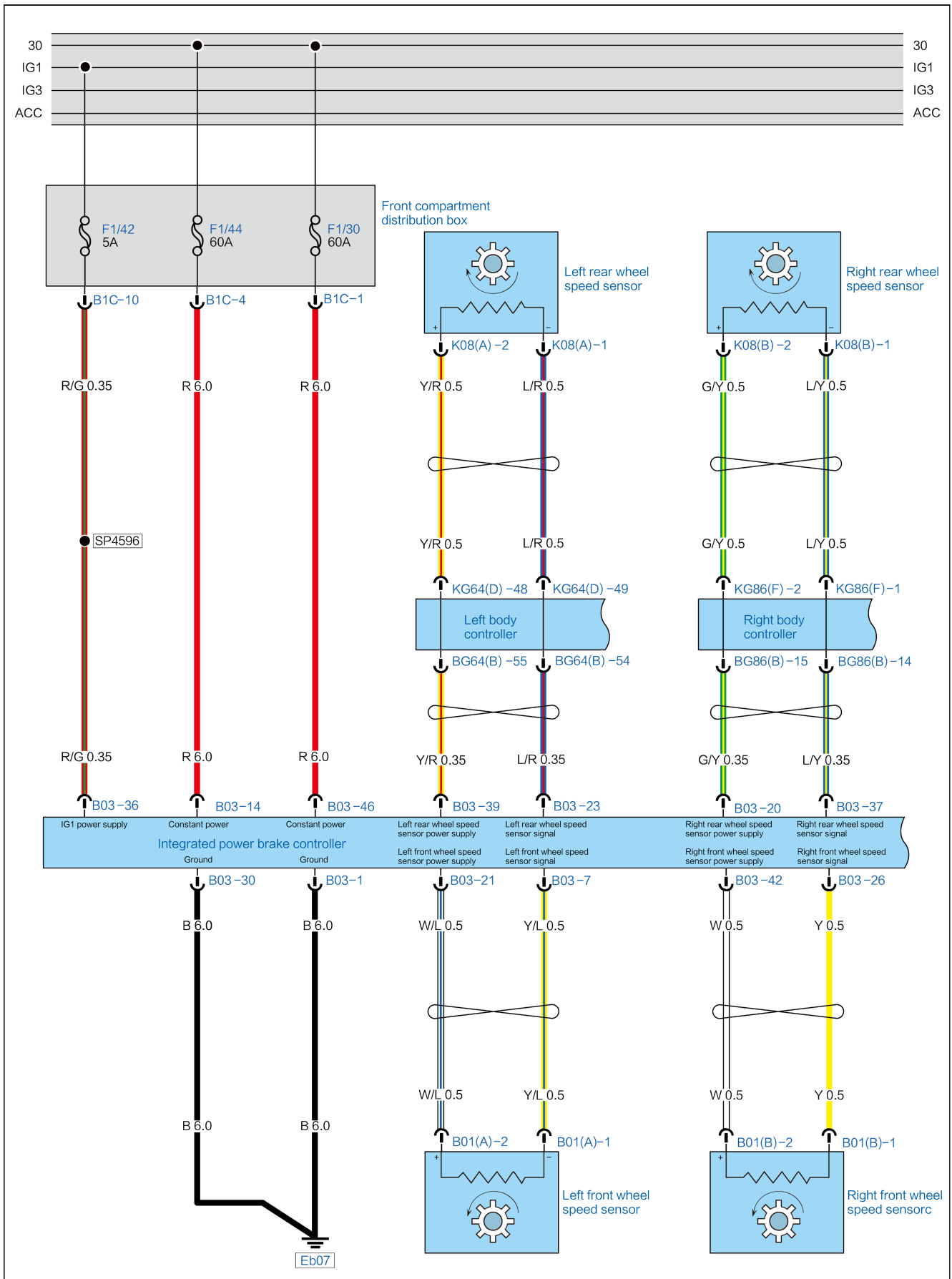
- No → Repair or replace the wire harness
- Yes → Replace the smart power brake controller.

C051500 Short Circuit between Right Rear Wheel Speed Sensor Signal Line and Power Supply Line

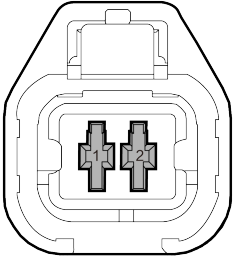
DTC Description

| | |
|---|---|
| C051500 Short Circuit between Right Rear Wheel Speed Sensor Signal Line and Power Supply Line | |
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | 1. Harness or connector fault. 2. Right rear wheel speed sensor fault. 3. Smart power brake controller fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p style="text-align: center;">Right rear wheel speed sensor</p> <div style="text-align: center;">  <p style="margin-left: 100px;">K08(B)</p> </div> <p style="font-size: small; margin-top: 10px;">BCE-044-0992</p> | 1 | Right rear wheel speed sensor signal line |
| | 2 | Right rear wheel speed sensor power line |

Diagnostic Steps

1 Check the DTC of intelligent power brake control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

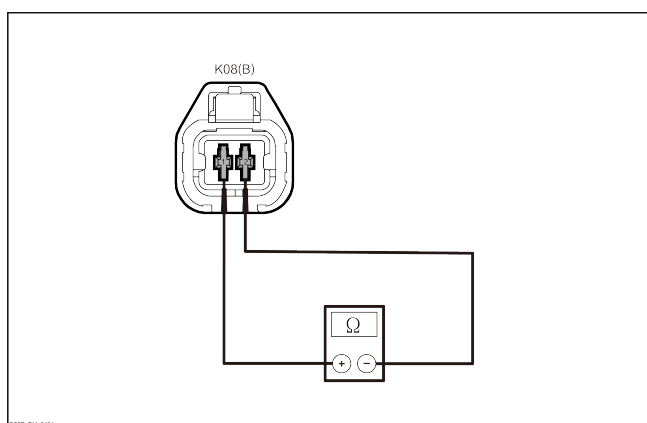
2 Check the right rear wheel sensor harness and connector.

1. Disconnect the right rear wheel sensor harness connector K08(B).
2. Check whether the right rear wheel sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check the right rear wheel speed sensor signal line and power supply line.



1. Measure the resistance value between the right rear wheel speed sensor harness connector K08 (B)–1 and the right rear wheel speed sensor harness connector K08 (B)–2.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| K08(B)–1 | K08(B)–2 | Through-out | Above 10K Ω |

2. Check whether the results are normal.

Yes → Replace rear right speed sensor.

No

4 Check the intelligent power brake control module harness and connector.

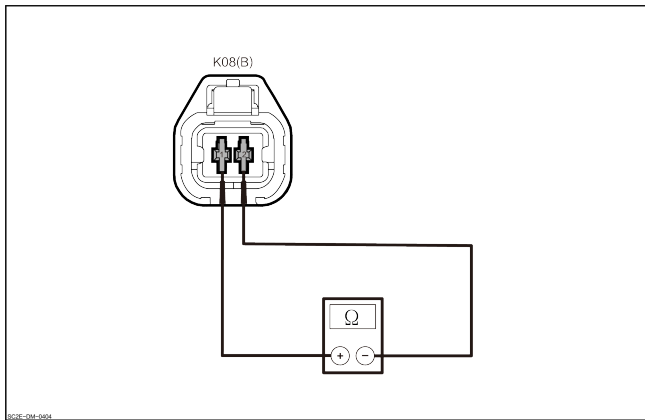
1. Disconnect the harness connector of intelligent power brake control module B03.
2. Check whether the intelligent power brake control module harness connector is normal or not.

No

Repair or replace the wire harness

Yes

5 Check the right rear wheel speed sensor signal line and power supply line.



1. Measure the resistance value between the right rear wheel speed sensor harness connector K08 (B)-1 and the right rear wheel speed sensor harness connector K08 (B)-2.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| K08(B)-1 | K08(B)-2 | Through- out | Above 10K Ω |

2. Check whether the results are normal.

Yes

Replace the smart power brake controller.

No

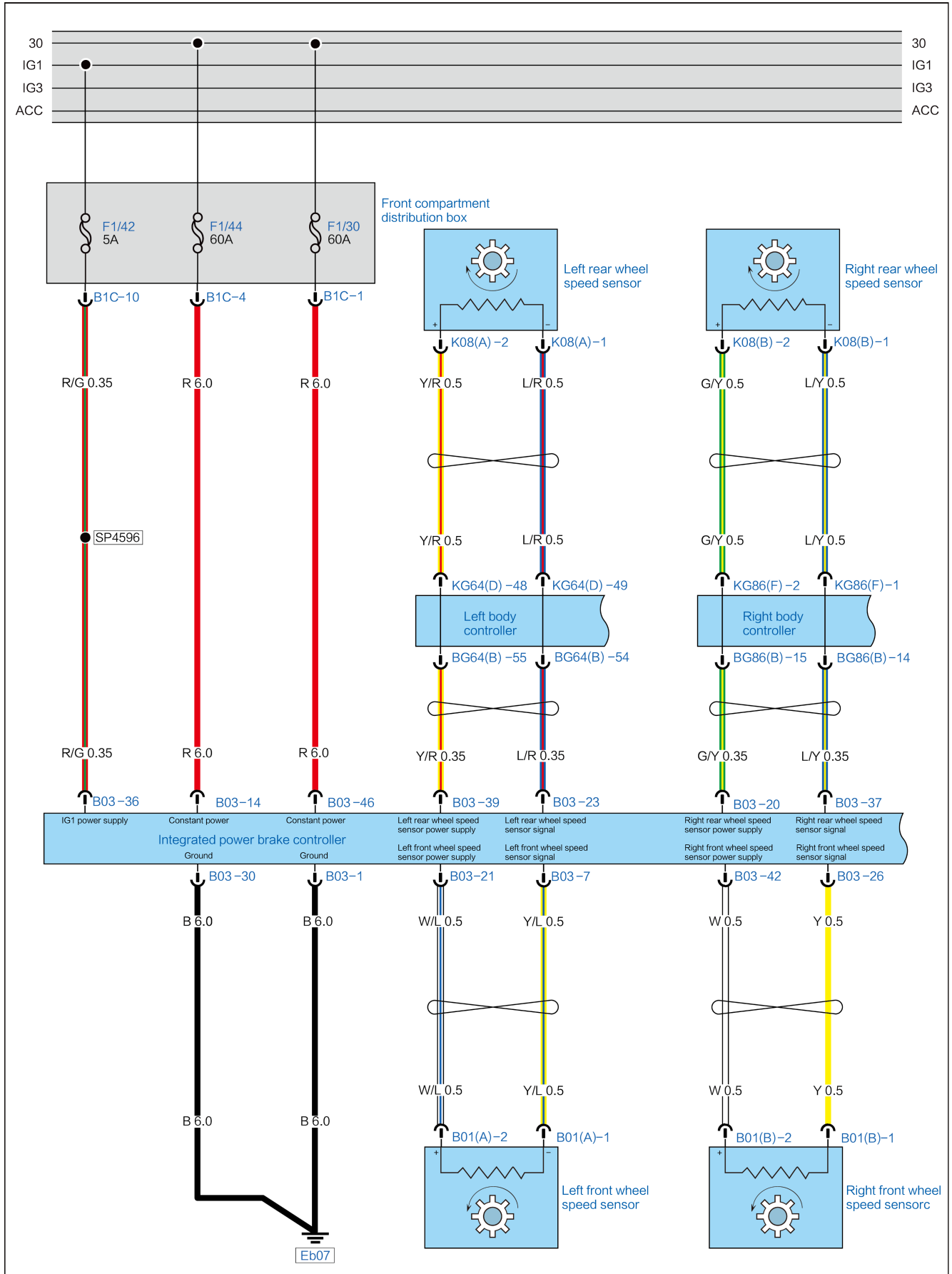
Repair or replace the wire harness

C051400 Short Circuit between Signal Wire and Ground Wire of Right Rear Wheel Speed Sensor

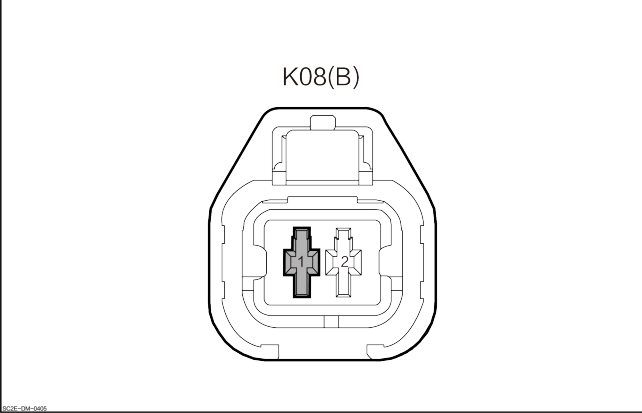
DTC Description

| C051400 Short Circuit between Signal Wire and Ground Wire of Right Rear Wheel Speed Sensor | |
|--|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Right rear wheel speed sensor fault. 3. Smart power brake controller fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
|  <p style="text-align: center;">K08(B)</p> <p>The diagram shows a top-down view of a multi-pin connector labeled K08(B). The connector has a complex, roughly hexagonal shape with a central cross-shaped terminal. This central terminal is highlighted in a darker shade. To its right, there are two other terminals, one of which is labeled '2'. The entire diagram is enclosed in a rectangular frame.</p> | <p>1</p> | <p>Right rear wheel speed sensor signal</p> |

Diagnostic Steps

1 Check the DTC of intelligent power brake control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

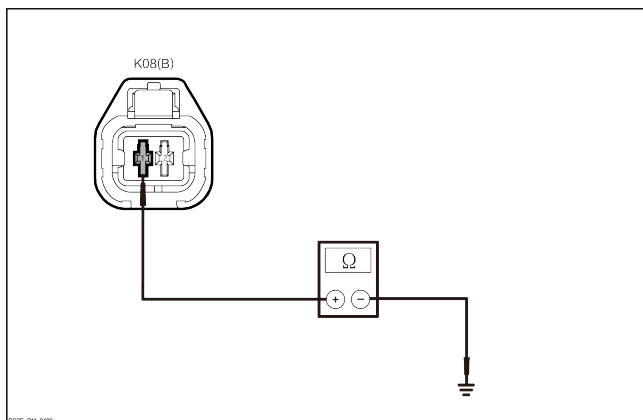
2 Check the right rear wheel sensor harness and connector.

1. Set the start/stop button to OFF.
2. Disconnect the right rear wheel sensor harness connector K08(B).
3. Check whether the right rear wheel sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check whether the right rear wheel speed sensor signal line is shorted to ground.



1. Measure the resistance value between the right rear wheel speed sensor harness connector K08 (B)–1 and ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K08(B)-1 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

Yes → Replace rear right speed sensor.

No

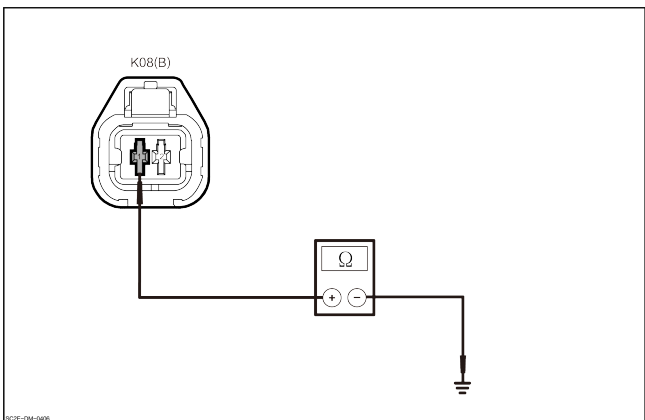
4 Check the intelligent power brake control module harness and connector.

1. Disconnect the harness connector of intelligent power brake control module B03.
2. Check whether the intelligent power brake control module harness connector is normal or not.

No → Repair or replace the wire harness

Yes

5 Check whether the right rear wheel speed sensor signal line is shorted to ground.



1. Measure the resistance value between the right rear wheel speed sensor harness connector K08 (B)-1 and ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K08(B)-1 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

Yes → Replace the smart power brake controller.

No → Repair or replace the wire harness

C003A00 Right Rear Wheel Speed Sensor Signal Fault

DTC Description

| C003A00 Right Rear Wheel Speed Sensor Signal Fault | |
|--|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none">1. Right rear wheel speed sensor fault.2. There is excessive dirt in the right rear wheel bearing.3. The right rear wheel bearing ring gear is damaged. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the right rear wheel bearing ring gear and the right rear wheel speed sensor. |
|---|---|

1. Check the right rear wheel bearing ring gear and right rear wheel speed sensor for excessive dirt?

Yes → Clean the right rear wheel bearing ring gear and right rear wheel speed sensor.

No

| | |
|---|---|
| 3 | Check the right rear wheel bearing ring gear. |
|---|---|

1. Check whether the right rear wheel bearing ring gear is damaged?

Yes → Replace the right rear wheel bearing.

No → Replace rear right speed sensor.

C051776 Incorrect Installation Direction of Right Rear Wheel Speed Sensor**DTC Description**

| C051776 Incorrect Installation Direction of Right Rear Wheel Speed Sensor | |
|---|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Right rear wheel speed sensor installation direction incorrect. |
| Fault setting conditions | Right rear wheel speed sensor installation direction incorrect. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the right rear wheel speed sensor. |
|---|--|

1. Check whether the right rear wheel speed sensor is installed correctly.

No

Re-install the right rear wheel speed sensor.

Yes

| | |
|---|---|
| 3 | Replace the right rear wheel speed sensor and check the intelligent power brake control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

The system is normal.

Yes

Replace the smart power brake controller.

C051600 Right Rear Wheel Speed Sensor Air Gap Abnormal**DTC Description**

| C051600 Right Rear Wheel Speed Sensor Air Gap Abnormal | |
|--|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | 1. Right rear wheel speed sensor fault. 2. The right rear wheel bearing is deformed. 3. Smart power brake controller fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the right rear wheel speed sensor. |
|---|--|

1. Check whether the right rear wheel speed sensor is installed correctly.

No

Re-install the right rear wheel speed sensor.

Yes

| | |
|---|-------------------------------------|
| 3 | Check the right rear wheel bearing. |
|---|-------------------------------------|

1. Check whether the right rear wheel bearing is deformed.

Yes

Replace the right rear wheel bearing.

No

| | |
|---|---|
| 4 | Replace the right rear wheel speed sensor and check the intelligent power brake control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

The system is normal.

Yes

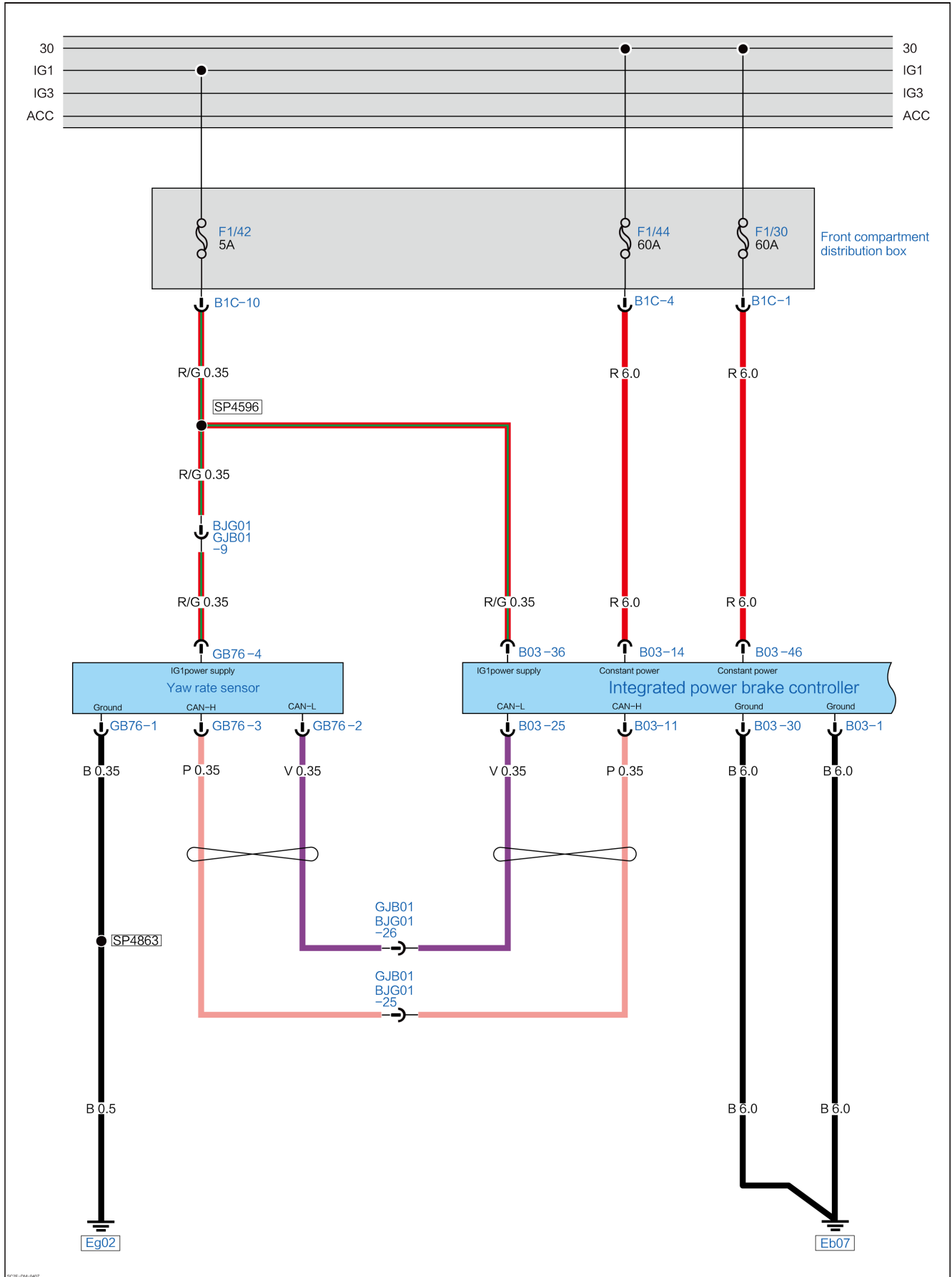
Replace the smart power brake controller.

U043204 Communication Timeout at Yaw Rate Sensor

DTC Description

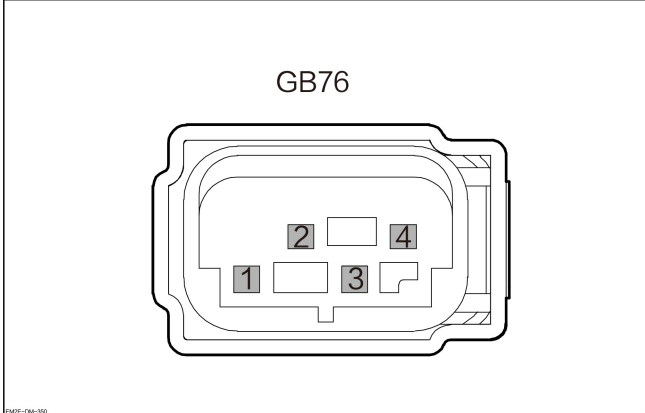
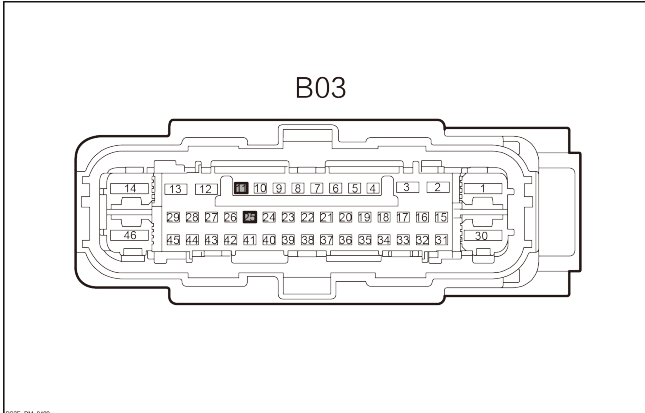
| U043204 Communication Timeout at Yaw Rate Sensor | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse has blew. 2. Harness or connector fault. 3. Yaw rate sensor fault. 4. Smart power brake controller fault. |
| Fault setting conditions | Communication timeout of yaw rate sensor. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



SC2E-094-1907

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p>The yaw rate sensor</p> <p>GB76</p>  <p><small>EMSE-DM-388</small></p> | 1 | Ground |
| | 2 | CAN-L |
| | 3 | CAN-H |
| | 4 | Power supply |
| <p>Right body control module</p> <p>B03</p>  <p><small>EMSE-DM-099</small></p> | 11 | CAN-H |
| | 25 | CAN-L |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Check the yaw rate sensor fuse. |
|---|---------------------------------|

1. Check whether the front compartment fuse box fuse F1/42 (5 A) is normal.

No

Replace the fuse

Yes

| | |
|---|--|
| 3 | Check the yaw rate sensor harness and connector. |
|---|--|

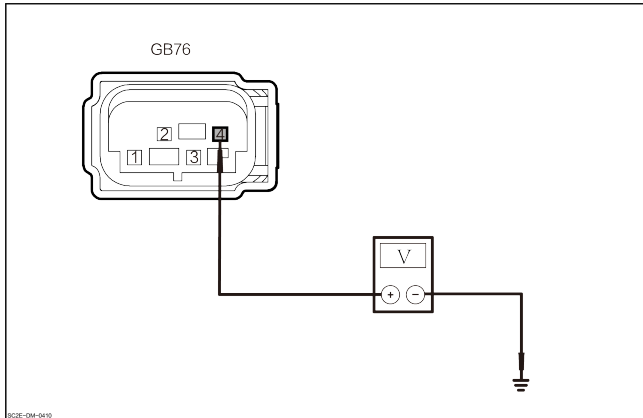
1. Set the START/STOP button to “OFF” .
2. Disconnect the yaw rate sensor harness connector GB76.
3. Check whether the yaw rate sensor harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the constant power supply of yaw rate sensor. |
|---|---|



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the yaw rate sensor harness connector GB76-4 and the ground.

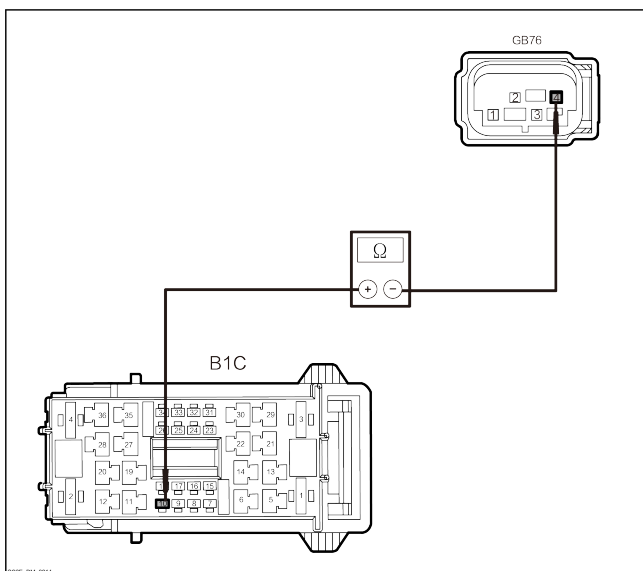
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| GB76-4 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes Go to step 6

No

5 Check whether the constant power supply of yaw rate sensor is open circuited.



1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector G82.
3. Measure the resistance between the harness connector of front compartment fuse box B1C-10 and the harness connector of yaw rate sensor GB76-4.

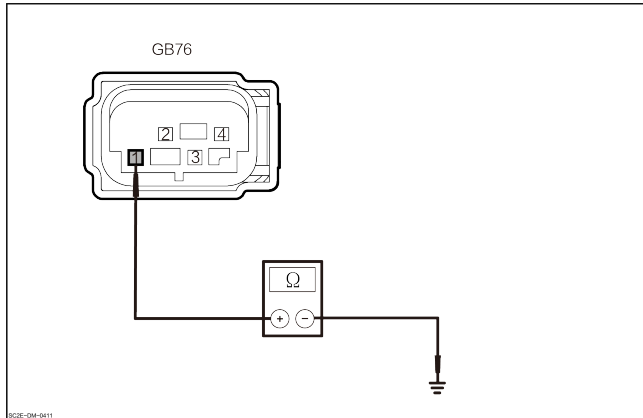
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| B1C-10 | GB76-4 | Through-out | Lower than 1Ω |

4. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the front compartment fuse box.

6 Check whether the yaw rate sensor ground line is open circuited.



1. Measure the resistance between the harness connector of yaw rate sensor GB76-1 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| GB76-1 | Ground | Through- out | Lower than 1 Ω |

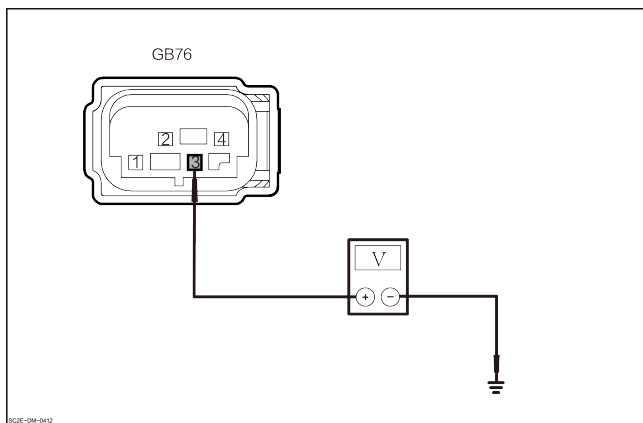
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Check the yaw rate sensor CAN-H line.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the yaw rate sensor harness connector GB76-3 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| GB76-3 | Ground | Through- out | 2.5~3.5V |

3. Check whether the results are normal.

Yes

[Go to step 12](#)

No

8 Check the intelligent power brake control module harness and connector.

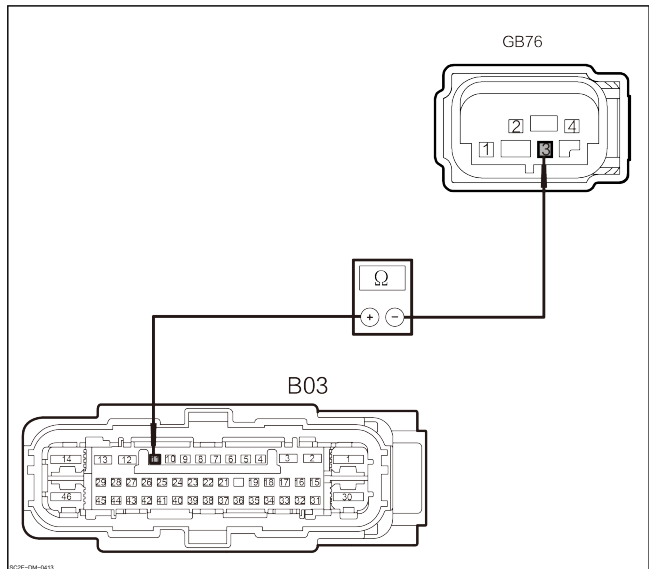
1. Disconnect the harness connector of intelligent power brake control module B03.
2. Check whether the intelligent power brake control module harness connector is normal or not.

No

Repair or replace the wire harness

Yes

9 Check the yaw rate sensor private CAN-H for open circuit.



1. Measure the resistance of the harness connector of intelligent brake control module B03-11 and the harness connector of yaw rate sensor GB76-3.

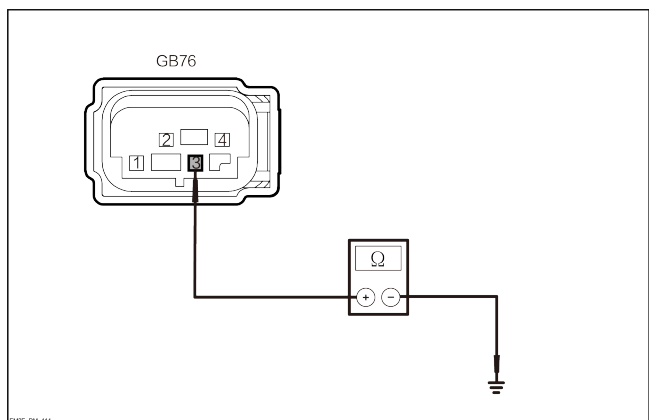
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| B03-11 | GB76-3 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

10 Check the yaw rate sensor private CAN-H for short circuit to ground.



1. Measure the resistance value between the yaw rate sensor harness connector GB76-3 and the ground.

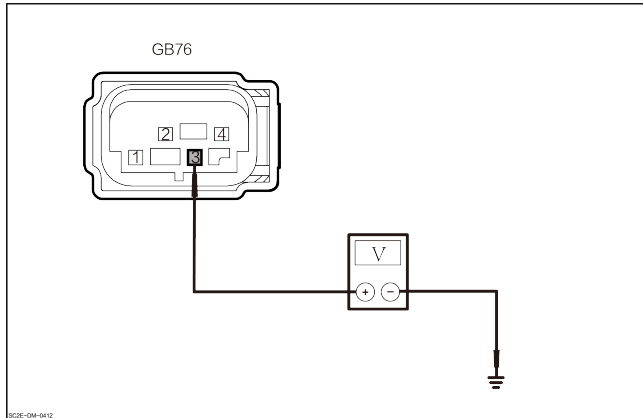
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| GB76-3 | Ground | Through-out | Above 10KΩ |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

11 Check the yaw rate sensor private CAN-H for short circuit to the power supply.



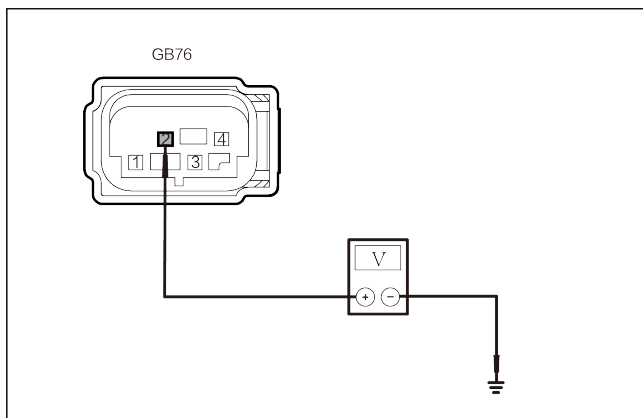
1. Connect intelligent power brake control module harness connector B03.
2. Set the START/STOP button to “ON” .
3. Measure the voltage value between the yaw rate sensor harness connector GB76-3 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| GB76-3 | Ground | Through-out | Less than 1V |

4. Check whether the results are normal.

- No → Repair or replace the wire harness
- Yes → Replace the smart power brake controller.

12 Check the yaw rate sensor CAN-L line.



1. Measure the voltage value between the yaw rate sensor harness connector GB76-2 and the ground.

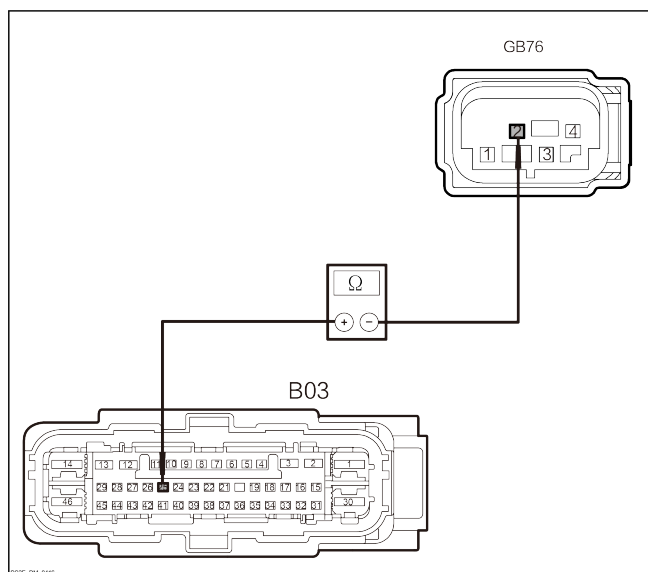
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| GB76-2 | Ground | Through-out | 1.5~2.5V |

2. Check whether the results are normal.

- Yes → Replace the yaw rate sensor.

No

13 Check the yaw rate sensor private CAN-L for open circuit.



1. Measure the resistance of the harness connector of intelligent brake control module B03-25 and the harness connector of yaw rate sensor GB76-2.

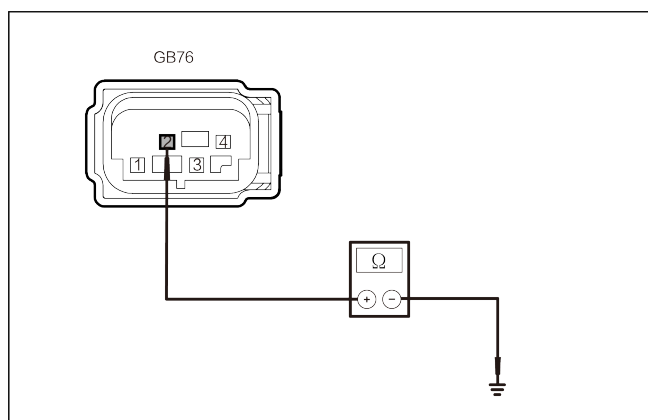
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-25 | GB76-2 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

14 Check the yaw rate sensor private CAN-L for short circuit to ground.



1. Measure the resistance value between the yaw rate sensor harness connector GB76-2 and the ground.

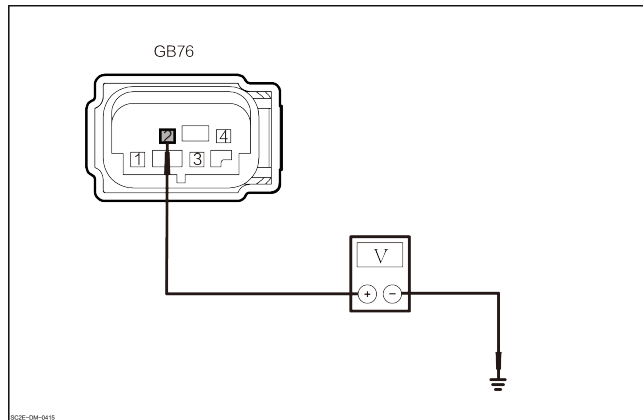
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| GB76-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

15 Check the yaw rate sensor private CAN-L for short circuit to the power supply.



1. Connect intelligent power brake control module harness connector B03.
2. Set the START/STOP button to “ON” .
3. Measure the voltage value between the yaw rate sensor harness connector GB76-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| GB76-2 | Ground | Through-out | Less than 1V |

4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the smart power brake controller.

C006 A01 Yaw Rate Sensor Parameter Wrongly Configured

DTC Description

| C006 A01 Yaw Rate Sensor Parameter Wrongly Configured | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Yaw rate sensor fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|-----------------------------------|
| 2 | Re-configure the yaw rate sensor. |
|---|-----------------------------------|

1. Re-configure yaw rate sensor with VDS
2. Check whether the same DTC is displayed?

No

The system is normal.

Yes

Replace the yaw rate sensor.

C051D01 Yaw Rate Sensor Wrongly Calibrated

DTC Description

| C051D01 Yaw Rate Sensor Wrongly Calibrated | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Yaw rate sensor fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|-----------------------------------|
| 2 | Re-calibrate the yaw rate sensor. |
|---|-----------------------------------|

1. Re-calibrate yaw rate sensor with VDS.
2. Check whether the same DTC is displayed?

No

The system is normal.

Yes

Replace the yaw rate sensor.

C006A02 Yaw Rate Sensor Signal Error

DTC Description

| C006A02 Yaw Rate Sensor Signal Error | |
|--------------------------------------|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Yaw rate sensor fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the yaw rate sensor.

C052901 Steering Angle Sensor Module Lost

DTC Description

| C052901 Steering Angle Sensor Module Lost | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | 1. CAN network fault. 2. Communication with the electronic power steering control module is lost. |
| Fault setting conditions | Communication with the electronic power steering control module is lost. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Diagnose "lost communication of electronic power steering controller".

C106600 Angle Sensor Not Calibrated

DTC Description

| C106600 Angle Sensor Not Calibrated | |
|-------------------------------------|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | 1. Angle sensor not calibrated. 2. Electronic power steering controller fault. |
| Fault setting conditions | The steering angle sensor isn't calibrated or the calibration fails. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Calibrate the steering wheel angle sensor. |
|---|--|

1. Whether the steering angle sensor can be calibrated.

No

Diagnose the "Electronic Power Steering Control Module Fault".

Yes

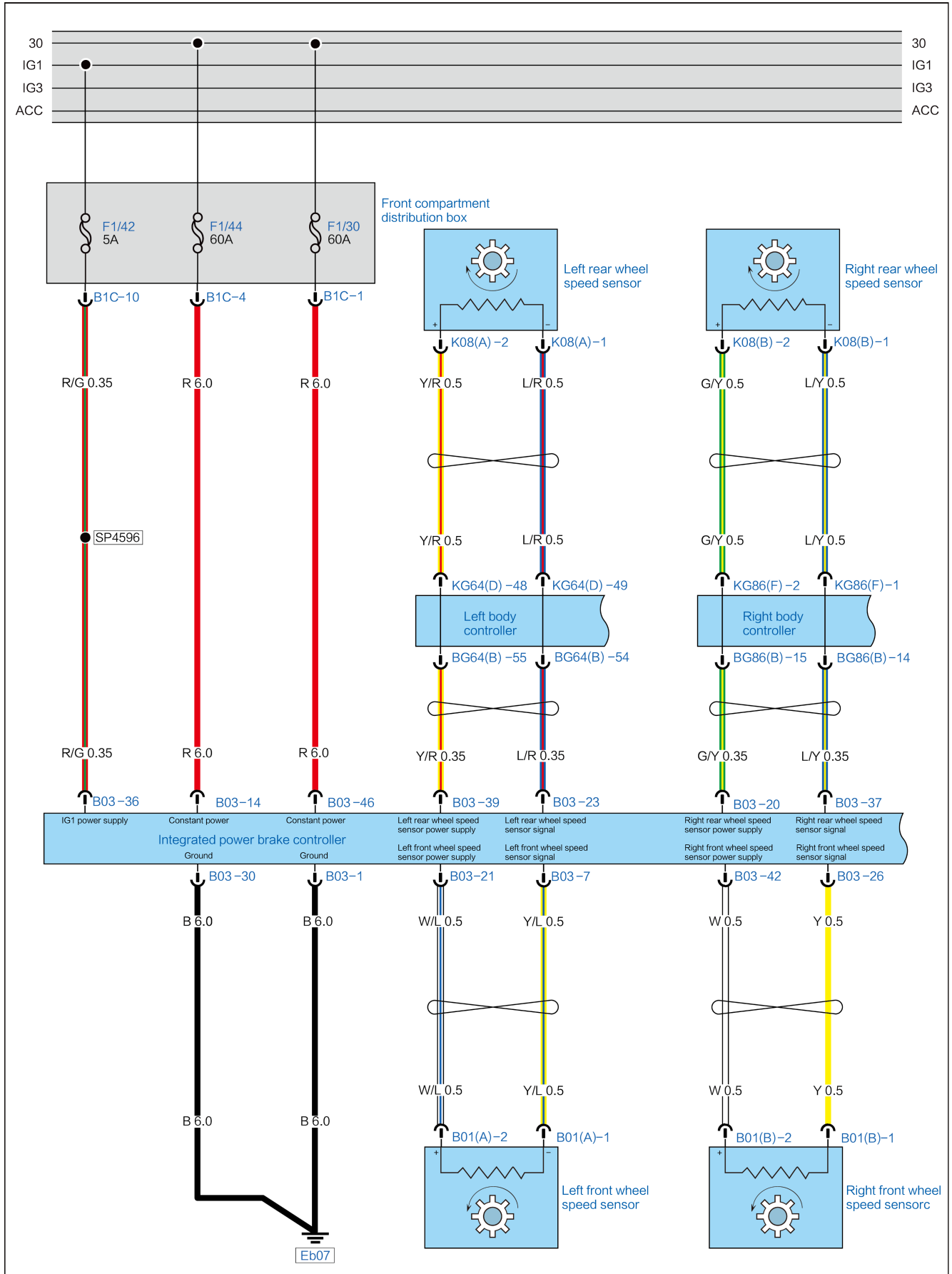
The system is normal.

C05CB00 Circuit Voltage of Master Cylinder Position Sensor A Too Low

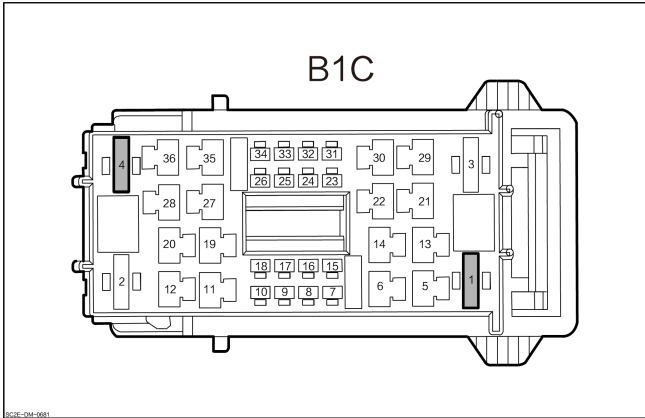
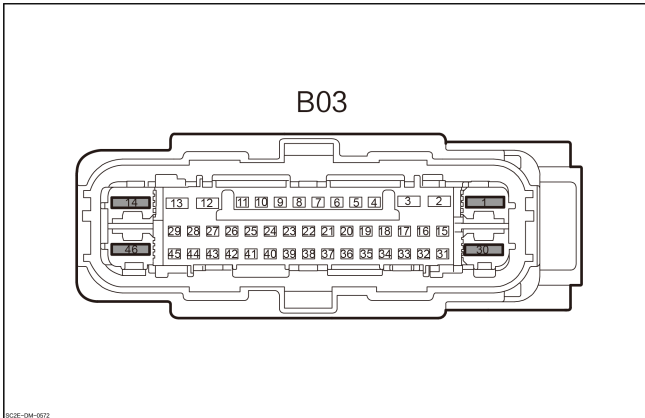
DTC Description

| C05CB00 Circuit Voltage of Master Cylinder Position Sensor A Too Low | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse has blew. 2. Harness or connector fault. 3. Smart power brake controller internal fault. |
| Fault setting conditions | Circuit Voltage of Master Cylinder Position Sensor A is Too Low. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p style="text-align: center;">Front compartment fuse box</p>  <p style="text-align: center;">B1C</p> | 1 | Intelligent power brake control module constant power |
| <p style="text-align: center;">Smart power brake controller</p>  <p style="text-align: center;">B03</p> | 1 | Ground |
| | 14 | Constant power |
| | 30 | Ground |
| | 46 | Constant power |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the fuse of the intelligent power brake control module. |
|---|---|

1. Check whether the front compartment fuse box fuse F1/30(60A) and F1/44(60A) are normal.

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the intelligent power brake control module harness and connector. |
|---|---|

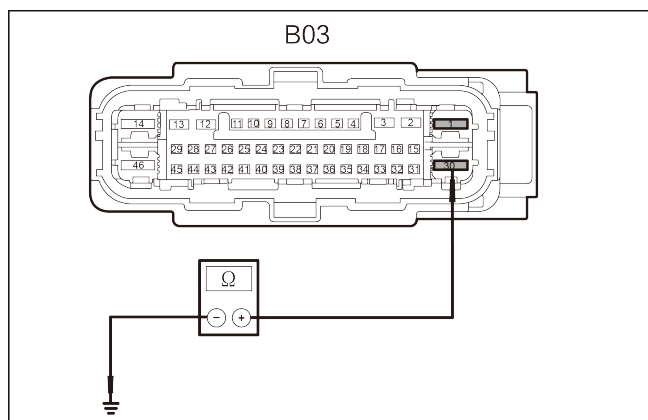
1. Set the start/stop button to OFF.
2. Disconnect the harness connector of intelligent power brake control module B03.
3. Check whether the intelligent power brake control module harness connector is normal or not.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the intelligent power brake control module ground line for open circuit. |
|---|--|



1. Check the resistance of the harness connector of intelligent power brake control module B03-1, B03-30 to ground.

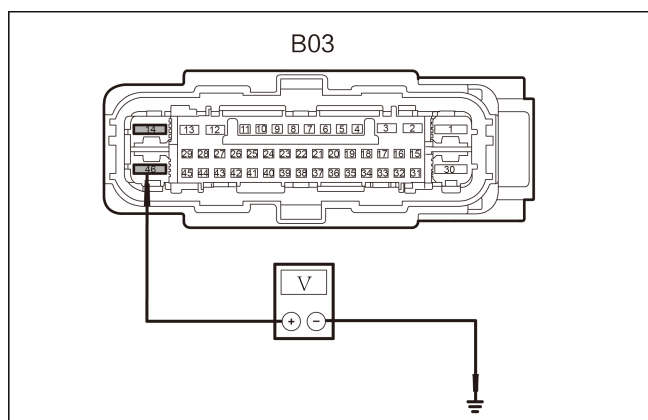
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| B03-1 | Ground | Through-out | Lower than 1Ω |
| B03-30 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the intelligent power brake control module constant power supply.



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of intelligent power brake control module B03-14 ,46 and the ground.

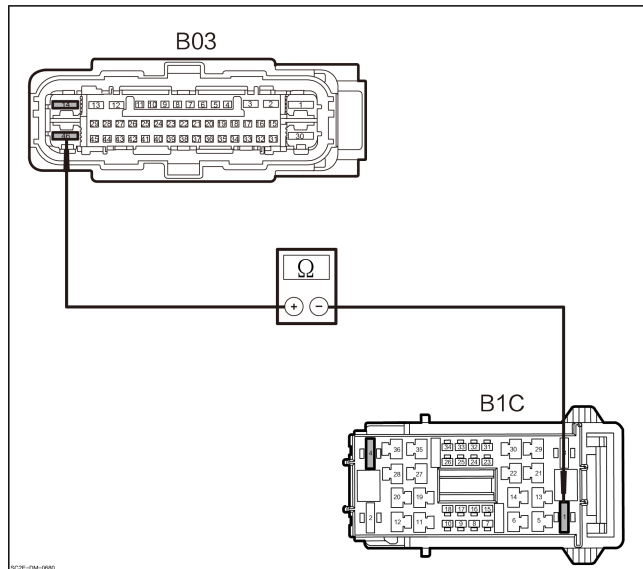
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-14 | Ground | Through-out | 11~14V |
| B03-46 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace the smart power brake controller.

No

6 Check the intelligent power brake control module IG1 power supply for open circuit.



1. Set the start/stop button to OFF.
2. Disconnect the front compartment fuse box harness connector B1C.
3. Measure the resistance between the harness connector of intelligent power brake control module B03-14,46 and the harness connector of front compartment fuse box B1C-4,1.

| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-14 | B1C-4 | Through- out | Lower than 1 Ω |
| B03-46 | B1C-1 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the front compartment fuse box.

C05CA00 Circuit Voltage of Master Cylinder Position Sensor A Too high**DTC Description**

| C05CA00 Circuit Voltage of Master Cylinder Position Sensor A Too high | |
|---|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Master cylinder position sensor A circuit voltage high. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C007500 Master Cylinder Position Sensor A Fault/Short Circuit**DTC Description**

| C05CC00 Master cylinder position sensor A abnormal | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Abnormal master cylinder position sensor. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

P229900 Master Cylinder Position Sensor Signal Calibration Error

DTC Description

| P229900 Master Cylinder Position Sensor Signal Calibration Error | |
|--|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Master cylinder position sensor signal calibration error. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

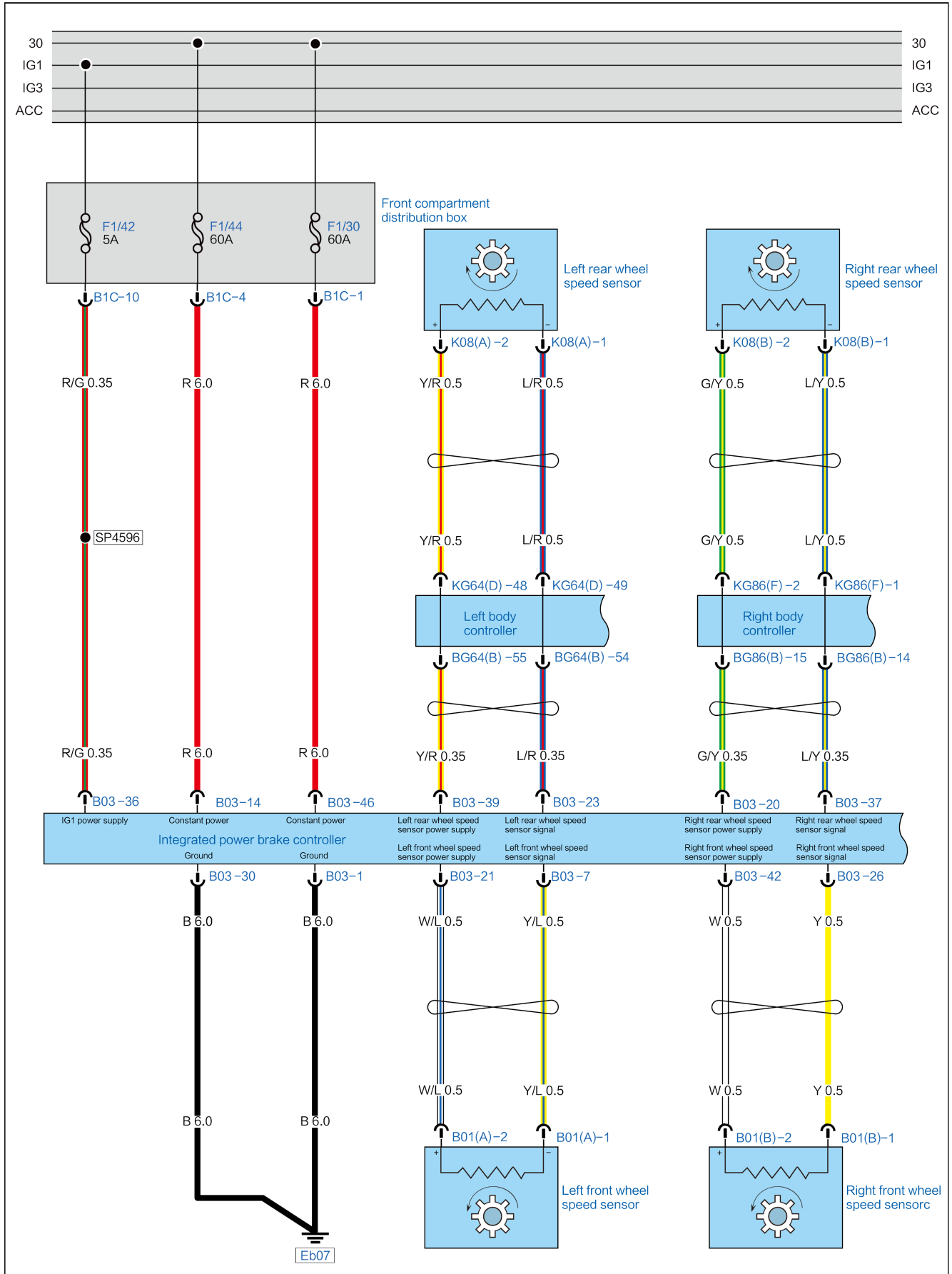
| | |
|-----|---|
| No | Check the “intermittent fault” . |
| Yes | Replace the smart power brake controller. |

C05CE00 Circuit Voltage of Master Cylinder Position Sensor B Too Low

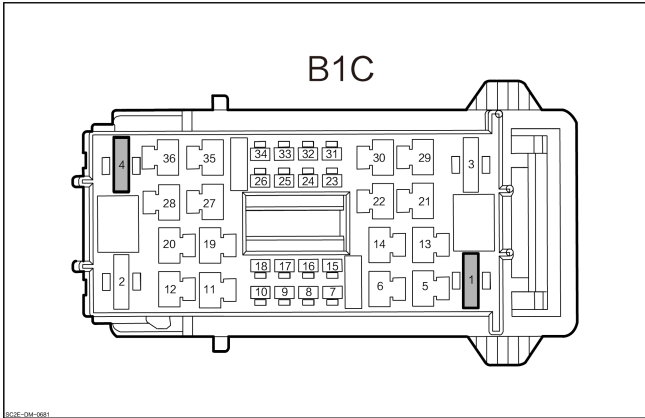
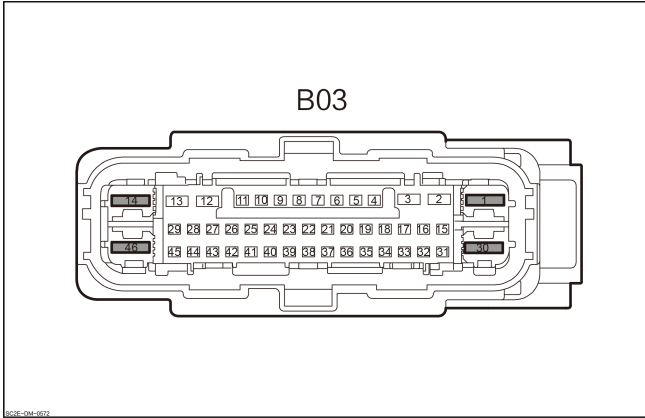
DTC Description

| C05CE00 Circuit Voltage of Master Cylinder Position Sensor B Too Low | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse has blew. 2. Harness or connector fault. 3. Smart power brake controller internal fault. |
| Fault setting conditions | Circuit Voltage of Master Cylinder Position Sensor B is Too Low. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p style="text-align: center;">Front compartment fuse box</p>  <p style="text-align: center;">B1C</p> | 1 | Intelligent power brake control module constant power |
| <p style="text-align: center;">Smart power brake controller</p>  <p style="text-align: center;">B03</p> | 1 | Ground |
| | 14 | Constant power |
| | 30 | Ground |
| | 46 | Constant power |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the fuse of the intelligent power brake control module. |
|---|---|

1. Check whether the front compartment fuse box fuse F1/30(60A) and F1/44(60A) are normal.

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the intelligent power brake control module harness and connector. |
|---|---|

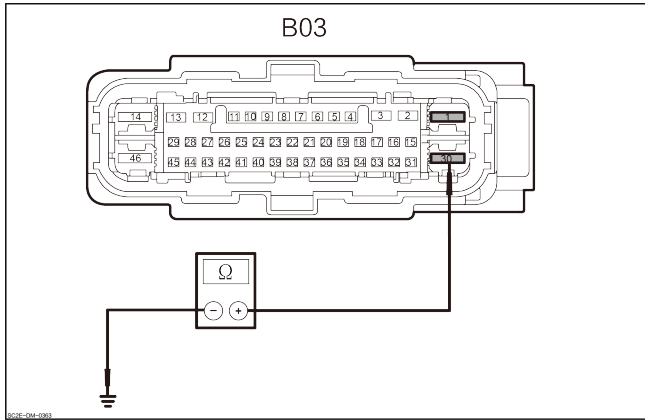
1. Set the START/STOP button to OFF.
2. Disconnect the harness connector of intelligent power brake control module B03.
3. Check whether the intelligent power brake control module harness connector is normal or not.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the intelligent power brake control module ground line for open circuit. |
|---|--|



1. Check the resistance of the harness connector of intelligent power brake control module B03-1, B03-30 to ground.

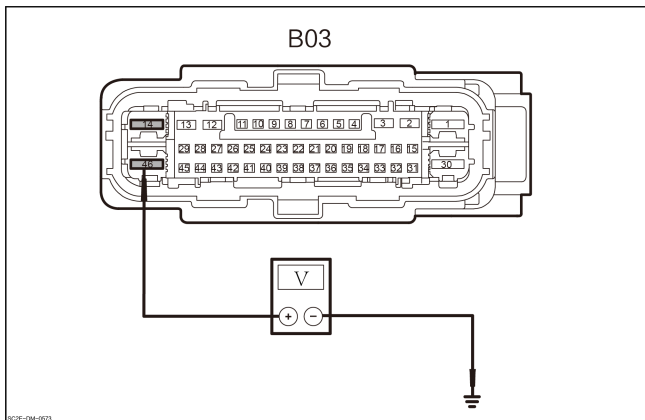
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| B03-1 | Ground | Through-out | Lower than 1Ω |
| B03-30 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the intelligent power brake control module constant power supply.



1. Set the START/STOP button to ON.
2. Measure the voltage between the harness connector of intelligent power brake control module B03-14 ,46 and the ground.

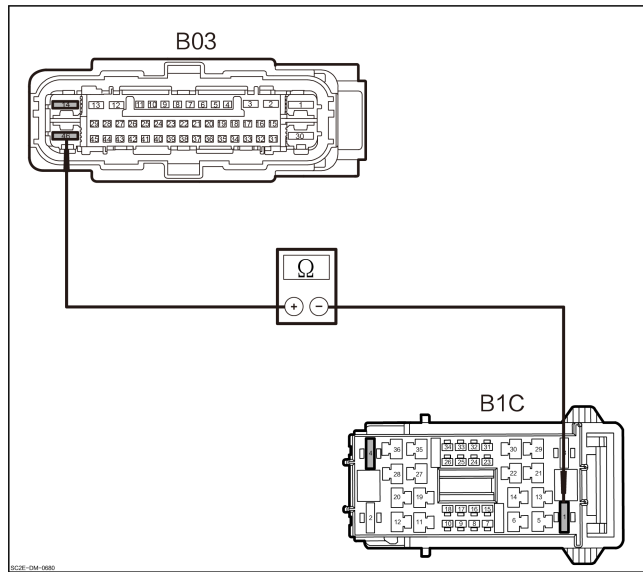
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-14 | Ground | Through-out | 11~14V |
| B03-46 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace the smart power brake controller.

No

6 Check the intelligent power brake control module IG1 power supply for open circuit.



1. Set the start/stop button to OFF.
2. Disconnect the front compartment fuse box harness connector B1C.
3. Measure the resistance between the harness connector of intelligent power brake control module B03-14,46 and the harness connector of front compartment fuse box B1C-4,1.

| Connector | | Condition | Resistance value |
|-----------|-------|-------------|------------------|
| (+) | (-) | | |
| B03-14 | B1C-4 | Through-out | Lower than 1 Ω |
| B03-46 | B1C-1 | Through-out | Lower than 1 Ω |

4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the front compartment fuse box.

C05CD00 Circuit Voltage of Master Cylinder Position Sensor B Too High**DTC Description**

| C05CD00 Circuit Voltage of Master Cylinder Position Sensor B Too High | |
|---|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Circuit voltage of master cylinder position sensor B is too high. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C05D000 Master Cylinder Position Sensor Signal Value Incorrect**DTC Description**

| C05D000 Master Cylinder Position Sensor Signal Value Incorrect | |
|--|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | The signal value of the master cylinder position sensor is incorrect. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C05D200 Master Cylinder Stroke Exceed Expected Value

DTC Description

| C05D200 Master Cylinder Stroke Exceed Expected Value | |
|--|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | The master cylinder stroke is more than the expected value. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C000100 CSV Valve 1 Fault

DTC Description

| C000100 CSV Valve 1 Fault | |
|---------------------------|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | CSV valve 1 failure. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C000200 PSV Valve 1 Fault

DTC Description

| C000200 PSV Valve 1 Fault | |
|---------------------------|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | PSV valve 1 failure. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C000300 CSV Valve 2 Fault**DTC Description**

| C000300 CSV Valve 2 Fault | |
|---------------------------|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | CSV valve 2 failure. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C000400 PSV Valve 2 Fault**DTC Description**

| C000400 PSV Valve 2 Fault | |
|---------------------------|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | PSV valve 2 failure. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C05D500 TSV Valve Fault

DTC Description

| C05D500 TSV Valve Fault | |
|--------------------------|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | SV valve fault. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C002400 SSV Valve Fault

DTC Description

| C002400 SSV Valve Fault | |
|--------------------------|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | SV valve fault. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|---|
| No | Check the “intermittent fault” . |
| Yes | Replace the smart power brake controller. |

C001000 Left Front Inlet Valve Fault

DTC Description

| C001000 Left Front Inlet Valve Fault | |
|--------------------------------------|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Left front inlet valve fault. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|---|
| No | Check the “intermittent fault” . |
| Yes | Replace the smart power brake controller. |

C001100 Left Front Outlet Valve Fault

DTC Description

| C001100 Left Front Outlet Valve Fault | |
|---------------------------------------|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Left front outlet valve fault. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C001400 Right Front Inlet Valve Fault

DTC Description

| C001400 Right Front Inlet Valve Fault | |
|---------------------------------------|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Right front inlet valve fault. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|---|
| No | Check the “intermittent fault” . |
| Yes | Replace the smart power brake controller. |

C001500 Right Front Outlet Valve Fault

DTC Description

| C001500 Right Front Outlet Valve Fault | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Right front outlet valve fault. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C001800 Left Rear Inlet Valve Fault

DTC Description

| C001800 Left Rear Inlet Valve Fault | |
|-------------------------------------|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Left rear inlet valve fault. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C001900 Left Rear Outlet Valve Fault

DTC Description

| C001900 Left Rear Outlet Valve Fault | |
|--------------------------------------|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Left rear outlet valve fault. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|---|
| No | Check the “intermittent fault” . |
| Yes | Replace the smart power brake controller. |

C001C00 Right Rear Inlet Valve Fault

DTC Description

| C001C00 Right Rear Inlet Valve Fault | |
|--------------------------------------|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Right rear inlet valve fault. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C001D00 Right Rear Outlet Valve Fault

DTC Description

| C001D00 Right Rear Outlet Valve Fault | |
|---------------------------------------|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Right rear outlet valve fault. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

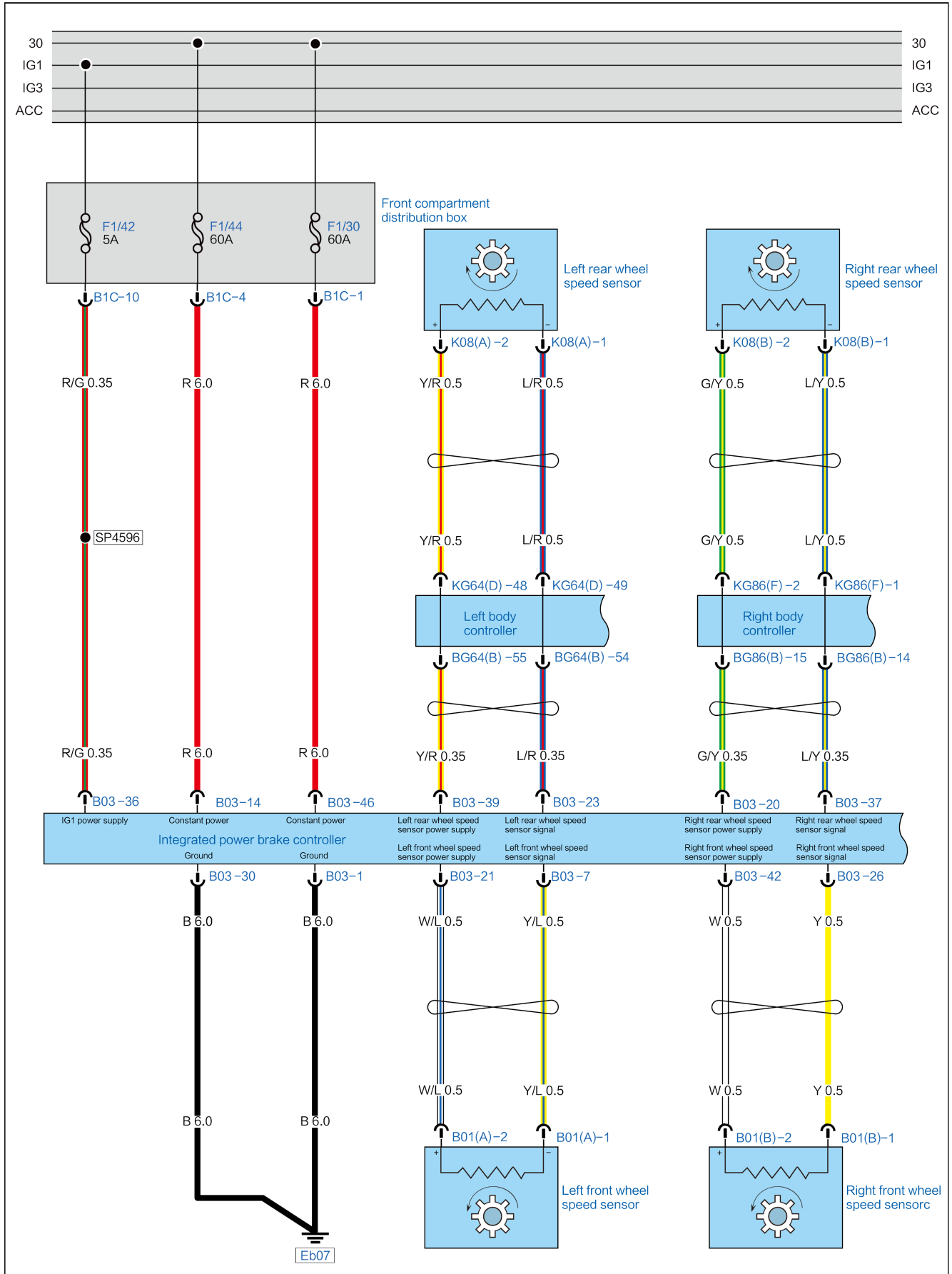
Replace the smart power brake controller.

P25C600 Circuit Voltage of Brake Booster Temperature Sensor A Too Low

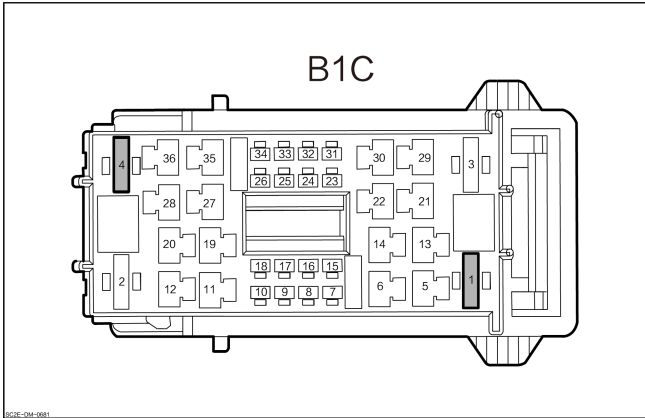
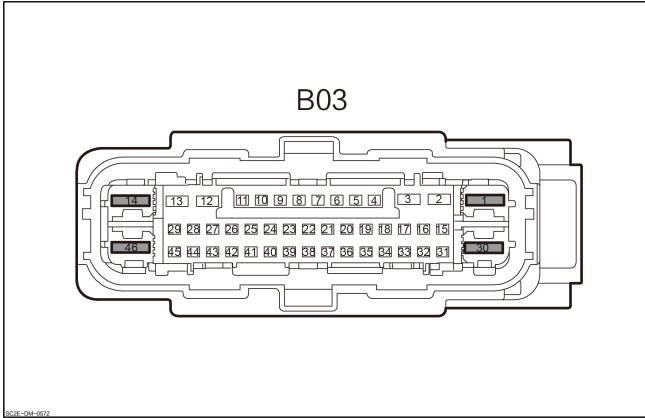
DTC Description

| P25C600 Circuit Voltage of Brake Booster Temperature Sensor A Too Low | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none">1. Fuse has blew.2. Harness or connector fault.3. Smart power brake controller internal fault. |
| Fault setting conditions | Circuit Voltage of Brake Booster Temperature Sensor A is Too Low. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|--|
| <p style="text-align: center;">Front compartment fuse box</p>  <p style="text-align: center;">B1C</p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Intelligent power brake control module constant power</p> |
| <p style="text-align: center;">Smart power brake controller</p>  <p style="text-align: center;">B03</p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Ground</p> |
| | <p style="text-align: center;">14</p> | <p style="text-align: center;">Constant power</p> |
| | <p style="text-align: center;">30</p> | <p style="text-align: center;">Ground</p> |
| | <p style="text-align: center;">46</p> | <p style="text-align: center;">Constant power</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the fuse of the intelligent power brake control module. |
|---|---|

1. Check whether the front compartment fuse box fuse F1/30(60A) and F1/44(60A) are normal.

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the intelligent power brake control module harness and connector. |
|---|---|

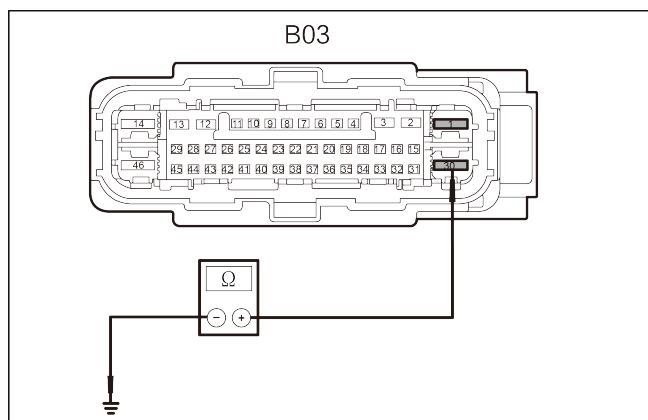
1. Set the START/STOP button to OFF.
2. Disconnect the harness connector of intelligent power brake control module B03.
3. Check whether the intelligent power brake control module harness connector is normal or not.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the intelligent power brake control module ground line for open circuit. |
|---|--|



1. Check the resistance of the harness connector of intelligent power brake control module B03-1, B03-30 to ground.

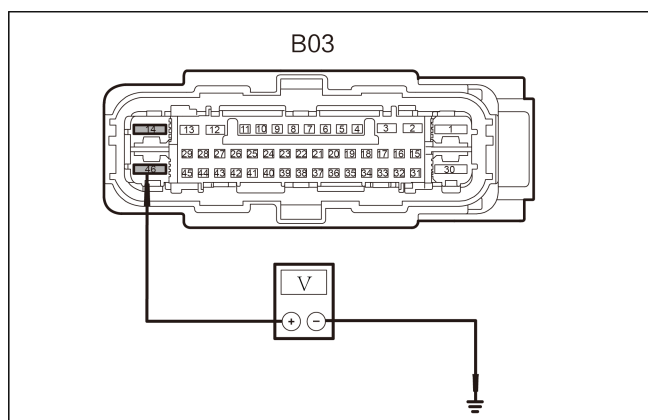
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| B03-1 | Ground | Through-out | Lower than 1 Ω |
| B03-30 | Ground | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the intelligent power brake control module constant power supply.



1. Set the START/STOP button to ON.
2. Measure the voltage between the harness connector of intelligent power brake control module B03-14 ,46 and the ground.

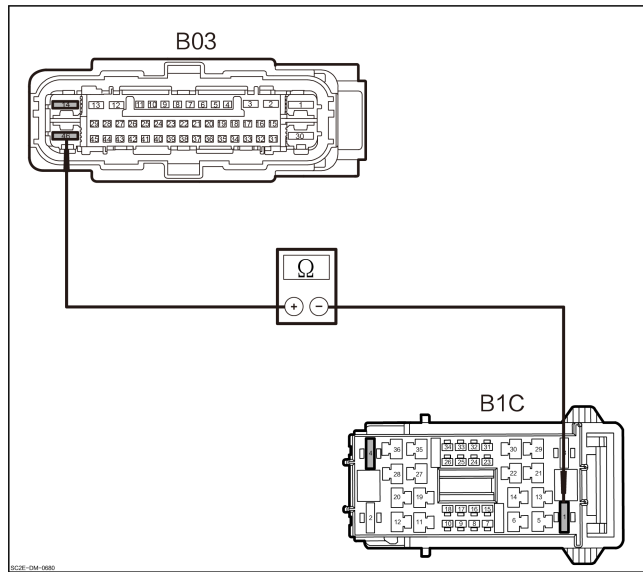
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-14 | Ground | Through-out | 11~14V |
| B03-46 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace the smart power brake controller.

No

6 Check the intelligent power brake control module IG1 power supply for open circuit.



1. Set the start/stop button to OFF.
2. Disconnect the front compartment fuse box harness connector B1C.
3. Measure the resistance between the harness connector of intelligent power brake control module B03–14,46 and the harness connector of front compartment fuse box B1C–4,1.

| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-14 | B1C-4 | Through- out | Lower than 1 Ω |
| B03-46 | B1C-1 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the front compartment fuse box.

P25C700 Circuit Voltage of Brake Booster Temperature Sensor A Too High

DTC Description

| P25C700 Circuit Voltage of Brake Booster Temperature Sensor A Too High | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Brake booster temperature sensor A circuit voltage high. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

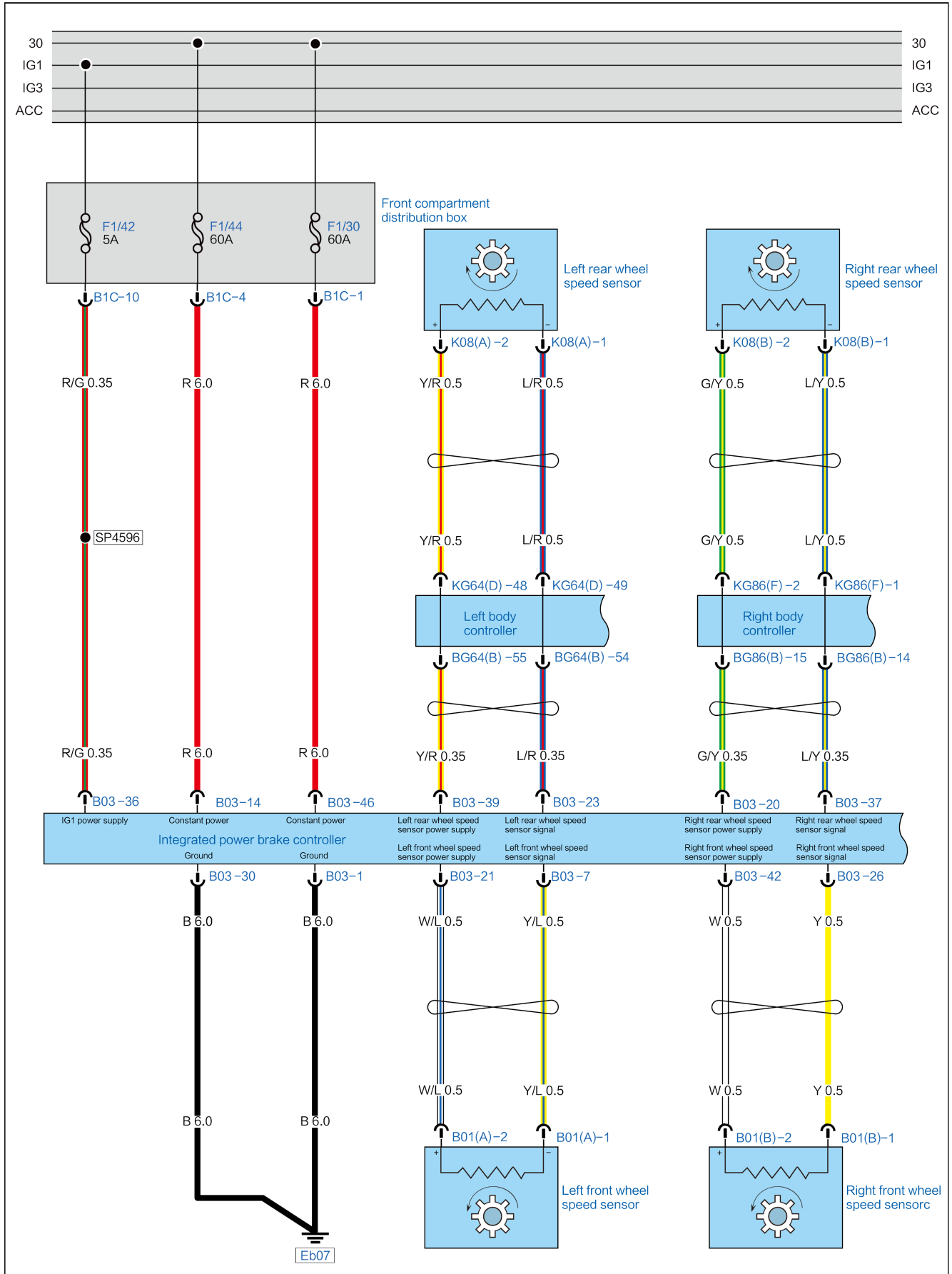
Replace the smart power brake controller.

C057900 Circuit Voltage of Brake Booster Temperature Sensor B Too Low

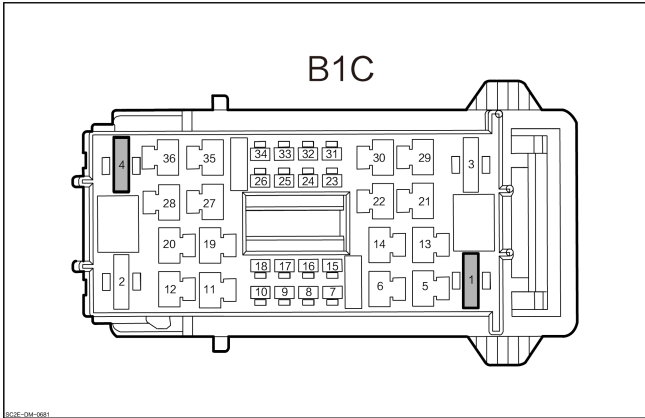
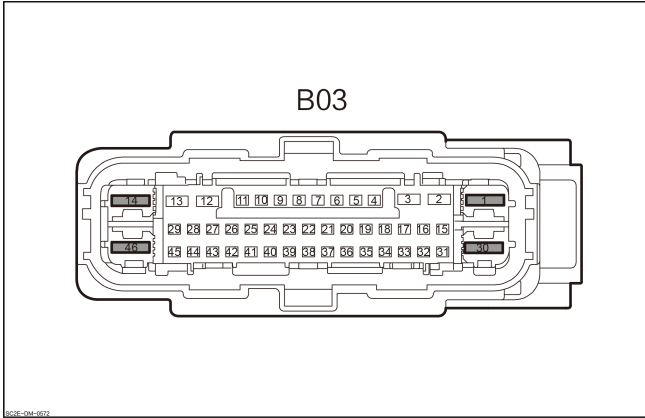
DTC Description

| C057900 Circuit Voltage of Brake Booster Temperature Sensor B Too Low | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse has blew. 2. Harness or connector fault. 3. Smart power brake controller internal fault. |
| Fault setting conditions | Circuit Voltage of brake booster temperature sensor B is Too Low. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p style="text-align: center;">Front compartment fuse box</p>  <p style="text-align: center;">B1C</p> | 1 | Intelligent power brake control module constant power |
| <p style="text-align: center;">Smart power brake controller</p>  <p style="text-align: center;">B03</p> | 1 | Ground |
| | 14 | Constant power |
| | 30 | Ground |
| | 46 | Constant power |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the fuse of the intelligent power brake control module. |
|---|---|

1. Check whether the front compartment fuse box fuse F1/30(60A) and F1/44(60A) are normal.

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the intelligent power brake control module harness and connector. |
|---|---|

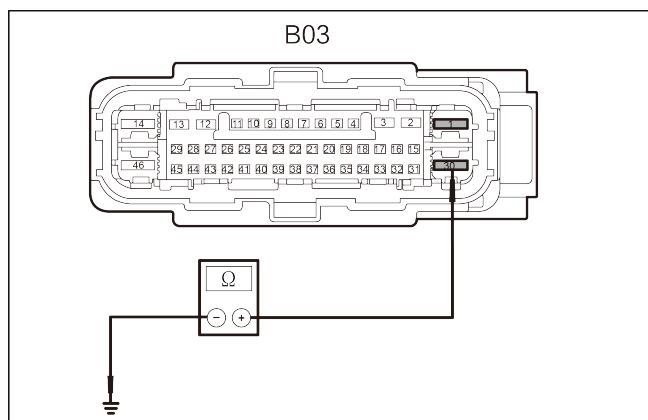
1. Set the start/stop button to OFF.
2. Disconnect the harness connector of intelligent power brake control module B03.
3. Check whether the intelligent power brake control module harness connector is normal or not.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the intelligent power brake control module ground line for open circuit. |
|---|--|



1. Check the resistance of the harness connector of intelligent power brake control module B03-1, B03-30 to ground.

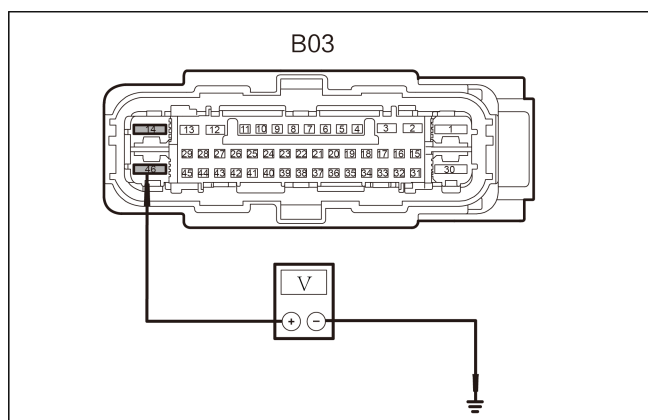
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| B03-1 | Ground | Through-out | Lower than 1Ω |
| B03-30 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the intelligent power brake control module constant power supply.



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of intelligent power brake control module B03-14 ,46 and the ground.

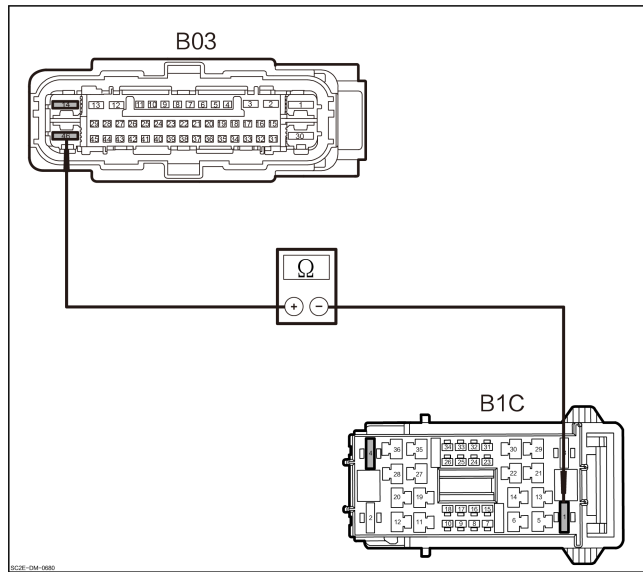
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-14 | Ground | Through-out | 11~14V |
| B03-46 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace the smart power brake controller.

No

6 Check the intelligent power brake control module IG1 power supply for open circuit.



1. Set the start/stop button to OFF.
2. Disconnect the front compartment fuse box harness connector B1C.
3. Measure the resistance between the harness connector of intelligent power brake control module B03-14,46 and the harness connector of front compartment fuse box B1C-4,1.

| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-14 | B1C-4 | Through- out | Lower than 1 Ω |
| B03-46 | B1C-1 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the front compartment fuse box.

C057A00 Circuit Voltage of Brake Booster Temperature Sensor B Too High**DTC Description**

| C057A00 Circuit Voltage of Brake Booster Temperature Sensor B Too High | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Brake booster temperature sensor B circuit voltage high. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C057F00 Brake Booster Motor Open-circuited

DTC Description

| C057F00 Brake Booster Motor Open-circuited | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Open circuit of brake booster motor loop. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C05C24B Temperature of Brake Booster Motor Too High

DTC Description

| C05C24B Temperature of Brake Booster Motor Too High | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Brake booster motor temperature high |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|---|
| No | Check the “intermittent fault” . |
| Yes | Replace the smart power brake controller. |

C059400 Brake Booster Motor Load Abnormal

DTC Description

| C059400 Brake Booster Motor Load Abnormal | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Abnormal load of brake booster motor. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C058200 Circuit Signal of Brake Booster Motor Abnormal

DTC Description

| C058200 Circuit Signal of Brake Booster Motor Abnormal | |
|--|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | The loop signal of the brake booster motor is abnormal. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|---|
| No | Check the “intermittent fault” . |
| Yes | Replace the smart power brake controller. |

C059000 Supply Current of Brake Booster Motoris Too High**DTC Description**

| C059000 Supply Current of Brake Booster Motoris Too High | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Brake booster motor power current high. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C058900 Circuit Voltage of Brake Booster Motor Position Sensor A Too High**DTC Description**

| C058900 Circuit Voltage of Brake Booster Motor Position Sensor A Too High | |
|---|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Brake booster motor position sensor A circuit voltage high. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

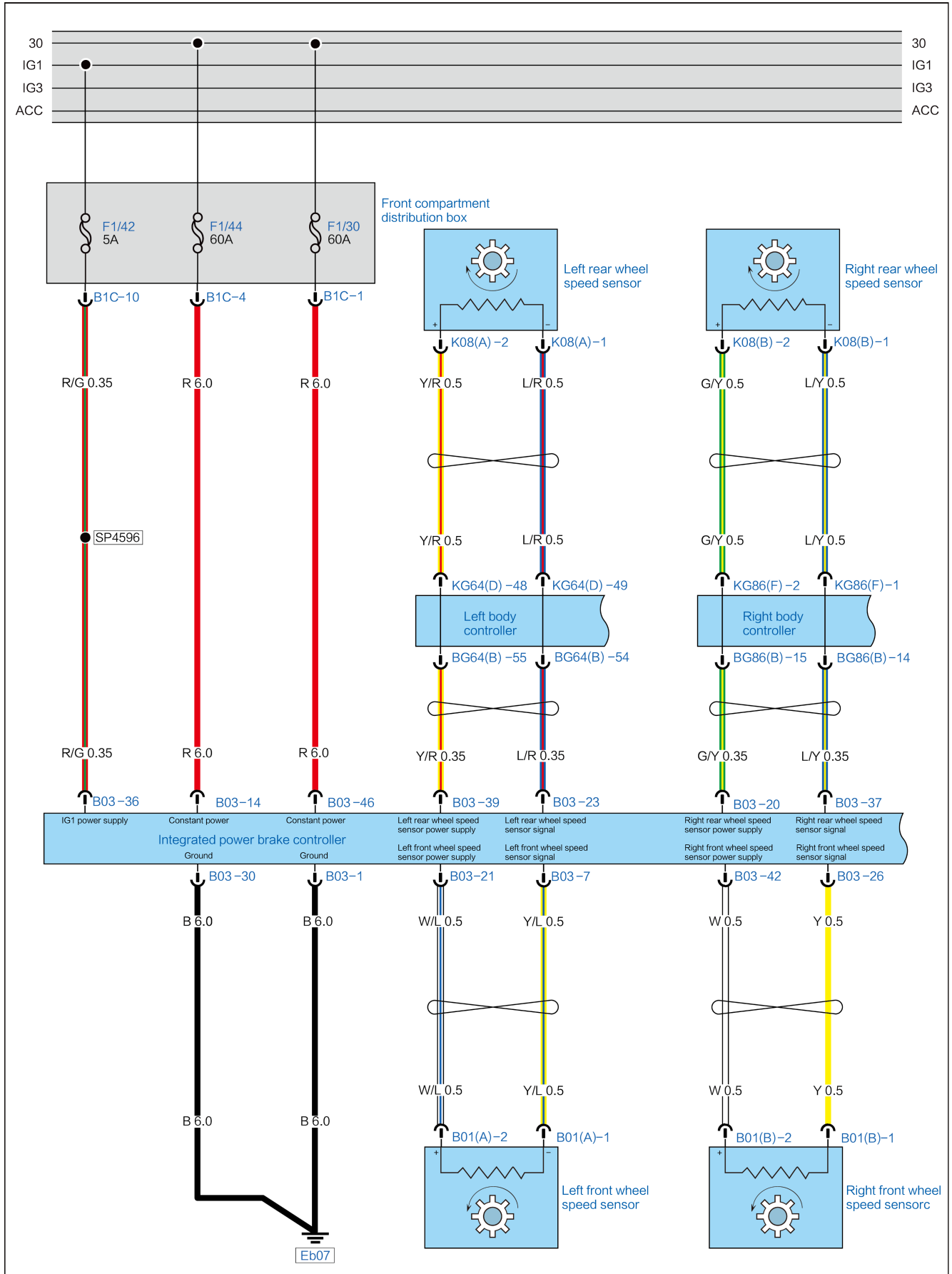
Yes

Replace the smart power brake controller.

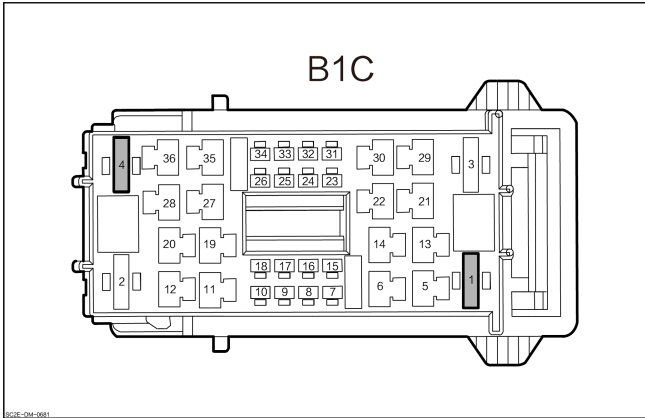
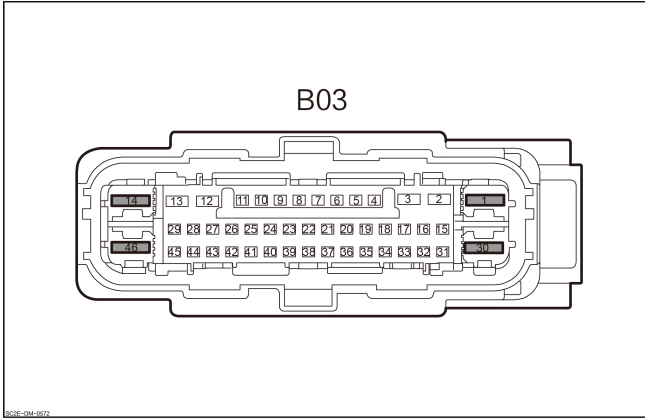
C058800 Circuit Voltage of Brake Booster Motor Position Sensor A Too Low**DTC Description**

| C058800 Circuit Voltage of Brake Booster Motor Position Sensor A Too Low | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | 1. Fuse has blew. 2. Harness or connector fault. 3. Smart power brake controller internal fault. |
| Fault setting conditions | Brake booster motor position sensor A circuit voltage low. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|--|
| <p style="text-align: center;">Front compartment fuse box</p>  <p style="text-align: center;">B1C</p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Intelligent power brake control module constant power</p> |
| <p style="text-align: center;">Smart power brake controller</p>  <p style="text-align: center;">B03</p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Ground</p> |
| | <p style="text-align: center;">14</p> | <p style="text-align: center;">Constant power</p> |
| | <p style="text-align: center;">30</p> | <p style="text-align: center;">Ground</p> |
| | <p style="text-align: center;">46</p> | <p style="text-align: center;">Constant power</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the fuse of the intelligent power brake control module. |
|---|---|

1. Check whether the front compartment fuse box fuse F1/30(60A) and F1/44(60A) are normal.

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the intelligent power brake control module harness and connector. |
|---|---|

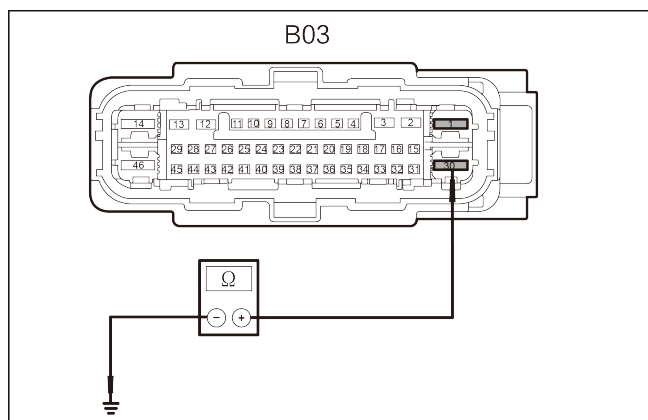
1. Set the start/stop button to OFF.
2. Disconnect the harness connector of intelligent power brake control module B03.
3. Check whether the intelligent power brake control module harness connector is normal or not.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the intelligent power brake control module ground line for open circuit. |
|---|--|



1. Check the resistance of the harness connector of intelligent power brake control module B03-1, B03-30 to ground.

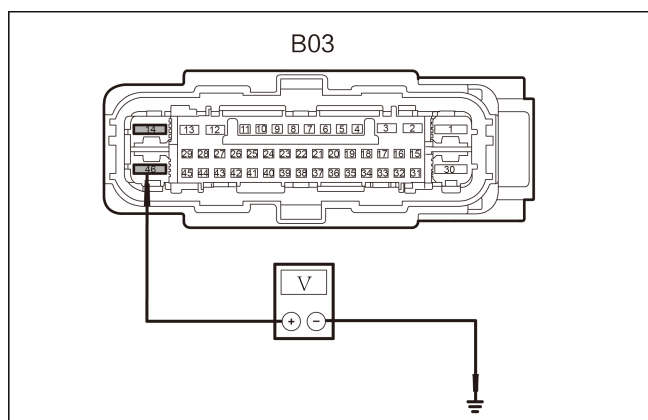
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| B03-1 | Ground | Through-out | Lower than 1Ω |
| B03-30 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the intelligent power brake control module constant power supply.



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of intelligent power brake control module B03-14 ,46 and the ground.

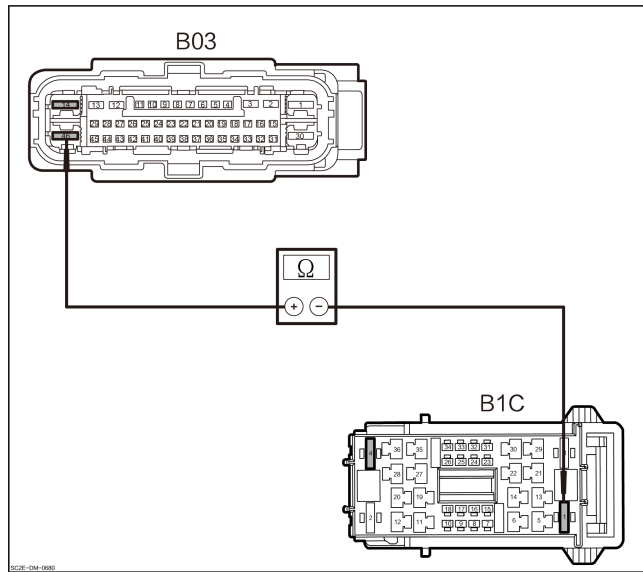
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-14 | Ground | Through-out | 11~14V |
| B03-46 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace the smart power brake controller.

No

6 Check the intelligent power brake control module IG1 power supply for open circuit.



1. Set the start/stop button to OFF.
2. Disconnect the front compartment fuse box harness connector B1C.
3. Measure the resistance between the harness connector of intelligent power brake control module B03-14,46 and the harness connector of front compartment fuse box B1C-4,1.

| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-14 | B1C-4 | Through- out | Lower than 1 Ω |
| B03-46 | B1C-1 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the front compartment fuse box.

C058A00 Circuit Voltage of Brake Booster Motor Position Sensor A Abnormal**DTC Description**

| C058A00 Circuit Voltage of Brake Booster Motor Position Sensor A Abnormal | |
|---|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Abnormal brake booster motor position sensor A circuit voltage. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

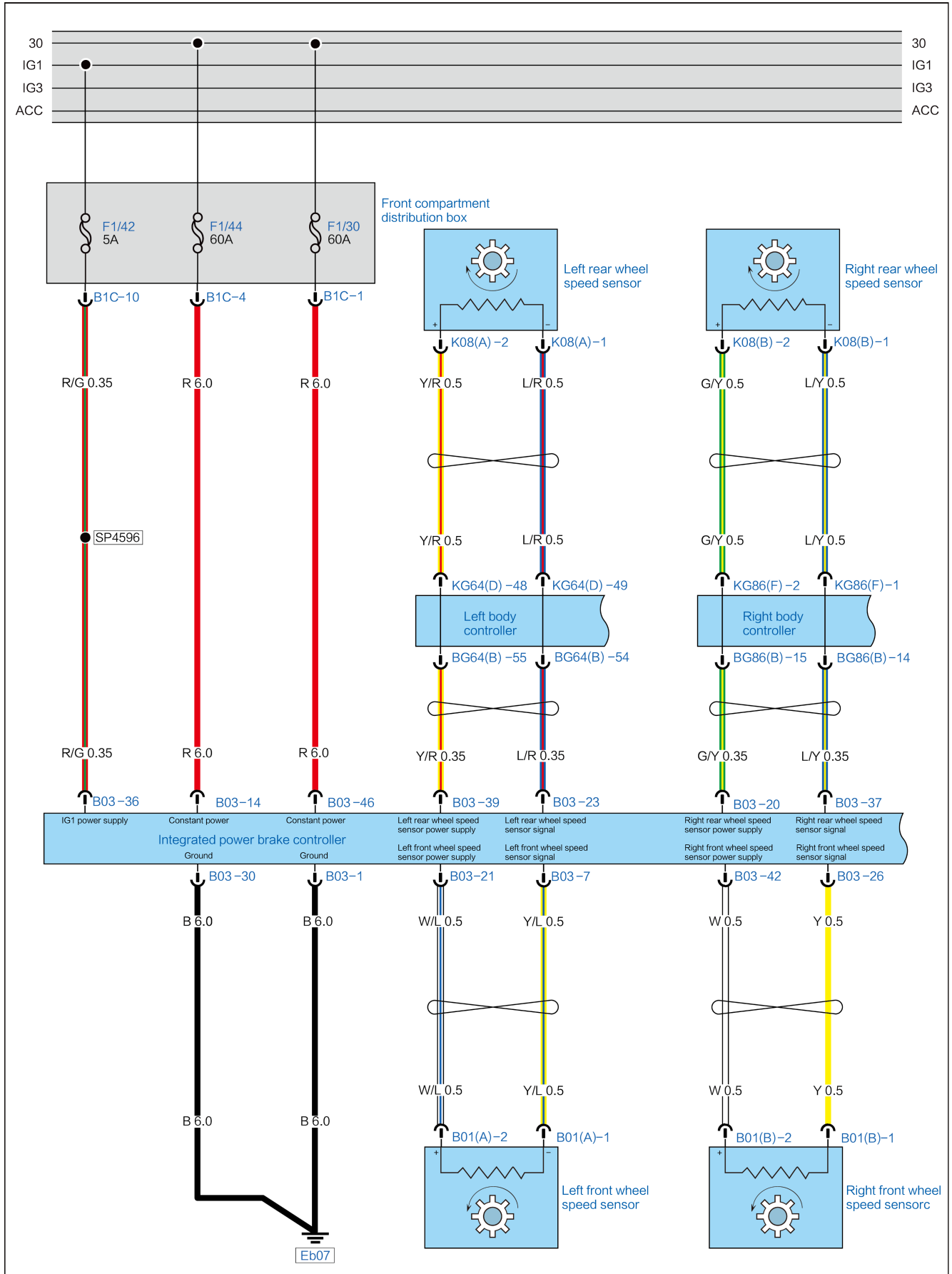
Replace the smart power brake controller.

C059100 Supply Current of Brake Booster Motor Too Low

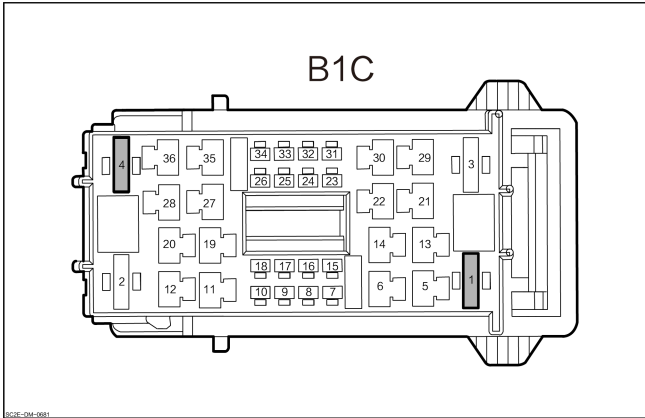
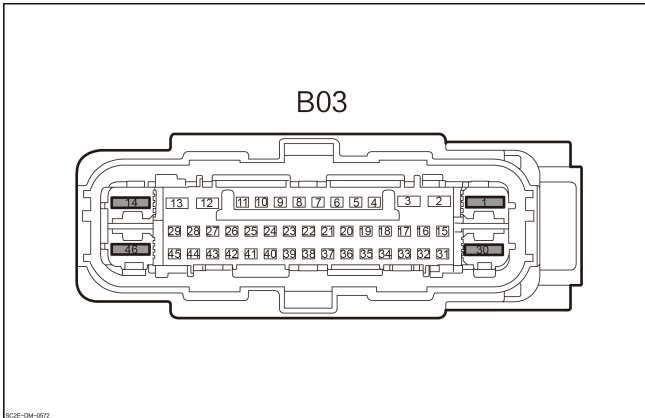
DTC Description

| C059100 Supply Current of Brake Booster Motor Too Low | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none">1. Fuse has blew.2. Harness or connector fault.3. Smart power brake controller internal fault. |
| Fault setting conditions | Brake booster motor power current low. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|--|
| <p style="text-align: center;">Front compartment fuse box</p>  <p style="text-align: center;">B1C</p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Intelligent power brake control module constant power</p> |
| <p style="text-align: center;">Smart power brake controller</p>  <p style="text-align: center;">B03</p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Ground</p> |
| | <p style="text-align: center;">14</p> | <p style="text-align: center;">Constant power</p> |
| | <p style="text-align: center;">30</p> | <p style="text-align: center;">Ground</p> |
| | <p style="text-align: center;">46</p> | <p style="text-align: center;">Constant power</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the fuse of the intelligent power brake control module. |
|---|---|

1. Check whether the front compartment fuse box fuse F1/30(60A) and F1/44(60A) are normal.

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the intelligent power brake control module harness and connector. |
|---|---|

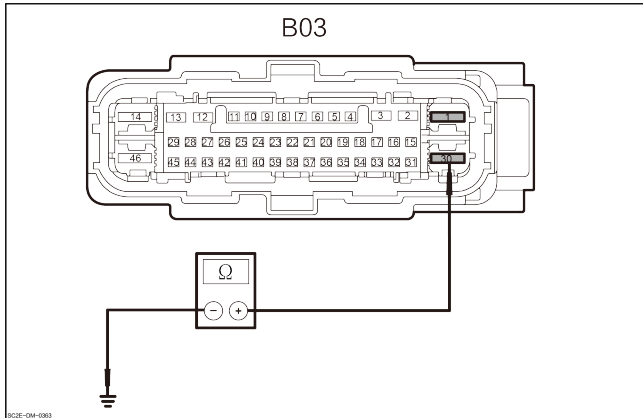
1. Set the start/stop button to OFF.
2. Disconnect the harness connector of intelligent power brake control module B03.
3. Check whether the intelligent power brake control module harness connector is normal or not.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the intelligent power brake control module ground line for open circuit. |
|---|--|



1. Check the resistance of the harness connector of intelligent power brake control module B03-1, B03-30 to ground.

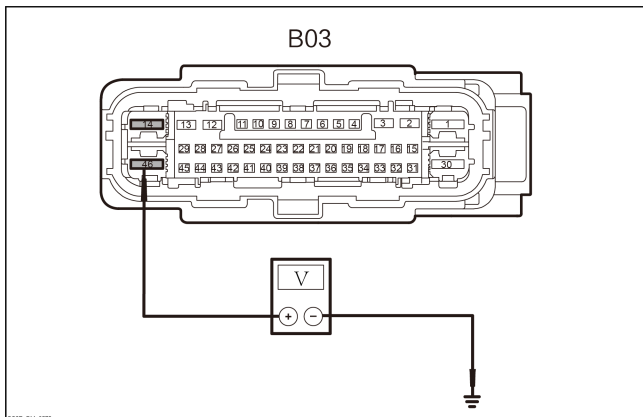
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| B03-1 | Ground | Through-out | Lower than 1 Ω |
| B03-30 | Ground | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the intelligent power brake control module constant power supply.



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of intelligent power brake control module B03-14 ,46 and the ground.

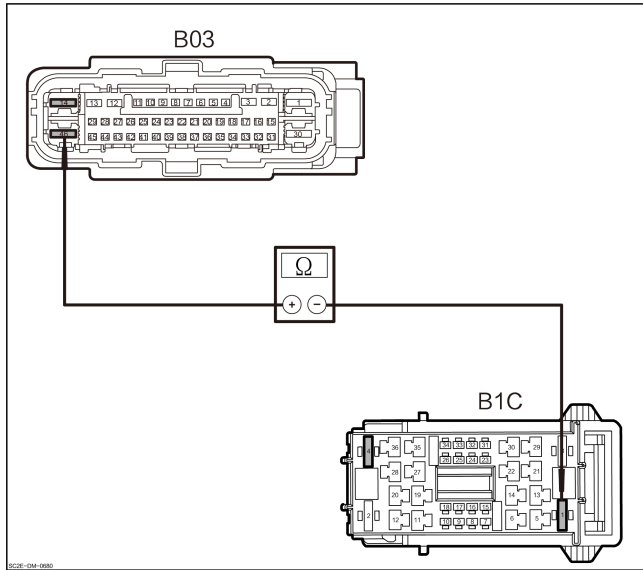
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-14 | Ground | Through-out | 11~14V |
| B03-46 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace the smart power brake controller.

No

6 Check the intelligent power brake control module IG1 power supply for open circuit.



1. Set the start/stop button to OFF.
2. Disconnect the front compartment fuse box harness connector B1C.
3. Measure the resistance between the harness connector of intelligent power brake control module B03-14,46 and the harness connector of front compartment fuse box B1C-4,1.

| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-14 | B1C-4 | Through- out | Lower than 1 Ω |
| B03-46 | B1C-1 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

| | |
|-----|---|
| No | Repair or replace the wire harness |
| Yes | Replace the front compartment fuse box. |

C05C200 Brake Booster Motor A Overtemperature

DTC Description

| P25C600 Circuit Voltage of Brake Booster Temperature Sensor A Too Low | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Brake booster motor A temperature high. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C002192 Brake Booster Module Pipeline Hydraulic Pressure Below Normal Value

DTC Description

| C002192 Brake Booster Module Pipeline Hydraulic Pressure Below Normal Value | |
|---|---|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none"> 1. The brake pipeline leaks. 2. Air enters the brake pipeline of intelligent power brake control module. 3. The internal pressure sensor of intelligent power brake control module is faulty. |
| Fault setting conditions | The deviation of the actual pressure of the Smart power brake controller from the set pressure is beyond the setting range. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C056B00 Brake Booster Module Pressure Sensor Fault

DTC Description

| C056B00 Brake Booster Module Pressure Sensor Fault | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Brake booster module pressure sensor fault. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|---|
| No | Check the “intermittent fault” . |
| Yes | Replace the smart power brake controller. |

C053F00 Circuit Voltage of Pressure Sensor A Too High

DTC Description

| C053F00 Circuit Voltage of Pressure Sensor A Too High | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Pressure sensor A circuit voltage high. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

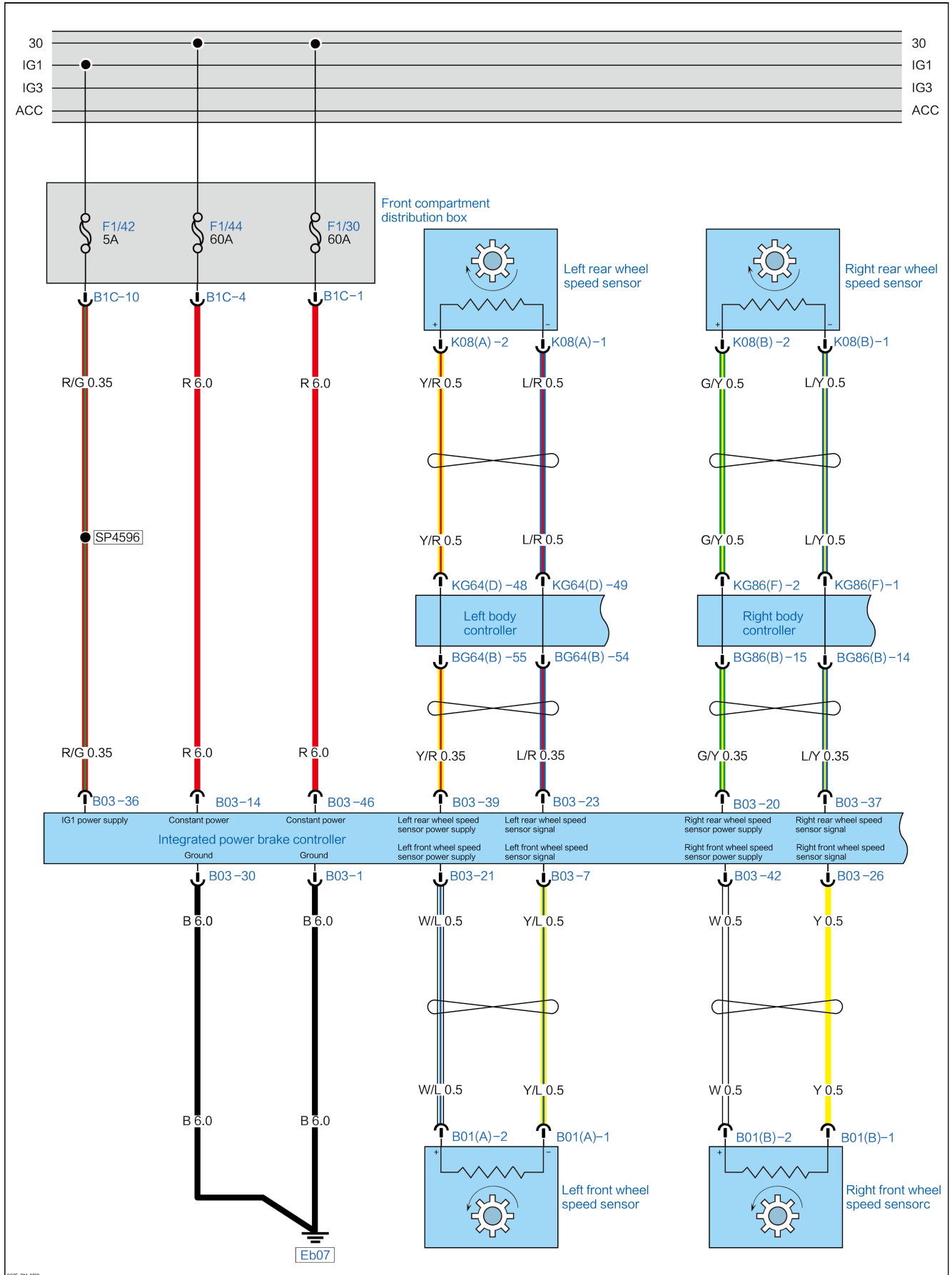
Replace the smart power brake controller.

C053E00 Circuit Voltage of Pressure Sensor A Too Low

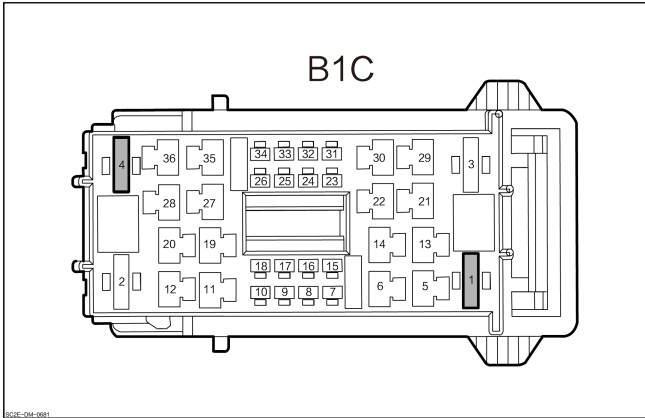
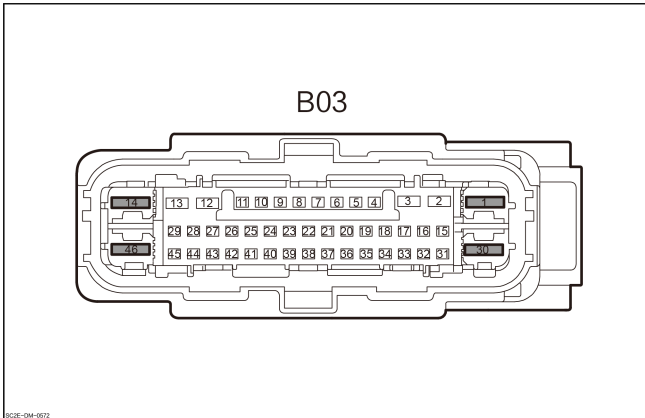
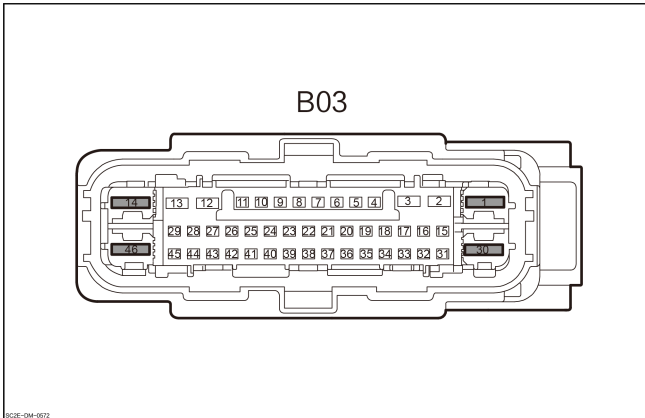
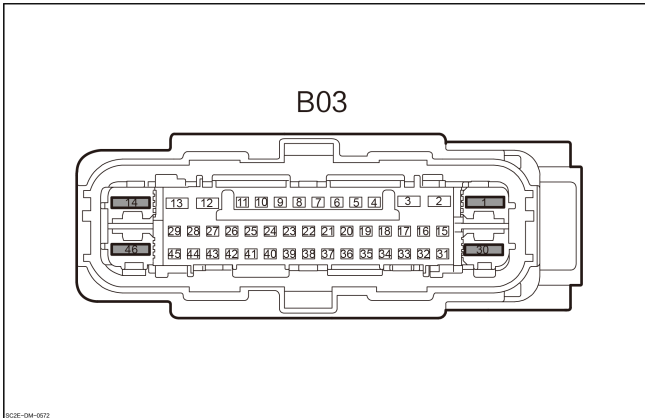
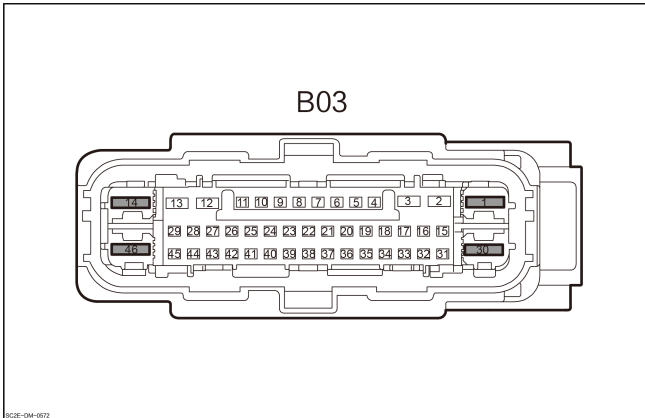
DTC Description

| C053E00 Circuit Voltage of Pressure Sensor A Too Low | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse has blew. 2. Harness or connector fault. 3. Smart power brake controller internal fault. |
| Fault setting conditions | Pressure sensor A circuit voltage low. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|--|
| <p style="text-align: center;">Front compartment fuse box</p>  <p style="text-align: center;">B1C</p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Intelligent power brake control module constant power</p> |
| <p style="text-align: center;">Smart power brake controller</p>  <p style="text-align: center;">B03</p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Ground</p> |
| <p style="text-align: center;">Smart power brake controller</p>  <p style="text-align: center;">B03</p> | <p style="text-align: center;">14</p> | <p style="text-align: center;">Constant power</p> |
| <p style="text-align: center;">Smart power brake controller</p>  <p style="text-align: center;">B03</p> | <p style="text-align: center;">30</p> | <p style="text-align: center;">Ground</p> |
| <p style="text-align: center;">Smart power brake controller</p>  <p style="text-align: center;">B03</p> | <p style="text-align: center;">46</p> | <p style="text-align: center;">Constant power</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the fuse of the intelligent power brake control module. |
|---|---|

1. Check whether the front compartment fuse box fuse F1/30(60A) and F1/44(60A) are normal.

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the intelligent power brake control module harness and connector. |
|---|---|

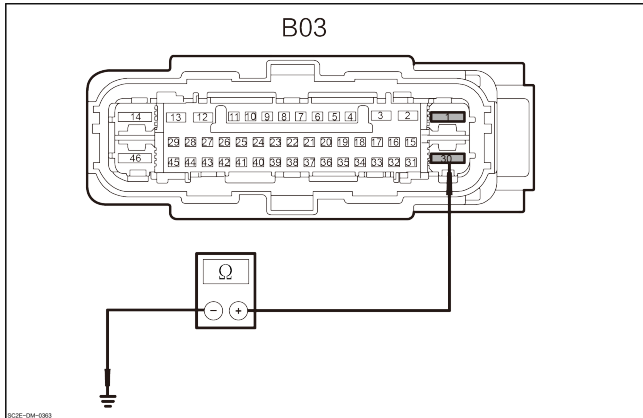
1. Set the start/stop button to OFF.
2. Disconnect the harness connector of intelligent power brake control module B03.
3. Check whether the intelligent power brake control module harness connector is normal or not.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the intelligent power brake control module ground line for open circuit. |
|---|--|



1. Check the resistance of the harness connector of intelligent power brake control module B03-1, B03-30 to ground.

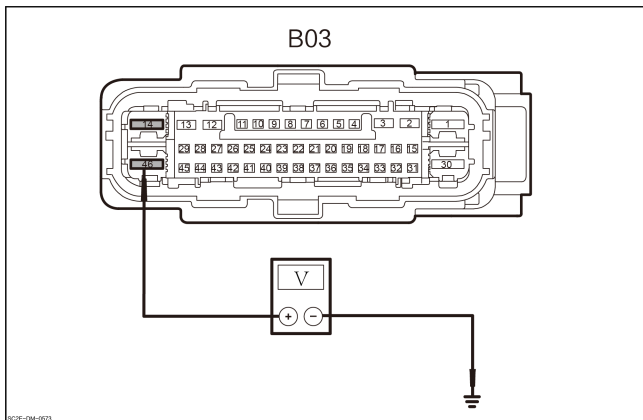
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| B03-1 | Ground | Through-out | Lower than 1Ω |
| B03-30 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the intelligent power brake control module constant power supply.



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of intelligent power brake control module B03-14 ,46 and the ground.

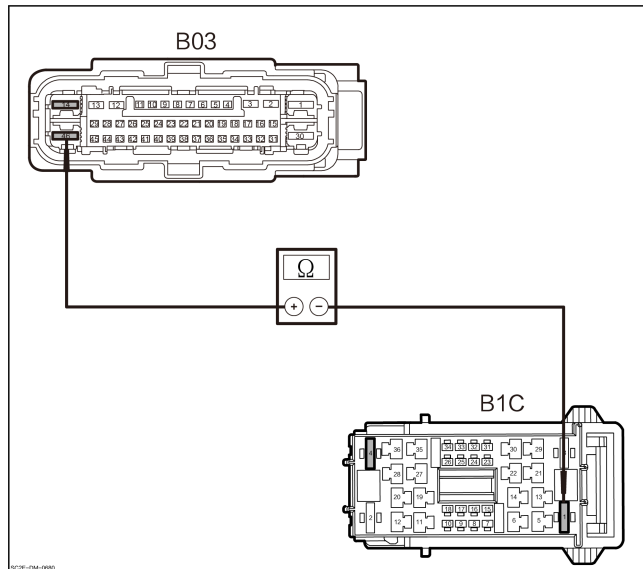
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-14 | Ground | Through-out | 11~14V |
| B03-46 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace the smart power brake controller.

No

6 Check the intelligent power brake control module IG1 power supply for open circuit.



1. Set the start/stop button to OFF.
2. Disconnect the front compartment fuse box harness connector B1C.
3. Measure the resistance between the harness connector of intelligent power brake control module B03-14,46 and the harness connector of front compartment fuse box B1C-4,1.

| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-14 | B1C-4 | Through- out | Lower than 1 Ω |
| B03-46 | B1C-1 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the front compartment fuse box.

C053D00 Pressure Sensor B Signal Abnormal

DTC Description

| C053D00 Pressure Sensor B Signal Abnormal | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Abnormal signal of auxiliary pressure sensor B |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|---|
| No | Check the “intermittent fault” . |
| Yes | Replace the smart power brake controller. |

C054100 Pressure Sensor B Signal Abnormal

DTC Description

| C054100 Pressure Sensor B Signal Abnormal | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Abnormal signal of auxiliary pressure sensor B |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

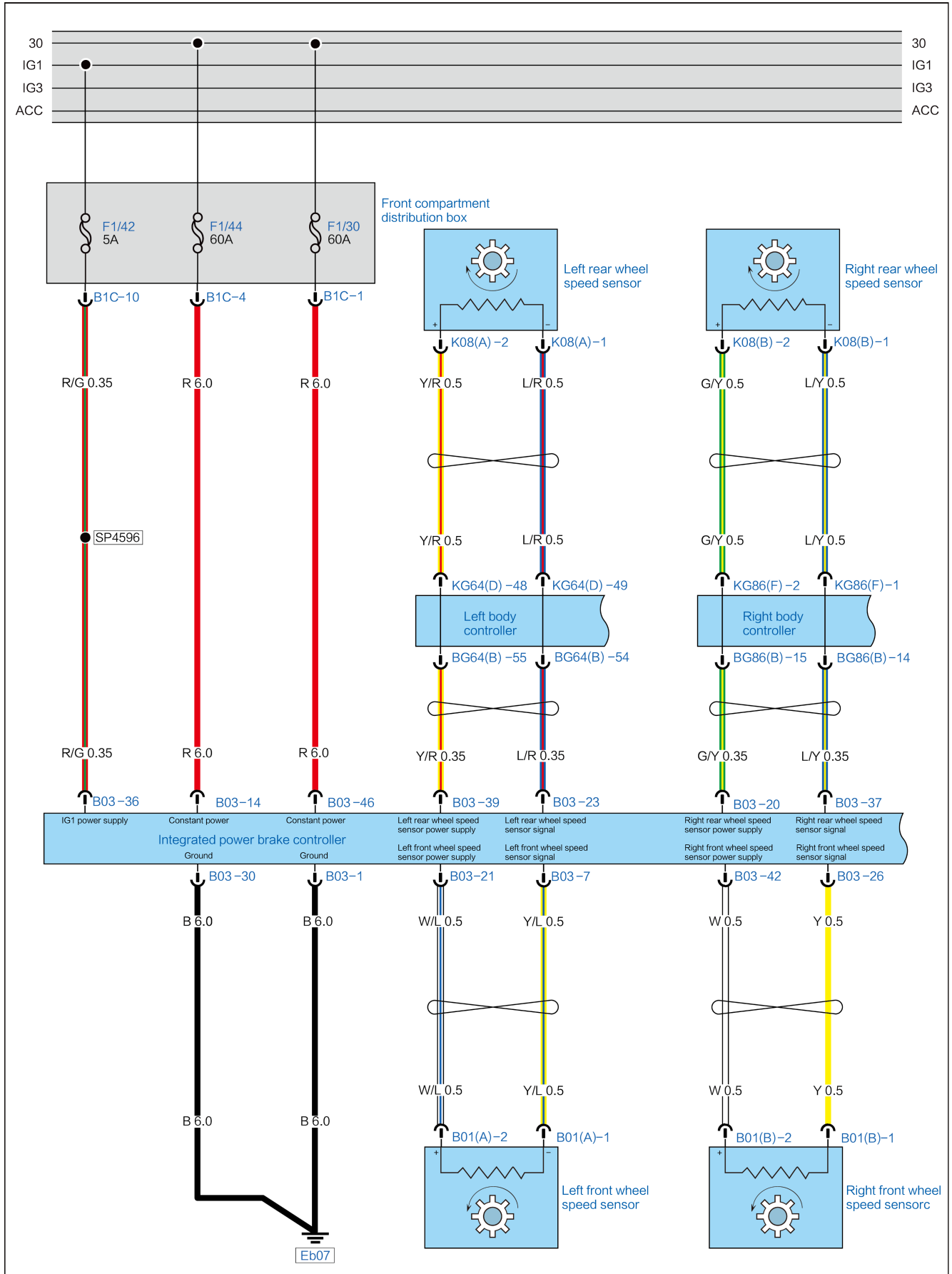
Replace the smart power brake controller.

C054200 Circuit Voltage of Pressure Sensor B Too Low

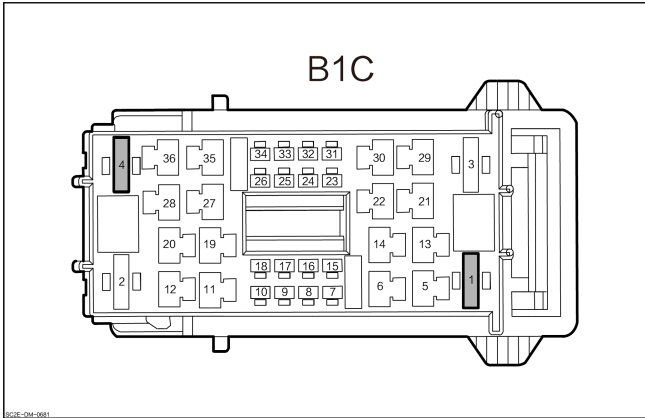
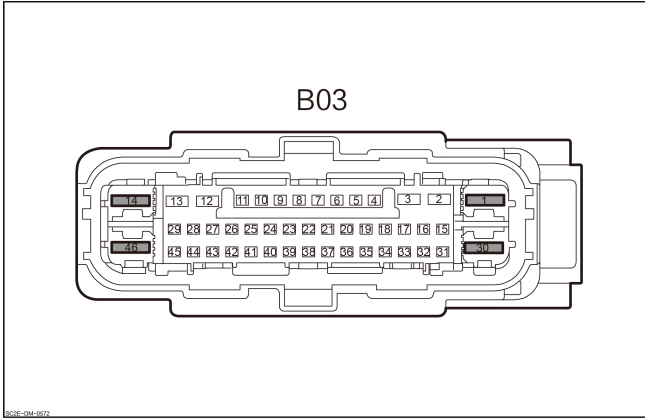
DTC Description

| C054200 Circuit Voltage of Pressure Sensor B Too Low | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse has blew. 2. Harness or connector fault. 3. Smart power brake controller internal fault. |
| Fault setting conditions | Circuit Voltage of Brake Booster Temperature Sensor A is Too Low. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|--|
| <p style="text-align: center;">Front compartment fuse box</p>  <p style="text-align: center;">B1C</p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Intelligent power brake control module constant power</p> |
| <p style="text-align: center;">Smart power brake controller</p>  <p style="text-align: center;">B03</p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Ground</p> |
| | <p style="text-align: center;">14</p> | <p style="text-align: center;">Constant power</p> |
| | <p style="text-align: center;">30</p> | <p style="text-align: center;">Ground</p> |
| | <p style="text-align: center;">46</p> | <p style="text-align: center;">Constant power</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the fuse of the intelligent power brake control module. |
|---|---|

1. Check whether the front compartment fuse box fuse F1/30(60A) and F1/44(60A) are normal.

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the intelligent power brake control module harness and connector. |
|---|---|

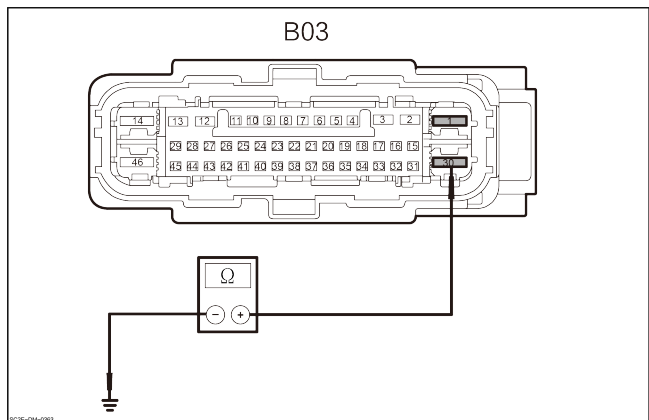
1. Set the start/stop button to OFF.
2. Disconnect the harness connector of intelligent power brake control module B03.
3. Check whether the intelligent power brake control module harness connector is normal or not.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the intelligent power brake control module ground line for open circuit. |
|---|--|



1. Check the resistance of the harness connector of intelligent power brake control module B03-1, B03-30 to ground.

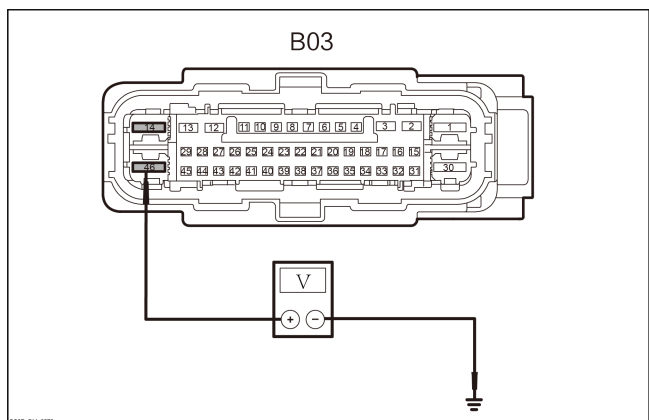
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| B03-1 | Ground | Through-out | Lower than 1 Ω |
| B03-30 | Ground | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the intelligent power brake control module constant power supply.



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of intelligent power brake control module B03-14 ,46 and the ground.

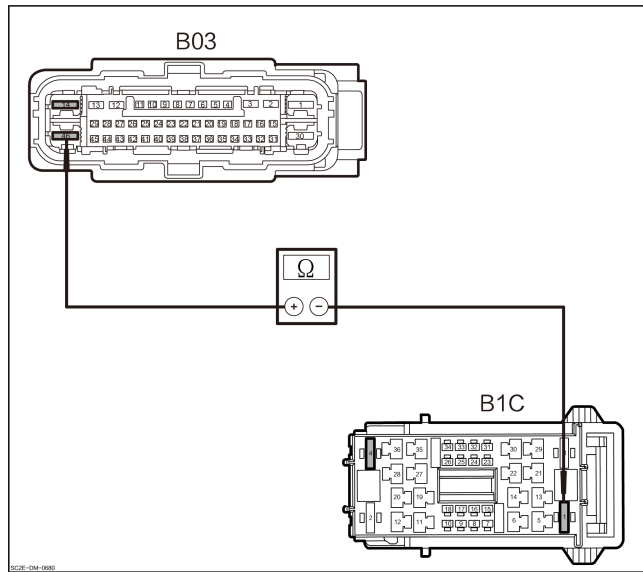
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-14 | Ground | Through-out | 11~14V |
| B03-46 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace the smart power brake controller.

No

6 Check the intelligent power brake control module IG1 power supply for open circuit.



1. Set the start/stop button to OFF.
2. Disconnect the front compartment fuse box harness connector B1C.
3. Measure the resistance between the harness connector of intelligent power brake control module B03-14,46 and the harness connector of front compartment fuse box B1C-4,1.

| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-14 | B1C-4 | Through- out | Lower than 1 Ω |
| B03-46 | B1C-1 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the front compartment fuse box.

C054300 Circuit Voltage of Pressure Sensor B Too High

DTC Description

| C054300 Circuit Voltage of Pressure Sensor B Too High | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Pressure sensor B circuit voltage high. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C12F909 Brake Hydraulic Circuit Blocked

DTC Description

| C12F909 Brake Hydraulic Circuit Blocked | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Ingress of air into the brake line. 2. The internal pressure sensor of intelligent power brake control module is faulty. |
| Fault setting conditions | The deviation of the actual pressure of the vehicle from the set pressure is beyond the setting range |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C055E00 Brake Hydraulic Circuit A Leaky

DTC Description

| C055E00 Brake Hydraulic Circuit A Leaky | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none"> 1. The brake pipeline leaks. 2. Ingress of air into the brake line. 3. The internal pressure sensor of intelligent power brake control module is faulty. |
| Fault setting conditions | The deviation of the actual pressure of the Smart power brake controller from the set pressure is beyond the setting range. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|-----------------------|
| 2 | Check the brake pipe. |
|---|-----------------------|

1. Verify whether the brake hose is leaked.

Yes

Repair or replace the brake pipeline, and remove the air from the intelligent power braking system.

No

| | |
|---|---|
| 3 | Conduct offline exhaust operation for intelligent power braking system. |
|---|---|

1. Check that there is no residual air in the intelligent power braking system.
2. After re-ignition, the vehicle shall be stationary for 15 seconds, during which there shall be no braking-related action.
3. Push the brake pedal to the bottom (close to 78 bar) and hold it for 2 seconds.
4. Rediagnose and check for the reoccurrence of fault.

No

The system is normal.

Yes

Replace the smart power brake controller.

C05B001 Brake Hydraulic Circuit L1 Leaky

DTC Description

| C05B001 Brake Hydraulic Circuit L1 Leaky | |
|--|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none"> 1. The brake pipeline leaks. 2. Ingress of air into the brake line. 3. The internal pressure sensor of intelligent power brake control module is faulty. |
| Fault setting conditions | The deviation of the actual pressure of the Smart power brake controller from the set pressure is beyond the setting range. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|-----------------------|
| 2 | Check the brake pipe. |
|---|-----------------------|

1. Verify whether the brake hose is leaked.

Yes

Repair or replace the brake pipeline, and remove the air from the intelligent power braking system.

No

| | |
|---|---|
| 3 | Conduct offline exhaust operation for intelligent power braking system. |
|---|---|

1. Check that there is no residual air in the intelligent power braking system.
2. After re-ignition, the vehicle shall be stationary for 15 seconds, during which there shall be no braking-related action.
3. Push the brake pedal to the bottom (close to 78 bar) and hold it for 2 seconds.
4. Rediagnose and check for the reoccurrence of fault.

No

The system is normal.

Yes

Replace the smart power brake controller.

C2A1700 Brake Hydraulic Circuit L1 Overcompensation (air Present)

DTC Description

| C2A1700 Brake Hydraulic Circuit L1 Overcompensation (air Present) | |
|---|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | <ol style="list-style-type: none"> 1. The brake pipeline leaks. 2. Ingress of air into the brake line. 3. The internal pressure sensor of intelligent power brake control module is faulty. |
| Fault setting conditions | The deviation of the actual pressure of the Smart power brake controller from the set pressure is beyond the setting range. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|-----------------------|
| 2 | Check the brake pipe. |
|---|-----------------------|

1. Verify whether the brake hose is leaked.

Yes

Repair or replace the brake pipeline, and remove the air from the intelligent power braking system.

No

| | |
|---|---|
| 3 | Conduct offline exhaust operation for intelligent power braking system. |
|---|---|

1. Check that there is no residual air in the intelligent power braking system.
2. After re-ignition, the vehicle shall be stationary for 15 seconds, during which there shall be no braking-related action.
3. Push the brake pedal to the bottom (close to 78 bar) and hold it for 2 seconds.
4. Rediagnose and check for the reoccurrence of fault.

No

The system is normal.

Yes

Replace the smart power brake controller.

P060B00 ECU Hardware Fault(A/D processor)

DTC Description

| P060B00 ECU Hardware Fault(A/D processor) | |
|---|---|
| Symptom | Failure of intelligent power braking system function. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | ECU hardware fault (A/D processor) |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

P060700 ECU Hardware Fault

DTC Description

| P060700 ECU Hardware Fault | |
|----------------------------|---|
| Symptom | Failure of intelligent power braking system function. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | ECU Hardware Failure |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

P06B800 ECU Internal Control Module Fault(NVRAM memory)**DTC Description**

| P06B800 ECU Internal Control Module Fault(NVRAM memory) | |
|---|---|
| Symptom | Failure of intelligent power braking system function. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | ECU internal control module fault (NVRAM memory) |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

P060400 ECU Internal Control Module Fault(RAM)**DTC Description**

| P060400 ECU Internal Control Module Fault(RAM) | |
|--|---|
| Symptom | Failure of intelligent power braking system function. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | ECU Hardware Failure |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

P060500 ECU Internal Control Module Fault(ROM)

DTC Description

| P060500 ECU Internal Control Module Fault(ROM) | |
|--|---|
| Symptom | Failure of intelligent power braking system function. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | ECU internal control module fault (ROM) |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|---|
| No | Check the “intermittent fault” . |
| Yes | Replace the smart power brake controller. |

P060C00 ECU Internal Control Module Fault(program running)**DTC Description**

| P060C00 ECU Internal Control Module Fault(program running) | |
|--|---|
| Symptom | Failure of intelligent power braking system function. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | ECU internal control module fault (program running) |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

U030000 ECU Internal Control Module Software Fault

DTC Description

| U030000 ECU Internal Control Module Software Fault | |
|--|---|
| Symptom | Failure of intelligent power braking system function. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | ECU internal control module software fault |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

U300000 Microprocessor Error in ECU

DTC Description

| U300000 Microprocessor Error in ECU | |
|-------------------------------------|---|
| Symptom | Failure of intelligent power braking system function. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | The ECU microprocessor error. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C055000 ECU Fault

DTC Description

| C055000 ECU Fault | |
|--------------------------|---|
| Symptom | Failure of intelligent power braking system function. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | ECU fault |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

P060600 ECM/PCM processor fault

DTC Description

| P060600 ECM/PCM processor fault | |
|---------------------------------|---|
| Symptom | Failure of intelligent power braking system function. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Control processor fault |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C1A3800 System Not Fully Initialized

DTC Description

| C1A3800 System Not Fully Initialized | |
|--------------------------------------|---|
| Symptom | Failure of intelligent power braking system function. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | The system cannot be fully initialized. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C120700 Pump Not Returnable

DTC Description

| C120700 Pump Not Returnable | |
|-----------------------------|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Pump reset failure |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

C055F92 Hydraulic Unit Fault

DTC Description

| C055F92 Hydraulic Unit Fault | |
|------------------------------|--|
| Symptom | Partial failure of intelligent power braking system. |
| Possible Cause | Smart power brake controller internal fault. |
| Fault setting conditions | Hydraulic unit fault. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of intelligent power brake control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the smart power brake controller.

EPB

Diagnosis description

Introduction

When diagnosing the faults of parking brake system, in order to understand and get familiar with the working principle of the parking brake system, go to the description and overview. Confirm the faults described by the customer before diagnosis, and then analyze the cause of the fault of parking brake system , so as to be helpful to confirm the correct fault diagnosis procedures. For inspection and measurement on the lines and components of the parking brake system, give priority to the use of data flow and action test to improve the diagnostic efficiency and shorten the maintenance time. After the fault is confirmed, the precautions and warnings should be understood when repairing the parking brake system, and the standard operation procedure should be implemented. Check the parking brake system and confirm its working condition after repair.

General equipment

- Multimeter
- VDS

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Precautions

Warning:

- Dust deposited on the rear brake is harmful to human body, vacuum cleaner shall be used for cleaning. Blowing with air gun is not allowed.

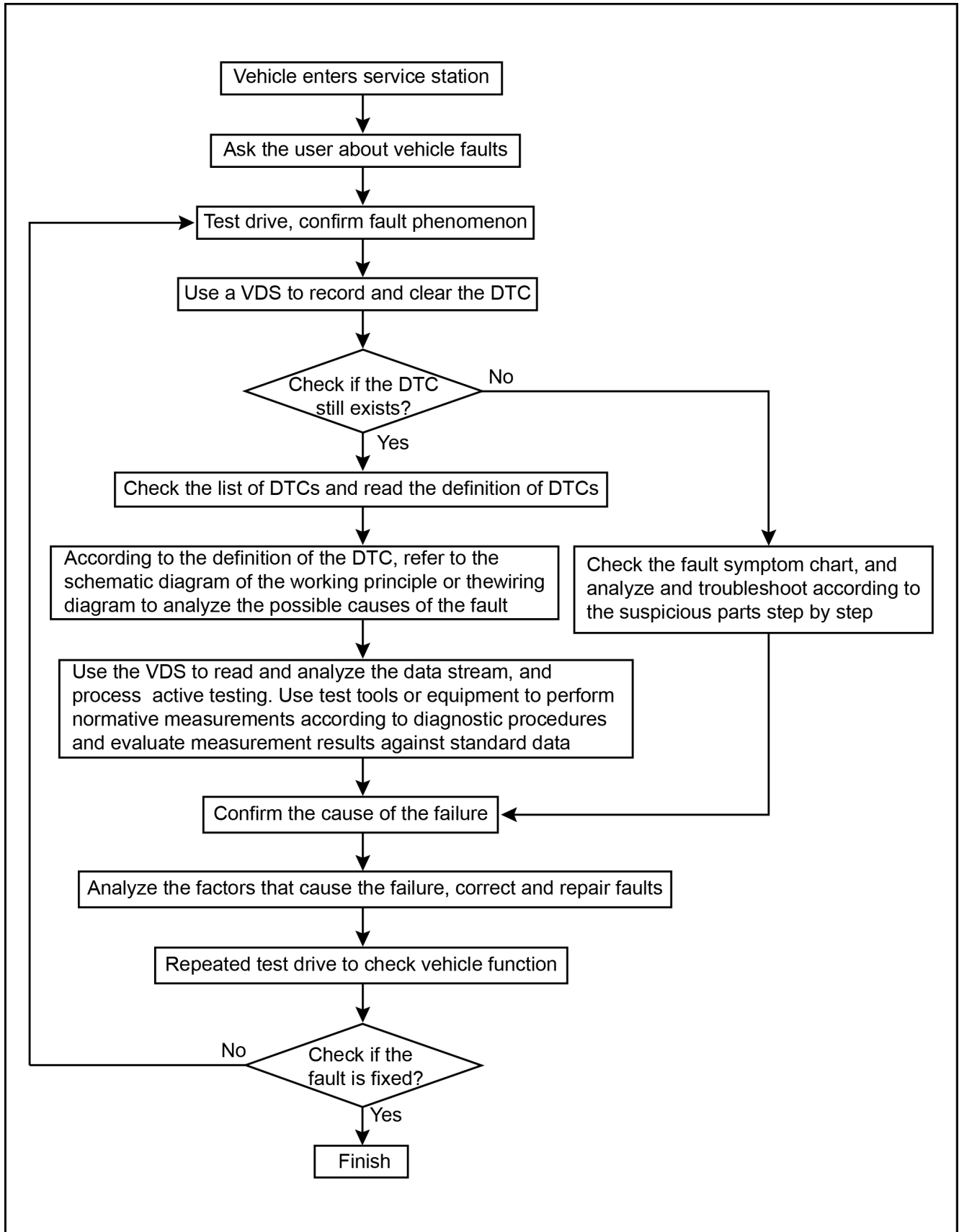
Caution:

When the parking brake is working, the parking brake indicator and the parking brake switch indicator on the combination instrument lights up.

When the car comes up the following electronic parking brake system faults, the braking system warning light will light up.

- Fail to determine the state (applied or released) of the brake.
- Parking brake switch fault
- EPB motor fails to work.

Process of fault inspection and troubleshooting



Diagnosis of General Faults

Visual inspection

1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Fault List

| Symptom | Possible cause | Suggested maintenance measures |
|---|--|--|
| Function failure of Parking brake release | <ol style="list-style-type: none"> 1. EPB switch 2. EPB control module. 3. EPB motor | To diagnose all diagnostic DTC in EPB control module, go to DTC list . |
| Function failure of Parking brake apply | <ol style="list-style-type: none"> 1. EPB switch 2. EPB control module. 3. EPB motor | To diagnose all diagnostic DTC in EPB control module, go to DTC list . |
| Low braking force of parking brake | <ol style="list-style-type: none"> 1. Rear brake. 2. Rear brake pad. 3. Rear brake disc 4. EPB motor | <ol style="list-style-type: none"> 1. To diagnose all diagnostic DTC in EPB control module, go to DTC list. 2. If there is no DTC, check the brake pad, brake disc, and brake. Replace the EPB motor if no abnormality is found. |
| High braking force of the parking brake | <ol style="list-style-type: none"> 1. Rear brake. 2. EPB motor | <ol style="list-style-type: none"> 1. To diagnose all diagnostic DTC in EPB control module, go to DTC list. 2. If there is no DTC, check the rear brake. Replace the EPB motor if there is no abnormality is found. |

DTC Diagnosis

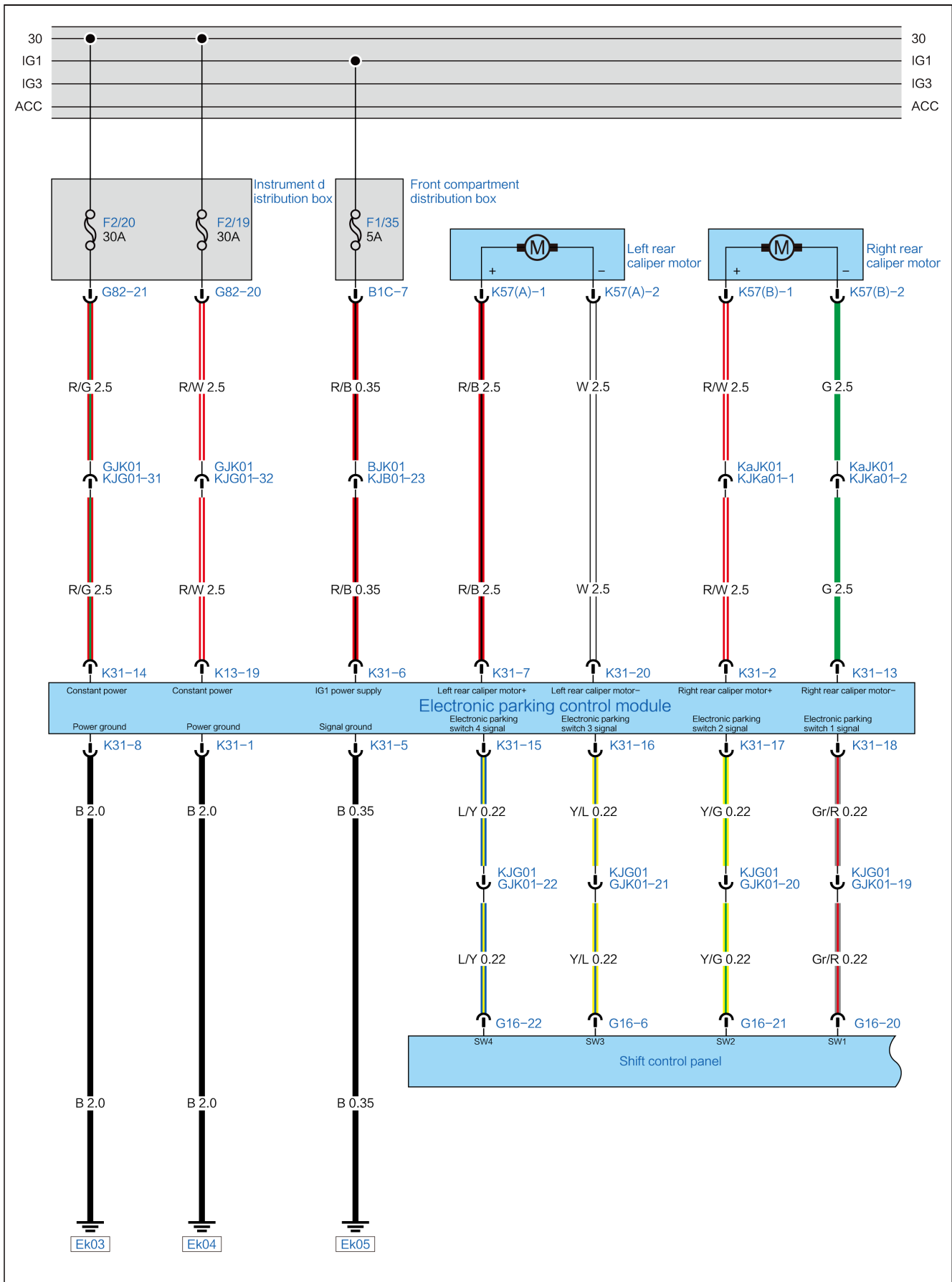
List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|---------------------------------|--|
| U300316 | Battery soft undervoltage fault | U300316 Battery Soft Undervoltage Fault(independent) |
| U300317 | Battery soft overvoltage fault | U300317 Battery Soft Overvoltage Fault(independent) |
| C117009 | EPB switch fault | C117009 EPB Switch Fault(independent) |
| C11B013 | Left motor or line fault | C11B013 Left Motor or Line Fault(independent) |
| C11B113 | Right motor or line fault | C11B113 Right Motor or Line Fault(independent) |
| C110009 | Control module main chip fault | C110009 Control Module Main Chip Fault(independent) |
| C11A006 | Actuator Overload | C11A006 Actuator Overload(independent) |
| U300316 | Battery soft undervoltage fault | U300316 Battery Soft Undervoltage Fault(integrated) |
| U300317 | Battery soft overvoltage fault | U300317 Battery Soft Overvoltage Fault(integrated) |
| C117009 | EPB switch fault | C117009 EPB Switch Fault(integrated) |
| C11B013 | Left motor or line fault | C11B013 Left Motor or Line Fault(integrated) |
| C11B113 | Right motor or line fault | C11B113 Right Motor or Line Fault(integrated) |
| C110009 | Control module main chip fault | C110009 Control Module Main Chip Fault(integrated) |
| C11A006 | Actuator Overload | C11A006 Actuator Overload(integrated) |

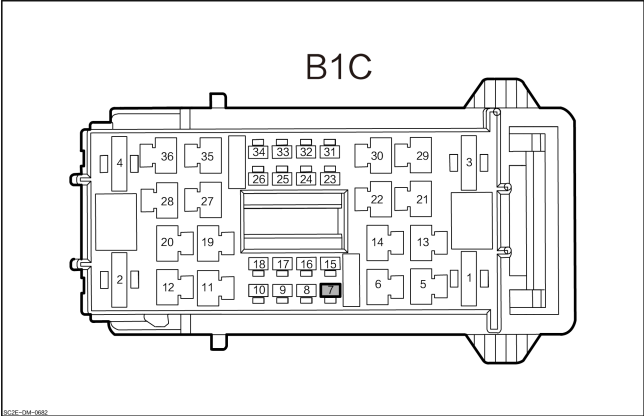
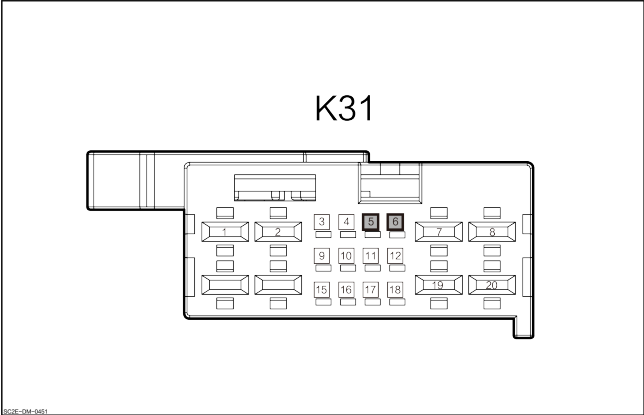
U300316 Battery Soft Undervoltage Fault(independent)

| U300316 Battery Soft Undervoltage Fault | |
|---|---|
| Symptom | EPB fails. |
| Possible Cause | <ol style="list-style-type: none"> 1. Battery fault. 2. Fuse has blew. 3. Harness or connector fault. 4. Charging system malfunction 5. The electronic parking control module fails. |
| Fault setting conditions | Voltage is less than 9V for a duration $\geq 2s$. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p style="text-align: center;">Front compartment fuse box</p>  <p style="text-align: center;">B1C</p> | 7 | IG1 power supply of electronic parking control module |
| <p style="text-align: center;">Electronic parking control module</p>  <p style="text-align: center;">K31</p> | 5 | Ground |
| | 6 | IG1 power supply |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the electronic parking control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

The fault is triggered by disconnecting the negative pole of the battery or by low voltage.

Yes

| | |
|---|----------------------------|
| 2 | Check the charging system. |
|---|----------------------------|

1. Set the start/stop button to OK.
2. Check whether the instrument charging system fault warning lamp is on.

Yes

Diagnose “charging system” .

No

| | |
|---|--------------------------|
| 3 | Test the battery status. |
|---|--------------------------|

1. Set the start/stop button to OFF.
2. Perform a battery condition test.
3. Does the status of the battery pass the test?

No

Replace the battery

Yes

| | |
|---|---|
| 4 | Check the fuse for electronic parking control module. |
|---|---|

1. Check whether the front compartment fuse box fuse F1/35 (5A) is normal or not.

No

Replace the fuse

Yes

| | |
|---|---|
| 5 | Check the harness and connector of electronic parking control module. |
|---|---|

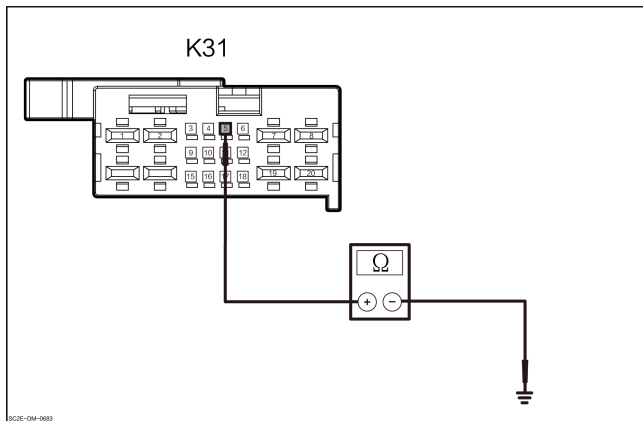
1. Disconnect the harness connector of electronic parking control module K31.
2. Check the harness connector of electronic parking control module for normal function.

No

Repair or replace the wire harness

Yes

6 Check the EPB module ground line for open circuit.



1. Check the resistance between the harness connector of electronic parking control module K31-5 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K31-5 | Ground | Through- out | Lower than 1 Ω |

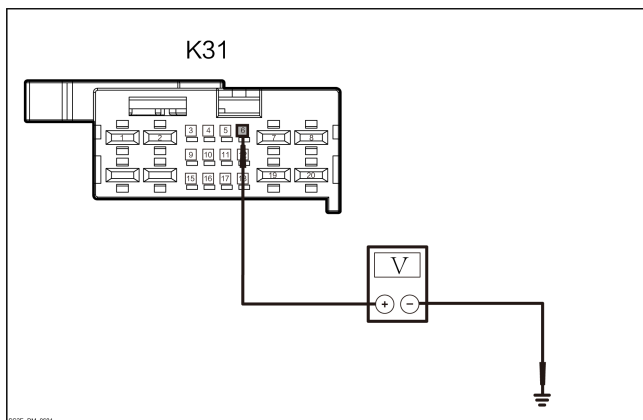
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Check the IG1 power supply of EPB control module for open circuit.



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of electronic parking control module K31-6 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| K31-6 | Ground | Through- out | 11~14V |

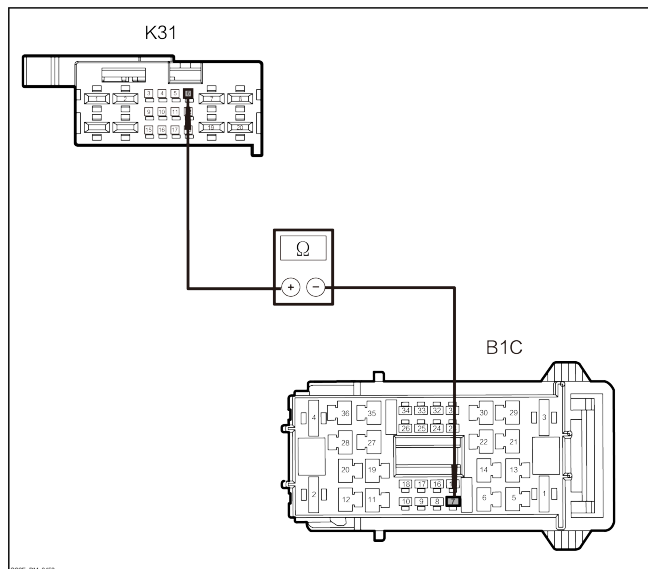
3. Check whether the results are normal.

Yes

Replace the electronic parking control module.

No

8 Check the IG1 power supply of EPB control module for open circuit.



1. Set the start/stop button to the OFF position.
2. Disconnect the front compartment fuse box harness connector B1C.
3. Measure the resistance between the harness connector of EPB control module K31-6 and the harness connector of front compartment fuse box B1C-7.

| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| K31-6 | B1C-7 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

| | |
|-----|---|
| No | Repair or replace the wire harness |
| Yes | Replace the front compartment fuse box. |

U300317 Battery Soft Overvoltage Fault(independent)

DTC Description

| U300317 Battery soft overvoltage fault | |
|--|---|
| Symptom | EPB fails. |
| Possible Cause | 1. Charging system malfunction 2. The electronic parking control module fails. |
| Fault setting conditions | Voltage is more than 16V for a duration $\geq 2s$. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the electronic parking control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|----------------------------|
| 2 | Check the charging system. |
|---|----------------------------|

1. Set the start/stop button to OK.
2. Measure the charging system voltage value.

| Battery | | Condition | Voltage value |
|--------------------|--------------------|-------------|---------------|
| (+) | (-) | | |
| Positive electrode | Negative electrode | Through-out | 11~14V |

3. Check whether the results are normal.

No → Diagnose “charging system” .

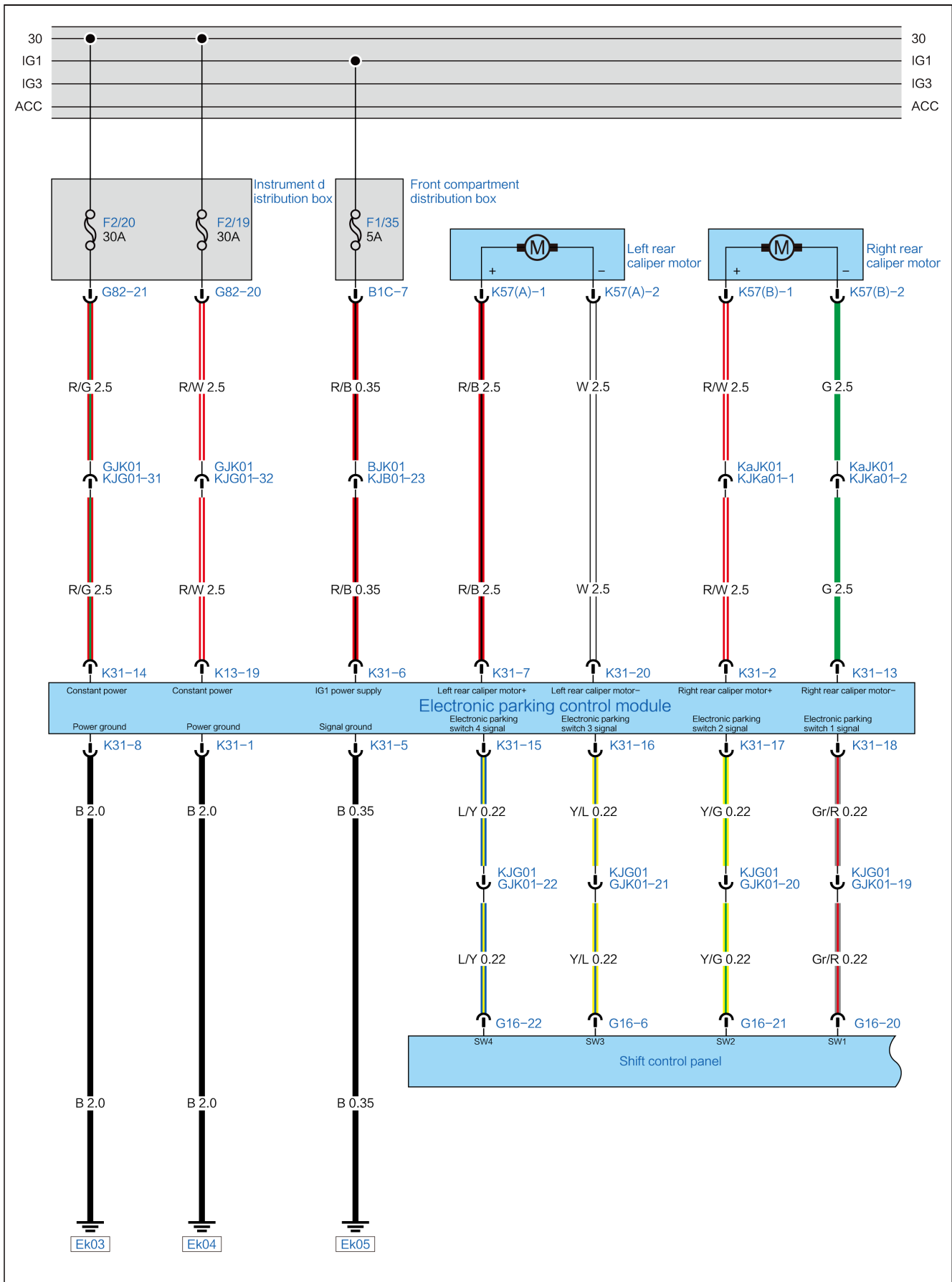
Yes → Replace the electronic parking control module.

C117009 EPB Switch Fault(independent)

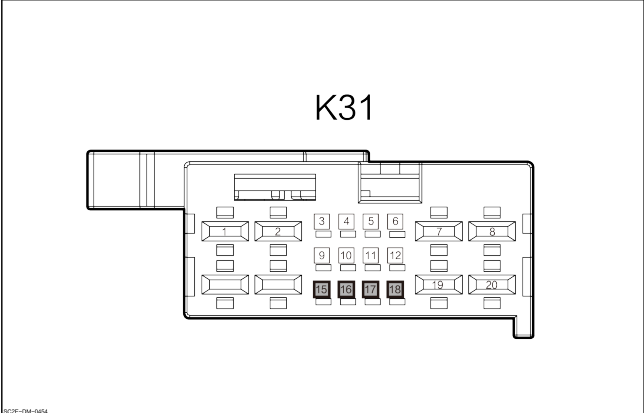
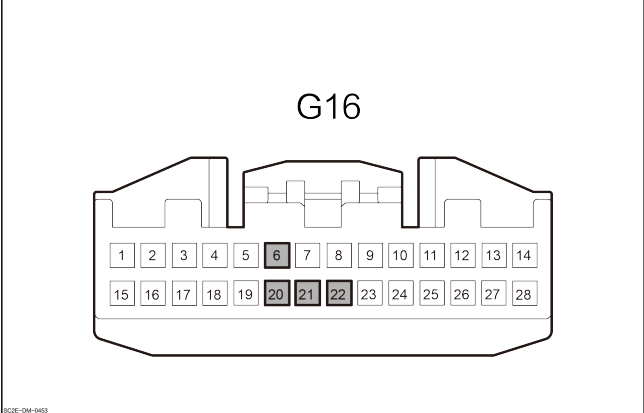
DTC Description

| C117009 EPB switch fault | |
|--------------------------|--|
| Symptom | Parking brake fails. |
| Possible Cause | 1. Harness or connector fault. 2. EPB switch fault 3. The electronic parking control module fails. |
| Fault setting conditions | EPB switch fault counter reading record. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p>Electronic parking control module</p>  <p>K31</p> | 15 | SW4 |
| | 16 | SW3 |
| | 17 | SW2 |
| | 18 | SW1 |
| <p>Electronic parking switch</p>  <p>G16</p> | 6 | SW3 |
| | 20 | SW1 |
| | 21 | SW2 |
| | 22 | SW4 |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the electronic parking control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the EPB switch harness connector. |
|---|---|

1. Set the start/stop button to the OFF position.
2. Disconnect the EPB switch harness connector G16.
3. Check whether the EPB switch harness connector is normal.

No → Repair or replace the wire harness

Yes

| | |
|---|----------------------|
| 3 | Check the EPB switch |
|---|----------------------|

1. Measure the resistance value between the harness connector pins of the EPB switch.

| Connector | | Condition | Resist- ance value |
|-----------|--------|------------------------|--------------------------|
| (+) | (-) | | |
| G16-22 | G16-20 | No action of switch | Lower than 1 Ω |
| G16-6 | G16-21 | | Lower than 1 Ω |
| G16-22 | G16-6 | | Above 10k Ω |
| G16-21 | G16-20 | | Above 10k Ω |

| | | | |
|--------|--------|---------------------|-----------------------|
| G16-22 | G16-20 | Switch pulled up | Above 10k Ω |
| G16-22 | G16-6 | | Lower than 1 Ω |
| G16-22 | G16-21 | | Lower than 1 Ω |
| G16-21 | G16-20 | | Above 10k Ω |
| G16-22 | G16-21 | Switch pressed down | Lower than 1 Ω |
| G16-22 | G16-6 | | Above 10k Ω |
| G16-22 | G16-20 | | Lower than 1 Ω |
| G16-6 | G16-21 | | Above 10k Ω |

2. Check whether the results are normal.

No

Replace the EPB switch.

Yes

4

Check the harness connector of electronic parking control module.

1. Disconnect the harness connector of electronic parking control module K31.
2. Check the harness connector of electronic parking control module for normal function.

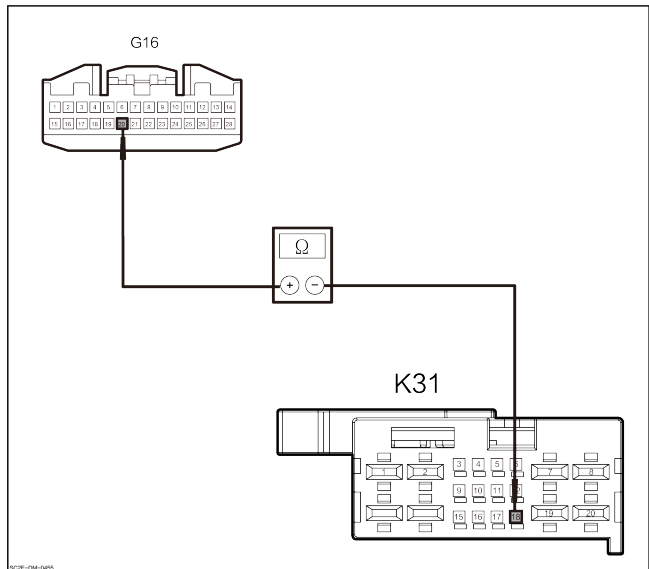
No

Repair or replace the wire harness

Yes

5

Check the EPB switch SW1 signal line for open circuit.



1. Measure the resistance between the harness connector of EPB switch G16-20 and the harness connector of EPB module K31-18.

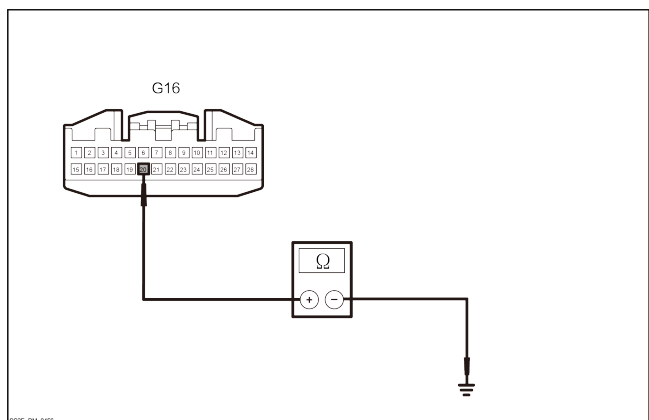
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| G16-20 | K31-18 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the EPB switch SW1 signal line for short circuit to ground.



1. Measure the resistance between the harness connector of EPB switch G16-20 and the ground.

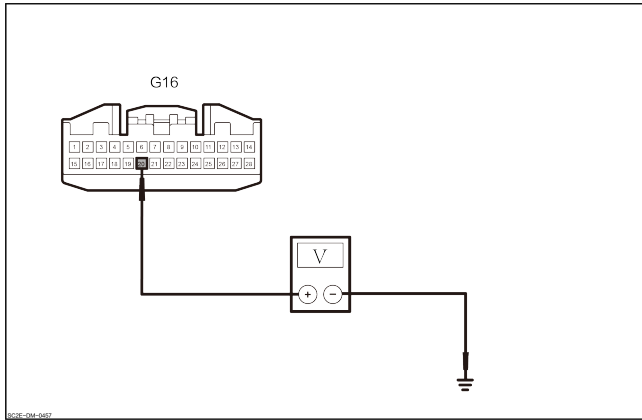
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| G16-20 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the EPB switch SW1 signal line for short circuit to the power supply.



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of EPB switch G16-20 and the ground.

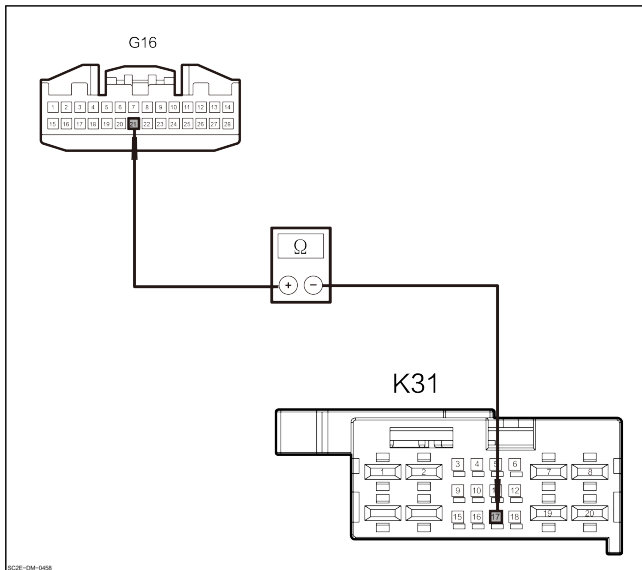
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G16-20 | Ground | Through-out | Less than 1V |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the EPB switch SW2 signal line for open circuit.



1. Set the start/stop button to OFF.
2. Measure the resistance between the harness connector of EPB switch G16-21 and the harness connector of EPB module K31-17.

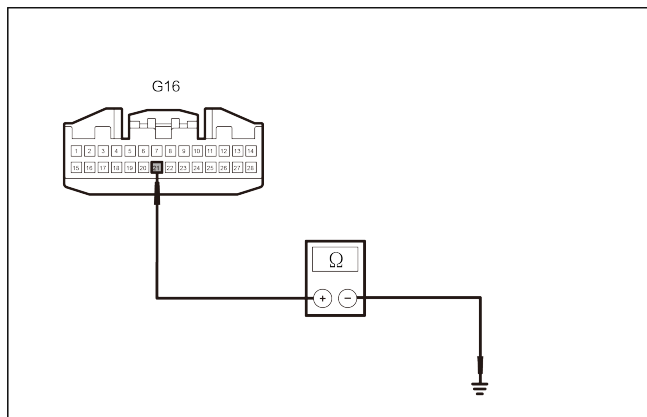
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| G16-21 | K31-17 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

9 Check the EPB switch SW2 signal line for short circuit to ground.



1. Measure the resistance between the harness connector of EPB switch G16-21 and the ground.

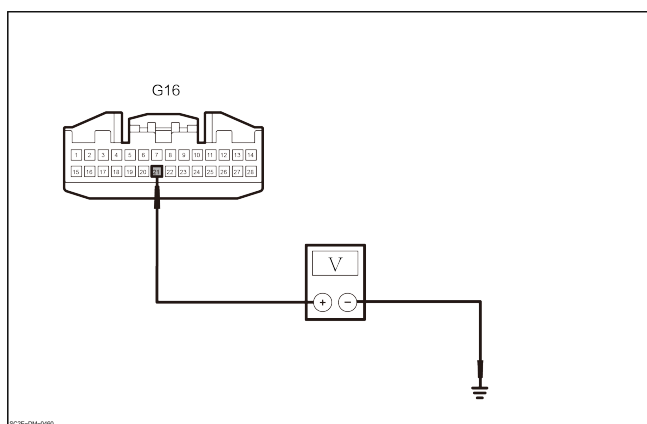
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G16-21 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

10 Check the EPB switch SW2 signal line for short circuit to the power supply.



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of EPB switch G16-21 and the ground.

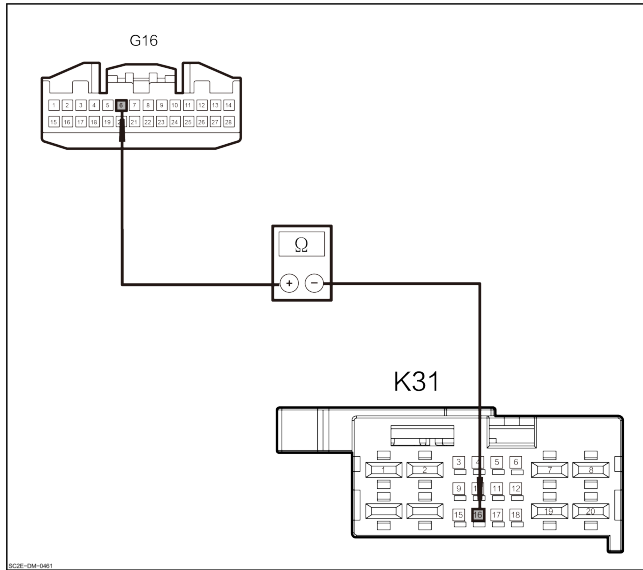
| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G16-21 | Ground | Through- out | Less than 1V |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

11 Check the EPB switch SW3 signal line for open circuit.



1. Set the start/stop button to OFF.
2. Measure the resistance between the harness connector of EPB switch G16-6 and the harness connector of EPB module K31-16.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G16-6 | K31-16 | Through- out | Lower than 1 Ω |

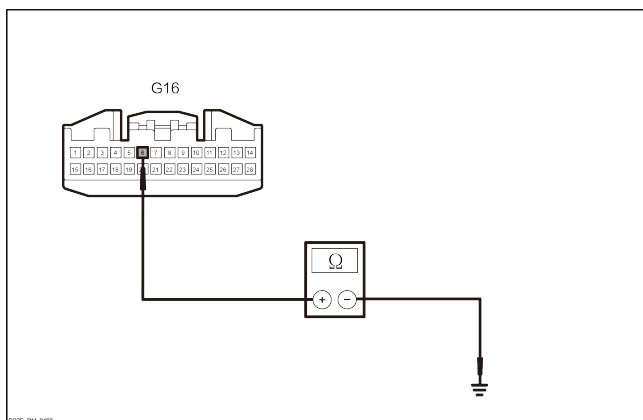
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

12 Check the EPB switch SW3 signal line for short circuit to ground.



1. Measure the resistance between the harness connector of EPB switch G16-6 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G16-6 | Ground | Through- out | Above 10K Ω |

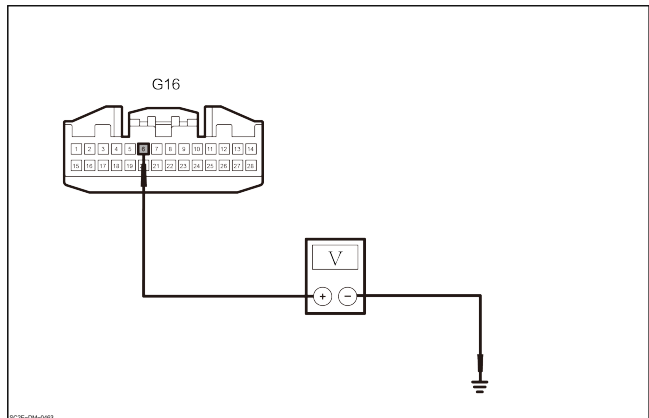
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

13 Check the EPB switch SW3 signal line for short circuit to the power supply.



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of EPB switch G16-6 and the ground.

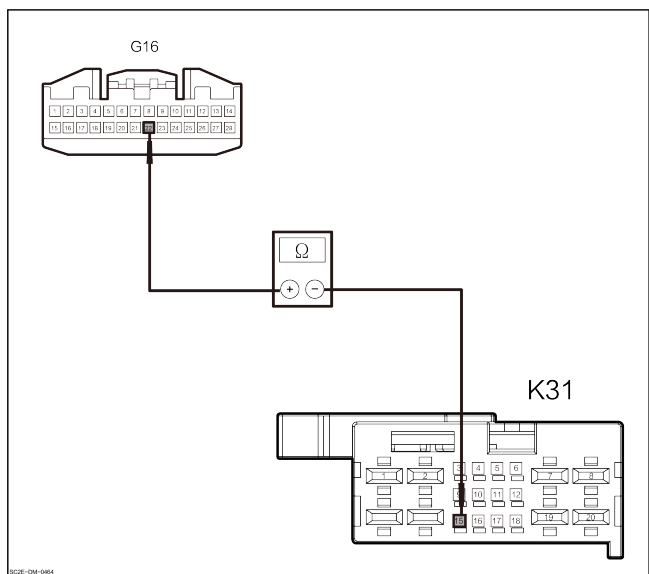
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G16-6 | Ground | Through-out | Less than 1V |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

14 Check the EPB switch SW4 signal line for open circuit.



1. Set the start/stop button to OFF.
2. Measure the resistance between the harness connector of EPB switch G16-22 and the harness connector of EPB module K31-15.

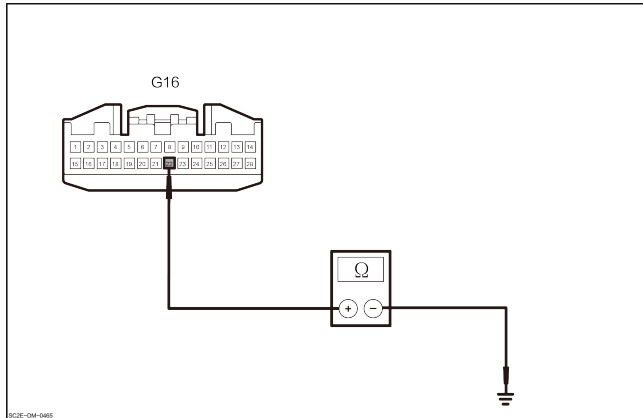
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| G16-22 | K31-15 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

15 Check the EPB switch SW4 signal line for short circuit to ground.



1. Measure the resistance between the harness connector of EPB switch G16-22 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G16-22 | Ground | Through- out | Above 10K Ω |

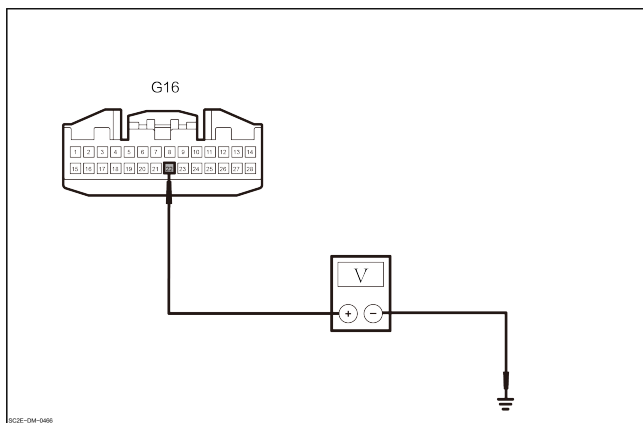
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

16 Check the EPB switch SW4 signal line for short circuit to the power supply.



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of EPB switch G16-22 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G16-22 | Ground | Through- out | Less than 1V |

3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

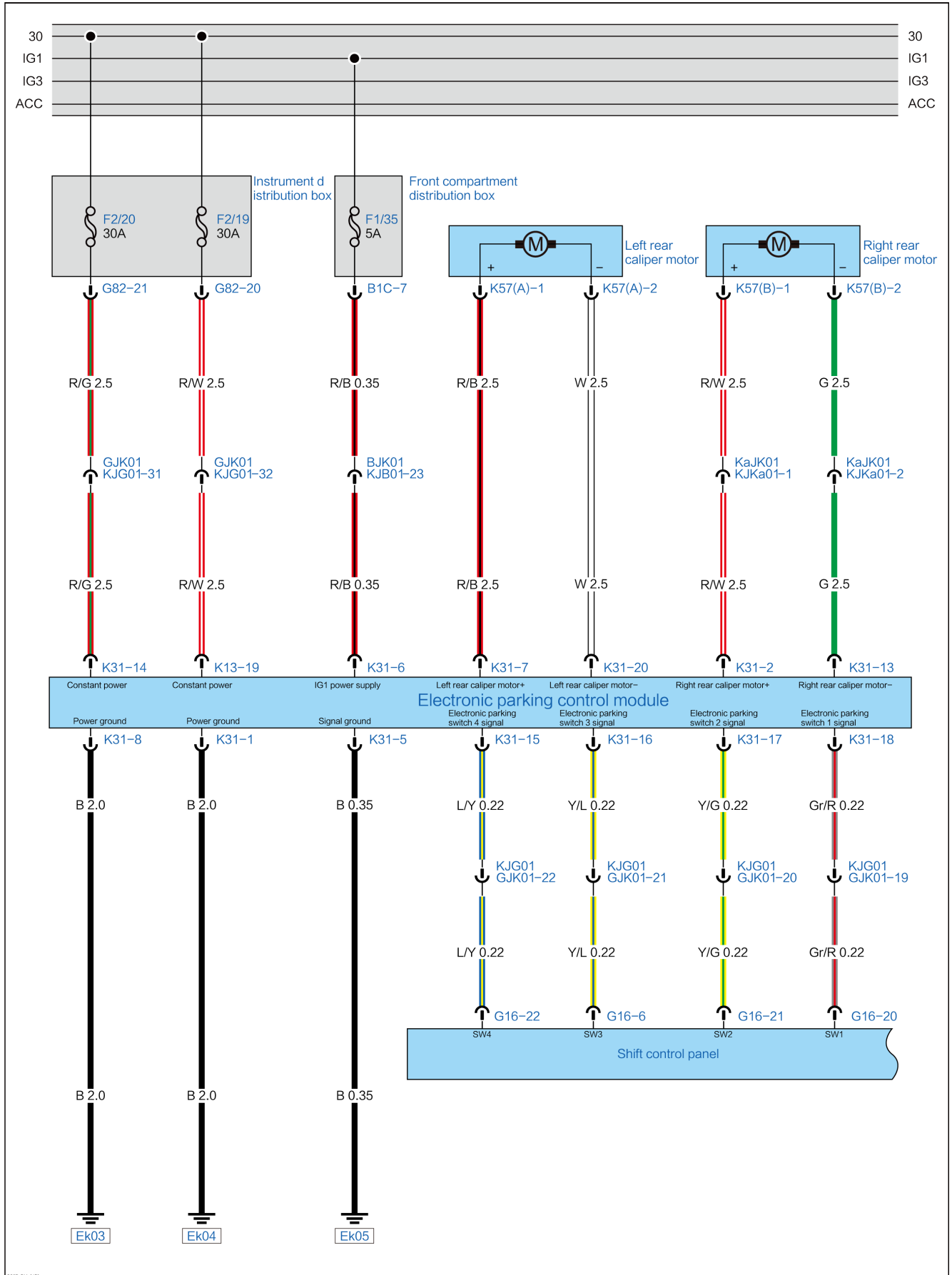
Replace the electronic parking control module.

C11B013 Left Motor or Line Fault(independent)

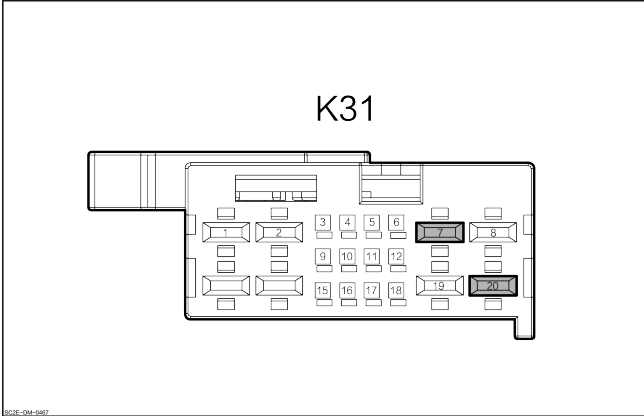
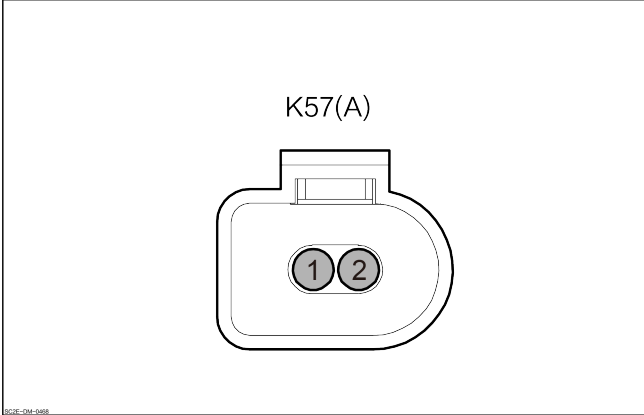
DTC Description

| C11B013 Left motor or line fault | |
|----------------------------------|--|
| Symptom | Left parking brake fails. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The electronic parking control module fails. 3. Left rear caliper motor fails. |
| Fault setting conditions | The left parking brake cannot pass through during calibration. |
| Trigger fault conditions | Set the START/STOP button to “ON” , and pull up or press the EPB switch. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p>Electronic parking control module</p>  <p>K31</p> | 7 | M+ |
| <p>Left rear caliper motor</p>  <p>K57(A)</p> | 1 | M+ |
| | 2 | M- |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the electronic parking control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness and connector of left rear caliper motor. |
|---|---|

1. Set the start/stop button to the OFF position.
2. Disconnect the harness connector of left rear caliper motor K57(A).
3. Check the harness connector of left rear caliper motor for normal function.

No → Repair or replace the wire harness

Yes

| | |
|---|--------------------------------|
| 3 | Check left rear caliper motor. |
|---|--------------------------------|

1. Connect the left rear caliper motor to the external power supply.
2. Does the left rear caliper motor function normally.

No → Replace left rear caliper motor.

Yes

| | |
|---|--------------------------------|
| 4 | Check left rear caliper motor. |
|---|--------------------------------|

1. Check the resistance of coils of left rear caliper motor.

| Left rear caliper motor | | Condition | Reference value |
|-------------------------|-----|-----------|-----------------|
| (+) | (-) | | |

| | | | |
|---------------------------|---------------------------|-------------|-----|
| Left rear caliper motor + | Left rear caliper motor - | Through-out | 2 Ω |
|---------------------------|---------------------------|-------------|-----|

2. Check whether the results are normal.

No → Replace left rear caliper motor.

Yes

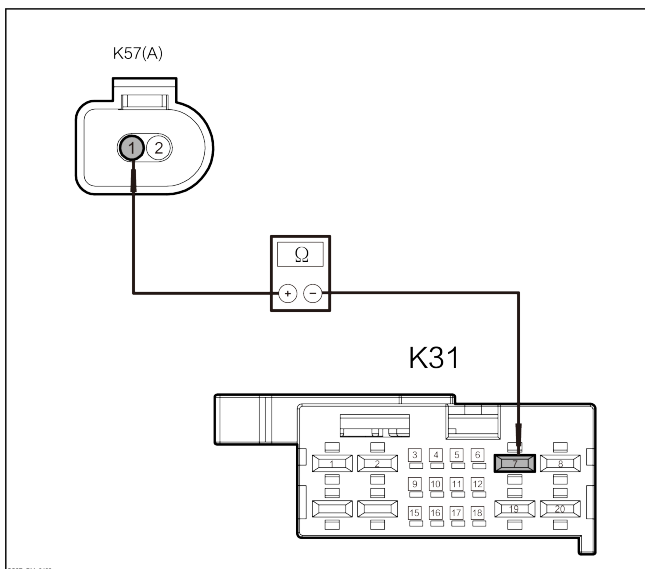
5 Check the harness connector of electronic parking control module.

1. Disconnect the harness connector of electronic parking control module K31.
2. Check the harness connector of electronic parking control module for normal function.

No → Repair or replace the wire harness

Yes

6 Check the left rear caliper motor M+ line for open circuit.



1. Measure the resistance between the harness connector of left rear caliper motor K57(A)-1 and the harness connector of EPB control module K31-7.

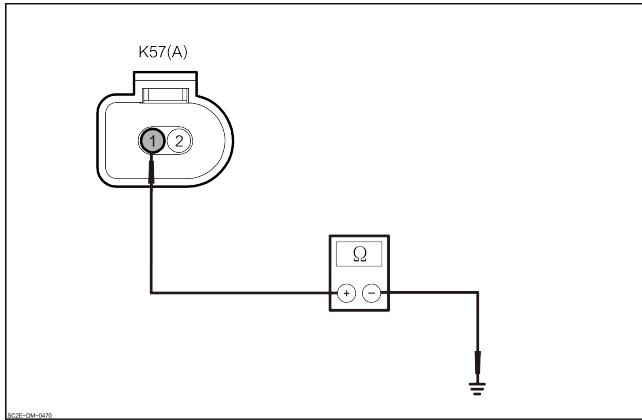
| Connector | | Condition | Resistance value |
|-----------|-------|-------------|------------------|
| (+) | (-) | | |
| K57(A)-1 | K31-7 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the left rear caliper motor M+ line for short to ground.



1. Measure the resistance between the harness connector of left rear caliper motor K57(A)-1 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K57(A)-1 | Ground | Through- out | Above 10K Ω |

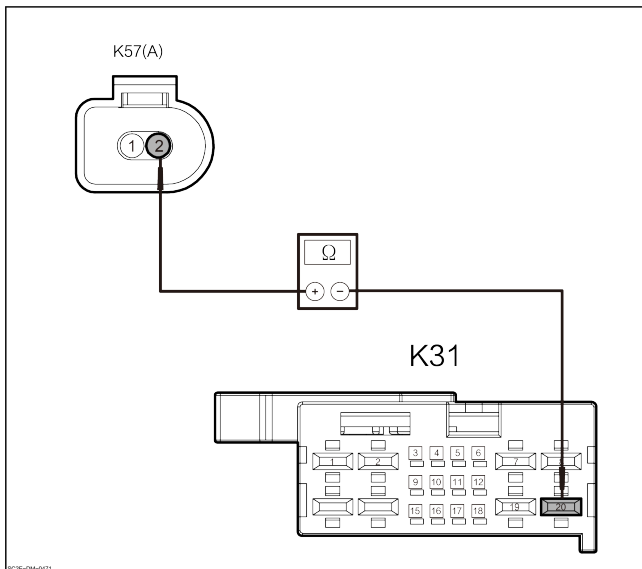
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

8 Check the left rear caliper motor M- line for open circuit.



1. Measure the resistance between the harness connector of left rear caliper motor K57(A)-2 and the harness connector of EPB control module K31-20.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K57(A)-2 | K31-20 | Through- out | Lower than 1 Ω |

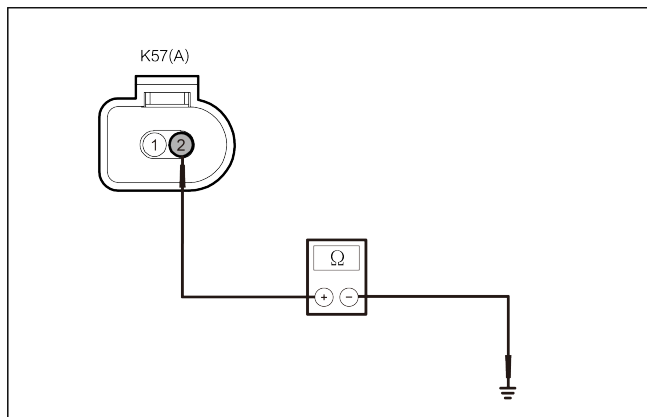
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

9 Check the left rear caliper motor M- line for short to ground.



1. Measure the resistance between the harness connector of left rear caliper motor K57(A)-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K57(A)-2 | Ground | Through- out | Above 10K Ω |

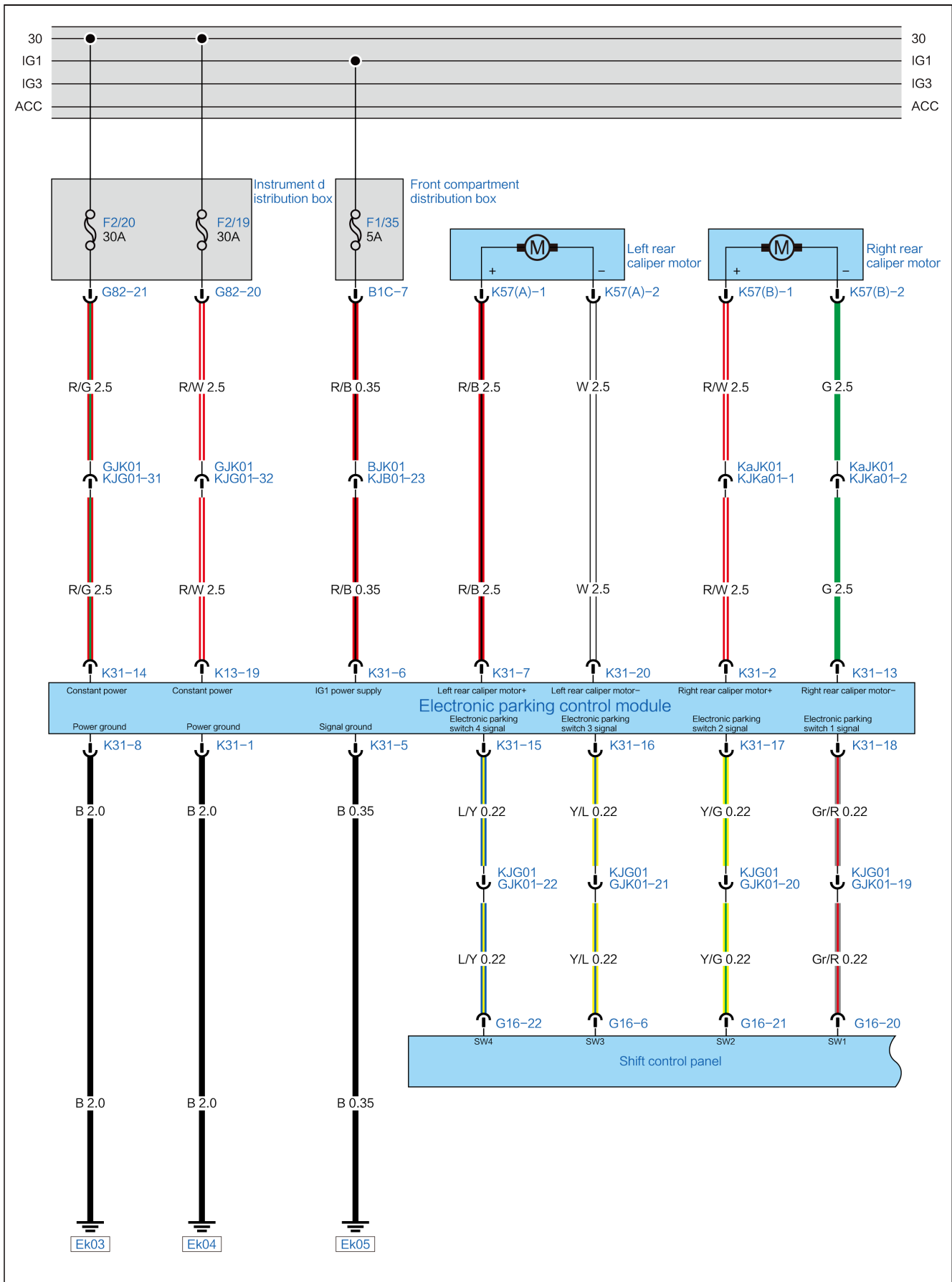
2. Check whether the results are normal.

- No
Repair or replace the wire harness
- Yes
Replace the electronic parking control module.

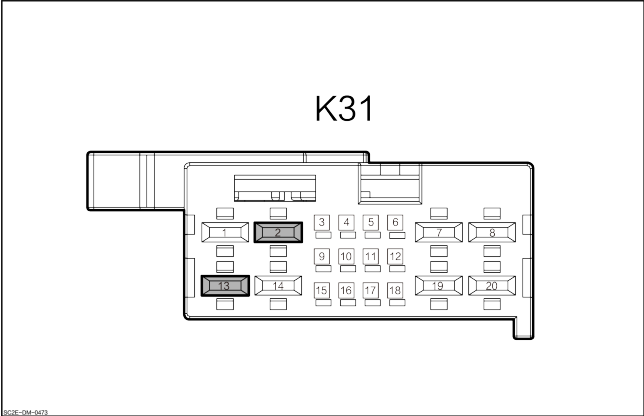
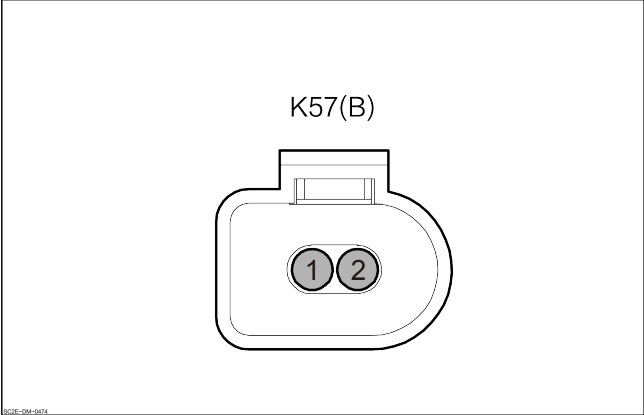
C11B113 Right Motor or Line Fault(independent)**DTC Description**

| C11B113 Right motor or line fault | |
|-----------------------------------|---|
| Symptom | Right parking brake fails. |
| Possible Cause | 1. Harness or connector fault. 2. The electronic parking control module fails. 3. Right rear caliper motor fails. |
| Fault setting conditions | The parking brake on the right side cannot pass during the calibration. |
| Trigger fault conditions | Set the START/STOP button to “ON” , and pull up or press the EPB switch. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p>Electronic parking control module</p>  <p>K31</p> | 2 | M+ |
| | 13 | M- |
| <p>Right rear caliper motor</p>  <p>K57(B)</p> | 1 | M+ |
| | 2 | M- |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the electronic parking control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness and connector of right rear caliper motor. |
|---|--|

1. Set the START/STOP button to OFF.
2. Disconnect the harness connector of right rear caliper motor K57(B).
3. Check the harness connector of right rear caliper motor for normal function.

No → Repair or replace the wire harness

Yes

| | |
|---|---------------------------------|
| 3 | Check right rear caliper motor. |
|---|---------------------------------|

1. Connect the right rear caliper motor to the external power supply.
2. Does the right rear caliper motor function normally.

No → Replace right rear caliper motor.

Yes

| | |
|---|---------------------------------|
| 4 | Check right rear caliper motor. |
|---|---------------------------------|

1. Check the resistance of coils of right rear caliper motor.

| | | | |
|--------------------------|-----|-----------|-------------------------|
| Right rear caliper motor | | Condition | Refer- ence value |
| (+) | (-) | | |

| | | | |
|---------------------------|---------------------------|-------------|-----|
| Left rear caliper motor + | Left rear caliper motor - | Through-out | 2 Ω |
|---------------------------|---------------------------|-------------|-----|

2. Check whether the results are normal.

No → Replace right rear caliper motor.

Yes

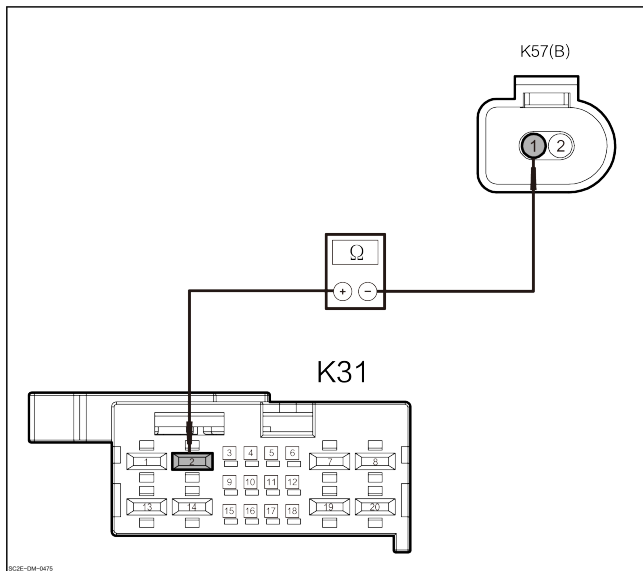
5 Check the harness connector of electronic parking control module.

1. Disconnect the harness connector of electronic parking control module K31.
2. Check the harness connector of electronic parking control module for normal function.

No → Repair or replace the wire harness

Yes

6 Check the right rear caliper motor M+ line for open circuit.



1. Measure the resistance between the harness connector of right rear caliper motor K57(B)-1 and the harness connector of EPB control module K31-2.

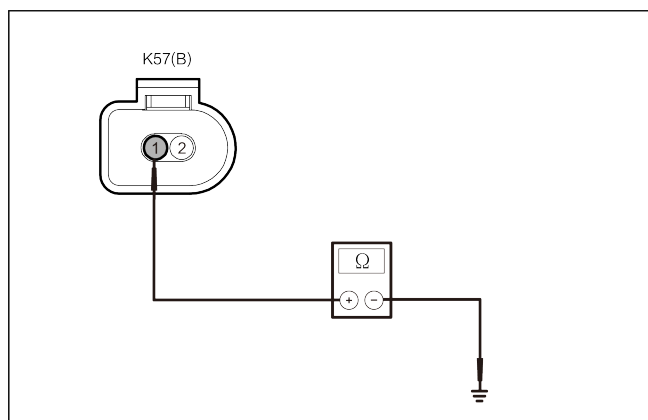
| Connector | | Condition | Resist- ance value |
|-----------|----------|-------------|--------------------------|
| (+) | (-) | | |
| K31-2 | K57(A)-1 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the right rear caliper motor M+ line for short to ground.



1. Measure the resistance between the harness connector of right rear caliper motor K57(B)-1 and the ground.

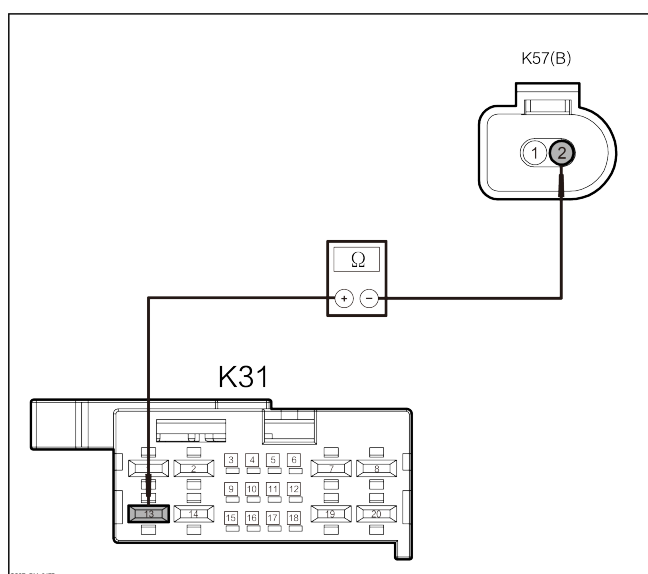
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|--------------------|
| (+) | (-) | | |
| K57(B)-1 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

8 Check the right rear caliper motor M- line for open circuit.



1. Measure the resistance between the harness connector of right rear caliper motor K57(B)-2 and the harness connector of EPB control module K31-13.

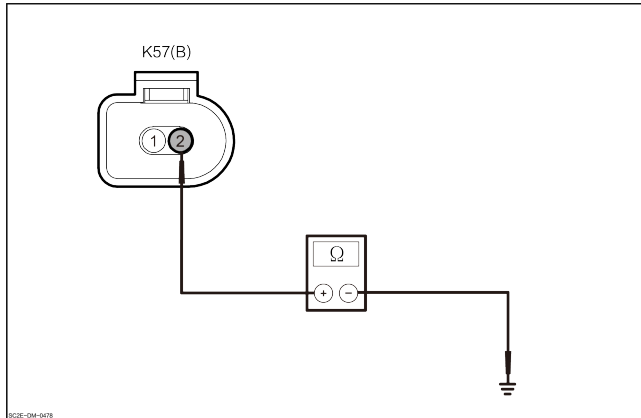
| Connector | | Condition | Resistance value |
|-----------|----------|-------------|-----------------------|
| (+) | (-) | | |
| K31-13 | K57(B)-2 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

9 Check the right rear caliper motor M- line for short to ground.



1. Measure the resistance between the harness connector of right rear caliper motor K57(B)-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K57(B)-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the electronic parking control module.

C110009 Control Module Main Chip Fault(independent)**DTC Description**

| C110009 Controller main chip fault | |
|------------------------------------|---|
| Symptom | EPB fails. |
| Possible Cause | EPB control module. |
| Fault setting conditions | Controller main chip fault |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnosis

| | |
|---|--|
| 1 | Check the electronic parking control module DTC. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the electronic parking control module.

C11A006 Actuator Overload(independent)

DTC Description

| C11A006 Actuator Overload | |
|---------------------------|---|
| Symptom | EPB fails. |
| Possible Cause | EPB control module. |
| Fault setting conditions | The actuator is overloaded. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the DTC of EPB controller. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

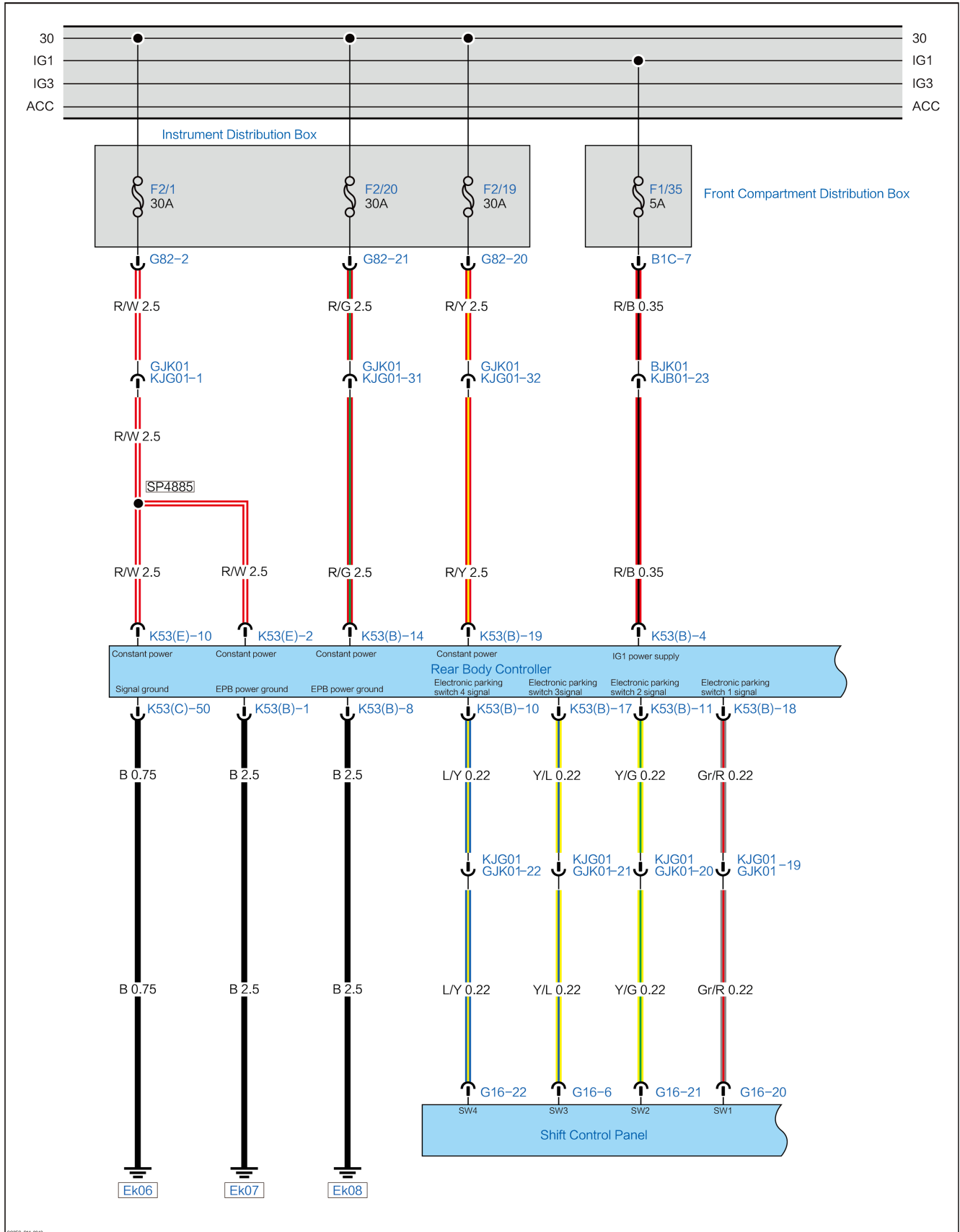
Yes

Replace the EPB controller.

U300316 Battery Soft Undervoltage Fault(integrated)

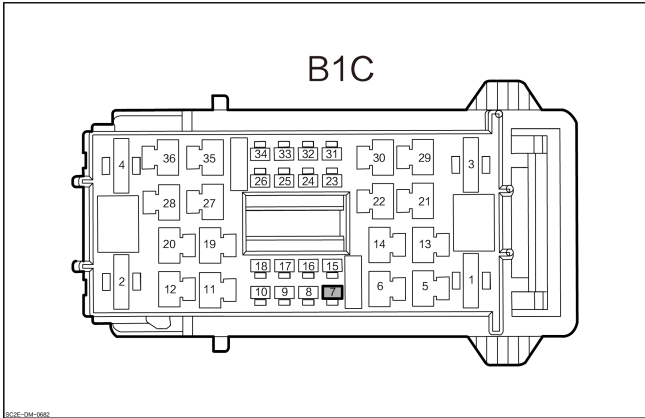
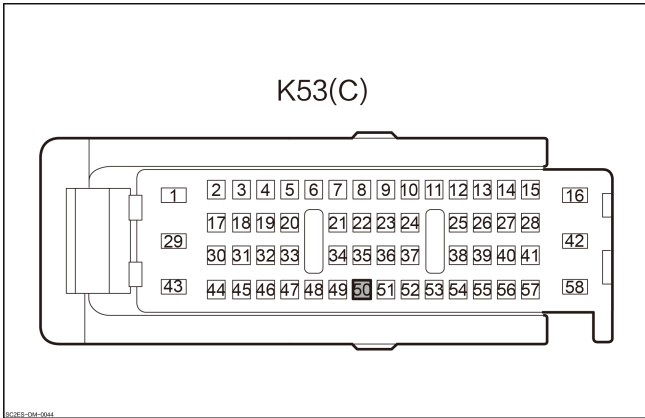
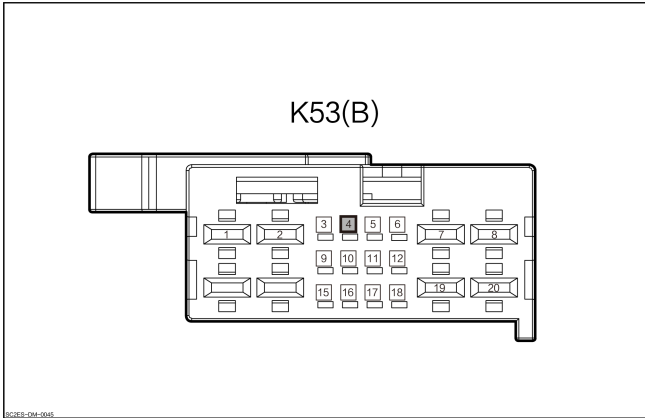
| U300316 Battery Soft Undervoltage Fault | |
|---|--|
| Symptom | EPB fails. |
| Possible Cause | <ol style="list-style-type: none"> 1. Battery fault. 2. Fuse has blew. 3. Harness or connector fault. 4. Charging system malfunction 5. Rear body control module fault. |
| Fault setting conditions | Voltage is less than 9V for a duration $\geq 2s$. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



8208-DW-0043

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p style="text-align: center;">Front compartment fuse box</p>  <p style="text-align: center;">B1C</p> | 7 | IG1 power supply of rear body control module |
| <p style="text-align: center;">Rear body control module</p>  <p style="text-align: center;">K53(C)</p> | 50 | Ground |
| <p style="text-align: center;">Rear body control module</p>  <p style="text-align: center;">K53(B)</p> | 4 | IG1 power supply |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the rear body control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

The fault is triggered by disconnecting the negative pole of the battery or by low voltage.

Yes

| | |
|---|----------------------------|
| 2 | Check the charging system. |
|---|----------------------------|

1. Set the start/stop button to OK.
2. Check whether the instrument charging system fault warning lamp is on.

Yes

Diagnose “charging system” .

No

| | |
|---|--------------------------|
| 3 | Test the battery status. |
|---|--------------------------|

1. Set the start/stop button to OFF.
2. Perform a battery condition test.
3. Does the status of the battery pass the test?

No

Replace the battery

Yes

| | |
|---|--|
| 4 | Check the fuse for rear body control module. |
|---|--|

1. Check whether the front compartment fuse box fuse F1/35 (5A) is normal or not.

No

Replace the fuse

Yes

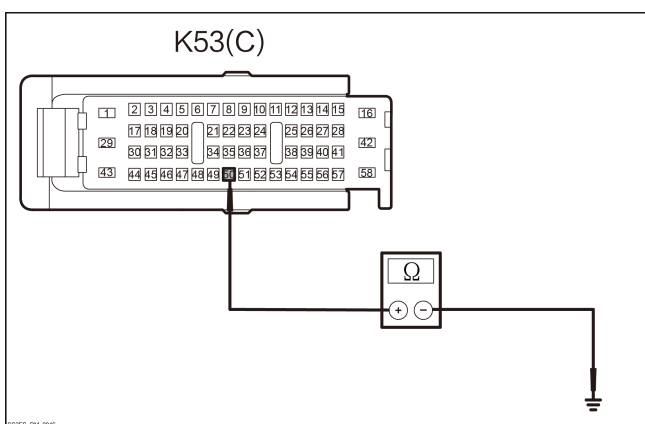
| | |
|---|--|
| 5 | Check the harness and connector of the rear body control module. |
|---|--|

1. Disconnect the harness connector of rear body control module K53(C).
2. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the ground harness of rear body control module for open circuit..



1. Check the resistance between the harness connector of rear body control module K53(C)-50 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K53(C)-50 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

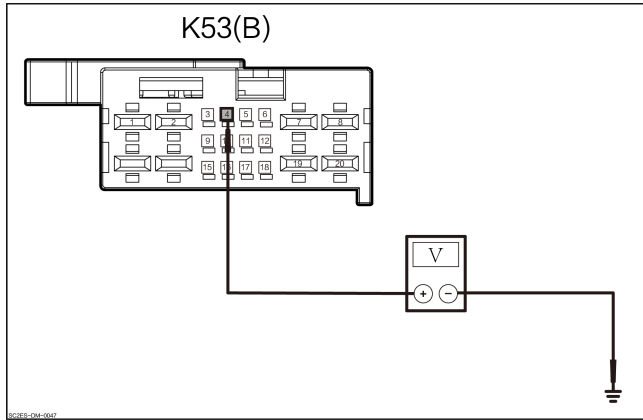
7 Check the harness and connector of the rear body control module.

1. Disconnect the harness connector of rear body control module K53(B).
2. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

8 Check IG1 power supply of rear body control module .



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of rear body control module K53(B)-4 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K53(B)-4 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace the rear body control module.

No

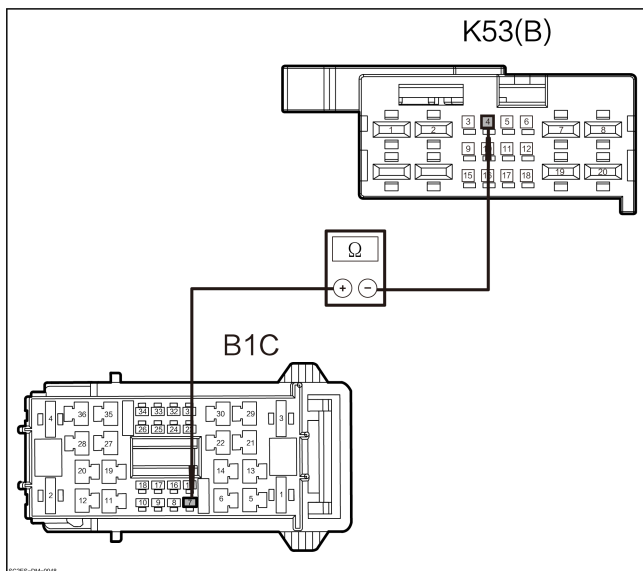
9 Check the front compartment fuse box harness connector.

1. Set the start/stop button to the OFF position.
2. Disconnect the front compartment fuse box harness connector B1C.
3. Check whether the front compartment fuse box harness connector is normal.

No → Repair or replace the wire harness

Yes

10 Check the IG1 power supply of rear body control module for open circuit.



1. Measure the resistance between the harness connector of rear body control module K53(B)-4 and the harness connector of front compartment fuse box B1C-7.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| B1C-7 | K53(B)-4 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the front compartment fuse box.

U300317 Battery Soft Overvoltage (integrated)

DTC Description

| U300317 Battery soft overvoltage fault | |
|--|--|
| Symptom | EPB fails. |
| Possible Cause | 1. Charging system malfunction 2. Rear body control module fault. |
| Fault setting conditions | Voltage is more than 16V for a duration $\geq 2s$. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the rear body control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|----------------------------|
| 2 | Check the charging system. |
|---|----------------------------|

1. Set the start/stop button to OK.
2. Measure the charging system voltage value.

| Battery | | Condition | Voltage value |
|--------------------|--------------------|-------------|---------------|
| (+) | (-) | | |
| Positive electrode | Negative electrode | Through-out | 11~14V |

3. Check whether the results are normal.

No → Diagnose “charging system” .

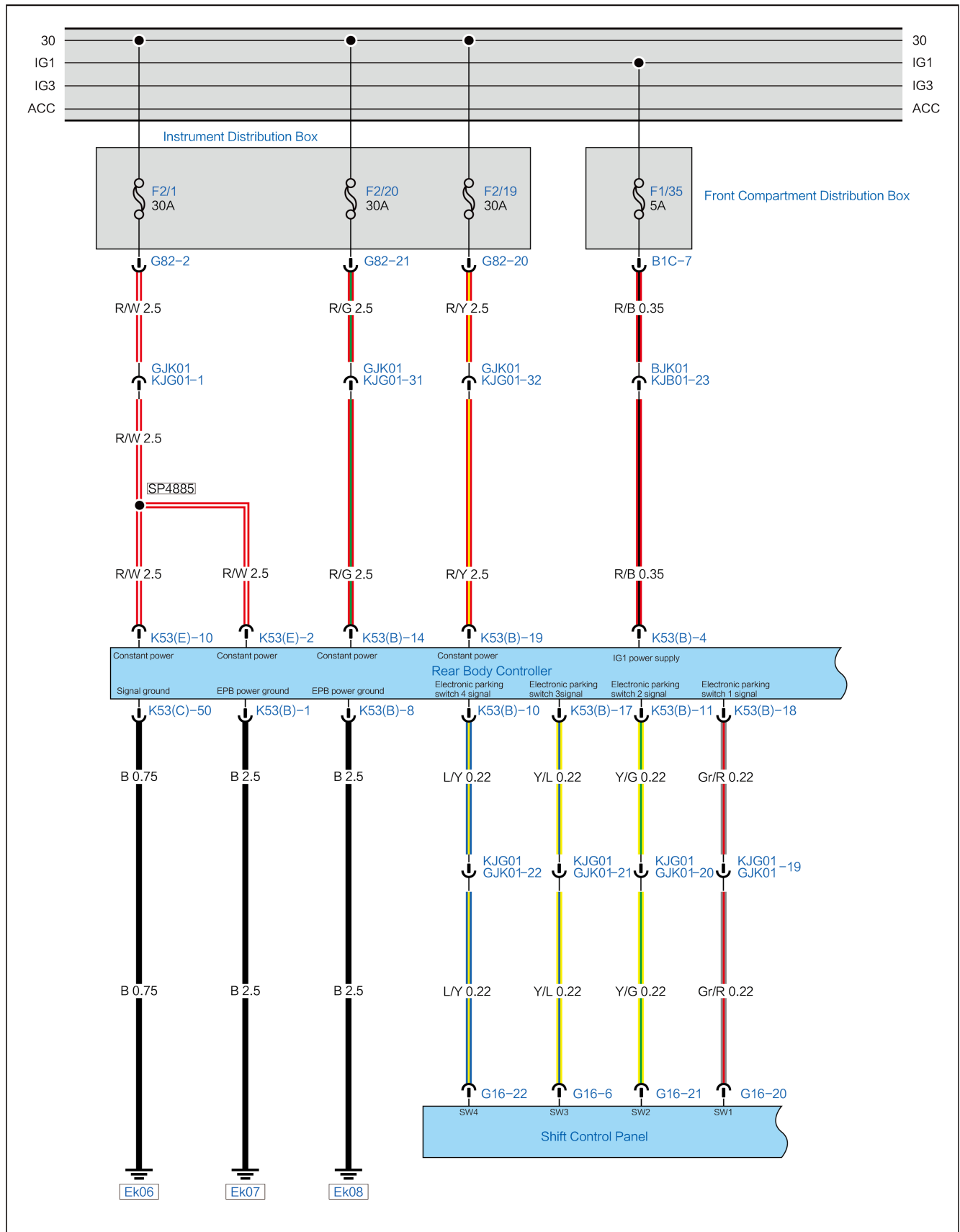
Yes → Replace the rear body control module.

C117009 EPB Switch Fault(integrated)

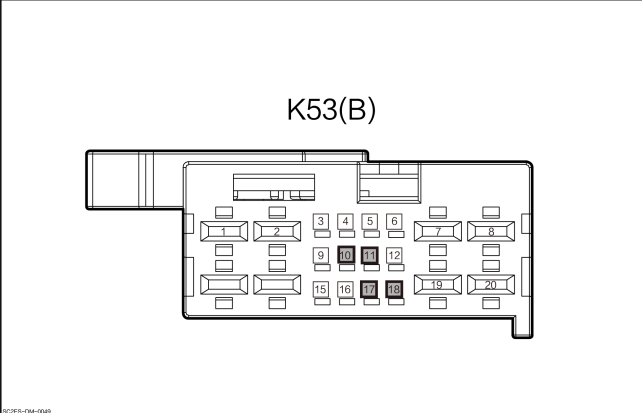
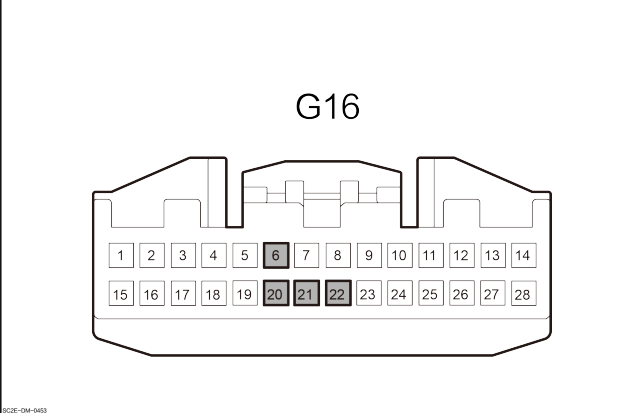
DTC Description

| C117009 EPB switch fault | |
|--------------------------|---|
| Symptom | Parking brake fails. |
| Possible Cause | 1. Harness or connector fault. 2. EPB switch fault 3. Rear body control module fault. |
| Fault setting conditions | EPB switch fault counter reading record. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Rear body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">K53(B)</p> </div> | 10 | SW4 |
| | 11 | SW2 |
| | 17 | SW3 |
| | 18 | SW1 |
| <p style="text-align: center;">Electronic parking switch</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G16</p> </div> | 6 | SW3 |
| | 20 | SW1 |
| | 21 | SW2 |
| | 22 | SW4 |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the rear body control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the EPB switch harness connector. |
|---|---|

1. Set the start/stop button to the OFF position.
2. Disconnect the EPB switch harness connector G16.
3. Check whether the EPB switch harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|----------------------|
| 3 | Check the EPB switch |
|---|----------------------|

1. Measure the resistance value between the harness connector pins of the EPB switch.

| Connector | | Condition | Resist- ance value |
|-----------|--------|------------------------|--------------------------|
| (+) | (-) | | |
| G16-22 | G16-20 | No action of switch | Lower than 1 Ω |
| G16-6 | G16-21 | | Lower than 1 Ω |
| G16-22 | G16-6 | | Above 10k Ω |
| G16-21 | G16-20 | | Above 10k Ω |

| | | | |
|--------|--------|---------------------|-----------------------|
| G16-22 | G16-20 | Switch pulled up | Above 10k Ω |
| G16-22 | G16-6 | | Lower than 1 Ω |
| G16-22 | G16-21 | | Lower than 1 Ω |
| G16-21 | G16-20 | | Above 10k Ω |
| G16-22 | G16-21 | Switch pressed down | Lower than 1 Ω |
| G16-22 | G16-6 | | Above 10k Ω |
| G16-22 | G16-20 | | Lower than 1 Ω |
| G16-6 | G16-21 | | Above 10k Ω |

2. Check whether the results are normal.

No

Replace the EPB switch.

Yes

4

Check the harness connector of the rear body control module..

1. Disconnect the harness connector of rear body control module K53(B).
2. Check whether the harness connector of right body control module is normal?

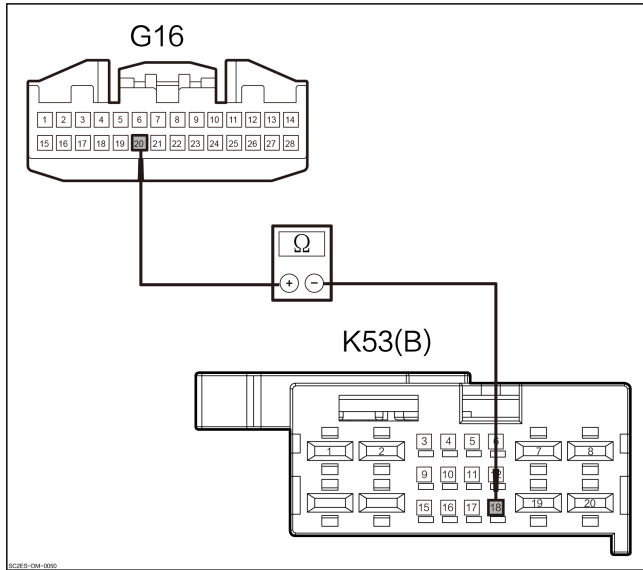
No

Repair or replace the wire harness

Yes

5

Check the EPB switch SW1 signal line for open circuit.



1. Measure the resistance between the harness connector of EPB switch G16-20 and the harness connector of rear body control module K53(B)-18.

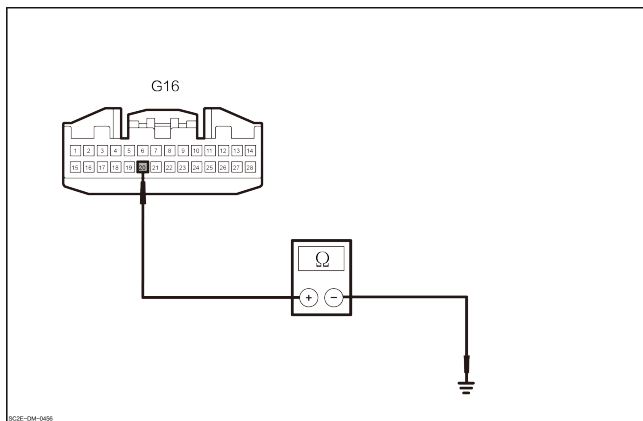
| Connector | | Condition | Resist- ance value |
|-----------|-----------|-------------|--------------------------|
| (+) | (-) | | |
| G16-20 | K53(B)-18 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the EPB switch SW1 signal line for short circuit to ground.



1. Measure the resistance between the harness connector of EPB switch G16-20 and the ground.

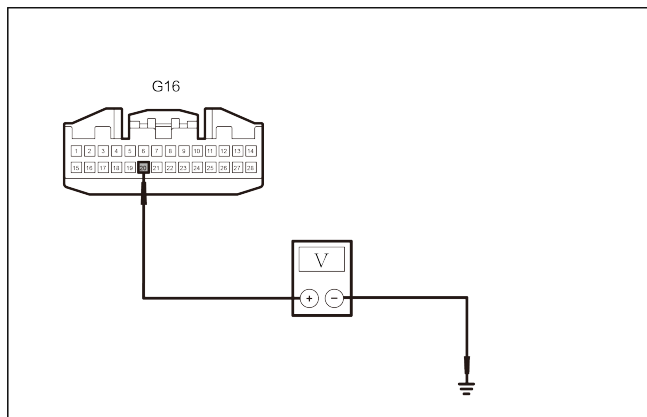
| Connector | | Condition | Resist- ance value |
|-----------|--------|-------------|--------------------------|
| (+) | (-) | | |
| G16-20 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the EPB switch SW1 signal line for short circuit to the power supply.



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of EPB switch G16-20 and the ground.

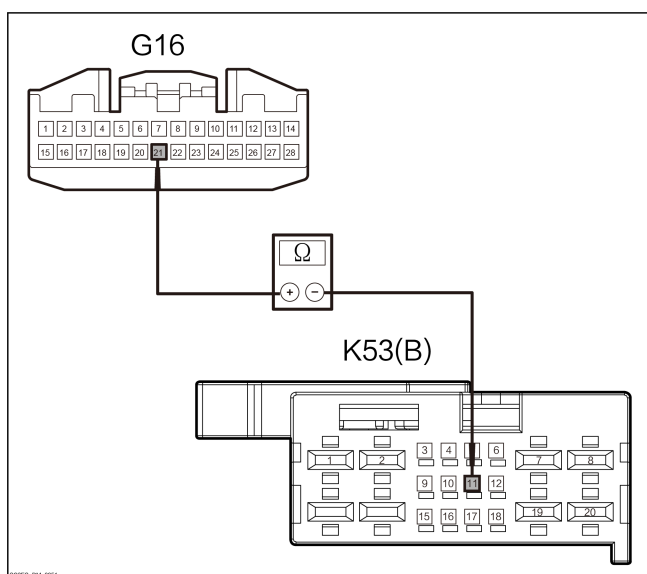
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G16-20 | Ground | Through-out | Less than 1V |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the EPB switch SW2 signal line for open circuit.



1. Set the start/stop button to OFF.
2. Measure the resistance between the harness connector of EPB switch G16-21 and the harness connector of rear body control module K53(B)-11.

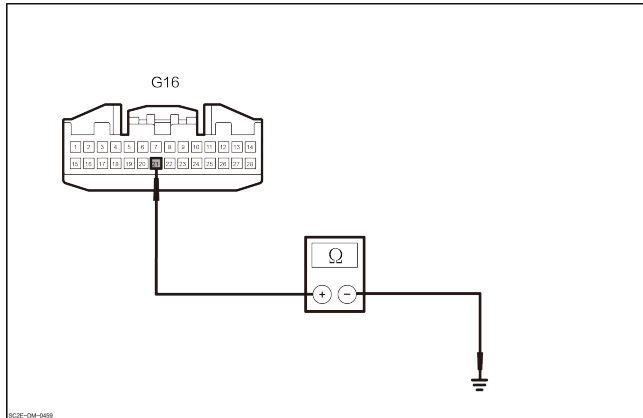
| Connector | | Condition | Resistance value |
|-----------|-----------|-------------|------------------|
| (+) | (-) | | |
| G16-21 | K53(B)-11 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

9 Check the EPB switch SW2 signal line for short circuit to ground.



1. Measure the resistance between the harness connector of EPB switch G16-21 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G16-21 | Ground | Through- out | Above 10K Ω |

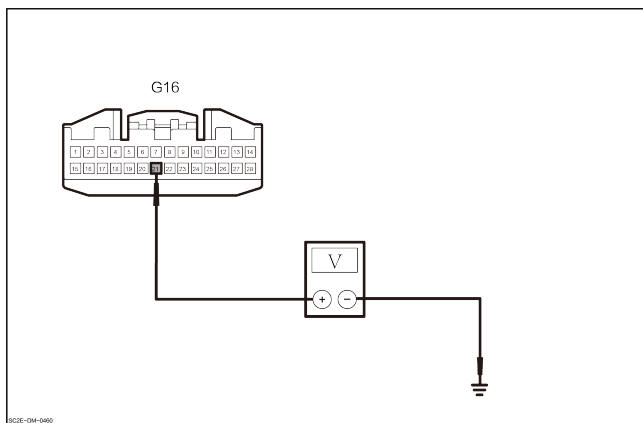
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

| | |
|----|---|
| 10 | Check the EPB switch SW2 signal line for short circuit to the power supply. |
|----|---|



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of EPB switch G16-21 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G16-21 | Ground | Through- out | Less than 1V |

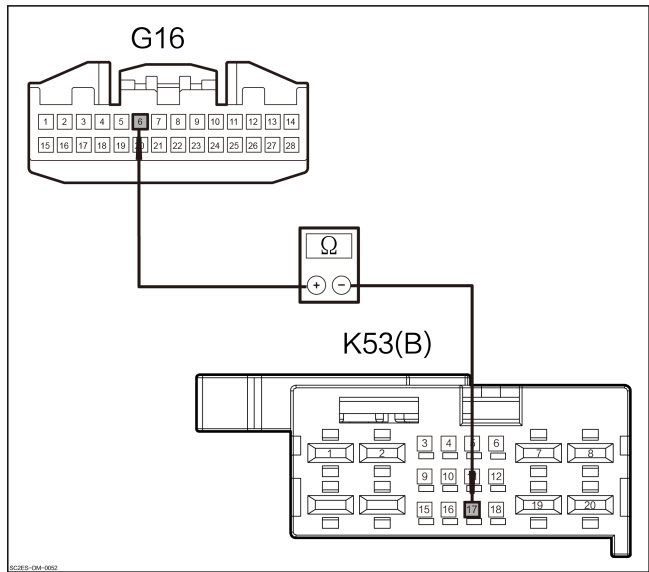
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

| | |
|----|--|
| 11 | Check the EPB switch SW3 signal line for open circuit. |
|----|--|



1. Set the start/stop button to OFF.
2. Measure the resistance between the harness connector of EPB switch G16-6 and the harness connector of rear body control module K53(B)-17.

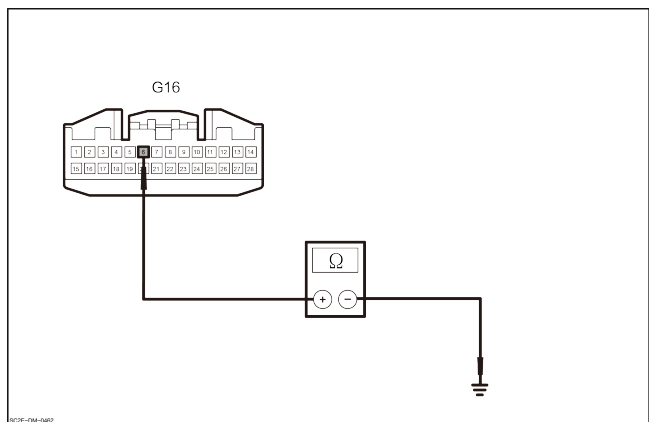
| Connector | | Condition | Resistance value |
|-----------|-----------|-------------|------------------|
| (+) | (-) | | |
| G16-6 | K53(B)-17 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

12 Check the EPB switch SW3 signal line for short circuit to ground.



1. Measure the resistance between the harness connector of EPB switch G16-6 and the ground.

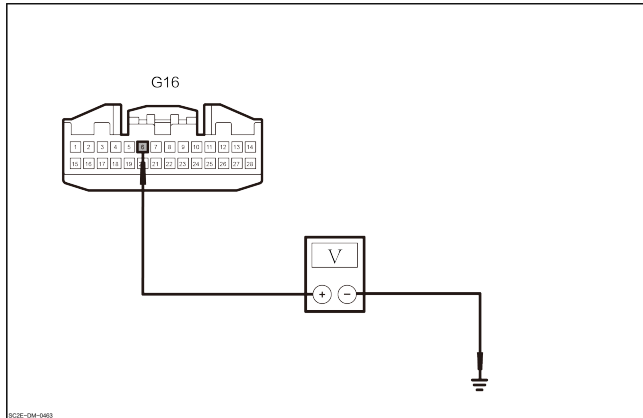
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| G16-6 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

13 Check the EPB switch SW3 signal line for short circuit to the power supply.



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of EPB switch G16-6 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G16-6 | Ground | Through-out | Less than 1V |

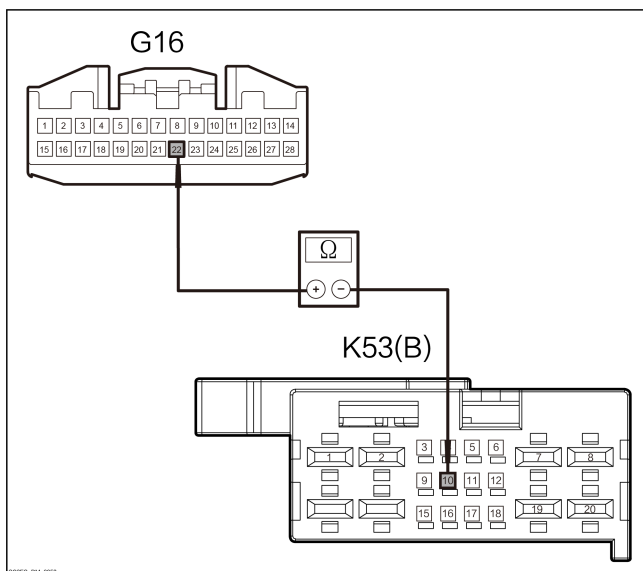
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

14 Check the EPB switch SW4 signal line for open circuit.



1. Measure the resistance between the harness connector of EPB switch G16-22 and the harness connector of rear body control module K53(B)-10.

| Connector | | Condition | Resistance value |
|-----------|-----------|-------------|------------------|
| (+) | (-) | | |
| G16-22 | K53(B)-10 | Through-out | Lower than 1Ω |

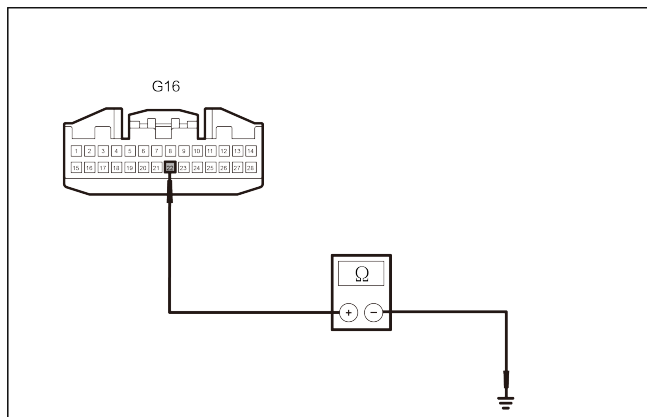
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

15 Check the EPB switch SW4 signal line for short circuit to ground.



1. Measure the resistance between the harness connector of EPB switch G16-22 and the ground.

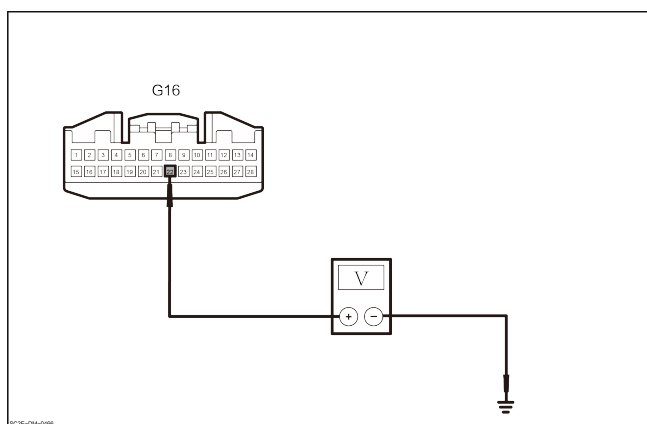
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G16-22 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

16 Check the EPB switch SW4 signal line for short circuit to the power supply.



1. Measure the voltage between the harness connector of EPB switch G16-22 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G16-22 | Ground | Through- out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

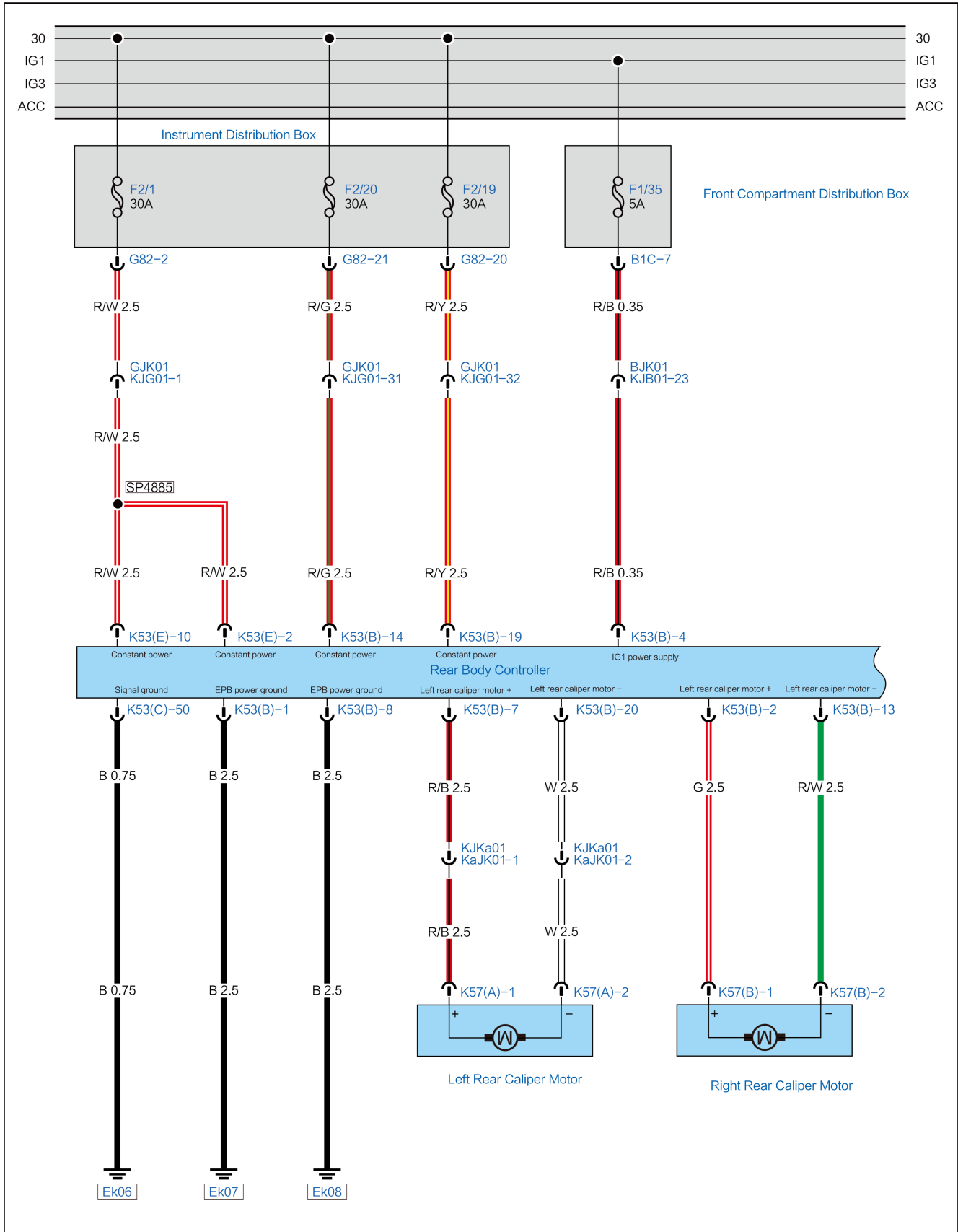
Yes → Replace the rear body control module.

C11B013 Left Motor or Line Fault(integrated)

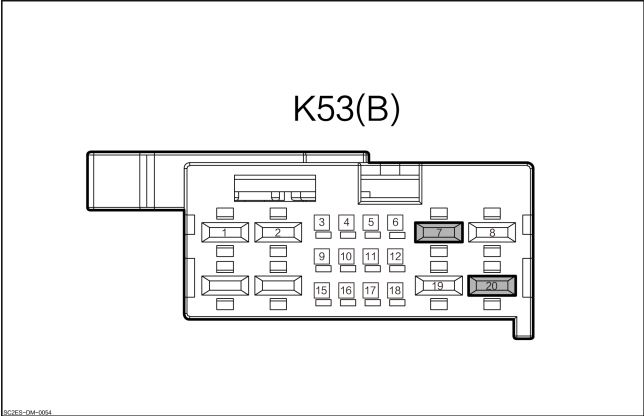
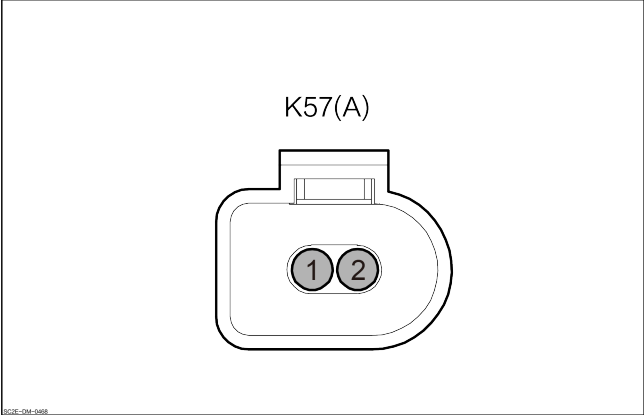
DTC Description

| C11B013 Left motor or line fault | |
|----------------------------------|---|
| Symptom | Left parking brake fails. |
| Possible Cause | 1. Harness or connector fault. 2. Rear body control module. 3. Left rear caliper motor fails. |
| Fault setting conditions | The left parking brake cannot pass through during calibration. |
| Trigger fault conditions | Set the START/STOP button to “ON” , and pull up or press the EPB switch. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p>Rear body control module</p>  <p>K53(B)</p> | 7 | M+ |
| | 20 | M- |
| <p>Electronic parking switch</p>  <p>K57(A)</p> | 1 | M+ |
| | 2 | M- |

Diagnostic Steps

| | |
|---|--|
| 1 | Check DTC of the rear body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness and connector of left rear caliper motor. |
|---|---|

1. Set the start/stop button to the OFF position.
2. Disconnect the harness connector of left rear caliper motor K57(A).
3. Check the harness connector of left rear caliper motor for normal function.

No → Repair or replace the wire harness

Yes

| | |
|---|--------------------------------|
| 3 | Check left rear caliper motor. |
|---|--------------------------------|

1. Connect the left rear caliper motor to the external power supply.
2. Does the left rear caliper motor function normally.

No → Replace left rear caliper motor.

Yes

| | |
|---|--------------------------------|
| 4 | Check left rear caliper motor. |
|---|--------------------------------|

1. Check the resistance of coils of left rear caliper motor.

| | | | |
|-------------------------|-----|-----------|-------------------------|
| Left rear caliper motor | | Condition | Refer- ence value |
| (+) | (-) | | |

| | | | |
|---------------------------|---------------------------|-------------|-----|
| Left rear caliper motor + | Left rear caliper motor - | Through-out | 2 Ω |
|---------------------------|---------------------------|-------------|-----|

2. Check whether the results are normal.

No → Replace left rear caliper motor.

Yes

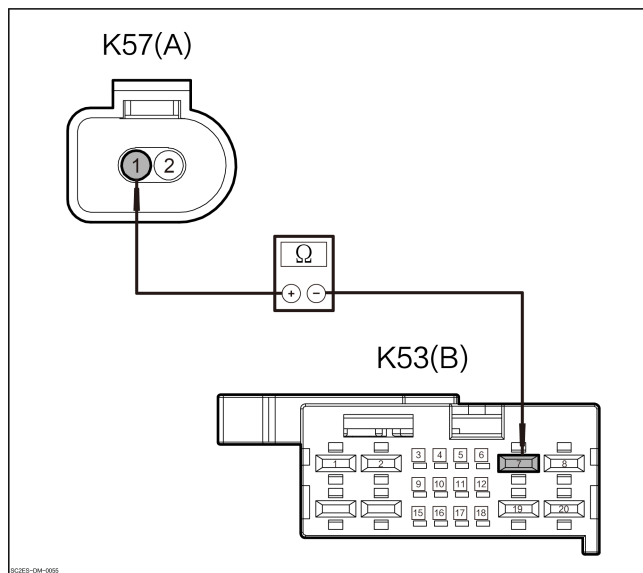
5 Check the harness connector of the rear body control module..

1. Disconnect the harness connector of rear body control module K53(B).
2. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the left rear caliper motor M+ line for open circuit.



1. Measure the resistance between the harness connector of left rear caliper motor K57(A)-1 and the harness connector of rear body control module K53(B)-7.

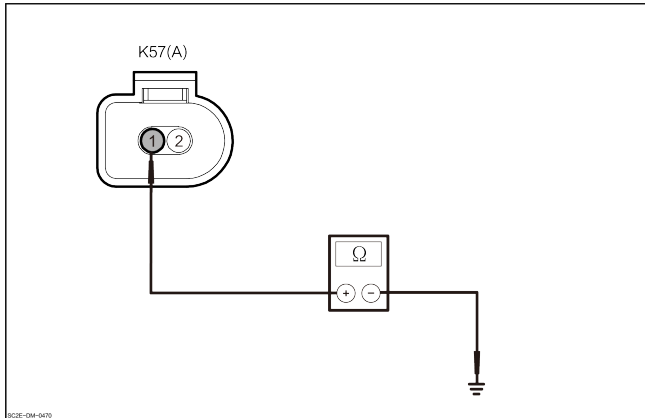
| Connector | | Condition | Resist- ance value |
|-----------|----------|-------------|--------------------------|
| (+) | (-) | | |
| K57(A)-1 | K53(B)-7 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the left rear caliper motor M+ line for short to ground.



1. Measure the resistance between the harness connector of left rear caliper motor K57(A)-1 and the ground.

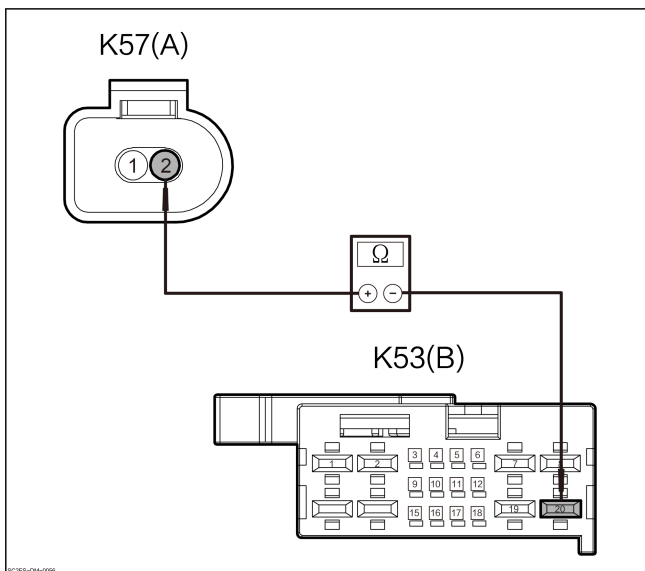
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|--------------------|
| (+) | (-) | | |
| K57(A)-1 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

8 Check the left rear caliper motor M- line for open circuit.



1. Measure the resistance between the harness connector of left rear caliper motor K57(A)-2 and the harness connector of rear body control module K53(B)-20.

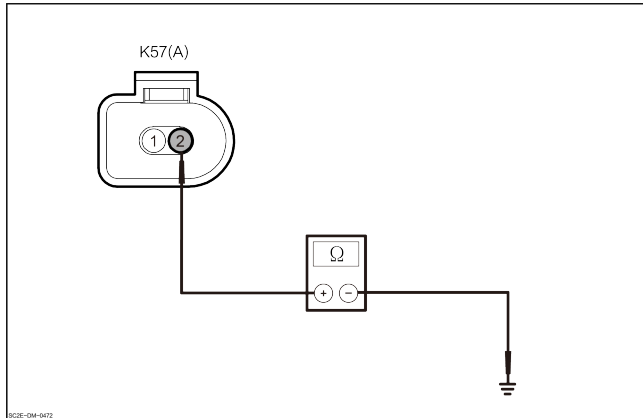
| Connector | | Condition | Resistance value |
|-----------|-----------|-------------|-----------------------|
| (+) | (-) | | |
| K57(A)-2 | K53(B)-20 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

9 Check the left rear caliper motor M- line for short to ground.



1. Measure the resistance between the harness connector of left rear caliper motor K57(A)-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K57(A)-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

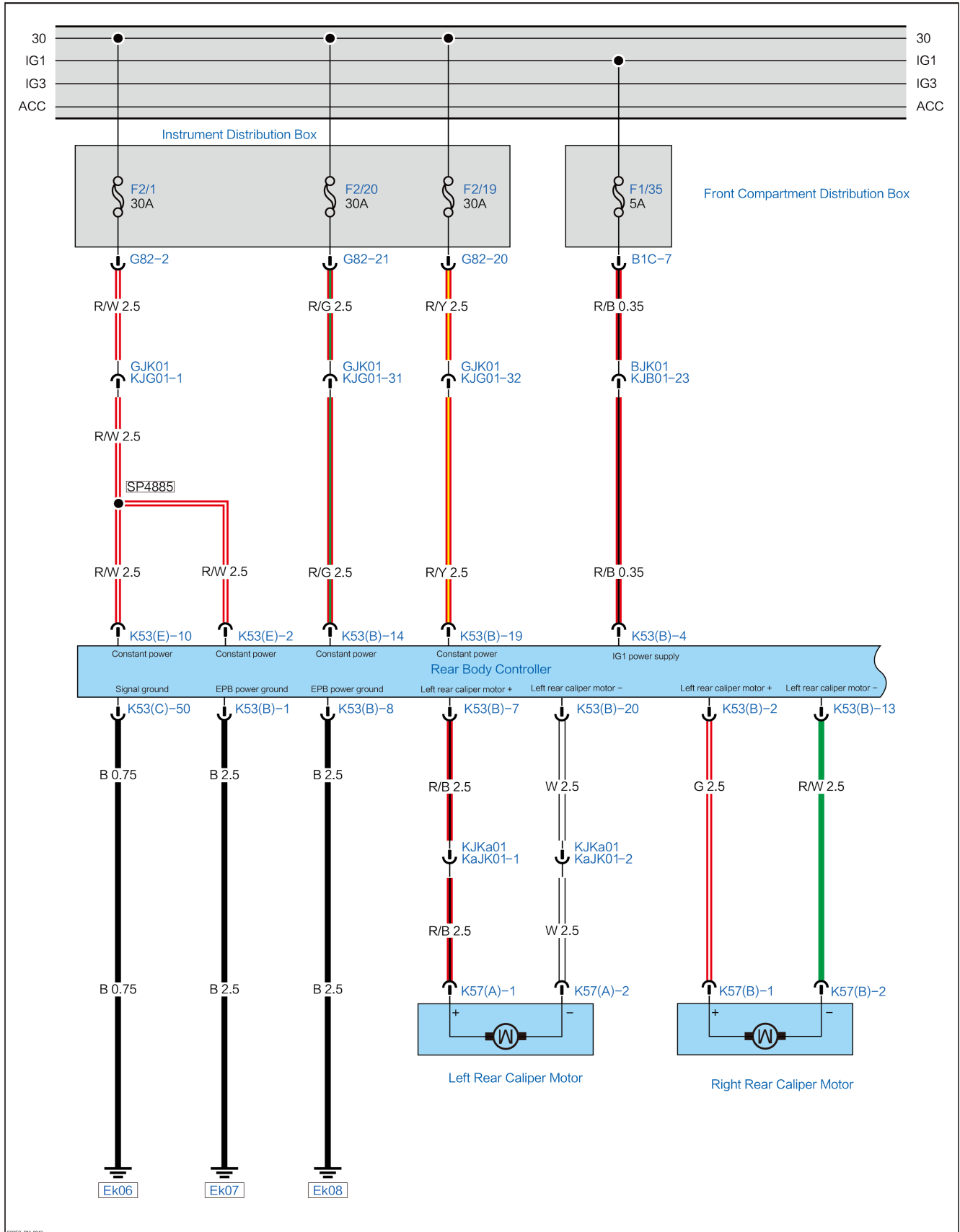
| | |
|-----|---------------------------------------|
| No | Repair or replace the wire harness |
| Yes | Replace the rear body control module. |

C11B113 Right Motor or Line Fault(integrated)

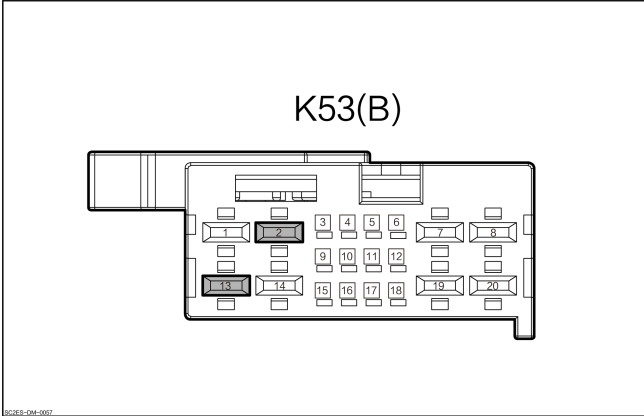
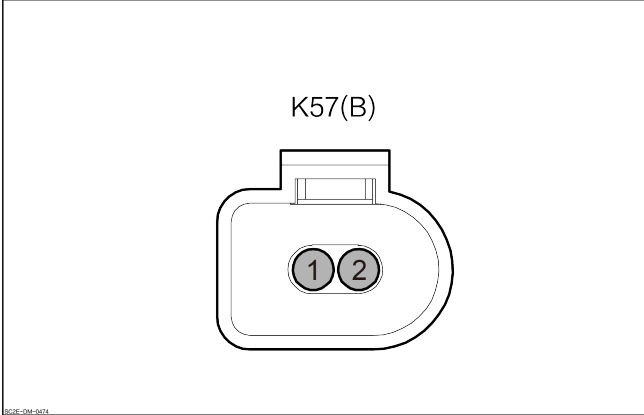
DTC Description

| C11B113 Right motor or line fault | |
|-----------------------------------|--|
| Symptom | Right parking brake fails. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Rear body control module fault. 3. Right rear caliper motor fails. |
| Fault setting conditions | The parking brake on the right side cannot pass during the calibration. |
| Trigger fault conditions | Set the START/STOP button to “ON” , and pull up or press the EPB switch. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p>Rear body control module</p>  <p>K53(B)</p> <p><small>800E-DM-007</small></p> | 2 | M+ |
| | 13 | M- |
| <p>Electronic parking switch</p>  <p>K57(B)</p> <p><small>800E-DM-014</small></p> | 1 | M+ |
| | 2 | M- |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the rear body control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness and connector of right rear caliper motor. |
|---|--|

1. Set the START/STOP button to OFF.
2. Disconnect the harness connector of right rear caliper motor K57(B).
3. Check the harness connector of right rear caliper motor for normal function.

No → Repair or replace the wire harness

Yes

| | |
|---|---------------------------------|
| 3 | Check right rear caliper motor. |
|---|---------------------------------|

1. Connect the right rear caliper motor to the external power supply.
2. Does the right rear caliper motor function normally.

No → Replace right rear caliper motor.

Yes

| | |
|---|---------------------------------|
| 4 | Check right rear caliper motor. |
|---|---------------------------------|

1. Check the resistance of coils of right rear caliper motor.

| Right rear caliper motor | | Condition | Reference value |
|--------------------------|-----|-----------|-----------------|
| (+) | (-) | | |

| | | | |
|---------------------------|---------------------------|-------------|-----|
| Left rear caliper motor + | Left rear caliper motor - | Through-out | 2 Ω |
|---------------------------|---------------------------|-------------|-----|

2. Check whether the results are normal.

No → Replace right rear caliper motor.

Yes

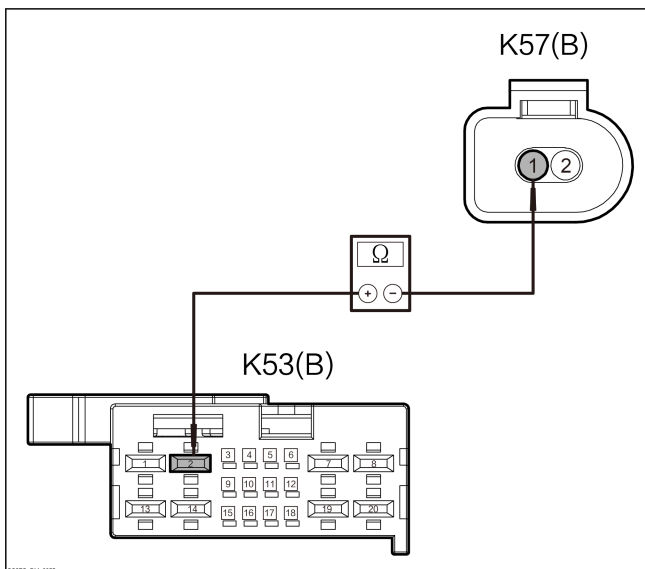
5 Check the harness connector of the rear body control module..

1. Disconnect the harness connector of rear body control module K53(B).
2. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the right rear caliper motor M+ line for open circuit.



1. Measure the resistance between the harness connector of right rear caliper motor K57(B)-1 and the harness connector of EPB module K53(B)-2.

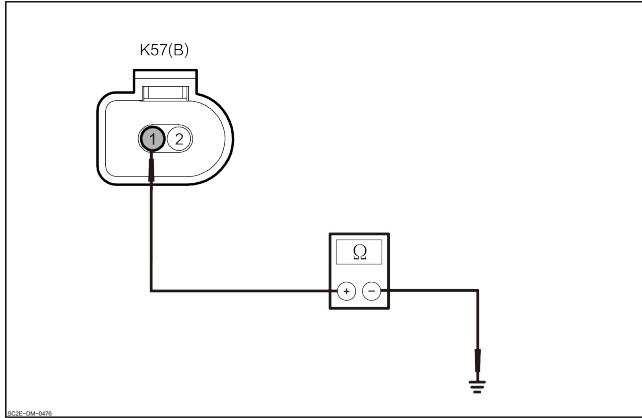
| Connector | | Condition | Resist- ance value |
|-----------|----------|-------------|--------------------------|
| (+) | (-) | | |
| K53(B)-2 | K57(B)-1 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the right rear caliper motor M+ line for short to ground.



1. Measure the resistance between the harness connector of right rear caliper motor K57(B)-1 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|--------------------|
| (+) | (-) | | |
| K57(B)-1 | Ground | Through-out | Above 10K Ω |

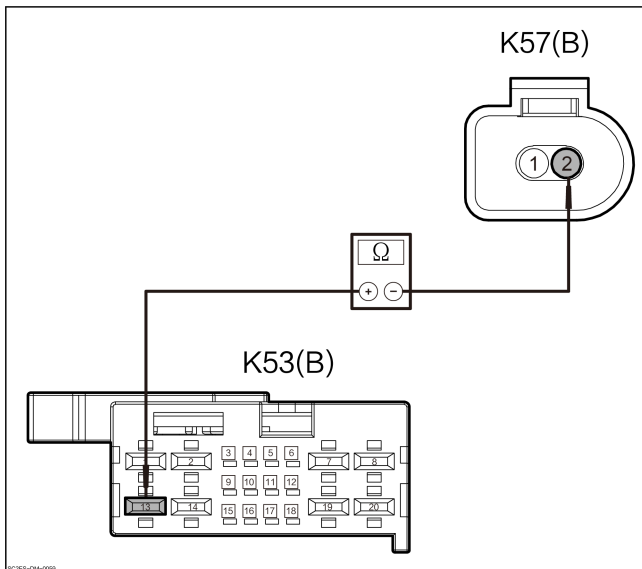
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

8 Check the right rear caliper motor M- line for open circuit.



1. Measure the resistance between the harness connector of right rear caliper motor K57(B)-2 and the harness connector of EPB module K53(B)-13.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|-----------------------|
| (+) | (-) | | |
| K53(B)-13 | K57(B)-2 | Through-out | Lower than 1 Ω |

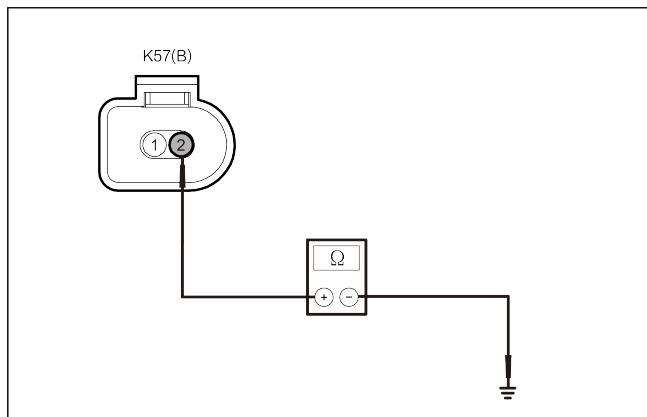
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

9 Check the right rear caliper motor M- line for short to ground.



1. Measure the resistance between the harness connector of right rear caliper motor K57(B)-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K57(B)-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

- No
Repair or replace the wire harness
- Yes
Replace the rear body control module.

C110009 Control Module Main Chip Fault(integrated)**DTC Description**

| C110009 Controller main chip fault | |
|------------------------------------|---|
| Symptom | EPB fails. |
| Possible Cause | Rear body control module. |
| Fault setting conditions | Controller main chip fault |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnosis

| | |
|---|---|
| 1 | Check the rear body control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|---------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the rear body control module. |

C11A006 Actuator Overload(integrated)**DTC Description**

| C11A006 Actuator Overload | |
|---------------------------|---|
| Symptom | EPB fails. |
| Possible Cause | Rear body control module. |
| Fault setting conditions | The actuator is overloaded. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the rear body control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|---------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the rear body control module. |

Steering System

Electric Power Steering System

Diagnosis Description

Before fault diagnosis for the electric power steering system, understand and get familiar with the working principle of the electric power steering system, and then start the diagnosis of the electric power steering system, so as to be helpful to confirm the correct fault diagnosis procedure in the event of a fault, and more importantly, to confirm whether the operating condition described by the customer is normal. Any diagnosis of the electric power steering system shall start with an electric power steering system inspection to guide the maintenance technician to take the next logical step for fault diagnosis.

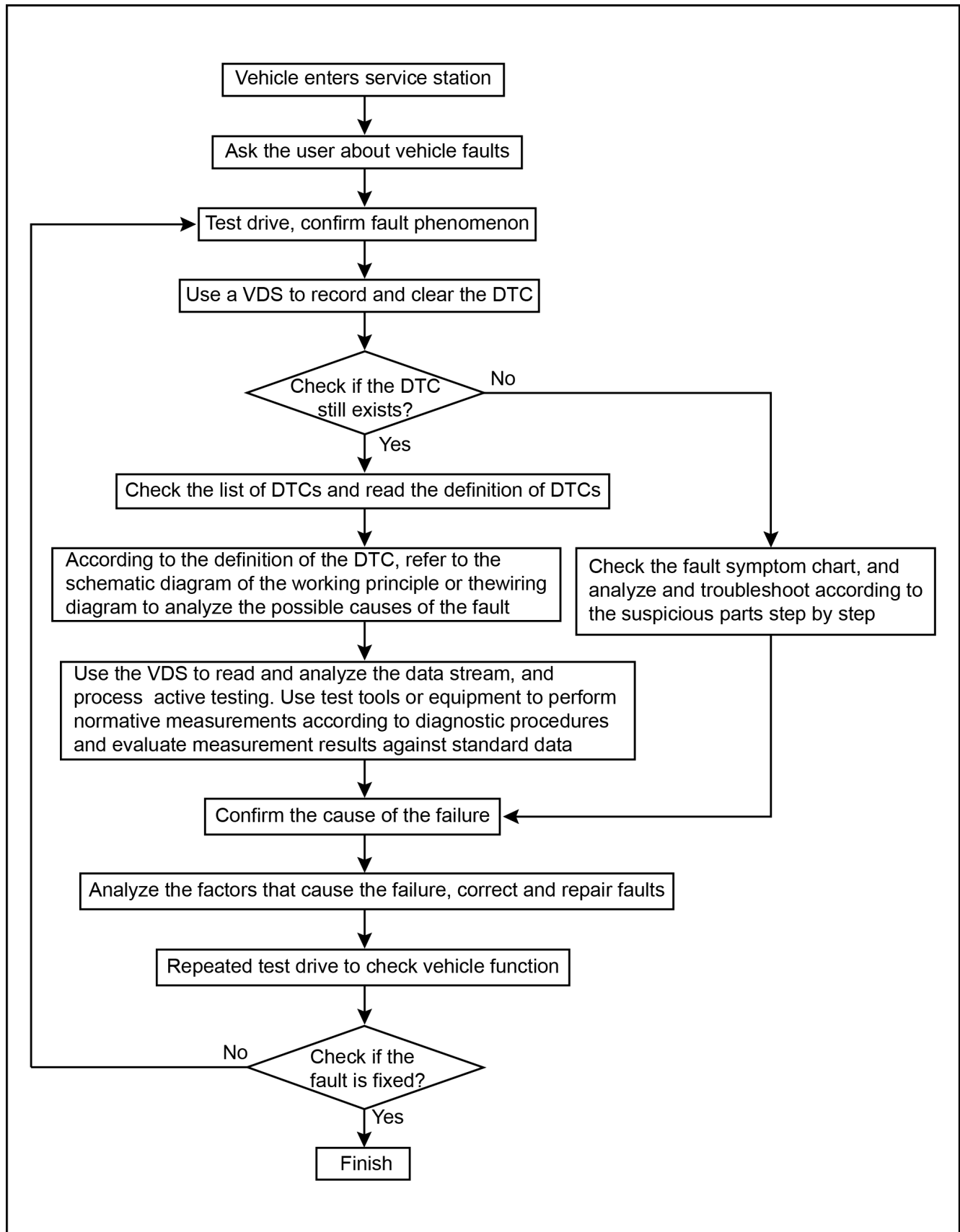
General equipment

- Multimeter
- VDS

Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Process of Fault Inspection and Troubleshooting



Diagnosis of General Faults

Visual Inspection

1. Confirm problems of customers.
2. Make visual inspection for obvious signs of mechanical damage and collision deformation.
3. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
4. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

| Symptom | Possible cause | Suggested maintenance measures |
|---------------------------|---|--|
| Steering hard | <ol style="list-style-type: none"> 1. Inadequate tyre pressure 2. Improper front wheel alignment 3. Steering knuckle is worn. 4. Steering gear assembly fault. 5. Electric power steering column assembly fault. | <ol style="list-style-type: none"> 1. Check the tyre pressure, and adjust the tyre pressure if abnormal. 2. Perform four-wheel alignment. 3. Replace the steering knuckle. 4. Replace the steering gear assembly. 5. Replace the electric power steering column assembly. |
| Insufficient disclination | <ol style="list-style-type: none"> 1. Inadequate tyre pressure 2. Improper front wheel alignment 3. Steering gear assembly fault. 4. Electric power steering column assembly fault. | <ol style="list-style-type: none"> 1. Check the tyre pressure, and adjust the tyre pressure if abnormal. 2. Perform four-wheel alignment. 3. Replace the steering gear assembly. 4. Replace the electric power steering column assembly. |
| Clearance too large | <ol style="list-style-type: none"> 1. Steering knuckle is worn. 2. Universal joint is worn. 3. Steering gear assembly fault. | <ol style="list-style-type: none"> 1. Replace the steering gear assembly. 2. Replace universal joint. 3. Replace the electric power steering column assembly. |
| Abnormal noise | <ol style="list-style-type: none"> 1. Reduction mechanism is worn. 2. Universal joint is worn. 3. Electric power steering column assembly fault. | <ol style="list-style-type: none"> 1. Replace the electric power steering column assembly. 2. Replace universal joint. 3. Replace the electric power steering column assembly. |
| Steering wheel shake | <ol style="list-style-type: none"> 1. Dynamic balancing of wheel is unacceptable. 2. Electric power steering column assembly fault. | <ol style="list-style-type: none"> 1. Check and adjust the wheel dynamic balance. 2. Replace the electric power steering column assembly. |

DTC Diagnosis

List of DTC

| DTC | Meaning | Diagnostic Process |
|---------|---|--|
| C1B9D22 | Power Supply Voltage Too High | C1B9D22 Voltage of Power Supply Too High |
| C1B9D21 | Voltage of Power Supply Too Low | C1B9D21 Low Power Supply Voltage –YB |
| | | C1B9D21 Low Power Supply Voltage –TRW |
| C1B9C23 | Main/auxiliary/torque signal keeping at low level | C1B9C23 Main/Auxiliary/Torque Signal Keeping at Low Level |
| C1B9C24 | Main/auxiliary/torque signal keeping at high level | C1B9C24 Main/Auxiliary/Torque Signal Keeping at High Level |
| U016002 | Duty Cycle of Main/auxiliary/main+auxiliary Torque Signals Abnormal | U016002 Duty Cycle of Main/Auxiliary/Main + Auxiliary Torque Signal Abnormal |
| U015A38 | Main/auxiliary/torque Signal Cycle Abnormal | U015A38 Main/Auxiliary/Torque Signal Period Abnormal |
| C1BA023 | Main/auxiliary Angle Signal Keeping at Low Level | C1BA023 Main/Auxiliary Angle Signal Keeping at Low Level |
| C1BA024 | Main/auxiliary Angle Signal Keeping at High Level | C1BA024 Main/Auxiliary Angle Signal Keeping at High Level |
| U015B02 | Duty Cycle of Main/auxiliary Angle Signal Abnormal | U015B02 Duty Cycle of Main/Auxiliary Angle Signal Abnormal |
| U015D86 | Angle signal not available | U015D86 Angle Signal Unavailable |
| C1BA500 | ECU operation error | C1BA500 ECU Operation Error |
| C1BA600 | ECU Overtemperature | C1BA600 ECU Overtemperature |
| C1BA700 | ECU Fails to ROM and Check | C1BA700 ECU Fails to ROM and Check |
| C1B6044 | ECU RAM Fault | C1B6044 ECU RAM Fault |
| C1BA900 | Supply Voltage of Torque Sensor Abnormal | C1BA900 Supply Voltage of Torque Sensor Abnormal |
| C1BAA00 | Motor Drive Circuit Failure | C1BAA00 Motor Drive Circuit Failed |
| C1BAB21 | Output Voltage of Temperature Detection Circuit Too Low | C1BAB21 Output Voltage of Temperature Detection Circuit Too Low |
| C1BAB22 | Output Voltage of Temperature Detection Circuit Too High | C1BAB22 Output Voltage of Temperature Detection Circuit Too High |

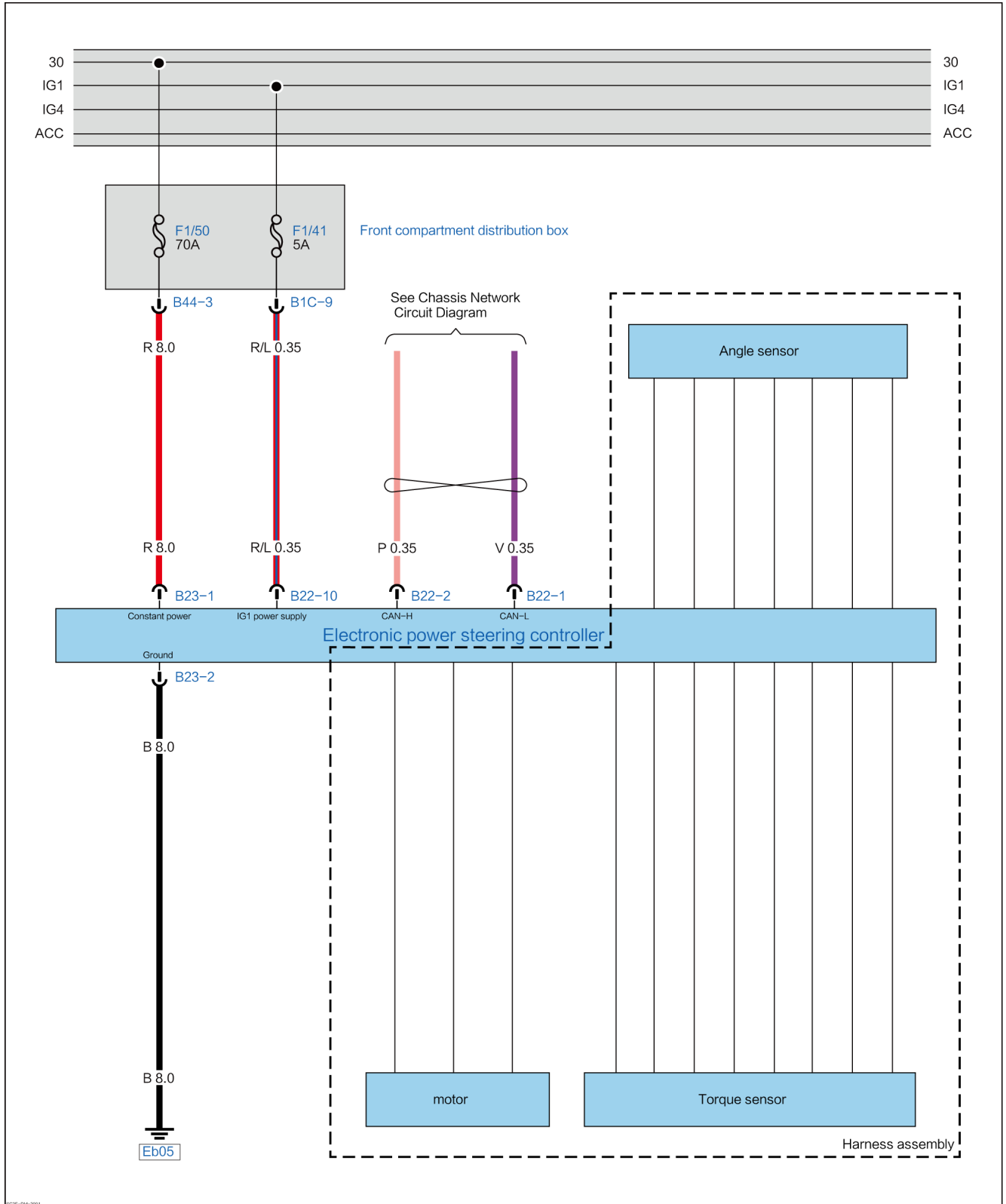
| DTC | Meaning | Diagnostic Process |
|---------|---|---|
| U015E31 | Motor rotor position signal fault. | U015E31 Motor Rotor Position Signal Fault |
| C1BAE00 | ECU not executing angle calibration Order | C1BAE00 ECU Not Executing Angle Calibration Order |
| U015F86 | Received ESP Signal Not Available | U015F86 Received ESP Signal Not Available |
| U015887 | Communication with ESP Lost | U015887 Communication with ESP Lost –YB |
| | | U015887 Communication with ESP Lost –TRW |
| C1BB200 | ESP speed data error | C1BB200 ESP Speed Data Error |
| U015987 | Communication with VTOG Lost | U015987 Communication with VTOG Lost –YB |
| | | U015987 Communication with VTOG Lost –TRW |
| C1B9000 | Loss of Power Supply | C1B9000 power supply lost – YB |
| | | C1B9000 power supply lost – TRW |

C1B9D21 Voltage of Power Supply Too Low

DTC Description

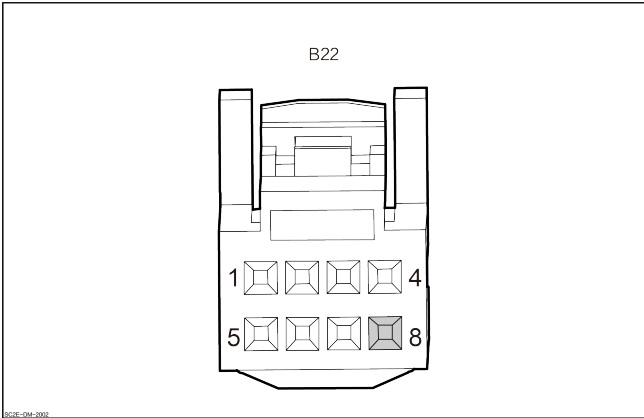
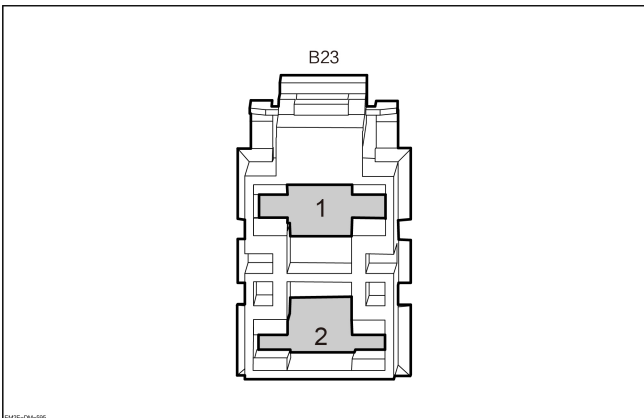
| C1B9D21 Voltage of Power Supply Too Low | |
|---|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse 2. Charging System 3. Battery 4. Line fault. 5. EPS controller failure |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



SG2F-RM-001

Terminal Definition

| Plug | Terminal number | Terminal Definition |
|---|-----------------|-------------------------|
| <p>Electronic power steering controller</p>  <p>The diagram shows a top-down view of a multi-pin connector labeled B22. It features two rows of four pins each. The top row is labeled with '1' on the left and '4' on the right. The bottom row is labeled with '5' on the left and '8' on the right. The pin at position 8 is shaded grey.</p> | <p>8</p> | <p>IG1 power supply</p> |
| <p>Electronic power steering controller</p>  <p>The diagram shows a top-down view of a multi-pin connector labeled B23. It features two rows of two pins each. The top row is labeled with '1' and the bottom row is labeled with '2'. Both pins are shaded grey.</p> | <p>1</p> | <p>Constant power</p> |
| | <p>2</p> | <p>Ground</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|----------------------------|
| 2 | Check the charging system. |
|---|----------------------------|

1. Start up the vehicle.
2. Check whether the instrument charging system fault warning lamp is on.

Yes

DTC of DC DC

No

| | |
|---|--------------------------|
| 3 | Test the battery status. |
|---|--------------------------|

1. Set the START/STOP button to OFF.
2. Perform a battery condition test.
3. Does the battery pass the test?

No

Replace the battery

Yes

| | |
|---|--|
| 4 | Check the front compartment fuse box fuse. |
|---|--|

1. Check whether the front compartment fuse box fuse F1/41(5A) and F1/50(70A) are normal.

No

Replace the fuse

Yes

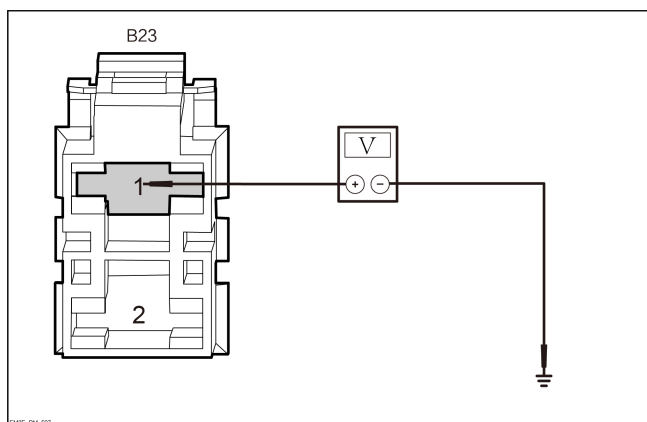
| | |
|---|--|
| 5 | Check the electronic power steering control module harness plug. |
|---|--|

1. Disconnect the electronic power steering control module harness plugs B22 and B23.
2. Check whether the harness and connector are normal.

No → Repair or replace the wire harness

Yes

6 Check the constant power supply of the electronic power steering control module.



1. Measure the voltage value between the electronic power steering control module harness plug B23-1 and ground.

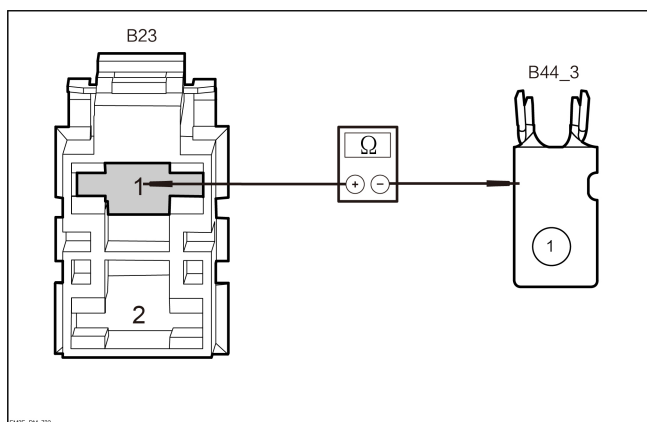
| Plug | | Condition | Voltage value |
|-------|--------|-------------|---------------|
| (+) | (-) | | |
| B23-1 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

Yes → Go to step 8

No

7 Check the electronic power steering control module constant power for open circuit.



1. Disconnect the front compartment fuse box harness plug B44_3.
2. Measure the resistance value between the electronic power steering control module harness plug B23-1 and the front compartment fuse box harness plug B44_3-1.

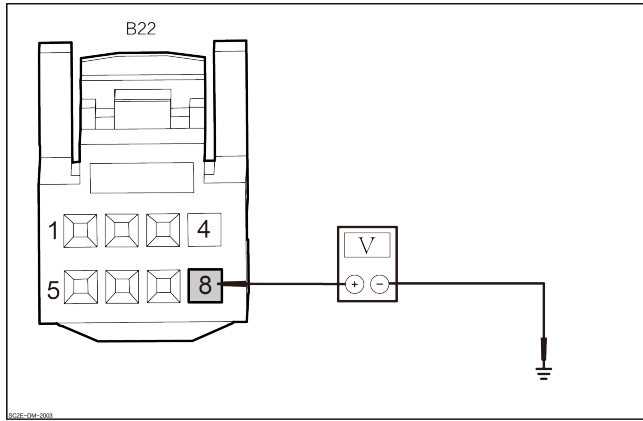
| Plug | | Condition | Resistance value |
|-------|---------|-------------|------------------|
| (+) | (-) | | |
| B23-1 | B44_3-1 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the ON position power supply of the electronic power steering control module.



1. Disconnect the electronic power steering control module harness connector B22.
2. Set the START/STOP button to ON.
3. Measure the voltage value between the electronic power steering control module harness plug B22-8 and ground.

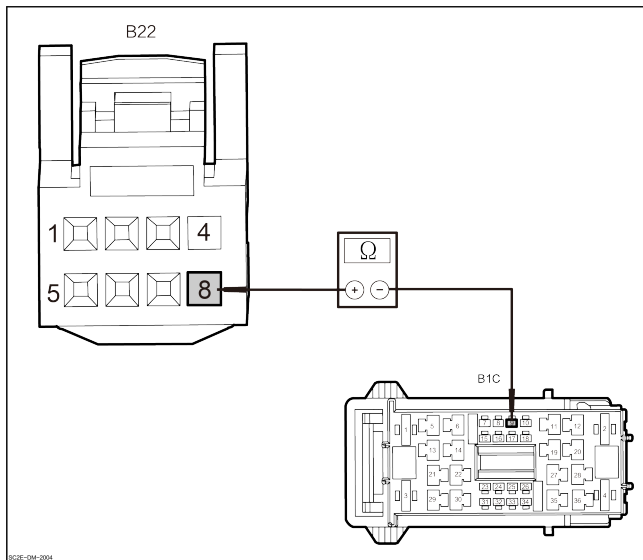
| Plug | | Condition | Voltage value |
|-------|--------|-------------|---------------|
| (+) | (-) | | |
| B22-8 | Ground | Through-out | 11~14V |

4. Check whether the results are normal.

Yes → [Go to step 10](#)

No

9 Replace the battery coolant for the first 2 years or 40,000 km, whichever comes first, and thereafter for every 2 years or 100,000 km.



1. Set the START/STOP button to OFF.
2. Disconnect the front compartment fuse box harness plug B1C.
3. Measure the resistance value between the electronic power steering control module harness plug B22-8 and the front compartment fuse box harness plug B1 C-9.

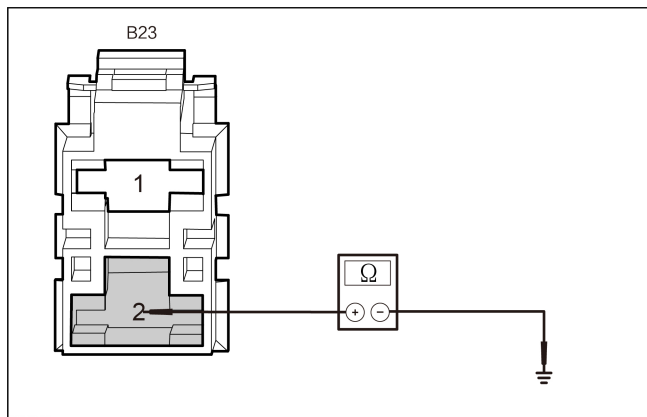
| Plug | | Condition | Resistance value |
|-------|-------|-------------|------------------|
| (+) | (-) | | |
| B22-8 | B1C-9 | Through-out | Lower than 1Ω |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the front compartment fuse box.

10 Check the electronic power steering control module ground circuit.



1. Measure the resistance value between the combination switch harness plug B23-2 and the ground.

| Plug | | Condition | Resist- ance value |
|-------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B23-2 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

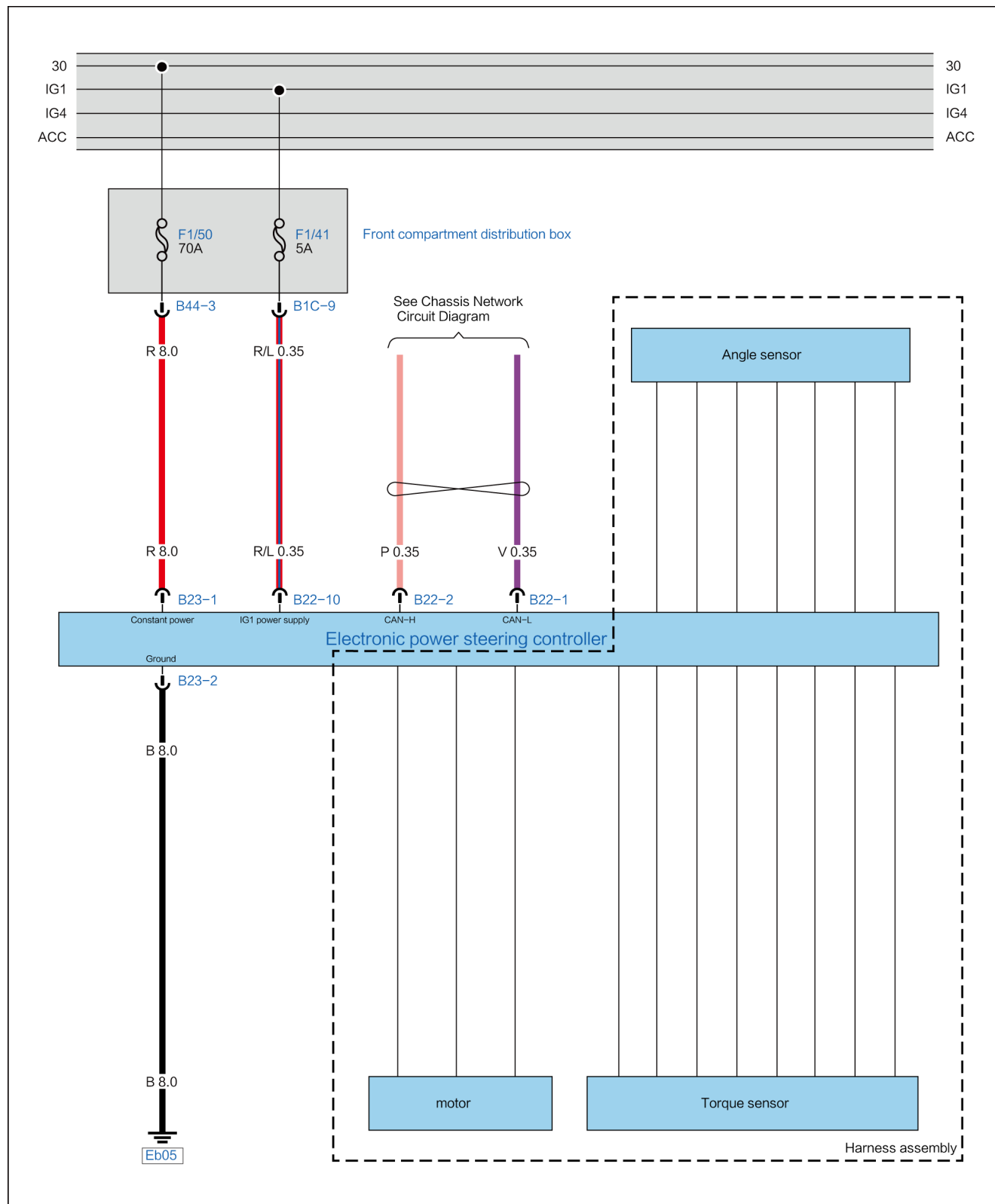
- No → Repair or replace the wire harness
- Yes → Replace the steering gear assembly.

C1B9D21 Low Power Supply Voltage –TRW

DTC Description

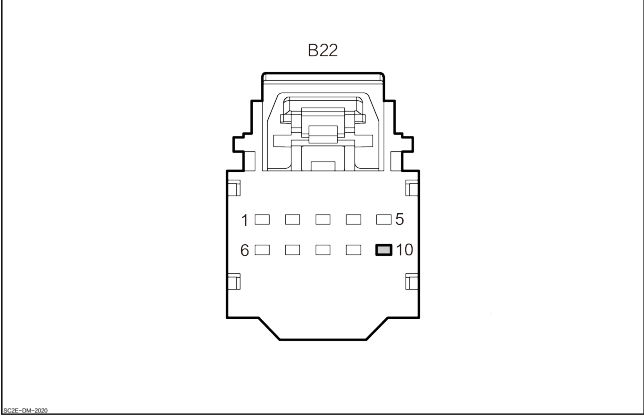
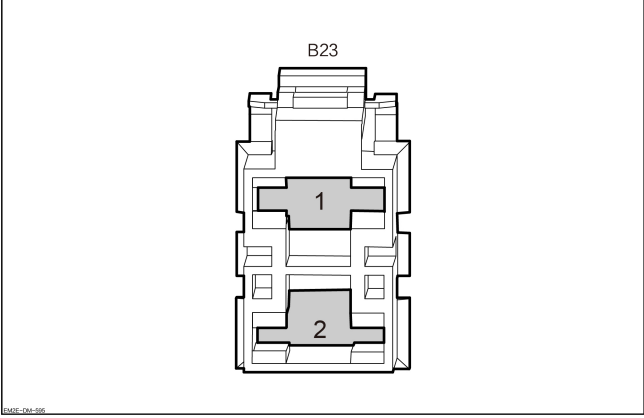
| C1B9D21 Voltage of Power Supply Too Low | |
|---|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Fuse2. Charging System3. Battery4. Line fault.5. EPS controller failure |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



2023-09-20/1

Terminal Definition

| Plug | Terminal number | Terminal Definition |
|---|--|---|
| <p>Electronic power steering controller</p>  <p>B22</p> <p> 1 □ □ □ □ 5 6 □ □ □ □ 10 </p> <p>B22-DIM-2000</p> | <p>10</p> | <p>IG1 power supply</p> |
| <p>Electronic power steering controller</p>  <p>B23</p> <p> 1 2 </p> <p>B23-DIM-100</p> | <p>1</p> | <p>Constant power</p> |
| | <p>2</p> | <p>Ground</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|----|----------------------------------|
| No | Check the “intermittent fault” . |
|----|----------------------------------|

| |
|-----|
| Yes |
|-----|

| | |
|---|----------------------------|
| 2 | Check the charging system. |
|---|----------------------------|

1. Start up the vehicle.
2. Check whether the instrument charging system fault warning lamp is on.

| | |
|-----|--|
| Yes | Enter the “Charging system” diagnosis. |
|-----|--|

| |
|----|
| No |
|----|

| | |
|---|--------------------------|
| 3 | Test the battery status. |
|---|--------------------------|

1. Set the START/STOP button to OFF.
2. Perform a battery condition test.
3. Does the battery pass the test?

| | |
|----|---------------------|
| No | Replace the battery |
|----|---------------------|

| |
|-----|
| Yes |
|-----|

| | |
|---|--|
| 4 | Check the front compartment fuse box fuse. |
|---|--|

1. Check whether the front compartment fuse box fuse F1/41(5A) and F1/50(70A) are normal.

| | |
|----|------------------|
| No | Replace the fuse |
|----|------------------|

| |
|-----|
| Yes |
|-----|

| | |
|---|--|
| 5 | Check the electronic power steering control module harness plug. |
|---|--|

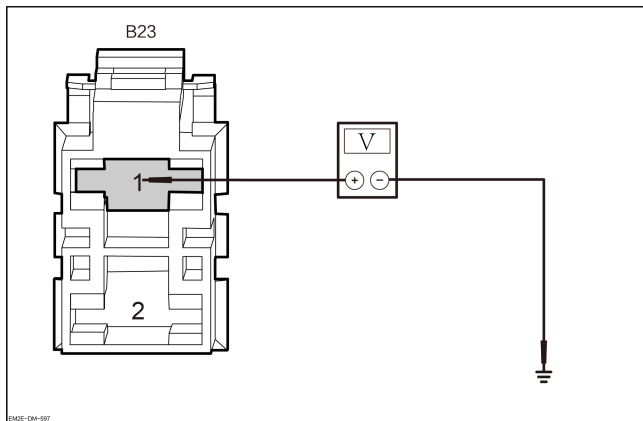
1. Disconnect the electronic power steering control module harness plugs B22 and B23.
2. Check whether the harness and connector are normal.

No

Repair or replace the wire harness

Yes

6 Check the constant power supply of the electronic power steering control module.



1. Measure the voltage value between the electronic power steering control module harness plug B23-1 and ground.

| Plug | | Condition | Voltage value |
|-------|--------|-------------|---------------|
| (+) | (-) | | |
| B23-1 | Ground | Through-out | 11~14V |

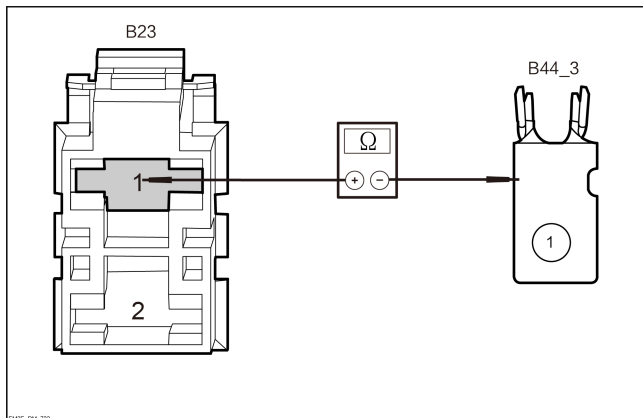
2. Check whether the results are normal.

Yes

[Go to step 8](#)

No

7 Check the electronic power steering control module constant power for open circuit.



1. Disconnect the front compartment fuse box harness plug B44_3.
2. Measure the resistance value between the electronic power steering control module harness plug B23-1 and the front compartment fuse box harness plug B44_3-1.

| Plug | | Condition | Resistance value |
|-------|---------|-------------|------------------|
| (+) | (-) | | |
| B23-1 | B44_3-1 | Through-out | Lower than 1Ω |

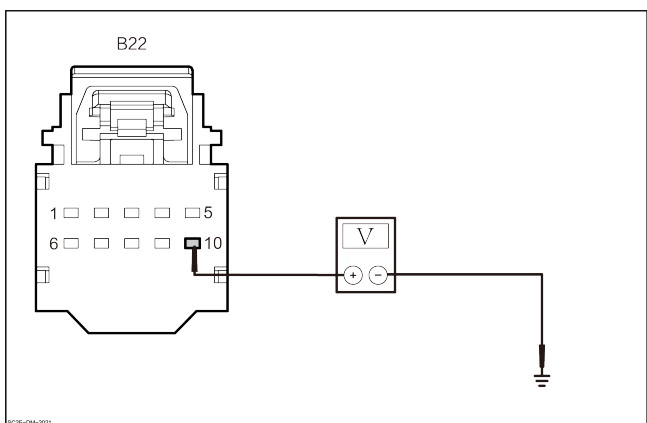
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

8 Check the ON position power supply of the electronic power steering control module.



1. Disconnect the electronic power steering control module harness connector B22.
2. Set the START/STOP button to ON.
3. Measure the voltage value between the electronic power steering control module harness plug B22-10 and ground.

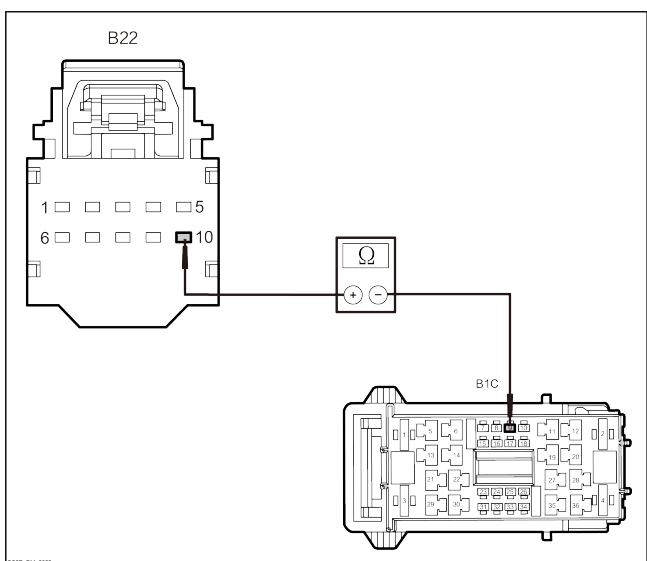
| Plug | | Condition | Voltage value |
|--------|--------|-------------|---------------|
| (+) | (-) | | |
| B22-10 | Ground | Through-out | 11~14V |

4. Check whether the results are normal.

Yes Go to step 10

No Replace the front compartment fuse box.

9 Replace the battery coolant for the first 2 years or 40,000 km, whichever comes first, and thereafter for every 2 years or 100,000 km.



1. Set the START/STOP button to OFF.
2. Disconnect the front compartment fuse box harness plug B1C.
3. Measure the resistance value between the electronic power steering control module harness plug B22-10 and the front compartment fuse box harness plug B1 C-9.

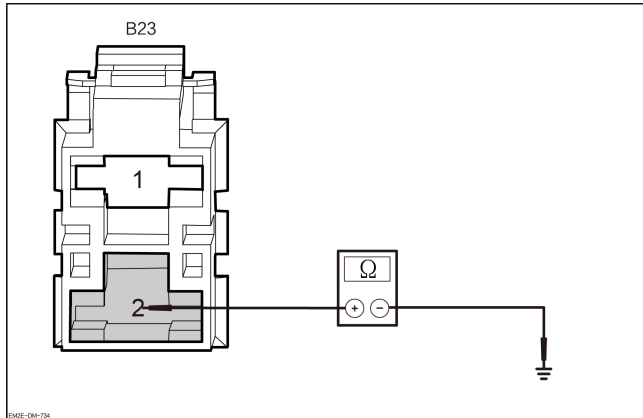
| Plug | | Condition | Resist- ance value |
|--------|-------|-------------|--------------------------|
| (+) | (-) | | |
| B22-10 | B1C-9 | Through-out | Lower than 1Ω |

4. Check whether the results are normal.

No Repair or replace the wire harness

Yes

10 Check the electronic power steering control module ground circuit.



1. Measure the resistance value between the combination switch harness plug B23-2 and the ground.

| Plug | | Condition | Resistance value |
|-------|--------|-------------|------------------|
| (+) | (-) | | |
| B23-2 | Ground | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

- No
Repair or replace the wire harness
- Yes
Replace the steering gear assembly.

C1B9D22 Voltage of Power Supply Too High**DTC Description**

| C1B9D22 Voltage of Power Supply Too High | |
|--|---|
| Symptom | – |
| Possible Cause | 1. Abnormal power supply 2. EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the torque sensor harness connector. |
|---|--|

1. Check whether the torque sensor harness and connector are normal.

No

Repair or replace the wire harness

Yes

Replace the steering gear assembly.

C1B9C23 Main/Auxiliary/Torque Signal Keeping at Low Level

DTC Description

| C1B9C23 Main/Auxiliary/Torque Signal Keeping at Low Level | |
|---|---|
| Symptom | -- |
| Possible Cause | 1. Torque sensor line fault. 2. The ESP control module internally fails. |
| Fault setting conditions | -- |
| Trigger fault conditions | -- |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the START/STOP button to “ON” .
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the torque sensor harness connector. |
|---|--|

1. Check whether the torque sensor harness and connector are normal.

No

Repair or replace the wire harness

Yes

Replace the steering gear assembly.

C1B9C24 Main/Auxiliary/Torque Signal Keeping at High Level**DTC Description**

| C1B9C24 Main/Auxiliary/Torque Signal Keeping at High Level | |
|--|---|
| Symptom | -- |
| Possible Cause | 1. Torque sensor line fault. 2. The ESP control module internally fails. |
| Fault setting conditions | -- |
| Trigger fault conditions | -- |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the START/STOP button to “ON” .
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the torque sensor harness connector. |
|---|--|

1. Check whether the torque sensor harness and connector are normal.

No

Repair or replace the wire harness

Yes

Replace the steering gear assembly.

U016002 Duty Cycle of Main/Auxiliary/Main+Auxiliary Torque Signal Abnormal

DTC Description

| U016002 Duty Cycle of Main/Auxiliary/Main+Auxiliary Torque Signal Abnormal | |
|--|---|
| Symptom | – |
| Possible Cause | 1. Torque sensor line fault. 2. EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the torque sensor harness connector. |
|---|--|

1. Check whether the torque sensor harness and connector are normal.

No

Repair or replace the wire harness

Yes

Replace the steering gear assembly.

U015A38 Main/Auxiliary/Torque Signal Period Abnormal

DTC Description

| U015A38 Main/Auxiliary/Torque Signal Period Abnormal | |
|--|---|
| Symptom | – |
| Possible Cause | 1. Torque sensor line fault. 2. EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the torque sensor harness connector. |
|---|--|

1. Check whether the torque sensor harness and connector are normal.

No

Repair or replace the wire harness

Yes

Replace the steering gear assembly.

C1BA023 Main/Auxiliary Angle Signal Level Constant Low**DTC Description**

| C1BA023 Main/Auxiliary Angle Signal Level Constant Low | |
|--|--|
| Symptom | – |
| Possible Cause | 1. Angle sensor line fault. 2. EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the angle sensor harness connector. |
|---|---|

1. Check whether the angle sensor harness and connector are normal.

No

Repair or replace the wire harness

Yes

Replace the steering gear assembly.

C1BA024 Main/Auxiliary Angle Signal Level Constant High

DTC Description

| C1BA024 Main/Auxiliary Angle Signal Level Constant High | |
|---|--|
| Symptom | – |
| Possible Cause | 1. Angle sensor line fault. 2. EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the angle sensor harness connector. |
|---|---|

1. Check whether the angle sensor harness and connector are normal.

No

Repair or replace the wire harness

Yes

Replace the steering gear assembly.

U015B02 Duty Cycle of Main/Auxiliary Angle Signal Abnormal

DTC Description

| U015B02 Duty Cycle of Main/Auxiliary Angle Signal Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | 1. Angle sensor line fault. 2. EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the angle sensor harness connector. |
|---|---|

1. Check whether the angle sensor harness and connector are normal.

No

Repair or replace the wire harness

Yes

Replace the steering gear assembly.

U015D86 Angle Signal Unavailable

DTC Description

| U015D86 Angle Signal Unavailable | |
|----------------------------------|--------------------------------|
| Symptom | – |
| Possible Cause | EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Re-calibrate the angle signal.
4. Clear DTCs.
5. Set the START/STOP button to OFF, and wait a few seconds.
6. Place the start/stop button in ON position again, and read the DTC.
7. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the steering gear assembly.

C1BA500 ECU Operation Error

DTC Description

| C1BA500 ECU Operation Error | |
|-----------------------------|--------------------------------|
| Symptom | – |
| Possible Cause | EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the steering gear assembly.

C1BA600 ECU Overtemperature

DTC Description

| C1BA600 ECU Overtemperature | |
|-----------------------------|--------------------------------|
| Symptom | – |
| Possible Cause | EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|-------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering gear assembly. |

C1BA700 ECU Fails to ROM and Check

DTC Description

| C1BA700 ECU Fails to ROM and Check | |
|------------------------------------|--------------------------------|
| Symptom | – |
| Possible Cause | EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the steering gear assembly.

C1B6044 ECU RAM Fault**DTC Description**

| C1B6044 ECU RAM Fault | |
|--------------------------|--------------------------------|
| Symptom | – |
| Possible Cause | EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnosis Description

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|-------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering gear assembly. |

C1BA900 Supply Voltage of Torque Sensor Abnormal

DTC Description

| C1BA900 Supply Voltage of Torque Sensor Abnormal | |
|--|--|
| Symptom | – |
| Possible Cause | 1. Torque sensor harness fault. 2. EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the torque sensor harness connector. |
|---|--|

1. Check whether the torque sensor harness and connector are normal.

No

Repair or replace the wire harness

Yes

Replace the steering gear assembly.

C1BAA00 Motor Drive Circuit Failed

DTC Description

| C1BAA00 Motor Drive Circuit Failed | |
|------------------------------------|--------------------------------|
| Symptom | – |
| Possible Cause | EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check EPS of left body control module. |
|---|--|

1. Connect the VDS to the DCL3 diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the steering gear assembly.

C1BAB21 Output Voltage of Temperature Detection Circuit Too Low

DTC Description

| C1BAB21 Output Voltage of Temperature Detection Circuit Too Low | |
|---|--------------------------------|
| Symptom | – |
| Possible Cause | EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnosis Description

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|-------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering gear assembly. |

C1BAB22 Output Voltage of Temperature Detection Circuit Too High

DTC Description

| C1BAB22 Output Voltage of Temperature Detection Circuit Too High | |
|--|--------------------------------|
| Symptom | – |
| Possible Cause | EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the steering gear assembly.

U015E31 Motor Rotor Position Signal Fault

DTC Description

| C1BAE00 ECU Not Executing Angle Calibration Order | |
|---|--------------------------------|
| Symptom | – |
| Possible Cause | EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|-------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering gear assembly. |

C1BAE00 ECU Not Executing Angle Calibration Order

DTC Description

| C1BAE00 ECU Not Executing Angle Calibration Order | |
|---|--------------------------------|
| Symptom | – |
| Possible Cause | EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the steering gear assembly.

U015 F86 Received ESP Signal Not Available

DTC Description

| U015 F86 Received ESP Signal Not Available | |
|--|--|
| Symptom | – |
| Possible Cause | 1. ESP controller internal fault. 2. EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

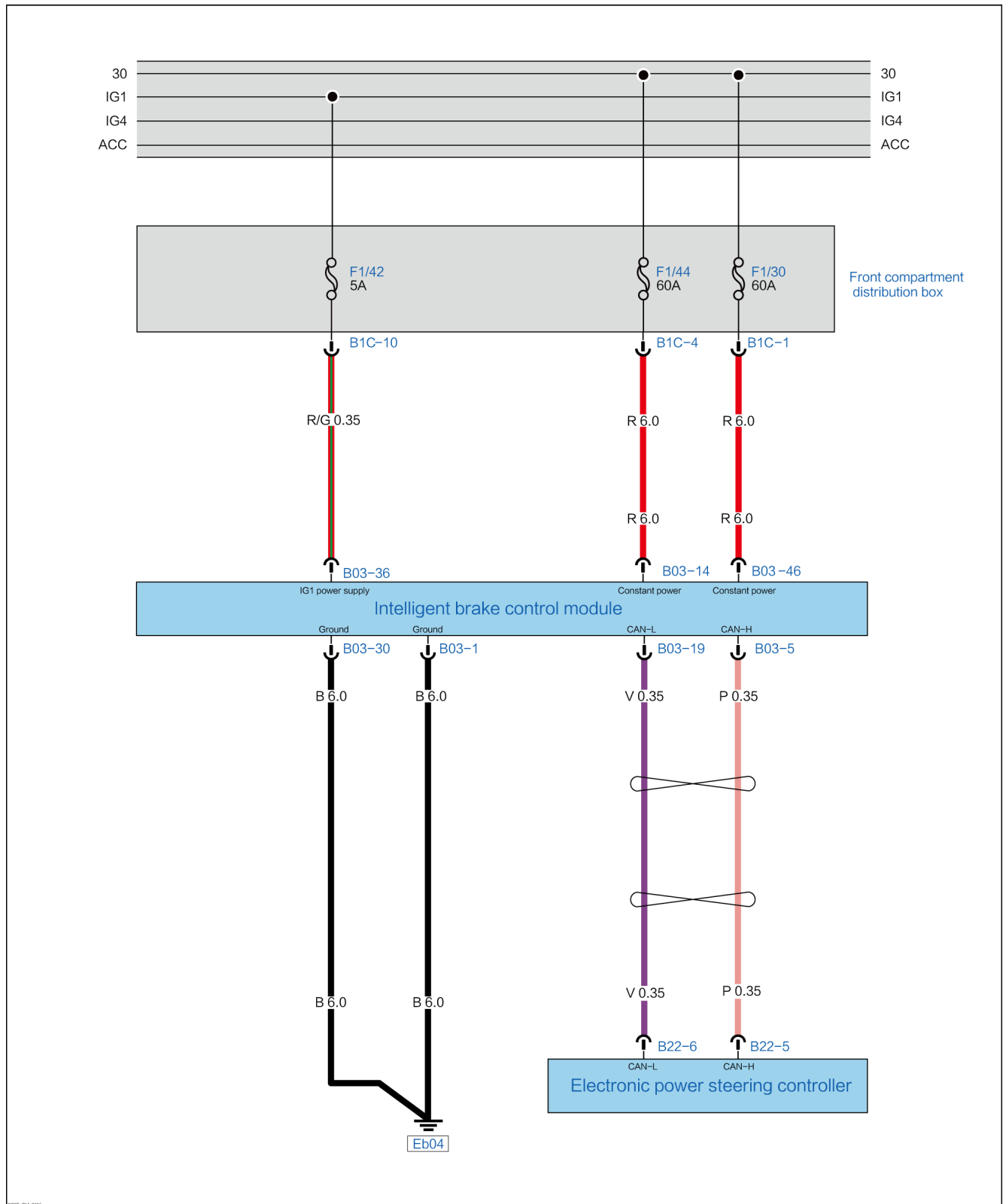
| | |
|---|--|
| 1 | <p>Check whether ESP DTC exists.</p> <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the START/STOP button to ON. 3. Read the DTC of ESP with VDS. 4. Check whether DTC exists. <p>Yes → Enter the “ESP diagnosis”</p> <p>No</p> |
| 2 | <p>Replace the ESP and check the electronic power steering control module DTC.</p> <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the START/STOP button to ON. 3. Clear DTCs. 4. Set the START/STOP button to OFF, and wait a few seconds. 5. Place the start/stop button in ON position again, and read the DTC. 6. Check whether the same DTC is displayed? <p>No → After diagnosis is finished, the system is normal.</p> <p>Yes → Replace the steering gear assembly.</p> |

U015887 Communication with ESP Lost –YB

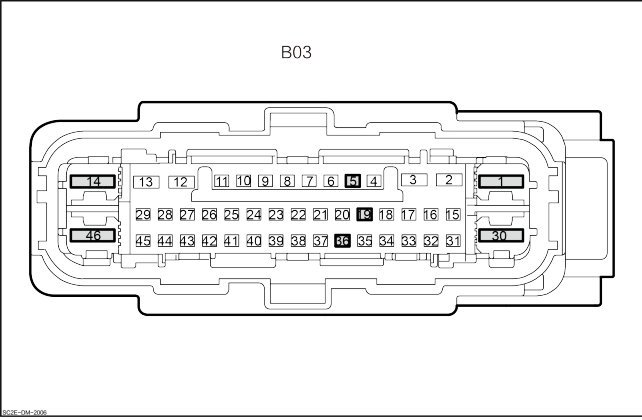
DTC Description

| U015887 Communication with ESP Lost | |
|-------------------------------------|--|
| Symptom | – |
| Possible Cause | 1. ESP controller internal fault. 2. EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Smart brake control module</p> <p style="text-align: center;">B03</p>  <p style="font-size: small; margin-top: 10px;">B03E-04-2006</p> | 1 | Ground |
| | 5 | CAN-H |
| | 14 | Constant power |
| | 19 | CAN-L |
| | 30 | Ground |
| | 36 | IG1 power supply |
| | 46 | Constant power |

Diagnostic Steps

1 Check the communication network.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the intelligent brake control module passes the network detection?

Yes → Go to step 11

No

2 Check the front compartment fuse box fuse.

1. Check the fuses of front compartment fuse box F1/ 42(5A), F1/30(60A) and F1/44(60A) for normal function.

No → Replace the fuse

Yes

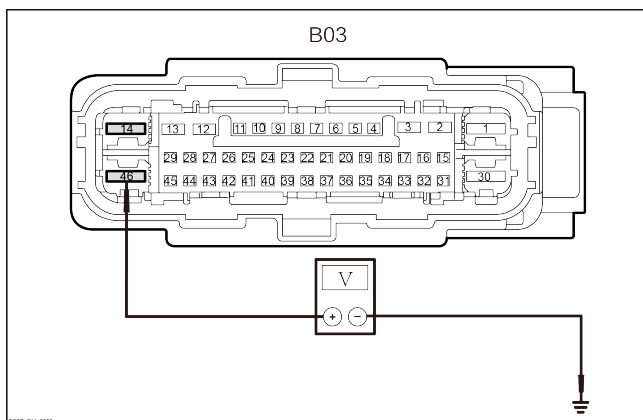
3 Check the intelligent brake control module harness and plug.

1. Set the START/STOP button to “OFF” .
2. Disconnect the intelligent brake control module harness plug B03.
3. Check whether the intelligent brake control module harness plug is normal.

No → Repair or replace the wire harness

Yes

4 Check the power supply of intelligent brake control module.



1. Measure the voltage between the harness plug of intelligent brake control module B03-14 , B03-46 and the ground.

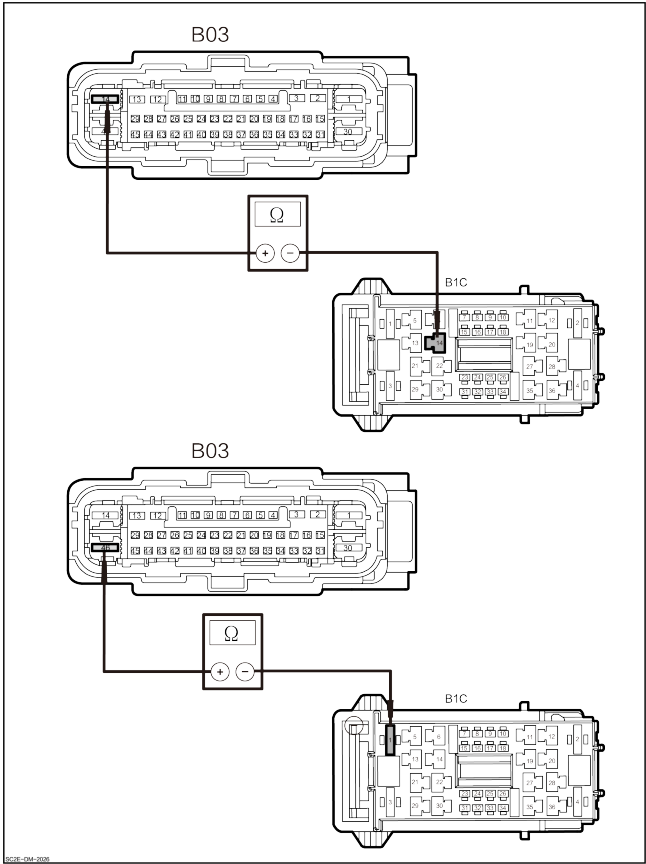
| Plug | | Condition | Voltage value |
|--------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-14 | Ground | Through-out | 11~14V |
| B03-46 | | | |

2. Check whether the results are normal.

Yes Go to step 6

No

5 Check the constant power supply of intelligent brake control module for open circuit.



1. Disconnect the harness plug B1C from the front compartment fuse box.
2. Set the start/stop button to OK.
3. Measure the resistance between the harness plug of intelligent brake control module B03-14 and the harness connector of front compartment fuse box B1C-4.
4. Measure the resistance between the harness plug of intelligent brake control module B03-46 and the harness connector of front compartment fuse box B1C-1.

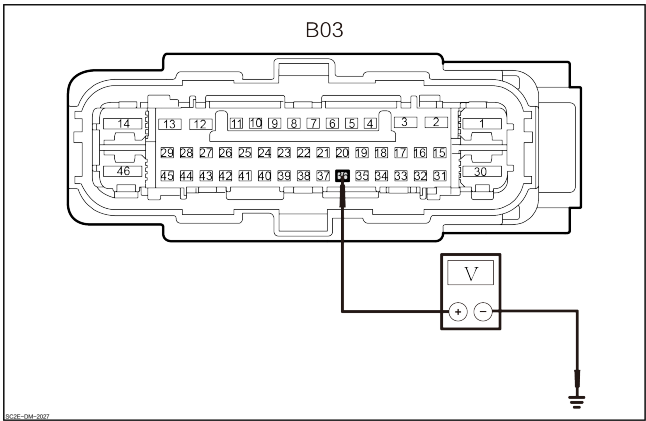
| Plug | | Condition | Resistance value |
|--------|-------|-------------|------------------|
| (+) | (-) | | |
| B03-14 | B1C-4 | Through-out | Lower than 1Ω |
| B03-46 | B1C-1 | | |

5. Check whether the results are normal.

No Repair or replace the wire harness

Yes

6 Check the ON position power supply of intelligent brake control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness plug of intelligent brake control module B03-36 and the ground.

| Plug | | Condition | Voltage value |
|--------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-36 | Ground | Through-out | 11~14V |

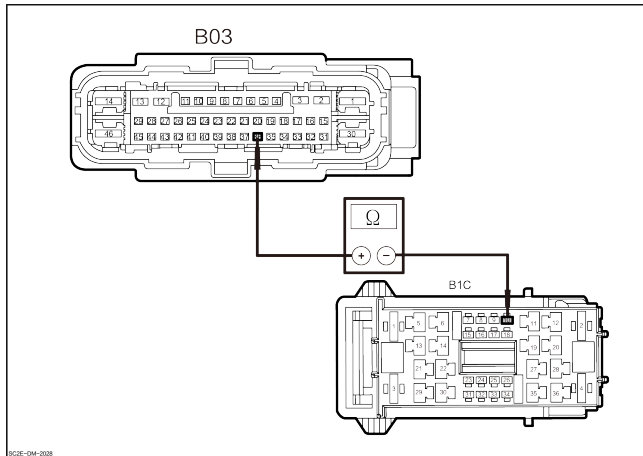
3. Check whether the results are normal.

Yes

Go to step 8

No

7 Check the ON position power supply of intelligent brake control module for open circuit.



1. Set the START/STOP button to “OFF” .
2. Disconnect the harness plug B1C from the front compartment fuse box.
3. Measure the resistance between the harness plug of intelligent brake control module B03-36 and the harness connector of front compartment fuse box B1C-10.

| Plug | | Condition | Resist- ance value |
|--------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-36 | B1C-10 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

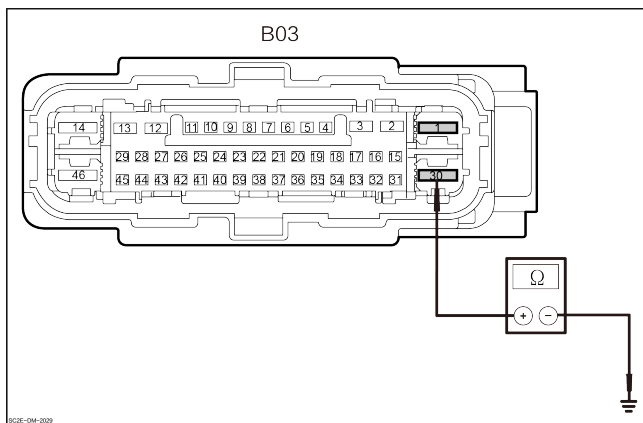
No

Repair or replace the wire harness

Yes

Replace the front compartment electrical box.

8 Check the smart brake control module GND.



1. Measure the resistance between the harness plug of intelligent brake control module B03-1 and the ground.
2. Measure the resistance between the harness plug of intelligent brake control module B03-30 and the ground.

| Plug | | Condition | Resist- ance value |
|--------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-1 | Ground | Through- out | Lower than 1 Ω |
| B03-30 | | | |

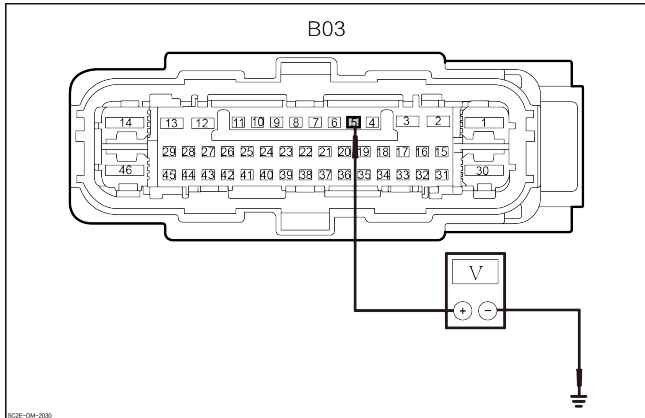
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

9 Check CAN-H line of intelligent brake control module.



1. Set the START/STOP button to ON.
2. Measure the voltage between the harness plug of intelligent brake control module B03-5 and the ground.

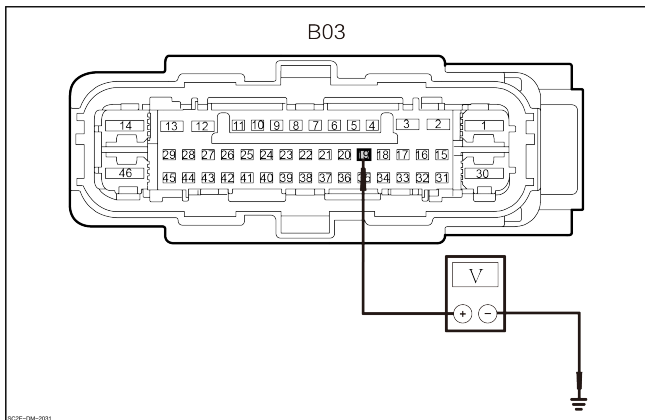
| Plug | | Condition | Voltage value |
|-------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-5 | Ground | Through-out | 2.5~3.5V |

3. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes

10 Check CAN-L line of intelligent brake control module.



1. Measure the voltage between the harness plug of intelligent brake control module B03-19 and the ground.

| Plug | | Condition | Voltage value |
|--------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-19 | Ground | Through-out | 1.5~2.5V |

2. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the smart brake control module.

11 Check the DTC of smart brake control module.

1. Read the DTC of smart brake control module with VDS.
2. Check whether DTC exists.

Yes → Enter the "Brake Intelligent Control Module" diagnosis.

No

12 Check the electronic power steering control module DTC.

1. Read the DTC of electronic power steering control module with VDS.
2. Check whether DTC exists.

Yes

Enter the "Electronic Power Steering Control Module" diagnosis.

No

13

Check the DTC of other modules.

1. Does the other module read the loss of communication with the intelligent brake control module?

Yes

Replace the smart brake control module.

No

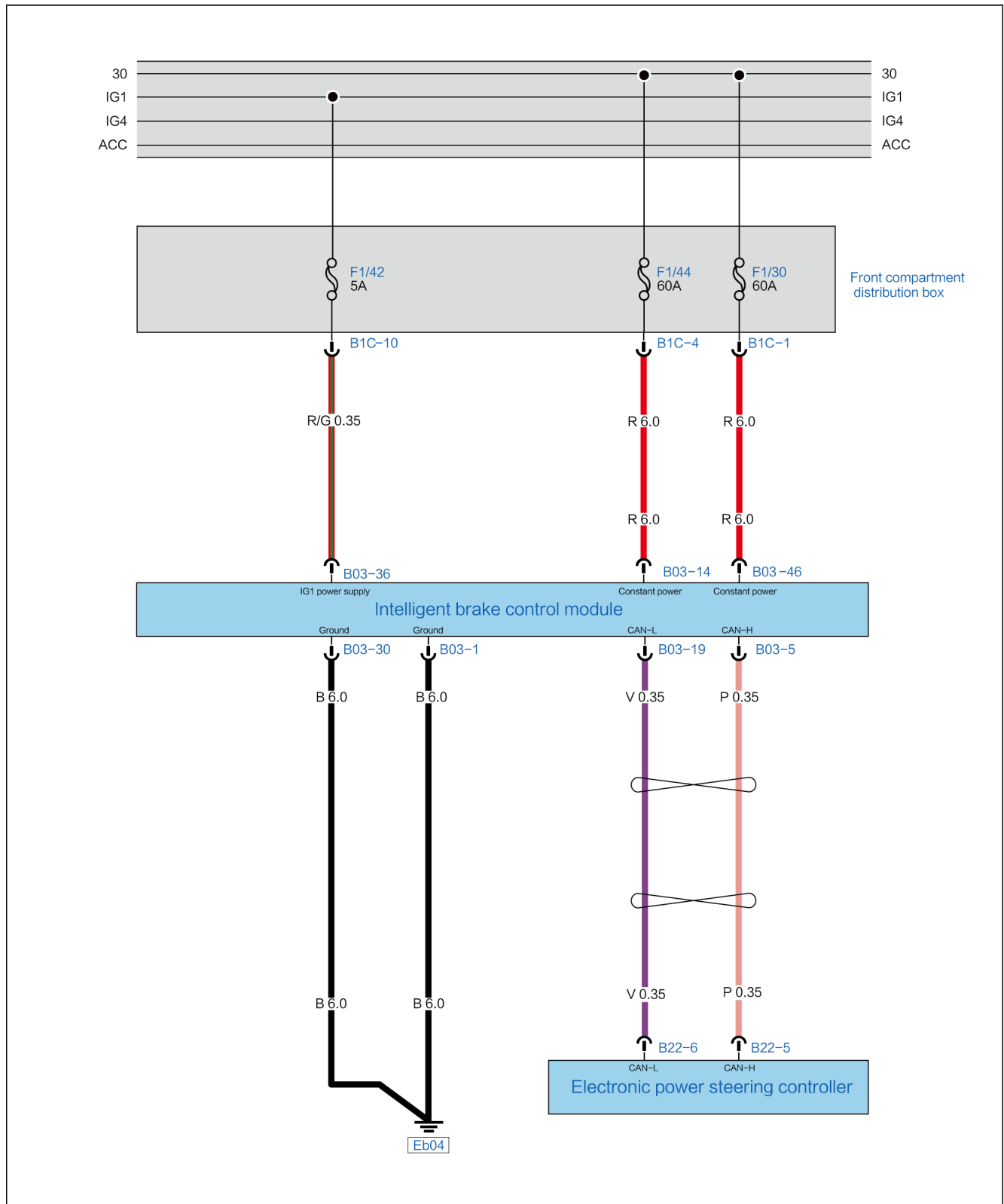
Replace the electronic power steering controller.

U015887 Communication with ESP Lost –TRW

DTC Description

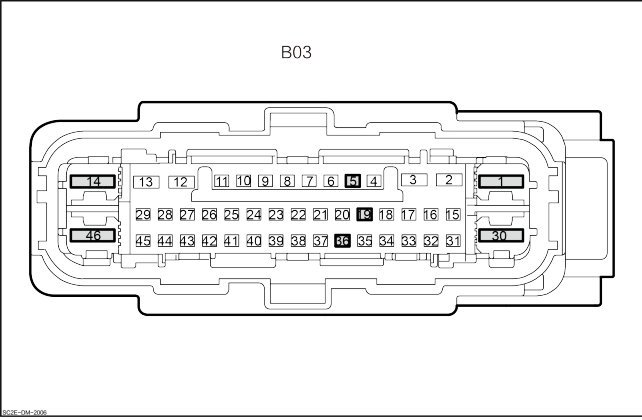
| U015887 Communication with ESP Lost | |
|-------------------------------------|--|
| Symptom | – |
| Possible Cause | 1. ESP controller internal fault. 2. EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



EGD1-PA-2003

Terminal Definition

| Plug | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">Smart brake control module</p> <p style="text-align: center;">B03</p>  <p style="font-size: small; margin-top: 10px;">B03-04-2006</p> | 1 | Ground |
| | 5 | CAN-H |
| | 14 | Constant power |
| | 19 | CAN-L |
| | 30 | Ground |
| | 36 | IG1 power supply |
| | 46 | Constant power |

Diagnostic Steps

1 Check the communication network.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the intelligent brake control module passes the network detection?

Yes → Go to step 11

No

2 Check the front compartment fuse box fuse.

1. Check the fuses of front compartment fuse box F1/ 42(5A), F1/30(60A) and F1/44(60A) for normal function.

No → Replace the fuse

Yes

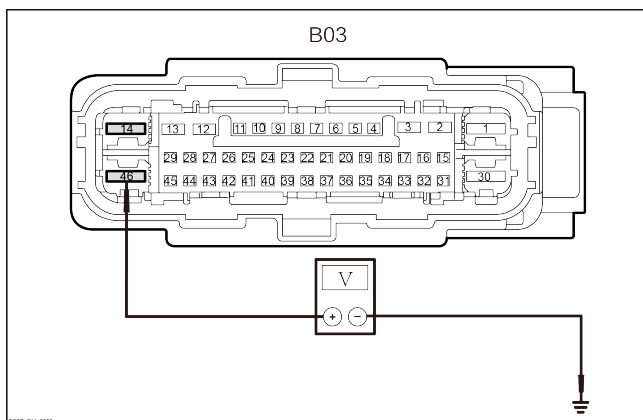
3 Check the intelligent brake control module harness and plug.

1. Set the START/STOP button to “OFF” .
2. Disconnect the intelligent brake control module harness plug B03.
3. Check whether the intelligent brake control module harness plug is normal.

No → Repair or replace the wire harness

Yes

4 Check the power supply of intelligent brake control module.



1. Measure the voltage between the harness plug of intelligent brake control module B03-14 , B03-46 and the ground.

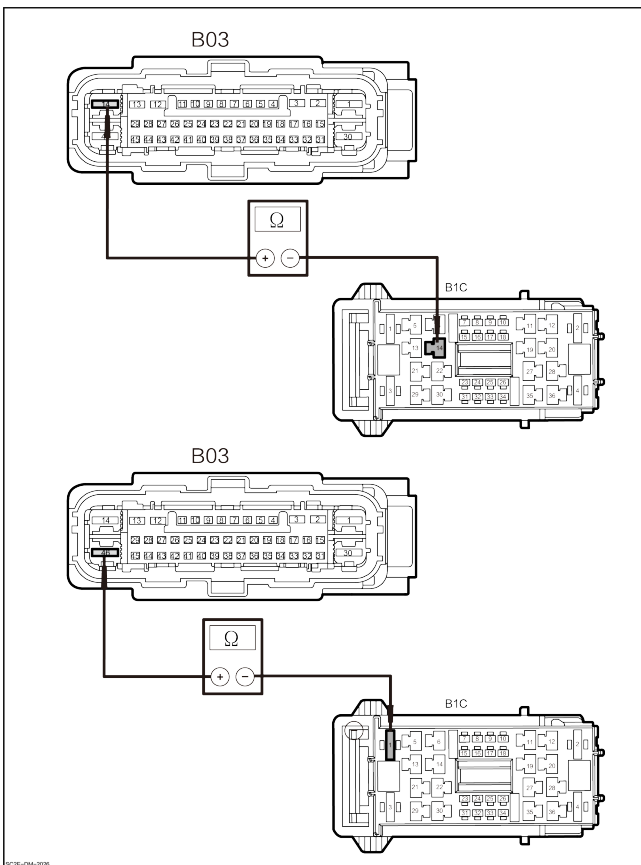
| Plug | | Condition | Voltage value |
|--------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-14 | Ground | Through-out | 11~14V |
| B03-46 | | | |

2. Check whether the results are normal.

Yes Go to step 6

No

5 Check the constant power supply of intelligent brake control module for open circuit.



1. Disconnect the harness plug B1C from the front compartment fuse box.
2. Set the start/stop button to OK.
3. Measure the resistance between the harness plug of intelligent brake control module B03-14 and the harness connector of front compartment fuse box B1C-4.
4. Measure the resistance between the harness plug of intelligent brake control module B03-46 and the harness connector of front compartment fuse box B1C-1.

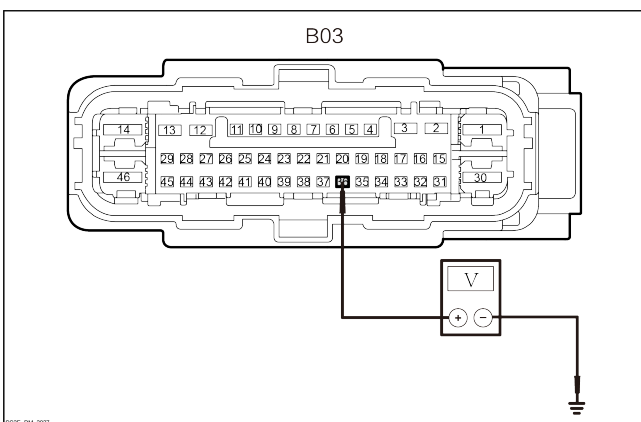
| Plug | | Condition | Resistance value |
|--------|-------|-------------|------------------|
| (+) | (-) | | |
| B03-14 | B1C-4 | Through-out | Lower than 1Ω |
| B03-46 | B1C-1 | | |

5. Check whether the results are normal.

No Repair or replace the wire harness

Yes

6 Check the ON position power supply of intelligent brake control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness plug of intelligent brake control module B03-36 and the ground.

| Plug | | Condition | Voltage value |
|--------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-36 | Ground | Through-out | 11~14V |

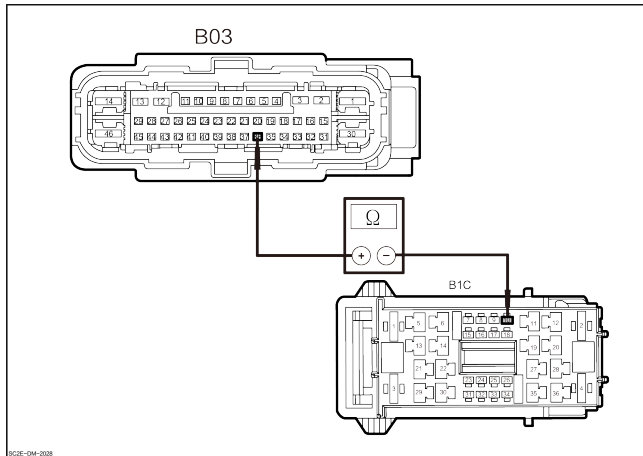
3. Check whether the results are normal.

Yes

Go to step 8

No

7 Check the ON position power supply of intelligent brake control module for open circuit.



1. Set the START/STOP button to “OFF” .
2. Disconnect the harness plug B1C from the front compartment fuse box.
3. Measure the resistance between the harness plug of intelligent brake control module B03-36 and the harness connector of front compartment fuse box B1C-10.

| Plug | | Condition | Resist- ance value |
|--------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-36 | B1C-10 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

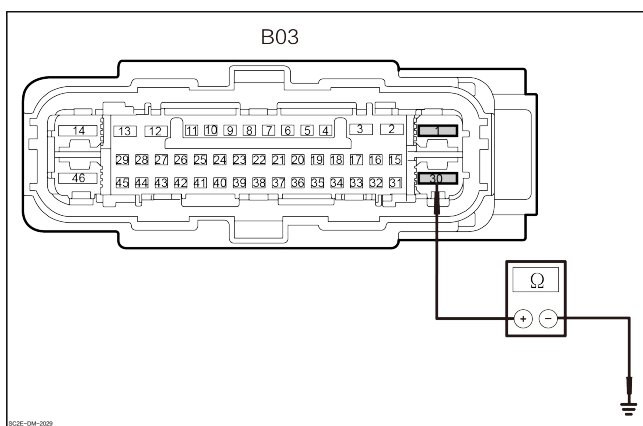
No

Repair or replace the wire harness

Yes

Replace the front compartment electrical box.

8 Check the smart brake control module GND.



1. Measure the resistance between the harness plug of intelligent brake control module B03-1 and the ground.
2. Measure the resistance between the harness plug of intelligent brake control module B03-30 and the ground.

| Plug | | Condition | Resist- ance value |
|--------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B03-1 | Ground | Through- out | Lower than 1 Ω |
| B03-30 | | | |

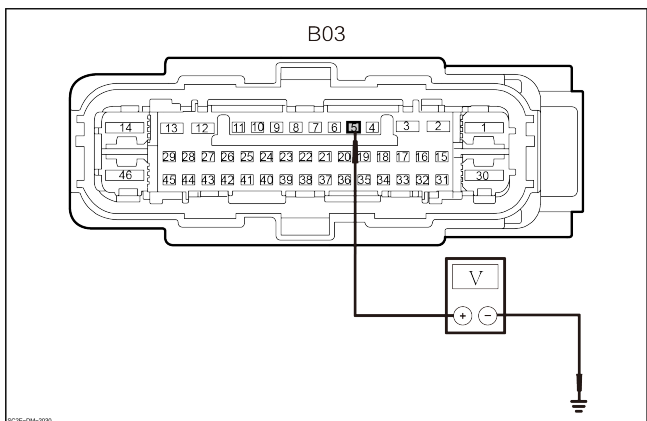
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

9 Check CAN-H line of intelligent brake control module.



1. Set the START/STOP button to ON.
2. Measure the voltage between the harness plug of intelligent brake control module B03-5 and the ground.

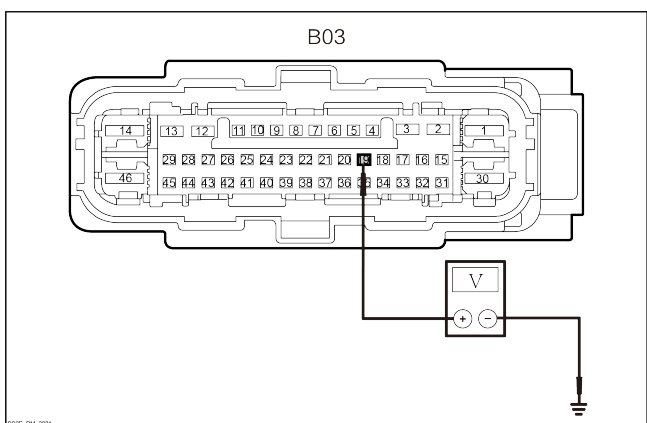
| Plug | | Condition | Voltage value |
|-------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-5 | Ground | Through-out | 2.5~3.5V |

3. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes

10 Check CAN-L line of intelligent brake control module.



1. Measure the voltage between the harness plug of intelligent brake control module B03-19 and the ground.

| Plug | | Condition | Voltage value |
|--------|--------|-------------|---------------|
| (+) | (-) | | |
| B03-19 | Ground | Through-out | 1.5~2.5V |

2. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the smart brake control module.

11 Check the DTC of smart brake control module.

1. Read the DTC of smart brake control module with VDS.
2. Check whether DTC exists.

Yes → Enter the "Brake Intelligent Control Module" diagnosis.

No

12 Check the electronic power steering control module DTC.

1. Read the DTC of electronic power steering control module with VDS.
2. Check whether DTC exists.

Yes

Enter the "Electronic Power Steering Control Module" diagnosis.

No

13

Check the DTC of other modules.

1. Does the other module read the loss of communication with the intelligent brake control module?

Yes

Replace the smart brake control module.

No

Replace the electronic power steering controller.

C1BB200 ESP Speed Data Error

DTC Description

| C1BB200 ESP Speed Data Error | |
|------------------------------|--|
| Symptom | – |
| Possible Cause | 1. ESP controller internal fault. 2. EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of smart brake control module. |
|---|--|

1. Read the DTC of smart brake control module with VDS.
2. Check whether DTC exists.

Yes

Enter "Intelligent Brake Control Module Diagnosis".

No

| | |
|---|---|
| 2 | Check the electronic power steering control module DTC. |
|---|---|

1. Read the DTC of electronic power steering control module with VDS.
2. Check whether DTC exists.

Yes

Enter "Electronic Power Steering Control Module Diagnosis".

No

| | |
|---|---------------------------------|
| 3 | Check the DTC of other modules. |
|---|---------------------------------|

1. Does the other module read the vehicle speed data error fault with the intelligent brake control module?

Yes

Replace the smart brake control module.

No

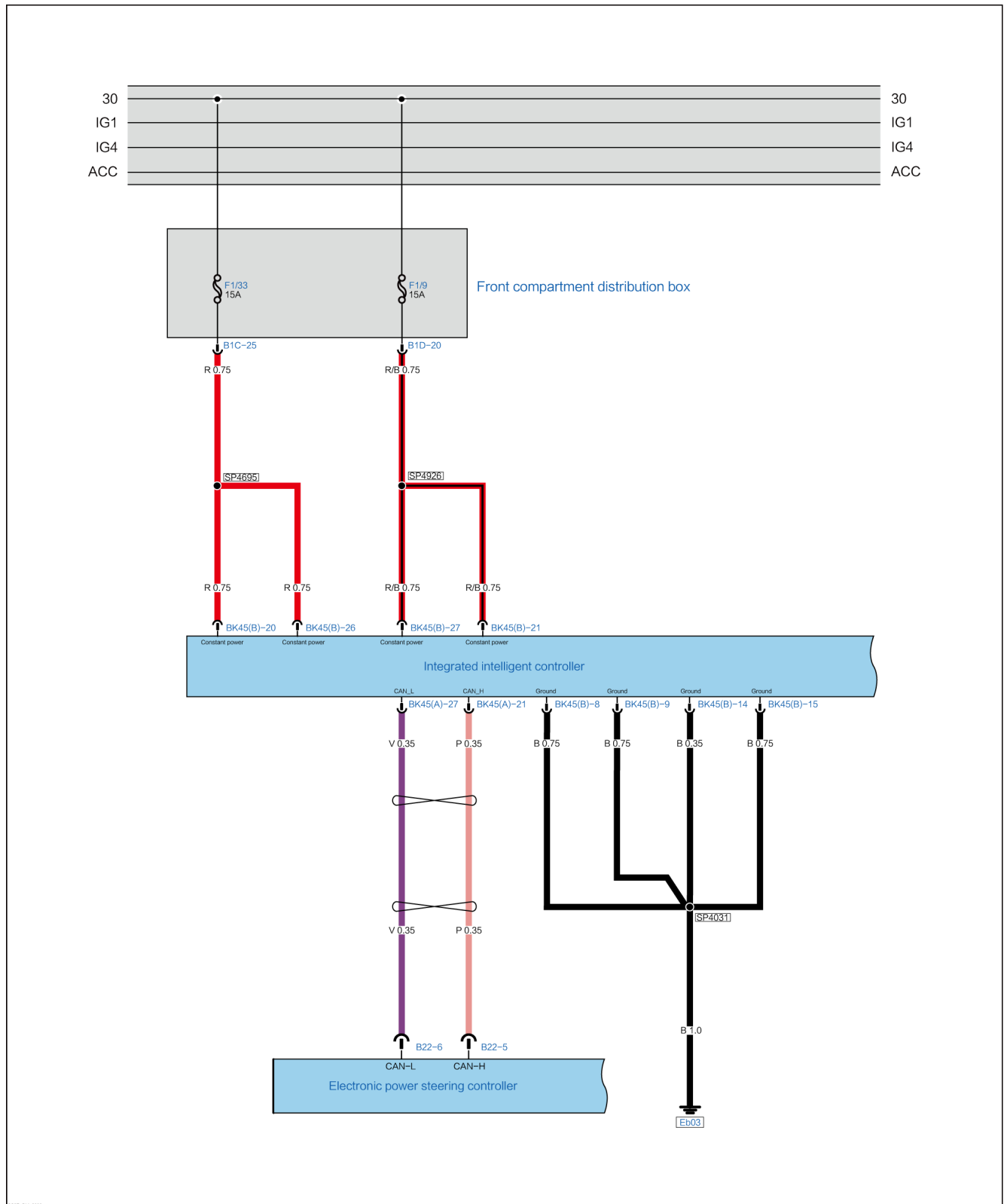
Replace the electronic power steering controller.

U015987 Communication with VTOG Lost –YB

DTC Description

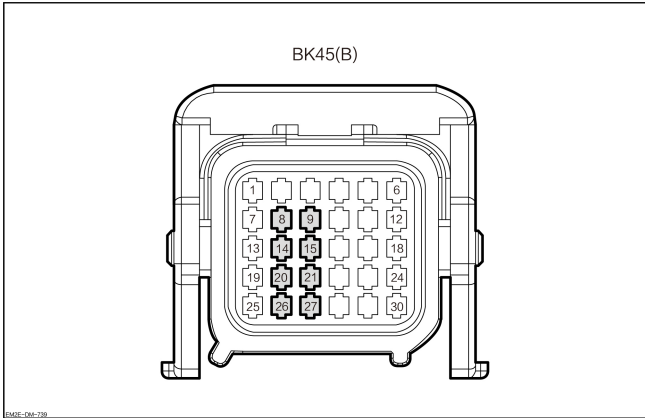
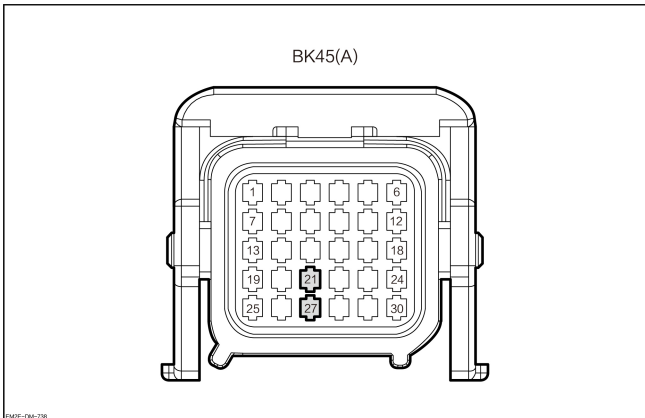
| U015987 Communication with VTOG Lost | |
|--------------------------------------|---|
| Symptom | – |
| Possible Cause | 1. Line fault. 2. EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



SC21-EM-008

Terminal Definition

| Plug | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> <p>Diagram showing a 30-pin plug with terminal 8 highlighted in black.</p> | 8 | Ground |
| | 9 | Ground |
| | 14 | Ground |
| | 15 | Ground |
| | 20 | Constant power |
| | 21 | Constant power |
| | 26 | Constant power |
| | 27 | Constant power |
| <p>Smart integrated front drive control unit</p>  <p>BK45(A)</p> <p>Diagram showing a 30-pin plug with terminal 21 highlighted in black.</p> | 21 | CAN-L |
| | 27 | CAN-H |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the intelligent integrated control module passes the network detection?

Yes

Go to step 9

No

| | |
|---|--|
| 2 | Check the front compartment fuse box fuse. |
|---|--|

1. Check whether the fuses F1/19 (15 A) and F1/33 (15 A) of the front compartment fuse box are normal?

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the intelligent integrated control module harness and plug. |
|---|---|

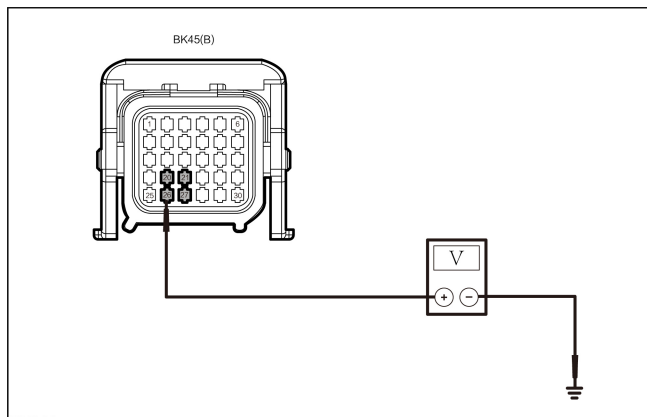
1. Set the START/STOP button to “OFF” .
2. Disconnect the intelligent integrated control module harness plug BK45(B).
3. Check whether the intelligent integrated control module harness plug is normal?

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the constant power supply of the integrated intelligent front drive control module. |
|---|---|



1. Measure the voltage value between the integrated intelligent front drive control module harness plug BK45(B)-20 and the ground.
2. Measure the voltage value between the integrated intelligent front drive control module harness plug BK45(B)-21 and the ground.
3. Measure the voltage value between the integrated intelligent front drive control module harness plug BK45(B)-26 and the ground.
4. Measure the voltage value between the integrated intelligent front drive control module harness plug BK45(B)-27 and the ground.

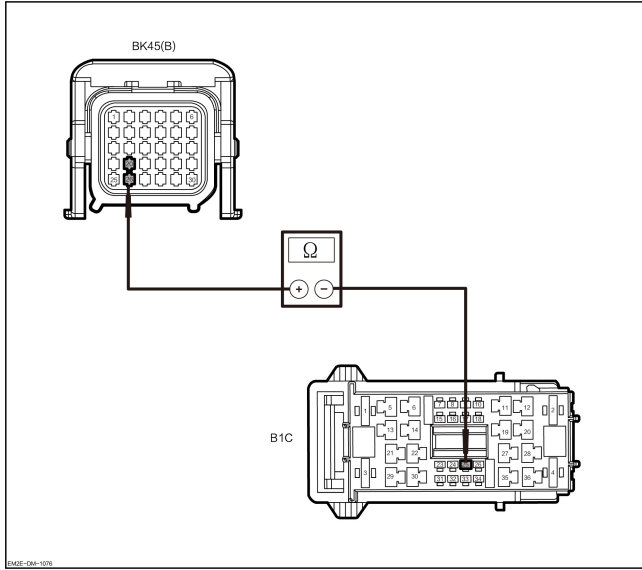
| Connector | | Condition | Voltage value |
|------------|--------|------------|---------------|
| (+) | (-) | | |
| BK45(B)-20 | Ground | Throughout | 11~14V |
| BK45(B)-21 | | | |
| BK45(B)-26 | | | |
| BK45(B)-27 | | | |

5. Check whether the results are normal.

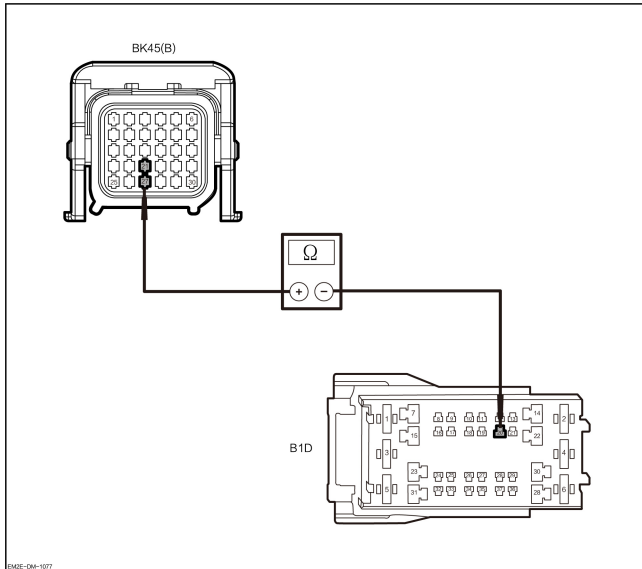
Yes Go to step 6

No

| | |
|---|--|
| 5 | Check whether the power supply of the integrated intelligent front drive control module is open-circuited. |
|---|--|



1. Disconnect the front compartment fuse box harness plugs B1C and B1D.
2. Measure the resistance value between the integrated intelligent front drive control module harness plug BK45(B)-20 and B1C-25.
3. Measure the resistance value between the integrated intelligent front drive control module harness plug BK45(B)-26 and B1C-25.
4. Measure the resistance value between the integrated intelligent front drive control module harness plug BK45(B)-27 and B1D-20.
5. Measure the resistance value between the integrated intelligent front drive control module harness plug BK45(B)-21 and B1D-20.



| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-20 | B1C-25 | Through- out | Lower than 1 Ω |
| BK45(B)-26 | | | |
| BK45(B)-27 | B1D-20 | | |
| BK45(B)-21 | | | |

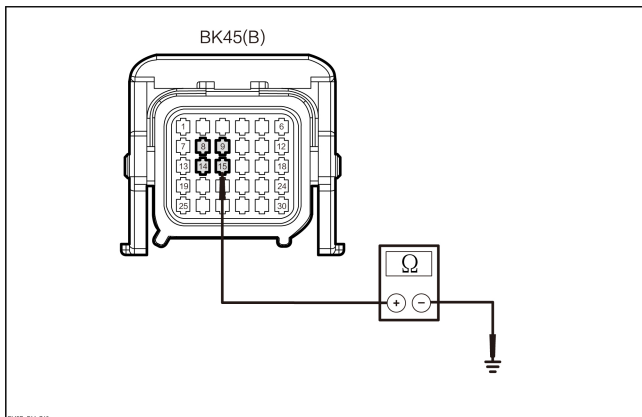
6. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

6 Check the intelligent integrated control module GND.



1. Measure the resistance value between the intelligent integrated control module harness plug BK45(B)-8 and the ground.
2. Measure the resistance value between the intelligent integrated control module harness plug BK45(B)-9 and the ground.
3. Measure the resistance value between the intelligent integrated control module harness plug BK45(B)-14 and the ground.
4. Measure the resistance value between the intelligent integrated control module harness plug BK45(B)-15 and the ground.

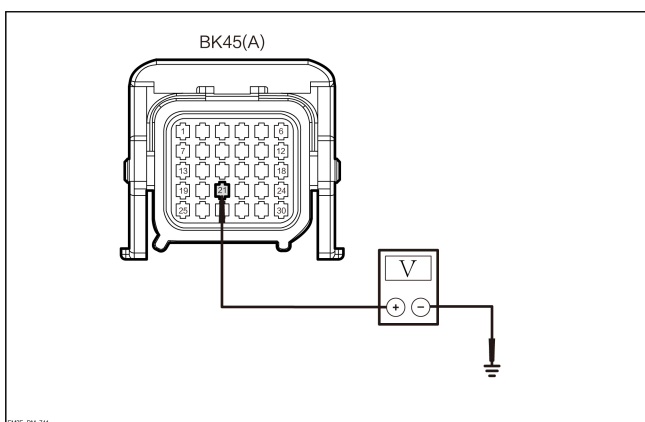
| Plug | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-8 | Ground | Through- out | Lower than 1 Ω |
| BK45(B)-9 | | | |
| BK45(B)-14 | | | |
| BK45(B)-15 | | | |

5. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check CAN-H line of intelligent integrated control module.



1. Set the START/STOP button to ON.
2. Measure the voltage value between the intelligent integrated control module harness plug BK45 (A)-21 and the ground.

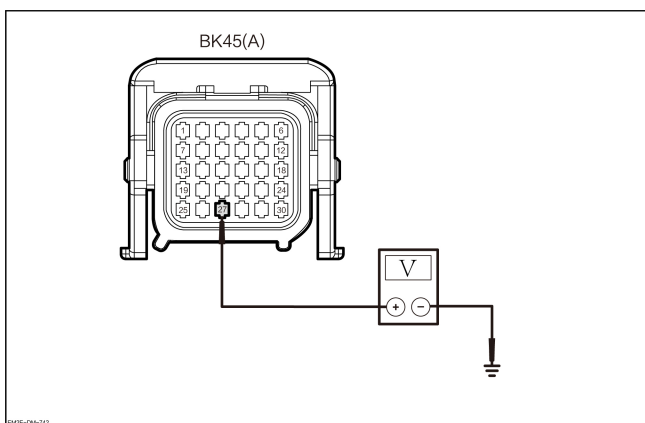
| Plug | | Condition | Voltage value |
|------------|--------|-----------------|------------------|
| (+) | (-) | | |
| BK45(A)-21 | Ground | Through- out | 2.5~3.5V |

3. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes

8 Check CAN-L line of intelligent integrated control module.



1. Measure the voltage value between the intelligent integrated control module harness plug BK45 (A)-27 and the ground.

| Plug | | Condition | Voltage value |
|------------|--------|-----------------|------------------|
| (+) | (-) | | |
| BK45(A)-27 | Ground | Through- out | 1.5~2.5V |

2. Check whether the results are normal.

No

Enter the "CAN diagnosis"

Yes

Replace the smart brake control module.

9

Check the intelligent integrated control module DTC.

1. Use a VDS to read the intelligent integrated control module DTC.
2. Check whether DTC exists.

Yes

Enter "Intelligent Integrated Control Module Diagnosis".

No

10

Check the electronic power steering control module DTC.

1. Read the DTC of electronic power steering control module with VDS.
2. Check whether DTC exists.

Yes

Enter the "Electronic Power Steering Control Module" diagnosis.

No

11

Check the DTC of other modules.

1. Does the other module read a failure to communicate with the intelligent integrated control module?

Yes

Replace the intelligent integrated control module.

No

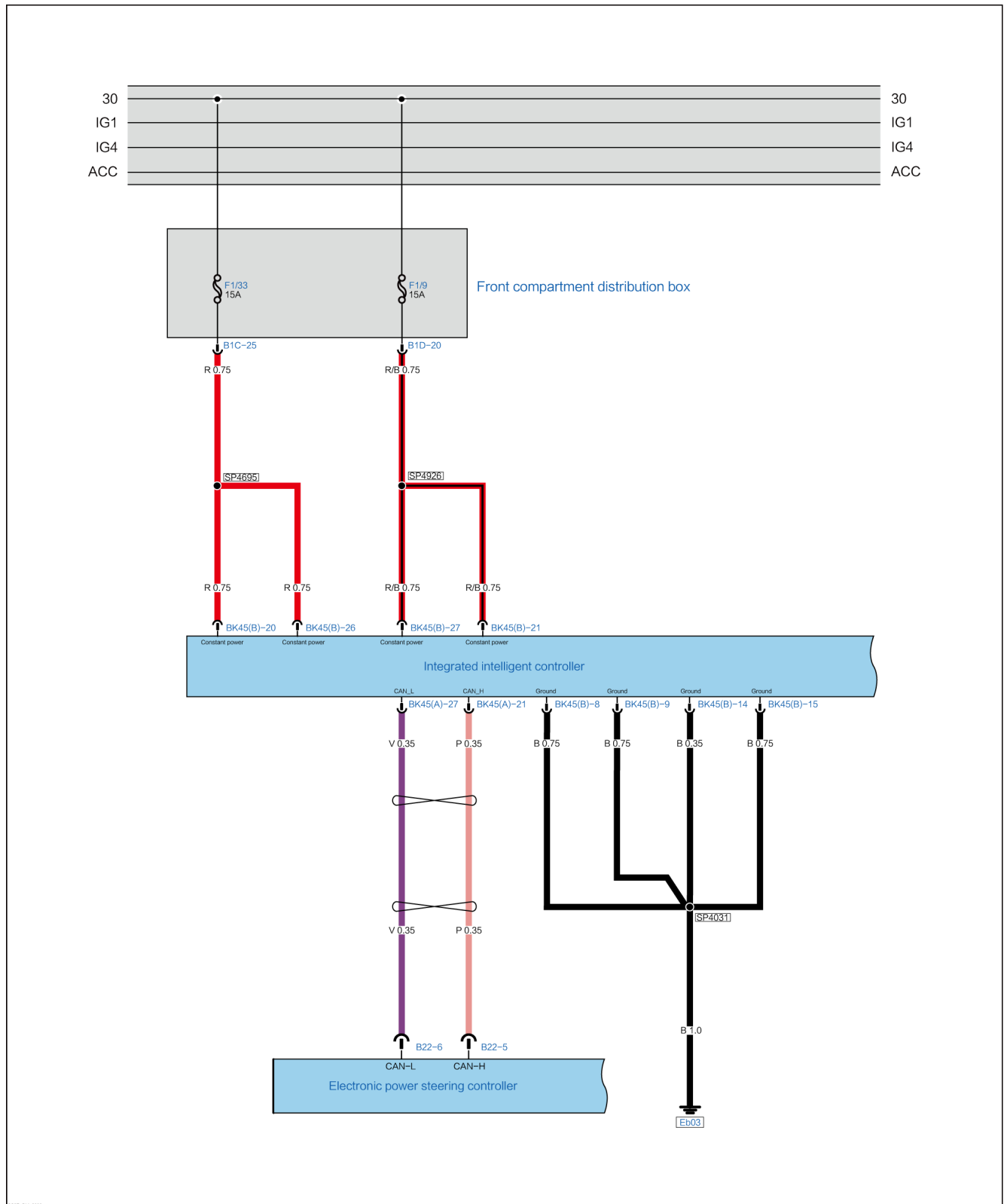
Replace the electronic power steering controller.

U015987 Communication with VTOG Lost –TRW

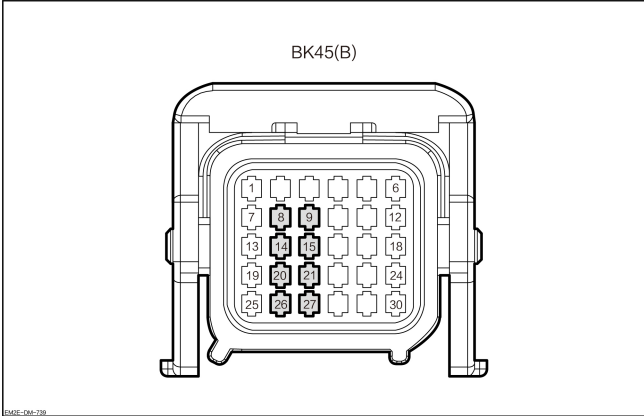
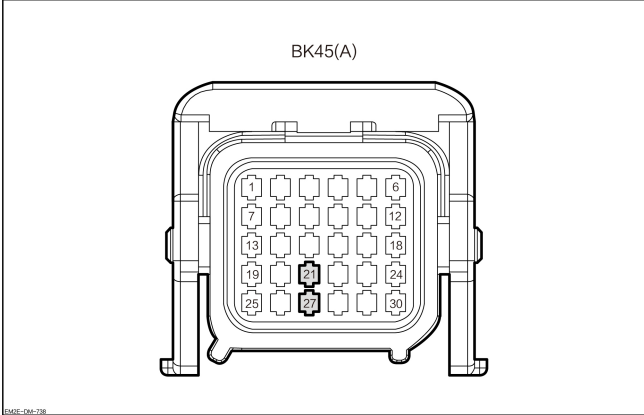
DTC Description

| U015987 Communication with VTOG Lost | |
|--------------------------------------|---|
| Symptom | – |
| Possible Cause | 1. Line fault. 2. EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p>Smart integrated front drive control unit</p>  <p>BK45(B)</p> | 8 | Ground |
| | 9 | Ground |
| | 14 | Ground |
| | 15 | Ground |
| | 20 | Constant power |
| | 21 | Constant power |
| | 26 | Constant power |
| | 27 | Constant power |
| <p>Smart integrated front drive control unit</p>  <p>BK45(A)</p> | 21 | CAN-L |
| | 27 | CAN-H |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the intelligent integrated control module passes the network detection?

Yes

Go to step 9

No

| | |
|---|--|
| 2 | Check the front compartment fuse box fuse. |
|---|--|

1. Check whether the fuses F1/19 (15 A) and F1/33 (15 A) of the front compartment fuse box are normal?

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the intelligent integrated control module harness and plug. |
|---|---|

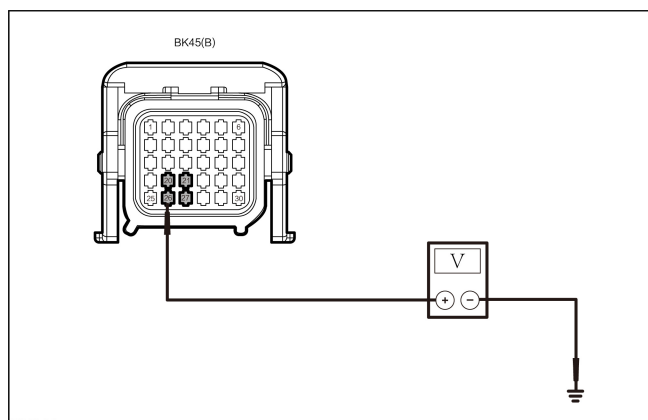
1. Set the START/STOP button to “OFF” .
2. Disconnect the intelligent integrated control module harness plug BK45(B).
3. Check whether the intelligent integrated control module harness plug is normal?

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the constant power supply of the integrated intelligent front drive control module. |
|---|---|



1. Measure the voltage value between the integrated intelligent front drive control module harness plug BK45(B)-20 and the ground.
2. Measure the voltage value between the integrated intelligent front drive control module harness plug BK45(B)-21 and the ground.
3. Measure the voltage value between the integrated intelligent front drive control module harness plug BK45(B)-26 and the ground.
4. Measure the voltage value between the integrated intelligent front drive control module harness plug BK45(B)-27 and the ground.

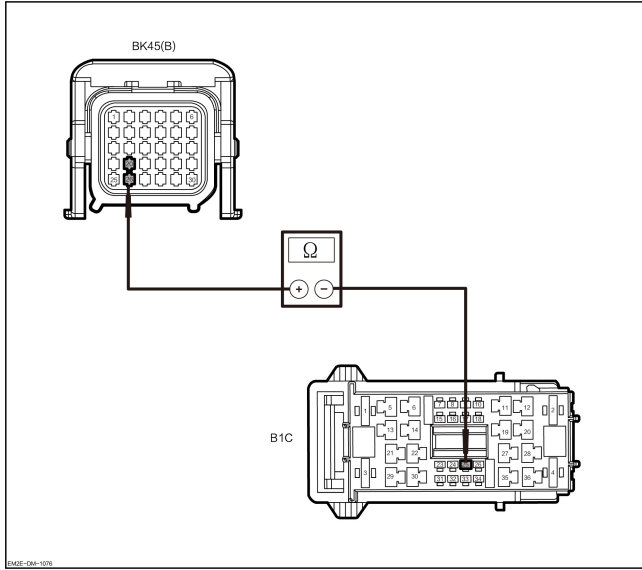
| Connector | | Condition | Voltage value |
|------------|--------|------------|---------------|
| (+) | (-) | | |
| BK45(B)-20 | Ground | Throughout | 11~14V |
| BK45(B)-21 | | | |
| BK45(B)-26 | | | |
| BK45(B)-27 | | | |

5. Check whether the results are normal.

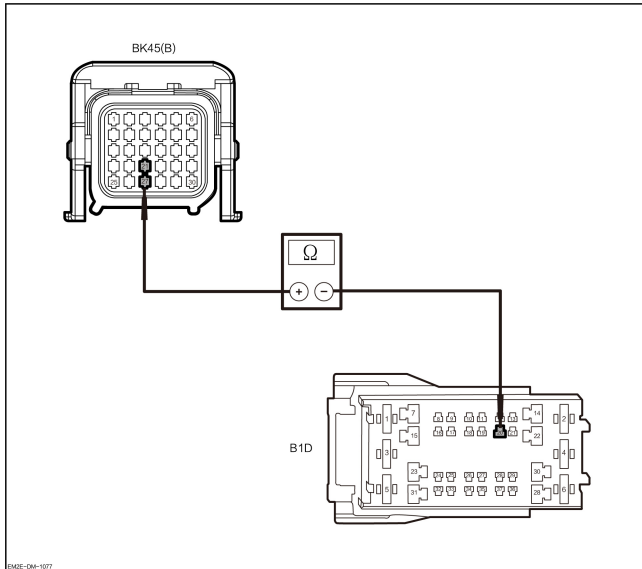
Yes Go to step 6

No

| | |
|---|--|
| 5 | Check whether the power supply of the integrated intelligent front drive control module is open-circuited. |
|---|--|



1. Disconnect the front compartment fuse box harness plugs B1C and B1D.
2. Measure the resistance value between the integrated intelligent front drive control module harness plug BK45(B)-20 and B1C-25.
3. Measure the resistance value between the integrated intelligent front drive control module harness plug BK45(B)-26 and B1C-25.
4. Measure the resistance value between the integrated intelligent front drive control module harness plug BK45(B)-27 and B1D-20.
5. Measure the resistance value between the integrated intelligent front drive control module harness plug BK45(B)-21 and B1D-20.



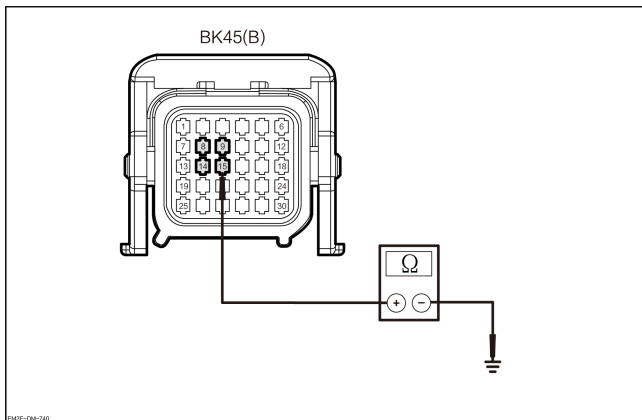
| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-20 | B1C-25 | Through- out | Lower than 1 Ω |
| BK45(B)-26 | | | |
| BK45(B)-27 | B1D-20 | | |
| BK45(B)-21 | | | |

6. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the intelligent integrated control module GND.



1. Measure the resistance value between the intelligent integrated control module harness plug BK45(B)-8 and the ground.
2. Measure the resistance value between the intelligent integrated control module harness plug BK45(B)-9 and the ground.
3. Measure the resistance value between the intelligent integrated control module harness plug BK45(B)-14 and the ground.
4. Measure the resistance value between the intelligent integrated control module harness plug BK45(B)-15 and the ground.

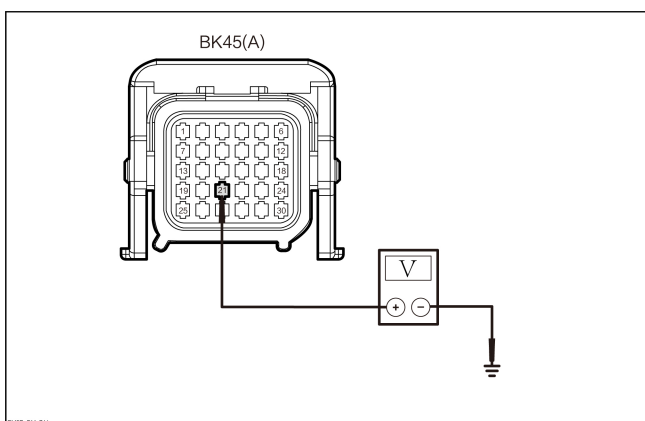
| Plug | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(B)-8 | Ground | Through- out | Lower than 1 Ω |
| BK45(B)-9 | | | |
| BK45(B)-14 | | | |
| BK45(B)-15 | | | |

5. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check CAN-H line of intelligent integrated control module.



1. Set the START/STOP button to ON.
2. Measure the voltage value between the intelligent integrated control module harness plug BK45 (A)-21 and the ground.

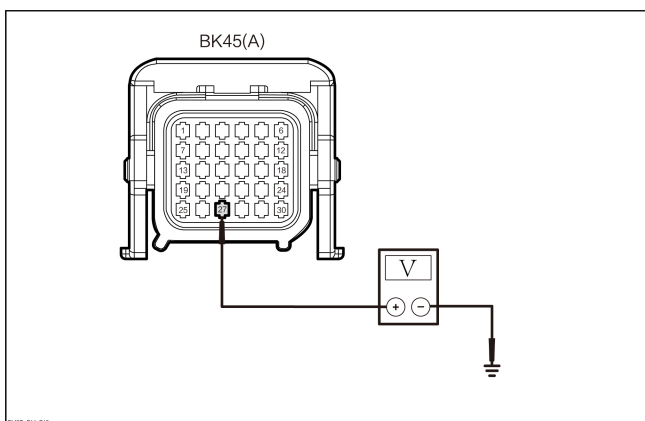
| Plug | | Condition | Voltage value |
|------------|--------|-----------------|------------------|
| (+) | (-) | | |
| BK45(A)-21 | Ground | Through- out | 2.5~3.5V |

3. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes

8 Check CAN-L line of intelligent integrated control module.



1. Measure the voltage value between the intelligent integrated control module harness plug BK45 (A)-27 and the ground.

| Plug | | Condition | Voltage value |
|------------|--------|-----------------|------------------|
| (+) | (-) | | |
| BK45(A)-27 | Ground | Through- out | 1.5~2.5V |

2. Check whether the results are normal.

No

Enter the "CAN diagnosis"

Yes

Replace the smart brake control module.

9

Check the intelligent integrated control module DTC.

1. Use a VDS to read the intelligent integrated control module DTC.
2. Check whether DTC exists.

Yes

Enter "Intelligent Integrated Control Module Diagnosis".

No

10

Check the electronic power steering control module DTC.

1. Read the DTC of electronic power steering control module with VDS.
2. Check whether DTC exists.

Yes

Enter the "Electronic Power Steering Control Module" diagnosis.

No

11

Check the DTC of other modules.

1. Does the other module read a failure to communicate with the intelligent integrated control module?

Yes

Replace the intelligent integrated control module.

No

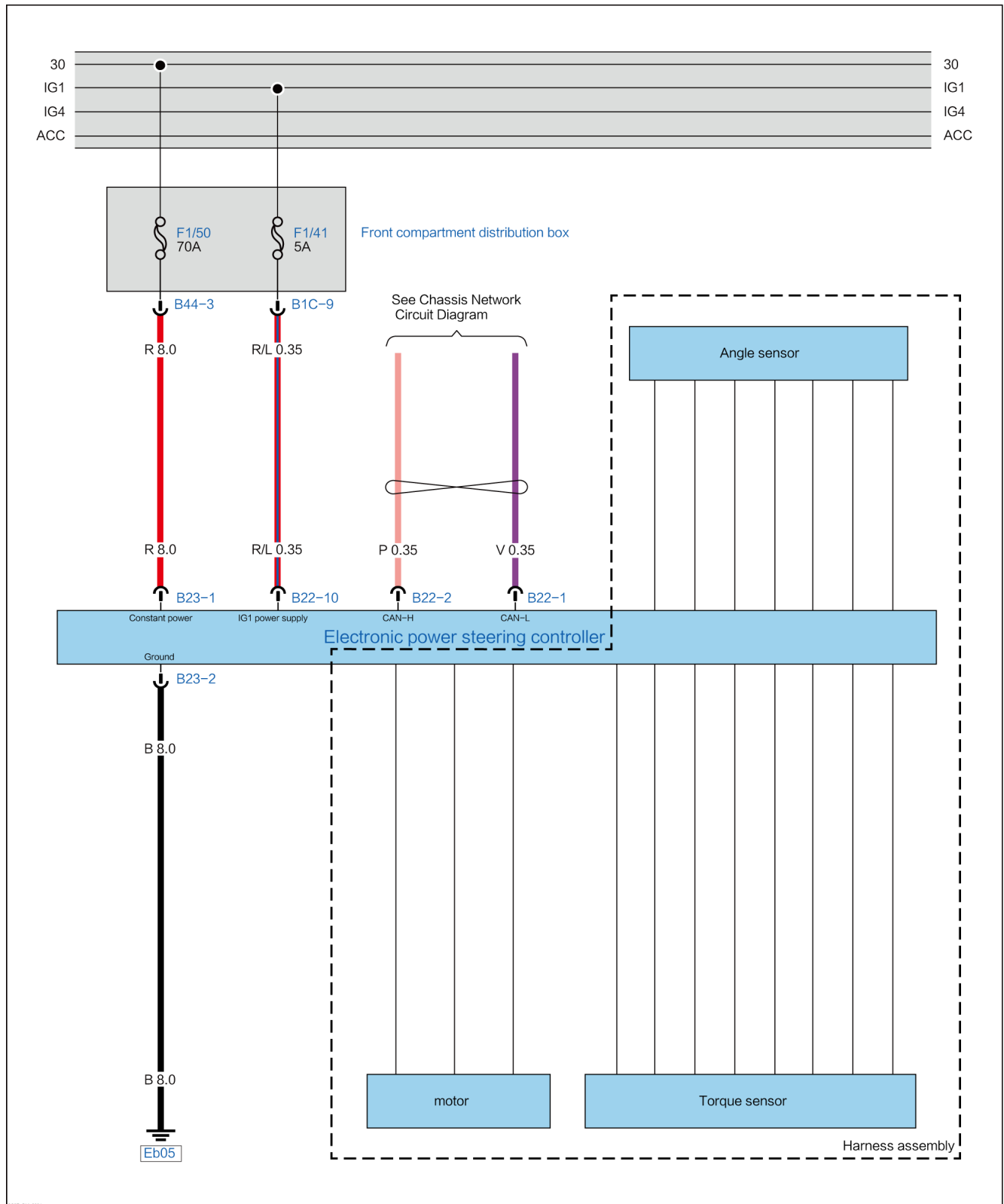
Replace the electronic power steering controller.

C1B9000 power supply lost – YB

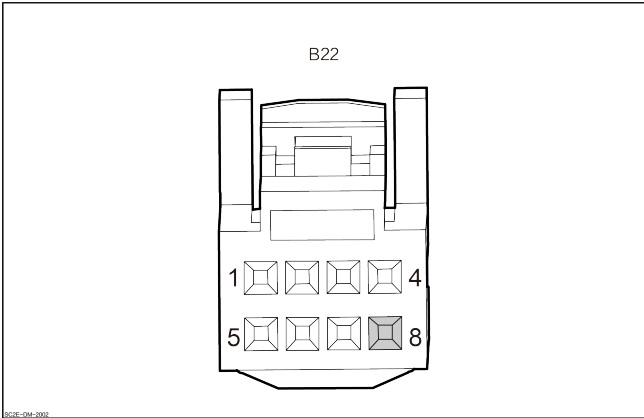
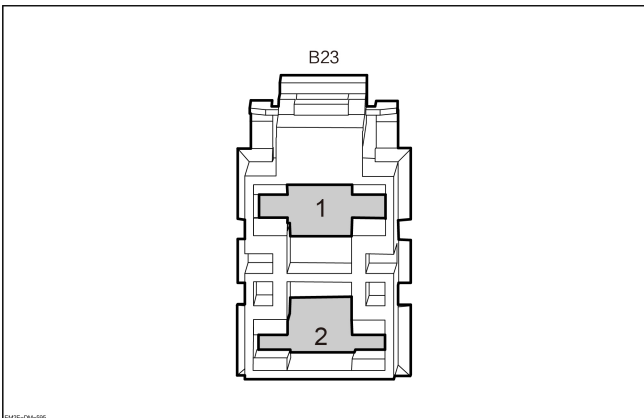
DTC Description

| C1B9000 Power Lost | |
|--------------------------|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Fuse2. Battery3. Line fault.4. EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|-------------------------|
| <p>Electronic power steering controller</p>  <p>The diagram shows a top-down view of an 8-pin connector labeled B22. The pins are arranged in two rows of four. The top row is labeled 1, 2, 3, 4 from left to right. The bottom row is labeled 5, 6, 7, 8 from left to right. Pin 8 is shaded grey to indicate it is the terminal of interest.</p> | <p>8</p> | <p>IG1 power supply</p> |
| <p>Electronic power steering controller</p>  <p>The diagram shows a top-down view of a 2-pin connector labeled B23. The two pins are labeled 1 and 2. Pin 1 is shaded grey, and pin 2 is also shaded grey to indicate they are the terminals of interest.</p> | <p>1</p> | <p>Constant power</p> |
| | <p>2</p> | <p>Ground</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|------------------------------------|
| 2 | Check the charging system voltage. |
|---|------------------------------------|

1. Start up the vehicle.
2. Check whether the instrument charging system fault warning lamp is on.

Yes

Enter the “Charging system” diagnosis.

No

| | |
|---|--------------------------|
| 3 | Test the battery status. |
|---|--------------------------|

1. Set the START/STOP button to OFF.
2. Perform a battery condition test.
3. Does the battery pass the test?

No

Replace the battery

Yes

| | |
|---|---|
| 4 | Check the fuse of the electronic power steering control module of front compartment fuse box. |
|---|---|

1. Check whether the front compartment fuse box fuse F1/41(5A) and F1/50(70A) are normal.

No

Replace the fuse

Yes

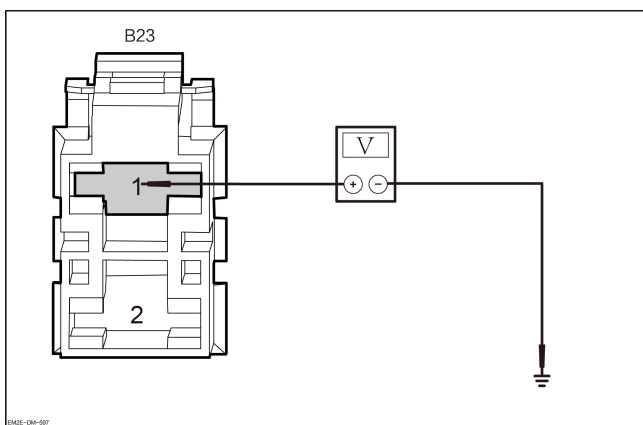
5 Check the electronic power steering control module harness plug.

1. Disconnect the electronic power steering control module harness plugs B22 and B23.
2. Check whether the harness and connector are normal.

No Repair or replace the wire harness

Yes

6 Check the constant power supply of the electronic power steering control module.



1. Measure the voltage value between the electronic power steering control module harness plug B23-1 and ground.

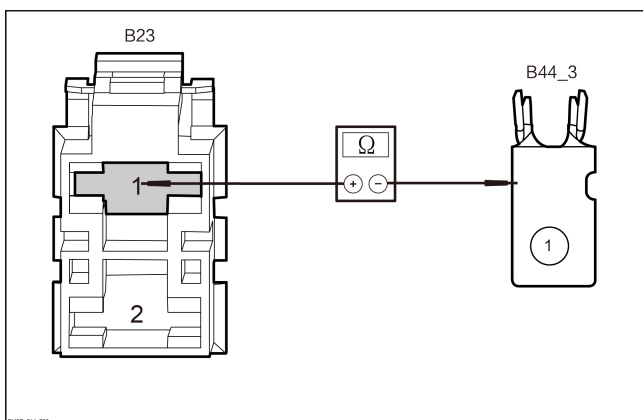
| Plug | | Condition | Voltage value |
|-------|--------|-------------|---------------|
| (+) | (-) | | |
| B23-1 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

Yes Go to step 9

No

7 Check the electronic power steering control module constant power for open circuit.



1. Disconnect the front compartment fuse box harness plug B44_3.
2. Measure the resistance value between the electronic power steering control module harness plug B23-1 and the front compartment fuse box harness plug B44_3-1.

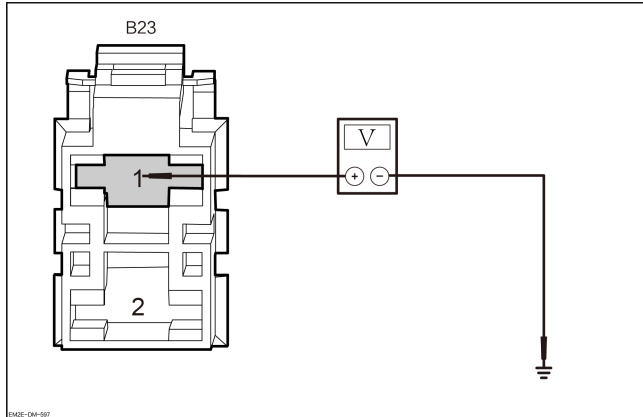
| Plug | | Condition | Resistance value |
|-------|---------|-------------|------------------|
| (+) | (-) | | |
| B23-1 | B44_3-1 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

No Repair or replace the wire harness

Yes

8 Check the electronic power steering control module constant power circuit for short circuit.



1. Measure the voltage value between the electronic power steering control module harness plug B23-1 and ground.

| Plug | | Condition | Voltage value |
|-------|--------|-------------|---------------|
| (+) | (-) | | |
| B23-1 | Ground | Through-out | Less than 1V |

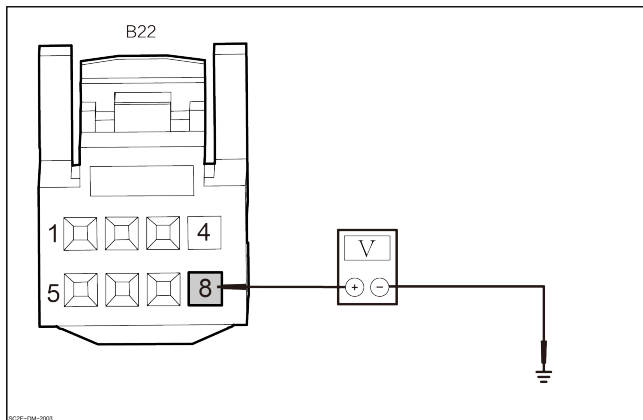
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

9 Check the ON position power supply of the electronic power steering control module.



1. Disconnect the electronic power steering control module harness connector B22.
 2. Set the START/STOP button to ON.
 3. Measure the voltage value between the electronic power steering control module harness plug B22-8 and ground.

| Plug | | Condition | Voltage value |
|-------|--------|-------------|---------------|
| (+) | (-) | | |
| B22-8 | Ground | Through-out | 11~14V |

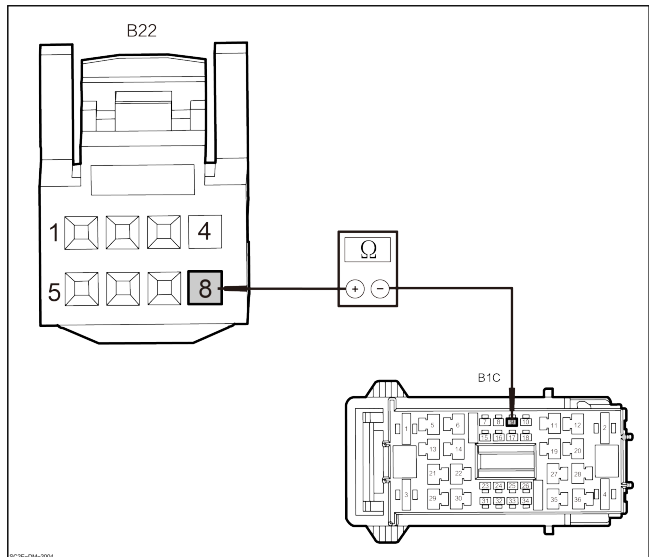
4. Check whether the results are normal.

Yes

Go to step 12

No

10 Replace the battery coolant for the first 2 years or 40,000 km, whichever comes first, and thereafter for every 2 years or 100,000 km.



1. Set the START/STOP button to OFF.
2. Disconnect the front compartment fuse box harness plug B1C.
3. Measure the resistance value between the electronic power steering control module harness plug B22-8 and the front compartment fuse box harness plug B1 C-9.

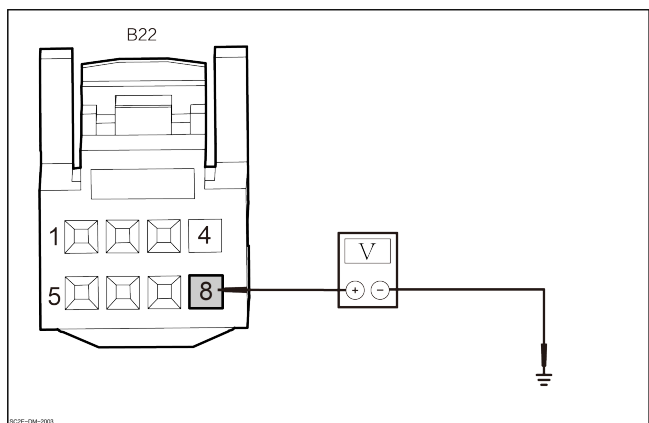
| Plug | | Condition | Resist- ance value |
|-------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| B22-8 | B1C-9 | Through- out | Lower than 1Ω |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

11 Check the ON position power supply of the electronic power steering control module for short circuit.



1. Measure the voltage value between the combination switch harness plug B22-8 and the ground.

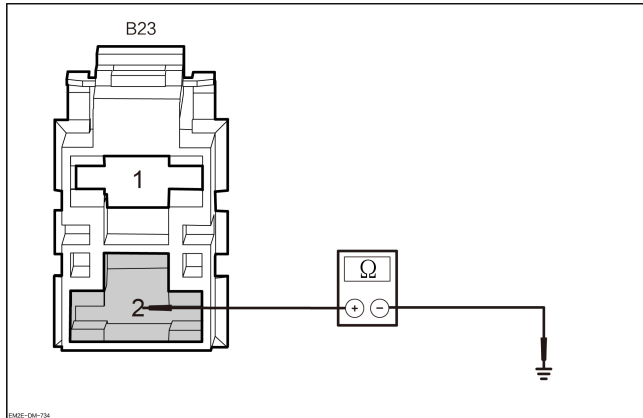
| Plug | | Condition | Voltage value |
|-------|--------|-----------------|------------------|
| (+) | (-) | | |
| B22-8 | Ground | Through- out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the front compartment fuse box.

12 Check the electronic power steering control module ground circuit.



1. Measure the resistance value between the combination switch harness plug B23-2 and the ground.

| Plug | | Condition | Resist- ance value |
|-------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B23-2 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

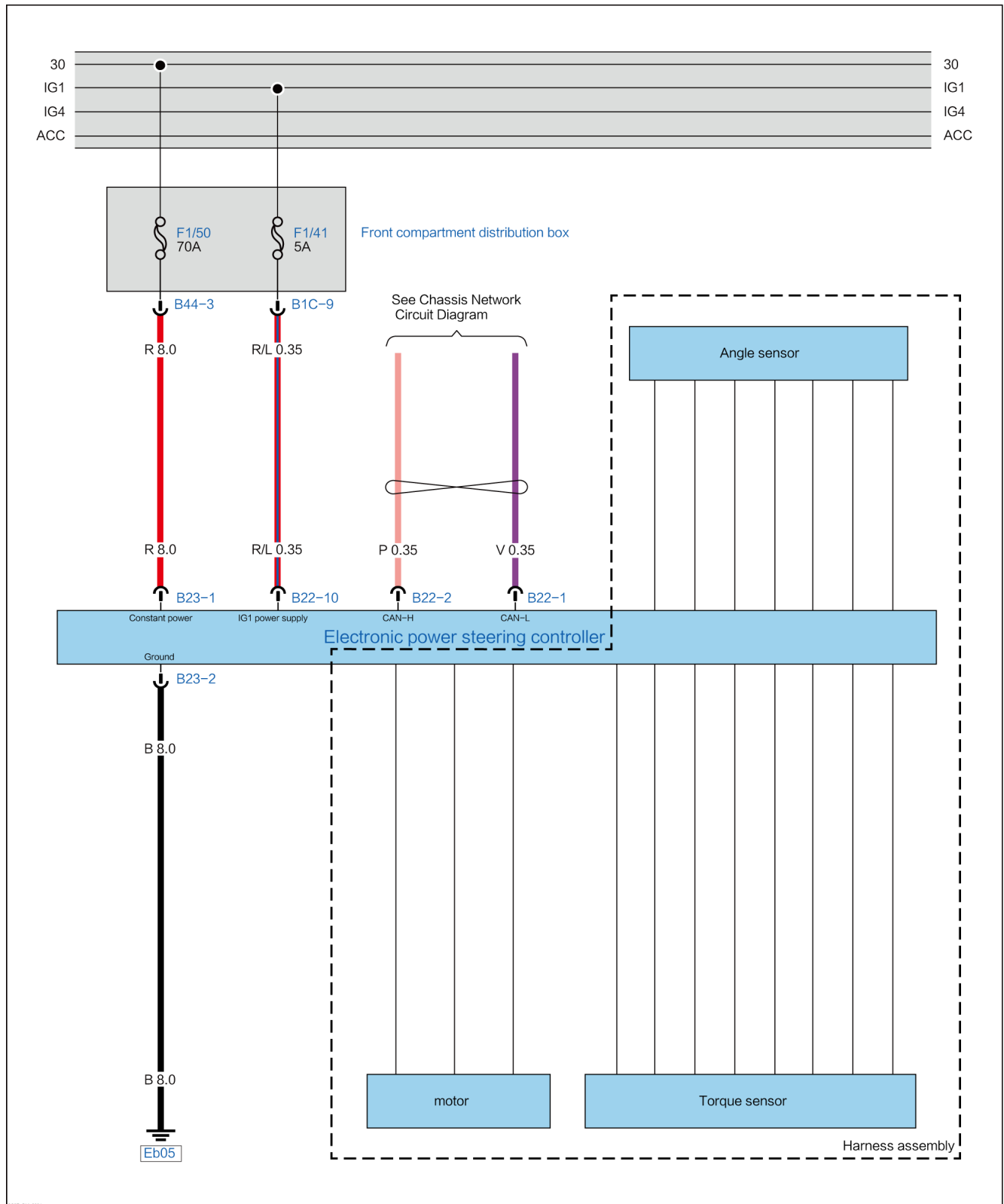
- No → Repair or replace the wire harness
- Yes → Replace the steering gear assembly.

C1B9000 power supply lost – TRW

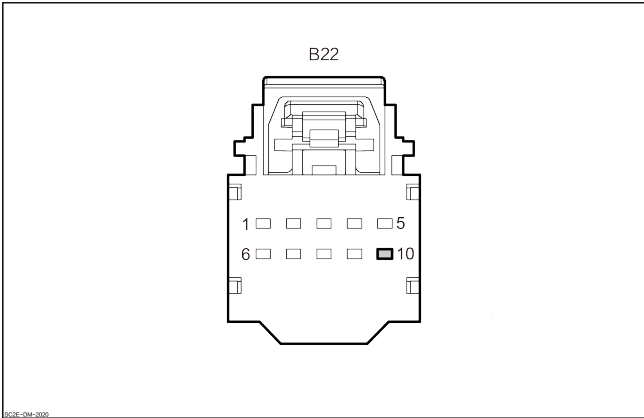
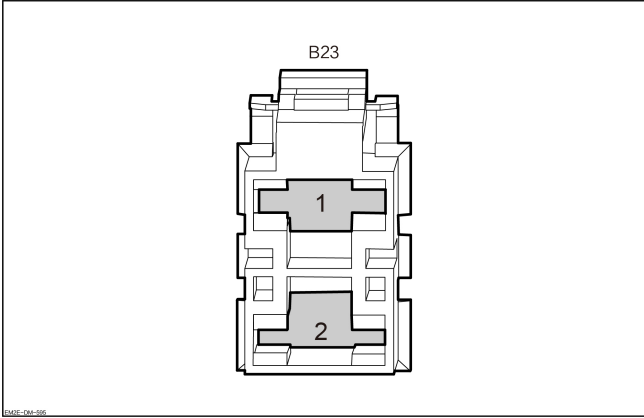
DTC Description

| C1B9000 Power Lost | |
|--------------------------|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Fuse2. Battery3. Line fault.4. EPS controller internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|---|---|
| <p>Electronic power steering controller</p>  <p>EMEC-DM-200</p> | <p>10</p> | <p>IG1 power supply</p> |
| <p>Electronic power steering controller</p>  <p>EMEC-DM-206</p> | <p>1</p> <p>2</p> | <p>Constant power</p> <p>Ground</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the electronic power steering control module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|------------------------------------|
| 2 | Check the charging system voltage. |
|---|------------------------------------|

1. Start up the vehicle.
2. Check whether the instrument charging system fault warning lamp is on.

Yes

Enter the “Charging system” diagnosis.

No

| | |
|---|--------------------------|
| 3 | Test the battery status. |
|---|--------------------------|

1. Set the START/STOP button to OFF.
2. Perform a battery condition test.
3. Does the battery pass the test?

No

Replace the battery

Yes

| | |
|---|---|
| 4 | Check the fuse of the electronic power steering control module of front compartment fuse box. |
|---|---|

1. Check whether the front compartment fuse box fuse F1/41(5A) and F1/50(70A) are normal.

No

Replace the fuse

Yes

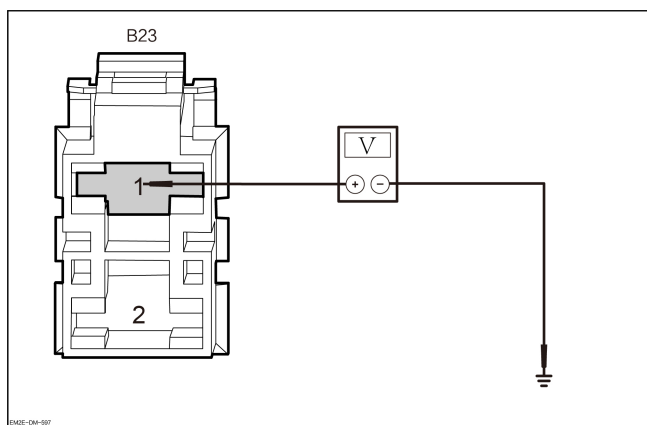
5 Check the electronic power steering control module harness plug.

1. Disconnect the electronic power steering control module harness plugs B22 and B23.
2. Check whether the harness and connector are normal.

No → Repair or replace the wire harness

Yes

6 Check the constant power supply of the electronic power steering control module.



1. Measure the voltage value between the electronic power steering control module harness plug B23-1 and ground.

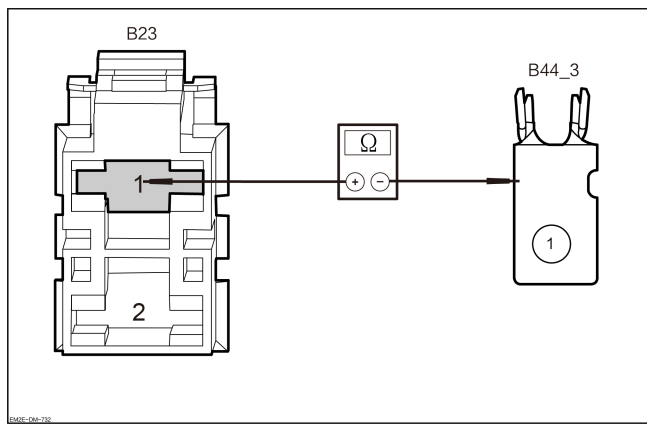
| Plug | | Condition | Voltage value |
|-------|--------|-------------|---------------|
| (+) | (-) | | |
| B23-1 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

Yes → [Go to step 9](#)

No

7 Check the electronic power steering control module constant power for open circuit.



1. Disconnect the front compartment fuse box harness plug B44_3.
2. Measure the resistance value between the electronic power steering control module harness plug B23-1 and the front compartment fuse box harness plug B44_3-1.

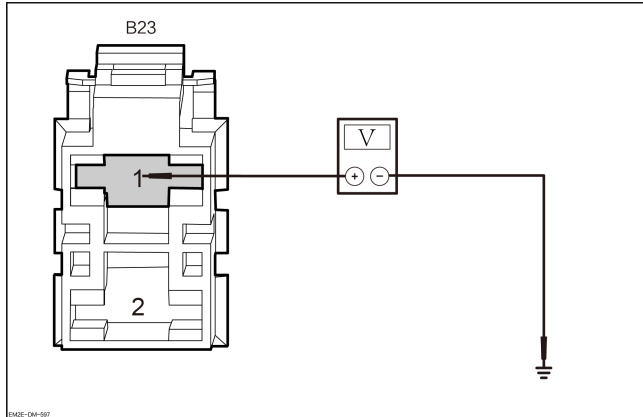
| Plug | | Condition | Resistance value |
|-------|---------|-------------|------------------|
| (+) | (-) | | |
| B23-1 | B44_3-1 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the electronic power steering control module constant power circuit for short circuit.



1. Measure the voltage value between the electronic power steering control module harness plug B23-1 and ground.

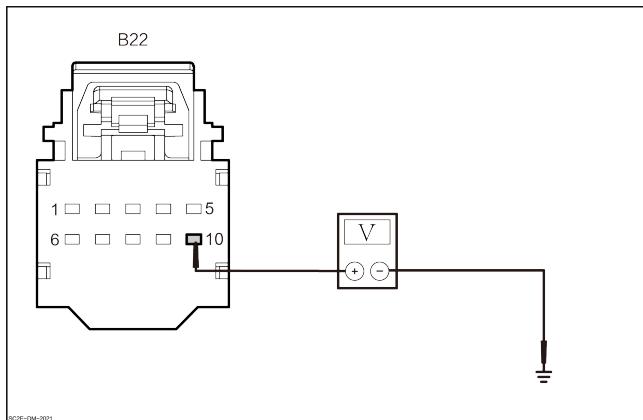
| Plug | | Condition | Voltage value |
|-------|--------|-------------|---------------|
| (+) | (-) | | |
| B23-1 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

9 Check the ON position power supply of the electronic power steering control module.



1. Disconnect the electronic power steering control module harness connector B22.
 2. Set the START/STOP button to ON.
 3. Measure the voltage value between the electronic power steering control module harness plug B22-10 and ground.

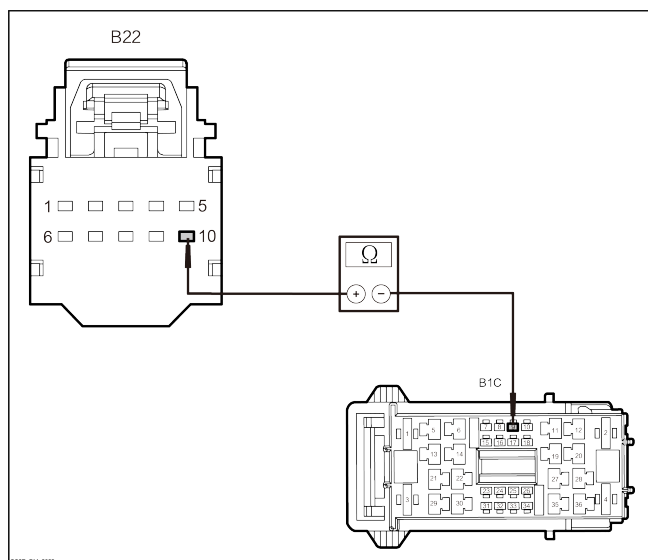
| Plug | | Condition | Voltage value |
|--------|--------|-------------|---------------|
| (+) | (-) | | |
| B22-10 | Ground | Through-out | 11~14V |

4. Check whether the results are normal.

Yes → [Go to step 12](#)

No

10 Replace the battery coolant for the first 2 years or 40,000 km, whichever comes first, and thereafter for every 2 years or 100,000 km.



1. Set the START/STOP button to OFF.
2. Disconnect the front compartment fuse box harness plug B1C.
3. Measure the resistance value between the electronic power steering control module harness plug B22-10 and the front compartment fuse box harness plug B1 C-9.

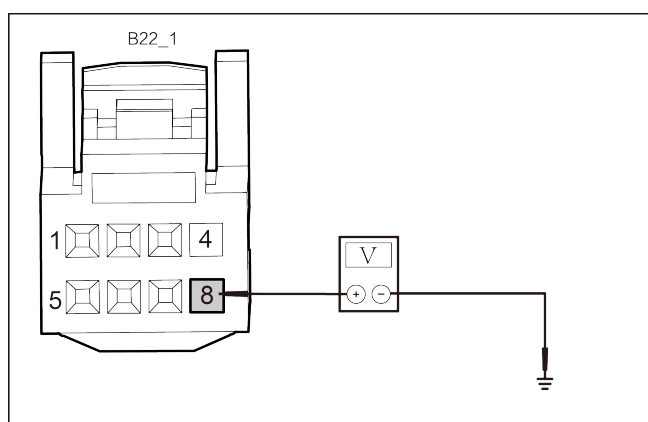
| Plug | | Condition | Resist- ance value |
|--------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| B22-10 | B1C-9 | Through- out | Lower than 1Ω |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

11 Check the ON position power supply of the electronic power steering control module for short circuit.



1. Measure the voltage value between the combination switch harness plug B22-10 and the ground.

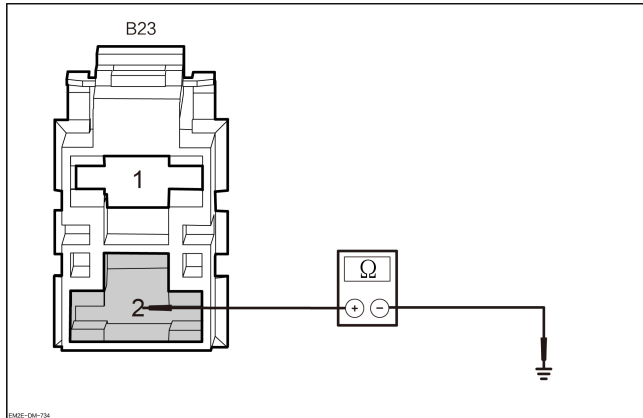
| Plug | | Condition | Voltage value |
|--------|--------|-----------------|------------------|
| (+) | (-) | | |
| B22-10 | Ground | Through- out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the front compartment fuse box.

12 Check the electronic power steering control module ground circuit.



1. Measure the resistance value between the combination switch harness plug B23-2 and the ground.

| Plug | | Condition | Resist- ance value |
|-------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B23-2 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

- No
Repair or replace the wire harness
- Yes
Replace the steering gear assembly.

| | | | |
|---|------|--|------|
| Wiper and Washer..... | 1434 | B225511 Sunroof Motor Short(to Ground) | 1533 |
| Front Wiper..... | 1434 | B225300 Sunroof Initialization Lost..... | 1538 |
| Diagnosis Description..... | 1434 | B225707 Blinder Switch Stuck..... | 1541 |
| Process of Fault Inspection and | | B222401 Blinder Motor Hall Sensor Signal | |
| Troubleshooting..... | 1436 | Abnormal..... | 1546 |
| Diagnosis of General Faults..... | 1437 | B225813 Blinder Motor Open–circuitied | |
| Front Wiper Not Working..... | 1439 | | 1553 |
| Front Wiper Low Gear Not Working.... | 1448 | B225811 Blinder Motor Short (to Ground) | |
| Front Wiper High Gear Not Working... | 1453 | | 1558 |
| Front Wiper Cannot Be Reset..... | 1460 | B225600 Blinder Initialization Lost..... | 1563 |
| DTC Diagnosis..... | 1464 | | |
| B1BE801 Detection Signal of Front Wiper | | | |
| High–speed Switch Hard Wire Fault... | 1465 | | |
| B1BF400 Front Wiper Reset Signal Fault | | | |
| | 1471 | | |
| Rear Wiper..... | 1476 | | |
| Diagnosis Description..... | 1476 | | |
| Process of Fault Inspection and | | | |
| Troubleshooting..... | 1479 | | |
| Diagnosis of General Faults..... | 1480 | | |
| DTC Diagnosis..... | 1482 | | |
| B1C0D12 Rear Wiper Reset Signal Fault | | | |
| | 1483 | | |
| Washing System..... | 1489 | | |
| Diagnosis Description..... | 1489 | | |
| Process of Fault Inspection and | | | |
| Troubleshooting..... | 1491 | | |
| DTC Diagnosis..... | 1492 | | |
| B1C0D12 Washing Motor Short–circuitied | | | |
| | 1493 | | |
| B1C0D13 Washing Motor Open–circuitied | | | |
| | 1499 | | |
| B1C0D71 Washing Motor Stalling..... | 1505 | | |
| Roof..... | 1508 | | |
| Sunroof..... | 1508 | | |
| Diagnosis Description..... | 1508 | | |
| Process of Fault Inspection and | | | |
| Troubleshooting..... | 1511 | | |
| Diagnosis of General Faults..... | 1512 | | |
| DTC Diagnosis..... | 1515 | | |
| B225407 Sunroof Switch Stuck..... | 1516 | | |
| B222400 Sunroof Hall Sensor Signal | | | |
| Abnormal..... | 1521 | | |
| B225513 Sunroof Motor Open–circuitied | | | |
| | 1528 | | |

Wiper and Washer

Front Wiper

Diagnosis Description

Introduction

Before fault diagnosis for front wiper system, understand and get familiar with the working principle of the front wiper, and then start diagnosis for front wiper system, so as to be helpful to confirm the correct fault diagnosis procedure in the event of a fault and, more importantly, to confirm whether the operating condition described by the customer is normal. Any fault diagnosis of the front wiper system should start with the inspection of the front wiper system to guide the maintenance technician to take the next logical step for fault diagnosis.

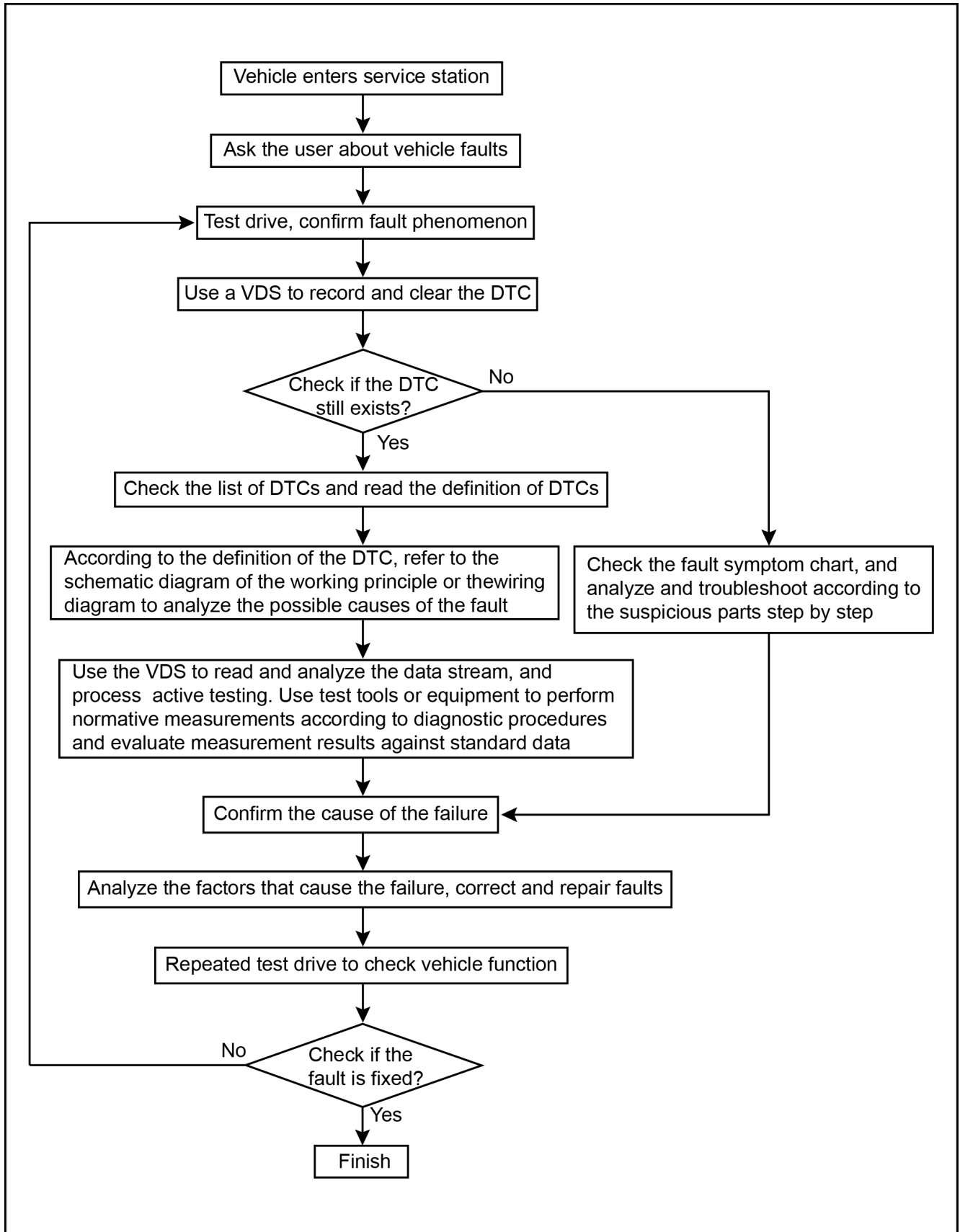
General equipment

- Socket wrench kit
- Screwdriver
- Interior wall crow plate
- Torque wrench
- VDS
- Multimeter

Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Process of Fault Inspection and Troubleshooting



Diagnosis of General Faults

Visual Inspection

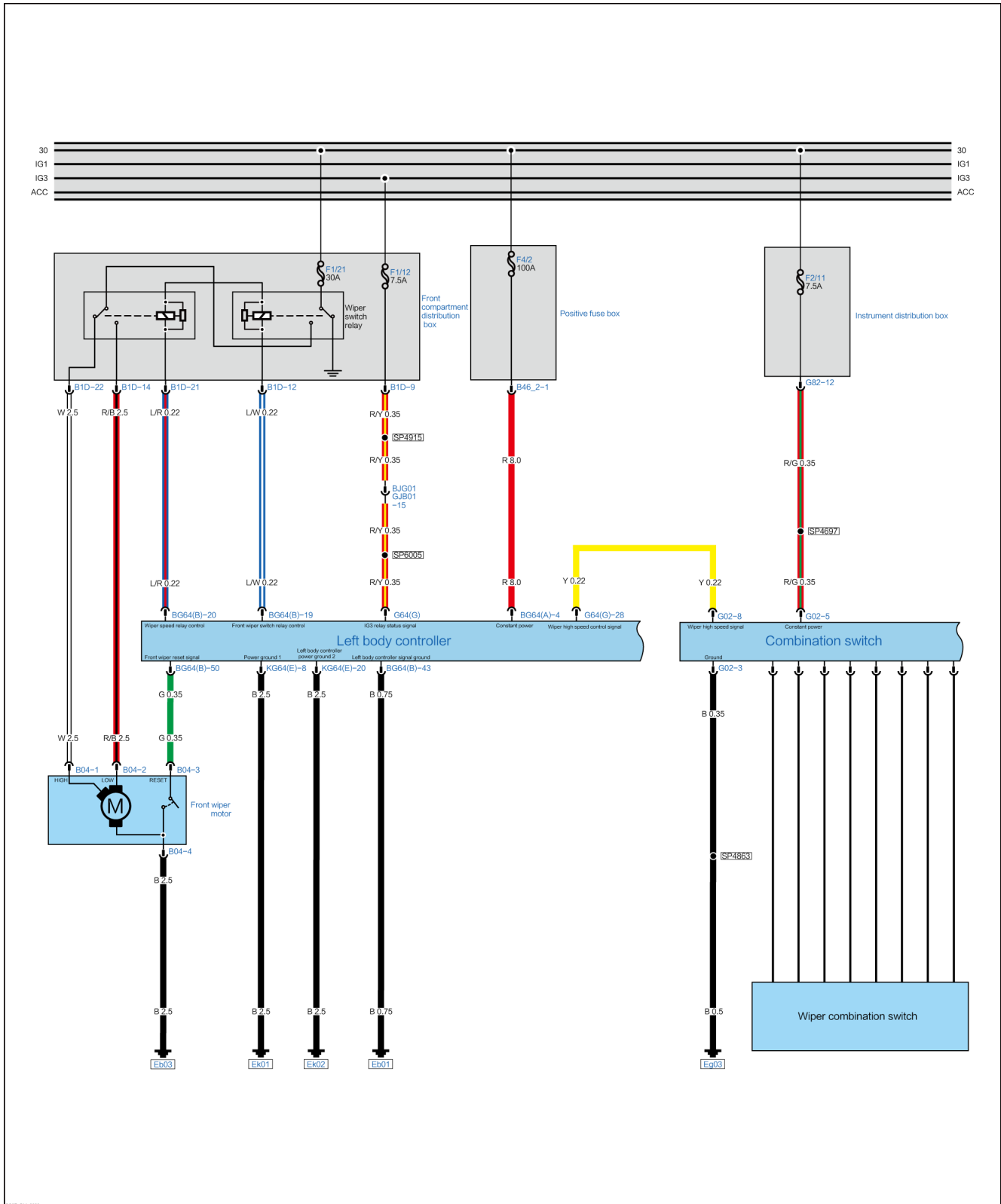
1. Confirm problems of customers.
2. Make visual inspection for obvious signs of mechanical damage and collision deformation.
3. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
4. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

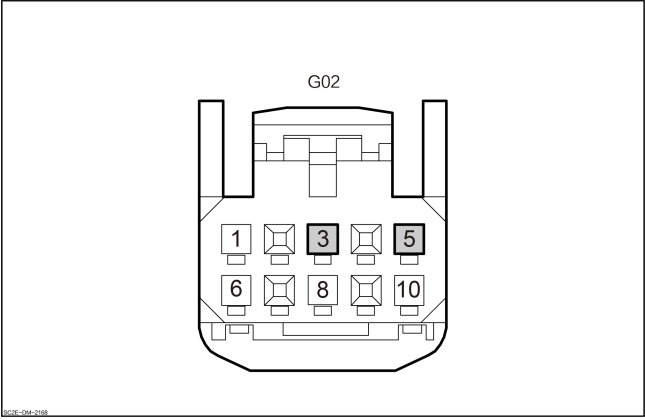
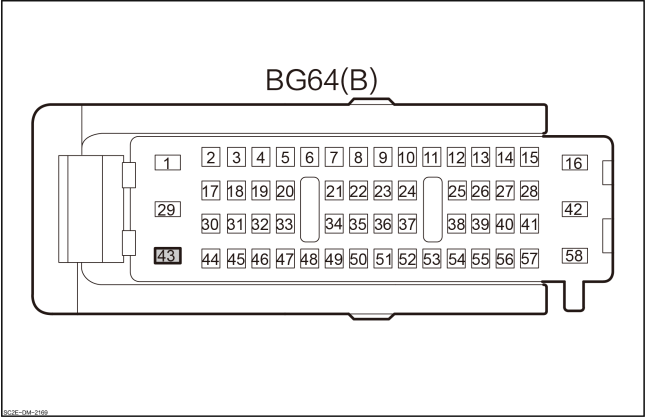
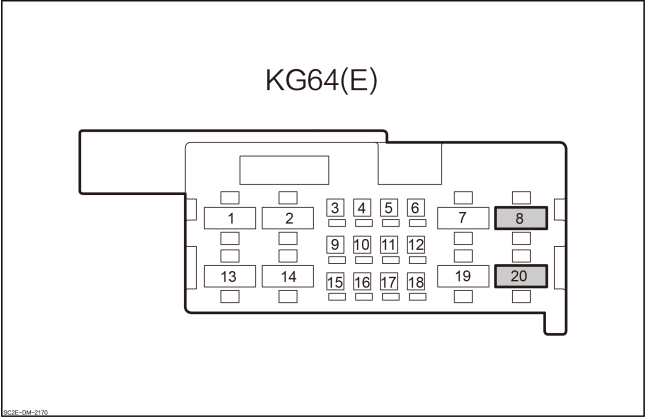
| Symptom | Possible cause | Suggested maintenance measures |
|-----------------------------------|--|-----------------------------------|
| Front Wiper Not Working | <ol style="list-style-type: none"> 1. Fuse 2. Line fault. 3. Multi-function switch fault 4. Front wiper motor fault. 5. The left body control module fails. | Front Wiper Not Working |
| Front Wiper Low Gear Not Working | <ol style="list-style-type: none"> 1. Low speed gear line fault. 2. Multi-function switch fault 3. Front wiper motor fault. 4. The left body control module fails. | Front Wiper Low Gear Not Working |
| Front Wiper High Gear Not Working | <ol style="list-style-type: none"> 1. High speed gear line fault 2. Multi-function switch fault 3. Front wiper motor fault. 4. The left body control module fails. | Front Wiper High Gear Not Working |
| Front Wiper Cannot Be Reset | <ol style="list-style-type: none"> 1. Resetting line fault. 2. Front wiper motor fault. 3. The left body control module fails. | Front Wiper Cannot Be Reset |

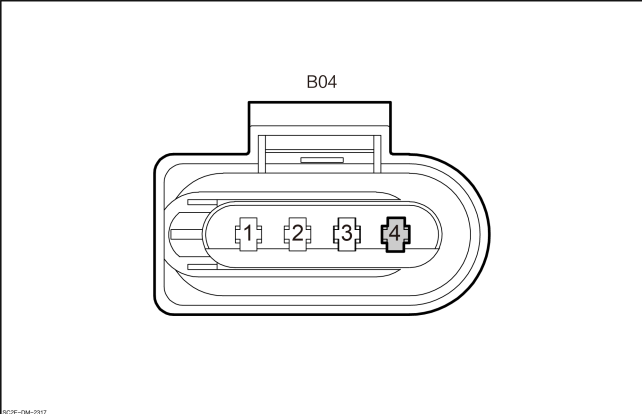
Front Wiper Not Working

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|---|-----------------|----------------------------|
| <p>Combination Switch</p>  | 3 | Ground |
| | 5 | Constant power |
| <p>Left body control module</p>  | 19 | Wiper switch relay control |
| | 43 | Ground |
| <p>Left body control module</p>  | 8 | Ground |
| | 20 | Ground |
| Front wiper motor | 4 | Ground |

| Plug | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
|  <p>SCB-204-2017</p> | | |

Diagnostic Steps

1 Use VDS to test the performance of the front wiper.

1. Connect VDS to the diagnosis interface.
2. Enter the front wiper work support and operate all the work of front wiper.
3. Whether the front wiper work properly.

Yes Go to step 10

No

2 Check the harness and connector of left domain control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness plug of left domain control module BG64(A)_4.
3. Check whether the harness and connector are normal.

No Repair or replace the wire harness

Yes

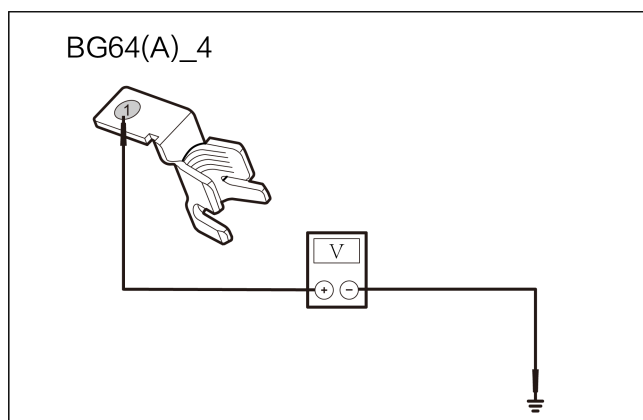
3 Check the fuses in positive fuse box.

1. Check whether the positive fuse box fuse F4/02(100A) is normal?

No Replace the fuse

Yes

4 Check the power line of left body control module.



1. Measure the voltage between the harness plug of left body control module BG64(A)_4-1 and the ground.

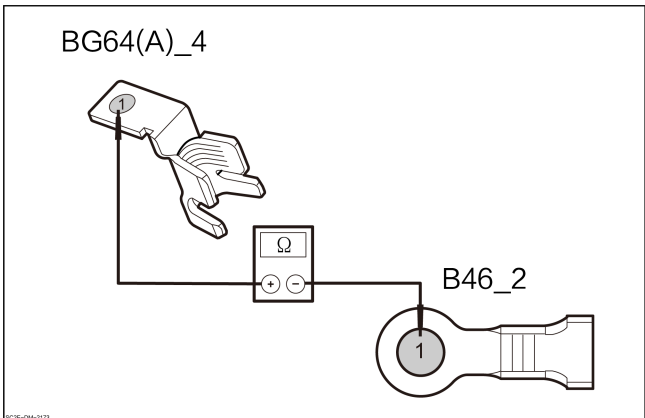
| Plug | | Condition | Voltage value |
|-------------|--------|-------------|---------------|
| (+) | (-) | | |
| BG64(A)_4-1 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

Yes Go to step 6

No

5 Check the power line of left body control module for open circuit.



1. Measure the resistance between the harness plug of left body control unit BG64(A)_4-1 and the harness plug of fuse of front compartment fuse box B46_2-1.

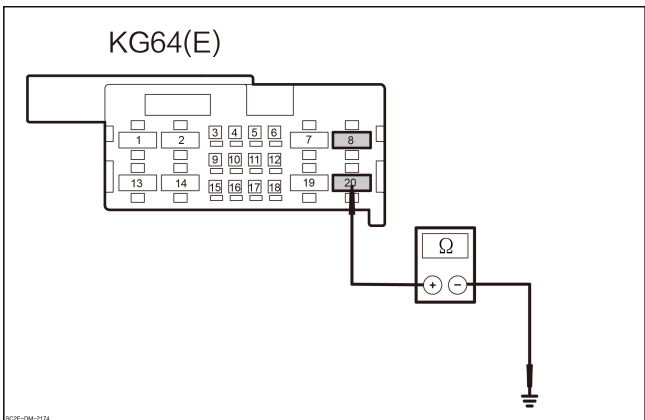
| Plug | | Condition | Resistance value |
|-------------|---------|-------------|------------------|
| (+) | (-) | | |
| BG64(A)_4-1 | B46_2-1 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

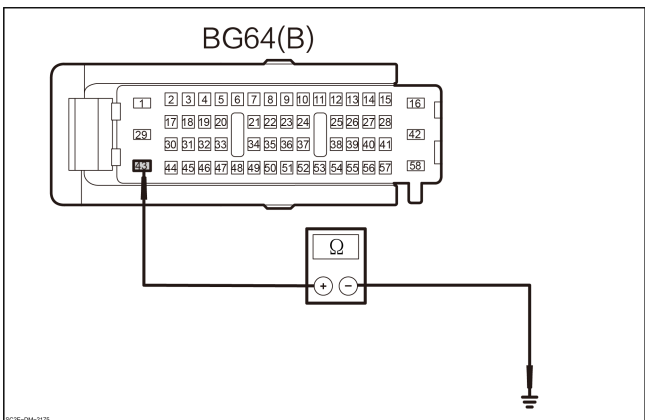
Yes → [Go to step 18](#)

6 Check the ground line of left body control module.



1. Measure the resistance between the harness plugs of left body control unit KG64(E)-8 and KG64(E)-20 and the ground.
2. Measure the resistance between the harness plug of left body control unit BG64(B)-43 and the ground.

| Connector | | Condition | Resistance value |
|------------|--------|-------------|------------------|
| (+) | (-) | | |
| KG64(E)-8 | Ground | Through-out | Lower than 1 Ω |
| KG64(E)-20 | | | |
| BG64(B)-43 | | | |



3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

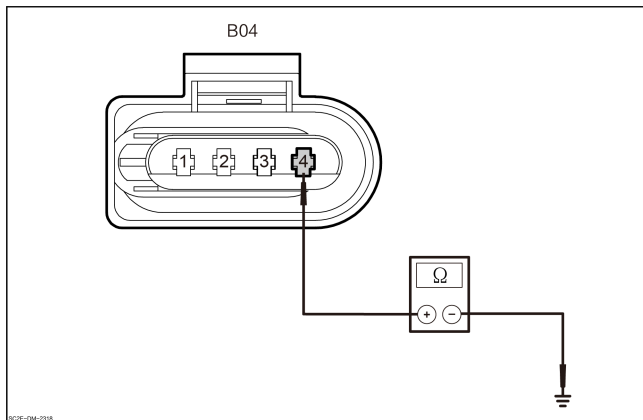
7 Check the left body control module.

1. Replace the left body control module.
2. Check whether the results are normal.

Yes → At this time, the system is normal and the diagnosis is finished.

No

8 Check the front wiper motor GND.



1. Set the START/STOP button to “OFF” .
2. Disconnect the front wiper motor harness connector B04.
3. Measure the resistance value between the front wiper motor harness plug B04-4 and ground.

| Plug | | Condition | Resist- ance value |
|-------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B04-4 | Ground | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

9 Check the front wiper motor

1. Remove the front wiper motor.
2. Connect the battery power supply to test the operation of the front wiper motor.

| Plug | | Condition | Operating condition |
|-------|-------|-----------|------------------------|
| (+) | (-) | | |
| B04-4 | B04-1 | - | High Speed |
| B04-4 | B04-2 | - | Low Speed |

3. Check whether the results are normal.

No → Replace the front wiper motor

Yes

10 Check the instrument fuse box fuse.

1. Check whether the instrument fuse box fuse F2/11 (7.5 A) is normal?

No → Replace the fuse

Yes

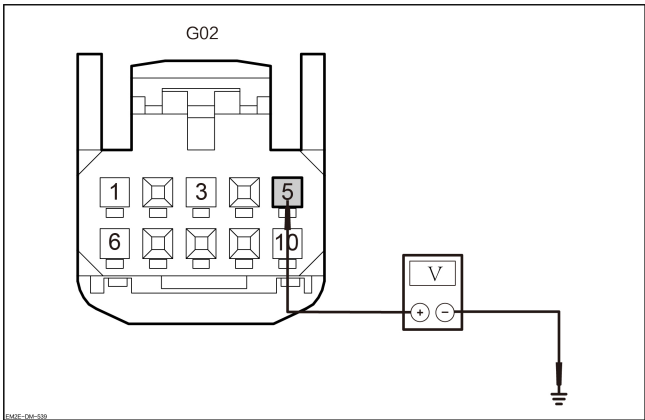
11 Check the combination switch harness connector.

1. Disconnect the combination switch harness connector G02.
2. Check whether the harness and connector are normal.

No → Repair or replace the wire harness

Yes

12 Check the combination switch constant power supply.



1. Measure the voltage value between the combination switch harness plug G02-5 and the ground.

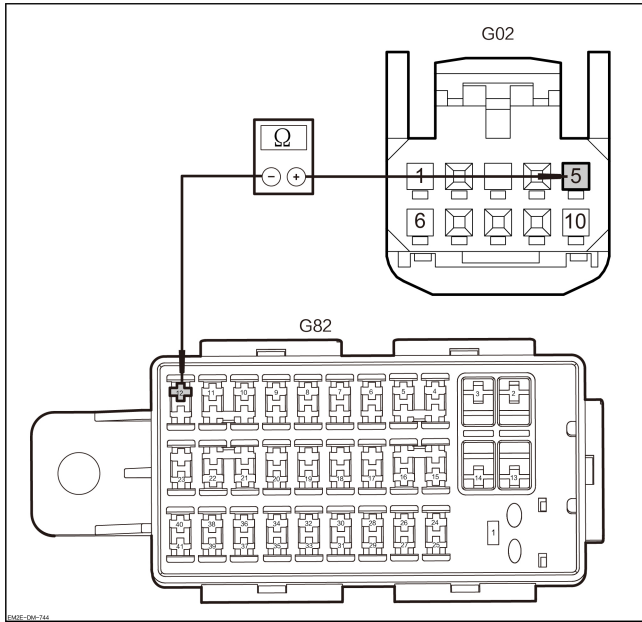
| Plug | | Condition | Voltage value |
|-------|--------|-------------|---------------|
| (+) | (-) | | |
| G02-5 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

Yes → [Go to step 14](#)

No

13 Check whether the constant power supply of combination switch is open circuited.



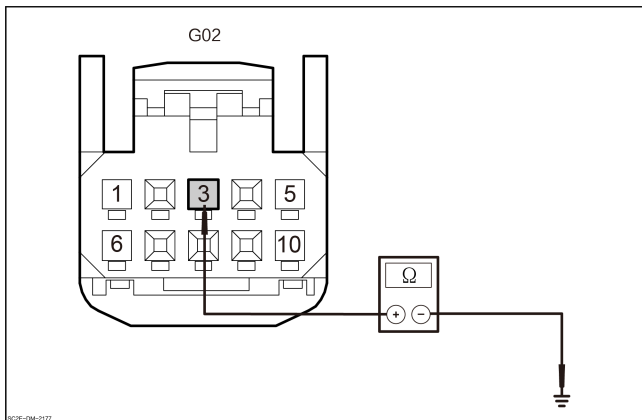
1. Measure the resistance value between the combination switch harness plug G02-5 and the instrument fuse box harness plug G82-12.

| Plug | | Condition | Resistance value |
|-------|--------|-------------|------------------|
| (+) | (-) | | |
| G02-5 | G82-12 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

- No → Repair or replace the wire harness
- Yes → Replace the instrument fuse box.

14 Check the ground circuit of combination switch start button.



1. Measure the resistance value between the combination switch harness plug G02-3 and the ground.

| Plug | | Condition | Resistance value |
|-------|--------|-------------|------------------|
| (+) | (-) | | |
| G02-3 | Ground | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

- No → Repair or replace the wire harness

Yes

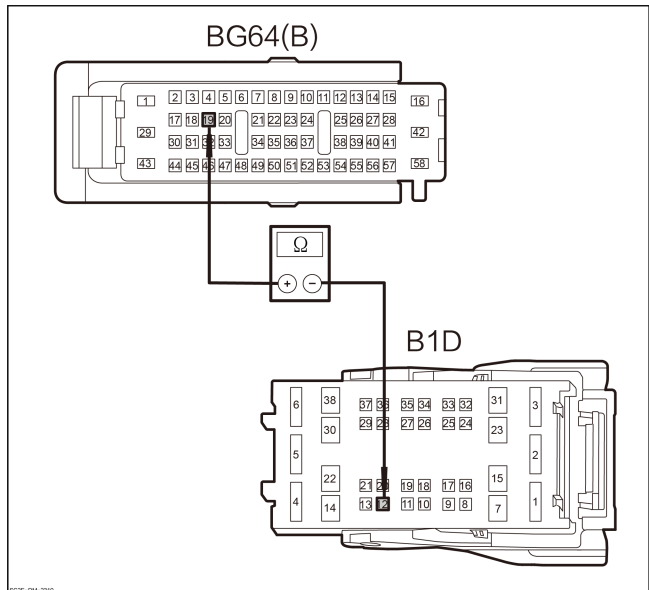
15 Check the front compartment fuse box wiper switch relay fuse.

1. Check whether the front compartment fuse box fuse F1/21 (30 A) is normal.

- No → Replace the fuse

Yes

16 Check whether the wiper switch relay control is open circuited.



1. Measure the resistance between the harness plug of left body control module BG64(B)–19 and the harness plug of front compartment fuse box B1D–12.

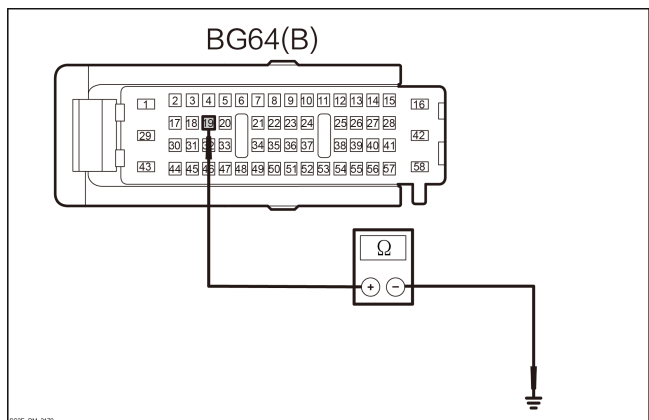
| Plug | | Condition | Resist- ance value |
|------------|--------|-------------|--------------------------|
| (+) | (-) | | |
| BG64(B)–19 | B1D–12 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

17 Check whether the wiper switch relay control is shorted to ground.



1. Measure the resistance between the harness plug of left domain control module BG64(B)–19 and the ground.

| Plug | | Condition | Resist- ance value |
|------------|--------|-------------|--------------------------|
| (+) | (-) | | |
| BG64(B)–19 | Ground | Through-out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

18 Replace the front compartment electrical box.

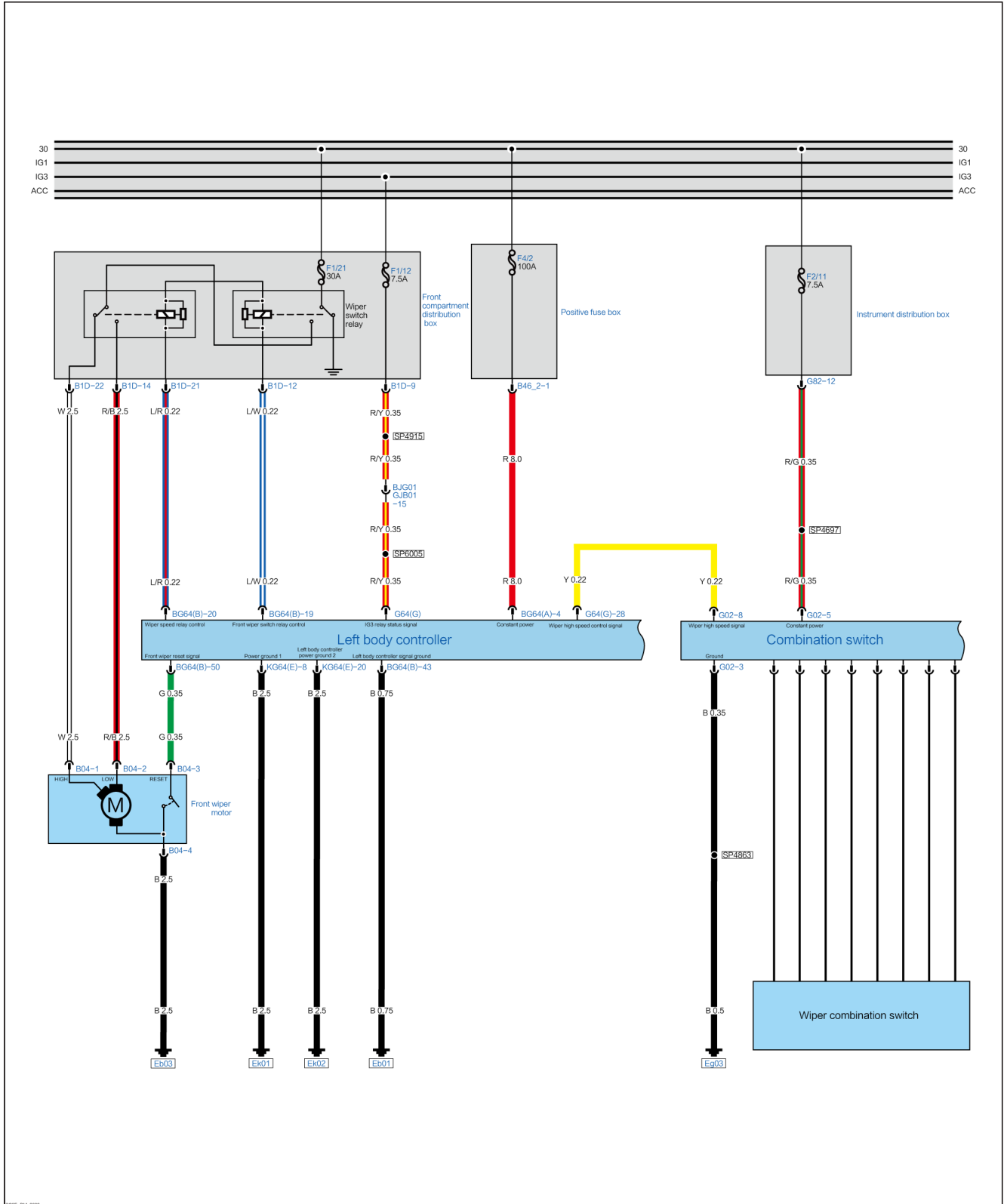
1. Replace the front compartment electrical box.
2. Check whether the results are normal.

Yes → At this time, the system is normal and the diagnosis is finished.

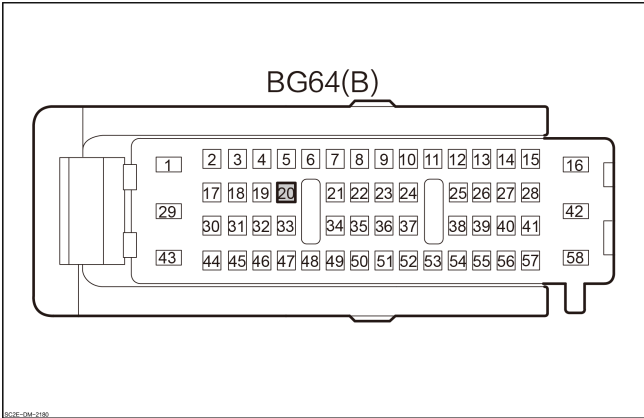
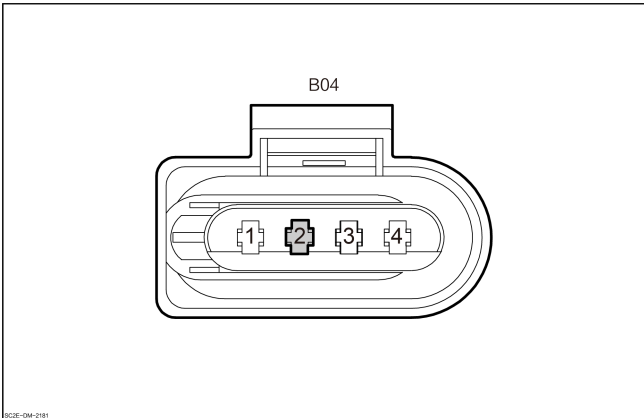
No → Replace the combination switch.

Front Wiper Low Gear Not Working

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|---|-----------------|----------------------------------|
| <p style="text-align: center;">Left body control module</p>  <p style="text-align: center;">BG64(B)</p> <p>The diagram shows a rectangular plug with 58 terminals arranged in three rows. The top row contains terminals 1 through 16. The middle row contains terminals 17 through 42, with terminal 20 highlighted in a darker box. The bottom row contains terminals 43 through 58.</p> | <p>20</p> | <p>Wiper speed relay control</p> |
| <p style="text-align: center;">Front wiper motor</p>  <p style="text-align: center;">B04</p> <p>The diagram shows a small, rounded plug with four terminals labeled 1, 2, 3, and 4. Terminal 2 is highlighted in a darker box.</p> | <p>2</p> | <p>Low Speed</p> |

Diagnostic Steps

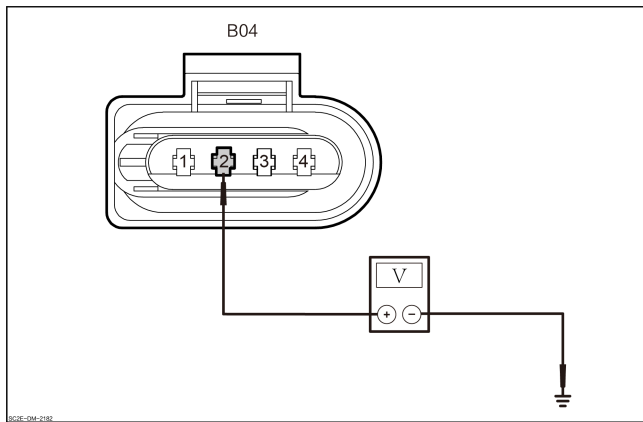
1 Use VDS to test the performance of the front wiper.

1. Connect VDS to the diagnosis interface.
2. Enter the front wiper work support and operate the front wiper at low speed.
3. Whether the front wiper work properly.

Yes → Replace the combination switch.

No

2 Check the voltage of front wiper motor low speed control line.



1. Set the START/STOP button to “OFF” .
2. Disconnect the front wiper motor harness connector B04.
3. Set the START/STOP button to “ON” .
4. Enter the front wiper working support, and operate the front wiper to work in the low-speed mode. Measure the voltage between the low-speed control harness plug of front wiper B04-2 and the ground.

| Plug | | Condition | Operating condition |
|-------|--------|-------------|---------------------|
| (+) | (-) | | |
| B04-2 | Ground | Through-out | 11~14V |

5. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

3 Check the front wiper motor

1. Remove the front wiper motor.
2. Connect the battery power supply to test the operation of the front wiper motor.

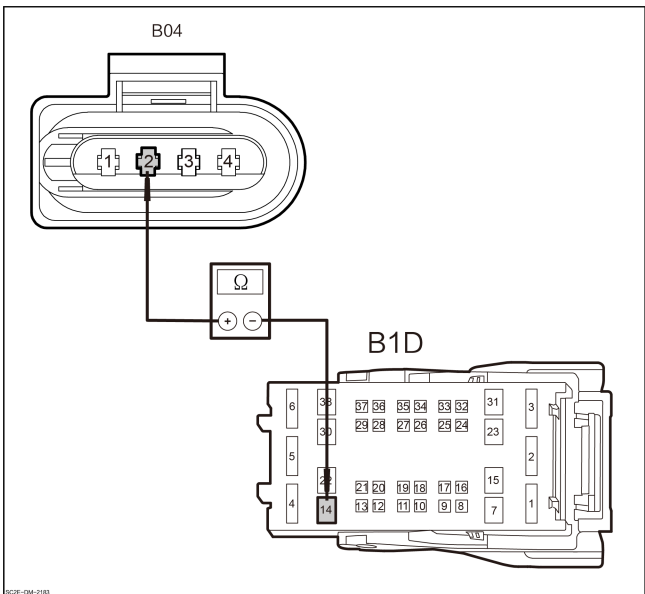
| Plug | | Condition | Operating condition |
|-------|-------|-----------|---------------------|
| (+) | (-) | | |
| B04-4 | B04-2 | - | Low Speed |

3. Check whether the results are normal.

No → Replace the front wiper motor

Yes

4 Check the front wiper motor low speed control line for open circuit.



1. Disconnect the front compartment fuse box harness plug B1 D.
2. Measure the resistance between the low-speed control harness plug of front wiper B04-2 and the harness plug of front compartment fuse box B1D-14.

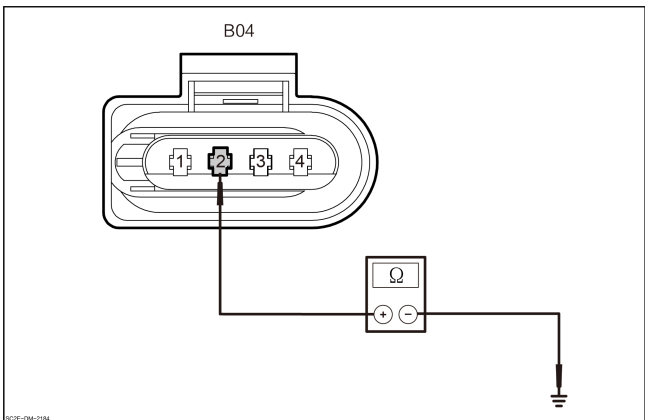
| Plug | | Condition | Resistance value |
|-------|--------|-------------|------------------|
| (+) | (-) | | |
| B04-2 | B1D-14 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the low speed control line of the front wiper motor for short circuit to ground.



1. Measure the resistance between the low-speed control harness plug of front wiper B04-2 and the ground.

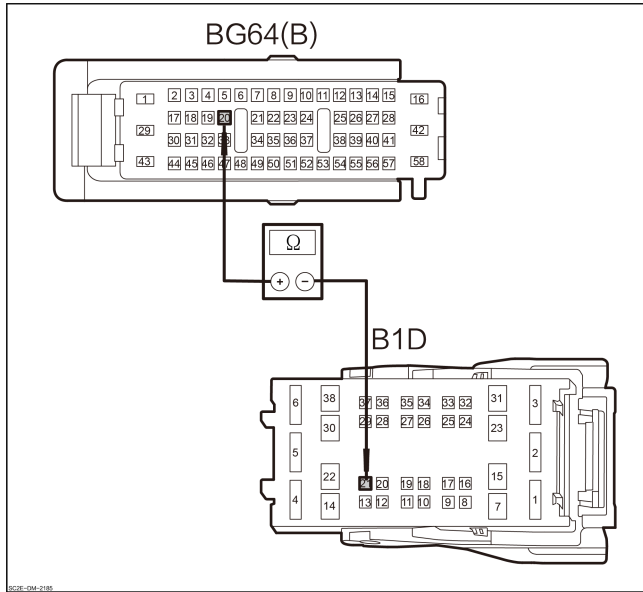
| Plug | | Condition | Resistance value |
|-------|--------|-------------|------------------|
| (+) | (-) | | |
| B04-2 | Ground | Through-out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check whether the wiper speed relay control is open circuited.



1. Disconnect the cable harness plug BG64 (B) of the left domain control module
2. Measure the resistance between the harness plug of left body control module BG64(B)-20 and the harness plug of front compartment fuse box B1D-21.

| Plug | | Condition | Resist- ance value |
|----------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG64(B)- 20 | B1D-21 | Through- out | Lower than 1 Ω |

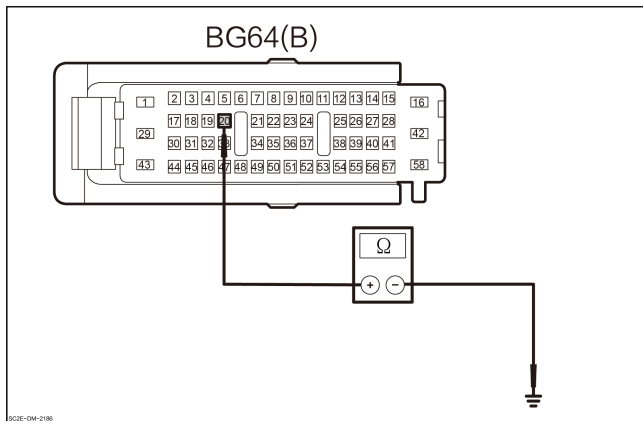
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Check whether the wiper speed relay control is shorted to ground.



1. Measure the resistance between the harness plug of left domain control module BG64(B)-20 and the ground.

| Plug | | Condition | Resist- ance value |
|----------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG64(B)- 20 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No

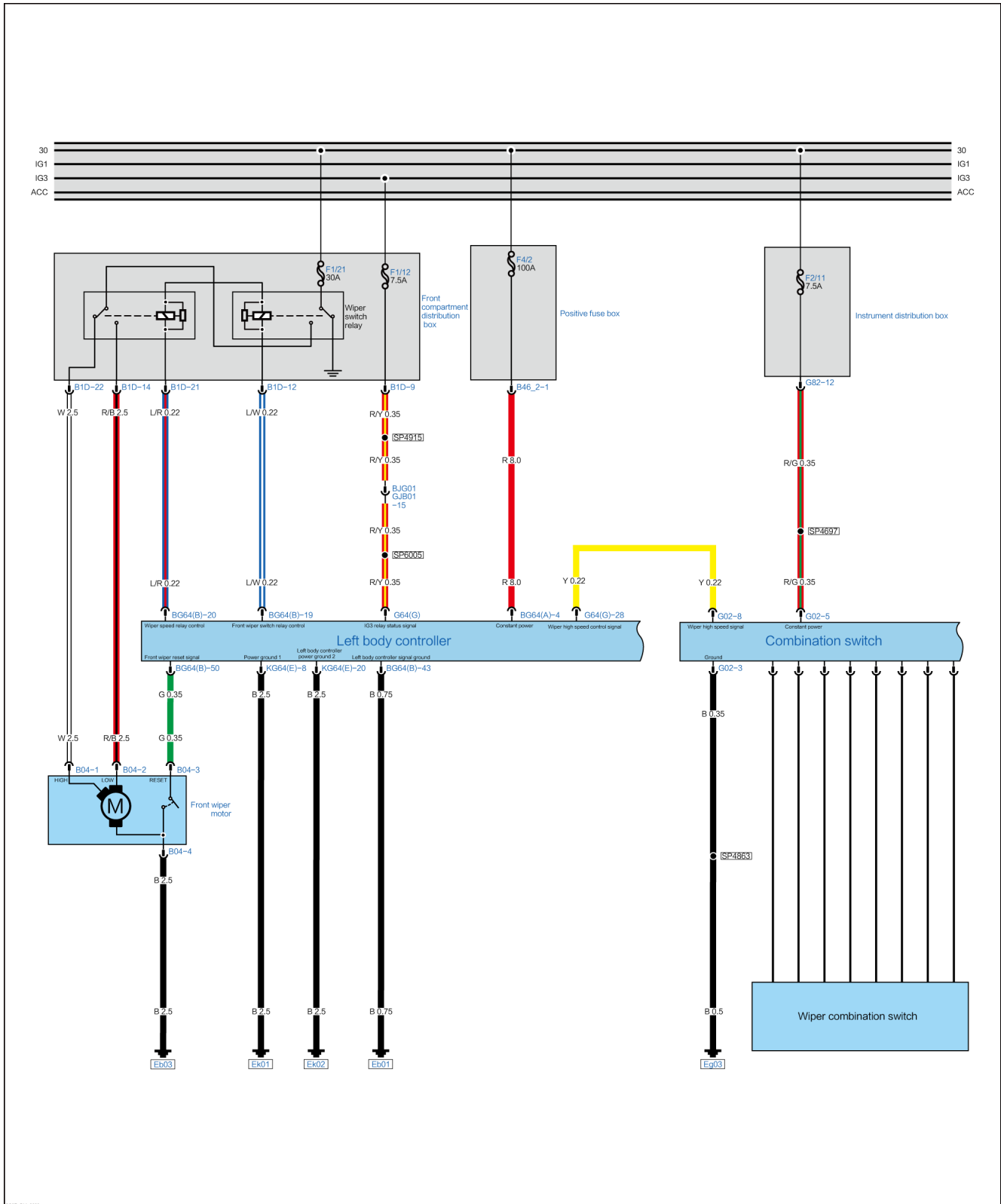
Repair or replace the wire harness

Yes

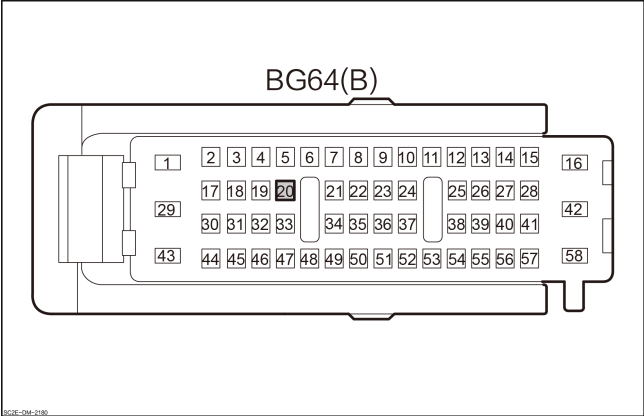
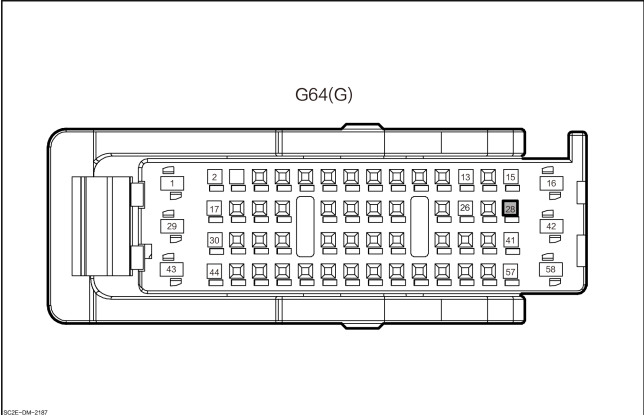
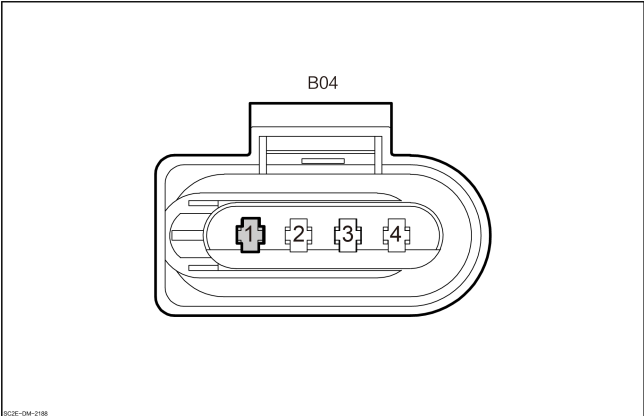
Replace the left body control module.

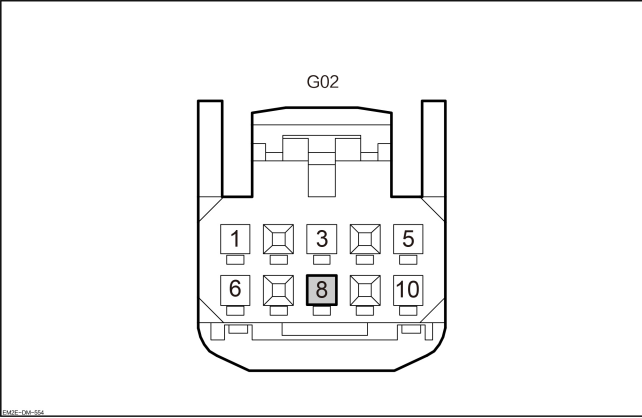
Front Wiper High Gear Not Working

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p>Left body control module</p>  <p>The diagram shows a BG64(B) plug with 58 terminals. Terminal 20 is highlighted with a red box. The terminals are arranged in four rows: Row 1 (1-16), Row 2 (17-28), Row 3 (29-42), and Row 4 (43-58).</p> | <p>20</p> | <p>Wiper speed relay control</p> |
| <p>Left body control module</p>  <p>The diagram shows a G64(G) plug with 58 terminals. Terminal 28 is highlighted with a red box. The terminals are arranged in four rows: Row 1 (1-16), Row 2 (17-28), Row 3 (29-42), and Row 4 (43-58).</p> | <p>28</p> | <p>Wiper high speed control signal</p> |
| <p>Front wiper motor</p>  <p>The diagram shows a B04 plug with 4 terminals. Terminal 1 is highlighted with a red box. The terminals are arranged in a single row: 1, 2, 3, 4.</p> | <p>1</p> | <p>High Speed</p> |
| <p>Combination Switch</p> | <p>8</p> | <p>Wiper high speed control signal</p> |

| Plug | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
|  <p>The diagram shows a diagnostic plug labeled G02. It features six numbered terminals: 1, 3, 5, 6, 8, and 10. Terminal 8 is highlighted with a dark background. The plug has a central connector and two side connectors.</p> | | |

Diagnostic Steps

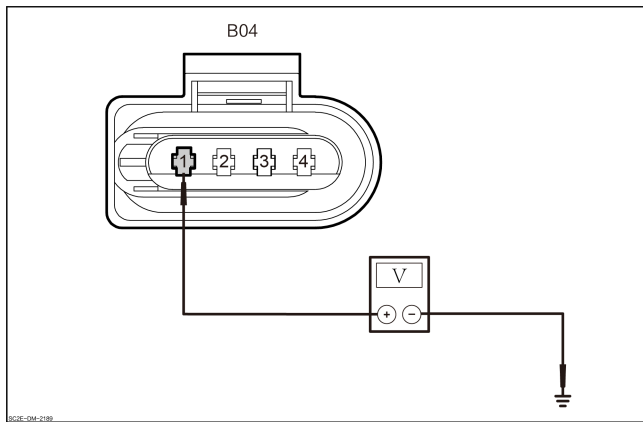
1 Use VDS to test the performance of the front wiper.

1. Connect VDS to the diagnosis interface.
2. Enter the front wiper work support and operate the front wiper at high speed.
3. Whether the front wiper work properly.

Yes → Replace the combination switch.

No

2 Check the voltage of high-speed control line of the front wiper motor.



1. Set the START/STOP button to “OFF” .
2. Disconnect the front wiper motor harness connector B04.
3. Set the START/STOP button to “ON” .
4. Enter the front wiper working support, and operate the front wiper to work in the high-speed mode. Measure the voltage between the high-speed control harness plug of front wiper B04-4 and the ground.

| Plug | | Condition | Operating condition |
|-------|--------|-------------|---------------------|
| (+) | (-) | | |
| B04-1 | Ground | Through-out | 11~14V |

5. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

3 Check the front wiper motor

1. Remove the front wiper motor.
2. Connect the battery power supply to test the operation of the front wiper motor.

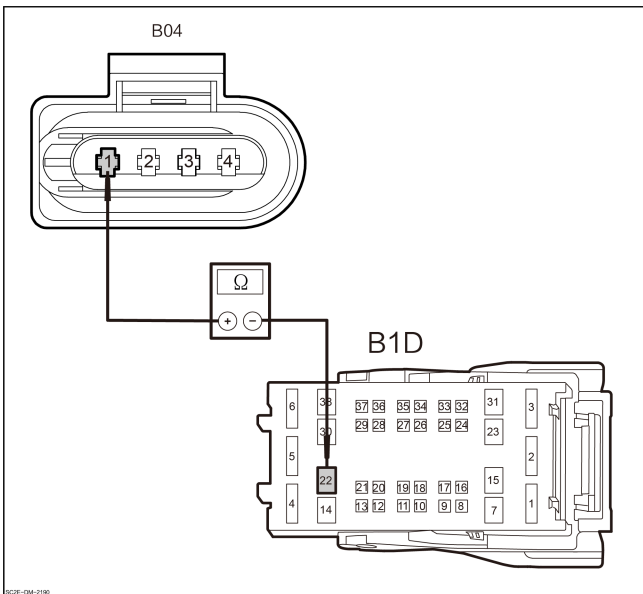
| Plug | | Condition | Operating condition |
|-------|-------|-----------|---------------------|
| (+) | (-) | | |
| B04-1 | B04-4 | - | High Speed |

3. Check whether the results are normal.

No → Replace the front wiper motor

Yes

4 Check the high-speed control line of the front wiper motor for open circuit.



1. Disconnect the front compartment fuse box harness plug B1 D.
2. Measure the resistance between the low-speed control harness plug of front wiper B04-1 and the harness plug of front compartment fuse box B1D-22.

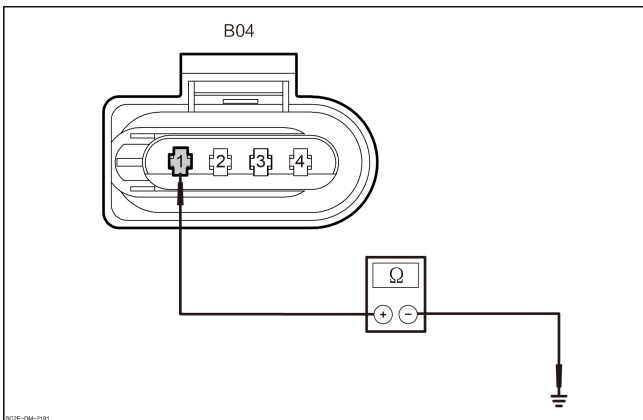
| Plug | | Condition | Resistance value |
|-------|--------|-------------|------------------|
| (+) | (-) | | |
| B04-1 | B1D-22 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the high-speed control line of the front wiper motor for short circuit to ground.



1. Measure the resistance between the high-speed control harness plug of front wiper B04-1 and the ground.

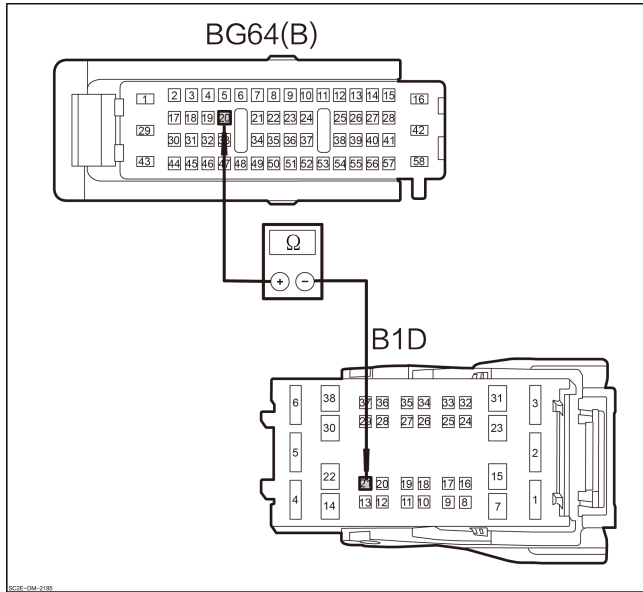
| Plug | | Condition | Resistance value |
|-------|--------|-------------|------------------|
| (+) | (-) | | |
| B04-1 | Ground | Through-out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check whether the wiper speed relay control is open circuited.



1. Disconnect the cable harness plug BG64 (B) of the left domain control module
2. Measure the resistance between the harness plug of left body control module BG64(B)-20 and the harness plug of front compartment fuse box B1D-21.

| Plug | | Condition | Resistance value |
|------------|--------|-------------|------------------|
| (+) | (-) | | |
| BG64(B)-20 | B1D-21 | Through-out | Lower than 1 Ω |

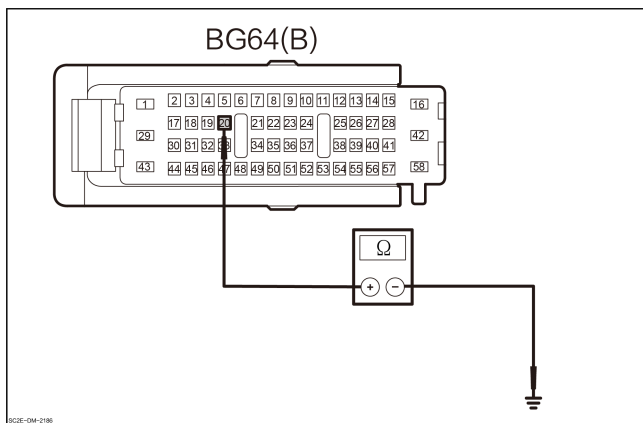
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Check whether the wiper speed relay control is shorted to ground.



1. Measure the resistance between the harness plug of left domain control module BG64(B)-20 and the ground.

| Plug | | Condition | Resistance value |
|------------|--------|-------------|------------------|
| (+) | (-) | | |
| BG64(B)-20 | Ground | Through-out | Lower than 1 Ω |

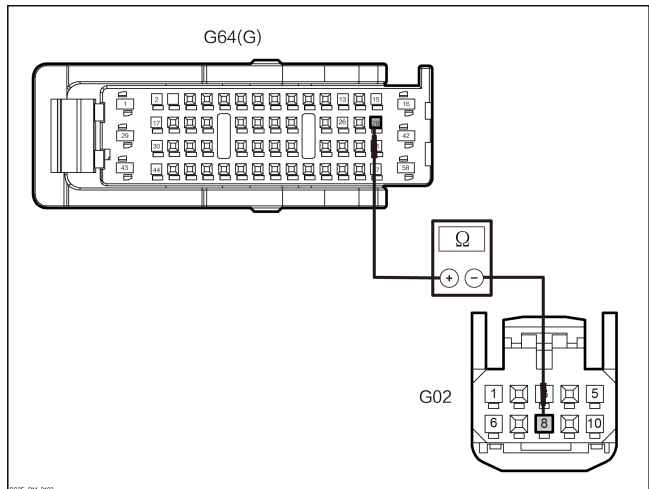
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

8 Check the wiper high-speed input line for open circuit.



1. Disconnect the harness plug of left domain control module G64(G).
2. Disconnect the combination switch harness connector G02.
3. Measure the resistance between the harness plug of left domain control module G64(G)-28 and the harness plug of combination switch G02-8.

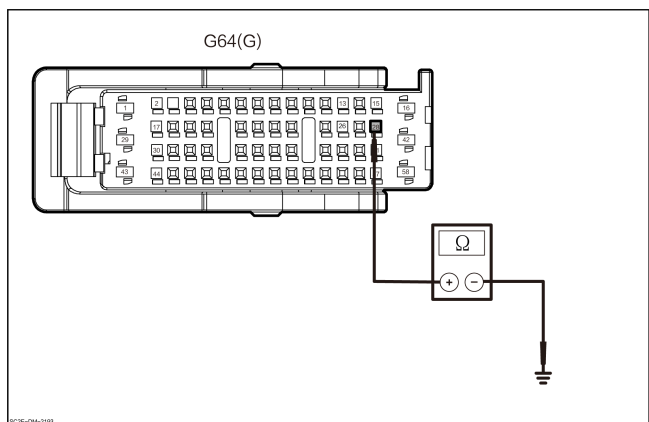
| Plug | | Condition | Resist- ance value |
|---------------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| G64(G)-2 8 | G02-8 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

9 Check the wiper high-speed input line for short to ground.



1. Measure the resistance between the harness plug of left body control module G64(G)-28 and the ground.

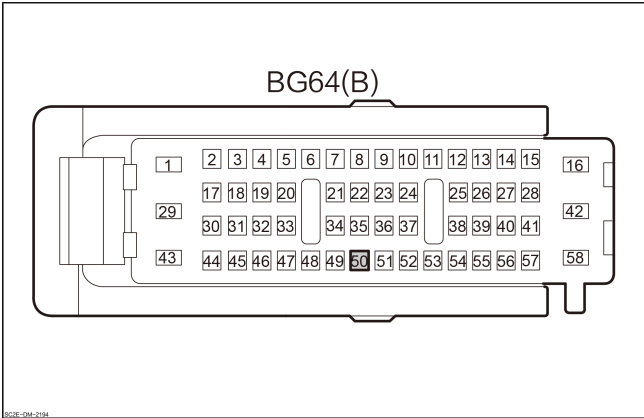
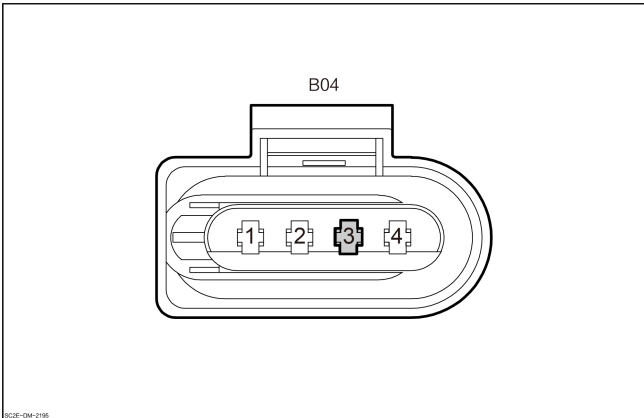
| Plug | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G64(G)-2 8 | Ground | Through- out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the left body control module.

Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|---------------------------|
| <p style="text-align: center;">Left body control module</p>  <p style="text-align: center;">BG64(B)</p> <p>The diagram shows a 64-pin connector labeled BG64(B). The pins are arranged in three rows: the top row contains pins 1 through 16; the middle row contains pins 17 through 28, with a gap between pins 24 and 25; and the bottom row contains pins 29 through 58. Pin 50 is highlighted with a black background.</p> | <p>50</p> | <p>Wiper reset signal</p> |
| <p style="text-align: center;">Front wiper motor</p>  <p style="text-align: center;">B04</p> <p>The diagram shows a 4-pin connector labeled B04. The pins are arranged in a single row and numbered 1, 2, 3, and 4 from left to right. Pin 3 is highlighted with a black background.</p> | <p>3</p> | <p>Park</p> |

Diagnostic Steps

| | |
|---|----------------------------|
| 1 | Check the front wiper arm. |
|---|----------------------------|

1. Check the installation position and elasticity of the front wiper arm.
2. Check whether the results are normal.

No

Adjust the installation position of the front wiper arm and replace the front wiper arm if necessary.

Yes

| | |
|---|---|
| 2 | Check the front wiper connecting rod mechanism. |
|---|---|

1. Check the installation, deformation and damage of the wiper linkage structure.
2. Check whether the results are normal.

No

Adjust the wiper linkage structure and replace the front wiper linkage structure if necessary.

Yes

| | |
|---|---|
| 3 | Check the front wiper reset signal harness connector. |
|---|---|

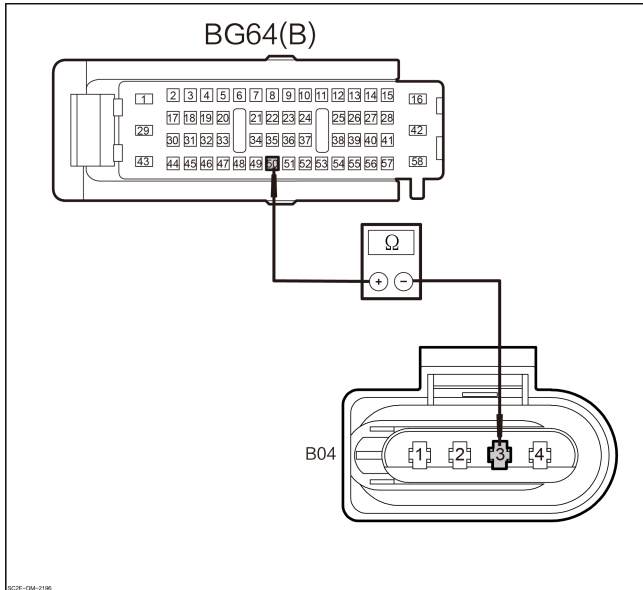
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness plug of left domain control module BG64(B).
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check whether the front wiper reset signal is open circuited. |
|---|---|



1. Disconnect the front wiper motor harness connector B04.
2. Measure the resistance between the harness plug of left body control module BG64(B)–50 and the harness plug of front wiper motor B04–3.

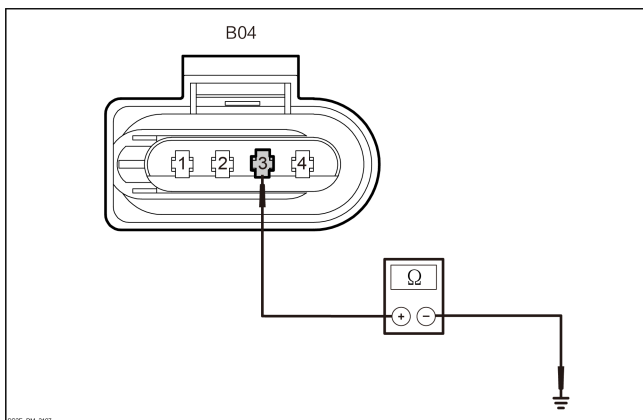
| Plug | | Condition | Resistance value |
|------------|-------|-------------|------------------|
| (+) | (-) | | |
| BG64(B)–50 | B04–3 | Through-out | Lower than 1 Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check whether the front wiper reset signal is shorted to ground.



1. Measure the resistance value between the front wiper motor harness plug B04–3 and ground.

| Plug | | Condition | Resistance value |
|-------|--------|-------------|------------------|
| (+) | (-) | | |
| B04–3 | Ground | Through-out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the front wiper motor

1. Replace the front wiper motor
2. Check whether the results are normal.

Yes → Replace the front wiper motor

No → Replace the left body control module.

DTC Diagnosis

List of DTC

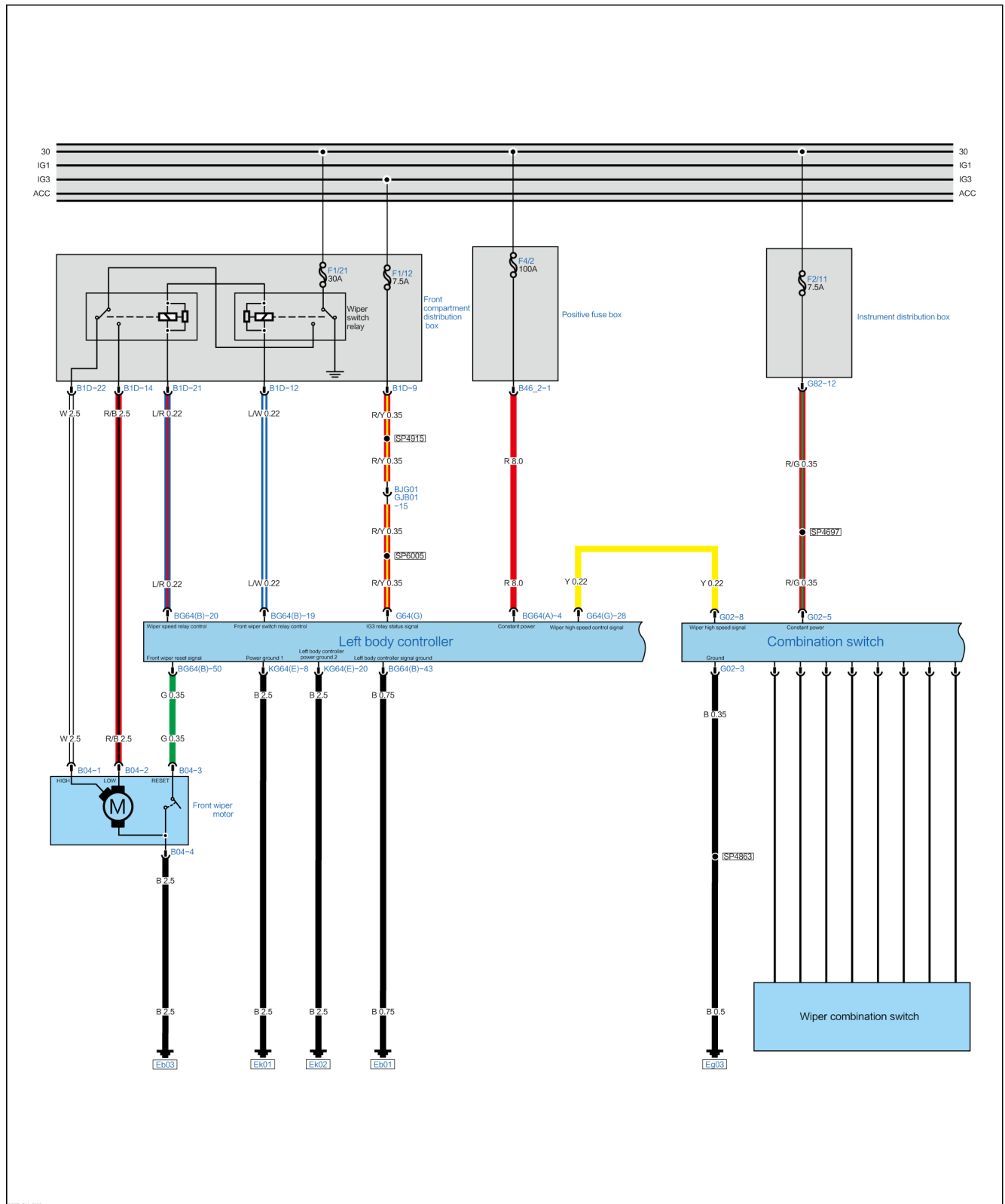
| DTC: | Meaning | Diagnostic Process |
|---------|---|---|
| B1BE801 | Front wiper high-speed gear switch hard wire detection signal failure | B1BE801 Detection Signal of Front Wiper High-speed Switch Hard Wire Fault |
| B1BF400 | Front wiper reset signal fault | B1BF400 Front Wiper Reset Signal Fault |

B1BE801 Detection Signal of Front Wiper High-speed Switch Hard Wire Fault

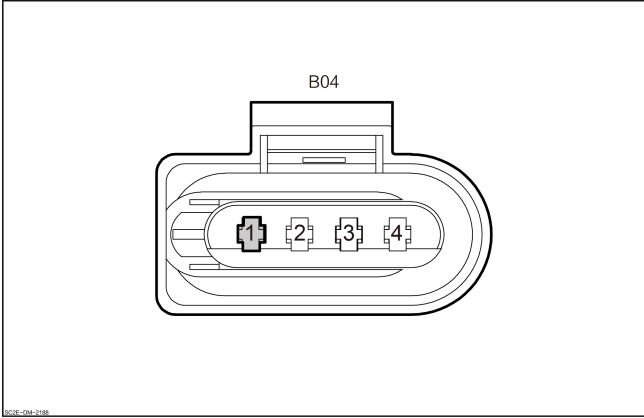
DTC Description

| B1BE801 Detection Signal of Front Wiper High-speed Switch Hard Wire Fault | |
|---|--|
| Symptom | When the high-speed switch of the wiper is turned on, the wiper does not work. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Front wiper high-speed gear switch fault 3. Left body control module fault |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">Front wiper motor</p>  <p style="text-align: center;">B04</p> <p style="font-size: small; margin-top: 10px;">B04E-04-2188</p> | <p>1</p> | <p>High Speed</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of the left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|--|
| 2 | Check the front wiper motor harness connector. |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the front wiper motor switch harness connector B04.
3. Check the wire harness connector of the front wiper motor for corrosion, damage and pin withdrawing.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|-----------------------------|
| 3 | Check the front wiper motor |
|---|-----------------------------|

1. Check the front wiper motor harness connector for corrosion, damage and aging.
2. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

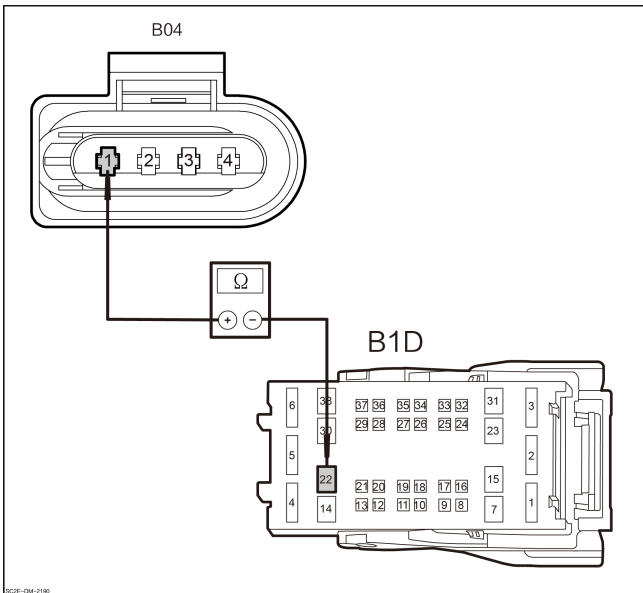
| | |
|---|-------------------------------|
| 4 | Check the wiper switch relay. |
|---|-------------------------------|

1. Check the wiper switch relay harness connector for corrosion, damage and aging.
2. Check whether the results are normal.

No Repair or replace the damaged harness or connector.

Yes

5 Check the high-speed control line of the front wiper motor for open circuit.



1. Disconnect the front compartment fuse box harness plug B1 D.
2. Measure the resistance between the low-speed control harness plug of front wiper B04-1 and the harness plug of front compartment fuse box B1D-22.

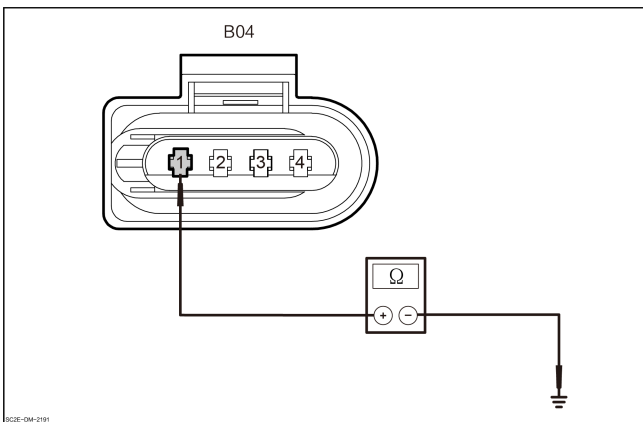
| Plug | | Condition | Resistance value |
|-------|--------|-------------|------------------|
| (+) | (-) | | |
| B04-1 | B1D-22 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

No Repair or replace the wire harness

Yes

6 Check the high-speed control line of the front wiper motor for short circuit to ground.



1. Measure the resistance between the high-speed control harness plug of front wiper B04-1 and the ground.

| Plug | | Condition | Resistance value |
|-------|--------|-------------|------------------|
| (+) | (-) | | |
| B04-1 | Ground | Through-out | Above 10k Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

7 Check the wiper switch relay.

1. Replace it with a new switch relay and restore the vehicle.

2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the switch relay.

No

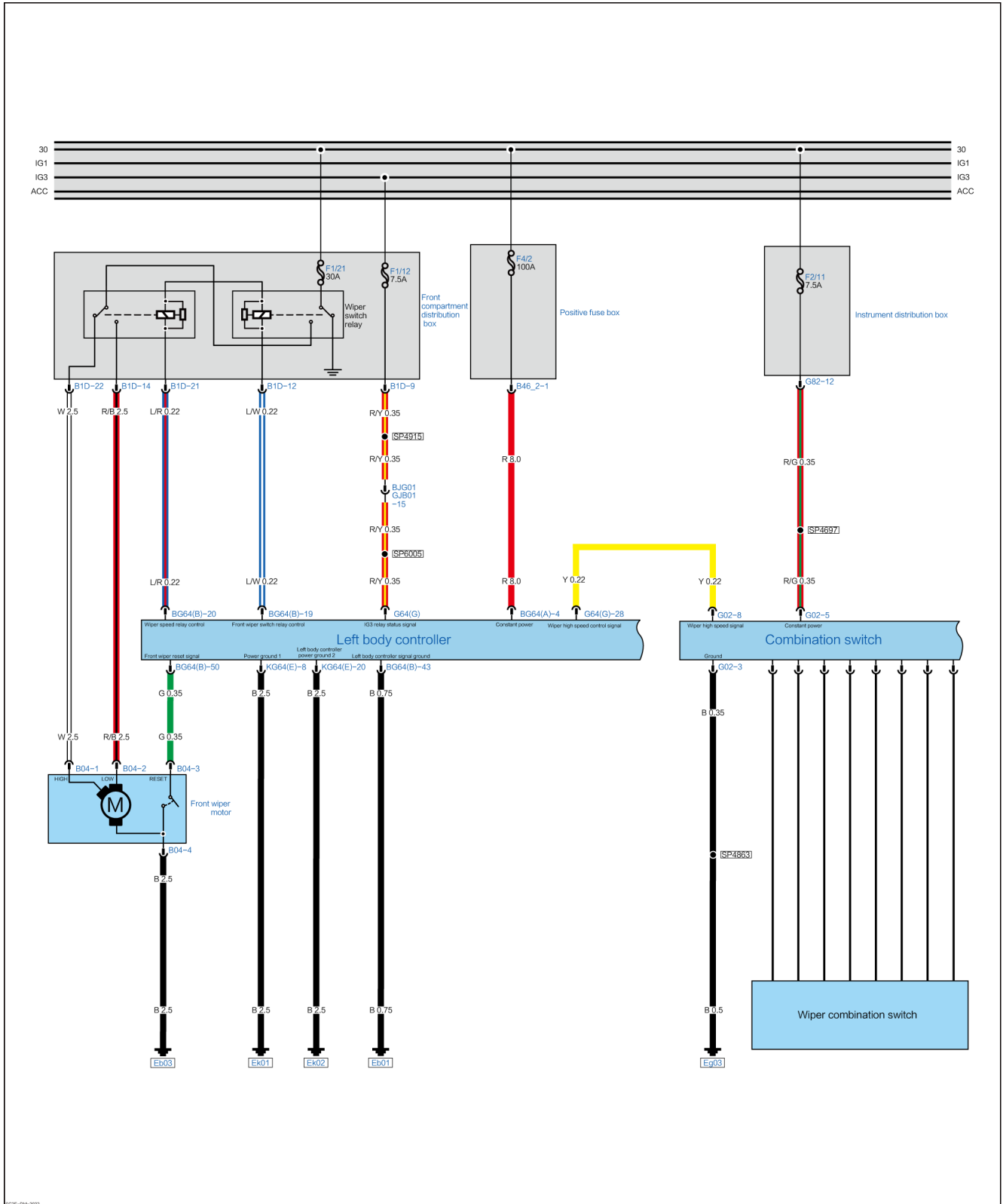
Replace the left body control module.

B1BF400 Front Wiper Reset Signal Fault

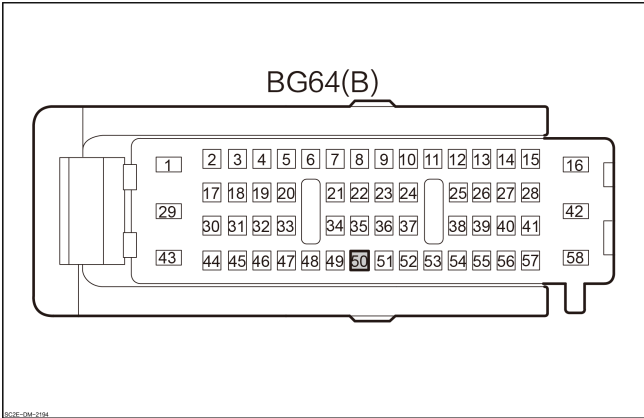
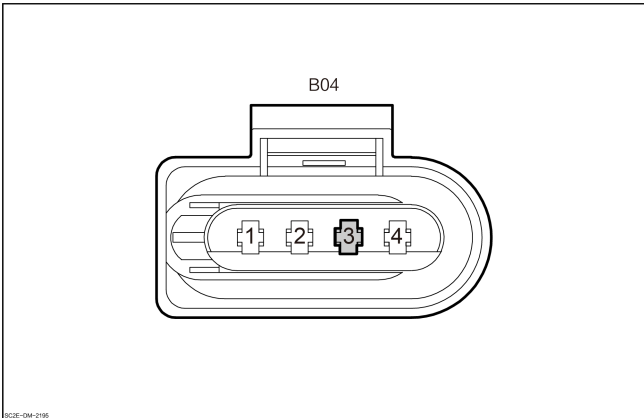
DTC Description

| B1BF400 Front Wiper Reset Signal Fault | |
|--|--|
| Symptom | When the high-speed switch of the wiper is turned on, the wiper does not work. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Front wiper high-speed gear switch fault 3. Left body control module fault |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|---------------------------|
| <p style="text-align: center;">Left body control module</p>  <p style="text-align: center;">BG64(B)</p> <p>The diagram shows a 64-pin connector labeled BG64(B). The pins are arranged in three rows: the top row has pins 1-16, the middle row has pins 17-28 and 29-42, and the bottom row has pins 43-58. Pin 50 is highlighted with a black background.</p> | <p>50</p> | <p>Wiper reset signal</p> |
| <p style="text-align: center;">Front wiper motor</p>  <p style="text-align: center;">B04</p> <p>The diagram shows a 4-pin connector labeled B04. The pins are numbered 1, 2, 3, and 4 from left to right. Pin 3 is highlighted with a black background.</p> | <p>3</p> | <p>Park</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of the left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|--|
| 2 | Check the front wiper motor harness connector. |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the front wiper motor switch harness connector B04.
3. Check the wire harness connector of the front wiper motor for corrosion, damage and pin withdrawing.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 3 | Check the harness connector of left body control module |
|---|---|

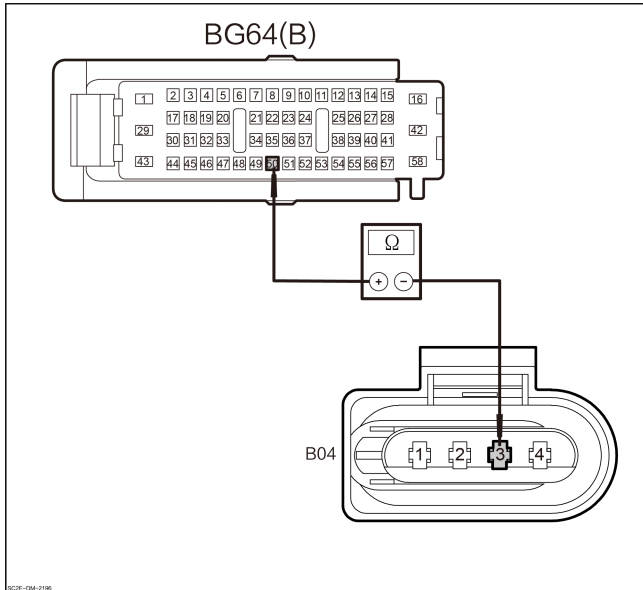
1. Disconnect the harness connector of left body control module BG64(B).
2. Check the harness connector of left body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 4 | Check whether the front wiper reset signal is open circuited. |
|---|---|



1. Disconnect the front wiper motor harness connector B04.
2. Measure the resistance between the harness plug of left body control module BG64(B)–50 and the harness plug of front wiper motor B04–3.

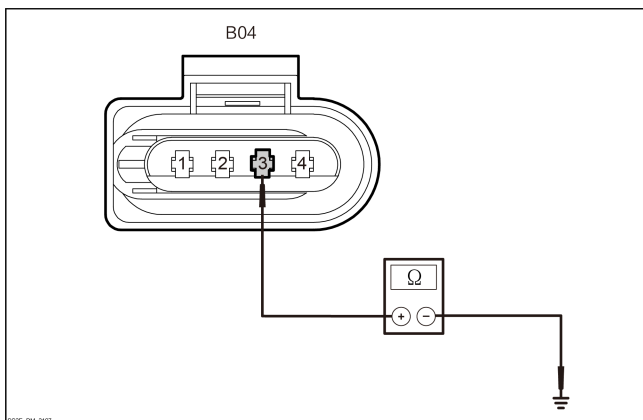
| Plug | | Condition | Resistance value |
|------------|-------|-------------|------------------|
| (+) | (-) | | |
| BG64(B)–50 | B04–3 | Through-out | Lower than 1 Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check whether the front wiper reset signal is shorted to ground.



1. Measure the resistance value between the front wiper motor harness plug B04–3 and ground.

| Plug | | Condition | Resistance value |
|-------|--------|-------------|------------------|
| (+) | (-) | | |
| B04–3 | Ground | Through-out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the front wiper motor

1. Replace with a new front wiper motor and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes → Replace the front wiper motor

No → Replace the left body control module.

Rear Wiper

Diagnosis Description

The core control component of the rear wiper system is the left body control module and the right body control module. In case of system fault, make sure to understand and get familiar with the working principle of the rear wiper system before carrying out rear wiper system fault diagnosis. If visual inspection fails to find out the cause of the fault, please talk patiently to the customer who has complained about the system. They are the best source of information about such faults, especially intermittent faults. Through talking with customers, we can find out the symptoms and occurrence. This may help to determine whether the condition described by customers belongs to the normal operation. Please also check the relevant service notification information.

The combination switch is generally used as a power lead-in switch in the electrical control line, for directly turning on or off low power motor or controlling motor normal and reverse rotation. In case of system fault, make sure to understand and get familiar with the working principle of the combination switch before carrying out combination switch fault diagnosis. If visual inspection fails to find out the cause of the fault, please talk patiently to the customer who has complained about the system. They are the best source of information about such faults, especially intermittent faults. Through talking with customers, we can find out the symptoms and occurrence. This may help to determine whether the condition described by customers belongs to the normal operation. Please also check the relevant service notification information.

Diagnosing intermittent faults can be more difficult than diagnosing persistent faults. Most intermittent faults are caused by poorly contacted electrical connection or faulty line. Therefore, checking the circuit suspected to be causing the fault can help to avoid replacing a functional part.

General equipment

- Socket wrench kit
- Screwdriver
- Interior wall crow plate
- Torque wrench
- VDS
- Multimeter

Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Precautions

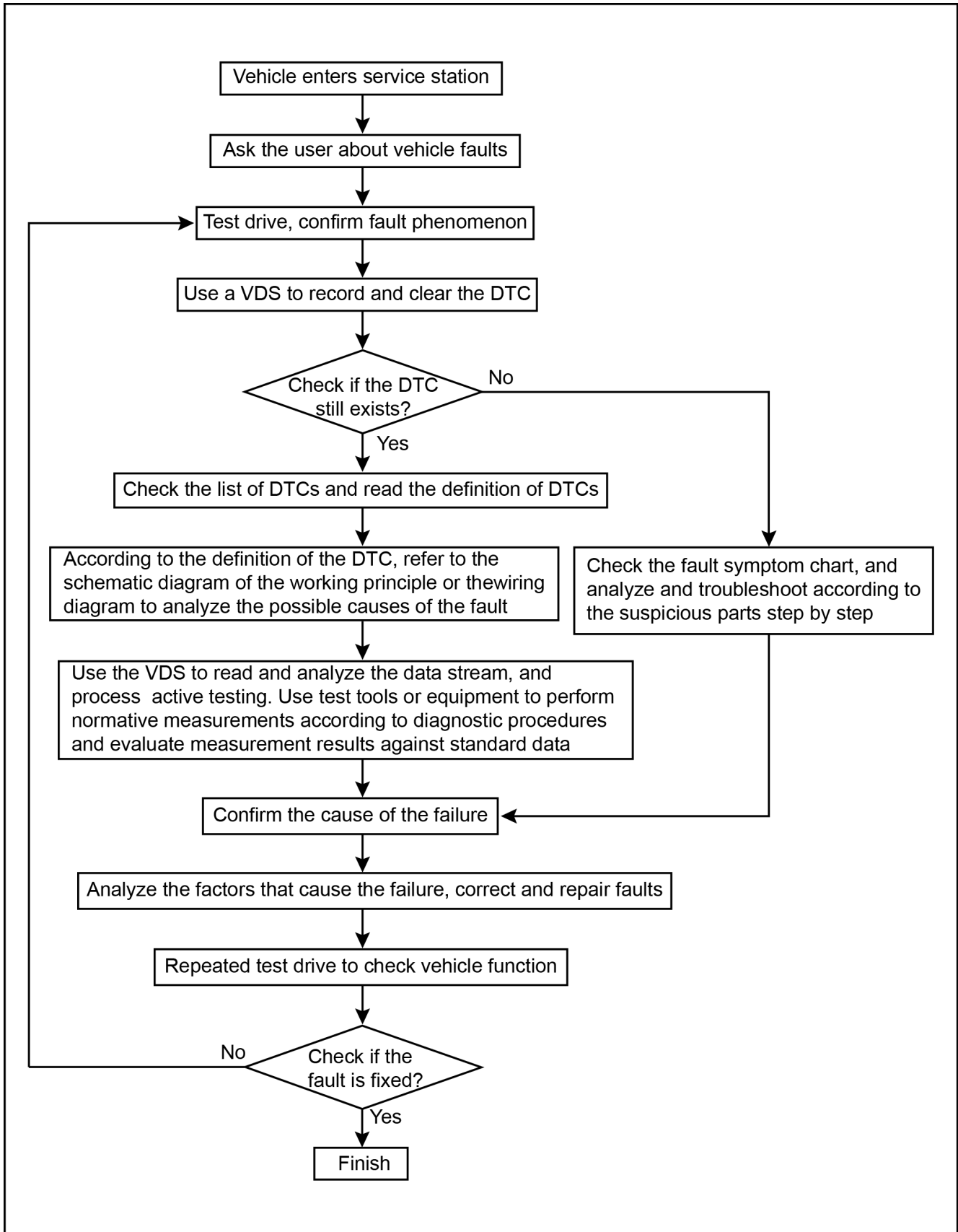
Warning:

- When disconnecting the connector, do not pull the harness to avoid damaging the harness.

Caution:

- Do not use a fine needle to pierce the harness to check the electrical signal of the system.
- The fastener must be checked in specified torque after installing.

Process of Fault Inspection and Troubleshooting



Diagnosis of General Faults

Visual Inspection

1. Confirm problems of customers.
2. Make visual inspection for obvious signs of mechanical damage and collision deformation.
3. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
4. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

| Symptom | Possible cause | Suggested maintenance measures |
|--|---|---|
| Wiper fails to return to the home position | Wiper switch stuck | Replace the wiper switch |
| | Wiper motor fault | Replace the wiper motor |
| | Left body control module fault | Replace the left body control module |
| | Right body control module fault | Replace the right body control module |
| Rear wiper not working | Fuse has blew | Replace the fuse with the same specification after checking that the relevant wire harness is free of short circuit |
| | Harness is short-circuited or open-circuited. | Repair or replace the damaged harness. |
| | Loose connector, terminal false connection, corrosion | Repair or replace the harness connector. |

DTC Diagnosis

List of DTC

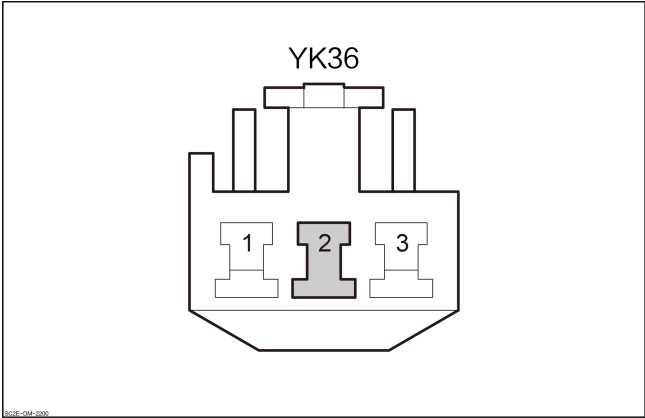
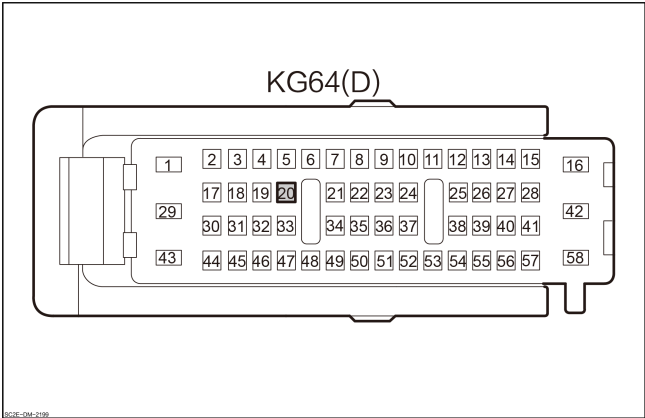
| DTC: | Meaning | Diagnostic Process |
|---------|-------------------------------|---|
| B1C0800 | Rear Wiper Reset Signal Fault | B1C0D12 Rear Wiper Reset Signal Fault |

B1C0D12 Rear Wiper Reset Signal Fault

DTC Description

| B1C0D12 Rear Wiper Reset Signal Fault | |
|---------------------------------------|--|
| Symptom | When the high-speed switch of the wiper is turned on, the wiper does not work. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Rear wiper high-speed switch fault 3. Left body control module fault |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|-------------------------|
| <p style="text-align: center;">Rear wiper motor</p>  <p style="text-align: center;">YK36</p> <p>The diagram shows a YK36 connector with three terminals labeled 1, 2, and 3. Terminal 2 is shaded in grey.</p> | 2 | Rear Wiper Reset Signal |
| <p style="text-align: center;">Left body control module</p>  <p style="text-align: center;">KG64(D)</p> <p>The diagram shows a KG64(D) connector with 58 numbered terminals. Terminal 20 is highlighted in grey.</p> | 20 | Rear Wiper Reset Signal |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of rear wiper motor |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Check the harness connector of rear wiper motor switch YK36.
3. Check the harness connector of rear wiper motor for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 3 | Check the harness connector of left body control module |
|---|---|

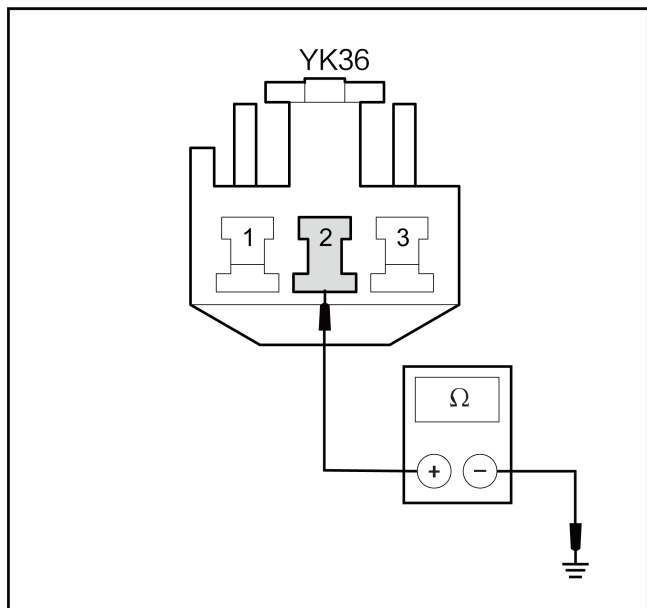
1. Disconnect the harness connector of left body control module KG64(D).
2. Check the harness connector of left body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check the rear wiper motor reset harness for short to ground |
|---|--|



1. Measure the resistance between the harness connector of rear wiper motor YK36-2 and the ground.

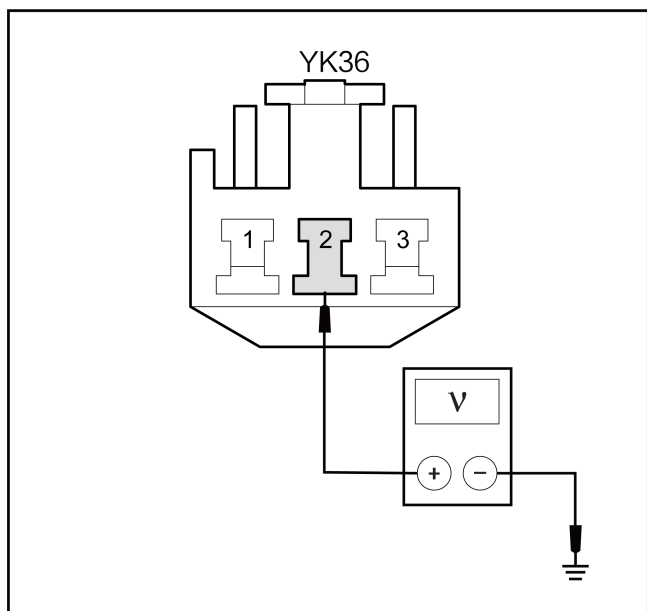
| Terminal | | Condition | Resist- ance value |
|----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| YK36-2 | Ground | Through- out | Above 10 KΩ |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

5 Check the rear wiper motor harness for short circuit to power



1. Measure the voltage between the harness connector of rear wiper motor YK36-2 and the ground.

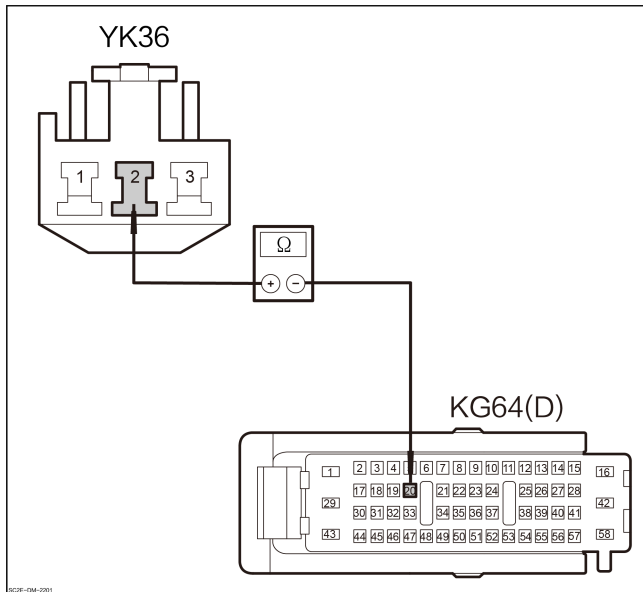
| Terminal | | Condition | Voltage value |
|----------|--------|-----------------|------------------|
| (+) | (-) | | |
| YK36-2 | Ground | Through- out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

6 Check the rear wiper motor harness for open circuit



1. Measure the resistance between the harness connector of rear wiper motor YK36-2 and the harness connector of wiper speed control relay KG64(D)-50.

| Terminal | | Condition | Resist- ance value |
|----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| YK36-2 | KG64(D) -20 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No

Repair or replace the damaged harness.

Yes

| | |
|---|----------------------------|
| 7 | Check the rear wiper motor |
|---|----------------------------|

1. Replace with a new rear wiper motor, and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the rear wiper motor.

No

Replace the left body control module.

Washing System

Diagnosis Description

Before fault diagnosis for the washing system, understand and get familiar with the working principle of the washing system, and then start diagnosis for the washing system, so as to be helpful to confirm the correct fault diagnosis procedure in the event of a fault, and more importantly, to confirm whether the operating condition described by the customer is normal. Any fault diagnosis of the washing system shall start with a washing system check to guide the maintenance technician to take the next logical step for fault diagnosis.

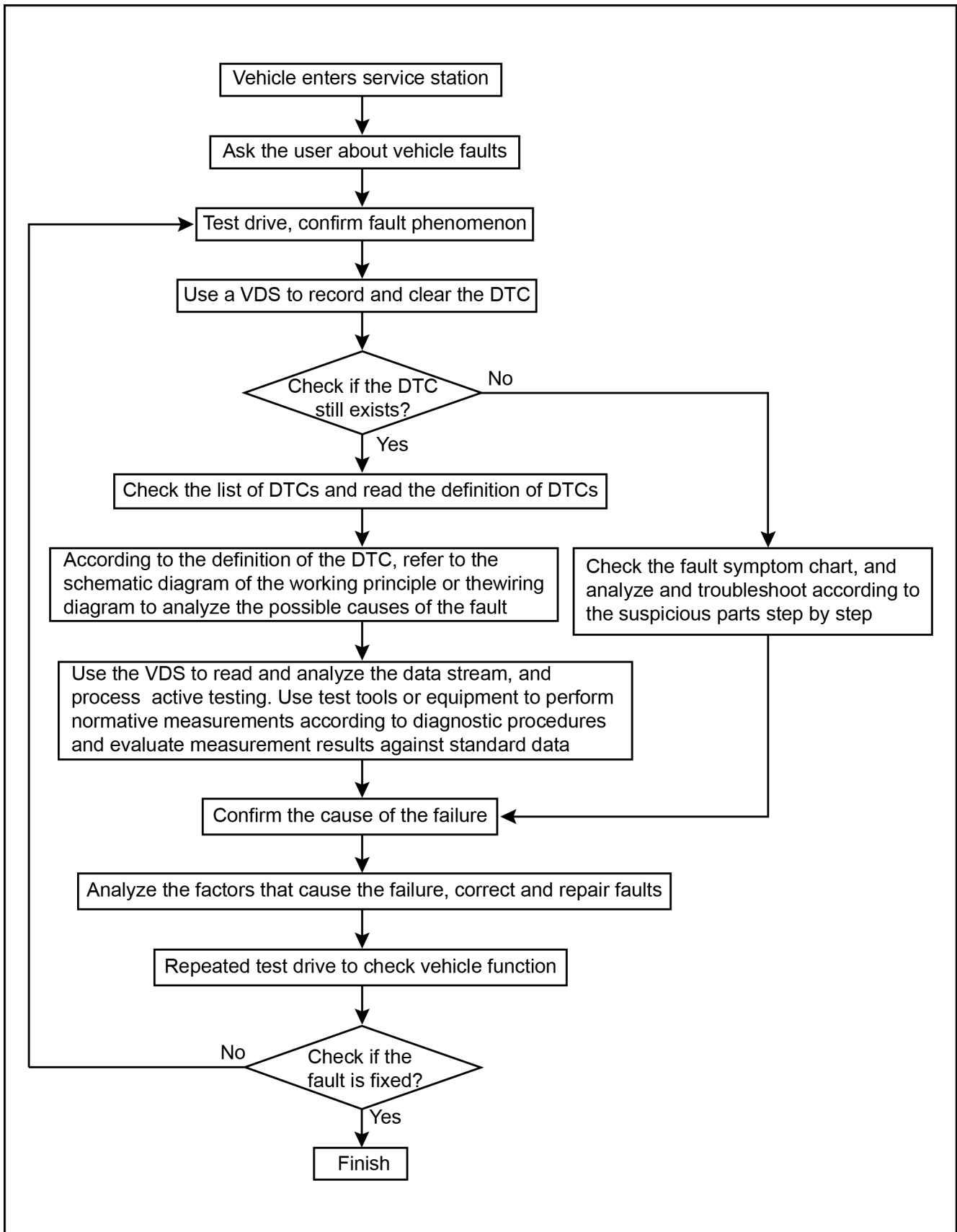
General equipment

- Multimeter
- VDS

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Process of Fault Inspection and Troubleshooting



DTC Diagnosis

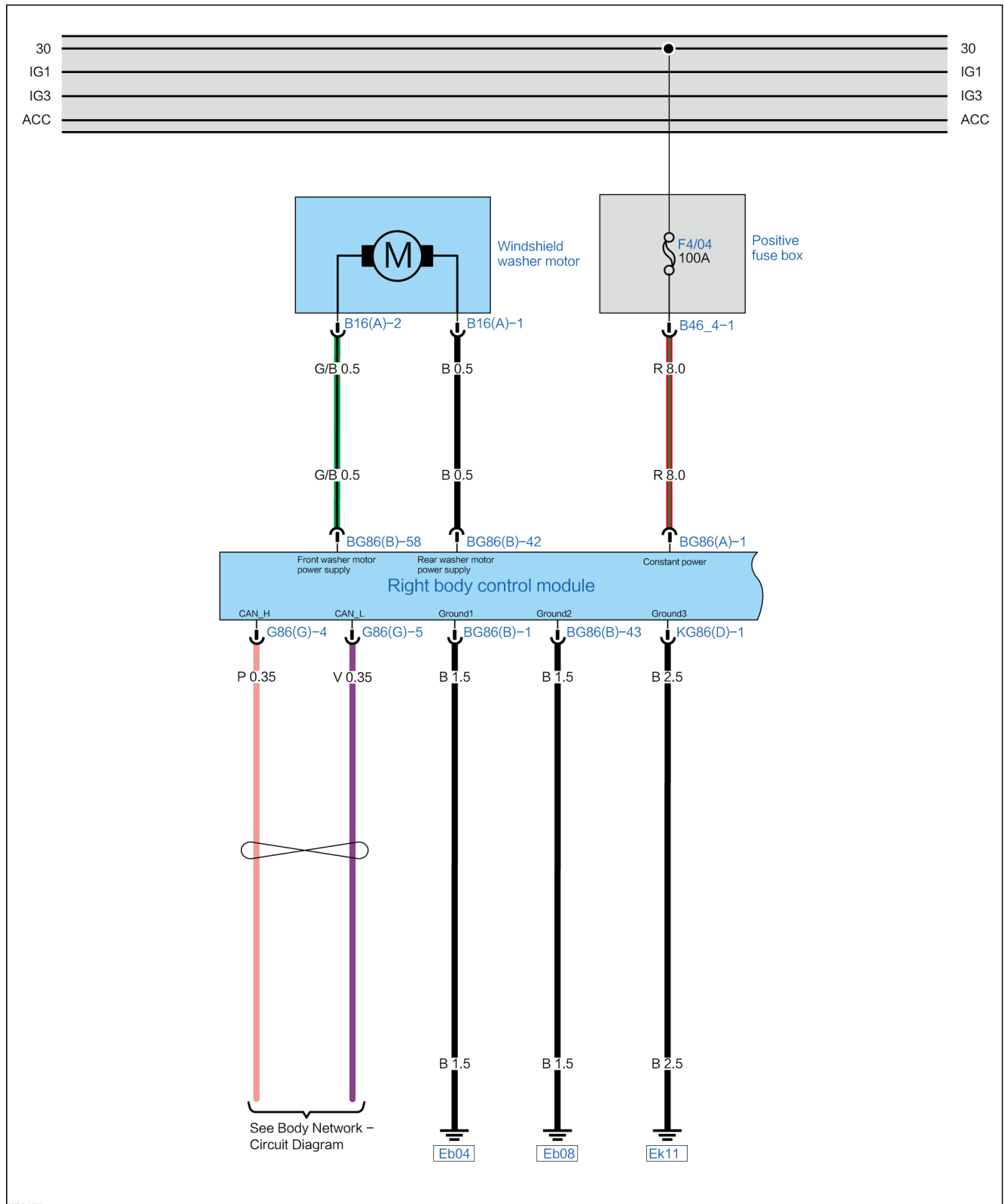
List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|------------------------------|---|
| B1C0D12 | Washer Motor Short-circuited | B1C0D12 Washing Motor Short-circuited |
| B1C0D13 | Washer Motor Open-circuited | B1C0D13 Washing Motor Open-circuited |
| B1C0D71 | Washer Motor Stalling | B1C0D71 Washing Motor Stalling |

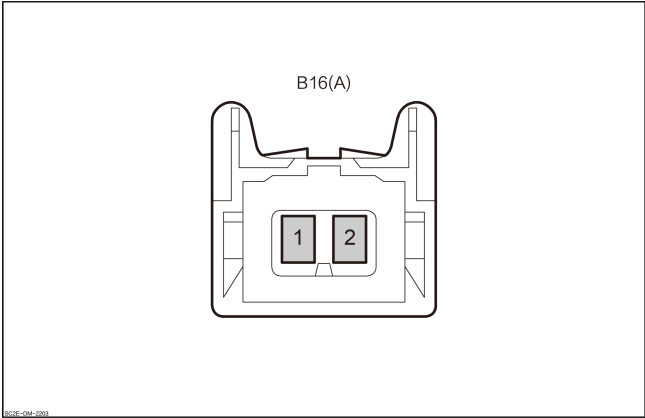
B1C0D12 Washing Motor Short-circuited**DTC Description**

| B1C0D12 Washing Motor Short-circuited | |
|---------------------------------------|--|
| Symptom | Washing Motor Not Working |
| Possible Cause | 1. Harness or connector fault. 2. Washing motor short circuit 3. Right body control module fault |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|----------------------------|
| <p style="text-align: center;">Windshield washing motor</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B16(A)</p> </div> <p style="font-size: small; margin-top: 10px;">©2023 BYD</p> | 1 | Front washing power supply |
| | 2 | Rear Washer Power Supply |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of windshield washing motor |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of windshield washing motor B16(A).
3. Check the harness connector of windshield washing motor for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of right body control module |
|---|--|

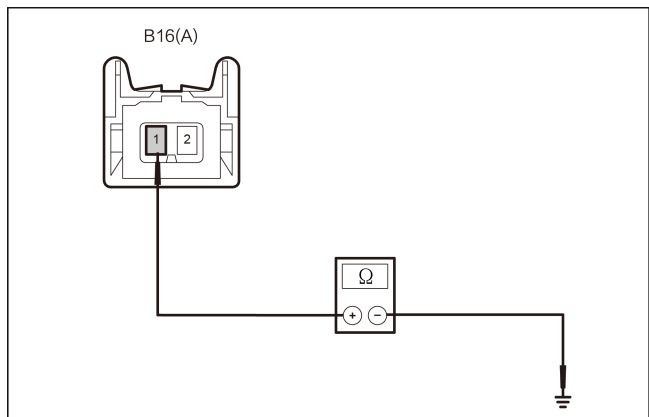
1. Disconnect the harness connector of right body control module BG86(B).
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 4 | Check whether the windshield front washing motor harness is short to ground |
|---|---|



1. Measure the resistance between the harness connector of windshield washing motor B16(A)-1 and the ground.

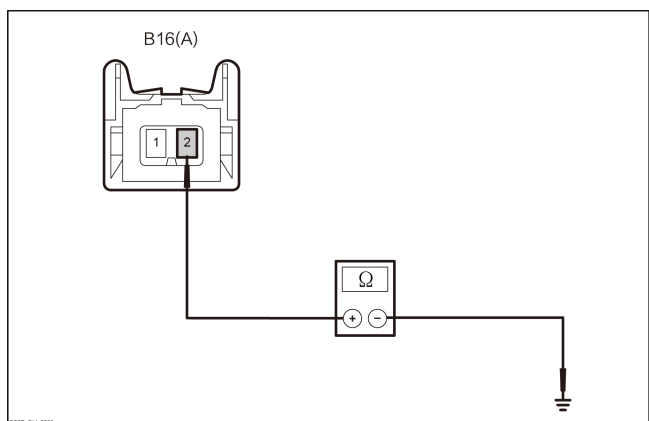
| Terminal | | Condition | Resistance value |
|----------|--------|-------------|--------------------|
| (+) | (-) | | |
| B16(A)-1 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No Repair or replace the damaged harness.

Yes

5 Check whether the windshield rear washing motor harness is short to ground



1. Measure the resistance between the harness connector of windshield washing motor B16(A)-2 and the ground.

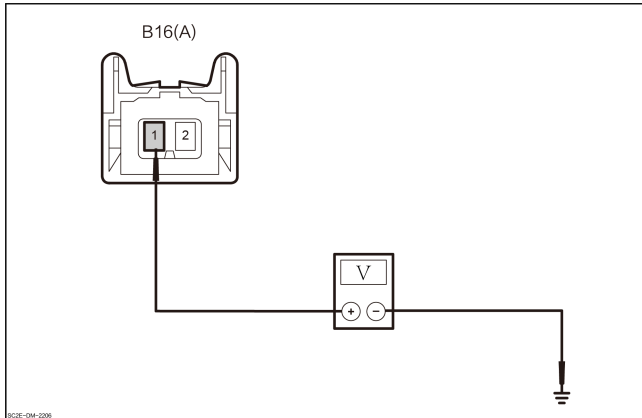
| Terminal | | Condition | Resistance value |
|----------|--------|-------------|--------------------|
| (+) | (-) | | |
| B16(A)-2 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No Repair or replace the damaged harness.

Yes

6 Check whether the windshield front washing motor harness is short to power supply



1. Measure the voltage between the harness connector of windshield washing motor B16(A)-1 and the ground.

| Terminal | | Condition | Voltage value |
|----------|--------|-------------|---------------|
| (+) | (-) | | |
| B16(A)-1 | Ground | Through-out | Less than 1V |

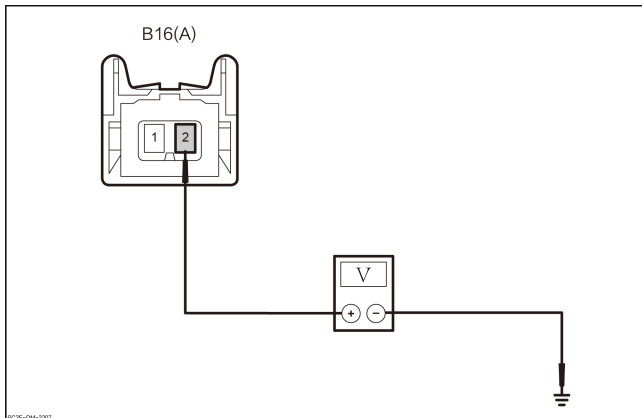
2. Check whether the results are normal.

No

Repair or replace the damaged harness.

Yes

| | |
|---|---|
| 7 | Check whether the windshield front washing motor harness is short to power supply |
|---|---|



1. Measure the voltage between the harness connector of windshield washing motor B16(A)-2 and the ground.

| Terminal | | Condition | Voltage value |
|----------|--------|-------------|---------------|
| (+) | (-) | | |
| B16(A)-2 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No

Repair or replace the damaged harness.

Yes

| | |
|---|------------------------------------|
| 8 | Check the windshield washing motor |
|---|------------------------------------|

1. Replace the windshield washing motor with a new one and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the windshield washing motor.

No

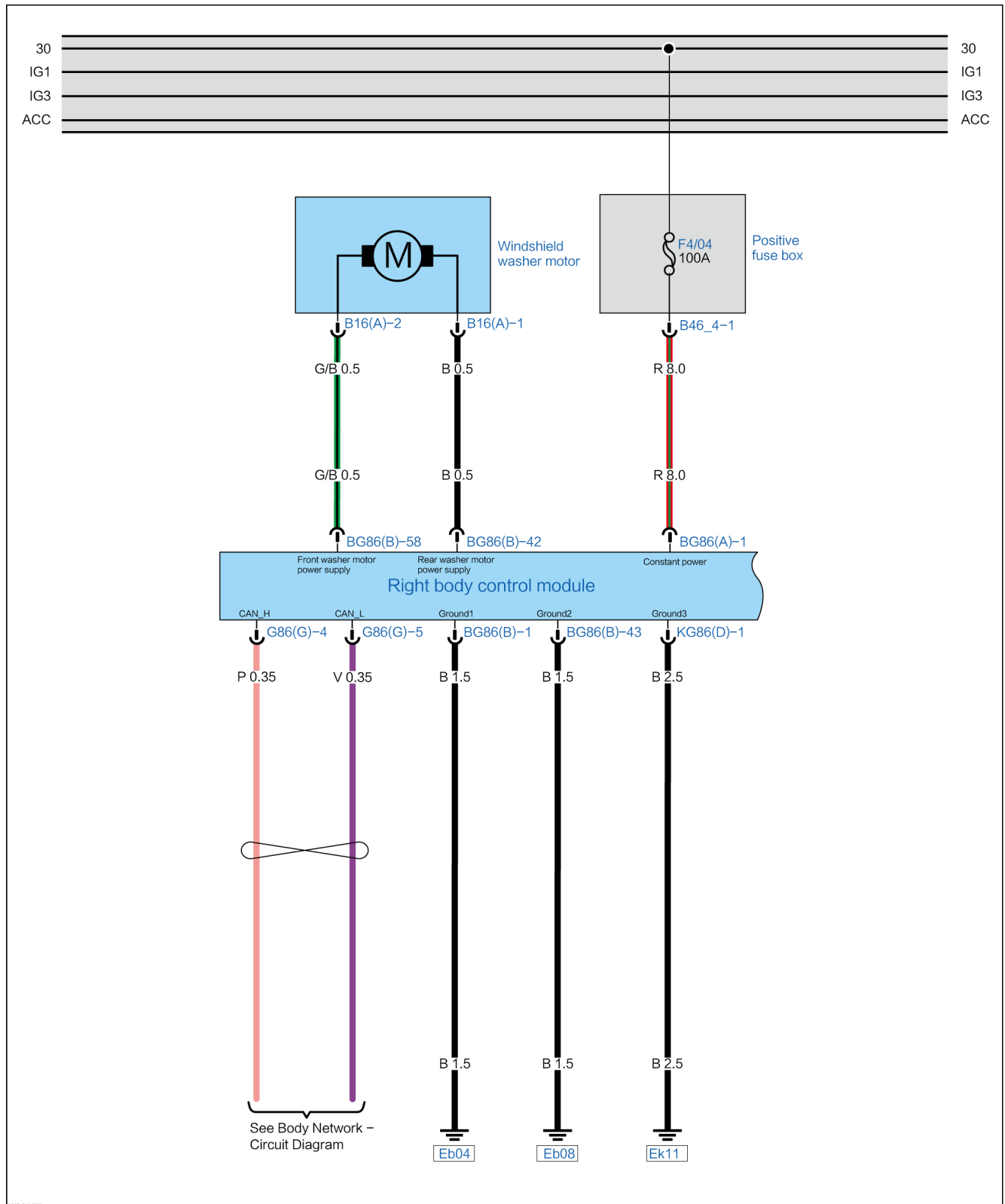
Replace the right body control module.

B1C0D13 Washing Motor Open-circuited

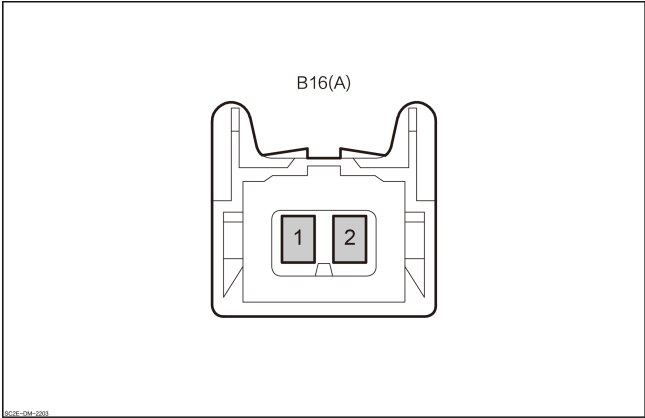
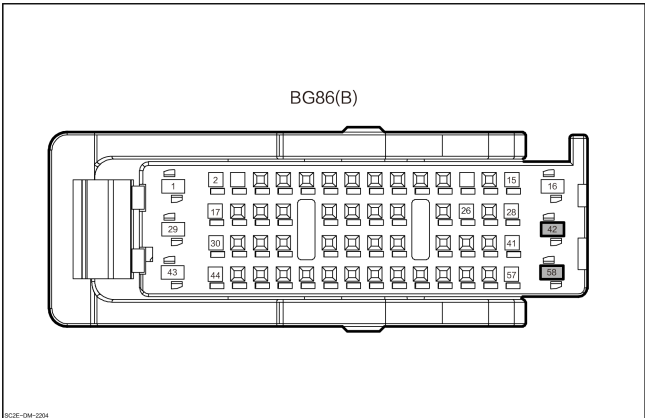
DTC Description

| B1C0D12 Washing Motor Short-circuited | |
|---------------------------------------|--|
| Symptom | Washing Motor Not Working |
| Possible Cause | 1. Harness or connector fault. 2. Washing motor short circuit 3. Right body control module fault |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|----------------------------|
| <p style="text-align: center;">Windshield washing motor</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B16(A)</p> </div> <p><small>SGE-DM-203</small></p> | 1 | Front washing power supply |
| | 2 | Rear Washer Power Supply |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">BG86(B)</p> </div> <p><small>SGE-DM-204</small></p> | 42 | Front washing power supply |
| | 58 | Rear Washer Power Supply |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of windshield washing motor |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of windshield washing motor B16(A).
3. Check the harness connector of windshield washing motor for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of right body control module |
|---|--|

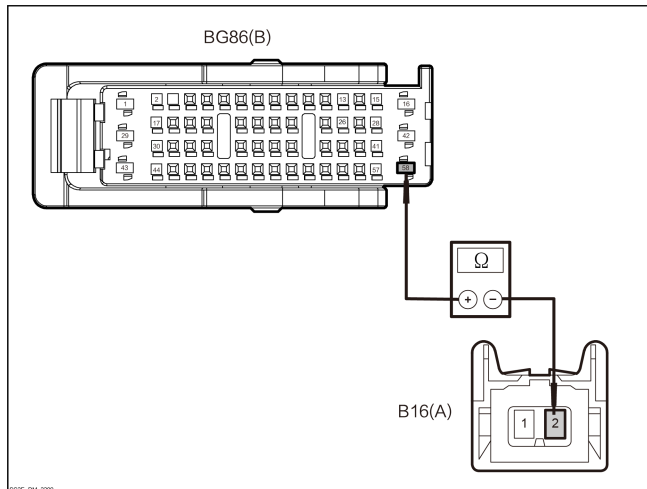
1. Disconnect the harness connector of right body control module BG86(B).
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check whether the windshield front washing motor harness is open |
|---|--|



1. Measure the resistance between the harness connector of right body control module BG86(B)–58 and the harness connector of windshield front washing motor B16(A)–2.

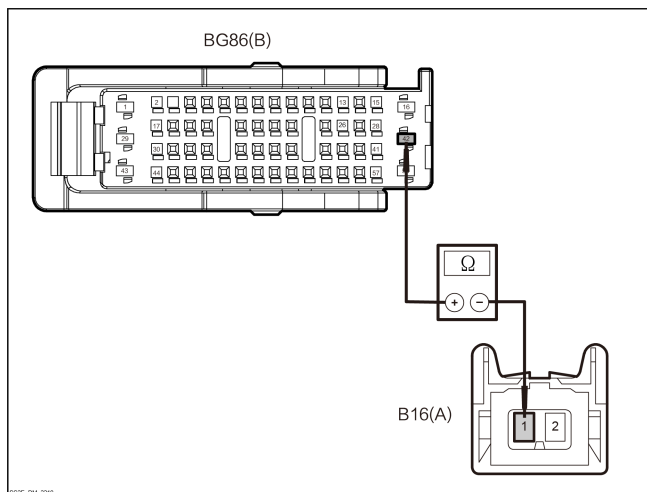
| Terminal | | Condition | Resist- ance value |
|------------|----------|-------------|--------------------------|
| (+) | (-) | | |
| BG86(B)–58 | B16(A)–2 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

5 Check whether the windshield rear washing motor harness is open



1. Measure the resistance between the harness connector of right body control module BG86(B)–42 and the harness connector of windshield rear and front washing motor B16(A)–1.

| Terminal | | Condition | Resist- ance value |
|------------|----------|-------------|--------------------------|
| (+) | (-) | | |
| BG86(B)–42 | B16(A)–1 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

6 Check the windshield washing motor

1. Replace the windshield washing motor with a new one and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes → Replace the windshield washing motor.

No

Replace the right body control module.

B1C0D71 Washing Motor Stalling

DTC Description

| B1C0D71 Washing Motor Stalling | |
|--------------------------------|--|
| Symptom | Washing Motor Not Working |
| Possible Cause | 1. Harness or connector fault. 2. Washing motor short circuit 3. Right body control module fault |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of windshield washing motor |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of windshield washing motor B16.
3. Check the harness connector of windshield washing motor for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of right body control module |
|---|--|

1. Disconnect the harness connector of right body control module BG86(B) .
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|------------------------------------|
| 4 | Check the windshield washing motor |
|---|------------------------------------|

1. Replace the windshield washing motor with a new one and restore the vehicle.

2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the windshield washing motor.

No

Replace the right body control module.

Roof

Sunroof

Diagnosis Description

The sunroof system of this vehicle is a panoramic sunroof, and the sunroof control motor assembly (integrated into the right body control module) can open, close, tilt up and tilt down the sunroof by controlling the forward and reverse rotation of the motor.

The vehicle is also equipped with an electric blinder system, which can open and close the blinder according to the sunroof switch state and the blinder control switch.

Before diagnosing the sunroof system in case of a fault, first understand and be familiar with the working principle of the sunroof system. If visual inspection fails to find out the cause of the fault, please talk patiently to the customer who has complained about the system. They are the best source of information about such faults, especially intermittent faults. Through talking with customers, we can find out the symptoms and occurrence. This may help to determine whether the condition described by customers belongs to the normal operation. Start with a "traditional" problem, which is one of the best ways to troubleshoot the sunroof system, and check the relevant service bulletin information.

General equipment

- Socket wrench kit
- Torque wrench
- Hexagon long torx head with quincunx shape
- Screwdriver
- VDS
- Multimeter

Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Precautions

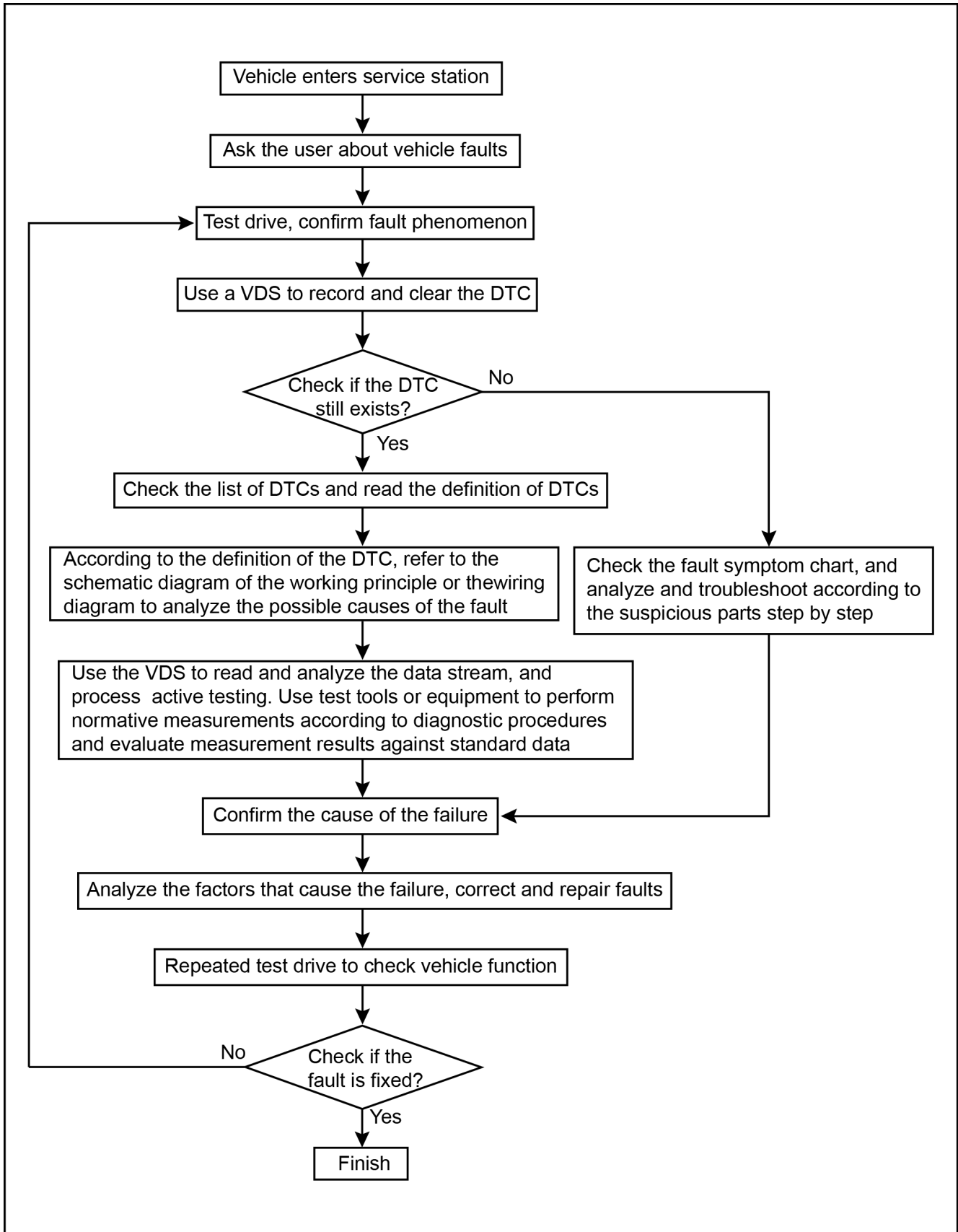
Warning:

- In case of accidental blockage during the use of the electric sunroof/blinder, cut off the power supply of the start iron battery to prevent the sunroof/blinder motor from burning out.
- When disconnecting the connector, do not pull the harness to avoid damaging the harness.

Caution:

- If operation in vehicle is required, cover the seat, steering wheel and other parts to avoid dirt.
- Wear gloves when maintaining the blinder to avoid polluting the blinder fabric.
- After the installation, check the specified torques of fasteners and ensure that each part can function normally.
- After installation, self-learning of sunroof/blinder is required.

Process of Fault Inspection and Troubleshooting



Diagnosis of General Faults

Visual Inspection

1. Confirm problems of customers.
2. Make visual inspection for obvious signs of mechanical damage and collision deformation.
3. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
4. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

| Symptom | Possible cause | Suggested maintenance measures |
|---|---|---|
| Sunroof leaky | Glass seal installed incorrectly, improperly or damaged | Reinstall or replace the glass seal |
| | A gap between decorative seal and vehicle body top plate or the decorative seal damaged | Reinstall or replace the decorative seal |
| | Sunroof water outlet blocked | Clean the sunroof water outlet |
| | Loose joint between drain pipe and water outlet | Repair or replace the fixing clamp |
| Excessive noise From motor | Loose sunroof motor or blinder motor | Tighten the motor fixing bolts |
| | Poor lubrication of motor gear and gear shaft | Apply grease |
| | Water in motor | Clean or replace the motor |
| Sunroof/blinder not moving during motor operation | Motor gear or internal flexible shaft installed incorrectly | Perform re-installation |
| | Blockage between guide rail and slider due to foreign bodies | Clean up the foreign bodies |
| | Internal flexible shaft fault | Replace the skeleton components |
| Excessive wind noise during driving | Sunroof close incompletely | Adjust the sunroof glass |
| | Poor sealing by the seal | Reinstall or replace the seal |
| Sunroof Not Working | Fuse damaged | Replace the fuse with the same specification after checking that the relevant wire harness is free of short circuit |
| | Sunroof motor damaged | Replace the sunroof motor |
| | Sunroof switch damaged | Replace the front interior light assembly |
| | Harness or connector fault. | Repair the harness and connector according to the circuit diagram. |
| | Right body control module fault | Replace the right body control module |

| Symptom | Possible cause | Suggested maintenance measures |
|--|---------------------------------|---|
| Tilting/closing of sunroof impossible | Sunroof switch damaged | Replace the front interior light assembly |
| | Sunroof motor damaged | Replace the sunroof motor |
| | Harness or connector fault. | Repair the harness and connector according to the circuit diagram. |
| | Right body control module fault | Replace the right body control module |
| One-touch opening or tilting/closing of sunroof impossible | Sunroof switch damaged | Replace the front interior light assembly |
| | Sunroof motor damaged | Replace the sunroof motor |
| | Right body control module fault | Replace the right body control module |
| Sunroof blinder fault | Fuse damaged | Replace the fuse with the same specification after checking that the relevant wire harness is free of short circuit |
| | Sunroof blinder motor damaged | Replace the sunroof blinder motor |
| | Sunroof blinder switch damaged | Replace the front interior light assembly |
| | Harness or connector fault. | Repair the harness and connector according to the circuit diagram. |
| | Right body control module fault | Replace the right body control module |
| One-touch opening or closing of sunroof blinder impossible | Sunroof blinder switch damaged | Replace the front interior light assembly |
| | Sunroof blinder motor damaged | Replace the sunroof blinder motor |
| | Right body control module fault | Replace the right body control module |

DTC Diagnosis

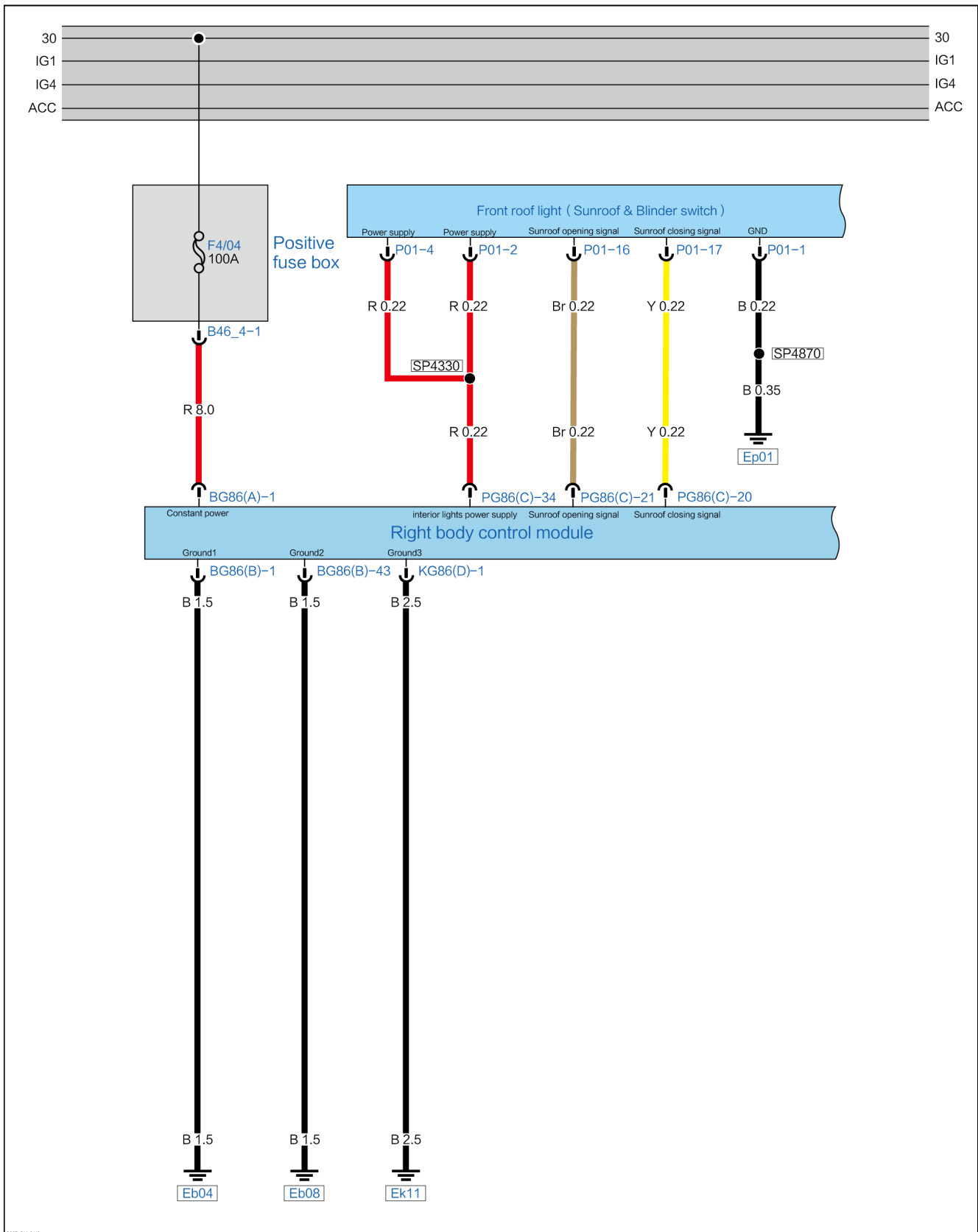
List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|---|---|
| B225407 | Sunroof Switch Stuck | B225407 Sunroof Switch Stuck |
| B222400 | Sunroof Hall Sensor Signal Abnormal | B222400 Sunroof Hall Sensor Signal Abnormal |
| B225513 | Sunroof Motor Open-circuited | B225513 Sunroof Motor Open-citcued |
| B225511 | Sunroof Motor Short (to Ground) | B225511 Sunroof Motor Short(to Ground) |
| B225300 | Sunroof initialization lost | B225300 Sunroof Initialization Lost |
| B225707 | Blinder Switch Stuck | B225707 Blinder Switch Stuck |
| B225813 | Blinder Motor Open-circuited | B225813 Blinder Motor Open-citcued |
| B225811 | Blinder Motor Short (to Ground) | B225811 Blinder Motor Short (to Ground) |
| B222401 | Blinder Motor Hall Sensor Signal Abnormal | B222401 Blinder Motor Hall Sensor Signal Abnormal |
| B225600 | Sun shade initialization lost | B225600 Blinder Initialization Lost |

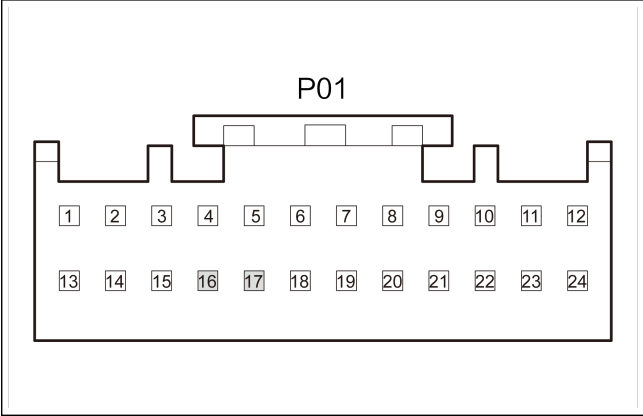
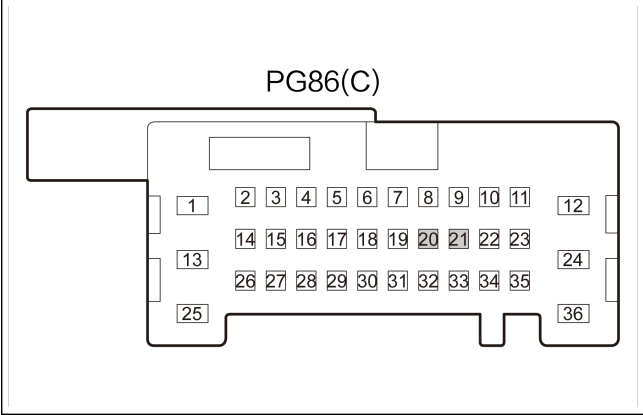
B225407 Sunroof Switch Stuck**DTC Description**

| B225407 Sunroof Switch Stuck | |
|------------------------------|---|
| Symptom | Partial failure of sunroof |
| Possible Cause | 1. Sunroof switch fault 2. Harness or connector fault. 3. Right body control module fault |
| Fault setting conditions | If low level is detected at the switch for not less than 40s, it is considered that the switch is stuck, and this fault is recorded |
| Trigger fault conditions | 1. 9~16V 2. Right body control module connected to constant power |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|------------------------|
| <p style="text-align: center;">Front dome light</p>  <p style="text-align: center;">P01</p> | 16 | Sunroof opening signal |
| | 17 | Sunroof closing signal |
| <p style="text-align: center;">Right body control module</p>  <p style="text-align: center;">PG86(C)</p> | 20 | Sunroof closing signal |
| | 21 | Sunroof opening signal |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the sunroof switch for mechanical fault |
|---|---|

1. Check the sunroof switch for foreign bodies attached on the surface, corrosion due to water, cracking, damage, etc.
2. Check whether the results are normal.

No

Repair the sunroof switch or replace the front interior light assembly.

Yes

| | |
|---|--|
| 3 | Check the front dome light harness connector |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of front dome light P01.
3. Check the front dome light harness connector for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check the harness connector of right body control module |
|---|--|

1. Disconnect the harness connector of right body control module PG86(C).

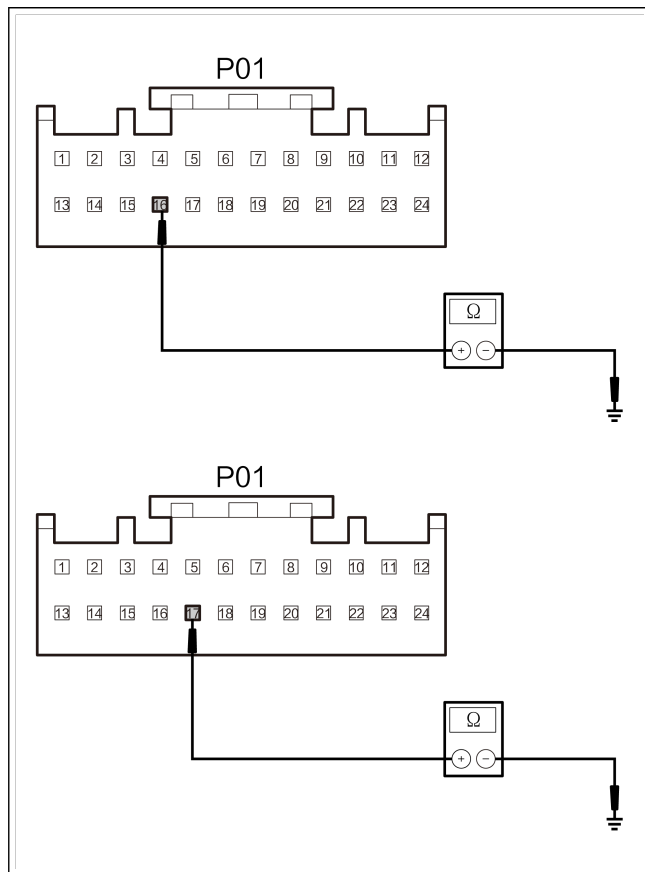
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

5 Check whether the sunroof switch signal harness is short to ground



1. Measure the resistance between the harness connector of front dome light P01-16 and P01-17 and the ground.

| Terminal | | Condition | Resistance value |
|----------|--------|------------|------------------|
| (+) | (-) | | |
| P01-16 | Ground | Throughout | Above 10 KΩ |
| P01-17 | | | |

2. Check whether the results are normal.

No

Repair or replace the damaged harness.

Yes

6 Check the sunroof switch

1. Renew the front interior light assembly and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the front interior light assembly.

No

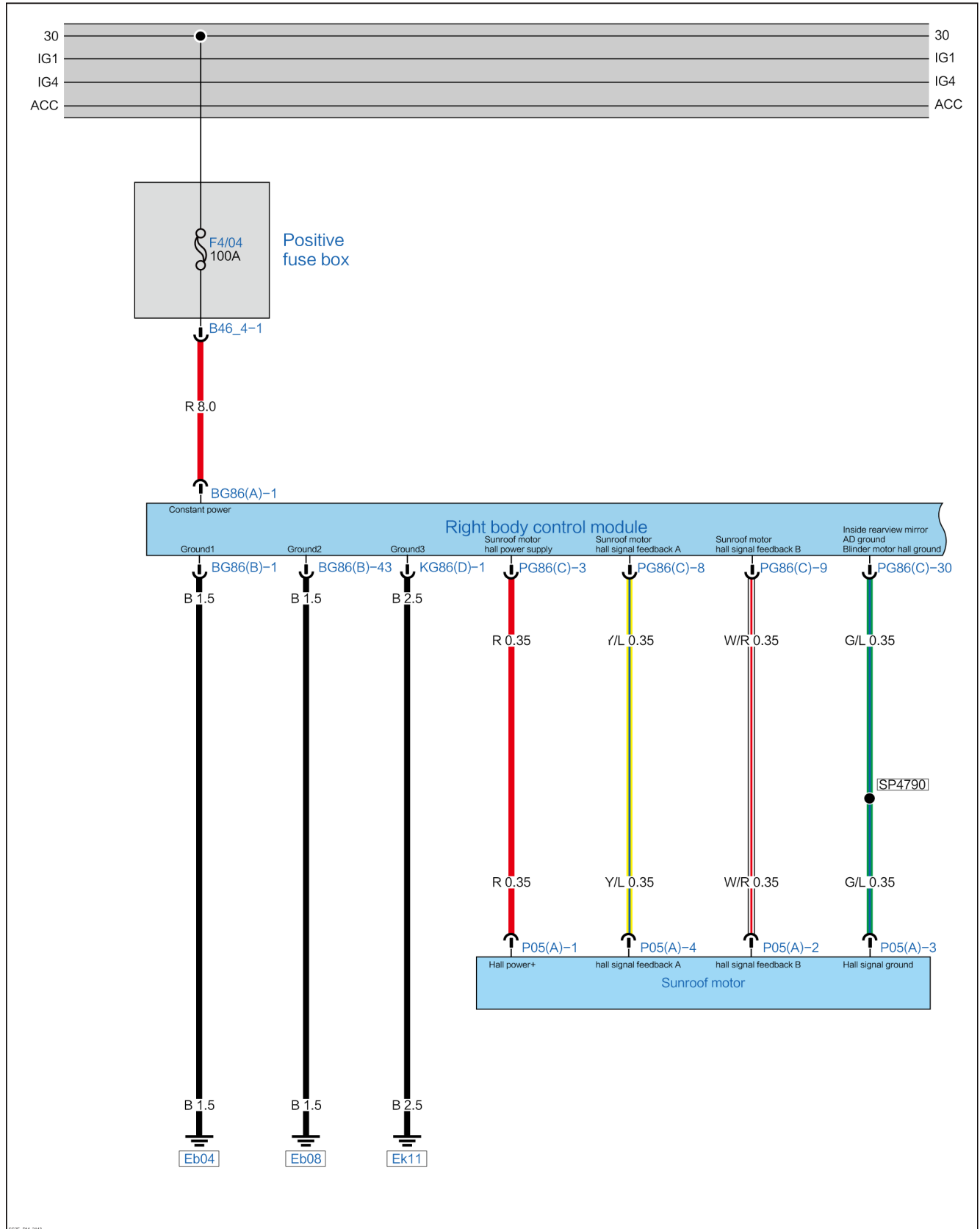
Replace the right body control module.

B222400 Sunroof Hall Sensor Signal Abnormal

DTC Description

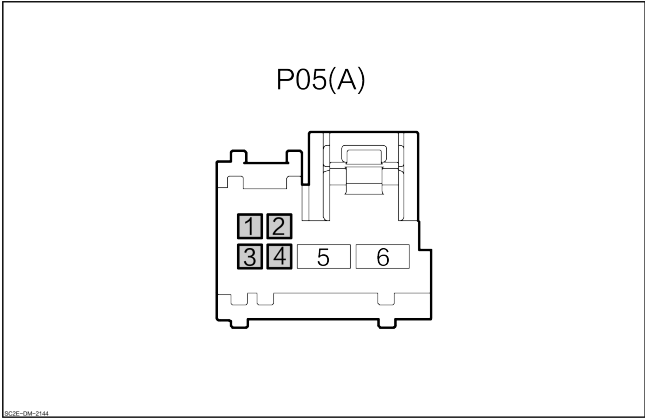
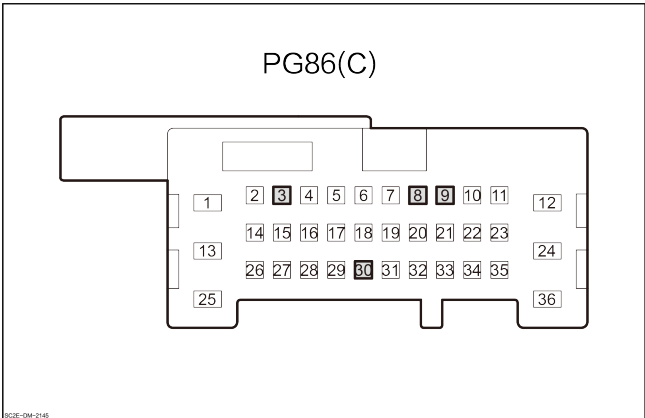
| B222400 Sunroof Hall Sensor Signal Abnormal | |
|---|--|
| Symptom | Partial failure of sunroof |
| Possible Cause | <ol style="list-style-type: none"> 1. Sunroof motor fault 2. Harness or connector fault. 3. Right body control module fault |
| Fault setting conditions | Right Body Control Module judges the Hall sensor signal voltage |
| Trigger fault conditions | <ol style="list-style-type: none"> 1. 9~16V 2. When the right body control module drives the sunroof motor |

Circuit Diagram



SCIF-DW-2143

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|------------------------------|
| <p>Panoramic sunroof module</p>  <p>P05(A)</p> | 1 | Sunroof Hall Sensor B signal |
| | 2 | Sunroof Hall Sensor A signal |
| | 3 | Hall sensor power supply |
| | 4 | Hall sensor ground |
| <p>Right body control module</p>  <p>PG86(C)</p> | 3 | Hall sensor power supply |
| | 8 | Sunroof Hall Sensor A signal |
| | 9 | Sunroof Hall Sensor B signal |
| | 30 | Hall sensor ground |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of panoramic sunroof module |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of panoramic sunroof module P05(A).
3. Check the harness connector of panoramic sunroof module for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of right body control module |
|---|--|

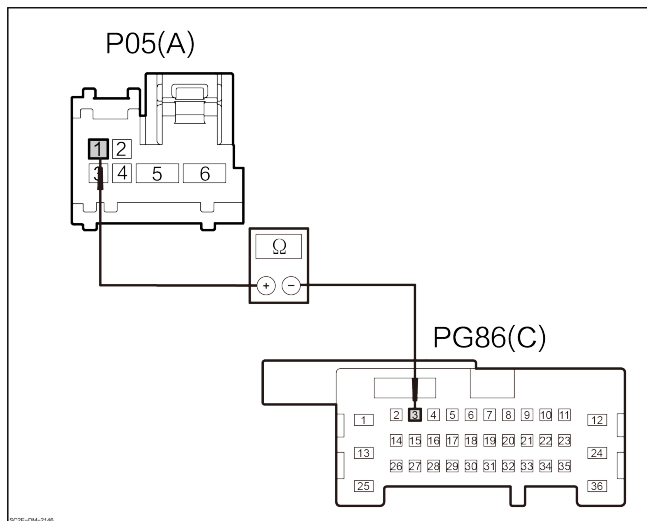
1. Disconnect the harness connector of right body control module PG86(C).
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check the sunroof Hall sensor power harness for open circuit |
|---|--|



1. Measure the resistance between the harness connector of panoramic sunroof module P05(A)-1 and harness connector of right body control module PG86(C)-3.

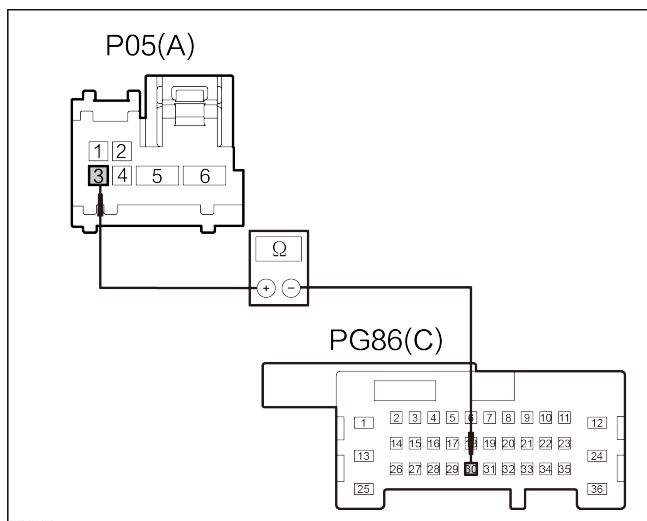
| Terminal | | Condition | Resist- ance value |
|----------|-----------|-----------------|--------------------------|
| (+) | (-) | | |
| P05(A)-1 | PG86(C)-3 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

5 Check the sunroof Hall sensor ground harness for open circuit



1. Measure the resistance between the harness connector of panoramic sunroof module P05(A)-3 and harness connector of right body control module PG86(C)-30.

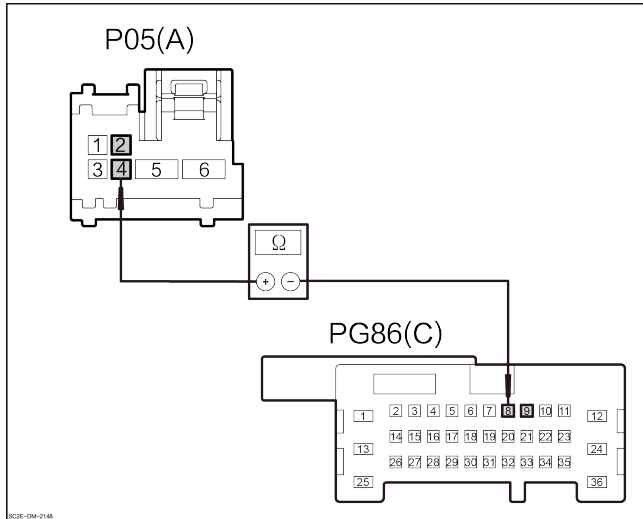
| Terminal | | Condition | Resist- ance value |
|----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| P05(A)-3 | PG86(C)-30 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

6 Check the sunroof Hall sensor signal harness for open circuit



1. Measure the resistance between the harness connector of panoramic sunroof module P05(A)-2 and harness connector of right body control module PG86(C)-9.
2. Measure the resistance between the harness connector of panoramic sunroof module P05(A)-4 and harness connector of right body control module PG86(C)-8.

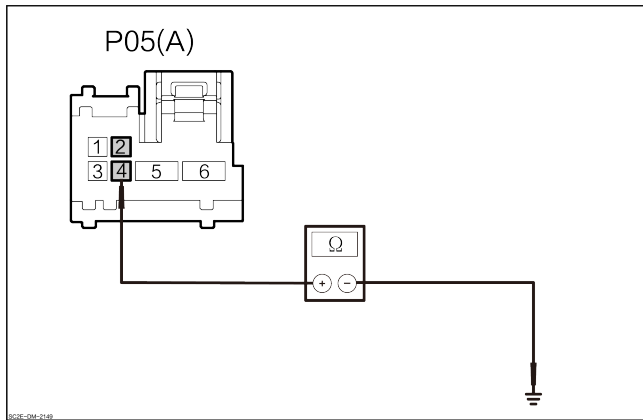
| Terminal | | Condition | Resistance value |
|----------|-----------|-------------|------------------|
| (+) | (-) | | |
| P05(A)-2 | PG86(C)-9 | Through-out | Lower than 1 Ω |
| P05(A)-4 | PG86(C)-8 | | Lower than 1 Ω |

3. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

7 Check whether the sunroof Hall sensor signal harness is short to ground



1. Measure the resistance between the harness connectors of panoramic sunroof module P05(A)-2 and P05(A)-4 and the ground.

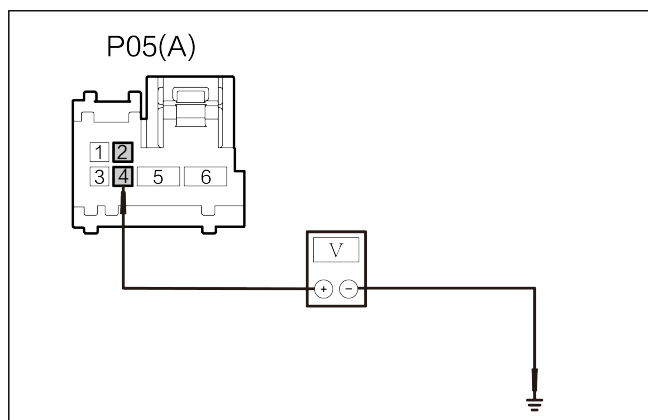
| Terminal | | Condition | Resistance value |
|----------|--------|------------|------------------|
| (+) | (-) | | |
| P05(A)-2 | Ground | Throughout | Above 10 KΩ |
| P05(A)-4 | | | |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

8 Check whether the sunroof Hall sensor signal harness is short to power supply



1. Set the start/stop button to "ON" position.
2. Measure the voltage between the harness connectors of panoramic sunroof module P05(A)-2 and P05(A)-4 and the ground.

| Terminal | | Condition | Voltage value |
|----------|--------|------------|---------------|
| (+) | (-) | | |
| P05(A)-2 | Ground | Throughout | Less than 1V |
| P05(A)-4 | | | |

3. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

| | |
|---|-------------------------|
| 9 | Check the sunroof motor |
|---|-------------------------|

1. Set the start/stop button to "OFF" position.
2. Renew the sunroof motor and restore the vehicle.
3. Set the START/STOP button to "ON" , and trial run for function inspection.
4. Check whether the results are normal.

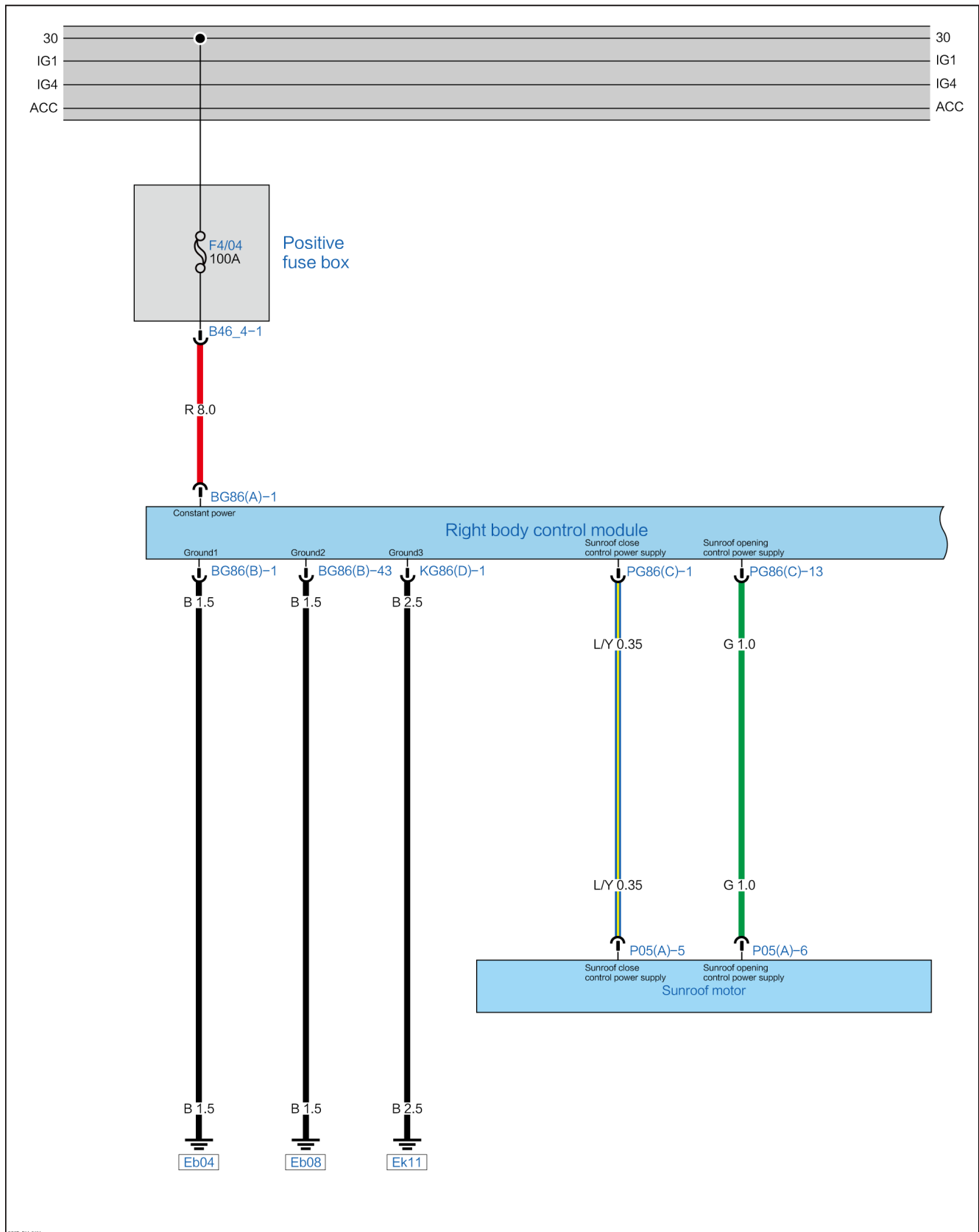
Yes → Replace the sunroof motor.

No → Replace the right body control module.

B225513 Sunroof Motor Open–circuit**DTC Description**

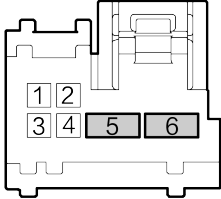
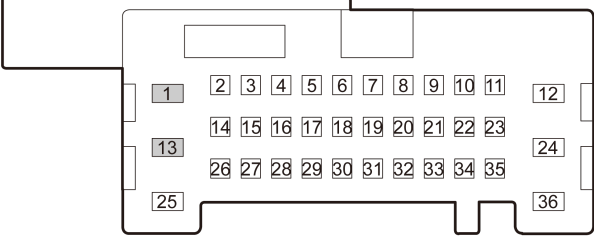
| B225513 Sunroof Motor Open–circuit | |
|------------------------------------|--|
| Symptom | No response from sunroof when sunroof switch is operated |
| Possible Cause | 1. Sunroof motor fault 2. Harness or connector fault. 3. Right body control module fault |
| Fault setting conditions | No current is detected when the sunroof motor is driven |
| Trigger fault conditions | 1. 9~16V 2. When the right body control module drives the sunroof motor |

Circuit Diagram



SCS-DM-2161

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-----------------------------|
| <p>Panoramic sunroof module</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>P05(A)</p>  </div> | 5 | Sunroof close control power |
| | 6 | Sunroof open control power |
| <p>Right body control module</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>PG86(C)</p>  </div> | 1 | Sunroof close control power |
| | 13 | Sunroof open control power |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of panoramic sunroof module |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of panoramic sunroof module P05(A).
3. Check the harness connector of panoramic sunroof module for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of right body control module |
|---|--|

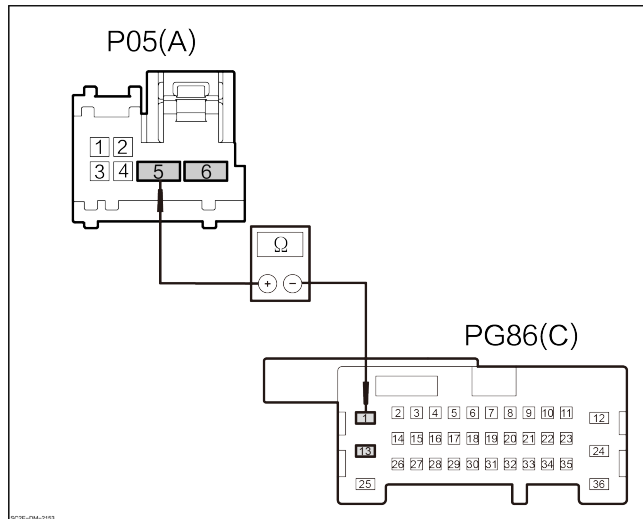
1. Disconnect the harness connector of right body control module PG86(C).
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check the sunroof motor control harness for open circuit |
|---|--|



1. Measure the resistance between the harness connector of panoramic sunroof module P05(A)–5 and harness connector of right body control module PG86(C)–1.
2. Measure the resistance between the harness connector of panoramic sunroof module P05(A)–6 and harness connector of right body control module PG86(C)–13.

| Terminal | | Condition | Resistance value |
|----------|------------|-------------|------------------|
| (+) | (-) | | |
| P05(A)–5 | PG86(C)–1 | Through-out | Lower than 1Ω |
| P05(A)–6 | PG86(C)–13 | | |

3. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

5 Check the sunroof motor

1. Renew the sunroof motor and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes → Replace the sunroof motor.

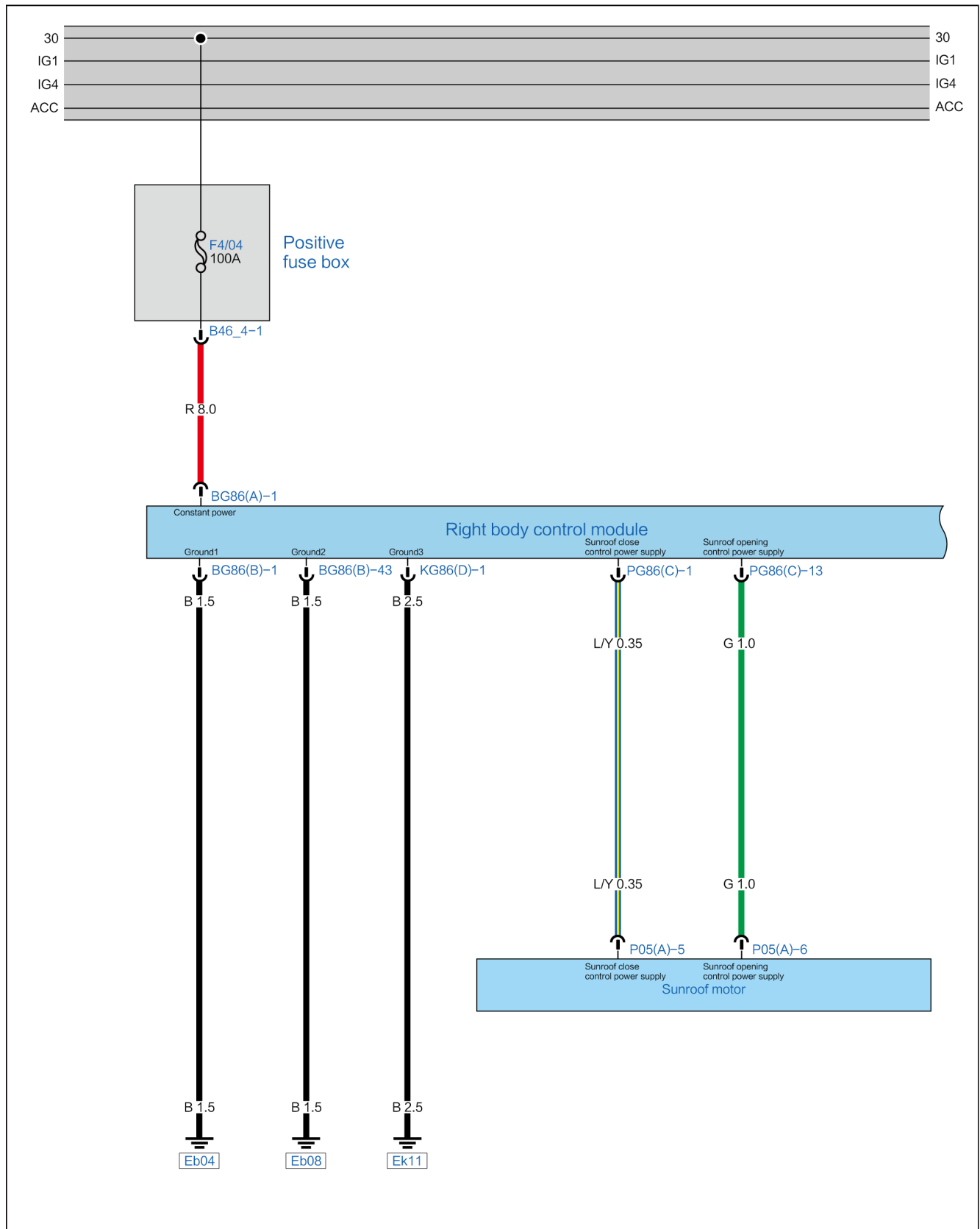
No → Replace the right body control module.

B225511 Sunroof Motor Short(to Ground)

DTC Description

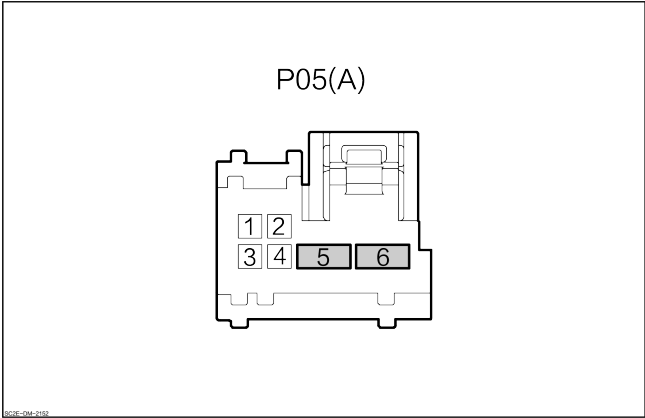
| B225511 Sunroof Motor Short(to Ground) | |
|--|--|
| Symptom | No response from sunroof when sunroof switch is operated |
| Possible Cause | <ol style="list-style-type: none"> 1. Sunroof motor fault 2. Harness or connector fault. 3. Right body control module fault |
| Fault setting conditions | A current above the threshold value is detected for not less than 200ms when the sunroof motor is driven |
| Trigger fault conditions | <ol style="list-style-type: none"> 1. 9~16V 2. When the right body control module drives the sunroof motor |

Circuit Diagram



SCHE-DIAG-0151

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|-----------------------------|
| <p style="text-align: center;">Panoramic sunroof module</p> <div style="text-align: center;">  <p>P05(A)</p> </div> <p><small>62E-04-210</small></p> | 5 | Sunroof close control power |
| | 6 | Sunroof open control power |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of panoramic sunroof module |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of panoramic sunroof module P05(A).
3. Check the harness connector of panoramic sunroof module for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of right body control module |
|---|--|

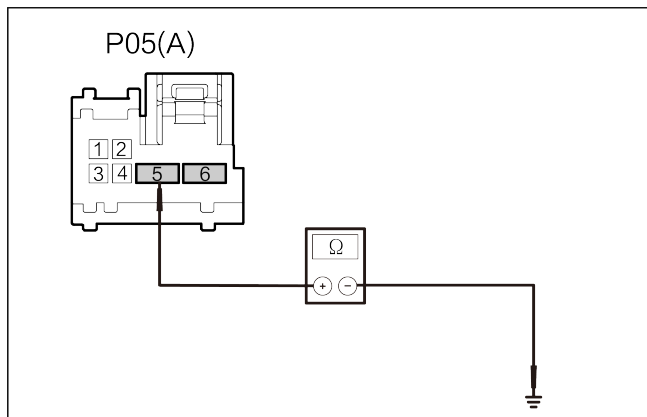
1. Disconnect the harness connector of right body control module PG86(C).
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check whether the sunroof motor control harness is short to ground |
|---|--|



1. Measure the resistance between the harness connectors of panoramic sunroof module P05(A)-5 and P05(A)-6 and the ground.

| Terminal | | Condition | Resistance value |
|----------|--------|------------|--------------------|
| (+) | (-) | | |
| P05(A)-5 | Ground | Throughout | Above 10K Ω |
| P05(A)-6 | | | |

2. Check whether the results are normal.

No Repair or replace the damaged harness.

Yes

| | |
|---|-------------------------|
| 5 | Check the sunroof motor |
|---|-------------------------|

1. Renew the sunroof motor and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes Replace the sunroof motor.

No Replace the right body control module.

B225300 Sunroof Initialization Lost**DTC Description**

| B225300 Sunroof Initialization Lost | |
|-------------------------------------|---|
| Symptom | One-touch opening or closing of sunroof impossible, and anti-pinch function failure |
| Possible Cause | <ol style="list-style-type: none">1. Sunroof not initialized2. Harness or connector fault.3. Sunroof motor fault4. Right body control module fault |
| Fault setting conditions | The right body control module judges that the sunroof position is lost |
| Trigger fault conditions | <ol style="list-style-type: none">1. 9~16V2. Right body control module connected to constant power |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the "intermittent fault" .

Yes

| | |
|---|--------------------------|
| 2 | Reinitialize the sunroof |
|---|--------------------------|

1. Perform the sunroof initialization again.
2. Check whether the results are normal.

Yes → Troubleshooting

No

| | |
|---|---|
| 3 | Check the harness connector of panoramic sunroof module |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of panoramic sunroof module P05(A).
3. Check the harness connector of panoramic sunroof module for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No → Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check the harness connector of right body control module |
|---|--|

1. Disconnect the harness connector of right body control module PG86(C).
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

5

Check the sunroof motor

1. Renew the sunroof motor and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the sunroof motor.

No

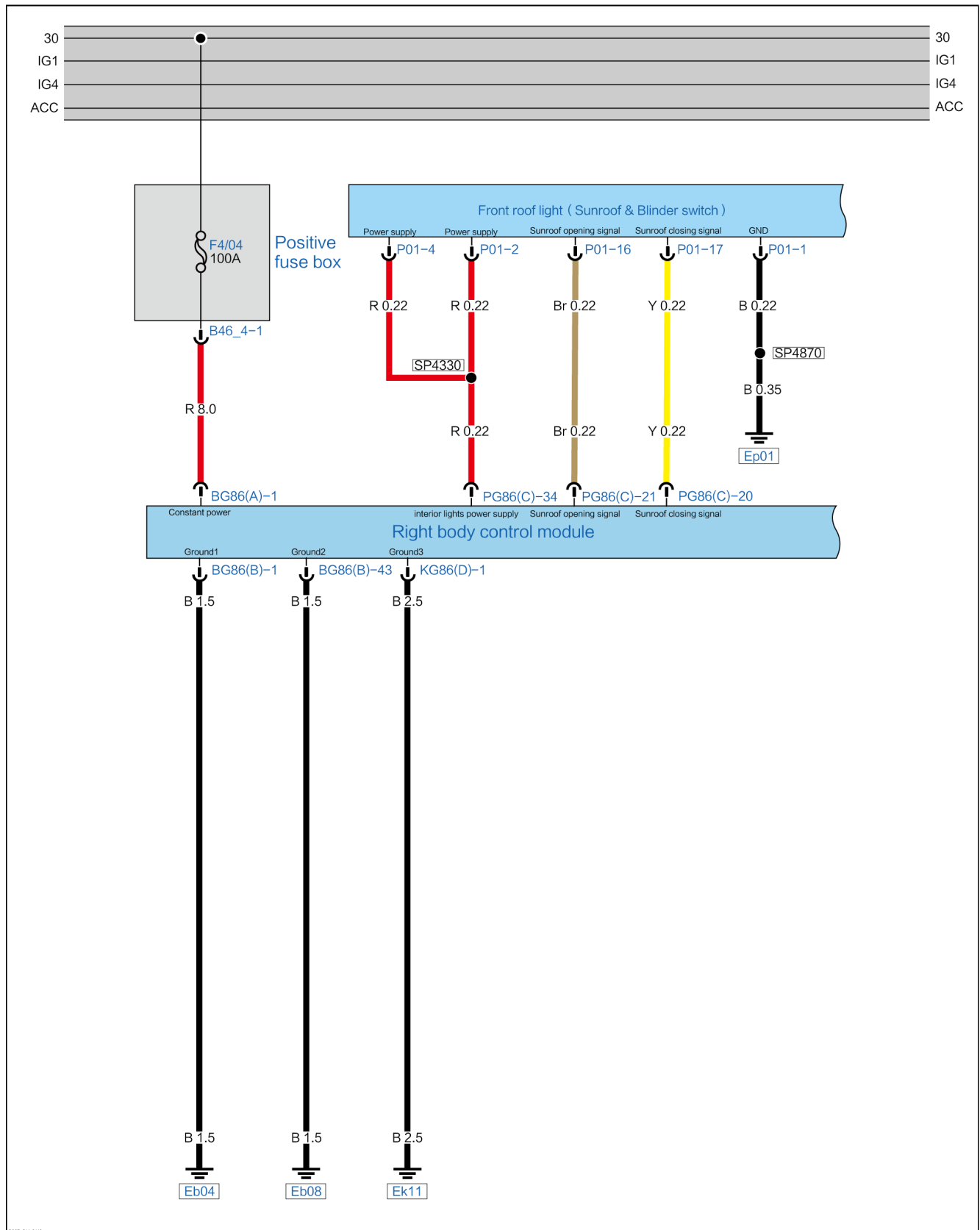
Replace the right body control module.

B225707 Blinder Switch Stuck

DTC Description

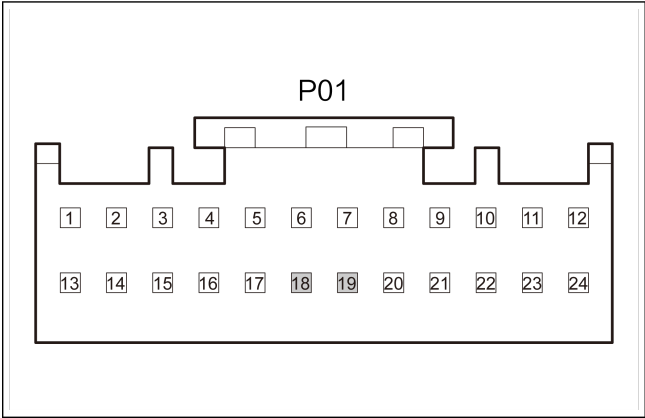
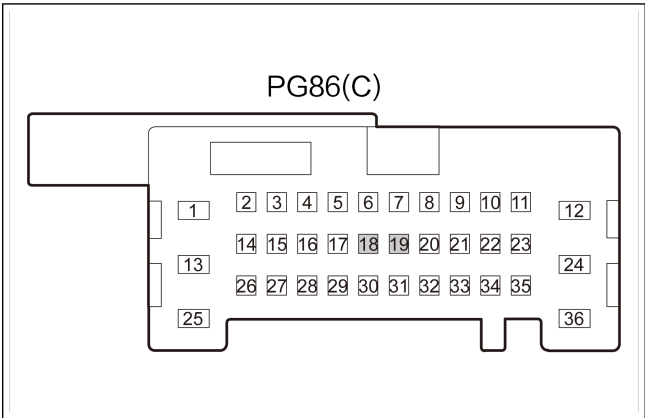
| B225707 Blinder Switch Stuck | |
|------------------------------|---|
| Symptom | Partial failure of sunroof blinder |
| Possible Cause | <ol style="list-style-type: none"> 1. Blinder switch fault 2. Harness or connector fault. 3. Right body control module fault |
| Fault setting conditions | If low level is detected at the switch for not less than 40s, it is considered that the switch is stuck, and this fault is recorded |
| Trigger fault conditions | <ol style="list-style-type: none"> 1. 9~16V 2. Right body control module connected to constant power |

Circuit Diagram



SC26-04-2142

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|------------------------|
| <p style="text-align: center;">Front dome light</p>  | 18 | Blinder opening signal |
| | 19 | Blinder closing signal |
| <p style="text-align: center;">Right body control module</p>  | 18 | Blinder closing signal |
| | 19 | Blinder opening signal |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the blinder switch for mechanical fault |
|---|---|

1. Check the blinder switch for foreign bodies attached on the surface, corrosion due to water, cracking, damage, etc.
2. Check whether the results are normal.

No

Repair the blinder switch or replace the front interior light assembly.

Yes

| | |
|---|--|
| 3 | Check the front dome light harness connector |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of front dome light P01.
3. Check the front dome light harness connector for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check the harness connector of right body control module |
|---|--|

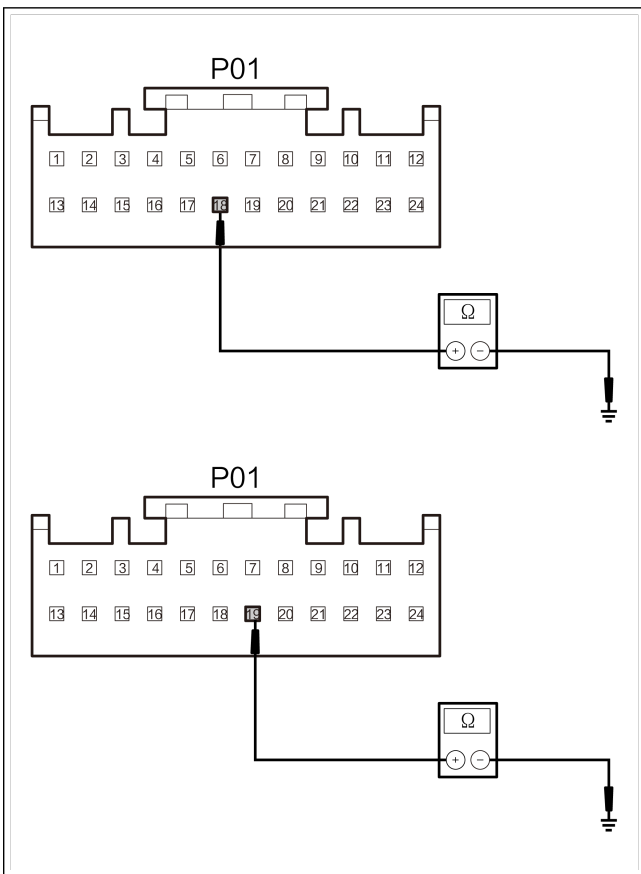
1. Disconnect the harness connector of right body control module PG86(C).

2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No → Repair or replace the damaged harness or connector.

Yes

5 Check whether the blinder switch signal harness is short to ground



1. Measure the resistance between the harness connector of front dome light P01-18/19 and the ground.

| Terminal | | Condition | Resistance value |
|----------|--------|------------|------------------|
| (+) | (-) | | |
| P01-18 | Ground | Throughout | Above 10 KΩ |
| P01-19 | Ground | Throughout | Above 10 KΩ |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

6 Check the blinder switch

1. Renew the front interior light assembly and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

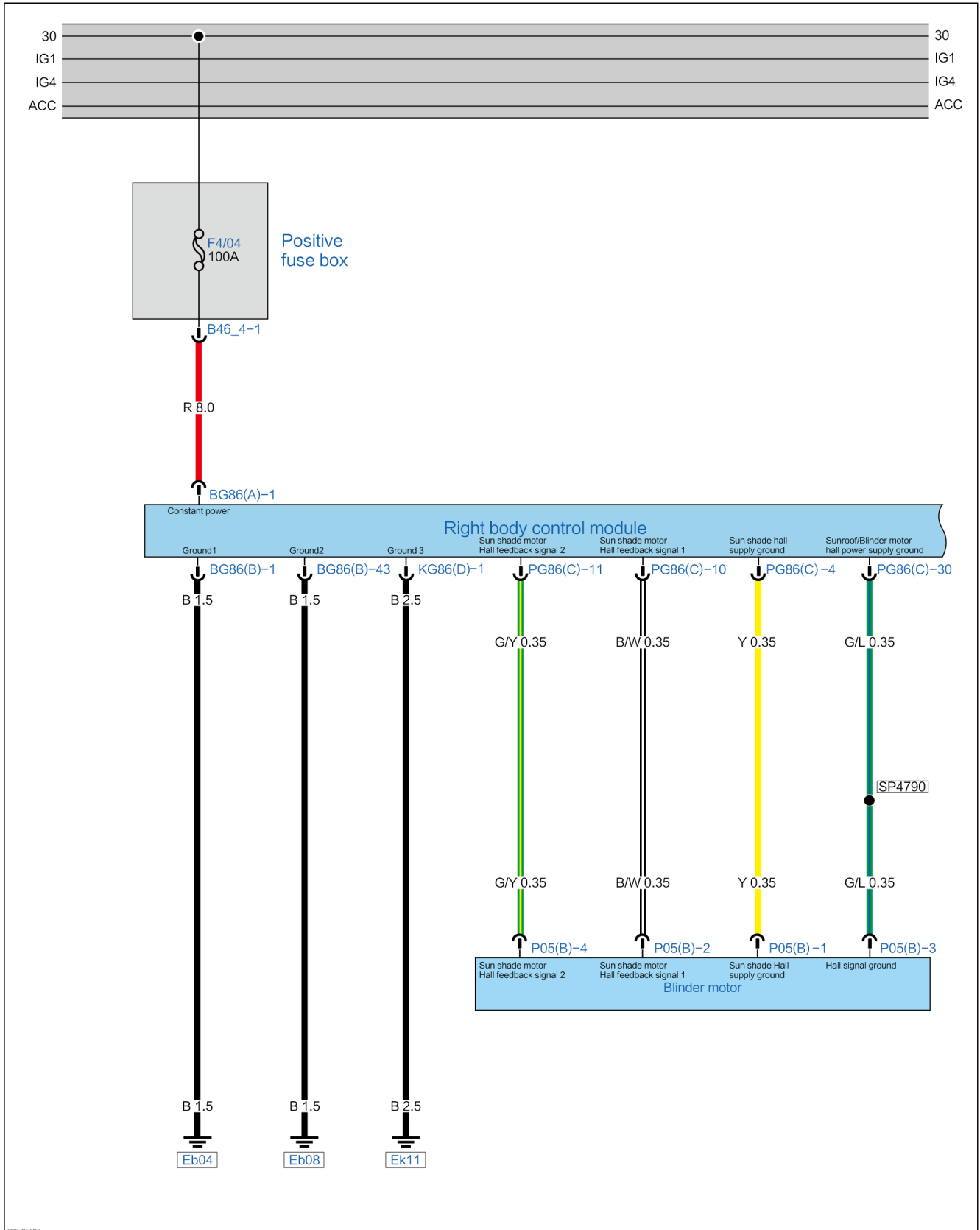
Yes → Replace the front interior light assembly.

No → Replace the right body control module.

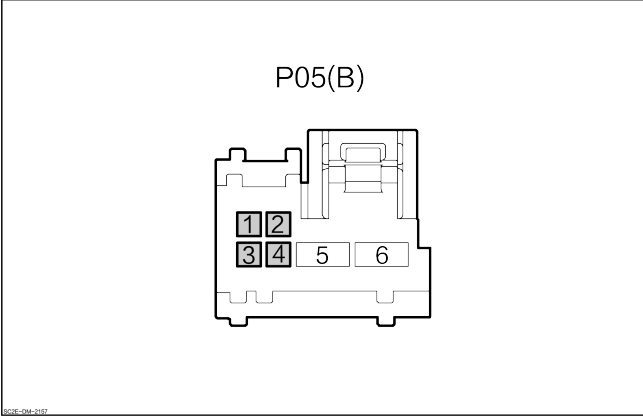
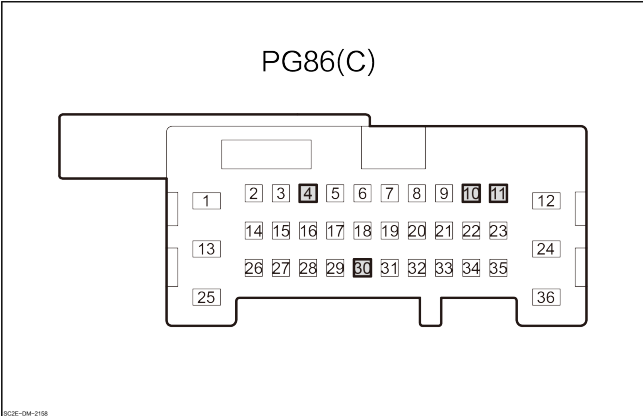
B222401 Blinder Motor Hall Sensor Signal Abnormal**DTC Description**

| B222401 Blinder Motor Hall Sensor Signal Abnormal | |
|---|--|
| Symptom | Partial failure of blinder |
| Possible Cause | 1. Sunroof blinder motor fault 2. Harness or connector fault. 3. Right body control module fault |
| Fault setting conditions | Right Body Control Module judges the Hall sensor signal voltage |
| Trigger fault conditions | 1. 9~16V 2. When the right body control module drives the blinder motor |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p style="text-align: center;">Blinder motor–</p> <p style="text-align: center;">P05(B)</p>  | 1 | Hall sensor power supply |
| | 2 | Hall feedback signal of blinder motor 1 |
| | 3 | Hall sensor ground |
| | 4 | Hall feedback signal of blinder motor 2 |
| <p style="text-align: center;">Right body control module</p> <p style="text-align: center;">PG86(C)</p>  | 4 | Hall sensor power supply |
| | 10 | Hall feedback signal of blinder motor 1 |
| | 11 | Hall feedback signal of blinder motor 2 |
| | 30 | Hall sensor ground |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of blinder motor. |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of blinder motor P05(B).
3. Check the harness connector of blinder motor for corrosion, damage, pin failure and other faults.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of right body control module |
|---|--|

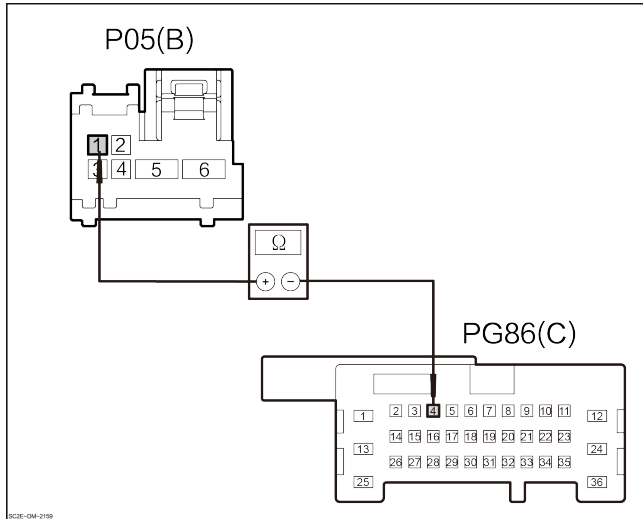
1. Disconnect the harness connector of right body control module PG86(C).
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check the blinder Hall sensor power harness for open circuit |
|---|--|



1. Measure the resistance between the harness connector of blinder motor P05(B)-1 and the harness connector of right body control module PG86(C)-4.

| Terminal | | Condition | Resist- ance value |
|----------|-----------|-----------------|--------------------------|
| (+) | (-) | | |
| P05(B)-1 | PG86(C)-4 | Through- out | Lower than 1 Ω |

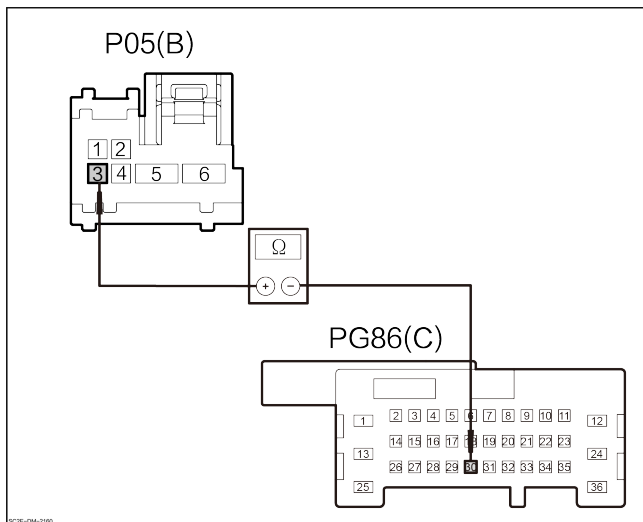
2. Check whether the results are normal.

No

Repair or replace the damaged harness.

Yes

5 Check the blinder Hall sensor ground harness for open circuit



1. Measure the resistance between the harness connector of blinder motor P05(B)-3 and the harness connector of right body control module PG86(C)-30.

| Terminal | | Condition | Resist- ance value |
|----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| P05(B)-3 | PG86(C)-30 | Through- out | Lower than 1 Ω |

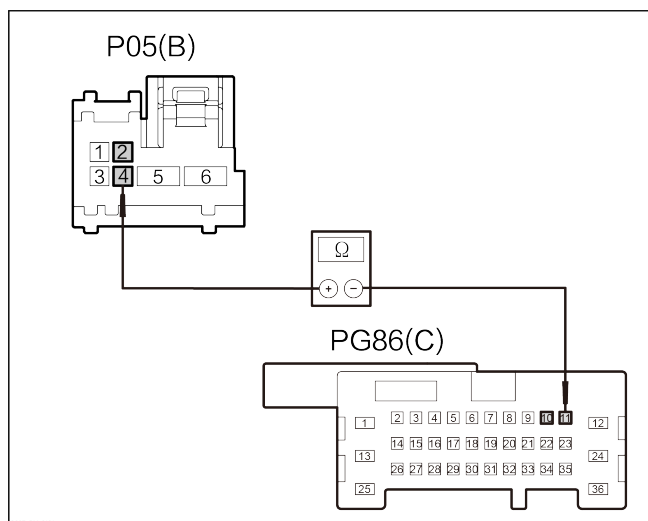
2. Check whether the results are normal.

No

Repair or replace the damaged harness.

Yes

6 Check the blinder Hall sensor signal harness for open circuit



1. Measure the resistance between the harness connector of blinder motor P05(B)–2 and the harness connector of right body control module PG86(C)–10.
2. Measure the resistance between the harness connector of blinder motor P05(B)–4 and the harness connector of right body control module PG86(C)–11.

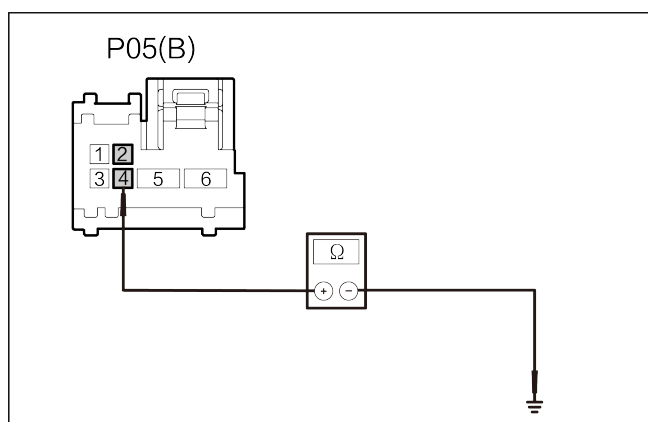
| Terminal | | Condition | Resist- ance value |
|----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| P05(B)–2 | PG86(C)–10 | Through- out | Lower than 1Ω |
| P05(B)–4 | PG86(C)–11 | | |

3. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

7 Check whether the blinder Hall sensor signal harness is short to ground



1. Measure the resistance between the harness connectors of blinder P05(B)–2 and P05(B)–4 and the ground.

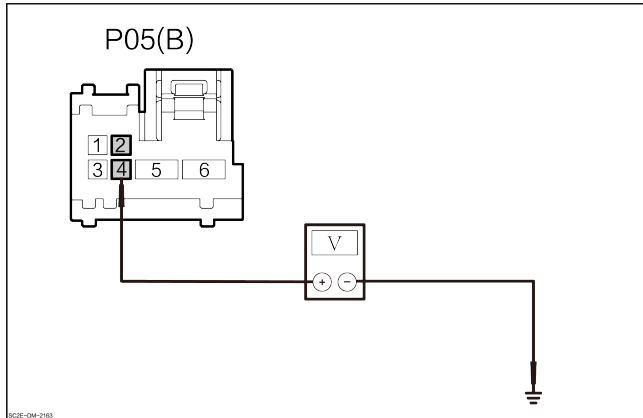
| Terminal | | Condition | Resist- ance value |
|----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| P05(B)–2 | Ground | Through- out | Above 10 KΩ |
| P05(B)–4 | | | |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

8 Check whether the blinder Hall sensor signal harness is short to power supply



1. Set the start/stop button to "ON" position.
2. Measure the voltage between the harness connectors of blinder P05(B)-2 and P05(B)-4 and the ground.

| Terminal | | Condition | Voltage value |
|----------|--------|------------|---------------|
| (+) | (-) | | |
| P05(B)-2 | Ground | Throughout | Less than 1V |
| P05(B)-4 | | | |

3. Check whether the results are normal.

No

Repair or replace the damaged harness.

Yes

| | |
|---|---------------------------------|
| 9 | Check the sunroof blinder motor |
|---|---------------------------------|

1. Set the start/stop button to "OFF" position.
2. Renew the sunroof blinder motor and restore the vehicle.
3. Set the START/STOP button to "ON" , and trial run for function inspection.
4. Check whether the results are normal.

Yes

Replace the sunroof blinder motor.

No

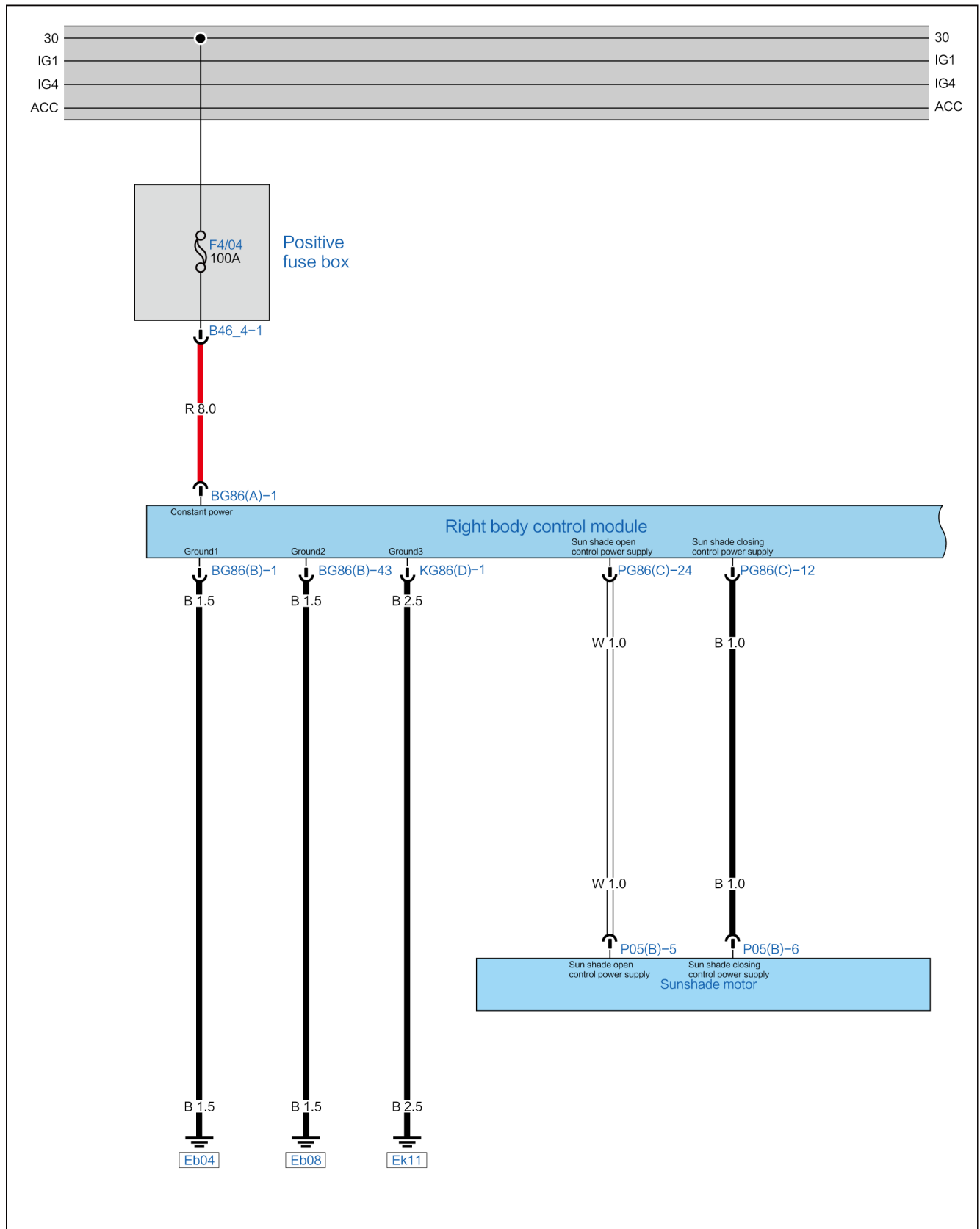
Replace the right body control module.

B225813 Blinder Motor Open-citcuited

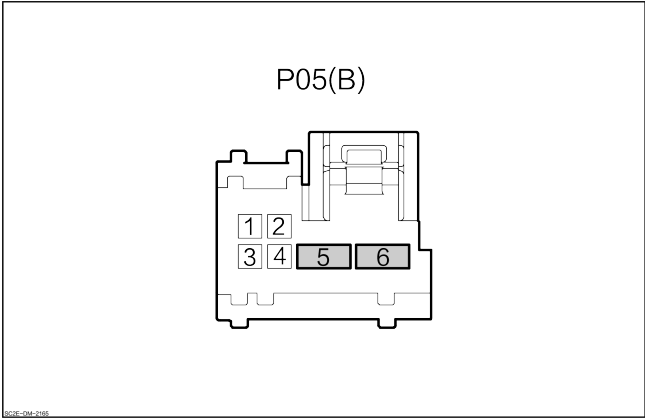
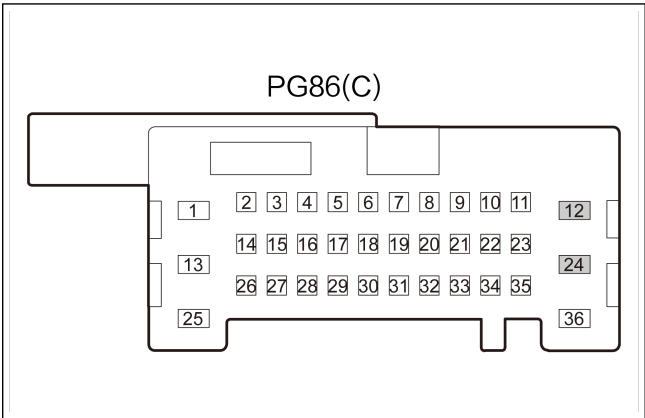
DTC Description

| B225813 Blinder Motor Open-citcuited | |
|--------------------------------------|--|
| Symptom | No response from blinder when blinder switch is operated |
| Possible Cause | <ol style="list-style-type: none"> 1. Sunroof blinder motor fault 2. Harness or connector fault. 3. Right body control module fault |
| Fault setting conditions | No current is detected when the blinder motor is driven |
| Trigger fault conditions | <ol style="list-style-type: none"> 1. 9~16V 2. When the right body control module drives the blinder motor |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Blinder motor-</p> <div style="text-align: center;">  <p>P05(B)</p> </div> | 5 | Sun visor opening control power supply |
| | 6 | Sun visor closing control power supply |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p>PG86(C)</p> </div> | 12 | Sun visor opening control power supply |
| | 24 | Sun visor closing control power supply |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of blinder motor. |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of blinder motor P05(B).
3. Check the harness connector of blinder motor for corrosion, damage, pin failure and other faults.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of right body control module |
|---|--|

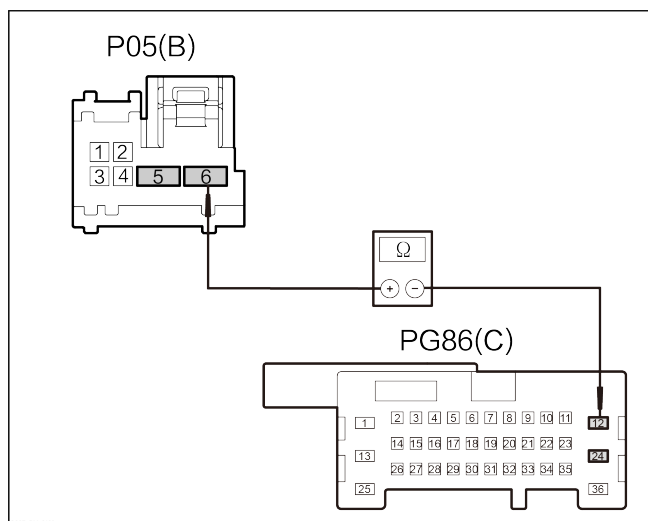
1. Disconnect the harness connector of right body control module PG86(C).
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check the sunroof blinder motor control harness for open circuit |
|---|--|



1. Measure the resistance between the harness connector of blinder motor P05(B)–5 and the harness connector of right body control module PG86(C)–24.
2. Measure the resistance between the harness connector of blinder motor P05(B)–6 and the harness connector of right body control module PG86(C)–12.

| Terminal | | Condition | Resist- ance value |
|----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| P05(B)–5 | PG86(C)–24 | Through- out | Lower than 1 Ω |
| P05(B)–6 | PG86(C)–12 | | |

3. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

5 Check the sunroof blinder motor

1. Renew the sunroof blinder motor and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes → Replace the sunroof blinder motor.

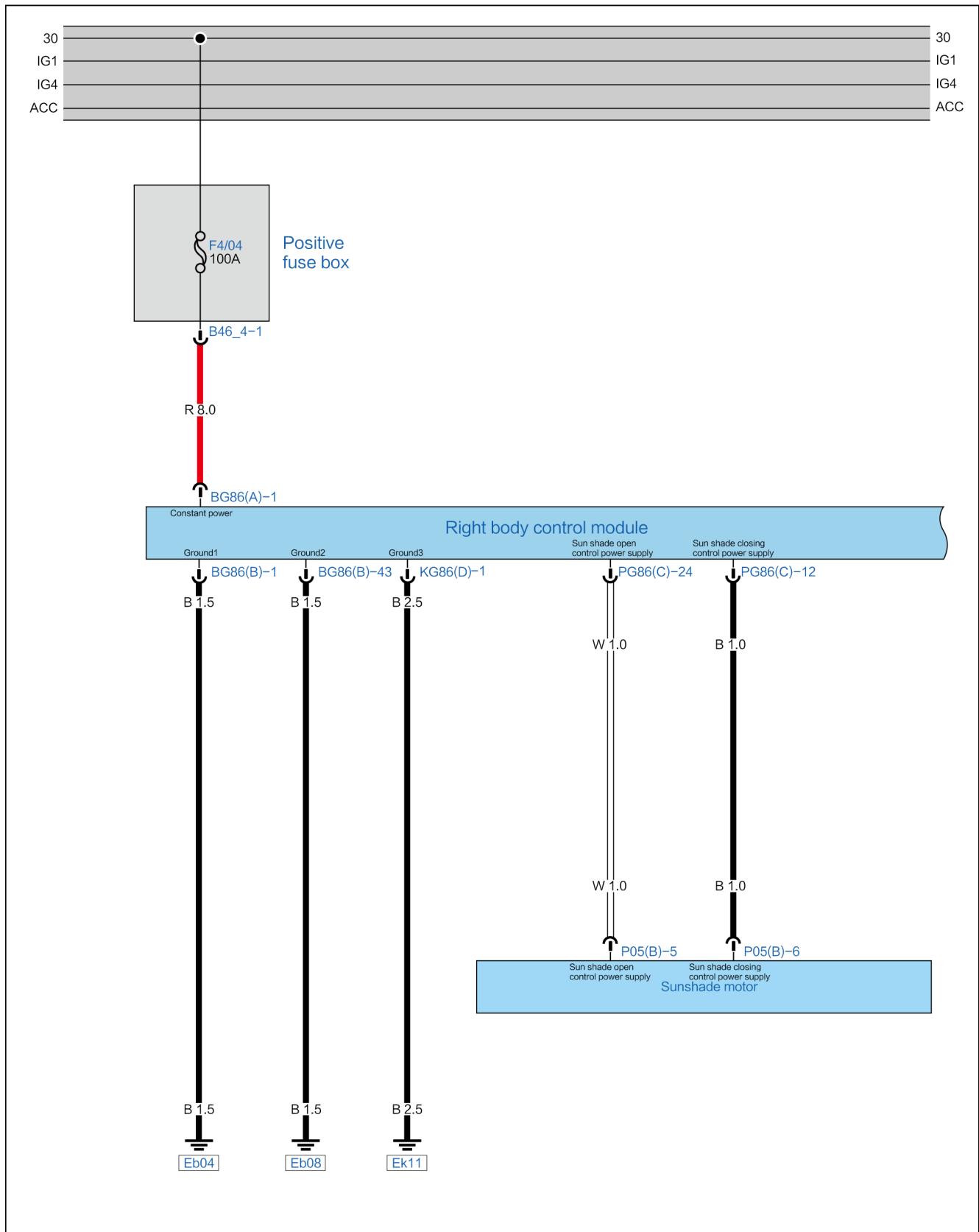
No → Replace the right body control module.

B225811 Blinder Motor Short (to Ground)

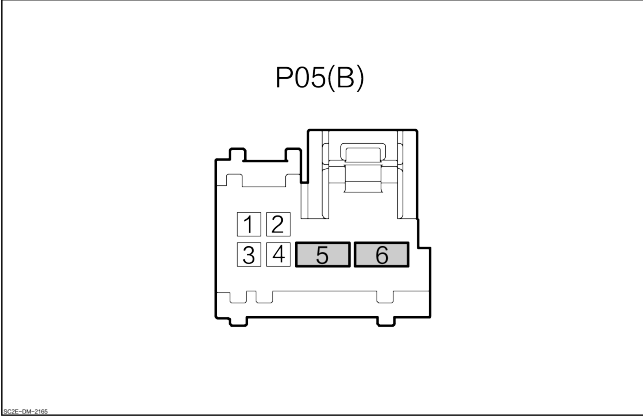
DTC Description

| B225811 Blinder Motor Short (to Ground) | |
|---|--|
| Symptom | No response from blinder when blinder switch is operated |
| Possible Cause | <ol style="list-style-type: none"> 1. Sunroof blinder motor fault 2. Harness or connector fault. 3. Right body control module fault |
| Fault setting conditions | A current above the threshold value is detected for not less than 200ms when the blinder motor is driven |
| Trigger fault conditions | <ol style="list-style-type: none"> 1. 9~16V 2. When the right body control module drives the blinder motor |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Blinder motor-</p> <div style="text-align: center;">  <p style="margin-left: 100px;">P05(B)</p> </div> | 5 | Sun visor opening control power supply |
| | 6 | Sun visor closing control power supply |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of blinder motor. |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of blinder motor P05(B).
3. Check the harness connector of blinder motor for corrosion, damage, pin failure and other faults.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of right body control module |
|---|--|

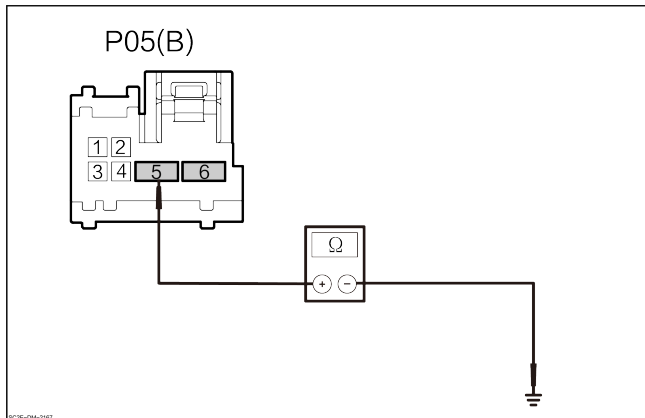
1. Disconnect the harness connector of right body control module PG86(C).
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check whether the sunroof blinder motor control harness is short to ground |
|---|--|



1. Measure the resistance between the harness connectors of blinder P05(B)-5 and P05(B)-6 and the ground.

| Terminal | | Condition | Resistance value |
|----------|--------|------------|------------------|
| (+) | (-) | | |
| P05(B)-5 | Ground | Throughout | Above 10 KΩ |
| P05(B)-6 | | | |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

5 Check the sunroof blinder motor

1. Renew the sunroof blinder motor and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes → Replace the sunroof blinder motor.

No → Replace the right body control module.

B225600 Blinder Initialization Lost

DTC Description

| B225600 Blinder Initialization Lost | |
|-------------------------------------|--|
| Symptom | One-touch opening or closing of blinder impossible, and anti-pinch function failure |
| Possible Cause | <ol style="list-style-type: none"> 1. Blinder not initialized 2. Harness or connector fault. 3. Sunroof blinder motor fault 4. Right body control module fault |
| Fault setting conditions | The right body control module judges that the blinder position is lost |
| Trigger fault conditions | <ol style="list-style-type: none"> 1. 9~16V 2. Right body control module connected to constant power |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|--------------------------|
| 2 | Reinitialize the blinder |
|---|--------------------------|

1. Perform the blinder initialization again.
2. Check whether the results are normal.

Yes

Troubleshooting

No

| | |
|---|---|
| 3 | Check the harness connector of blinder motor. |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of blinder motor P05(B).
3. Check the harness connector of blinder motor for corrosion, damage, pin failure and other faults.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check the harness connector of right body control module |
|---|--|

1. Disconnect the harness connector of right body control module PG86(C).
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No → Repair or replace the damaged harness or connector.

Yes

| | |
|---|--------------------------|
| 5 | Check the blinder motor. |
|---|--------------------------|

1. Replace with a new blinder motor, and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes → Replace the blinder motor.

No → Replace the right body control module.

| | | | |
|---|------|---|------|
| Rearview Mirror..... | 1567 | B1CE311 Up&Down Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Short to Ground..... | 1640 |
| Exterior Electric Rearview..... | 1567 | B1CE312 Up&Down Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Short to Power..... | 1645 |
| Diagnosis Description..... | 1567 | B1CE313 Up&Down Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Broken..... | 1650 |
| Process of Fault Inspection and Troubleshooting..... | 1569 | B1CE319 Up&Down Commutator Motor Drive of Exterior Right Rearview Mirror Overload..... | 1655 |
| DTC Diagnosis..... | 1570 | B1CE411 Folding Motor Drive Circuit of Exterior Right Rearview Mirror Short to Ground..... | 1657 |
| B1CDF11 Left&Right Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Short to Ground..... | 1572 | B1CE412 Folding Motor Drive Circuit of Exterior Right Rearview Mirror Short to Power..... | 1662 |
| B1CDF12 Left&Right Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Short to Power..... | 1577 | B1CE413 Folding Motor Drive Circuit of Exterior Right Rearview Mirror Broken..... | 1667 |
| B1CDF13 Left&Right Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Broken..... | 1582 | B1CE419 Folding Motor Drive of Exterior Right Rearview Mirror Overload..... | 1672 |
| B1CDF19 Left&Right Commutator Motor Drive of Left Exterior Rearview Mirror Overload..... | 1587 | | |
| | 1589 | | |
| B1CE012 Up&Down Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Short to Power..... | 1594 | | |
| B1CE013 Up&Down Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Broken..... | 1599 | | |
| B1CE019 Up&Down Commutator Motor Drive of Left Exterior Rearview Mirror Overload..... | 1604 | | |
| B1CE111 Folding Motor Drive Circuit of Left Exterior Rearview Mirror Short to Ground..... | 1606 | | |
| B1CE112 Folding Motor Drive Circuit of Left Exterior Rearview Mirror Short to Power..... | 1611 | | |
| B1CE113 Folding Motor Drive Circuit of Left Exterior Rearview Mirror Broken.. | 1616 | | |
| B1CE119 Folding Motor Drive of Left Exterior Rearview Mirror Overload..... | 1621 | | |
| B1CE211 Left&Right Commutator Motor Drive Circuit of Exterior Right Rearview Short to Ground..... | 1623 | | |
| B1CE212 Left&Right Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Short to Power..... | 1628 | | |
| B1CE213 Left&Right Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Open–circuited..... | 1633 | | |
| B1CE219 Left&Right Commutator Motor Drive of Exterior Right Rearview Mirror Overload..... | 1638 | | |

Rearview Mirror

Exterior Electric Rearview

Diagnosis Description

Introduction

Before fault diagnosis for the electric rearview mirror system, understand and get familiar with the working principle of the electric rearview mirror system, and then start diagnosis for the electric rearview mirror system, so as to be helpful to confirm the correct fault diagnosis procedure in the event of a fault, and more importantly, to confirm whether the operating condition described by the customer is normal. Any fault diagnosis of the electric rearview mirror system should start with the inspection of the electric rearview mirror system to guide the maintenance technician to take the next logical step for fault diagnosis.

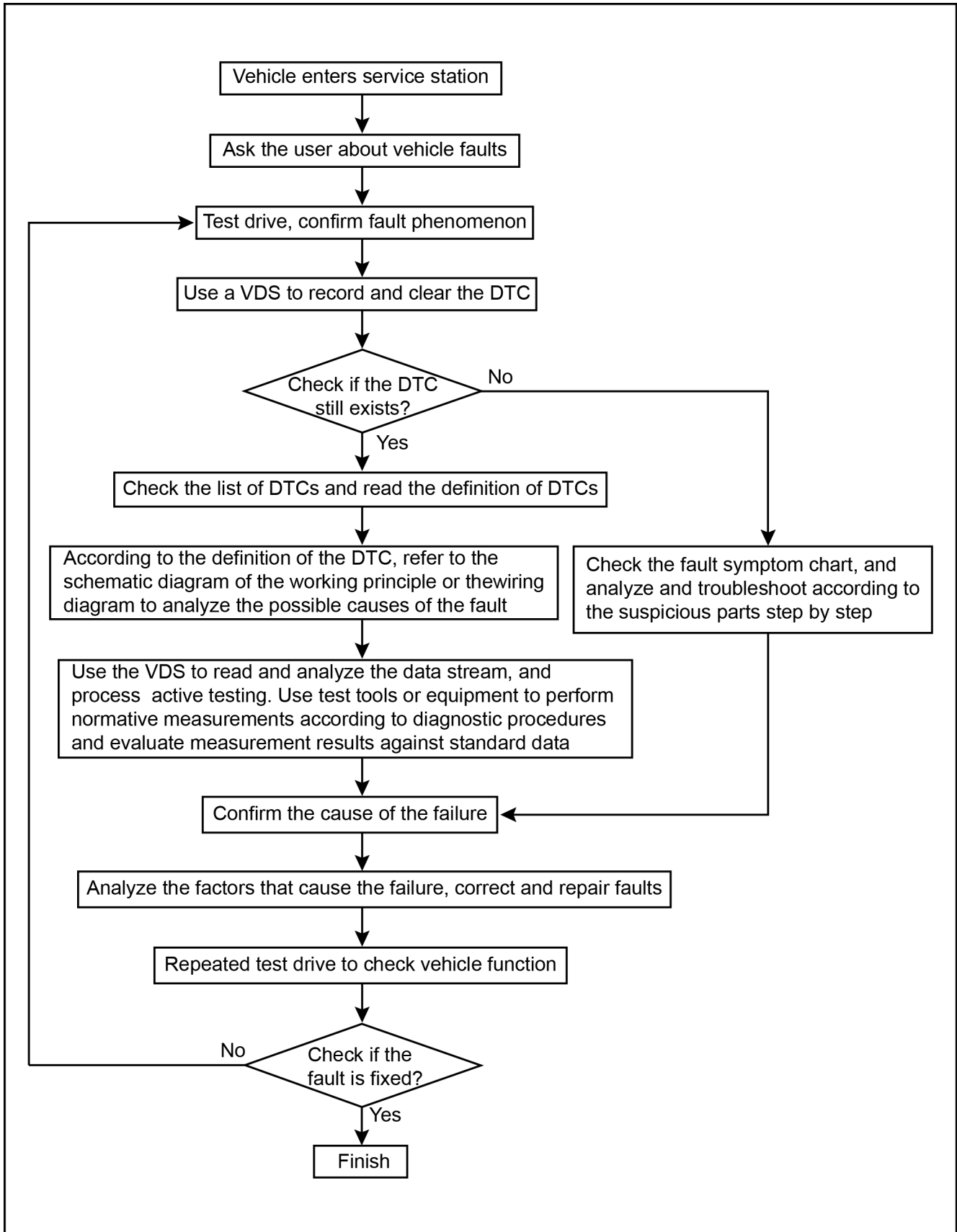
General equipment

- Multimeter

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Process of Fault Inspection and Troubleshooting



DTC Diagnosis

List of DTC

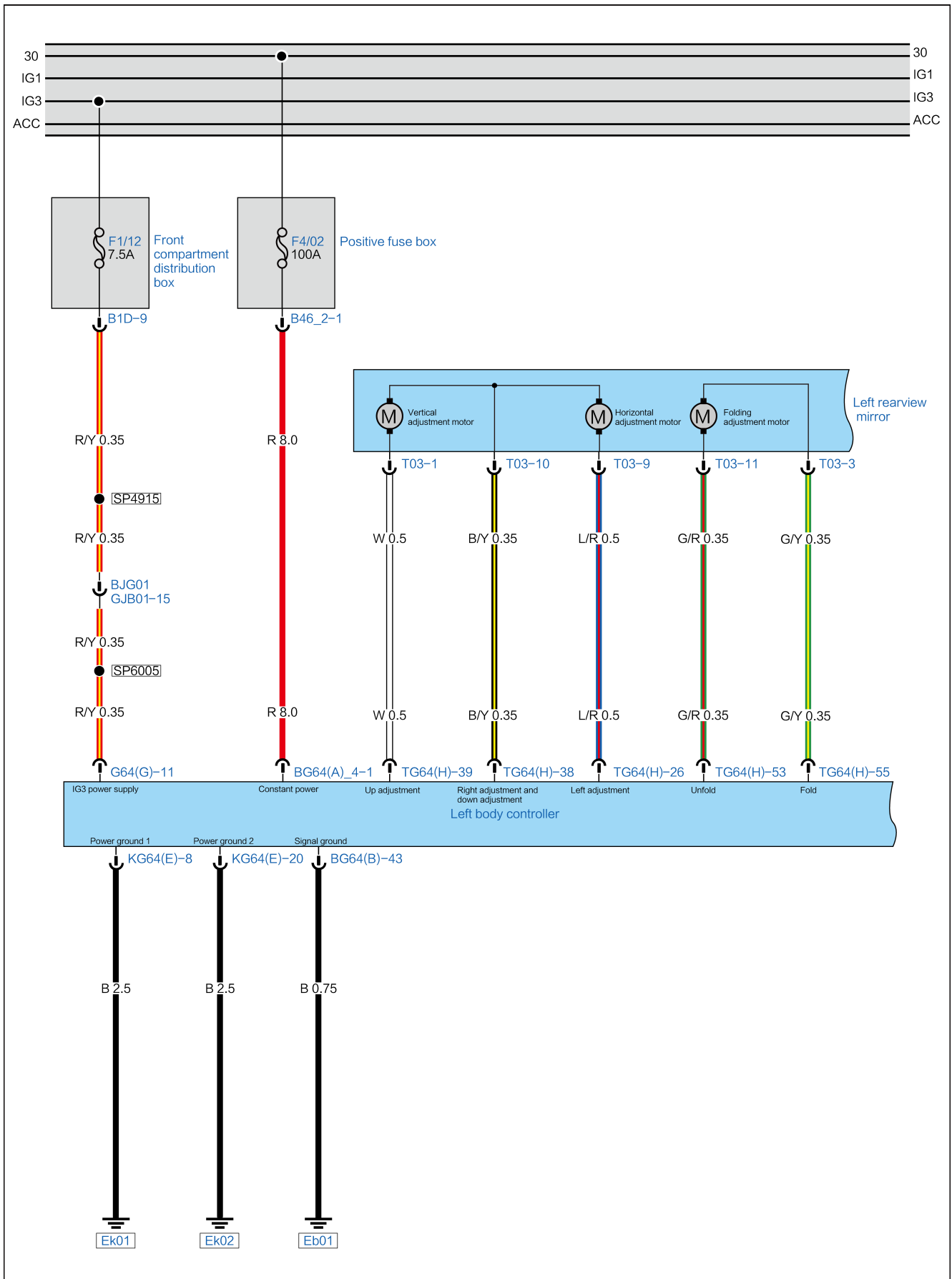
| DTC: | Meaning | Diagnostic Process |
|---------|---|--|
| B1CDF11 | Left&right commutator motor drive circuit of left exterior rearview mirror is short to ground | B1CDF11 Left&Right Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Short to Ground |
| B1CDF12 | Left&right commutator motor drive circuit of left exterior rearview mirror is short to power | B1CDF12 Left&Right Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Short to Power |
| B1CDF13 | Left&right commutator motor drive circuit of left exterior rearview mirror is broken | B1CDF13 Left&Right Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Broken |
| B1CDF19 | Left&right commutator motor drive of left exterior rearview mirror is overload | B1CDF19 Left&Right Commutator Motor Drive of Left Exterior Rearview Mirror Overload |
| B1CE011 | Up&down commutator motor drive circuit of left exterior rearview mirror is short to ground | B1CE011 Up&Down Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Short to Ground |
| B1CE012 | Up&down commutator motor drive circuit of left exterior rearview mirror is short to power | B1CE012 Up&Down Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Short to Power |
| B1CE013 | Up&down commutator motor drive circuit of left exterior rearview mirror is broken | B1CE013 Up&Down Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Broken |
| B1CE019 | Up&down commutator motor drive of left exterior rearview mirror is overload | B1CE019 Up&Down Commutator Motor Drive of Left Exterior Rearview Mirror Overload |
| B1CE111 | Folding motor drive circuit of left exterior rearview mirror is short to ground | B1CE111 Folding Motor Drive Circuit of Left Exterior Rearview Mirror Short to Ground |
| B1CE112 | Folding motor drive circuit of left exterior rearview mirror is short to power | B1CE112 Folding Motor Drive Circuit of Left Exterior Rearview Mirror Short to Power |
| B1CE113 | Folding motor drive circuit of left exterior rearview mirror is broken | B1CE113 Folding Motor Drive Circuit of Left Exterior Rearview Mirror Broken |
| B1CE119 | Folding motor drive of left exterior rearview mirror is overload | B1CE119 Folding Motor Drive of Left Exterior Rearview Mirror Overload |

| DTC: | Meaning | Diagnostic Process |
|---------|---|--|
| B1CE211 | Left&right commutator motor drive circuit of right exterior rearview mirror short to ground | B1CE211 Left&Right Commutator Motor Drive Circuit of Exterior Right Rearview Short to Ground |
| B1CE212 | Left&right commutator motor drive circuit of right exterior rearview mirror short to power | B1CE212 Left&Right Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Short to Power |
| B1CE213 | Left&right commutator motor drive circuit of right exterior rearview mirror broken | B1CE213 Left&Right Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Open-circuited |
| B1CE219 | Left&right commutator motor drive of right exterior rearview mirror overload | B1CE219 Left&Right Commutator Motor Drive of Exterior Right Rearview Mirror Overload |
| B1CE311 | Up&down commutator motor drive circuit of right exterior rearview mirror short to ground | B1CE311 Up&Down Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Short to Ground |
| B1CE312 | Up&down commutator motor drive circuit of right exterior rearview mirror short to power | B1CE312 Up&Down Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Short to Power |
| B1CE313 | Up&down commutator motor drive circuit of right exterior rearview mirror broken | B1CE313 Up&Down Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Broken |
| B1CE319 | Up&down commutator motor drive of right exterior rearview mirror overload | B1CE319 Up&Down Commutator Motor Drive of Exterior Right Rearview Mirror Overload |
| B1CE411 | Folding motor drive circuit of right exterior rearview mirror short to ground | B1CE411 Folding Motor Drive Circuit of Exterior Right Rearview Mirror Short to Ground |
| B1CE412 | Folding motor drive circuit of right exterior rearview mirror short to power | B1CE412 Folding Motor Drive Circuit of Exterior Right Rearview Mirror Short to Power |
| B1CE413 | Folding motor drive circuit of right exterior rearview mirror broken | B1CE413 Folding Motor Drive Circuit of Exterior Right Rearview Mirror Broken |
| B1CE419 | Folding motor drive of right exterior rearview mirror overload | B1CE419 Folding Motor Drive of Exterior Right Rearview Mirror Overload |

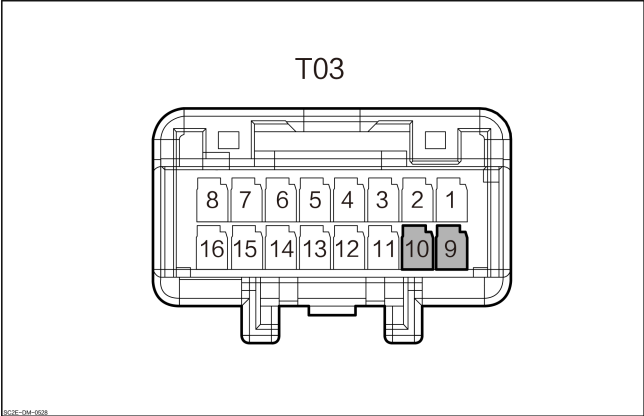
B1CDF11 Left&Right Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Short to Ground**DTC Description**

| | |
|--|--|
| B1CDF11 Left&Right Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Short to Ground | |
| Symptom | The left and right adjustment function of left exterior rearview mirror fails. |
| Possible Cause | 1. Harness or connector fault. 2. The left and right commutator motor of left exterior rearview mirror fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to adjust the left exterior rearview mirror leftwards and rightwards. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">Left rearview mirror</p> <div style="text-align: center;">  <p style="text-align: center;">T03</p> </div> | 9 | Left adjustment |
| | 10 | Right adjustment |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness and connector of left rearview mirror. |
|---|--|

1. Set the START/STOP button to OFF.
2. Disconnect the left rearview mirror harness connector T03.
3. Check whether the left exterior side mirror harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the level adjustment motor of left rearview mirror. |
|---|---|

1. To the external power supply of the level adjustment motor of left rearview mirror.
2. Does the level adjustment motor of left rearview mirror function normally.

No

Replace the left rearview mirror.

Yes

| | |
|---|--|
| 4 | Check the harness connector of left body control module. |
|---|--|

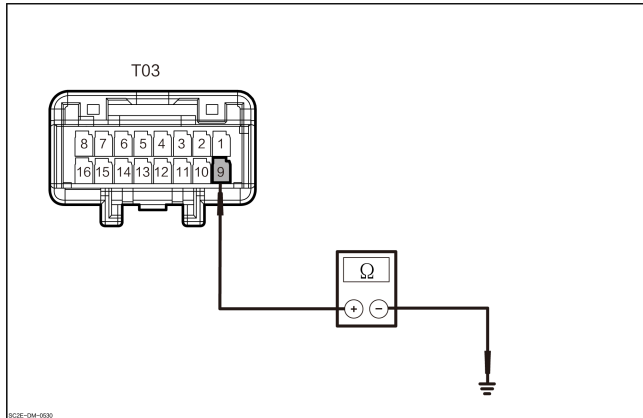
1. Disconnect the harness connector of left body control module TG64(H).
2. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the left-adjustment line of left rearview mirror for short to ground.



1. Measure the resistance value between the left rearview mirror harness connector T03-9 and ground.

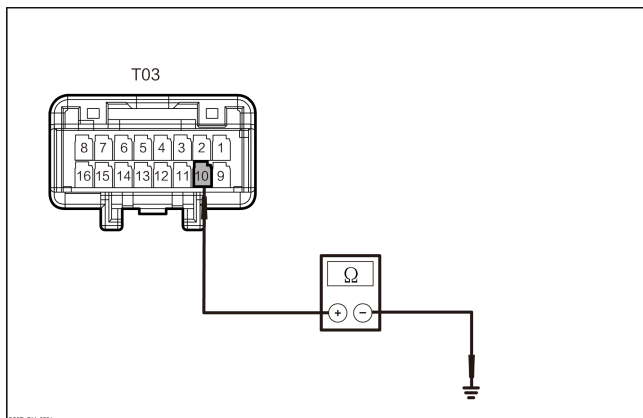
| Connector | | Condition | Resistance value |
|-----------|--------|------------|------------------|
| (+) | (-) | | |
| T03-9 | Ground | Throughout | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the right-adjustment line of left rearview mirror for short to ground.



1. Measure the resistance value between the left rearview mirror harness connector T03-10 and ground.

| Connector | | Condition | Resistance value |
|-----------|--------|------------|------------------|
| (+) | (-) | | |
| T03-10 | Ground | Throughout | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

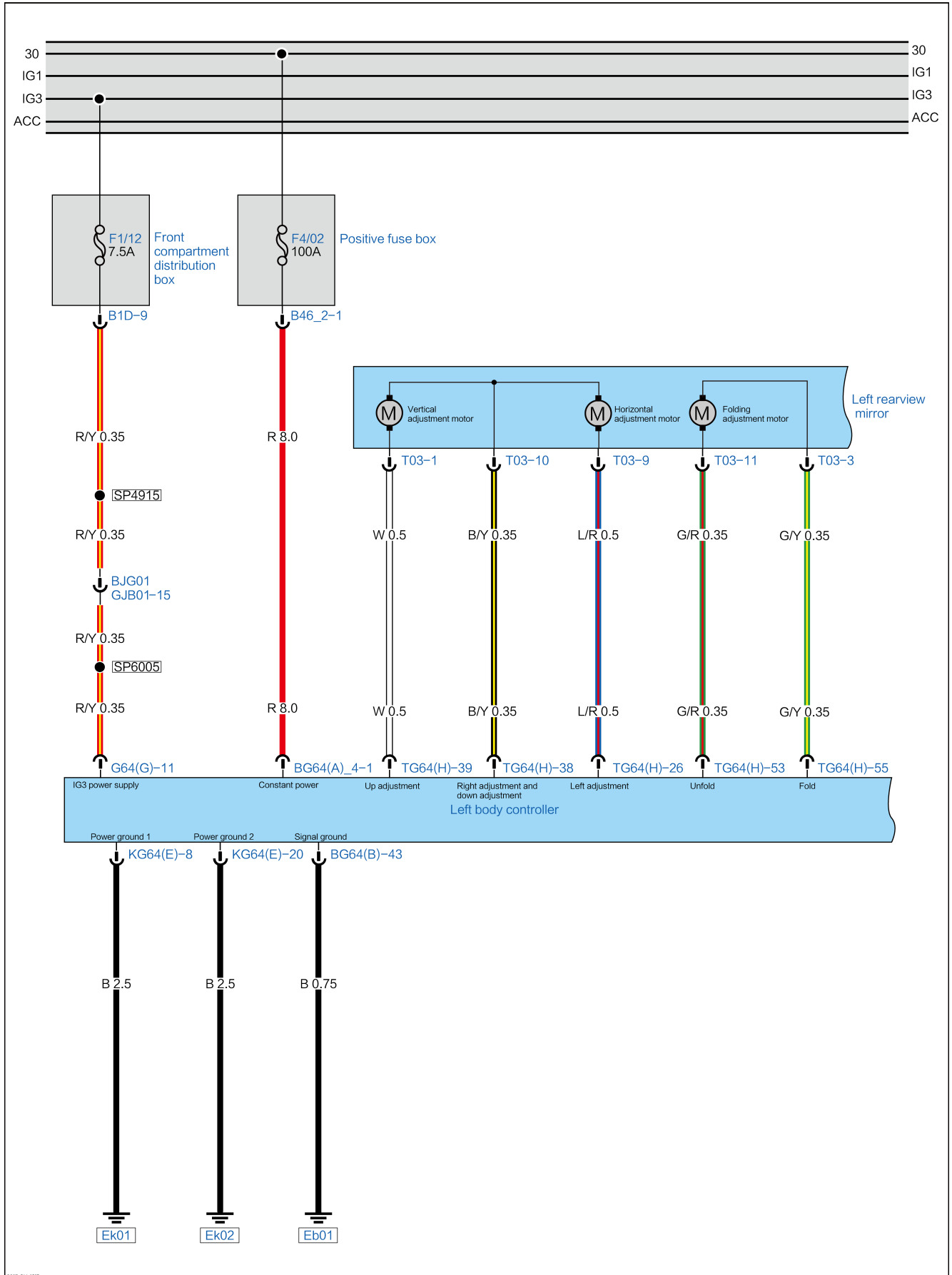
Yes → Replace the left body control module.

B1CDF12 Left&Right Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Short to Power

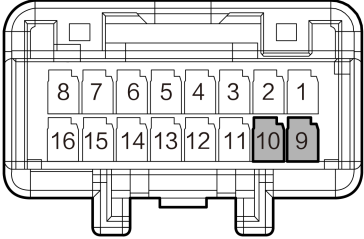
DTC Description

| | |
|---|--|
| B1CDF12 Left&Right Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Short to Power | |
| Symptom | The left and right adjustment function of left exterior rearview mirror fails. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The left and right commutator motor of left exterior rearview mirror fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to adjust the left exterior rearview mirror leftwards and rightwards. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|---|
| <p>Left rearview mirror</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>T03</p>  <p><small>82FC-04-0038</small></p> </div> | <p>9</p> | <p>Left adjustment</p> |
| | <p>10</p> | <p>Right adjustment</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness and connector of left rearview mirror. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the left rearview mirror harness connector T03.
3. Check whether the left exterior side mirror harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the level adjustment motor of left rearview mirror. |
|---|---|

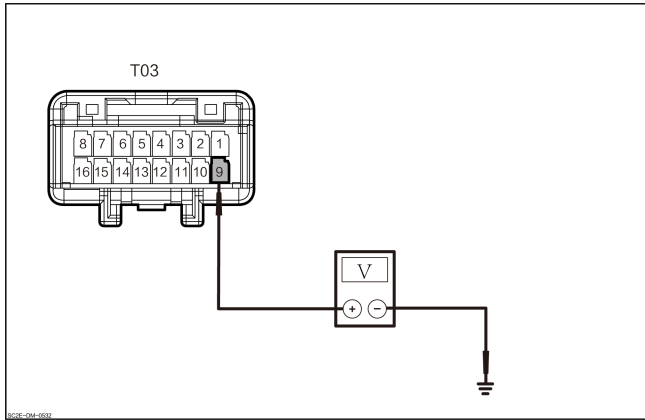
1. To the external power supply of the level adjustment motor of left rearview mirror.
2. Does the level adjustment motor of left rearview mirror function normally.

No

Replace the left rearview mirror.

Yes

| | |
|---|--|
| 4 | Check the left-adjustment line of left rearview mirror for short to power. |
|---|--|



1. Measure the voltage value between the left rearview mirror harness connector T03-9 and ground.

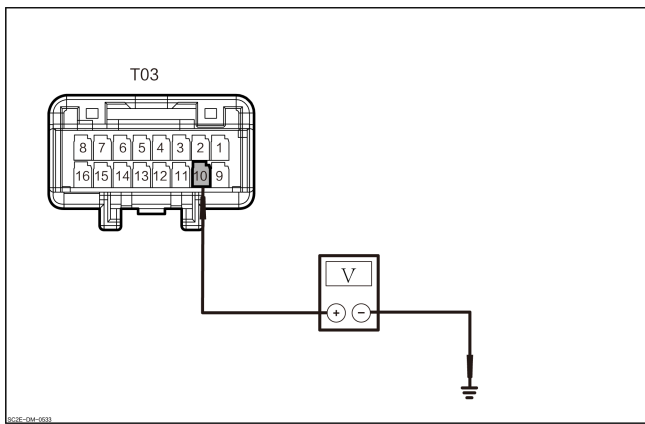
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| T03-9 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the right-adjustment line of left rearview mirror for short to power.



1. Measure the voltage value between the left rearview mirror harness connector T03-10 and ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| T03-10 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

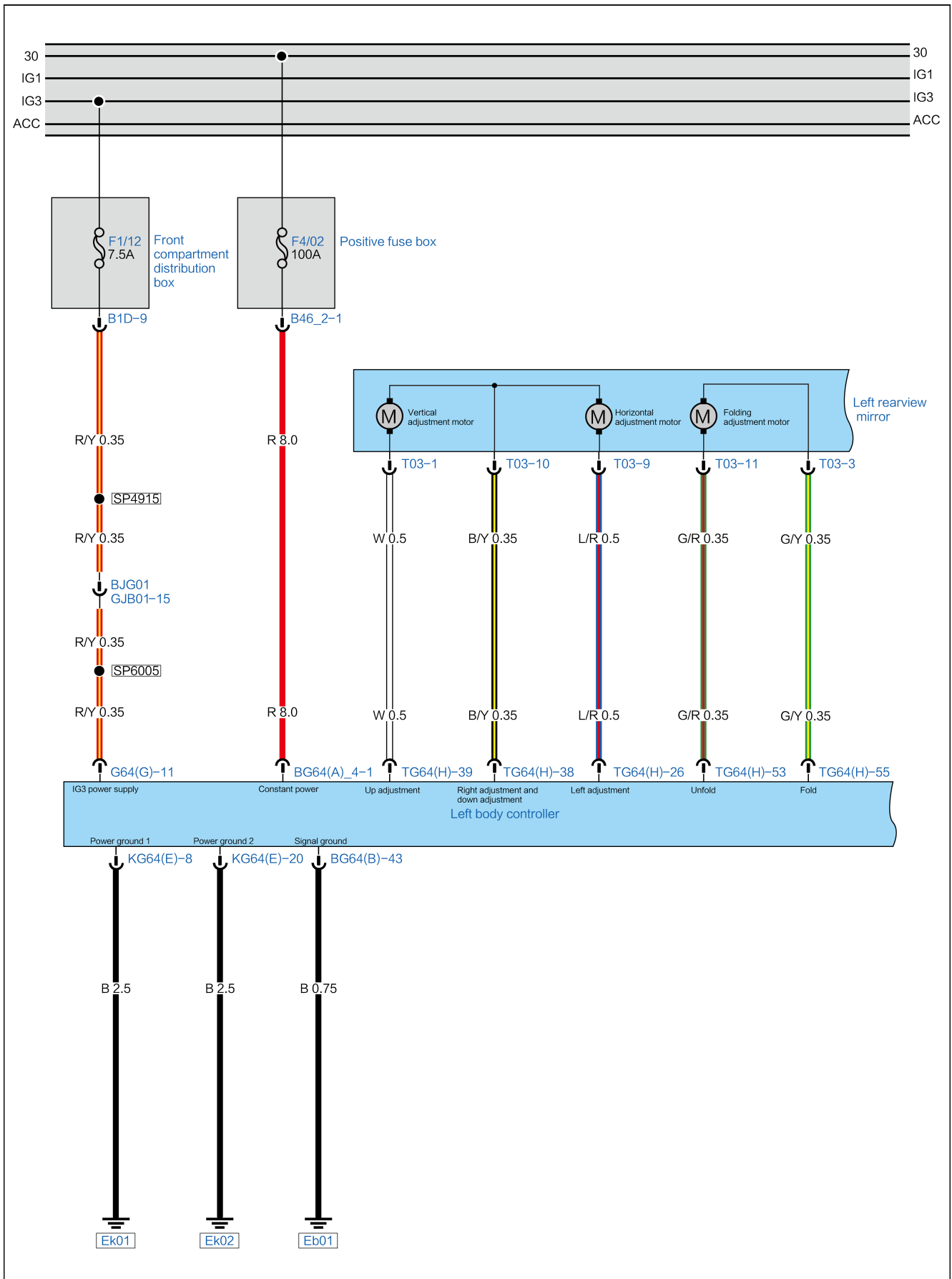
No → Repair or replace the wire harness

Yes → Replace the left body control module.

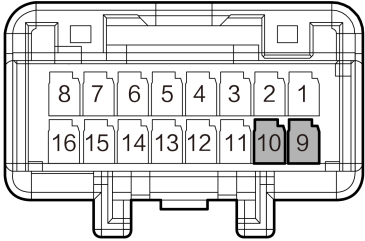
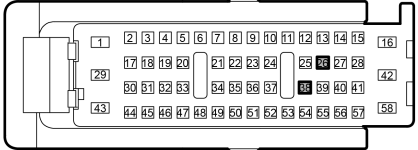
B1CDF13 Left&Right Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Broken**DTC Description**

| B1CDF13 Left&Right Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Broken | |
|---|--|
| Symptom | The left and right adjustment function of left exterior rearview mirror fails. |
| Possible Cause | 1. Harness or connector fault. 2. The left and right commutator motor of left exterior rearview mirror fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to adjust the left exterior rearview mirror leftwards and rightwards. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p>Left rearview mirror</p> <p>T03</p>  <p><small>82CE-004-0978</small></p> | 9 | Left adjustment |
| | 10 | Right adjustment |
| <p>Left body control module</p> <p>TG64(H)</p>  <p><small>82CE-004-0922</small></p> | 26 | Left adjustment |
| | 38 | Right adjustment |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness and connector of left rearview mirror. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the left rearview mirror harness connector T03.
3. Check whether the left exterior side mirror harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the level adjustment motor of left rearview mirror. |
|---|---|

1. To the external power supply of the level adjustment motor of left rearview mirror.
2. Does the level adjustment motor of left rearview mirror function normally.

No

Replace the left rearview mirror.

Yes

| | |
|---|--|
| 4 | Check the harness connector of left body control module. |
|---|--|

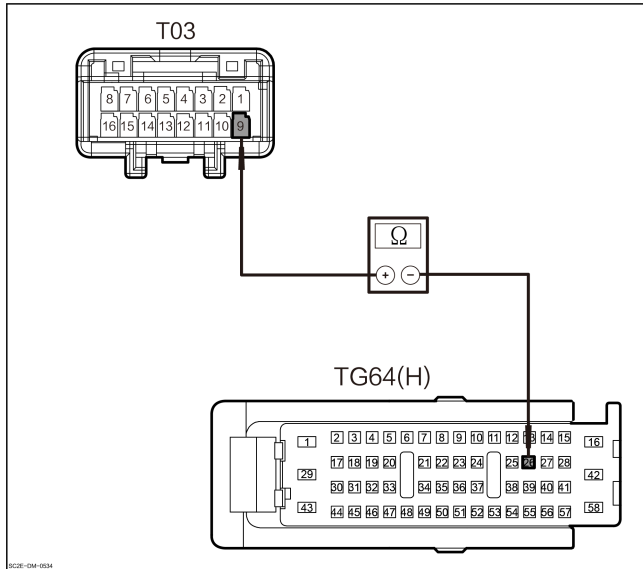
1. Disconnect the harness connector of left body control module TG64(H).
2. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the left-adjustment line of left rearview mirror for open circuit.



1. Measure the resistance between the harness connector of left rearview mirror T03-9 and the harness connector of left body control module TG64 (H)-26.

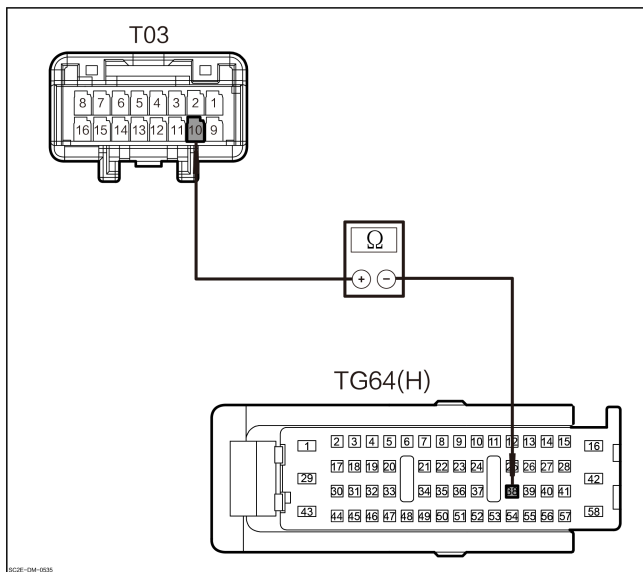
| Connector | | Condition | Resist- ance value |
|-----------|------------|-------------|--------------------------|
| (+) | (-) | | |
| T03-9 | TG64(H)-26 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the right-adjustment line of left rearview mirror for open circuit.



1. Measure the resistance between the harness connector of left rearview mirror T03-10 and the harness connector of left body control module TG64 (H)-38.

| Connector | | Condition | Resist- ance value |
|-----------|------------|-------------|--------------------------|
| (+) | (-) | | |
| T03-10 | TG64(H)-38 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the left body control module.

B1CDF19 Left&Right Commutator Motor Drive of Left Exterior Rearview Mirror Overload

DTC Description

| B1CDF19 Left&Right Commutator Motor Drive of Left Exterior Rearview Mirror Overload | |
|---|--|
| Symptom | The left and right adjustment function of left exterior rearview mirror fails. |
| Possible Cause | 1. The left and right commutator motor of left exterior rearview mirror fails. 2. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to adjust the left exterior rearview mirror leftwards and rightwards. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Check the left rearview mirror. |
|---|---------------------------------|

1. Check the left rearview mirror for interference.

No

Replace the left rearview mirror.

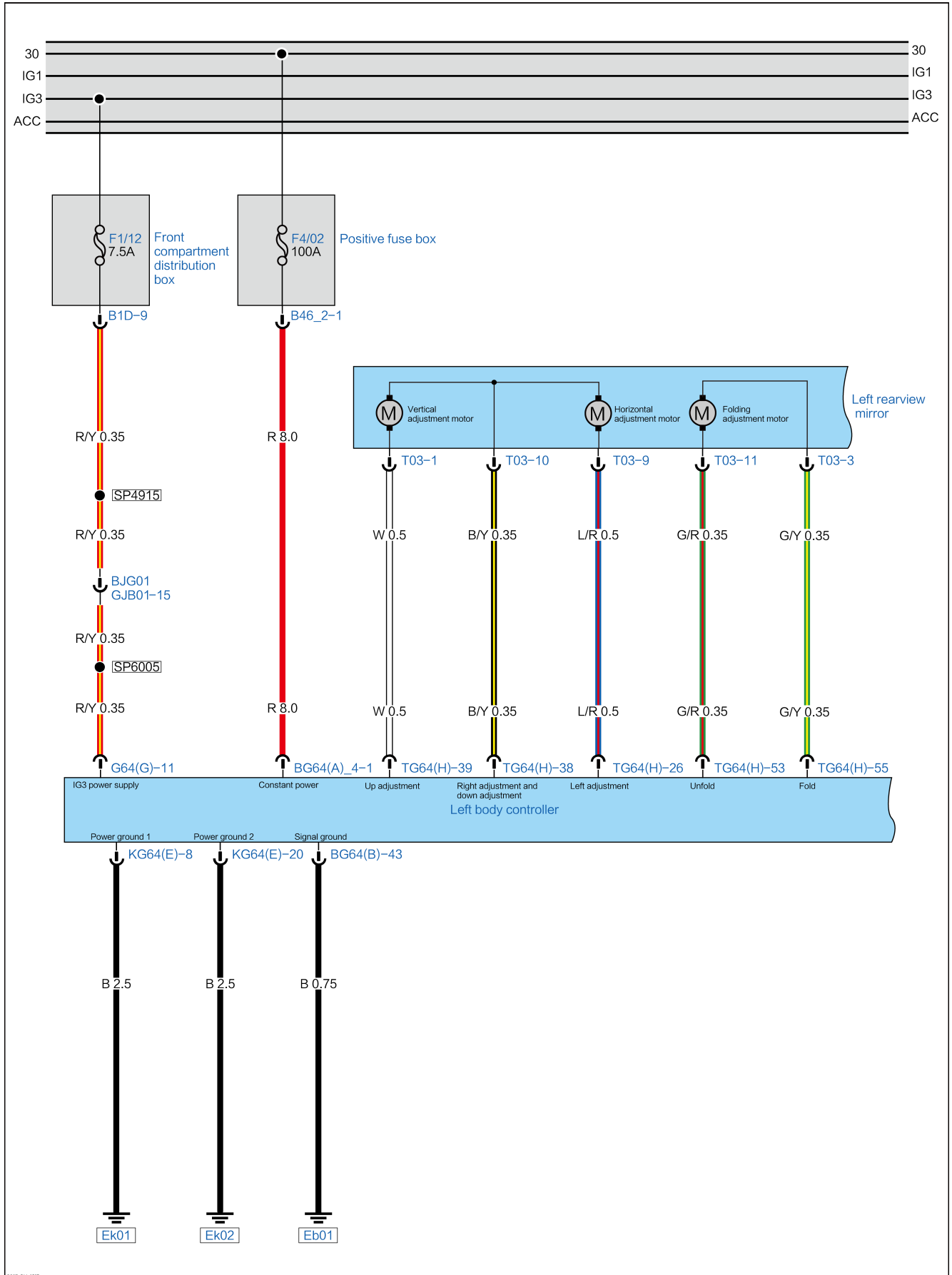
Yes

Handle to interference parts.

DTC Description

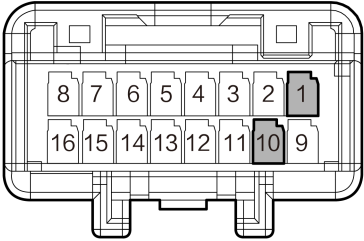
| | |
|---|---|
| B1CE011 Up&Down Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Short to Ground | |
| Symptom | The up and down adjustment function of left exterior rearview fails. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The up and down commutator motor of left exterior rearview mirror fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to adjust the left exterior rearview mirror upwards and downwards. |

Circuit Diagram



8028-064-007

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|---------------------------------------|--|
| <p>Left rearview mirror</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>T03</p>  </div> <p><small>8012-04-03B</small></p> | <p>1</p> | <p>Up adjustment</p> |
| | <p>10</p> | <p>Down adjustment</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness and connector of left rearview mirror. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the left rearview mirror harness connector T03.
3. Check whether the left exterior side mirror harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the up and down adjustment motor of left rearview mirror. |
|---|---|

1. To the external power supply of the up and down adjustment motor of left rearview mirror.
2. Does the up and down adjustment motor of left rearview mirror function normally.

No

Replace the left rearview mirror.

Yes

| | |
|---|--|
| 4 | Check the harness connector of left body control module. |
|---|--|

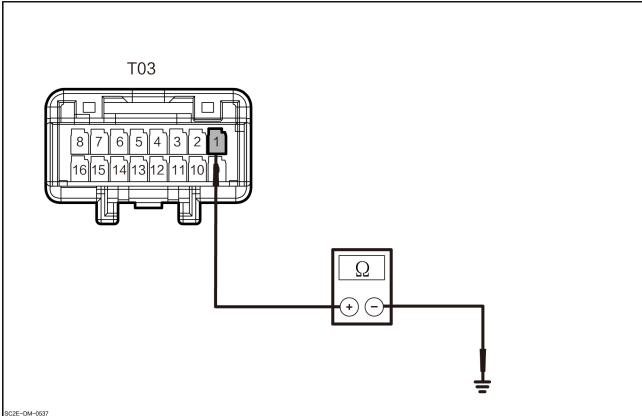
1. Disconnect the harness connector of left body control module TG64(H).
2. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the up-adjustment line of left rearview mirror for short to ground.



1. Measure the resistance value between the left rearview mirror harness connector T03-1 and ground.

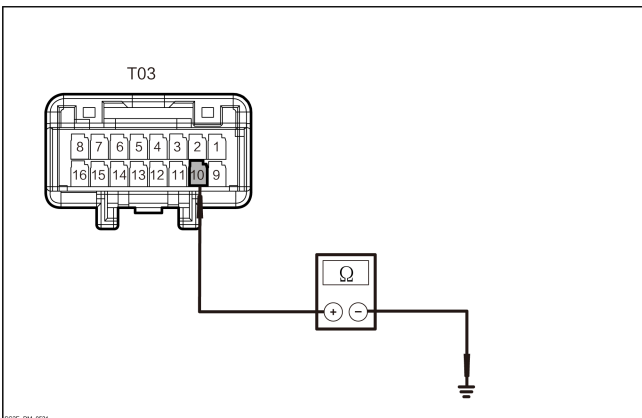
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| T03-1 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the down-adjustment line of left rearview mirror for short to ground.



1. Measure the resistance value between the left rearview mirror harness connector T03-10 and ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| T03-10 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

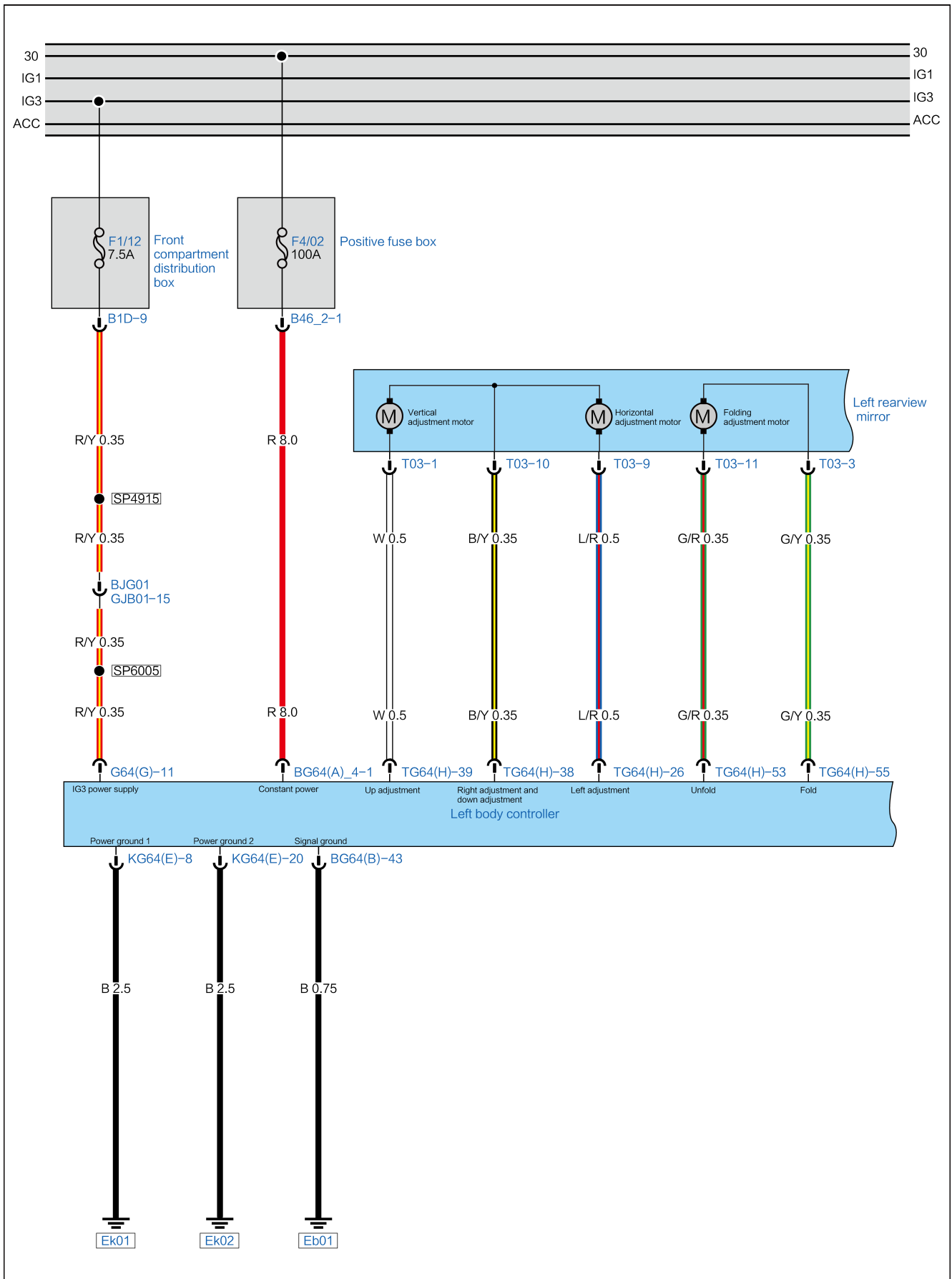
No → Repair or replace the wire harness

Yes → Replace the left body control module.

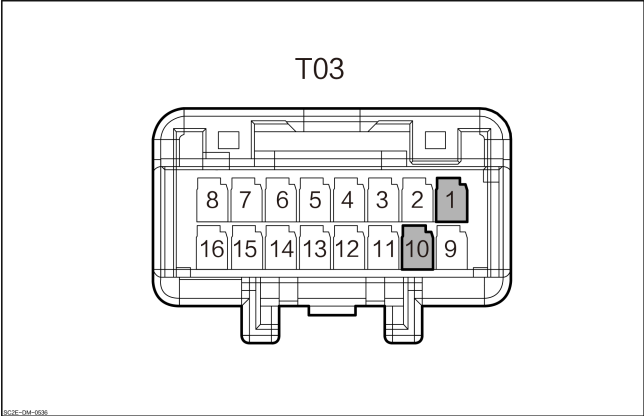
B1CE012 Up&Down Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Short to Power**DTC Description**

| | |
|--|---|
| B1CE012 Up&Down Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Short to Power | |
| Symptom | The up and down adjustment function of left exterior rearview fails. |
| Possible Cause | 1. Harness or connector fault. 2. The up and down commutator motor of left exterior rearview mirror fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to adjust the left exterior rearview mirror upwards and downwards. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">Left rearview mirror</p> <div style="text-align: center;">  <p style="text-align: center;">T03</p> </div> | 1 | Up adjustment |
| | 10 | Down adjustment |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness and connector of left rearview mirror. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the left rearview mirror harness connector T03.
3. Check whether the left exterior side mirror harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the up and down adjustment motor of left rearview mirror. |
|---|---|

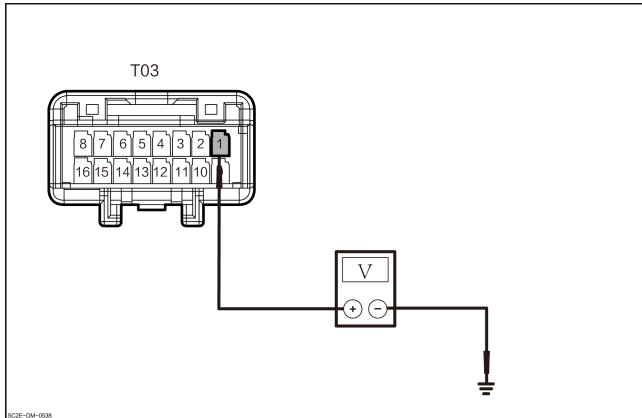
1. To the external power supply of the up and down adjustment motor of left rearview mirror.
2. Does the up and down adjustment motor of left rearview mirror function normally.

No

Replace the left rearview mirror.

Yes

| | |
|---|--|
| 4 | Check the up-adjustment line of left rearview mirror for short to power. |
|---|--|



1. Measure the voltage value between the left rearview mirror harness connector T03-1 and ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| T03-1 | Ground | Through-out | Less than 1V |

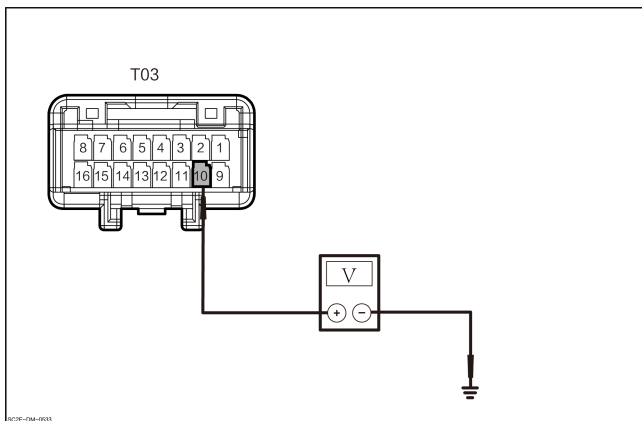
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check the down-adjustment line of left rearview mirror for short to power.



1. Measure the voltage value between the left rearview mirror harness connector T03-10 and ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| T03-10 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

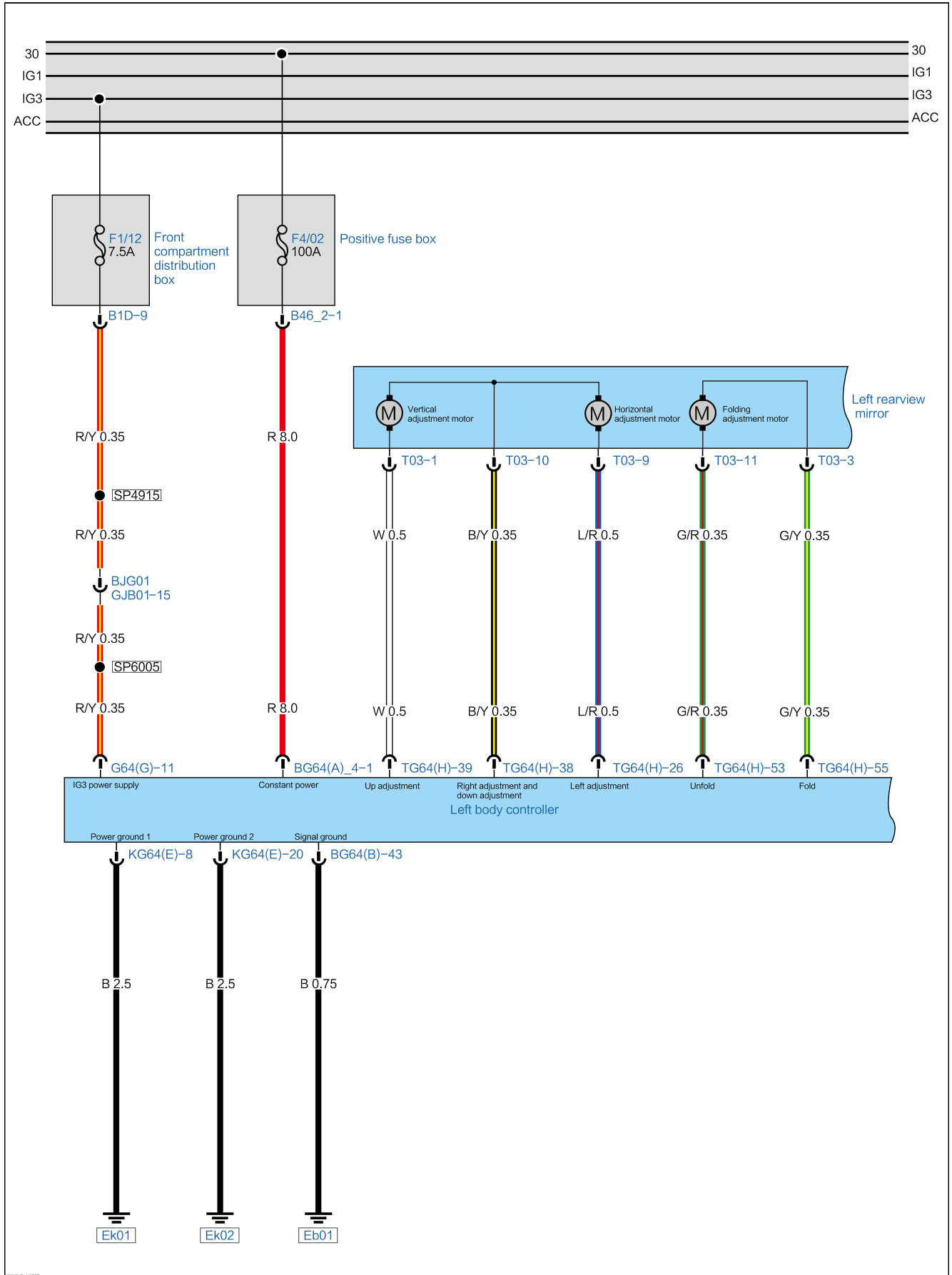
Replace the left body control module.

B1CE013 Up&Down Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Broken

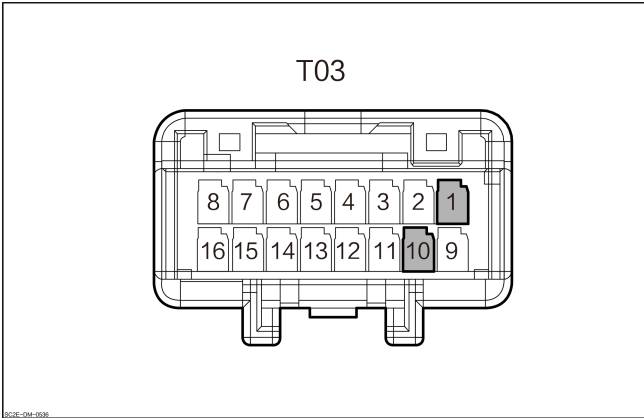
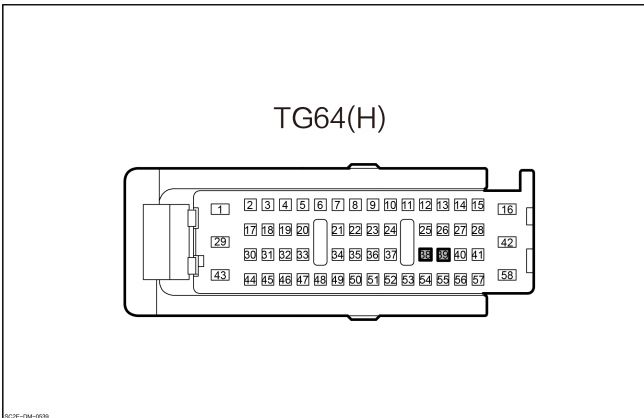
DTC Description

| B1CE013 Up&Down Commutator Motor Drive Circuit of Left Exterior Rearview Mirror Broken | |
|--|---|
| Symptom | The up and down adjustment function of left exterior rearview fails. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. The up and down commutator motor of left exterior rearview mirror fails.3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to adjust the left exterior rearview mirror upwards and downwards. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p>Left rearview mirror</p>  <p>T03</p> | 1 | Up adjustment |
| | 10 | Down adjustment |
| <p>Left body control module</p>  <p>TG64(H)</p> | 38 | Down adjustment |
| | 39 | Up adjustment |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness and connector of left rearview mirror. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the left rearview mirror harness connector T03.
3. Check whether the left exterior side mirror harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the up and down adjustment motor of left rearview mirror. |
|---|---|

1. To the external power supply of the up and down adjustment motor of left rearview mirror.
2. Does the up and down adjustment power supply of left rearview mirror function normally.

No

Replace the left rearview mirror.

Yes

| | |
|---|--|
| 4 | Check the harness connector of left body control module. |
|---|--|

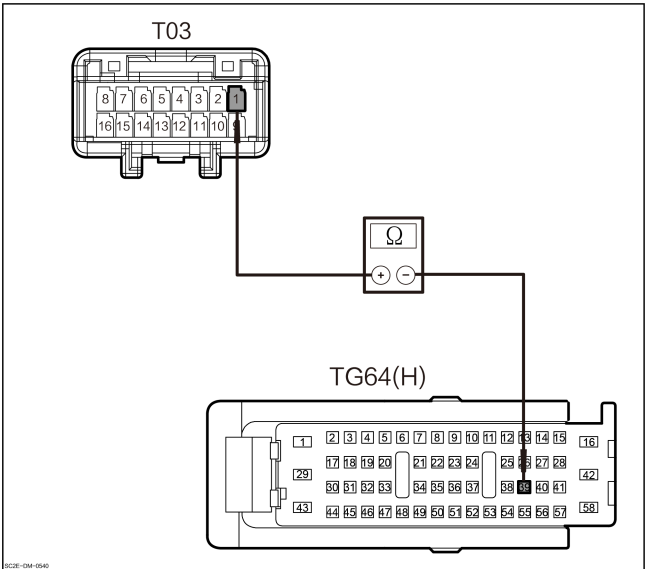
1. Disconnect the harness connector of left body control module TG64(H).
2. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the up-adjustment line of left rearview mirror for open circuit.



1. Measure the resistance between the harness connector of left rearview mirror T03-1 and the harness connector of left body control module TG64 (H)-39.

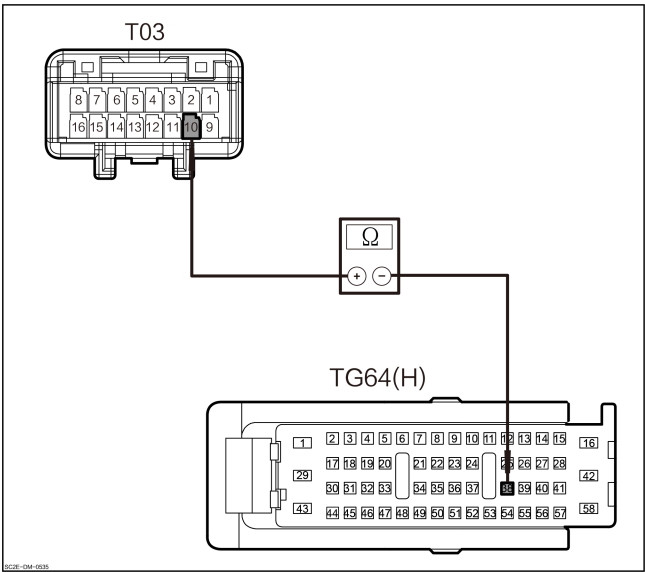
| Connector | | Condition | Resistance value |
|-----------|------------|-------------|------------------|
| (+) | (-) | | |
| T03-1 | TG64(H)-39 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the right-adjustment line of left rearview mirror for open circuit.



1. Measure the resistance between the harness connector of left rearview mirror T03-10 and the harness connector of left body control module TG64 (H)-38.

| Connector | | Condition | Resistance value |
|-----------|------------|-------------|------------------|
| (+) | (-) | | |
| T03-10 | TG64(H)-38 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the left body control module.

B1CE019 Up&Down Commutator Motor Drive of Left Exterior Rearview Mirror Overload**DTC Description**

| B1CE019 Up&Down Commutator Motor Drive of Left Exterior Rearview Mirror Overload | |
|--|---|
| Symptom | The up and down adjustment function of left exterior rearview fails. |
| Possible Cause | 1. The up and down commutator motor of left exterior rearview mirror fails. 2. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to adjust the left exterior rearview mirror upwards and downwards. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Check the left rearview mirror. |
|---|---------------------------------|

1. Check the left rearview mirror for interference.

No → Replace the left rearview mirror.

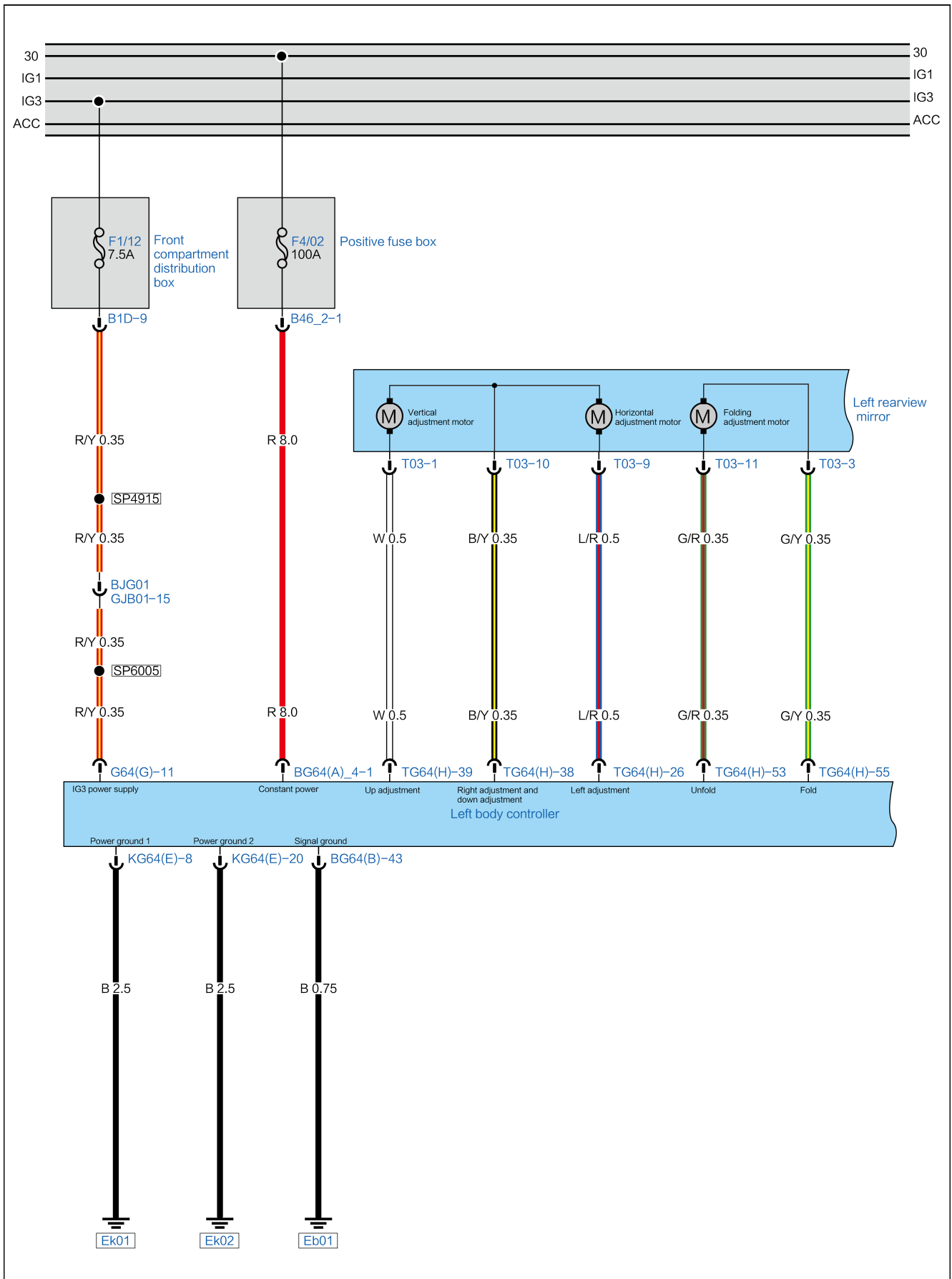
Yes → Handle to interference parts.

B1CE111 Folding Motor Drive Circuit of Left Exterior Rearview Mirror Short to Ground

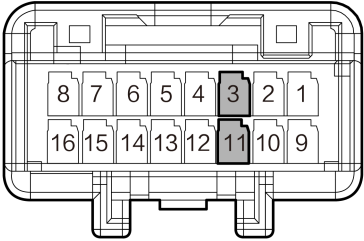
DTC Description

| B1CE111 Folding Motor Drive Circuit of Left Exterior Rearview Mirror Short to Ground | |
|--|---|
| Symptom | The left exterior rearview mirror folding function fails. |
| Possible Cause | 1. Harness or connector fault. 2. The left exterior rearview mirror folding motor fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to fold the left exterior rearview mirror. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|---|
| <p>Left rearview mirror</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>T03</p>  <p><small>BYD-DM-064</small></p> </div> | <p>3</p> | <p>Fold</p> |
| | <p>11</p> | <p>Unfold</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness and connector of left rearview mirror. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the left rearview mirror harness connector T03.
3. Check whether the left exterior side mirror harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the left rearview mirror folding motor. |
|---|---|

1. To the external power supply of left rearview mirror folding motor.
2. Does the left rearview mirror folding motor function normally.

No

Replace the left rearview mirror.

Yes

| | |
|---|--|
| 4 | Check the harness connector of left body control module. |
|---|--|

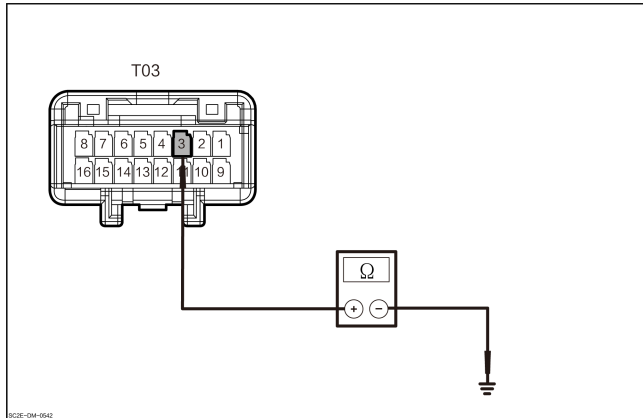
1. Disconnect the harness connector of left body control module TG64(H).
2. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the folding line of left rearview mirror for short to ground.



1. Measure the resistance value between the left rearview mirror harness connector T03-3 and ground.

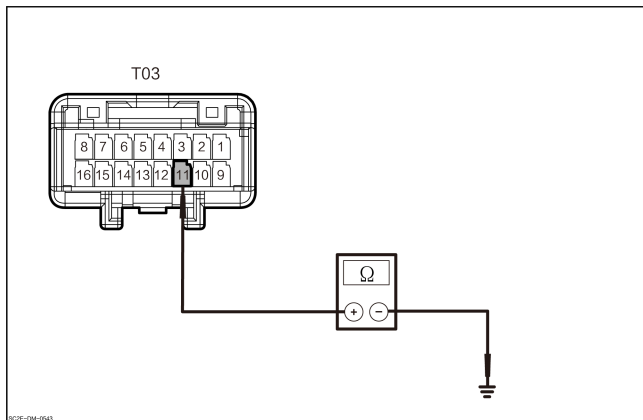
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|--------------------|
| (+) | (-) | | |
| T03-3 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the unfolding line of left rearview mirror for short to ground.



1. Measure the resistance value between the left rearview mirror harness connector T03-11 and ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|--------------------|
| (+) | (-) | | |
| T03-11 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

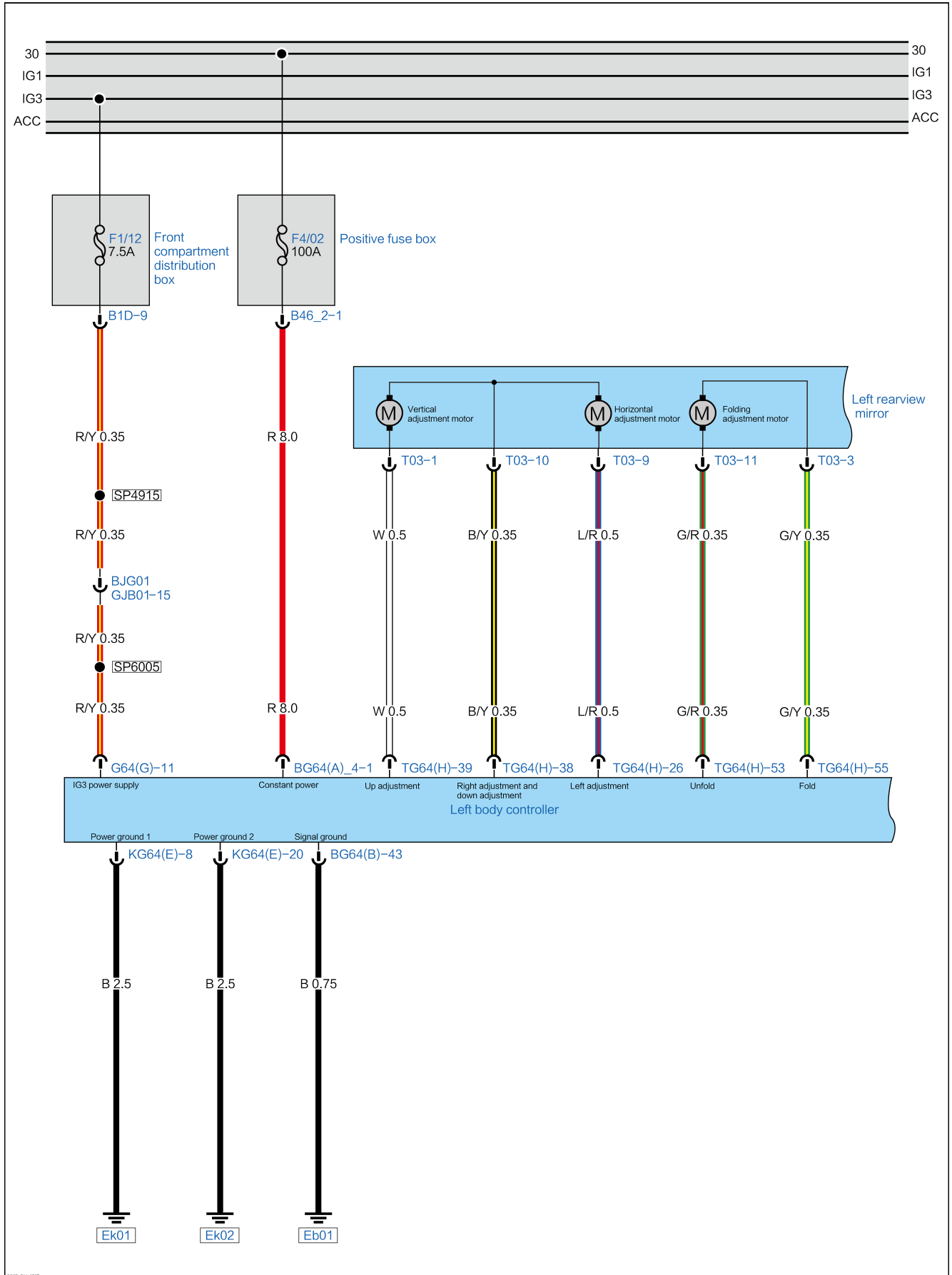
Yes → Replace the left body control module.

B1CE112 Folding Motor Drive Circuit of Left Exterior Rearview Mirror Short to Power

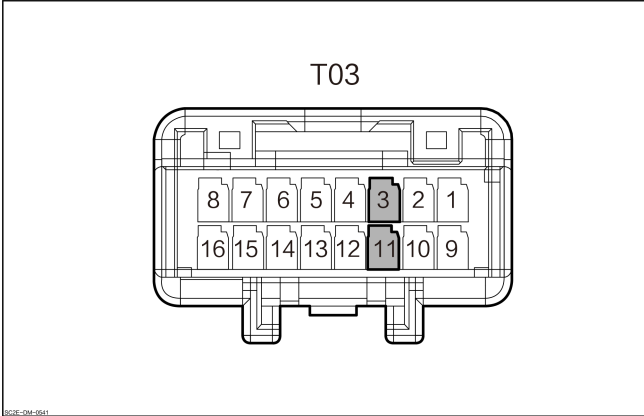
DTC Description

| B1CE112 Folding Motor Drive Circuit of Left Exterior Rearview Mirror Short to Power | |
|---|---|
| Symptom | The left exterior rearview mirror folding function fails. |
| Possible Cause | 1. Harness or connector fault. 2. The left exterior rearview mirror folding motor fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to fold the left exterior rearview mirror. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">Left rearview mirror</p> <div style="text-align: center;">  <p style="text-align: center;">T03</p> </div> <p style="font-size: small; margin-top: 10px;">802E-DM-0511</p> | 3 | Fold |
| | 11 | Unfold |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness and connector of left rearview mirror. |
|---|--|

1. Set the START/STOP button to OFF.
2. Disconnect the left rearview mirror harness connector T03.
3. Check whether the left exterior side mirror harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the left rearview mirror folding motor. |
|---|---|

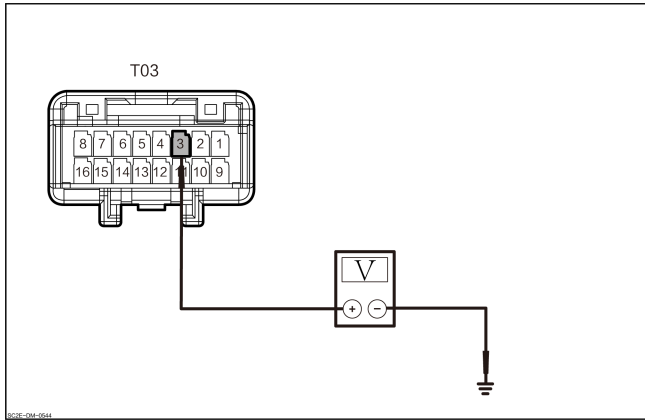
1. To the external power supply of left rearview mirror folding motor.
2. Does the left rearview mirror folding motor function normally.

No

Replace the left rearview mirror.

Yes

| | |
|---|--|
| 4 | Check the folding line of left rearview mirror for short to power. |
|---|--|



1. Measure the voltage value between the left rearview mirror harness connector T03-3 and ground.

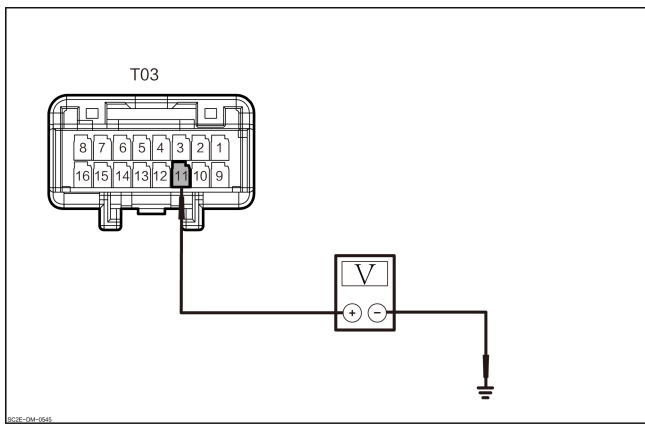
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| T03-3 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the unfolding line of left rearview mirror for short to power.



1. Measure the voltage value between the left rearview mirror harness connector T03-11 and ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| T03-11 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

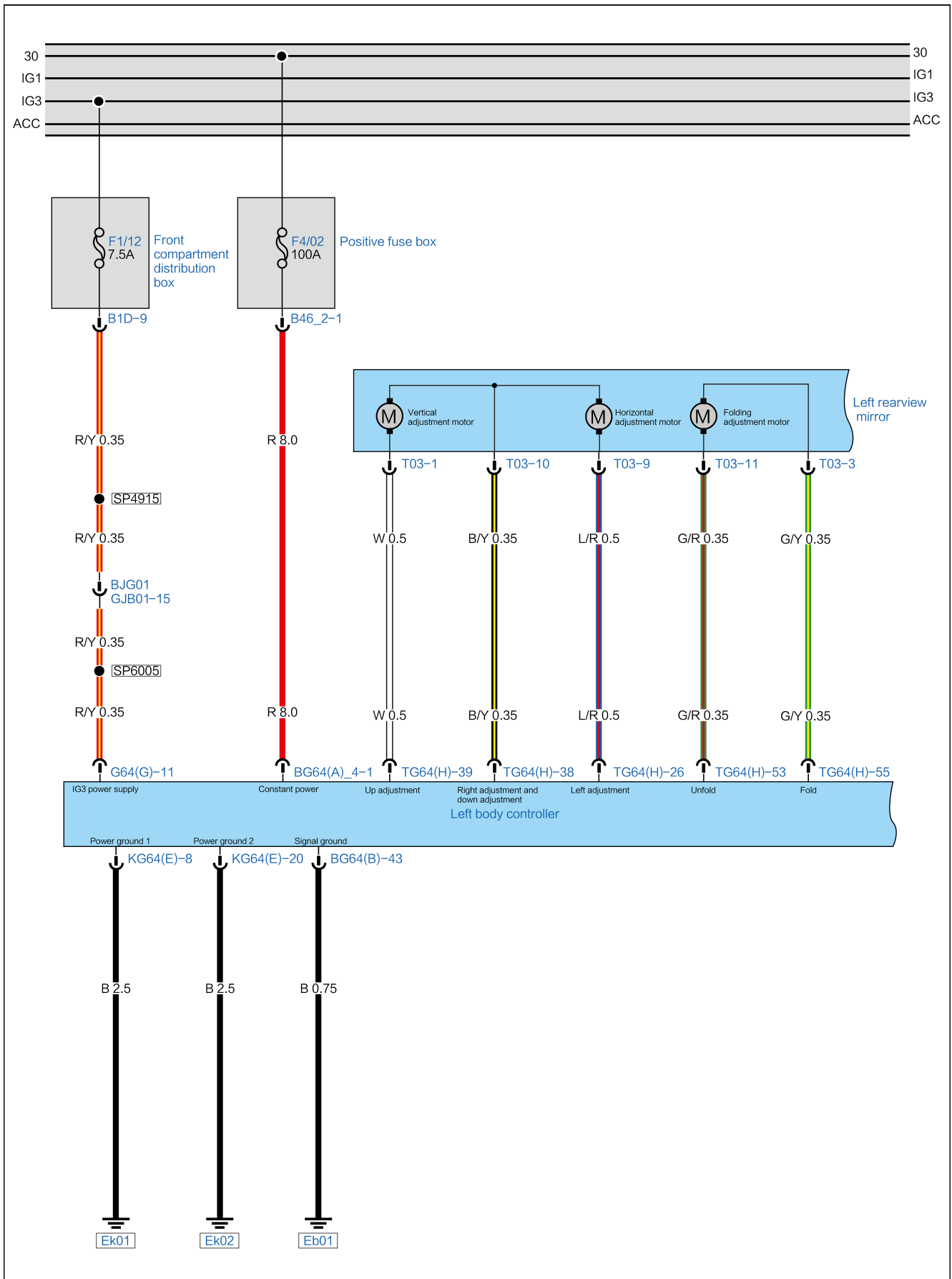
No → Repair or replace the wire harness

Yes → Replace the left body control module.

B1CE113 Folding Motor Drive Circuit of Left Exterior Rearview Mirror Broken**DTC Description**

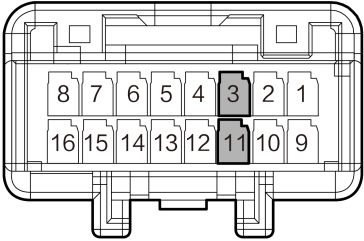
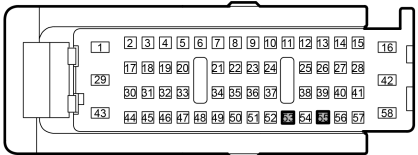
| B1CE113 Folding Motor Drive Circuit of Left Exterior Rearview Mirror Broken | |
|---|---|
| Symptom | The left exterior rearview mirror folding function fails. |
| Possible Cause | 1. Harness or connector fault. 2. The left exterior rearview mirror folding motor fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to fold the left exterior rearview mirror. |

Circuit Diagram



AC08-194-0027

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p>Left rearview mirror</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>T03</p>  <p><small>82E-004-0541</small></p> </div> | 3 | Fold |
| | 11 | Unfold |
| <p>Left body control module</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>TG64(H)</p>  <p><small>82E-004-0551</small></p> </div> | 53 | Unfold |
| | 55 | Fold |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness and connector of left rearview mirror. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the left rearview mirror harness connector T03.
3. Check whether the left exterior side mirror harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the left rearview mirror folding motor. |
|---|---|

1. To the external power supply of left rearview mirror folding motor.
2. Does the left rearview mirror folding motor function normally.

No

Replace the left rearview mirror.

Yes

| | |
|---|--|
| 4 | Check the harness connector of left body control module. |
|---|--|

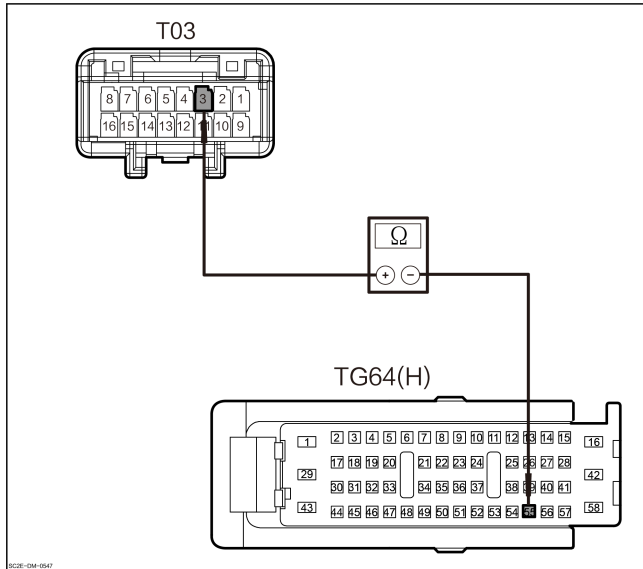
1. Disconnect the harness connector of left body control module TG64(H).
2. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the folding line of left rearview mirror for open circuit.



1. Measure the resistance between the harness connector of left rearview mirror T03-3 and the harness connector of left body control module TG64 (H)-55.

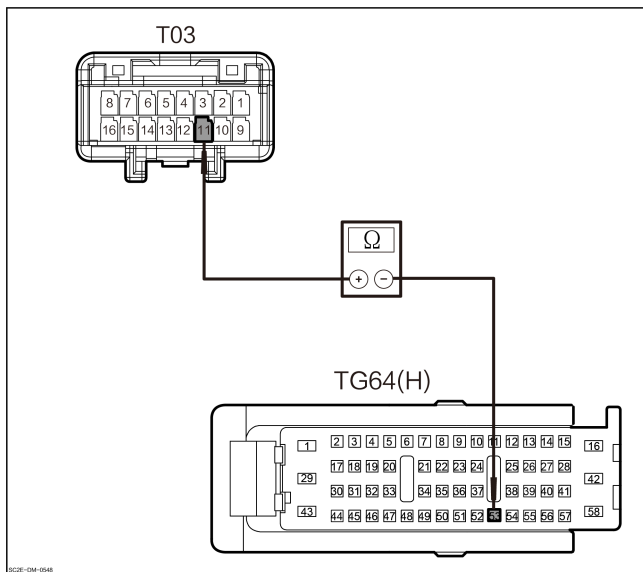
| Connector | | Condition | Resist- ance value |
|-----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| T03-3 | TG64(H)-55 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the unfolding line of left rearview mirror for open circuit.



1. Measure the resistance between the harness connector of left rearview mirror T03-11 and the harness connector of left body control module TG64 (H)-53.

| Connector | | Condition | Resist- ance value |
|-----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| T03-11 | TG64(H)-53 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the left body control module.

B1CE119 Folding Motor Drive of Left Exterior Rearview Mirror Overload

DTC Description

| B1CE119 Folding Motor Drive of Left Exterior Rearview Mirror Overload | |
|---|---|
| Symptom | The left exterior rearview mirror folding function fails. |
| Possible Cause | 1. The left exterior rearview mirror folding motor fails. 2. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to fold the left exterior rearview mirror. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Check the left rearview mirror. |
|---|---------------------------------|

1. Check the left rearview mirror for interference.

No

Replace the left rearview mirror.

Yes

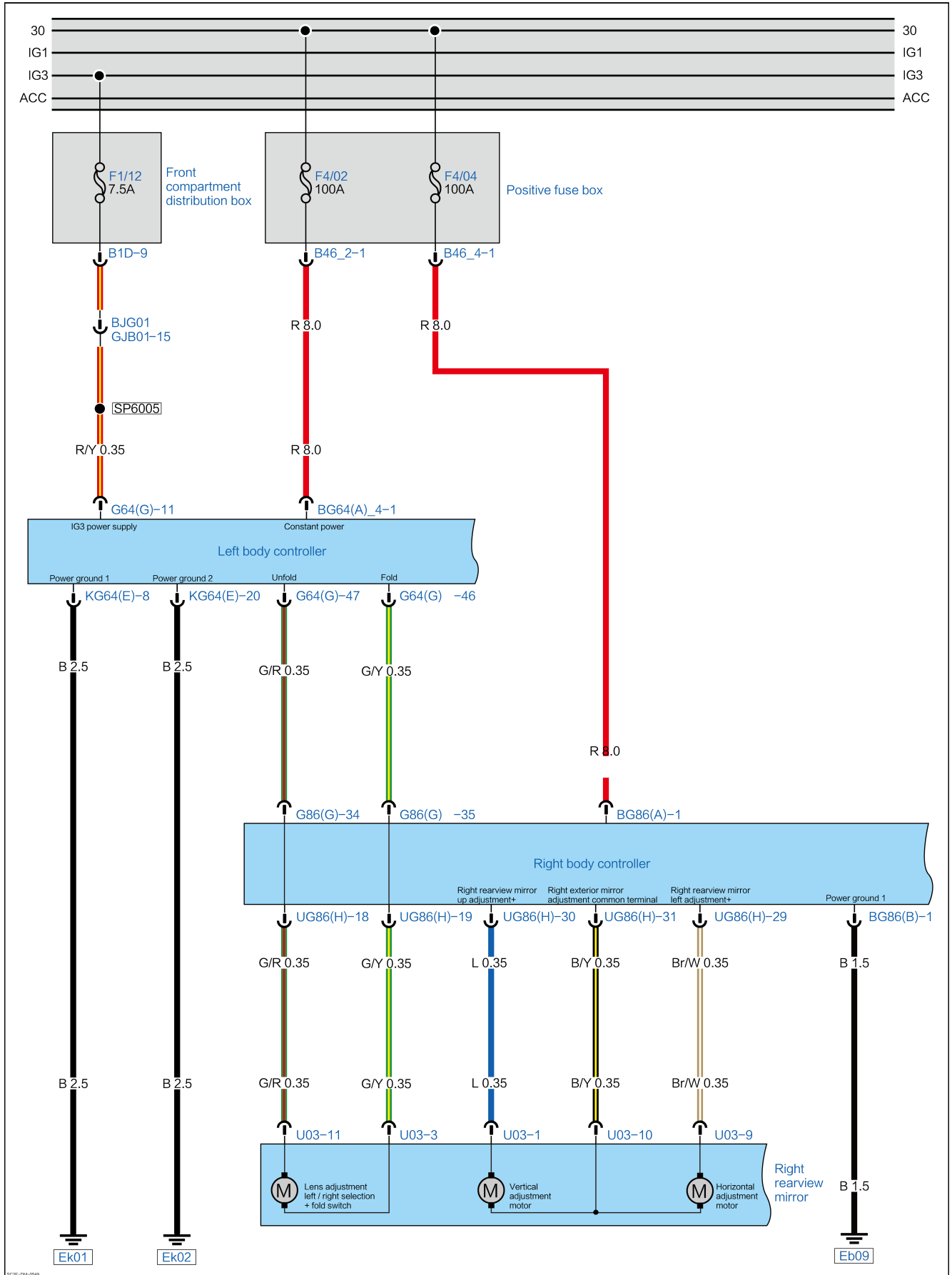
Handle to interference parts.

B1CE211 Left&Right Commutator Motor Drive Circuit of Exterior Right Rearview Short to Ground

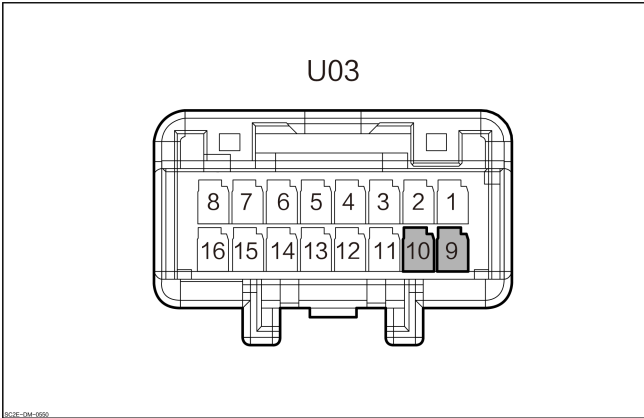
DTC Description

| B1CE211 Left&Right Commutator Motor Drive Circuit of Exterior Right Rearview Short to Ground | |
|--|--|
| Symptom | The left and right adjustment function of right exterior rearview mirror fails. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The left and right commutator motor of right exterior rearview mirror fails. 3. The right body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to adjust the right exterior rearview mirror leftwards and rightwards. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Right rearview mirror</p> <div style="text-align: center;">  <p style="text-align: center;">U03</p> </div> | 9 | Left adjustment |
| | 10 | Right adjustment |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness connector of right rearview mirror |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the right rearview mirror wire harness connector U03.
3. Check whether the right exterior side mirror harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the right rearview mirror horizontal adjustment motor |
|---|---|

1. To the external power supply of the level adjustment motor of right rearview mirror.
2. Does the level adjustment motor of right rearview mirror function normally.

No

Replace the right rearview mirror.

Yes

| | |
|---|---|
| 4 | Check the harness connector of right body control module. |
|---|---|

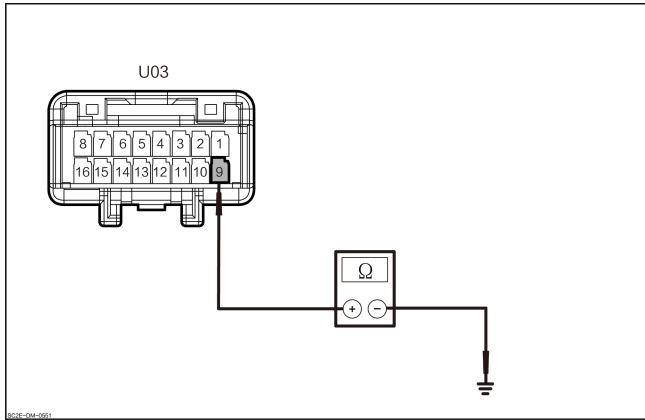
1. Disconnect the harness connector of right body control module UG86(H).
2. Check whether the harness connector of right body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the left-adjustment line of right rearview mirror for short to ground.



1. Measure the resistance between the harness connector of right rearview mirror U03-9 and the ground.

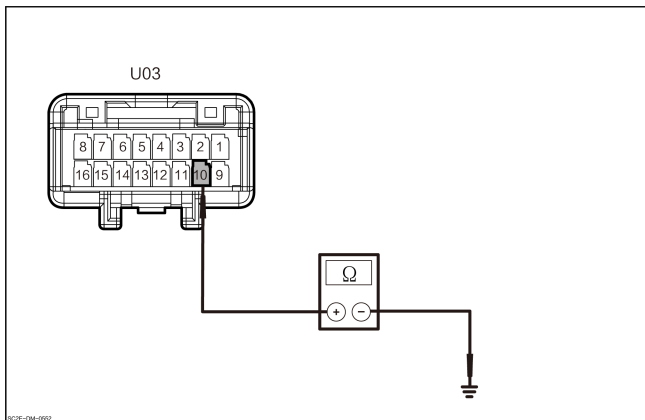
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| U03-9 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the right-adjustment line of right rearview mirror for short to ground.



1. Measure the resistance between the harness connector of right rearview mirror U03-10 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| U03-10 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

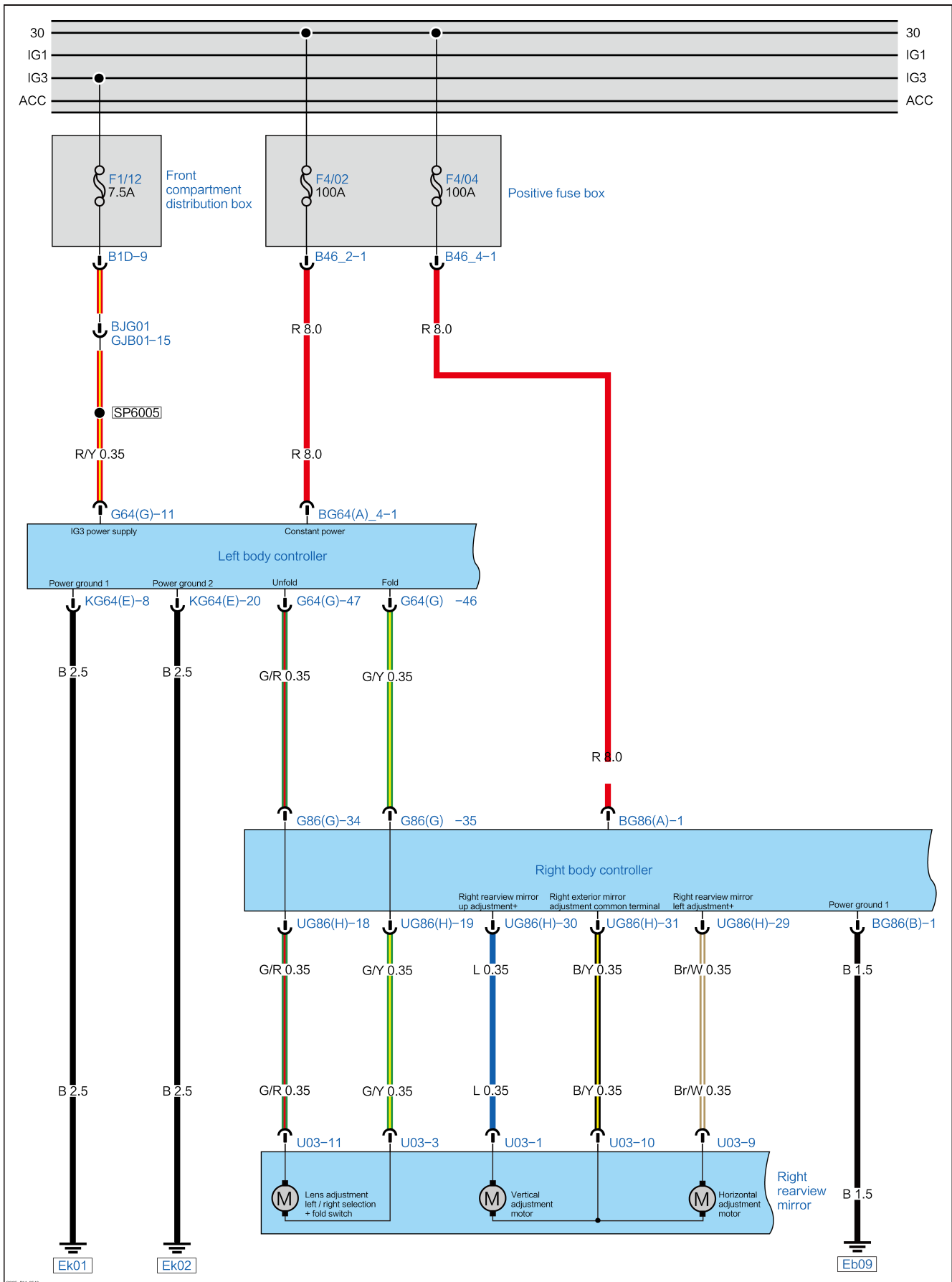
Yes → Replace the right body control module.

B1CE212 Left&Right Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Short to Power

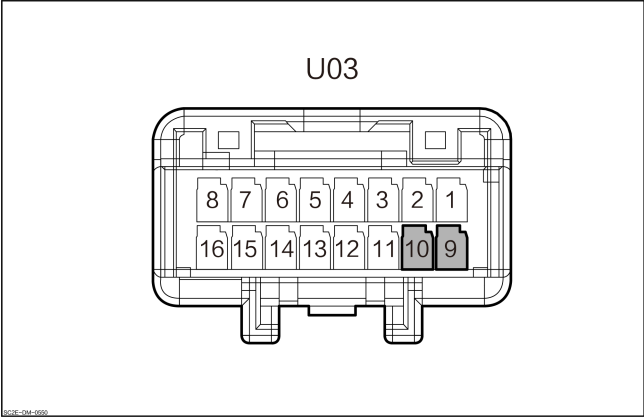
DTC Description

| | |
|--|--|
| B1CE212 Left&Right Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Short to Power | |
| Symptom | The left and right adjustment function of right exterior rearview mirror fails. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. The left and right commutator motor of right exterior rearview mirror fails.3. The right body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to adjust the right exterior rearview mirror leftwards and rightwards. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Right rearview mirror</p> <div style="text-align: center;">  <p style="text-align: center;">U03</p> </div> | 9 | Left adjustment |
| | 10 | Right adjustment |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness connector of right rearview mirror |
|---|--|

1. Set the START/STOP button to OFF.
2. Disconnect the right rearview mirror wire harness connector U03.
3. Check whether the right exterior side mirror harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the right rearview mirror horizontal adjustment motor |
|---|---|

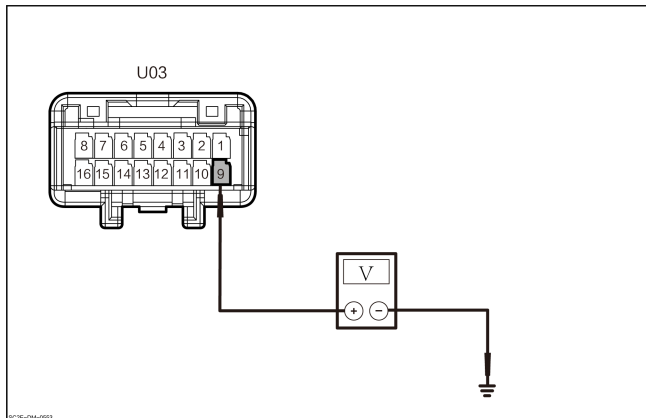
1. To the external power supply of the level adjustment motor of right rearview mirror.
2. Does the level adjustment motor of right rearview mirror function normally.

No

Replace the right rearview mirror.

Yes

| | |
|---|---|
| 4 | Check the left-adjustment line of right rearview mirror for short to power. |
|---|---|



1. Measure the voltage between the harness connector of right rearview mirror U03-9 and the ground.

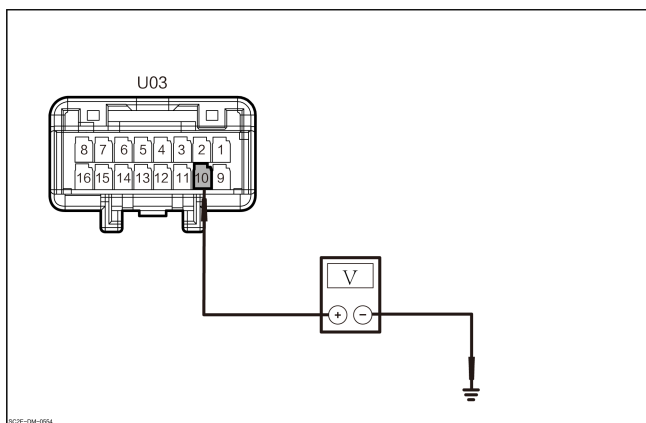
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| U03-9 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the right-adjustment line of right rearview mirror for short to power.



1. Measure the voltage between the harness connector of right rearview mirror U03-10 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| U03-10 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

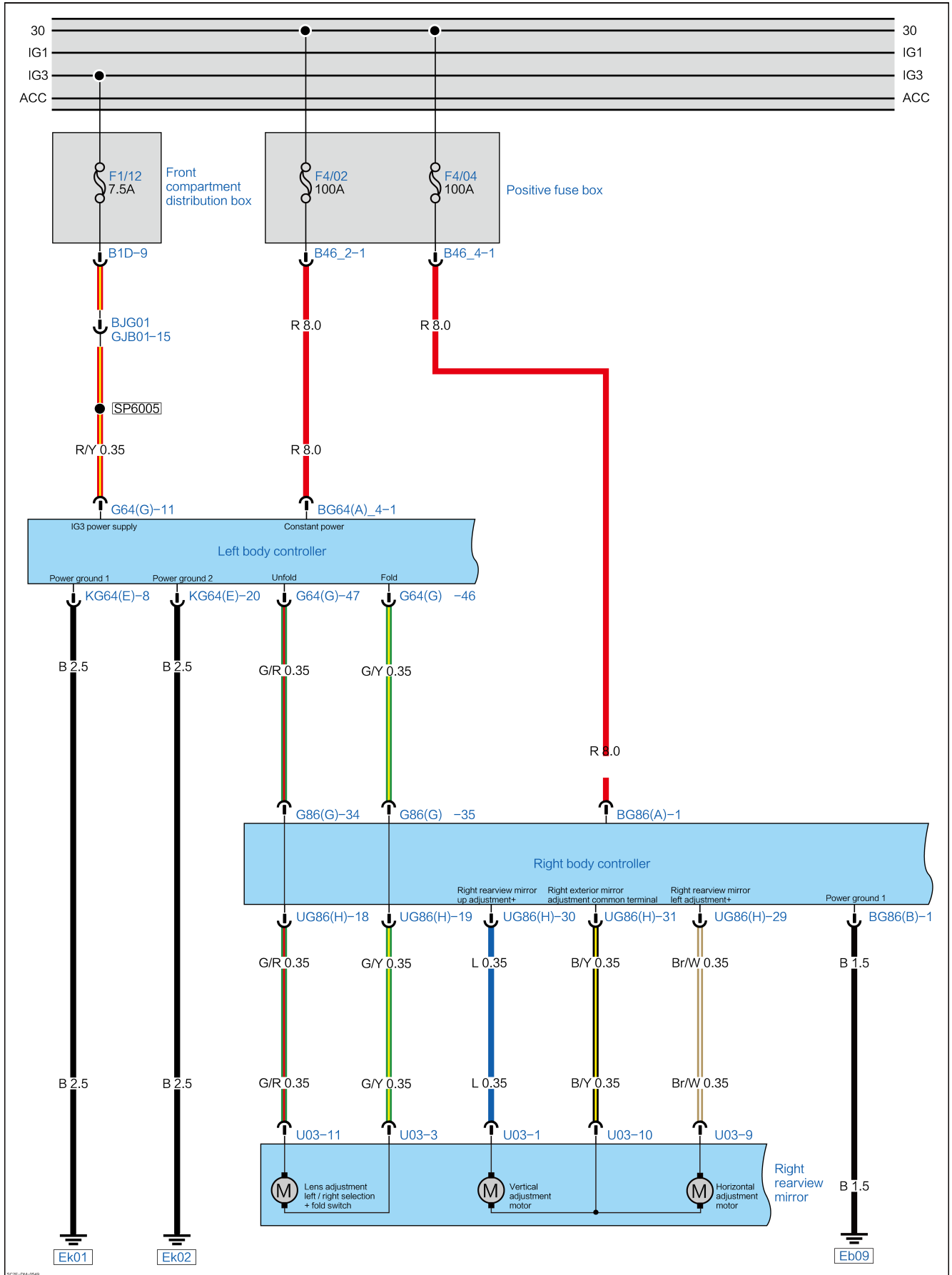
Yes → Replace the right body control module.

B1CE213 Left&Right Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Open-circuited

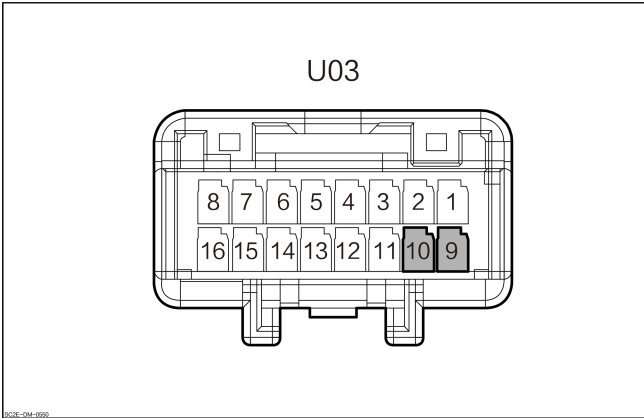
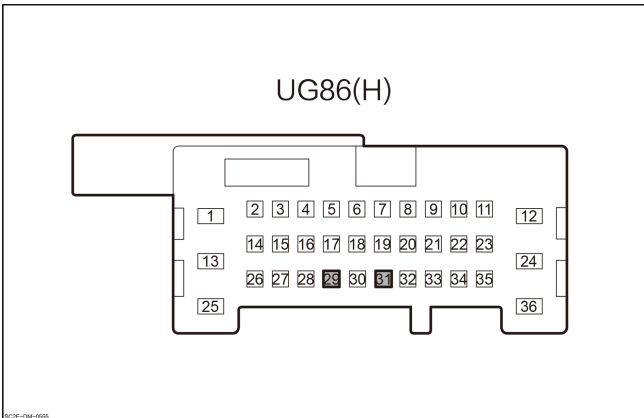
DTC Description

| | |
|--|--|
| B1CE213 Left&Right Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Open-circuited | |
| Symptom | The left and right adjustment function of right exterior rearview mirror fails. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The left and right commutator motor of right exterior rearview mirror fails. 3. The right body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to adjust the right exterior rearview mirror leftwards and rightwards. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|---|
| <p style="text-align: center;">Right rearview mirror</p> <p style="text-align: center;">U03</p>  <p><small>810E-014-099</small></p> | <p style="text-align: center;">9</p> | <p style="text-align: center;">Left adjustment</p> |
| | <p style="text-align: center;">10</p> | <p style="text-align: center;">Right adjustment</p> |
| <p style="text-align: center;">Right body control module</p> <p style="text-align: center;">UG86(H)</p>  <p><small>810E-014-095</small></p> | <p style="text-align: center;">29</p> | <p style="text-align: center;">Left adjustment</p> |
| | <p style="text-align: center;">31</p> | <p style="text-align: center;">Right adjustment</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness connector of right rearview mirror |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the right rearview mirror wire harness connector U03.
3. Check whether the right exterior side mirror harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the right rearview mirror horizontal adjustment motor |
|---|---|

1. To the external power supply of the level adjustment motor of right rearview mirror.
2. Does the level adjustment motor of right rearview mirror function normally.

No

Replace the right rearview mirror.

Yes

| | |
|---|---|
| 4 | Check the harness connector of right body control module. |
|---|---|

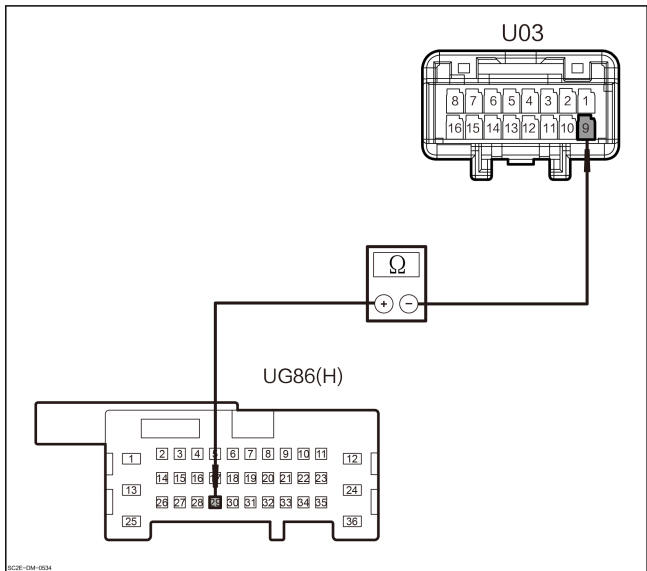
1. Disconnect the harness connector of right body control module UG86(H).
2. Check whether the harness connector of right body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the left-adjustment line of right rearview mirror for open circuit.



1. Measure the resistance between the harness connector of right rearview mirror U03-9 and the harness connector of right body control module UG86(H)-29.

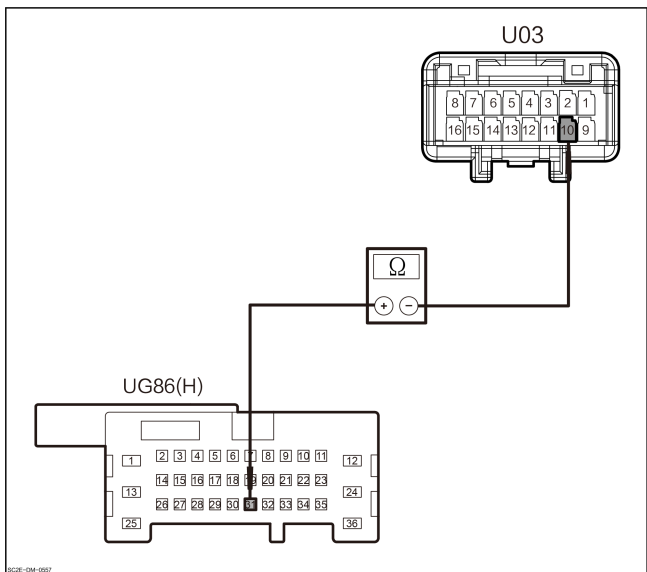
| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| U03-9 | UG86(H) -29 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the right-adjustment line of right rearview mirror for open circuit.



1. Measure the resistance between the harness connector of right rearview mirror U03-10 and the harness connector of right body control module UG86(H)-31.

| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| U03-10 | UG86(H) -31 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the right body control module.

B1CE219 Left&Right Commutator Motor Drive of Exterior Right Rearview Mirror Overload

DTC Description

| B1CE119 Folding Motor Drive of Left Exterior Rearview Mirror Overload | |
|---|--|
| Symptom | The left exterior rearview mirror folding function fails. |
| Possible Cause | 1. The left exterior rearview mirror folding motor fails. 2. The right body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to fold the left exterior rearview mirror. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|----------------------------------|
| 2 | Check the right rearview mirror. |
|---|----------------------------------|

1. Check the right rearview mirror for interference.

No → Replace the right rearview mirror.

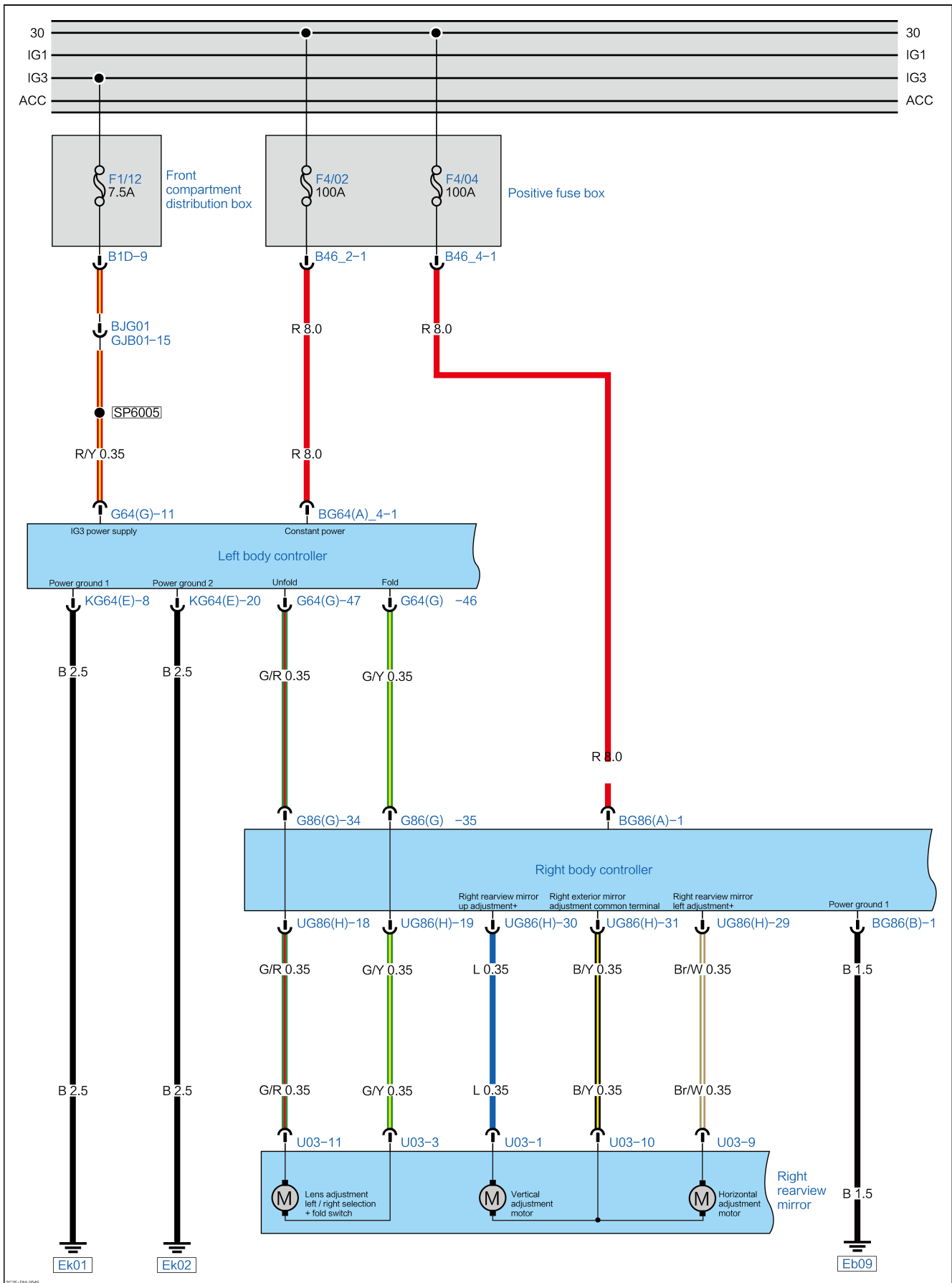
Yes → Handle to interference parts.

B1CE311 Up&Down Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Short to Ground

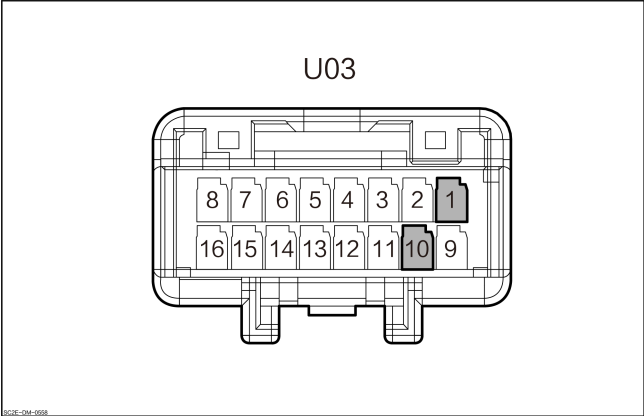
DTC Description

| | |
|--|---|
| B1CE311 Up&Down Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Short to Ground | |
| Symptom | The up and down adjustment function of right exterior rearview fails. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. The up and down adjustment motor of right exterior rearview mirror fails.3. The right body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to adjust the right exterior rearview mirror upwards and downwards. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Right rearview mirror</p> <p style="text-align: center;">U03</p>  <p style="font-size: small; margin-top: 10px;">B09E-DIM-0955</p> | 1 | Up adjustment |
| | 10 | Down adjustment |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness connector of right rearview mirror |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the right rearview mirror wire harness connector U03.
3. Check whether the right exterior side mirror harness connector is normal.

No → Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the up and down adjustment motor of right rearview mirror. |
|---|--|

1. To the external power supply of the up and down adjustment motor of right rearview mirror.
2. Does the up and down adjustment motor of right rearview mirror function normally.

No → Replace the right rearview mirror.

Yes

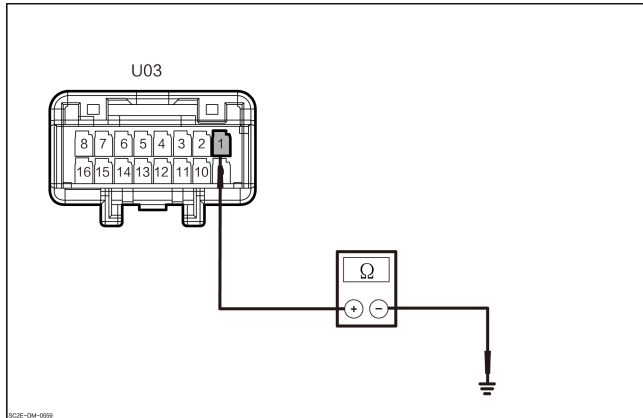
| | |
|---|---|
| 4 | Check the harness connector of right body control module. |
|---|---|

1. Disconnect the harness connector of right body control module UG86(H).
2. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

5 Check the up-adjustment line of right rearview mirror for short to ground.



1. Measure the resistance between the harness connector of right rearview mirror U03-1 and the ground.

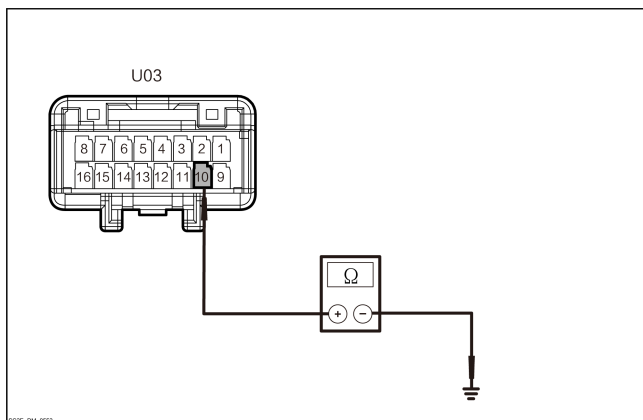
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| U03-1 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the down-adjustment line of right rearview mirror for short to ground.



1. Measure the resistance between the harness connector of right rearview mirror U03-9 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| U03-9 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

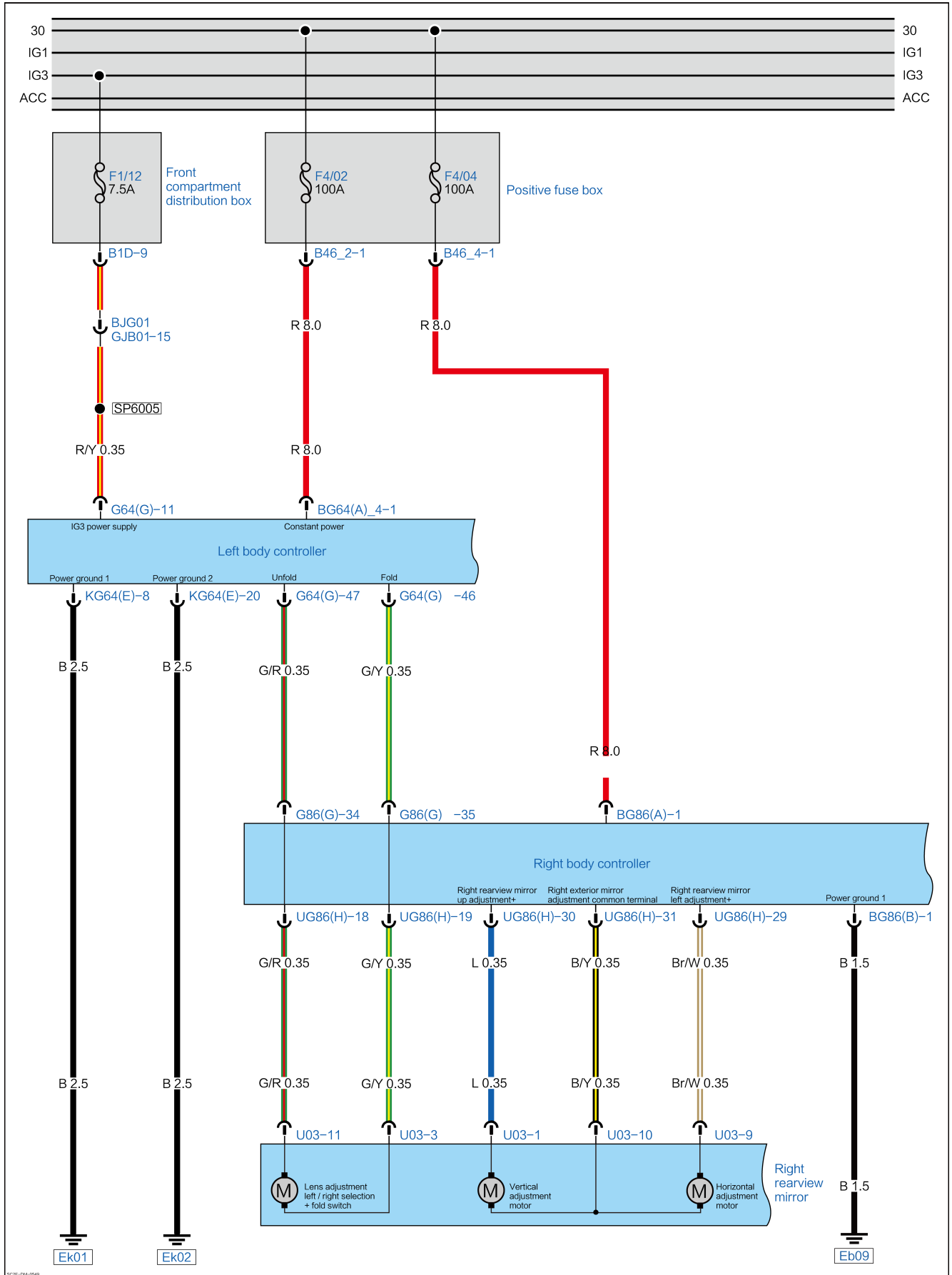
Yes → Replace the right body control module.

B1CE312 Up&Down Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Short to Power

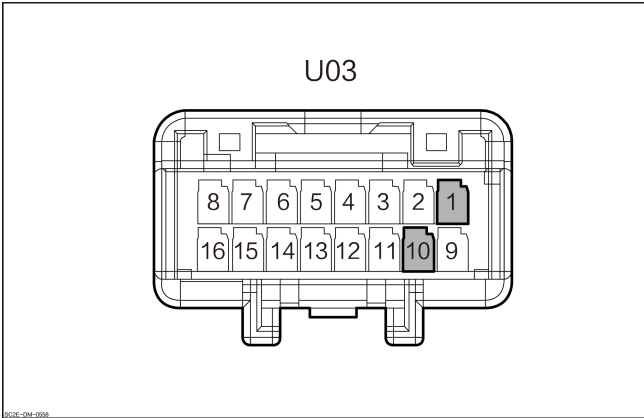
DTC Description

| | |
|---|---|
| B1CE012 Up&Down Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Short to Power | |
| Symptom | The up and down adjustment function of right exterior rearview fails. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The up and down adjustment motor of right exterior rearview mirror fails. 3. The right body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to adjust the right exterior rearview mirror upwards and downwards. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Right rearview mirror</p> <div style="text-align: center;">  <p style="text-align: center;">U03</p> </div> <p style="font-size: small; margin-top: 10px;">8 7 6 5 4 3 2 1 16 15 14 13 12 11 10 9</p> | 1 | Up adjustment |
| | 10 | Down adjustment |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness connector of right rearview mirror |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the right rearview mirror wire harness connector U03.
3. Check whether the right exterior side mirror harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the up and down adjustment motor of right rearview mirror. |
|---|--|

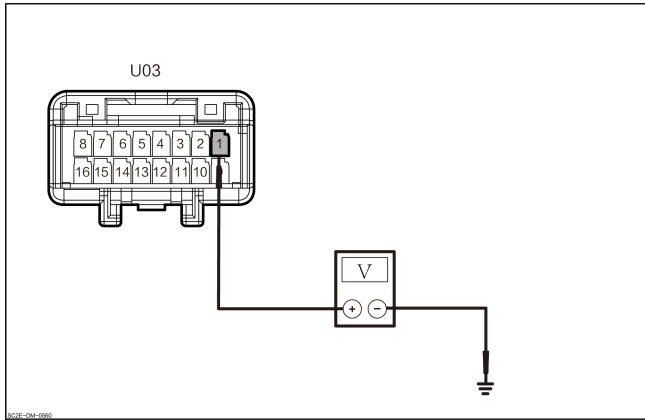
1. To the external power supply of the up and down adjustment motor of right rearview mirror.
2. Does the up and down adjustment motor of right rearview mirror function normally.

No

Replace the right rearview mirror.

Yes

| | |
|---|---|
| 4 | Check the up-adjustment line of right rearview mirror for short to power. |
|---|---|



1. Measure the voltage between the harness connector of right rearview mirror U03-1 and the ground.

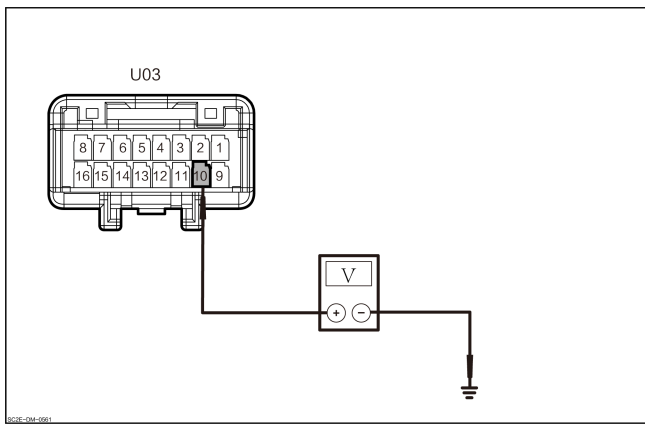
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| U03-1 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the down-adjustment line of right rearview mirror for short to power.



1. Measure the voltage between the harness connector of right rearview mirror U03-10 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| U03-10 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

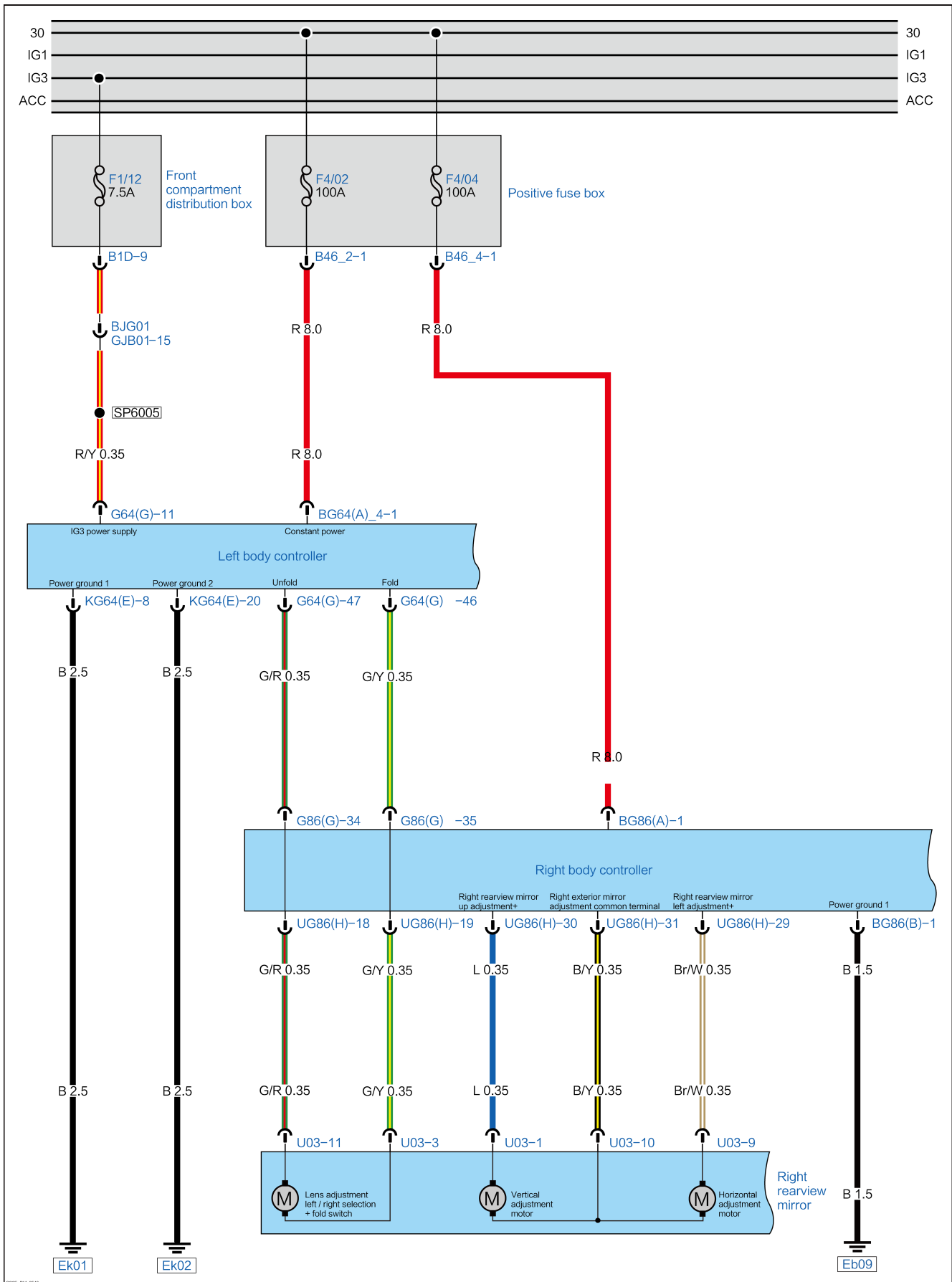
Yes → Replace the right body control module.

B1CE313 Up&Down Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Broken

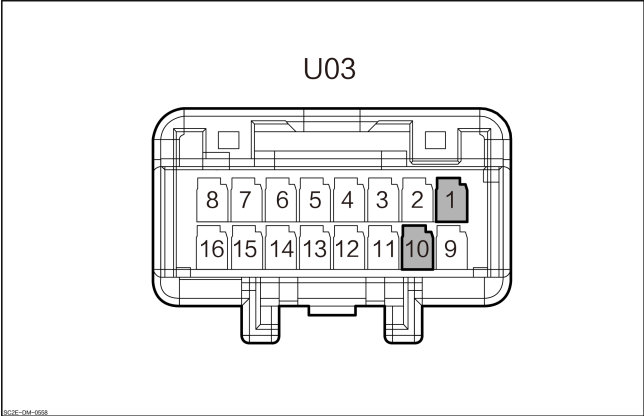
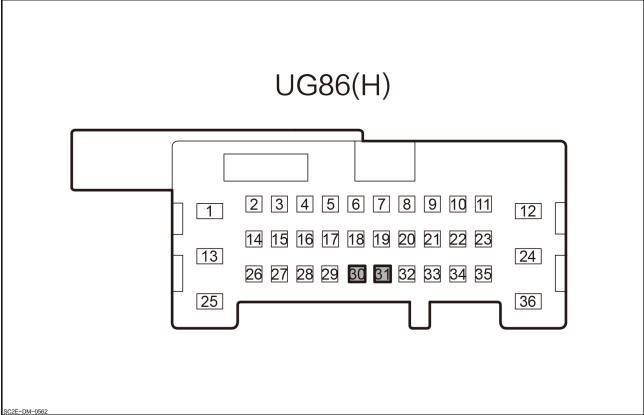
DTC Description

| B1CE313 Up&Down Commutator Motor Drive Circuit of Exterior Right Rearview Mirror Broken | |
|---|---|
| Symptom | The up and down adjustment function of right exterior rearview fails. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. The up and down adjustment motor of right exterior rearview mirror fails.3. The right body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to adjust the right exterior rearview mirror upwards and downwards. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Right rearview mirror</p> <p style="text-align: center;">U03</p>  <p><small>BYD-DM-093</small></p> | 1 | Up adjustment |
| | 10 | Down adjustment |
| <p style="text-align: center;">Right body control module</p> <p style="text-align: center;">UG86(H)</p>  <p><small>BYD-DM-093</small></p> | 30 | Up adjustment |
| | 31 | Down adjustment |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness connector of right rearview mirror |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the right rearview mirror wire harness connector U03.
3. Check whether the right exterior side mirror harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the up and down adjustment motor of right rearview mirror. |
|---|--|

1. To the external power supply of the up and down adjustment motor of right rearview mirror.
2. Does the up and down adjustment power supply of right rearview mirror function normally.

No

Replace the right rearview mirror.

Yes

| | |
|---|---|
| 4 | Check the harness connector of right body control module. |
|---|---|

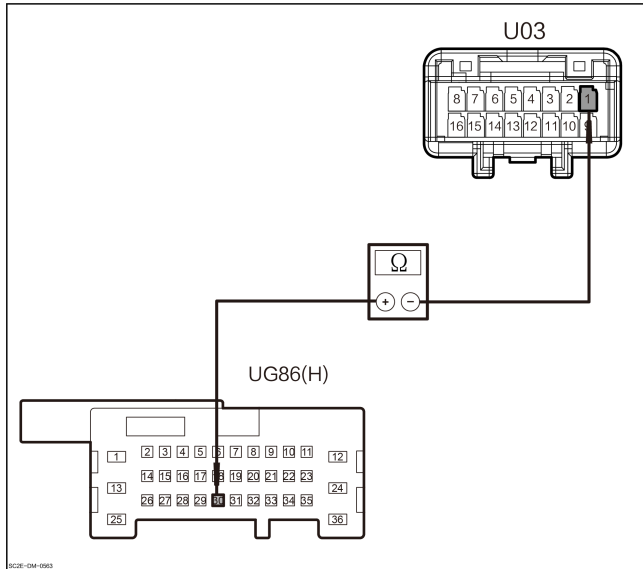
1. Disconnect the harness connector of right body control module UG86(H).
2. Check whether the harness connector of right body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the up-adjustment line of right rearview mirror for open circuit.



1. Measure the resistance between the harness connector of right rearview mirror U03-1 and the harness connector of right body control module UG86(H)-30.

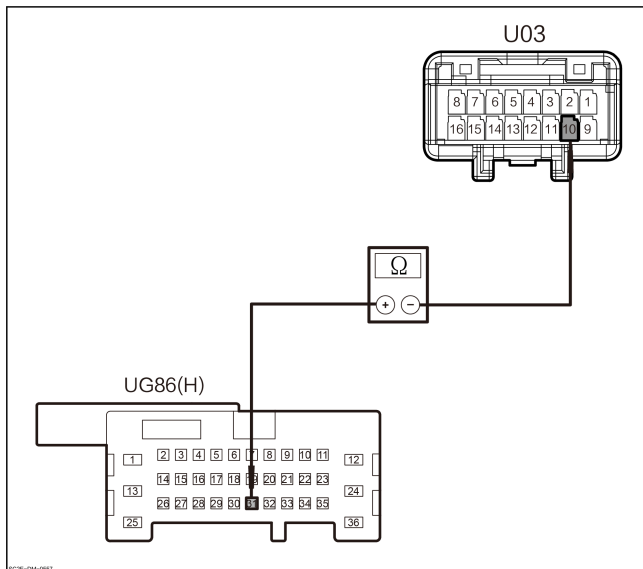
| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| U03-1 | UG86(H) -30 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the right-adjustment line of right rearview mirror for open circuit.



1. Measure the resistance between the harness connector of right rearview mirror U03-10 and the harness connector of right body control module UG86(H)-31.

| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| U03-10 | UG86(H) -31 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the right body control module.

B1CE319 Up&Down Commutator Motor Drive of Exterior Right Rearview Mirror Overload

DTC Description

| B1CE319 Up&Down Commutator Motor Drive of Exterior Right Rearview Mirror Overload | |
|---|---|
| Symptom | The up and down adjustment function of right exterior rearview fails. |
| Possible Cause | <ol style="list-style-type: none"> 1. The up and down adjustment motor of right exterior rearview mirror fails. 2. The right body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to adjust the right exterior rearview mirror upwards and downwards. |

Diagnostic Steps

| | |
|---|--------------------------|
| 1 | Check the left body DTC. |
|---|--------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|----------------------------------|
| 2 | Check the right rearview mirror. |
|---|----------------------------------|

1. Check the right rearview mirror for interference.

No

Replace the right rearview mirror.

Yes

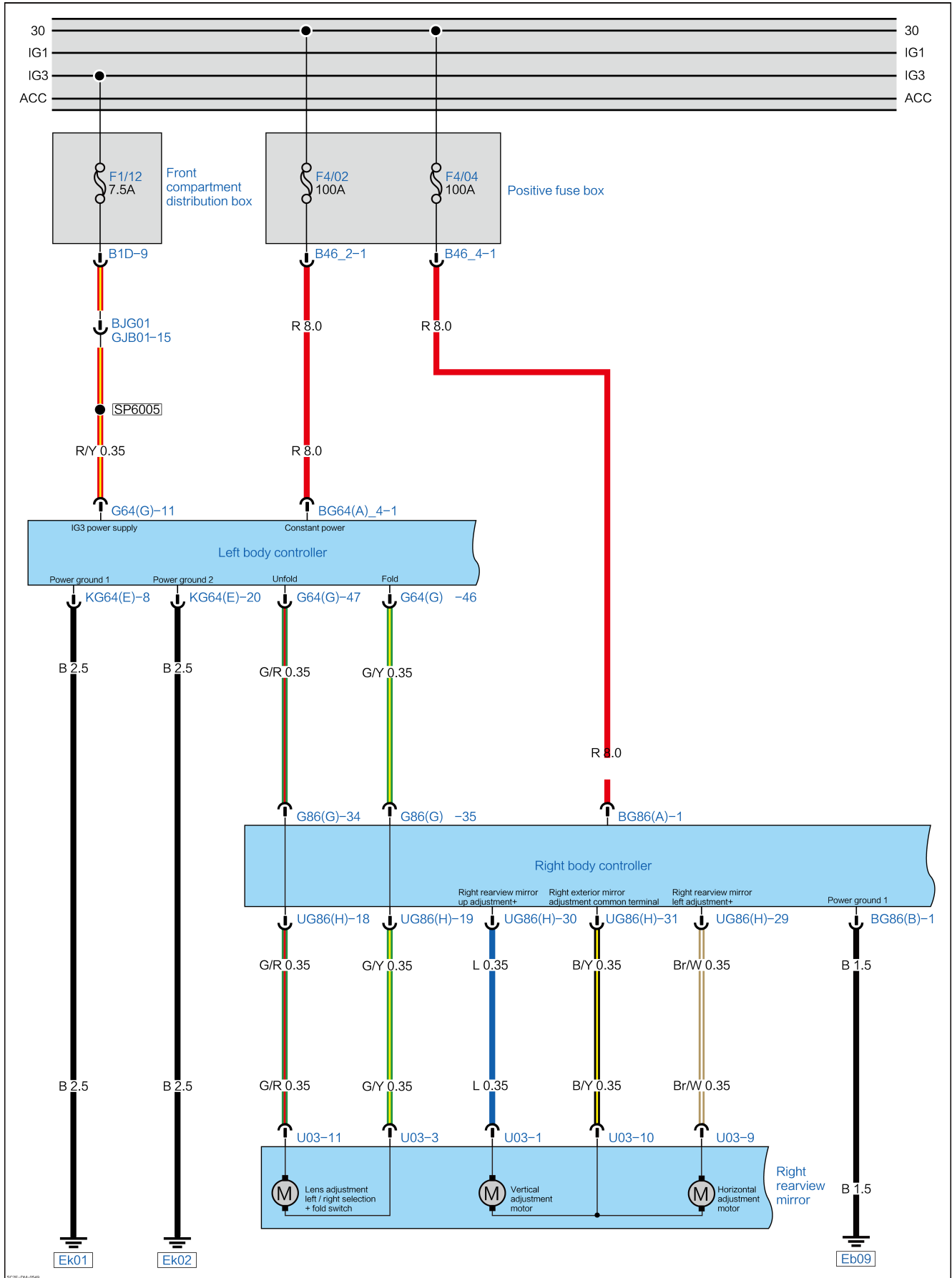
Handle to interference parts.

B1CE411 Folding Motor Drive Circuit of Exterior Right Rearview Mirror Short to Ground

DTC Description

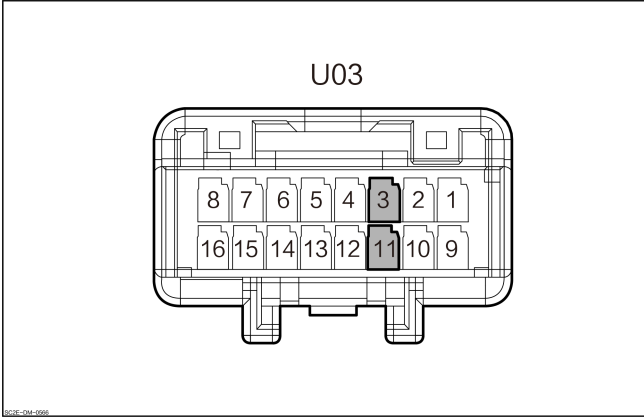
| B1CE411 Folding Motor Drive Circuit of Exterior Right Rearview Mirror Short to Ground | |
|---|--|
| Symptom | The right exterior rearview mirror folding function fails. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The right exterior rearview mirror folding motor fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to fold the right exterior rearview mirror. |

Circuit Diagram



5226-004-1049

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Right rearview mirror</p> <div style="text-align: center;">  <p style="text-align: center;">U03</p> </div> <p style="font-size: small; margin-top: 10px;">87C12-014-0095</p> | 3 | Fold |
| | 11 | Unfold |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness connector of right rearview mirror |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the right rearview mirror wire harness connector U03.
3. Check whether the right exterior side mirror harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the right rearview mirror folding motor |
|---|---|

1. To the external power supply of right rearview mirror folding motor.
2. Does the right rearview mirror folding motor function normally.

No

Replace the right rearview mirror.

Yes

| | |
|---|--|
| 4 | Check the harness connector of left body control module. |
|---|--|

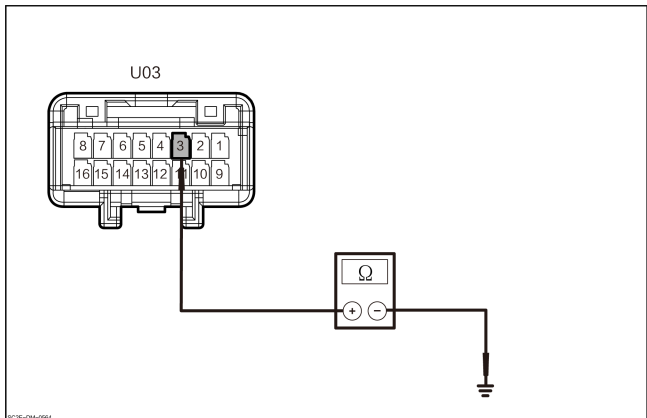
1. Disconnect the harness connector of left body control module G64(G).
2. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the folding line of right rearview mirror for short to ground.



1. Measure the resistance between the harness connector of right rearview mirror U03-3 and the ground.

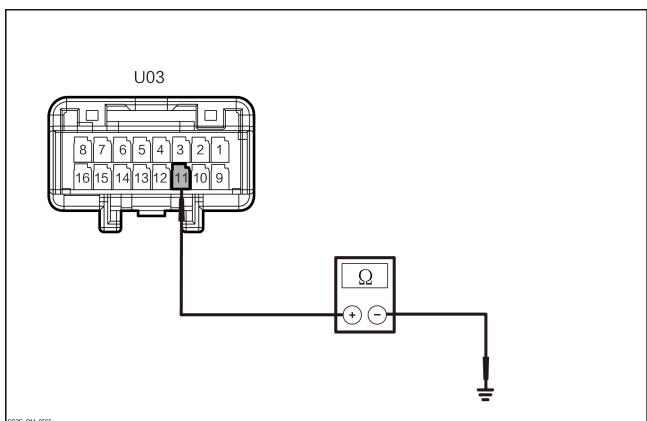
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|--------------------|
| (+) | (-) | | |
| U03-3 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

6 Check the unfolding line of right rearview mirror for short to ground.



1. Measure the resistance between the harness connector of right rearview mirror U03-11 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|--------------------|
| (+) | (-) | | |
| U03-11 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

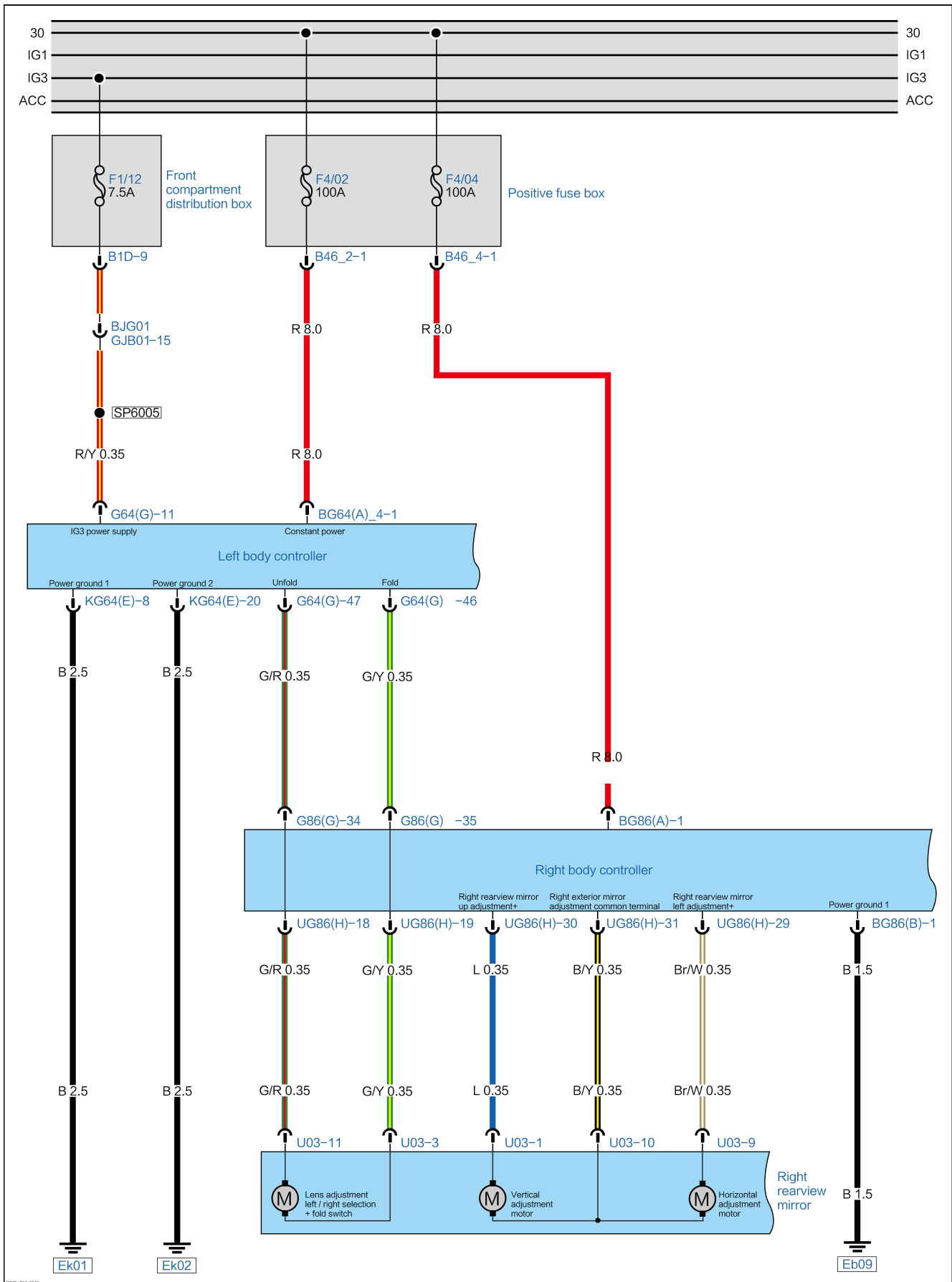
No Repair or replace the wire harness

Yes Replace the left body control module.

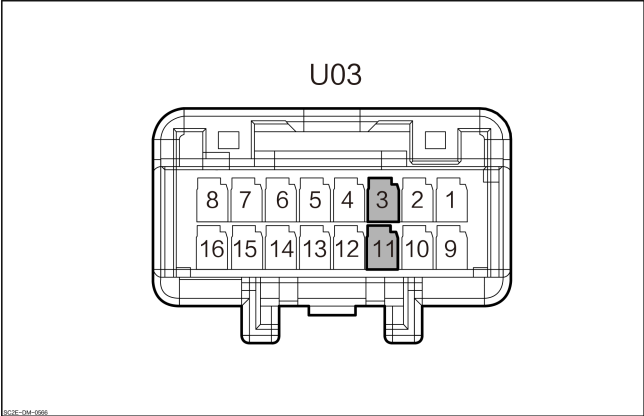
B1CE412 Folding Motor Drive Circuit of Exterior Right Rearview Mirror Short to Power**DTC Description**

| B1CE412 Folding Motor Drive Circuit of Exterior Right Rearview Mirror Short to Power | |
|--|--|
| Symptom | The right exterior rearview mirror folding function fails. |
| Possible Cause | 1. Harness or connector fault. 2. The right exterior rearview mirror folding motor fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to fold the right exterior rearview mirror. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">Right rearview mirror</p> <p style="text-align: center;">U03</p>  <p style="font-size: small; margin-top: 10px;">BCE-204-0995</p> | 3 | Fold |
| | 11 | Unfold |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness connector of right rearview mirror |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the right rearview mirror wire harness connector U03.
3. Check whether the right exterior side mirror harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the right rearview mirror folding motor |
|---|---|

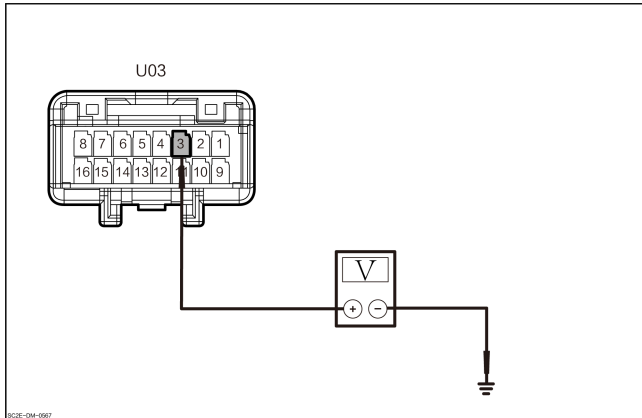
1. To the external power supply of right rearview mirror folding motor.
2. Does the right rearview mirror folding motor function normally.

No

Replace the right rearview mirror.

Yes

| | |
|---|---|
| 4 | Check the folding line of right rearview mirror for short to power. |
|---|---|



1. Measure the voltage between the harness connector of right rearview mirror U03-3 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| U03-3 | Ground | Through-out | Less than 1V |

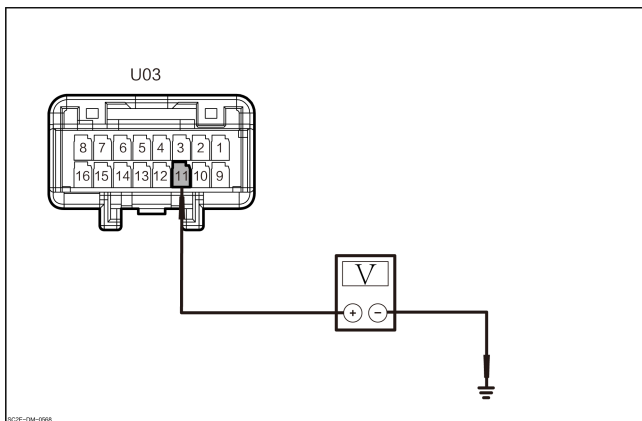
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check the unfolding line of right rearview mirror for short to power.



1. Measure the voltage between the harness connector of right rearview mirror U03-11 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| U03-11 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No

Repair or replace the wire harness

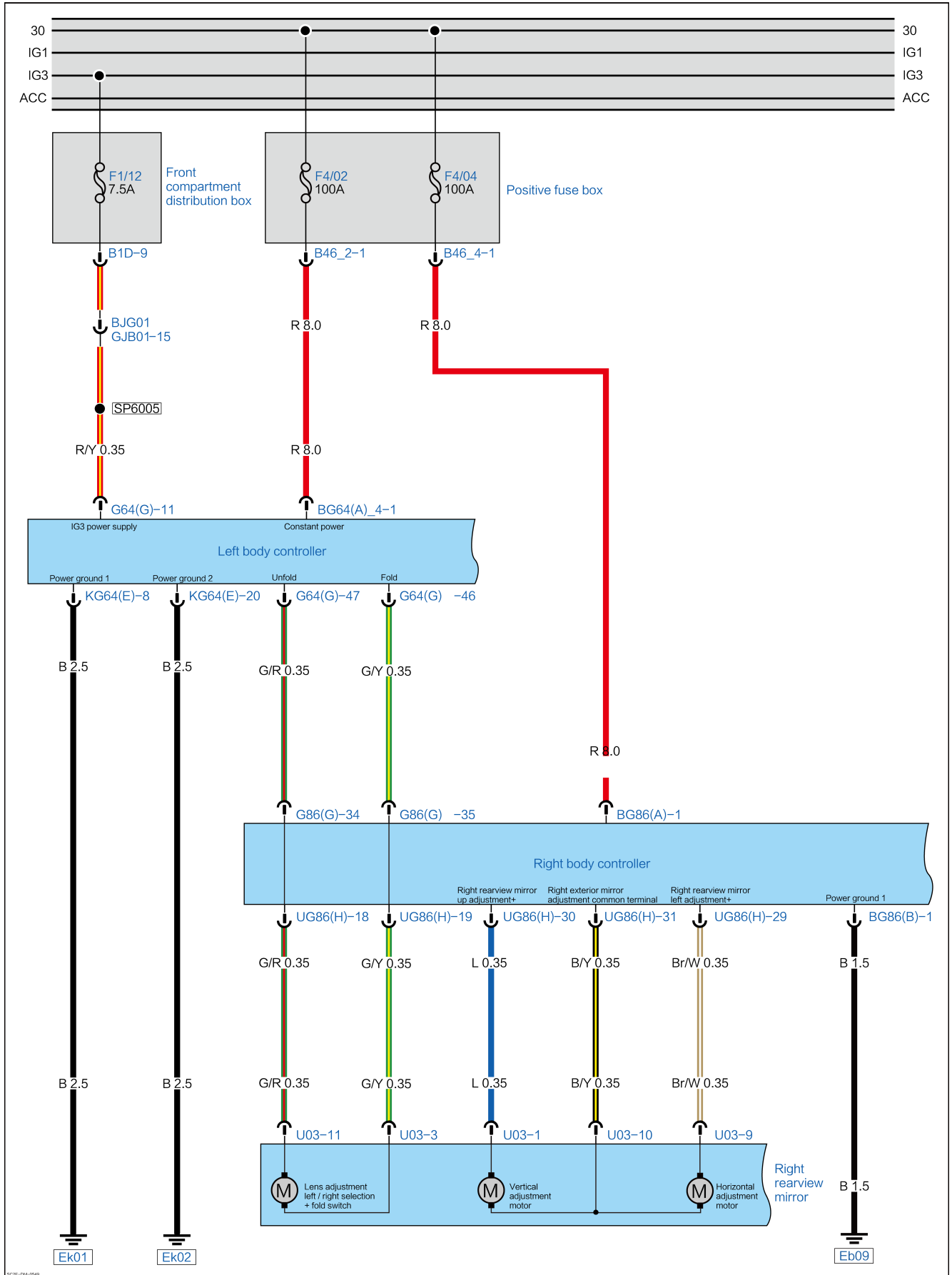
Yes

Replace the left body control module.

B1CE413 Folding Motor Drive Circuit of Exterior Right Rearview Mirror Broken**DTC Description**

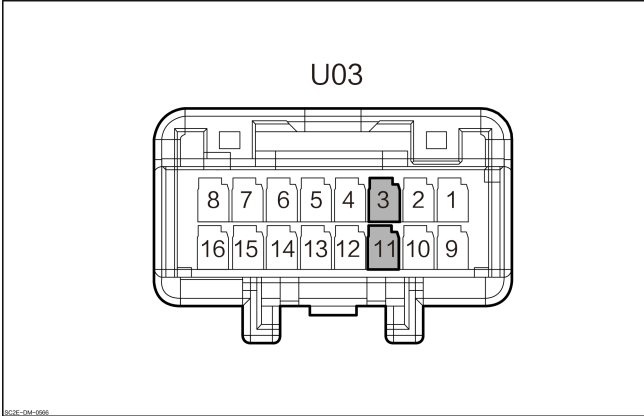
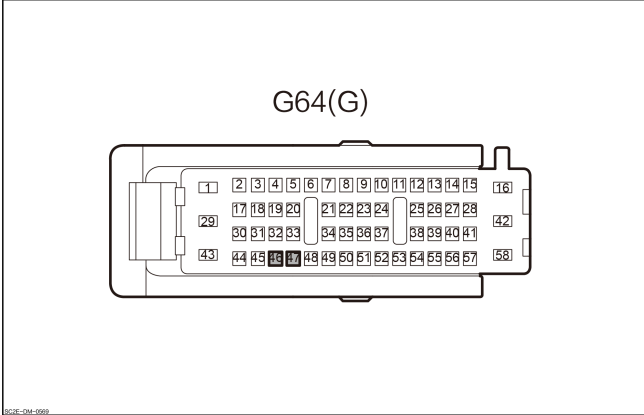
| B1CE413 Folding Motor Drive Circuit of Exterior Right Rearview Mirror Broken | |
|--|--|
| Symptom | The right exterior rearview mirror folding function fails. |
| Possible Cause | 1. Harness or connector fault. 2. The right exterior rearview mirror folding motor fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to fold the right exterior rearview mirror. |

Circuit Diagram



5226-004-0949

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|---|
| <p style="text-align: center;">Right rearview mirror</p> <div style="text-align: center;">  <p style="text-align: center;">U03</p> </div> | <p style="text-align: center;">3</p> | <p style="text-align: center;">Fold</p> |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p style="text-align: center;">G64(G)</p> </div> | <p style="text-align: center;">46</p> | <p style="text-align: center;">Fold</p> |
| | <p style="text-align: center;">47</p> | <p style="text-align: center;">Unfold</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness connector of right rearview mirror |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the right rearview mirror wire harness connector U03.
3. Check whether the right exterior side mirror harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the right rearview mirror folding motor |
|---|---|

1. To the external power supply of right rearview mirror folding motor.
2. Does the right rearview mirror folding power supply function normally.

No

Replace the right rearview mirror.

Yes

| | |
|---|--|
| 4 | Check the harness connector of left body control module. |
|---|--|

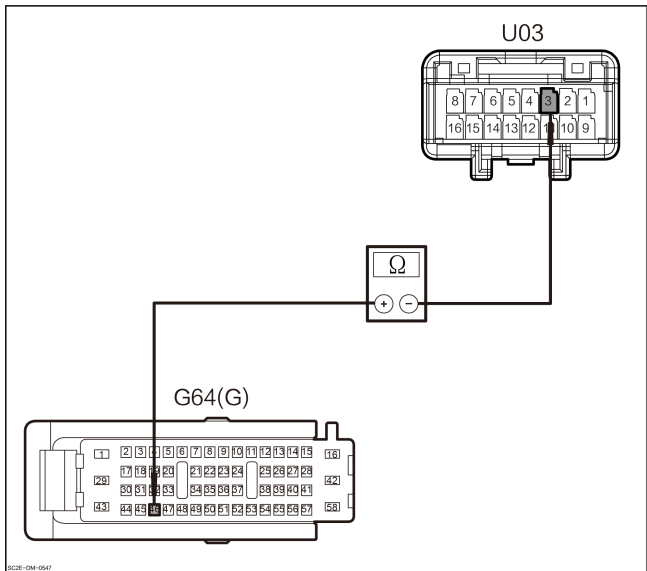
1. Disconnect the harness connector of left body control module G64(G).
2. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the folding line of right rearview mirror for open circuit.



1. Measure the resistance between the harness connector of right rearview mirror U03-3 and the harness connector of left body control module G64(G)-46.

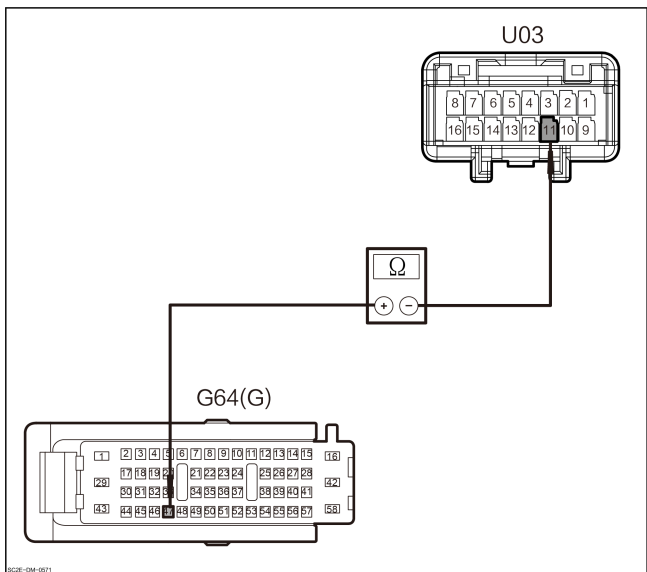
| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| U03-3 | G64(G)-4 6 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the unfolding line of right rearview mirror for open circuit.



1. Measure the resistance between the harness connector of right rearview mirror U03-11 and the harness connector of left body control module G64(G)-47.

| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| U03-11 | G64(G)-4 7 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the left body control module.

B1CE419 Folding Motor Drive of Exterior Right Rearview Mirror Overload**DTC Description**

| B1CE419 Folding Motor Drive of Exterior Right Rearview Mirror Overload | |
|--|--|
| Symptom | The right exterior rearview mirror folding function fails. |
| Possible Cause | 1. The right exterior rearview mirror folding motor fails. 2. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the START/STOP button to “ON” , and operate to fold the right exterior rearview mirror. |

Diagnostic Steps

| | |
|---|--------------------------|
| 1 | Check the left body DTC. |
|---|--------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Yes

| | |
|---|----------------------------------|
| 2 | Check the right rearview mirror. |
|---|----------------------------------|

1. Check the right rearview mirror for interference.

No

Yes

| | | | |
|--|------|---|------|
| Safety and Protection System..... | 1682 | B17121A Resistance of Right Air Curtain Equaling to 0..... | 1817 |
| Airbag System..... | 1682 | B170E11 Right Air Curtain Short to Ground | 1824 |
| Diagnosis Description..... | 1682 | B170f12 Right Air Curtain Short to Power | 1829 |
| Process of Fault Inspection and Troubleshooting..... | 1684 | B16401B Driver Seat Belt Pretensioner Not Connected..... | 1834 |
| Diagnosis of DTC of airbag system.... | 1685 | B16451A Resistance of Driver Seat Belt Pretensioner Equaling to 0..... | 1841 |
| B16001B Driver Frontal Airbag Not Connected..... | 1688 | B164111 Driver Seat Belt Pretensioner Short to Ground..... | 1848 |
| B160A1A Resistance of Driver Frontal Airbag Equaling to 0..... | 1696 | B164212 Driver Seat Belt Pretensioner Short to Power..... | 1853 |
| B160111 Driver Frontal Airbag Short to Ground..... | 1704 | B164A1B Front Passenger Seat Belt Pretensioner Not Connected..... | 1858 |
| B160212 Driver Frontal Airbag Short to Power..... | 1709 | B164F1A Resistance of Front Passenger Seat Belt Pretensioner Equaling to 0.. | 1865 |
| B16101B Front Passenger Frontal Airbag Not Connected..... | 1714 | B164b11 Front Passenger Seat Belt Pretensioner Short to Ground..... | 1872 |
| B161A1A Resistance of Front Passenger Frontal Airbag Equaling to 0..... | 1721 | B164c12 Front Passenger Seat Belt Pretensioner Short to Power..... | 1877 |
| B161111 Front Passenger Frontal Airbag Short to Ground..... | 1728 | B165400 Left front impact sensor not connected..... | 1882 |
| B161212 Front Passenger Frontal Airbag Short to Power..... | 1733 | B165511 Left Front Frontal Impact Sensor Short to Ground..... | 1888 |
| B16201B Driver Side Airbag Not Connected..... | 1738 | B165D00 Right Front Impact Sensor Not Connected..... | 1893 |
| B162A1A Resistance of Driver Side Airbag Equaling to 0..... | 1745 | B165e11 Right Front Frontal Impact Sensor Short to Ground..... | 1899 |
| B162111 Driver Side Airbag Short to Ground..... | 1752 | B166600 Left Side Impact Sensor Not Connected..... | 1905 |
| B162212 Driver Side Airbag Short to Power..... | 1757 | B166711 Left Side Impact Sensor Short to Ground..... | 1911 |
| B16301B Front Passenger Side Airbag Not Connected..... | 1762 | B166f00 Right Side Impact Sensor Not Connected..... | 1916 |
| B163B1B Resistance of Front Passenger Side Airbag Equaling to 0..... | 1769 | B167011 Right Side Impact Sensor Short to Ground..... | 1922 |
| B163111 Front Passenger Side Airbag Short to Ground..... | 1776 | B169416 SRS_ECU Fault..... | 1928 |
| B163212 Front Passenger Side Airbag Short to Power..... | 1781 | B169517 SRS_ECU Fault..... | 1930 |
| B17041B Left Air Curtain Not Connected | 1786 | B169D00 SRS_ECU Fault..... | 1932 |
| B17081A Resistance of Left Air Curtain Equaling to 0..... | 1793 | B169700 SRS_ECU Fault..... | 1934 |
| B170511 Left Air Curtain Short to Ground | 1800 | B169800 SRS_ECU Fault..... | 1936 |
| B170612 Left Air Curtain is Short to Power | 1805 | B169 C00 SRS_ECU fault..... | 1938 |
| B170D1B Right Air Curtain Not Connected | 1810 | B16B000 SRS_ECU Fault..... | 1940 |
| | | B16AE00 SRS_ECU Fault..... | 1942 |
| | | B169F00 SRS_ECU Fault..... | 1944 |
| | | B16A100 SRS_ECU Fault..... | 1946 |

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|--|------|--|------|
| Access and Anti-theft System..... | 1948 | Diagnosis Description..... | 2030 |
| Smart Key System..... | 1948 | Process of Fault Inspection and Troubleshooting..... | 2032 |
| Diagnosis Description..... | 1948 | Diagnosis of General Faults..... | 2033 |
| Process of Fault Inspection and Troubleshooting..... | 1950 | Wireless Charging Not Working..... | 2035 |
| Diagnosis of General Faults..... | 1951 | DTC Diagnosis..... | 2038 |
| All Remote Control Functions Of Electronic Smart Key Fail (Holding A Legal Key In The Remote Control Area)..... | 1953 | U014087 Communication with BCM Lost | 2039 |
| The remote control functions are normal, but the micro switch of the right front door handle do not act (holding a legal key in the detection area)..... | 1958 | B2FD017 Power Supply Voltage High Alarm..... | 2046 |
| Supplemental restraint system DTC... .. | 1963 | B2FD016 Power Supply Voltage Low Alarm..... | 2048 |
| B22A613 Open circuit of the exterior right front detection antenna..... | 1964 | B2FD14B Wireless Charging Overtemperature Alarm..... | 2054 |
| B227C13 Interior Front Detection Antenna Open-circuited..... | 1969 | Instrumentation and Alarm System... .. | 2056 |
| B22A813 Exterior Trunk Detection Antenna Open-circuited..... | 1974 | Combination Instrument..... | 2056 |
| B227D13 Interior Middle Detection Antenna Open-circuited..... | 1979 | Diagnosis Description..... | 2056 |
| B227E13 Interior Rear Detection Antenna Open-circuited..... | 1984 | List of DTC..... | 2058 |
| B229D17 Power Supply of High Frequency Receiver Module Too High..... | 1989 | B2342 Internal Fault of Instrument..... | 2059 |
| B229D16 Supply Voltage of High Frequency Receiver Module Too Low | 1995 | B234A CAN Bus Receives Incorrect Coolant Temperature Signal..... | 2061 |
| Charging Port Cap Control..... | 2001 | B234C CAN Bus Does Not Detect Motor Speed Signal..... | 2063 |
| Charging Port Cover Actuator..... | 2001 | B234D Information Switching Key Input Device Short-circuited..... | 2065 |
| Diagnosis Description..... | 2001 | U1101 Communication between Instrument and Combination Switch Interrupted..... | 2067 |
| Diagnosis of General Faults..... | 2003 | U1103 Communication between Instrument and SRS Interrupted..... | 2075 |
| Charging Port Cap Cannot Be Unlocked or Locked..... | 2005 | U0146 Communication between Instrument and Gateway Interrupted... .. | 2081 |
| Low-voltage Power Supply and Distribution..... | 2010 | U0164 communication with air conditioning system lost..... | 2089 |
| Backup Power..... | 2010 | U0245 Communication between Instrument Panel and Multimedia Interrupted..... | 2097 |
| Diagnosis Description..... | 2010 | B2343 Clock Running Fault..... | 2105 |
| Diagnosis of General Faults..... | 2012 | B236009 Display Fault (Backlight Fault) or Display Chip Fault..... | 2113 |
| 12V Power Socket Not Working..... | 2014 | Driver Assistance..... | 2115 |
| Front USB Power Interface Not Working – HUSB..... | 2018 | Park Assist System..... | 2115 |
| Rear USB Power Interface Not Working – LUSB..... | 2022 | Diagnosis Description..... | 2115 |
| Rear USB Power Interface Not Working – HUSB..... | 2026 | Process of Fault Inspection and Troubleshooting..... | 2117 |
| Wireless Charging Module..... | 2030 | DTC Diagnosis..... | 2118 |

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| B1B5712 Left Front Corner Sensor Signal Wire Short to Power or Not Ground.... | 2120 | B1B4B14 Right Rear Center Sensor Signal Wire Short to Ground or Open–circuited | 2195 |
| B1B5714 Left Front Corner Sensor Signal Wire Short to Ground or Open–circuited | 2125 | B1B4D00 Afterwave Time Fault of Right Rear Center Sensor..... | 2200 |
| B1B5900 Afterwave Time Fault of Front Left Corner Sensor..... | 2130 | B1B4B00 Right Rear Center Sensor Internal Fault..... | 2202 |
| B1B5700 Left Front Corner Sensor Internal Fault..... | 2132 | Networking and Communication..... | 2204 |
| B1B5412 Right Front Corner Sensor Signal Wire Short to Power or Not Ground | 2134 | Gateway System..... | 2204 |
| B1B5414 Right Front Corner Sensor Signal Wire Short to Ground or Open–circuited..... | 2139 | Diagnosis Description..... | 2204 |
| B1B5600 Afterwave Time Fault of Right Front Corner Sensor..... | 2144 | Process of Fault Inspection and Troubleshooting..... | 2206 |
| B1B5400 Right Front Corner Sensor Internal Fault..... | 2146 | Diagnosis of General Faults..... | 2207 |
| B1B5112 Left Rear Angle Sensor Signal Wire Short to Power Supply or No Ground | 2148 | Communication with Front Collision Warning Radar Module Lost..... | 2210 |
| B1B 5114 Left Rear Angle Sensor Signal Wire Short to Ground or Open–circuited | 2153 | Communication with Multifunction Video Control Module Lost..... | 2216 |
| B1B5300 Afterwave Time Fault of Left Rear Corner Sensor..... | 2158 | Communication with Electric Compressor Lost..... | 2220 |
| B1B5100 Internal Fault at Left Rear Corner Sensor..... | 2160 | Communication with Combination Switch Lost..... | 2226 |
| B1B4812 Right Rear Angle Sensor Signal Wire Short to Power or No Ground.... | 2162 | Body Network Bus Off..... | 2232 |
| B1B4814 Right Rear Angle Sensor Signal Wire Short to Ground or Open–circuited | 2167 | Chassis Network Bus Off..... | 2239 |
| B1B4A00 Afterwave Time Fault of Right Rear Corner Sensor..... | 2172 | Energy Network Bus Off..... | 2246 |
| B1B4800 Right Rear Corner Sensor Internal Fault..... | 2174 | Intelligent Access Network Bus Off..... | 2253 |
| B1B4E12 Left Rear Center Sensor Signal Wire Short to Power or Not Ground.... | 2176 | Exterior Light System..... | 2260 |
| B1B4E14 Left Rear Center Sensor Signal Wire Short to Ground or Open–circuited | 2181 | Combination Headlight..... | 2260 |
| B1B5000 Afterwave Time Fault of Left Rear Center Sensor..... | 2186 | Diagnosis Description..... | 2260 |
| B1B4E00 Left Rear Center Sensor Internal Fault..... | 2188 | Diagnosis of General Faults..... | 2262 |
| B1B4B12 Right Rear Center Sensor Signal Wire Short to Power or Not Ground.... | 2190 | Left Front Low Beam Not Working..... | 2265 |
| | | Right Front Low Beam Not Working.... | 2269 |
| | | Left and Right Front Low Beams Not Working At The Same Time..... | 2273 |
| | | Left Front High Beam Not Working.... | 2277 |
| | | Right Front High Beam Not Working... | 2281 |
| | | Left and Right Front High Beams Not Working At The Same Time..... | 2285 |
| | | Left Front Turn Signal Not Working.... | 2291 |
| | | Right Front Turn Signal Not Working.. | 2297 |
| | | Left Front Position Light Not Working.. | 2303 |
| | | Right Front Position Light Not Working | 2308 |
| | | Left Front Daytime Running Light Not Working..... | 2313 |
| | | Right Front Daytime Running Light Not Working..... | 2317 |

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| Front Middle Position Light..... | 2323 | Rear fog light..... | 2454 |
| Diagnosis Description..... | 2323 | Diagnosis Description..... | 2454 |
| Diagnosis of General Faults..... | 2325 | Diagnosis of General Faults..... | 2456 |
| Front Middle Position Light Not Working | 2327 | Rear Fog Light Not working..... | 2458 |
| Logo Light Not Working..... | 2332 | Side Marker Light..... | 2463 |
| Side Turn Signal..... | 2337 | Diagnosis Description..... | 2463 |
| Diagnosis Description..... | 2337 | Diagnosis of General Faults..... | 2465 |
| Diagnosis of General Faults..... | 2339 | Left License Plate Light Not Working.. | 2467 |
| Left Turn Signal Not Working..... | 2341 | Right License Plate Light Not Working | 2472 |
| Right Turn Signal Not Working..... | 2346 | Interior Lighting System..... | 2477 |
| Left Footwell Light Not Working..... | 2351 | Vanity Mirror Light..... | 2477 |
| Right Footwell Light Not Working..... | 2355 | Diagnosis Description..... | 2477 |
| Combination Rear Lights..... | 2359 | Diagnosis of General Faults..... | 2479 |
| Diagnosis Description..... | 2359 | Left Vanity Mirror Light Not Working... | 2481 |
| Diagnosis of General Faults..... | 2361 | Right Vanity Mirror Light Not Working. | 2486 |
| Left Rear Position Light Not Working.. | 2363 | Both Vanity Mirror Lights Not Working | 2491 |
| Right Rear Position Light Not Working | 2368 | Front Interior Light Assembly..... | 2500 |
| Left Rear Turn Signal Not Working..... | 2373 | Diagnosis Description..... | 2500 |
| Right Rear Turn Signal Not Working... | 2378 | Diagnosis of General Faults..... | 2502 |
| Left Rear Brake Light Not Working..... | 2383 | Front Interior Light Not Working..... | 2504 |
| Right Rear Brake Light Not Working... | 2388 | Front Interior Light Door Control Function Not Working..... | 2508 |
| Left Rear Brake Light Low-light Not Working..... | 2393 | Rear Interior Light Assembly..... | 2513 |
| Right Rear Brake Light Low-light Not Working..... | 2398 | Diagnosis Description..... | 2513 |
| Middle Combination Taillight..... | 2403 | Diagnosis of General Faults..... | 2515 |
| Diagnosis Description..... | 2403 | Left Rear Dome Light Not Working..... | 2517 |
| Diagnosis of General Faults..... | 2405 | Left Rear Dome Light Door Control Function Not Working..... | 2521 |
| Left Middle Position Light Not Working | 2408 | Right Rear Dome Light Not Working... | 2526 |
| Right Middle Position Light Not Working | 2413 | Right Rear Dome Light Door Control Function Not Working..... | 2530 |
| Left Rear Reversing Light Not Working | 2418 | Glove Box Light..... | 2535 |
| Right Rear Reversing Light Not Working | 2422 | Diagnosis Description..... | 2535 |
| Left Rear Middle Turn Signal Not Working | 2427 | Diagnosis of General Faults..... | 2537 |
| Right Rear Middle Turn Signal Not Working | 2432 | Glove Box Light Not Working..... | 2539 |
| High-mount Brake Light..... | 2437 | Door Light..... | 2545 |
| Diagnosis Description..... | 2437 | Diagnosis Description..... | 2545 |
| Diagnosis of General Faults..... | 2439 | Process of Fault Inspection and Troubleshooting..... | 2548 |
| High-mount Brake Light Not Working. | 2441 | Diagnosis of General Faults..... | 2549 |
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| B1CDD19 Right Front Door Drive Overload | 2567 | Diagnosis Description..... | 2660 |
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| B1CDB12 Left Front Door Light Drive Circuit Short to Power..... | 2575 | Diagnosis of General Faults..... | 2664 |
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| Trunk Light..... | 2588 | B11BD12 LIN1 Ambient Light Drive Circuit Short to Power..... | 2673 |
| Diagnosis Description..... | 2588 | B11BD13 LIN1 Ambient Light Drive Circuit Broken..... | 2679 |
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| Diagnosis of General Faults..... | 2592 | B11BE11 LIN2 Ambient Light Drive Circuit Short to Ground..... | 2688 |
| Trunk Light Not Working..... | 2594 | B11BE12 LIN2 Ambient Light Drive Circuit Short to Power..... | 2694 |
| DTC Diagnosis..... | 2598 | B11BE13 LIN2 Ambient Light Drive Circuit Broken..... | 2700 |
| B1CDA11 Trunk Light Drive Circuit Short to Ground..... | 2599 | B11BE19 LIN2 Ambient Light Overload | 2706 |
| B1CDA12 Trunk Light Drive Circuit Short to Power..... | 2604 | Vehicle Inlet Light..... | 2709 |
| B1CDA13 Trunk Light Drive Circuit Broken | 2609 | Diagnosis Description..... | 2709 |
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| Diagnosis Description..... | 2617 | DTC Diagnosis..... | 2715 |
| Process of Fault Inspection and Troubleshooting..... | 2620 | B1C5E11 Right Charging Port Light Drive Circuit Short to Ground..... | 2716 |
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| B1CEB12 Right Footwell Light Drive Circuit Short to Power..... | 2647 | Diagnosis of General Faults..... | 2737 |
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| | | Peculiar Smell When A/C Starting..... | 2741 |
| | | Compressor Not Working..... | 2742 |

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|---|------|---|------|
| DTC of A/C Diagnosis..... | 2749 | B2A2A14 Mode Motor Short to Ground or Open-circuited..... | 2884 |
| B2AD616 12V Power Supply Undervoltage (Lower Than 9V)..... | 2752 | B2A2A12 Mode Motor Short to Power | 2890 |
| B2AD617 12V Power Supply Overvoltage | 2759 | B2A2A92 Mode Motor Not Rotating in Place..... | 2895 |
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| B2A2111 Interior Temperature Sensor Short to Ground..... | 2767 | B2A4B12 Circulation Motor Short to Power | 2908 |
| B2A2213 Exterior Temperature Sensor Open-circuited..... | 2772 | B2A4B92 Circulation Motor Not Rotating in Place..... | 2913 |
| B2A2311 Exterior Temperature Sensor Short to Ground..... | 2778 | B2A2B14 Air Mix Motor Short to Ground or Open-circuited..... | 2920 |
| B2A2413 Evaporator Temperature Sensor Open-circuited..... | 2783 | B2A2B12 Air Mix Motor Short to Power | 2926 |
| B2A2511 Evaporator Temperature Sensor Circuit Short to Ground..... | 2789 | B2A2B92 Air Mix Motor Not Rotating in Place..... | 2931 |
| B2A5813 Driver' s Side Face Outlet Temperature Sensor Open-circuited.. | 2794 | B134111 Three-way Valve Motor Short to Ground or Open-circuited..... | 2938 |
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| B2A5913 Driver' s Side Floor Outlet Temperature Sensor Open-circuited.. | 2805 | B134392 Three-way Valve Motor Not Rotating in Place..... | 2949 |
| B2A5811 Driver' s Side Floor Outlet Temperature Sensor Short to Ground | 2811 | B2A3214 Front Blower Short to Ground or Open-circuited..... | 2955 |
| B2A0813 Evaporator Outlet Refrigerant Temperature Sensor Open-circuited.. | 2816 | B2A3314 Front Blower Adjustment Signal Harness Short to Ground or Open-circuited..... | 2962 |
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| B133511 Refrigerant temperature sensor 2 is short to ground..... | 2844 | B133D00 Solenoid Valve 6 Status Fault | 2991 |
| B133613 Open circuit of refrigerant temperature sensor 3..... | 2849 | B133C00 solenoid valve 5 status fault | 2997 |
| B133711 Refrigerant Temperature Sensor 3 Short to Ground..... | 2855 | B133E00 low voltage PTC relay 1 fault | 3004 |
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| B134713 Air Conditioner Pressure Sensor Open-circuited..... | 2872 | B2A2712 Sunlight Sensor Circuit Short to Power..... | 3021 |
| B134711 Air Conditioner Pressure Sensor Short to Power..... | 2878 | B1CAF00 Humidity Sensor Fault..... | 3025 |

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Safety and Protection System

Airbag System

Diagnosis Description

Introduction

When diagnosing the faults of the airbag system, in order to understand and get familiar with the working principle of airbag system, go to the description and operation overview. Confirm the faults described by the customer before diagnosis, and then analyze the cause of the airbag system fault, so as to determine the correct fault diagnosis procedures. For inspection and measurement on airbag system line and components, give priority to the use of data flow function to improve diagnostic efficiency and shorten maintenance time. After the fault is confirmed, the precautions and warnings should be understood when repairing the airbag system, and the standard operation procedure should be implemented. Check the airbag system and confirm its working condition after repair.

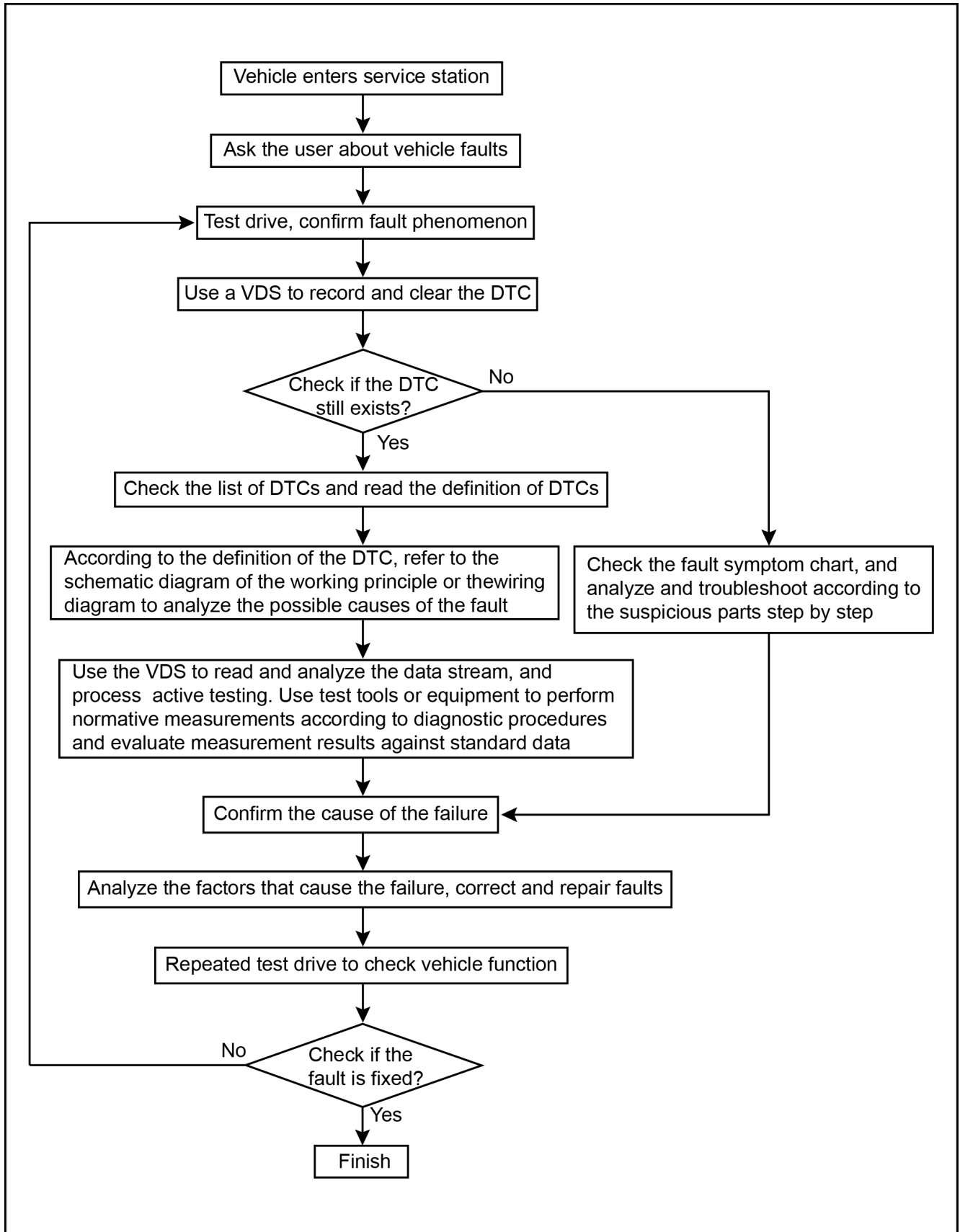
General equipment

- VDS
- Multimeter
- Insulation meter
- Insulating tool kit
- Insulation protection suit

Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Process of Fault Inspection and Troubleshooting



Diagnosis of DTC of airbag system

List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|---|--|
| B16001B | Driver frontal airbag not connected | B16001B Driver Frontal Airbag Not Connected |
| B160A1A | Resistance of driver frontal airbag equaling to 0 | B160A1A Resistance of Driver Frontal Airbag Equaling to 0 |
| B160111 | Driver frontal airbag is short to ground | B160111 Driver Frontal Airbag Short to Ground |
| B160212 | Driver frontal airbag short to power | B160212 Driver Frontal Airbag Short to Power |
| B16101B | Front passenger frontal airbag not connected | B16101B Front Passenger Frontal Airbag Not Connected |
| B161A1A | Front passenger frontal air bag zero resistance | B161A1A Resistance of Front Passenger Frontal Airbag Equaling to 0 |
| B161111 | Front passenger frontal airbag short to ground | B161111 Front Passenger Frontal Airbag Short to Ground |
| B161212 | Front passenger frontal airbag short to power | B161212 Front Passenger Frontal Airbag Short to Power |
| B16201B | Driver side airbag not connected | B16201B Driver Side Airbag Not Connected |
| B162A1A | Resistance of Driver Side Airbag Equaling to 0 | B162A1A Resistance of Driver Side Airbag Equaling to 0 |
| B162111 | Driver side airbag short to ground | B162111 Driver Side Airbag Short to Ground |
| B162212 | Driver side airbag short to power | B162212 Driver Side Airbag Short to Power |
| B16301B | Front passenger side airbag not connected | B16301B Front Passenger Side Airbag Not Connected |
| B163B1B | Resistance of front passenger side airbag equaling to 0 | B163B1B Resistance of Front Passenger Side Airbag Equaling to 0 |
| B163111 | Front passenger side airbag short to ground | B163111 Front Passenger Side Airbag Short to Ground |
| B163212 | Front passenger side airbag short to power | B163212 Front Passenger Side Airbag Short to Power |
| B17041B | Left air curtain not connected | B17041B Left Air Curtain Not Connected |

| DTC: | Meaning | Diagnostic Process |
|---------|---|--|
| B17081A | Resistance of left air curtain equaling to 0 | B17081A Resistance of Left Air Curtain Equaling to 0 |
| B170511 | Left air curtain short to ground | B170511 Left Air Curtain Short to Ground |
| B170612 | Left air curtain short to power | B170612 Left Air Curtain Short to Power |
| B170D1B | Right air curtain not connected | B170D1B Right Air Curtain Not Connected |
| B17121A | Resistance of right air curtain equaling to 0 | B17121A Resistance of Right Air Curtain Equaling to 0 |
| B170E11 | Right air curtain short to ground | B170E11 Right Air Curtain Short to Ground |
| B170F12 | Right air curtain short to power | B170f12 Right Air Curtain Short to Power |
| B16401B | Driver seat belt pretensioner not connected | B16401B Driver Seat Belt Pretensioner Not Connected |
| B16451A | Resistance of driver seat belt pretensioner equaling to 0 | B16451A Resistance of Driver Seat Belt Pretensioner Equaling to 0 |
| B164111 | Driver seat belt pretensioner short to ground | B164111 Driver Seat Belt Pretensioner Short to Ground |
| B164212 | Driver seat belt pretensioner short to power | B164212 Driver Seat Belt Pretensioner Short to Power |
| B164A1B | Front passenger seat belt pretensioner not connected | B164A1B Front Passenger Seat Belt Pretensioner Not Connected |
| B164F1A | Front passenger seat belt pretensioner zero resistance | B164F1A Resistance of Front Passenger Seat Belt Pretensioner Equaling to 0 |
| B164B11 | Front passenger seat belt pretensioner short to ground | B164b11 Front Passenger Seat Belt Pretensioner Short to Ground |
| B164C12 | Front passenger seat belt pretensioner short to power | B164c12 Front Passenger Seat Belt Pretensioner Short to Power |
| B165400 | Left front frontal impact sensor not connected | B165400 Left Front Impact Sensor Not Connected |
| B165511 | Left front frontal impact sensor short to ground | B165511 Left Front Frontal Impact Sensor Short to Ground |
| B165D00 | Right front frontal impact sensor not connected | B165D00 Right Front Impact Sensor Not Connected |
| B165E11 | Right front frontal impact sensor short to ground | B165e11 Right Front Frontal Impact Sensor Short to Ground |

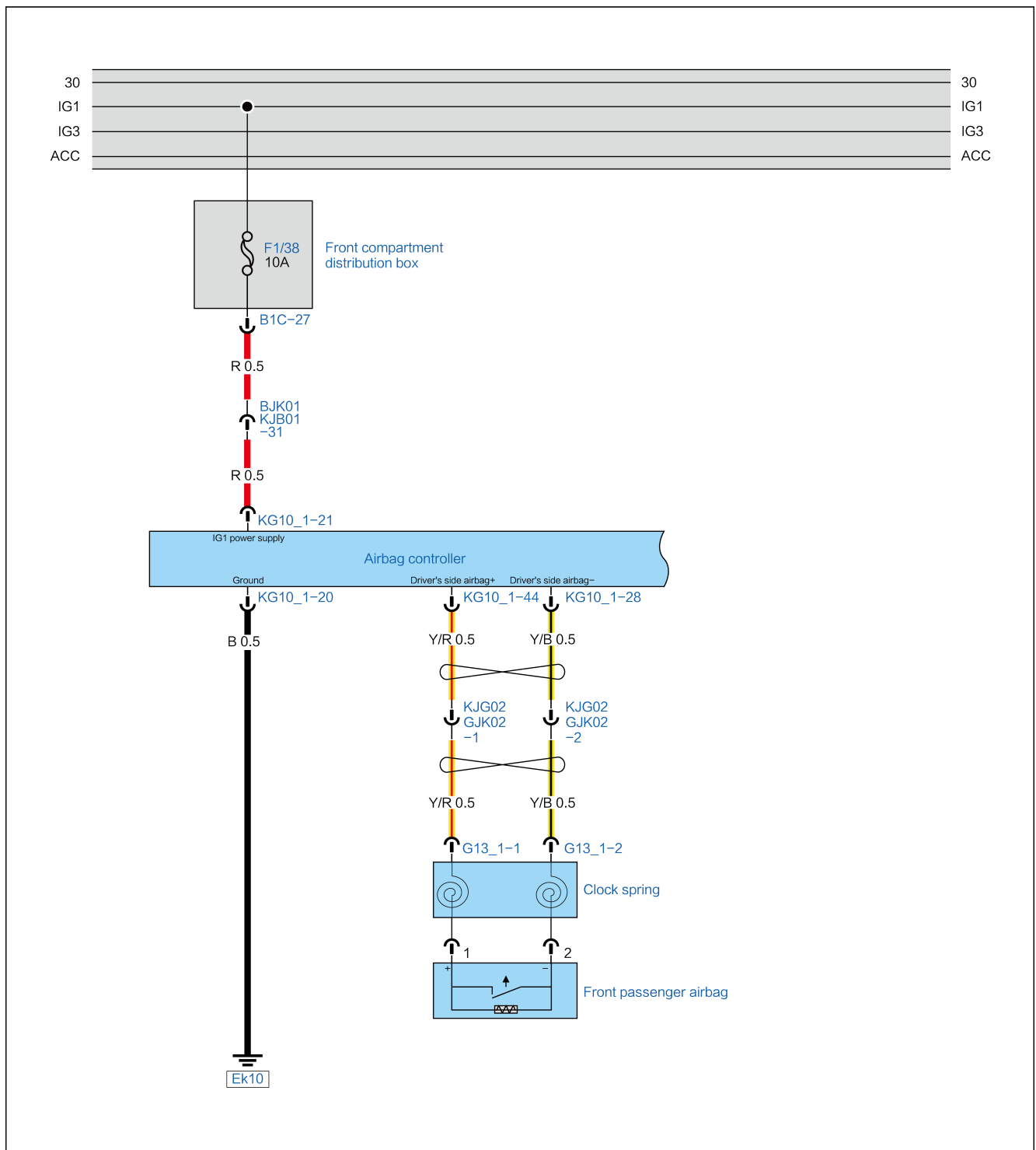
| DTC: | Meaning | Diagnostic Process |
|---------|--|--|
| B166600 | Left side impact sensor not connected | B166600 Left Side Impact Sensor Not Connected |
| B166711 | Left side impact sensor short to ground | B166711 Left Side Impact Sensor Short to Ground |
| B166F00 | Right side impact sensor not connected | B166f00 Right Side Impact Sensor Not Connected |
| B167011 | Right side impact sensor short to ground | B167011 Right Side Impact Sensor Short to Ground |
| B169416 | SRS_ECU fault | B169416 SRS_ECU Fault |
| B169517 | SRS_ECU fault | B169517 SRS_ECU Fault |
| B169D00 | SRS_ECU fault | B169D00 SRS_ECU Fault |
| B169700 | SRS_ECU fault | B169700 SRS_ECU Fault |
| B169800 | SRS_ECU fault | B169800 SRS_ECU Fault |
| B169C00 | SRS_ECU fault | B169C00 SRS_ECU Fault |
| B16B000 | SRS_ECU fault | B16B000 SRS_ECU Fault |
| B169F00 | SRS_ECU fault | B16AE00 SRS_ECU Fault |
| B16AE00 | SRS_ECU fault | B169F00 SRS_ECU Fault |
| B16A100 | SRS_ECU fault | B16A100 SRS_ECU Fault |

B16001B Driver Frontal Airbag Not Connected

DTC Description

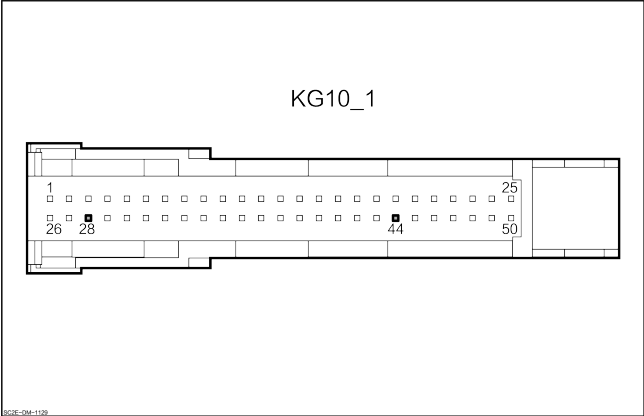
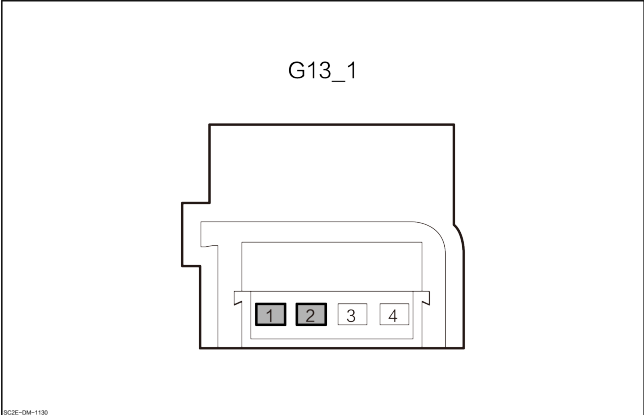
| B16001B Driver Frontal Airbag Not Connected | |
|---|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Clock spring fault.3. Driver air bag fault.4. Airbag control unit fault. |
| Fault setting conditions | Driver frontal airbag not connected |
| Trigger fault conditions | When the airbag control module receives a signal that the driver's frontal airbag is not connected, DTC is generated. |

Circuit Diagram



SCHE-DM-1128

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---|---|
| <p style="text-align: center;">Airbag control unit</p> <p style="text-align: center;">KG10_1</p>  <p><small>82SE-044-1192</small></p> | <p style="text-align: center;">28</p> <hr/> <p style="text-align: center;">44</p> | <p style="text-align: center;">Driver's side airbag-</p> <hr/> <p style="text-align: center;">Driver's side airbag+</p> |
| <p style="text-align: center;">Clock Spring</p> <p style="text-align: center;">G13_1</p>  <p><small>82SE-044-1193</small></p> | <p style="text-align: center;">1</p> <hr/> <p style="text-align: center;">2</p> | <p style="text-align: center;">Driver's side airbag+</p> <hr/> <p style="text-align: center;">Driver's side airbag-</p> |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|----|----------------------------------|
| No | Check the “intermittent fault” . |
|----|----------------------------------|

| |
|-----|
| Yes |
|-----|

| | |
|---|---|
| 2 | Check the clock spring harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the clock spring harness connector (airbag side).
3. Check whether the clock spring harness connector (airbag side) is normal.

| | |
|----|------------------------------------|
| No | Repair or replace the wire harness |
|----|------------------------------------|

| |
|-----|
| Yes |
|-----|

| | |
|---|---|
| 3 | Check the clock spring harness connector. |
|---|---|

1. Disconnect the clock spring harness connector G13_1.
2. Check the clock spring harness connector.

| | |
|----|------------------------------------|
| No | Repair or replace the wire harness |
|----|------------------------------------|

| |
|-----|
| Yes |
|-----|

| | |
|---|--|
| 4 | Check whether the airbag control module harness connector is normal. |
|---|--|

1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness connector is normal.

| | |
|----|------------------------------------|
| No | Repair or replace the wire harness |
|----|------------------------------------|

| |
|-----|
| Yes |
|-----|

| | |
|---|--|
| 5 | Check whether the driver airbag wire harness is shorted to ground. |
|---|--|

1. Measure the resistance value of terminal 1 of the clock spring harness connector (airbag side) to ground.
2. Measure the resistance value of terminal 2 of the clock spring harness connector (airbag side) to ground.

| Connector | | Condition | Resist- ance value |
|---|--------|-------------|--------------------------|
| (+) | (-) | | |
| Clock spring harness connector (airbag side) terminal 1 | Ground | Through-out | Above 10k Ω |
| Clock spring harness connector (airbag side) terminal 2 | | | |

3. Check whether the results are normal.

No Repair or replace the wire harness

Yes

| | |
|---|---|
| 6 | Check whether the driver airbag wire harnesses are shorted to each other. |
|---|---|

1. Measure the resistance value between the clock spring harness connector terminal 1 and the airbag harness connector (driver's airbag end) terminal 2.

| Connector | | Condition | Resist- ance value |
|---|---|-------------|--------------------------|
| (+) | (-) | | |
| Clock spring harness connector (airbag) | Clock spring harness connector (airbag) | Through-out | Above 10k Ω |

| | | | |
|---------------------|---------------------|--|--|
| side) terminal 1 | side) terminal 2 | | |
|---------------------|---------------------|--|--|

2. Check whether the results are normal.

| | |
|----|------------------------------------|
| No | Repair or replace the wire harness |
|----|------------------------------------|

Yes

| | |
|---|---|
| 7 | Check whether the driver airbag wire harness is shorted to power. |
|---|---|

1. Set the START/STOP button to “ON” .
2. Measure the voltage value of terminal 1 of the harness connector of clock spring (airbag side) to ground.
3. Measure the voltage value of terminal 2 of the harness connector of clock spring (airbag side) to ground.

| Connector | | Condition | Voltage value |
|---|--------|-------------|---------------|
| (+) | (-) | | |
| Clock spring harness connector (airbag side) terminal 1 | Ground | Through-out | Less than 1V |
| Clock spring harness connector (airbag side) terminal 2 | | | |

4. Check whether the results are normal.

| | |
|----|------------------------------------|
| No | Repair or replace the wire harness |
|----|------------------------------------|

Yes

| | |
|---|--|
| 8 | Check the line inside the clock spring for open circuit. |
|---|--|

1. Separate the short-circuit tabs at terminals 1 and 2 of the harness connector of clock spring (airbag side) with a thin plastic sheet.
2. Measure the resistance between the harness connector (airbag side) 1 of clock spring

and the harness connector of clock spring G13_1-1.

3. Measure the resistance between the harness connector (airbag side) 2 of clock spring and the harness connector of clock spring G13_1-2.

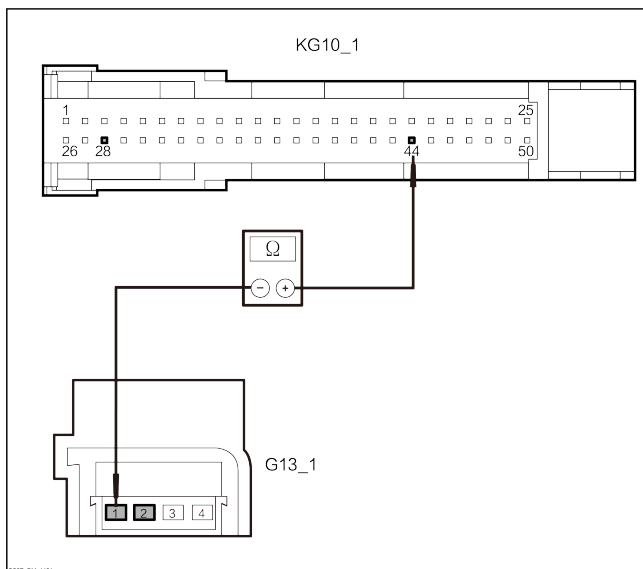
| Connector | | Condition | Resist- ance value |
|---|---|-------------|--------------------------|
| (+) | (-) | | |
| Clock spring harness connector (airbag side) terminal 1 | Harness connector of clock spring G13_1-1 | Through-out | Lower than 1 Ω |
| Clock spring harness connector (airbag side) terminal 2 | Harness connector of clock spring G13_1-2 | Through-out | Lower than 1 Ω |

4. Check the harness and connector.

No → Replace the clock spring.

Yes

9 Measure the resistance value between the left rear radar sensor harness connector K15 (A)-2 and the ground.



1. Measure the resistance between the harness connector of airbag control module KG10_1-44 and the harness connector of clock spring G13_1-1.
2. Measure the resistance between the harness connector of airbag control module KG10_1-28 and the harness connector of clock spring G13_1-2.

| Connector | | Condition | Resist- ance value |
|-----------|---------|-------------|--------------------------|
| (+) | (-) | | |
| KG10_1-44 | G13_1-1 | Through-out | Lower than 1 Ω |

| | | | |
|-----------|---------|--|--|
| KG10_1-28 | G13_1-2 | | |
|-----------|---------|--|--|

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

| | |
|----|--|
| 10 | Replace the driver airbag and check the DTC. |
|----|--|

1. Replace the driver airbag and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No → The system is normal.

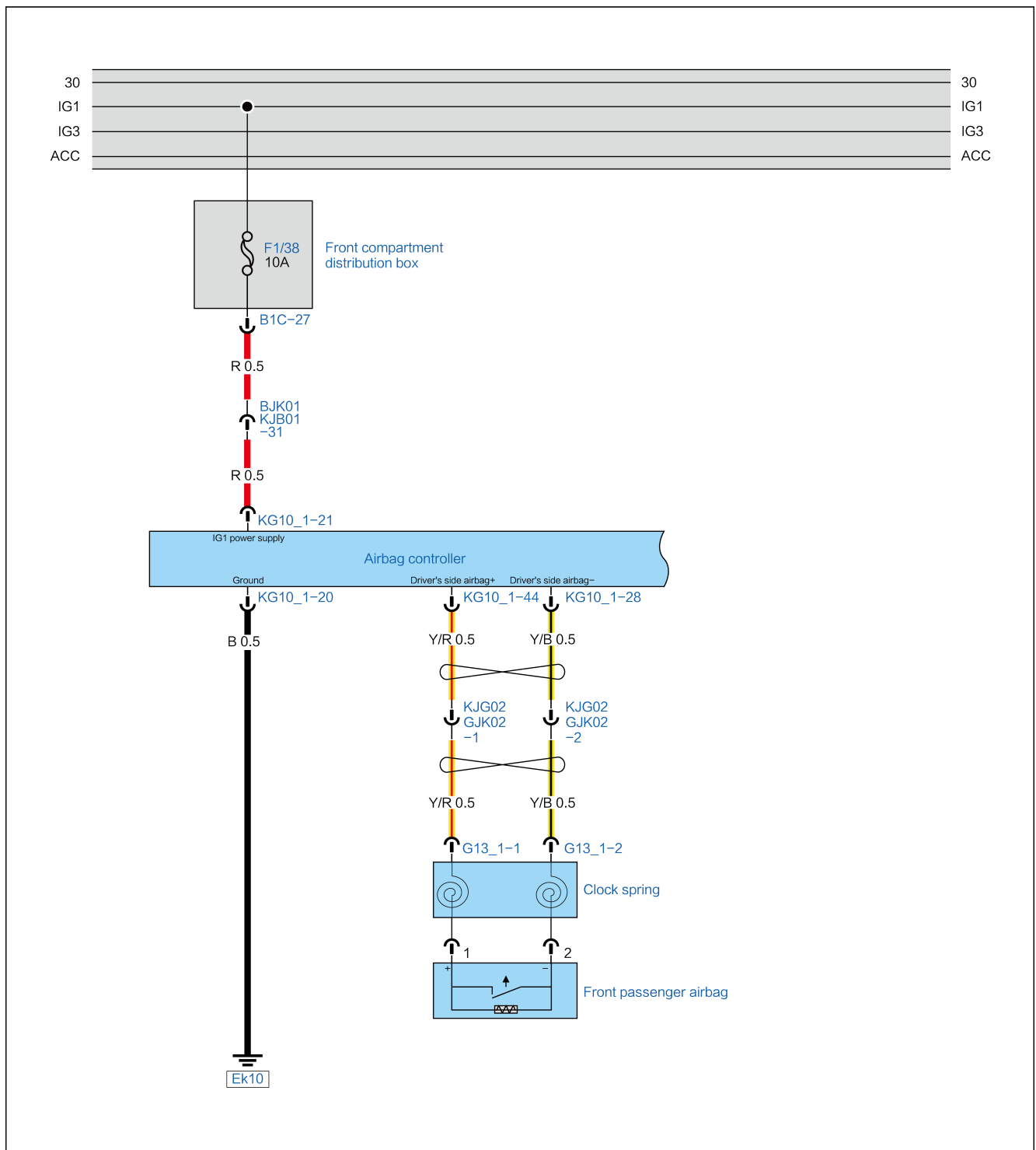
Yes → Replace the airbag control unit.

B160A1A Resistance of Driver Frontal Airbag Equaling to 0

DTC Description

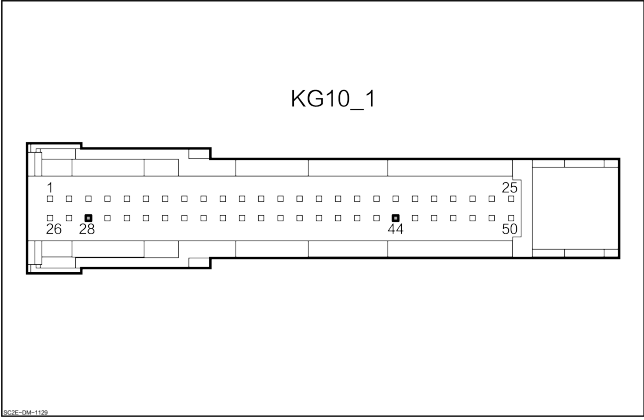
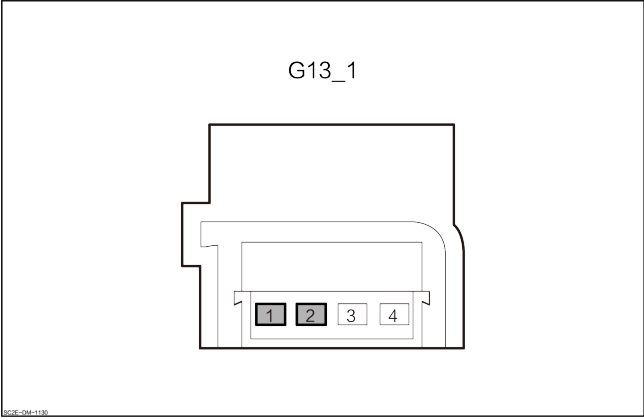
| B160A1A Resistance of Driver Frontal Airbag Equaling to 0 | |
|---|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Clock spring fault.3. Driver air bag fault.4. Airbag control unit fault. |
| Fault setting conditions | Resistance of Driver Frontal Airbag is 0. |
| Trigger fault conditions | When the airbag control module receives the signal that the driver's frontal airbag resistance is 0, DTC is generated. |

Circuit Diagram



SCHE-DM-1128

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---|---|
| <p style="text-align: center;">Airbag control unit</p> <p style="text-align: center;">KG10_1</p>  <p><small>82SE-044-1192</small></p> | <p style="text-align: center;">28</p> <hr/> <p style="text-align: center;">44</p> | <p style="text-align: center;">Driver's side airbag-</p> <hr/> <p style="text-align: center;">Driver's side airbag+</p> |
| <p style="text-align: center;">Clock Spring</p> <p style="text-align: center;">G13_1</p>  <p><small>82SE-044-1193</small></p> | <p style="text-align: center;">1</p> <hr/> <p style="text-align: center;">2</p> | <p style="text-align: center;">Driver's side airbag+</p> <hr/> <p style="text-align: center;">Driver's side airbag-</p> |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the clock spring harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the clock spring harness connector (airbag side).
3. Check whether the clock spring harness connector (airbag side) is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the clock spring harness connector. |
|---|---|

1. Disconnect the clock spring harness connector G13_1.
2. Check the clock spring harness connector.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the airbag control module harness connector is normal. |
|---|--|

1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 5 | Check whether the driver airbag wire harness is shorted to ground. |
|---|--|

1. Measure the resistance value of terminal 1 of the clock spring harness connector (airbag side) to ground.
2. Measure the resistance value of terminal 2 of the clock spring harness connector (airbag side) to ground.

| Connector | | Condition | Resist- ance value |
|---|--------|-------------|--------------------------|
| (+) | (-) | | |
| Clock spring harness connector (airbag side) terminal 1 | Ground | Through-out | Above 10k Ω |
| Clock spring harness connector (airbag side) terminal 2 | | | |

3. Check whether the results are normal.

No Repair or replace the wire harness

Yes

| | |
|---|---|
| 6 | Check whether the driver airbag wire harnesses are shorted to each other. |
|---|---|

1. Measure the resistance value between the clock spring harness connector terminal 1 and the airbag harness connector (driver's airbag end) terminal 2.

| Connector | | Condition | Resist- ance value |
|---|---|-------------|--------------------------|
| (+) | (-) | | |
| Clock spring harness connector (airbag) | Clock spring harness connector (airbag) | Through-out | Above 10k Ω |

| | | | |
|---------------------|---------------------|--|--|
| side) terminal 1 | side) terminal 2 | | |
|---------------------|---------------------|--|--|

2. Check whether the results are normal.

| | |
|----|------------------------------------|
| No | Repair or replace the wire harness |
|----|------------------------------------|

Yes

| | |
|---|---|
| 7 | Check whether the driver airbag wire harness is shorted to power. |
|---|---|

1. Set the START/STOP button to “ON” .
2. Measure the voltage value of terminal 1 of the harness connector of clock spring (airbag side) to ground.
3. Measure the voltage value of terminal 2 of the harness connector of clock spring (airbag side) to ground.

| Connector | | Condition | Voltage value |
|---|--------|-------------|---------------|
| (+) | (-) | | |
| Clock spring harness connector (airbag side) terminal 1 | Ground | Through-out | Less than 1V |
| Clock spring harness connector (airbag side) terminal 2 | | | |

4. Check whether the results are normal.

| | |
|----|------------------------------------|
| No | Repair or replace the wire harness |
|----|------------------------------------|

Yes

| | |
|---|--|
| 8 | Check the line inside the clock spring for open circuit. |
|---|--|

1. Separate the short-circuit tabs at terminals 1 and 2 of the harness connector of clock spring (airbag side) with a thin plastic sheet.
2. Measure the resistance between the harness connector (airbag side) 1 of clock spring

and the harness connector of clock spring G13_1-1.

3. Measure the resistance between the harness connector (airbag side) 2 of clock spring and the harness connector of clock spring G13_1-2.

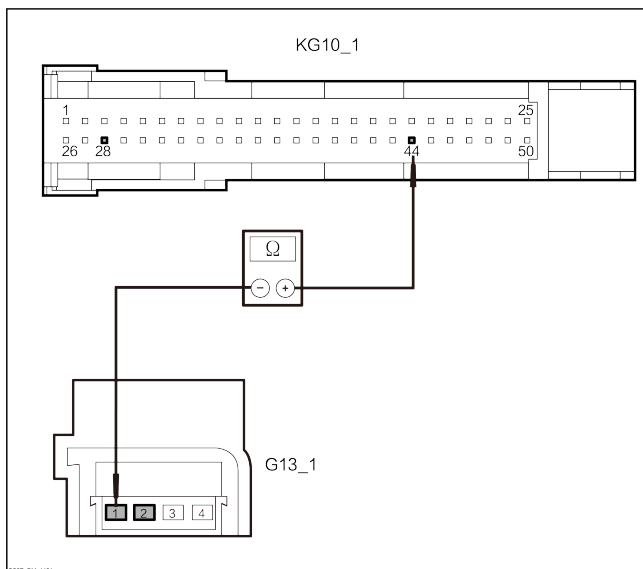
| Connector | | Condition | Resist- ance value |
|---|---|-------------|--------------------------|
| (+) | (-) | | |
| Clock spring harness connector (airbag side) terminal 1 | Harness connector of clock spring G13_1-1 | Through-out | Lower than 1 Ω |
| Clock spring harness connector (airbag side) terminal 2 | Harness connector of clock spring G13_1-2 | Through-out | Lower than 1 Ω |

4. Check the harness and connector.

No → Replace the clock spring.

Yes

9 Measure the resistance value between the left rear radar sensor harness connector K15 (A)-2 and the ground.



1. Measure the resistance between the harness connector of airbag control module KG10_1-44 and the harness connector of clock spring G13_1-1.
2. Measure the resistance between the harness connector of airbag control module KG10_1-28 and the harness connector of clock spring G13_1-2.

| Connector | | Condition | Resist- ance value |
|-----------|---------|-------------|--------------------------|
| (+) | (-) | | |
| KG10_1-44 | G13_1-1 | Through-out | Lower than 1 Ω |

| | | | |
|-----------|---------|--|--|
| KG10_1-28 | G13_1-2 | | |
|-----------|---------|--|--|

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

| | |
|----|--|
| 10 | Replace the driver airbag and check the DTC. |
|----|--|

1. Replace the driver airbag and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No → The system is normal.

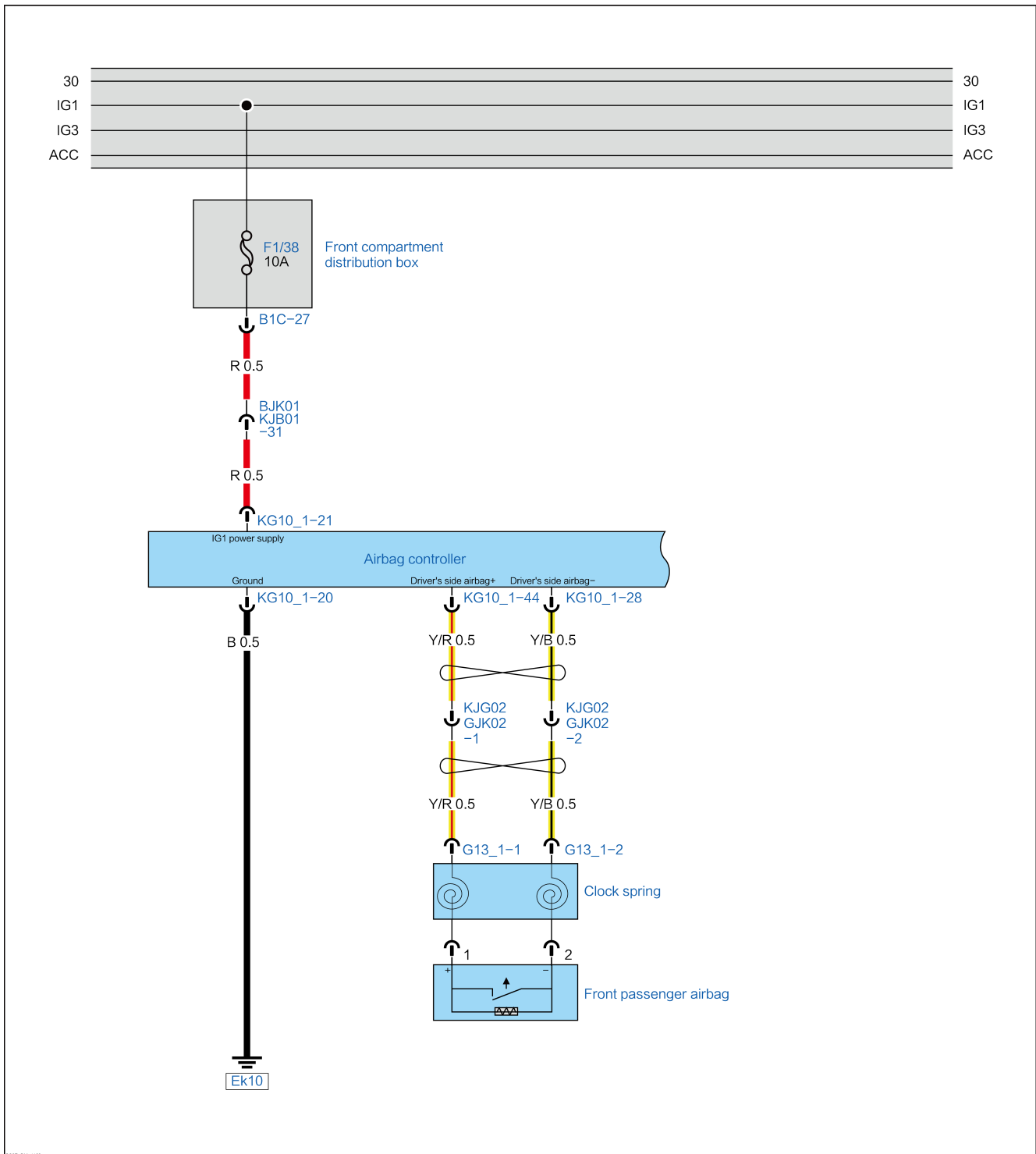
Yes → Replace the airbag control unit.

B160111 Driver Frontal Airbag Short to Ground

DTC Description

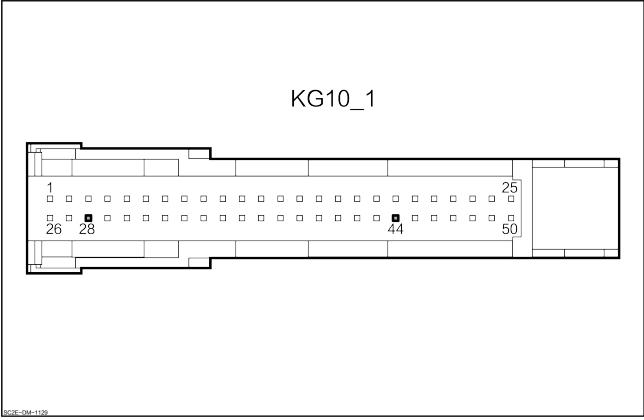
| B160111 Driver Frontal Airbag Short to Ground | |
|---|---|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Driver air bag fault.3. Airbag control unit fault. |
| Fault setting conditions | The driver frontal airbag is short to ground. |
| Trigger fault conditions | When the airbag control module receives the signal that the driver's frontal airbag is short-circuited to ground, DTC is generated. |

Circuit Diagram



SCHE-DM-1128

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-----------------------|
| <p style="text-align: center;">Airbag control unit</p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">KG10_1</p>  <p style="font-size: small; margin-top: 5px;">BCE-DIM-172</p> </div> | 28 | Driver's side airbag- |
| | 44 | Driver's side airbag+ |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the driver airbag harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the driver airbag harness connector.
3. Check whether the driver airbag harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check whether the airbag control module harness connector is normal. |
|---|--|

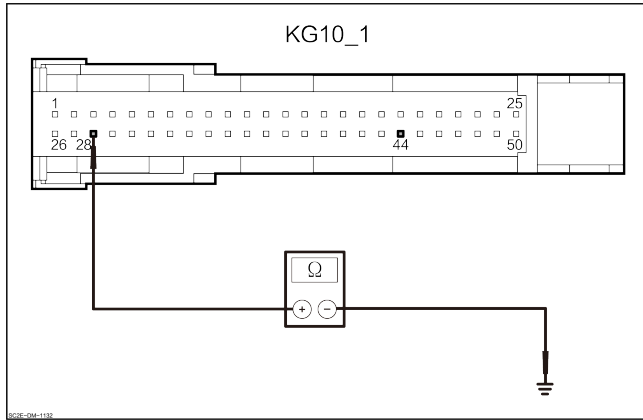
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the driver airbag wire harness is shorted to ground. |
|---|--|



1. Measure the resistance of the harness connector of airbag control module KG10_1-28 to the ground.
2. Measure the resistance of the harness connector of airbag control module KG10_1-44 to the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| KG10_1-28 | Ground | Through-out | Lower than 1 Ω |
| KG10_1-44 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Replace the driver airbag and check the DTC.

1. Replace the driver airbag and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No → The system is normal.

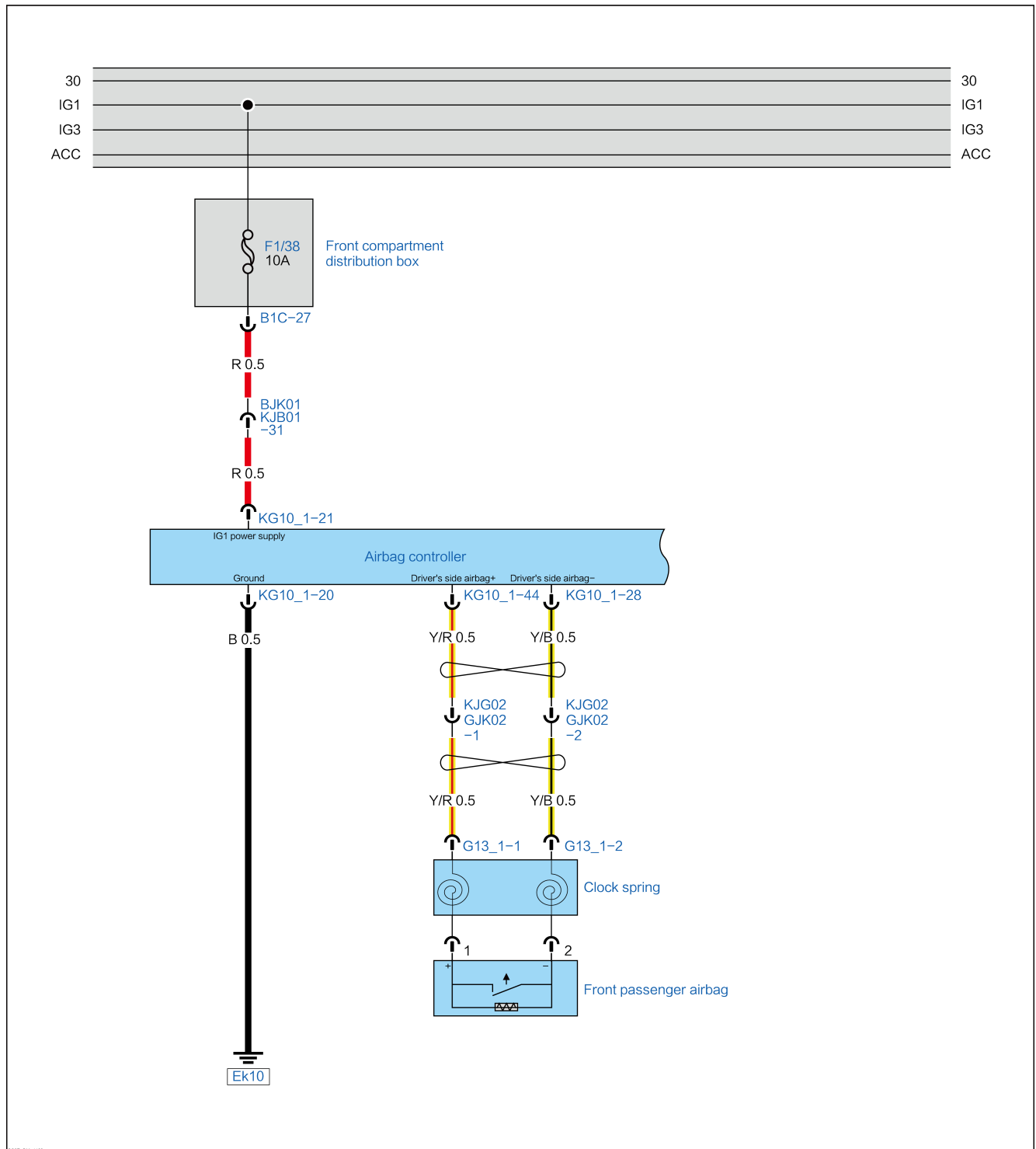
Yes → Replace the airbag control unit.

B160212 Driver Frontal Airbag Short to Power

DTC Description

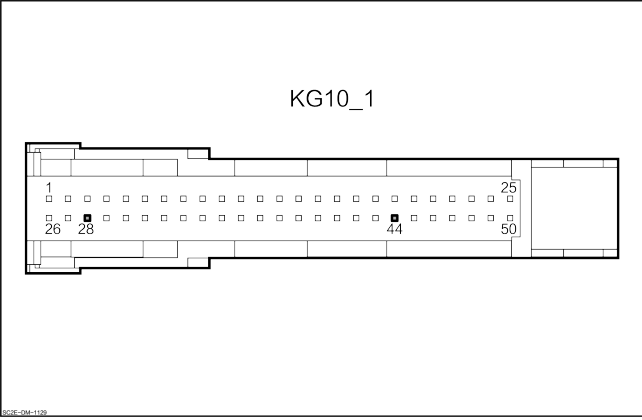
| B160212 Driver Frontal Airbag Short to Power | |
|--|---|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Driver air bag fault.3. Airbag control unit fault. |
| Fault setting conditions | Driver Frontal Airbag is Short to Power. |
| Trigger fault conditions | When the airbag control module receives the signal that the front airbag of the driver is short circuited to the power supply, DTC is generated. |

Circuit Diagram



SCHE-DM-1128

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|---|---|
| <p style="text-align: center;">Airbag control unit</p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">KG10_1</p>  <p style="font-size: small; margin-top: 5px;">SDFE-DM-1129</p> </div> | <p style="text-align: center;">28</p> <hr/> <p style="text-align: center;">44</p> | <p style="text-align: center;">Driver's side airbag-</p> <hr/> <p style="text-align: center;">Driver's side airbag+</p> |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the driver airbag harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the driver airbag harness connector.
3. Check whether the driver airbag harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check whether the airbag control module harness connector is normal. |
|---|--|

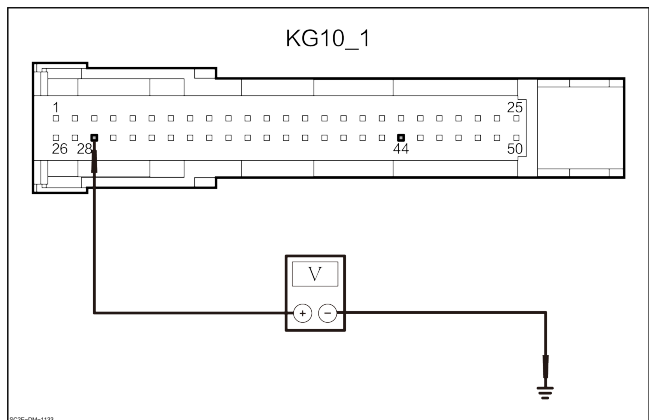
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check whether the driver airbag wire harness is shorted to power. |
|---|---|



1. Measure the resistance of the harness connector of airbag control module KG10_1-28 to the power.
2. Measure the resistance of the harness connector of airbag control module KG10_1-44 to the power.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| KG10_1-28 | Ground | Through-out | Less than 1V |
| KG10_1-44 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Replace the driver airbag and check the DTC.

1. Replace the driver airbag and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No → The system is normal.

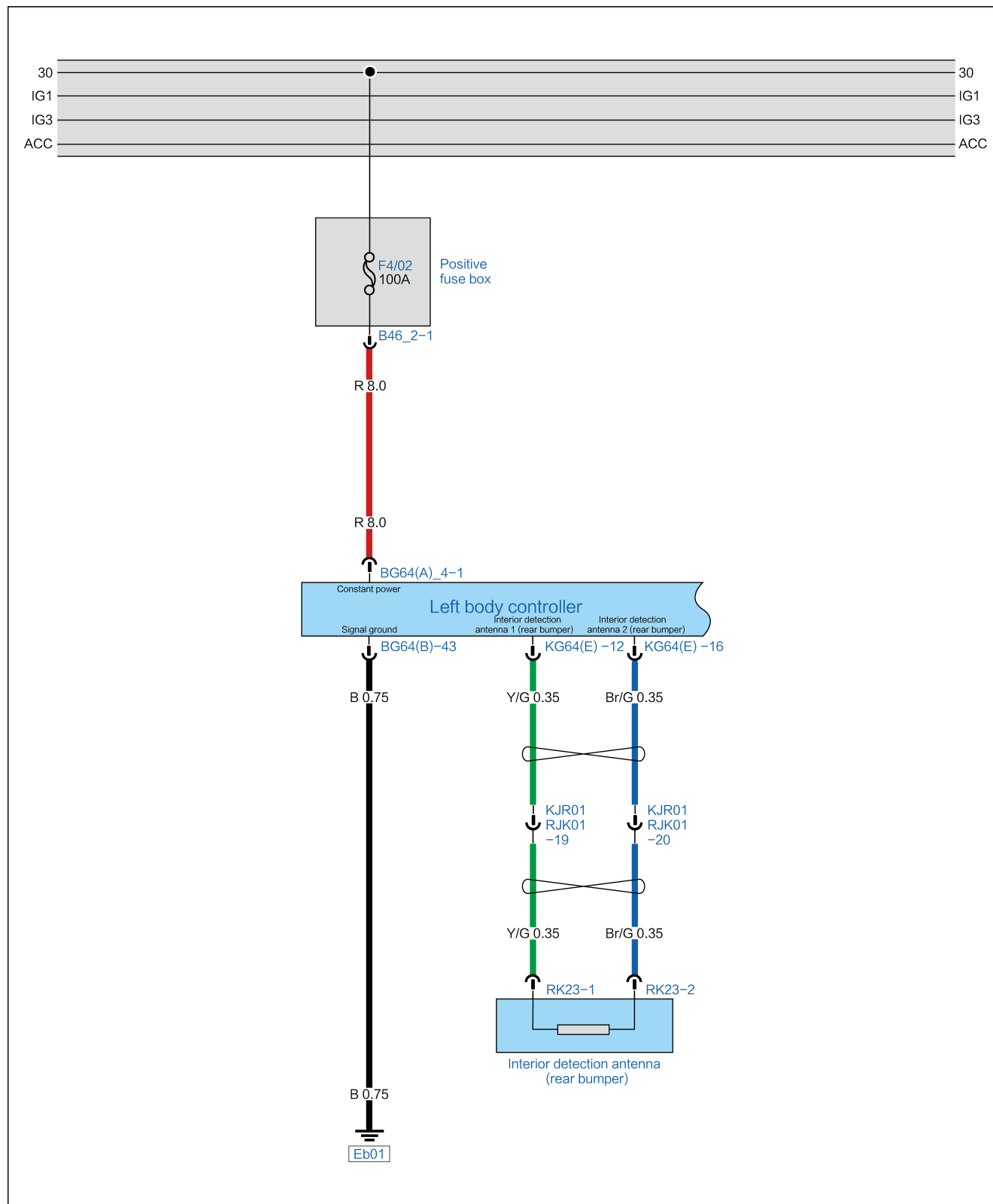
Yes → Replace the airbag control unit.

B16101B Front Passenger Frontal Airbag Not Connected

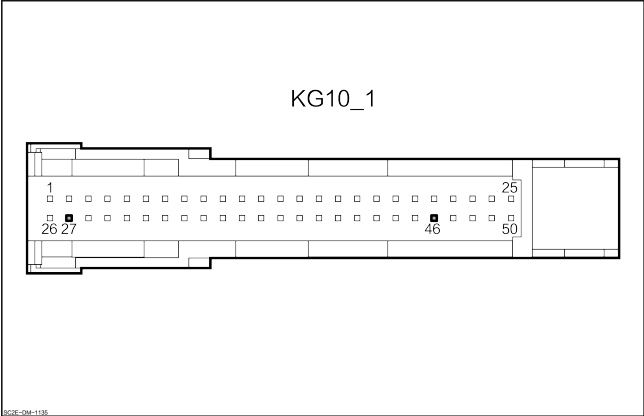
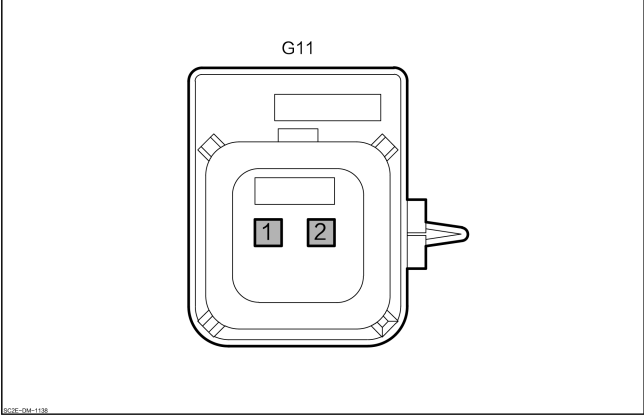
DTC Description

| B16101B Front Passenger Frontal Airbag Not Connected | |
|--|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | 1. Harness or connector fault. 2. Front passenger airbag fault. 3. Airbag control unit fault. |
| Fault setting conditions | Front passenger airbag not connected. |
| Trigger fault conditions | When the airbag control module receives a signal that the front passenger airbag is not connected, DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|--|
| <p style="text-align: center;">Airbag control unit</p> <p style="text-align: center;">KG10_1</p>  <p><small>82CE-044-1135</small></p> | <p style="text-align: center;">27</p> | <p style="text-align: center;">PAB –</p> |
| <p style="text-align: center;">PAB</p> <p style="text-align: center;">G11</p>  <p><small>82CE-044-1135</small></p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">PAB +</p> |
| | <p style="text-align: center;">46</p> | <p style="text-align: center;">PAB +</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">PAB –</p> |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the front passenger airbag harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the front passenger airbag harness connector G11.
3. Check whether the front passenger airbag harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

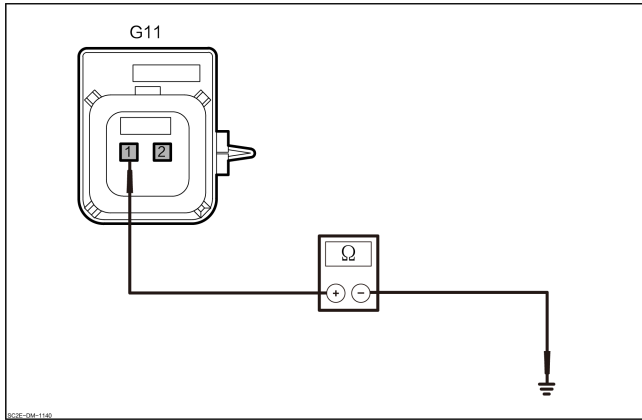
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check whether the front passenger airbag wire harness is shorted to ground. |
|---|---|



1. Measure the resistance value of the front passenger airbag harness connector G11-1 to the ground.
2. Measure the resistance value of the front passenger airbag harness connector G11-2 to the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| G11-1 | Ground | Through-out | Above 10k Ω |
| G11-2 | | | |

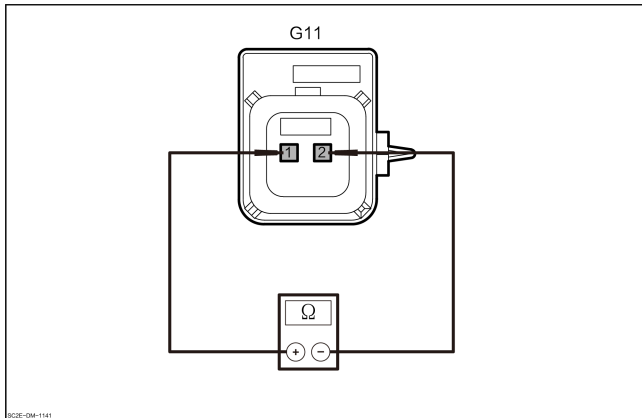
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check whether the front passenger airbag wire harnesses are shorted to each other.



1. Measure the resistance between the harness connector of front passenger airbag G11-1 and the harness connector of front passenger airbag G11-2.

| Connector | | Condition | Resistance value |
|-----------|-------|-------------|------------------|
| (+) | (-) | | |
| G11-1 | G11-2 | Through-out | Above 10k Ω |

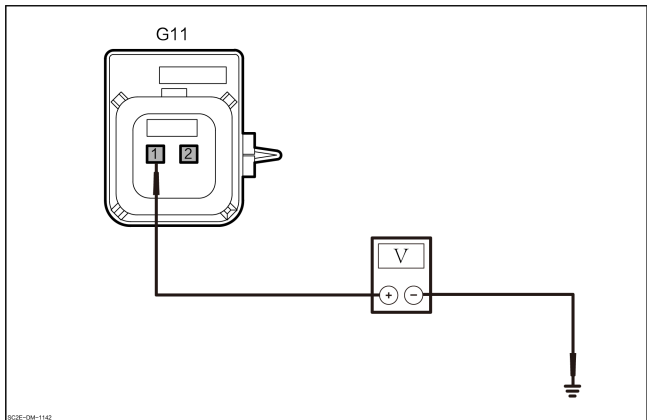
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

6 Check whether the front passenger airbag wire harness is shorted to power.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value of the front passenger airbag harness connector G11-1 to the ground.
3. Measure the voltage value of the front passenger airbag harness connector G11-2 to the ground.

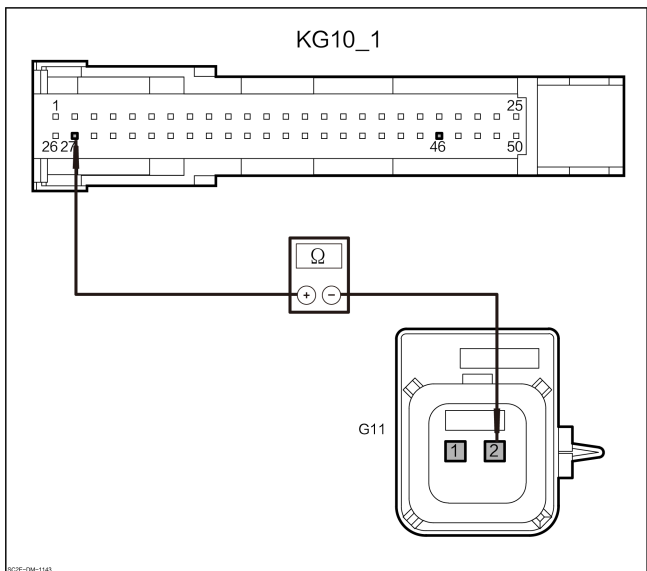
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G11-1 | Ground | Through-out | Less than 1V |
| G11-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the line from the airbag control module to the front passenger airbag line for open circuit.



1. Set the START/STOP button to “ON” .
2. Measure the resistance between the harness connector of airbag control module KG10_1-27 and the harness connector of front passenger airbag G11-2.
3. Measure the resistance between the harness connector of airbag control module KG10_1-46 and the harness connector of front passenger airbag G11-1.

| Connector | | Condition | Resistance value |
|-----------|-------|-------------|------------------|
| (+) | (-) | | |
| KG10_1-27 | G11-2 | Through-out | Lower than 1Ω |
| KG10_1-46 | G11-1 | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Replace the front passenger airbag and check the DTC.

1. Replace the front passenger airbag and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

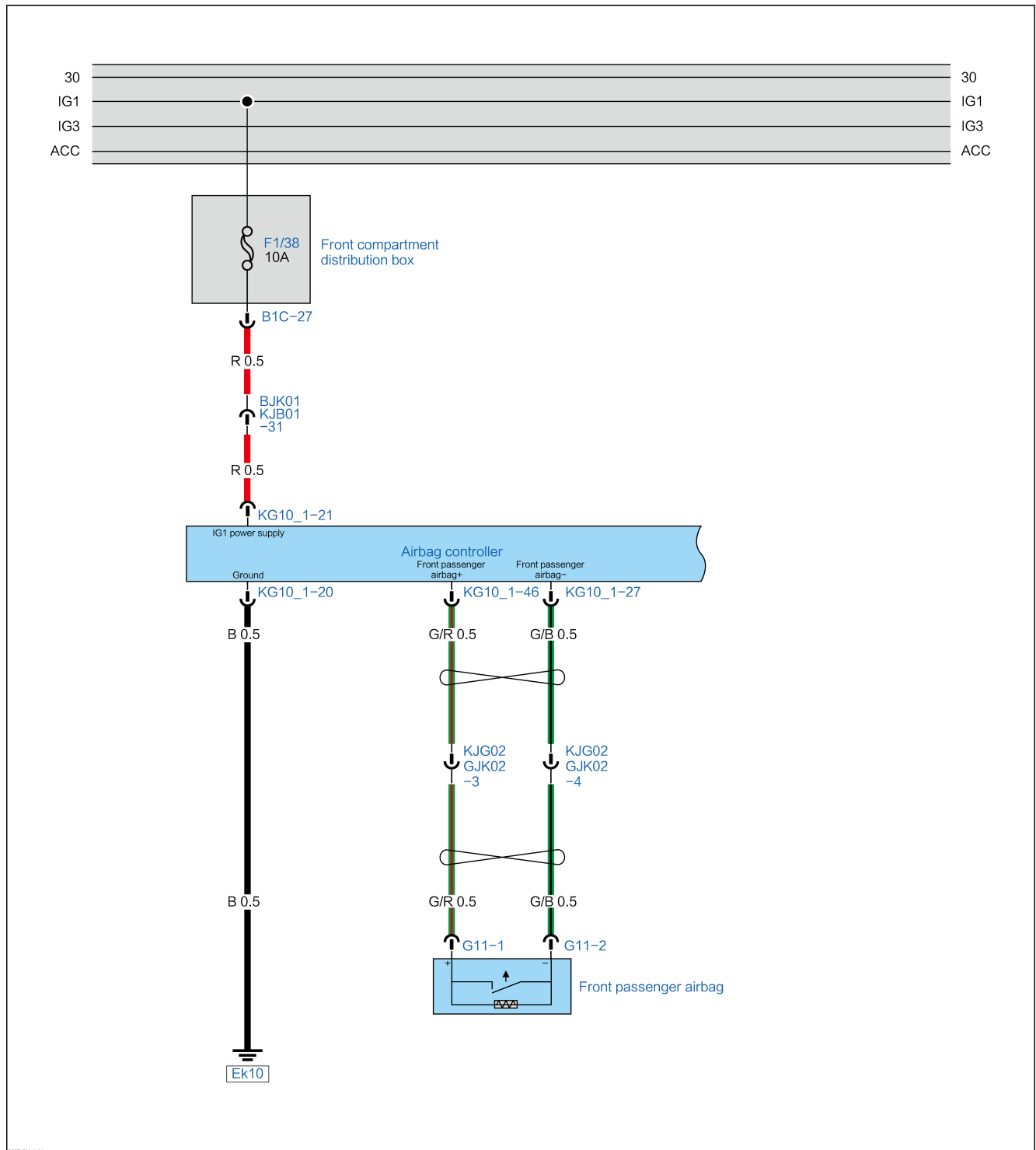
Replace the airbag control unit.

B161A1A Resistance of Front Passenger Frontal Airbag Equaling to 0

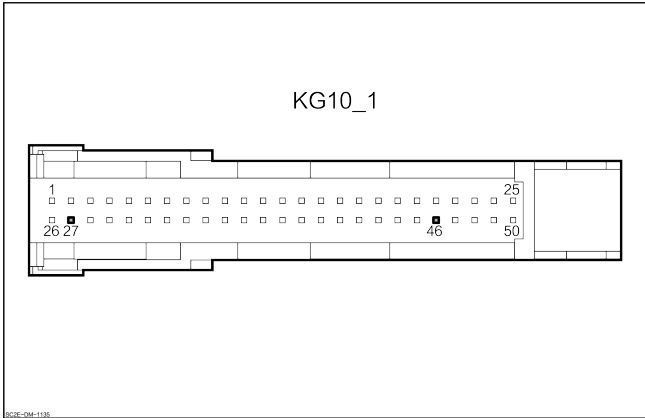
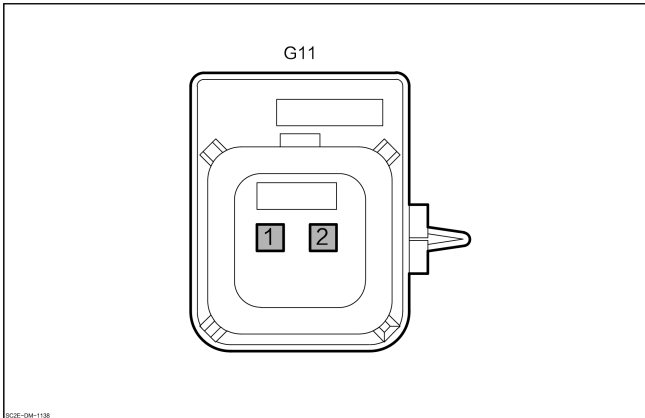
DTC Description

| B161A1A Resistance of Front Passenger Frontal Airbag Equaling to 0 | |
|--|---|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Front passenger airbag fault. 3. Airbag control unit fault. |
| Fault setting conditions | Front passenger airbag zero resistance. |
| Trigger fault conditions | When the airbag control module receives a signal that the front passenger airbag resistance value is 0, DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---|---|
| <p style="text-align: center;">Airbag control unit</p> <p style="text-align: center;">KG10_1</p>  <p><small>801E-04-136</small></p> | <p style="text-align: center;">27</p> <hr/> <p style="text-align: center;">46</p> | <p style="text-align: center;">PAB –</p> <hr/> <p style="text-align: center;">PAB +</p> |
| <p style="text-align: center;">PAB</p> <p style="text-align: center;">G11</p>  <p><small>801E-04-138</small></p> | <p style="text-align: center;">1</p> <hr/> <p style="text-align: center;">2</p> | <p style="text-align: center;">PAB +</p> <hr/> <p style="text-align: center;">PAB –</p> |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the front passenger airbag harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the front passenger airbag harness connector G11.
3. Check whether the front passenger airbag harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

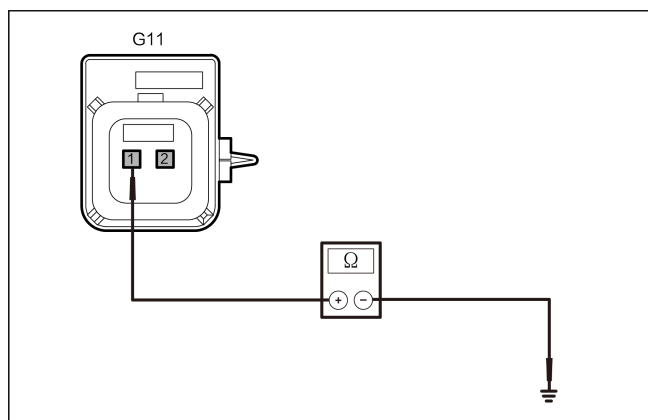
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check whether the front passenger airbag wire harness is shorted to ground. |
|---|---|



1. Measure the resistance value of the front passenger airbag harness connector G11-1 to the ground.
2. Measure the resistance value of the front passenger airbag harness connector G11-2 to the ground.

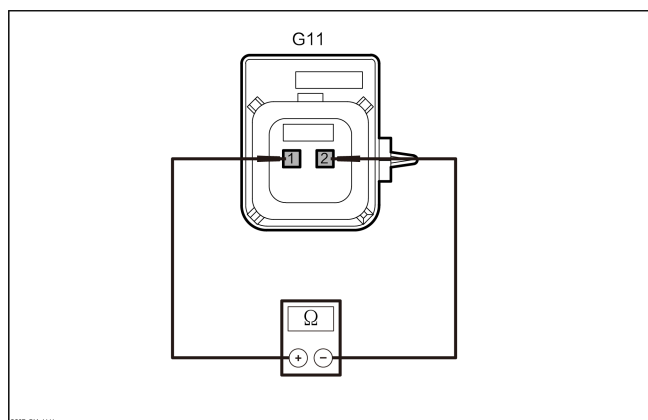
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| G11-1 | Ground | Through-out | Above 10k Ω |
| G11-2 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check whether the front passenger airbag wire harnesses are shorted to each other.



1. Measure the resistance value between the front passenger airbag harness connector G11-1 and the airbag harness connector G11-2.

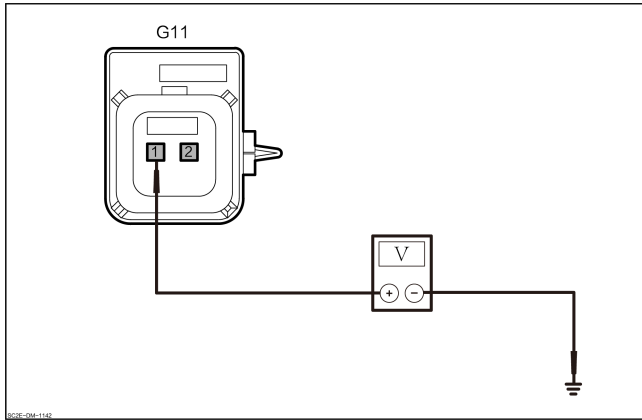
| Connector | | Condition | Resistance value |
|-----------|-------|-------------|------------------|
| (+) | (-) | | |
| G11-1 | G11-2 | Through-out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check whether the front passenger airbag wire harness is shorted to power.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value of the front passenger airbag harness connector G11-1 to the ground.
3. Measure the voltage value of the front passenger airbag harness connector G11-2 to the ground.

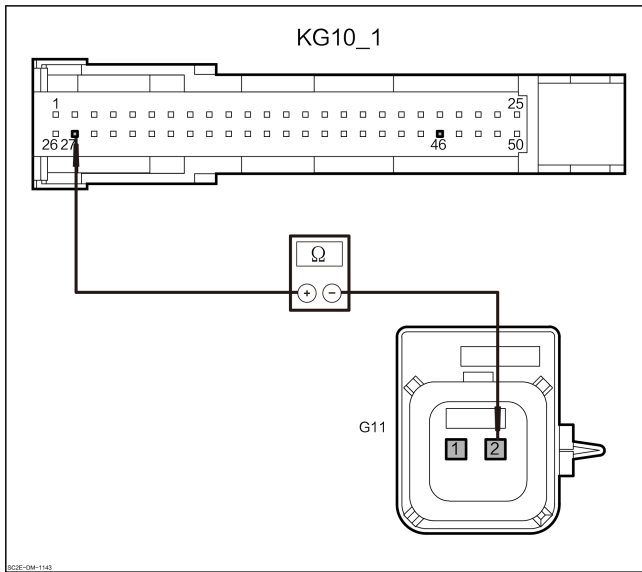
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G11-1 | Ground | Through-out | Less than 1V |
| G11-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the line from the airbag control module to the front passenger airbag line for open circuit.



1. Set the START/STOP button to “ON” .
2. Measure the resistance between the harness connector of airbag control module KG10_1-27 and the harness connector of front passenger airbag G11-2.
3. Measure the resistance between the harness connector of airbag control module KG10_1-46 and the harness connector of front passenger airbag G11-1.

| Connector | | Condition | Resistance value |
|-----------|-------|-------------|------------------|
| (+) | (-) | | |
| KG10_1-27 | G11-2 | Through-out | Lower than 1Ω |
| KG10_1-46 | G11-1 | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Replace the front passenger airbag and check the DTC.

1. Replace the front passenger airbag and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

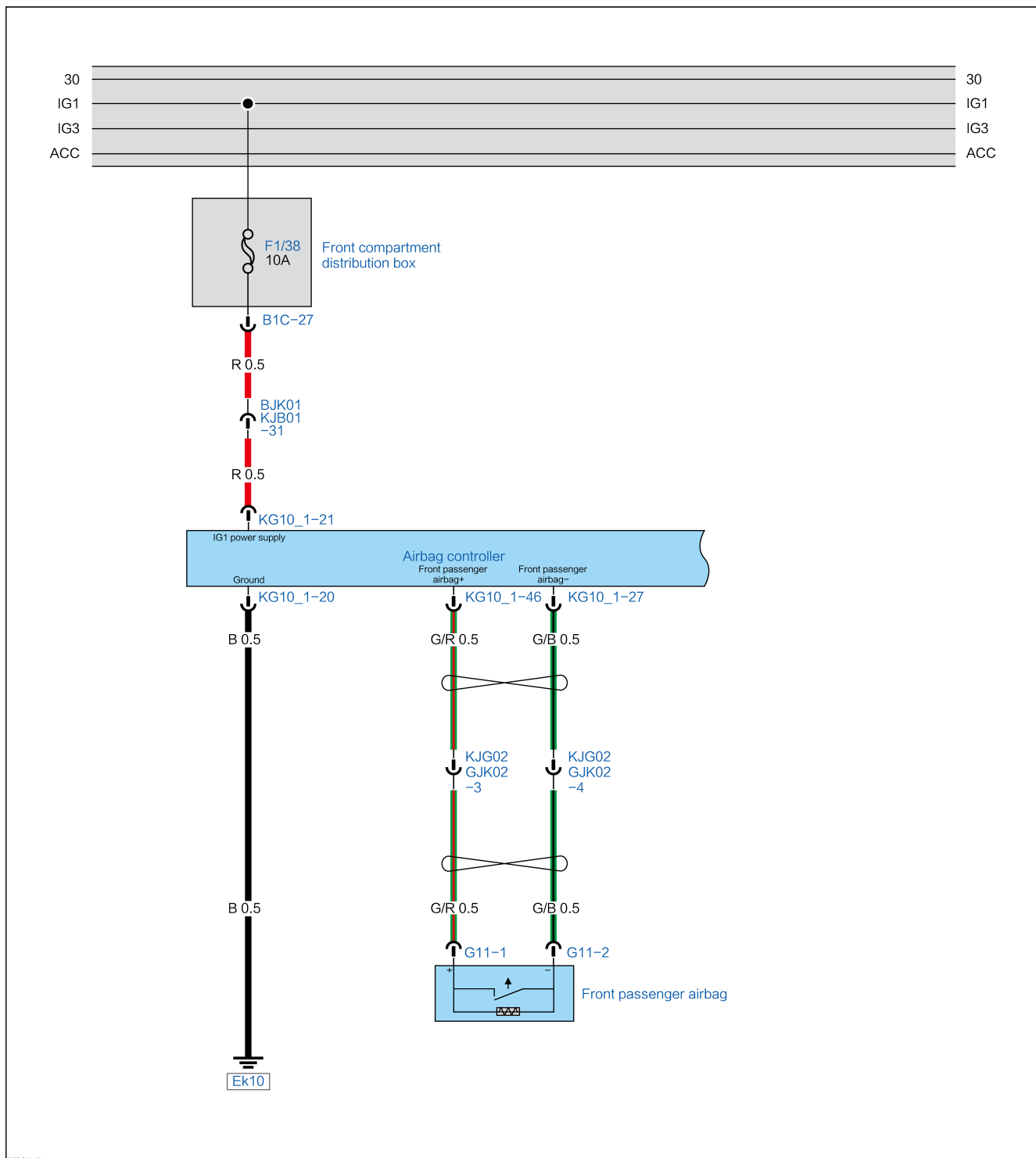
Replace the airbag control unit.

B161111 Front Passenger Frontal Airbag Short to Ground

DTC Description

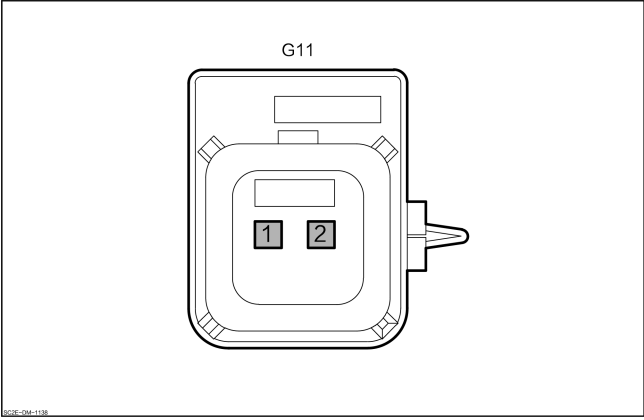
| B161111 Front Passenger Frontal Airbag Short to Ground | |
|--|---|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Front passenger airbag fault.3. Airbag control unit fault. |
| Fault setting conditions | The front passenger airbag is short to ground. |
| Trigger fault conditions | When the airbag control module receives the signal that the front passenger airbag is short circuited to the ground, DTC is generated. |

Circuit Diagram



SCHE-DM-1134

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">PAB</p>  <p style="text-align: center;">G11</p> <p style="text-align: center;">1 2</p> | 1 | PAB + |
| | 2 | PAB - |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the front passenger airbag harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the front passenger airbag harness connector G11.
3. Check whether the front passenger airbag harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

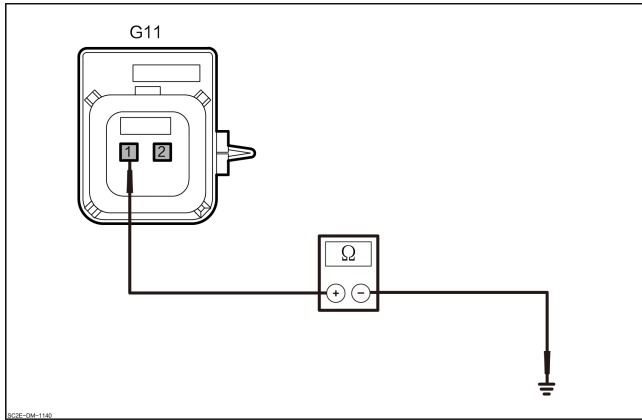
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check whether the front passenger airbag wire harness is shorted to ground. |
|---|---|



1. Measure the resistance between the harness connector of front passenger airbag G11-1 and the ground.
2. Measure the resistance between the harness connector of front passenger airbag G11-2 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| G11-1 | Ground | Through-out | Above 10k Ω |
| G11-2 | | | |

3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Replace the front passenger airbag and check the DTC.

1. Replace the front passenger airbag and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

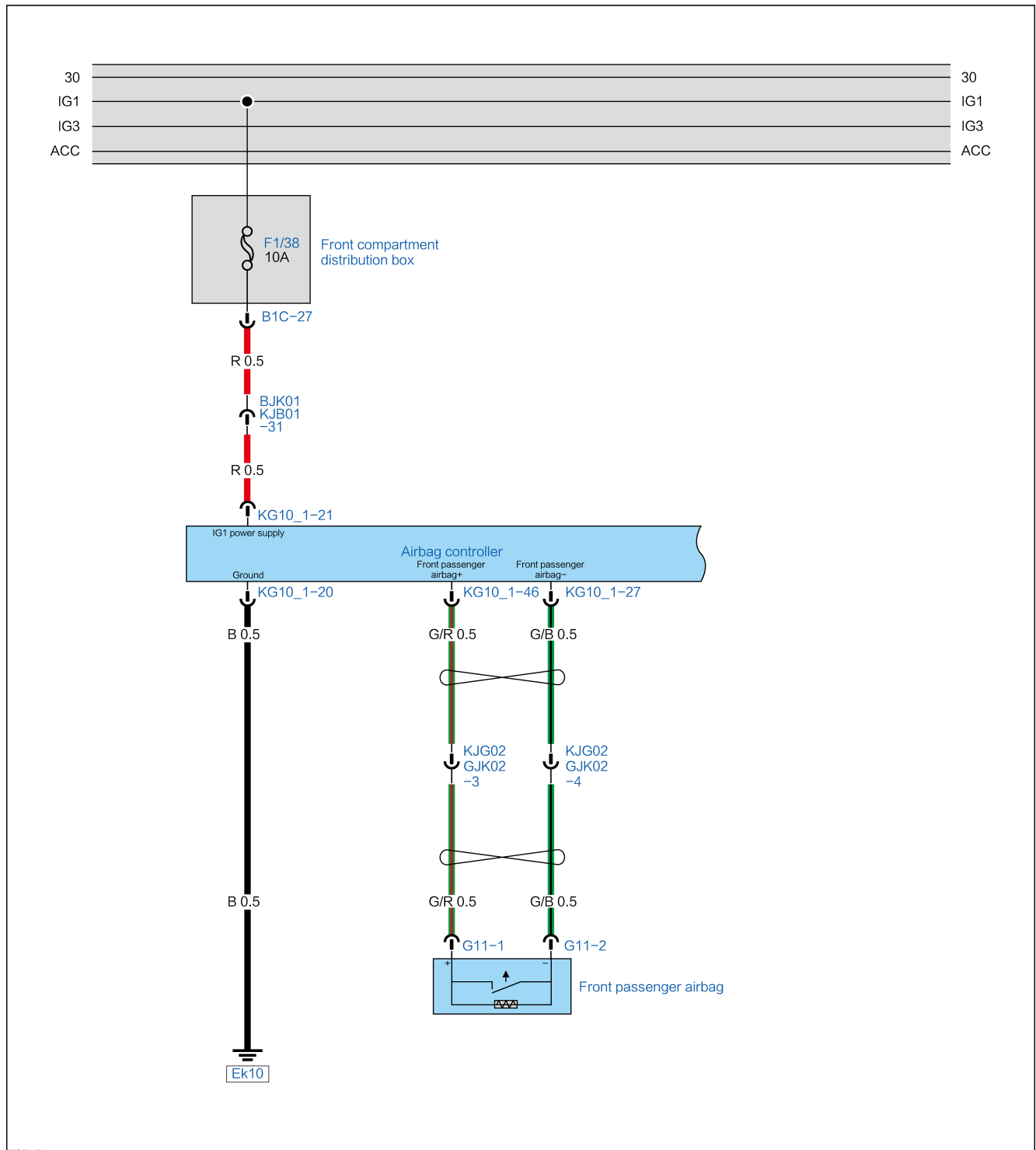
Replace the airbag control unit.

B161212 Front Passenger Frontal Airbag Short to Power

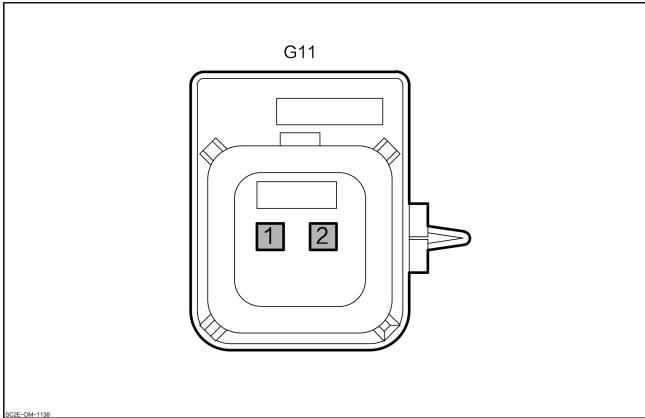
DTC Description

| B161212 Front Passenger Frontal Airbag Short to Power | |
|---|---|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Front passenger airbag fault.3. Airbag control unit fault. |
| Fault setting conditions | The front passenger airbag is short to power. |
| Trigger fault conditions | When the airbag control module receives a signal that the front passenger airbag is short-circuited to the power supply, DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">PAB</p>  <p style="text-align: center;">G11</p> <p style="text-align: center;">1 2</p> <p><small>80FZ-0M-138</small></p> | 1 | PAB + |
| | 2 | PAB - |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the front passenger airbag harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the front passenger airbag harness connector G11.
3. Check whether the front passenger airbag harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

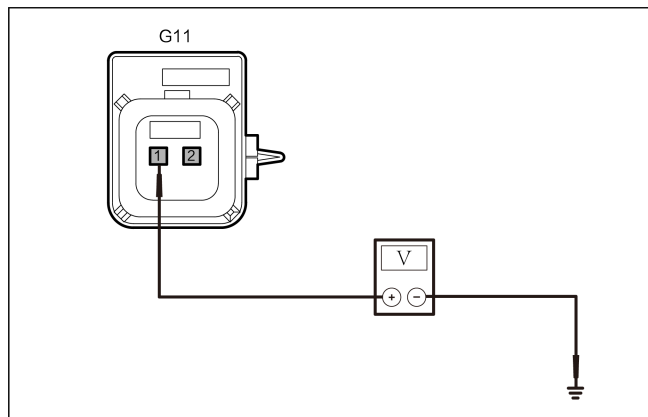
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the front passenger airbag wire harness is shorted to power. |
|---|--|



1. Measure the voltage between the harness connector of front passenger airbag G11-1 and the ground.
2. Measure the voltage between the harness connector of front passenger airbag G11-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G11-1 | Ground | Through-out | Less than 1V |
| G11-2 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Replace the front passenger airbag and check the DTC.

1. Replace the front passenger airbag and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No → The system is normal.

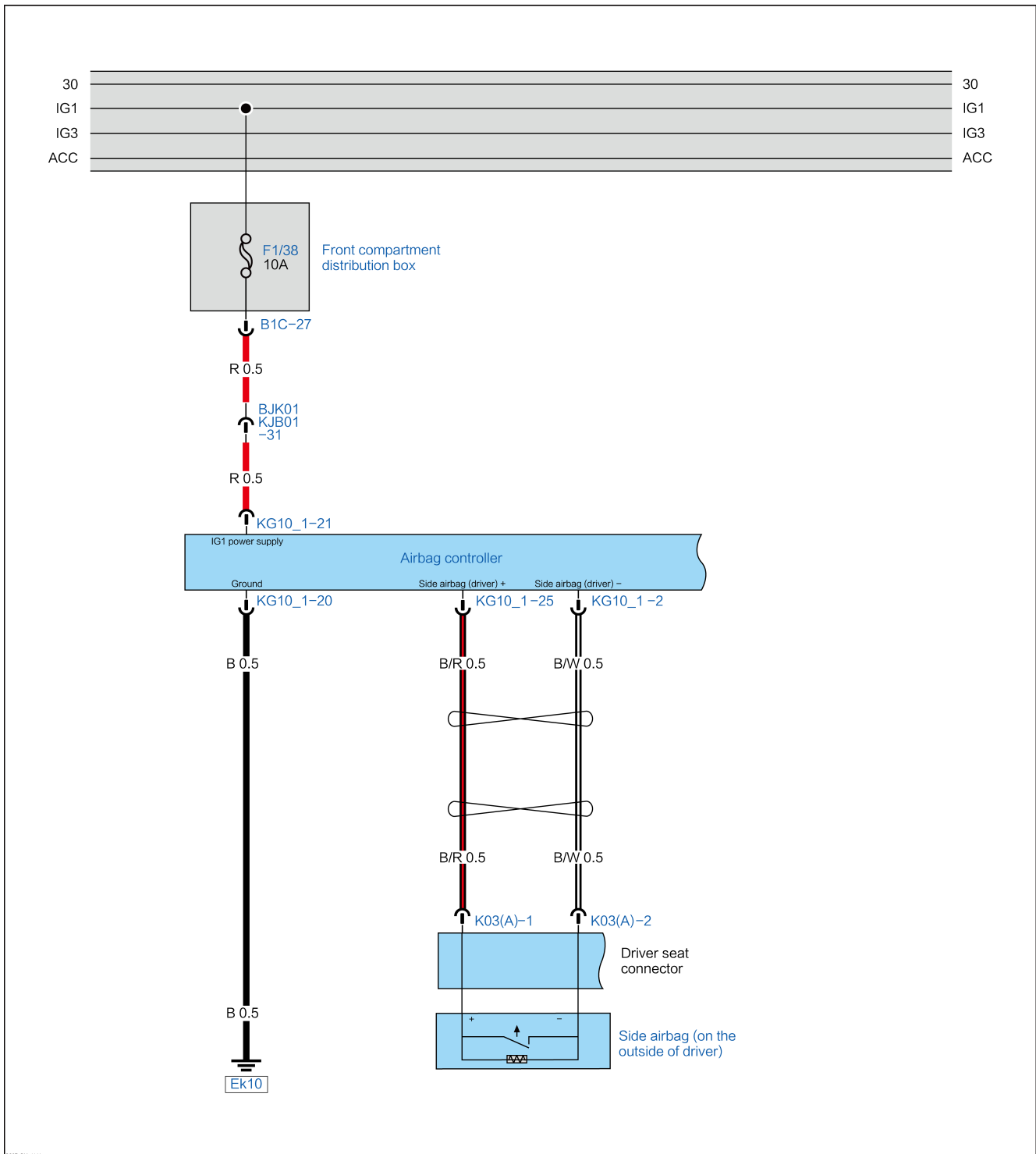
Yes → Replace the airbag control unit.

B16201B Driver Side Airbag Not Connected

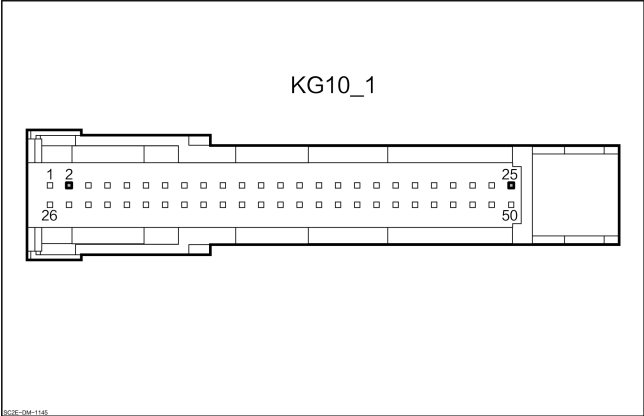
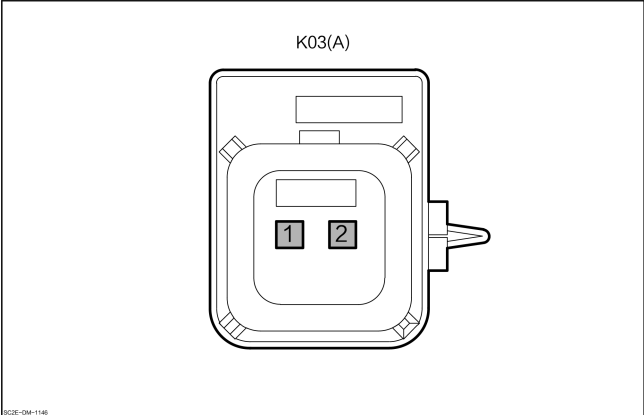
DTC Description

| B16201B Driver Side Airbag Not Connected | |
|--|---|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. The driver side airbag (driver outer side) fails.3. Airbag control unit fault. |
| Fault setting conditions | The driver side airbag (driver outer side) is not connected. |
| Trigger fault conditions | When the airbag control module receives the signal indicating driver airbag (driver outer side) not connected, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------------------------|
| <p style="text-align: center;">Airbag control unit</p> <p style="text-align: center;">KG10_1</p>  | 2 | Side airbag (the outside of driver) – |
| | 25 | Side airbag (the outside of driver) + |
| <p style="text-align: center;">Driver seat connector</p> <p style="text-align: center;">K03(A)</p>  | 1 | Side airbag (the outside of driver) + |
| | 2 | Side airbag (the outside of driver) – |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the driver seat harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the driver seat harness connector K03(A).
3. Check whether the driver seat harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

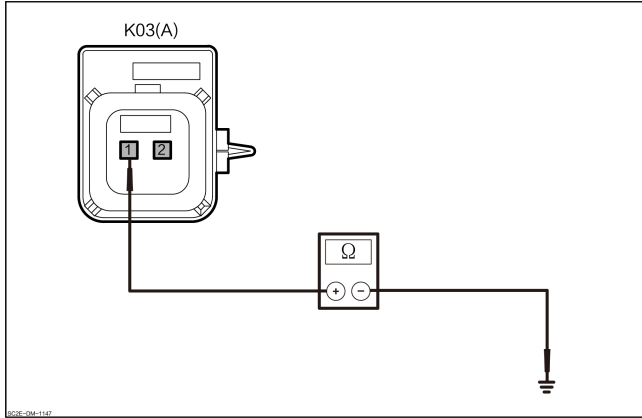
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check whether the connector circuits of the driver seat for short circuit is shorted to ground. |
|---|---|



1. Measure the resistance value between the driver seat wire harness connector K03 (A)-1 and the ground.
2. Measure the resistance value between the driver seat wire harness connector K03 (A)-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K03(A)-1 | Ground | Through- out | Above 10k Ω |
| K03(A)-2 | | | |

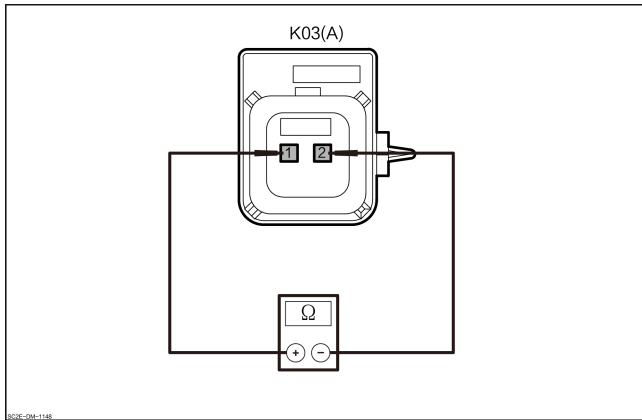
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check the connector circuits of the driver seat for short circuit to each other.



1. Measure the resistance value between the harness connectors K03 (A)-1 and K03 (A)-2 of the driver seat.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| K03(A)-1 | K03(A)-2 | Through- out | Above 10k Ω |

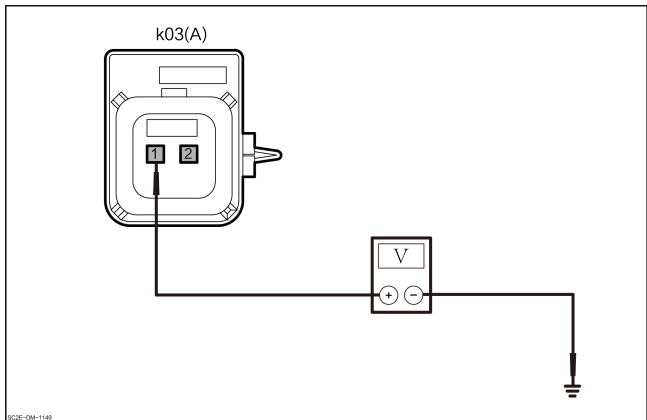
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

6 Check the connector circuits of the driver seat for short circuit to the power supply.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the driver seat harness connector K03 (A)–1 and the ground.
3. Measure the voltage value between the driver seat harness connector K03 (A)–2 and the ground.

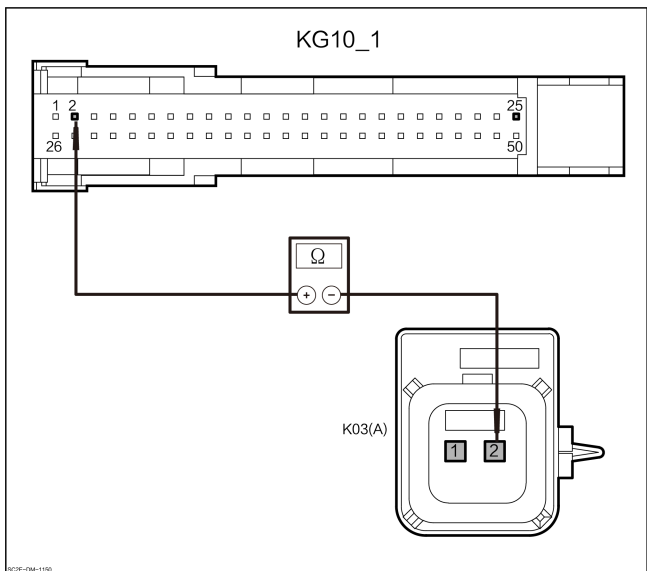
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K03(A)-1 | Ground | Through-out | Less than 1V |
| K03(A)-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the line from the airbag control module to the driver seat connector line for open circuit.



1. Measure the resistance between the harness connector of airbag control module KG10_1-2 and the harness connector of driver seat K03(A)-2.
2. Measure the resistance between the harness connector of airbag control module KG10_1-25 and the harness connector of driver seat K03(A)-1.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| KG10_1-2 | K03(A)-2 | Through-out | Lower than 1Ω |
| KG10_1-25 | K03(A)-1 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Replace the side airbag (driver outer side), and check the DTC.

1. Replace the side airbag (driver outer side), and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

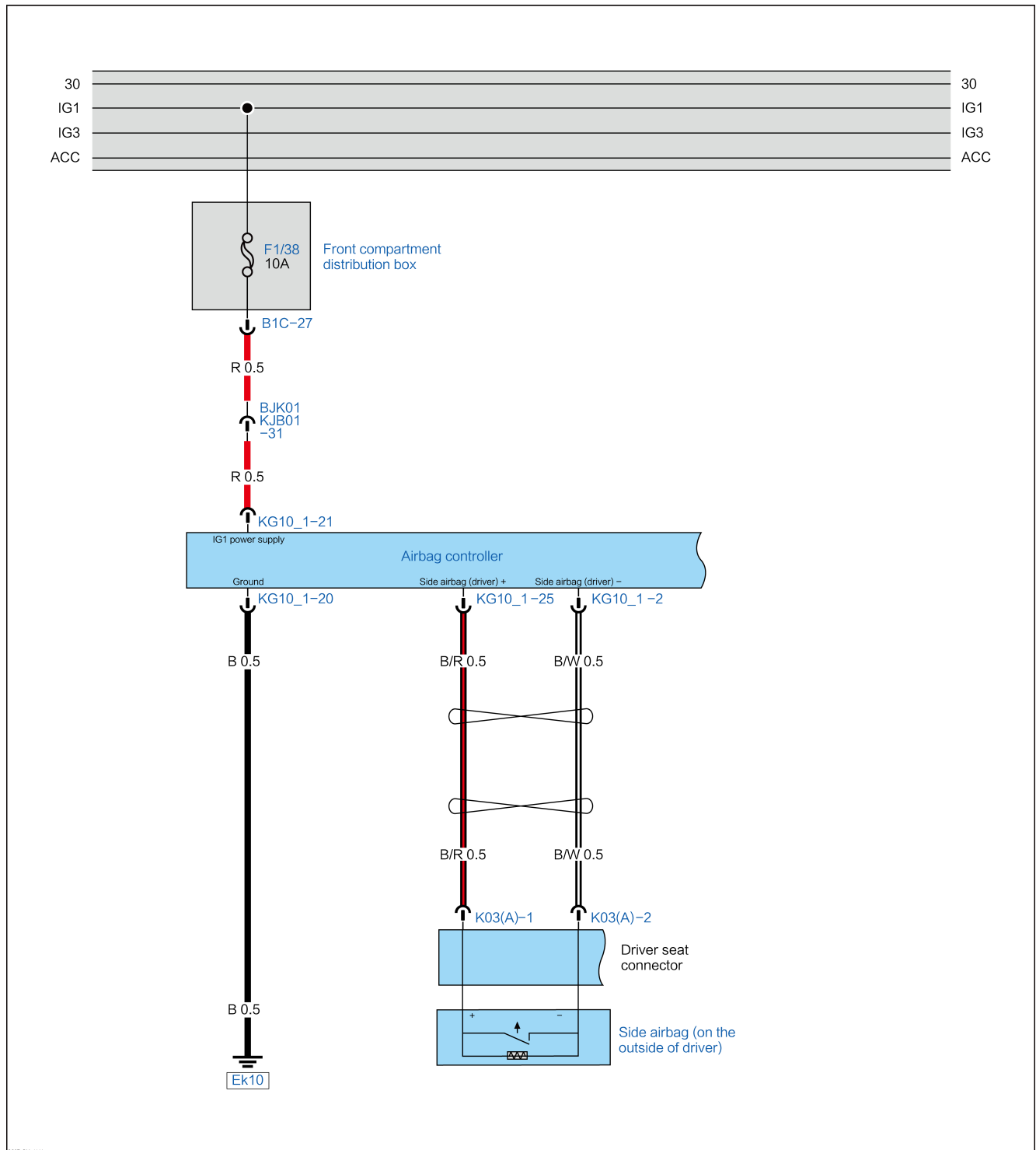
Replace the airbag control unit.

B162A1A Resistance of Driver Side Airbag Equaling to 0

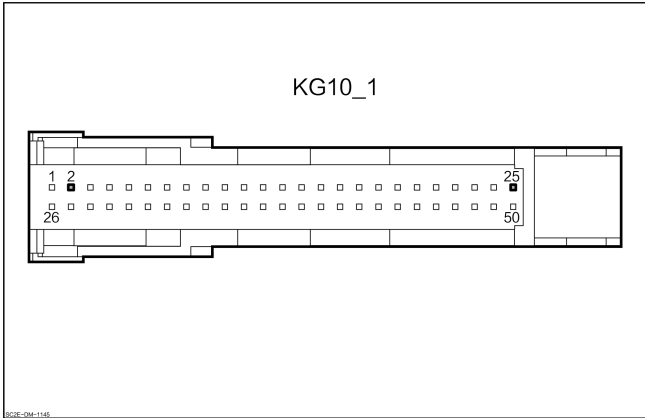
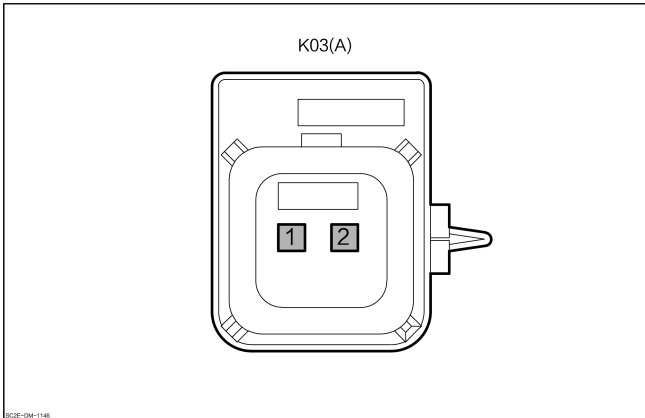
DTC Description

| B162A1A Resistance of Driver Side Airbag Equaling to 0 | |
|--|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Driver side air bag fault. 3. Airbag control unit fault. |
| Fault setting conditions | The resistance of the side airbag (driver outer side) equals to 0. |
| Trigger fault conditions | When the airbag control module receives the signal indicating resistance of side airbag (driver outer side) equaling to 0, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------------------------|
| <p style="text-align: center;">Airbag control unit</p>  <p style="text-align: center;">KG10_1</p> | 2 | Side airbag (the outside of driver) – |
| <p style="text-align: center;">Driver seat connector</p>  <p style="text-align: center;">K03(A)</p> | 1 | Side airbag (the outside of driver) + |
| | 2 | Side airbag (the outside of driver) – |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the driver seat harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the driver seat harness connector K03(A).
3. Check whether the driver seat harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

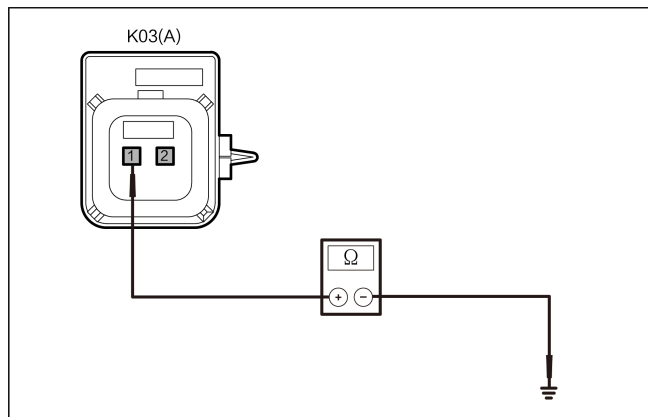
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check whether the connector circuits of the driver seat for short circuit is shorted to ground. |
|---|---|



1. Measure the resistance value between the driver seat wire harness connector K03 (A)-1 and the ground.
2. Measure the resistance value between the driver seat wire harness connector K03 (A)-2 and the ground.

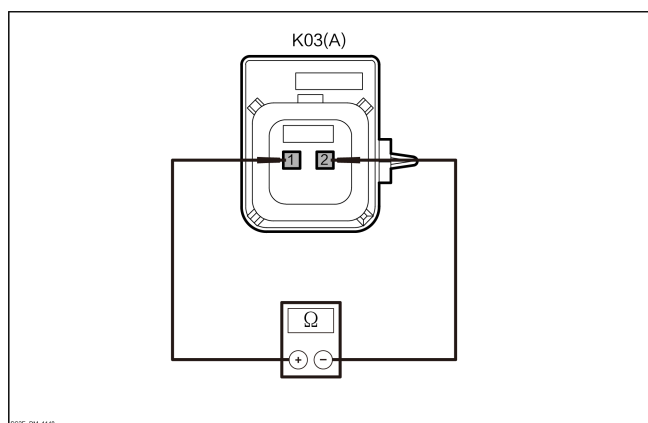
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K03(A)-1 | Ground | Through- out | Above 10k Ω |
| K03(A)-2 | | | |

3. Check whether the results are normal.

No Repair or replace the wire harness

Yes

5 Check the connector circuits of the driver seat for short circuit to each other.



1. Measure the resistance value between the harness connectors K03 (A)-1 and K03 (A)-2 of the driver seat.

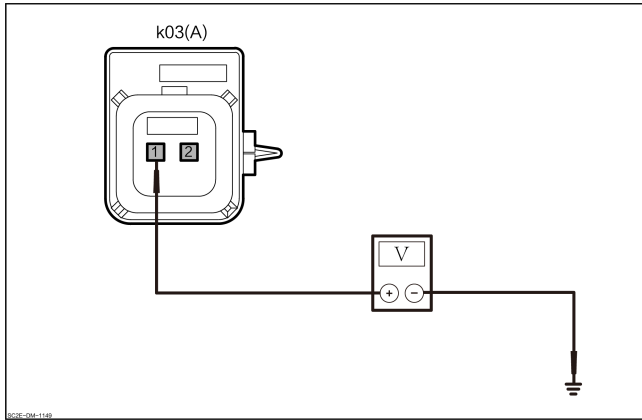
| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| K03(A)-1 | K03(A)-2 | Through- out | Above 10k Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

6 Check the connector circuits of the driver seat for short circuit to the power supply.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the driver seat harness connector K03 (A)-1 and the ground.
3. Measure the voltage value between the driver seat harness connector K03 (A)-2 and the ground.

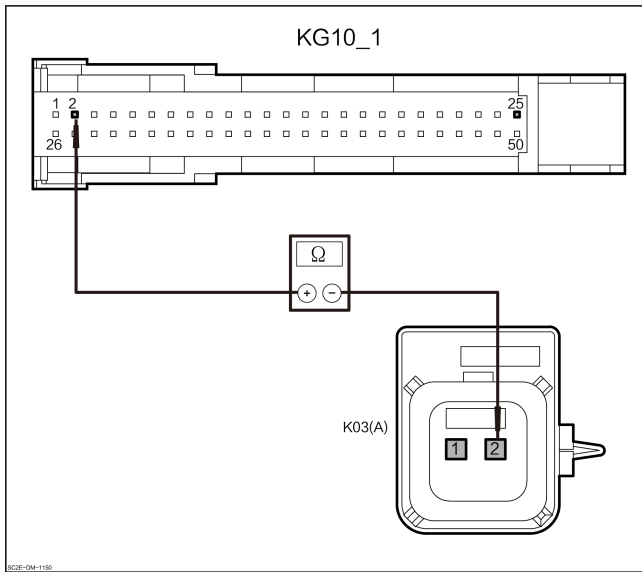
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K03(A)-1 | Ground | Through-out | Less than 1V |
| K03(A)-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the line from the airbag control module to the driver seat connector line for open circuit.



1. Measure the resistance between the harness connector of airbag control module KG10_1-2 and the harness connector of driver seat K03(A)-2.
2. Measure the resistance between the harness connector of airbag control module KG10_1-25 and the harness connector of driver seat K03(A)-1.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-------------|--------------------------|
| (+) | (-) | | |
| KG10_1-2 | K03(A)-2 | Through-out | Lower than 1Ω |
| KG10_1-25 | K03(A)-1 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Replace the side airbag (driver outer side), and check the DTC.

1. Replace the side airbag (driver outer side), and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

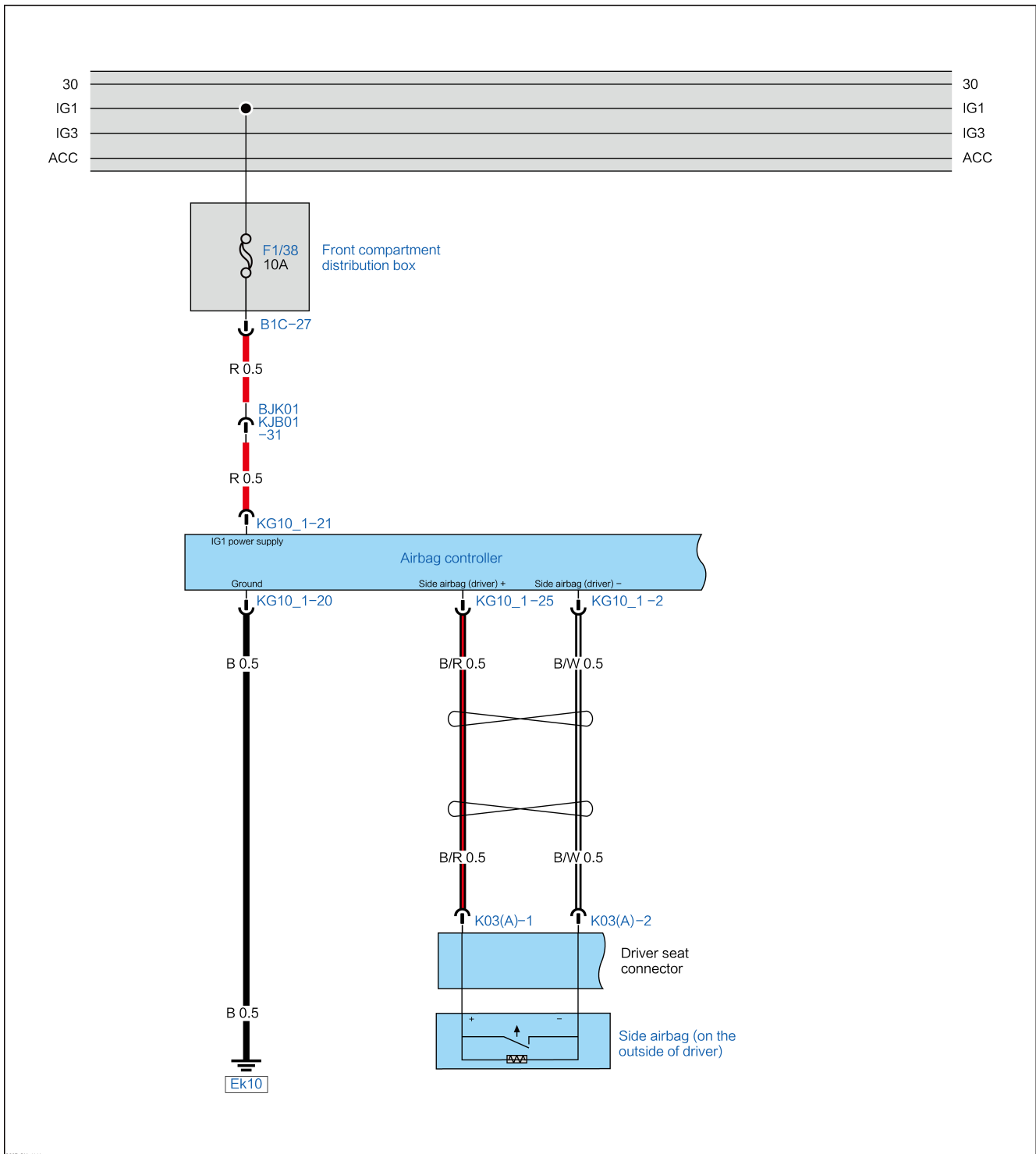
| | |
|-----|----------------------------------|
| No | The system is normal. |
| Yes | Replace the airbag control unit. |

B162111 Driver Side Airbag Short to Ground

DTC Description

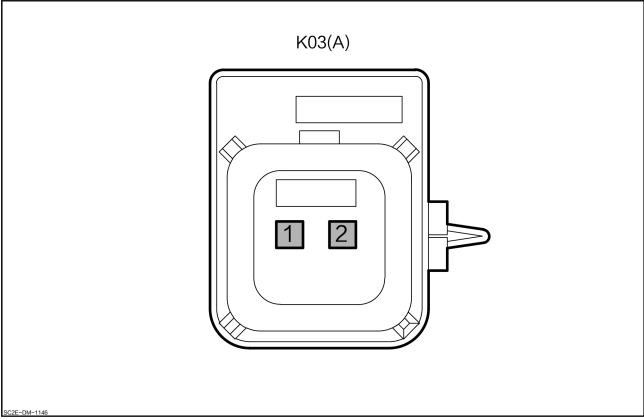
| B162111 Driver Side Airbag Short to Ground | |
|--|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Driver side air bag fault.3. Airbag control unit fault. |
| Fault setting conditions | The side airbag (driver outer side) is short to ground. |
| Trigger fault conditions | When the airbag control module receives signal that the side airbag is short circuited to ground (outside the driver), DTC is generated. |

Circuit Diagram



SCHE-DM-1144

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------------------------|
| <p style="text-align: center;">Driver seat connector</p> <div style="text-align: center;">  <p style="text-align: center;">K03(A)</p> </div> <p style="font-size: small; margin-top: 10px;">BCE-204-1145</p> | 1 | Side airbag (the outside of driver) + |
| | 2 | Side airbag (the outside of driver) - |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the driver seat harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the driver seat harness connector K03(A).
3. Check whether the driver seat harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

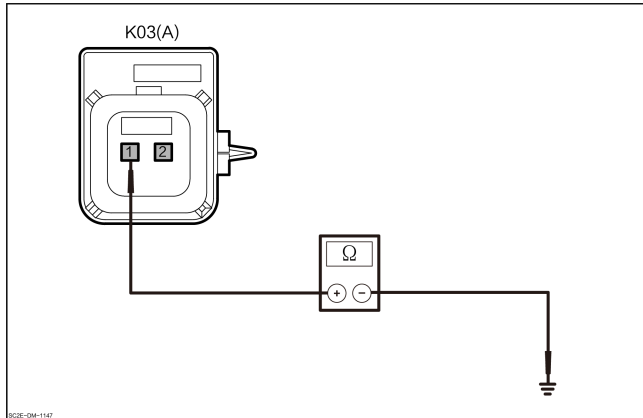
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check whether the connector circuits of the driver seat for short circuit is shorted to ground. |
|---|---|



1. Measure the resistance value between the driver seat wire harness connector K03 (A)-1 and the ground.
2. Measure the resistance value between the driver seat wire harness connector K03 (A)-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K03(A)-1 | Ground | Through- out | Above 10k Ω |
| K03(A)-2 | | | |

3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 5 | Replace the side airbag (driver outer side), and check the DTC. |
|---|---|

1. Replace the side airbag (driver outer side), and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

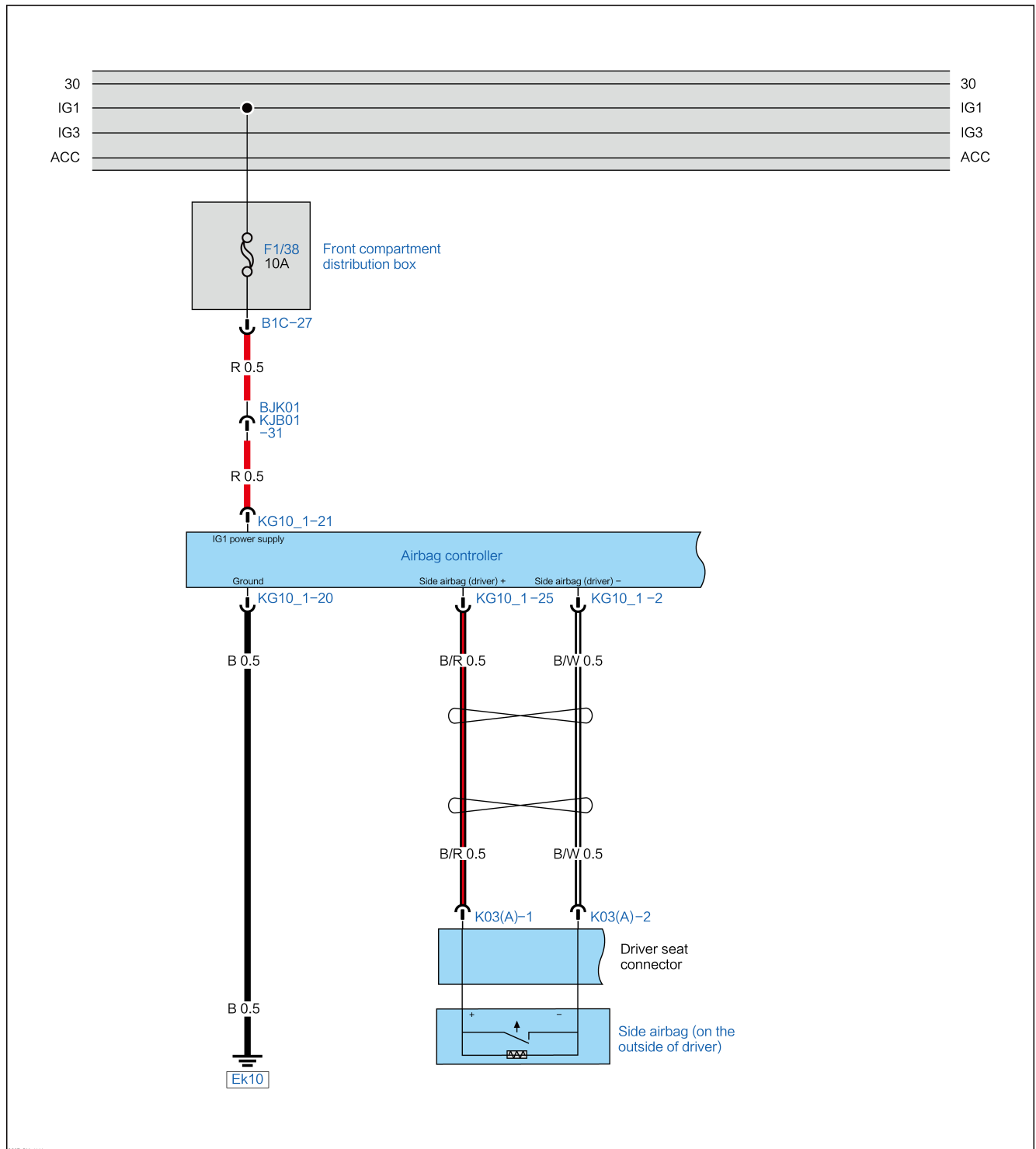
Yes

Replace the airbag control unit.

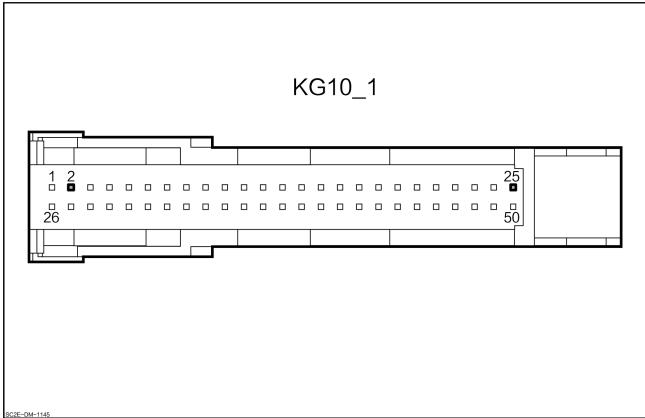
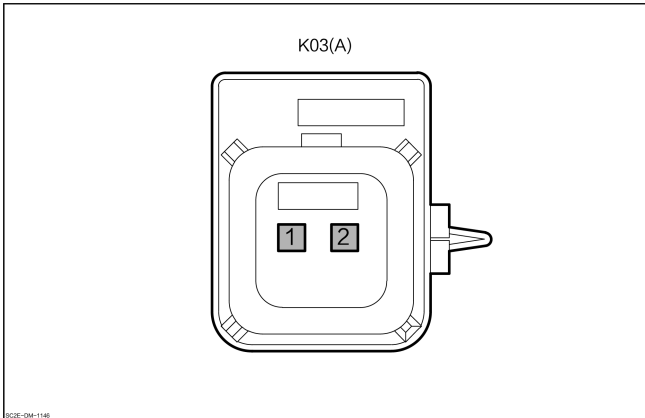
B162212 Driver Side Airbag Short to Power**DTC Description**

| B162212 Driver Side Airbag Short to Power | |
|---|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | 1. Harness or connector fault. 2. Driver side air bag fault. 3. Airbag control unit fault. |
| Fault setting conditions | The side airbag (driver outer side) is short to power. |
| Trigger fault conditions | When the airbag control module receives signal that the side airbag is short circuited to the power supply (outside the driver), DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------------------------|
| <p style="text-align: center;">Airbag control unit</p>  <p style="text-align: center;">KG10_1</p> | 2 | Side airbag (the outside of driver) – |
| <p style="text-align: center;">Driver seat connector</p>  <p style="text-align: center;">K03(A)</p> | 1 | Side airbag (the outside of driver) + |
| | 2 | Side airbag (the outside of driver) – |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the driver seat harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the driver seat harness connector K03(A).
3. Check whether the driver seat harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

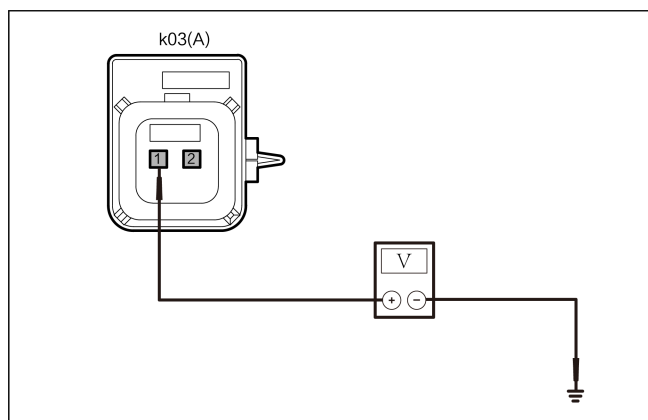
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the connector circuits of the driver seat for short circuit to the power supply. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the driver seat harness connector K03 (A)-1 and the ground.
3. Measure the voltage value between the driver seat harness connector K03 (A)-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K03(A)-1 | Ground | Through-out | Less than 1V |
| K03(A)-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Replace the side airbag (driver outer side), and check the DTC.

1. Replace the side airbag (driver outer side), and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

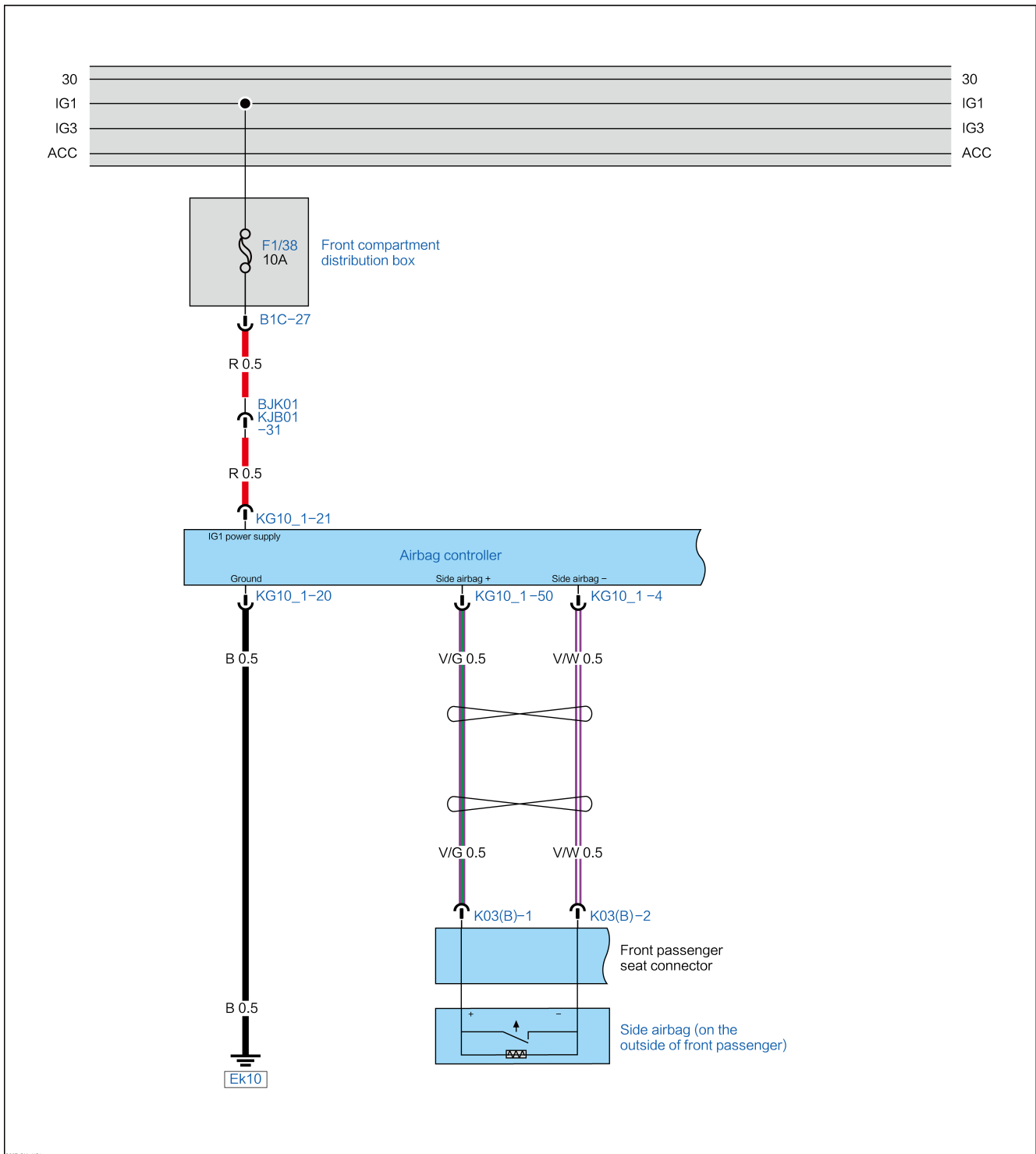
No → The system is normal.

Yes → Replace the airbag control unit.

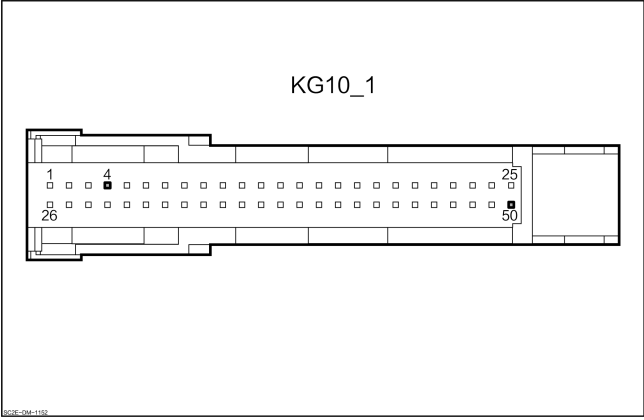
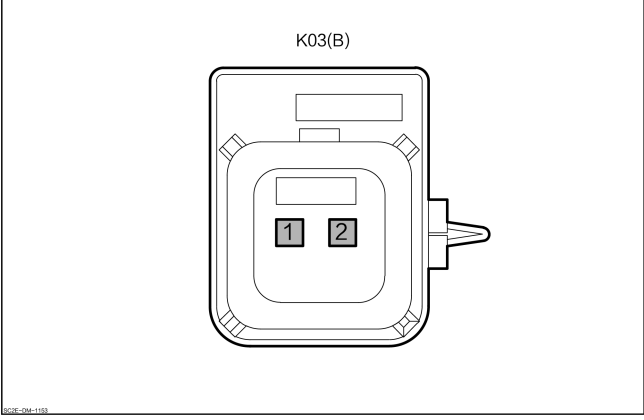
B16301B Front Passenger Side Airbag Not Connected**DTC Description**

| B16301B Front Passenger Side Airbag Not Connected | |
|---|---|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | 1. Harness or connector fault. 2. Failure of side airbag (outside front passenger). 3. Airbag control unit fault. |
| Fault setting conditions | Side airbag (outside front passenger) not connected. |
| Trigger fault conditions | When the airbag control module receives a signal that the side airbag (outside the passenger) is not connected, DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|--|
| <p style="text-align: center;">Airbag control unit</p> <div style="text-align: center;">  <p>KG10_1</p> </div> | <p style="text-align: center;">4</p> | <p style="text-align: center;">Side airbag –</p> |
| <p style="text-align: center;">Front Passenger Seat Connector</p> <div style="text-align: center;">  <p>K03(B)</p> </div> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Side airbag+</p> |
| | <p style="text-align: center;">50</p> | <p style="text-align: center;">Side airbag+</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Side airbag –</p> |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the front passenger seat harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the front passenger seat harness connector K03(B).
3. Check whether the front passenger seat harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

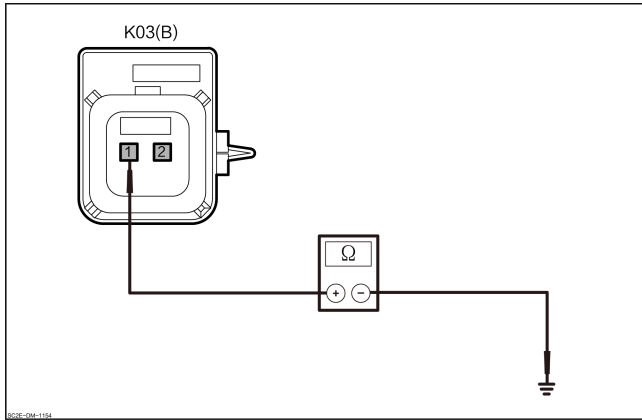
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the connector circuits of the front passenger seat is shorted to ground. |
|---|--|



1. Measure the resistance value between the front passenger seat harness connector K03 (B)–1 and the ground.
2. Measure the resistance value between the front passenger seat harness connector K03 (B)–2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K03(B)–1 | Ground | Through- out | Above 10k Ω |
| K03(B)–2 | | | |

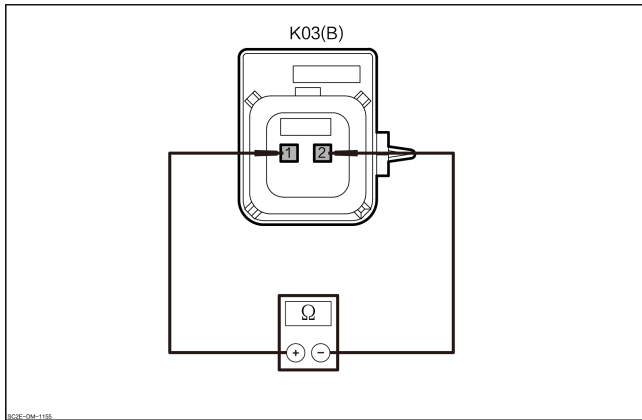
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check the front passenger seat connector line for short circuit to each other.



1. Measure the resistance value between the front passenger seat harness connector K03 (B)–1 and K03 (B)–2.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| K03(B)–1 | K03(B)–2 | Through- out | Above 10k Ω |

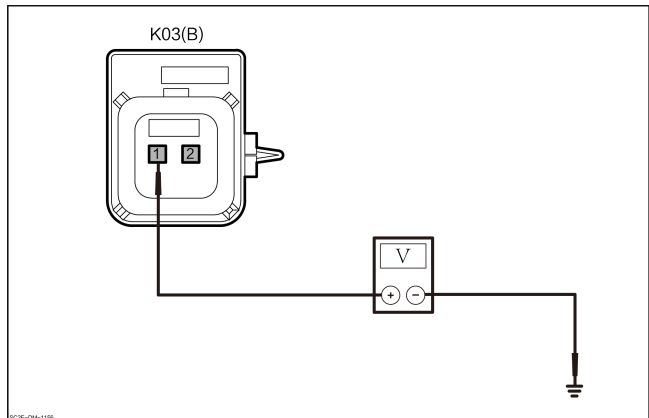
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

6 Check whether the front passenger seat connector circuit is short circuited to the power supply.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the front passenger seat harness connector K03 (B)–1 and the ground.
3. Measure the voltage value between the front passenger seat harness connector K03 (B)–2 and the ground.

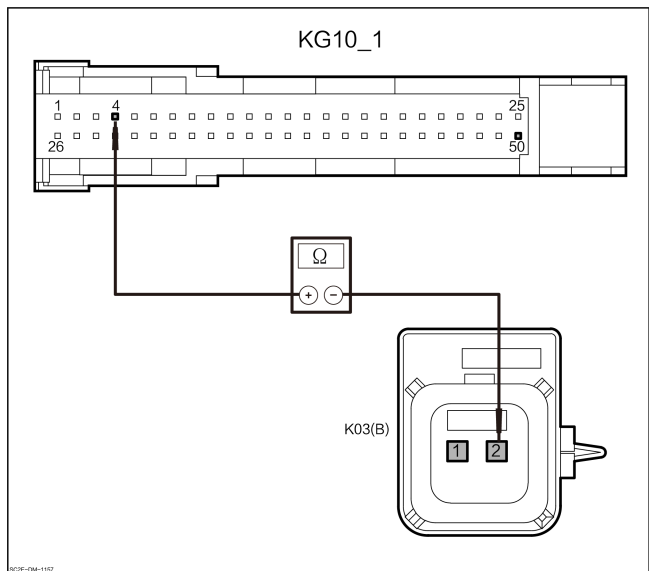
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K03(B)–1 | Ground | Through-out | Less than 1V |
| K03(B)–2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the line from the airbag control module to the front passenger seat connector for open circuit.



1. Measure the resistance between the harness connector of airbag control module KG10_1–4 and the harness connector of front passenger seat K03(B)–4.
2. Measure the resistance between the harness connector of airbag control module KG10_1–50 and the harness connector of front passenger seat K03(B)–1.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| KG10_1–4 | K03(B)–2 | Through-out | Lower than 1Ω |
| KG10_1–50 | K03(B)–1 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Replace the side airbag (front passenger outer side), and check the DTC.

1. Replace the side airbag (front passenger outer side), and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

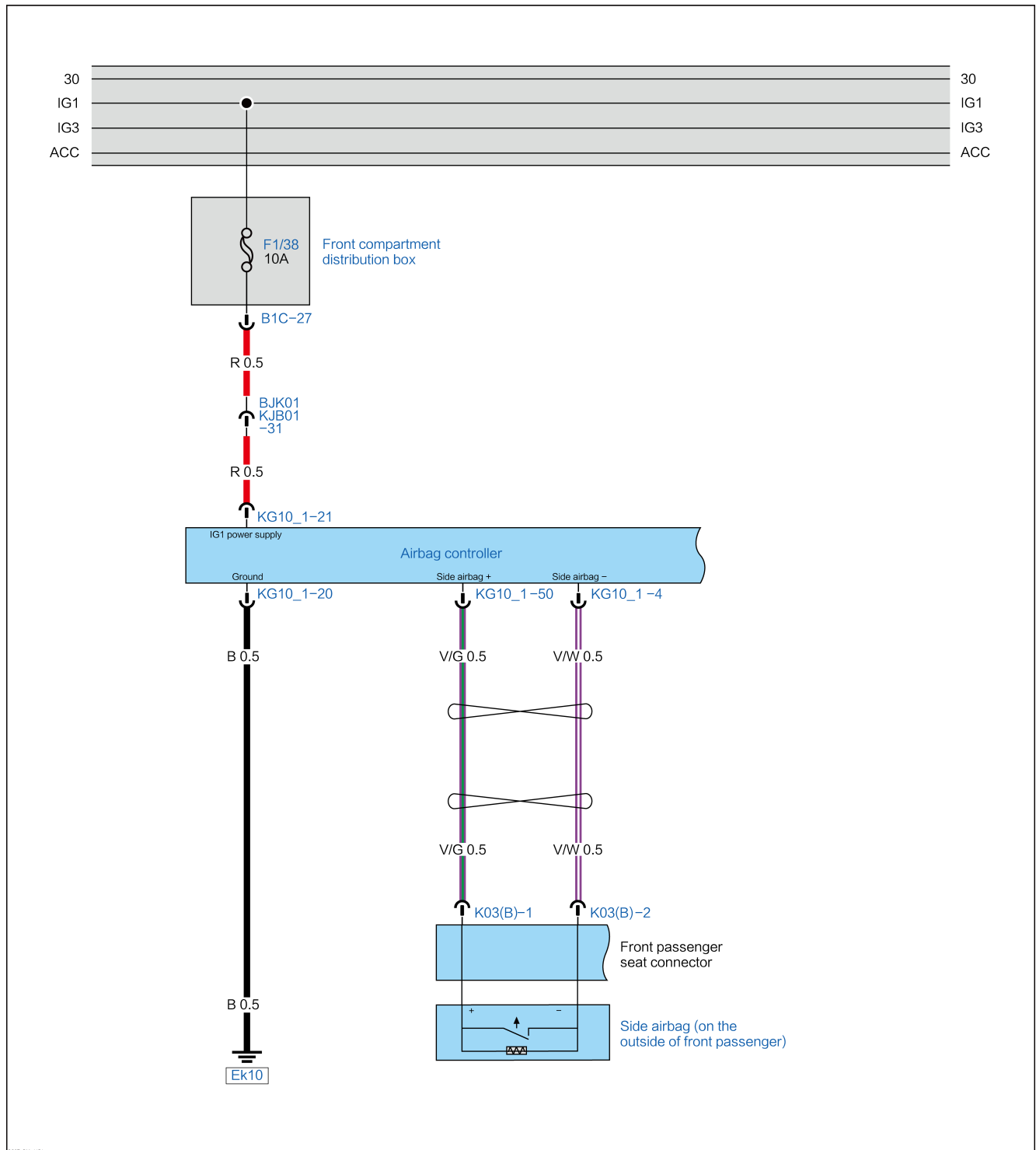
Replace the airbag control unit.

B163B1B Resistance of Front Passenger Side Airbag Equaling to 0

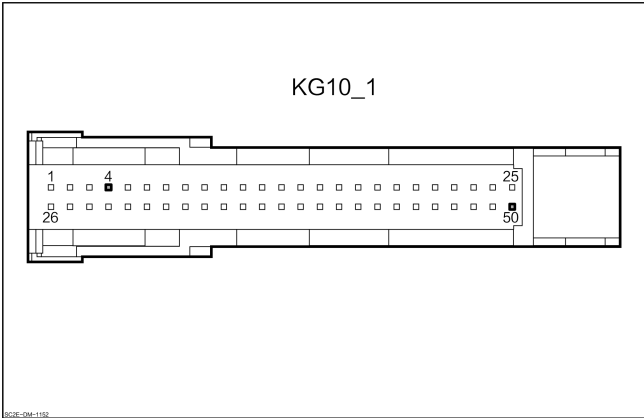
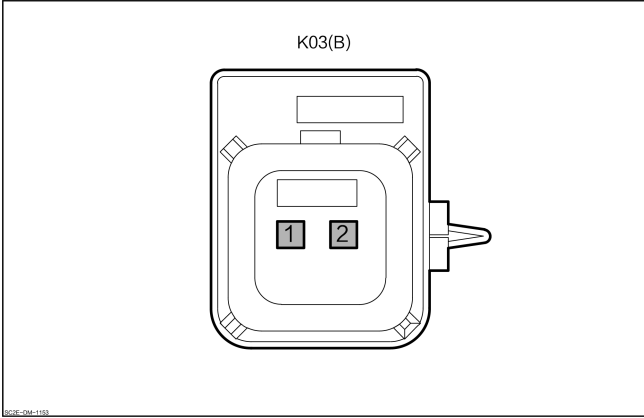
DTC Description

| B163B1B Resistance of Front Passenger Side Airbag Equaling to 0 | |
|---|---|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Failure of side airbag (outside front passenger). 3. Airbag control unit fault. |
| Fault setting conditions | The resistance of the side airbag (front passenger outer side) equals to 0. |
| Trigger fault conditions | When the airbag control module receives the signal indicating resistance of side airbag (front passenger outer side) equaling to 0, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Airbag control unit</p> <div style="text-align: center;">  <p>KG10_1</p> </div> | 4 | Side airbag – |
| <p style="text-align: center;">Front Passenger Seat Connector</p> <div style="text-align: center;">  <p>K03(B)</p> </div> | 1 | Side airbag+ |
| | 2 | Side airbag – |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the front passenger seat harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the front passenger seat harness connector K03(B).
3. Check whether the front passenger seat harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

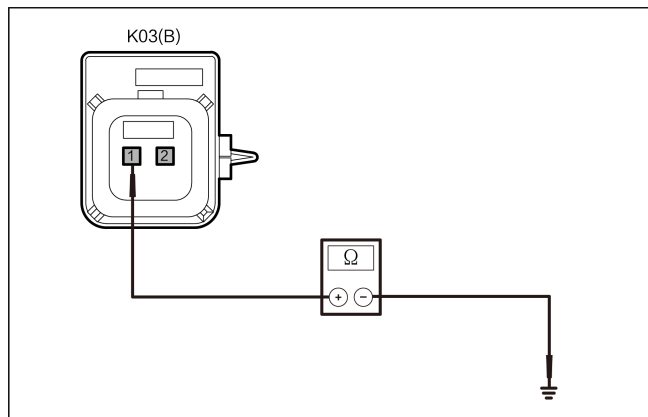
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the connector circuits of the front passenger seat is shorted to ground. |
|---|--|



1. Measure the resistance value between the front passenger seat harness connector K03 (B)-1 and the ground.
2. Measure the resistance value between the front passenger seat harness connector K03 (B)-2 and the ground.

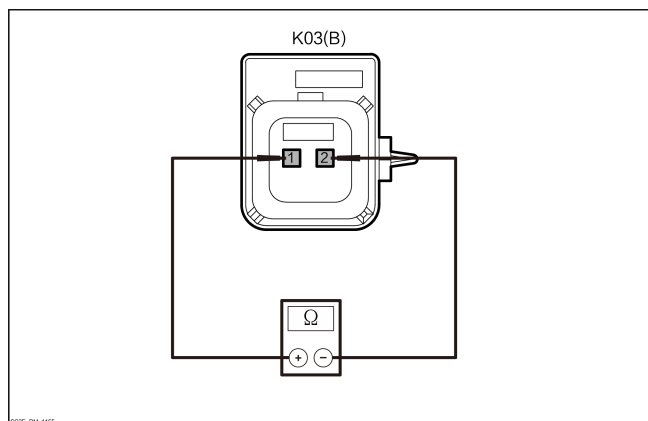
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K03(B)-1 | Ground | Through- out | Above 10k Ω |
| K03(B)-2 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the front passenger seat connector line for short circuit to each other.



1. Measure the resistance value between the front passenger seat harness connector K03 (B)-1 and K03 (B)-2.

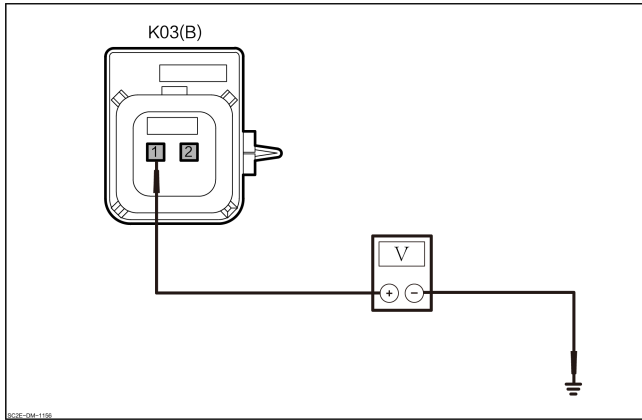
| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| K03(B)-1 | K03(B)-2 | Through- out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check whether the front passenger seat connector circuit is short circuited to the power supply.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the front passenger seat harness connector K03 (B)-1 and the ground.
3. Measure the voltage value between the front passenger seat harness connector K03 (B)-2 and the ground.

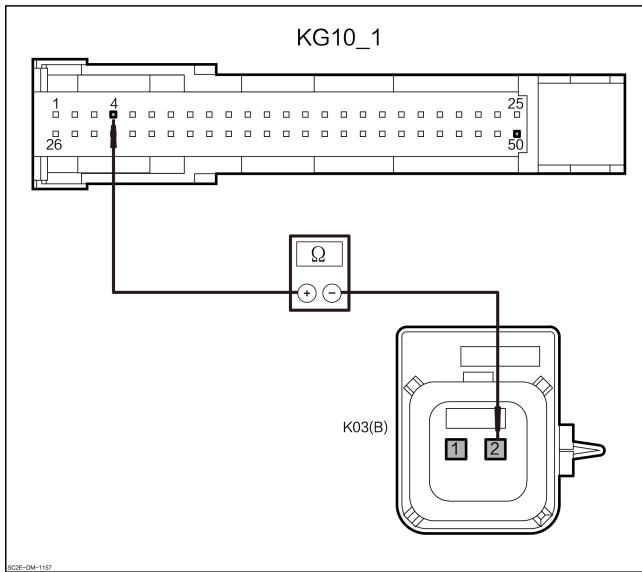
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K03(B)-1 | Ground | Through-out | Less than 1V |
| K03(B)-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the line from the airbag control module to the front passenger seat connector for open circuit.



1. Measure the resistance between the harness connector of airbag control module KG10_1-4 and the harness connector of front passenger seat K03(B)-4.
2. Measure the resistance between the harness connector of airbag control module KG10_1-50 and the harness connector of front passenger seat K03(B)-1.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-------------|--------------------------|
| (+) | (-) | | |
| KG10_1-4 | K03(B)-2 | Through-out | Lower than 1Ω |
| KG10_1-50 | K03(B)-1 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Replace the side airbag (front passenger outer side), and check the DTC.

1. Replace the side airbag (front passenger outer side), and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

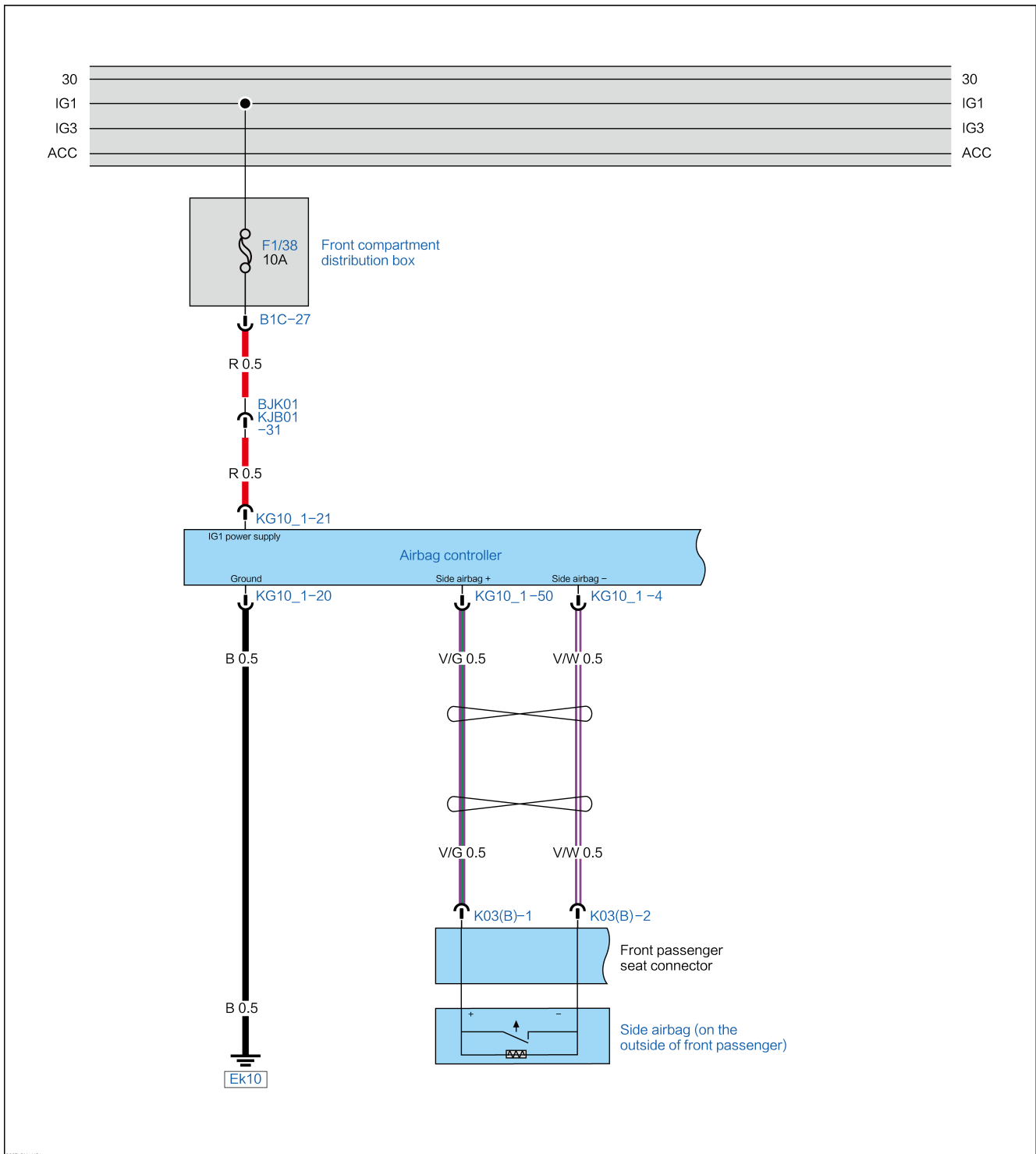
Replace the airbag control unit.

B163111 Front Passenger Side Airbag Short to Ground

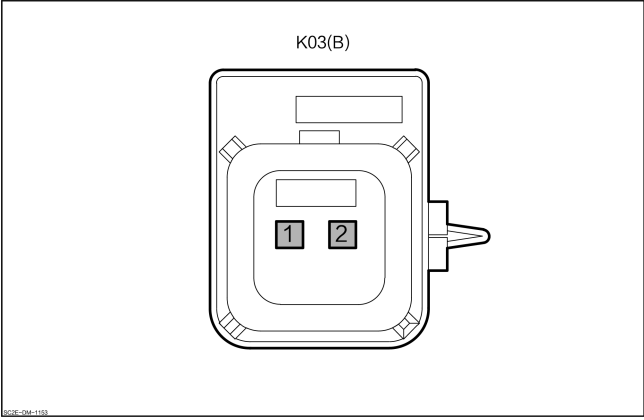
DTC Description

| B163111 Front Passenger Side Airbag Short to Ground | |
|---|---|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Failure of side airbag (outside front passenger).3. Airbag control unit fault. |
| Fault setting conditions | The side airbag (front passenger outer side) is short to ground. |
| Trigger fault conditions | When the airbag control module receives the signal indicating side airbag (front passenger outer side) short to ground, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Front Passenger Seat Connector</p> <div style="text-align: center;">  <p style="margin-left: 100px;">K03(B)</p> </div> | 1 | Side airbag+ |
| | 2 | Side airbag – |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the front passenger seat harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the front passenger seat harness connector K03(B).
3. Check whether the front passenger seat harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

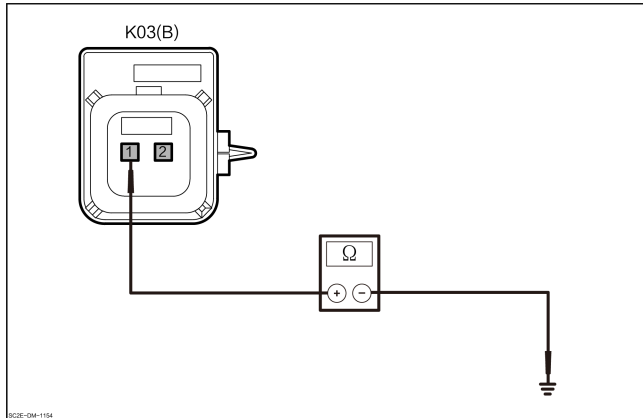
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the connector circuits of the front passenger seat is shorted to ground. |
|---|--|



1. Measure the resistance value between the front passenger seat harness connector K03 (B)-1 and the ground.
2. Measure the resistance value between the front passenger seat harness connector K03 (B)-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K03(B)-1 | Ground | Through- out | Above 10k Ω |
| K03(B)-2 | | | |

3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 5 | Replace the side airbag (front passenger outer side), and check the DTC. |
|---|--|

1. Replace the side airbag (front passenger outer side), and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

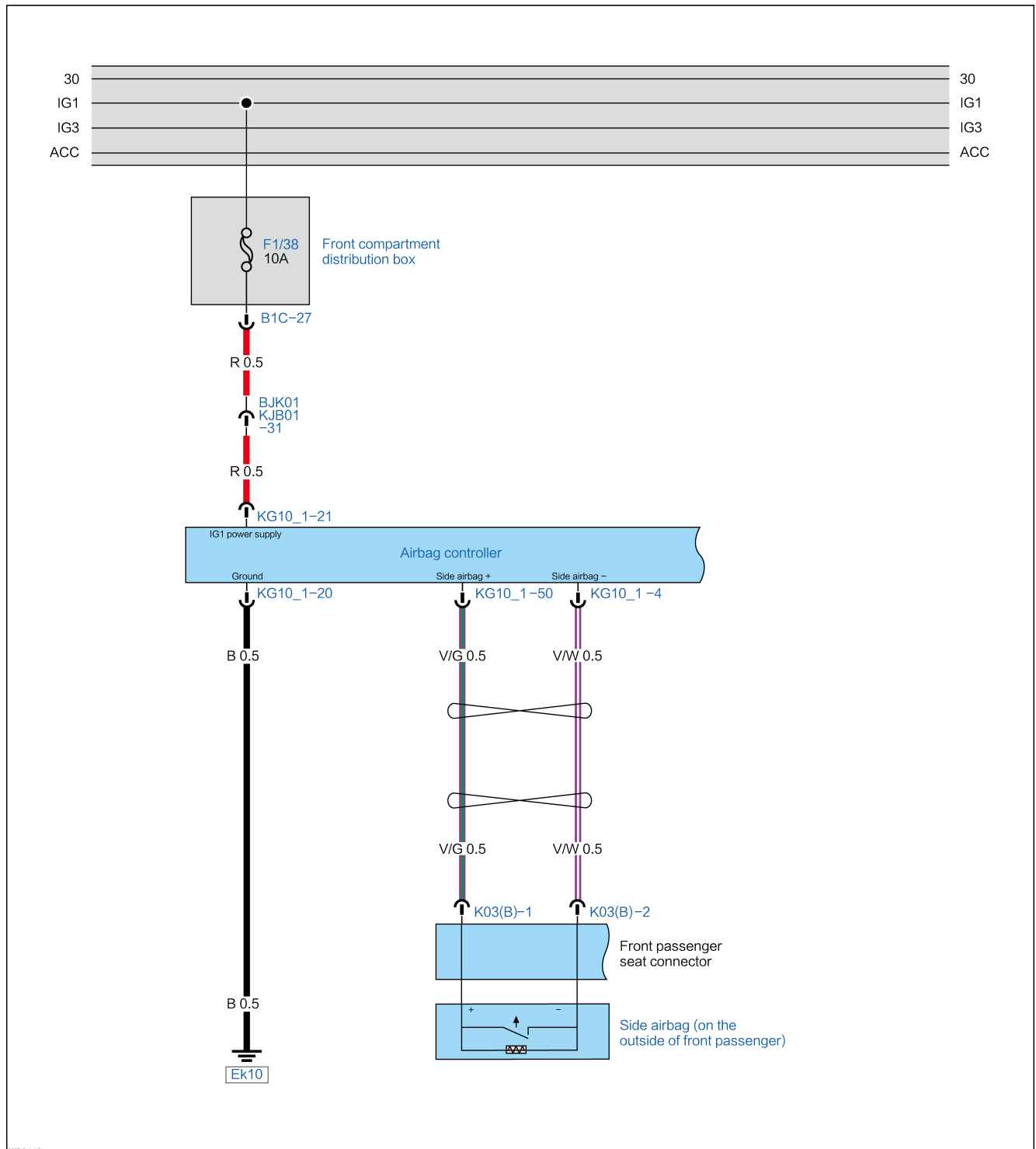
Replace the airbag control unit.

B163212 Front Passenger Side Airbag Short to Power

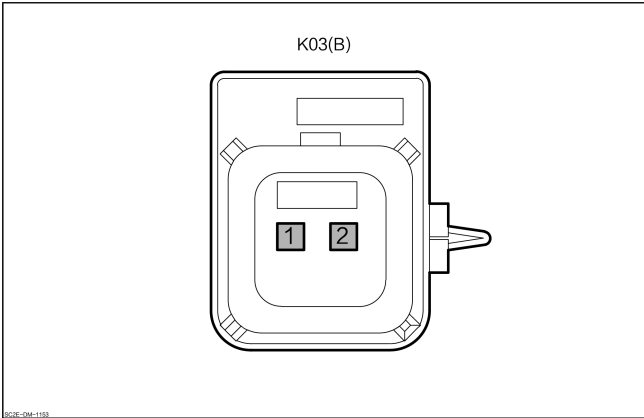
DTC Description

| B163212 Front Passenger Side Airbag Short to Power | |
|--|---|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Failure of side airbag (outside front passenger). 3. Airbag control unit fault. |
| Fault setting conditions | The side airbag (front passenger outer side) is short to power. |
| Trigger fault conditions | When the airbag control module receives the signal indicating side airbag (front passenger outer side) short to power, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Front Passenger Seat Connector</p> <div style="text-align: center;">  <p style="margin-left: 100px;">K03(B)</p> </div> <p style="font-size: small; margin-top: 10px;">801E-04-1193</p> | 1 | Side airbag+ |
| | 2 | Side airbag - |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the front passenger seat harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the front passenger seat harness connector K03(B).
3. Check whether the front passenger seat harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

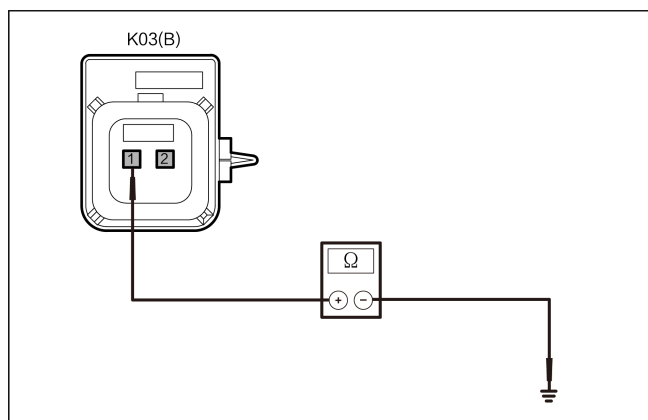
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the front passenger seat connector circuit is short circuited to the power supply. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the front passenger seat harness connector K03 (B)-1 and the ground.
3. Measure the voltage value between the front passenger seat harness connector K03 (B)-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K03(B)-1 | Ground | Through-out | Less than 1V |
| K03(B)-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Replace the side airbag (front passenger outer side), and check the DTC.

1. Replace the side airbag (front passenger outer side), and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

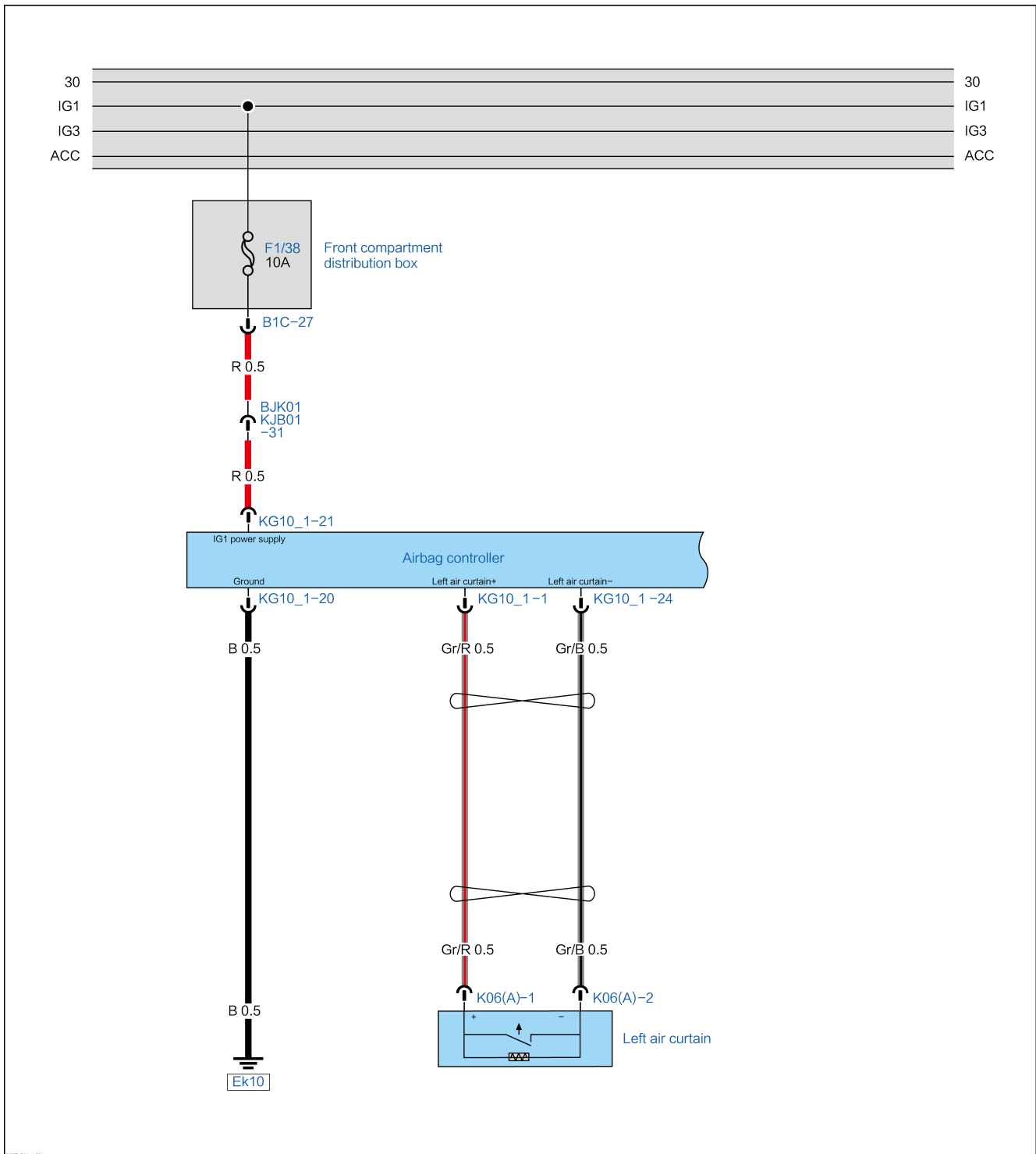
No → The system is normal.

Yes → Replace the airbag control unit.

B17041B Left Air Curtain Not Connected**DTC Description**

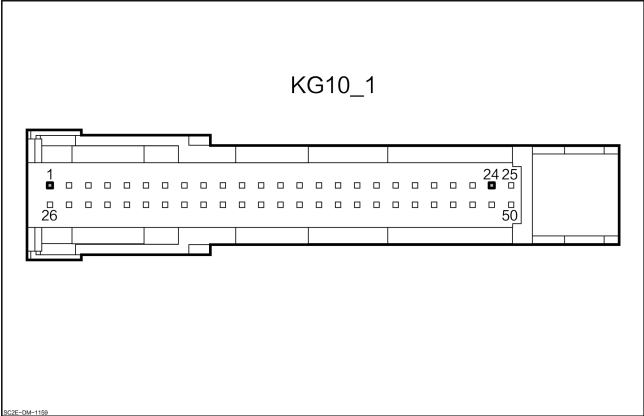
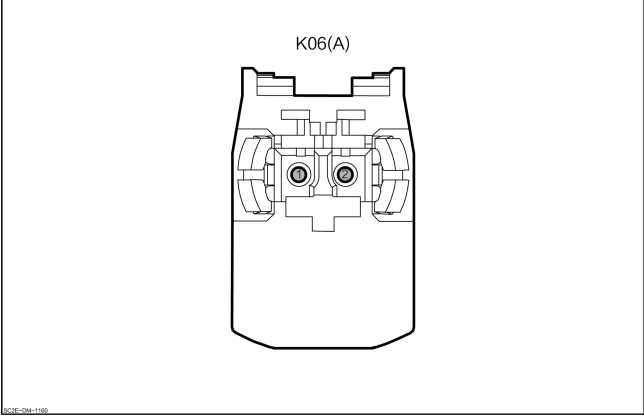
| B17041B Left Air Curtain Not Connected | |
|--|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | 1. Harness or connector fault. 2. Left side curtain airbag fault. 3. Airbag control unit fault. |
| Fault setting conditions | Left side CAB not connected |
| Trigger fault conditions | When the airbag control module receives a signal that the left air curtain is not connected, DTC is generated. |

Circuit Diagram



SCHE-DM-1108

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|---|
| <p style="text-align: center;">Airbag control unit</p> <div style="text-align: center;">  <p>KG10_1</p> </div> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Left side curtain airbag +</p> |
| <p style="text-align: center;">Left side curtain airbag</p> <div style="text-align: center;">  <p>K06(A)</p> </div> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Left side curtain airbag +</p> |
| | <p style="text-align: center;">24</p> | <p style="text-align: center;">Left side curtain airbag –</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Left side curtain airbag –</p> |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check whether the left side CAB harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the left air curtain harness connector K06 (A).
3. Check whether the left side CAB harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

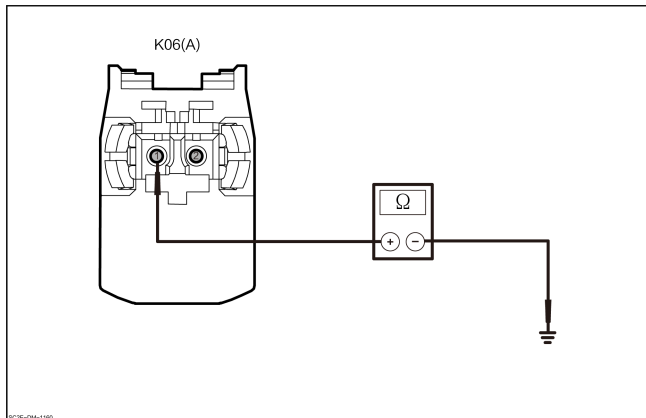
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check whether the left air curtain line is shorted to ground. |
|---|---|



1. Measure the resistance value between the left air curtain harness connector K06 (A)-1 and ground.
2. Measure the resistance value between the left air curtain harness connector K06 (A)-2 and ground.

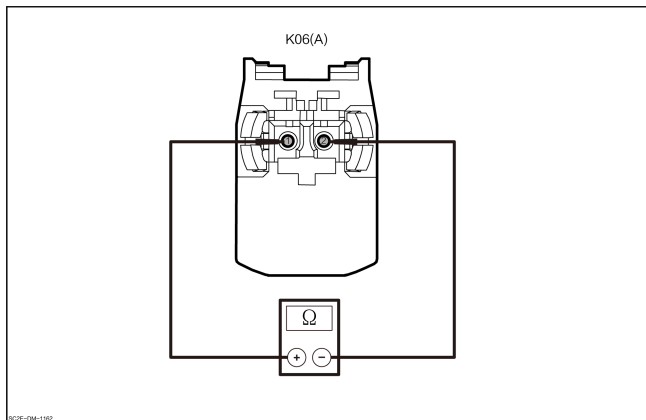
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K06(A)-1 | Ground | Through- out | Above 10k Ω |
| K06(A)-2 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the left air curtain line for short circuit to each other.



1. Measure the resistance value between the left air curtain harness connector K06(A)-1 and K06(A)-2.

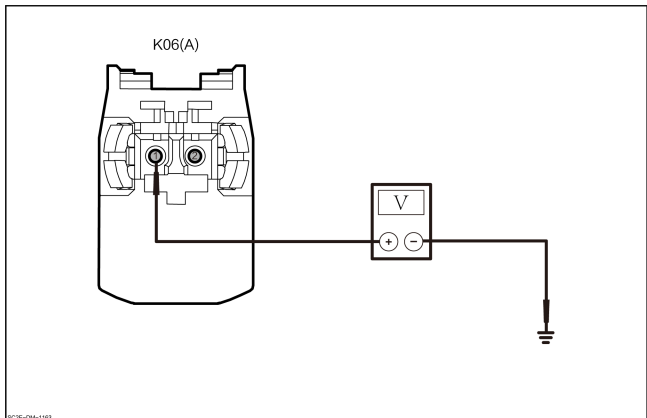
| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| K06(A)-1 | K06(A)-2 | Through- out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check whether the left air curtain line is shorted to power.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the left air curtain harness connector K06(A)-1 and ground.
3. Measure the voltage value between the left air curtain harness connector K06(A)-2 and ground.

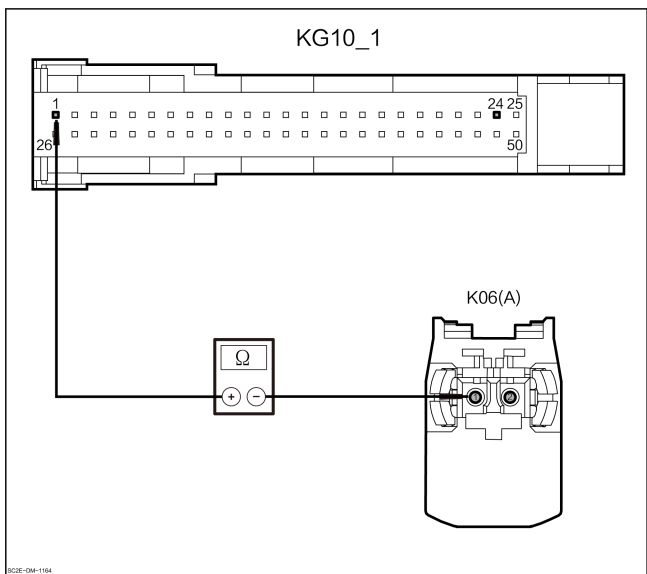
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K06(A)-1 | Ground | Through-out | Less than 1V |
| K06(A)-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the line from airbag control module to the left air curtain for open circuit.



1. Measure the resistance between the harness connector of airbag control module KG10_1-1 and the harness connector of left air curtain K06(A)-1.
2. Measure the resistance between the harness connector of airbag control module KG10_1-24 and the harness connector of left air curtain K06(A)-2.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| KG10_1-1 | K06(A)-1 | Through-out | Lower than 1Ω |
| KG10_1-24 | K06(A)-2 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Replace the left air curtain and check DTC.

1. Replace the left air curtain and restore it.
2. Set the start/stop button to ON.

3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

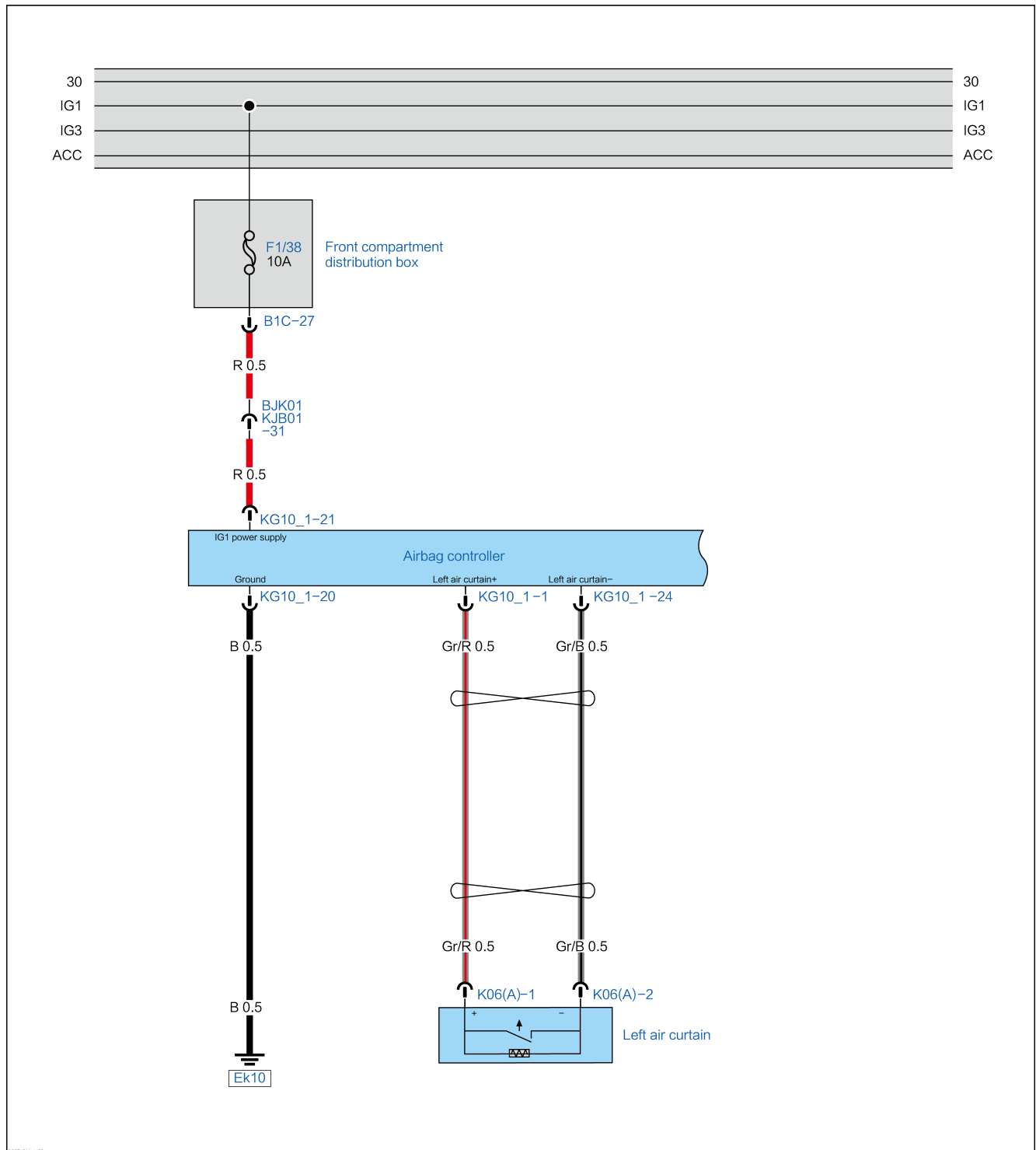
Replace the airbag control unit.

B17081A Resistance of Left Air Curtain Equaling to 0

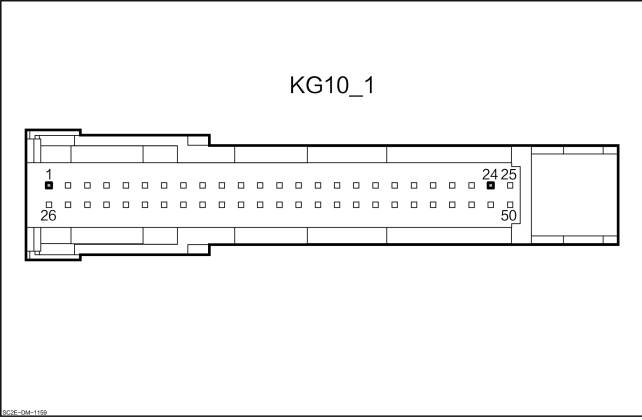
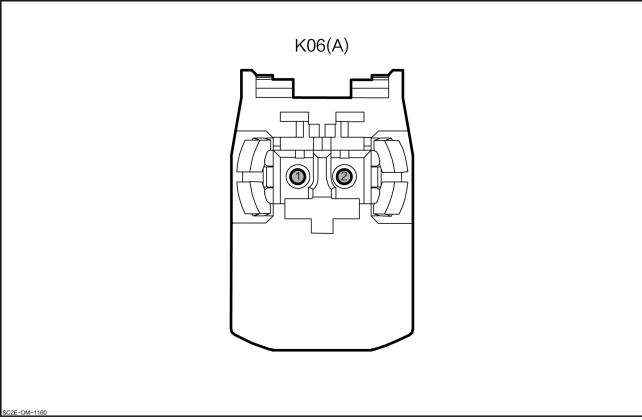
DTC Description

| B17081A Resistance of Left Air Curtain Equaling to 0 | |
|--|---|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Left side curtain airbag fault. 3. Airbag control unit fault. |
| Fault setting conditions | Left side CAB zero resistance |
| Trigger fault conditions | When the airbag control module receives the signal that the left air curtain resistance is 0, DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|---|
| <p style="text-align: center;">Airbag control unit</p> <div style="text-align: center;">  <p>KG10_1</p> </div> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Left side curtain airbag +</p> |
| <p style="text-align: center;">Left side curtain airbag</p> <div style="text-align: center;">  <p>K06(A)</p> </div> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Left side curtain airbag +</p> |
| | <p style="text-align: center;">24</p> | <p style="text-align: center;">Left side curtain airbag -</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Left side curtain airbag -</p> |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check whether the left side CAB harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the left air curtain harness connector K06 (A).
3. Check whether the left side CAB harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

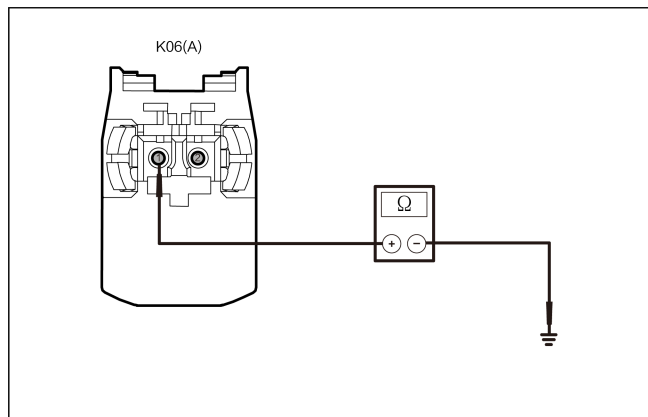
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check whether the left air curtain line is shorted to ground. |
|---|---|



1. Measure the resistance value between the left air curtain harness connector K06 (A)-1 and ground.
2. Measure the resistance value between the left air curtain harness connector K06 (A)-2 and ground.

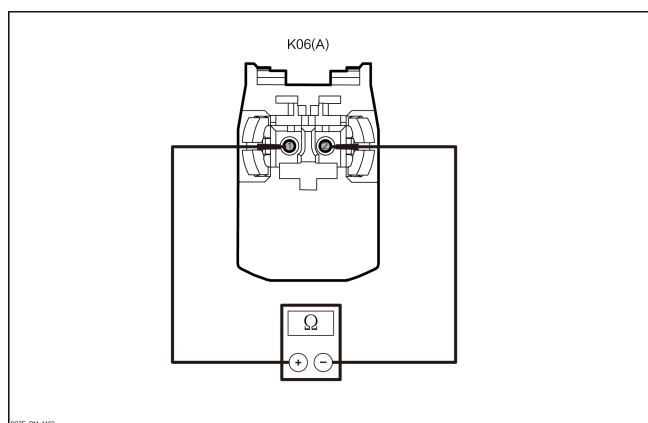
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K06(A)-1 | Ground | Through- out | Above 10k Ω |
| K06(A)-2 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the left air curtain line for short circuit to each other.



1. Measure the resistance value between the left air curtain harness connector K06(A)-1 and K06(A)-2.

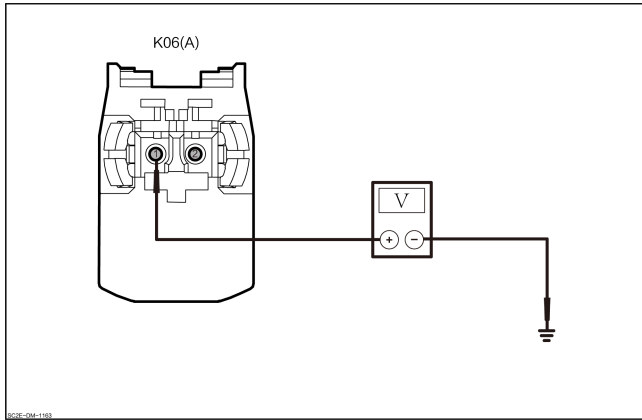
| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| K06(A)-1 | K06(A)-2 | Through- out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check whether the left air curtain line is shorted to power.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the left air curtain harness connector K06(A)-1 and ground.
3. Measure the voltage value between the left air curtain harness connector K06(A)-2 and ground.

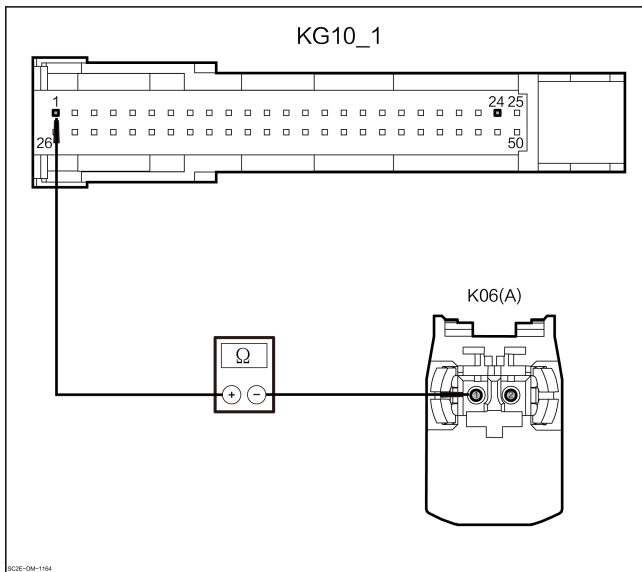
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K06(A)-1 | Ground | Through-out | Less than 1V |
| K06(A)-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the line from airbag control module to the left air curtain for open circuit.



1. Measure the resistance between the harness connector of airbag control module KG10_1-1 and the harness connector of left air curtain K06(A)-1.
2. Measure the resistance between the harness connector of airbag control module KG10_1-24 and the harness connector of left air curtain K06(A)-2.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| KG10_1-1 | K06(A)-1 | Through-out | Above 10k Ω |
| KG10_1-24 | K06(A)-2 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Replace the left air curtain and check DTC.

1. Replace the left air curtain and restore it.
2. Set the start/stop button to ON.

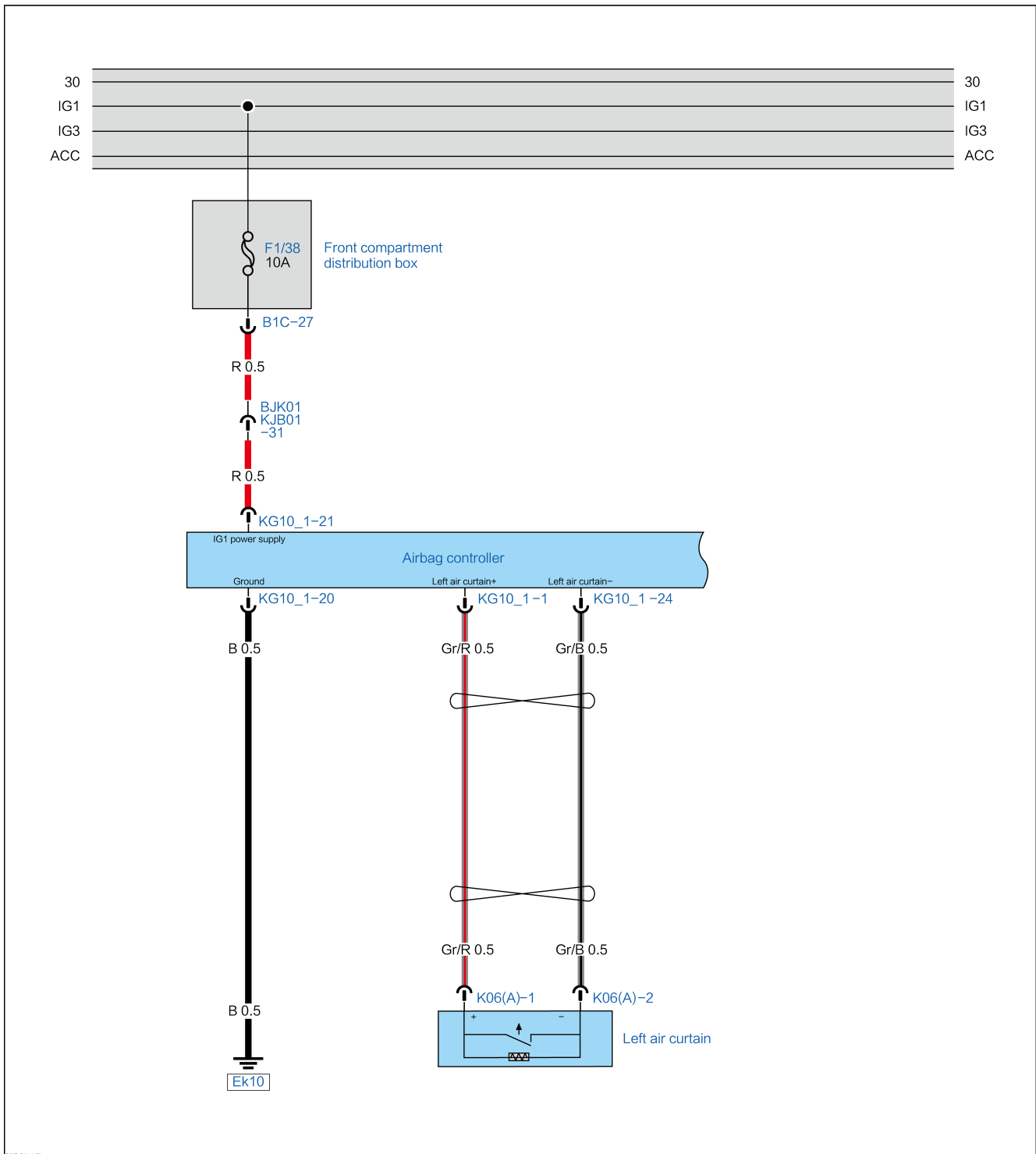
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

| | |
|-----|----------------------------------|
| No | The system is normal. |
| Yes | Replace the airbag control unit. |

B170511 Left Air Curtain Short to Ground**DTC Description**

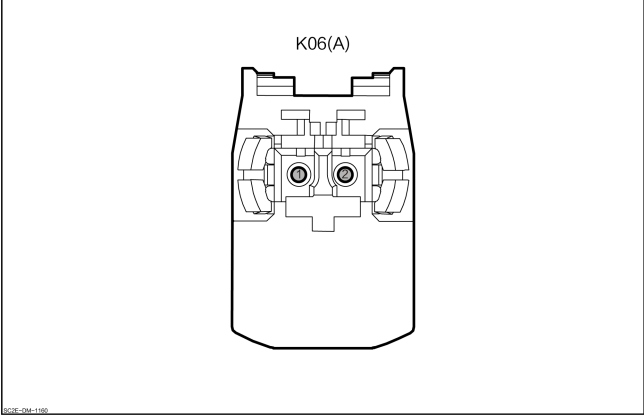
| B170511 Left Air Curtain Short to Ground | |
|--|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | 1. Harness or connector fault. 2. Left side curtain airbag fault. 3. Airbag control unit fault. |
| Fault setting conditions | The left air curtain is short to ground. |
| Trigger fault conditions | When the airbag control module receives the signal that the left air curtain is short-circuited to ground, DTC is generated. |

Circuit Diagram



SCHE-DM-1108

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|----------------------------|
| <p style="text-align: center;">Left side curtain airbag</p> <div style="text-align: center;">  <p style="text-align: center;">K06(A)</p> </div> <p style="font-size: small; margin-top: 10px;">B06E-044-1100</p> | 1 | Left side curtain airbag + |
| | 2 | Left side curtain airbag - |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check whether the left side CAB harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the left air curtain harness connector K06 (A).
3. Check whether the left side CAB harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

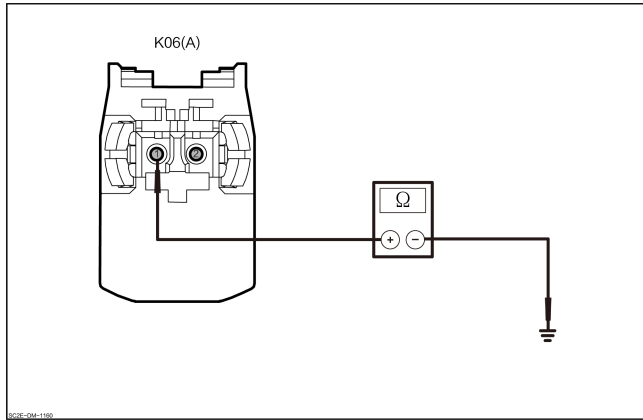
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check whether the left air curtain line is shorted to ground. |
|---|---|



1. Measure the resistance value between the left air curtain harness connector K06 (A)-1 and ground.
2. Measure the resistance value between the left air curtain harness connector K06 (A)-2 and ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K06(A)-1 | Ground | Through- out | Lower than 1 Ω |
| K06(A)-2 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Replace the left air curtain and check DTC.

1. Replace the left air curtain and restore it.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No → The system is normal.

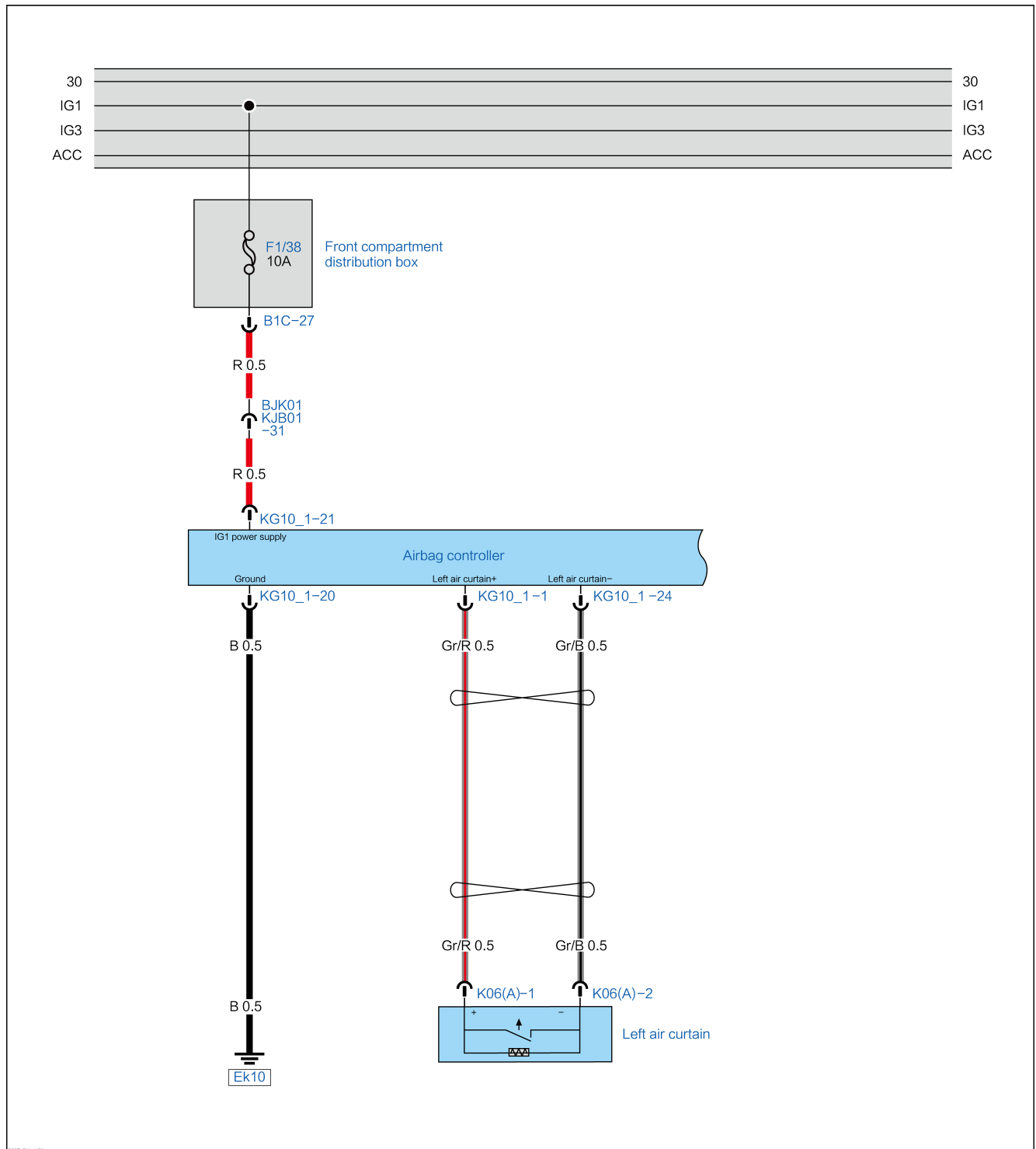
Yes → Replace the airbag control unit.

B170612 Left Air Curtain is Short to Power

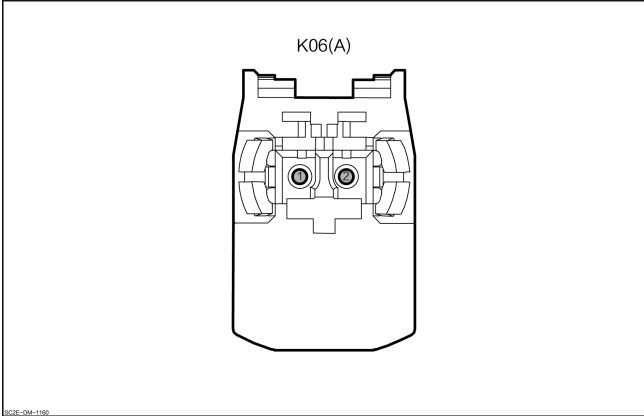
DTC Description

| B170612 Left Air Curtain is Short to Power | |
|--|---|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Left side curtain airbag fault. 3. Airbag control unit fault. |
| Fault setting conditions | The left air curtain is short to power. |
| Trigger fault conditions | When the airbag control module receives the signal that the left air curtain is short circuited to the power supply, DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|----------------------------|
| <p>Left side curtain airbag</p>  <p>K06(A)</p> <p><small>807E-04-100</small></p> | 1 | Left side curtain airbag + |
| | 2 | Left side curtain airbag - |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check whether the left side CAB harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the left air curtain harness connector K06 (A).
3. Check whether the left side CAB harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

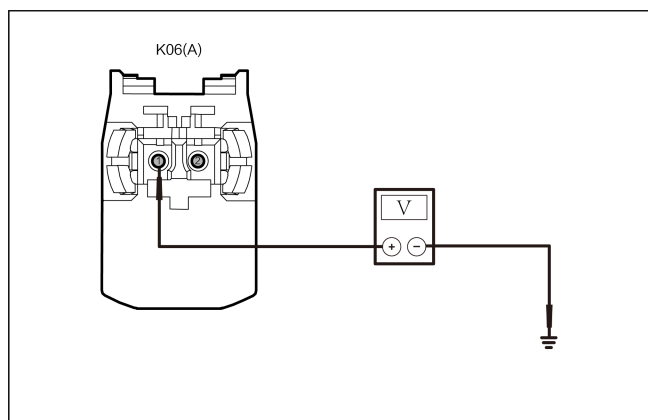
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the left air curtain line is shorted to power. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the left air curtain harness connector K06(A)–1 and ground.
3. Measure the voltage value between the left air curtain harness connector K06(A)–2 and ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K06(A)–1 | Ground | Through-out | Less than 1V |
| K06(A)–2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

| | |
|---|---|
| 5 | Replace the left air curtain and check DTC. |
|---|---|

1. Replace the left air curtain and restore it.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

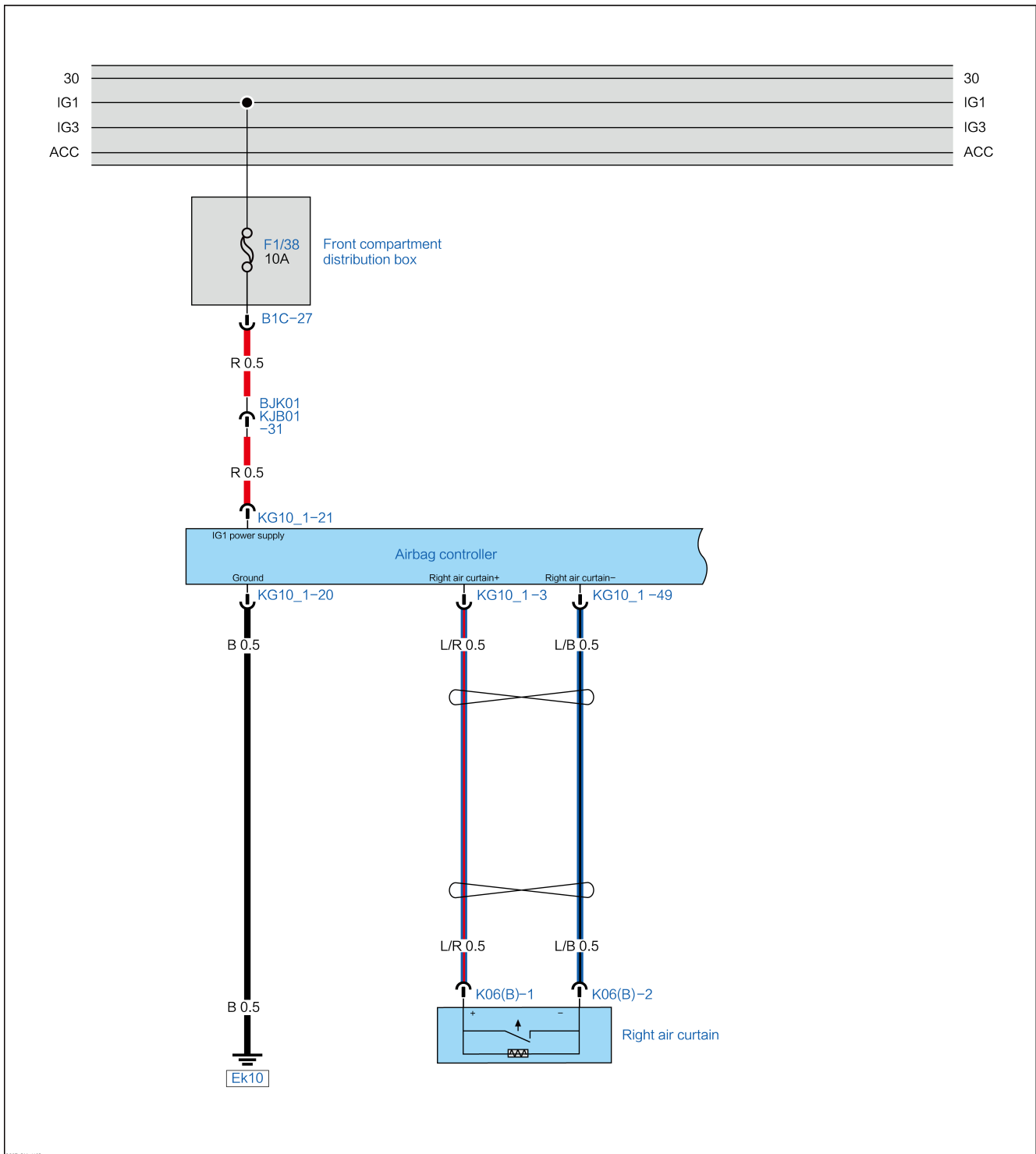
No → The system is normal.

Yes → Replace the airbag control unit.

B170D1B Right Air Curtain Not Connected**DTC Description**

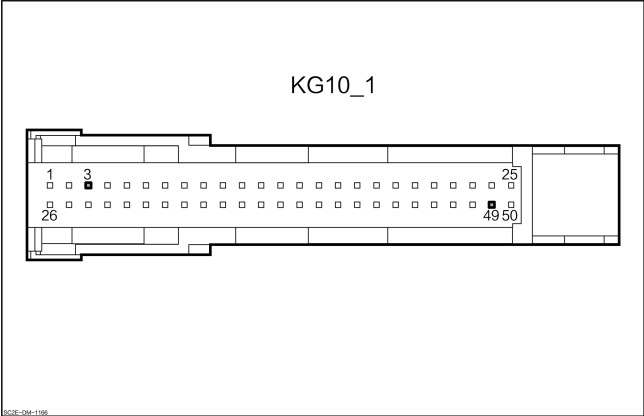
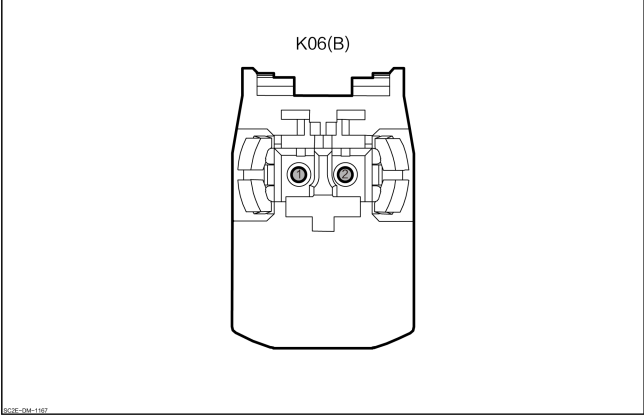
| B170D1B Right Air Curtain Not Connected | |
|---|---|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | 1. Harness or connector fault. 2. Right side curtain airbag fault. 3. Airbag control unit fault. |
| Fault setting conditions | Right side CAB not connected |
| Trigger fault conditions | When the airbag control module receives a signal that the right air curtain is not connected, DTC is generated. |

Circuit Diagram



SCHE-DM-1165

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|---------------------------------------|--|
| <p style="text-align: center;">Airbag control unit</p> <div style="text-align: center;">  <p>KG10_1</p> </div> | <p style="text-align: center;">3</p> | <p style="text-align: center;">Right side curtain airbag +</p> |
| <p style="text-align: center;">Right side curtain airbag</p> <div style="text-align: center;">  <p>K06(B)</p> </div> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Right side curtain airbag +</p> |
| | <p style="text-align: center;">49</p> | <p style="text-align: center;">Right side curtain airbag -</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Right side curtain airbag -</p> |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness connector of right air curtain. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the right air curtain harness connector K06 (B).
3. Check the harness connector of right air curtain for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

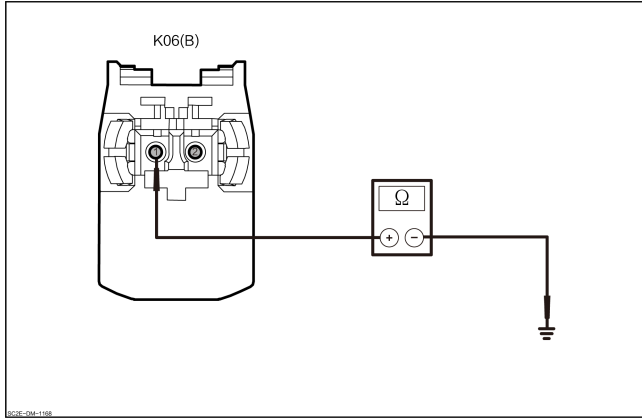
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the line of right air curtain for short to ground |
|---|---|



1. Measure the resistance between the harness connector of right air curtain K06(B)-1 and the ground.
2. Measure the resistance between the harness connector of right air curtain K06(B)-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K06(B)-1 | Ground | Through- out | Above 10k Ω |
| K06(B)-2 | | | |

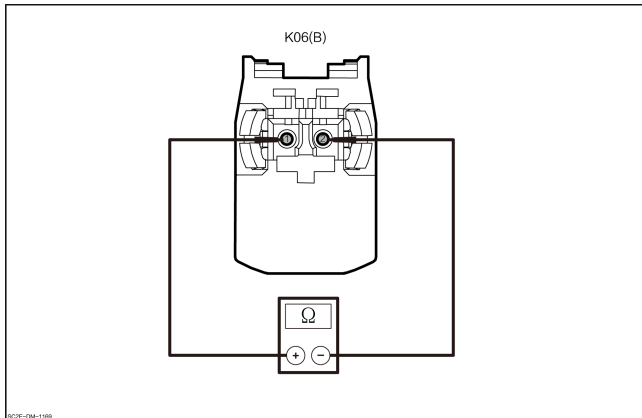
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check the line of right air curtain for short to ground



1. Measure the resistance between the harness connectors of right air curtain K06(B)-1 and K06(B)-2.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| K06(B)-1 | K06(B)-2 | Through- out | Above 10k Ω |

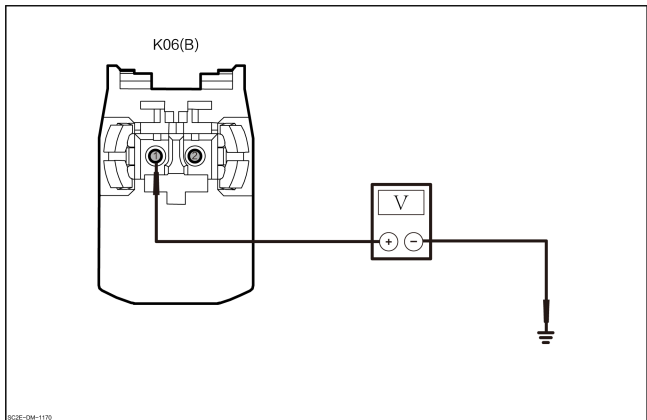
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

6 Check the line of right air curtain for short to power.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of right air curtain K06(B)-1 and the ground.
3. Measure the voltage between the harness connector of right air curtain K06(B)-2 and the ground.

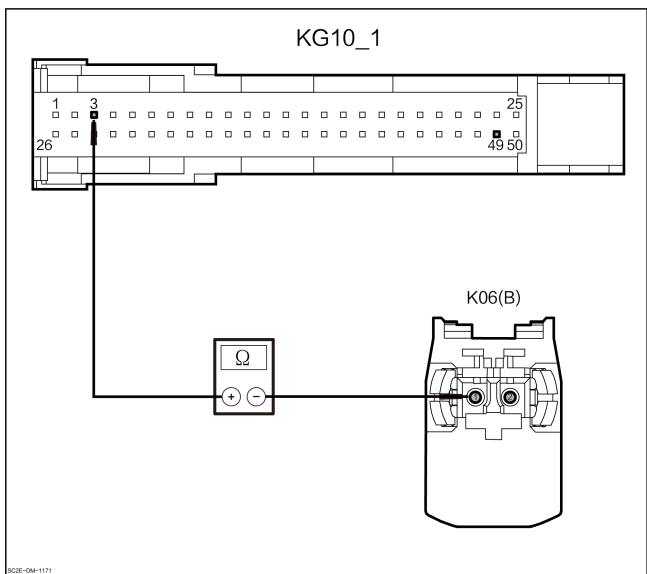
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K06(B)-1 | Ground | Through-out | Less than 1V |
| K06(B)-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the line from airbag control module to the right air curtain for open circuit.



1. Measure the resistance between the harness connector of airbag control module KG10_1-3 and the harness connector of right air curtain K06(B)-1.
2. Measure the resistance between the harness connector of airbag control module KG10_1-49 and the harness connector of right air curtain K06(B)-2.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| KG10_1-3 | K06(B)-1 | Through-out | Lower than 1Ω |
| KG10_1-49 | K06(B)-2 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Replace the right air curtain, and check the DTC.

1. Replace the right air curtain, and restore the vehicle.

2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

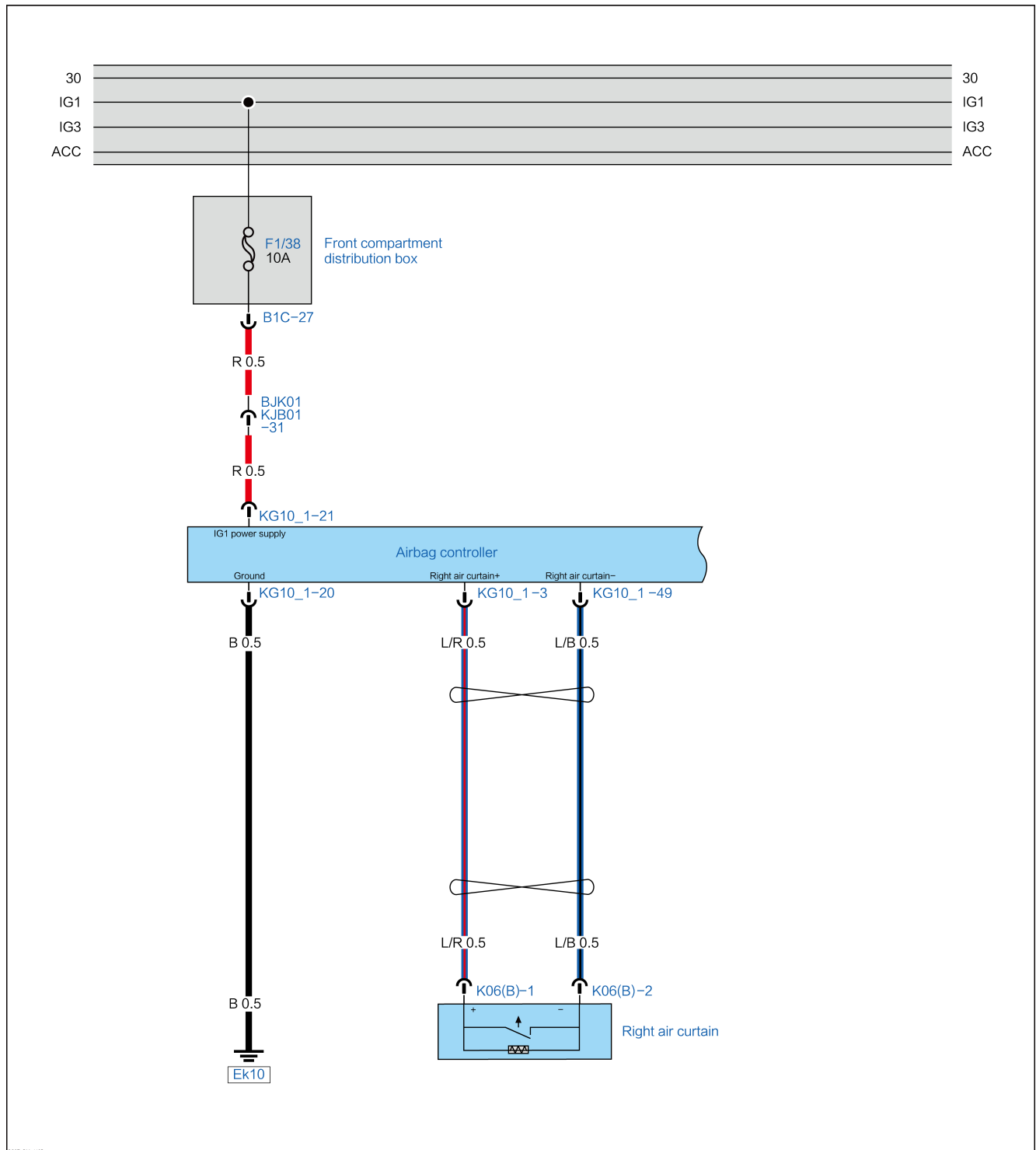
Replace the airbag control unit.

B17121A Resistance of Right Air Curtain Equaling to 0

DTC Description

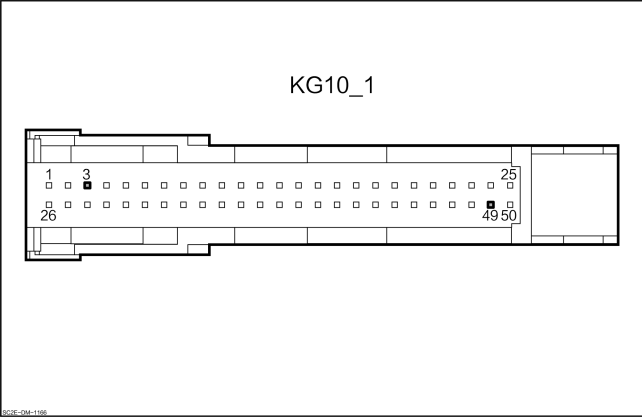
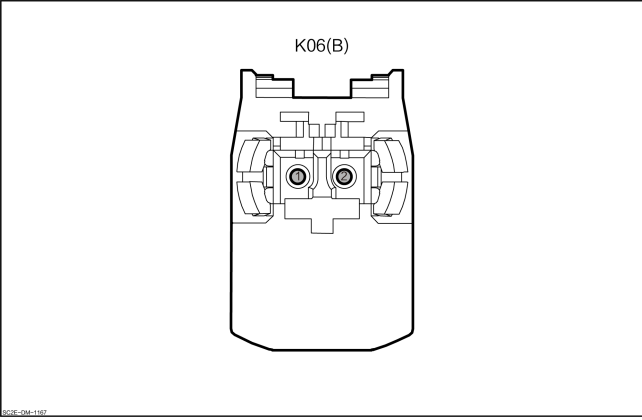
| B17121A Resistance of Right Air Curtain Equaling to 0 | |
|---|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Right side curtain airbag fault. 3. Airbag control unit fault. |
| Fault setting conditions | Right side CAB zero resistance |
| Trigger fault conditions | When the airbag control module receives a signal that the resistance value of right air curtain is 0, DTC is generated. |

Circuit Diagram



SC2E-DM-1185

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|---------------------------------------|--|
| <p style="text-align: center;">Airbag control unit</p> <div style="text-align: center;">  <p>KG10_1</p> </div> | <p style="text-align: center;">3</p> | <p style="text-align: center;">Right side curtain airbag +</p> |
| <p style="text-align: center;">Right side curtain airbag</p> <div style="text-align: center;">  <p>K06(B)</p> </div> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Right side curtain airbag +</p> |
| | <p style="text-align: center;">49</p> | <p style="text-align: center;">Right side curtain airbag –</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Right side curtain airbag –</p> |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness connector of right air curtain. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the right air curtain harness connector K06 (B).
3. Check the harness connector of right air curtain for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

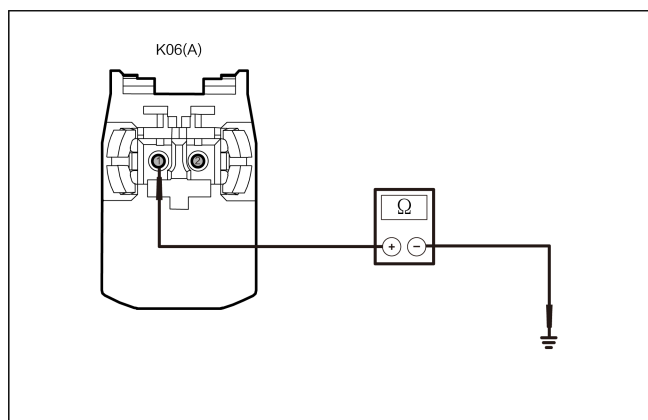
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the line of right air curtain for short to ground |
|---|---|



1. Measure the resistance between the harness connector of right air curtain K06(B)-1 and the ground.
2. Measure the resistance between the harness connector of right air curtain K06(B)-2 and the ground.

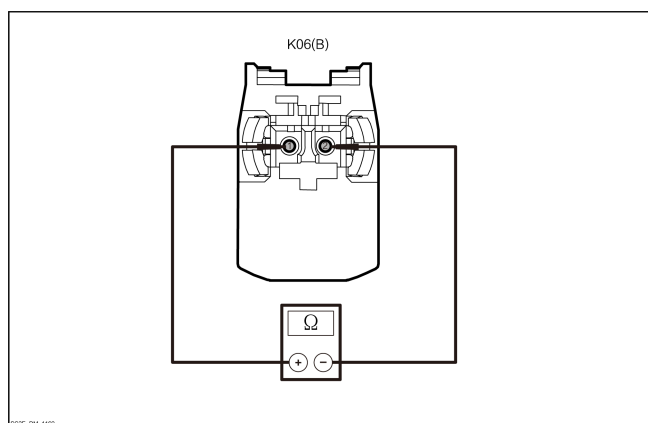
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| K06(B)-1 | Ground | Through-out | Above 10k Ω |
| K06(B)-2 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the line of right air curtain for short to ground



1. Measure the resistance between the harness connectors of right air curtain K06(B)-1 and K06(B)-2.

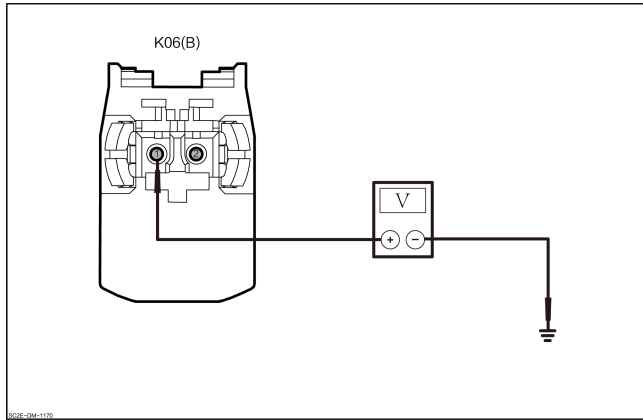
| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| K06(B)-1 | K06(B)-2 | Through-out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the line of right air curtain for short to power.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of right air curtain K06(B)-1 and the ground.
3. Measure the voltage between the harness connector of right air curtain K06(B)-2 and the ground.

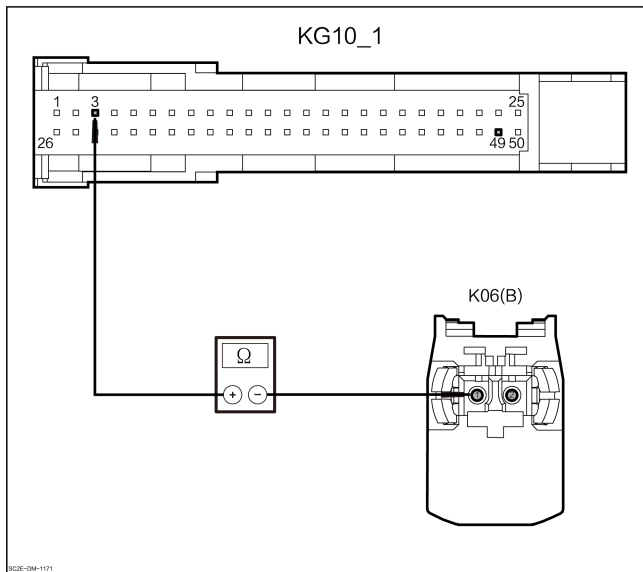
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K06(B)-1 | Ground | Through-out | Less than 1V |
| K06(B)-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the line from airbag control module to the right air curtain for open circuit.



1. Measure the resistance between the harness connector of airbag control module KG10_1-3 and the harness connector of right air curtain K06(B)-1.
2. Measure the resistance between the harness connector of airbag control module KG10_1-49 and the harness connector of right air curtain K06(B)-2.

| Connector | | Condition | Resist-ance value |
|-----------|----------|-------------|-------------------|
| (+) | (-) | | |
| KG10_1-3 | K06(B)-1 | Through-out | Lower than 1Ω |
| KG10_1-4 | K06(B)-2 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Replace the right air curtain, and check the DTC.

1. Replace the right air curtain, and restore the vehicle.

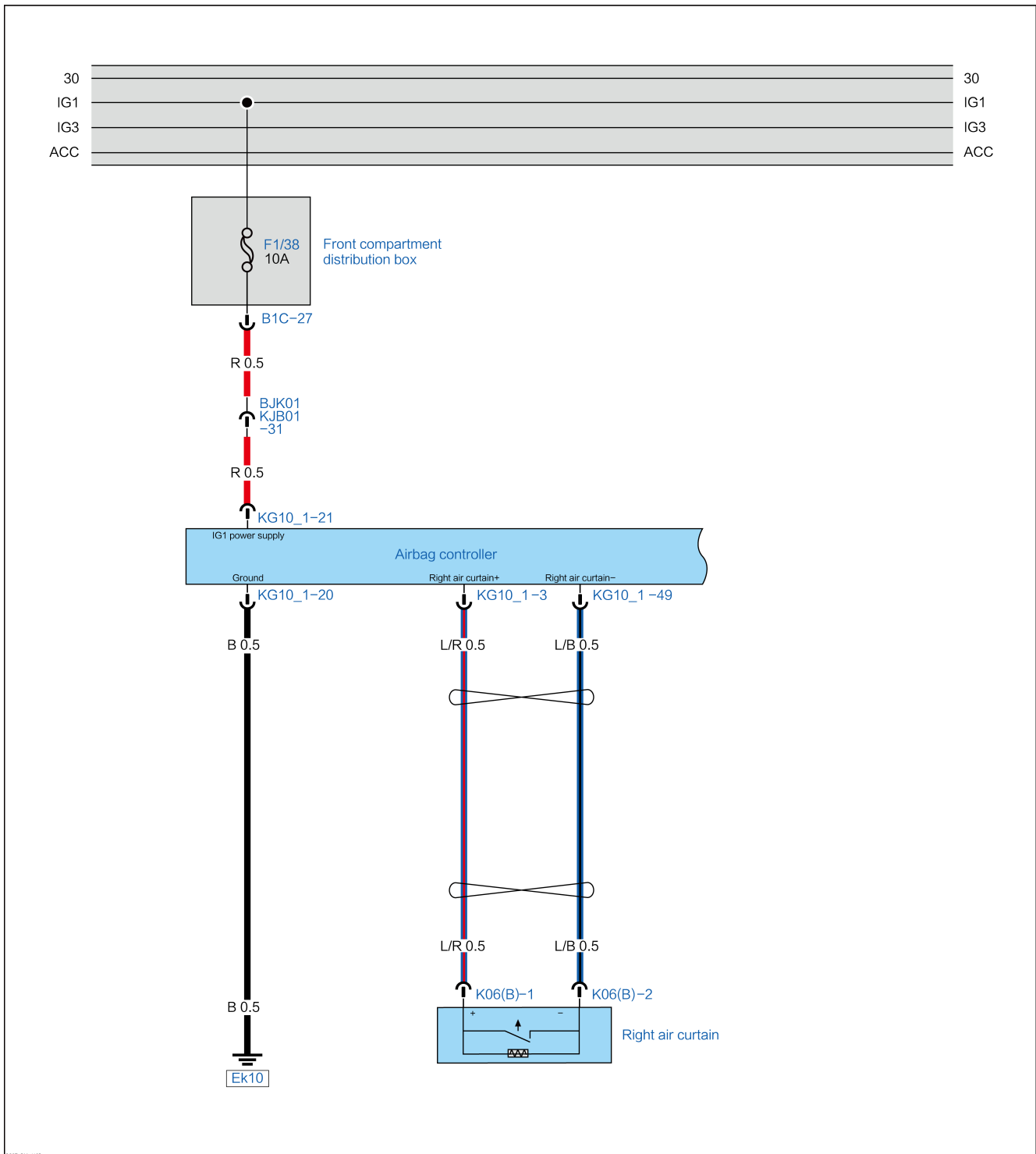
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

| | |
|-----|----------------------------------|
| No | The system is normal. |
| Yes | Replace the airbag control unit. |

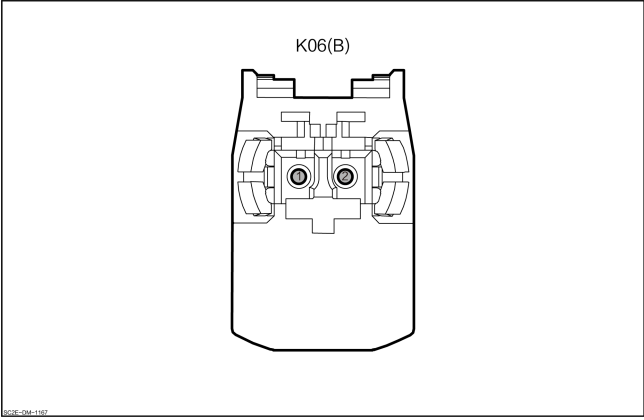
B170E11 Right Air Curtain Short to Ground**DTC Description**

| B170E11 Right Air Curtain Short to Ground | |
|---|---|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | 1. Harness or connector fault. 2. Right side curtain airbag fault. 3. Airbag control unit fault. |
| Fault setting conditions | The right air curtain is short to ground. |
| Trigger fault conditions | When the airbag control module receives the signal that the right air curtain is short-circuited to ground, DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-----------------------------|
| <p style="text-align: center;">Right side curtain airbag</p> <div style="text-align: center;">  <p style="text-align: center;">K06(B)</p> </div> <p style="font-size: small; margin-top: 10px;">BCE-044-197</p> | 1 | Right side curtain airbag + |
| | 2 | Right side curtain airbag - |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness connector of right air curtain. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the right air curtain harness connector K06 (B).
3. Check the harness connector of right air curtain for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

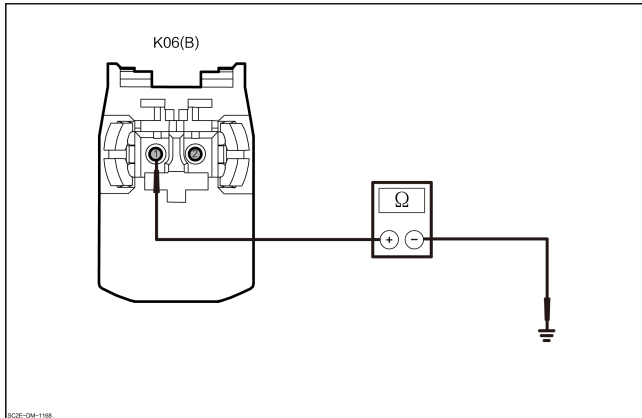
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the line of right air curtain for short to ground |
|---|---|



1. Measure the resistance between the harness connector of right air curtain K06(B)–1 and the ground.
2. Measure the resistance between the harness connector of right air curtain K06(B)–2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K06(B)–1 | Ground | Through- out | Above 10k Ω |
| K06(B)–2 | | | |

3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 5 | Replace the right air curtain, and check the DTC. |
|---|---|

1. Replace the right air curtain, and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

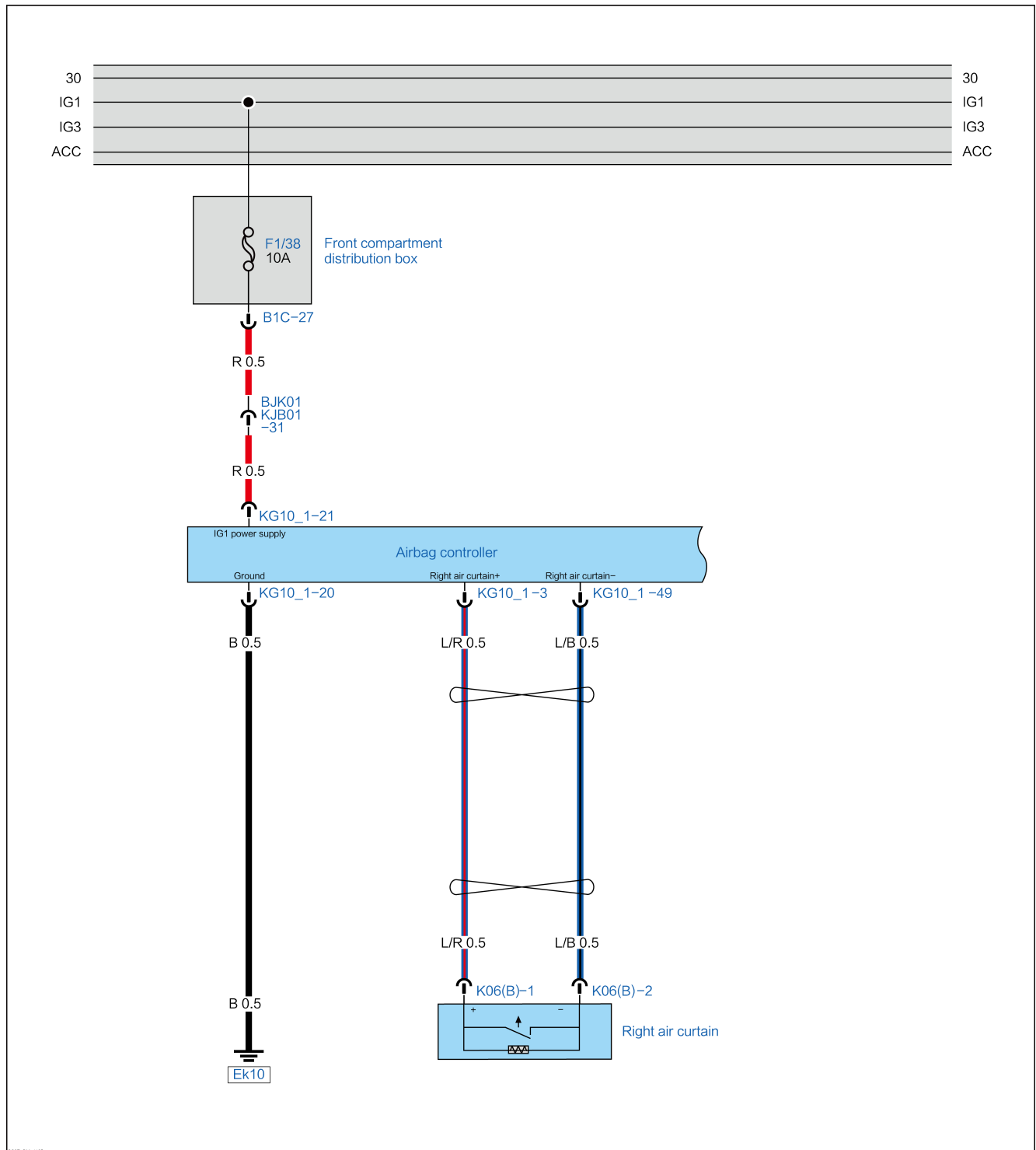
Replace the airbag control unit.

B170f12 Right Air Curtain Short to Power

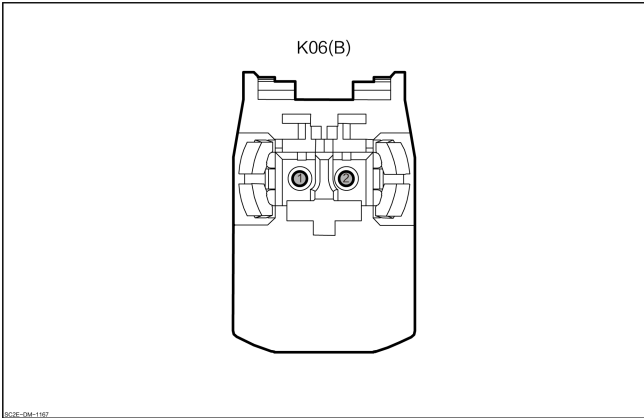
DTC Description

| B170f12 Right Air Curtain Short to Power | |
|--|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Right side curtain airbag fault. 3. Airbag control unit fault. |
| Fault setting conditions | The right air curtain is short to power. |
| Trigger fault conditions | When the airbag control module receives the signal that the right air curtain is short-circuited to the power supply, DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|-----------------------------|
| <p style="text-align: center;">Right side curtain airbag</p> <div style="text-align: center;">  </div> | 1 | Right side curtain airbag + |
| | 2 | Right side curtain airbag – |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness connector of right air curtain. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the right air curtain harness connector K06 (B).
3. Check the harness connector of right air curtain for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

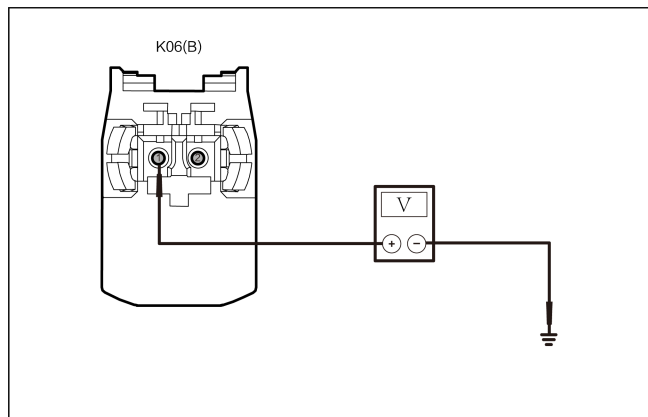
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the line of right air curtain for short to power. |
|---|---|



1. Measure the voltage between the harness connector of right air curtain K06(B)-1 and the ground.
2. Measure the voltage between the harness connector of right air curtain K06(B)-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K06(B)-1 | Ground | Through-out | Less than 1V |
| K06(B)-2 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Replace the right air curtain, and check the DTC.

1. Replace the right air curtain, and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

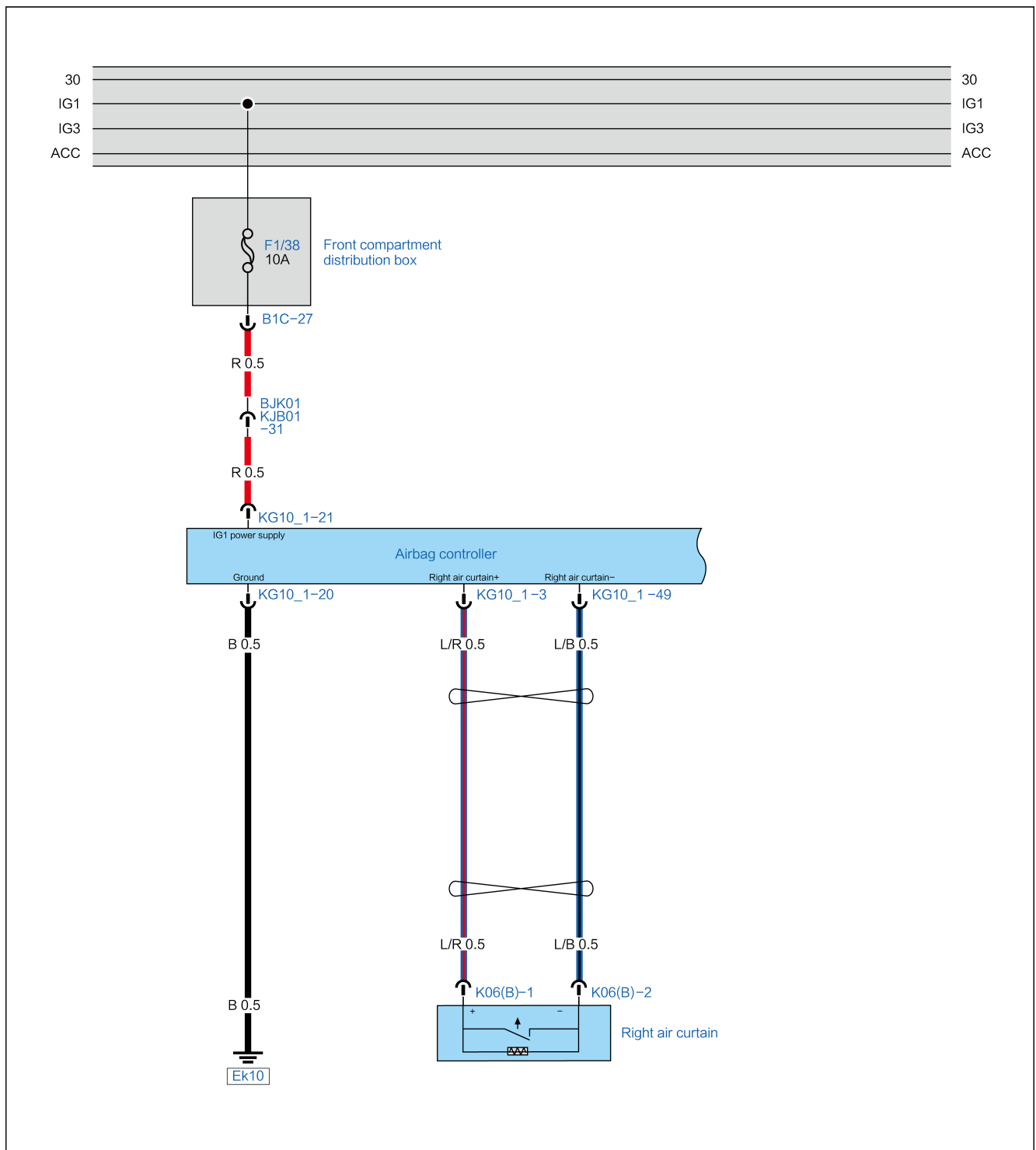
No → The system is normal.

Yes → Replace the airbag control unit.

B16401B Driver Seat Belt Pretensioner Not Connected**DTC Description**

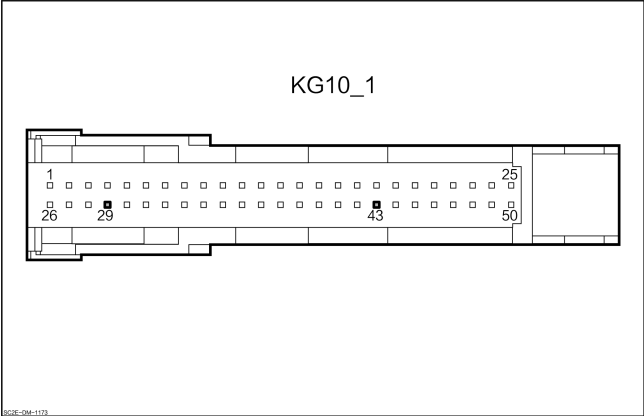
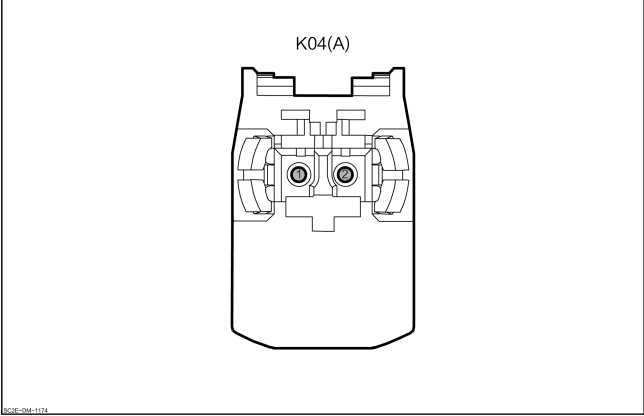
| B16401B Driver Seat Belt Pretensioner Not Connected | |
|---|---|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | 1. Harness or connector fault. 2. Driver seat belt pre-tensioner fault. 3. Airbag control unit fault. |
| Fault setting conditions | Driver seat belt pre-tensioner not connected |
| Trigger fault conditions | When the airbag control module receives a signal that the driver's seat belt pretensioner is not connected, DTC is generated. |

Circuit Diagram



SCHE-DM-1165

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|---------------------------------------|---|
| <p style="text-align: center;">Airbag control unit</p> <div style="text-align: center;">  <p>KG10_1</p> </div> | <p style="text-align: center;">43</p> | <p style="text-align: center;">Driver seat belt pre-tensioner -</p> |
| | <p style="text-align: center;">29</p> | <p style="text-align: center;">Driver seat belt pre-tensioner +</p> |
| <p style="text-align: center;">Driver seat belt pretensioner 1</p> <div style="text-align: center;">  <p>K04(A)</p> </div> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Driver seat belt pre-tensioner +</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Driver seat belt pre-tensioner -</p> |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness connector of driver seat belt pretensioner 1. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of driver seat belt pretensioner 1 K04(A).
3. Check the harness connector of driver seat belt pretensioner 1 for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

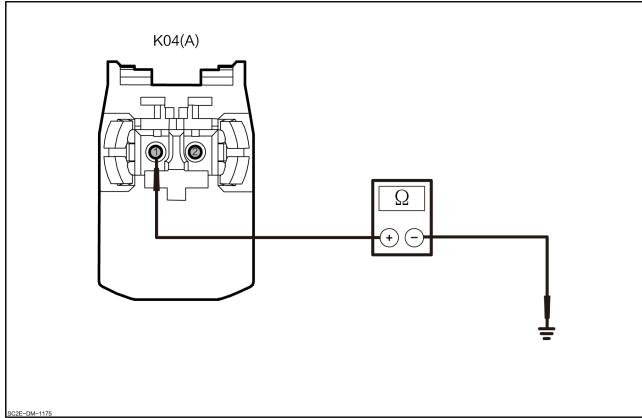
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the line of driver seat belt pretensioner 1 for short to ground. |
|---|--|



1. Measure the resistance between the harness connector of driver seat belt pretensioner 1 K04(A)-1 and the ground.
2. Measure the resistance between the harness connector of driver seat belt pretensioner 1 K04(A)-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K04(A)-1 | Ground | Through- out | Above 10k Ω |
| K04(A)-2 | | | |

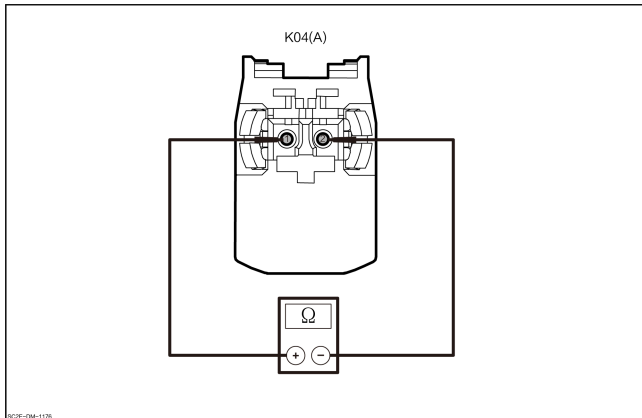
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check the line of driver seat belt pretensioner 1 for short circuit.



1. Measure the resistance between the harness connectors of driver seat belt pretensioner 1 K04(A)-1 and K04(A)-2.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| K04(A)-1 | K04(A)-2 | Through- out | Above 10k Ω |

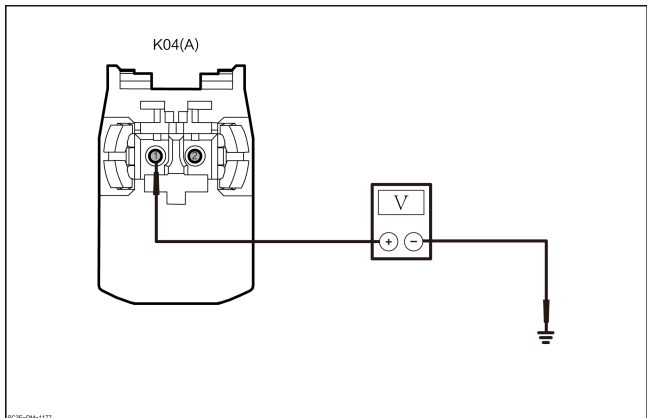
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

6 Check the line of driver seat belt pretensioner 1 for short to power.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of driver seat belt pretensioner 1 K04(A)-1 and the ground.
3. Measure the voltage between the harness connector of driver seat belt pretensioner 1 K04(A)-2 and the ground.

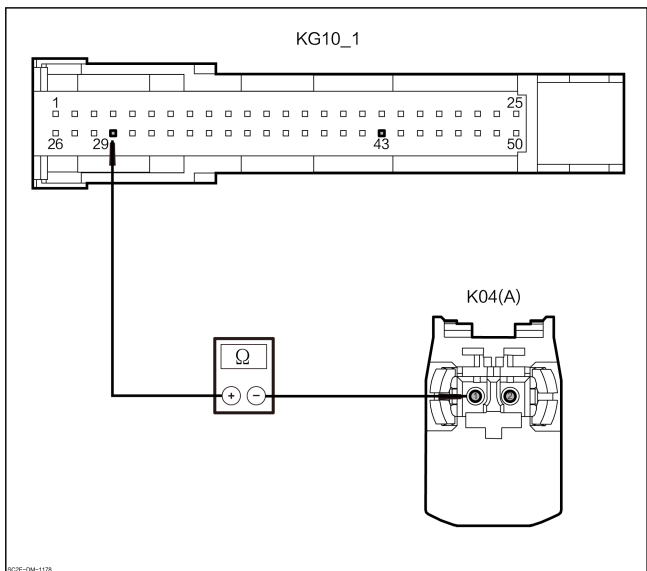
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K04(A)-1 | Ground | Through-out | Less than 1V |
| K04(A)-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the line from airbag control module to the driver seat belt pretensioner 1 for open circuit.



1. Measure the resistance between the harness connector of airbag control module KG10_1-29 and the harness connector of driver seat belt pretensioner 1 K04(A)-1.
2. Measure the resistance between the harness connector of airbag control module KG10_1-43 and the harness connector of driver seat belt pretensioner 1 K04(A)-2.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| KG10_1-29 | K04(A)-1 | Through-out | Lower than 1Ω |
| KG10_1-43 | K04(A)-2 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Replace the driver seat belt pretensioner 1, and check the DTC.

1. Replace the driver seat belt pretensioner 1, and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

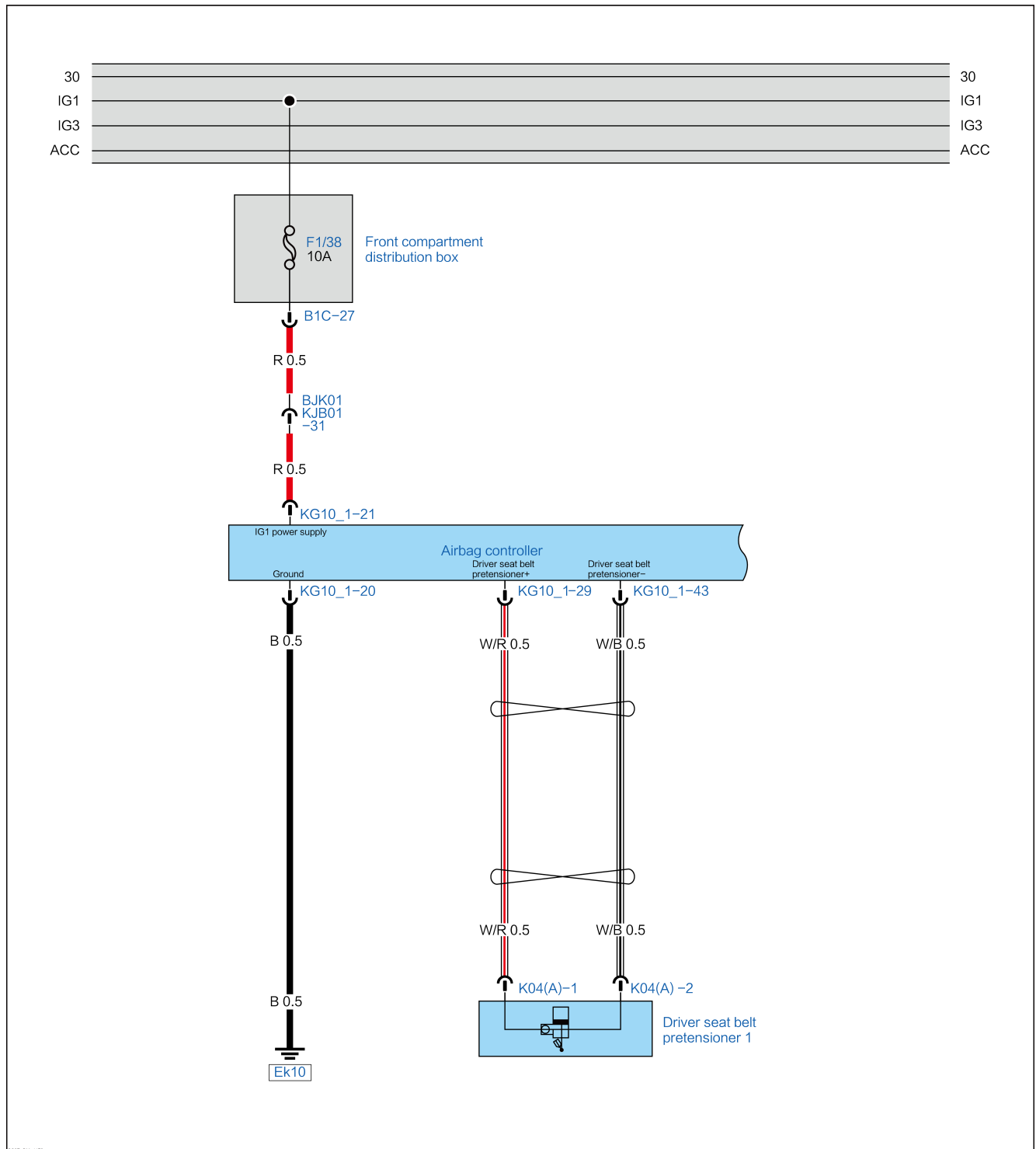
Replace the airbag control unit.

B16451A Resistance of Driver Seat Belt Pretensioner Equaling to 0

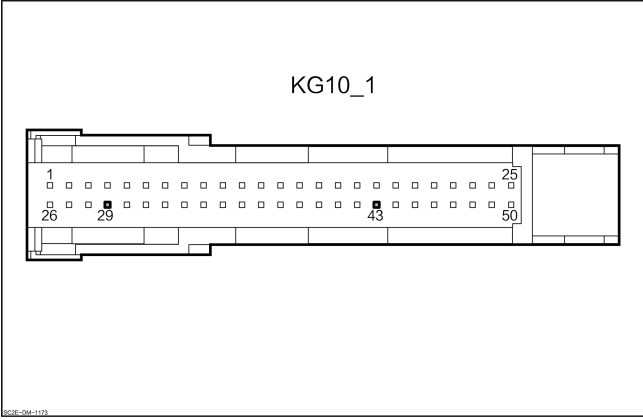
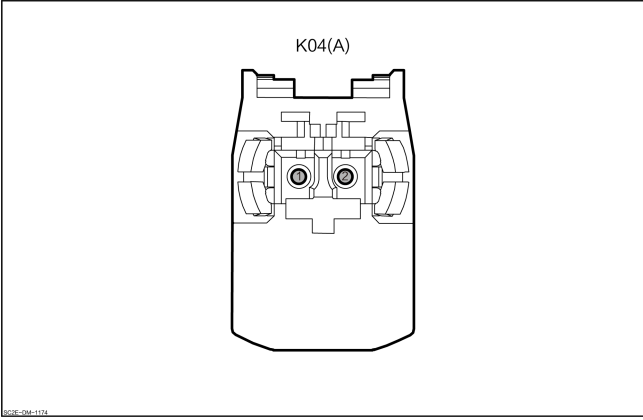
DTC Description

| B16451A Resistance of Driver Seat Belt Pretensioner Equaling to 0 | |
|---|---|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Driver seat belt pre-tensioner 1. 3. Airbag control unit fault. |
| Fault setting conditions | The resistance of the driver seat belt pretensioner 1 equals to 0. |
| Trigger fault conditions | When the airbag control module receives the signal indicating resistance of driver seat belt pretensioner 1 equaling to 0, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|-------------------------------------|
| <p style="text-align: center;">Airbag control unit</p> <div style="text-align: center;">  <p>KG10_1</p> </div> | 43 | Driver seat belt pre-tensioner - |
| <p style="text-align: center;">Driver seat belt pretensioner 1</p> <div style="text-align: center;">  <p>K04(A)</p> </div> | 1 | Driver seat belt pre-tensioner + |
| | 2 | Driver seat belt pre-tensioner - |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness connector of driver seat belt pretensioner 1. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of driver seat belt pretensioner 1 K04(A).
3. Check the harness connector of driver seat belt pretensioner 1 for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

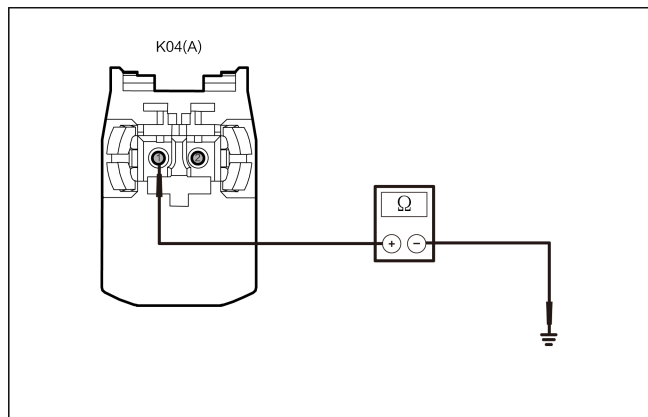
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the line of driver seat belt pretensioner 1 for short to ground. |
|---|--|



1. Measure the resistance between the harness connector of driver seat belt pretensioner 1 K04(A)-1 and the ground.
2. Measure the resistance between the harness connector of driver seat belt pretensioner 1 K04(A)-2 and the ground.

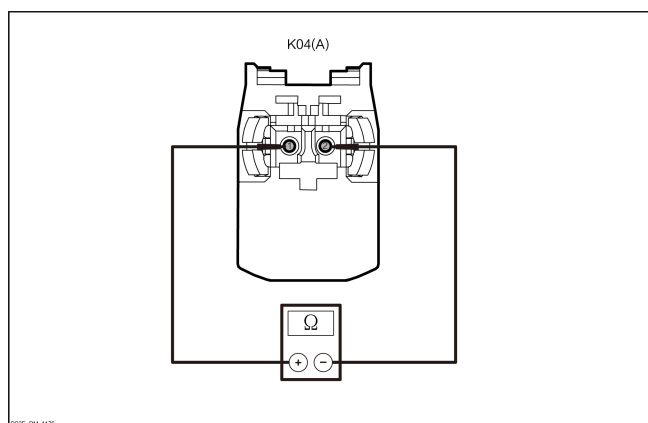
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| K04(A)-1 | Ground | Through-out | Above 10k Ω |
| K04(A)-2 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the line of driver seat belt pretensioner 1 for short circuit.



1. Measure the resistance between the harness connectors of driver seat belt pretensioner 1 K04(A)-1 and K04(A)-2.

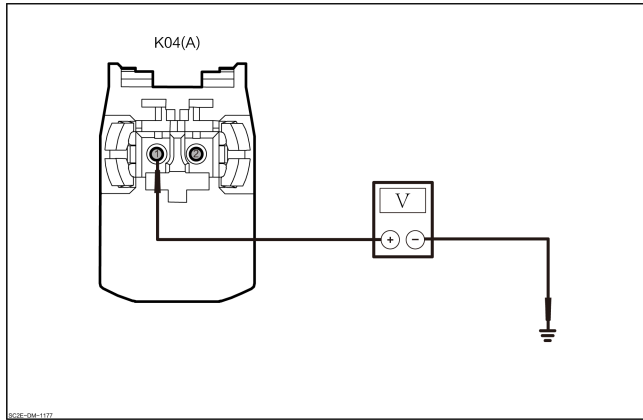
| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| K04(A)-1 | K04(A)-2 | Through-out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the line of driver seat belt pretensioner 1 for short to power.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of driver seat belt pretensioner 1 K04(A)-1 and the ground.
3. Measure the voltage between the harness connector of driver seat belt pretensioner 1 K04(A)-2 and the ground.

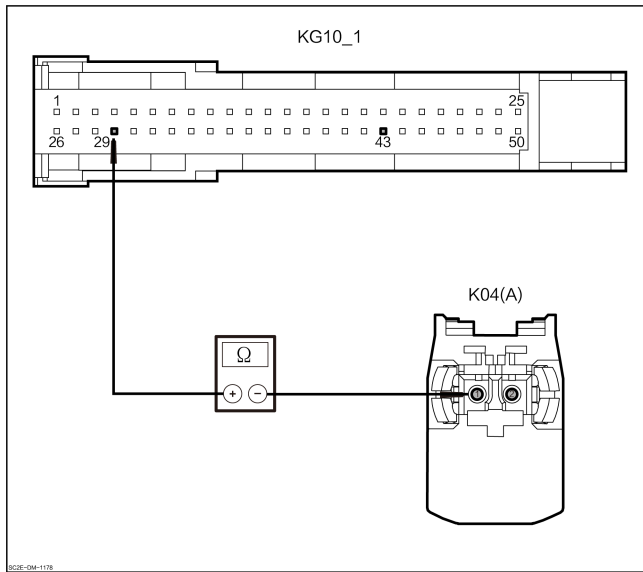
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K04(A)-1 | Ground | Through-out | Less than 1V |
| K04(A)-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the line from airbag control module to the driver seat belt pretensioner 1 for open circuit.



1. Measure the resistance between the harness connector of airbag control module KG10_1-29 and the harness connector of driver seat belt pretensioner 1 K04(A)-1.
2. Measure the resistance between the harness connector of airbag control module KG10_1-43 and the harness connector of driver seat belt pretensioner 1 K04(A)-2.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-------------|--------------------------|
| (+) | (-) | | |
| KG10_1-29 | K04(A)-1 | Through-out | Lower than 1Ω |
| KG10_1-43 | K04(A)-2 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Replace the driver seat belt pretensioner 1, and check the DTC.

1. Replace the driver seat belt pretensioner 1, and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

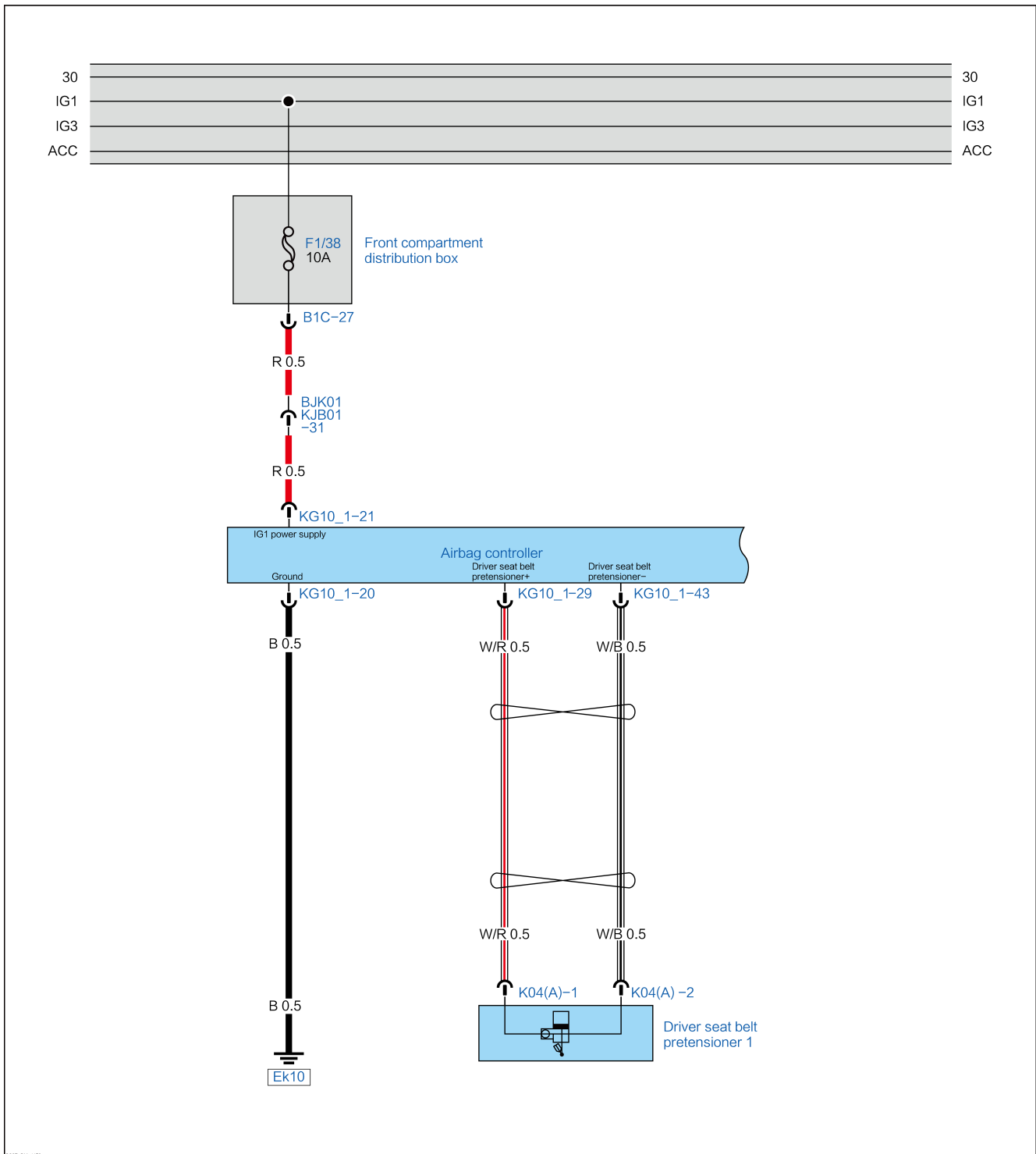
Replace the airbag control unit.

B164111 Driver Seat Belt Pretensioner Short to Ground

DTC Description

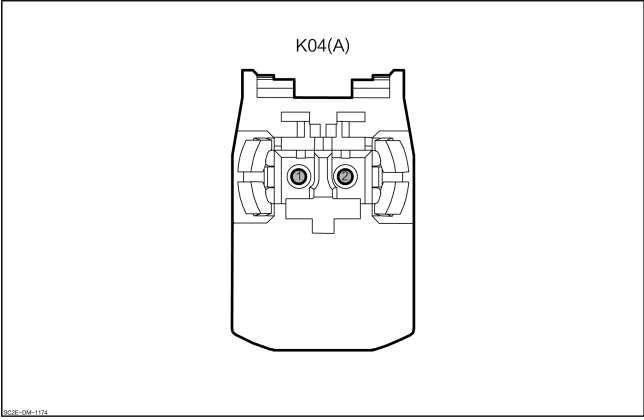
| B164111 Driver Seat Belt Pretensioner Short to Ground | |
|---|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | 1. Harness or connector fault. 2. Driver seat belt pre-tensioner 1. 3. Airbag control unit fault. |
| Fault setting conditions | The driver seat belt pretensioner 1 is short to ground. |
| Trigger fault conditions | The airbag control module receives a signal that the driver's seat belt pretensioner 1 is short circuited to the ground, DTC is generated. |

Circuit Diagram



SCHE-DM-1172

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|----------------------------------|
| <p style="text-align: center;">Driver seat belt pretensioner 1</p> <div style="text-align: center;">  </div> <p style="font-size: small; margin-top: 10px;">B06E-094-1174</p> | 1 | Driver seat belt pre-tensioner + |
| | 2 | Driver seat belt pre-tensioner - |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness connector of driver seat belt pretensioner 1. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of driver seat belt pretensioner 1 K04(A).
3. Check the harness connector of driver seat belt pretensioner 1 for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

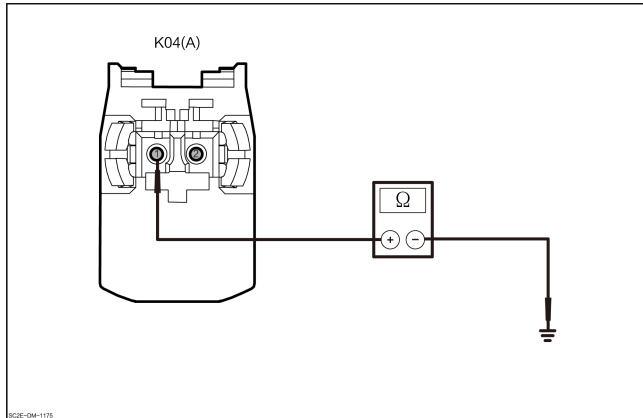
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the line of driver seat belt pretensioner 1 for short to ground. |
|---|--|



1. Measure the resistance between the harness connector of driver seat belt pretensioner 1 K04(A)-1 and the ground.
2. Measure the resistance between the harness connector of driver seat belt pretensioner 1 K04(A)-2 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| K04(A)-1 | Ground | Through-out | Above 10k Ω |
| K04(A)-2 | | | |

3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 5 | Replace the driver seat belt pretensioner 1, and check the DTC. |
|---|---|

1. Replace the driver seat belt pretensioner 1, and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

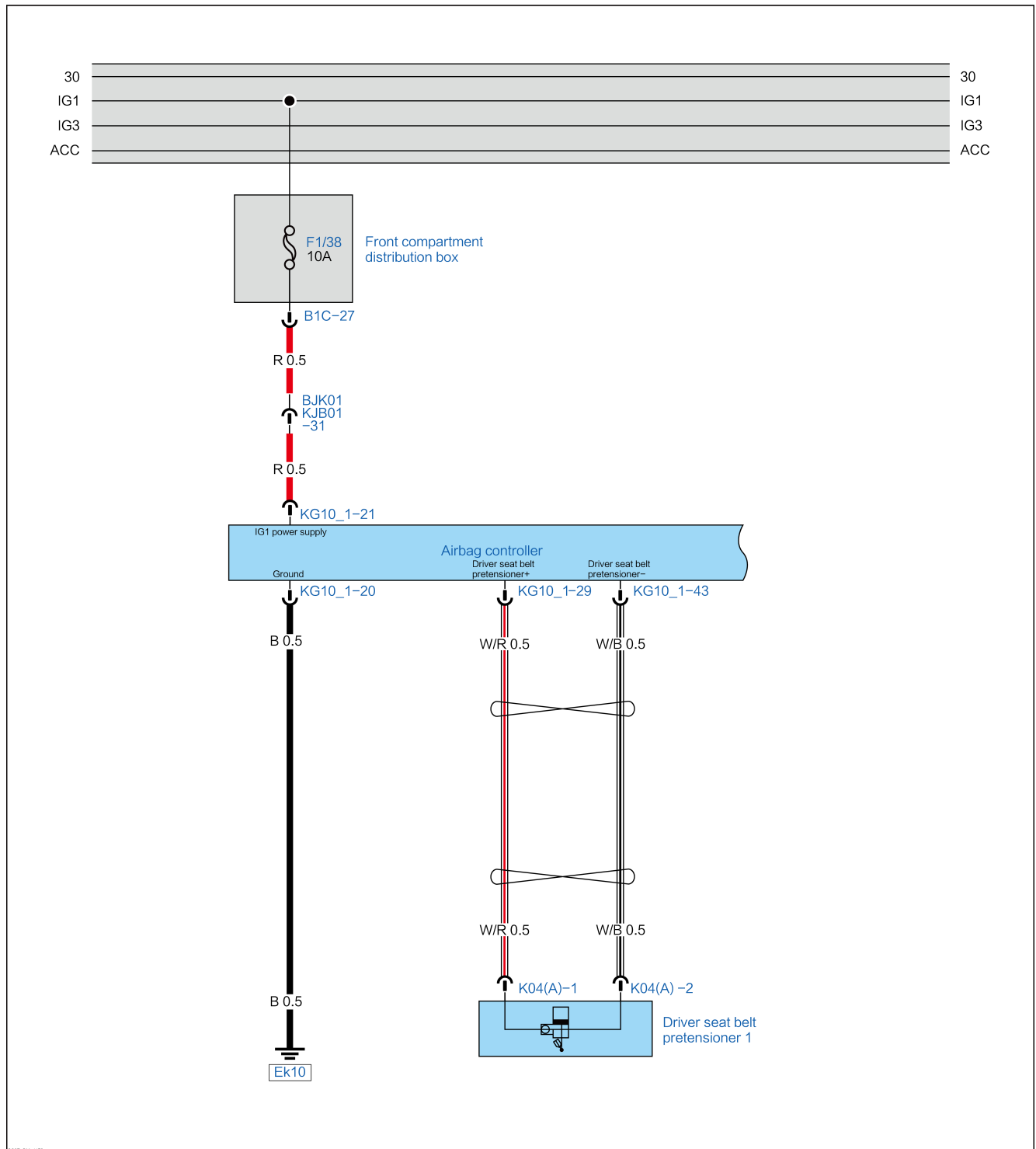
Replace the airbag control unit.

B164212 Driver Seat Belt Pretensioner Short to Power

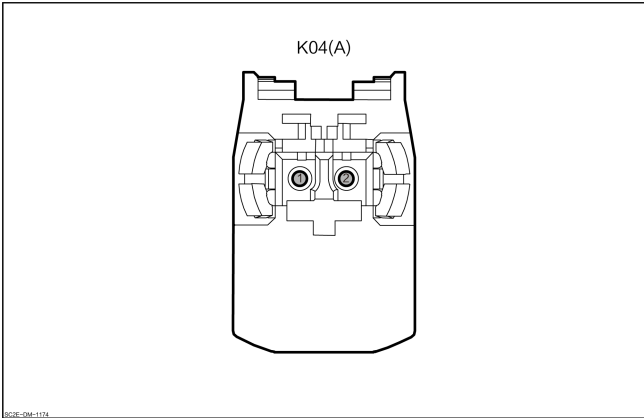
DTC Description

| B164212 Driver Seat Belt Pretensioner Short to Power | |
|--|---|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Driver seat belt pre-tensioner fault. 3. Airbag control unit fault. |
| Fault setting conditions | The driver seat belt pretensioner 1 is short to power. |
| Trigger fault conditions | When the airbag control module receives a signal that the driver seat belt pretensioner 1 is short circuited to the power supply, DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|----------------------------------|
| <p style="text-align: center;">Driver seat belt pretensioner 1</p> <div style="text-align: center;">  <p style="font-size: small;">K04(A)</p> </div> <p style="font-size: x-small; margin-top: 10px;">B07E-0M-1174</p> | 1 | Driver seat belt pre-tensioner + |
| | 2 | Driver seat belt pre-tensioner - |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness connector of driver seat belt pretensioner 1. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of driver seat belt pretensioner 1 K04(A).
3. Check the harness connector of driver seat belt pretensioner 1 for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

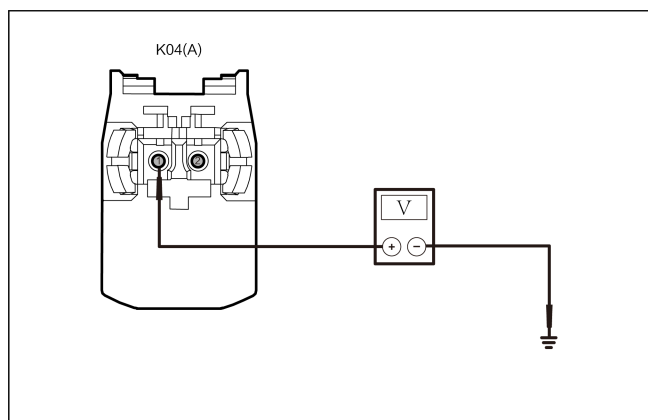
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the line of driver seat belt pretensioner 1 for short to power. |
|---|---|



1. Measure the voltage between the harness connector of driver seat belt pretensioner 1 K04(A)-1 and the ground.
2. Measure the voltage between the harness connector of driver seat belt pretensioner 1 K04(A)-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K04(A)-1 | Ground | Through-out | Less than 1V |
| K04(A)-2 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Replace the driver seat belt pretensioner 1, and check the DTC.

1. Replace the driver seat belt pretensioner 1, and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No → The system is normal.

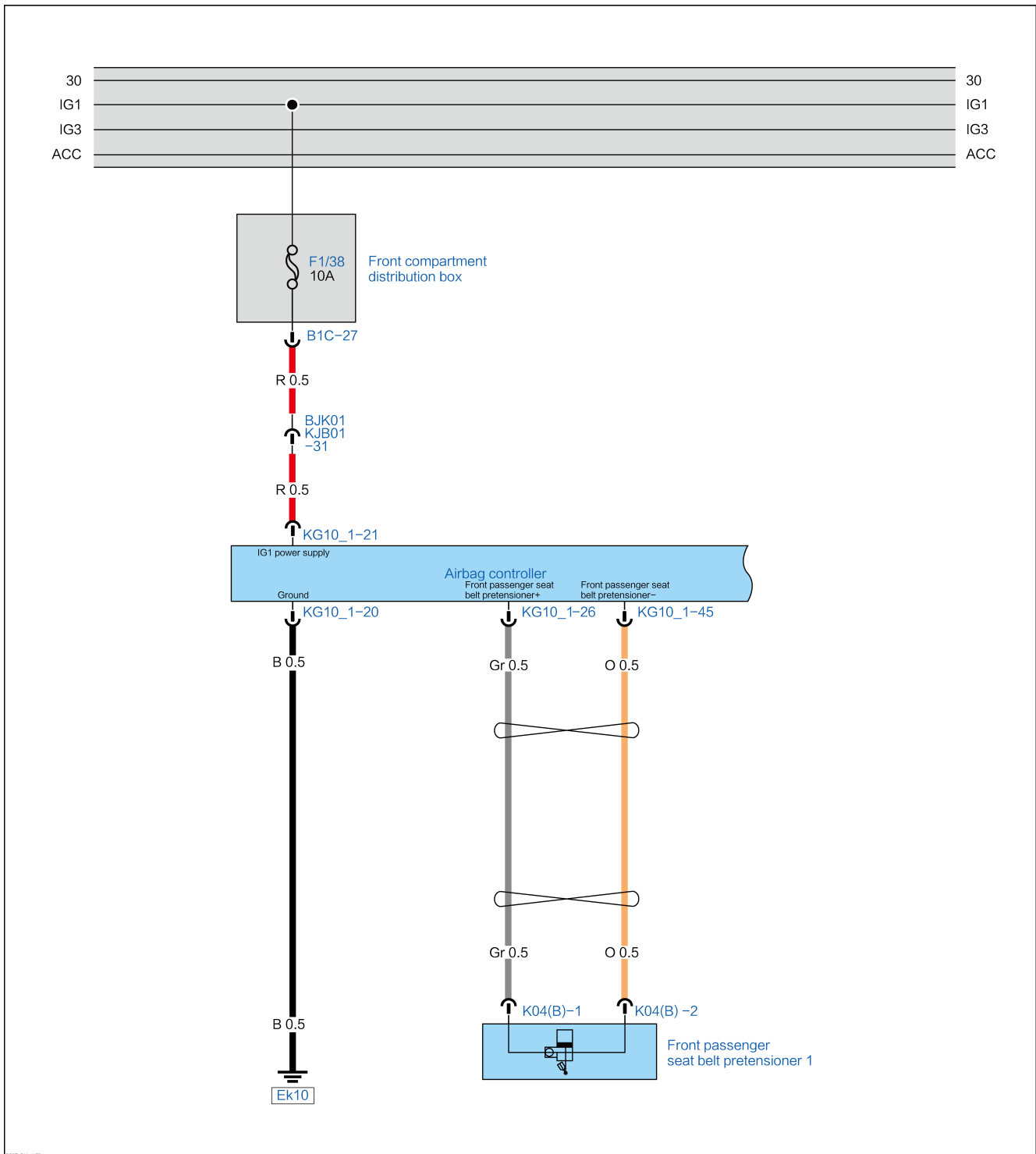
Yes → Replace the airbag control unit.

B164A1B Front Passenger Seat Belt Pretensioner Not Connected

DTC Description

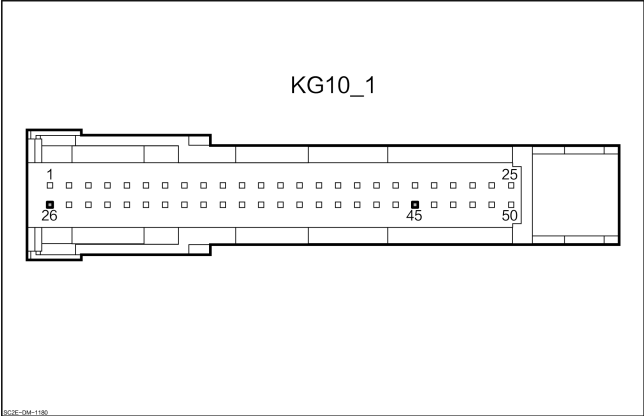
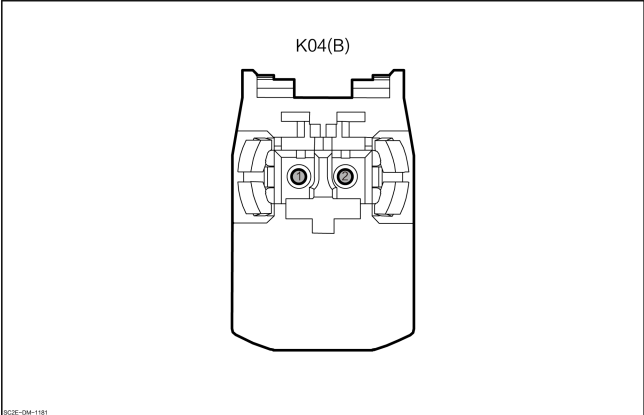
| B164A1B Front Passenger Seat Belt Pretensioner Not Connected | |
|--|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | 1. Harness or connector fault. 2. Front passenger seat belt pre-tensioner 1 fault. 3. Airbag control unit fault. |
| Fault setting conditions | The front passenger seat belt pretensioner 1 is not connected. |
| Trigger fault conditions | When the airbag control module receives the signal indicating front passenger seat belt pretensioner 1 not connected, this DTC is generated. |

Circuit Diagram



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Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p style="text-align: center;">Airbag control unit</p> <p style="text-align: center;">KG10_1</p>  | 26 | Front passenger seat belt pretensioner + |
| | 45 | Front passenger seat belt pretensioner - |
| <p style="text-align: center;">Front passenger seat belt pretensioner</p> <p style="text-align: center;">K04(B)</p>  | 1 | Front passenger seat belt pretensioner + |
| | 2 | Front passenger seat belt pretensioner - |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness connector of front passenger seat belt pretensioner 1. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of front passenger seat belt pretensioner 1 K04(B).
3. Check the harness connector of front passenger seat belt pretensioner 1 for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

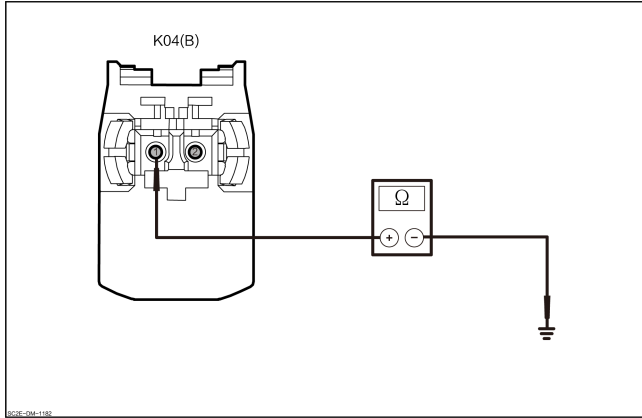
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the line of front passenger seat belt pretensioner 1 for short to ground. |
|---|---|



1. Measure the resistance between the harness connector of front passenger seat belt pretensioner 1 K04(B)-1 and the ground.
2. Measure the resistance between the harness connector of front passenger seat belt pretensioner 1 K04(B)-2 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| K04(B)-1 | Ground | Through-out | Above 10k Ω |
| K04(B)-2 | | | |

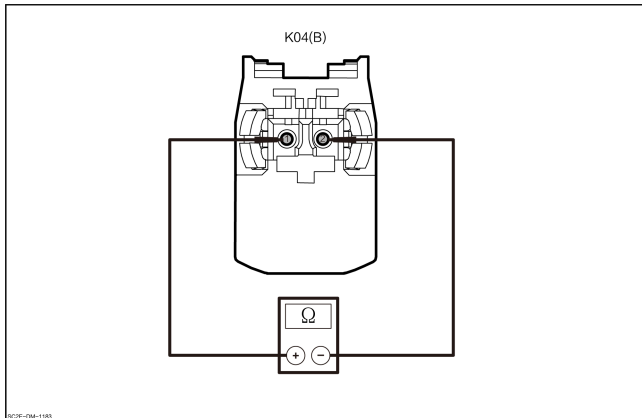
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check the line of front passenger seat belt pretensioner 1 for short circuit.



1. Measure the resistance between the harness connectors of front passenger seat belt pretensioner 1 K04(B)-1 and K04(B)-2.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| K04(B)-1 | K04(B)-2 | Through-out | Above 10k Ω |

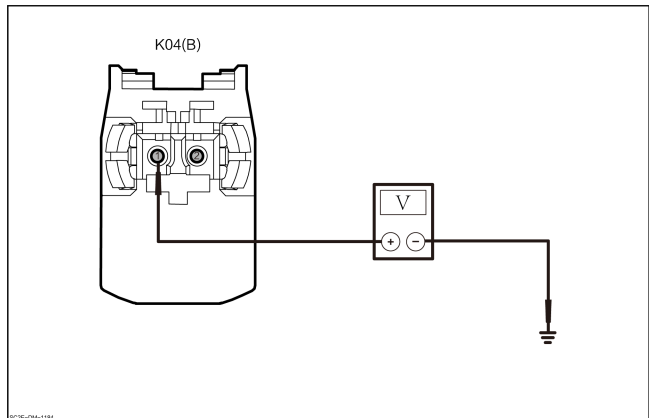
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

6 Check the line of front passenger seat belt pretensioner 1 for short to power.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of front passenger seat belt pretensioner 1 K04(B)-1 and the ground.
3. Measure the voltage between the harness connector of front passenger seat belt pretensioner 1 K04(B)-2 and the ground.

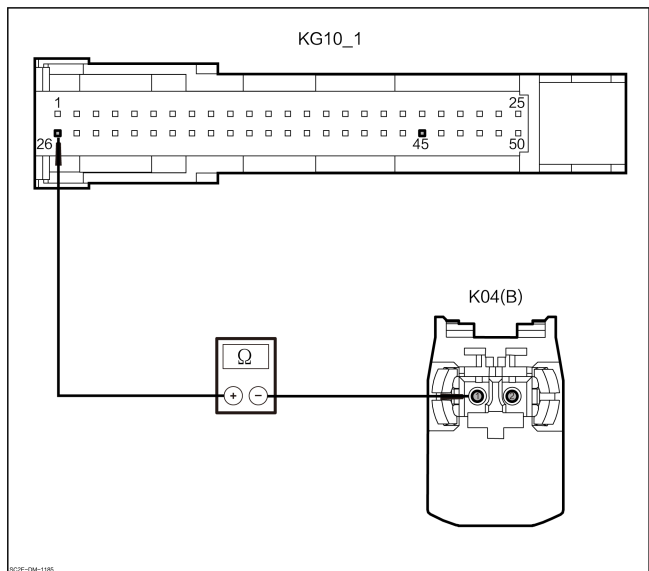
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K04(B)-1 | Ground | Through-out | Less than 1V |
| K04(B)-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the line from airbag control module to the front passenger seat belt pretensioner 1 for open circuit.



1. Measure the resistance between the harness connector of airbag control module KG10_1-26 and the harness connector of front passenger seat belt pretensioner 1 K04(B)-1.
2. Measure the resistance between the harness connector of airbag control module KG10_1-45 and the harness connector of front passenger seat belt pretensioner 1 K04(B)-2.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| KG10_1-26 | K04(B)-1 | Through-out | Lower than 1Ω |
| KG10_1-45 | K04(B)-2 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Replace the front passenger seat belt pretensioner 1, and check the DTC.

1. Replace the front passenger seat belt pretensioner 1, and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

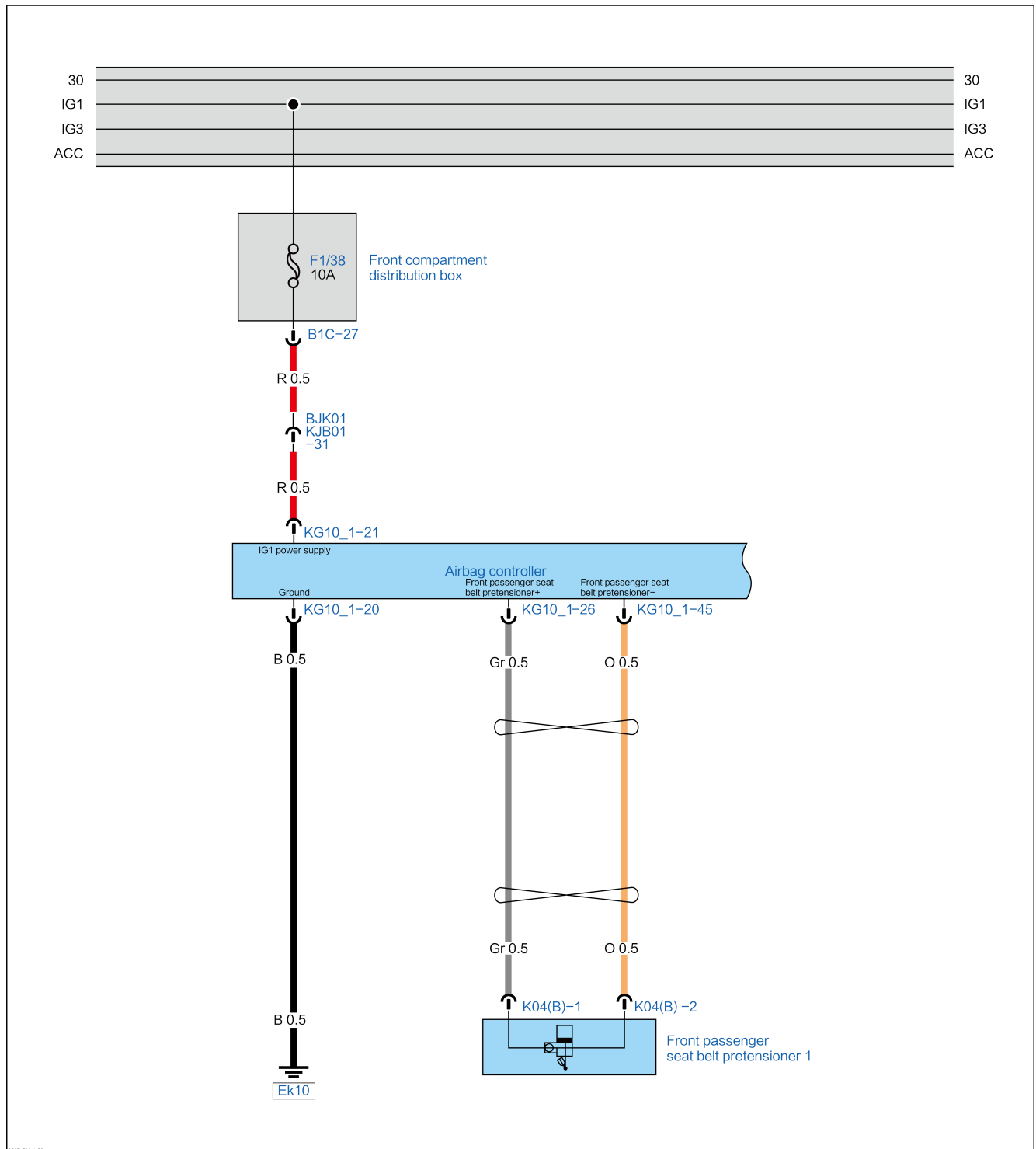
Replace the airbag control unit.

B164F1A Resistance of Front Passenger Seat Belt Pretensioner Equaling to 0

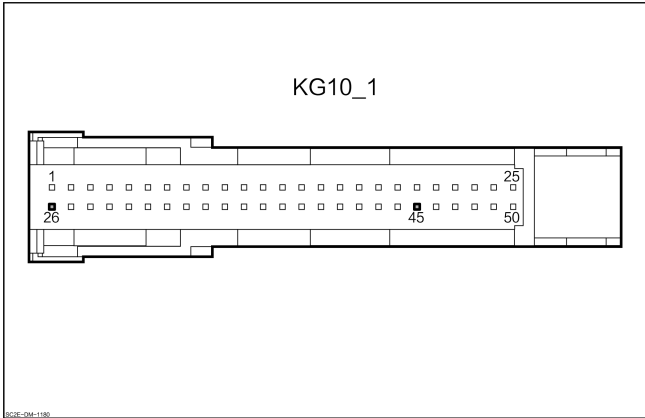
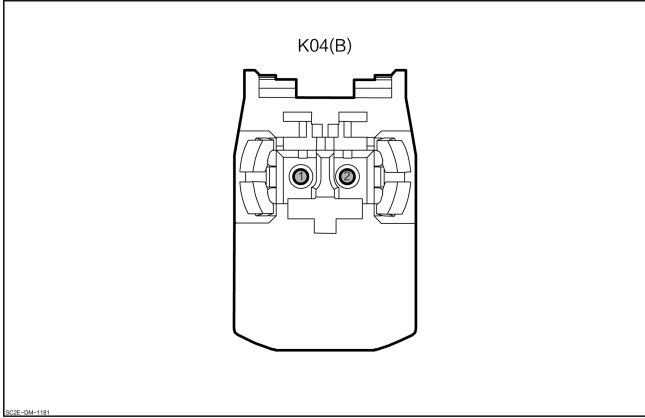
DTC Description

| B164F1A Resistance of Front Passenger Seat Belt Pretensioner Equaling to 0 | |
|--|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Front passenger seat belt pre-tensioner 1 fault. 3. Airbag control unit fault. |
| Fault setting conditions | The resistance of the front passenger seat belt pretensioner 1 equals to 0. |
| Trigger fault conditions | When the airbag control module receives the signal indicating resistance of front passenger seat belt pretensioner 1 equaling to 0, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Airbag control unit</p> <div style="text-align: center;">  <p style="margin-left: 100px;">KG10_1</p> </div> | 26 | Front passenger seat belt pretensioner + |
| | 45 | Front passenger seat belt pretensioner – |
| <p style="text-align: center;">Front passenger seat belt pretensioner</p> <div style="text-align: center;">  <p style="margin-left: 100px;">K04(B)</p> </div> | 1 | Front passenger seat belt pretensioner + |
| | 2 | Front passenger seat belt pretensioner – |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness connector of front passenger seat belt pretensioner 1. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of front passenger seat belt pretensioner 1 K04(B).
3. Check the harness connector of front passenger seat belt pretensioner 1 for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

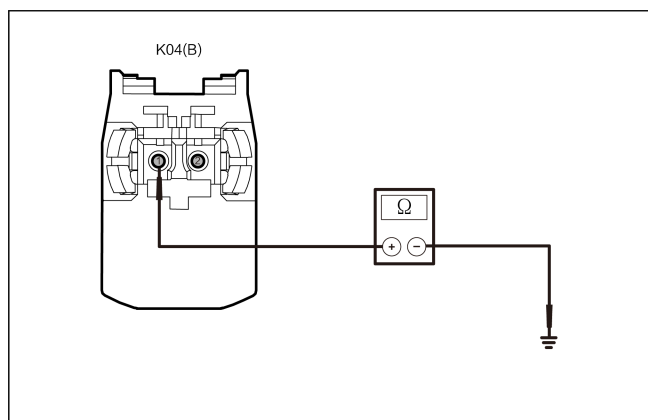
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the line of front passenger seat belt pretensioner 1 for short to ground. |
|---|---|



1. Measure the resistance between the harness connector of front passenger seat belt pretensioner 1 K04(B)-1 and the ground.
2. Measure the resistance between the harness connector of front passenger seat belt pretensioner 1 K04(B)-2 and the ground.

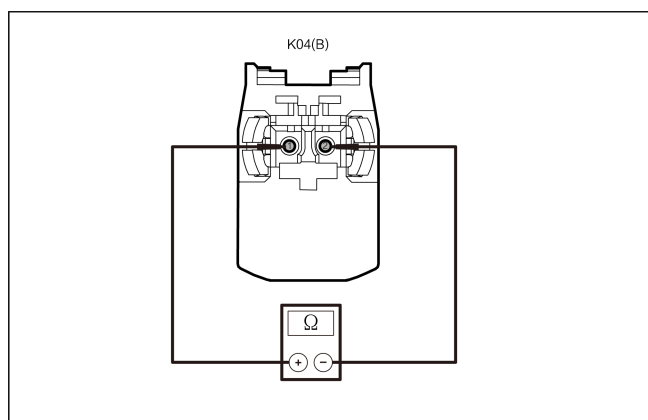
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| K04(B)-1 | Ground | Through-out | Above 10k Ω |
| K04(B)-2 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the line of front passenger seat belt pretensioner 1 for short circuit.



1. Measure the resistance between the harness connectors of front passenger seat belt pretensioner 1 K04(B)-1 and K04(B)-2.

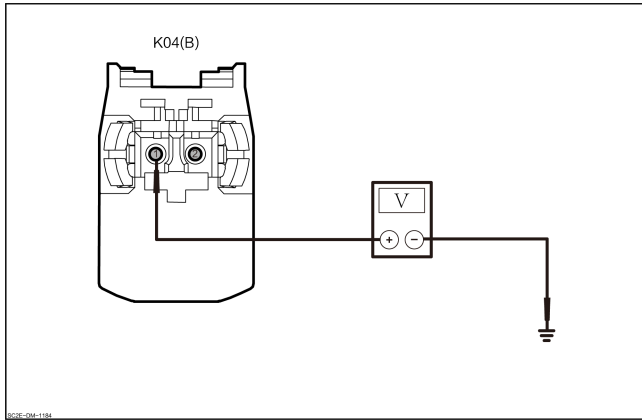
| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| K04(B)-1 | K04(B)-2 | Through-out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the line of front passenger seat belt pretensioner 1 for short to power.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of front passenger seat belt pretensioner 1 K04(B)-1 and the ground.
3. Measure the voltage between the harness connector of front passenger seat belt pretensioner 1 K04(B)-2 and the ground.

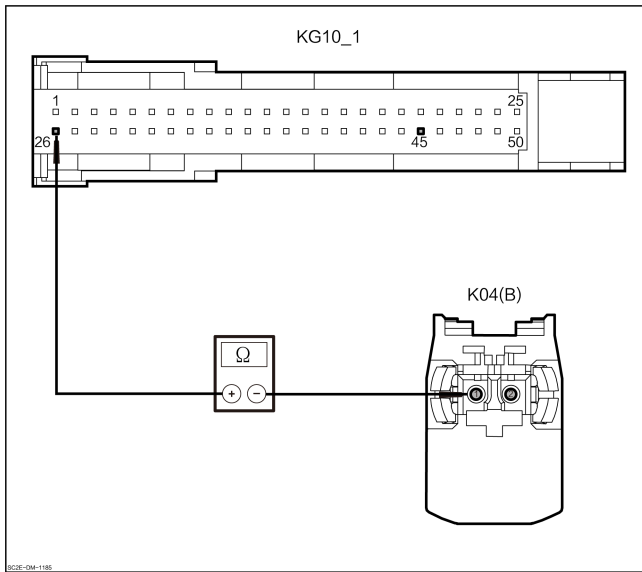
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K04(B)-1 | Ground | Through-out | Less than 1V |
| K04(B)-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the line from airbag control module to the front passenger seat belt pretensioner 1 for open circuit.



1. Measure the resistance between the harness connector of airbag control module KG10_1-26 and the harness connector of front passenger seat belt pretensioner 1 K04(B)-1.
2. Measure the resistance between the harness connector of airbag control module KG10_1-45 and the harness connector of front passenger seat belt pretensioner 1 K04(B)-2.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| KG10_1-26 | K04(B)-1 | Through-out | Lower than 1Ω |
| KG10_1-45 | K04(B)-2 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Replace the front passenger seat belt pretensioner 1, and check the DTC.

1. Replace the front passenger seat belt pretensioner 1, and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

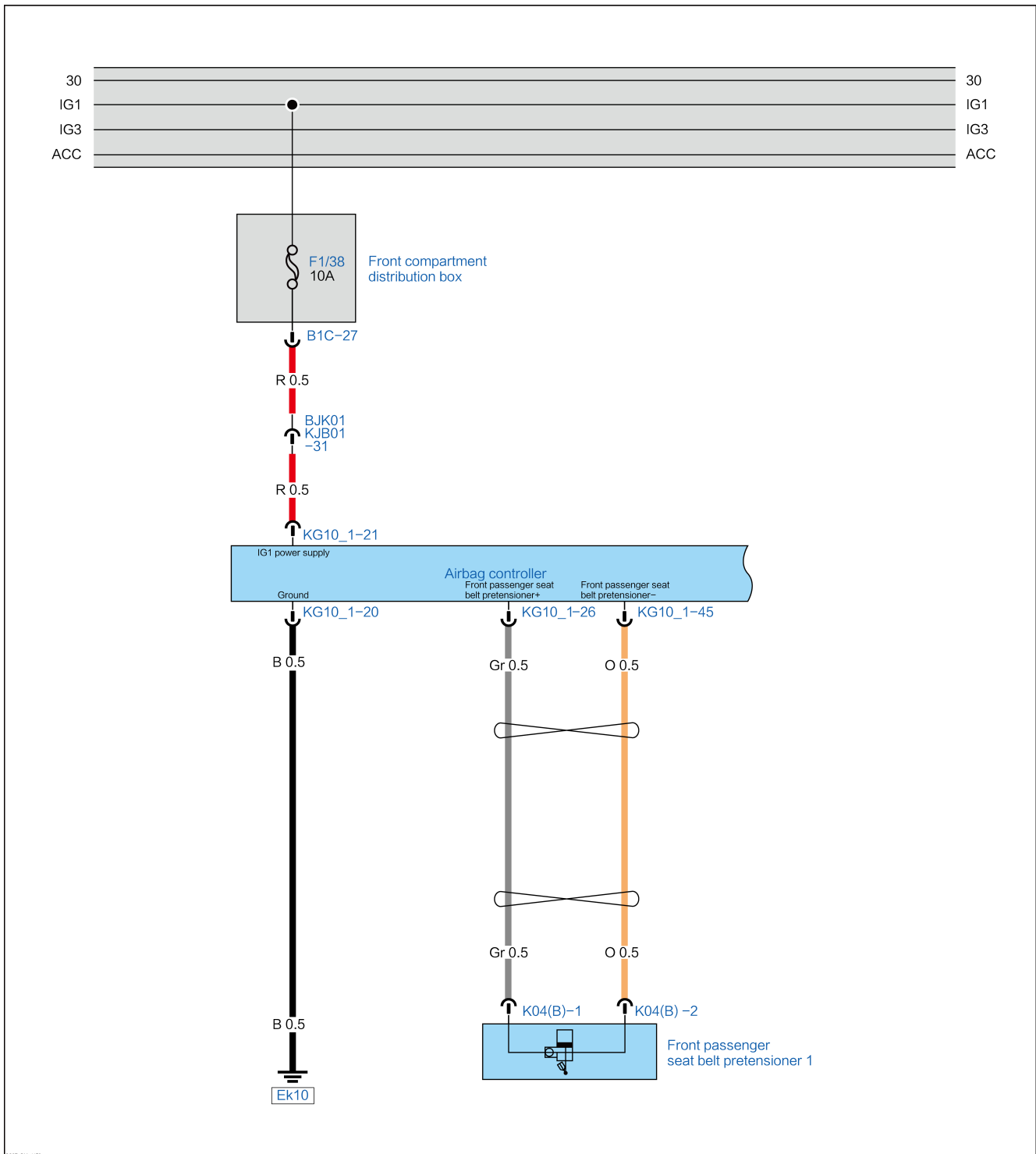
| | |
|-----|----------------------------------|
| No | The system is normal. |
| Yes | Replace the airbag control unit. |

B164b11 Front Passenger Seat Belt Pretensioner Short to Ground

DTC Description

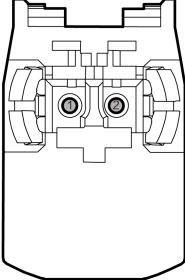
| B164b11 Front Passenger Seat Belt Pretensioner Short to Ground | |
|--|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Front passenger seat belt pre-tensioner 1 fault.3. Airbag control unit fault. |
| Fault setting conditions | The front passenger seat belt pretensioner 1 is short to ground. |
| Trigger fault conditions | When the airbag control module receives the signal that the front passenger seat belt pretensioner 1 is short circuited to the ground, DTC is generated. |

Circuit Diagram



SCHE-EM-1170

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|--------------------------------------|---|
| <p>Front passenger seat belt pretensioner</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>K04(B)</p>  <p><small>BYD-DM-1161</small></p> </div> | <p>1</p> | <p>Front passenger seat belt pretensioner +</p> |
| | <p>2</p> | <p>Front passenger seat belt pretensioner -</p> |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness connector of front passenger seat belt pretensioner 1. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of front passenger seat belt pretensioner 1 K04(B).
3. Check the harness connector of front passenger seat belt pretensioner 1 for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

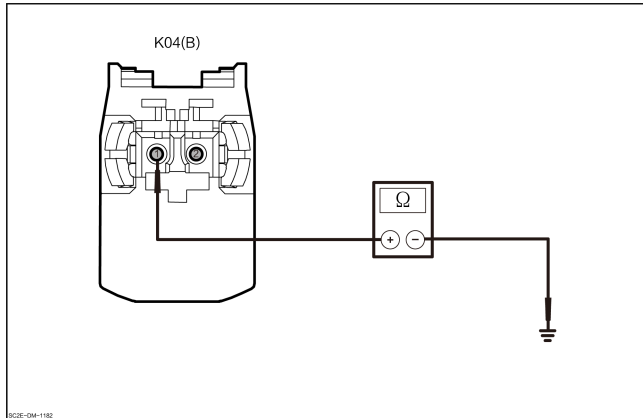
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the line of front passenger seat belt pretensioner 1 for short to ground. |
|---|---|



1. Measure the resistance between the harness connector of front passenger seat belt pretensioner 1 K04(B)–1 and the ground.
2. Measure the resistance between the harness connector of front passenger seat belt pretensioner 1 K04(B)–2 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| K04(B)–1 | Ground | Through-out | Above 10k Ω |
| K04(B)–2 | | | |

3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Replace the front passenger seat belt pretensioner 1, and check the DTC.

1. Replace the front passenger seat belt pretensioner 1, and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

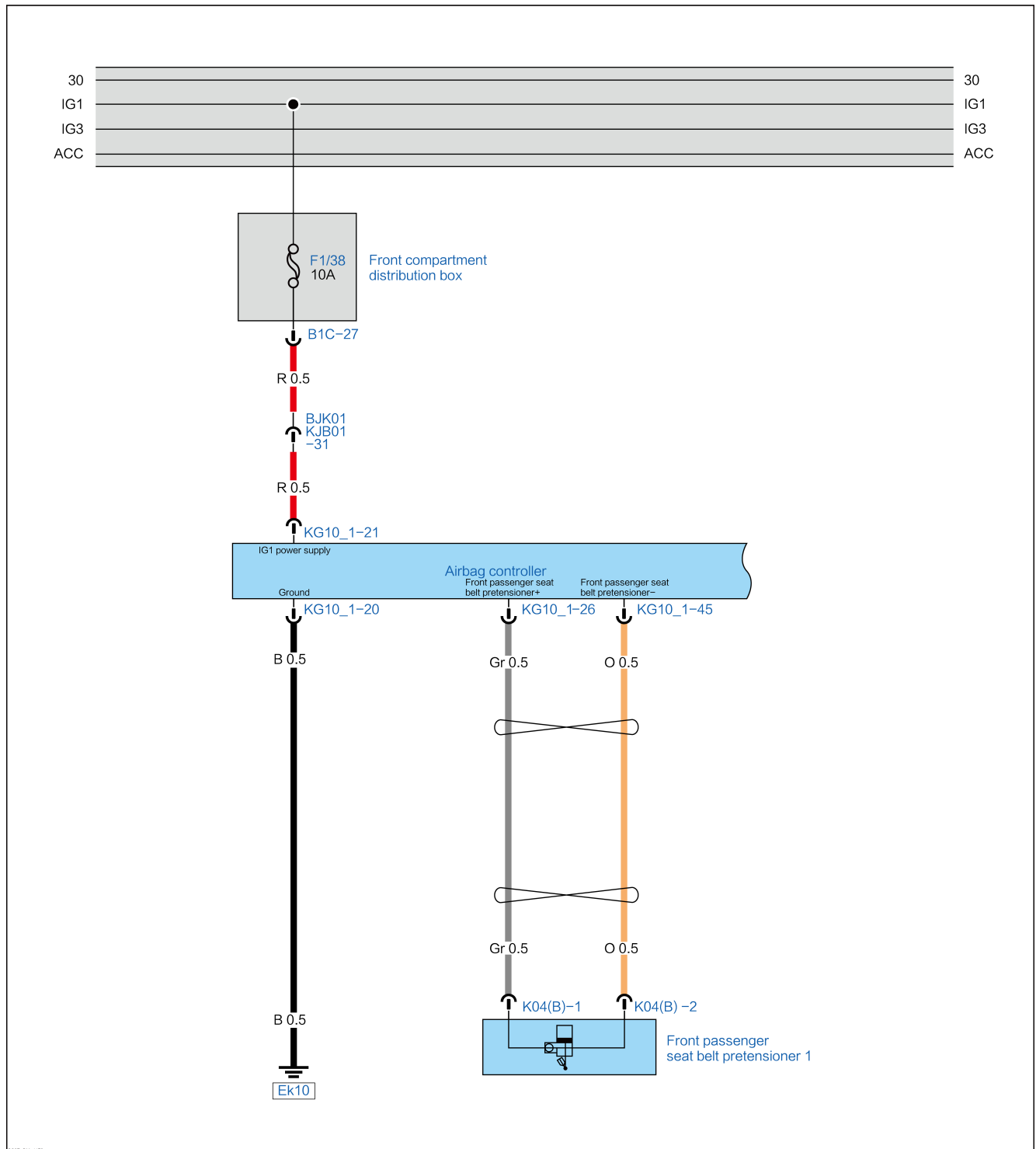
Replace the airbag control unit.

B164c12 Front Passenger Seat Belt Pretensioner Short to Power

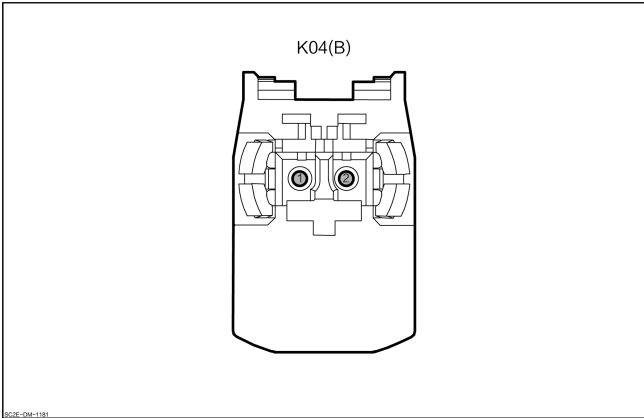
DTC Description

| B164c12 Front Passenger Seat Belt Pretensioner Short to Power | |
|---|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Front passenger seat belt pre-tensioner 1 fault.3. Airbag control unit fault. |
| Fault setting conditions | The front passenger seat belt pretensioner 1 is short to power. |
| Trigger fault conditions | When the airbag control module receives the signal indicating front passenger seat belt pretensioner 1 short to power, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p>Front passenger seat belt pretensioner</p>  <p style="text-align: center;">K04(B)</p> <p style="font-size: small;">S02E-DM-1181</p> | 1 | Front passenger seat belt pretensioner + |
| | 2 | Front passenger seat belt pretensioner - |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness connector of front passenger seat belt pretensioner 1. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of front passenger seat belt pretensioner 1 K04(B).
3. Check the harness connector of front passenger seat belt pretensioner 1 for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

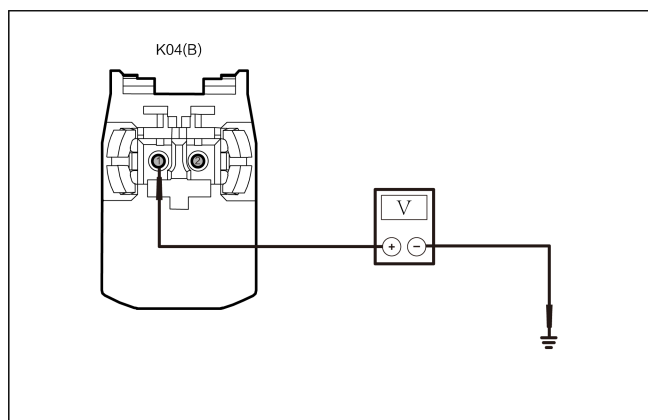
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the line of front passenger seat belt pretensioner 1 for short to power. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of front passenger seat belt pretensioner 1 K04(B)-1 and the ground.
3. Measure the voltage between the harness connector of front passenger seat belt pretensioner 1 K04(B)-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K04(B)-1 | Ground | Through-out | Less than 1V |
| K04(B)-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Replace the front passenger seat belt pretensioner 1, and check the DTC.

1. Replace the front passenger seat belt pretensioner 1, and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

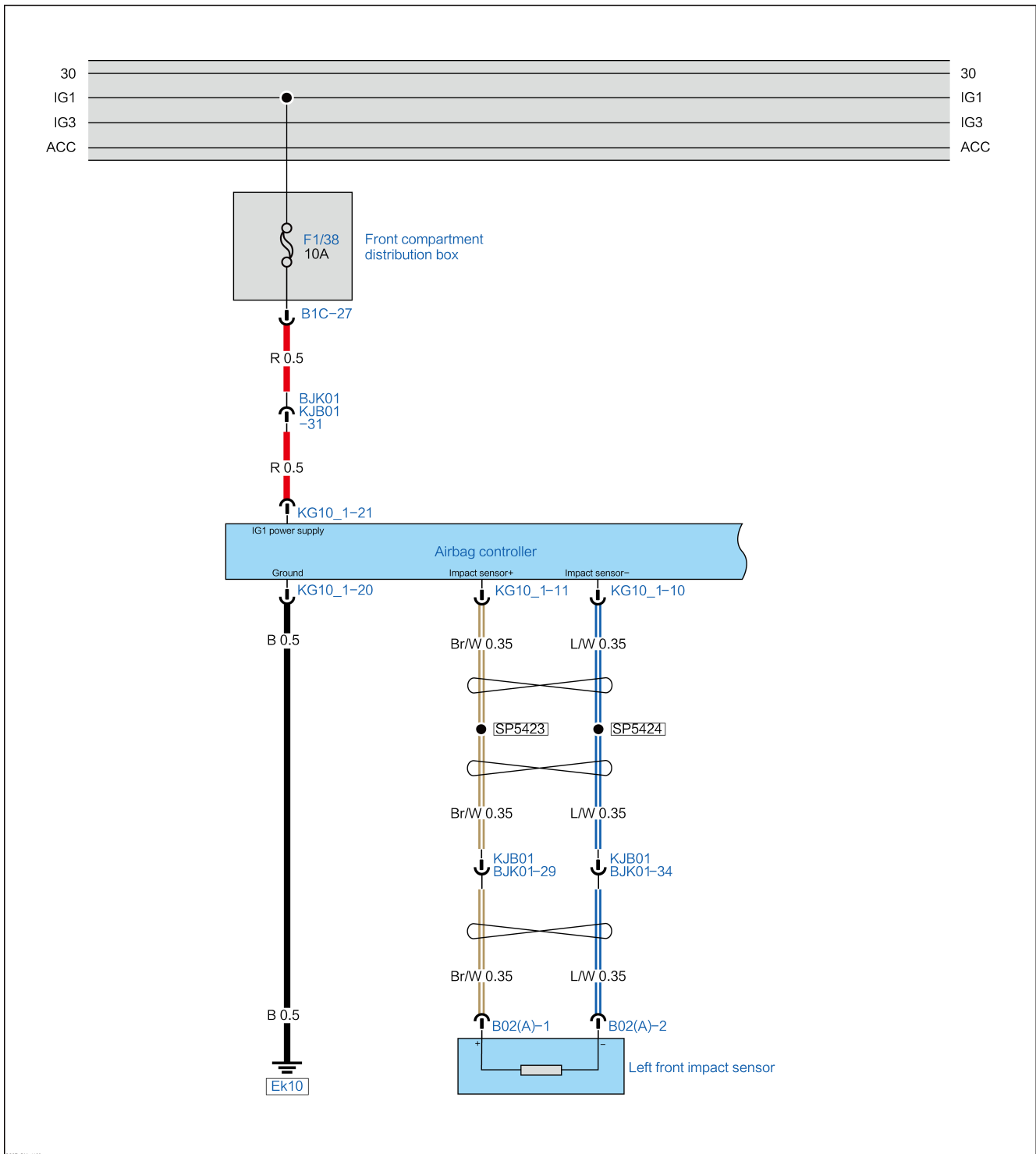
No → The system is normal.

Yes → Replace the airbag control unit.

B165400 Left front impact sensor not connected**DTC Description**

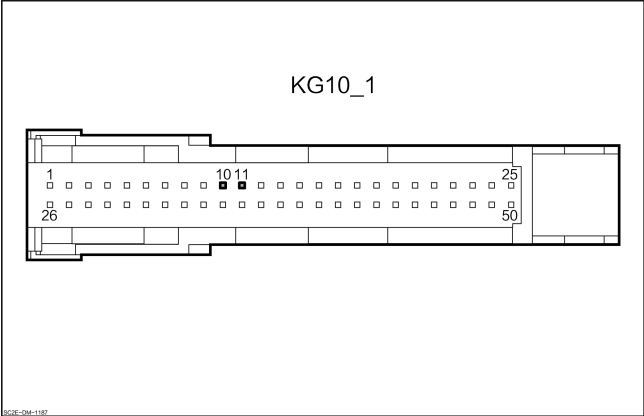
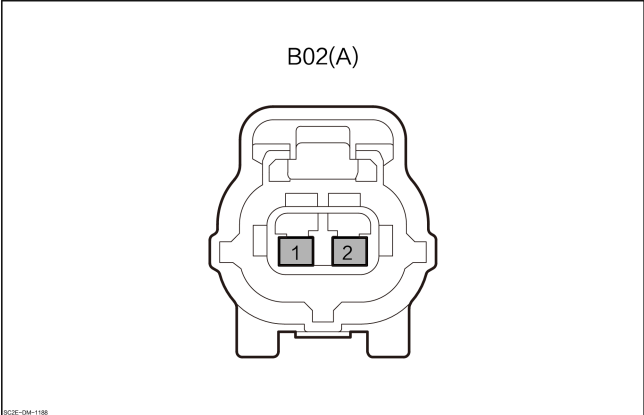
| B165400 Left front impact sensor not connected | |
|--|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | 1. Harness or connector fault. 2. Left front impact sensor fault. 3. Airbag control unit fault. |
| Fault setting conditions | Left front impact sensor not connected. |
| Trigger fault conditions | When the airbag control module receives a signal that the left front impact sensor is not connected, DTC is generated. |

Circuit Diagram



SCHE-DM-1198

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------------|
| <p style="text-align: center;">Airbag control unit</p> <div style="text-align: center;">  <p>KG10_1</p> </div> | 10 | Left front impact sensor- |
| | 11 | Left front impact sensor+ |
| <p style="text-align: center;">Left front impact sensor</p> <div style="text-align: center;">  <p>B02(A)</p> </div> | 2 | Left front impact sensor- |
| | 1 | Left front impact sensor+ |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the left front impact sensor harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the left front impact sensor harness connector B02(A).
3. Check whether the left front impact sensor harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

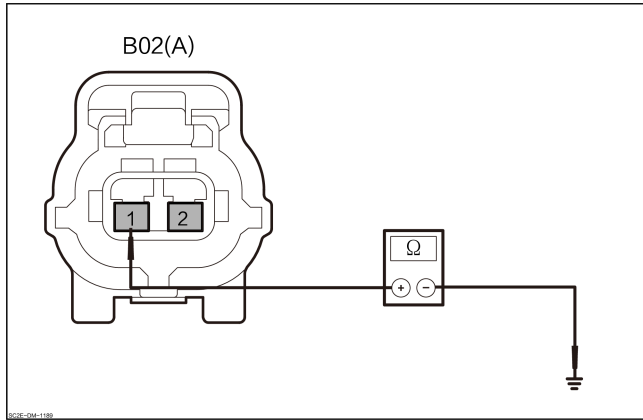
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check whether the left front impact sensor line is shorted to ground. |
|---|---|



1. Measure the resistance value between the left front impact sensor harness connector B02 (A)-1 and the grounding.
2. Measure the resistance value between the left front impact sensor harness connector B02 (A)-2 and the grounding.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B02(A)-1 | Ground | Through- out | Above 10k Ω |
| B02(A)-2 | | | |

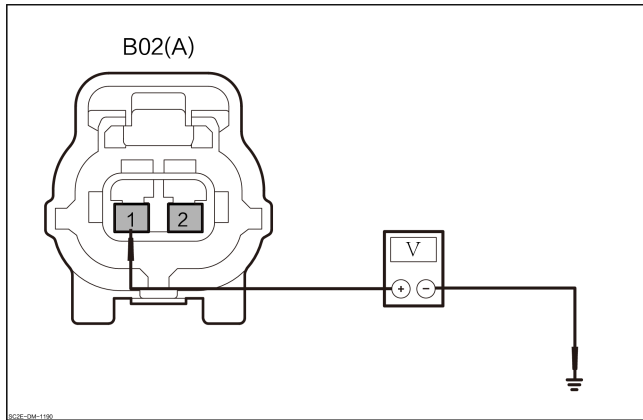
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check whether the left front impact sensor line is shorted to power.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the left front impact sensor harness connector B02 (A)-1 and the ground.
3. Measure the voltage value between the left front impact sensor harness connector B02 (A)-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| B02(A)-1 | Ground | Through- out | Less than 1V |
| B02(A)-2 | | | |

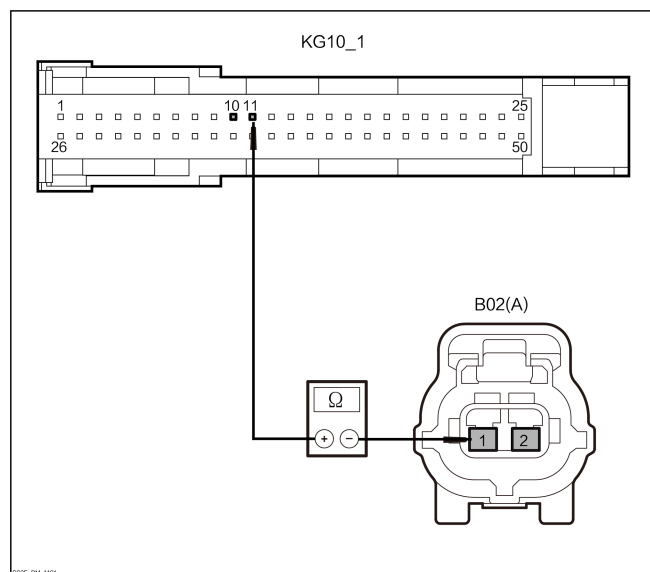
4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

6 Check the line from the airbag control module to the left front impact sensor for open circuit.



1. Measure the resistance between the harness connector of airbag control module KG10_1-11 and the harness connector of left front impact sensor B02(A)-1.
2. Measure the resistance between the harness connector of airbag control module KG10_1-12 and the harness connector of left front impact sensor B02(A)-2.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| KG10_1-11 | B02(A)-1 | Through-out | Lower than 1Ω |
| KG10_1-10 | B02(A)-2 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Replace the left front impact sensor and check the DTC.

1. Replace the left front impact sensor and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

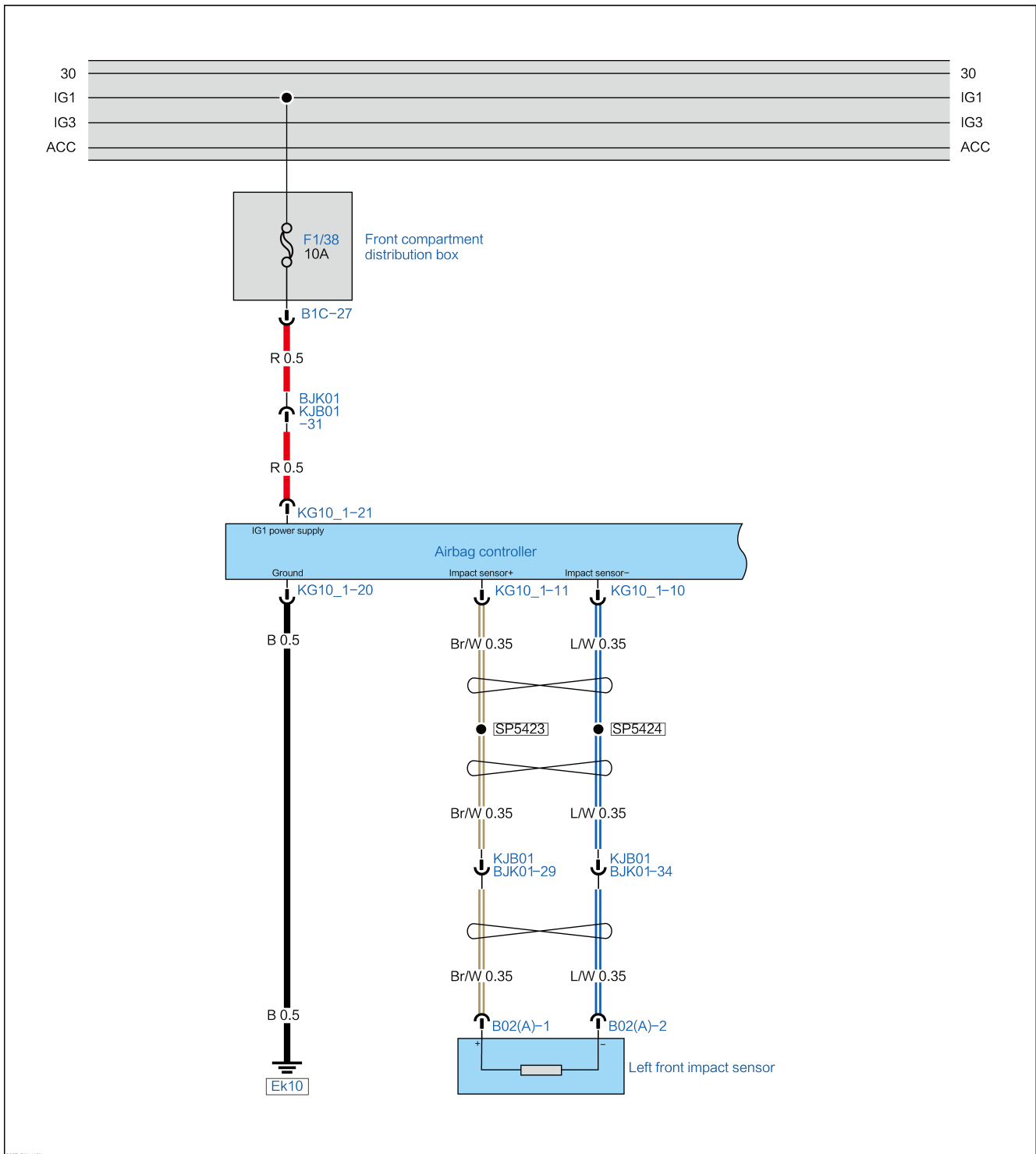
No → The system is normal.

Yes → Replace the airbag control unit.

B165511 Left Front Frontal Impact Sensor Short to Ground**DTC Description**

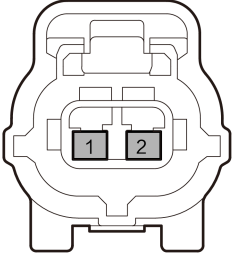
| B165511 Left Front Frontal Impact Sensor Short to Ground | |
|--|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | 1. Harness or connector fault. 2. Left front impact sensor fault. 3. Airbag control unit fault. |
| Fault setting conditions | The left front impact sensor is short to ground. |
| Trigger fault conditions | When the airbag control module receives the signal that the left front impact sensor is short circuited to the ground, DTC is generated. |

Circuit Diagram



SCHE-DM-1198

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------------|
| <p>Left front impact sensor</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>B02(A)</p>  <p><small>B02(A) 1/18</small></p> </div> | 2 | Left front impact sensor- |
| | 1 | Left front impact sensor+ |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the left front impact sensor harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the left front impact sensor harness connector B02(A).
3. Check whether the left front impact sensor harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

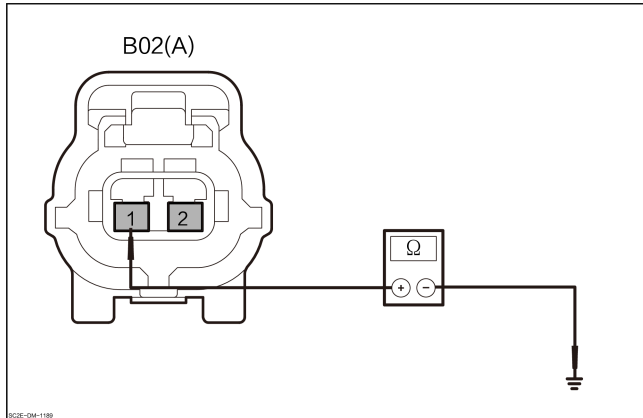
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check whether the left front impact sensor line is shorted to ground. |
|---|---|



1. Measure the resistance value between the left front impact sensor harness connector B02 (A)-1 and the grounding.
2. Measure the resistance value between the left front impact sensor harness connector B02 (A)-2 and the grounding.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B02(A)-1 | Ground | Through- out | Above 10k Ω |
| B02(A)-2 | | | |

3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 5 | Replace the left front impact sensor and check the DTC. |
|---|---|

1. Replace the left front impact sensor and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

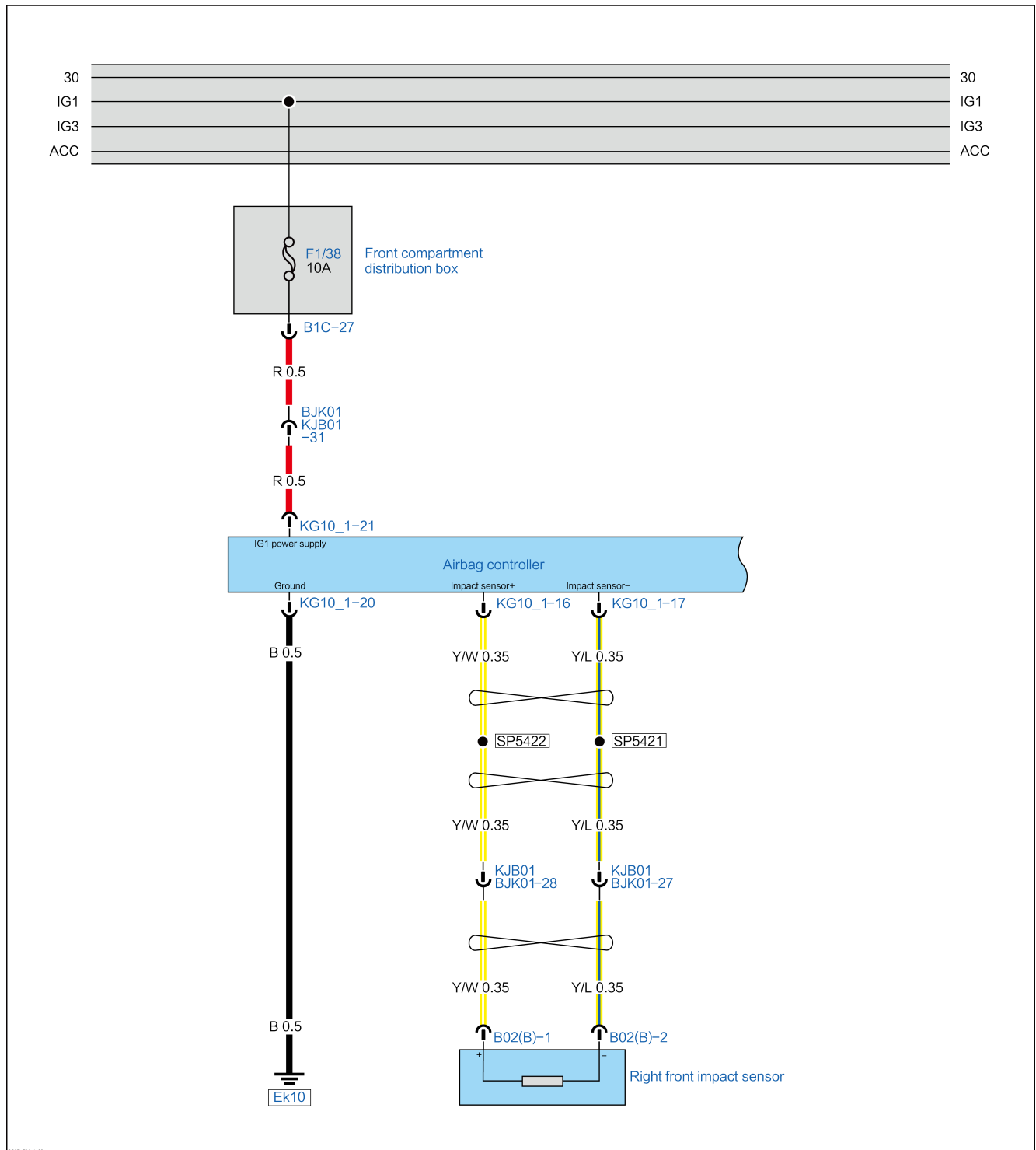
Replace the airbag control unit.

B165D00 Right Front Impact Sensor Not Connected

DTC Description

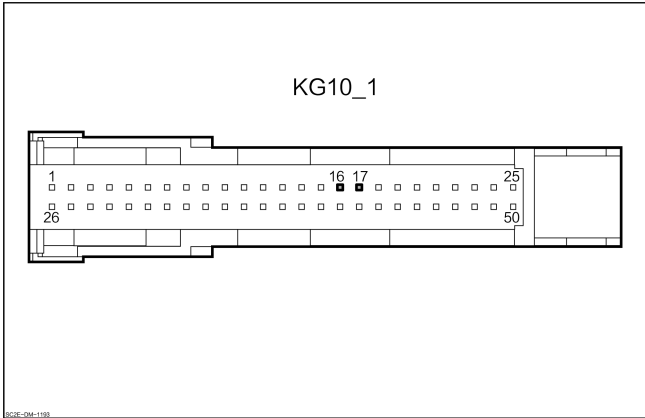
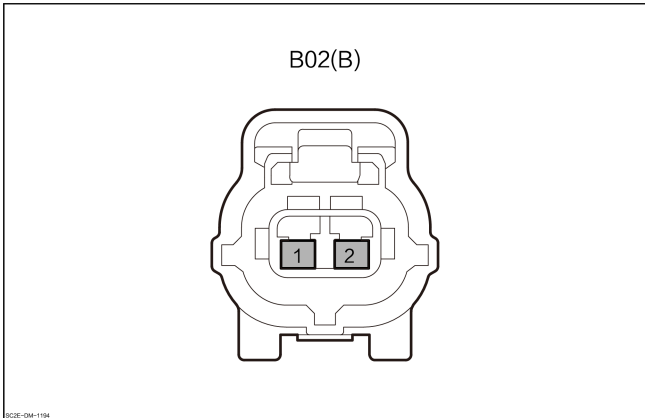
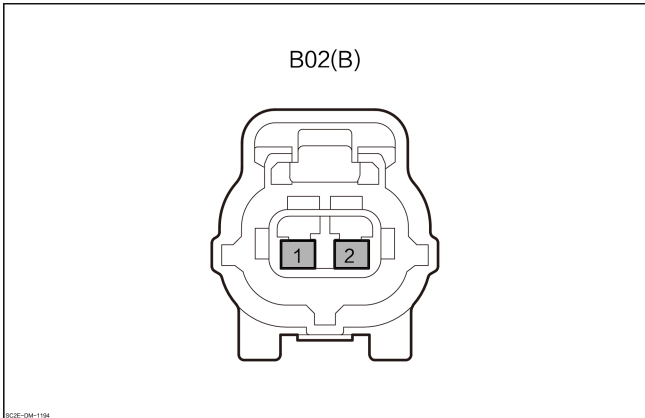
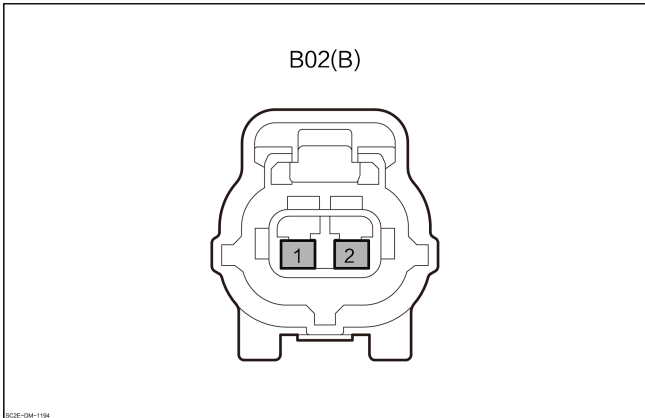
| B165D00 Right Front Impact Sensor Not Connected | |
|---|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Right front impact sensor fault. 3. Airbag control unit fault. |
| Fault setting conditions | Right front impact sensor not connected. |
| Trigger fault conditions | When the airbag control module receives a signal that the right front impact sensor is not connected, DTC is generated. |

Circuit Diagram



SCHE-DM-1192

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|---------------------------------------|---|
| <p style="text-align: center;">Airbag control unit</p> <div style="text-align: center;">  <p>KG10_1</p> </div> | <p style="text-align: center;">16</p> | <p style="text-align: center;">Right front impact sensor+</p> |
| <p style="text-align: center;">Right front impact sensor</p> <div style="text-align: center;">  <p>B02(B)</p> </div> | <p style="text-align: center;">17</p> | <p style="text-align: center;">Right front impact sensor</p> |
| <p style="text-align: center;">Right front impact sensor</p> <div style="text-align: center;">  <p>B02(B)</p> </div> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Right front impact sensor+</p> |
| <p style="text-align: center;">Right front impact sensor</p> <div style="text-align: center;">  <p>B02(B)</p> </div> | <p style="text-align: center;">2</p> | <p style="text-align: center;">Right front impact sensor</p> |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the right front impact sensor harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the right front impact sensor harness connector B02(B).
3. Check whether the right front impact sensor harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

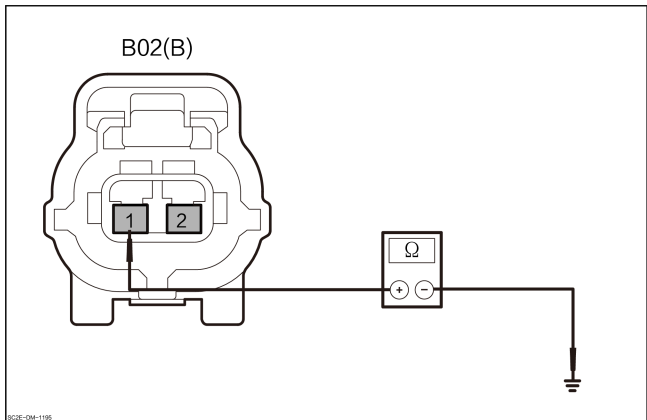
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the right front impact sensor line is shorted to ground. |
|---|--|



1. Measure the resistance value between the right front impact sensor harness connector B02 (B)-1 and ground.
2. Measure the resistance value between the right front impact sensor harness connector B02 (B)-2 and ground.

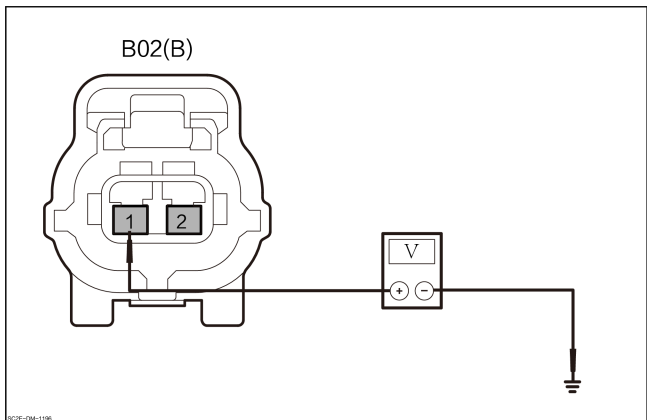
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B02(B)-1 | Ground | Through- out | Above 10k Ω |
| B02(B)-2 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check whether the right front impact sensor line is shorted to power.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the right front impact sensor harness connector B02 (B)-1 and ground.
3. Measure the voltage value between the right front impact sensor harness connector B02 (B)-2 and ground.

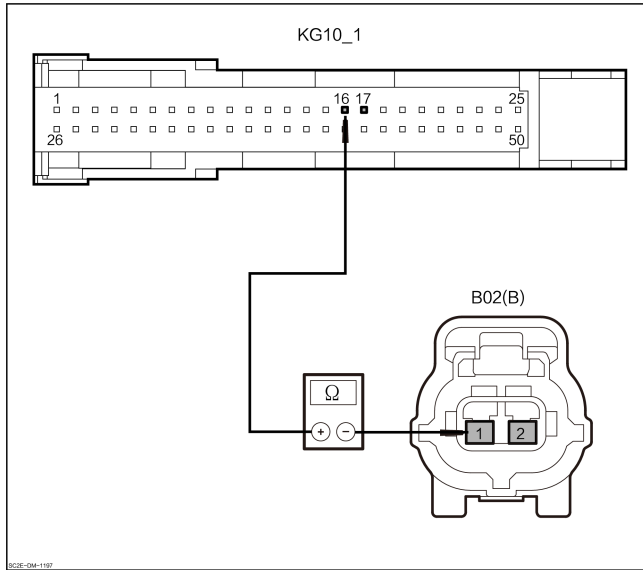
| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| B02(B)-1 | Ground | Through- out | Less than 1V |
| B02(B)-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the line from the airbag control module to the right front impact sensor for open circuit.



1. Measure the resistance between the harness connector of airbag control module KG10_1-16 and the harness connector of right front impact sensor B02(B)-1.
2. Measure the resistance between the harness connector of airbag control module KG10_1-17 and the harness connector of right front impact sensor B02(B)-2.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| KG10_1-16 | B02(B)-1 | Through- out | Lower than 1Ω |
| KG10_1-17 | B02(B)-2 | | |

3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Replace the right front impact sensor and check the DTC.

1. Replace the right front impact sensor and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

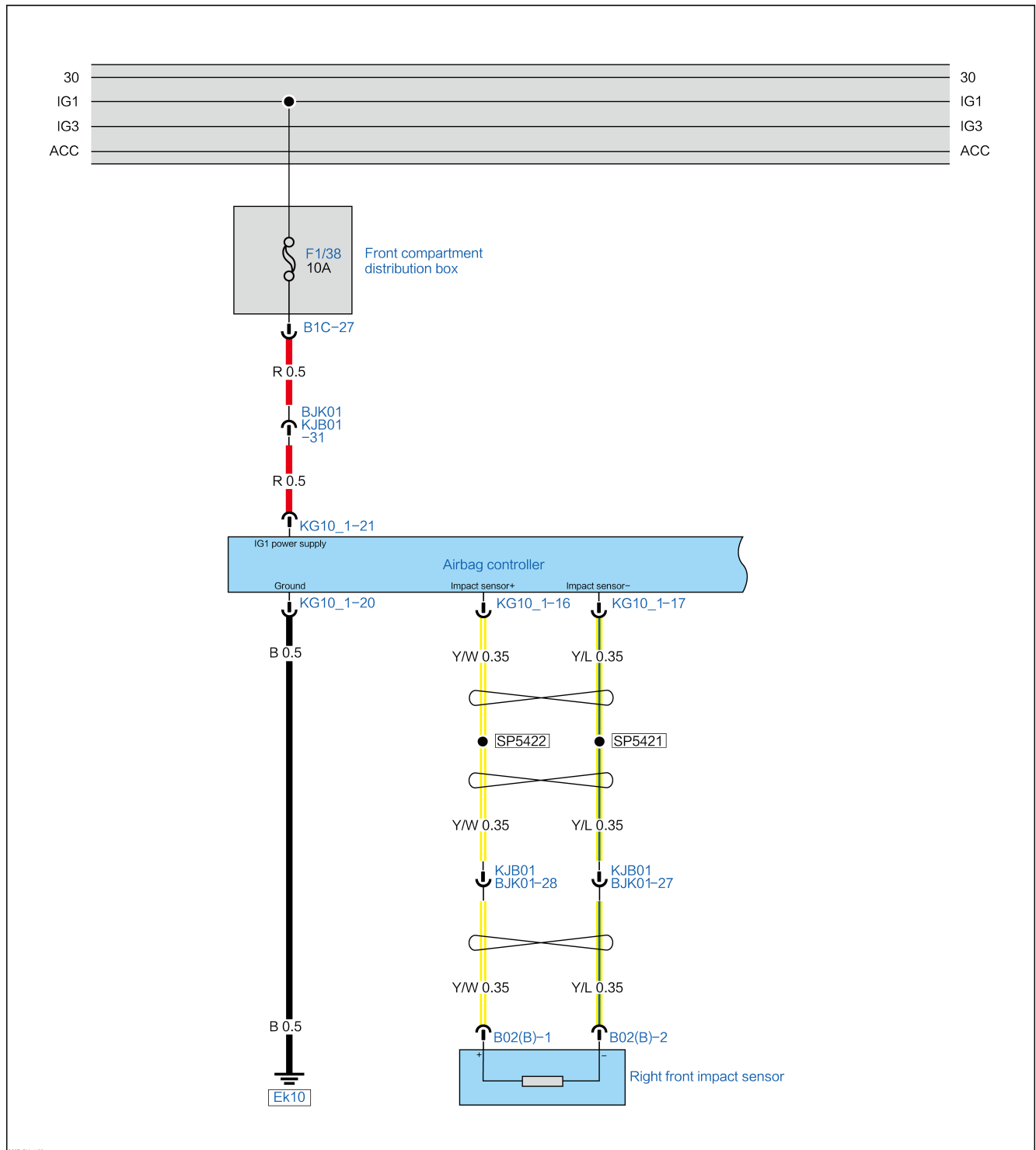
Replace the airbag control unit.

B165e11 Right Front Frontal Impact Sensor Short to Ground

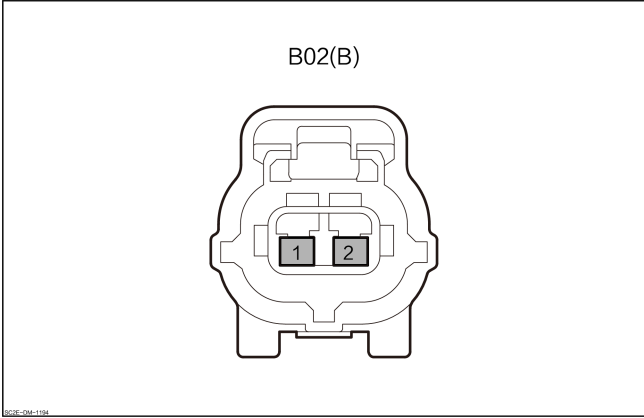
DTC Description

| B165e11 Right Front Frontal Impact Sensor Short to Ground | |
|---|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Right front impact sensor fault. 3. Airbag control unit fault. |
| Fault setting conditions | The right front impact sensor is short to ground. |
| Trigger fault conditions | When the airbag control module receives a signal that the right front impact sensor is short-circuited to ground, DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|----------------------------|
| <p style="text-align: center;">Right front impact sensor</p> <div style="text-align: center;">  </div> | 1 | Right front impact sensor+ |
| | 2 | Right front impact sensor |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the right front impact sensor harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the right front impact sensor harness connector B02(B).
3. Check whether the right front impact sensor harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

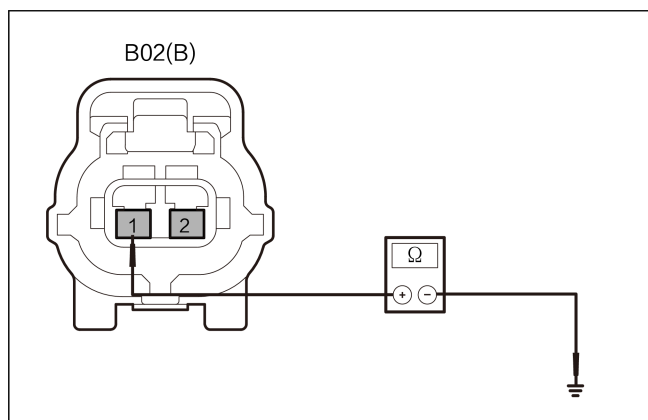
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the right front impact sensor line is shorted to ground. |
|---|--|



1. Measure the resistance value between the right front impact sensor harness connector B02 (B)-1 and ground.
2. Measure the resistance value between the right front impact sensor harness connector B02 (B)-2 and ground.

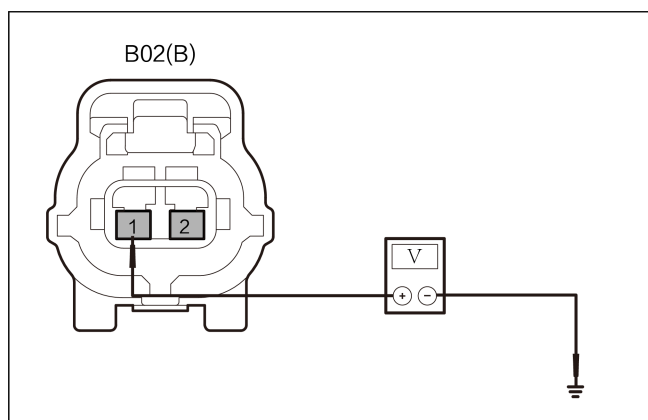
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B02(B)-1 | Ground | Through- out | Above 10k Ω |
| B02(B)-2 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check whether the right front impact sensor line is shorted to power.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the right front impact sensor harness connector B02 (B)-1 and ground.
3. Measure the voltage value between the right front impact sensor harness connector B02 (B)-2 and ground.

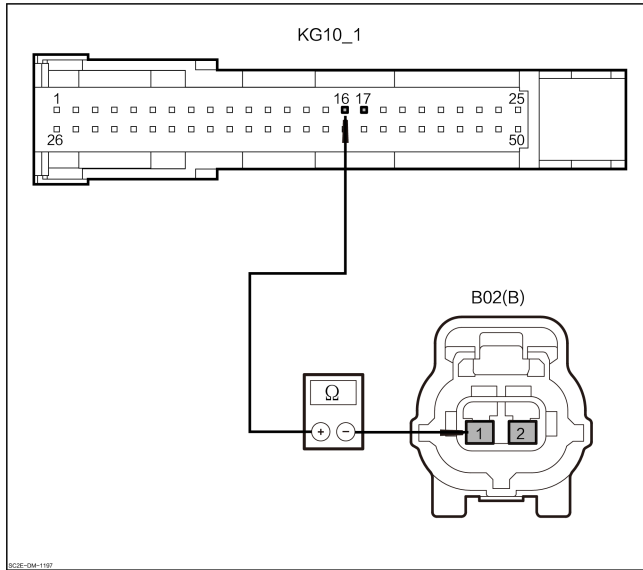
| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| B02(B)-1 | Ground | Through- out | Less than 1V |
| B02(B)-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the line from the airbag control module to the right front impact sensor for open circuit.



1. Measure the resistance between the harness connector of airbag control module KG10_1-16 and the harness connector of right front impact sensor B02(B)-1.
2. Measure the resistance between the harness connector of airbag control module KG10_1-17 and the harness connector of right front impact sensor B02(B)-2.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| KG10_1-16 | B02(B)-1 | Through- out | Above 10k Ω |
| KG10_1-17 | B02(B)-2 | | |

3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Replace the right front impact sensor and check the DTC.

1. Replace the right front impact sensor and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

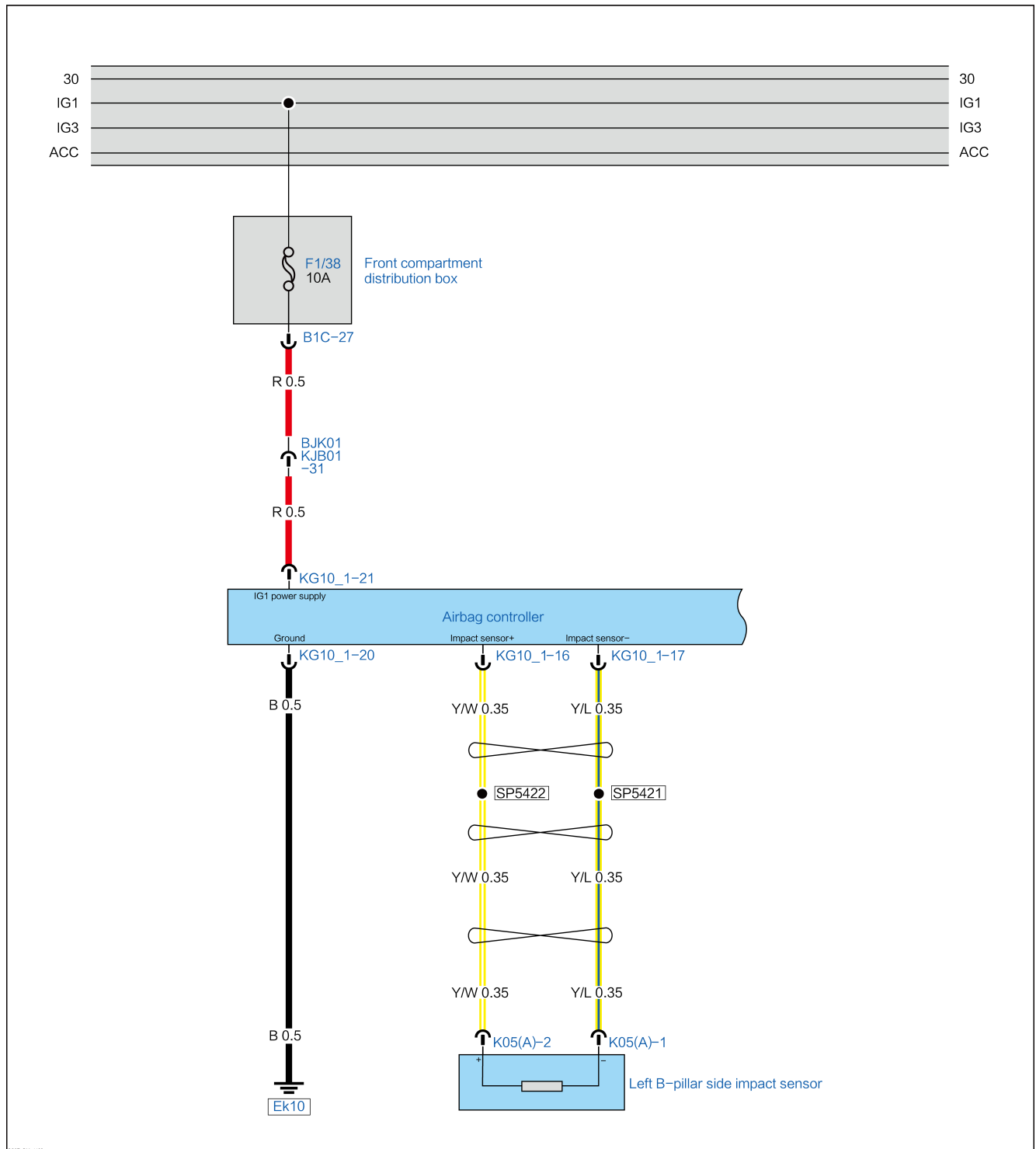
Replace the airbag control unit.

B166600 Left Side Impact Sensor Not Connected

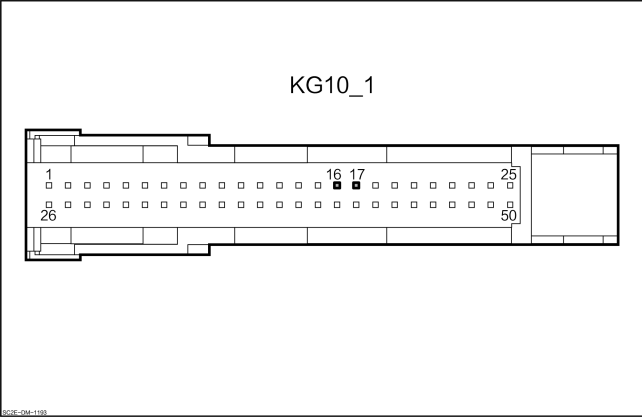
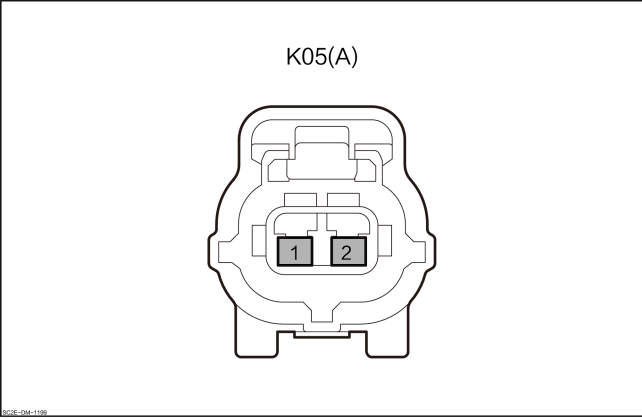
DTC Description

| B166600 Left Side Impact Sensor Not Connected | |
|---|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Left B-pillar side collision sensor fault. 3. Airbag control unit fault. |
| Fault setting conditions | Left B-pillar side collision sensor not connected. |
| Trigger fault conditions | When the airbag control module receives a signal that the left B-pillar side impact sensor is not connected, DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Airbag control unit</p> <div style="text-align: center;">  <p>KG10_1</p> </div> | 16 | Impact sensor+ |
| <p style="text-align: center;">Left B-pillar side impact sensor</p> <div style="text-align: center;">  <p>K05(A)</p> </div> | 1 | Impact sensor- |
| | 2 | Impact sensor+ |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the left B-pillar side collision sensor harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the left B-pillar side collision sensor harness connector K05(A).
3. Check whether the left B-pillar side collision sensor harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

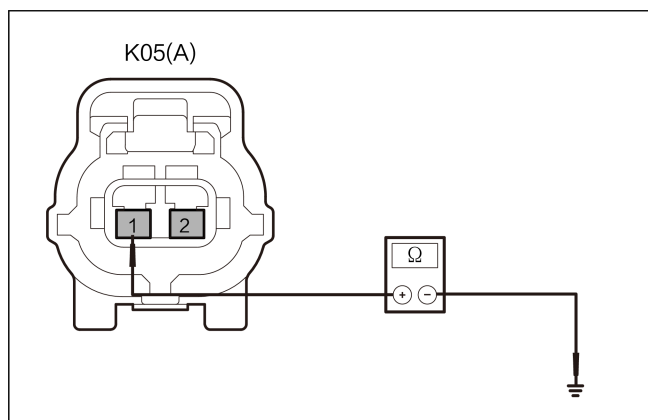
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check whether the left B-pillar side impact sensor line is short to ground. |
|---|---|



1. Measure the resistance value between the harness connector K05 (A)-1 of the left B-pillar side impact sensor and the ground.
2. Measure the resistance value between the harness connector K05 (A)-2 of the left B-pillar side impact sensor and the ground.

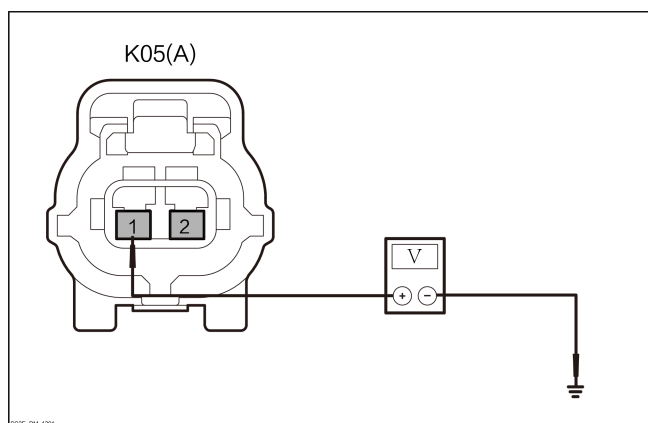
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| K05(A)-1 | Ground | Through-out | Above 10k Ω |
| K05(A)-2 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the left B-pillar side impact sensor line for short circuit to the power supply.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the left B-pillar side impact sensor harness connector K05 (A)-1 and the grounding.
3. Measure the voltage value between the left B-pillar side impact sensor harness connector K05 (A)-2 and the grounding.

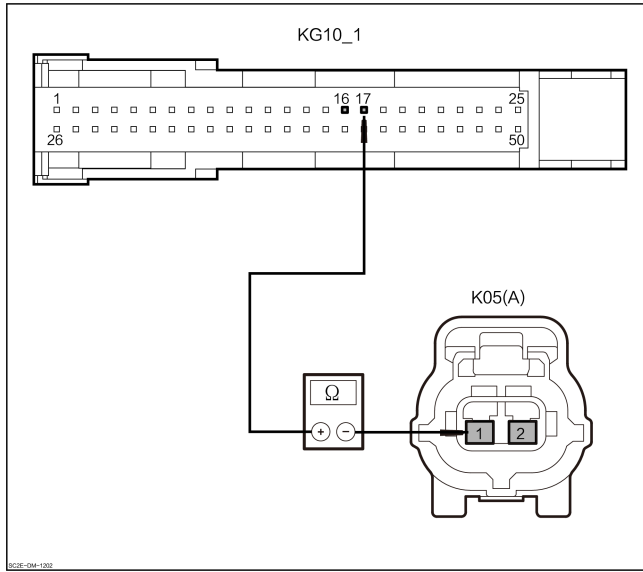
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K05(A)-1 | Ground | Through-out | Less than 1V |
| K05(A)-2 | | | |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the line from the airbag control module to the left B-pillar side impact sensor for open circuit.



1. Measure the resistance between the harness connector of airbag control module KG10_1-17 and the harness connector of left B-pillar side impact sensor K05(A)-1.
2. Measure the resistance between the harness connector of airbag control module KG10_1-16 and the harness connector of left B-pillar side impact sensor K05(A)-2.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| KG10_1-17 | K05(A)-1 | Through- out | Lower than 1Ω |
| KG10_1-16 | K05(A)-2 | | |

3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Replace the left B-pillar side collision sensor and check the DTC.

1. Replace the left B-pillar side collision sensor and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No

The system is normal.

Yes

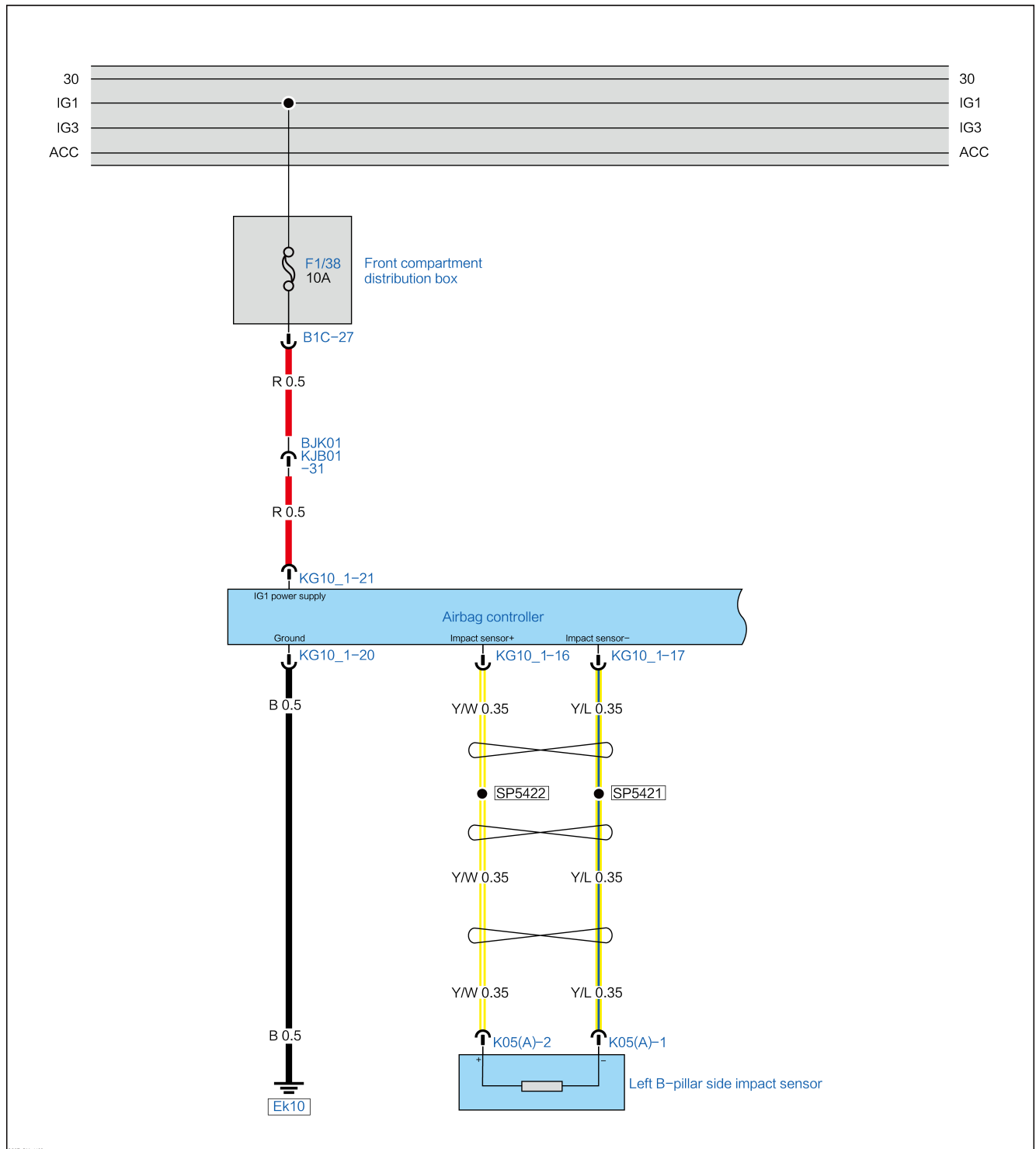
Replace the airbag control unit.

B166711 Left Side Impact Sensor Short to Ground

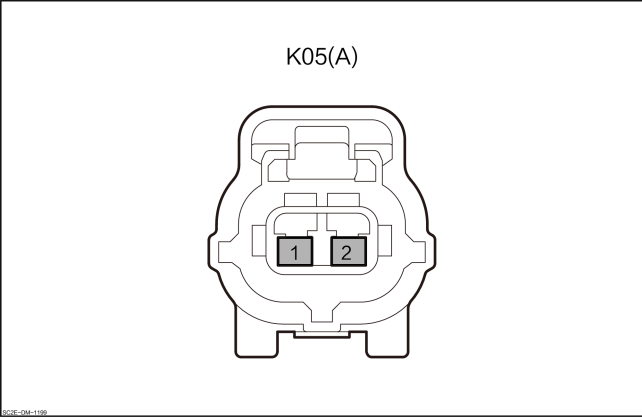
DTC Description

| B166711 Left Side Impact Sensor Short to Ground | |
|---|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Left B-pillar side collision sensor fault. 3. Airbag control unit fault. |
| Fault setting conditions | The left B-pillar side impact sensor is short to ground. |
| Trigger fault conditions | When the airbag control module receives the left B-pillar side impact sensor short circuit to ground, DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p>Left B-pillar side impact sensor</p> <div style="text-align: center;"> <p>K05(A)</p>  </div> <p><small>801E-04-109</small></p> | 1 | Impact sensor- |
| | 2 | Impact sensor+ |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the left B-pillar side collision sensor harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the left B-pillar side collision sensor harness connector K05(A).
3. Check whether the left B-pillar side collision sensor harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

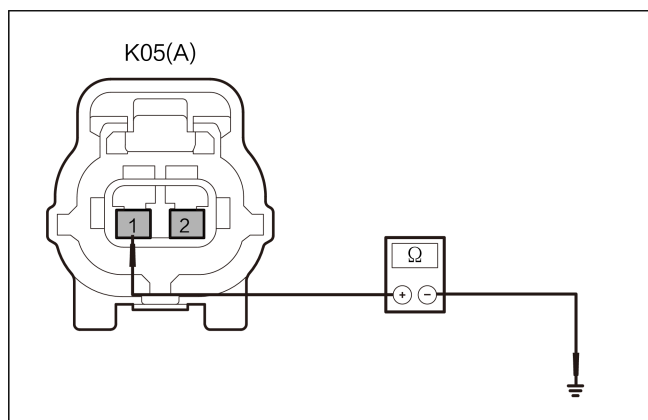
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check whether the left B-pillar side impact sensor line is short to ground. |
|---|---|



1. Measure the resistance value between the harness connector K05 (A)-1 of the left B-pillar side impact sensor and the ground.
2. Measure the resistance value between the harness connector K05 (A)-2 of the left B-pillar side impact sensor and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K05(A)-1 | Ground | Through- out | Above 10k Ω |
| K05(A)-2 | | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Replace the left B-pillar side collision sensor and check the DTC.

1. Replace the left B-pillar side collision sensor and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

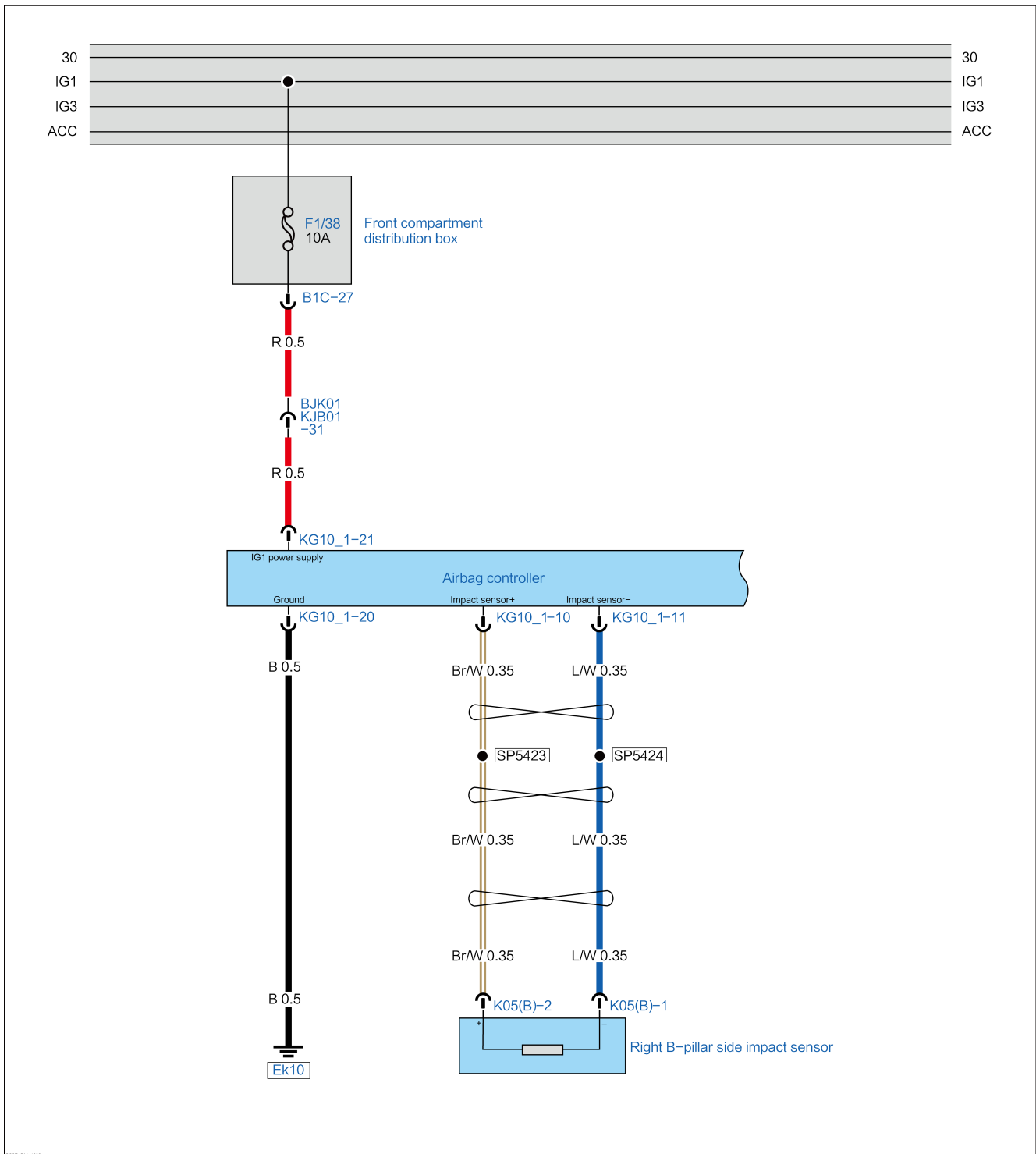
No → The system is normal.

Yes → Replace the airbag control unit.

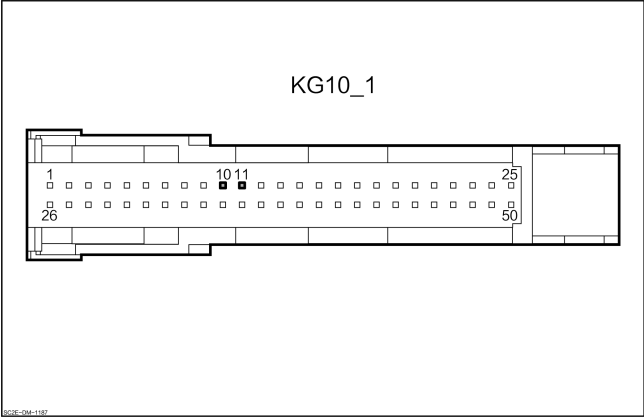
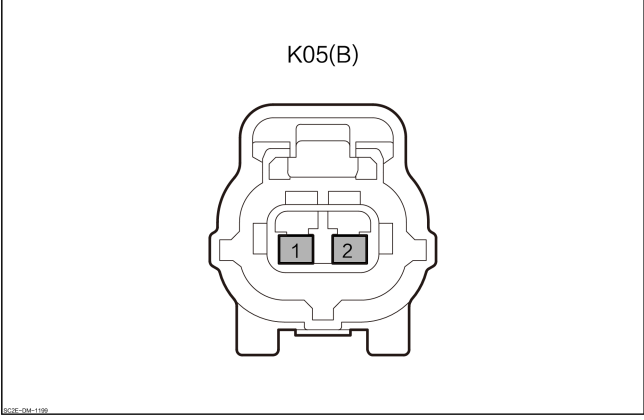
B166f00 Right Side Impact Sensor Not Connected**DTC Description**

| B166f00 Right Side Impact Sensor Not Connected | |
|--|--|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | 1. Harness or connector fault. 2. Right B-pillar side collision sensor fault. 3. Airbag control unit fault. |
| Fault setting conditions | Right B-pillar side collision sensor not connected. |
| Trigger fault conditions | When the airbag control module receives a signal that the right B-pillar impact sensor is not connected, DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|---------------------------------------|---|
| <p style="text-align: center;">Airbag control unit</p> <div style="text-align: center;">  <p>KG10_1</p> </div> | <p style="text-align: center;">10</p> | <p style="text-align: center;">Impact sensor+</p> |
| | <p style="text-align: center;">11</p> | <p style="text-align: center;">Impact sensor-</p> |
| <p style="text-align: center;">The right B-pillar side impact sensor</p> <div style="text-align: center;">  <p>K05(B)</p> </div> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Impact sensor-</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Impact sensor+</p> |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness connector of right B-pillar side impact sensor. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right B-pillar side impact sensor K05(B).
3. Check the harness connector of right B-pillar side impact sensor for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

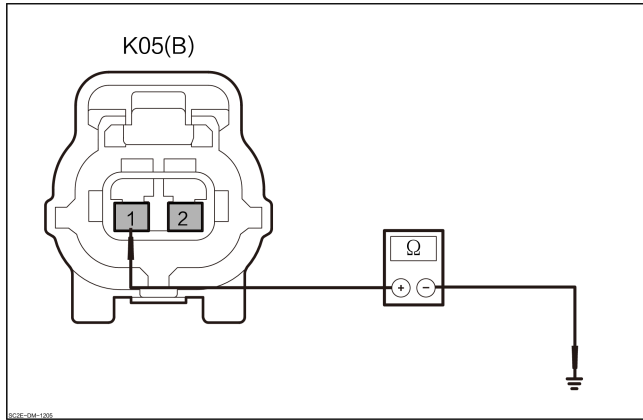
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the line of right B-pillar side impact sensor for short to ground. |
|---|--|



1. Measure the resistance between the harness connector of right B-pillar side impact sensor K05(B)-1 and the ground.
2. Measure the resistance between the harness connector of right B-pillar side impact sensor K05(B)-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K05(B)-1 | Ground | Through- out | Above 10k Ω |
| K05(B)-2 | | | |

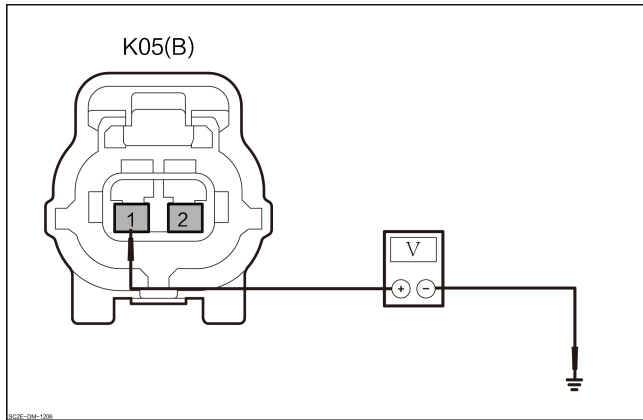
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check the line of right B-pillar side impact sensor for short to power.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of left B-pillar side impact sensor K05(B)-1 and the ground.
3. Measure the voltage between the harness connector of left B-pillar side impact sensor K05(B)-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| K05(B)-1 | Ground | Through- out | Less than 1V |
| K05(B)-2 | | | |

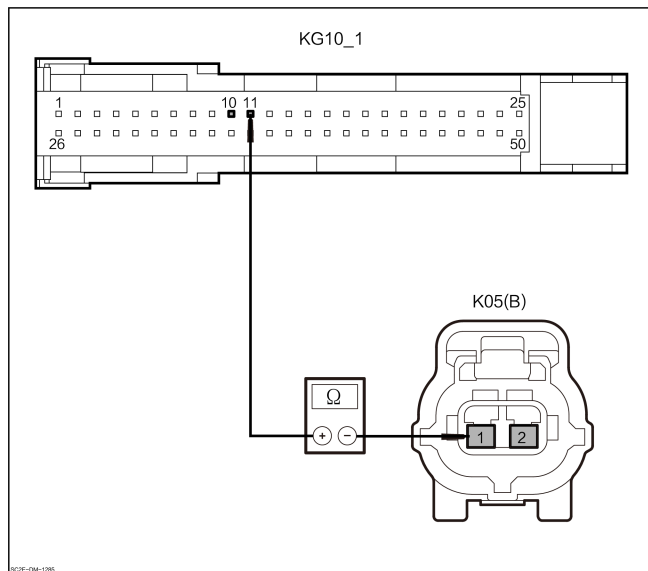
4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

6 Check the line from the airbag control module to the left B-pillar side impact sensor for open circuit.



1. Measure the resistance between the harness connector of airbag control module KG10_1-11 and the harness connector of left B-pillar side impact sensor K05(B)-1.
2. Measure the resistance between the harness connector of airbag control module KG10_1-10 and the harness connector of left B-pillar side impact sensor K05(B)-2.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| KG10_1-11 | K05(B)-1 | Through-out | Lower than 1Ω |
| KG10_1-10 | K05(B)-2 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Replace the right B-pillar side impact sensor, and check the DTC.

1. Replace the right B-pillar side impact sensor, and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No → The system is normal.

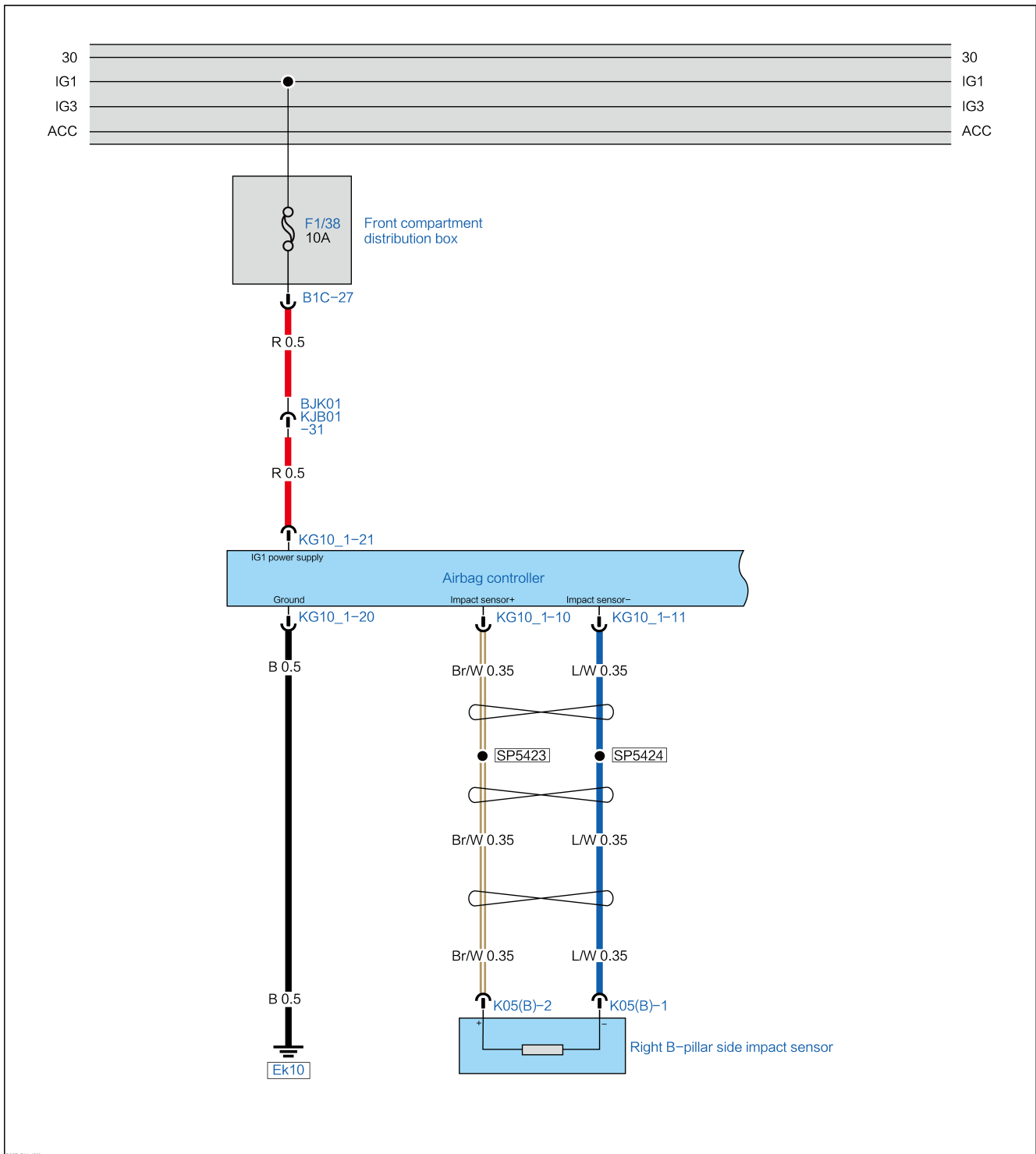
Yes → Replace the airbag control unit.

B167011 Right Side Impact Sensor Short to Ground

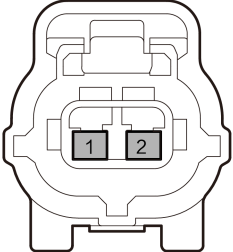
DTC Description

| B167011 Right Side Impact Sensor Short to Ground | |
|--|---|
| Symptom | Partial failure of supplemental restraint system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Right B-pillar side collision sensor fault.3. Airbag control unit fault. |
| Fault setting conditions | The right B-pillar side impact sensor is short to ground. |
| Trigger fault conditions | The airbag control module receives a signal that the right B-pillar impact sensor is short circuited to ground, DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p>The right B-pillar side impact sensor</p> <div style="text-align: center;"> <p>K05(B)</p>  </div> | 1 | Impact sensor- |
| | 2 | Impact sensor+ |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness connector of right B-pillar side impact sensor. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right B-pillar side impact sensor K05(B).
3. Check the harness connector of right B-pillar side impact sensor for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the airbag control module harness and connector. |
|---|--|

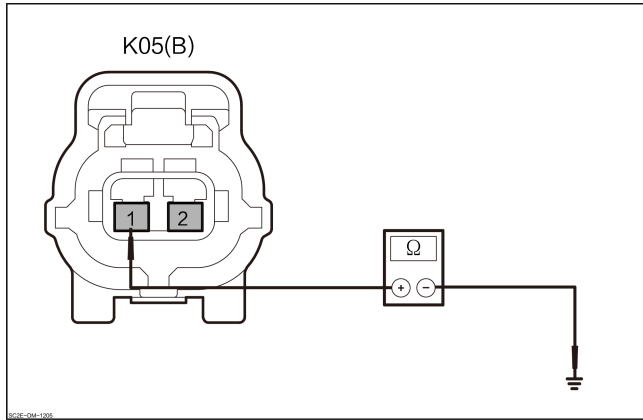
1. Disconnect the harness connector of airbag control module KG10_1.
2. Check whether the airbag control module harness and connector are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the line of right B-pillar side impact sensor for short to ground. |
|---|--|



1. Measure the resistance between the harness connector of right B-pillar side impact sensor K05(B)-1 and the ground.
2. Measure the resistance between the harness connector of right B-pillar side impact sensor K05(B)-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K05(B)-1 | Ground | Through- out | Above 10k Ω |
| K05(B)-2 | | | |

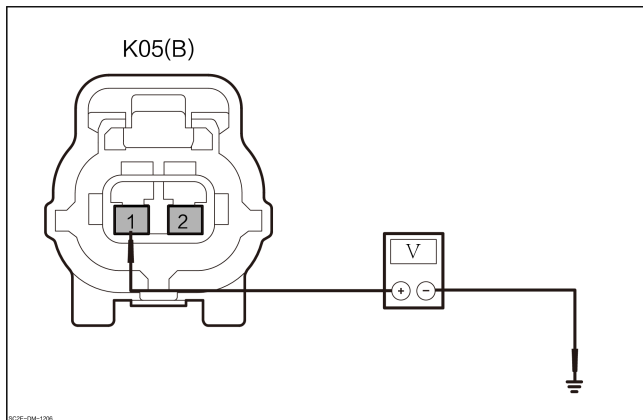
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check the line of right B-pillar side impact sensor for short to power.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of right B-pillar side impact sensor K05(B)-1 and the ground.
3. Measure the voltage between the harness connector of right B-pillar side impact sensor K05(B)-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| K05(B)-1 | Ground | Through- out | Less than 1V |
| K05(B)-2 | | | |

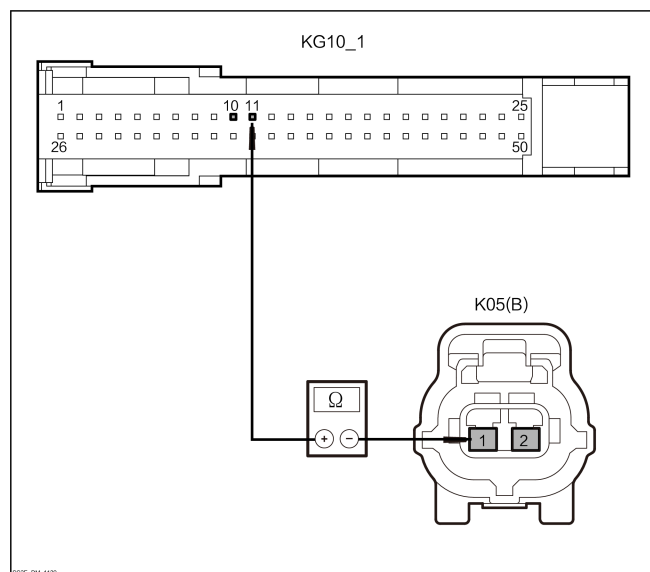
4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

6 Check the line from airbag control module to the right B-pillar side impact sensor for open circuit.



1. Measure the resistance between the harness connector of airbag control module KG10_1-11 and the harness connector of right B-pillar side impact sensor K05(B)-1.
2. Measure the resistance between the harness connector of airbag control module KG10_1-10 and the harness connector of right B-pillar side impact sensor K05(B)-2.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| KG10_1-11 | K05(B)-1 | Through-out | Above 10k Ω |
| KG10_1-10 | K05(B)-2 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Replace the right B-pillar side impact sensor, and check the DTC.

1. Replace the right B-pillar side impact sensor, and restore the vehicle.
2. Set the start/stop button to ON.
3. Read the DTC of airbag system.
4. Clear DTCs.
5. Place the start/stop button in the OFF position and wait for a few seconds.
6. Set the start/stop button to ON position again and read the airbag system DTC.
7. Check whether the same DTC is displayed?

No → The system is normal.

Yes → Replace the airbag control unit.

B169416 SRS_ECU Fault

DTC Description

| B169416 SRS_ECU Fault | |
|--------------------------|----------------------------|
| Symptom | – |
| Possible Cause | Airbag control unit fault. |
| Fault setting conditions | SRS_ECU failure |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the airbag control unit. |

B169517 SRS_ECU Fault

DTC Description

| B169517 SRS_ECU Fault | |
|--------------------------|----------------------------|
| Symptom | – |
| Possible Cause | Airbag control unit fault. |
| Fault setting conditions | SRS_ECU failure |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | <p>Check the DTC of airbag system.</p> <ol style="list-style-type: none">1. Connect the VDS to the diagnostic interface.2. Set the START/STOP button to ON.3. Clear DTCs.4. Set the START/STOP button to OFF, and wait a few seconds.5. Place the start/stop button in ON position again, and read the DTC.6. Check whether the same DTC is displayed? <p>No → Check the “intermittent fault” .</p> <p>Yes → Replace the airbag control unit.</p> |
|---|--|

B169D00 SRS_ECU Fault

DTC Description

| B169D00 SRS_ECU Fault | |
|--------------------------|----------------------------|
| Symptom | – |
| Possible Cause | Airbag control unit fault. |
| Fault setting conditions | SRS_ECU failure |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the airbag control unit. |

B169700 SRS_ECU Fault**DTC Description**

| B169700 SRS_ECU Fault | |
|--------------------------|----------------------------|
| Symptom | – |
| Possible Cause | Airbag control unit fault. |
| Fault setting conditions | SRS_ECU failure |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the airbag control unit. |

B169800 SRS_ECU Fault

DTC Description

| B169800 SRS_ECU Fault | |
|--------------------------|----------------------------|
| Symptom | – |
| Possible Cause | Airbag control unit fault. |
| Fault setting conditions | SRS_ECU failure |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the airbag control unit. |

B169 C00 SRS_ECU fault

DTC Description

| B169C00 SRS_ECU Fault | |
|--------------------------|----------------------------|
| Symptom | – |
| Possible Cause | Airbag control unit fault. |
| Fault setting conditions | SRS_ECU failure |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the airbag control unit. |

B16B000 SRS_ECU Fault**DTC Description**

| B16B000 SRS_ECU Fault | |
|--------------------------|----------------------------|
| Symptom | – |
| Possible Cause | Airbag control unit fault. |
| Fault setting conditions | SRS_ECU failure |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the airbag control unit.

B16AE00 SRS_ECU Fault**DTC Description**

| B16AE00 SRS_ECU Fault | |
|--------------------------|----------------------------|
| Symptom | – |
| Possible Cause | Airbag control unit fault. |
| Fault setting conditions | SRS_ECU failure |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the airbag control unit. |

B169F00 SRS_ECU Fault**DTC Description**

| B169F00 SRS_ECU Fault | |
|--------------------------|----------------------------|
| Symptom | – |
| Possible Cause | Airbag control unit fault. |
| Fault setting conditions | SRS_ECU failure |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the airbag control unit. |

B16A100 SRS_ECU Fault**DTC Description**

| B16A100 SRS_ECU Fault | |
|--------------------------|----------------------------|
| Symptom | – |
| Possible Cause | Airbag control unit fault. |
| Fault setting conditions | SRS_ECU failure |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the DTC of airbag system. |
|---|---------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the airbag control unit. |

Access and Anti-theft System

Smart Key System

Diagnosis Description

Introduction

When diagnosing the faults of the smart key system, in order to understand and get familiar with the working principle of the smart key system, go to the description and operation overview. Before diagnosis, determine the failure phenomenon described by the customer, and then analyze the cause of the failure of the smart key system, which is helpful to determine the correct fault diagnosis procedure. For inspection and measurement on the lines and components of the smart key system, give priority to the use of the data flow function to improve diagnostic efficiency and shorten maintenance time. After the fault is confirmed, the precautions and warnings should be understood when repairing the smart key system, and the standard operation procedure should be implemented. Check the smart key system and confirm its working condition after repair.

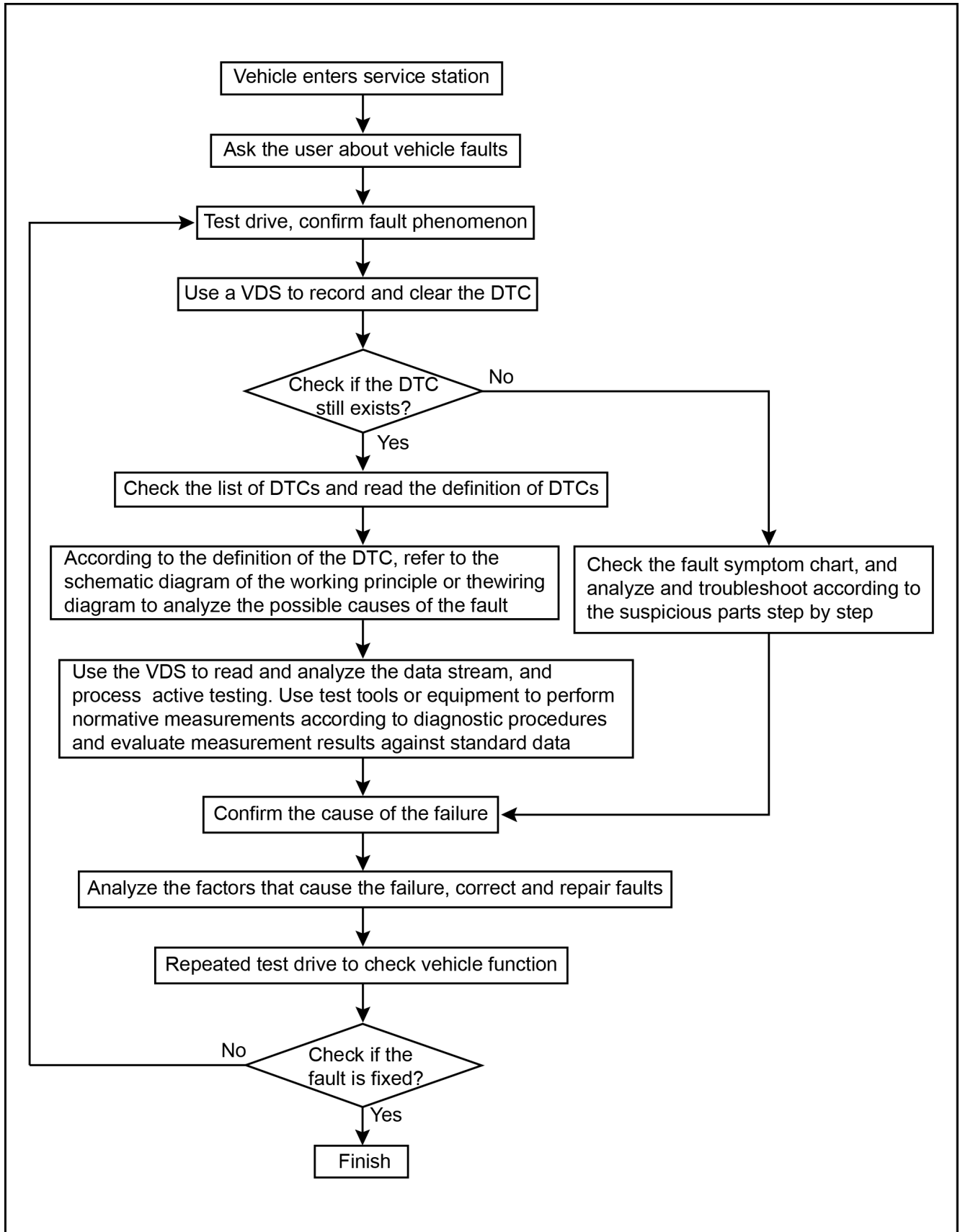
General equipment

- VDS
- Multimeter
- Insulation meter
- Insulating tool kit
- Insulation protection suit

Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Process of Fault Inspection and Troubleshooting



Diagnosis of General Faults

Visual Inspection

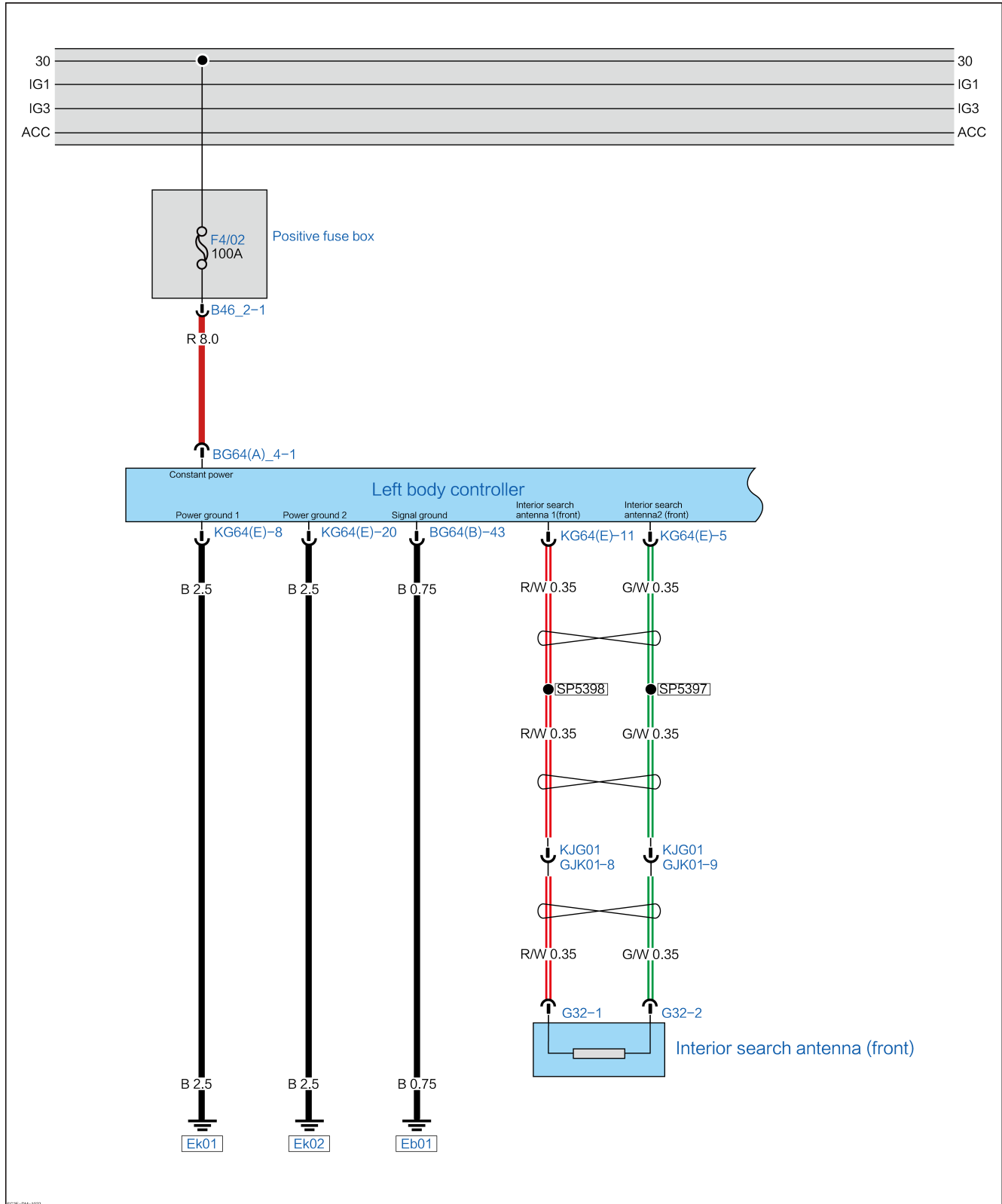
1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

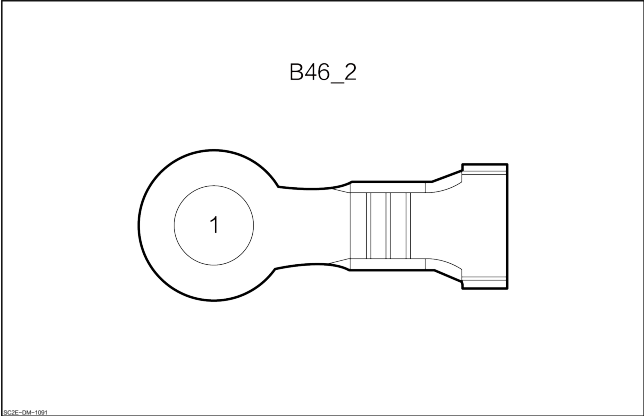
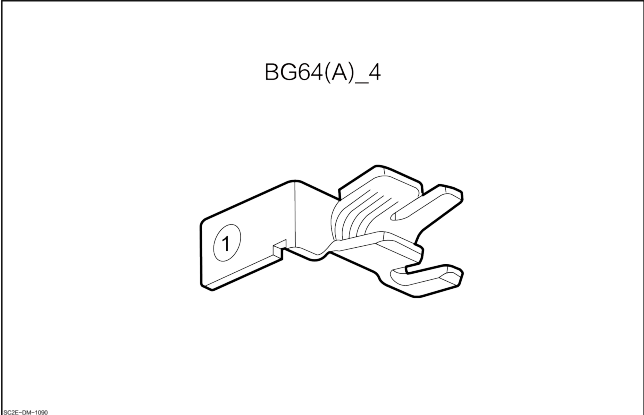
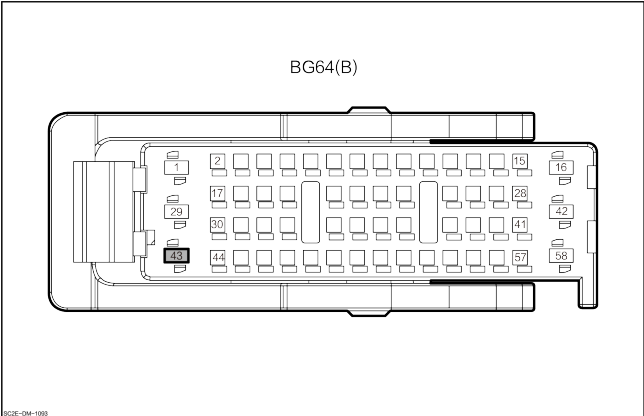
| Symptom | Possible cause | Suggested maintenance measures |
|--|--|--|
| All Remote Control Functions Of Electronic Smart Key Fail (Holding A Legal Key In The Remote Control Area) | <ol style="list-style-type: none"> 1. Harness or connector. 2. Low-voltage battery has insufficient power 3. Electronic smart key 4. Left body control module. 5. CAN bus fault | All Remote Control Functions Of Electronic Smart Key Fail (Holding A Legal Key In The Remote Control Area) |
| The Remote Control Function is Normal, But the Left Front Door Handle Microswitch Doesn't Act when Being Operated (with a legal key and in the detection area) | <ol style="list-style-type: none"> 1. Harness or connector. 2. Left front door handle microswitch 3. Electronic smart key 4. Left body control module. | The Remote Control Function is Normal, But the Left Front Door Handle Microswitch Doesn't Act when Being Operated (with a legal key and in the detection area) |

All Remote Control Functions Of Electronic Smart Key Fail (Holding A Legal Key In The Remote Control Area)

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p style="text-align: center;">Positive fuse box</p> <p style="text-align: center;">B46_2</p>  <p style="text-align: center;">1</p> | 1 | Left body control module constant power |
| <p style="text-align: center;">Left body control module</p> <p style="text-align: center;">BG64(A)_4</p>  <p style="text-align: center;">1</p> | 1 | Constant power |
| <p style="text-align: center;">Left body control module</p> <p style="text-align: center;">BG64(B)</p>  <p style="text-align: center;">43</p> | 43 | Signal ground |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the electronic smart key. |
|---|---------------------------------|

1. Check whether the electronic smart key battery is installed reversely and whether the electricity is normal.
2. Check whether the electronic smart key battery holder is kept in improper contact or damaged.
3. Check whether the waterproof test paper on the electronic smart key PCB board has changed color?
4. Check whether the electronic smart key PCB board is oxidized or corroded?

Yes Replace the electronic smart key.

No

| | |
|---|--|
| 2 | Check the storage battery electric quantity. |
|---|--|

1. Set the start/stop button to OFF position.
2. Measure the battery voltage.
3. Check whether the results are normal.

| Battery | | Condition | Voltage value |
|--------------------|--------------------|-------------|---------------|
| (+) | (-) | | |
| Positive electrode | Negative electrode | Through-out | 11~14V |

No Charge or replace the battery.

Yes

| | |
|---|----------------------------------|
| 3 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the left body control module has passed the network test.

Yes Go to step 9

No

4 Check the fuse for the left body control module.

1. Check the fuse F4/02(100A) in the positive fuse box for normal function.

No → Replace the fuse

Yes

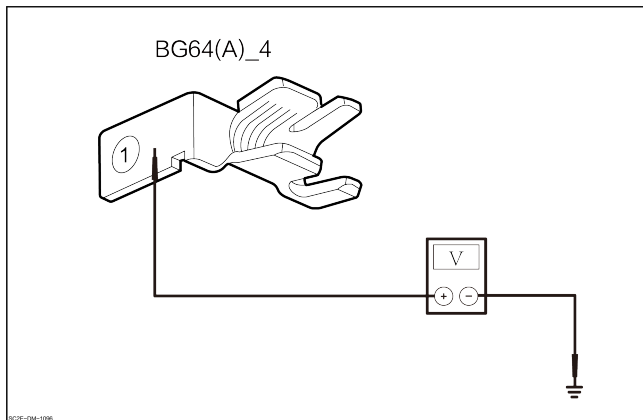
5 Check the harness and connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the power terminal of left body control module BG64(A)_4.
3. Disconnect the harness connector of left body control module BG64(B).
4. Check the power terminal and connector of left body control module of normal function.

No → Repair or replace the wire harness

Yes

6 Check the constant power of left body control module.



1. Measure the voltage between the power terminal of left body control module BG64(A)_4-1 and the ground.

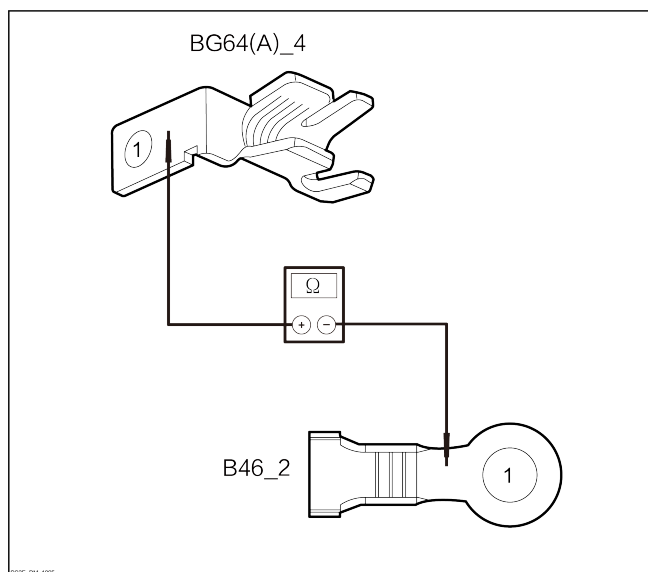
| Connector | | Condition | Voltage value |
|-------------|--------|-------------|---------------|
| (+) | (-) | | |
| BG64(A)_4-1 | Ground | Through-out | 11-14V |

2. Check whether the results are normal.

Yes → [Go to step 8](#)

No

7 Check the power supply of left body control module for open circuit.



1. Disconnect the harness connector of positive fuse box B46_2.
2. Measure the resistance between the harness connector of left body control module BG64(A)_4 and the harness connector of positive fuse box B46_2-1.

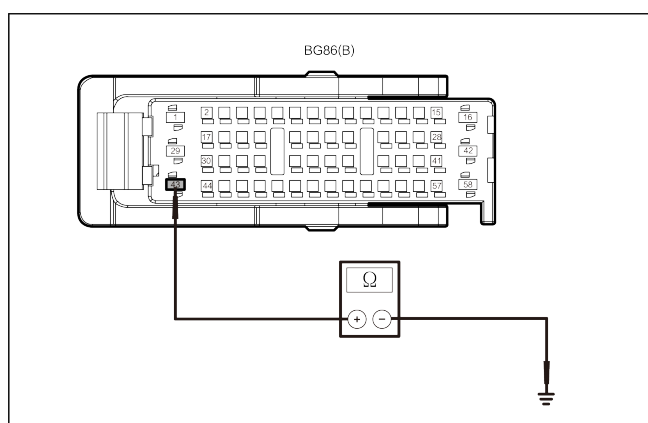
| Connector | | Condition | Resistance value |
|-----------|---------|-------------|------------------|
| (+) | (-) | | |
| BG64(A)_4 | B46_2-1 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the positive fuse box.

8 Check the ground line of left body control module.



1. Measure the resistance between the harness connector of left body control module BG64(B)-43 and the ground.

| Connector | | Condition | Resistance value |
|------------|--------|-------------|------------------|
| (+) | (-) | | |
| BG64(B)-43 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

9 Replace the electronic smart key.

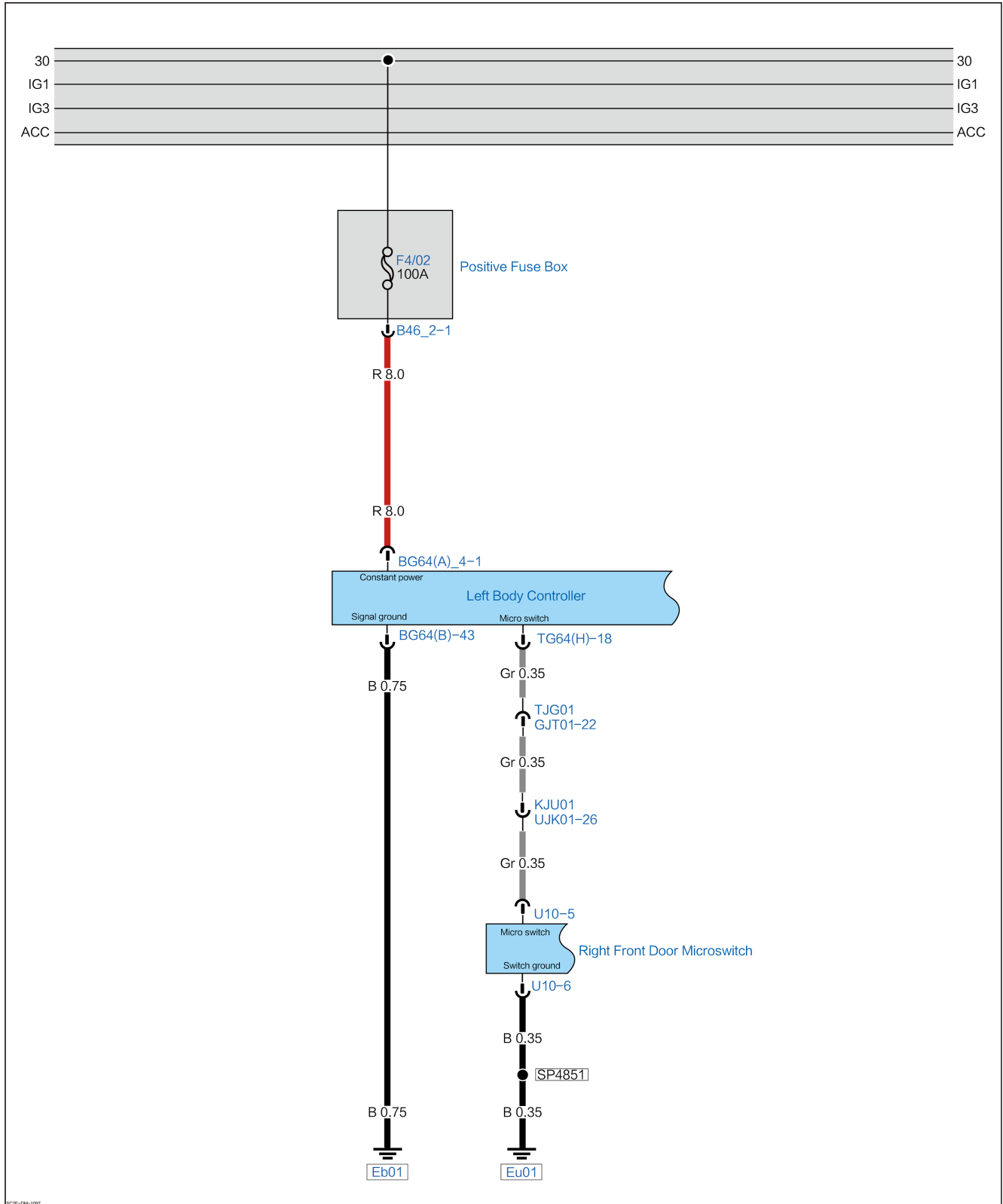
1. Replace the electronic smart key and check whether there is still a fault.

No → The system is normal.

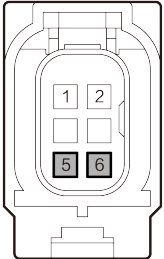
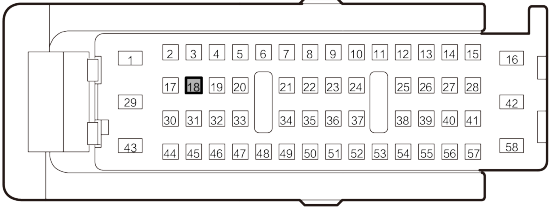
Yes → Replace the left body control module.

The remote control functions are normal, but the micro switch of the right front door handle do not act (holding a legal key in the detection area)

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p>The right front door handle micro switch</p> <div style="text-align: center;"> <p>U10</p>  </div> <p><small>BCIE-04-108</small></p> | 5 | The right front door micro switch signal |
| | 6 | Switch ground |
| <p>Left body control module</p> <div style="text-align: center;"> <p>TG64(H)</p>  </div> <p><small>BCIE-04-109</small></p> | 18 | The right front door micro switch signal |

Diagnostic Steps

| | |
|---|---------------------------------|
| 1 | Check the electronic smart key. |
|---|---------------------------------|

1. Check whether the electronic smart key battery is installed reversely and whether the electricity is normal.
2. Check whether the electronic smart key battery holder is kept in improper contact or damaged.
3. Check whether the waterproof test paper on the electronic smart key PCB board has changed color?
4. Check whether the electronic smart key PCB board is oxidized or corroded?

Yes → Replace the electronic smart key.

No

| | |
|---|--|
| 2 | Check the harness connector of right front door handle micro switch. |
|---|--|

1. Set the START/STOP button to OFF.
2. Disconnect the right front door handle micro switch harness connector U10.
3. Check whether the harness and connector are normal.

No → Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the right front door handle micro switch. |
|---|---|

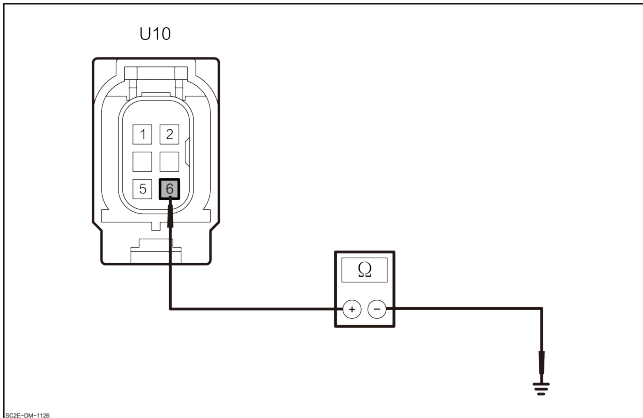
1. Hold the right front door handle micro switch.
2. Measure the resistance between the right front door handle micro switch U10-5 and U10-6.
3. Check whether the results are normal.

| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| U10-5 | U10-6 | Through- out | Lower than 1Ω |

No → Replace the right front door handle micro switch.

Yes

4 Check the ground line of right front door handle micro switch.



1. Measure the resistance between the harness connector of right front door handle micro switch U10-6 and the ground.
2. Check whether the results are normal.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| U10-6 | Ground | Through- out | Lower than 1 Ω |

No → Repair or replace the wire harness

Yes

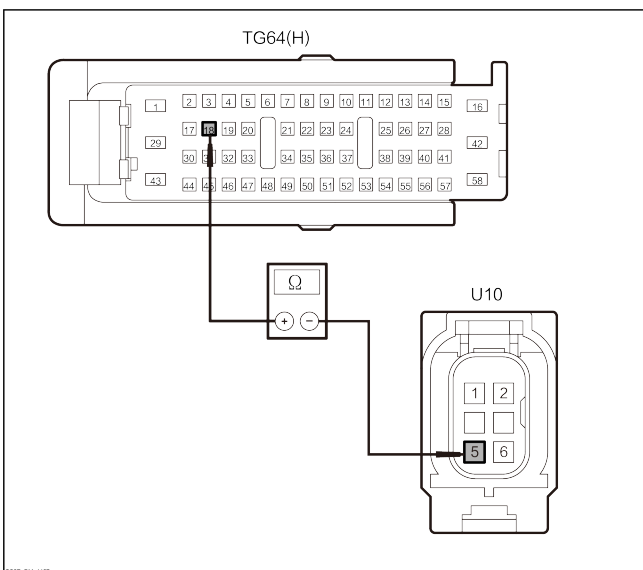
5 Check the harness and connector of right body control module.

1. Disconnect the harness connector of right body control module TG64(H).
2. Check whether the harness and connector are normal.

No → Repair or replace the wire harness

Yes

6 Check the right front door handle micro switch signal.



1. Measure the resistance between the harness connector of right domain control module TG64(H)-18 and the harness connector of right front door handle micro switch U10-5.

| Connector | | Condition | Resist- ance value |
|----------------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| TG64(H)- 18 | U10-5 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

| | |
|---|-----------------------------------|
| 7 | Replace the electronic smart key. |
|---|-----------------------------------|

1. Replace the electronic smart key and check whether there is still a fault.

No

The system is normal.

Yes

Replace the right body control module.

Supplemental restraint system DTC

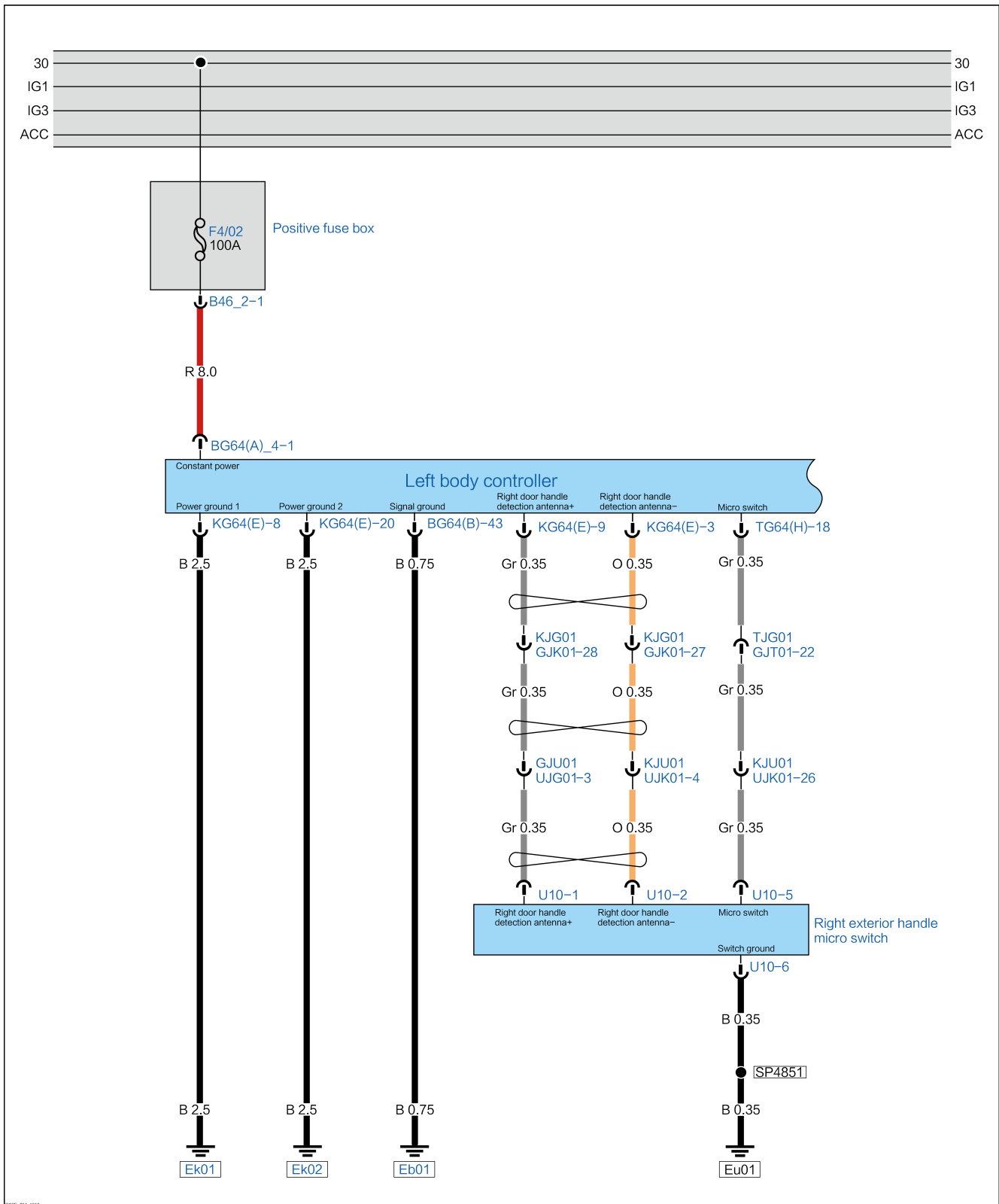
List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|---|--|
| B227D13 | Interior Middle Detection Antenna Open-circuited | B227D13 Interior Middle Detection Antenna Open-circuited |
| B22A813 | Exterior Trunk Detection Antenna Open-circuited | B22A813 Exterior Trunk Detection Antenna Open-circuited |
| B22A613 | Exterior right front detection antenna open circuit | B22A613 Open circuit of the exterior right front detection antenna |
| B227C13 | Interior Front Detection Antenna Open-circuited | B227C13 Interior Front Detection Antenna Open-circuited |
| B227E13 | Interior Rear Detection Antenna Open-circuited | B227E13 Interior Rear Detection Antenna Open-circuited |
| B229D17 | High Power Supply Of High Frequency Receiver Module | B229D17 Power Supply of High Frequency Receiver Module Too High |
| B229D16 | Low Power Supply Of High Frequency Receiver Module | B229D16 Supply Voltage of High Frequency Receiver Module Too Low |

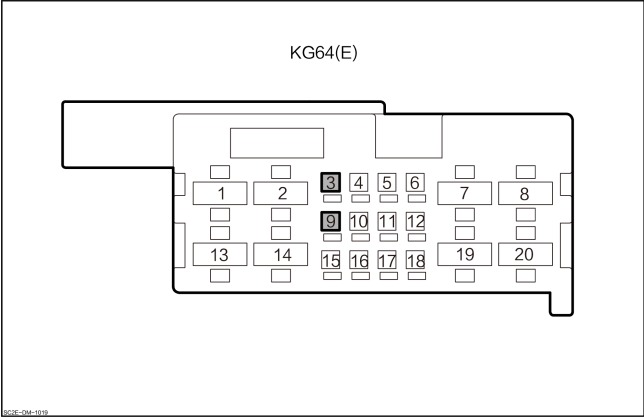
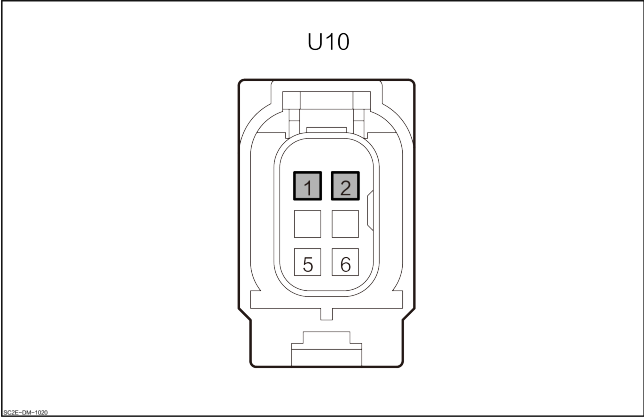
B22A613 Open circuit of the exterior right front detection antenna**DTC Description**

| B22A613 Open circuit of the exterior right front detection antenna | |
|--|---|
| Symptom | Partial failure of intelligent access system. |
| Possible Cause | 1. Harness or connector fault. 2. The right outside handle micro switch fault. 3. The left body control module fails. |
| Fault setting conditions | The right outside handle micro switch for open circuit. |
| Trigger fault conditions | When the left domain control module receives the signal of the right outside handle micro switch open circuit, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p style="text-align: center;">Left body control module</p>  <p style="text-align: center;">KG64(E)</p> | 3 | The antenna of right outside door handle- |
| | 9 | The antenna of right outside door handle+ |
| <p style="text-align: center;">The right outside door handle micro switch</p>  <p style="text-align: center;">U10</p> | 1 | The antenna of right outside door handle+ |
| | 2 | The antenna of right outside door handle- |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness connector of right outside handle micro switch. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the right outside handle micro switch harness connector U10.
3. Check the harness connector of right outside handle micro switch for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the harness connector of left body control module. |
|---|--|

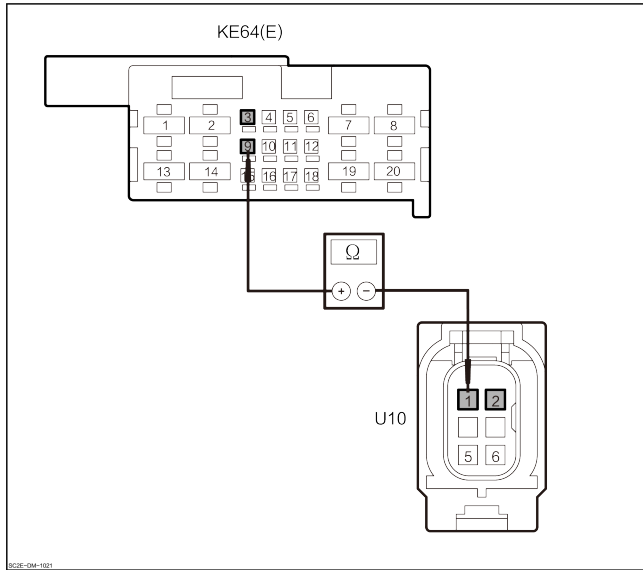
1. Disconnect the harness connector of left body control module KG64(E).
2. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the line of right outside handle micro switch for open circuit. |
|---|---|



1. Measure the resistance between the harness connector of left domain control module KG64(E)-9 and the harness connector of right outside handle micro switch U10-1.
2. Measure the resistance between the harness connector of left domain control module KG64(E)-3 and the harness connector of right outside handle micro switch U10-2.

| Connector | | Condition | Resist- ance value |
|---------------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| KG64(E)- 9 | U10-1 | Through- out | Lower than 1 Ω |
| KG64(E)- 3 | U10-2 | | |

3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Replace the right outside handle micro switch, Check DTC.

1. Replace the right outside handle micro switch.
2. Disconnect the right outside handle micro switch harness connector U10.
3. Connect the harness connector of left body control module KG64(E).
4. Set the START/STOP button to ON.
5. Clear DTCs.
6. Set the START/STOP button to OFF, and wait a few seconds.
7. Set the START/STOP button to "ON" again and read the DTC of left body control module.
8. Check whether the same DTC is displayed?

No

The system is normal.

Yes

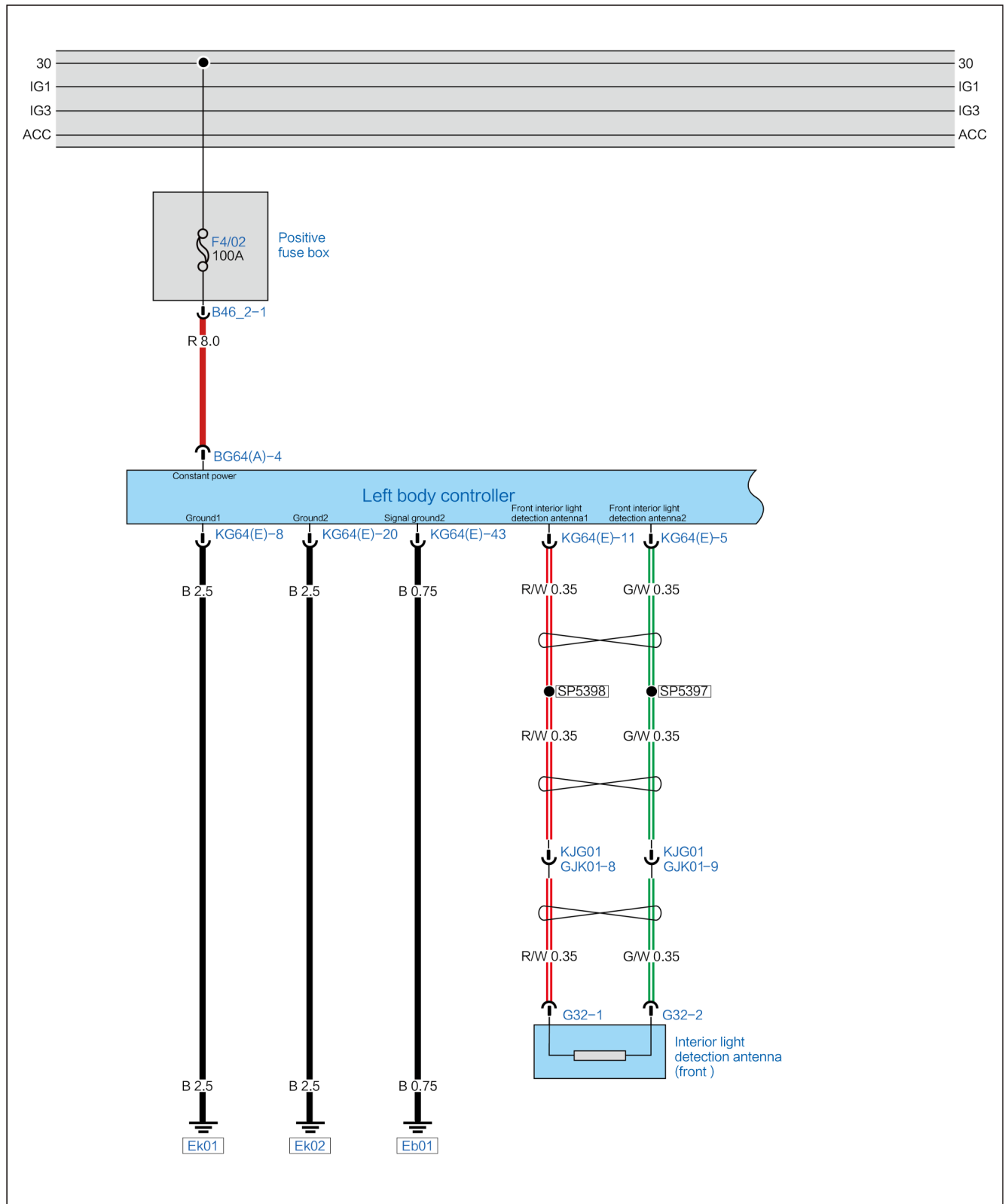
Replace the left body control module.

B227C13 Interior Front Detection Antenna Open-circuited

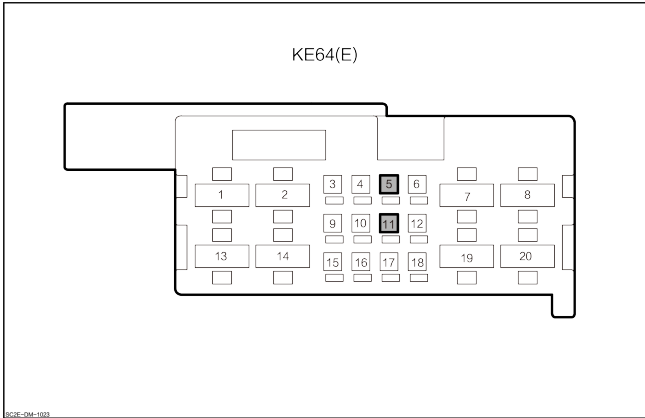
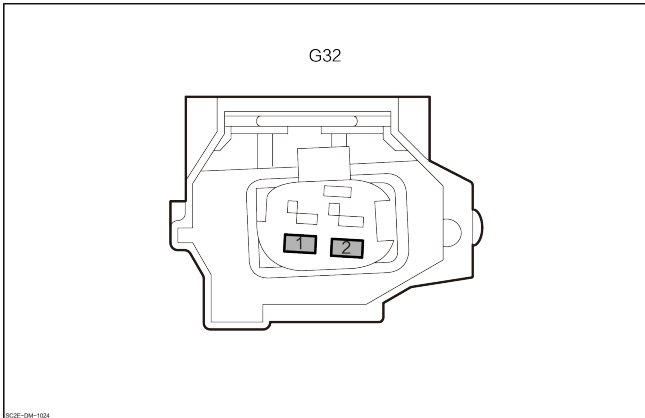
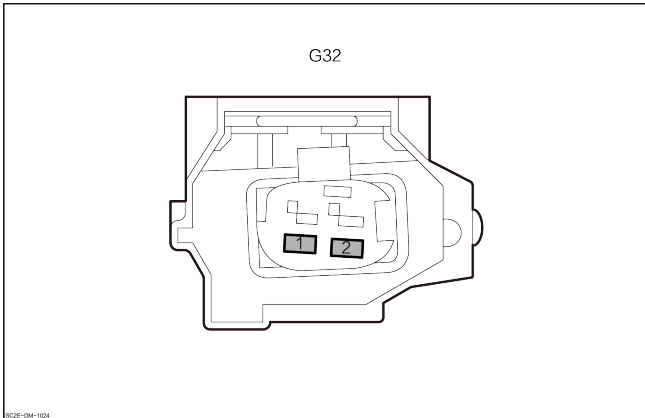
DTC Description

| B227C13 Interior Front Detection Antenna Open-circuited | |
|---|--|
| Symptom | Partial failure of intelligent access system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The interior detection antenna (front) fails. 3. The left body control module fails. |
| Fault setting conditions | The interior detection antenna (front) circuit is opened. |
| Trigger fault conditions | When the left body control module receives the signal indicating interior detection antenna (front) open circuit, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p>Left body control module</p>  <p>KE64(E)</p> <p>Diagram showing a 20-pin connector with terminals numbered 1 through 20. Terminal 5 is highlighted in a grey box.</p> | 5 | Front/rear interior detection antenna 2 |
| <p>Interior detection antenna (front)</p>  <p>G32</p> <p>Diagram showing a 2-pin connector with terminals numbered 1 and 2. Terminal 1 is highlighted in a grey box.</p> | 1 | Front/rear interior detection antenna 1 |
| <p>Interior detection antenna (front)</p>  <p>G32</p> <p>Diagram showing a 2-pin connector with terminals numbered 1 and 2. Terminal 2 is highlighted in a grey box.</p> | 2 | Front/rear interior detection antenna 2 |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness connector of interior detection antenna (front). |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of interior front detection antenna G32.
3. Check the harness connector of interior detection antenna (front) for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the harness connector of left body control module. |
|---|--|

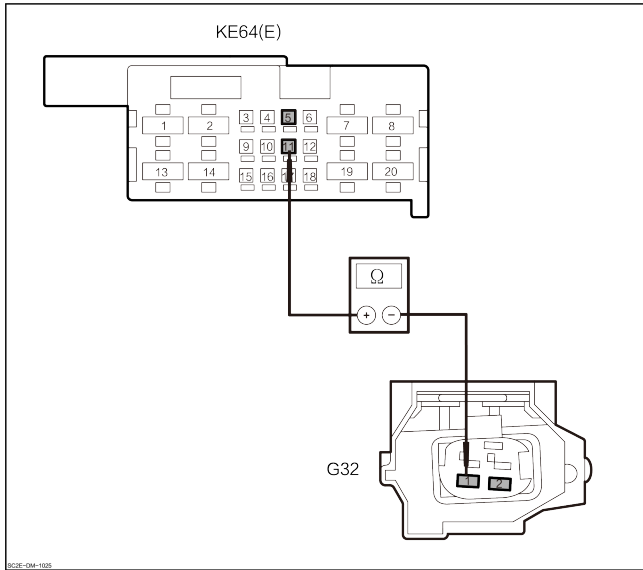
1. Disconnect the harness connector of left body control module KG64(E).
2. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the interior detection antenna (front) line for open circuit. |
|---|---|



1. Measure the resistance between the harness connector of left body control module KG64(E)-11 and the harness connector of interior detection antenna (front) G32-1.
2. Measure the resistance between the harness connector of left body control module KG64(E)-5 and the harness connector of interior detection antenna (front) G32-2.

| Connector | | Condition | Resistance value |
|------------|-------|-------------|------------------|
| (+) | (-) | | |
| KG64(E)-11 | G32-1 | Through-out | Lower than 1 Ω |
| KG64(E)-5 | G32-2 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Replace the interior detection antenna (front), and check the DTC.

1. Replace the interior detection antenna (front).
2. Connect the harness connector of interior detection antenna (front) G32.
3. Connect the harness connector of left body control module KG64(E).
4. Set the START/STOP button to ON.
5. Clear DTCs.
6. Set the START/STOP button to OFF, and wait a few seconds.
7. Set the START/STOP button to “ON” again and read the DTC of left body control module.
8. Check whether the same DTC is displayed?

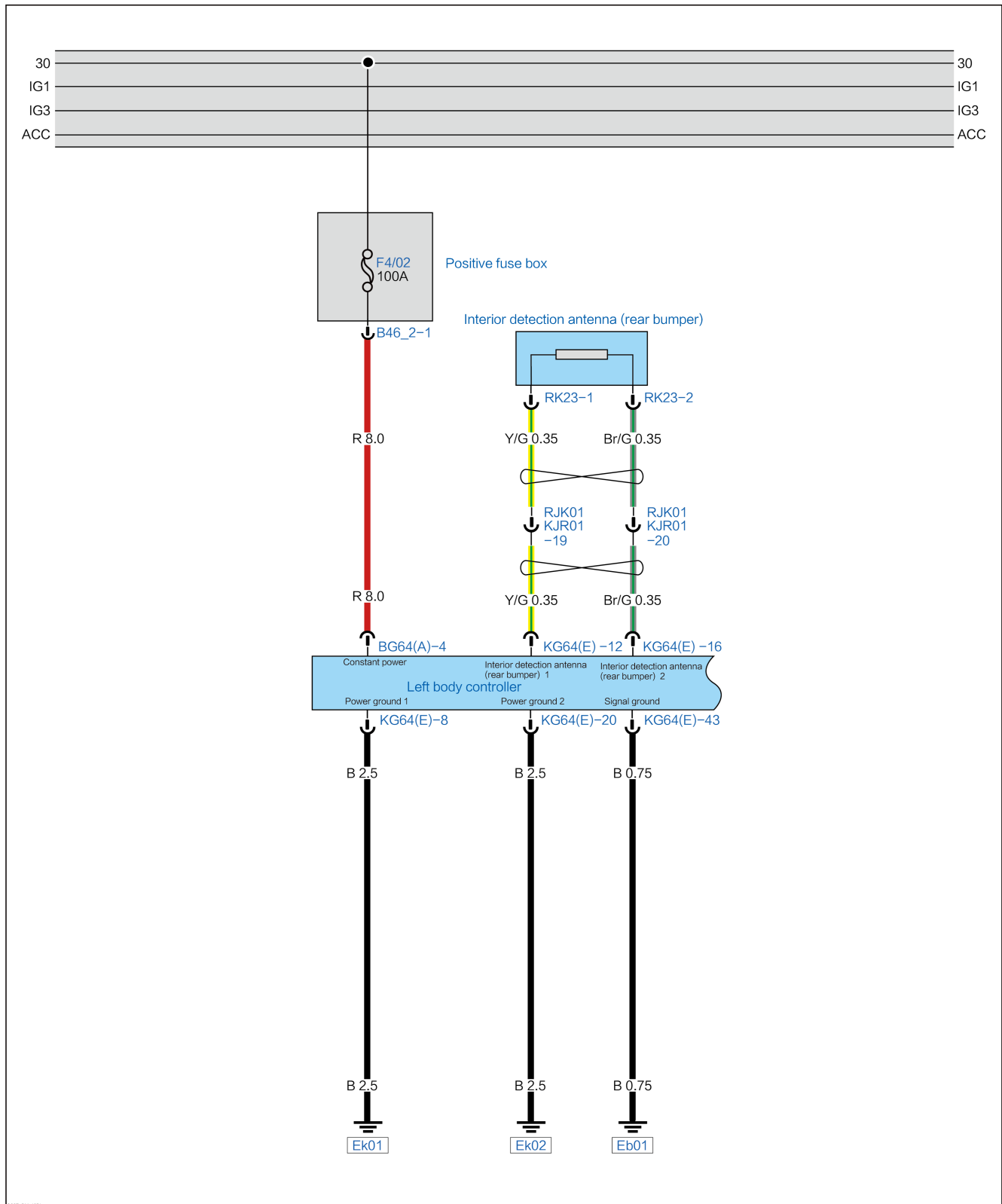
No → The system is normal.

Yes → Replace the left body control module.

B22A813 Exterior Trunk Detection Antenna Open–circuited**DTC Description**

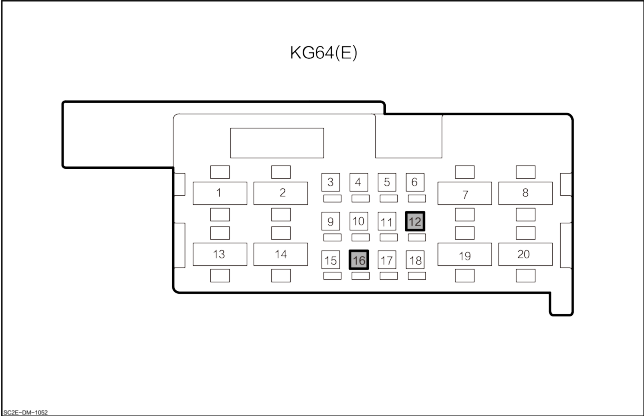
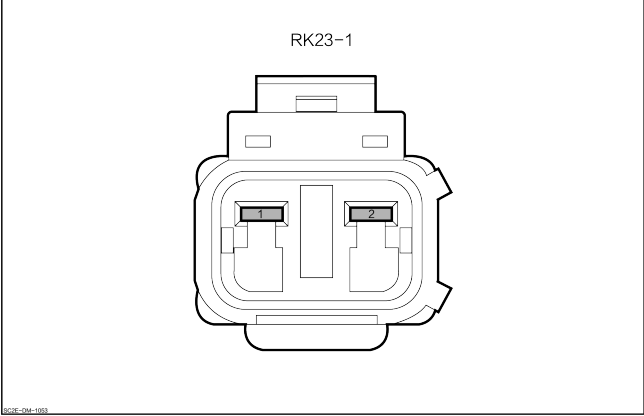
| B22A813 Exterior Trunk Detection Antenna Open–circuited | |
|---|--|
| Symptom | Partial failure of intelligent access system. |
| Possible Cause | 1. Harness or connector fault. 2. The interior detection antenna (rear bumper) fails. 3. The left body control module fails. |
| Fault setting conditions | The interior detection antenna (rear bumper) circuit is opened. |
| Trigger fault conditions | When the left body control module receives the signal indicating interior detection antenna (rear bumper) open circuit, this DTC is generated. |

Circuit Diagram



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Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p style="text-align: center;">Left body control module</p>  <p style="text-align: center;">KG64(E)</p> | 12 | Interior detection antenna 1(rear bumper) |
| | 16 | Interior detection antenna 2(rear bumper) |
| <p style="text-align: center;">Interior detection antenna (rear bumper)</p>  <p style="text-align: center;">RK23-1</p> | 1 | Interior detection antenna 1(rear bumper) |
| | 2 | Interior detection antenna 2(rear bumper) |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the harness connector of interior detection antenna (rear bumper). |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of interior detection antenna (rear bumper) RK23.
3. Check the harness connector of interior detection antenna (rear bumper) for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the harness connector of left body control module. |
|---|--|

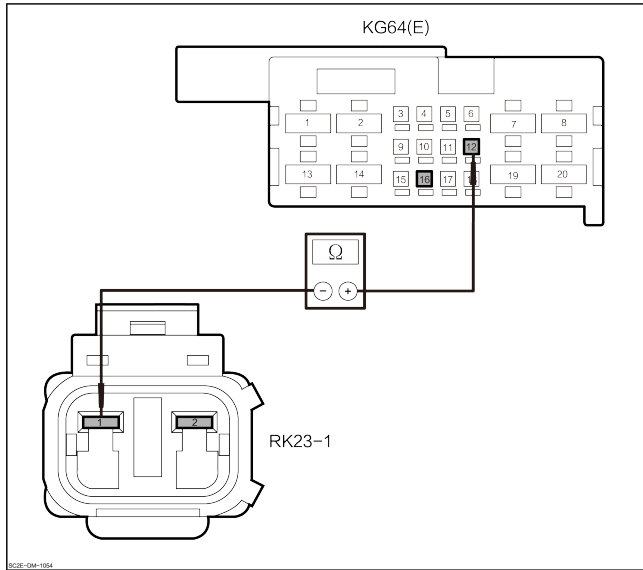
1. Disconnect the harness connector of left body control module KG64(E).
2. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the interior detection antenna (rear bumper) line for open circuit. |
|---|---|



1. Measure the resistance between the harness connector of left body control module KG64(E)-12 and the harness connector of interior detection antenna (rear bumper) RK23-1.
2. Measure the resistance between the harness connector of left body control module KG64(E)-16 and the harness connector of interior detection antenna (rear bumper) RK23-2.

| Connector | | Condition | Resist- ance value |
|------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| KG64(E)-12 | RK23-1 | Through- out | Lower than 1 Ω |
| KG64(E)-16 | RK23-2 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Replace the interior detection antenna (rear bumper), and check the DTC.

1. Replace the interior detection antenna (rear bumper).
2. Connect the harness connector of interior detection antenna (rear bumper) RK23.
3. Connect the harness connector of left body control module KG64(E).
4. Set the START/STOP button to ON.
5. Clear DTCs.
6. Set the START/STOP button to OFF, and wait a few seconds.
7. Set the START/STOP button to “ON” again and read the DTC of left body control module.
8. Check whether the same DTC is displayed?

No → The system is normal.

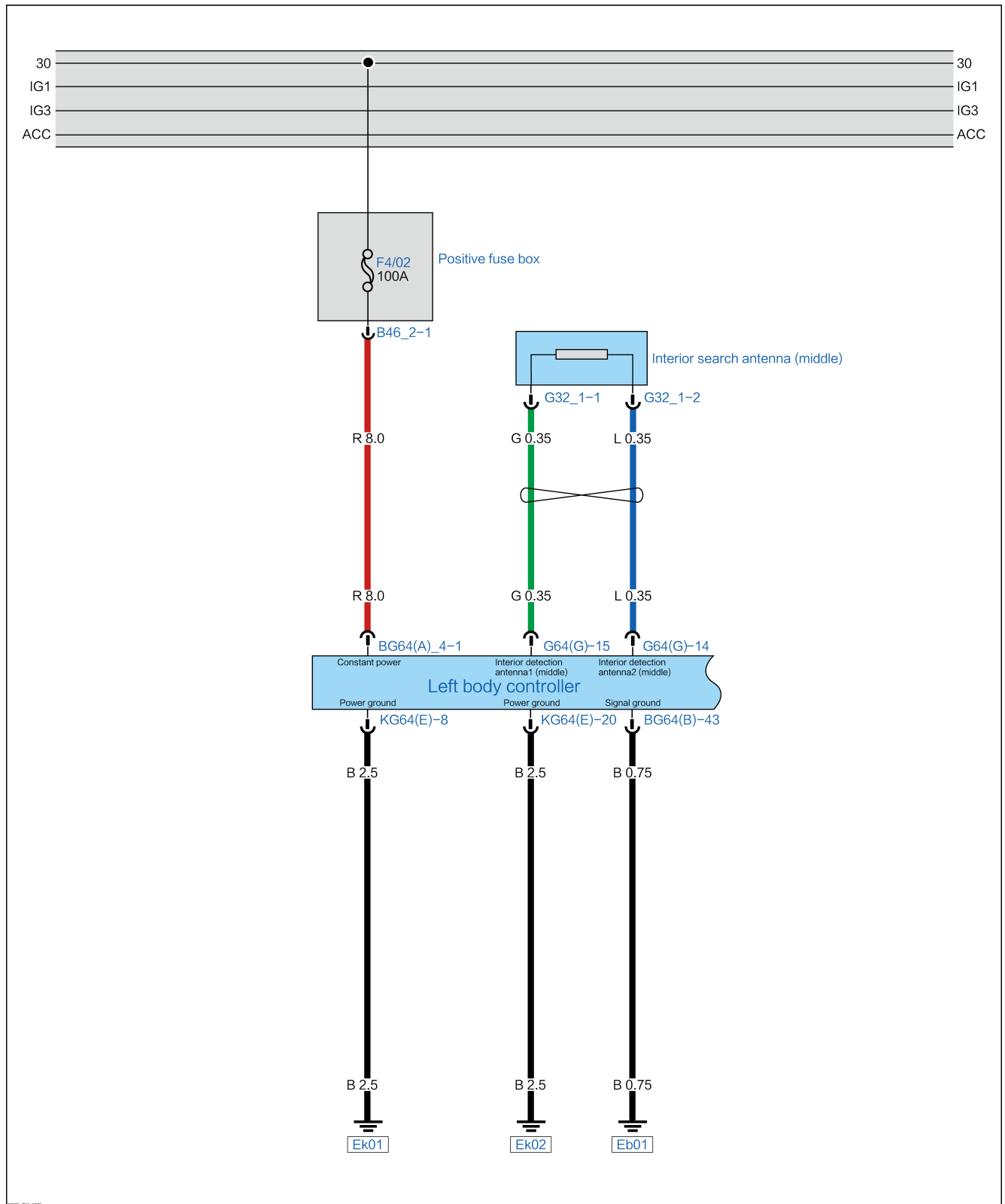
Yes → Replace the left body control module.

B227D13 Interior Middle Detection Antenna Open-circuited

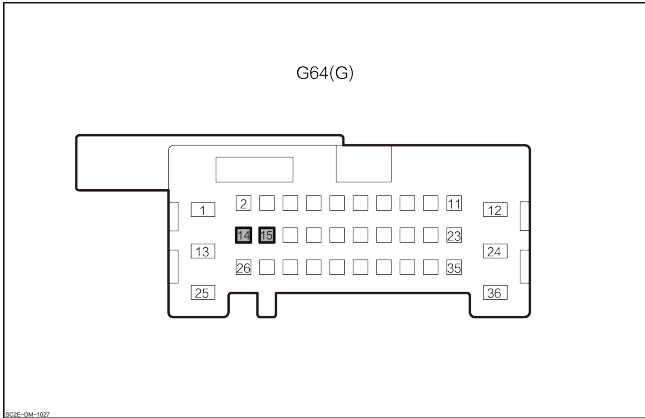
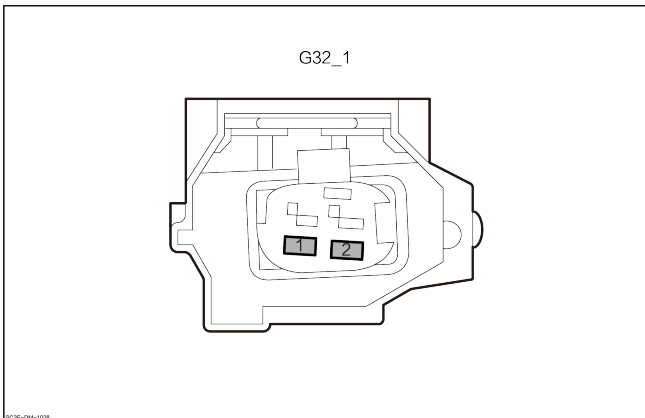
DTC Description

| B227D13 Interior Middle Detection Antenna Open-circuited | |
|--|---|
| Symptom | Partial failure of intelligent access system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The interior detection antenna (middle) fails. 3. The left body control module fails. |
| Fault setting conditions | The interior detection antenna (middle) circuit is opened. |
| Trigger fault conditions | When the left body control module receives the signal indicating interior detection antenna (middle) open circuit, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|-------------------------------------|
| <p>Left body control module</p>  <p>G64(G)</p> <p>1 2 11 12 13 14 15 23 24 25 26 33 36</p> <p><small>80FC-DM-107</small></p> | 14 | Middle interior detection antenna 2 |
| <p>Interior Detection Antenna (middle)</p>  <p>G32_1</p> <p>1 2</p> <p><small>80FC-DM-108</small></p> | 1 | Middle interior detection antenna 1 |
| | 2 | Middle interior detection antenna 2 |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness connector of interior detection antenna (middle). |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of interior detection antenna (middle) G32_1.
3. Check the harness connector of interior detection antenna (middle) for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the harness connector of left body control module. |
|---|--|

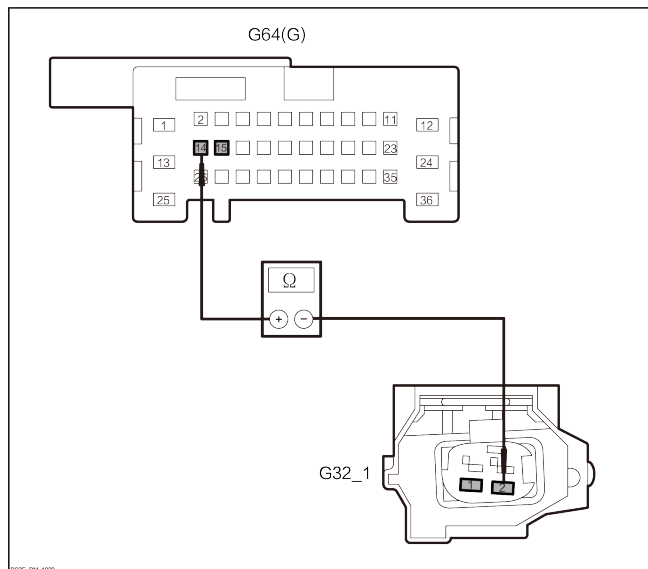
1. Disconnect the harness connector of left body control module G64(G).
2. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the interior detection antenna (middle) line for open circuit. |
|---|--|



1. Measure the resistance between the harness connector of left body control module G64(G)-14 and the harness connector of interior detection antenna (middle) G32_1-2.
2. Measure the resistance between the harness connector of left body control module G64(G)-15 and the harness connector of interior detection antenna (middle) G32_1-1.

| Connector | | Condition | Resistance value |
|-----------|---------|-------------|------------------|
| (+) | (-) | | |
| G64(G)-14 | G32_1-2 | Through-out | Lower than 1Ω |
| G64(G)-15 | G32_1-1 | | |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Replace the interior detection antenna (middle), and check the DTC.

1. Replace the interior detection antenna (middle).
2. Connect the harness connector of interior detection antenna (middle) G32_1.
3. Connect the harness connector of left body control module G64(G).
4. Set the START/STOP button to ON.
5. Clear DTCs.
6. Set the START/STOP button to OFF, and wait a few seconds.
7. Set the START/STOP button to “ON” again and read the DTC of left body control module.
8. Check whether the same DTC is displayed?

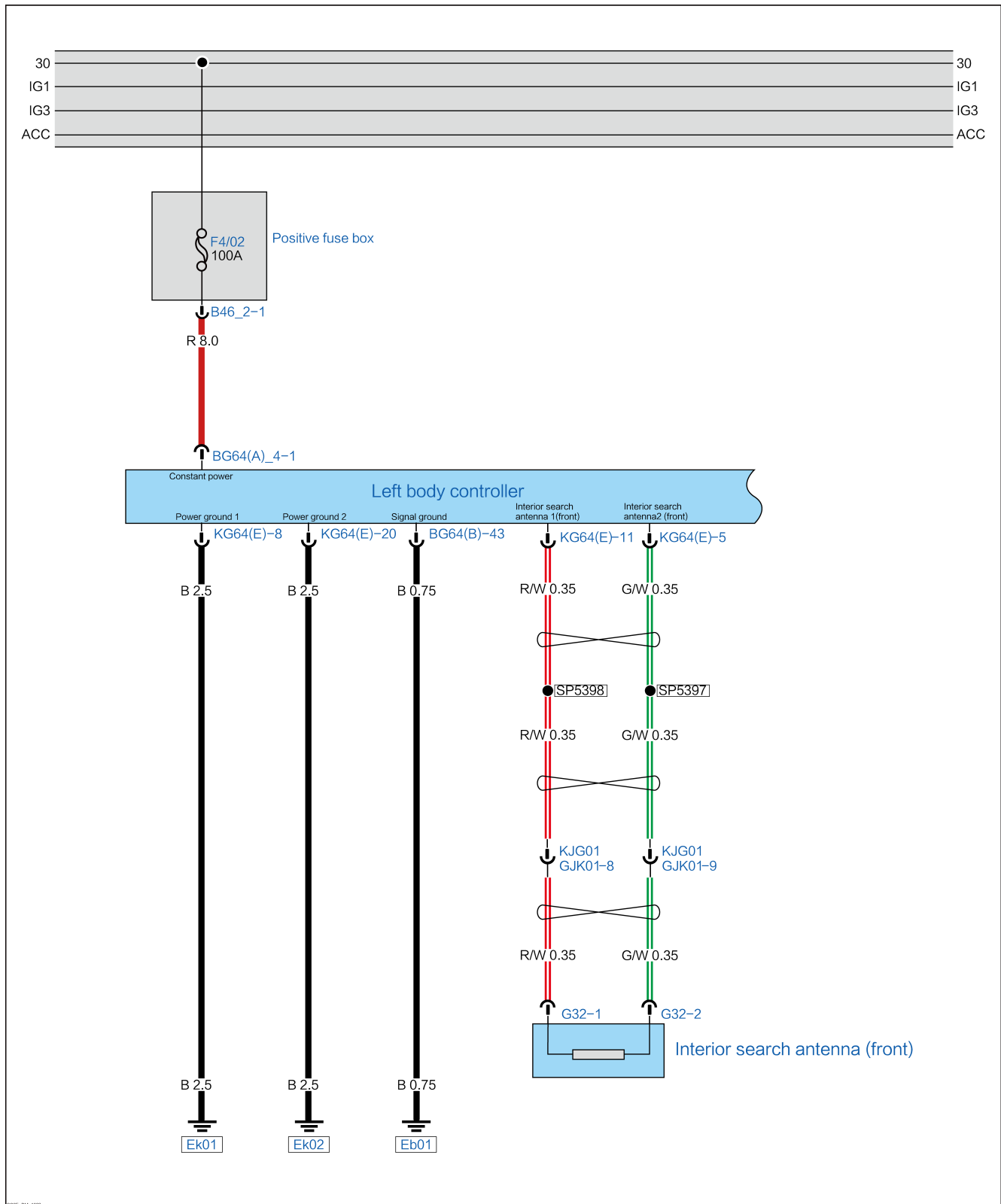
No → The system is normal.

Yes → Replace the left body control module.

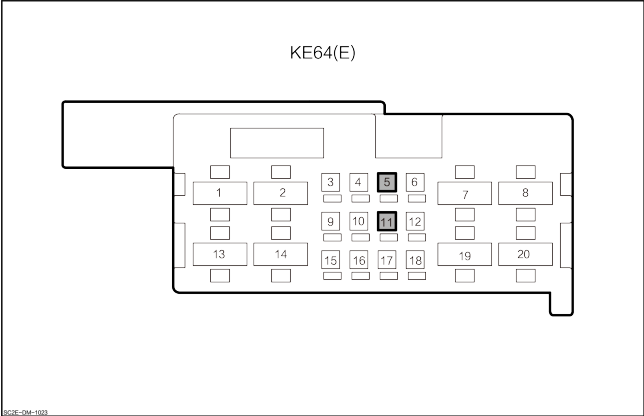
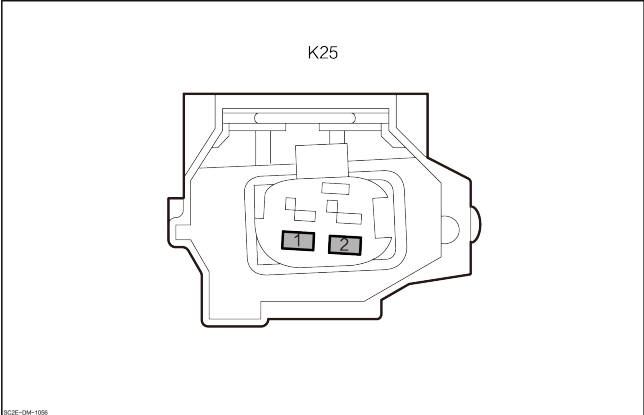
B227E13 Interior Rear Detection Antenna Open–circuited**DTC Description**

| B227E13 Interior Rear Detection Antenna Open–circuited | |
|--|---|
| Symptom | Partial failure of intelligent access system. |
| Possible Cause | 1. Harness or connector fault. 2. The interior detection antenna (rear) fails. 3. The left body control module fails. |
| Fault setting conditions | The interior detection antenna (rear) circuit is opened. |
| Trigger fault conditions | When the left body control module receives the signal indicating interior detection antenna (rear) open circuit, this DTC is generated. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p>Left body control module</p>  <p>KE64(E)</p> <p>Diagram showing a 20-pin connector with terminals numbered 1 to 20. Terminal 5 is highlighted.</p> | 5 | Front/rear interior detection antenna 2 |
| | 11 | Front/rear interior detection antenna 1 |
| <p>Interior detection antenna (rear)</p>  <p>K25</p> <p>Diagram showing a 2-pin connector with terminals numbered 1 and 2. Both terminals are highlighted.</p> | 1 | Front/rear interior detection antenna 1 |
| | 2 | Front/rear interior detection antenna 2 |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness connector of interior detection antenna (rear). |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of interior detection antenna (rear) K25.
3. Check the harness connector of interior detection antenna (rear) for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the harness connector of left body control module. |
|---|--|

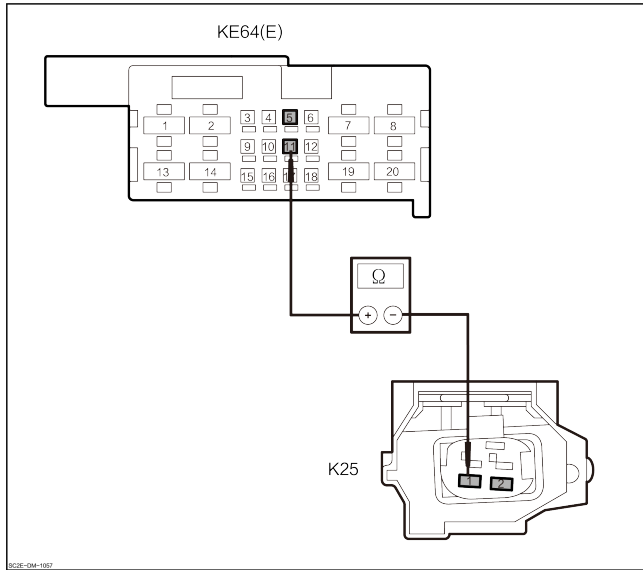
1. Disconnect the harness connector of left body control module KG64(E).
2. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the interior detection antenna (rear) line for open circuit. |
|---|--|



1. Measure the resistance between the harness connector of left body control module KG64(E)-11 and the harness connector of interior detection antenna (rear) K25-1.
2. Measure the resistance between the harness connector of left body control module KG64(E)-5 and the harness connector of interior detection antenna (rear) K25-2.

| Connector | | Condition | Resistance value |
|------------|-------|-------------|------------------|
| (+) | (-) | | |
| KG64(E)-11 | K25-1 | Through-out | Lower than 1 Ω |
| KG64(E)-5 | K25-2 | | |

3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Replace the interior detection antenna (rear), and check the DTC.

1. Replace the interior detection antenna (rear).
2. Connect the harness connector of interior detection antenna (rear) K25.
3. Connect the harness connector of left body control module KG64(E).
4. Set the START/STOP button to ON.
5. Clear DTCs.
6. Set the START/STOP button to OFF, and wait a few seconds.
7. Set the START/STOP button to “ON” again and read the DTC of left body control module.
8. Check whether the same DTC is displayed?

No

The system is normal.

Yes

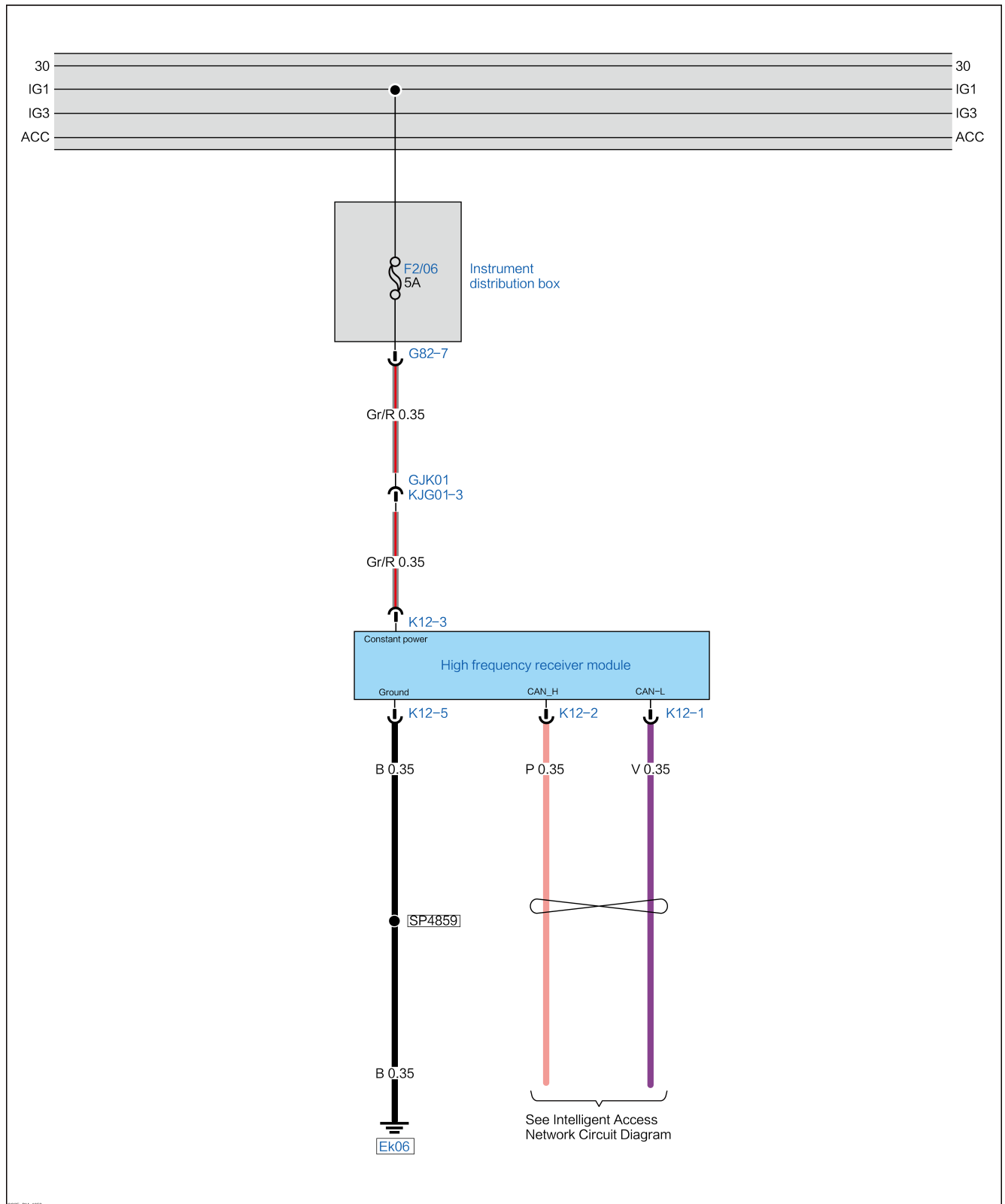
Replace the left body control module.

B229D17 Power Supply of High Frequency Receiver Module Too High

DTC Description

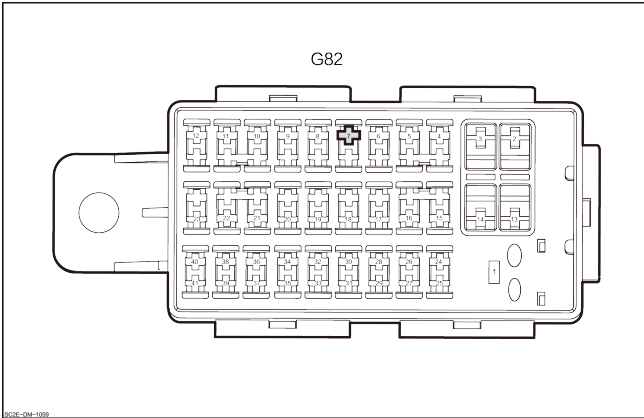
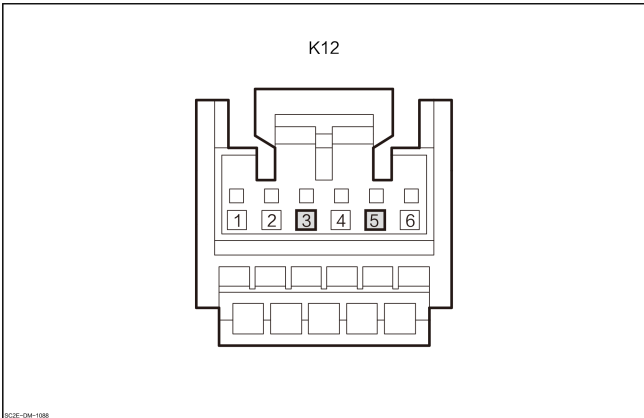
| B229D17 Power Supply of High Frequency Receiver Module Too High | |
|---|---|
| Symptom | Partial failure of intelligent access system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Harness or connector fault. 3. The high-frequency receiver fails. |
| Fault setting conditions | The detected low voltage supply voltage is higher than 14V. |
| Trigger fault conditions | After the vehicle is powered on, if the system detects that the low voltage supply voltage is higher than 14V, this DTC is generated. |

Circuit Diagram



EC2E-PM-1008

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p style="text-align: center;">Instrument fuse box</p>  <p style="text-align: center;">G82</p> <p style="font-size: small;">SDF-DM-109</p> | 7 | High Frequency Receiver Module Constant Power |
| <p style="text-align: center;">High Frequency Receiver Module</p>  <p style="text-align: center;">K12</p> <p style="font-size: small;">SDF-DM-108</p> | 5 | Ground |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the high frequency receiver module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the fuse for high frequency receiver module. |
|---|--|

1. Check whether the instrument fuse box fuse F2/06 (5 A) is normal?

No

Replace the fuse

Yes

| | |
|---|--|
| 3 | Check the harness and connector of high frequency receiver module. |
|---|--|

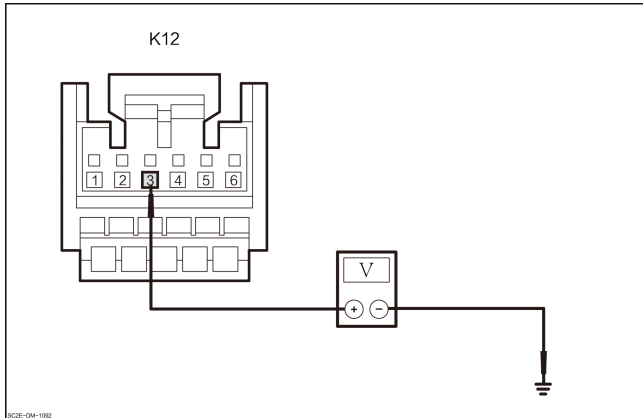
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of high frequency receiver module K12.
3. Check the harness connector of high frequency receiver module for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the constant power of high frequency receiver module. |
|---|---|



1. Measure the voltage between the harness connector of high frequency receiver module K12-3 and the ground.

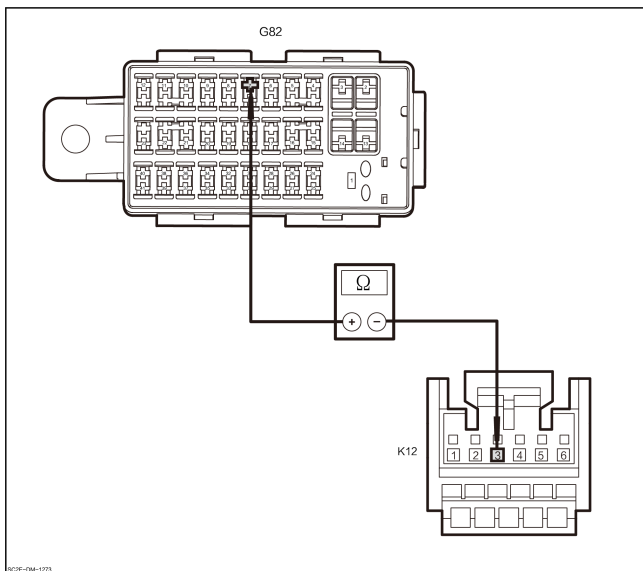
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K12-3 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

Yes Go to step 6

No

5 Check the constant power of high frequency receiver module for open circuit.



1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of instrument fuse box G82.
3. Measure the resistance between the harness connector of instrument fuse box G82-7 and the harness connector of high frequency receiver module K12-3.

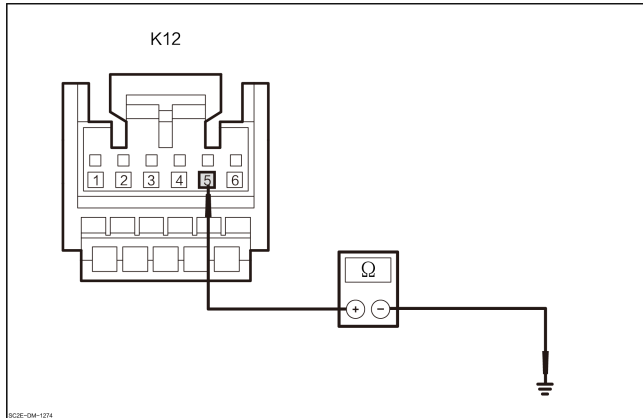
| Connector | | Condition | Resist- ance value |
|-----------|-------|-------------|--------------------------|
| (+) | (-) | | |
| G82-7 | K12-3 | Through-out | Lower than 1Ω |

4. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the instrument fuse box.

6 Check the ground line of high frequency receiver module.



1. Measure the resistance between the harness connector of high frequency receiver module K12-5 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K12-5 | Ground | Through- out | Lower than 1 Ω |

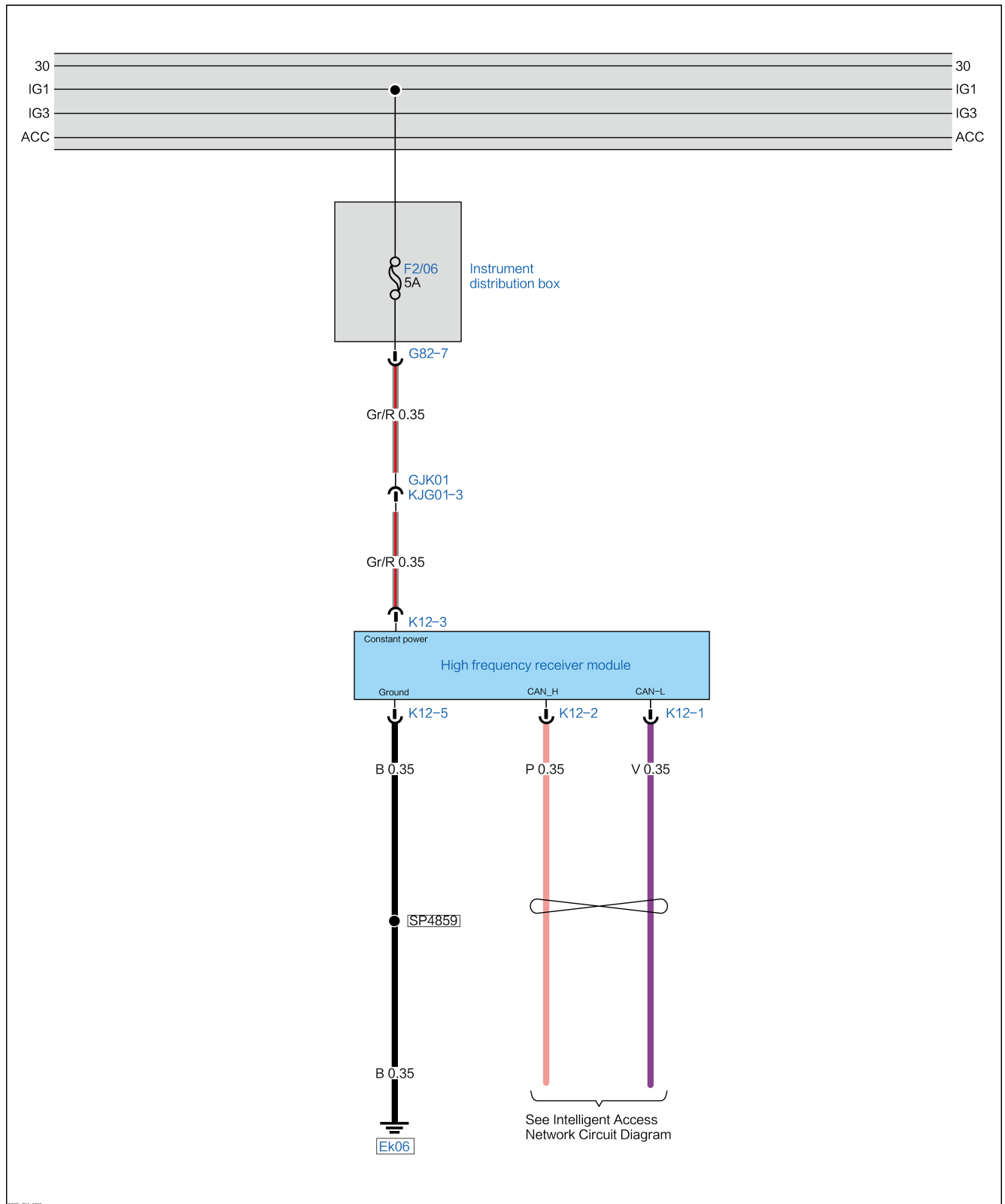
2. Check whether the results are normal.

- No
Repair or replace the wire harness
- Yes
Replace the high frequency receiver module.

B229D16 Supply Voltage of High Frequency Receiver Module Too Low**DTC Description**

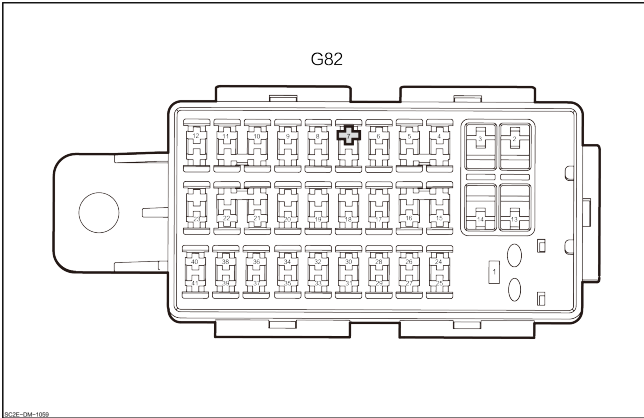
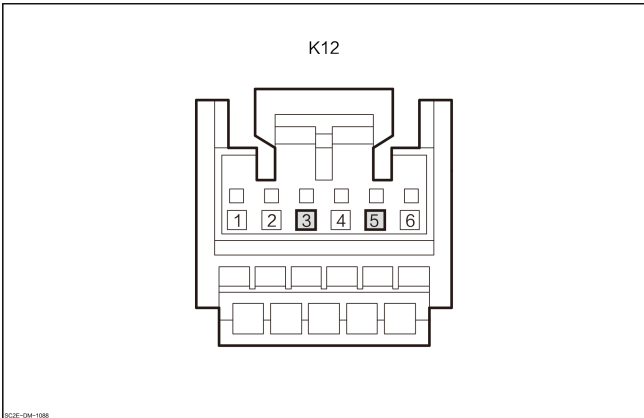
| B229D16 Supply Voltage of High Frequency Receiver Module Too Low | |
|--|--|
| Symptom | Partial failure of intelligent access system. |
| Possible Cause | 1. Fuse fault. 2. Harness or connector fault. 3. The high-frequency receiver fails. |
| Fault setting conditions | The low voltage is detected to be less than 9 V. |
| Trigger fault conditions | When the vehicle is powered on, and the system detects that the low voltage is less than 9 V, a DTC will be generated. |

Circuit Diagram



ECR-EM-1008

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p style="text-align: center;">Instrument fuse box</p>  <p style="text-align: center;">G82</p> <p><small>801E-04-109</small></p> | 7 | High Frequency Receiver Module Constant Power |
| <p style="text-align: center;">High Frequency Receiver Module</p>  <p style="text-align: center;">K12</p> <p><small>801E-04-108</small></p> | 3 | Constant power |
| | 5 | Ground |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the high frequency receiver module DTC. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the fuse for high frequency receiver module. |
|---|--|

1. Check whether the instrument fuse box fuse F2/06 (5 A) is normal?

No

Replace the fuse

Yes

| | |
|---|--|
| 3 | Check the harness and connector of high frequency receiver module. |
|---|--|

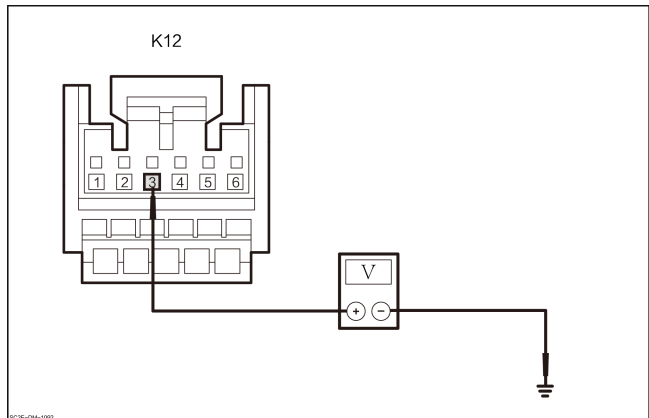
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of high frequency receiver module K12.
3. Check the harness connector of high frequency receiver module for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the constant power of high frequency receiver module. |
|---|---|



1. Measure the voltage between the harness connector of high frequency receiver module K12-3 and the ground.

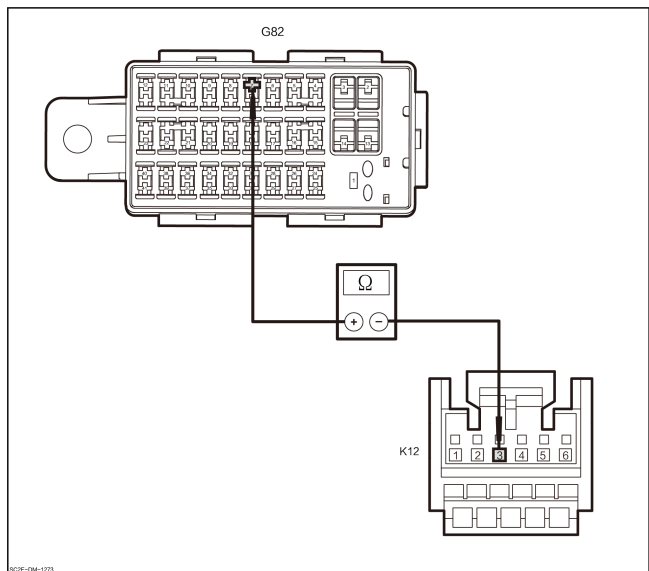
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K12-3 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

Yes Go to step 6

No

5 Check the constant power of high frequency receiver module for open circuit.



1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of instrument fuse box G82.
3. Measure the resistance between the harness connector of instrument fuse box G82-7 and the harness connector of high frequency receiver module K12-3.

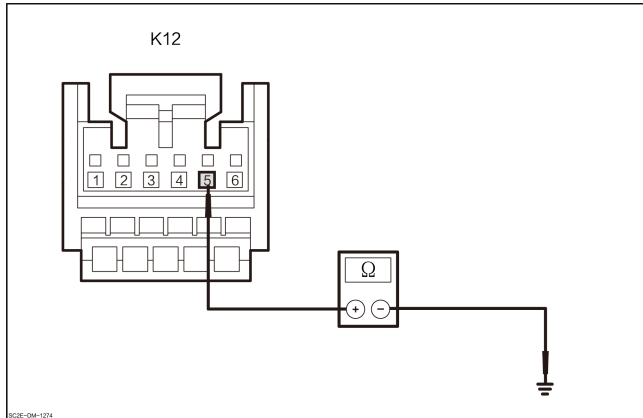
| Connector | | Condition | Resist- ance value |
|-----------|-------|-------------|--------------------------|
| (+) | (-) | | |
| G82-7 | K12-3 | Through-out | Lower than 1Ω |

4. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the instrument fuse box.

6 Check the ground line of high frequency receiver module.



1. Measure the resistance between the harness connector of high frequency receiver module K12-5 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K12-5 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

- No
Repair or replace the wire harness
- Yes
Replace the high frequency receiver module.

Charging Port Cap Control

Charging Port Cover Actuator

Diagnosis Description

Introduction

Before fault diagnosis for charging port cover, understand and get familiar with the working principle of the charging port cover works, and then start diagnosis for charging port cover, so as to be helpful to confirm the correct fault diagnosis procedure in the event of a fault and, more importantly, to confirm whether the operating condition described by the customer is normal. Any fault diagnosis of the charging port cover should start with the charging port cover inspection to guide the maintenance technician to take the next logical step for fault diagnosis.

General equipment

– Multimeter

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Diagnosis of General Faults

Visual Inspection

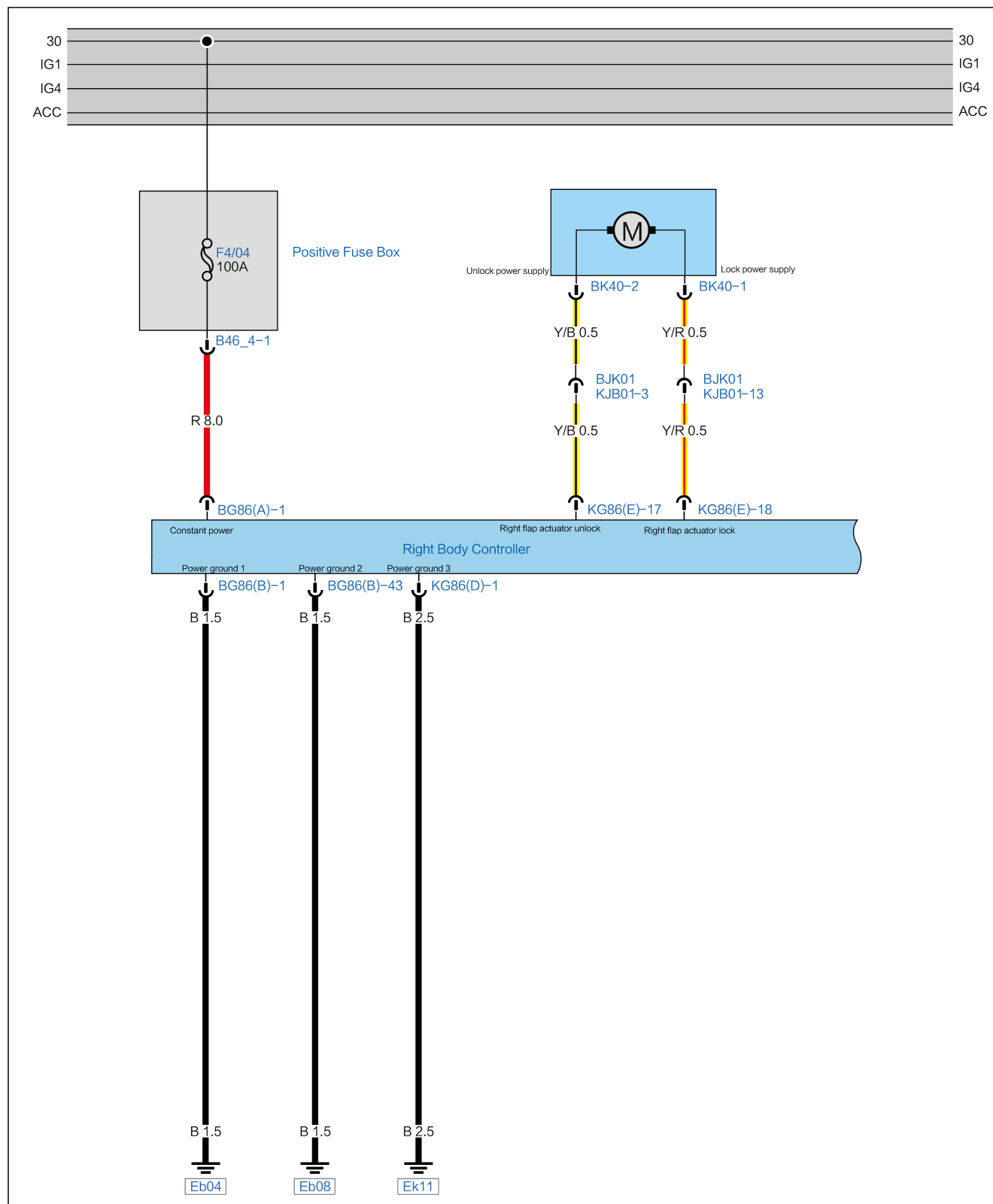
1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

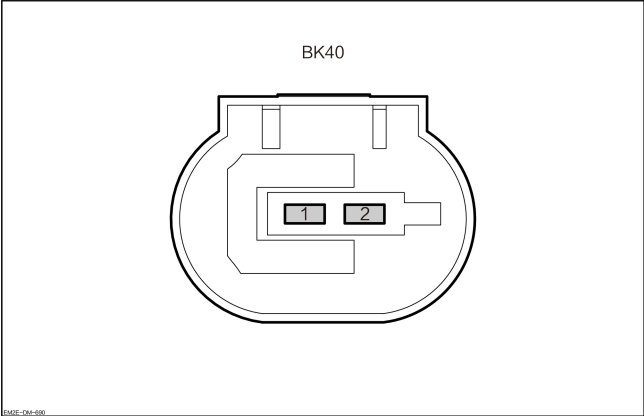
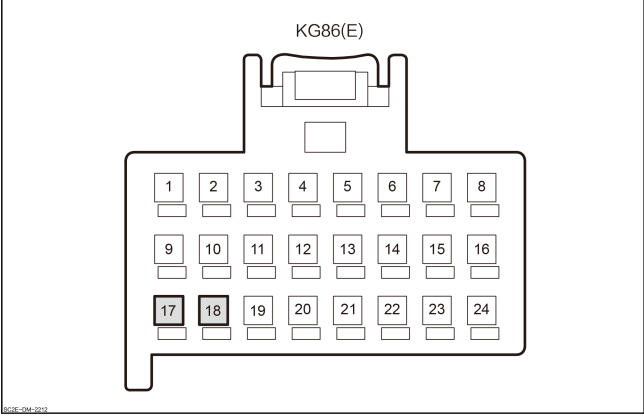
| Symptom | Possible cause | Suggested maintenance measures |
|--|---|--|
| Charging Port Cap Cannot Be Unlocked or Locked | <ol style="list-style-type: none">1. Charging port cover fault.2. Line fault.3. The left body control module fails. | Charging Port Cap Cannot Be Unlocked or Locked |

Charging Port Cap Cannot Be Unlocked or Locked

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|---------------------------|
| <p style="text-align: center;">Charging port cover motor</p> <div style="text-align: center;">  <p style="text-align: center;">BK40</p> </div> | 1 | Lock: |
| | 2 | Unlock + |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p style="text-align: center;">KG86(E)</p> </div> | 17 | Right cap actuator unlock |
| | 18 | Right cap actuator lock |

Diagnostic Steps

1 Check the harness connector of charging port cover motor.

1. Set the START/STOP button to “OFF” .
2. Disconnect the charging port cover motor harness connector.
3. Check whether the harness connector of charging port cover motor is normal?

No → Repair or replace the wire harness

Yes

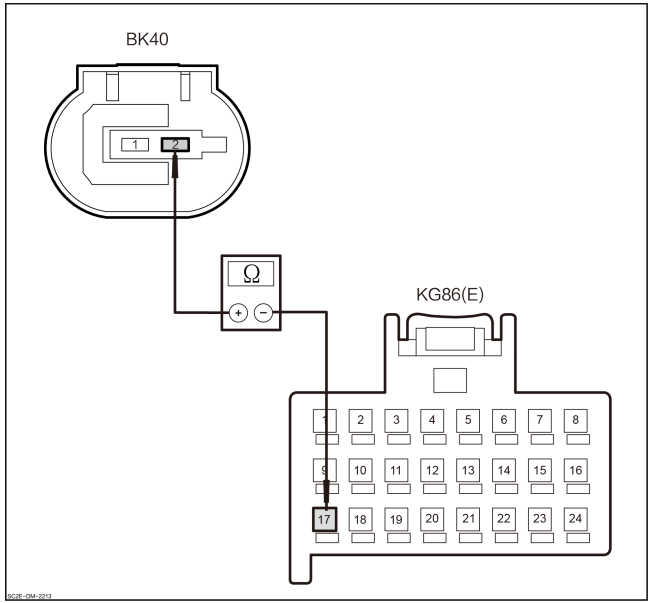
2 Check the harness connector of right body control module.

1. Disconnect the harness connector of right body control module.
2. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

3 Check the charging port cover motor unlock drive line for open circuit.



1. Measure the resistance between the harness connector of charging port cover motor BK40-2 and the harness connector of right body control module KG86(E)-17.

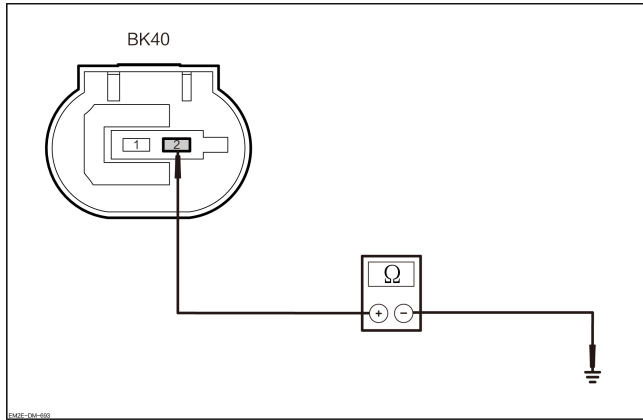
| Connector | | Condition | Resist- ance value |
|-----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| BK40-2 | KG86(E)-17 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the charging port cover motor unlock drive line for short circuit to ground.



1. Measure the resistance between the harness connector of charging port cover motor BK40-2 and the ground.

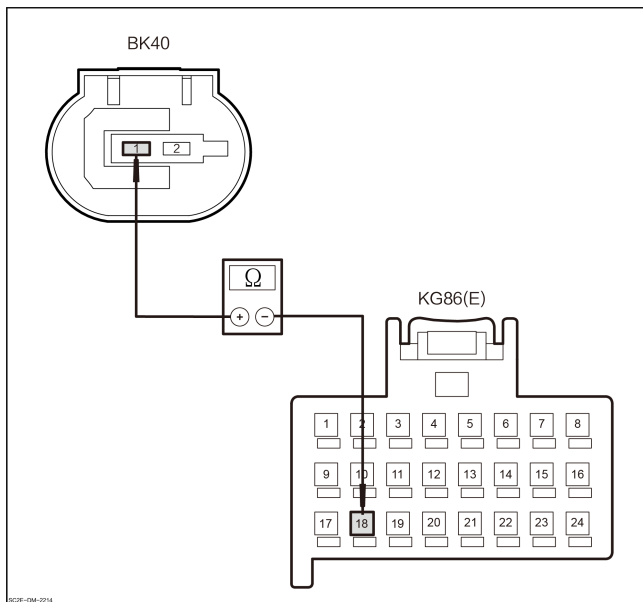
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK40-2 | Ground | Through- out | Above 10k Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

5 Check the charging port cover motor lock drive line for open circuit.



1. Measure the resistance between the harness connector of charging port cover motor BK40-1 and the harness connector of right body control module KG86(E)-18.

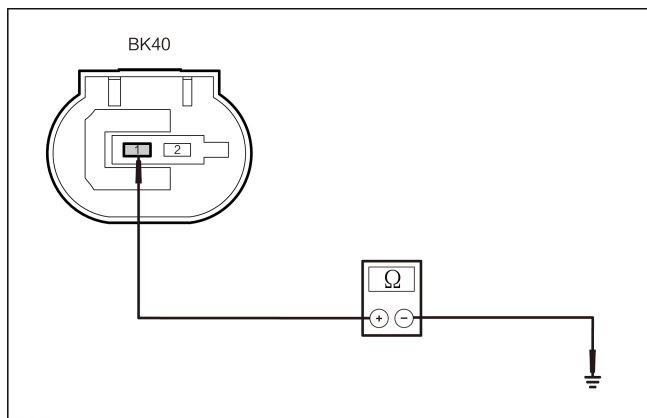
| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| BK40-1 | KG86(E)- 18 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

6 Check the charging port cover motor lock drive line for short circuit to the ground.



1. Measure the resistance between the harness connector of charging port cover motor BK40-1 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BK40-1 | Ground | Through- out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the charging port cover motor.

1. Replace the charging port cap motor
2. Check whether the results are normal.

Yes → Replace the charging port cap motor

No → Replace the right body control module.

Low-voltage Power Supply and Distribution

Backup Power

Diagnosis Description

Introduction

Before fault diagnosis for the backup power, understand and get familiar with the working principle of the backup power, and then start diagnosis for the backup power, so as to be helpful to confirm the correct fault diagnosis procedure in the event of fault, more importantly, to confirm whether the operating condition described by the customer is normal. Any fault diagnosis of the backup power should start with the inspection of the backup power to guide the maintenance technician to take out the next logical step for fault diagnosis.

General equipment

- Multimeter

Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Diagnosis of General Faults

Visual Inspection

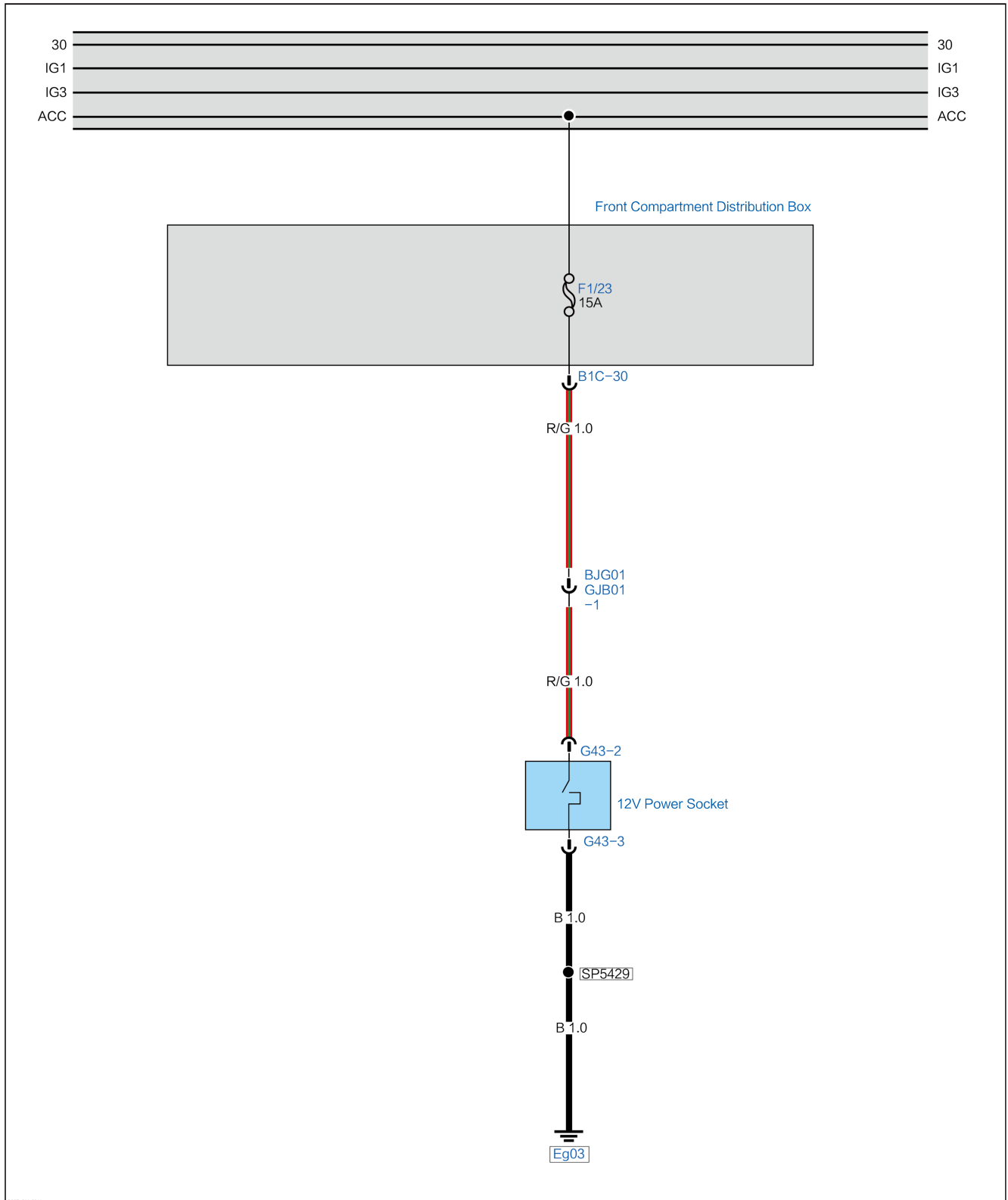
1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

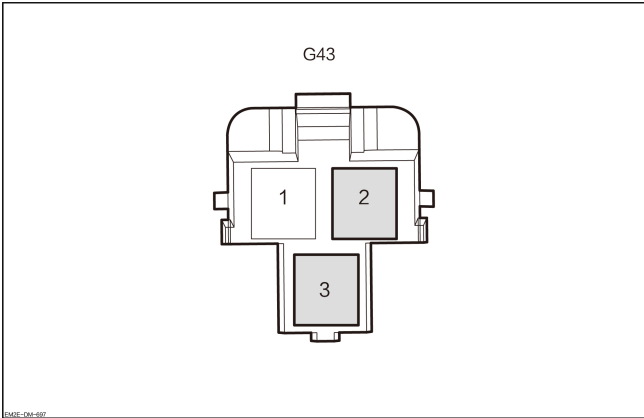
| Symptom | Possible cause | Suggested maintenance measures |
|--|--|--|
| 12V Power Socket Not Working | <ol style="list-style-type: none"> 1. Fuse fault. 2. Line fault. 3. 12V power socket fault. | 12V Power Socket Not Working |
| Front USB power supply interface fails to work | <ol style="list-style-type: none"> 1. Fuse fault. 2. Line fault. 3. Front USB power supply interface fault. | Front USB Power Interface Not Working – HUSB |
| Rear USB power supply interface fails to work | <ol style="list-style-type: none"> 1. Fuse fault. 2. Line fault. 3. Rear USB power supply interface fault. | Rear USB Power Interface Not Working – LUSB |
| | | Rear USB Power Interface Not Working – HUSB |

12V Power Socket Not Working

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">12V power socket</p> <div style="text-align: center;">  <p style="text-align: center;">G43</p> </div> <p><small>EMTC-ENR-007</small></p> | 2 | Power supply |
| | 3 | Ground |

Diagnostic Steps

1 Check the front compartment fuse box fuse.

1. Check whether the fuse F1/23 (15 A) of front compartment fuse box 12 V power socket is normal?

No → Replace the fuse

Yes

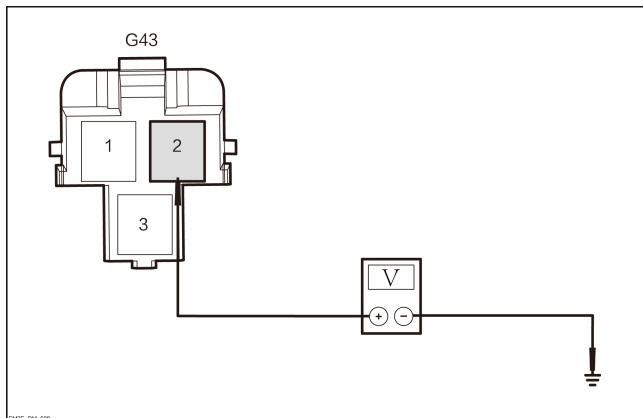
2 Check the 12 V power socket harness connector.

1. Disconnect the 12 V power socket harness connector.
2. Check whether the 12 V power socket harness connector is normal?

No → Repair or replace the wire harness

Yes

3 Check the power line of the 12 V power socket.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the 12 V power socket harness connector G 43-2 and ground.

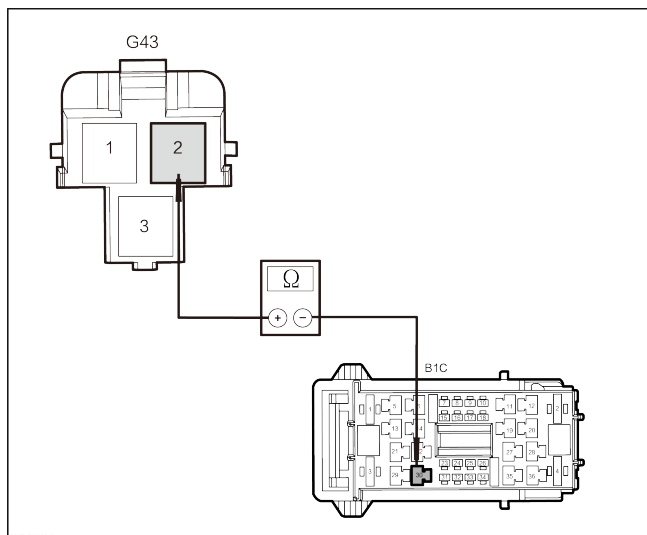
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G43-2 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → [Go to step 5](#)

No

4 Check the power line of the 12 V power socket for open circuit.



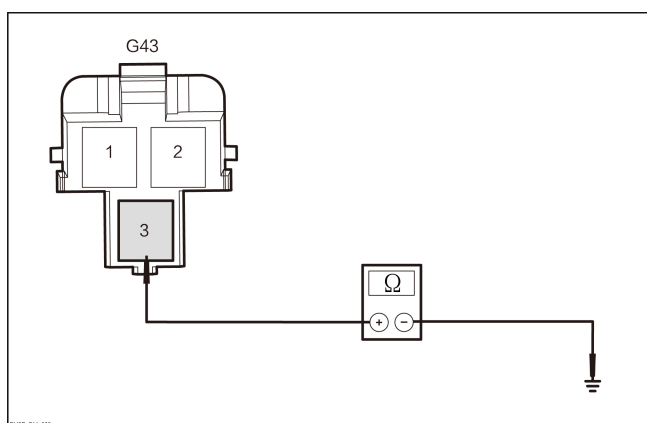
1. Disconnect the front compartment fuse box harness connector B1C.
2. Measure the resistance value between the 12 V power socket harness connector G43-2 and the front compartment fuse box harness connector B1C-30.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| G43-2 | B1C-30 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

| | |
|-----|---|
| No | Repair or replace the wire harness |
| Yes | Replace the front compartment fuse box. |

5 Check the ground circuit of 12V power socket.



1. Measure the resistance value between the 12 V power socket harness connector G43-3 and ground.

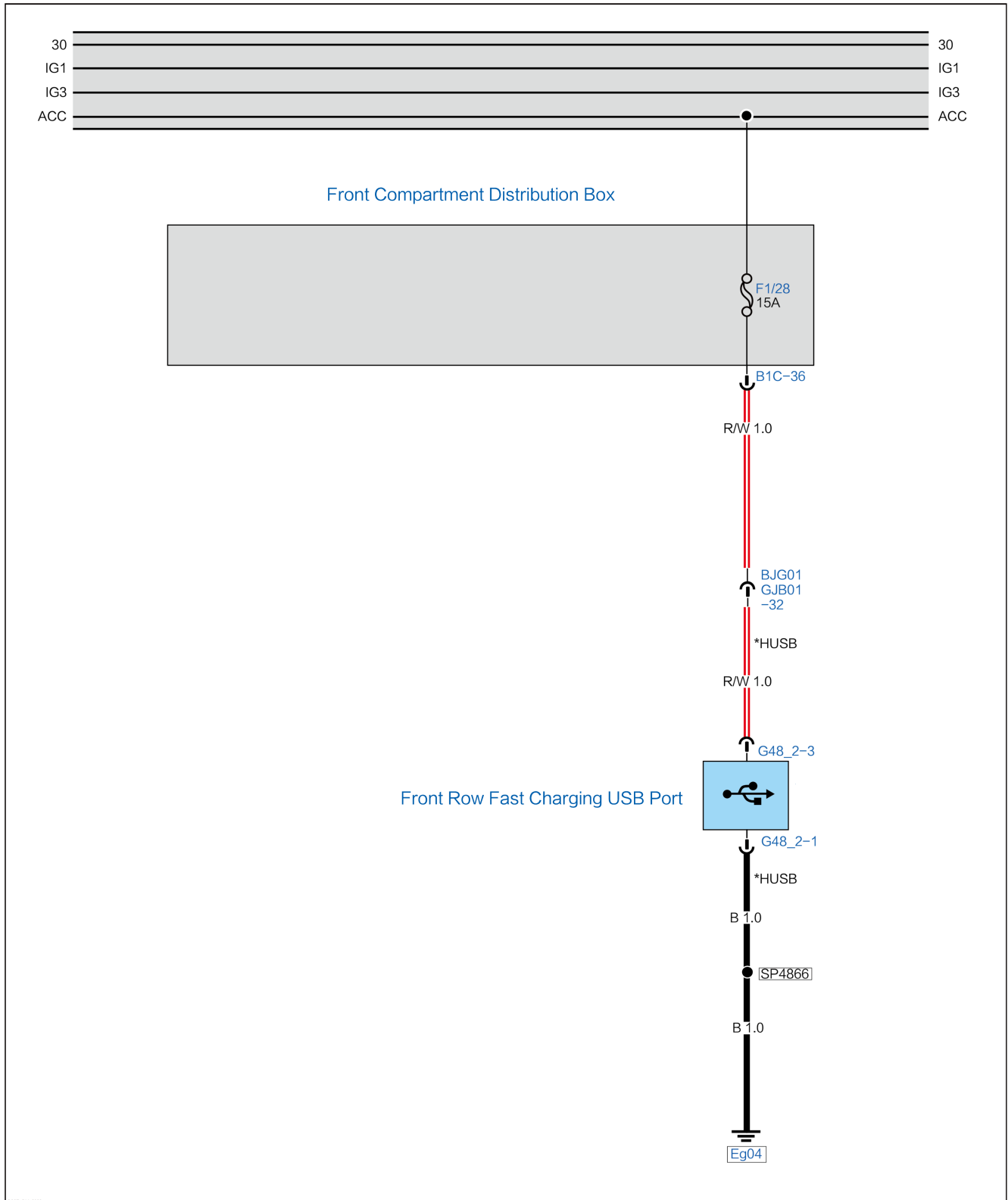
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| G43-3 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

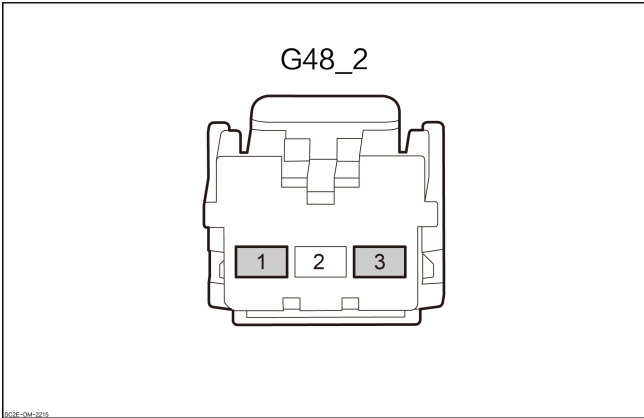
| | |
|-----|------------------------------------|
| No | Repair or replace the wire harness |
| Yes | Replace the 12 V power socket. |

Front USB Power Interface Not Working – HUSB

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">Front row fast USB charging port</p> <div style="text-align: center;">  <p style="text-align: center;">G48_2</p> </div> | 1 | Ground |
| | 3 | Power supply |

Diagnostic Steps

1 Check the front compartment fuse box fuse.

1. Check whether front USB power interface fuse F1/28 (15 A) of the front compartment fuse box is normal.

No → Replace the fuse

Yes

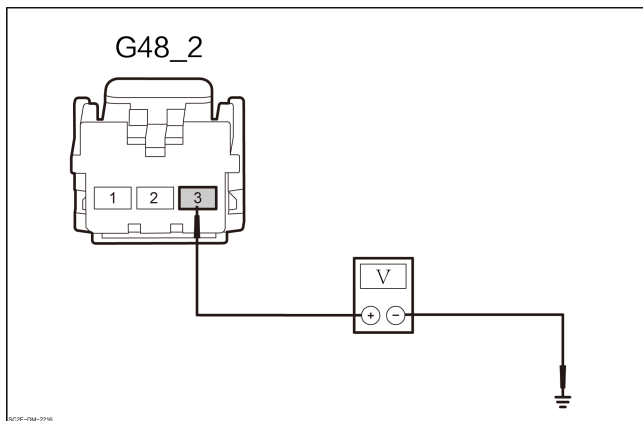
2 Check the front USB power interface harness connector.

1. Disconnect the front USB power interface harness connector.
2. Check whether the USB power interface harness connector of the front row is normal?

No → Repair or replace the wire harness

Yes

3 Check the power supply of the front USB power interface.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of front USB power interface G48_2-3 and the ground.

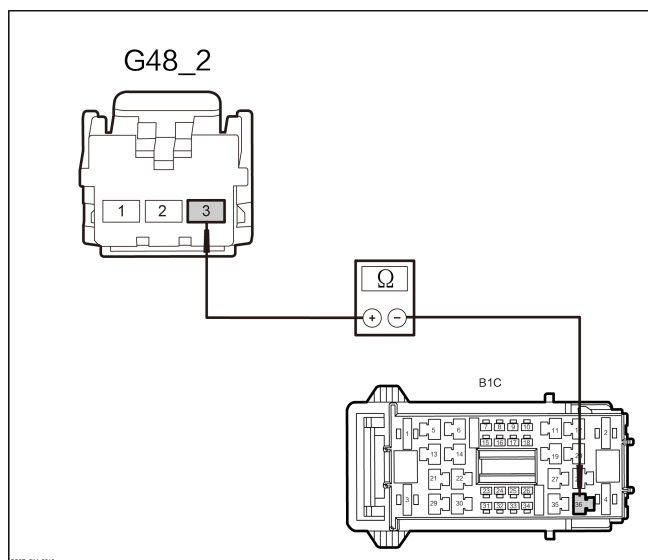
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G48_2-3 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

No → [Go to step 5](#)

Yes

4 Check the power line of the front USB power connector for open circuit.



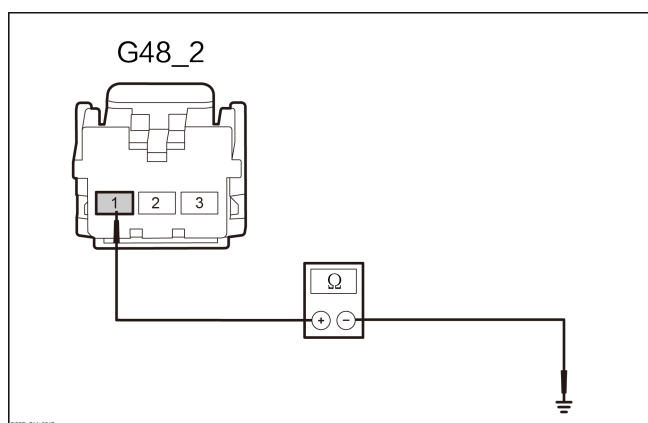
1. Disconnect the front compartment fuse box harness connector B1C.
2. Measure the resistance between the harness connector of rear USB power interface G48_2-3 and the harness connector of front compartment fuse box B1C-36.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| G48_2-3 | B1C-36 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

| | |
|-----|---|
| No | Repair or replace the wire harness |
| Yes | Replace the front compartment fuse box. |

5 Check the ground circuit of the front USB power interface.



1. Measure the resistance between the harness connector of front USB power interface G48_2-1 and the ground.

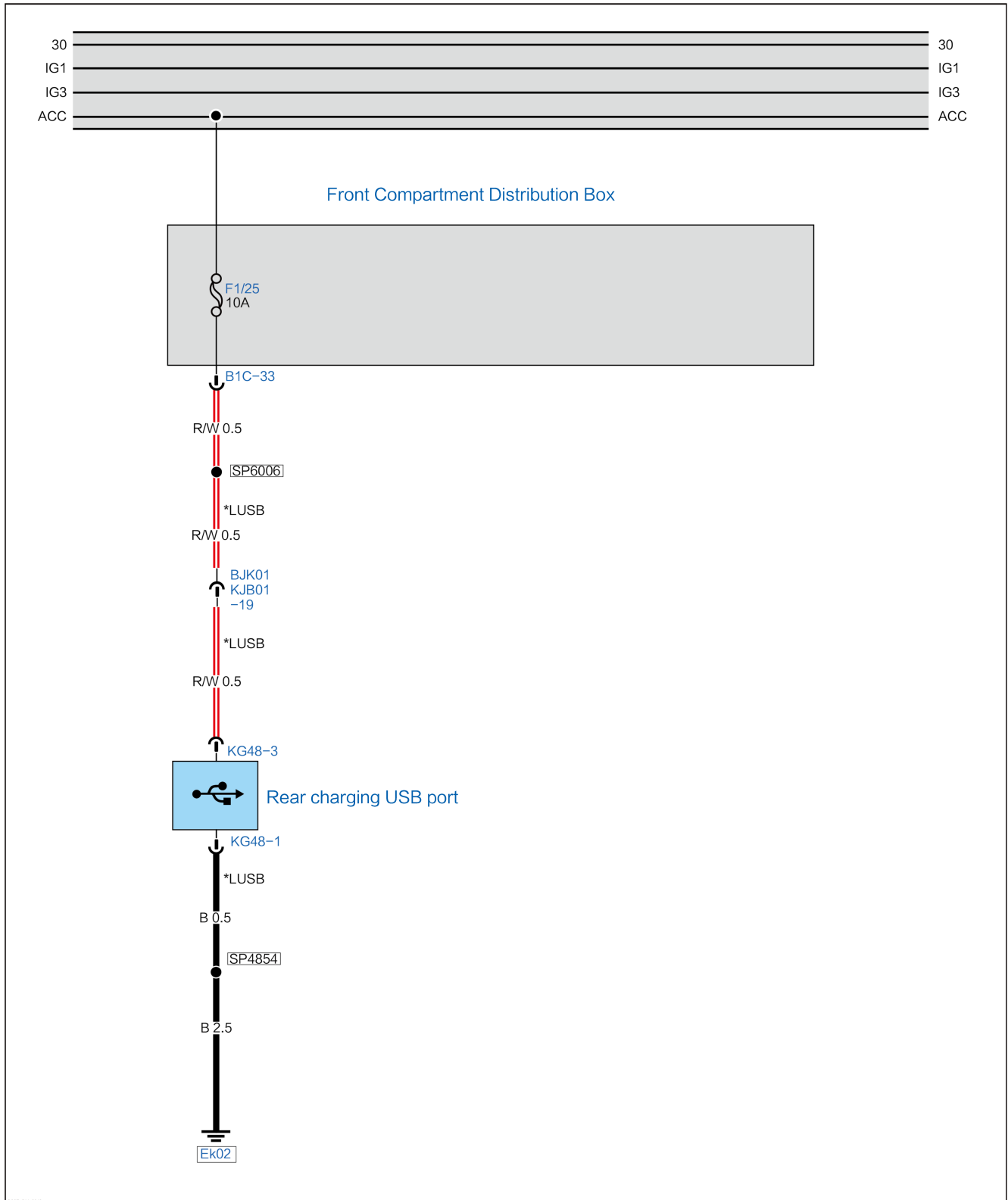
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| G48_2-1 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

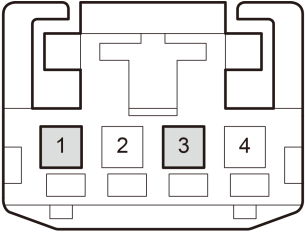
| | |
|-----|---|
| No | Repair or replace the wire harness |
| Yes | Replace the front USB power supply interface. |

Rear USB Power Interface Not Working – LUSB

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p>Rear USB power supply interface</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>KG48</p>  </div> <p><small>8012-04-2023</small></p> | 1 | Ground |
| | 3 | Power supply |

Diagnostic Steps

1 Check the front compartment fuse box fuse.

1. Check whether the front compartment fuse box rear USB power interface fuse F1/25 (10 A) is normal?

No → Replace the fuse

Yes

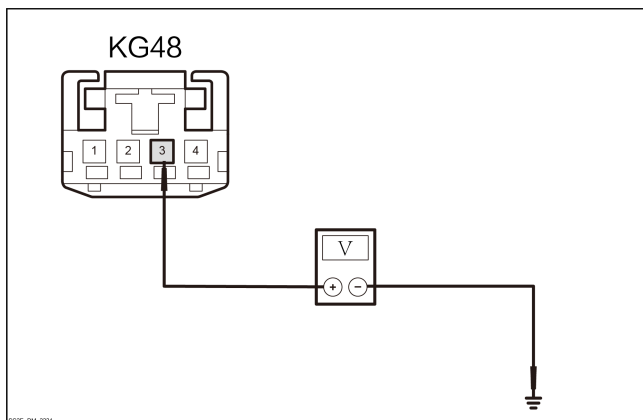
2 Check the rear USB power interface harness connector.

1. Disconnect the rear USB power interface harness connector.
2. Check whether the rear USB power interface harness connector is normal

No → Repair or replace the wire harness

Yes

3 Check the power supply of the rear USB power interface.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of rear USB power interface KG48-3 and the ground.

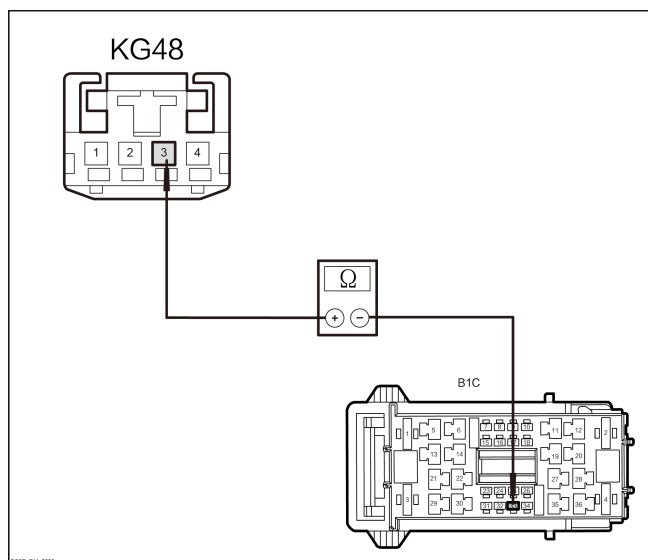
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| KG48-3 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

No → [Go to step 5](#)

Yes

4 Check the power line of the rear USB power connector for open circuit.



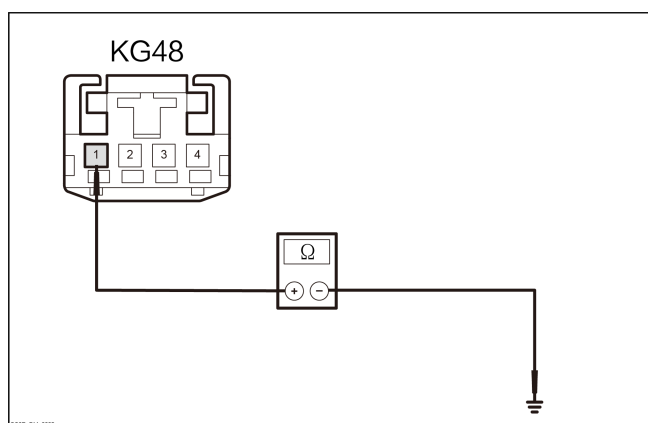
1. Disconnect the front compartment fuse box harness connector B1C.
2. Measure the resistance between the harness connector of rear USB power interface KG48-3 and the harness connector of front compartment fuse box B1C-33.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| KG48-3 | B1C-33 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

| | |
|-----|---|
| No | Repair or replace the wire harness |
| Yes | Replace the front compartment fuse box. |

5 Check the ground circuit of the rear USB power interface.



1. Measure the resistance between the harness connector of rear USB power interface KG48-1 and the ground.

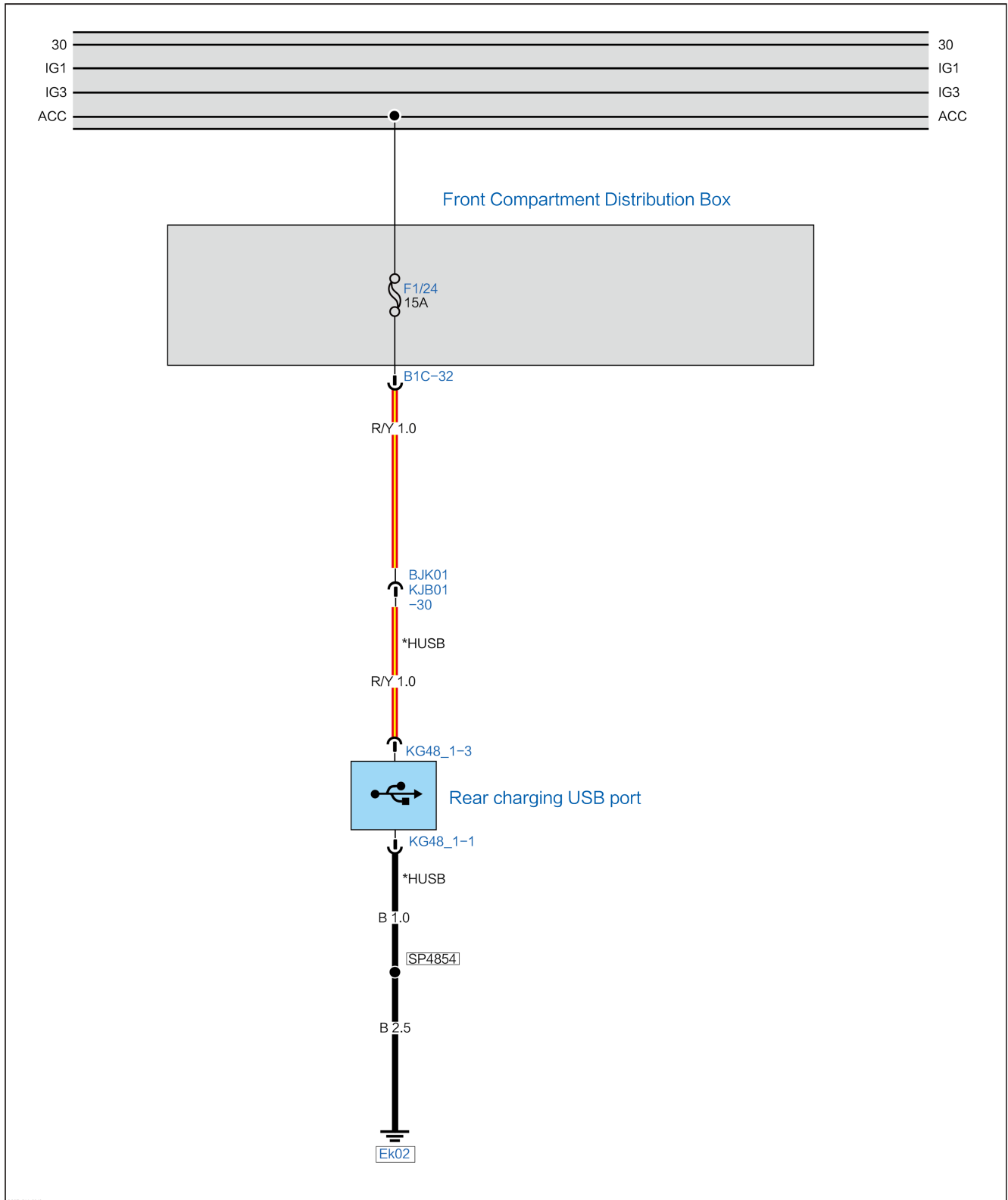
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| KG48-1 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

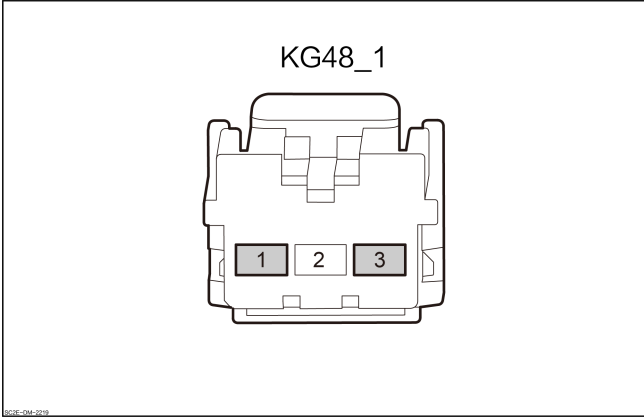
| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the rear USB power supply interface. |

Rear USB Power Interface Not Working – HUSB

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p>Rear USB power supply interface</p>  <p>KG48_1</p> | 1 | Ground |
| | 3 | Power supply |

Diagnostic Steps

1 Check the front compartment fuse box fuse.

1. Check whether the front compartment fuse box rear USB power interface fuse F1/24 (15 A) is normal?

No → Replace the fuse

Yes

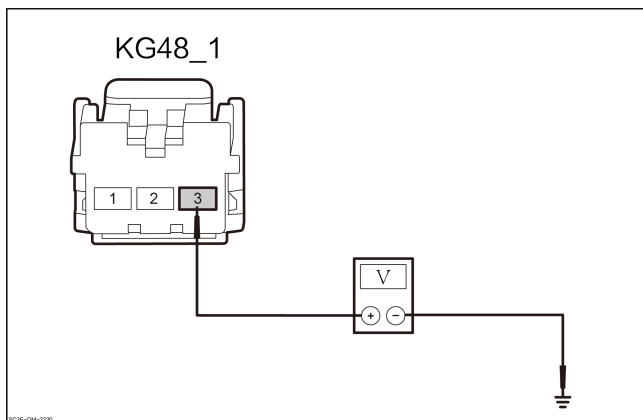
2 Check the rear USB power interface harness connector.

1. Disconnect the rear USB power interface harness connector.
2. Check whether the rear USB power interface harness connector is normal

No → Repair or replace the wire harness

Yes

3 Check the power supply of the rear USB power interface.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of rear USB power interface KG48_1-3 and the ground.

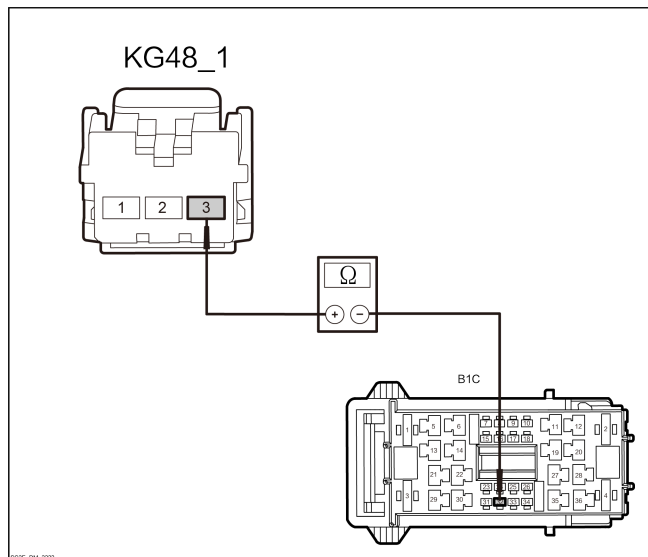
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| KG48_1-3 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

No → [Go to step 5](#)

Yes

4 Check the power line of the rear USB power connector for open circuit.



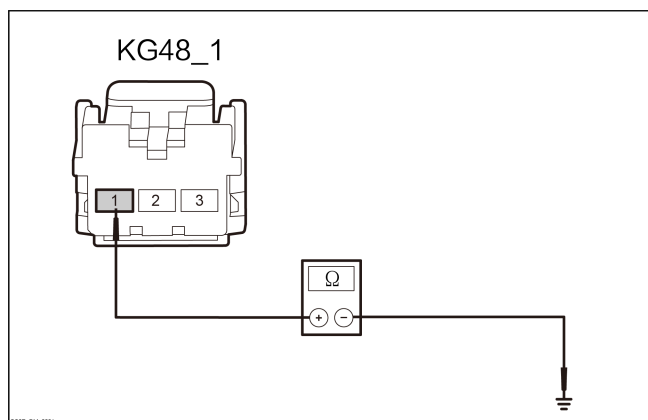
1. Disconnect the front compartment fuse box harness connector B1C.
2. Measure the resistance between the harness connector of rear USB power interface KG48_1-3 and the harness connector of front compartment fuse box B1C-32.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| KG48_1-3 | B1C-32 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

| | |
|-----|---|
| No | Repair or replace the wire harness |
| Yes | Replace the front compartment fuse box. |

5 Check the ground circuit of the rear USB power interface.



1. Measure the resistance between the harness connector of rear USB power interface KG48_1-1 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| KG48_1-1 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the rear USB power supply interface. |

Wireless Charging Module

Diagnosis Description

Introduction

Before fault diagnosis for mobile phone wireless charging, understand and get familiar with the working principle of mobile phone wireless charging, and then start diagnosis for mobile phone wireless charging, so as to be helpful to confirm the correct fault diagnosis procedure in the event of a fault, more importantly, to confirm whether the operating situation described by the customer is normal. Any diagnosis of a wireless charging should start with inspection of a wireless charging to guide the maintenance technician to take the next logical step for fault diagnosis.

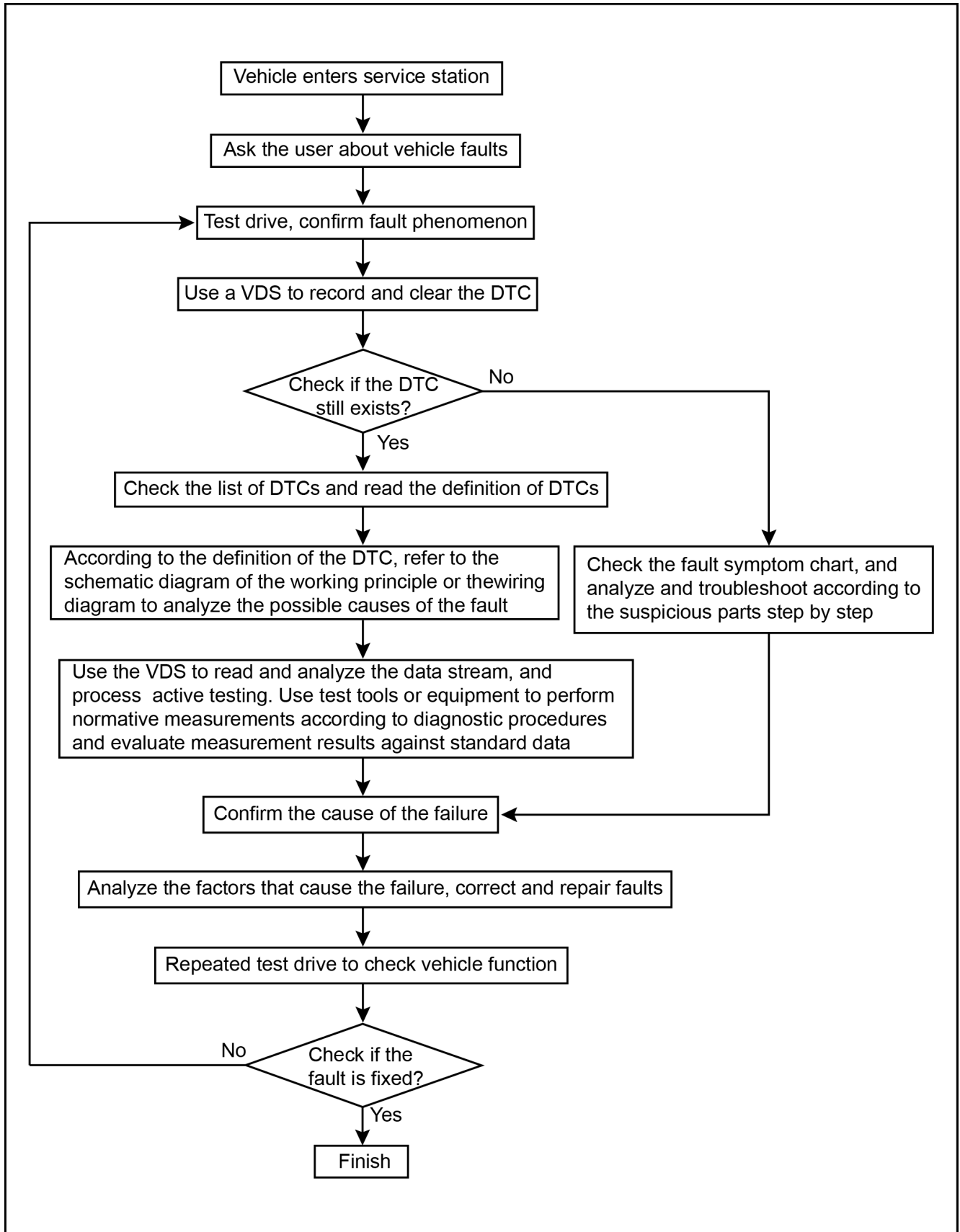
General equipment

- Multimeter
- VDS

Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Process of Fault Inspection and Troubleshooting



Diagnosis of General Faults

Visual Inspection

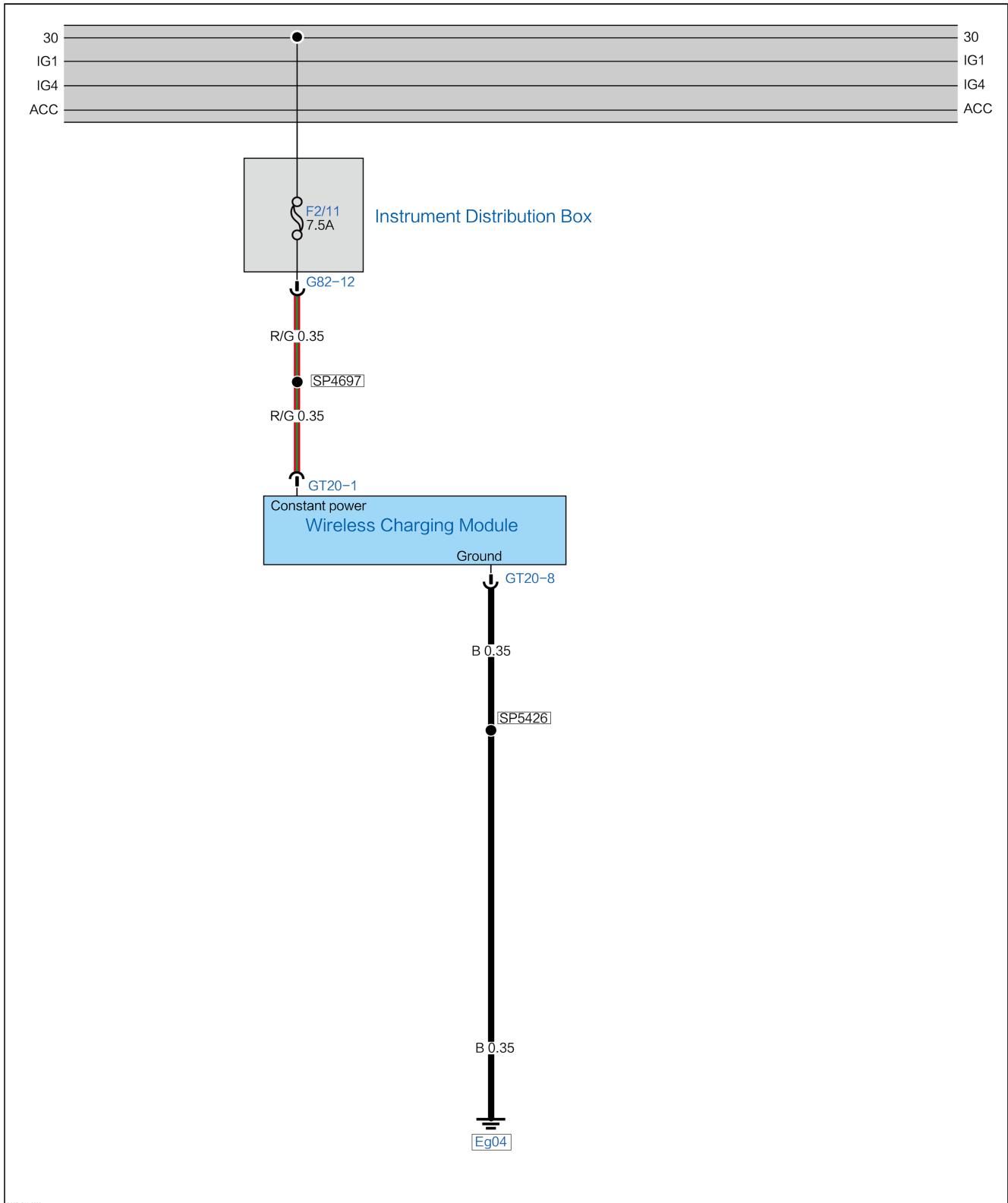
1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

| Symptom | Possible cause | Suggested maintenance measures |
|-------------------------------|---|--------------------------------|
| Wireless Charging Not Working | <ol style="list-style-type: none">1. Fuse fault.2. Line fault.3. Wireless phone charging fault.4. Central control screen host failure. | Wireless Charging Not Working |

Wireless Charging Not Working

Circuit Diagram



ECSE-094-2023

Diagnostic Steps

1 Check the wireless charging switch of the center console.

1. Check whether the wireless charging function is enabled.

No Enable wireless charging function of mobile phone.

Yes

2 Check the instrument fuse box fuse.

1. Check whether the mobile phone wireless charging module fuse F2/11 (7.5 A) of instrument fuse box is normal?

No Replace the fuse

Yes

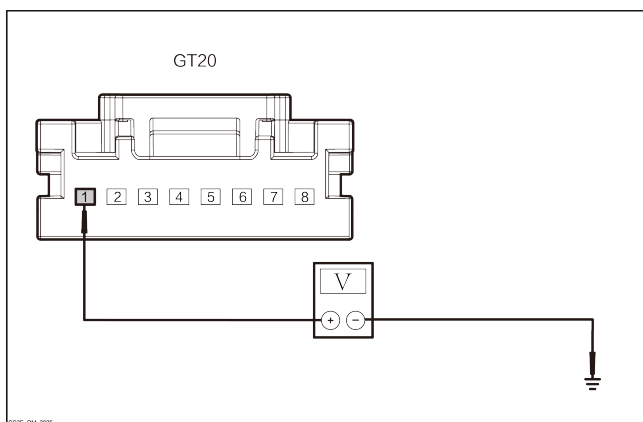
3 Check the wireless phone charging module harness connector.

1. Disconnect the wireless phone charging module harness connector.
2. Check whether the wireless phone charging module harness connector is normal.

No Repair or replace the wire harness

Yes

4 Check the power supply of wireless phone charging module.



1. Set the START/STOP button to "OFF" .
2. Measure the voltage value between the wireless charging module harness connector GT20-1 and the grounding.

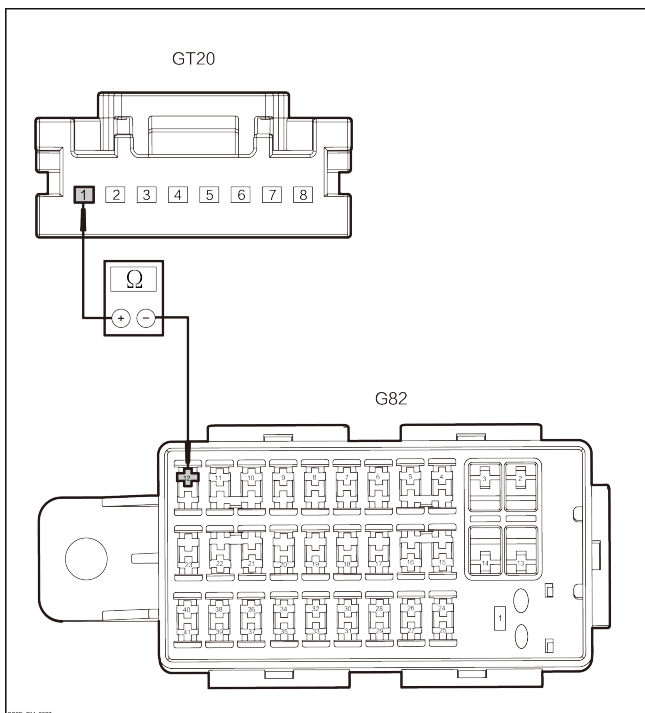
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| GT20-1 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

No [Go to step 6](#)

Yes

5 Check the power line of the wireless charging module for open circuit.



1. Disconnect the harness connector of instrument fuse box G82.
2. Measure the resistance value between the wireless charging module harness connector GT20-1 and the instrument fuse box harness connector G82-12.

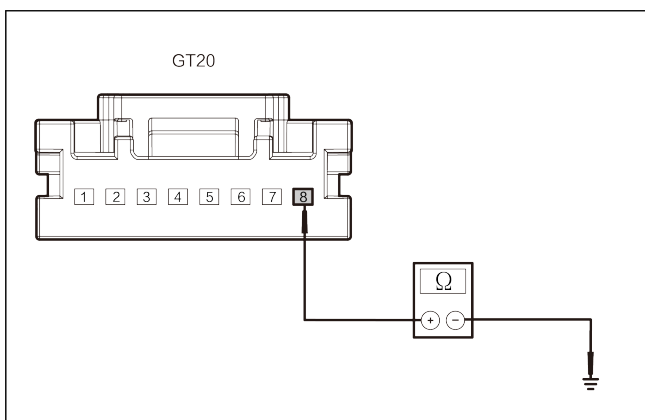
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| GT20-1 | G82-12 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the instrument fuse box.

6 Check the ground circuit of wireless phone charging module.



1. Measure the resistance value between the wireless charging module harness connector GT20-8 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| GT20-8 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the wireless phone charging module

DTC Diagnosis

List of DTC

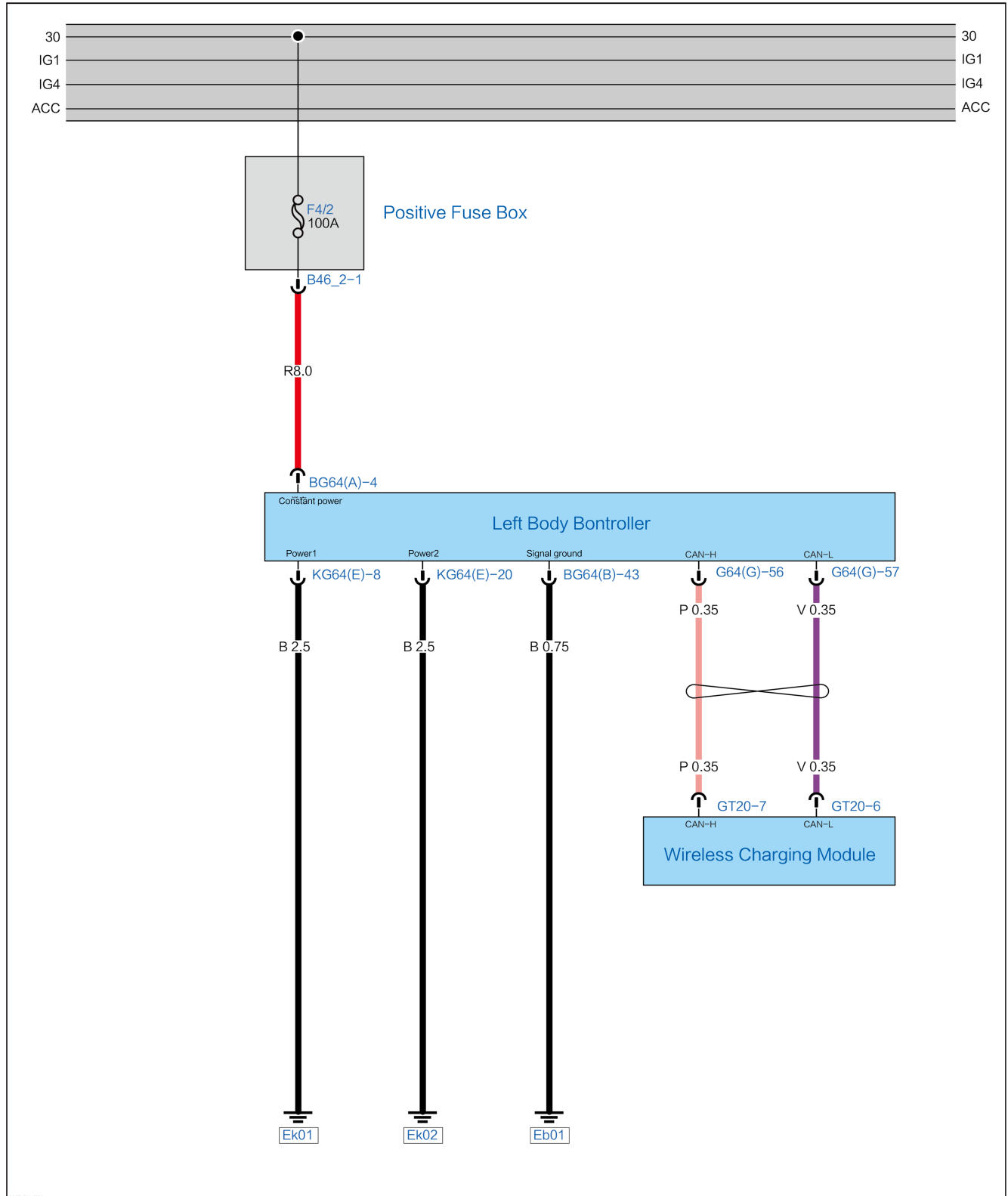
| DTC: | Meaning | Diagnostic Process |
|---------|---|---|
| U014087 | Communication with BCM lost | U014087 Communication with BCM Lost |
| B2FD017 | High power supply voltage alarm | B2FD017 Power Supply Voltage High Alarm |
| B2FD016 | Low power supply voltage alarm | B2FD016 Power Supply Voltage Low Alarm |
| B2FD14B | Wireless charging overtemperature alarm | B2FD14B Wireless Charging Overtemperature Alarm |

U014087 Communication with BCM Lost

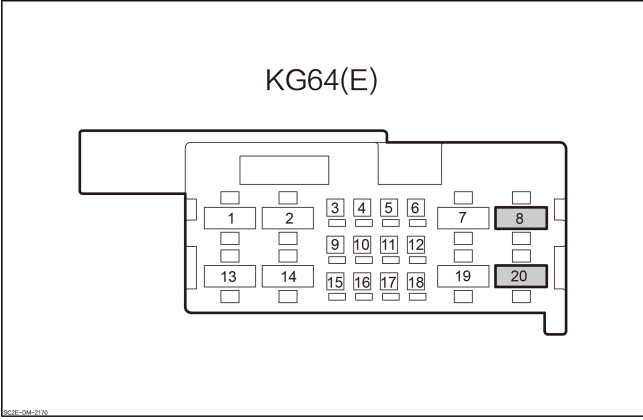
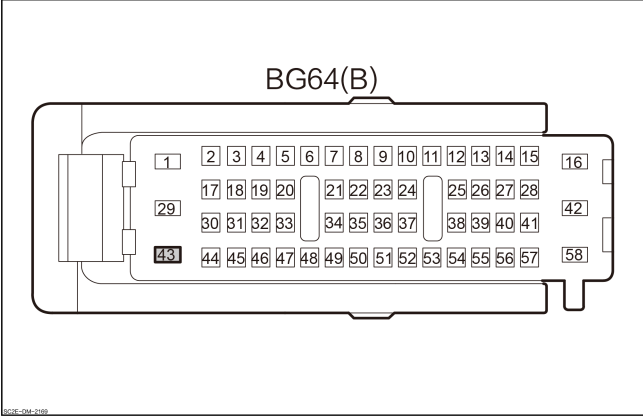
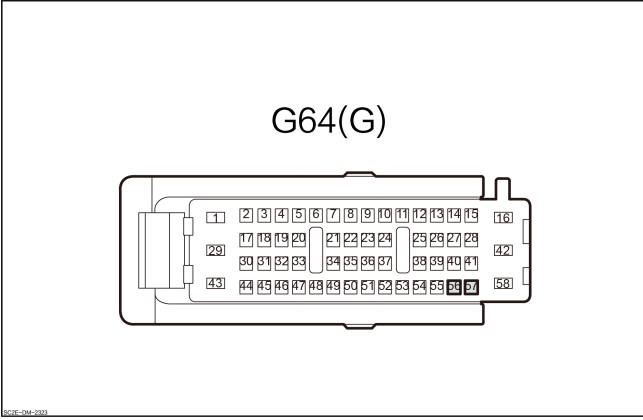
DTC Description

| U014087 Communication Timeout at BCM | |
|--------------------------------------|--|
| Symptom | Fail to Charge. |
| Possible Cause | <ol style="list-style-type: none">1. The left body control module fails.2. The CAN harness fault.3. Wireless phone charging module internal fault. |
| Fault setting conditions | BCM Message is not received within the time specified. |
| Trigger fault conditions | When the start/stop button is set to ON position and the system detects that BCM Message is not received within the specified time, DTC is generated. |

Circuit diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p>Left body control module</p>  <p>KG64(E)</p> | 8 | Power ground 1 |
| | 20 | Power ground 2 |
| <p>Left body control module</p>  <p>BG64(B)</p> | 43 | Signal ground |
| <p>Left body control module</p>  <p>G64(G)</p> | 56 | CAN_H |
| | 57 | CAN_L |

Diagnostic Steps

1 Check the communication network.

1. Use a VDS to execute the network test.
2. Check whether the left body control module has passed the network test.

Yes Go to step 10

No

2 Check the fuse for the left body control module.

1. Check the fuse F4/2(100A) in the positive fuse box for normal function.

No Replace the fuse

Yes

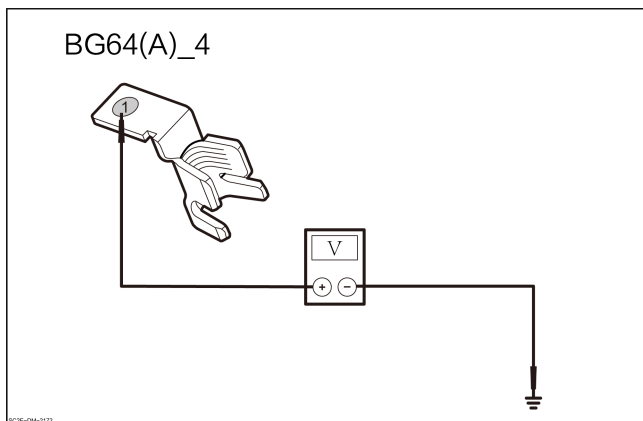
3 Check the harness and connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the power terminal of left body control module.
3. Disconnect the harness connector of left body control module.
4. Check the power terminal and connector of left body control module of normal function.

No Repair or replace the wire harness

Yes

4 Check the constant power of left body control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the power terminal of left body control module BG64(A)-4 and the ground.

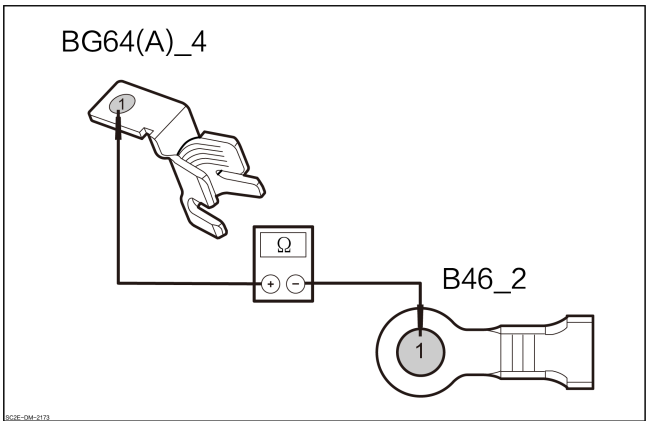
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG64(A)-4 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes Go to step 6.

No

5 Check the power supply of left body control module for open circuit.



1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of positive fuse box.
3. Measure the resistance between the harness connector of left body control module BG64(A)-4 and the harness connector of positive fuse box B46_2-1.

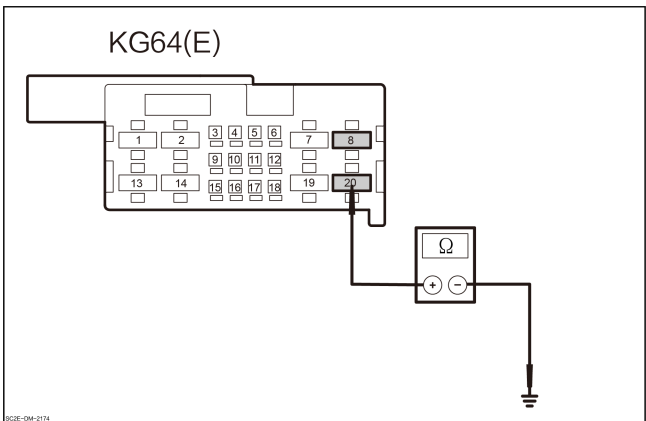
| Connector | | Condition | Voltage value |
|-----------|---------|-------------|---------------|
| (+) | (-) | | |
| BG64(A)-4 | B46_2-1 | Through-out | Lower than 1Ω |

4. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the front compartment fuse box.

6 Check the power ground line of left body control module.



1. Check the resistance between the harness connector of left body control module KG64(E)-8 and the ground.
2. Check the resistance between the harness connector of left body control module KG64(E)-20 and the ground.

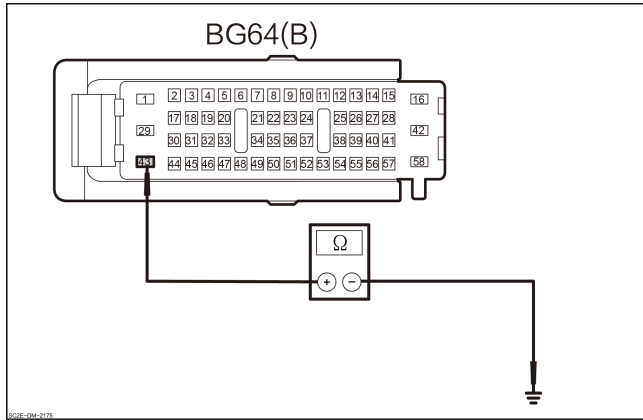
| Connector | | Condition | Resist-ance value |
|------------|--------|-------------|-------------------|
| (+) | (-) | | |
| KG64(E)-8 | Ground | Through-out | Lower than 1Ω |
| KG64(E)-20 | | | |

3. Check whether the results are normal.

No Repair or replace the wire harness

Yes

7 Check the signal ground line of left body control module.



1. Disconnect the harness connector of left body control module BG64(B).
2. Measure the resistance between the harness connector of left body control module BG64(B)-43 and the ground.

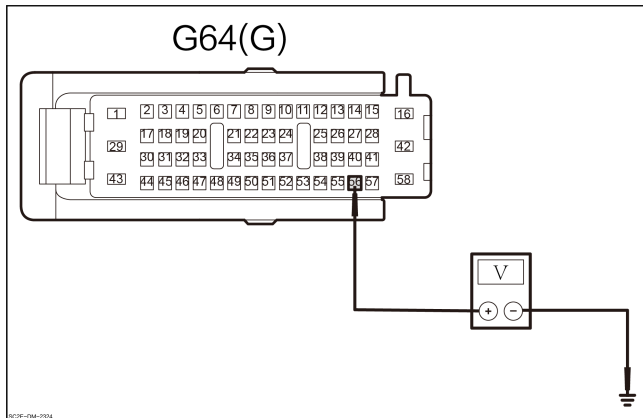
| Connector | | Condition | Resist- ance value |
|----------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG64(B)- 43 | Ground | Through- out | Lower than 1 Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the CAN-H line of left body control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of left body control module G64(G)-56 and the ground.

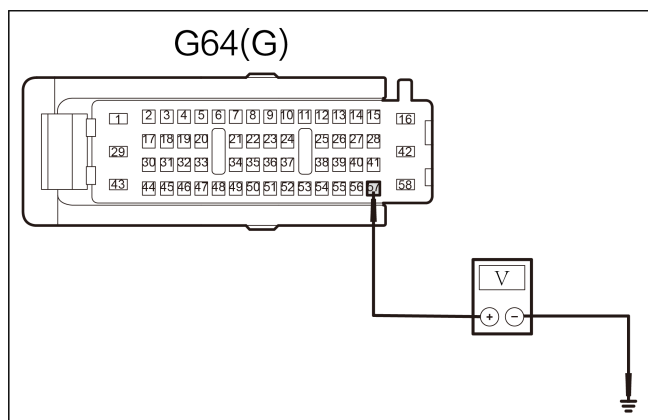
| Connector | | Condition | Voltage value |
|---------------|--------|-----------------|------------------|
| (+) | (-) | | |
| G64(G)-5 6 | Ground | Through- out | 2.5~3.5V |

3. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes

9 Check the CAN-L line of left body control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of left body control module G64(G)–57 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G64(G)–5 | Ground | Through-out | 1.5~2.5V |

3. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the left body control module, diagnosis completes.

10 Check the DTC of left body control module.

1. Use a VDS to read the left body control module DTC.
2. Check whether DTC exists.

Yes → Enter “left body control module” diagnosis.

No

11 Check the DTC of wireless phone charging module.

1. Use a VDS to read the wireless charging module DTC.
2. Check whether DTC exists.

Yes → Enter the “Wireless phone charging module” diagnosis.

No

12 Check the DTC of other modules.

1. Whether the “left body control module timeout” DTC is read in other modules?

Yes → Replace the left body control module.

No → Replace the wireless phone charging module

B2FD017 Power Supply Voltage High Alarm

DTC Description

| B2FD017 Power Supply Voltage High Alarm | |
|---|--|
| Symptom | LV power supply system fault. |
| Possible Cause | 1. Battery 2. The DC-DC internal part fails |
| Fault setting conditions | The low voltage at supply voltage is greater than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and the system detects that supply voltage at the low voltage is more than the specified threshold, DTC is generated. |

Diagnostic Steps

1

Check the DTC of wireless phone charging module.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

2

Test the battery status.

1. Set the START/STOP button to OFF.
2. Perform a battery condition test.
3. Does the battery pass the test?

No

Replace the battery

Yes

3

Check the wireless phone charging module harness and connector.

1. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

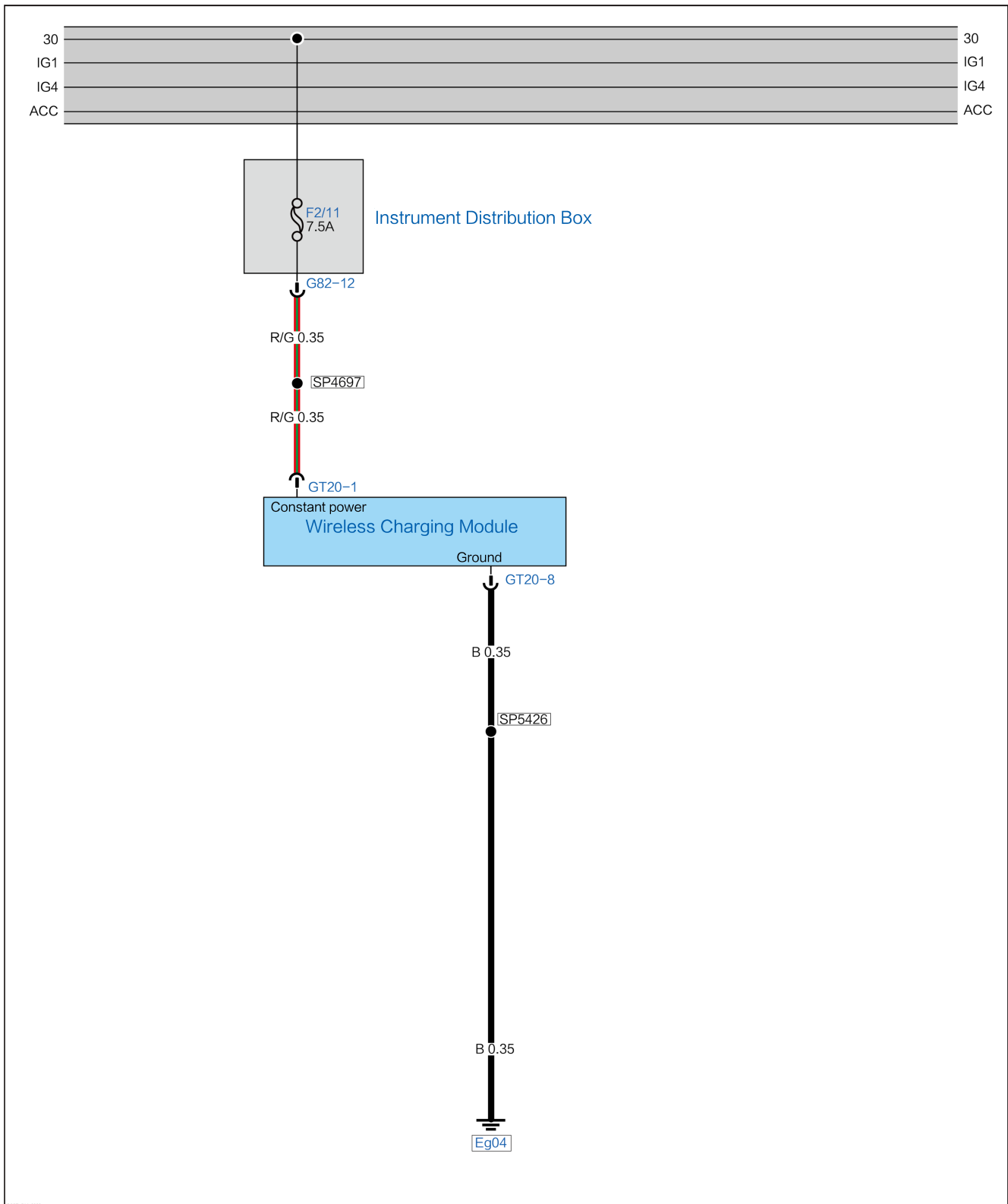
Replace the wireless phone charging module

B2FD016 Power Supply Voltage Low Alarm

DTC Description

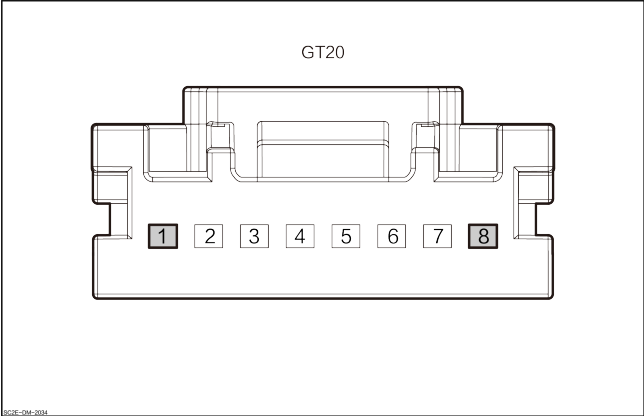
| B2FD016 Power Supply Voltage Low Alarm | |
|--|---|
| Symptom | LV power supply system fault. |
| Possible Cause | <ol style="list-style-type: none">1. Fuse2. Battery3. Line fault.4. Wireless phone charging module internal fault. |
| Fault setting conditions | The low voltage at supply voltage is less than the specified threshold. |
| Trigger fault conditions | When the vehicle is powered on and the system detects that the supply voltage at low voltage is less than the specified threshold, DTC is generated. |

Circuit Diagram



ECHE-094-2023

Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Wireless Charging Module</p> <div style="text-align: center;">  <p style="text-align: center;">GT20</p> </div> | 1 | Constant power |
| | 8 | Ground |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of wireless phone charging module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No 

Check the “intermittent fault” .

Yes 

| | |
|---|-------------------------------------|
| 2 | Check the instrument fuse box fuse. |
|---|-------------------------------------|

1. Check whether the mobile phone wireless charging module fuse F2/11 (7.5 A) of instrument fuse box is normal?

No 

Replace the fuse

Yes 

| | |
|---|---|
| 3 | Check the wireless phone charging module harness connector. |
|---|---|

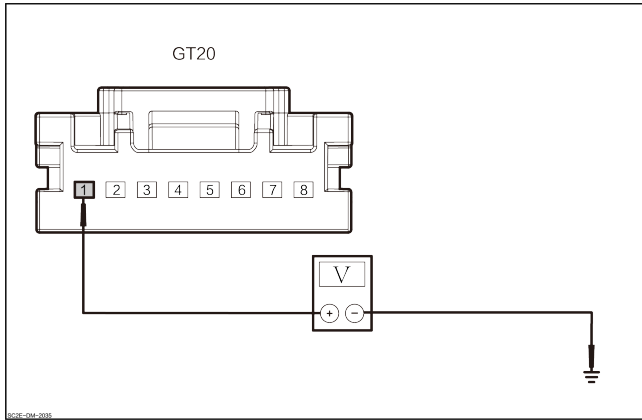
1. Disconnect the wireless phone charging module harness connector.
2. Check whether the wireless phone charging module harness connector is normal.

No 

Repair or replace the wire harness

Yes 

| | |
|---|---|
| 4 | Check the power supply of wireless phone charging module. |
|---|---|



1. Set the START/STOP button to “OFF” .
2. Measure the voltage value between the wireless charging module harness connector GT20-1 and the grounding.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| GT20-1 | Ground | Through-out | 11~14V |

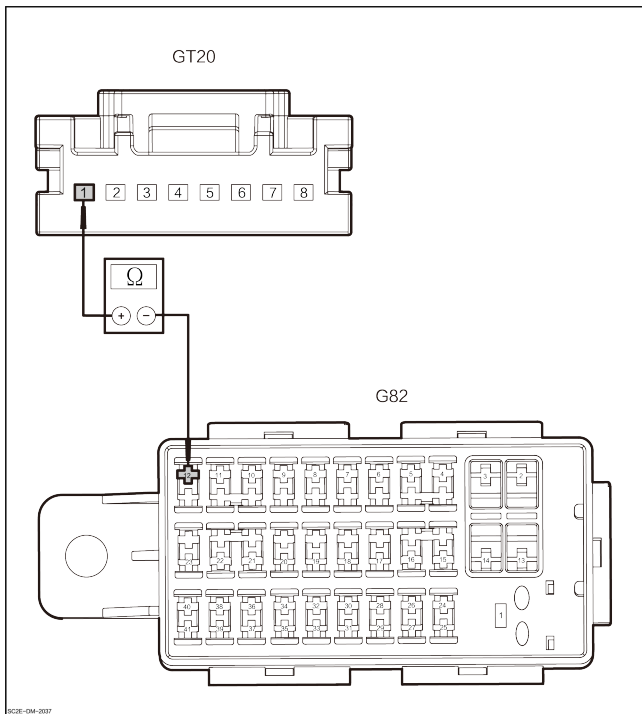
3. Check whether the results are normal.

No

Go to step 6

Yes

5 Check the power line of the wireless charging module for open circuit.



1. Disconnect the harness connector of instrument fuse box G82.
2. Measure the resistance value between the wireless charging module harness connector GT20-1 and the instrument fuse box harness connector G82-12.

| Connector | | Condition | Resist-ance value |
|-----------|--------|-------------|-------------------|
| (+) | (-) | | |
| GT20-1 | G82-12 | Through-out | Lower than 1 Ω |

3. Check whether the results are normal.

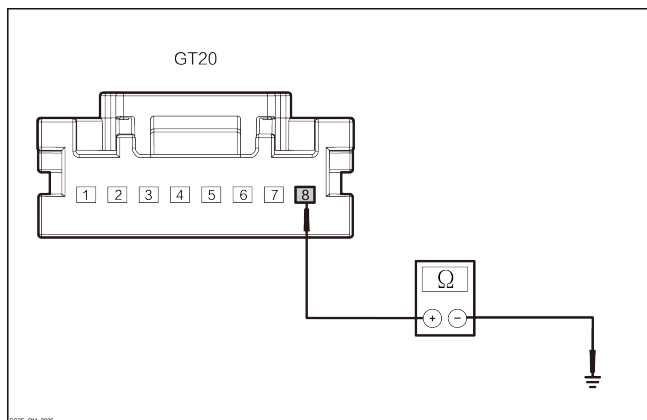
No

Repair or replace the wire harness

Yes

Replace the instrument fuse box.

6 Check the ground circuit of wireless phone charging module.



1. Measure the resistance value between the wireless charging module harness connector GT20-8 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| GT20-8 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

- No

Repair or replace the wire harness
- Yes

Replace the wireless phone charging module

B2FD14B Wireless Charging Overtemperature Alarm

DTC Description

| B2FD14B Wireless Charging Overtemperature Alarm | |
|---|---|
| Symptom | Fail to Charge. |
| Possible Cause | Wireless phone charging module internal fault. |
| Fault setting conditions | The temperature is higher than the specified threshold. |
| Trigger fault conditions | When after the vehicle is powered on, the system detects that the temperature is higher than the specified threshold, DTC is generated. |

Diagnostic Steps

| | |
|---|---------------|
| 1 | Check the DTC |
|---|---------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the wireless phone charging area. |
|---|---|

1. Check whether there are metal hard objects in the wireless charging area of the phone?

Yes

Put aside the hard metal objects.

No

Replace the wireless phone charging module

Instrumentation and Alarm System

Combination Instrument

Diagnosis Description

Introduction

When diagnosing the combination instrument faults, in order to understand and get familiar with the working principle of combination instrument, go to the description and operation overview. Confirm the faults described by the customer before diagnosis, and then analyze the cause of the combination instrument fault, so as to confirm the correct fault diagnosis procedure. For inspection and measurement on combination instrument lines and components, give priority to the data flow function to improve diagnostic efficiency and shorten maintenance time. After the fault is confirmed, the precautions and warnings should be understood when repairing the combination instrument, and the standard operation procedure should be implemented. Check the combination instrument and confirm its working condition after repair.

General equipment

- Multimeter
- VDS

Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|---|---|
| B2342 | Instrument internal fault | B2342 Internal Fault of Instrument |
| B234A | CAN bus receives coolant temperature signal error | B234A CAN Bus Receives Incorrect Coolant Temperature Signal |
| B234C | CAN bus receives speed signal error | B234C CAN Bus Does Not Detect Motor Speed Signal |
| B234D | Information switch button input device is short-circuited | B234D Information Switching Key Input Device Short-circuited |
| U1101 | Communication between instrument and combination switch interrupted | U1101 Communication between Instrument and Combination Switch Interrupted |
| U1103 | Communication between instrument and SRS interrupted | U1103 Communication between Instrument and SRS Interrupted |
| U0146 | Instrument panel and gateway communication interrupted | U0146 Communication between Instrument and Gateway Interrupted |
| U0164 | Communication with Air Conditioner Failed | U0164 Communication with A/C Failed |
| U0245 | Communication between instrument and multimedia interrupted | U0245 Communication between Instrument Panel and Multimedia Interrupted |
| B2343 | Clock running fault | B2343 Clock Running Fault |
| B236009 | Display fault (backlight fault) or display chip fault | B236009 Display Fault (Backlight Fault) or Display Chip Fault |

B2342 Internal Fault of Instrument

DTC Description

| B2342 Internal Fault of Instrument | |
|------------------------------------|--|
| Symptom | Partial failure of combination instrument. |
| Possible Cause | Combination instrument internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of combination instrument. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the dashboard.

B234A CAN Bus Receives Incorrect Coolant Temperature Signal

DTC Description

| B234A CAN Bus Receives Incorrect Coolant Temperature Signal | |
|---|---|
| Symptom | Partial failure of combination instrument. |
| Possible Cause | <ol style="list-style-type: none"> 1. Plate heat exchanger water temperature sensor fault. 2. Smart integrated front drive control unit fault. 3. Combination instrument fault.. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of combination instrument. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the dynamic body control module DTC. |
|---|--|

1. Read the power body control module DTC.
2. Check whether the same DTC is displayed.

Yes

Enter “dynamic body control module” diagnosis.

No

Replace the dashboard.

B234C CAN Bus Does Not Detect Motor Speed Signal

DTC Description

| B234C CAN Bus Does Not Detect Motor Speed Signal | |
|--|--|
| Symptom | Partial failure of combination instrument. |
| Possible Cause | 1. Wheel speed sensor fault 2. Smart power brake controller fault. 3. Combination instrument fault.. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of combination instrument. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

| | |
|---|------------------------------|
| 2 | Check the DTC of EHB module. |
|---|------------------------------|

1. Read the DTC of the DTC electro-hydraulic brake module.
2. Clear DTCs.
3. Place the start/stop button in the OFF position and wait for a few seconds.
4. Place the start/stop button in ON position again, and read the DTC.
5. Check whether the same DTC is displayed.

Yes

Enter the "EHB" diagnosis.

No

Replace the dashboard.

B234D Information Switching Key Input Device Short-circuited**DTC Description**

| B234D Information Switching Key Input Device Short-circuited | |
|--|--|
| Symptom | Partial functions fails. |
| Possible Cause | 1. Steering wheel switch group fault. 2. Combination instrument fault.. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of combination instrument. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

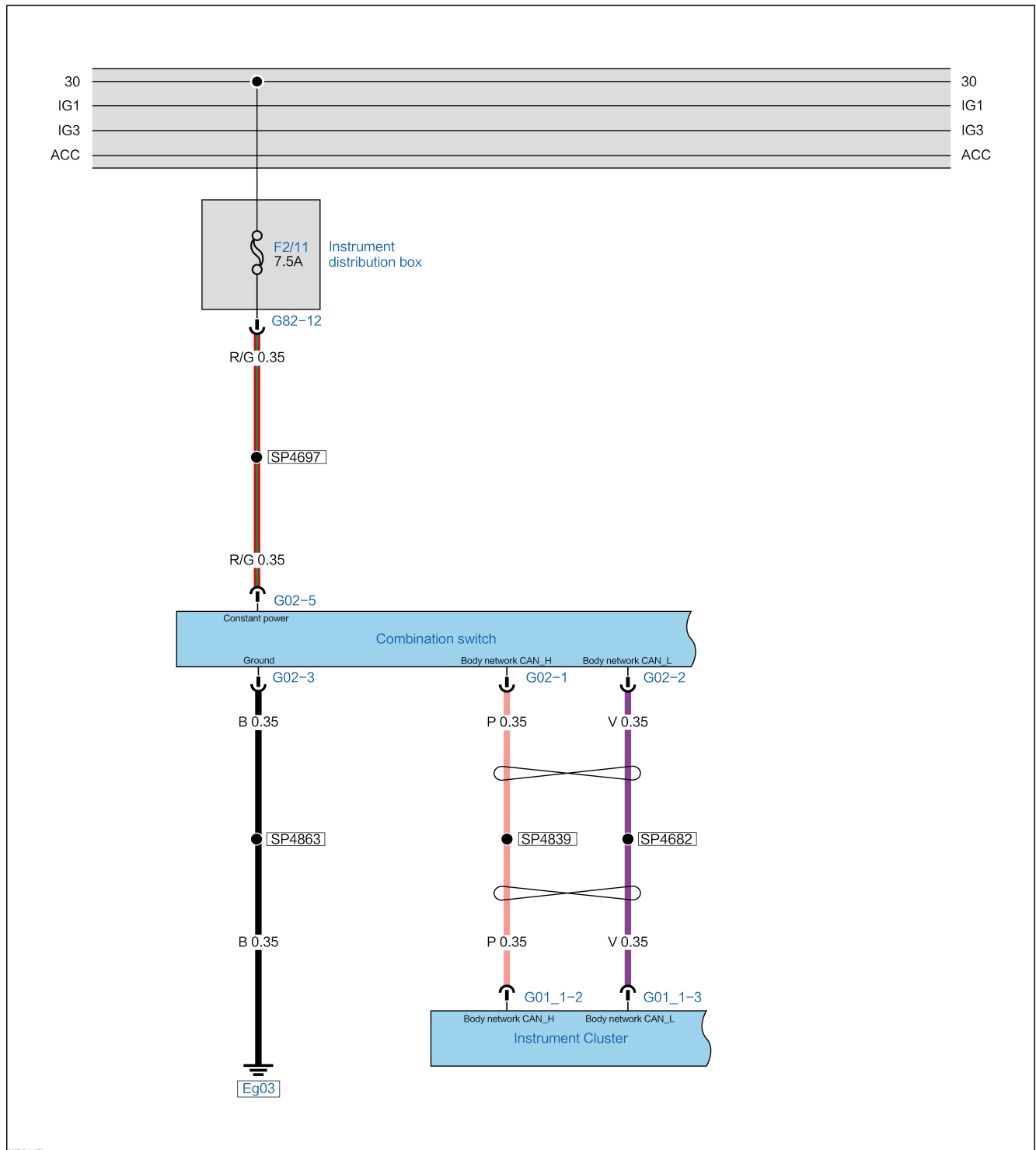
Replace the steering wheel switch group.

U1101 Communication between Instrument and Combination Switch Interrupted

DTC Description

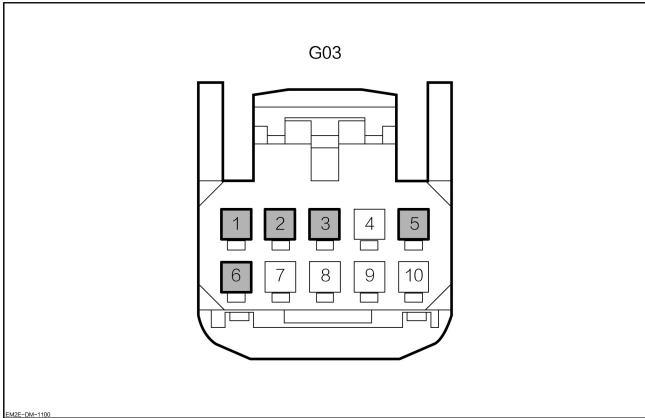
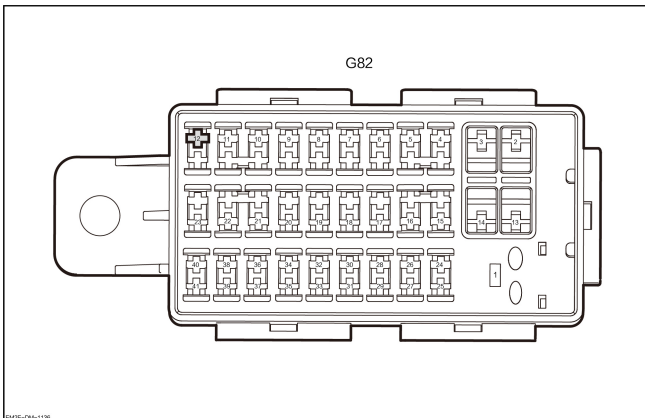
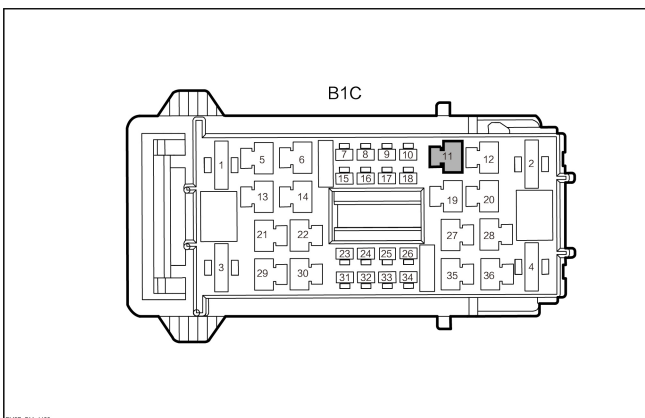
| U1101 Communication between Instrument and Combination Switch Interrupted | |
|---|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Fuse fault.2. Harness or connector fault.3. Multi-function display fault.4. Multi-function switch fault |
| Fault setting conditions | Communication interrupt between instrument and combination switch |
| Trigger fault conditions | DTC is generated when the combination instrument does not receive a combination switch message for a certain period of time. |

Circuit Diagram



SCHE-DM-1078

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-----------------------------------|
| <p style="text-align: center;">Combination Switch</p>  <p style="text-align: center;">G03</p> | 1 | Vehicle body CAN-H |
| | 2 | Vehicle body CAN-L |
| | 3 | Ground |
| | 5 | Constant power |
| | 6 | IG1 power supply |
| <p style="text-align: center;">Instrument fuse box</p>  <p style="text-align: center;">G82</p> | 12 | Combination switch constant power |
| <p style="text-align: center;">Front compartment fuse box</p>  <p style="text-align: center;">B1C</p> | 11 | Combination switch IG1 power |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the combination switch passes the network detection?

Yes

Go to step 10

No

| | |
|---|-------------|
| 2 | Check fuses |
|---|-------------|

1. Check whether the front compartment fuse box fuse F1/37 (7.5 A) is normal.
2. Check whether the instrument fuse box fuse F2/11 (7.5 A) is normal?

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the combination switch harness and connector. |
|---|---|

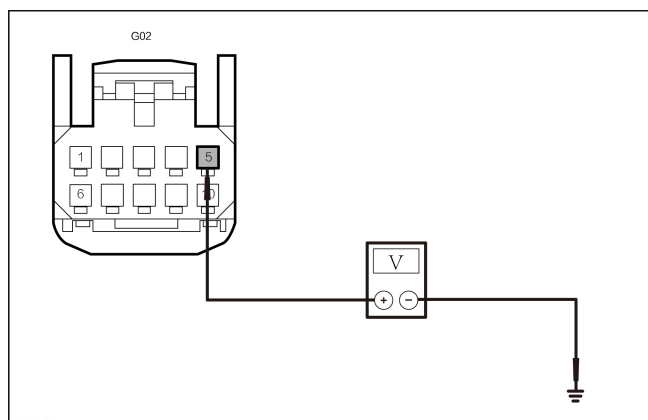
1. Set the START/STOP button to “OFF” .
2. Disconnect the combination switch harness connector G02.
3. Check whether the combination switch harness connector G02 is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the combination switch constant power. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of combination switch G02-5 and the ground.

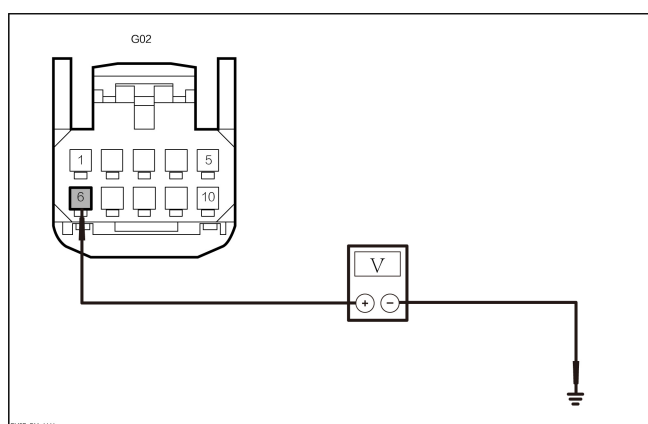
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G02-5 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

No Go to step 6

Yes

5 Check the combination switch IG1 power supply.



1. Measure the voltage between the harness connector of combination switch G02-6 and the ground.

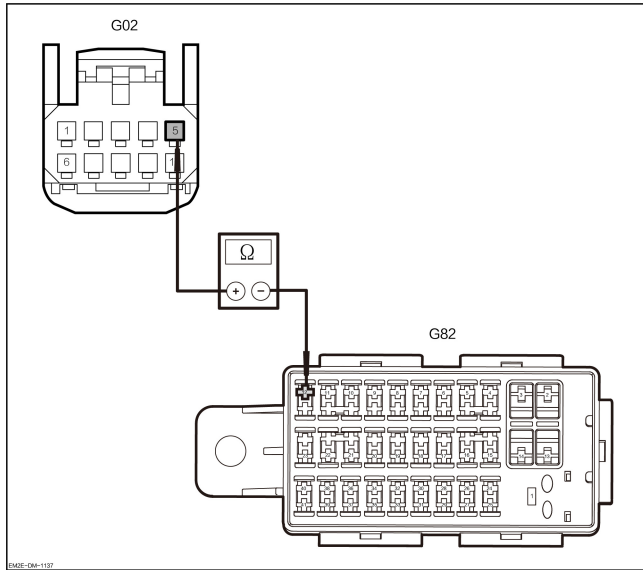
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G02-6 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

No Go to step 7

Yes Go to step 8

6 Check whether the constant power supply of combination switch is open circuited.



1. Disconnect the harness connector of instrument fuse box G82.
2. Measure the resistance value between the combination switch harness connector G02-5 and the instrument fuse box harness connector G82-12.

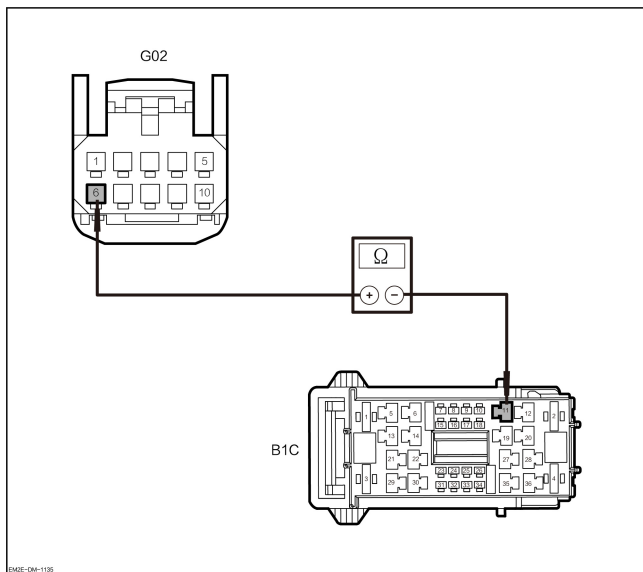
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| G02-5 | G82-12 | Through-out | Lower than 1 Ω |

3. Check whether the results are normal.

No → Maintain or replace the harness

Yes → Replace the instrument fuse box.

7 Check whether the IG1 power supply of combination switch is open circuited.



1. Disconnect the front compartment fuse box harness connector B1C.
2. Measure the resistance value between the combination switch harness connector G02-6 and the instrument fuse box harness connector B1C-11.

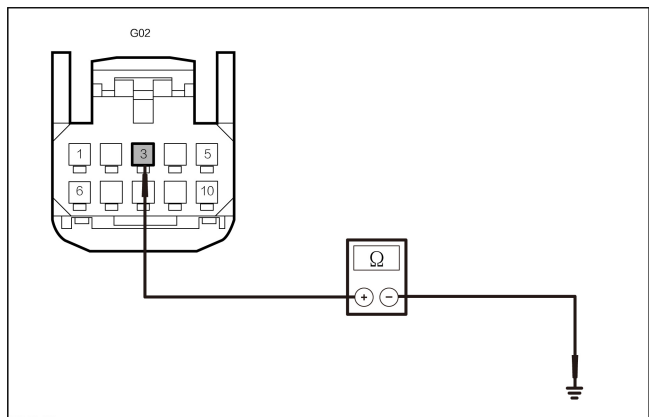
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| G02-6 | B1C-11 | Through-out | Lower than 1 Ω |

3. Check whether the results are normal.

No → Maintain or replace the harness

Yes → Replace the front compartment fuse box.

8 Check the combination switch for open circuit to ground line.



1. Measure the resistance between the harness connector of combination switch G02-3 and the ground.

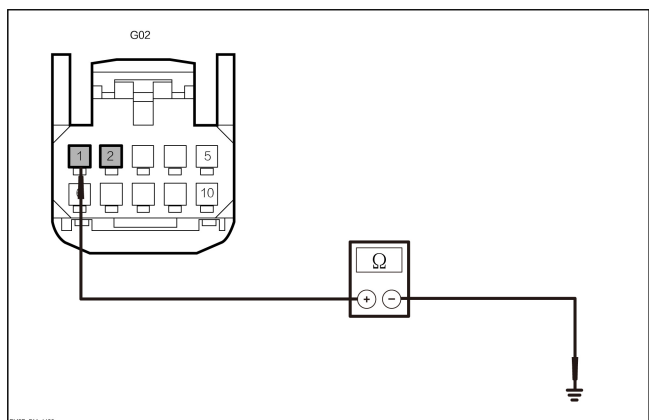
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G02-3 | Ground | Through- out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

9 Check the combination switch CAN line.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of combination switch G02-1 and the ground.
3. Measure the voltage between the harness connector of combination switch G02-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G02-1 | Ground | Through- out | 2.5~3.5V |
| G02-2 | | | 1.5~2.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the combination switch.

10 Check the DTC of combination switch.

1. Read the DTC of combination switch with VDS.
2. Check whether other DTC exists.

Yes → Enter the “combination switch” diagnosis.

No

| | |
|----|--|
| 11 | Check the DTC of combination instrument. |
|----|--|

1. Read the DTC of combination instrument with VDS
2. Check whether other DTC exists.

Yes

Enter the “combination instrument” diagnosis.

No

| | |
|----|---------------------------------|
| 12 | Check the DTC of other modules. |
|----|---------------------------------|

1. Does the other module read the DTC that the communication with the combination switch is interrupted?

Yes

Replace the combination switch.

No

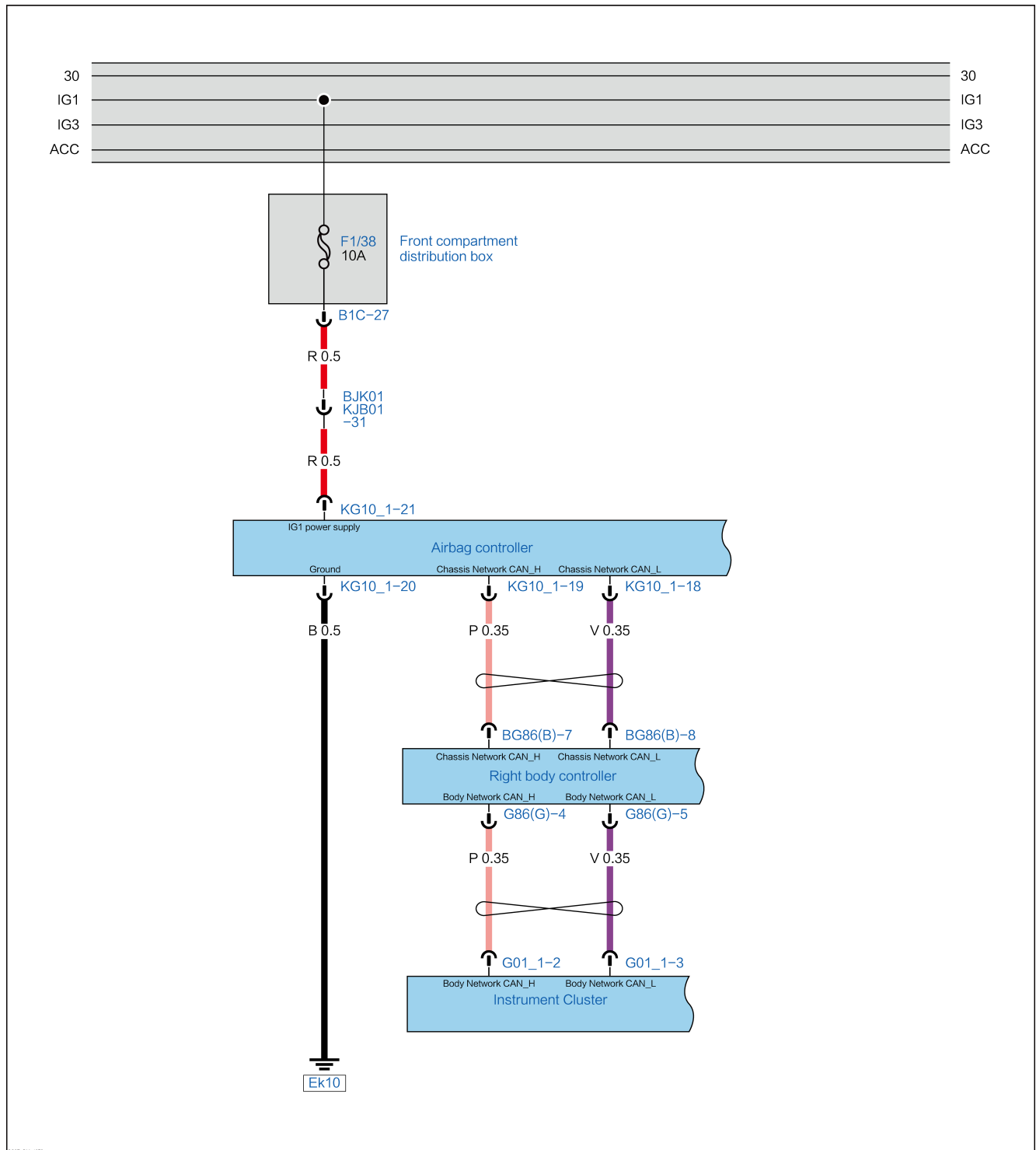
Replace the dashboard.

U1103 Communication between Instrument and SRS Interrupted

DTC Description

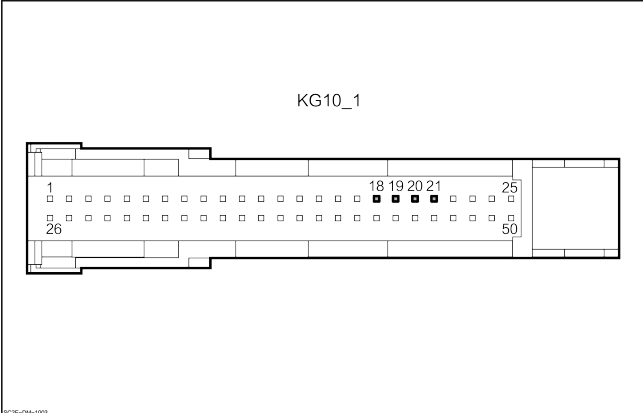
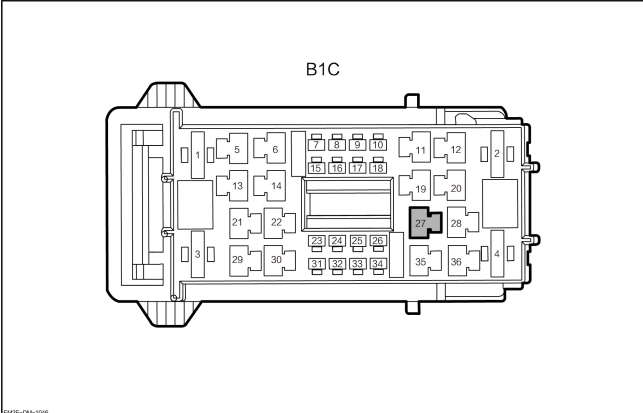
| U1103 Communication between Instrument and SRS Interrupted | |
|--|--|
| Symptom | Partial failure of combination instrument. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Harness or connector fault. 3. Combination instrument fault.. 4. Airbag control unit fault. |
| Fault setting conditions | Loss of communication between combination instrument and SRS |
| Trigger fault conditions | When loss of communication between instrument and SRS is detected, a DTC will be generated. |

Circuit Diagram



SCHE-DM-1079

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p style="text-align: center;">Airbag control unit</p> <p style="text-align: center;">KG10_1</p>  <p><small>EMEC-DW-1003</small></p> | 18 | Chassis network CAN_L |
| | 19 | Chassis network CAN_H |
| | 20 | Ground |
| | 21 | IG1 power supply |
| <p style="text-align: center;">Front compartment fuse box</p> <p style="text-align: center;">B1C</p>  <p><small>EMEC-DW-1006</small></p> | 27 | Airbag control module IG1 power supply |

Diagnostic Steps

1 Check the communication network.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check if the airbag passes the network detection?

Yes → Go to step 8

No

2 Check the airbag fuses.

1. Check whether the front compartment fuse box fuse F1/38 (10A) is normal or not.

No → Replace the fuse

Yes

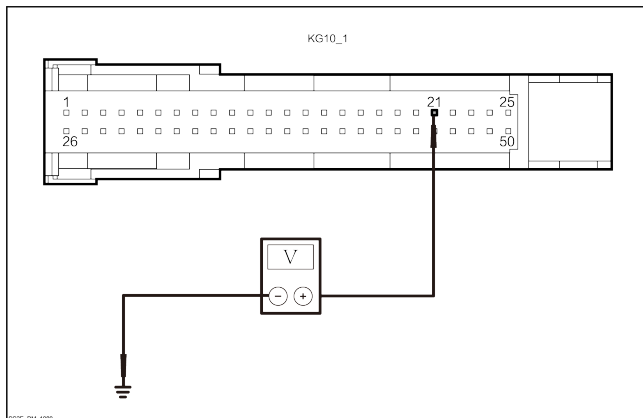
3 Check the airbag control module harness and connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of airbag control module KG10_1.
3. Check whether the airbag control module connector is normal.

No → Repair or replace the wire harness

Yes

4 Check the airbag control module IG1 power supply.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between ACU harness connector KG10_1-21 and the ground.

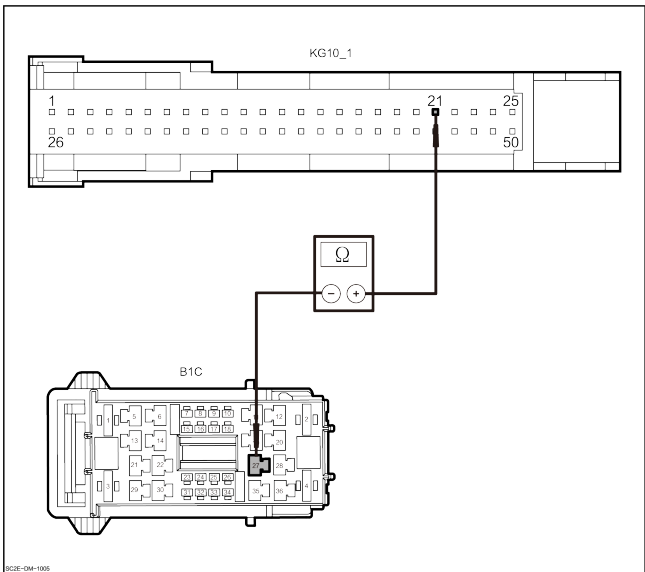
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| KG10_1-21 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes Go to step 6

No

5 Check whether the power supply of the airbag control module is open circuited.



1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1C.
3. Measure the resistance between the harness connector of airbag control module KG10_1-21 and the harness connector of front compartment fuse box B1C-27.

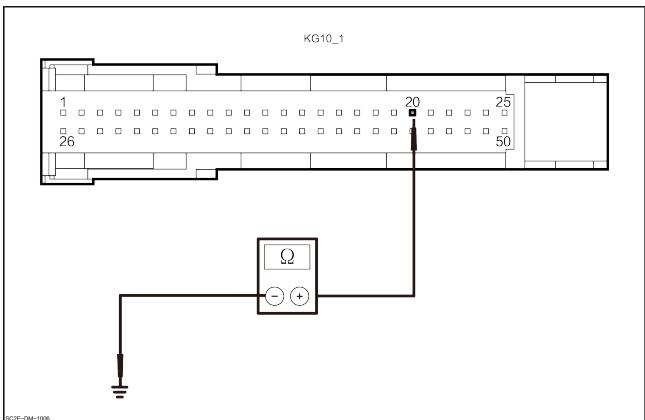
| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| KG10_1- 21 | B1C-27 | Through- out | Lower than 1Ω |

4. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the front compartment fuse box.

6 Check the airbag control module ground line.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance between the harness connector KG10_1-20 and the ground.

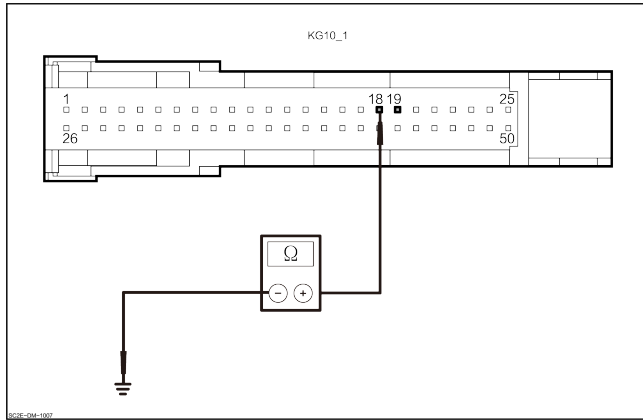
| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| KG10_1- 20 | Ground | Through- out | Lower than 1Ω |

3. Check whether the results are normal.

No Repair or replace the wire harness

Yes

7 Check whether the airbag control module CAN is open circuited.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between ACU harness connector KG10_1–18 and the ground.
3. Measure the voltage between ACU harness connector KG10_1–19 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| KG10_1–18 | Ground | Through-out | 1.5~2.5V |
| KG10_1–19 | | | 2.5~3.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the airbag control unit.

8 Check the DTC of airbag system.

1. Read the DTC of airbag with VDS.
2. Check whether other DTC exists.

Yes → Enter the “Airbag” diagnosis.

No

9 Check the DTC of combination instrument.

1. Read the DTC of combination instrument with VDS
2. Check whether other DTC exists.

Yes → Enter the “combination instrument” diagnosis.

No

10 Check the DTC of other modules.

1. Does the other module read the fault code of communication failure with the airbag ECU?

Yes → Replace the airbag control unit.

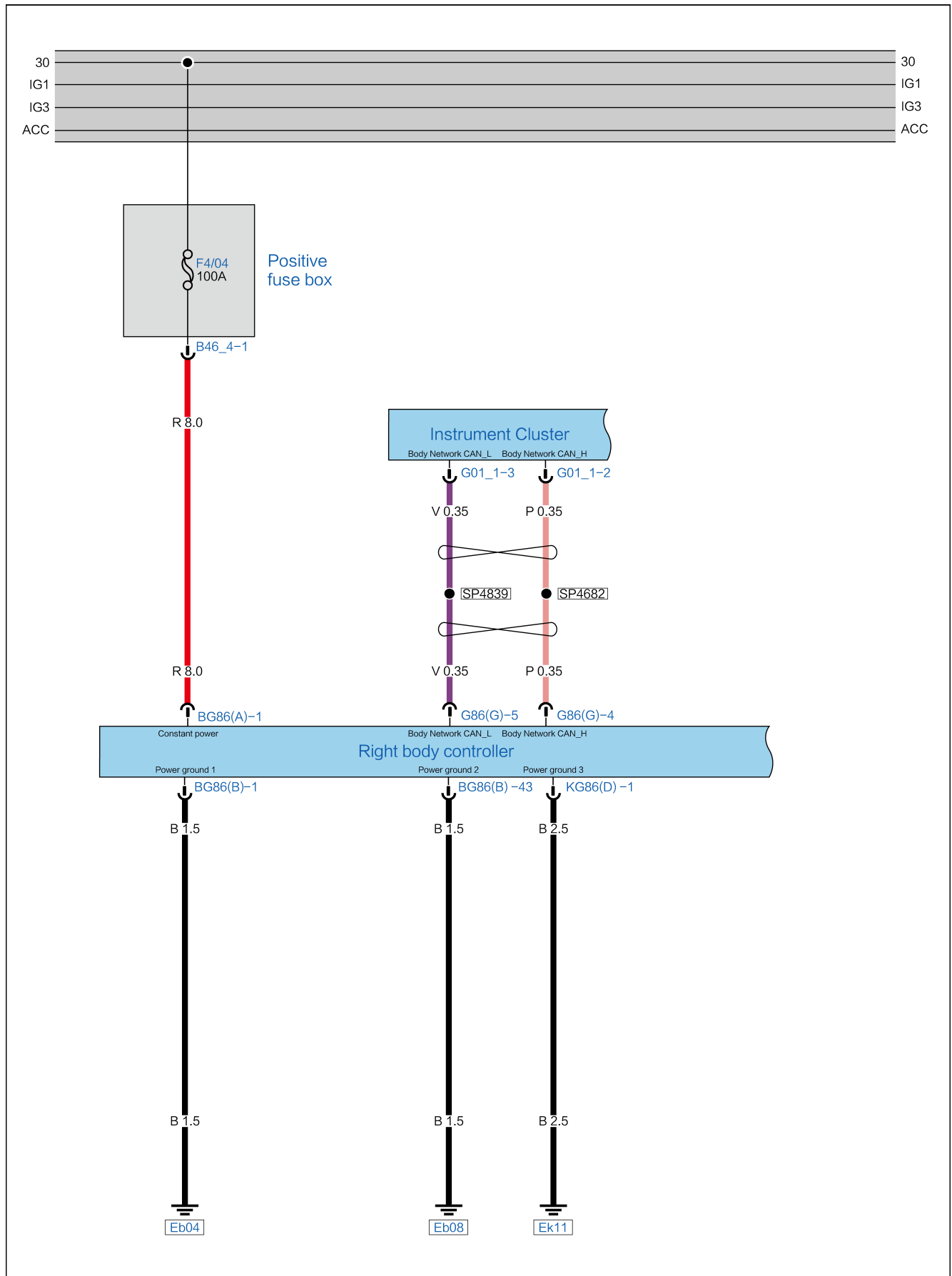
No → Replace the dashboard.

U0146 Communication between Instrument and Gateway Interrupted

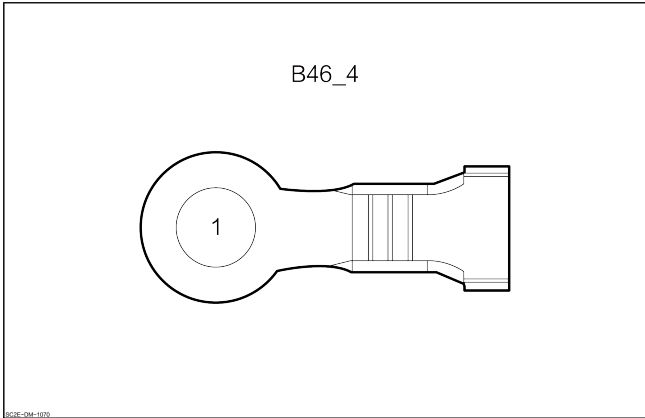
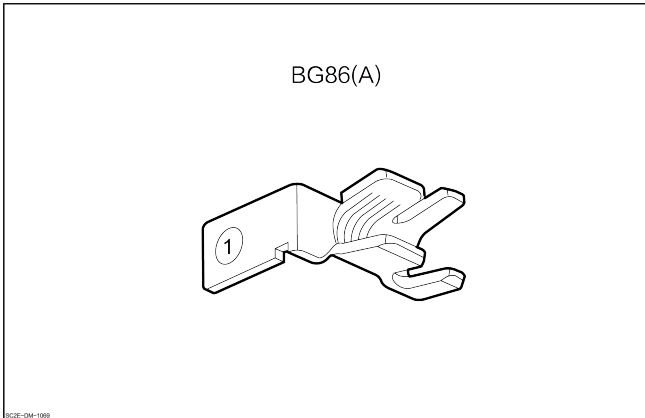
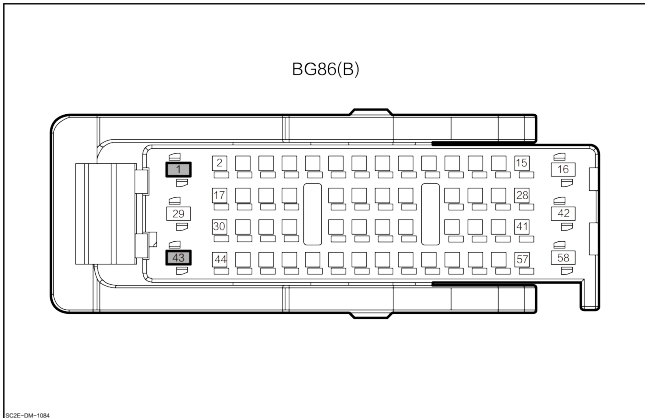
DTC Description

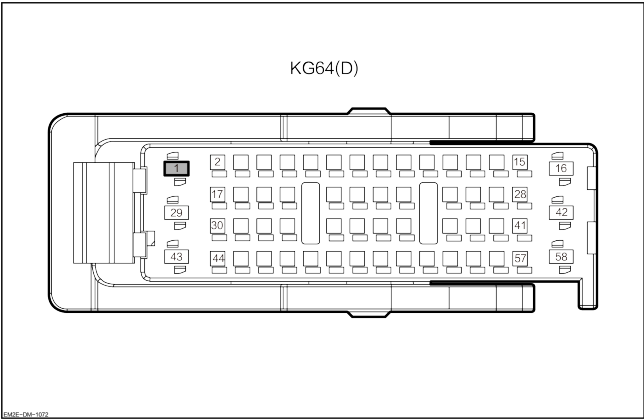
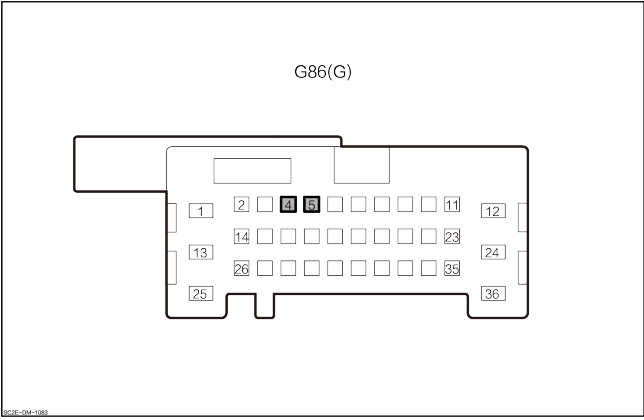
| U0146 Communication between Instrument and Gateway Interrupted | |
|--|--|
| Symptom | Partial failure of combination instrument. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Harness or connector fault. 3. Combination instrument fault.. 4. The right body control module fails. |
| Fault setting conditions | Communication interrupt between instrument and Gateway |
| Trigger fault conditions | When the bus is powered on, the communication between the instrument and the gateway fails, resulting in DTC. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p style="text-align: center;">Positive fuse box</p> <p style="text-align: center;">B46_4</p>  | 1 | Right body control module constant power |
| <p style="text-align: center;">Right body control module</p> <p style="text-align: center;">BG86(A)</p>  | 1 | Right body control module constant power |
| <p style="text-align: center;">Right body control module</p> <p style="text-align: center;">BG86(B)</p>  | 1 43 | Power ground 1 Power ground 2 |
| <p style="text-align: center;">Right body control module</p> | 1 | Power ground 3 |

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">KG64(D)</p>  <p style="text-align: center;"><small>KG64-DW-1072</small></p> | | |
| <p style="text-align: center;">Right body control module</p> <p style="text-align: center;">G86(G)</p>  <p style="text-align: center;"><small>G86-DW-1083</small></p> | 5 | Body CAN_L |
| | 4 | Body CAN_H |

Diagnostic Steps

1 Check the communication network.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the right body control module has passed the network test.

Yes Go to step 8

No

2 Check the fuse for right body control module.

1. Check the fuse F4/04(100A) in the positive fuse box for normal function.

No Replace the fuse

Yes

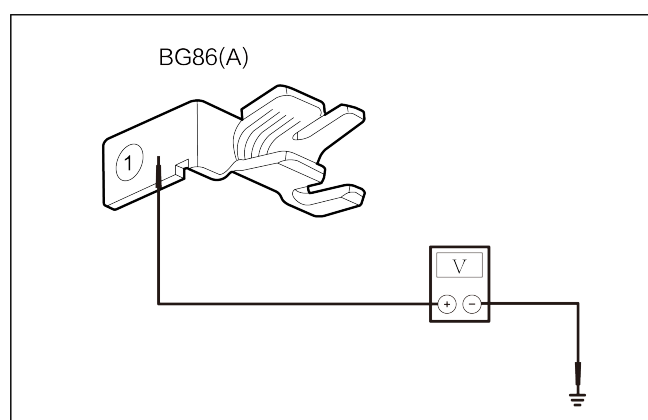
3 Check the harness and connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connectors of right body control module BG86(A), BG86(B) and KG86(D).
3. Check whether the harness connector of right body control module is normal?

No Repair or replace the wire harness

Yes

4 Check the constant power of right body control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the power terminal of right body control module BG86(A)–1 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG86(A)–1 | Ground | Through-out | 11–14V |

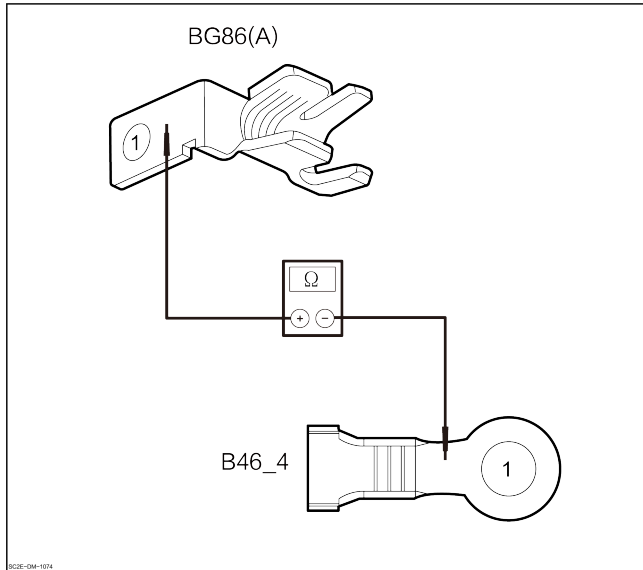
3. Check whether the results are normal.

Yes

Go to step 6

No

5 Check the power supply of right body control module for open circuit.



1. Set the START/STOP button to “OFF” .
2. Disconnect the power terminal of positive fuse box B46_4.
3. Measure the resistance between the power terminal of right body control module BG86(A)-1 and the power terminal of positive fuse box B46_4-1.

| Connector | | Condition | Resist- ance value |
|---------------|---------|-----------------|--------------------------|
| (+) | (-) | | |
| BG86(A)- 1 | B46_4-1 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

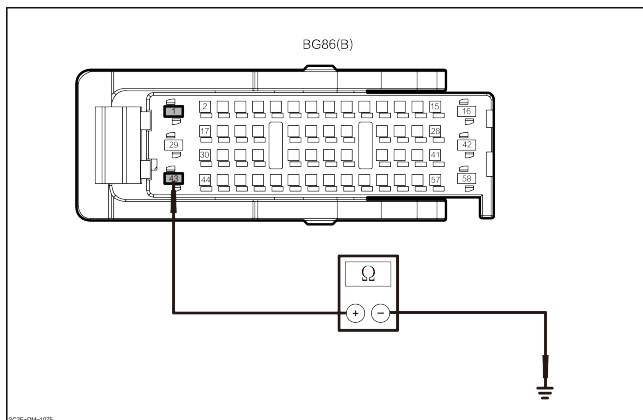
No

Repair or replace the wire harness

Yes

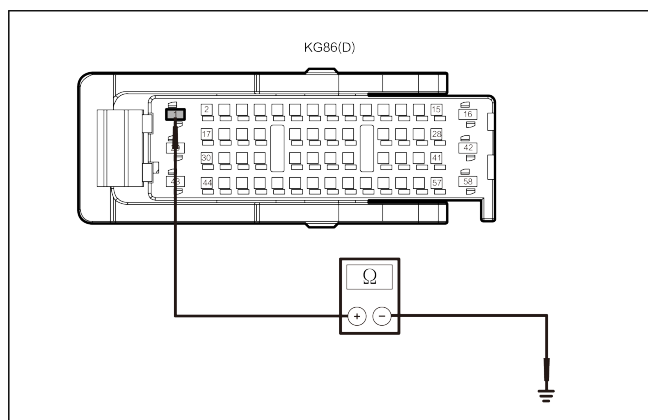
Replace the positive fuse box.

6 Check the ground line of right body control module.



1. Measure the resistance between the right body control module BG86(B)-1 and the ground.
2. Measure the resistance between the right body control module BG86(B)-43 and the ground.
3. Measure the resistance between the right body control module KG86(D)-1 and the ground.

| Connector | | Condition | Resist- ance value |
|----------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG86(B)- 1 | Ground | Through- out | Lower than 1 Ω |
| BG86(B)- 43 | | | |
| KG86(D)- 1 | | | |

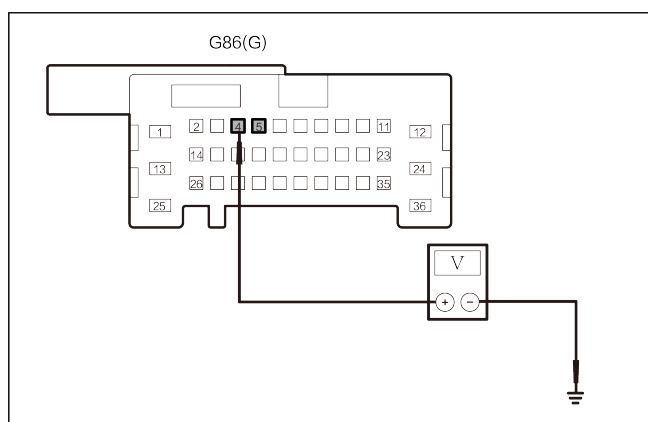


4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the CAN line of right body control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of right body control module G86(B)-4 and the ground.
3. Measure the voltage between the harness connector of right body control module G86(B)-5 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G86(B)-4 | Ground | Through-out | 2.5~3.5V |
| G86(B)-5 | | | 1.5~2.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the right body control module.

8 Check the DTC of right body control module.

1. Use a VDS to read the right body control module DTC.
2. Check whether other DTC exists.

Yes → Enter “right body control module” diagnosis.

No

9 Check the DTC of combination instrument.

1. Read the DTC of combination instrument with VDS
2. Check whether other DTC exists.

Yes

Enter the “combination instrument” diagnosis.

No

10

Check the DTC of other modules.

1. Does the other module read the loss of communication DTC with the gateway?

Yes

Replace the right body control module.

No

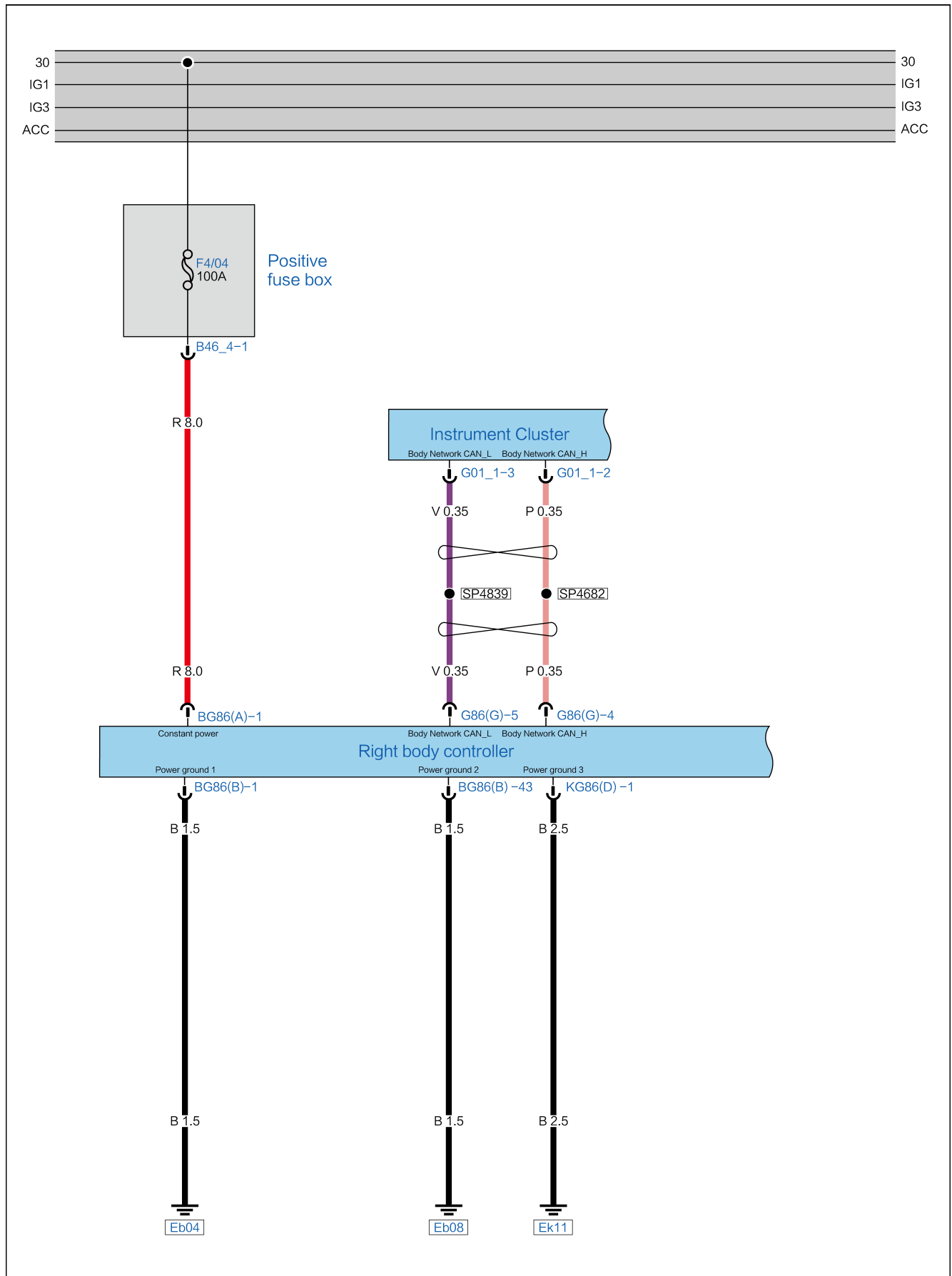
Replace the dashboard.

U0164 communication with air conditioning system lost

DTC Description

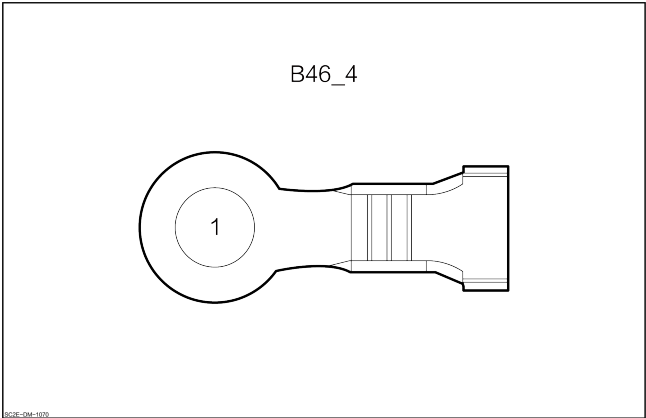
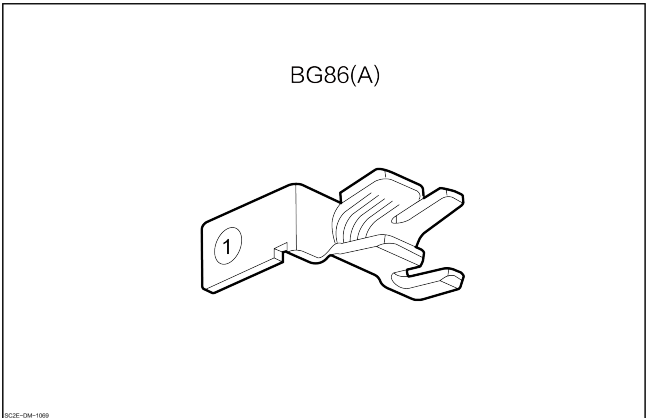
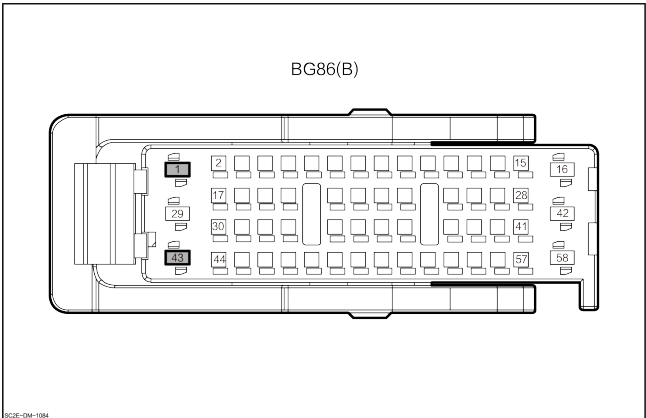
| U0164 communication with air conditioning system lost | |
|---|--|
| Symptom | Partial failure of combination instrument. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Harness or connector fault. 3. Combination instrument fault.. 4. The right body control module fails. |
| Fault setting conditions | Communication with air conditioning system lost. |
| Trigger fault conditions | During the vehicle powered on process, if the combination instrument fails to receive any air conditioning system message, this DTC is generated. |

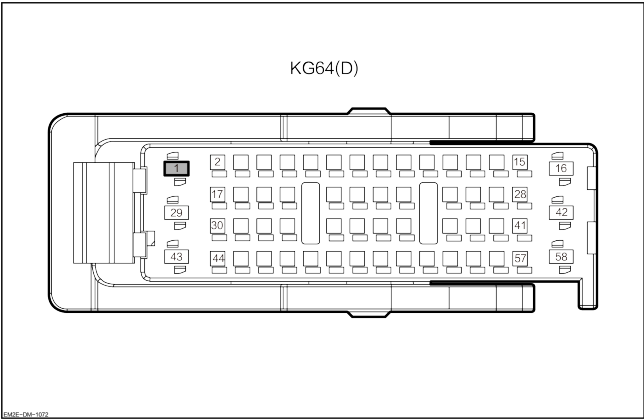
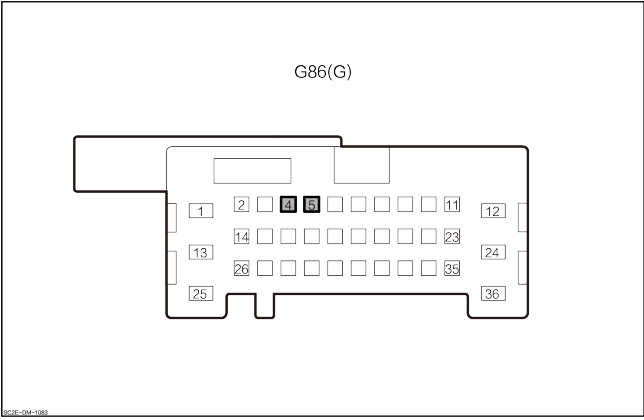
Circuit Diagram



82CE-04-1081

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Positive fuse box</p> <p style="text-align: center;">B46_4</p>  <p><small>829E-0M-1070</small></p> | 1 | Right body control module constant power |
| <p style="text-align: center;">Right body control module</p> <p style="text-align: center;">BG86(A)</p>  <p><small>829E-0M-1089</small></p> | 1 | Right body control module constant power |
| <p style="text-align: center;">Right body control module</p> <p style="text-align: center;">BG86(B)</p>  <p><small>829E-0M-1084</small></p> | 1 | Power ground 1 |
| | 43 | Power ground 2 |
| <p style="text-align: center;">Right body control module</p> | 1 | Power ground 3 |

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">KG64(D)</p>  <p style="text-align: left; font-size: small;">KG64-DW-1072</p> | 5 | Body CAN_L |
| <p style="text-align: center;">Right body control module</p> <p style="text-align: center;">G86(G)</p>  <p style="text-align: left; font-size: small;">G86-DW-1083</p> | 4 | Body CAN_H |

Diagnostic Steps

1 Check the communication network.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Use a VDS to execute the network test.
4. Check whether the right body control module has passed the network test.

Yes Go to step 8

No

2 Check the fuse for right body control module.

1. Check the fuse F4/04(100A) in the positive fuse box for normal function.

No Replace the fuse

Yes

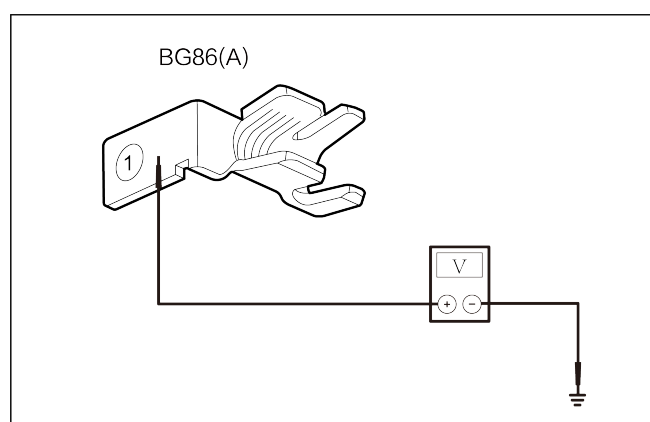
3 Check the harness and connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connectors of right body control module BG86(A), BG86(B) and KG86(D).
3. Check whether the harness connector of right body control module is normal?

No Repair or replace the wire harness

Yes

4 Check the constant power of right body control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the power terminal of right body control module BG86(A)–1 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG86(A)–1 | Ground | Through-out | 11–14V |

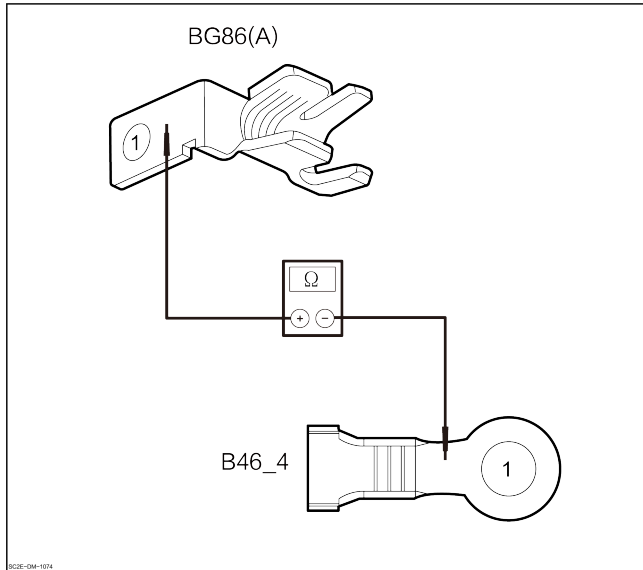
3. Check whether the results are normal.

Yes

Go to step 6

No

5 Check the power supply of right body control module for open circuit.



1. Set the START/STOP button to “OFF” .
2. Disconnect the power terminal of front compartment fuse box B46_4.
3. Measure the resistance between the power terminal of right body control module BG86(A)-1 and the power terminal of front compartment fuse box B46_4-1.

| Connector | | Condition | Resist- ance value |
|---------------|---------|-----------------|--------------------------|
| (+) | (-) | | |
| BG86(A)- 1 | B46_4-1 | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

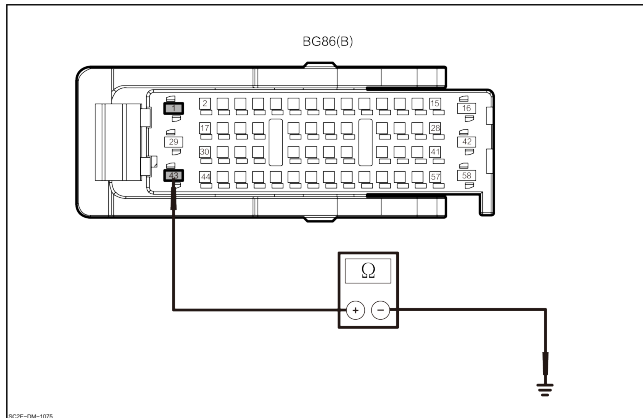
No

Repair or replace the wire harness

Yes

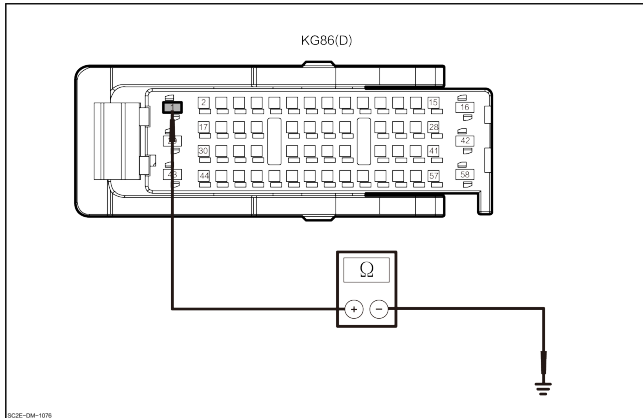
Replace the front compartment fuse box.

6 Check the ground line of right body control module.



1. Measure the resistance between the right body control module BG86(B)-1 and the ground.
2. Measure the resistance between the right body control module BG86(B)-43 and the ground.
3. Measure the resistance between the right body control module KG86(D)-1 and the ground.

| Connector | | Condition | Resist- ance value |
|----------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG86(B)- 1 | Ground | Through- out | Lower than 1 Ω |
| BG86(B)- 43 | | | |



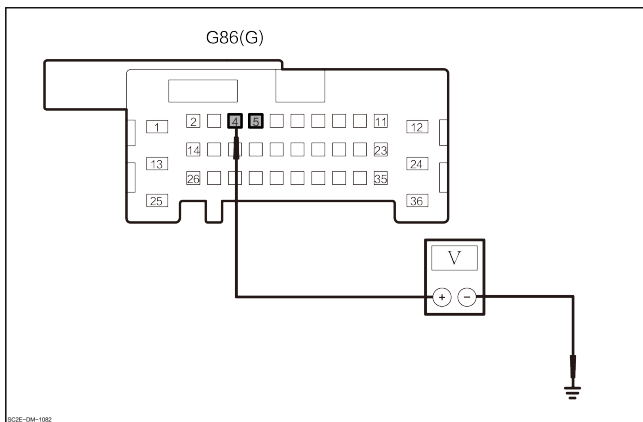
| | | | |
|---------------|--|--|--|
| KG86(D) -1 | | | |
|---------------|--|--|--|

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the CAN line of right body control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of right body control module G86(B)-4 and the ground.
3. Measure the voltage between the harness connector of right body control module G86(B)-5 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G86(B)-4 | Ground | Through-out | 2.5~3.5V |
| G86(B)-5 | | | 1.5~2.5V |

4. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the right body control module.

8 Check the DTC of right body control module.

1. Use a VDS to read the right body control module DTC.
2. Check whether other DTC exists.

Yes → Enter “right body control module” diagnosis.

No

9 Check the DTC of combination instrument.

1. Read the DTC of combination instrument with VDS
2. Check whether other DTC exists.

Yes

Enter the “combination instrument” diagnosis.

No

| | |
|----|---------------------------------|
| 10 | Check the DTC of other modules. |
|----|---------------------------------|

1. Whether the “communication with air conditioner lost” DTC is read in other modules ?

Yes

Replace the right body control module.

No

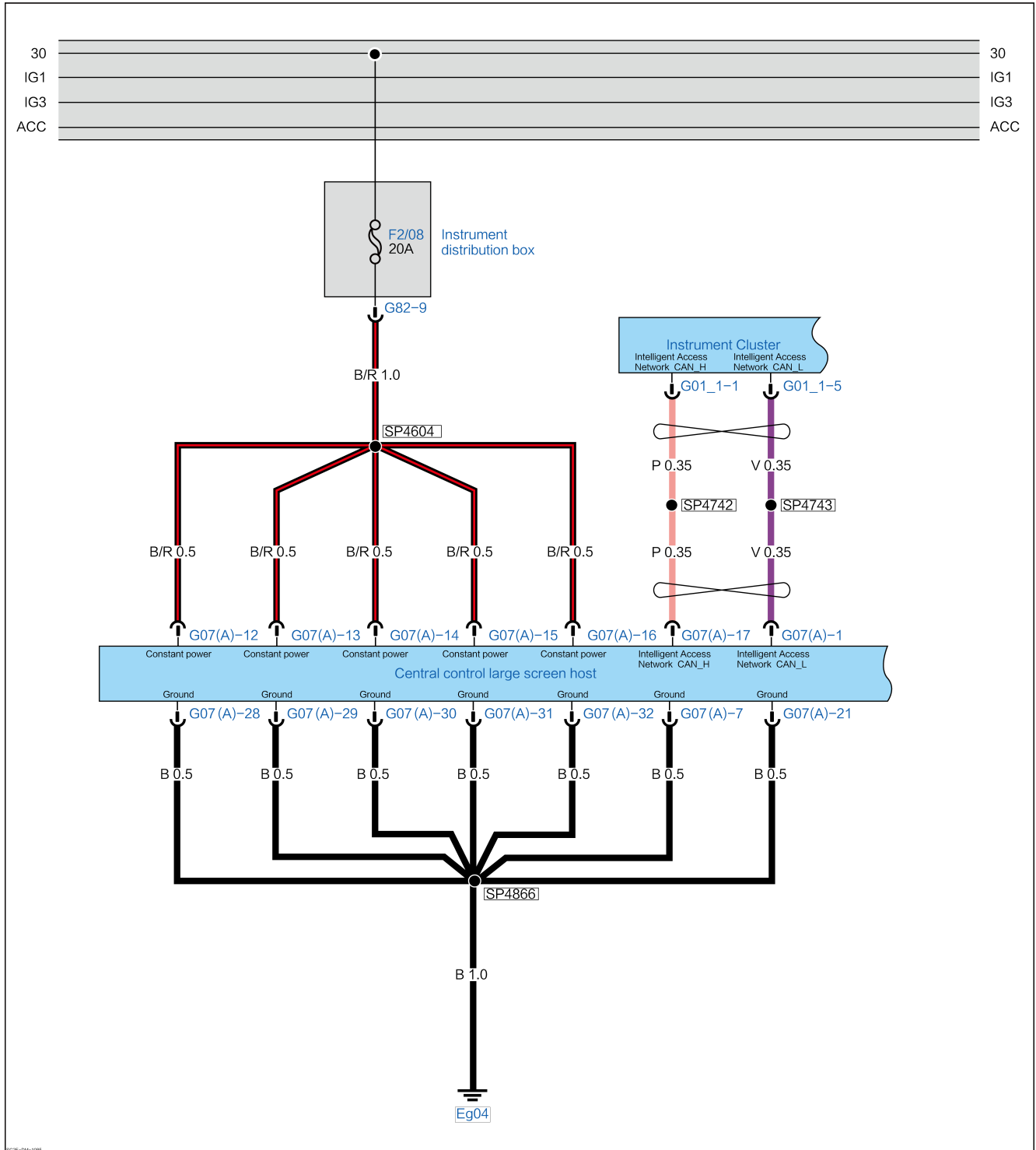
Replace the dashboard.

U0245 Communication between Instrument Panel and Multimedia Interrupted

DTC Description

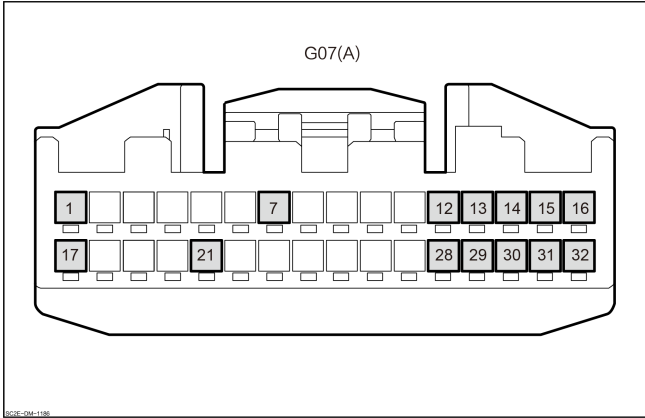
| U0245 Communication between Instrument Panel and Multimedia Interrupted | |
|---|--|
| Symptom | Partial failure of combination instrument. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Harness or connector fault. 3. Combination instrument fault.. 4. Multi-media fault. |
| Fault setting conditions | Communication interrupt between instrument panel and multi-media |
| Trigger fault conditions | When the combination instrument fails to receive the multimedia message for a certain period of time, DTC is generated. |

Circuit Diagram



SCHE-DM-1985

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|-------------------------------------|
| <p style="text-align: center;">Central Control Large Screen Host</p>  <p style="text-align: center;">G07(A)</p> | 1 | Intelligent access network CAN_H |
| | 7 | Ground |
| | 12 | Constant power |
| | 13 | Constant power |
| | 14 | Constant power |
| | 15 | Constant power |
| | 16 | Constant power |
| | 17 | Intelligent access network CAN_L |
| | 21 | Ground |
| | 28 | Ground |
| | 29 | Ground |
| | 30 | Ground |
| | 31 | Ground |
| | 32 | Ground |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of combination instrument. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|----------------------------------|
| 2 | Check the communication network. |
|---|----------------------------------|

1. Use a VDS to execute the network test.
2. Check whether the central control large screen host has passed the network detection.

Yes

Go to step 9

No

| | |
|---|--|
| 3 | Check the fuse of the central control large screen host. |
|---|--|

1. Check whether the instrument fuse box fuse F2/08 (20 A) is normal?

No

Replace the fuse

Yes

| | |
|---|---|
| 4 | Check the central control large screen host harness and connector |
|---|---|

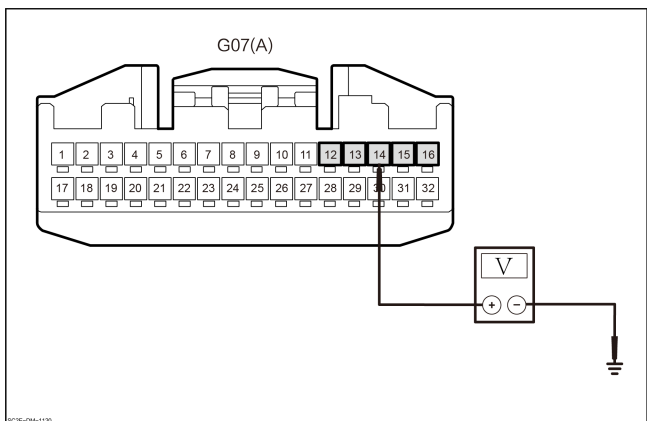
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of central control large screen host G07(A).
3. Check whether the central control large screen host harness connector is normal?

No

Repair or replace the wire harness

Yes

5 Check the constant power supply of the central control large screen host.



1. Measure the voltage value between the central control large screen host harness connector G07 (A) –12 and the ground.
2. Measure the voltage value between the central control large screen host harness connector G07 (A) –13 and the ground.
3. Measure the voltage value between the central control large screen host harness connector G07 (A) –14 and the ground.
4. Measure the voltage value between the central control large screen host harness connector G07 (A) –15 and the ground.
5. Measure the voltage value between the central control large screen host harness connector G07 (A) –16 and the ground.

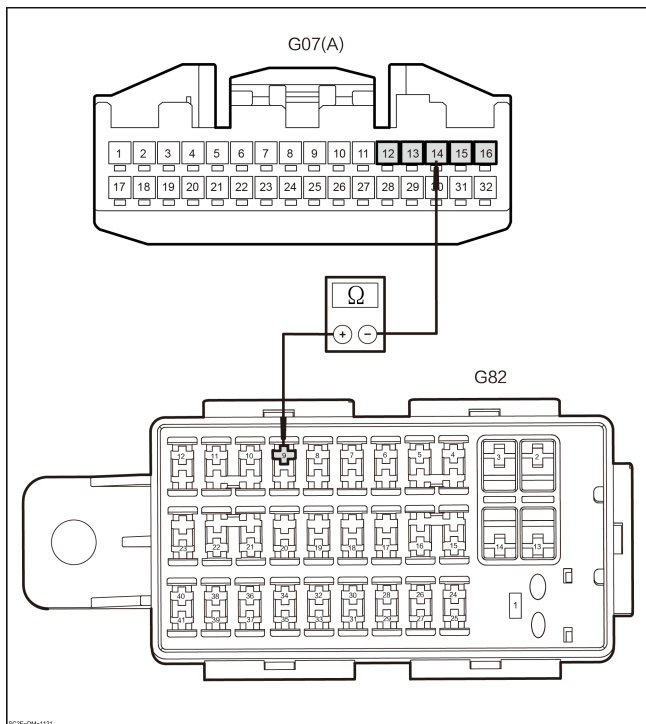
| Connector | | Condition | Voltage value |
|---------------|--------|-------------|---------------|
| (+) | (-) | | |
| G07(A)-1 2 | Ground | Through-out | 11~14V |
| G07(A)-1 3 | | | |
| G07(A)-1 4 | | | |
| G07(A)-1 5 | | | |
| G07(A)-1 6 | | | |

6. Check whether the results are normal.

Yes Go to step 7

No

6 Check the constant power supply of the central control large screen host for open circuit.



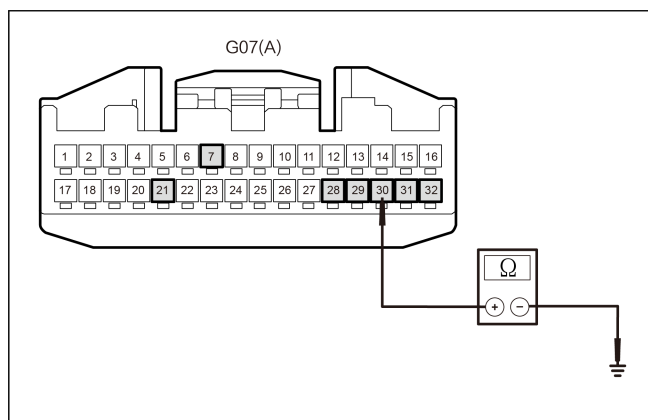
1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector G82.
3. Measure the resistance value between the central control large screen host harness connector G07 (A) –12 and the instrument fuse box harness connector G82–9.
4. Measure the resistance value between the central control large screen host harness connector G07 (A) –13 and the instrument fuse box harness connector G82–9.
5. Measure the resistance value between the central control large screen host harness connector G07 (A) –14 and the instrument fuse box harness connector G82–9.
6. Measure the resistance value between the central control large screen host harness connector G07 (A) –15 and the instrument fuse box harness connector G82–9.
7. Measure the resistance value between the central control large screen host harness connector G07 (A) –16 and the instrument fuse box harness connector G82–9.

| Connector | | Condition | Resist- ance value |
|---------------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| G07(A)-1 2 | G82-9 | Through- out | Lower than 1Ω |
| G07(A)-1 3 | | | |
| G07(A)-1 4 | | | |
| G07(A)-1 5 | | | |
| G07(A)-1 6 | | | |

8. Check whether the results are normal.

- No ➤ Repair or replace the wire harness
- Yes ➤ Replace the instrument fuse box, and the diagnosis is finished.

| | |
|---|--|
| 7 | Check the ground circuit of the central control large screen host. |
|---|--|



1. Measure the resistance value between the central control large screen host harness connector G07 (A)–7 and the ground.
2. Measure the resistance value between the central control large screen host harness connector G07 (A)–21 and the ground.
3. Measure the resistance value between the central control large screen host harness connector G07 (A)–28 and the ground.
4. Measure the resistance value between the central control large screen host harness connector G07 (A)–29 and the ground.
5. Measure the resistance value between the central control large screen host harness connector G07 (A)–30 and the ground.
6. Measure the resistance value between the central control large screen host harness connector G07 (A)–31 and the ground.
7. Measure the resistance value between the central control large screen host harness connector G07 (A)–32 and the ground.

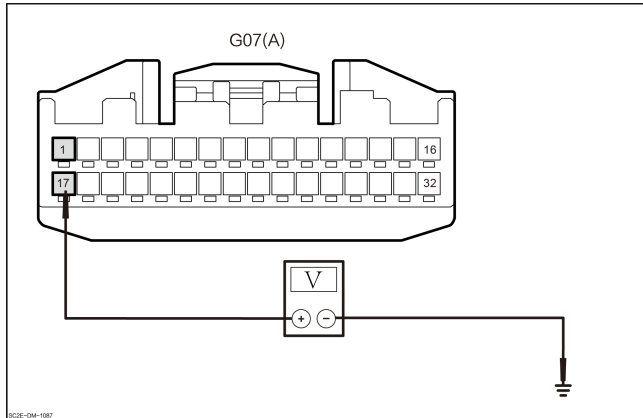
| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G07(A)–7 | Ground | Through- out | Lower than 1Ω |
| G07(A)–2 1 | | | |
| G07(A)–2 8 | | | |
| G07(A)–2 9 | | | |
| G07(A)–3 0 | | | |
| G07(A)–3 1 | | | |
| G07(A)–3 2 | | | |

8. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

| | |
|---|--|
| 8 | Check the CAN line of central control large screen host. |
|---|--|



1. Measure the voltage value between the central control large screen host harness connector G07 (A) –1 and the ground.
2. Measure the voltage value between the central control large screen host harness connector G07 (A) –17 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G07(A)-1 | | Through-out | 1.5~2.5V |
| G07(A)-17 | Ground | | 2.5~3.5V |

3. Check whether the results are normal.

No → Enter the “CAN diagnosis”

Yes → Replace the central control large screen host.

9 Check the central control large screen host DTC.

1. Read the DTC of central control large screen host with scan tool.
2. Check whether DTC exists.

Yes → Enter the "Central Control Large Screen Host" diagnosis.

No

10 Check the DTC of right body control module.

1. Read the right body control module DTC using the tester.
2. Check whether DTC exists.

Yes → Enter “right body control module” diagnosis.

No

11 Check the DTC of other modules.

1. Does the communication timeout fault with multimedia read in other modules?

Yes → Replace the central control large screen host.

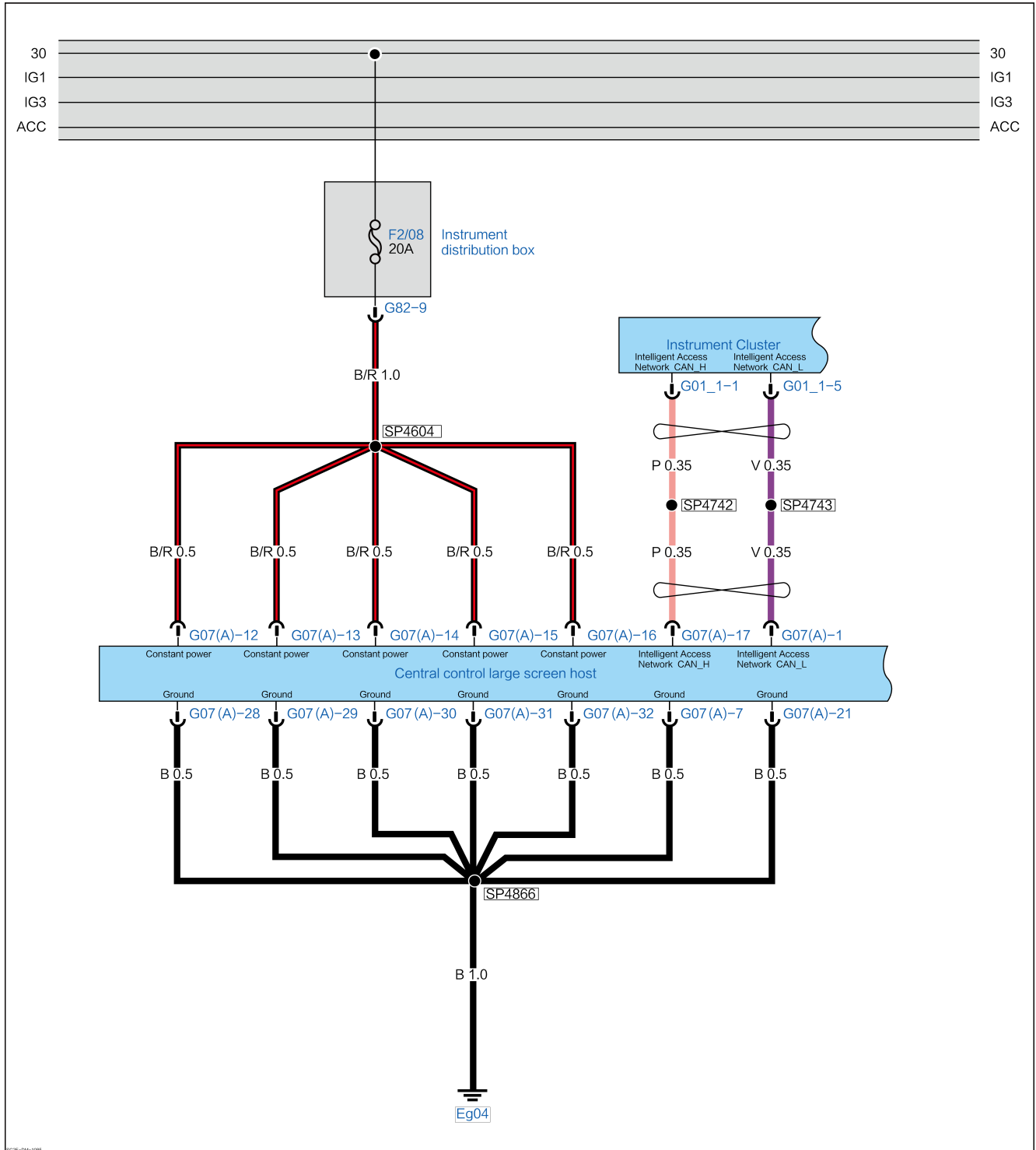
No → Replace the dashboard.

B2343 Clock Running Fault

DTC Description

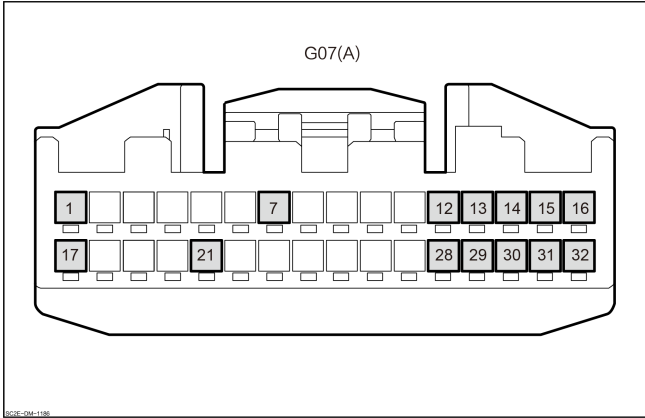
| B2343 Clock Running Fault | |
|---------------------------|--|
| Symptom | Partial failure of combination instrument. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse fault. 2. Harness or connector fault. 3. Combination instrument fault.. 4. Multi-media fault. |
| Fault setting conditions | Communication interrupt between instrument panel and multi-media |
| Trigger fault conditions | When the combination instrument fails to receive the multimedia message for a certain period of time, DTC is generated. |

Circuit Diagram



SCHE-DM-1985

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|-------------------------------------|
| <p style="text-align: center;">Central Control Large Screen Host</p>  <p style="text-align: center;">G07(A)</p> | 1 | Intelligent access network CAN_H |
| | 7 | Ground |
| | 12 | Constant power |
| | 13 | Constant power |
| | 14 | Constant power |
| | 15 | Constant power |
| | 16 | Constant power |
| | 17 | Intelligent access network CAN_L |
| | 21 | Ground |
| | 28 | Ground |
| | 29 | Ground |
| | 30 | Ground |
| | 31 | Ground |
| | 32 | Ground |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of combination instrument. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|----------------------------------|
| 2 | Check the communication network. |
|---|----------------------------------|

1. Use a VDS to execute the network test.
2. Check whether the central control large screen host has passed the network detection.

Yes

Go to step 9

No

| | |
|---|--|
| 3 | Check the fuse of the central control large screen host. |
|---|--|

1. Check whether the instrument fuse box fuse F2/08 (20 A) is normal?

No

Replace the fuse

Yes

| | |
|---|---|
| 4 | Check the central control large screen host harness and connector |
|---|---|

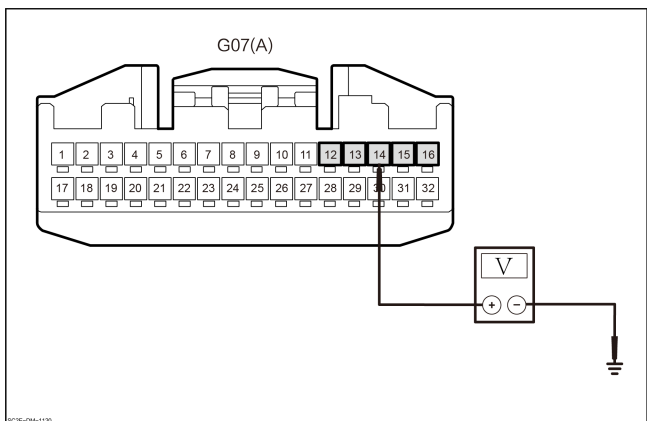
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of central control large screen host G07(A).
3. Check whether the central control large screen host harness connector is normal?

No

Repair or replace the wire harness

Yes

5 Check the constant power supply of the central control large screen host.



1. Measure the voltage value between the central control large screen host harness connector G07 (A) –12 and the ground.
2. Measure the voltage value between the central control large screen host harness connector G07 (A) –13 and the ground.
3. Measure the voltage value between the central control large screen host harness connector G07 (A) –14 and the ground.
4. Measure the voltage value between the central control large screen host harness connector G07 (A) –15 and the ground.
5. Measure the voltage value between the central control large screen host harness connector G07 (A) –16 and the ground.

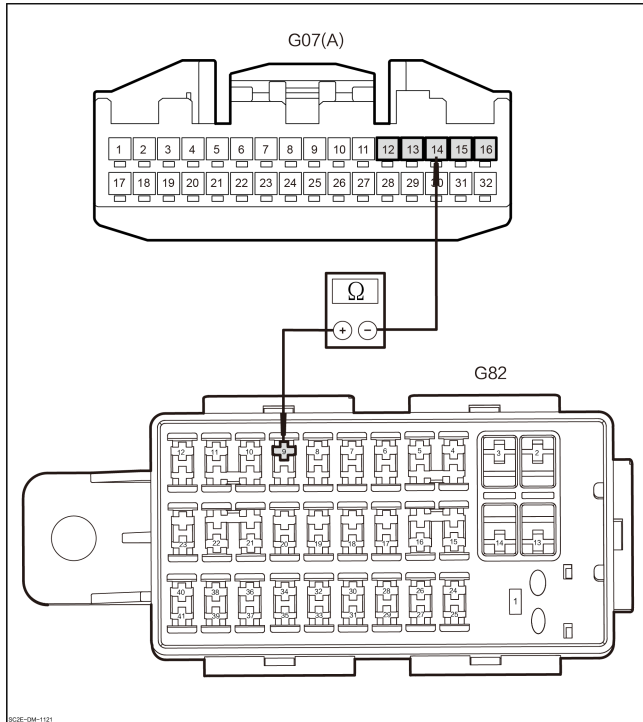
| Connector | | Condition | Voltage value |
|---------------|--------|-------------|---------------|
| (+) | (-) | | |
| G07(A)-1 2 | Ground | Through-out | 11~14V |
| G07(A)-1 3 | | | |
| G07(A)-1 4 | | | |
| G07(A)-1 5 | | | |
| G07(A)-1 6 | | | |

6. Check whether the results are normal.

Yes Go to step 7

No

6 Check the constant power supply of the central control large screen host for open circuit.



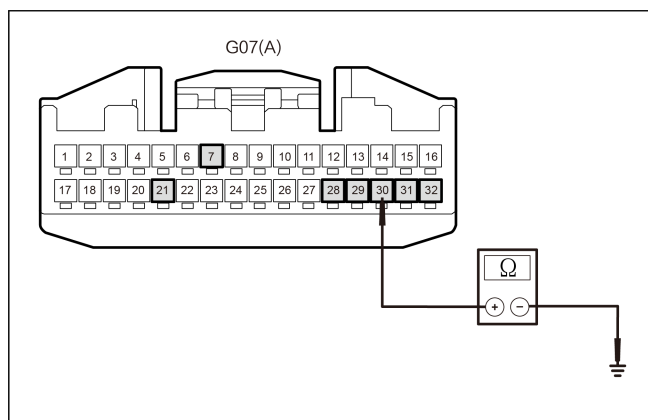
1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector G82.
3. Measure the resistance value between the central control large screen host harness connector G07 (A) –12 and the instrument fuse box harness connector G82–9.
4. Measure the resistance value between the central control large screen host harness connector G07 (A) –13 and the instrument fuse box harness connector G82–9.
5. Measure the resistance value between the central control large screen host harness connector G07 (A) –14 and the instrument fuse box harness connector G82–9.
6. Measure the resistance value between the central control large screen host harness connector G07 (A) –15 and the instrument fuse box harness connector G82–9.
7. Measure the resistance value between the central control large screen host harness connector G07 (A) –16 and the instrument fuse box harness connector G82–9.

| Connector | | Condition | Resist- ance value |
|---------------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| G07(A)-1 2 | G82-9 | Through- out | Lower than 1Ω |
| G07(A)-1 3 | | | |
| G07(A)-1 4 | | | |
| G07(A)-1 5 | | | |
| G07(A)-1 6 | | | |

8. Check whether the results are normal.

- No ➤ Repair or replace the wire harness
- Yes ➤ Replace the instrument fuse box, and the diagnosis is finished.

| | |
|---|--|
| 7 | Check the ground circuit of the central control large screen host. |
|---|--|



1. Measure the resistance value between the central control large screen host harness connector G07 (A)–7 and the ground.
2. Measure the resistance value between the central control large screen host harness connector G07 (A)–21 and the ground.
3. Measure the resistance value between the central control large screen host harness connector G07 (A)–28 and the ground.
4. Measure the resistance value between the central control large screen host harness connector G07 (A)–29 and the ground.
5. Measure the resistance value between the central control large screen host harness connector G07 (A)–30 and the ground.
6. Measure the resistance value between the central control large screen host harness connector G07 (A)–31 and the ground.
7. Measure the resistance value between the central control large screen host harness connector G07 (A)–32 and the ground.

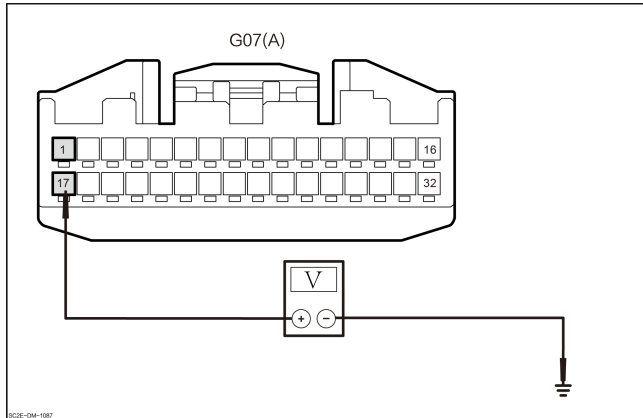
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G07(A)–7 | Ground | Through- out | Lower than 1Ω |
| G07(A)–21 | | | |
| G07(A)–28 | | | |
| G07(A)–29 | | | |
| G07(A)–30 | | | |
| G07(A)–31 | | | |
| G07(A)–32 | | | |

8. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

| | |
|---|--|
| 8 | Check the CAN line of central control large screen host. |
|---|--|



1. Measure the voltage value between the central control large screen host harness connector G07 (A) –1 and the ground.
2. Measure the voltage value between the central control large screen host harness connector G07 (A) –17 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G07(A)-1 | | Through-out | 1.5~2.5V |
| G07(A)-17 | Ground | | 2.5~3.5V |

3. Check whether the results are normal.

- No → Enter the “CAN diagnosis”
- Yes → Replace the central control large screen host.

9 Check the central control large screen host DTC.

1. Use a VDS to read the central control large screen host.
2. Check whether DTC exists.

- Yes → Enter the "Central Control Large Screen Host" diagnosis.

No

10 Check the DTC of right body control module.

1. Use a VDS to read the right body control module DTC.
2. Check whether DTC exists.

- Yes → Enter “right body control module” diagnosis.

No

11 Check the DTC of other modules.

1. Does the communication timeout fault with multimedia read in other modules?

- Yes → Replace the central control large screen host.
- No → Replace the dashboard.

B236009 Display Fault (Backlight Fault) or Display Chip Fault**DTC Description**

| B236009 Display Fault (Backlight Fault) or Display Chip Fault | |
|---|--|
| Symptom | Partial failure of combination instrument. |
| Possible Cause | Combination instrument internal fault. |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of combination instrument. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed.

No

Check the “intermittent fault” .

Yes

Replace the dashboard.

Driver Assistance

Park Assist System

Diagnosis Description

Introduction

When diagnosing the fault of park assist system, in order to understand and get familiar with the working principle of the park assist system, go to the description and operation overview. Before diagnosis, confirm the fault described by the customer, and then analyze the fault causes of the park assist system, so as to determine the correct fault diagnosis procedure. For inspection and measurement on park assist system lines and components, give priority to use of data flow and action test to improve the diagnostic efficiency and shorten maintenance time. After the fault is confirmed, the precautions and warnings should be understood when repairing the park assist system, and the standard operation procedure should be implemented. Check the park assist system and confirm its working condition after repair.

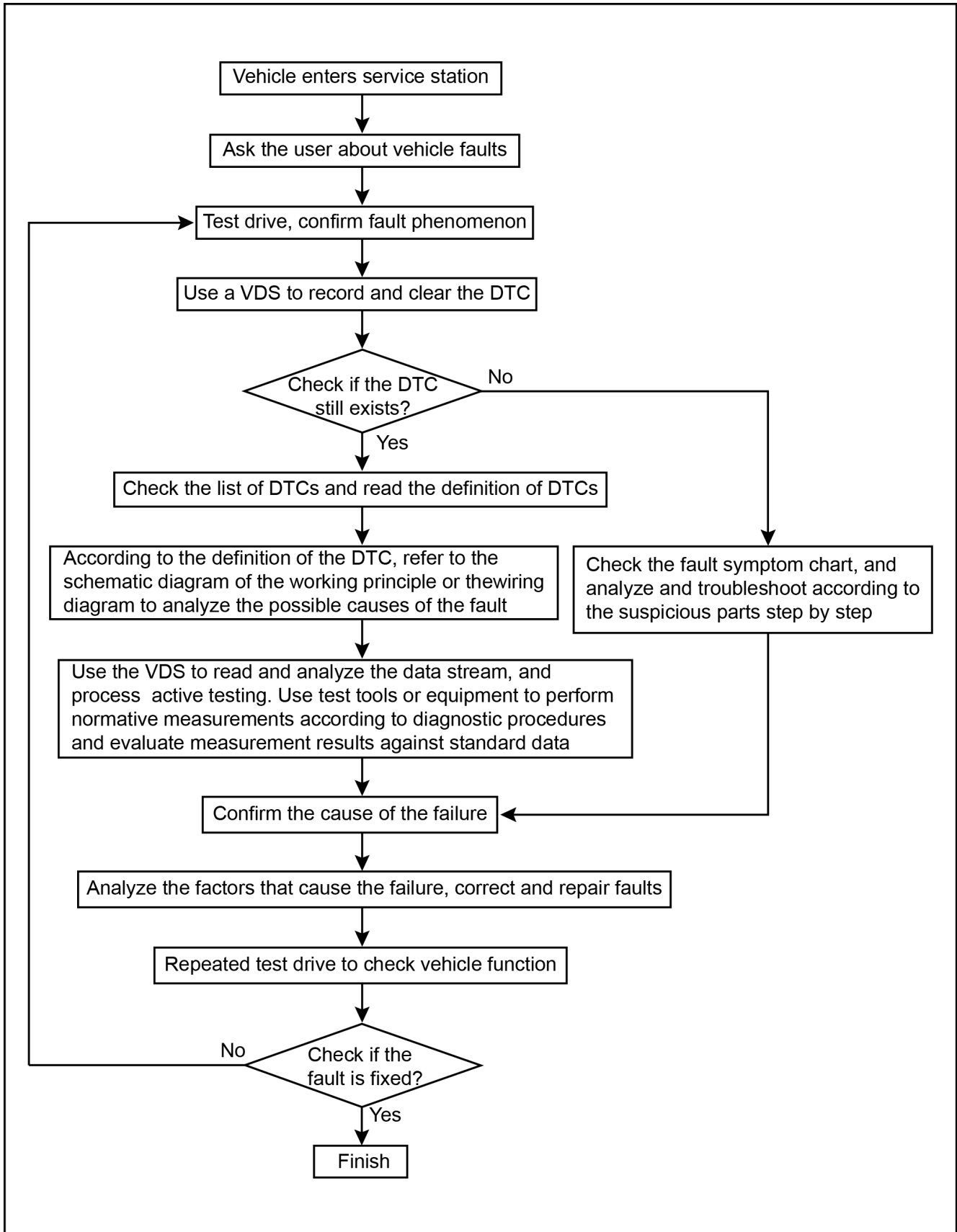
General equipment

- Multimeter
- VDS

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Process of Fault Inspection and Troubleshooting



DTC Diagnosis

List of DTC

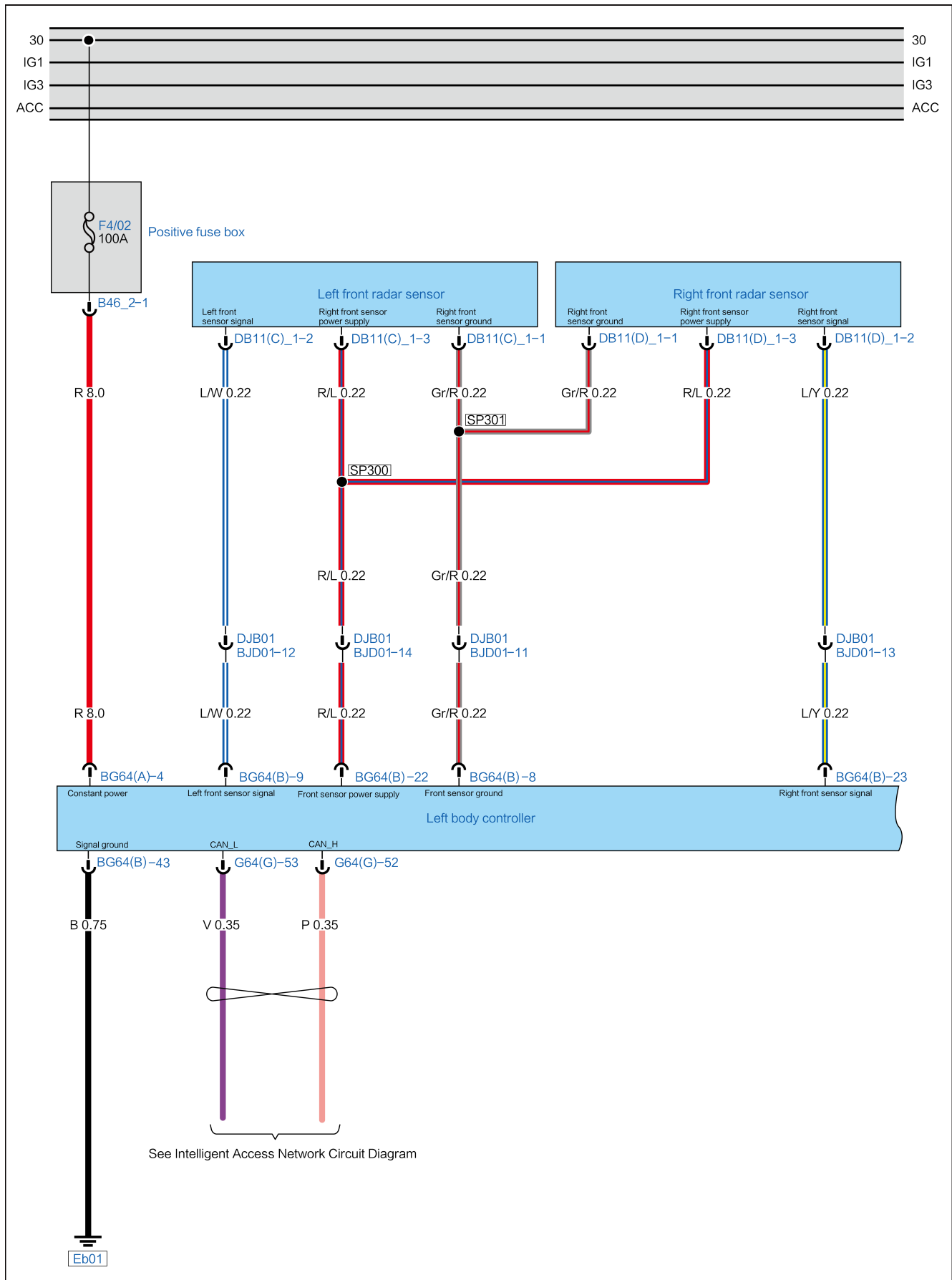
| DTC: | Meaning | Diagnostic Process |
|---------|---|---|
| B1B5712 | Left Front Corner Sensor Signal Wire Short to Power Supply or Not Grounded | B1B5712 Left Front Corner Sensor Signal Wire Short to Power or Not Ground |
| B1B5714 | Left Front Corner Sensor Signal Wire Short to Ground or Open-circuited | B1B5714 Left Front Corner Sensor Signal Wire Short to Ground or Open-circuited |
| B1B5900 | Afterwave Time Fault of Left Front Corner Sensor | B1B5900 Afterwave Time Fault of Front Left Corner Sensor |
| B1B5700 | Left Front Corner Sensor Internal Fault | B1B5700 Left Front Corner Sensor Internal Fault |
| B1B5412 | Right Front Corner Sensor Signal Wire Short to Power Supply or Not Grounded | B1B5412 Right Front Corner Sensor Signal Wire Short to Power or Not Ground |
| B1B5414 | Right Front Corner Sensor Signal Wire Short to Ground or Open-circuited | B1B5414 Right Front Corner Sensor Signal Wire Short to Ground or Open-circuited |
| B1B5600 | Afterwave Time Fault of Right Front Corner Sensor | B1B5600 Afterwave Time Fault of Right Front Corner Sensor |
| B1B5400 | Right Front Corner Sensor Internal Fault | B1B5400 Right Front Corner Sensor Internal Fault |
| B1B5112 | Left Rear Corner Sensor Signal Wire Short to Power Supply or Not Grounded | B1B5112 Left Rear Angle Sensor Signal Wire Short to Power Supply or No Ground |
| B1B5114 | Left Rear Corner Sensor Signal Wire Short to Ground or Open-circuited | B1B 5114 Left Rear Angle Sensor Signal Wire Short to Ground or Open-circuited |
| B1B5300 | Afterwave Time Fault of Left Rear Corner Sensor | B1B5300 Afterwave Time Fault of Left Rear Corner Sensor |
| B1B5100 | Left rear corner sensor internal fault | B1B5100 Internal Fault at Left Rear Corner Sensor |
| B1B4812 | Right Rear Corner Sensor Signal Wire Short to Power Supply or Not Grounded | B1B4812 Right Rear Angle Sensor Signal Wire Short to Power or No Ground |
| B1B4814 | Right Rear Corner Sensor Signal Wire Short to Ground or Open-circuited | B1B4814 Right Rear Angle Sensor Signal Wire Short to Ground or Open-circuited |
| B1B4A00 | Afterwave Time Fault of Right Rear Corner Sensor | B1B4A00 Afterwave Time Fault of Right Rear Corner Sensor |
| B1B4800 | Right rear corner sensor internal fault | B1B4800 Right Rear Corner Sensor Internal Fault |

| DTC: | Meaning | Diagnostic Process |
|---------|--|--|
| B1B4E12 | Left Rear Center Sensor Signal Wire Short to Power Supply or Not Grounded | B1B4E12 Left Rear Center Sensor Signal Wire Short to Power or Not Ground |
| B1B4E14 | Left Rear Center Sensor Signal Wire Short to Ground or Open-circuited | B1B4E14 Left Rear Center Sensor Signal Wire Short to Ground or Open-circuited |
| B1B5000 | Afterwave Time Fault of Left Rear Center Sensor | B1B5000 Afterwave Time Fault of Left Rear Center Sensor |
| B1B4E00 | Left Rear Center Sensor Internal Fault | B1B4E00 Left Rear Center Sensor Internal Fault |
| B1B4B12 | Right Rear Center Sensor Signal Wire Short to Power Supply or Not Grounded | B1B4B12 Right Rear Center Sensor Signal Wire Short to Power or Not Ground |
| B1B4B14 | Right Rear Center Sensor Signal Wire Short to Ground or Open-circuited | B1B4B14 Right Rear Center Sensor Signal Wire Short to Ground or Open-circuited |
| B1B4D00 | Afterwave Time Fault of Right Rear Center Sensor | B1B4D00 Afterwave Time Fault of Right Rear Center Sensor |
| B1B4B00 | Right Rear Center Sensor Internal Fault | B1B4B00 Right Rear Center Sensor Internal Fault |

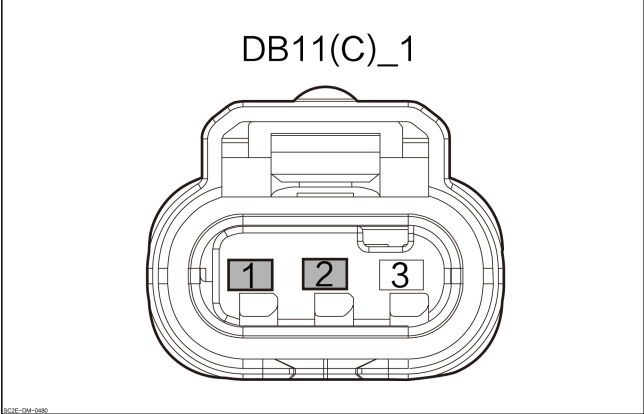
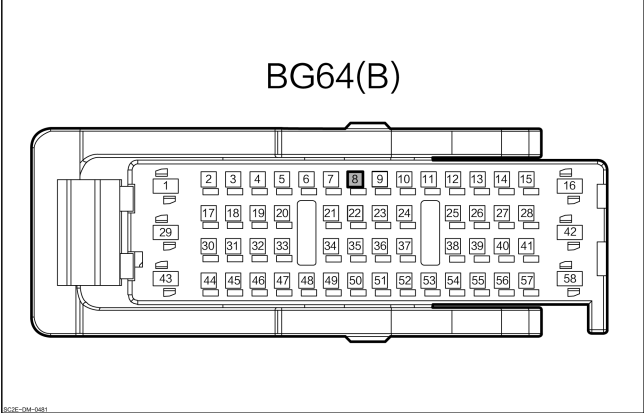
B1B5712 Left Front Corner Sensor Signal Wire Short to Power or Not Ground**DTC Description**

| B1B5712 Left Front Corner Sensor Signal Wire Short to Power or Not Ground | |
|---|---|
| Symptom | Partial failure of park assist system. |
| Possible Cause | 1. Harness or harness connector fault. 2. The left front radar sensor fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|--------------------------------------|---|
| <p style="text-align: center;">Left front radar sensor</p> <p style="text-align: center;">DB11(C)_1</p>  <p><small>80SE-DM-080</small></p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Left front radar sensor ground</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Left front radar sensor signal</p> |
| <p style="text-align: center;">Left body control module</p> <p style="text-align: center;">BG64(B)</p>  <p><small>80SE-DM-081</small></p> | <p style="text-align: center;">8</p> | <p style="text-align: center;">Front radar sensor ground</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|------------------------------------|
| 2 | Check the left front radar sensor. |
|---|------------------------------------|

1. Replace with a normal left front radar sensor, and restore the vehicle.
2. Set the START/STOP button to “ON” , and conduct test run for function inspection.
3. Check whether the results are normal.

Yes

Replace the left front radar sensor.

No

| | |
|---|---|
| 3 | Check the harness connector of left front radar sensor. |
|---|---|

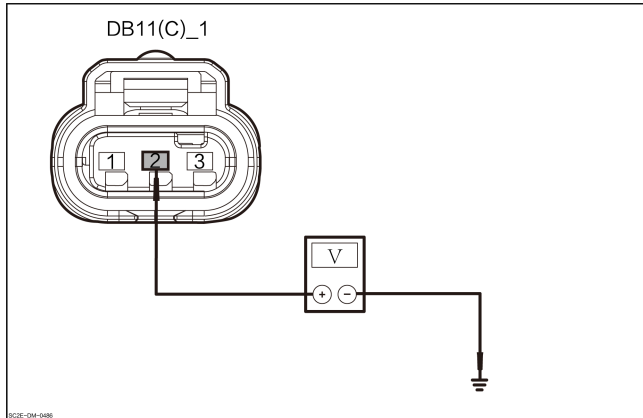
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left front radar sensor DB11(C)_1.
3. Check the harness connector of left front radar sensor for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the signal line of left front radar sensor for short to power. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of left front radar sensor DB11(C)_1-2 and the ground.

| Connector | | Condition | Voltage value |
|-------------|--------|-------------|---------------|
| (+) | (-) | | |
| DB11(C)_1-2 | Ground | Through-out | Less than 1V |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

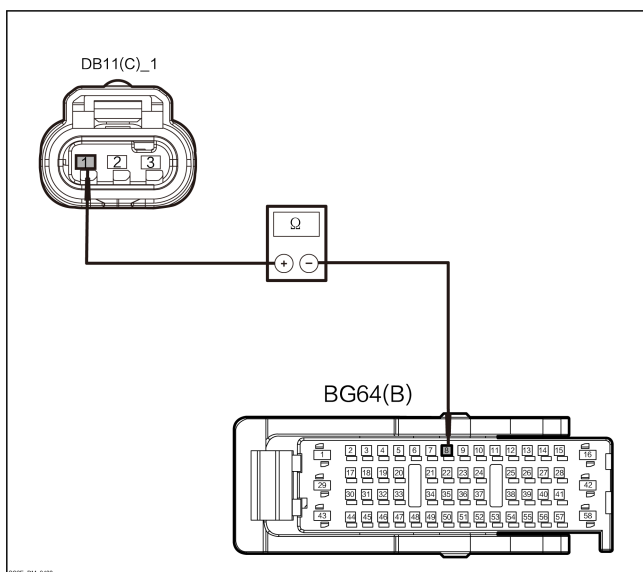
5 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module BG64(B).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the ground line of left front radar sensor for open circuit.



1. Measure the resistance between the harness connector of left front radar sensor DB11(C)_1-1 and the left body control module BG64(B)-8.

| Connector | | Condition | Resistance value |
|-------------|-----------|-------------|------------------|
| (+) | (-) | | |
| DB11(C)_1-1 | BG64(B)-8 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

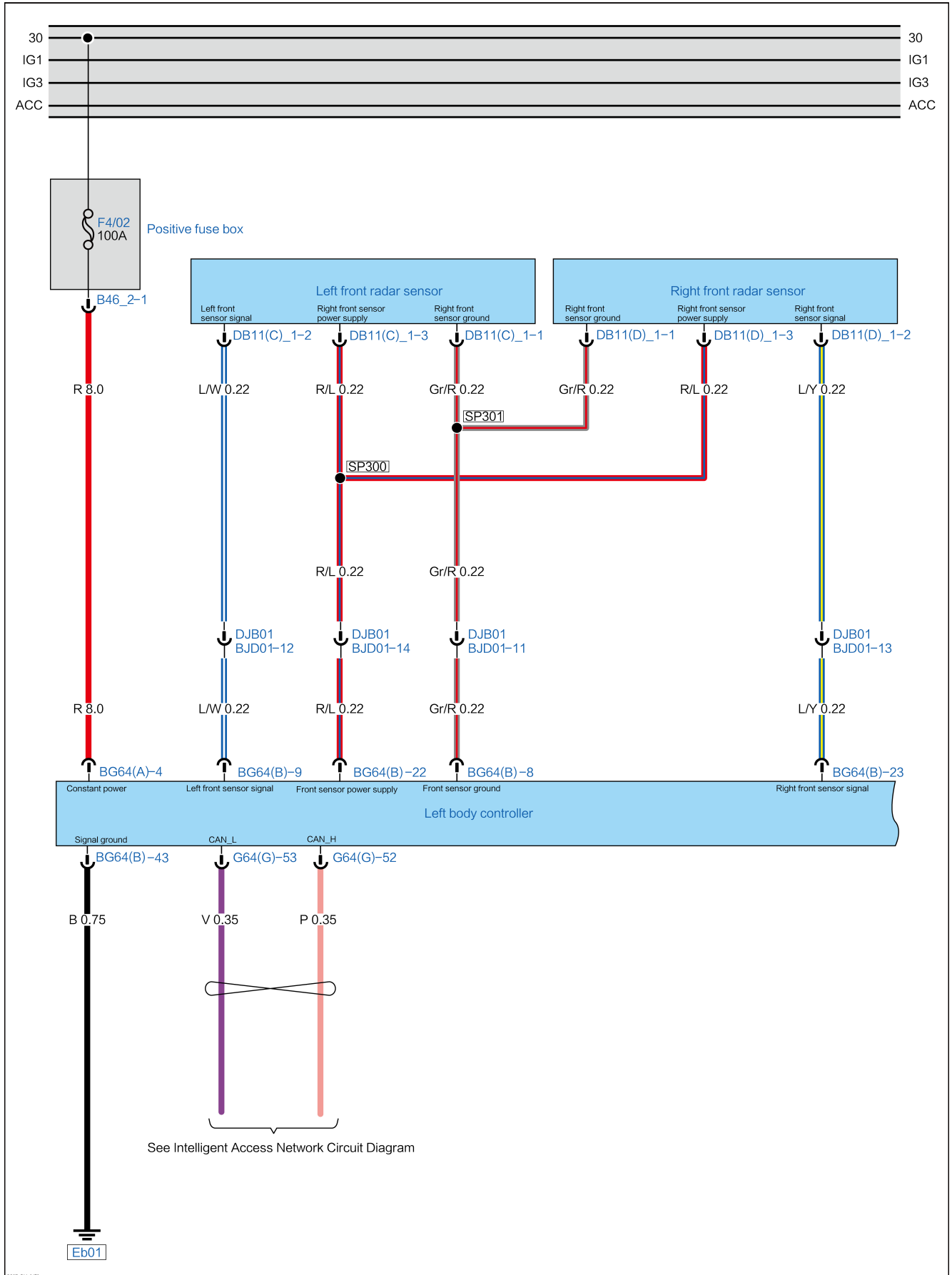
Yes → Replace the left body control module.

B1B5714 Left Front Corner Sensor Signal Wire Short to Ground or Open-circuited

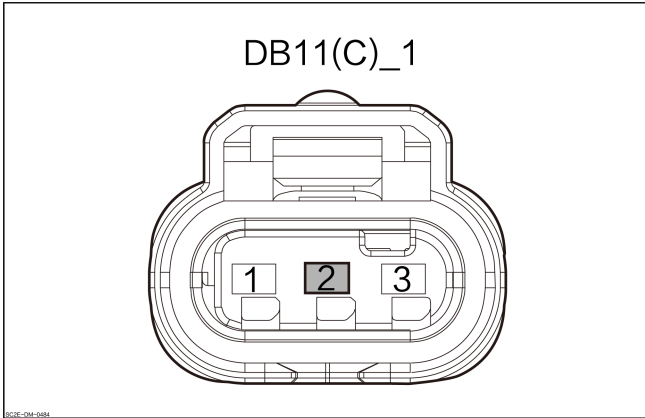
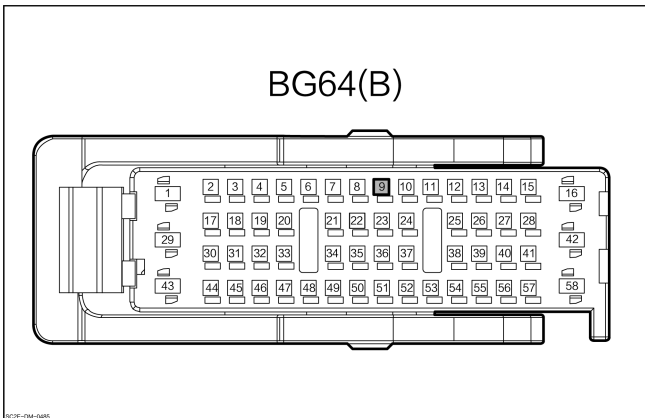
DTC Description

| B1B5714 Left Front Corner Sensor Signal Wire Short to Ground or Open-circuited | |
|--|---|
| Symptom | Partial failure of park assist system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or harness connector fault. 2. The left front radar sensor fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------------------------|
| <p>Left front radar sensor</p> <p>DB11(C)_1</p>  <p>The diagram shows a DB11(C)_1 connector with three terminals labeled 1, 2, and 3. Terminal 2 is highlighted with a grey background.</p> | <p>2</p> | <p>Left front radar sensor signal</p> |
| <p>Left body control module</p> <p>BG64(B)</p>  <p>The diagram shows a BG64(B) connector with 64 terminals numbered 1 through 64. Terminal 9 is highlighted with a grey background.</p> | <p>9</p> | <p>Left front radar sensor signal</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|------------------------------------|
| 2 | Check the left front radar sensor. |
|---|------------------------------------|

1. Replace with a normal left front radar sensor, and restore the vehicle.
2. Set the start/stop button to ON position and conduct a trial run to check its function.
3. Check whether the results are normal.

Yes

Replace the left front radar sensor.

No

| | |
|---|---|
| 3 | Check the harness connector of left front radar sensor. |
|---|---|

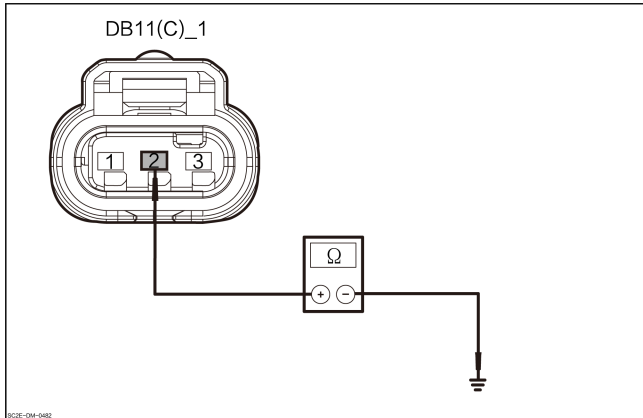
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left front radar sensor DB11(C)_1.
3. Check the harness connector of left front radar sensor for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the signal line of left front radar sensor for short to ground. |
|---|---|



1. Measure the resistance between the harness connector of left front radar sensor DB11(C)_1-2 and the ground.

| Connector | | Condition | Resistance value |
|-------------|--------|-------------|--------------------|
| (+) | (-) | | |
| DB11(C)_1-2 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

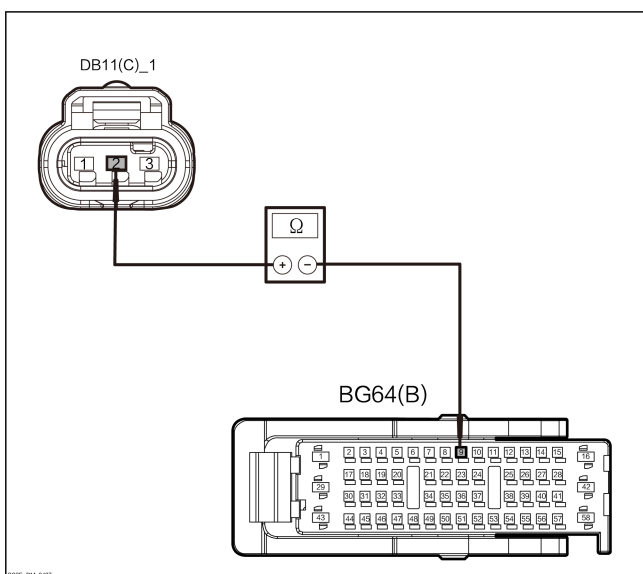
5 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module BG64(B).
3. Check whether the harness connector of left body control module is normal?

No Repair or replace the wire harness

Yes

6 Check the signal line of left front radar sensor for open circuit.



1. Measure the resistance between the harness connector of left front radar sensor DB11(C)_1-2 and the left body control module BG64(B)-9.

| Connector | | Condition | Resistance value |
|-------------|-----------|-------------|-----------------------|
| (+) | (-) | | |
| DB11(C)_1-2 | BG64(B)-9 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the left body control module.

B1B5900 Afterwave Time Fault of Front Left Corner Sensor

DTC Description

| B1B5900 Afterwave Time Fault of Front Left Corner Sensor | |
|--|---|
| Symptom | Partial failure of park assist system. |
| Possible Cause | The left front radar sensor fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the left front radar sensor. |

B1B5700 Left Front Corner Sensor Internal Fault**DTC Description**

| B1B5700 Left Front Corner Sensor Internal Fault | |
|---|---|
| Symptom | Partial failure of park assist system. |
| Possible Cause | The left front radar sensor fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

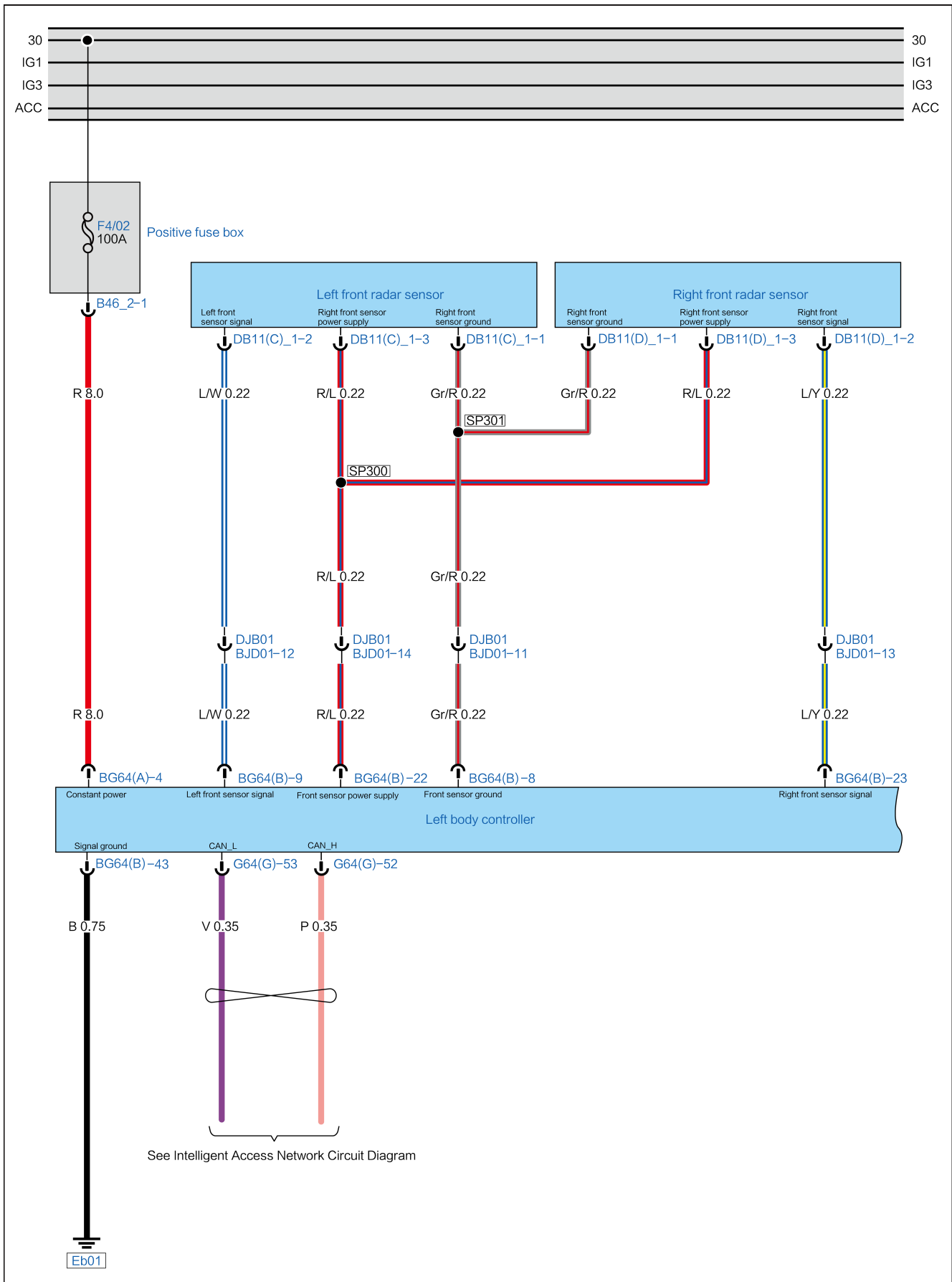
1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the left front radar sensor. |

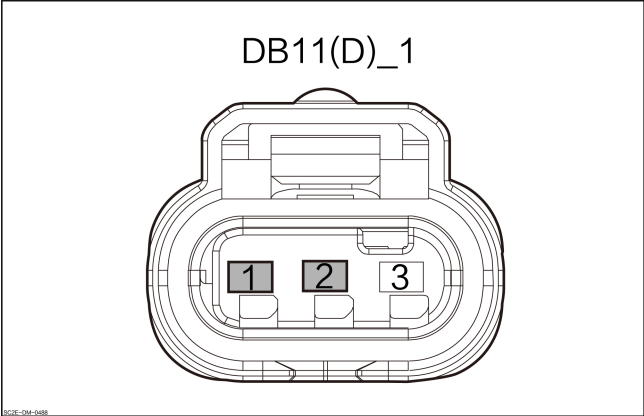
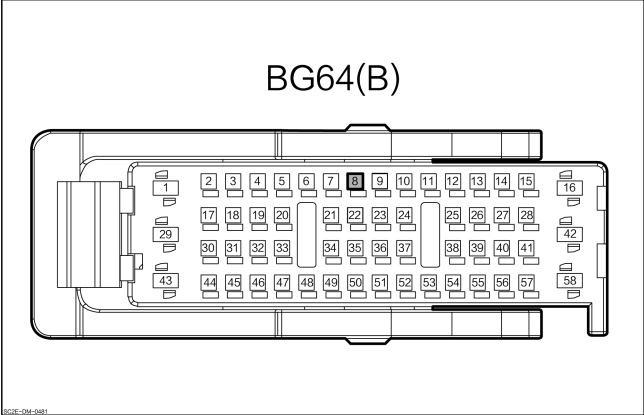
B1B5412 Right Front Corner Sensor Signal Wire Short to Power or Not Ground**DTC Description**

| B1B5412 Right Front Corner Sensor Signal Wire Short to Power or Not Ground | |
|--|--|
| Symptom | Partial failure of park assist system. |
| Possible Cause | 1. Harness or harness connector fault. 2. The right front radar sensor fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|--------------------------------------|--|
| <p style="text-align: center;">Right front radar sensor</p> <p style="text-align: center;">DB11(D)_1</p>  <p><small>80SE-DM-088</small></p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Right front radar sensor ground</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Right front radar sensor signal</p> |
| <p style="text-align: center;">Left body control module</p> <p style="text-align: center;">BG64(B)</p>  <p><small>80SE-DM-081</small></p> | <p style="text-align: center;">8</p> | <p style="text-align: center;">Front radar sensor ground</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|------------------------------------|
| 2 | Check the right front radar sensor |
|---|------------------------------------|

1. Replace with a normal right front radar sensor, and restore the vehicle.
2. Set the start/stop button to ON position and conduct a trial run to check its function.
3. Check whether the results are normal.

Yes

Replace the right front radar sensor.

No

| | |
|---|---|
| 3 | Check the harness connector of right front radar sensor |
|---|---|

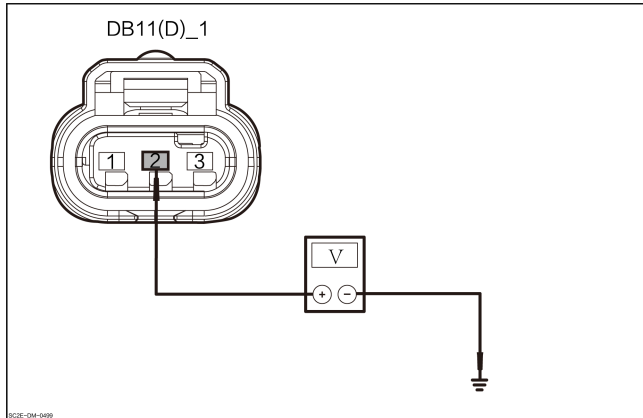
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right front radar sensor DB11(D)_1.
3. Check the harness connector of right front radar sensor for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the signal line of right front radar sensor for short to power. |
|---|---|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of right front radar sensor DB11(D)_1-2 and the ground.

| Connector | | Condition | Voltage value |
|-------------|--------|-------------|---------------|
| (+) | (-) | | |
| DB11(D)_1-2 | Ground | Through-out | Less than 1V |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

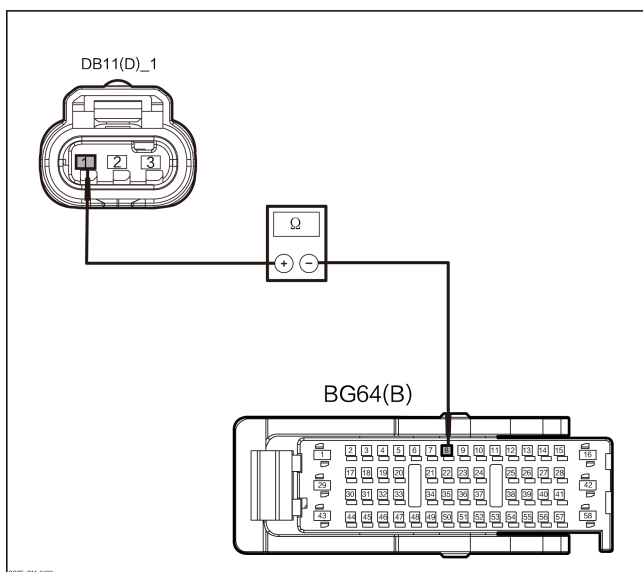
5 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module BG64(B).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the ground line of right front radar sensor for open circuit.



1. Measure the resistance between the harness connector of right front radar sensor DB11(D)_1-1 and the left body control module BG64(B)-8.

| Connector | | Condition | Resistance value |
|-------------|-----------|-------------|------------------|
| (+) | (-) | | |
| DB11(D)_1-1 | BG64(B)-8 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

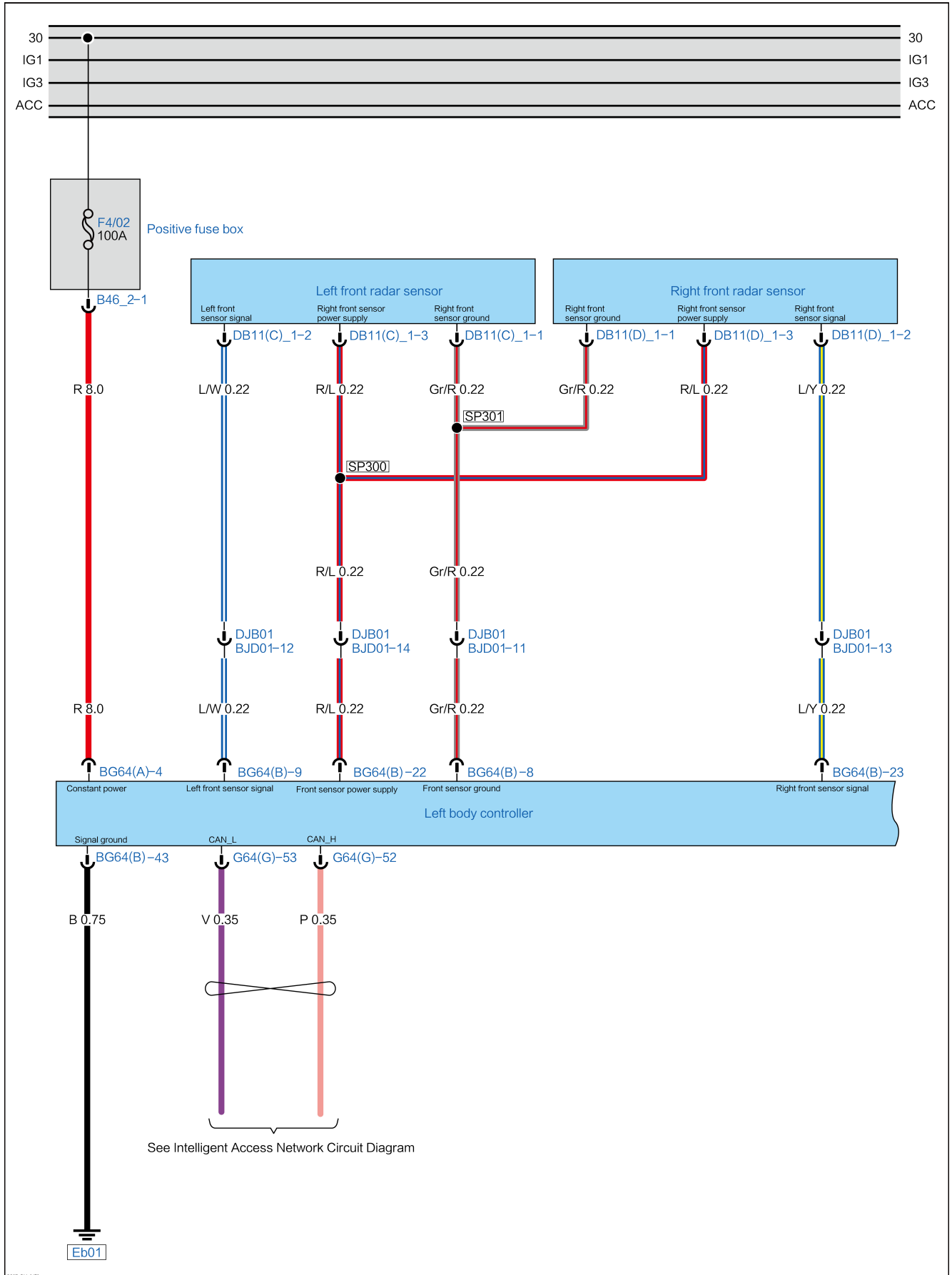
Yes → Replace the left body control module.

B1B5414 Right Front Corner Sensor Signal Wire Short to Ground or Open-circuited

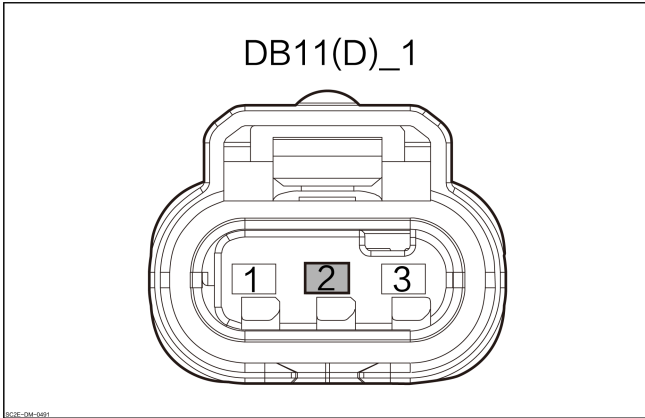
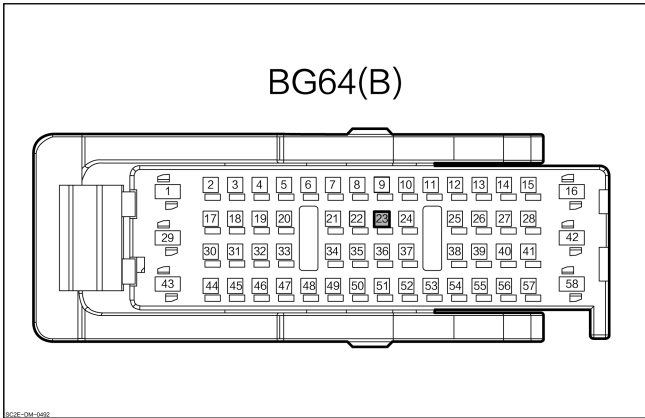
DTC Description

| B1B5414 Right Front Corner Sensor Signal Wire Short to Ground or Open-circuited | |
|---|--|
| Symptom | Partial failure of park assist system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or harness connector fault. 2. The right front radar sensor fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Right front radar sensor</p> <div style="text-align: center;"> <p>DB11(D)_1</p>  <p>The diagram shows a DB11(D)_1 connector with three terminals labeled 1, 2, and 3. Terminal 2 is highlighted with a grey background.</p> </div> | <p>2</p> | <p>Right front radar sensor signal</p> |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;"> <p>BG64(B)</p>  <p>The diagram shows a BG64(B) connector with 58 numbered terminals. Terminal 23 is highlighted with a grey background.</p> </div> | <p>23</p> | <p>Right front radar sensor signal</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|------------------------------------|
| 2 | Check the right front radar sensor |
|---|------------------------------------|

1. Replace with a normal right front radar sensor, and restore the vehicle.
2. Set the start/stop button to ON position and conduct a trial run to check its function.
3. Check whether the results are normal.

Yes

Replace the right front radar sensor.

No

| | |
|---|---|
| 3 | Check the harness connector of right front radar sensor |
|---|---|

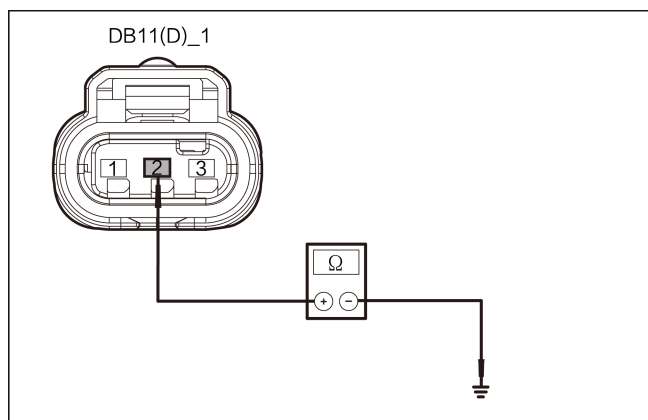
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right front radar sensor DB11(D)_1.
3. Check the harness connector of right front radar sensor for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the signal line of right front radar sensor for short to ground. |
|---|--|



1. Measure the resistance between the harness connector of right front radar sensor DB11(D)_1-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-------------|--------|-------------|--------------------------|
| (+) | (-) | | |
| DB11(D)_1-2 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

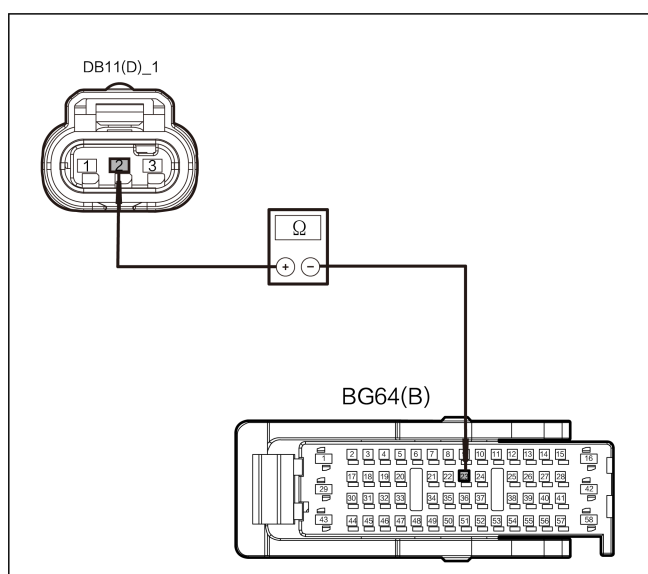
5 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module BG64(B).
3. Check whether the harness connector of left body control module is normal?

No Repair or replace the wire harness

Yes

6 Check the signal line of right front radar sensor for open circuit.



1. Measure the resistance between the harness connector of right front radar sensor DB11(D)_1-2 and the left body control module BG64(B)-23.

| Connector | | Condition | Resist- ance value |
|-------------|------------|-------------|--------------------------|
| (+) | (-) | | |
| DB11(D)_1-2 | BG64(B)-23 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the left body control module.

B1B5600 Afterwave Time Fault of Right Front Corner Sensor

DTC Description

| B1B5900 Afterwave Time Fault of Right Front Corner Sensor | |
|---|---|
| Symptom | Partial failure of park assist system. |
| Possible Cause | The right front radar sensor fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|---------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the right front radar sensor. |

B1B5400 Right Front Corner Sensor Internal Fault

DTC Description

| B1B5400 Right Front Corner Sensor Internal Fault | |
|--|---|
| Symptom | Partial failure of park assist system. |
| Possible Cause | The right front radar sensor fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

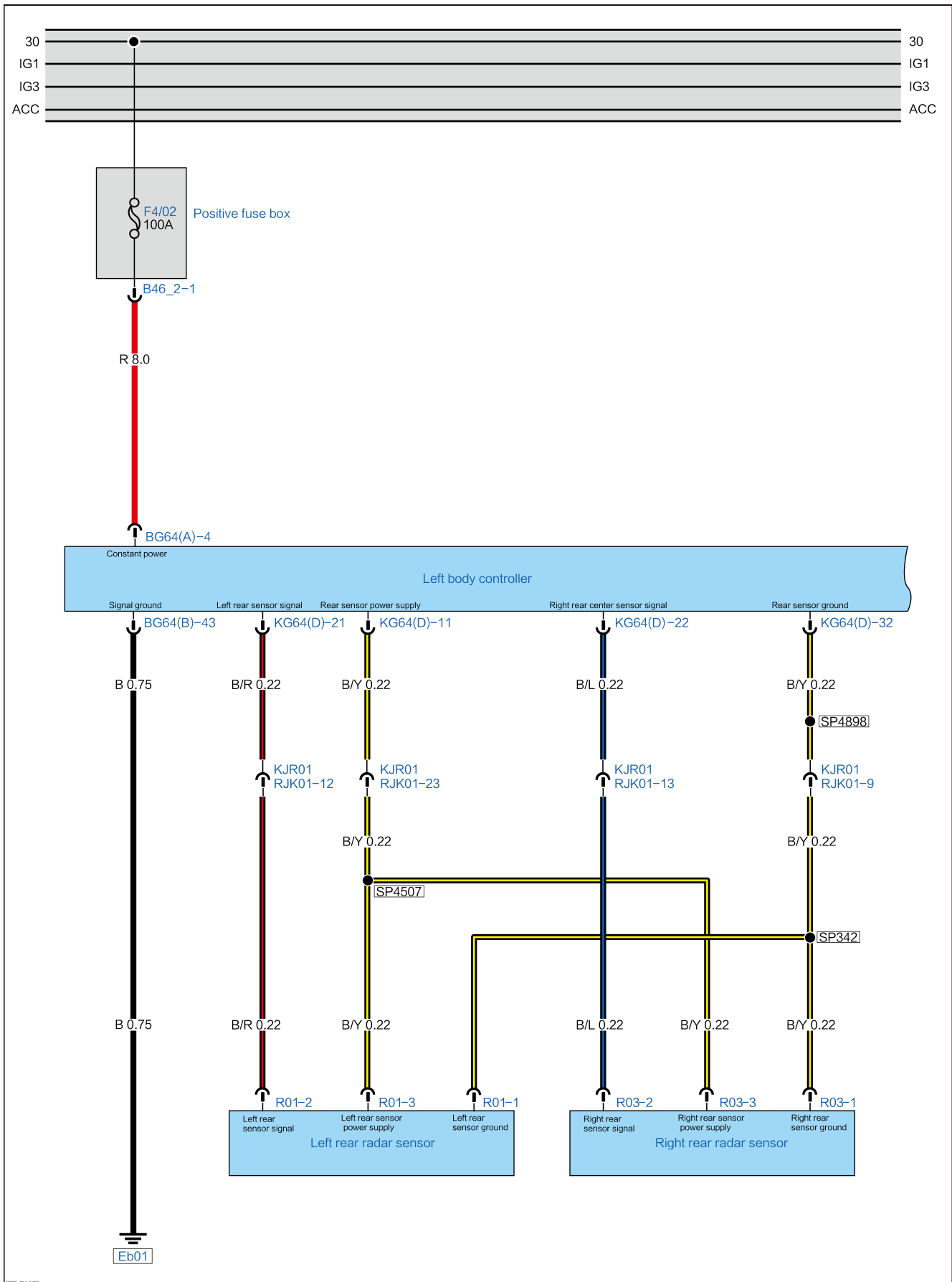
1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|---------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the right front radar sensor. |

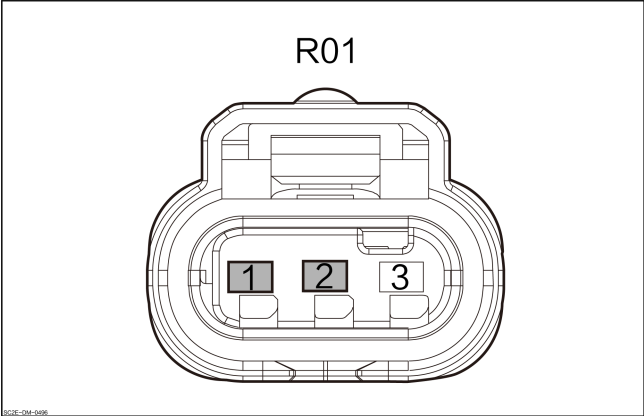
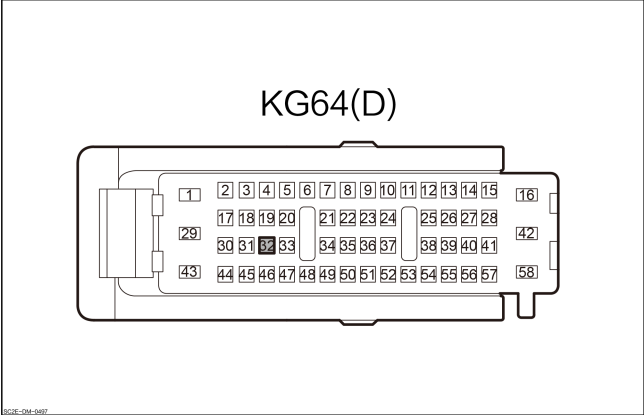
B1B5112 Left Rear Angle Sensor Signal Wire Short to Power Supply or No Ground**DTC Description**

| B1B5112 Left Rear Angle Sensor Signal Wire Short to Power Supply or No Ground | |
|---|--|
| Symptom | Partial failure of park assist system. |
| Possible Cause | 1. Harness or harness connector fault. 2. Left rear radar sensor fault. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p>Left rear reversing radar sensor</p>  <p>R01</p> | 1 | Left rear reversing radar sensor GND |
| | 2 | Left rear reversing radar sensor signal |
| <p>Left body control module</p>  <p>KG64(D)</p> | 32 | Rear radar sensor GND |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|-----------------------------------|
| 2 | Check the left rear radar sensor. |
|---|-----------------------------------|

1. Replace it with the normal left rear radar sensor and restore the vehicle.
2. Set the start/stop button to ON position and conduct a trial run to check its function.
3. Check whether the results are normal.

Yes

Replace left rear radar sensor.

No

| | |
|---|---|
| 3 | Check the left rear radar sensor harness connector. |
|---|---|

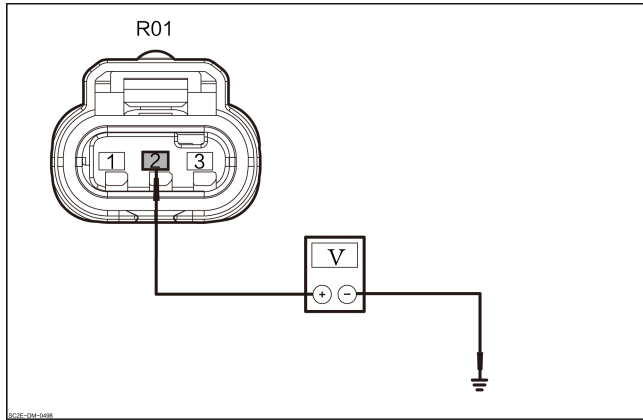
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left rear radar sensor R01.
3. Check whether the left rear radar sensor harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the left rear radar sensor signal line for short circuit to power. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of left rear radar sensor R01-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| R01-2 | Ground | Through-out | Less than 1V |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

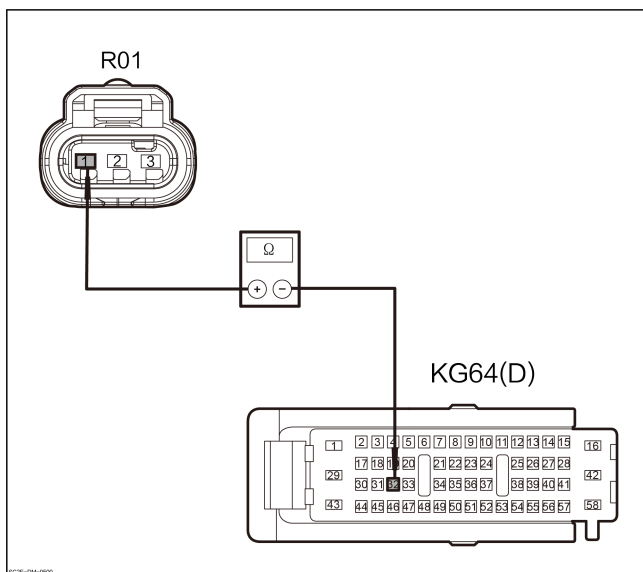
5 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(D).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the left rear radar sensor ground line for open circuit.



1. Measure the resistance between the harness connector of left rear radar sensor R01-1 and the left body control module KG64(D)-32.

| Connector | | Condition | Resist-ance value |
|-----------|------------|-------------|-------------------|
| (+) | (-) | | |
| R01-1 | KG64(D)-32 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

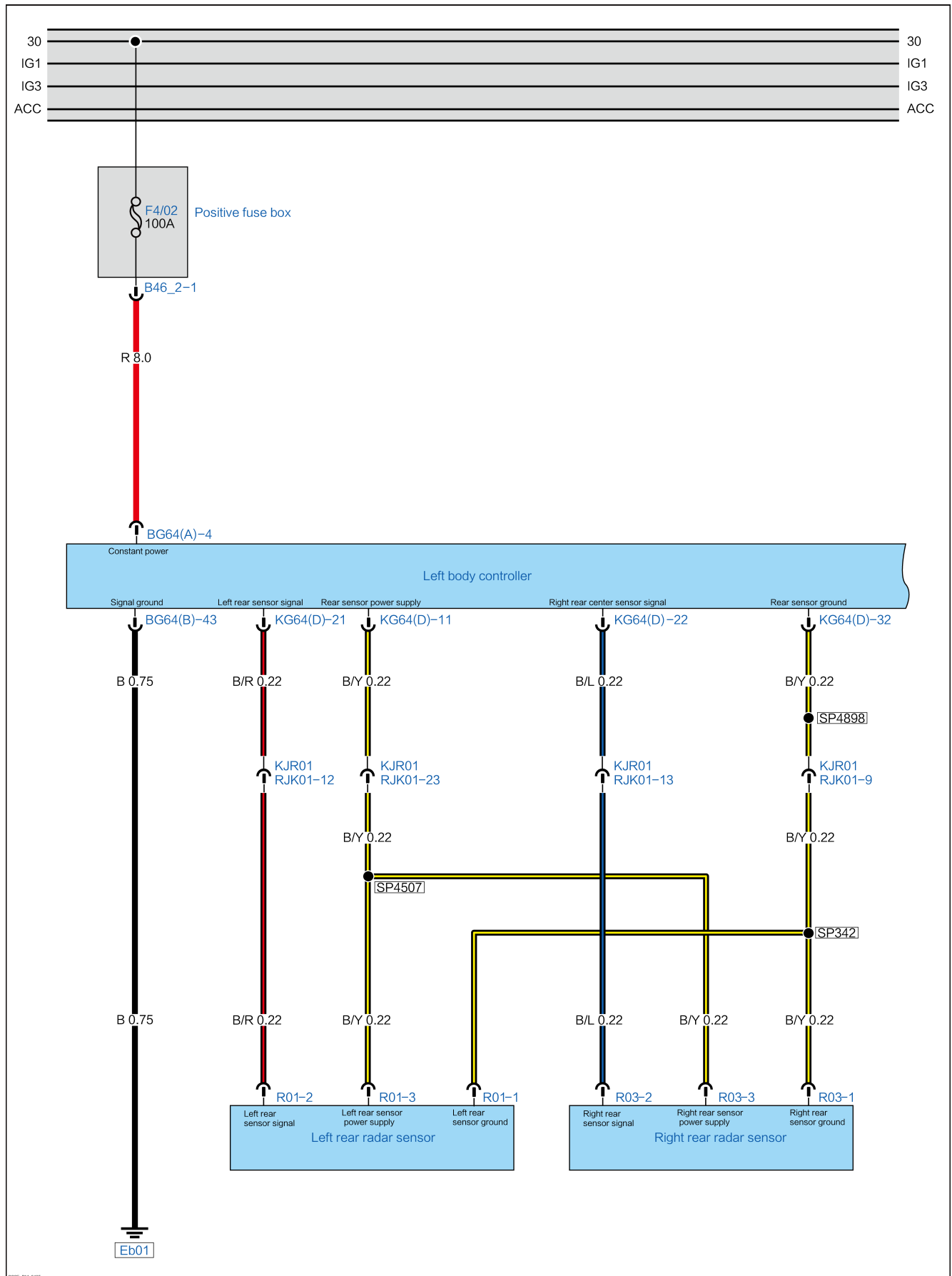
Yes → Replace the left body control module.

B1B 5114 Left Rear Angle Sensor Signal Wire Short to Ground or Open-circuited

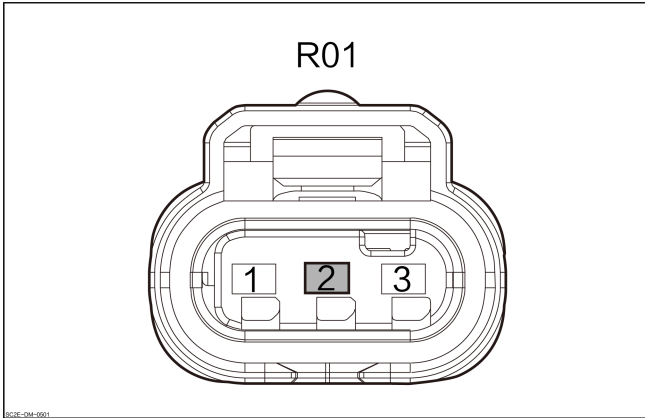
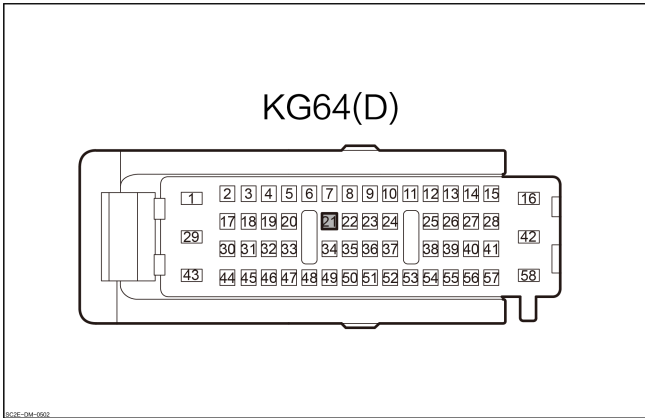
DTC Description

| B1B 5114 Left Rear Angle Sensor Signal Wire Short to Ground or Open-circuited | |
|---|--|
| Symptom | Partial failure of park assist system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or harness connector fault. 2. Left rear radar sensor fault. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p>Left rear reversing radar sensor</p>  <p>The diagram shows a circular connector labeled R01. It has three terminals labeled 1, 2, and 3. Terminal 2 is highlighted with a grey background.</p> | <p>2</p> | <p>Left rear reversing radar sensor signal</p> |
| <p>Left body control module</p>  <p>The diagram shows a rectangular connector labeled KG64(D) with 58 numbered terminals. Terminal 21 is highlighted with a grey background.</p> | <p>21</p> | <p>Left rear reversing radar sensor signal</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|-----------------------------------|
| 2 | Check the left rear radar sensor. |
|---|-----------------------------------|

1. Replace it with the normal left rear radar sensor and restore the vehicle.
2. Set the start/stop button to ON position and conduct a trial run to check its function.
3. Check whether the results are normal.

Yes

Replace left rear radar sensor.

No

| | |
|---|---|
| 3 | Check the left rear radar sensor harness connector. |
|---|---|

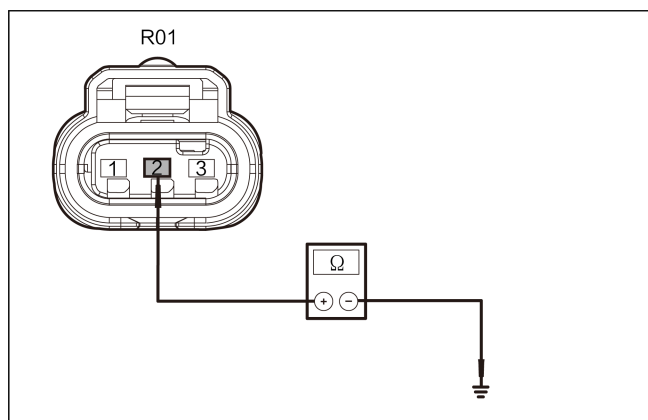
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left rear radar sensor R01.
3. Check whether the left rear radar sensor harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the signal line of the left rear radar sensor for short circuit to the ground. |
|---|--|



1. Measure the resistance between the harness connector of left rear radar sensor R01-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| R01-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

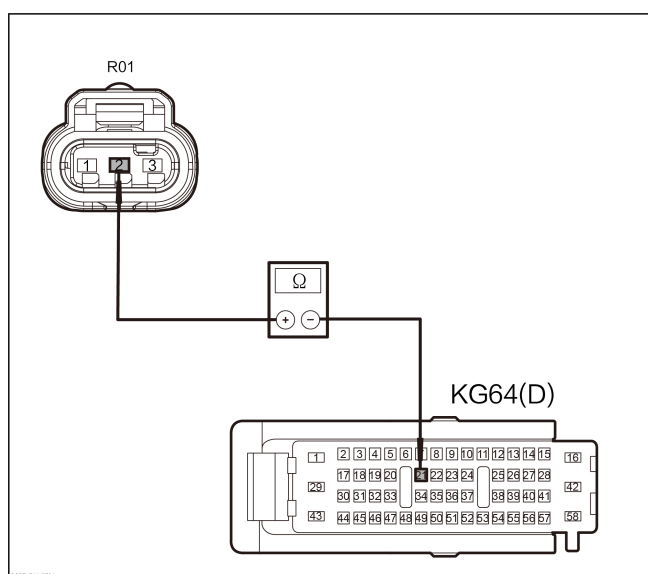
5 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(D).
3. Check whether the harness connector of left body control module is normal?

No Repair or replace the wire harness

Yes

6 Check the left rear radar sensor signal line for open circuit.



1. Measure the resistance between the harness connector of left rear radar sensor R01-2 and the left body control module KG64(D)-21.

| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| R01-2 | KG64(D) -21 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the left body control module.

B1B5300 Afterwave Time Fault of Left Rear Corner Sensor

DTC Description

| B1B5300 Afterwave Time Fault of Left Rear Corner Sensor | |
|---|---|
| Symptom | Partial failure of park assist system. |
| Possible Cause | Left rear radar sensor fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace left rear radar sensor. |

B1B5100 Internal Fault at Left Rear Corner Sensor**DTC Description**

| B1B5100 Internal Fault at Left Rear Corner Sensor | |
|---|---|
| Symptom | Partial failure of park assist system. |
| Possible Cause | Left rear radar sensor fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

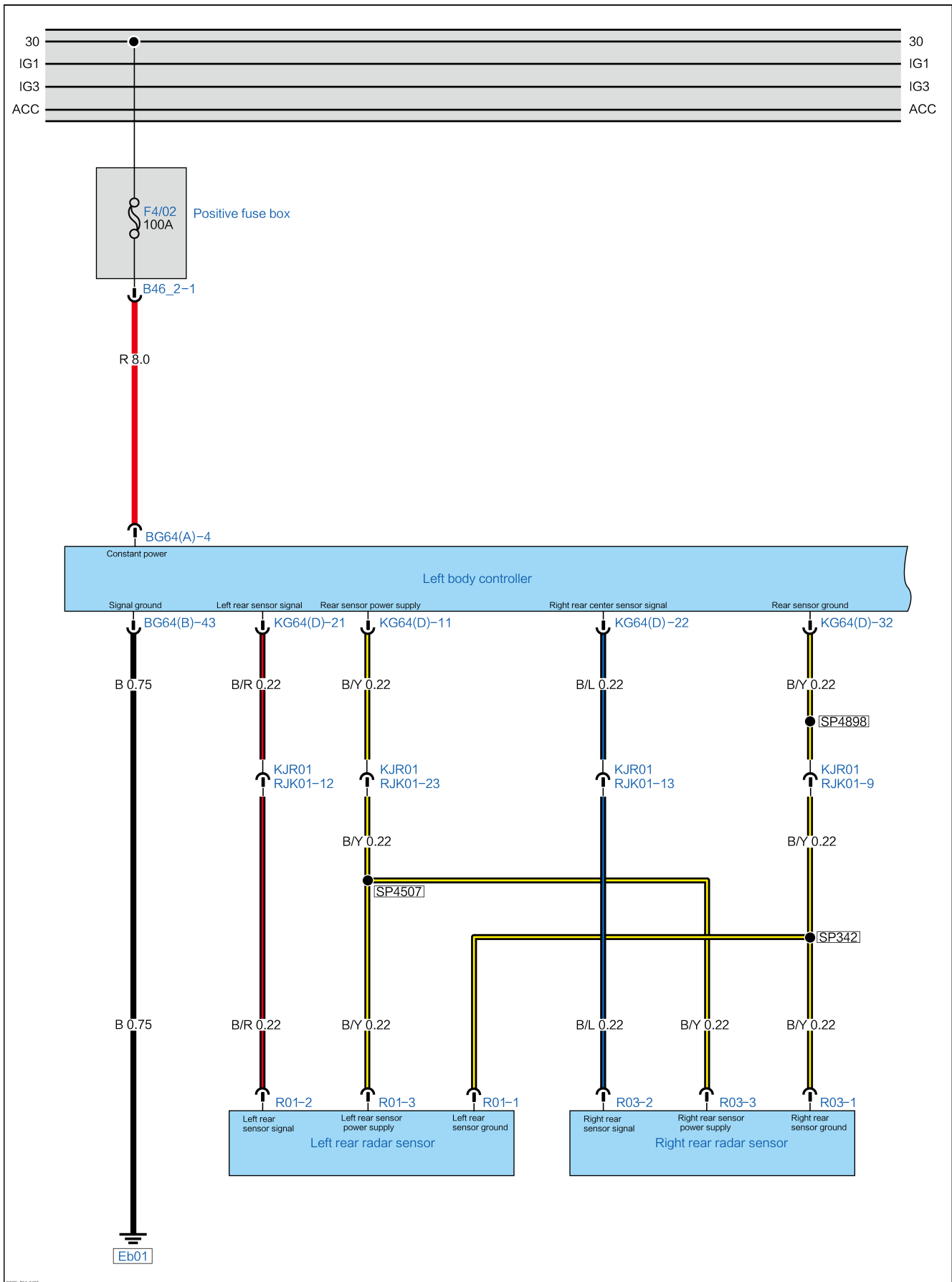
1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace left rear radar sensor. |

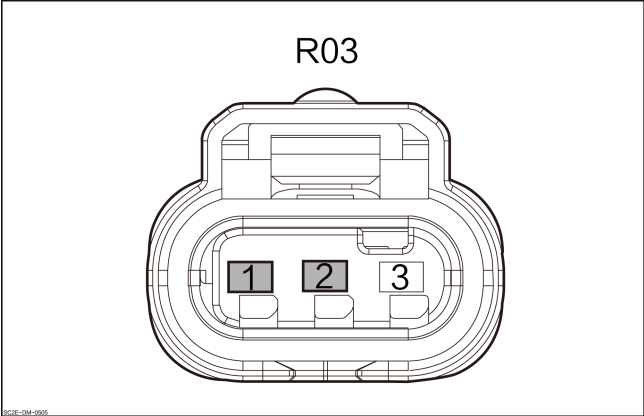
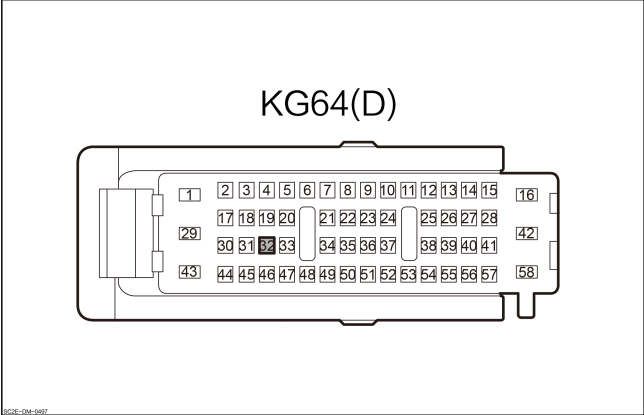
B1B4812 Right Rear Angle Sensor Signal Wire Short to Power or No Ground**DTC Description**

| B1B4812 Right Rear Angle Sensor Signal Wire Short to Power or No Ground | |
|---|---|
| Symptom | Partial failure of park assist system. |
| Possible Cause | 1. Harness or harness connector fault. 2. Right rear radar sensor fault. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--------------------------------|
| <p style="text-align: center;">Right rear radar sensor</p> <div style="text-align: center;">  <p style="margin-left: 100px;">R03</p> </div> | 1 | Right rear radar sensor GND |
| | 2 | Right rear radar sensor signal |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">KG64(D)</p> </div> | 32 | Rear radar sensor GND |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|------------------------------------|
| 2 | Check the right rear radar sensor. |
|---|------------------------------------|

1. Replace it with normal right rear radar sensor and restore the vehicle.
2. Set the start/stop button to ON position and conduct a trial run to check its function.
3. Check whether the results are normal.

Yes

Replace right rear radar sensor.

No

| | |
|---|--|
| 3 | Check the right rear radar sensor harness connector. |
|---|--|

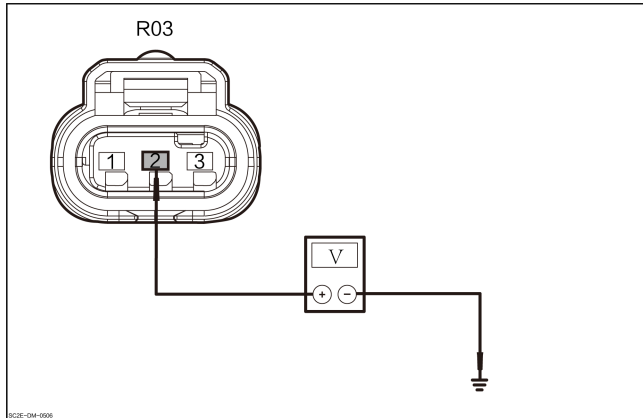
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right rear radar sensor R03.
3. Check whether the right rear radar sensor harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the right rear radar sensor signal line for short circuit to power supply. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of right rear radar sensor R03-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| R03-2 | Ground | Through-out | Less than 1V |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

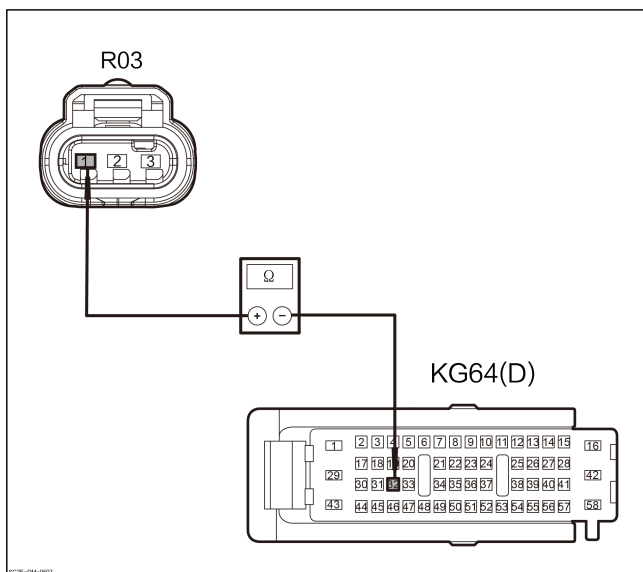
5 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(D).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the right rear radar sensor grounding line for open circuit.



1. Measure the resistance between the harness connector of right rear radar sensor R03-1 and the left body control module KG64(D)-32.

| Connector | | Condition | Resist-ance value |
|-----------|------------|-------------|-------------------|
| (+) | (-) | | |
| R03-1 | KG64(D)-32 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

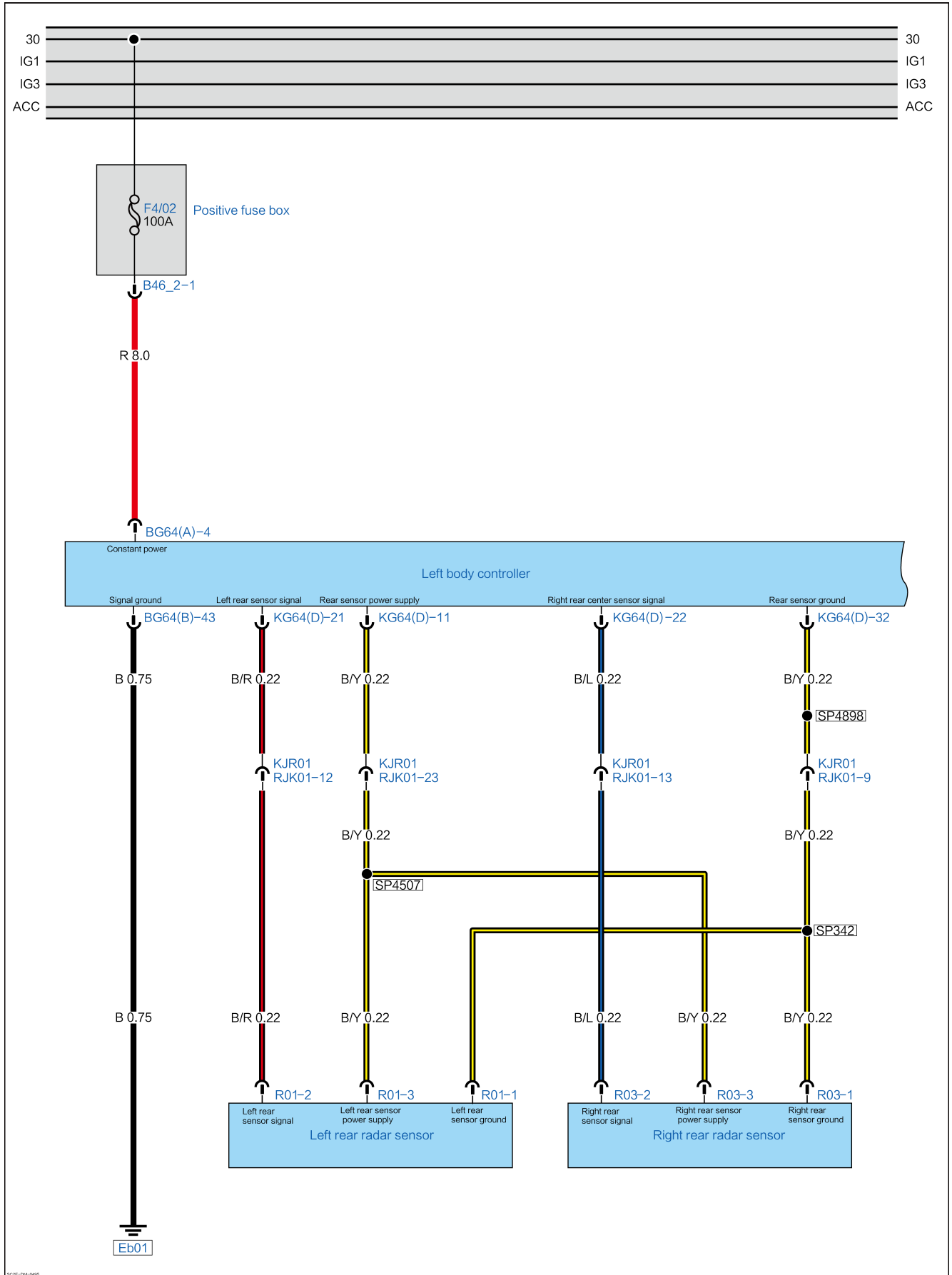
Yes → Replace the left body control module.

B1B4814 Right Rear Angle Sensor Signal Wire Short to Ground or Open-circuited

DTC Description

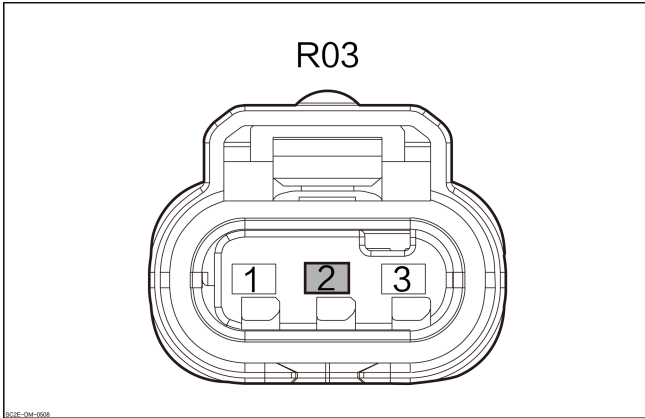
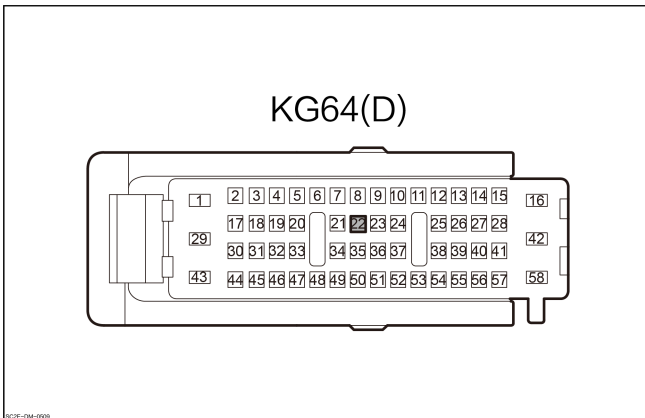
| B1B4814 Right Rear Angle Sensor Signal Wire Short to Ground or Open-circuited | |
|---|---|
| Symptom | Partial failure of park assist system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or harness connector fault. 2. Right rear radar sensor fault. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



SC26-004-0905

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--------------------------------|
| <p style="text-align: center;">Right rear radar sensor</p> <div style="text-align: center;">  <p>R03</p> </div> | 2 | Right rear radar sensor signal |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p>KG64(D)</p> </div> | 22 | Right rear radar sensor signal |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|------------------------------------|
| 2 | Check the right rear radar sensor. |
|---|------------------------------------|

1. Replace it with normal right rear radar sensor and restore the vehicle.
2. Set the start/stop button to ON position and conduct a trial run to check its function.
3. Check whether the results are normal.

Yes

Replace right rear radar sensor.

No

| | |
|---|--|
| 3 | Check the right rear radar sensor harness connector. |
|---|--|

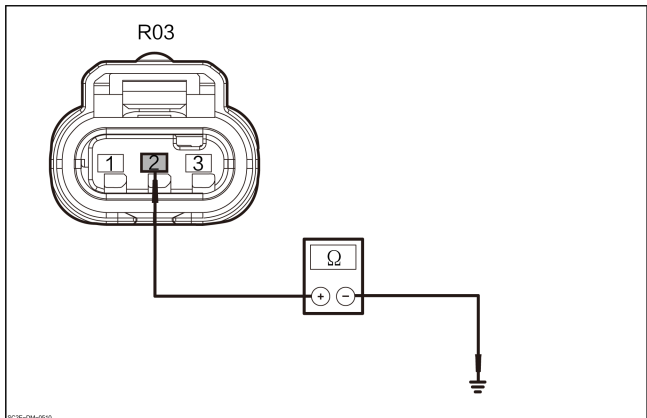
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right rear radar sensor R03.
3. Check whether the right rear radar sensor harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the right rear radar sensor signal circuit for short circuit to ground. |
|---|---|



1. Measure the resistance between the harness connector of right rear radar sensor R03-2 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| R03-2 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

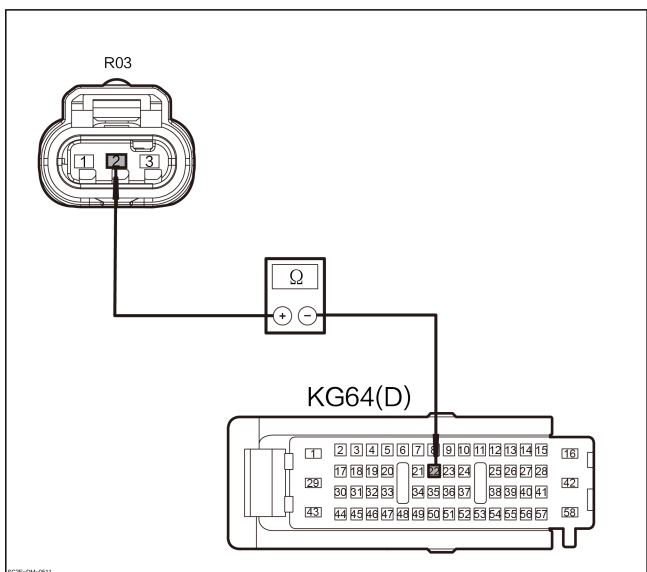
5 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(D).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the right rear radar sensor signal line for open circuit.



1. Measure the resistance between the harness connector of right rear radar sensor R03-2 and the left body control module KG64(D)-22.

| Connector | | Condition | Resistance value |
|-----------|------------|-------------|------------------|
| (+) | (-) | | |
| R03-2 | KG64(D)-22 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the left body control module.

B1B4A00 Afterwave Time Fault of Right Rear Corner Sensor

DTC Description

| B1B4A00 Afterwave Time Fault of Right Rear Corner Sensor | |
|--|---|
| Symptom | Partial failure of park assist system. |
| Possible Cause | Right rear radar sensor fault. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace right rear radar sensor. |

B1B4800 Right Rear Corner Sensor Internal Fault**DTC Description**

| B1B4800 Right Rear Corner Sensor Internal Fault | |
|---|---|
| Symptom | Partial failure of park assist system. |
| Possible Cause | Right rear radar sensor. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

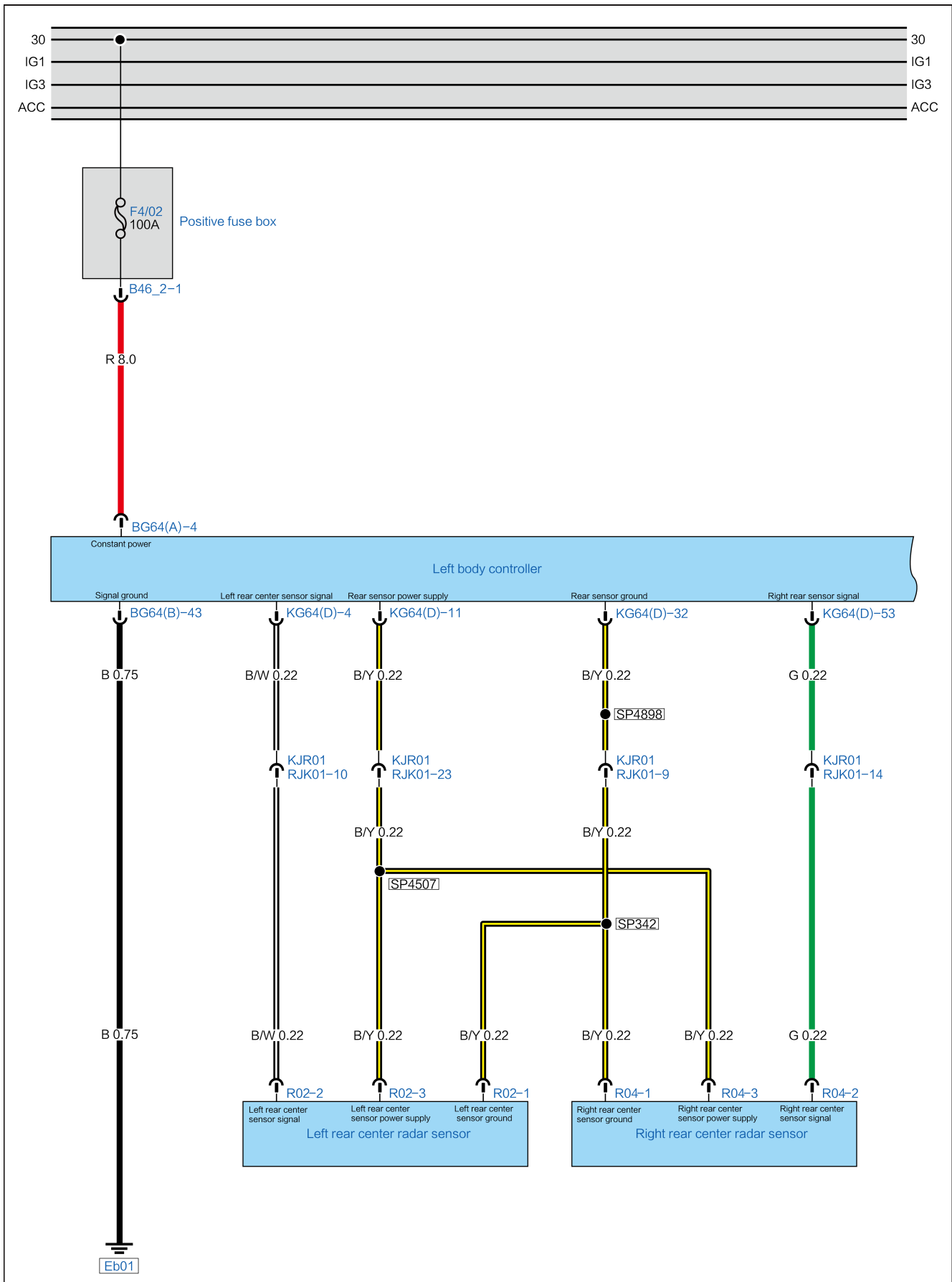
1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|----------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace right rear radar sensor. |

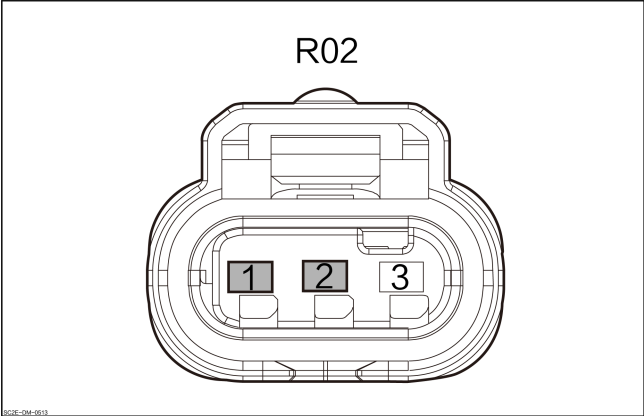
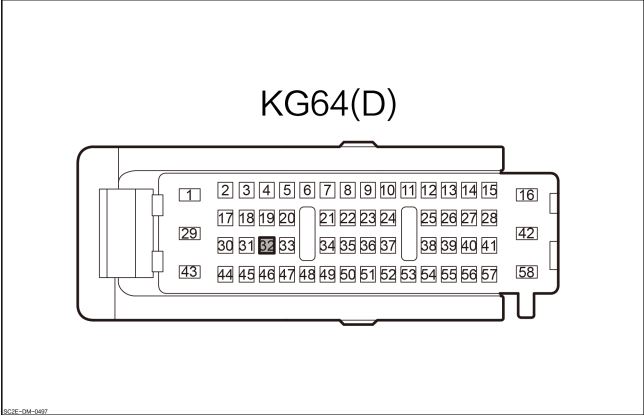
B1B4E12 Left Rear Center Sensor Signal Wire Short to Power or Not Ground**DTC Description**

| B1B4E12 Left Rear Center Sensor Signal Wire Short to Power or Not Ground | |
|--|---|
| Symptom | Partial failure of park assist system. |
| Possible Cause | 1. Harness or harness connector fault. 2. The left rear center radar sensor fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram

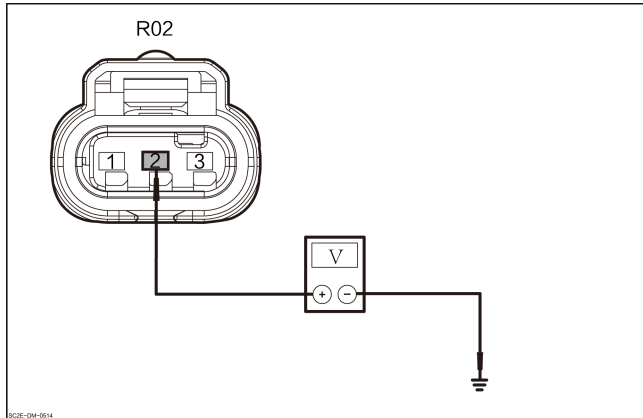


Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--------------------------------------|
| <p>Left rear center radar sensor</p>  <p>R02</p> | 1 | Left rear center radar sensor ground |
| | 2 | Left rear center radar sensor signal |
| <p>Left body control module</p>  <p>KG64(D)</p> | 32 | Rear radar sensor GND |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
| <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the start/stop button to ON. 3. Clear DTCs. 4. Place the start/stop button in the OFF position and wait for a few seconds. 5. Place the start/stop button in ON position again, and read the DTC. 6. Check whether the same DTC is displayed? | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Check the “intermittent fault” .</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 2 | Check the left rear center radar sensor |
| <ol style="list-style-type: none"> 1. Replace the left rear center radar sensor with a new one and restore the vehicle. 2. Set the start/stop button to ON position and conduct a trial run to check its function. 3. Check whether the results are normal. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">Yes</div> <div style="border: 1px solid black; padding: 5px;">Replace the left rear center radar sensor.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">No</div> | |
| 3 | Check the harness connector of left rear center radar sensor |
| <ol style="list-style-type: none"> 1. Set the START/STOP button to “OFF” . 2. Disconnect the harness connector of left rear center radar sensor R02. 3. Check the harness connector of left rear center radar sensor for normal function. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Repair or replace the wire harness</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 4 | Check the signal line of left rear center radar sensor for short to power. |



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of left rear center radar sensor R02-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| R02-2 | Ground | Through-out | Less than 1V |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

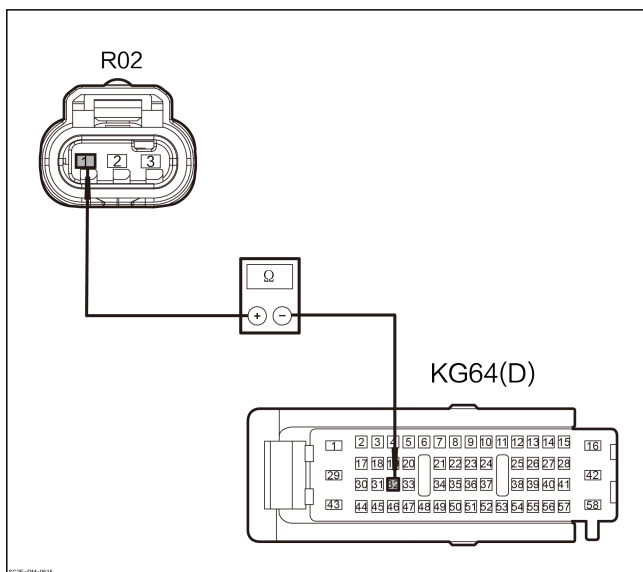
5 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(D).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the ground line of left rear center radar sensor for open circuit.



1. Measure the resistance between the harness connector of left rear center radar sensor R02-1 and the left body control module KG64(D)-32.

| Connector | | Condition | Resistance value |
|-----------|------------|-------------|------------------|
| (+) | (-) | | |
| R02-1 | KG64(D)-32 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

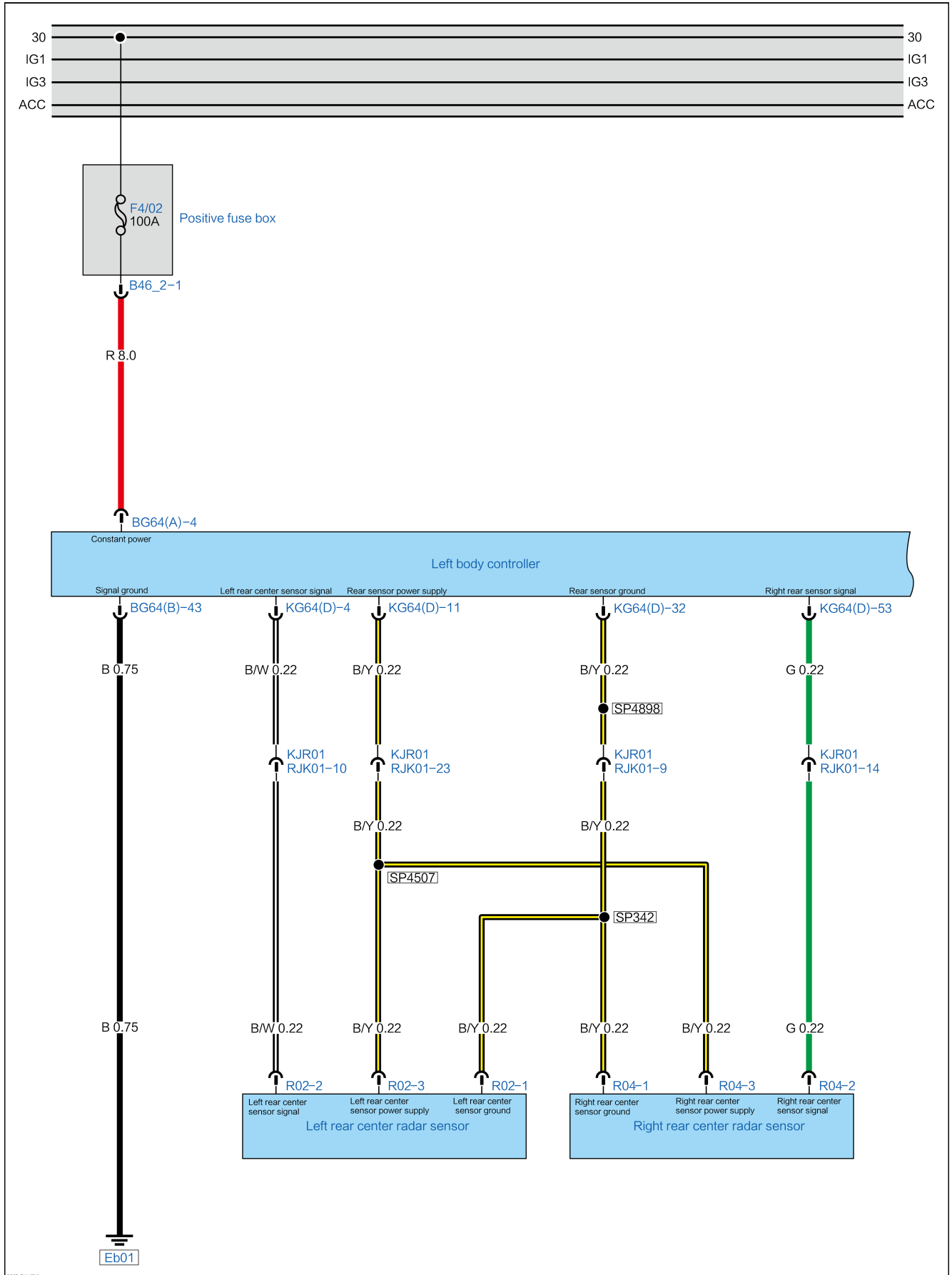
Yes → Replace the left body control module.

B1B4E14 Left Rear Center Sensor Signal Wire Short to Ground or Open-circuited

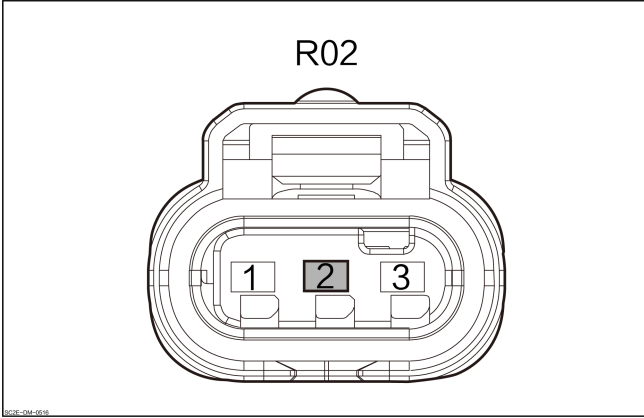
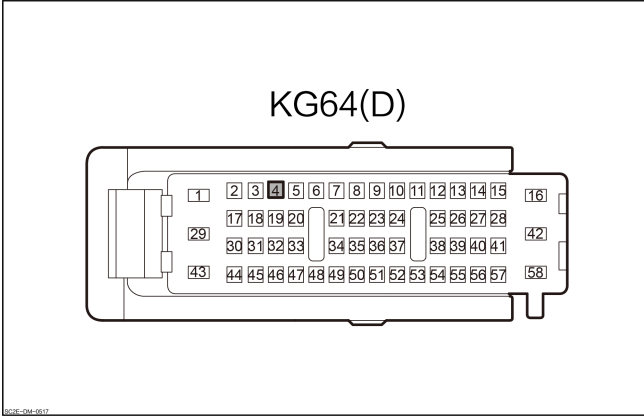
DTC Description

| B1B4E14 Left Rear Center Sensor Signal Wire Short to Ground or Open-circuited | |
|---|---|
| Symptom | Partial failure of park assist system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or harness connector fault. 2. The left rear center radar sensor fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p>Rear left center radar sensor</p>  <p>R02</p> <p>1 2 3</p> <p><small>801E-0M-0616</small></p> | <p>2</p> | <p>Rear left center radar sensor signal</p> |
| <p>Left body control module</p>  <p>KG64(D)</p> <p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58</p> <p><small>801E-0M-0617</small></p> | <p>4</p> | <p>Rear left center radar sensor signal</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the left rear center radar sensor |
|---|---|

1. Replace the left rear center radar sensor with a new one and restore the vehicle.
2. Set the start/stop button to ON position and conduct a trial run to check its function.
3. Check whether the results are normal.

Yes

Replace the left rear center radar sensor.

No

| | |
|---|--|
| 3 | Check the harness connector of left rear center radar sensor |
|---|--|

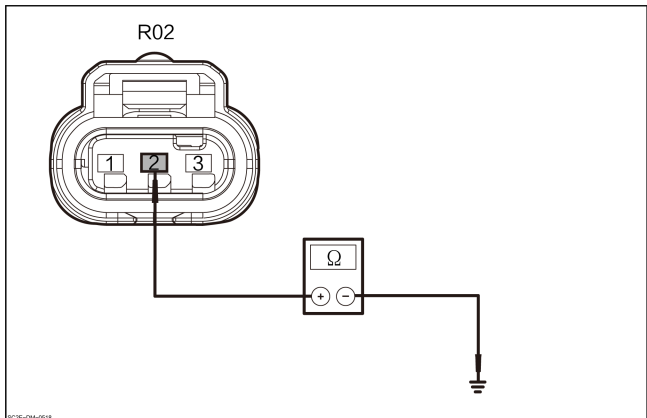
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left rear center radar sensor R02.
3. Check the harness connector of left rear center radar sensor for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the signal line of left rear center radar sensor for short to ground. |
|---|---|



1. Measure the resistance between the harness connector of left rear center radar sensor R02-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| R02-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

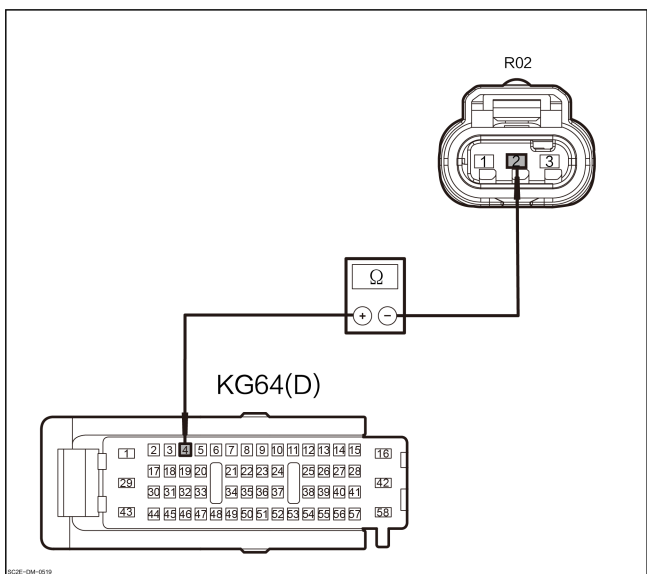
5 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(D).
3. Check whether the harness connector of left body control module is normal?

No Repair or replace the wire harness

Yes

6 Check the signal line of left rear center radar sensor for open circuit.



1. Measure the resistance between the harness connector of left rear center radar sensor R02-2 and the left body control module KG64(D)-4.

| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| R02-2 | KG64(D) -4 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the left body control module.

B1B5000 Afterwave Time Fault of Left Rear Center Sensor

DTC Description

| B1B5000 Afterwave Time Fault of Left Rear Center Sensor | |
|---|---|
| Symptom | Partial failure of park assist system. |
| Possible Cause | The left rear center radar sensor fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--|
| No | Check the “intermittent fault” . |
| Yes | Replace the left rear center radar sensor. |

B1B4E00 Left Rear Center Sensor Internal Fault**DTC Description**

| B1B4E00 Left Rear Center Sensor Internal Fault | |
|--|---|
| Symptom | Partial failure of park assist system. |
| Possible Cause | The left rear center radar sensor fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

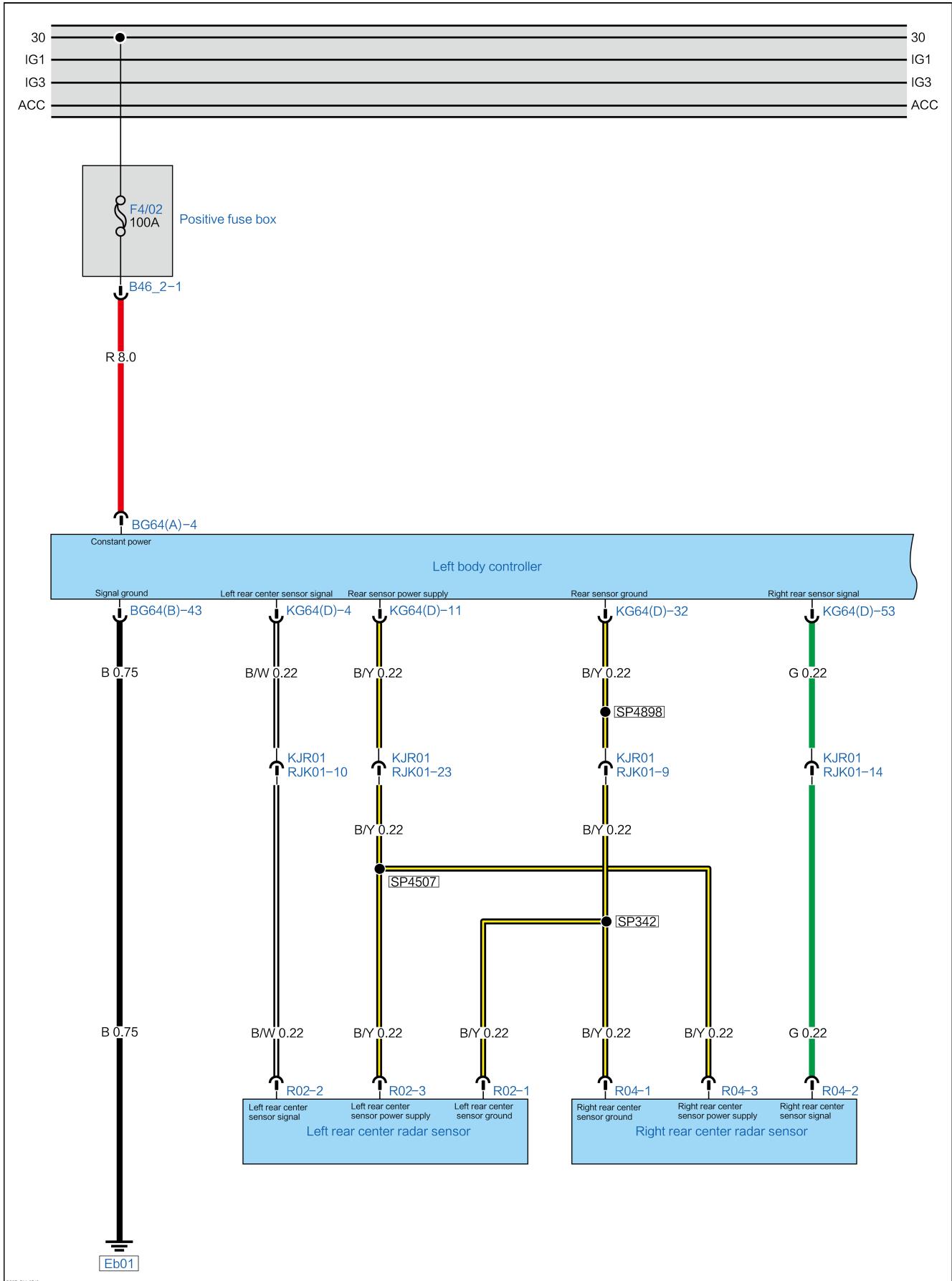
1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--|
| No | Check the “intermittent fault” . |
| Yes | Replace the left rear center radar sensor. |

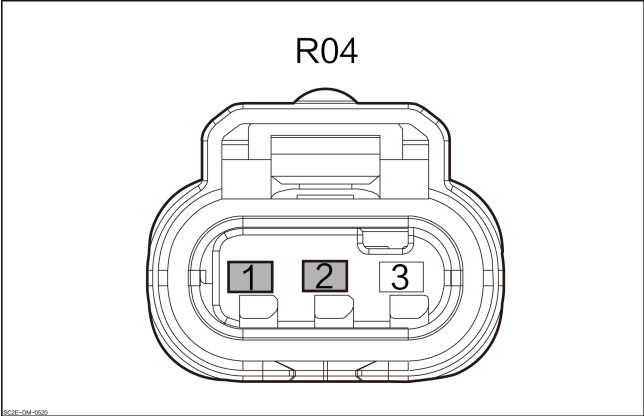
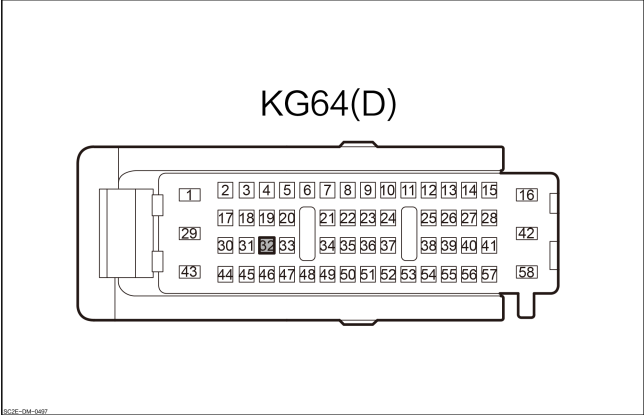
B1B4B12 Right Rear Center Sensor Signal Wire Short to Power or Not Ground**DTC Description**

| B1B4B12 Right Rear Center Sensor Signal Wire Short to Power or Not Ground | |
|---|--|
| Symptom | Partial failure of park assist system. |
| Possible Cause | 1. Harness or harness connector fault. 2. The right rear center radar sensor fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram

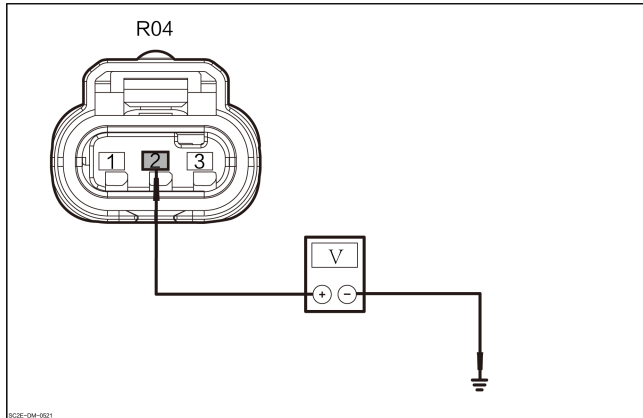


Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|---------------------------------------|--|
| <p style="text-align: center;">Right rear center radar sensor</p> <div style="text-align: center;">  <p>R04</p> </div> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Right rear center radar sensor ground</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Right rear center radar sensor signal</p> |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p>KG64(D)</p> </div> | <p style="text-align: center;">32</p> | <p style="text-align: center;">Rear radar sensor GND</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module. |
| <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the start/stop button to ON. 3. Clear DTCs. 4. Place the start/stop button in the OFF position and wait for a few seconds. 5. Place the start/stop button in ON position again, and read the DTC. 6. Check whether the same DTC is displayed? | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Check the “intermittent fault” .</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 2 | Check the right rear center radar sensor |
| <ol style="list-style-type: none"> 1. Replace with a normal right rear center radar sensor, and restore the vehicle. 2. Set the start/stop button to ON position and conduct a trial run to check its function. 3. Check whether the results are normal. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">Yes</div> <div style="border: 1px solid black; padding: 5px;">Replace the right rear center radar sensor.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">No</div> | |
| 3 | Check the harness connector of right rear center radar sensor |
| <ol style="list-style-type: none"> 1. Set the START/STOP button to “OFF” . 2. Disconnect the harness connector of right rear center radar sensor R04. 3. Check the harness connector of right rear center radar sensor for normal function. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Repair or replace the wire harness</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 4 | Check the signal line of right rear center radar sensor for short to power. |



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of right rear center radar sensor R04-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| R04-2 | Ground | Through-out | Less than 1V |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

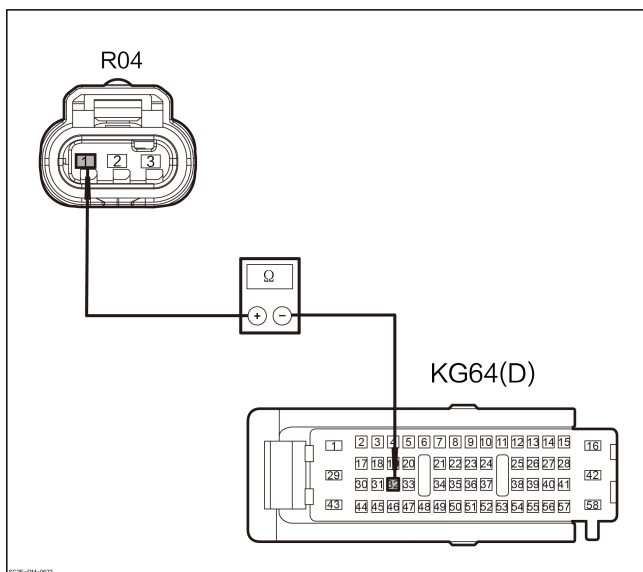
5 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(D).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the ground line of right rear center radar sensor for open circuit.



1. Measure the resistance between the harness connector of right rear center radar sensor R04-1 and the left body control module KG64(D)-32.

| Connector | | Condition | Resistance value |
|-----------|------------|-------------|------------------|
| (+) | (-) | | |
| R04-1 | KG64(D)-32 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

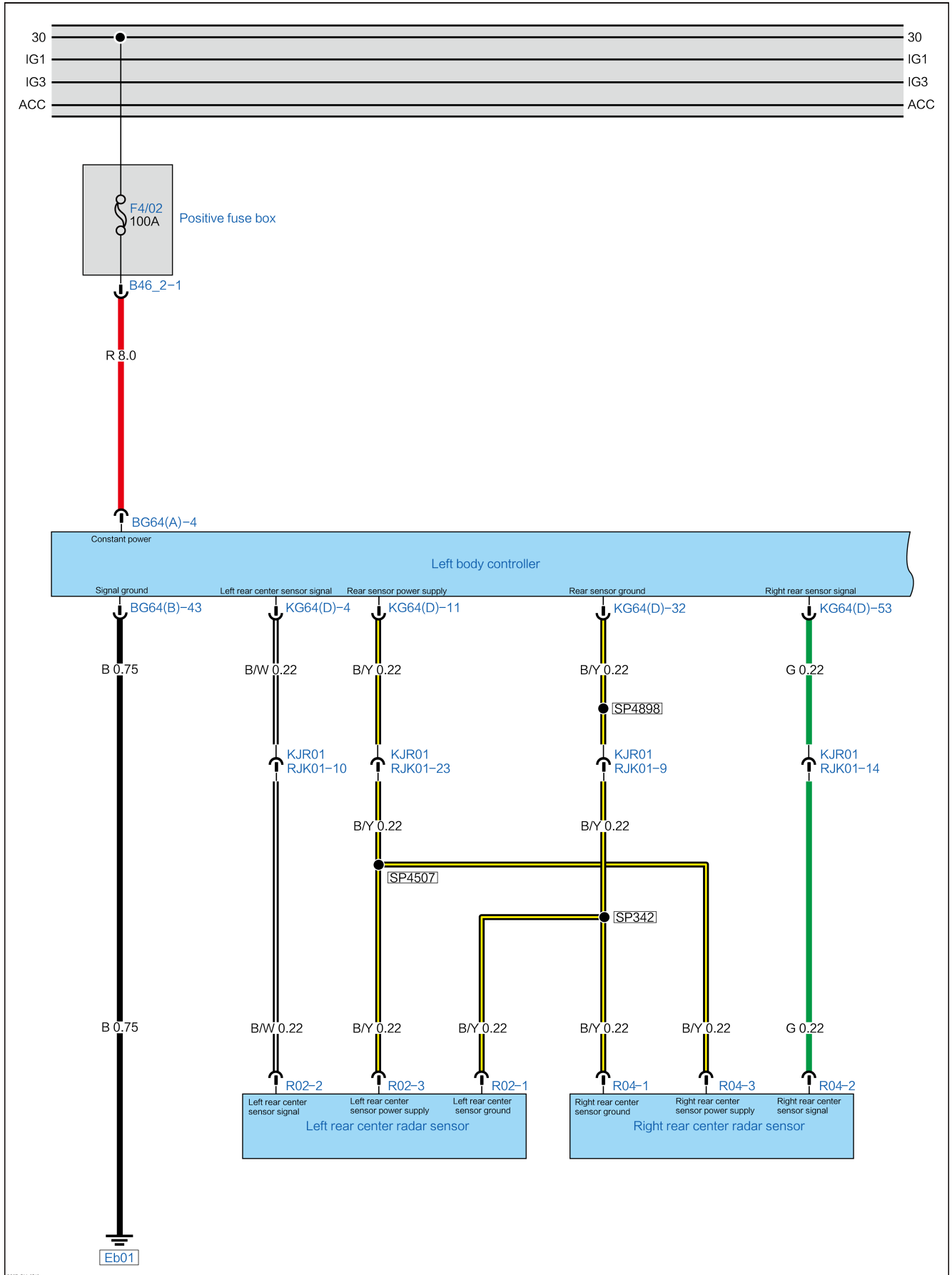
Yes → Replace the left body control module.

B1B4B14 Right Rear Center Sensor Signal Wire Short to Ground or Open-circuited

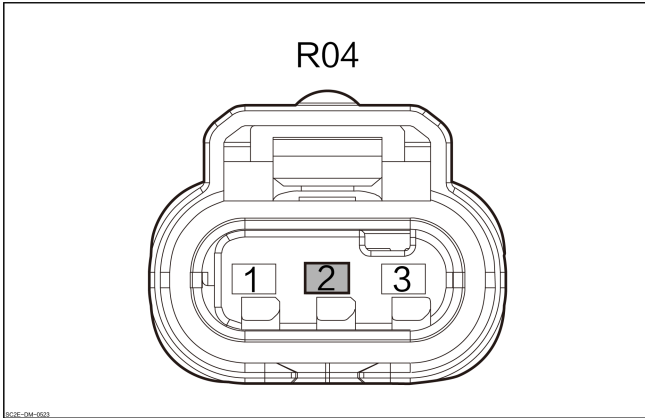
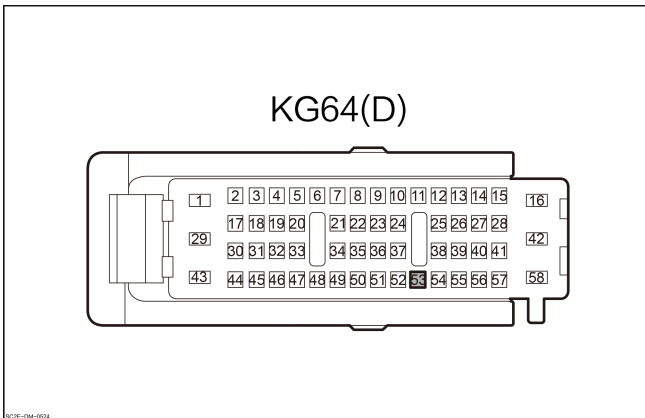
DTC Description

| B1B4B14 Right Rear Center Sensor Signal Wire Short to Ground or Open-circuited | |
|--|--|
| Symptom | Partial failure of park assist system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The right rear center radar sensor fails. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p>Rear left center radar sensor</p>  <p>The diagram shows a circular connector labeled R04. It has three terminals labeled 1, 2, and 3. Terminal 2 is highlighted with a grey background.</p> | <p>2</p> | <p>Rear left center radar sensor signal</p> |
| <p>Left body control module</p>  <p>The diagram shows a rectangular connector labeled KG64(D) with 64 terminals numbered 1 to 64. Terminal 53 is highlighted with a grey background.</p> | <p>53</p> | <p>Rear left center radar sensor signal</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the right rear center radar sensor |
|---|--|

1. Replace with a normal right rear center radar sensor, and restore the vehicle.
2. Set the start/stop button to ON position and conduct a trial run to check its function.
3. Check whether the results are normal.

Yes

Replace the right rear center radar sensor.

No

| | |
|---|---|
| 3 | Check the harness connector of right rear center radar sensor |
|---|---|

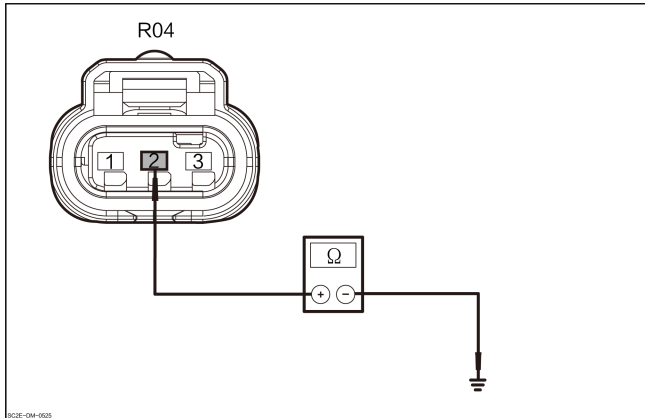
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right rear center radar sensor R04.
3. Check the harness connector of right rear center radar sensor for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the signal line of right rear center radar sensor for short to ground. |
|---|--|



1. Measure the resistance between the harness connector of right rear center radar sensor R04-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| R04-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

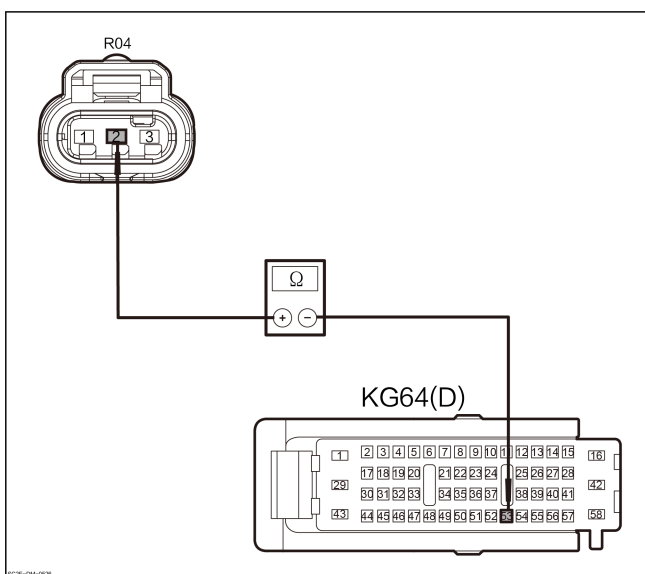
5 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(D).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the signal line of right rear center radar sensor for open circuit.



1. Measure the resistance between the harness connector of right rear center radar sensor R04-2 and the left body control module KG64(D)-53.

| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| R04-2 | KG64(D) -53 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the left body control module.

B1B4D00 Afterwave Time Fault of Right Rear Center Sensor

DTC Description

| B1B4D00 Afterwave Time Fault of Right Rear Center Sensor | |
|--|---|
| Symptom | Partial failure of park assist system. |
| Possible Cause | The right rear center radar sensor fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|---|
| No | Check the “intermittent fault” . |
| Yes | Replace the right rear center radar sensor. |

B1B4B00 Right Rear Center Sensor Internal Fault**DTC Description**

| B1B4B00 Right Rear Center Sensor Internal Fault | |
|---|---|
| Symptom | Partial failure of park assist system. |
| Possible Cause | Right rear center radar sensor |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|---|
| No | Check the “intermittent fault” . |
| Yes | Replace the right rear center radar sensor. |

Networking and Communication

Gateway System

Diagnosis Description

I. Introduction

When diagnosing network communication faults, in order to understand and get familiar with the working principle of the network communication, go to the description and operation overview. Confirm the faults described by the customer before diagnosis, and then analyze the cause of the network communication fault, so as to confirm the correct fault diagnosis procedure. For inspection and measurement on network communication lines and components, give priority to the use of data flow and action test functions to improve diagnostic efficiency and shorten maintenance time. After the failure is confirmed, the precautions and warnings shall be understood when repairing the network communication, and the standard operation procedures shall be implemented. Check the network communication and confirm its working condition after repair.

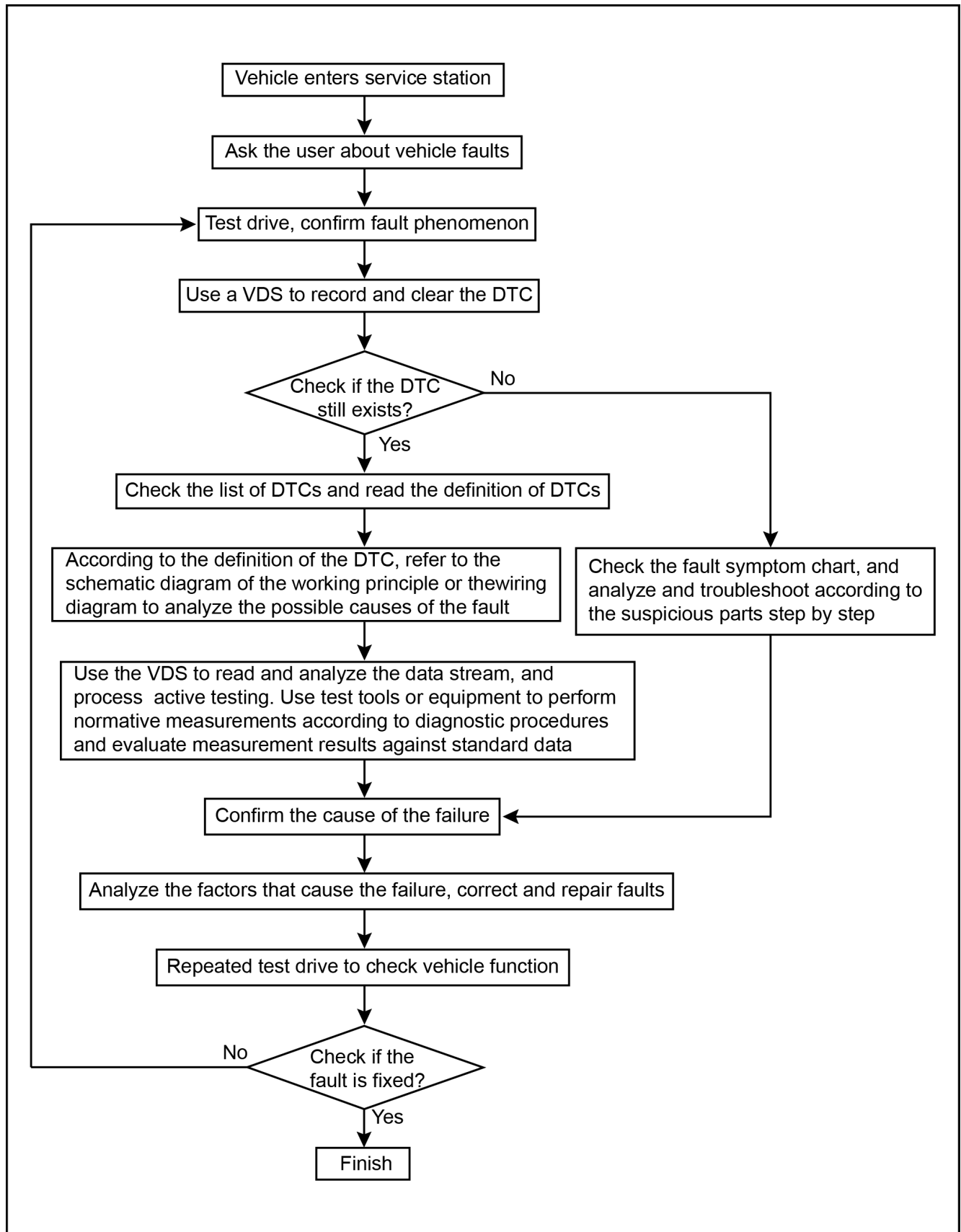
II. General equipment

- Multimeter
- VDS

Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Process of Fault Inspection and Troubleshooting



Diagnosis of General Faults

Visual Inspection

1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

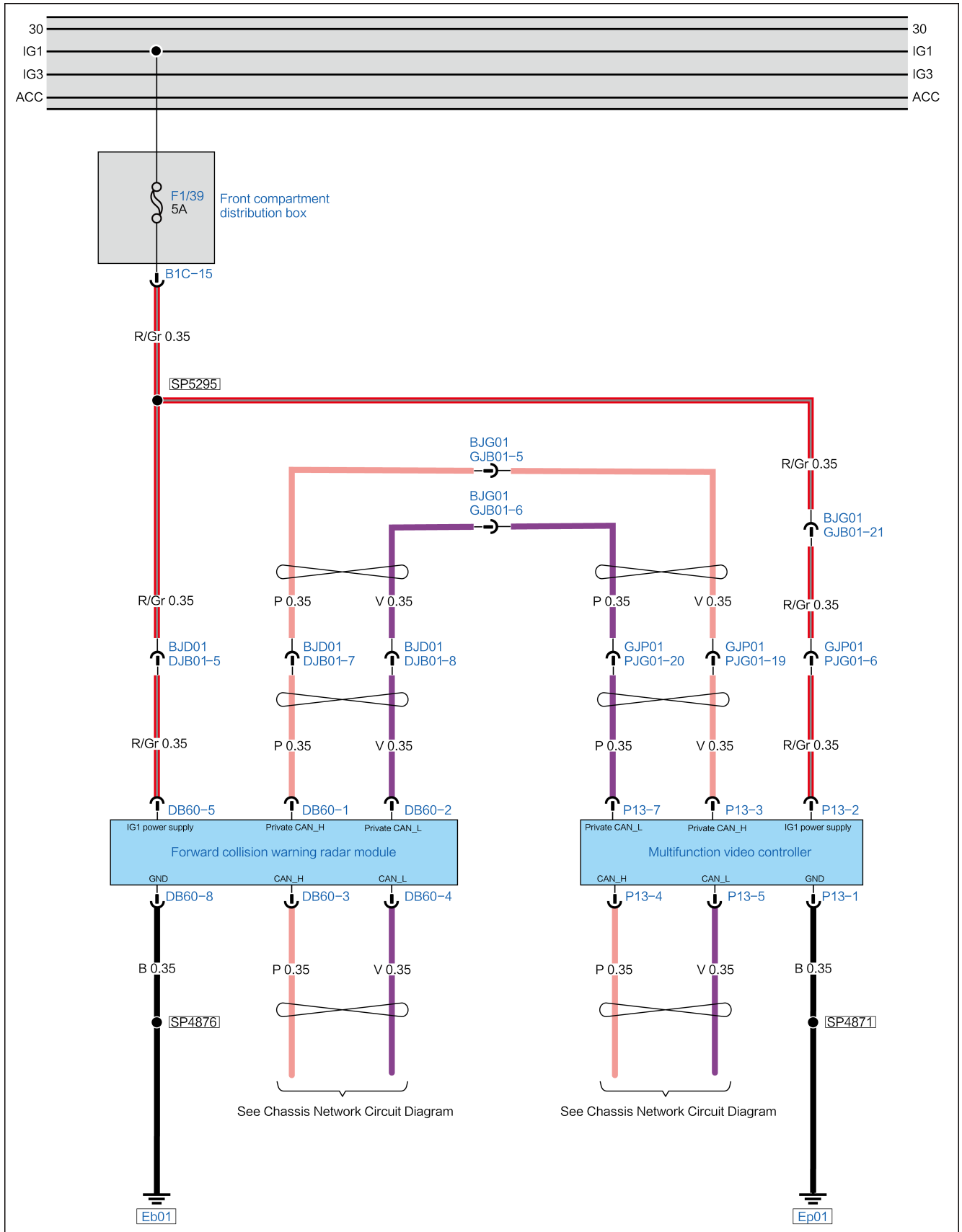
General Symptom List

| Symptom | Possible cause | Suggested maintenance measures |
|--|--|--|
| Communication with Front Collision Warning Radar Module Lost | <ol style="list-style-type: none"> 1. Fuse has blew. 2. Harness or harness connector fault. 3. Chassis network communication failure. 4. Front collision warning radar module fault. | Communication with Front Collision Warning Radar Module Lost |
| Communication loss of multi-functional video controller | <ol style="list-style-type: none"> 1. Fuse has blew. 2. Harness or harness connector fault. 3. Chassis network communication failure. 4. Multifunctional video controller fault. | Communication loss of multi-functional video controller |
| Communication loss of electric compressor | <ol style="list-style-type: none"> 1. Fuse has blew. 2. Harness or harness connector fault. 3. The energy network communication failure. 4. Multifunctional video controller fault. | Communication loss of electric compressor |
| Communication with Combination Switch Lost | <ol style="list-style-type: none"> 1. Fuse has blew. 2. Harness or harness connector fault. 3. Body network communication failure. 4. Multi-function switch fault | Communication with Combination Switch Lost |
| Communication with Left body Control Module Lost | <ol style="list-style-type: none"> 1. Fuse has blew. 2. Harness or harness connector fault. 3. The left body control module fails. | Communication with Left body Control Module Lost |
| Communication with Right body Control Module Lost | <ol style="list-style-type: none"> 1. Fuse has blew. | Communication with Right body Control Module Lost |

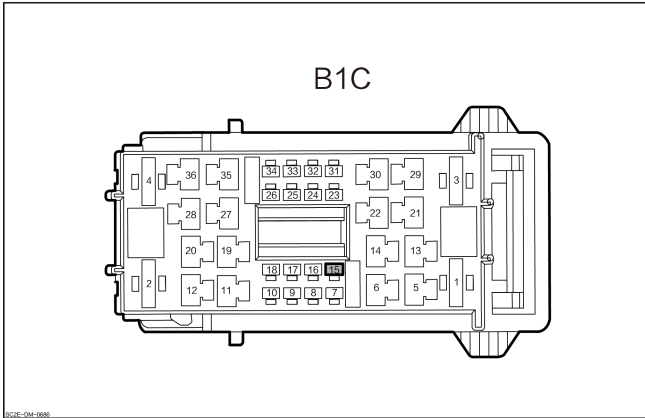
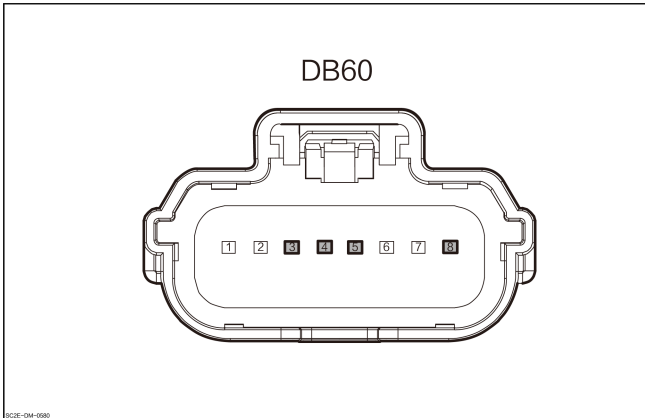
| Symptom | Possible cause | Suggested maintenance measures |
|------------------------------------|---|------------------------------------|
| | <ol style="list-style-type: none"> 2. Harness or harness connector fault. 3. The right body control module fails. | |
| Body Network Bus Off | <ol style="list-style-type: none"> 1. Harness or harness connector fault. 2. The left body control module fails. 3. The right body control module fails. 4. Module failure on the body network. | Body Network Bus Off |
| Chassis Network Bus Off | <ol style="list-style-type: none"> 1. Harness or harness connector fault. 2. Terminal resistor 2 fault. 3. The right body control module fails. 4. Module failure on the body network. | Chassis Network Bus Off |
| Energy Network Bus Off | <ol style="list-style-type: none"> 1. Harness or harness connector fault. 2. Smart integrated control unit 3. The right body control module fails. 4. Module failure on the body network. | Energy Network Bus Off |
| Intelligent Access Network Bus Off | <ol style="list-style-type: none"> 1. Harness or harness connector fault. 2. The left body control module fails. 3. The right body control module fails. 4. Module failure on the body network. | Intelligent Access Network Bus Off |

Communication with Front Collision Warning Radar Module Lost

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p style="text-align: center;">Front compartment fuse box</p> <div style="text-align: center;">  <p style="text-align: center;">B1C</p> </div> | 15 | Forward collision warning radar module IG1 power supply |
| <p style="text-align: center;">Forward collision warning radar module</p> <div style="text-align: center;">  <p style="text-align: center;">DB60</p> </div> | 3 | CAN-H |
| | 4 | CAN-L |
| | 5 | IG1 power supply |
| | 8 | Ground |

Diagnostic Steps

1 Check the communication network of the forward collision warning radar module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the forward collision warning radar module has passed the network test.

Yes → Check the “intermittent fault” .

No

2 Check the fuse for the forward collision warning radar module.

1. Check whether the fuse F1/39 (5A) of front compartment fuse box is normal?

No → Replace the fuse

Yes

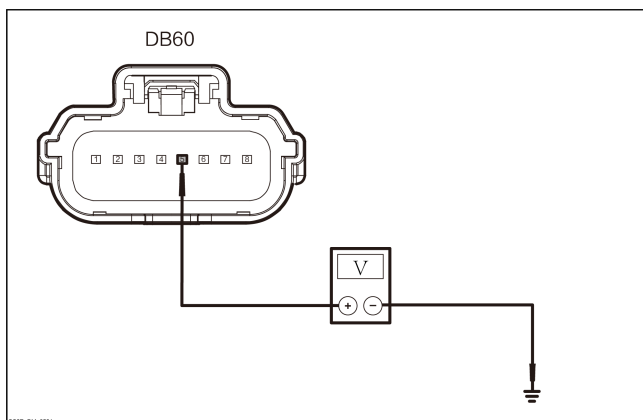
3 Check the harness connector of the forward collision warning radar module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector DB60 of the forward collision warning radar module.
3. Check the harness connector of the forward collision warning radar module for normal function.

No → Repair or replace the wire harness

Yes

4 Check the power supply of the forward collision warning radar module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of forward collision warning radar module DB60-5 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| DB60-5 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes Go to step 7

No

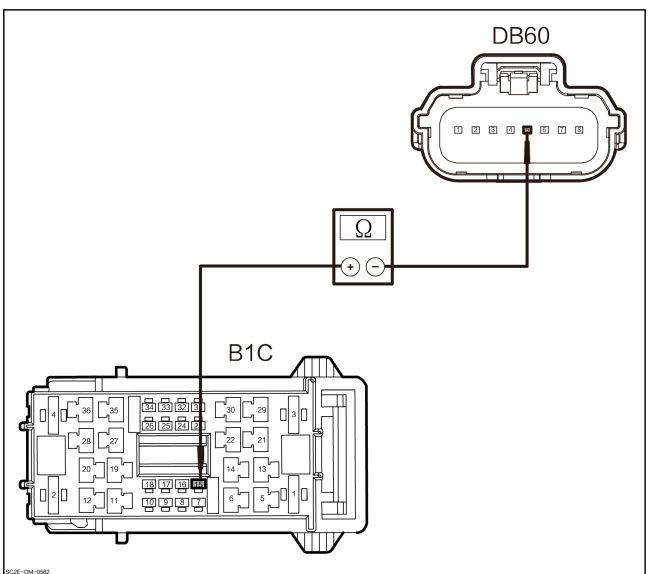
5 Check the front compartment fuse box harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1C.
3. Check whether the front compartment fuse box harness connector is normal.

No Repair or replace the wire harness

Yes

6 Check the power line of forward collision warning radar module for open circuit.



1. Measure the resistance between the harness connector of forward collision warning radar module DB60–5 and the harness connector of front compartment fuse box B1C–15.

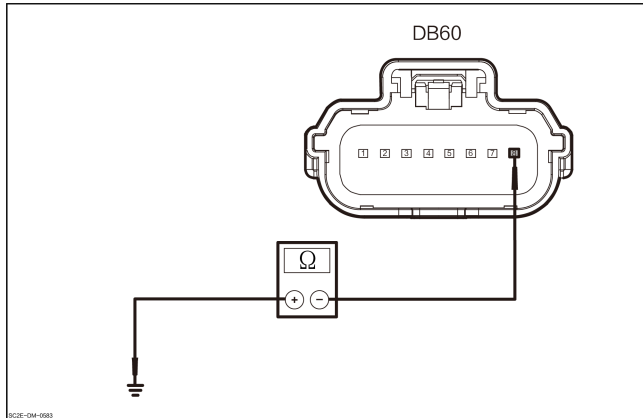
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B1C–15 | DB60–5 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the front compartment fuse box.

7 Check the ground line of forward collision warning radar module for open circuit.



1. Measure the resistance between the harness connector of forward collision warning radar module DB60-8 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| DB60-8 | Ground | Through- out | Lower than 1 Ω |

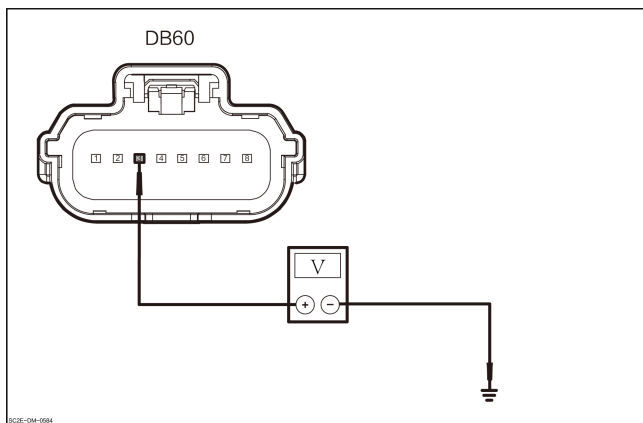
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

8 Check the voltage of CAN-H line of forward collision warning radar module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of forward collision warning radar module DB60-3 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| DB60-3 | Ground | Through- out | 2.5~3.5V |

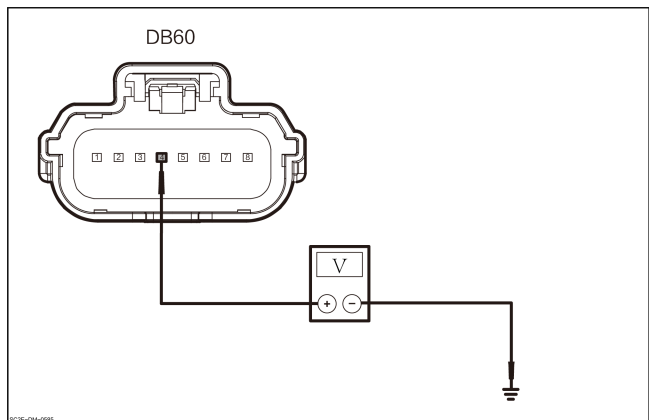
3. Check whether the results are normal.

No

Jump to “chassis network bus off” diagnosis.

Yes

9 Check the CAN-L voltage of the forward collision warning radar module.



1. Measure the voltage between the harness connector of forward collision warning radar module DB60-4 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| DB60-4 | Ground | Through-out | 1.5~2.5V |

2. Check whether the results are normal.

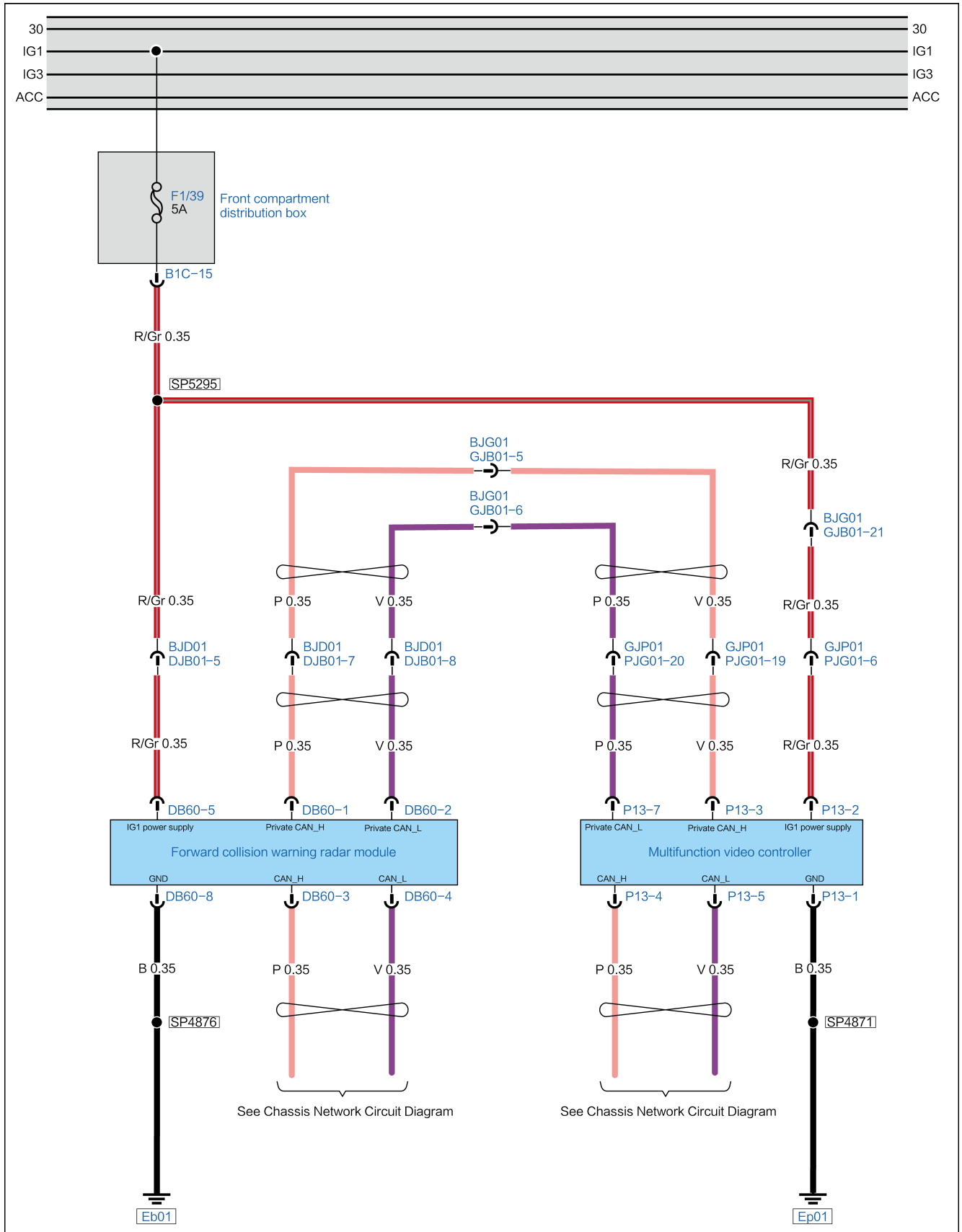
- No

Jump to “chassis network bus off” diagnosis.
- Yes

Replace the forward collision warning radar module.

Communication with Multifunction Video Control Module Lost

Circuit Diagram



Diagnostic Steps

1 Check the communication network of the multifunction video control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the of the multifunction video control module has pass the network test.

Yes → Check the “intermittent fault” .

No

2 Check the fuse for the multifunction video control module.

1. Check whether the fuse F 1/39 (5A) of front compartment fuse box is normal?

No → Replace the fuse

Yes

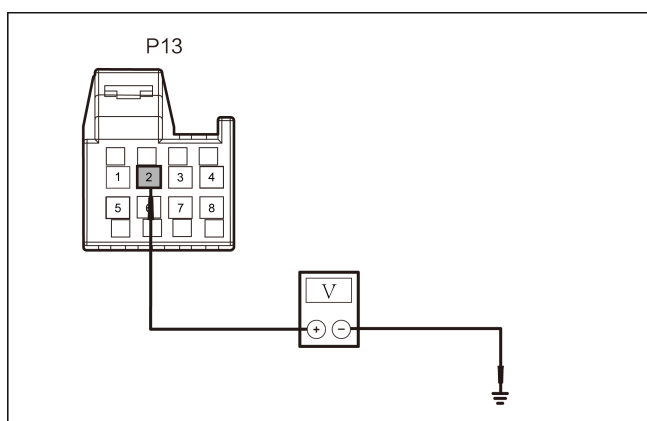
3 Check the harness connector of the multifunction video control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of the multifunction video control module P13.

No → Repair or replace the wire harness

Yes

4 Check the power supply of the multifunction video control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of multifunction video control module P13-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| P13-2 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Go to step 7

No

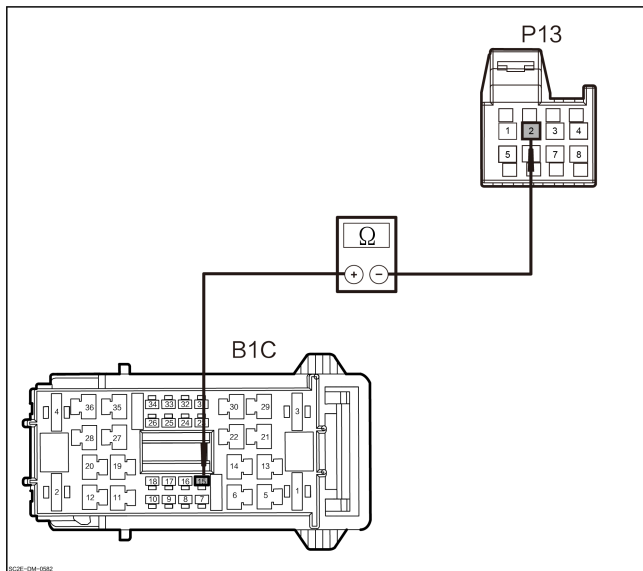
5 Check the front compartment fuse box harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1C.
3. Check whether the front compartment fuse box harness connector is normal.

No → Repair or replace the wire harness

Yes

6 Check the power line of multifunction video control module for open circuit.



1. Measure the resistance between the harness connector of multifunction video control module P13-2 and the harness connector of front compartment fuse box B1C-15.

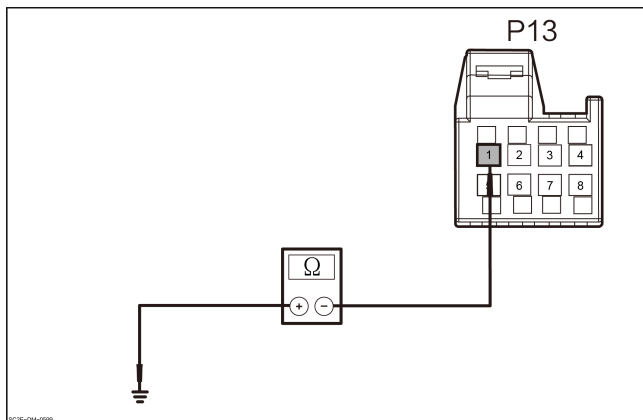
| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| B1C-15 | P13-2 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the front compartment fuse box.

7 Check the ground line of multifunction video control module for open circuit.



1. Measure the resistance between the harness connector of multifunction video control module P13-1 and the ground.

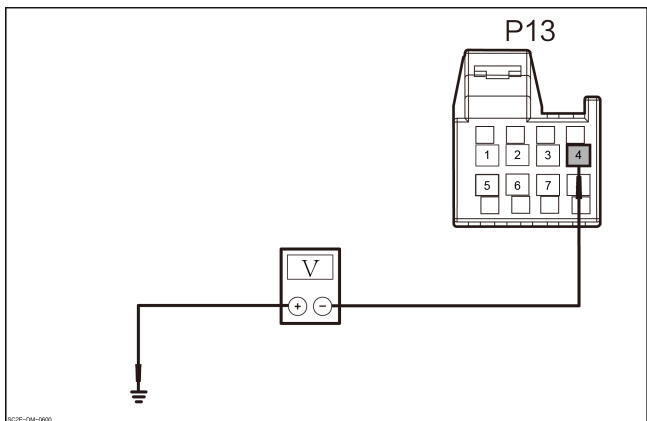
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| P13-1 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the voltage of CAN-H line of multifunction video control module.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of multifunction video control module P13-4 and the ground.

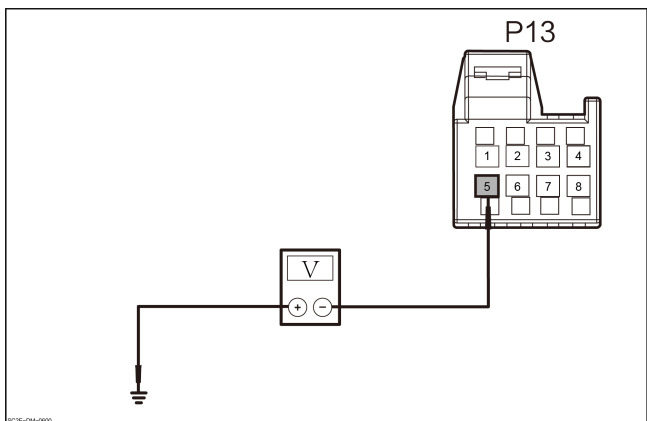
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| P13-4 | Ground | Through-out | 2.5~3.5V |

3. Check whether the results are normal.

No → [Jump to “chassis network bus off” diagnosis.](#)

Yes

9 Check the CAN-L voltage of the multifunction video control module.



1. Measure the voltage between the harness connector of multifunction video control module P13-5 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| P13-5 | Ground | Through-out | 1.5~2.5V |

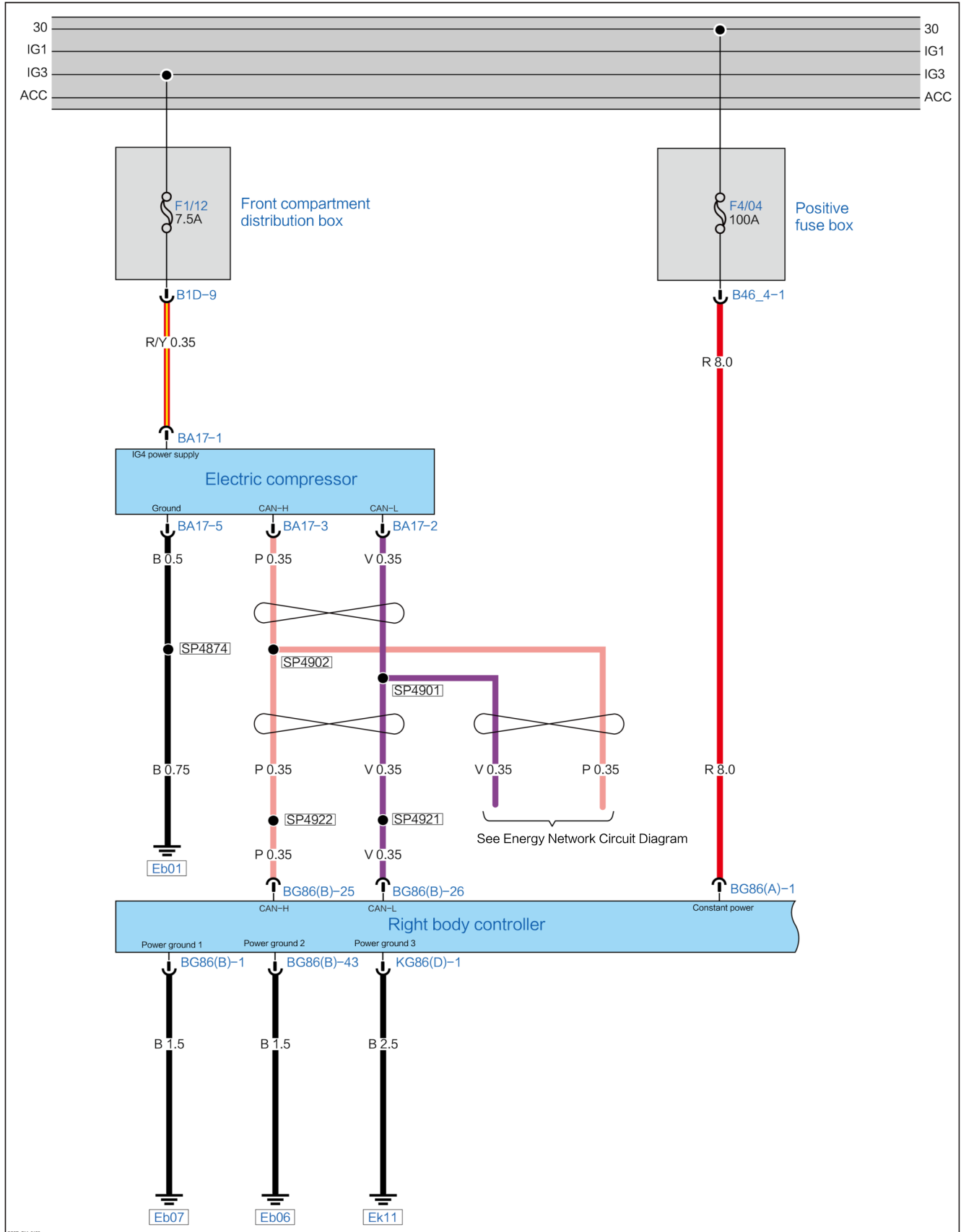
2. Check whether the results are normal.

No → [Jump to “chassis network bus off” diagnosis.](#)

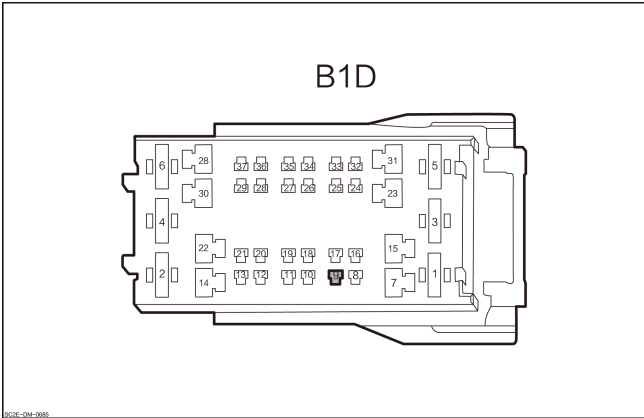
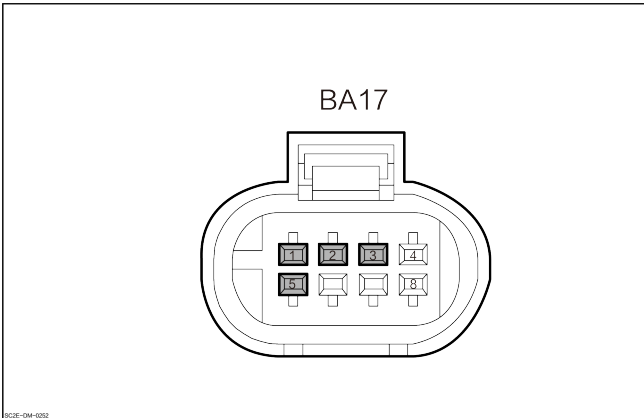
Yes → Replace the multifunction video control module.

Communication with Electric Compressor Lost

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p style="text-align: center;">Front compartment fuse box</p> <div style="text-align: center;">  <p style="text-align: center;">B1D</p> </div> | <p>9</p> | <p>Power supply of electric compressor IG4</p> |
| <p style="text-align: center;">Electric compressor</p> <div style="text-align: center;">  <p style="text-align: center;">BA17</p> </div> | <p>1</p> | <p>Power supply</p> |
| | <p>2</p> | <p>CAN-L</p> |
| | <p>3</p> | <p>CAN-H</p> |
| | <p>5</p> | <p>Ground</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the communication network of the electric compressor . |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the electric compressor passes the network detection?

Yes

Check the “intermittent fault” .

No

| | |
|---|-------------------------------------|
| 2 | Check the electric compressor fuse. |
|---|-------------------------------------|

1. Check whether the fuse F1/12 (7.5A) of front compartment fuse box is normal?

No

Replace the fuse

Yes

| | |
|---|--|
| 3 | Check the electric compressor harness connector. |
|---|--|

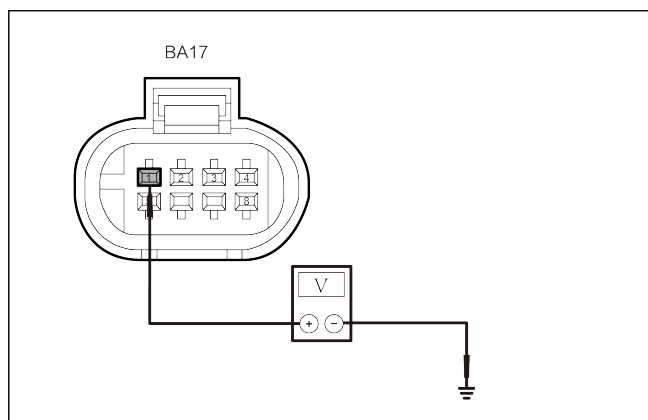
1. Set the START/STOP button to “OFF” .
2. Disconnect the electric compressor harness connector BA17.
3. Check the harness connector of electric compressor for corrosion, damage, pin withdrawing, etc.
4. Check whether the electric compressor harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the power supply of electric compressor. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the electric compressor harness connector BA17-1 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BA17-1 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes Go to step 7

No

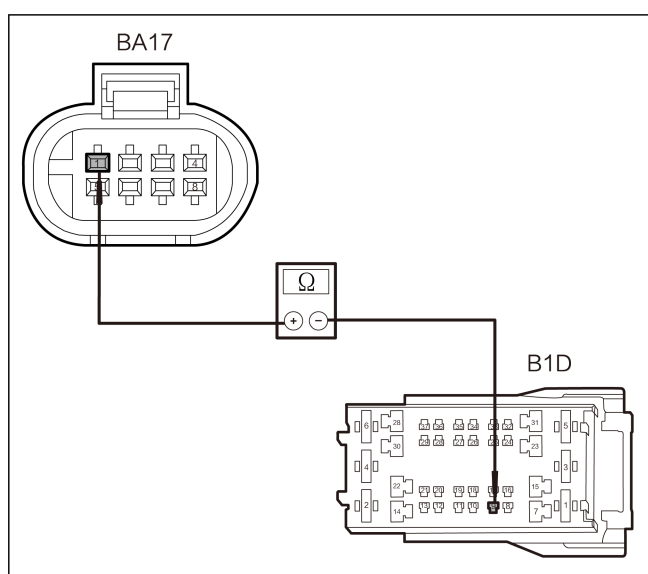
5 Check the harness connector of front compartment fuse box.

1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1D.
3. Check the harness connector of front compartment fuse box for corrosion, damage, pin withdrawing, etc.
4. Check whether the front compartment fuse box harness connector is normal.

No Repair or replace the wire harness

Yes

6 Check the electric compressor power supply line for open circuit.



1. Measure the resistance value between the electric compressor harness connector BA17-1 and the front compartment fuse box harness connector B1 D-9.

| Connector | | Condition | Resist-ance value |
|-----------|-------|-------------|-------------------|
| (+) | (-) | | |
| BA17-1 | B1D-9 | Through-out | Lower than 1Ω |

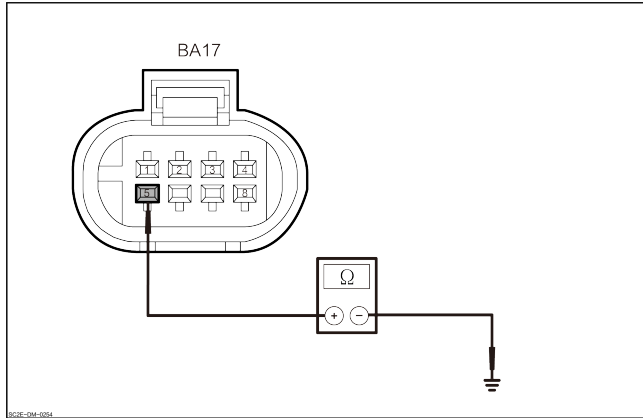
2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

Replace the front compartment fuse box.

7 Check the electric compressor ground line for open circuit.



1. Measure the resistance value between the electric compressor harness connector BA17-5 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| BA17-5 | Ground | Through-out | Lower than 1Ω |

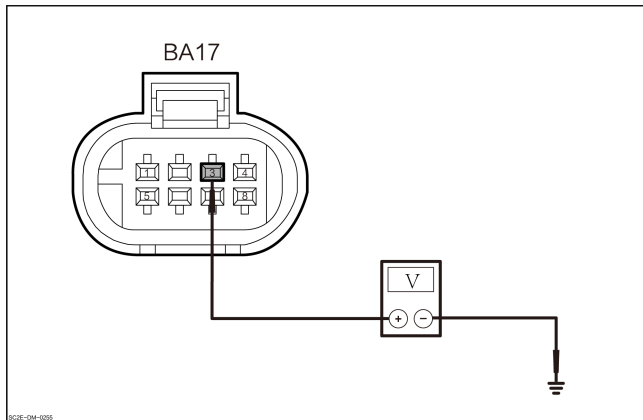
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

8 Check the CAN-H line voltage of the electric compressor.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the compressor harness connector BA17-3 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BA17-3 | Ground | Through-out | 2.5~3.5V |

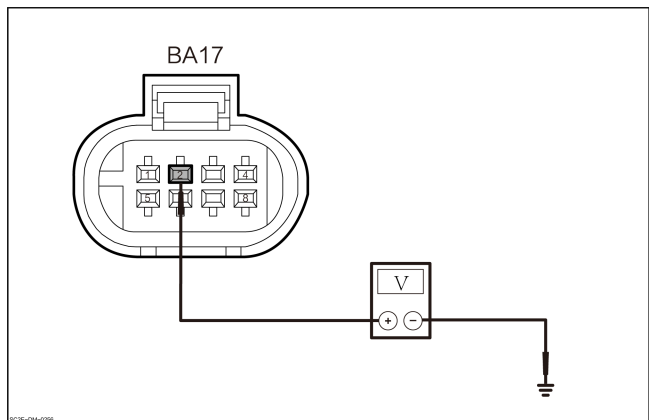
3. Check whether the results are normal.

No

Chassis Network Bus Off

Yes

9 Check the CAN-L line voltage of the electric compressor.



1. Measure the voltage between the compressor harness connector BA17-2 and the ground.

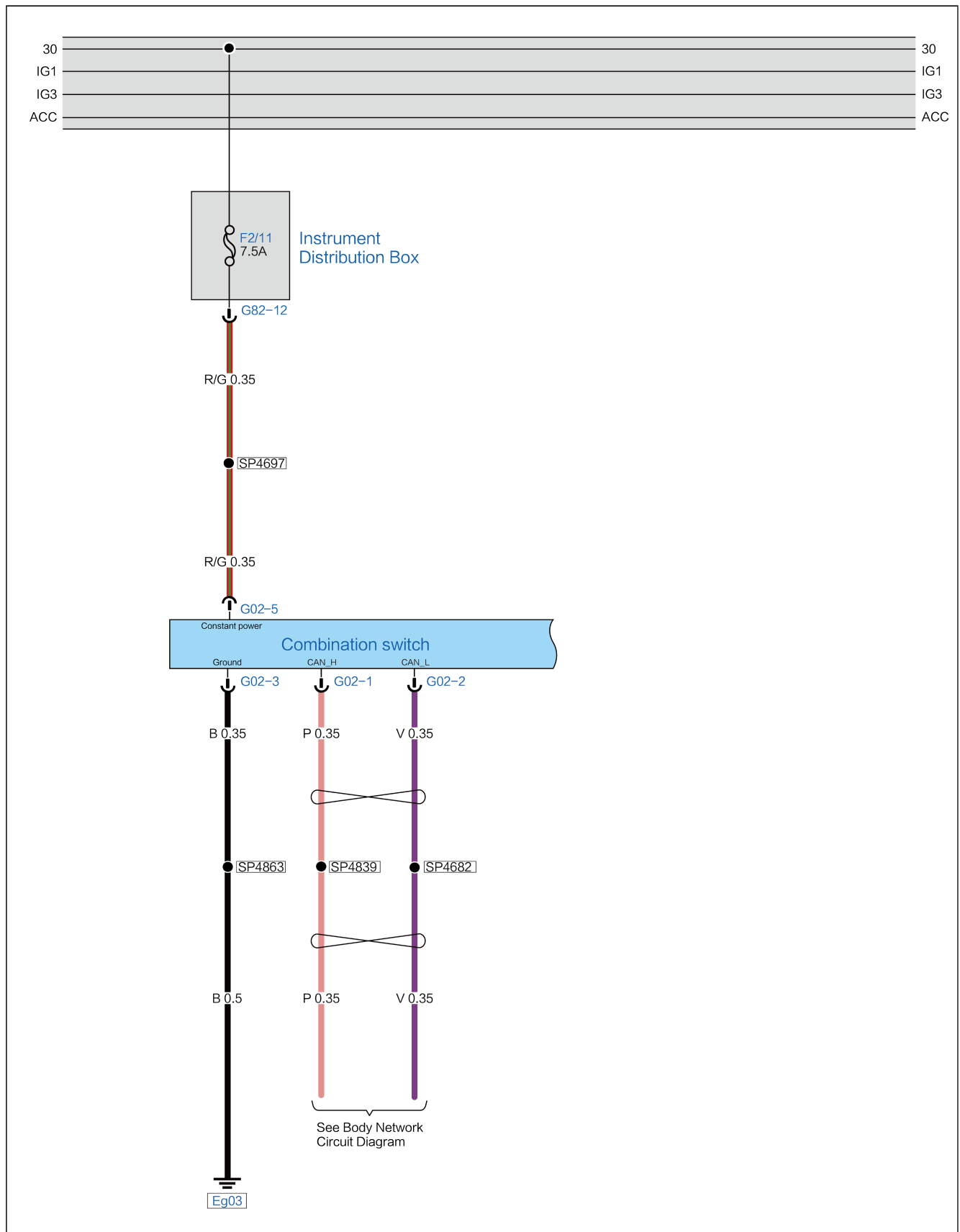
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BA17-2 | Ground | Through-out | 1.5~2.5V |

2. Check whether the results are normal.

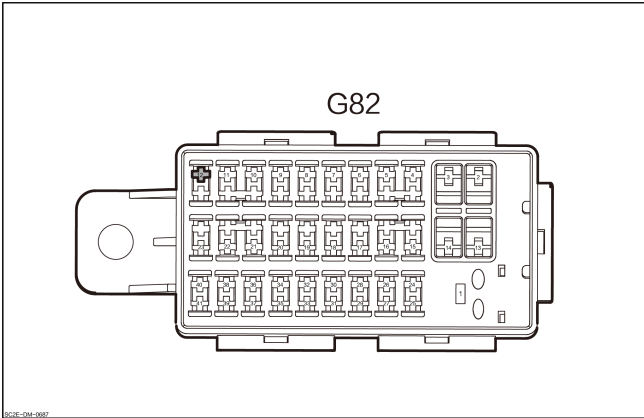
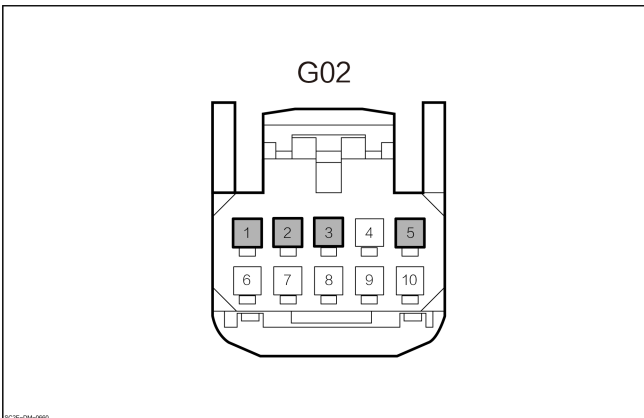
- No → Jump to “chassis network bus off” diagnosis.
- Yes → Replace the electric compressor.

Communication with Combination Switch Lost

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-----------------------------------|
| <p style="text-align: center;">Instrument fuse box</p>  <p style="text-align: center;">G82</p> | 12 | Combination switch constant power |
| <p style="text-align: center;">Combination Switch</p>  <p style="text-align: center;">G02</p> | 1 | CAN_H |
| | 2 | CAN_L |
| | 3 | Ground |
| | 5 | Constant power |

Diagnostic Steps

1 Check the communication network of the combination switch.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the combination switch passes the network detection?

Yes → Check the “intermittent fault” .

No

2 Check the combination switch fuse.

1. Check whether the instrument fuse box fuse F2/11 (7.5 A) is normal?

No → Replace the fuse

Yes

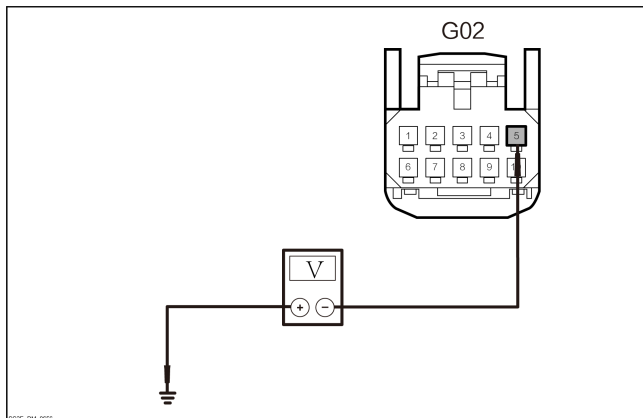
3 Check the harness connector of combination switch.

1. Set the START/STOP button to “OFF” .
2. Disconnect the combination switch harness connector G02.
3. Check the harness connector of combination switch for normal function.

No → Repair or replace the wire harness

Yes

4 Check the constant power supply of combination switch.



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of combination switch G02-5 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G02-5 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes Go to step 7

No

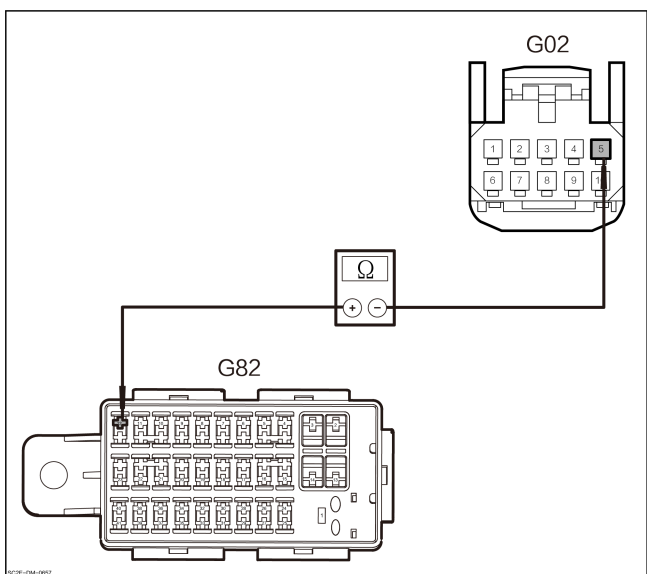
5 Check the instrument fuse box harness connector.

1. Set the start/stop button to OFF.
2. Disconnect the harness connector of instrument fuse box G82.
3. Check the harness connector of instrument fuse box for normal function.

No Repair or replace the wire harness

Yes

6 Check whether the constant power supply of combination switch is open circuited.



1. Check the resistance between the harness connector of combination switch G02-5 and the harness connector of instrument fuse box G82-12.

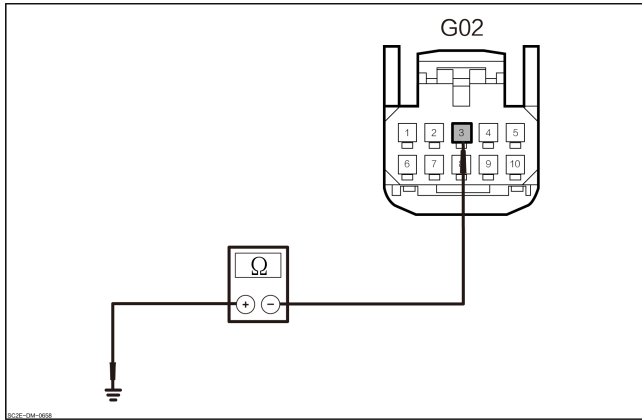
| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| G82-12 | G02(A)-5 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the instrument fuse box.

7 Check the combination switch ground line for open circuit.



1. Measure the resistance between the harness connector of combination switch G82-3 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G82-3 | Ground | Through- out | Lower than 1 Ω |

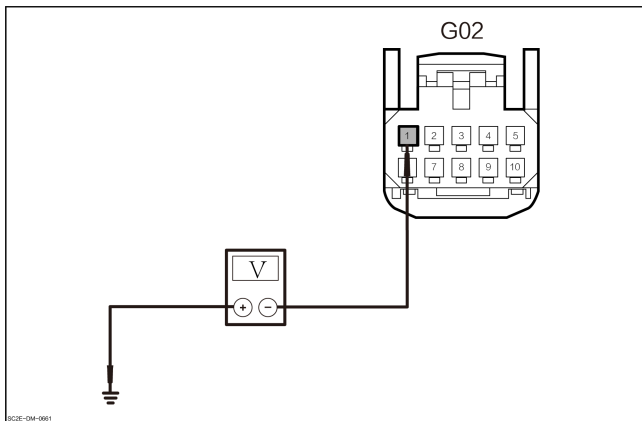
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

8 Check the voltage of CAN-H line of combination instrument.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the combination instrument harness connector G02-1 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G02-1 | Ground | Through- out | 2.5~3.5V |

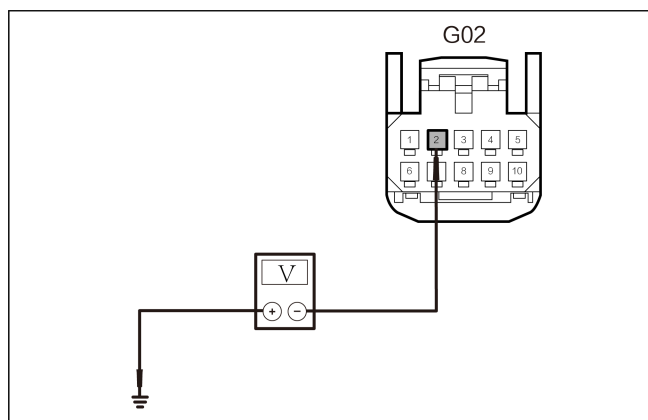
3. Check whether the results are normal.

No

Jump to “body network bus off” diagnosis.

Yes

9 Check the voltage of the combination instrument CAN-L.



1. Measure the voltage between the harness connector of combination instrument G02-2 and the ground.

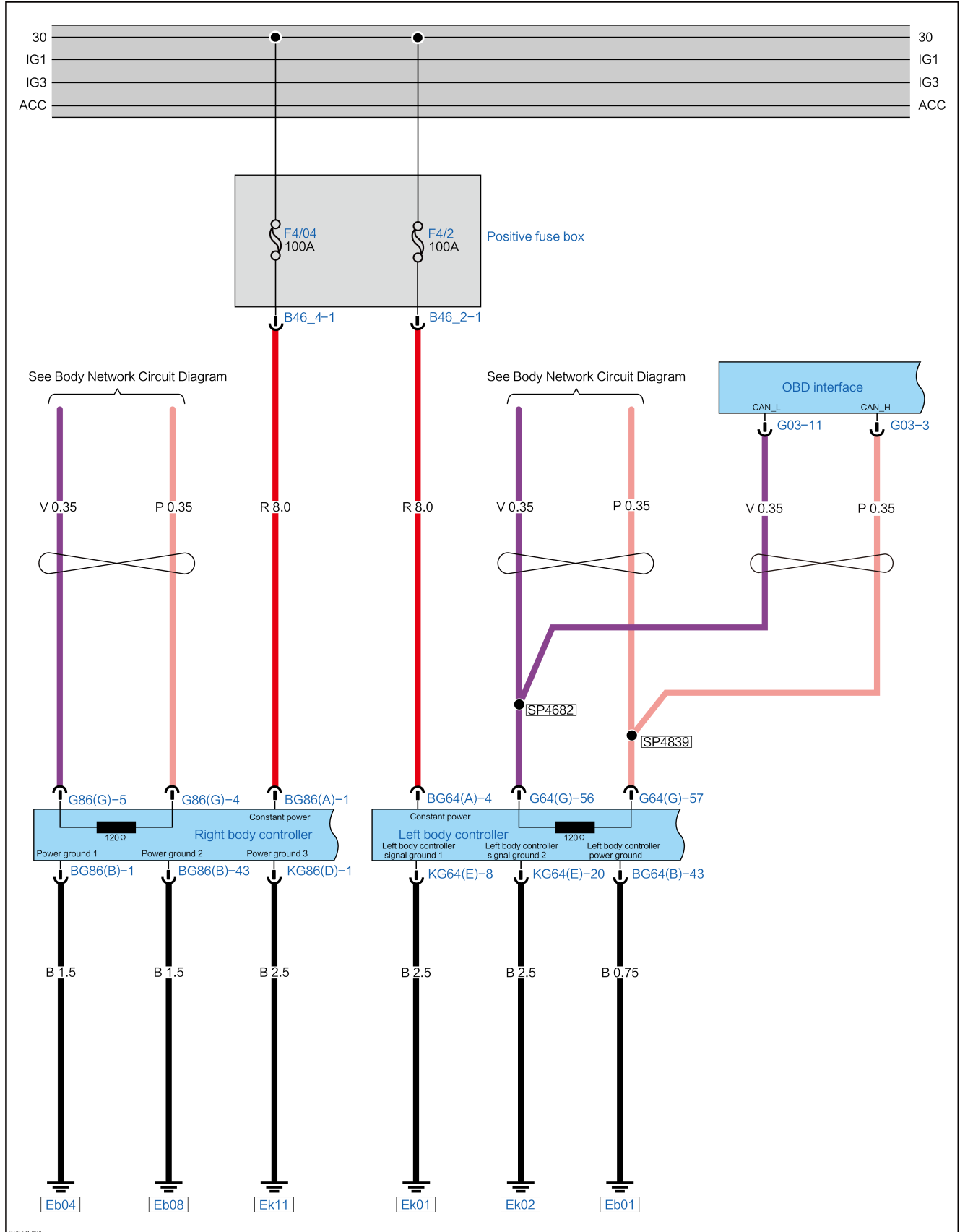
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G02-2 | Ground | Through-out | 1.5~2.5V |

2. Check whether the results are normal.

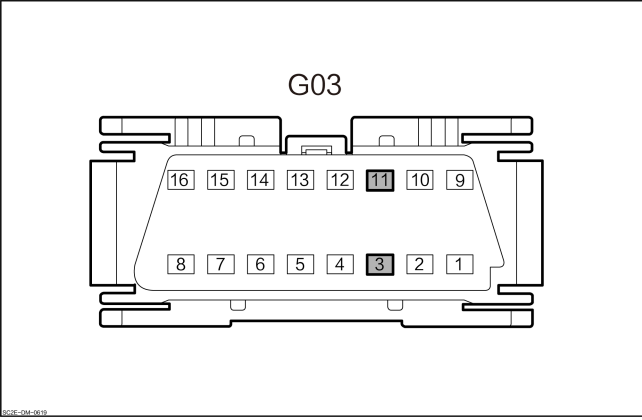
| | |
|-----|---|
| No | Jump to “body network bus off” diagnosis. |
| Yes | Replace the combination switch. |

Body Network Bus Off

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">OBD–Diagnosis port</p> <div style="text-align: center;">  <p style="text-align: center;">G03</p> </div> | 3 | CAN–H |
| | 11 | CAN–L |

Diagnostic Steps

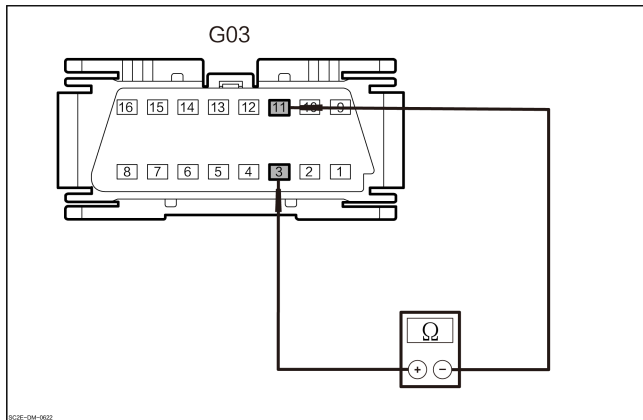
1 Check the communication network of body network.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check if the body network passes the network detection?

Yes → Check the “intermittent fault” .

No

2 Check the terminal resistance of body network.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance between the harness connector of OBD interface G03-3 and G03-11.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G03-3 | G03-11 | Through- out | 55~65Ω |

3. Check whether the results are normal.

Yes → [Go to step 7](#)

No

3 Check the harness connector of left body control module.

1. Disconnect the harness connector of left body control module G64(G).
2. Check the harness connector of left body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the terminal resistor of left body control module.

1. Measure the resistance between the left body control module pin G64(B)–56 and G64(B)–57.

| Connector | | Condition | Resist- ance value |
|---------------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| G64(G)–5 6 | G64(G)–5 7 | Through- out | 108~132 Ω |

2. Check whether the results are normal.

No Replace the left body control module.

Yes

5 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module G86(G).
3. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No Repair or replace the wire harness

Yes

6 Check the terminal resistor of right body control module.

1. Measure the resistance between the right body control module pin G86(G)–5 and G86(G)–4.

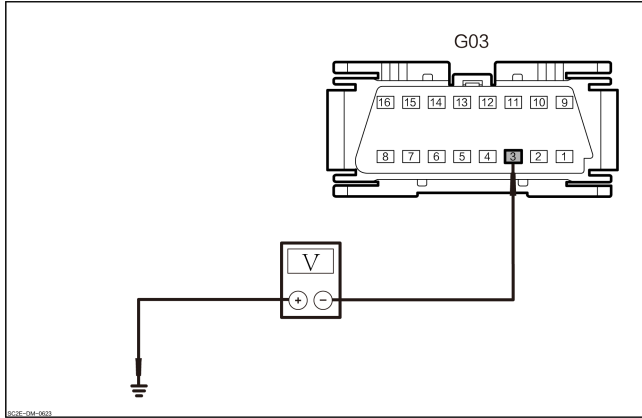
| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| G86(G)–5 | G86(G)–4 | Through- out | 108~132 Ω |

2. Check whether the results are normal.

No Replace the right body control module.

Yes There is an open circuit in the CAN line between the terminal resistors.

7 Check the body network CAN-H line voltage.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the OBD diagnostic interface harness connector G03-3 and the ground.

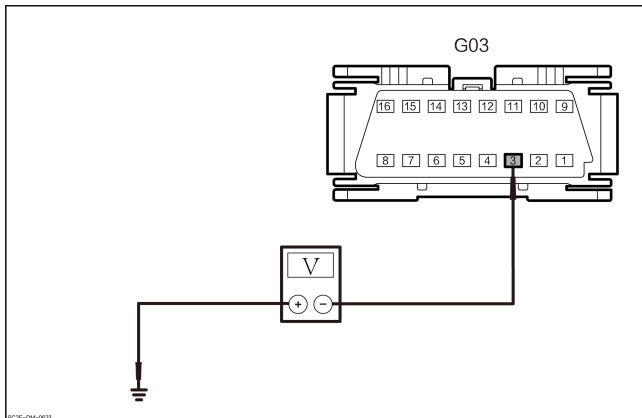
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G03-3 | Ground | Through-out | 2.5~3.5V |

3. Check whether the results are normal.

Yes → [Go to step 10](#)

No

8 Check the body network CAN-H line for short circuit to the power supply.



1. Measure the voltage value between the OBD diagnostic interface harness connector G03-3 and the ground.

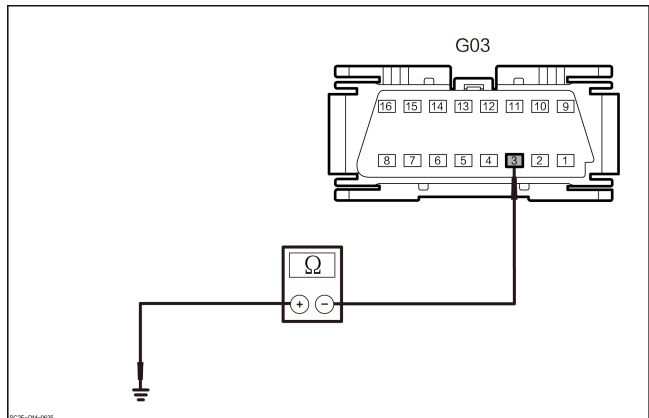
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|--------------------------------|
| (+) | (-) | | |
| G03-3 | Ground | Through-out | There is no voltage of 11-14 V |

2. Check whether the results are normal.

No → [Repair or replace the wire harness](#)

Yes

9 Check whether the body network CAN-H line is shorted to ground.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance value between the OBD diagnostic interface harness connector G03-3 and the ground.

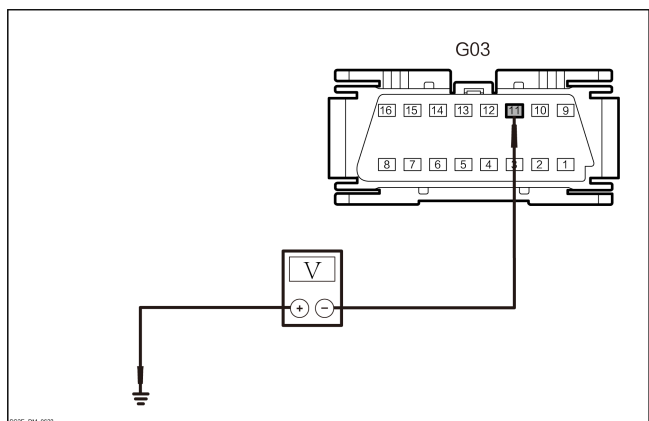
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| GB76-3 | Ground | Through- out | Above 10K Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

10 Check the body network CAN-L line.



1. Measure the voltage value between the OBD diagnostic interface harness connector G03-11 and the ground.

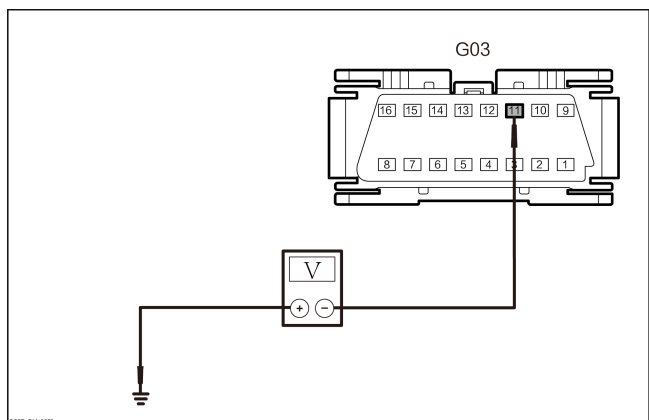
| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G03-11 | Ground | Through- out | 1.5~2.5V |

2. Check whether the results are normal.

Yes → Go to step 13

No

11 Check the body network CAN-L line for short circuit to the power supply.



1. Measure the voltage value between the OBD diagnostic interface harness connector G03-11 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G03-11 | Ground | Through- out | There is no |

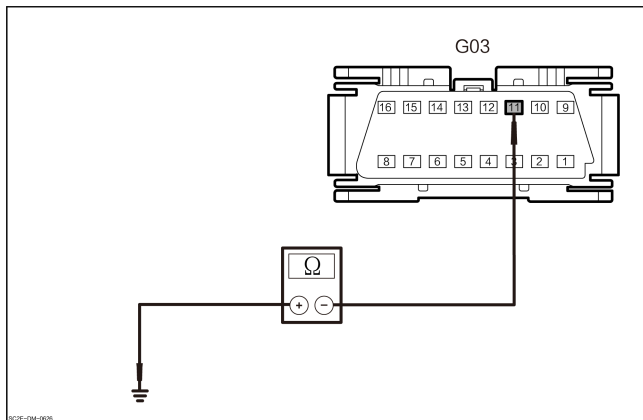
| | | | |
|--|--|--|--------------------|
| | | | voltage of 11–14 V |
|--|--|--|--------------------|

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

| | |
|----|---|
| 12 | Check whether the body network CAN-L line is shorted to ground. |
|----|---|



1. Set the START/STOP button to “OFF” .
2. Measure the resistance value between the OBD diagnostic interface harness connector G03-11 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| GB76-11 | Ground | Through- out | Above 10K Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

| | |
|----|---------------------------------------|
| 13 | Check the module on the body network. |
|----|---------------------------------------|

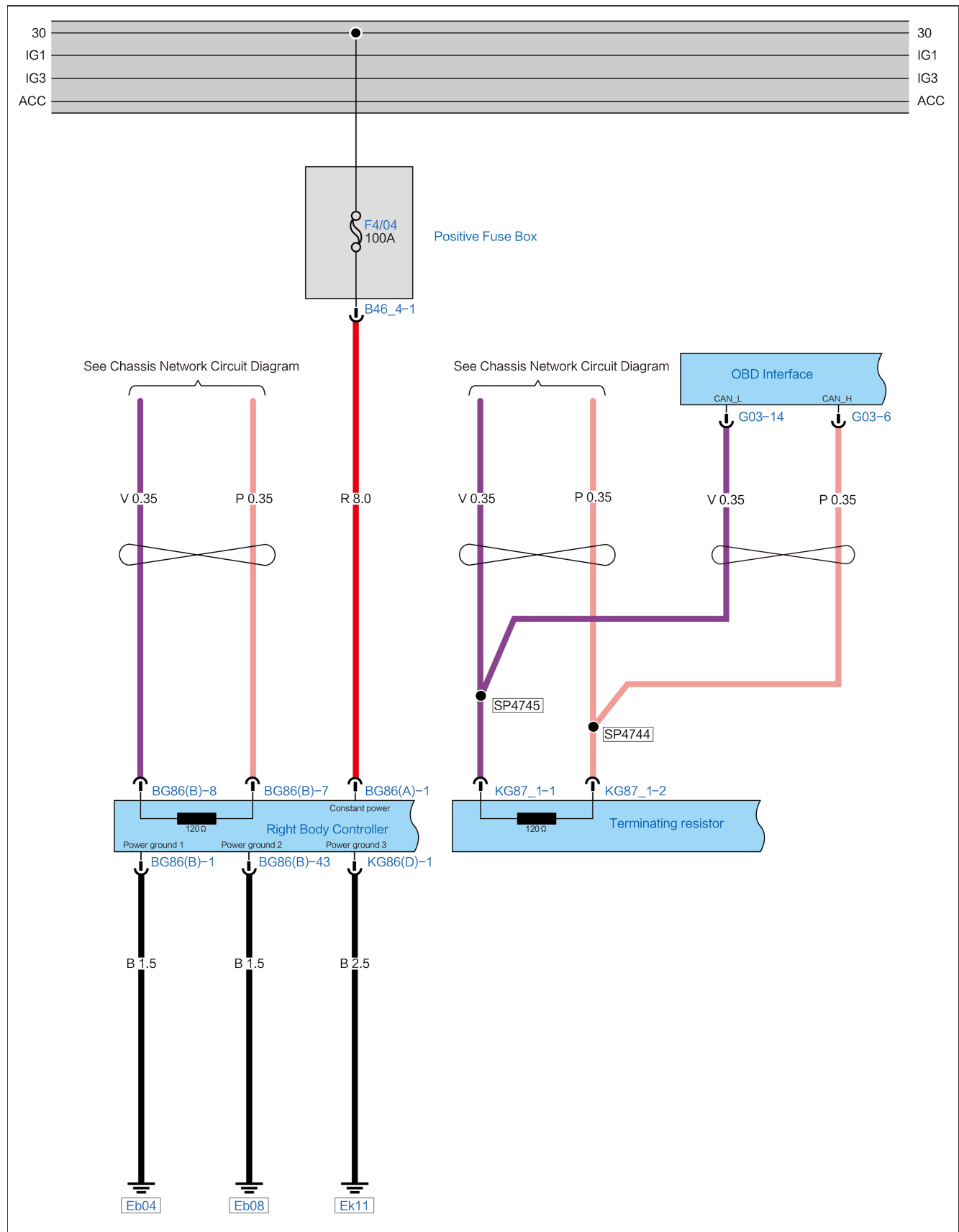
1. Set the START/STOP button to “OFF” .
2. Restore the module harness connector on the body network.
3. Disconnect one of the module harness connectors on the body network.
4. Set the START/STOP button to “ON” .
5. Use a VDS to execute the network test.
6. Check if the body network passes the network detection?

Yes → Replace corresponding module.

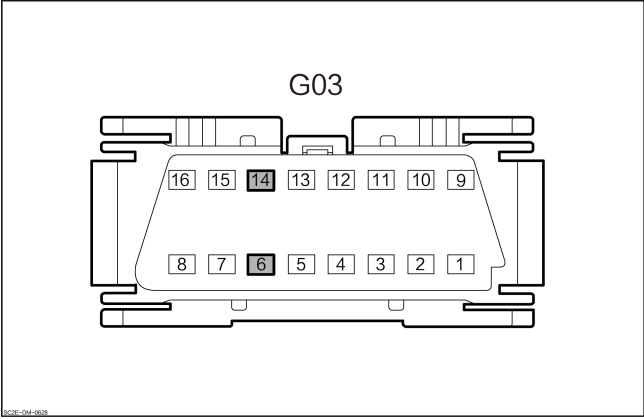
No → Check other modules according to the above steps.

Chassis Network Bus Off

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">OBD-Diagnosis port</p> <div style="text-align: center;">  <p style="text-align: center;">G03</p> </div> | 6 | CAN-H |
| | 14 | CAN-L |

Diagnostic Steps

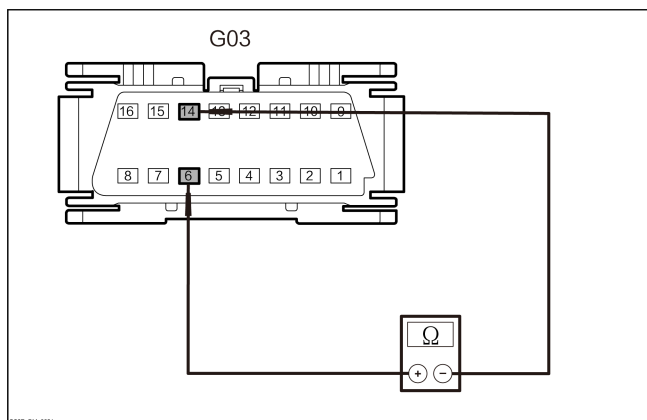
1 Check the communication network of chassis network.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the chassis network has passed the network test.

Yes → Check the “intermittent fault” .

No

2 Check the terminal resistance of chassis network.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance between the harness connector of OBD interface G03-6 and G03-14.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G03-6 | G03-14 | Through- out | 55~65Ω |

3. Check whether the results are normal.

Yes → [Go to step 7](#)

No

3 Check the terminal resistor 2 harness connector.

1. Disconnect the terminal resistor 2 harness connector KG87_1.
2. Check whether the terminal resistor 2 harness connector is normal?

No → Repair or replace the wire harness

Yes

4 Check the terminal resistance of termination resistor 2.

1. Measure the resistance value between pin KG87_1-1 and KG87_1-2 of terminal resistor 2.

| Connector | | Condition | Resist- ance value |
|--------------|--------------|-----------------|--------------------------|
| (+) | (-) | | |
| KG87_1- 1 | KG87_1- 2 | Through- out | 108~132 Ω |

2. Check whether the results are normal.

No → Replace the termination resistor 2.

Yes

5 Check the harness connector of right body control module.

1. Disconnect the harness connector of right body control module BG86(B).
2. Check the harness connector of right body control module for normal function.

No → Repair or replace the wire harness

Yes

6 Check the terminal resistor of right body control module.

1. Measure the resistance value between the right body control module pin BG86(B)-7 and BG86(B)-8.

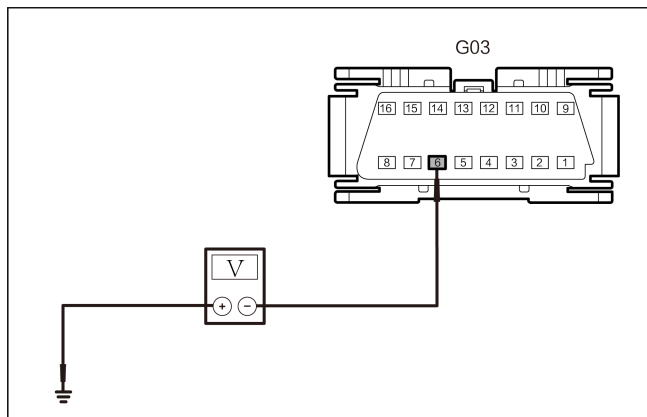
| Connector | | Condition | Resist- ance value |
|---------------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| BG86(B)- 7 | BG86(B)- 8 | Through- out | 108~132 Ω |

2. Check whether the results are normal.

No → Replace the right body control module.

Yes → There is an open circuit in the CAN line between the terminal resistors.

7 Check the voltage of CAN-H line of chassis network.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the OBD diagnostic interface harness connector G03-6 and the ground.

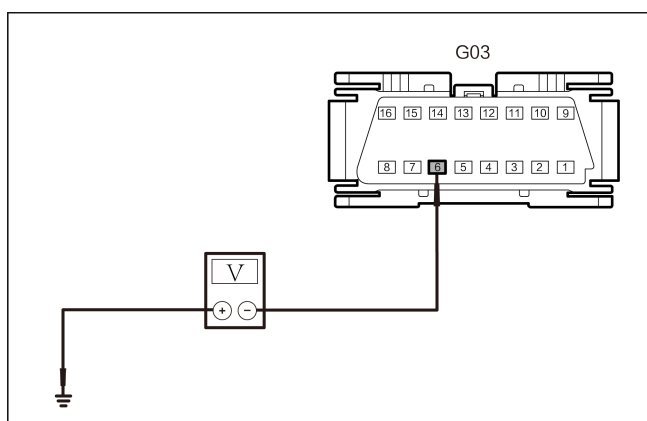
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G03-6 | Ground | Through-out | 2.5~3.5V |

3. Check whether the results are normal.

Yes Go to step 10

No

8 Check the CAN-H line of chassis network for short to power.



1. Measure the voltage value between the OBD diagnostic interface harness connector G03-6 and the ground.

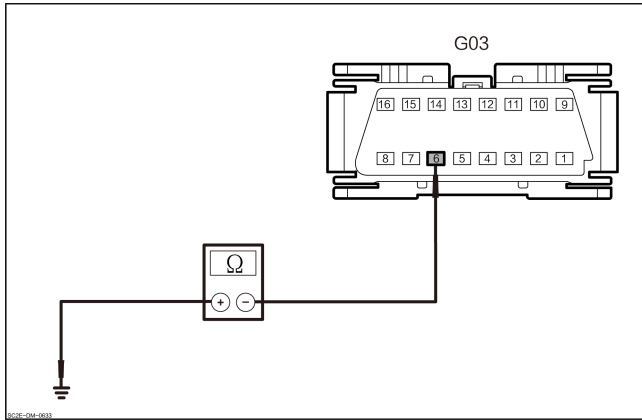
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|--------------------------------|
| (+) | (-) | | |
| G03-6 | Ground | Through-out | There is no voltage of 11-14 V |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

9 Check the CAN-H line of chassis network for short to ground.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance value between the OBD diagnostic interface harness connector G03-6 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G03-6 | Ground | Through- out | Above 10K Ω |

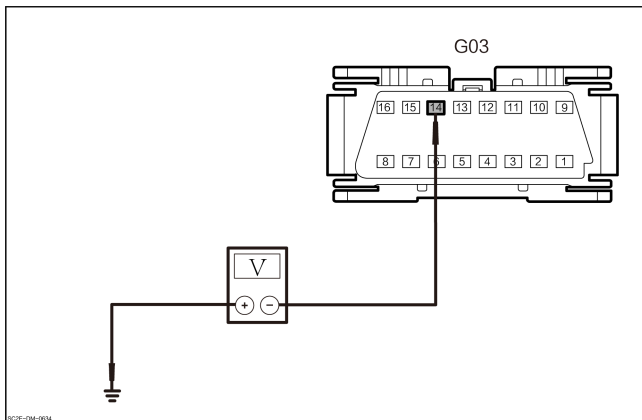
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

10 Check the CAN-L line of chassis network.



1. Measure the voltage value between the OBD diagnostic interface harness connector G03-14 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G03-14 | Ground | Through- out | 1.5~2.5V |

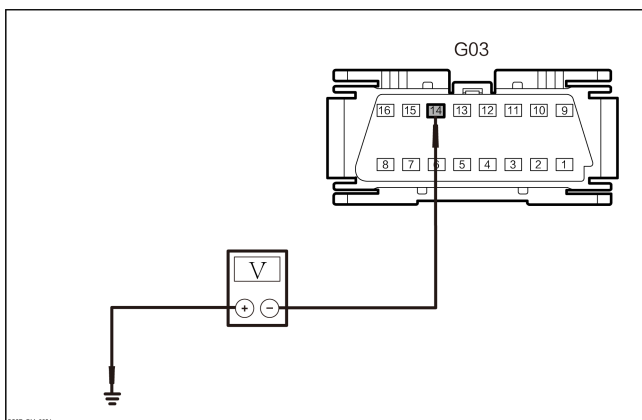
2. Check whether the results are normal.

Yes

[Go to step 13](#)

No

11 Check the CAN-L line of chassis network for short to power.



1. Measure the voltage value between the OBD diagnostic interface harness connector G03-14 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G03-14 | Ground | Through- out | There is no |

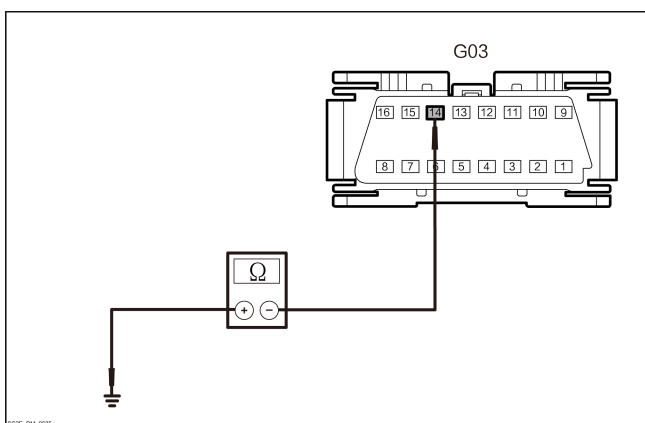
| | | | |
|--|--|--|--------------------|
| | | | voltage of 11–14 V |
|--|--|--|--------------------|

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

12 Check the CAN–L line of chassis network for short to ground.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance value between the OBD diagnostic interface harness connector G03–14 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G03–14 | Ground | Through- out | Above 10K Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

13 Check the modules on the chassis network.

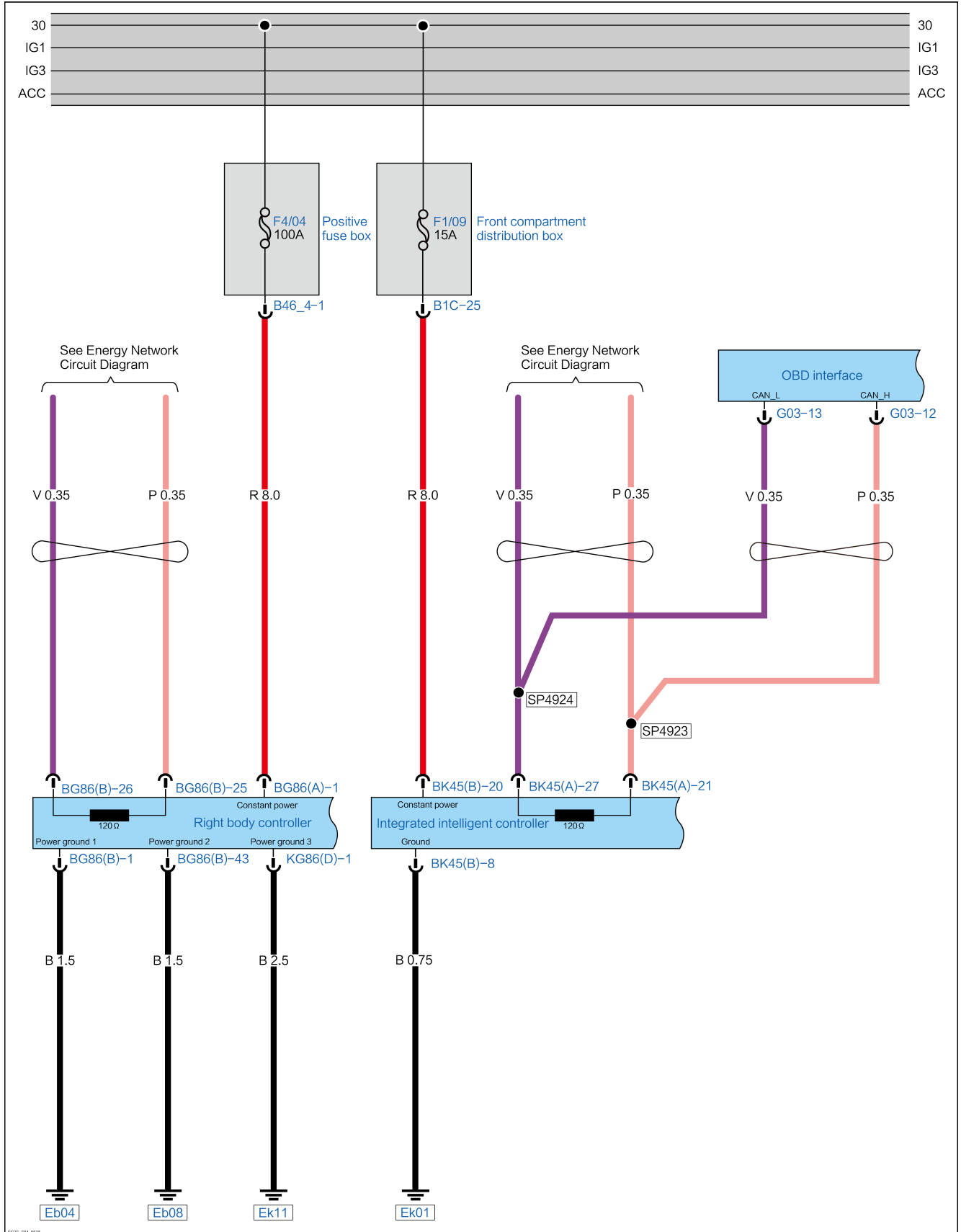
1. Set the START/STOP button to “OFF” .
2. Restore the harness connectors of modules on the chassis network.
3. Disconnect one module harness connector on the chassis network.
4. Set the START/STOP button to “ON” .
5. Use a VDS to execute the network test.
6. Check whether the chassis network has passed the network test.

Yes → Replace corresponding module.

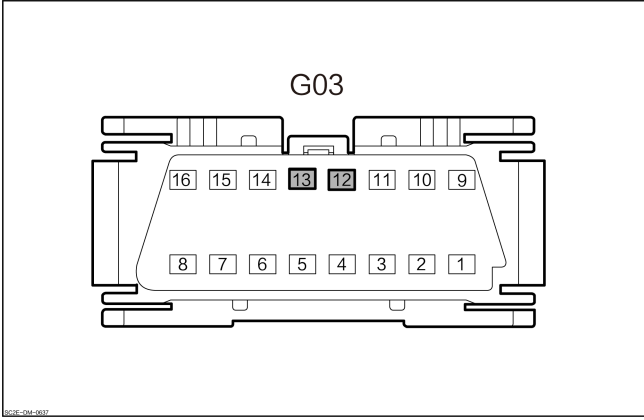
No → Check other modules according to the above steps.

Energy Network Bus Off

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">OBD-Diagnosis port</p> <div style="text-align: center;">  </div> | 12 | CAN-H |
| | 13 | CAN-L |

Diagnostic Steps

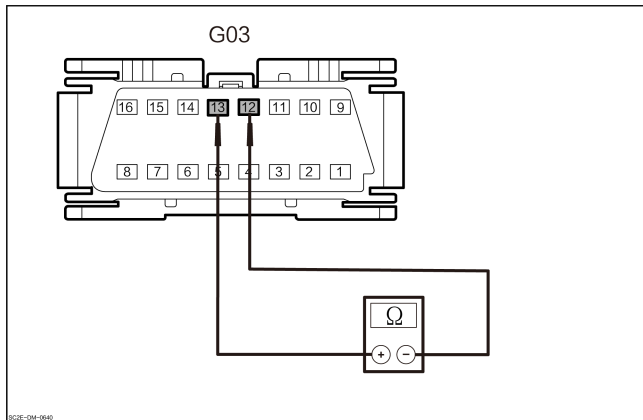
1 Check the communication network of energy network.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the energy network has passed the network test.

Yes → Check the “intermittent fault” .

No

2 Check the terminal resistor of energy network.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance between the harness connector of OBD interface G03-13 and G03-12.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G03-13 | G03-12 | Through- out | 55~65Ω |

3. Check whether the results are normal.

Yes → [Go to step 7](#)

No

3 Check the harness connector of integrated intelligent control module.

1. Disconnect the harness connector BK45(A) of the integrated intelligent control module.
2. Check the harness connector of integrated intelligent control module for normal function.

No → Repair or replace the wire harness

Yes

4 Check the terminal resistor of integrated intelligent control module.

1. Measure the resistance between pins BK45(A)-21 and BK45(A)-27 of integrated intelligent control module.

| Connector | | Condition | Resist- ance value |
|----------------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| BK45(A)- 21 | BK45(A)- 27 | Through- out | 108~132 Ω |

2. Check whether the results are normal.

No → Replace the smart integrated control unit.

Yes

5 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module BG86(B).
3. Check the harness connector of right body control module for normal function.

No → Repair or replace the wire harness

Yes

6 Check the terminal resistor of right body control module.

1. Measure the resistance value between the right body control module pin BG86(B)-25 and BG86(B)-26.

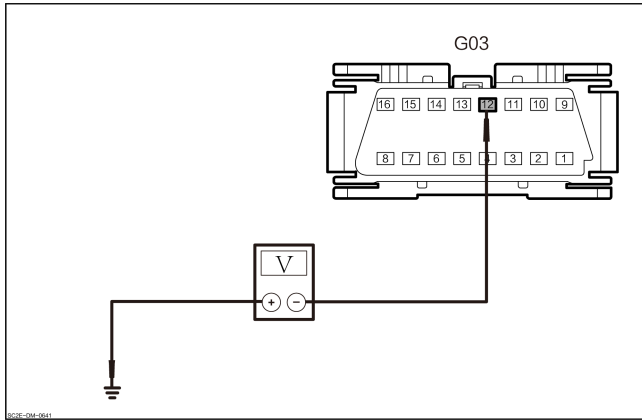
| Connector | | Condition | Resist- ance value |
|----------------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| BG86(B)- 25 | BG86(B)- 26 | Through- out | 108~132 Ω |

2. Check whether the results are normal.

No → Replace the right body control module.

Yes → There is an open circuit in the CAN line between the terminal resistors.

7 Check the voltage of CAN-H line of energy network.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the OBD diagnostic interface harness connector G03-12 and the ground.

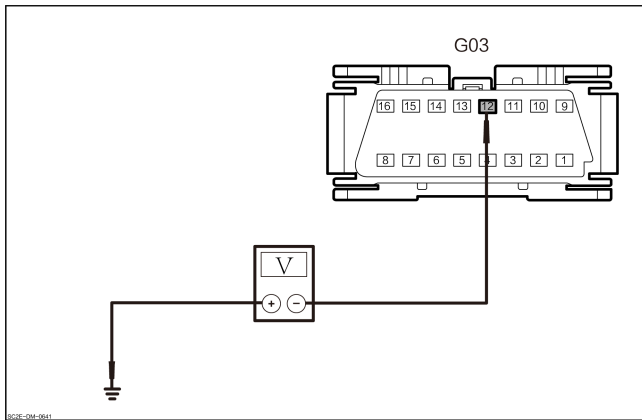
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G03-12 | Ground | Through-out | 2.5~3.5V |

3. Check whether the results are normal.

Yes → [Go to step 10](#)

No

8 Check the CAN-H line of energy network for short to power.



1. Measure the voltage value between the OBD diagnostic interface harness connector G03-12 and the ground.

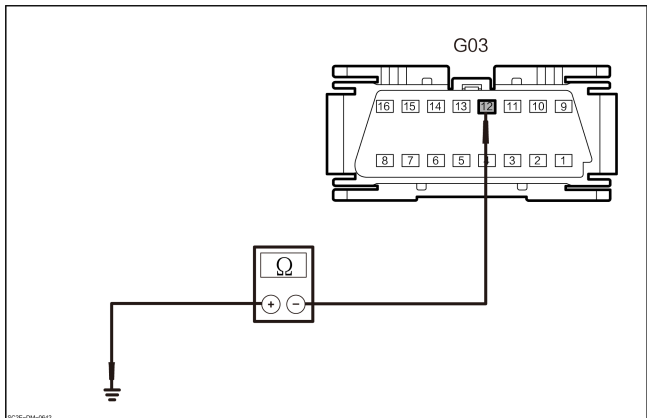
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|--------------------------------|
| (+) | (-) | | |
| G03-12 | Ground | Through-out | There is no voltage of 11-14 V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

9 Check the CAN-H line of energy network for short to ground.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance value between the OBD diagnostic interface harness connector G03-12 and the ground.

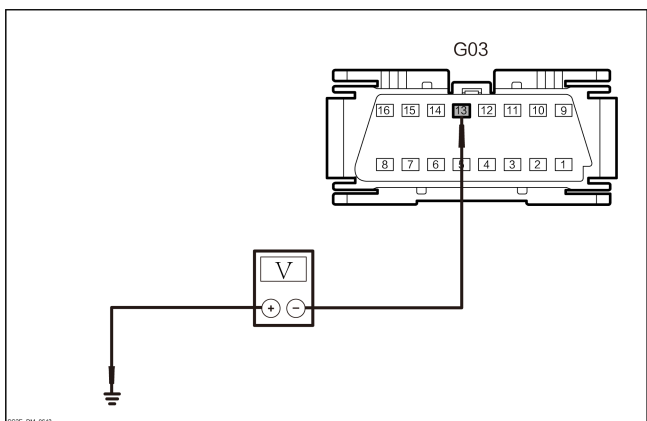
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| GB76-12 | Ground | Through- out | Above 10K Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

10 Check the CAN-L line of energy network.



1. Measure the voltage value between the OBD diagnostic interface harness connector G03-13 and the ground.

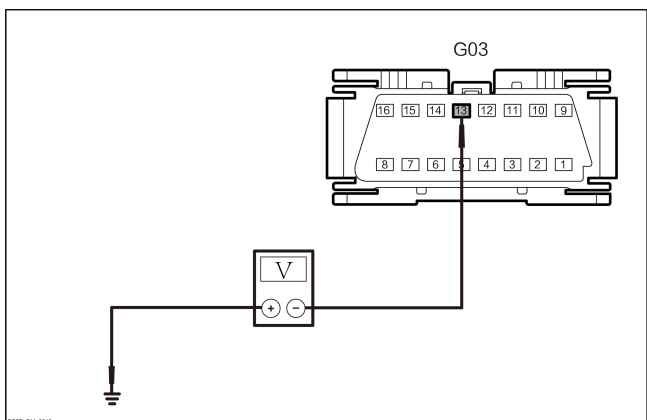
| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G03-13 | Ground | Through- out | 1.5~2.5V |

2. Check whether the results are normal.

Yes → [Go to step 13](#)

No

11 Check the CAN-L line of energy network for short to power.



1. Measure the voltage value between the OBD diagnostic interface harness connector G03-13 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G03-13 | Ground | Through- out | There is no |

| | | | |
|--|--|--|--------------------|
| | | | voltage of 11–14 V |
|--|--|--|--------------------|

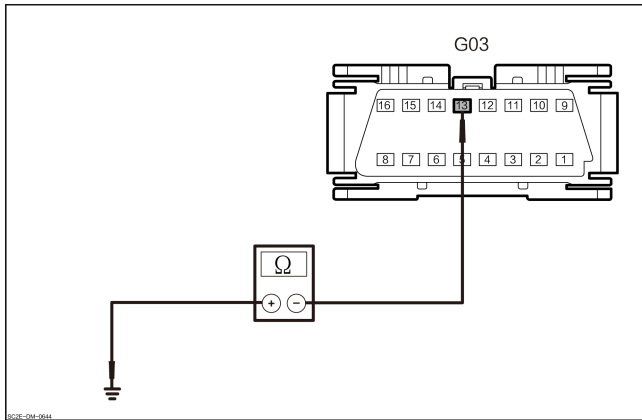
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

| | |
|----|---|
| 12 | Check the CAN–L line of energy network for short to ground. |
|----|---|



1. Set the START/STOP button to “OFF” .
2. Measure the resistance value between the OBD diagnostic interface harness connector G03–13 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| GB76–13 | Ground | Through- out | Above 10K Ω |

3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

| | |
|----|--|
| 13 | Check the modules on the energy network/ |
|----|--|

1. Set the START/STOP button to “OFF” .
2. Restore the harness connectors of modules on the energy network.
3. Disconnect one module harness connector on the energy network.
4. Set the START/STOP button to “ON” .
5. Use a VDS to execute the network test.
6. Check whether the energy network has passed the network test.

Yes

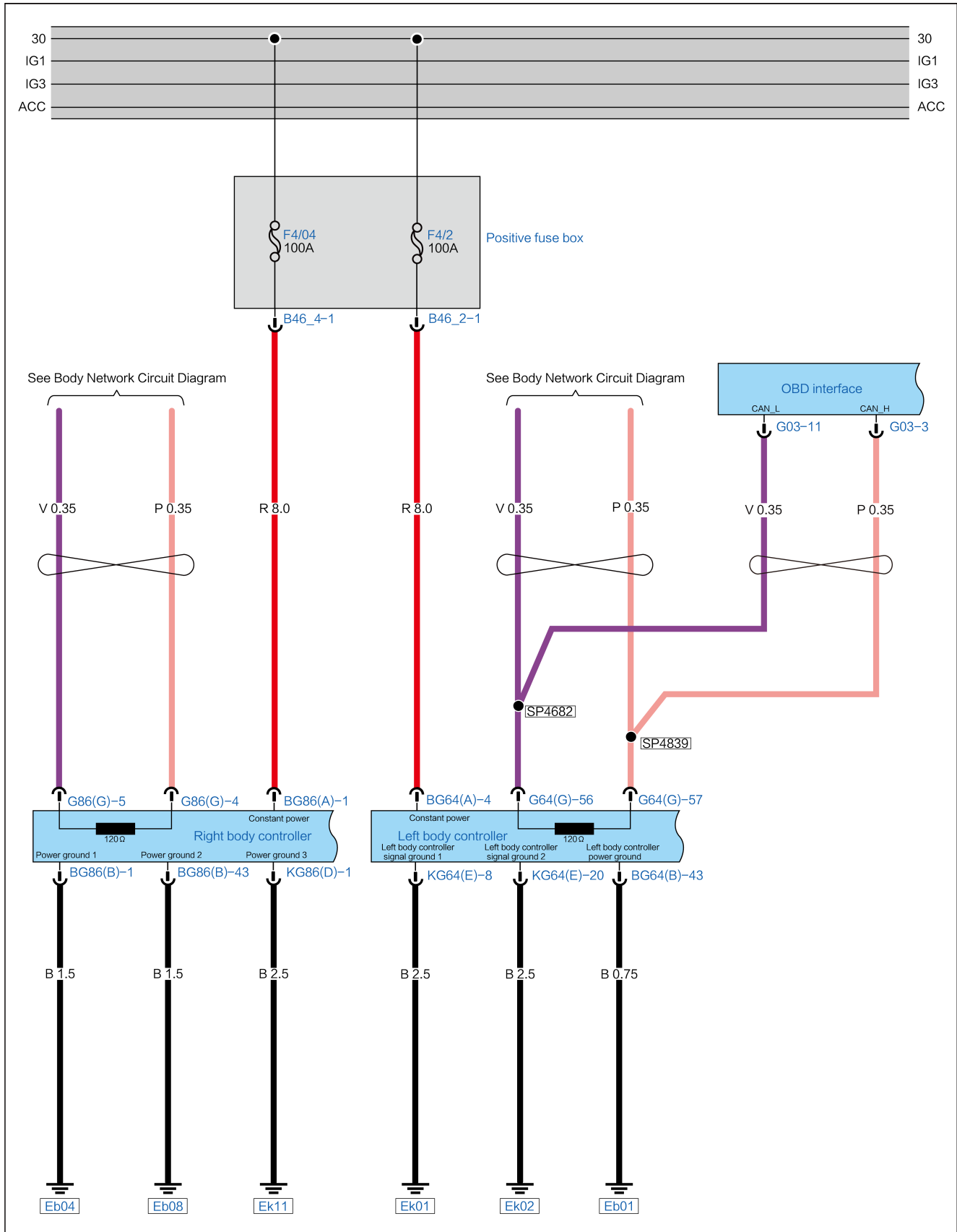
Replace corresponding module.

No

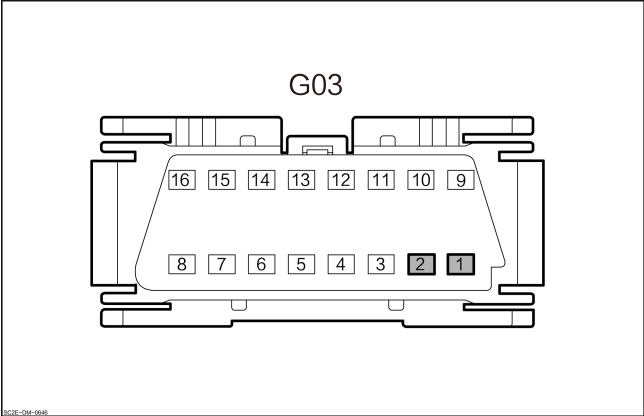
Check other modules according to the above steps.

Intelligent Access Network Bus Off

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">OBD-Diagnosis port</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G03</p> </div> | 1 | CAN-H |
| | 2 | CAN-L |

Diagnostic Steps

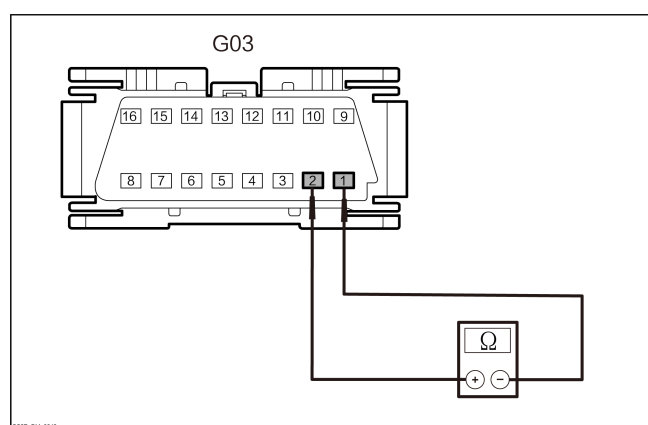
1 Check the communication network of intelligent access network.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the intelligent access network has passed the network test.

Yes → Check the “intermittent fault” .

No

2 Check the terminal resistor of intelligent access network.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance between the harness connector of OBD interface G03-1 and G03-2.

| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| G03-1 | G03-2 | Through- out | 55~65Ω |

3. Check whether the results are normal.

Yes → [Go to step 7](#)

No

3 Check the harness connector of left body control module.

4 Check the terminal resistor of left body control module.

1. Measure the resistance between the left body control module pin G64(B)-52 and G64(B)-53.

| Connector | | Condition | Resist- ance value |
|---------------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| G64(G)-5 2 | G64(G)-5 3 | Through- out | 108~132 Ω |

2. Check whether the results are normal.

No

Replace the left body control module.

Yes

5 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module KG86(B).
3. Check the harness connector of right body control module for normal function.

No

Repair or replace the wire harness

Yes

6 Check the terminal resistor of right body control module.

1. Measure the resistance between the right body control module pin KG86(E)-3 and KG86(E)-4.

| Connector | | Condition | Resist- ance value |
|---------------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| KG86(E)- 3 | KG86(E)- 4 | Through- out | 108~132 Ω |

2. Check whether the results are normal.

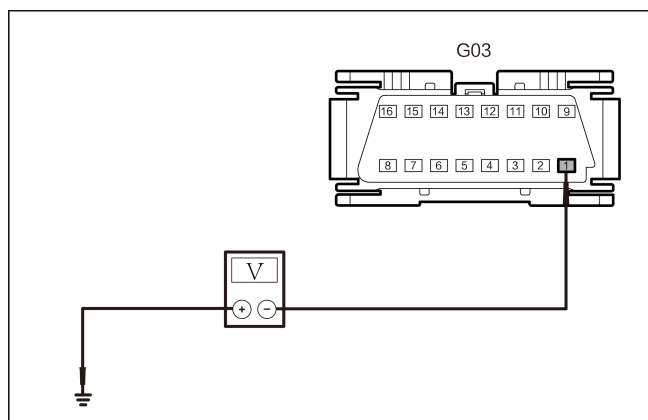
No

Replace the right body control module.

Yes

There is an open circuit in the CAN line between the terminal resistors.

7 Check the voltage of CAN-H line of intelligent access network.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the OBD diagnostic interface harness connector G03-1 and the ground.

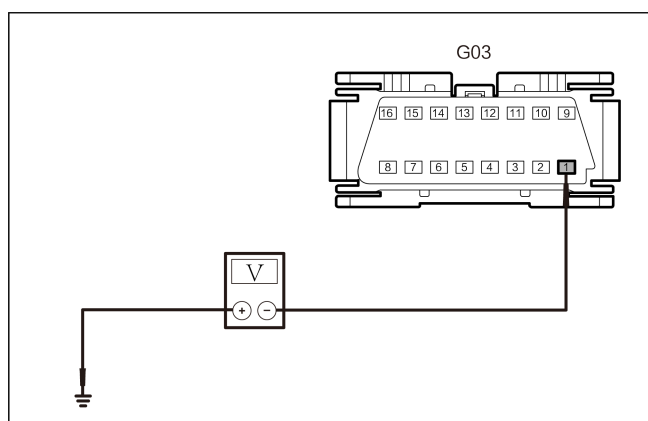
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G03-1 | Ground | Through-out | 2.5~3.5V |

3. Check whether the results are normal.

Yes Go to step 10

No

8 Check the CAN-H line of intelligent access network for short to power.



1. Measure the voltage value between the OBD diagnostic interface harness connector G03-1 and the ground.

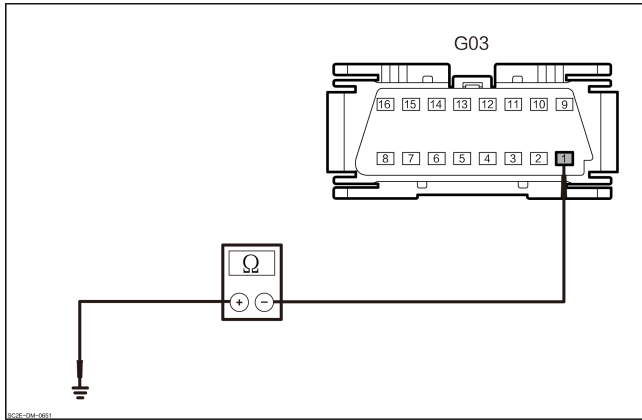
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|----------------------------------|
| (+) | (-) | | |
| G03-1 | Ground | Through-out | There is no voltage of 11 ~ 14 V |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

9 Check the CAN-H line of intelligent access network for short to ground.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance value between the OBD diagnostic interface harness connector G03-1 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| GB76-1 | Ground | Through- out | Above 10K Ω |

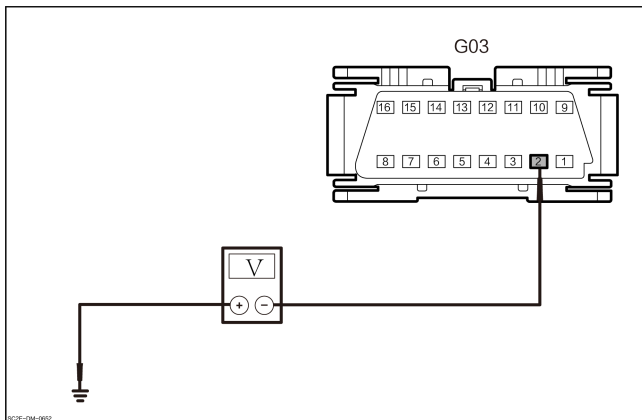
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

10 Check the CAN-L line of intelligent access network.



1. Measure the voltage value between the OBD diagnostic interface harness connector G03-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G03-2 | Ground | Through- out | 1.5~2.5V |

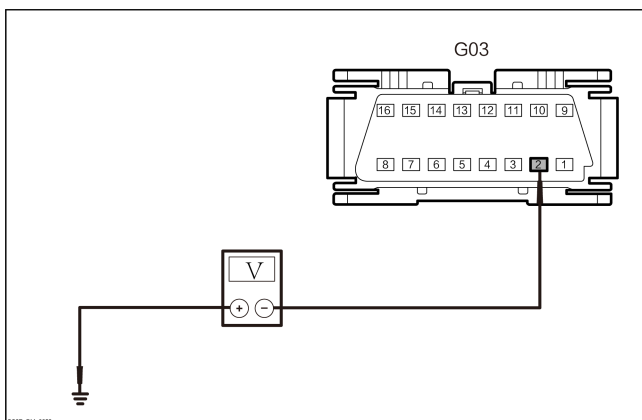
2. Check whether the results are normal.

Yes

Go to step 13

No

11 Check the CAN-L line of intelligent access network for short to power.



1. Measure the voltage value between the OBD diagnostic interface harness connector G03-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G03-2 | Ground | Through- out | There is no |

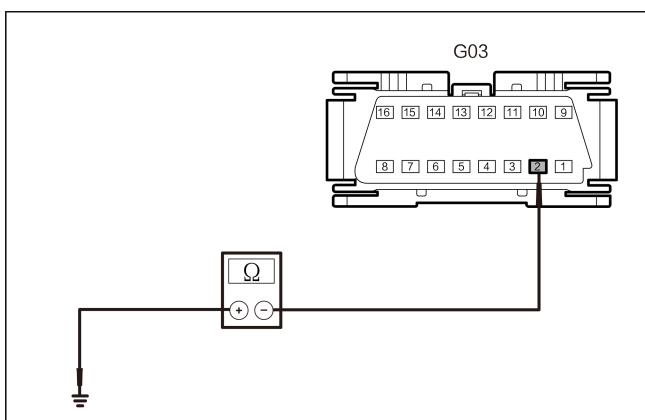
| | | | |
|--|--|--|----------------------|
| | | | voltage of 11 ~ 14 V |
|--|--|--|----------------------|

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

12 Check the CAN-L line of intelligent access network for short to ground.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance value between the OBD diagnostic interface harness connector G03-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| GB76-2 | Ground | Through- out | Above 10K Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

13 Check the modules on intelligent access network.

1. Set the START/STOP button to “OFF” .
2. Restore the harness connectors of modules on the intelligent access network.
3. Disconnect one module harness connector on the intelligent access network.
4. Set the START/STOP button to “ON” .
5. Use a VDS to execute the network test.
6. Check whether the intelligent access network has passed the network test.

Yes → Replace corresponding module.

No → Check other modules according to the above steps.

Exterior Light System

Combination Headlight

Diagnosis Description

Introduction

Before fault diagnosis for combination headlight, understand and get familiar with the working principle of combination headlight, and then start diagnosis for combination headlight, so as to be helpful to confirm the correct fault diagnosis procedure in the event of a fault and, more importantly, to confirm whether the operating condition described by the customer is normal. Any fault diagnosis of the combination headlights shall start with the inspection of the combination headlights to guide the maintenance technician to take the next logical step for fault diagnosis.

General equipment

- Multimeter
- VDS

Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Diagnosis of General Faults

Visual Inspection

1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

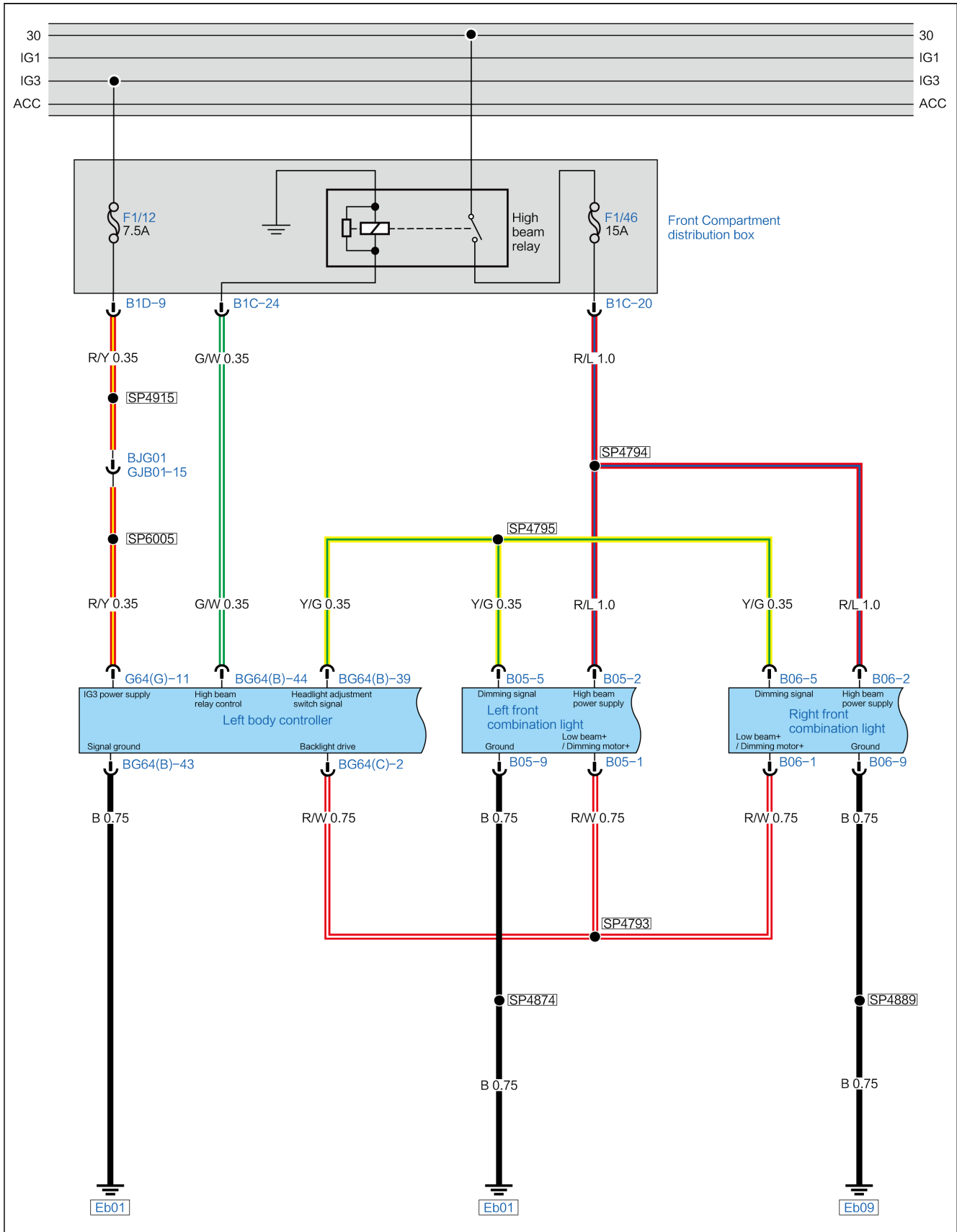
General Symptom List

| Symptom | Possible cause | Suggested maintenance measures |
|---|--|--|
| Left Front Low Beam Not Working | <ol style="list-style-type: none"> 1. Left front low beam fault. 2. Harness or connector fault. 3. The left body control module fails. | Left Front Low Beam Not Working |
| Right Front Low Beam Not Working | <ol style="list-style-type: none"> 1. Right front low beam fault. 2. Harness or connector fault. 3. The left body control module fails. | Right Front Low Beam Not Working |
| Left and right low beams fail to work at the same time | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Multi-function switch fault 3. Front combination headlamp fault. 4. The left body control module fails. | Left and right low beams fail to work at the same time |
| Left Front High Beam Not Working | <ol style="list-style-type: none"> 1. Front left high beam fault. 2. Harness or connector fault. 3. The left body control module fails. | Left Front High Beam Not Working |
| Right Front High Beam Not Working | <ol style="list-style-type: none"> 1. Right front high beam fault. 2. Harness or connector fault. 3. The left body control module fails. | Right Front High Beam Not Working |
| Left and right high beams fail to work at the same time | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Multi-function switch fault 3. Front combination headlamp fault. 4. The left body control module fails. | Left and Right Front High Beams Not Working At The Same Time |
| Left Front Turn Signal Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Multi-function switch fault 3. Left turn lamp fault | Left Front Turn Signal Not Working |

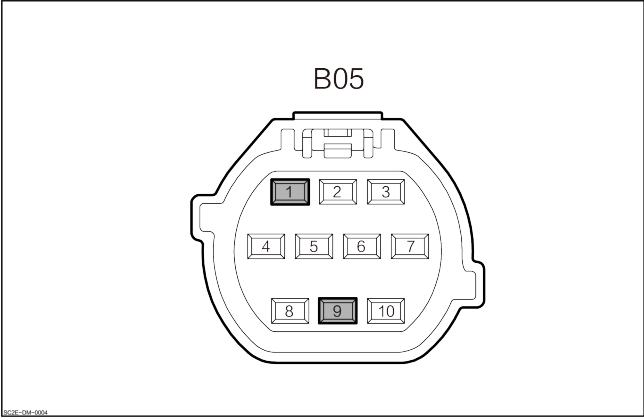
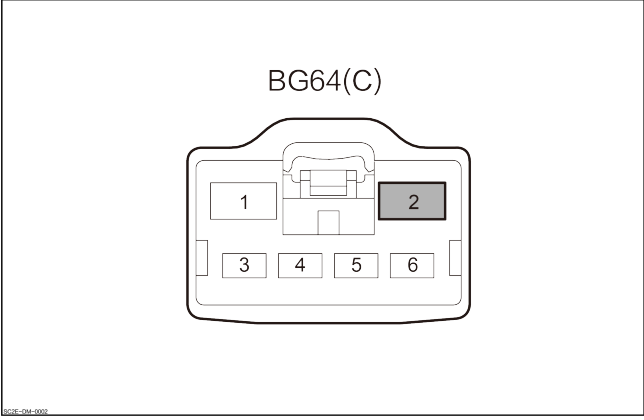
| Symptom | Possible cause | Suggested maintenance measures |
|---|---|---|
| | 4. The left body control module fails. | |
| Right Front Turn Signal Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Multi-function switch fault 3. Right turn lamp fault 4. The left body control module fails. | Right Front Turn Signal Not Working |
| Left Front Position Light Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Multi-function switch fault 3. Left front position lamp fault. 4. The left body control module fails. | Left Front Position Light Not Working |
| Right Front Position Light Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Multi-function switch fault 3. Right front position lamp fault. 4. The left body control module fails. | Right Front Position Light Not Working |
| Left Front Daytime Running Light Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The left front daytime running light failure. 3. The left body control module fails. | Left Front Daytime Running Light Not Working |
| Right Front Daytime Running Light Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The right front daytime running light failure. 3. The left body control module fails. | Right Front Daytime Running Light Not Working |

Left Front Low Beam Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|-----------------------|
| <p style="text-align: center;">Left front combination light</p> <div style="text-align: center;">  <p>B05</p> </div> | 1 | Low beam power supply |
| | 9 | Ground |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p>BG64(C)</p> </div> | 2 | Low beam power supply |

Diagnostic Steps

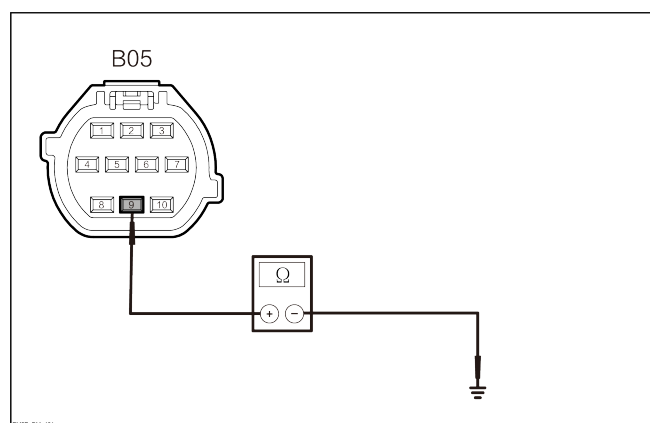
1 Check the left front combination light harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the left front combination light harness connector B05.
3. Check whether the left front combination light harness connector is normal.

No Repair or replace the wire harness

Yes

2 Check whether the left front combination light ground circuit is open circuited.



1. Measure the resistance value between the left front combination light harness connector B05-9 and ground.

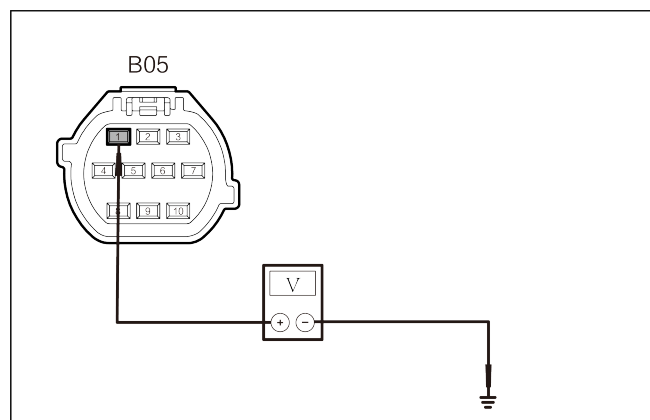
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B05-9 | Ground | Through- out | Lower than 1Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

3 Check the low beam power supply of left front combination lamp.



1. Set the START/STOP button to “ON” .
2. Low beam turned on
3. Measure the voltage value between the left front combination lamp harness connector B05-1 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| B05-1 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes

Replace the left combination headlamp

No

4 Check the harness connector of left body control module.

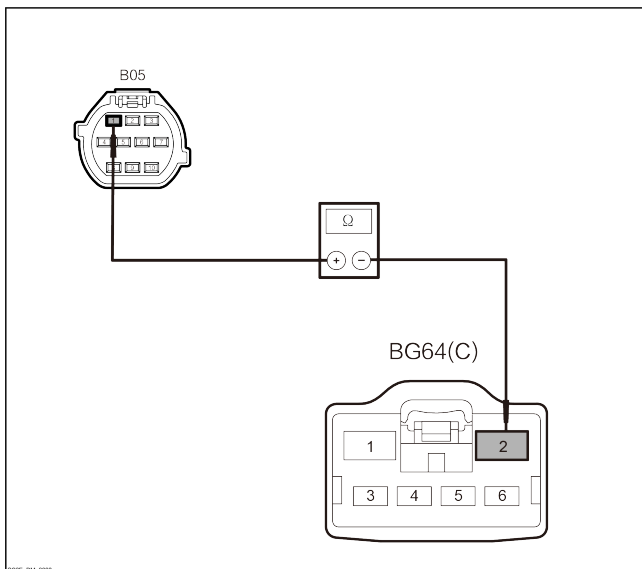
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module BG64(C).
3. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check whether the left front low beam power line is open circuited.



1. Measure the resistance between the harness connector of left front combination light B05-1 and the harness connector of left body control module BG64(C)-2.

| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| B05-1 | BG64(C) -2 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No

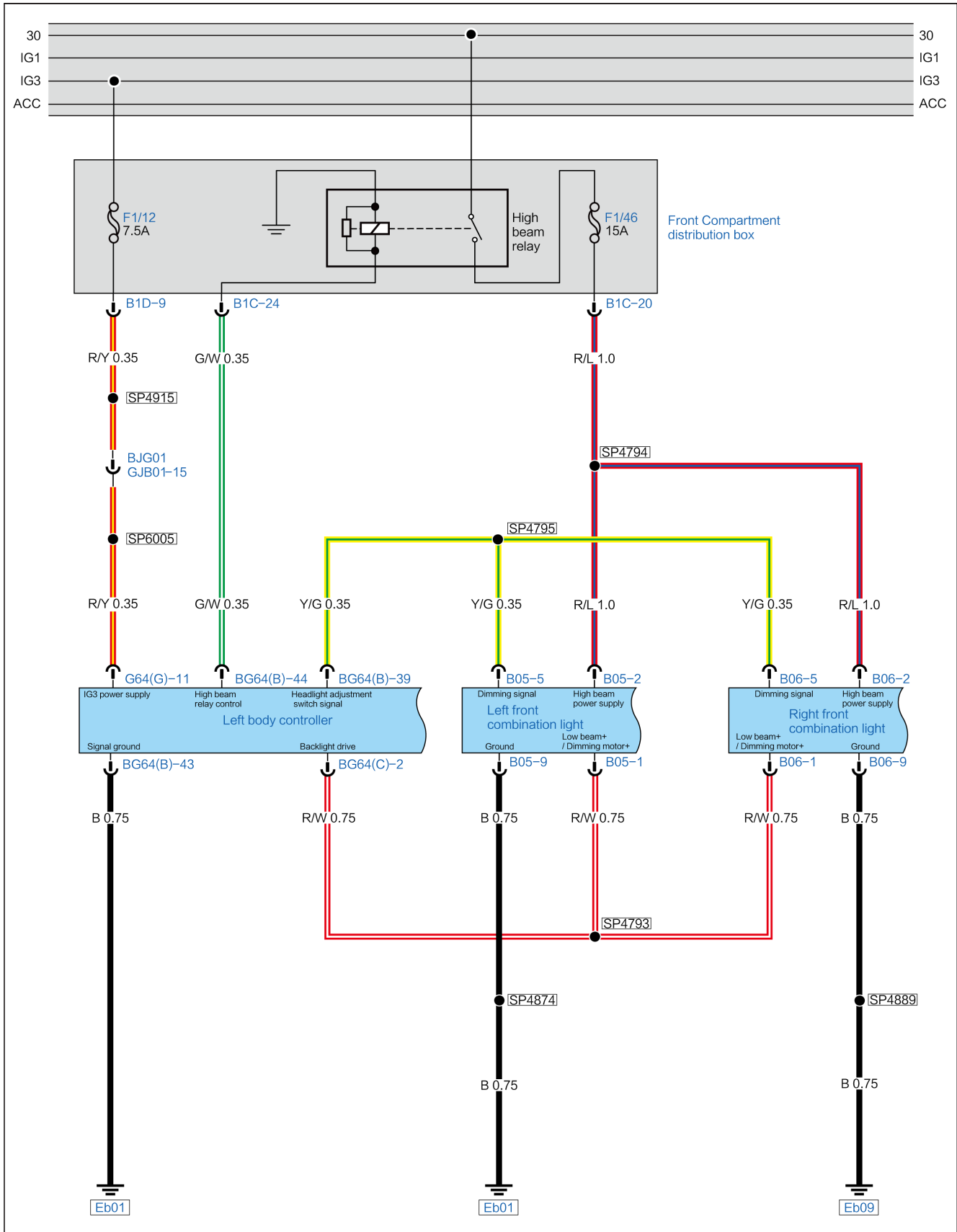
Repair or replace the wire harness

Yes

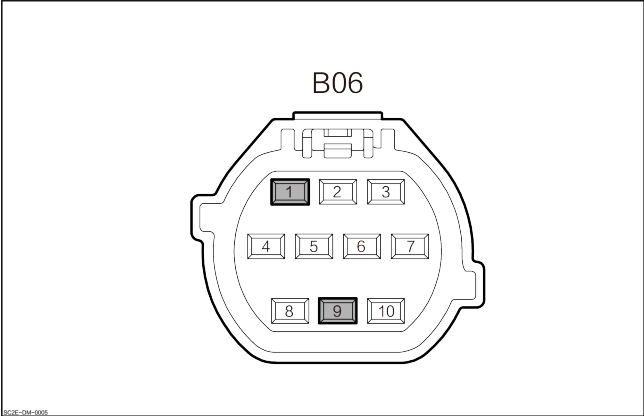
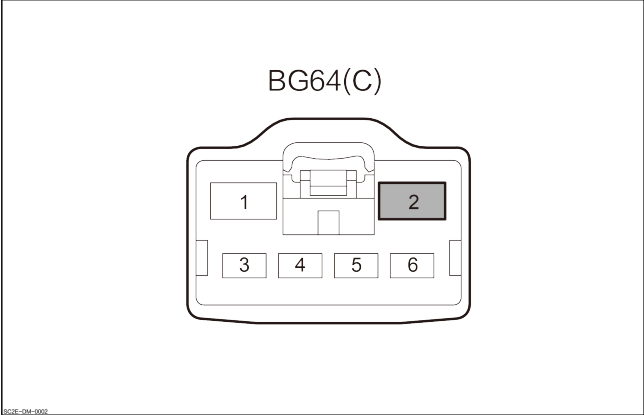
Replace the left body control module.

Right Front Low Beam Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|-----------------------|
| <p style="text-align: center;">Right front combination light</p> <div style="text-align: center;">  <p>B06</p> </div> | 1 | Low beam power supply |
| | 9 | Ground |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p>BG64(C)</p> </div> | 2 | Low beam power supply |

Diagnostic Steps

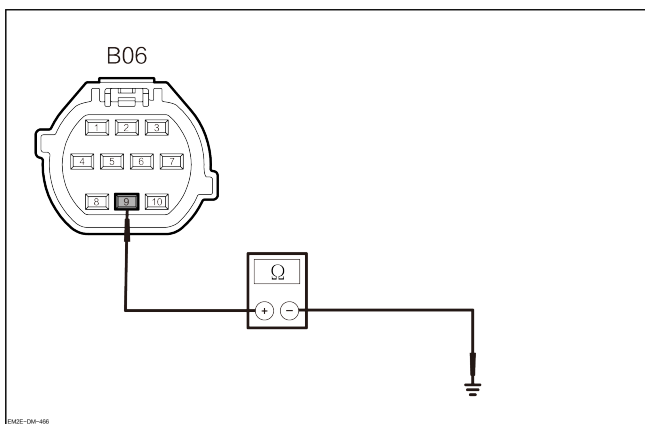
1 Check the right front combination light harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the right front combination headlight harness connector B06.
3. Check whether the right front combination headlight harness connector is normal?

No Repair or replace the wire harness

Yes

2 Check whether the right front combination light ground circuit is open circuited.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance value between the right front combination headlight harness connector B06-9 and the ground.

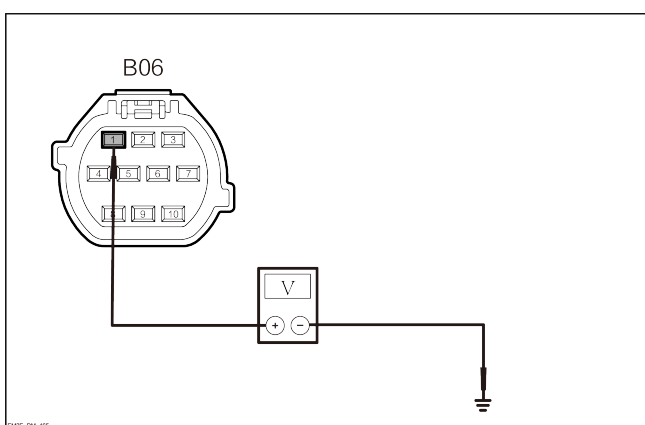
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B06-9 | Ground | Through- out | Lower than 1Ω |

3. Check whether the results are normal.

No Repair or replace the wire harness

Yes

3 Check the low beam power supply of right front combination lamp.



1. Set the START/STOP button to “ON” .
2. Low beam turned on
3. Measure the voltage value between the right front combination lamp harness connector B06-1 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| B06-1 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes

Replace the right combination headlamp

No

4 Check the harness connector of left body control module.

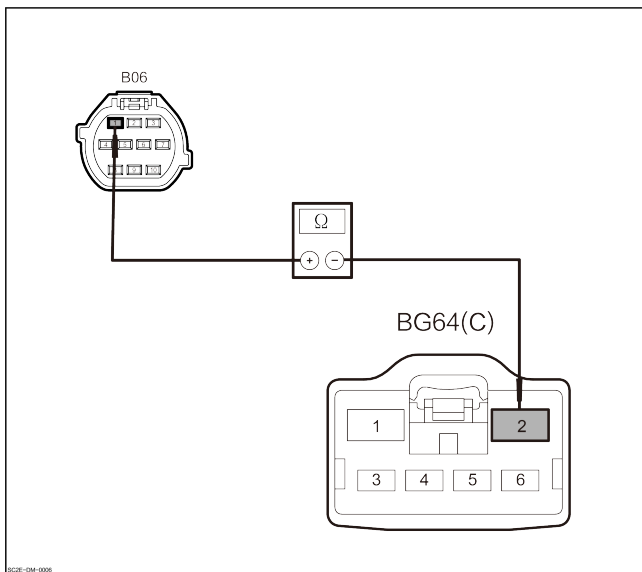
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module BG64(C).
3. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check whether the right front low beam power line is open circuited.



1. Measure the resistance between the harness connector of right front combination light B06-1 and the harness connector of left body control module BG64(C)-2.

| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| B06-1 | BG64(C) -2 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No

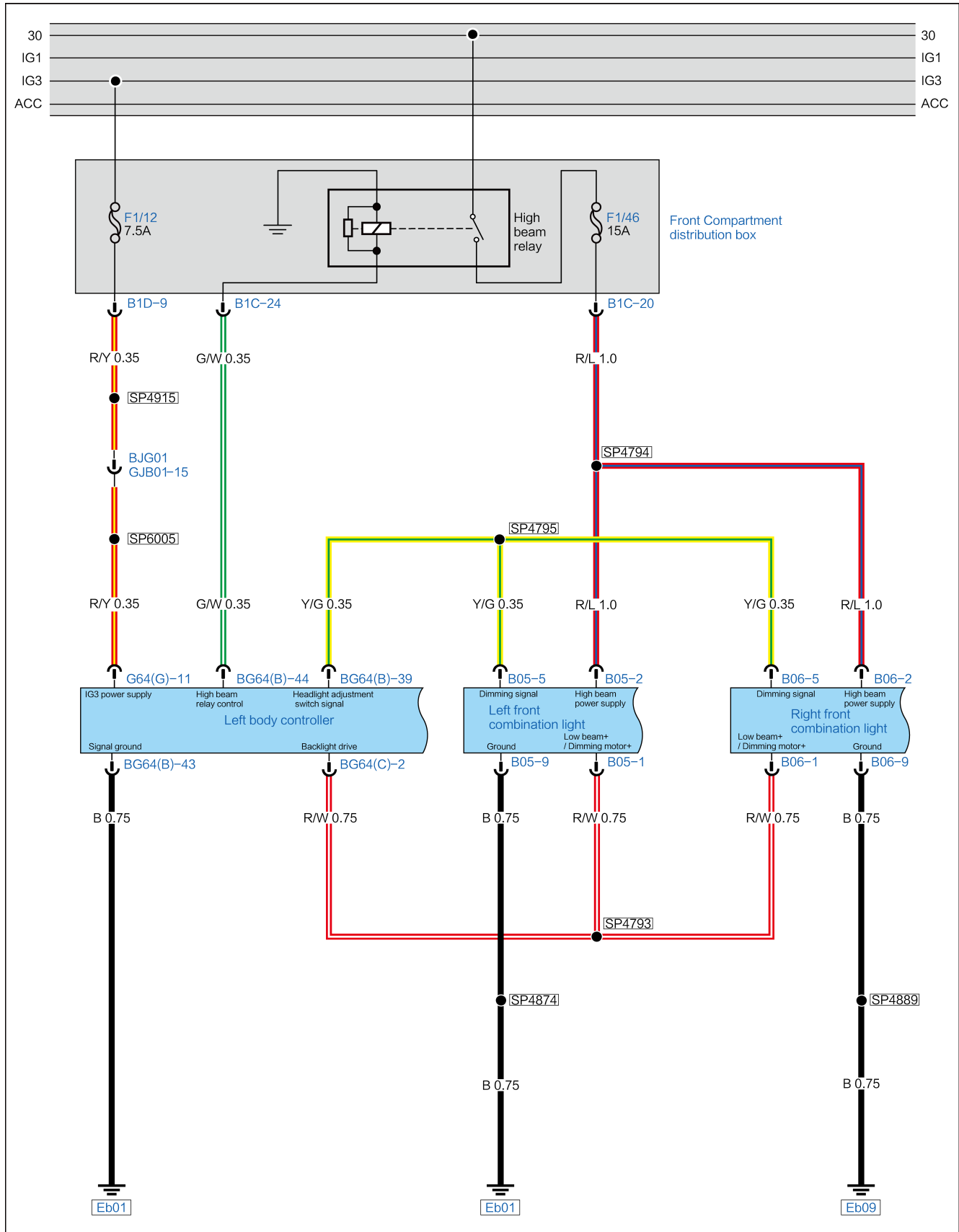
Repair or replace the wire harness

Yes

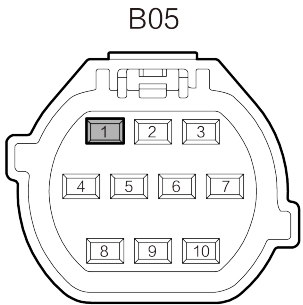
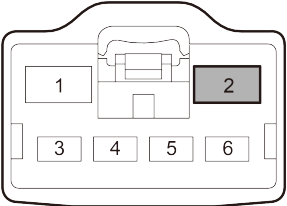
Replace the left body control module.

Left and Right Front Low Beams Not Working At The Same Time

Circuit Diagram

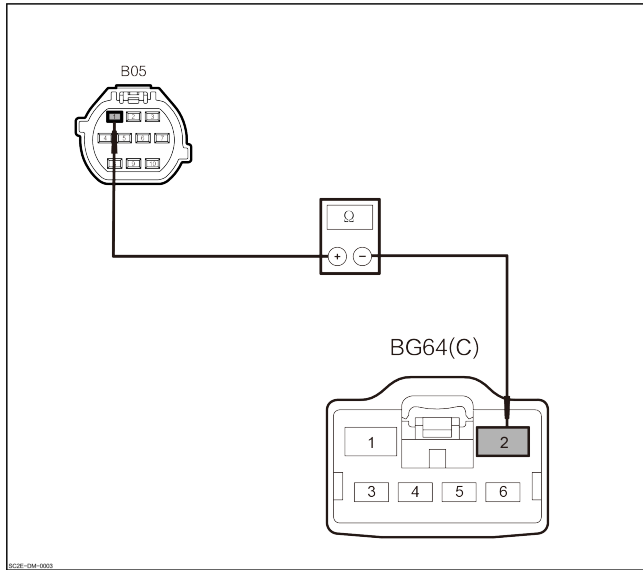


Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|--|--|
| <p>Left front combination light</p> <div>  <p>B05</p> <p>B05-04-0149</p> </div> | <p>1</p> | <p>Low beam power supply</p> |
| <p>Left body control module</p> <div>  <p>BG64(C)</p> <p>B05-04-0003</p> </div> | <p>2</p> | <p>Low beam power supply</p> |

Diagnostic Steps

| | |
|--|--|
| 1 | Check the communication network. |
| <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the start/stop button to ON. 3. Use a VDS to execute the network test. 4. Check whether the combination switch passes the network detection? | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">After diagnosis, the combination switch could not communicate.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 2 | Use ADS to actively control the front headlight. |
| <ol style="list-style-type: none"> 1. Actively control low beams to go on. 2. Whether the low beam can be lit. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">Yes</div> <div style="border: 1px solid black; padding: 5px;">Replace the combination switch.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">No</div> | |
| 3 | Check the front combination light harness connector. |
| <ol style="list-style-type: none"> 1. Set the START/STOP button to “OFF” . 2. Disconnect the front combination light harness connector B05. 3. Check whether the front combination light harness connector is normal. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Repair or replace the wire harness</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 4 | Check the harness connector of left body control module. |
| <ol style="list-style-type: none"> 1. Disconnect the harness connector of left body control module BG64(C). 2. Check whether the harness connector of left body control module is normal? | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Repair or replace the wire harness</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 5 | Check the front low beam power line for open circuit. |



1. Measure the resistance between the harness connector of left front combination light B05-1 and the harness connector of left body control module BG64(C)-2.

| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| B05-1 | BG64(C) -2 | Through- out | Lower than 1 Ω |

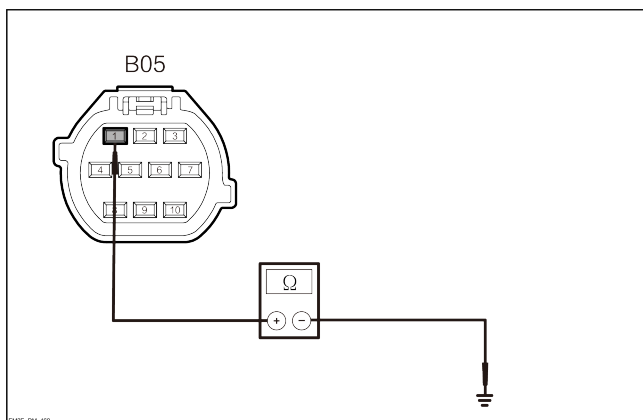
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

6 Check whether the front combination lamp power supply is shorted to ground.



1. Measure the resistance value between the left front combination light harness connector B05-1 and ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B05-1 | Ground | Through- out | Above 10k Ω |

2. Check whether the results are normal.

No

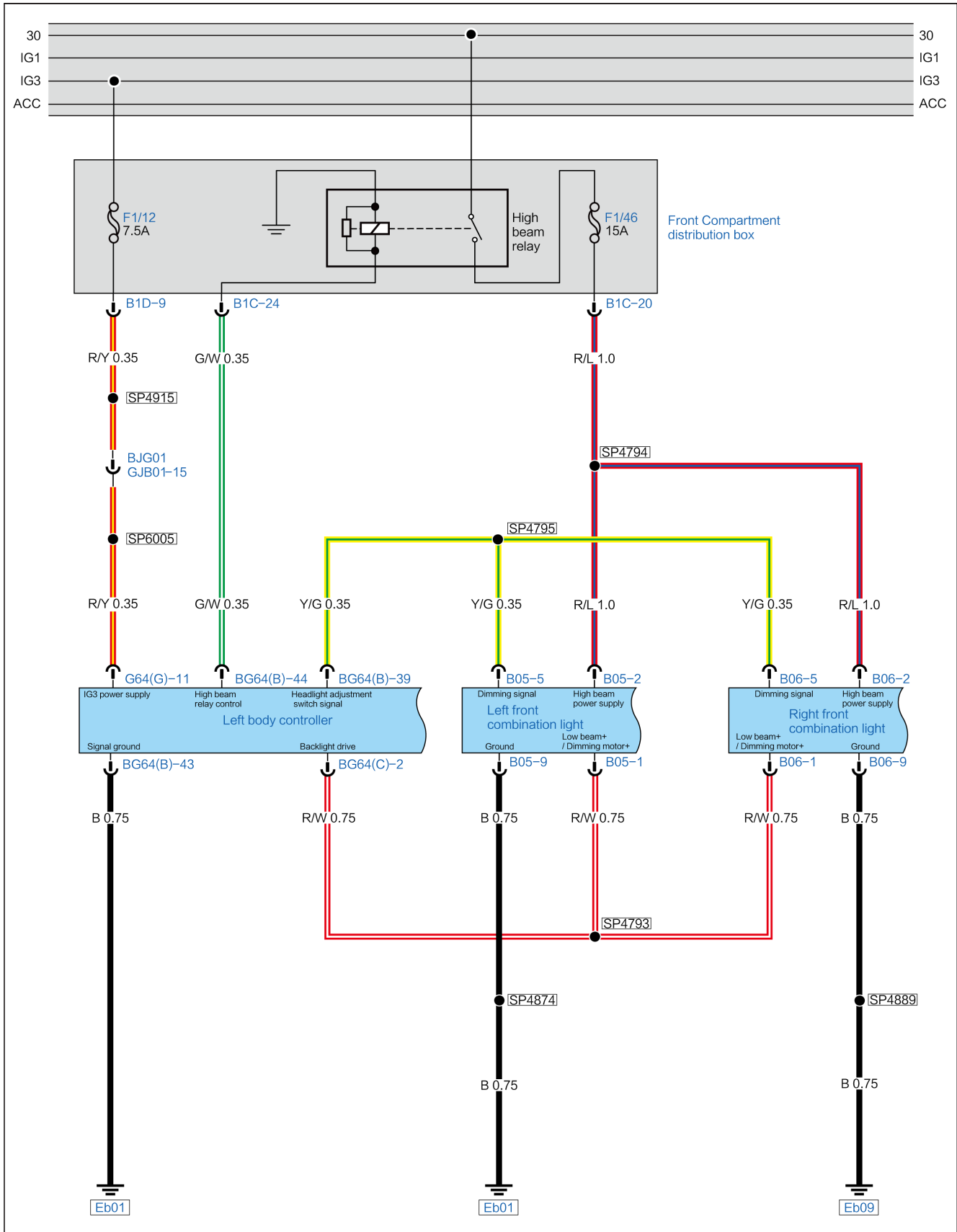
Repair or replace the wire harness

Yes

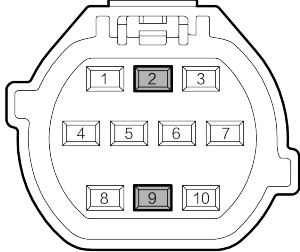
Replace the left body control module.

Left Front High Beam Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|------------------------|
| <p style="text-align: center;">Left front combination light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B05</p> </div> <p style="font-size: small; margin-top: 10px;">B05E-094-0143</p> | 2 | High beam power supply |
| | 9 | Ground |

Diagnostic Steps

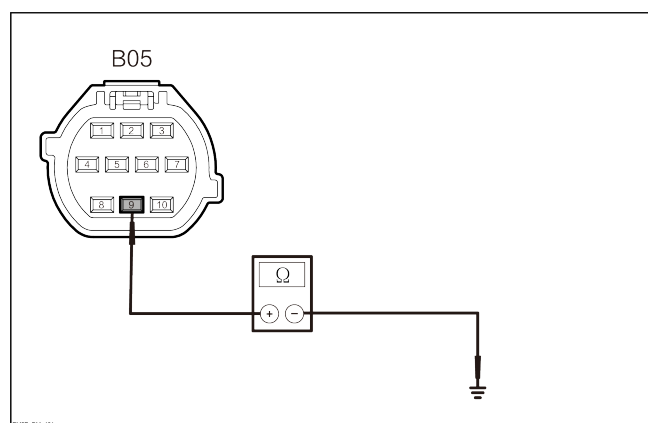
| | |
|---|---|
| 1 | Check the left front combination light harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the left front combination light harness connector B05.
3. Check whether the left front combination light harness connector is normal.

No → Repair or replace the wire harness

Yes

| | |
|---|--|
| 2 | Check whether the left front combination light ground circuit is open circuited. |
|---|--|



1. Set the START/STOP button to “OFF” .
2. Measure the resistance value between the left front combination light harness connector B05-9 and ground.

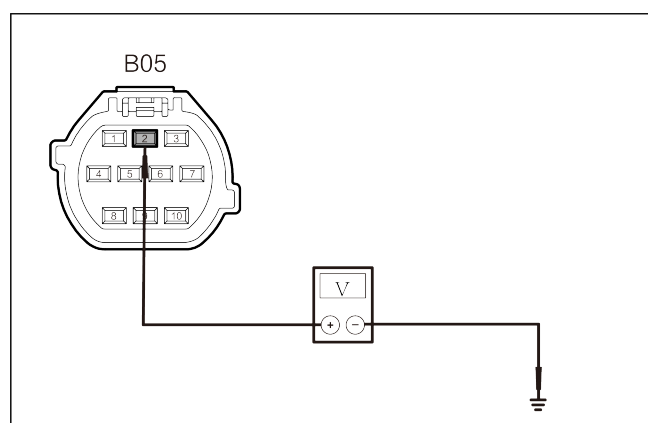
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B05-9 | Ground | Through- out | Lower than 1Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the high beam power supply of left front combination lamp. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Open high beam
3. Measure the voltage value between the left front combination lamp harness connector B05-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| B05-2 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes

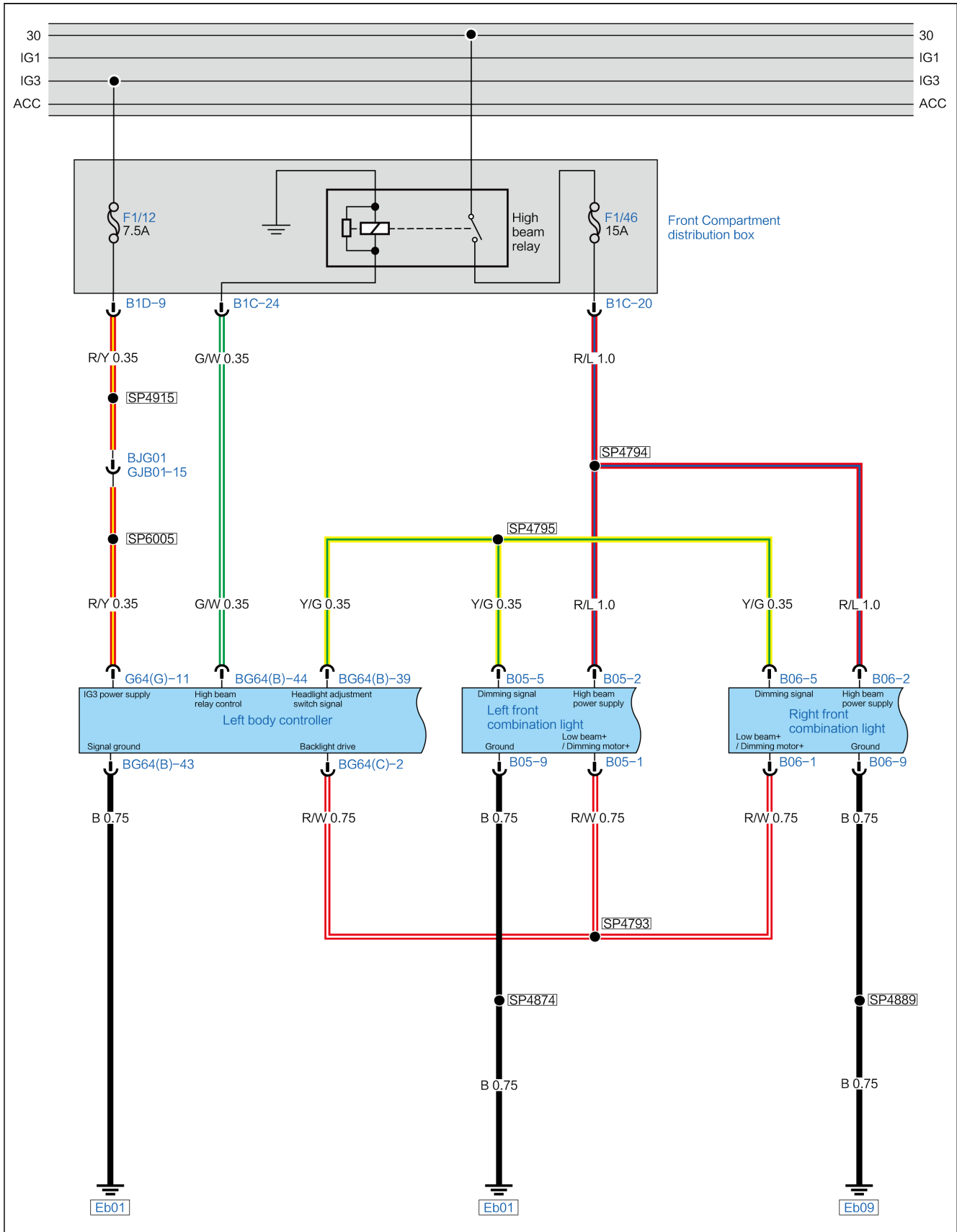
Replace the left combination headlamp

No

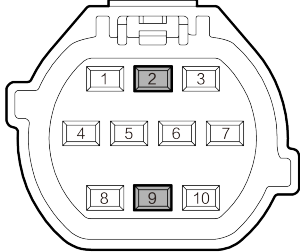
Repair or replace the wire harness

Right Front High Beam Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|------------------------|
| <p style="text-align: center;">Right front combination light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B06</p> </div> <p style="font-size: small; margin-top: 10px;">B06E-094-0144</p> | 2 | High beam power supply |
| | 9 | Ground |

Diagnostic Steps

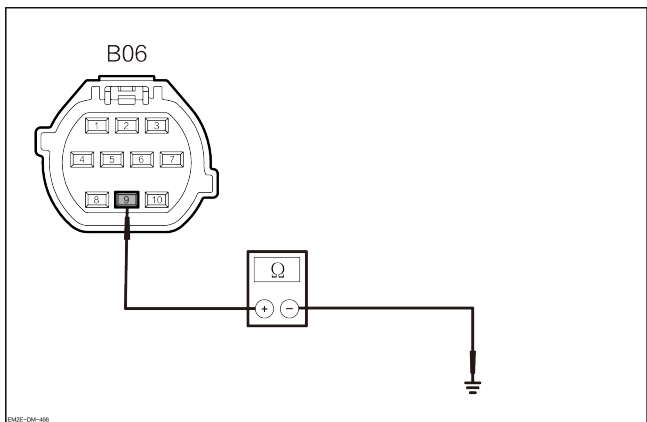
1 Check the right front combination light harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the right front combination headlight harness connector B06.
3. Check whether the right front combination headlight harness connector is normal?

No Repair or replace the wire harness

Yes

2 Check whether the right front combination light ground circuit is open circuited.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance value between the right front combination headlight harness connector B06-9 and the ground.

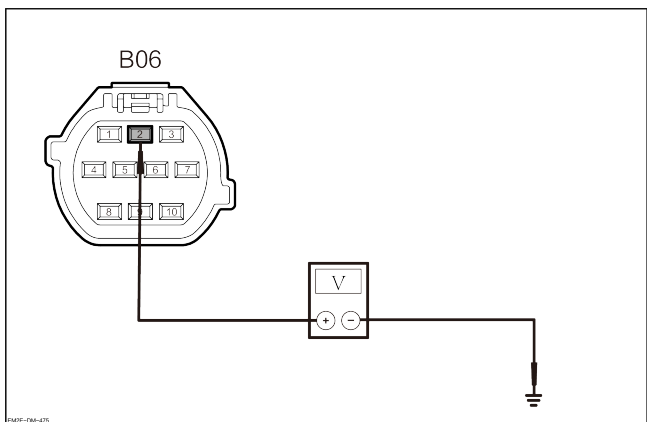
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B06-9 | Ground | Through- out | Lower than 1Ω |

3. Check whether the results are normal.

No Repair or replace the wire harness

Yes

3 Check the high beam power supply of right front combination lamp.



1. Set the START/STOP button to “ON” .
2. Open high beam
3. Measure the voltage value between the right front combination lamp harness connector B06-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| B06-2 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes

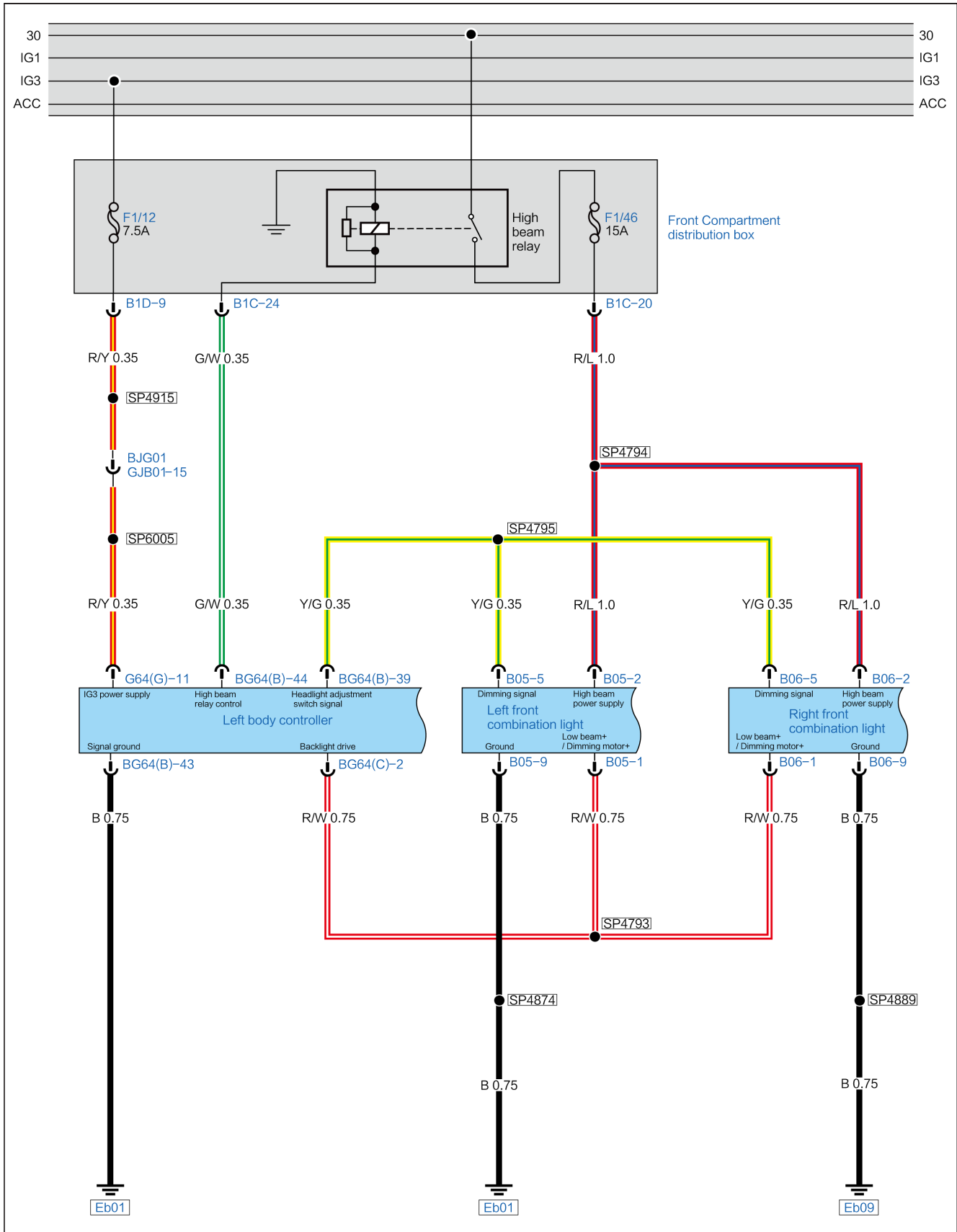
Replace the right combination headlamp

No

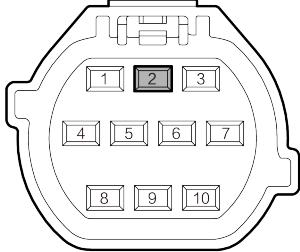
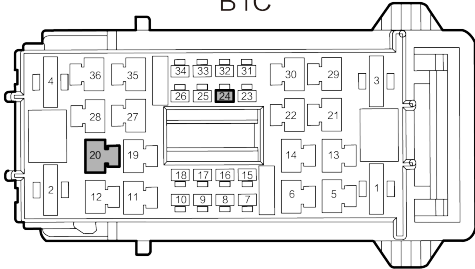
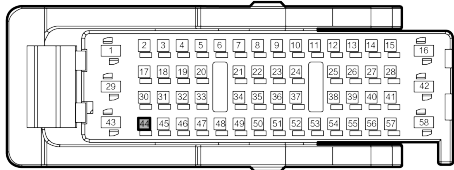
Repair or replace the wire harness

Left and Right Front High Beams Not Working At The Same Time

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|-------------------------|
| <p style="text-align: center;">Left front combination light</p> <div style="text-align: center;"> <p>B05</p>  </div> | 2 | High beam power supply |
| <div style="text-align: center;"> <p>B1C</p>  </div> | 20 | High beam power supply |
| | 24 | High beam relay control |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;"> <p>BG64(B)</p>  </div> | 44 | High beam relay control |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the combination switch passes the network detection?

No

After diagnosis, the combination switch could not communicate.

Yes

| | |
|---|--|
| 2 | Use ADS to actively control the front headlight. |
|---|--|

1. Actively control the high beam to go on.
2. Whether the high beam can be lit.

Yes

Replace the combination switch.

No

| | |
|---|------------------------------|
| 3 | Check the fuse of high beam. |
|---|------------------------------|

1. Check whether the fuse F1/46 (15A) of front compartment fuse box is normal?

No

Replace the fuse

Yes

| | |
|---|--|
| 4 | Check the front combination light harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the front combination light harness connector B05.
3. Check whether the front combination light harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 5 | Check the front compartment fuse box harness connector. |
|---|---|

1. Disconnect the front compartment fuse box harness connector B1C.

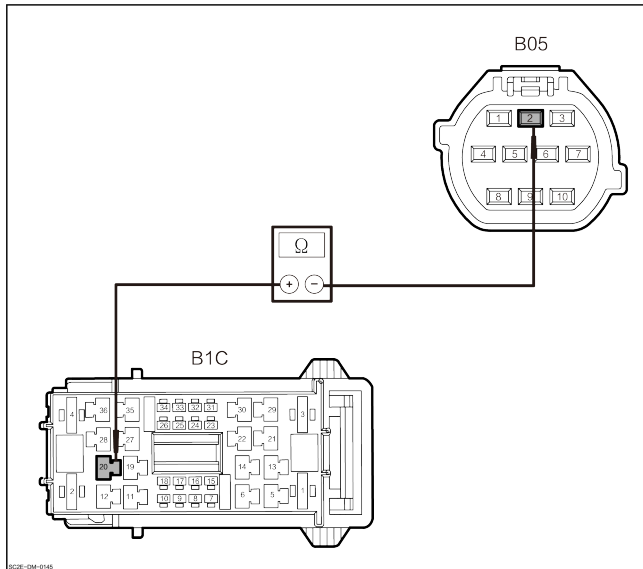
2. Check whether the front compartment fuse box harness connector is normal.

No

Repair or replace the wire harness

Yes

6 Check the power line of left front combination light for open circuit.



1. Measure the resistance between the harness connector of left front combination light B05-2 and the harness connector of front compartment fuse box B1C-20.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B05-2 | B1C-20 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Check the control line of high beam.

1. Connect the harness connector of front compartment fuse box B1C.
2. Set the START/STOP button to “ON” .
3. Open high beam
4. Measure the voltage between the harness connector of front compartment fuse box B1C-24 and the ground from the rear lead.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| B1C-24 | Ground | Through- out | 11~14V |

5. Check whether the results are normal.

Yes

Replace the front compartment fuse box.

No

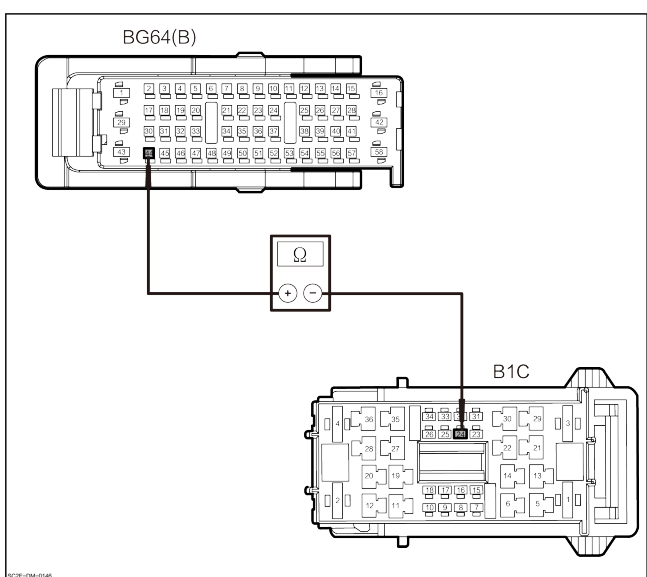
8 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module BG64(B).
3. Check whether the harness connector of left body control module is normal?

No Repair or replace the wire harness

Yes

9 Check the control line of high beam for open circuit.



1. Measure the resistance between the harness connector of front compartment fuse box B1C-24 and the harness connector of left body control module BG64(B)-44.

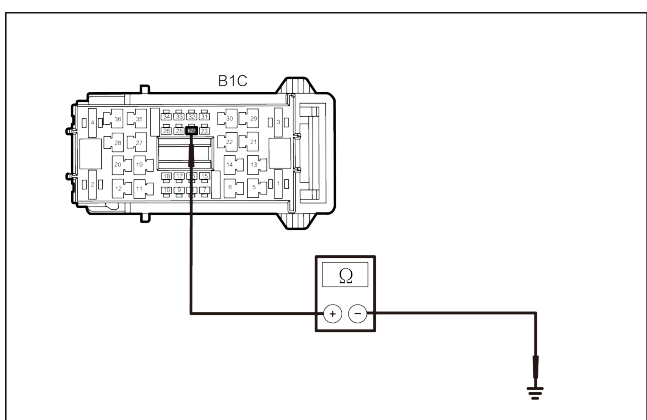
| Connector | | Condition | Resist- ance value |
|-----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| B1C-24 | BG64(B)-44 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

10 Check the high beam control line for short to ground.



1. Measure the resistance between the harness connector of front compartment fuse box B1C-24 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B1C-24 | Ground | Through- out | Above 10k Ω |

2. Check whether the results are normal.

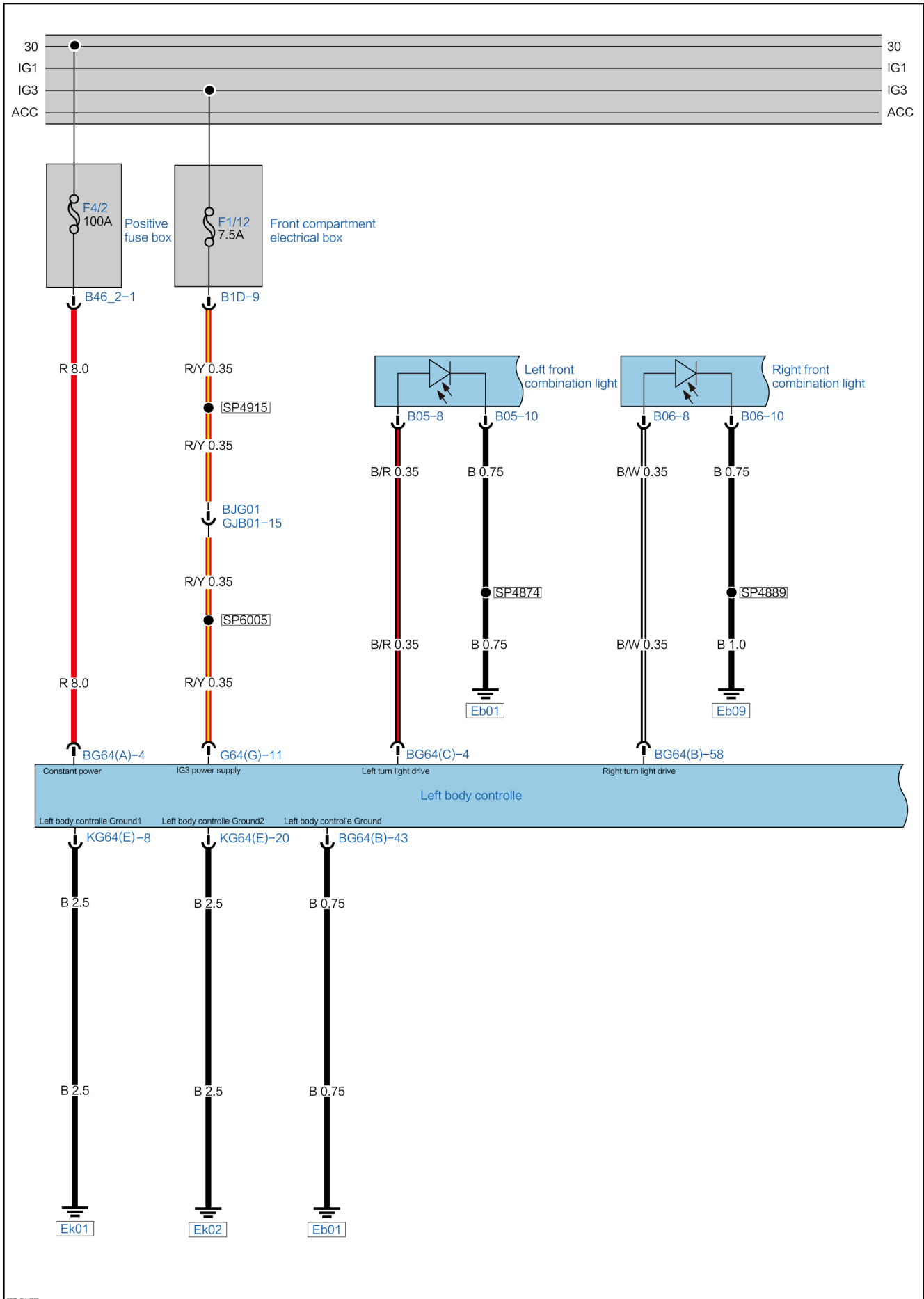
No Repair or replace the wire harness

Yes

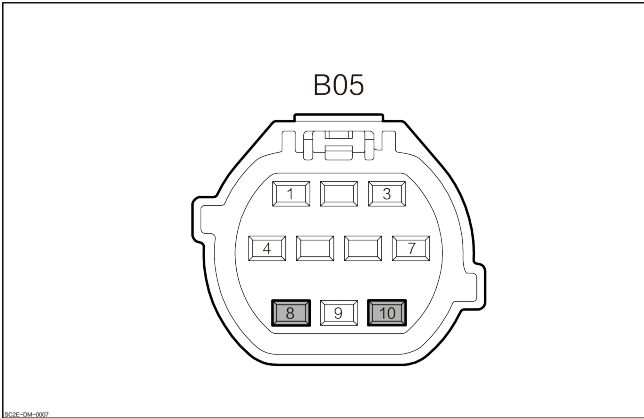
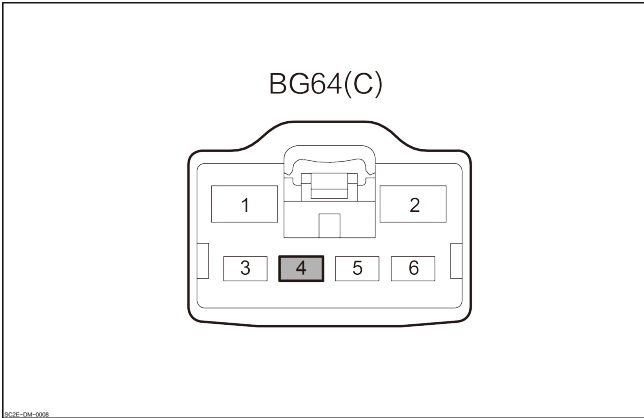
Replace the left body control module.

Left Front Turn Signal Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------------------------|
| <p>Left front combination light</p>  <p>B05</p> <p>1 3 4 7 8 9 10</p> <p><small>802E-04-007</small></p> | 8 | Power supply of left turn signal lamp |
| | 10 | Ground |
| <p>Left body control module</p>  <p>BG64(C)</p> <p>1 2 3 4 5 6</p> <p><small>802E-04-008</small></p> | 4 | Power supply of left turn signal lamp |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the combination switch passes the network detection?

No

After diagnosis, the combination switch could not communicate.

Yes

| | |
|---|--|
| 2 | Use a VDS to actively control the turning left front signal light. |
|---|--|

1. Actively control and turn on the turning left front signal light.
2. Can the left front turn signal light be turned on?

Yes

Replace the combination switch.

No

| | |
|---|---|
| 3 | Check the left front combination light harness connector. |
|---|---|

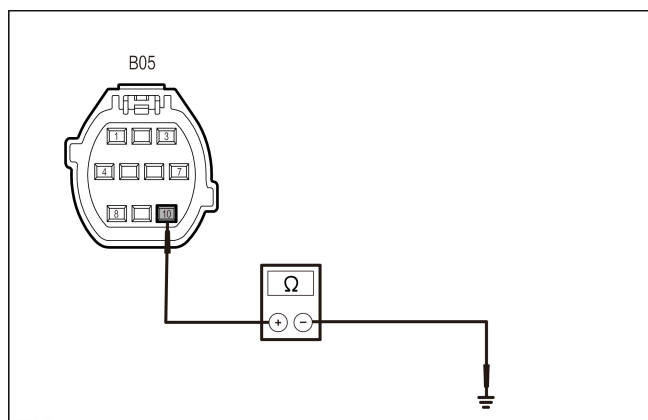
1. Set the START/STOP button to “OFF” .
2. Disconnect the left front combination light harness connector B05.
3. Check whether the left front combination light harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the left front combination light ground circuit is open circuited. |
|---|--|



1. Measure the resistance value between the left front combination light harness connector B05-10 and ground.

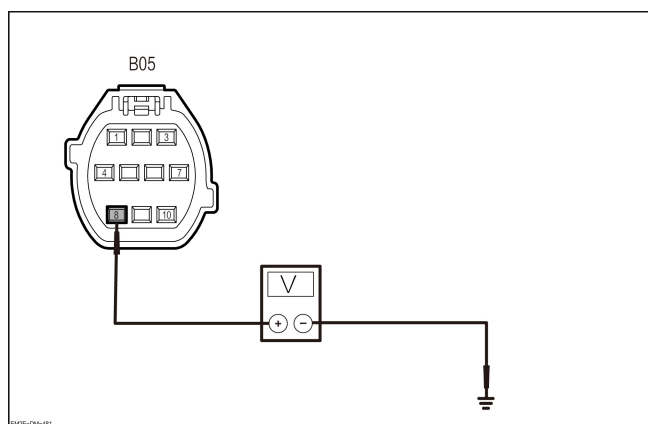
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B05-10 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the left front turn signal light power supply.



1. Set the START/STOP button to “ON” .
2. Turn on the left front turn signal light .
3. Measure the voltage value between the left front combination lamp harness connector B05-8 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| B05-8 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes → Replace the left combination headlamp

No

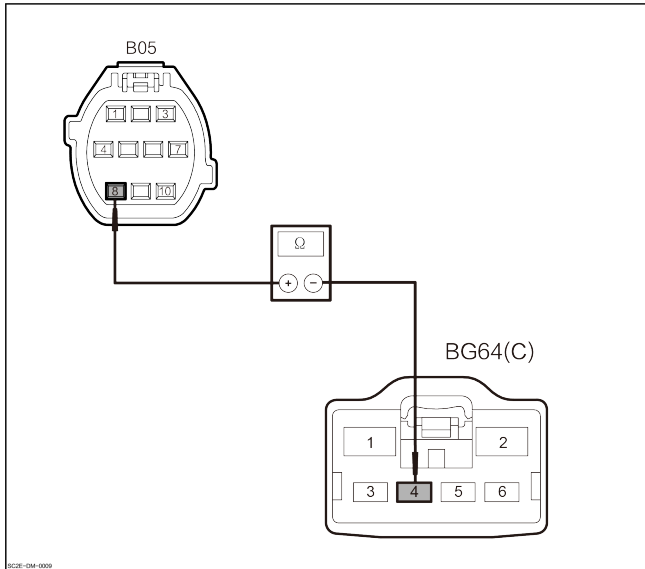
6 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module BG64(C).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

7 Check the power line of left front turn signal light for open circuit.



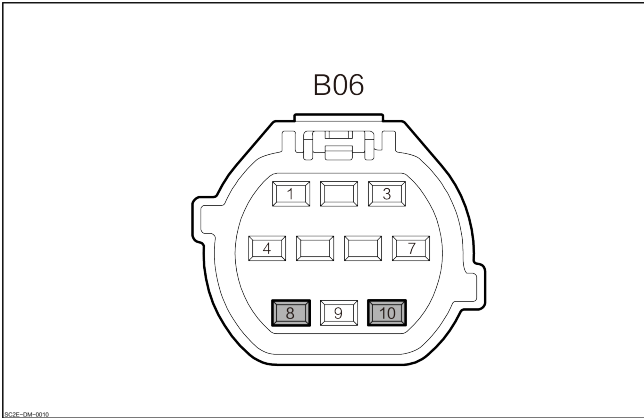
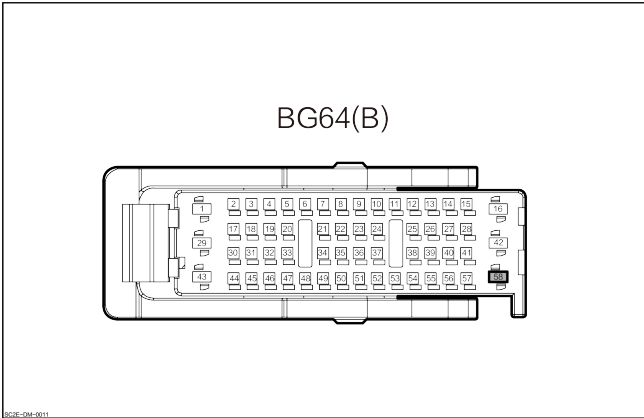
1. Measure the resistance between the harness connector of left front combination light B05-8 and the harness connector of left body control module BG64(C)-4.

| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| B05-8 | BG64(C) -4 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

- No → Repair or replace the wire harness
- Yes → Replace the left body control module.

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Right front combination light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B06</p> </div> <p style="font-size: small; margin-top: 10px;">B06-04-010</p> | 8 | Power supply of right turn signal lamp |
| | 10 | Ground |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">BG64(B)</p> </div> <p style="font-size: small; margin-top: 10px;">BG64-04-011</p> | 58 | Power supply of right turn signal lamp |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the combination switch passes the network detection?

No

After diagnosis, the combination switch could not communicate.

Yes

| | |
|---|--|
| 2 | Use VDS to actively control the right front turn signal. |
|---|--|

1. Actively control right the front turn signal lamp to go on.
2. Whether the right front turn signal lamp can be lit.

Yes

Replace the combination switch.

No

| | |
|---|--|
| 3 | Check the right front combination light harness connector. |
|---|--|

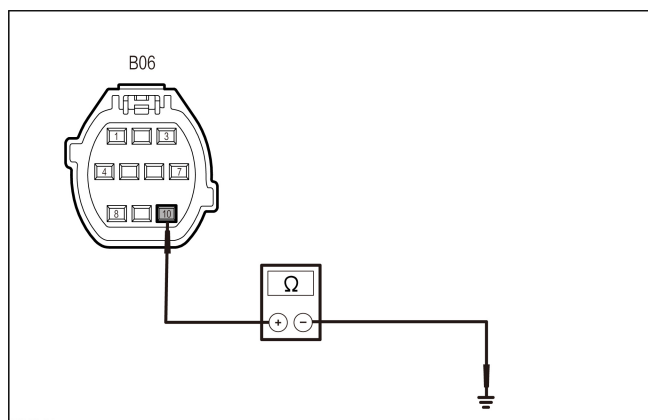
1. Set the START/STOP button to “OFF” .
2. Disconnect the right front combination headlight harness connector B06.
3. Check whether the right front combination headlight harness connector is normal?

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check whether the right front combination light ground circuit is open circuited. |
|---|---|



1. Measure the resistance value between the right front combination headlight harness connector B06-10 and the ground.

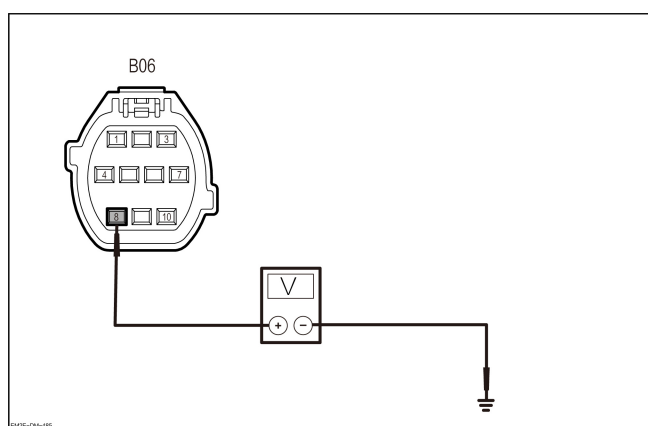
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B06-10 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the power supply of right front turn signal lamp.



1. Set the START/STOP button to “ON” .
2. Turn on the right front turn signal lamp.
3. Measure the voltage value between the right front combination lamp harness connector B06-8 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| B06-8 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes → Replace the right combination headlamp

No

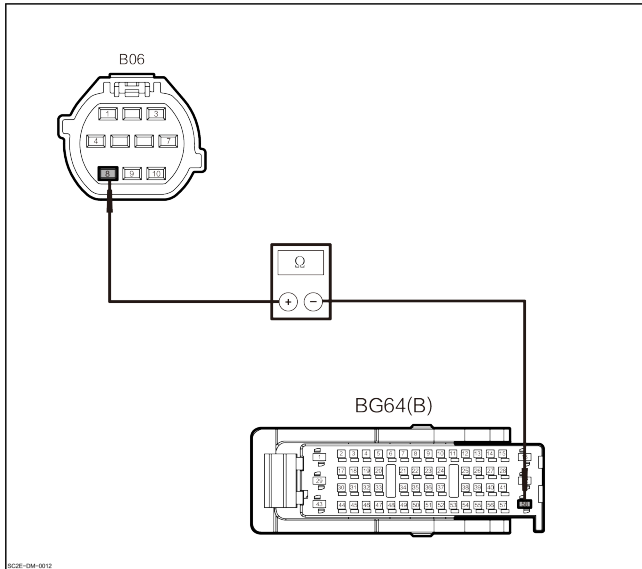
6 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module BG64(C).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

7 Check whether the right front turn signal lamp power line is open circuited.



1. Measure the resistance between the harness connector of right front combination light B06-8 and the harness connector of left body control module BG64(C)-58.

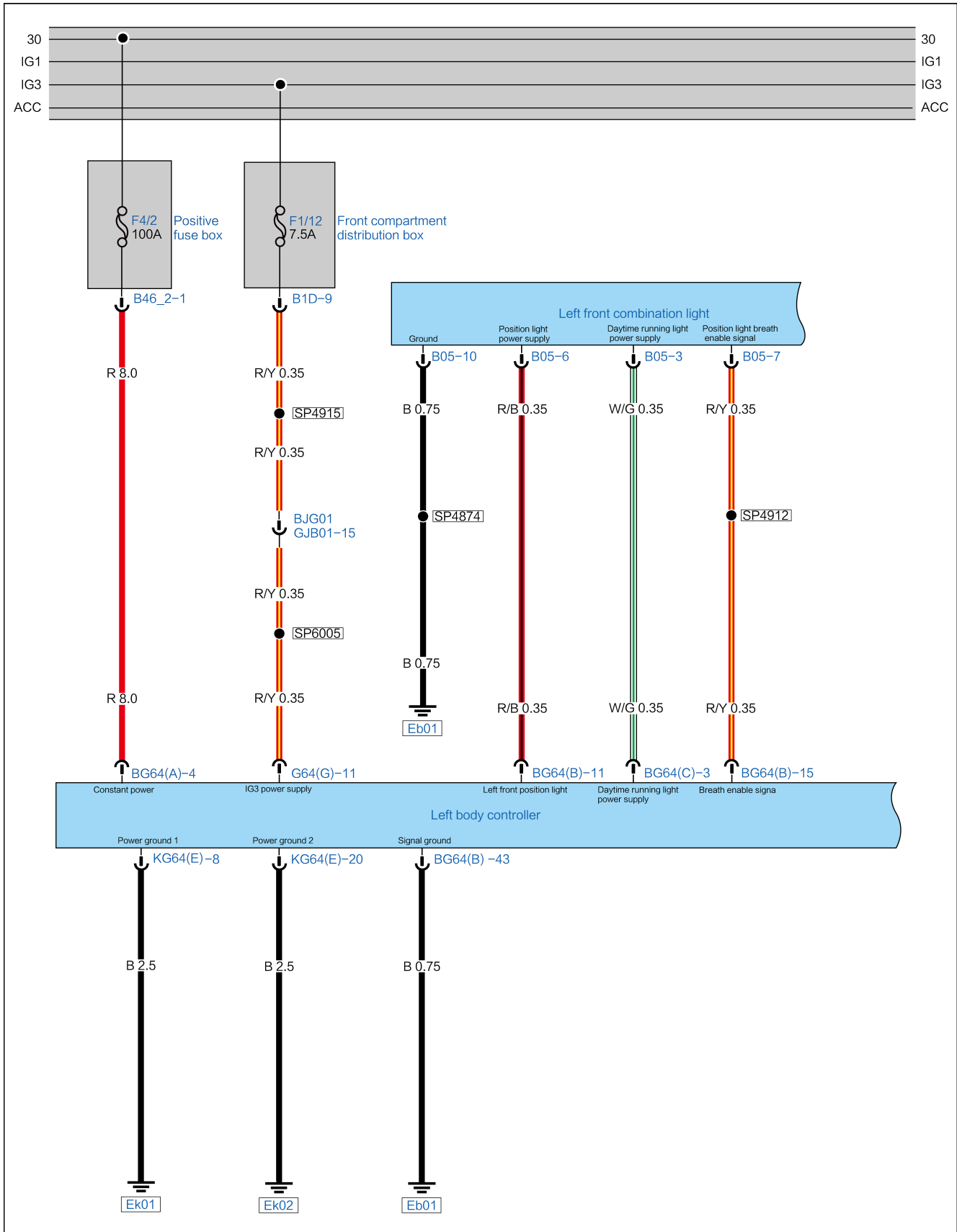
| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| B06-8 | BG64(C) -58 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

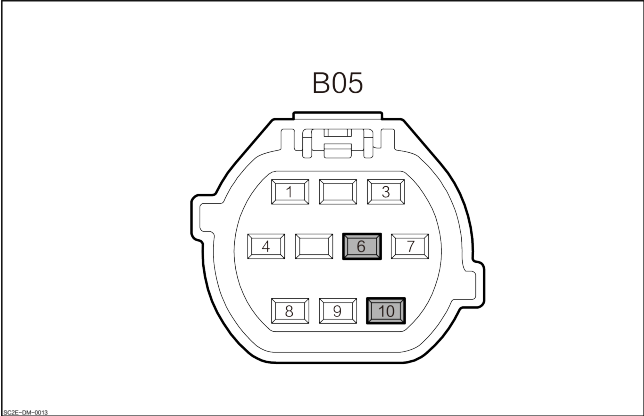
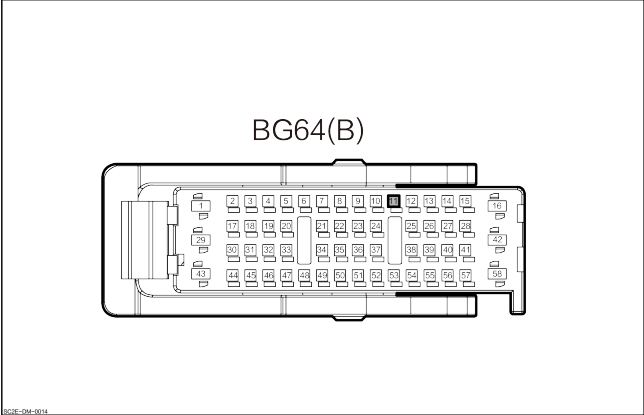
- No → Repair or replace the wire harness
- Yes → Replace the left body control module.

Left Front Position Light Not Working

Circuit Diagram

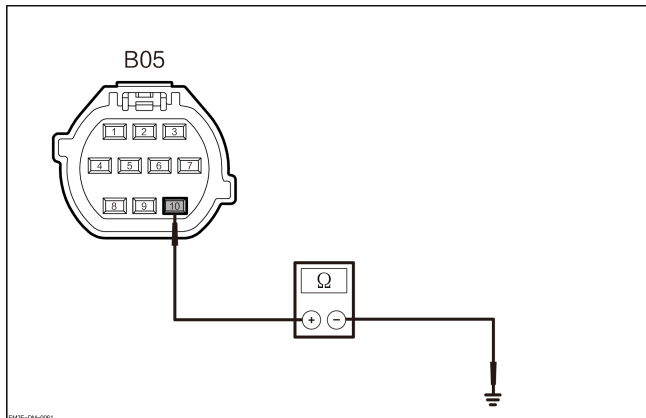


Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|-------------------------------------|
| <p>Left front combination light</p>  <p>B05</p> <p>B05E-004-0013</p> | 6 | Power supply for left position lamp |
| <p>Left body control module</p>  <p>BG64(B)</p> <p>B05E-004-0014</p> | 11 | Power supply for left position lamp |

Diagnostic Steps

| | |
|--|--|
| 1 | Check the communication network. |
| <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the start/stop button to ON. 3. Use a VDS to execute the network test. 4. Check whether the combination switch passes the network detection? | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">After diagnosis, the combination switch could not communicate.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 2 | Use VDS to actively control the left front position light. |
| <ol style="list-style-type: none"> 1. Actively control the left front position light to go on. 2. Whether the left front position lamp can be lit. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">Yes</div> <div style="border: 1px solid black; padding: 5px;">Replace the combination switch.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">No</div> | |
| 3 | Check the left front combination light harness connector. |
| <ol style="list-style-type: none"> 1. Set the START/STOP button to “OFF” . 2. Disconnect the left front combination light harness connector B05. 3. Check whether the left front combination light harness connector is normal. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Repair or replace the wire harness</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 4 | Check whether the left front combination light ground circuit is open circuited. |



1. Measure the resistance value between the left front combination light harness connector B05-10 and ground.

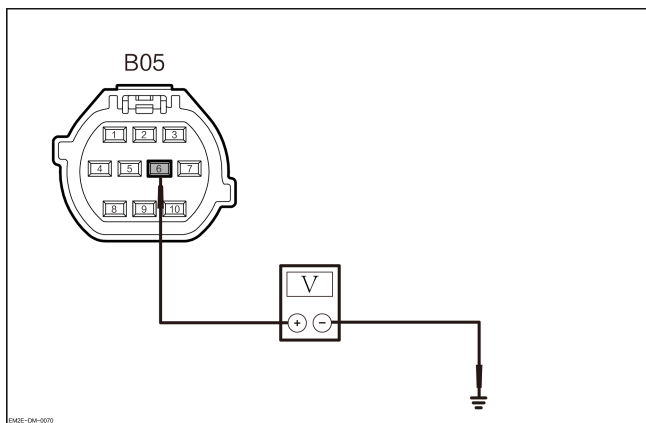
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B05-10 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the power supply of left front position lamp.



1. Set the START/STOP button to “ON” .
2. Turn on the position lamp.
3. Measure the voltage between the harness connector of left front combination light B05-6 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| B05-6 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes → Replace the left combination headlamp

No

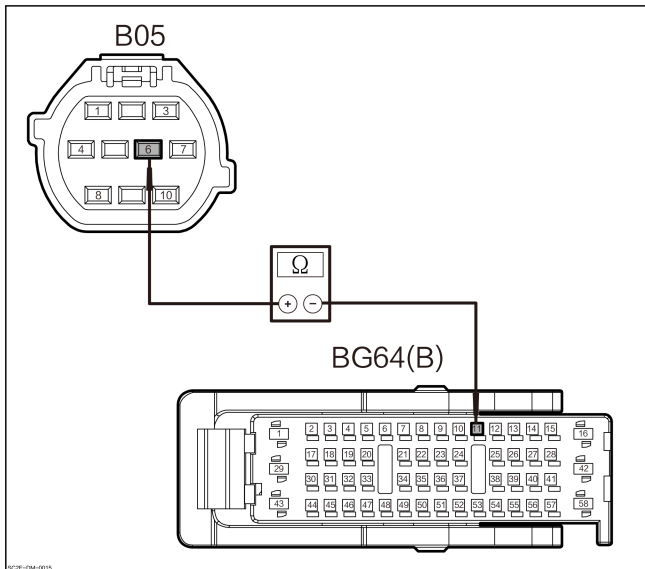
6 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module BG64(B).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

| | |
|---|--|
| 7 | Check whether the left front position lamp power line is open circuited. |
|---|--|



1. Measure the resistance between the harness connector of left front combination light B05-6 and the harness connector of left body control module BG64(B)-11.

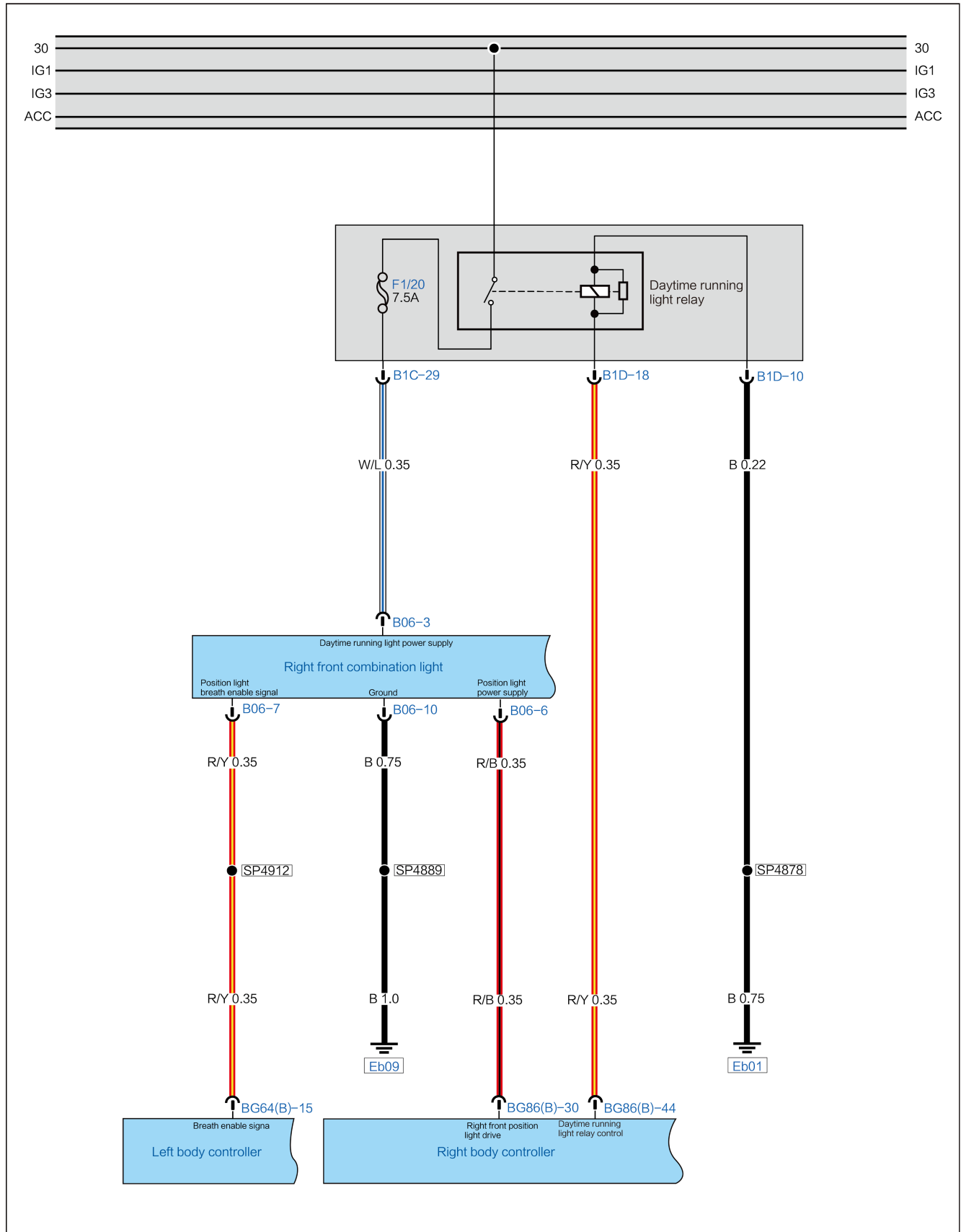
| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| B05-6 | BG64(B)- 11 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

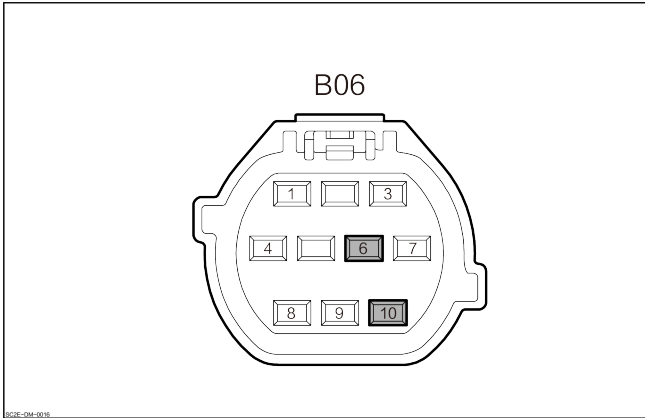
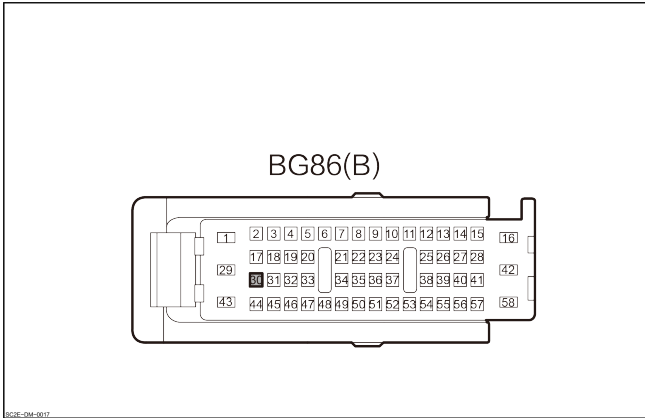
| | |
|-----|---------------------------------------|
| No | Repair or replace the wire harness |
| Yes | Replace the left body control module. |

Right Front Position Light Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|--|
| <p style="text-align: center;">Right front combination light</p>  <p style="text-align: center;">B06</p> <p><small>802E-04-0016</small></p> | <p style="text-align: center;">6</p> | <p style="text-align: center;">Power supply of right position lamp</p> |
| | <p style="text-align: center;">10</p> | <p style="text-align: center;">Ground</p> |
| <p style="text-align: center;">Right body control module</p>  <p style="text-align: center;">BG86(B)</p> <p><small>802E-04-0017</small></p> | <p style="text-align: center;">30</p> | <p style="text-align: center;">Power supply of right position lamp</p> |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the combination switch passes the network detection?

No

After diagnosis, the combination switch could not communicate.

Yes

| | |
|---|---|
| 2 | Use VDS to actively control the right front position light. |
|---|---|

1. Actively control the right front position lamp to go on.
2. Whether the right front position lamp can be lit.

Yes

Replace the combination switch.

No

| | |
|---|--|
| 3 | Check the right front combination light harness connector. |
|---|--|

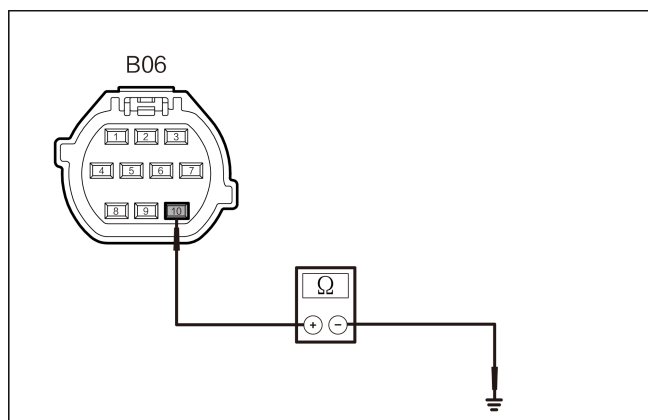
1. Set the START/STOP button to “OFF” .
2. Disconnect the right front combination headlight harness connector B06.
3. Check whether the right front combination headlight harness connector is normal?

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check whether the right front combination light ground circuit is open circuited. |
|---|---|



1. Measure the resistance value between the right front combination headlight harness connector B06-10 and the ground.

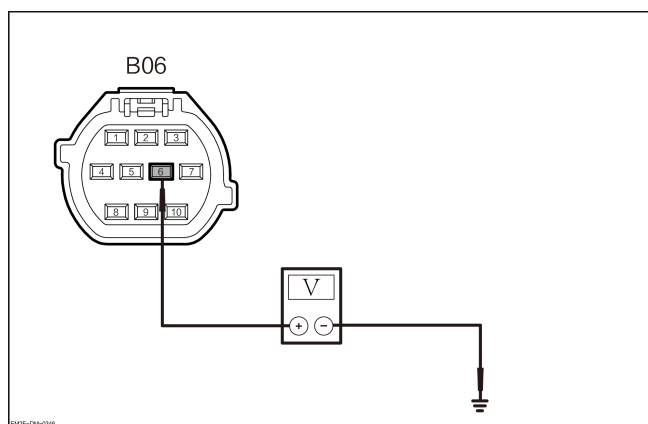
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B06-10 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the power supply of right front position lamp.



1. Set the START/STOP button to “ON” .
2. Turn on the position lamp.
3. Measure the voltage value between the right front combination lamp harness connector B06-6 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| B06-6 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes → Replace the right combination headlamp

No

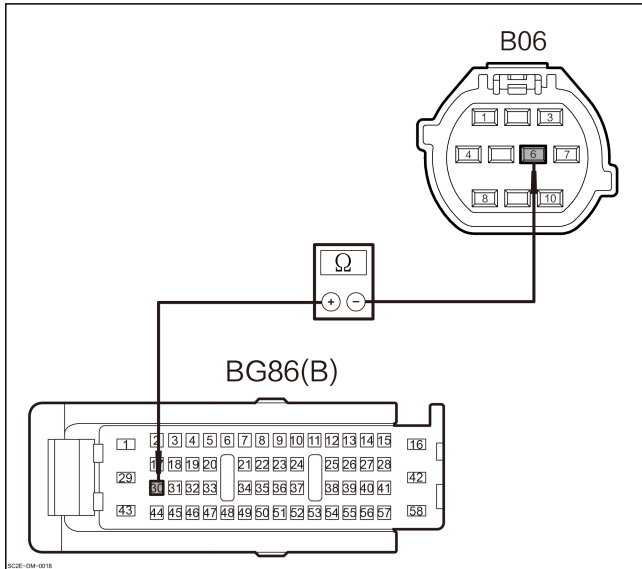
6 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module BG86(B).
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

7 Check whether the right front position lamp power line is open circuited.



1. Measure the resistance between the harness connector of right front combination light B06-6 and the harness connector of right body control module BG86(B)-30.

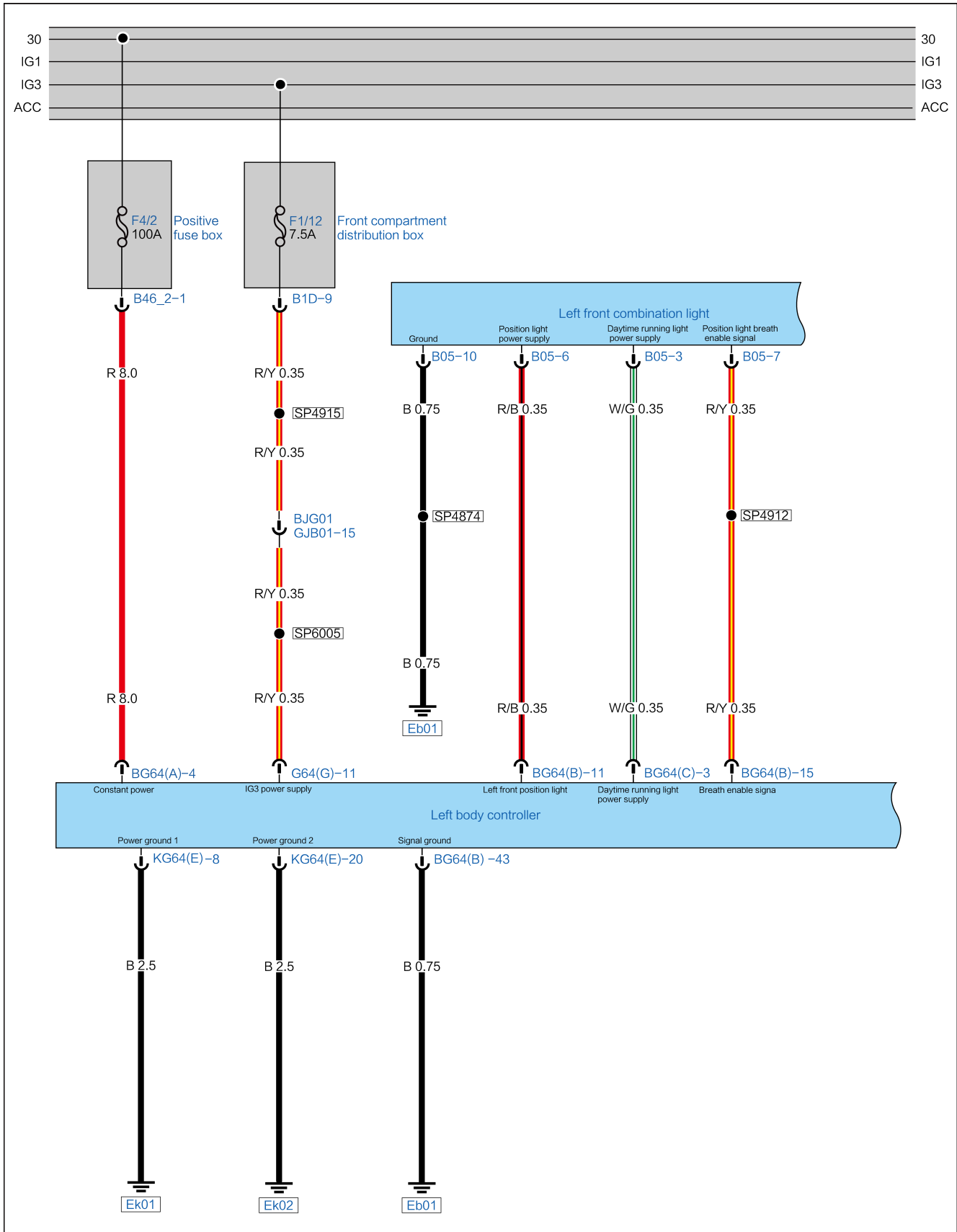
| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| B06-6 | BG86(B)- 30 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

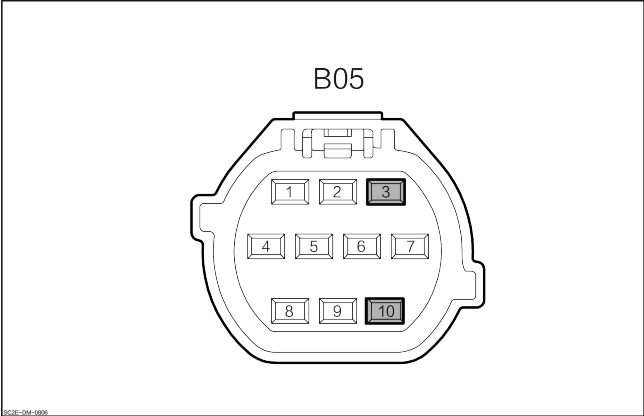
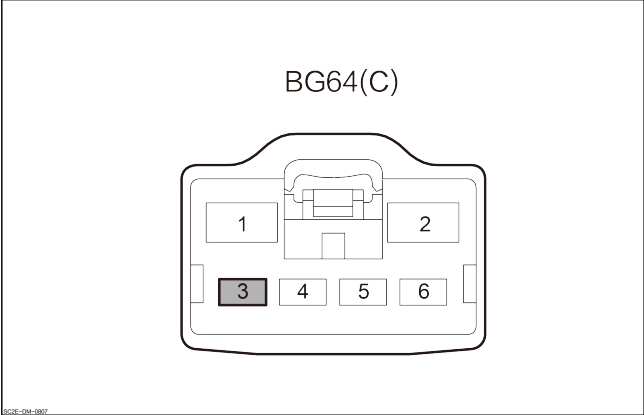
- No → Repair or replace the wire harness
- Yes → Replace the right body control module.

Left Front Daytime Running Light Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p>Left front combination light</p>  <p>B05</p> | 3 | Left daytime running lamp power supply |
| | 10 | Ground |
| <p>Left body control module</p>  <p>BG64(C)</p> | 3 | Left daytime running lamp power supply |

Diagnostic Steps

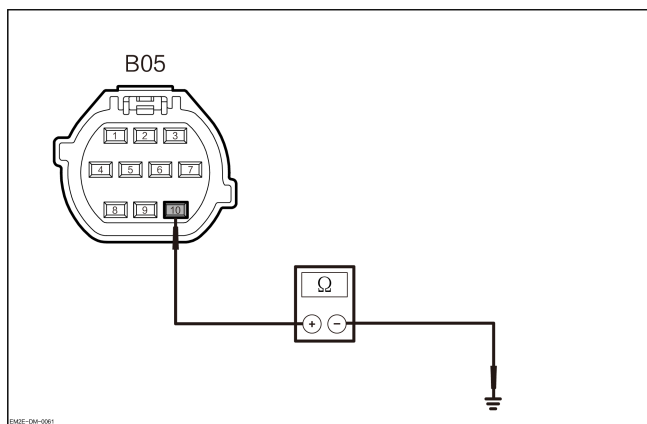
1 Check the left front combination light harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the left front combination light harness connector B05.
3. Check whether the left front combination light harness connector is normal.

No → Repair or replace the wire harness

Yes

2 Check whether the left front combination light ground circuit is open circuited.



1. Measure the resistance value between the left front combination light harness connector B05-10 and ground.

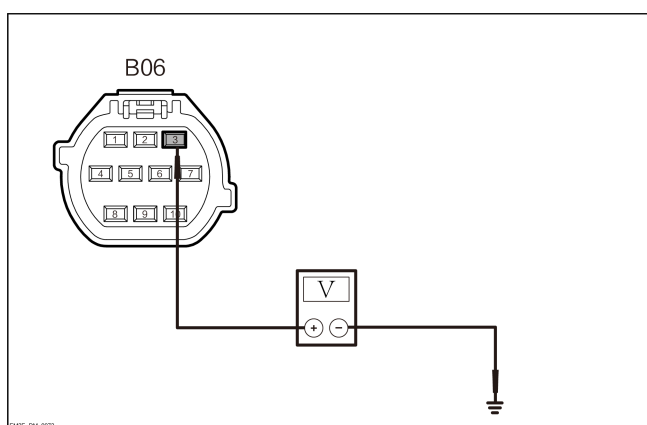
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B05-10 | Ground | Through- out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

3 Check the power supply of the left front daytime running lamp.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the left front combination lamp harness connector B05-3 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| B05-3 | Ground | Through- out | 11~14V |

3. Check whether the results are normal.

Yes → Replace the left combination headlamp

No

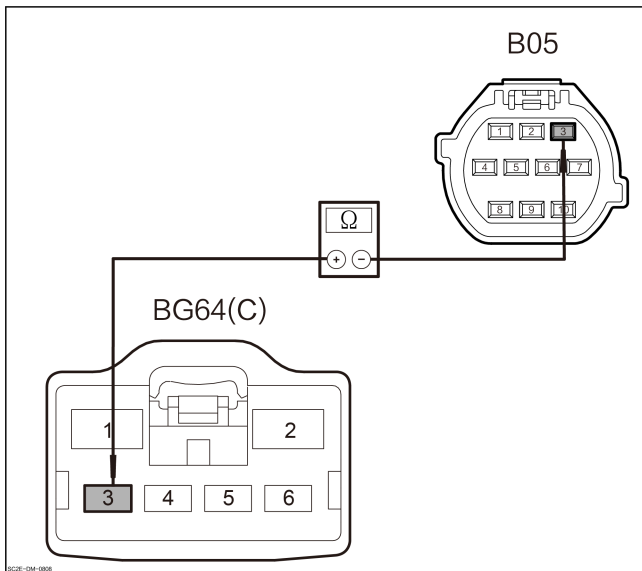
4 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module BG64(C).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

5 Check the left front daytime running light power line for open circuit.



1. Measure the resistance between the harness connector of left front combination light B05-3 and the harness connector of left body control module BG64(C)-3.

| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| B05-3 | BG64(C) -3 | Through- out | Lower than 1 Ω |

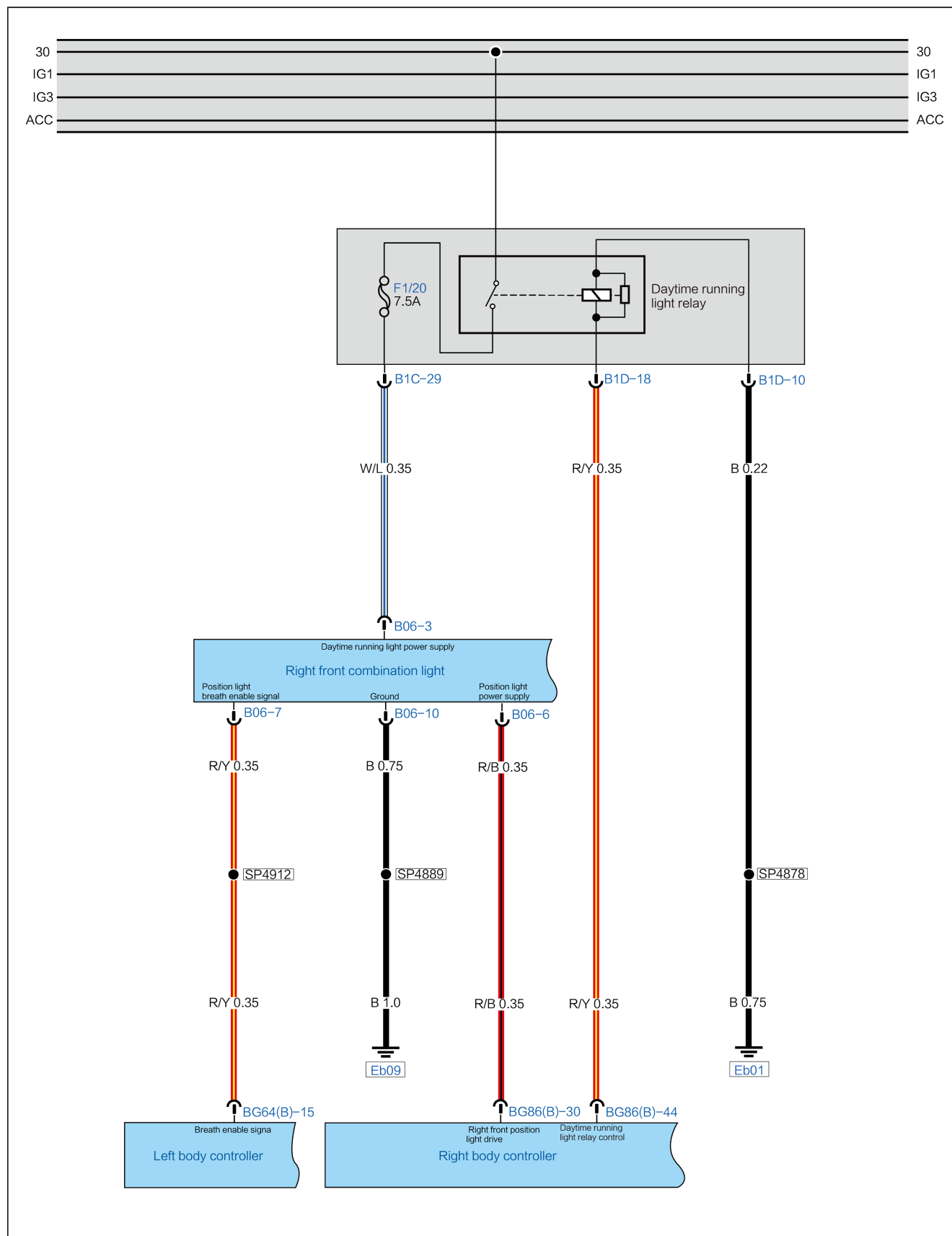
2. Check whether the results are normal.

No → Repair or replace the wire harness

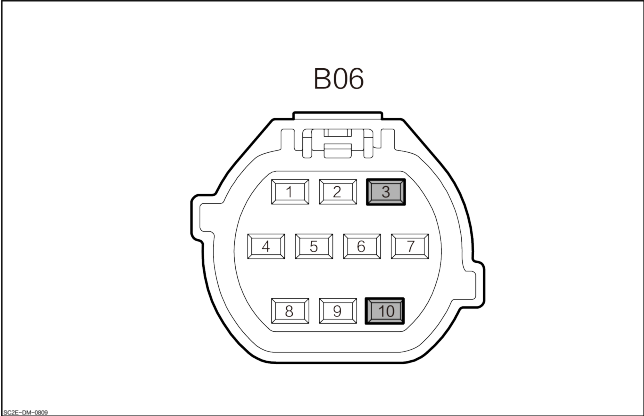
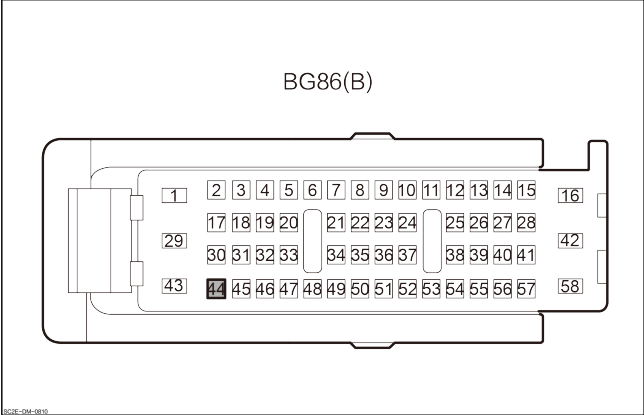
Yes → Replace the left body control module.

Right Front Daytime Running Light Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Right front combination light</p> <div style="text-align: center;">  <p>B06</p> </div> | 3 | Power supply of right daytime running lamp |
| | 10 | Ground |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p>BG86(B)</p> </div> | 44 | Power supply of right daytime running lamp |

Diagnostic Steps

1 Check the right daytime running light fuse.

1. Check whether the fuse F1/20 (7.5A) of front compartment fuse box is normal?

No → Replace the fuse

Yes

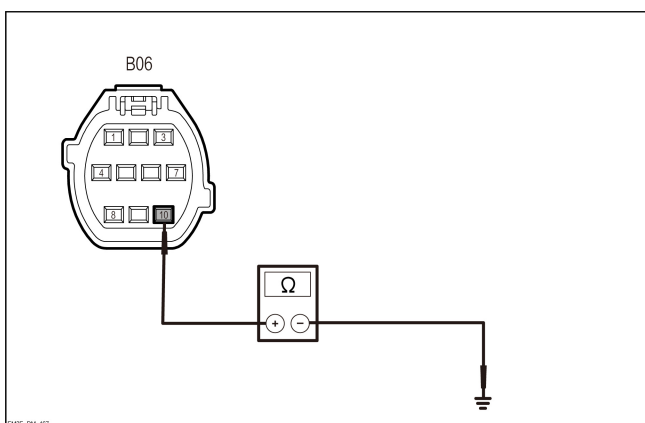
2 Check the front combination light harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the front combination light harness connector B06.
3. Check whether the front combination light harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check whether the right front combination light ground circuit is open circuited.



1. Measure the resistance value between the right front combination headlight harness connector B06–10 and the ground.

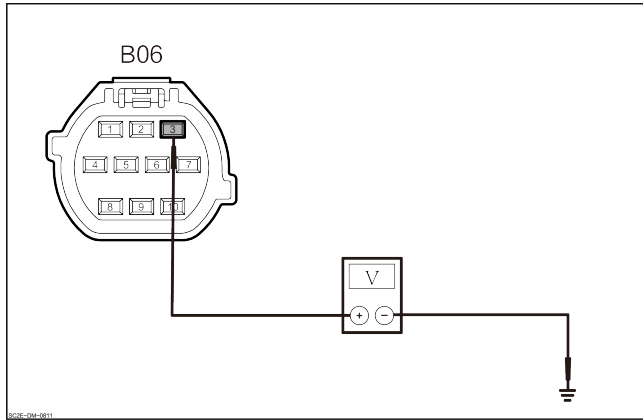
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B06-10 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the power supply of daytime running light.



1. Measure the voltage value between the right front combination lamp harness connector B06-3 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B06-3 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

Yes → Replace the right combination headlamp

No

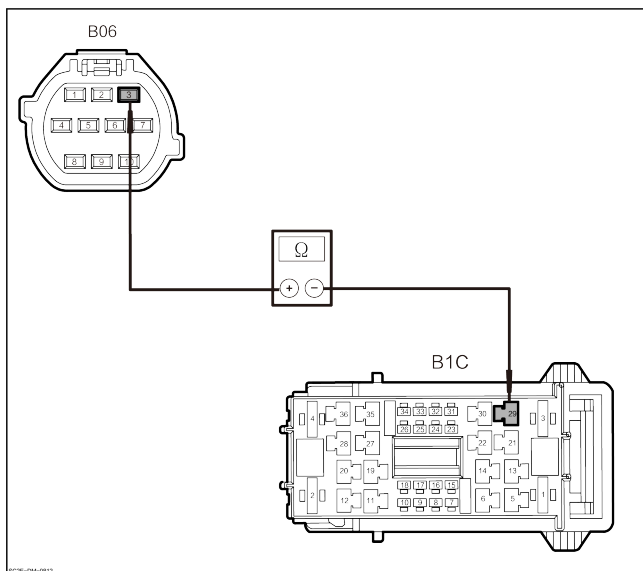
5 Check the front compartment fuse box harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1C.
3. Check whether the front compartment fuse box harness connector is normal.

No → Repair or replace the wire harness

Yes

6 Check the power line of right daytime running light for open circuit.



1. Measure the resistance between the harness connector of front compartment fuse box B1C-29 and the harness connector of right front combination light B06-3.

| Connector | | Condition | Resist-ance value |
|-----------|-------|-------------|-------------------|
| (+) | (-) | | |
| B1C-29 | B06-3 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the harness connector of right body control module.

1. Disconnect the harness connector of right body control module BG86(B).
2. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

8 Check the control line of right daytime running light.

1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of front compartment fuse box B1D-18 and the ground from the rear lead.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B1D-18 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace the front compartment fuse box.

No

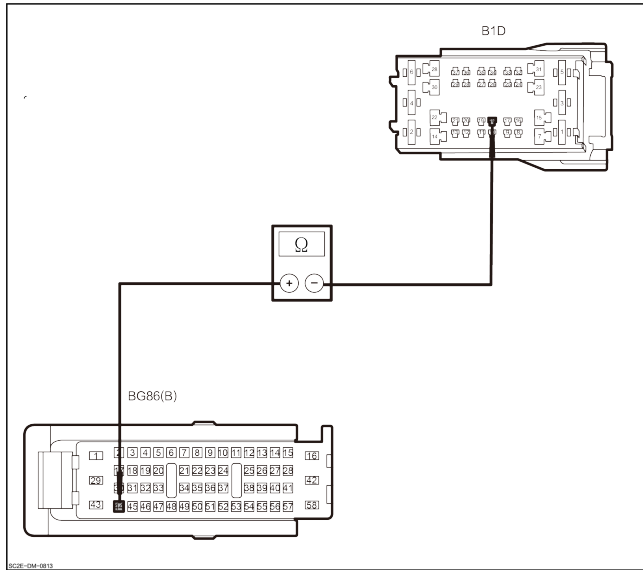
9 Check the front compartment fuse box harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1D.
3. Check whether the front compartment fuse box harness connector is normal.

No → Repair or replace the wire harness

Yes

10 Check the control line of right daytime running light for open circuit.



1. Measure the resistance between the harness connector of front compartment fuse box B1D-18 and the harness connector of left body control module BG86(B)-44.

| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| B1D-18 | BG86(B)- 44 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the right body control module. |

Front Middle Position Light

Diagnosis Description

Introduction

Before fault diagnosis for the front middle position light, understand and get familiar with the working principle of the front middle position light, and then start diagnosis for the front middle position light, so as to be helpful to confirm the correct fault diagnosis procedure in the event of a failure and, more importantly, to confirm whether the operating condition described by the customer is normal. Any fault diagnosis of a front middle position light should start with the inspection of a front middle position light to guide the maintenance technicians to take the next logical step for fault diagnosis.

General equipment

- Multimeter
- VDS

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Diagnosis of General Faults

Visual Inspection

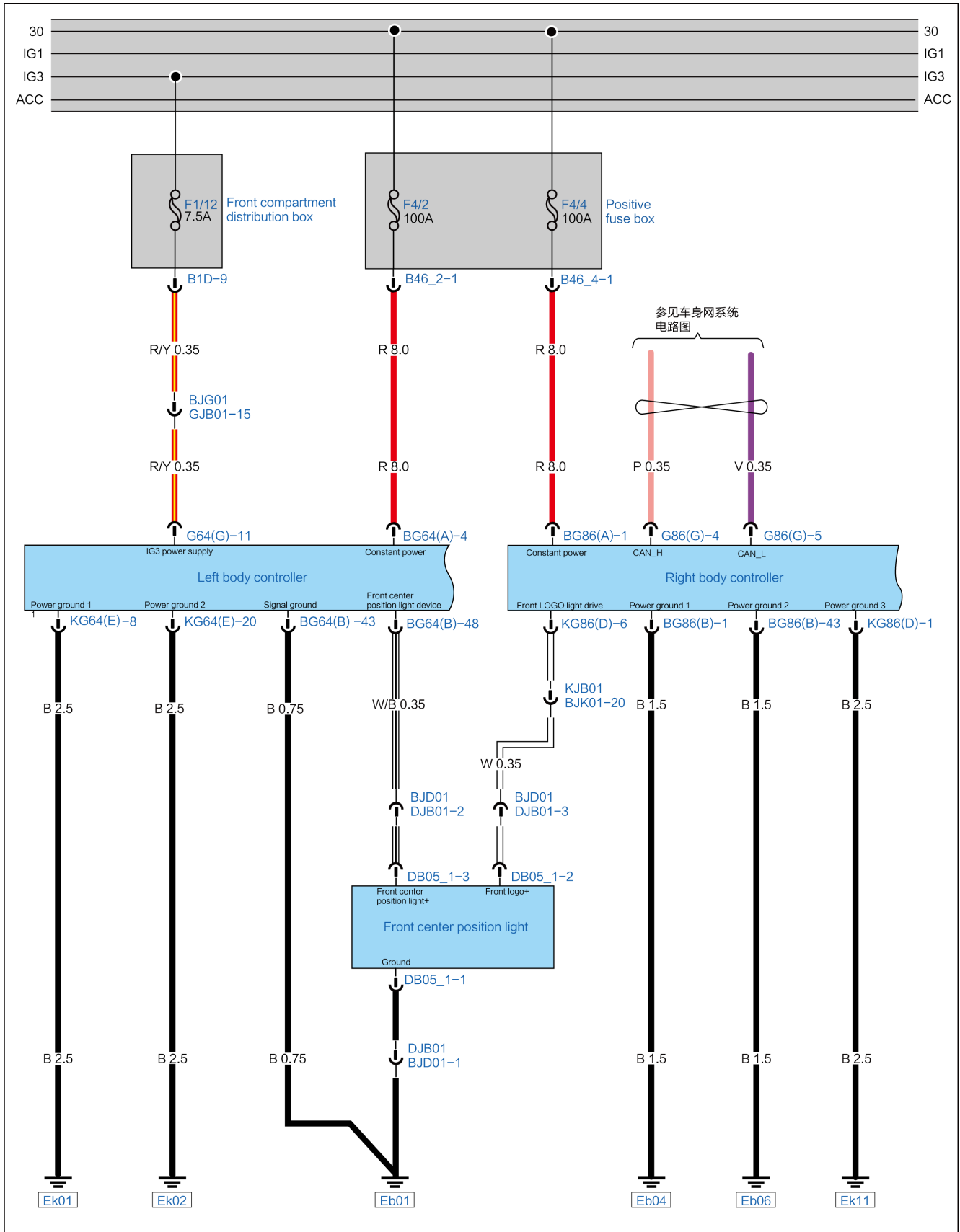
1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

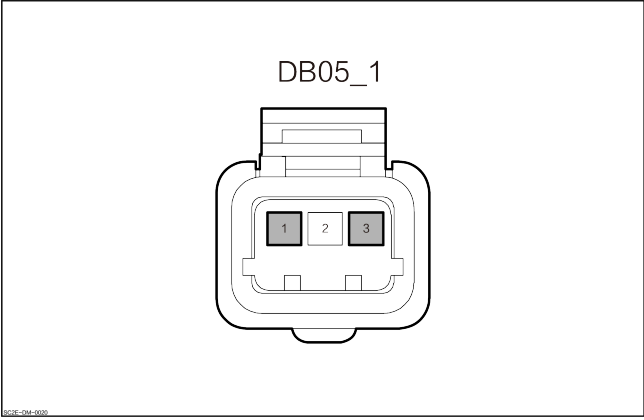
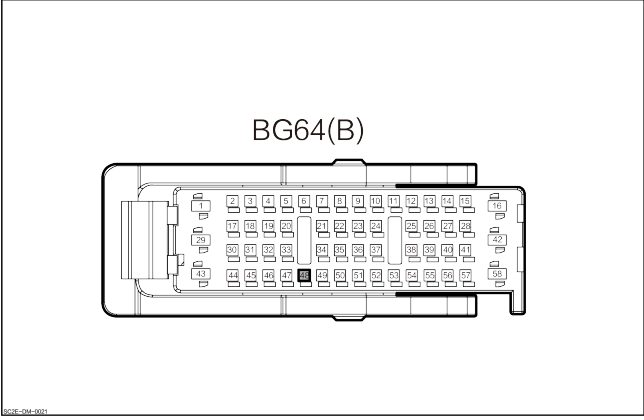
| Symptom | Possible cause | Suggested maintenance measures |
|------------------------|--|--|
| Logo light not working | <ol style="list-style-type: none">1. Harness or connector fault.2. Multi-function switch fault3. The logo light fails.4. The right body control module fails. | Logo light not working |

Front Middle Position Light Not Working

Circuit Diagram

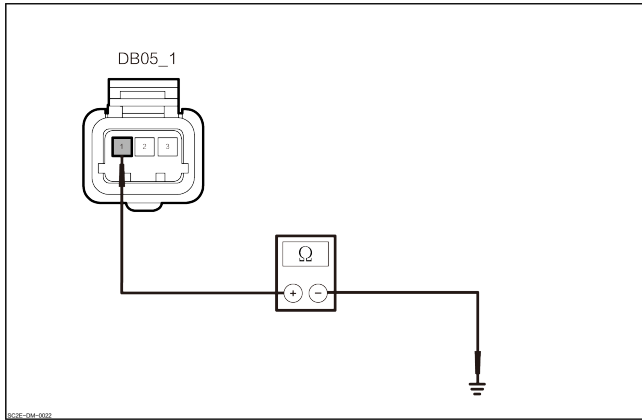


Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p style="text-align: center;">Front Middle Position Light</p> <div style="text-align: center;">  <p>DB05_1</p> </div> | 1 | Ground |
| | 3 | Power supply of front middle position lamp |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p>BG64(B)</p> </div> | 48 | Power supply of front middle position lamp |

Diagnostic Steps

| | |
|--|---|
| 1 | Check the communication network. |
| <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the start/stop button to ON. 3. Use a VDS to execute the network test. 4. Check whether the combination switch passes the network detection? | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">After diagnosis, the combination switch could not communicate.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 2 | Use VDS to actively control the front middle position light. |
| <ol style="list-style-type: none"> 1. Actively control the front middle position light to go on. 2. Can the front middle position light go on? | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">Yes</div> <div style="border: 1px solid black; padding: 5px;">Replace the combination switch.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">No</div> | |
| 3 | Check the front middle position lamp harness connector. |
| <ol style="list-style-type: none"> 1. Set the START/STOP button to “OFF” . 2. Disconnect the front middle position light harness connector DB05_1. 3. Check whether the front middle position light harness connector is normal. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Repair or replace the wire harness</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 4 | Check the front middle position light ground line for open circuit. |



1. Measure the resistance value between the front middle position light harness connector DB05_1-1 and the ground.

| Connector | | Condition | Resist- ance value |
|--------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| DB05_1- 1 | Ground | Through- out | Lower than 1 Ω |

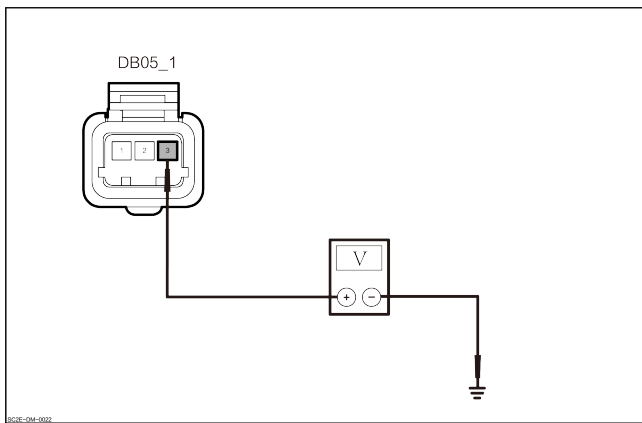
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check the power supply of front middle position lamp.



1. Set the START/STOP button to “ON” .
2. Turn on the front middle position lamp.
3. Measure the voltage value between the front middle position light harness connector DB05_1-3 and the ground.

| Connector | | Condition | Voltage value |
|--------------|--------|-----------------|------------------|
| (+) | (-) | | |
| DB05_1- 3 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

No

Replace the front middle position lamp.

Yes

6 Check the harness connector of left body control module.

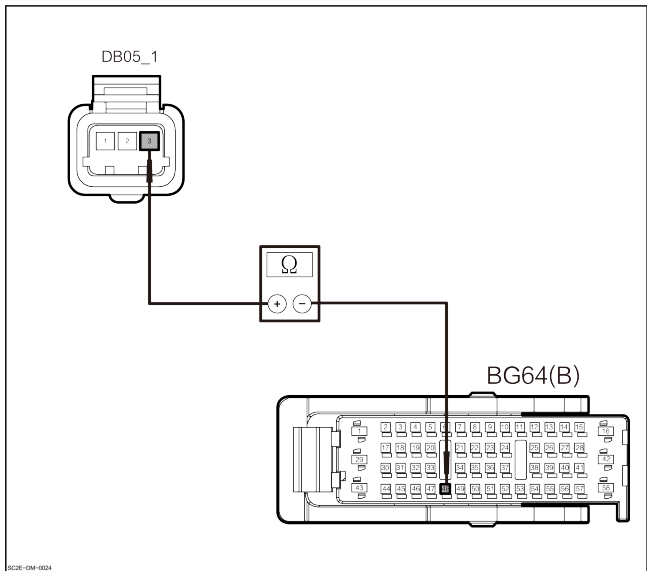
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module BG64(B).
3. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

7 Check the power line of front middle position light for open circuit.



1. Measure the resistance between the harness connector of front middle position light DB05_1-3 and the harness connector of left body control module BG64(B)-48.

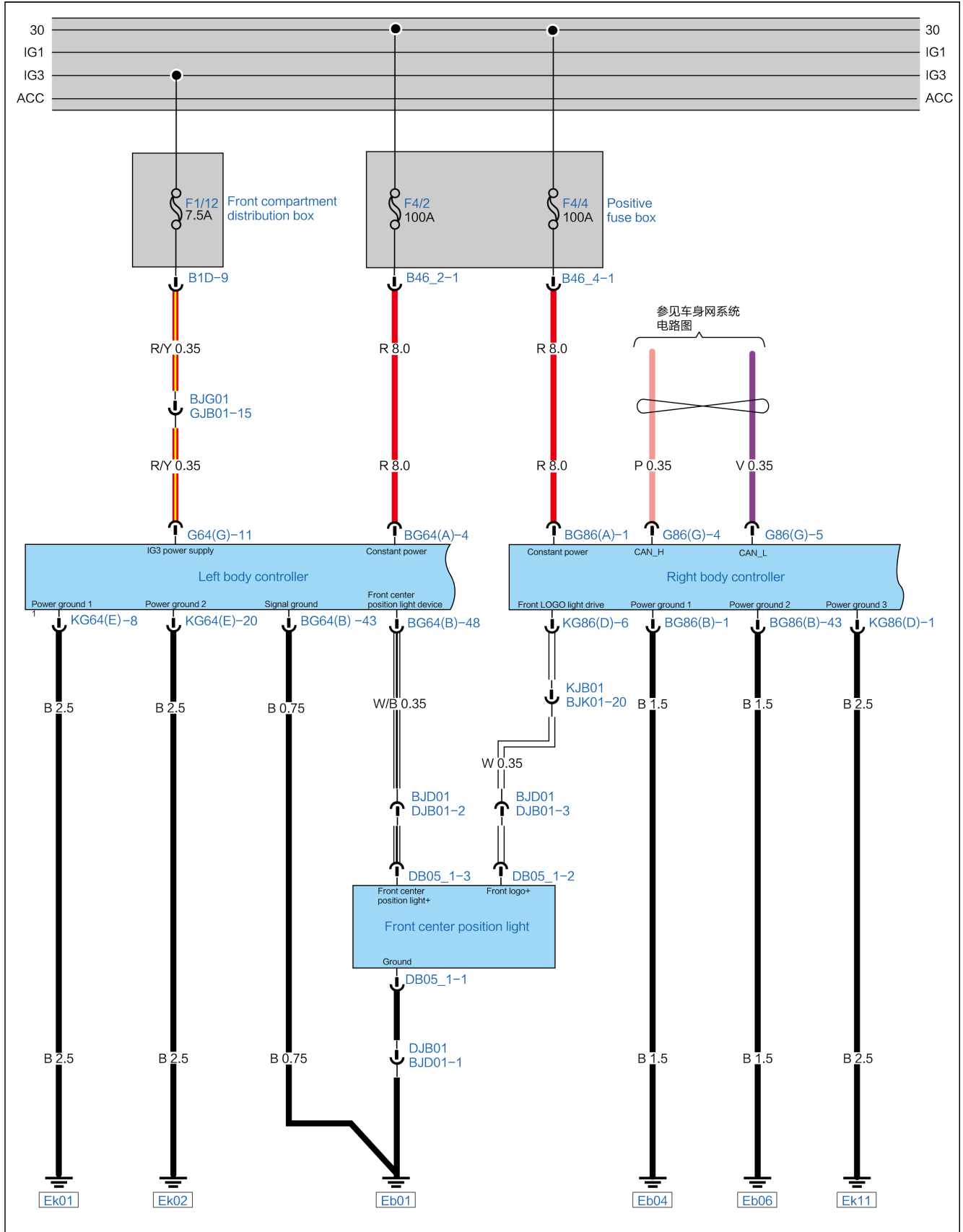
| Connector | | Condition | Resist- ance value |
|-----------|------------|-------------|--------------------------|
| (+) | (-) | | |
| DB05_1-3 | BG64(B)-48 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

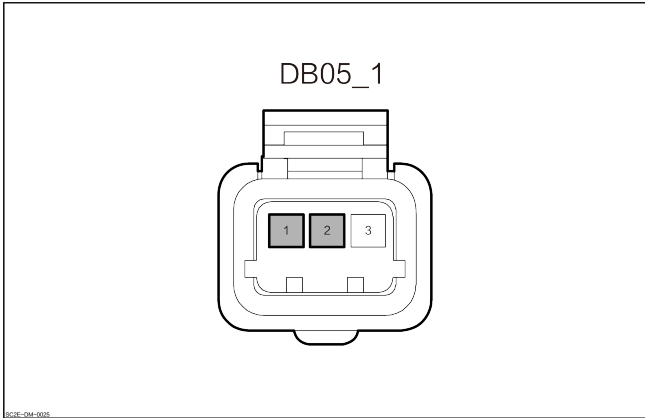
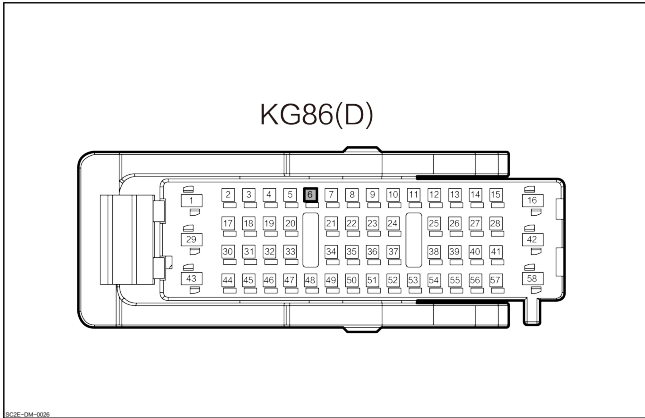
- No → Repair or replace the wire harness
- Yes → Replace the left body control module.

Logo Light Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|--------------------------------------|--|
| <p style="text-align: center;">Front Middle Position Light</p> <div style="text-align: center;">  <p>DB05_1</p> </div> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Ground</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Logo light power supply</p> |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p>KG86(D)</p> </div> | <p style="text-align: center;">6</p> | <p style="text-align: center;">Logo light power supply</p> |

Diagnostic Steps

1 Check the communication network.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the combination switch passes the network detection?

No → After diagnosis, the combination switch could not communicate.

Yes

2 Use a VDS to actively control the logo light.

1. Actively control and turn on the logo light.
2. Can the logo light be turned on?

Yes → Replace the combination switch.

No

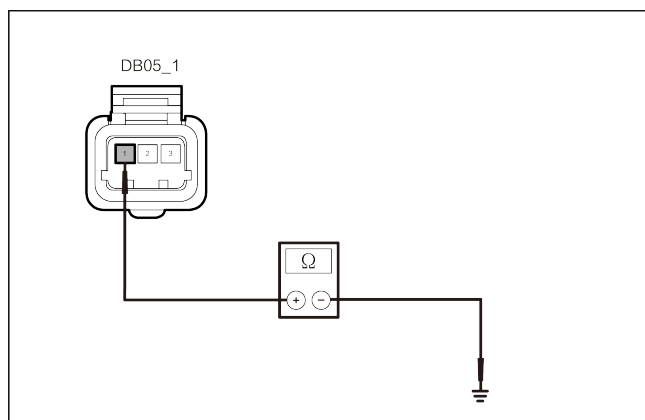
3 Check the harness connector of logo light.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of logo light DB05_1.
3. Check the harness connector of logo light for normal function.

No → Repair or replace the wire harness

Yes

4 Check the ground line of logo light for open circuit.



1. Measure the resistance between the harness connector of logo light DB05_1-1 and the ground.

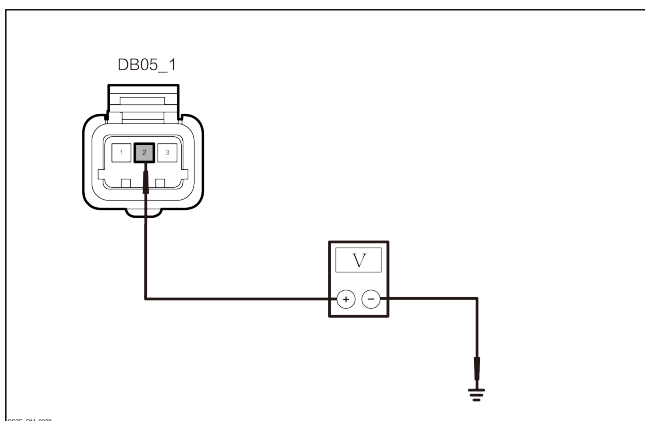
| Connector | | Condition | Resist- ance value |
|--------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| DB05_1- 1 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the power supply of logo light.



1. Set the START/STOP button to “ON” .
2. Turn on the logo light.
3. Measure the harness connector of logo light DB05_1-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| DB05_1-2 | Ground | Through-out | 11~14V |

4. Check whether the results are normal.

Yes → Replace the logo light.

No

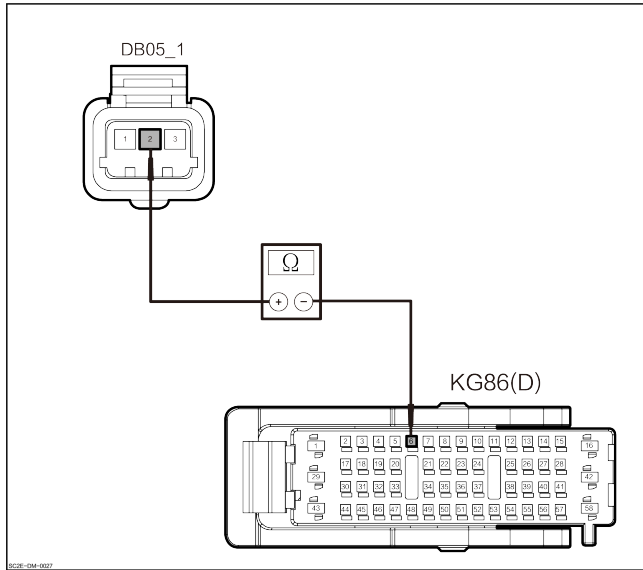
6 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module BG64(B).
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

7 Check the power line of logo light for open circuit.



1. Measure the resistance between the harness connector of logo light DB05_1-2 and the harness connector of right body control module KG86(D)-6.

| Connector | | Condition | Resist- ance value |
|--------------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| DB05_1- 2 | KG86(D) -6 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the right body control module. |

Side Turn Signal

Diagnosis Description

Introduction

Before fault diagnosis for the side turn signal, understand and get familiar with the working principle of the side turn signal, and then start diagnosis for the side turn signal, so as to be helpful to confirm the correct fault diagnosis procedure in the event of a fault, and more importantly, to confirm whether the operating condition described by the customer is normal. Any diagnosis of a side turn signal should start with a side turn signal check to guide the maintenance technician to take the next logical step for fault diagnosis.

General equipment

- Multimeter
- VDS

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Diagnosis of General Faults

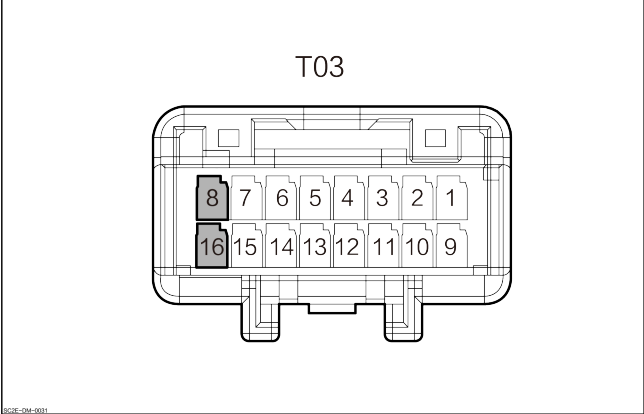
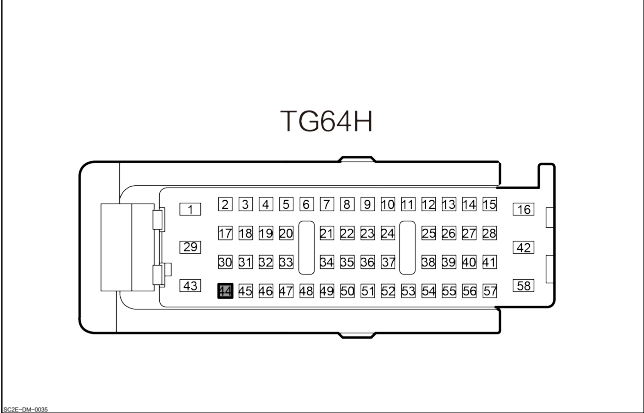
Visual Inspection

1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

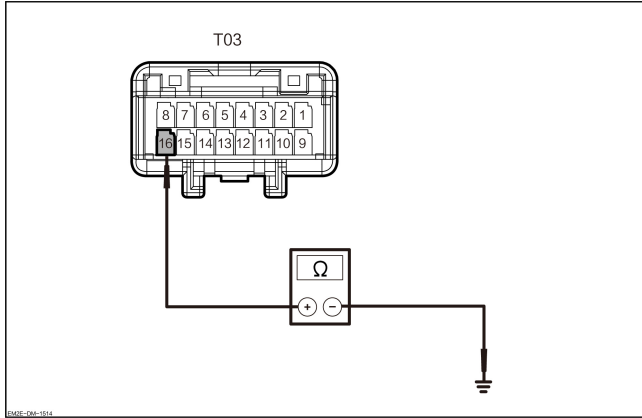
| Symptom | Possible cause | Suggested maintenance measures |
|----------------------------------|--|----------------------------------|
| Left Turn Signal Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Multi-function switch fault 3. Left side turn lamp fault. 4. The left body control module fails. | Left Turn Signal Not Working |
| Right Turn Signal Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Multi-function switch fault 3. Right side turn lamp fault. 4. The left body control module fails. | Right Turn Signal Not Working |
| Left Footwell Light Not Working | <ol style="list-style-type: none"> 1. Harness or connector. 2. Left footwell lamp fault 3. Left body control module. | Left Footwell Light Not Working |
| Right Footwell Light Not Working | <ol style="list-style-type: none"> 1. Harness or connector. 2. Right footwell lamp fault 3. Left body control module. | Right Footwell Light Not Working |

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-------------------------------|
| <p style="text-align: center;">Left rearview mirror</p> <p style="text-align: center;">T03</p>  <p style="text-align: center;"><small>82CE-004-0031</small></p> | 8 | Left turn signal power supply |
| | 16 | Ground |
| <p style="text-align: center;">Left body control module</p> <p style="text-align: center;">TG64H</p>  <p style="text-align: center;"><small>82CE-004-0035</small></p> | 44 | Left turn signal power supply |

Diagnostic Steps

| | |
|--|--|
| 1 | Check the communication network. |
| <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the start/stop button to ON. 3. Use a VDS to execute the network test. 4. Check whether the combination switch passes the network detection? | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">After diagnosis, the combination switch could not communicate.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 2 | Use VDS to actively control the left turn signal. |
| <ol style="list-style-type: none"> 1. Actively control to the left turn signal to go on. 2. Whether the left side turn signal lamp can be lit. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">Yes</div> <div style="border: 1px solid black; padding: 5px;">Replace the combination switch.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">No</div> | |
| 3 | Check the left exterior side mirror harness connector. |
| <ol style="list-style-type: none"> 1. Set the START/STOP button to “OFF” . 2. Disconnect the left rearview mirror harness connector T03. 3. Check whether the left exterior side mirror harness connector is normal. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Repair or replace the wire harness</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 4 | Check the left turn signal ground line for open circuit. |



1. Measure the resistance value between the left rearview mirror harness connector T03-16 and ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| T03-16 | Ground | Through- out | Lower than 1 Ω |

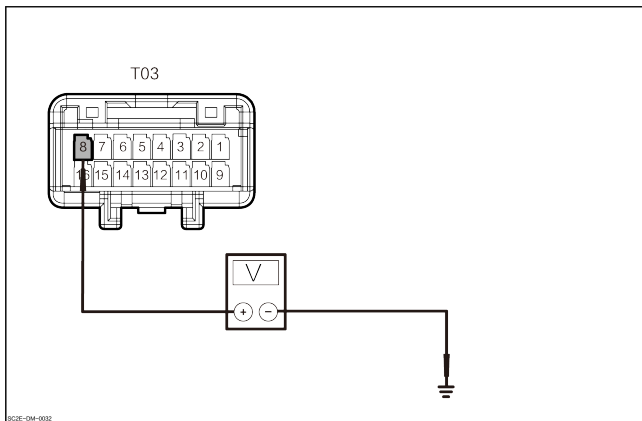
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check the power supply of left side turn signal lamp.



1. Set the START/STOP button to “ON” .
2. Turn on the side left turn signal lamp.
3. Measure the voltage value between the left rearview mirror harness connector T03-8 and ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| T03-8 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes

Replace the left turn signal lamp.

No

6 Check the harness connector of left body control module.

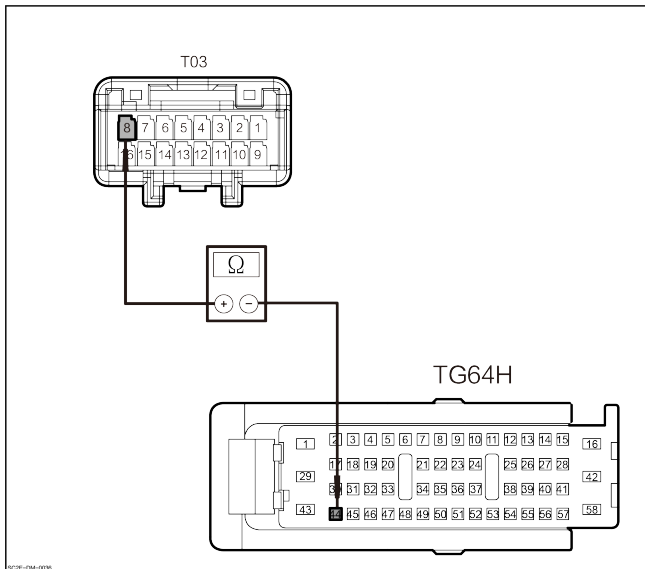
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module TG64(H).
3. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

7 Check whether the left side turn signal lamp power line is open circuited.



1. Measure the resistance between the harness connector of left rearview mirror T03-8 and the harness connector of left body control module TG64 (H)-44.

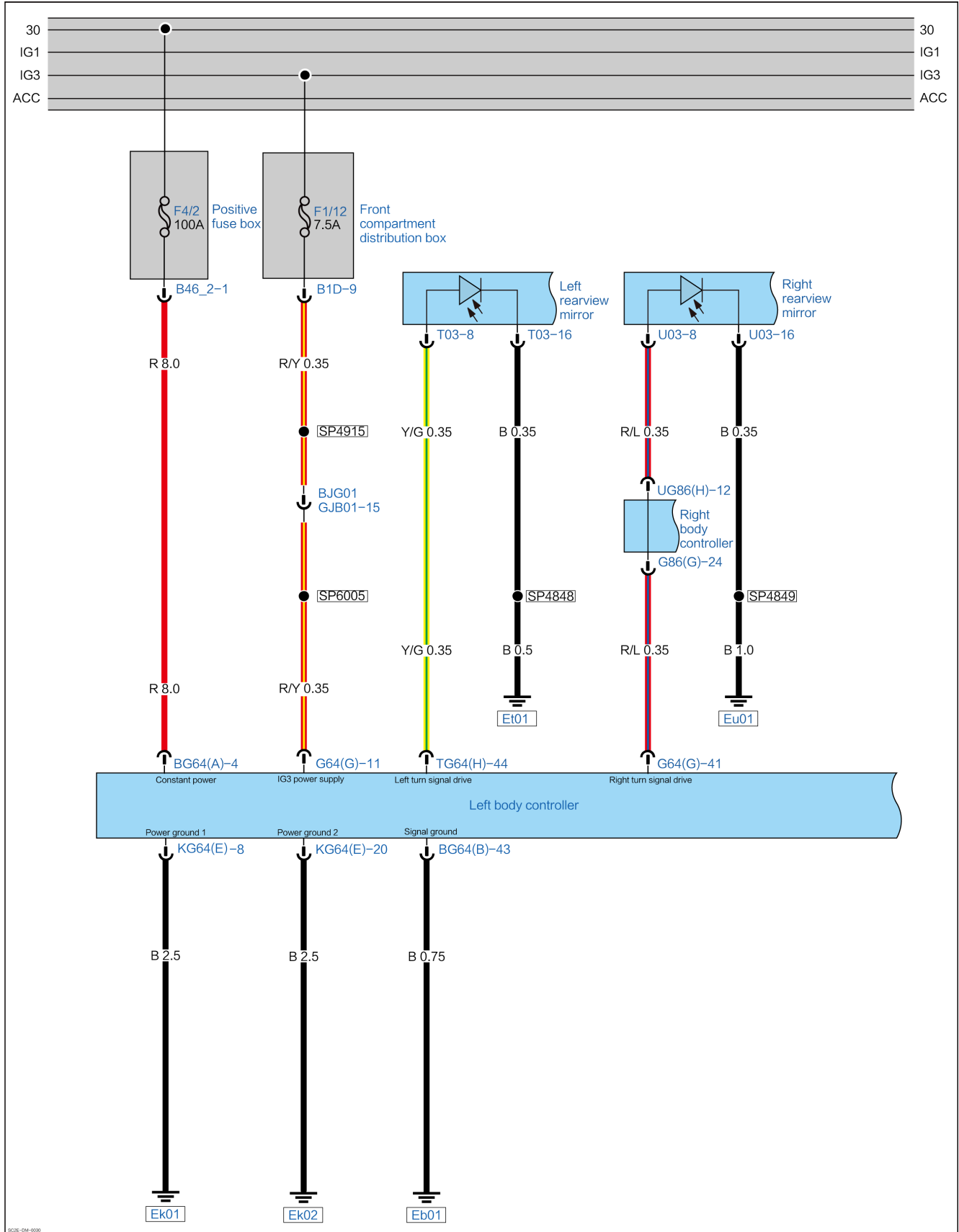
| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| T03-8 | TG64(H)- 44 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

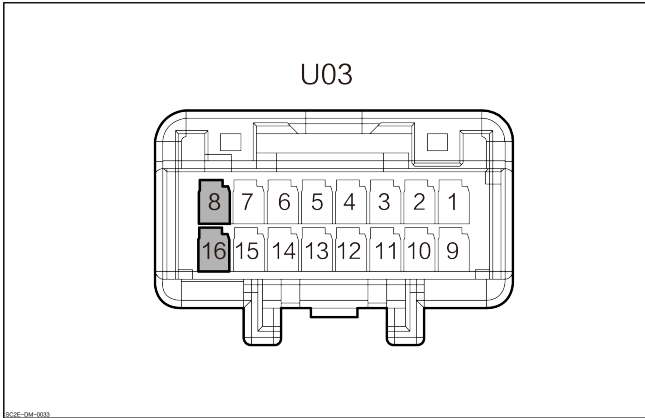
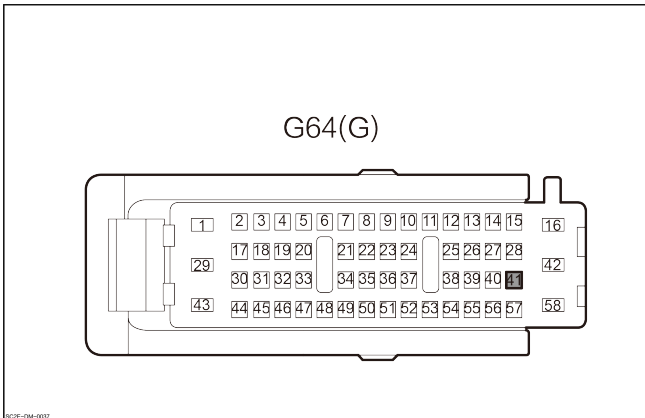
| | |
|-----|---------------------------------------|
| No | Repair or replace the wire harness |
| Yes | Replace the left body control module. |

Right Turn Signal Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p style="text-align: center;">Right rearview mirror</p> <p style="text-align: center;">U03</p>  <p><small>801E-04-003</small></p> | 8 | Power source for right front turn signal lamp |
| | 16 | Ground |
| <p style="text-align: center;">Left body control module</p> <p style="text-align: center;">G64(G)</p>  <p><small>801E-04-007</small></p> | 41 | Power source for right front turn signal lamp |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the combination switch passes the network detection?

No

After diagnosis, the combination switch could not communicate.

Yes

| | |
|---|--|
| 2 | Use VDS to actively control the right turn signal. |
|---|--|

1. Actively control the right turn signal lamp to go on.
2. Whether the right side turn signal lamp can be lit.

Yes

Replace the combination switch.

No

| | |
|---|---|
| 3 | Check the right exterior side mirror harness connector. |
|---|---|

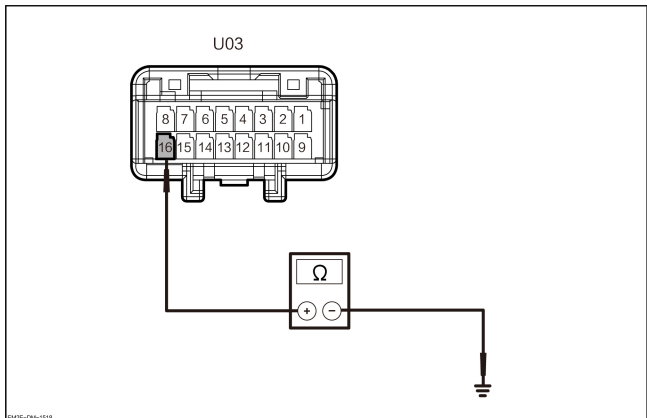
1. Set the START/STOP button to “OFF” .
2. Disconnect the right rearview mirror wire harness connector U03.
3. Check whether the right exterior side mirror harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the right turn signal grounding circuit for open circuit. |
|---|---|



1. Measure the resistance between the harness connector of right rearview mirror U03-16 and the ground.

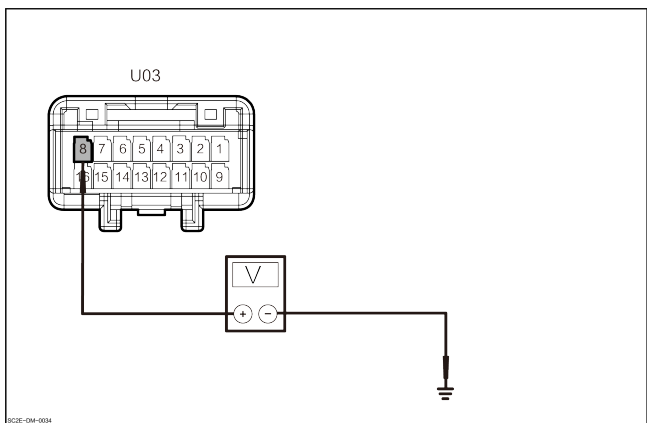
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| U03-16 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the power supply of right side turn signal lamp.



1. Set the START/STOP button to “ON” .
2. Open the side right turn signal lamp.
3. Measure the voltage between the harness connector of right rearview mirror U03-8 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| U03-8 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes → Replace the right turn signal lamp.

No

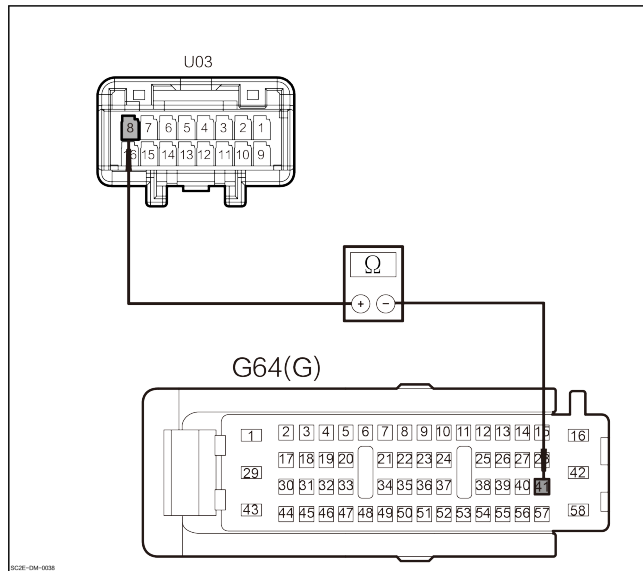
6 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module G64(G).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

7 Check whether the right side turn signal lamp power line is open circuited.



1. Measure the resistance between the harness connector of right rearview mirror U03-8 and the harness connector of left body control module G64(G)-41.

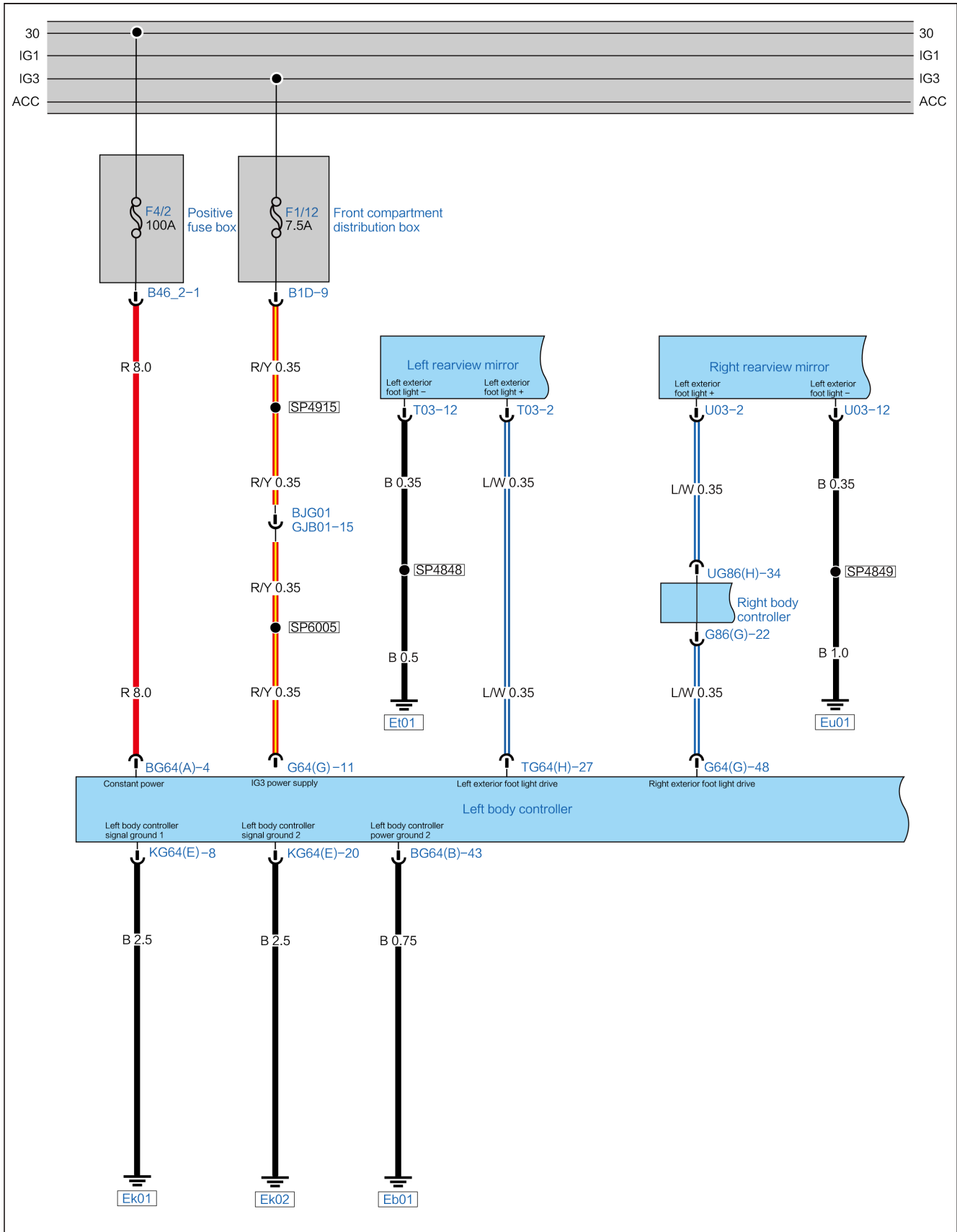
| Connector | | Condition | Resist- ance value |
|-----------|-----------|-----------------|--------------------------|
| (+) | (-) | | |
| U03-8 | G64(G)-41 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

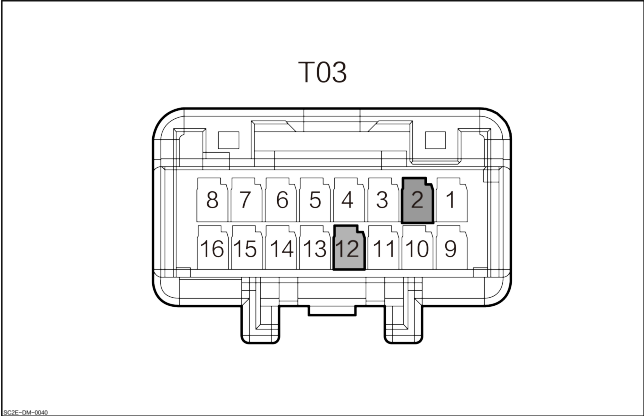
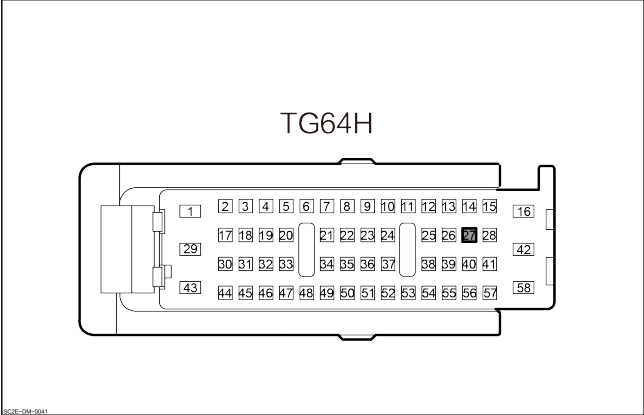
- No → Repair or replace the wire harness
- Yes → Replace the left body control module.

Left Footwell Light Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|---------------------------------------|--|
| <p style="text-align: center;">Left footwell light</p> <p style="text-align: center;">T03</p>  <p><small>8 7 6 5 4 3 2 1</small> <small>16 15 14 13 12 11 10 9</small></p> <p><small>82E-004-0945</small></p> | <p style="text-align: center;">2</p> | <p style="text-align: center;">Power supply of left foot-view lamp</p> |
| | <p style="text-align: center;">12</p> | <p style="text-align: center;">Ground</p> |
| <p style="text-align: center;">Left body control module</p> <p style="text-align: center;">TG64H</p>  <p><small>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16</small> <small>17 18 19 20 21 22 23 24 25 26 27 28</small> <small>29 30 31 32 33 34 35 36 37 38 39 40 41 42</small> <small>43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58</small></p> <p><small>82E-004-0041</small></p> | <p style="text-align: center;">27</p> | <p style="text-align: center;">Power supply of left foot-view lamp</p> |

Diagnostic Steps

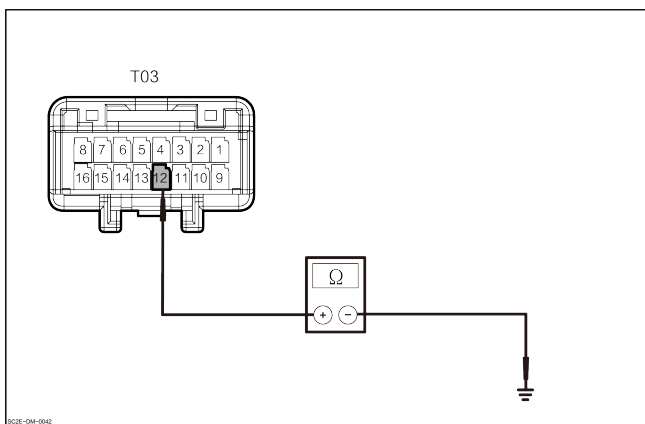
1 Check the left exterior side mirror harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the left rearview mirror harness connector T03.
3. Check whether the left exterior side mirror harness connector is normal.

No Repair or replace the wire harness

Yes

2 Check the ground line of the left footwell light for open circuit.



1. Measure the resistance value between the left rearview mirror harness connector T03-12 and ground.

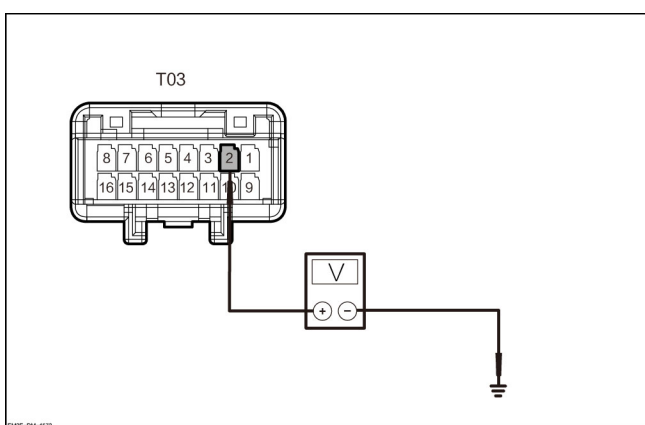
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| T03-12 | Ground | Through- out | Lower than 1Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

3 Check the power supply of left foot-view lamp.



1. Set the START/STOP button to “ON” .
2. Turn on the left footwell lamp.
3. Measure the voltage value between the left rearview mirror harness connector T03-2 and ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| T03-2 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes

Replace the left footwell lamp.

No

4 Check the harness connector of left body control module.

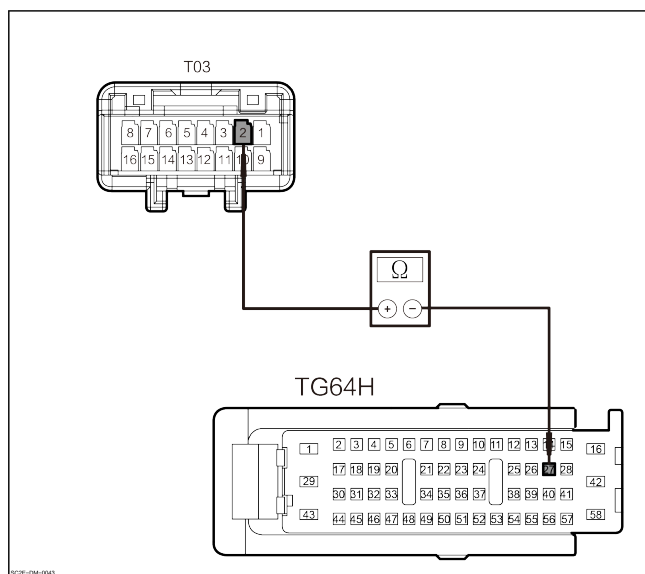
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module TG64(H).
3. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the power supply line of the left footwell light for open circuit.



1. Measure the resistance between the harness connector of left rearview mirror T03-2 and the harness connector of left body control module TG64 (H)-27.

| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| T03-2 | TG64(H)- 27 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No

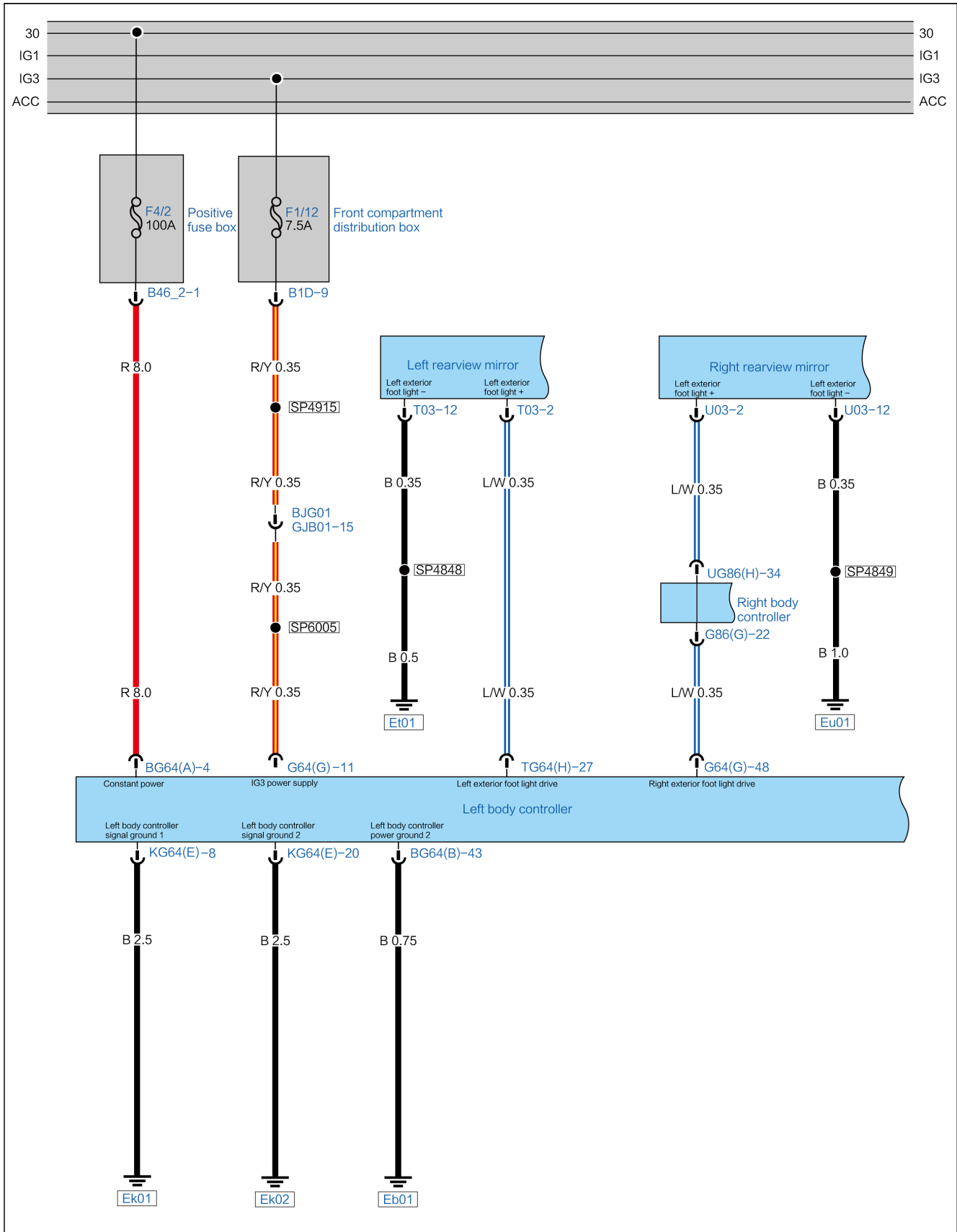
Repair or replace the wire harness

Yes

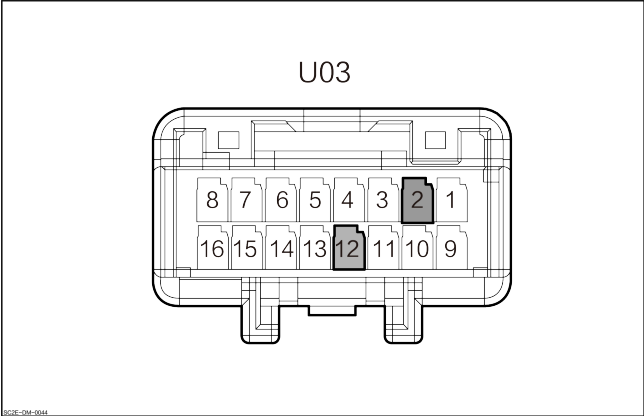
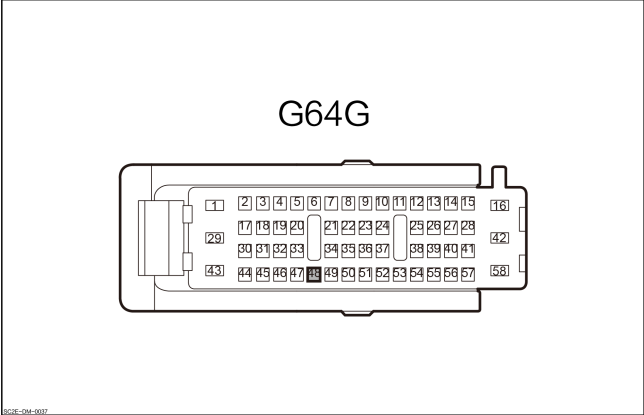
Replace the left body control module.

Right Footwell Light Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|---|
| <p style="text-align: center;">Right rearview mirror</p> <p style="text-align: center;">U03</p>  <p><small>8 7 6 5 4 3 2 1</small> <small>16 15 14 13 12 11 10 9</small></p> <p><small>82E-004-0044</small></p> | <p style="text-align: center;">2</p> | <p style="text-align: center;">Power supply of right foot-view lamp</p> |
| | <p style="text-align: center;">12</p> | <p style="text-align: center;">Ground</p> |
| <p style="text-align: center;">Left body control module</p> <p style="text-align: center;">G64G</p>  <p><small>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16</small> <small>17 18 19 20 21 22 23 24 25 26 27 28</small> <small>29 30 31 32 33 34 35 36 37 38 39 40 41</small> <small>42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58</small></p> <p><small>82E-004-0037</small></p> | <p style="text-align: center;">48</p> | <p style="text-align: center;">Power supply of right foot-view lamp</p> |

Diagnostic Steps

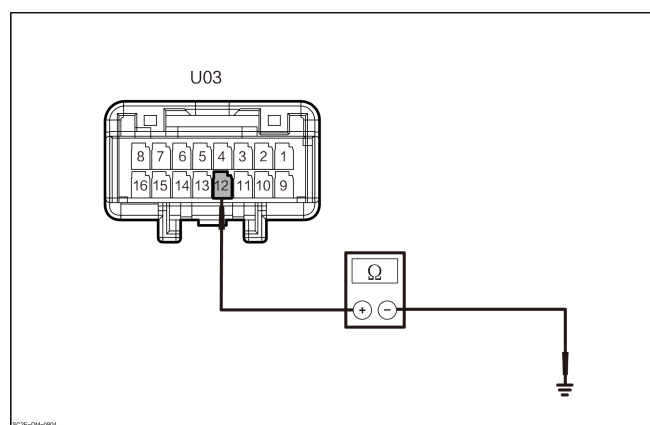
1 Check the right exterior side mirror harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the right rearview mirror wire harness connector U03.
3. Check whether the right exterior side mirror harness connector is normal.

No Repair or replace the wire harness

Yes

2 Check the ground line of the right footwell light for open circuit.



1. Measure the resistance between the harness connector of right rearview mirror U03-12 and the ground.

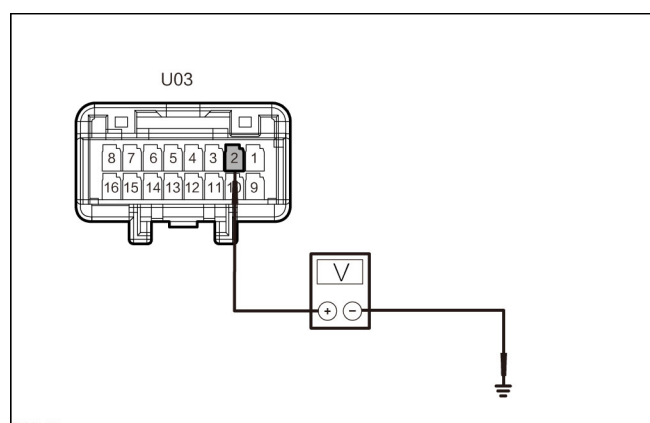
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| U03-12 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

3 Check the power supply of right foot-view lamp.



1. Set the START/STOP button to “ON” .
2. Turn on the right footwell lamp.
3. Measure the voltage between the harness connector of right rearview mirror U03-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| U03-2 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes

Replace the right footwell lamp.

No

4 Check the harness connector of left body control module.

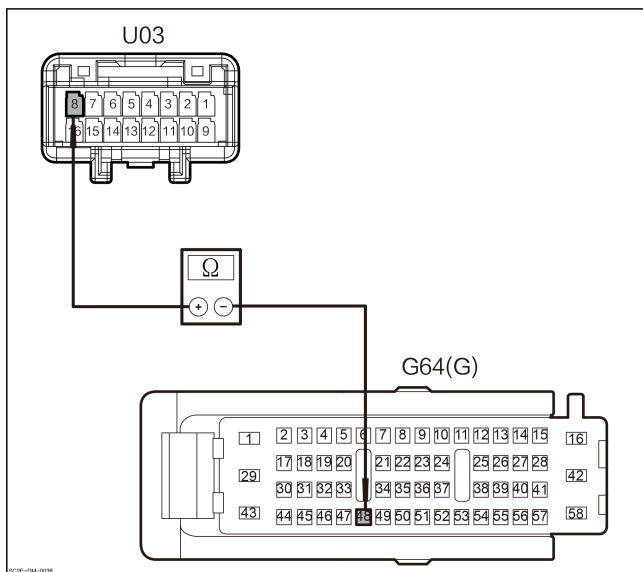
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module G64(G).
3. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the right footwell light power supply line for open circuit.



1. Measure the resistance between the harness connector of right rearview mirror U03-2 and the harness connector of left body control module G64(G)-48.

| Connector | | Condition | Resist- ance value |
|-----------|-----------|-----------------|--------------------------|
| (+) | (-) | | |
| U03-2 | G64(G)-48 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the left body control module.

Combination Rear Lights

Diagnosis Description

Introduction

Before fault diagnosis for the combination rear light, understand and get familiar with the working principle of the combination rear light, and then start the diagnosis for the combination rear light, so as to be helpful to confirm the correct fault diagnosis procedures in the event of a fault, and more importantly, to confirm whether the operating condition described by the customer is normal. Any diagnosis of a combination rear light should start with inspection of a combination rear light to guide the maintenance technician to take the next logical step for fault diagnosis.

General equipment

- Multimeter
- VDS

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Diagnosis of General Faults

Visual Inspection

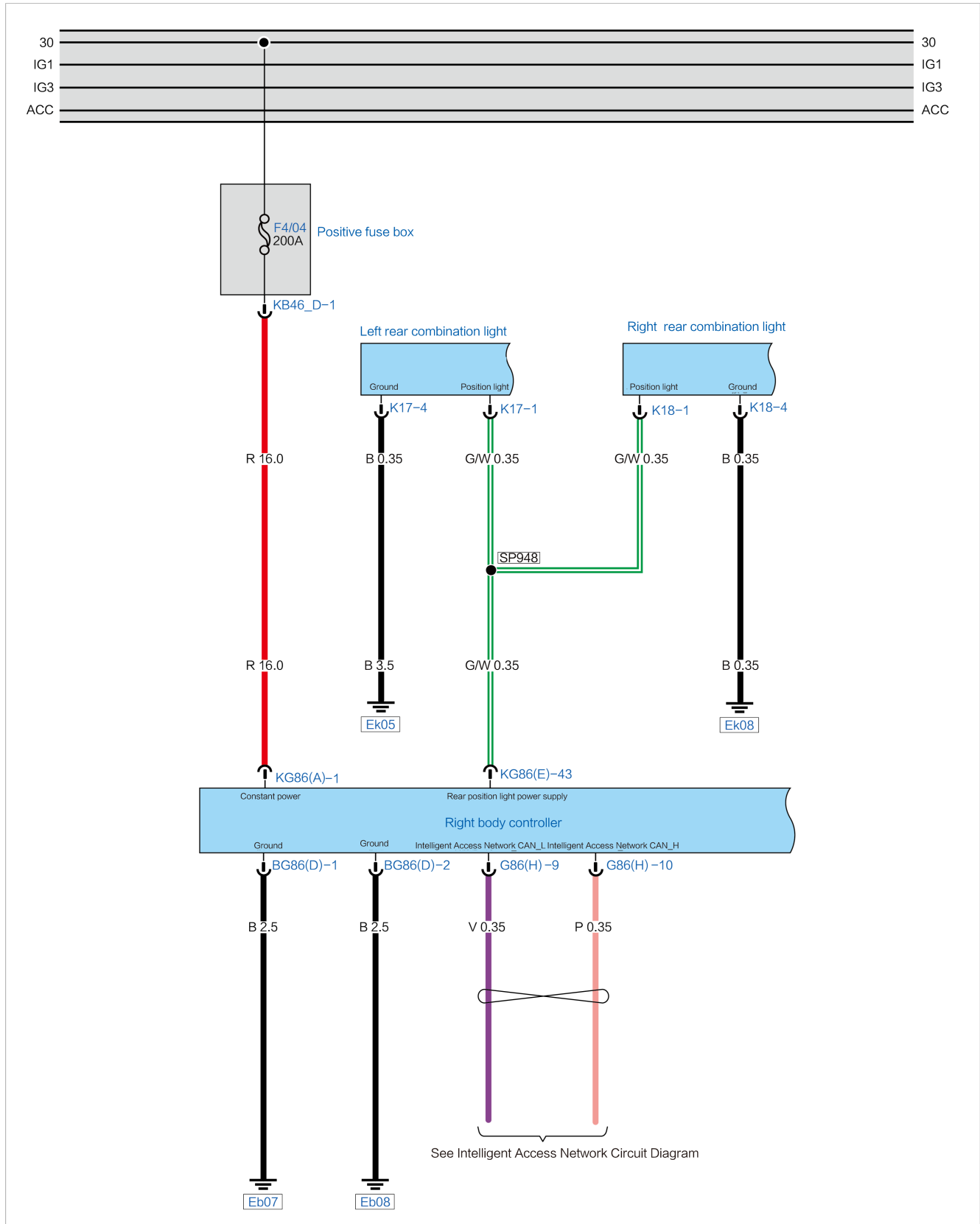
1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

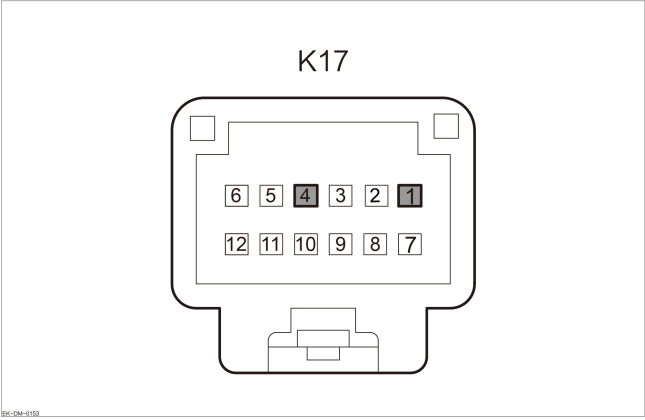
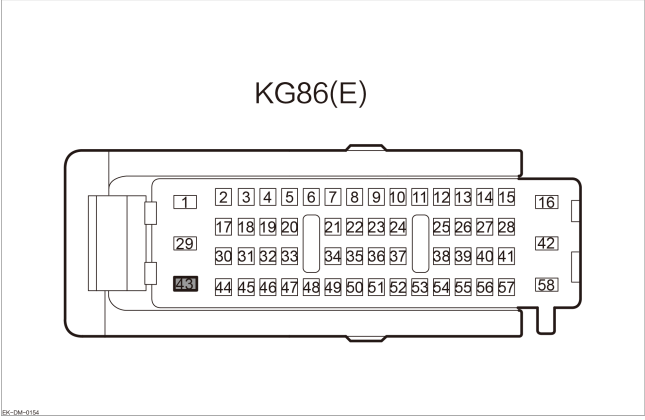
| Symptom | Possible cause | Suggested maintenance measures |
|---------------------------------------|---|---|
| Left Rear Position Light Not Working | <ol style="list-style-type: none"> 1. Harness or connector. 2. Combination switch. 3. Left rear position lamp fault. 4. Right body control module. | Left Rear Position Light Not Working |
| Right Rear Position Light Not Working | <ol style="list-style-type: none"> 1. Harness or connector. 2. Combination switch. 3. Right rear position lamp fault. 4. Right body control module. | Right Rear Position Light Not Working |
| Left Rear Turn Signal Not Working | <ol style="list-style-type: none"> 1. Harness or connector. 2. Combination switch. 3. Left rear turn signal lamp fault 4. Left body control module. | Left Rear Turn Signal Not Working |
| Right Rear Turn Signal Not Working | <ol style="list-style-type: none"> 1. Harness or connector. 2. Combination switch. 3. Right rear turn signal lamp fault 4. Left body control module. | Right Rear Turn Signal Not Working |
| Left Rear Brake Light Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Brake switch fault. 3. The right rear brake light fails. 4. The right body control module fails. | Left Rear Brake Light Not Working |
| Right Rear Brake Light Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Brake switch fault. 3. The right rear brake light fails. 4. The right body control module fails. | Right Rear Brake Light Not Working |

Left Rear Position Light Not Working

Circuit Diagram

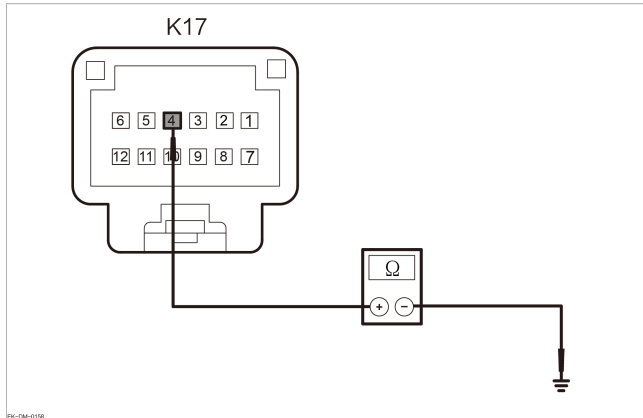


Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|---------------------------------------|--|
| <p>Left rear combination light</p> <p style="text-align: center;">K17</p>  <p><small>ECM-019</small></p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Power supply of left rear position lamp</p> |
| | <p style="text-align: center;">4</p> | <p style="text-align: center;">Ground</p> |
| <p>Right body control module</p> <p style="text-align: center;">KG86(E)</p>  <p><small>ECM-016</small></p> | <p style="text-align: center;">43</p> | <p style="text-align: center;">Rear position light power supply</p> |

Diagnostic Steps

| | |
|--|--|
| 1 | Check the communication network. |
| <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the start/stop button to ON. 3. Use a VDS to execute the network test. 4. Check whether the combination switch passes the network detection? | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">After diagnosis, the combination switch could not communicate.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 2 | Use VDS to actively control the left rear position light. |
| <ol style="list-style-type: none"> 1. Actively control the left rear position light to go on. 2. Whether the left rear position lamp can be lit. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">Yes</div> <div style="border: 1px solid black; padding: 5px;">Replace the combination switch.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">No</div> | |
| 3 | Check the left rear combination light harness connector. |
| <ol style="list-style-type: none"> 1. Set the START/STOP button to “OFF” . 2. Disconnect the left rear combination light harness connector K17. 3. Check whether the left rear combination light harness connector is normal. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Repair or replace the wire harness</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 4 | Check the left rear position light ground line for open circuit. |



1. Measure the resistance between the harness connector of left rear combination light K17-4 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K17-4 | Ground | Through- out | Lower than 1 Ω |

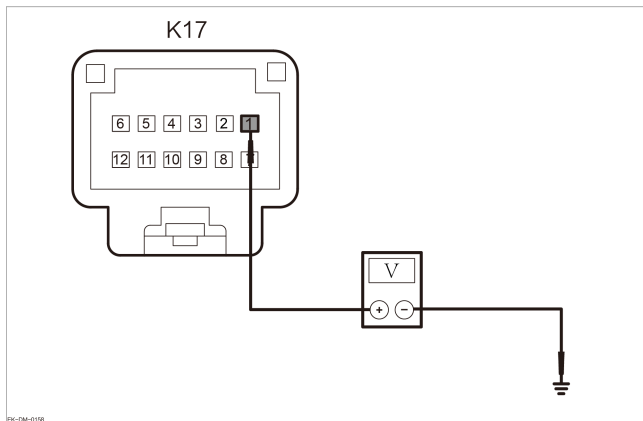
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check the power supply of left rear position lamp.



1. Set the START/STOP button to “ON” .
2. Turn on the left rear position lamp.
3. Measure the voltage between the harness connector of left rear combination light K17-1 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| K17-1 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes

Replace the left rear combination lamp.

No

6 Check the harness connector of right body control module.

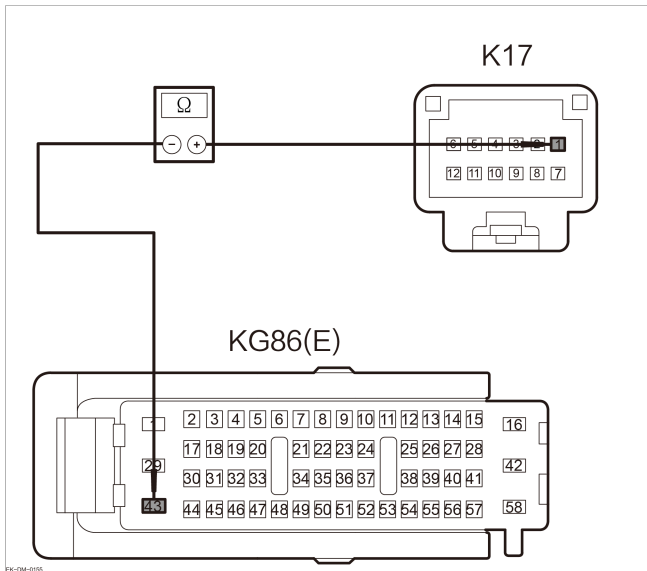
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module KG86(E).
3. Check whether the harness connector of right body control module is normal?

No

Repair or replace the wire harness

Yes

7 Check the left rear position light power line for open circuit.



1. Measure the resistance between the harness connector of left rear combination light K17-1 and the harness connector of right body control module KG86(E)-43.

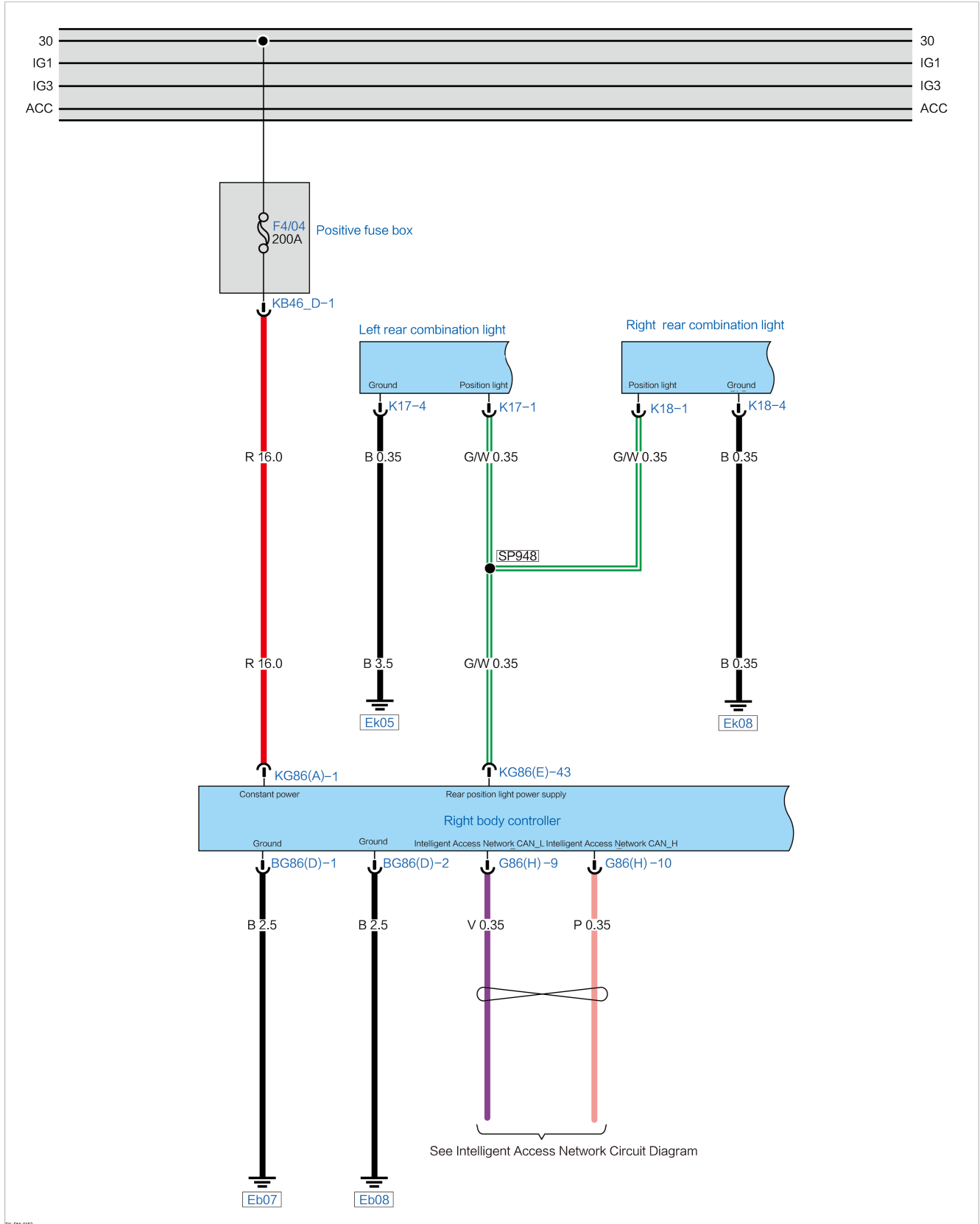
| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| K17-1 | KG86(E)- 43 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the right body control module. |

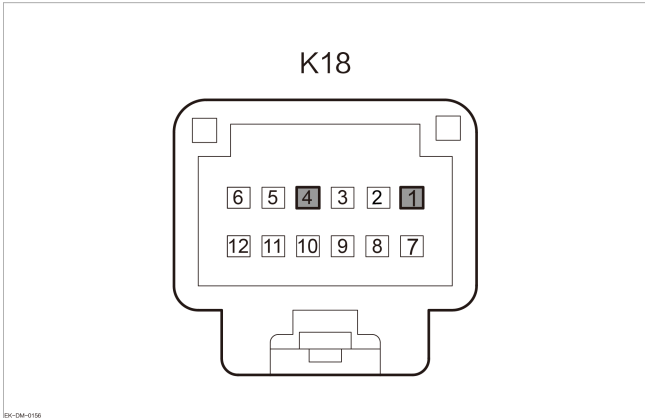
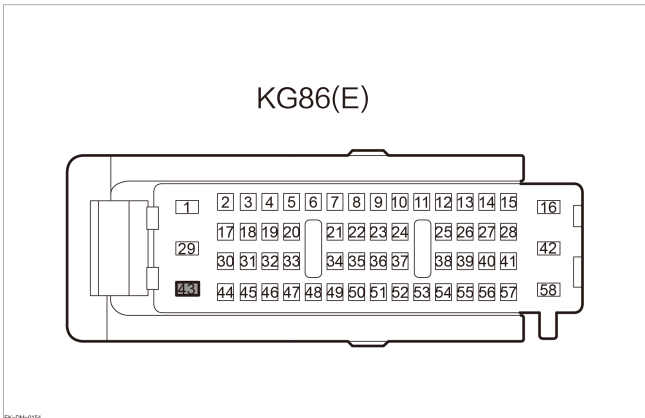
Right Rear Position Light Not Working

Circuit Diagram



88-004-012

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Right rear combination light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">K18</p> </div> <p><small>BYD-DM-0156</small></p> | 1 | Power supply of right rear position lamp |
| | 4 | Ground |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">KG86(E)</p> </div> <p><small>BYD-DM-0156</small></p> | 43 | Rear position light power supply |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the combination switch passes the network detection?

No

After diagnosis, the combination switch could not communicate.

Yes

| | |
|---|--|
| 2 | Use VDS to actively control the right rear position light. |
|---|--|

1. Actively control the right rear position light to go on.
2. Whether the right rear position lamp can be lit.

Yes

Replace the combination switch.

No

| | |
|---|---|
| 3 | Check the right rear combination light harness connector. |
|---|---|

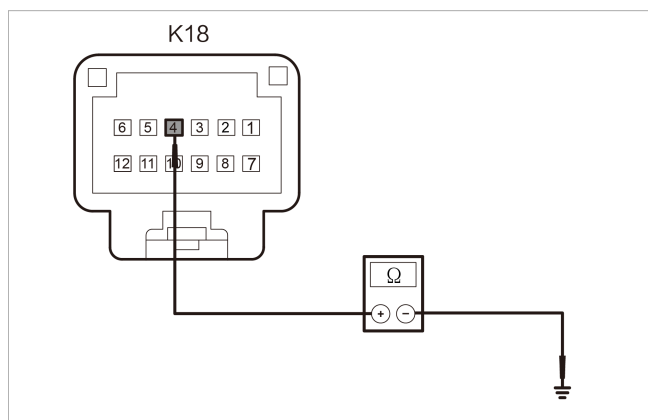
1. Set the START/STOP button to “OFF” .
2. Disconnect the right rear combination lamp harness connector K18.
3. Check whether the right rear combination light harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the right rear position light ground line for open circuit. |
|---|---|



1. Measure the resistance between the harness connector of right rear combination light K18-4 and the ground.

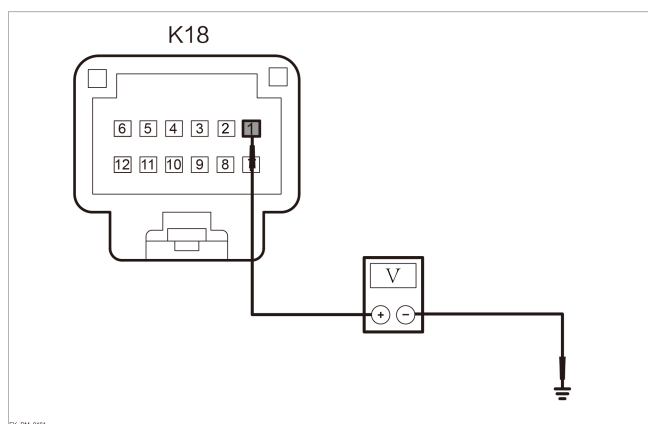
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K18-4 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the power supply of right rear position lamp.



1. Set the START/STOP button to “ON” .
2. Turn on the right rear position lamp.
3. Measure the voltage value between the right rear combination light harness connector K18-1 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| K18-1 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes → Replace the right rear combination lamp.

No

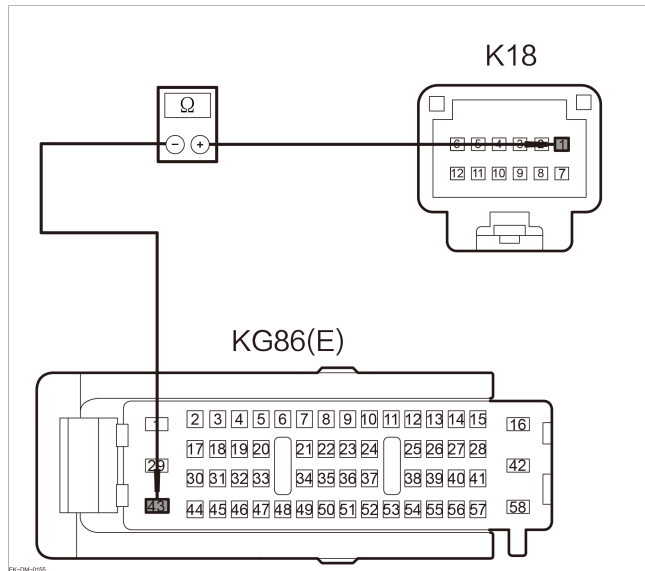
6 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module KG86(E).
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

7 Check whether the right rear position light power line for open circuit.



1. Measure the resistance between the harness connector of right rear combination light K18-1 and the harness connector of right body control module KG86(E)-43.

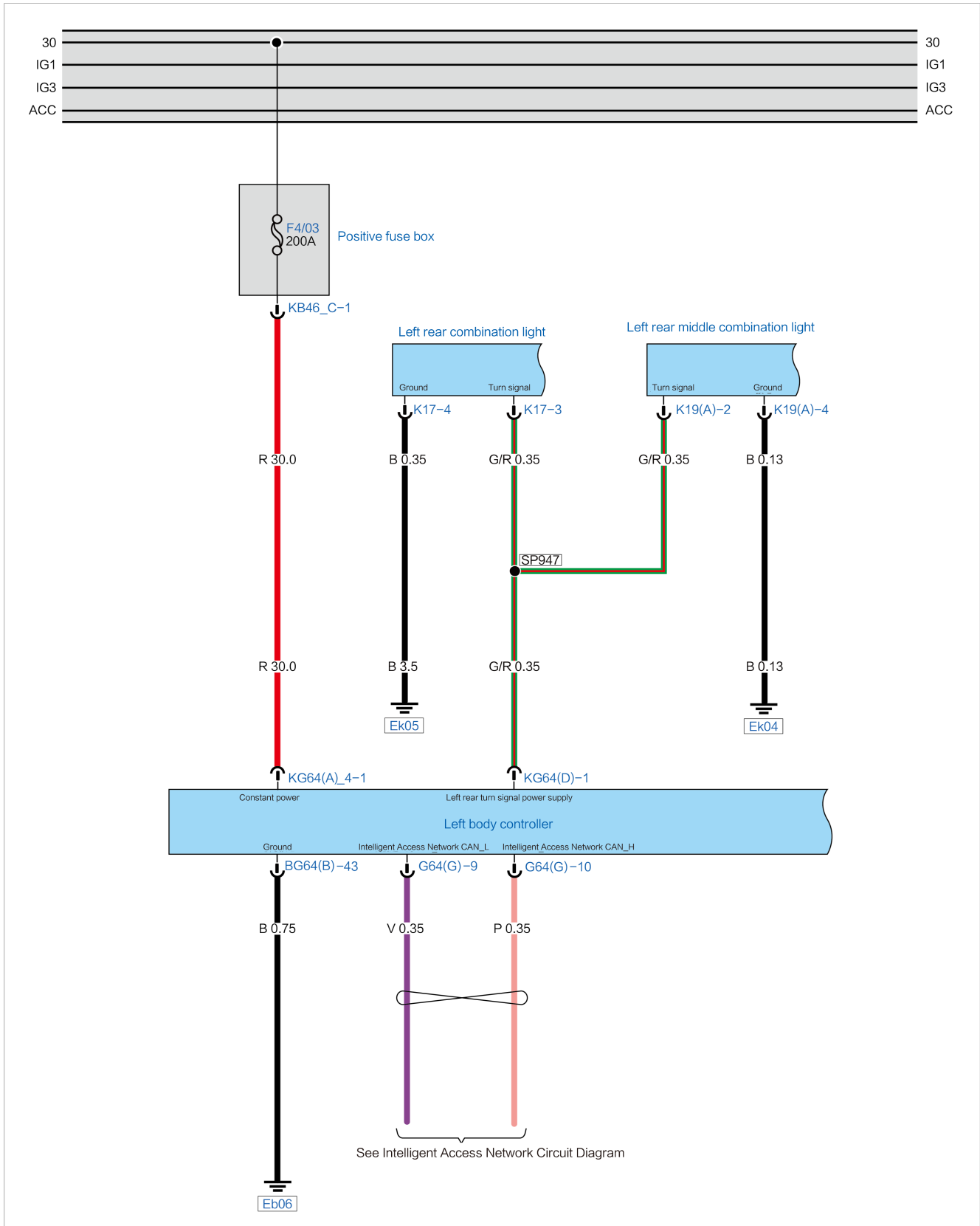
| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| K18-1 | KG86(E)- 43 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

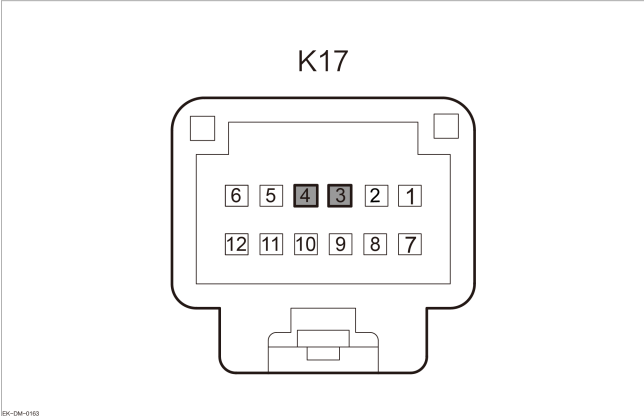
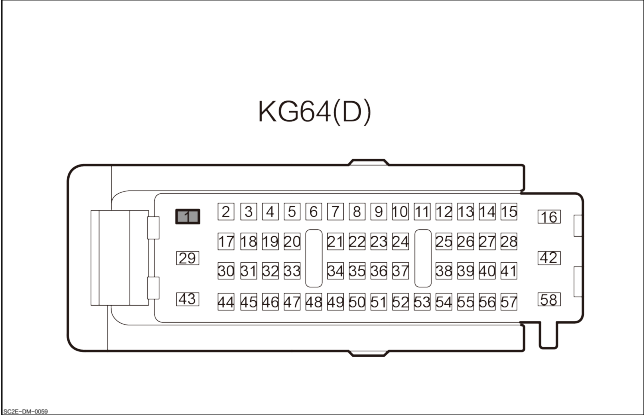
- No → Repair or replace the wire harness
- Yes → Replace the right body control module.

Left Rear Turn Signal Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|--------------------------------------|---|
| <p>Left rear combination light</p> <p style="text-align: center;">K17</p>  <p><small>BCIM-019</small></p> | <p style="text-align: center;">3</p> | <p style="text-align: center;">Left rear turn signal power supply</p> |
| | <p style="text-align: center;">4</p> | <p style="text-align: center;">Ground</p> |
| <p>Left body control module</p> <p style="text-align: center;">KG64(D)</p>  <p><small>BCSE-004-002</small></p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Rear turn signal power supply</p> |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the combination switch passes the network detection?

No

After diagnosis, the combination switch could not communicate.

Yes

| | |
|---|--|
| 2 | Use VDS to actively control the left rear turn signal. |
|---|--|

1. Actively control the left rear turn signal to go on.
2. Whether the left rear combination lamp can be lit.

Yes

Replace the combination switch.

No

| | |
|---|--|
| 3 | Check the left rear combination light harness connector. |
|---|--|

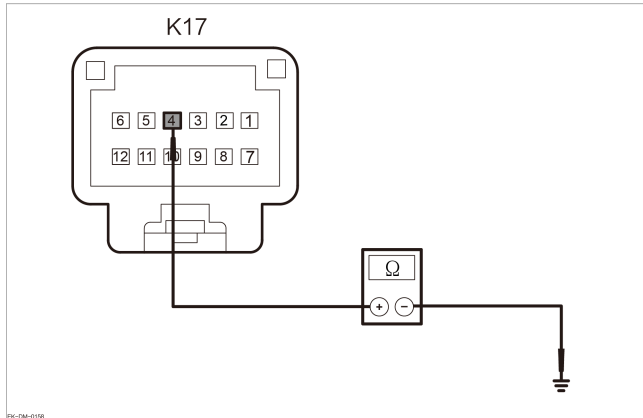
1. Set the START/STOP button to “OFF” .
2. Disconnect the left rear combination light harness connector K17.
3. Check whether the left rear combination light harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the left rear turn signal ground line is open. |
|---|--|



1. Measure the resistance between the harness connector of left rear combination light K17-4 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K17-4 | Ground | Through- out | Lower than 1 Ω |

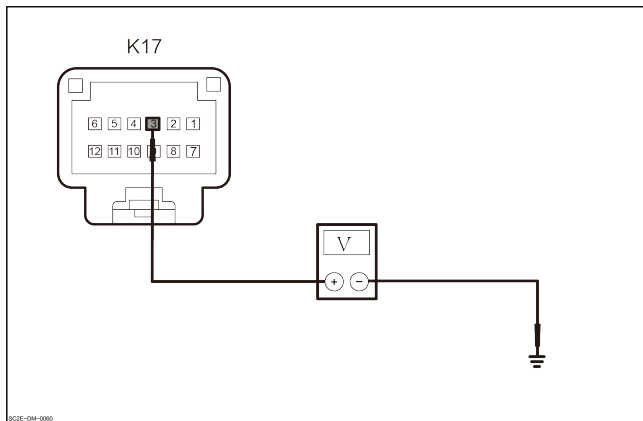
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check the power supply of left rear turn signal lamp.



1. Set the START/STOP button to “ON” .
2. Turn on the left rear turn signal lamp.
3. Measure the voltage between the harness connector of left rear combination light K17-3 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| K17-3 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes

Replace the left rear combination lamp.

No

6 Check the harness connector of left body control module.

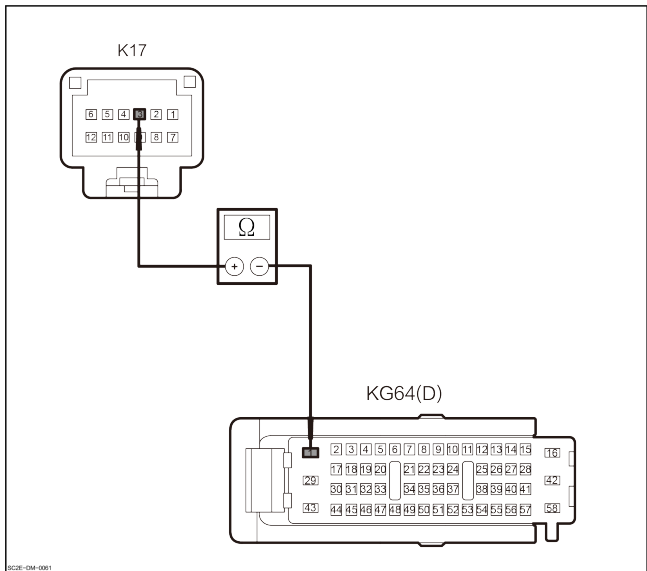
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(D).
3. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

7 Check whether the left rear turn signal lamp power is open circuited.



1. Measure the resistance between the harness connector of left rear combination light K17-3 and the harness connector of left body control module KG64(D)-1.

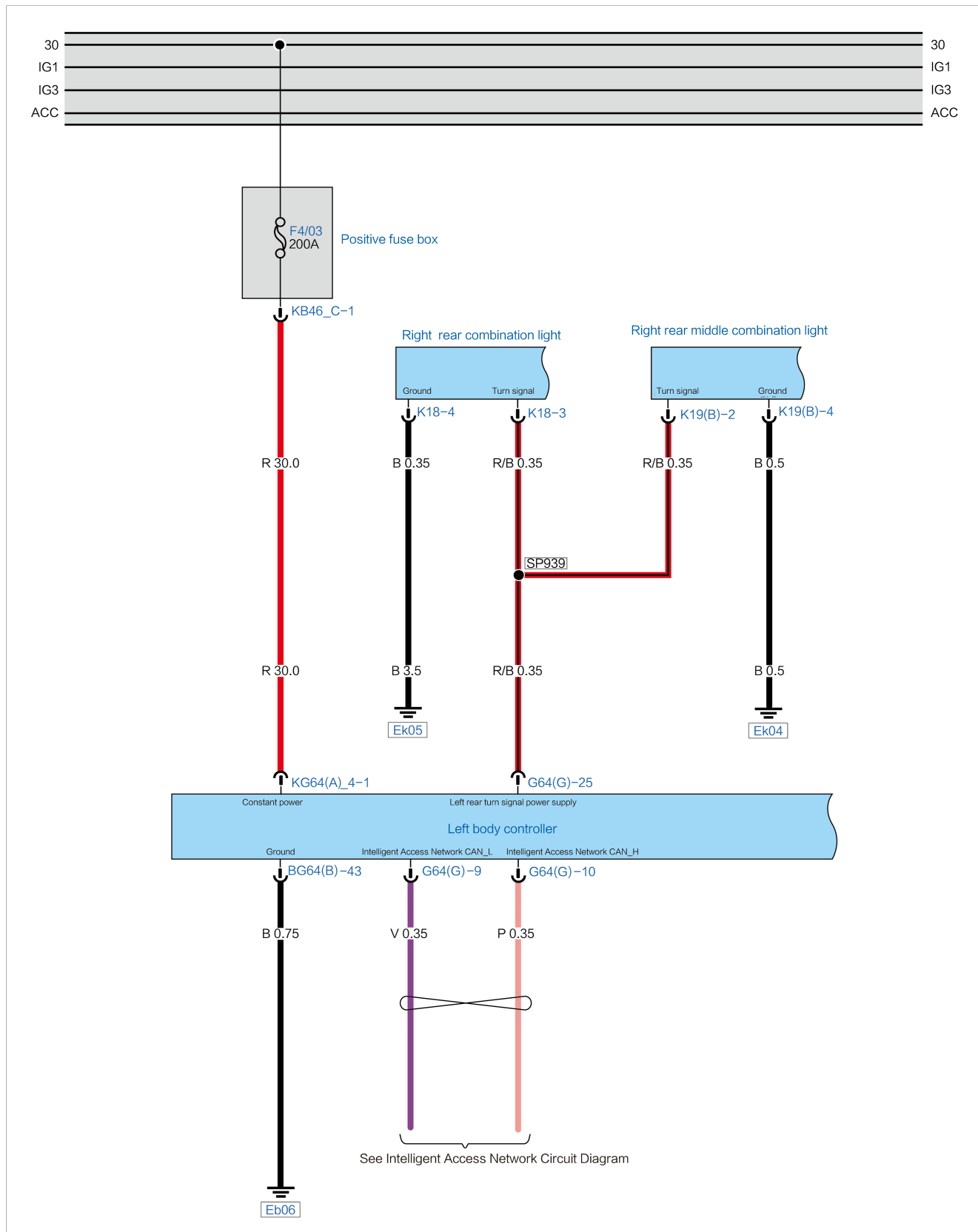
| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| K17-3 | KG64(D) -1 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

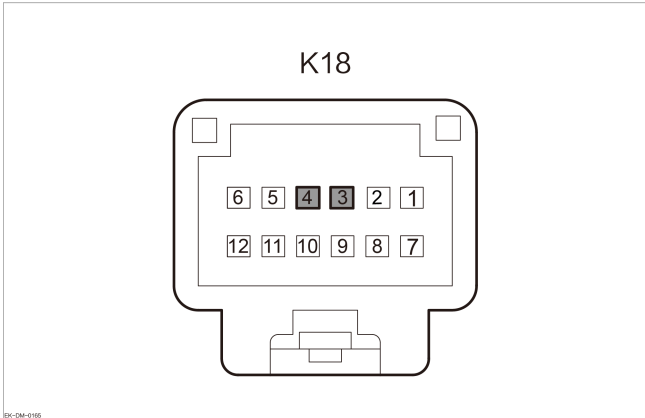
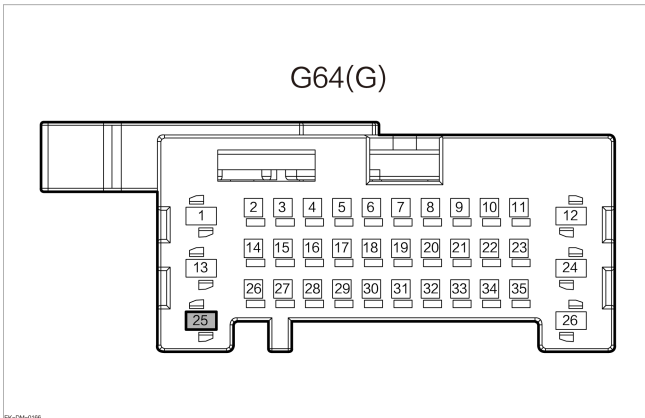
| | |
|-----|---------------------------------------|
| No | Repair or replace the wire harness |
| Yes | Replace the left body control module. |

Right Rear Turn Signal Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-------------------------------------|
| <p style="text-align: center;">Right rear combination light</p> <div style="text-align: center;">  <p>K18</p> </div> <p><small>BYD-DM-0166</small></p> | 3 | Right rear turn signal power supply |
| | 4 | Ground |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p>G64(G)</p> </div> <p><small>BYD-DM-0166</small></p> | 25 | Right rear turn signal power supply |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the combination switch passes the network detection?

No

After diagnosis, the combination switch could not communicate.

Yes

| | |
|---|---|
| 2 | Use a VDS to actively control the right rear turn signal. |
|---|---|

1. Actively control the right rear turn signal to go on.
2. Whether the right rear turn signal lamp can be lit.

Yes

Replace the combination switch.

No

| | |
|---|---|
| 3 | Check the right rear combination light harness connector. |
|---|---|

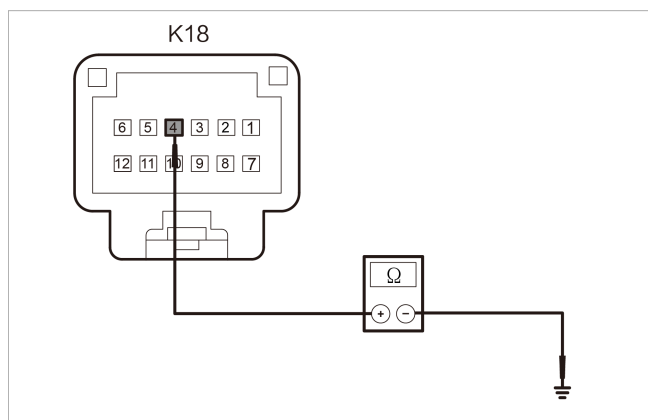
1. Set the START/STOP button to “OFF” .
2. Disconnect the right rear combination lamp harness connector K18.
3. Check whether the right rear combination light harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the right rear turn signal ground line for open circuit. |
|---|--|



1. Measure the resistance between the harness connector of right rear combination light K18-4 and the ground.

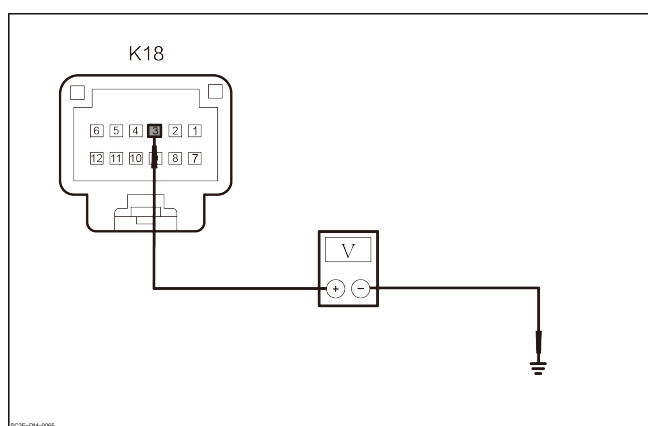
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K18-4 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the power supply of right rear turn signal lamp.



1. Set the START/STOP button to “ON” .
2. Turn on the right rear combination lamp.
3. Measure the voltage value between the right rear combination light harness connector K18-3 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| K18-3 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes → Replace the right rear combination lamp.

No

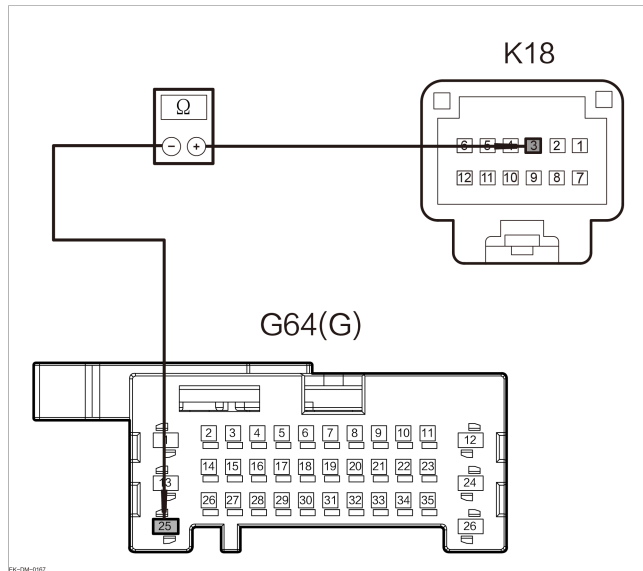
6 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module G64(G).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

7 Check whether the right rear turn signal lamp power is open circuited.



1. Measure the resistance between the harness connector of right rear combination light K18-3 and the harness connector of left body control module G64(G)-25.

| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| K18-3 | G64(G)-2 5 | Through- out | Lower than 1 Ω |

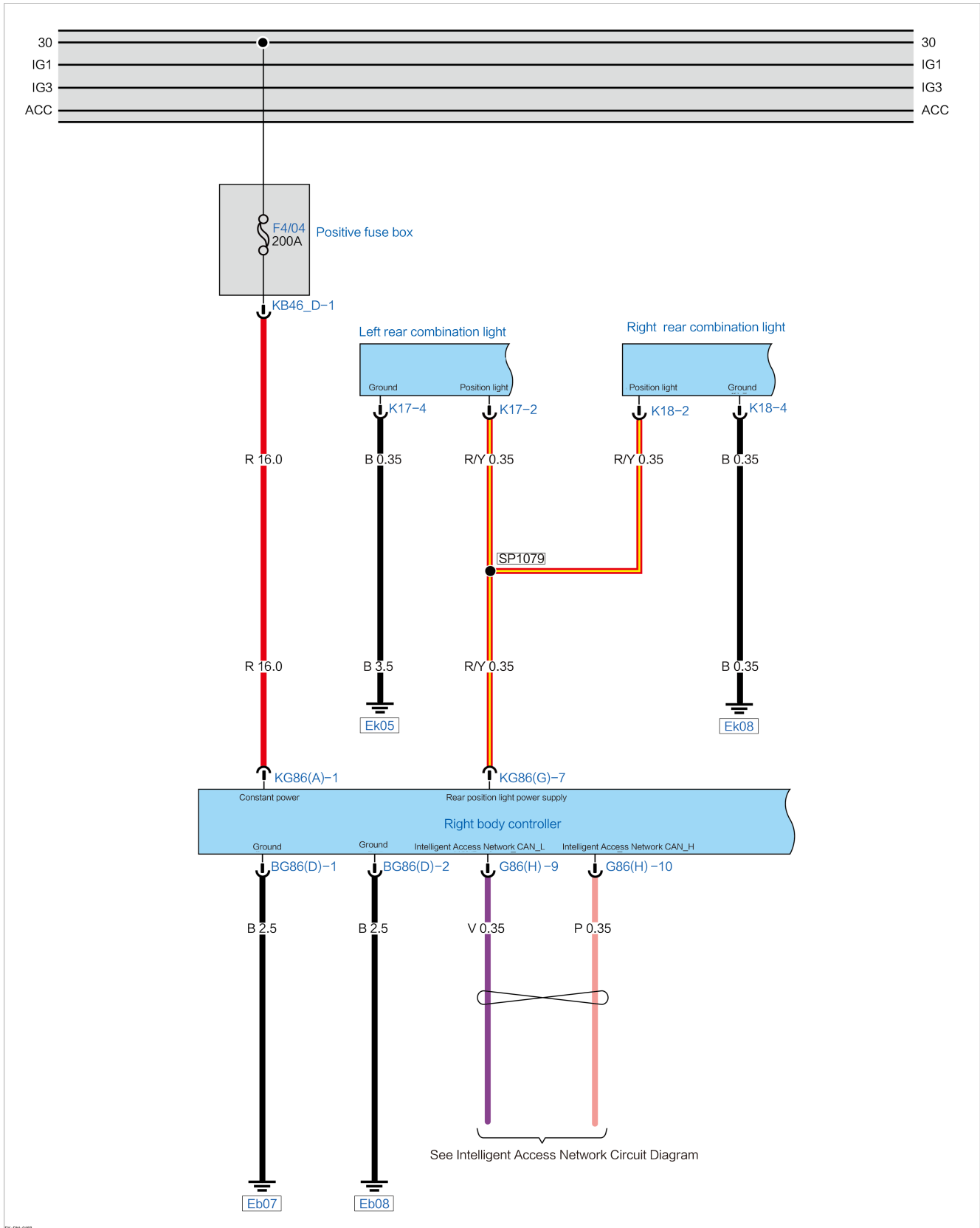
2. Check whether the results are normal.

- No → Repair or replace the wire harness
- Yes → Replace the left body control module.

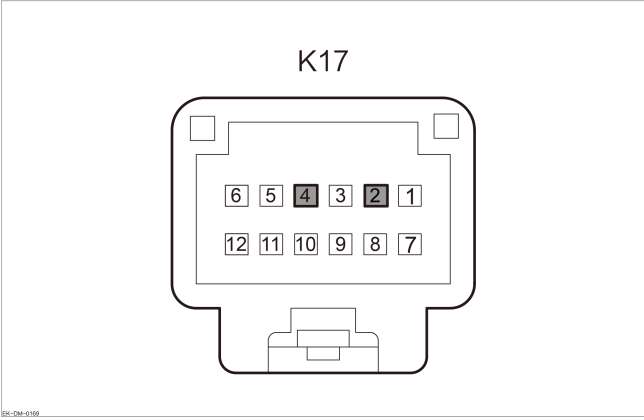
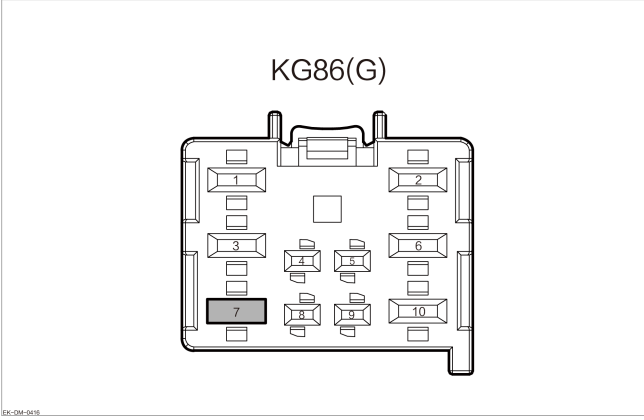
98-0M-0067

Left Rear Brake Light Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|------------------------------------|
| <p>Left rear combination light</p> <p style="text-align: center;">K17</p>  <p style="font-size: small;">EC-0M-019</p> | 2 | Left rear brake light power supply |
| | 4 | Ground |
| <p>Right body control module</p> <p style="text-align: center;">KG86(G)</p>  <p style="font-size: small;">EC-0M-505</p> | 7 | Power supply of rear brake lamp |

Diagnostic Steps

1 Use a VDS to actively control the left rear brake light.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Actively control and turn on the left rear brake light.
4. Can the left rear brake light be turned on?

Yes → Diagnosis brake switch fault.

No

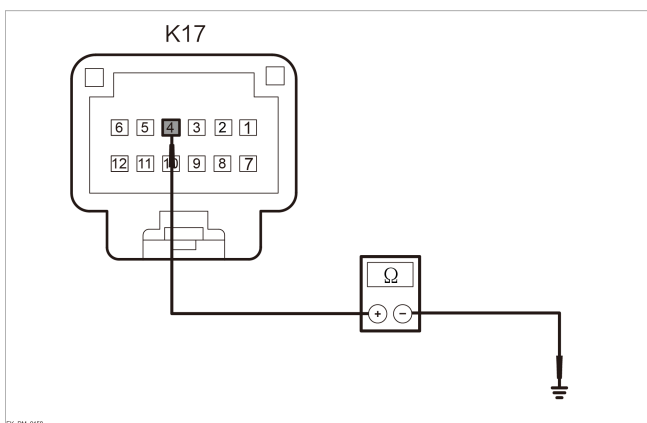
2 Check the left rear combination light harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the left rear combination light harness connector K17.
3. Check whether the left rear combination light harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check the ground line of left rear brake light for open circuit.



1. Measure the resistance between the harness connector of left rear combination light K17-4 and the ground.

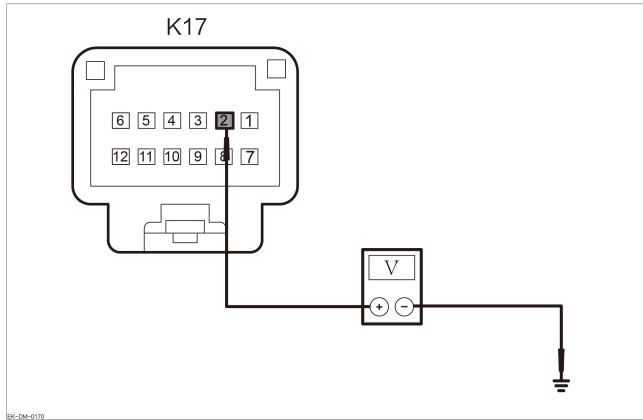
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K17-4 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the power supply of left rear brake light.



1. Set the START/STOP button to “ON” .
2. Press down the brake pedal.
3. Measure the voltage between the harness connector of left rear combination light K17-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K17-2 | Ground | Through-out | 11~14V |

4. Check whether the results are normal.

Yes → Replace the left rear combination lamp.

No

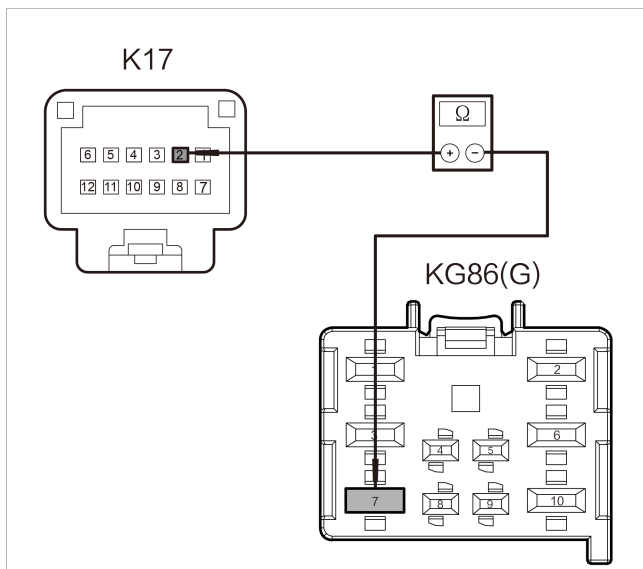
5 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module KG86(G).
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the power line of left rear brake light for open circuit.



1. Measure the resistance between the harness connector of left rear combination light K17-2 and the harness connector of right body control module KG86(G)-7.

| Connector | | Condition | Resistance value |
|-----------|-----------|-------------|------------------|
| (+) | (-) | | |
| K17-2 | KG86(G)-7 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

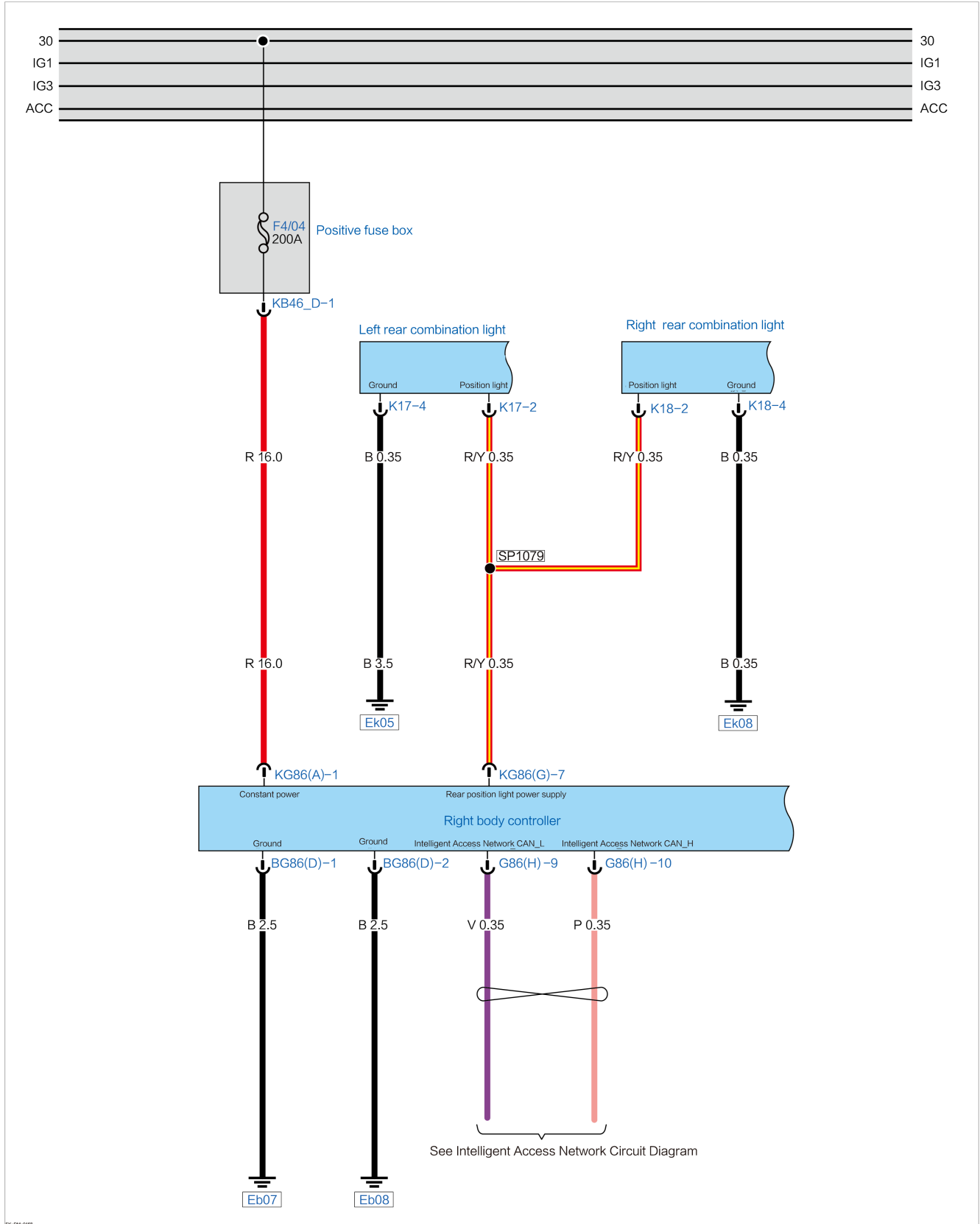
No → Repair or replace the wire harness

Yes

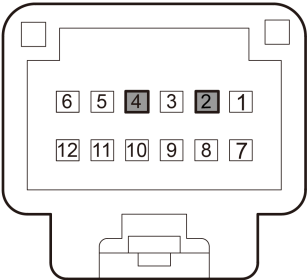
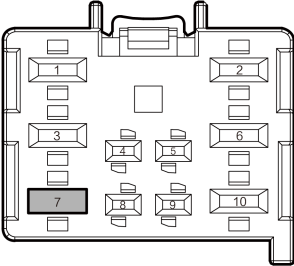
Replace the right body control module.

Right Rear Brake Light Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|--------------------------------------|--|
| <p style="text-align: center;">Right rear combination light</p> <div style="text-align: center;">  <p>K18</p> </div> <p><small>BYD-DM-071</small></p> | <p style="text-align: center;">2</p> | <p style="text-align: center;">Right rear brake light power supply</p> |
| | <p style="text-align: center;">4</p> | <p style="text-align: center;">Ground</p> |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p>KG86(G)</p> </div> <p><small>BYD-DM-069</small></p> | <p style="text-align: center;">7</p> | <p style="text-align: center;">Power supply of rear brake lamp</p> |

Diagnostic Steps

1 Use a VDS to actively control the right rear brake light.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Actively control and turn on the right rear brake light.
4. Can the right rear brake light be turned on?

Yes → Diagnosis brake switch fault.

No

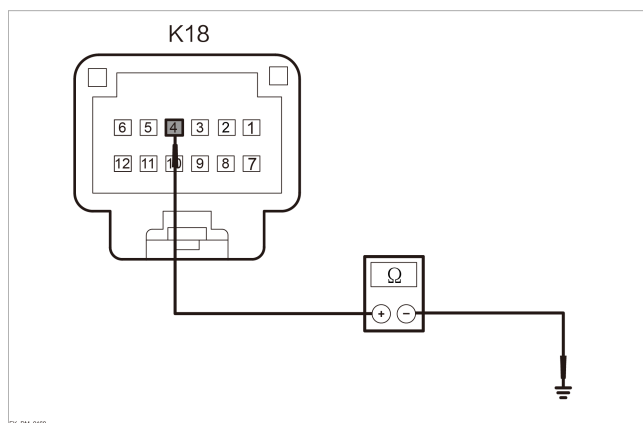
2 Check the right rear combination light harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the right rear combination lamp harness connector K18.
3. Check whether the right rear combination light harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check the ground line of right rear brake light for open circuit.



1. Measure the resistance between the harness connector of right rear combination light K18-4 and the ground.

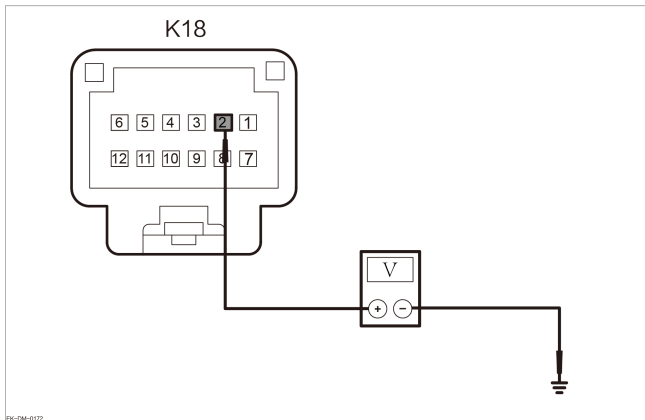
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K18-4 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the power supply of right rear brake light.



1. Set the START/STOP button to “ON” .
2. Press down the brake pedal.
3. Measure the voltage value between the right rear combination light harness connector K18-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K18-2 | Ground | Through-out | 11~14V |

4. Check whether the results are normal.

Yes → Replace the right rear combination lamp.

No

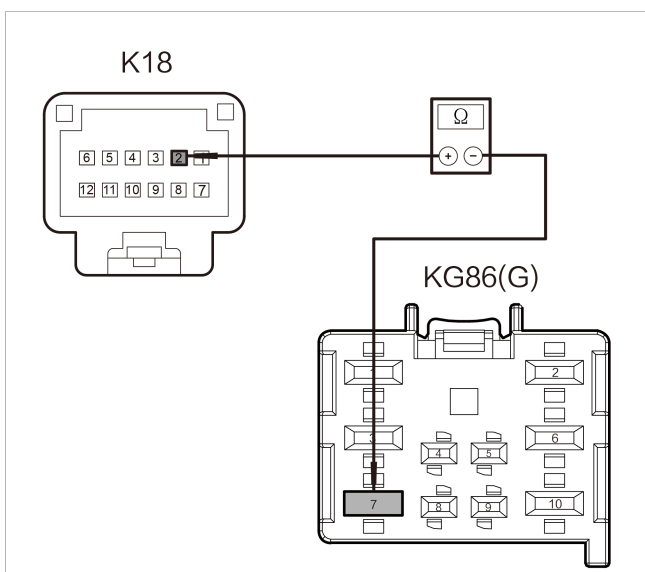
5 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module KG86(G).
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the power line of right rear brake light for open circuit.



1. Measure the resistance between the harness connector of right rear combination light K18-2 and the harness connector of right body control module KG86(G)-7.

| Connector | | Condition | Resistance value |
|-----------|-----------|-------------|------------------|
| (+) | (-) | | |
| K18-2 | KG86(G)-7 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

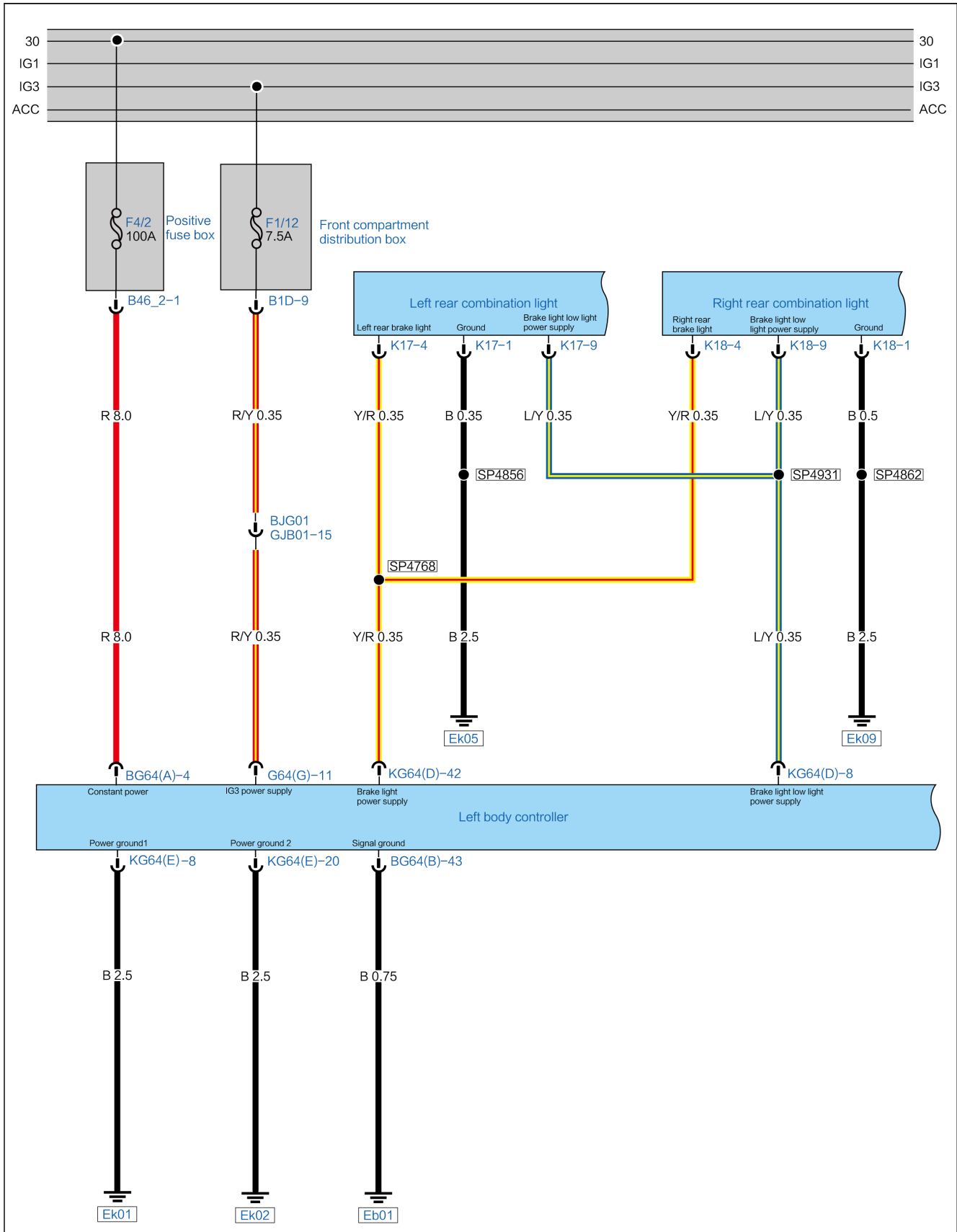
No → Repair or replace the wire harness

Yes

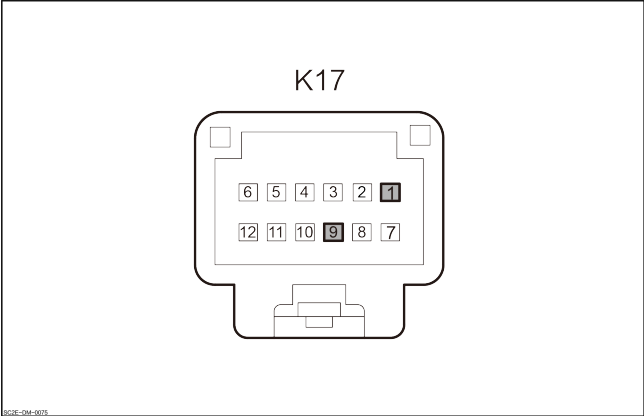
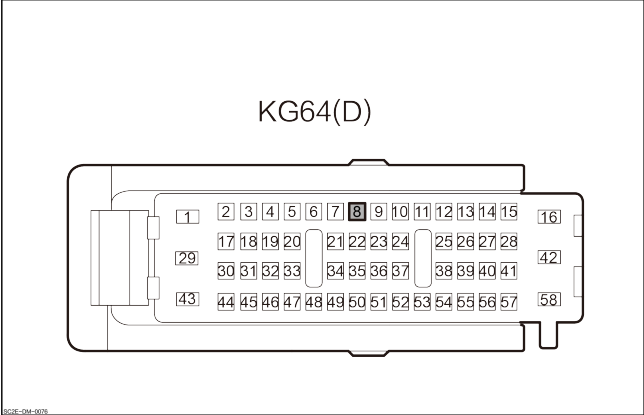
Replace the right body control module.

Left Rear Brake Light Low-light Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p>Left rear combination light</p>  <p>K17</p> | 1 | Ground |
| | 9 | Left rear brake light low brightness power supply |
| <p>Left body control module</p>  <p>KG64(D)</p> | 8 | Left rear brake light low brightness power supply |

Diagnostic Steps

1 Use a VDS to actively control the rear brake light.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Actively control and turn on the rear brake light.
4. Can the rear brake light be turned on?

Yes → Diagnosis brake switch fault.

No

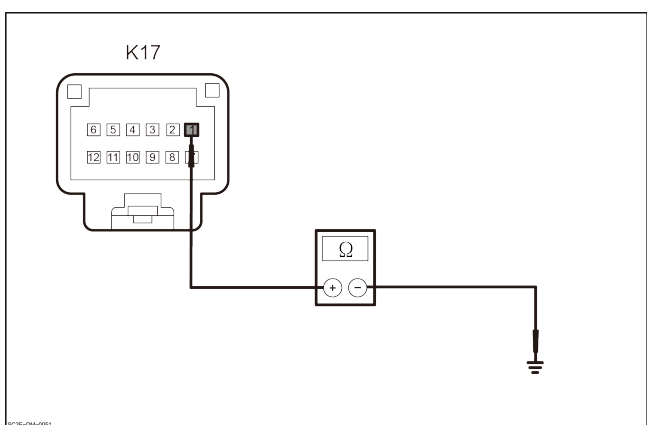
2 Check the left rear combination light harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the left rear combination light harness connector K17.
3. Check whether the left rear combination light harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check the ground line of left rear brake light low-light for open circuit.



1. Measure the resistance between the harness connector of left rear combination light K17-1 and the ground.

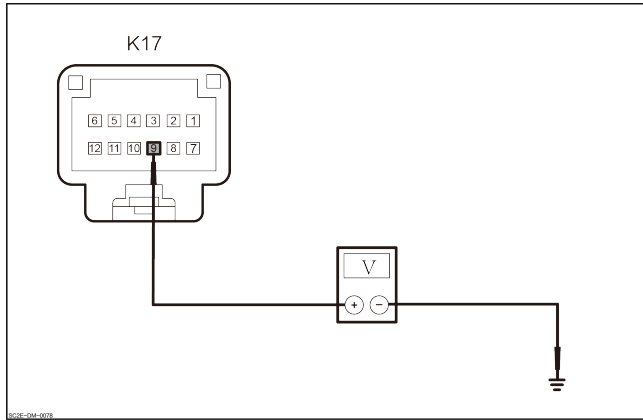
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K17-1 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the low brightness power supply of left rear brake light.



1. Set the START/STOP button to “ON” .
2. Press down the brake pedal.
3. Measure the voltage between the harness connector of left rear combination light K17-9 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K17-9 | Ground | Through-out | 11~14V |

4. Check whether the results are normal.

Yes → Replace the left rear combination lamp.

No

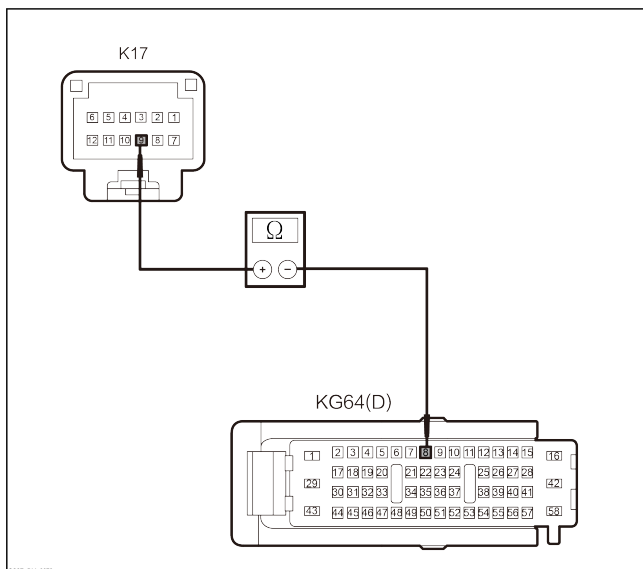
5 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(D).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the power line of left rear brake light low-light for open circuit.



1. Measure the resistance between the harness connector of left rear combination light K17-9 and the harness connector of left body control module KG64(D)-8.

| Connector | | Condition | Resistance value |
|-----------|-----------|-------------|------------------|
| (+) | (-) | | |
| K17-9 | KG64(D)-8 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

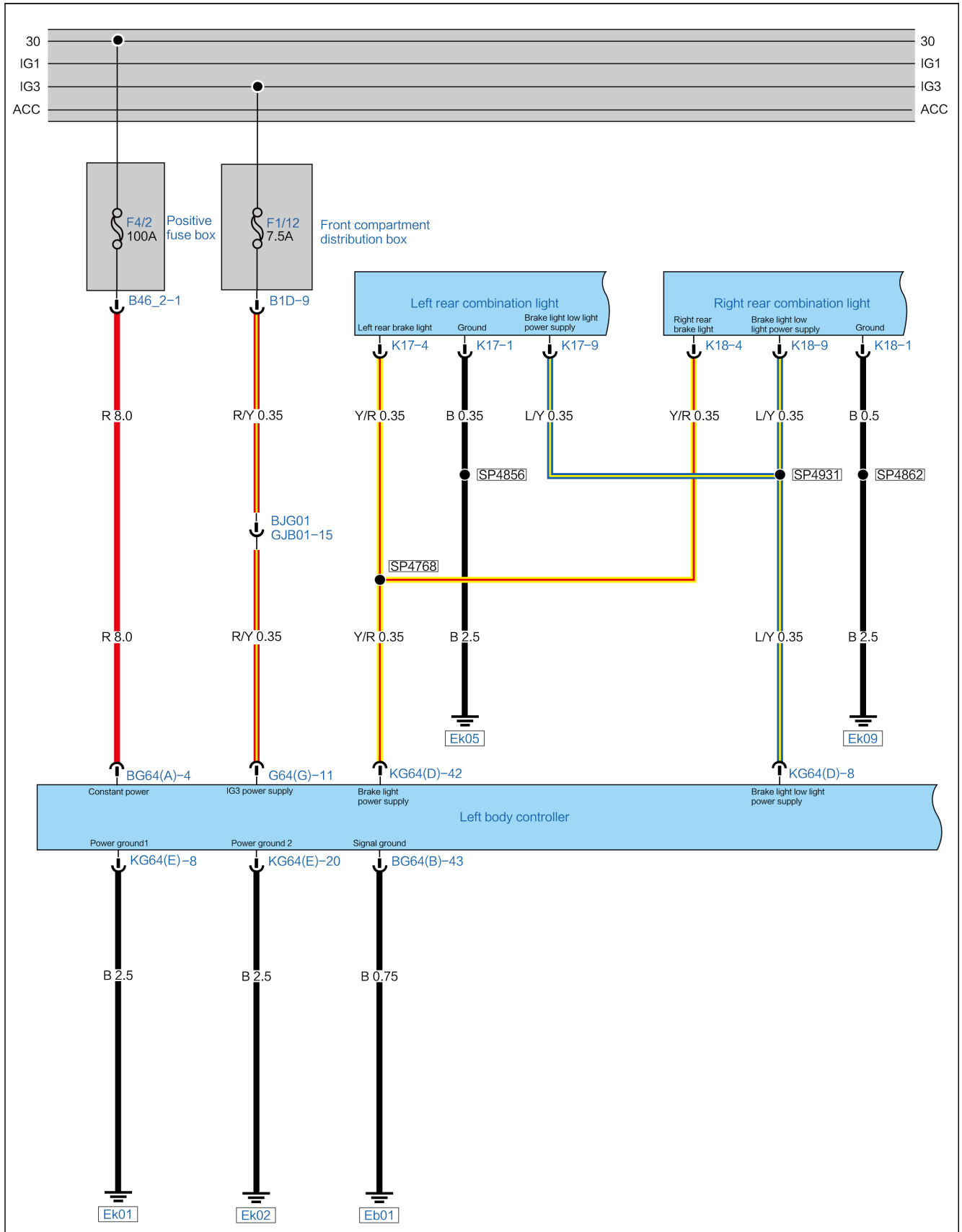
No → Repair or replace the wire harness

Yes

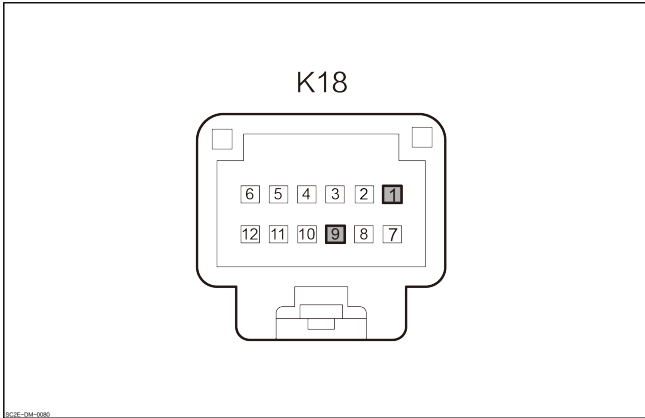
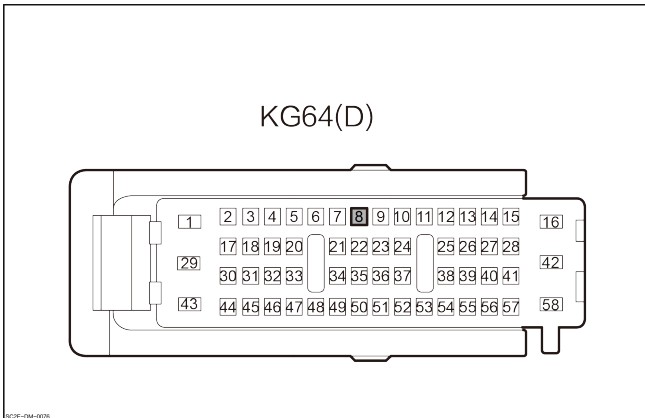
Replace the left body control module.

Right Rear Brake Light Low-light Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p style="text-align: center;">Right rear combination light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">K18</p> </div> | 1 | Ground |
| | 9 | Right rear brake light low brightness power supply |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">KG64(D)</p> </div> | 8 | Right rear brake light low brightness power supply |

Diagnostic Steps

1 Use a VDS to actively control the rear brake light.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Actively control and turn on the rear brake light.
4. Can the rear brake light be turned on?

Yes → Diagnose “brake switch fault” .

No

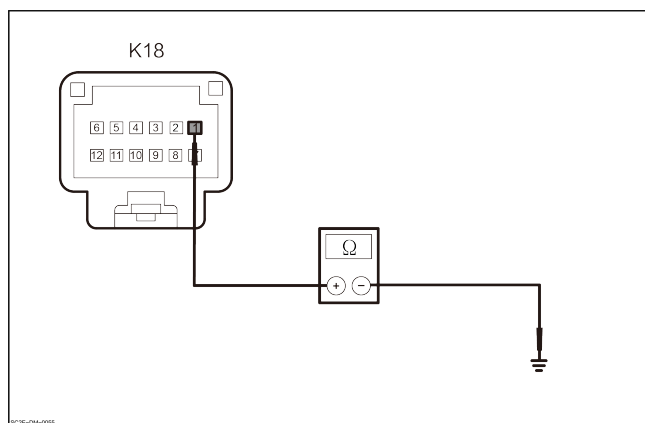
2 Check the right rear combination light harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the right rear combination lamp harness connector K18.
3. Check whether the right rear combination light harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check the ground line of right rear brake light low-light for open circuit.



1. Measure the resistance between the harness connector of right rear combination light K18-1 and the ground.

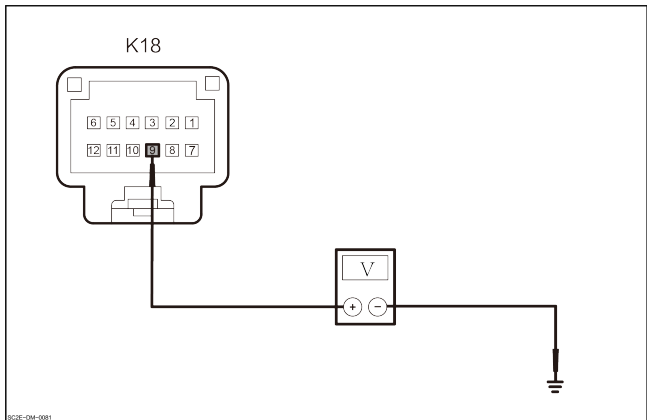
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K18-1 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the low brightness power supply of right rear brake light.



1. Set the START/STOP button to “ON” .
2. Press down the brake pedal.
3. Measure the voltage value between the right rear combination light harness connector K18-9 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K18-9 | Ground | Through-out | 11~14V |

4. Check whether the results are normal.

Yes → Replace the right rear combination lamp.

No

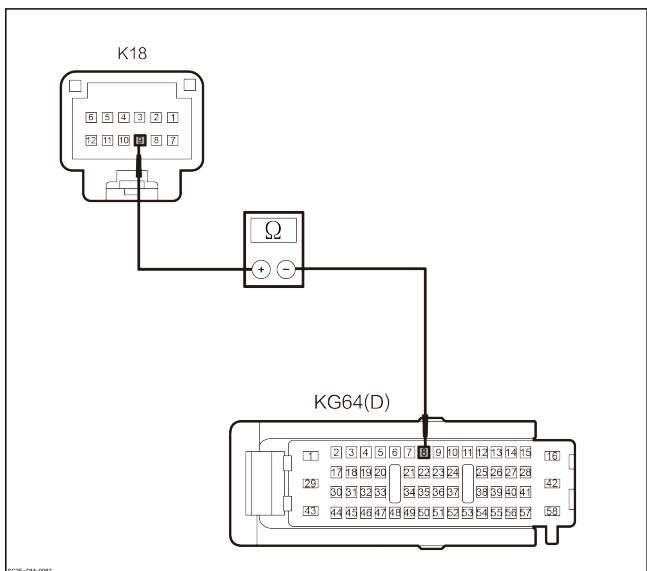
5 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(D).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the power line of right rear brake light low-light for open circuit.



1. Measure the resistance between the harness connector of right rear combination light K18-9 and the harness connector of left body control module KG64(D)-8.

| Connector | | Condition | Resist-ance value |
|-----------|-----------|-------------|-------------------|
| (+) | (-) | | |
| K18-9 | KG64(D)-8 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

Replace the left body control module.

Middle Combination Taillight

Diagnosis Description

Introduction

Before fault diagnosis for middle combination rear light, understand and get familiar with the working principle of the middle combination rear light, and then start diagnosis for the middle combination rear light, so as to be helpful to confirm the correct fault diagnosis procedure in the event of a fault, and more importantly, to confirm whether the operating condition described by the customer is normal. Any fault diagnosis of middle combination rear light should start with the inspection of middle combination rear light to guide the maintenance technician to take the next logical step for fault diagnosis.

General equipment

- Multimeter
- VDS

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Diagnosis of General Faults

Visual Inspection

1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

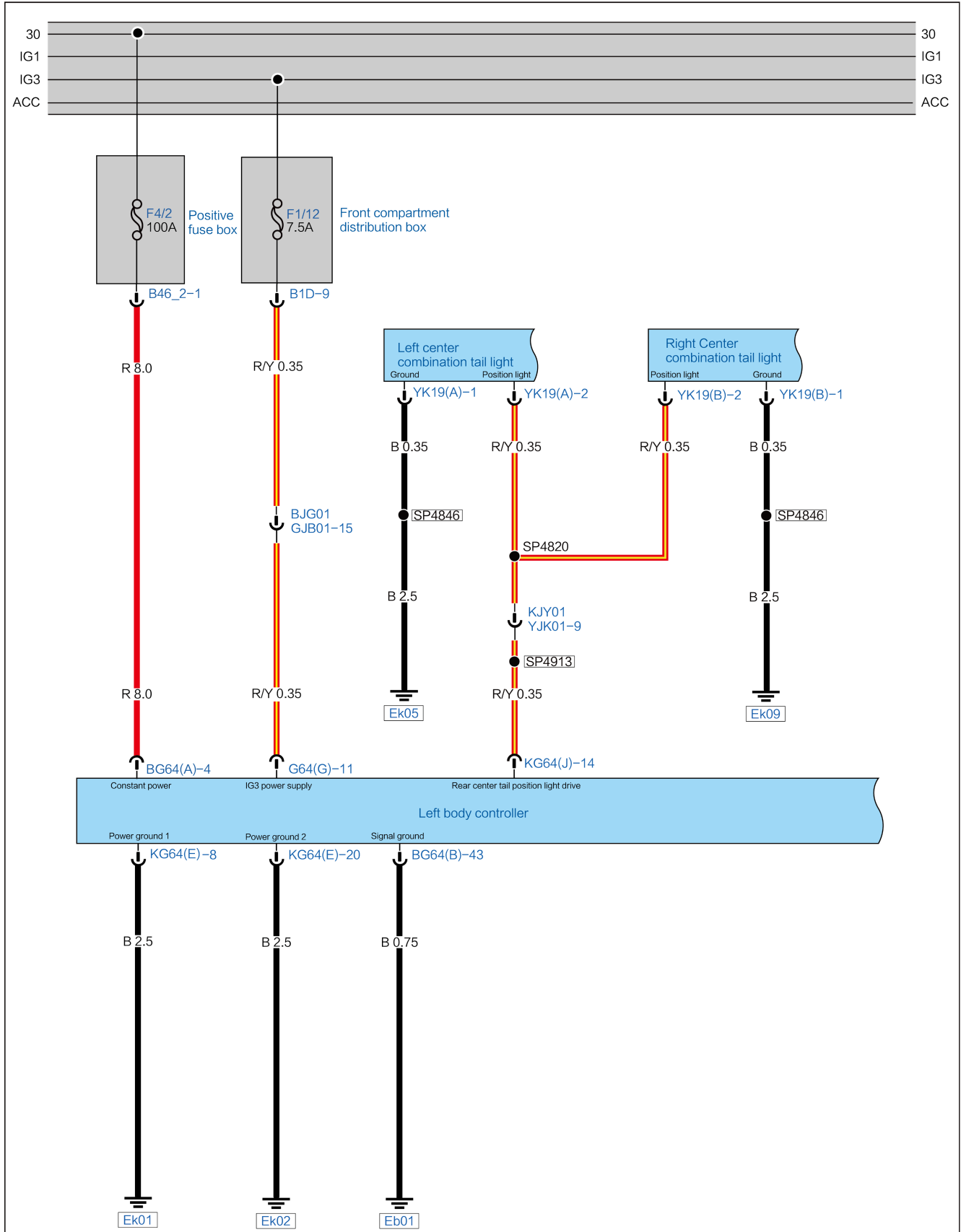
General Symptom List

| Symptom | Possible cause | Suggested maintenance measures |
|---|--|---|
| Left Middle Position Light Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Multi-function switch fault 3. Left middle position lamp fault. 4. The left body control module fails. | Left Middle Position Light Not Working |
| Right Middle Position Light Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Multi-function switch fault 3. The right middle position light fails. 4. The left body control module fails. | Right Middle Position Light Not Working |
| Left Rear Reversing Light Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. No reverse gear signal. 3. The left rear reversing light fails. 4. The left body control module fails. | Left Rear Reversing Light Not Working |
| Right Rear Reversing Light Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. No reverse gear signal. 3. The right rear reversing light fails. 4. The left body control module fails. | Right Rear Reversing Light Not Working |
| Left Rear Middle Turn Signal Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Multi-function switch fault 3. The left rear middle turn signal fails. 4. The left body control module fails. | Left Rear Middle Turn Signal Not Working |
| Right Rear Middle Turn Signal Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Multi-function switch fault | Right Rear Middle Turn Signal Not Working |

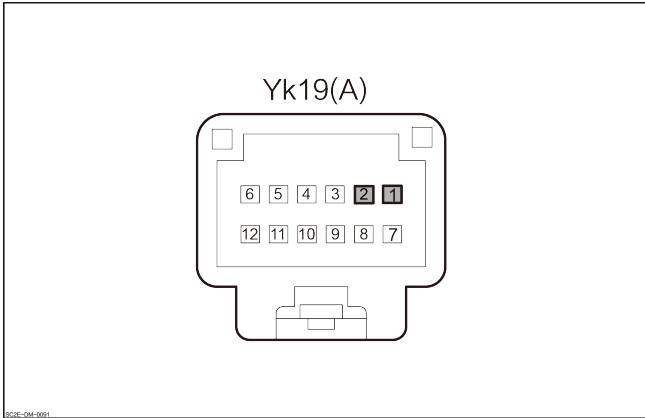
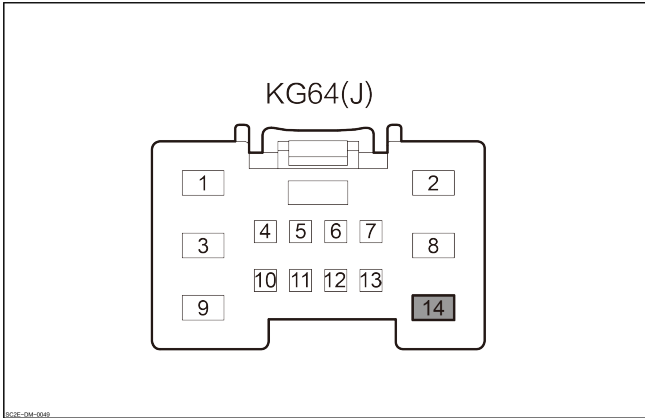
| Symptom | Possible cause | Suggested maintenance measures |
|---------|---|--------------------------------|
| | 3. The right rear middle turn signal fails. 4. The left body control module fails. | |

Left Middle Position Light Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p>Left middle combination tail lamp</p>  <p>Yk19(A)</p> <p>6 5 4 3 2 1 12 11 10 9 8 7</p> <p><small>80E-DM-091</small></p> | 1 | Ground |
| | 2 | Left rear middle position light power supply |
| <p>Left body control module</p>  <p>KG64(J)</p> <p>1 2 3 4 5 6 7 8 9 10 11 12 13 14</p> <p><small>80E-DM-049</small></p> | 14 | Rear middle position light power supply |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the combination switch passes the network detection?

No

After diagnosis, the combination switch could not communicate.

Yes

| | |
|---|---|
| 2 | Use a VDS to actively control the left rear middle tail position light. |
|---|---|

1. Actively control and turn on the left rear tail position light.
2. Can the left rear middle tail position light be turned on?

Yes

Replace the combination switch.

No

| | |
|---|--|
| 3 | Check the harness connector of left middle combination tail light. |
|---|--|

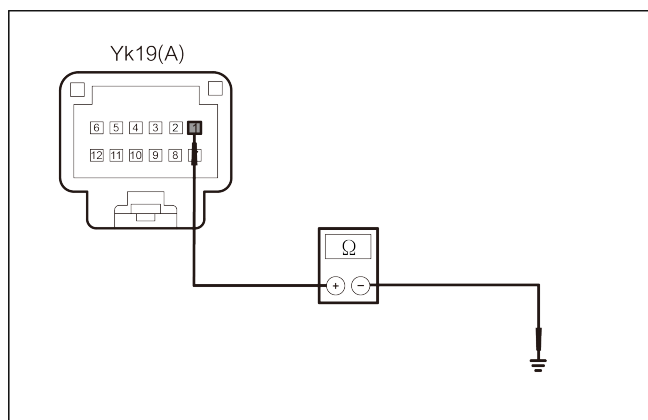
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left middle combination tail light YK19(A).
3. Check whether the harness connector of left middle combination tail light is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the ground line of left rear middle tail position light for open circuit. |
|---|---|



1. Measure the resistance between the harness connector of left middle combination tail light YK19(A)-1 and the ground.

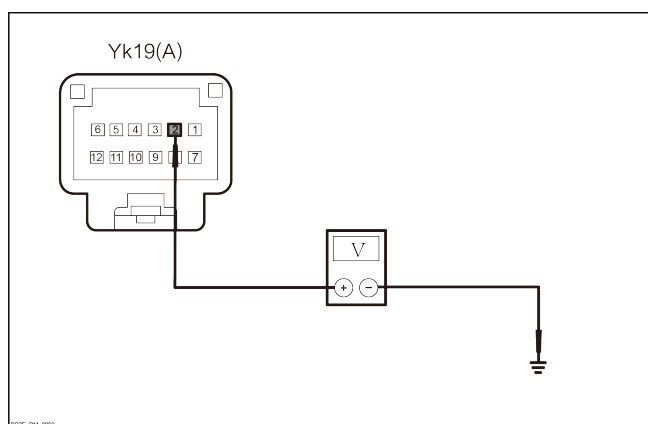
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| YK19(A)-1 | Ground | Through- out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the power supply of left rear middle tail position light.



1. Set the START/STOP button to “ON” .
2. Turn on the left rear middle tail position light.
3. Measure the voltage between the harness connector of left middle combination tail light YK19(A)-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| YK19(A)-2 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes → Replace the left rear middle tail position light.

No

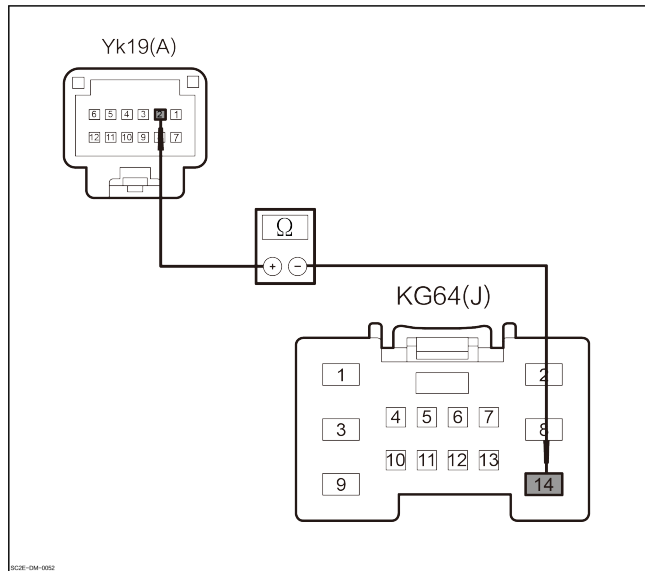
6 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(J).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

7 Check the power line of left rear middle tail position light for open circuit.



1. Measure the resistance between the harness connector of left middle combination tail light YK19(A)-2 and the harness connector of left body control module KG64 (J)-14.

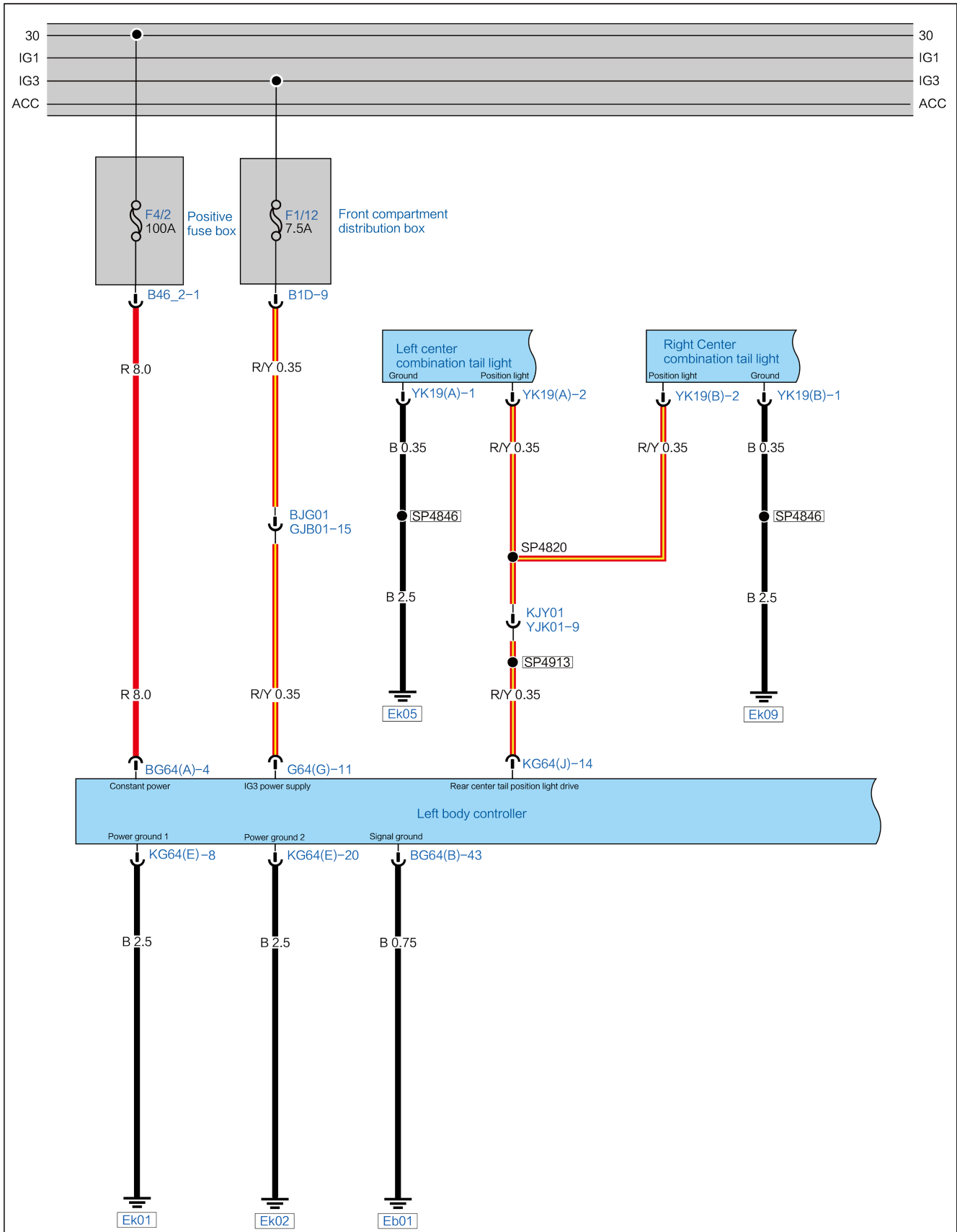
| Connector | | Condition | Resist- ance value |
|---------------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| YK19(A)- 2 | KG64(J)- 14 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

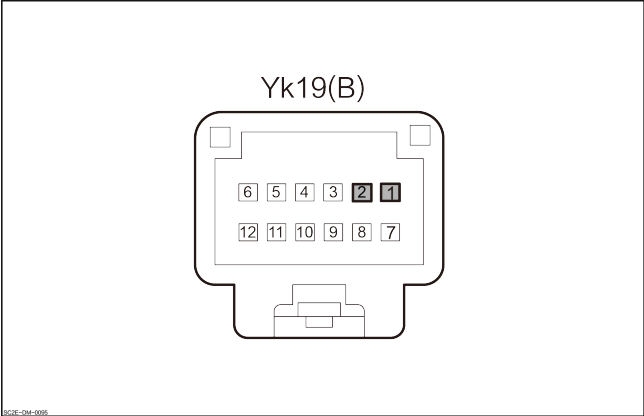
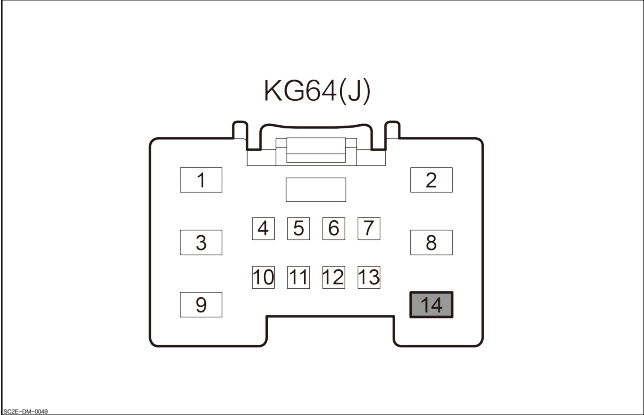
- No → Repair or replace the wire harness
- Yes → Replace the left body control module.

Right Middle Position Light Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p style="text-align: center;">Right Center combination tail light</p> <div style="text-align: center;">  <p>Yk19(B)</p> </div> | 1 | Ground |
| | 2 | Right rear middle position light power supply |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p>KG64(J)</p> </div> | 14 | Rear middle position light power supply |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the combination switch passes the network detection?

No

After diagnosis, the combination switch could not communicate.

Yes

| | |
|---|---|
| 2 | Use a VDS to actively control the right middle tail position light. |
|---|---|

1. Actively control and turn on the right middle tail position light.
2. Can the right middle tail position light be turned on?

Yes

Replace the combination switch.

No

| | |
|---|---|
| 3 | Check the harness connector of right middle combination tail light. |
|---|---|

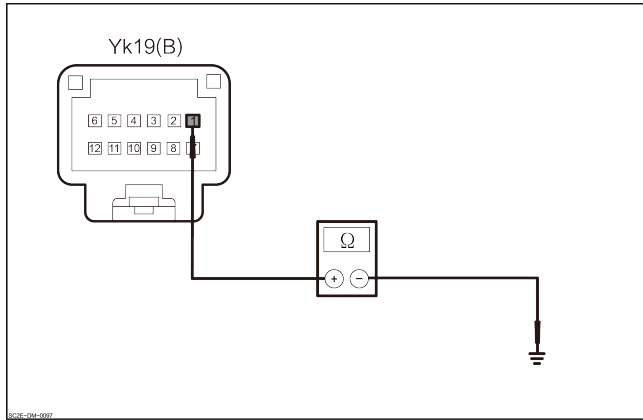
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right middle combination tail light YK19(B).
3. Check the harness connector of right middle combination tail light for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the ground line of right middle tail position light for open circuit. |
|---|---|



1. Measure the resistance between the harness connector of right middle combination tail light YK19(B)–1 and the ground.

| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| YK19(B)– 1 | Ground | Through- out | Lower than 1 Ω |

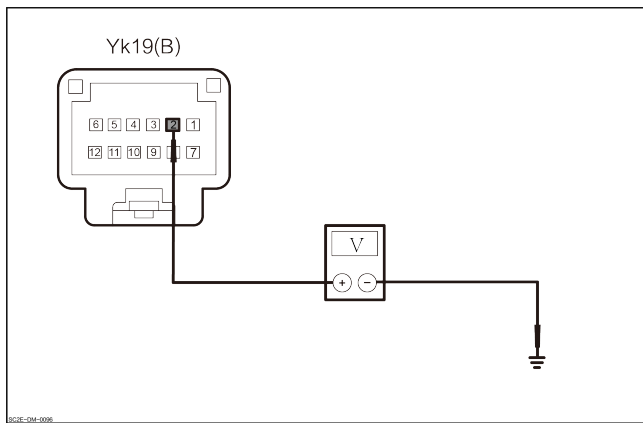
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check the power supply of right middle tail position light.



1. Set the START/STOP button to “ON” .
2. Turn on the right middle tail position light.
3. Measure the voltage between the harness connector of right middle combination tail light YK19(B)–2 and the ground.

| Connector | | Condition | Voltage value |
|---------------|--------|-----------------|------------------|
| (+) | (-) | | |
| YK19(B)– 2 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes

Replace the right middle tail position light.

No

6 Check the harness connector of left body control module.

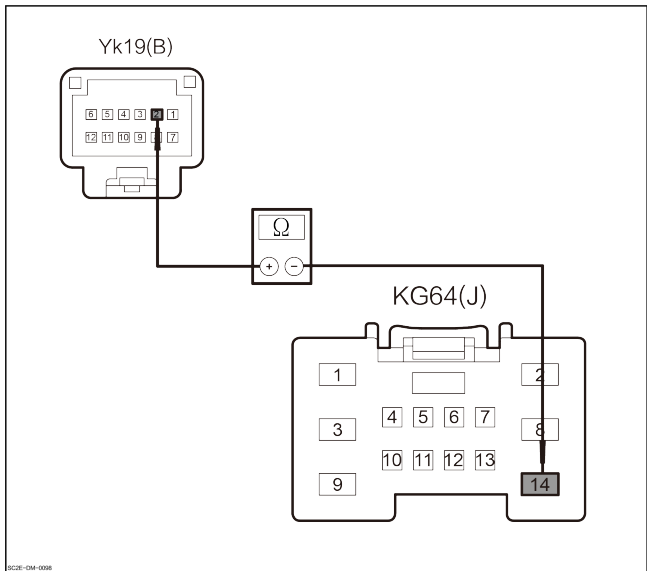
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(J).
3. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

7 Check the power line of right middle tail position light for open circuit.



1. Measure the resistance between the harness connector of right middle combination tail light YK19(B)-2 and the harness connector of left body control module KG64 (J)-14.

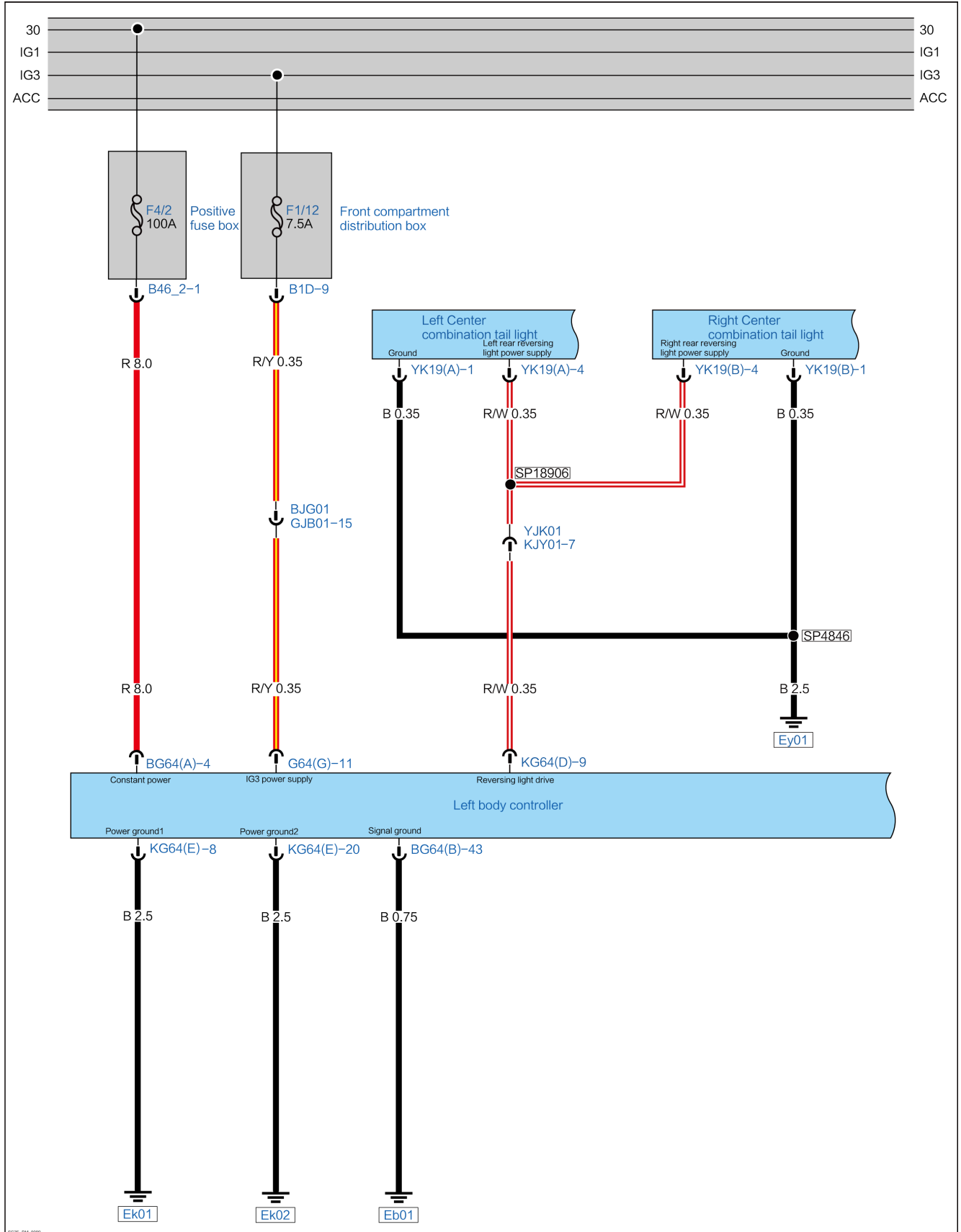
| Connector | | Condition | Resist- ance value |
|---------------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| YK19(B)- 2 | KG64(J)- 14 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

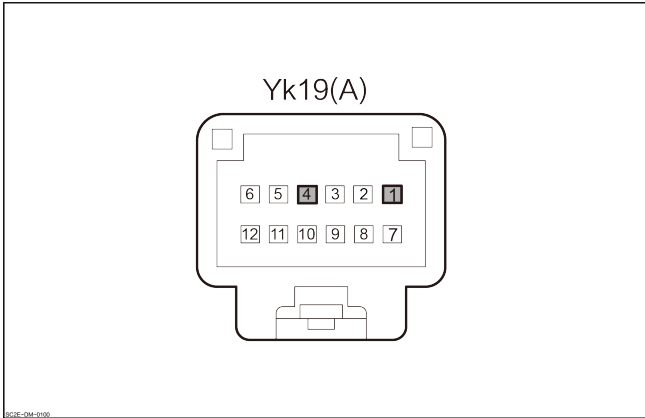
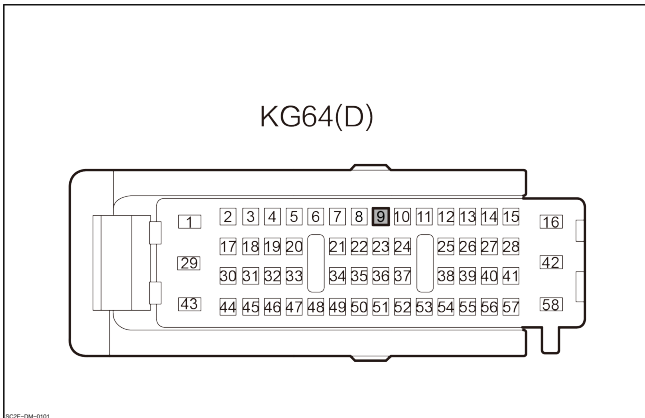
| | |
|-----|---------------------------------------|
| No | Repair or replace the wire harness |
| Yes | Replace the left body control module. |

Left Rear Reversing Light Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p>Left middle combination tail lamp</p>  <p>Yk19(A)</p> <p>6 5 4 3 2 1 12 11 10 9 8 7</p> <p><small>801E-04-0100</small></p> | 1 | Ground |
| | 4 | Left rear reversing light power supply |
| <p>Left body control module</p>  <p>KG64(D)</p> <p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58</p> <p><small>801E-04-0101</small></p> | 9 | Reversing light power supply |

Diagnostic Steps

| | |
|---|---------------------------|
| 1 | Check the reverse signal. |
|---|---------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to read the data flow of the power body control module.
4. Shift to reverse gear and check whether the data flow vehicle is in R position.

No → Diagnose the “No reverse gear signal” .

Yes

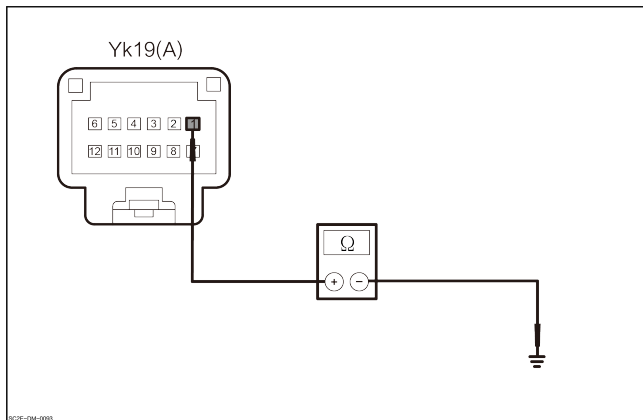
| | |
|---|--|
| 2 | Check the harness connector of left middle combination tail light. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left middle combination tail light Yk19(A).
3. Check whether the harness connector of left middle combination tail light is normal.

No → Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the ground line of left rear reversing light for open circuit. |
|---|--|



1. Measure the resistance between the harness connector of left middle combination tail light Yk19(A)-1 and the ground.

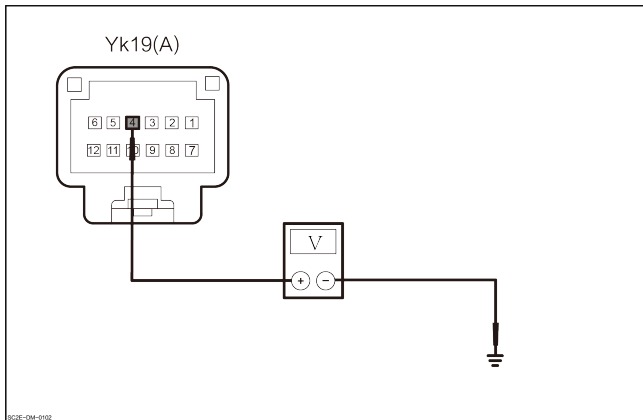
| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| Yk19(A)- 1 | Ground | Through- out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the power supply of left rear reversing light. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Turn on the left rear reversing light.
3. Measure the voltage between the harness connector of left middle combination tail light Yk19(A)-4 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| Yk19(A)-4 | Ground | Through-out | 11~14V |

4. Check whether the results are normal.

Yes → Replace the left rear reversing light.

Yes

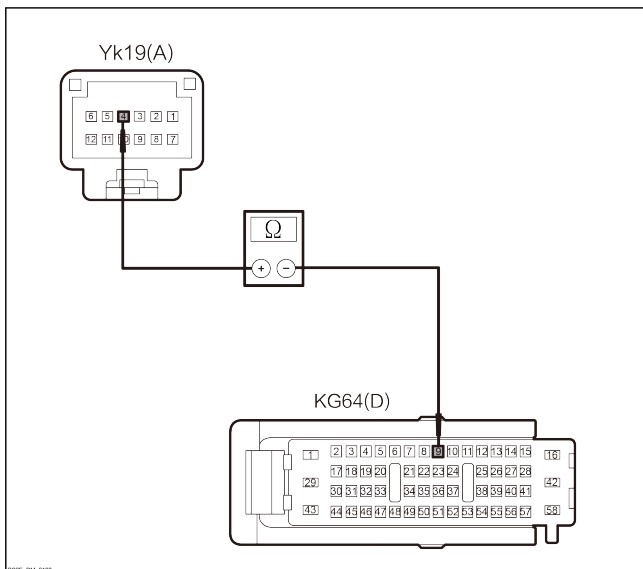
5 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(D).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the power line of left rear reversing light for open circuit.



1. Measure the resistance between the harness connector of left middle combination tail light Yk19(A)-4 and the harness connector of left body control module KG64(D)-9.

| Connector | | Condition | Resist-ance value |
|-----------|-----------|-------------|-------------------|
| (+) | (-) | | |
| Yk19(A)-4 | KG64(D)-9 | Through-out | Lower than 1 Ω |

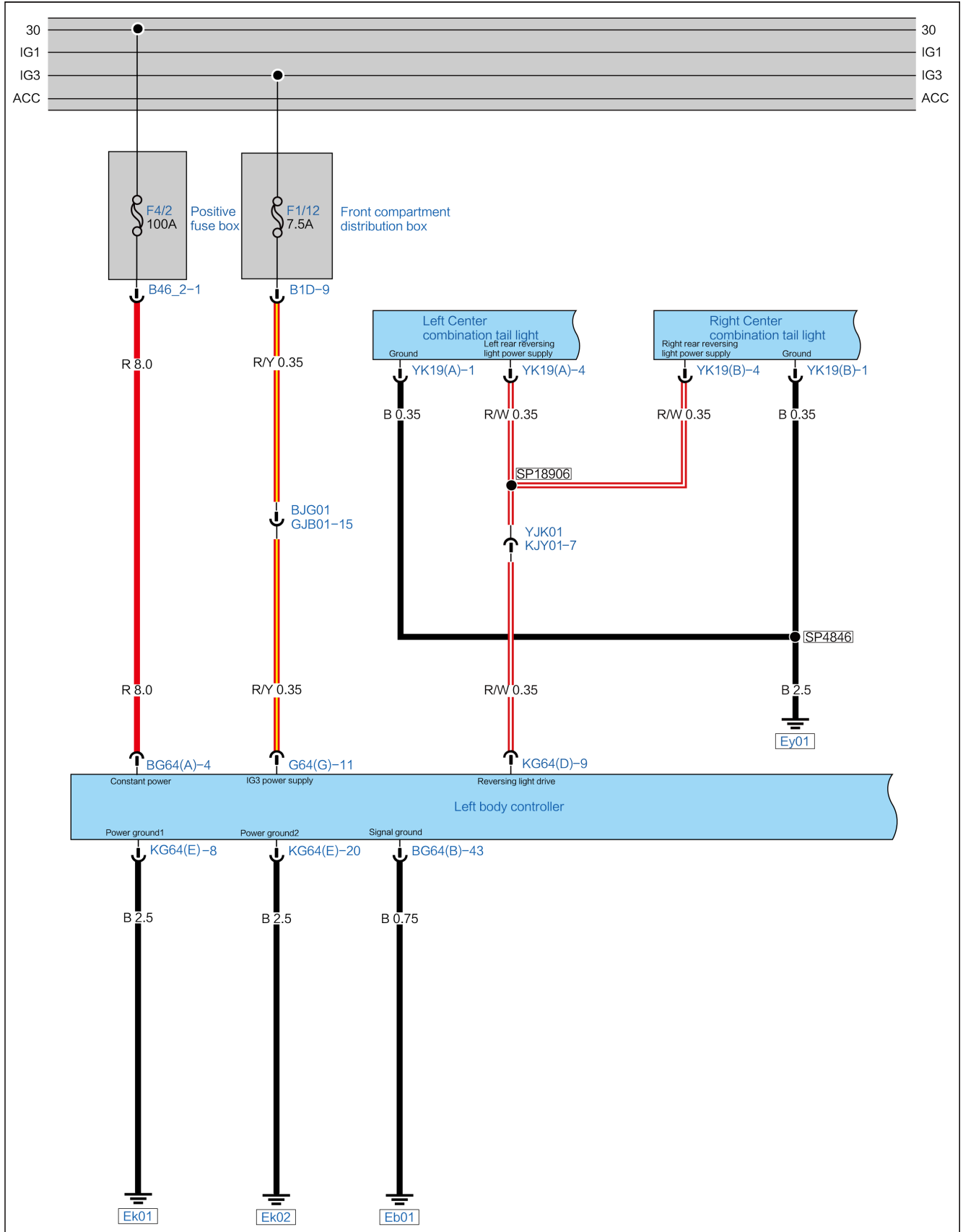
2. Check whether the results are normal.

No → Repair or replace the wire harness

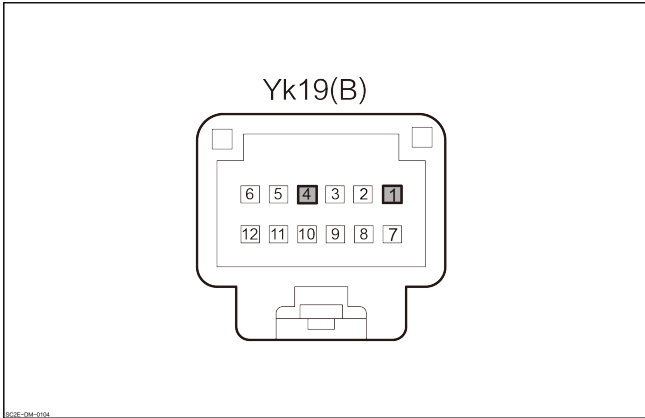
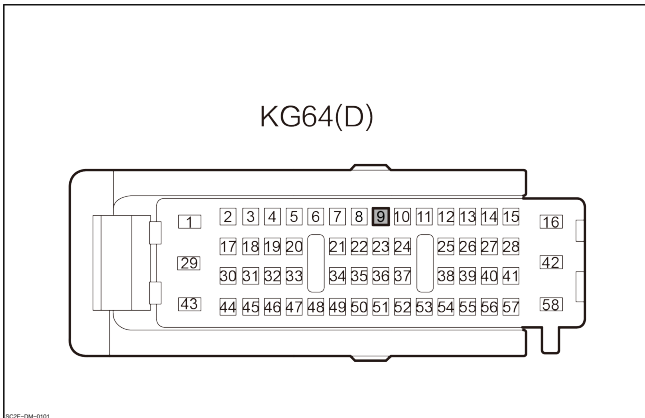
Yes → Replace the left body control module.

Right Rear Reversing Light Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p>Right Center combination tail light</p>  <p>Yk19(B)</p> <p>6 5 4 3 2 1 12 11 10 9 8 7</p> <p><small>80E-DM-004</small></p> | 1 | Ground |
| | 4 | Right rear reversing light power supply |
| <p>Left body control module</p>  <p>KG64(D)</p> <p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58</p> <p><small>80E-DM-005</small></p> | 9 | Reversing light power supply |

Diagnostic Steps

1 Check the reverse signal.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to read the data flow of the power body control module.
4. Apply the reverse gear, check whether the vehicle gear indicated in the data from is R gear.

No → Diagnose the “No reverse gear signal” .

Yes

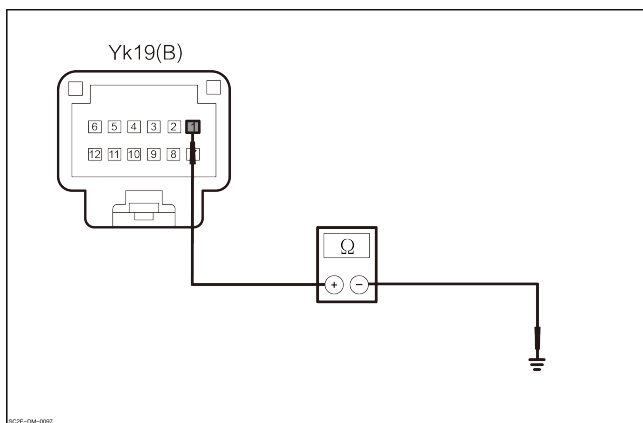
2 Check the harness connector of right rear reversing light.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left middle combination tail light Yk19(B).
3. Check whether the harness connector of left middle combination tail light is normal.

No → Repair or replace the wire harness

Yes

3 Check the ground line of right rear reversing light for open circuit.



1. Measure the resistance between the harness connector of left middle combination tail light Yk19(B)-1 and the ground.

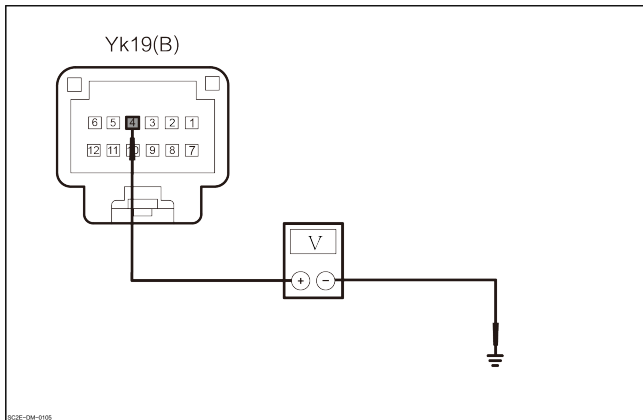
| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| Yk19(B)- 1 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the power supply of right rear reversing light.



1. Set the START/STOP button to “ON” .
2. Turn on the right rear reversing light.
3. Measure the voltage between the harness connector of left middle combination tail light YK19(B)–4 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| Yk19(B)–4 | Ground | Through-out | 11~14V |

4. Check whether the results are normal.

Yes → Replace the right rear reversing light.

No

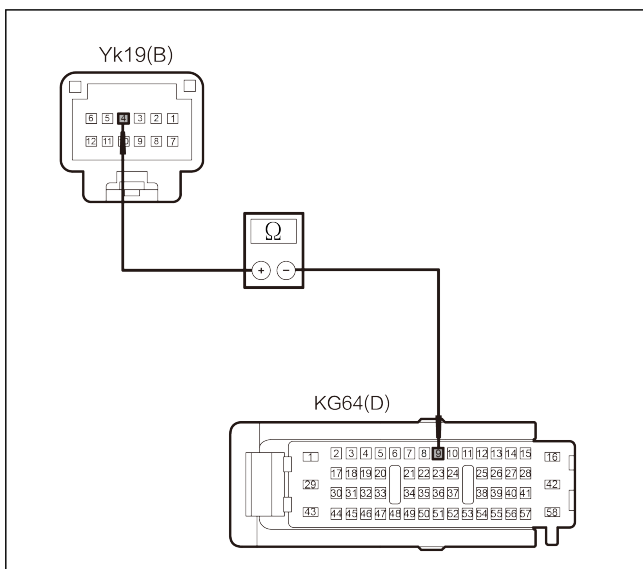
5 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(D).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the power line of right rear reversing light for open circuit.



1. Measure the resistance between the harness connector of left middle combination tail light YK19(B)–4 and the harness connector of left body control module KG64(D)–9.

| Connector | | Condition | Resistance value |
|-----------|-----------|-------------|------------------|
| (+) | (-) | | |
| Yk19(B)–4 | KG64(D)–9 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

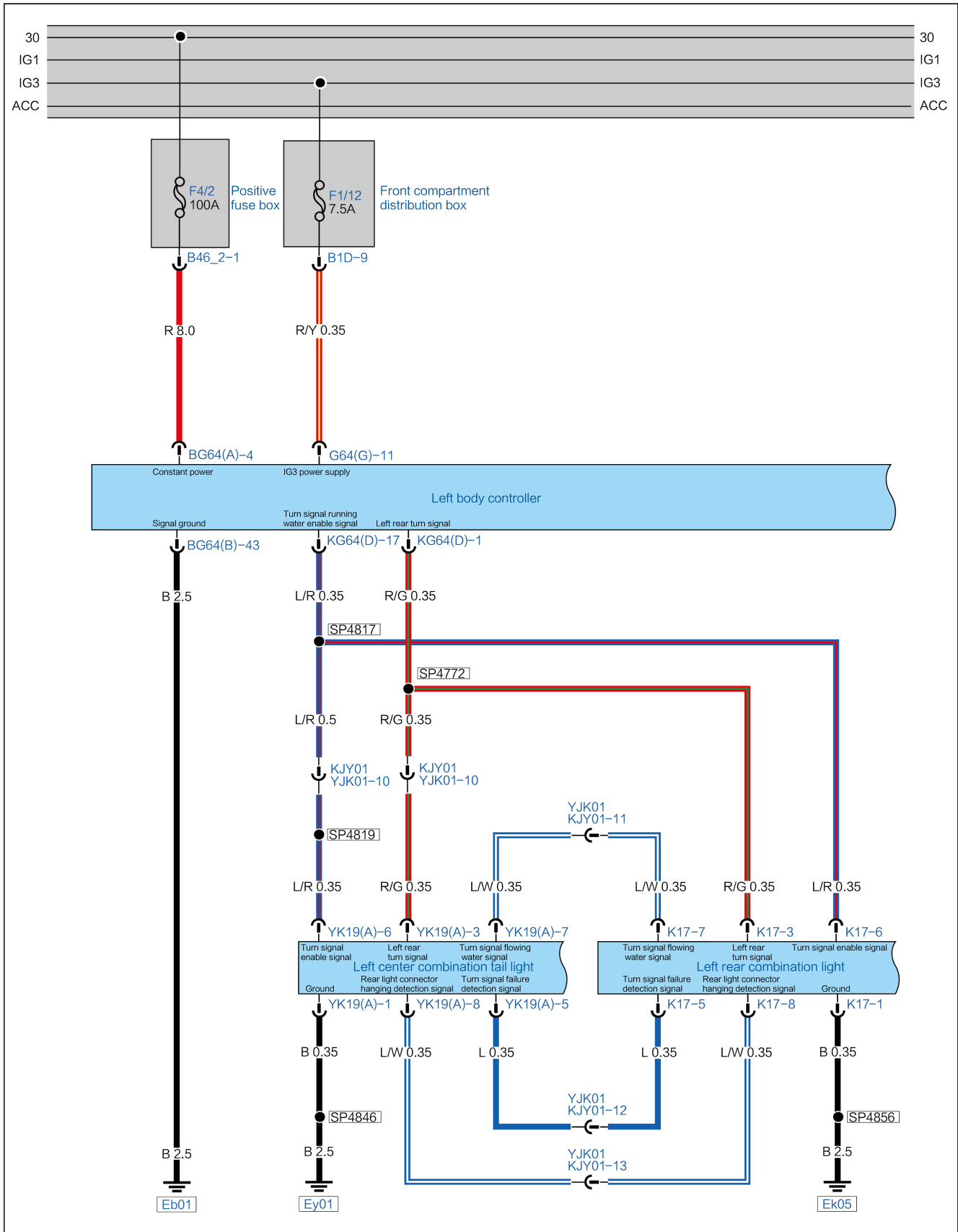
No → Repair or replace the wire harness

Yes

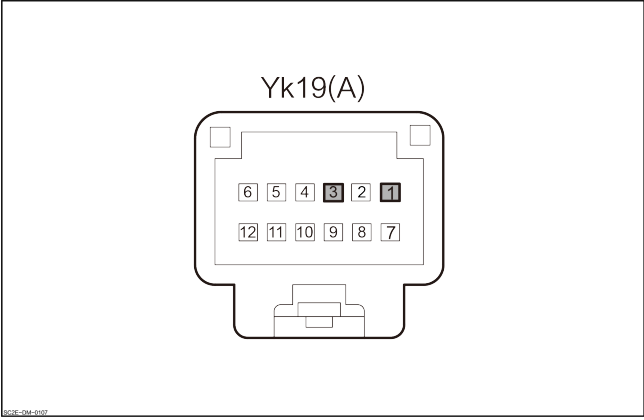
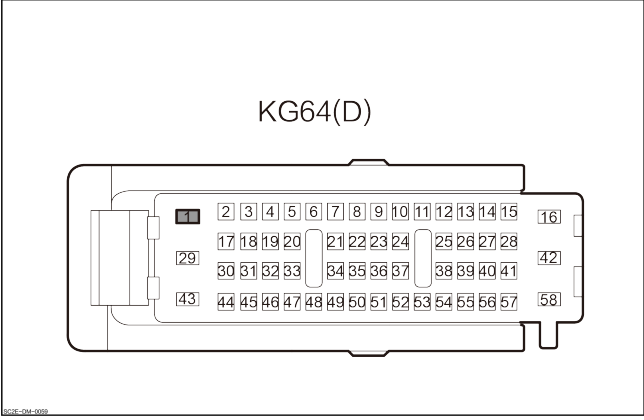
Replace the left body control module.

Left Rear Middle Turn Signal Not Working

Circuit Diagram

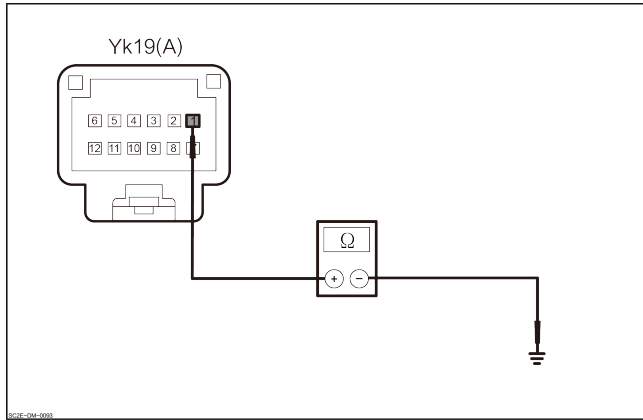


Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p>Left middle combination tail lamp</p>  <p>Yk19(A)</p> <p>6 5 4 3 2 1 12 11 10 9 8 7</p> <p><small>626E-004-0007</small></p> | 1 | Ground |
| | 3 | Left rear middle turn signal power supply |
| <p>Left body control module</p>  <p>KG64(D)</p> <p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58</p> <p><small>626E-004-0009</small></p> | 1 | Rear turn signal power supply |

Diagnostic Steps

| | |
|--|---|
| 1 | Check the communication network. |
| <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the start/stop button to ON. 3. Use a VDS to execute the network test. 4. Check whether the combination switch passes the network detection? | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Diagnose “Fail to Communicate With Combination Switch ”</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 2 | Use a VDS to actively control the left rear middle turn signal. |
| <ol style="list-style-type: none"> 1. Actively control and turn on the left rear middle turn signal. 2. Can the left rear middle turn signal be turned on? | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">Yes</div> <div style="border: 1px solid black; padding: 5px;">Replace the combination switch.</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">No</div> | |
| 3 | Check the harness connector of left middle combination tail light. |
| <ol style="list-style-type: none"> 1. Set the START/STOP button to “OFF” . 2. Disconnect the harness connector of left middle combination tail light YK19(A). 3. Check whether the harness connector of left middle combination tail light is normal. | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">No</div> <div style="border: 1px solid black; padding: 5px;">Repair or replace the wire harness</div> </div> | |
| <div style="border: 1px solid black; padding: 2px 5px; display: inline-block;">Yes</div> | |
| 4 | Check the ground line of left rear middle turn signal for open circuit. |



1. Measure the resistance between the harness connector of left middle combination tail light YK19(A)–1 and the ground.

| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| YK19(A)– 1 | Ground | Through- out | Lower than 1 Ω |

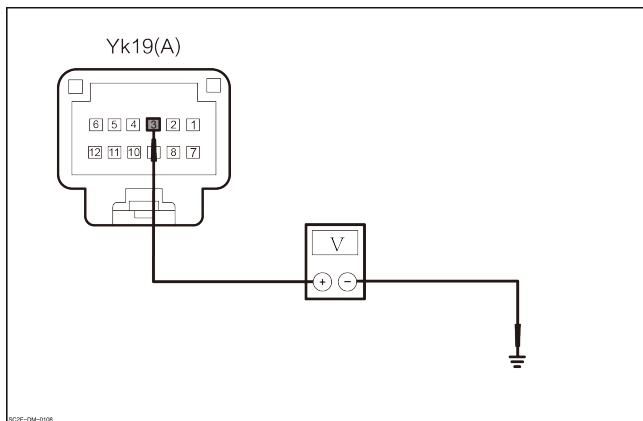
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check the left rear middle turn signal power supply.



1. Set the START/STOP button to “ON” .
2. Turn on the left rear middle turn signal.
3. Measure the voltage between the harness connector of left middle combination tail light YK19(A)–3 and the ground.

| Connector | | Condition | Voltage value |
|---------------|--------|-----------------|------------------|
| (+) | (-) | | |
| YK19(A)– 3 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes

Replace the left middle combination tail light.

No

6 Check the harness connector of left body control module.

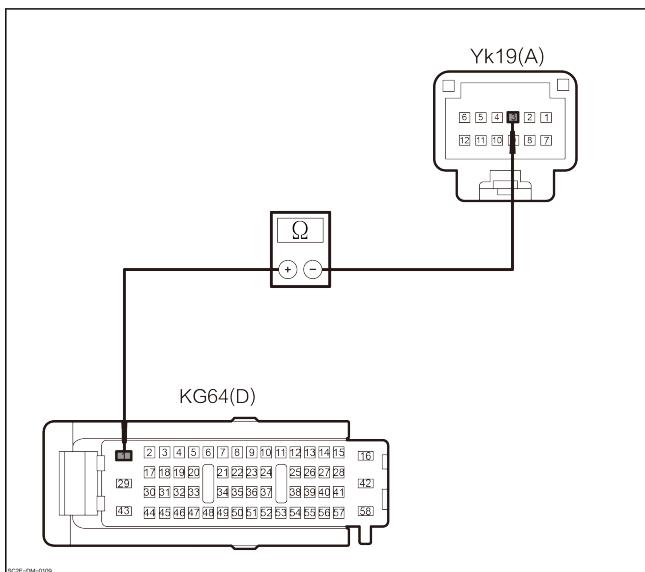
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(D).
3. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

7 Check the power line of left rear middle turn signal for open circuit.



1. Measure the resistance between the harness connector of left middle combination tail light YK19(A)-3 and the harness connector of left body control module KG64(D)-1.

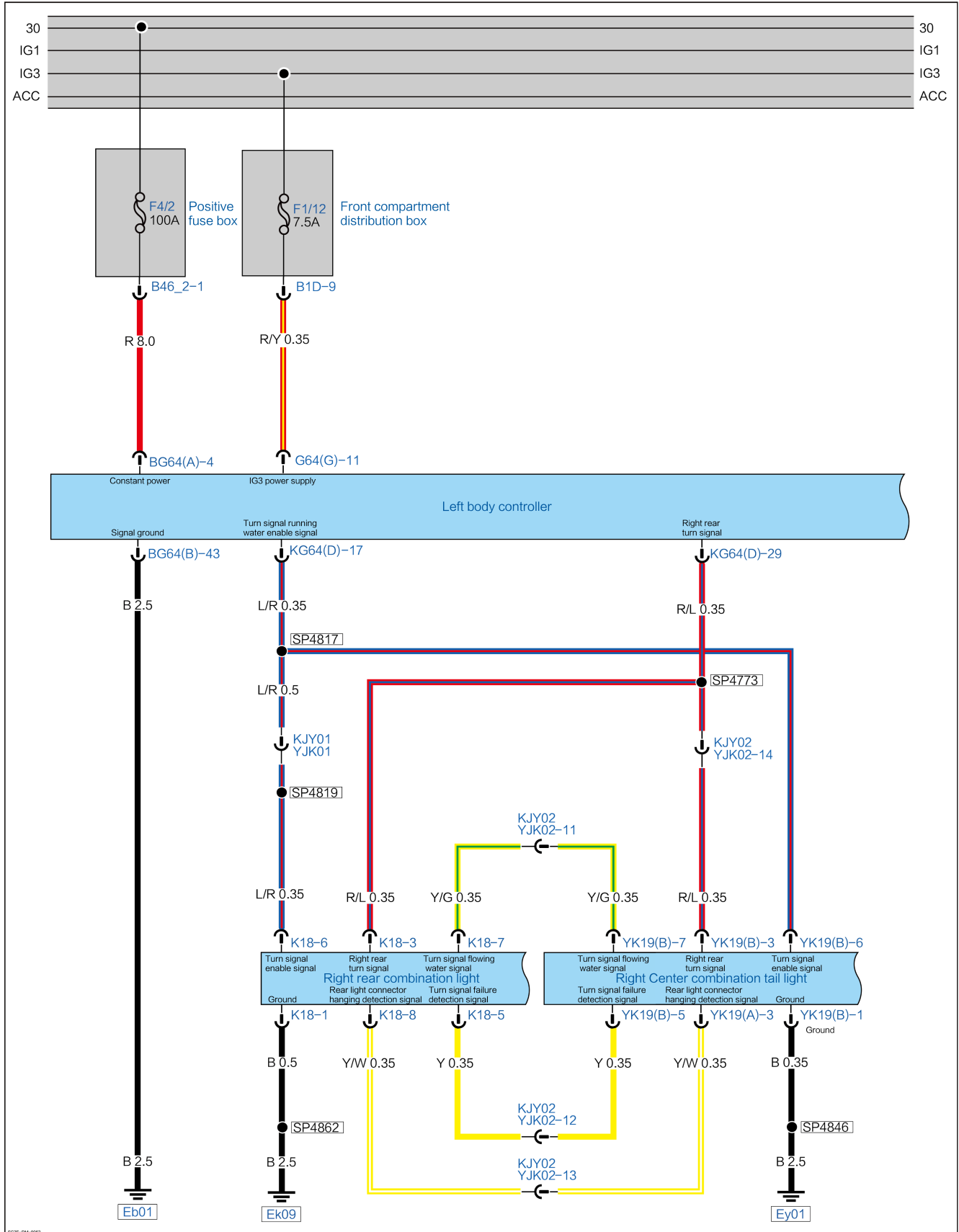
| Connector | | Condition | Resist- ance value |
|---------------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| YK19(A)- 3 | KG64(D) -1 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

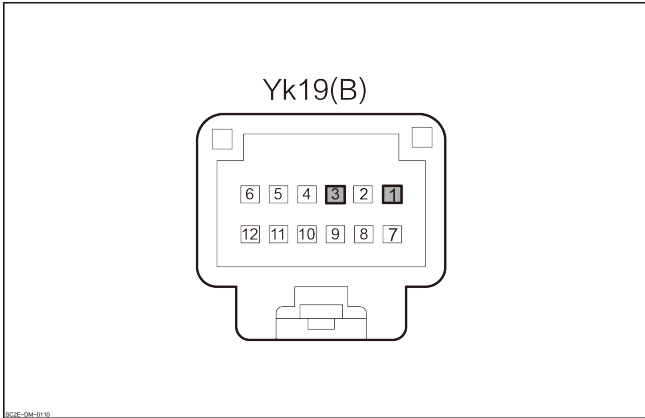
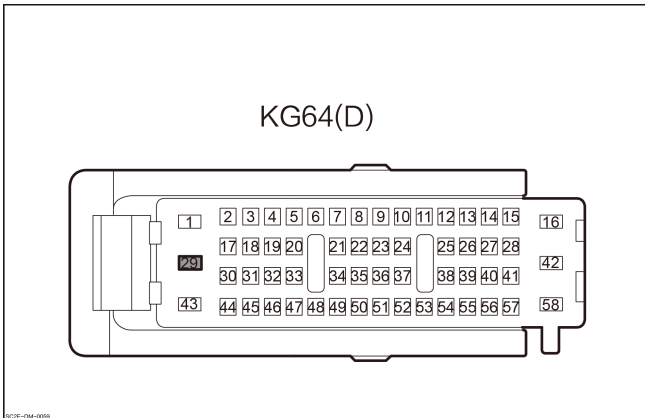
| | |
|-----|---------------------------------------|
| No | Repair or replace the wire harness |
| Yes | Replace the left body control module. |

Right Rear Middle Turn Signal Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|---------------------------------------|---|
| <p style="text-align: center;">Right Center combination tail light</p> <div style="text-align: center;">  <p>Yk19(B)</p> </div> <p><small>809E-04-0110</small></p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Ground</p> |
| | <p style="text-align: center;">3</p> | <p style="text-align: center;">Right rear middle turn signal power supply</p> |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p>KG64(D)</p> </div> <p><small>809E-04-0099</small></p> | <p style="text-align: center;">29</p> | <p style="text-align: center;">Rear turn signal power supply</p> |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the combination switch passes the network detection?

No

Diagnose “Fail to Communicate With Combination Switch ”

Yes

| | |
|---|--|
| 2 | Use a VDS to actively control the right rear middle turn signal. |
|---|--|

1. Actively control and turn on the right rear middle turn signal.
2. Can the right rear middle turn signal be turned on?

Yes

Replace the combination switch.

No

| | |
|---|---|
| 3 | Check the harness connector of right middle combination tail light. |
|---|---|

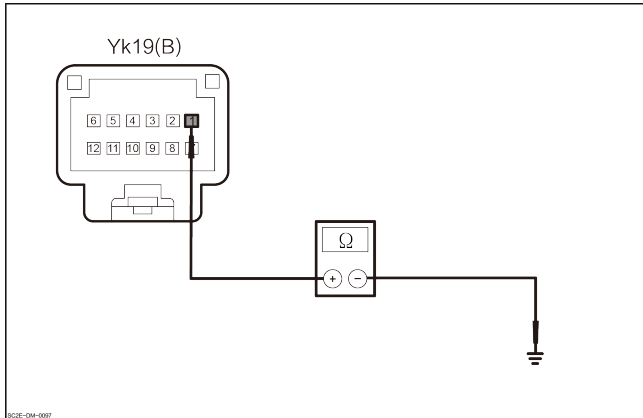
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right middle combination tail light YK19(B).
3. Check the harness connector of right middle combination tail light for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the ground line of right rear middle turn signal for open circuit. |
|---|--|



1. Measure the resistance between the harness connector of right middle combination tail light YK19(B)-1 and the ground.

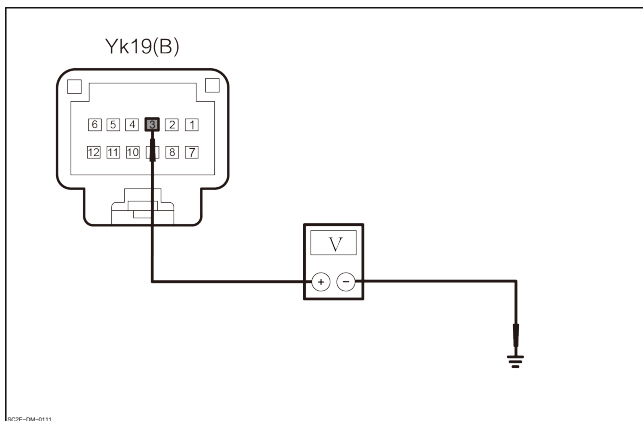
| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| YK19(B)- 1 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the right rear middle turn signal power supply.



1. Set the START/STOP button to “ON” .
2. Turn on the right rear middle turn signal.
3. Measure the voltage between the harness connector of right middle combination tail light YK19(B)-3 and the ground.

| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| YK19(B)- 3 | Ground | Through- out | Lower than 1 Ω |

4. Check whether the results are normal.

Yes → Replace the right middle combination tail light.

No

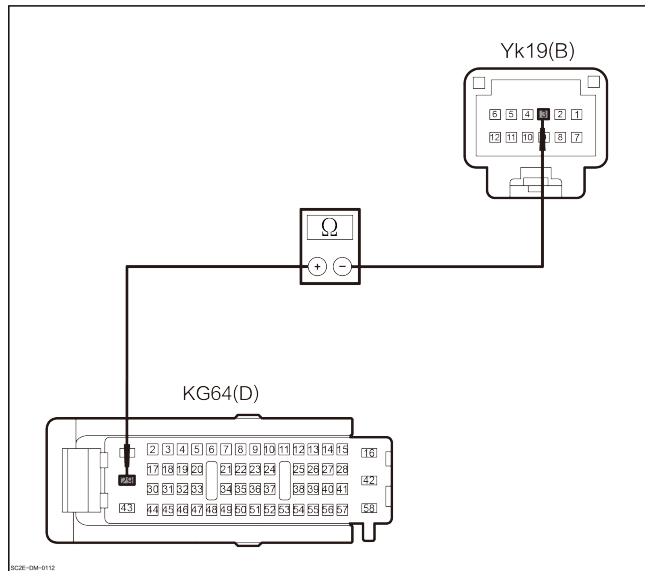
6 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(D).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

7 Check the power line of right rear middle turn signal for open circuit.



1. Measure the resistance between the harness connector of right middle combination tail light YK19(B)-3 and the harness connector of left body control module KG64(D)-29.

| Connector | | Condition | Resist- ance value |
|---------------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| YK19(B)- 3 | KG64(D) -29 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

- No → Repair or replace the wire harness
- Yes → Replace the left body control module.

High-mount Brake Light

Diagnosis Description

Introduction

Before fault diagnosis for high-mount stop light, understand and get familiar with the working principle of the high-mount stop light, and then start diagnosis for high-mount stop light, so as to be helpful to confirm the correct fault diagnosis procedure in the event of a failure and, more importantly, to confirm whether the operating condition described by the customer is normal. Any fault diagnosis of the high-mount stop light should start with inspection of the high brake light to guide the maintenance technician to take the next logical step for the fault diagnosis.

General equipment

- Multimeter
- VDS

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Diagnosis of General Faults

Visual Inspection

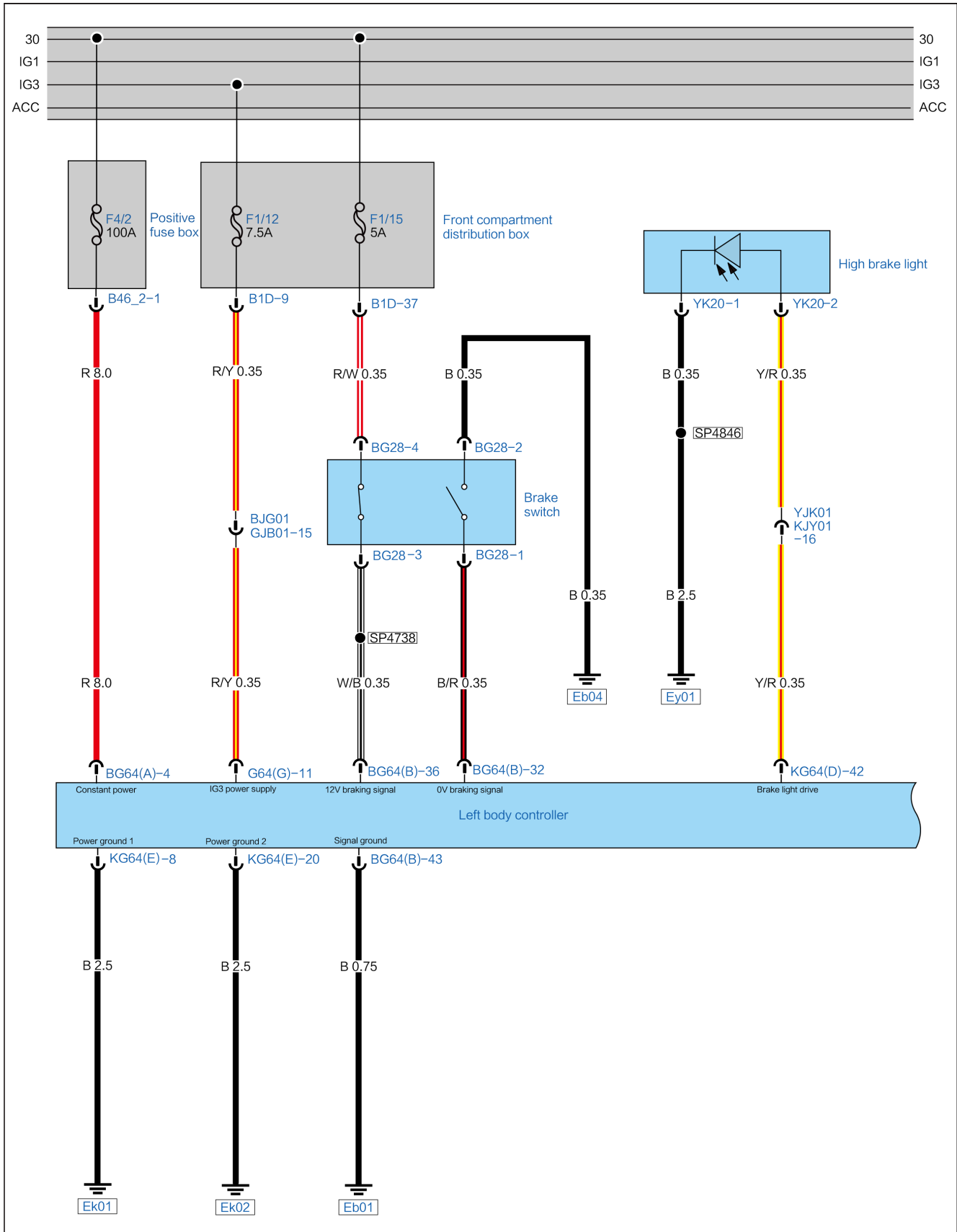
1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

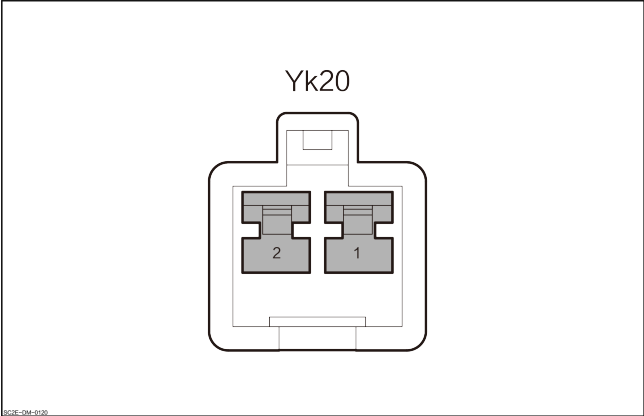
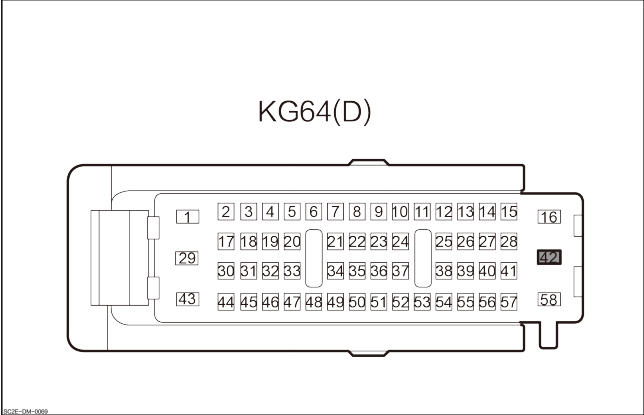
| Symptom | Possible cause | Suggested maintenance measures |
|------------------------------------|---|------------------------------------|
| High-mount Brake Light Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Brake switch fault. 3. High-mounted brake lamp fault. 4. The left body control module fails. | High-mount Brake Light Not Working |
| Brake light switch fault | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Brake switch fault. 3. The left body control module fails. | Brake light switch fault |

High-mount Brake Light Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p style="text-align: center;">High-mount Brake Light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">Yk20</p> </div> <p><small>82E-04-090</small></p> | 1 | Power supply of high-mounted brake lamp |
| | 2 | Ground |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">KG64(D)</p> </div> <p><small>82E-04-090</small></p> | 42 | Brake Light Power Supply |

Diagnostic Steps

1 Use VDS to actively control the high-mount stop lights.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Actively control the high-mount stop lights.
4. Whether the high-mounted brake lamp can be lit.

Yes → Diagnosis brake switch fault.

No

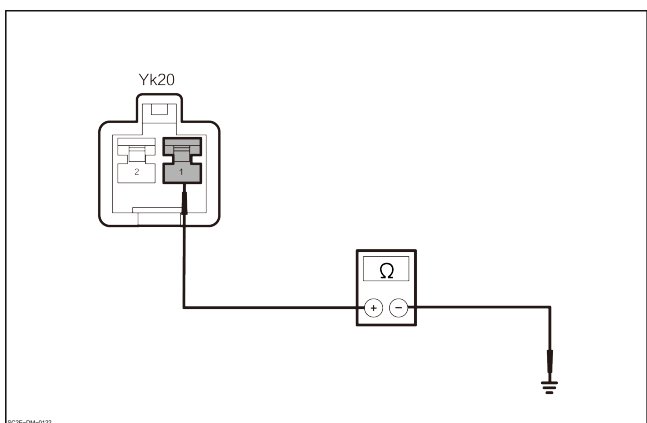
2 Check the high-mounted brake lamp harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the high-mounted brake lamp harness connector Yk20.
3. Check whether the high-mounted brake lamp harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check the high-mount stop light ground line for open circuit.



1. Measure the resistance value between the high-mount stop light harness connector Yk20-1 and the ground.

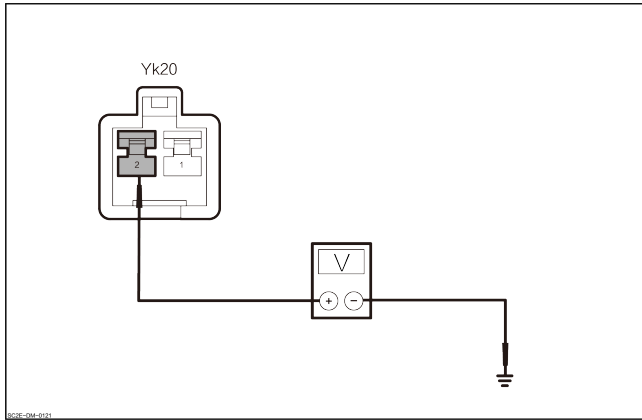
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| Yk20-1 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the power supply of high-mounted brake lamp.



1. Set the START/STOP button to “ON” .
2. Press down the brake pedal.
3. Measure the voltage value between the high-mount stop light harness connector Yk20-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| Yk20-2 | Ground | Through-out | 11~14V |

4. Check whether the results are normal.

Yes → Replace the high-mounted brake lamp.

No

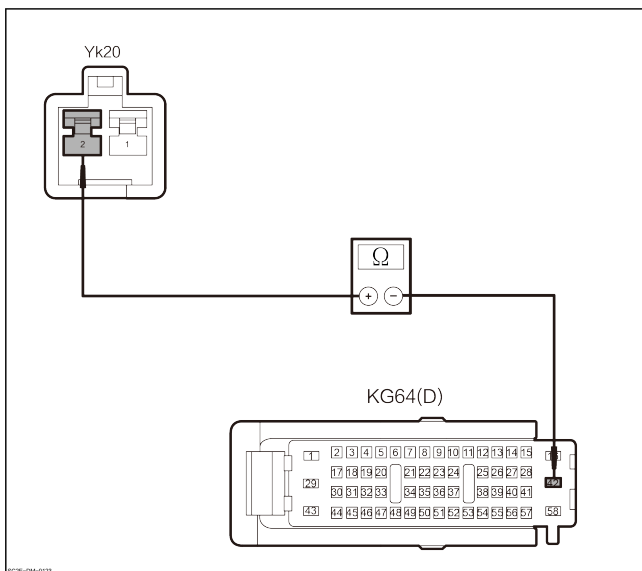
5 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(D).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the high-mount stop light power supply line for open circuit.



1. Measure the resistance between the harness connector of high-mount stop light YK20-1 and the harness connector of left body control module KG64(D)-42.

| Connector | | Condition | Resistance value |
|-----------|------------|-------------|------------------|
| (+) | (-) | | |
| Yk20-1 | KG64(D)-42 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

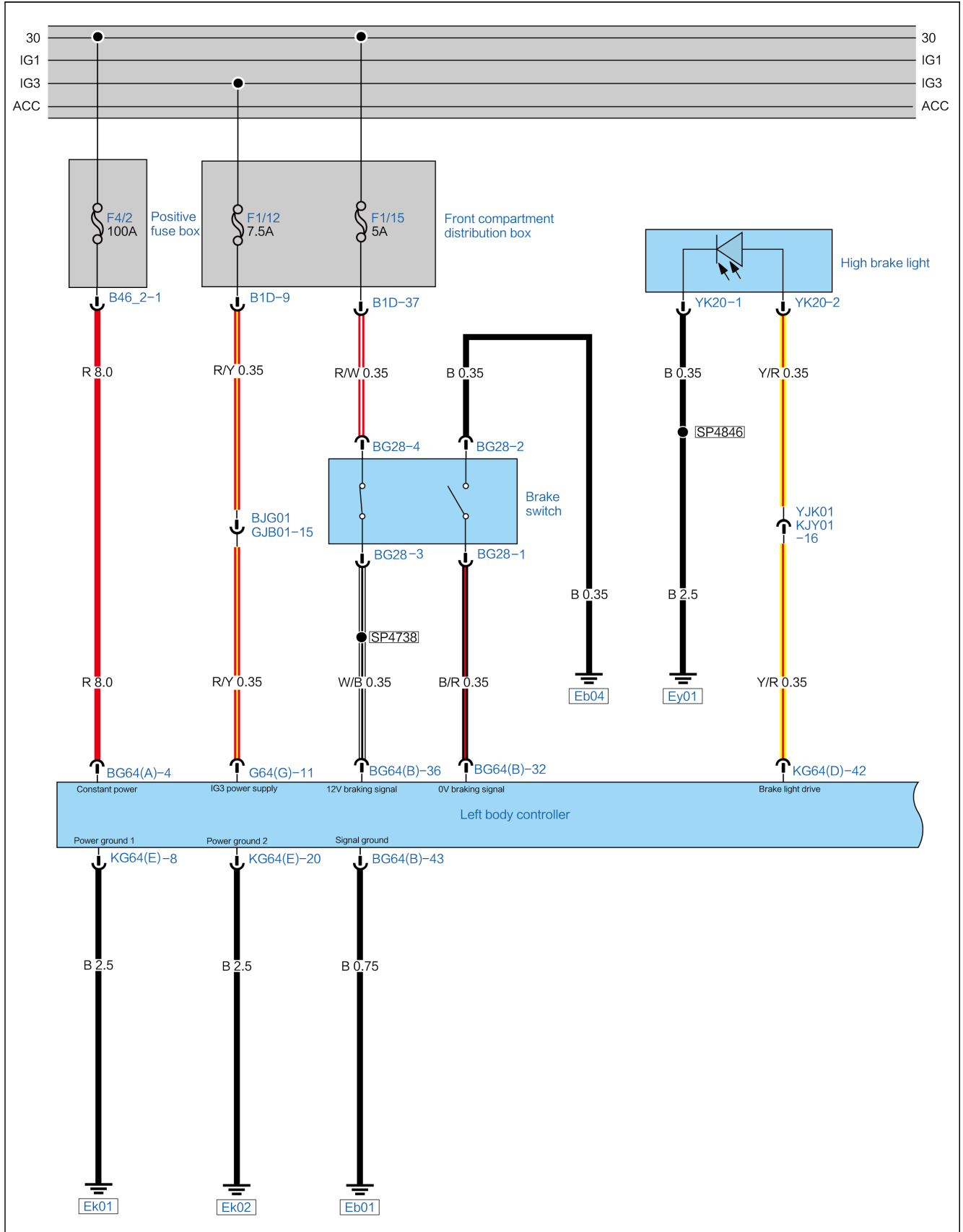
No → Repair or replace the wire harness

Yes

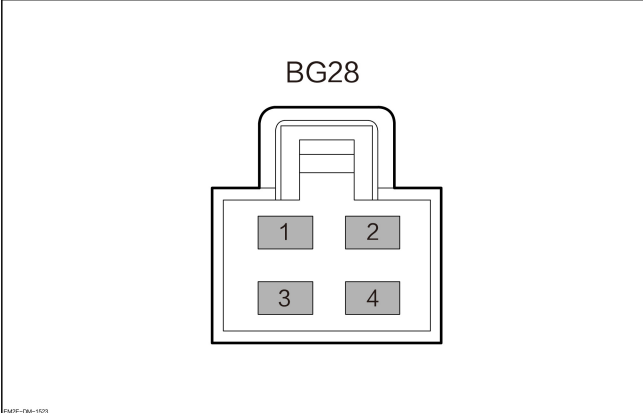
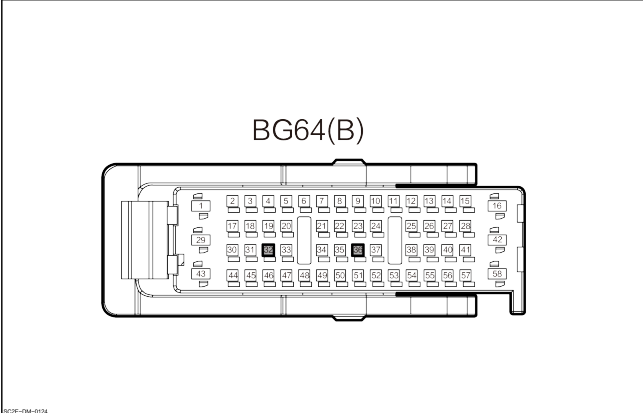
Replace the left body control module.

Brake switch fault

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|------------------------------|
| <p style="text-align: center;">High-mount Brake Light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">BG28</p> </div> <p style="font-size: small; margin-top: 10px;">EMSC-DM-103</p> | 1 | 0V braking signal |
| | 2 | Ground |
| | 3 | 12V braking signal |
| | 4 | Power supply of brake switch |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">BG64(B)</p> </div> <p style="font-size: small; margin-top: 10px;">EMSC-DM-013</p> | 32 | 0V braking signal |
| | 36 | 12V braking signal |

Diagnostic Steps

| | |
|---|------------------------------|
| 1 | Check the brake switch fuse. |
|---|------------------------------|

1. Check whether the front compartment fuse box fuse F1/15 (5 A) is normal.

No

Replace the fuse

No

| | |
|---|---|
| 2 | Check the brake switch harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of brake switch BG28.
3. Check whether the brake switch harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|-------------------------|
| 3 | Check the brake switch. |
|---|-------------------------|

1. Measure the resistance value between the brake switch pins.

| Plug | | Condition | Resist- ance value |
|------|-----|----------------------------|--------------------------|
| (+) | (-) | | |
| 1 | 2 | The switch is not pressed. | Above 10K Ω |
| 1 | 2 | The switch is pressed. | Lower than 1 Ω |
| 3 | 4 | The switch is not pressed. | Lower than 1 Ω |
| 3 | 4 | The switch is pressed. | Above 10K Ω |

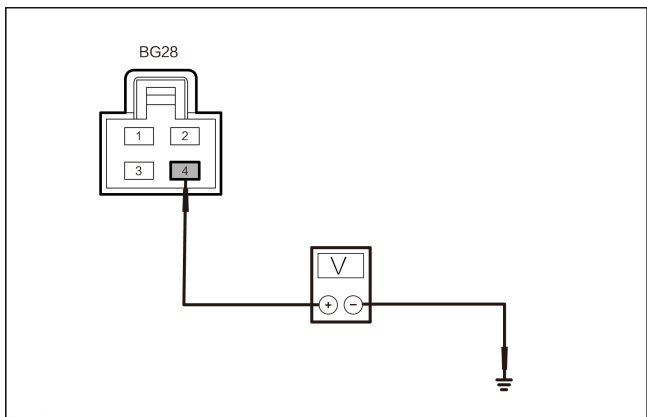
2. Check whether the results are normal.

No

Replace the brake switch.

Yes

4 Check the power supply of brake switch.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the brake switch harness connector BG28-4 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG28-4 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes Go to step 6

Yes

5 Check whether the brake switch power line is open circuited.

1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1D.
3. Measure the resistance value between the brake switch harness connector BG28-4 and the front compartment fuse box harness connector B1D-37.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-------------|--------------------------|
| (+) | (-) | | |
| BG28-4 | B1D-37 | Through-out | Lower than 1Ω |

4. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the front compartment fuse box.

6 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .

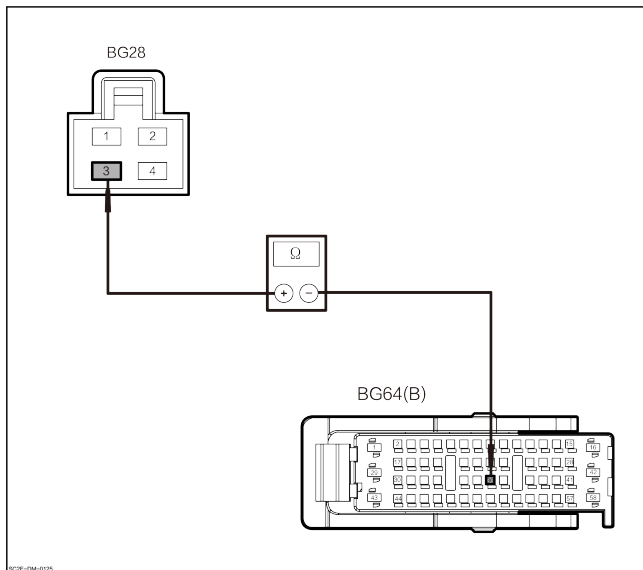
2. Disconnect the harness connector of left body control module BG64(B).
3. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

7 Check the 12V brake signal line of brake switch for open circuit.



1. Measure the resistance between the harness connector of brake switch BG28-3 and the harness connector of left body control module BG64(B)-36.

| Connector | | Condition | Resist- ance value |
|-----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| BG28-3 | BG64(B)-36 | Through- out | Lower than 1 Ω |

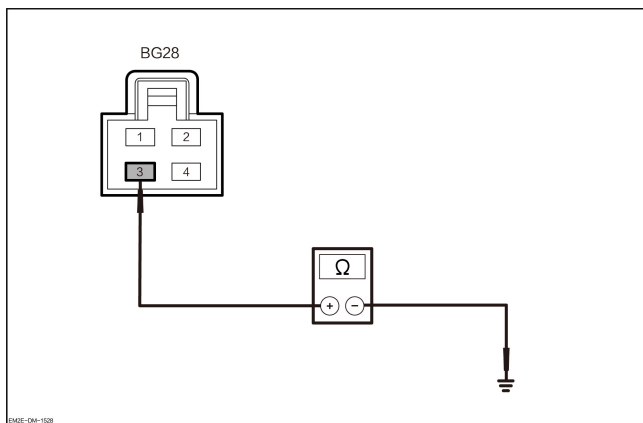
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

8 Check the brake switch 12 V brake signal line for short circuit to ground.



1. Measure the resistance value between the brake switch harness connector BG28-3 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG28-3 | Ground | Through- out | Above 10K Ω |

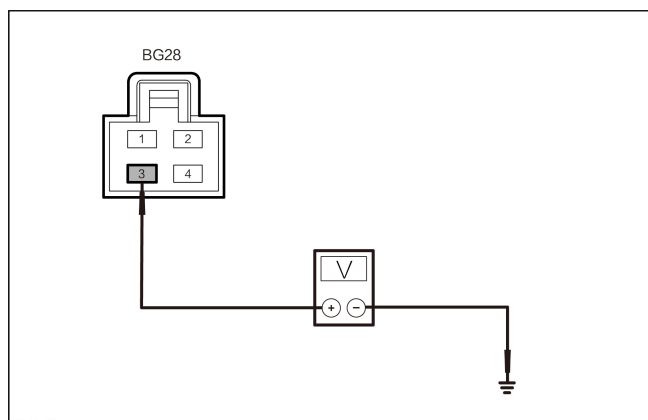
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

9 Check the brake switch 12V brake signal line for short circuit to the power supply.



1. Measure the voltage value between the brake switch harness connector BG28-3 and the ground.

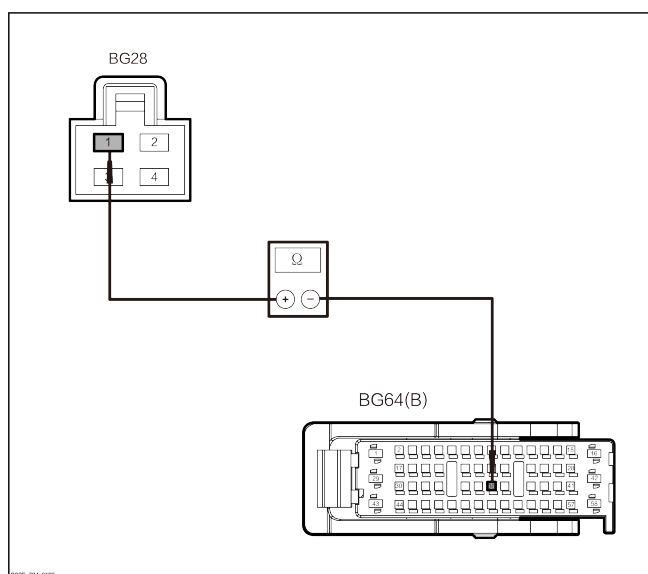
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG28-3 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

10 Check the brake switch 0 V brake signal line for open circuit.



1. Measure the resistance between the harness connector of brake switch BG28-1 and the harness connector of left body control module BG64(B)-32.

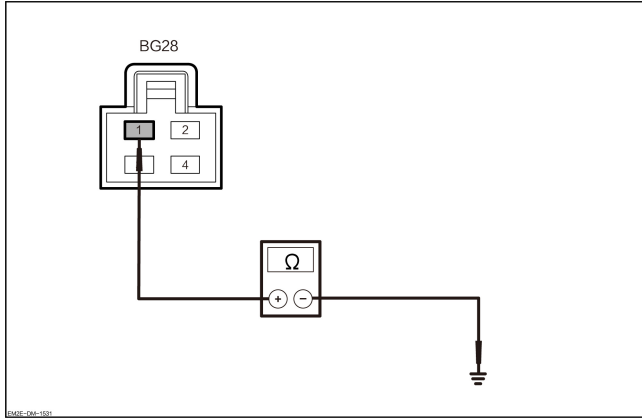
| Connector | | Condition | Resistance value |
|-----------|------------|-------------|------------------|
| (+) | (-) | | |
| BG28-1 | BG64(B)-32 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

11 12 Check the 12V brake signal line of brake switch for short to ground.



1. Measure the resistance value between the brake switch harness connector BG28-1 and the ground.

| Plug | | Condition | Resistance value |
|--------|--------|-------------|------------------|
| (+) | (-) | | |
| BG28-1 | Ground | Through-out | Above 10K Ω |

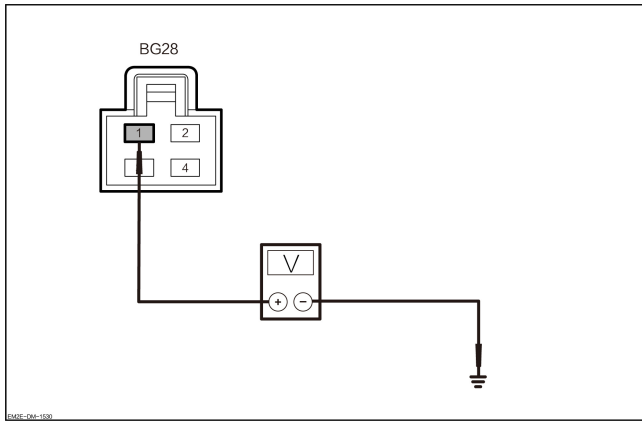
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

12 Check the brake switch 12V brake signal line for short circuit to the power supply.



1. Measure the voltage value between the brake switch harness connector BG28-1 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG28-1 | Ground | Through-out | Less than 1V |

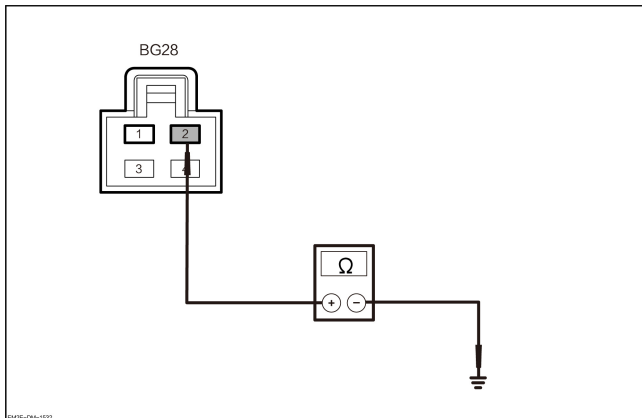
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

13 Check whether the brake switch ground circuit is open circuited.



1. Measure the resistance value between the brake switch harness connector BG28-2 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| BG28-2 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

| | |
|-----|---------------------------------------|
| No | Repair or replace the wire harness |
| Yes | Replace the left body control module. |

Rear fog light

Diagnosis Description

Introduction

For the diagnosis of rear fog light fault, make sure to understand and get familiar with the working principle of the rear fog light before carrying out the diagnosis, this may help determining the correct fault diagnosis procedures, and help determining whether the condition described by customers belongs to the normal operation. Any diagnosis of the rear fog light shall start with the inspection of rear fog light, which serves as a basis to guide the maintenance personnel taking the next logic step for fault diagnosis.

General equipment

- Multimeter
- VDS

Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Diagnosis of General Faults

Visual Inspection

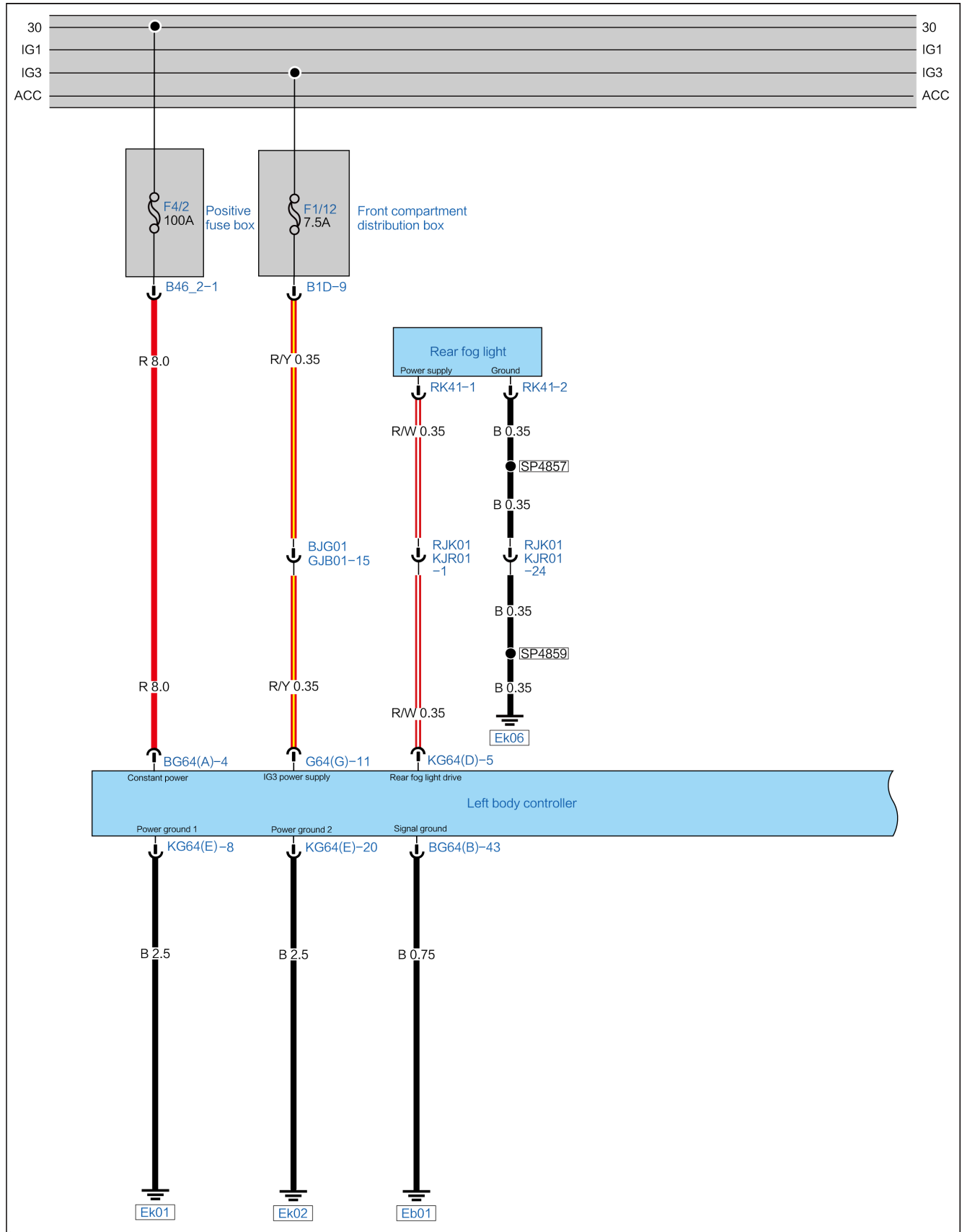
1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

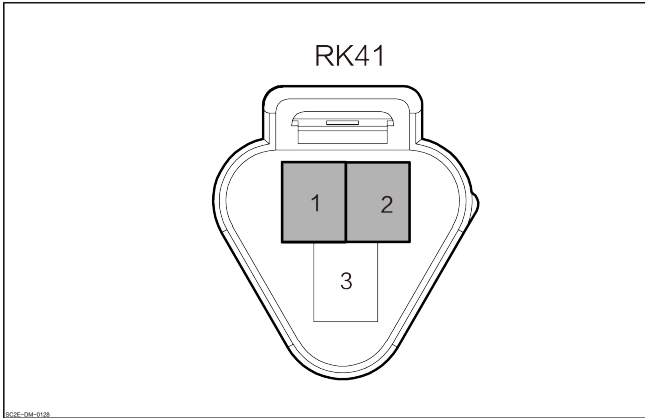
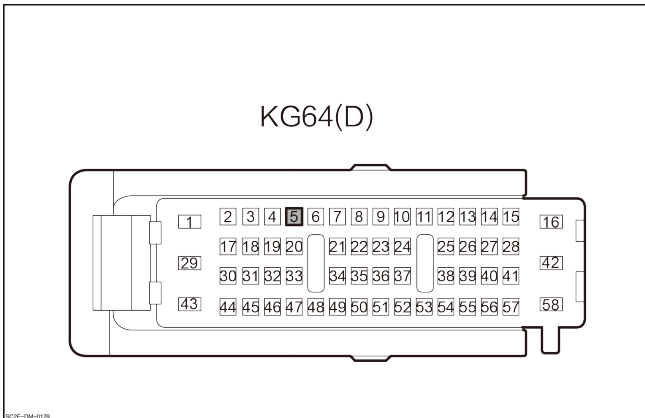
| Symptom | Possible cause | Suggested maintenance measures |
|----------------------------|---|--|
| Rear fog light not working | <ol style="list-style-type: none">1. Harness or connector fault.2. Rear fog lamp fault.3. The left body control module fails. | Rear fog light not working |

Rear Fog Light Not working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|--------------------------------------|--|
| <p style="text-align: center;">Rear fog light</p>  <p style="text-align: center;">RK41</p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Rear fog light power supply</p> |
| <p style="text-align: center;">Left body control module</p>  <p style="text-align: center;">KG64(D)</p> | <p style="text-align: center;">5</p> | <p style="text-align: center;">Rear fog light power supply</p> |

Diagnostic Steps

1 Check the communication network.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the combination switch passes the network detection?

No → After diagnosis, the combination switch could not communicate.

Yes

2 Use VDS to actively control the rear fog light.

1. Actively control the rear fog lamp to go on.
2. Whether the rear fog lamp can be lit.

Yes → Replace the combination switch.

No

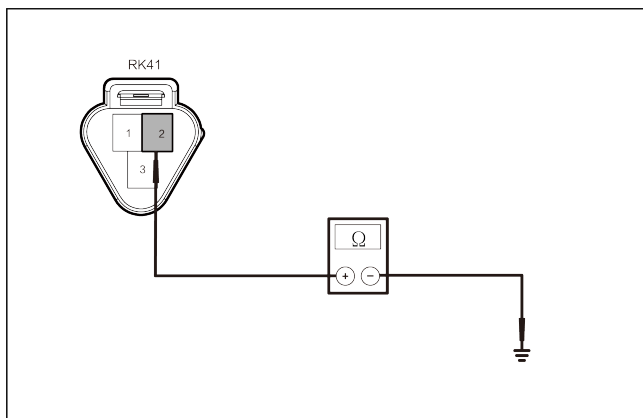
3 Check the harness connector of rear fog light.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of rear fog light RK41.
3. Check the harness connector of rear fog light for normal function.

No → Repair or replace the wire harness

Yes

4 Check the grounding line of the rear fog light for open circuit.



1. Measure the resistance between the harness connector of rear fog light RK41-2 and the ground.

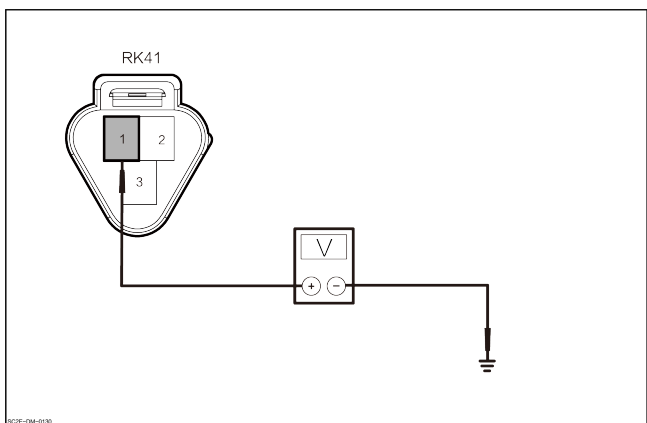
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| RK41-2 | Ground | Through- out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the power supply of rear fog lamp.



1. Set the START/STOP button to “ON” .
2. Open rear fog lamps
3. Measure the voltage between the harness connector of rear fog light RK41-1 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| RK41-1 | Ground | Through-out | 11~14V |

4. Check whether the results are normal.

Yes → Replace the rear fog lamp

No

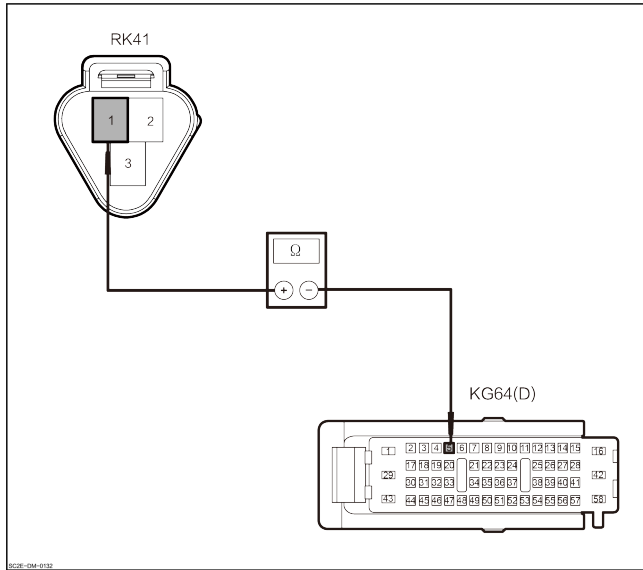
6 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(J).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

7 Check the rear fog light power supply line for open circuit.



1. Measure the resistance between the harness connector of rear fog light RK41-1 and the harness connector of left body control module KG64(D)-5.

| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| RK41-1 | KG64(D) -5 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

| | |
|-----|---------------------------------------|
| No | Repair or replace the wire harness |
| Yes | Replace the left body control module. |

Side Marker Light

Diagnosis Description

Introduction

Before fault diagnosis for license plate light, understand and get familiar with the working principle of the license plate light, and then start diagnosis for the license plate light, so as to be helpful to confirm the correct fault diagnosis procedure in the event of a fault and, more importantly, to confirm whether operating condition described by the customer is normal. Any fault diagnosis of the license plate light should start with the inspection of the license plate light to guide the maintenance technician to take the next logical step for fault diagnosis.

General equipment

- Multimeter
- VDS

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Diagnosis of General Faults

Visual Inspection

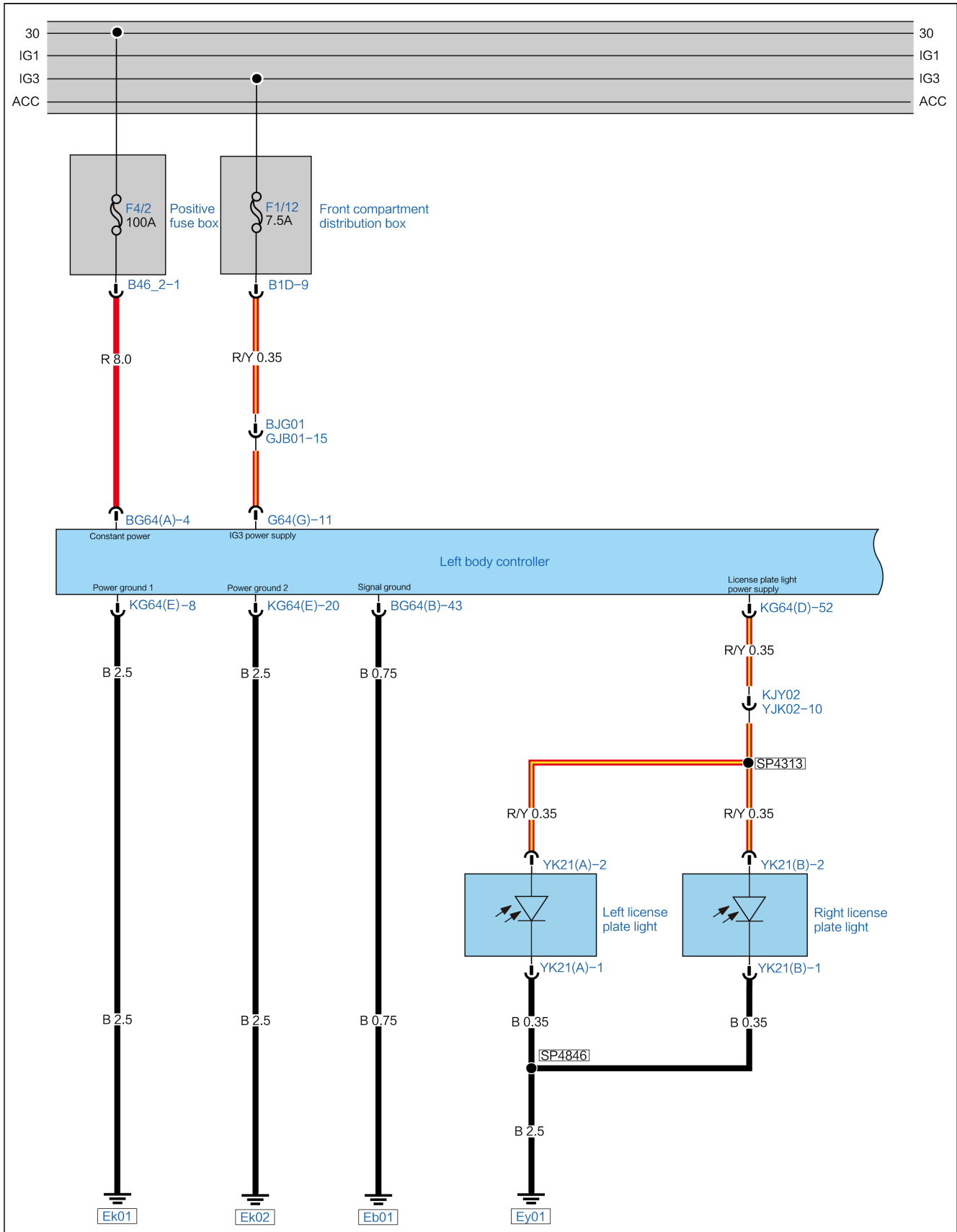
1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

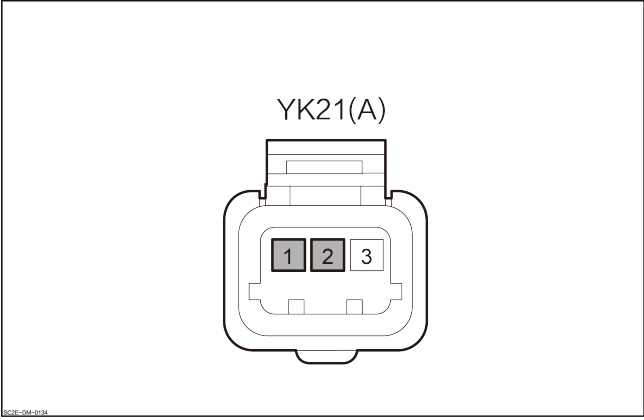
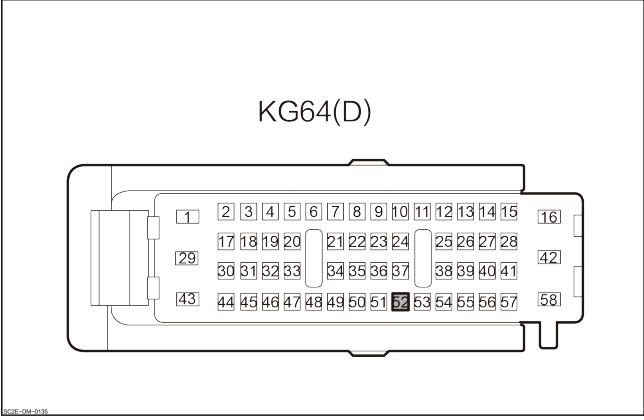
| Symptom | Possible cause | Suggested maintenance measures |
|---------------------------------------|---|---|
| Left License Plate Light Not Working | <ol style="list-style-type: none">1. Harness or connector fault.2. Multi-function switch fault3. Left license plate lamp fault.4. The left body control module fails. | Left License Plate Light Not Working |
| Right License Plate Light Not Working | <ol style="list-style-type: none">1. Harness or connector fault.2. Multi-function switch fault3. Right license plate lamp fault.4. The left body control module fails. | Right License Plate Light Not Working |

Left License Plate Light Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p style="text-align: center;">Left license plate light</p> <div style="text-align: center;">  <p>YK21(A)</p> </div> | 1 | Ground |
| | 2 | Power supply of left license plate lamp |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p>KG64(D)</p> </div> | 52 | Power supply of left license plate lamp |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the combination switch passes the network detection?

No

After diagnosis, the combination switch could not communicate.

Yes

| | |
|---|---|
| 2 | Use VDS to actively control the left license plate light. |
|---|---|

1. Actively control the left license plate lamp to go on.
2. Whether the left license plate lamp can be lit.

Yes

Replace the combination switch.

No

| | |
|---|--|
| 3 | Check the left license plate lamp harness connector. |
|---|--|

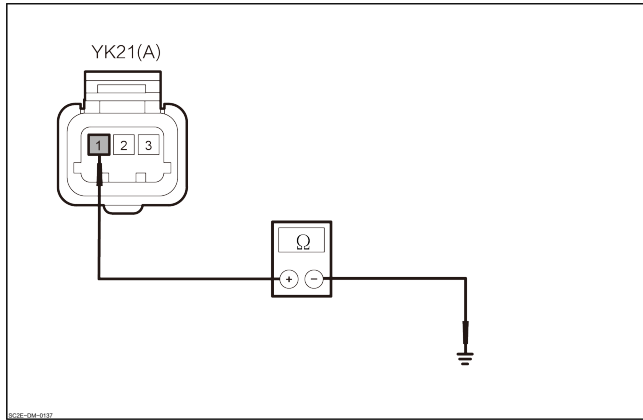
1. Set the START/STOP button to “OFF” .
2. Disconnect the left license plate light harness connector YK21 (A).
3. Check whether the left license plate lamp harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the ground line of the left license plate light for open circuit. |
|---|---|



1. Measure the resistance value between the left license plate light harness connector YK21 (A)-1 and ground.

| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| YK21(A)- 1 | Ground | Through- out | Lower than 1 Ω |

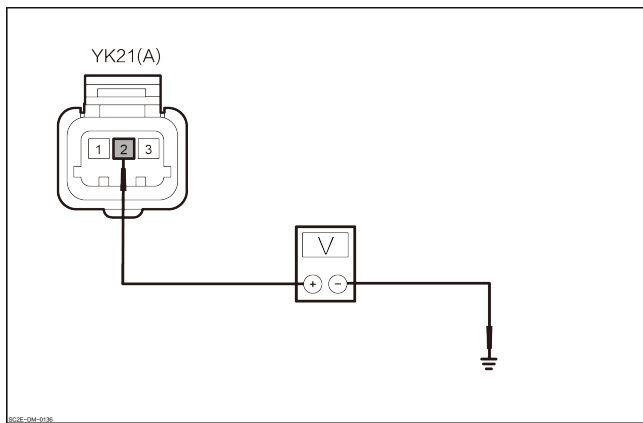
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check the power supply of left license plate lamp.



1. Set the START/STOP button to “ON” .
2. Turn on the left license plate lamp.
3. Measure the voltage value between the left license plate light harness connector YK21 (A)-2 and ground.

| Connector | | Condition | Voltage value |
|---------------|--------|-----------------|------------------|
| (+) | (-) | | |
| YK21(A)- 2 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes

Replace the left license plate lamp.

No

6 Check the harness connector of left body control module.

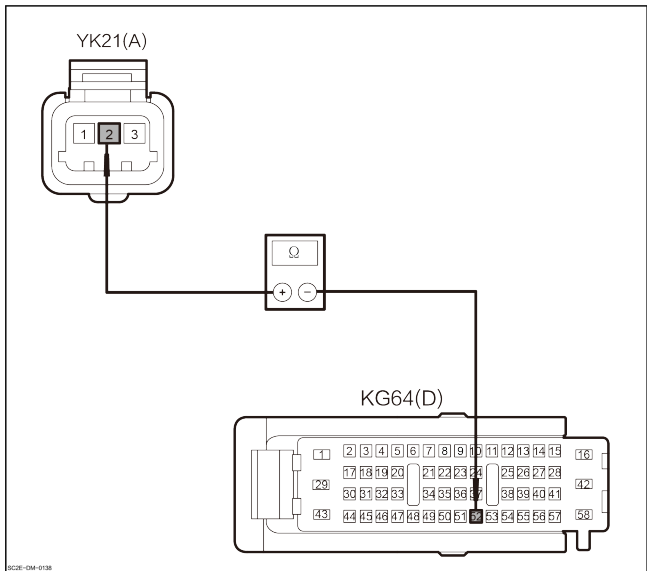
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(D).
3. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

7 Check the power line of left license plate light for open circuit.



1. Measure the resistance between the harness connector of left license plate light YK21(A)-2 and the harness connector of left body control module KG64(D)-52.

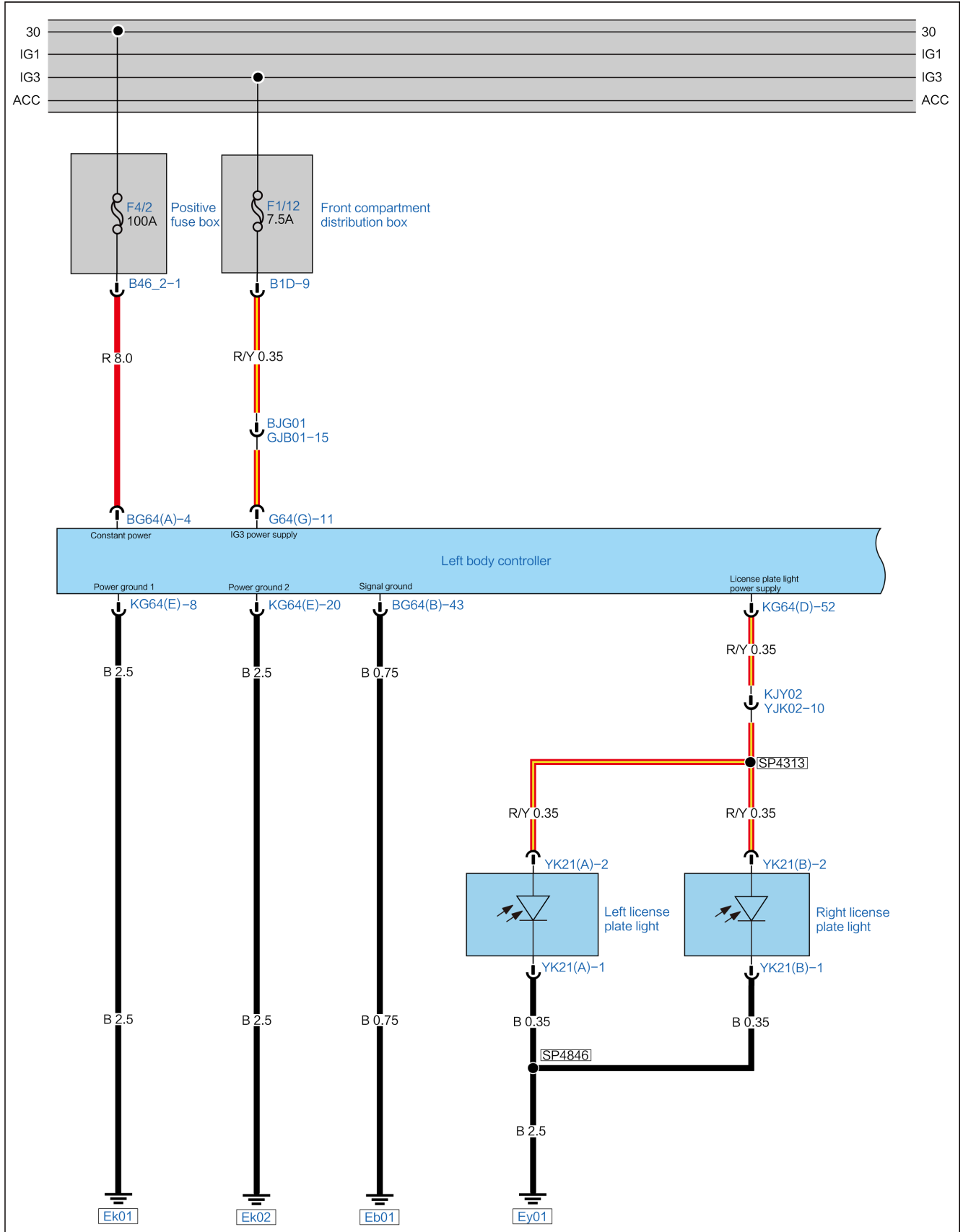
| Connector | | Condition | Voltage value |
|-----------|------------|-------------|----------------|
| (+) | (-) | | |
| YK21(A)-2 | KG64(D)-52 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

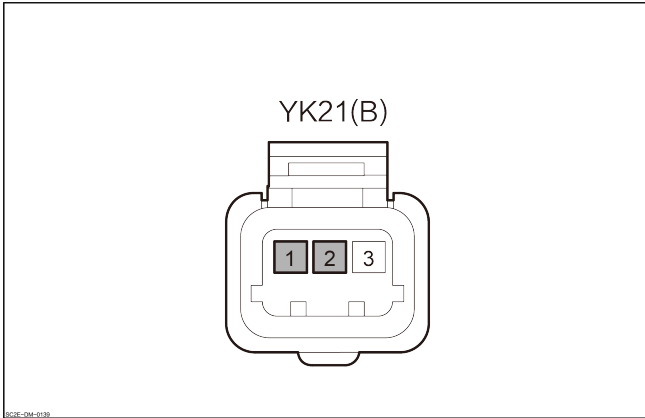
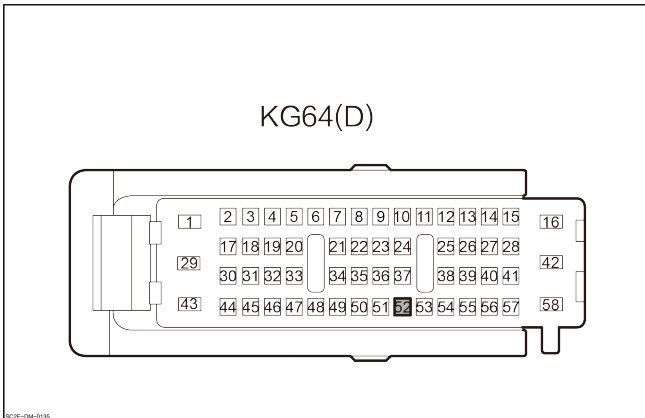
- No** → Repair or replace the wire harness
- Yes** → Replace the left body control module.

Right License Plate Light Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|---|
| <p style="text-align: center;">Right license plate light</p> <div style="text-align: center;">  <p>YK21(B)</p> </div> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Ground</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Power supply of right license plate lamp</p> |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p>KG64(D)</p> </div> | <p style="text-align: center;">52</p> | <p style="text-align: center;">License plate light power supply</p> |

Diagnostic Steps

| | |
|---|----------------------------------|
| 1 | Check the communication network. |
|---|----------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the combination switch passes the network detection?

No

Diagnose “Fail to Communicate With Combination Switch ”

Yes

| | |
|---|--|
| 2 | Use VDS to actively control the right license plate light. |
|---|--|

1. Actively control the right license plate lamp to go on.
2. Whether the right license plate lamp can be lit.

Yes

Replace the combination switch.

No

| | |
|---|---|
| 3 | Check the right license plate lamp harness connector. |
|---|---|

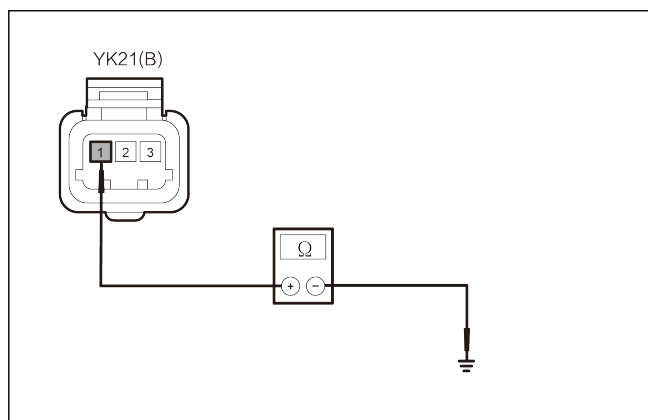
1. Set the START/STOP button to “OFF” .
2. Disconnect the right license plate light harness connector YK21 (B).
3. Check whether the right license plate lamp harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the ground line of the right license plate light for open circuit. |
|---|--|



1. Measure the resistance value between the right license plate light harness connector YK21 (B)–1 and the ground.

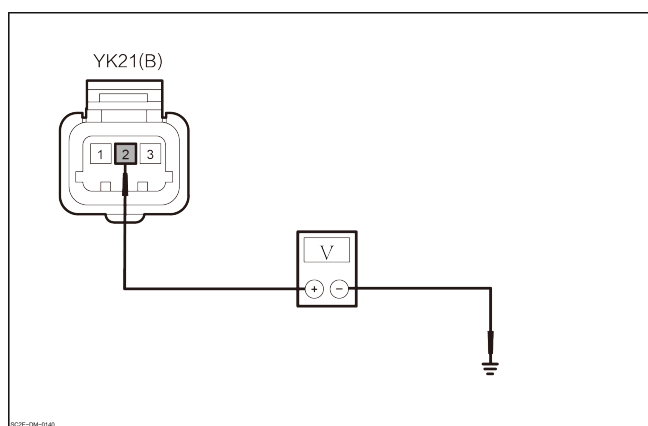
| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| YK21(B)– 1 | Ground | Through- out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the power supply of right license plate lamp.



1. Set the START/STOP button to “ON” .
2. Turn on the right license plate lamp.
3. Measure the voltage value between the right license plate light harness connector YK21(B)–2 and ground.

| Connector | | Condition | Voltage value |
|---------------|--------|-----------------|------------------|
| (+) | (-) | | |
| YK21(B)– 2 | Ground | Through- out | 11~14V |

4. Check whether the results are normal.

Yes → Replace the right license plate lamp.

No

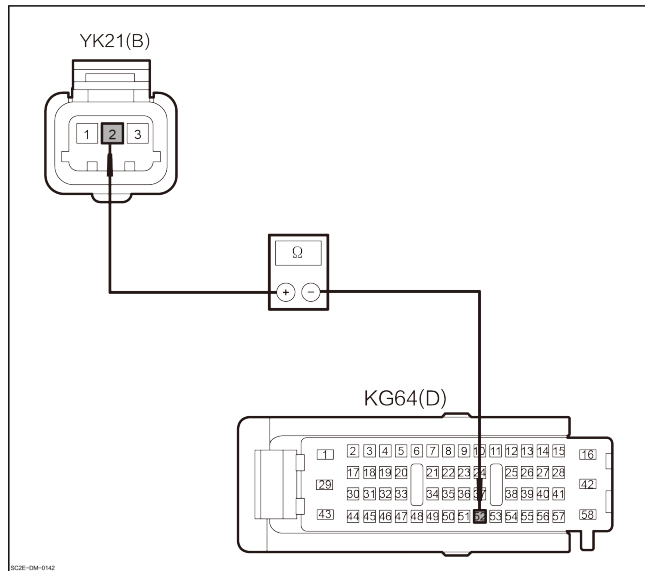
6 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left body control module KG64(D).
3. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

7 Check the right license plate light power supply line for open circuit.



1. Measure the resistance between the harness connector of right license plate light YK21(B)-2 and the harness connector of left body control module KG64(D)-52.

| Connector | | Condition | Resist- ance value |
|---------------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| YK21(B)- 2 | KG64(D) -52 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

- No → Repair or replace the wire harness
- Yes → Replace the left body control module.

Interior Lighting System

Vanity Mirror Light

Diagnosis Description

Before fault diagnosis for the vanity mirror light, understand and get familiar with the working principle of the vanity mirror light, and then start diagnosis for the vanity mirror light, so as to be helpful to confirm the correct fault diagnosis procedure in the event of a fault and, more importantly, to confirm whether the operating condition described by the customer is normal. Any fault diagnosis of vanity mirror light shall start with the inspection of vanity mirror light to guide maintenance technician to take the next logical step for fault diagnosis.

General equipment

- Multimeter

i Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Diagnosis of General Faults

Visual Inspection

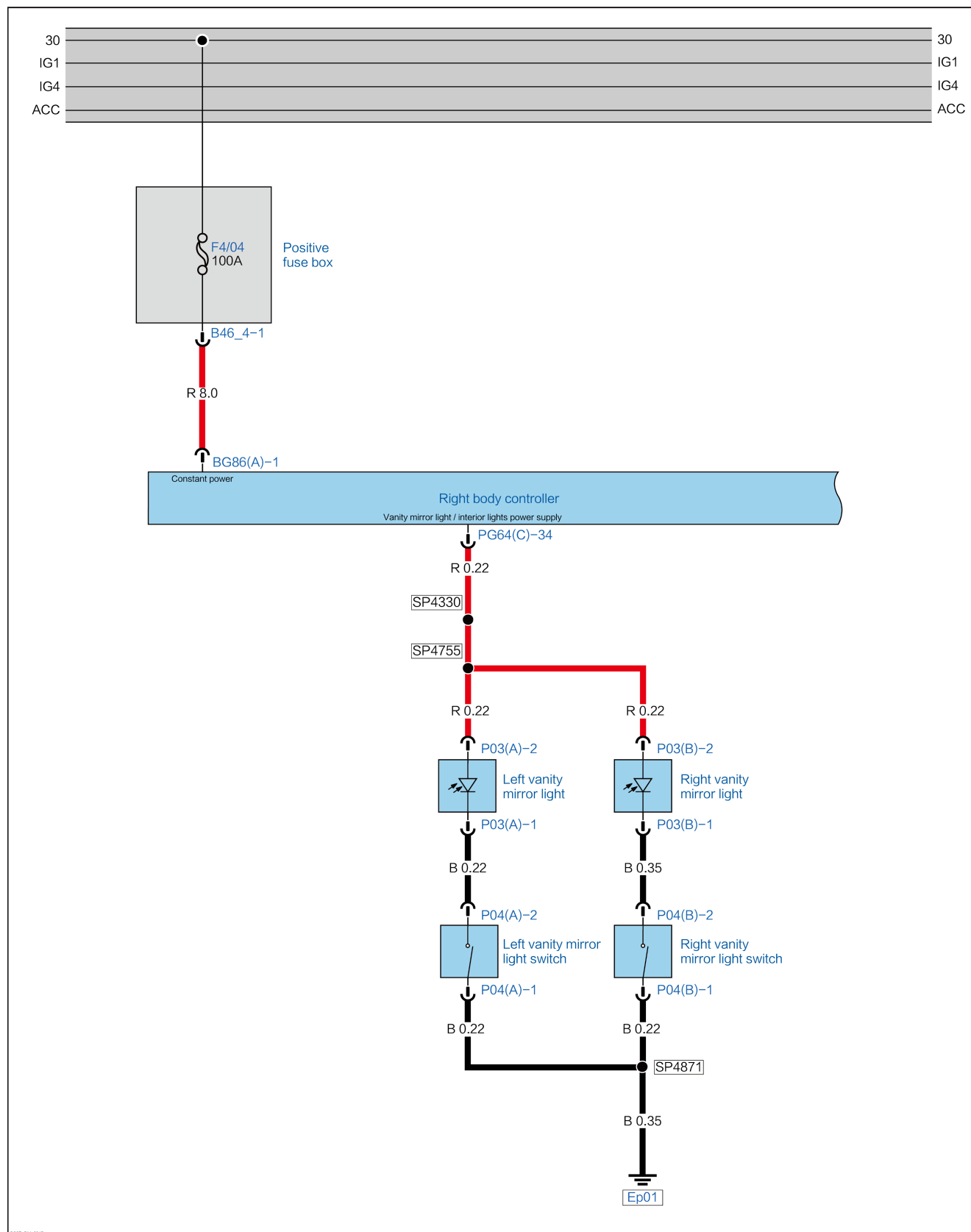
1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

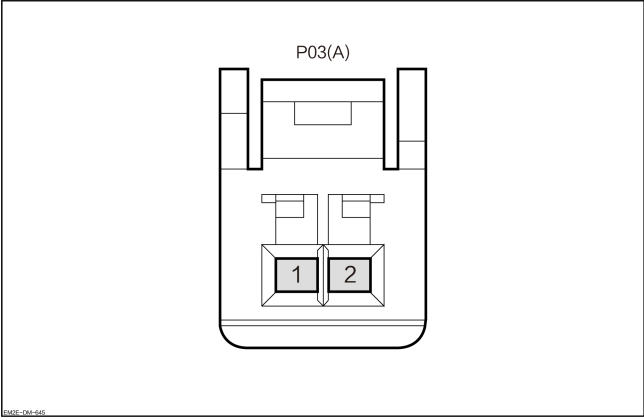
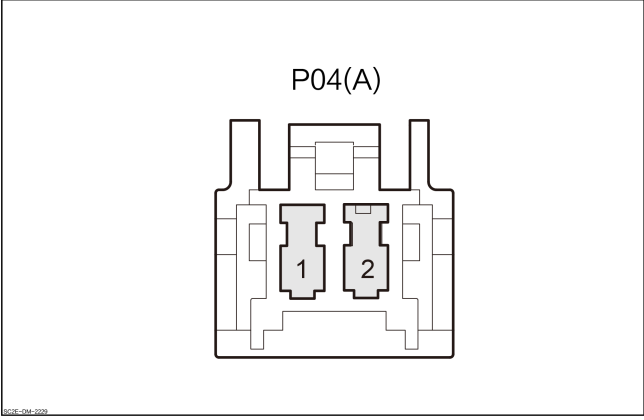
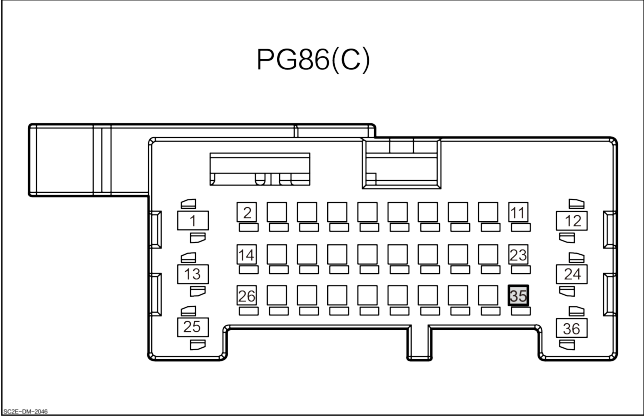
| Symptom | Possible cause | Suggested maintenance measures |
|---------------------------------------|---|---|
| Left Vanity Mirror Light Not Working | <ol style="list-style-type: none"> 1. Left vanity mirror lamp fault. 2. Line fault. 3. Left sun visor switch fault. | Left Vanity Mirror Light Not Working |
| Right Vanity Mirror Light Not Working | <ol style="list-style-type: none"> 1. Right vanity mirror lamp fault. 2. Line fault. 3. Right sun visor switch fault. | Right Vanity Mirror Light Not Working |
| Both Vanity Mirror Lights Not Working | <ol style="list-style-type: none"> 1. Left/right vanity mirror lamp fails to work. 2. Line fault. 3. The left body control module fails. | Both Vanity Mirror Lights Not Working |

Left Vanity Mirror Light Not Working

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|----------------------------|
| <p>Left vanity mirror light</p>  <p>P03(A)</p> <p>B03E-DIM-245</p> | 1 | Ground |
| <p>Left sun visor switch</p>  <p>P04(A)</p> <p>B03E-DIM-222</p> | 1 | / |
| <p>Left body control module</p>  <p>PG86(C)</p> <p>B03E-DIM-205</p> | 35 | Interior lamp power supply |

Diagnostic Steps

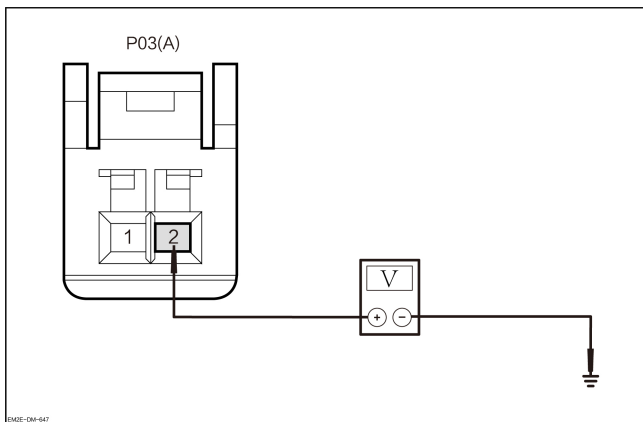
1 Check the left vanity mirror light harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the left vanity mirror light harness connector.
3. Check whether the left vanity mirror light harness connector is normal ?

No → Repair or replace the wire harness

Yes

2 Check the power supply of left vanity mirror lamp.



1. Measure the voltage value between the left vanity mirror light harness connector P03 (A)-2 and ground.

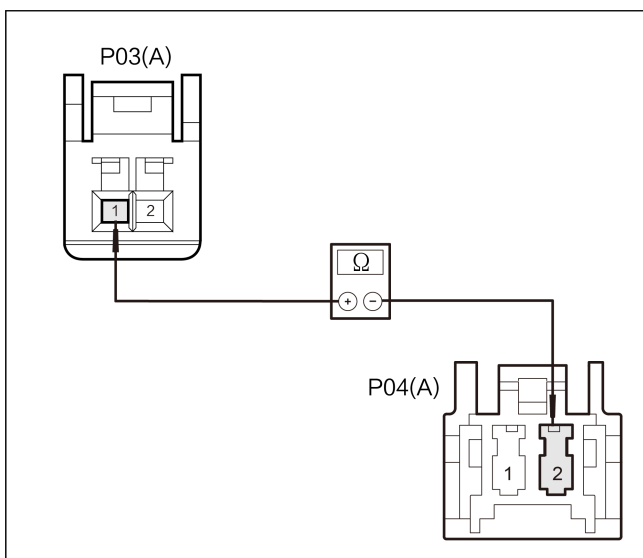
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| P03(A)-2 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

No → [Go to step 6](#)

Yes

3 Check the ground circuit of left vanity mirror lamp.



1. Disconnect the left sun visor switch harness connector P04 (A).
2. Measure the resistance value between the left vanity mirror light harness connector P03 (A) -1 and the left sun visor switch harness connector P04 (A) -2.

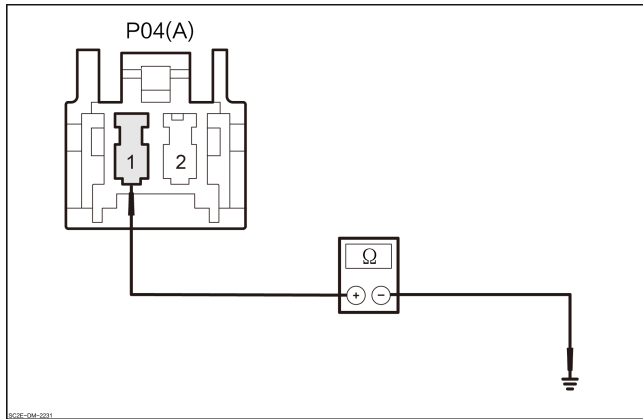
| Connector | | Condition | Resist- ance value |
|-----------|----------|-------------|--------------------------|
| (+) | (-) | | |
| P03(A)-1 | P04(A)-2 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the left sun visor switch ground circuit.



1. Measure the resistance value between the left sun visor switch harness connector P04 (A)-1 and ground.

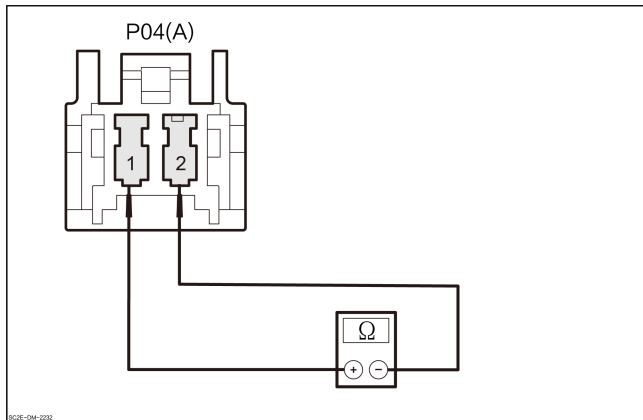
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| P04(A)-1 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the left sun visor switch.



1. Open the trim cover of the sun visor vanity mirror.
2. Measure the resistance between the left sun visor switch connectors P04 (A)-1 and P04 (A)-2.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| P04(A)-1 | P04(A)-2 | Through- out | Lower than 1 Ω |

3. Check whether the results are normal.

No → Replace the left sun visor.

Yes → Replace the left vanity mirror lamp.

6 Check the harness connector of right body control module.

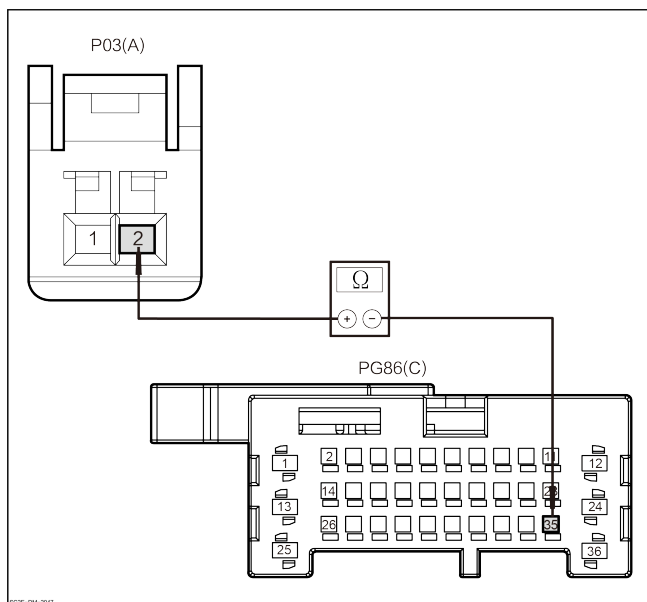
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module.

3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

7 Check the left vanity mirror light power supply line for open circuit.



1. Measure the resistance between the harness connector of left vanity mirror light P03(A)-2 and the harness connector of right body control module PG86(C)-35.

| Connector | | Condition | Resistance value |
|-----------|------------|-------------|------------------|
| (+) | (-) | | |
| P03(A)-2 | PG86(C)-35 | Through-out | Lower than 1 Ω |

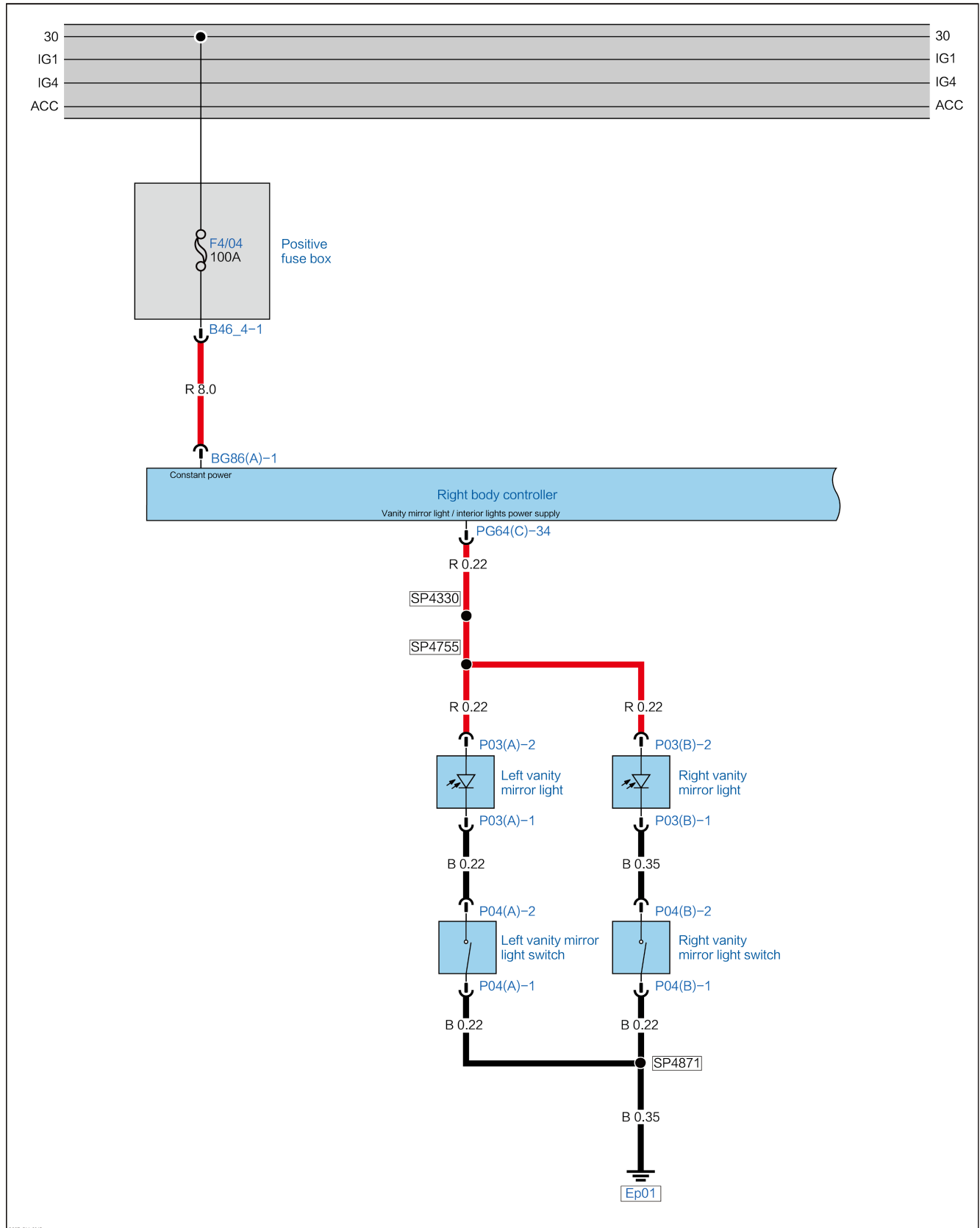
2. Check whether the results are normal.

No → Repair or replace the wire harness

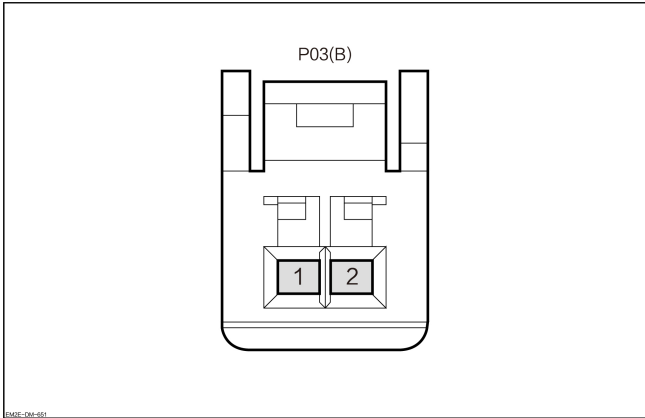
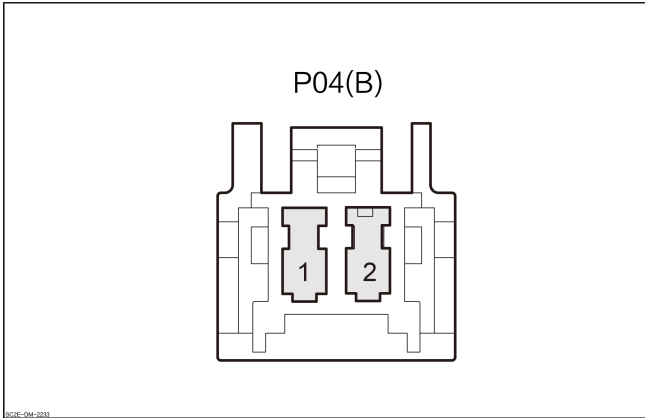
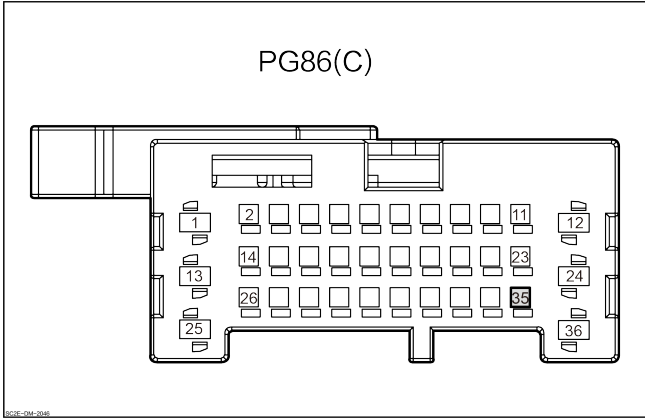
Yes → Replace the right body control module.

Right Vanity Mirror Light Not Working

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|----------------------------|
| <p style="text-align: center;">Right vanity mirror light</p>  | 1 | Ground |
| <p style="text-align: center;">Right sun visor switch</p>  | 1 | / |
| <p style="text-align: center;">Right body control module</p>  | 35 | Interior lamp power supply |

Diagnostic Steps

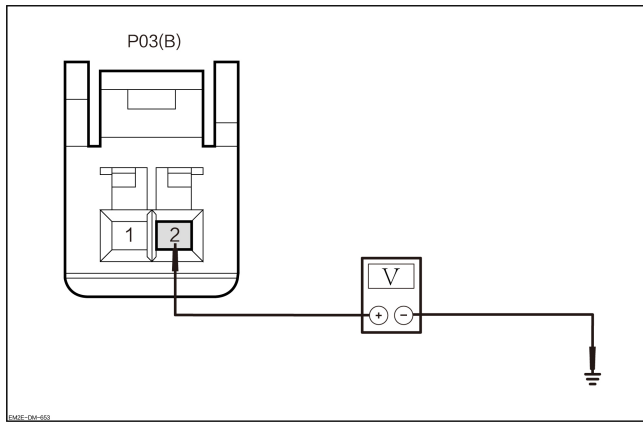
1 Check the right vanity mirror light harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the right vanity mirror light harness connector.
3. Check whether the harness connector of the right vanity mirror light is normal?

No → Repair or replace the wire harness

Yes

2 Check the power supply of right vanity mirror lamp.



1. Measure the voltage value between the right vanity mirror light harness connector P03 (B)-2 and ground.

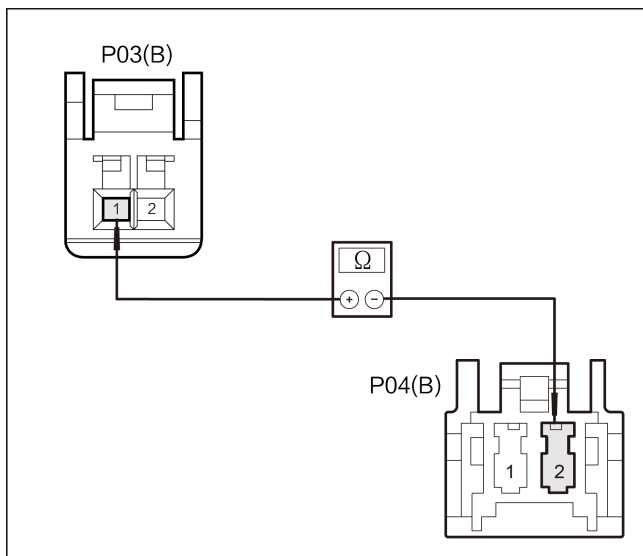
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| P03(B)-2 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

No → [Go to step 6](#)

Yes

3 Check the ground circuit of right vanity mirror lamp.



1. Disconnect the right sun visor switch harness connector P04 (B).
2. Measure the resistance value between the right vanity mirror light harness connector P03(B)-1 and the right sun visor switch harness connector P04(B)-2.

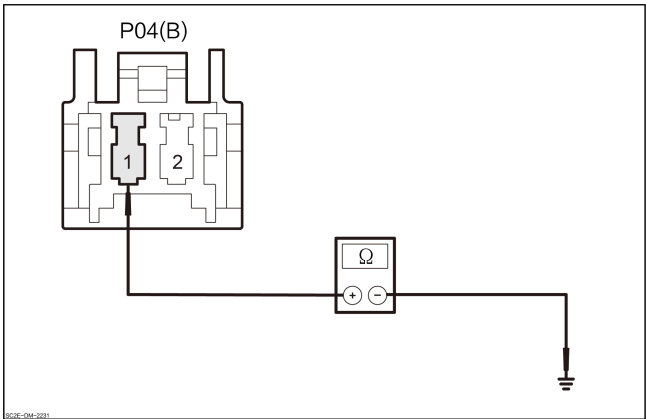
| Connector | | Condition | Resist-ance value |
|-----------|----------|-------------|-------------------|
| (+) | (-) | | |
| P03(B)-1 | P04(B)-2 | Through-out | Lower than 1 Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the ground circuit of the right sun visor switch.



1. Measure the resistance value between the right sun visor switch harness connector P04(B)-1 and the ground.

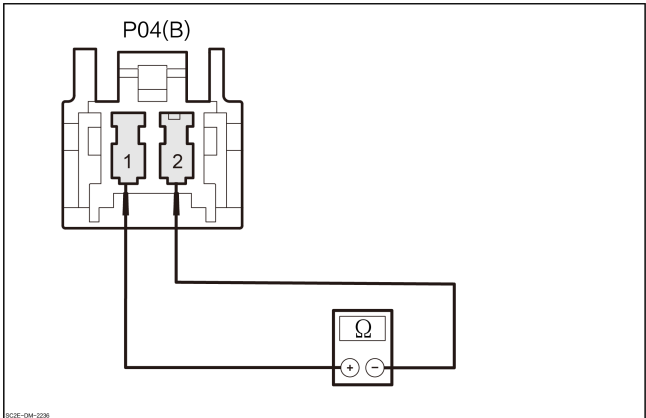
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| P04(B)-1 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the right sun visor switch.



1. Open the trim cover of the sun visor vanity mirror.
 2. Measure the resistance between right sun visor switch connectors P04(B)-1 and P04(B)-2.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| P04(B)-1 | P04(B)-2 | Through-out | Lower than 1Ω |

3. Check whether the results are normal.

No → Replace the right sun visor.

Yes → Replace the right vanity mirror lamp.

6 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
 2. Disconnect the harness connector of right body control module.

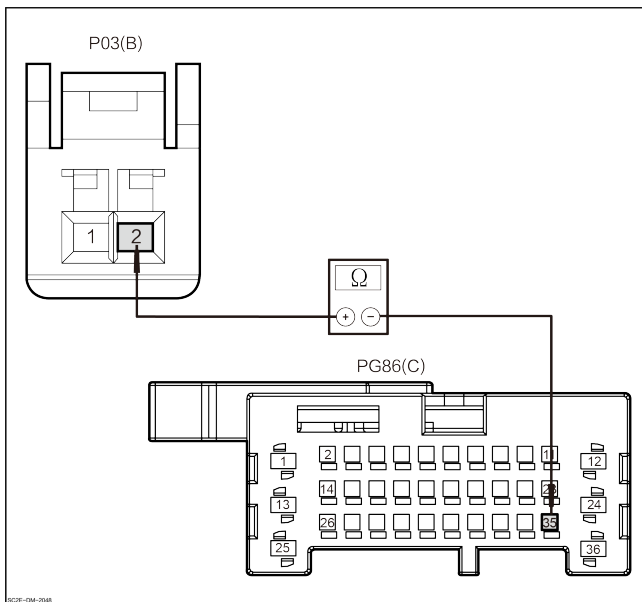
3. Check whether the harness connector of right body control module is normal?

No

Repair or replace the wire harness

Yes

7 Check the right vanity mirror light line for open circuit.



1. Measure the resistance between the harness connector of right vanity mirror light P03(B)-2 and the harness connector of right body control module PG86(C)-35.

| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| P03(B)-2 | PG86(C) -35 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No

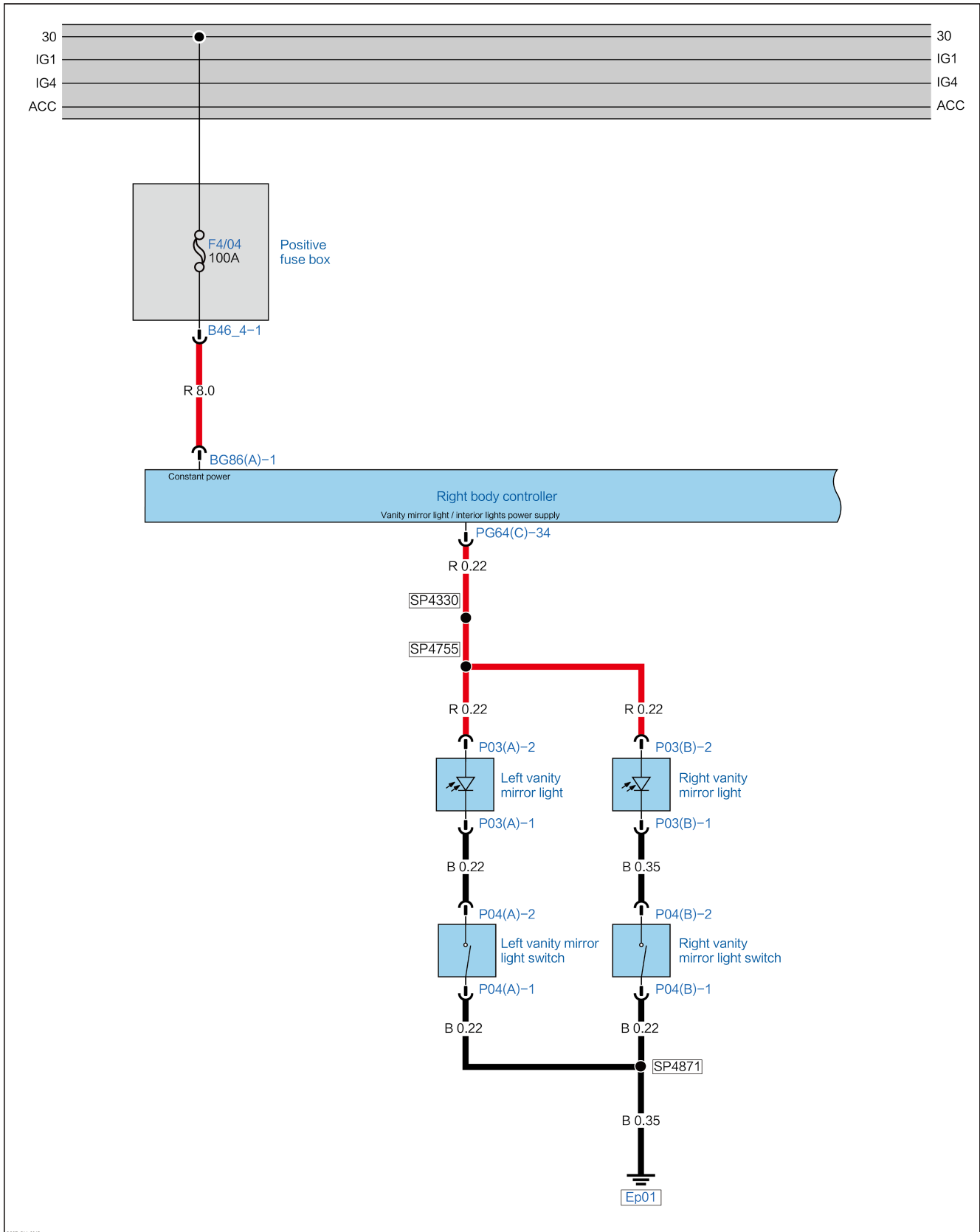
Repair or replace the wire harness

Yes

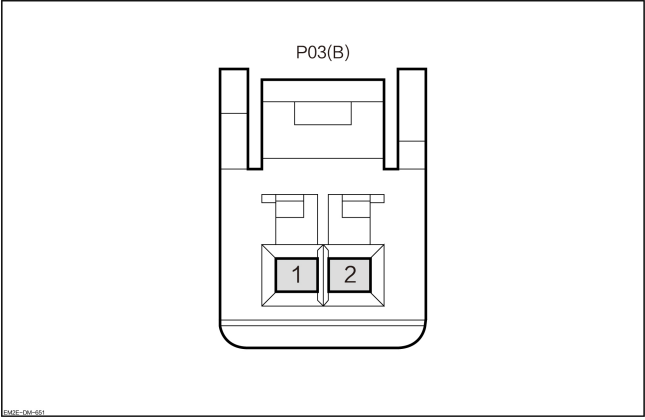
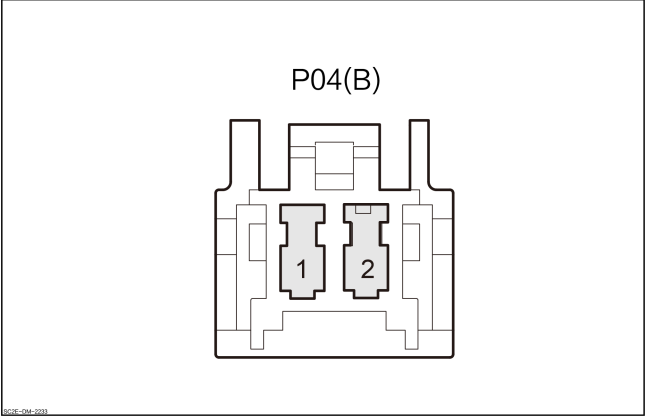
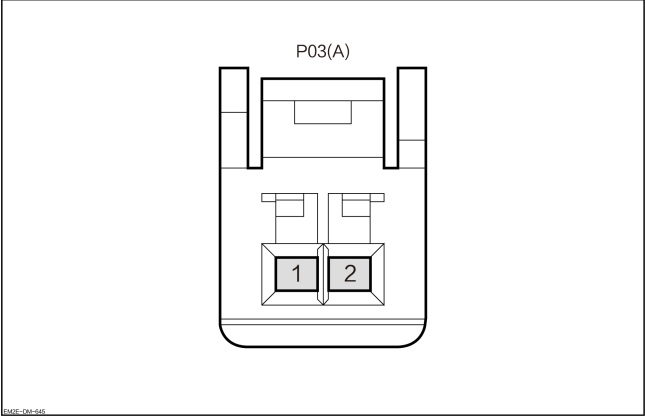
Replace the right body control module.

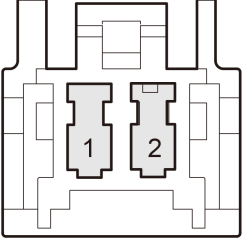
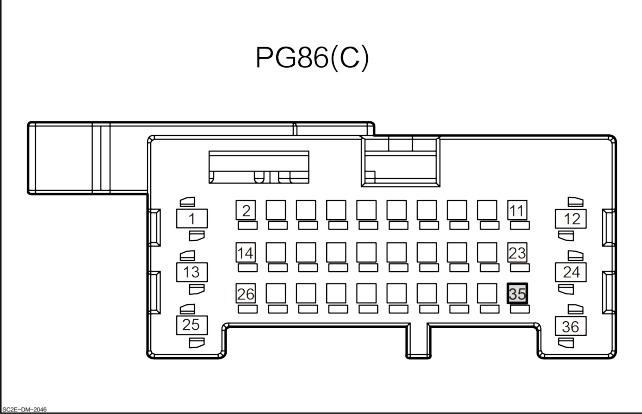
Both Vanity Mirror Lights Not Working

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|---|-------------------|-----------------------------------|
| <p>Right vanity mirror light</p>  <p><small>BYD-DIM-061</small></p> | <p>1</p> <p>2</p> | <p>Ground</p> <p>Power supply</p> |
| <p>Right sun visor switch</p>  <p><small>BYD-DIM-033</small></p> | <p>1</p> <p>2</p> | <p>/</p> <p>/</p> |
| <p>Left vanity mirror light</p>  <p><small>BYD-DIM-045</small></p> | <p>1</p> <p>2</p> | <p>Ground</p> <p>Power supply</p> |
| <p>Left sun visor switch</p> | <p>1</p> | <p>/</p> |

| Plug | Terminal number | Terminal Definition |
|---|-----------------|----------------------------|
| <p style="text-align: center;">P04(A)</p>  <p style="text-align: center;"><small>ECR-094-2022</small></p> | 2 | / |
| <p style="text-align: center;">Right body control module</p> <p style="text-align: center;">PG86(C)</p>  <p style="text-align: center;"><small>ECR-094-2022</small></p> | 35 | Interior lamp power supply |

Diagnostic Steps

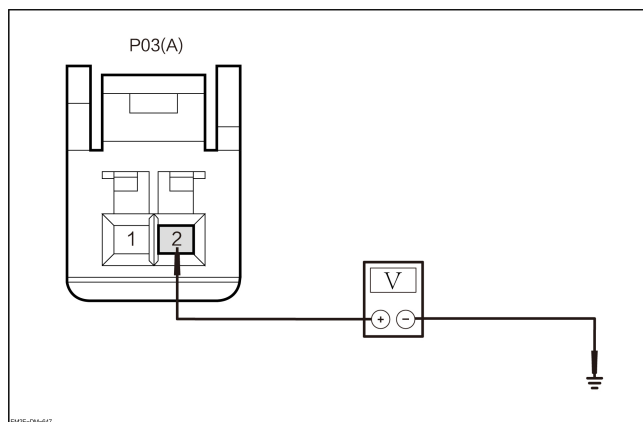
1 Check the vanity mirror light harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the left vanity mirror light harness connector.
3. Disconnect the right vanity mirror light harness connector.
4. Check whether the harness connector for the vanity mirror light is normal ?

No → Repair or replace the wire harness

Yes

2 Check the power supply of left vanity mirror lamp.



1. Measure the voltage value between the left vanity mirror light harness connector P03 (A)-2 and ground.

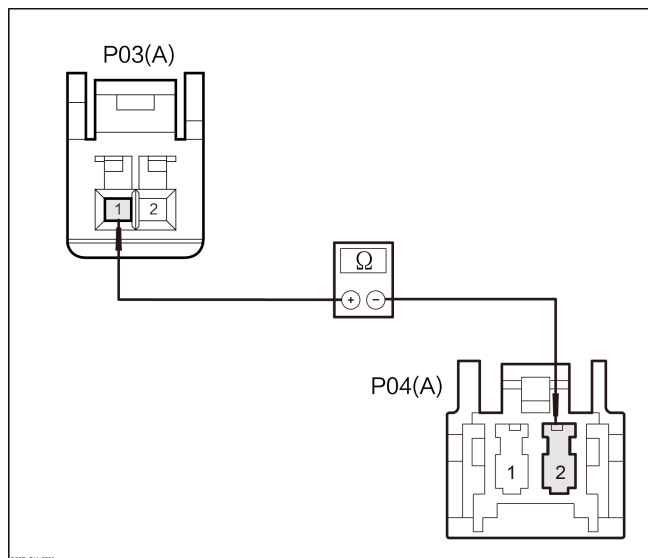
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| P03(A)-2 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

No → [Go to step 6](#)

Yes

3 Check the ground circuit of left vanity mirror lamp.



1. Disconnect the left sun visor switch harness connector P04 (A).
2. Measure the resistance value between the left vanity mirror light harness connector P03 (A) -1 and the left sun visor switch harness connector P04 (A) -2.

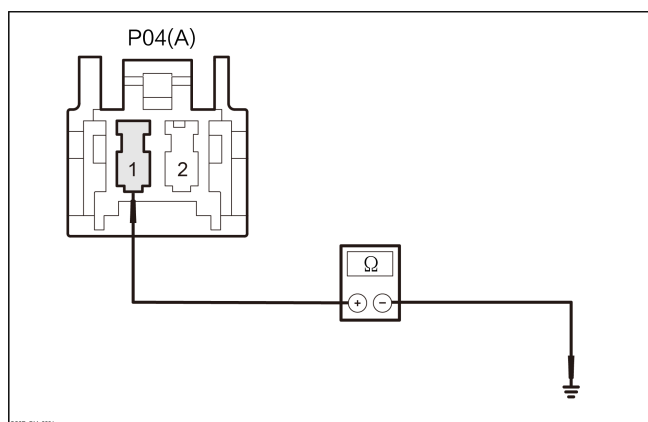
| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| P03(A)-1 | P04(A)-2 | Through- out | Lower than 1Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the left sun visor switch ground circuit.



1. Measure the resistance value between the left sun visor switch harness connector P04 (A)-1 and ground.

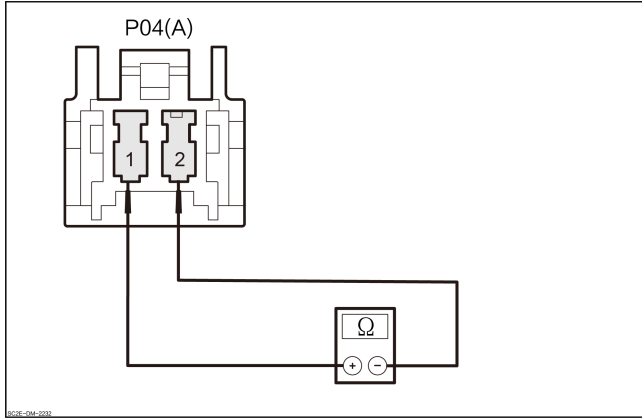
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| P04(A)-1 | Ground | Through- out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the left sun visor switch.



1. Open the trim cover of the sun visor vanity mirror.
2. Measure the resistance between the left sun visor switch connectors P04 (A)-1 and P04 (A)-2.

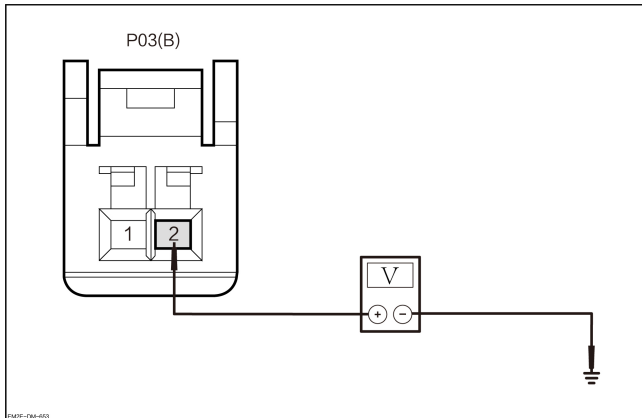
| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| P04(A)-1 | P04(A)-2 | Through- out | Lower than 1 Ω |

3. Check whether the results are normal.

No → Replace the left sun visor.

Yes → Replace the left vanity mirror lamp.

6 Check the power supply of right vanity mirror lamp.



1. Measure the voltage value between the right vanity mirror light harness connector P03 (B)-2 and ground.

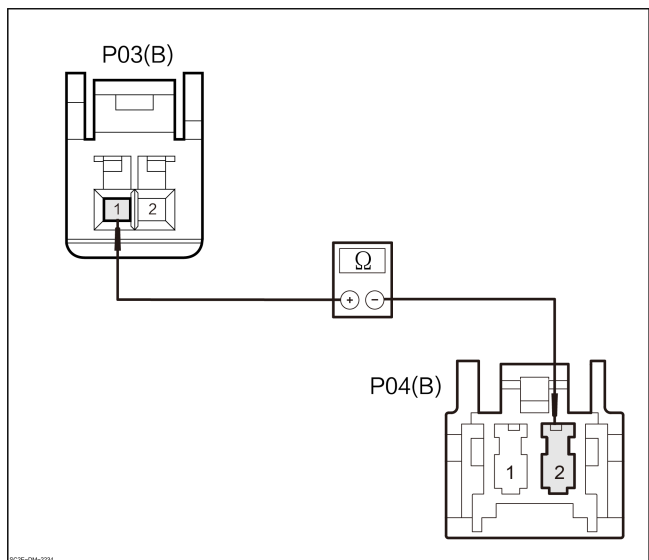
| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| P03(B)-2 | Ground | Through- out | 11~14V |

2. Check whether the results are normal.

No → [Go to step 10](#)

Yes

7 Check the ground circuit of right vanity mirror lamp.



1. Disconnect the right sun visor switch harness connector P04 (B).
2. Measure the resistance value between the right vanity mirror light harness connector P03(B)-1 and the right sun visor switch harness connector P04(B)-2.

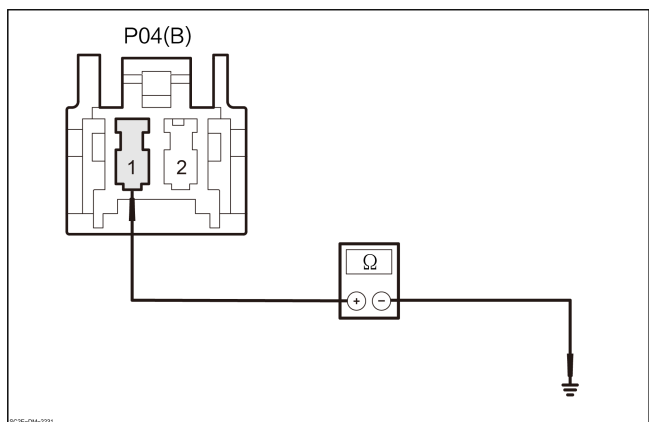
| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| P03(B)-1 | P04(B)-2 | Through- out | Lower than 1Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the ground circuit of the right sun visor switch.



1. Measure the resistance value between the right sun visor switch harness connector P04(B)-1 and the ground.

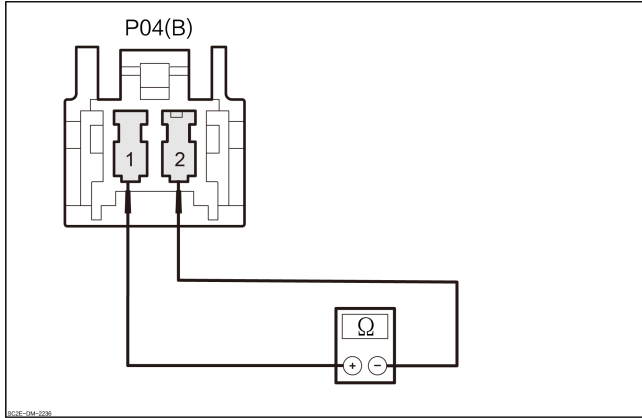
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| P04(B)-1 | Ground | Through- out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

9 Check the right sun visor switch.



1. Open the trim cover of the sun visor vanity mirror.
2. Measure the resistance between right sun visor switch connectors P04(B)-1 and P04(B)-2.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| P04(B)-1 | P04(B)-2 | Through- out | Lower than 1 Ω |

3. Check whether the results are normal.

No → Replace the right sun visor.

Yes → Replace the right vanity mirror lamp.

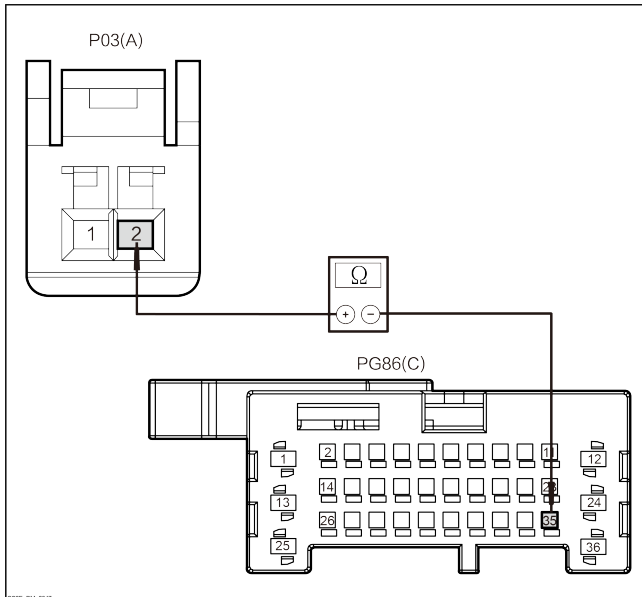
10 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module.
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

11 Check the left vanity mirror light power supply line for open circuit.



1. Measure the resistance between the harness connector of left vanity mirror light P03(A)-2 and the harness connector of right body control module PG86(C)-35.

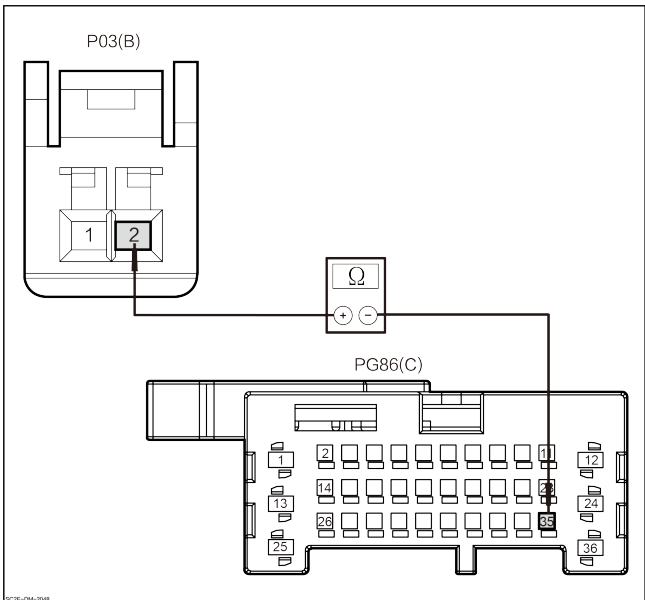
| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| P03(A)-2 | PG86(C)- 35 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

12 Check the right vanity mirror light line for open circuit.



1. Measure the resistance between the harness connector of right vanity mirror light P03(B)-2 and the harness connector of right body control module PG86(C)-35.

| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| P03(B)-2 | PG86(C) -35 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the right body control module. |

Front Interior Light Assembly

Diagnosis Description

Before fault diagnosis for the front interior light, understand and get familiar with the working principle of the front interior light, and then start diagnosis for the front interior light, so as to be helpful to confirm the correct fault diagnosis procedures in the event of a fault, and more importantly, to confirm whether the operating condition described by the customer is normal. Any fault diagnosis of the front interior light should start with the inspection of the vanity mirror light to guide the maintenance technician to take the next logical step for fault diagnosis.

General equipment

- Multimeter
- VDS

Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Diagnosis of General Faults

Visual Inspection

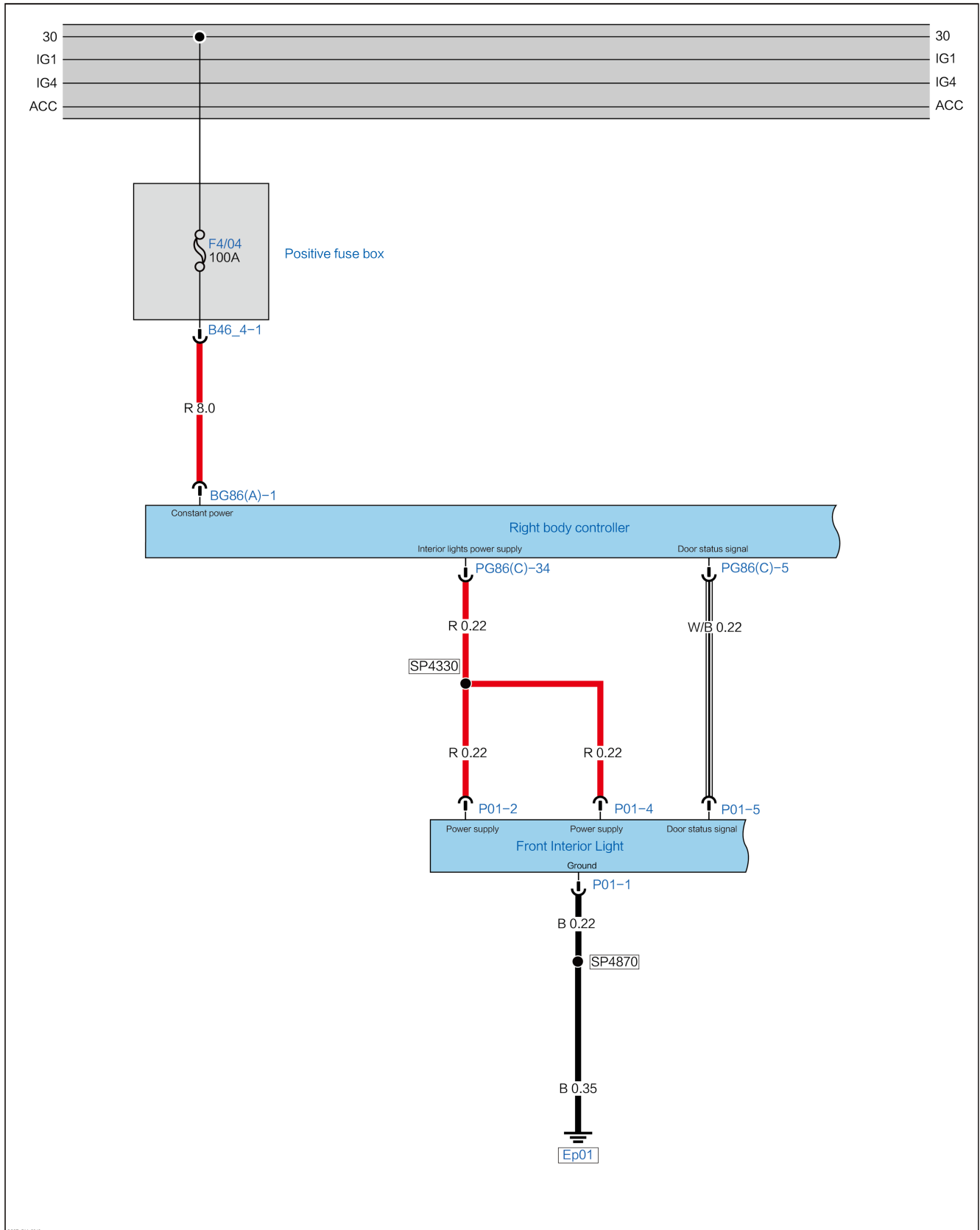
1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

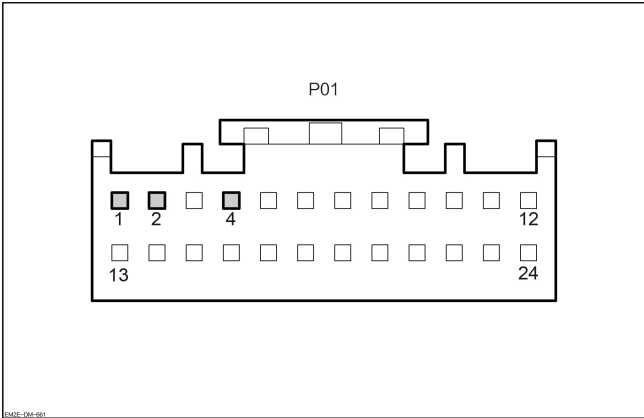
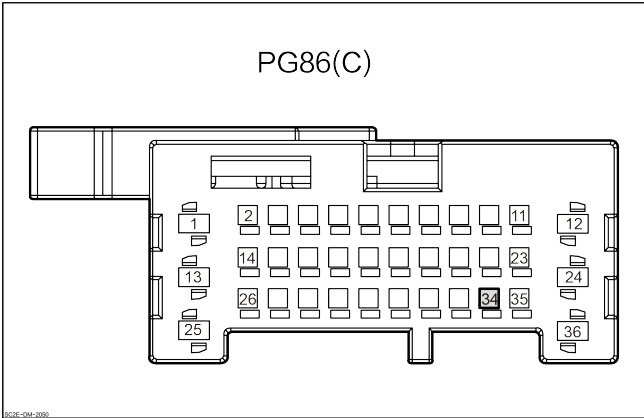
| Symptom | Possible cause | Suggested maintenance measures |
|--|---|--|
| Front Interior Light Not Working | <ol style="list-style-type: none"> 1. Front interior lamp fault. 2. Line fault. 3. The left body control module fails. | Front Interior Light Not Working |
| Front Interior Light Door Control Function Not Working | <ol style="list-style-type: none"> 1. Front interior lamp fault. 2. Line fault. 3. The left body control module fails. 4. Door lock motor fault | Front Interior Light Door Control Function Not Working |

Front Interior Light Not Working

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|----------------------------|
| <p style="text-align: center;">Front interior light</p>  <p style="text-align: center;">P01</p> <p><small>EMTC-DM-061</small></p> | 1 | Ground |
| | 2 | Power supply |
| | 4 | Power supply |
| <p style="text-align: center;">Right body control module</p>  <p style="text-align: center;">PG86(C)</p> <p><small>ESCE-DM-2000</small></p> | 34 | Interior lamp power supply |

Diagnostic Steps

1 Use VDS to actively control the front interior light.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Actively control the front interior light to go on.
4. Can the front interior light go on?

Yes → Replace the front interior lamp.

No

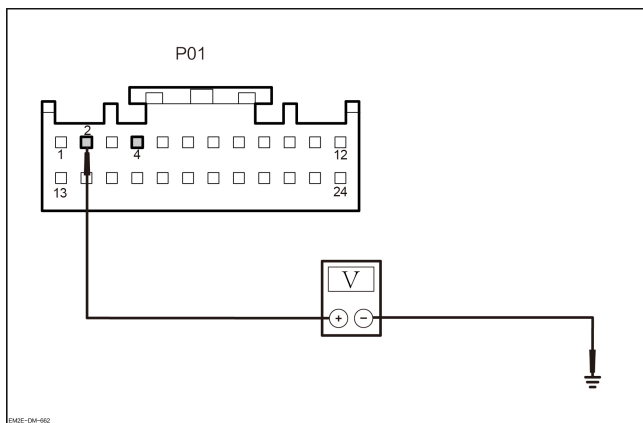
2 Check the front interior light harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the front interior light harness connector.
3. Check whether the front interior light harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check the power supply of front interior lamp.



1. Measure the voltage value between the front interior light harness connectors P01-2, P01-4 and the ground.

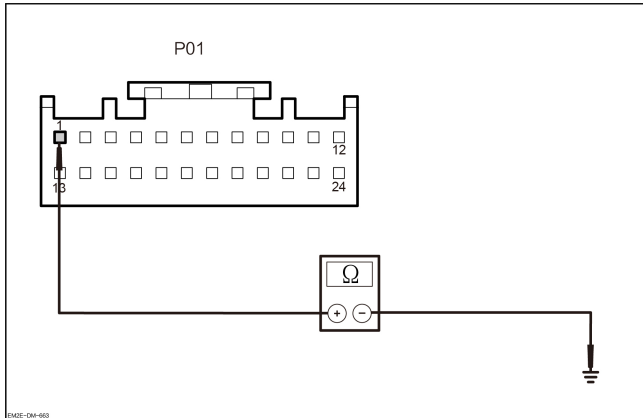
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| P01-2 | Ground | Through-out | 11~14V |
| P01-4 | | | |

2. Check whether the results are normal.

No → [Go to step 5](#)

Yes

4 Check the ground circuit of front interior lamp.



1. Measure the resistance value between the front interior light harness connector P01-1 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| P01-1 | Ground | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

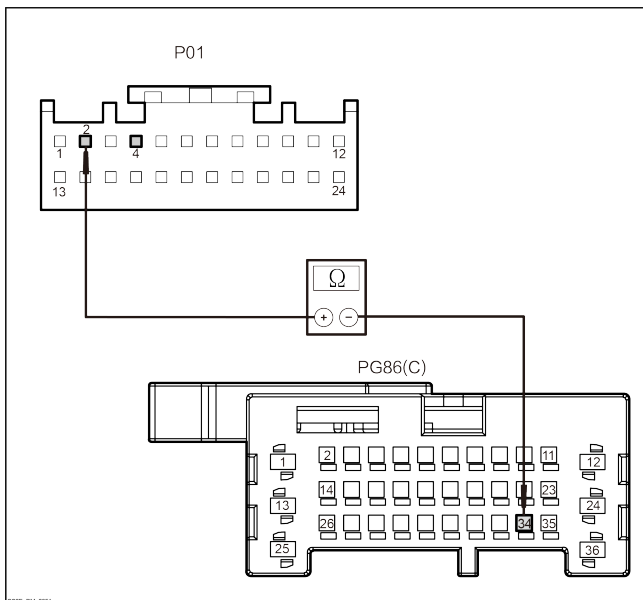
5 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module.
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the power supply line of front interior light for open circuit.



1. Measure the resistance between the harness connectors of front interior light P01-2 and P01-4 and the harness connector of right body control module PG86(C)-34.

| Connector | | Condition | Resistance value |
|-----------|----------------|-------------|------------------|
| (+) | (-) | | |
| P01-2 | PG86(C) -34 | Through-out | Lower than 1 Ω |
| P01-4 | | | |

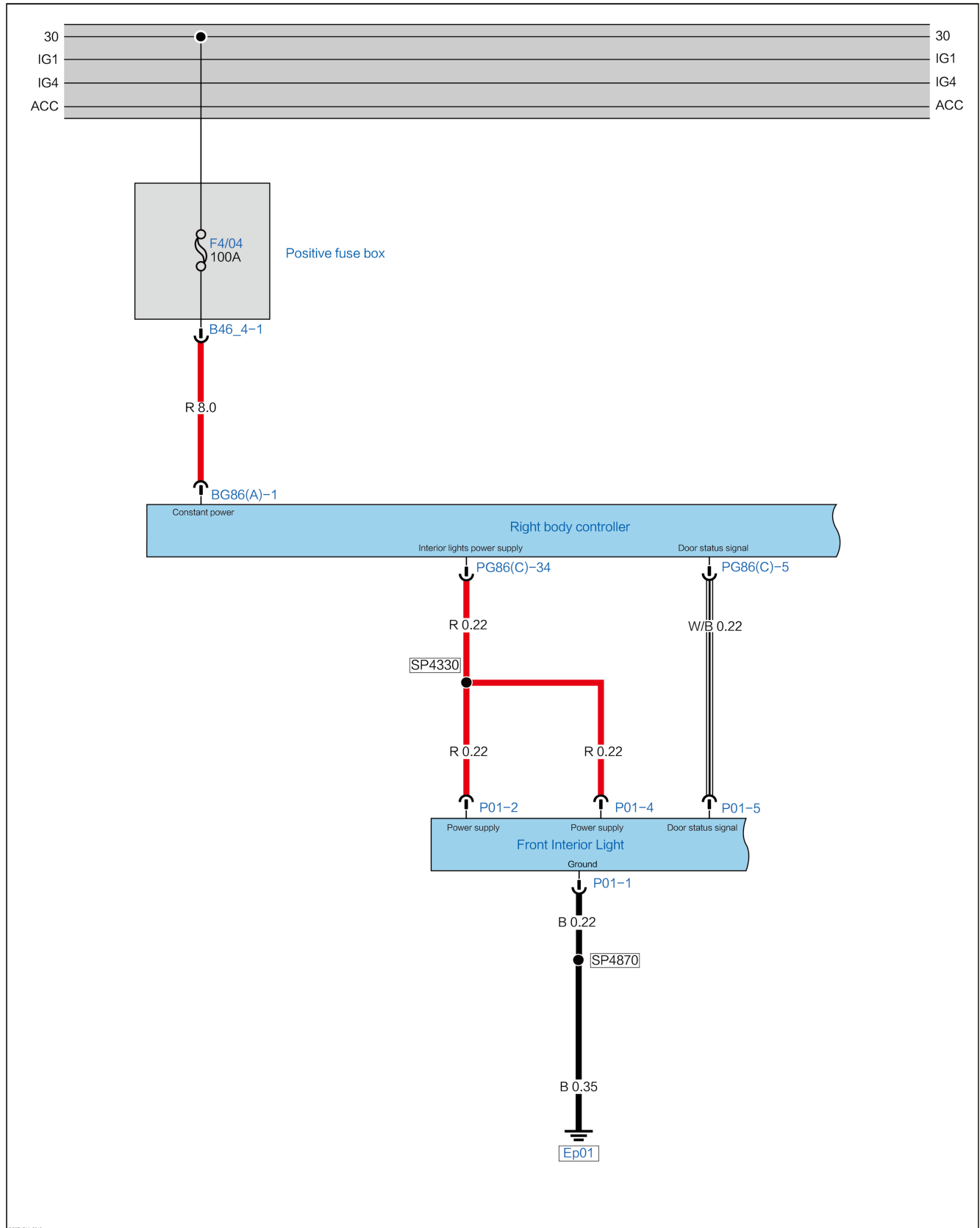
2. Check whether the results are normal.

No → Repair or replace the wire harness

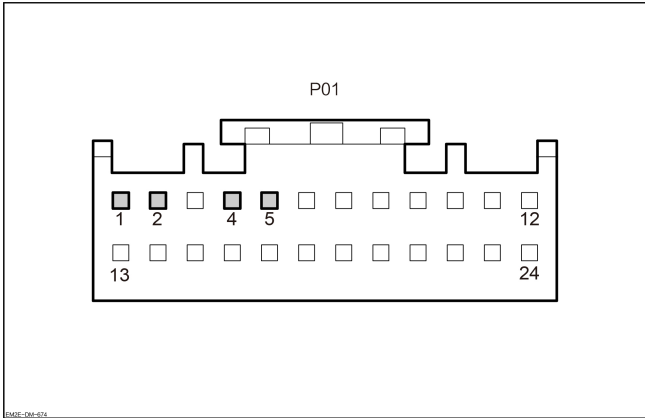
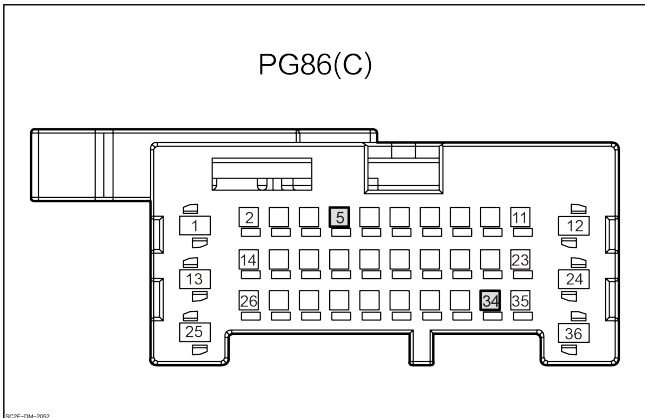
Yes → Replace the right body control module.

Front Interior Light Door Control Function Not Working

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|---|-----------------|----------------------------|
| <p style="text-align: center;">Front interior light</p>  <p style="text-align: center;">P01</p> | 1 | Ground |
| | 2 | Power supply |
| | 4 | Power supply |
| | 5 | Door state signal |
| <p style="text-align: center;">Right body control module</p>  <p style="text-align: center;">PG86(C)</p> | 5 | Door state signal |
| | 34 | Interior lamp power supply |

Diagnostic Steps

1 Use VDS to actively control the front interior light.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Actively control the front interior light to go on.
4. Can the front interior light go on?

Yes Go to step 9

No

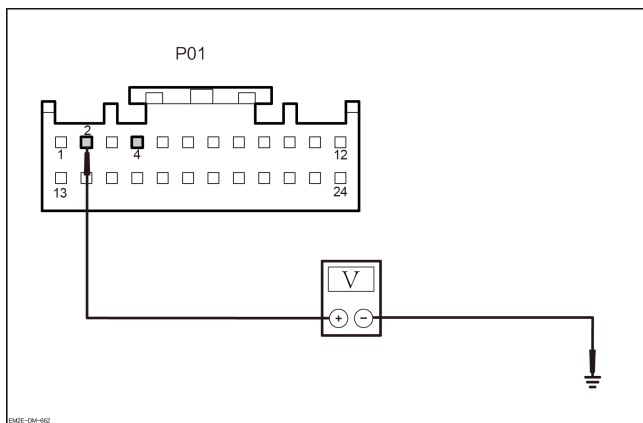
2 Check the front interior light harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the front interior light harness connector.
3. Check whether the front interior light harness connector is normal.

No Repair or replace the wire harness

Yes

3 Check the power supply of front interior lamp.



1. Measure the voltage value between the front interior light harness connectors P01-2, P01-4 and the ground.

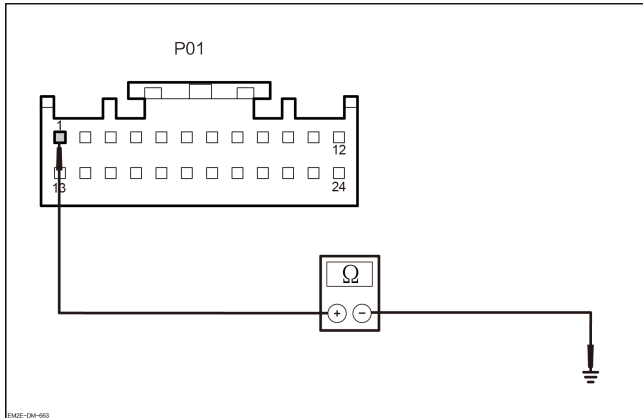
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| P01-2 | Ground | Through-out | 11~14V |
| P01-4 | | | |

2. Check whether the results are normal.

No Go to step 5

Yes

4 Check the ground circuit of front interior lamp.



1. Measure the resistance value between the front interior light harness connector P01-1 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| P01-1 | Ground | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

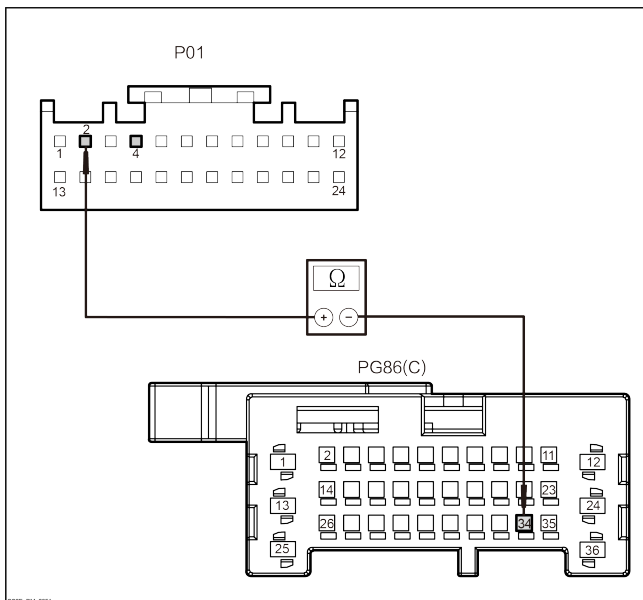
5 Check the harness connector of left body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module.
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the power supply line of front interior light for open circuit.



1. Measure the resistance between the harness connectors of front interior light P01-2 and P01-4 and the harness connector of right body control module PG86(C)-34.

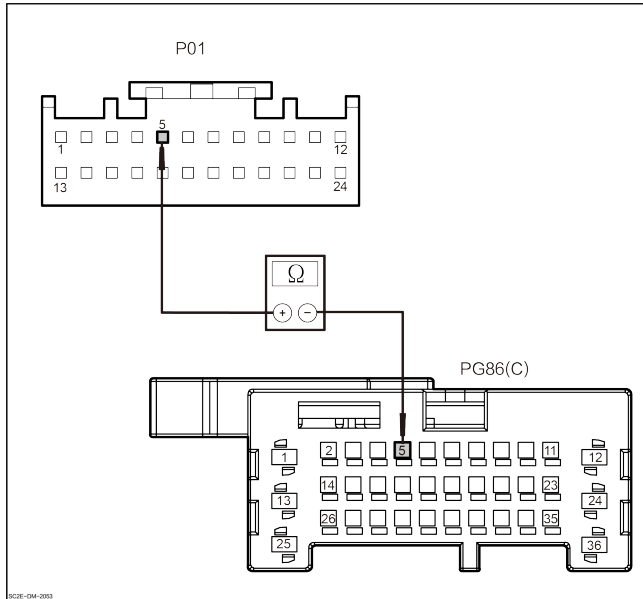
| Connector | | Condition | Resistance value |
|-----------|----------------|-------------|------------------|
| (+) | (-) | | |
| P01-2 | PG86(C) -34 | Through-out | Lower than 1 Ω |
| P01-4 | | | |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the right body control module.

7 Check the control line of front interior light for open circuit.



1. Measure the resistance between the harness connector of front interior light P01-5 and the harness connector of right body control module PG86(C)-5.

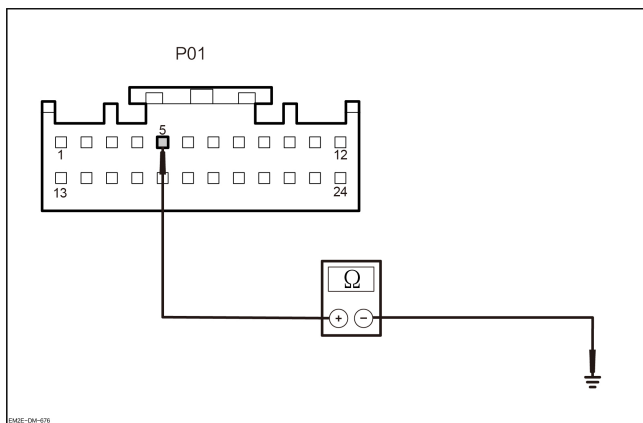
| Connector | | Condition | Resistance value |
|-----------|-----------|-------------|------------------|
| (+) | (-) | | |
| P01-5 | PG86(C)-5 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check whether the control line of front interior light is shorted to ground.



1. Measure the resistance value between the front interior light harness connector P01-5 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| P01-5 | Ground | Through-out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

9 Check the door lock motor.

1. Check whether each door lock motor is normal.

No → Enter the diagnosis of "door lock motor inoperative".

Yes → Replace the front ceiling lamp.

Rear Interior Light Assembly

Diagnosis Description

For the diagnosis of rear dome light fault, make sure to understand and get familiar with the working principle of the rear dome light before carrying out the diagnosis, this may help determining the correct fault diagnosis procedures, and help determining whether the condition described by customers belongs to the normal operation. Any diagnosis of the rear dome light shall start with the inspection of rear dome light, which serves as a basis to guide the maintenance personnel taking the next logic step for fault diagnosis.

General equipment

– Multimeter

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Diagnosis of General Faults

Visual Inspection

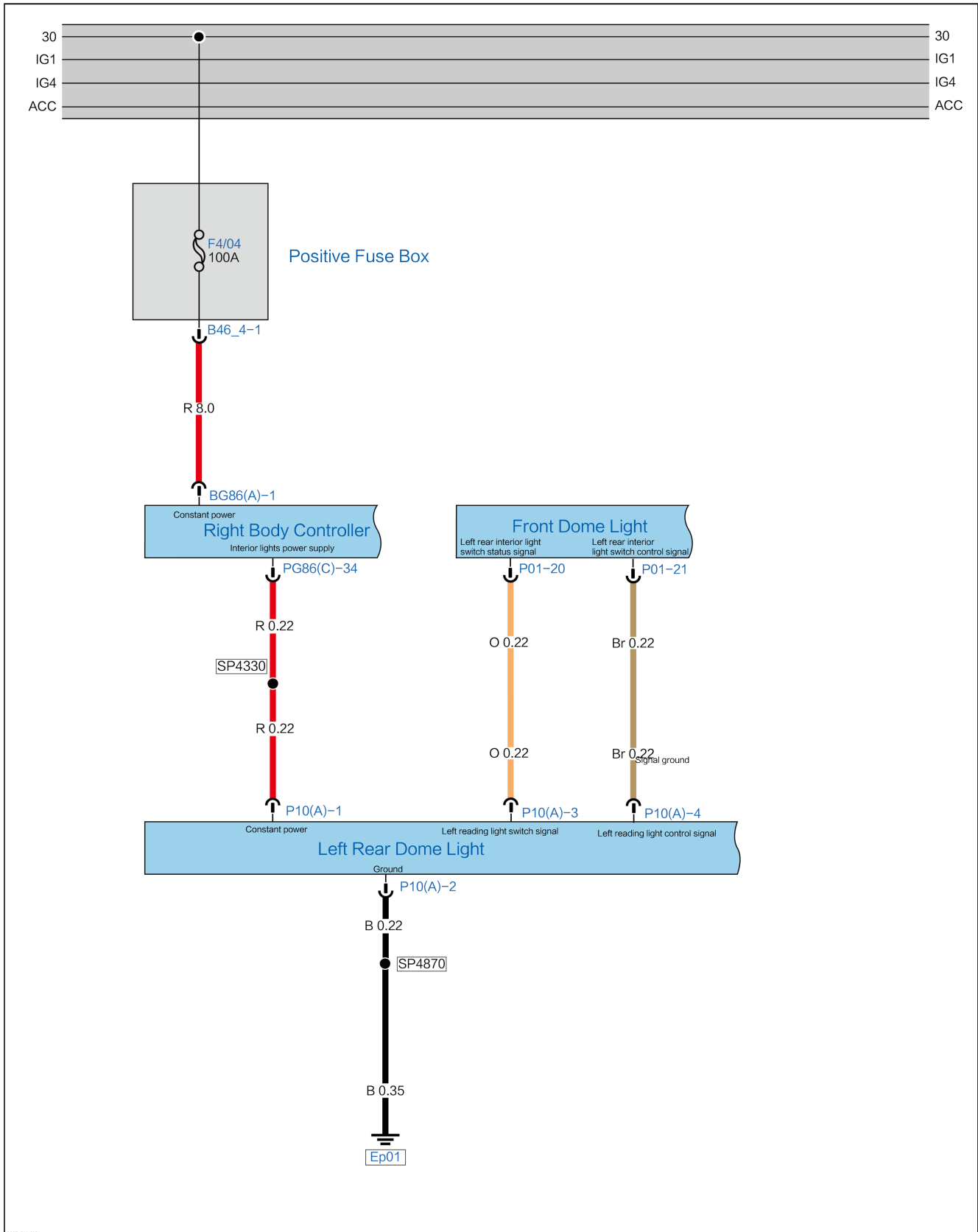
1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

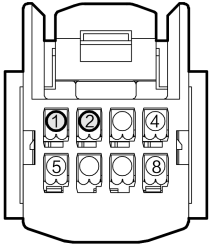
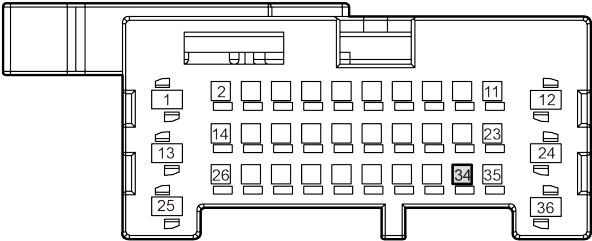
| Symptom | Possible cause | Suggested maintenance measures |
|---|--|---|
| Left Rear Dome Light Not Working | <ol style="list-style-type: none"> 1. The left rear dome light fails. 2. Line fault. 3. The right body control module fails. | Left Rear Dome Light Not Working |
| Left Rear Dome Light Door Control Function Not Working | <ol style="list-style-type: none"> 1. The left rear dome light fails. 2. Line fault. 3. The right body control module fails. 4. Door lock motor fault | Left Rear Dome Light Door Control Function Not Working |
| Right Rear Dome Light Not Working | <ol style="list-style-type: none"> 1. The right rear dome light fails. 2. Line fault. 3. The right body control module fails. | Right Rear Dome Light Not Working |
| Right Rear Dome Light Door Control Function Not Working | <ol style="list-style-type: none"> 1. The right rear dome light fails. 2. Line fault. 3. The right body control module fails. 4. Door lock motor fault | Right Rear Dome Light Door Control Function Not Working |

Left Rear Dome Light Not Working

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|---|---|---|
| <p>Left rear dome light</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>P10(A)</p>  <p><small>625E-044-2977</small></p> </div> | <p>1</p> <p>2</p> | <p>Constant power</p> <p>Ground</p> |
| <p>Right body control module</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>PG86(C)</p>  <p><small>625E-044-2992</small></p> </div> | <p>34</p> | <p>Interior lamp power supply</p> |

Diagnostic Steps

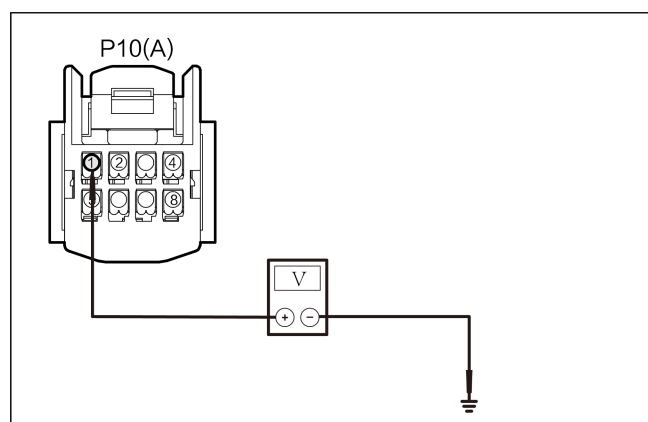
| | |
|---|--|
| 1 | Check the harness connector of left rear dome light. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left rear dome light.
3. Check the harness connector of left rear dome light for normal function.

No → Repair or replace the wire harness

Yes

| | |
|---|---|
| 2 | Check the power supply of left rear dome light. |
|---|---|



1. Measure the voltage between the harness connector of left rear dome light P10(A)-1 and the ground.

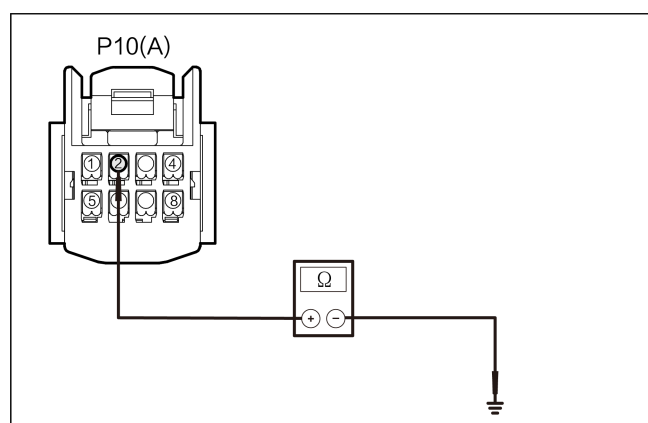
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| P10(A)-1 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

No → [Go to step 4](#)

Yes

| | |
|---|--|
| 3 | Check the ground line of left rear dome light. |
|---|--|



1. Measure the resistance between the harness connector of left rear dome light P10(A)-2 and the ground.

| Connector | | Condition | Resist-ance value |
|-----------|--------|-------------|-------------------|
| (+) | (-) | | |
| P10(A)-2 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

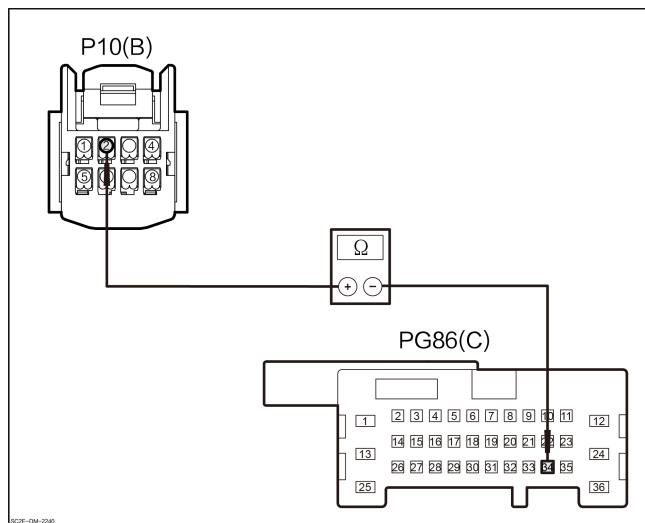
4 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module.
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

5 Check the power line of left rear dome light for open circuit.



1. Measure the resistance between the harness connector of left rear dome light P10(A)-1 and the harness connector of right body control module PG86 (c)-34.

| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| P10(A)-1 | PG86(C) -34 | Through- out | Lower than 1 Ω |

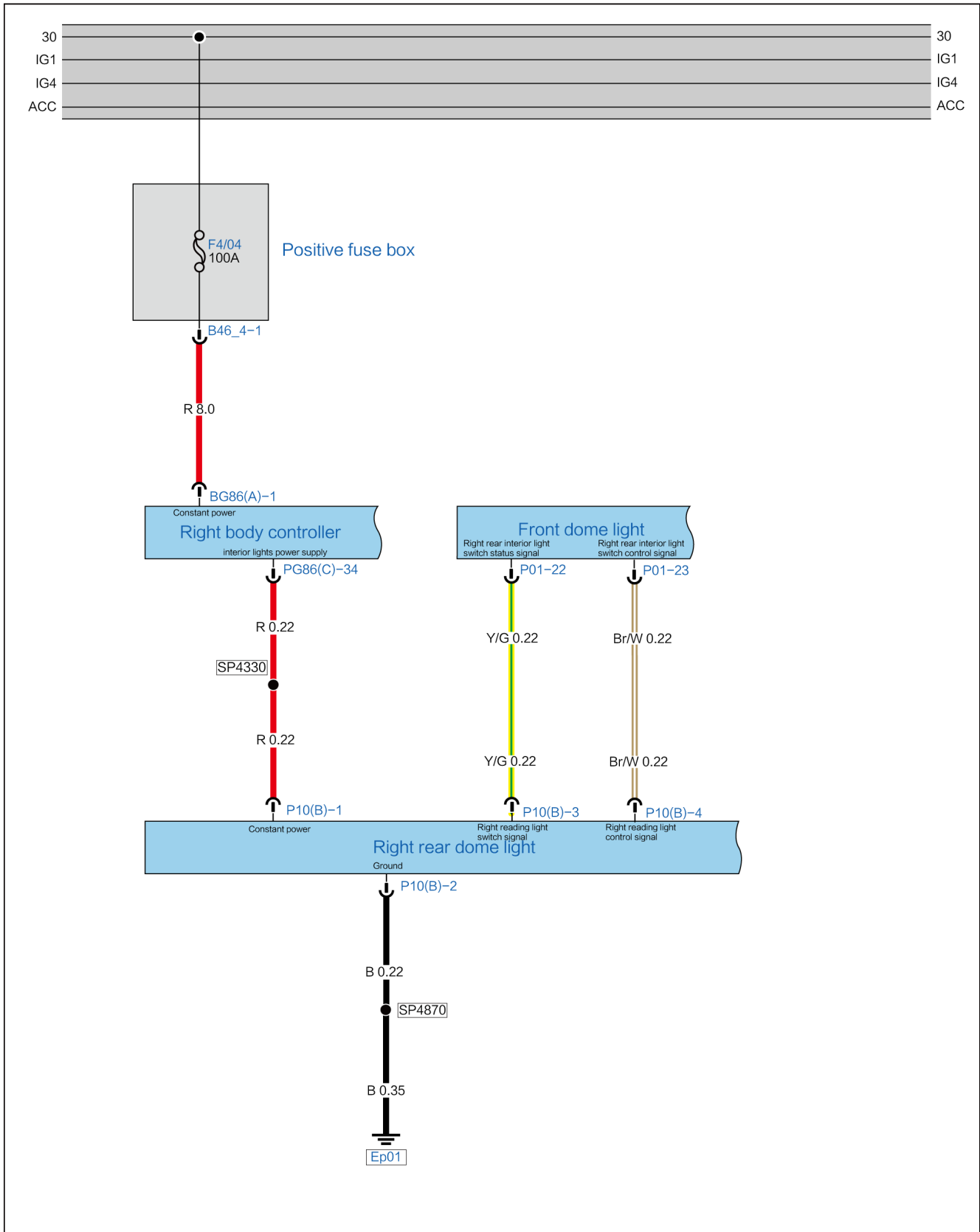
2. Check whether the results are normal.

No → Repair or replace the wire harness

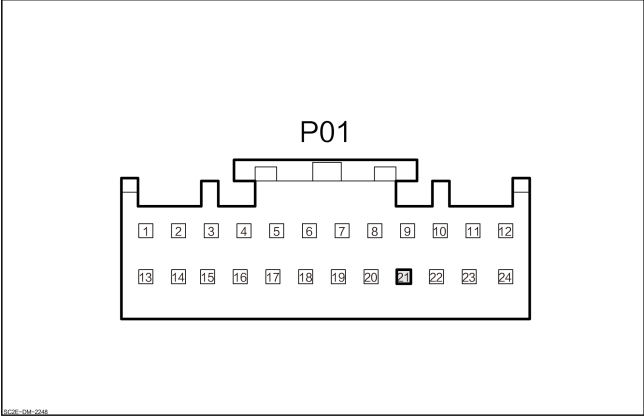
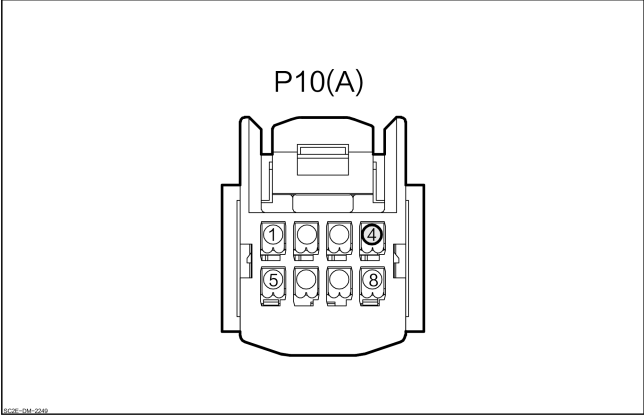
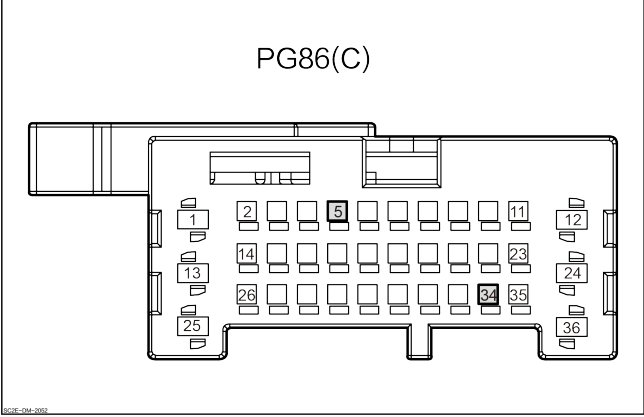
Yes → Replace the left rear dome light.

Left Rear Dome Light Door Control Function Not Working

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|---|-----------------|----------------------------|
| <p style="text-align: center;">Front dome light</p>  <p style="text-align: center;">P01</p> <p style="font-size: small;">6CSE-DM-2248</p> | 21 | Door state signal |
| <p style="text-align: center;">Left rear dome light</p>  <p style="text-align: center;">P10(A)</p> <p style="font-size: small;">6CSE-DM-2249</p> | 4 | Door state signal |
| <p style="text-align: center;">Right body control module</p>  <p style="text-align: center;">PG86(C)</p> <p style="font-size: small;">6CSE-DM-2092</p> | 34 | Interior lamp power supply |

Diagnostic Steps

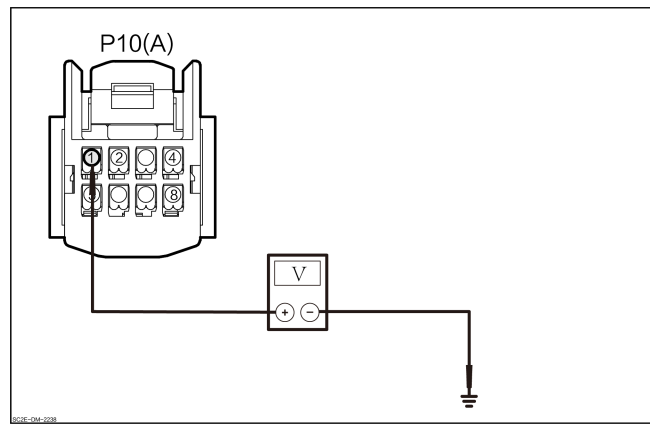
1 Check the harness connector of left rear dome light.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of left rear dome light.
3. Check the harness connector of left rear dome light for normal function.

No Repair or replace the wire harness

Yes

2 Check the power supply of left rear dome light.



1. Measure the voltage between the harness connector of left rear dome light P10(A)-1 and the ground.

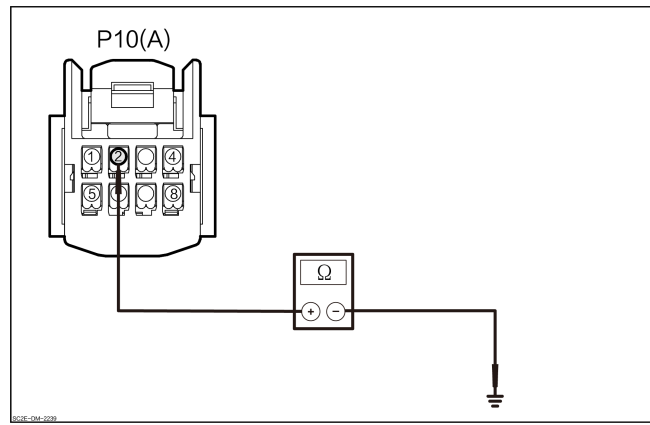
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| P10(A)-1 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

No Go to step 6

Yes

3 Check the ground line of left rear dome light.



1. Measure the resistance between the harness connector of left rear dome light P10(A)-2 and the ground.

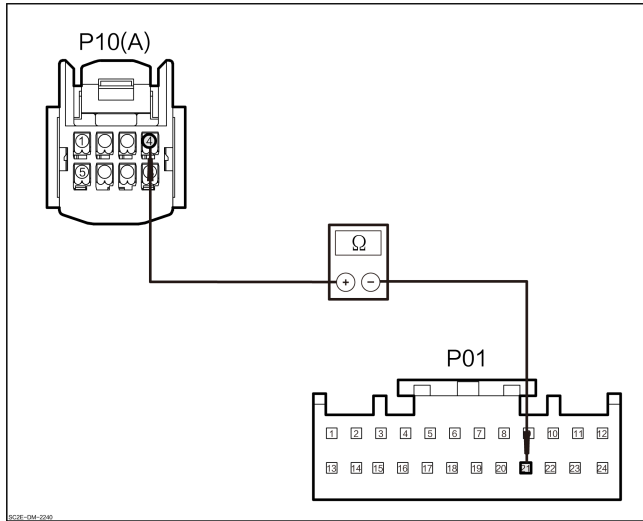
| Connector | | Condition | Resist-ance value |
|-----------|--------|-------------|-------------------|
| (+) | (-) | | |
| P10(A)-2 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

4 Check the door control line of left rear dome light for open circuit.



1. Measure the resistance between the harness connector of left rear dome light P10(A)-4 and the harness connector of front dome light P01-21.

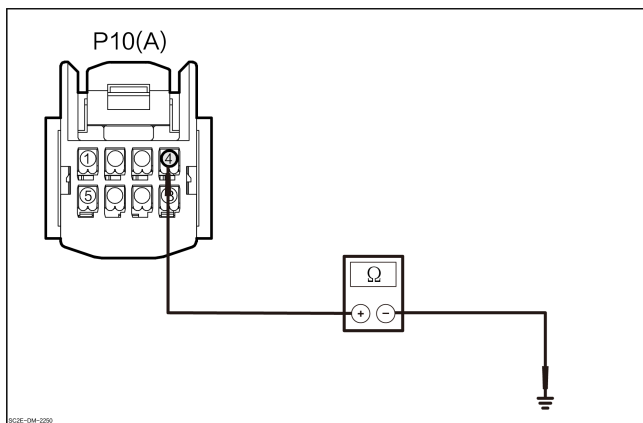
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| P10(A)-4 | P01-21 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the door control line of left rear dome light for short to ground.



1. Measure the resistance between the harness connector of left rear dome light P10(A)-4 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| P10(A)-4 | Ground | Through-out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the left rear dome light.

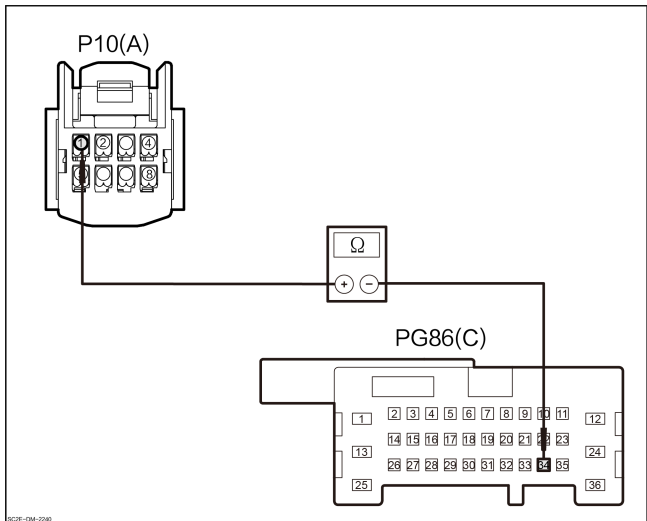
6 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module.
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

7 Check the power line of left rear dome light for open circuit.



1. Measure the resistance between the harness connector of left rear dome light P10(A)-1 and the harness connector of right body control module PG86 (c)-34.

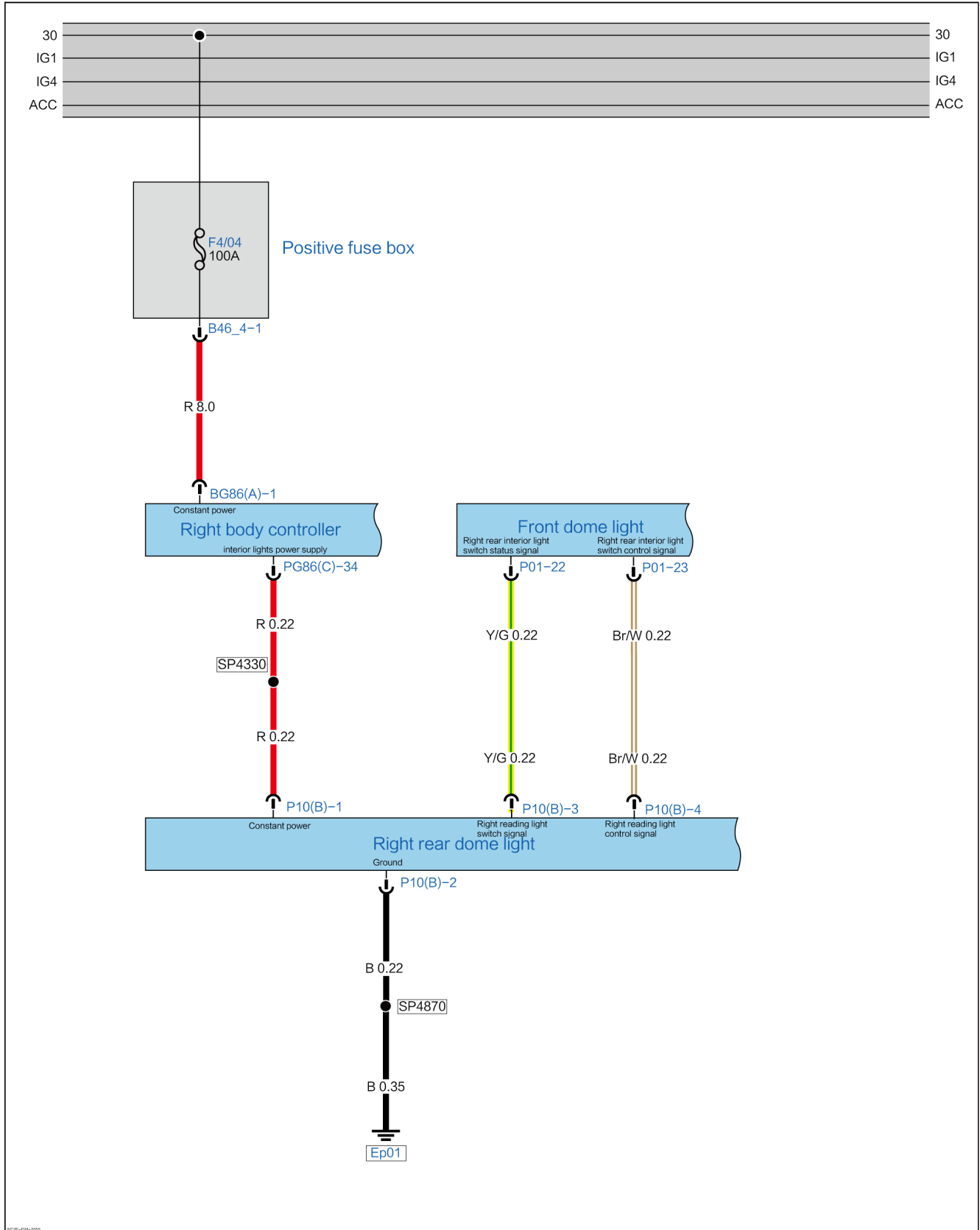
| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| P10(A)-1 | PG86(C) -34 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

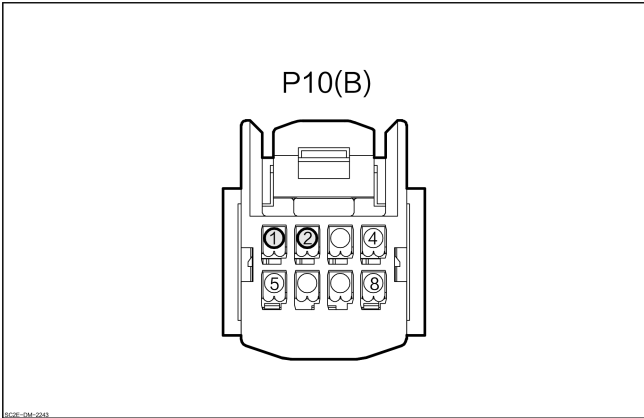
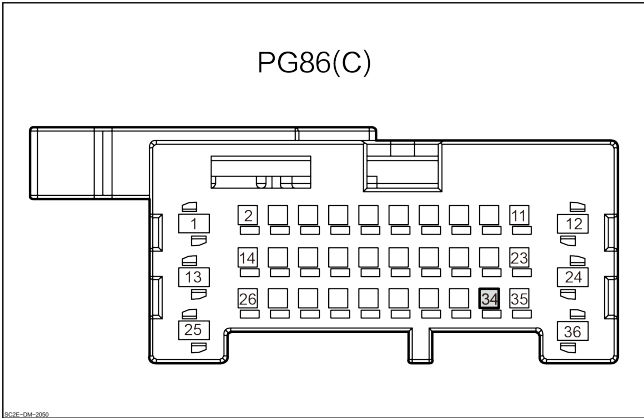
- No → Repair or replace the wire harness
- Yes → Replace the left rear dome light.

Right Rear Dome Light Not Working

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|---|---|
| <p style="text-align: center;">Right rear dome light</p> <div style="text-align: center;">  <p>P10(B)</p> </div> | <p style="text-align: center;">1</p> <hr/> <p style="text-align: center;">2</p> | <p style="text-align: center;">Constant power</p> <hr/> <p style="text-align: center;">Ground</p> |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p>PG86(C)</p> </div> | <p style="text-align: center;">34</p> | <p style="text-align: center;">Interior lamp power supply</p> |

Diagnostic Steps

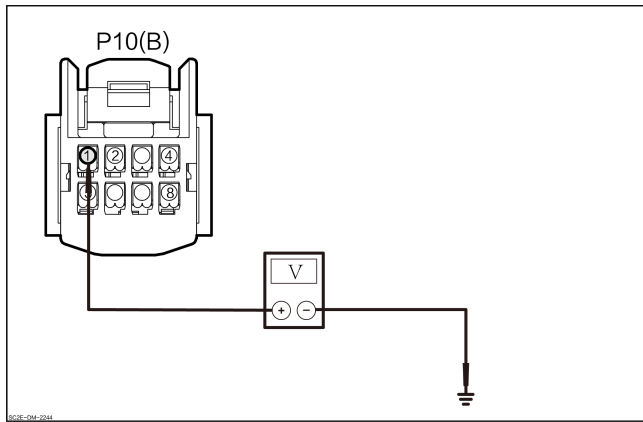
1 Check the harness connector of right rear dome light.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right rear dome light.
3. Check the harness connector of right rear dome light for normal function.

No → Repair or replace the wire harness

Yes

2 Check the power supply of right rear dome light.



1. Measure the voltage between the harness connector of right rear dome light P10(B)-1 and the ground.

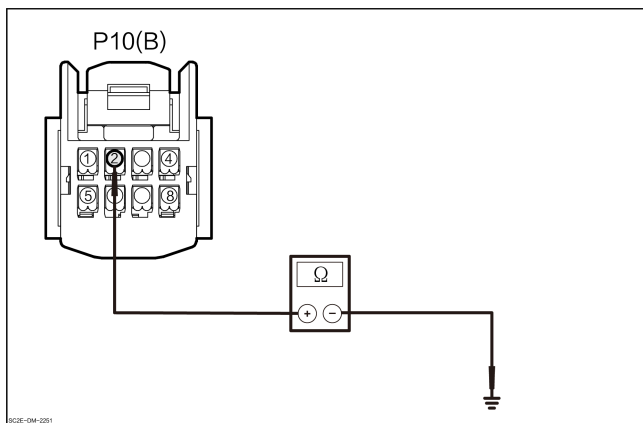
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| P10(B)-1 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

No → [Go to step 4](#)

Yes

3 Check the ground line of right rear dome light.



1. Measure the resistance between the harness connector of right rear dome light P10(B)-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-------------|--------------------------|
| (+) | (-) | | |
| P10(B)-2 | Ground | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

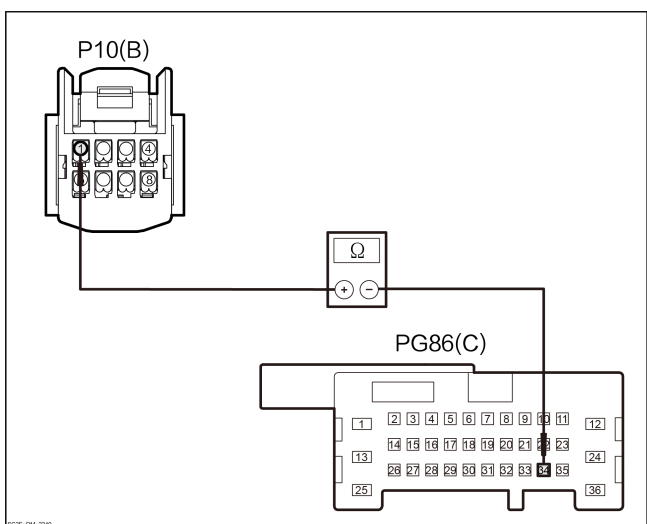
4 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module.
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

5 Check the power line of right rear dome light for open circuit.



1. Measure the resistance between the harness connector of right rear dome light P10(B)-1 and the harness connector of right body control module PG86(C)-34.

| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| P10(B)-1 | PG86(C) -34 | Through- out | Lower than 1 Ω |

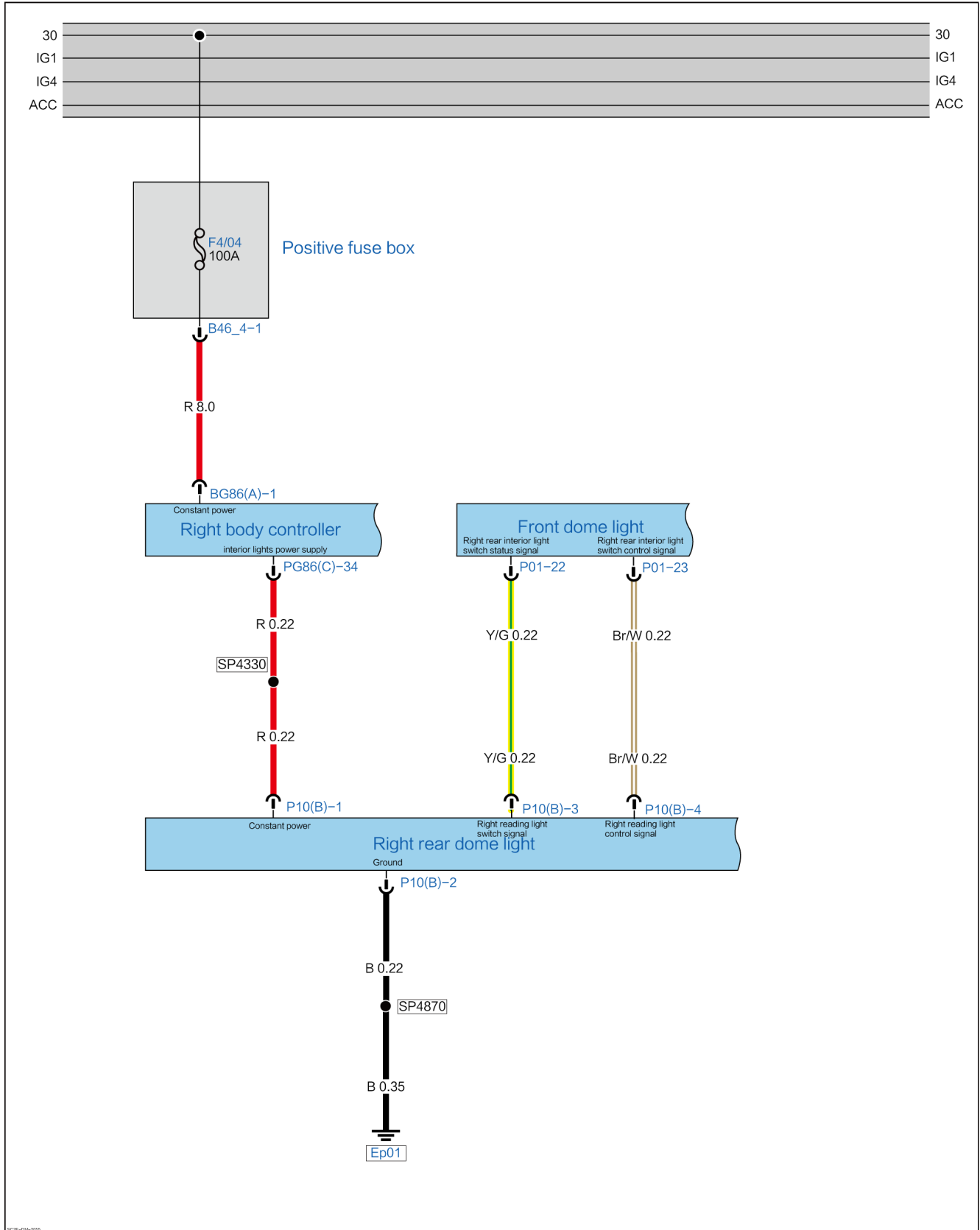
2. Check whether the results are normal.

No → Repair or replace the wire harness

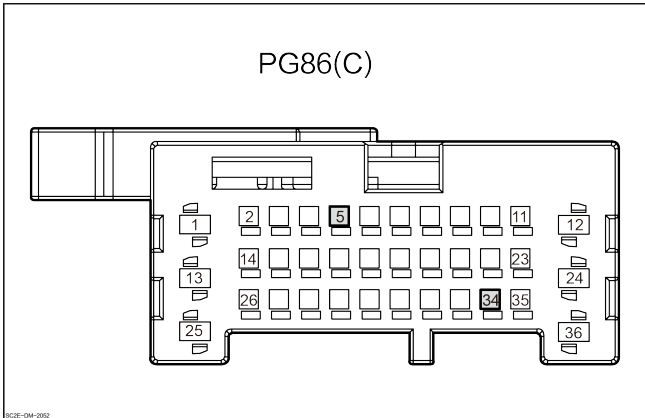
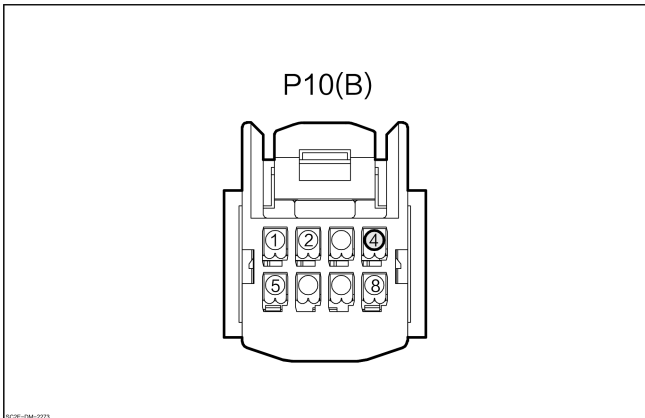
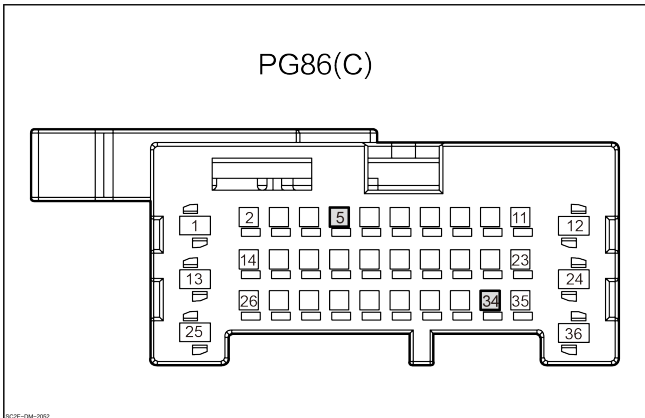
Yes → Replace the right rear dome light.

Right Rear Dome Light Door Control Function Not Working

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|----------------------------|
| <p style="text-align: center;">Front dome light</p> <p style="text-align: center;">PG86(C)</p>  <p><small>SCIE-DM-2092</small></p> | 23 | Door state signal |
| <p style="text-align: center;">Right rear dome light</p> <p style="text-align: center;">P10(B)</p>  <p><small>SCIE-DM-2072</small></p> | 4 | Door state signal |
| <p style="text-align: center;">Right body control module</p> <p style="text-align: center;">PG86(C)</p>  <p><small>SCIE-DM-2092</small></p> | 34 | Interior lamp power supply |

Diagnostic Steps

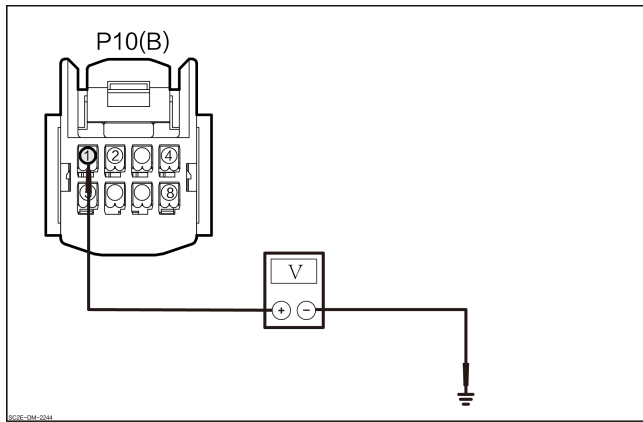
1 Check the harness connector of right rear dome light.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right rear dome light.
3. Check the harness connector of right rear dome light for normal function.

No → Repair or replace the wire harness

Yes

2 Check the power supply of right rear dome light.



1. Measure the voltage between the harness connector of right rear dome light P10(B)-1 and the ground.

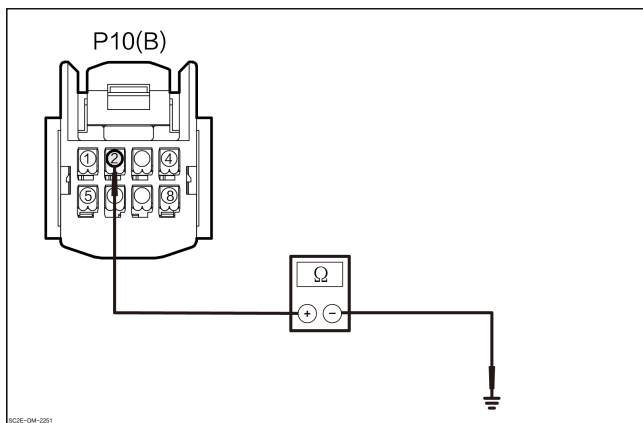
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| P10(B)-1 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

No → [Go to step 6](#)

Yes

3 Check the ground line of right rear dome light.



1. Measure the resistance between the harness connector of right rear dome light P10(B)-2 and the ground.

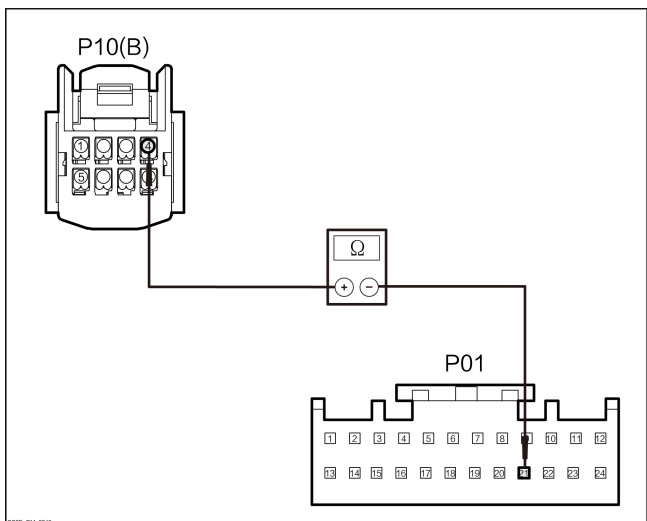
| Connector | | Condition | Resist- ance value |
|-----------|--------|-------------|--------------------------|
| (+) | (-) | | |
| P10(B)-2 | Ground | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the door control line of right rear dome light for open circuit.



1. Measure the resistance between the harness connector of right rear dome light P10(B)-4 and the harness connector of front dome light P01-23.

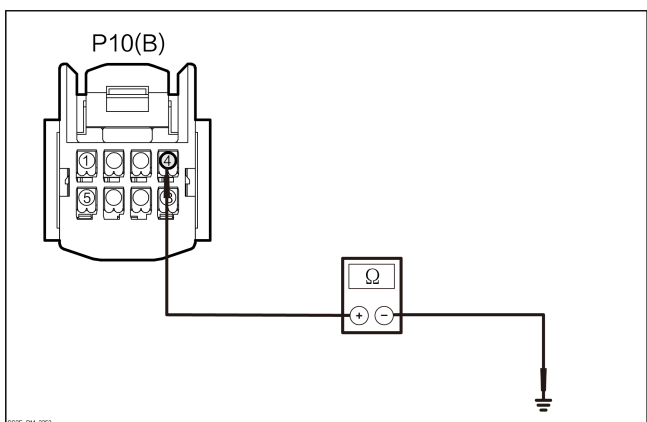
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| P10(B)-4 | P01-23 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the door control line of right rear dome light for short to ground.



1. Measure the resistance between the harness connector of right rear dome light P10(B)-4 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| P10(B)-4 | Ground | Through-out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the right rear dome light.

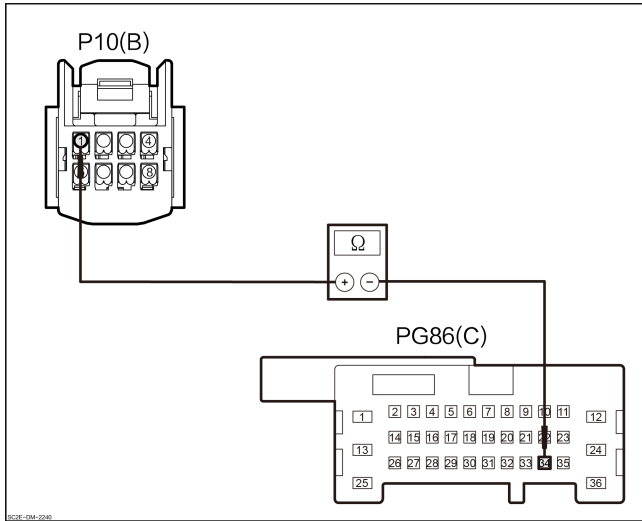
6 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module.
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

7 Check the power line of right rear dome light for open circuit.



1. Measure the resistance between the harness connector of right rear dome light P10(B)-1 and the harness connector of right body control module PG86(C)-34.

| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| P10(B)-1 | PG86(C) -34 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

- No → Repair or replace the wire harness
- Yes → Replace the right rear dome light.

Glove Box Light

Diagnosis Description

Before fault diagnosis for the front central storage box lighting, understand and get familiar with the working principle of the central storage box lighting, and then start diagnosis for the front central storage box lighting, so as to be helpful to confirm the correct diagnosis procedure in the event of a fault, and more importantly, to confirm whether the operating condition described by the customer is normal. Any fault diagnosis of the central storage box light should start with the inspection of the central storage box light to guide the maintenance technician to take the next logical step for fault diagnosis.

General equipment

- Multimeter

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Diagnosis of General Faults

Visual Inspection

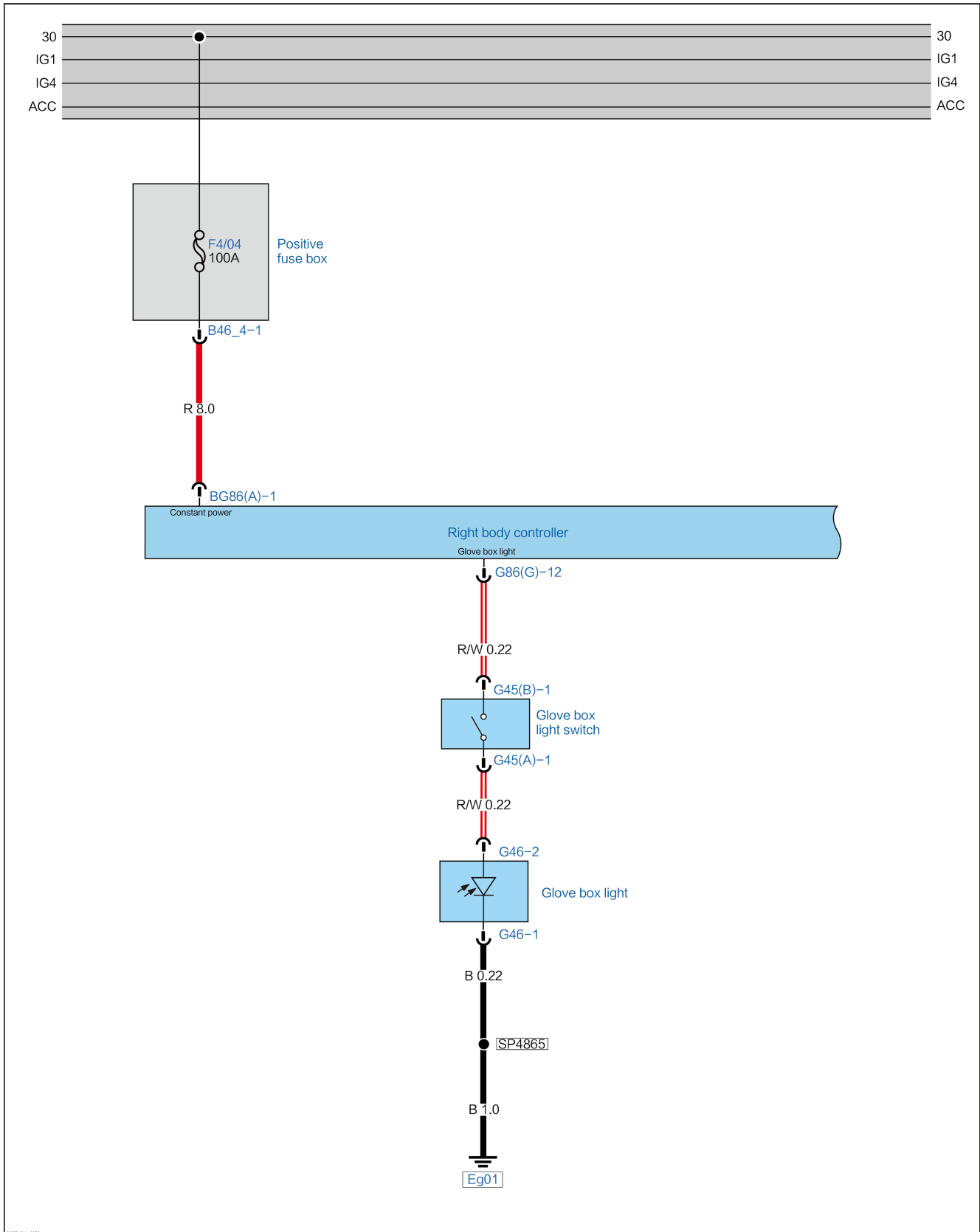
1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

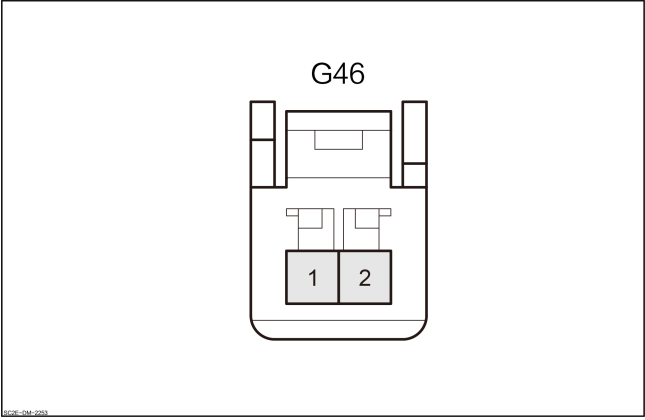
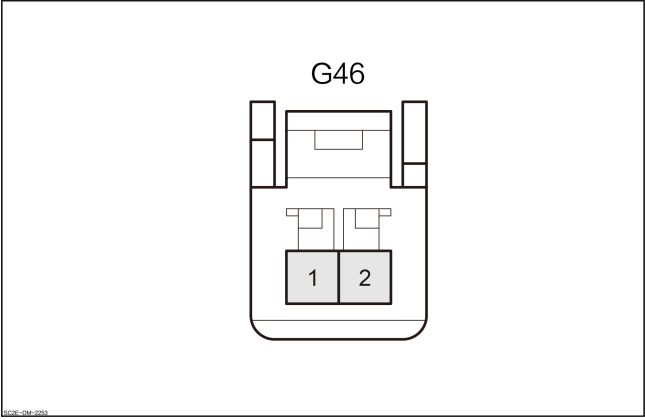
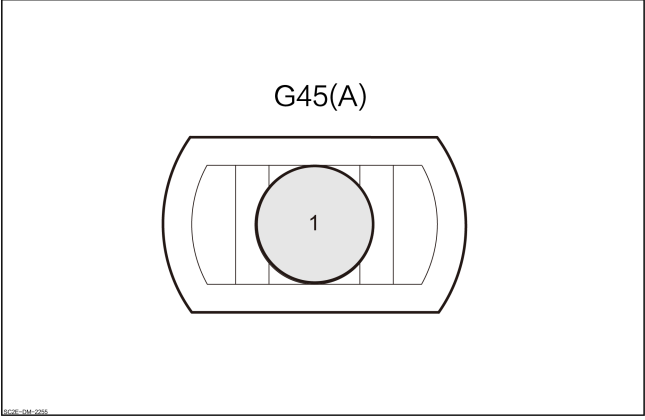
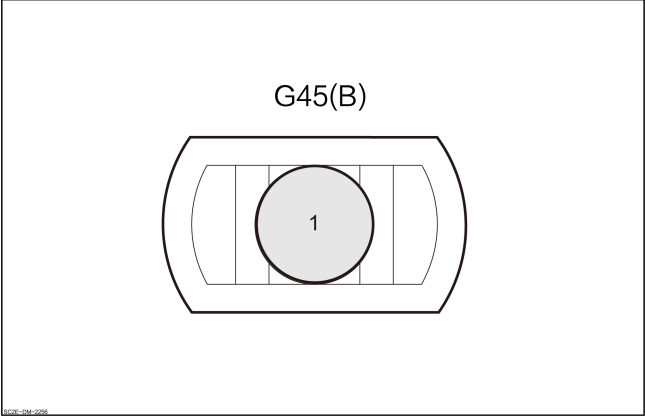
| Symptom | Possible cause | Suggested maintenance measures |
|-----------------------------|---|---|
| Glove Box Light Not Working | <ol style="list-style-type: none">1. The glove box light fails.2. Line fault.3. The left body control module fails. | Glove Box Light Not Working |

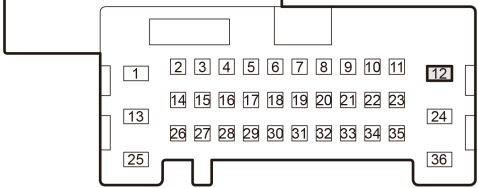
Glove Box Light Not Working

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p>Glove Box Light</p>  <p>The diagram shows a rectangular plug labeled G46. It has two terminals at the bottom, labeled 1 and 2. Terminal 1 is on the left and terminal 2 is on the right. The plug has a central opening and two side openings.</p> | <p>1</p> | <p>Ground</p> |
| <p>Glove Box Light</p>  <p>The diagram shows a rectangular plug labeled G46. It has two terminals at the bottom, labeled 1 and 2. Terminal 1 is on the left and terminal 2 is on the right. The plug has a central opening and two side openings.</p> | <p>2</p> | <p>Power supply</p> |
| <p>Glove Box Light Switch</p>  <p>The diagram shows a rectangular switch labeled G45(A). It has a central circular terminal labeled 1. The switch has a central opening and two side openings.</p> | <p>1</p> | <p>/</p> |
| <p>Glove Box Light Switch</p>  <p>The diagram shows a rectangular switch labeled G45(B). It has a central circular terminal labeled 1. The switch has a central opening and two side openings.</p> | <p>2</p> | <p>/</p> |
| <p>Right body control module</p> | <p>12</p> | <p>Power supply</p> |

| Plug | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">G86(G)</p>  <p style="font-size: small; margin-top: 10px;">G86(G)</p> | | |

Diagnostic Steps

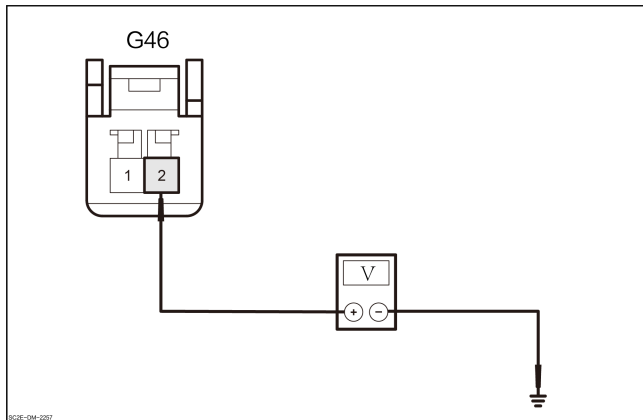
1 Check the harness connector of glove box light.

1. Set the START/STOP button to “OFF” .
2. Open the glove box.
3. Disconnect the harness connector of glove box light.
4. Check the harness connector of glove box light for normal function.

No Repair or replace the wire harness

Yes

2 Check the power supply of glove box light.



1. Measure the voltage between harness connector of glove box light G46-2 and the ground.

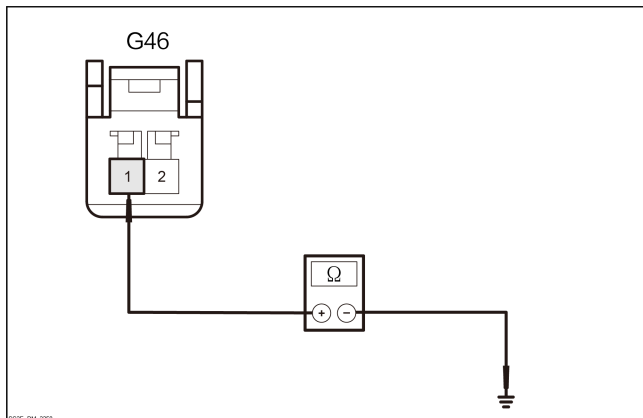
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G46-2 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

No Go to step 4

Yes

3 Check the ground line of glove box light.



1. Measure the resistance between the harness connector of glove box light G46-1 and the ground.

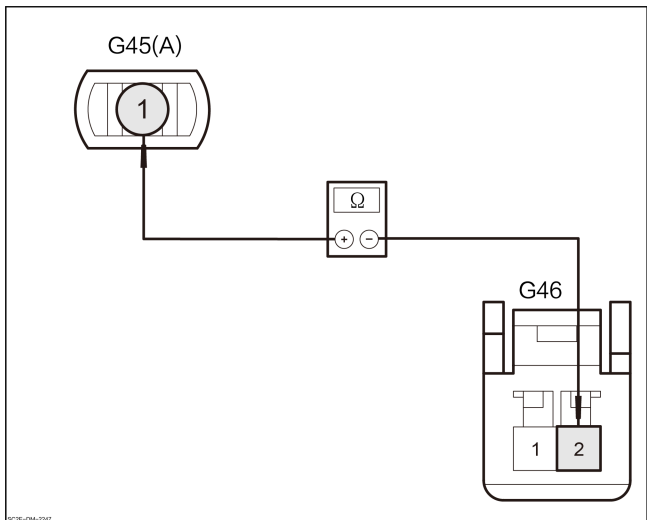
| Connector | | Condition | Resist-ance value |
|-----------|--------|-------------|-------------------|
| (+) | (-) | | |
| G46-1 | Ground | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the glove box light.

4 Check the power line of glove box light for open circuit.



1. Disconnect the harness connector of glove box light switch.
2. Measure the resistance between the harness connector of glove box light switch G45(A)-1 and harness connector of glove box light G46-2.

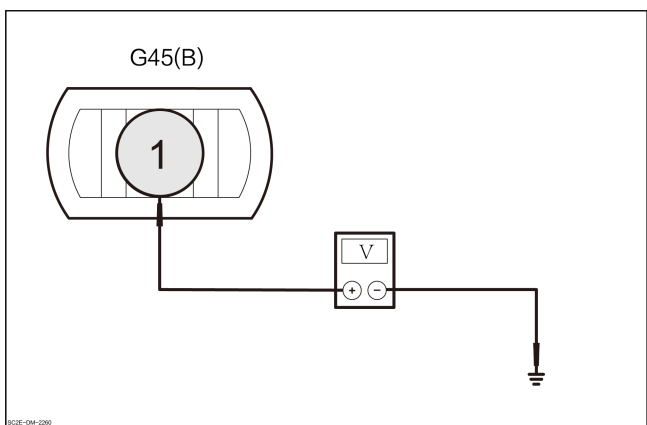
| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| G45(A)-1 | G46-2 | Through- out | Lower than 1 Ω |

3. Check whether the results are normal.

No Repair or replace the wire harness

Yes

5 Check the power supply of glove box light switch.



1. Measure the voltage between harness connector of glove box light switch G45(B)-1 and the ground.

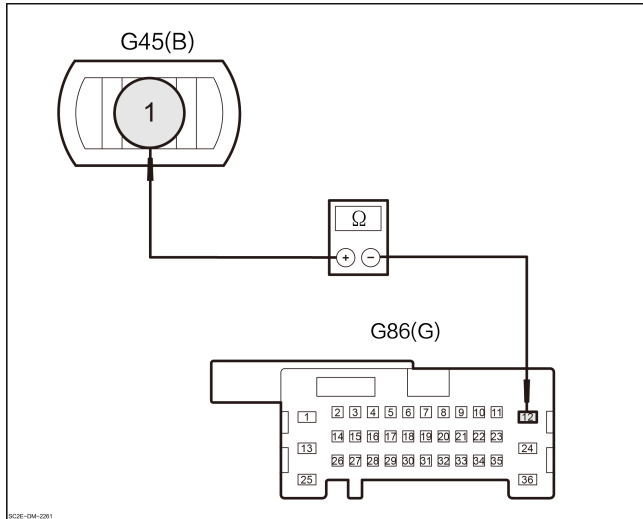
| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G45(B)-1 | Ground | Through- out | 11~14V |

2. Check whether the results are normal.

Yes Replace the glove box light switch.

No

6 Check the switch power supply of glove box light for open circuit.



1. Disconnect the harness connector of right body control module.
2. Measure the resistance between the harness connector of glove box light switch G45(B)-1 and the harness connector of right body control module G86(G)-12.

| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| G45(B)-1 | G86(G)-1 2 | Through- out | Lower than 1 Ω |

3. Check whether the results are normal.

| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the right body control module. |

Door Light

Diagnosis Description

For the diagnosis of door light fault, make sure to understand and get familiar with the control logic of the door light. Before the diagnosis, confirm the fault phenomenon described by customers, and then analyze the cause of door light failure, which can help determining the correct fault diagnosis procedure. For door light harness and door light inspection and measurement, preferably, data flow, motion test and other functions of VDS should be used to improve the diagnosis efficiency and to reduce the repair time. After determining the fault, implement the standard operation procedures, and check the door light for normal working after repair.

Diagnosing intermittent faults can be more difficult than diagnosing persistent faults. Most intermittent faults are caused by poorly contacted electrical connection or faulty line. Therefore, checking the circuit suspected to be causing the fault can help to avoid replacing a functional part.

General equipment

- Interior wall crow plate
- VDS
- Multimeter

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Precautions

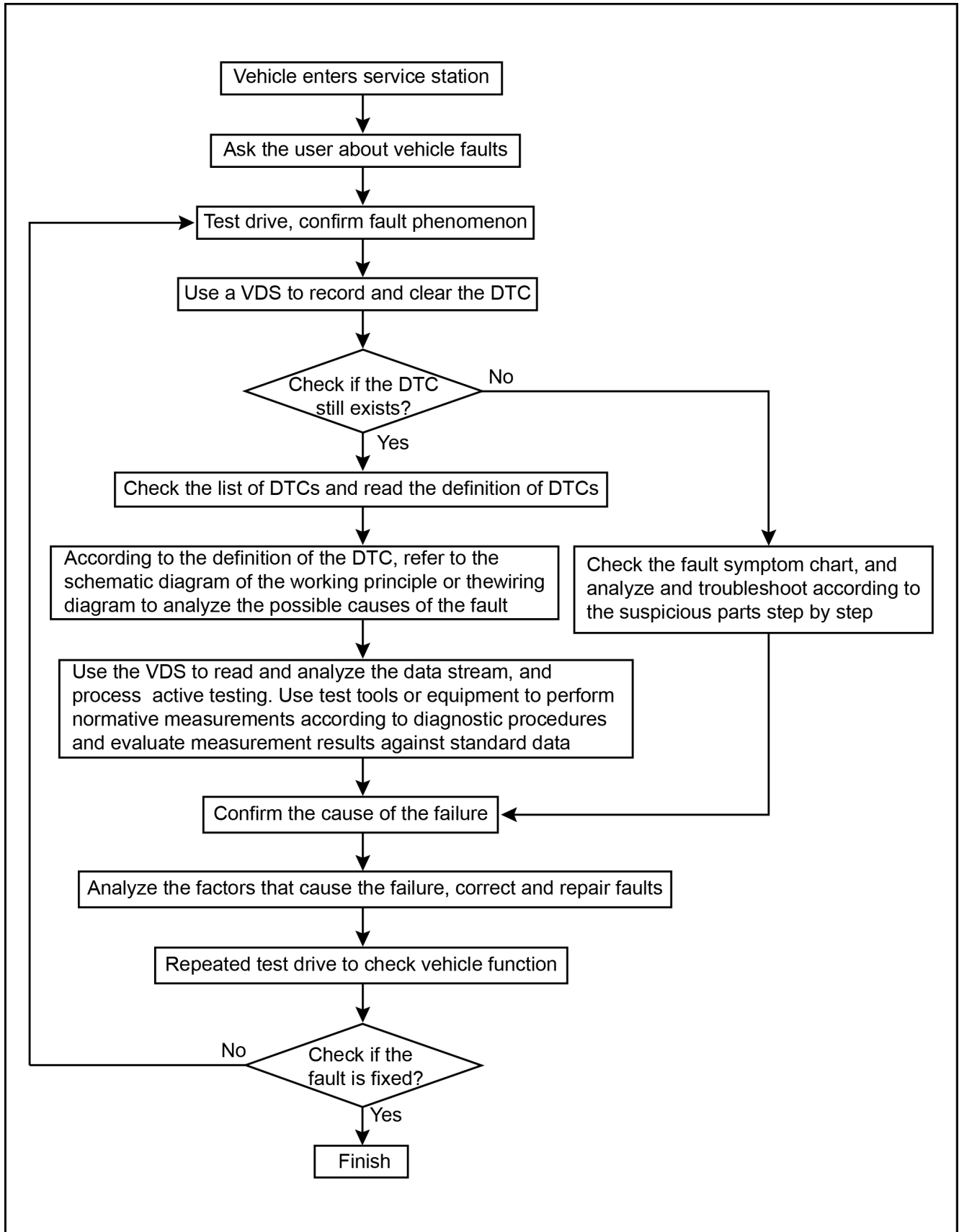
Warning:

- Do not remove the interior trim with sharp tools.
- Do not remove the interior trim forcibly to prevent damage.
- When disconnecting the connector, do not pull the harness to avoid damaging the harness.

Caution:

- When it is necessary to work in the vehicle, the seat and other parts shall be covered to avoid oil contamination.
- The interior trim crow plate shall be used to remove the interior trim. If there is no interior trim crow plate, it can also be replaced by a screwdriver or equivalent, but it shall be wrapped.
- Do not use a fine needle to pierce the harness to check the electrical signal of the system.

Process of Fault Inspection and Troubleshooting



Diagnosis of General Faults

Visual Inspection

1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

| Symptom | Possible cause | Suggested maintenance measures |
|------------------------|---------------------------------|--|
| Door light not working | Harness or connector fault. | Repair the harness and connector according to the circuit diagram. |
| | Door light damage | Replace the door light |
| | Left body control module fault | Replace the left body control module |
| | Right body control module fault | Replace the right body control module |

DTC Diagnosis

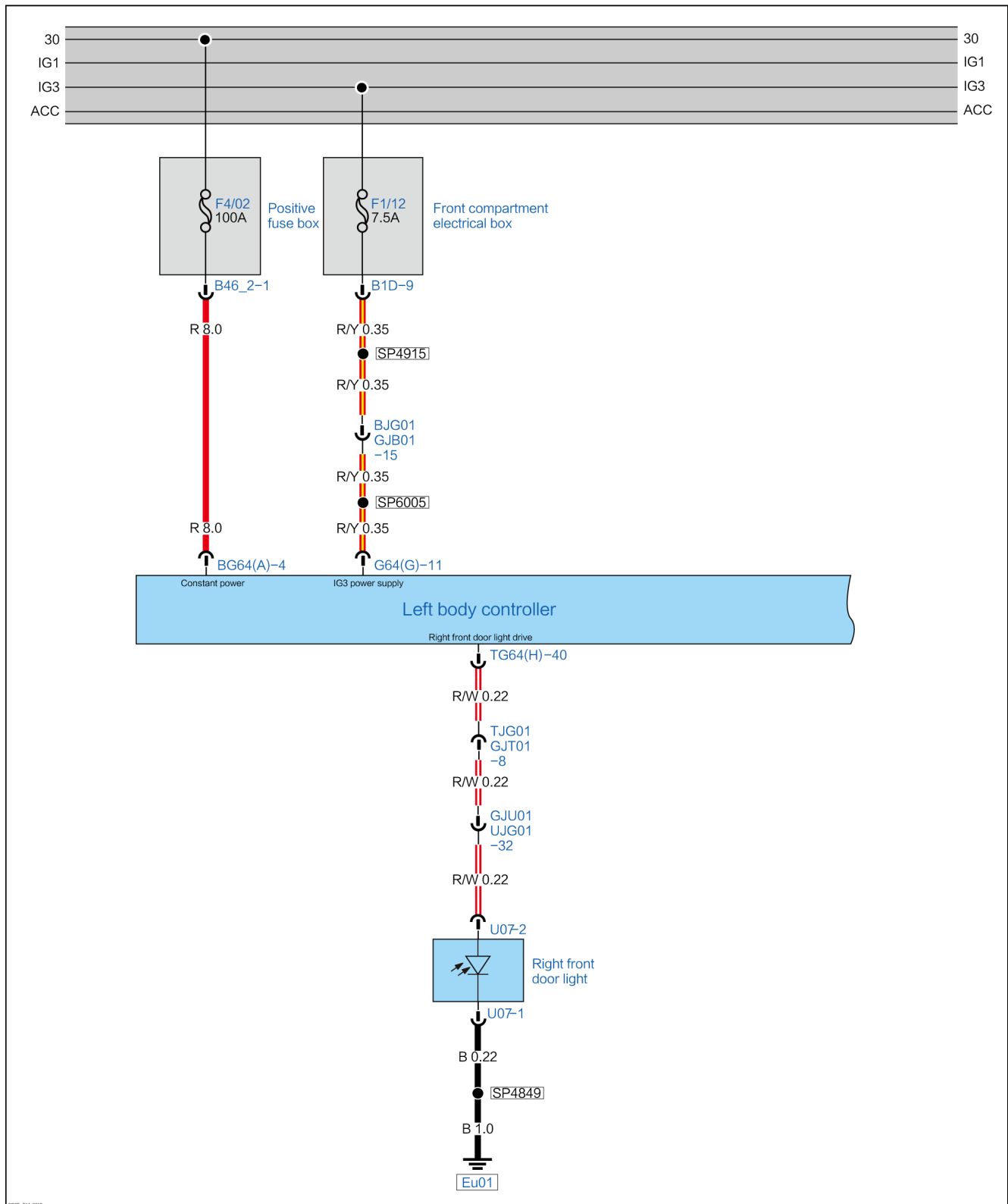
List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|--|--|
| B1CDD11 | Right front door light drive circuit short to ground | B1CDD11 Right Front Door Light Drive Circuit Short to Ground |
| B1CDD12 | Right front door light drive circuit short to power | B1CDD12 Right Front Door Light Drive Circuit Short to Power |
| B1CDD13 | Right front door light drive circuit broken | B1CDD13 Right Front Door Light Drive Circuit Broken |
| B1CDD19 | Right front door drive overload | B1CDD19 Right Front Door Drive Overload |
| B1CDB11 | Left front door light drive circuit short to ground | B1CDB11 Left Front Door Light Drive Circuit Short to Ground |
| B1CDB12 | Left front door light drive circuit short to power | B1CDB12 Left Front Door Light Drive Circuit Short to Power |
| B1CDB13 | Left Front Door Light Drive Circuit Broken | B1CDB13 Left Front Door Light Drive Circuit Broken |
| B1CDB19 | Left front door drive overload | B1CDB19 Left Front Door Drive Overload |

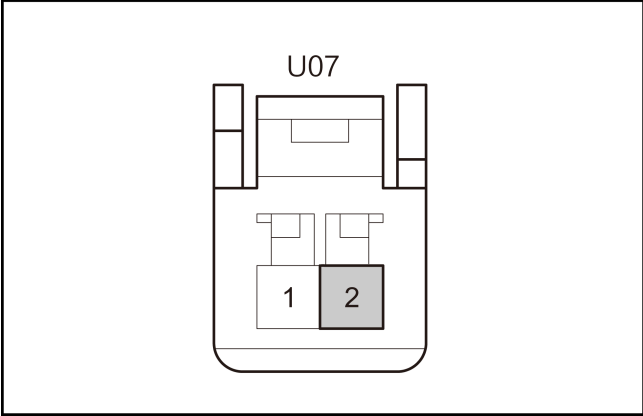
B1CDD11 Right Front Door Light Drive Circuit Short to Ground**DTC Description**

| B1CDD11 Right Front Door Light Drive Circuit Short to Ground | |
|--|--|
| Symptom | Right Front Door Light Not Working |
| Possible Cause | 1. Harness or connector fault. 2. Right Front Door Light Fault 3. Left body control module fault |
| Fault setting conditions | Drive port short circuit detected |
| Trigger fault conditions | 1. The voltage of control module is between 9–16V 2. Right front door light lighting up |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-------------------------------------|
| <p style="text-align: center;">Right front door light</p> <div style="text-align: center;">  <p>The diagram shows a connector labeled U07. It has two rows of terminals. The top row has two terminals, and the bottom row has two terminals. The terminal in the bottom row on the right is shaded grey and labeled '2'. The terminal in the bottom row on the left is labeled '1'.</p> </div> | <p>2</p> | <p>Right front door light drive</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of right front door light |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of right front door light U07.
3. Check the harness connector of right front door light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of right body control module |
|---|--|

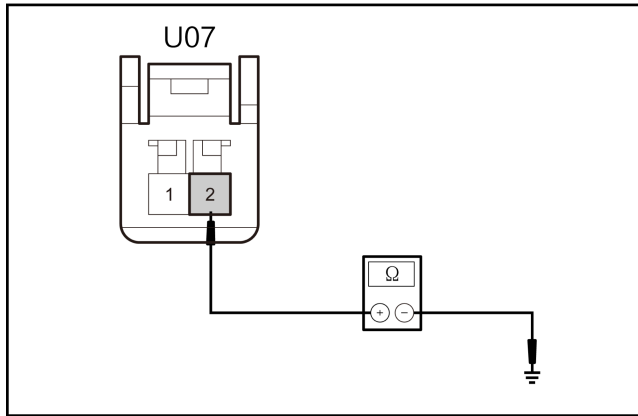
1. Disconnect the harness connector of right body control module TG86(H).
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check the right front door light drive harness for short to ground |
|---|--|



1. Measure the resistance between the harness connector of right front door light U07-2 and the ground.

| Terminal | | Condition | Resist- ance value |
|----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| U07-2 | Ground | Through- out | Above 10k Ω |

2. Check whether the results are normal.

No

Repair or replace the damaged harness.

Yes

| | |
|---|----------------------------------|
| 5 | Check the right front door light |
|---|----------------------------------|

1. Replace with a new right door light, and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the right door light.

No

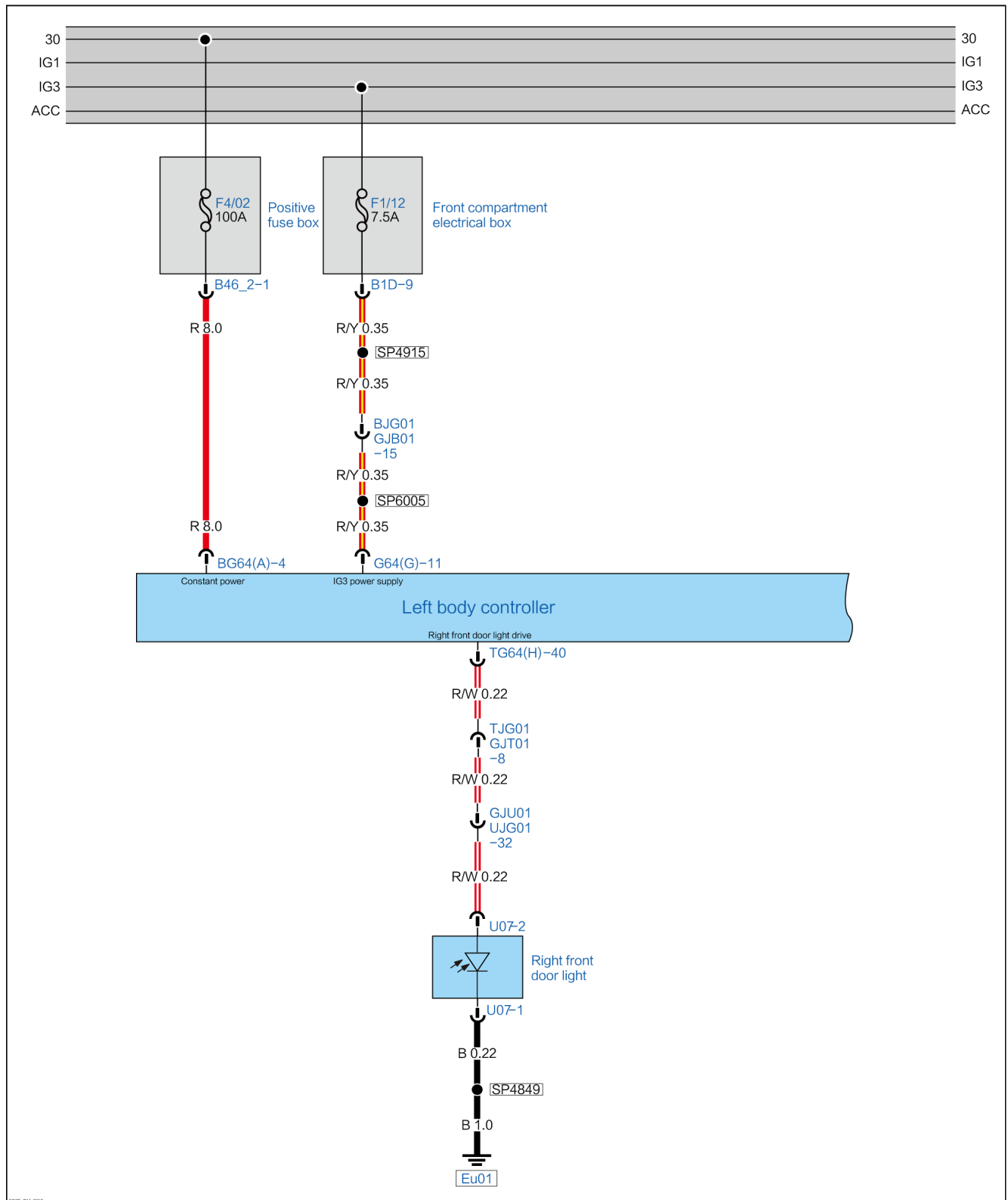
Replace the right body control module.

B1CDD12 Right Front Door Light Drive Circuit Short to Power

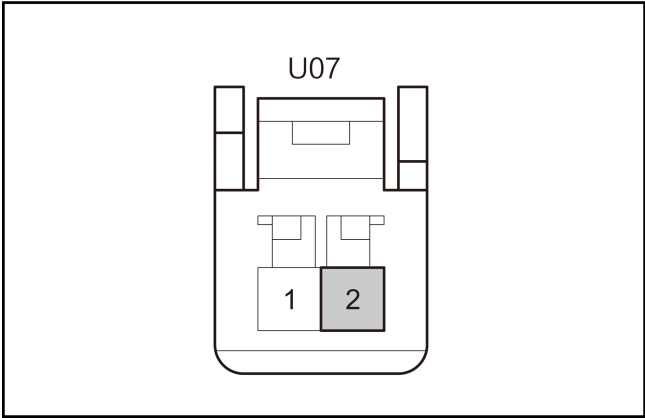
DTC Description

| B1CDD12 Right Front Door Light Drive Circuit Short to Power | |
|---|--|
| Symptom | Door front door light keeps on |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Right Front Door Light Fault 3. Left body control module fault |
| Fault setting conditions | Detecting that drive circuit is short to power |
| Trigger fault conditions | <ol style="list-style-type: none"> 1. The voltage of control module is between 9–16V 2. Right front door light is not working |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-------------------------------------|
| <p style="text-align: center;">Right front door light</p> <div style="text-align: center;">  <p>The diagram shows a connector labeled U07. It has two terminals at the bottom, labeled 1 and 2. Terminal 2 is shaded grey. The connector is shown in a perspective view with a top and bottom section.</p> </div> | <p>2</p> | <p>Right front door light drive</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of right front door light |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of right front door light U07.
3. Check the harness connector of right front door light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of right body control module |
|---|--|

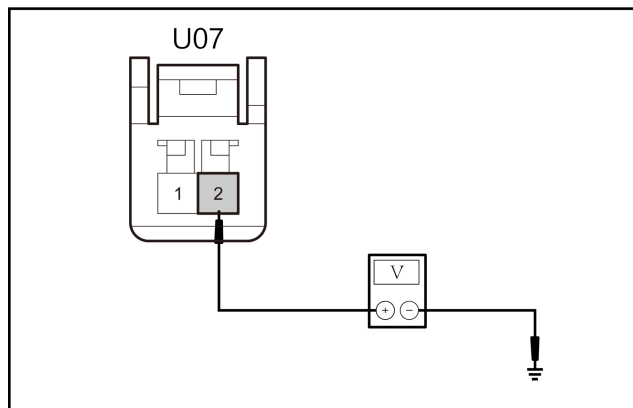
1. Disconnect the harness connector of right body control module TG86(H).
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 4 | Check the right front door light drive harness for short to power |
|---|---|



1. Set the start/stop button to "ON" position.
2. Measure the voltage between the harness connector of right front door light U07-2 and the ground.

| Terminal | | Condition | Voltage value |
|----------|--------|-------------|---------------|
| (+) | (-) | | |
| U07-2 | Ground | Through-out | Less than 1V |

3. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

| | |
|---|----------------------------------|
| 5 | Check the right front door light |
|---|----------------------------------|

1. Set the start/stop button to "OFF" position.
2. Replace with a new right door light, and restore the vehicle.
3. Set the START/STOP button to "ON" , and trial run for function inspection.
4. Check whether the results are normal.

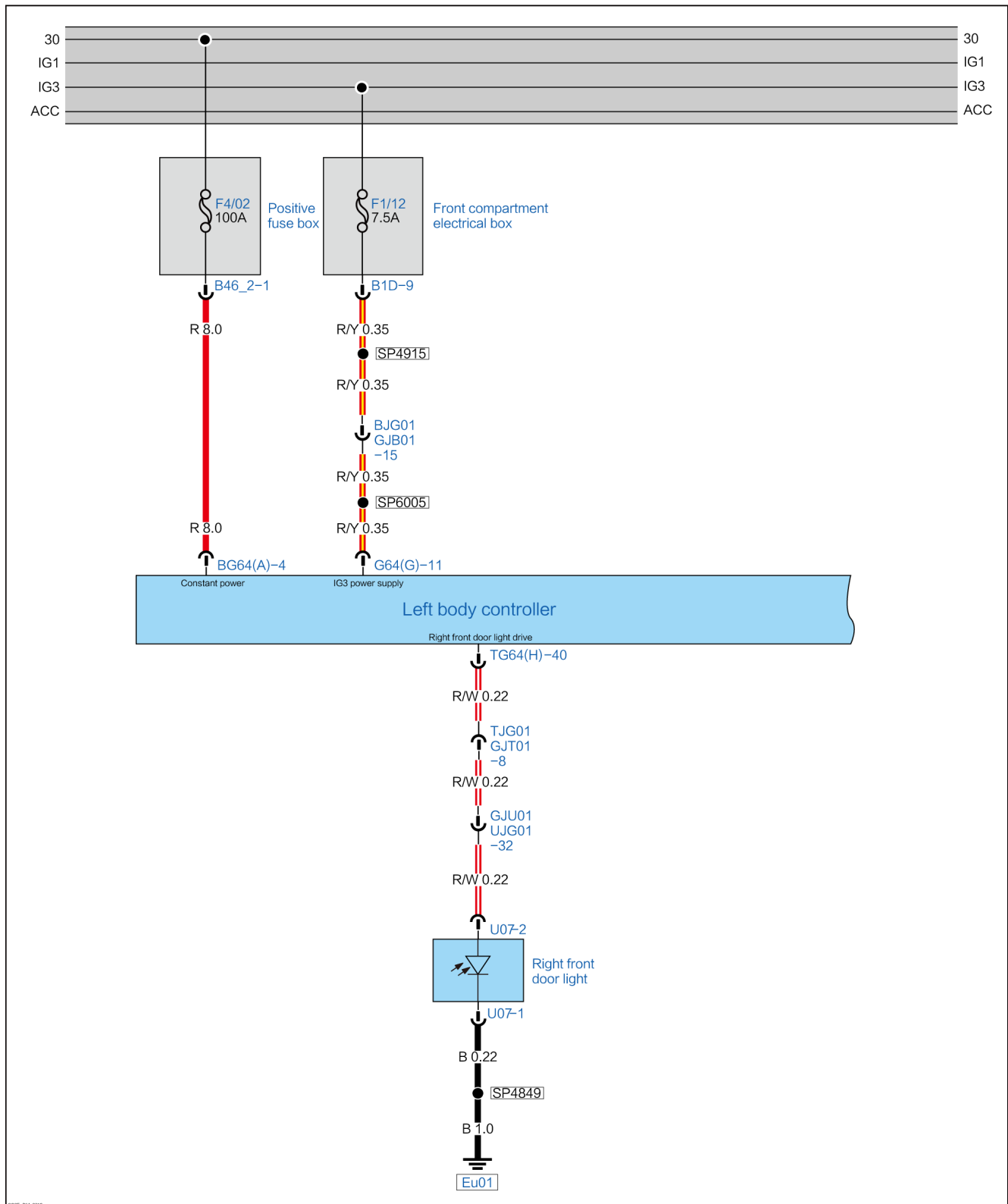
Yes → Replace the right door light.

No → Replace the right body control module.

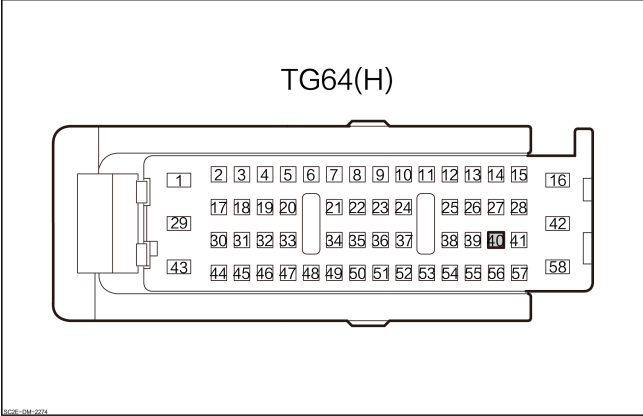
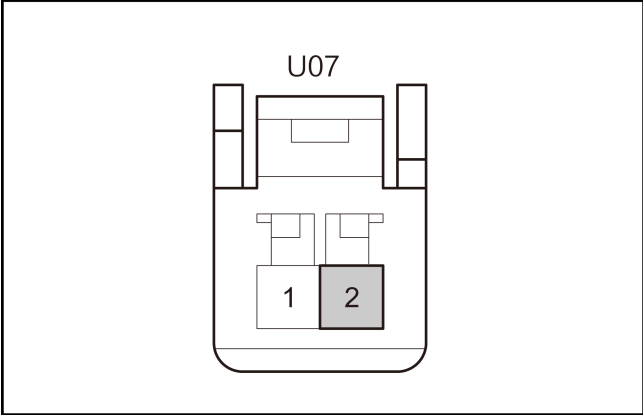
B1CDD13 Right Front Door Light Drive Circuit Broken**DTC Description**

| B1CDD13 Right Front Door Light Drive Circuit Broken | |
|---|---|
| Symptom | Right Front Door Light Not Working |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Right Front Door Light Fault3. Left body control module fault |
| Fault setting conditions | Drive circuit break detected |
| Trigger fault conditions | <ol style="list-style-type: none">1. History DTCs will be cleared automatically after 40 times of ignition cycles2. History DTCs will be cleared automatically if no fault is detected in 40 consecutive drives. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|-------------------------------------|
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">TG64(H)</p> </div> | <p>40</p> | <p>Right front door light drive</p> |
| <p style="text-align: center;">Right front door light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">U07</p> </div> | <p>2</p> | <p>Right front door light drive</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of right front door light |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of right front door light U07.
3. Check the harness connector of right front door light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 3 | Check the harness connector of left body control module |
|---|---|

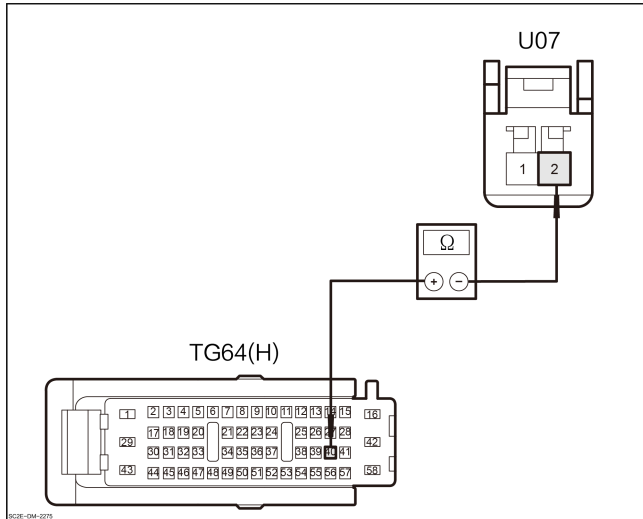
1. Disconnect the harness connector of left body control module TG64(H).
2. Check the harness connector of left body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 4 | Check the right front door light drive harness for open circuit |
|---|---|



1. Measure the resistance between the harness connector of right front door light U07-2 and the harness connector of left body control module TG64(H)-40.

| Terminal | | Condition | Resistance value |
|----------|------------|-------------|------------------|
| (+) | (-) | | |
| U07-2 | TG64(H)-40 | Through out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

5 Check the right front door light

1. Replace with a new right door light, and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes → Replace the right door light.

No → Replace the left body control module.

B1CDD19 Right Front Door Drive Overload

DTC Description

| B1CDD19 Right Front Door Drive Overload | |
|---|--|
| Symptom | Right Front Door Light Not Working |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Right Front Door Light Fault 3. Left body control module fault |
| Fault setting conditions | Drive overload is detected |
| Trigger fault conditions | <ol style="list-style-type: none"> 1. The voltage of control module is between 9–16V 2. Right front door light lighting up |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|--|
| 2 | Check whether the right front door light has been replaced |
|---|--|

1. Check whether the right front door light has been modified or replaced.
2. Check whether the results are normal.

No

Replace with the original parts.

Yes

| | |
|---|--|
| 3 | Check whether the right front door light drive harness has been connected to other equipment |
|---|--|

1. Check whether the right front door light drive harness has been connected to other electrical equipment.
2. Check whether the results are normal.

No

Remove the external equipment and recover the vehicle.

Yes

| | |
|---|---|
| 4 | Check the harness connector of right front door light |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of right front door light U07.
3. Check the harness connector of right front door light for corrosion, damage, false connection, pin withdrawing, etc.
4. Check whether the results are normal.

No → Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 5 | Check the harness connector of right body control module |
|---|--|

1. Disconnect the harness connector of right body control module UG86(H).
2. Check the harness connector of right body control module for corrosion, damage, false connection, pin withdrawing, etc.
3. Check whether the results are normal.

No → Repair or replace the damaged harness or connector.

Yes

| | |
|---|----------------------------------|
| 6 | Check the right front door light |
|---|----------------------------------|

1. Replace with a new right door light, and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

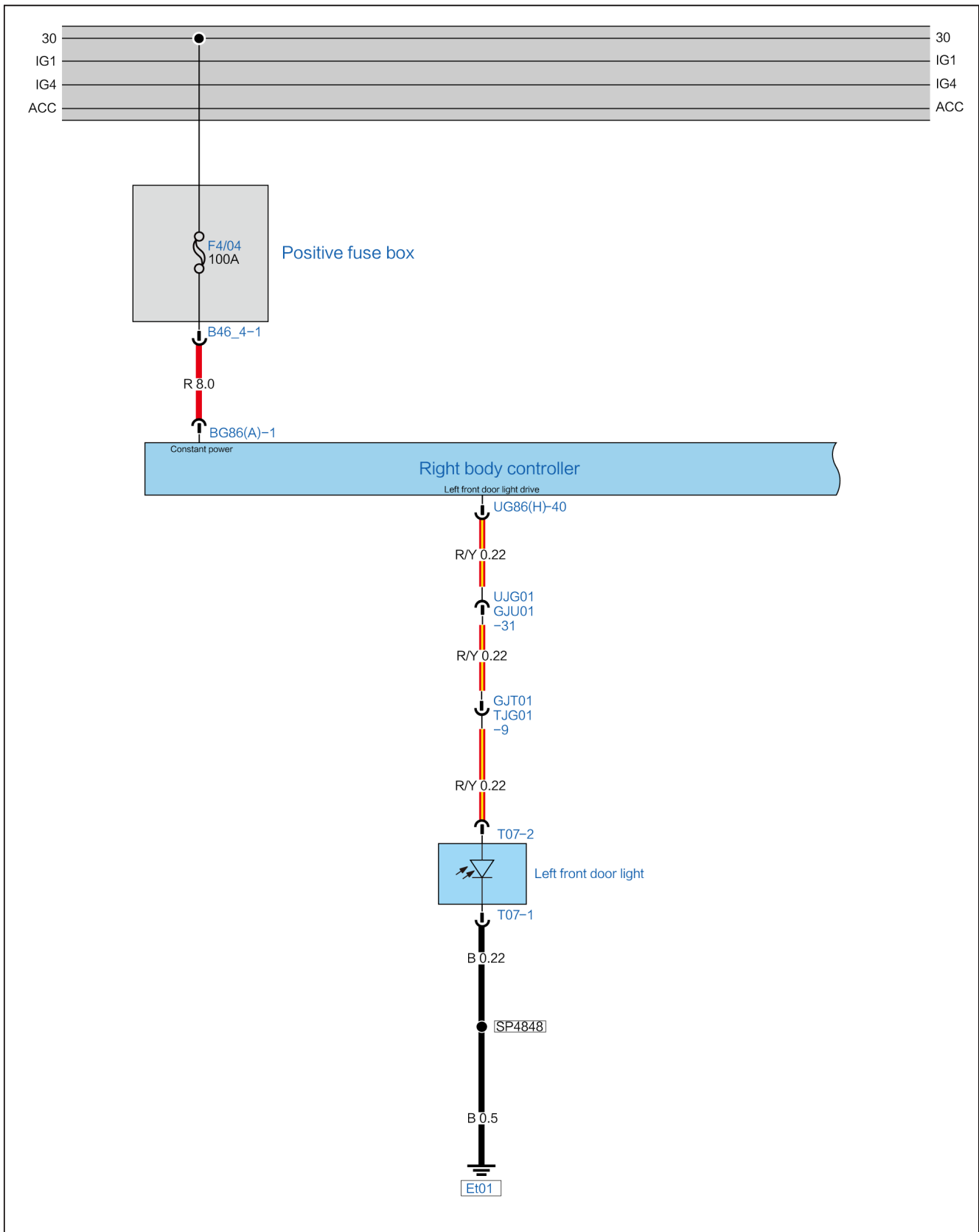
Yes → Replace the right door light.

No → Replace the right body control module.

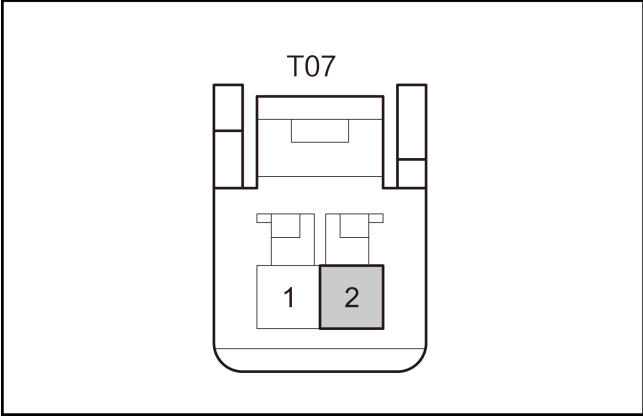
B1CDB11 Left Front Door Light Drive Circuit Short to Ground**DTC Description**

| B1CDD11 Left Front Door Light Drive Circuit Short to Ground | |
|---|--|
| Symptom | Left Front Door Light Not Working |
| Possible Cause | 1. Harness or connector fault. 2. Left Front Door Light Fault 3. Right body control module fault |
| Fault setting conditions | Drive port short circuit detected |
| Trigger fault conditions | 1. The voltage of control module is between 9–16V 2. Left Front Door Light Lighting Up |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|------------------------------------|
| <p style="text-align: center;">Left front door light</p> <div style="text-align: center;">  </div> | <p>2</p> | <p>Left front door light drive</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|--|
| 2 | Check the harness connector of left front door light |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left front door light T07.
3. Check the harness connector of left front door light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of right body control module |
|---|--|

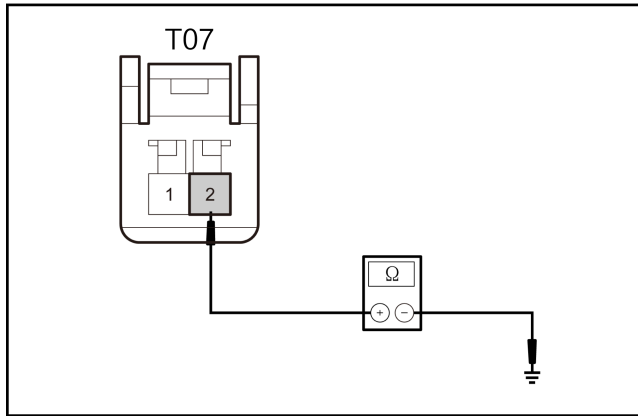
1. Disconnect the harness connector of right body control module UG64(H).
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 4 | Check the left front door light drive harness for short to ground |
|---|---|



1. Measure the resistance between the harness connector of left front door light T07-2 and the ground.

| Terminal | | Condition | Resist- ance value |
|----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| T07-2 | Ground | Through- out | Above 10k Ω |

2. Check whether the results are normal.

No

Repair or replace the damaged harness.

Yes

| | |
|---|---------------------------------|
| 5 | Check the left front door light |
|---|---------------------------------|

1. Replace with a new left door light, and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the left front door light.

No

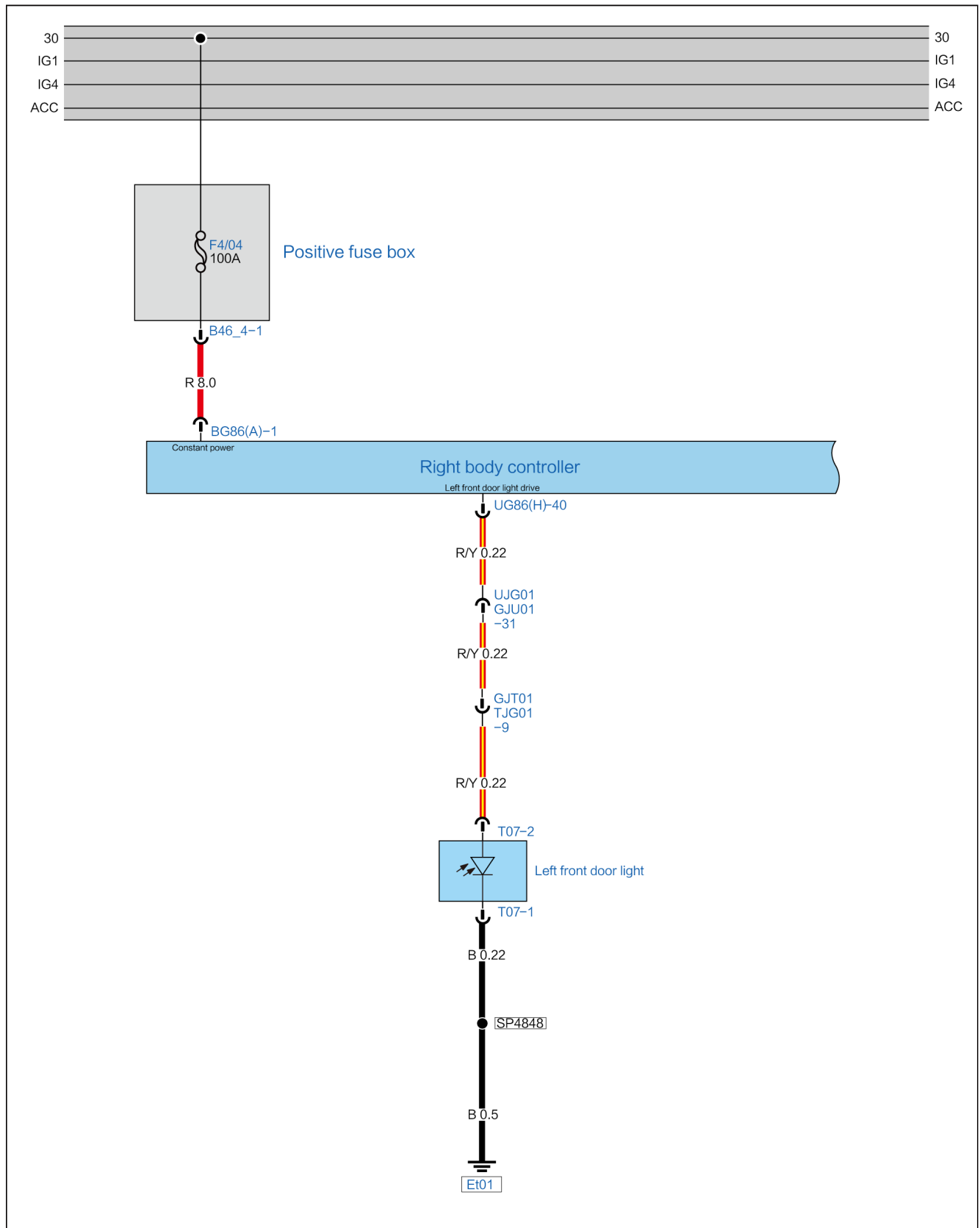
Replace the right body control module.

B1CDB12 Left Front Door Light Drive Circuit Short to Power

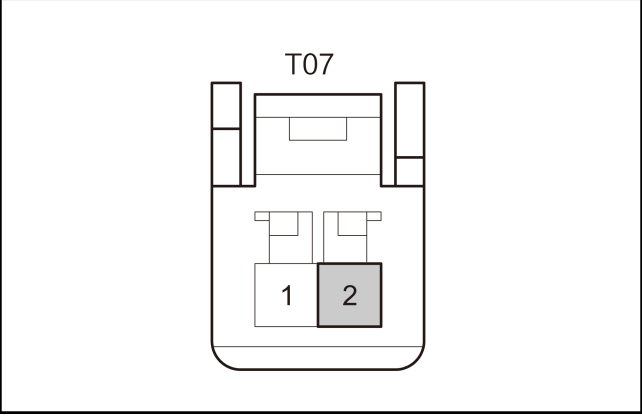
DTC Description

| B1CDB12 Left Front Door Light Drive Circuit Short to Power | |
|--|--|
| Symptom | Left front door light keeping on |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Left Front Door Light Fault 3. Right body control module fault |
| Fault setting conditions | Detecting that drive circuit is short to power |
| Trigger fault conditions | <ol style="list-style-type: none"> 1. The voltage of control module is between 9–16V 2. Left front door light not working |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|--------------------------------------|--|
| <p>Left front door light</p>  | <p>2</p> | <p>Left front door light drive</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|--|
| 2 | Check the harness connector of left front door light |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left front door light T07.
3. Check the harness connector of left front door light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of right body control module |
|---|--|

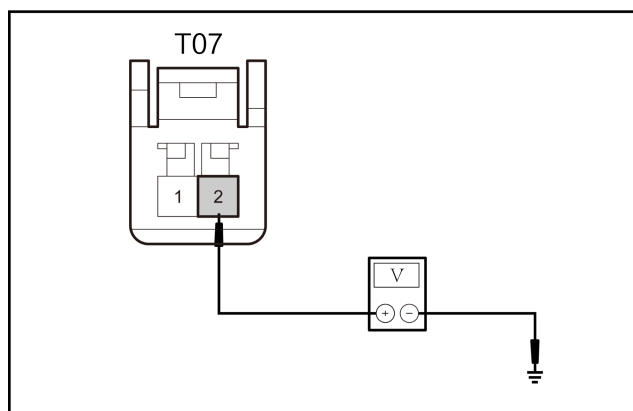
1. Disconnect the harness connector of right body control module UG64(H).
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check the left front door light drive harness for short to power |
|---|--|



1. Set the start/stop button to "ON" position.
2. Measure the voltage between the harness connector of left front door light T07-2 and the ground.

| Terminal | | Condition | Voltage value |
|----------|--------|-------------|---------------|
| (+) | (-) | | |
| T07-2 | Ground | Through-out | Less than 1V |

3. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

| | |
|---|---------------------------------|
| 5 | Check the left front door light |
|---|---------------------------------|

1. Set the start/stop button to "OFF" position.
2. Replace with a new left door light, and restore the vehicle.
3. Set the START/STOP button to "ON" , and trial run for function inspection.
4. Check whether the results are normal.

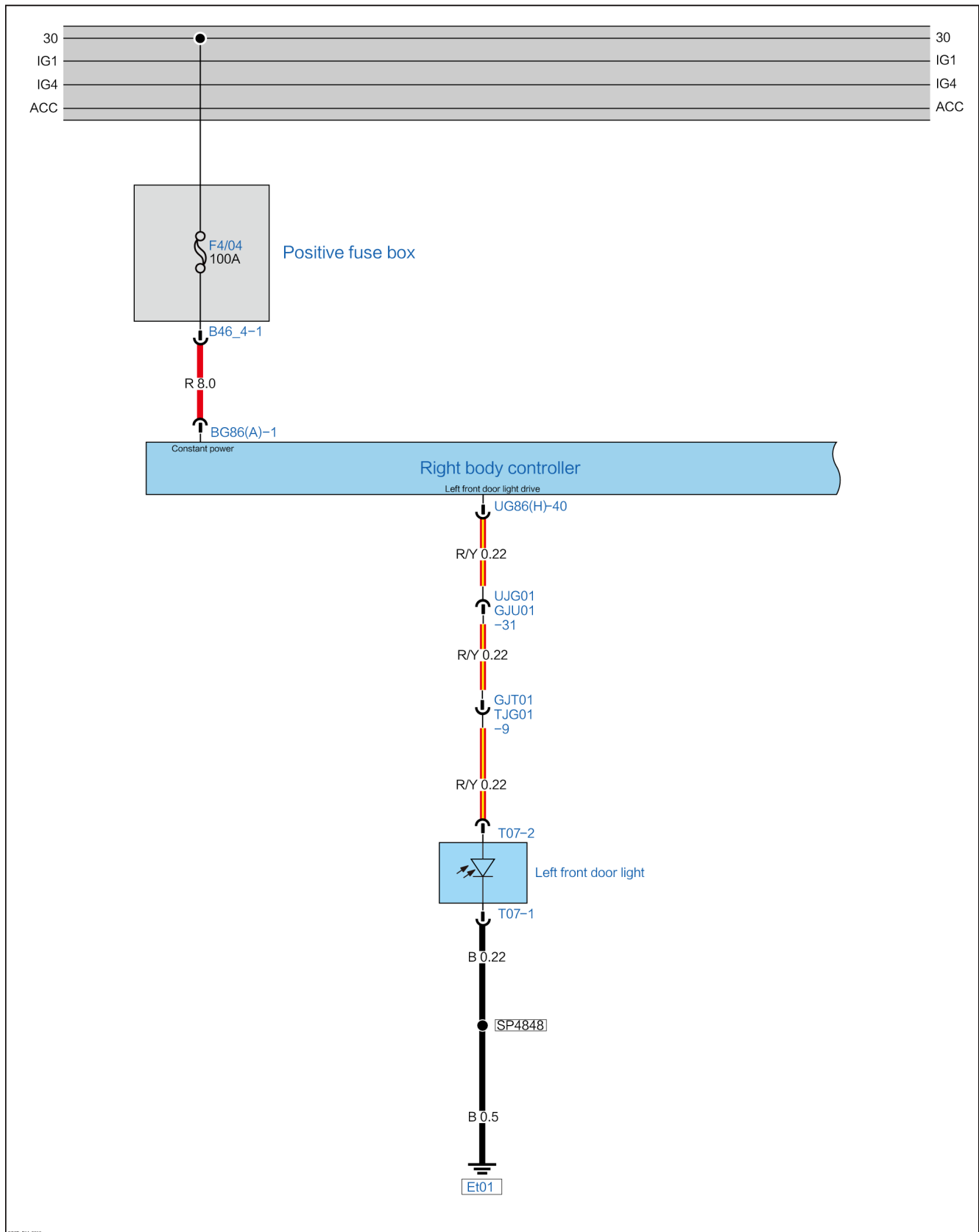
Yes → Replace the left front door light.

No → Replace the right body control module.

B1CDB13 Left Front Door Light Drive Circuit Broken**DTC Description**

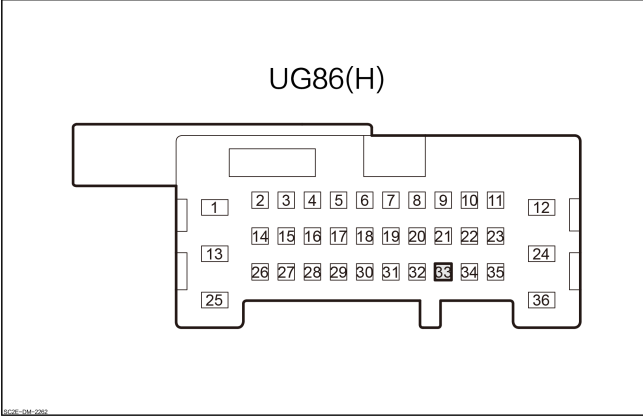
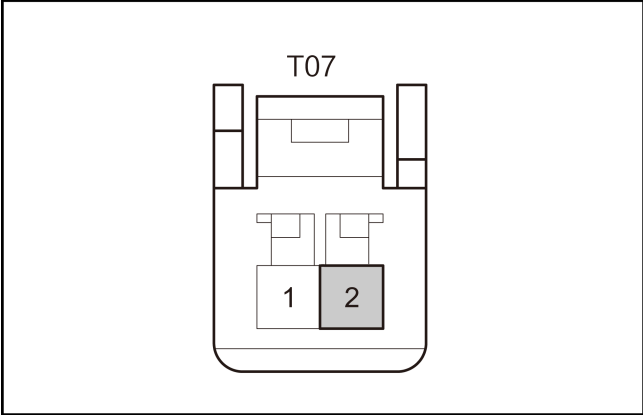
| B1CDB13 Left Front Door Light Drive Circuit Broken | |
|--|---|
| Symptom | Left Front Door Light Not Working |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Left Front Door Light Fault3. Right body control module fault |
| Fault setting conditions | Drive circuit break detected |
| Trigger fault conditions | <ol style="list-style-type: none">1. History DTCs will be cleared automatically after 40 times of ignition cycles2. History DTCs will be cleared automatically if no fault is detected in 40 consecutive drives. |

Circuit Diagram



ECSE-DM-2007

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|------------------------------------|
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p>UG86(H)</p> </div> | <p>33</p> | <p>Left front door light drive</p> |
| <p style="text-align: center;">Left front door light</p> <div style="text-align: center;">  <p>T07</p> </div> | <p>2</p> | <p>Left front door light drive</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|--|
| 2 | Check the harness connector of left front door light |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left front door light T07.
3. Check the harness connector of left front door light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of right body control module |
|---|--|

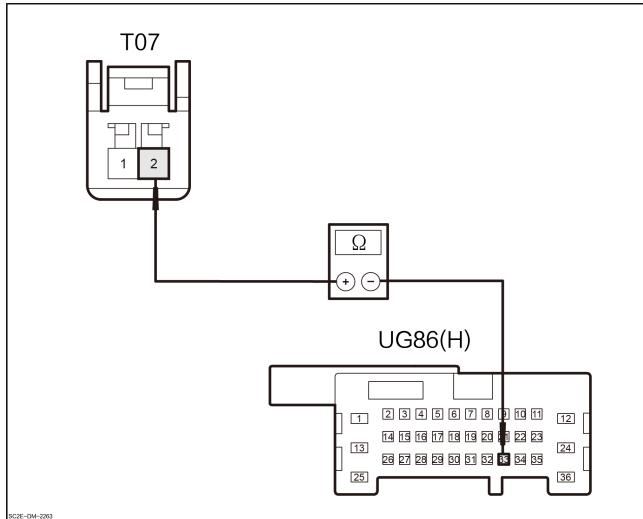
1. Disconnect the harness connector of right body control module UG86(H).
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check the left front door light drive harness for open circuit |
|---|--|



1. Measure the resistance between the harness connector of left front door light T07-2 and the harness connector of right domain control module UG86(H)-33.

| Terminal | | Condition | Resistance value |
|----------|------------|------------|------------------|
| (+) | (-) | | |
| T07-2 | UG86(H)-33 | Throughout | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

5 Check the left front door light

1. Replace with a new left door light, and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes → Replace the left front door light.

No → Replace the right body control module.

B1CDB19 Left Front Door Drive Overload

DTC Description

| B1CDD19 Left Front Door Drive Overload | |
|--|--|
| Symptom | Left Front Door Light Not Working |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Left Front Door Light Fault 3. Right body control module fault |
| Fault setting conditions | Drive overload is detected |
| Trigger fault conditions | <ol style="list-style-type: none"> 1. The voltage of control module is between 9–16V 2. Left Front Door Light Lighting Up |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check whether the left front door light has been replaced |
|---|---|

1. Check whether the left front door light has been modified or replaced.
2. Check whether the results are normal.

No

Replace with the original parts.

Yes

| | |
|---|---|
| 3 | Check whether the left front door light drive harness has been connected to other devices |
|---|---|

1. Check whether the left front door light drive harness has been connected to other electrical devices.
2. Check whether the results are normal.

No

Remove the external equipment and recover the vehicle.

Yes

| | |
|---|--|
| 4 | Check the harness connector of left front door light |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left front door light T07.
3. Check the harness connector of left front door light for corrosion, damage, false connection, pin withdrawing, etc.
4. Check whether the results are normal.

No → Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 5 | Check the harness connector of right body control module |
|---|--|

1. Disconnect the harness connector of right body control module TG64(H).
2. Check the harness connector of right body control module for corrosion, damage, false connection, pin withdrawing, etc.
3. Check whether the results are normal.

No → Repair or replace the damaged harness or connector.

Yes

| | |
|---|---------------------------------|
| 6 | Check the left front door light |
|---|---------------------------------|

1. Replace with a new left door light, and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes → Replace the left door light.

No → Replace the right body control module.

Trunk Light

Diagnosis Description

Introduction

Before fault diagnosis for the trunk light, understand and get familiar with the working principle of trunk light, and then start diagnosis for the trunk light, so as to be helpful to confirm the correct fault diagnosis procedure in the event of a fault, and more importantly, to confirm the operating condition described by the customer is normal. Any diagnosis of a trunk light should start with a trunk light check to guide the maintenance technician to take the next logical step for fault diagnosis.

General equipment

- Socket wrench kit
- Screwdriver
- Interior wall crow plate
- Torque wrench
- VDS
- Multimeter

Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Precautions

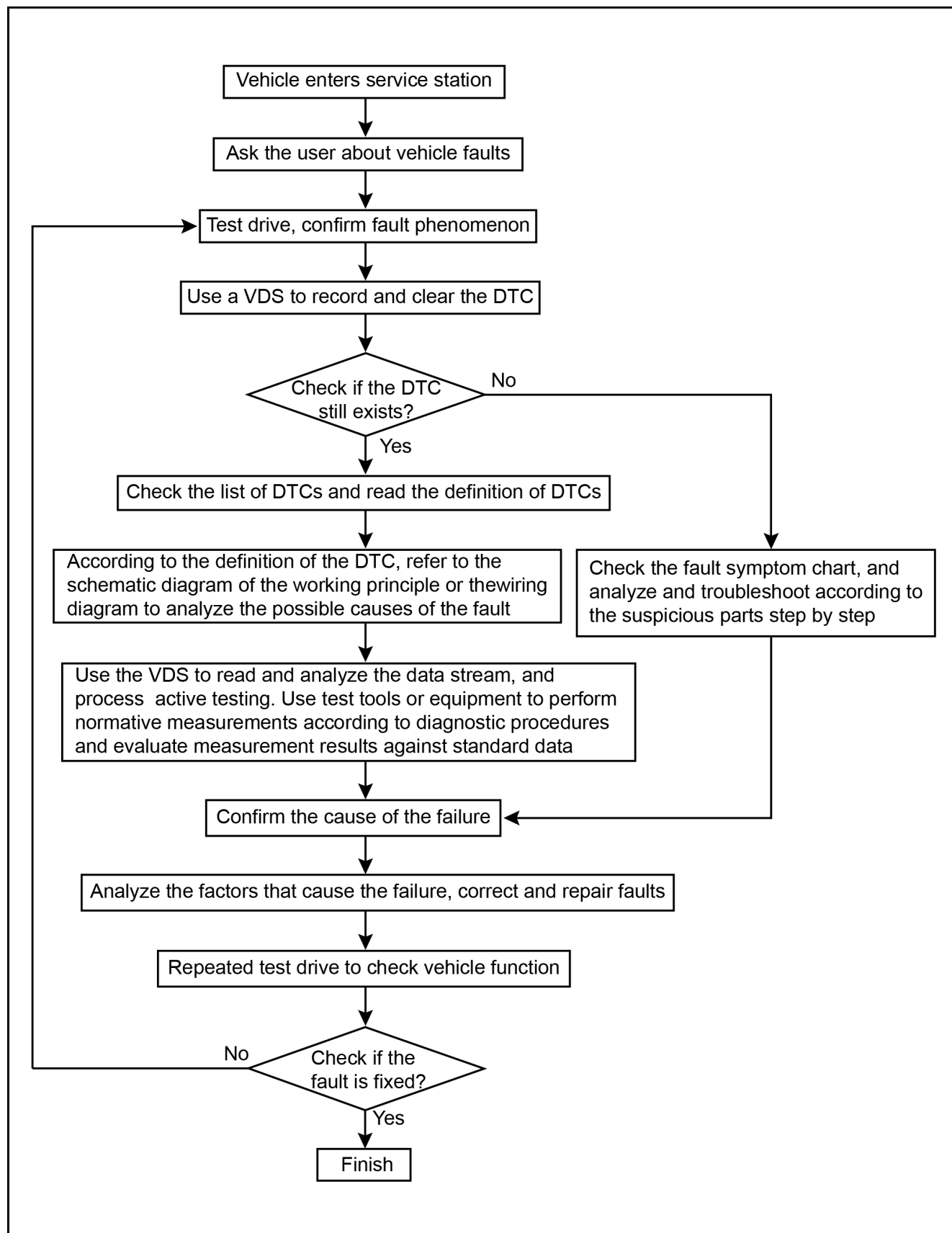
Warning:

- When disconnecting the connector, do not pull the harness to avoid damaging the harness.
- Do not remove the interior trim with sharp tools.
- Do not remove the interior trim forcibly to prevent damage.

Caution:

- Do not use a fine needle to pierce the harness to check the electrical signal of the system.
- The fastener must be checked in specified torque after installing.

Process of Fault Inspection and Troubleshooting



Diagnosis of General Faults

Visual Inspection

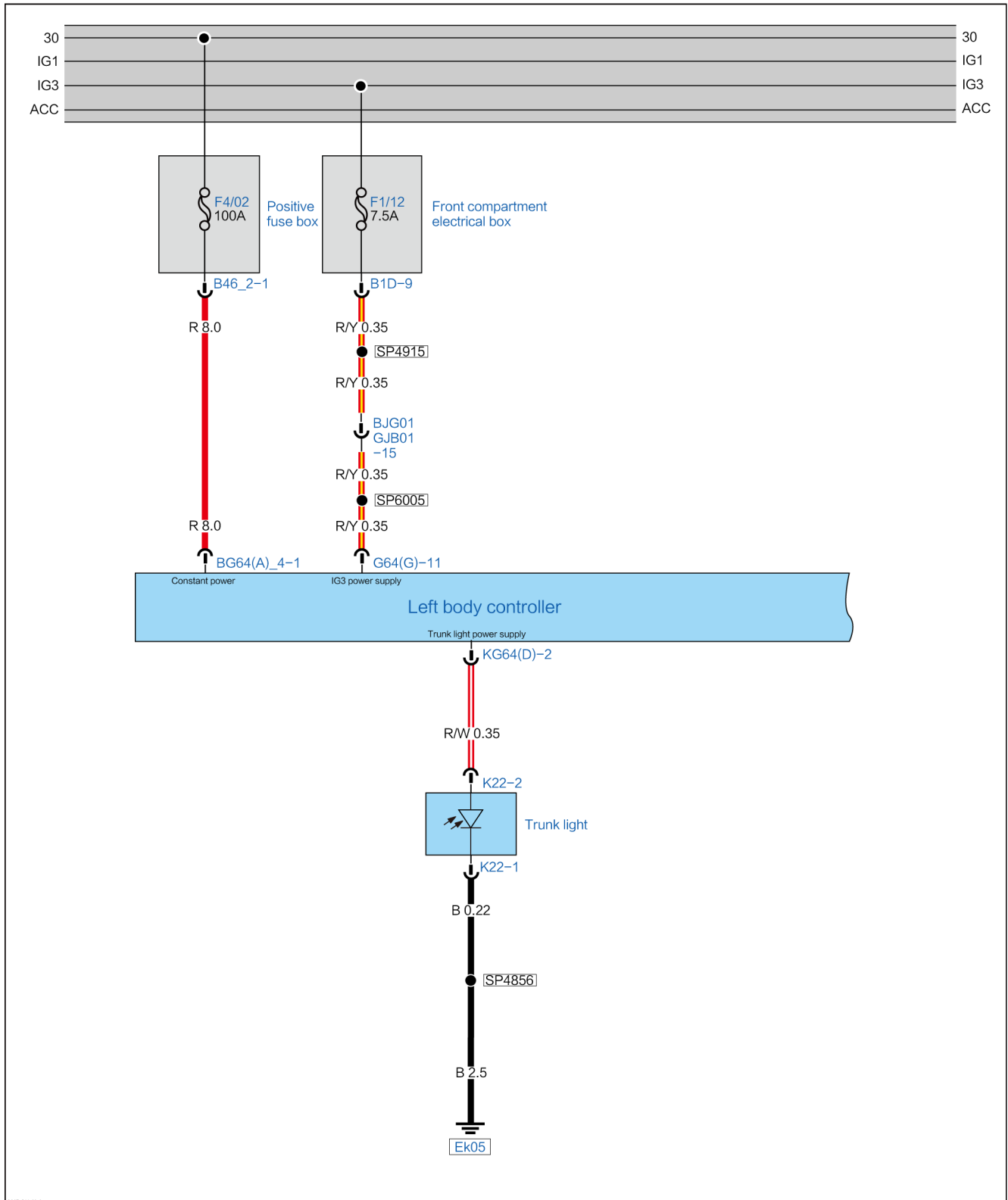
1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

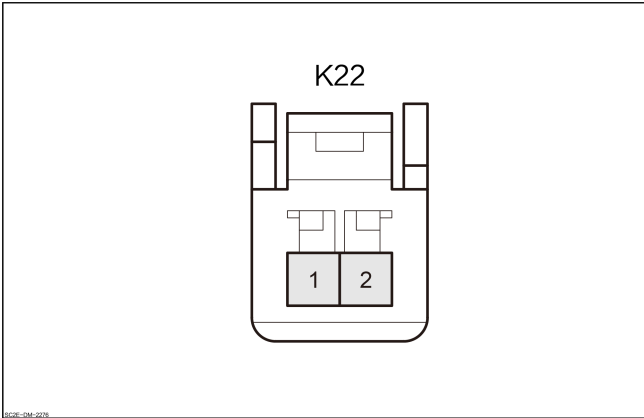
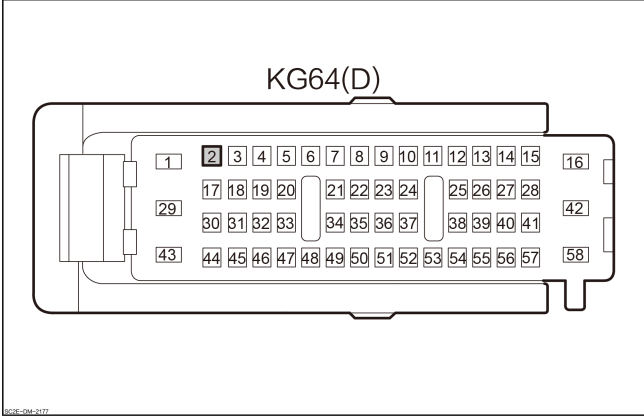
| Symptom | Possible cause | Suggested maintenance measures |
|----------------------------|---|--|
| Trunk Light is Not Working | <ol style="list-style-type: none">1. Trunk lamp fault.2. Line fault.3. The left body control module fails.4. The trunk lock fails. | Trunk Light is Not Working |

Trunk Light Not Working

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p>Trunk Light</p>  <p style="text-align: center;">K22</p> | 1 | Ground |
| <p>Left body control module</p>  <p style="text-align: center;">KG64(D)</p> | 2 | Trunk light drive |

Diagnostic Steps

1 Use VDS to actively control the trunk light.

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Actively control the trunk lamp to go on.
4. Whether the trunk lamp can be lit.

Yes Go to step 6

No

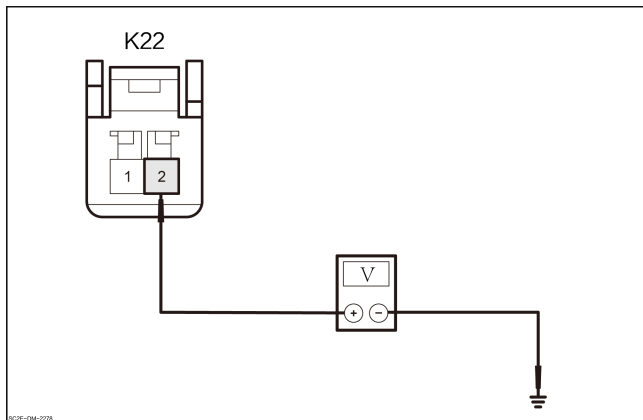
2 Check the trunk light harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the trunk light harness connector.
3. Check whether the trunk light harness connector is normal.

No Repair or replace the wire harness

Yes

3 Check the power supply of trunk lamp.



1. Measure the voltage between the harness connector of trunk light K22-2 and the ground.

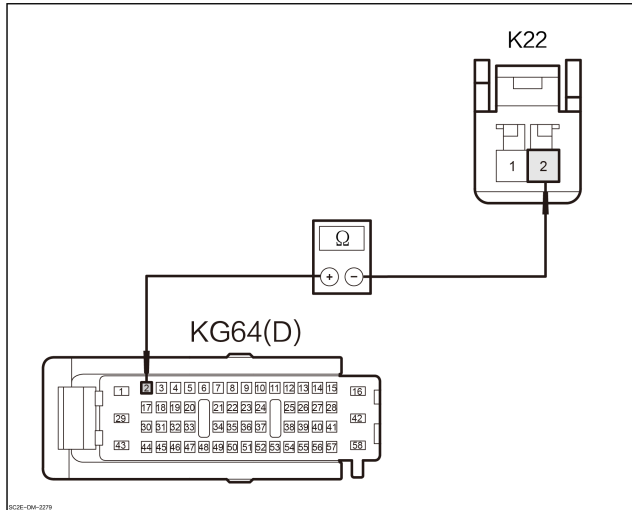
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| K22-2 | Ground | Through-out | 11~14V |

2. Check whether the results are normal.

Yes Go to step 5

No

4 Check the trunk light power line for open circuit.



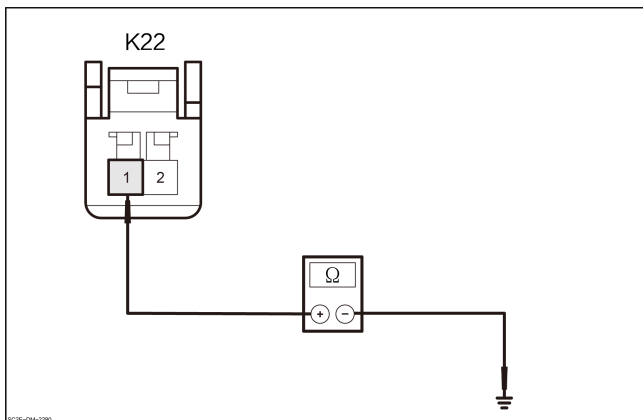
1. Measure the resistance between the harness connector of trunk light K22-2 and the harness connector of left body control module KG64(D)-2.

| Connector | | Condition | Resistance value |
|-----------|-----------|-------------|------------------|
| (+) | (-) | | |
| K22-2 | KG64(D)-2 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

- No → Repair or replace the wire harness
- Yes → Replace the trunk lamp.

5 Check the ground circuit of trunk lamp.



1. Measure the resistance between the harness connector of trunk light K22-1 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| K22-1 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

- No → Repair or replace the wire harness

ce the t

6 Check the trunk door lock motor.

1. Check whether the door lock motor of trunk works normally.

- No → Enter the diagnosis of "Trunk Door Lock Motor Inoperative".



DTC Diagnosis

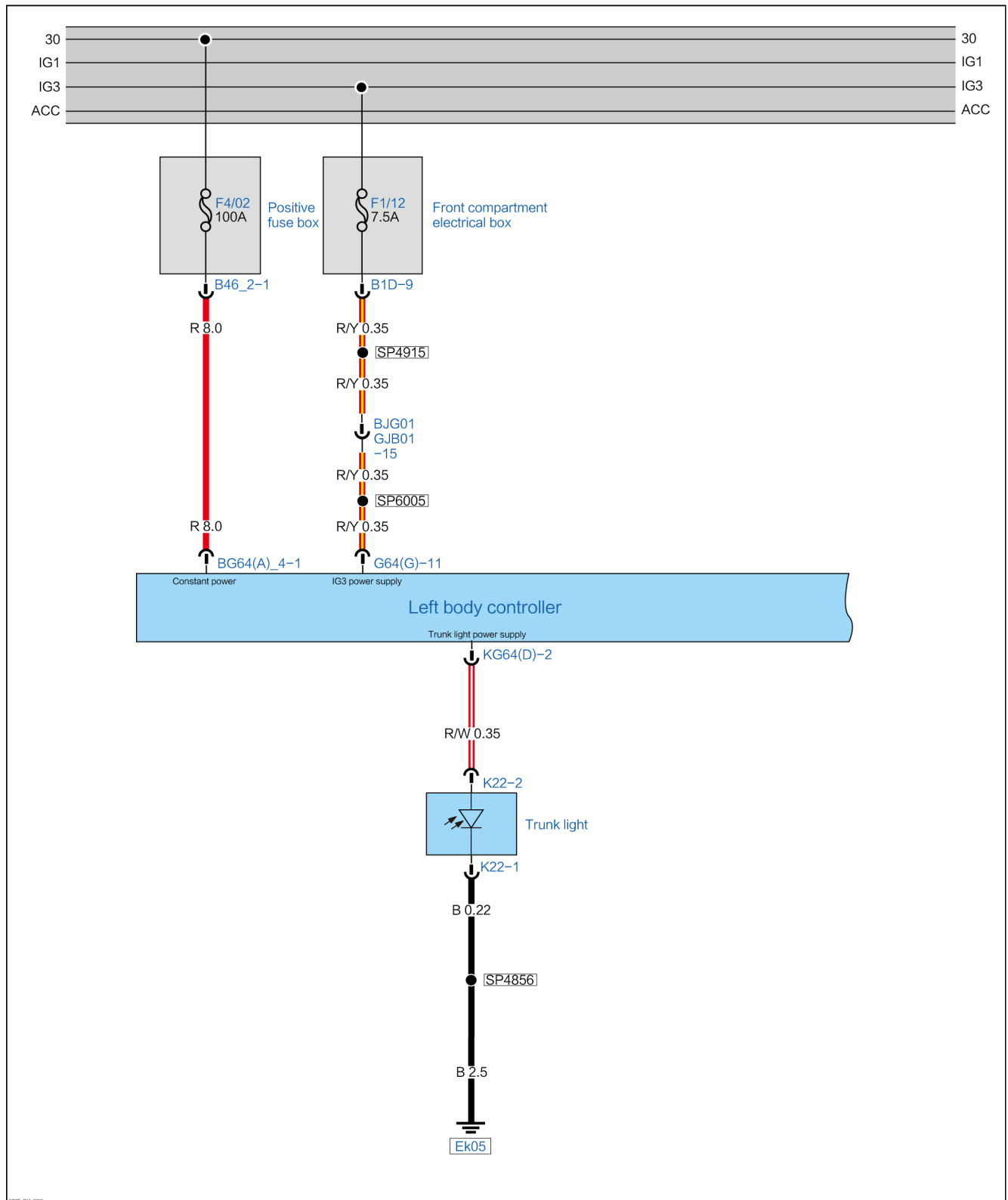
List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|---|---|
| B1CDA11 | Trunk light drive circuit short to ground | B1CDA11 Trunk Light Drive Circuit Short to Ground |
| B1CDA12 | Trunk light drive circuit short to power | B1CDA12 Trunk Light Drive Circuit Short to Power |
| B1CDA13 | Trunk light drive circuit broken | B1CDA13 Trunk Light Drive Circuit Broken |
| B1CDA19 | Trunk light drive circuit overload | B1CDA19 Trunk Light Drive Overload |

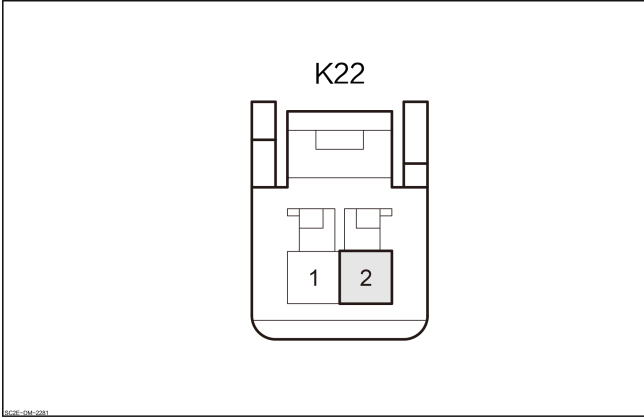
B1CDA11 Trunk Light Drive Circuit Short to Ground**DTC Description**

| B1CDD11 Trunk Light Drive Circuit Short to Ground | |
|---|---|
| Symptom | Trunk light is not working when opening the trunk |
| Possible Cause | 1. Harness or connector fault. 2. Left body control module fault |
| Fault setting conditions | Detecting that drive circuit is short to ground |
| Trigger fault conditions | – |

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">Trunk light</p> <div style="text-align: center;">  </div> | <p>2</p> | <p>Power supply</p> |

Diagnostic Steps

1 Check the DTC of left body control module

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the "intermittent fault" .

Yes

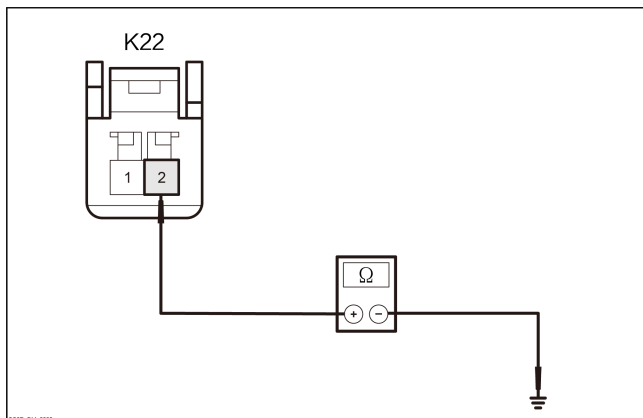
2 Check wire harness connectors

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left body control module.
3. Disconnect the trunk light harness connector.
4. Check the harness connector for corrosion, damage and pin withdrawing.
5. Check whether the results are normal.

No → Repair or replace the damaged harness or connector.

Yes

3 Check whether the trunk light harness is shorted to ground.



1. Measure the resistance value between the trunk light harness connector K22-2 and the grounding.

| Terminal | | Condition | Resist- ance value |
|----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| K22-2 | Ground | Through- out | Above 10k Ω |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

| | |
|---|-----------------------|
| 4 | Check the trunk lamp. |
|---|-----------------------|

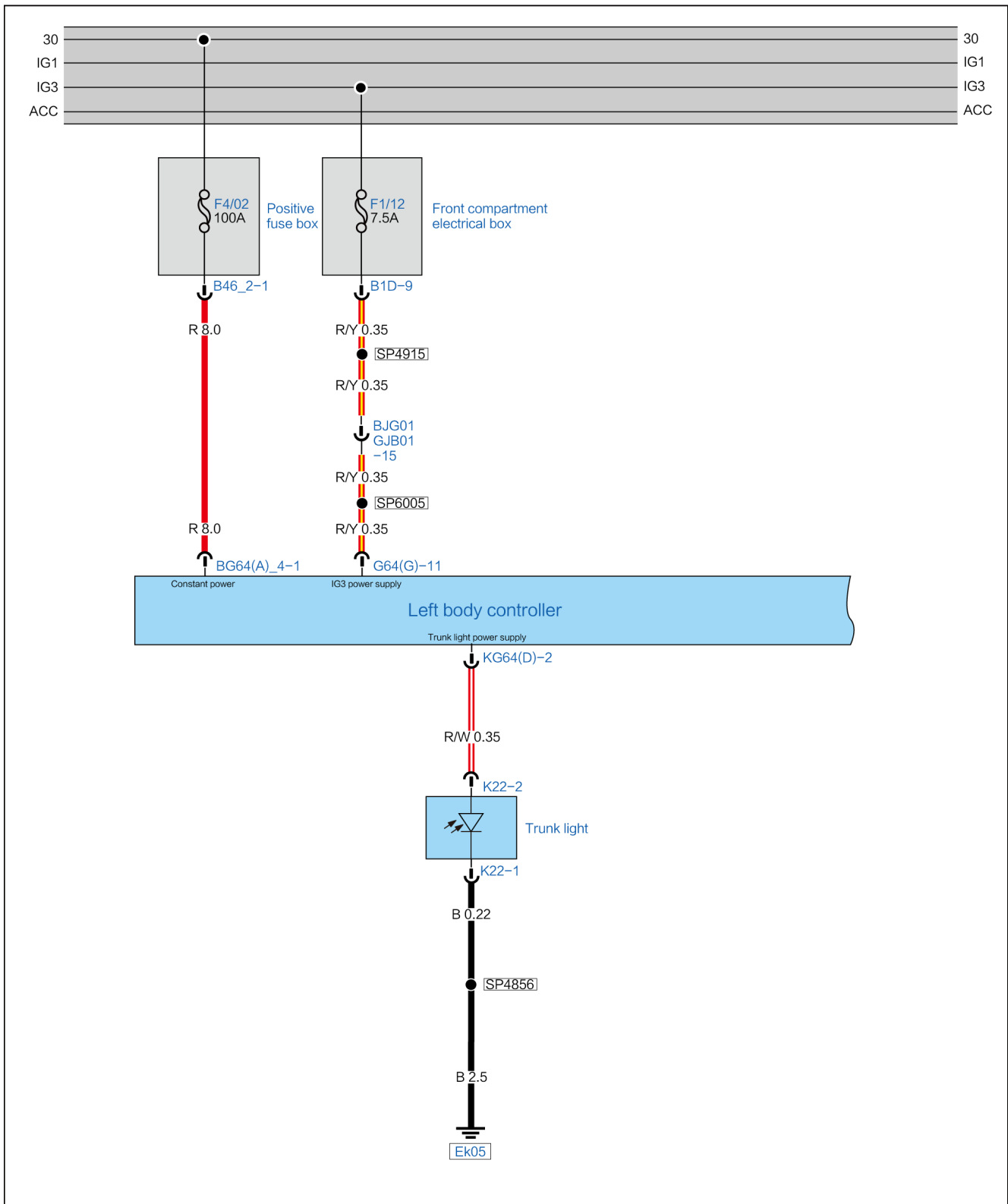
1. Set the start/stop button to "OFF" position.
2. Replace it with a new trunk light and restore the vehicle.
3. Set the START/STOP button to "ON" , and trial run for function inspection.
4. Check whether the results are normal.

| | |
|-----|---------------------------------------|
| Yes | Replace the trunk lamp. |
| No | Replace the left body control module. |

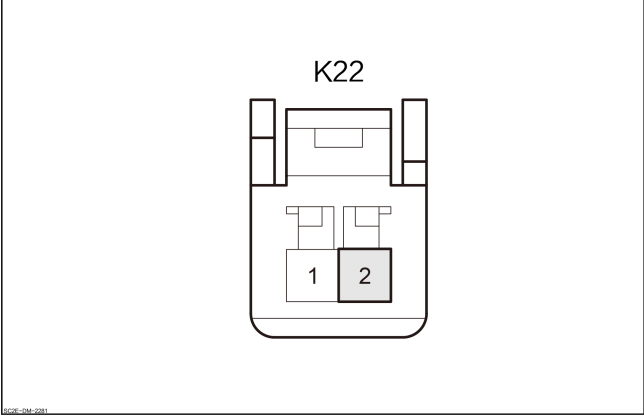
B1CDA12 Trunk Light Drive Circuit Short to Power**DTC Description**

| B1CDA12 Trunk Light Drive Circuit Short to Power | |
|--|---|
| Symptom | Trunk lamp normally on |
| Possible Cause | 1. Harness or connector fault. 2. Left body control module fault |
| Fault setting conditions | Detecting that drive circuit is short to power |
| Trigger fault conditions | – |

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Trunk Light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">K22</p> </div> <p style="font-size: small; margin-top: 10px;">K22-244-2011</p> | <p>2</p> | <p>Power supply</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the "intermittent fault" .

Yes

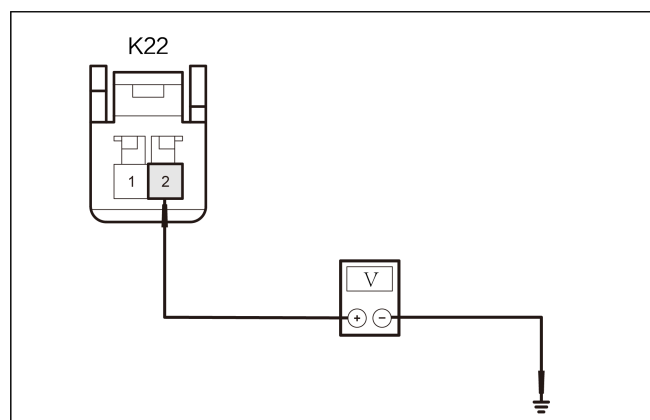
| | |
|---|-------------------------------|
| 2 | Check wire harness connectors |
|---|-------------------------------|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left body control module.
3. Disconnect the trunk light harness connector.
4. Check the harness connector for corrosion, damage and pin withdrawing.
5. Check whether the results are normal.

No → Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 3 | Check whether the trunk light harness is shorted to power |
|---|---|



1. Measure the voltage value between the trunk light harness connector K22-2 and the ground.

| Terminal | | Condition | Voltage value |
|----------|--------|-------------|---------------|
| (+) | (-) | | |
| K22-2 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

| | |
|---|-----------------------|
| 4 | Check the trunk lamp. |
|---|-----------------------|

1. Set the start/stop button to "OFF" position.
2. Replace it with a new trunk light and restore the vehicle.
3. Set the START/STOP button to "ON" , and trial run for function inspection.
4. Check whether the results are normal.

Yes

Replace the trunk lamp.

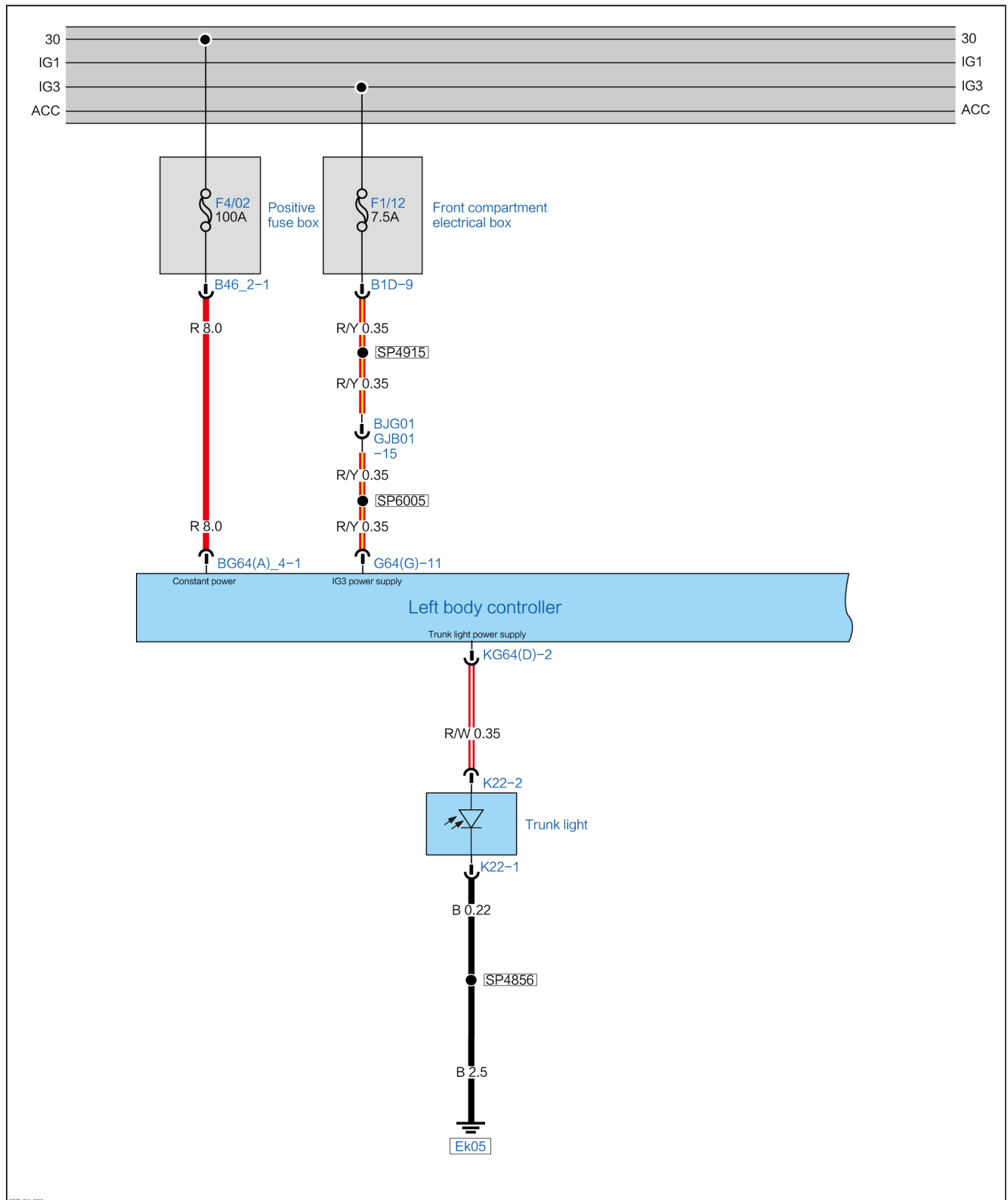
No

Replace the left body control module.

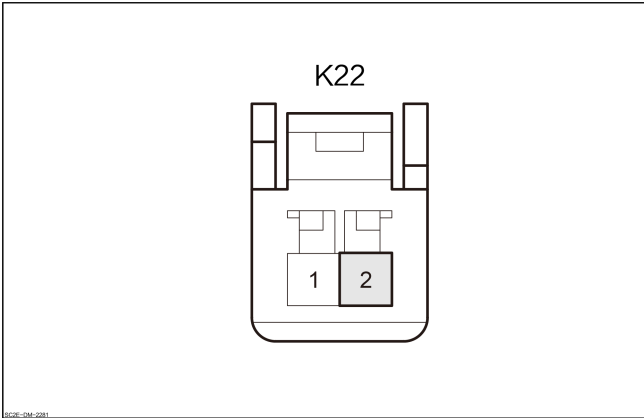
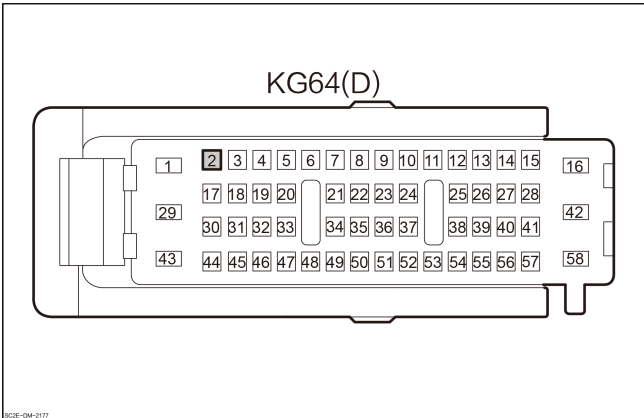
B1CDA13 Trunk Light Drive Circuit Broken**DTC Description**

| B1CDA13 Trunk Light Drive Circuit Broken | |
|--|---|
| Symptom | Trunk light is not working when opening the trunk |
| Possible Cause | 1. Harness or connector fault. 2. Left body control module fault |
| Fault setting conditions | Drive circuit break detected |
| Trigger fault conditions | – |

Circuit Diagram



Terminal Definition

| Plug | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Trunk Light</p>  <p style="text-align: center;">K22</p> <p>The diagram shows a rectangular plug with two terminals at the bottom, labeled 1 and 2. Terminal 2 is shaded grey.</p> | 2 | Power supply |
| <p style="text-align: center;">Left body control module</p>  <p style="text-align: center;">KG64(D)</p> <p>The diagram shows a large rectangular plug with 58 numbered terminals arranged in four rows. Terminal 2 is highlighted with a grey background.</p> | 2 | Trunk light drive |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|-------------------------------|
| 2 | Check wire harness connectors |
|---|-------------------------------|

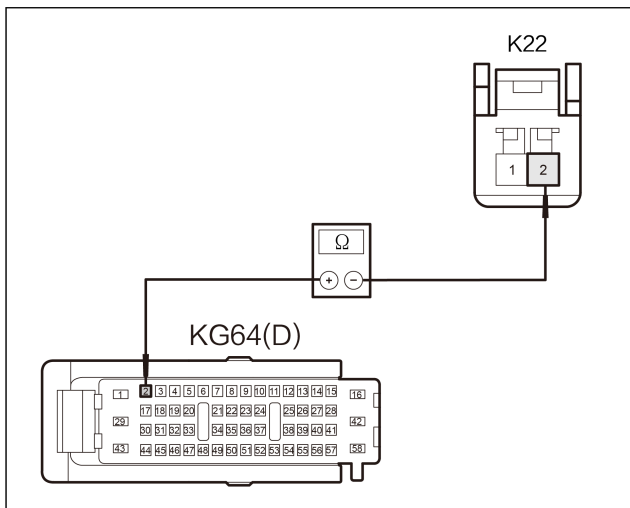
1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left body control module.
3. Disconnect the trunk light harness connector.
4. Check the harness connector for corrosion, damage and pin withdrawing.
5. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 3 | Check the trunk light harness for open circuit. |
|---|---|



1. Measure the resistance between the harness connector of trunk light K22-2 and the left body control module KG64(D)-2.

| Terminal | | Condition | Resist- ance value |
|----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| K22-2 | KG64(D) -2 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No

Repair or replace the damaged harness.

Yes

| | |
|---|-----------------------|
| 4 | Check the trunk lamp. |
|---|-----------------------|

1. Set the start/stop button to "OFF" position.
2. Replace it with a new trunk light and restore the vehicle.
3. Set the START/STOP button to "ON" , and trial run for function inspection.
4. Check whether the results are normal.

| | |
|-----|---------------------------------------|
| Yes | Replace the trunk lamp. |
| No | Replace the left body control module. |


B1CDA19 Trunk Light Drive Overload**DTC Description**

| B1CDA19 Trunk Light Drive Overload | |
|------------------------------------|---|
| Symptom | Trunk light is not working when opening the trunk |
| Possible Cause | 1. Harness or connector fault. 2. Left body control module fault |
| Fault setting conditions | Drive overload is detected |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No  Check the "intermittent fault" .

Yes 

| | |
|---|--|
| 2 | Check if the trunk light assembly is replaced. |
|---|--|


1. Check whether the trunk light assembly is refitted or replaced.
2. Check whether the results are normal.

No  Replace with the original parts.

Yes 

| | |
|---|---|
| 3 | Check whether there are other devices connected to the main power harness of the trunk light. |
|---|---|

1. Check whether there are other external electrical equipment on the trunk light power harness.
2. Check whether the results are normal.

No  Remove the external equipment and recover the vehicle.

Yes 

| | |
|---|--|
| 4 | Check the trunk light harness connector. |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the trunk light harness connector.
3. Check the trunk light harness connector for corrosion, damage, false connection and pin withdrawing.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 5 | Check the harness connector of left body control module |
|---|---|

1. Disconnect the harness connector of left body control module.
2. Check the harness connector of left body control module for corrosion, damage, false connection, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|-----------------------|
| 6 | Check the trunk lamp. |
|---|-----------------------|

1. Replace with a new trunk light assembly and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the trunk lamp assembly.

No

Replace the right body control module.

Footwell Light

Diagnosis Description

For the diagnosis of footwell light fault, make sure to understand and get familiar with the control logic of the footwell light. Before the diagnosis, confirm the fault phenomenon described by customers, and then analyze the cause of foot light failure, which can help determining the correct fault diagnosis procedure. For footwell light harness and footwell light inspection and measurement, preferably, data flow, motion test and other functions of VDS should be used to improve the diagnosis efficiency and to reduce the repair time. After determining the fault, implement the standard operation procedures, and check the footwell light for normal working after repair.

Diagnosing intermittent faults can be more difficult than diagnosing persistent faults. Most intermittent faults are caused by poorly contacted electrical connection or faulty line. Therefore, checking the circuit suspected to be causing the fault can help to avoid replacing a functional part.

General equipment

- Socket wrench kit
- Screwdriver
- Interior wall crow plate
- Torque wrench
- VDS
- Multimeter

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Precautions

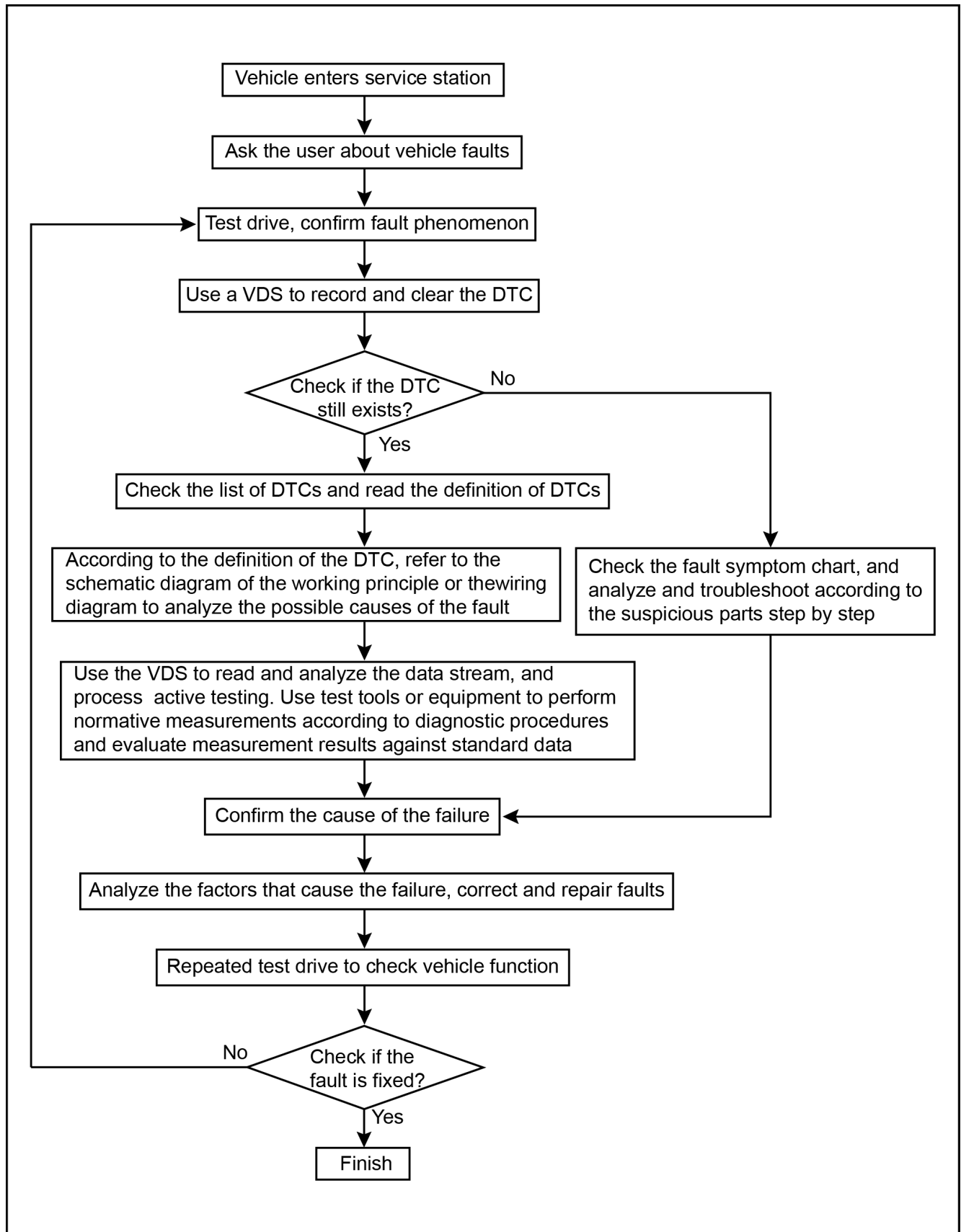
Warning:

- When disconnecting the connector, do not pull the harness to avoid damaging the harness.
- Do not remove the interior trim with sharp tools.
- Do not remove the interior trim forcibly to prevent damage.

Caution:

- Do not use a fine needle to pierce the harness to check the electrical signal of the system.
- The fastener must be checked in specified torque after installing.

Process of Fault Inspection and Troubleshooting



Diagnosis of General Faults

Visual Inspection

1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

| Symptom | Possible cause | Suggested maintenance measures |
|----------------------------|--------------------------------|--|
| Footwell light not working | Harness or connector fault. | Repair the harness and connector according to the circuit diagram. |
| | Footwell light damage | Replace the footwell light |
| | Left body control module fault | Replace the left body control module |
| Feet light keeping on | Harness or connector fault. | Repair the harness and connector according to the circuit diagram. |
| | Left body control module fault | Replace the left body control module |

DTC Diagnosis

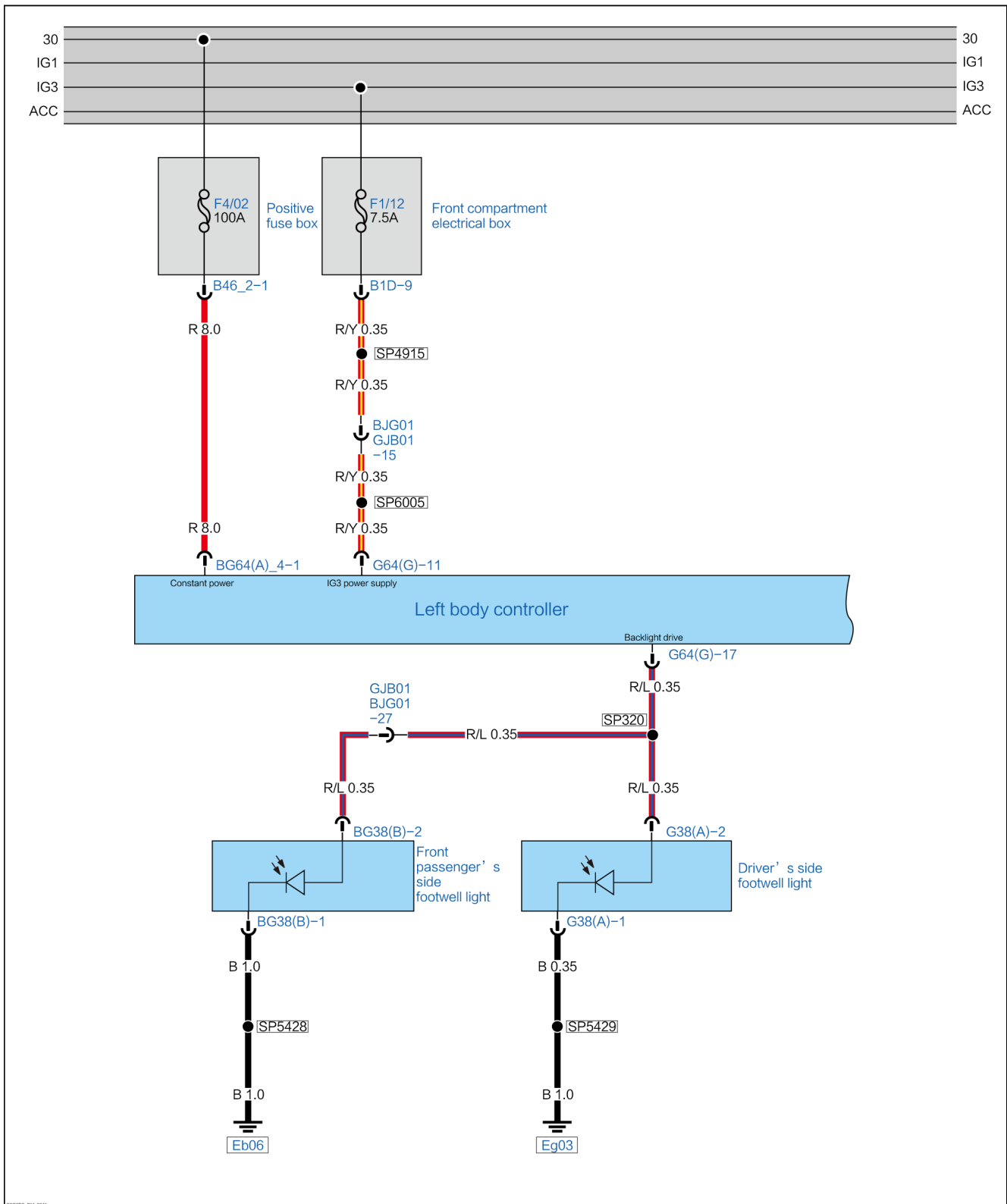
List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|--|--|
| B1CE911 | Left footwell light drive circuit is short to ground | B1CE911 Left Footwell Light Drive Circuit Short to Ground |
| B1CE912 | Left footwell light drive circuit is short to power | B1CE912 Left Footwell Light Drive Circuit Short to Power |
| B1CE913 | Left footwell light drive circuit is broken | B1CE913 Left Footwell Light Drive Circuit Broken |
| B1CE919 | Left footwell light drive is overload | B1CE919 Left Footwell Light Drive Overload |
| B1CEB11 | Right footwell light drive circuit short to ground | B1CEB11 Right Footwell Light Drive Circuit Short to Ground |
| B1CEB12 | Right footwell light drive circuit short to power | B1CEB12 Right Footwell Light Drive Circuit Short to Power |
| B1CEB13 | Right footwell light drive circuit broken | B1CEB13 Right Footwell Light Drive Circuit Broken |
| B1CEB19 | Right footwell light drive overload | B1CEB19 Right Footwell Light Drive Overload |

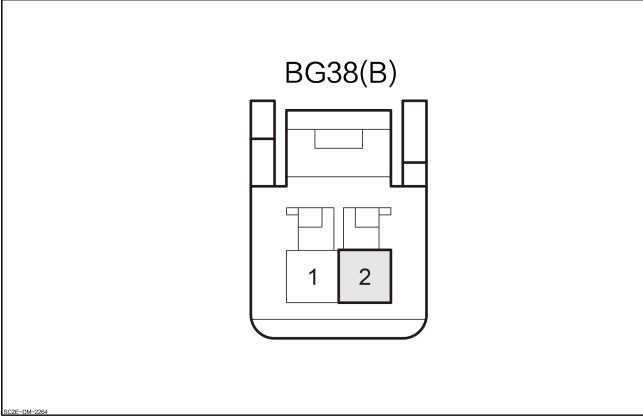
B1CE911 Left Footwell Light Drive Circuit Short to Ground**DTC Description**

| B1CE911 Left Footwell Light Drive Circuit Short to Ground | |
|---|---|
| Symptom | The left footwell light does not work when pressing the left footwell light switch |
| Possible Cause | 1. Harness or connector fault. 2. Left footwell light fault 3. Left body control module fault |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|------------------------|
| <p style="text-align: center;">Left footwell light</p> <div style="text-align: center;">  <p>The diagram shows a BG38(B) connector with two terminals at the bottom labeled '1' and '2'. Terminal '2' is highlighted with a grey background. The connector is shown from a top-down perspective with a central opening and two side tabs.</p> </div> | <p>2</p> | <p>Backlight drive</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|--|
| 2 | Check the harness connector of left footwell light |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left footwell light BG38(B).
3. Check the harness connector of left footwell light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 3 | Check the harness connector of left body control module |
|---|---|

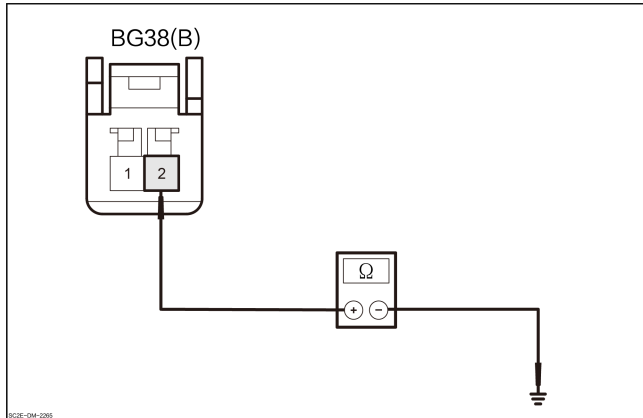
1. Disconnect the harness connector of left body control module G64(G).
2. Check the harness connector of left body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 4 | Check the left footwell light power harness for short to ground |
|---|---|



1. Measure the resistance between the harness connector of left footwell light G38(B)-2 and the ground.

| Terminal | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG38(B)- 2 | Ground | Through- out | Above 10k Ω |

2. Check whether the results are normal.

No

Repair or replace the damaged harness.

Yes

| | |
|---|-------------------------------|
| 5 | check the left footwell light |
|---|-------------------------------|

1. Replace with a new left footwell light, and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the left footwell lamp.

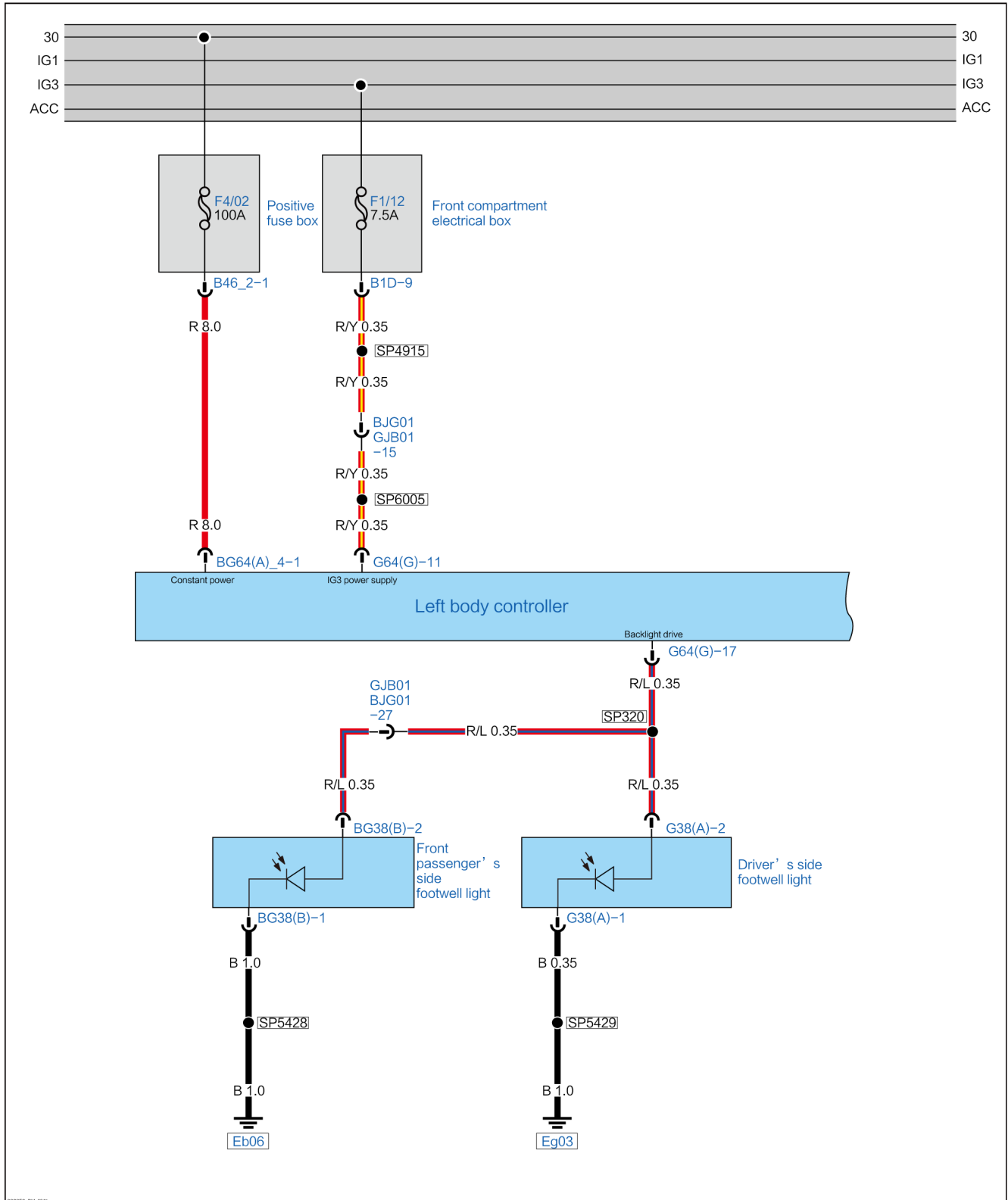
No

Replace the left body control module.

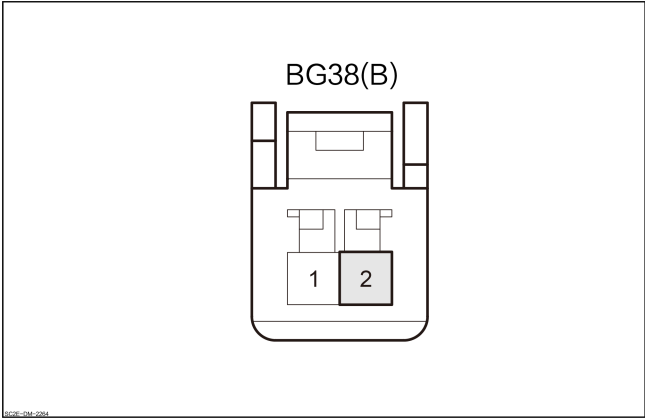
B1CE912 Left Footwell Light Drive Circuit Short to Power**DTC Description**

| B1CE912 Left footwell light drive circuit short to power | |
|--|--|
| Symptom | Left footwell light keeping on |
| Possible Cause | 1. Harness or connector fault. 2. Left footwell light fault 3. Right body control module fault |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|------------------------------------|
| <p style="text-align: center;">Left footwell light</p> <div style="text-align: center;">  <p>The diagram shows a BG38(B) connector with two terminals labeled 1 and 2. Terminal 2 is highlighted in grey. A small reference code '6025-04-204' is visible in the bottom left corner of the diagram area.</p> </div> | <p>2</p> | <p>Left footwell light drive +</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|--|
| 2 | Check the harness connector of left footwell light |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left footwell light BG38(B).
3. Check the harness connector of left footwell light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 3 | Check the harness connector of left body control module |
|---|---|

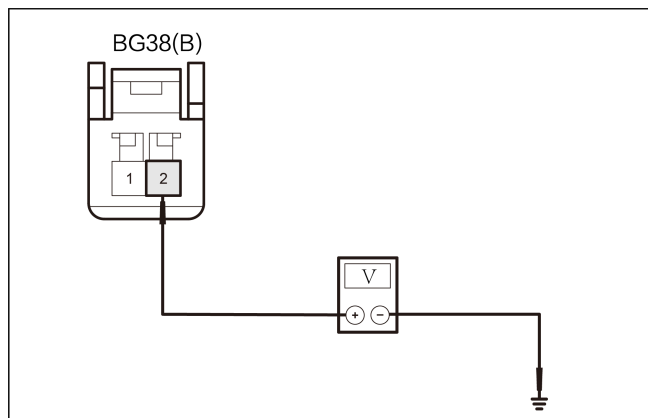
1. Disconnect the harness connector of left body control module G64(G).
2. Check the harness connector of left body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check the left footwell light power harness for short to power |
|---|--|



1. Measure the voltage between the harness connector of left footwell light G38(B)-2 and the ground.

| Terminal | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG38(B)-2 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

| | |
|---|-------------------------------|
| 5 | check the left footwell light |
|---|-------------------------------|

1. Replace with a new left footwell light, and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

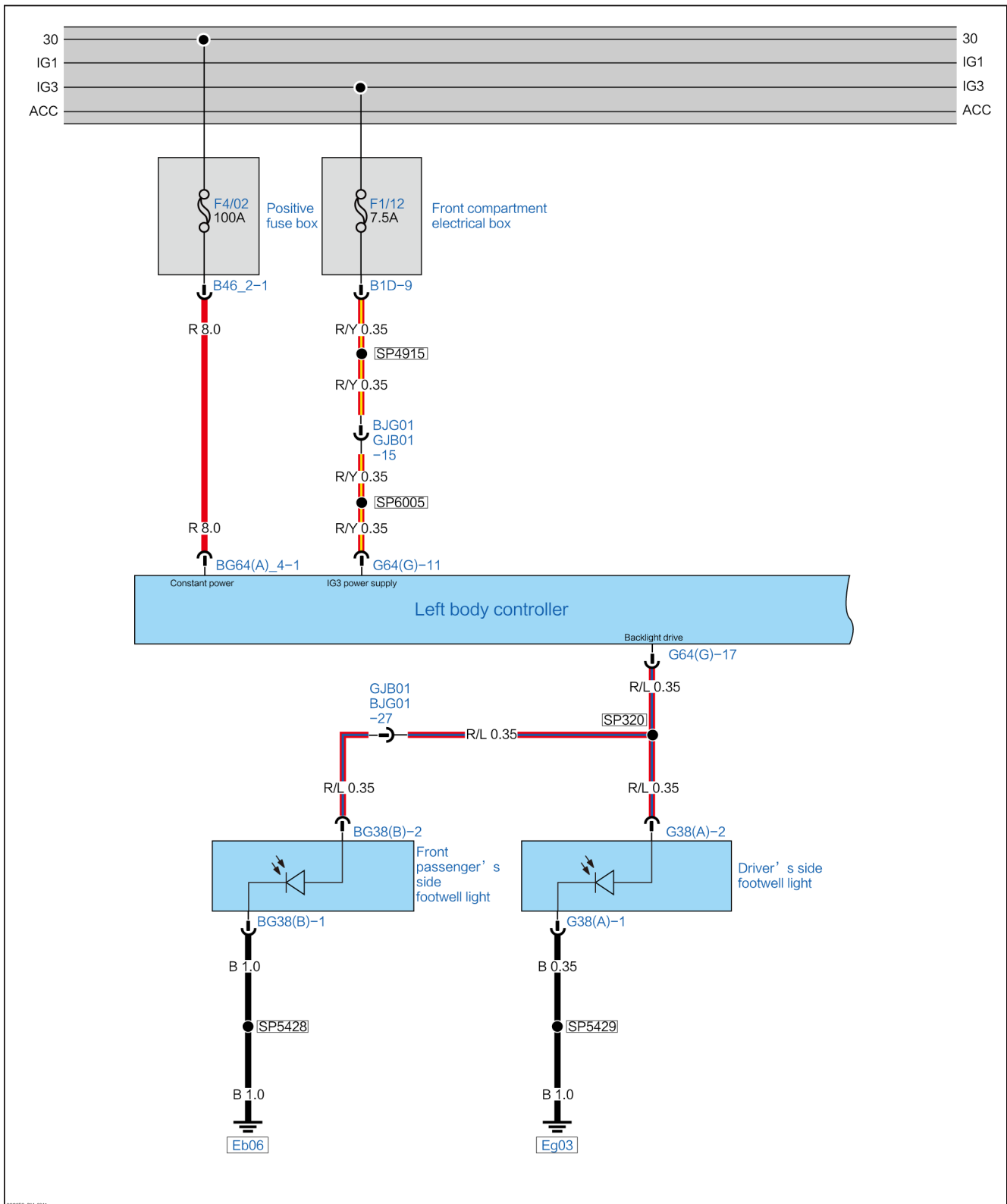
Yes → Replace the left footwell lamp.

No → Replace the left body control module.

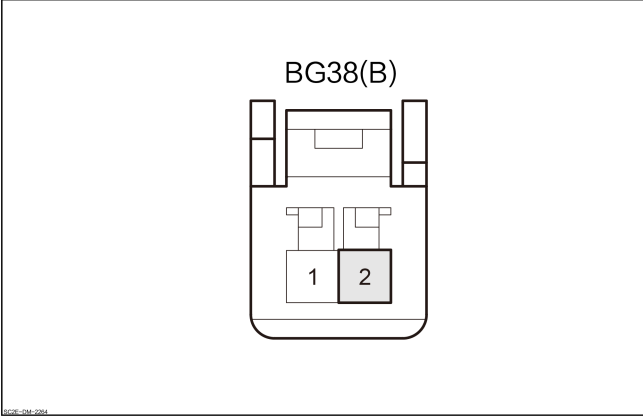
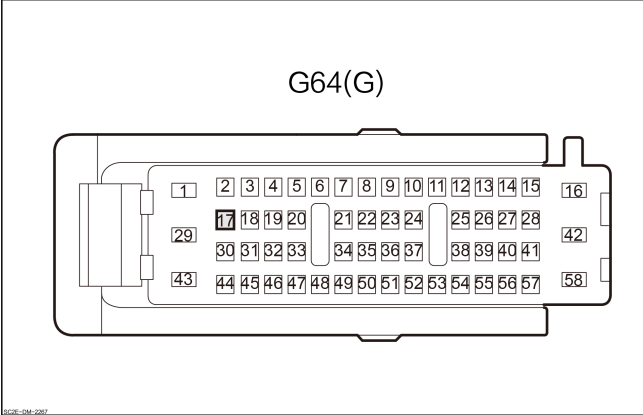
B1CE913 Left Footwell Light Drive Circuit Broken**DTC Description**

| B1CE913 Left Footwell Light Drive Circuit Broken | |
|--|--|
| Symptom | The left footwell light does not work when pressing the left footwell light switch |
| Possible Cause | 1. Harness or connector fault. 2. Left footwell lamp fault 3. Left body control module fault |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|------------------------|
| <p style="text-align: center;">Left footwell light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">BG38(B)</p> </div> | <p>2</p> | <p>Backlight drive</p> |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G64(G)</p> </div> | <p>17</p> | <p>Backlight drive</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|--|
| 2 | Check the harness connector of left footwell light |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left footwell light BG38(B).
3. Check the harness connector of left footwell light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 3 | Check the harness connector of left body control module |
|---|---|

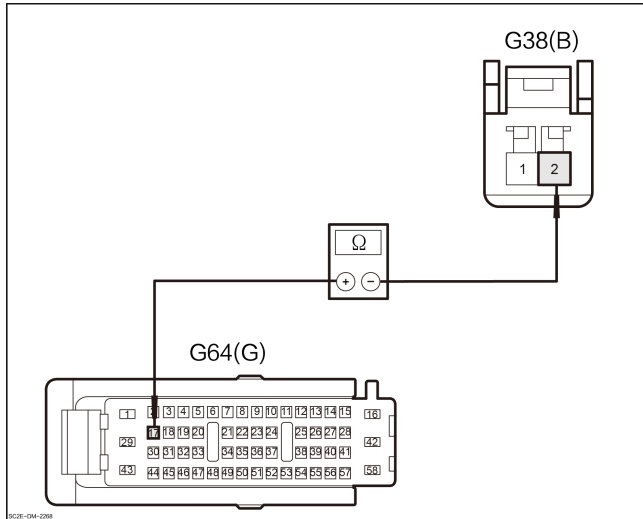
1. Disconnect the harness connector of left body control module G64(G).
2. Check the harness connector of left body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 4 | Check the left footwell light harness for open circuit. |
|---|---|



1. Measure the resistance between the harness connector of left footwell light G38(B)-2 and the harness connector of left body control module G64(G)-17.

| Terminal | | Condition | Resist- ance value |
|---------------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| BG38(B)- 2 | G64(G)-1 7 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

| | |
|---|-------------------------------|
| 5 | check the left footwell light |
|---|-------------------------------|

1. Replace with a new left footwell light, and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes → Replace the left footwell lamp.

No → Replace the left body control module.

B1CE919 Left Footwell Light Drive Overload

DTC Description

| B1CE919 Left Footwell Light Drive Overload | |
|--|---|
| Symptom | The left footwell light does not work when pressing the left footwell light switch |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Left footwell lamp fault 3. Right body control module fault |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check whether the left footwell light has been replaced |
|---|---|

1. Check whether the left footwell light has been modified or replaced.
2. Check whether the results are normal.

No

Replace with the original parts.

Yes

| | |
|---|---|
| 3 | Check whether the left footwell light power harness has been connected to other equipment |
|---|---|

1. Check whether the left footwell light power harness has been connected to other electrical equipment.
2. Check whether the results are normal.

No

Remove the external equipment and recover the vehicle.

Yes

| | |
|---|--|
| 4 | Check the harness connector of left footwell light |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left footwell light G38(A).
3. Check the harness connector of left footwell light for corrosion, damage, false connection, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

5

Check the harness connector of left body control module

1. Disconnect the harness connector of left body control module G64(G).
2. Check the harness connector of left body control module for corrosion, damage, false connection, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

6

check the left footwell light

1. Replace with a new left footwell light, and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the left footwell lamp.

No

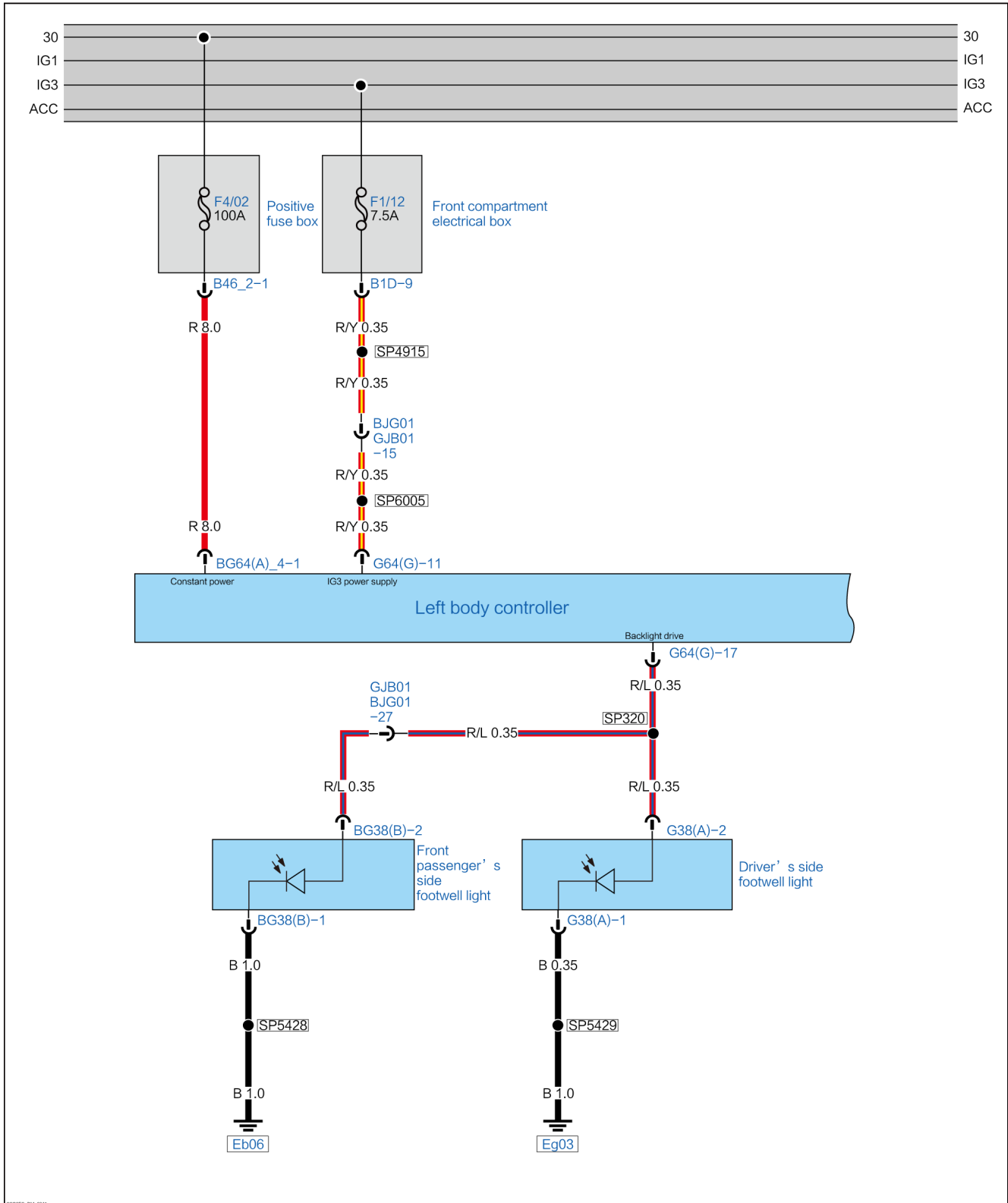
Replace the left body control module.

B1CEB11 Right Footwell Light Drive Circuit Short to Ground

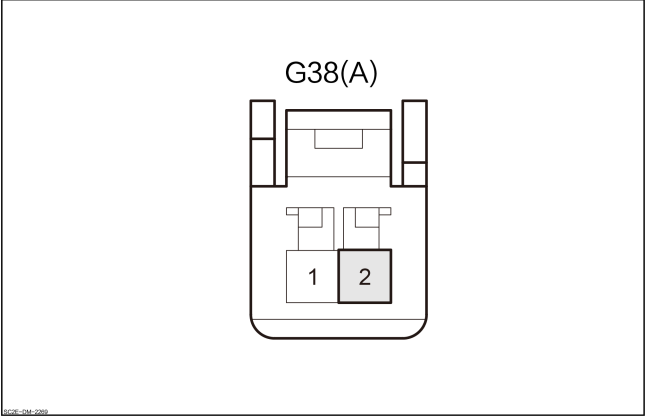
DTC Description

| B1CEB11 Right Footwell Light Drive Circuit Short to Ground | |
|--|---|
| Symptom | The right footwell light does not work when pressing the right footwell light switch |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Right footwell light fault3. Right body control module fault |
| Fault setting conditions | Drive port short circuit detected |
| Trigger fault conditions | <ol style="list-style-type: none">1. The voltage of control module is between 9–16V2. Right footwell light on |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|------------------------|
| <p style="text-align: center;">Right footwell light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G38(A)</p> </div> <p style="font-size: small; margin-top: 10px;">SCHEMATIC</p> | <p>2</p> | <p>Backlight drive</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of right footwell light |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of right footwell light G38(A).
3. Check the harness connector of right footwell light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 3 | Check the harness connector of left body control module |
|---|---|

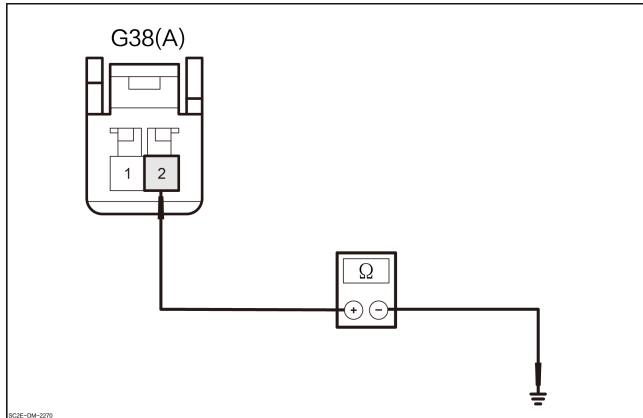
1. Disconnect the harness connector of left body control module G64(G).
2. Check the harness connector of left body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check the right footwell light power harness for short to ground |
|---|--|



1. Measure the resistance between the harness connector of right footwell light G38(A)-2 and the ground.

| Terminal | | Condition | Resist- ance value |
|----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G38(A)-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No

Repair or replace the damaged harness.

Yes

| | |
|---|--------------------------------|
| 5 | check the right footwell light |
|---|--------------------------------|

1. Replace with a new right footwell light, and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the right footwell lamp.

No

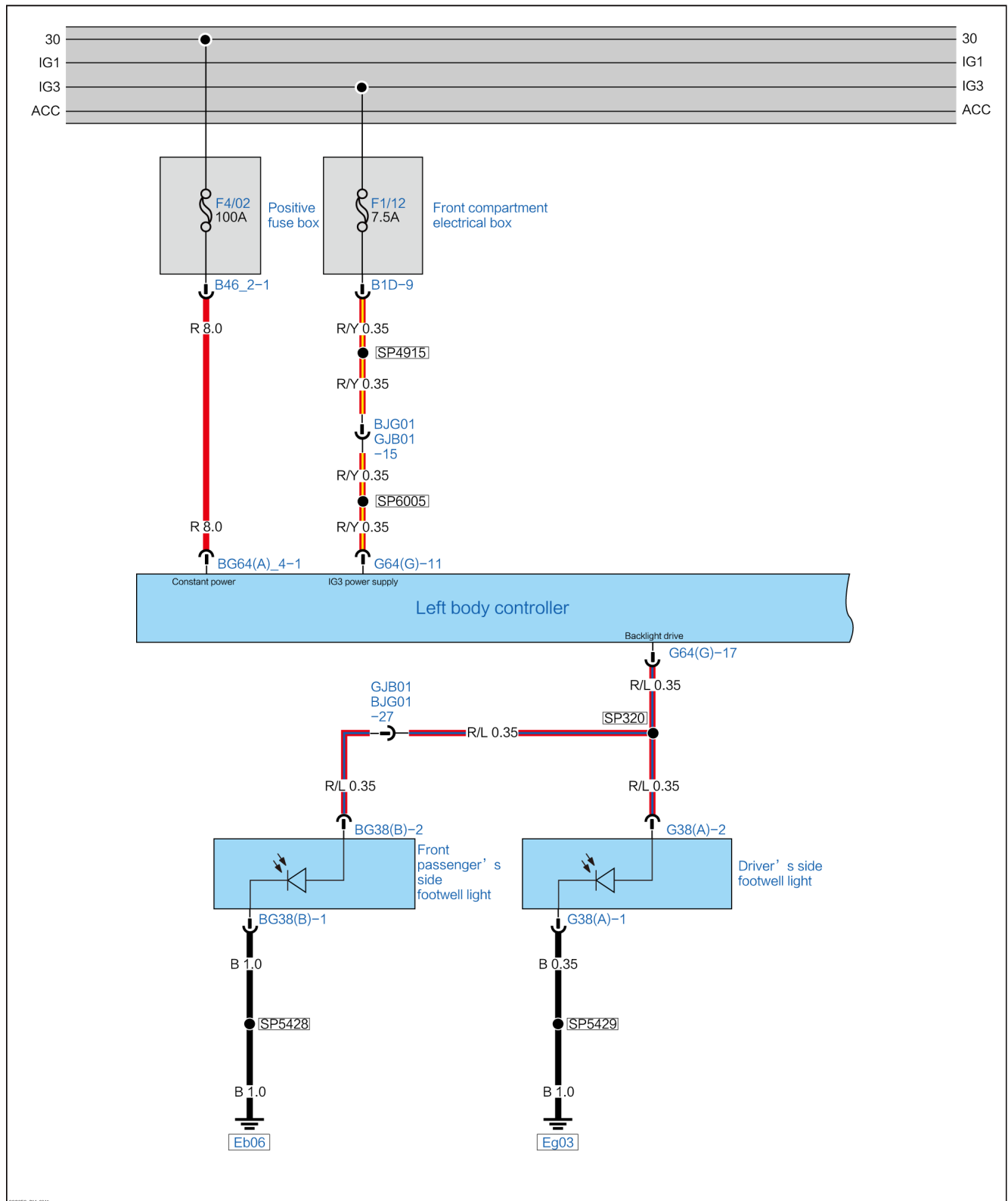
Replace the right body control module.

B1CEB12 Right Footwell Light Drive Circuit Short to Power

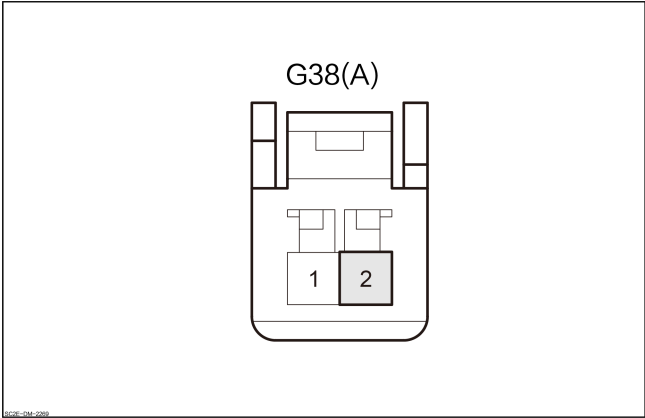
DTC Description

| B1CEB12 Right Footwell Light Drive Circuit Short to Power | |
|---|---|
| Symptom | Right footwell light on |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Right footwell light fault 3. Right body control module fault |
| Fault setting conditions | Driving current > 0A is detected for continuous 3s |
| Trigger fault conditions | <ol style="list-style-type: none"> 1. The voltage of control module is between 9–16V 2. Right footwell light not working |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|------------------------|
| <p style="text-align: center;">Right footwell light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G38(A)</p> </div> <p><small>4022-04-200</small></p> | <p>2</p> | <p>Backlight drive</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of right footwell light |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of right footwell light G38(A).
3. Check the harness connector of right footwell light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 3 | Check the harness connector of left body control module |
|---|---|

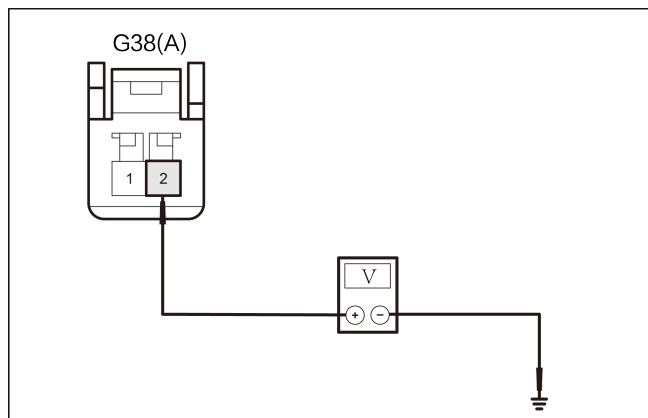
1. Disconnect the harness connector of left body control module G64(G).
2. Check the harness connector of left body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check the right footwell light power harness for short to ground |
|---|--|



1. Measure the voltage between the harness connector of right footwell light G38(B)-2 and the ground.

| Terminal | | Condition | Voltage value |
|----------|--------|-------------|---------------|
| (+) | (-) | | |
| G38(A)-2 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

| | |
|---|--------------------------------|
| 5 | check the right footwell light |
|---|--------------------------------|

1. Replace with a new right footwell light, and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

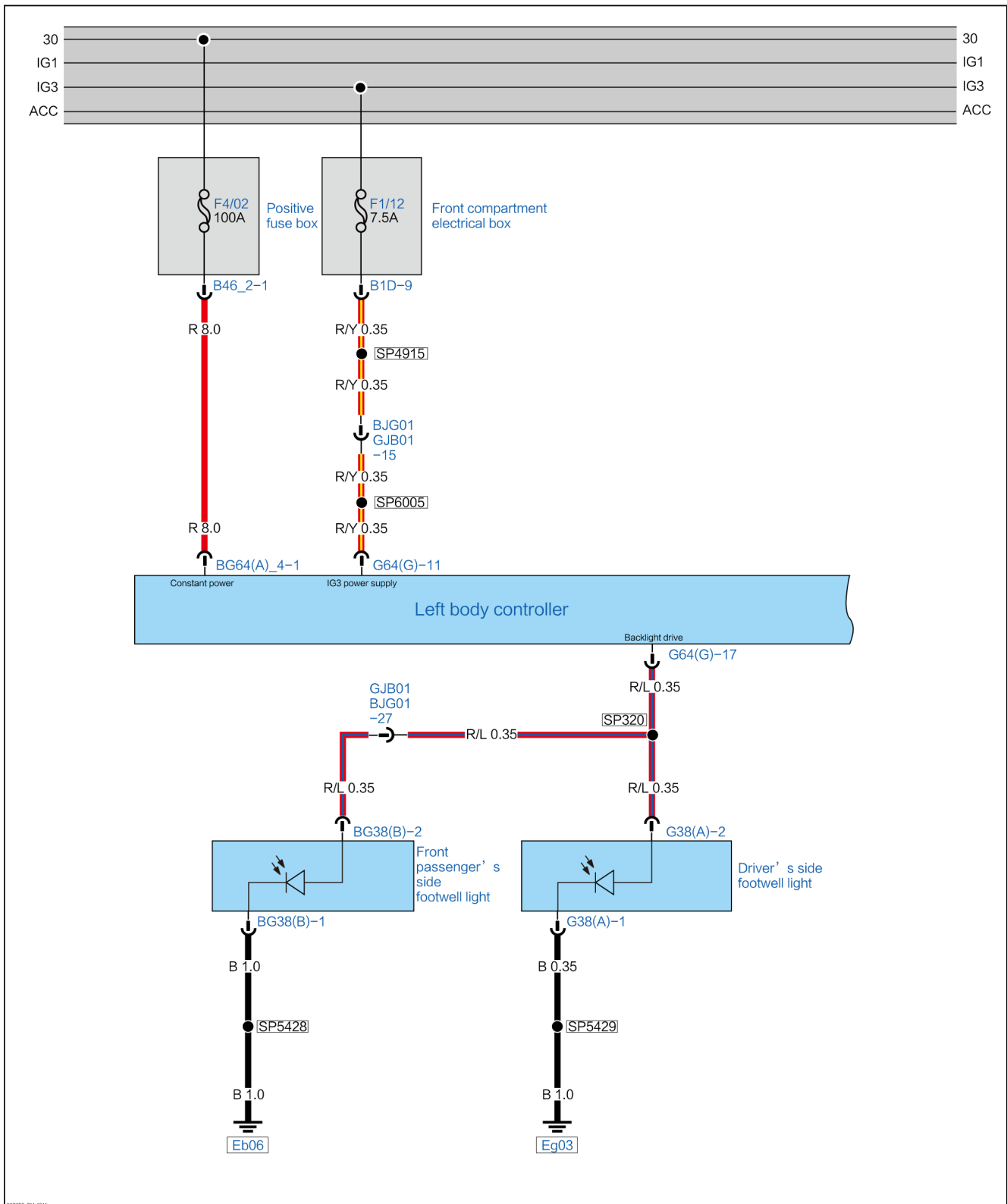
Yes → Replace the right footwell lamp.

No → Replace the left body control module.

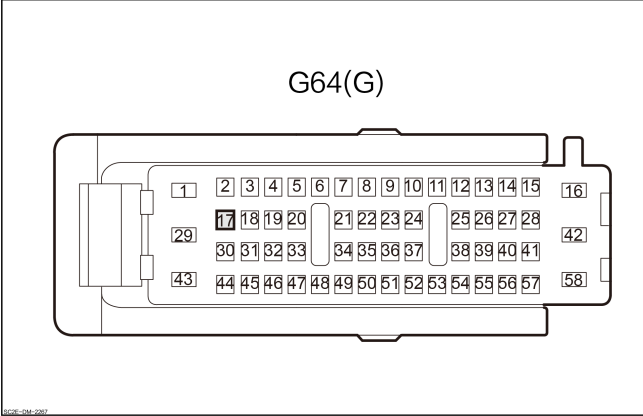
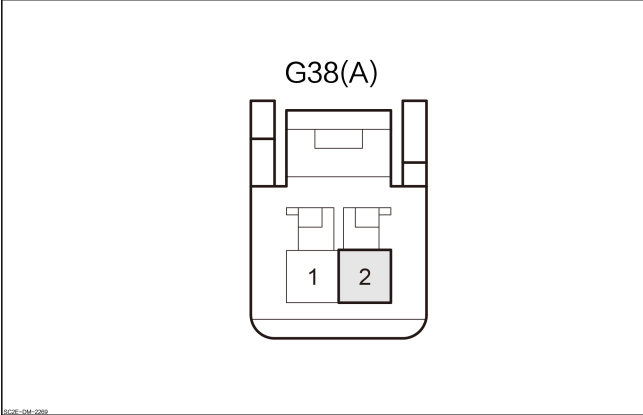
B1CEB13 Right Footwell Light Drive Circuit Broken**DTC Description**

| B1CEB13 Right Footwell Light Drive Circuit Broken | |
|---|---|
| Symptom | The right footwell light does not work when pressing the right footwell light switch |
| Possible Cause | 1. Harness or connector fault. 2. Right footwell lamp fault 3. Left body control module fault |
| Fault setting conditions | Detected that drive circuit broken |
| Trigger fault conditions | 1. The voltage of control module is between 9–16V 2. The right footwell light is on. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-------------------------------|
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G64(G)</p> </div> | <p>17</p> | <p>Backlight drive</p> |
| <p style="text-align: center;">Right footwell light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G38(A)</p> </div> | <p>2</p> | <p>Right footwell light +</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of right footwell light |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of right footwell light G38(A).
3. Check the harness connector of right footwell light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No → Repair or replace the damaged harness or connector.

Yes

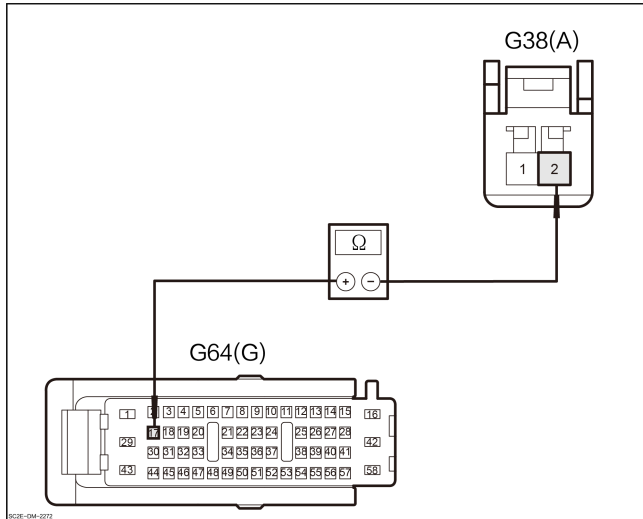
| | |
|---|---|
| 3 | Check the harness connector of left body control module |
|---|---|

1. Disconnect the harness connector of left body control module G64(G).
2. Check the harness connector of left body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No → Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check the right footwell light harness for open circuit. |
|---|--|



1. Measure the resistance between the harness connector of right footwell light G38(A)-2 and the harness connector of left body control module G64(G)-17.

| Terminal | | Condition | Resist- ance value |
|----------|-----------|-----------------|--------------------------|
| (+) | (-) | | |
| G38(A)-2 | G64(G)-17 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

| | |
|---|--------------------------------|
| 5 | check the right footwell light |
|---|--------------------------------|

1. Replace with a new right footwell light, and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes → Replace the right footwell lamp.

No → Replace the left body control module.

B1CEB19 Right Footwell Light Drive Overload

DTC Description

| B1CEB19 Right Footwell Light Drive Overload | |
|---|--|
| Symptom | The right footwell light does not work when pressing the right footwell light switch |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Right footwell lamp fault 3. Right body control module fault |
| Fault setting conditions | Driving current $\geq 0.3A$ is detected for continuous 3s (current matched) |
| Trigger fault conditions | <ol style="list-style-type: none"> 1. The voltage of control module is between 9–16V 2. Right footwell light on |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|--|
| 2 | Check whether the right footwell light has been replaced |
|---|--|

1. Check whether the right footwell light has been modified or replaced.
2. Check whether the results are normal.

No

Replace with the original parts.

Yes

| | |
|---|--|
| 3 | Check whether the right foot light power harness has been connected to the devices |
|---|--|

1. Check whether the right foot light power harness has been connected to other electrical devices.
2. Check whether the results are normal.

No

Remove the external equipment and recover the vehicle.

Yes

| | |
|---|---|
| 4 | Check the harness connector of right footwell light |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of right footwell light G38(A).
3. Check the harness connector of right footwell light for corrosion, damage, false connection, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

5

Check the harness connector of left body control module

1. Disconnect the harness connector of left body control module G64(G).
2. Check the harness connector of left body control module for corrosion, damage, false connection, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

6

check the right footwell light

1. Replace with a new right footwell light, and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the right footwell lamp.

No

Replace the left body control module.

Ambient Light System

Diagnosis Description

For the diagnosis of ambient light fault, make sure to understand and get familiar with the control logic of the ambient light. Before the diagnosis, confirm the fault phenomenon described by customers, and then analyze the cause of ambient light fault, which can help determining the correct fault diagnosis procedure. For ambient light harness and ambient light inspection and measurement, preferably, data flow, motion test and other functions of VDS should be used to improve the diagnosis efficiency and to reduce the repair time. After determining the fault, implement the standard operation procedures, and check the ambient light for normal working after repair.

Diagnosing intermittent faults can be more difficult than diagnosing persistent faults. Most intermittent faults are caused by poorly contacted electrical connection or faulty line. Therefore, checking the circuit suspected to be causing the fault can help to avoid replacing a functional part.

General equipment

- Socket wrench kit
- Screwdriver
- Interior wall crow plate
- Torque wrench
- VDS
- Multimeter

Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Precautions

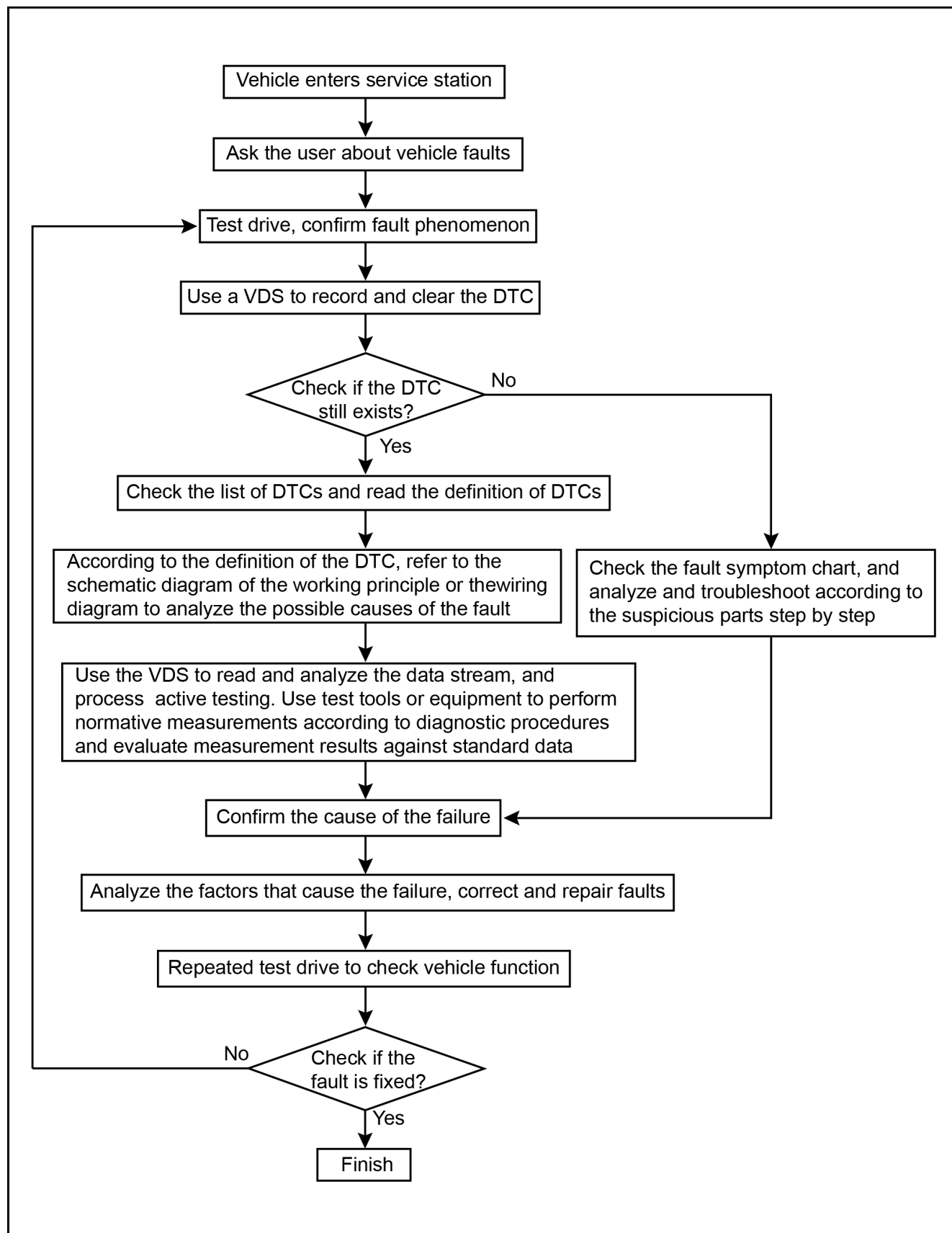
Warning:

- When disconnecting the connector, do not pull the harness to avoid damaging the harness.
- Do not remove the interior trim forcibly to prevent damage.
- Do not remove the interior trim with sharp tools.

Caution:

- Do not use a fine needle to pierce the harness to check the electrical signal of the system.
- The fastener must be checked in specified torque after installing.

Process of Fault Inspection and Troubleshooting



Diagnosis of General Faults

Visual Inspection

1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

| Symptom | Possible cause | Suggested maintenance measures |
|---------------------------|---------------------------------|--|
| Ambient light not working | Harness or connector fault. | Repair the harness and connector according to the circuit diagram. |
| | Ambient light damage | Replace the ambient light |
| | Ambient light damage | Replace the ambient light |
| | Left body control module fault | Replace the left body control module |
| | Right body control module fault | Replace the right body control module |

DTC diagnosis table

List of DTC

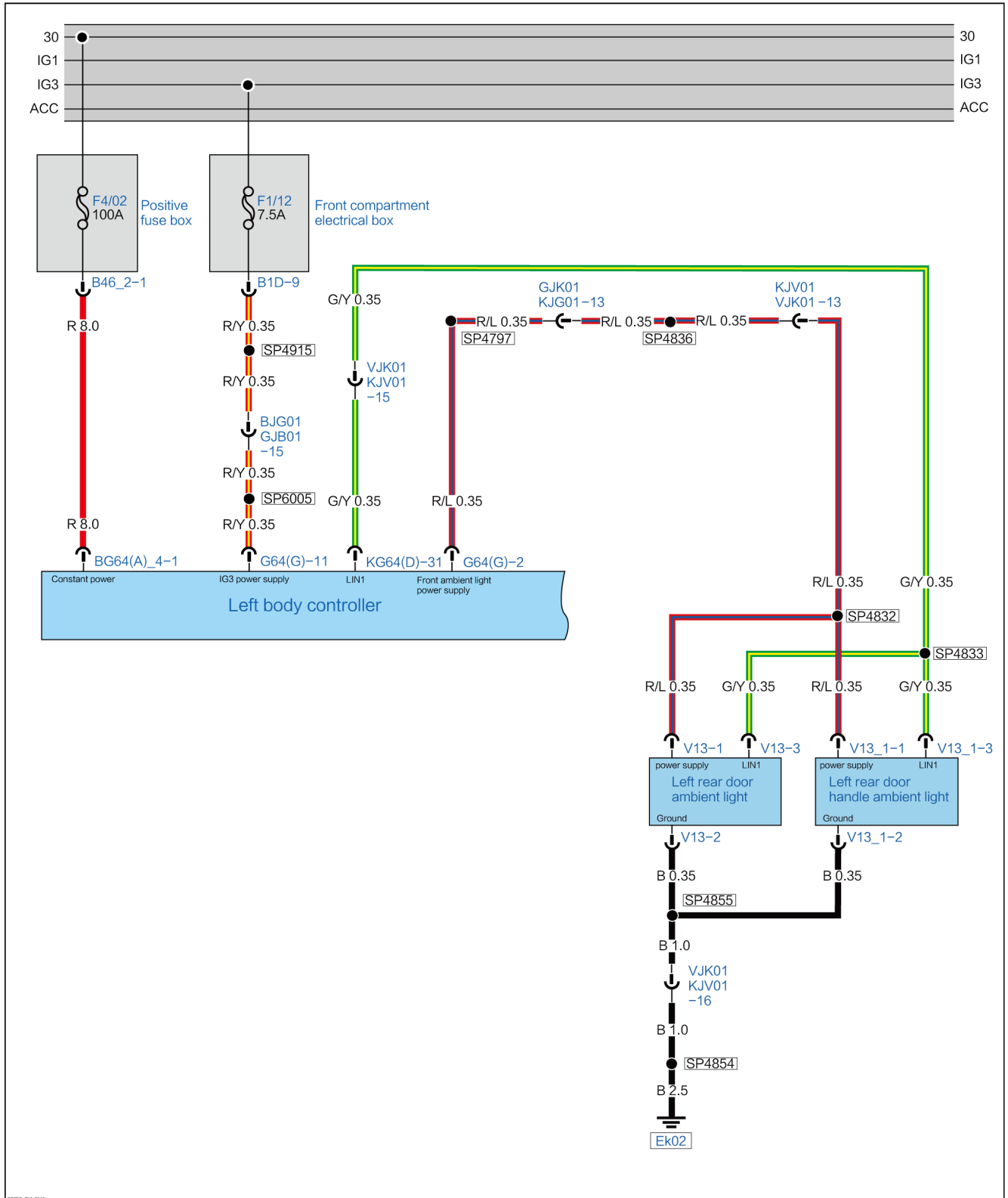
| DTC: | Meaning | Diagnostic Process |
|---------|---|--|
| B11BD11 | LIN1 ambient light drive circuit is short to ground | B11BD11 LIN1 Ambient Light Drive Circuit Short to Ground |
| B11BD12 | LIN1 ambient light drive circuit is short to power | B11BD12 LIN1 Ambient Light Drive Circuit Short to Power |
| B11BD13 | LIN1 ambient light drive circuit broken | B11BD13 LIN1 Ambient Light Drive Circuit Broken |
| B11BD19 | LIN1 ambient light drive overload | B11BD19 LIN1 Ambient Light Overload |
| B11BE11 | LIN2 ambient light drive circuit is short to ground | B11BE11 LIN2 Ambient Light Drive Circuit Short to Ground |
| B11BE12 | LIN2 ambient light drive circuit is short to power | B11BE12 LIN2 Ambient Light Drive Circuit Short to Power |
| B11BE13 | LIN2 ambient light drive circuit broken | B11BE13 LIN2 Ambient Light Drive Circuit Broken |
| B11BE19 | LIN2 ambient light drive overload | B11BE19 LIN2 Ambient Light Overload |

B11BD11 LIN1 Ambient Light Drive Circuit Short to Ground

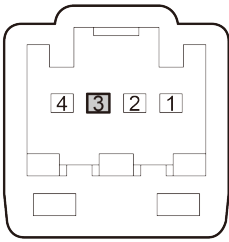
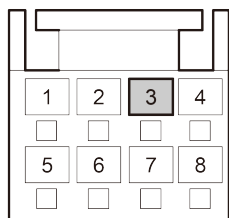
DTC Description

| B11BD11 LIN1 Ambient Light Drive Circuit Short to Ground | |
|--|---|
| Symptom | Ambient light fails to be turned on or adjusting color |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Ambient light fault 3. Left body control module fault |
| Fault setting conditions | Drive port short circuit detected |
| Trigger fault conditions | <ol style="list-style-type: none"> 1. The voltage of control module is between 9–16V 2. LIN1 ambient light power supply pin supplying power |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|--|---|
| <p>Left rear door ambient light</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>V13</p>  <p><small>862E-04-2121</small></p> </div> | <p>3</p> | <p>LIN1</p> |
| <p>Left rear door handle ambient light</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>V13_1</p>  <p><small>862E-04-2122</small></p> </div> | <p>3</p> | <p>LIN1</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of left rear door panel ambient light |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left rear door panel ambient light V13.
3. Check the harness connector of left rear door panel ambient light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 3 | Check the harness connector of left rear door snap handle ambient light |
|---|---|

1. Disconnect the harness connector of left rear door snap handle ambient light V13_1.
2. Check the harness connector of left rear door snap handle ambient light for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 4 | Check the harness connector of left body control module |
|---|---|

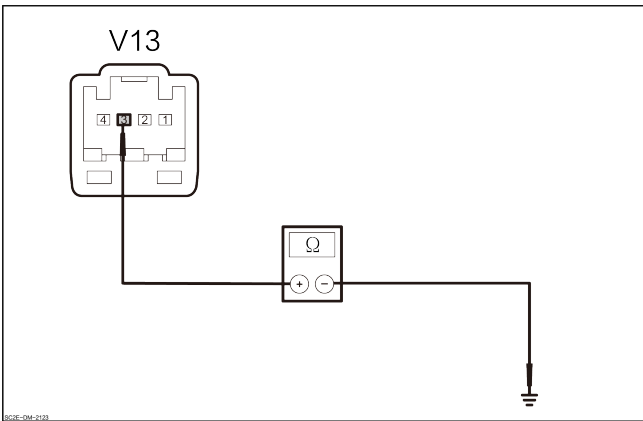
1. Disconnect the harness connector of left body control module KG64(D).

2. Check the harness connector of left body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No → Repair or replace the damaged harness or connector.

Yes

5 Check the left rear door panel ambient light LIN1 harness for short to ground



1. Measure the resistance between the harness connector of left rear door panel ambient light V13-3 and the ground.

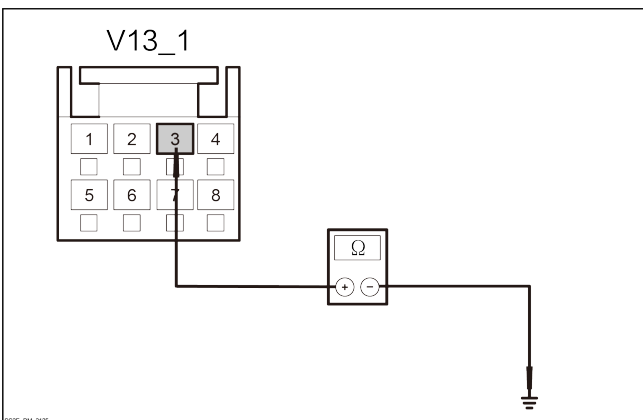
| Terminal | | Condition | Resistance value |
|----------|--------|-------------|------------------|
| (+) | (-) | | |
| V13-3 | Ground | Through-out | Above 10 KΩ |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

6 Check the left rear door snap handle ambient light LIN1 harness for short to ground



1. Measure the resistance between the harness connector of left rear door snap handle ambient light V13_1-3 and the ground.

| Terminal | | Condition | Resistance value |
|----------|--------|-------------|------------------|
| (+) | (-) | | |
| V13_1-3 | Ground | Through-out | Above 10 KΩ |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

7 Check the left rear door panel ambient light

1. Replace the left rear door panel ambient light with a new one and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the left rear door panel ambient light.

No

| | |
|---|--|
| 8 | Check the left rear door snap handle ambient light |
|---|--|

1. Replace the left rear door snap handle ambient light with a new one and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the left rear door snap handle ambient light.

No

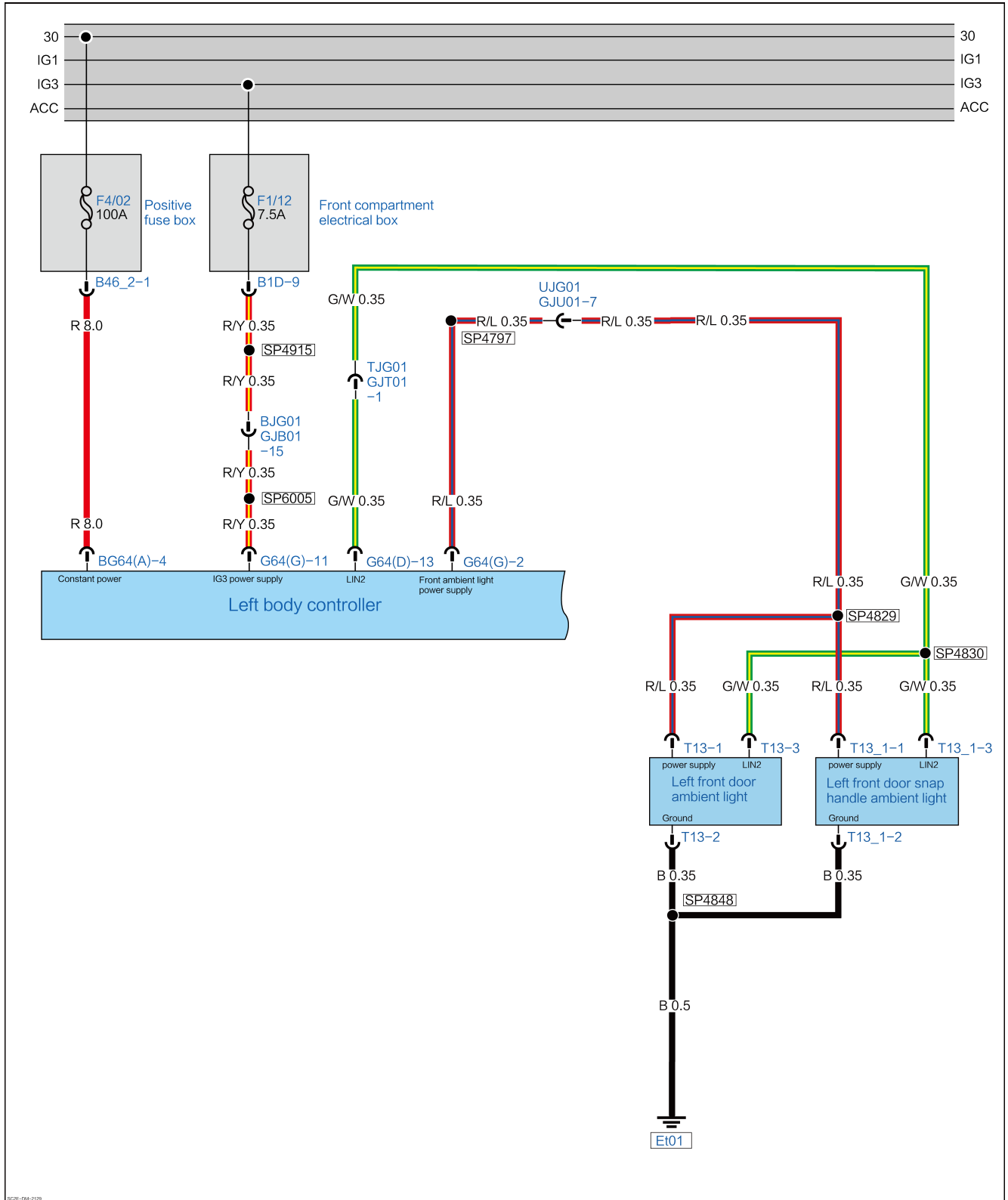
Replace the left body control module.

B11BD12 LIN1 Ambient Light Drive Circuit Short to Power

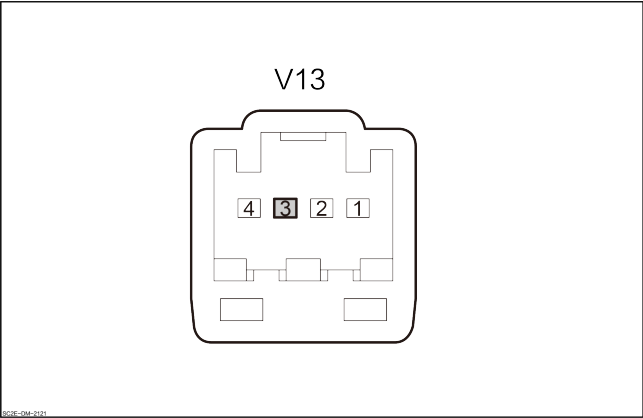
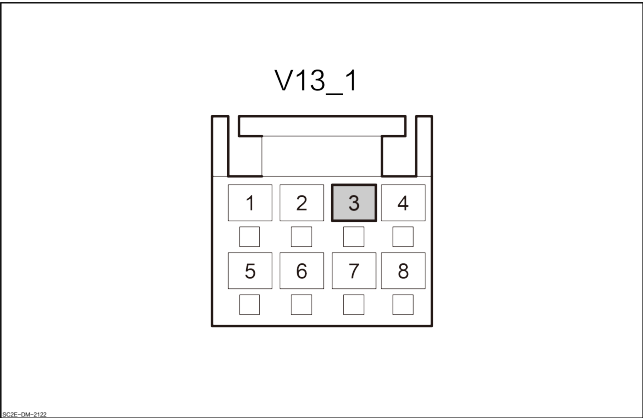
DTC Description

| B11BD12 LIN1 Ambient Light Drive Circuit Short to Power | |
|---|---|
| Symptom | Ambient light fails to be turned on or adjusting color |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Ambient light holder fault 3. Left body control module fault |
| Fault setting conditions | Driving current > 0A is detected for continuous 3s |
| Trigger fault conditions | <ol style="list-style-type: none"> 1. The voltage of control module is between 9–16V 2. LIN1 ambient light power supply pin fails to supply power |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|--|---|
| <p>Left rear door ambient light</p>  <p>V13</p> <p>4 3 2 1</p> <p><small>820E-00-2121</small></p> | <p>3</p> | <p>LIN1</p> |
| <p>Left rear door handle ambient light</p>  <p>V13_1</p> <p>1 2 3 4</p> <p>5 6 7 8</p> <p><small>820E-00-2122</small></p> | <p>3</p> | <p>LIN1</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of left rear door panel ambient light |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left rear door panel ambient light V13.
3. Check the harness connector of left rear door panel ambient light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 3 | Check the harness connector of left rear door snap handle ambient light |
|---|---|

1. Disconnect the harness connector of left rear door snap handle ambient light V13_1.
2. Check the harness connector of left rear door snap handle ambient light for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 4 | Check the harness connector of left body control module |
|---|---|

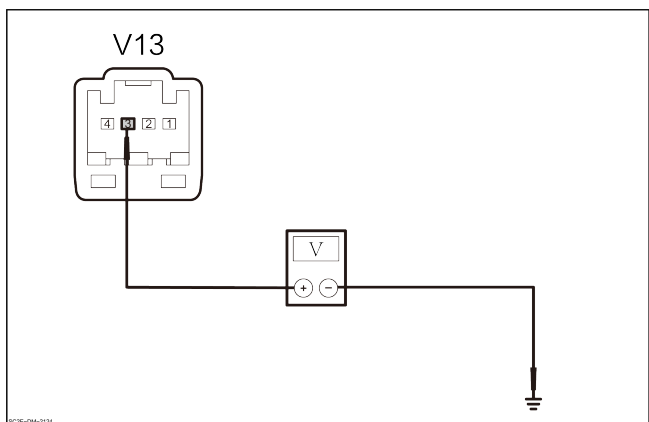
1. Disconnect the harness connector of left body control module KG64(D).

2. Check the harness connector of left body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No → Repair or replace the damaged harness or connector.

Yes

5 Check the left rear door panel ambient light LIN1 harness for short to power



1. Measure the voltage between the harness connector of left rear door panel ambient light V13-3 and the ground.

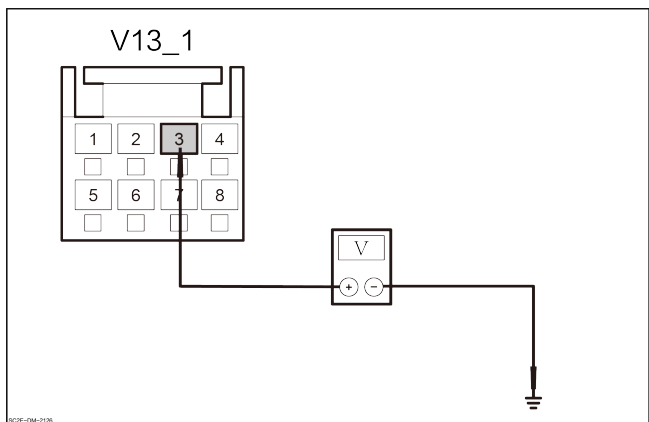
| Terminal | | Condition | Voltage value |
|----------|--------|-------------|---------------|
| (+) | (-) | | |
| V13-3 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

6 Check the left rear door snap handle ambient light LIN1 harness for short to power



1. Measure the voltage between the harness connector of left rear door snap handle ambient light V13_1-3 and the ground.

| Terminal | | Condition | Voltage value |
|----------|--------|-------------|---------------|
| (+) | (-) | | |
| V13_1-3 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

7 Check the left rear door panel ambient light

1. Replace the left rear door panel ambient light with a new one and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the left rear door panel ambient light.

No

| | |
|---|--|
| 8 | Check the left rear door snap handle ambient light |
|---|--|

1. Replace the left rear door snap handle ambient light with a new one and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the left rear door snap handle ambient light.

No

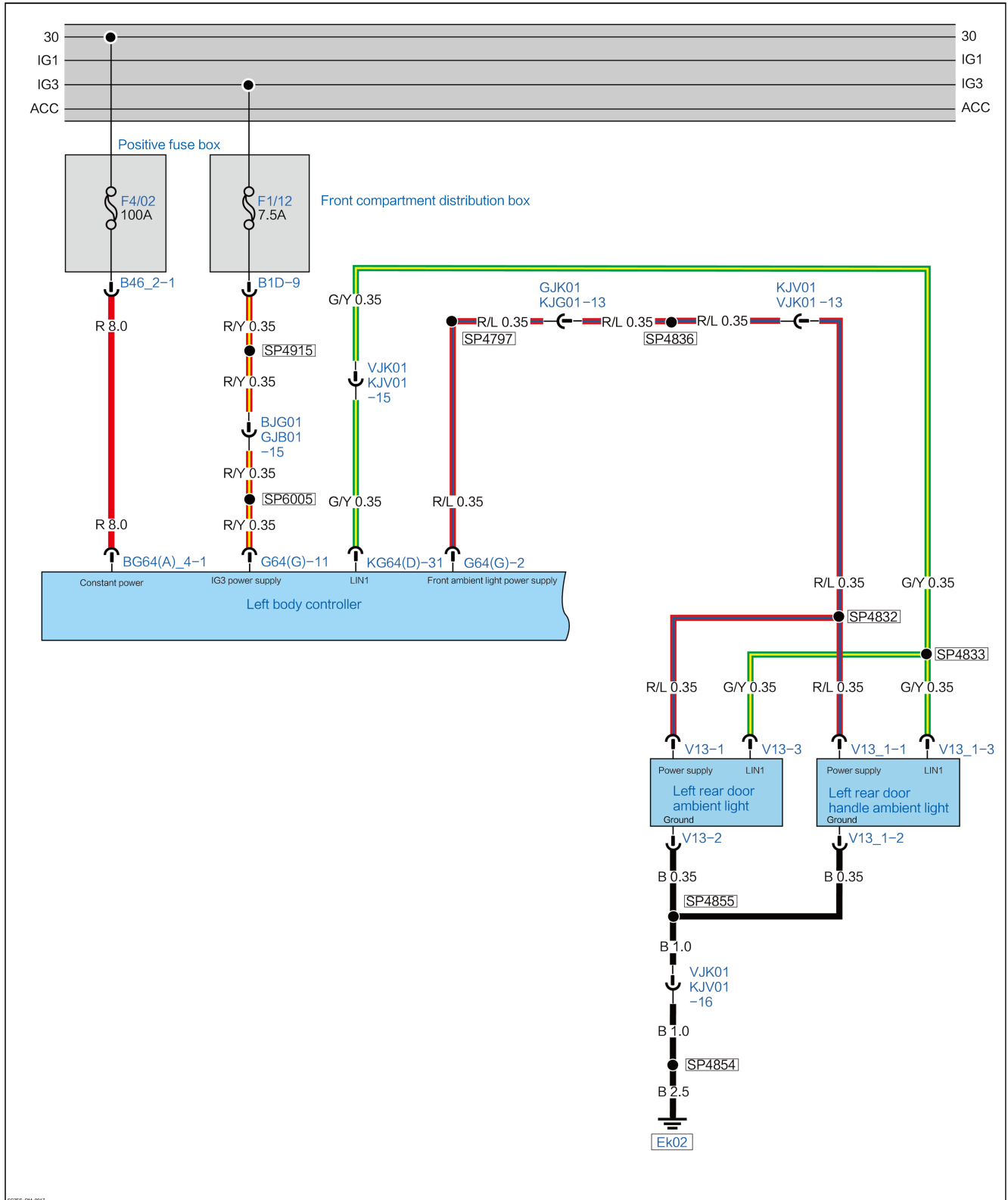
Replace the left body control module.

B11BD13 LIN1 Ambient Light Drive Circuit Broken

DTC Description

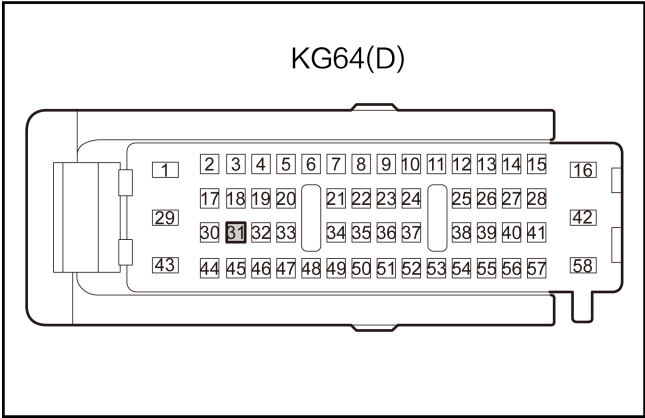
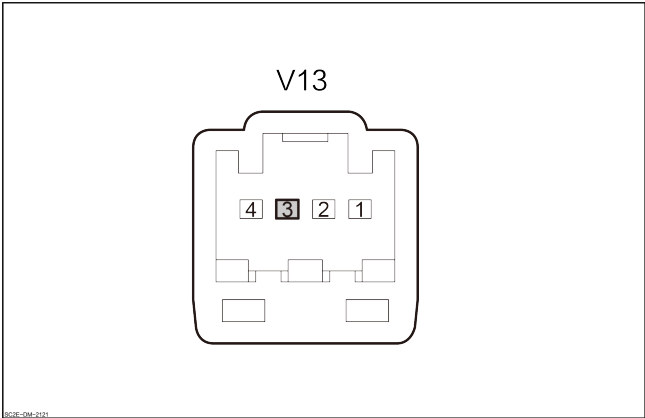
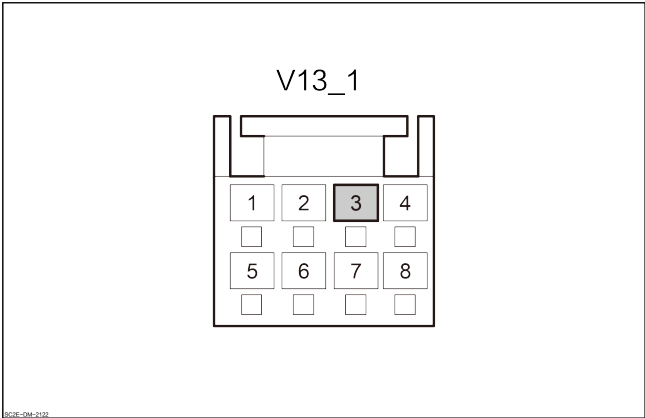
| B11BD13 LIN1 Ambient Light Drive Circuit Broken | |
|---|---|
| Symptom | Ambient light fails to be turned on or adjusting color |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Ambient light holder fault 3. Left body control module fault |
| Fault setting conditions | Driving current = 0 is detected for continuous 3s |
| Trigger fault conditions | <ol style="list-style-type: none"> 1. The voltage of control module is between 9–16V 2. LIN1 ambient light power supply pin supplying power |

Circuit Diagram



SC219-04-0017

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p>KG64(D)</p> </div> | 31 | LIN1 |
| <p style="text-align: center;">Left rear door ambient light</p> <div style="text-align: center;">  <p>V13</p> </div> | 3 | LIN1 |
| <p style="text-align: center;">Left rear door handle ambient light</p> <div style="text-align: center;">  <p>V13_1</p> </div> | 3 | LIN1 |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of left rear door panel ambient light |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left rear door panel ambient light V13.
3. Check the harness connector of left rear door panel ambient light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 3 | Check the harness connector of left rear door snap handle ambient light |
|---|---|

1. Disconnect the harness connector of left rear door snap handle ambient light V13_1.
2. Check the harness connector of left rear door snap handle ambient light for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 4 | Check the harness connector of left body control module |
|---|---|

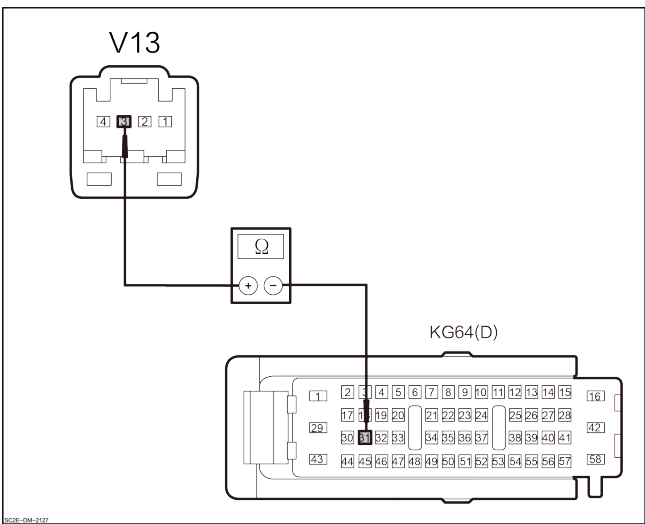
1. Disconnect the harness connector of left body control module KG64(D).

2. Check the harness connector of left body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No → Repair or replace the damaged harness or connector.

Yes

5 Check the left rear door ambient light LIN1 harness for open circuit



1. Measure the resistance between the harness connector of left rear door panel ambient light V13-3 and the harness connector of left body control module KG64(D)-31.

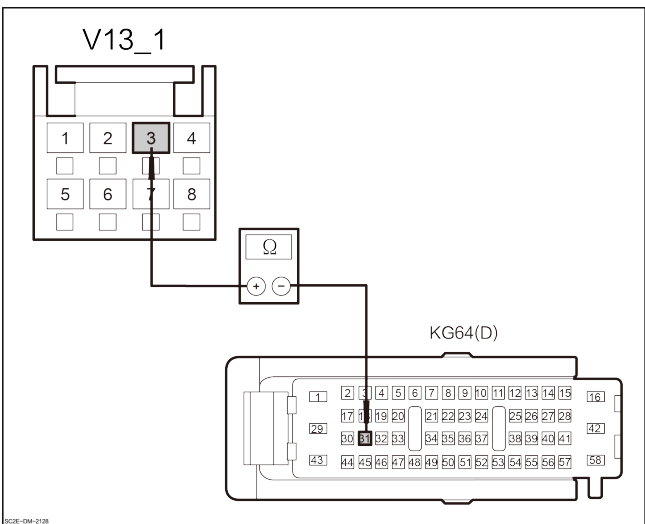
| Terminal | | Condition | Resistance value |
|----------|------------|-------------|------------------|
| (+) | (-) | | |
| V13-3 | KG64(D)-31 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

6 Check the left rear door handle ambient light LIN1 harness for open circuit



1. Measure the resistance between the harness connector of left rear door snap handle ambient light V13_1-3 and the harness connector of left body control module KG64(D)-31.

| Terminal | | Condition | Resistance value |
|----------|------------|-------------|------------------|
| (+) | (-) | | |
| V13_1-3 | KG64(D)-31 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

| | |
|---|--|
| 7 | Check the left rear door panel ambient light |
|---|--|

1. Replace the left rear door panel ambient light with a new one and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the left rear door panel ambient light.

No

| | |
|---|--|
| 8 | Check the left rear door snap handle ambient light |
|---|--|

1. Replace the left rear door snap handle ambient light with a new one and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the left rear door snap handle ambient light.

No

Replace the left body control module.

B11BD19 LIN1 Ambient Light Overload

DTC Description

| B11BD19 LIN1 Ambient Light Overload | |
|-------------------------------------|---|
| Symptom | Ambient light fails to be turned on or adjusting color |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Ambient light holder fault 3. Left body control module fault |
| Fault setting conditions | Drive current $\geq 5A$ is detected continuously for 3s (current value matches) |
| Trigger fault conditions | <ol style="list-style-type: none"> 1. The voltage of control module is between 9–16V 2. LIN1 ambient light power supply pin fails to supply power |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check whether the left rear door panel ambient light/left rear door snap handle ambient light is replaced |
|---|---|

1. Check whether the left rear door panel ambient light/left rear door snap handle ambient light is modified or replaced.
2. Check whether the results are normal.

No

Replace with the original parts.

Yes

| | |
|---|--|
| 3 | Check whether the LIN harness of left rear door panel ambient light/left rear door snap handle ambient light is connected with other equipment |
|---|--|

1. Check whether the LIN harness of left rear door panel ambient light/left rear door snap handle ambient light is connected with other equipment
2. Check whether the results are normal.

No

Remove the external equipment and recover the vehicle.

Yes

| | |
|---|--|
| 4 | Check the harness connector of left rear door panel ambient light/left rear door snap handle ambient light |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left rear door panel ambient light/left rear door snap handle ambient light V07_1.

3. Check the harness connector of left rear door panel ambient light/left rear door snap handle ambient light for corrosion, damage, false connection, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 5 | Check the harness connector of left body control module |
|---|---|

1. Disconnect the harness connector of left body control module KG64(D).
2. Check the harness connector of left body control module for corrosion, damage, false connection, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 6 | Check the left rear door panel ambient light/left rear door snap handle ambient light |
|---|---|

1. Replace the left rear door panel ambient light/left rear door snap handle ambient light with a new one and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the left rear door panel ambient light/left rear door snap handle ambient light.

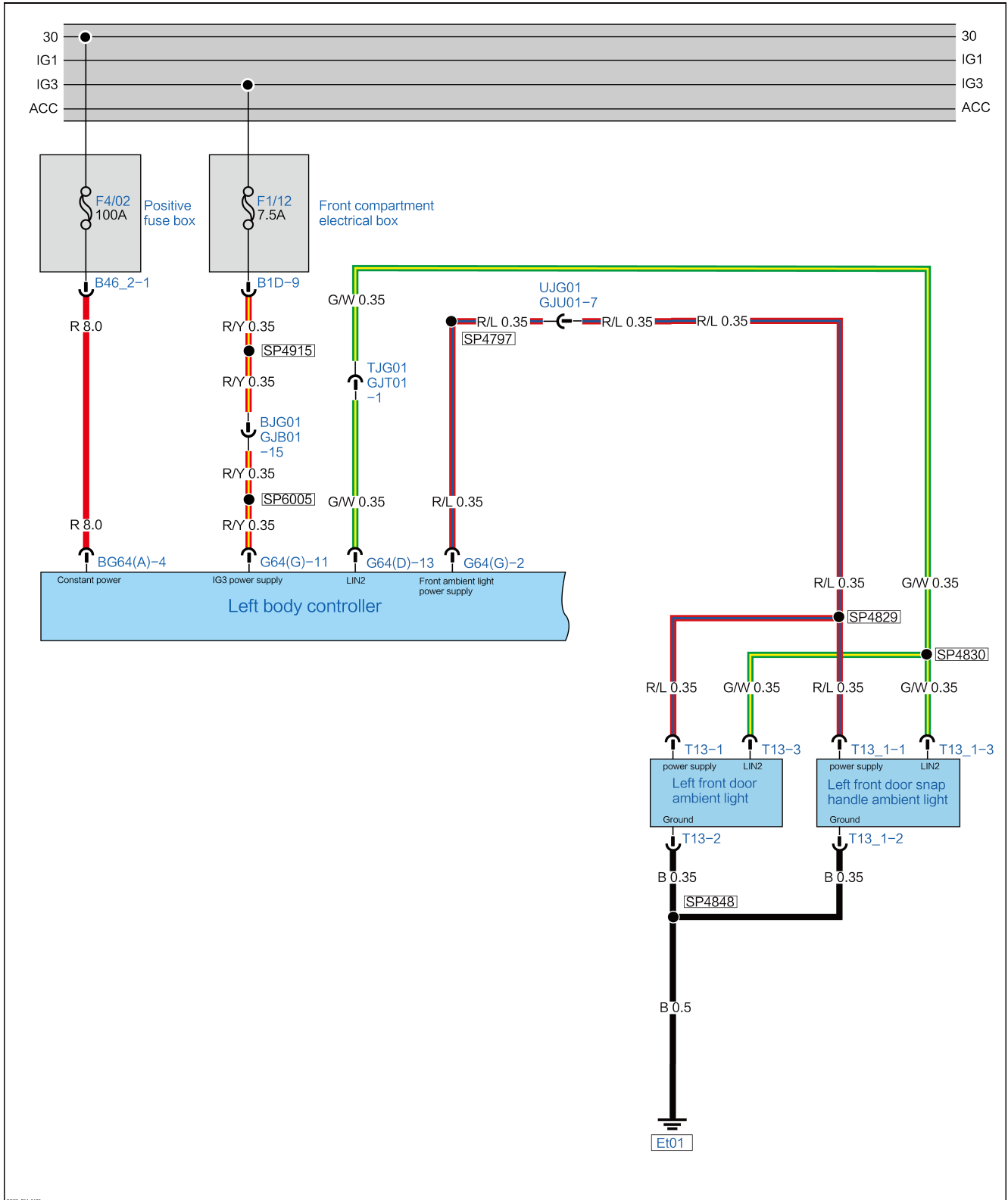
No

Replace the left body control module.

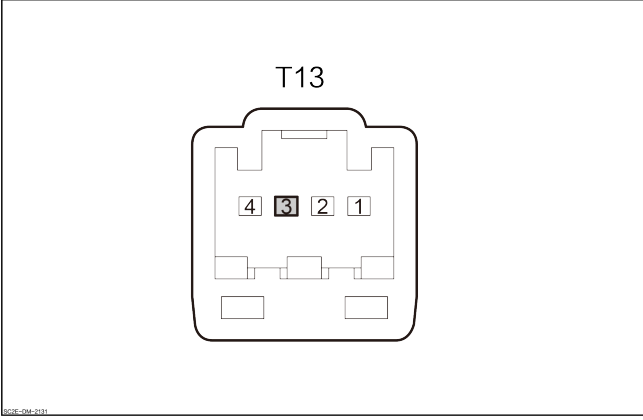
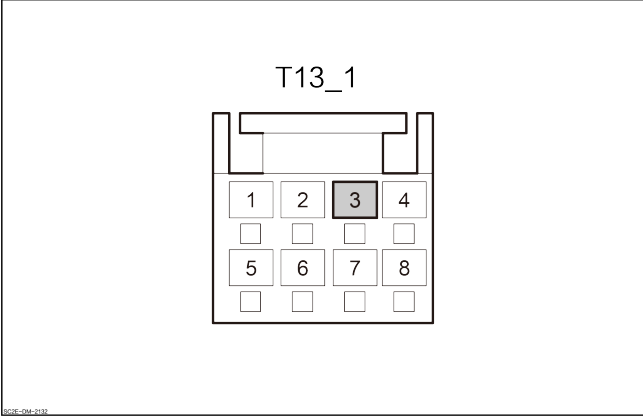
B11BE11 LIN2 Ambient Light Drive Circuit Short to Ground**DTC Description**

| B11BE11 LIN2 Ambient Light Drive Circuit Short to Ground | |
|--|---|
| Symptom | Ambient light fails to be turned on or adjusting color |
| Possible Cause | 1. Harness or connector fault. 2. Ambient light fault 3. Left body control module fault |
| Fault setting conditions | Drive port short circuit detected |
| Trigger fault conditions | 1. The voltage of control module is between 9–16V 2. LIN2 ambient light power supply pin supplying power |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Left front door ambient light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">T13</p> </div> <p><small>89E-DM-2131</small></p> | 3 | LIN2 |
| <p style="text-align: center;">Left front door snap handle ambient light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">T13_1</p> </div> <p><small>89E-DM-2132</small></p> | 3 | LIN2 |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|--|
| 2 | Check the harness connector of left front door panel ambient light |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left front door panel ambient light T13.
3. Check the harness connector of left front door panel ambient light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of left front door snap handle ambient light |
|---|--|

1. Disconnect the harness connector of left front door snap handle ambient light T13_1.
2. Check the harness connector of left front door snap handle ambient light for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 4 | Check the harness connector of left body control module |
|---|---|

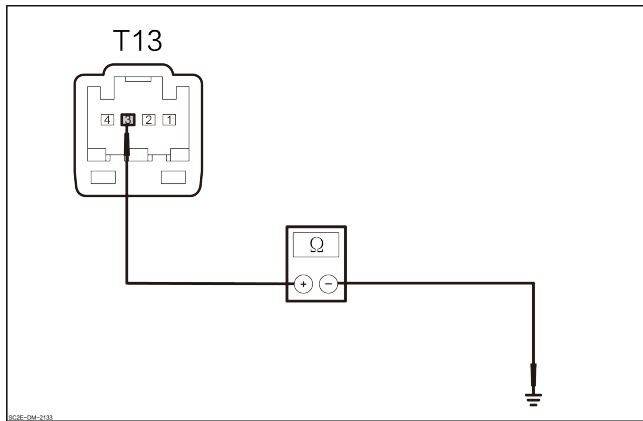
1. Disconnect the harness connector of left body control module G64(G).

2. Check the harness connector of left body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No → Repair or replace the damaged harness or connector.

Yes

5 Check the left front door panel ambient light LIN2 harness for short to ground



1. Measure the resistance between the harness connector of left front door panel ambient light T13-3 and the ground.

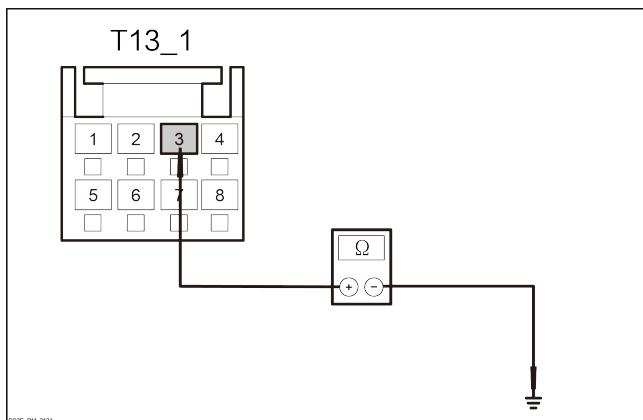
| Terminal | | Condition | Resist- ance value |
|----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| T13-3 | Ground | Through- out | Above 10 KΩ |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

6 Check the left front door snap handle ambient light LIN2 harness for short to ground



1. Measure the resistance between the harness connector of left front door snap handle ambient light T13_1-3 and the ground.

| Terminal | | Condition | Resist- ance value |
|----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| T13_1-3 | Ground | Through- out | Above 10 KΩ |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

7 Check the left front door panel ambient light

1. Replace the left front door panel ambient light with a new one and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes → Replace the left front door panel ambient light.

No

| | |
|---|---|
| 8 | Check the left front door snap handle ambient light |
|---|---|

1. Replace the left front door snap handle ambient light with a new one and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes → Replace the left front door snap handle ambient light.

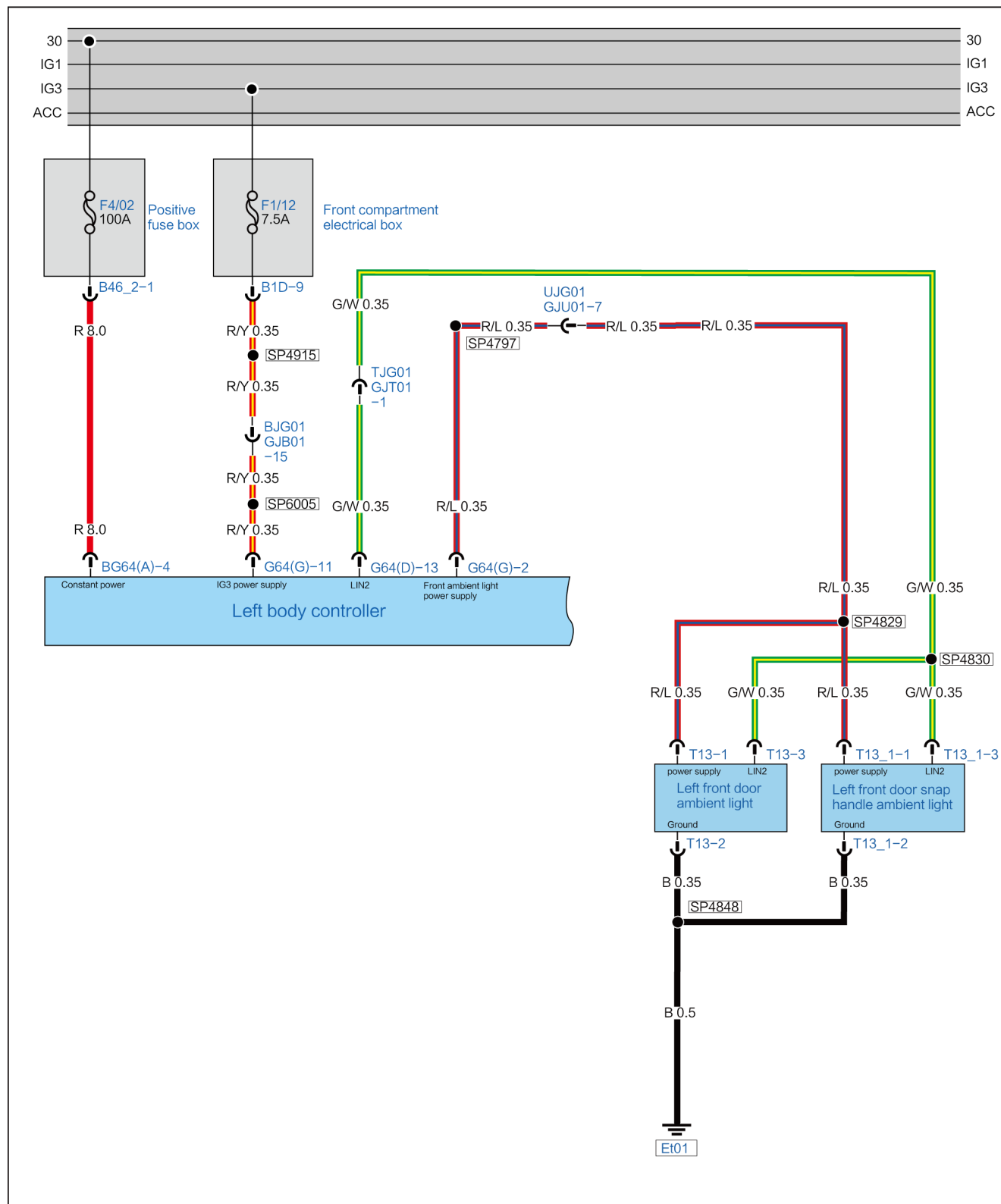
No → Replace the left body control module.

B11BE12 LIN2 Ambient Light Drive Circuit Short to Power

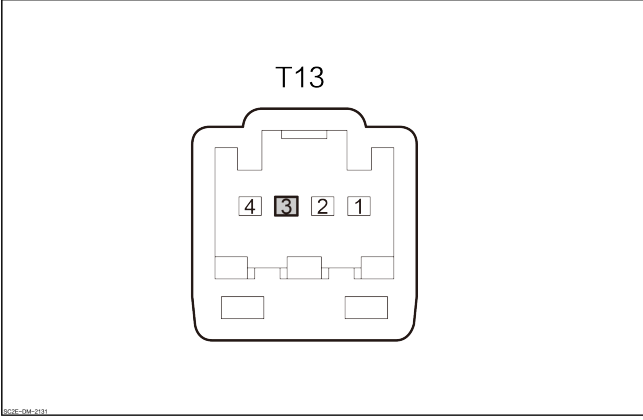
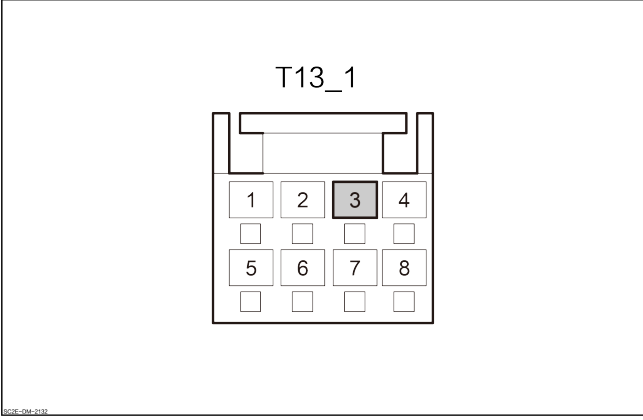
DTC Description

| B11BE12 LIN2 Ambient Light Drive Circuit Short to Power | |
|---|--|
| Symptom | Ambient light fails to be turned on or adjusting color |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Left front ambient light fault3. Left body control module fault |
| Fault setting conditions | Driving current > 0A is detected for continuous 3s |
| Trigger fault conditions | <ol style="list-style-type: none">1. The voltage of control module is between 9–16V2. LIN2 ambient light power supply pin fails to supply power |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Left front door ambient light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">T13</p> </div> <p><small>89E-DM-2131</small></p> | 3 | LIN2 |
| <p style="text-align: center;">Left front door snap handle ambient light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">T13_1</p> </div> <p><small>89E-DM-2132</small></p> | 3 | LIN2 |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|--|
| 2 | Check the harness connector of left front door panel ambient light |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left front door panel ambient light T13.
3. Check the harness connector of left front door panel ambient light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of left front door snap handle ambient light |
|---|--|

1. Disconnect the harness connector of left front door snap handle ambient light T13_1.
2. Check the harness connector of left front door snap handle ambient light for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 4 | Check the harness connector of left body control module |
|---|---|

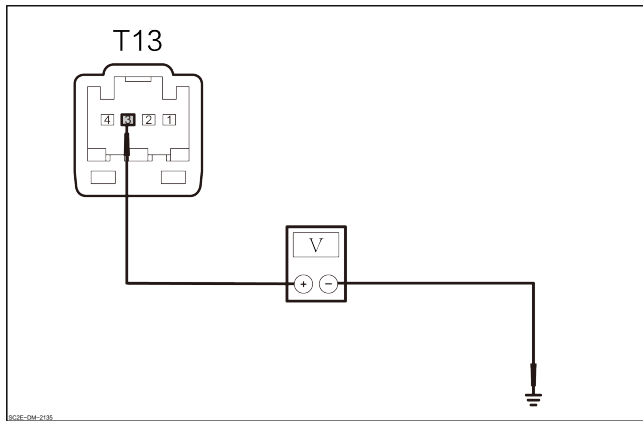
1. Disconnect the harness connector of left body control module G64(G).

2. Check the harness connector of left body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No → Repair or replace the damaged harness or connector.

Yes

5 Check the left front door panel ambient light LIN2 harness for short to power



1. Measure the voltage between the harness connector of left front door panel ambient light T13-3 and the ground.

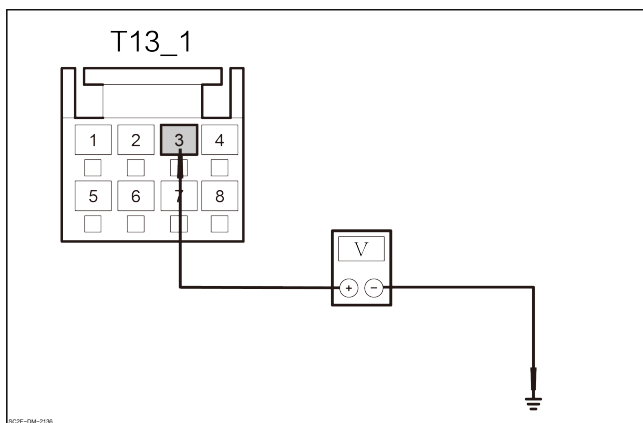
| Terminal | | Condition | Voltage value |
|----------|--------|-------------|---------------|
| (+) | (-) | | |
| T13-3 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

6 Check the left front door snap handle ambient light LIN2 harness for short to power



1. Measure the voltage between the harness connector of left front door snap handle ambient light T13_1-3 and the ground.

| Terminal | | Condition | Voltage value |
|----------|--------|-------------|---------------|
| (+) | (-) | | |
| T13_1-3 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

7 Check the left front door panel ambient light

1. Replace the left front door panel ambient light with a new one and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the left front door panel ambient light.

No

8

Check the left front door snap handle ambient light

1. Replace the left front door snap handle ambient light with a new one and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the left front door snap handle ambient light.

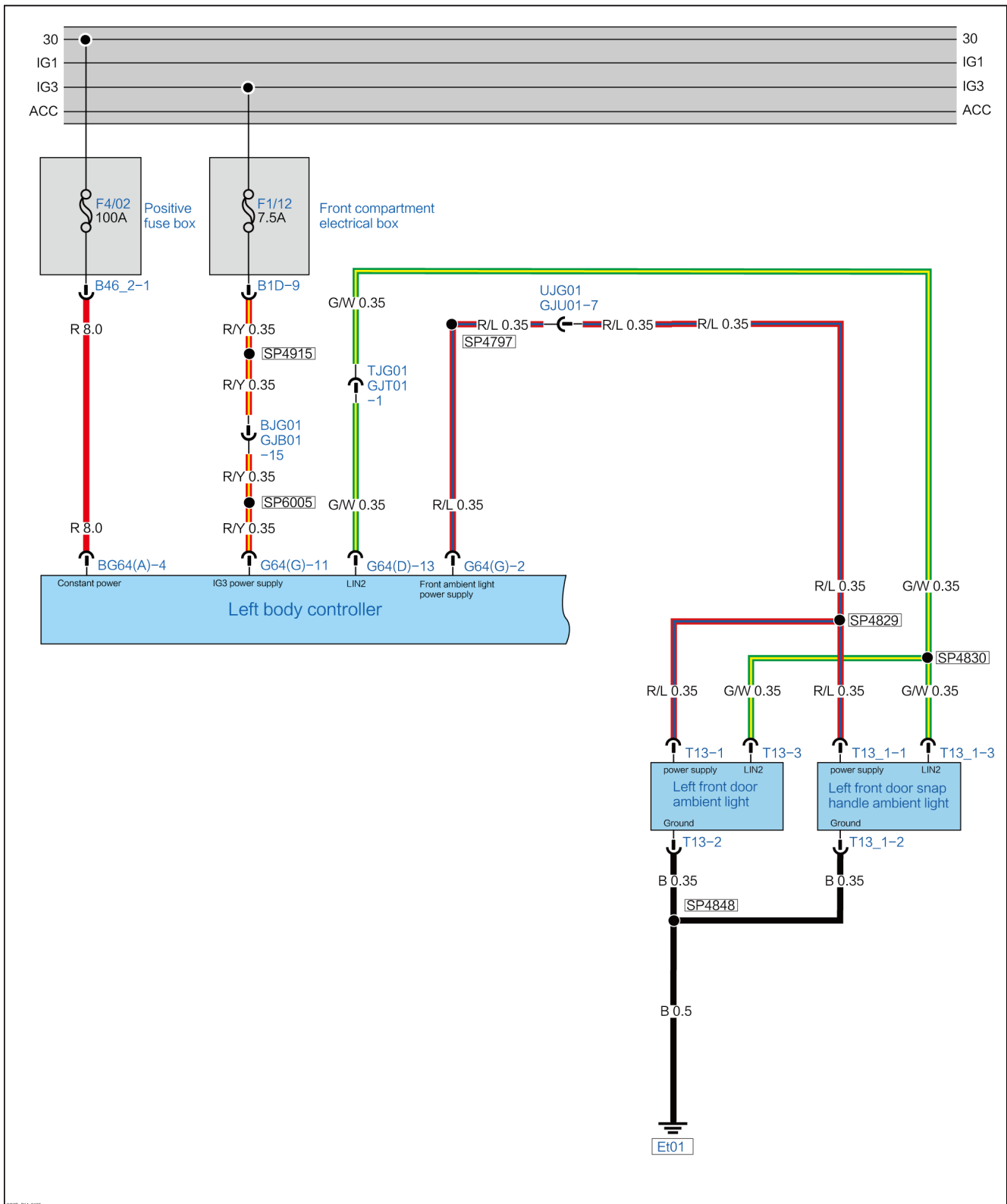
No

Replace the left body control module.

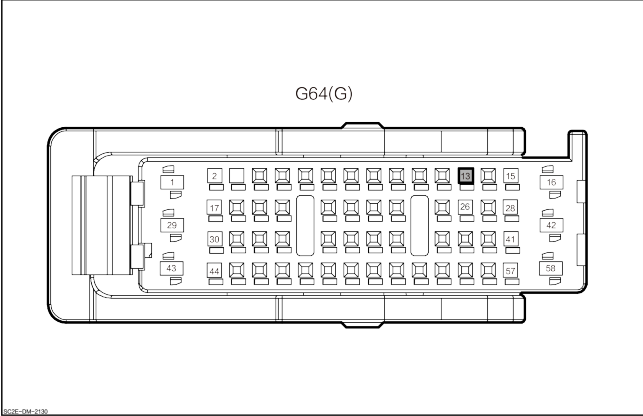
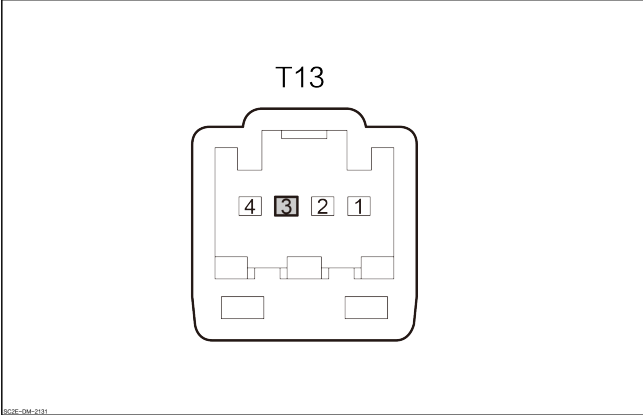
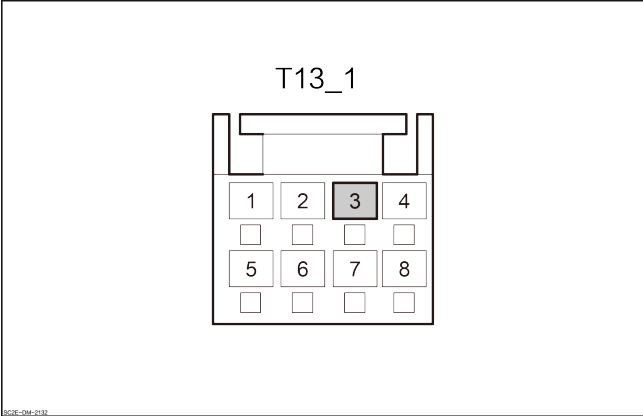
B11BE13 LIN2 Ambient Light Drive Circuit Broken**DTC Description**

| B11BE13 LIN2 Ambient Light Drive Circuit Broken | |
|---|---|
| Symptom | Ambient light fails to be turned on or adjusting color |
| Possible Cause | 1. Harness or connector fault. 2. Left front ambient light fault 3. Left body control module fault |
| Fault setting conditions | Driving current = 0 is detected for continuous 3s |
| Trigger fault conditions | 1. The voltage of control module is between 9–16V 2. LIN2 ambient light power supply pin supplying power |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Left body control module</p>  <p style="text-align: center;">G64(G)</p> <p><small>82RF-DM-2130</small></p> | 13 | LIN2 |
| <p style="text-align: center;">Left front door ambient light</p>  <p style="text-align: center;">T13</p> <p><small>82RF-DM-2131</small></p> | 3 | LIN2 |
| <p style="text-align: center;">Left front door snap handle ambient light</p>  <p style="text-align: center;">T13_1</p> <p><small>82RF-DM-2132</small></p> | 3 | LIN2 |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|--|
| 2 | Check the harness connector of left front door panel ambient light |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left front door panel ambient light T13.
3. Check the harness connector of left front door panel ambient light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of left front door snap handle ambient light |
|---|--|

1. Disconnect the harness connector of left front door snap handle ambient light T13_1.
2. Check the harness connector of left front door snap handle ambient light for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 4 | Check the harness connector of left body control module |
|---|---|

1. Disconnect the harness connector of left body control module G64(G).

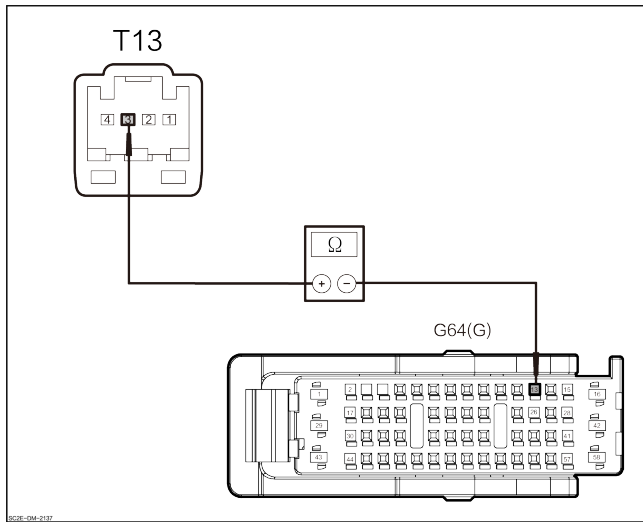
2. Check the harness connector of left body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

5 Check the left front door ambient light LIN2 harness for open circuit



1. Measure the resistance between the harness connector of left front door panel ambient light T13-3 and the harness connector of left body control module G64(G)-13.

| Terminal | | Condition | Resist- ance value |
|----------|-----------|-----------------|--------------------------|
| (+) | (-) | | |
| T13-3 | G64(G)-13 | Through- out | Lower than 1 Ω |

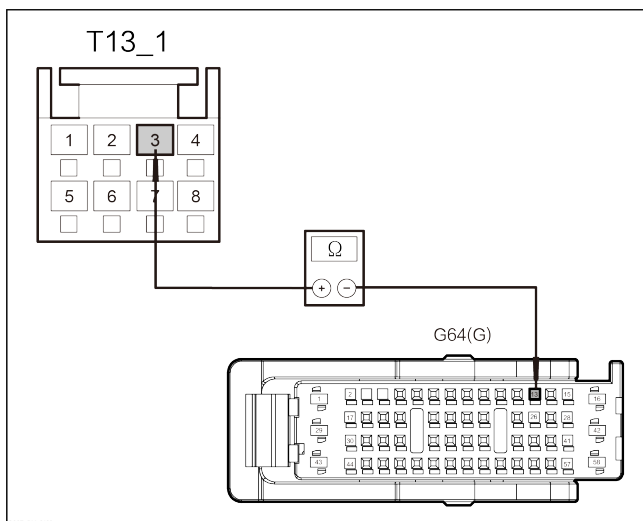
2. Check whether the results are normal.

No

Repair or replace the damaged harness.

Yes

6 Check the left front door snap handle ambient light LIN2 harness for open circuit



1. Measure the resistance between the harness connector of left front door snap handle ambient light T13_1-3 and the harness connector of left body control module G64(G)-13.

| Terminal | | Condition | Resist- ance value |
|----------|-----------|-----------------|--------------------------|
| (+) | (-) | | |
| T13_1-3 | G64(G)-13 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No

Repair or replace the damaged harness.

Yes

7

Check the left front door panel ambient light

1. Replace the left front door panel ambient light with a new one and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the left front door panel ambient light.

No

8

Check the left front door snap handle ambient light

1. Replace the left front door snap handle ambient light with a new one and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the left front door snap handle ambient light.

No

Replace the left body control module.

B11BE19 LIN2 Ambient Light Overload

DTC Description

| B11BE19 LIN2 Ambient Light Overload | |
|-------------------------------------|--|
| Symptom | Ambient light fails to be turned on or adjusting color |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. Ambient light holder fault3. Left body control module fault |
| Fault setting conditions | Drive current $\geq 1A$ is detected continuously for 3s (current value matches) |
| Trigger fault conditions | <ol style="list-style-type: none">1. The voltage of control module is between 9–16V2. LIN2 ambient light power supply pin fails to supply power |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of left body control module |
|---|---|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check whether the left front door panel ambient light/left front door snap handle ambient light is replaced |
|---|---|

1. Check whether the left front door panel ambient light/left front door snap handle ambient light is modified or replaced.
2. Check whether the results are normal.

No

Replace with the original parts.

Yes

| | |
|---|---|
| 3 | Check whether the LIN harness of left front door panel ambient light/left front door snap handle ambient light is externally connected with other equipment |
|---|---|

1. Check whether the LIN harness of left front door panel ambient light/left front door snap handle ambient light is externally connected with other electrical equipment.
2. Check whether the results are normal.

No

Remove the external equipment and recover the vehicle.

Yes

| | |
|---|--|
| 4 | Check the harness connector of left front door panel ambient light/left front door snap handle ambient light |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of left front door panel ambient light/left front door snap handle ambient light T13.

3. Check the harness connector of left front door panel ambient light/left front door snap handle ambient light for corrosion, damage, false connection, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 5 | Check the harness connector of left body control module |
|---|---|

1. Disconnect the harness connector of left body control module G64(G).
2. Check the harness connector of left body control module for corrosion, damage, false connection, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 6 | Check the left front door panel ambient light/left front door snap handle ambient light |
|---|---|

1. Replace the left front door panel ambient light/left front door snap handle ambient light with a new one and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the left front door panel ambient light/left front door snap handle ambient light.

No

Replace the left body control module.

Vehicle Inlet Light

Diagnosis Description

For the diagnosis of charging port light system fault, make sure to understand and get familiar with the control logic of the charging port light system. Before the diagnosis, confirm the fault phenomenon described by customers, and then analyze the cause of door light failure, which can help determining the correct fault diagnosis procedure. For charging port light system harness and charging port light system inspection and measurement, preferably, data flow, motion test and other functions of VDS should be used to improve the diagnosis efficiency and to reduce the repair time. After determining the fault, implement the standard operation procedures, and check the door light for normal working after repair.

Diagnosing intermittent faults can be more difficult than diagnosing persistent faults. Most intermittent faults are caused by poorly contacted electrical connection or faulty line. Therefore, checking the circuit suspected to be causing the fault can help to avoid replacing a functional part.

General equipment

- Interior wall crow plate
- VDS
- Multimeter

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Precautions

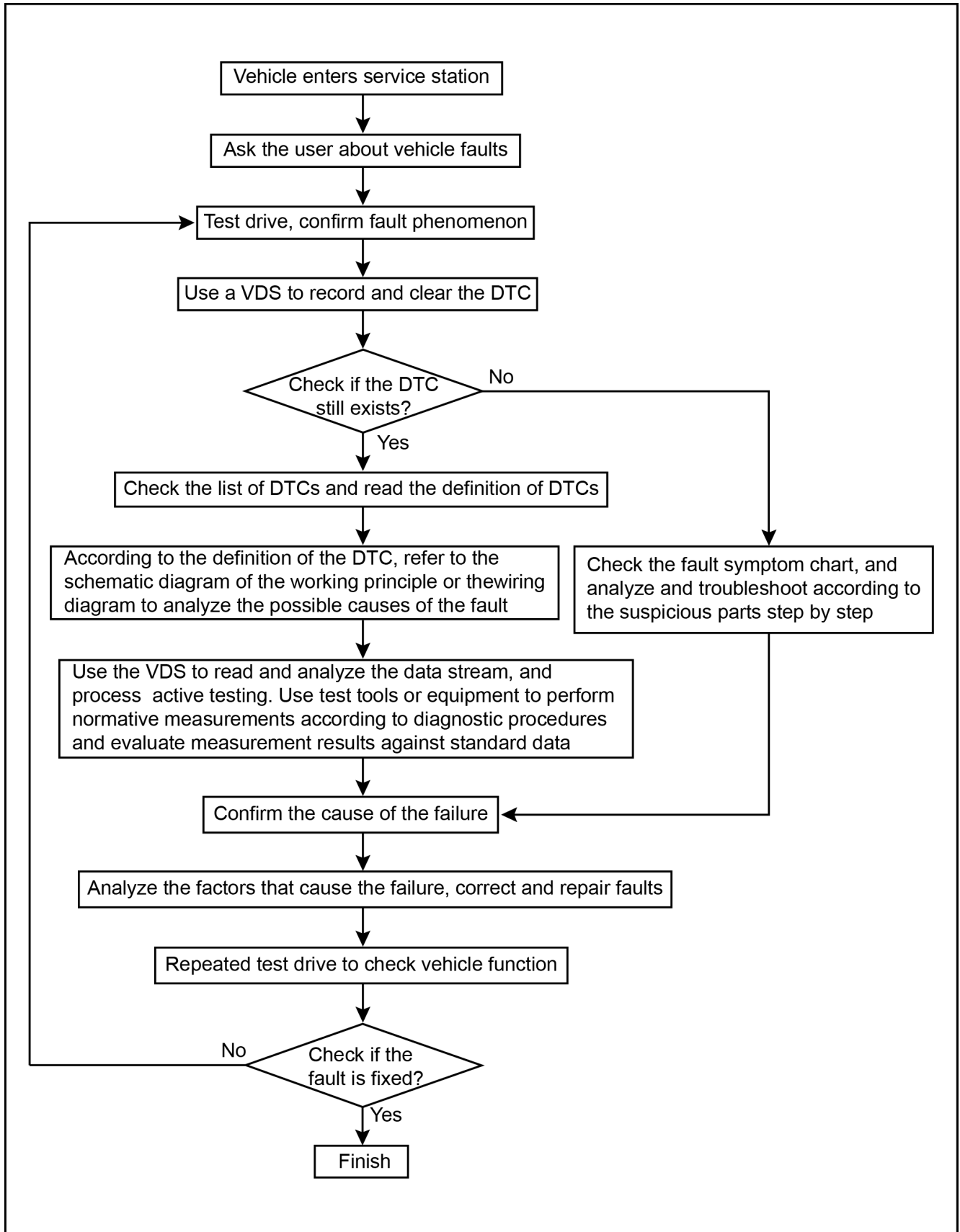
Warning:

- Do not remove the interior trim with sharp tools.
- Do not remove the interior trim forcibly to prevent damage.
- When disconnecting the connector, do not pull the harness to avoid damaging the harness.

Caution:

- When it is necessary to work in the vehicle, the seat and other parts shall be covered to avoid oil contamination.
- The interior trim crow plate shall be used to remove the interior trim. If there is no interior trim crow plate, it can also be replaced by a screwdriver or equivalent, but it shall be wrapped.
- Do not use a fine needle to pierce the harness to check the electrical signal of the system.

Process of Fault Inspection and Troubleshooting



Diagnosis of General Faults

Visual Inspection

1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

| Symptom | Possible cause | Suggested maintenance measures |
|--|-------------------------------------|--|
| Right charging port light is not working | Harness or connector fault. | Repair the harness and connector according to the circuit diagram. |
| | Right charging port light damaged | Replace the right charging port light |
| | Left front door light drive damaged | Replace the left front door light drive |
| | Right body control module damaged | Replace the right body control module |
| Left charging port light not working | Harness or connector fault. | Repair the harness and connector according to the circuit diagram. |
| | Left charging port light damaged | Replace the left charging port light |
| | Left body control module damaged | Replace the left charging port light |

DTC Diagnosis

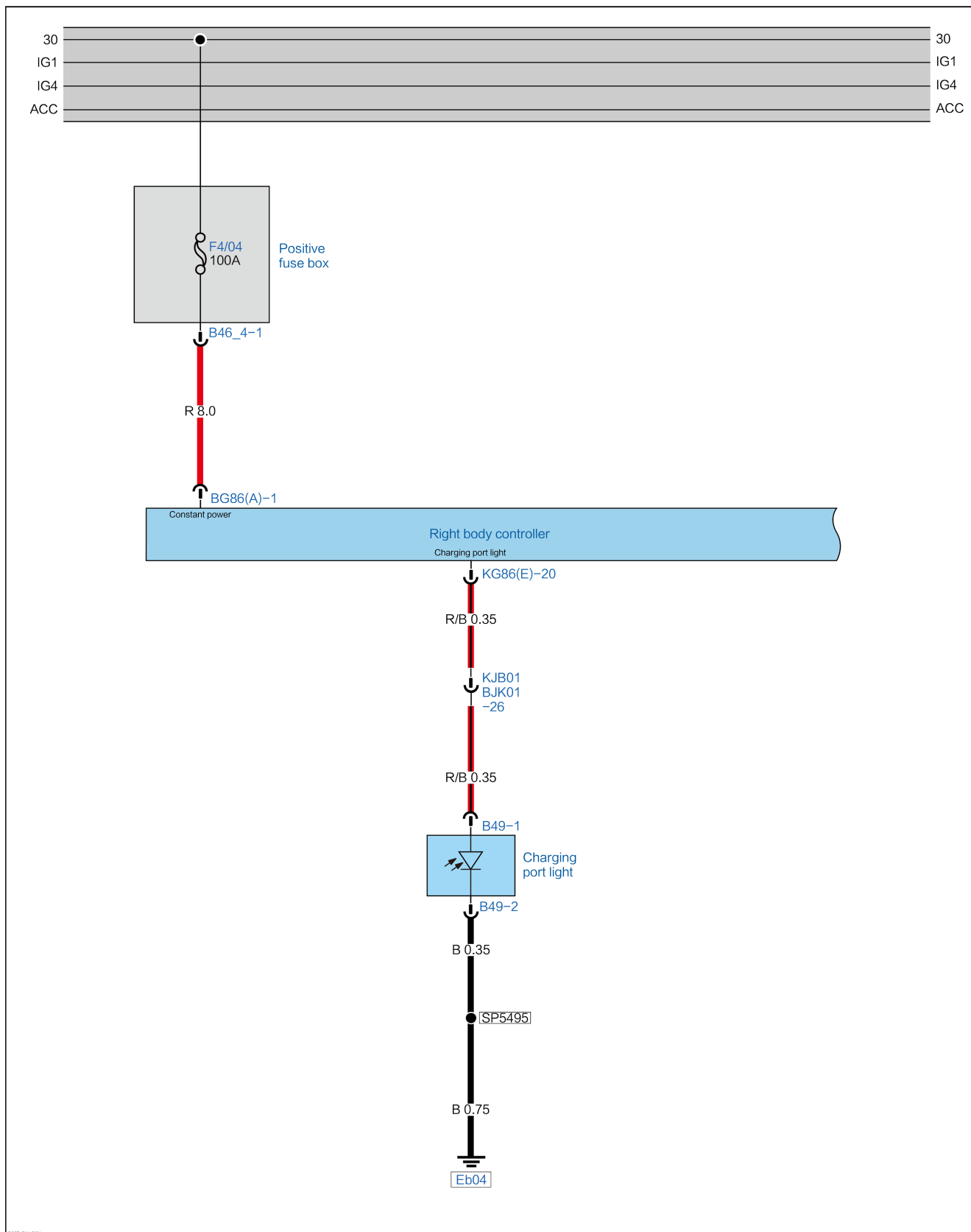
List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|---|---|
| B1C5E11 | Right charging port light drive circuit short to ground | B1C5E11 Right Charging Port Light Drive Circuit Short to Ground |
| B1C5E12 | Right charging port light drive circuit is short to power | B1C5E12 Right Charging Port Light Drive Circuit Short to Power |
| B1C5E13 | Right charging port light drive circuit broken | B1C5E13 Right Charging Port Light Drive Circuit Broken |
| B1C5E19 | Right charging port light drive overload | B1C5E19 Right Charging Port Light Overload |

B1C5E11 Right Charging Port Light Drive Circuit Short to Ground**DTC Description**

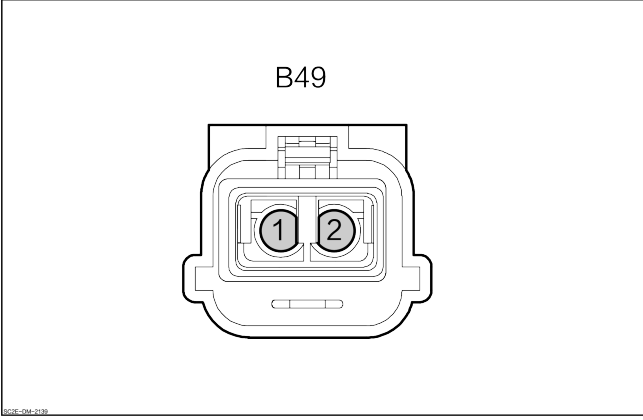
| B1C5E11 Right Charging Port Light Drive Circuit Short to Ground | |
|---|--|
| Symptom | Right charging port light is not working |
| Possible Cause | 1. Harness or connector fault. 2. Right charging port light fault 3. Right body control module fault |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



EC2E-EN4-2001

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">AC charging port light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B49</p> </div> <p style="font-size: small; margin-top: 10px;">B49-DM-0139</p> | 1 | Vehicle Inlet Light |
| | 2 | Ground |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of right AC charging port light |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of right AC charging port light.
3. Check the harness connector of right AC charging port light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of right body control module |
|---|--|

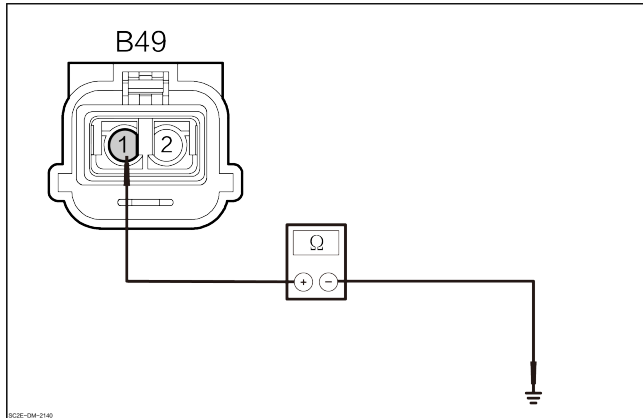
1. Disconnect the harness connector of right body control module KG86(E).
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 4 | Check the right AC charging port light drive harness for short to ground |
|---|--|



1. Measure the resistance between the harness connector of right AC charging port light B49-1 and the ground.

| Terminal | | Condition | Resist- ance value |
|----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B49-1 | Ground | Through- out | Above 10k Ω |

2. Check whether the results are normal.

No

Repair or replace the damaged harness.

Yes

| | |
|---|--|
| 5 | Check the right AC charging port light |
|---|--|

1. Replace the charging port light with a new one and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the charging port light.

No

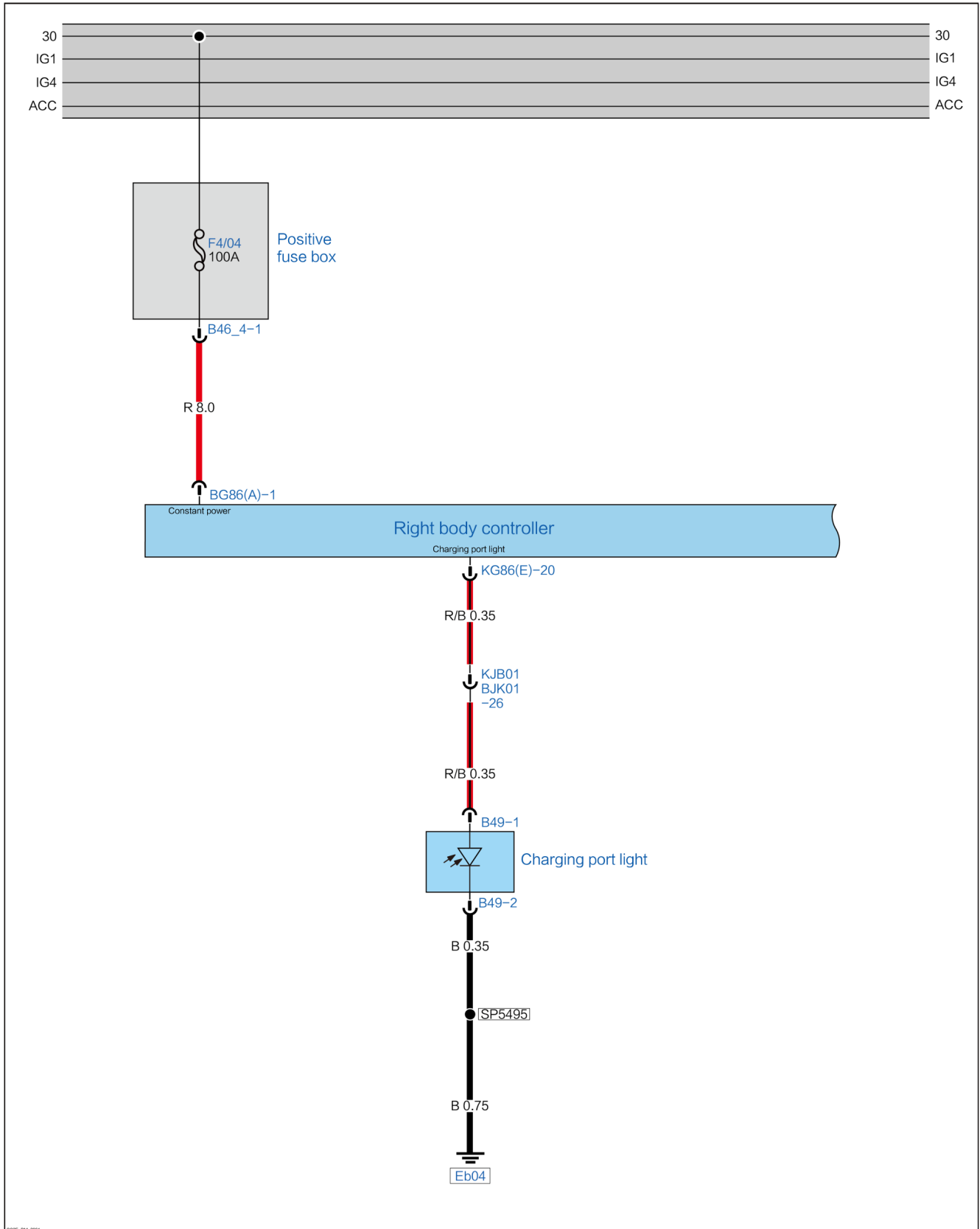
Replace the right body control module.

B1C5E12 Right Charging Port Light Drive Circuit Short to Power

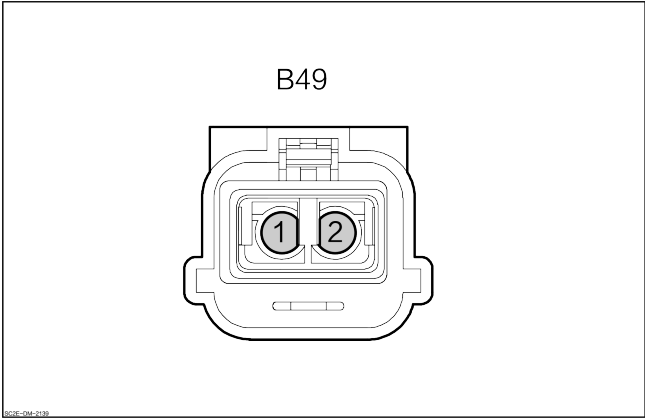
DTC Description

| B1C5E12 Right Charging Port Light Drive Circuit Short to Power | |
|--|--|
| Symptom | Right charging port light keeping on |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Right charging port light fault 3. Right body control module fault |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">AC charging port light</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B49</p> </div> <p style="font-size: small; margin-top: 10px;">S01E-04-210</p> | 1 | Vehicle Inlet Light |
| | 2 | Ground |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|--|
| 2 | Check the harness connector of right charging port light |
|---|--|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of right charging port light.
3. Check the harness connector of right charging port light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of right body control module |
|---|--|

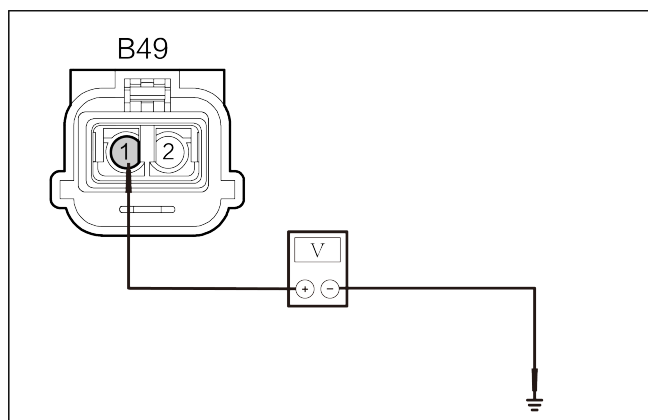
1. Disconnect the harness connector of right body control module KG86(E).
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 4 | Check the right charging port lighting drive harness for short to power |
|---|---|



1. Set the start/stop button to "ON" position.
2. Measure the voltage between the harness connector of right charging port light B49-1 and the ground.

| Terminal | | Condition | Voltage value |
|----------|--------|-------------|---------------|
| (+) | (-) | | |
| B49-1 | Ground | Through-out | Less than 1V |

3. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

| | |
|---|-------------------------------------|
| 5 | Check the right charging port light |
|---|-------------------------------------|

1. Set the start/stop button to "OFF" position.
2. Replace with a new right charging port light, and restore the vehicle.
3. Set the START/STOP button to "ON" , and trial run for function inspection.
4. Check whether the results are normal.

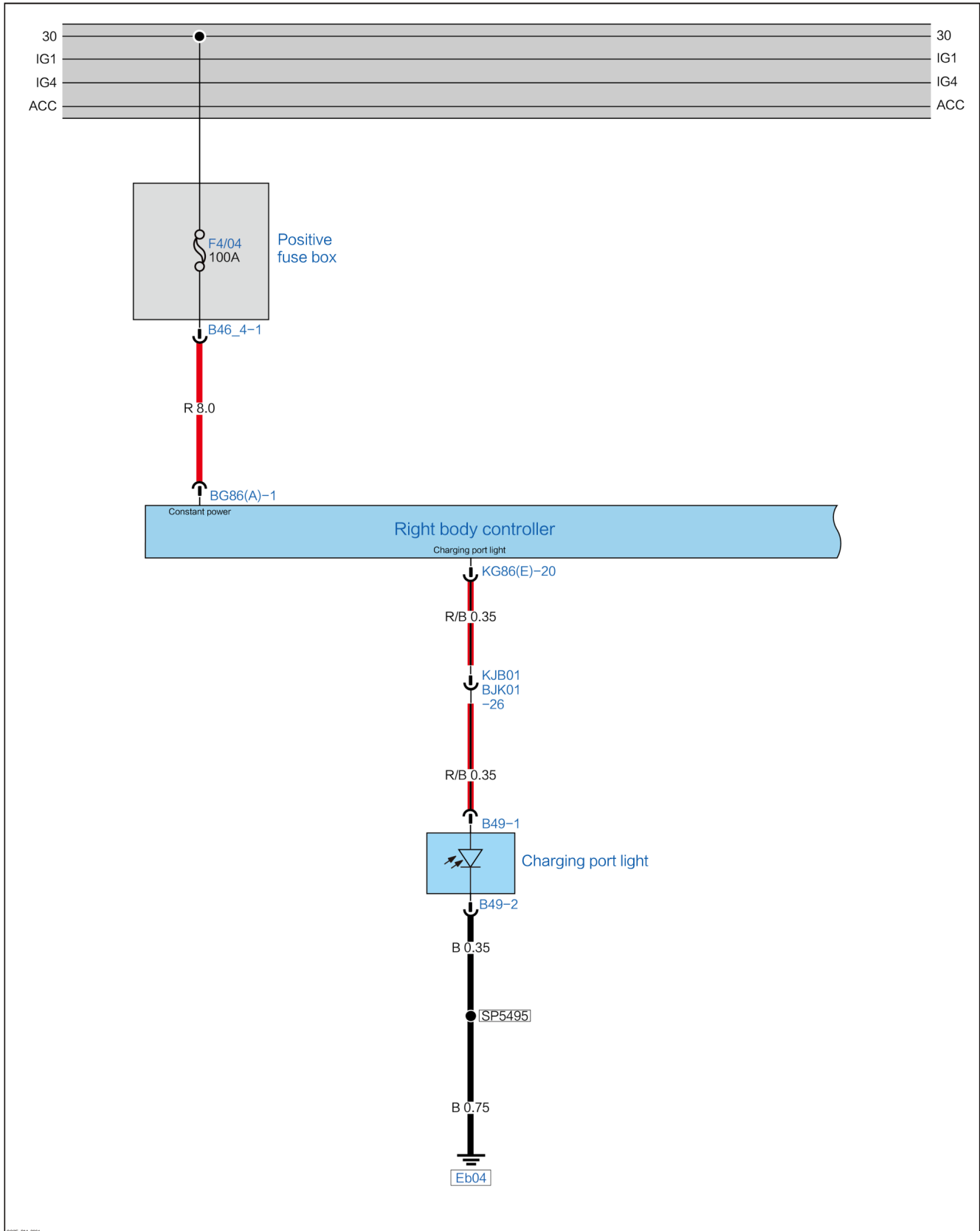
Yes → Replace the right charging port light.

No → Replace the right body control module.

B1C5E13 Right Charging Port Light Drive Circuit Broken**DTC Description**

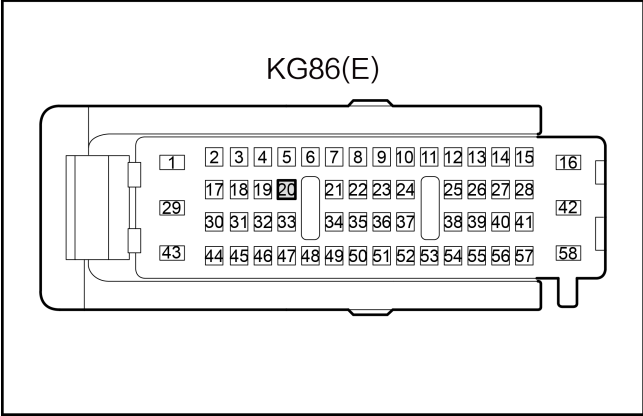
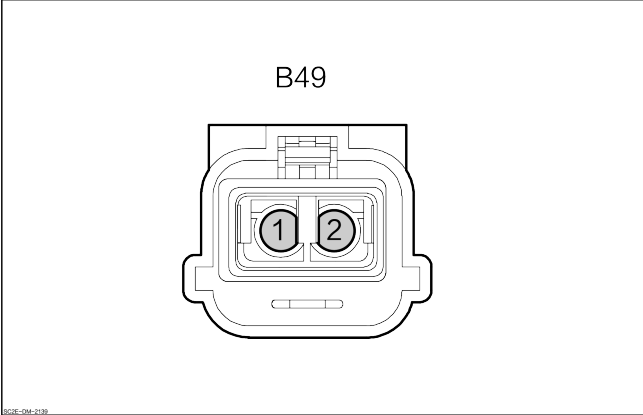
| B1C5E13 Right Charging Port Light Drive Circuit Broken | |
|--|--|
| Symptom | Right charging port light is not working |
| Possible Cause | 1. Harness or connector fault. 2. Right charging port light fault 3. Right body control module fault |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Circuit Diagram



SC2E-02A-2061

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------------|
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p style="text-align: center;">KG86(E)</p> </div> | 20 | Vehicle Inlet Light |
| <p style="text-align: center;">AC charging port light</p> <div style="text-align: center;">  <p style="text-align: center;">B49</p> </div> | 1 | Right charging port light |
| | 2 | Ground |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|---|
| 2 | Check the harness connector of right AC charging port light |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the harness connector of right AC charging port light.
3. Check the harness connector of right AC charging port light for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|--|
| 3 | Check the harness connector of right body control module |
|---|--|

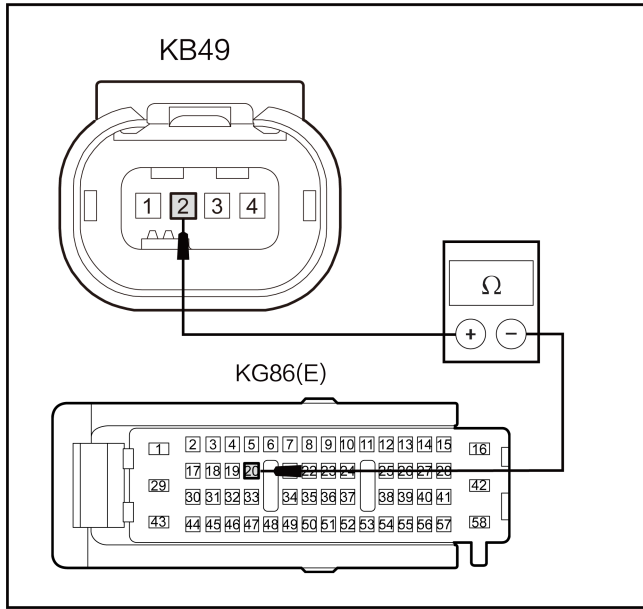
1. Disconnect the harness connector of right body control module KG86(E).
2. Check the harness connector of right body control module for corrosion, damage, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

| | |
|---|---|
| 4 | Check the right AC charging port light drive harness for open circuit |
|---|---|



1. Measure the resistance between the harness connector of right charging port light B49-1 and the harness connector of right body control module KG86(E)-20.

| Terminal | | Condition | Resist- ance value |
|----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| B49-1 | KG86(E)-20 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the damaged harness.

Yes

5 Check the right AC charging port light

1. Replace with a new right AC charging port light, and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes → Replace the right AC charging port light.

No → Replace the right body control module.

B1C5E19 Right Charging Port Light Overload

DTC Description

| B1C5E19 Right Charging Port Light Overload | |
|--|--|
| Symptom | Right charging port light is not working |
| Possible Cause | 1. Harness or connector fault. 2. Right charging port light fault 3. Right body control module fault |
| Fault setting conditions | – |
| Trigger fault conditions | – |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module |
|---|--|

1. Connect VDS to the diagnosis interface.
2. Set the start/stop button to "ON" position.
3. Use the VDS to record and then clear the DTC.
4. Set the START/STOP button to "OFF" , and wait for several seconds.
5. Set the START/STOP button to "ON" again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the "intermittent fault" .

Yes

| | |
|---|--|
| 2 | Check whether the right AC charging port light has been replaced |
|---|--|

1. Check whether the right AC charging port light has been modified or replaced.
2. Check whether the results are normal.

No

Replace with the original parts.

Yes

| | |
|---|--|
| 3 | Check whether the right AC charging port light drive harness has been connected to other devices |
|---|--|

1. Check whether the right AC charging port light drive harness has been connected to other electrical devices.
2. Check whether the results are normal.

No

Remove the external equipment and recover the vehicle.

Yes

| | |
|---|---|
| 4 | Check the harness connector of right AC charging port light |
|---|---|

1. Set the start/stop button to "OFF" position.
2. Disconnect the AC harness connector of right charging port light B49.
3. Check the harness connector of right AC charging port light for corrosion, damage, false connection, pin withdrawing, etc.
4. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

5

Check the harness connector of right body control module

1. Disconnect the harness connector of right body control module KG86(E).
2. Check the harness connector of right body control module for corrosion, damage, false connection, pin withdrawing, etc.
3. Check whether the results are normal.

No

Repair or replace the damaged harness or connector.

Yes

6

Check the right AC charging port light

1. Replace with a new right AC charging port light, and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace the right AC charging port light.

No

Replace the right body control module.

A/C

Air Conditioner System

Diagnosis Description

Introduction

Before fault diagnosis for A/C system, understand and get familiar with the working principle of A/C system, so as to be helpful to confirm the correct fault diagnosis procedure in the event of a fault and, more importantly, to confirm whether the operating condition described by the customer is normal. Any fault diagnosis of A/C system should start with the inspection of A/C system to guide the maintenance technician to take the next logical step for fault diagnosis.

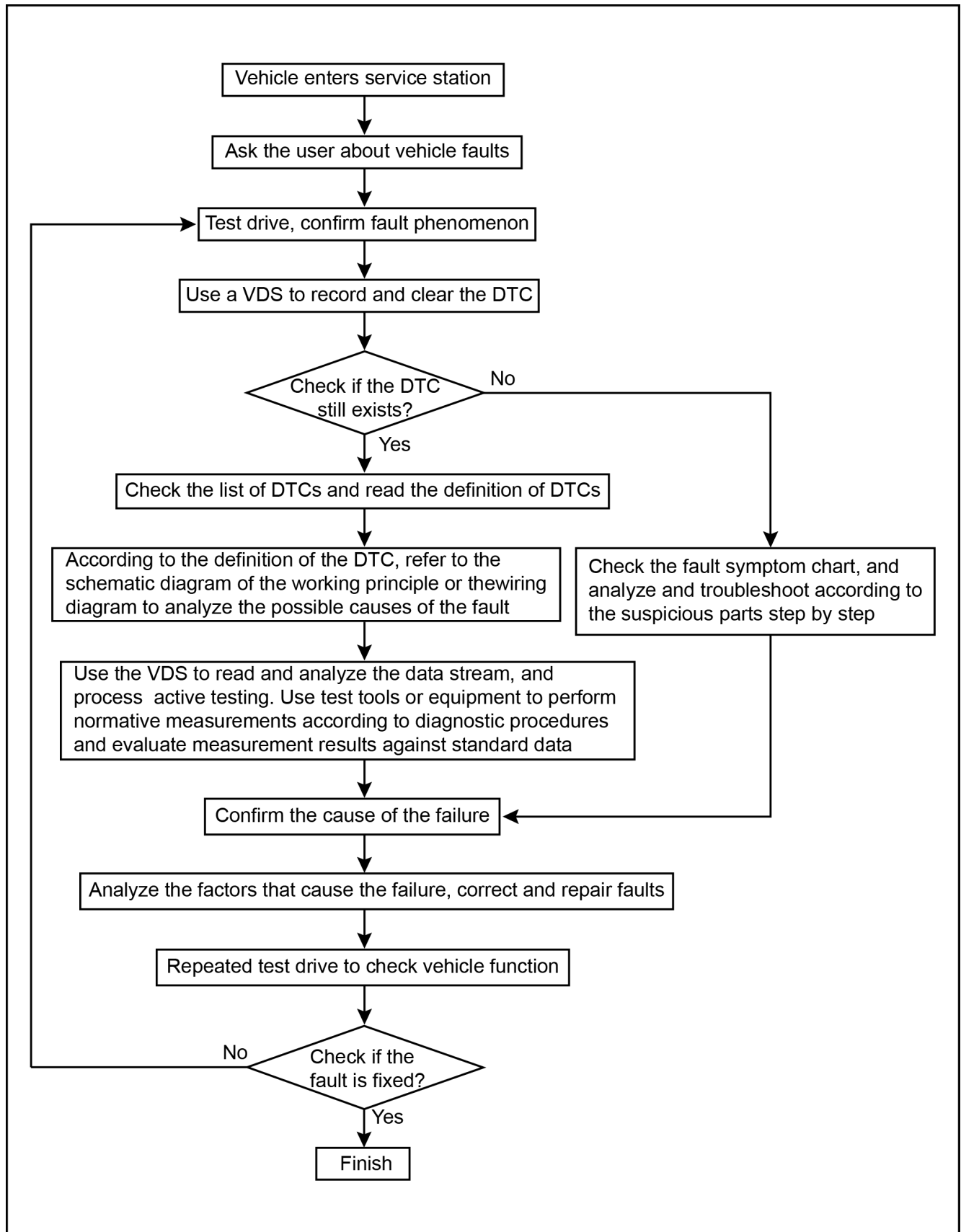
General equipment

- Multimeter
- VDS

Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Process of Fault Inspection and Troubleshooting



Diagnosis of General Faults

Visual Inspection

1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

| Symptom | Possible cause | Maintenance suggestion |
|-----------------------------------|---|--|
| A/C Refrigeration Not Cold Enough | <ol style="list-style-type: none"> 1. The condenser has too much dirt. 2. Insufficient refrigerant. 3. Compressor | A/C Refrigeration Not Cold Enough |
| Peculiar Smell When A/C Starting | <ol style="list-style-type: none"> 1. The A/C filter has too much dirt. 2. Excessive dirt on the evaporator. | Peculiar Smell When A/C Starting |
| Compressor Not Working | <ol style="list-style-type: none"> 1. The compressor fails. 2. high-voltage line 3. Compressor low-voltage harness | Compressor Not Working |
| Abnormal sound of A/C startup | <ol style="list-style-type: none"> 1. The compressor fails. 2. Blower 3. Cooling fan | <ol style="list-style-type: none"> 1. When AC is turned on, there is abnormal noise. Check whether the compressor bearing is damaged or the compressor is worn. 2. When AC is turned off, turn on the blower and make abnormal noise. Check the blower for foreign matter or internal wear. 3. When the cooling fan is turned on, check whether the cooling fan interferes with other components or the cooling fan is worn abnormally. |

A/C Refrigeration Not Cold Enough

Diagnostic Steps

| | |
|---|---------------------------------------|
| 1 | Check the A/C air outlet temperature. |
|---|---------------------------------------|

1. Adjust the air volume to the low wind speed state.
2. Enable A/C internal circulation
3. Measure the temperature of the A/C outlet with a thermometer.

| location | Condition | Temperature value |
|------------|------------|-------------------|
| Air outlet | Throughout | 5~8℃ |

4. Check whether the results are normal.

Yes The system is normal.

No

| | |
|---|----------------------|
| 2 | Check the condenser. |
|---|----------------------|

1. Check the condenser for excessive dirt?

Yes Clean or replace the condenser.

No

| | |
|---|--|
| 3 | Check the A/C system refrigerant pressure. |
|---|--|

1. Connect the refrigerant recovery filling machine, set the start/stop button to OK position, and switch on the A/C.
2. Check the A/C system refrigerant pressure.

| Pressure gauge | Condition | Pressure |
|-----------------|------------------------------------|--------------------------|
| System pressure | Disable the A/C refrigeration mode | 0.73~0.83MP _a |
| High pressure | Enable the A/C refrigeration mode | 1.47~1.67MP _a |

| | | |
|--------------|-----------------------------------|--------------|
| Low pressure | Enable the A/C refrigeration mode | 0.15~0.25MPa |
|--------------|-----------------------------------|--------------|

3. Check whether the results are normal.

No

Check and adjust the refrigerant of the A/C system, and replace the electric compressor if it does not meet the standard.

Yes

Check throttle distribution of A/C mode.

Peculiar Smell When A/C Starting

Diagnostic Steps

| | |
|---|-----------------------|
| 1 | Check the A/C filter. |
|---|-----------------------|

1. Is there excessive dirt on the air conditioner filter ?

Yes

Clean or replace the A/C filter.

No

| | |
|---|-----------------------|
| 2 | Check the evaporator. |
|---|-----------------------|

1. Check the evaporator for excessive dirt.

No

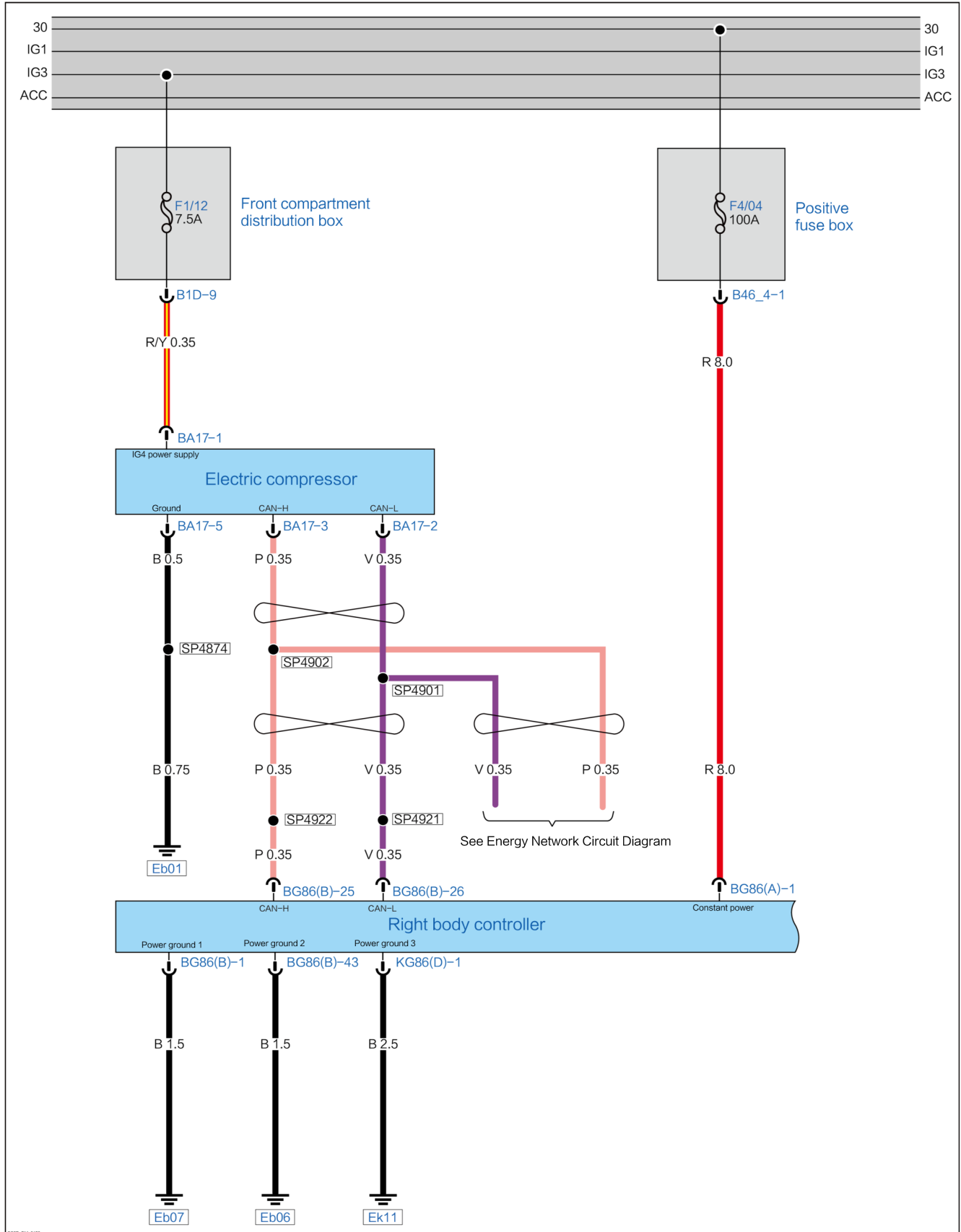
Check the odor sources inside and outside the vehicle.

Yes

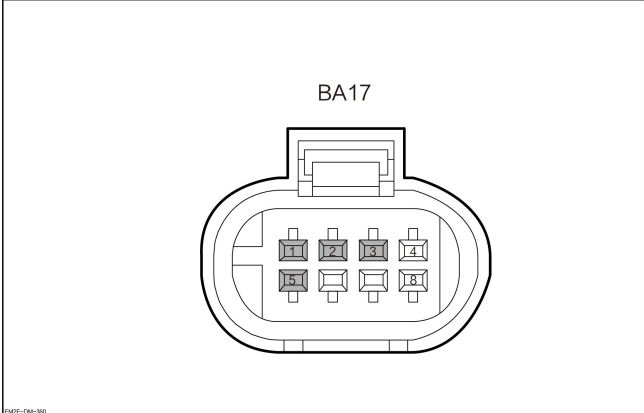
Clean or replace the evaporator.

Compressor Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Electric compressor</p> <div style="text-align: center;">  <p style="text-align: center;">BA17</p> </div> <p style="font-size: small; margin-top: 10px;">EMR-200-300</p> | 1 | Power supply |
| | 2 | CAN-L |
| | 3 | CAN-H |
| | 5 | Ground |

Diagnostic Steps

| | |
|---|------------------------------|
| 1 | Check the DTC of compressor. |
|---|------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON position and read the DTC.
3. Check whether the DTC is displayed.

Yes

Go to “DTC List” for diagnosis.

No

| | |
|---|-------------------------|
| 2 | Read the BMS data flow. |
|---|-------------------------|

1. Read the BMS DC busbar voltage.
2. Check whether the power battery outputs high voltage.

No

No

| | |
|---|---|
| 3 | Read the electric compressor data flow. |
|---|---|

1. Read the electric compressor DC busbar voltage.
2. Check whether the electric compressor has high voltage input.

Yes

Go to step 5

No

| | |
|---|--|
| 4 | Check the electric compressor high voltage fuse. |
|---|--|

1. Check whether the electric compressor high voltage fuse is normal

No

Replace the fuse

Yes

Check or replace the electric compressor DC bus.

| | |
|---|------------------------|
| 5 | Check the cooling fan. |
|---|------------------------|

1. Set the start/stop button to OK position and turn on the A/C.
2. Check whether the cooling fan is normal.

No → Diagnose the “Radiator fan fails not work” .

Yes

6 Check the A/C system refrigerant pressure.

1. Connect the refrigerant refilling machine.
2. Check the A/C system refrigerant pressure.

| Pressure gauge | Condition | Pressure |
|-----------------|------------------------------------|--------------------------|
| System pressure | Disable the A/C refrigeration mode | 0.73~0.83MP _a |
| High pressure | Enable the A/C refrigeration mode | 1.47~1.67MP _a |
| Low pressure | Enable the A/C refrigeration mode | 0.15~0.25MP _a |

3. Check whether the results are normal.

No → Check and adjust the A/C system refrigerant.

Yes

7 Check the electric compressor fuse.

1. Check whether the fuse F1/12 (7.5A) of front compartment fuse box is normal?

No → Replace the fuse

Yes

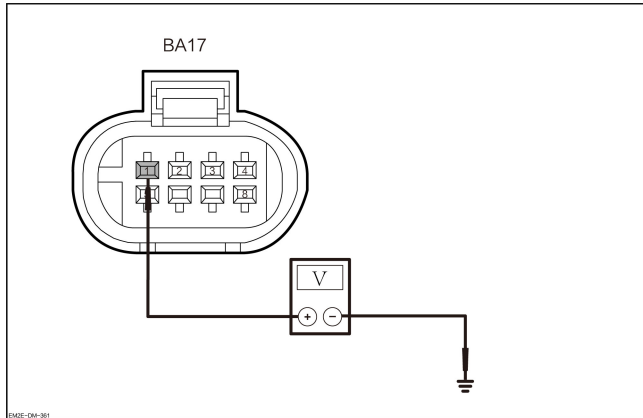
8 Check the electric compressor harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the electric compressor harness connector BA17.
3. Check whether the electric compressor harness connector is normal.

No → Repair or replace the wire harness

Yes

9 Check the power supply of electric compressor.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the electric compressor harness connector BA17-1 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BA17-1 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → [Go to step 12.](#)

No

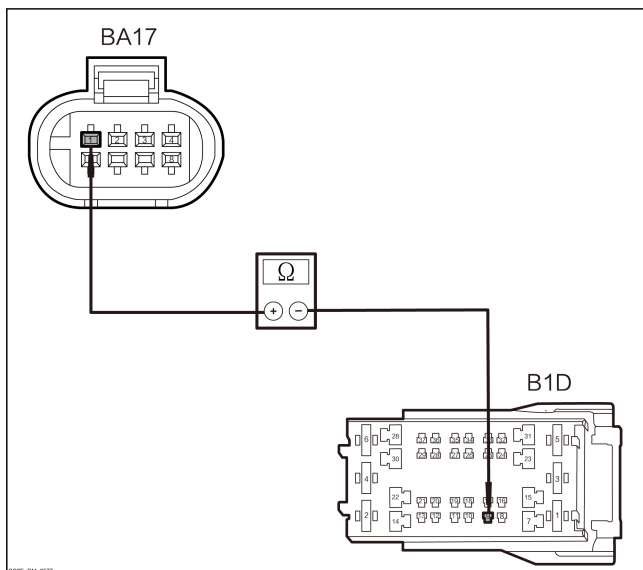
10 Check the front compartment fuse box harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1D.
3. Check whether the front compartment fuse box harness connector is normal.

No → [Repair or replace the wire harness](#)

Yes

11 Check the electric compressor power supply line for open circuit.



1. Measure the resistance value between the electric compressor harness connector BA17-1 and the front compartment fuse box harness connector B1 D-9.

| Connector | | Condition | Resist- ance value |
|-----------|-------|-------------|--------------------------|
| (+) | (-) | | |
| BA17-1 | B1D-9 | Through-out | Lower than 1Ω |

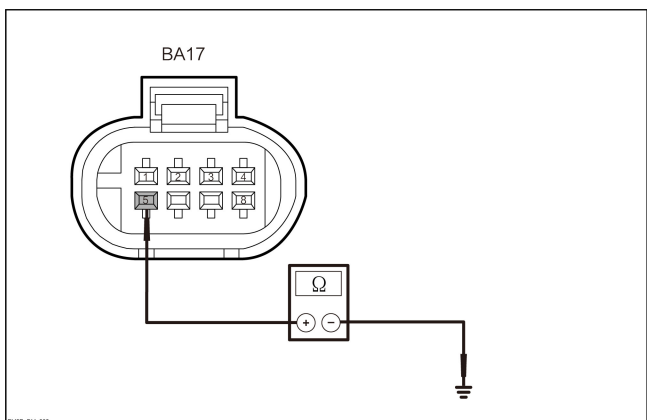
2. Check whether the results are normal.

No → [Repair or replace the wire harness](#)

Yes

Replace the front compartment fuse box.

12 Check the electric compressor ground line for open circuit.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance value between the electric compressor harness connector BA17-5 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BA17-5 | Ground | Through- out | Lower than 1 Ω |

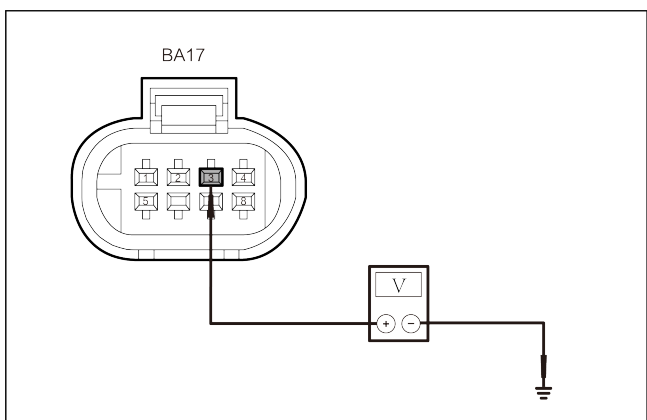
3. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

13 Check the CAN-H line of electric compressor.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the electric compressor harness connector BA17-3 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| BA17-3 | Ground | Through- out | 2.5~3.5V |

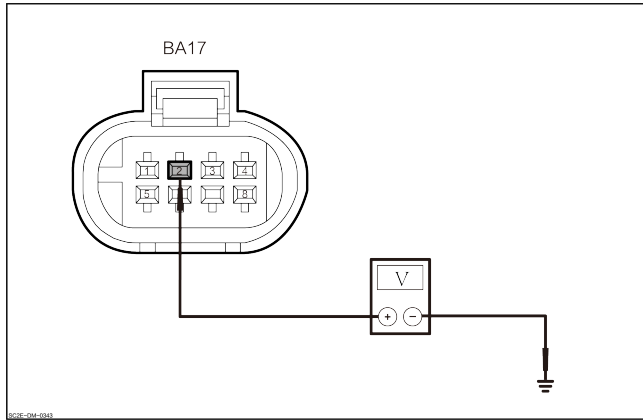
3. Check whether the results are normal.

No

Jump to “Body Network Bus Off”
Diagnosis.

Yes

14 Check the CAN-L line of electric compressor.



1. Measure the voltage between electric compressor harness connector BA17-2 and the grounding.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BA17-2 | Ground | Through-out | 1.5~2.5V |

2. Check whether the results are normal.

- No → Jump to “Body Network Bus Off” Diagnosis.
- Yes → Replace the electric compressor.

DTC of A/C Diagnosis

List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|---|--|
| B2AD616 | 12V Power Supply Undervoltage (Lower than 9V) | B2AD616 12V Power Supply Undervoltage (Lower Than 9V) |
| B2AD617 | 12V Power Supply Overvoltage | B2AD617 12V Power Supply Overvoltage |
| B2A2013 | Interior temperature sensor is open-circuited | B2A2013 Interior Temperature Sensor Open-circuited |
| B2A2111 | Interior temperature sensor is short to ground | B2A2111 Interior Temperature Sensor Short to Ground |
| B2A2213 | Exterior temperature sensor is open-circuited | B2A2213 Exterior Temperature Sensor Open-circuited |
| B2A2311 | Exterior temperature sensor is short to ground | B2A2311 Exterior Temperature Sensor Short to Ground |
| B2A2413 | Evaporator Temperature Sensor Open-circuited | B2A2413 Evaporator Temperature Sensor Open-circuited |
| B2A2511 | Evaporator Temperature Sensor Short to Ground | B2A2511 Evaporator Temperature Sensor Circuit Short to Ground |
| B2A5813 | Driver' s Side Face Outlet Sensor Open-circuited | B2A5813 Driver' s Side Face Outlet Temperature Sensor Open-circuited |
| B2A5811 | Driver' s Side Face Outlet Sensor Short to Ground | B2A5811 Driver' s Side Face Outlet Temperature Sensor Short to Ground |
| B2A5913 | Driver' s Side Floor Outlet Temperature Sensor Open-circuited | B2A5913 Driver' s Side Floor Outlet Temperature Sensor Open-circuited |
| B2A511 | Driver' s Side Floor Outlet Temperature Sensor Short to Ground | B2A5811 Driver' s Side Floor Outlet Temperature Sensor Short to Ground |
| B2A0813 | Evaporator outlet refrigerant temperature sensor open-circuited | B2A0813 Evaporator Outlet Refrigerant Temperature Sensor Open-circuited |
| B2A0811 | Evaporator outlet refrigerant temperature sensor is short to ground | B2A0811 Evaporator Outlet Refrigerant Temperature Sensor Short to Ground |
| B134613 | Refrigerant temperature sensor 1 circuit is broken | B134613 Refrigerant Temperature Sensor 1 Open-circuited |
| B134611 | Refrigerant temperature sensor 1 circuit is broken | B134611 Refrigerant Temperature Sensor 1 Short to Ground |
| B133413 | Refrigerant temperature sensor 2 circuit is broken | B133413 Refrigerant Temperature Sensor 2 Open-circuited |

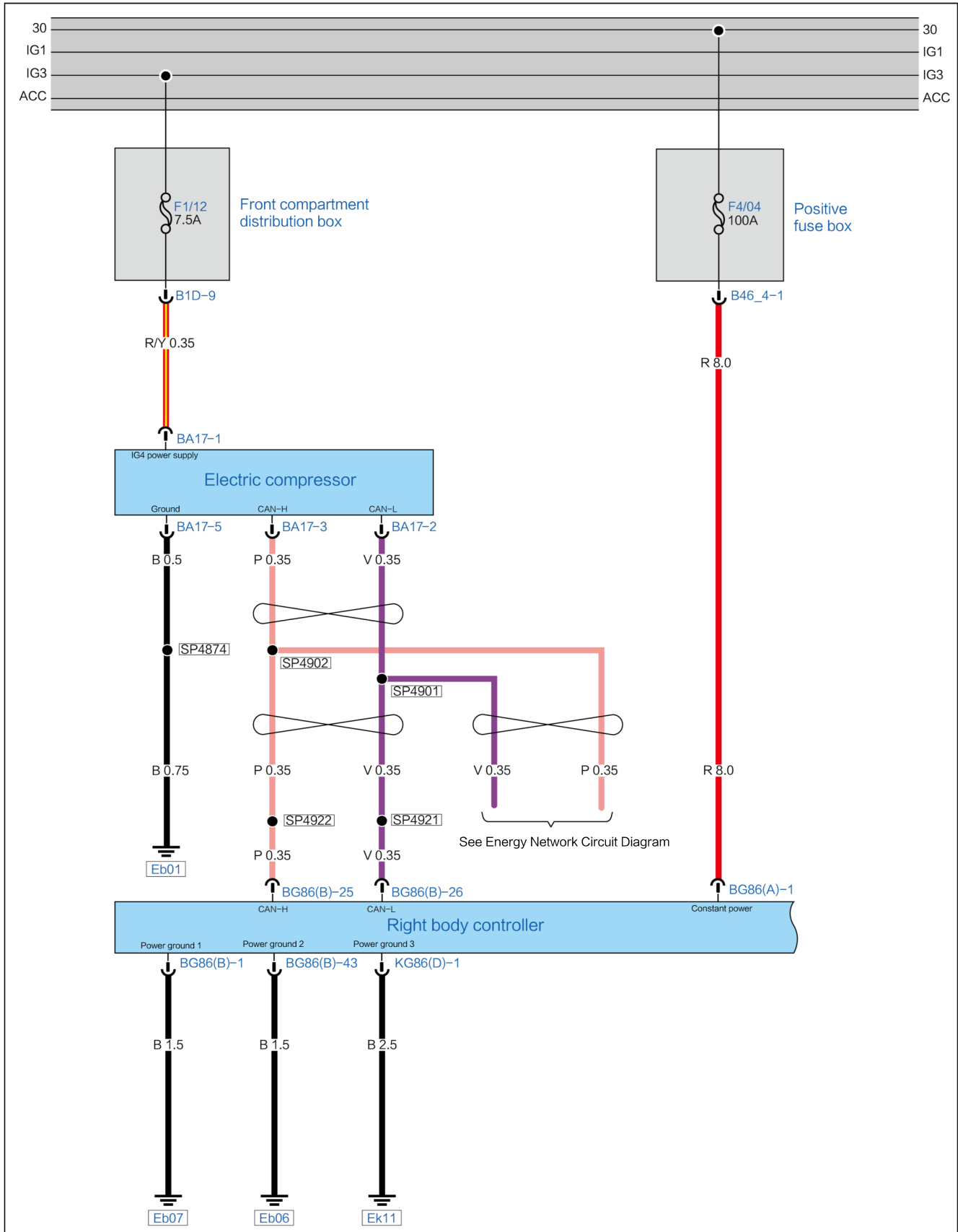
| DTC: | Meaning | Diagnostic Process |
|---------|--|--|
| B133511 | Refrigerant temperature sensor 2 is short to ground | B133511 Refrigerant Temperature Sensor 2 Short to Ground |
| B133613 | Refrigerant temperature sensor 3 circuit is broken | B133613 Refrigerant Temperature Sensor 3 Open-circuited |
| B133711 | Refrigerant temperature sensor 3 is short to ground | B133711 Refrigerant Temperature Sensor 3 Short to Ground |
| B2A0803 | Evaporator outlet refrigerant pressure sensor circuit broken | B2A0803 Evaporator Outlet Refrigerant Pressure Sensor Open-circuited |
| B2A0801 | Evaporation outlet refrigerant pressure sensor short to power | B2A0801 Evaporator Outlet Refrigerant Pressure Sensor Short to Power |
| B134713 | Air conditioner pressure sensor is open-circuited | B134713 Air Conditioner Pressure Sensor Open-circuited |
| B134711 | Air conditioner pressure sensor is short to power | B134711 Air Conditioner Pressure Sensor Short to Power |
| B2A2A14 | Mode motor short to ground or open-circuited | B2A2A14 Mode Motor Short to Ground or Open-circuited |
| B2A2A12 | Mode Motor short to power | B2A2A12 Mode Motor Short to Power |
| B2A2A92 | Mode Motor Not Rotating in Place | B2A2A92 Mode Motor Not Rotating in Place |
| B2A4B14 | Circulation motor short to ground or open-circuited | B2A4B14 Circulation Motor Short to Ground or Open-circuited |
| B2A4B12 | Circulation motor short to power | B2A4B12 Circulation Motor Short to Power |
| B2A4B92 | Circulation Motor Not Rotating in Place | B2A4B92 Circulation Motor Not Rotating in Place |
| B2A2B14 | Driver' s Side Air Mix Motor Short to Ground or Open-circuited | B2A2B14 Air Mix Motor Short to Ground or Open-circuited |
| B2A2B12 | Driver' s side air mix motor short to power | B2A2B12 Air Mix Motor Short to Power |
| B2A2B92 | Driver' s Side Air Mix Motor not Rotating in Place | B2A2B92 Air Mix Motor Not Rotating in Place |
| B134111 | Electric three-way valve motor short to ground or open | B134111 Three-way Valve Motor Short to Ground or Open-circuited |
| B134211 | Electric three-way valve motor short to power | B134211 Three-way Valve Motor Short to Power |

| DTC: | Meaning | Diagnostic Process |
|---------|--|--|
| B134392 | Electric three-way valve not rotating in place | B134392 Three-way Valve Motor Not Rotating in Place |
| B2A3214 | Front blower circuit is short to ground or open | B2A3214 Front Blower Short to Ground or Open-circuited |
| B2A3314 | Front blower adjustment signal short to ground or open-circuited | B2A3314 Front Blower Adjustment Signal Harness Short to Ground or Open-circuited |
| B133800 | Solenoid valve 1 status fault | B133800 Solenoid Valve 1 Status Fault |
| B133900 | Solenoid valve 2 status fault | B133900 Solenoid Valve 2 Status Fault |
| B133A00 | Solenoid valve 3 status fault | B133A00 solenoid valve 3 status fault |
| B133B00 | Solenoid valve 4 status fault | B133B00 Solenoid Valve 4 Status Fault |
| B133C00 | Solenoid valve 5 status fault | B133C00 Solenoid Valve 5 Status Fault |
| B133D00 | Solenoid valve 6 status fault | B133D00 Solenoid Valve 6 Status Fault |
| B133E00 | Low voltage PTC relay 1 fault | B133E00 Low Voltage PTC Relay 1 Fault |
| B133F00 | Low voltage PTC relay 2 fault | B133F00 Low Voltage PTC Relay 2 Fault |
| B134000 | Low voltage PTC relay 3 fault | B134000 Low Voltage PTC Relay 3 Fault |
| B2A2712 | Sunlight Sensor is short to power | B2A2712 Sunlight Sensor Circuit Short to Power |
| B1CAF00 | Humidity sensor fault | B1CAF00 Humidity Sensor Fault |
| U02B087 | Lost communication with humidity sensor | U02087 Communication with Humidity Sensor Lost |
| U025387 | Communication with compressor lost | U025387 Communication with Compressor Lost |
| B2A2F09 | Air Conditioner Pipeline in High or Low Pressure State | B2A2F09 A/C Pipes in High Pressure State or Low Pressure State |

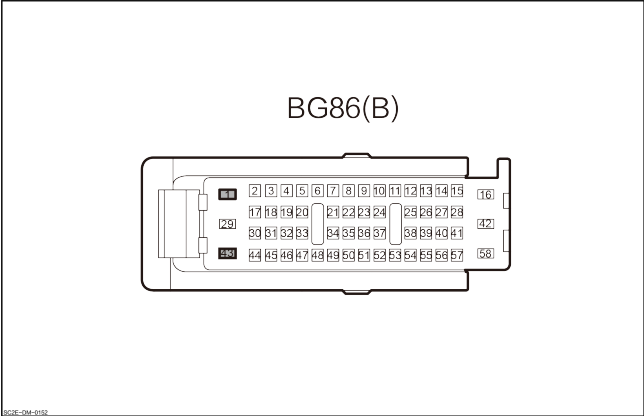
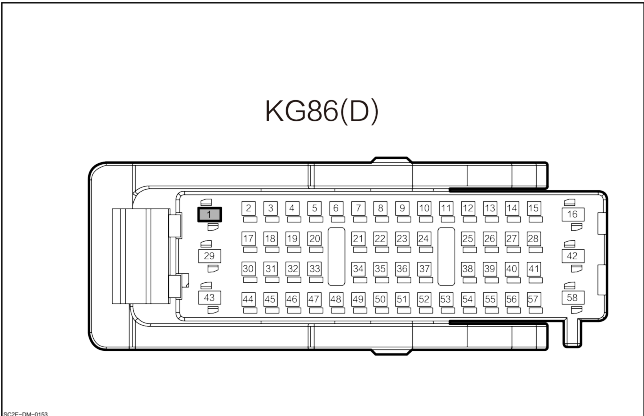
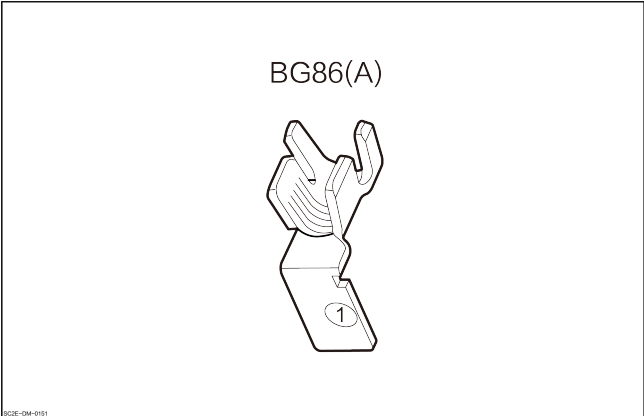
B2AD616 12V Power Supply Undervoltage (Lower Than 9V)**DTC Description**

| B2AD616 12V Power Supply Undervoltage (Lower Than 9V) | |
|---|--|
| Symptom | All functions of the A/C system fail. |
| Possible Cause | <ol style="list-style-type: none">1. Battery fault.2. Fuse has blew.3. The harness or harness plug fails.4. Charging system malfunction5. The right body control module fails. |
| Fault setting conditions | The supply voltage is lower than 9V for 2s or more. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-----------------------|
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">BG86(B)</p> </div> | 1 | Ground |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">KG86(D)</p> </div> | 1 | Ground |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">BG86(A)</p> </div> | 1 | Constant power supply |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of right body control module. |
| <ol style="list-style-type: none"> 1. Connect the VDS to the diagnostic interface. 2. Set the start/stop button to ON. 3. Clear DTCs. 4. Place the start/stop button in the OFF position and wait for a few seconds. 5. Place the start/stop button in ON position again, and read the DTC. 6. Check whether the same DTC is displayed? | |
| <p>No The fault is triggered by disconnecting the negative pole of the battery or by low voltage.</p> | |
| <p>Yes</p> | |
| 2 | Check the charging system. |
| <ol style="list-style-type: none"> 1. Set the start/stop button to OK. 2. Check whether the instrument charging system fault warning lamp is on. | |
| <p>Yes Diagnose “charging system” .</p> | |
| <p>No</p> | |
| 3 | Test the battery status. |
| <ol style="list-style-type: none"> 1. Set the start/stop button to OFF. 2. Perform a battery condition test. 3. Does the status of the battery pass the test? | |
| <p>No Replace the battery</p> | |
| <p>Yes</p> | |
| 4 | Check the fuse for right body control module. |
| <ol style="list-style-type: none"> 1. Check whether the positive fuse box fuse F4/04(100A) is normal? | |
| <p>No Replace the fuse</p> | |
| <p>Yes</p> | |
| 5 | Check the harness plug of right body control module. |

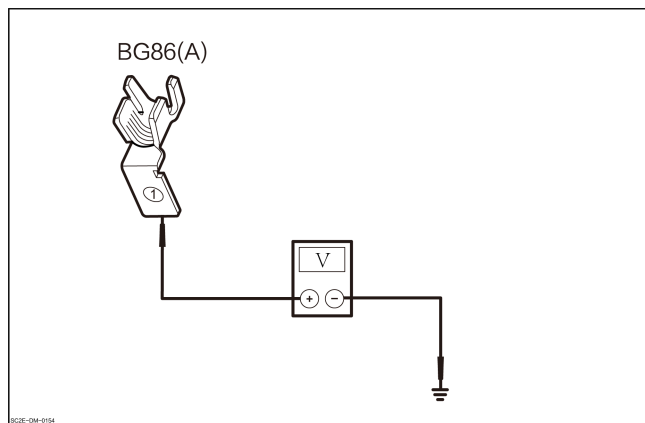
1. Disconnect the harness plug of right body control module BG86(A).
2. Check the harness plug of right body control module for normal function.

No

Repair or replace the wire harness

Yes

6 Check the constant power supply of right body control module.



1. Set the start/stop button to ON.
2. Measure the voltage between the harness plug of right body control module BG86(A)-1 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG86(A)-1 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes

Go to step 9.

No

7 Check the harness plug of positive fuse box.

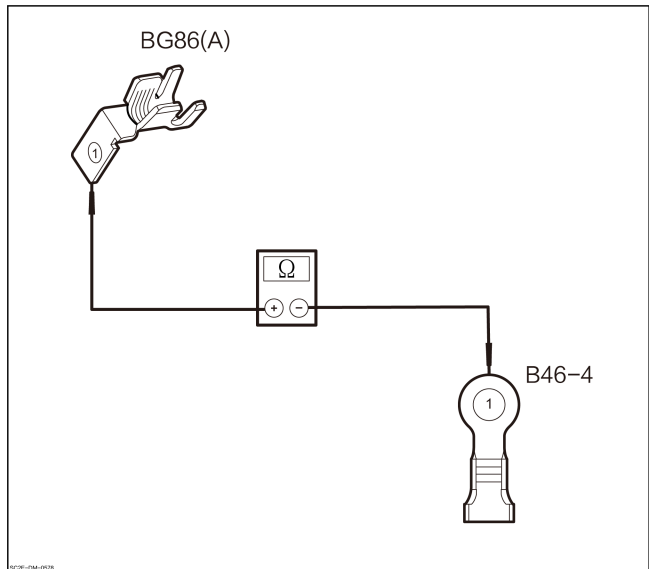
1. Set the start/stop button to OFF.
2. Disconnect the harness plug of positive fuse box B46_4.
3. Check the harness plug of positive fuse box for normal function.

No

Repair or replace the wire harness

Yes

8 Check the constant power supply of right body control module for open circuit.



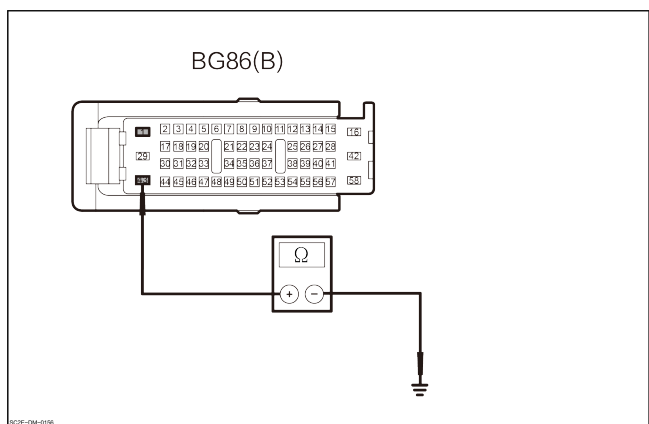
1. Check the harness plug of right body control module BG86(A)-1 and the harness connector of positive fuse box B46_4-1.

| Connector | | Condition | Resistance value |
|-----------|---------|-------------|------------------|
| (+) | (-) | | |
| BG86(A)-1 | B46_4-1 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

- No → Repair or replace the wire harness
- Yes → Replace the positive fuse box.

9 Check the ground line of right body control module for open circuit.



1. Set the START/STOP button to OFF.
 2. Measure the resistance between the harness connectors of right body control module BG64(B)-1 and BG64(B)-43 and the ground.

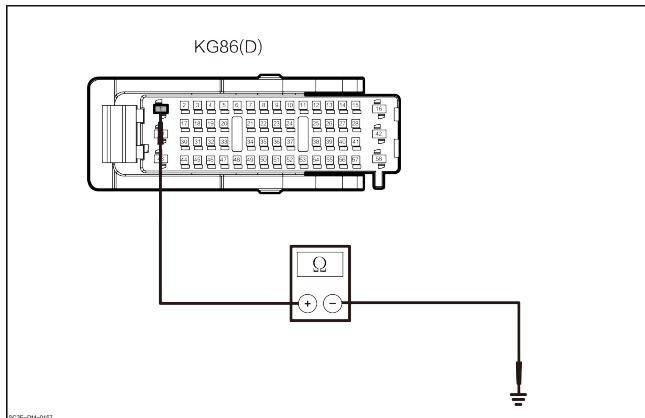
| Connector | | Condition | Resistance value |
|------------|--------|-------------|------------------|
| (+) | (-) | | |
| BG86(B)-1 | Ground | Through-out | Lower than 1 Ω |
| BG86(B)-43 | Ground | Through-out | Lower than 1 Ω |

3. Check whether the results are normal.

- No → Repair or replace the wire harness

Yes

10 Check the ground line of right body control module for open circuit.



1. Measure the resistance between the harness connector of right body control module KG86(D)-1 and the ground.

| Connector | | Condition | Resist- ance value |
|---------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| KG86(D) -1 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the right body control module. |

B2AD617 12V Power Supply Overvoltage

DTC Description

| B2AD617 12V Power Supply Overvoltage | |
|--------------------------------------|---|
| Symptom | All functions of the A/C system fail. |
| Possible Cause | 1. Charging system malfunction 2. The right body control module fails. |
| Fault setting conditions | Voltage is more than 16V for a duration $\geq 2s$. |
| Trigger fault conditions | Turn the ignition switch to ON position. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|----------------------------|
| 2 | Check the charging system. |
|---|----------------------------|

1. Set the start/stop button to OK.
2. Measure the charging system voltage value.

| Battery | | Condition | Voltage value |
|--------------------|--------|-------------|---------------|
| (+) | (-) | | |
| Positive electrode | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

No → Diagnose “charging system” .

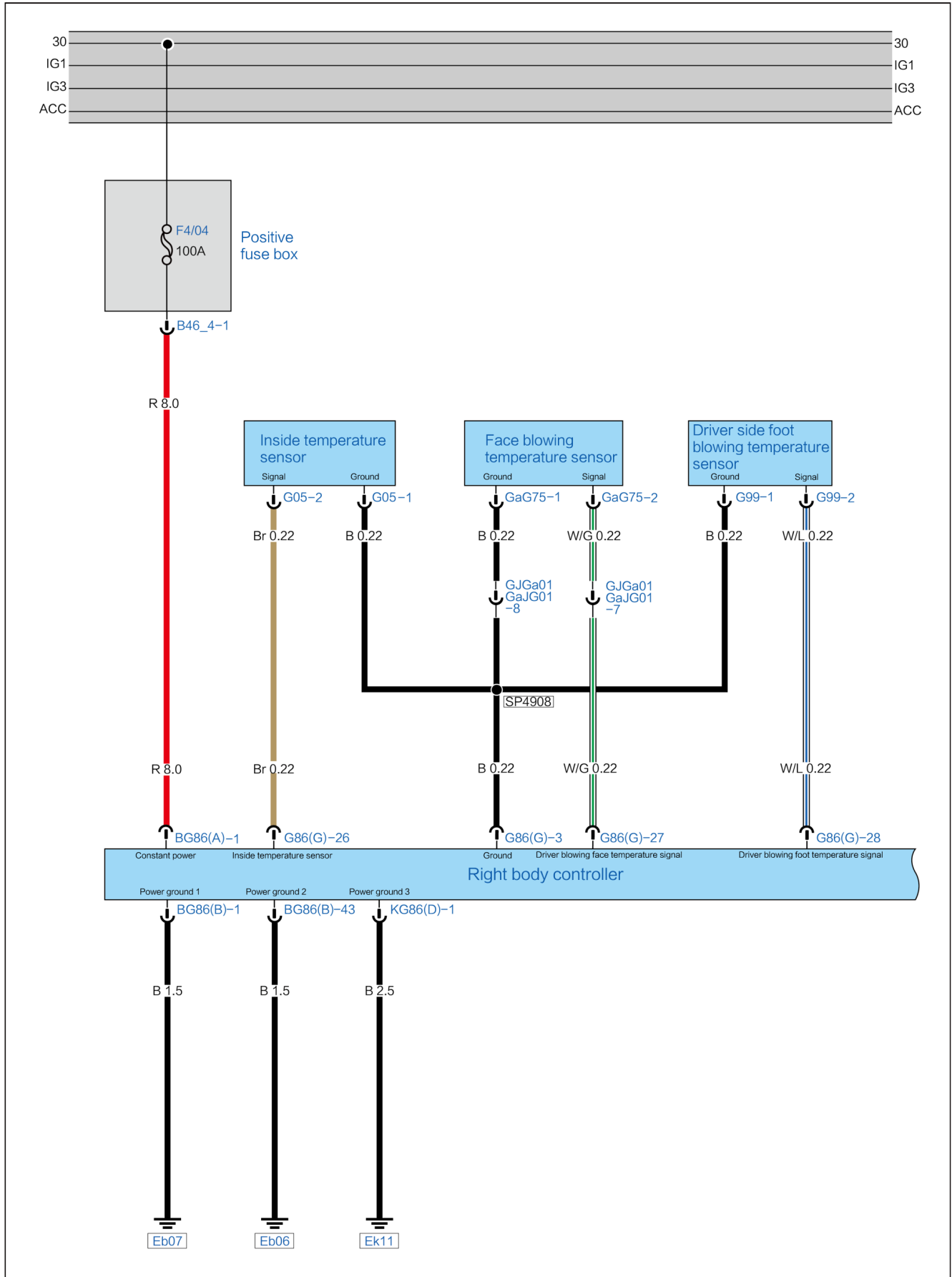
Yes → Replace the right body control module.

B2A2013 Interior Temperature Sensor Open-circuited

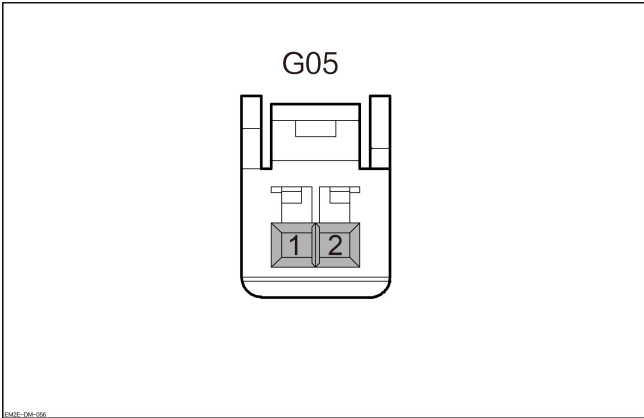
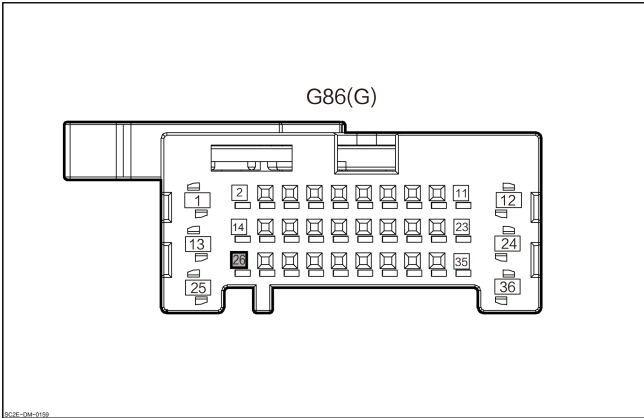
DTC Description

| B2A2013 Interior temperature sensor open-circuited | |
|--|--|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or connector fault.2. The Interior temperature sensor fails.3. The right body control module fails. |
| Fault setting conditions | When the detected output voltage of sensor is higher than 4.95V. |
| Trigger fault conditions | Set the START/STOP button to “ON” . |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|---------------------------------------|---|
| <p style="text-align: center;">Interior temperature sensor</p>  <p style="text-align: center;">G05</p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Ground</p> |
| <p style="text-align: center;">Right body body control module</p>  <p style="text-align: center;">G86(G)</p> | <p style="text-align: center;">26</p> | <p style="text-align: center;">Exterior temperature sensor signal</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness connector of interior temperature sensor. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of interior temperature sensor G05.
3. Check the harness connector of interior temperature sensor for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the interior temperature sensor. |
|---|--|

1. Measure the resistance between the harness connector pins of interior temperature sensor.

| Connector | | Condi- tion | Lower limit (kΩ) | Upper limit (kΩ) |
|-----------|-----|----------------|------------------------|------------------------|
| (+) | (-) | | | |
| 1 | 2 | -25°C | 126.4 | 134.7 |
| 1 | 2 | -10°C | 54.60 | 57.65 |
| 1 | 2 | 0°C | 32.25 | 33.69 |
| 1 | 2 | 10°C | 19.68 | 20.35 |
| 1 | 2 | 20°C | 12.37 | 12.67 |
| 1 | 2 | 30°C | 7.95 | 8.14 |
| 1 | 2 | 50°C | 3.51 | 3.66 |

2. Check whether the results are normal.

No → Replace the interior temperature sensor.

Yes

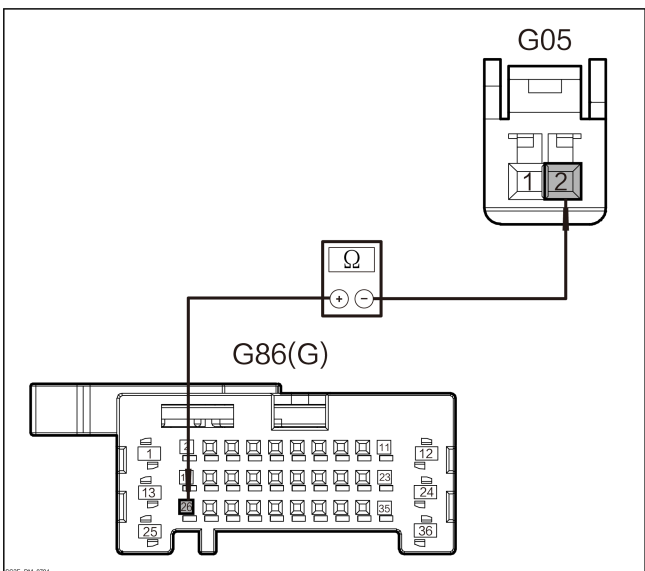
4 Check the harness connector of right body control module.

1. Disconnect the harness connector of right body control module G86(G).
2. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

5 Check the signal wire of interior temperature sensor for open circuit



1. Measure the resistance between the harness connector of interior temperature sensor G05-2 and the harness connector of right body control module G86(G)-26.

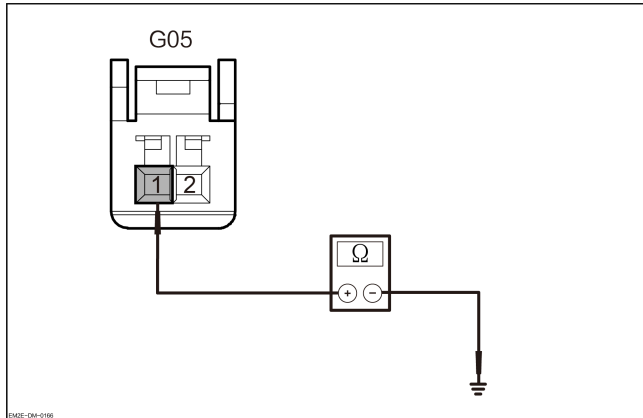
| Connector | | Condition | Resist- ance value |
|---------------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| G86(G)-2 6 | G05-2 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the ground wire of interior temperature sensor for open circuit



1. Check the resistance between the harness connector of interior temperature sensor G05-1 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| G05-1 | Ground | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

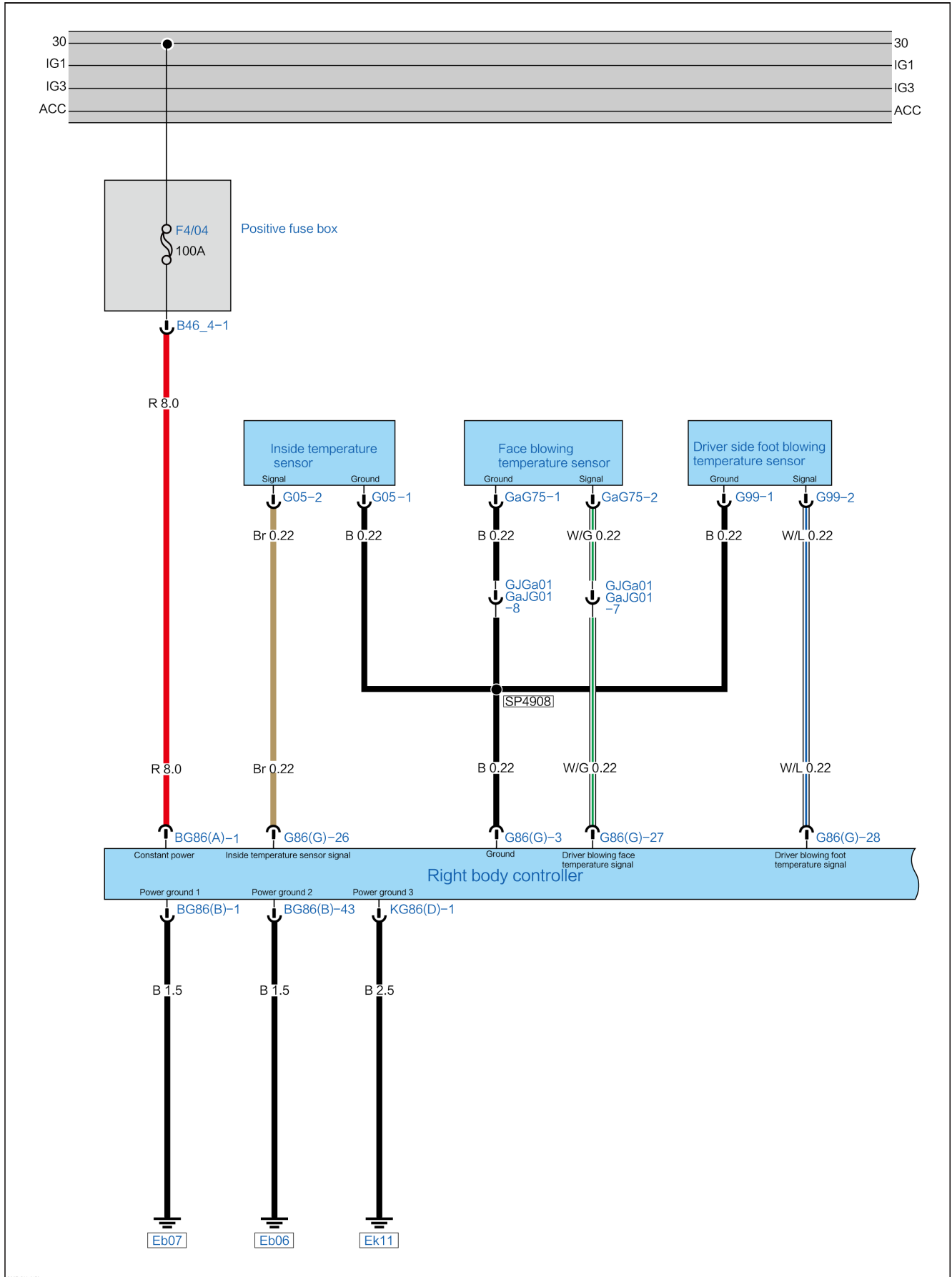
- No
Repair or replace the wire harness
- Yes
Replace the right body control module.

B2A2111 Interior Temperature Sensor Short to Ground

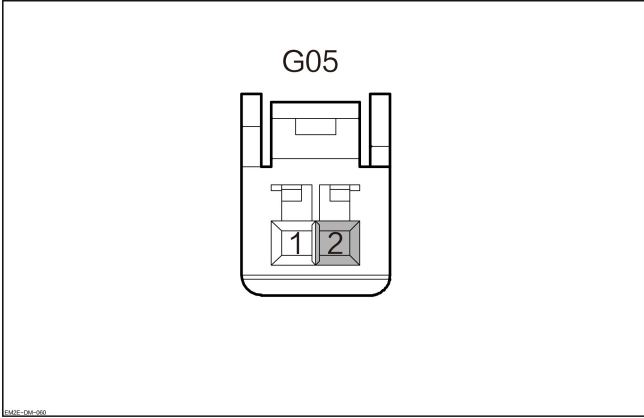
DTC Description

| B2A2111 Interior Temperature Sensor Short to Ground | |
|---|--|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or harness connector fault.2. The Interior temperature sensor fails.3. The right body control module fails. |
| Fault setting conditions | The output voltage of the detection sensor is lower than 0.1 V. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-----------------------------|
| <p style="text-align: center;">Interior temperature sensor</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G05</p> </div> <p><small>EMTC-EM-000</small></p> | 2 | Interior temperature signal |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness connector of interior temperature sensor. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of interior temperature sensor G05.
3. Check the harness connector of interior temperature sensor for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the interior temperature sensor. |
|---|--|

1. Measure the resistance between the harness connector pins of interior temperature sensor.

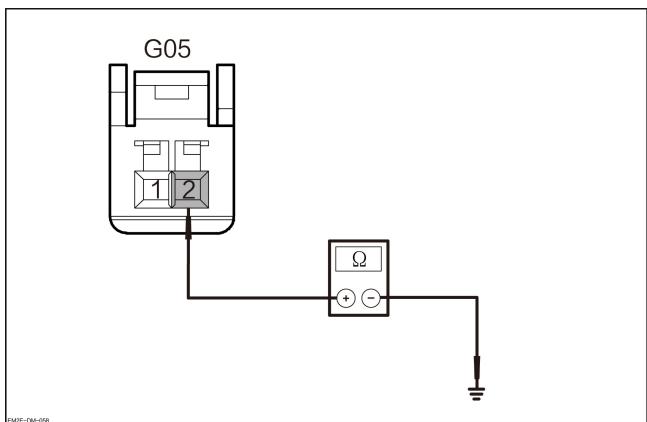
| Connector | | Condi- tion | Lower limit (kΩ) | Upper limit (kΩ) |
|-----------|-----|----------------|------------------------|------------------------|
| (+) | (-) | | | |
| 1 | 2 | -25℃ | 126.4 | 134.7 |
| 1 | 2 | -10℃ | 54.60 | 57.65 |
| 1 | 2 | 0℃ | 32.25 | 33.69 |
| 1 | 2 | 10℃ | 19.68 | 20.35 |
| 1 | 2 | 20℃ | 12.37 | 12.67 |
| 1 | 2 | 30℃ | 7.95 | 8.14 |
| 1 | 2 | 50℃ | 3.51 | 3.66 |

2. Check whether the results are normal.

No → Replace the interior temperature sensor.

Yes

4 Check the signal line of interior temperature sensor for short to ground.



1. Measure the resistance between the harness connector of interior temperature sensor G05-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G05-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

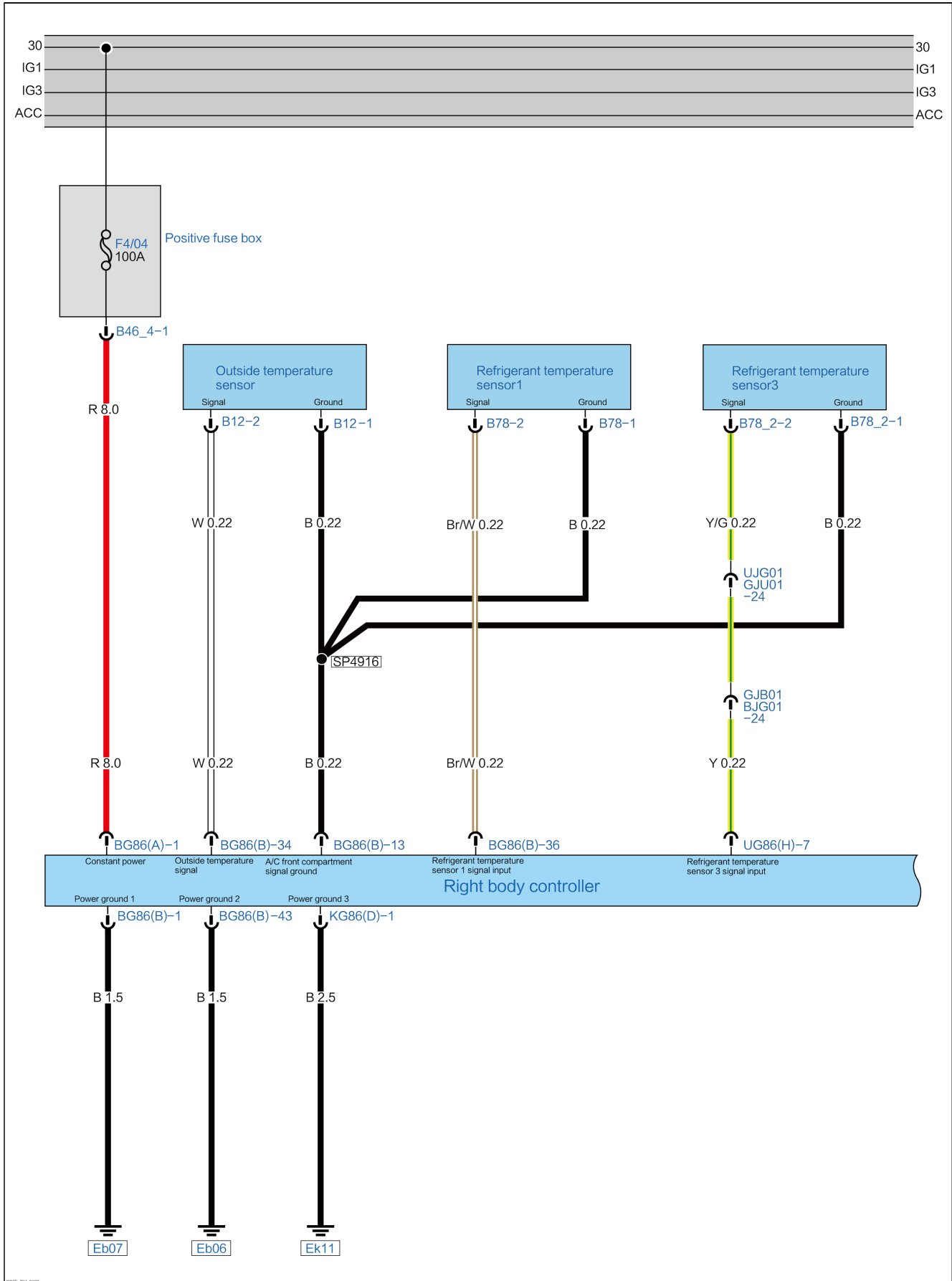
No → Repair or replace the wire harness

Yes → Replace the right body control module.

B2A2213 Exterior Temperature Sensor Open-circuited**DTC Description**

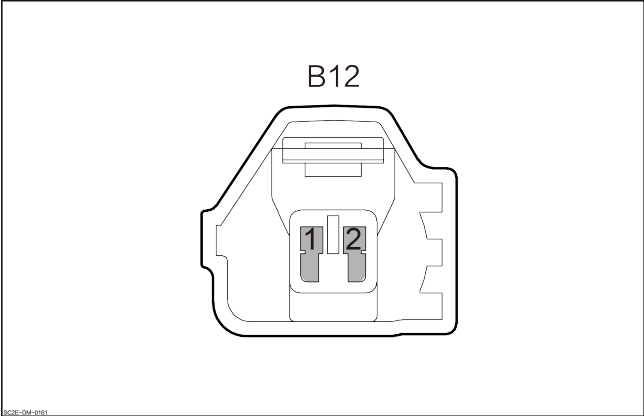
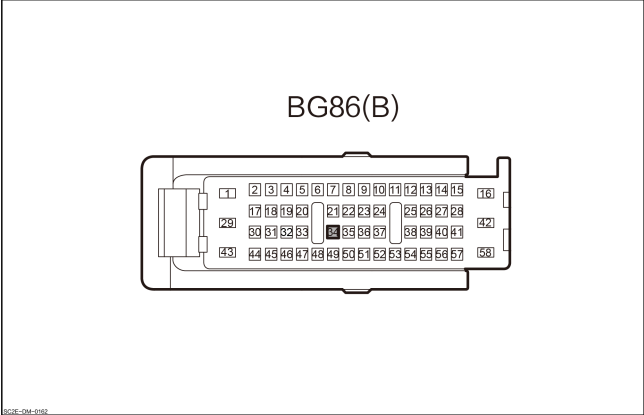
| B2A2213 Exterior Temperature Sensor Open-circuited | |
|--|--|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | 1. Harness or harness connector fault. 2. The exterior temperature sensor fails. 3. The right body control module fails. |
| Fault setting conditions | When the detected output voltage of sensor is higher than 4.95V. |
| Trigger fault conditions | Set the START/STOP button to “ON” . |

Circuit Diagram



SC28-04-0116

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|-----------------------------|
| <p style="text-align: center;">Exterior temperature sensor</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B12</p> </div> <p style="font-size: small; margin-top: 5px;">BCE-DM-095</p> | 1 | Ground |
| | 2 | Exterior temperature signal |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">BG86(B)</p> </div> <p style="font-size: small; margin-top: 5px;">BCE-DM-093</p> | 34 | Exterior temperature signal |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the exterior temperature sensor harness connector |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of exterior temperature sensor B12.
3. Check whether the harness connector of exterior temperature sensor is normal?

No

Repair or replace the wire harness

Yes

| | |
|---|---------------------------------------|
| 3 | Check the exterior temperature sensor |
|---|---------------------------------------|

1. Measure the resistance between the harness connector pins of exterior temperature sensor.

| Connector | | Condi- tion | Lower limit (kΩ) | Upper limit (kΩ) |
|-----------|-----|----------------|------------------------|------------------------|
| (+) | (-) | | | |
| 1 | 2 | -25℃ | 126.4 | 134.7 |
| 1 | 2 | -10℃ | 54.60 | 57.65 |
| 1 | 2 | 0℃ | 32.25 | 33.69 |
| 1 | 2 | 10℃ | 19.68 | 20.35 |
| 1 | 2 | 20℃ | 12.37 | 12.67 |
| 1 | 2 | 30℃ | 7.95 | 8.14 |
| 1 | 2 | 50℃ | 3.51 | 3.66 |

2. Check whether the results are normal.

No

Replace the exterior temperature sensor.

Yes

4 Check the harness connector of right body control module.

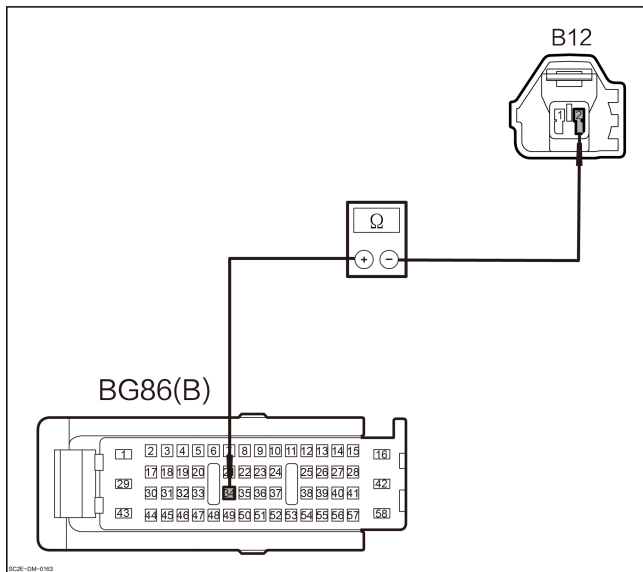
1. Disconnect the harness connector of right body control module BG86(B).
2. Check whether the harness connector of right body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the signal line of exterior temperature sensor for open circuit.



1. Measure the resistance between the harness connector of exterior temperature sensor B12-2 and harness connector of right body control module BG86(B)-34.

| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| B12-2 | BG86(B)- 34 | Through- out | Lower than 1 Ω |

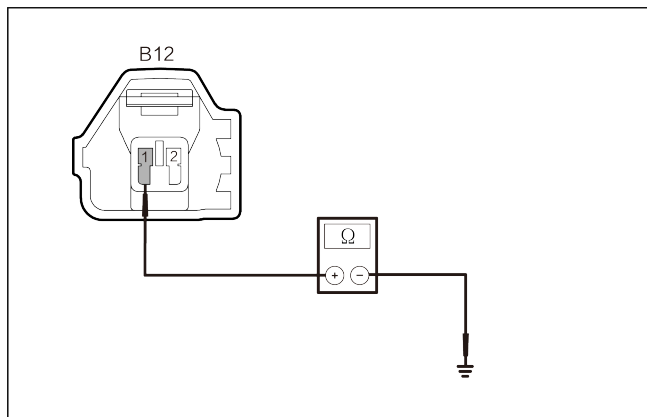
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

6 Check the ground line of exterior temperature sensor for open circuit.



1. Measure the resistance between the harness connector of exterior temperature sensor B12-1 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| B12-1 | Ground | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

- No

Repair or replace the wire harness
- Yes

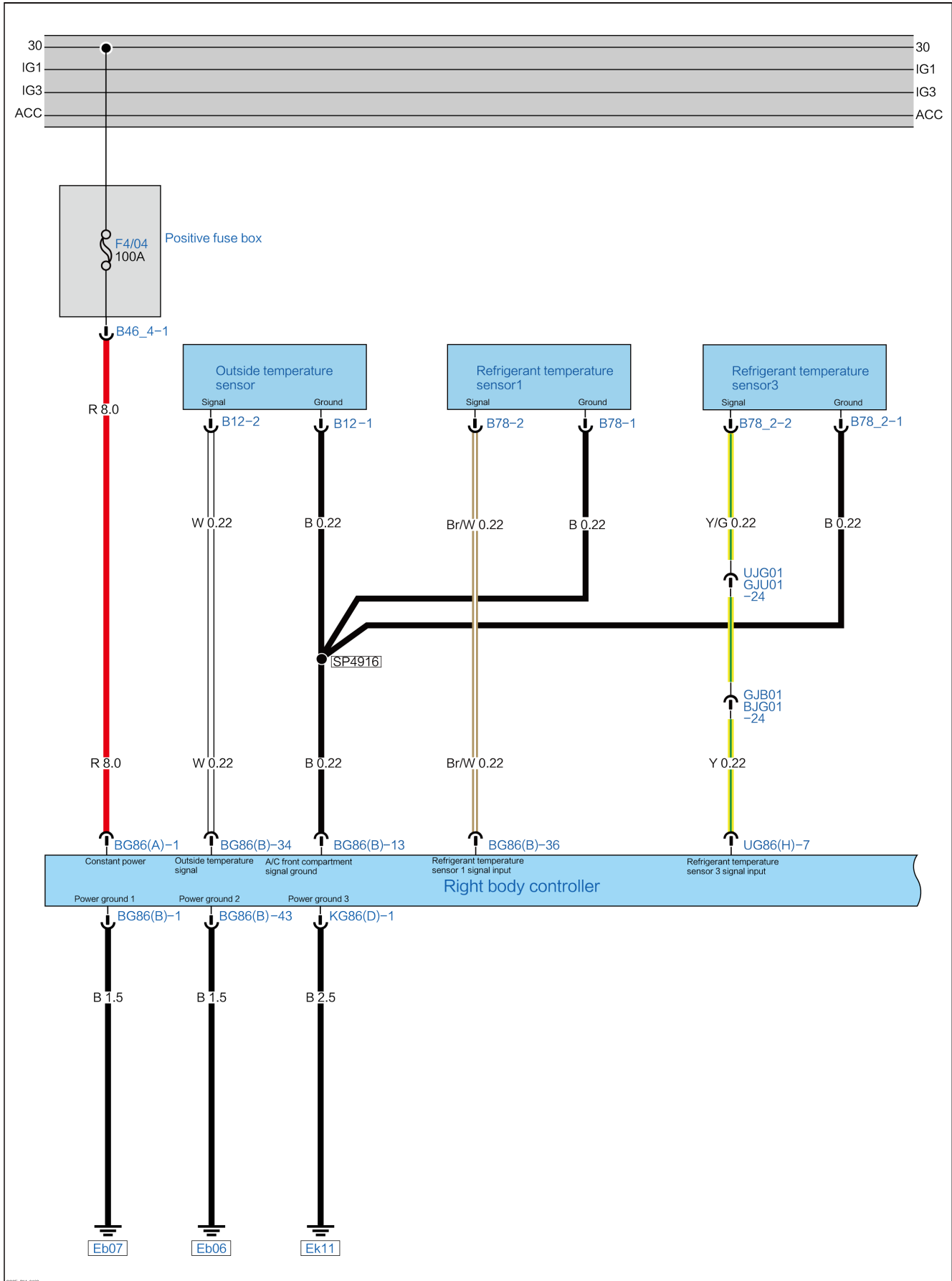
Replace the right body control module.

B2A2311 Exterior Temperature Sensor Short to Ground

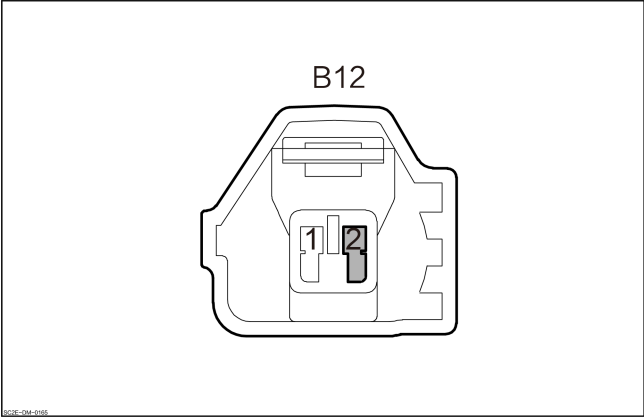
DTC Description

| B2A2311 Exterior Temperature Sensor Short to Ground | |
|---|--|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or harness connector fault.2. The exterior temperature sensor fails.3. The right body control module fails. |
| Fault setting conditions | The output voltage of the detection sensor is lower than 0.1 V. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|------------------------------------|
| <p style="text-align: center;">Exterior temperature sensor</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B12</p> </div> <p style="font-size: small; margin-top: 10px;">BCE-DW-005</p> | <p>2</p> | <p>Exterior temperature signal</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the exterior temperature sensor harness connector |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of exterior temperature sensor B12.
3. Check whether the harness connector of exterior temperature sensor is normal?

No Repair or replace the wire harness

Yes

| | |
|---|---------------------------------------|
| 3 | Check the exterior temperature sensor |
|---|---------------------------------------|

1. Measure the resistance between the harness connector pins of exterior temperature sensor.

| Connector | | Condi- tion | Lower limit (kΩ) | Upper limit (kΩ) |
|-----------|-----|----------------|------------------------|------------------------|
| (+) | (-) | | | |
| 1 | 2 | -25℃ | 126.4 | 134.7 |
| 1 | 2 | -10℃ | 54.60 | 57.65 |
| 1 | 2 | 0℃ | 32.25 | 33.69 |
| 1 | 2 | 10℃ | 19.68 | 20.35 |
| 1 | 2 | 20℃ | 12.37 | 12.67 |
| 1 | 2 | 30℃ | 7.95 | 8.14 |
| 1 | 2 | 50℃ | 3.51 | 3.66 |

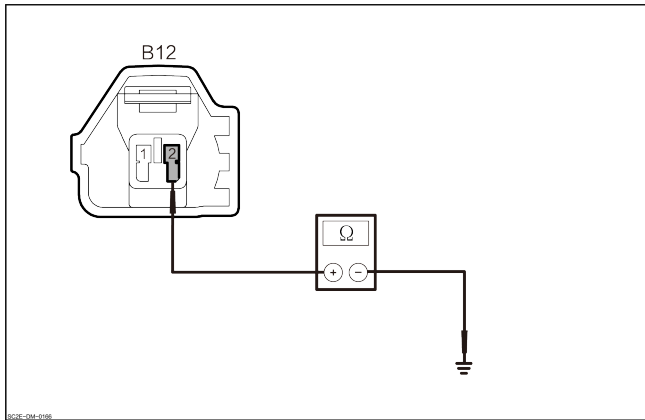
2. Check whether the results are normal.

No

Replace the exterior temperature sensor.

Yes

4 Check the signal line of exterior temperature sensor for short to ground.



1. Measure the resistance between the harness connector of exterior temperature sensor B12-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B12-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

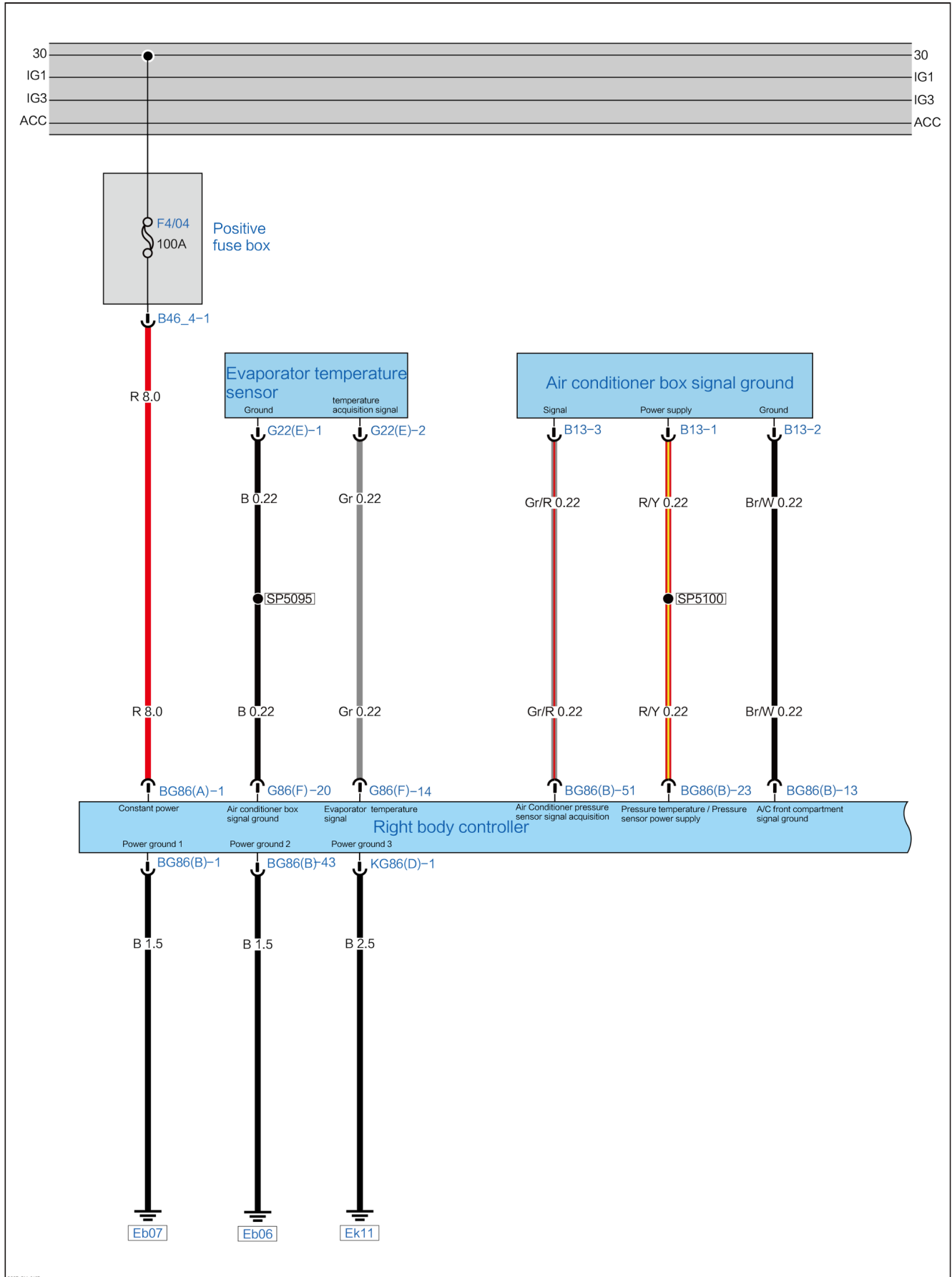
Replace the right body control module.

B2A2413 Evaporator Temperature Sensor Open-circuited

DTC Description

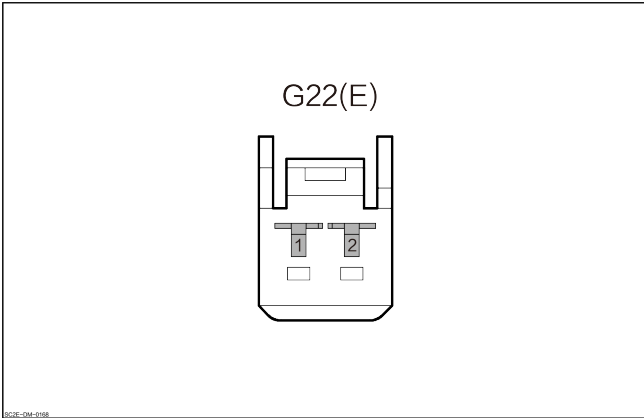
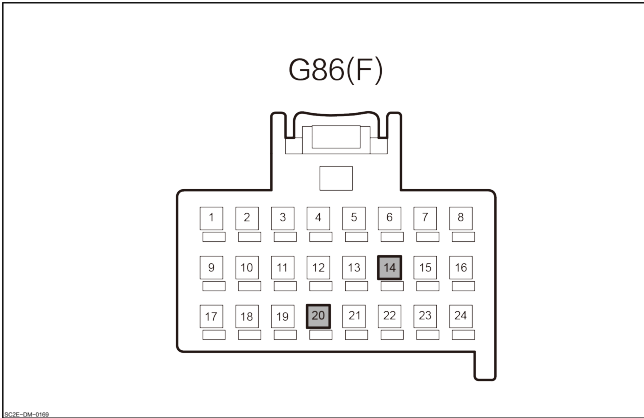
| B2A2413 Evaporator Temperature Sensor Open-circuited | |
|--|---|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or harness connector fault.2. Evaporator temperature sensor fault3. The right body control module fails. |
| Fault setting conditions | The output voltage of detection sensor is higher than 4.95 V |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



8C2E-04-0167

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|-------------------------------|
| <p style="text-align: center;">Evaporator Temperature Sensor</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G22(E)</p> </div> <p style="font-size: small; margin-top: 10px;">SDFE-DM-0198</p> | 1 | Ground |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G86(F)</p> </div> <p style="font-size: small; margin-top: 10px;">SDFE-DM-0199</p> | 14 | Evaporator temperature signal |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the evaporator temperature sensor harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of evaporator temperature sensor G22(E).
3. Check whether the evaporator temperature sensor harness connector is normal.

No Repair or replace the wire harness

Yes

| | |
|---|-------------------------------------|
| 3 | Check evaporator temperature sensor |
|---|-------------------------------------|

1. Measure the resistance value between the temperature sensor harness connector pins of the evaporator.

| Connector | | Condi- tion | Lower limit (kΩ) | Upper limit (kΩ) |
|-----------|-----|----------------|------------------------|------------------------|
| (+) | (-) | | | |
| 1 | 2 | -20℃ | 14.82 | 16.38 |
| 1 | 2 | 0℃ | 5.081 | 5.559 |
| 1 | 2 | 10℃ | 3.101 | 3.359 |
| 1 | 2 | 15℃ | 2.466 | 2.644 |
| 1 | 2 | 20℃ | 1.946 | 2.106 |
| 1 | 2 | 30℃ | 1.276 | 1.354 |
| 1 | 2 | 40℃ | 0.845 | 0.897 |

2. Check whether the results are normal.

No → Replace the evaporator temperature sensor

Yes

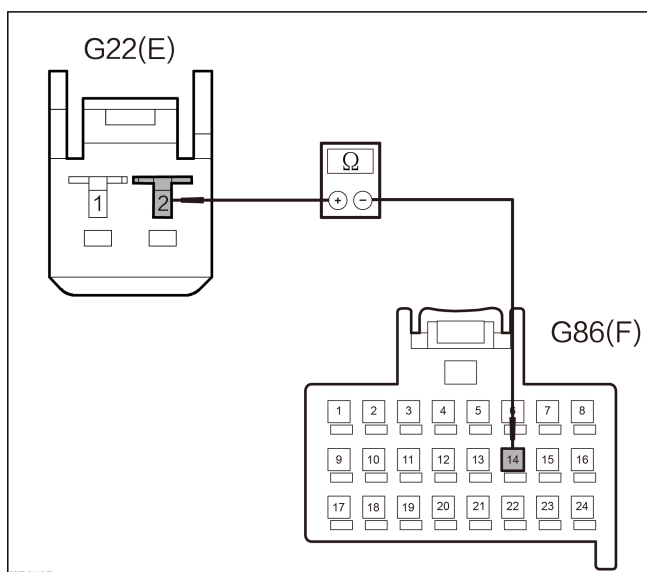
4 Check the harness connector of right body control module.

1. Disconnect the harness connector of right body control module G86(F).
2. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

5 Check whether the evaporator temperature sensor signal line is open circuited.



1. Measure the resistance between the harness connector of evaporator temperature sensor G22(E)-2 and the harness connector of right body control module G86(F)-14.

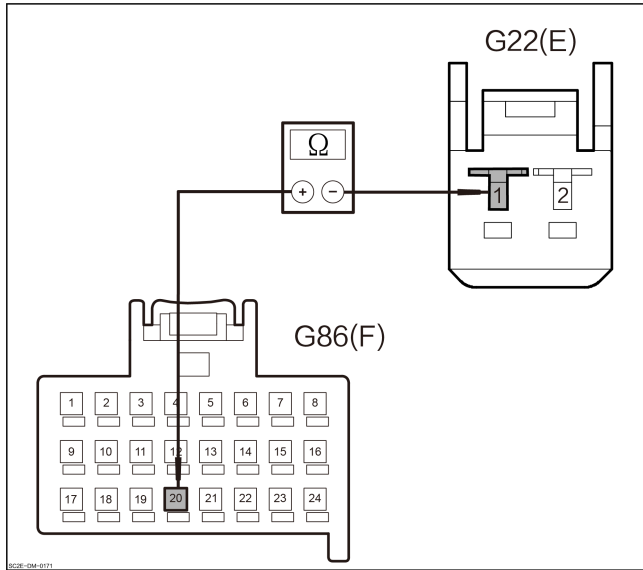
| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| G22(E)-2 | G86(F)-1 4 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check whether the evaporator temperature sensor ground line is open circuited.



1. Measure the resistance between the harness connector of evaporator temperature sensor G22(E)-1 and the harness connector of right body control module G86(F)-20.

| Connector | | Condition | Resist- ance value |
|-----------|-----------|-----------------|--------------------------|
| (+) | (-) | | |
| G22(E)-1 | G86(F)-20 | Through- out | Lower than 1 Ω |

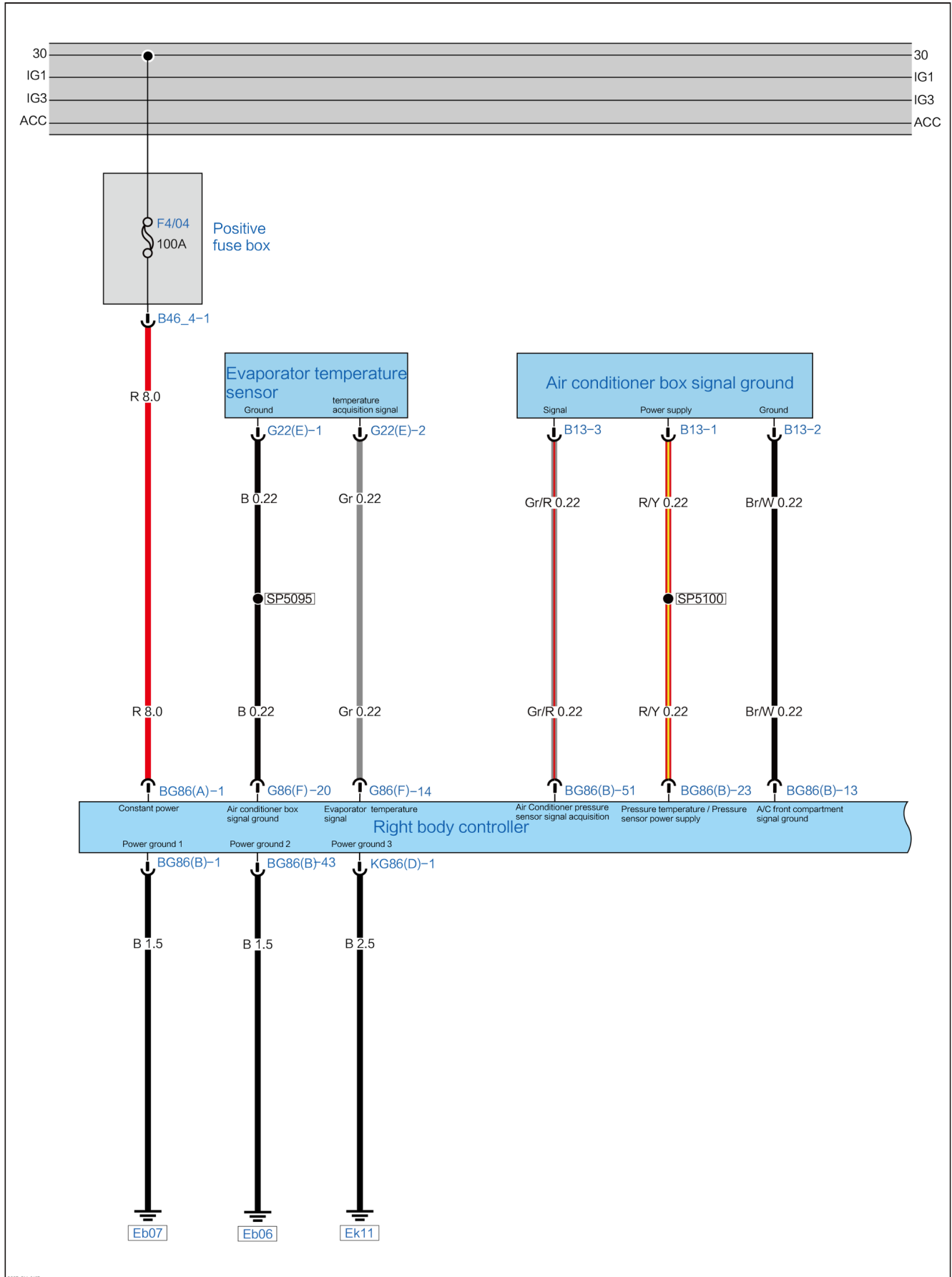
2. Check whether the results are normal.

| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the right body control module. |

B2A2511 Evaporator Temperature Sensor Circuit Short to Ground**DTC Description**

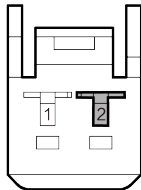
| B2A2511 Evaporator Temperature Sensor Circuit Short to Ground | |
|---|---|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | 1. Harness or harness connector fault. 2. Evaporator temperature sensor fault 3. The right body control module fails. |
| Fault setting conditions | The output voltage of the detection sensor is lower than 0.1 V. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



8228-04-0167

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|--------------------------------------|--|
| <p>Evaporator Temperature Sensor</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"><p>G22(E)</p><p><small>801E-04-012</small></p></div> | <p>2</p> | <p>Evaporator temperature signal</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the evaporator temperature sensor harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of evaporator temperature sensor G22(E).
3. Check whether the evaporator temperature sensor harness connector is normal.

No Repair or replace the wire harness

Yes

| | |
|---|-------------------------------------|
| 3 | Check evaporator temperature sensor |
|---|-------------------------------------|

1. Measure the resistance value between the temperature sensor harness connector pins of the evaporator.

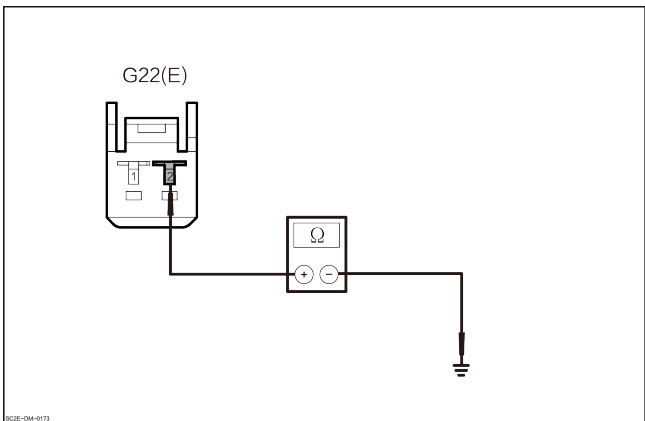
| Connector | | Condi- tion | Lower limit (kΩ) | Upper limit (kΩ) |
|-----------|-----|----------------|------------------------|------------------------|
| (+) | (-) | | | |
| 1 | 2 | -20℃ | 14.82 | 16.38 |
| 1 | 2 | 0℃ | 5.081 | 5.559 |
| 1 | 2 | 10℃ | 3.101 | 3.359 |
| 1 | 2 | 15℃ | 2.466 | 2.644 |
| 1 | 2 | 20℃ | 1.946 | 2.106 |
| 1 | 2 | 30℃ | 1.276 | 1.354 |
| 1 | 2 | 40℃ | 0.845 | 0.897 |

2. Check whether the results are normal.

No → Replace the evaporator temperature sensor

Yes

4 Check whether the evaporator temperature sensor signal line is shorted to ground.



1. Measure the resistance between the harness connector of evaporator temperature sensor G22(E)-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G22(E)-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

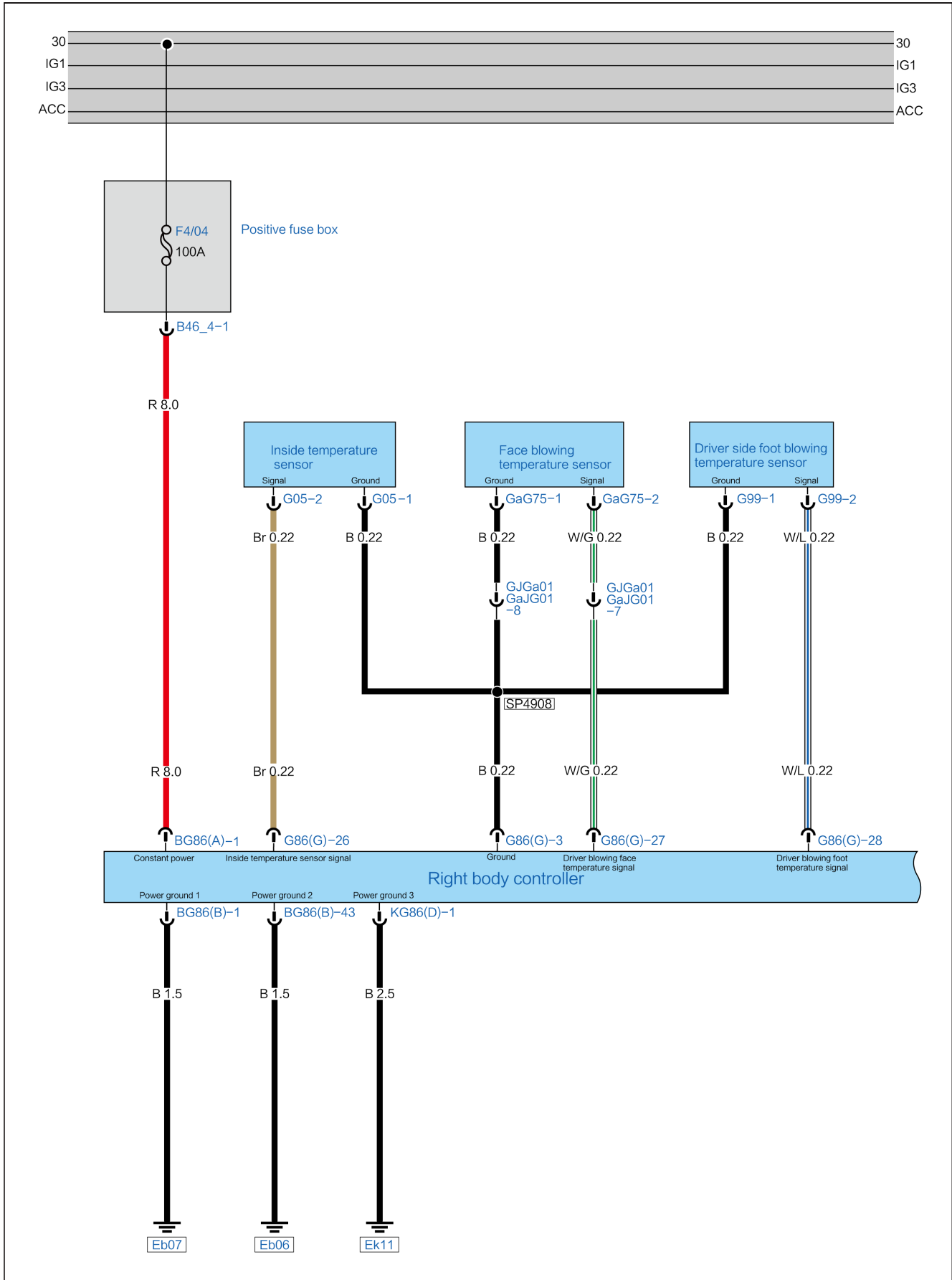
No → Repair or replace the wire harness

Yes → Replace the right body control module.

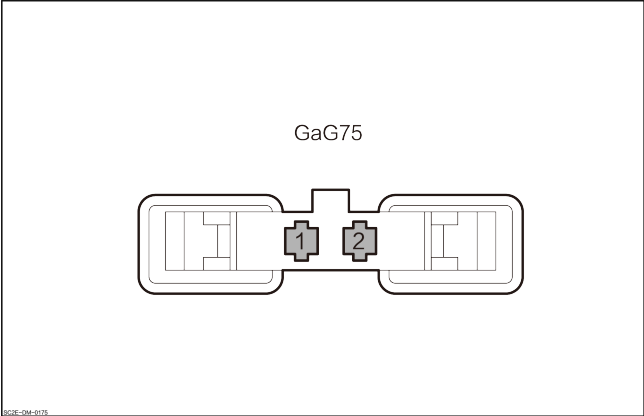
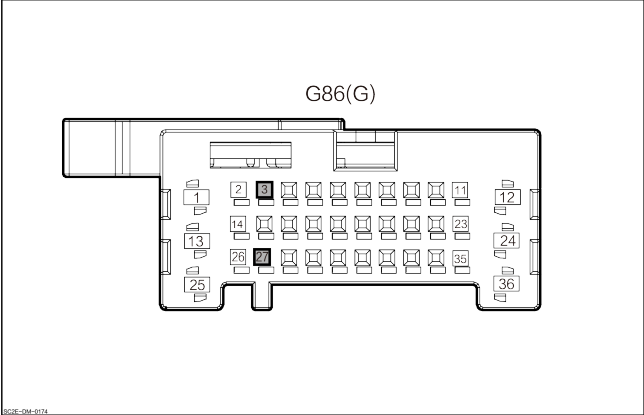
B2A5813 Driver' s Side Face Outlet Temperature Sensor Open–circuited**DTC Description**

| B2A5813 Driver' s Side Face Outlet Temperature Sensor Open–circuited | |
|--|---|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | 1. Harness or harness connector fault. 2. Driver side face blowing outlet temperature sensor fault. 3. The right body control module fails. |
| Fault setting conditions | The sensor output voltage detected is higher than 4.95V. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p>Driver side face blowing outlet temperature sensor</p>  <p style="text-align: center;">GaG75</p> | 1 | Ground |
| | 2 | Driver side panel air outlet temperature signal |
| <p>Right body control module</p>  <p style="text-align: center;">G86(G)</p> | 3 | Ground |
| | 27 | Driver side panel air outlet temperature signal |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the driver side face blowing outlet temperature sensor harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the driver side face blowing outlet temperature sensor harness connector GaG75.
3. Check whether the driver side face blowing outlet temperature sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the driver side face blowing outlet temperature sensor. |
|---|---|

1. Measure the resistance value between the pins of the driver face–blowing temperature sensor harness connector.

| Connector | | Condi- tion | Lower limit (kΩ) | Upper limit (kΩ) |
|-----------|-----|----------------|------------------------|------------------------|
| (+) | (-) | | | |
| 1 | 2 | -20°C | 14.82 | 16.38 |
| 1 | 2 | 0°C | 5.081 | 5.559 |
| 1 | 2 | 10°C | 3.101 | 3.359 |
| 1 | 2 | 15°C | 2.466 | 2.644 |
| 1 | 2 | 20°C | 1.946 | 2.106 |

| | | | | |
|---|---|------|-------|-------|
| 1 | 2 | 30°C | 1.276 | 1.354 |
| 1 | 2 | 40°C | 0.845 | 0.897 |

2. Check whether the results are normal.

No → Replace the driver side face blowing outlet temperature sensor.

Yes

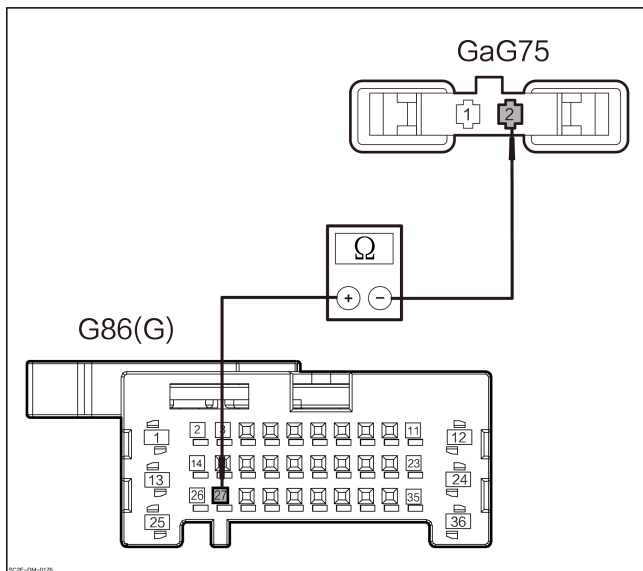
4 Check the harness connector of right body control module.

1. Disconnect the harness connector of right body control module G86(G).
2. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

5 Check whether the driver side face blowing outlet temperature sensor signal line is open circuited.



1. Measure the resistance between the harness connector GaG75-2 of driver's side face blowing outlet temperature sensor and harness connector of right body control module G86(G)-27.

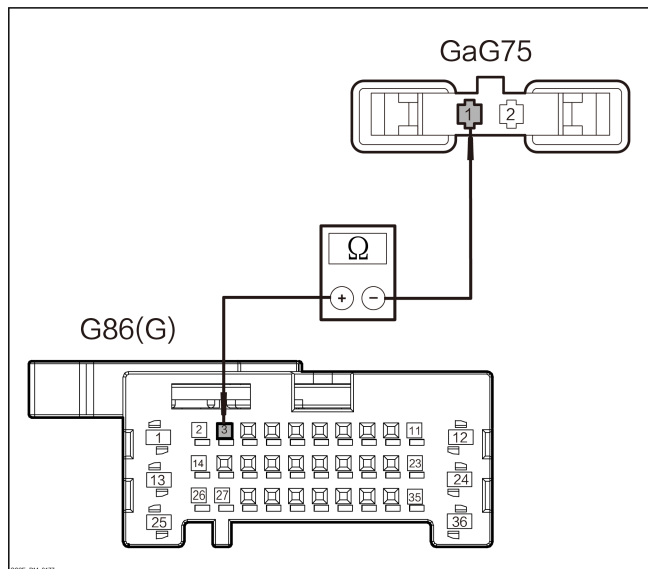
| Connector | | Condition | Resistance value |
|---------------|---------|-------------|------------------|
| (+) | (-) | | |
| G86(G)-2 7 | GaG75-2 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check whether the driver side face blowing outlet temperature sensor ground line is open circuited.



1. Measure the resistance between the harness connector GaG75-1 of driver's side face outlet temperature sensor and harness connector of right body control module G86(G)-3.

| Connector | | Condition | Resist- ance value |
|-----------|---------|-----------------|--------------------------|
| (+) | (-) | | |
| G86(G)-3 | GaG75-1 | Through- out | Lower than 1 Ω |

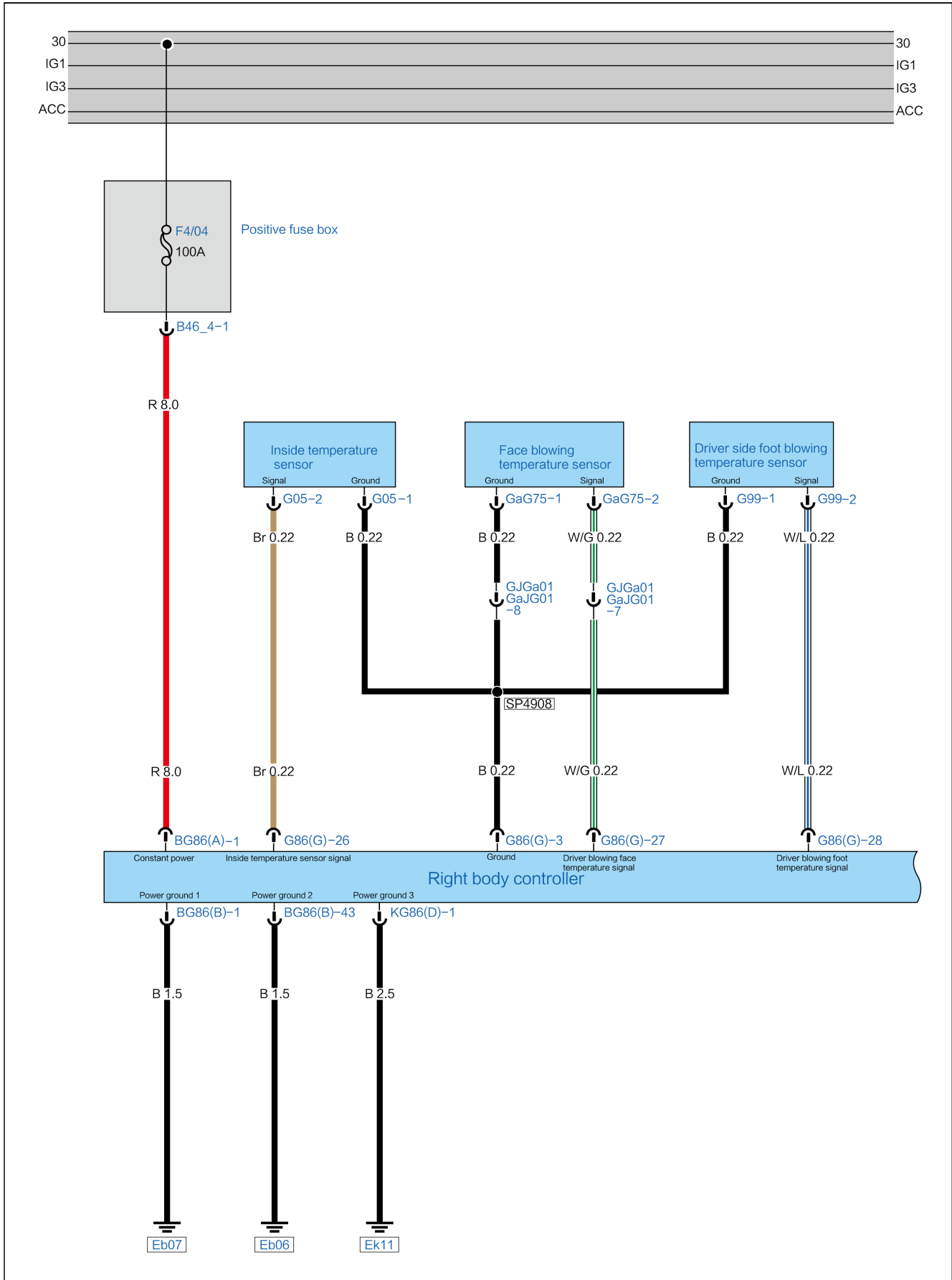
2. Check whether the results are normal.

| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the right body control module. |

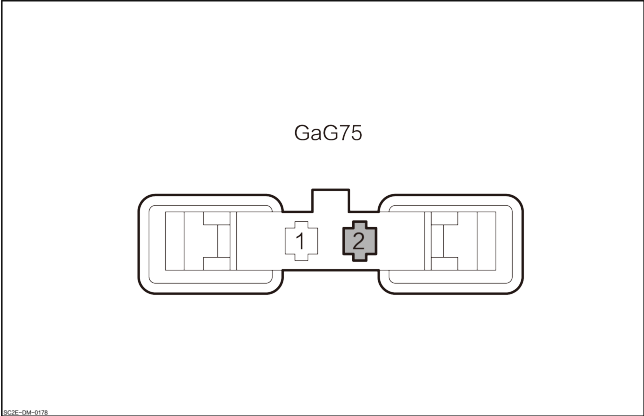
B2A5811 Driver' s Side Face Outlet Temperature Sensor Short to Ground**DTC Description**

| B2A5811 Driver' s Side Face Outlet Temperature Sensor Short to Ground | |
|---|---|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | 1. Harness or harness connector fault. 2. Driver side face blowing outlet temperature sensor fault. 3. The right body control module fails. |
| Fault setting conditions | The output voltage of the detection sensor is lower than 0.1 V. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p>Driver side face blowing outlet temperature sensor</p>  <p style="text-align: center;">GaG75</p> <p style="text-align: center;">1 2</p> <p><small>809E-004-00173</small></p> | <p>2</p> | <p>Driver side panel air outlet temperature signal</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the driver side face blowing outlet temperature sensor harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the driver side face blowing outlet temperature sensor harness connector GaG75.
3. Check whether the driver side face blowing outlet temperature sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the driver side face blowing outlet temperature sensor. |
|---|---|

1. Measure the resistance value between the pins of the driver face–blowing temperature sensor harness connector.

| Connector | | Condi- tion | Lower limit (kΩ) | Upper limit (kΩ) |
|-----------|-----|----------------|------------------------|------------------------|
| (+) | (-) | | | |
| 1 | 2 | -20°C | 14.82 | 16.38 |
| 1 | 2 | 0°C | 5.081 | 5.559 |
| 1 | 2 | 10°C | 3.101 | 3.359 |
| 1 | 2 | 15°C | 2.466 | 2.644 |
| 1 | 2 | 20°C | 1.946 | 2.106 |

| | | | | |
|---|---|------|-------|-------|
| 1 | 2 | 30°C | 1.276 | 1.354 |
| 1 | 2 | 40°C | 0.845 | 0.897 |

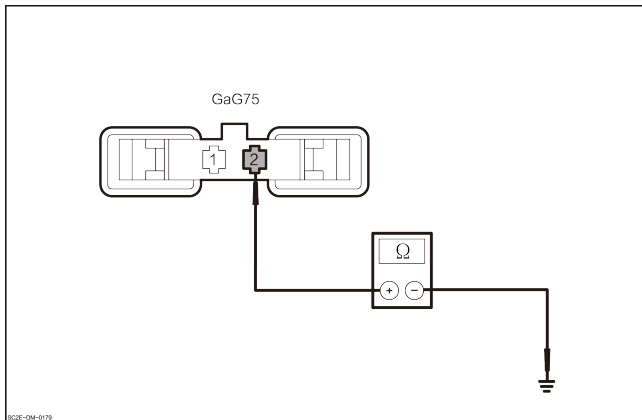
2. Check whether the results are normal.

No

Replace the driver side face blowing outlet temperature sensor.

Yes

4 Check whether the driver side face blowing outlet temperature sensor signal line is shorted to ground.



1. Measure the resistance value between the outlet air temperature sensor harness connector GaG75-2 on the driver and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| GaG75-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

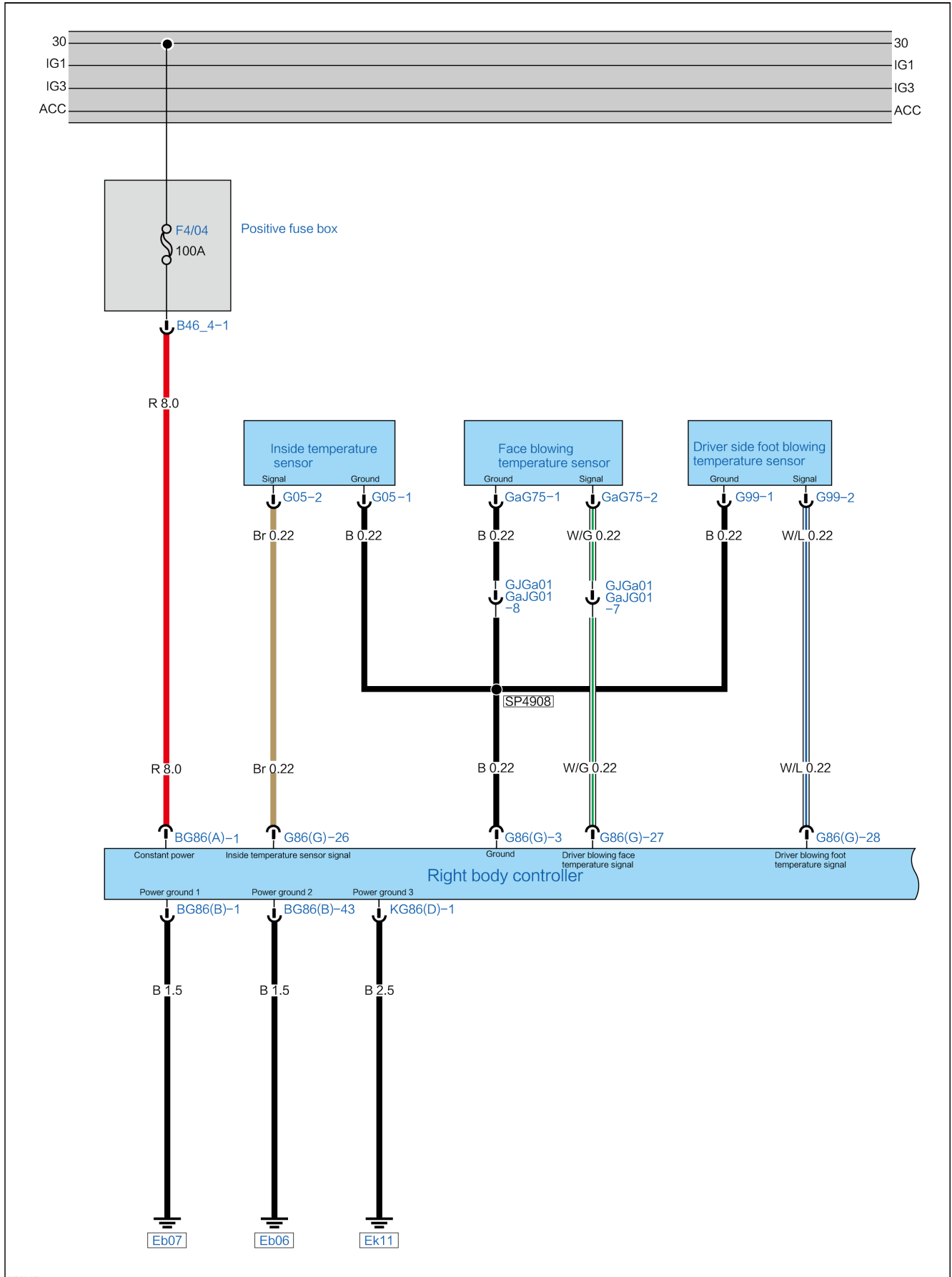
Replace the right body control module.

B2A5913 Driver's Side Floor Outlet Temperature Sensor Open-circuited

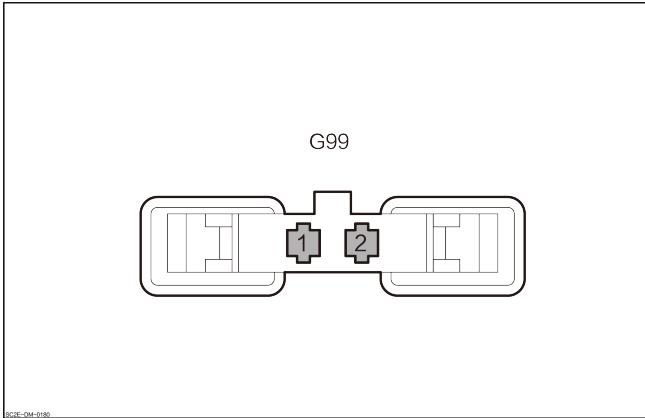
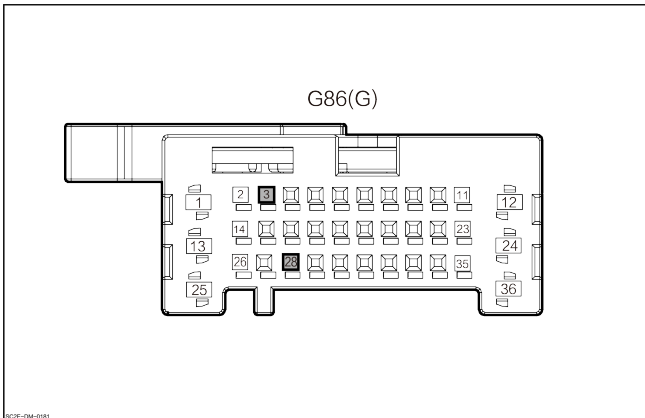
DTC Description

| B2A5913 Driver's Side Floor Outlet Temperature Sensor Open-circuited | |
|--|---|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Driver side feet blowing outlet temperature sensor fault. 3. The right body control module fails. |
| Fault setting conditions | The sensor output voltage detected is higher than 4.95V. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p>Driver side face blowing outlet temperature sensor</p>  <p style="text-align: center;">G99</p> | 1 | Ground |
| <p>Right body control module</p>  <p style="text-align: center;">G86(G)</p> | 3 | Ground |
| | 28 | Driver side feet blowing outlet temperature signal |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the driver side feet blowing outlet temperature sensor harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the driver side feet blowing outlet temperature sensor harness connector G99.
3. Check whether the driver's side floor outlet temperature sensor harness connector is normal.

No Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the driver side feet blowing outlet temperature sensor. |
|---|---|

1. Measure the resistance value between the pins of the driver's side floor outlet temperature sensor harness connector.

| Connector | | Condi- tion | Lower limit (kΩ) | Upper limit (kΩ) |
|-----------|-----|----------------|------------------------|------------------------|
| (+) | (-) | | | |
| 1 | 2 | -20℃ | 14.82 | 16.38 |
| 1 | 2 | 0℃ | 5.081 | 5.559 |
| 1 | 2 | 10℃ | 3.101 | 3.359 |
| 1 | 2 | 15℃ | 2.466 | 2.644 |
| 1 | 2 | 20℃ | 1.946 | 2.106 |
| 1 | 2 | 30℃ | 1.276 | 1.354 |

| | | | | |
|---|---|------|-------|-------|
| 1 | 2 | 40°C | 0.845 | 0.897 |
|---|---|------|-------|-------|

2. Check whether the results are normal.

No → Replace the driver side feet blowing outlet temperature sensor.

Yes

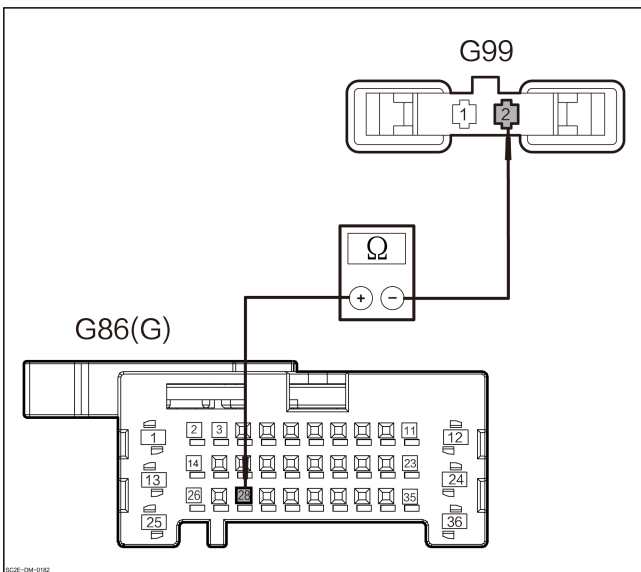
4 Check the harness connector of right body control module.

1. Disconnect the harness connector of right body control module G86(G).
2. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

5 Check whether the driver side floor blowing outlet temperature sensor signal line is open circuited.



1. Measure the resistance between the harness connector of driver's side floor outlet temperature sensor G99-2 and the harness connector of right body control module G86(G)-28 .

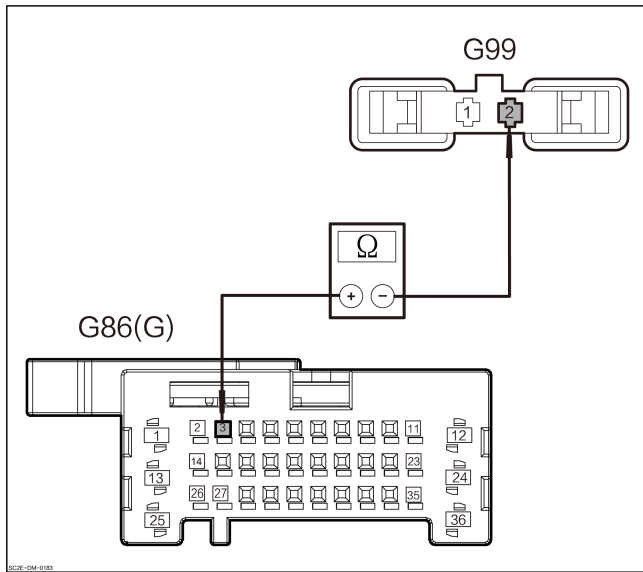
| Connector | | Condition | Resist- ance value |
|---------------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| G86(G)-2 8 | G99-2 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check whether the driver side floor blowing outlet temperature sensor ground line is open circuited.



1. Measure the resistance between the harness connector of driver' s side floor outlet temperature sensor G99-1 and the harness connector of right body control module G86(G)-3 .

| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| G86(G)-3 | G99-1 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No

Repair or replace the wire harness

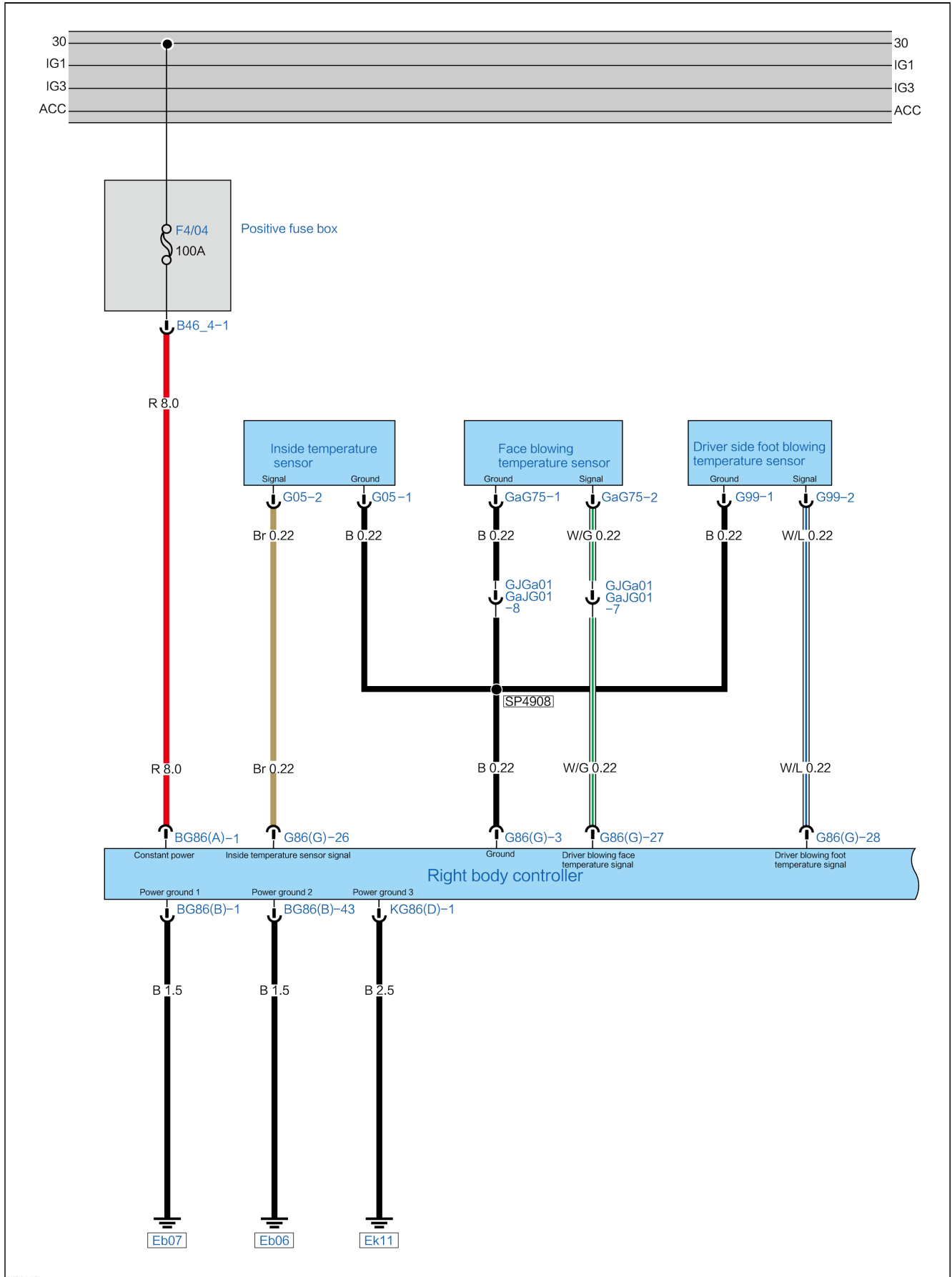
Yes

Replace the right body control module.

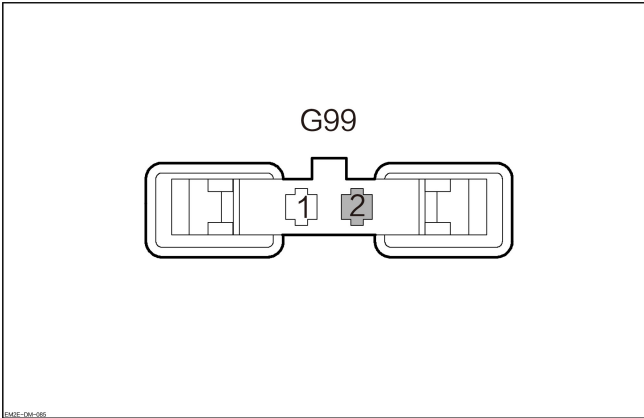
B2A5811 Driver' s Side Floor Outlet Temperature Sensor Short to Ground**DTC Description**

| B2A5811 Driver' s Side Floor Outlet Temperature Sensor Short to Ground | |
|--|---|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | 1. Harness or harness connector fault. 2. Driver side feet blowing outlet temperature sensor fault. 3. The right body control module fails. |
| Fault setting conditions | The output voltage of the detection sensor is lower than 0.1 V. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p>Driver side face blowing outlet temperature sensor</p>  <p>The diagram shows a two-terminal connector labeled G99. Terminal 1 is on the left and terminal 2 is on the right. Terminal 2 is highlighted with a grey background. The connector is shown in a top-down view with internal contacts visible.</p> | <p>2</p> | <p>Driver side panel air outlet temperature signal</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the driver side feet blowing outlet temperature sensor harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the driver side feet blowing outlet temperature sensor harness connector G99.
3. Check whether the driver's side floor outlet temperature sensor harness connector is normal.

No Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the driver side feet blowing outlet temperature sensor. |
|---|---|

1. Measure the resistance value between the pins of the driver's side floor outlet temperature sensor harness connector.

| Connector | | Condi- tion | Lower limit (kΩ) | Upper limit (kΩ) |
|-----------|-----|----------------|------------------------|------------------------|
| (+) | (-) | | | |
| 1 | 2 | -20℃ | 14.82 | 16.38 |
| 1 | 2 | 0℃ | 5.081 | 5.559 |
| 1 | 2 | 10℃ | 3.101 | 3.359 |
| 1 | 2 | 15℃ | 2.466 | 2.644 |
| 1 | 2 | 20℃ | 1.946 | 2.106 |
| 1 | 2 | 30℃ | 1.276 | 1.354 |

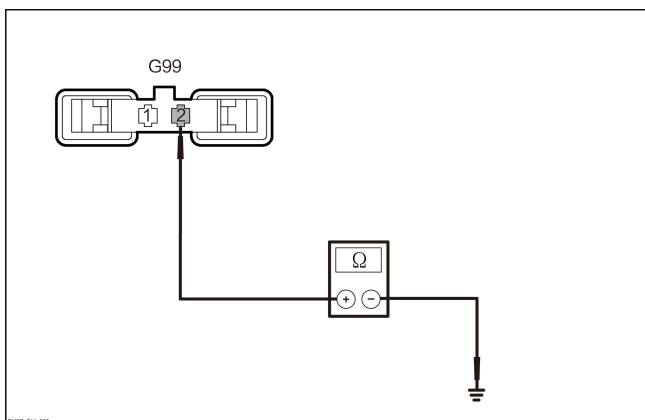
| | | | | |
|---|---|------|-------|-------|
| 1 | 2 | 40°C | 0.845 | 0.897 |
|---|---|------|-------|-------|

2. Check whether the results are normal.

No → Replace the driver side feet blowing outlet temperature sensor.

Yes

| | |
|---|---|
| 4 | Check whether the driver side floor blowing outlet temperature sensor signal line is shorted to ground. |
|---|---|



1. Measure the resistance value between driver's side floor outlet temperature sensor harness connector G99-2 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| G99-2 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

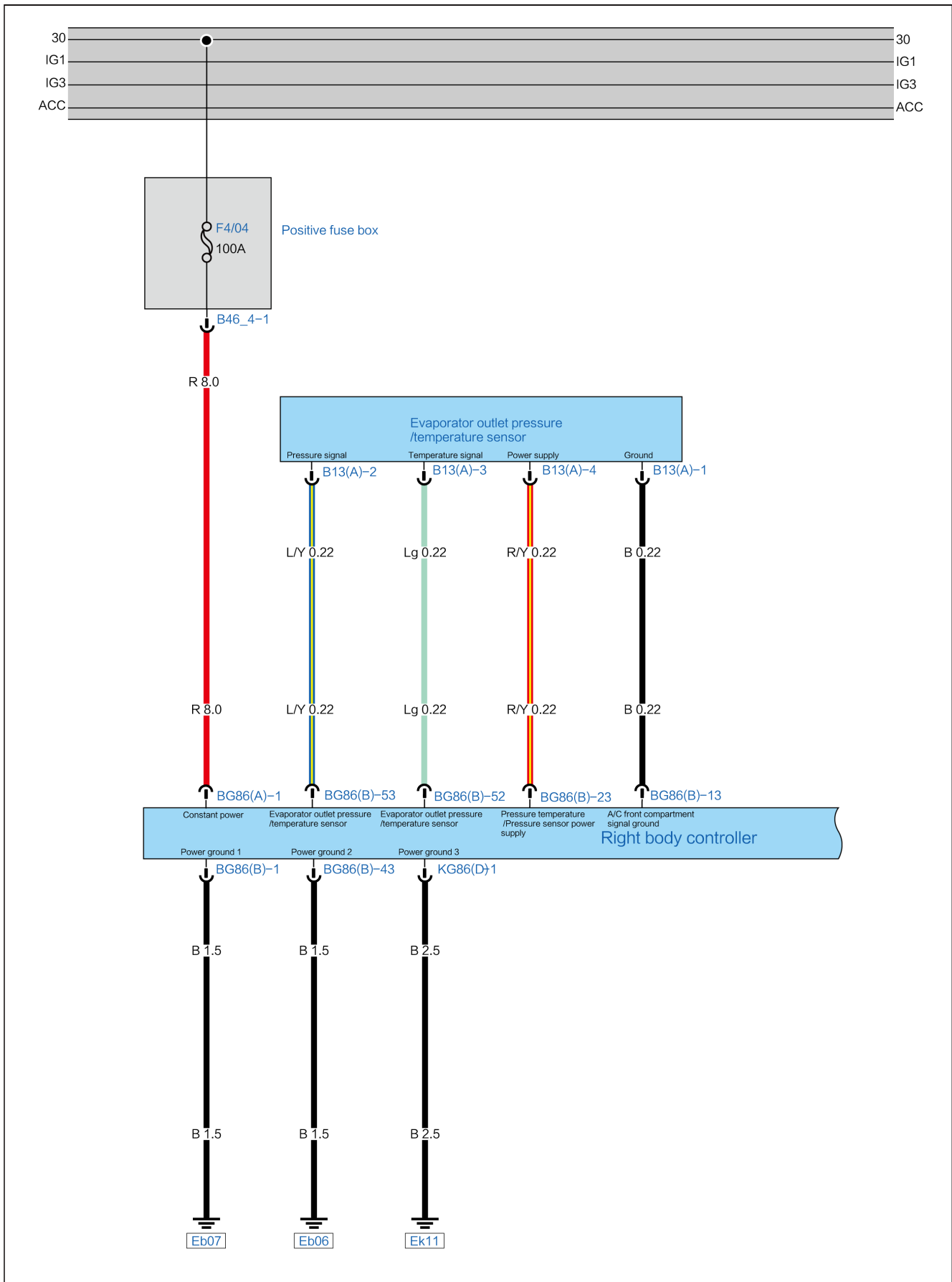
No → Repair or replace the wire harness

Yes → Replace the right body control module.

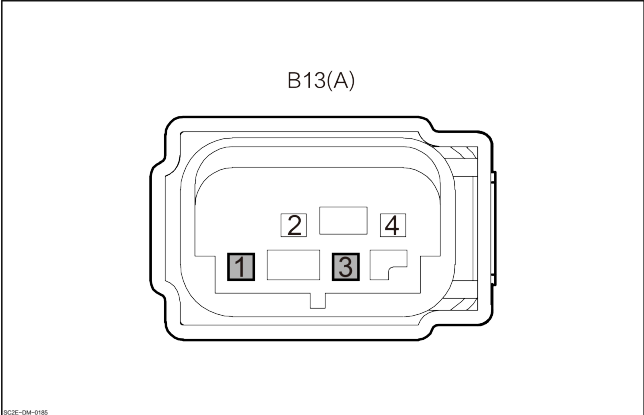
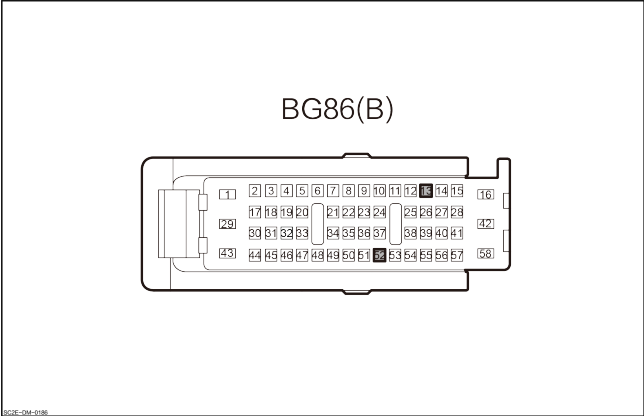
B2A0813 Evaporator Outlet Refrigerant Temperature Sensor Open-circuited**DTC Description**

| B2A0813 Evaporator Outlet Refrigerant Temperature Sensor Open-circuited | |
|---|---|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | 1. Harness or harness connector fault. 2. Evaporator outlet refrigerant temperature sensor fault. 3. The right body control module fails. |
| Fault setting conditions | The sensor output voltage detected is higher than 4.95V. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p>Temperature sensor of the evaporator outlet refrigerant</p>  <p>B13(A)</p> | 1 | Ground |
| | 3 | Evaporator outlet pressure/temperature sensor temperature signal |
| <p>Right body control module</p>  <p>BG86(B)</p> | 13 | Ground |
| | 52 | Evaporator outlet pressure/temperature sensor temperature signal |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the temperature sensor harness connector of the evaporator outlet refrigerant. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the temperature sensor harness connector B13 (A) of the evaporator outlet refrigerant.
3. Check whether the temperature sensor harness connector of the evaporator outlet refrigerant is normal.

No → Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the temperature sensor of the evaporator outlet refrigerant. |
|---|--|

1. Measure the resistance value between the temperature sensor harness connector pins of the evaporator outlet refrigerant.

| Connector | | Condi- tion | Lower limit (kΩ) | Upper limit (kΩ) |
|-----------|-----|----------------|------------------------|------------------------|
| (+) | (-) | | | |
| 1 | 3 | -30℃ | 91.771 | 97.933 |
| 1 | 3 | 0℃ | 31.684 | 33.093 |
| 1 | 3 | 10℃ | 19.500 | 20.168 |
| 1 | 3 | 20℃ | 12.329 | 12.634 |
| 1 | 3 | 30℃ | 7.966 | 8.162 |

| | | | | |
|---|---|------|-------|-------|
| 1 | 3 | 40°C | 5.261 | 5.435 |
|---|---|------|-------|-------|

2. Check whether the results are normal.

No

Replace the temperature sensor of the evaporator outlet refrigerant.

Yes

| | |
|---|---|
| 4 | Check the harness connector of right body control module. |
|---|---|

1. Disconnect the harness connector of right body control module BG86(B).

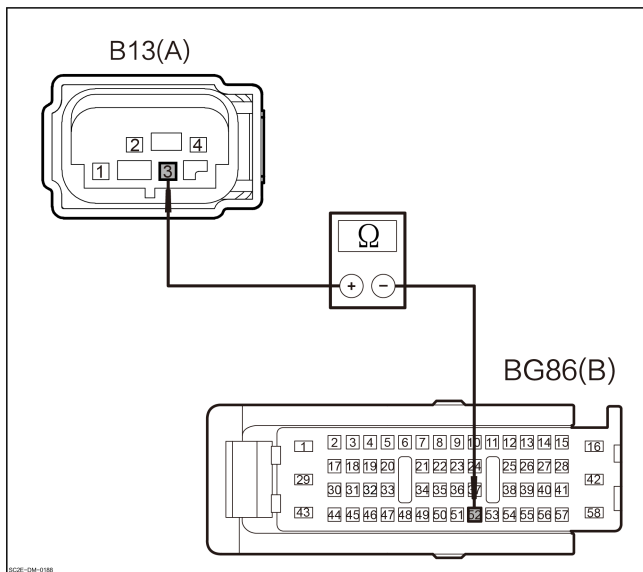
2. Check whether the harness connector of right body control module is normal?

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 5 | Check the signal line of the temperature sensor of the evaporator outlet refrigerant for open circuit. |
|---|--|



1. Measure the resistance between the harness connector of evaporator outlet refrigerant temperature sensor B13(A)-3 and the harness connector of right body control module BG86(B)-52.

| Connector | | Condition | Resistance value |
|-----------|------------|-------------|------------------|
| (+) | (-) | | |
| B13(A)-3 | BG86(B)-52 | Through-out | Lower than 1 Ω |

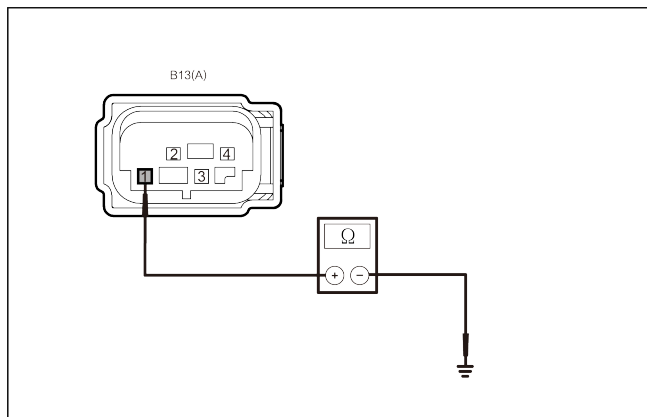
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 6 | Check the ground line of the temperature sensor of the evaporator outlet refrigerant for open circuit. |
|---|--|



1. Measure the resistance between the harness connector of evaporator outlet refrigerant temperature sensor B13(A)-1 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B13(A)-1 | Ground | Through- out | Lower than 1 Ω |

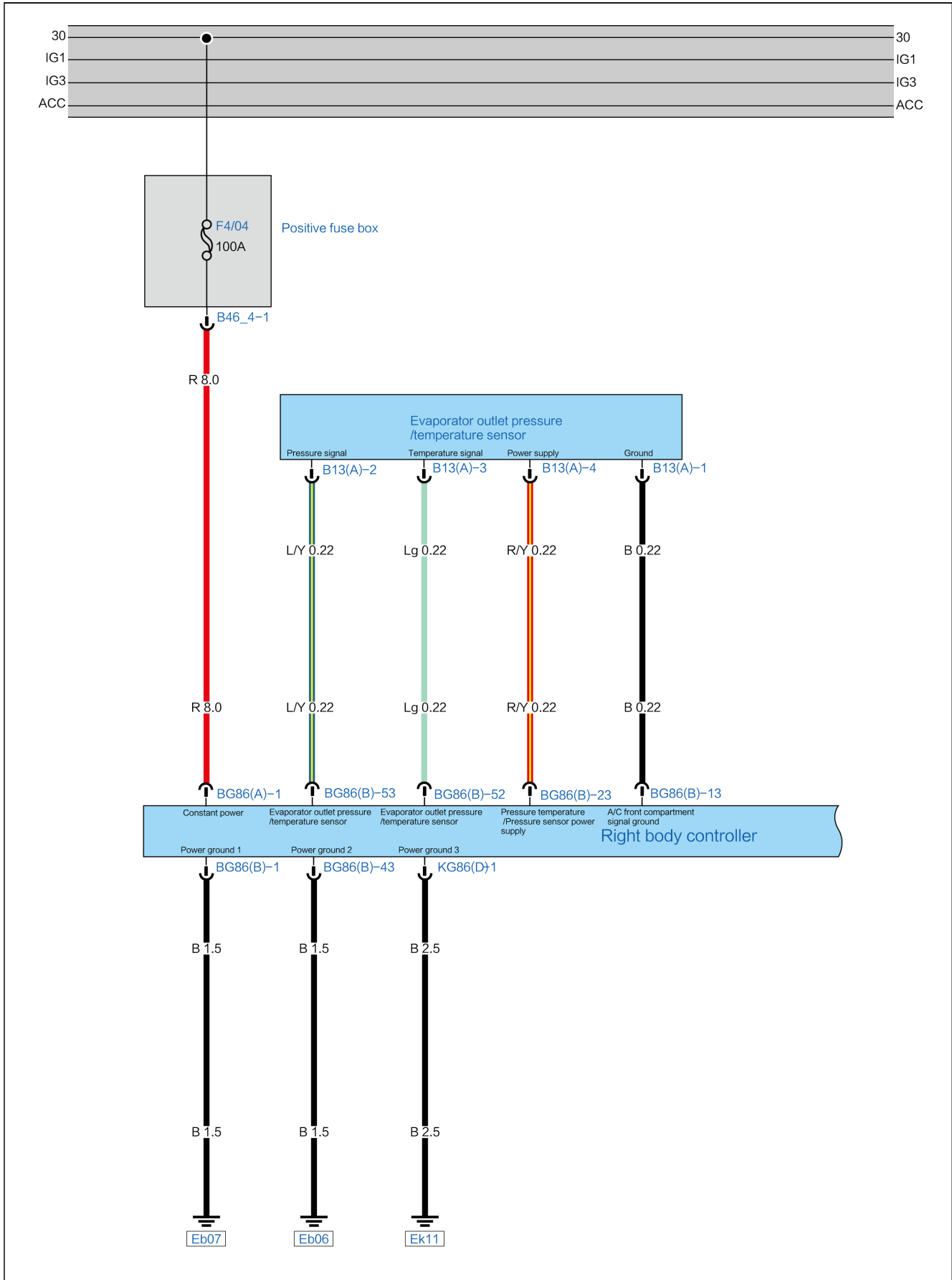
2. Check whether the results are normal.

| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the right body control module. |

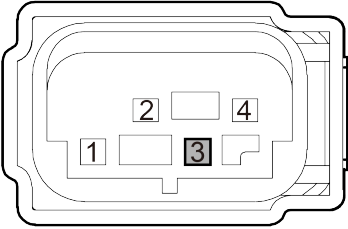
B2A0811 Evaporator Outlet Refrigerant Temperature Sensor Short to Ground**DTC Description**

| B2A0811 Evaporator Outlet Refrigerant Temperature Sensor Short to Ground | |
|--|---|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | 1. Harness or harness connector fault. 2. Evaporator outlet refrigerant temperature sensor fault. 3. The right body control module fails. |
| Fault setting conditions | The output voltage of the detection sensor is lower than 0.1 V. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------------------------|
| <p>Temperature sensor of the evaporator outlet refrigerant</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>B13(A)</p>  </div> | <p>3</p> | <p>Temperature acquisition signal</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the temperature sensor harness connector of the evaporator outlet refrigerant. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the temperature sensor harness connector B13 (A) of the evaporator outlet refrigerant.
3. Check whether the temperature sensor harness connector of the evaporator outlet refrigerant is normal.

No → Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the temperature sensor of the evaporator outlet refrigerant. |
|---|--|

1. Measure the resistance value between the temperature sensor harness connector pins of the evaporator outlet refrigerant.

| Connector | | Condi- tion | Lower limit (kΩ) | Upper limit (kΩ) |
|-----------|-----|----------------|------------------------|------------------------|
| (+) | (-) | | | |
| 1 | 3 | -20℃ | 91.771 | 97.933 |
| 1 | 3 | 0℃ | 31.684 | 33.093 |
| 1 | 3 | 10℃ | 19.500 | 20.168 |
| 1 | 3 | 20℃ | 12.329 | 12.634 |
| 1 | 3 | 30℃ | 7.966 | 8.162 |

| | | | | |
|---|---|------|-------|-------|
| 1 | 3 | 40°C | 5.261 | 5.435 |
|---|---|------|-------|-------|

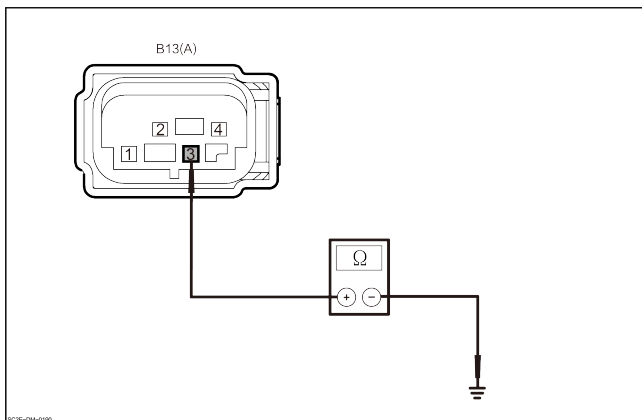
2. Check whether the results are normal.

No

Replace the temperature sensor of the evaporator outlet refrigerant.

Yes

| | |
|---|--|
| 4 | Check whether the signal line of the temperature sensor of the evaporator outlet refrigerant is shorted to ground. |
|---|--|



1. Measure the resistance value between the temperature sensor harness connector B13 (A) – 3 of evaporator outlet refrigerant and the ground line.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B13(A)-3 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No

Repair or replace the wire harness

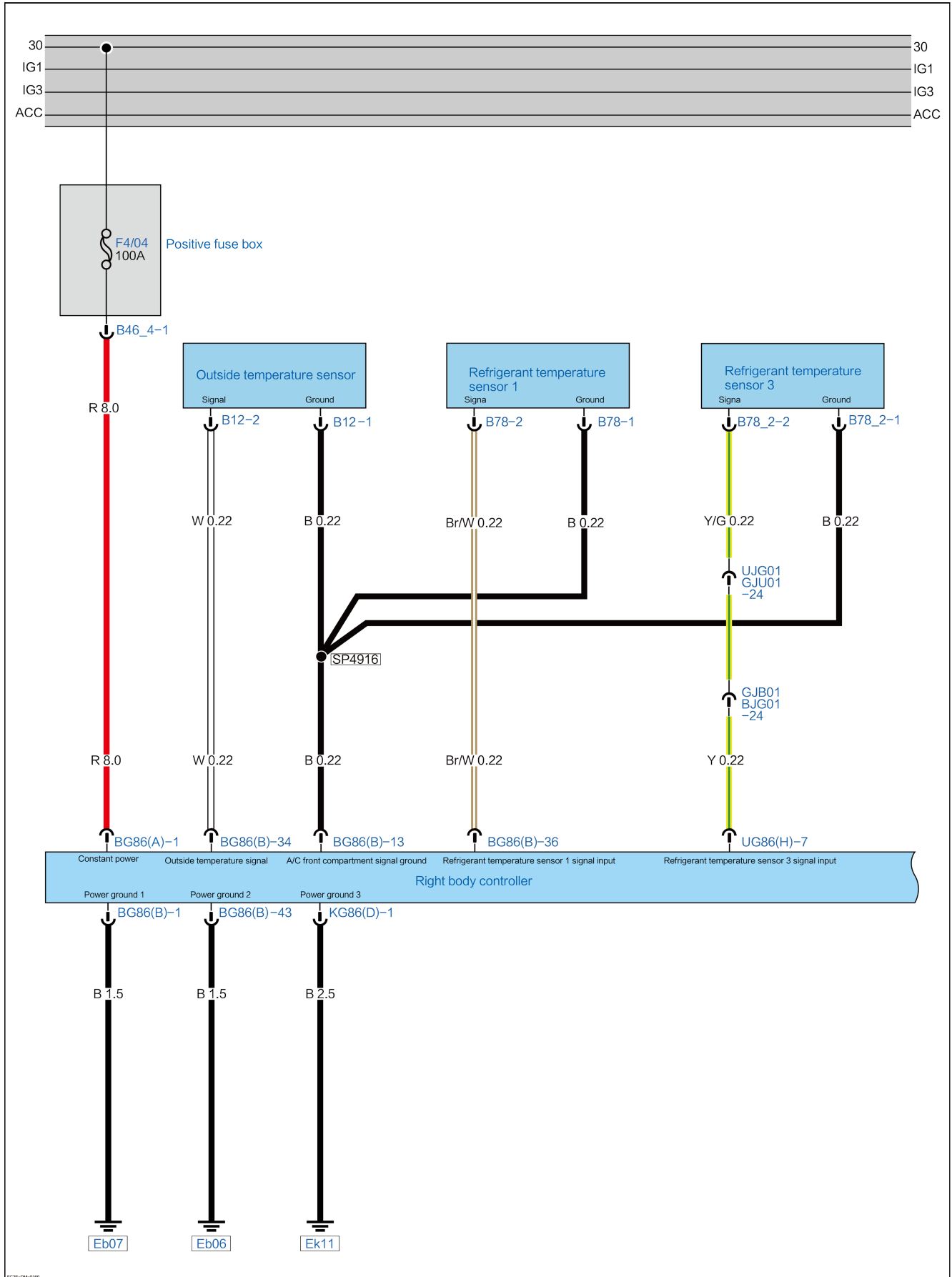
Yes

Replace the right body control module.

B134613 Refrigerant Temperature Sensor 1 Open-circuited**DTC Description**

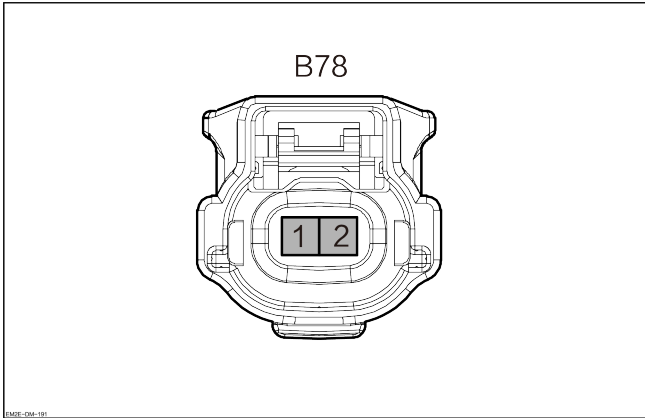
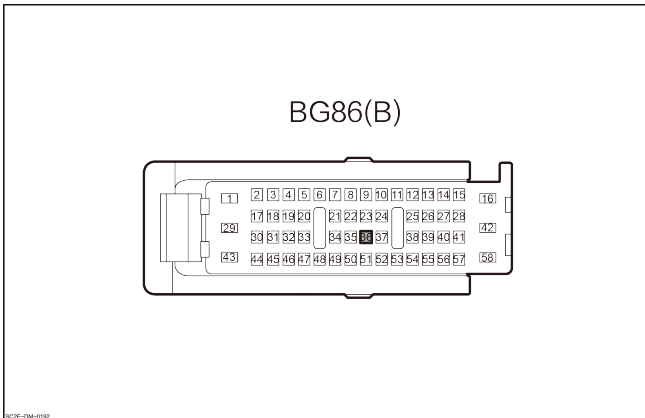
| B134613 Refrigerant Temperature Sensor 1 Open-circuited | |
|---|---|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or harness connector fault.2. Refrigerant temperature sensor 1 fault.3. The right body control module fails. |
| Fault setting conditions | The sensor output voltage detected is higher than 4.95V. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



6C2F-04-0160

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p>Refrigerant temperature sensor</p>  <p>B78</p> | 1 | Ground |
| | 2 | Refrigerant temperature sensor 1 signal |
| <p>Right body control module</p>  <p>BG86(B)</p> | 36 | Refrigerant temperature sensor 1 signal |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the refrigerant temperature sensor 1 harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of refrigerant temperature sensor 1 B78.
3. Check whether the refrigerant temperature sensor 1 harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the refrigerant temperature sensor 1. |
|---|---|

1. Measure the resistance value between the pins of the refrigerant temperature sensor 1 harness connector.

| Connector | | Condi- tion | Lower limit (kΩ) | Upper limit (kΩ) |
|-----------|-----|----------------|------------------------|------------------------|
| (+) | (-) | | | |
| 1 | 2 | -25℃ | 126.4 | 134.7 |
| 1 | 2 | -10℃ | 54.60 | 57.65 |
| 1 | 2 | 0℃ | 32.25 | 33.69 |
| 1 | 2 | 10℃ | 19.68 | 20.35 |
| 1 | 2 | 20℃ | 12.37 | 12.67 |
| 1 | 2 | 30℃ | 7.95 | 8.14 |
| 1 | 2 | 50℃ | 3.51 | 3.66 |

2. Check whether the results are normal.

No

Replace the refrigerant temperature sensor 1.

Yes

4 Check the harness connector of right body control module.

1. Disconnect the harness connector of right body control module BG86(B).

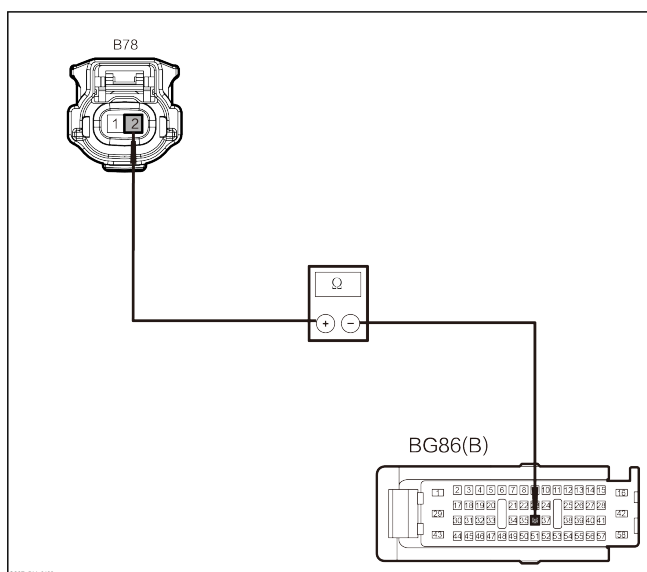
2. Check whether the harness connector of right body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the refrigerant temperature sensor 1 signal line for open circuit.



1. Measure the resistance between the harness connector of refrigerant temperature sensor 1 B78-2 and the harness connector of right body control module BG86(B)-36.

| Connector | | Condition | Resistance value |
|-----------|------------|-------------|------------------|
| (+) | (-) | | |
| B78-2 | BG86(B)-36 | Through-out | Lower than 1 Ω |

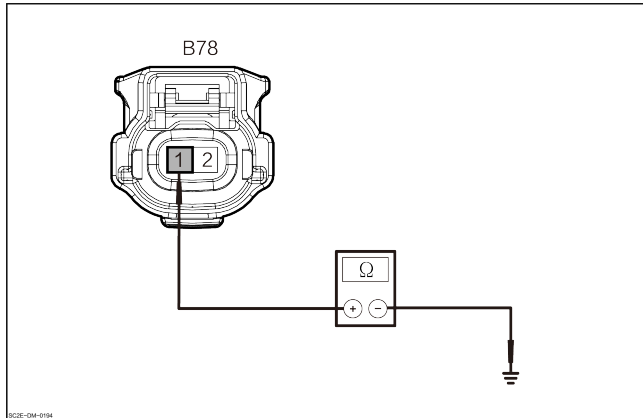
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

6 Check the refrigerant temperature sensor 1 ground line for open circuit.



1. Measure the resistance between the harness connector of refrigerant temperature sensor 1 B78-1 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B78-1 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

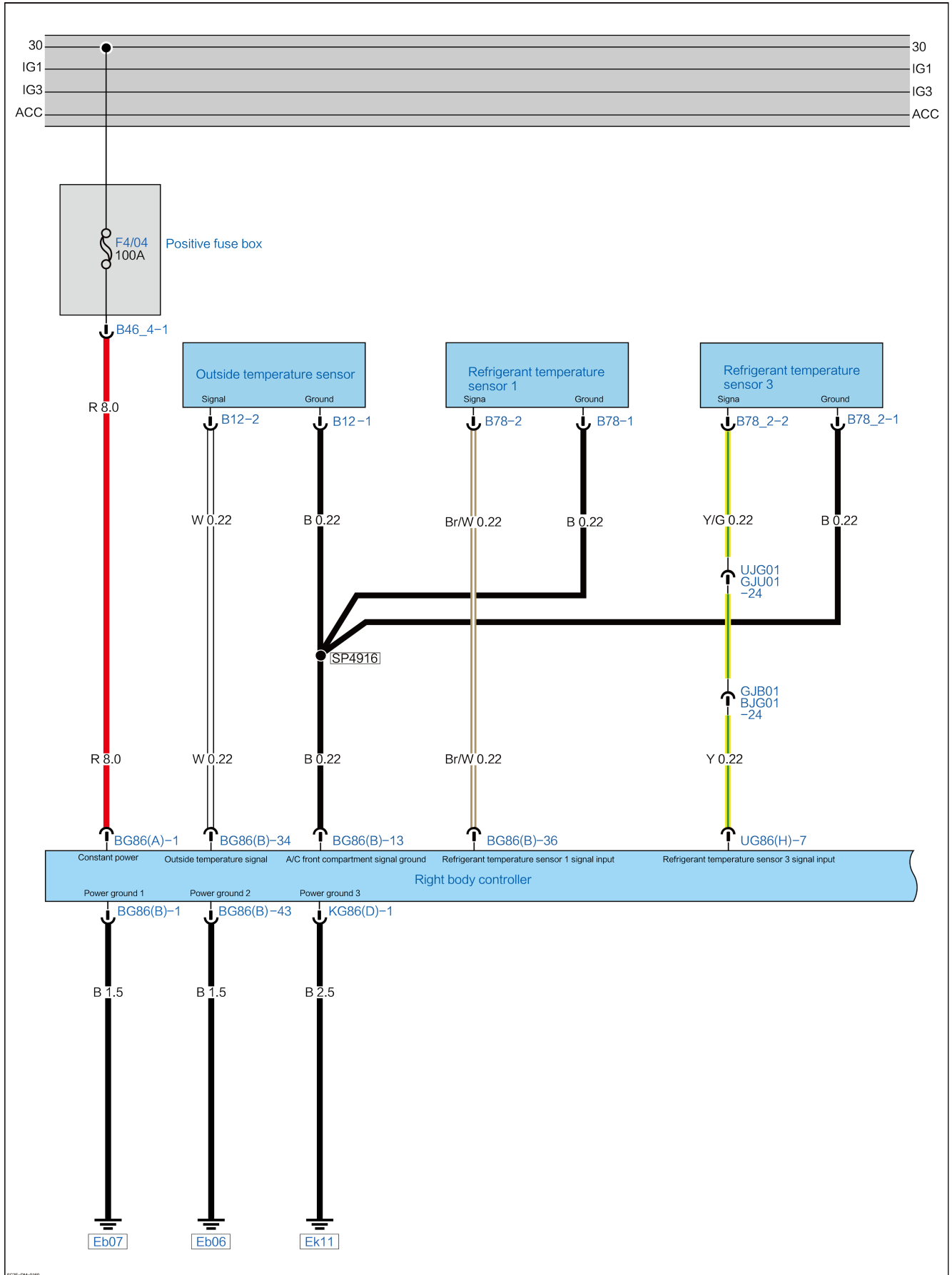
| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the right body control module. |

B134611 Refrigerant Temperature Sensor 1 Short to Ground

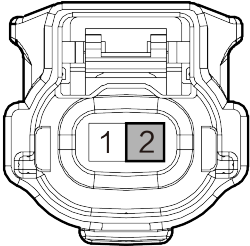
DTC Description

| B134611 Refrigerant Temperature Sensor 1 Short to Ground | |
|--|---|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or harness connector fault.2. Refrigerant temperature sensor 1 fault.3. The right body control module fails. |
| Fault setting conditions | The output voltage of the detection sensor is lower than 0.1 V. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--------------------------------|
| <p>Refrigerant temperature sensor 1</p> <div><p>B78</p><p>B78-01-010</p></div> | 2 | Temperature acquisition signal |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the refrigerant temperature sensor 1 harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of refrigerant temperature sensor 1 B78.
3. Check whether the refrigerant temperature sensor 1 harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the refrigerant temperature sensor 1. |
|---|---|

1. Measure the resistance value between the pins of the refrigerant temperature sensor 1 harness connector.

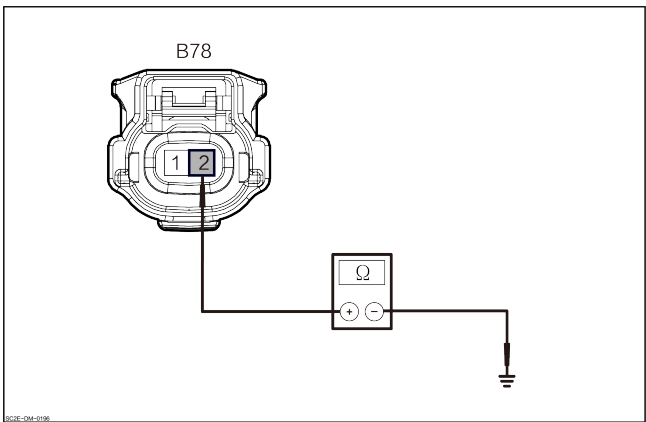
| Connector | | Condi- tion | Lower limit (kΩ) | Upper limit (kΩ) |
|-----------|-----|----------------|------------------------|------------------------|
| (+) | (-) | | | |
| 1 | 2 | -25°C | 126.4 | 134.7 |
| 1 | 2 | -10°C | 54.60 | 57.65 |
| 1 | 2 | 0°C | 32.25 | 33.69 |
| 1 | 2 | 10°C | 19.68 | 20.35 |
| 1 | 2 | 20°C | 12.37 | 12.67 |
| 1 | 2 | 30°C | 7.95 | 8.14 |
| 1 | 2 | 50°C | 3.51 | 3.66 |

2. Check whether the results are normal.

No → Replace the refrigerant temperature sensor 1.

Yes

4 Check the refrigerant temperature sensor 1 signal line for short circuit to ground.



1. Measure the resistance between the harness connector of refrigerant temperature sensor 1 B78-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B78-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

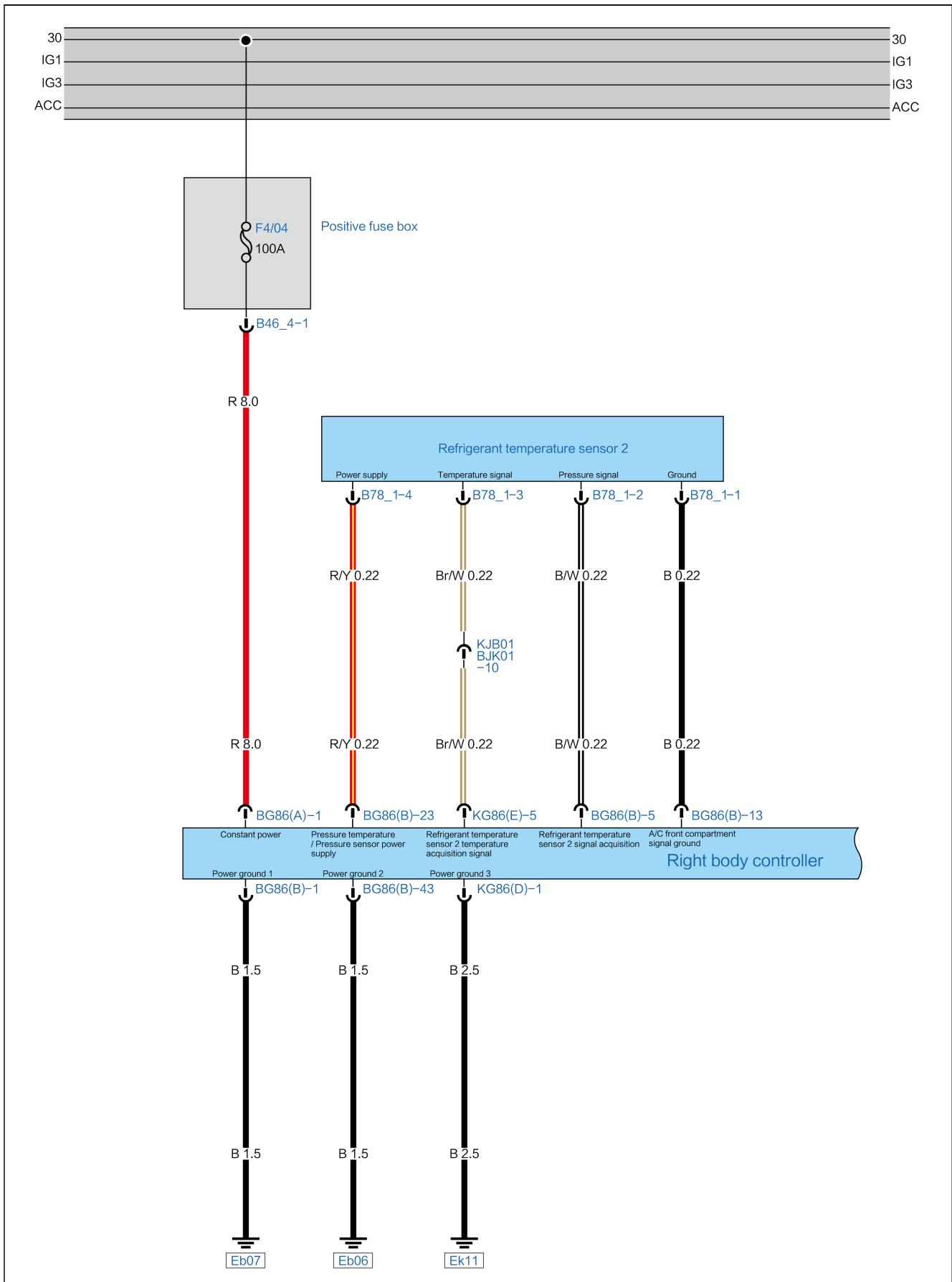
No → Repair or replace the wire harness

Yes → Replace the right body control module.

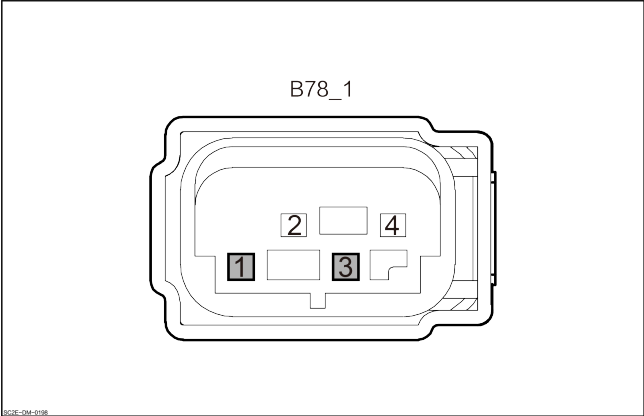
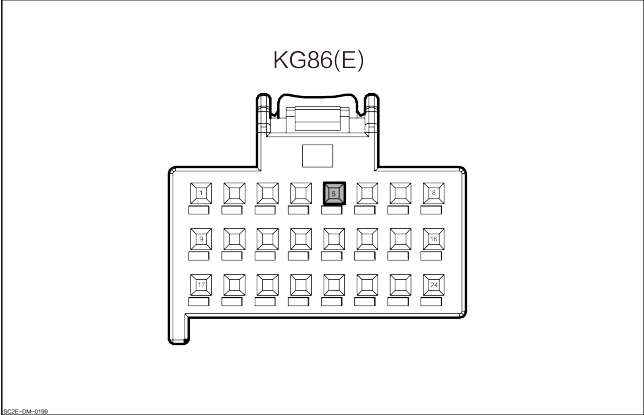
B133413 Refrigerant Temperature Sensor 2 Open-circuited**DTC Description**

| B133413 Refrigerant Temperature Sensor 2 Open-circuited | |
|---|---|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | 1. Harness or connector fault. 2. Refrigerant temperature sensor 2 fault. 3. The right body control module fails. |
| Fault setting conditions | The sensor output voltage detected is higher than 4.95V. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---|
| <p style="text-align: center;">Refrigerant temperature sensor 2</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B78_1</p> </div> | 1 | Ground |
| | 3 | Refrigerant temperature sensor 2 temperature signal |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">KG86(E)</p> </div> | 5 | Refrigerant temperature sensor 2 temperature signal |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the refrigerant temperature sensor 2 harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of refrigerant temperature sensor 2 B78_1
3. Check whether the refrigerant temperature sensor 2 harness connector is normal.

No Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the refrigerant temperature sensor 2. |
|---|---|

1. Measure the resistance value between the pins of the refrigerant temperature sensor 2 harness connector.

| Connector | | Condi- tion | Lower limit (kΩ) | Upper limit (kΩ) |
|-----------|-----|----------------|------------------------|------------------------|
| (+) | (-) | | | |
| 1 | 3 | -20℃ | 91.771 | 97.933 |
| 1 | 3 | 0℃ | 31.684 | 33.093 |
| 1 | 3 | 10℃ | 19.500 | 20.168 |
| 1 | 3 | 20℃ | 12.329 | 12.634 |
| 1 | 3 | 30℃ | 7.966 | 8.162 |
| 1 | 3 | 40℃ | 5.261 | 5.435 |

2. Check whether the results are normal.

No

Replace the refrigerant temperature sensor 2.

Yes

4 Check the harness connector of right body control module.

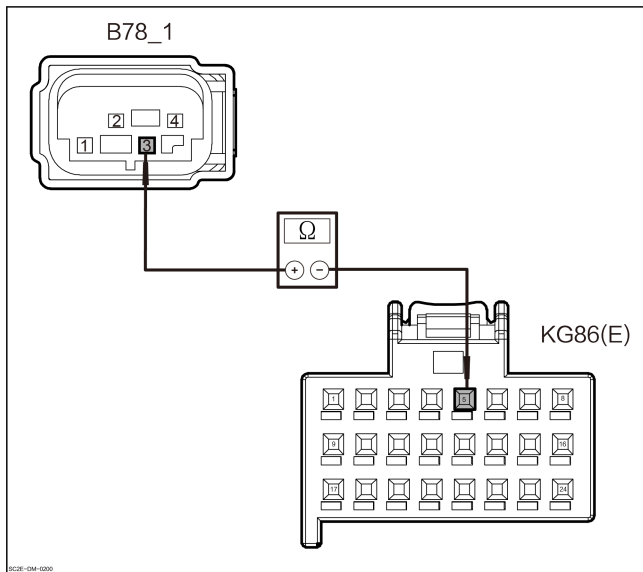
1. Disconnect the harness connector of right body control module BG86(E).
2. Check whether the harness connector of right body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the refrigerant temperature sensor 2 signal line for open circuit.



1. Measure the resistance between the harness connector B78_1-3 of refrigerant temperature sensor 2 and the harness connector of right body control module BG86(E)-5.

| Connector | | Condition | Resist- ance value |
|-----------|-----------|-----------------|--------------------------|
| (+) | (-) | | |
| B78_1-3 | BG86(E)-5 | Through- out | Lower than 1 Ω |

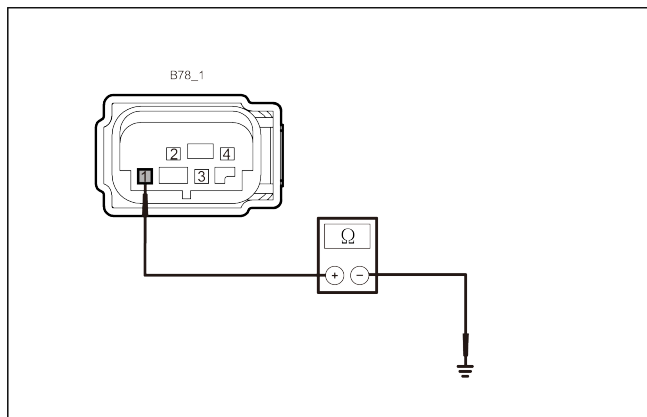
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

6 Check the refrigerant temperature sensor 2 ground line for open circuit.



1. Measure the resistance between the harness connector of refrigerant temperature sensor 2 (B78_1-1) and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B78_1-1 | Ground | Through- out | Lower than 1 Ω |

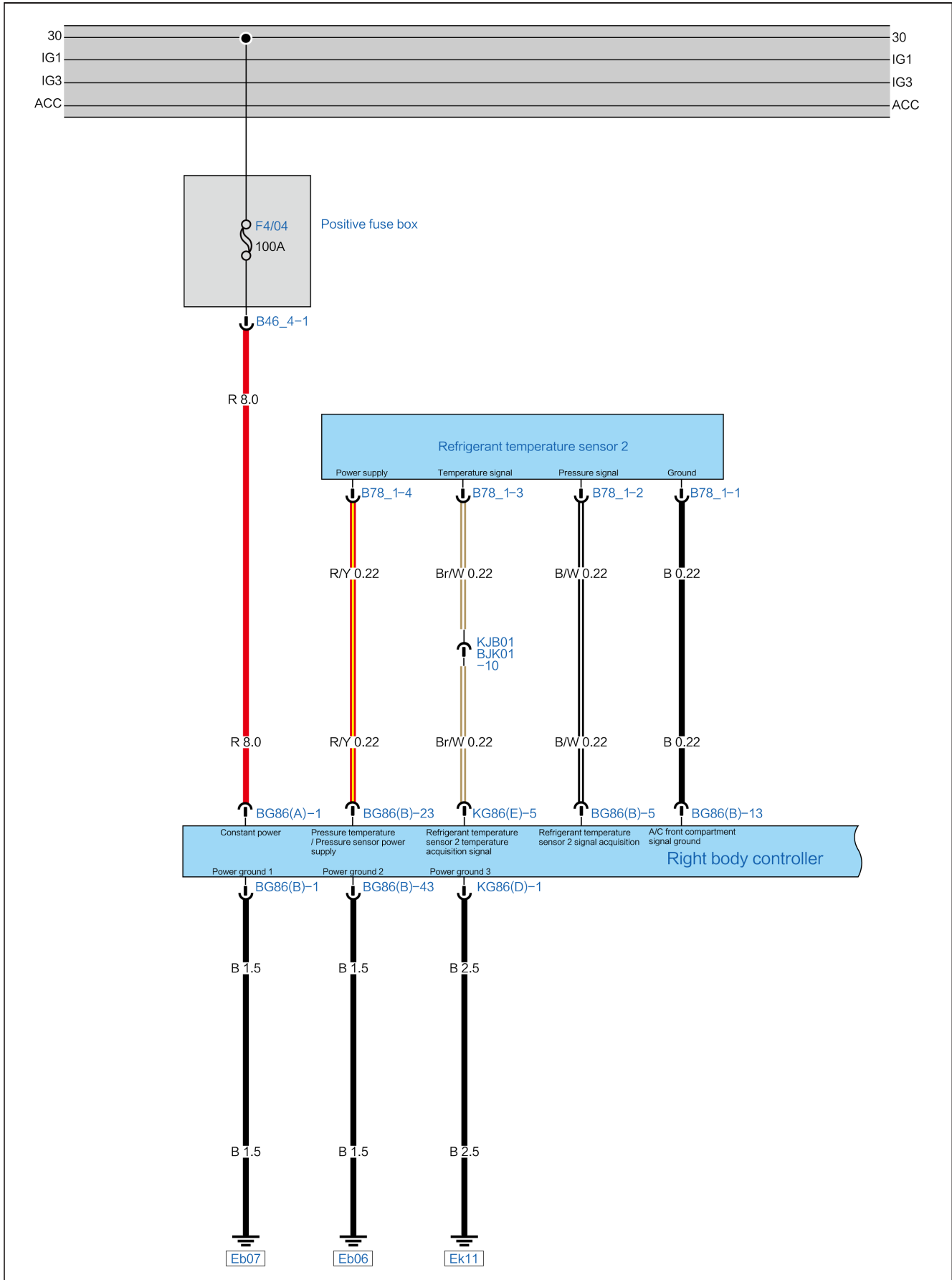
2. Check whether the results are normal.

| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the right body control module. |

B133511 Refrigerant temperature sensor 2 is short to ground**DTC Description**

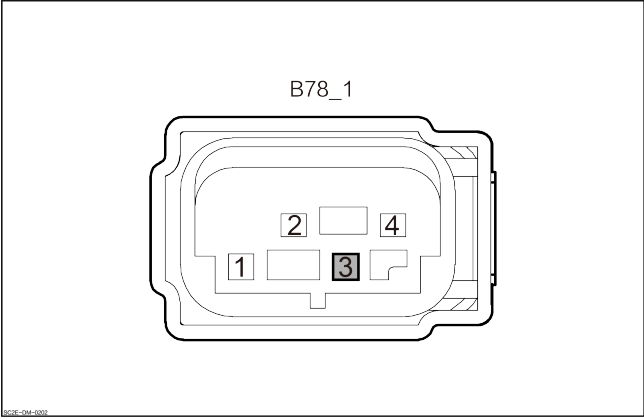
| 133511 Refrigerant temperature sensor 2 is short to ground | |
|--|---|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | 1. Harness or harness connector fault. 2. Refrigerant temperature sensor 2 fault. 3. The right body control module fails. |
| Fault setting conditions | The output voltage of the detection sensor is lower than 0.1 V. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



AC38-094-0197

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Refrigerant temperature sensor 2</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B78_1</p> </div> <p style="font-size: small; margin-top: 10px;">B78_1</p> | <p>3</p> | <p>Refrigerant temperature sensor 2 temperature signal</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the refrigerant temperature sensor 2 harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of refrigerant temperature sensor 2 B78_1.
3. Check whether the refrigerant temperature sensor 2 harness connector is normal.

No → Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the refrigerant temperature sensor 2. |
|---|---|

1. Measure the resistance value between the pins of the refrigerant temperature sensor 2 harness connector.

| Connector | | Condi- tion | Lower limit (kΩ) | Upper limit (kΩ) |
|-----------|-----|----------------|------------------------|------------------------|
| (+) | (-) | | | |
| 1 | 3 | -20℃ | 91.771 | 97.933 |
| 1 | 3 | 0℃ | 31.684 | 33.093 |
| 1 | 3 | 10℃ | 19.500 | 20.168 |
| 1 | 3 | 20℃ | 12.329 | 12.634 |
| 1 | 3 | 30℃ | 7.966 | 8.162 |
| 1 | 3 | 40℃ | 5.261 | 5.435 |

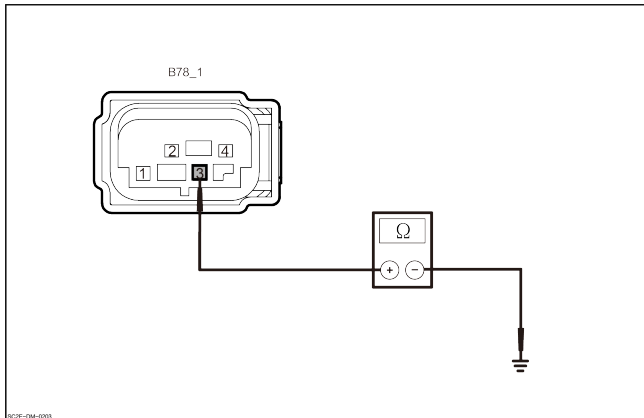
2. Check whether the results are normal.

No

Replace the refrigerant temperature sensor 2.

Yes

4 Check the refrigerant temperature sensor 2 signal line for short circuit to ground.



1. Measure the resistance between the harness connector of refrigerant temperature sensor 2 (B78_1-3) and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B78_1-3 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

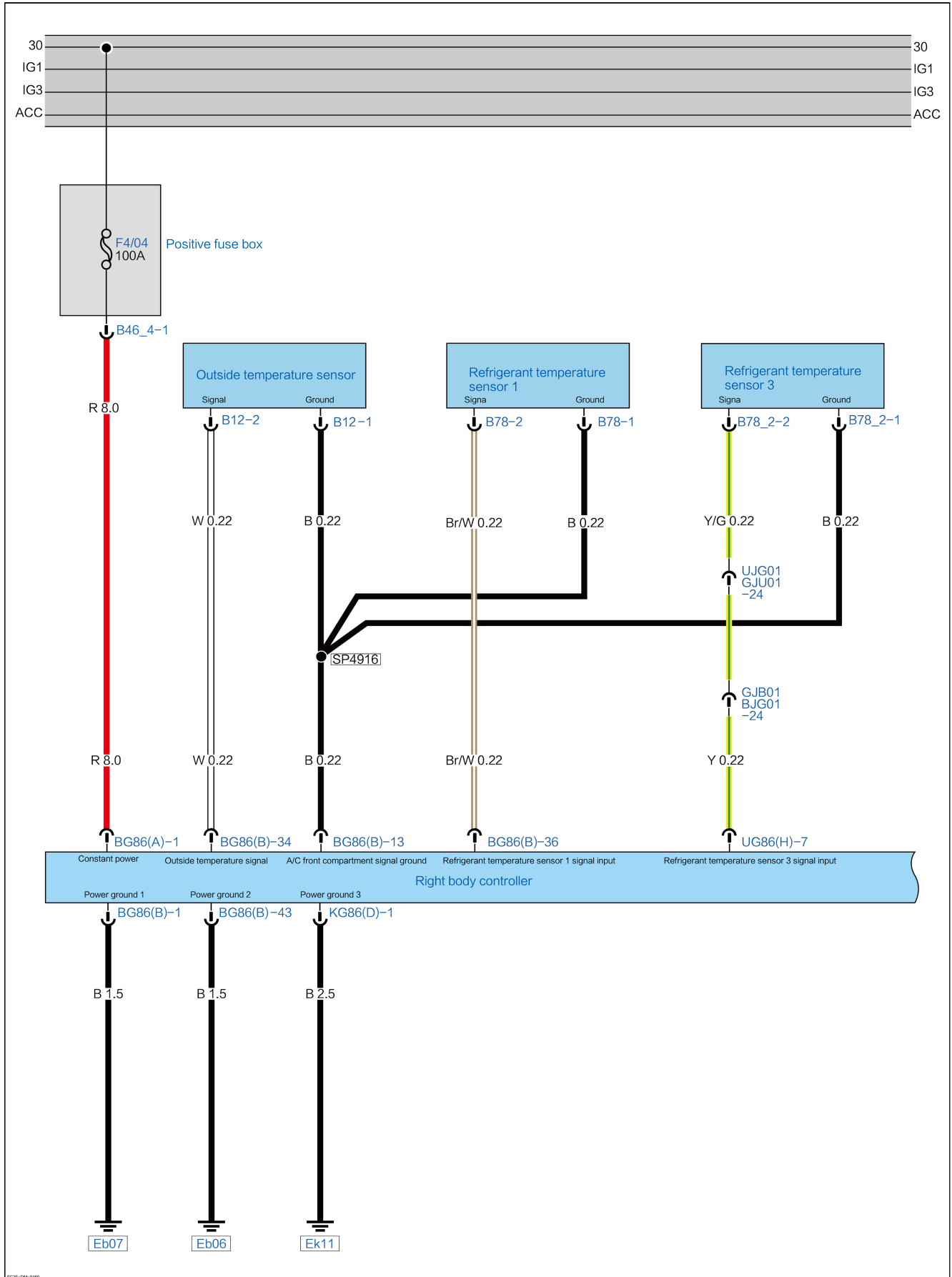
Replace the right body control module.

B133613 Open circuit of refrigerant temperature sensor 3

DTC Description

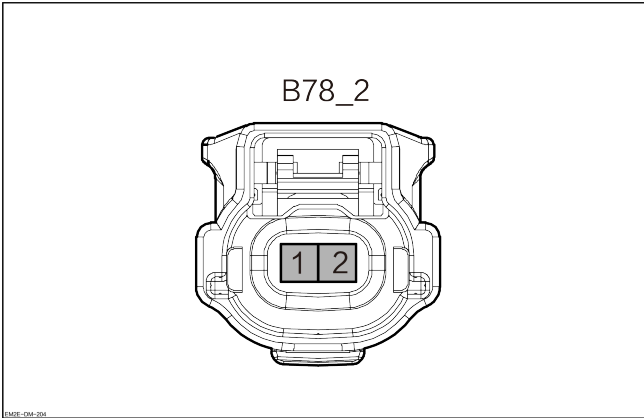
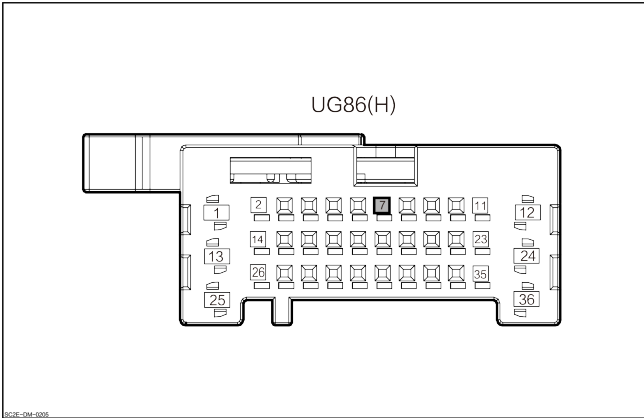
| B1336 Refrigerant Temperature Sensor 3 Open-circuited | |
|---|---|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or harness connector fault. 2. Refrigerant temperature sensor 3 fault. 3. The right body control module fails. |
| Fault setting conditions | The sensor output voltage detected is higher than 4.95V. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



6C2F-04-0160

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p>Refrigerant temperature sensor 3</p>  <p style="text-align: center;">B78_2</p> | 1 | Ground |
| <p>Right body control module</p>  <p style="text-align: center;">UG86(H)</p> | 7 | Refrigerant temperature sensor 3 signal |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the refrigerant temperature sensor 3 harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of refrigerant temperature sensor 3 B78_2.
3. Check whether the refrigerant temperature sensor 3 harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the refrigerant temperature sensor 3. |
|---|---|

1. Measure the resistance value between the pins of the refrigerant temperature sensor 3 harness connector.

| Connector | | Condi- tion | Lower limit (kΩ) | Upper limit (kΩ) |
|-----------|-----|----------------|------------------------|------------------------|
| (+) | (-) | | | |
| 1 | 2 | -20℃ | 91.771 | 97.933 |
| 1 | 2 | 0℃ | 31.684 | 33.093 |
| 1 | 2 | 10℃ | 19.500 | 20.168 |
| 1 | 2 | 20℃ | 12.329 | 12.634 |
| 1 | 2 | 30℃ | 7.966 | 8.162 |
| 1 | 2 | 40℃ | 5.261 | 5.435 |

2. Check whether the results are normal.

No

Replace the refrigerant temperature sensor 3.

Yes

4 Check the harness connector of right body control module.

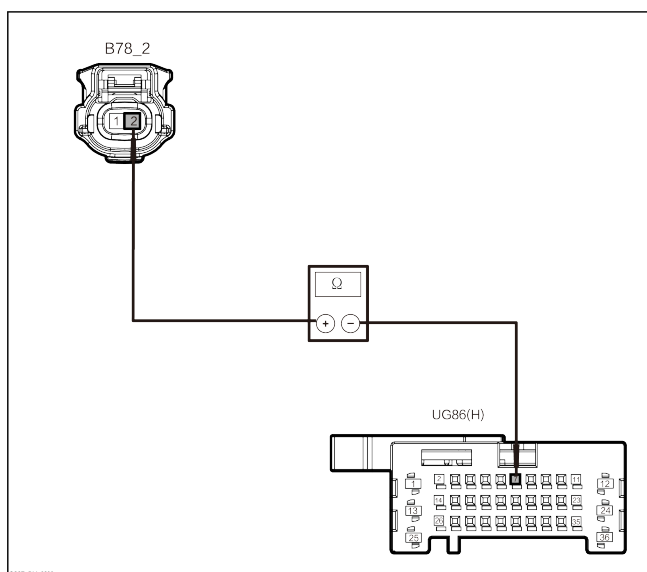
1. Disconnect the harness connector of right body control module UG86(H).
2. Check whether the harness connector of right body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the refrigerant temperature sensor 3 signal line for open circuit.



1. Measure the resistance between the harness connector of refrigerant temperature sensor 3 (B78_2-2) and the harness connector of right body control module UG86 (H)-7.

| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| B78_2-2 | UG86(H) -7 | Through- out | Lower than 1 Ω |

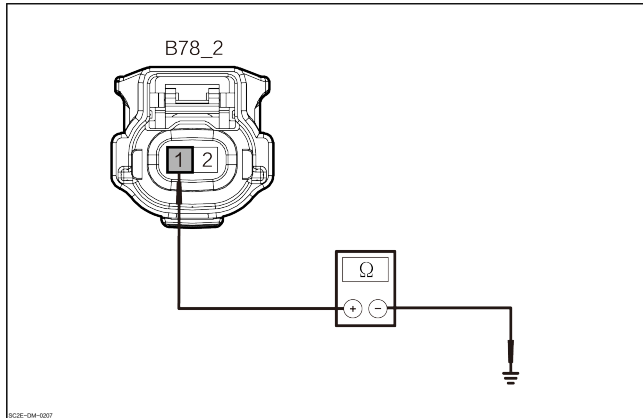
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

6 Check the refrigerant temperature sensor 3 ground line for open circuit.



1. Measure the resistance between the harness connector of refrigerant temperature sensor 3 (B78_2-1) and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B78_2-1 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

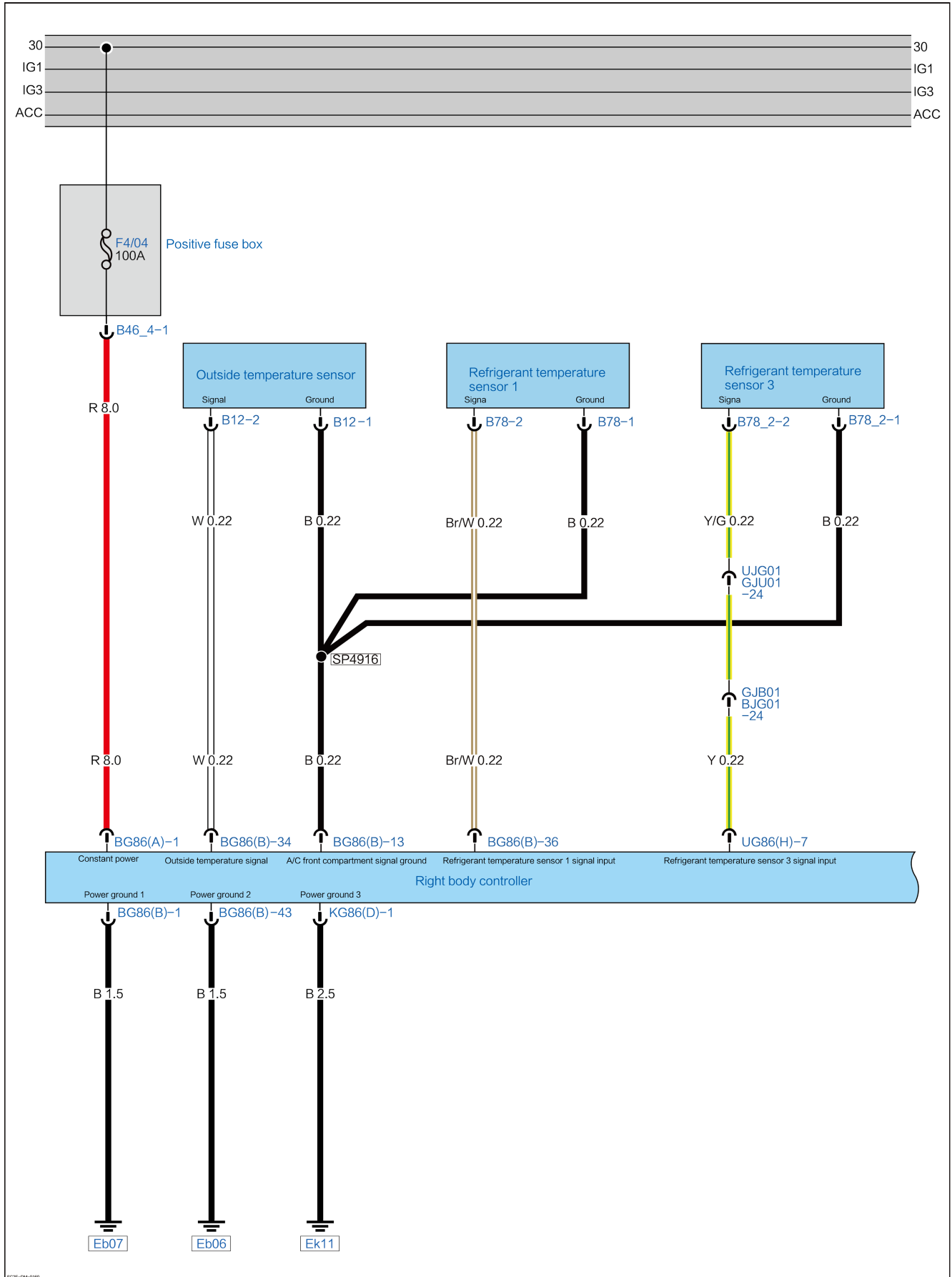
| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the right body control module. |

B133711 Refrigerant Temperature Sensor 3 Short to Ground

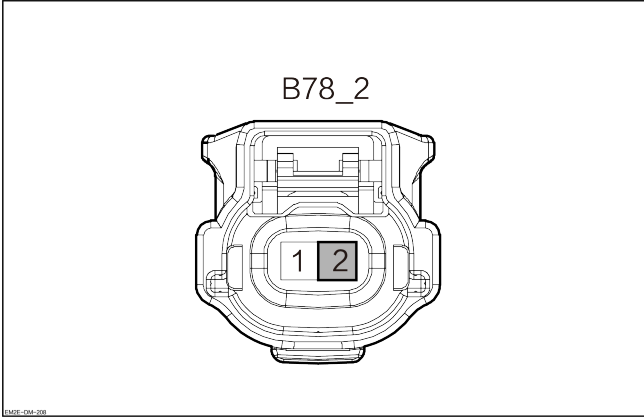
DTC Description

| B133711 Refrigerant Temperature Sensor 3 Short to Ground | |
|--|---|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or harness connector fault.2. Refrigerant temperature sensor 3 fault.3. The right body control module fails. |
| Fault setting conditions | The output voltage of the detection sensor is lower than 0.1 V. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p>Refrigerant temperature sensor 3</p>  <p>The diagram shows a top-down view of a multi-pin connector labeled B78_2. The connector has a central circular area with two terminals labeled '1' and '2'. Terminal '2' is highlighted with a grey background. The connector has a complex, multi-faceted shape with several locking points around the perimeter.</p> | <p>2</p> | <p>Refrigerant temperature sensor 3 signal</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the refrigerant temperature sensor 3 harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of refrigerant temperature sensor 3 B78_2.
3. Check whether the refrigerant temperature sensor 3 harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the refrigerant temperature sensor 3. |
|---|---|

1. Measure the resistance value between the pins of the refrigerant temperature sensor 3 harness connector.

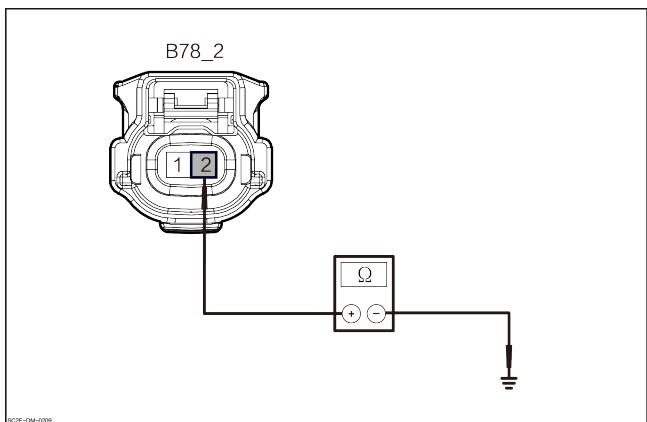
| Connector | | Condi- tion | Lower limit (kΩ) | Upper limit (kΩ) |
|-----------|-----|----------------|------------------------|------------------------|
| (+) | (-) | | | |
| 1 | 2 | -20℃ | 91.771 | 97.933 |
| 1 | 2 | 0℃ | 31.684 | 33.093 |
| 1 | 2 | 10℃ | 19.500 | 20.168 |
| 1 | 2 | 20℃ | 12.329 | 12.634 |
| 1 | 2 | 30℃ | 7.966 | 8.162 |
| 1 | 2 | 40℃ | 5.261 | 5.435 |

2. Check whether the results are normal.

No → Replace the refrigerant temperature sensor 3.

Yes

4 Check the refrigerant temperature sensor 3 signal line for short circuit to ground.



1. Measure the resistance between the harness connector of refrigerant temperature sensor 3 (B78_2-2) and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B78_2-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

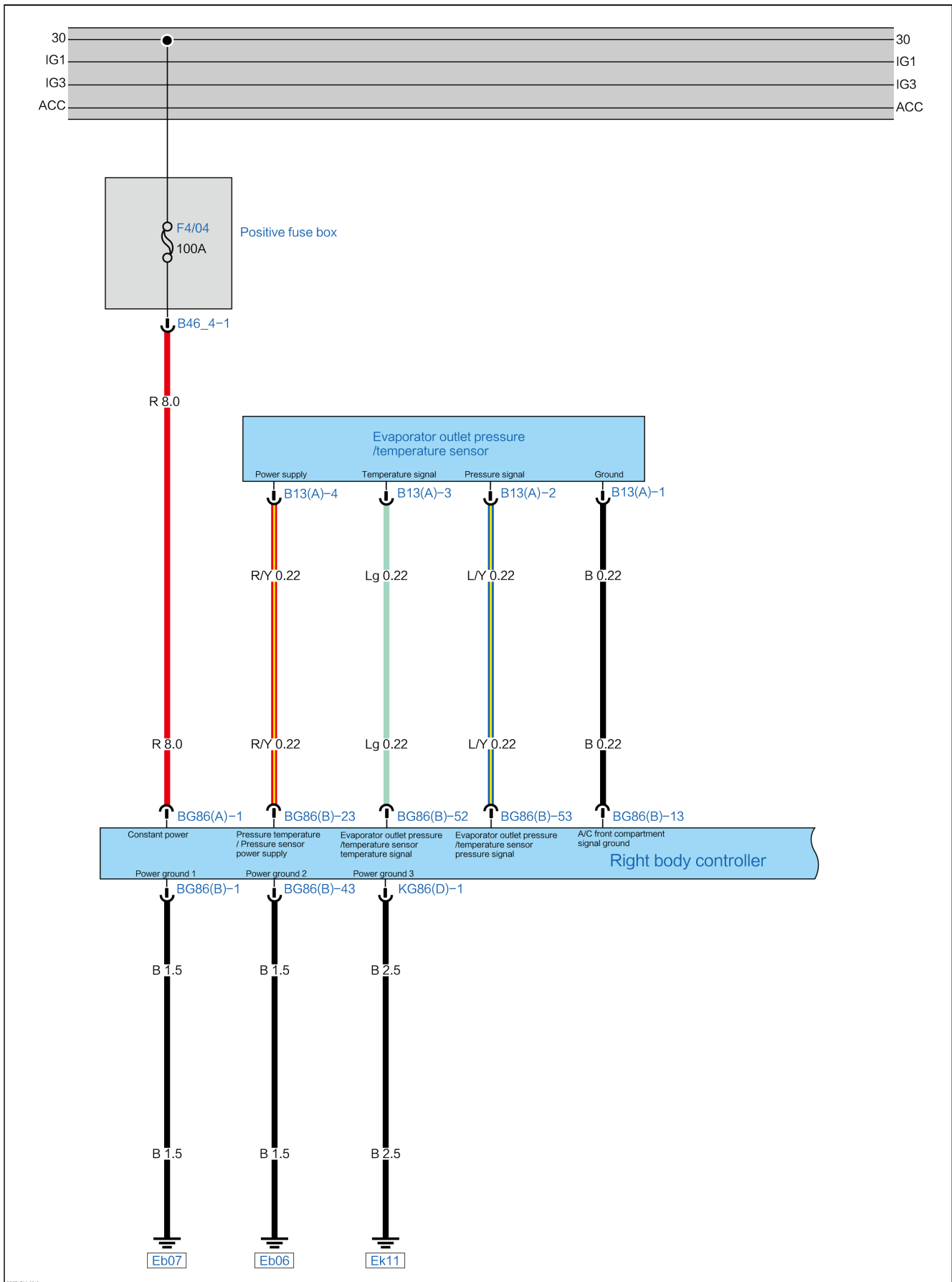
No → Repair or replace the wire harness

Yes → Replace the right body control module.

B2A0803 Evaporator Outlet Refrigerant Pressure Sensor Open-circuited**DTC Description**

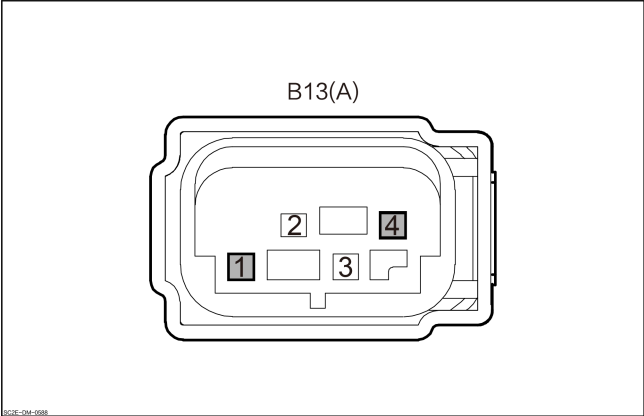
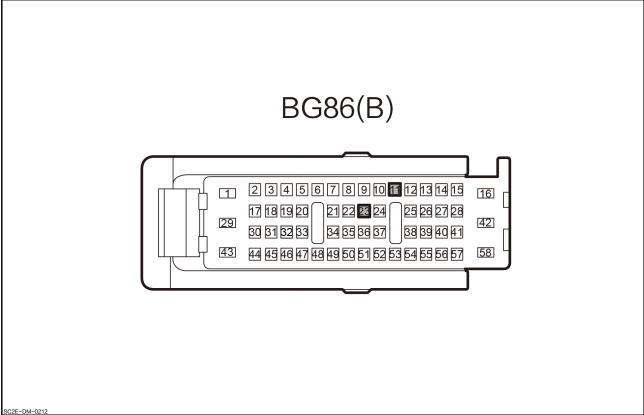
| B2A0803 Evaporator Outlet Refrigerant Pressure Sensor Open-circuited | |
|--|--|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | 1. Harness or harness connector fault. 2. Evaporator outlet refrigerant pressure sensor fault. 3. The right body control module fails. |
| Fault setting conditions | The sensor output voltage detected is higher than 4.95V. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



SC26-094-0210

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---|
| <p>Evaporator outlet refrigerant pressure sensor</p>  <p>B13(A)</p> | 1 | Evaporator outlet refrigerant pressure sensor GND. |
| | 4 | Power supply of evaporator outlet refrigerant pressure sensor |
| <p>Right body control module</p>  <p>BG86(B)</p> | 13 | Evaporator outlet refrigerant pressure sensor GND. |
| | 23 | Power supply of evaporator outlet refrigerant pressure sensor |

Diagnostic Steps

1 Check the DTC of right body control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

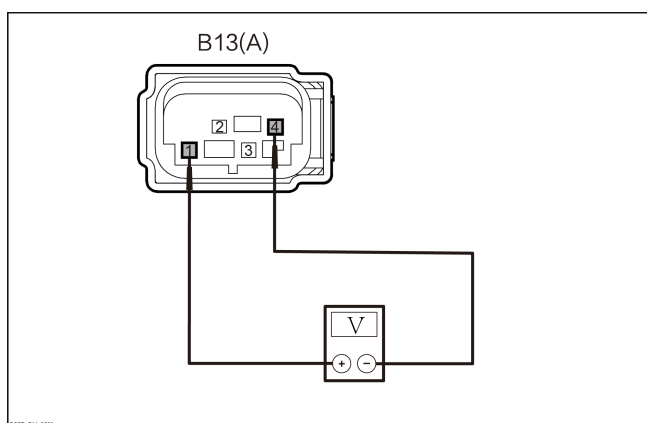
2 Check the evaporator refrigerant pressure sensor harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the evaporator refrigerant pressure sensor harness connector B13 (A).
3. Check whether the evaporator refrigerant pressure sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check the power supply of evaporator outlet refrigerant pressure sensor.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the evaporator refrigerant pressure sensor harness connector B13 (A) –1 and the evaporator refrigerant pressure sensor harness connector B13 (A) –4.

| Connector | | Condition | Voltage value |
|-----------|----------|-------------|---------------|
| (+) | (-) | | |
| B13(A)-1 | B13(A)-4 | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace the evaporator outlet refrigerant pressure sensor.

No

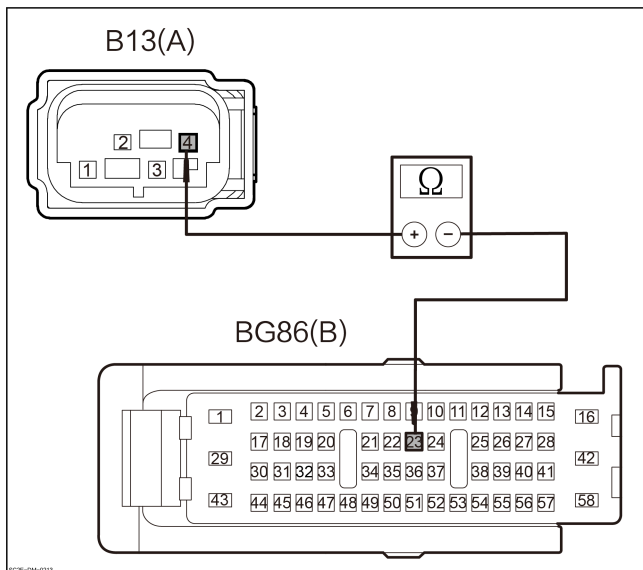
4 Check the harness connector of right body control module.

1. Disconnect the harness connector of right body control module BG86(B).
2. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

5 Check the power supply line of evaporator outlet refrigerant pressure sensor for open circuit.



1. Measure the resistance between the harness connector of evaporator outlet refrigerant pressure sensor B13(A)-4 and the harness connector of right body control module BG86(B)-23.

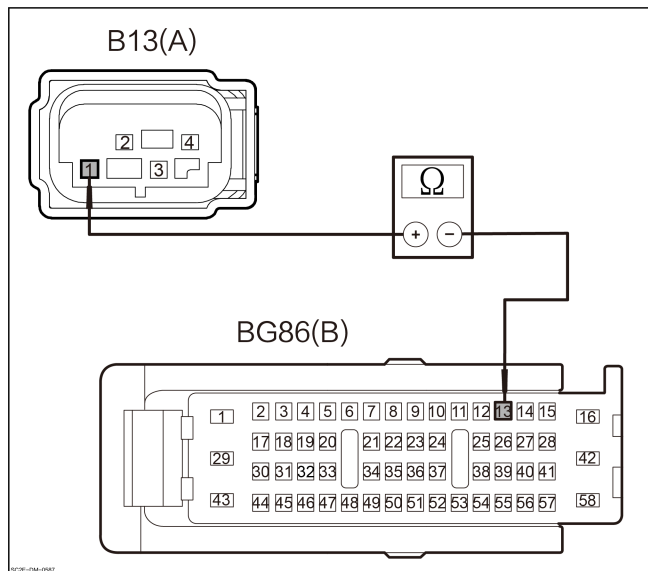
| Connector | | Condition | Resist- ance value |
|-----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| B13(A)-4 | BG86(B)-23 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check the evaporator outlet refrigerant pressure sensor ground line for open circuit.



1. Measure the resistance between the harness connector of evaporator outlet refrigerant pressure sensor B13(A)-1 and the harness connector of right body control module BG86(B)-13.

| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| B13(A)-1 | BG86(B)- 13 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

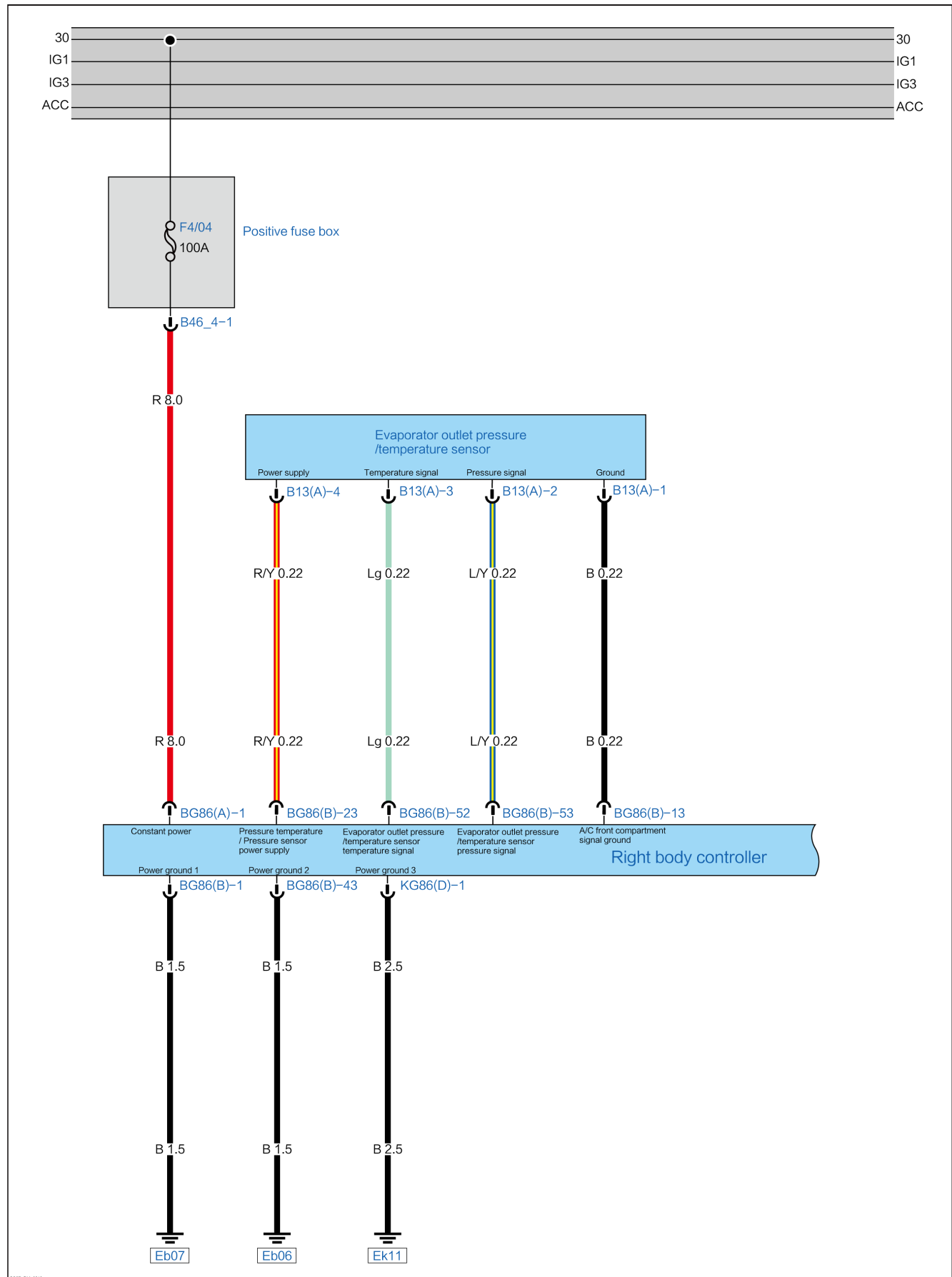
| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the right body control module. |

B2A0801 Evaporator Outlet Refrigerant Pressure Sensor Short to Power

DTC Description

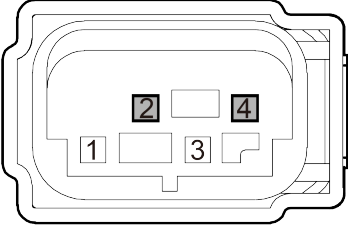
| B2A0801 Evaporator Outlet Refrigerant Pressure Sensor Short to Power | |
|--|--|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or harness connector fault.2. Evaporator outlet refrigerant pressure sensor fault.3. The right body control module fails. |
| Fault setting conditions | When the evaporator outlet refrigerant pressure sensor line is short-circuited to other power supplies, this DTC will be generated in the continuous memory and as needed. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



SC26-09-0210

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|--------------------------------------|--|
| <p>Evaporator outlet refrigerant pressure sensor</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>B13</p>  </div> | <p>2</p> | <p>Pressure signal</p> |
| | <p>4</p> | <p>Power supply</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

 Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the evaporator outlet pressure temperature sensor harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the evaporator outlet pressure temperature sensor harness connector B13 (A).
3. Check whether the evaporator outlet pressure temperature sensor harness connector is normal.

No

 Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the pressure feedback signal of evaporator temperature and pressure sensor. |
|---|---|

1. Set the START/STOP button to “ON” .
2. Connect the evaporator outlet pressure and temperature sensor harness connector B13 (A).
3. Measure the voltage value between EPS sensor feedback signal B13 (A)-2 and ground from the rear lead.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|---------------|
| (+) | (-) | | |
| B13(B)-2 | Ground | Turn on the air | 0~5V |

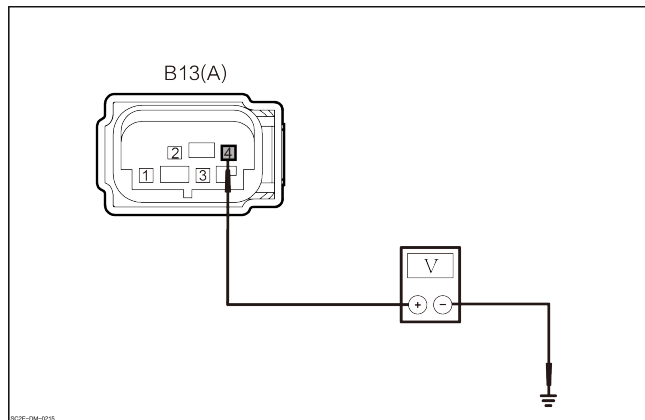
| | | | |
|----------|--------|---|----|
| | | condi- tioner | |
| B13(B)-2 | Ground | Turn off the air condi- tioner | 5V |

4. Check whether the results are normal.

Yes → Replace the right body control module.

No

| | |
|---|---|
| 4 | Check whether the evaporator outlet pressure and temperature sensor line is shorted to power. |
|---|---|



1. Disconnect the evaporator outlet pressure temperature sensor harness connector B13 (A).
2. Measure the voltage value between the evaporator outlet pressure temperature sensor outlet sensor harness connector B13 (A)-4 and ground.

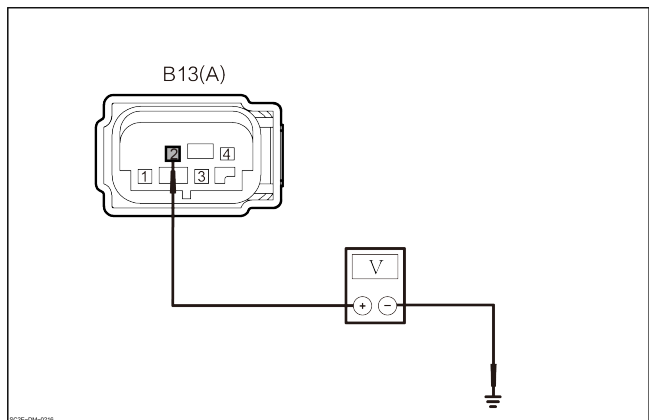
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B13(A)-4 | Ground | Through-out | Not exist |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

| | |
|---|--|
| 5 | Check the evaporator outlet pressure and temperature sensor signal line for short circuit. |
|---|--|



1. Measure the voltage value between the evaporator outlet pressure temperature sensor harness connector B13 (A)-2 and ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B13(A)-2 | Ground | Through-out | Not exist |

2. Check whether the results are normal.

- No

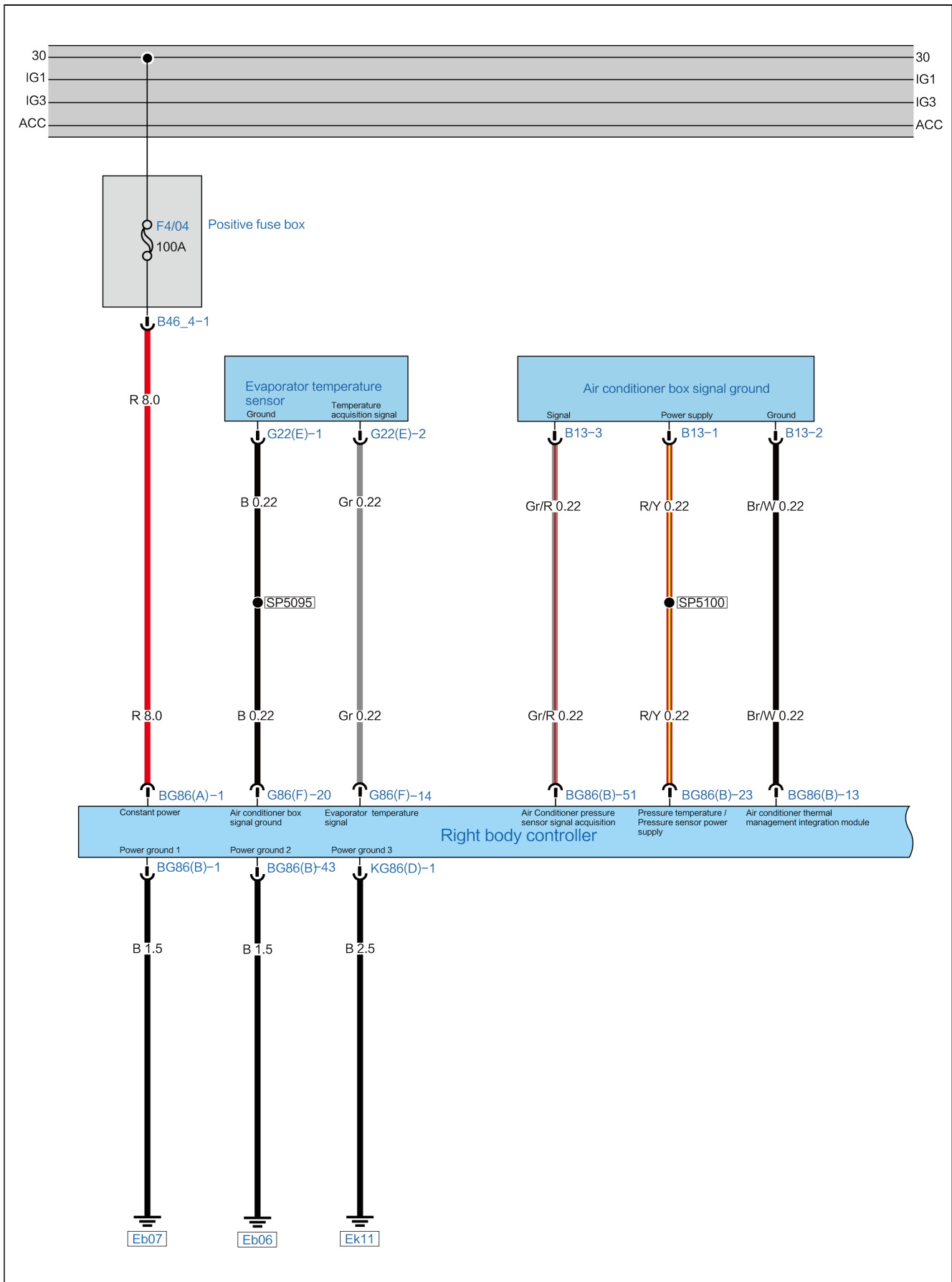
Repair or replace the wire harness
- Yes

Replace the evaporator outlet pressure temperature sensor.

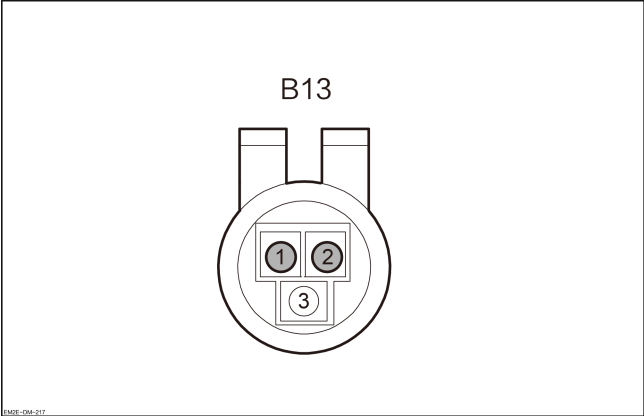
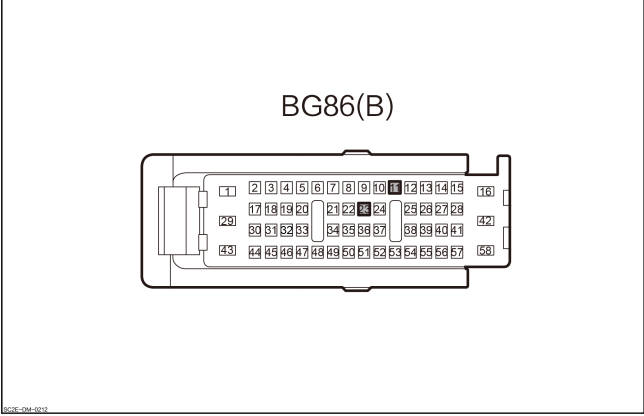
B134713 Air Conditioner Pressure Sensor Open-circuited**DTC Description**

| B134713 Air conditioner pressure sensor P1 broken circuit | |
|---|--|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | 1. Harness or connector fault. 2. A/C pressure sensor fault. 3. The right body control module fails. |
| Fault setting conditions | The sensor output voltage detected is higher than 4.95V. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Air conditioner pressure sensor</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B13</p> </div> <p style="font-size: small; margin-top: 10px;">B13E-DM-217</p> | 1 | Power supply |
| | 2 | Ground |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">BG86(B)</p> </div> <p style="font-size: small; margin-top: 10px;">BG86-DM-0173</p> | 13 | Ground |
| | 23 | Power supply |

Diagnostic Steps

1 Check the DTC of right body control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

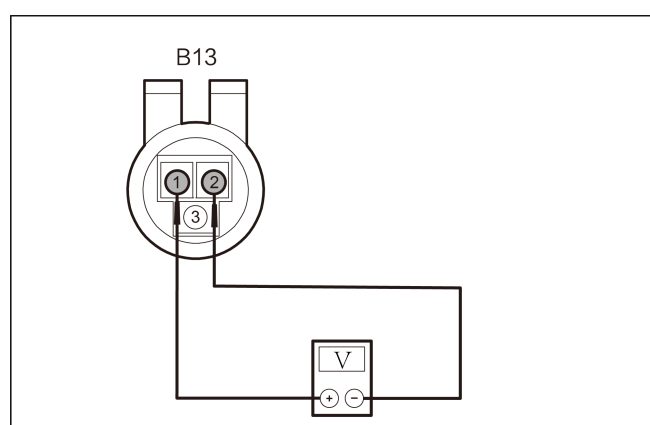
2 Check the A/C pressure sensor harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the A/C pressure sensor harness connector B13.
3. Check whether the A/C pressure sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check the power supply of A/C pressure sensor.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the A/C pressure sensor harness connector B13-1 and the A/C pressure sensor harness connector B13-2.

| Connector | | Condition | Voltage value |
|-----------|-------|-------------|---------------|
| (+) | (-) | | |
| B13-1 | B13-2 | Through-out | 5V |

3. Check whether the results are normal.

Yes → Replace the A/C pressure sensor.

No

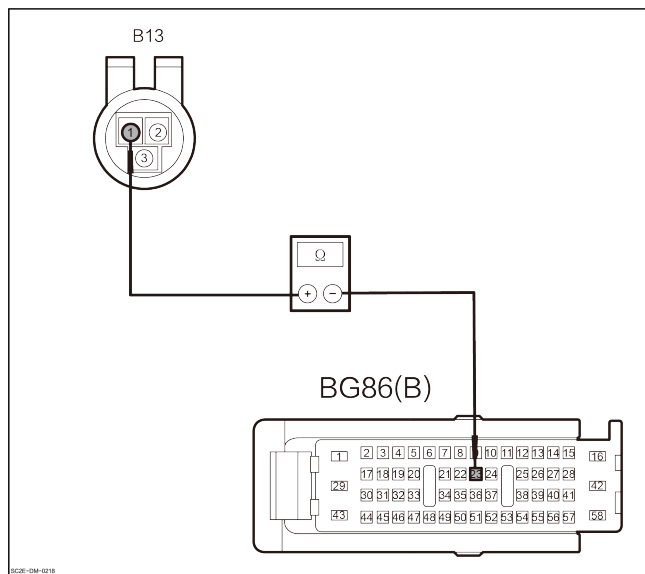
4 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module BG86(B).
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

5 Check whether the A/C pressure sensor power line is open circuited.



1. Measure the resistance between the harness connector of air conditioner pressure sensor B13-1 and harness connector of right body control module BG86(B)-23.

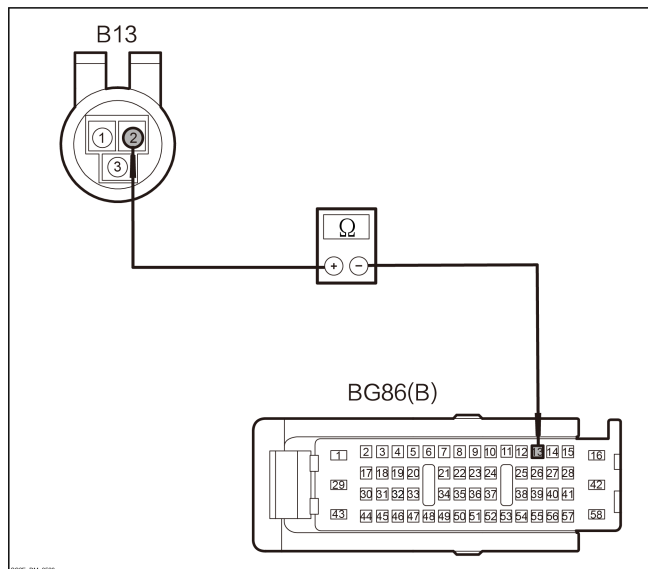
| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| B13-1 | BG86(B)- 23 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check whether the A/C pressure sensor ground line is open circuited.



1. Measure the resistance between the harness connector of air conditioner pressure sensor B13-2 and harness connector of right body control module BG86(B)-13.

| Connector | | Condition | Resist- ance value |
|-----------|----------------|-----------------|--------------------------|
| (+) | (-) | | |
| B13-2 | BG86(B)- 13 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

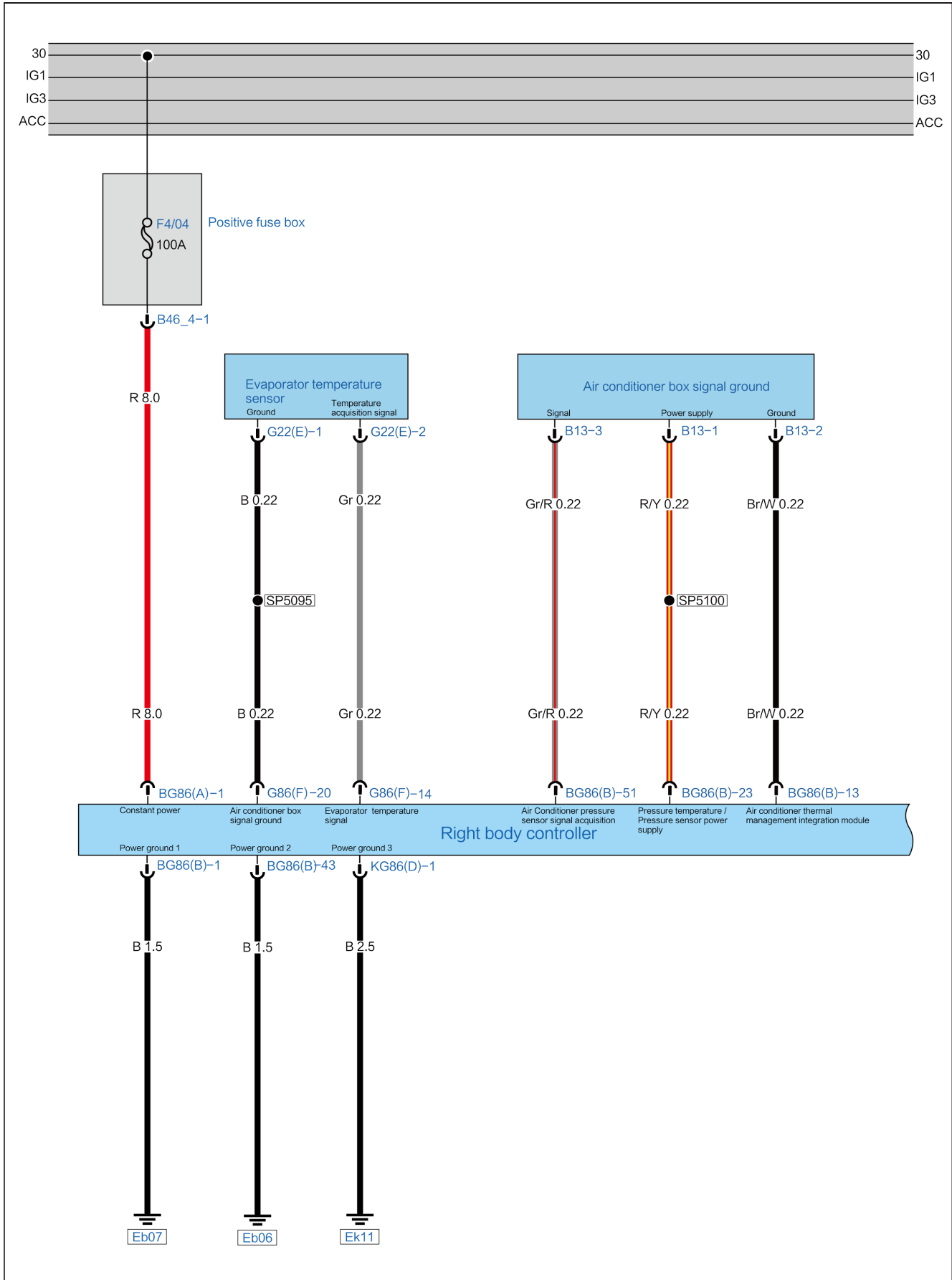
| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the right body control module. |

B134711 Air Conditioner Pressure Sensor Short to Power

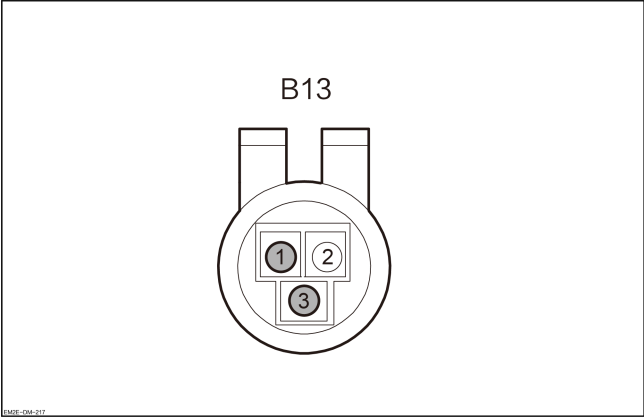
DTC Description

| B134711 Air conditioner pressure sensor is short to power | |
|---|--|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or harness connector fault.2. A/C pressure sensor fault.3. The right body control module fails. |
| Fault setting conditions | When the line of air conditioner pressure sensor is short to other power supplies, this DTC is generated in continuous memory or as necessary. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Air conditioner pressure sensor</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B13</p> </div> <p style="font-size: small; margin-top: 10px;">B13E-DIM-217</p> | 1 | 5V power supply |
| | 3 | Output signal |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the A/C pressure sensor harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the A/C pressure sensor harness connector B13.
3. Check whether the A/C pressure sensor harness connector is normal.

No → Repair or replace the wire harness

Yes

| | |
|---|--|
| 3 | Check the pressure feedback signal of A/C pressure sensor. |
|---|--|

1. Set the START/STOP button to “ON” .
2. Connect the A/C pressure sensor harness connector B13.
3. Measure the voltage value between the A/C sensor feedback signal B13-3 and the ground from the back lead.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------------------|---------------|
| (+) | (-) | | |
| B78(B)-3 | Ground | Turn on the air conditioner | 0~5V |
| B78(B)-3 | Ground | Turn off the air | 5V |

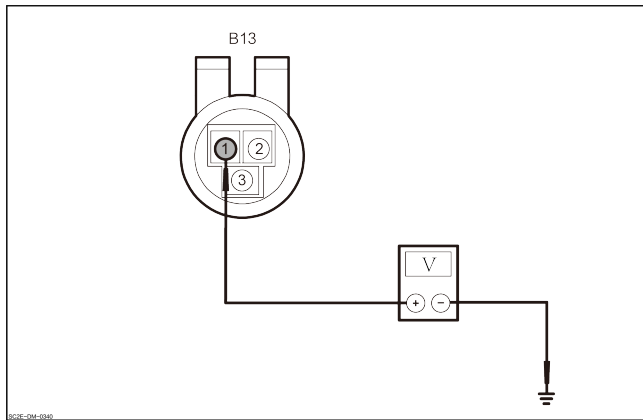
| | | | |
|--|--|------------------|--|
| | | condi- tioner | |
|--|--|------------------|--|

4. Check whether the results are normal.

Yes → Replace the right body control module.

No

4 Check the power line of the A/C pressure sensor for short circuit to the power supply.



1. Disconnect the A/C pressure sensor harness connector B13.
2. Measure the voltage between the harness connector of air conditioner pressure sensor B13-1 and the ground.

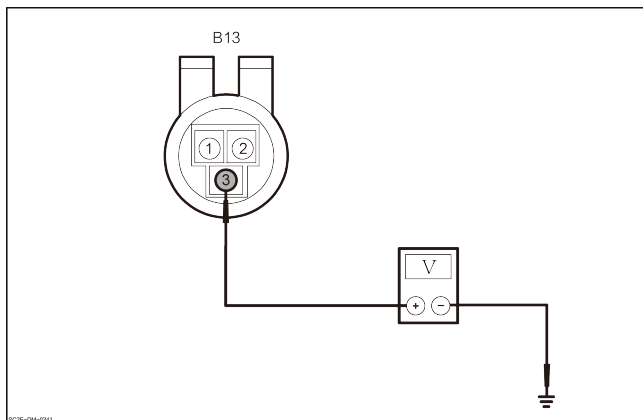
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B13-1 | Ground | Through-out | Not exist |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check whether pressure signal line of the A/C pressure sensor is connected to the power supply.



1. Measure the voltage between the harness connector of air conditioner pressure sensor B13-3 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B13-3 | Ground | Through-out | Not exist |

2. Check whether the results are normal.

No → Repair or replace the wire harness

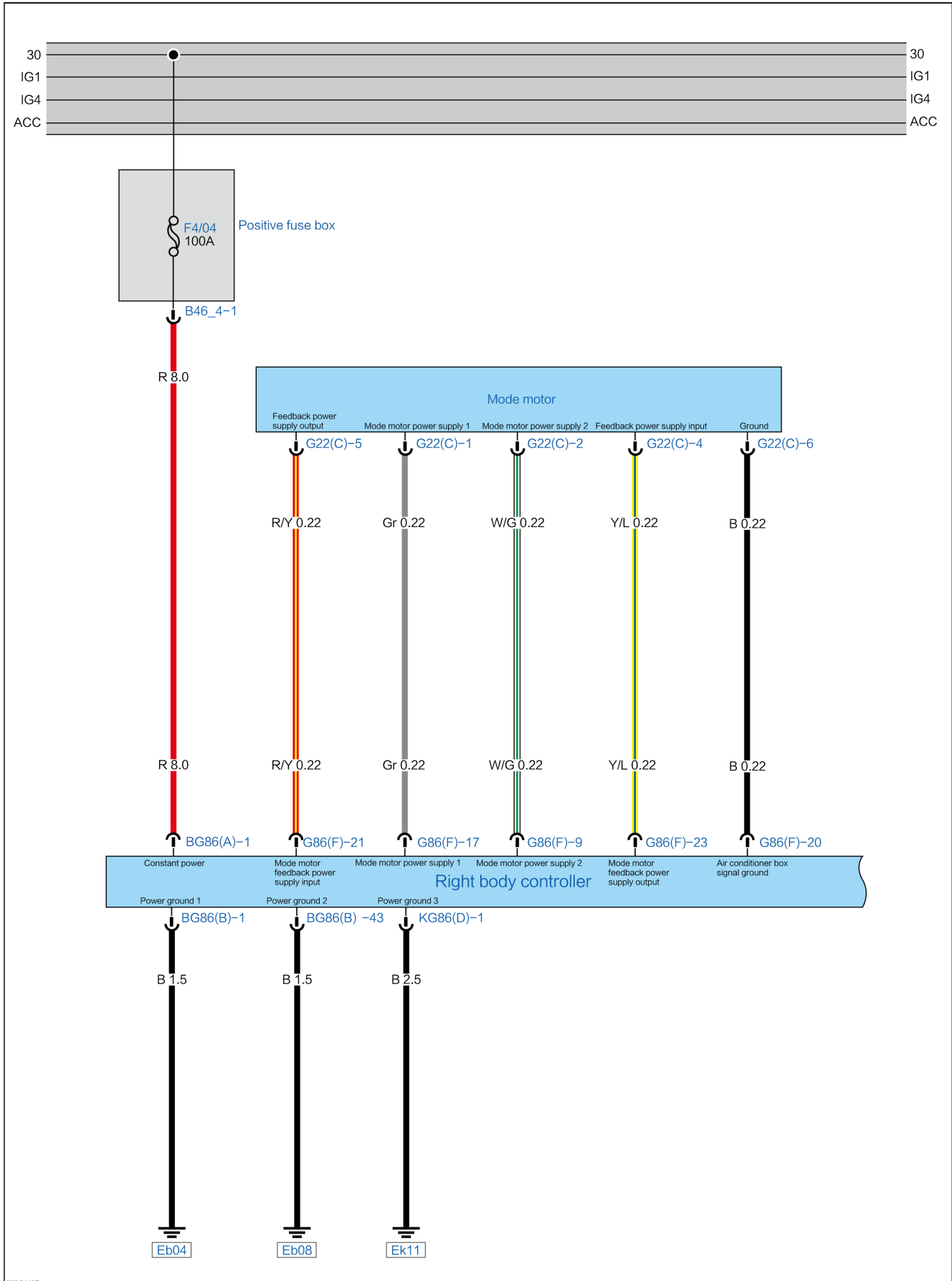
Yes

Replace the A/C pressure sensor.

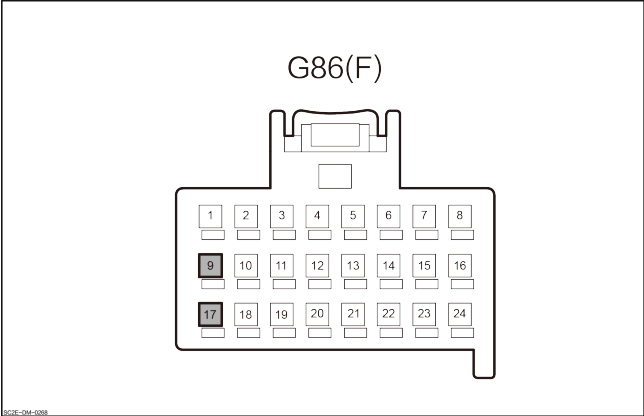
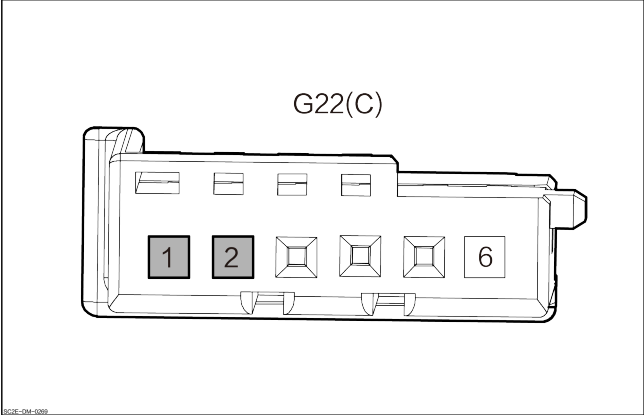
B2A2A14 Mode Motor Short to Ground or Open-circuited**DTC Description**

| B2A2A14 Mode Motor Short to Ground or Open-circuited | |
|--|--|
| Symptom | A/C mode fails. |
| Possible Cause | 1. Harness or harness connector fault. 2. Mode motor fault 3. The right body control module fails. |
| Fault setting conditions | When the right body control module fails to detect the reference voltage of mode motor, this DTC will be generated in the continuous memory and as needed. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------------|
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G86(F)</p> </div> | 9 | Mode motor power supply 2 |
| | 17 | Mode motor power supply 1 |
| <p style="text-align: center;">Mode motor</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G22(C)</p> </div> | 1 | Mode motor power supply 1 |
| | 2 | Mode motor power supply 2 |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the mode motor harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of mode motor G22(C).
3. Check whether the mode motor harness connector is normal.

No → Repair or replace the wire harness

Yes

| | |
|---|-----------------------|
| 3 | Check the mode motor. |
|---|-----------------------|

1. Measure the resistance value between the pins of the mode motor harness connector.

| Connector | | Condition | Reference value |
|-----------|-----|-------------|-----------------|
| (+) | (-) | | |
| 1 | 2 | Through-out | 53Ω |

2. Check whether the results are normal.

No → Replace the mode motor.

Yes

| | |
|---|---|
| 4 | Check the harness connector of right body control module. |
|---|---|

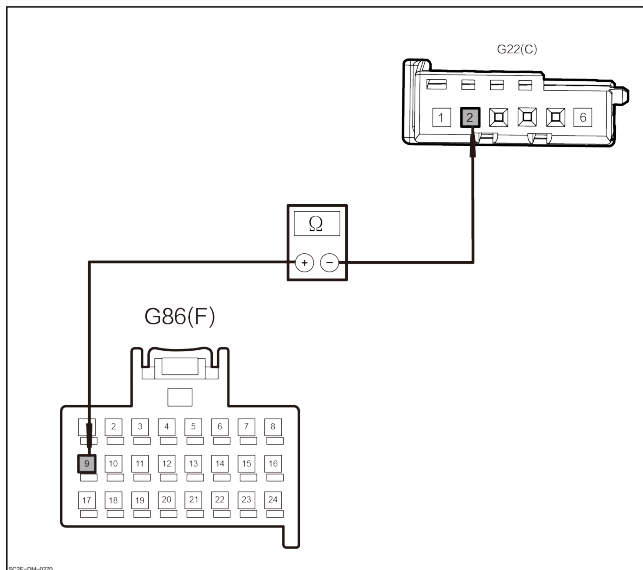
1. Disconnect the harness connector of right body control module G86(F).
2. Check whether the harness connector of right body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check whether the mode motor power supply 2 line is open circuited.



1. Measure the resistance between the harness connector of mode motor G22(C)-2 and the harness connector of right body G86(F)-9.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| G22(C)-2 | G86(F)-9 | Through- out | Lower than 1 Ω |

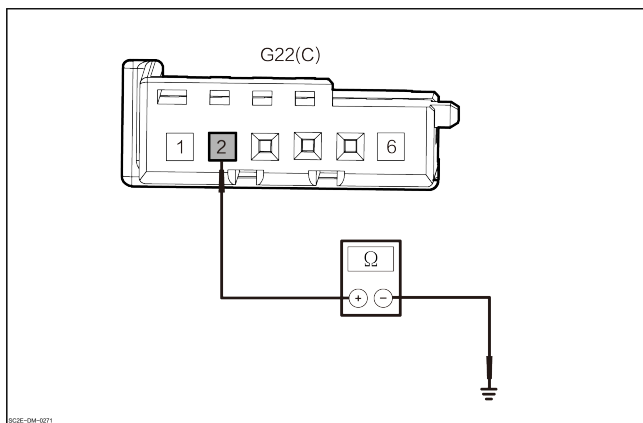
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

6 Check whether the mode motor power supply 2 line is shorted to ground.



1. Measure the resistance between the harness connector of mode motor G22(C)-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G22(C)-2 | Ground | Through- out | Above 10K Ω |

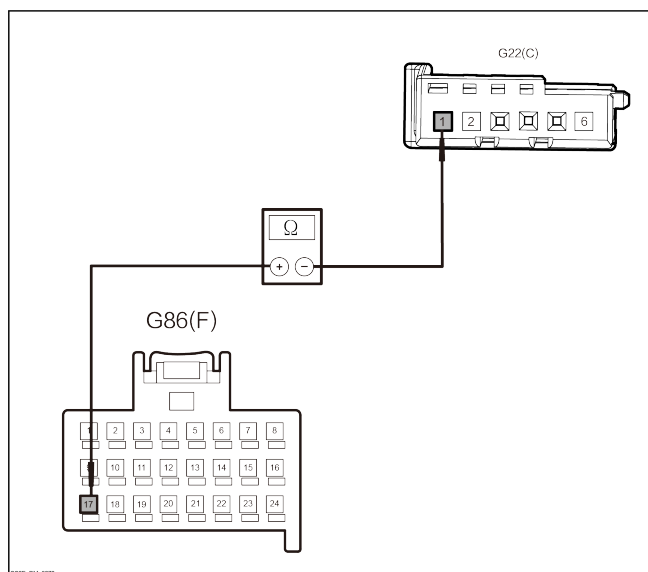
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Check whether the mode motor power supply 1 line is open circuited.



1. Measure the resistance between the harness connector of mode motor G22(C)-1 and the harness connector of right body G86(F)-17.

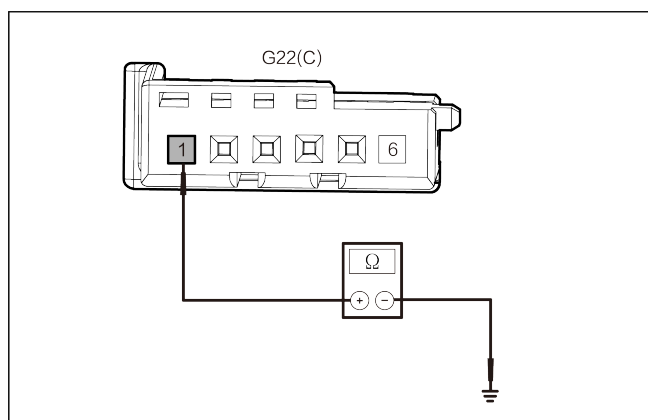
| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| G22(C)-1 | G86(F)-1 7 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check whether the mode motor power supply 1 line is shorted to ground.



1. Measure the resistance between the harness connector of mode motor G22(C)-1 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G22(C)-1 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

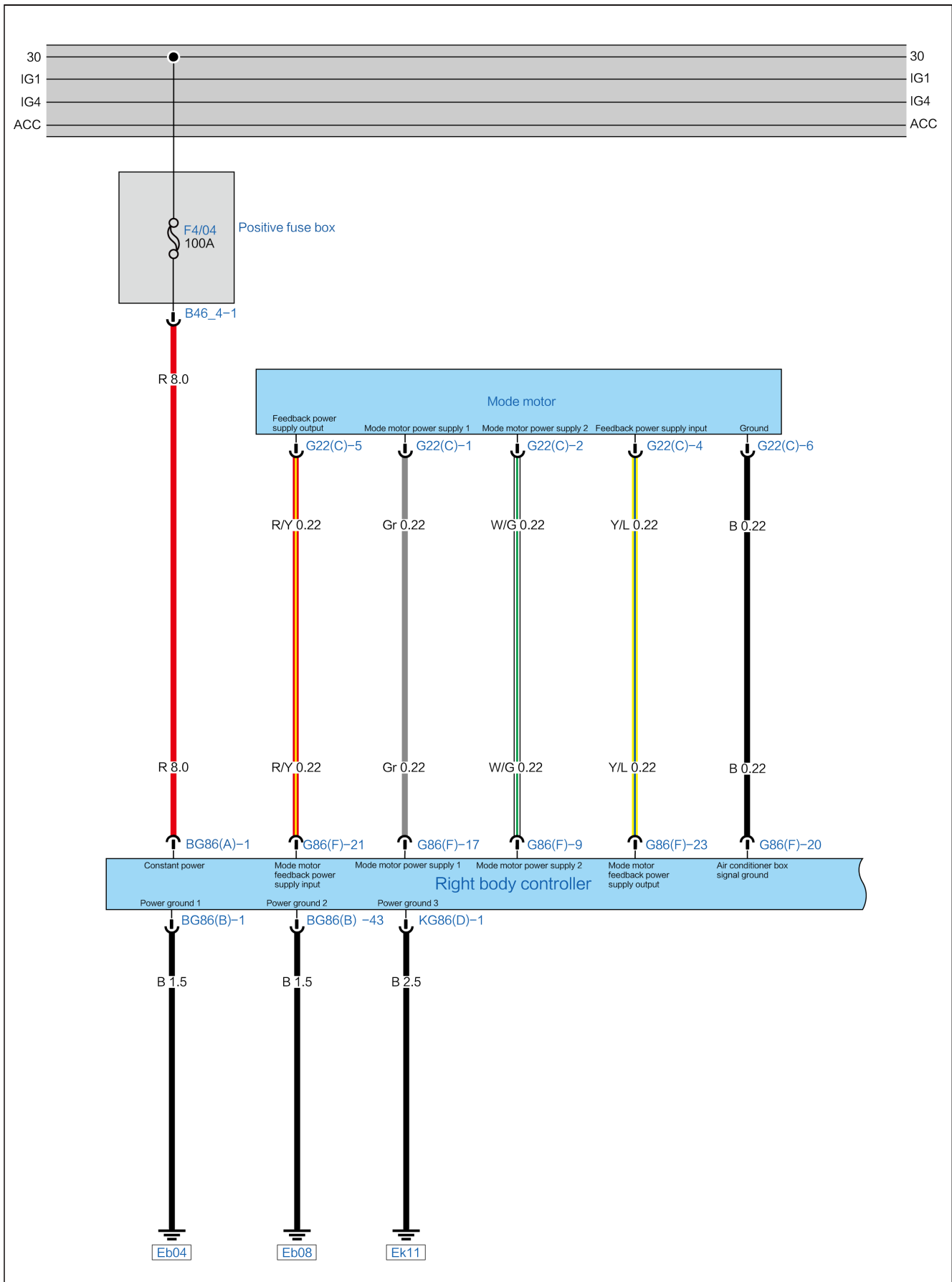
Yes → Replace the right body control module.

B2A2A12 Mode Motor Short to Power

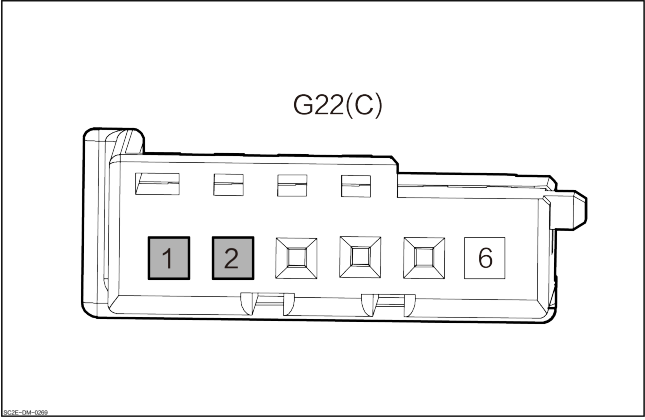
DTC Description

| B2A2A12 Mode motor is short to power | |
|--------------------------------------|--|
| Symptom | A/C mode fails. |
| Possible Cause | 1. Harness or harness connector fault. 2. Mode motor fault 3. The right body control module fails. |
| Fault setting conditions | When the mode motor is short-circuited to other power supplies, this DTC will be generated in the continuous memory and as needed. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------------|
| <p style="text-align: center;">Mode motor</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G22(C)</p> </div> | 1 | Mode motor power supply 1 |
| | 2 | Mode motor power supply 2 |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the mode motor harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of mode motor G22(C).
3. Check whether the mode motor harness connector is normal.

No Repair or replace the wire harness

Yes

| | |
|---|-----------------------|
| 3 | Check the mode motor. |
|---|-----------------------|

1. Measure the resistance value between the pins of the mode motor harness connector.

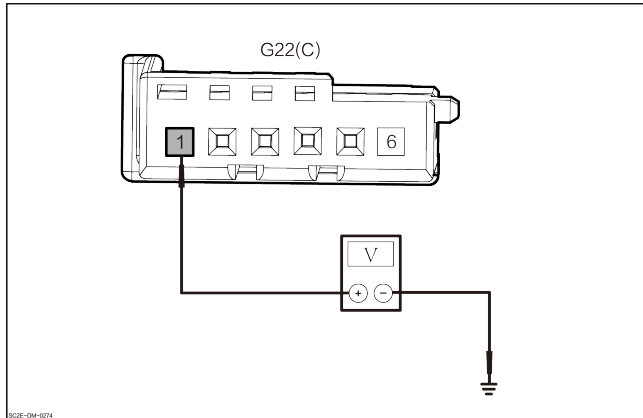
| Connector | | Condition | Reference value |
|-----------|-----|-------------|-----------------|
| (+) | (-) | | |
| 1 | 2 | Through-out | 53Ω |

2. Check whether the results are normal.

No Replace the mode motor.

Yes

| | |
|---|---|
| 4 | Check whether the mode motor power supply 1 line is shorted to power. |
|---|---|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of mode motor G22(C)-1 and the ground.

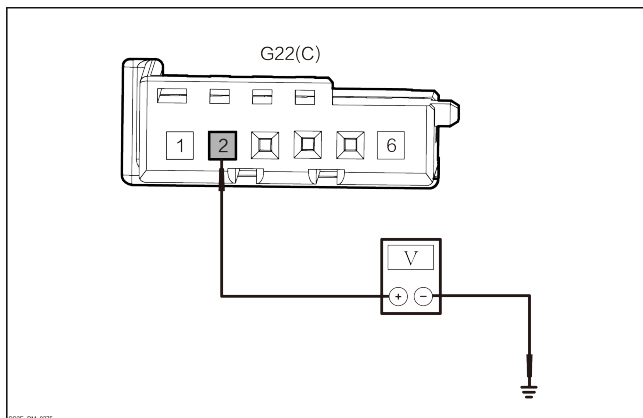
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G22(C)-1 | Ground | Through-out | Less than 1V |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check whether the mode motor power supply 2 line is shorted to power.



1. Measure the voltage between the harness connector of mode motor G22(C)-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G22(C)-2 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

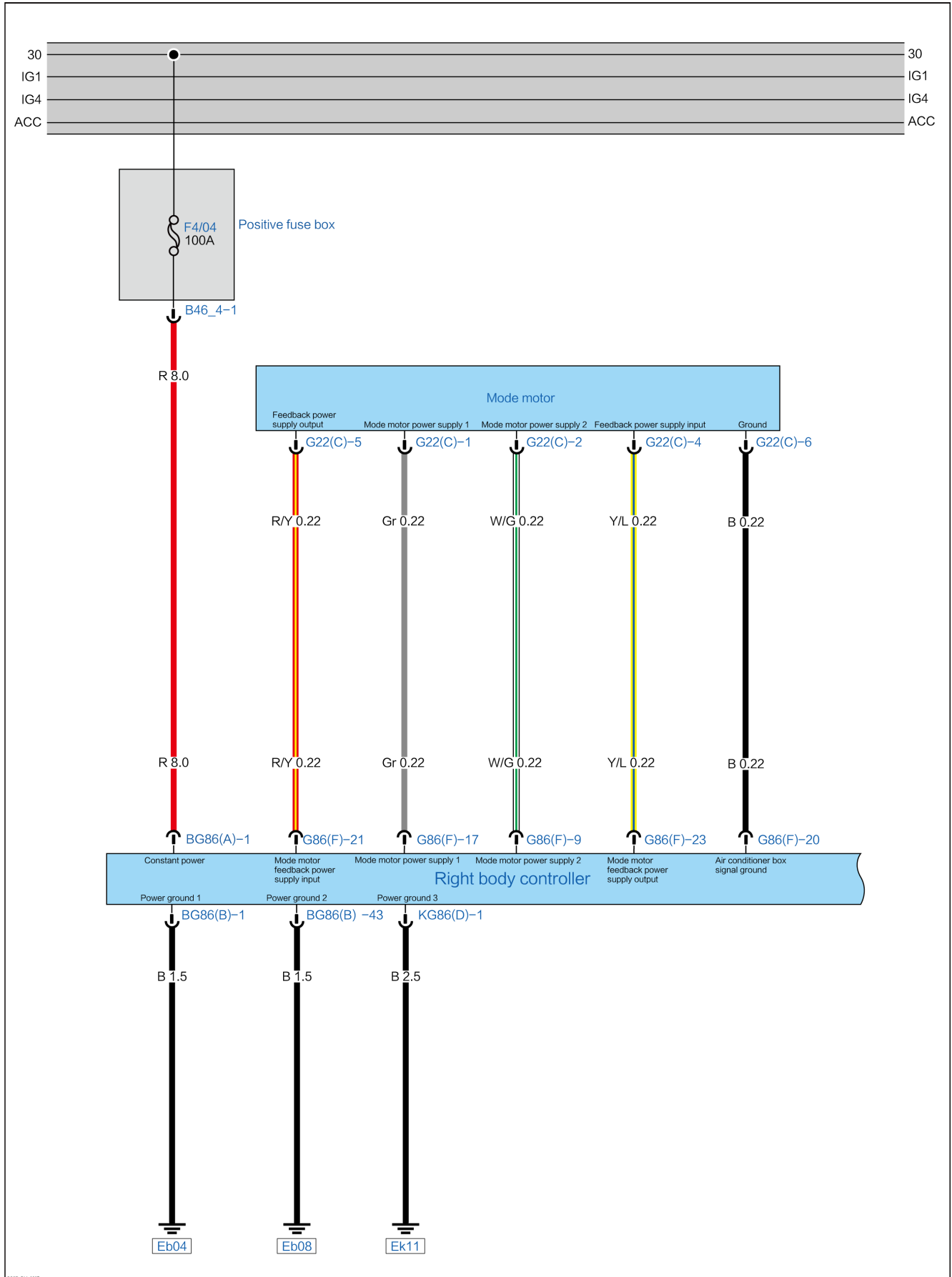
Yes → Replace the right body control module.

B2A2A92 Mode Motor Not Rotating in Place

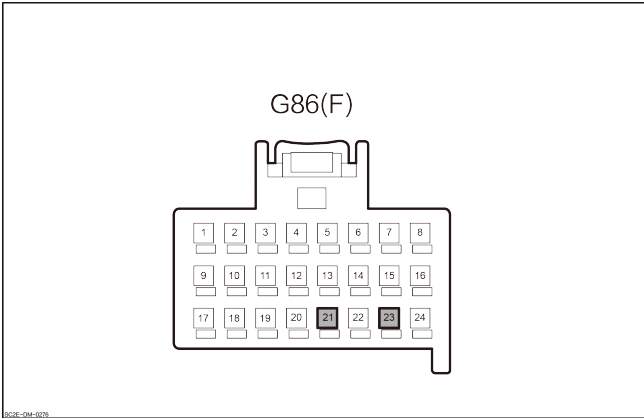
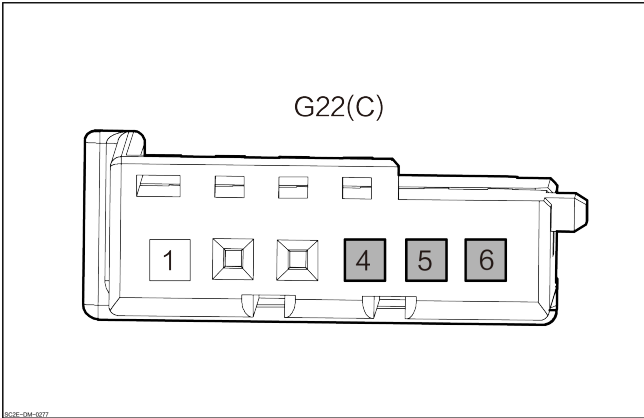
DTC Description

| B2A2A92 Mode Motor Not Rotating in Place | |
|--|---|
| Symptom | A/C mode fails. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or harness connector fault. 2. Mode Motor 3. Right body control module. |
| Fault setting conditions | When the right body control module monitors that the set target signal voltage of the mode motor is not consistent with the actual feedback voltage, this DTC is generated. |
| Trigger fault conditions | Drive mode motor |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|--|
| <p style="text-align: center;">Right body control module</p>  <p style="text-align: center;">G86(F)</p> <p><small>801E-0M-026</small></p> | <p style="text-align: center;">21</p> | <p style="text-align: center;">5V Power Supply</p> |
| | <p style="text-align: center;">23</p> | <p style="text-align: center;">Feedback signal</p> |
| <p style="text-align: center;">Mode motor</p>  <p style="text-align: center;">G22(C)</p> <p><small>801E-0M-027</small></p> | <p style="text-align: center;">4</p> | <p style="text-align: center;">5V Power Supply</p> |
| | <p style="text-align: center;">5</p> | <p style="text-align: center;">Feedback signal</p> |
| | <p style="text-align: center;">6</p> | <p style="text-align: center;">Ground</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Checking the mechanical structure of mode motor. |
|---|--|

1. Remove the mode motor.
2. Check the air control linkage device and doors for free movement.

No

Repair or replace when necessary

Yes

| | |
|---|---|
| 3 | Check the mode motor harness connector. |
|---|---|

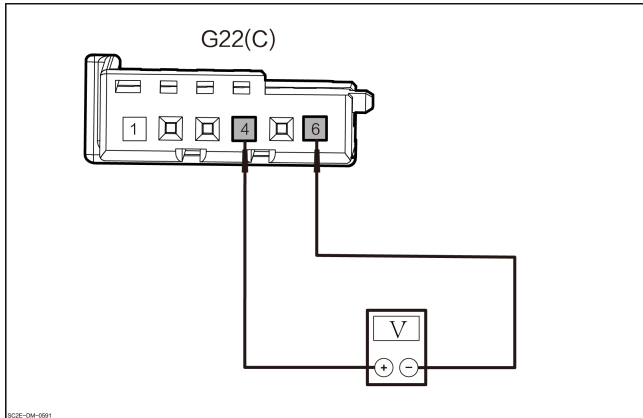
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of mode motor G22(C).
3. Check whether the mode motor harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the feedback power of mode motor. |
|---|---|



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of mode motor G22(C)-4 and the ground of the motor harness connector G22(C)-6.

| Connector | | Condition | Voltage value |
|-----------|----------|-------------|---------------|
| (+) | (-) | | |
| G22(C)-4 | G22(C)-6 | Through-out | 5V |

3. Check whether the results are normal.

No → [Go to step 7](#)

Yes

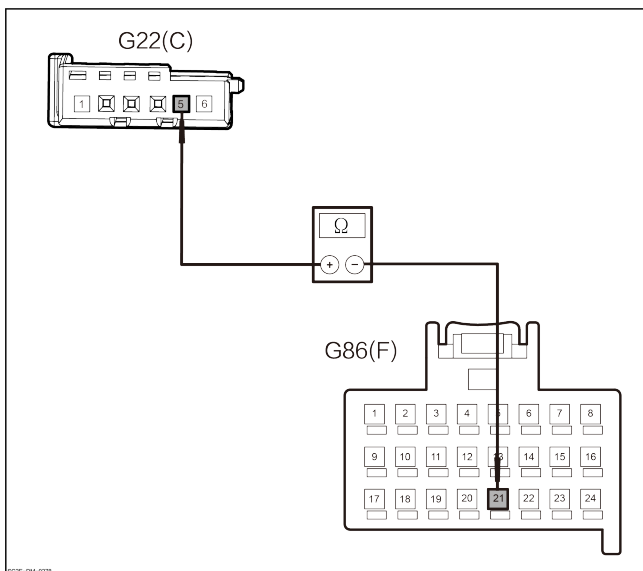
5 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module G86(F).
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the mode motor feedback line for open circuit.



1. Measure the resistance between the harness connector of mode damper motor G22(C)-5 and the harness connector of right body control module G86(F)-21.

| Connector | | Condition | Resistance value |
|-----------|-----------|-------------|------------------|
| (+) | (-) | | |
| G22(C)-5 | G86(F)-21 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the mode motor.

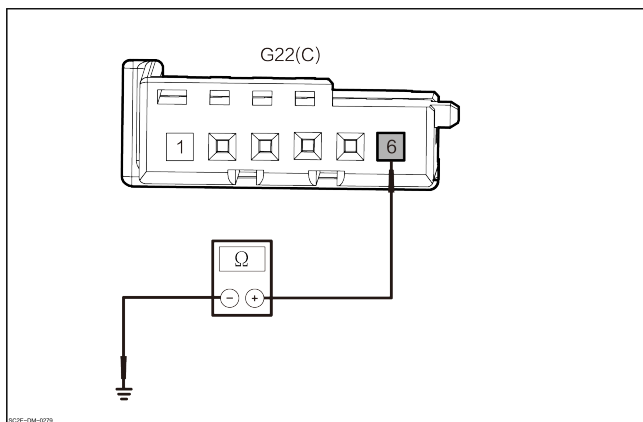
7 Check the harness connector of right body control module.

1. Set the START/STOP button to OFF.
2. Disconnect the harness connector of right body control module G86(F).
3. Check whether the harness connector of right body control module is normal?

No Repair or replace the wire harness

Yes

8 Check the feedback ground of mode motor for open circuit.



1. Measure the resistance between the harness connector of mode motor G22(C)-6 and the ground.

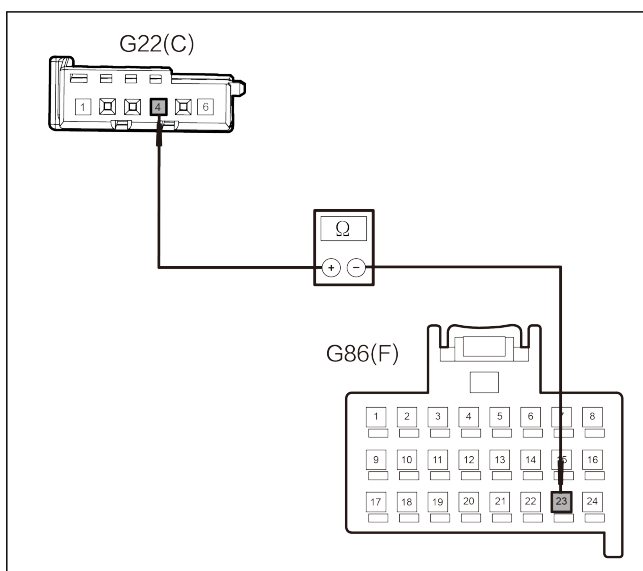
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G22(C)-6 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

9 Check whether the feedback power of mode motor is open circuited.



1. Measure the resistance between the harness connector of mode motor G22(C)-4 and the harness connector of right body control module G86(F)-23.

| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| G22(C)-4 | G86(F)-2 3 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

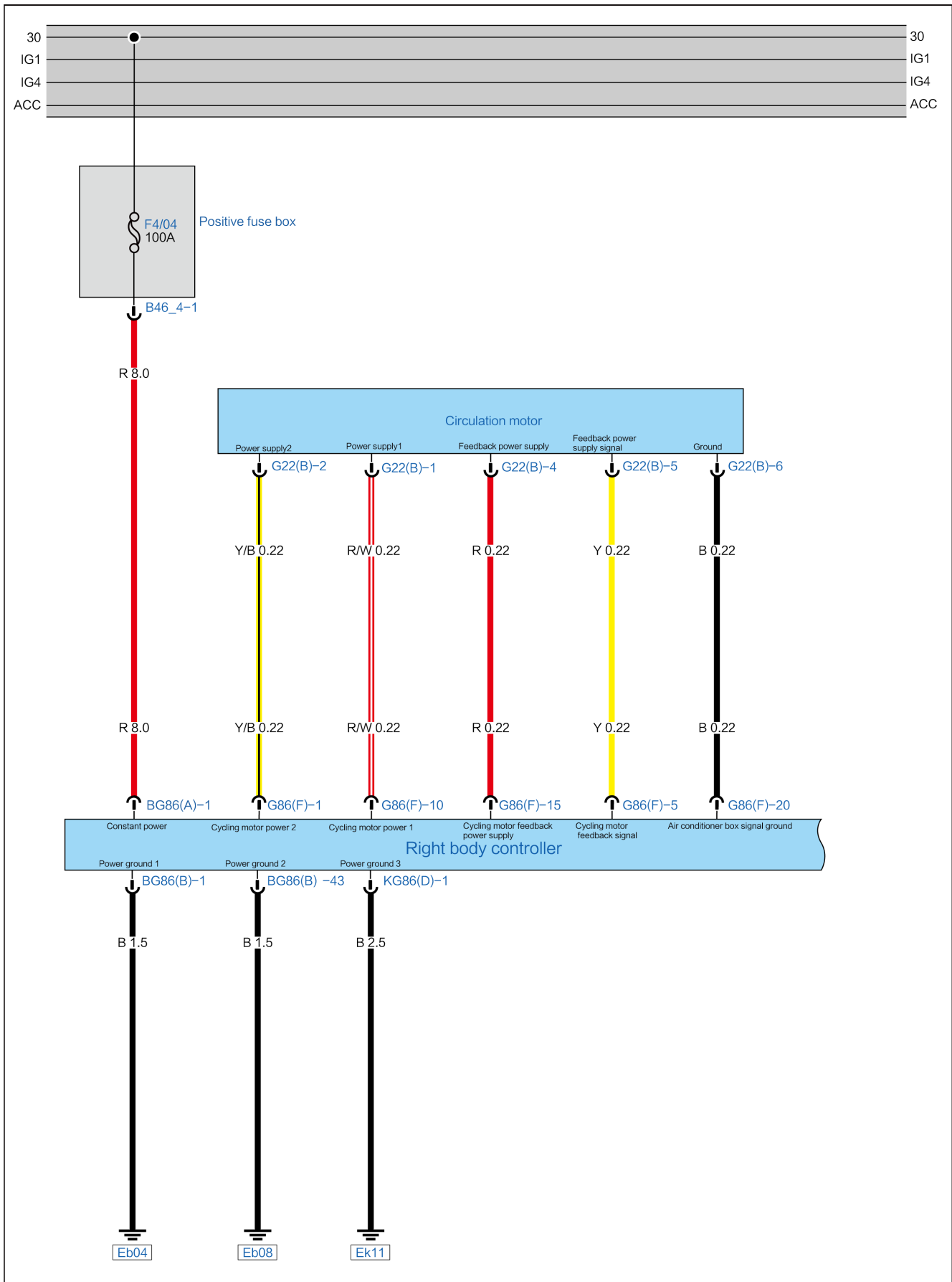
Yes

Replace the right body control module.

B2A4B14 Circulation Motor Short to Ground or Open-circuited**DTC Description**

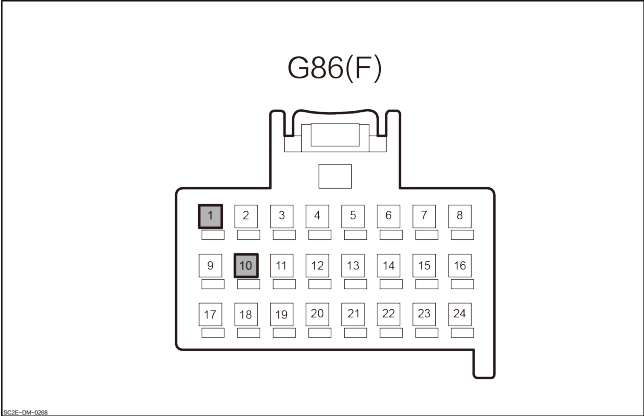
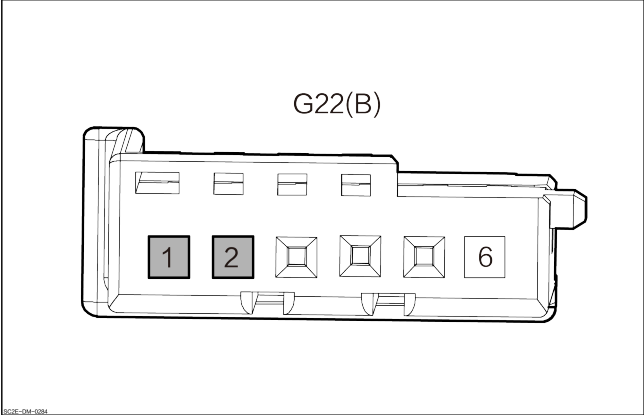
| B2A4B14 Circulation Motor Short to Ground or Open-circuited | |
|---|---|
| Symptom | Internal/external circulation functions of the A/C system fail. |
| Possible Cause | 1. Harness or harness connector fault. 2. Circulation motor fault 3. The right body control module fails. |
| Fault setting conditions | When the right body control module fails to detect the reference voltage of the circulation motor, this DTC will be generated in the continuous memory and as needed. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



31235-EM-0383

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-----------------------|
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G86(F)</p> </div> | 1 | Cycling motor power 1 |
| | 10 | Cycling motor power 2 |
| <p style="text-align: center;">Circulation motor</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G22(B)</p> </div> | 1 | Cycling motor power 1 |
| | 2 | Cycling motor power 2 |

Diagnostic Steps

1 Check the DTC of right body control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

2 Check the circulating motor harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of circulation motor G22(B).
3. Check whether the circulating motor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check the recirculation motor.

1. Measure the resistance value between the pins of the circulation motor harness connector.

| Connector | | Condition | Refer- ence value |
|-----------|-----|-----------------|-------------------------|
| (+) | (-) | | |
| 1 | 2 | Through- out | 53Ω |

2. Check whether the results are normal.

No → Replace the recirculation motor.

Yes

4 Check the harness connector of right body control module.

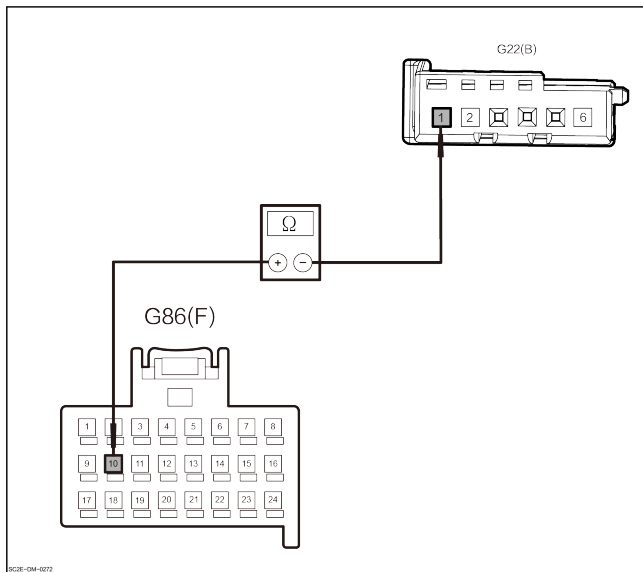
1. Disconnect the harness connector of right body control module G86(F).
2. Check whether the harness connector of right body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check whether the circulating motor power supply 1 line is open circuited.



1. Measure the resistance between the harness connector of circulation motor G22(B)-1 and the harness connector of right body G86(F)-10.

| Connector | | Condition | Resist- ance value |
|-----------|-----------|-----------------|--------------------------|
| (+) | (-) | | |
| G22(B)-1 | G86(F)-10 | Through- out | Lower than 1 Ω |

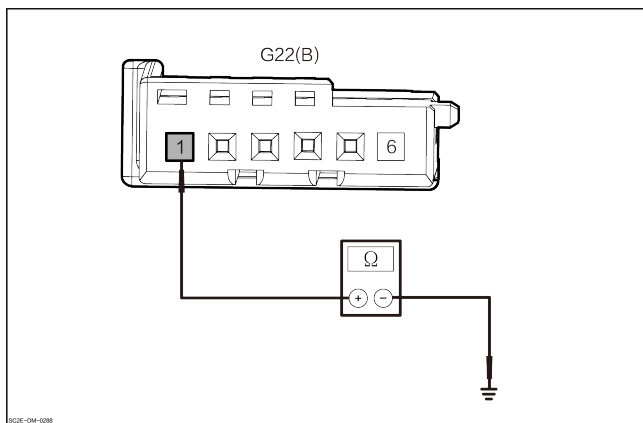
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

6 Check whether the circulating motor power supply 1 line is shorted to ground.



1. Measure the resistance between the harness connector of circulation motor G22(B)-1 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G22(B)-1 | Ground | Through- out | Above 10K Ω |

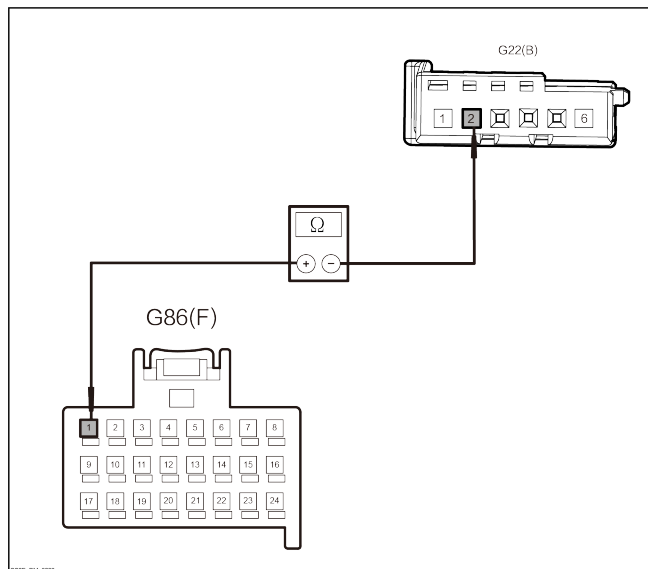
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Check whether the circulating motor power supply 2 line is open circuited.



1. Measure the resistance between the harness connector of circulation motor G22(B)-2 and the harness connector of right body G86(F)-1.

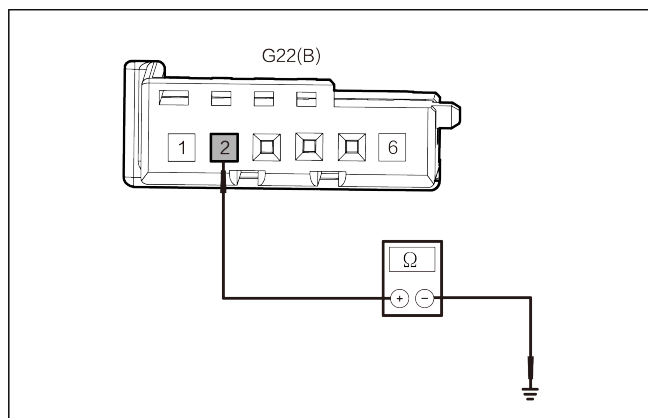
| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| G22(B)-2 | G86(F)-1 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check whether the circulating motor power supply 2 line is shorted to ground.



1. Measure the resistance between the harness connector of circulation motor G22(B)-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G22(B)-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

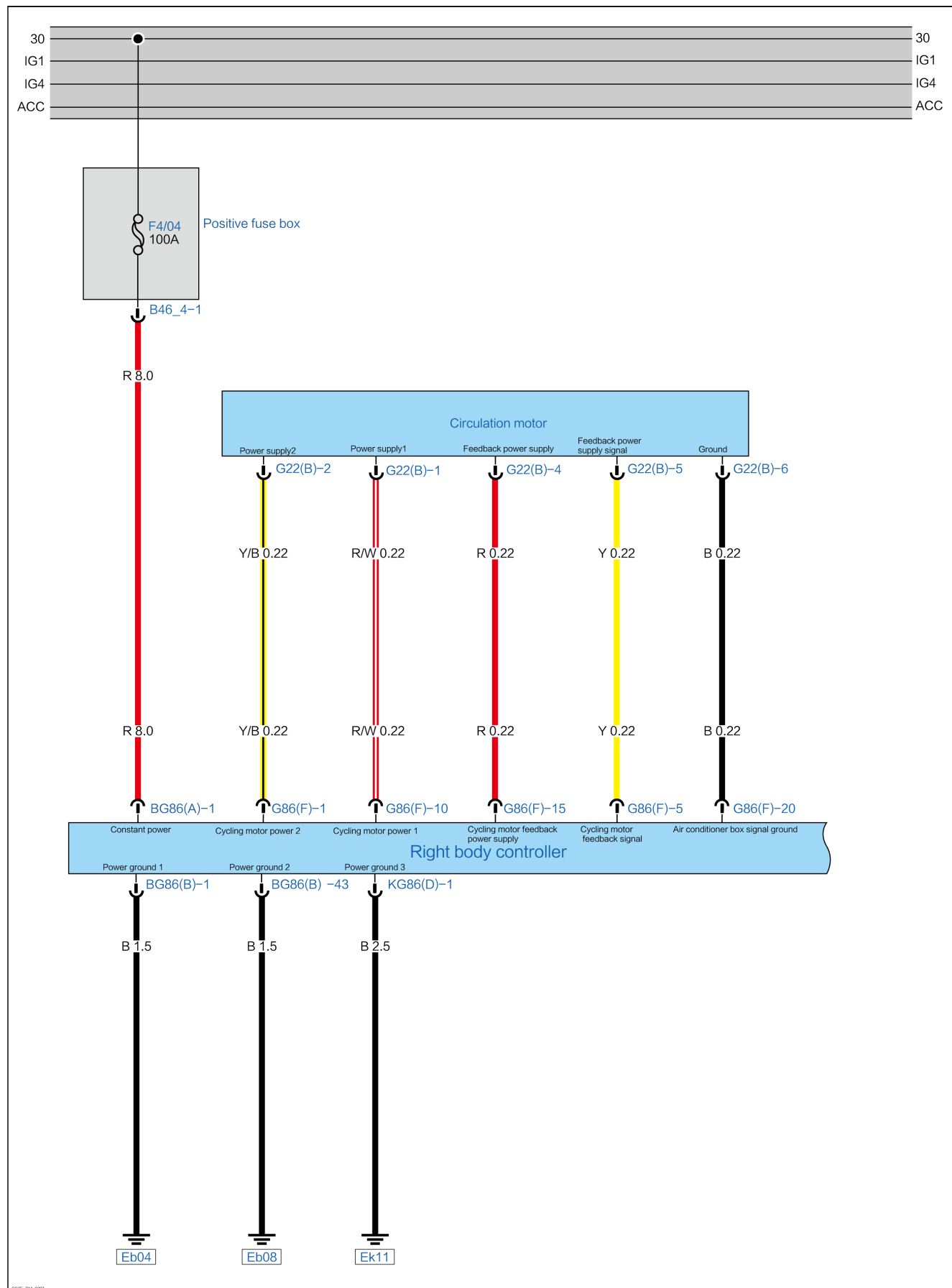
Yes → Replace the right body control module.

B2A4B12 Circulation Motor Short to Power

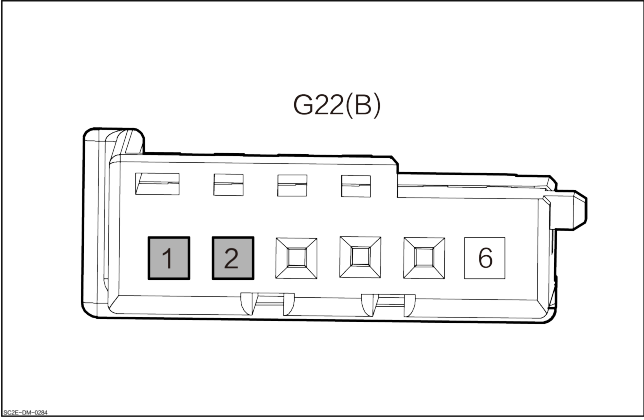
DTC Description

| B2A4B12 Circulation Motor Short to Power | |
|--|---|
| Symptom | Circulation function of the A/C system fails. |
| Possible Cause | <ol style="list-style-type: none">1. The harness or harness connector fails.2. Circulation motor fault3. The right body control module fails. |
| Fault setting conditions | When the circulation motor is short-circuited to other power supplies, this DTC will be generated in the continuous memory and as needed. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|-----------------------|
| <p style="text-align: center;">Circulation motor</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G22(B)</p> </div> | 1 | Cycling motor power 1 |
| | 2 | Cycling motor power 2 |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the circulating motor harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of circulation motor G22(B).
3. Check whether the circulating motor harness connector is normal.

No Repair or replace the wire harness

Yes

| | |
|---|--------------------------------|
| 3 | Check the recirculation motor. |
|---|--------------------------------|

1. Measure the resistance value between the pins of the circulation motor harness connector.

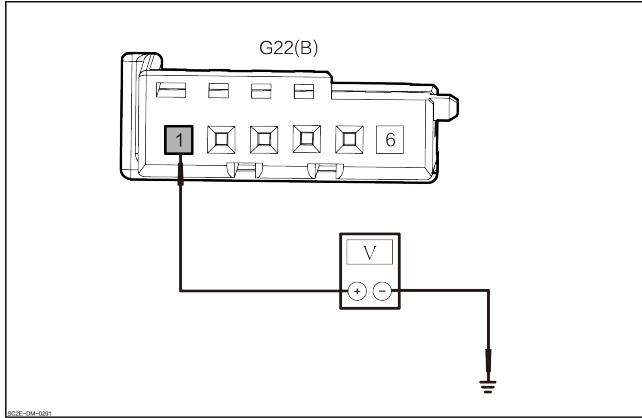
| Connector | | Condition | Reference value |
|-----------|-----|-------------|-----------------|
| (+) | (-) | | |
| 1 | 2 | Through-out | 53Ω |

2. Check whether the results are normal.

No Replace the recirculation motor.

Yes

| | |
|---|--|
| 4 | Check whether the circulating motor power supply 1 line is shorted to power. |
|---|--|



1. Set the START/STOP button to ON.
2. Measure the voltage between the harness connector of circulation motor G22(B)-1 and the ground.

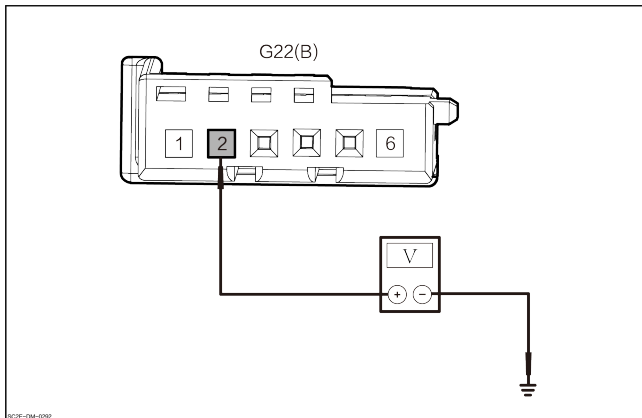
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G22(B)-1 | Ground | Through-out | Less than 1V |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check whether the circulating motor power supply 2 line is shorted to power.



1. Measure the voltage between the harness connector of circulation motor G22(B)-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G22(B)-2 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

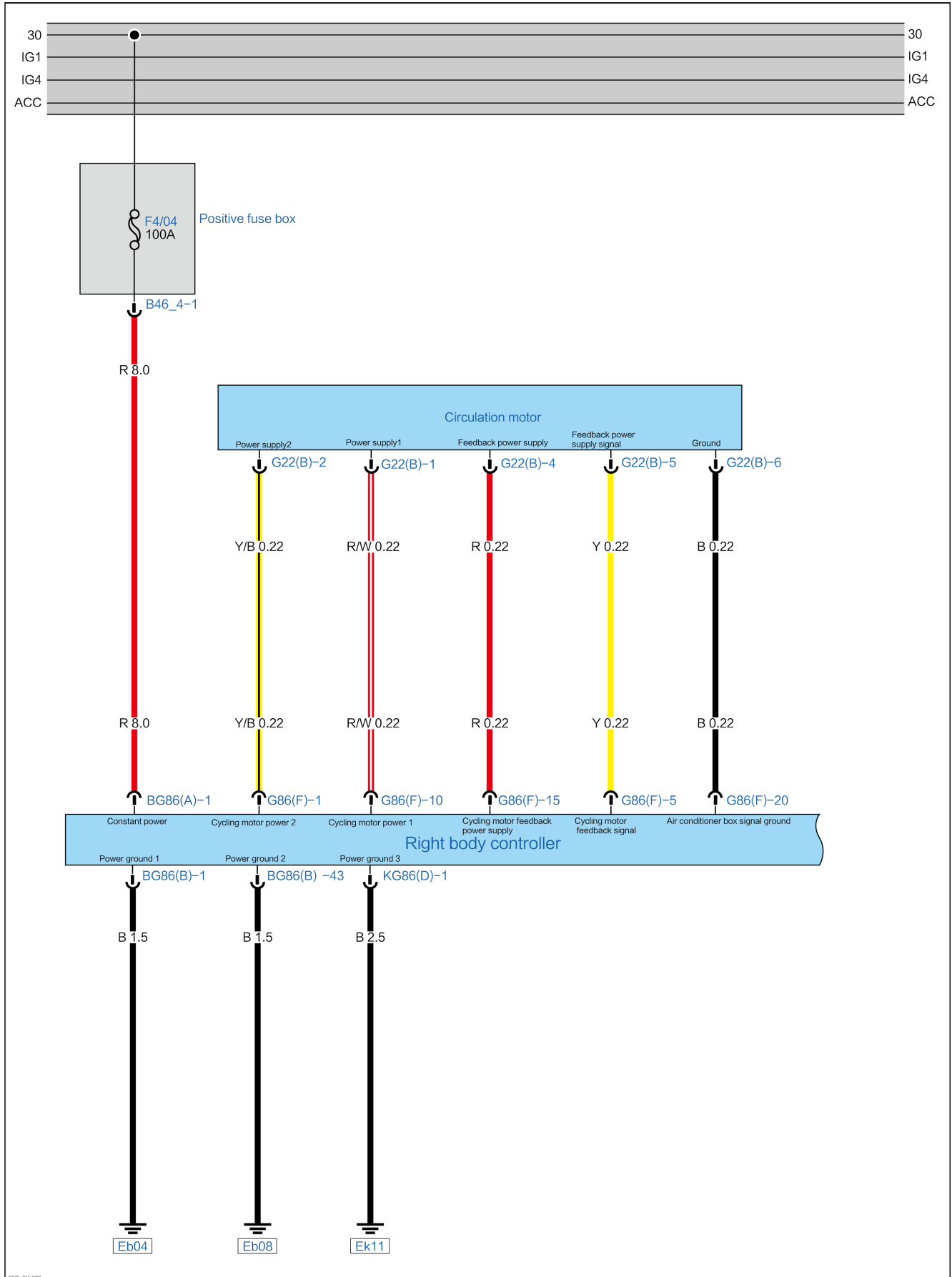
Yes → Replace the right body control module.

B2A4B92 Circulation Motor Not Rotating in Place

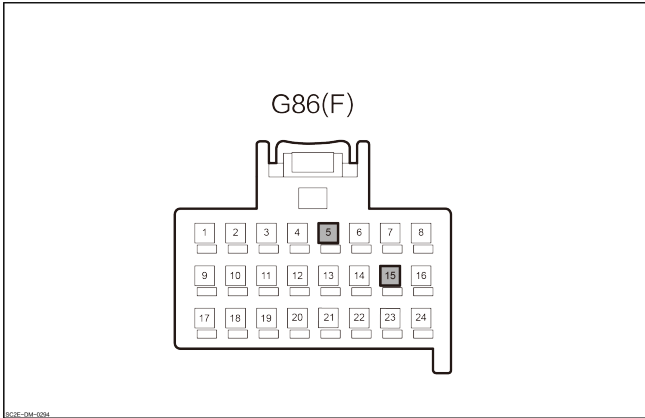
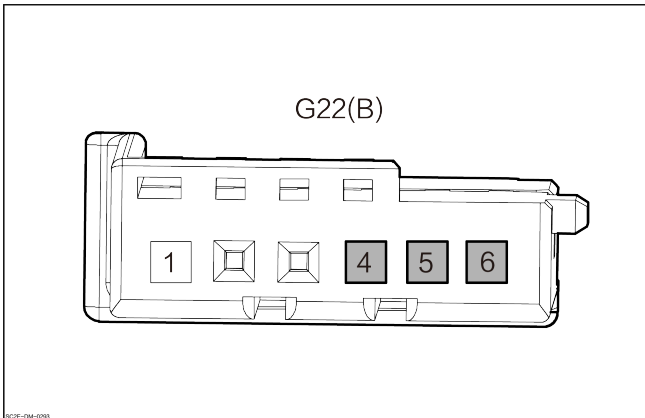
DTC Description

| B2A4B92 Circulation Motor Not Rotating in Place | |
|---|--|
| Symptom | Internal/external circulation functions of the A/C system fail. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or harness connector fault. 2. Circulation motor fault 3. The right body control module fails. |
| Fault setting conditions | When the right body control module monitors that the set target signal voltage of the circulation motor is not consistent with the actual feedback voltage, this DTC is generated. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-------------------------------------|
| <p style="text-align: center;">Right body control module</p>  <p style="text-align: center;">G86(F)</p> <p><small>801E-DM-004</small></p> | 5 | Cycling motor feedback signal |
| | 15 | Cycling motor feedback power supply |
| <p style="text-align: center;">Circulation motor</p>  <p style="text-align: center;">G22(B)</p> <p><small>801E-DM-003</small></p> | 4 | Cycling motor feedback power supply |
| | 5 | Cycling motor feedback signal |
| | 6 | Ground |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Checking the mechanical structure of recirculation damper. |
|---|--|

1. Remove the recirculation damper motor.
2. Check the air control linkage device and doors for free movement.

No

Repair or replace when necessary

Yes

| | |
|---|---|
| 3 | Check the circulating damper motor harness connector. |
|---|---|

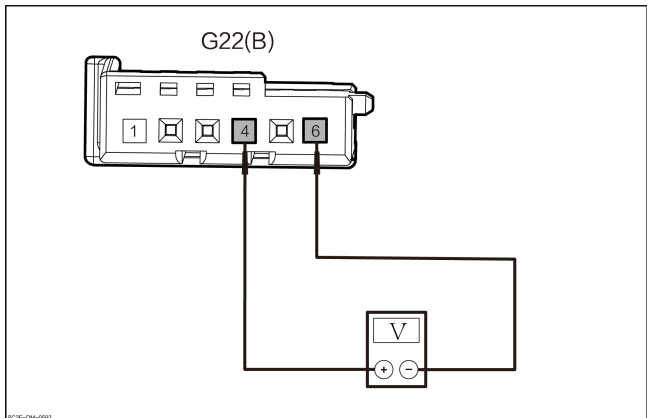
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of circulating damper motor G22(B).
3. Check whether the circulating damper motor harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the feedback power of circulation damper motor. |
|---|---|



1. Set the START/STOP button to “ON” .
2. Measure the resistance between the harness connector of circulating damper motor G22(B)-4 and the harness connector of circulating damper motor G22(B)-6.

| Connector | | Condition | Voltage value |
|-----------|----------|-------------|---------------|
| (+) | (-) | | |
| G22(B)-4 | G22(B)-6 | Through-out | 5V |

3. Check whether the results are normal.

No → [Go to step 7](#)

Yes

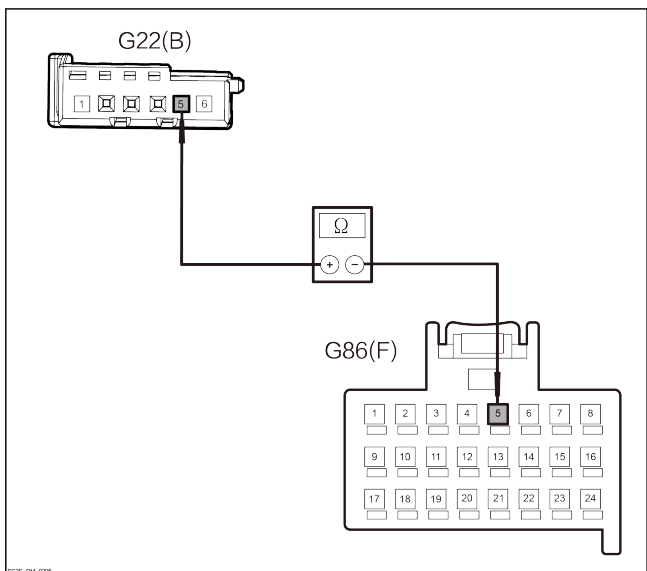
5 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module G86(F).
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the feedback signal output line of circulating damper motor for open circuit.



1. Measure the resistance between the harness connector of circulating damper motor G22(B)-5 and the harness connector of right body control module G86(F)-5.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| G22(B)-5 | G86(F)-5 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the recirculation damper motor.

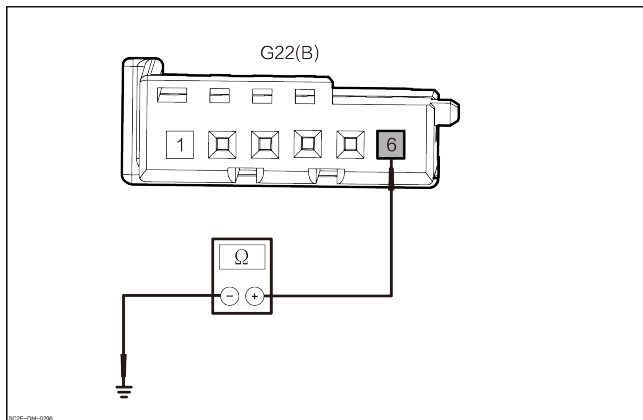
7 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module G86(F).
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

8 Check the feedback ground of circulating damper motor for open circuit.



1. Measure the resistance between the harness connector of circulating damper motor G22(B)-6 and the ground.

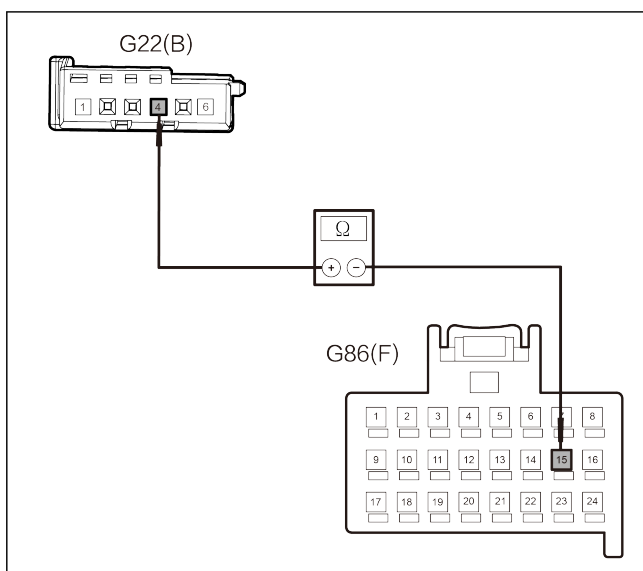
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G22(B)-6 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

9 Check whether the feedback power of circulating damper motor is open circuited.



1. Measure the resistance between the harness connector of circulating damper motor G22(B)-4 and the harness connector of right body control module G86(F)-15.

| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| G22(B)-4 | G86(F)-1 5 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

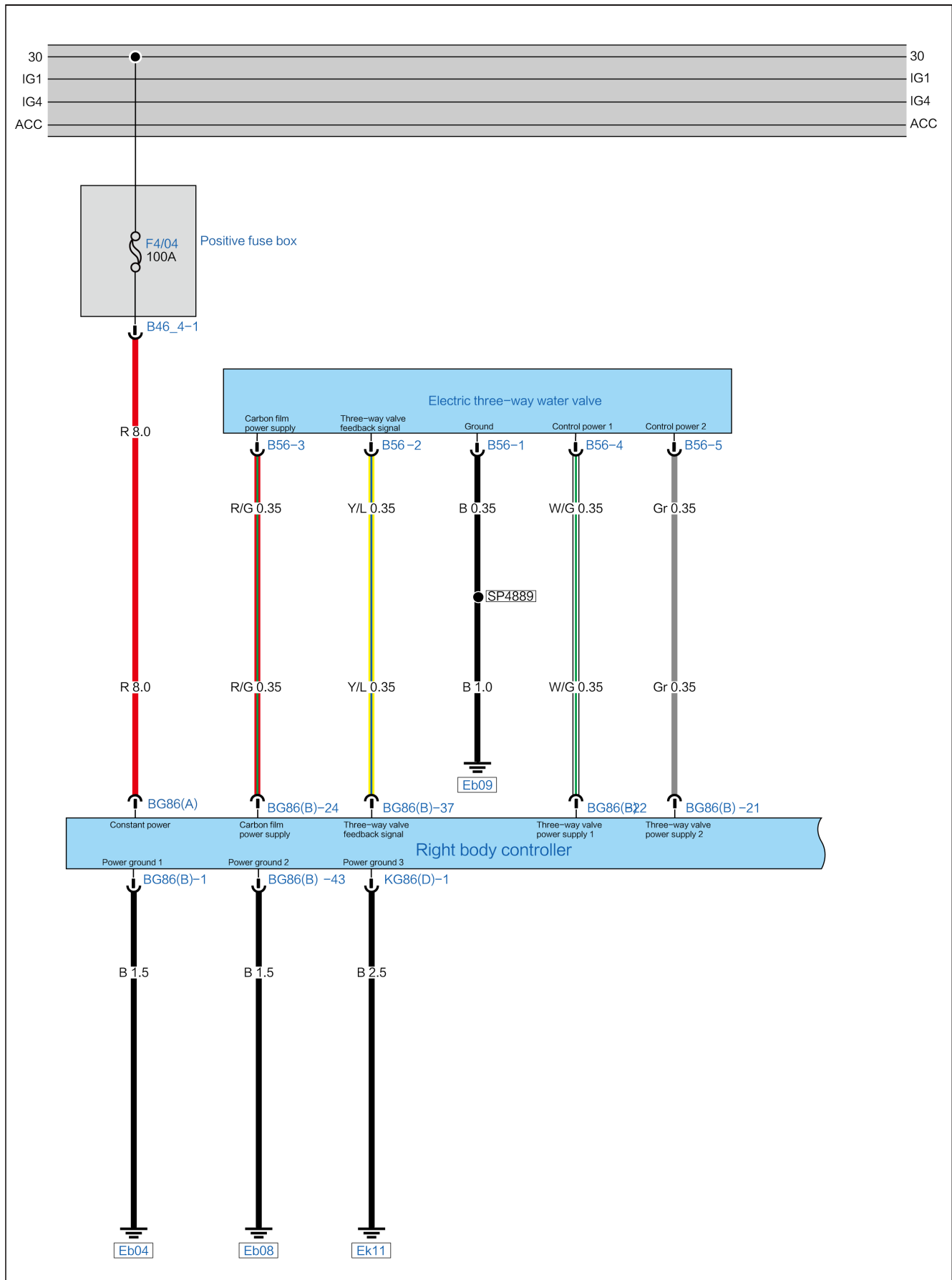
Yes

Replace the right body control module.

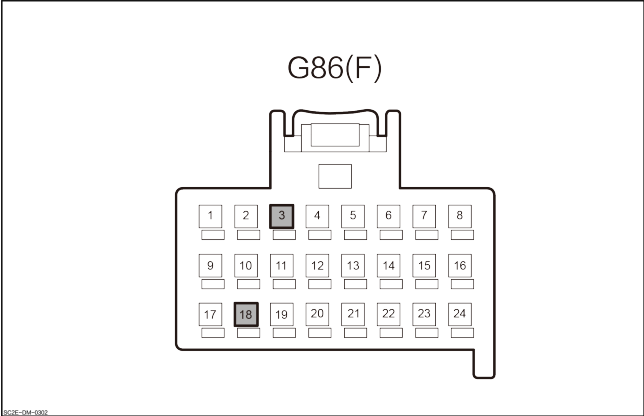
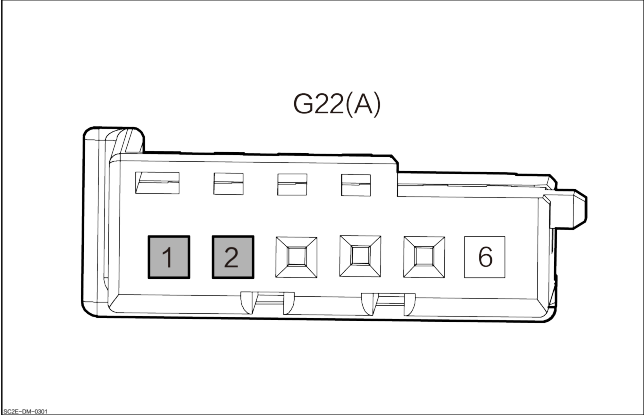
B2A2B14 Air Mix Motor Short to Ground or Open-circuited**DTC Description**

| B2A2B14 Driver' s Side Air Mix Motor Short to Ground or Open-circuited | |
|--|---|
| Symptom | Cooling and heating switch function of the A/C system fails. |
| Possible Cause | 1. Harness or harness connector fault. 2. Fault of driver side cooling and heating motor 3. The right body control module fails. |
| Fault setting conditions | When the right body control module fails to detect the reference voltage of the driver's side air mix motor, this DTC will be generated in the continuous memory and as needed. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|------------------------------|
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p style="text-align: center;">G86(F)</p> </div> | 3 | Air mix motor power supply 1 |
| | 18 | Air mix motor power supply 2 |
| <p style="text-align: center;">Cooling and heating motor</p> <div style="text-align: center;">  <p style="text-align: center;">G22(A)</p> </div> | 1 | Air mix motor power supply 1 |
| | 2 | Air mix motor power supply 2 |

Diagnostic Steps

1 Check the DTC of right body control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

2 Check the cooling and heating motor harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the cooling and heating motor harness connector G22(A).
3. Check whether the harness connector of the cooling and heating motor is normal.

No

Repair or replace the wire harness

Yes

3 Check the cooling and heating motor.

1. Measure the resistance value between the pins of the air mix motor harness connector.

| Connector | | Condition | Reference value |
|-----------|-----|-------------|-----------------|
| (+) | (-) | | |
| 1 | 2 | Through-out | 53Ω |

2. Check whether the results are normal.

No

Replace the cooling and heating motor.

Yes

4 Check the harness connector of right body control module.

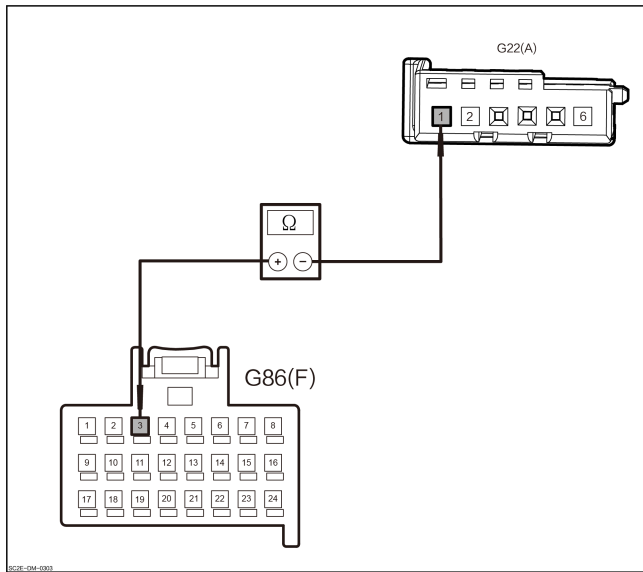
1. Disconnect the harness connector of right body control module G86(F).
2. Check whether the harness connector of right body control module is normal?

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 5 | Check whether the cooling and heating motor power supply 1 line is open circuited. |
|---|--|



1. Measure the resistance between the harness connector of air mix motor G22(A)-1 and the harness connector of right body G86(F)-3.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| G86(F)-3 | G22(A)-1 | Through-out | Lower than 1 Ω |

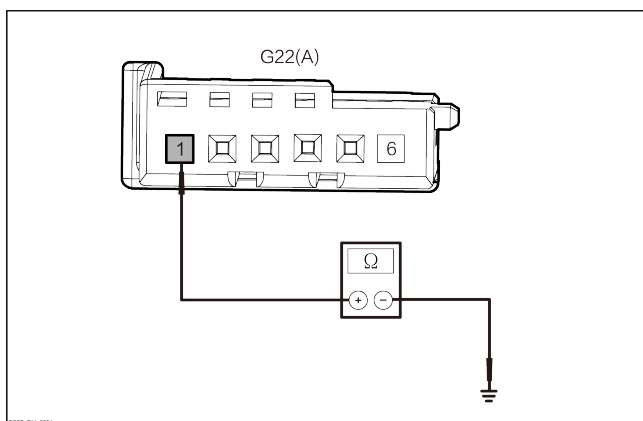
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 6 | Check whether the cooling and heating motor power supply 1 line is shorted to ground. |
|---|---|



1. Measure the resistance value between the air mix motor harness connector G22(A)-1 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| G22(A)-1 | Ground | Through-out | Above 10K Ω |

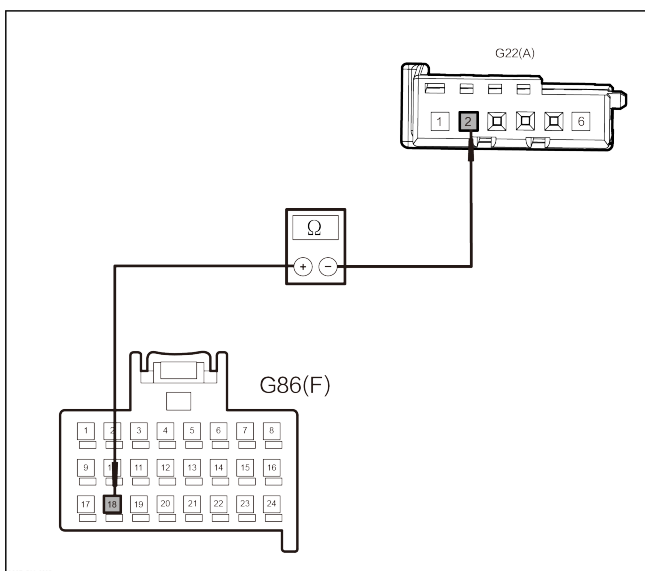
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Check whether the cooling and heating motor power supply 2 line is open circuited.



1. Measure the resistance between the harness connector of air mix motor G22(A)-2 and the harness connector of right body G86(F)-18.

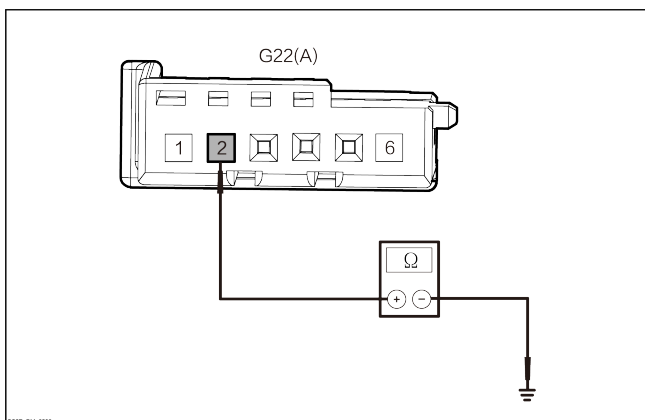
| Connector | | Condition | Resist- ance value |
|---------------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| G86(F)-1 8 | G22(A)-2 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check whether the cooling and heating motor power supply 2 line is shorted to ground.



1. Measure the resistance value between the air mix motor harness connector G22(A)-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G22(A)-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

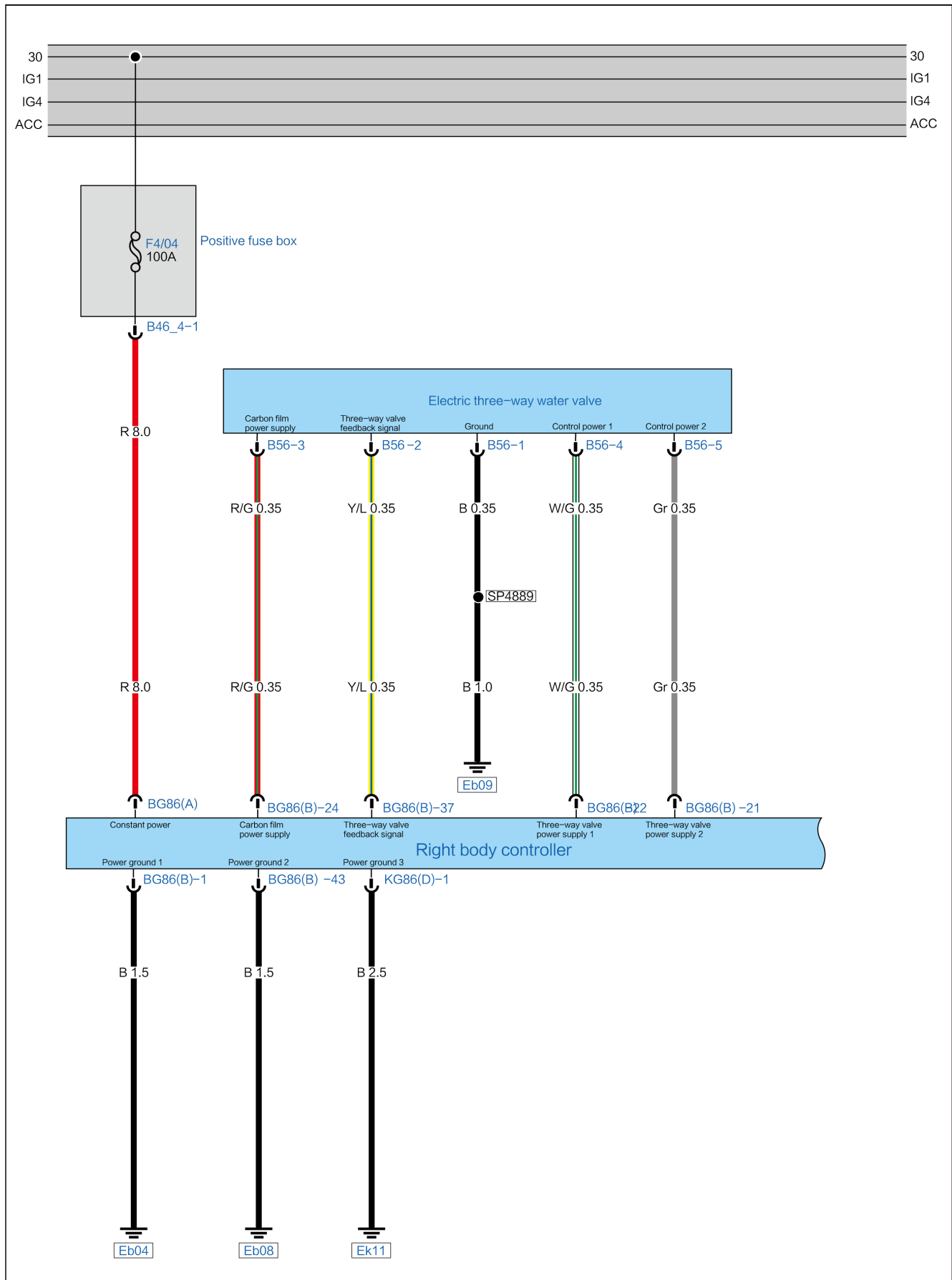
Yes → Replace the right body control module.

B2A2B12 Air Mix Motor Short to Power

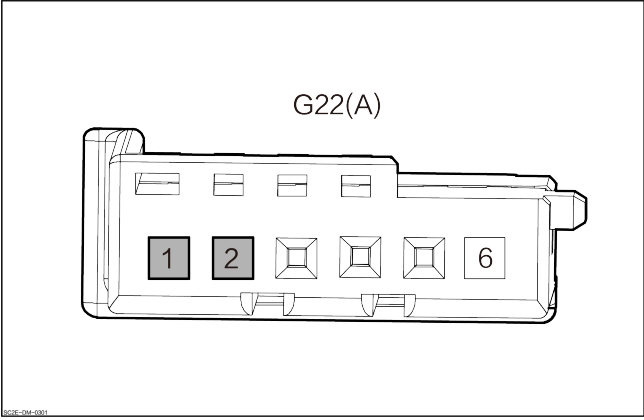
DTC Description

| B2A2B12 Driver' s Side Air Mix Motor Short to Power | |
|---|--|
| Symptom | Cooling and heating switch function of the A/C system fails. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or harness connector fault.2. Fault of driver side cooling and heating motor3. The right body control module fails. |
| Fault setting conditions | When the driver's side air mix motor is short-circuited to other power supplies, this DTC will be generated in the continuous memory and as needed. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|------------------------------|
| <p style="text-align: center;">Cooling and heating motor</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G22(A)</p> </div> | 1 | Air mix motor power supply 1 |
| | 2 | Air mix motor power supply 2 |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the harness connector of the driver side cooling and heating motor. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector G22 (A) of the driver's air mix motor.
3. Check whether the harness connector of the driver's air mix motor is normal?

No → Repair or replace the wire harness

Yes

| | |
|---|---|
| 3 | Check the driver's cooling and heating motor. |
|---|---|

1. Measure the resistance value between the driver's air mix motor harness connector pins.

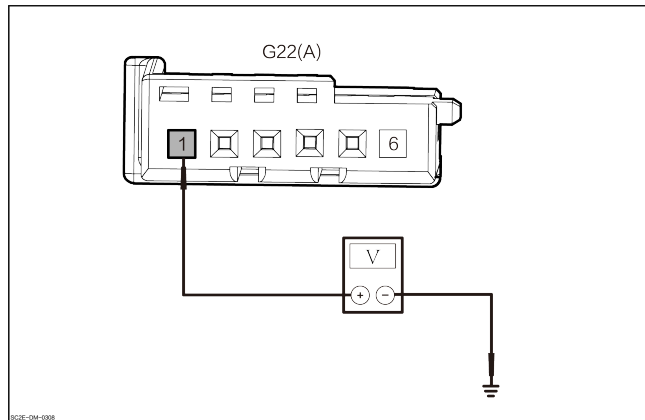
| Connector | | Condition | Refer- ence value |
|-----------|-----|-----------------|-------------------------|
| (+) | (-) | | |
| 1 | 2 | Through- out | 53Ω |

2. Check whether the results are normal.

No → Replace the driver side cooling and heating motor.

Yes

4 Check whether the driver cooling and heating motor power supply 1 line is shorted to power.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the driver air mix motor harness connector G22 (A)-1 and the ground.

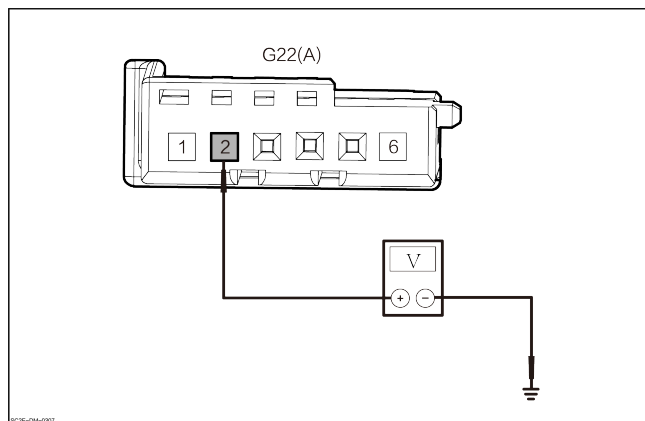
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G22(A)-1 | Ground | Through-out | Less than 1V |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check whether the driver cooling and heating motor power supply 2 line is shorted to power.



1. Measure the voltage value between the driver air mix motor harness connector G22 (A)-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G22(A)-2 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

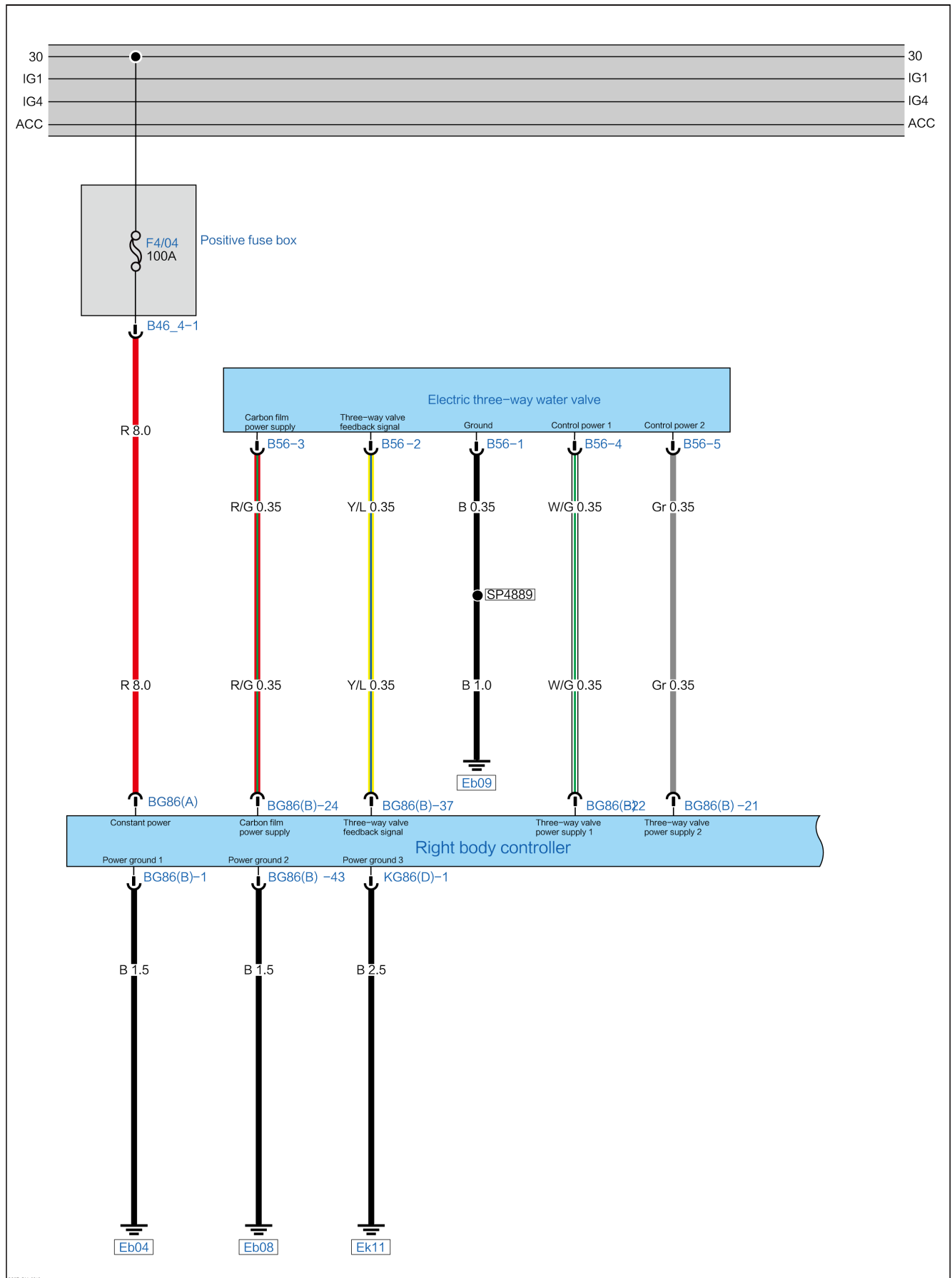
Yes → Replace the right body control module.

B2A2B92 Air Mix Motor Not Rotating in Place

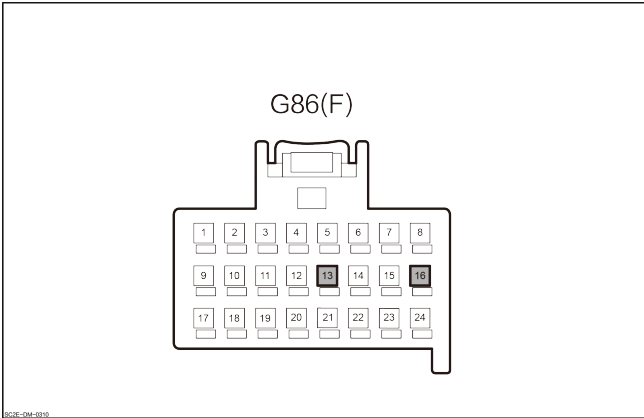
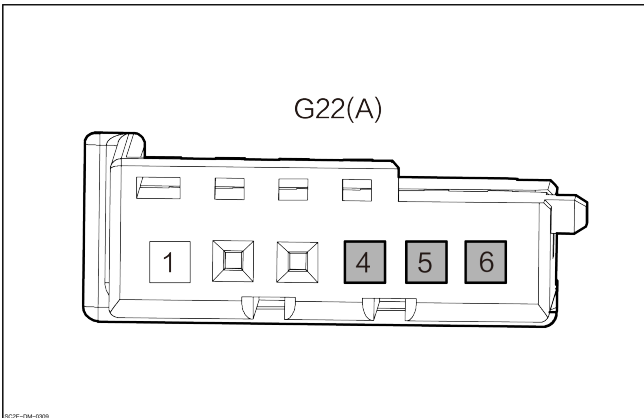
DTC Description

| B2A2B92 Driver' s Side Air Mix Motor Not Rotating in Place | |
|--|--|
| Symptom | Cooling and heating switch function of the A/C system fails. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or harness connector fault. 2. Fault of driver side cooling and heating motor 3. The right body control module fails. |
| Fault setting conditions | When the right body control module monitors that the set target signal voltage of the driver' s side air mix motor is not consistent with the actual feedback voltage, this DTC is generated. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|-----------------------|
| <p style="text-align: center;">Right body control module</p>  <p style="text-align: center;">G86(F)</p> <p><small>80E-04-010</small></p> | 13 | Feedback signal |
| | 16 | Feedback power supply |
| <p style="text-align: center;">Cooling and heating motor</p>  <p style="text-align: center;">G22(A)</p> <p><small>80E-04-009</small></p> | 4 | Feedback power supply |
| | 5 | Feedback signal |
| | 6 | Ground |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Checking the mechanical structure of cooling and heating motor. |
|---|---|

1. Remove the cooling and heating motor.
2. Check the air control linkage device and doors for free movement.

No

Repair or replace when necessary

Yes

| | |
|---|--|
| 3 | Check the cooling and heating motor harness connector. |
|---|--|

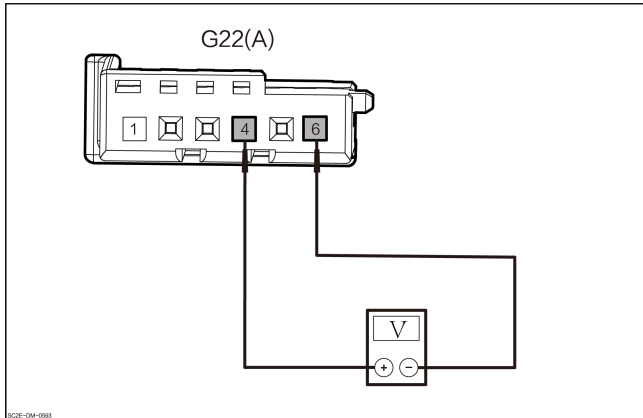
1. Set the START/STOP button to “OFF” .
2. Disconnect the cooling and heating motor harness connector G22(A).
3. Check whether the harness connector of the cooling and heating motor is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the feedback power supply of the cooling and heating motor. |
|---|---|



1. Set the start/stop button to ON.
2. Measure the voltage value between the air mix motor harness connector G22 (A) –4 and the air mix motor harness connector G22 (A) –6.

| Connector | | Condition | Voltage value |
|-----------|----------|-------------|---------------|
| (+) | (-) | | |
| G22(A)-4 | G22(A)-6 | Through-out | 5V |

3. Check whether the results are normal.

No → [Go to step 7](#)

Yes

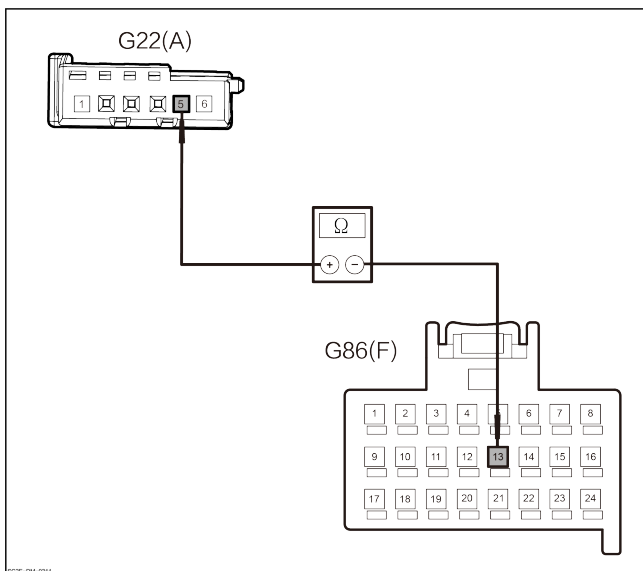
5 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module G86(F).
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the air mix motor feedback line for open circuit.



1. Measure the resistance between the harness connector of air mix motor G22(A)-5 and the harness connector of right body control module G86(F)-13.

| Connector | | Condition | Resist- ance value |
|-----------|---------------|-------------|--------------------------|
| (+) | (-) | | |
| G22(A)-5 | G86(F)-1 3 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the cooling and heating motor.

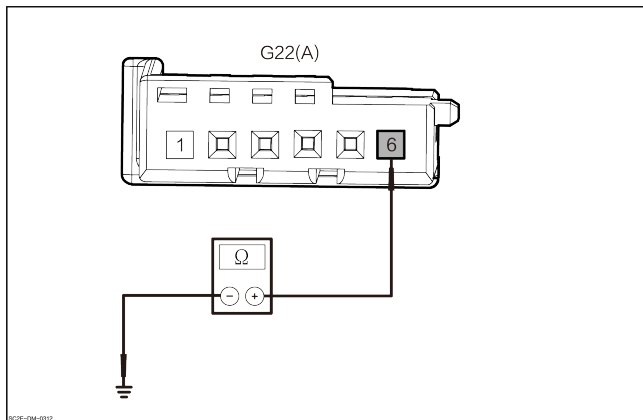
7 Check the harness connector of right body control module.

1. Set the start/stop button to OFF.
2. Disconnect the harness connector of right body control module G86(F).
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

8 Check the air mix motor feedback grounding for open circuit.



1. Measure the resistance value between the air mix motor harness connector G22(A)-6 and the ground.

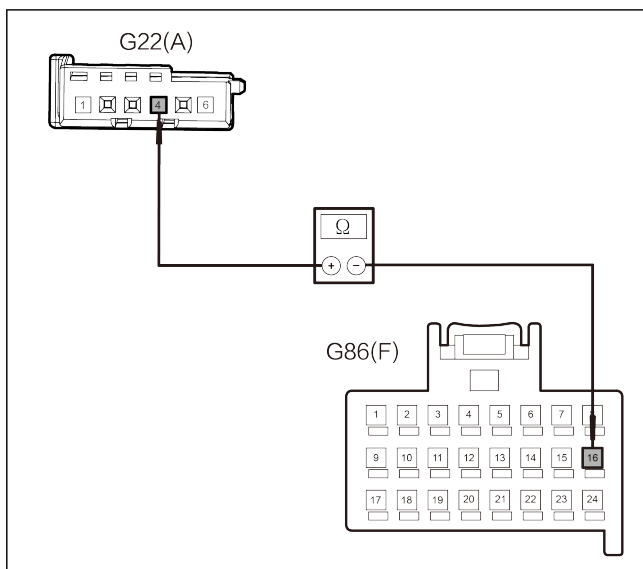
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G22(A)-6 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

9 Check whether the feedback power of cooling and heating motor is open circuited.



1. Measure the resistance between the harness connector of air mix motor G22(A)-4 and the harness connector of right body control module G86(F)-16.

| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| G22(A)-4 | G86(F)-1 6 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

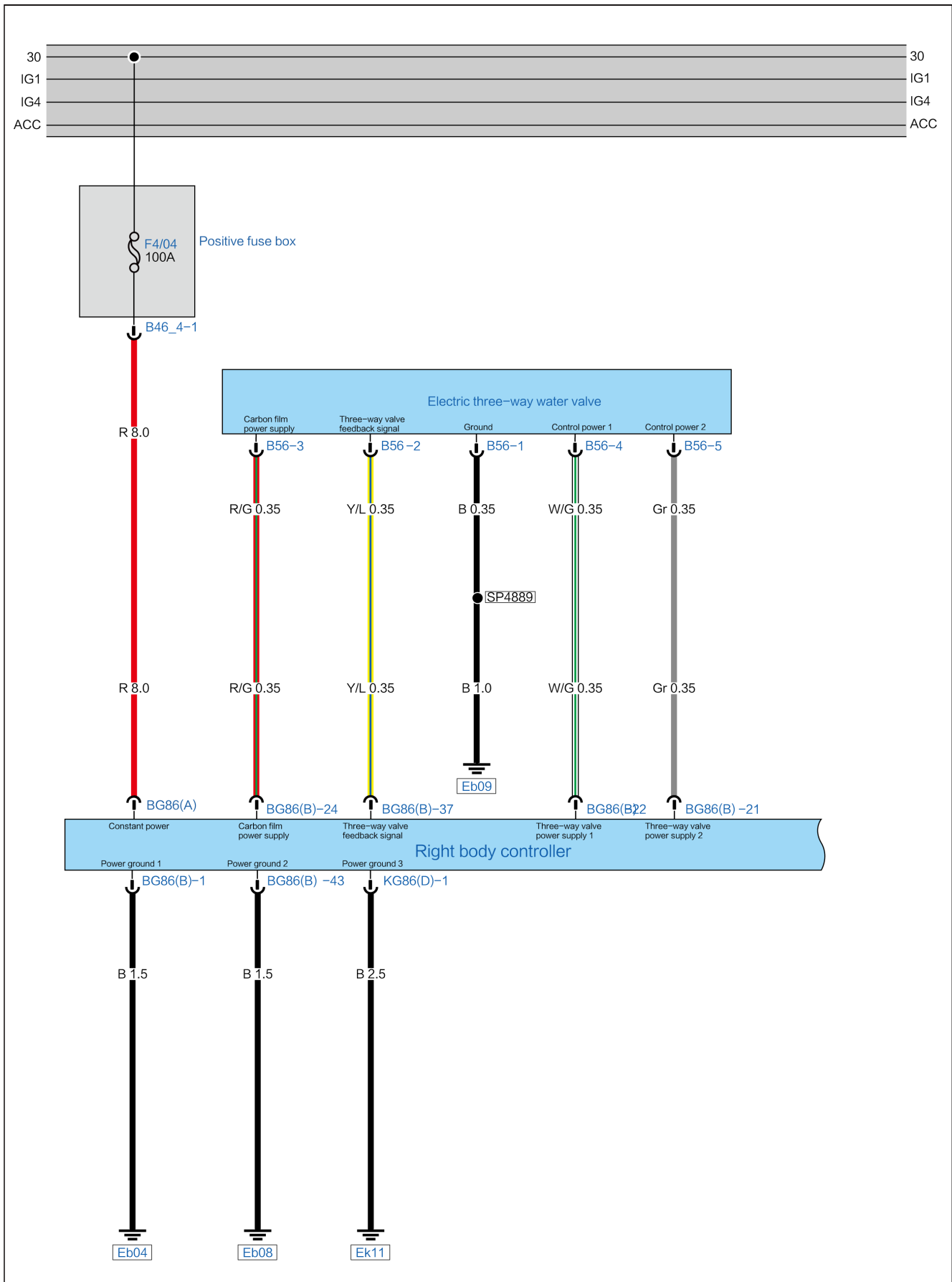
Yes

Replace the right body control module.

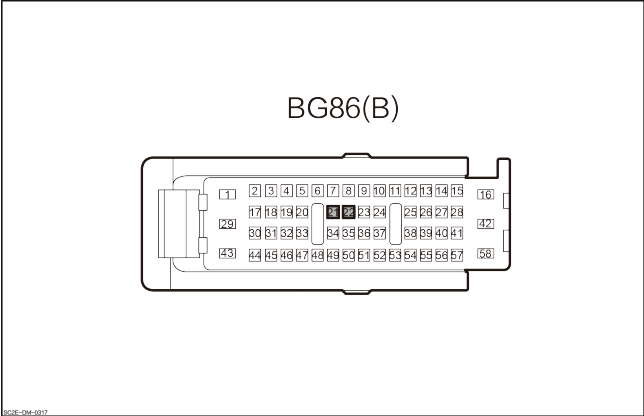
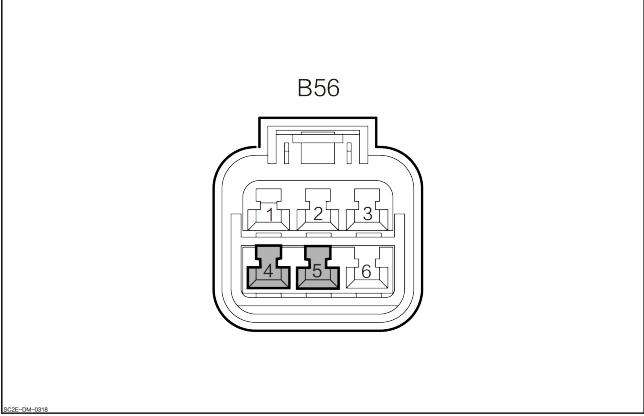
B134111 Three-way Valve Motor Short to Ground or Open-circuited**DTC Description**

| B134111 Three-way Valve Motor Short to Ground or Open-circuited | |
|---|---|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none">1. Harness or harness connector fault.2. Three-way water valve motor fault3. The right body control module fails. |
| Fault setting conditions | When the right body control module fails to detect the reference voltage of three-way valve motor, this DTC will be generated in the continuous memory and as needed. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|----------------------------|
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p style="margin-left: 100px;">BG86(B)</p> </div> <p style="font-size: small; margin-top: 5px;">BG86-004-0017</p> | 21 | Water valve power supply 2 |
| | 22 | Water valve power supply 1 |
| <p style="text-align: center;">Three-way water valve motor</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B56</p> </div> <p style="font-size: small; margin-top: 5px;">BG86-004-0018</p> | 4 | Water valve power supply 1 |
| | 5 | Water valve power supply 2 |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the three-way valve motor harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of three-way valve motor B56.
3. Check whether the three-way valve motor harness connector is normal.

No → Repair or replace the wire harness

Yes

| | |
|---|----------------------------------|
| 3 | Check the three-way valve motor. |
|---|----------------------------------|

1. Measure the resistance value between the pins of the three-way valve motor harness connector.

| Connector | | Condition | Reference value |
|-----------|-----|-------------|-----------------|
| (+) | (-) | | |
| 1 | 2 | Through-out | 35Ω |

2. Check whether the results are normal.

No → Replace the three-way water valve motor.

Yes

4 Check the harness connector of right body control module.

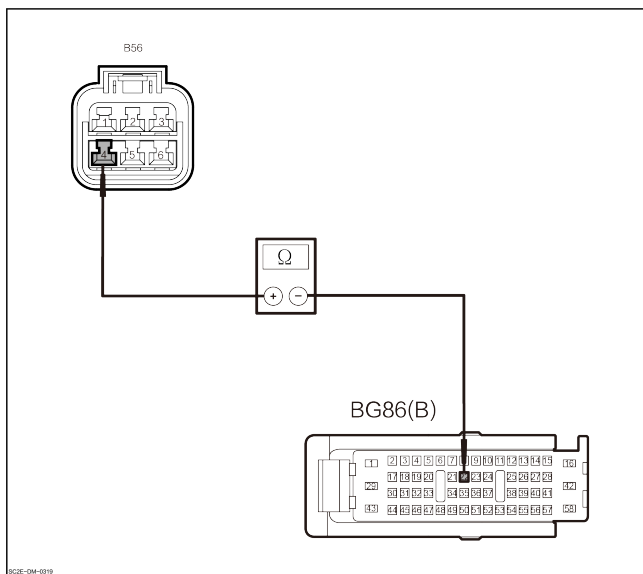
1. Disconnect the harness connector of right body control module BG86(B).
2. Check whether the harness connector of right body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the three-way water valve motor power supply 1 line for open circuit.



1. Measure the resistance between the harness connector of three-way valve motor B56-4 and the harness connector of right body BG86-22.

| Connector | | Condition | Resist- ance value |
|-----------|---------|-----------------|--------------------------|
| (+) | (-) | | |
| B56-4 | BG86-22 | Through- out | Lower than 1 Ω |

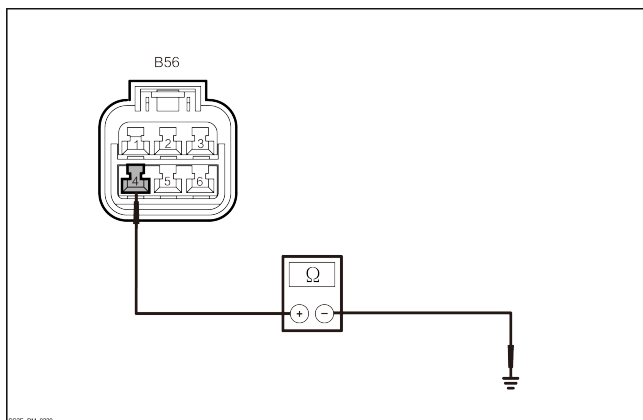
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

6 Check the three-way water valve motor power supply 1 line for short circuit to the ground.



1. Measure the resistance value between the three-way valve motor harness connector B56-4 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B56-4 | Ground | Through- out | Above 10K Ω |

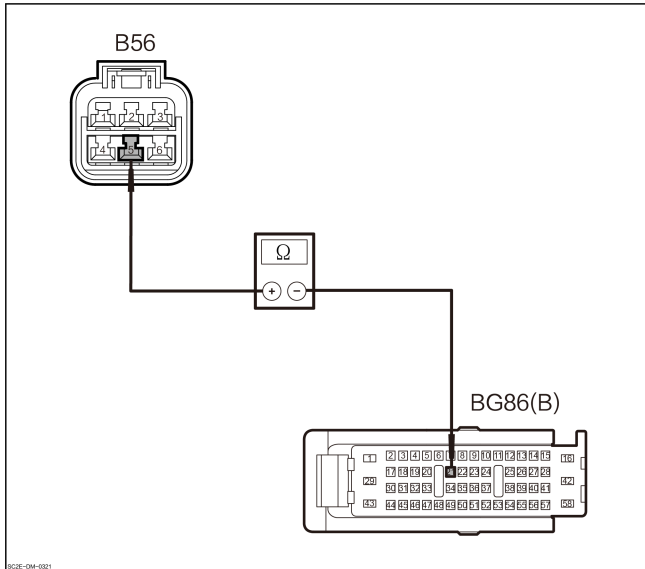
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Check the three-way water valve motor power supply 2 line for open circuit.



1. Measure the resistance between the harness connector of three-way valve motor B56-5 and the harness connector of right body BG86-21.

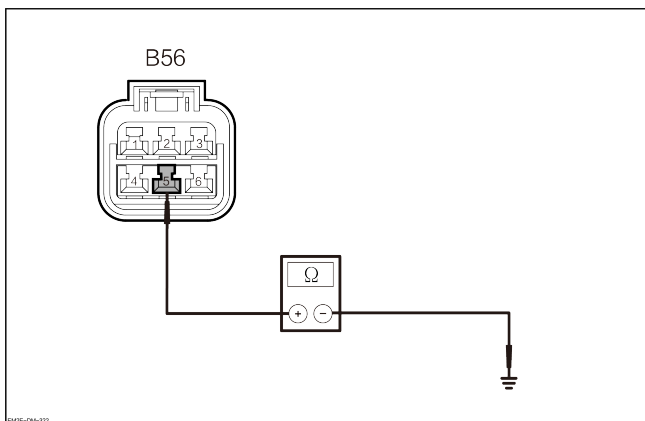
| Connector | | Condition | Resistance value |
|-----------|---------|-------------|------------------|
| (+) | (-) | | |
| B56-5 | BG86-21 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the three-way water valve motor power supply 2 line for short circuit to the ground.



1. Measure the resistance value between the three-way valve motor harness connector B56-5 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| B56-5 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

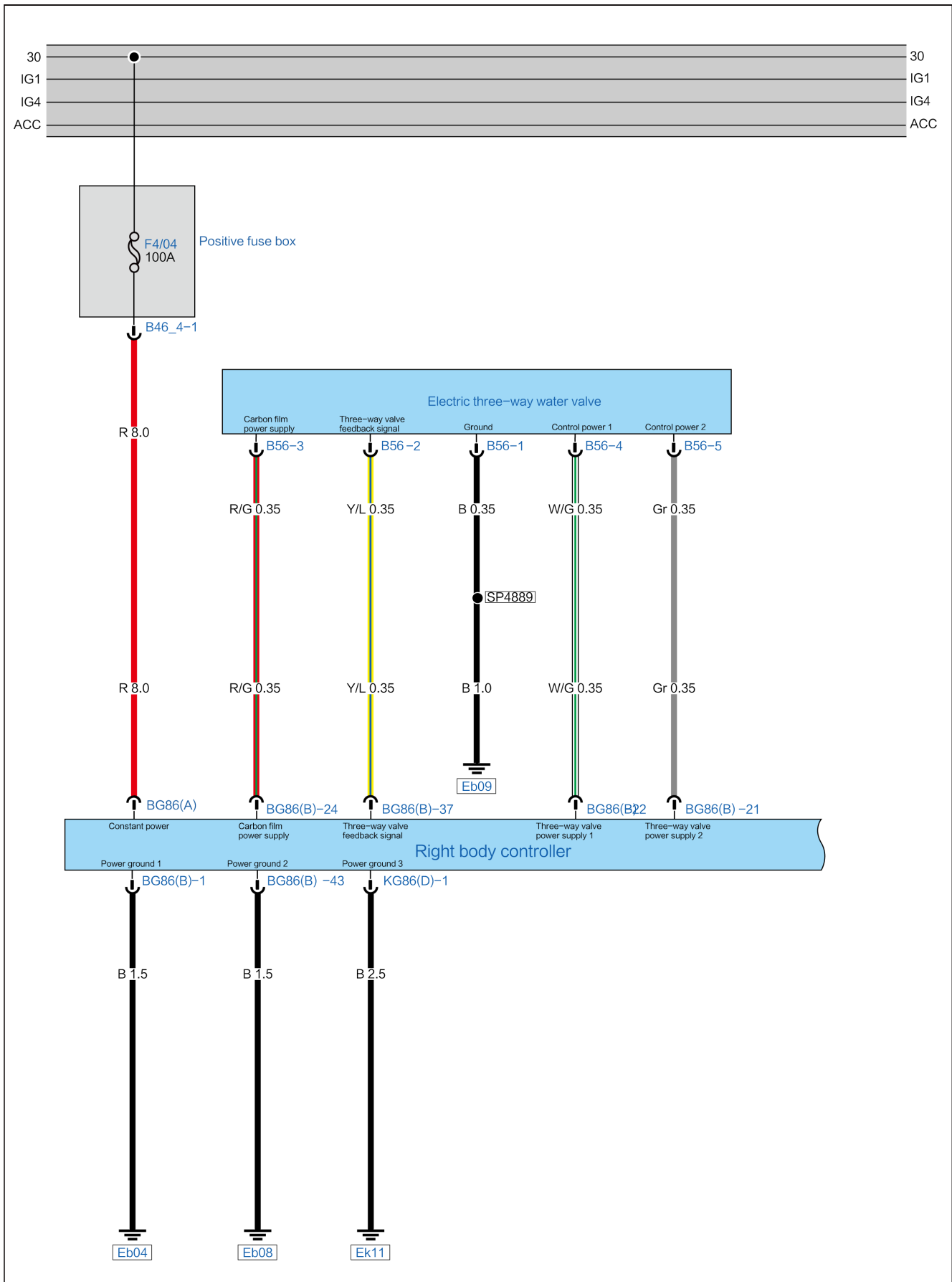
Yes → Replace the right body control module.

B134211 Three-way Valve Motor Short to Power

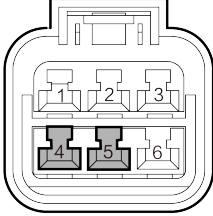
DTC Description

| B134211 Three-way Valve Motor Short to Power | |
|--|---|
| Symptom | |
| Possible Cause | <ol style="list-style-type: none">1. Harness or harness connector fault.2. Three-way water valve motor fault3. The right body control module fails. |
| Fault setting conditions | When the three-way valve motor is short-circuited to other power supplies, this DTC will be generated in the continuous memory and as needed. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|--------------------------------------|---|
| <p>Three-way water valve motor</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>B56</p>  </div> | <p>4</p> | <p>Control power supply 1</p> |
| | <p>5</p> | <p>Control power supply 2</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the three-way valve motor harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the three-way valve motor harness connector B56.
3. Check whether the three-way valve motor harness connector is normal.

No → Repair or replace the wire harness

Yes

| | |
|---|----------------------------------|
| 3 | Check the three-way valve motor. |
|---|----------------------------------|

1. Measure the resistance value between the pins of the three-way valve motor harness connector.

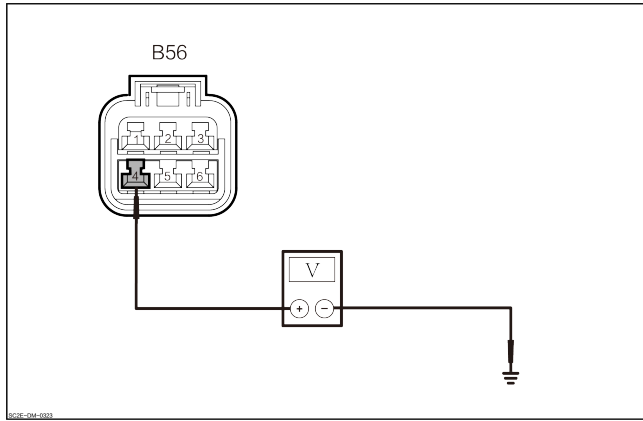
| Connector | | Condition | Resist- ance value |
|-----------|-----|-----------------|--------------------------|
| (+) | (-) | | |
| 1 | 2 | Through- out | 35Ω |

2. Check whether the results are normal.

No → Replace the three-way water valve motor.

Yes

4 Check the three-way water valve motor power supply 1 line for short circuit to the power supply.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the three-way valve motor harness connector B56-4 and the ground.

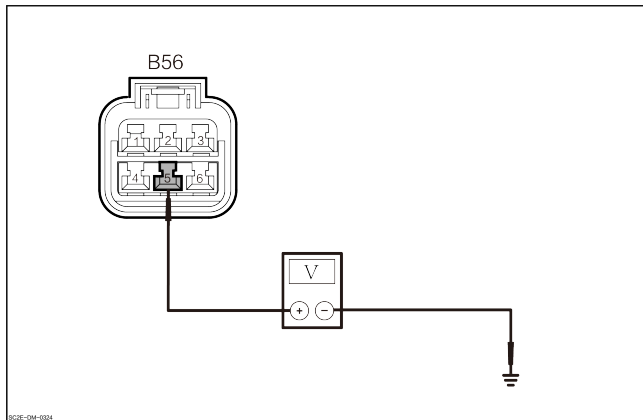
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B56-4 | Ground | Through-out | Less than 1V |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the three-way water valve motor power supply 2 line for short circuit to the power supply.



1. Measure the voltage value between the three-way valve motor harness connector B56-5 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| B56-5 | Ground | Through-out | Less than 1V |

2. Check whether the results are normal.

No → Repair or replace the wire harness

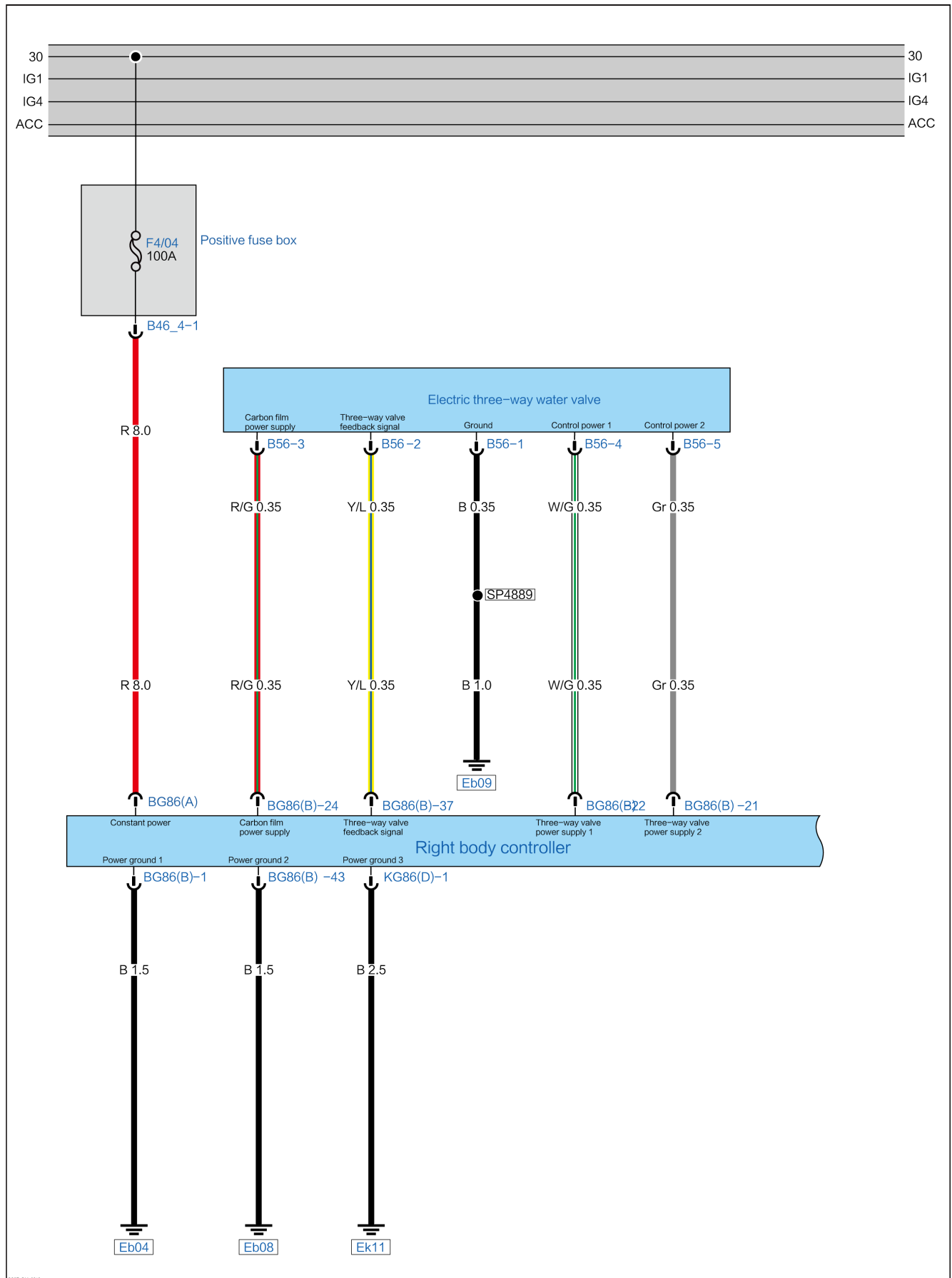
Yes → Replace the right body control module.

B134392 Three-way Valve Motor Not Rotating in Place

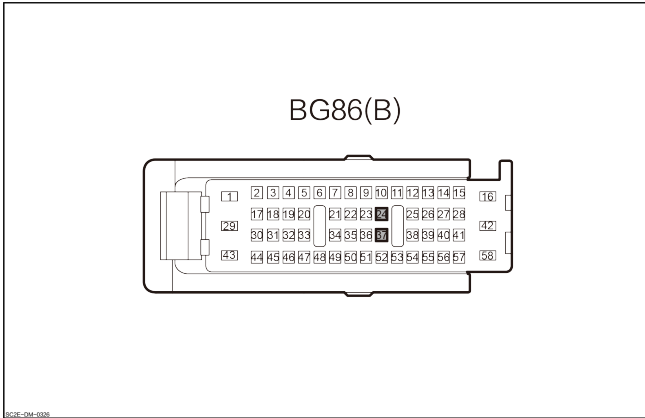
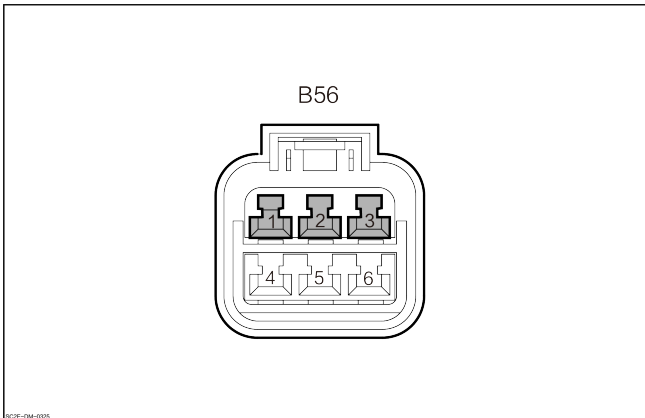
DTC Description

| B134392 Three-way Valve Motor Not Rotating in Place | |
|---|--|
| Symptom | – |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or harness connector fault. 2. Three-way water valve motor fault 3. The right body control module fails. |
| Fault setting conditions | This DTC is generated when the right body control module detects that the target signal voltage value set by the three-way valve motor is inconsistent with the actual feedback voltage value. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|---------------------------------------|--|
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p>BG86(B)</p> </div> | <p style="text-align: center;">24</p> | <p style="text-align: center;">Feedback signal</p> |
| | <p style="text-align: center;">37</p> | <p style="text-align: center;">Feedback power supply</p> |
| <p style="text-align: center;">Electric three-way water valve</p> <div style="text-align: center;">  <p>B56</p> </div> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Ground</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Feedback signal</p> |
| | <p style="text-align: center;">3</p> | <p style="text-align: center;">Feedback power supply</p> |

Diagnostic Steps

1 Check the DTC of right body control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

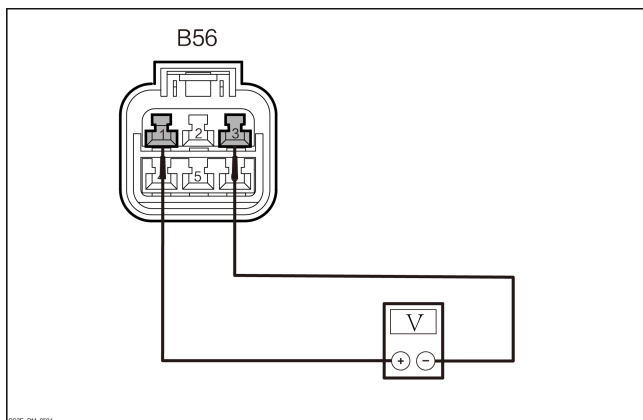
2 Check the three-way valve motor harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the three-way valve motor harness connector B56.
3. Check whether the three-way valve motor harness connector is normal.

No → Repair or replace the wire harness

Yes

3 Check the feedback power supply of three-way water valve motor.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the three-way valve motor harness connector B56-1 and the air mix motor harness connector B56-3.

| Connector | | Condition | Voltage value |
|-----------|-------|-------------|---------------|
| (+) | (-) | | |
| B56-1 | B56-3 | Through-out | 11~14V |

3. Check whether the results are normal.

No → [Go to step 6](#)

Yes

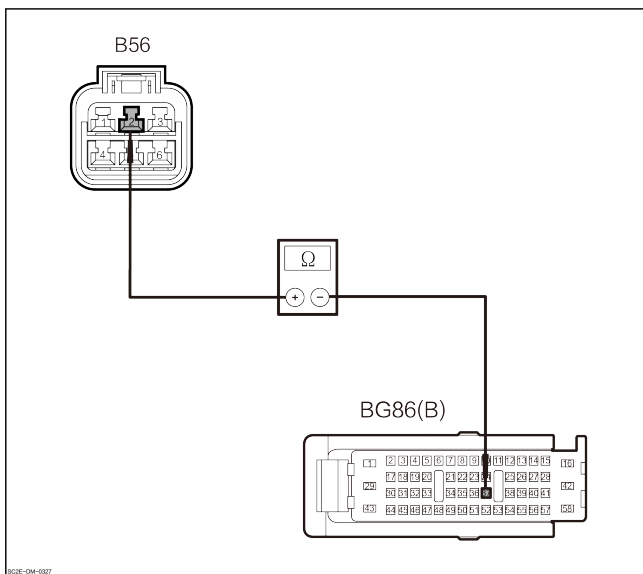
4 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module BG86(B).
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

5 Check the feedback signal output line of three-way valve motor for open circuit.



1. Measure the resistance between the harness connector of three-way valve motor B56-2 and the harness connector of right body control module BG86(B)-37.

| Connector | | Condition | Resist- ance value |
|-----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| B56(A)-2 | BG86(B)-37 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the three-way water valve motor.

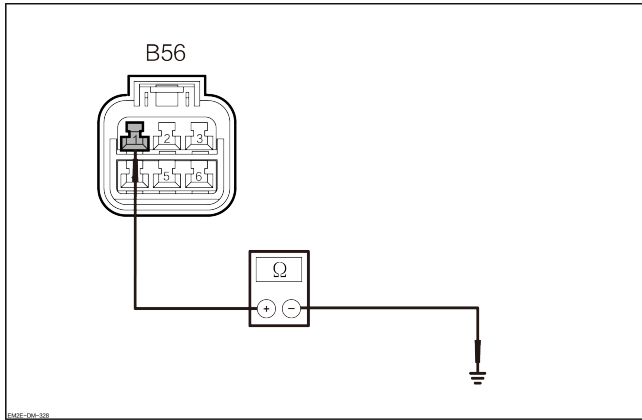
6 Check the harness connector of right body control module.

1. Disconnect the harness connector of right body control module BG86(B).
2. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

7 Check the feedback grounding of three-way valve motor for open circuit.



1. Set the START/STOP button to “OFF” .
2. Disconnect the three-way valve motor harness connector B56.
3. Measure the resistance value between the three-way valve motor harness connector B56-1 and the ground.

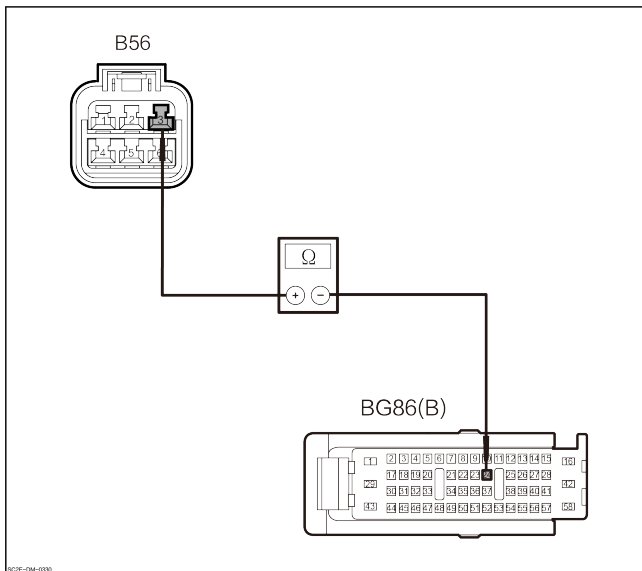
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|----------------|
| (+) | (-) | | |
| B56-1 | Ground | Through-out | Lower than 1 Ω |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the feedback power supply of the three-way valve motor for open-circuit.



1. Measure the resistance between the harness connector of three-way valve motor B56-3 and the harness connector of right body control module BG86(B)-24.

| Connector | | Condition | Resistance value |
|-----------|------------|-------------|------------------|
| (+) | (-) | | |
| B56-3 | BG86(B)-24 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

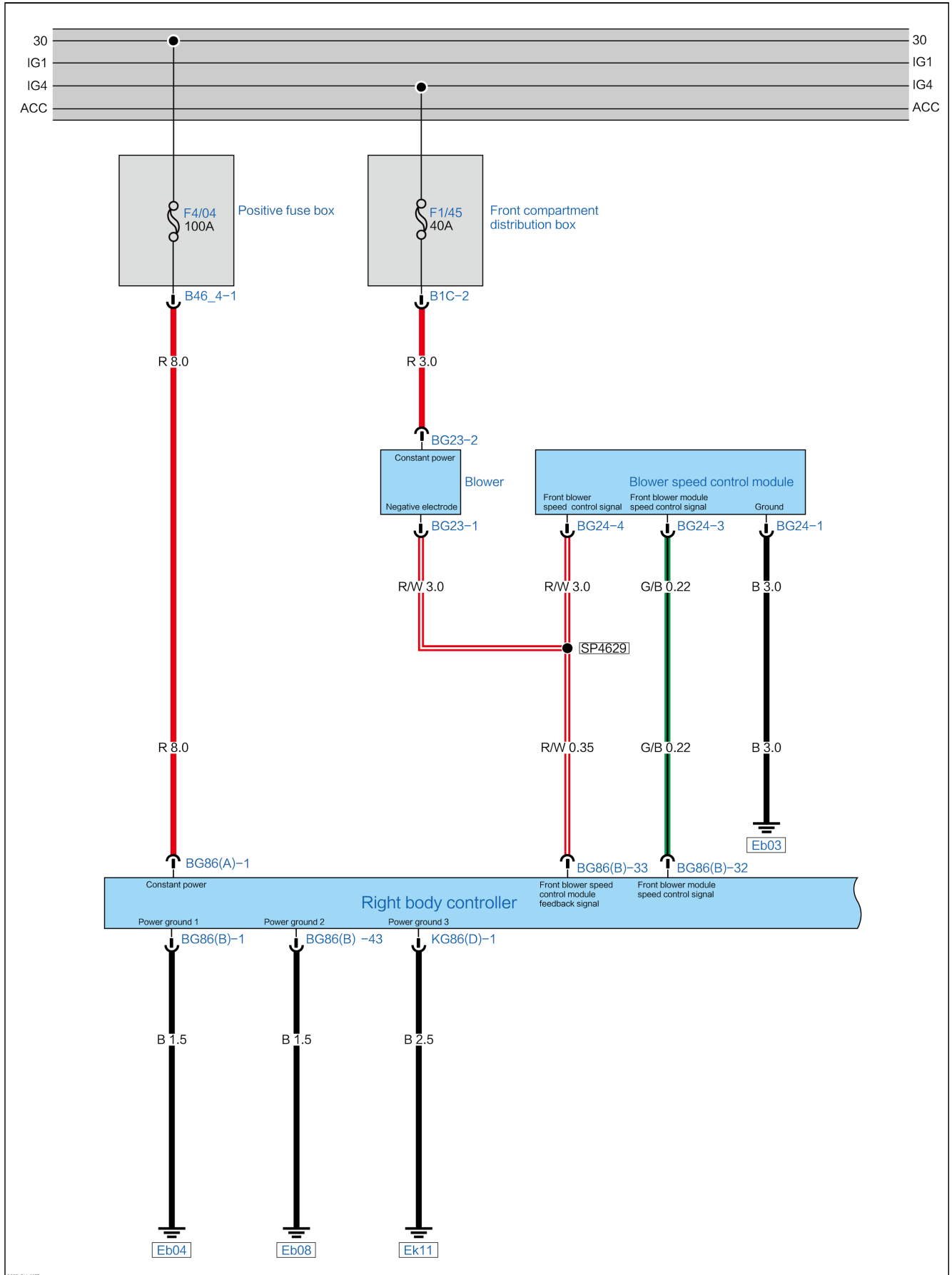
Yes → Replace the right body control module.

B2A3214 Front Blower Short to Ground or Open-circuited

DTC Description

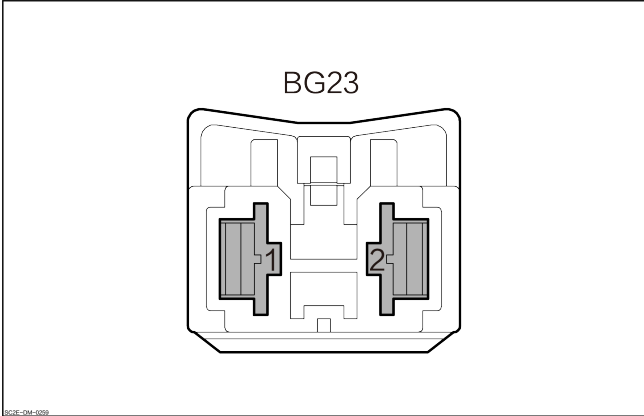
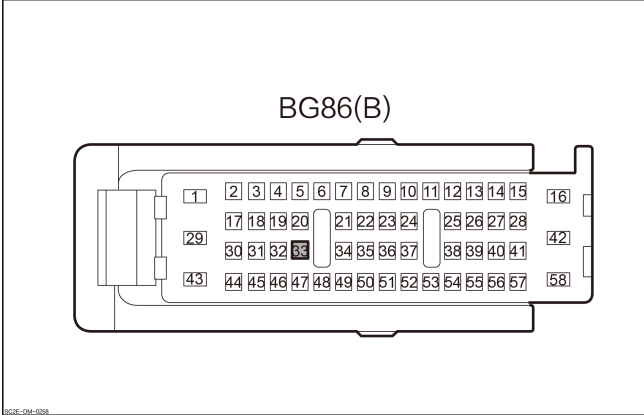
| B2A3214 Front Blower Short to Ground or Open-circuited | |
|--|--|
| Symptom | All functions of the A/C system fail. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or harness connector fault. 2. Blower fault 3. The right body control module fails. |
| Fault setting conditions | This DTC is generated when the right body control module fails to detect the blower reference voltage. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



8028-04-0107

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|---|
| <p style="text-align: center;">Blower</p> <div style="text-align: center;">  <p style="text-align: center;">BG23</p> </div> <p><small>8012-DM-009</small></p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Ground</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Power supply</p> |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p style="text-align: center;">BG86(B)</p> </div> <p><small>8012-DM-008</small></p> | <p style="text-align: center;">33</p> | <p style="text-align: center;">Front blower speed regulation module feedback signal</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|------------------------|
| 2 | Check the blower fuse. |
|---|------------------------|

1. Check whether the fuse F1/45(40A) of front compartment fuse box is normal?

No → Replace the fuse

Yes

| | |
|---|--|
| 3 | Check the harness connector of the blower. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the blower harness connector BG23.
3. Check whether the harness connector of the blower is normal.

No → Repair or replace the wire harness

Yes

| | |
|---|------------------|
| 4 | Check the blower |
|---|------------------|

1. Measure the resistance value between the pins of the blower harness connector.

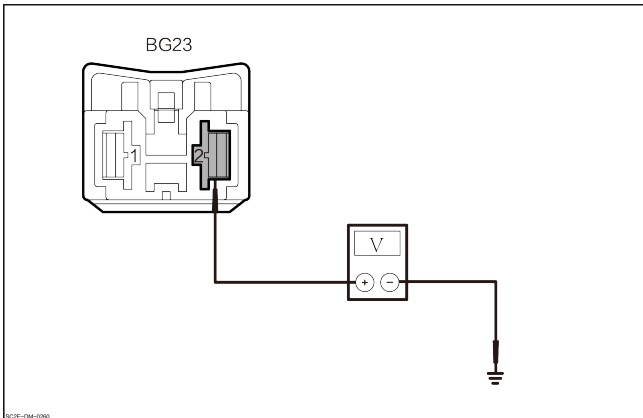
| Connector | | Condition | Reference value |
|-----------|-----|-------------|-----------------|
| (+) | (-) | | |
| 1 | 2 | Through-out | 0.5Ω |

2. Check whether the results are normal.

No → Replace the blower if damaged.

Yes

5 Check the power supply of blower.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the blower harness connector BG23-2 and the ground.

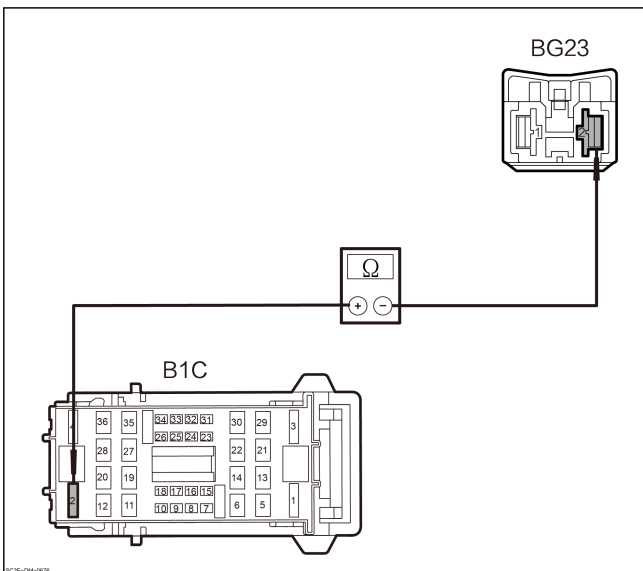
| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BG23-2 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → [Go to step 7.](#)

No

6 Check the blower power line for open circuit



1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1C.
3. Measure the resistance value between the blower harness connector BG23-2 and the front compartment fuse box harness connector B1C-2.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| B1C-2 | BG23-2 | Through-out | Lower than 1Ω |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the front compartment fuse box.

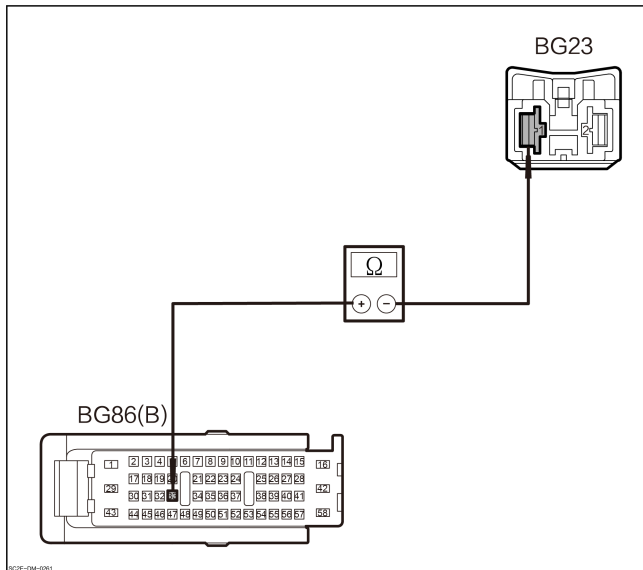
7 Check the harness connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module BG86(B).
3. Check whether the harness connector of right body control module is normal?

No Repair or replace the wire harness

Yes

8 Check whether the front blower speed regulation module feedback signal is open circuited.



1. Measure the resistance between the blower harness connector BG23-1 and the harness connector of right body control module BG86(B)-33.

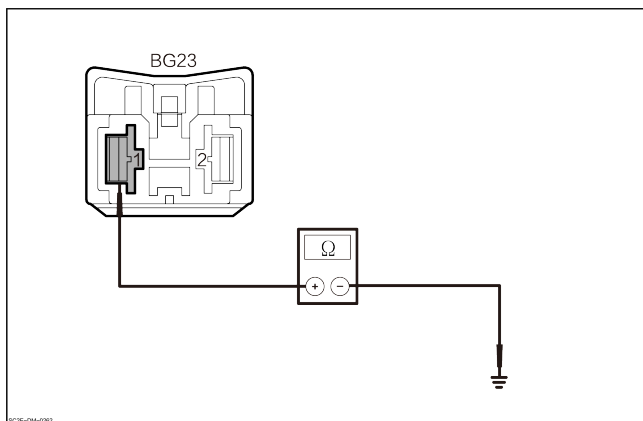
| Connector | | Condition | Resist- ance value |
|-----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| BG23-1 | BG86(B)-33 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

9 Check whether the front blower speed regulation module feedback signal is shorted to ground.



1. Measure the resistance value between the blower harness connector BG23-1 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG23-1 | Ground | Through- out | Above 10K Ω |

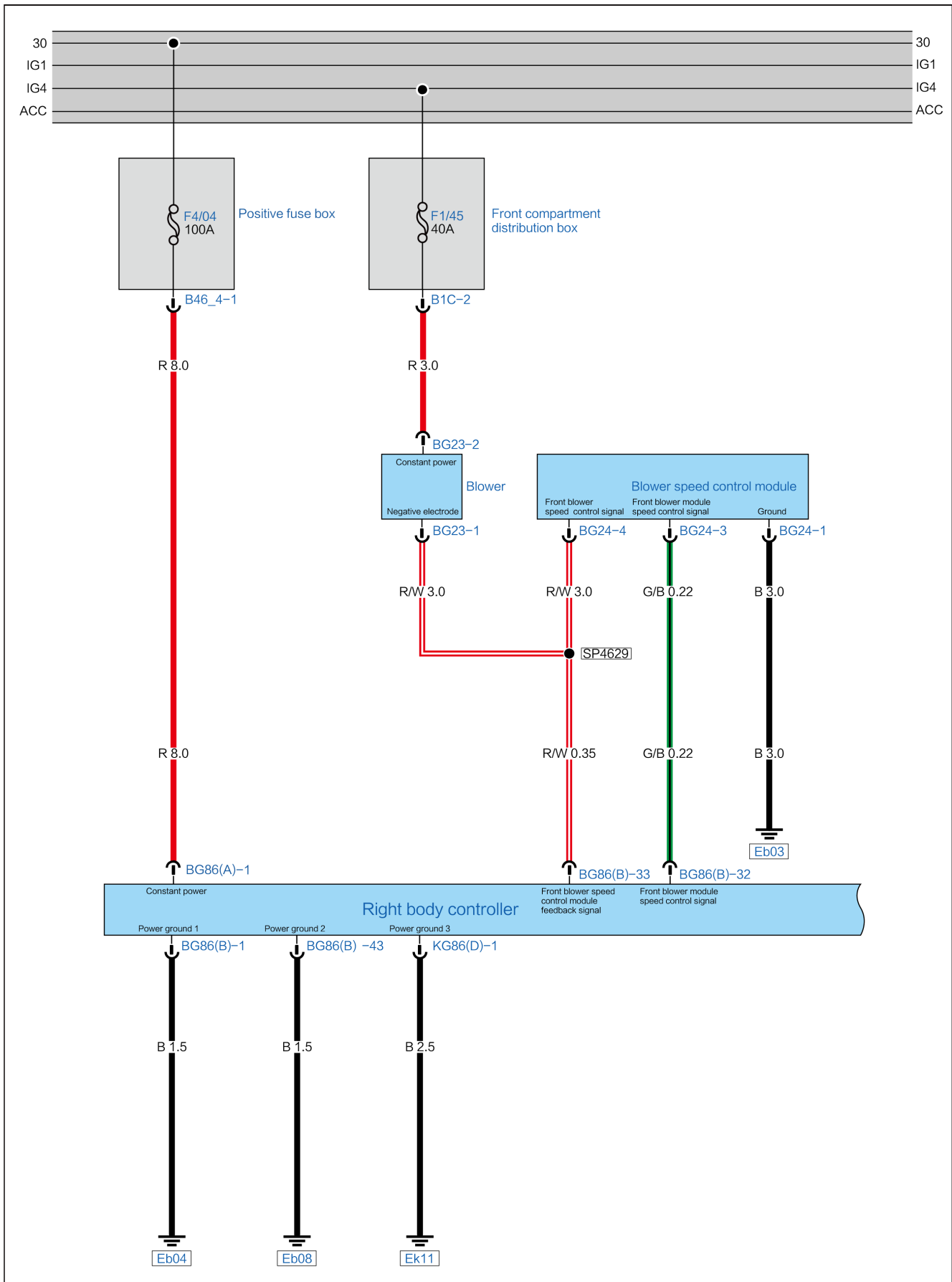
2. Check whether the results are normal.

| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the right body control module. |

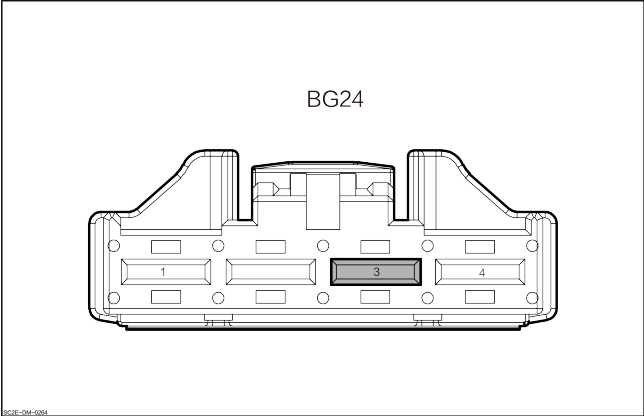
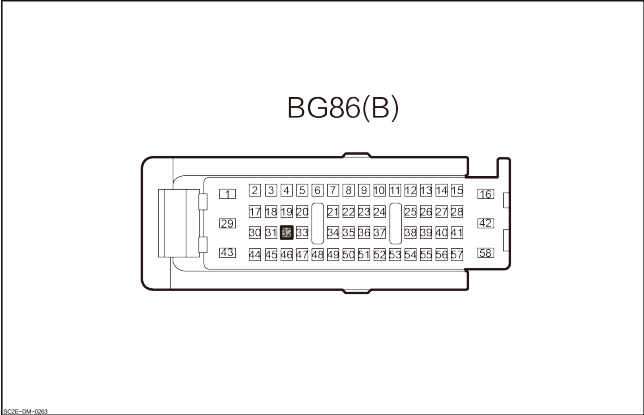
B2A3314 Front Blower Adjustment Signal Harness Short to Ground or Open-circuited**DTC Description**

| B2A3314 Front Blower Adjustment Signal Harness Short to Ground or Open-circuited | |
|--|--|
| Symptom | Air regulation of the A/C system fails. |
| Possible Cause | 1. Harness or harness connector fault. 2. The right body control module fails. 3. Blower speed regulating resistor fault. |
| Fault setting conditions | This DTC is generated when the right body control module detects that the target adjustment signal voltage set by the blower does not match the actual feedback voltage. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--|
| <p style="text-align: center;">Blower speed control module</p> <div style="text-align: center;">  <p style="text-align: center;">BG24</p> </div> | <p>3</p> | <p>Ground</p> |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p style="text-align: center;">BG86(B)</p> </div> | <p>32</p> | <p>Front blower module speed regulation control signal</p> |

Diagnostic Steps

1 Check the DTC of right body control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

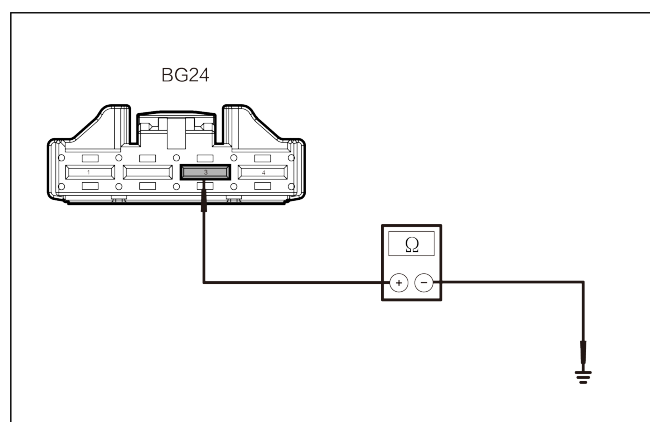
2 Check the harness connector of the blower speed regulating resistors.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector BG24 of the blower speed regulating resistors.
3. Check whether the harness connector of the blower speed regulating resistors is normal?

No → Repair or replace the wire harness

Yes

3 Check the speed control signal of front blower module short circuit to ground.



1. Measure the resistance value between the front blower module harness connector BG24-3 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG24-3 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

4 Check the harness connector of right body control module.

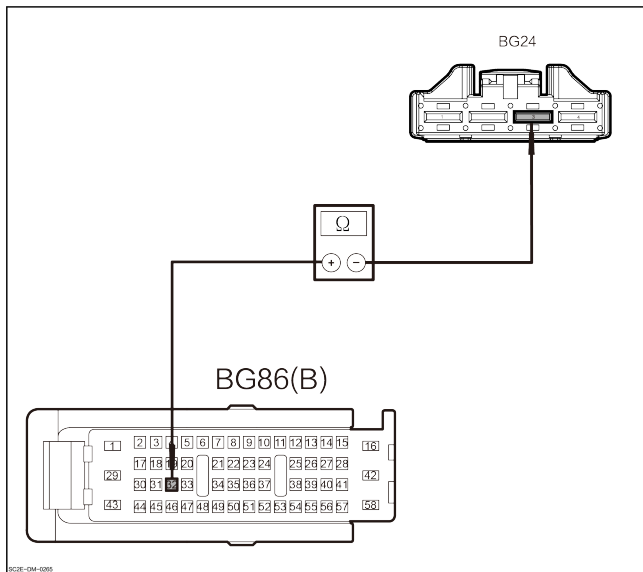
1. Disconnect the harness connector of right body control module BG86(B).
2. Check whether the harness connector of right body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the front blower module speed regulation control signal for open circuit.



1. Measure the resistance between the blower harness connector BG24-3 and the harness connector of right body control module BG86(B)-32.

| Connector | | Condition | Resist- ance value |
|-----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| BG24-3 | BG86(B)-32 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

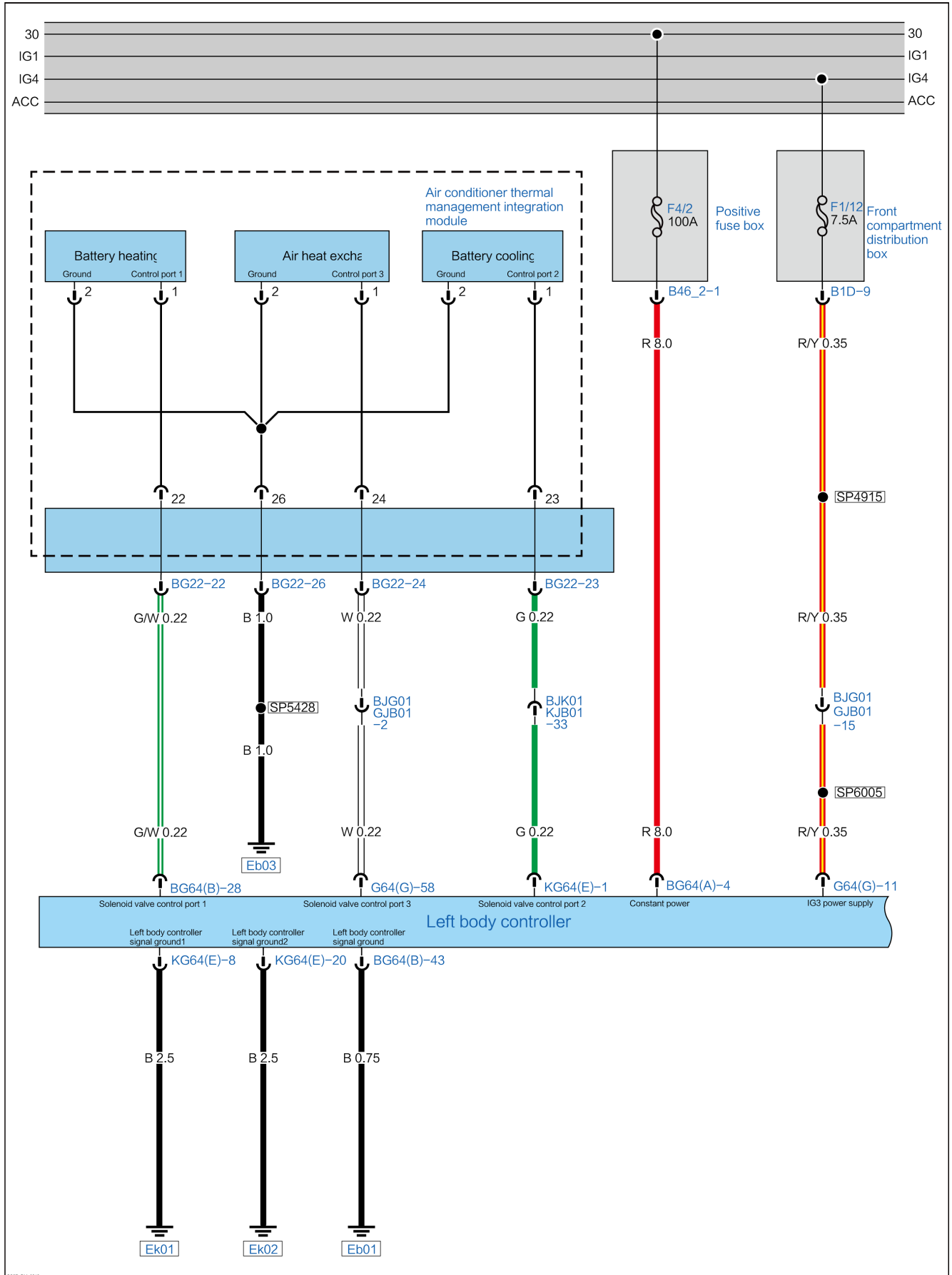
Replace the blower speed regulating resistor.

B133800 Solenoid Valve 1 Status Fault

DTC Description

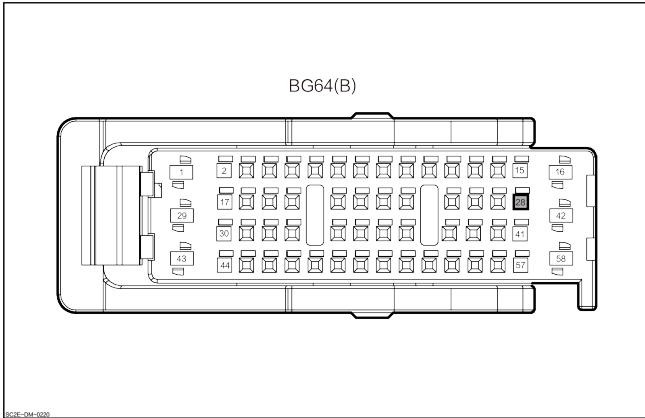
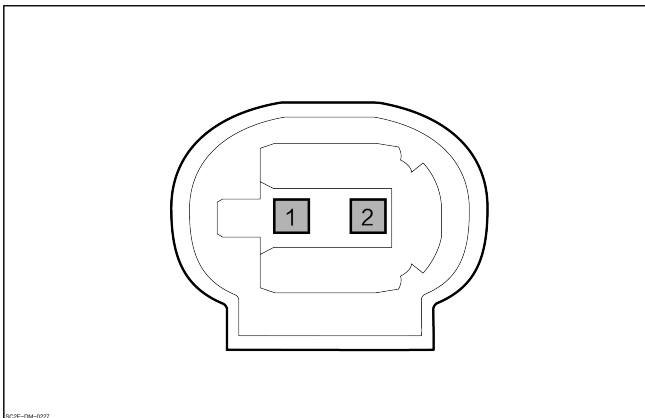
| B133800 Solenoid Valve 1 Status Fault | |
|---------------------------------------|--|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or harness connector fault.2. Solenoid valve 1 fault.3. The left body control module fails. |
| Fault setting conditions | If the solenoid valve 1 fails, this DTC will be generated in continuous memory and on demand. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



3023-04-0919

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-------------------------------|
| <p style="text-align: center;">Left body control module</p>  <p style="text-align: center;">BG64(B)</p> | 28 | Solenoid valve control port 1 |
| <p style="text-align: center;">Solenoid valve 1</p>  | 1 | Control port 1 |
| | 2 | Ground |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the solenoid valve 1 harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the solenoid valve 1 harness connector.
3. Check whether the solenoid valve 1 harness connector is normal.

No Repair or replace the wire harness

Yes

| | |
|---|-----------------------------|
| 3 | Check the solenoid valve 1. |
|---|-----------------------------|

1. Measure the resistance value between the pins of the solenoid valve 1 harness connector.

| Connector | | Condition | Reference value |
|-----------|-----|-------------|-----------------|
| (+) | (-) | | |
| 1 | 2 | Through-out | 14 Ω |

2. Check whether the results are normal.

No Replace the solenoid valve 1.

Yes

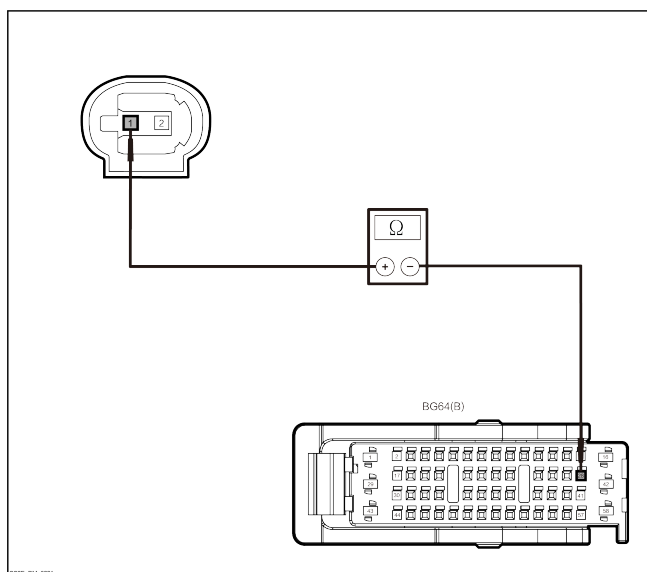
| | |
|---|--|
| 4 | Check the harness connector of left body control module. |
|---|--|

1. Disconnect the harness connector of left body control module BG64(B).
2. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

5 Check the control line of solenoid valve 1 for open circuit.



1. Measure the resistance between the harness connector-1 of solenoid valve 1 and the harness connector of left body control module BG64(B)-28.

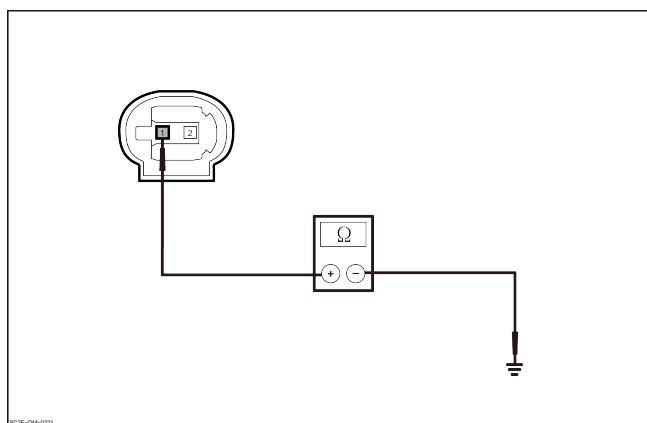
| Connector | | Condition | Resistance value |
|--------------------|------------|-------------|------------------|
| (+) | (-) | | |
| Solenoid valve 1-1 | BG64(B)-28 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check whether the control line of solenoid valve 1 is shorted to ground.



1. Measure the resistance value between solenoid valve 1 harness connector-1 and ground.

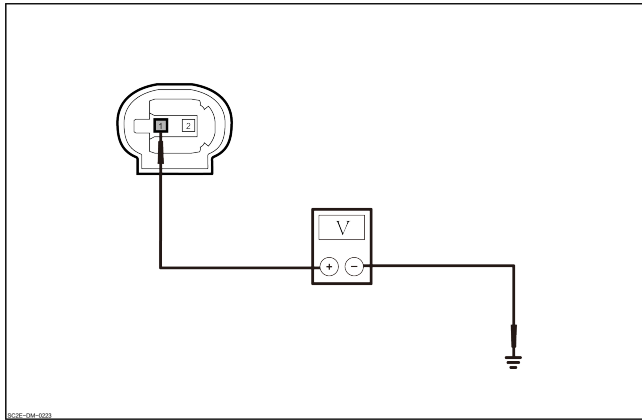
| Connector | | Condition | Resistance value |
|--------------------|--------|-------------|------------------|
| (+) | (-) | | |
| Solenoid valve 1-1 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the control line of solenoid valve 1 for short circuit to power.



1. Connect the harness connector of left body control module BG64(B).
2. Set the START/STOP button to “ON” .
3. Measure the voltage value between solenoid valve 1 harness connector-1 and ground.

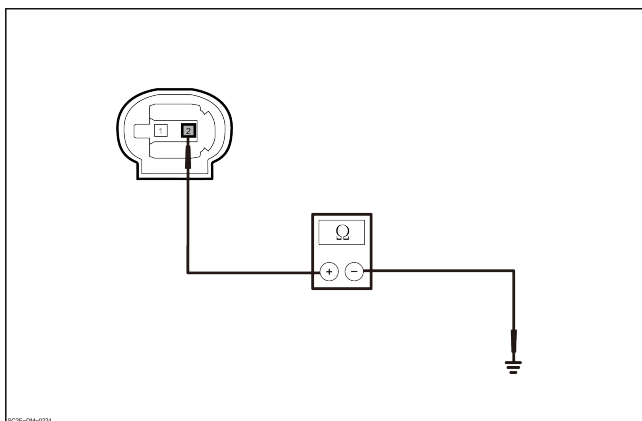
| Connector | | Condition | Voltage value |
|--------------------|--------|-------------|---------------|
| (+) | (-) | | |
| Solenoid valve 1-1 | Ground | Through-out | Less than 1V |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the ground line of solenoid 1 for open circuit.



1. Measure the resistance value between solenoid valve 1 harness connector-2 and ground.

| Connector | | Condition | Resistance value |
|--------------------|--------|-------------|------------------|
| (+) | (-) | | |
| Solenoid valve 1-2 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

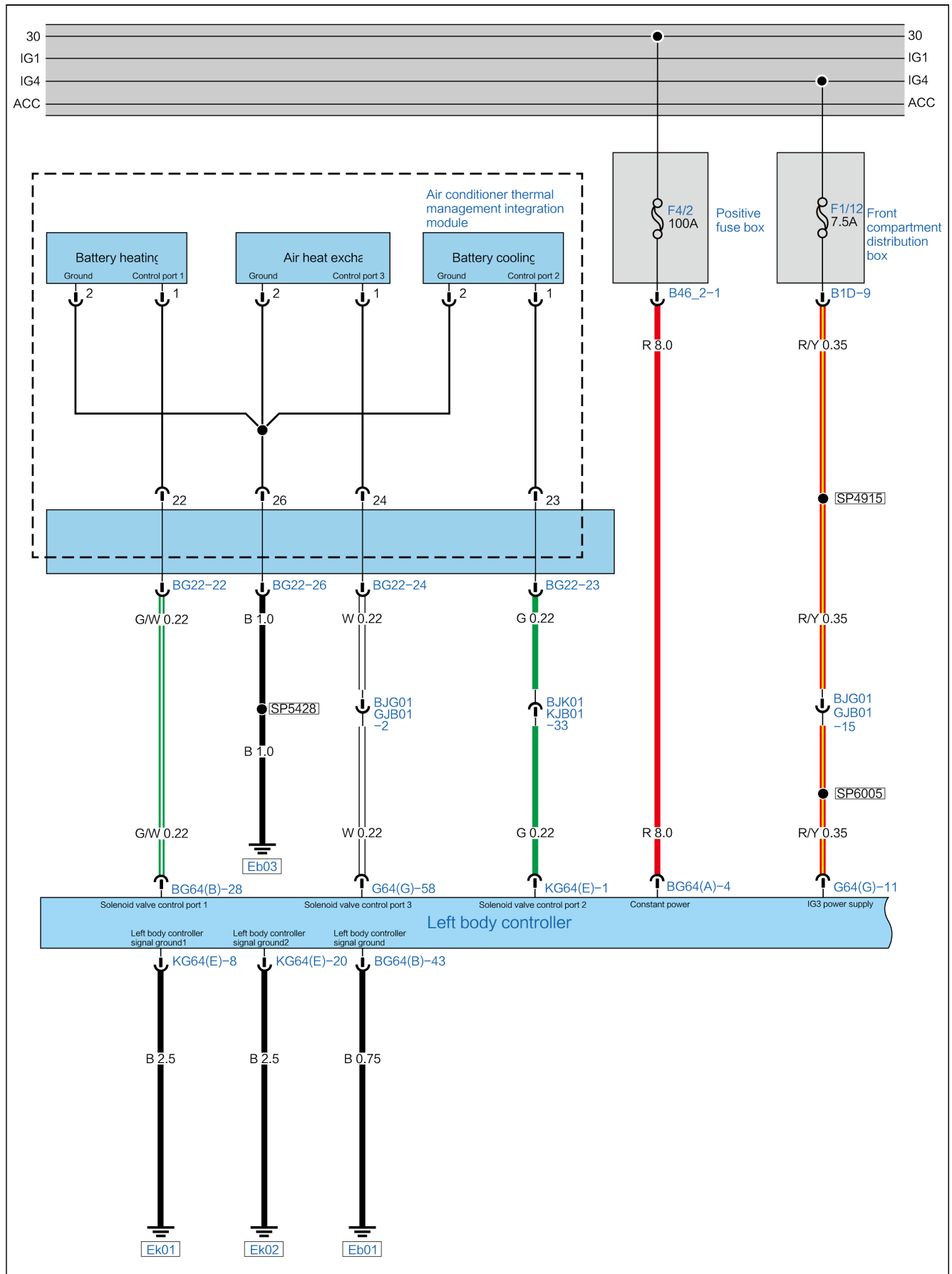
Yes → Replace the left body control module.

B133900 Solenoid Valve 2 Status Fault

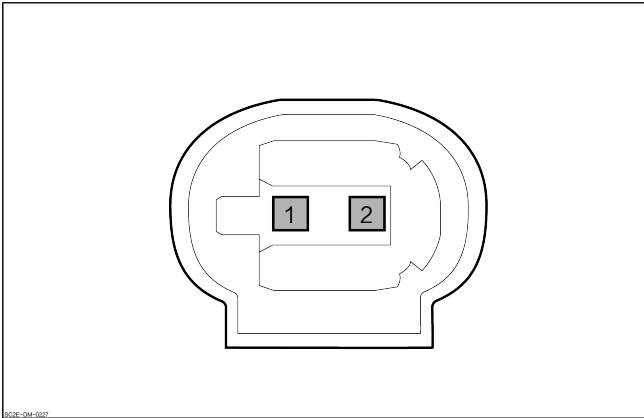
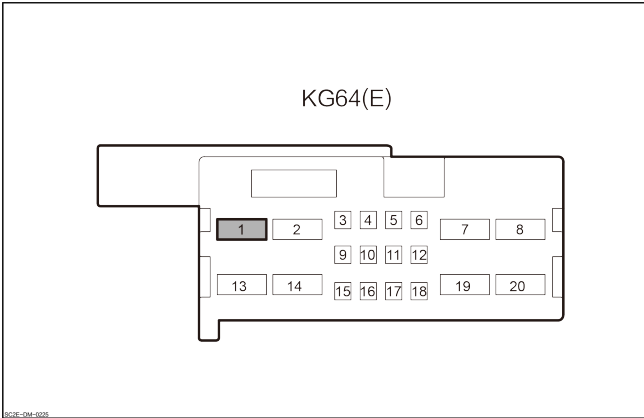
DTC Description

| B133900 Solenoid Valve 2 Status Fault | |
|---------------------------------------|--|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or harness connector fault.2. Solenoid valve 2 fault.3. The left body control module fails. |
| Fault setting conditions | If the solenoid valve 2 fails, this DTC will be generated in continuous memory and on demand. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|--------------------------------------|--|
| <p style="text-align: center;">Solenoid valve 2</p>  <p style="text-align: center;"><small>801E-04-027</small></p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Control port 2</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Ground</p> |
| <p style="text-align: center;">Left body control module</p>  <p style="text-align: center;"><small>801E-04-025</small></p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Solenoid valve control port 2</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the solenoid valve 2 harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the solenoid valve 2 harness connector.
3. Check whether the solenoid valve 2 harness connector is normal.

No Repair or replace the wire harness

Yes

| | |
|---|-----------------------------|
| 3 | Check the solenoid valve 2. |
|---|-----------------------------|

1. Measure the resistance value between the pins of the solenoid valve 2 harness connector.

| Connector | | Condition | Reference value |
|-----------|-----|-------------|-----------------|
| (+) | (-) | | |
| 1 | 2 | Through-out | 14 Ω |

2. Check whether the results are normal.

No Replace the solenoid valve 2.

Yes

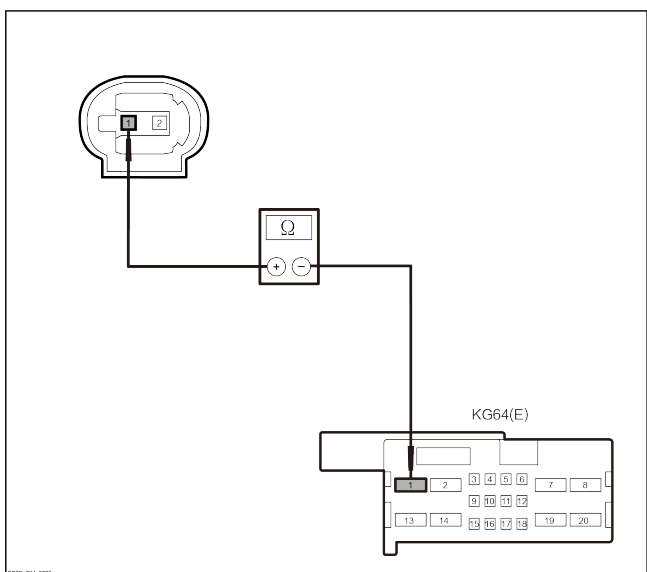
| | |
|---|--|
| 4 | Check the harness connector of left body control module. |
|---|--|

1. Disconnect the harness connector of left body control module KG64(E).
2. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

5 Check the control line of solenoid valve 2 for open circuit.



1. Measure the resistance between the solenoid valve 2 harness connector-1 and the harness connector of left body control module KG64(E)-1.

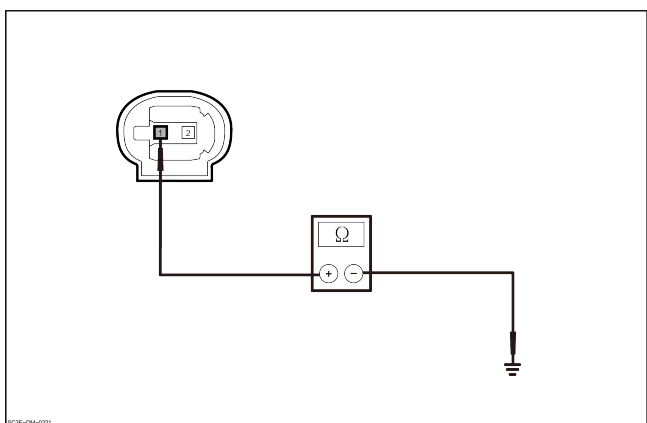
| Connector | | Condition | Resistance value |
|--------------------|-----------|-------------|------------------|
| (+) | (-) | | |
| Solenoid valve 2-1 | KG64(E)-1 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check whether the control line of solenoid valve 2 is shorted to ground.



1. Measure the resistance value between solenoid valve 2 harness connector-1 and ground.

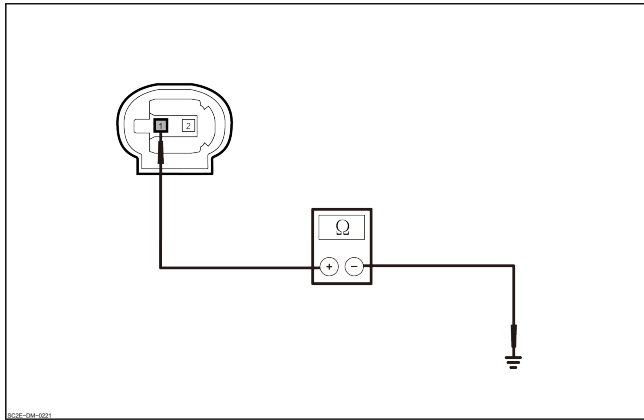
| Connector | | Condition | Resistance value |
|--------------------|--------|-------------|------------------|
| (+) | (-) | | |
| Solenoid valve 2-1 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the control line of solenoid valve 2 for short circuit to power.



1. Connect the harness connector of left body control module KG64(E).
2. Set the START/STOP button to “ON” .
3. Measure the voltage value between solenoid valve 2 harness connector-1 and ground.

| Connector | | Condition | Resist- ance value |
|-----------------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| Solenoid valve 2-1 | Ground | Through- out | Lower than 1 Ω |

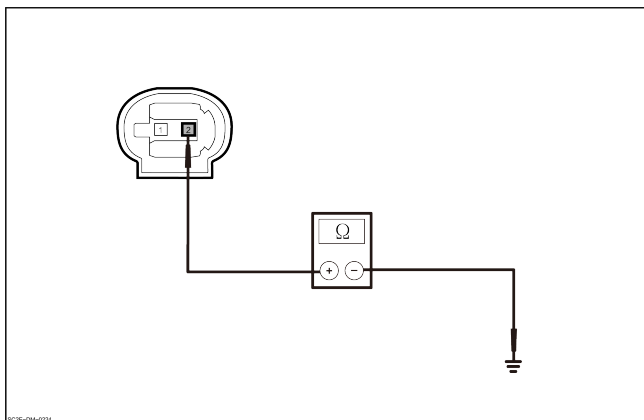
4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 8 | Check the ground line of solenoid 2 for open circuit. |
|---|---|



1. Measure the resistance value between solenoid valve 2 harness connector-2 and ground.

| Connector | | Condition | Resist- ance value |
|-----------------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| Solenoid valve 2-2 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

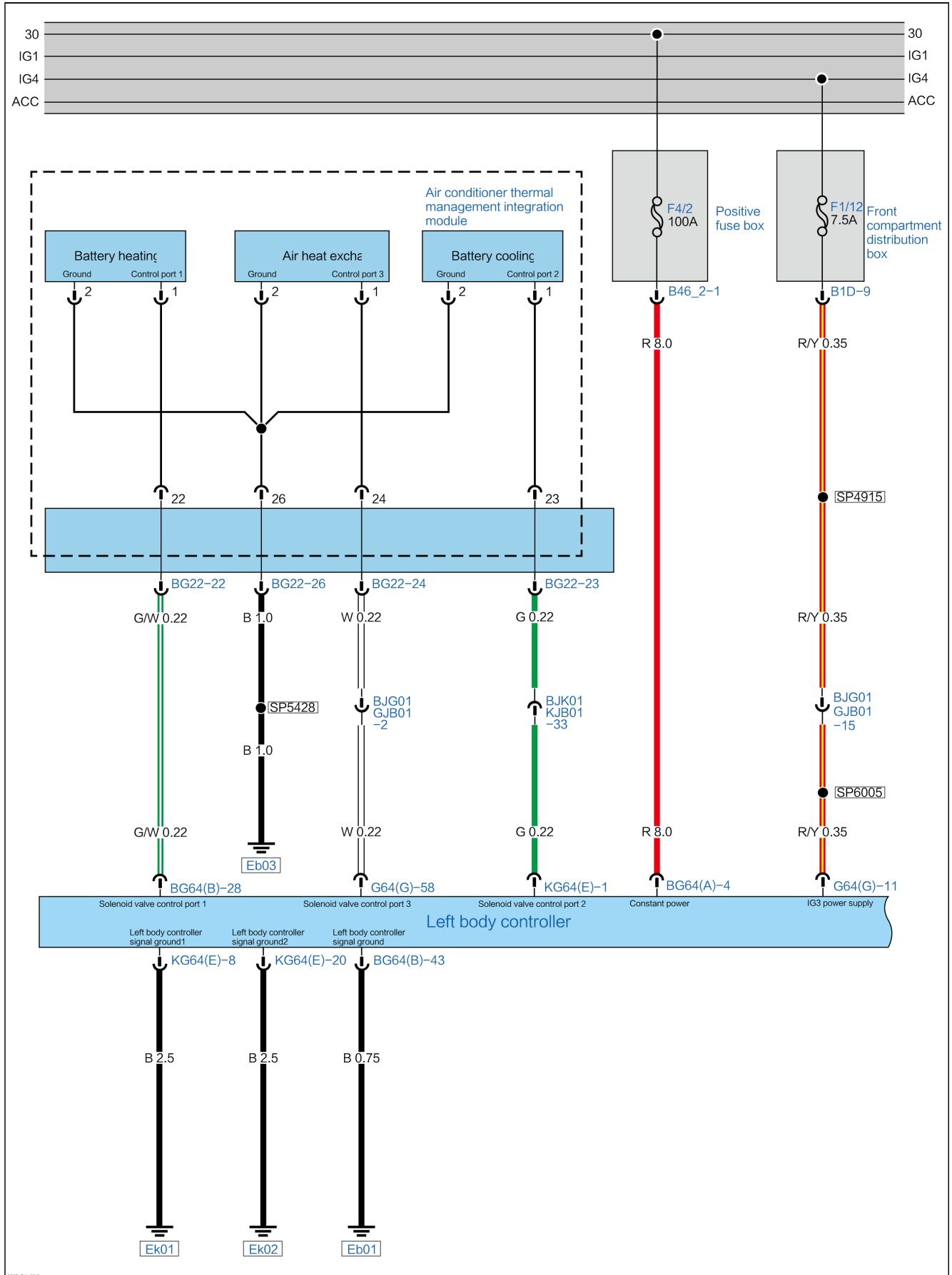
Replace the left body control module.

B133A00 Solenoid Valve 3 Status Fault

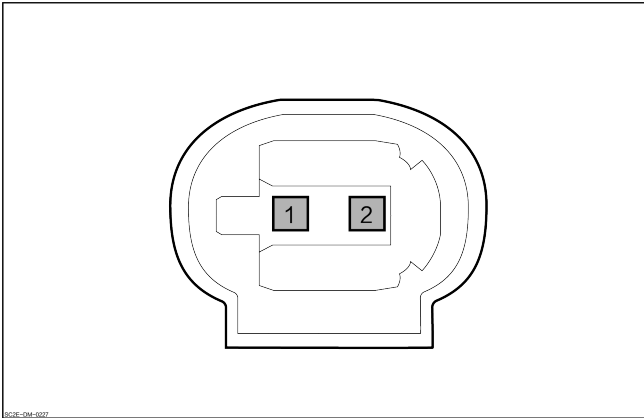
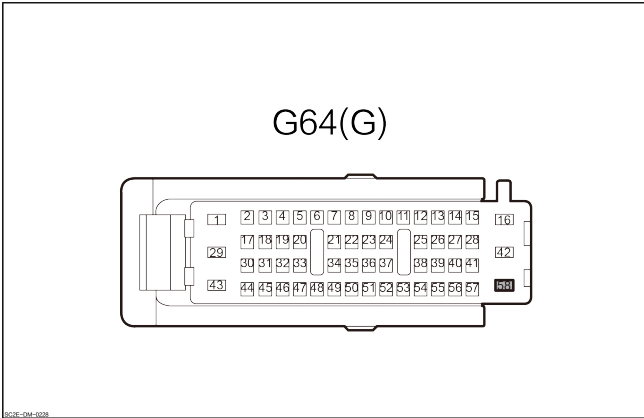
DTC Description

| B133A00 Solenoid Valve 3 Status Fault | |
|---------------------------------------|--|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or harness connector fault.2. Solenoid valve 3 fault.3. The left body control module fails. |
| Fault setting conditions | If the solenoid valve 3 fails, this DTC will be generated in continuous memory and on demand. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|---------------------------------------|--|
| <p style="text-align: center;">Solenoid valve 3</p>  <p><small>801E-04-027</small></p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Control port 3</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Ground</p> |
| <p style="text-align: center;">Left body control module</p> <p style="text-align: center;">G64(G)</p>  <p><small>801E-04-028</small></p> | <p style="text-align: center;">58</p> | <p style="text-align: center;">Solenoid valve control port 3</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the solenoid valve 3 harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the solenoid valve 3 harness connector.
3. Check whether the solenoid valve 3 harness connector is normal.

No Repair or replace the wire harness

Yes

| | |
|---|-----------------------------|
| 3 | Check the solenoid valve 3. |
|---|-----------------------------|

1. Measure the resistance value between the pins of the solenoid valve 3 harness connector.

| Connector | | Condition | Reference value |
|-----------|-----|-------------|-----------------|
| (+) | (-) | | |
| 1 | 2 | Through-out | 14 Ω |

2. Check whether the results are normal.

No Replace the solenoid valve 3.

Yes

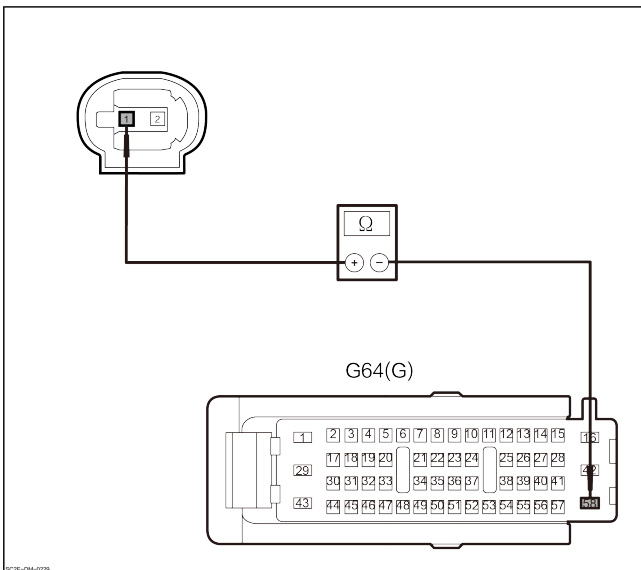
| | |
|---|--|
| 4 | Check the harness connector of left body control module. |
|---|--|

1. Disconnect the harness connector of left body control module G64(G).
2. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

5 Check the control line of solenoid valve 3 for open circuit.



1. Measure the resistance between the harness connector-1 of solenoid valve 3 and harness connector of left body control module G64(G)-58.

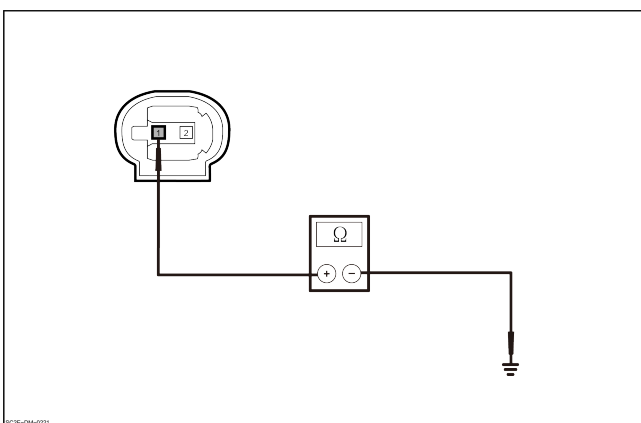
| Connector | | Condition | Resist- ance value |
|--------------------|-----------|-------------|--------------------------|
| (+) | (-) | | |
| Solenoid valve 3-1 | G64(G)-58 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check whether the control line of solenoid valve 3 is shorted to ground.



1. Measure the resistance value between solenoid valve 3 harness connector-1 and ground.

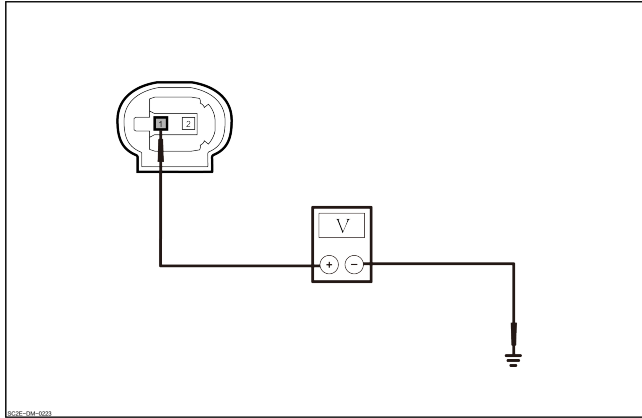
| Connector | | Condition | Resist- ance value |
|--------------------|--------|-------------|--------------------------|
| (+) | (-) | | |
| Solenoid valve 3-1 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the control line of solenoid valve 3 for short circuit to power.



1. Connect the harness connector of left body control module G64(G).
2. Set the START/STOP button to “ON” .
3. Measure the voltage between the harness connector-1 of solenoid valve 3 and the ground.

| Connector | | Condition | Voltage value |
|--------------------|--------|-------------|---------------|
| (+) | (-) | | |
| Solenoid valve 3-1 | Ground | Through-out | Less than 1V |

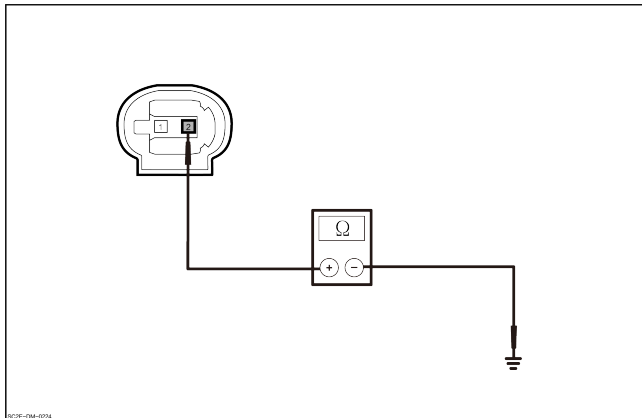
4. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

8 Check the ground line of solenoid 3 for open circuit.



1. Measure the resistance value between solenoid valve 3 harness connector-2 and ground.

| Connector | | Condition | Resistance value |
|--------------------|--------|-------------|------------------|
| (+) | (-) | | |
| Solenoid valve 3-2 | Ground | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

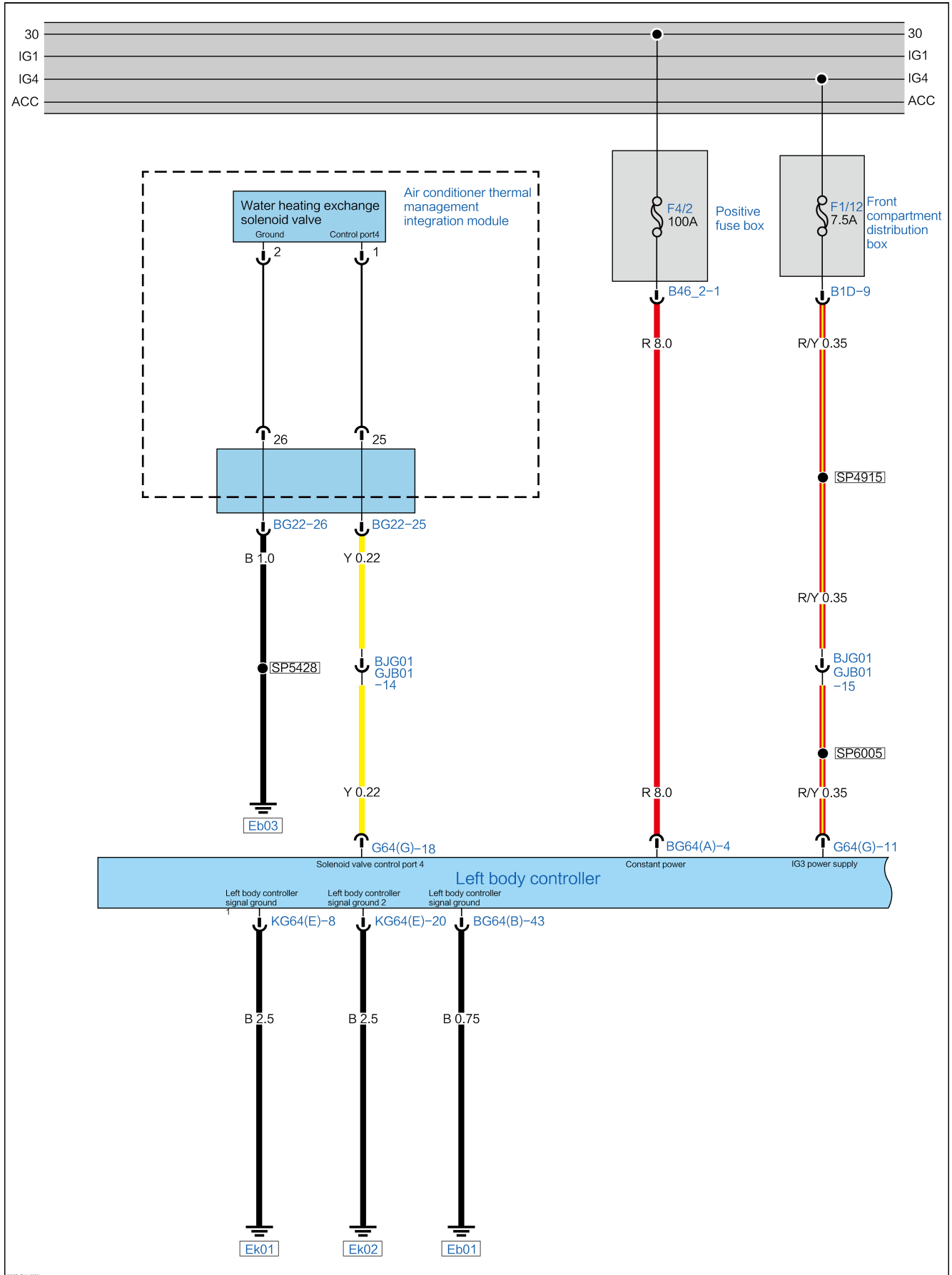
Replace the left body control module.

B133B00 Solenoid Valve 4 Status Fault

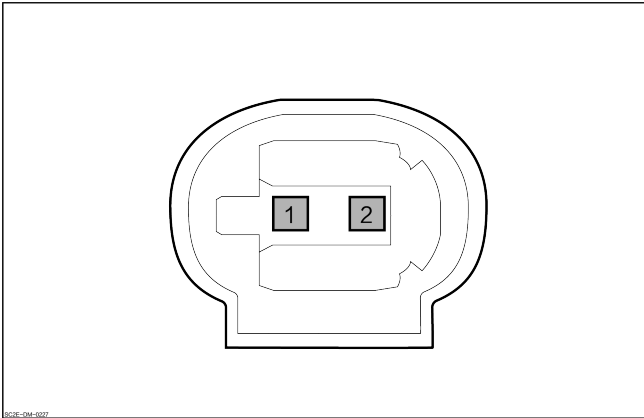
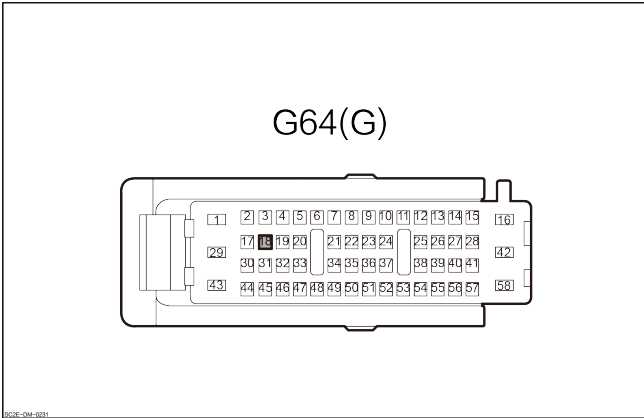
DTC Description

| B133B00 Solenoid Valve 4 Status Fault | |
|---------------------------------------|--|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or harness connector fault.2. Solenoid valve 4 fault.3. The left body control module fails. |
| Fault setting conditions | If the solenoid valve 4 fails, this DTC will be generated in continuous memory and on demand. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|--|
| <p style="text-align: center;">Solenoid valve 4</p>  <p style="text-align: left; font-size: small;">S02E-04-027</p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Control port 1</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Ground</p> |
| <p style="text-align: center;">Left body control module</p> <p style="text-align: center; margin-top: 20px;">G64(G)</p>  <p style="text-align: left; font-size: small;">S02E-04-031</p> | <p style="text-align: center;">18</p> | <p style="text-align: center;">Solenoid valve control port 4</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the solenoid valve 4 harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the solenoid valve 4 harness connector.
3. Check whether the solenoid valve 4 harness connector is normal.

No Repair or replace the wire harness

Yes

| | |
|---|-----------------------------|
| 3 | Check the solenoid valve 4. |
|---|-----------------------------|

1. Measure the resistance value between the pins of the solenoid valve 4 harness connector.

| Connector | | Condition | Reference value |
|-----------|-----|-------------|-----------------|
| (+) | (-) | | |
| 1 | 2 | Through-out | 14 Ω |

2. Check whether the results are normal.

No Replace the solenoid valve 4.

Yes

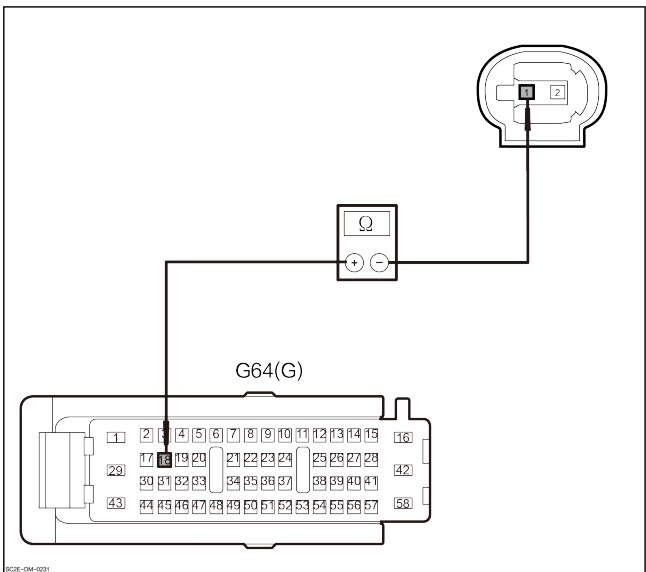
| | |
|---|--|
| 4 | Check the harness connector of left body control module. |
|---|--|

1. Disconnect the harness connector of left body control module G64(G).
2. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

5 Check the control line of solenoid valve 4 for open circuit.



1. Measure the resistance between the harness connector-1 of solenoid valve 4 and harness connector of left body control module G64(G)-18.

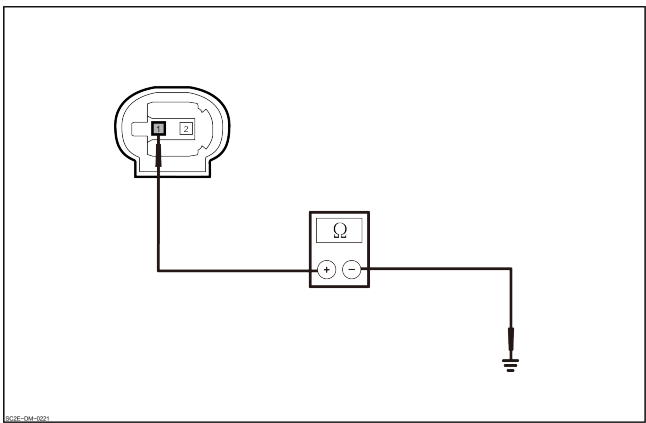
| Connector | | Condition | Resist- ance value |
|--------------------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| Solenoid valve 4-1 | G64(G)-1 8 | Through- out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check whether the control line of solenoid valve 4 is shorted to ground.



1. Measure the resistance value between solenoid valve 4 harness connector-1 and ground.

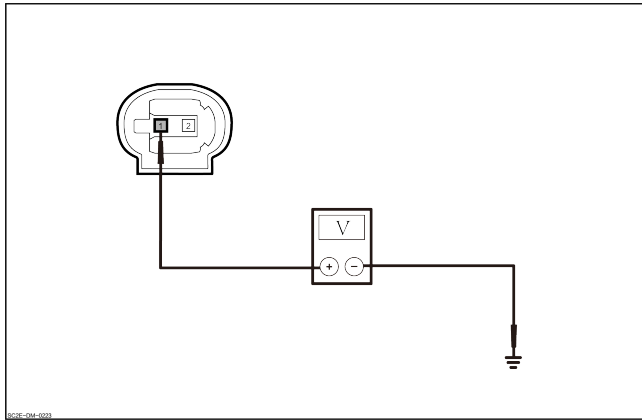
| Connector | | Condition | Resist- ance value |
|--------------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| Solenoid valve 4-1 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the control line of solenoid valve 4 for short circuit to power.



1. Connect the harness connector of left body control module G64(G).
2. Set the START/STOP button to “ON” .
3. Measure the voltage value between solenoid valve 4 harness connector-1 and ground.

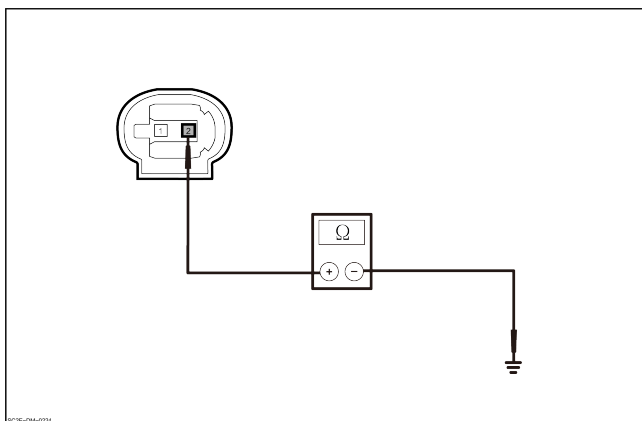
| Connector | | Condition | Voltage value |
|--------------------|--------|-------------|---------------|
| (+) | (-) | | |
| Solenoid valve 4-1 | Ground | Through-out | Less than 1V |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the ground line of solenoid 4 for open circuit.



1. Measure the resistance value between solenoid valve 4 harness connector-2 and ground.

| Connector | | Condition | Resistance value |
|--------------------|--------|-------------|------------------|
| (+) | (-) | | |
| Solenoid valve 4-2 | Ground | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

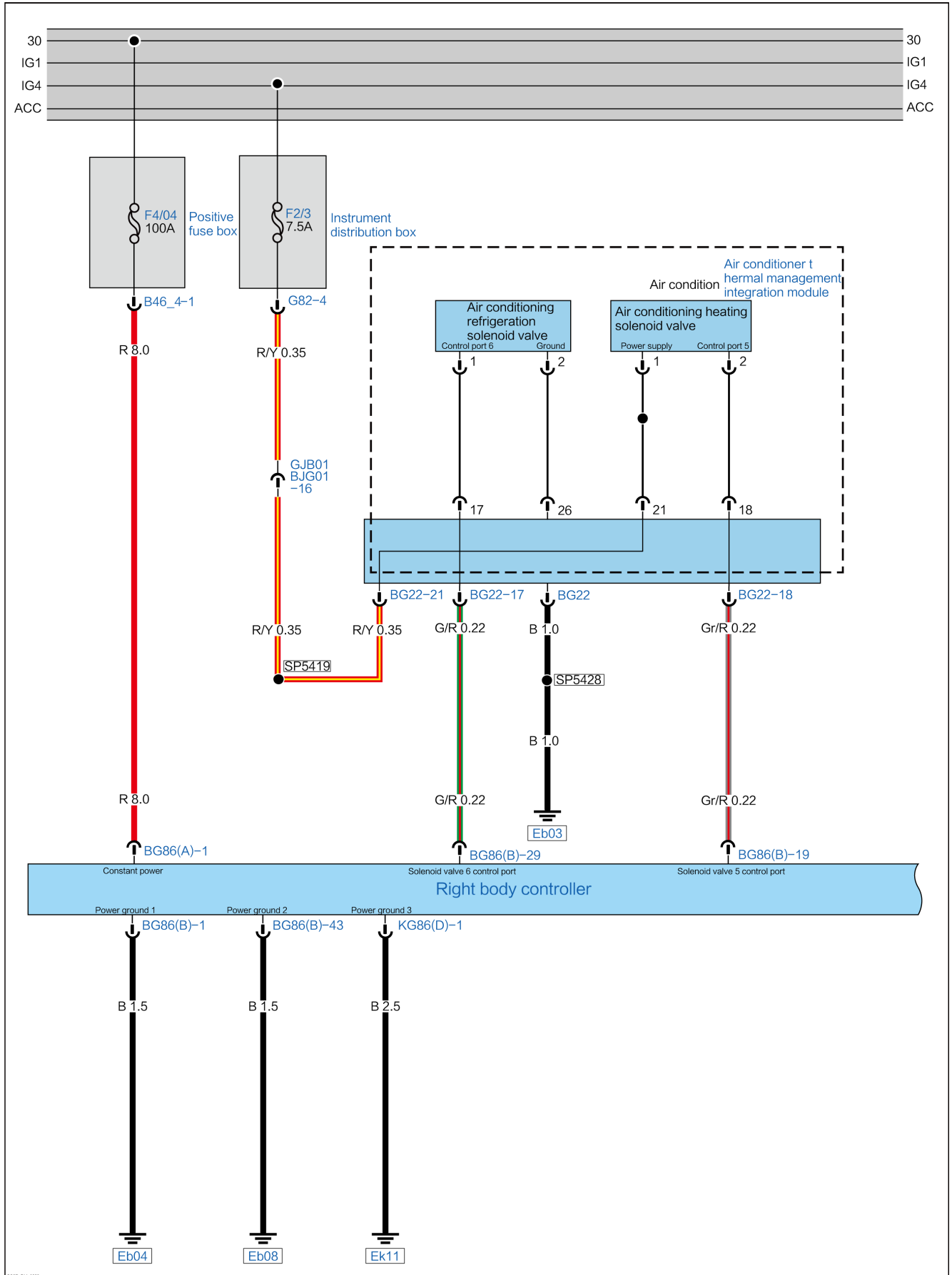
Yes → Replace the left body control module.

B133D00 Solenoid Valve 6 Status Fault

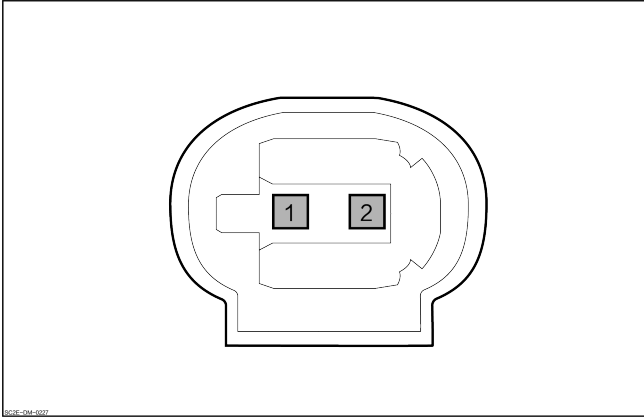
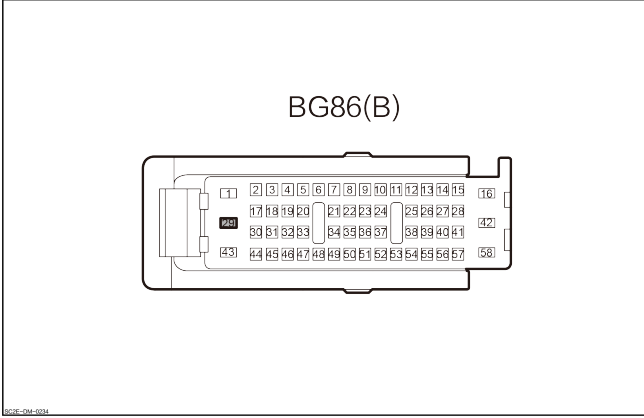
DTC Description

| B133D00 Solenoid Valve 6 Status Fault | |
|---------------------------------------|---|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | <ol style="list-style-type: none">1. Harness or harness connector fault.2. Solenoid valve 6 fault.3. The right body control module fails. |
| Fault setting conditions | If the solenoid valve 6 fails, this DTC will be generated in continuous memory and on demand. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|---------------------------------------|--|
| <p style="text-align: center;">Solenoid valve 6</p>  <p><small>801E-014-027</small></p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Control port 6</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Ground</p> |
| <p style="text-align: center;">Left body control module</p> <p style="text-align: center;">BG86(B)</p>  <p><small>801E-014-034</small></p> | <p style="text-align: center;">29</p> | <p style="text-align: center;">Solenoid valve control port 6</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No Check the “intermittent fault” .

Yes

| | |
|---|---|
| 2 | Check the solenoid valve 6 harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the solenoid valve 6 harness connector.
3. Check whether the solenoid valve 6 harness connector is normal.

No Repair or replace the wire harness

Yes

| | |
|---|-----------------------------|
| 3 | Check the solenoid valve 6. |
|---|-----------------------------|

1. Measure the resistance value between the pins of the solenoid valve 6 harness connector.

| Connector | | Condition | Refer- ence value |
|-----------|-----|-----------------|-------------------------|
| (+) | (-) | | |
| 1 | 2 | Through- out | 14 Ω |

2. Check whether the results are normal.

No Replace the solenoid valve 6.

Yes

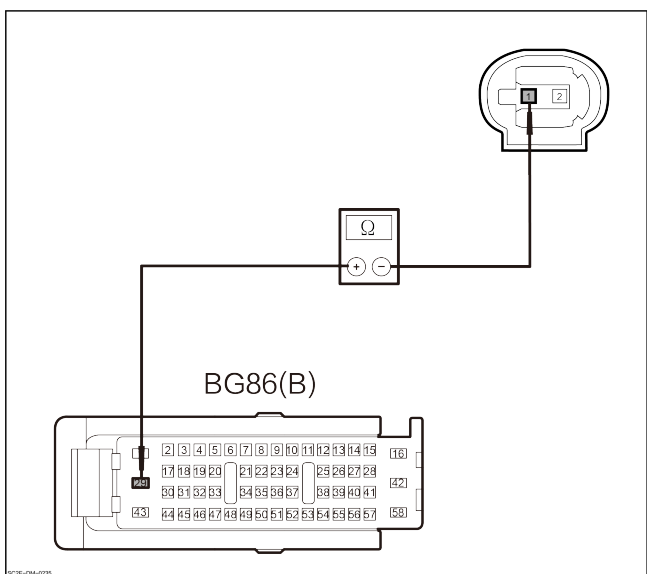
| | |
|---|---|
| 4 | Check the harness connector of right body control module. |
|---|---|

1. Disconnect the harness connector of right body control module BG86(B).
2. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

5 Check the control line of solenoid valve 6 for open circuit.



1. Measure the resistance between the harness connector-1 of solenoid valve 6 and harness connector of right body control module BG86(B)-29.

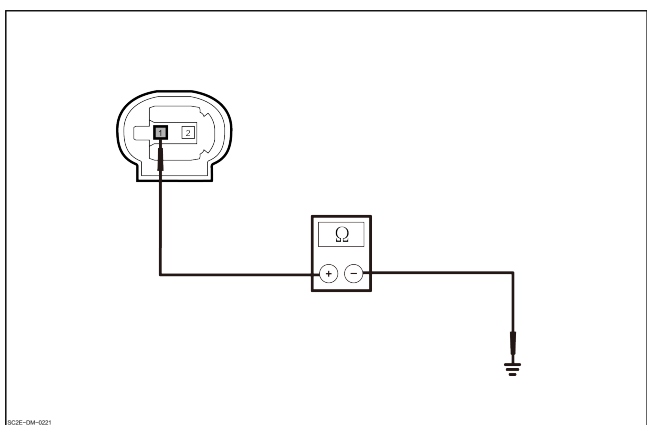
| Connector | | Condition | Resist- ance value |
|--------------------|------------|-------------|--------------------------|
| (+) | (-) | | |
| Solenoid valve 6-1 | BG86(B)-29 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

6 Check whether the control line of solenoid valve 6 is shorted to ground.



1. Measure the resistance value between solenoid valve 6 harness connector-1 and ground.

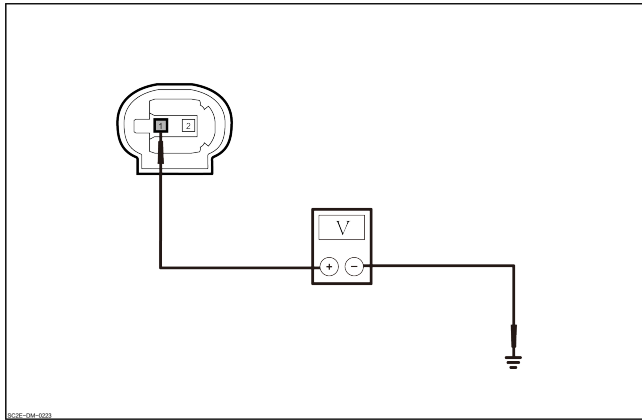
| Connector | | Condition | Resist- ance value |
|--------------------|--------|-------------|--------------------------|
| (+) | (-) | | |
| Solenoid valve 6-1 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check the control line of solenoid valve 6 for short circuit to power.



1. Connect the harness connector of right body control module BG86(B).
2. Set the START/STOP button to “ON” .
3. Measure the voltage value between solenoid valve 6 harness connector-1 and ground.

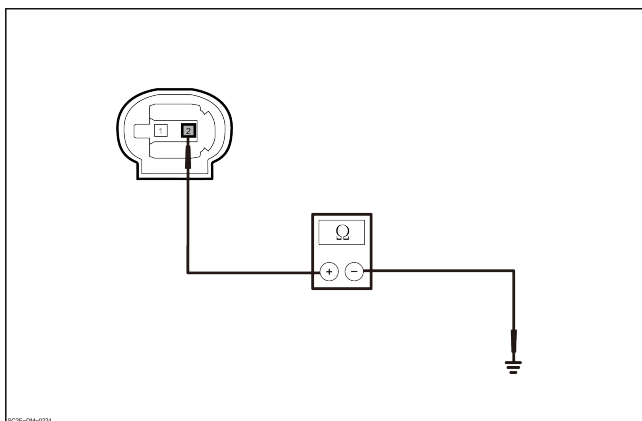
| Connector | | Condition | Voltage value |
|--------------------|--------|-------------|---------------|
| (+) | (-) | | |
| Solenoid valve 6-1 | Ground | Through-out | Less than 1V |

4. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the ground line of solenoid 6 for open circuit.



1. Measure the resistance value between solenoid valve 6 harness connector-2 and ground.

| Connector | | Condition | Resistance value |
|--------------------|--------|-------------|------------------|
| (+) | (-) | | |
| Solenoid valve 6-2 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

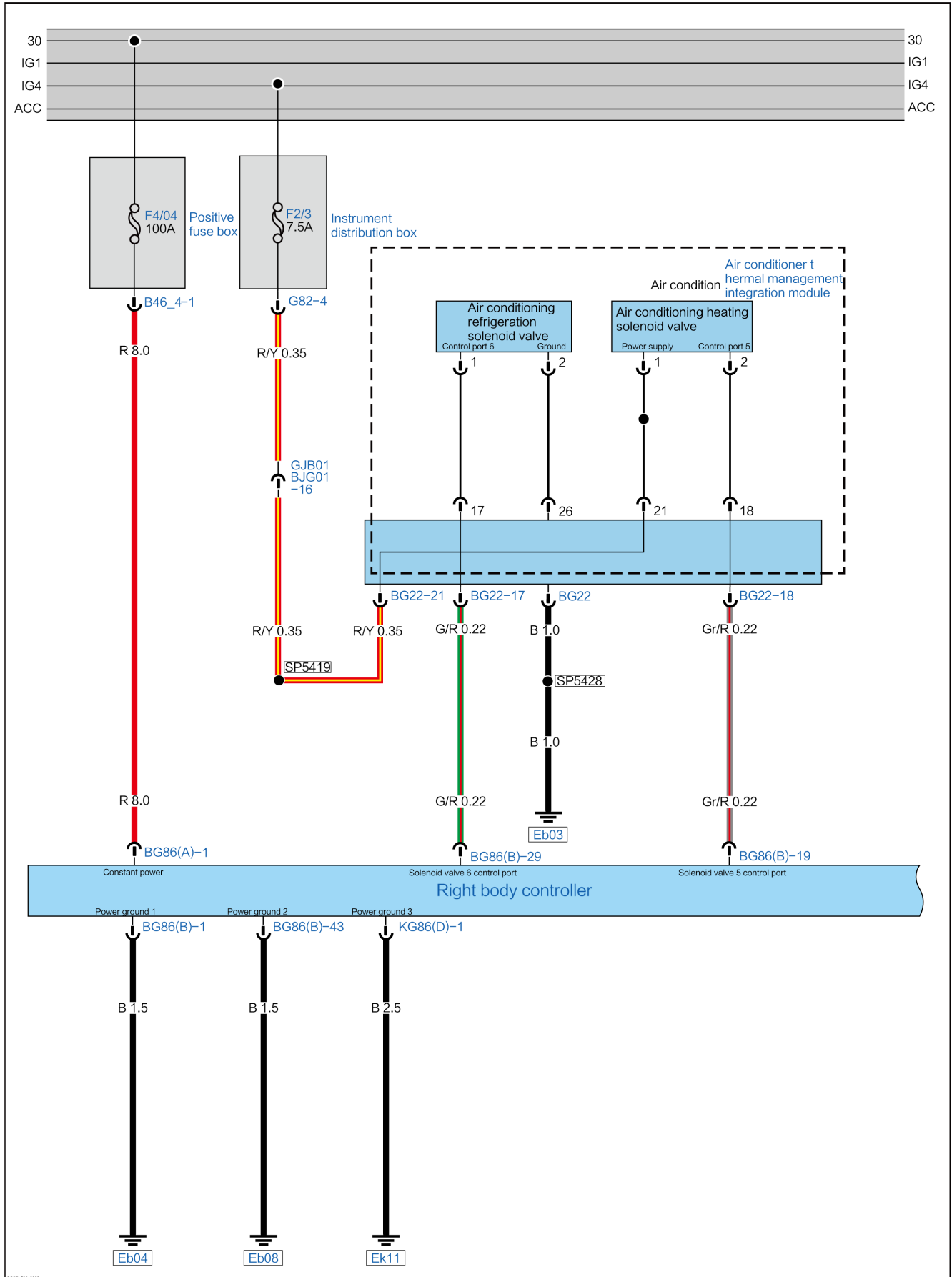
Yes → Replace the right body control module.

B133C00 solenoid valve 5 status fault

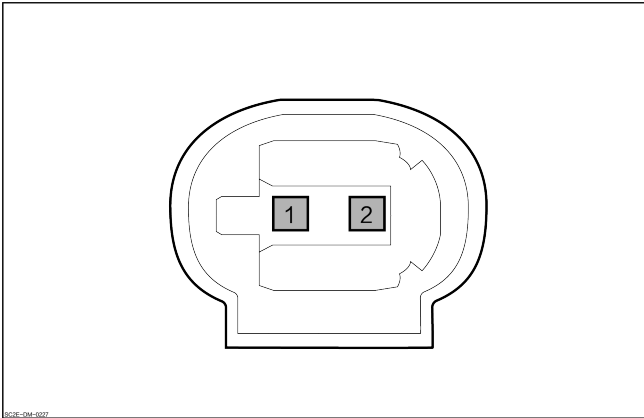
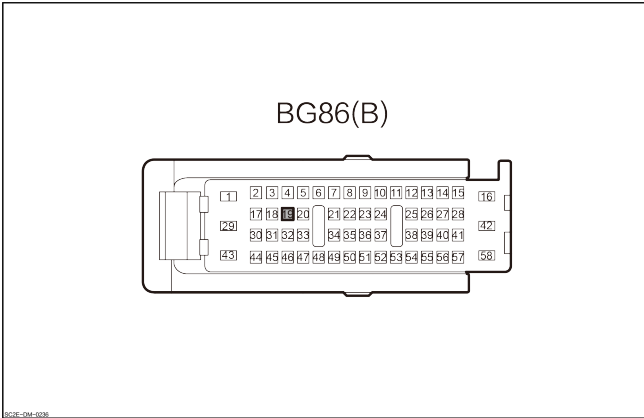
DTC Description

| B133C00 Solenoid Valve 5 Status Fault | |
|---------------------------------------|---|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | <ol style="list-style-type: none"> 1. Harness or harness connector fault. 2. Solenoid valve 5 fault. 3. The right body control module fails. |
| Fault setting conditions | If the solenoid valve 5 fails, this DTC will be generated in continuous memory and on demand. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|---------------------------------------|--|
| <p style="text-align: center;">Solenoid valve 5</p>  <p><small>802E-04-027</small></p> | <p style="text-align: center;">1</p> | <p style="text-align: center;">Control port 1</p> |
| | <p style="text-align: center;">2</p> | <p style="text-align: center;">Ground</p> |
| <p style="text-align: center;">Right body control module</p> <p style="text-align: center;">BG86(B)</p>  <p><small>802E-04-028</small></p> | <p style="text-align: center;">19</p> | <p style="text-align: center;">Solenoid valve control port 5</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No Check the “intermittent fault” .

Yes

| | |
|---|-------------------------------------|
| 2 | Check the instrument fuse box fuse. |
|---|-------------------------------------|

1. Check whether the instrument fuse box fuse F2/3 (7.5 A) is normal?

No Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the solenoid valve 5 harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the solenoid valve 5 harness connector.
3. Check whether the solenoid valve 5 harness connector is normal.

No Repair or replace the wire harness

Yes

| | |
|---|-----------------------------|
| 4 | Check the solenoid valve 5. |
|---|-----------------------------|

1. Measure the resistance value between the pins of the solenoid valve 5 harness connector.

| Connector | | Condition | Refer-ence value |
|-----------|-----|-----------|------------------|
| (+) | (-) | | |

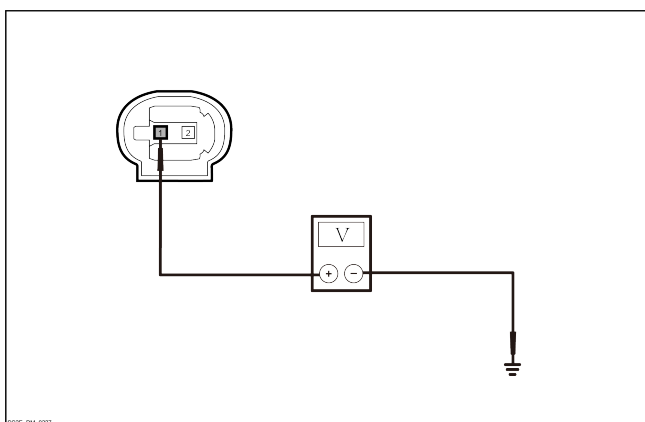
| | | | |
|---|---|-------------|-----|
| 1 | 2 | Through-out | 14Ω |
|---|---|-------------|-----|

2. Check whether the results are normal.

No → Replace the solenoid valve 5.

Yes

5 Check the power supply of solenoid valve 5.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between solenoid valve 5 harness connector-1 and ground.

| Connector | | Condition | Voltage value |
|--------------------|--------|-------------|---------------|
| (+) | (-) | | |
| Solenoid valve 5-1 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Go to step 8.

No

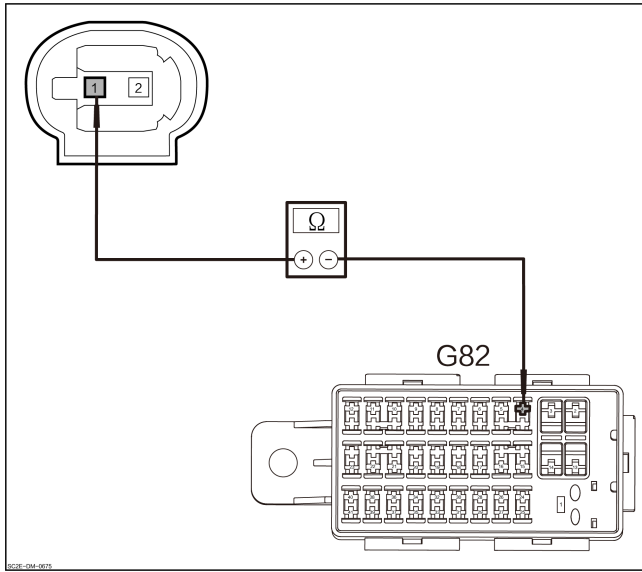
6 Check the instrument fuse box harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of instrument fuse box G82.
3. Check whether the open instrument fuse box harness connector is normal?

No → Repair or replace the wire harness

Yes

7 Check the power line of solenoid valve 5 for open circuit.



1. Measure the resistance between the harness connector-1 of solenoid valve 5 and harness connector of instrument fuse box G82-4.

| Connector | | Condition | Resist- ance value |
|--------------------|-------|-------------|--------------------------|
| (+) | (-) | | |
| Solenoid valve 5-1 | G82-4 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the instrument fuse box.

8 Check the harness connector of right body control module.

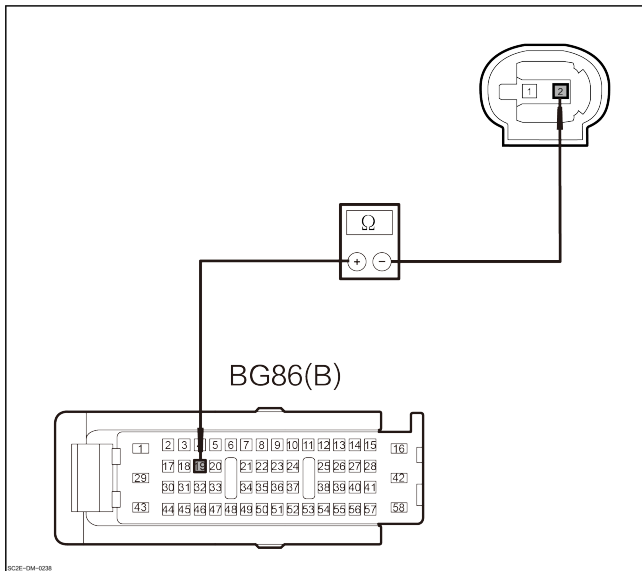
1. Disconnect the harness connector of right body control module BG86(B).
2. Check whether the harness connector of right body control module is normal?

No

Repair or replace the wire harness

Yes

9 Check the control line of solenoid valve 5 for open circuit.



1. Measure the resistance between the harness connector-2 of solenoid valve 5 and harness connector of right body control module BG86(B)-19.

| Connector | | Condition | Resist- ance value |
|--------------------|------------|-------------|--------------------------|
| (+) | (-) | | |
| Solenoid valve 5-2 | BG86(B)-19 | Through-out | Lower than 1 Ω |

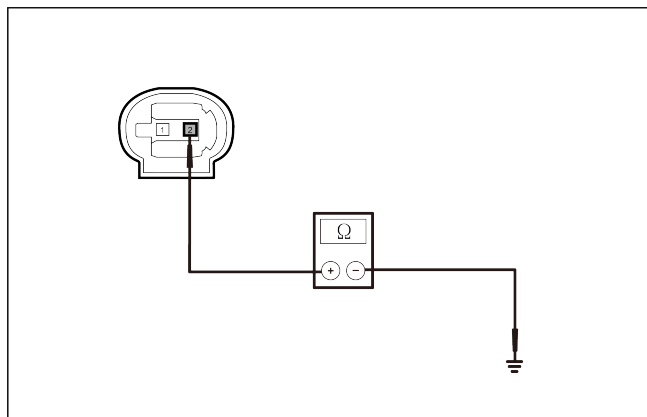
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

10 Check whether the control line of solenoid valve 5 is shorted to ground.



1. Measure the resistance value between solenoid valve 5 harness connector-2 and ground.

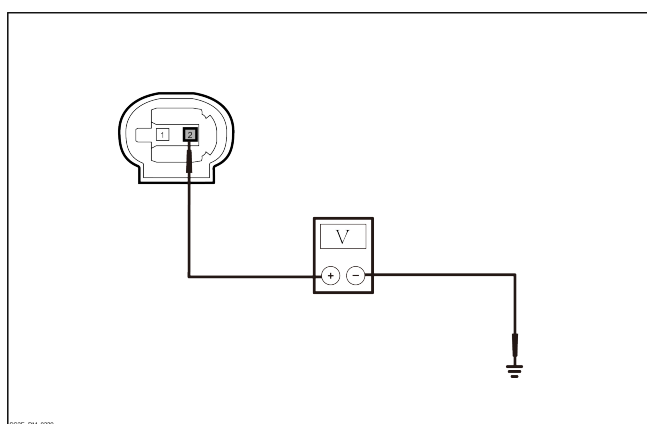
| Connector | | Condition | Resist- ance value |
|-----------------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| Solenoid valve 5-2 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

11 Check the control line of solenoid valve 5 for short circuit to power.



1. Connect the harness connector of right body control module G86(B).
2. Set the START/STOP button to "ON" .
3. Measure the voltage value between solenoid valve 5 harness connector-2 and ground.

| Connector | | Condition | Voltage value |
|-----------------------|--------|-----------------|------------------|
| (+) | (-) | | |
| Solenoid valve 5-2 | Ground | Through- out | Less than 1V |

4. Check whether the results are normal.

No Repair or replace the wire harness

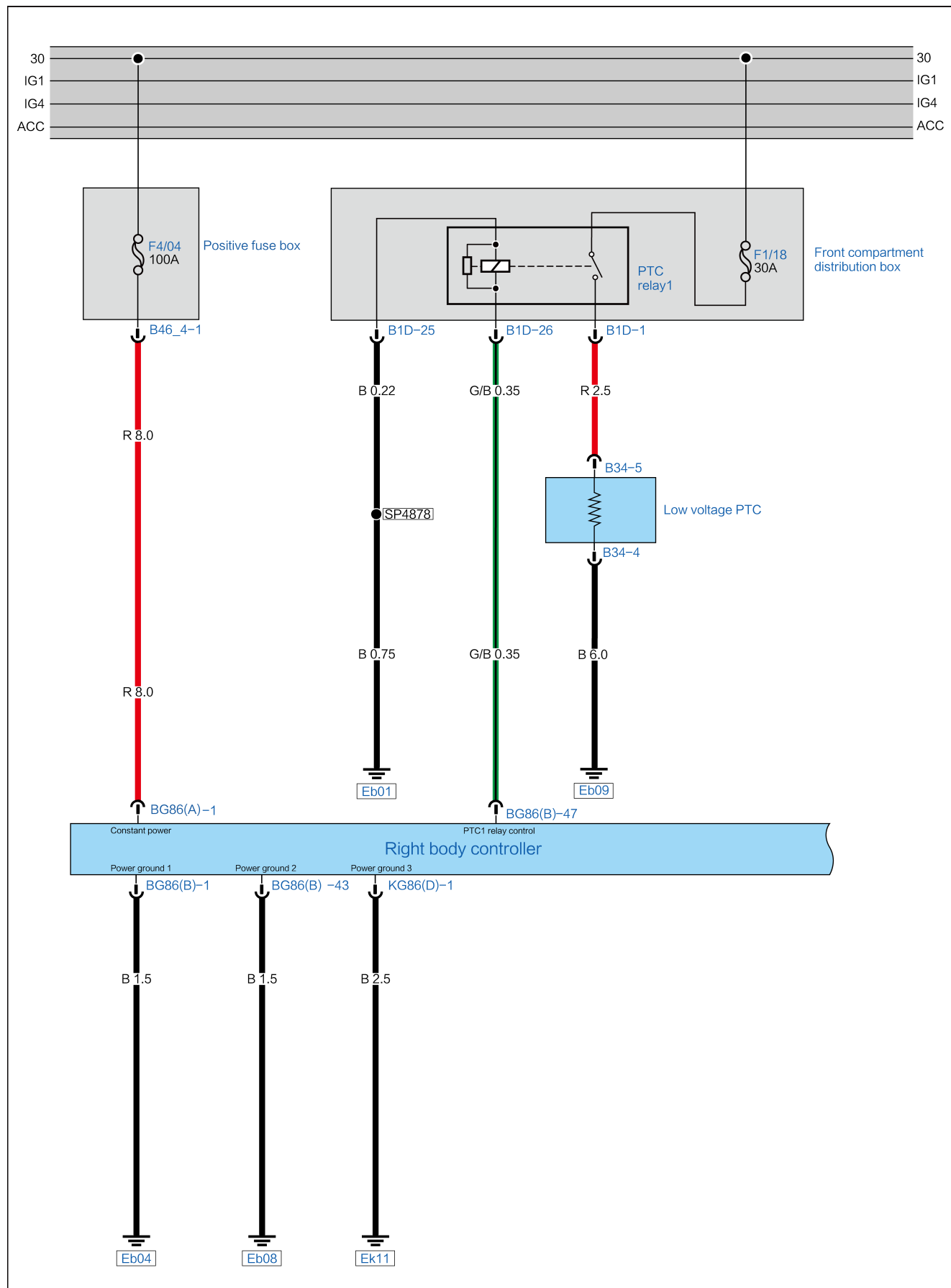
Yes Replace the right body control module.

B133E00 low voltage PTC relay 1 fault

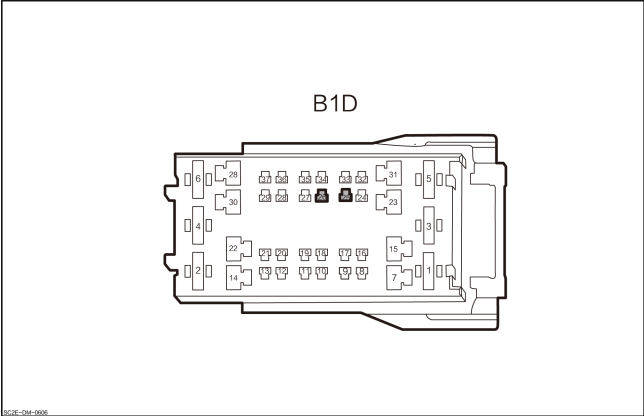
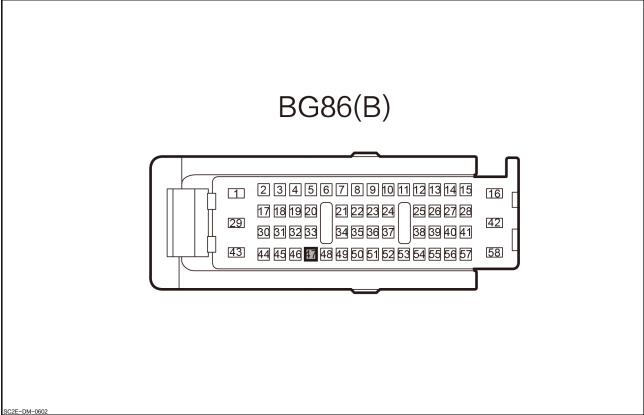
DTC Description

| B133E00 Low Voltage PTC Relay 1 Fault | |
|---------------------------------------|--|
| Symptom | The heating function of the A/C is limited. |
| Possible Cause | 1. Harness or harness connector fault. 2. PTC relay 1 fault. 3. The right body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|------------------------|
| <p style="text-align: center;">Front compartment fuse box</p> <div style="text-align: center;">  <p style="text-align: center;">B1D</p> </div> | 25 | PTC1 relay control GND |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p style="text-align: center;">BG86(B)</p> </div> | 47 | PTC1 Relay Control |

Diagnostic Steps

1 Check the DTC of right body control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

2 Check the front compartment electrical box harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of front compartment electrical box B1D.
3. Check whether the front compartment electrical box harness connector is normal.

No

Repair or replace the wire harness

Yes

3 Check PTC1 relay

1. Measure the resistance value between the harness connector pins of the PTC1 relay.

| PTC1 relay | | Condition | Reference value |
|------------|-----|-------------|-----------------|
| (+) | (-) | | |
| 85 | 86 | Through-out | 190 Ω |

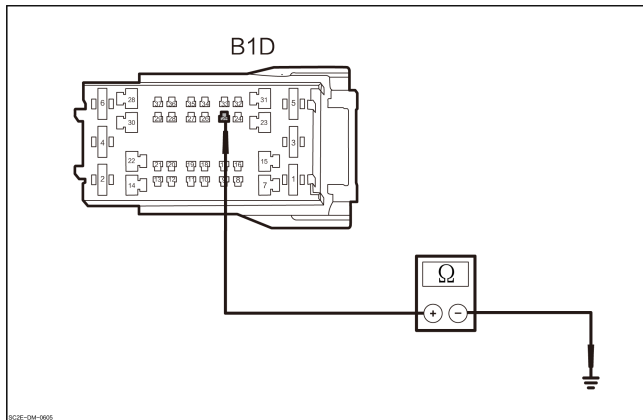
2. Check whether the results are normal.

No

Replace the front compartment electrical box.

Yes

4 Check the PTC1 relay ground line for open circuit.



1. Measure the resistance value between the right front compartment electrical box harness connector B1D-25 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B1D-25 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

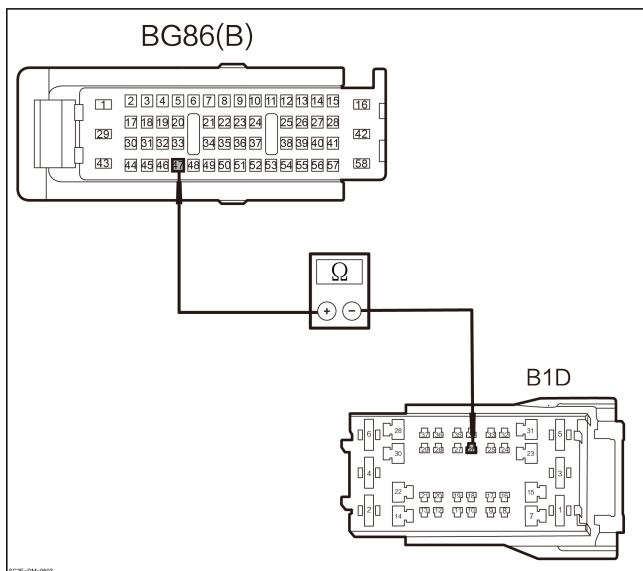
5 Check the harness connector of right body control module.

1. Disconnect the harness connector of right body control module BG86(B).
2. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

6 Check the PTC1 relay control line for open circuit.



1. Measure the resistance between the harness connector of front compartment electrical box B1D-26 and the harness connector of right body control module BG86(B)-47.

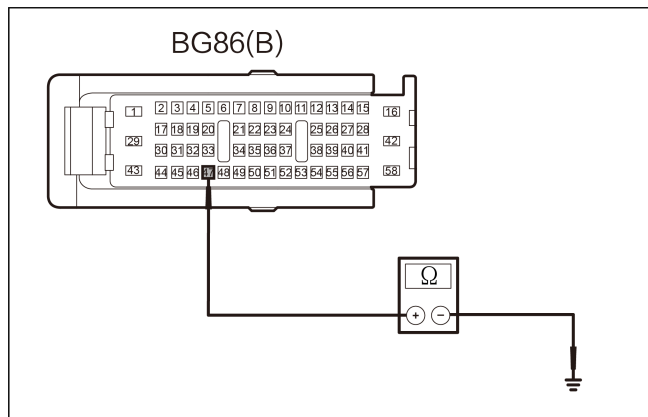
| Connector | | Condition | Resist- ance value |
|----------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG86(B)- 47 | B1D-26 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

7 Check whether the PTC1 relay control is shorted to ground.



1. Measure the resistance between the harness connector of right body control module BG86(B)–47 and the ground.

| Connector | | Condition | Resist- ance value |
|----------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG86(B)– 47 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

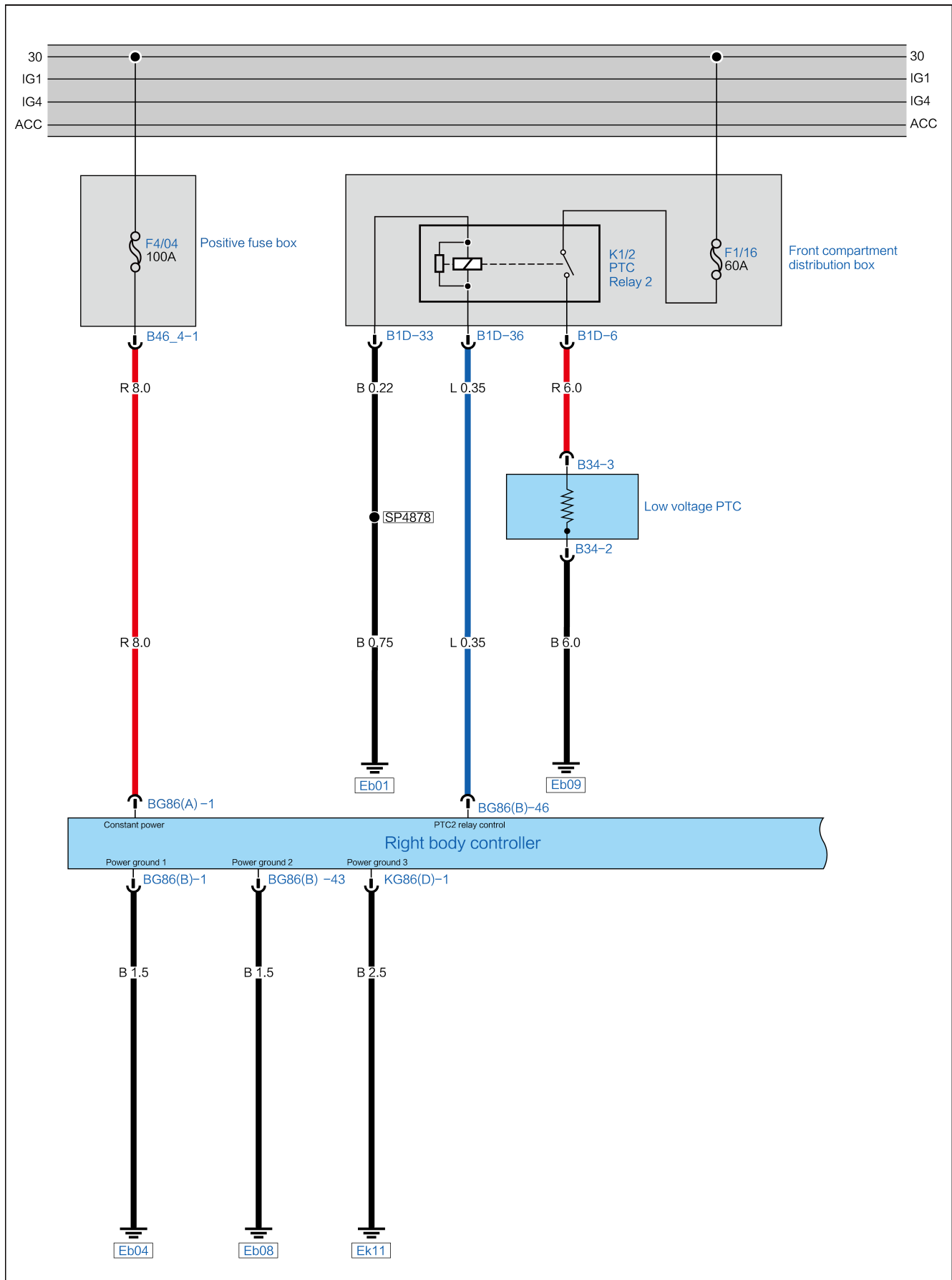
- No Repair or replace the wire harness
- Yes Replace the right body control module.

B133F00 low voltage PTC relay 2 fault

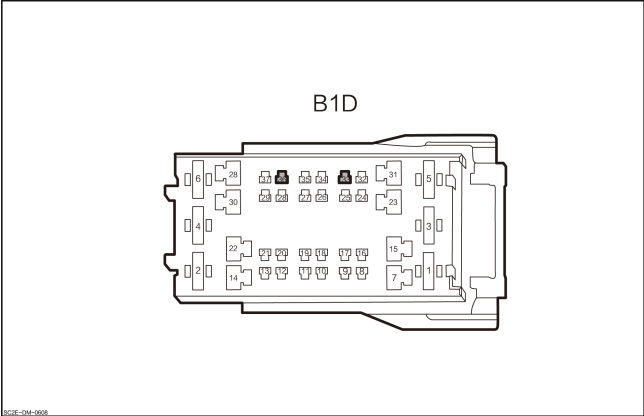
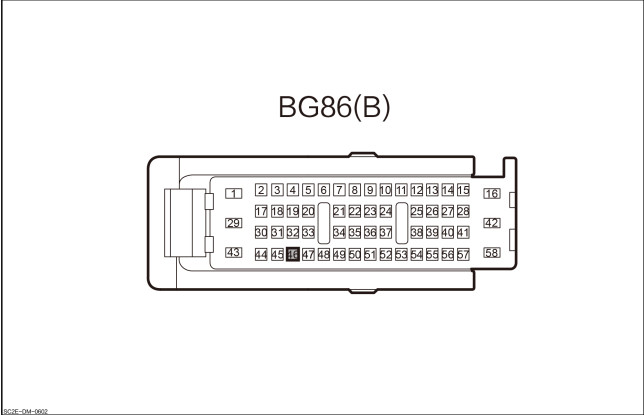
DTC Description

| B133F00 low voltage PTC relay 2 fault | |
|---------------------------------------|--|
| Symptom | The heating function of the A/C is limited. |
| Possible Cause | 1. Harness or harness connector fault. 2. The PTC relay 2 fails. 3. The right body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|---------------------------------------|---|
| <p style="text-align: center;">Front compartment fuse box</p> <div style="text-align: center;">  <p style="text-align: center;">B1D</p> </div> | <p style="text-align: center;">33</p> | <p style="text-align: center;">PTC2 relay control GND</p> |
| <p style="text-align: center;">Right body control module</p> <div style="text-align: center;">  <p style="text-align: center;">BG86(B)</p> </div> | <p style="text-align: center;">36</p> | <p style="text-align: center;">PTC2 Relay Control</p> |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|------------------|
| 2 | Check PTC2 relay |
|---|------------------|

1. Replace it with a new low voltage PTC2 relay and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes

Replace PTC2 relay

No

| | |
|---|---|
| 3 | Check the front compartment electrical box harness connector. |
|---|---|

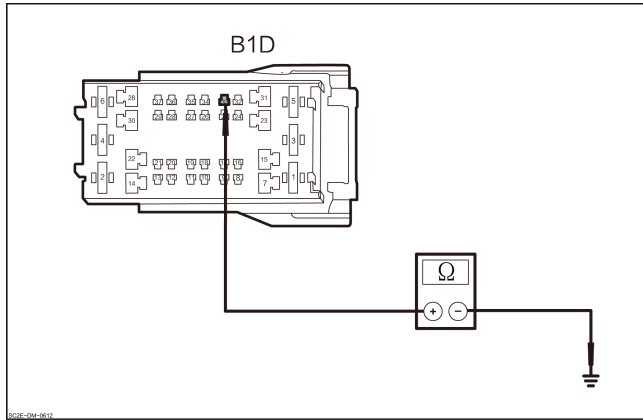
1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of front compartment electrical box B1D.
3. Check whether the front compartment electrical box harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the PTC2 relay ground line for open circuit. |
|---|--|



1. Measure the resistance value between the front compartment electrical box harness connector B1D-33 and ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| B1D-33 | Ground | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

5 Check the harness connector of right body control module.

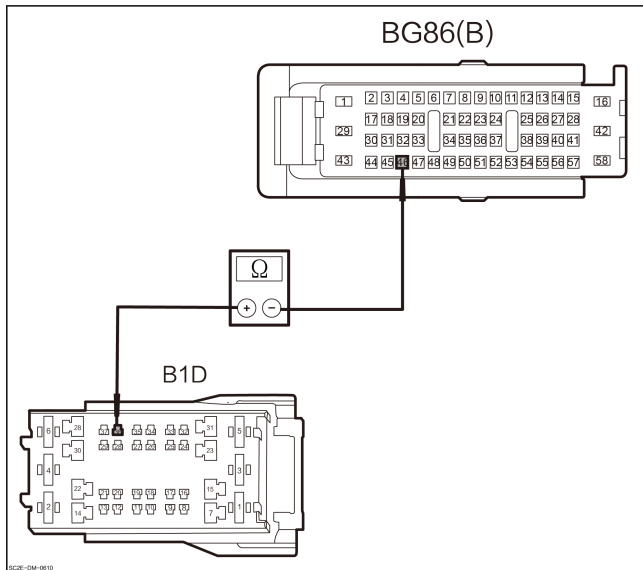
1. Disconnect the harness connector of right body control module BG86(B).
 2. Check whether the harness connector of right body control module is normal?

No

Repair or replace the wire harness

Yes

6 Check the PTC2 relay control line for open circuit.



1. Measure the resistance between the harness connector of front compartment electrical box B1D-36 and the harness connector of right body control module BG86(B)-46.

| Connector | | Condition | Resistance value |
|-----------|------------|-------------|------------------|
| (+) | (-) | | |
| B1D-36 | BG86(B)-46 | Through-out | Lower than 1 Ω |

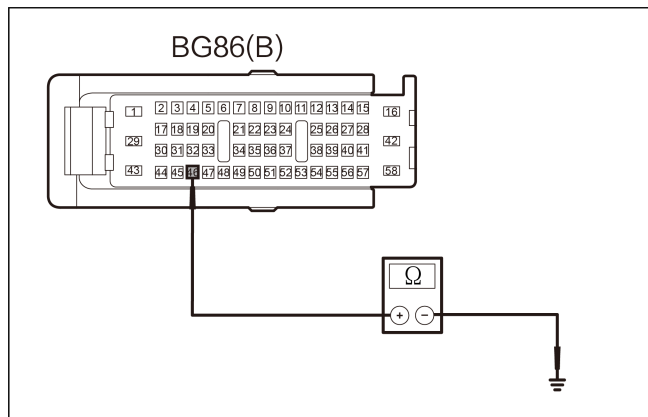
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

7 Check whether the PTC relay control is shorted to ground.



1. Measure the resistance between the harness connector of right body control module BG86(B)–46 and the ground.

| Connector | | Condition | Resist- ance value |
|----------------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BG86(B)– 46 | Ground | Through- out | Above 10K Ω |

2. Check whether the results are normal.

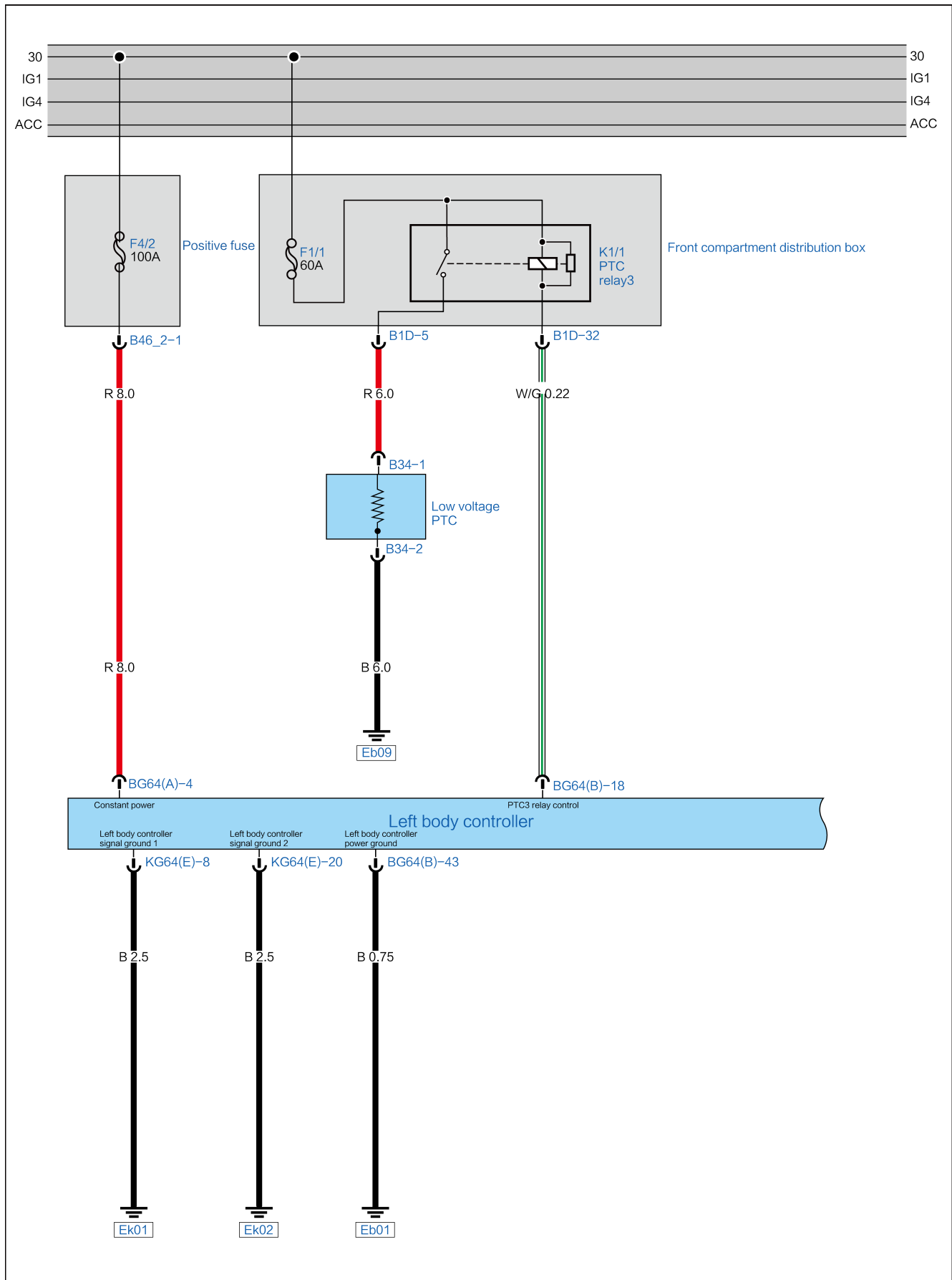
| | |
|-----|--|
| No | Repair or replace the wire harness |
| Yes | Replace the right body control module. |

B134000 low voltage PTC relay 3 fault

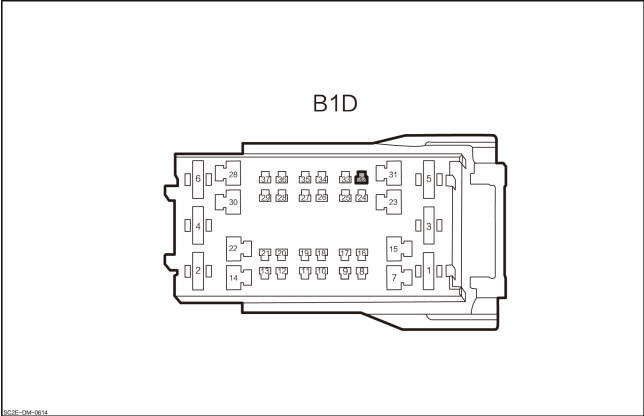
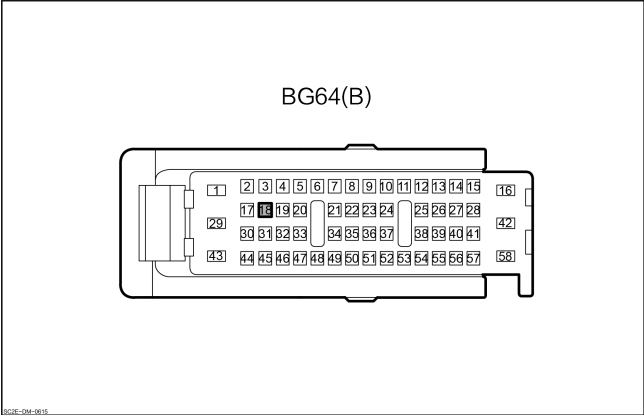
DTC Description

| B134000 Low Voltage PTC Relay 3 Fault | |
|---------------------------------------|---|
| Symptom | The heating function of the A/C is limited. |
| Possible Cause | 1. Harness or harness connector fault. 2. PTC relay 3 fault. 3. The left body control module fails. |
| Fault setting conditions | – |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------------|
| <p style="text-align: center;">Front compartment fuse box</p> <div style="text-align: center;">  <p style="text-align: center;">B1D</p> </div> | <p>32</p> | <p>PTC3 Relay Control</p> |
| <p style="text-align: center;">Left body control module</p> <div style="text-align: center;">  <p style="text-align: center;">BG64(B)</p> </div> | <p>18</p> | <p>PTC3 Relay Control</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the DTC of left body control module. |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|------------------------|
| 2 | Check PTC3 relay fuse. |
|---|------------------------|

1. Check whether the front compartment fuse box fuse F1/1 (60 A) is normal.

No → Replace the fuse

Yes

| | |
|---|------------------|
| 3 | Check PTC3 relay |
|---|------------------|

1. Replace it with a new low voltage PTC3 relay and restore the vehicle.
2. Set the START/STOP button to “ON” , and trial run for function inspection.
3. Check whether the results are normal.

Yes → Replace PTC3 relay

No

| | |
|---|---|
| 4 | Check the front compartment electrical box harness connector. |
|---|---|

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of front compartment electrical box B1D.
3. Check whether the front compartment electrical box harness connector is normal.

No → Repair or replace the wire harness

Yes

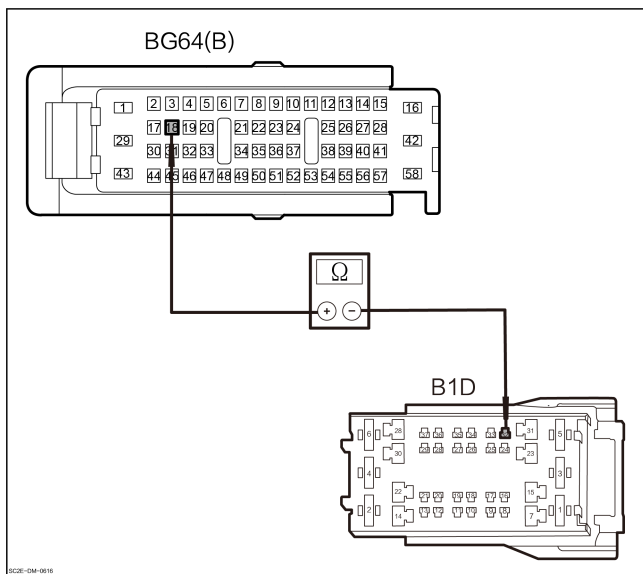
5 Check the harness connector of left body control module.

1. Disconnect the harness connector of left body control module BG64(B).
2. Check whether the harness connector of left body control module is normal?

No Repair or replace the wire harness

Yes

6 Check the PTC3 relay control line for open circuit.



1. Measure the resistance between the harness connector of front compartment electrical box B1D-32 and the harness connector of left body control module BG64(B)-18.

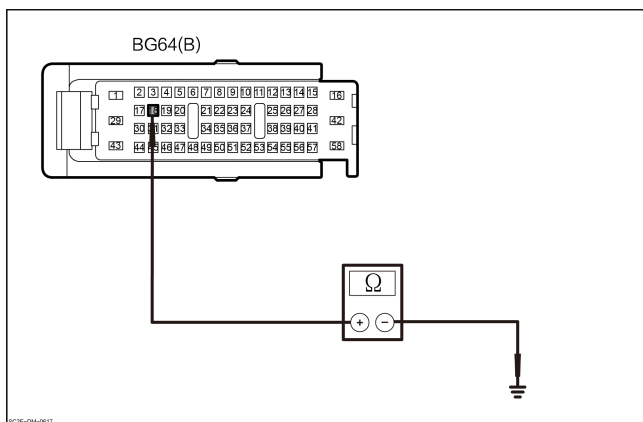
| Connector | | Condition | Resistance value |
|-----------|------------|-------------|------------------|
| (+) | (-) | | |
| B1D-32 | BG64(B)-18 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

7 Check whether the PTC3 relay control is shorted to ground.



1. Measure the resistance between the harness connector of left body control module BG64(B)-18 and the ground.

| Connector | | Condition | Resistance value |
|------------|--------|-------------|------------------|
| (+) | (-) | | |
| BG64(B)-18 | Ground | Through-out | Above 10K Ω |

2. Check whether the results are normal.

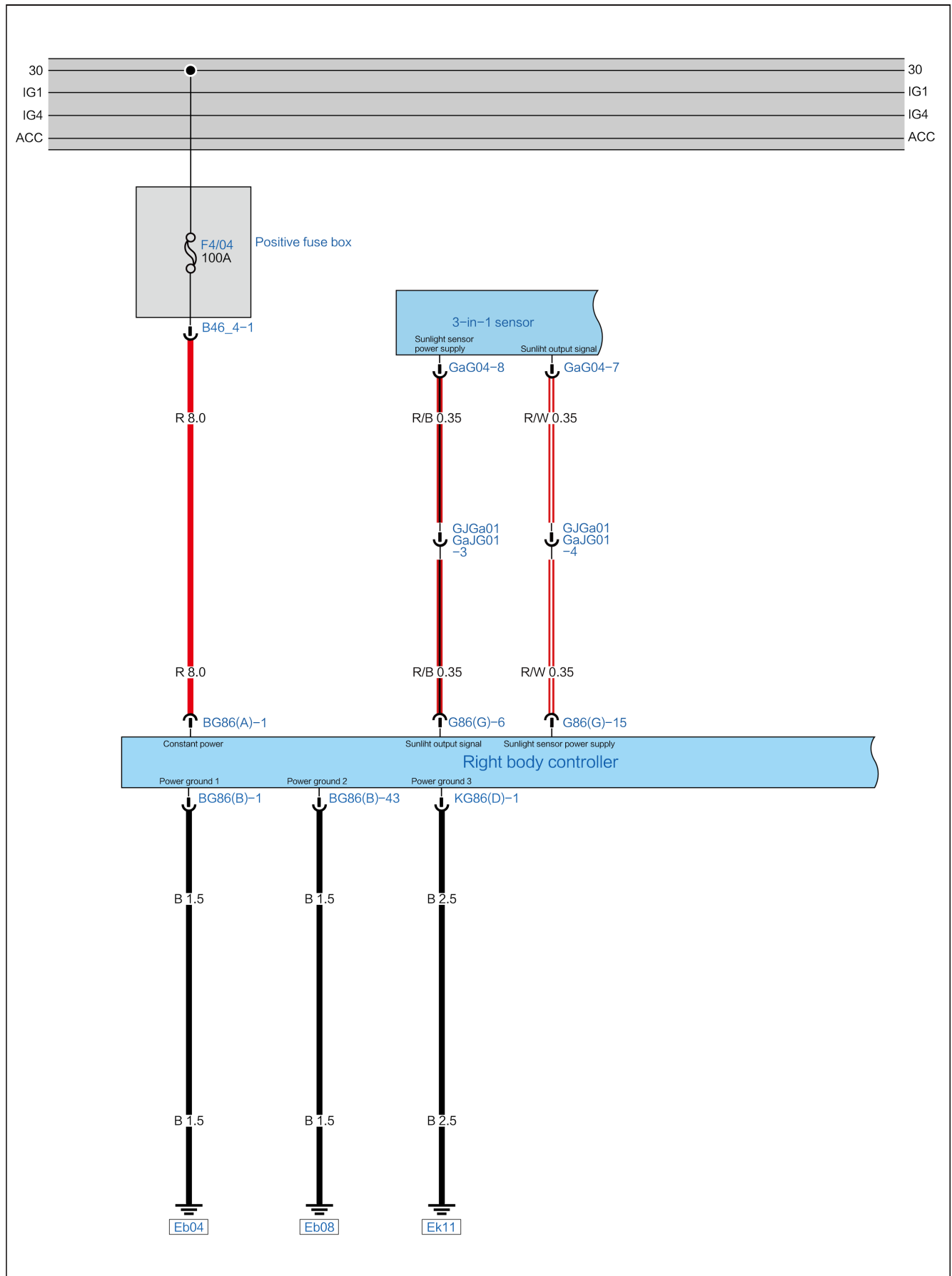
No Repair or replace the wire harness

Yes Replace the left body control module.

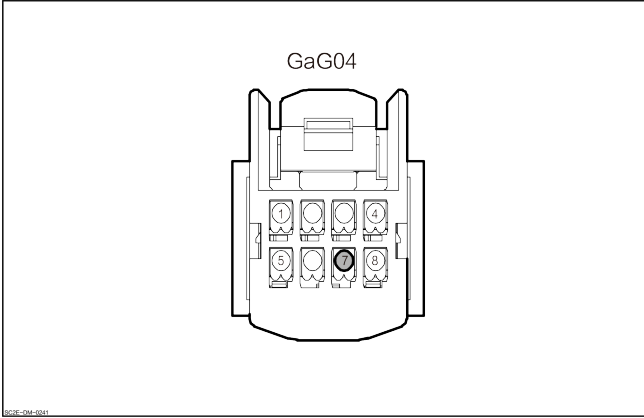
B2A2712 Sunlight Sensor Circuit Short to Power**DTC Description**

| B2A2712 Sunlight Sensor Circuit Short to Power | |
|--|--|
| Symptom | Partial failure of air conditioner system. |
| Possible Cause | 1. Harness or harness connector fault. 2. Solar sensor fault |
| Fault setting conditions | When the sunlight sensor line is short-circuited to other power supplies, this DTC will be generated in the continuous memory and as needed. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|--------------------------------------|
| <p style="text-align: center;">Sunlight sensor</p> <div style="text-align: center;">  <p style="margin-left: 100px;">GaG04</p> </div> <p style="font-size: small; margin-top: 10px;">802E-04-0241</p> | <p>7</p> | <p>Daylight sensor output signal</p> |

Diagnostic Steps

1 Check the DTC of right body control module.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

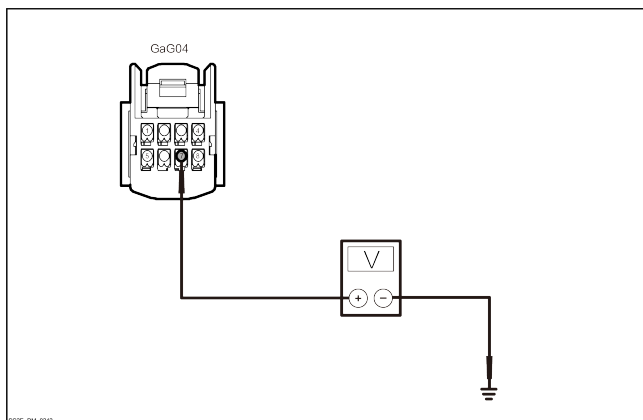
2 Check the solar sensor harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the solar sensor harness connector GaG04.
3. Check whether the harness connector of the solar sensor is normal?

No → Repair or replace the wire harness

Yes

3 Check whether the radar sensor output signal line shorted to power.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the solar sensor harness connector GaG04-7 and ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| GaG04-7 | Ground | Through-out | Less than 1V |

3. Check whether the results are normal.

Yes → Repair or replace the wire harness

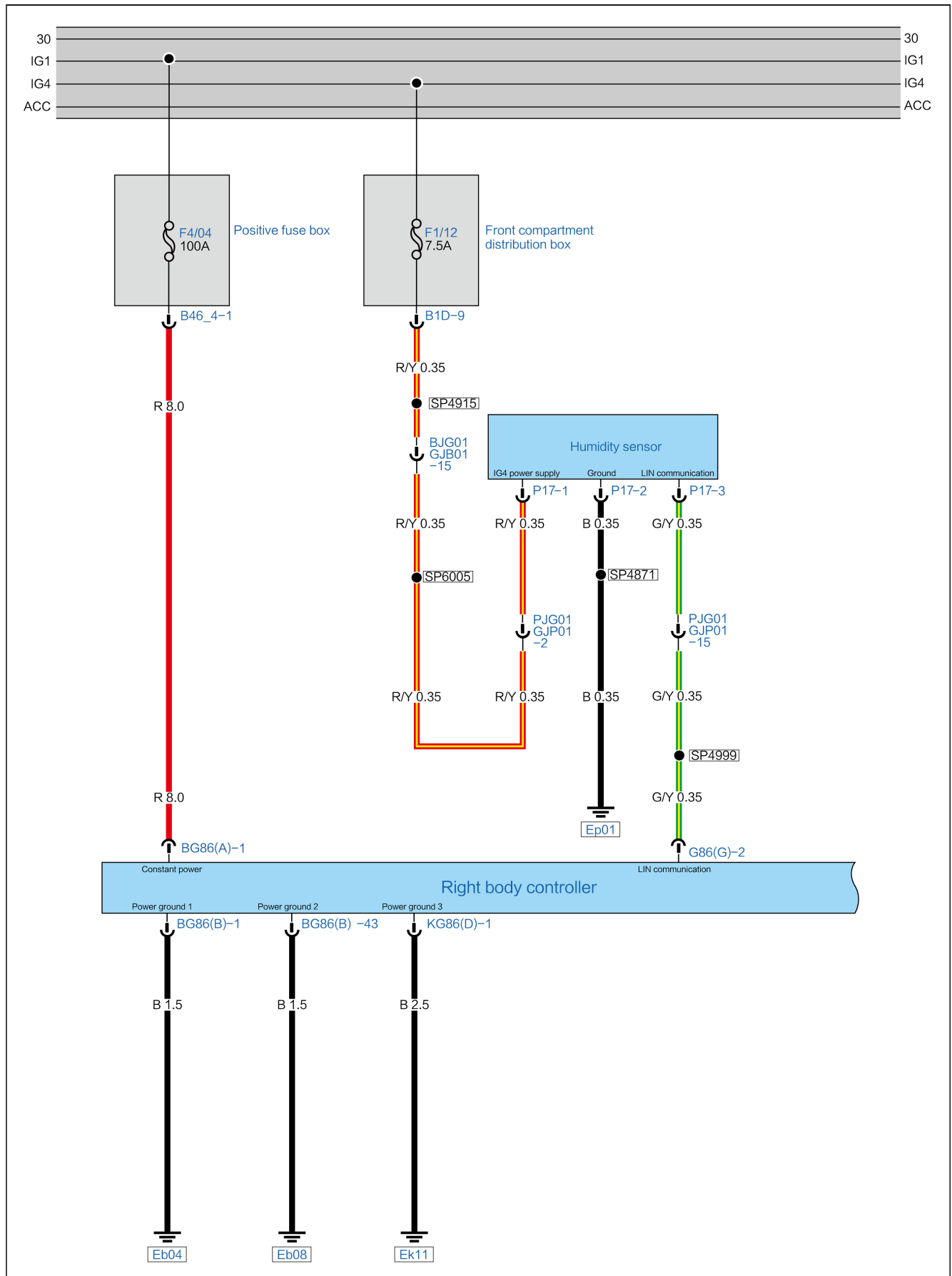
No → Replace the solar sensor.

B1CAF00 Humidity Sensor Fault

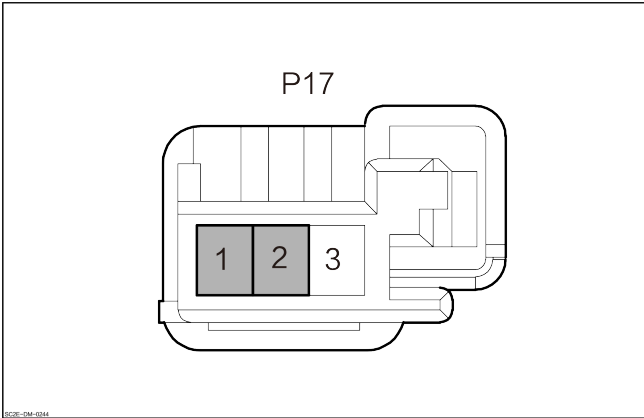
DTC Description

| B1CAF00 Humidity Sensor Fault | |
|-------------------------------|---|
| Symptom | Some functions of the vehicle fail. |
| Possible Cause | <ol style="list-style-type: none">1. Fuse has blew.2. Harness or harness connector fault.3. Humidity sensor fault |
| Fault setting conditions | Humidity sensor internal fault. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">Humidity sensor</p>  <p style="text-align: center;">P17</p> | 1 | Power supply |
| | 2 | Ground |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Place the start/stop button in the OFF position and wait for a few seconds.
4. Place the start/stop button in ON position again, and read the DTC.
5. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Check the humidity sensor fuse. |
|---|---------------------------------|

1. Check whether the fuse F1/12 (7.5A) of front compartment fuse box is normal?

No

Replace the fuse

Yes

| | |
|---|--|
| 3 | Check the humidity sensor harness and connector. |
|---|--|

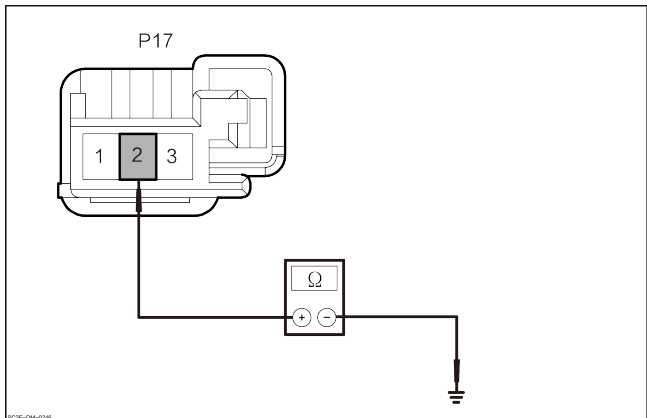
1. Set the START/STOP button to “OFF” .
2. Disconnect the humidity sensor harness connector P17.
3. Check whether the humidity sensor harness connector is normal?

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check whether the humidity sensor ground line is open circuited. |
|---|--|



1. Check the resistance value between the humidity sensor harness connector P17-2 and ground.

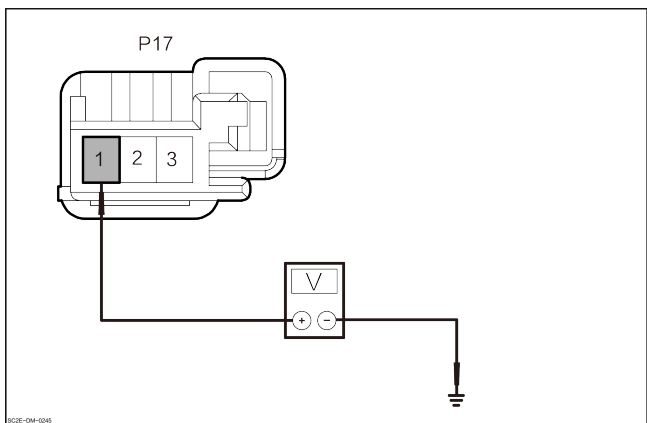
| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| P17-2 | Ground | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

5 Check the power supply of humidity sensor.



1. Set the START/STOP button to “ON” .
 2. Measure the voltage value between the humidity sensor harness connector P17-1 and ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| P17-1 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → Replace the humidity sensor.

No

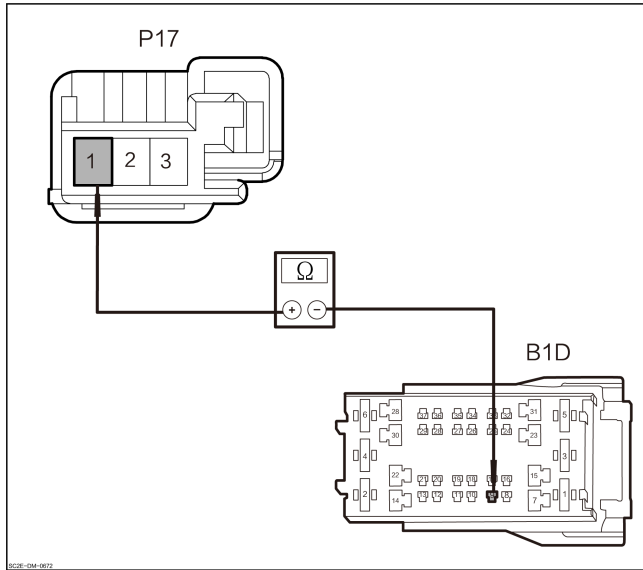
6 Check the front compartment fuse box harness connector.

1. Set the START/STOP button to “OFF” .
 2. Disconnect the front compartment fuse box harness connector B1D.
 3. Check whether the front compartment fuse box harness connector is normal.

No → Repair or replace the wire harness

Yes

7 Check whether the humidity sensor power line is open circuited.



1. Measure the resistance value between the humidity sensor harness connector P17-1 and the front compartment fuse box harness connector B1D-9.

| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| P17-1 | B1D-9 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

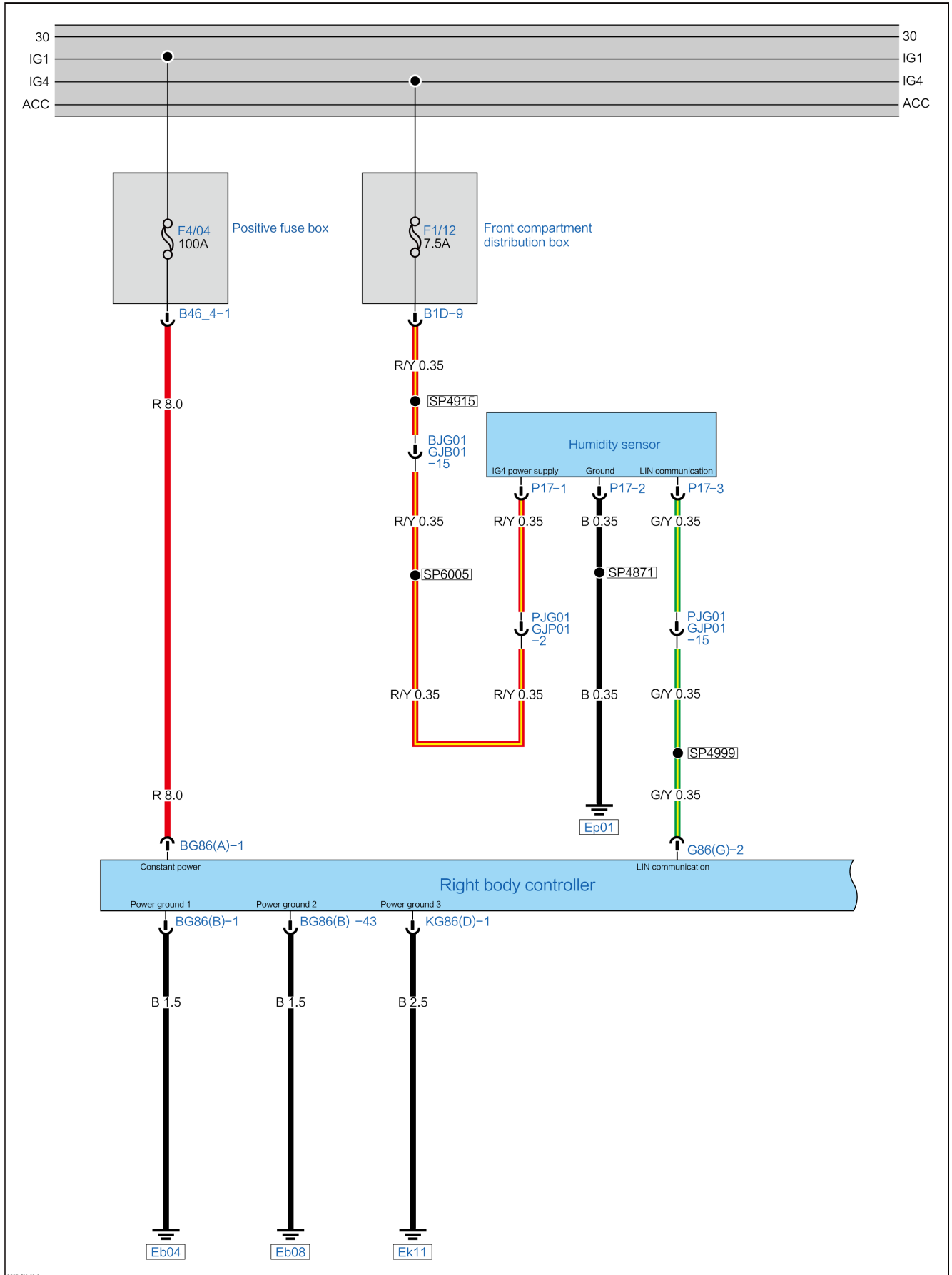
- No → Repair or replace the wire harness
- Yes → Replace the front compartment fuse box.

U02087 Communication with Humidity Sensor Lost

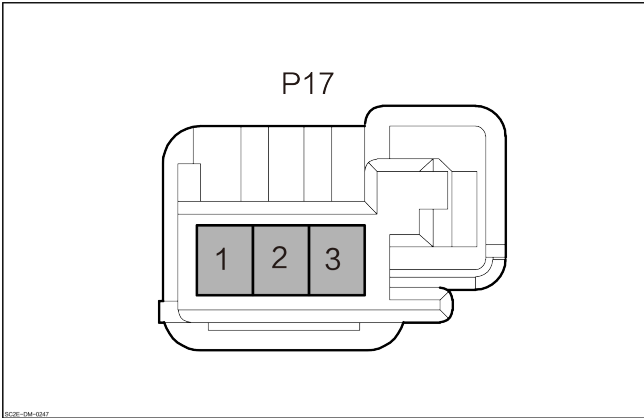
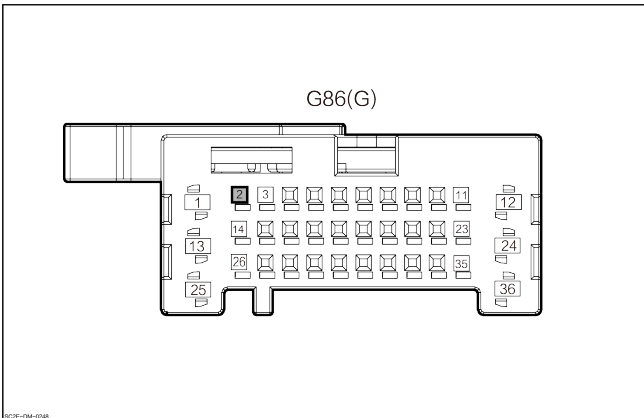
DTC Description

| U02087 Communication with Humidity Sensor Lost | |
|--|---|
| Symptom | Some functions of the vehicle fail. |
| Possible Cause | <ol style="list-style-type: none"> 1. Fuse has blew. 2. Harness or harness connector fault. 3. LIN communication failure 4. Humidity sensor fault |
| Fault setting conditions | If the right body control module fails to receive any message from the humidity sensor within a certain time period, this DTC will be generated. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Humidity sensor</p>  <p style="text-align: center;">P17</p> | 1 | Power supply |
| | 2 | Ground |
| | 3 | LIN control |
| <p style="text-align: center;">Right body control module</p>  <p style="text-align: center;">G86(G)</p> | 2 | LIN control |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of right body control module. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Place the start/stop button in the OFF position and wait for a few seconds.
4. Place the start/stop button in ON position again, and read the DTC.
5. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|---------------------------------|
| 2 | Check the humidity sensor fuse. |
|---|---------------------------------|

1. Check whether the fuse F1/12 (7.5A) of front compartment fuse box is normal?

No

Replace the fuse

Yes

| | |
|---|--|
| 3 | Check the humidity sensor harness connector. |
|---|--|

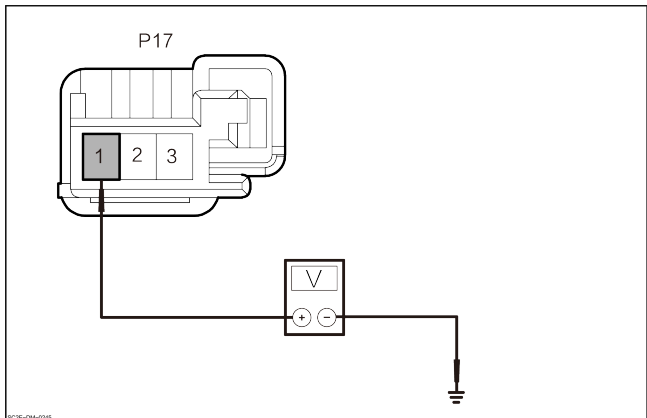
1. Set the START/STOP button to “OFF” .
2. Disconnect the humidity sensor harness connector P17.
3. Check whether the humidity sensor harness connector is normal or not.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the power supply of humidity sensor. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the humidity sensor harness connector P17-1 and ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| P17-1 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes Go to step 7.

No

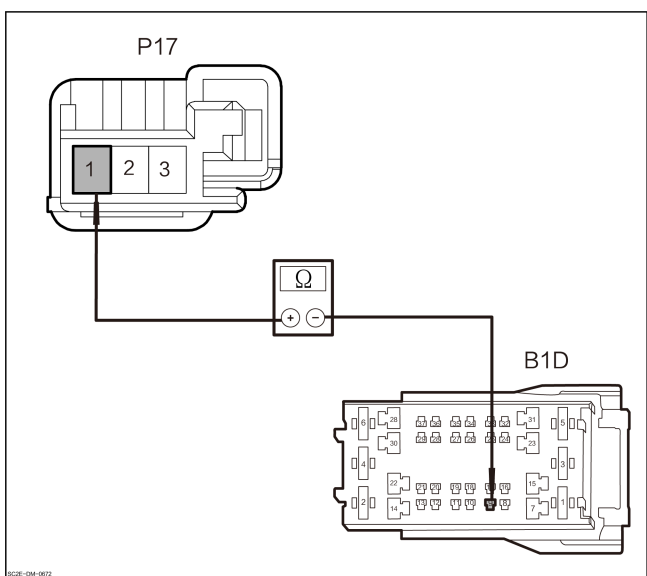
5 Check the front compartment fuse box harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1D.
3. Check whether the front compartment fuse box harness connector is normal.

No Repair or replace the wire harness

Yes

6 Check whether the humidity sensor power line is open circuited.



1. Measure the resistance value between the humidity sensor harness connector P17-1 and the front compartment fuse box harness connector B1D-9.

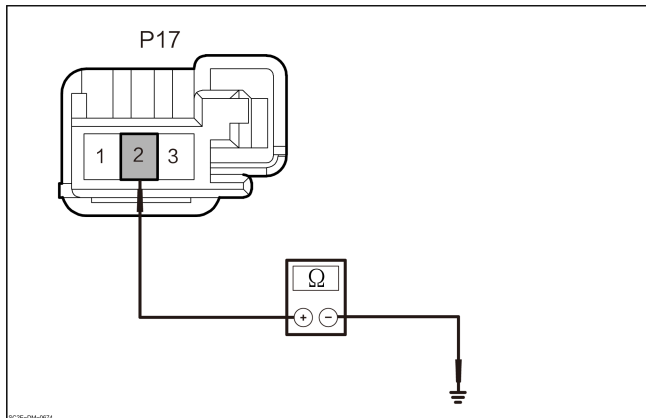
| Connector | | Condition | Resistance value |
|-----------|-------|-------------|------------------|
| (+) | (-) | | |
| P17-1 | B1D-9 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the front compartment fuse box.

7 Check whether the humidity sensor ground line is open circuited.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance value between the humidity sensor harness connector P17-2 and ground.

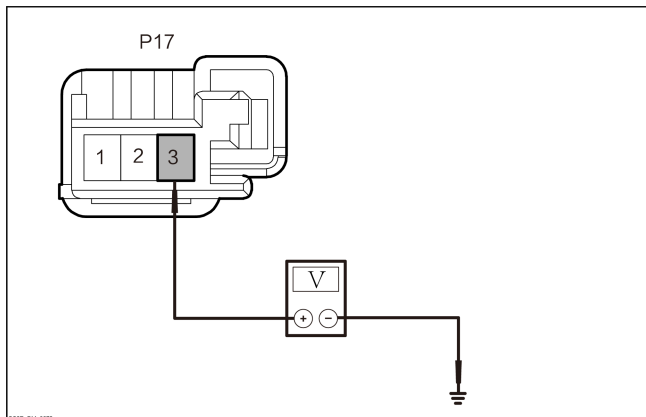
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| P17-2 | Ground | Through- out | Lower than 1 Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the voltage of the humidity sensor LIN control line.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the humidity sensor harness connector P17-3 and ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| P17-3 | Ground | Through- out | 9.5V |

3. Check whether the results are normal.

Yes → Replace the humidity sensor.

No

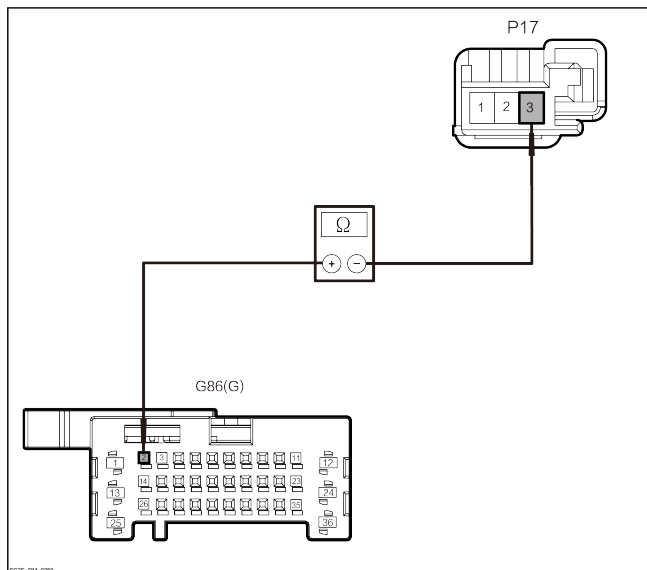
9 Check the harness and connector of right body control module.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of right body control module G86(G).
3. Check whether the harness connector of right body control module is normal?

No → Repair or replace the wire harness

Yes

10 Check the humidity sensor LIN control line for open circuit.



1. Measure the resistance between the harness connector of humidity sensor P17-3 and the harness connector of right body control module G86(G)-2.

| Connector | | Condition | Resistance value |
|-----------|-------|-------------|------------------|
| (+) | (-) | | |
| G86(G)-2 | P17-3 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

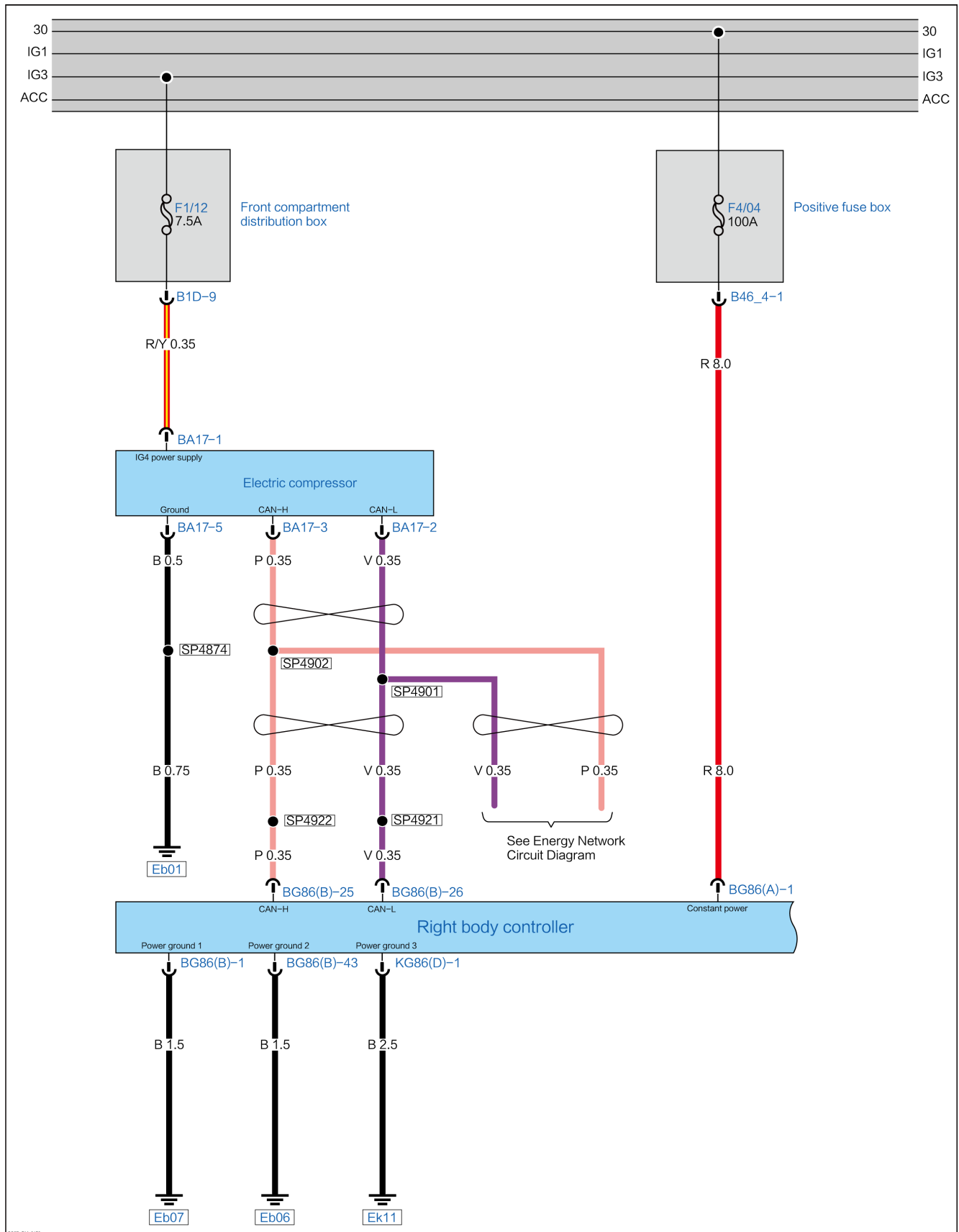
- No → Repair or replace the wire harness
- Yes → Replace the right body control module.

U025387 Communication with compressor lost

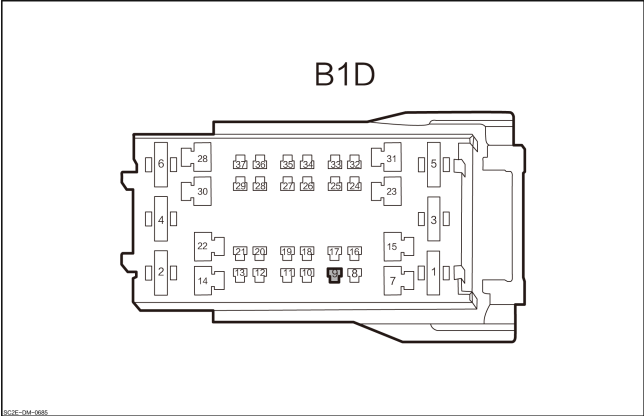
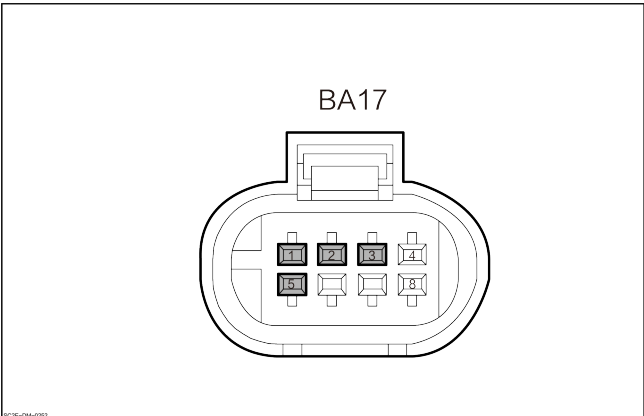
DTC Description

| U025387 Communication with compressor lost | |
|--|--|
| Symptom | Refrigeration of the A/C system fails. |
| Possible Cause | <ol style="list-style-type: none">1. Fuse has blew.2. Harness or connector fault.3. CAN network communication fault.4. Compressor failure |
| Fault setting conditions | If the right body control module fails to receive any message from the electric compressor within a certain time period, this DTC will be generated. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|--|
| <p style="text-align: center;">Front compartment fuse box</p> <div style="text-align: center;">  <p style="text-align: center;">B1D</p> </div> | <p>9</p> | <p>Power supply of electric compressor IG4</p> |
| <p style="text-align: center;">Electric compressor</p> <div style="text-align: center;">  <p style="text-align: center;">BA17</p> </div> | <p>1</p> | <p>Power supply</p> |
| | <p>2</p> | <p>CAN-L</p> |
| | <p>3</p> | <p>CAN-H</p> |
| | <p>5</p> | <p>Ground</p> |

Diagnostic Steps

| | |
|---|--|
| 1 | Check the communication network of the electric compressor . |
|---|--|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Use a VDS to execute the network test.
4. Check whether the electric compressor passes the network detection?

Yes  Check the “intermittent fault” .

No 

| | |
|---|-------------------------------------|
| 2 | Check the electric compressor fuse. |
|---|-------------------------------------|

1. Check whether the fuse F1/12 (7.5A) of front compartment fuse box is normal?

No  Replace the fuse

Yes 

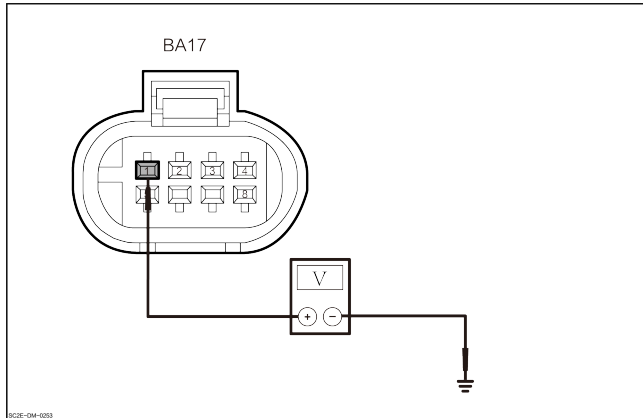
| | |
|---|--|
| 3 | Check the electric compressor harness connector. |
|---|--|

1. Set the START/STOP button to “OFF” .
2. Disconnect the electric compressor harness connector BA17.
3. Check the harness connector of electric compressor for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No  Repair or replace the wire harness

Yes 

| | |
|---|--|
| 4 | Check the power supply of electric compressor. |
|---|--|



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the electric compressor harness connector BA17-1 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BA17-1 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes Go to step 7

No

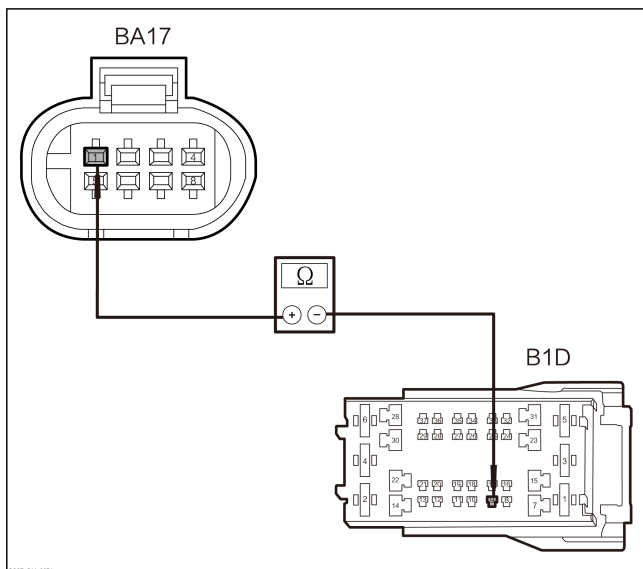
5 Check the front compartment fuse box harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1D.
3. Check the harness connector of front compartment fuse box for corrosion, damage, pin withdrawing, etc.
4. Check whether the results are normal.

No Repair or replace the wire harness

Yes

6 Check the electric compressor power supply line for open circuit.



1. Measure the resistance value between the electric compressor harness connector BA17-1 and the front compartment fuse box harness connector B1 D-9.

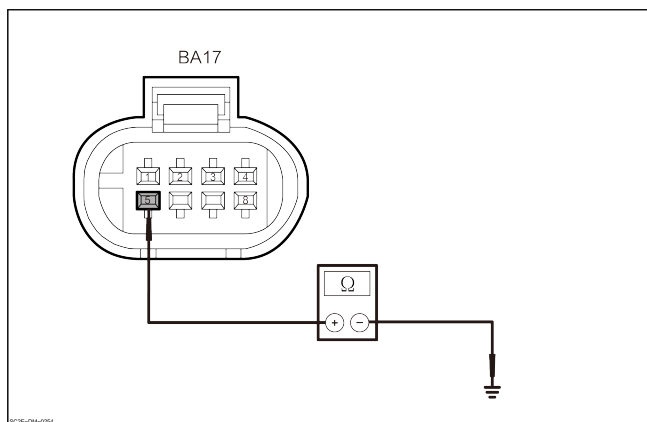
| Connector | | Condition | Resist-ance value |
|-----------|-------|-------------|-------------------|
| (+) | (-) | | |
| BA17-1 | B1D-9 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes → Replace the front compartment fuse box.

7 Check the electric compressor ground line for open circuit.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance value between the electric compressor harness connector BA17-5 and the ground.

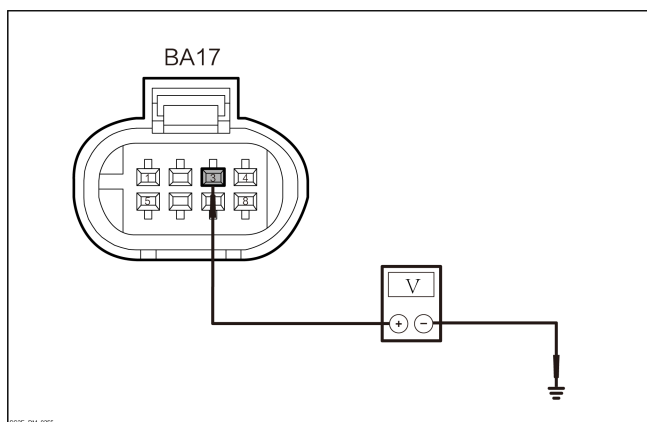
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| BA17-5 | Ground | Through- out | Lower than 1Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the CAN-H line voltage of the electric compressor.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the compressor harness connector BA17-3 and the ground.

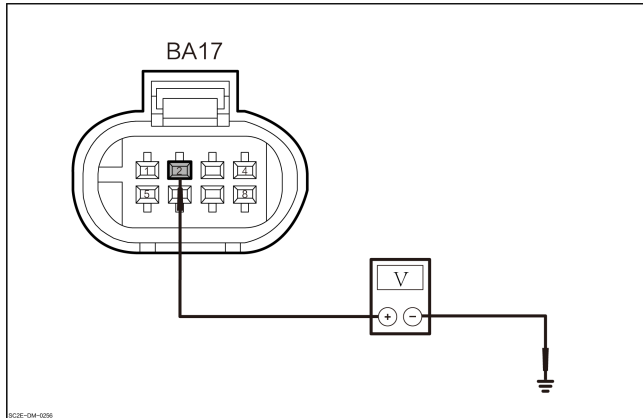
| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| BA17-3 | Ground | Through- out | 2.5~3.5V |

3. Check whether the results are normal.

No → Chassis Network Bus Off

Yes

9 Check the CAN-L line voltage of the electric compressor.



1. Measure the voltage between the compressor harness connector BA17-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| BA17-2 | Ground | Through-out | 1.5~2.5V |

2. Check whether the results are normal.

- No Chassis Network Bus Off
- Yes Replace the electric compressor.

B2A2F09 A/C Pipes in High Pressure State or Low Pressure State**DTC Description**

| B2A2F09 A/C Pipes in High Pressure State or Low Pressure State | |
|--|---|
| Symptom | The compressor stops working, and some functions of the air conditioner system are not available. |
| Possible Cause | 1. The refrigerant pressure is too high or too low. 2. The radiator fan fails wot work. |
| Fault setting conditions | The right body module receives incorrect pressure signal. |
| Trigger fault conditions | After the vehicle is powered on, turn on the A/C refrigeration mode. |

Diagnostic Steps

| | |
|---|------------------------|
| 1 | Check the cooling fan. |
|---|------------------------|

1. Set the start/stop button to OK position and turn on the A/C.
2. Check whether the cooling fan is normal.



Diagnose the “Radiator fan fails not work” .

Yes

| | |
|---|--|
| 2 | Check the A/C system refrigerant pressure. |
|---|--|

1. Connect the refrigerant recovery filling machine, set the start/stop button to OK position, and switch on the A/C.
2. Check the A/C system refrigerant pressure.

| Pressure gauge | Condition | Pressure |
|-----------------|------------------------------------|------------------|
| System pressure | Disable the A/C refrigeration mode | 0.73~0.83MP a |
| High pressure | Enable the A/C refrigeration mode | 1.47~1.67MP a |
| Low pressure | Enable the A/C refrigeration mode | 0.15~0.25MP a |

3. Check whether the results are normal.

No

Check the A/C for leakage and adjust the refrigerant pressure of the A/C system.

Yes

Replace the A/C pressure sensor.

DTC of A/C Compressor

List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|--|--|
| B2AB997 | Overload fault | B2AB997 Overloading |
| B2AB049 | Current sampling circuit fault | B2AB049 Current Sampling Circuit Fault |
| B2AB149 | Motor Phase Lost | B2AB149 Motor Phase Lost |
| B2AB249 | IPM IGBT fault | B2AB249 IPM IGBT Fault |
| B2AB349 | Internal temperature sensor fault | B2AB349 Internal Temperature Sensor Fault |
| B2AB41D | Internal Current Excessive | B2AB41D Internal Overcurrent |
| B2AB573 | Fail to Startup | B2AB573 Fail to Start Up |
| B2AB64B | Internal temperature abnormal | B2AB64B Internal Temperature Abnormal |
| B2AB774 | Speed Abnormal | B2AB774 Speed Abnormal |
| B2AB81C | Phase voltage too high | B2AB81C Phase Voltage Too High |
| B2ABB17 | Voltage of high voltage side overvoltage | B2ABB17 Voltage of High Voltage Side Overvoltage |
| B2ABC16 | Voltage of High Voltage Side Low | B2ABC16 Voltage of High Voltage Side Low |
| B2ABA1C | Fault at Internal Low-voltage Power | B2ABA1C Fault at Internal Low-voltage Power |

B2AB997 Overloading**DTC Description**

| B2AB997 Overloading | |
|--------------------------|--|
| Symptom | Refrigeration of the A/C system fails. |
| Possible Cause | 1. Excessive A/C system refrigerant. 2. Radiator fan failure 3. Compressor failure |
| Fault setting conditions | Electric compressor overloading. |
| Trigger fault conditions | Set the start/stop button to ON position and enable the A/C cooling function. |

Diagnostic Steps

| | |
|---|------------------------------------|
| 1 | Check the DTC of motor compressor. |
|---|------------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|------------------------|
| 2 | Check the cooling fan. |
|---|------------------------|

1. Set the start/stop button to OK position and turn on the A/C.
2. Check whether the cooling fan is normal.

No → Check "cooling fan not working".

Yes

| | |
|---|--|
| 3 | Check the A/C system refrigerant pressure. |
|---|--|

1. Connect the refrigerant refilling machine.
2. Check the A/C system refrigerant pressure.

| Pressure gauge | Condition | Pressure |
|-----------------|------------------------------------|--------------------------|
| System pressure | Disable the A/C refrigeration mode | 0.73~0.83MP _a |
| High pressure | Enable the A/C refrigeration mode | 1.47~1.67MP _a |
| Low pressure | Enable the A/C refrigeration mode | 0.15~0.25MP _a |

3. Check whether the results are normal.

No → Adjust the A/C system refrigerant pressure.

Yes

Replace the electric compressor.

B2AB049 Current Sampling Circuit Fault

DTC Description

| B2AB049 Current Sampling Circuit Fault | |
|--|---|
| Symptom | Refrigeration of the A/C system fails. |
| Possible Cause | Compressor failure |
| Fault setting conditions | During the verification, the electric compressor circuit current is inconsistent with the target setting. |
| Trigger fault conditions | Set the start/stop button to ON position and enable the A/C cooling function. |

Diagnostic Steps

| | |
|---|------------------------------------|
| 1 | Check the DTC of motor compressor. |
|---|------------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the electric compressor.

B2AB149 Motor Phase Lost

DTC Description

| B2AB149 Motor Phase Lost | |
|--------------------------|---|
| Symptom | Refrigeration of the A/C system fails. |
| Possible Cause | Compressor failure |
| Fault setting conditions | Electric compressor phase loss. |
| Trigger fault conditions | Set the start/stop button to ON position and enable the A/C cooling function. |

Diagnostic Steps

| | |
|---|------------------------------------|
| 1 | Check the DTC of motor compressor. |
|---|------------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the electric compressor.

B2AB249 IPM IGBT Fault

DTC Description

| B2AB249 IPM IGBT Fault | |
|--------------------------|---|
| Symptom | Refrigeration of the A/C system fails. |
| Possible Cause | Compressor failure |
| Fault setting conditions | Compressor IGBT fault |
| Trigger fault conditions | Set the start/stop button to ON position and enable the A/C cooling function. |

Diagnostic Steps

| | |
|---|------------------------------------|
| 1 | Check the DTC of motor compressor. |
|---|------------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the START/STOP button to ON.
3. Clear DTCs.
4. Set the START/STOP button to OFF, and wait a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the electric compressor.

B2AB349 Internal Temperature Sensor Fault**DTC Description**

| B2AB349 Internal temperature sensor fault | |
|---|---|
| Symptom | Refrigeration of the A/C system fails. |
| Possible Cause | Compressor failure |
| Fault setting conditions | Failure of the internal temperature sensor |
| Trigger fault conditions | Set the start/stop button to ON position and enable the A/C cooling function. |

Diagnostic Steps

| | |
|---|------------------------------------|
| 1 | Check the DTC of motor compressor. |
|---|------------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the electric compressor.

B2AB41D Internal Overcurrent

DTC Description

| B2AB41D Internal Overcurrent | |
|------------------------------|---|
| Symptom | Refrigeration of the A/C system fails. |
| Possible Cause | Compressor failure |
| Fault setting conditions | Excessive internal current |
| Trigger fault conditions | Set the start/stop button to ON position and enable the A/C cooling function. |

Diagnostic Steps

| | |
|---|------------------------------------|
| 1 | Check the DTC of motor compressor. |
|---|------------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the electric compressor.

B2AB573 Fail to Start Up

DTC Description

| B2AB573 Fail to Start Up | |
|--------------------------|---|
| Symptom | Refrigeration of the A/C system fails. |
| Possible Cause | Compressor failure |
| Fault setting conditions | Electric compressor cannot be started. |
| Trigger fault conditions | Set the start/stop button to ON position and enable the A/C cooling function. |

Diagnostic Steps

| | |
|---|------------------------------------|
| 1 | Check the DTC of motor compressor. |
|---|------------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the electric compressor high voltage fuse. |
|---|--|

1. Check whether the electric compressor high voltage fuse is normal

No

Replace the electric compressor high-voltage fuse.

Yes

Replace the electric compressor.

B2AB64B Internal Temperature Abnormal**DTC Description**

| B2AB64B Internal Temperature Abnormal | |
|---------------------------------------|---|
| Symptom | Refrigeration of the A/C system fails. |
| Possible Cause | Compressor failure |
| Fault setting conditions | Abnormal internal temperature |
| Trigger fault conditions | Set the start/stop button to ON position and enable the A/C cooling function. |

Diagnostic Steps

| | |
|---|------------------------------------|
| 1 | Check the DTC of motor compressor. |
|---|------------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the electric compressor.

B2AB774 Speed Abnormal**DTC Description**

| B2AB774 Speed Abnormal | |
|--------------------------|---|
| Symptom | Refrigeration of the A/C system fails. |
| Possible Cause | Compressor failure |
| Fault setting conditions | Abnormal compressor speed |
| Trigger fault conditions | Set the start/stop button to ON position and enable the A/C cooling function. |

Diagnostic Steps

| | |
|---|------------------------------------|
| 1 | Check the DTC of motor compressor. |
|---|------------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the electric compressor.

B2AB81C Phase Voltage Too High

DTC Description

| B2AB81C Phase Voltage Too High | |
|--------------------------------|---|
| Symptom | Refrigeration of the A/C system fails. |
| Possible Cause | Compressor failure |
| Fault setting conditions | Failure of over-high phase voltage |
| Trigger fault conditions | Set the start/stop button to ON position and enable the A/C cooling function. |

Diagnostic Steps

| | |
|---|------------------------------------|
| 1 | Check the DTC of motor compressor. |
|---|------------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the electric compressor.

B2ABB17 Voltage of High Voltage Side Overvoltage

DTC Description

| B2ABB17 Voltage of High Voltage Side Overvoltage | |
|--|---|
| Symptom | Refrigeration of the A/C system fails. |
| Possible Cause | Compressor failure |
| Fault setting conditions | Voltage of high voltage side is overvoltage. |
| Trigger fault conditions | Set the start/stop button to ON position and enable the A/C cooling function. |

Diagnostic Steps

| | |
|---|------------------------------------|
| 1 | Check the DTC of motor compressor. |
|---|------------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the electric compressor.

B2ABC16 Voltage of High Voltage Side Low**DTC Description**

| B2ABC16 Voltage of High Voltage Side Low | |
|--|---|
| Symptom | Refrigeration of the A/C system fails. |
| Possible Cause | Compressor failure |
| Fault setting conditions | Voltage of high voltage side is low. |
| Trigger fault conditions | Set the start/stop button to ON position and enable the A/C cooling function. |

Diagnostic Steps

| | |
|---|------------------------------------|
| 1 | Check the DTC of motor compressor. |
|---|------------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|--|
| 2 | Check the electric compressor high voltage fuse. |
|---|--|

1. Check whether the electric compressor high voltage fuse is normal

No

Replace the electric compressor high-voltage fuse.

Yes

Replace the electric compressor.

B2ABA1C Fault at Internal Low-voltage Power

DTC Description

| B2ABA1C Fault at Internal Low-voltage Power | |
|---|---|
| Symptom | Refrigeration of the A/C system fails. |
| Possible Cause | Compressor failure |
| Fault setting conditions | Internal low-voltage power supply. |
| Trigger fault conditions | Set the start/stop button to ON position and enable the A/C cooling function. |

Diagnostic Steps

| | |
|---|------------------------------------|
| 1 | Check the DTC of motor compressor. |
|---|------------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the electric compressor.

PM 2.5 DTC Diagnosis

List of DTC

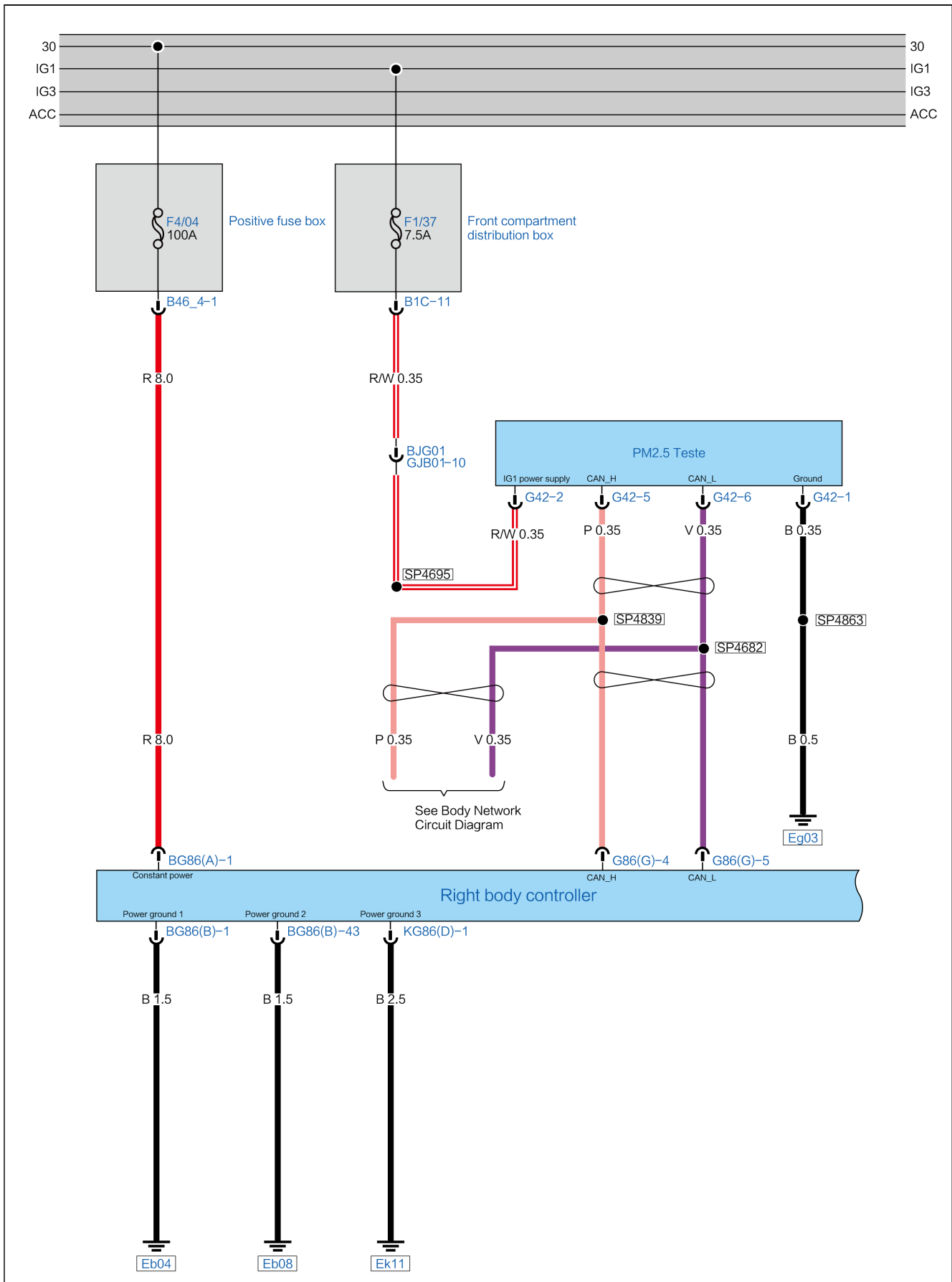
| DTC: | Meaning | Diagnostic Process |
|---------|--|--|
| B110A02 | PM2.5 tester CAN signal fault | B110A02 PM2.5 Quick Tester CAN Signal Fault |
| B110B07 | PM2.5 quick tester air pump fault | B110B07 PM2.5 Quick Tester Air Pump Fault |
| B110C09 | PM2.5 quick tester laser diode failure | B110C09 PM2.5 Quick Tester Laser Diode Failure |
| B110D09 | PM2.5 quick tester photoelectric receiver module failure | B110D09 PM2.5 Quick Tester Photoelectric Receiving Module Failure |
| B110811 | PM2.5 quick tester short-circuited | B110811 PM2.5 Quick Tester Short-circuited |
| B110913 | PM2.5 quick tester open-circuited | B110913 PM2.5 Quick Tester Circuit Broken |
| B110F09 | PM2.5 quick tester solenoid valve failure | B110F09 PM2.5 Quick Tester Solenoid Valve Failure |
| B110E09 | PM2.5 quick tester temperature and humidity module failure | B110E09 PM2.5 Quick Tester Temperature and Humidity Module Failure |
| B111009 | ECU internal fault | B111009 ECU Internal Fault |

B110A02 PM2.5 Quick Tester CAN Signal Fault

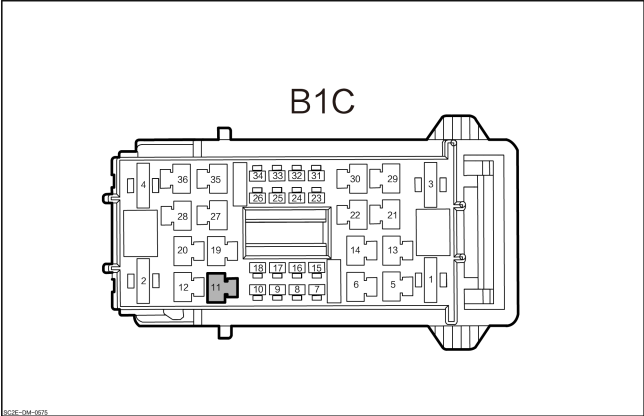
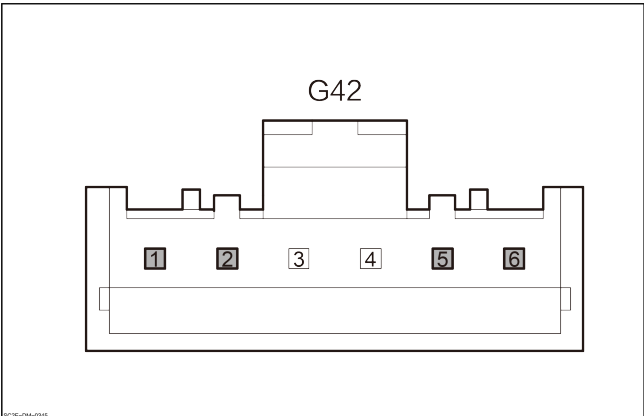
DTC Description

| B110A02 PM2.5 Quick Tester CAN Signal Fault | |
|---|---|
| Symptom | The PM2.5 quick tester fails. |
| Possible Cause | <ol style="list-style-type: none">1. Fuse has blew.2. Harness or harness connector fault.3. The CAN network communication fails.4. The PM2.5 quick tester fails. |
| Fault setting conditions | When PM2.5 quick tester message error is identified, this DTC is generated. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Front compartment fuse box</p>  <p style="text-align: center;">B1C</p> | 11 | IG1 power supply |
| <p style="text-align: center;">PM2.5 tester</p>  <p style="text-align: center;">G42</p> | 1 | Ground |
| | 2 | IG1 power supply |
| | 5 | CAN-H |
| | 6 | CAN-L |

Diagnostic Steps

1 Check the PM2.5 quick tester communication network.

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Use a VDS to execute the network test.
5. Check whether the PM2.5 quick tester has passed the network test.

Yes → Check the “intermittent fault” .

No

2 Check the fuse of PM2.5 tester.

1. Check whether the fuse F1/37 (7.5A) of front compartment fuse box is normal?

No → Replace the fuse

Yes

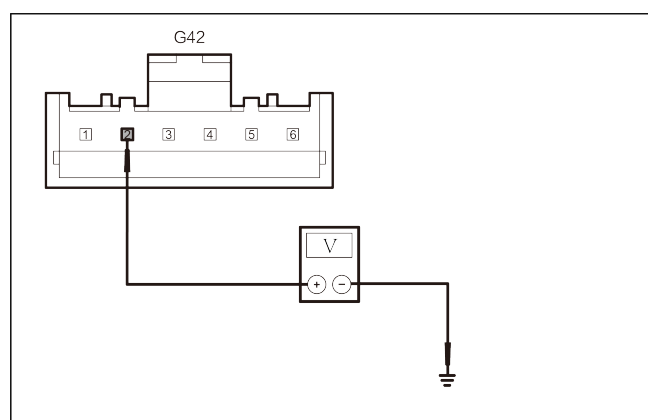
3 Check the harness connector of PM2.5 tester.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of PM2.5 tester G42.
3. Check whether the harness connector of PM2.5 tester is normal.

No → Repair or replace the wire harness

Yes

4 Check the power supply of PM2.5 tester.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of PM2.5 tester G42-2 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G42-2 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes

Go to step 7.

No

5 Check the front compartment fuse box harness connector.

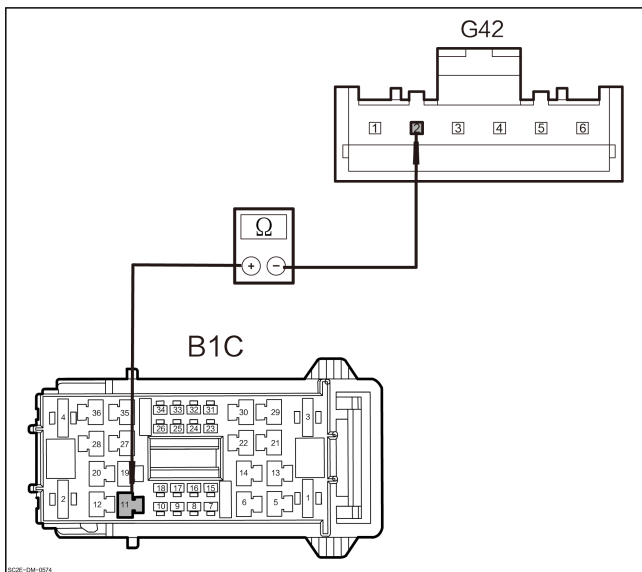
1. Set the START/STOP button to “OFF” .
2. Disconnect the front compartment fuse box harness connector B1C.
3. Check whether the front compartment fuse box harness connector is normal.

No

Repair or replace the wire harness

Yes

6 Check the PM2.5 tester line for open circuit.



1. Measure the resistance between the harness connector of PM2.5 tester G42-2 and the harness connector of front compartment fuse box B1C-11.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G42-2 | B1C-11 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

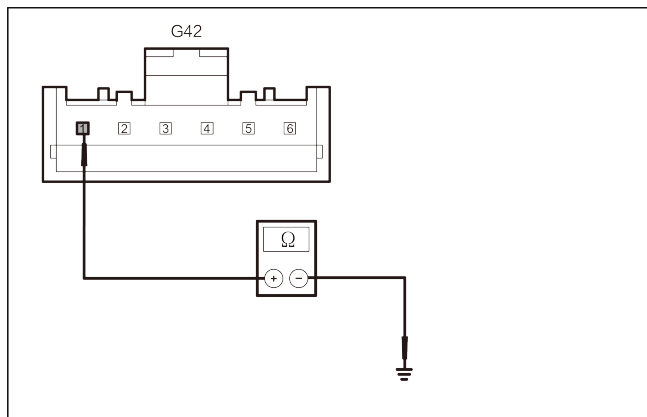
No

Repair or replace the wire harness

Yes

Replace the front compartment fuse box.

7 Check the ground line of PM2.5 tester for open circuit.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance between the harness connector of PM2.5 tester G42-1 and the ground.

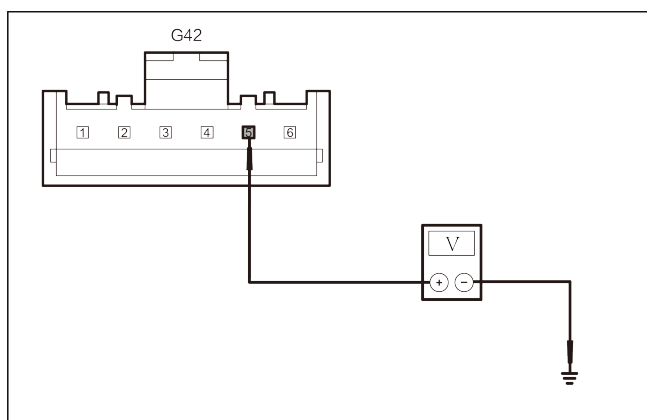
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G42-1 | Ground | Through- out | Lower than 1Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the CAN-H line of PM2.5 tester.



1. Set the START/STOP button to “ON” .
2. Measure the voltage between the harness connector of PM2.5 tester G42-5 and the ground.

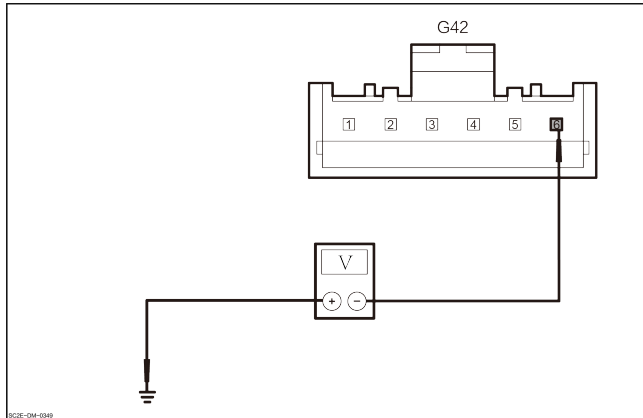
| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G42-5 | Ground | Through- out | 2.5~3.5V |

3. Check whether the results are normal.

No → Go to "Body Network Bus Off" diagnosis.

Yes

9 Check the CAN-L line of PM2.5 tester.



1. Measure the voltage between the harness connector of PM2.5 tester G42-6 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G42-6 | Ground | Through-out | 1.5~2.5V |

2. Check whether the results are normal.

- No → Go to "Body Network Bus Off" diagnosis.
- Yes → Replace the PM2.5 tester.

B110B07 PM2.5 Quick Tester Air Pump Fault**DTC Description**

| B110B07 PM2.5 Quick Tester Air Pump Fault | |
|---|---|
| Symptom | The PM2.5 quick tester fails. |
| Possible Cause | The PM2.5 quick tester fails. |
| Fault setting conditions | The PM2.5 quick tester air pump fails. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|-----------------------------|
| 1 | Check the PM2.5 tester DTC. |
|---|-----------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the PM2.5 tester.

B110C09 PM2.5 Quick Tester Laser Diode Failure

DTC Description

| B110C09 PM2.5 Quick Tester Laser Diode Failure | |
|--|---|
| Symptom | The PM2.5 quick tester fails. |
| Possible Cause | The PM2.5 quick tester fails. |
| Fault setting conditions | The PM2.5 quick tester laser diode fails. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|-----------------------------|
| 1 | Check the PM2.5 tester DTC. |
|---|-----------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the PM2.5 tester.

B110D09 PM2.5 Quick Tester Photoelectric Receiving Module Failure

DTC Description

| B110D09 PM2.5 quick tester photoelectric receiver module failure | |
|--|---|
| Symptom | The PM2.5 quick tester fails. |
| Possible Cause | The PM2.5 quick tester fails. |
| Fault setting conditions | The PM2.5 quick tester photoelectric receiver module fails. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|-----------------------------|
| 1 | Check the PM2.5 tester DTC. |
|---|-----------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the PM2.5 tester.

B110811 PM2.5 Quick Tester Short-circuited**DTC Description**

| B110811 PM2.5 Quick Tester Short-circuited | |
|--|---|
| Symptom | The PM2.5 quick tester fails. |
| Possible Cause | The PM2.5 quick tester fails. |
| Fault setting conditions | PM2.5 quick tester is short-circuited. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|-----------------------------|
| 1 | Check the PM2.5 tester DTC. |
|---|-----------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the PM2.5 tester.

B110F09 PM2.5 Quick Tester Solenoid Valve Failure

DTC Description

| B110F09 PM2.5 Quick Tester Solenoid Valve Failure | |
|---|--|
| Symptom | The PM2.5 quick tester fails. |
| Possible Cause | The PM2.5 quick tester fails. |
| Fault setting conditions | The PM2.5 quick tester solenoid valve fails. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|-----------------------------|
| 1 | Check the PM2.5 tester DTC. |
|---|-----------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the PM2.5 tester.

B110913 PM2.5 Quick Tester Circuit Broken**DTC Description**

| B110913 PM2.5 Quick Tester Circuit Broken | |
|---|---|
| Symptom | The PM2.5 quick tester fails. |
| Possible Cause | The PM2.5 quick tester fails. |
| Fault setting conditions | PM2.5 quick tester broken circuit. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|-----------------------------|
| 1 | Check the PM2.5 tester DTC. |
|---|-----------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the PM2.5 tester.

B110E09 PM2.5 Quick Tester Temperature and Humidity Module Failure**DTC Description**

| B110E09 PM2.5 Quick Tester Temperature and Humidity Module Failure | |
|--|---|
| Symptom | The PM2.5 quick tester fails. |
| Possible Cause | The PM2.5 quick tester fails. |
| Fault setting conditions | The PM2.5 quick tester temperature and humidity module fails. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|-----------------------------|
| 1 | Check the PM2.5 tester DTC. |
|---|-----------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the PM2.5 tester.

B111009 ECU Internal Fault**DTC Description**

| B111009 ECU Internal Fault | |
|----------------------------|---|
| Symptom | The PM2.5 quick tester fails. |
| Possible Cause | The PM2.5 quick tester fails. |
| Fault setting conditions | ECU internal fault. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|-----------------------------|
| 1 | Check the PM2.5 tester DTC. |
|---|-----------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

Replace the PM2.5 tester.

Horn

Diagnosis Description

Introduction

When diagnosing the fault of the horn, in order to understand and get familiar with the working principle of the horn, go to the description and operation overview. Confirm the faults described by the customer before diagnosis and analyze the cause of the horn fault so as to determine the correct fault diagnosis procedure. For inspection and measurement of horn line and components, give priority to data flow and action test to improve diagnostic efficiency and shorten maintenance time. After the fault is confirmed, the precautions and warnings of the system shall be understood and the standard operation procedures shall be implemented when repairing the horn. After the maintenance, the horn shall be checked and its working condition shall be confirmed.

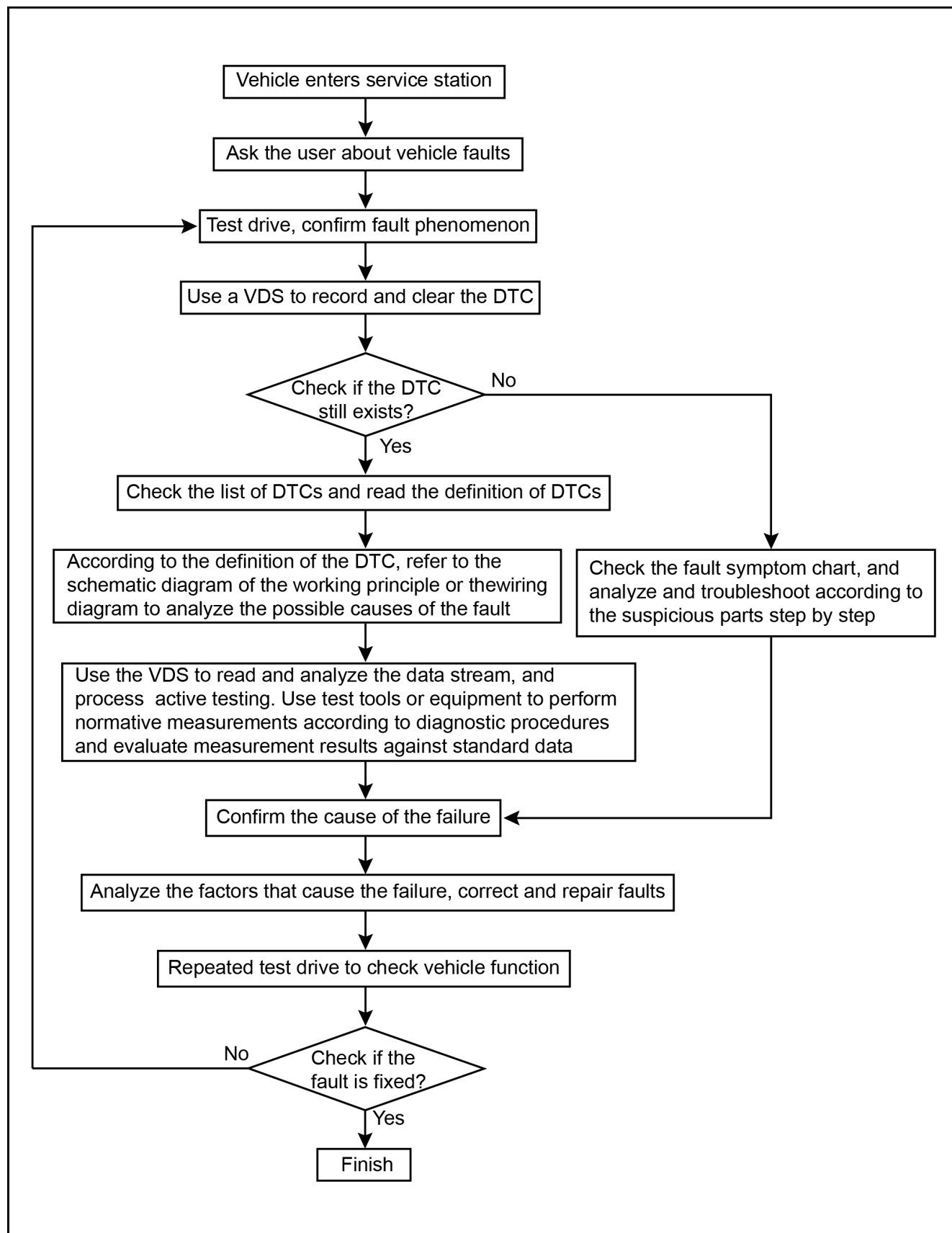
General equipment

- Multimeter
- VDS

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Process of Fault Inspection and Troubleshooting



Diagnosis of general faults

Visual inspection

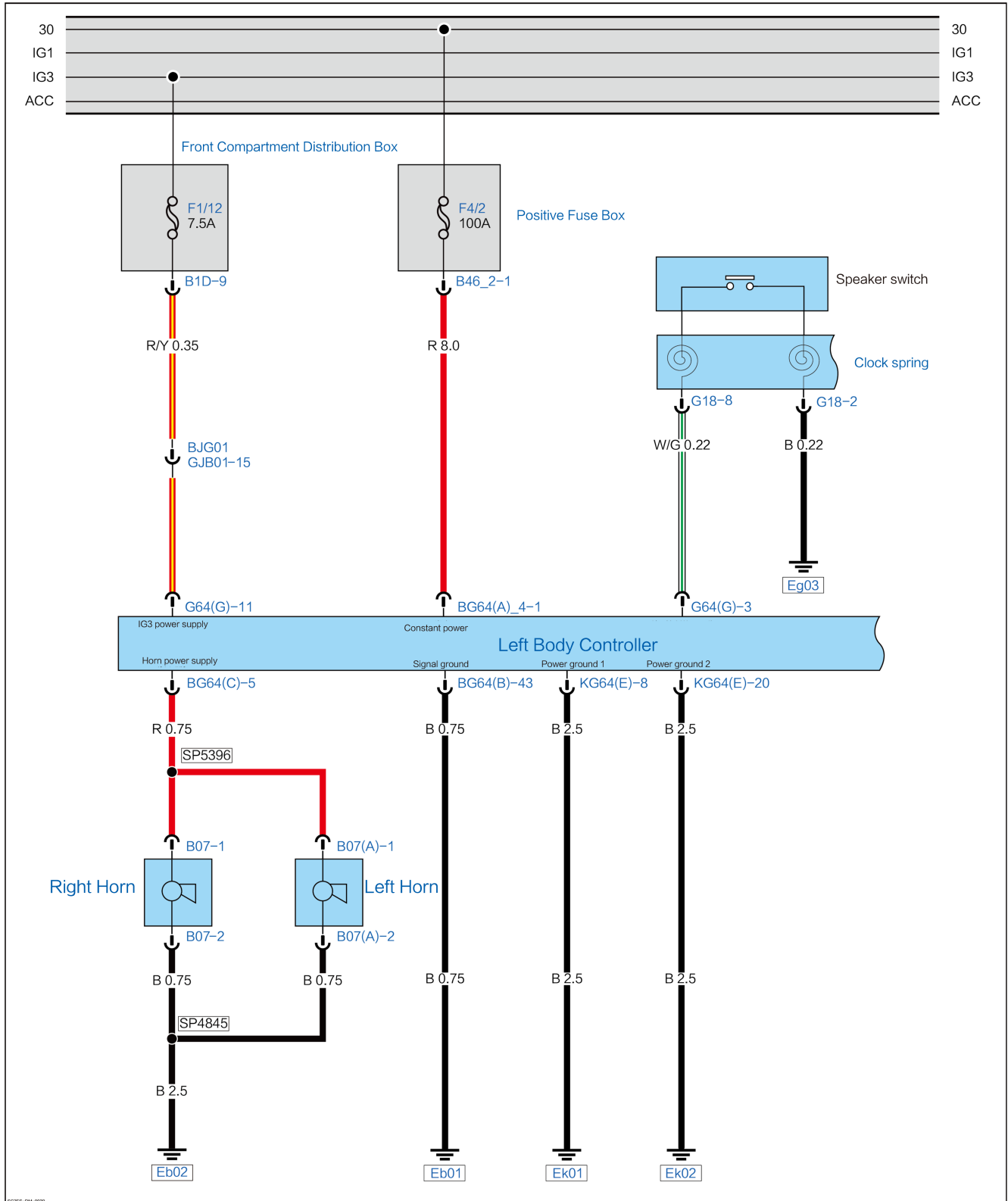
1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

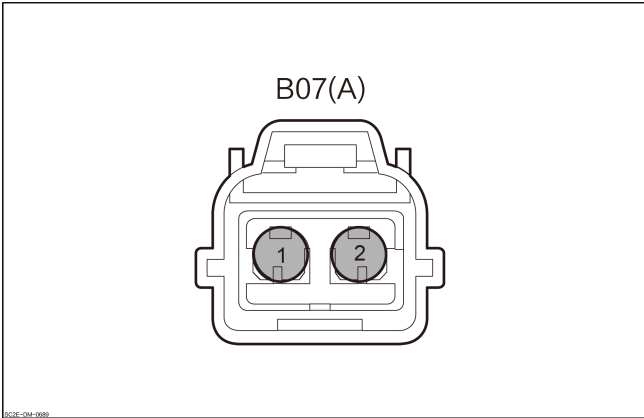
| Symptom | Possible cause | Suggested maintenance measures |
|--|---|---|
| Woofer Horn is Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The bass horn fails. | Woofer Horn is Not Working (Plan 1) |
| Tweeter Horn Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The bass horn fails. | Tweeter Horn is Not Working (Plan 1) |
| Tweeter and Woofer Horns is Not Working At The Same Time | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Horn switch. 3. The left body control module fails. | Tweeter and Woofer Horns are Not Working At The Same Time(Plan 1) |
| Woofer Horn is Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The bass horn fails. | Woofer Horn is Not Working (Plan 2) |
| Tweeter Horn Not Working | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. The bass horn fails. | Tweeter Horn is Not Working (Plan 2) |
| Tweeter and Woofer Horns is Not Working At The Same Time | <ol style="list-style-type: none"> 1. Harness or connector fault. 2. Horn switch. 3. The left body control module fails. | Tweeter and Woofer Horns are Not Working At The Same Time(Plan 2) |

Woofer Horn is Not Working (Plan 1)

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">Low note horn</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B07(A)</p> </div> <p style="font-size: small; margin-top: 10px;">B07C-014-088</p> | 1 | Power supply |
| | 2 | Ground |

Diagnostic Steps

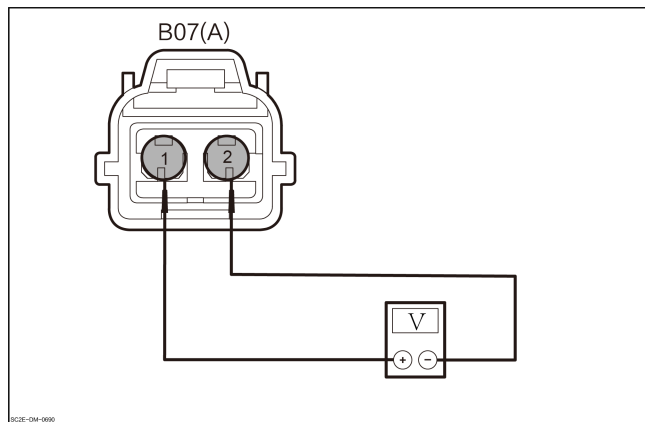
| | |
|---|--|
| 1 | Check the harness connector of the woofer. |
|---|--|

1. Set the start/stop button to the OFF position.
2. Disconnect the harness connector of bass horn module B07(A).
3. Check the harness connector of the woofer for normal function.

No → Repair or replace the wire harness

Yes

| | |
|---|------------------------|
| 2 | Check the woofer line. |
|---|------------------------|



1. Measure the voltage between the harness connector of woofer B07(A)-1 and the harness connector of woofer B07(A)-2.

| Connector | | Condition | Voltage value |
|-----------|----------|-------------|---------------|
| (+) | (-) | | |
| B07(A)-1 | B07(A)-2 | Through-out | 11~14V |

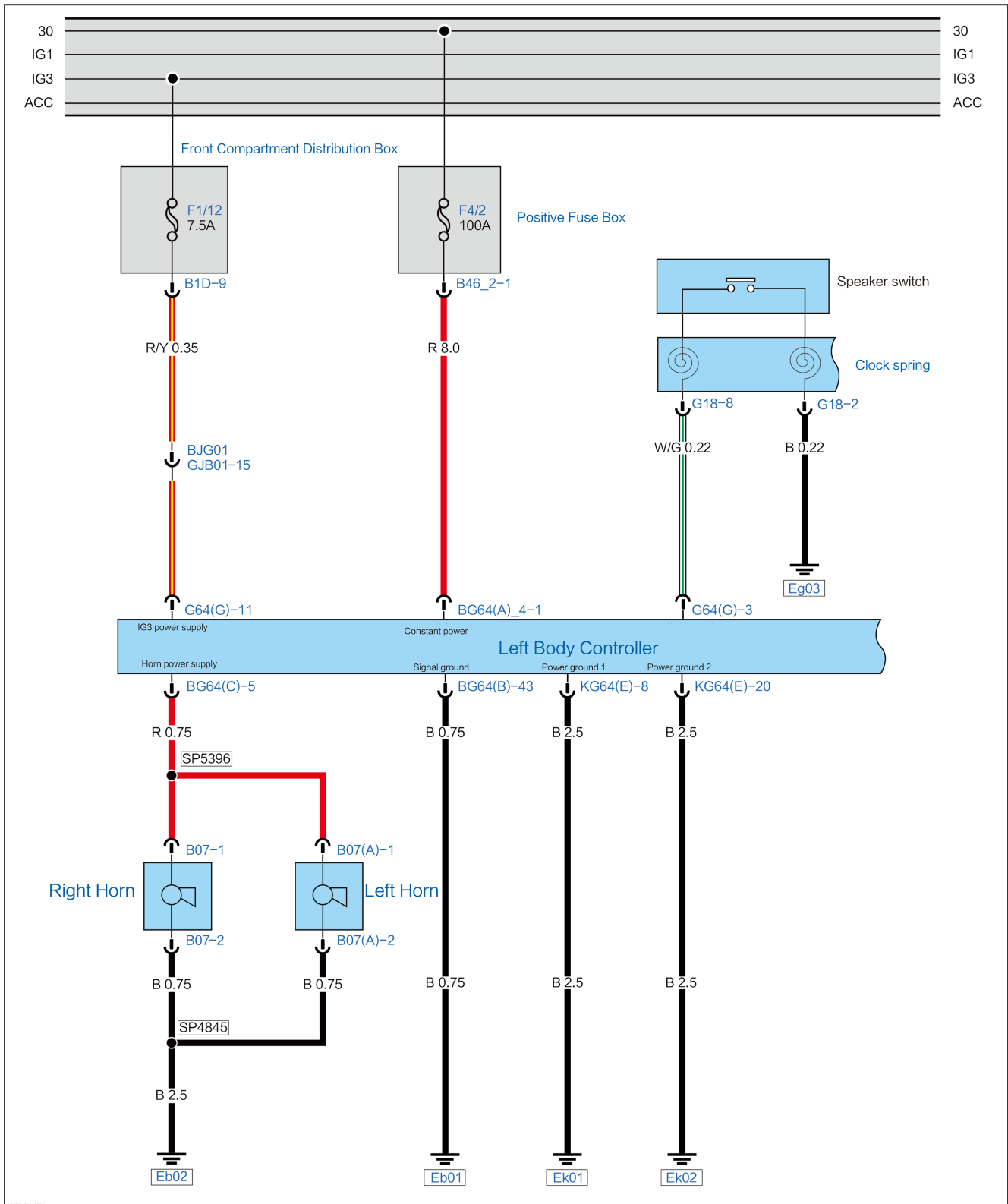
2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes → Replace the bass horn.

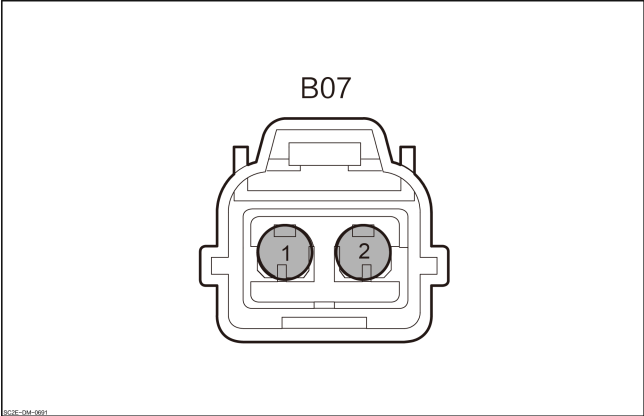
Tweeter Horn is Not Working (Plan 1)

Circuit Diagram



SC25-DM-1039

Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Tweeter horn</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B07</p> </div> <p style="font-size: small; margin-top: 10px;">B07E-074-0001</p> | 1 | Power supply |
| | 2 | Ground |

Diagnostic Steps

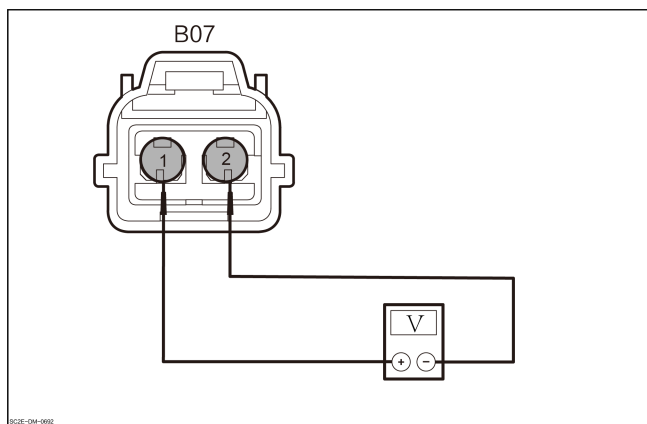
| | |
|---|--|
| 1 | Check the high-pitch horn harness connector. |
|---|--|

1. Set the start/stop button to the OFF position.
2. Disconnect the high-pitch horn harness connector B07.
3. Check whether the high-pitch horn harness connector is normal.

No Repair or replace the wire harness

Yes

| | |
|---|------------------------------------|
| 2 | Check the high-pitch horn circuit. |
|---|------------------------------------|



1. Measure the voltage value between the tweeter horn harness connector B07-1 and the tweeter horn harness connector B07-2.

| Connector | | Condition | Voltage value |
|-----------|-------|-------------|---------------|
| (+) | (-) | | |
| B07-1 | B07-2 | Through-out | 11~14V |

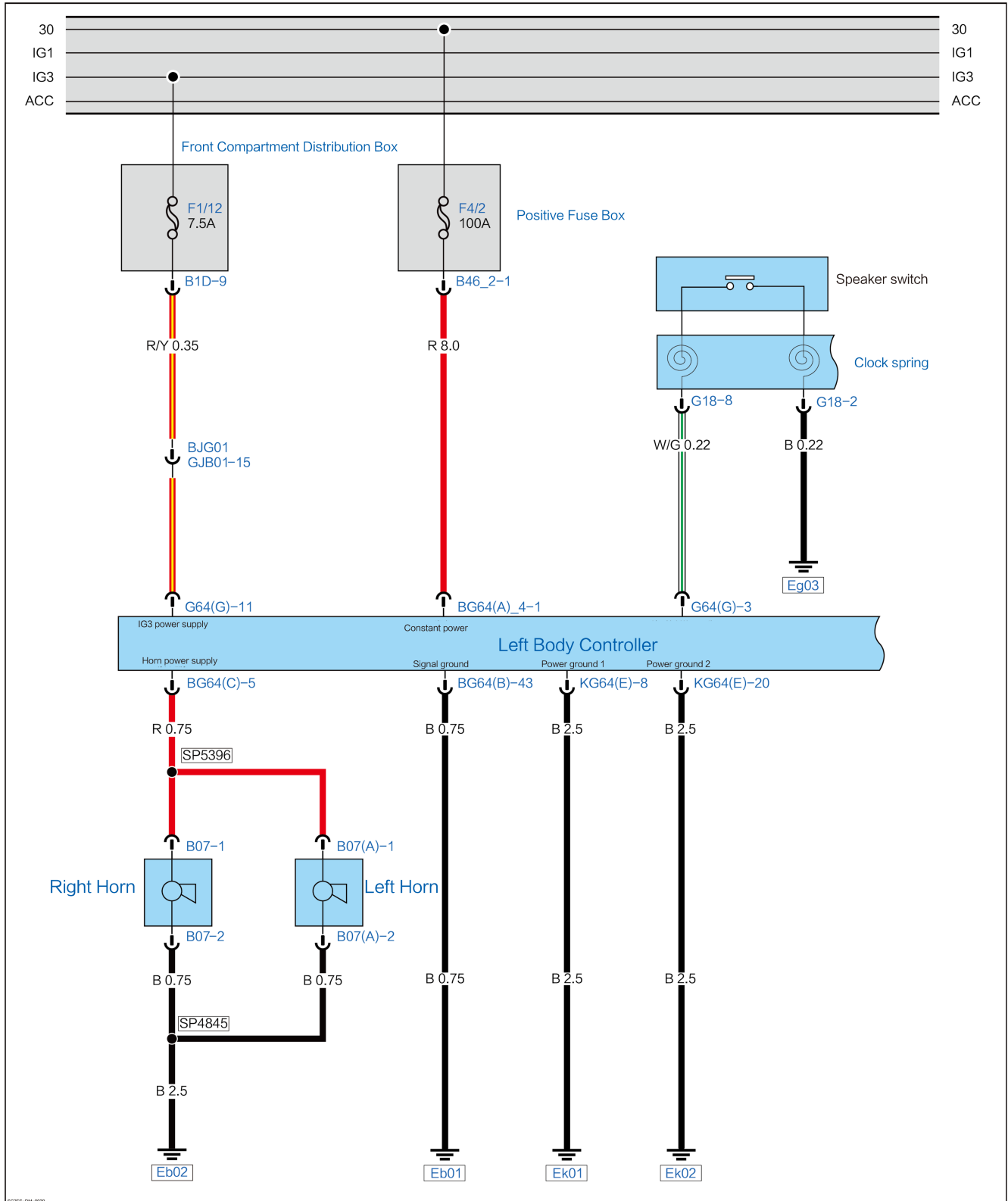
2. Check whether the results are normal.

No Repair or replace the wire harness

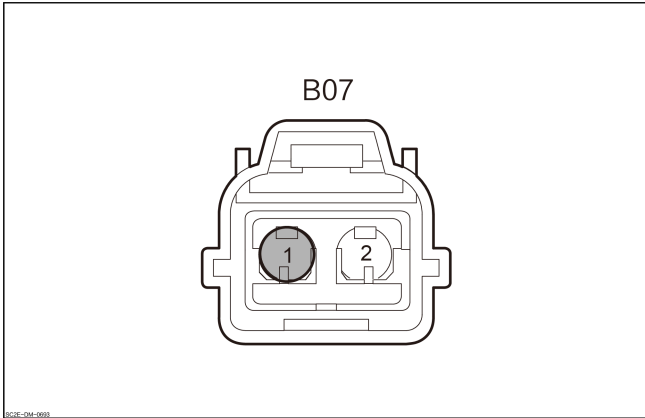
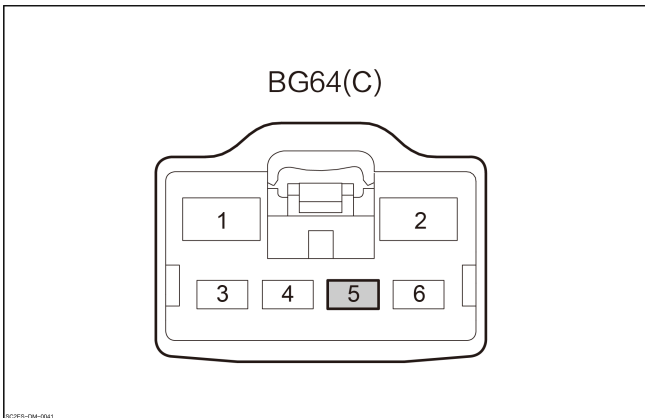
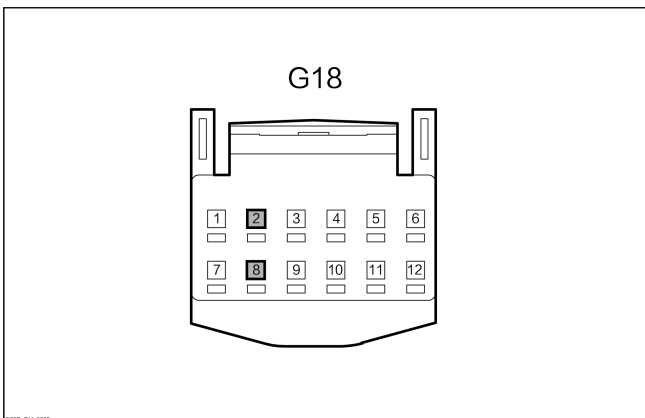
Yes Replace the high-pitch horn.

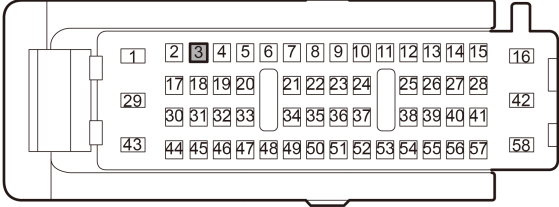
Tweeter and Woofer Horns are Not Working At The Same Time(Plan 1)

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------------------|
| <p style="text-align: center;">Tweeter horn</p>  <p style="text-align: center;">B07</p> <p>The diagram shows a two-terminal connector labeled B07. Terminal 1 is highlighted in a dark grey circle, and terminal 2 is shown next to it.</p> | 1 | High-pitch horn power supply |
| <p style="text-align: center;">Left body control module</p>  <p style="text-align: center;">BG64(C)</p> <p>The diagram shows a six-terminal connector labeled BG64(C). Terminal 5 is highlighted in a dark grey box. Other terminals are numbered 1 through 6.</p> | 5 | Horn power supply |
| <p style="text-align: center;">Clock Spring</p>  <p style="text-align: center;">G18</p> <p>The diagram shows a twelve-terminal connector labeled G18. Terminals 2 and 8 are highlighted in dark grey boxes. Other terminals are numbered 1 through 12.</p> | 2 | Ground |
| | 8 | Horn control signal acquisition |
| Left body control module | 3 | Horn control signal acquisition |

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">G64(G)</p>  <p style="font-size: small; margin-top: 10px;">G64-G-001</p> | | |

Diagnostic Steps

1 Use a VDS to actively control the horn.

1. Set the start/stop button to the ON position.
2. Actively control the horn.
3. Whether the horn is working?

Yes Go to step 6

No

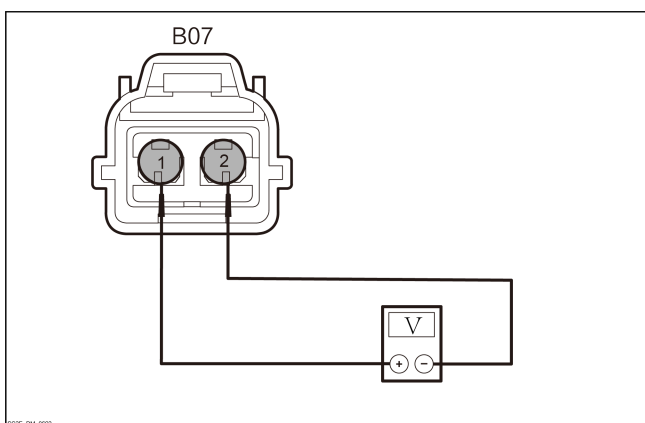
2 Check the high-pitch horn harness connector.

1. Set the start/stop button to the OFF position.
2. Disconnect the high-pitch horn harness connector B07.
3. Check whether the high-pitch horn harness connector is normal.

No Repair or replace the wire harness

Yes

3 Check the line voltage of horn.



1. Measure the voltage between the harness connector of tweeter horn B07-1 and B07-2.

| Connector | | Condition | Voltage value |
|-----------|-------|-------------|---------------|
| (+) | (-) | | |
| B07-1 | B07-2 | Through-out | 11~14V |

2. Check whether the results are normal.

Yes Replace Tweeter horn and woofer horn.

No

4 Check the harness connector of left body control module.

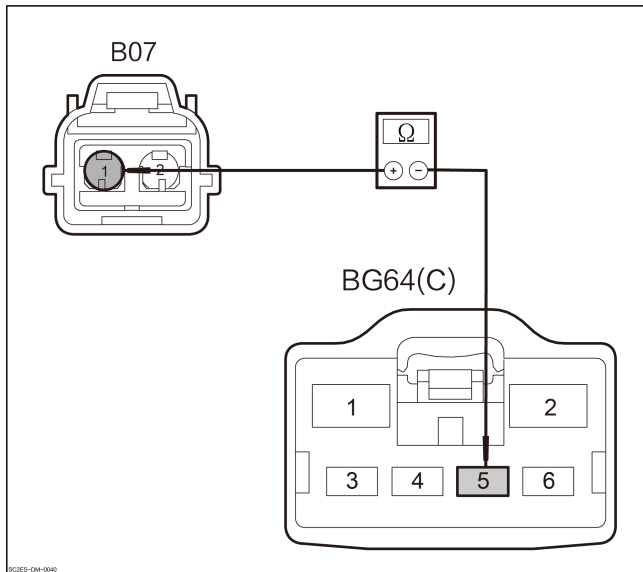
1. Disconnect the harness connector of left body control module BG64(C).
2. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

5 Check the power line of horn for open circuit.



1. Measure the resistance between the harness connector of left body control module BG64(C)-5 and harness connector of horn B07-1.

| Connector | | Condition | Resist- ance value |
|-----------|---------------|-----------------|--------------------------|
| (+) | (-) | | |
| B07-1 | BG64(C) -5 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

Replace the left body control module.

6 Check the harness connector of clock spring.

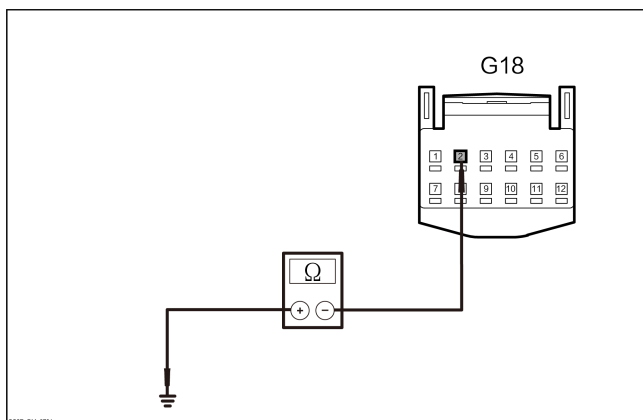
1. Disconnect the harness connector of clock spring G18.
2. Check the harness connector of clock spring for normal function.

No

Repair or replace the wire harness

Yes

7 Check the ground line of horn switch for open circuit.



1. Measure the resistance value between the clock spring harness connector G18-2 and the ground.

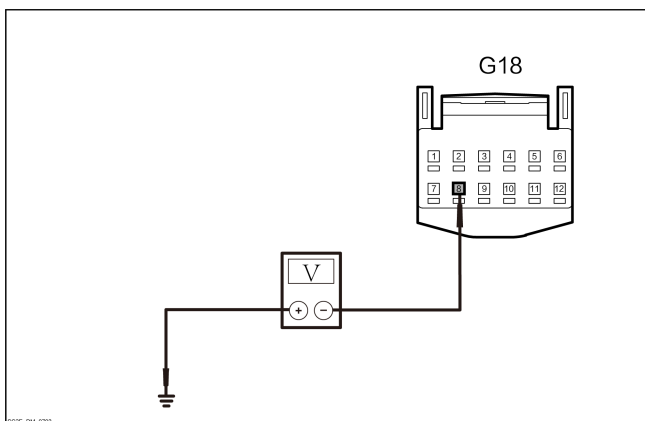
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G18-2 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the power supply of the horn switch.



1. Set the start/stop button to the ON position.
2. Measure the voltage value between the clock spring harness connector G18-8 and ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G18-8 | Ground | Through-out | 8V |

3. Check whether the results are normal.

No → [Jump to Step 10.](#)

Yes

9 Check the clock spring

1. Check whether the clock equalizing spring is normal.

No → Replace the clock spring.

Yes → Replace the horn switch.

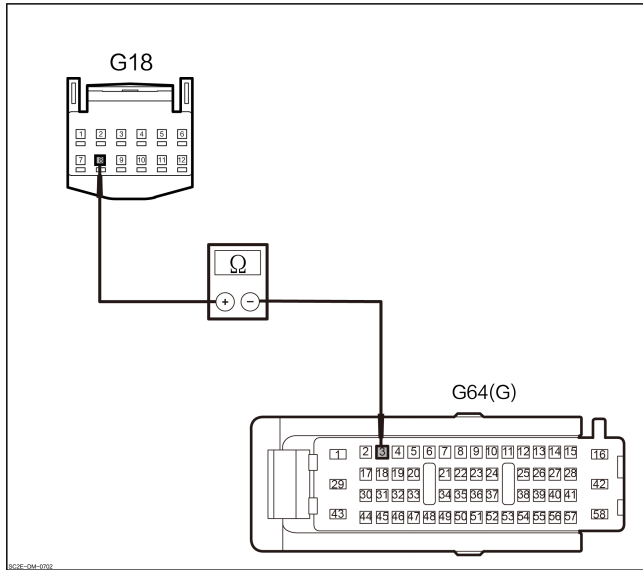
10 Check the harness connector of left body control module.

1. Disconnect the harness connector of left body control module G64(G).
2. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

11 Check the power line of horn switch for open circuit.



1. Measure the resistance between the harness connector of clock spring G18-8 and the harness connector of left body control module G64(G)-3.

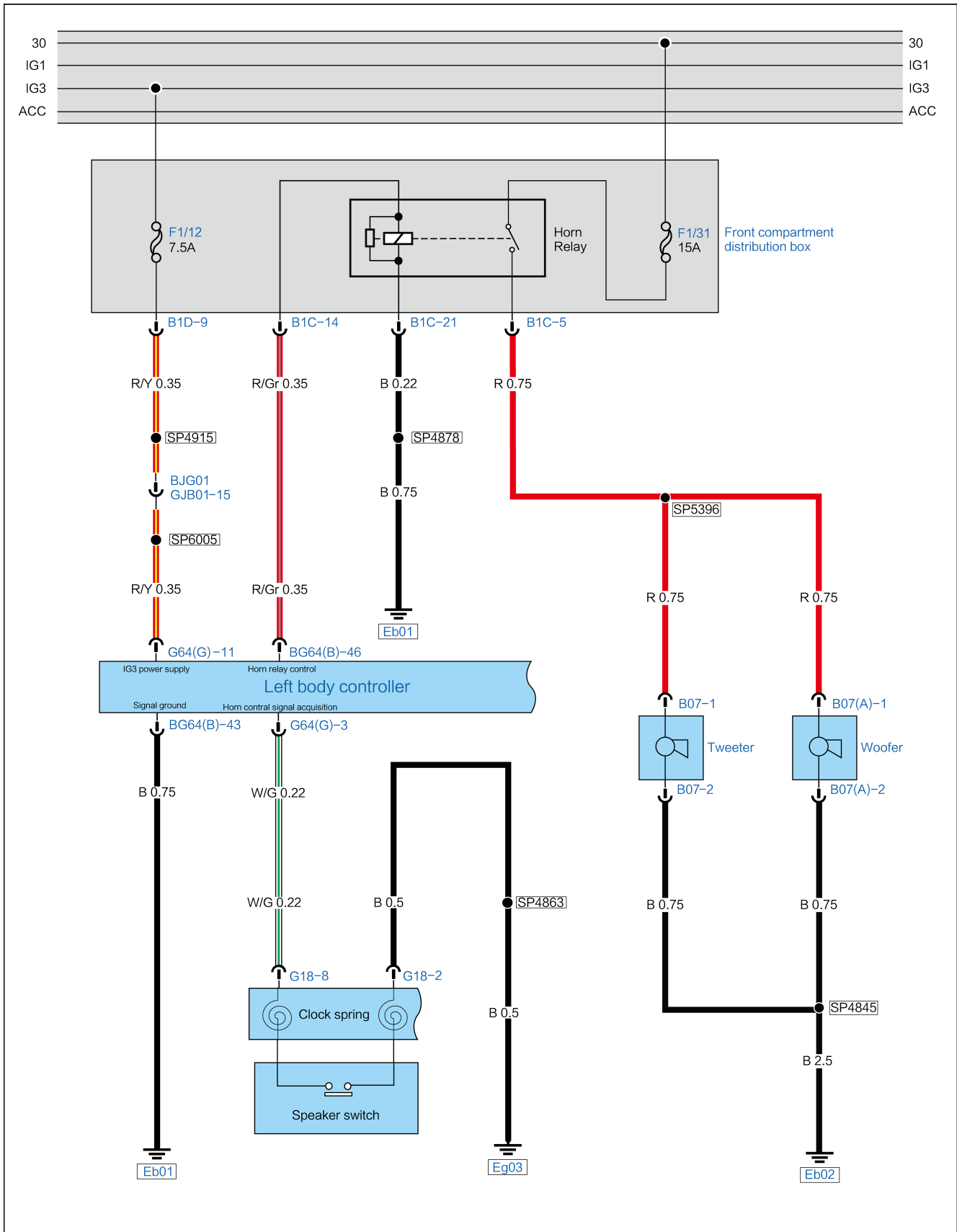
| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| G18-8 | G64(G)-3 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

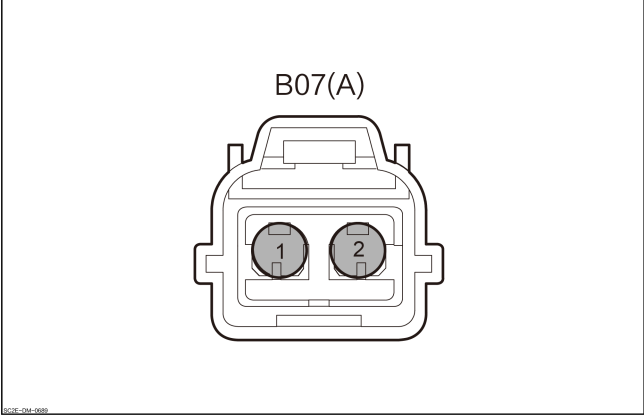
- No → Repair or replace the wire harness
- Yes → Replace the left body control module.

Woofer Not Working (Plan 2)

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">Low note horn</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B07(A)</p> </div> <p style="font-size: small; margin-top: 10px;">B07E-074-080</p> | 1 | Power supply |
| | 2 | Ground |

Diagnostic Steps

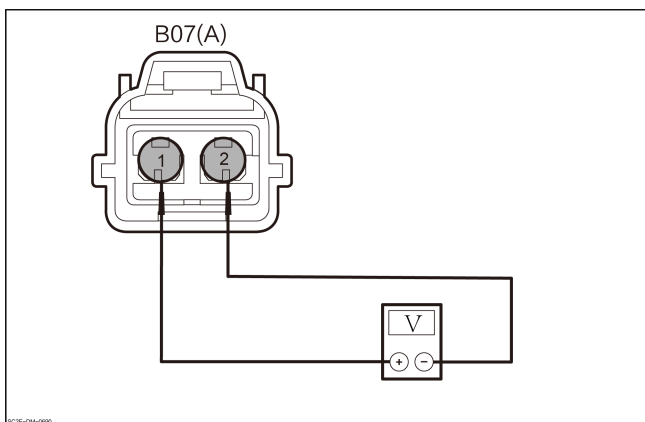
| | |
|---|--|
| 1 | Check the harness connector of the woofer. |
|---|--|

1. Set the start/stop button to the OFF position.
2. Disconnect the harness connector of bass horn module B07(A).
3. Check the harness connector of the woofer for normal function.

No → Repair or replace the wire harness

Yes

| | |
|---|------------------------|
| 2 | Check the woofer line. |
|---|------------------------|



1. Measure the voltage between the harness connector of woofer B07(A)-1 and the harness connector of woofer B07(A)-2.

| Connector | | Condition | Voltage value |
|-----------|----------|-------------|---------------|
| (+) | (-) | | |
| B07(A)-1 | B07(A)-2 | Through-out | 11~14V |

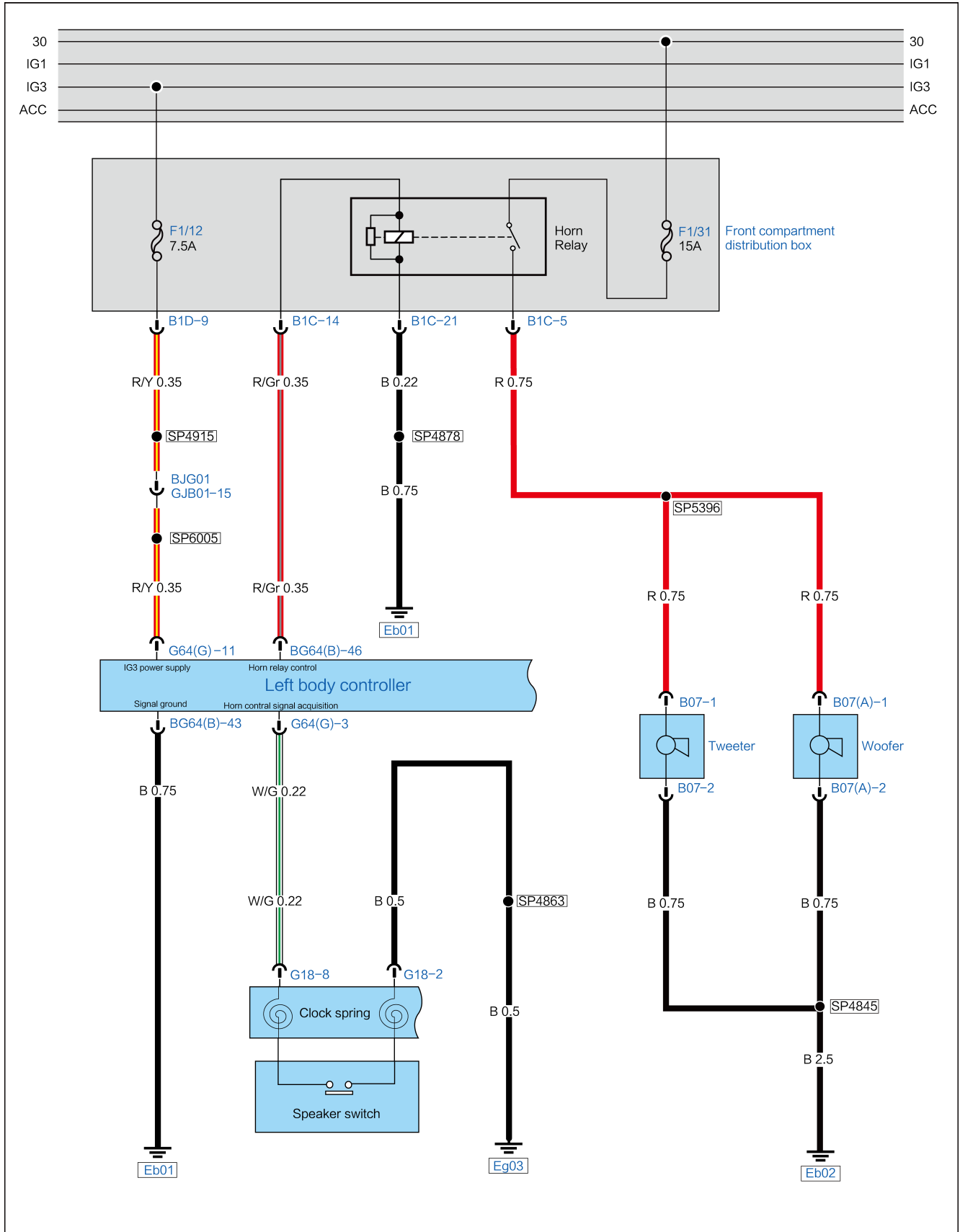
2. Check whether the results are normal.

No → Repair or replace the wire harness

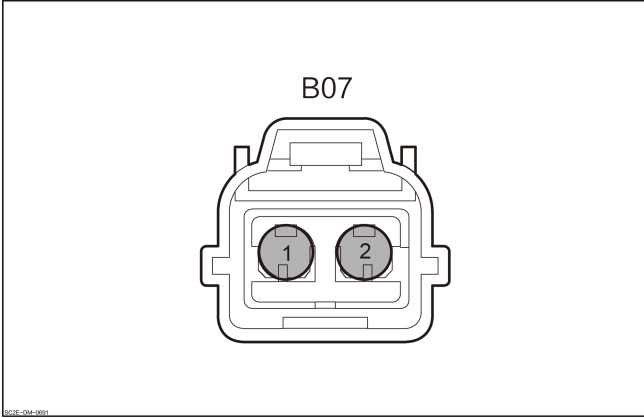
Yes → Replace the bass horn.

Tweeter Not Working (Plan 2)

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|---------------------|
| <p style="text-align: center;">Tweeter horn</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B07</p> </div> <p style="font-size: small; margin-top: 10px;">B07E-04-091</p> | 1 | Power supply |
| | 2 | Ground |

Diagnostic Steps

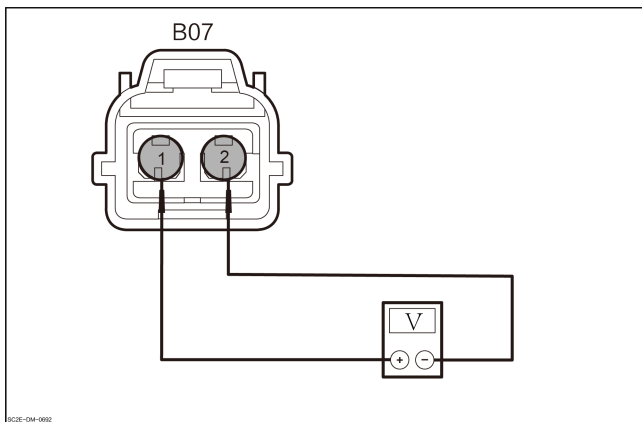
1 Check the high-pitch horn harness connector.

1. Set the start/stop button to the OFF position.
2. Disconnect the high-pitch horn harness connector B07.
3. Check whether the high-pitch horn harness connector is normal.

No → Repair or replace the wire harness

Yes

2 Check the high-pitch horn circuit.



1. Measure the voltage value between the tweeter horn harness connector B07-1 and the tweeter horn harness connector B07-2.

| Connector | | Condition | Voltage value |
|-----------|-------|-------------|---------------|
| (+) | (-) | | |
| B07-1 | B07-2 | Through-out | 11~14V |

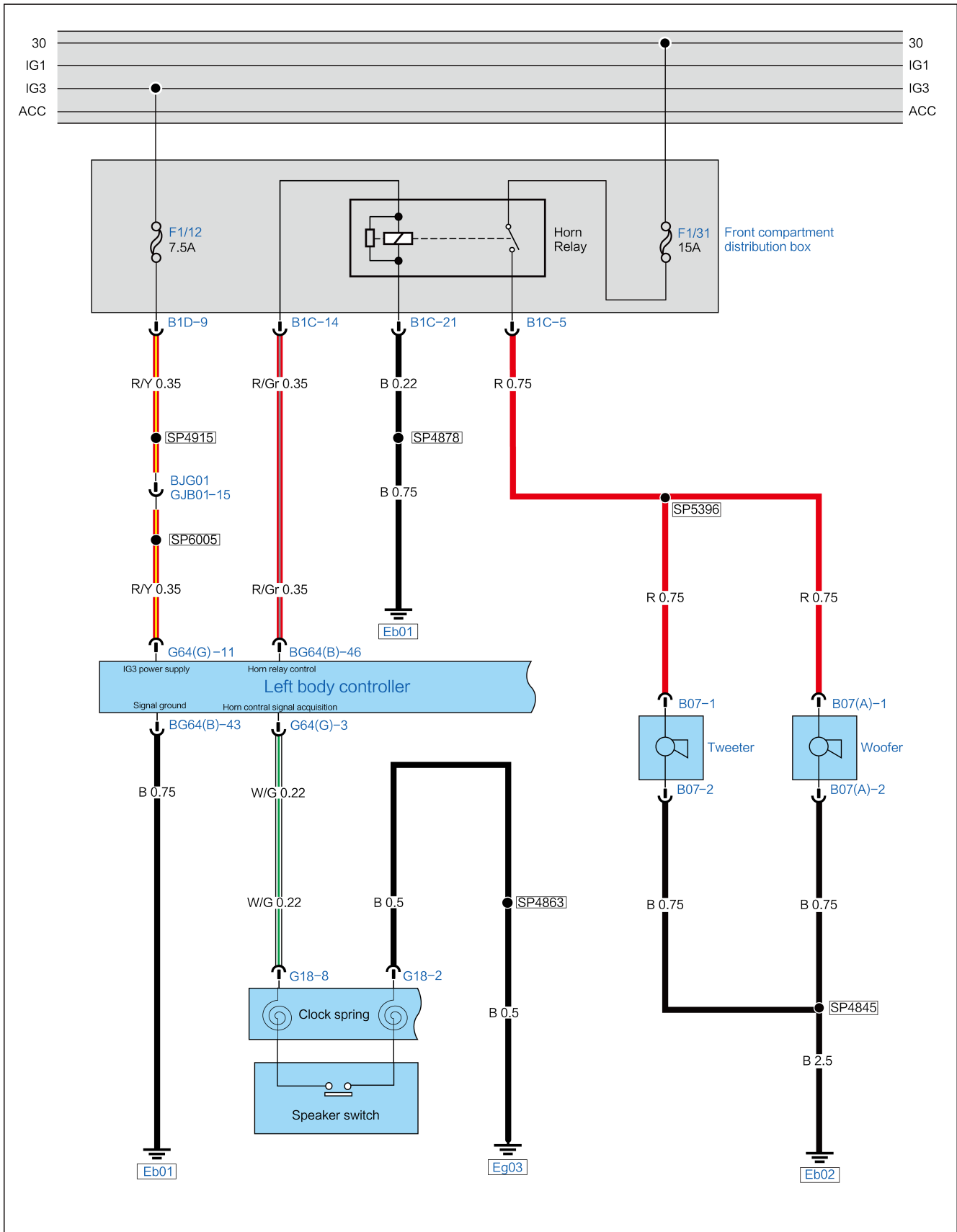
2. Check whether the results are normal.

No → Repair or replace the wire harness

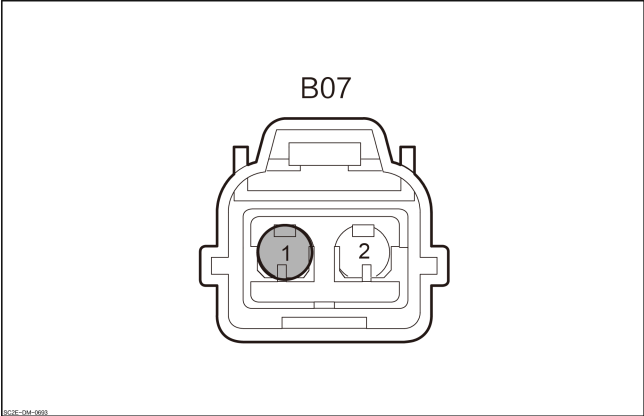
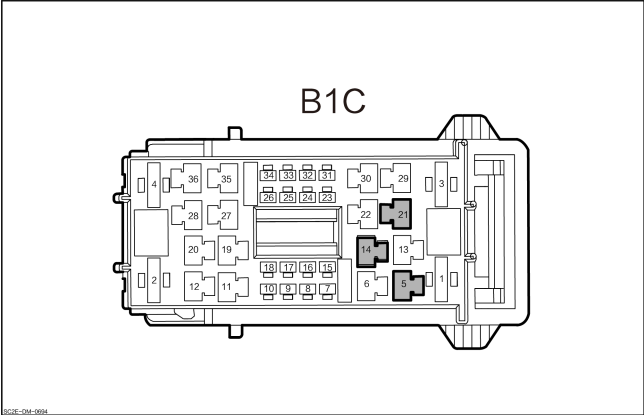
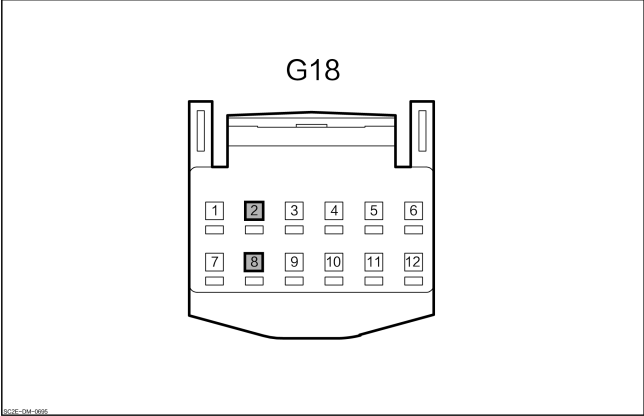
Yes → Replace the high-pitch horn.

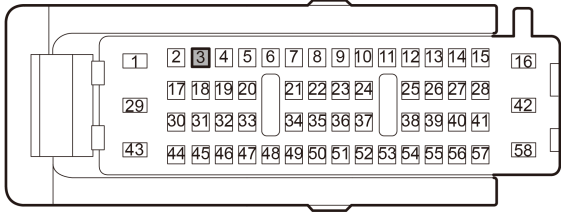
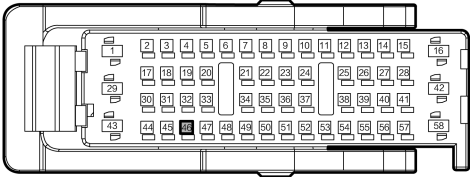
Tweeter and Woofer Horns Not Working At The Same Time(Plan 2)

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------------------|
| <p style="text-align: center;">Tweeter horn</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B07</p> </div> | 1 | High-pitch horn power supply |
| <p style="text-align: center;">Front compartment fuse box</p> <div style="text-align: center;">  <p style="margin-left: 100px;">B1C</p> </div> | 5 | Horn power supply |
| | 14 | Horn relay control |
| | 21 | Horn relay control ground |
| <p style="text-align: center;">Clock Spring</p> <div style="text-align: center;">  <p style="margin-left: 100px;">G18</p> </div> | 2 | Ground |
| | 8 | Horn control signal |
| Left body control module | 3 | Horn control signal acquisition |

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">G64(G)</p>  <p style="text-align: center;"><small>SG12-014-009</small></p> | | |
| <p style="text-align: center;">Left body control module</p> <p style="text-align: center;">BG64(B)</p>  <p style="text-align: center;"><small>SG12-014-007</small></p> | 46 | Horn relay control |

Diagnostic Steps

1 Use a VDS to actively control the horn.

1. Set the start/stop button to the ON position.
2. Actively control the horn.
3. Whether the horn is working?

Yes Go to step 9

No

2 Check the fuse for horn.

1. Check whether the fuse F1 / 31 (15A) of the front compartment fuse box is normal?

No Replace the fuse

Yes

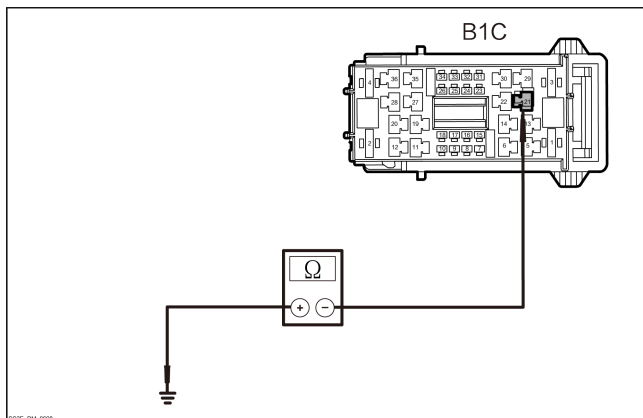
3 Check the front compartment fuse box harness connector.

1. Set the start/stop button to the OFF position.
2. Disconnect the front compartment fuse box harness connector B1C.
3. Check whether the front compartment fuse box harness connector is normal.

No Repair or replace the wire harness

Yes

4 Check the ground line of horn relay control for open circuit.



1. Measure the resistance between the harness connector of front compartment fuse box B1C-21 and the ground.

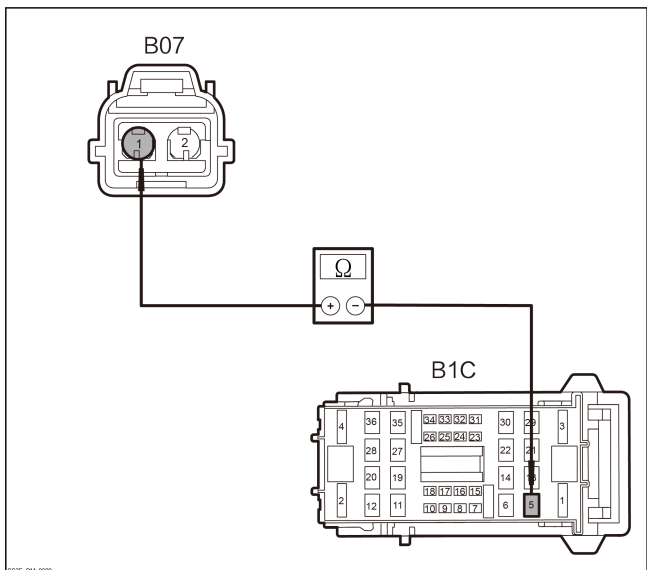
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| B1C-21 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes

5 Check the power line of horn for open circuit.



1. Disconnect the harness connector B07 of the horn.
2. Measure the resistance between the harness connector of front compartment fuse box B1C-5 and the harness connector of horn B07-1.

| Connector | | Condition | Resist- ance value |
|-----------|-------|-----------------|--------------------------|
| (+) | (-) | | |
| B07-1 | B1C-5 | Through- out | Lower than 1 Ω |

3. Check whether the results are normal.

No Repair or replace the wire harness

Yes

6 Check the voltage of the control line of horn relay.

1. Connect the harness connector of front compartment fuse box B1C.
2. Set the start/stop button to the ON position.
3. Use a VDS to actively control the horn.
4. Measure the voltage between the harness connector of front compartment fuse box B1C-14 and the ground from the rear lead.

| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| B1C-14 | Ground | Through- out | 11~14V |

5. Check whether the results are normal.

Yes Replace the front compartment fuse box.

No

7 Check the harness connector of left body control module.

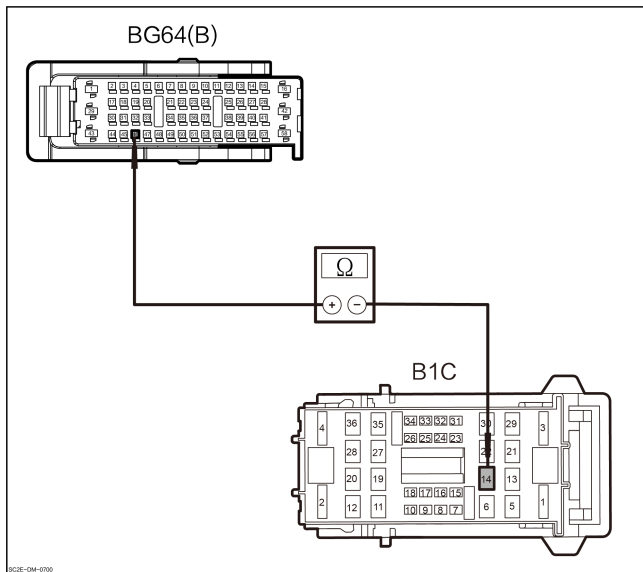
1. Set the start/stop button to the OFF position.
2. Disconnect the harness connector of left body control module BG64(B).
3. Check whether the harness connector of left body control module is normal?

No

Repair or replace the wire harness

Yes

8 Check the control line of horn relay for open circuit.



1. Measure the resistance between the harness connector of front compartment fuse box B1C-14 and the harness connector of left body control module BG64(B)-46.

| Connector | | Condition | Resist- ance value |
|-----------|------------|-----------------|--------------------------|
| (+) | (-) | | |
| B1C-14 | BG64(B)-46 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

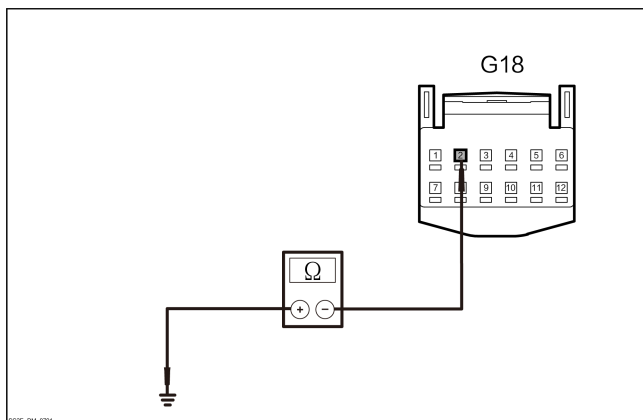
No

Repair or replace the wire harness

Yes

Replace the left body control module.

9 Check the ground line of horn switch for open circuit.



1. Measure the resistance value between the clock spring harness connector G18-2 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G18-2 | Ground | Through- out | Lower than 1 Ω |

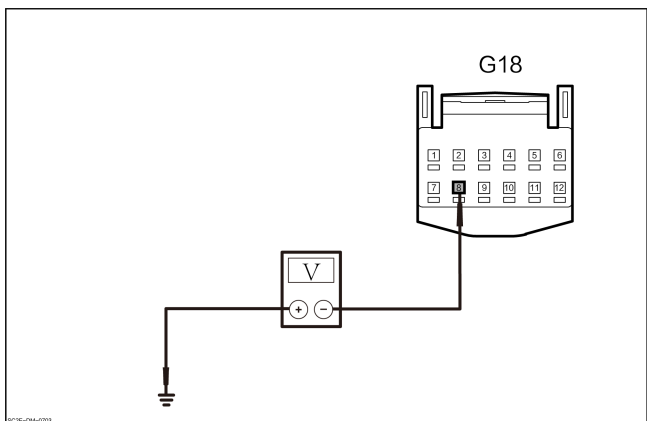
2. Check whether the results are normal.

No

Repair or replace the wire harness

Yes

10 Check the power supply of the horn switch.



1. Set the start/stop button to the ON position.
2. Measure the voltage value between the clock spring harness connector G18-8 and ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G18-2 | Ground | Through-out | 8V |

3. Check whether the results are normal.

No → [Jump to Step 13.](#)

Yes

11 Check the clock spring

1. Check whether the clock equalizing spring is normal.

No → Replace the clock spring.

Yes → Replace the horn switch.

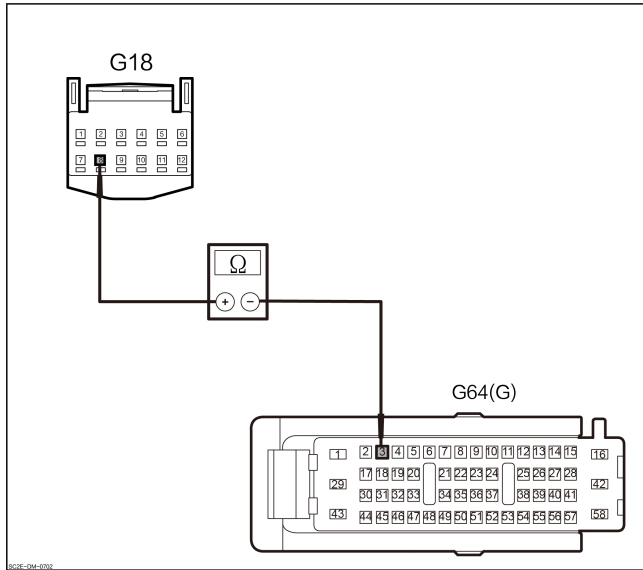
12 Check the harness connector of left body control module.

1. Disconnect the harness connector of left body control module G64(G).
2. Check whether the harness connector of left body control module is normal?

No → Repair or replace the wire harness

Yes

13 Check the power line of horn switch for open circuit.



1. Measure the resistance between the harness connector of clock spring G18-8 and the harness connector of left body control module G64(G)-3.

| Connector | | Condition | Resist- ance value |
|-----------|----------|-----------------|--------------------------|
| (+) | (-) | | |
| G18-8 | G64(G)-3 | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

| | |
|-----|---------------------------------------|
| No | Repair or replace the wire harness |
| Yes | Replace the left body control module. |

Switch and Harness

Combination Switch

Diagnosis Description

Introduction

Before fault diagnosis for the combination switch, understand and get familiar with the working principle of the combination switch, and then start diagnosis for the combination switch, so as to be helpful to confirm the correct fault diagnosis procedure in event of a fault and, more importantly, to confirm whether the operating condition described by the customer is normal. Any fault diagnosis of the combination switch should start with the inspection of the combination switch to guide the maintenance technician to take the next logical step for fault diagnosis.

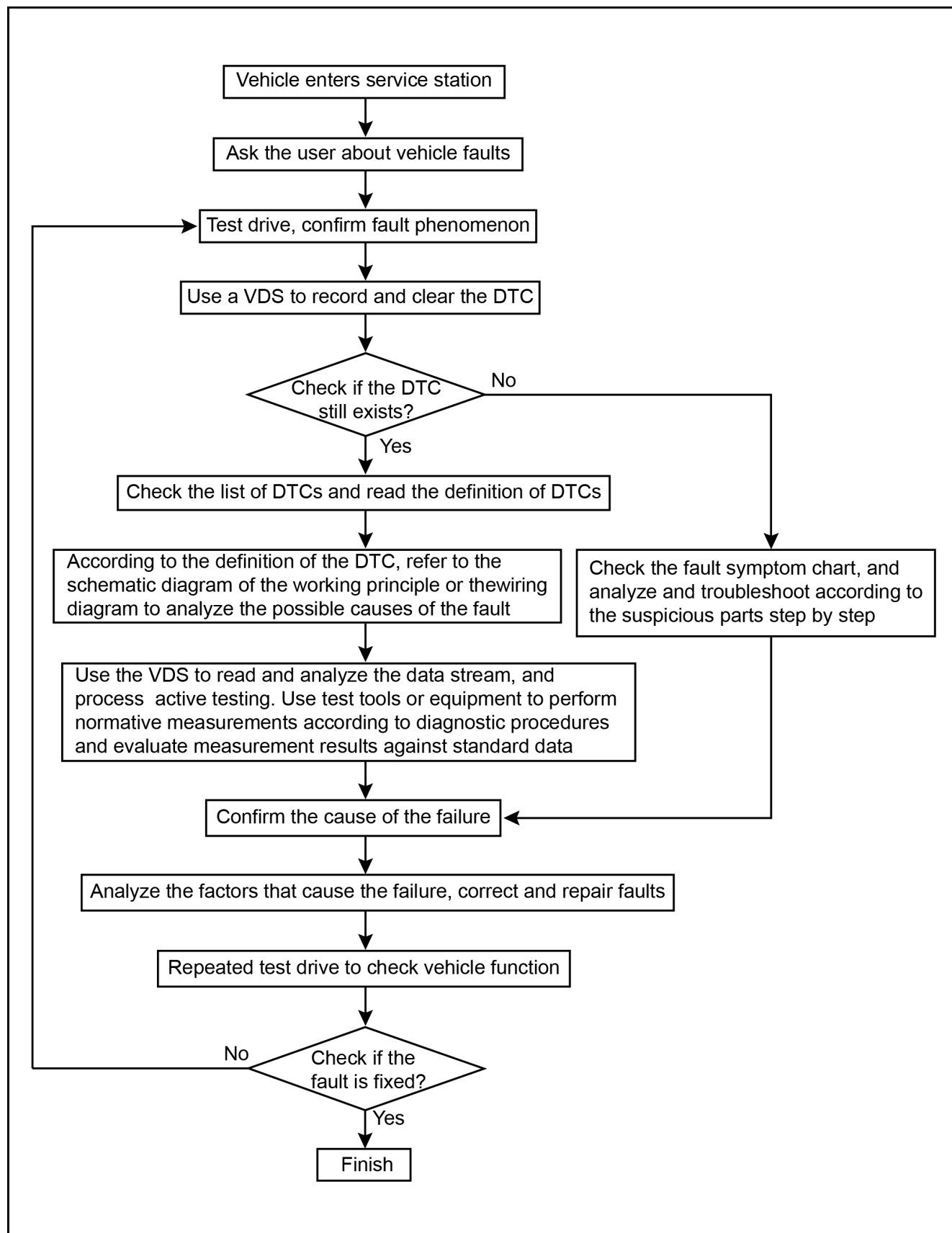
General equipment

- Multimeter
- VDS

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Process of Fault Inspection and Troubleshooting



DTC Diagnosis

List of DTC

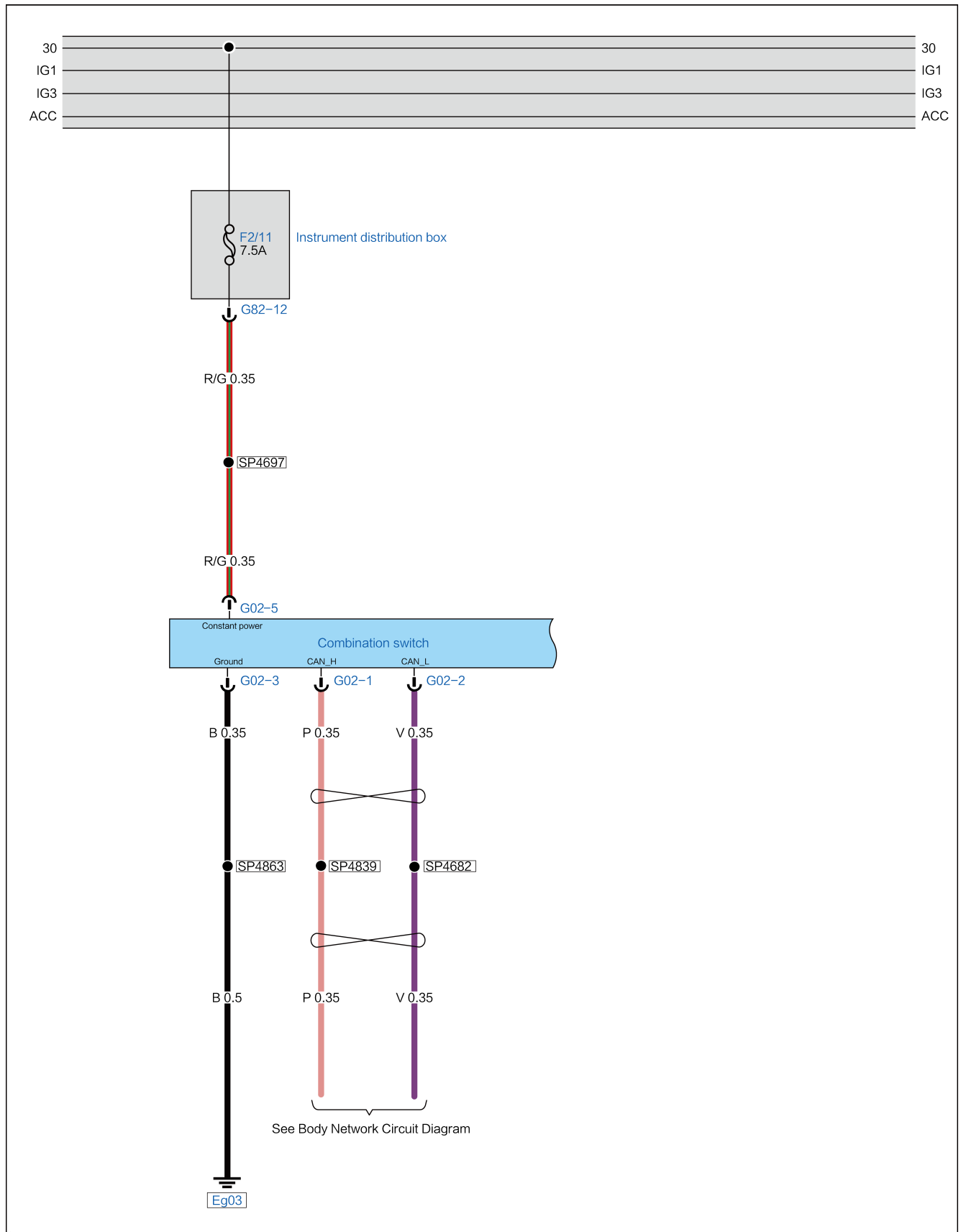
| DTC: | Meaning | Diagnostic Process |
|---------|----------------------------------|---|
| B24D700 | Handle input power overvoltage | B24d700 Handle Input Power Overvoltage |
| B24D800 | Handle input supply undervoltage | B24d800 Handle Input Power Undervoltage |
| B24AC00 | Wiper handle fault | B24AC00 Wiper Handle Fault |
| B24AB00 | Light handle fault | B24AB00 Light Handle Fault |

B24d800 Handle Input Power Undervoltage

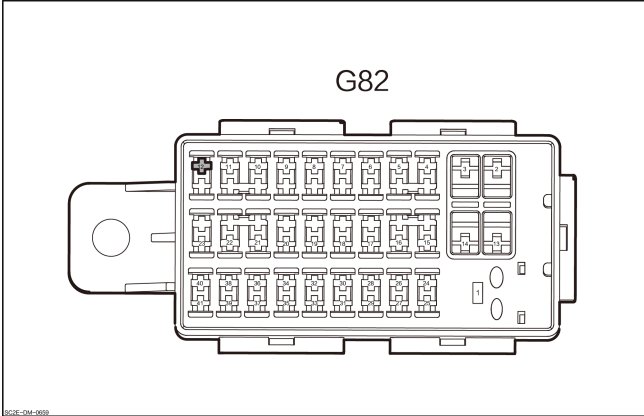
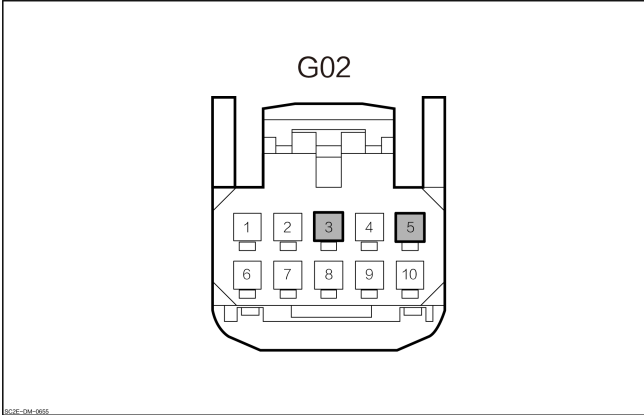
DTC Description

| B24d800 Handle Input Power Undervoltage | |
|---|---|
| Symptom | Combination switch fails. |
| Possible Cause | <ol style="list-style-type: none"> 1. Battery fault. 2. Fuse has blew. 3. The harness or harness plug fails. 4. Charging system malfunction 5. Combination switch. |
| Fault setting conditions | Voltage is less than 9V for a duration $\geq 2s$. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-----------------------------------|
| <p style="text-align: center;">Instrument fuse box</p>  <p style="text-align: center;">G82</p> | 12 | Combination switch constant power |
| <p style="text-align: center;">Combination Switch</p>  <p style="text-align: center;">G02</p> | 3 | Ground |
| | 5 | Constant power |

Diagnostic Steps

| | |
|---|--------------------------------------|
| 1 | Check the DTC of combination switch. |
|---|--------------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

The fault is triggered by disconnecting the negative pole of the battery or by low voltage.

Yes

| | |
|---|----------------------------|
| 2 | Check the charging system. |
|---|----------------------------|

1. Set the start/stop button to OK.
2. Check whether the instrument charging system fault warning lamp is on.

Yes

Diagnose “charging system” .

No

| | |
|---|--------------------------|
| 3 | Test the battery status. |
|---|--------------------------|

1. Set the start/stop button to OFF.
2. Perform a battery condition test.
3. Does the status of the battery pass the test?

No

Replace the battery

Yes

| | |
|---|------------------------------------|
| 4 | Check the combination switch fuse. |
|---|------------------------------------|

1. Check whether the instrument fuse box fuse F2/11 (7.5 A) is normal?

No

Replace the fuse

Yes

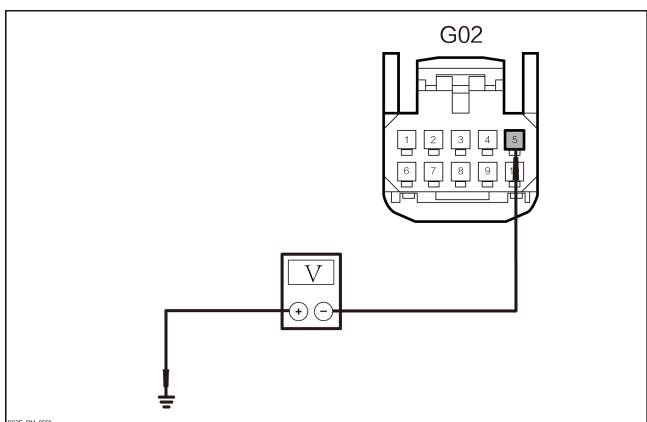
| | |
|---|---|
| 5 | Check the combination switch harness connector. |
|---|---|

1. Disconnect the combination switch harness connector G02.
2. Check whether the combination switch harness connector is normal.

No → Repair or replace the wire harness

Yes

6 Check the constant power supply of combination switch.



1. Set the start/stop button to ON.
2. Measure the voltage between the harness plug of combination switch G02-5 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G02-5 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes → [Go to step 9.](#)

No

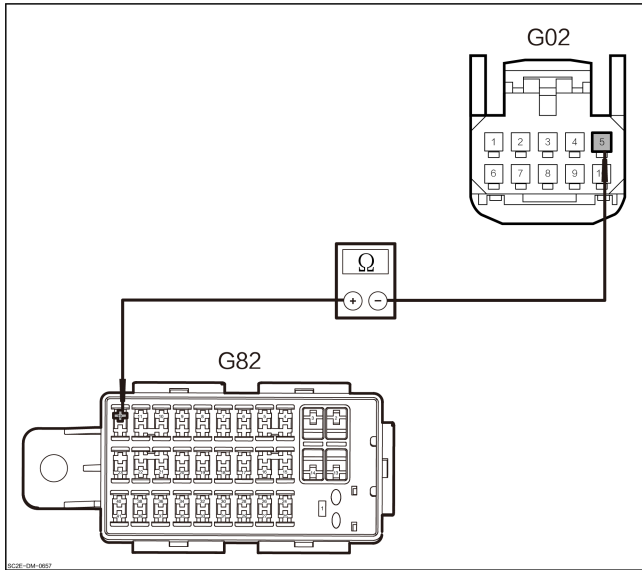
7 Check the harness plug of instrument fuse box.

1. Set the start/stop button to OFF.
2. Disconnect the harness plug of instrument fuse box G82.
3. Check the harness plug of instrument fuse box for normal function.

No → Repair or replace the wire harness

Yes

8 Check whether the constant power supply of combination switch is open circuited.



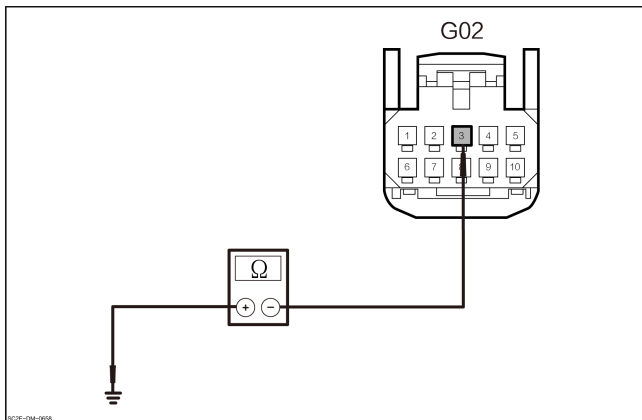
1. Measure the resistance value between the combination switch harness connector G02-5 and the instrument fuse box harness connector G82-12.

| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| G82-12 | G02(A)-5 | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

- No → Repair or replace the wire harness
- Yes → Replace the instrument fuse box.

9 Check the combination switch ground line for open circuit.



1. Measure the resistance between the harness connector of combination switch G02-3 and the ground.

| Connector | | Condition | Resistance value |
|-----------|--------|-------------|------------------|
| (+) | (-) | | |
| G02-3 | Ground | Through-out | Lower than 1 Ω |

2. Check whether the results are normal.

- No → Repair or replace the wire harness
- Yes → Replace the combination switch.

B24d700 Handle Input Power Overvoltage

DTC Description

| B24d700 Handle Input Power Overvoltage | |
|--|--|
| Symptom | Combination switch fails. |
| Possible Cause | 1. Charging system malfunction 2. Multi-function switch fault |
| Fault setting conditions | Voltage is more than 16V for a duration $\geq 2s$. |
| Trigger fault conditions | Turn the ignition switch to ON position. |

Diagnostic Steps

| | |
|---|--------------------------------------|
| 1 | Check the DTC of combination switch. |
|---|--------------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No → Check the “intermittent fault” .

Yes

| | |
|---|----------------------------|
| 2 | Check the charging system. |
|---|----------------------------|

1. Set the START/STOP button to OK.
2. Measure the charging system voltage value.

| Battery | | Condition | Voltage value |
|--------------------|--------|-------------|---------------|
| (+) | (-) | | |
| Positive electrode | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

No → Diagnose “charging system” .

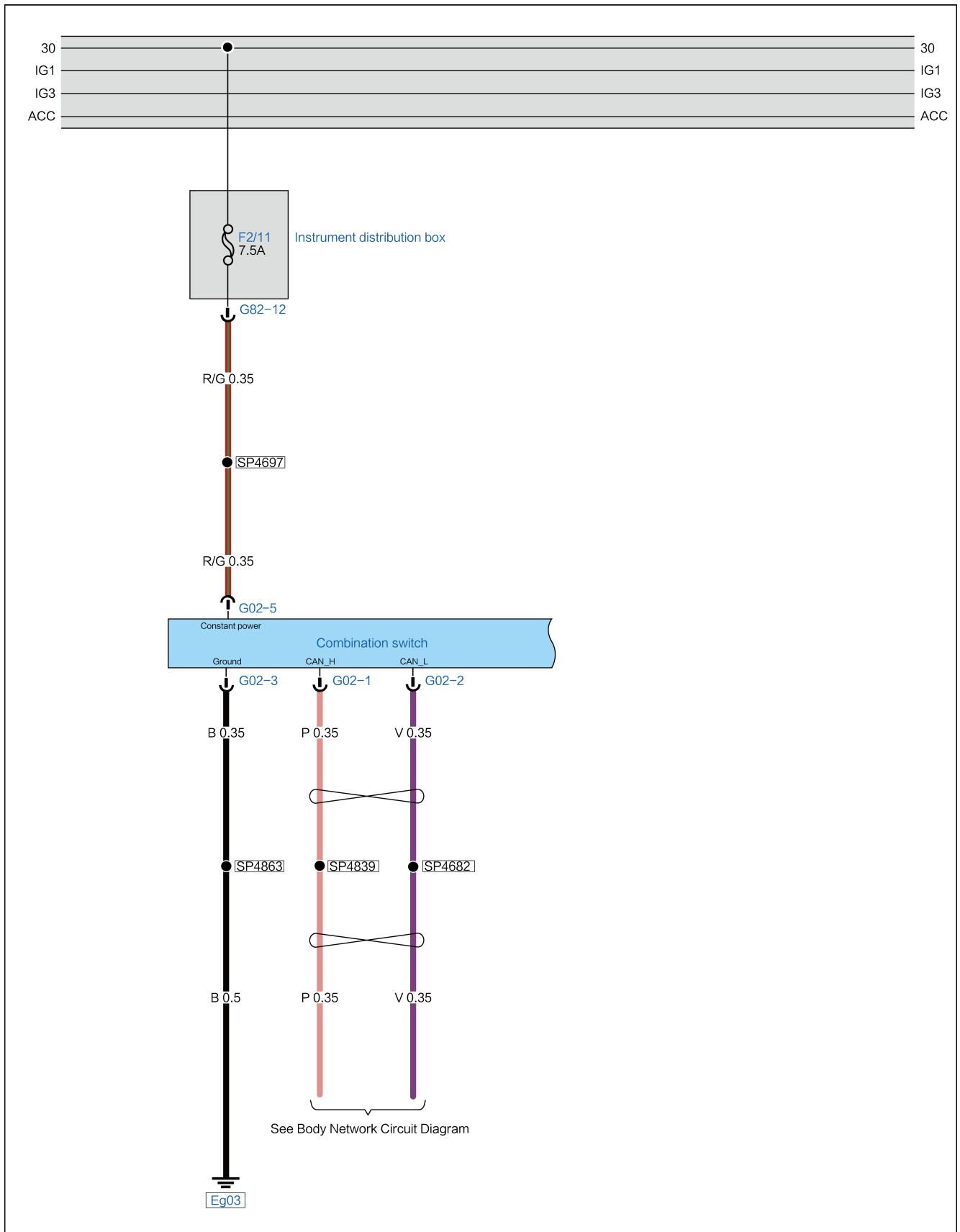
Yes → Replace the combination switch.

B24AC00 Wiper Handle Fault

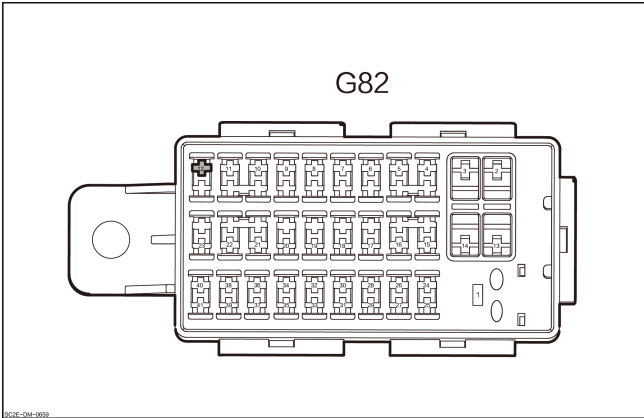
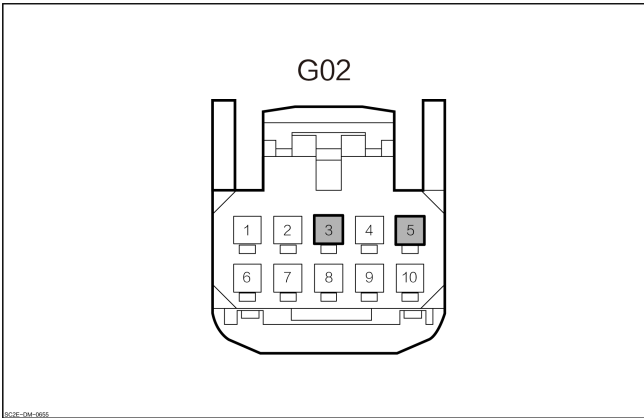
DTC Description

| B24AC00 Wiper Handle Fault | |
|----------------------------|---|
| Symptom | Some functions of the combination switch fail. |
| Possible Cause | <ol style="list-style-type: none">1. Fuse has blew.2. Harness or connector fault.3. Combination switch. |
| Fault setting conditions | Wiper handle fault |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-----------------------------------|
| <p style="text-align: center;">Instrument fuse box</p>  <p style="text-align: center;">G82</p> | 12 | Combination switch constant power |
| <p style="text-align: center;">Combination Switch</p>  <p style="text-align: center;">G02</p> | 3 | Ground |
| | 5 | Constant power |

Diagnostic Steps

| | |
|---|--------------------------------------|
| 1 | Check the DTC of combination switch. |
|---|--------------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|------------------------------------|
| 2 | Check the combination switch fuse. |
|---|------------------------------------|

1. Check whether the instrument fuse box fuse F2/11 (7.5 A) is normal?

No

Replace the fuse

Yes

| | |
|---|--|
| 3 | Check the harness connector of combination switch. |
|---|--|

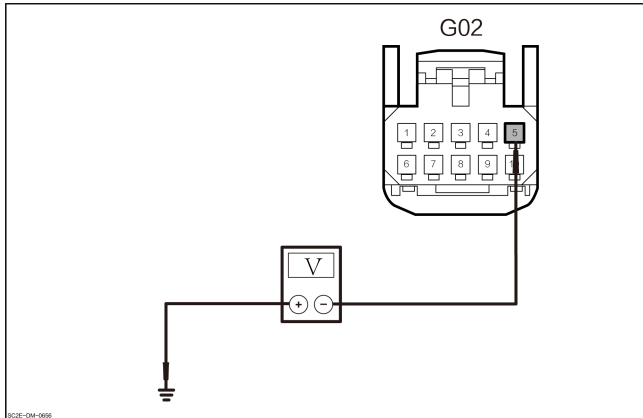
1. Disconnect the combination switch harness connector G02.
2. Check the harness connector of combination switch for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the constant power supply of combination switch. |
|---|--|



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of combination switch G02-5 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G02-5 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes Go to step 7.

No

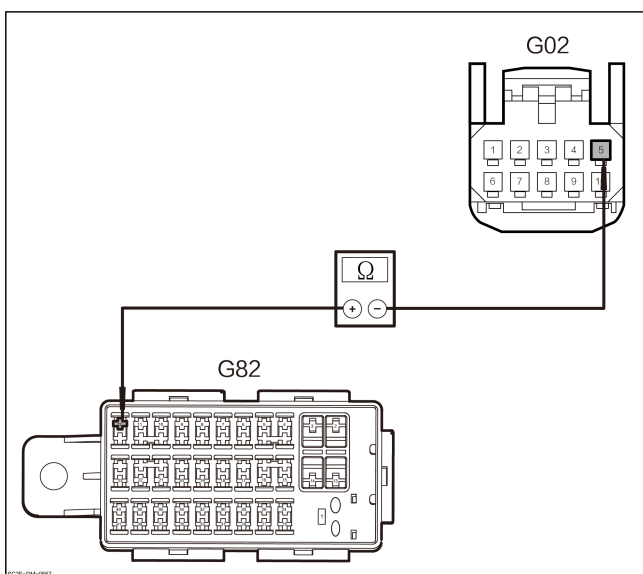
5 Check the instrument fuse box harness connector.

1. Set the start/stop button to OFF.
2. Disconnect the harness connector of instrument fuse box G82.
3. Check the harness connector of instrument fuse box for normal function.

No Repair or replace the wire harness

Yes

6 Check whether the constant power supply of combination switch is open circuited.



1. Measure the resistance value between the combination switch harness connector G02-5 and the instrument fuse box harness connector G82-12.

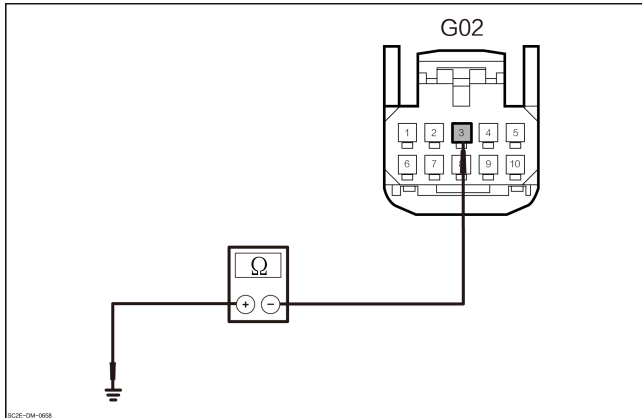
| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| G82-12 | G02(A)-5 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the instrument fuse box.

7 Check the combination switch ground line for open circuit.



1. Measure the resistance between the harness connector of combination switch G02-3 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G02-3 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

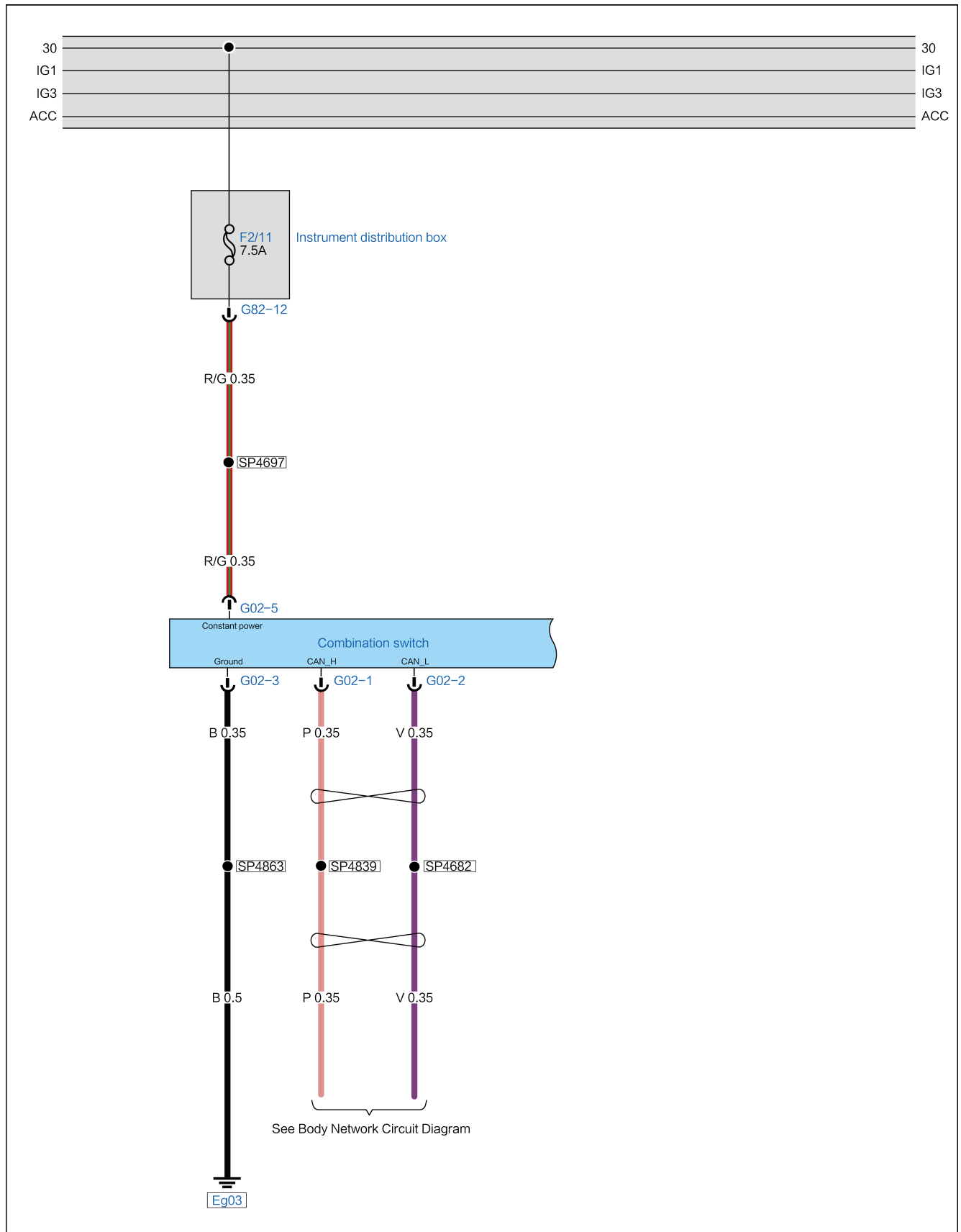
- No → Repair or replace the wire harness
- Yes → Replace the combination switch.

B24AB00 Light Handle Fault

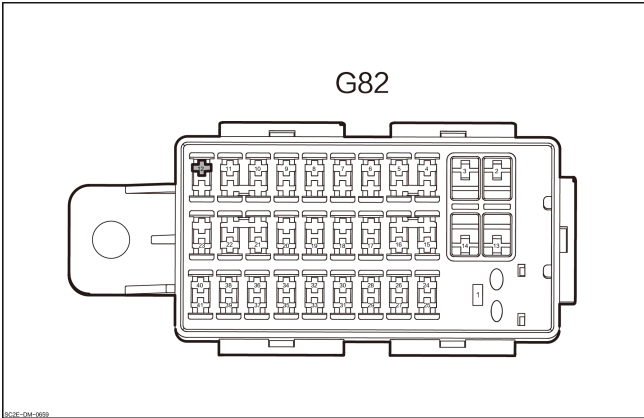
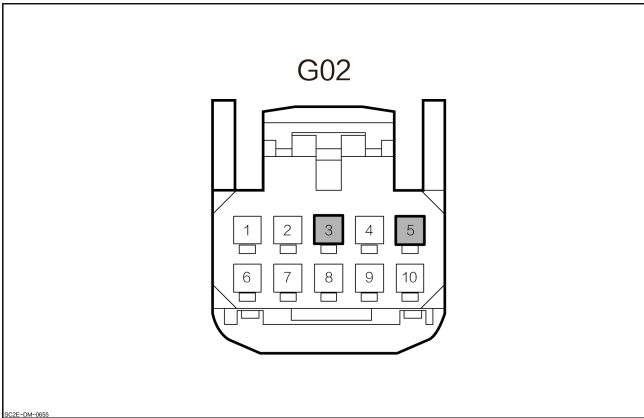
DTC Description

| B24AB00 Light Handle Fault | |
|----------------------------|---|
| Symptom | Some functions of the combination switch fail. |
| Possible Cause | <ol style="list-style-type: none">1. Fuse has blew.2. Harness or connector fault.3. Combination switch. |
| Fault setting conditions | Light handle fault |
| Trigger fault conditions | Set the start/stop button to ON position. |

Circuit diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|--|-----------------|-----------------------------------|
| <p style="text-align: center;">Instrument fuse box</p>  <p style="text-align: center;">G82</p> | 12 | Combination switch constant power |
| <p style="text-align: center;">Combination Switch</p>  <p style="text-align: center;">G02</p> | 3 | Ground |
| | 5 | Constant power |

Diagnostic Steps

| | |
|---|--------------------------------------|
| 1 | Check the DTC of combination switch. |
|---|--------------------------------------|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|------------------------------------|
| 2 | Check the combination switch fuse. |
|---|------------------------------------|

1. Check whether the instrument fuse box fuse F2/11 (7.5 A) is normal?

No

Replace the fuse

Yes

| | |
|---|--|
| 3 | Check the harness connector of combination switch. |
|---|--|

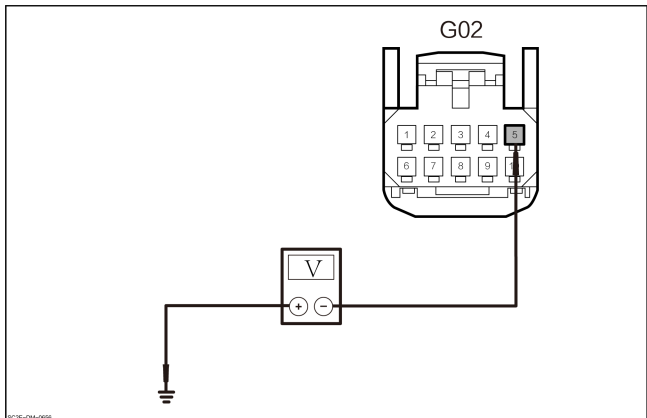
1. Disconnect the combination switch harness connector G02.
2. Check the harness connector of combination switch for normal function.

No

Repair or replace the wire harness

Yes

| | |
|---|--|
| 4 | Check the constant power supply of combination switch. |
|---|--|



1. Set the start/stop button to ON.
2. Measure the voltage between the harness connector of combination switch G02-5 and the ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G02-5 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes Go to step 7.

No

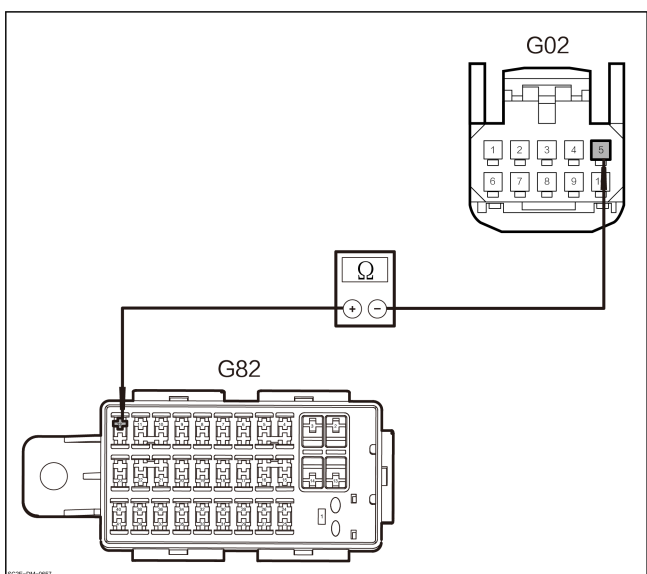
5 Check the instrument fuse box harness connector.

1. Set the start/stop button to OFF.
2. Disconnect the harness connector of instrument fuse box G82.
3. Check the harness connector of instrument fuse box for normal function.

No Repair or replace the wire harness

Yes

6 Check whether the constant power supply of combination switch is open circuited.



1. Measure the resistance value between the combination switch harness connector G02-5 and the instrument fuse box harness connector G82-12.

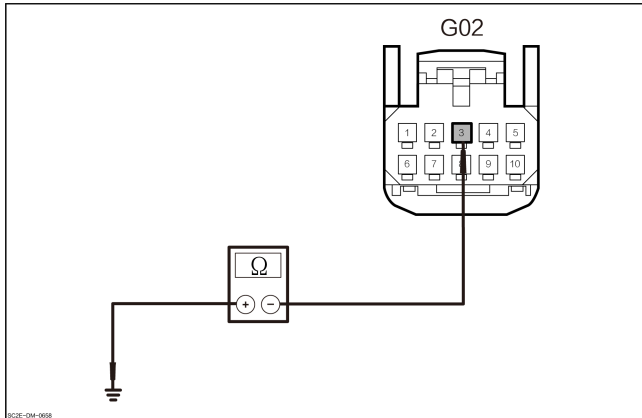
| Connector | | Condition | Resistance value |
|-----------|----------|-------------|------------------|
| (+) | (-) | | |
| G82-12 | G02(A)-5 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the instrument fuse box.

7 Check the combination switch ground line for open circuit.



1. Measure the resistance between the harness connector of combination switch G02-3 and the ground.

| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G02-3 | Ground | Through- out | Lower than 1 Ω |

2. Check whether the results are normal.

- No → Repair or replace the wire harness
- Yes → Replace the combination switch.

Multifunction Steering Wheel Switch

Diagnosis Description

Introduction

Before fault diagnosis for the multifunction steering wheel switch, understand and get familiar with the working principle of the multifunction steering wheel switch, and then start the diagnosis for the multifunction steering wheel switch, so as to be helpful to confirm the correct fault diagnosis procedure in event of fault, and more importantly, to confirm whether the operating condition described by the customer is normal. Any diagnosis of a multifunction steering wheel switch should start inspection of with a multifunction steering wheel switch to guide the maintenance technician to take the next logical step for fault diagnosis.

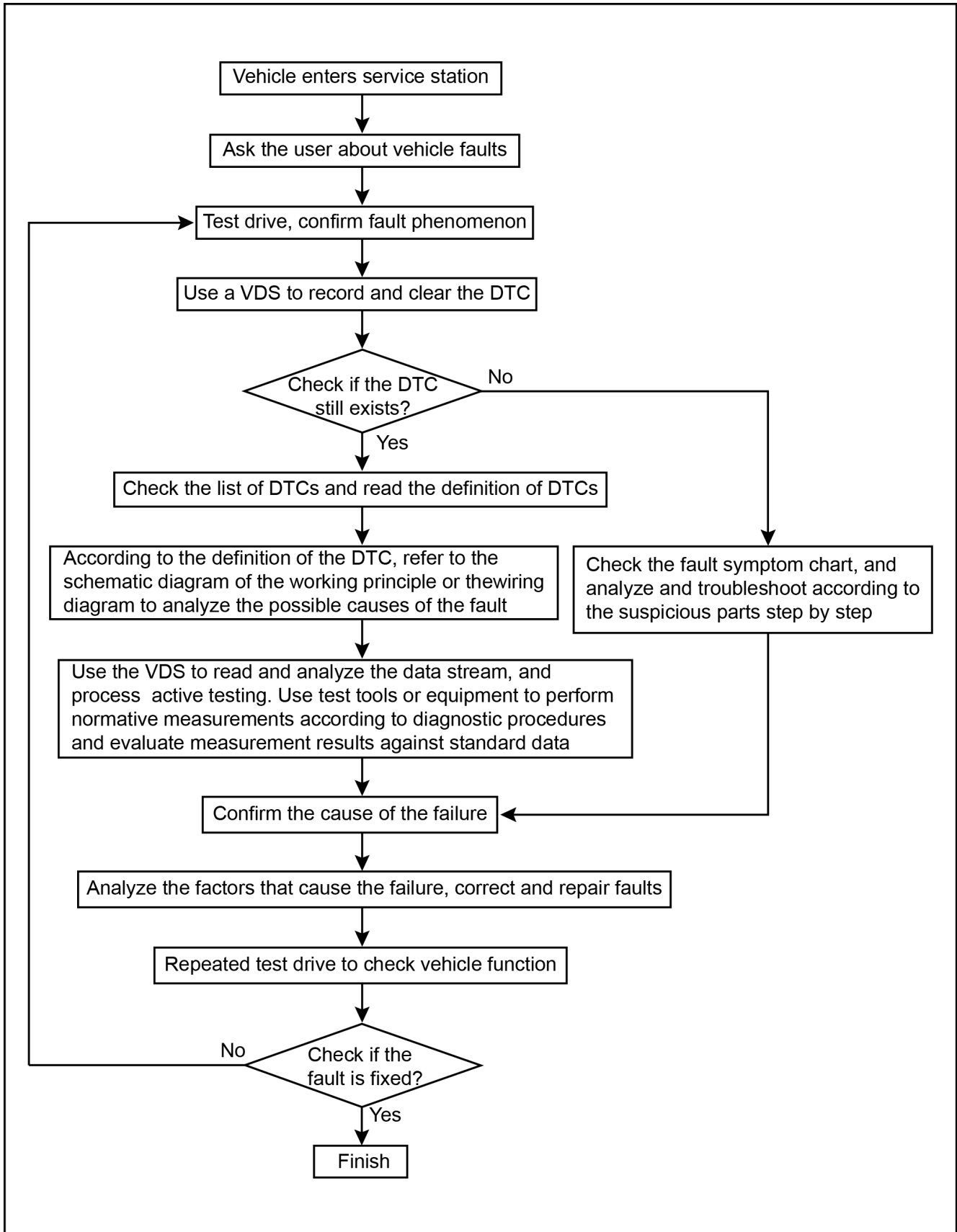
General equipment

- Multimeter
- VDS

ⓘ Reminder:

- When measuring the voltage value with a multimeter, select the closest range of the voltage value.
- When measuring the resistance value with a multimeter, select the closest range of the resistance value.

Process of Fault Inspection and Troubleshooting



Diagnosis of General Faults

Visual Inspection

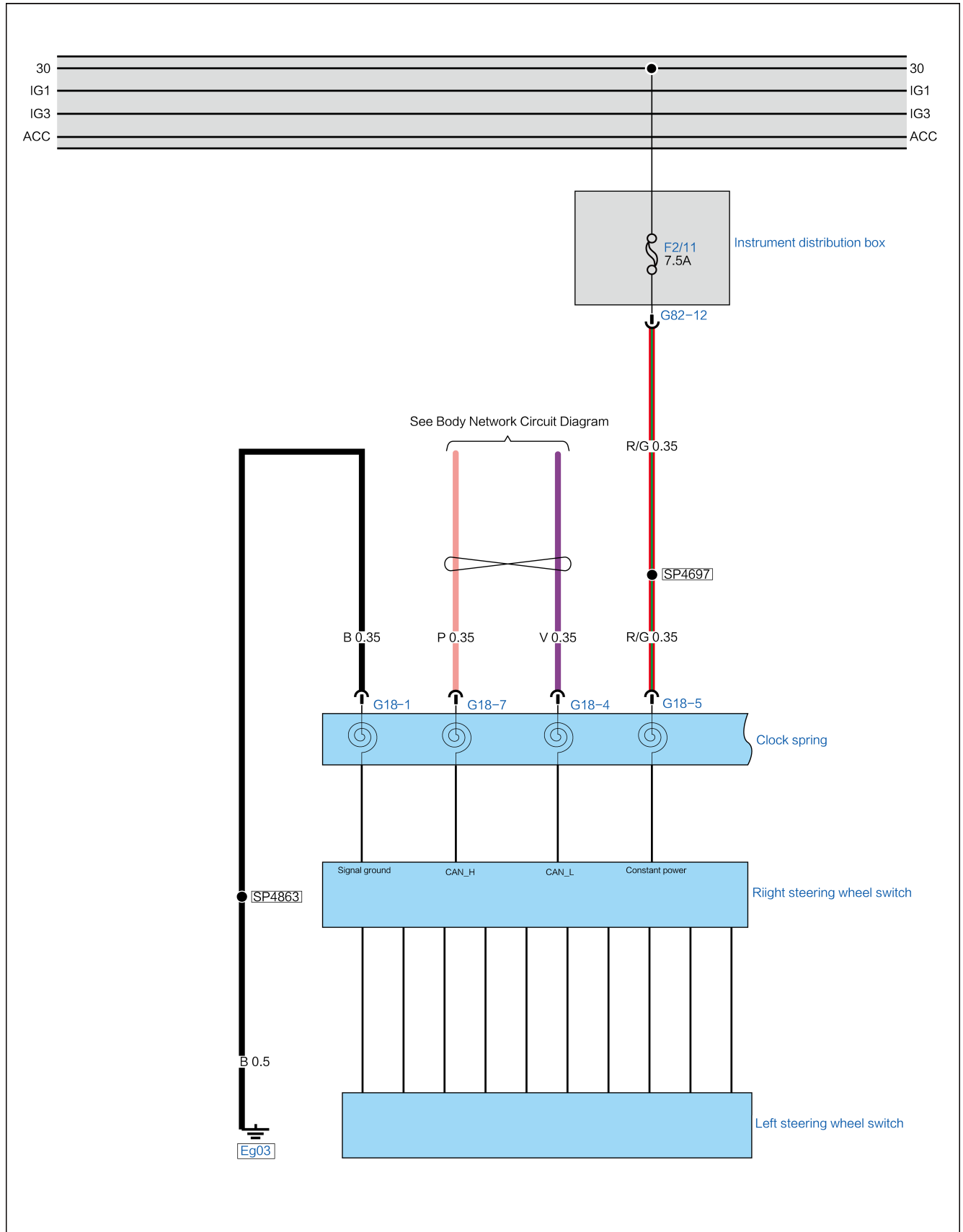
1. Confirm problems of customers.
2. Visually check whether there are obvious signs of mechanical or electrical damage, and there are obvious signs of collision deformation.
3. Check the system lines that are easy to see or visible.
4. If the observed or raised problem is obvious and the cause has been found, the cause must be corrected before proceeding to the next step.
5. If the visual inspection is accepted, confirm the fault and see the symptom table.

General Symptom List

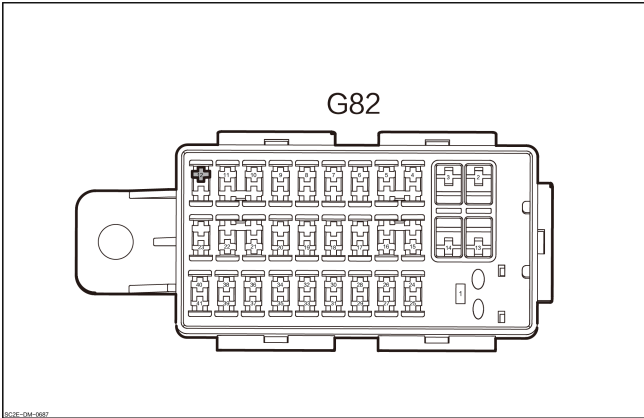
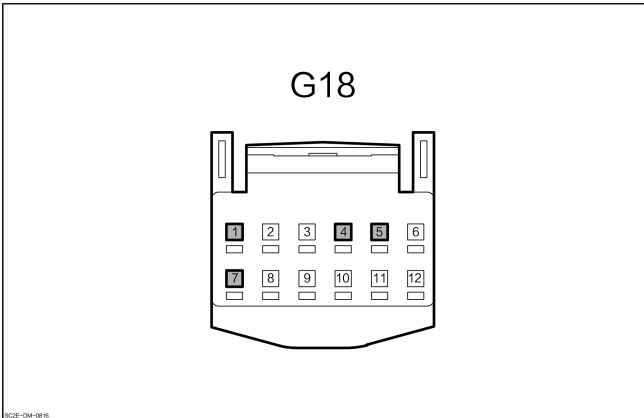
| Symptom | Possible cause | Maintenance suggestion |
|--|---|--|
| All multifunctional steering wheel switches fail to work | <ol style="list-style-type: none">1. Fuse has blew.2. Harness or connector fault.3. Multifunctional steering wheel switch fault | All multifunctional steering wheel switches fail to work |

Multifunction Steering Wheel Switch Not Working

Circuit Diagram



Terminal Definition

| Connector | Terminal number | Terminal Definition |
|---|-----------------|---------------------|
| <p style="text-align: center;">Instrument fuse box</p>  <p style="text-align: center;">G82</p> | 12 | Constant power |
| <p style="text-align: center;">Clock Spring</p>  <p style="text-align: center;">G18</p> | 1 | Ground |
| | 4 | CAN-L |
| | 5 | Power supply |
| | 7 | CAN-H |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Place the start/stop button in the OFF position and wait for a few seconds.
4. Place the start/stop button in ON position again, and read the DTC.
5. Check whether the same DTC is displayed?

No

Check the “intermittent fault” .

Yes

| | |
|---|------------------------------|
| 2 | Check the clock spring fuse. |
|---|------------------------------|

1. Check whether the fuse F2/11 (7.5A) of the instrument fuse box is normal.

No

Replace the fuse

Yes

| | |
|---|---|
| 3 | Check the clock spring harness connector. |
|---|---|

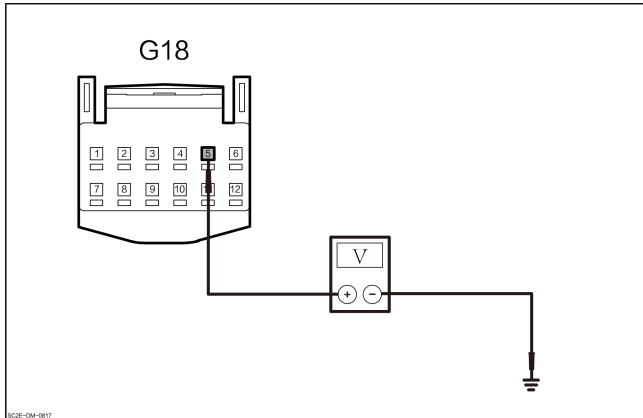
1. Set the START/STOP button to “OFF” .
2. Disconnect the clock spring harness connector G18.
3. Check whether the clock spring harness connector is normal.

No

Repair or replace the wire harness

Yes

| | |
|---|---|
| 4 | Check the power supply of clock spring. |
|---|---|



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the clock spring harness connector G18-5 and ground.

| Connector | | Condition | Voltage value |
|-----------|--------|-------------|---------------|
| (+) | (-) | | |
| G18-5 | Ground | Through-out | 11~14V |

3. Check whether the results are normal.

Yes Go to step 7.

No

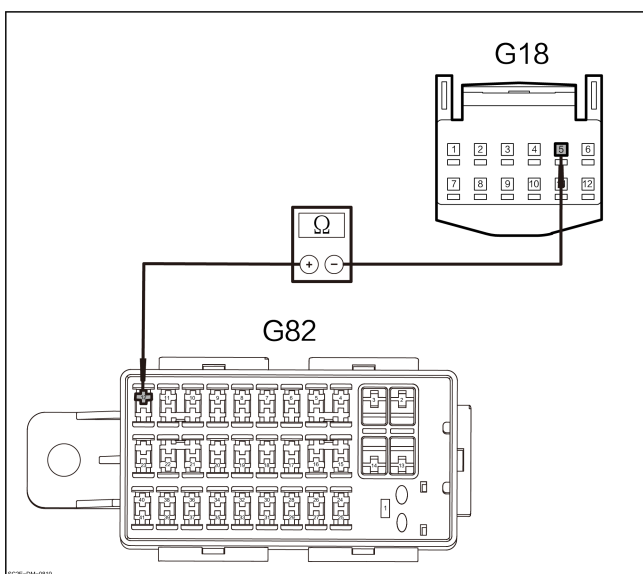
5 Check the instrument fuse box harness connector.

1. Set the START/STOP button to “OFF” .
2. Disconnect the harness connector of instrument fuse box G82.
3. Check whether the instrument fuse box harness connector is normal.

No Repair or replace the wire harness

Yes

6 Check the clock spring power supply line for open circuit.



1. Measure the resistance value between the clock spring harness connector G18-5 and the instrument fuse box harness connector G82-12.

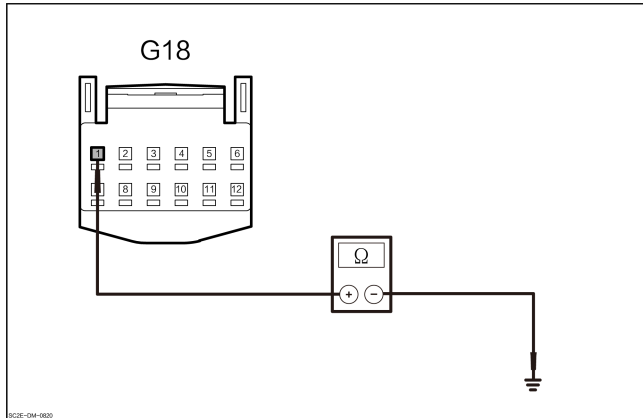
| Connector | | Condition | Resistance value |
|-----------|-------|-------------|------------------|
| (+) | (-) | | |
| G82-12 | G18-5 | Through-out | Lower than 1Ω |

2. Check whether the results are normal.

No Repair or replace the wire harness

Yes Replace the instrument fuse box.

7 Check the clock spring ground line for open circuit.



1. Set the START/STOP button to “OFF” .
2. Measure the resistance value between the clock spring harness connector G18-1 and the ground.

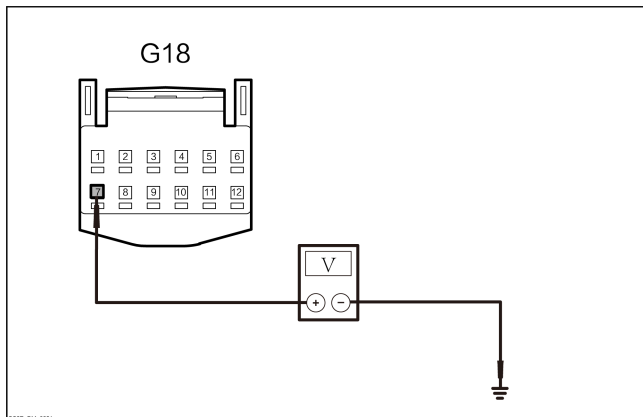
| Connector | | Condition | Resist- ance value |
|-----------|--------|-----------------|--------------------------|
| (+) | (-) | | |
| G18-1 | Ground | Through- out | Lower than 1 Ω |

3. Check whether the results are normal.

No → Repair or replace the wire harness

Yes

8 Check the CAN-H line of clock spring.



1. Set the START/STOP button to “ON” .
2. Measure the voltage value between the clock spring harness connector G18-7 and ground.

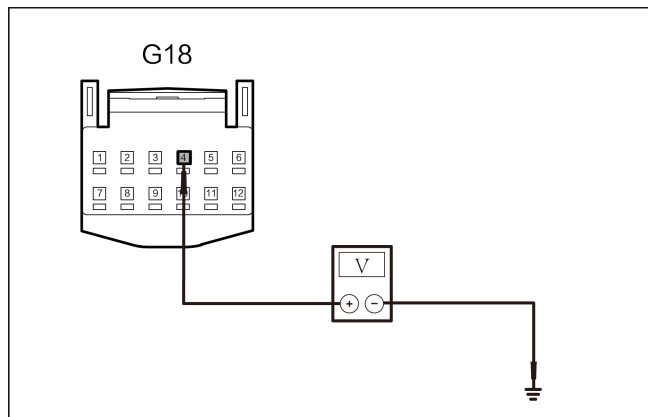
| Connector | | Condition | Voltage value |
|-----------|--------|-----------------|------------------|
| (+) | (-) | | |
| G18-7 | Ground | Through- out | 2.5~3.5V |

3. Check whether the results are normal.

No → Go to "Body Network Bus Off" diagnosis.

Yes

9 Check the CAN-L line of clock spring.



1. Measure the voltage between the clock spring harness connector G18-4 and the ground.

| Connector | | Condition | Voltage value |
|-----------|-----|-------------|---------------|
| (+) | (-) | | |
| G18-4 | | Through-out | 1.5~2.5V |

2. Check whether the results are normal.

No → Go to "Body Network Bus Off" diagnosis.

Yes

| | |
|----|------------------------|
| 10 | Check the clock spring |
|----|------------------------|

1. Check whether the clock equalizing spring is normal.

No → Replace the clock spring.

Yes → Replace the steering wheel assembly.

DTC Diagnosis

List of DTC

| DTC: | Meaning | Diagnostic Process |
|---------|----------------------------------|--|
| B1E1007 | EEPROM fault | B1E1007 EPPROM Fault |
| B1E1907 | Mute switch stuck | B1E1907 "Mute" Switch Stuck |
| B1E0507 | Voice switch stuck | B1E0507 "Voice" Switch Stuck |
| B1E3107 | Setting switch stuck | B1E3107 "Setting" Switch Stuck |
| B1E1A07 | "Custom" switch stuck | B1E1A07 Custom Switch Stuck |
| B1E3207 | Reset switch stuck | B1E3207 "Reset" Switch Stuck |
| B1E2E07 | Cancel switch stuck | B1E2E07 "Cancel" Switch Stuck |
| B1E2D07 | Cruise switch stuck | B1E2D07 "Cruise" Switch Stuck |
| B1E2F07 | "Speed +"switch stuck | B1E2F07 Speed + Switch Stuck |
| B1E3007 | "Speed -"switch stuck | B1E3007 Speed – Switch Stuck |
| B1E3307 | Time interval down switch stuck | B1E3407 Time Interval "+" Switch Stuck |
| B1E3407 | Time interval up switch is stuck | B1E3307 Time Interval "-" Switch Stuck |
| B1E0007 | Volume + switch stuck | B1E0007 Volume "+" Switch Stuck |
| B1E0707 | Volume –switch stuck | B1E0707 Volume "-" Switch Stuck |
| B1E0107 | Channel + Switch Stuck | B1E0107 Channel "+" Switch Stuck |
| B1E0807 | Channel – Switch Stuck | B1E0807 Channel "-" Switch Stuck |
| B1E3507 | Lane offset switch stuck | B1E3507 "Lane Offset" Switch Stuck |
| B1E0607 | Panoramic image switch is stuck | B1E0607 Panoramic Image Switch Stuck |
| B1E0207 | Bluetooth phone switch stuck | B1E0207 Bluetooth Telephone Switch Stuck |
| B1E0407 | Mode switch is stuck | B1E0407 "Mode" Switch Stuck |

| DTC: | Meaning | Diagnostic Process |
|---------|---|---|
| B1E1C07 | Instrument menu "return" switch stuck | B1E1C07 Instrument Menu Return Switch Stuck |
| B1E2000 | Steering wheel built-in vibration motor fault | B1E2000 Steering Wheel Built-in Vibration Motor Fault |

B1E1007 EEPROM Fault**DTC Description**

| B1E1007 EEPROM Fault | |
|--------------------------|---|
| Symptom | Steering wheel switch invalid. |
| Possible Cause | Steering wheel switch internal fault. |
| Fault setting conditions | EEPROM fault. |
| Trigger fault conditions | Set the start/stop button to ON position. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E1907 "Mute" Switch Stuck**DTC Description**

| B1E1907 "Mute" Switch Stuck | |
|-----------------------------|---|
| Symptom | Silent switch invalid. |
| Possible Cause | The silent switch is stuck. |
| Fault setting conditions | Silent switch stuck. |
| Trigger fault conditions | Set the start/stop button to ON position and operate the silent switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E0507 "Voice" Switch Stuck**DTC Description**

| B1E0507 "Voice" Switch Stuck | |
|------------------------------|--|
| Symptom | Voice switch invalid. |
| Possible Cause | The voice switch is stuck. |
| Fault setting conditions | Voice switch stuck. |
| Trigger fault conditions | Set the start/stop button to ON position and operate the voice switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

Setting switch stuck

DTC Description

| B1E3107 "Setting" Switch Stuck | |
|--------------------------------|--|
| Symptom | Setting switch invalid. |
| Possible Cause | "Setting" switch stuck. |
| Fault setting conditions | "Setting" switch stuck. |
| Trigger fault conditions | Set the start/stop button to ON position and operate the setting switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E1A07 Custom Switch Stuck

DTC Description

| B1E1A07 Custom Switch Stuck | |
|-----------------------------|---|
| Symptom | Custom switch fails. |
| Possible Cause | The custom switch is stuck. |
| Fault setting conditions | Custom switch stuck. |
| Trigger fault conditions | Set the start/stop button to ON position and operate the custom switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E3207 "Reset" Switch Stuck**DTC Description**

| B1E3207 "Reset" Switch Stuck | |
|------------------------------|--|
| Symptom | Resetting switch fails. |
| Possible Cause | Resetting switch stuck. |
| Fault setting conditions | Setting switch stuck. |
| Trigger fault conditions | Set the start/stop button to ON position and operate the reset switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E2E07 "Cancel" Switch Stuck**DTC Description**

| B1E2E07 "Cancel" Switch Stuck | |
|-------------------------------|---|
| Symptom | Cancel switch fails. |
| Possible Cause | Cancel switch stuck. |
| Fault setting conditions | Cancel switch stuck. |
| Trigger fault conditions | Set the start/stop button to ON position and operate the cancel switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E2D07 "Cruise" Switch Stuck**DTC Description**

| B1E2D07 "Cruise" Switch Stuck | |
|-------------------------------|---|
| Symptom | Cruise switch fails. |
| Possible Cause | Cruise switch stuck. |
| Fault setting conditions | Cruise switch stuck. |
| Trigger fault conditions | Set the start/stop button to ON position and operate the cruise switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E2F07 Speed + Switch Stuck**DTC Description**

| B1E2F07 Speed + Switch Stuck | |
|------------------------------|--|
| Symptom | Accelerator switch fails. |
| Possible Cause | The accelerator switch is stuck. |
| Fault setting conditions | The accelerator switch is stuck. |
| Trigger fault conditions | Set the start/stop button to ON position and operate the accelerator switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E3007 Speed – Switch Stuck**DTC Description**

| B1E3007 Speed – Switch Stuck | |
|------------------------------|---|
| Symptom | Decelerator switch fails. |
| Possible Cause | The deceleration switch is stuck. |
| Fault setting conditions | Decelerator switch stuck. |
| Trigger fault conditions | Set the start/stop button to ON position and operate the deceleration switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E3407 Time Interval "+" Switch Stuck**DTC Description**

| B1E3407 Time Interval "+" Switch Stuck | |
|--|---|
| Symptom | Interval up switch fails. |
| Possible Cause | The time interval up switch is stuck. |
| Fault setting conditions | Time interval up switch is stuck. |
| Trigger fault conditions | Set the start/stop button to ON position and operate the time interval up switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E3307 Time Interval "-" Switch Stuck**DTC Description**

| B1E3307 Time Interval "-" Switch Stuck | |
|--|---|
| Symptom | Interval down switch fails. |
| Possible Cause | The time interval down switch is stuck. |
| Fault setting conditions | Time interval down switch is stuck. |
| Trigger fault conditions | Set the start/stop button to the ON position and operate the time interval down switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E0007 Volume "+" Switch Stuck**DTC Description**

| B1E0007 Volume "+" Switch Stuck | |
|---------------------------------|---|
| Symptom | Volume up switch fails. |
| Possible Cause | The volume up switch is stuck. |
| Fault setting conditions | The volume up switch is stuck. |
| Trigger fault conditions | Set the start/stop button to the ON position, and operate the volume up switch. |

Diagnostic Steps

| | |
|--|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
| <ol style="list-style-type: none">1. Connect the VDS to the diagnostic interface.2. Set the start/stop button to ON.3. Clear DTCs.4. Place the start/stop button in the OFF position and wait for a few seconds.5. Place the start/stop button in ON position again, and read the DTC.6. Check whether the same DTC is displayed? | |
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E0707 Volume "-" Switch Stuck**DTC Description**

| B1E0707 Volume "-" Switch Stuck | |
|---------------------------------|--|
| Symptom | Volume down switch fails. |
| Possible Cause | The volume down switch is stuck. |
| Fault setting conditions | Volume down switch is stuck. |
| Trigger fault conditions | Set the start/stop button to ON position and operate the volume down switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E0107 Channel "+" Switch Stuck**DTC Description**

| B1E0107 Channel "+" Switch Stuck | |
|----------------------------------|---|
| Symptom | Previous channel switch fails. |
| Possible Cause | The previous channel switch is stuck. |
| Fault setting conditions | The previous channel switch is stuck. |
| Trigger fault conditions | Set the start/stop button to ON position and operate the previous channel switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E0807 Channel "-" Switch Stuck**DTC Description**

| B1E0807 Channel "-" Switch Stuck | |
|----------------------------------|---|
| Symptom | Next channel switch fails. |
| Possible Cause | The next channel switch is stuck. |
| Fault setting conditions | The next channel switch is stuck. |
| Trigger fault conditions | Set the start/stop button to ON position and operate the next channel switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E3507 "Lane Offset" Switch Stuck**DTC Description**

| B1E3507 "Lane Offset" Switch Stuck | |
|------------------------------------|--|
| Symptom | Lane offset switch fails. |
| Possible Cause | The lane offset switch is stuck. |
| Fault setting conditions | The lane offset switch is stuck. |
| Trigger fault conditions | Set the start/stop button to ON position and operate the lane offset switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E0607 Panoramic Image Switch Stuck

DTC Description

| B1E0607 Panoramic Image Switch Stuck | |
|--------------------------------------|--|
| Symptom | Panoramic image switch fails. |
| Possible Cause | Panoramic image switch stuck. |
| Fault setting conditions | The panoramic image switch is stuck. |
| Trigger fault conditions | Set the start/stop button to ON position and operate the panoramic image switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E0207 Bluetooth Telephone Switch Stuck

DTC Description

| B1E0207 Bluetooth Telephone Switch Stuck | |
|--|--|
| Symptom | Bluetooth phone switch fails. |
| Possible Cause | Bluetooth phone switch stuck. |
| Fault setting conditions | Bluetooth phone switch stuck. |
| Trigger fault conditions | Set the start/stop button to ON position and operate the Bluetooth phone switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E0407 "Mode" Switch Stuck

DTC Description

| B1E0407 "Mode" Switch Stuck | |
|-----------------------------|--|
| Symptom | Mode switch fails. |
| Possible Cause | Mode switch stuck. |
| Fault setting conditions | Mode switch stuck. |
| Trigger fault conditions | Set the start/stop button to ON position and operate the mode changeover switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E1C07 Instrument Menu Return Switch Stuck**DTC Description**

| B1E1C07 Instrument Menu Return Switch Stuck | |
|---|--|
| Symptom | Instrument menu return switch fails. |
| Possible Cause | Instrument menu return switch stuck. |
| Fault setting conditions | Instrument menu return switch stuck. |
| Trigger fault conditions | Set the start/stop button to ON position and operate the instrument menu switch. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |

B1E2000 Steering Wheel Built-in Vibration Motor Fault

DTC Description

| B1E2000 Steering Wheel Built-in Vibration Motor Fault | |
|---|--|
| Symptom | The built-in vibration function of the steering wheel fails. |
| Possible Cause | The built-in vibration motor fault of steering wheel. |
| Fault setting conditions | The built-in vibration motor fault of steering wheel. |
| Trigger fault conditions | Turn the start/stop button to the on position to enable the driving assistance function. |

Diagnostic Steps

| | |
|---|---|
| 1 | Check the DTC of multifunctional steering wheel switch. |
|---|---|

1. Connect the VDS to the diagnostic interface.
2. Set the start/stop button to ON.
3. Clear DTCs.
4. Place the start/stop button in the OFF position and wait for a few seconds.
5. Place the start/stop button in ON position again, and read the DTC.
6. Check whether the same DTC is displayed?

| | |
|-----|--------------------------------------|
| No | Check the “intermittent fault” . |
| Yes | Replace the steering wheel assembly. |