

# **EXEED T1C**

## **Service Manual**

### **2021**

#### **FOREWORD**

This manual contains on-vehicle diagnosis and service procedures for EXEED T1C.

It is very important to read and be familiar with this manual thoroughly for proper repair and maintenance. This manual should be kept in a handy place for quick and easy reference.

The contents in this manual, including all illustrations and specifications, are current at the time of printing. As modifications affecting repair and maintenance occur, relevant information supplementary to this volume will be made available at EXEED dealers.

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This manual only applies to models listed below:  
T1C 1.5T+CVT25

#### **CAUTION:**

This manual is only for specialized technicians. If non-specialized or uncertified individuals perform repairs and maintenance privately only referring to this manual or without proper equipment and tools, it may cause damage to customer's vehicle and injury to you and other persons nearby.

In order to prevent dangerous operation and damage to vehicle, be sure to follow the instructions shown below:

- Contents in this manual must be read thoroughly. Have a good understanding of all the contents written in "PRECAUTION" of "INTRODUCTION" section.
- Before performing repair procedures, be sure to put on protective tools properly to avoid personal injury.
- When performing repair procedures, be sure to use specified and recommended tools to prevent damage to customer's vehicle. Before operating, be sure to confirm the safety of technicians to avoid personal injury.
- If a part needs to be replaced, use EXEED genuine part with the same part number. Do not use any inferior quality part.
- Observe WARNING and CAUTION in this manual carefully, in order to effectively avoid the risk of personal injury and vehicle damage due to improper operation during service and maintenance.

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# Introduction

## Version and Change Description

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Version Number	Date	Content	Change Content	Applicable Model
Version 00	2021/09/30	Circuit Diagram	/	T1C 1.5T+CVT25

The manual contains following 12 chapters:

Chapter No.	Chapter Name	Description
01	Introduction	It mainly includes the overview of each chapter and the applicable models of the manual.
02	How to Use This Manual	Instructions for how to use this manual.
03	Troubleshooting	Describe the basic inspection procedure of the circuit.
04	Abbreviation	Define the abbreviations used in this manual.
05	Terms and Symbols Table	Define the symbols and functions of the main parts.
06	Fuse and Relay Information	This chapter is used to quickly query the location distribution of fuses and relays; Internal circuit routing of fuse box and fuse relay box.
07	Power Distribution Center	This chapter is used to query the load conditions of each fuse and relay control, and check with the system circuit diagram, which can be used to troubleshoot malfunctions of related circuits.
08	Ground Point	If you want to quickly understand ground point position, you can quickly understand the distribution of ground point and the summary of components that share the ground through this chapter.
09	Control Module Distribution Diagram and Terminal Definition	Indicates the location of the control module and the terminal definition of the control module. This chapter is closely related to system circuit.
10	Wire Harness Position Diagram	This chapter describes the location distribution of each wire harness and the location distribution and front view of each connector.
11	System Circuit Diagram	Draw each system circuit independently, which is convenient for querying a single system circuit.
12	Overall Circuit Diagram	Integrate and summarize the system circuit diagram according to modules.

# How to Use This Manual

## General Information

This manual provides circuit information for each system of the vehicle by separating the circuits of each system.

Display the actual wire harness of each system circuit from the battery power supply to ground point. (All circuit diagrams show the switch in the normal state (normally on or normally off).)

When troubleshooting any fault, first understand the working condition of the circuit which the fault was detected (refer to the system circuit), the power supply to the circuit (refer to the power supply) and the ground point (refer to the ground point).

After understanding the circuit operation, troubleshoot the malfunction circuit to find out the cause. Use the sections "Fuse Box Relay Information" and "Wire Harness Location" for parts, wire harness, connectors, and ground points of each system circuit.

Each system circuit indicate the wire harness related to system by arrows. If it is necessary to understand the overall connection, refer to the "Overall Circuit Diagram" at the end of this manual.

### WARNING

- The information in this manual is about wire harnesses. Information about components and assembly parts is for reference only. Please refer to the relevant repair manual.

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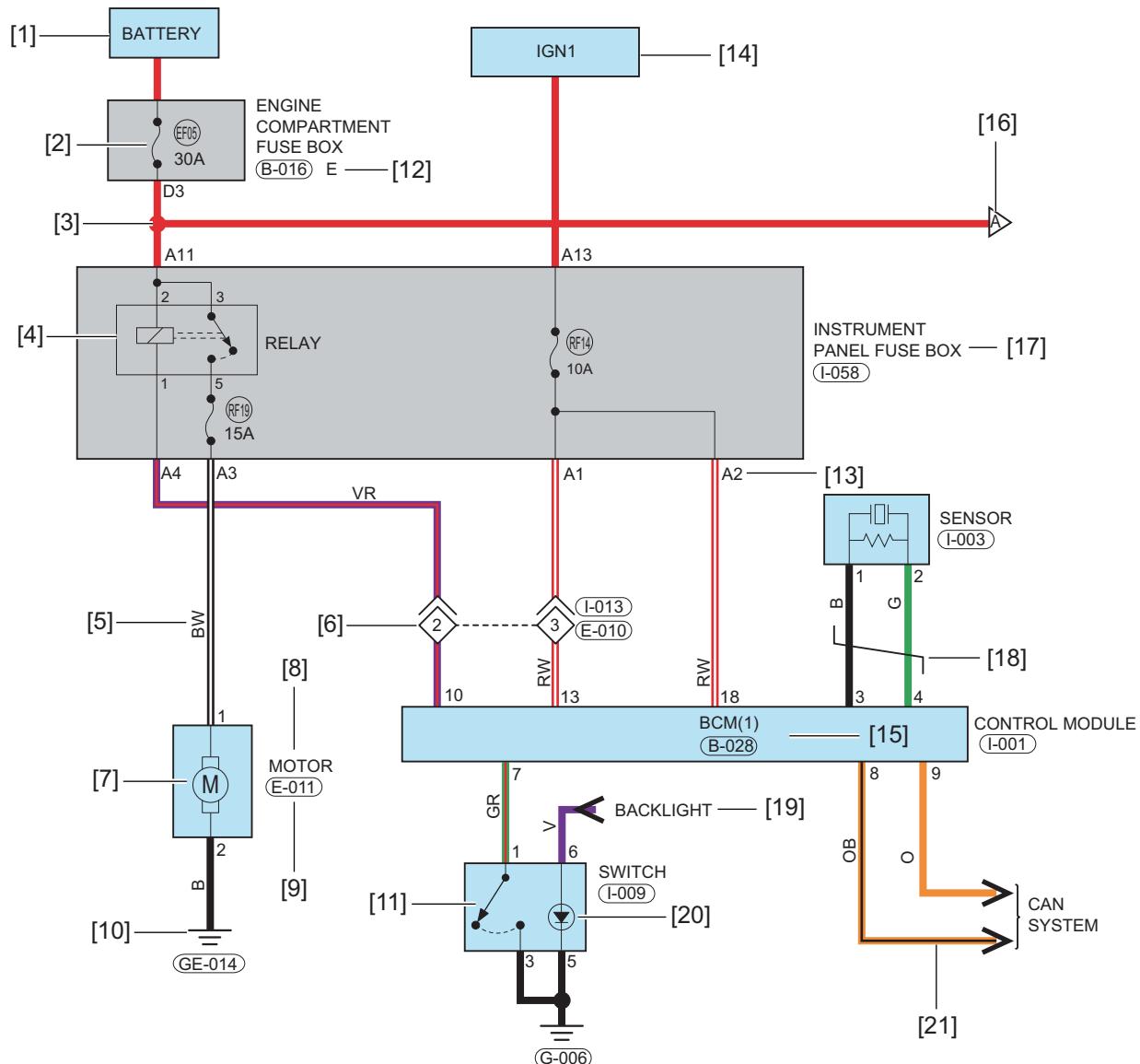
## Description of Circuit Diagram

Provide circuit diagram to help technicians efficiently determine and detect vehicle faults.

Functions and features of circuit diagram:

- The power supply circuit is at the top of the page, and the ground circuit is at the bottom.
- Display components (such as switches and fuses) in the form of simple labels on circuit diagram.

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\*The circuit diagram shown here is an example only. It is different from the actual circuit shown in "System Circuit" chapter.

The following table is the symbol table defined in the circuit diagram.

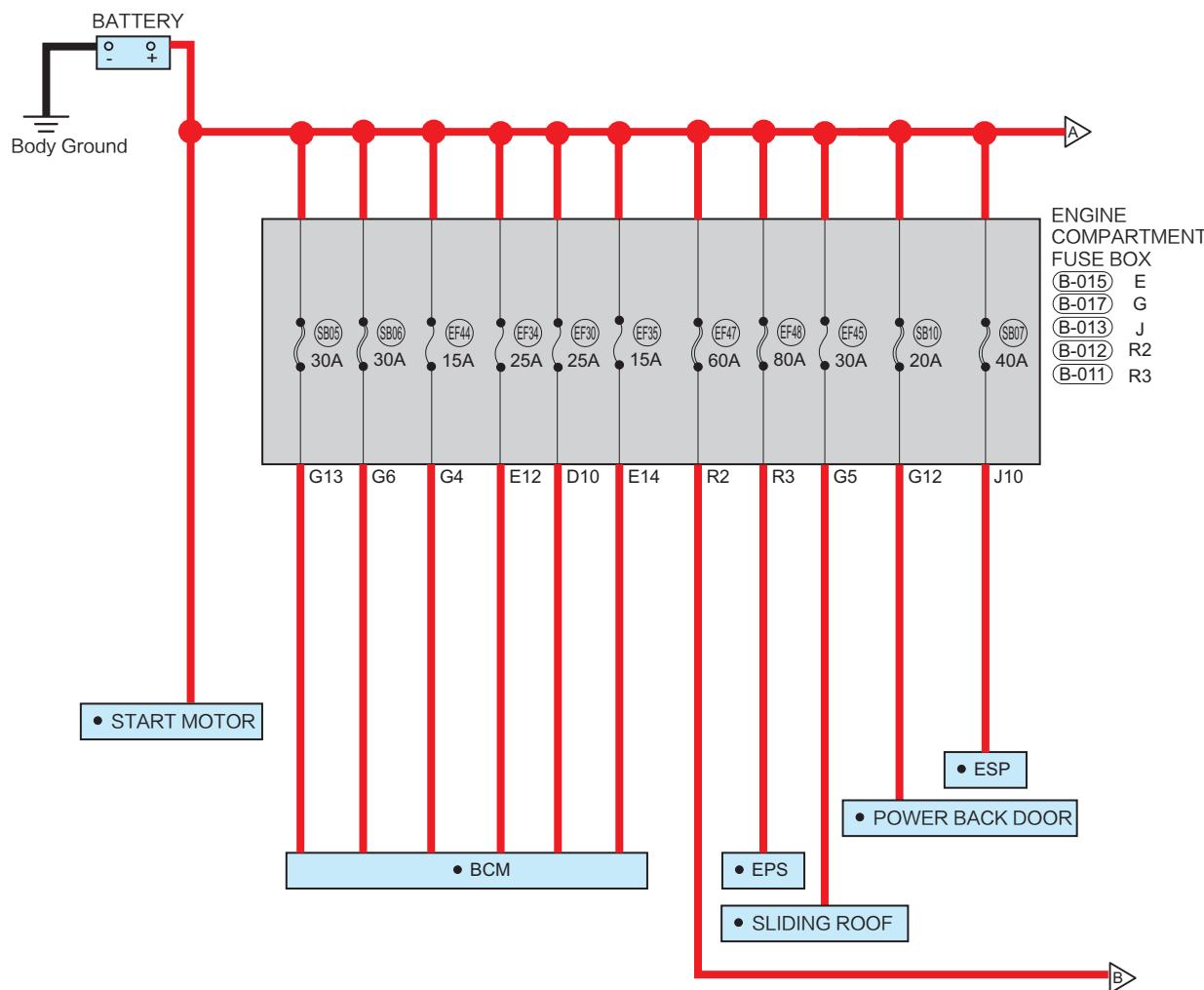
No.	Definition	Description
[1]	Battery	Indicates the power supply from positive battery to electrical equipment.
[2]	Fuse	This symbol indicates the fuse; "EF05" indicates the fuse number; "30A" means the rated current of the fuse.
[3]	Junction point	A solid circle indicates a cross connection between the crossed wire harnesses.
[4]	Relay	This symbol indicates the relay; "MAIN RELAY" indicates the name of the relay; "1", "2", "3" and "5", or "85", "86", "87" and "30" indicate the terminal number of the relay.
[5]	Color	Indicates the color of wire harness. The color codes are as follows: B = Black; W = White; R = Red; G = Green; L = Blue; Y = Yellow; Br = Brown; O = Orange; Gr = Gray; P = Pink; V = Purple; Lg = Light green. For example: "BrR" indicate that the primary color of the wire harness is brown, and the secondary color is red.
[6]	Connector	Indicates the wire harness connector. "Λ" is the female connector, "I-013" is the application number; "◇" is the male connector, and "E-010" is the application number. The numbers "2" and "3" on the inside of male connector indicate the terminal numbers. "----" indicates different terminals from the same wire harness connector.
[7]	Motor	This symbol indicates a motor.
[8]	Component name	Indicates the name of component.

No.	Definition	Description
[9]	Connector code	"E-011" indicates the connector code of the component; Letter "E" indicates the wire harness code of the wire harness where the connector located. The connector codes are as follows: Q = Front Bumper Wire Harness; E = Engine Wire Harness; I= Instrument Cluster Wire Harness; B = Interior Wire Harness; J = Rear Bumper Wire Harness; F = Front Left Door Wire Harness; H = Front Right Door Wire Harness; L = Rear Left Door Wire Harness; R= Rear Right Door Wire Harness; T = Back Door Wire Harness; K = A/C Wire Harness; D = Transmission Wire Harness Y = HSD Connecting Wire Harness X = Display Connecting Wire Harness U = USB Connecting Wire Harness
[10]	Ground point	Indicates the ground point. For example, GQ-010, G indicates ground point, Q indicates the ground point on front bumper wire harness (different letters indicate the corresponding wire harness), and 010 indicates the number of ground point.
[11]	Switch	This symbol indicates a switch.
[12]	Fuse and relay box connector	For example: B-015 E, that is, the B-015 connector named in this circuit diagram manual corresponds to connector E of the actual vehicle fuse and relay box.
[13]	Terminal number	Indicates the connector terminal number of the component.
[14]	Ignition switch	Indicates the power supply from ignition switch to electrical equipment.
[15]	Module name	Indicates the module connectors placed one above the other and their corresponding connector numbers.
[16]	Connect to	Indicates that the wire harness is connected to the circuit diagram on the next page. The letter "A" is connected to the "A" in circuit diagram on the next page.
[17]	Fuse and relay name	Indicates the name of fuse and relay.
[18]	Twisted wire	Indicates that two wires are twisted.
[19]	Background light power supply	Indicates the illumination light power supply output from the background light adjustment switch.
[20]	LED	It is used for indicator light, warning light or illumination light of switch or instrument cluster.
[21]	CAN	Indicates CAN wire harness in circuit diagram. Connect to CAN system.

## Power Supply Description

The "Power Distribution Center" chapter describes the parts that transmit current from each power supply. In the power supply circuit diagram, explains the situation that battery power supply to each system. Since all system circuit diagrams start from the power supply, the power distribution must be clearly understood.

Example



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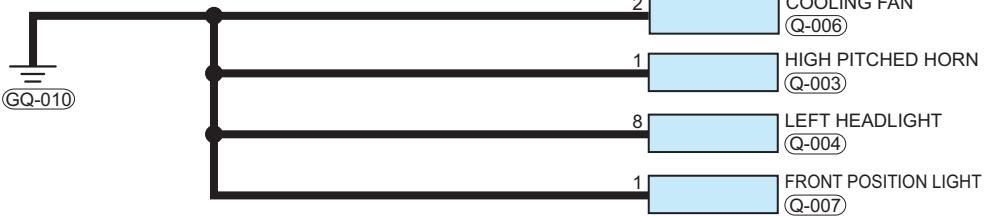
\* The system shown here is an example only. It is different from the actual circuit shown in "Power Supply" chapter.

## Ground Point Description

The ground point circuit diagram shows the connection from all main parts to corresponding ground point. When troubleshooting a fault ground point, check system circuits that use universal ground may help to quickly identify the faulty grounding. This method can also be used to check the connection between the ground points.

Example

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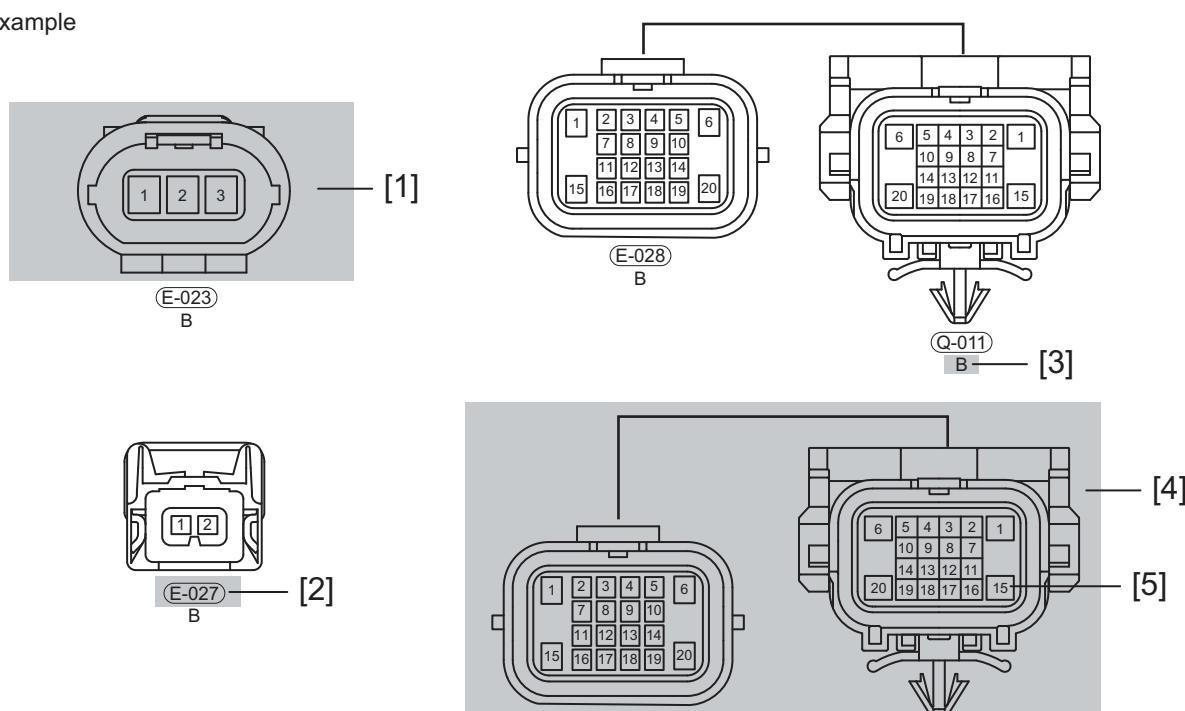
GROUND POSITION	PHYSICAL GRAPHICS
LEFT SIDE RAIL INNER SIDE	
	 <pre> graph LR     GQ010((GQ-010)) --- &gt; CF[COOLING FAN Q-006]     GQ010 --- &gt; HPH[HIGH PITCHED HORN Q-003]     GQ010 --- &gt; LH[LEFT HEADLIGHT Q-004]     GQ010 --- &gt; FPL[FRONT POSITION LIGHT Q-007]   </pre>

EWD004001

\* The system shown here is an example only. It is different from the actual circuit shown in "Ground Point" chapter.

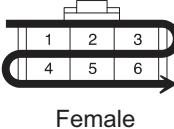
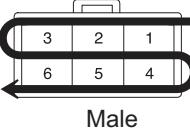
## Connector List Description

Example



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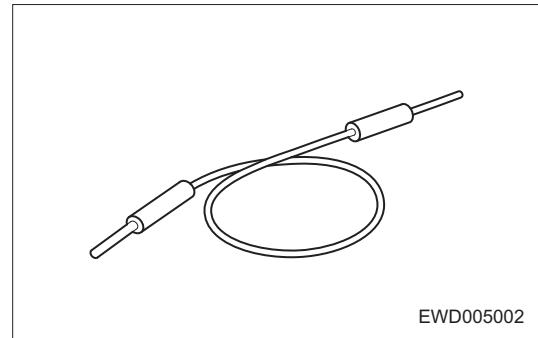
No.	Definition	Description
[1]	Connector	It indicates the connector connected to the part. (The number indicates the terminal number.)
[2]	Connector code	Indicates the connector code.
[3]	Connector color	Indicates the connector color.
[4]	Wire harness connector	It indicates the shape of connector that combines the wire harness Left: Male connector shape Right: The shape number of female connector indicates the terminal number.
[5]	Terminal number	The number indicates the terminal number. The numbering system of female and male connectors is different  Example: Numbered sequentially from top left to bottom right      Numbered sequentially from top right to bottom left  <b>Female</b>  <b>Male</b>

# Troubleshooting

## Tools for Troubleshoot Electrical Malfunction

### 1. Jumper wire

Jumper wire are used to establish temporary circuit. Connect jumper wire between terminals of the circuit to bypass the switch.



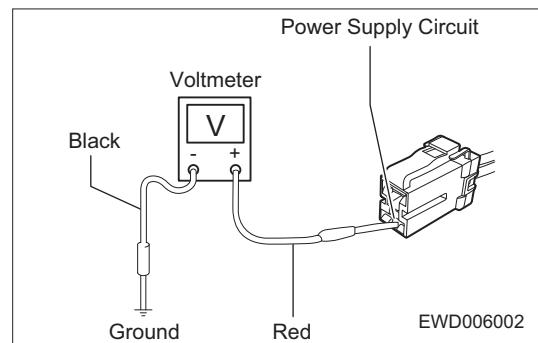
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#### WARNING

- Do not connect a jumper wire between the power supply and body ground, otherwise the wire harness or electrical components may be damaged.

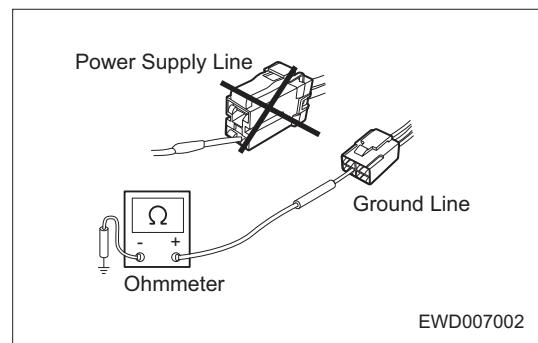
### 2. Voltmeter

A voltmeter is used to measure voltage in a circuit. Its measurement range should be higher than 15 V. Measure the voltage by connecting the positive probe (red) of the voltmeter to the positive lead of component to be tested, and the negative probe (black) to the negative lead or body ground.



### 3. Ohmmeter

An ohmmeter is used to measure the resistance between two points in a circuit, or to check for open or short circuits.



#### WARNING

- When applying voltage to circuit, do not connect ohmmeter to the circuit, otherwise it may cause inaccurate measurement data or even damage the ohmmeter.

# Troubleshoot Electrical Malfunction

## Troubleshoot Wire Harness Malfunction

The following 6 steps will help troubleshoot the wire harness. Before performing any diagnosis, be sure to check the non-original parts added to the vehicle. If the vehicle is equipped with such parts, disconnect them to confirm that these added parts are not the cause of the failure.

When troubleshooting the wire harness, perform the following steps:

1. Confirm the malfunction.
2. Look for any related faults (by checking components in the same circuit).
3. Analyze the symptoms (use the circuit diagram to determine the circuit layout, the area most likely to fail and area to proceed with diagnosis).
4. Isolate the faulty area.
5. Repair the faulty area.
6. Check whether it is working properly (in this step, check whether all items of the repair circuit are working properly).

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## Voltage Test

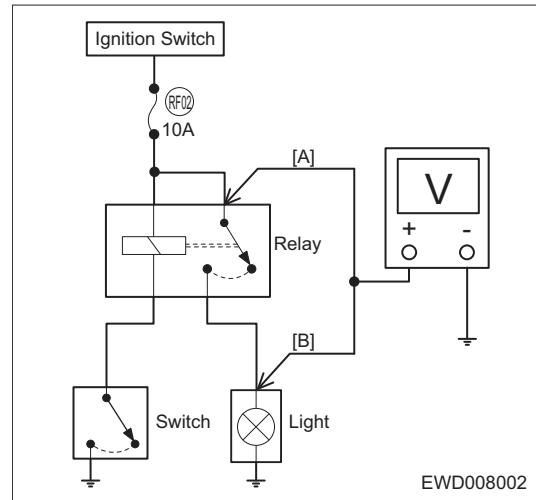
1. Establish the condition that there is voltage at the checkpoint.

For example:

- [A] – Ignition switch ON
- [B] – Ignition switch and switch ON

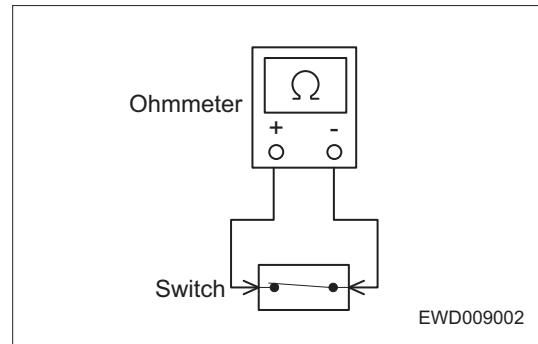
2. Use a voltmeter to connect the negative probe (black) to a good ground point or negative battery terminal, and connect the positive probe (red) to the connector or component terminal.

The test light can be used to replace the voltmeter during inspection.



## Circuit Continuity Test

1. Turn off all electrical equipment and the ignition switch and disconnect the negative battery cable.
2. Remove the tested circuit.
3. Connect the two probes of ohmmeter to both ends of the tested circuit, and check the circuit continuity (a small resistance means that the circuit has good continuity).

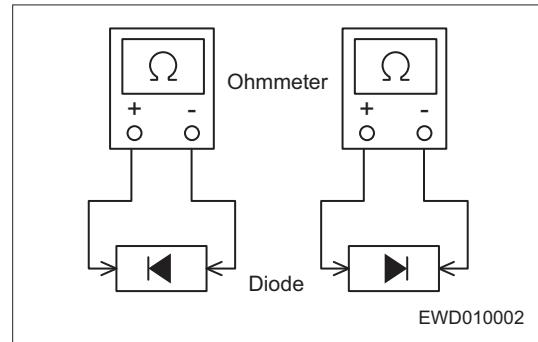


If the circuit has diodes, replace with two probes and check again.

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When the negative probe (black) is connected to the positive of diode and the positive probe (red) is connected to the negative of diode, there may be continuity.

If exchange the two probes, there may not be continuity.



## Short Circuit Test

1. Measure and record the battery voltage.
2. Pull out the fuse of tested circuit or disconnect the power supply of the test circuit.
3. Connect the voltmeter positive probe (red) to the positive battery terminal, and the negative probe (black) to power supply end of circuit.
4. Check the voltage displayed on the voltmeter. If voltage value of battery is displayed, it indicates that the test circuit short to ground.

The test light can be used to replace the voltmeter during inspection.

## Electrical Repair

### Wire Harness Repair

 **WARNING**

- Measure the length of lead to be repaired and select a suitable substitute lead before repair.
- If there are several leads to be repaired, shake the repair parts.

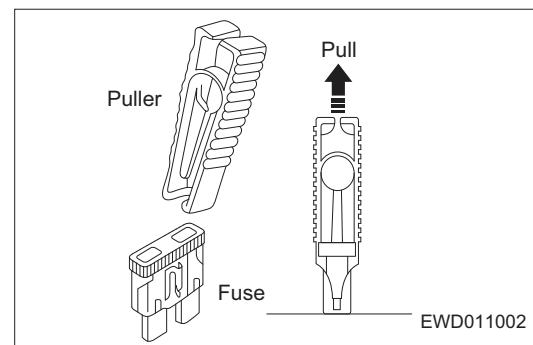
1. Remove 0.5 inch of insulation from the repair lead and replacement lead.
2. Use a heated shrink tube to connect the original lead to the replacement lead, and use a tool to compress the metal core of the heated shrink tube to firmly connect the original lead and the replacement lead.
3. Heat the shrink tube to shrink the outer rubber layer and ensure a good seal in the repair area.
4. Wrap the repair lead with insulating tape.

### Fuse Replacement

 **WARNING**

- After replacing the fuse, perform a power-on test. If the fuse blows again, check whether the corresponding circuit is short circuit. If any electrical equipment or additional equipment exceeding the rated current is installed, replace the fuse with a higher rated current.

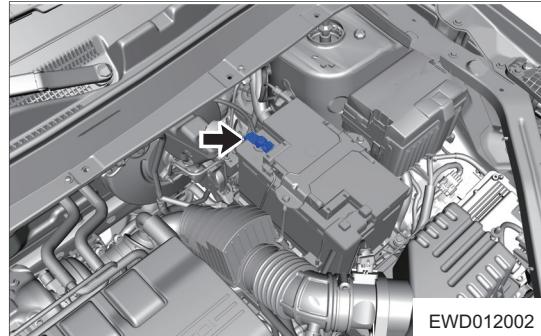
1. Turn off all electrical equipment and the ignition switch before repair.
2. Use a fuse puller to remove the blown fuse.
3. Replace with a new fuse of the same specification.



## Electrical Component

### 1. Battery cable

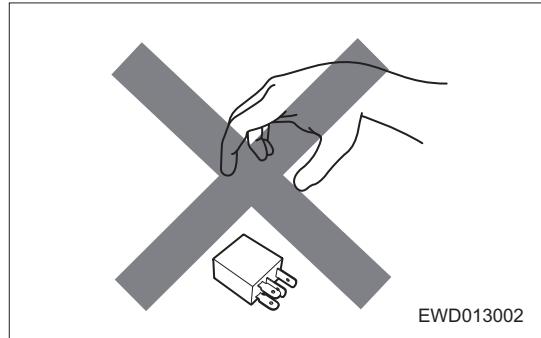
Disconnect the negative battery cable (arrow) before repairing electrical components.



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### 2. Sensor, switch and relay

Do not drop or knock sensors, switches or relays during maintenance to avoid damaging components.



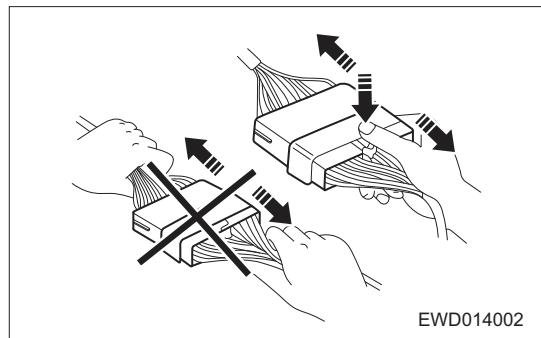
#### WARNING

- During replacement, use a relay with the same specifications as the original relay.

### 3. Connector

#### a. Disconnect the connector.

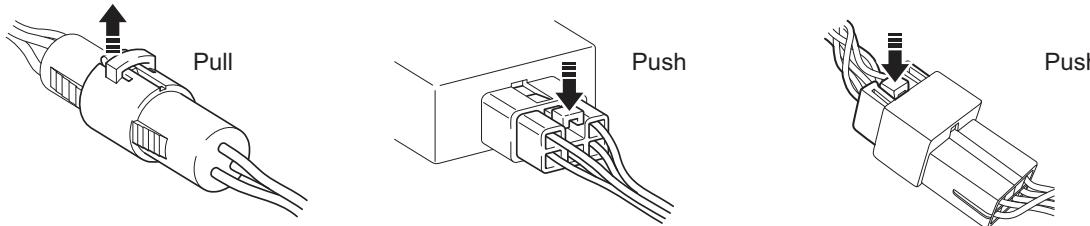
To pull away from the connector, pull the connector itself and press the connector clip to disconnect it.



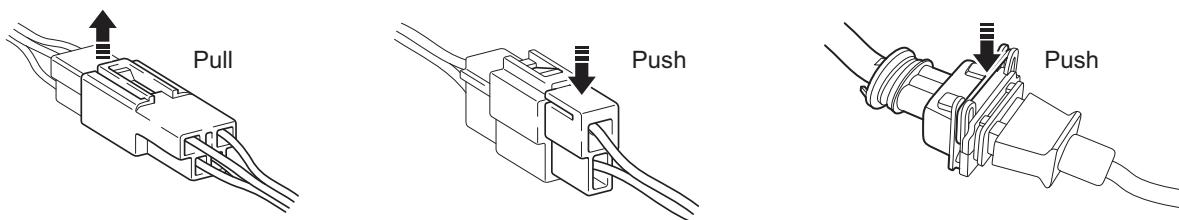
#### WARNING

- When disconnecting the connector, do not forcibly pull the wire harness to avoid damage to the components.

There are many ways to secure the connector clip. The following illustration shows the common disconnection method.



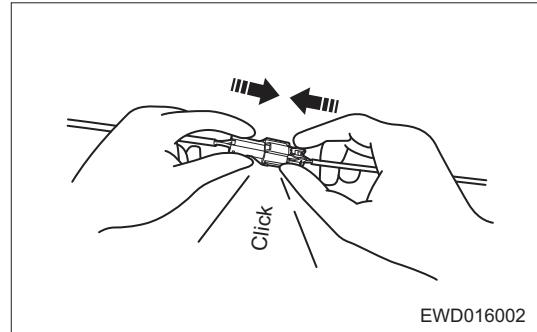
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b. Install the connector.

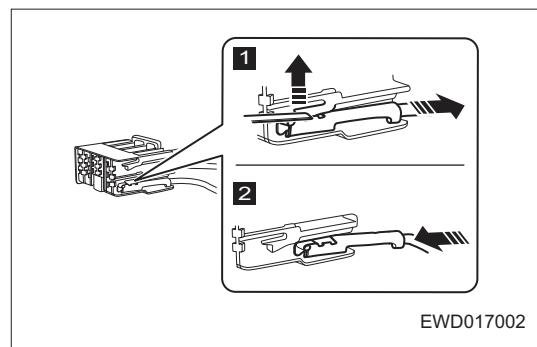
When the connector is installed in place, a "click" can be heard.



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c. Replace the connector terminal.

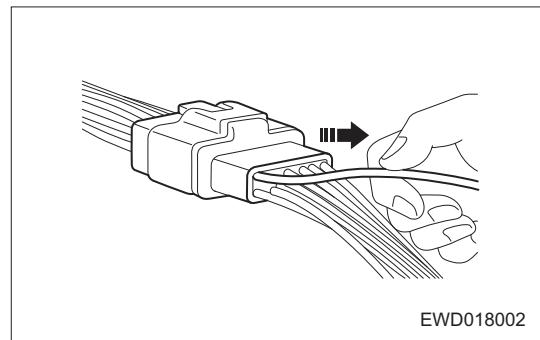
As shown in illustration (1), insert proper tool into the terminal to lift fixing clip, and then pull out terminal from back side. As shown in illustration (2), push the terminal from back of connector to ensure that the fixing clip is installed in place.



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- d. Check the connector terminal.

Gently pull a terminal wire harness to check if it is installed in place.



03

# Abbreviation

This manual uses the following abbreviations.

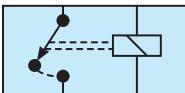
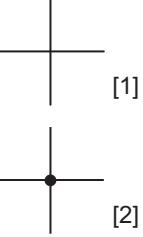
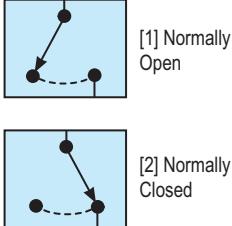
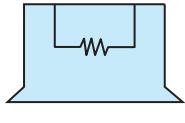
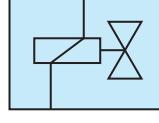
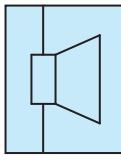
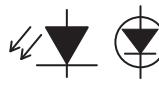
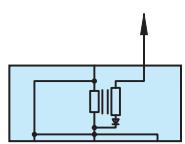
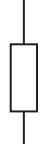
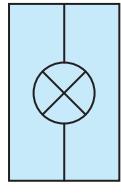
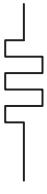
Abbreviation	Terms
A	A
ABM	Airbag Module
ACP	Audio Control Panel
APA	Automatic Parking Assist Module
AVM	Panoramic View Control Module (Two configurations: AVM, AVM (with APA))
BCM	Body Control Module
BSD	Blind Spot Detection System
CAN	Controller Area Network
CGW	Central Network Module
CLM	Automatic A/C Control Module
CWC	Wireless Charging Module
DCM	Domain Controller (Integrated two independent systems of instrument cluster and audio)
DCT	Dual Clutch Transmission
DVR	Drive Recorder
EGS	Electronic Shift Module
EMS	Engine Management Module
EPS	Electric Power Steering Module
ESP	Electronic Stability System (Integrated EPB Module)
FCM	Front Camera Module
FRM	Front Radar Module
ICM	Instrument Cluster
IGN	Ignition Circuit
IMMO	Engine Immobilizer System
KL15	Ignition Circuit
KL30	Battery Circuit
PEPS	Passive Entry and Passive Start System
PLG	Power Back Door
RADAR	Parking Radar Assist System
RLY	Relay
RRM	Audio and Entertainment System

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Abbreviation	Terms
SAM	Steering Angle System
SCU	Seat Control Module
TBOX	Wireless Communication Module
TCU	Transmission Control Module
TPMS	Tire Pressure Monitoring System
V	Volt

04

# Terms and Symbols Table

	<p><b>Battery</b> Store chemical energy and convert it into electrical energy. Provide direct current for various circuits.</p>		<p><b>Ground</b> Point where the wire harness connects to vehicle body, so as to provide a loop for circuit; current cannot flow without a ground line.</p>
	<p><b>Relay</b> Generally, an electronically operated switch that can be normally turned on or turned off. Current flowing through small coil generates a magnetic field that can turn on or turn off the contact switch.</p>		<p><b>Wire Harness</b> The wire harness is always represented by a straight line on the circuit diagram. If there is no black dot at the intersection, it means that it is not connected; If there is black dot at the intersection, it indicates that it is cross connection.</p>
	<p><b>Motor</b> A power device that converts electrical energy into mechanical energy (especially rotational motion).</p>		<p><b>Fuse</b> A metal sheet that will melt when excessive current passes through, and can block the current to prevent circuit damage.</p>
	<p><b>Switch</b> Therefore, open and close circuit to stop [1] or allow [2] to be energized.</p>		<p><b>Twisted</b> Two wire harnesses are twisted together and used to transmit signals.</p>
	<p><b>Speaker</b> An electromechanical device that uses current to generate sound waves.</p>		<p><b>Solenoid Valve</b> An solenoid coil that generates a magnetic field when current flows in order to move an iron core, etc.</p>
	<p><b>Horn</b> An electronic device that can emit high frequency audio signals.</p>		<p><b>LED (Emitting diode)</b> Light emitting diodes also use current to emit light. Compared with ordinary light, they do not generate heat when they emit light.</p>
	<p><b>Ignition Coil</b> Convert low voltage direct current into high voltage ignition current to ignite the spark plug.</p>		<p><b>Resistor</b> Electrical component with fixed resistance installed in circuit to reduce voltage to specified value.</p>
	<p><b>Light</b> Current flows through filament, making filament to heat up and emit light.</p>		<p><b>Heating Wire Harness</b> A resistance heating element.</p>

# Fuse and Relay Information

## General Information

Each system should be equipped with fuses and relays to ensure the normal operation of the vehicle electrical system.

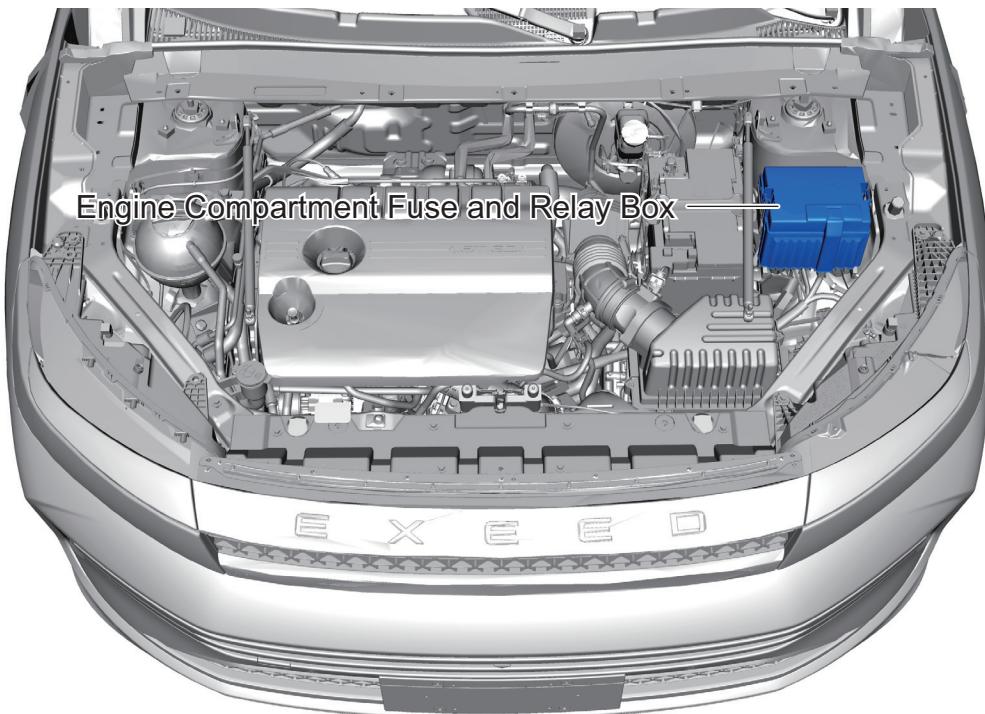
The fuses and relays are integrated in the fuse and relay box and are installed in the following positions of the vehicle:

- The engine compartment fuse and relay box is located on the left side of engine compartment and behind the battery.
- Instrument panel fuse and relay box is located at the bottom left of the instrument panel.

## Engine Compartment Fuse and Relay Box

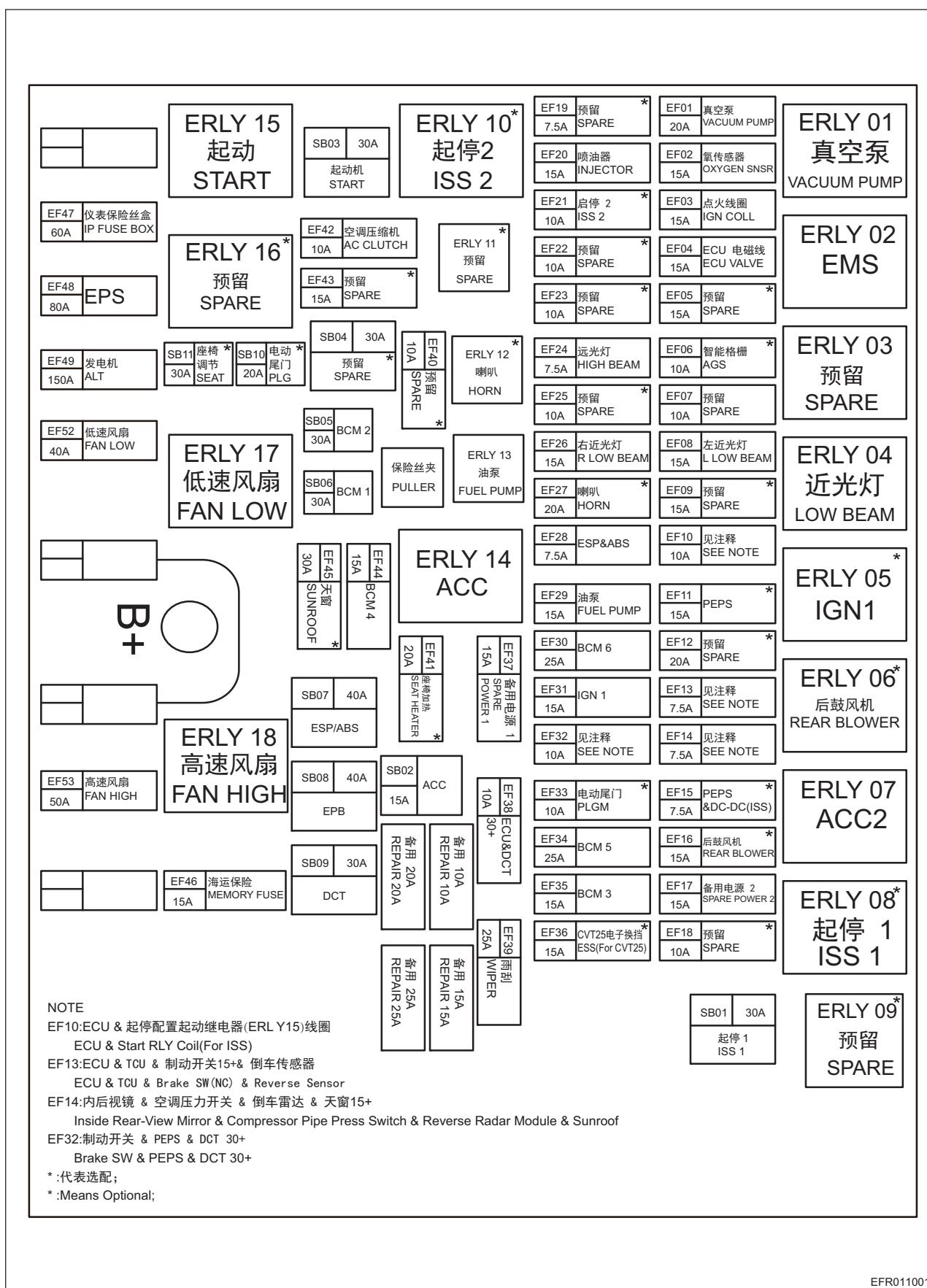
Location of engine compartment main fuse box and engine compartment fuse and relay box

06



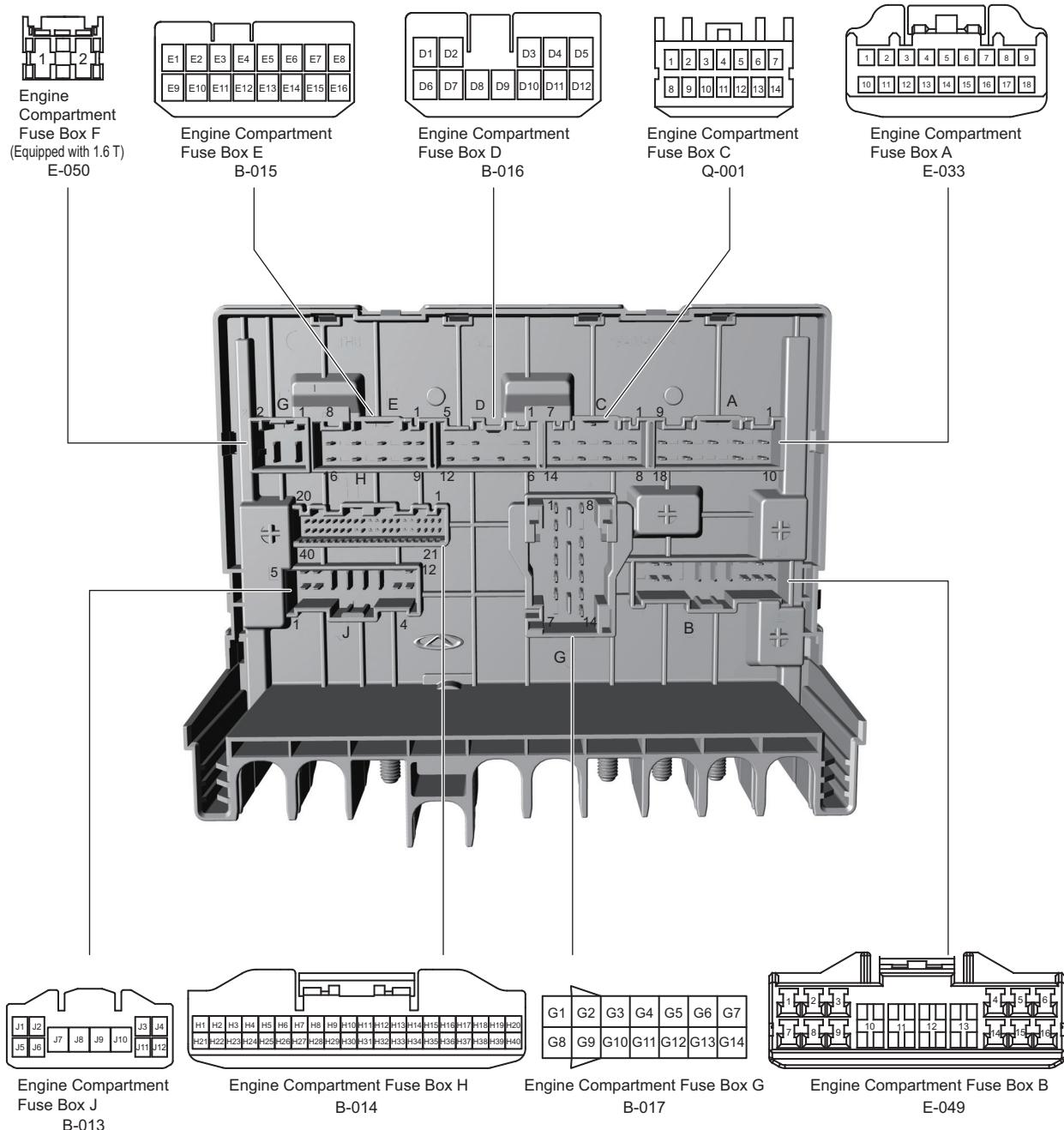
EFR001001

Detailed description of engine compartment fuse and relay box layout  
(E4T15C)



06

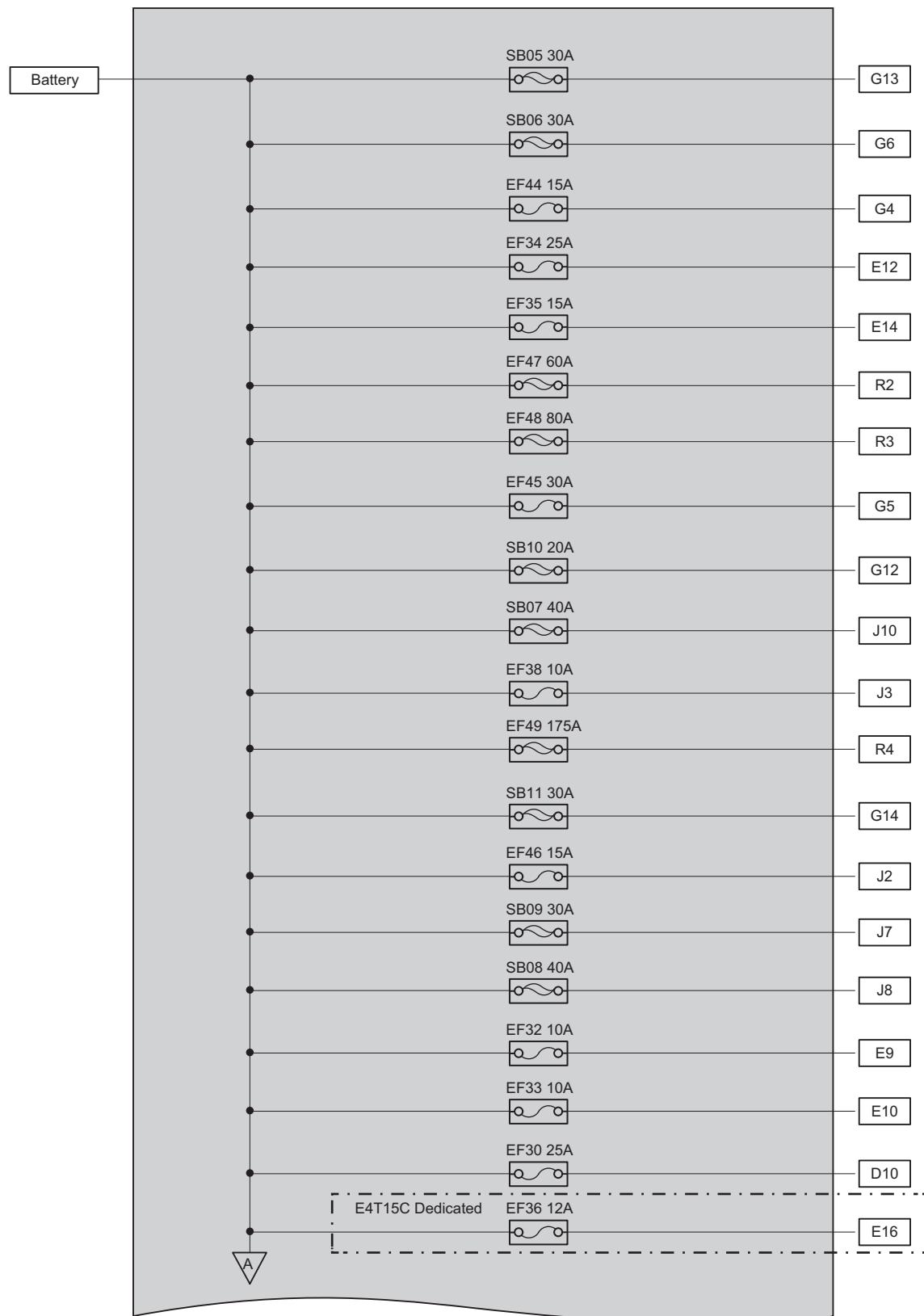
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EFR011002

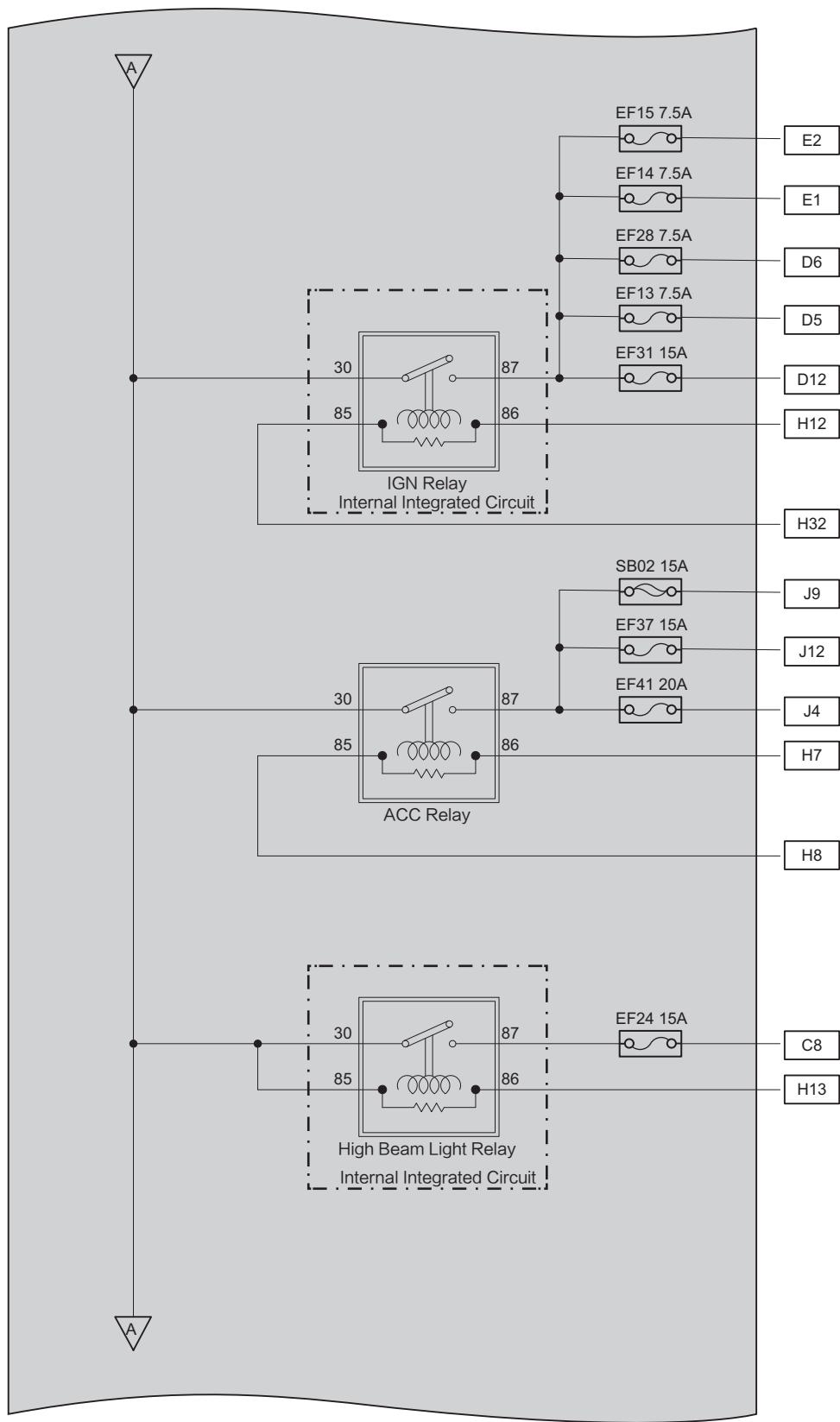
06-3

# Internal circuit of engine compartment main fuse box and engine compartment fuse and relay box

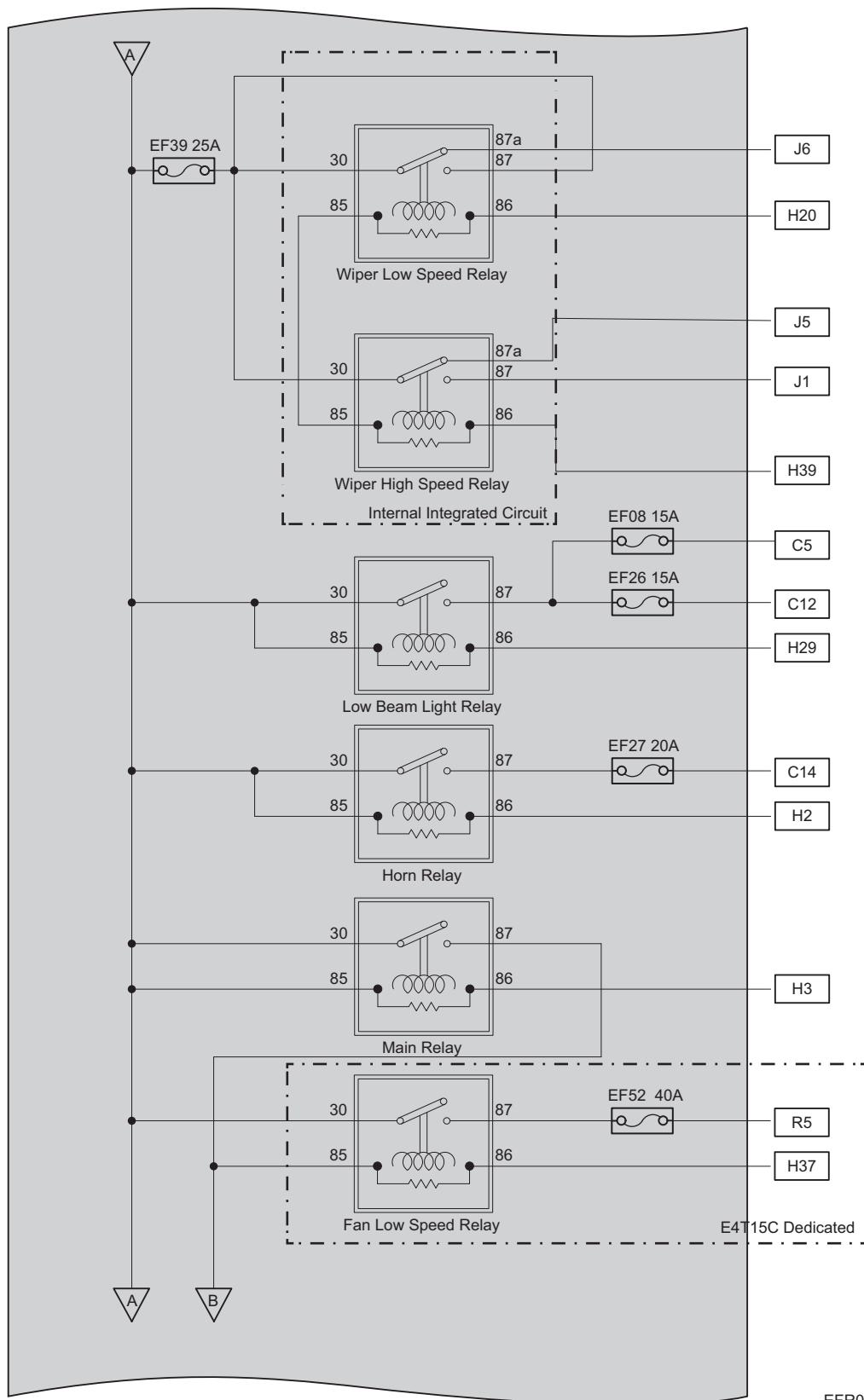


EFR003001

06



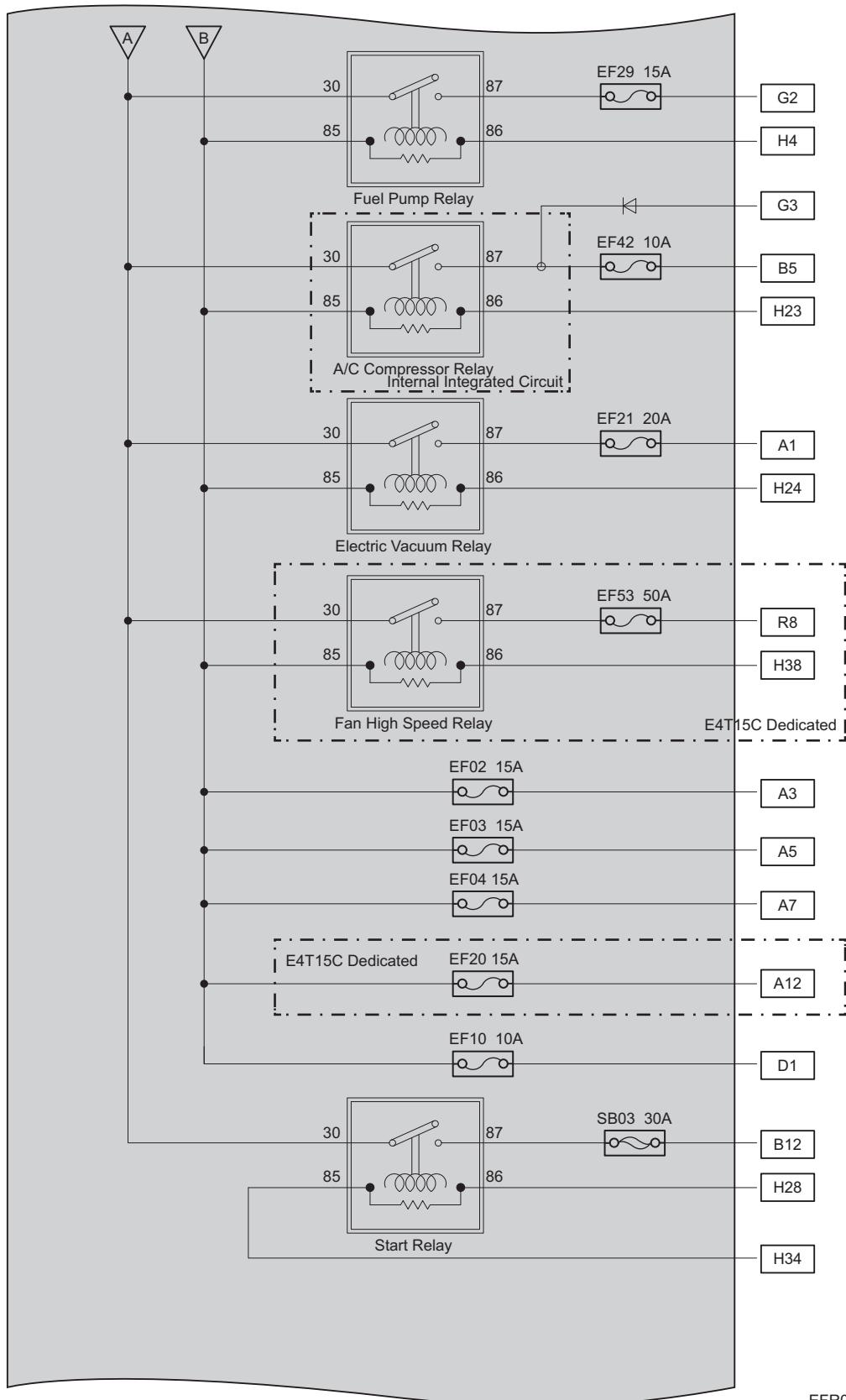
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06

EFR005001

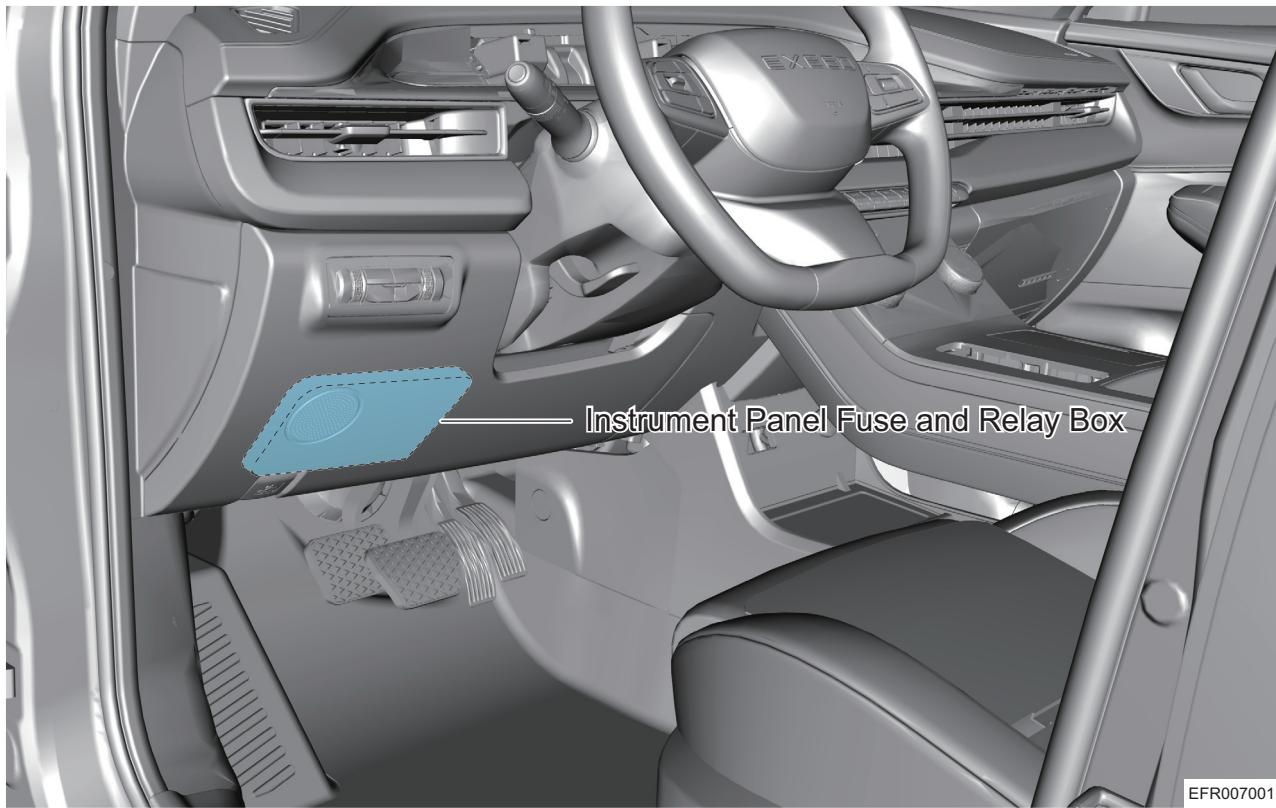
06



EFR006001

## Instrument Panel Fuse and Relay Box

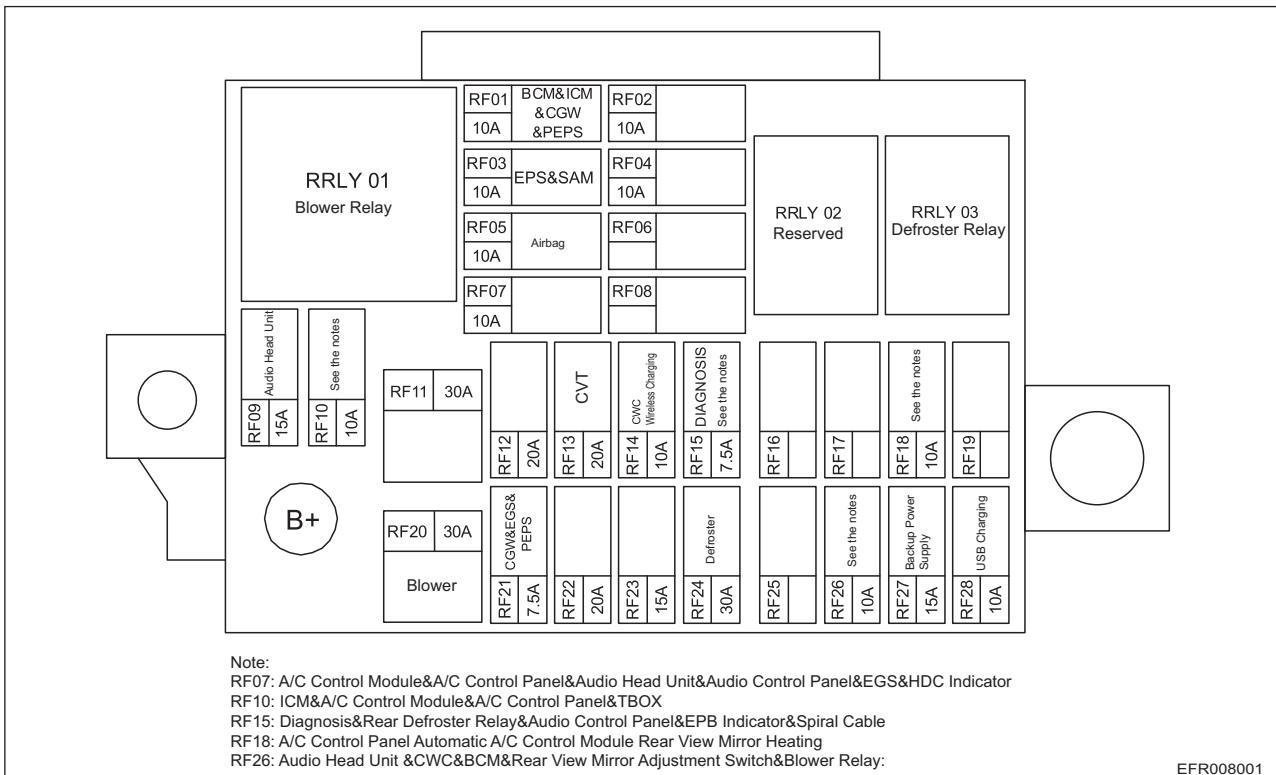
Location of instrument panel fuse and relay box



06

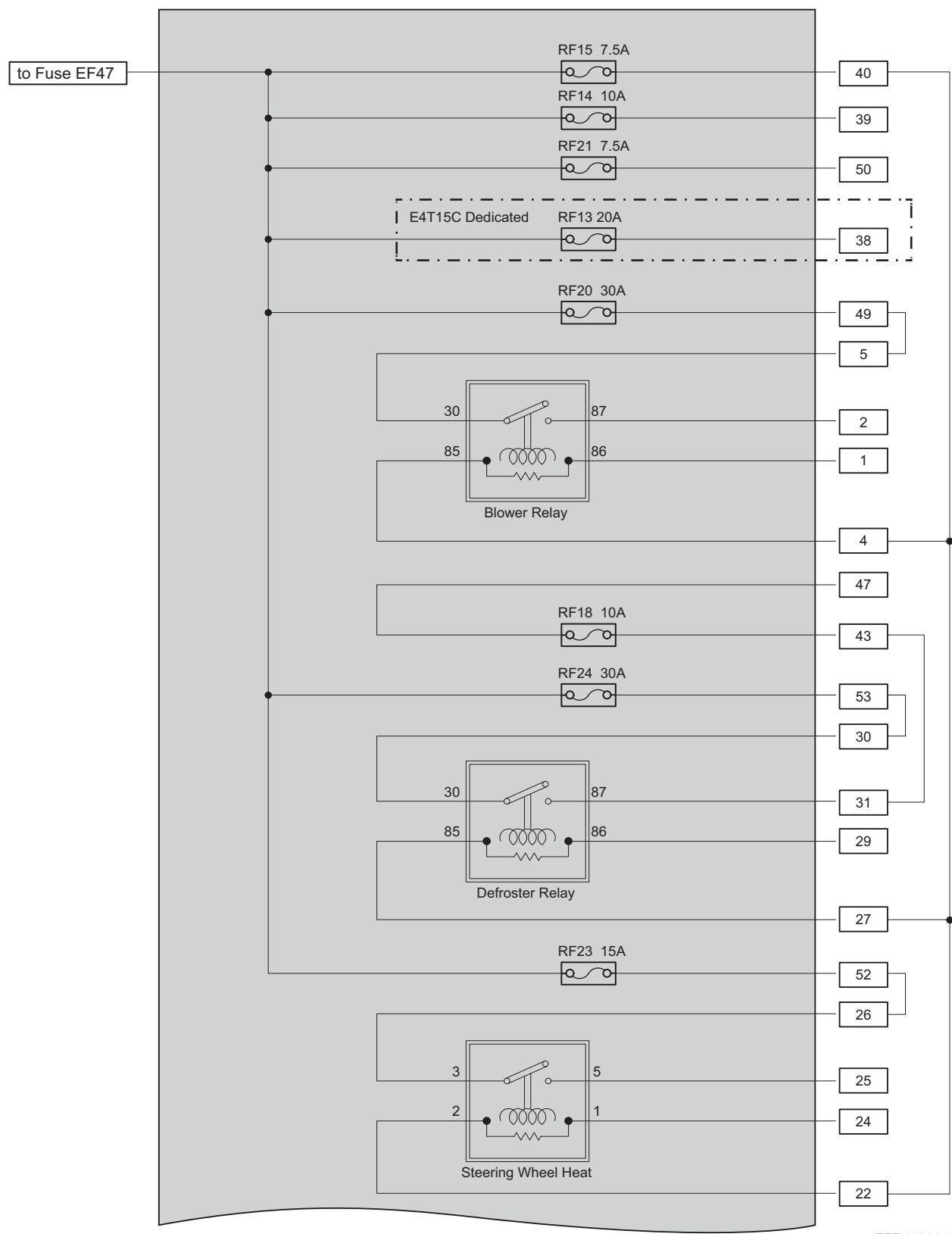
EFR007001

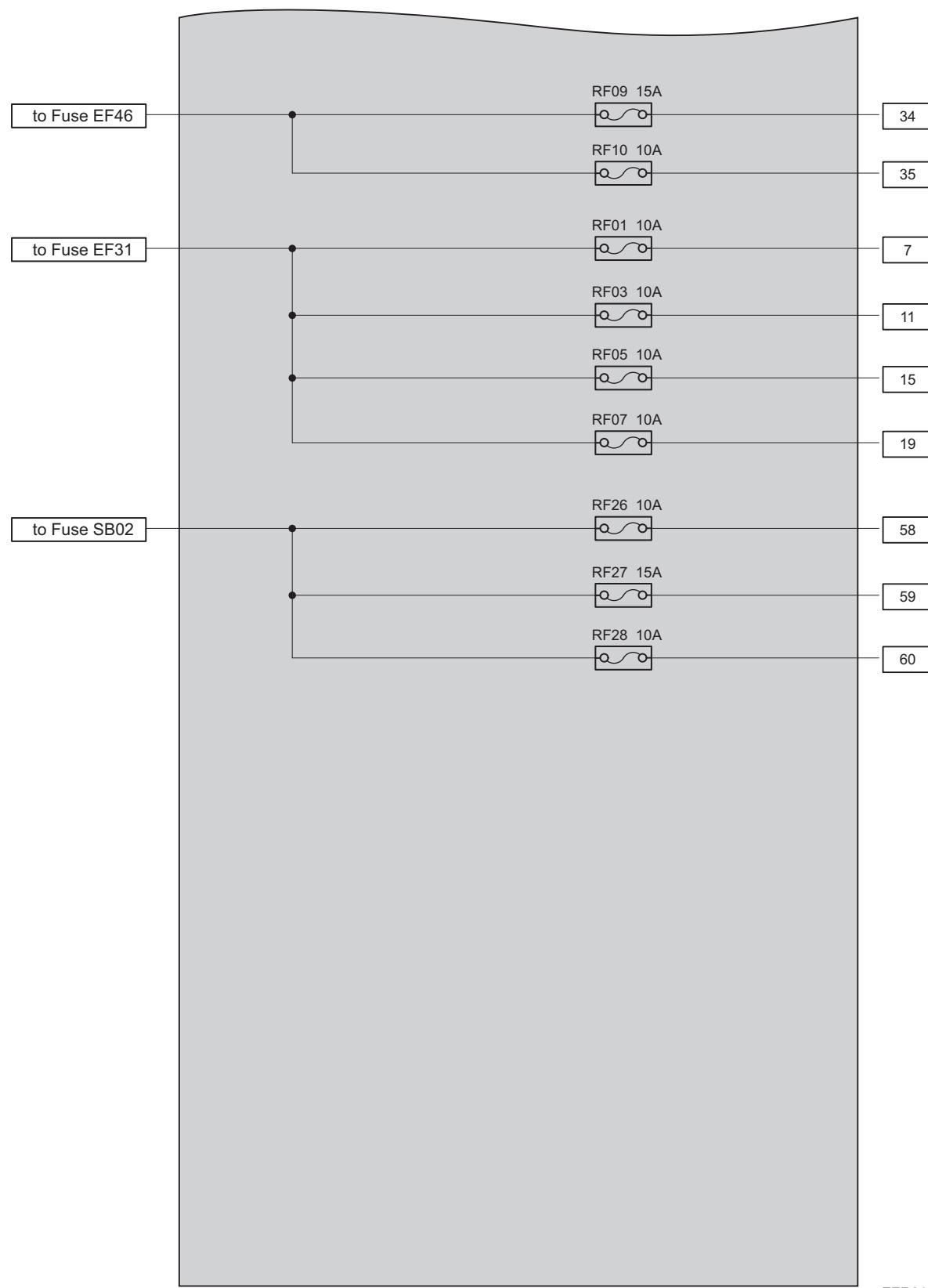
Detailed description of instrument panel fuse and relay box layout



EFR008001

## Internal circuit of instrument panel fuse and relay box



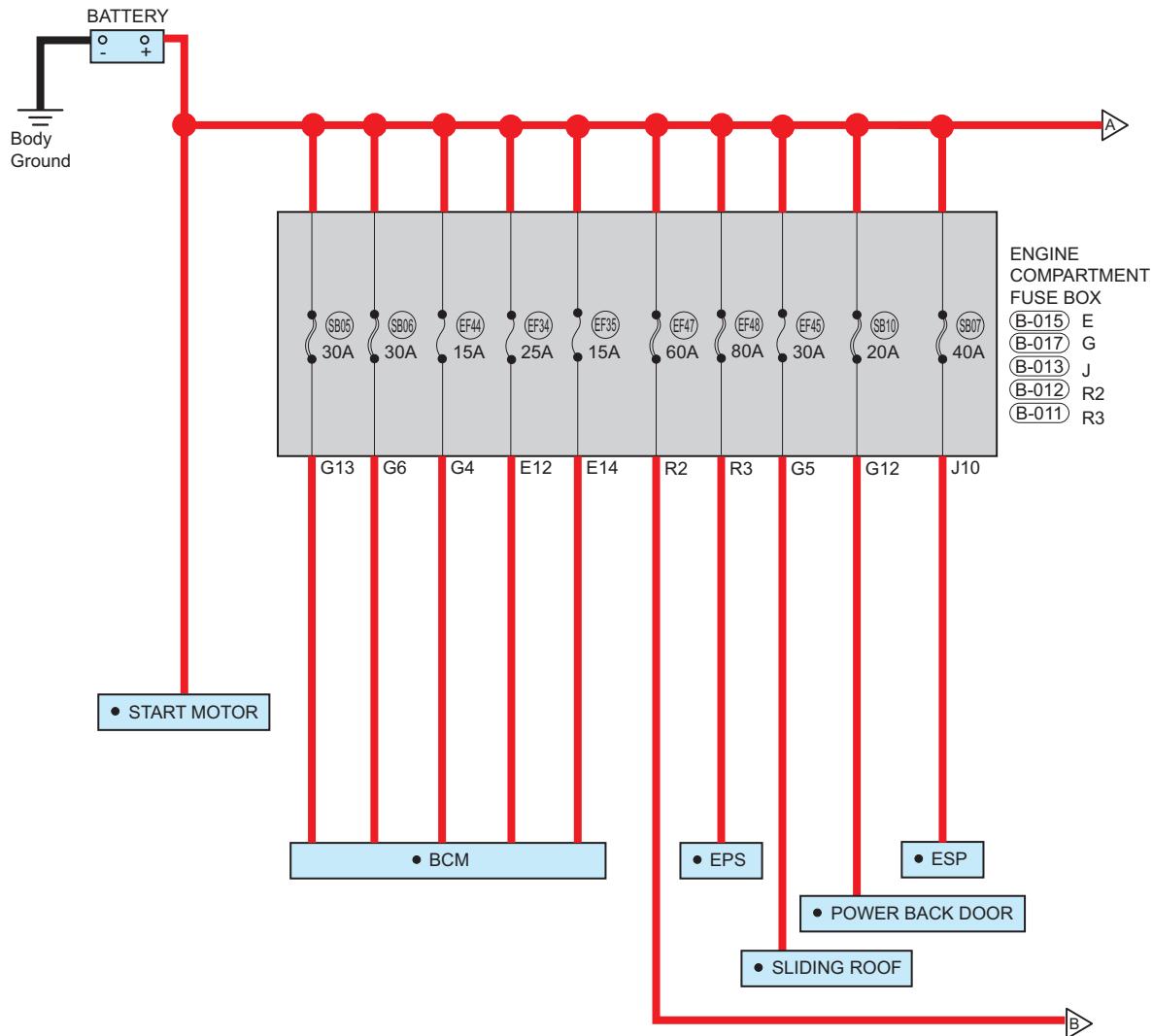


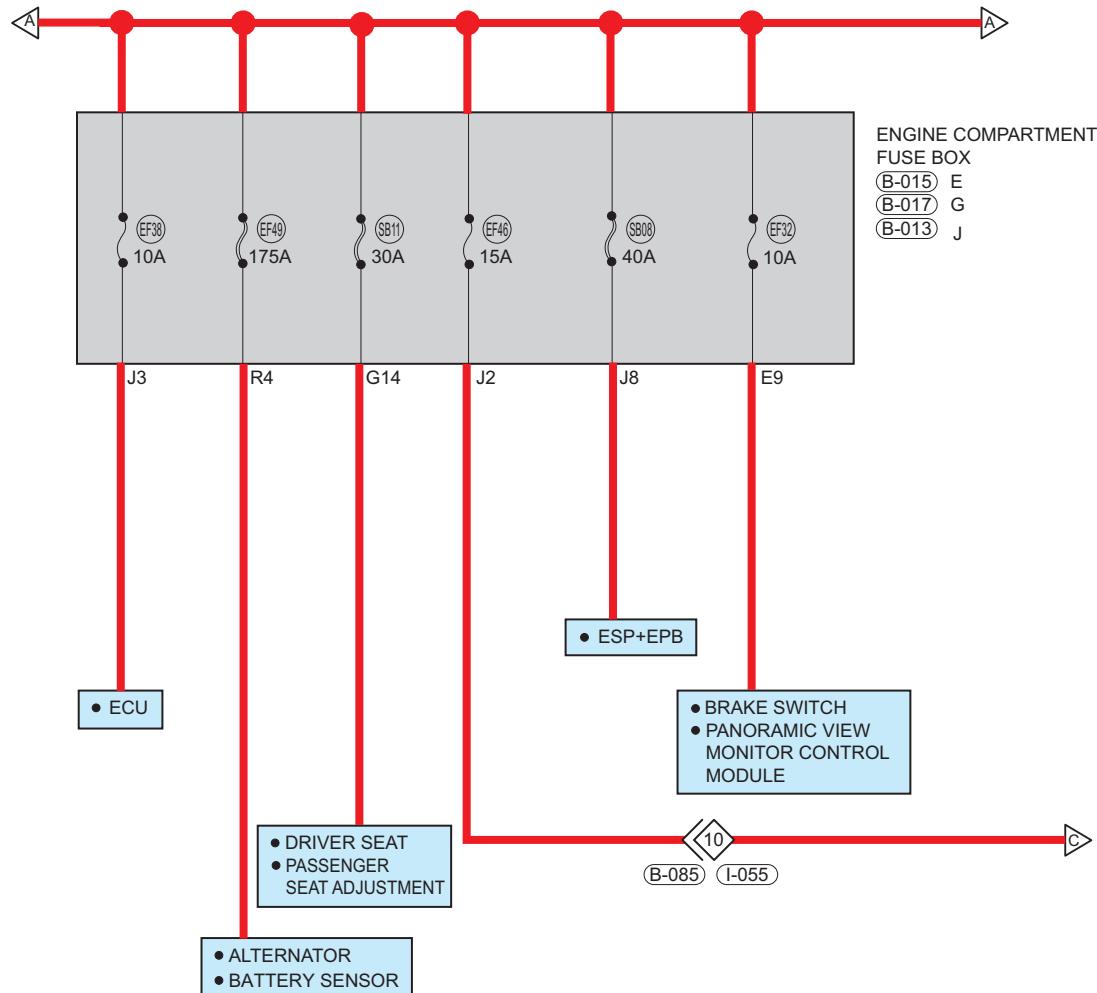
# Power Distribution Center

## General Information

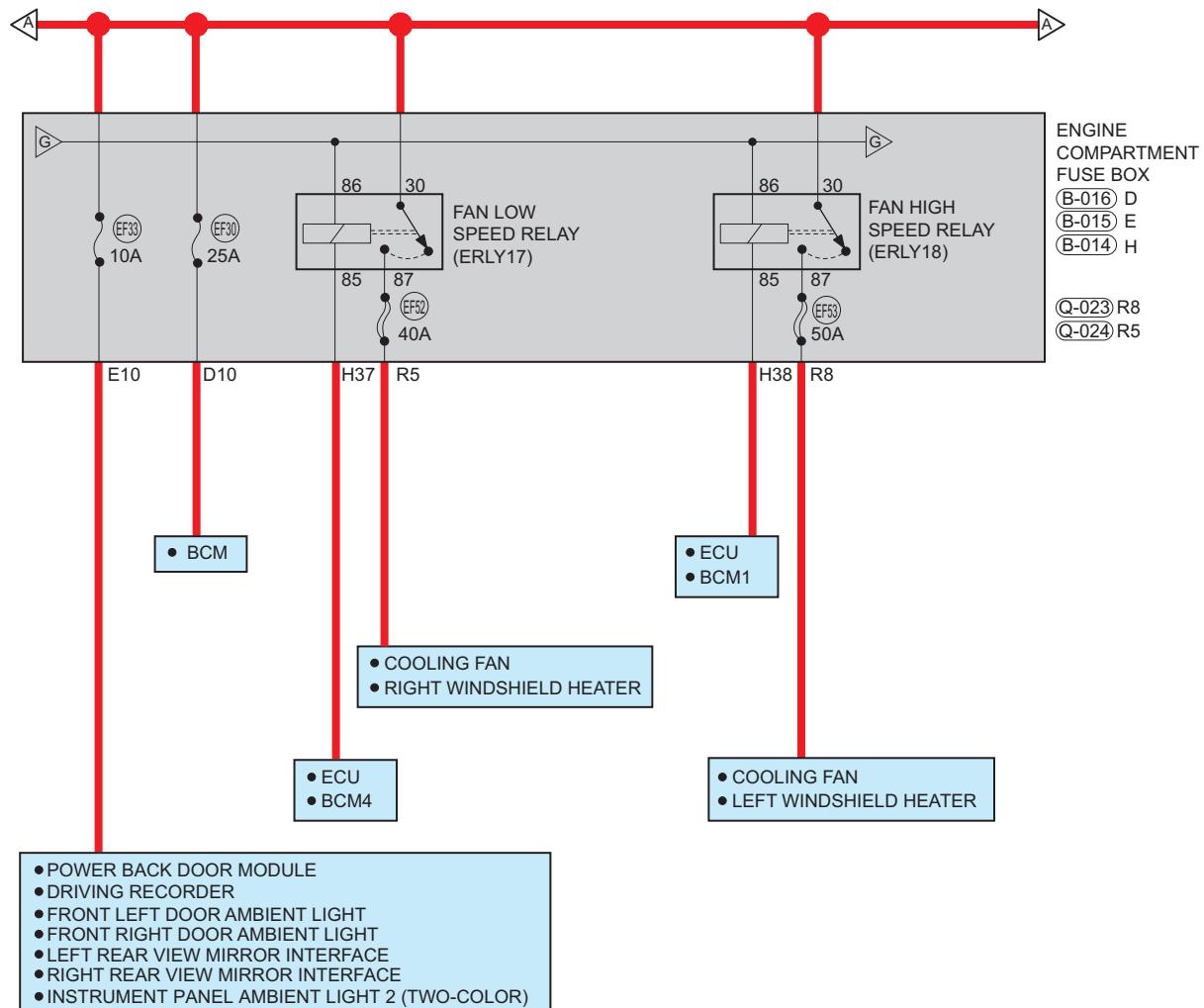
This section provides safe, reliable and efficient power supply for all electrical equipment of the vehicle. The power is distributed to the following components: battery, engine compartment fuse and relay box, instrument panel fuse and relay box, ignition switch, fuse and relay.

## Power Distribution

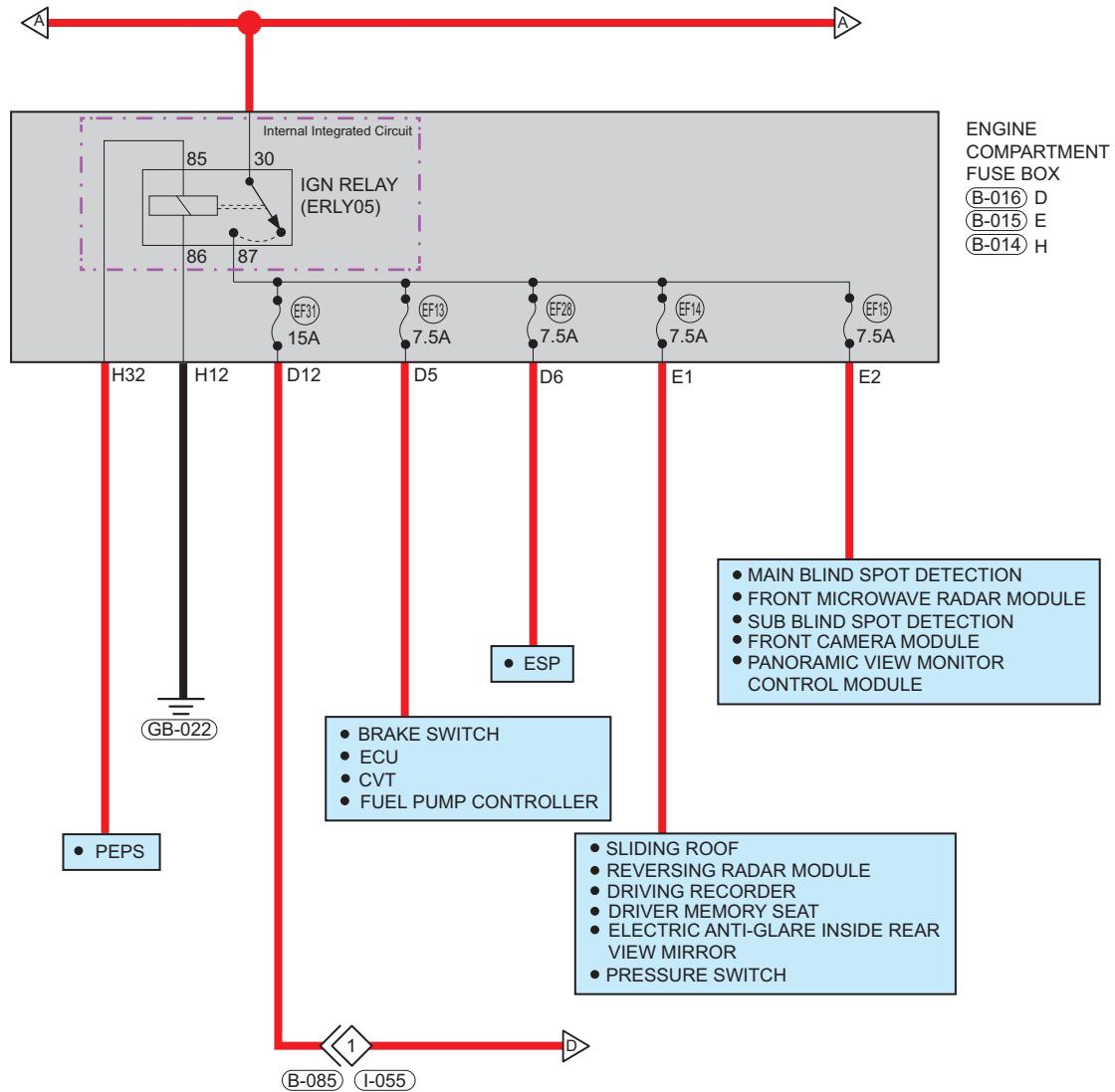




POE002001



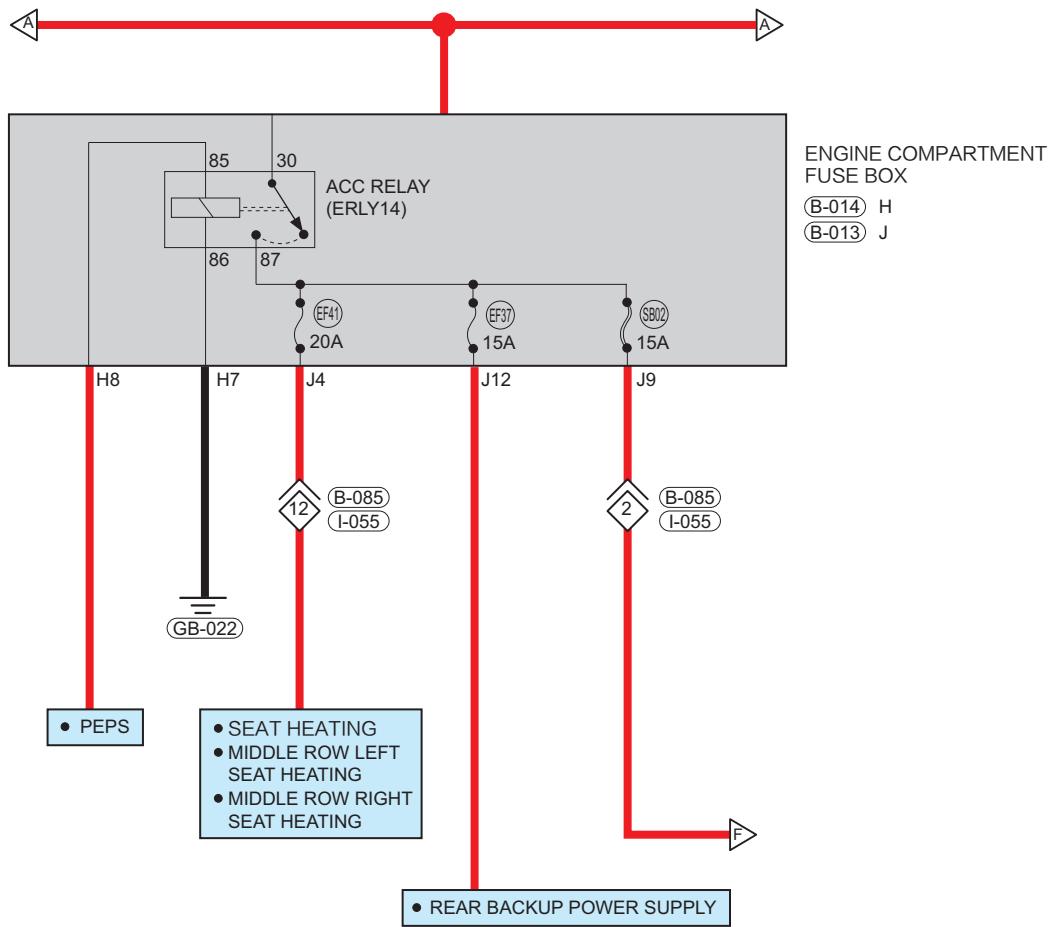
POE003001



07

POE003002

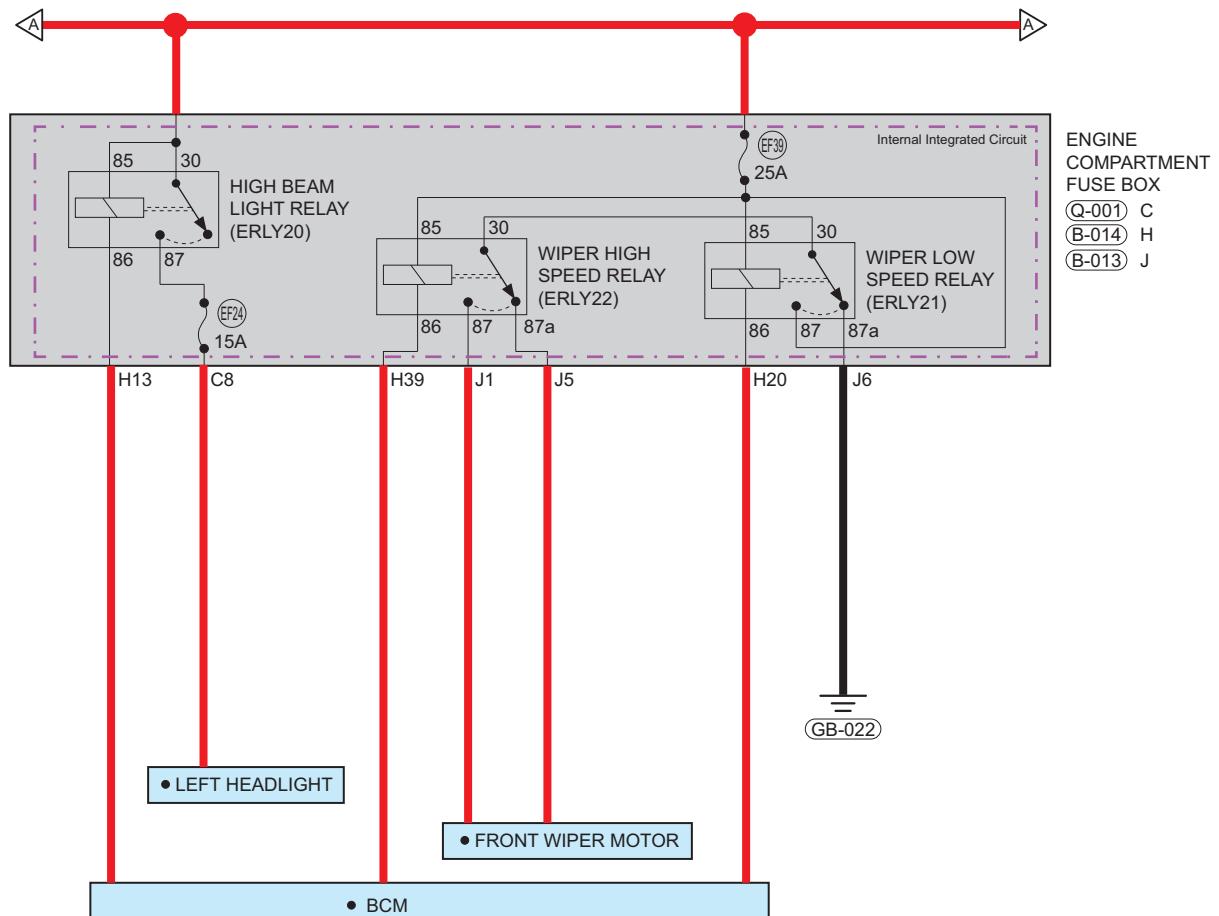
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POE004001

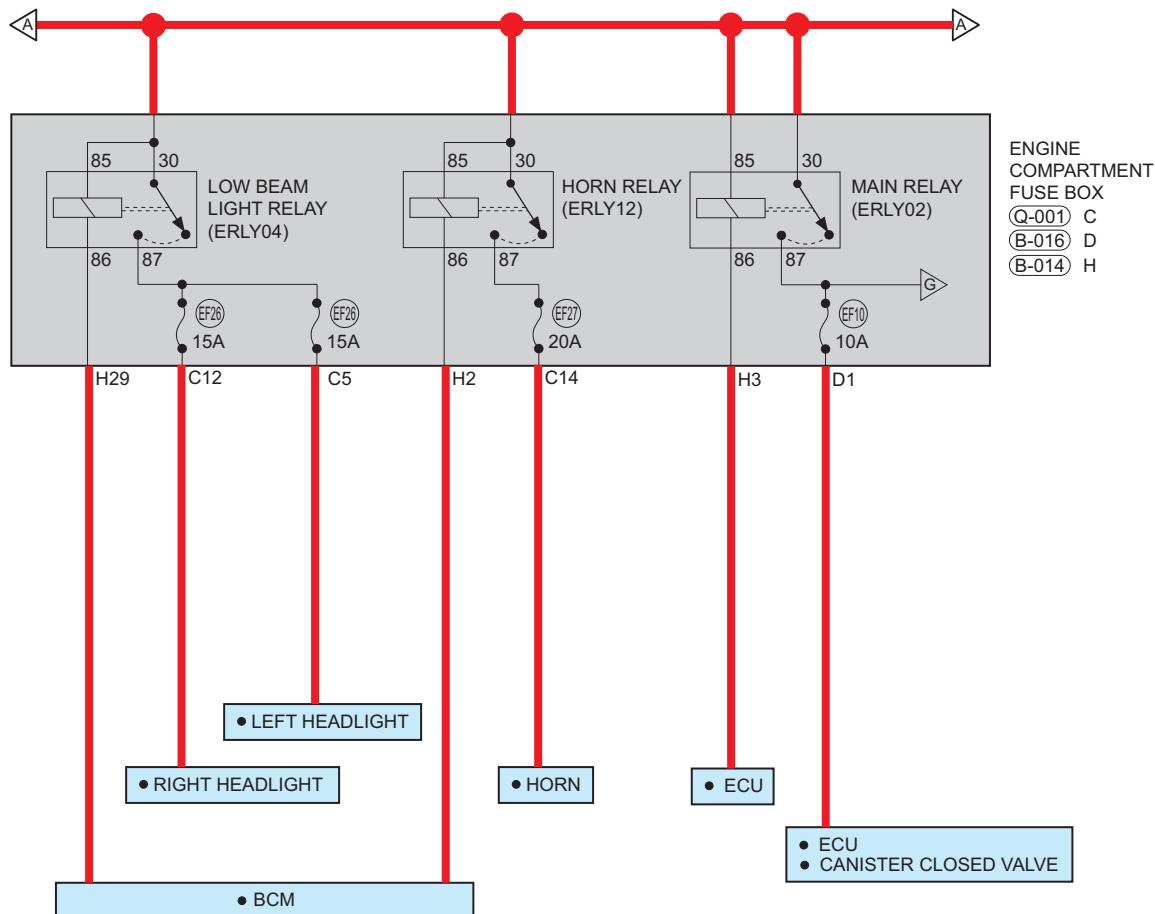
07-5



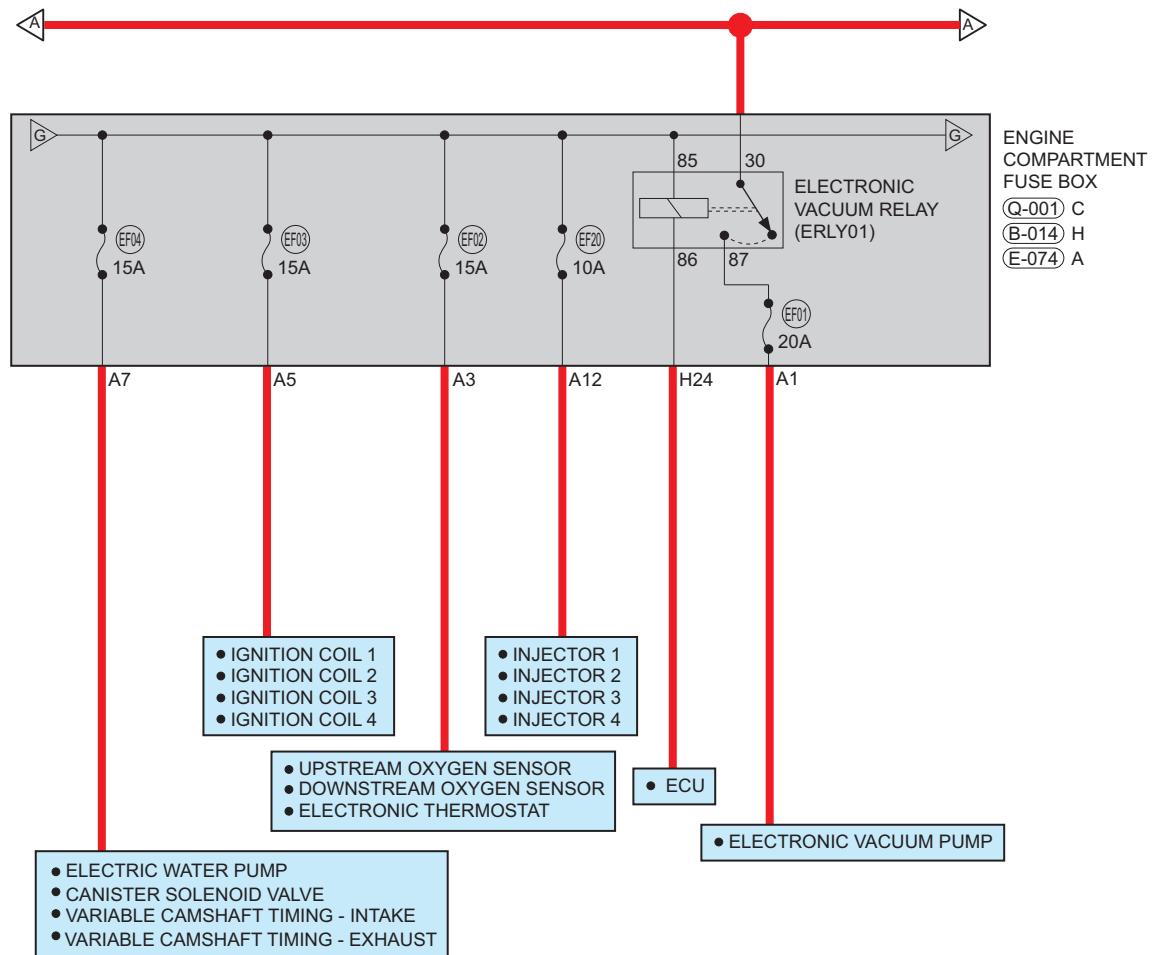


07

POE005001

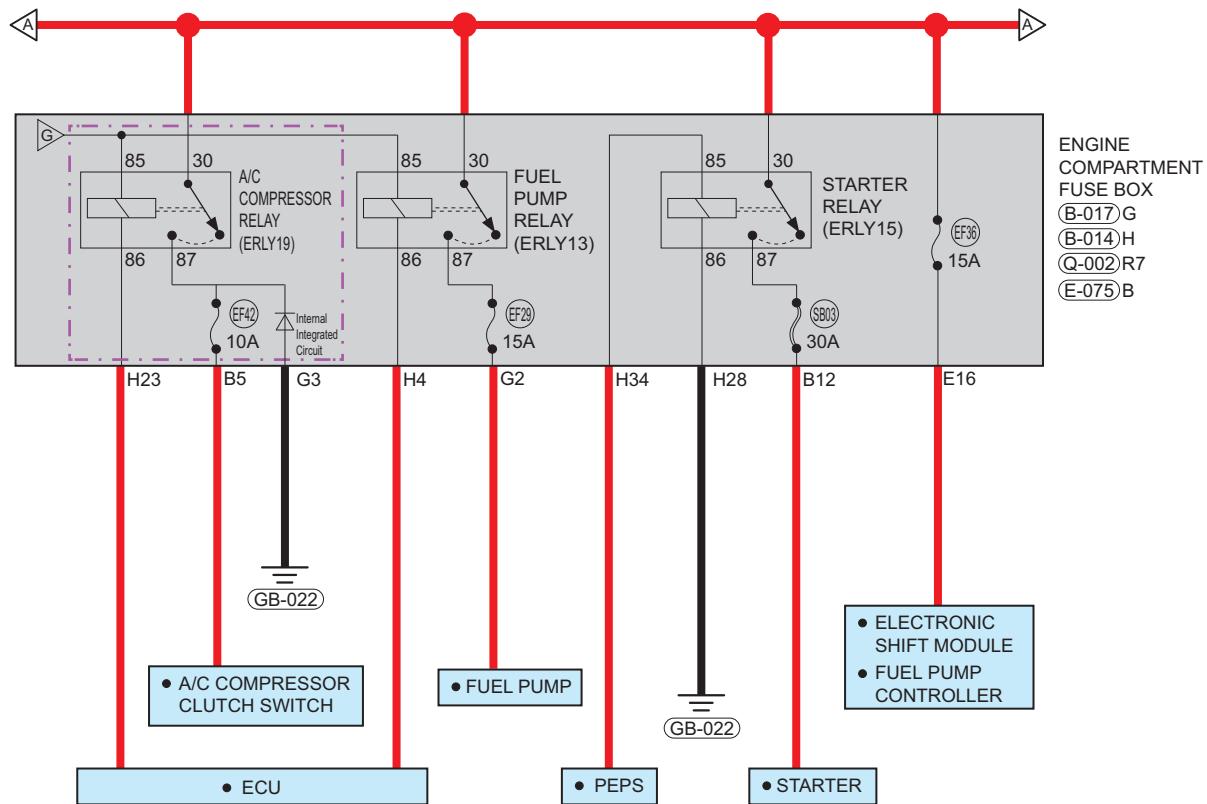


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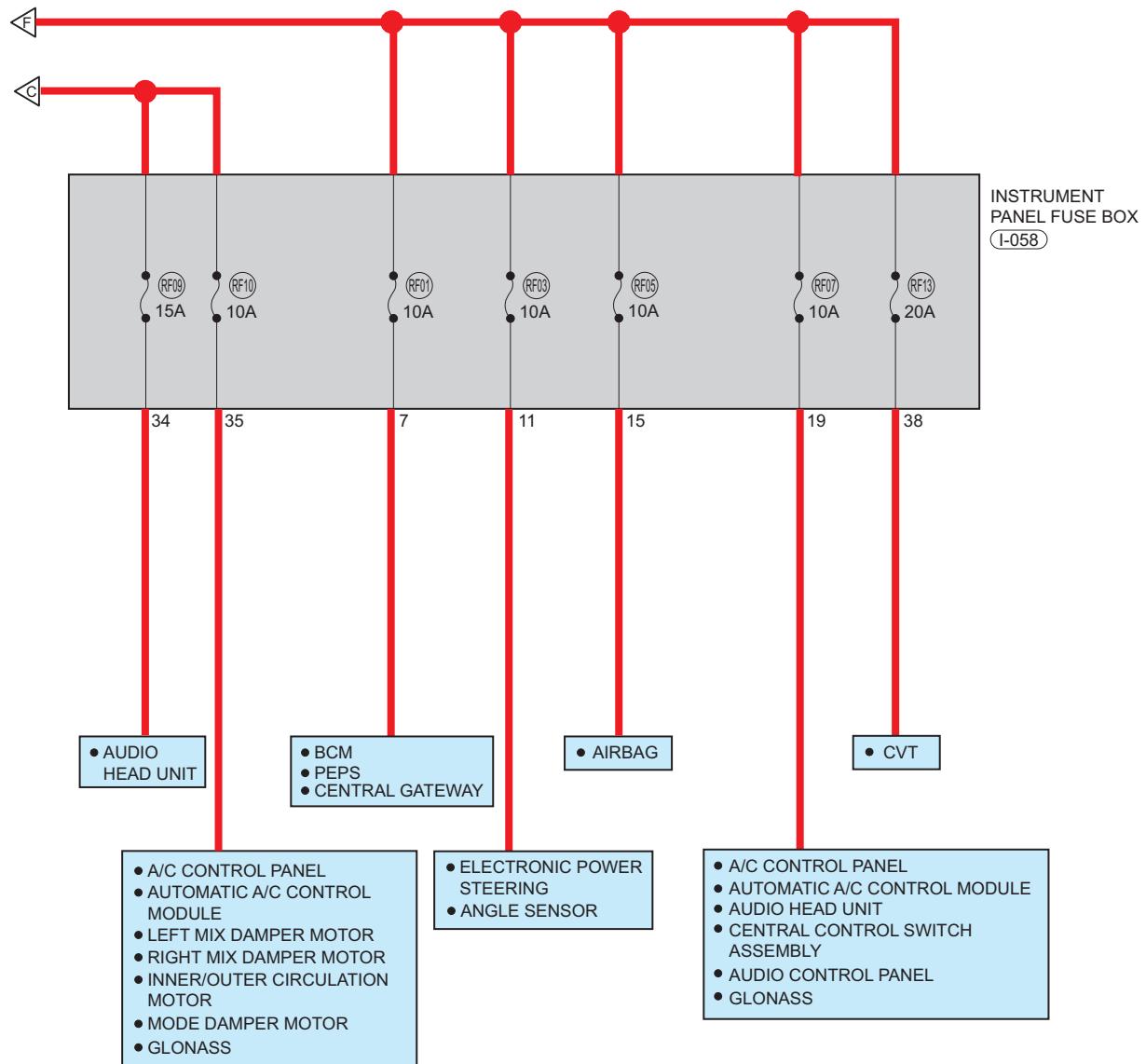


07

POE007001

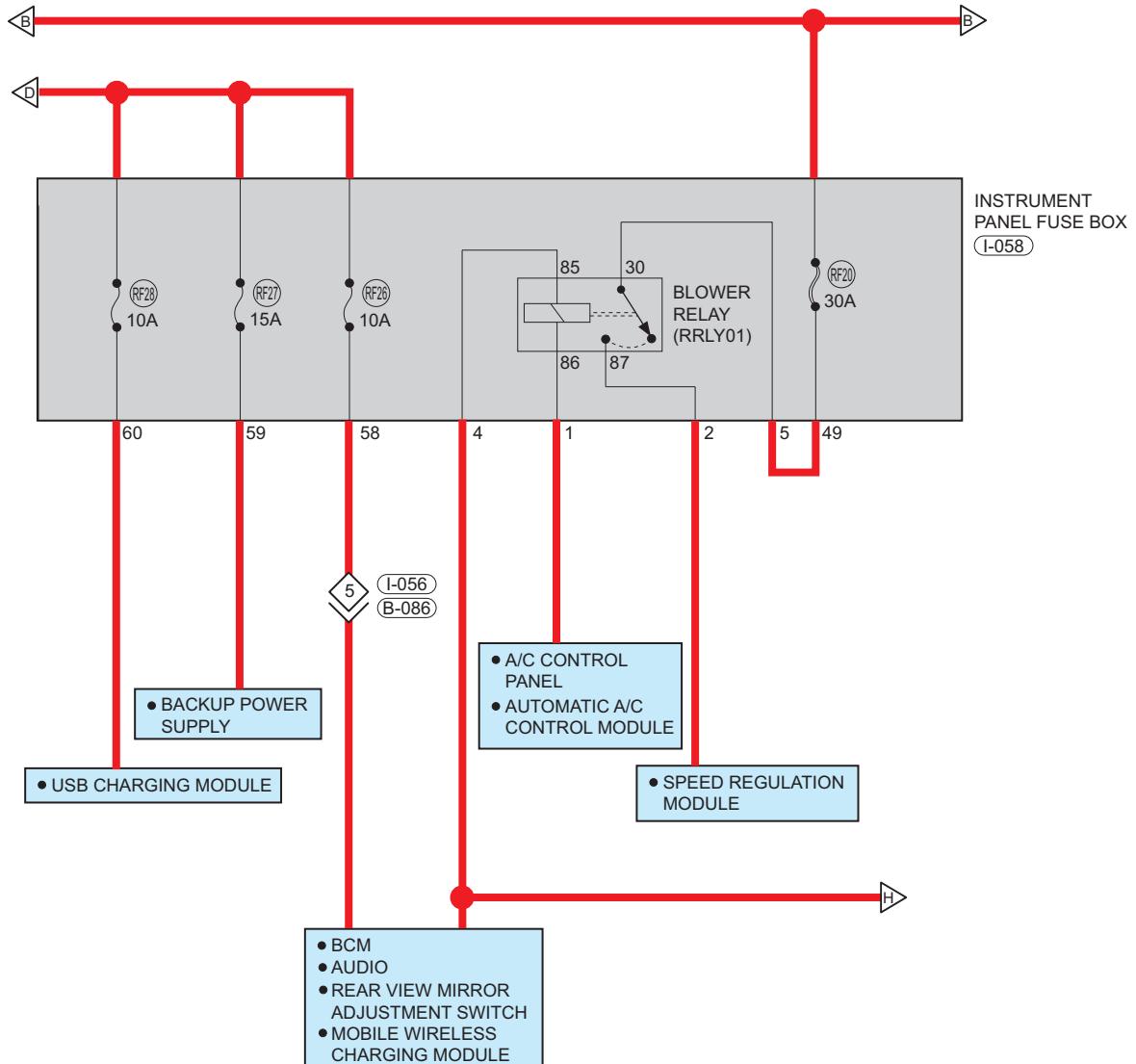


POE008001

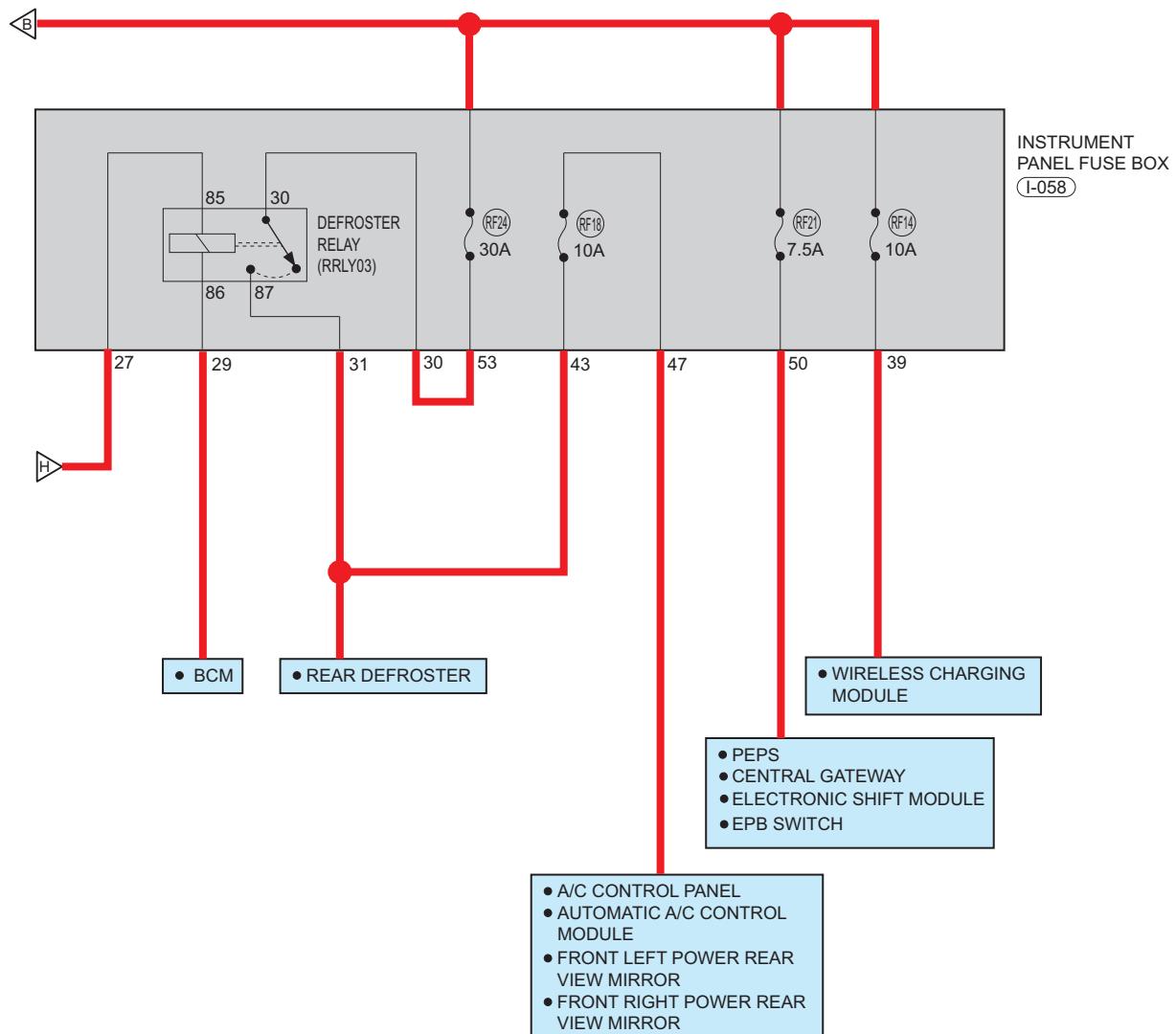


07

POE009001



POE010001

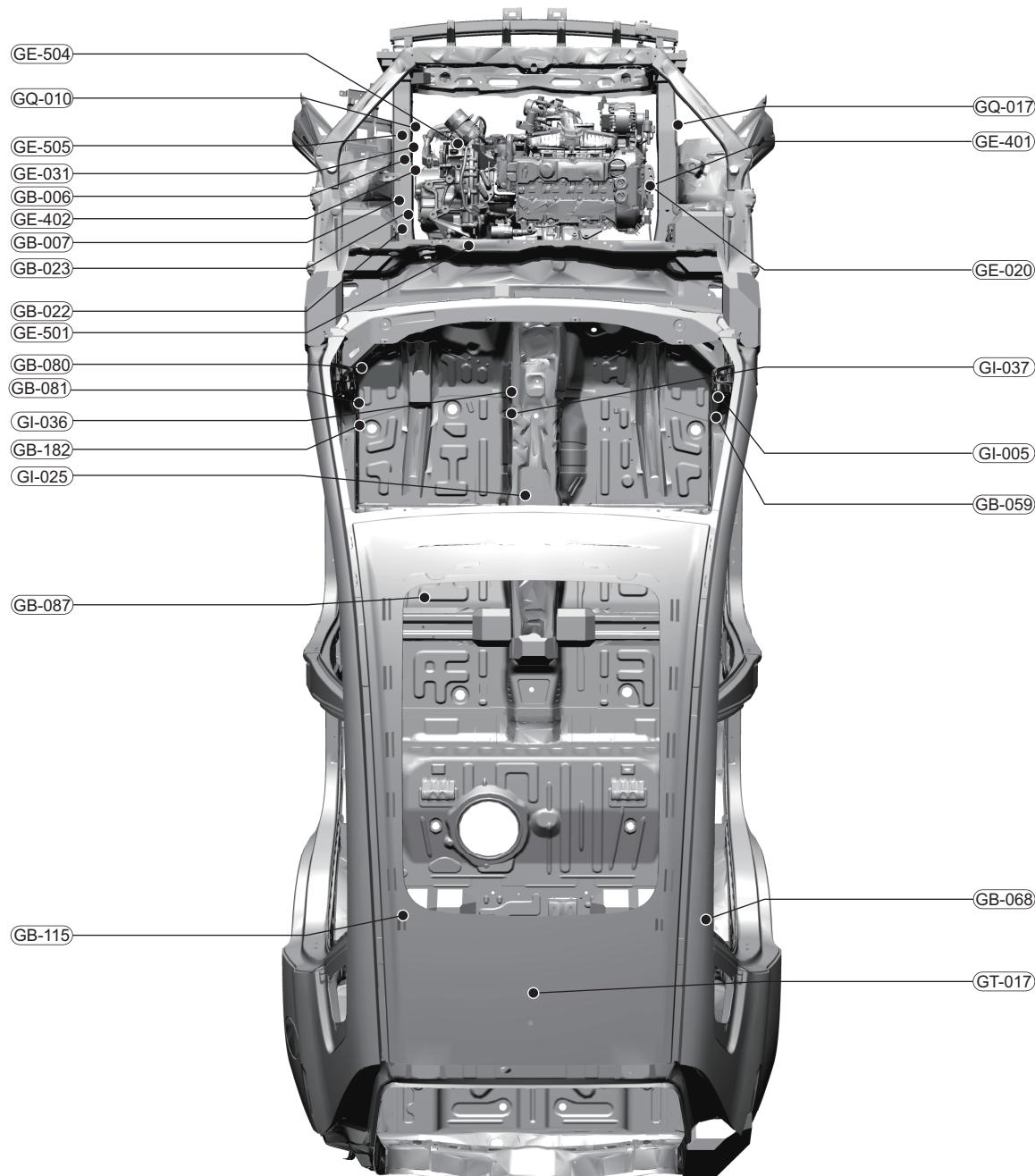


POE011001

# Ground Point

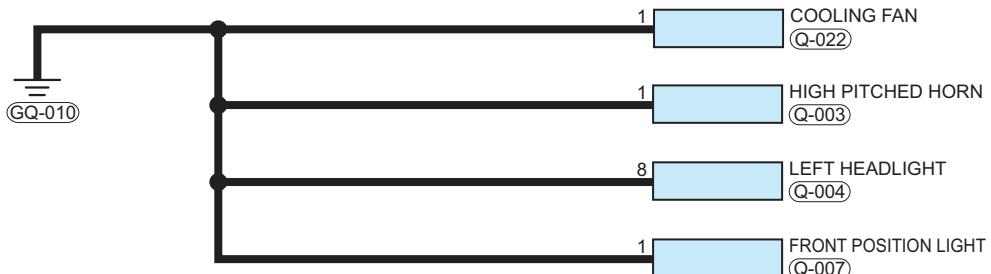
## General Information

This section provides ground point positions and circuit information of the whole vehicle electrical equipment. Technicians can quickly find the related electrical equipment through the ground point, and solve the problem accurately and effectively.



GDE006001

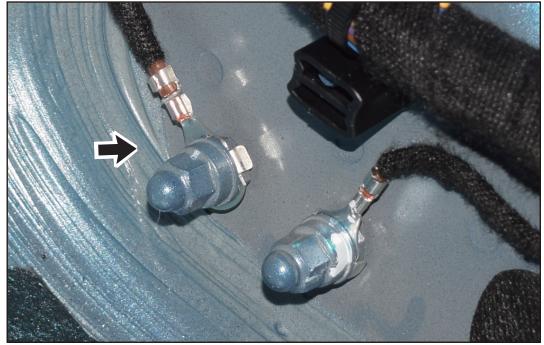
## Ground Point Distribution

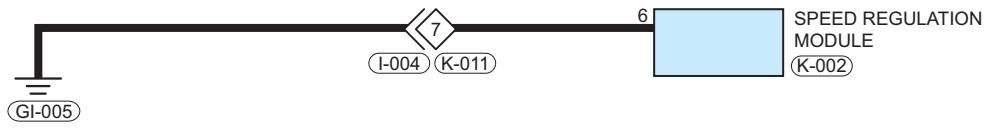
GROUND POSITION	PHYSICAL GRAPHICS
LEFT SIDE RAIL INNER SIDE	
	 <pre> graph TD     GQ010[GQ-010] --- Line1[ ]     Line1 --- CoolingFan[COOLING FAN Q-022]     Line1 --- Line2[ ]     Line2 --- HighPitchedHorn[HIGH PITCHED HORN Q-003]     Line2 --- Line3[ ]     Line3 --- LeftHeadlights[8 LEFT HEADLIGHT Q-004]     Line3 --- Line4[ ]     Line4 --- FrontPositionLight[1 FRONT POSITION LIGHT Q-007]   </pre>

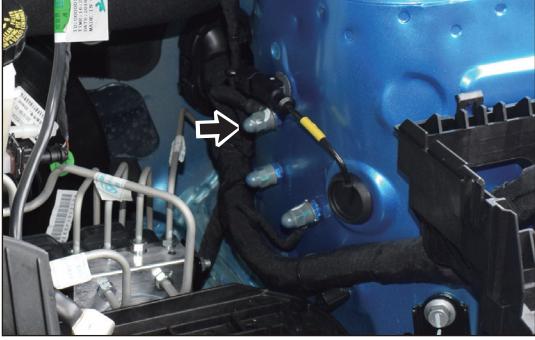
GROUND POSITION	PHYSICAL GRAPHICS
LEFT SIDE RAIL INNER SIDE	
	 <pre> graph TD     GB007[GB-007] --- Line1[ ]     Line1 --- Heater1[1 LEFT WINDSHIELD HEATER B-183]     Line1 --- Heater2[1 LEFT WINDSHIELD HEATER B-184]   </pre>

08

GDE001001

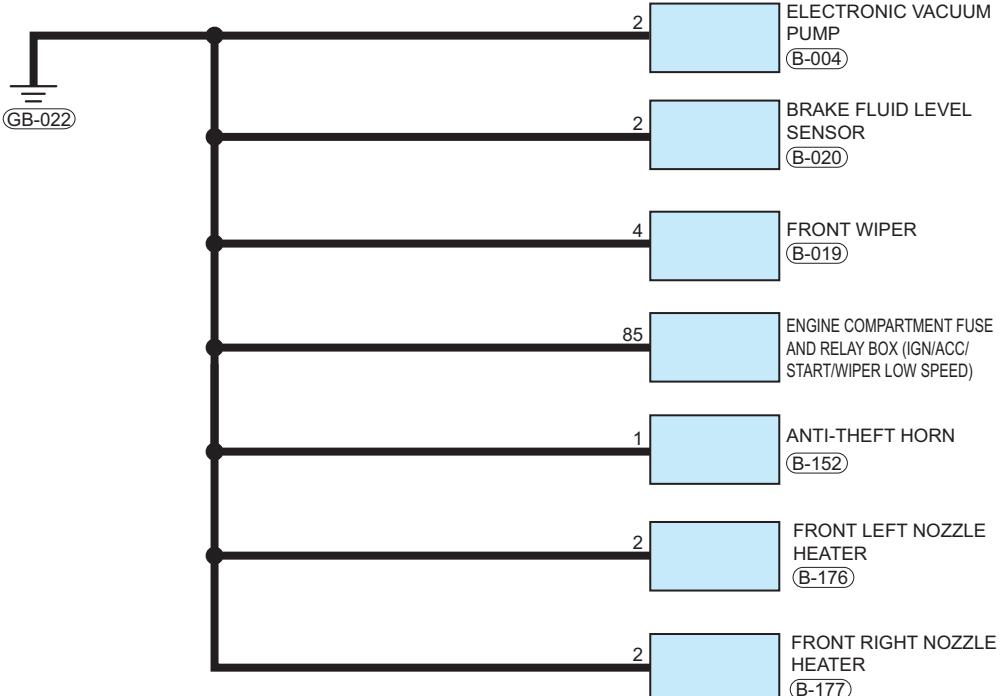
GROUND POSITION	PHYSICAL GRAPHICS
INSIDE OF ROCKER UNDER RIGHT A-PILLAR	



GROUND POSITION	PHYSICAL GRAPHICS
LEFT SHOCK ABSORBER BASE	

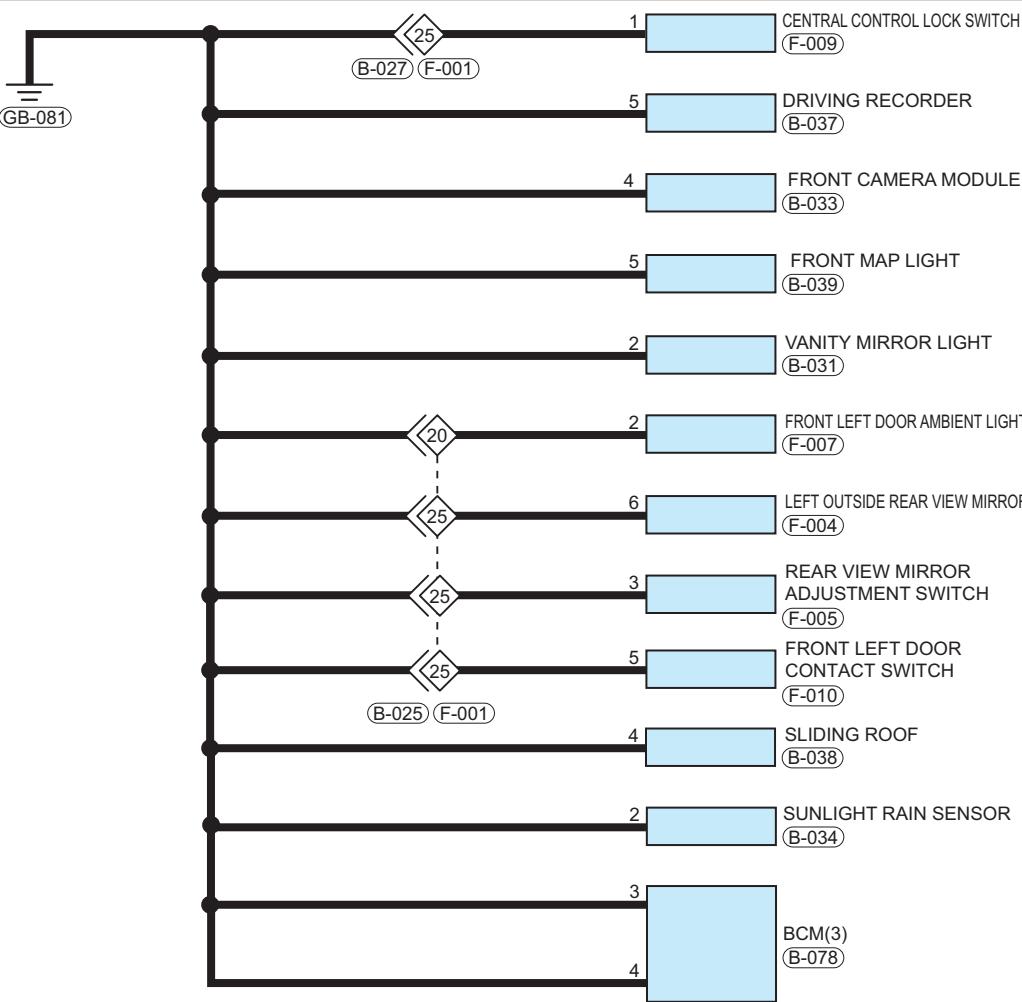


GDE002001

GROUND POSITION	PHYSICAL GRAPHICS
LEFT SHOCK ABSORBER BASE	
	 <pre> graph TD     GB[GB-022] --- 2[2]     GB --- 2_1[2]     GB --- 4[4]     GB --- 85[85]     GB --- 1[1]     GB --- 2_2[2]     GB --- 2_3[2]     </pre> <p>2 ELECTRONIC VACUUM PUMP (B-004)</p> <p>2 BRAKE FLUID LEVEL SENSOR (B-020)</p> <p>4 FRONT WIPER (B-019)</p> <p>85 ENGINE COMPARTMENT FUSE AND RELAY BOX (IGN/ACC/START/WIPER LOW SPEED)</p> <p>1 ANTI-THEFT HORN (B-152)</p> <p>2 FRONT LEFT NOZZLE HEATER (B-176)</p> <p>2 FRONT RIGHT NOZZLE HEATER (B-177)</p>

08

GDE003001

GROUND POSITION	PHYSICAL GRAPHICS
INSIDE OF ROCKER UNDER LEFT A-PILLAR	
	

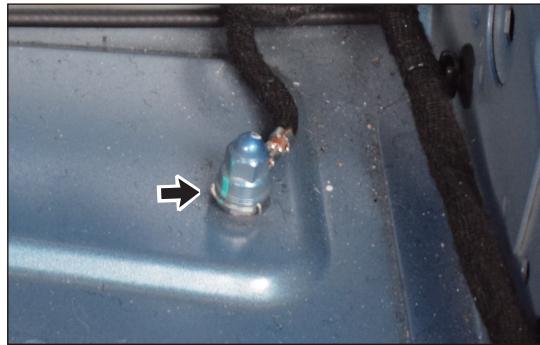
08

GDE004001

GROUND POSITION	PHYSICAL GRAPHICS
FRONT LEFT BAFFLE PLATE	

P-2      EPS (B-024)

(GB-080)

GROUND POSITION	PHYSICAL GRAPHICS
FRONT FLOOR, UNDER DRIVER SEAT	

08

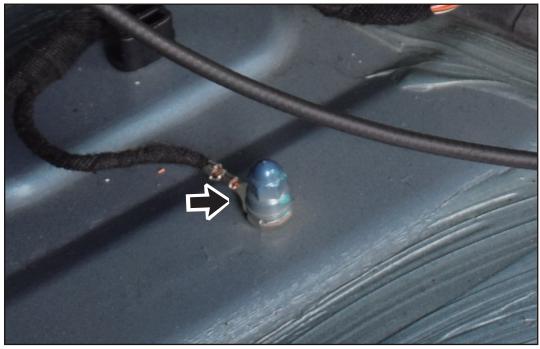
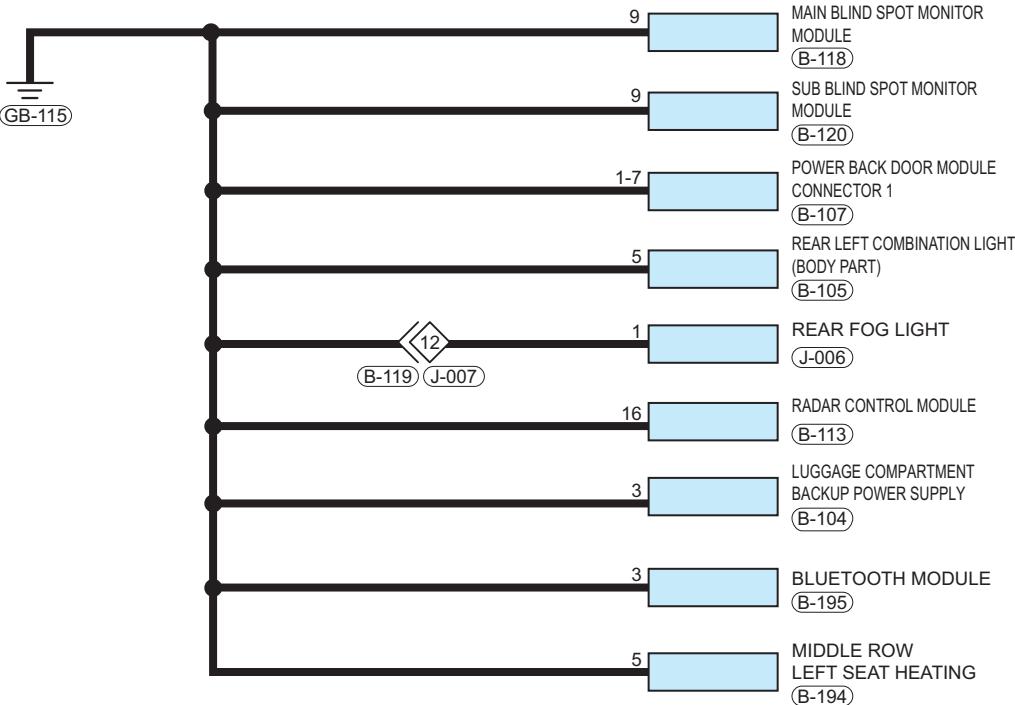
(GB-087)

REAR LEFT DOOR CONTACT SWITCH (L-007)  
REAR LEFT DOOR BLUETOOTH MODULE (L-008)  
REAR LEFT DOOR GLASS REGULATOR SWITCH (L-005)  
FUEL FUEL PUMP AND FUEL LEVEL SENSOR (B-098)  
SEAT CONTROL MODULE (S-003)

(B-095) (L-001)  
(B-088) (S-001)

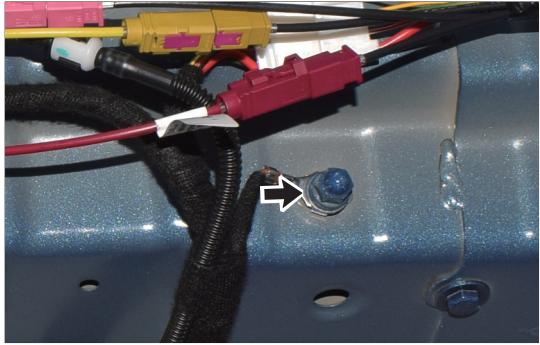
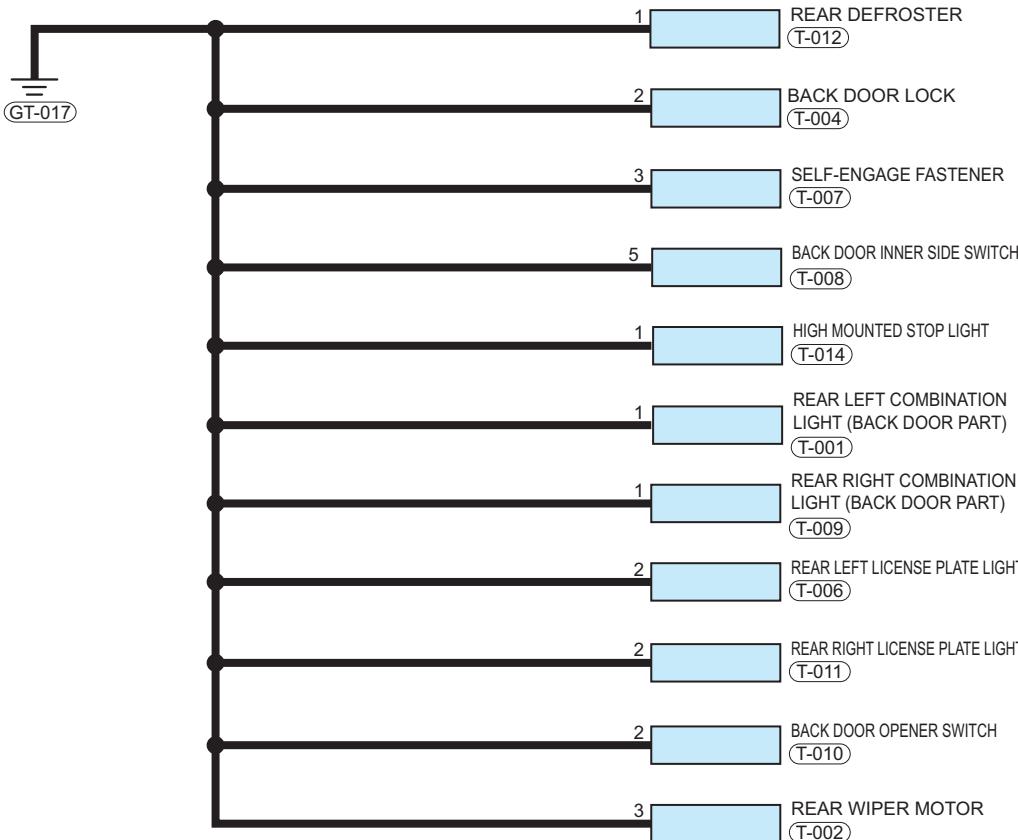
15      5  
13      4  
2      8  
12      B-15  
          B-16

GDE005001

GROUND POSITION	PHYSICAL GRAPHICS
REAR LEFT BAFFLE PLATE	
	

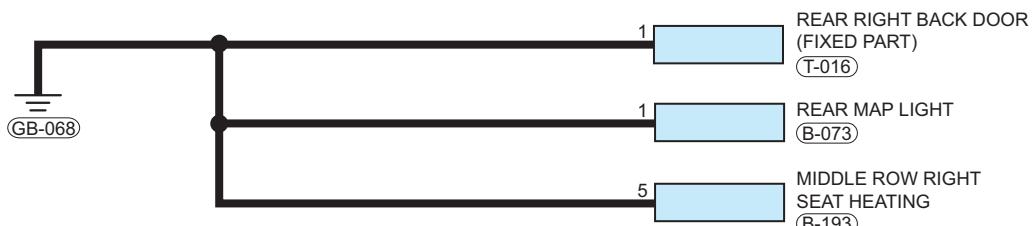
08

GDE007001

GROUND POSITION	PHYSICAL GRAPHICS
IN REAR ROOF CROSMEMBER	
	

08

GDE008001

GROUND POSITION	PHYSICAL GRAPHICS
RIGHT QUARTER INNER PANLE	
	

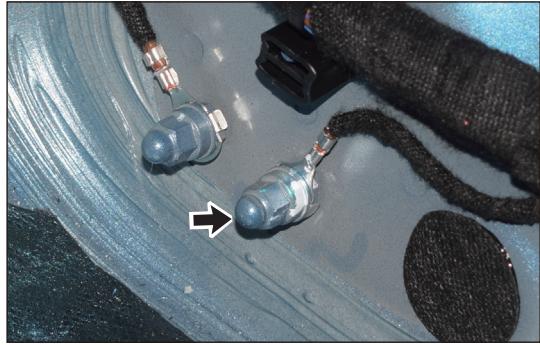
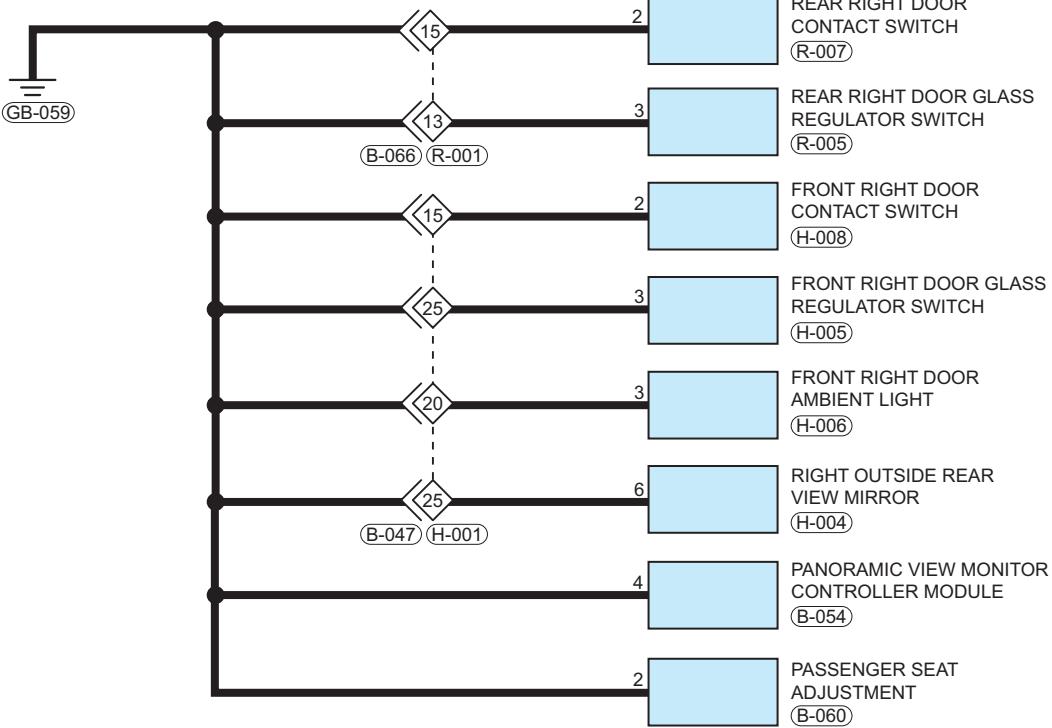
08

GROUND POSITION	PHYSICAL GRAPHICS
ABOVE SHEET METAL IN MIDDLE CHANNEL	
	

GDE009001

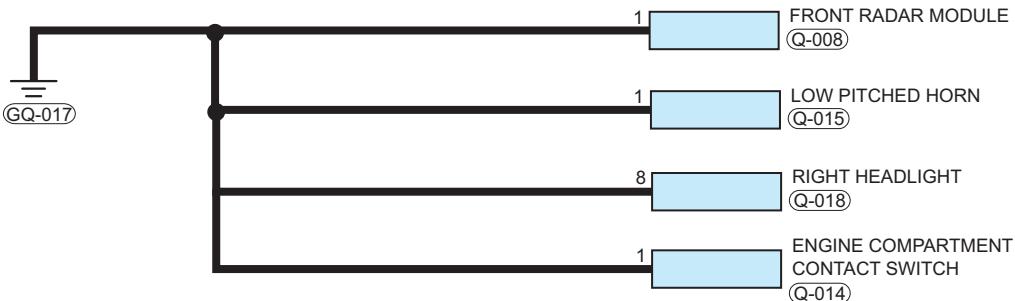
08-9



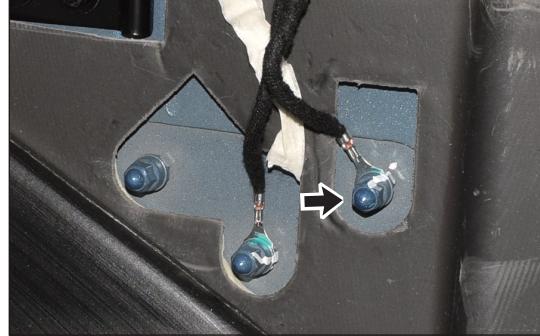
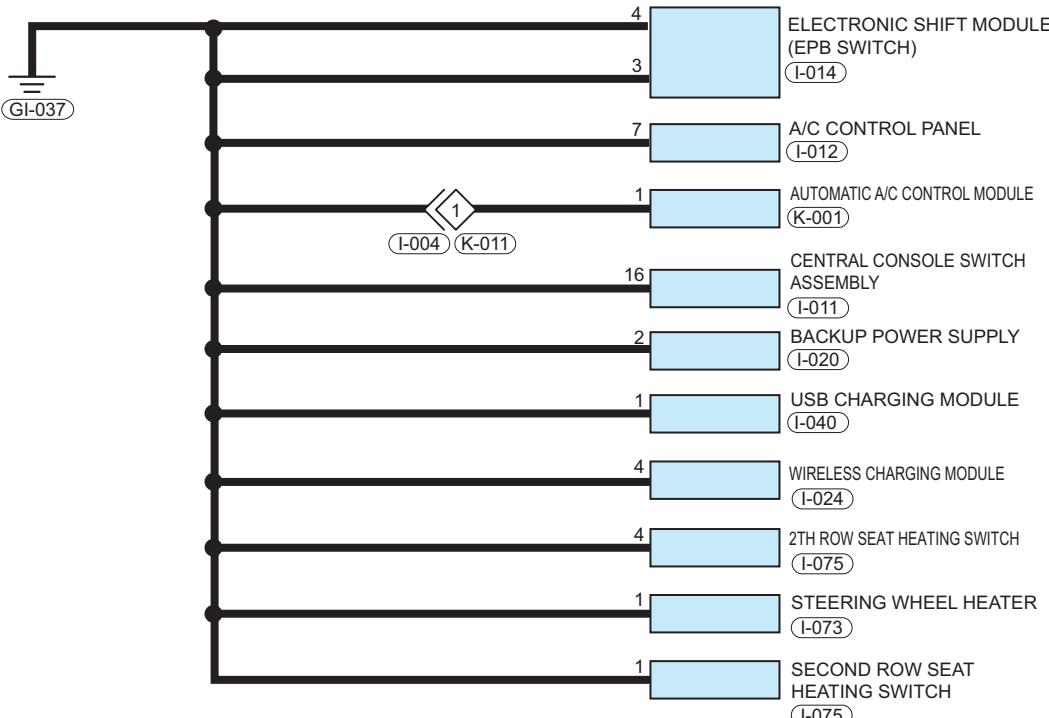
GROUND POSITION	PHYSICAL GRAPHICS
INSIDE OF ROCKER UNDER RIGHT A-PILLAR	
	

08

GDE010001

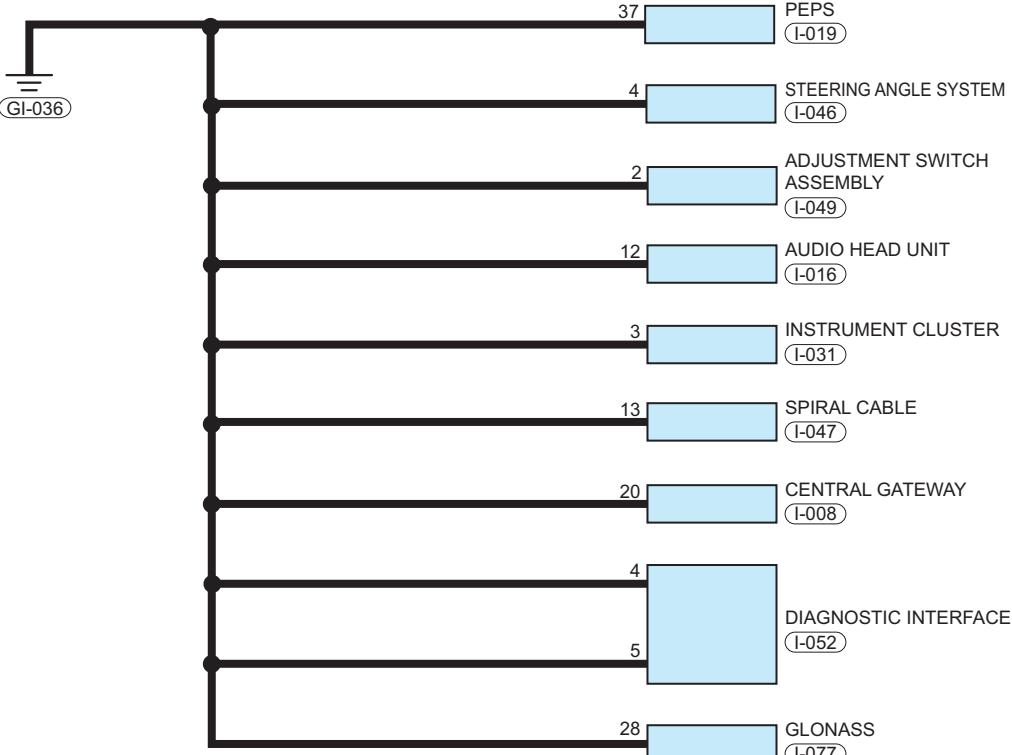
GROUND POSITION	PHYSICAL GRAPHICS						
RIGHT SIDE RAIL OUTER PLATE							
	 <pre> graph LR     GQ017((GQ-017)) --- &gt; FR008[FRONT RADAR MODULE Q-008]     GQ017 --- &gt; LP015[LOW PITCHED HORN Q-015]     GQ017 --- &gt; RH018[RIGHT HEADLIGHT Q-018]     GQ017 --- &gt; ECCS014[ENGINE COMPARTMENT CONTACT SWITCH Q-014]     </pre>						
08	<table border="1"> <thead> <tr> <th>GROUND POSITION</th> <th>PHYSICAL GRAPHICS</th> </tr> </thead> <tbody> <tr> <td>ENGINE BODY LIFTING LUG</td> <td>  </td></tr> <tr> <td></td><td>  <pre> graph LR     GE401((GE-401)) --- &gt; IC1[E-062]     GE401 --- &gt; IC2[E-061]     GE401 --- &gt; IC3[E-060]     GE401 --- &gt; IC4[E-059]     GE401 --- &gt; ACC[E-089]     </pre> </td></tr> </tbody> </table>	GROUND POSITION	PHYSICAL GRAPHICS	ENGINE BODY LIFTING LUG			 <pre> graph LR     GE401((GE-401)) --- &gt; IC1[E-062]     GE401 --- &gt; IC2[E-061]     GE401 --- &gt; IC3[E-060]     GE401 --- &gt; IC4[E-059]     GE401 --- &gt; ACC[E-089]     </pre>
GROUND POSITION	PHYSICAL GRAPHICS						
ENGINE BODY LIFTING LUG							
	 <pre> graph LR     GE401((GE-401)) --- &gt; IC1[E-062]     GE401 --- &gt; IC2[E-061]     GE401 --- &gt; IC3[E-060]     GE401 --- &gt; IC4[E-059]     GE401 --- &gt; ACC[E-089]     </pre>						

GDE011001

GROUND POSITION	PHYSICAL GRAPHICS
LEFT SIDE OF SHEET METAL IN MIDDLE CHANNEL	
	

08

GDE012001

GROUND POSITION	PHYSICAL GRAPHICS
LEFT SIDE OF SHEET METAL IN MIDDLE CHANNEL	
	 <pre> graph TD     GI036((GI-036)) --- Bus[ ]     Bus --- C1[37 PEPS I-019]     Bus --- C2[4 STEERING ANGLE SYSTEM I-046]     Bus --- C3[2 ADJUSTMENT SWITCH ASSEMBLY I-049]     Bus --- C4[12 AUDIO HEAD UNIT I-016]     Bus --- C5[3 INSTRUMENT CLUSTER I-031]     Bus --- C6[13 SPIRAL CABLE I-047]     Bus --- C7[20 CENTRAL GATEWAY I-008]     Bus --- C8[4 DIAGNOSTIC INTERFACE I-052]     Bus --- C9[28 GLONASS I-077]   </pre>

08

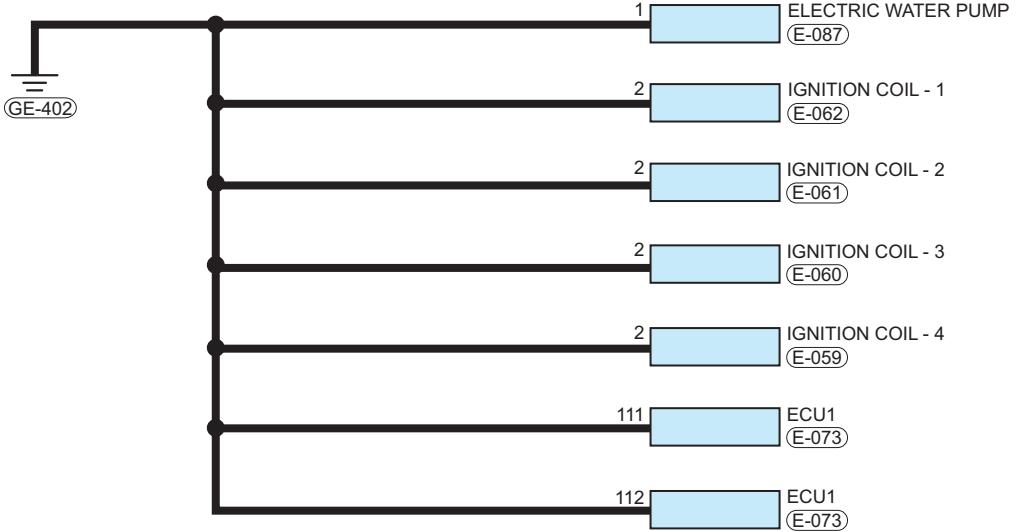
GDE013001

GROUND POSITION	PHYSICAL GRAPHICS
UPPER SURFACE OF LEFT SIDE RAIL	

GROUND POSITION	PHYSICAL GRAPHICS
LEFT SIDE RAIL INNER SIDE	

08

GDE014001

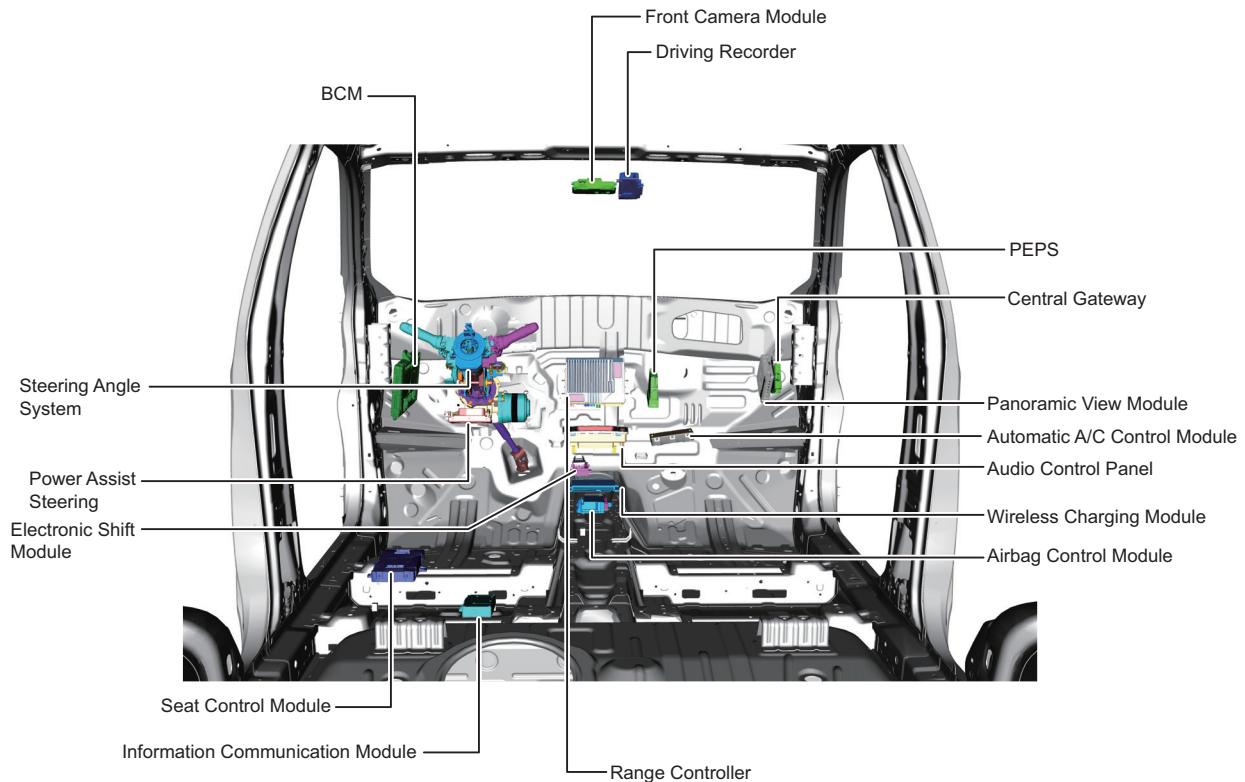
GROUND POSITION	PHYSICAL GRAPHICS
LEFT SIDE RAIL INNER SIDE	
	 <pre> graph TD     GE402[GE-402] --- &gt;  E087[E-087]     GE402 --- &gt;  E062[E-062]     GE402 --- &gt;  E061[E-061]     GE402 --- &gt;  E060[E-060]     GE402 --- &gt;  E059[E-059]     GE402 --- &gt;  ECU1_111[E-073]     GE402 --- &gt;  ECU1_112[E-073]     </pre>

08

GDE015001

# Control Module Distribution Diagram and Terminal Definition

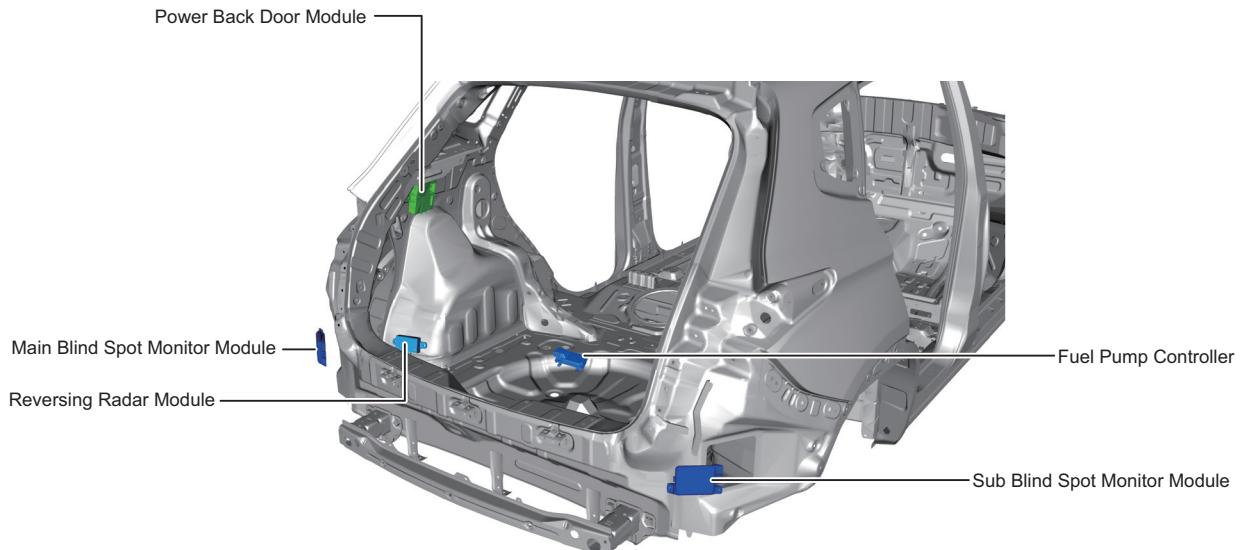
This section introduces the position and terminal definition information of each control module of the vehicle. The whole vehicle includes the following modules:



EWD130001

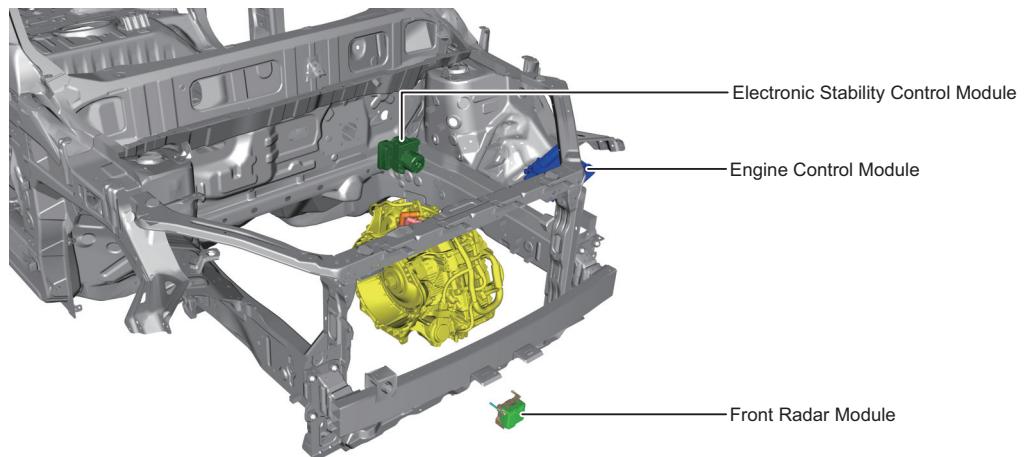
09

## 09 – Control Module Distribution Diagram and Terminal Definition



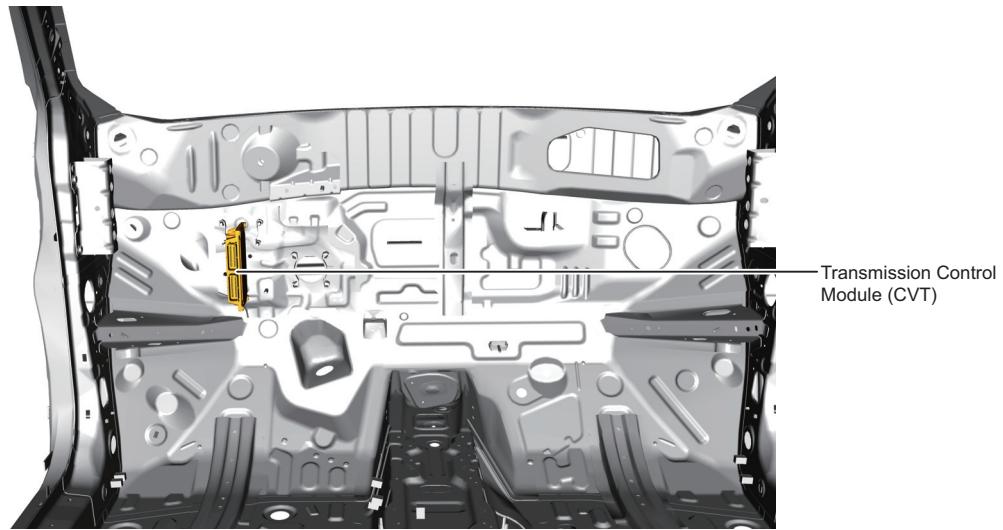
EWD140001

09



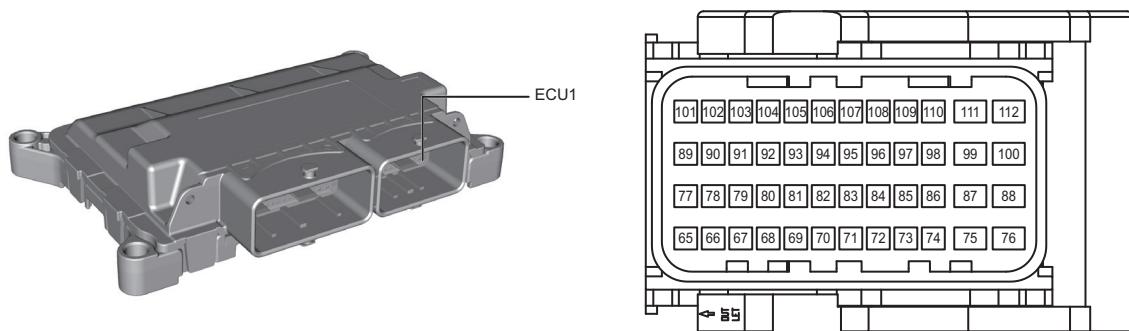
EWD150001

09-2



EWD067001

### Engine Control Module (ECU1) (1.5T) Terminal Definition

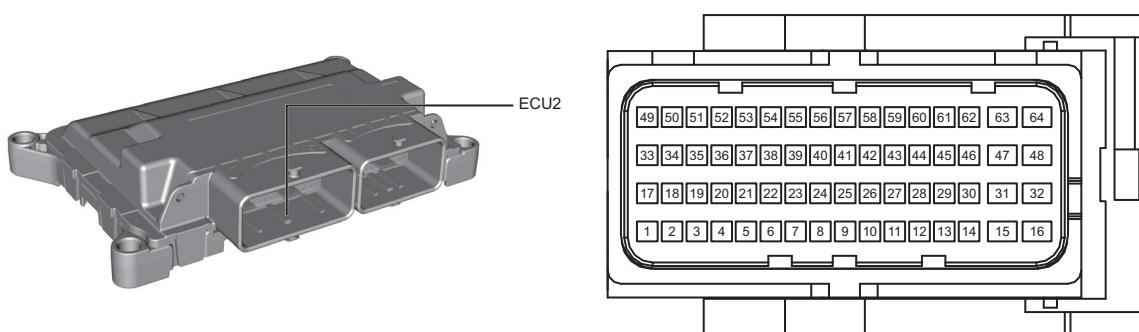


09

Pin	Definition	Pin	Definition
65	–	89	Knock Sensor B
66	Canister Vent Valve	90	Knock Sensor A
67	Cylinder 2 Injector	91	Intake Pressure/Temperature Sensor Signal
68	Cylinder 1 Injector	92	Electric Water Pump 1
69	Variable Camshaft Timing Valve (Exhaust)	93	Intake Phase Sensor Signal
70	–	94	Canister Control Valve

Pin	Definition	Pin	Definition
71	Variable Camshaft Timing Valve (Intake)	95	Sensor Ground
72	Cylinder 3 Injector	96	Engine Speed Sensor Input
73	Ignition Coil 2	97	Engine Speed Sensor Ground
74	Cylinder 4 Injector	98	5 V Power Supply
75	Throttle Actuator (+)	99	Throttle Actuator Motor +
76	Upstream Oxygen Sensor Heating	100	Throttle Actuator Motor –
77	Throttle Position Sensor 1	101	Engine Coolant Sensor
78	Throttle Position Sensor 2	102	Intake Pressure/Temperature Sensor Signal
79	Exhaust By-pass Valve Sensor Signal	103	Fuel Tank Pressure Sensor
80	–	104	–
81	Ignition Coil 1	105	Exhaust Phase Sensor Signal
82	Ignition Coil 3	106	Electric Water Pump 2
83	Ignition Coil 4	107	5V Power Supply of Throttle Valve
84	Analog Ground	108	Engine Speed Power Supply
85	Intake Pressure/Temperature Sensor Ground	109	Intake Pressure/Temperature Sensor Power Supply
86	Throttle Ground	110	–
87	Immobilizer Input	111	ECU Ground 4
88	Electronic Thermostat	112	ECU Ground 3

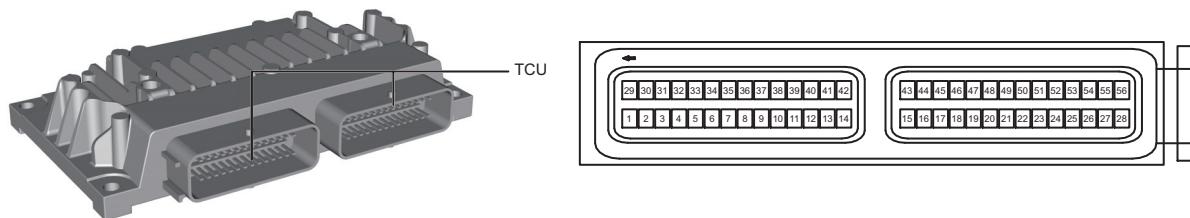
## Engine Control Module (ECU2) (1.5T) Terminal Definition



Pin	Definition	Pin	Definition
1	CAN Bus 1 High	33	–
2	Upstream Oxygen Sensor Feedback Voltage	34	–
3	–	35	Ignition Switch
4	–	36	5V Power Supply of Electronic Accelerator Pedal Sensor
5	Main Relay	37	5V Power Supply of Electronic Accelerator Pedal Sensor
6	–	38	–
7	Electronic Accelerator Pedal Sensor 1 Ground	39	–
8	–	40	–
9	Cruise Control	41	Fuel Pump relay
10	High/Low Pressure Switch	42	A/C Compressor Relay
11	Upstream Oxygen Sensor Virtual Ground Voltage	43	Downstream Oxygen Sensor Ground
12	Absolute Brake Vacuum Pressure Sensor Signal	44	–
13	3rd Coolant Temperature Sensor Signal	45	Electronic Accelerator Pedal Sensor 1
14	Throttle Position Sensor 2	46	Boost Pressure Temperature Sensor Signal 1
15	Power Supply	47	Analog Ground
16	Power Supply	48	Downstream Oxygen Sensor Heating
17	CAN Bus 1 Low	49	–
18	–	50	–
19	5 V Power Supply	51	Fan Control High Speed
20	Power Supply	52	–
21	Downstream Oxygen Sensor Signal	53	–

Pin	Definition	Pin	Definition
22	Desorption Pressure Sensor Signal	54	Vacuum Pump Relay
23	Brake Switch	55	–
24	Medium Pressure Switch	56	Fan Control Low Speed
25	Brake Light Switch	57	–
26	–	58	–
27	–	59	Electronic Accelerator Pedal Sensor 2 Ground
28	Upstream Oxygen Sensor Correction Resistance	60	2nd Coolant Temperature Sensor Signal
29	–	61	–
30	Electronic Accelerator Pedal Sensor	62	Boost Pressure Sensor 2
31	Exhaust By-pass Valve Motor+	63	ECU Ground
32	Exhaust By-pass Valve Motor–	64	ECU Ground

## Transmission Control Unit (TCU) (CVT) Terminal Definition

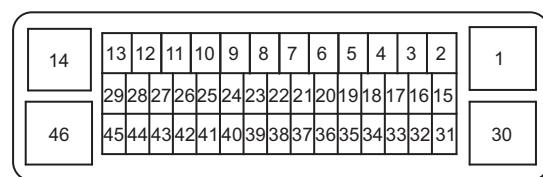
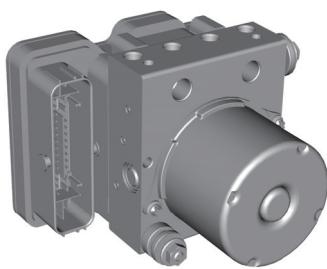


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Pin	Definition	Pin	Definition
1	Hydraulic Torque Converter/Clutch Control Valve Low Side Control	29	Main Oil Pressure/P Gear Lock Control Valve Low Side Control
2	Input Pulley Shaft Pressure Control Valve Low Side Control	30	Output Pulley Shaft Pressure Control Valve Low Side Control
3	Clutch Control Valve High Side Control	31	–
4	Hydraulic Torque Converter Control Valve High Side Control	32	Main Oil Pressure Control Valve High Side Control
5	–	33	–
6	Output Pulley Shaft Pressure Control Valve High Side Control	34	Input Pulley Shaft Pressure Control Valve High Side Control
7	CAN Low	35	CAN High
8	All Vehicle CAN Low	36	All Vehicle CAN High

Pin	Definition	Pin	Definition
9	Turbine/Output Pulley Shaft Speed Sensor Ground	37	Input/Output Pulley Shaft Oil Pressure Sensor Ground
10	Input Pulley Shaft Speed Sensor Signal	38	Turbine Speed Sensor Signal
11	Input Pulley Shaft Speed Sensor Ground	39	Output Pulley Shaft Speed Sensor Signal
12	Transmission Oil Temperature Sensor Ground	40	–
13	Transmission Oil Temperature Sensor Signal	41	–
14	Input Pulley Shaft Oil Pressure Sensor Signal	42	–
15	Input Pulley Shaft Oil Pressure Sensor Signal	43	–
16	Gear 1	44	Gear 2
17	–	45	–
18	–	46	–
19	–	47	–
20	–	48	–
21	Input Pulley Shaft Speed Sensor Power Supply	49	–
22	Turbine/Output Pulley Shaft Speed Sensor Power Supply	50	–
23	–	51	Power Supply
24	–	52	Power Supply
25	–	53	Power Supply
26	Output Pulley Shaft Oil Pressure Sensor Power Supply	54	Input Pulley Shaft Oil Pressure Sensor Power Supply
27	Power Supply Ground	55	Power Supply Ground
28	KL15	56	Power Supply Ground

## Body Stability Control Module (ESP) Terminal Definition

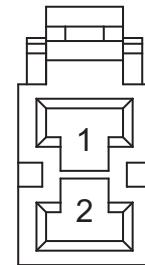
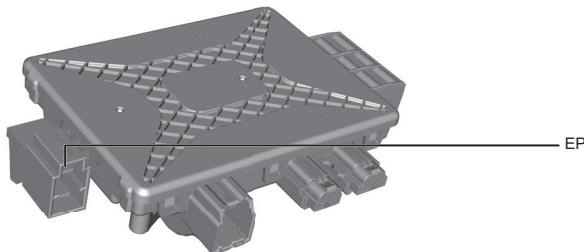


Pin	Definition	Pin	Definition
1	Motor Power Supply End (Positive)	24	Front Left Wheel Speed Sensor Power Supply
2	Right Caliper Motor Power Supply Wire	25	CAN2 L
3	Right Caliper Motor Ground Wire	26	Front Right Wheel Speed Sensor Signal Wire
4	–	27	–
5	CAN H	28	–
6	–	29	–
7	Front Left Wheel Speed Sensor Signal Wire	30	Power Supply
8	AUTO HOLD Switch Indicator	31	EPB Switch Pin 1
9	–	32	EPB Switch Pin 4
10	HDC Switch Indicator	33	–
11	CAN2 H	34	–
12	Left Caliper Motor Ground Wire	35	–
13	Left Caliper Motor Power Supply Wire	36	Ignited
14	Motor Ground	37	Rear Right Wheel Speed Sensor Signal Wire
15	EPB Switch Pin 3	38	Brake Switch
16	EPB Switch Pin 6	39	Rear Right Wheel Speed Sensor Power Supply Wire
17	HDC Function Switch	40	–
18	EPB Switch Indicator	41	AUTO HOLD Switch
19	CAN L	42	–
20	–	43	–
21	Front Right Wheel Speed Sensor Power Supply	44	–
22	Rear Right Wheel Speed Sensor Power Supply	45	–

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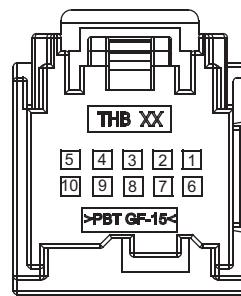
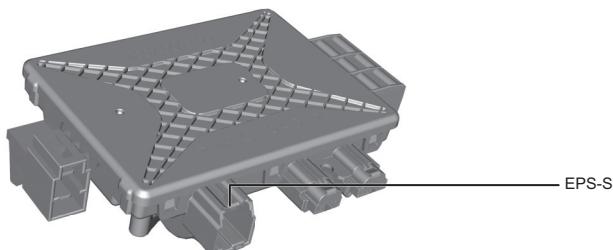
Pin	Definition	Pin	Definition
23	Rear Left Wheel Speed Sensor Signal Wire	46	ECU Ground

## Electric Power Steering Module (EPS) – Terminal P Definition



Pin	Definition	Pin	Definition
P-1	Power Supply	P-2	Ground

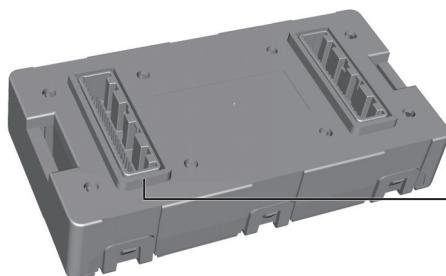
## Electric Power Steering Module (EPS) – Terminal S Definition



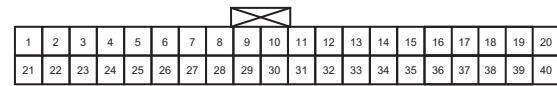
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Pin	Definition	Pin	Definition
S-1	Ignition Signal	S-4	C CAN-L
S-2	C CAN-H	S-5	-
S-3	-		

## Automatic A/C Control Module Terminal Definition



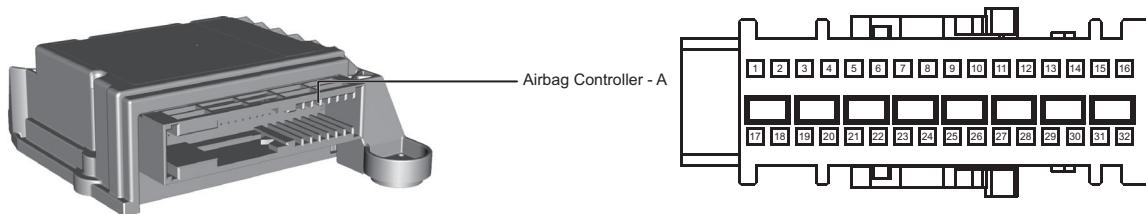
Automatic A/C Control Module A



Pin	Definition	Pin	Definition
A1	Left Mix Damper Motor – Pin 3	A21	Power Supply Ground
A2	Left Mix Damper Motor – Pin 2	A22	Signal Ground
A3	Left Mix Damper Motor – Pin 1	A23	–
A4	Right Mix Damper Motor – Pin 4	A24	Right Solar Sensor Signal
A5	Right Mix Damper Motor – Pin 3	A25	Left Solar Sensor Signal
A6	Right Mix Damper Motor – Pin 2	A26	Outside PM2.5 Sensor Signal
A7	Right Mix Damper Motor – Pin 1	A27	Inside Temperature Sensor Signal
A8	Blower Relay Control Signal	A28	Evaporator Temperature Sensor Signal
A9	AQS Sensor Signal	A29	–
A10	CAN_H	A30	Inside PM2.5 Sensor Signal
A11	CAN_L	A31	Reserved
A12	15 Power Supply	A32	Blower Speed Control Pin
A13	Mode Motor – Pin 4	A33	Blower Negative Feedback Pin
A14	Mode Motor – Pin 3	A34	Reserved
A15	Mode Motor – Pin 2	A35	+5V
A16	Mode Motor – Pin 1	A36	–
A17	Inner/Outer Circulation Motor – Pin 4	A37	KL30
A18	Inner/Outer Circulation Motor – Pin 3	A38	Positive of Compressor External Control Valve
A19	Inner/Outer Circulation Motor – Pin 2	A39	Negative of Compressor External Control Valve
A20	Inner/Outer Circulation Motor – Pin 1	A40	Left Mix Damper Motor – Pin 4

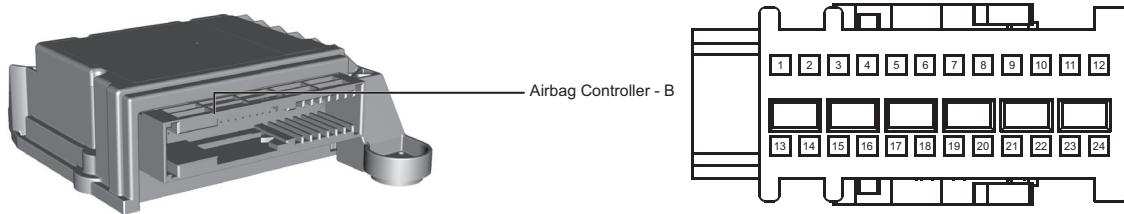
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## Airbag Control Module A Terminal Definition



Pin	Definition	Pin	Definition
A1	Front Right Seat Side Airbag(+)	A17	-
A2	Front Right Seat Side Airbag(-)	A18	-
A3	Front Left Seatbelt with Pretensioner (Retractor) (-)	A19	-
A4	Front Left Seatbelt with Pretensioner (Retractor) (+)	A20	-
A5	Front Right Seatbelt with Pretensioner (Retractor) (+)	A21	-
A6	Front Right Seatbelt with Pretensioner (Retractor) (-)	A22	Front Passenger Weight Detection Sensor
A7	Front Left Seat Side Airbag (-)	A23	Second Row Right Seatbelt Buckle Switch
A8	Front Left Seat Side Airbag (+)	A24	Second Row Middle Seatbelt Buckle Switch
A9	Left Curtain Shield Airbag (+)	A25	Second Row Left Seatbelt Buckle Switch
A10	Left Curtain Shield Airbag (-)	A26	Front Passenger Seatbelt Buckle Switch
A11	Right Curtain Shield Airbag (-)	A27	-
A12	Right Curtain Shield Airbag (+)	A28	-
A13	Right Side Collision Sensor (+)	A29	-
A14	Right Side Collision Sensor (-)	A30	-
A15	Left Side Collision Sensor (-)	A31	-
A16	Left Side Collision Sensor (+)	A32	-

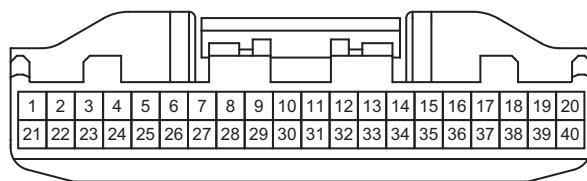
## Airbag Control Module B Terminal Definition



Pin	Definition	Pin	Definition
B1	IGN Power Supply	B13	Front Passenger Airbag (+)
B2	Ground	B14	Front Passenger Airbag (-)
B3	Ground	B15	-
B4	Collision Output (ENS)	B16	-
B5	-	B17	Front Right Seatbelt with Pretensioner (End Plate) (+)
B6	-	B18	Front Right Seatbelt with Pretensioner (End Plate) (-)
B7	-	B19	Driver Airbag (-)
B8	-	B20	Driver Airbag (+)
B9	-	B21	Rear Left Seatbelt Pretensioner (Second Row) (+)
B10	-	B22	Rear Left Seatbelt Pretensioner (Second Row) (-)
B11	CAN_L	B23	Front Left Seatbelt with Pretensioner (End Plate) (-)
B12	CAN_H	B24	Front Left Seatbelt with Pretensioner (End Plate) (+)

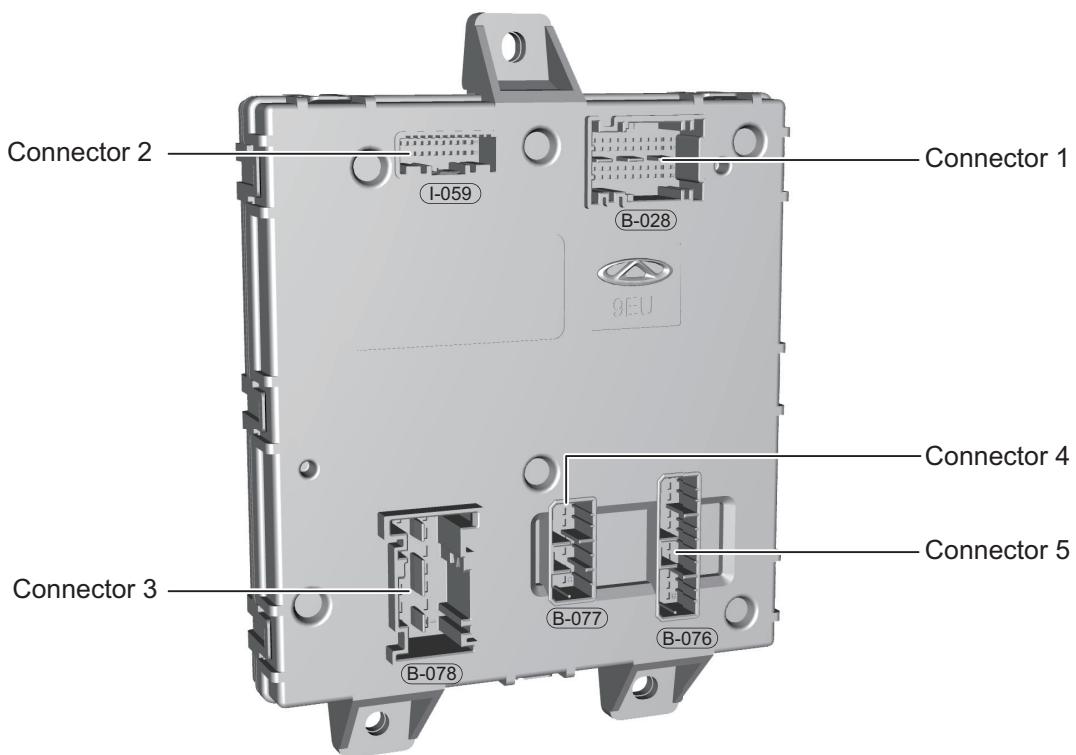
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## Passive Entry and Start Module (PEPS) Terminal Definition



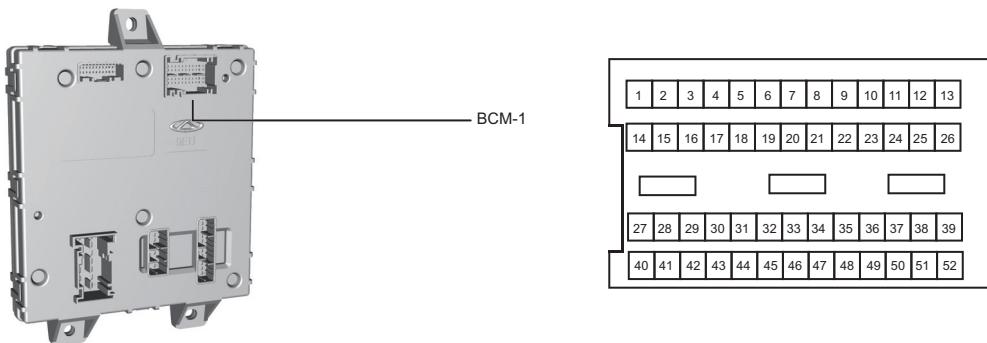
Pin	Definition	Pin	Definition
1	Reserved	21	Reserved
2	Reserved	22	–
3	CAN H	23	ENGINE START STOP Switch Indicator (Amber Yellow)
4	CAN L	24	ENGINE START STOP Switch Indicator (Green)
5	–	25	ENGINE START STOP Switch Indicator (White)
6	Luggage Compartment Unlock Switch	26	Brake Switch
7	ENGINE START STOP Switch 2	27	–
8	ENGINE START STOP Switch 1	28	ENGINE START STOP Switch (–)
9	–	29	–
10	Rear Left Door High Performance Antenna 1 (+)	30	Rear Left Door High Performance Antenna 2 (–)
11	Anti-theft Coil (–)	31	Anti-theft Coil (+)
12	Rear Right Door High Performance Antenna 1 (+)	32	Rear Right Door High Performance Antenna 2 (–)
13	Front Low Frequency Antenna 1 (+)	33	Front Low Frequency Antenna 2 (–)
14	Rear Bumper Antenna 1 (+)	34	Rear Bumper Antenna 2 (–)
15	Touch Switch Output (Right) / Right Door Handle Button (+)	35	Touch Switch Output (Right) / Front Right Door Handle Button (–)
16	Touch Switch Output (Left) / Left Door Handle Button (+)	36	Touch Switch Output (Left) / Front Left Door Handle Button (–)
17	Ignition Signal	37	Ground
18	Ignition Relay 1 Drive (High)	38	Start Relay Monitoring
19	–	39	Start Relay (High)
20	Power Supply	40	ACC Relay Drive (High)

## Body Control Module (BCM)



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## Body Control Module (BCM)–Terminal 1 Definition

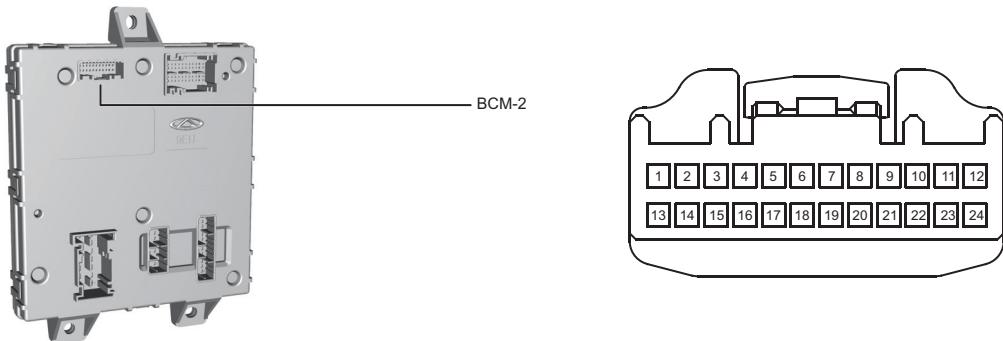


Pin	Definition	Pin	Definition
1	Right Rear View Mirror Foot Light Input	27	Dome Light Input
2	–	28	Luggage Compartment Light Input
3	–	29	Rear Defroster Output
4	–	30	High Speed Wiper Output
5	Front Turn Diagnosis	31	STEERING WHEEL HEATING RLY
6	Rear Turn Signal Light Diagnosis (Body)	32	–
7	Hard Wire Crash	33	Front Right Window Regulator Switch
8	Movable Side Rear Turn Signal Light Diagnosis	34	Front Left Window Regulator Switch
9	Steering Wheel Heater Ind	35	–
10	Rear Left Door Open Signal	36	Passenger Side Window Regulator Disabled Switch
11	Headlight Leveling Signal	37	Front Right Door Open Signal
12	Rear Right Door Open Signal	38	–
13	Front Left Door Unlock Status Signal	39	Brake Switch Signal
14	Left Rear View Mirror Foot Light Output	40	Passenger Side Window Regulator Disabled Switch Operation Indicator Light
15	–	41	Heated Windshield 1
16	LIN Signal (TDL + RSM)	42	Low Speed Wiper Output
17	–	43	Low Beam Light Output
18	High Beam Light Output	44	Horn Output
19	Rear Right Door Window Regulator Switch	45	Analog Ground
20	Passenger Side Front Right Window Regulator Switch	46	Turn Signal Light Switch

Pin	Definition	Pin	Definition
21	Passenger Side Front Left Window Regulator Switch	47	Rear Left Window Regulator Switch
22	Passenger Side Rear Right Window Regulator Switch	48	Back Door Open Signal
23	Front Left Door Open Signal	49	Central Control Lock Switch Input
24	Front Wiper Stop Signal	50	Central Control Unlock Switch Input
25	Steering Wheel Heater Sw In	51	–
26	Rear Wiper Stop Position Signal	52	Engine Hood Contact Switch

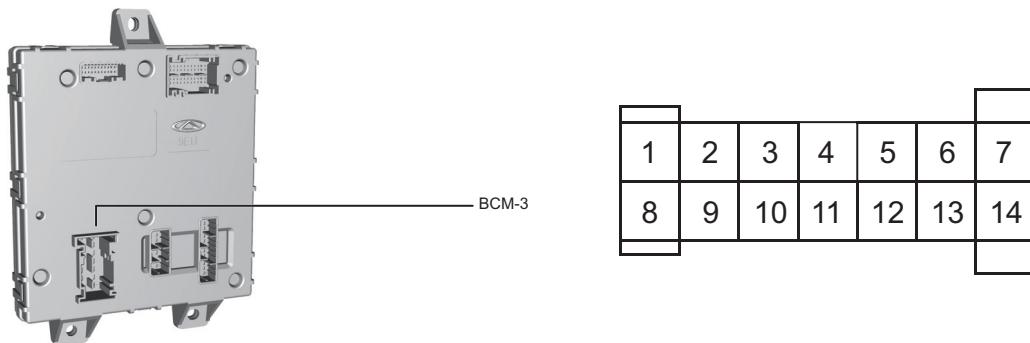
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## Body Control Module (BCM) – Terminal 2 Definition



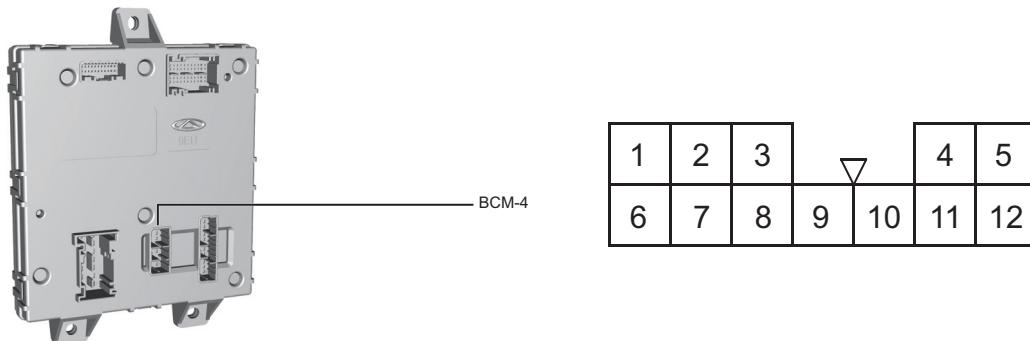
Pin	Definition	Pin	Definition
1	–	13	Turn Signal Light Enable Signal
2	High Speed CAN Signal Low Terminal	14	Hazard Warning Light Operation Indicator Light
3	–	15	High Speed CAN Signal High Terminal
4	–	16	–
5	ACC Signal Input	17	ICN Signal Input
6	–	18	–
7	Rear Fog Light Input	19	Rear Washer Input
8	Front Wiper Input 2	20	Front Washer Input
9	Defroster Input	21	Rear Wiper Input
10	Rear View Mirror Folding Input	22	Front Wiper Input 1
11	Hazard Warning Light Input	23	Lighting Input
12	High Beam Light – Flashing Input	24	Wiper Sensitivity Switch

## Body Control Module (BCM) – Terminal 3 Definition



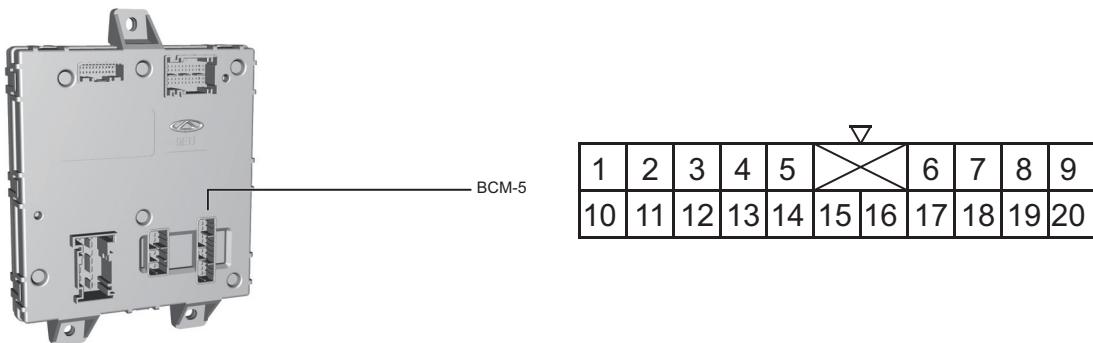
Pin	Definition	Pin	Definition
1	Power Supply 3	8	Rear Left Window Up Output
2	Power Supply 6	9	Rear Left Window Down Output
3	Ground 1	10	Power Supply 1
4	Ground 2	11	Front Right Window Up Output
5	Rear Right Window Down Output	12	Front Right Window Down Output
6	Rear Right Window Up Output	13	Front Left Window Up Output
7	Power Supply 2	14	Front Left Window Down Output

## Body Control Module (BCM) – Terminal 4 Definition



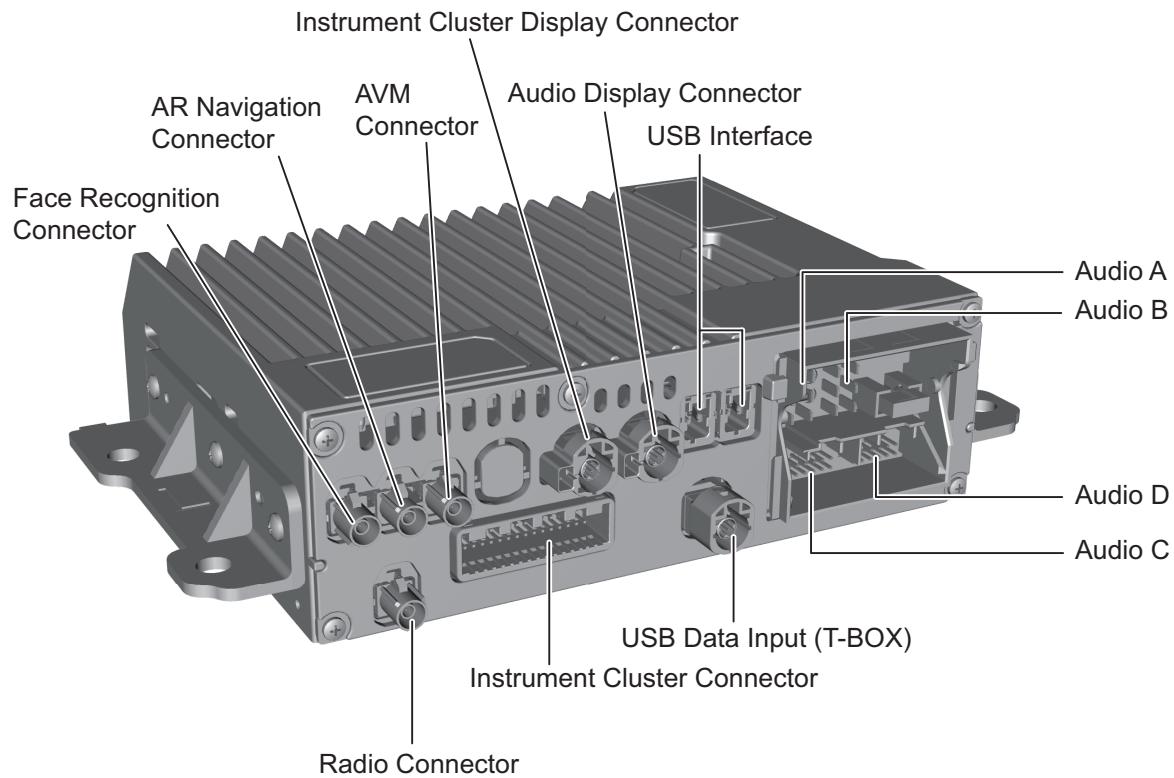
Pin	Definition	Pin	Definition
1	–	7	Backlight Adjustment
2	Central Control Unlock Output	8	–
3	Central Control Lock Output	9	Power Supply 5
4	Luggage Compartment Output	10	Rear Wiper Output
5	Front Washer Output	11	Heated Windshield 2
6	–	12	Rear Washer Output

## Body Control Module (BCM) – Terminal 5 Definition



Pin	Definition	Pin	Definition
1	–	11	High Mounted Stop Light Output
2	Rear View Mirror Unfolding Output	12	Red Mood Light
3	Rear View Mirror Folding Output	13	Blue Mood Light
4	Left Turn Signal Light Output	14	Left Daytime Running Light Output
5	Right Turn Signal Light Output	15	Right Daytime Running Light Output
6	Anti-theft Horn	16	Battery Save Output
7	Back-up Light Output	17	Rear Fog Light Output
8	Stop Light Output	18	–
9	Front Position Light	19	–
10	Rear Position Light	20	Power Supply 4

## Domain Controller

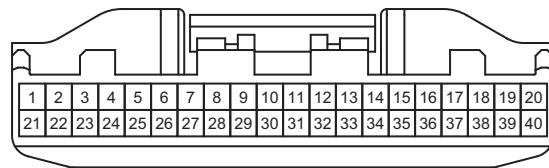


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## Domain Controller (Instrument Cluster) Terminal Definition



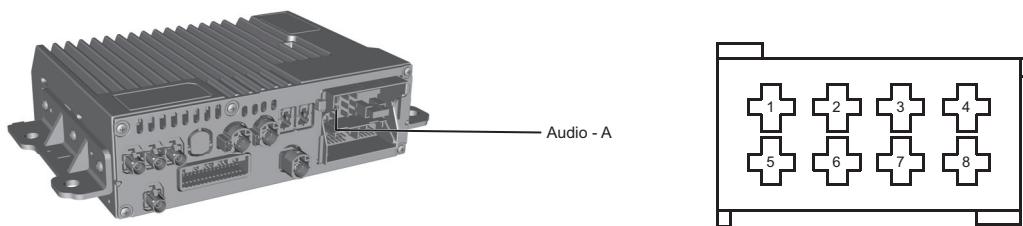
Instrument Cluster



Pin	Definition	Pin	Definition
1	Reserved	17	–
2	Reserved	18	–
3	–	19	Driver Seat Belt Signal Input
4	Driving Mode Switch Input	20	–
5	Fuel Level Sensor Ground	21	Fuel Signal Input
6	Reserved	22	Fuel Level Auxiliary Signal Input
7	–	23	–
8	Reserved	24	–
9	Oil Pressure Signal Input	25	–
10	–	26	Brake Fluid Level Signal Input
11	–	27	–
12	Backlight Input	28	–
13	–	29	CAN-L
14	LDW/LKA Switch Input (When there is no Touchpad, it is the power button of head unit)	30	CAN-H
15	–	31	Steering Wheel Button Input
16	Battery Charging/Discharging Signal Input	32	–

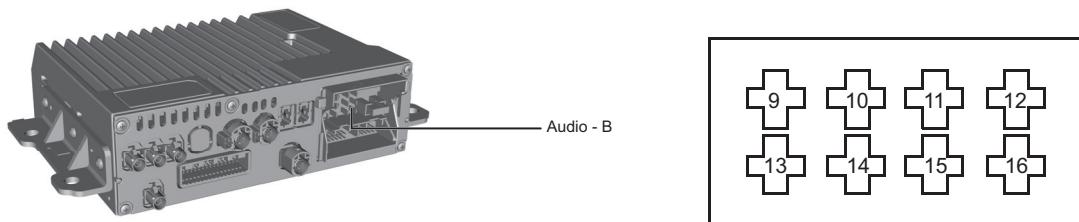
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## Domain Controller (Audio Unit A) Terminal Definition



Pin	Definition	Pin	Definition
1	Rear Right Speaker +	5	Rear Right Speaker –
2	Front Right Speaker +	6	Front Right Speaker –
3	Front Left Speaker +	7	Front Left Speaker –
4	Rear Left Speaker +	8	Rear Left Speaker –

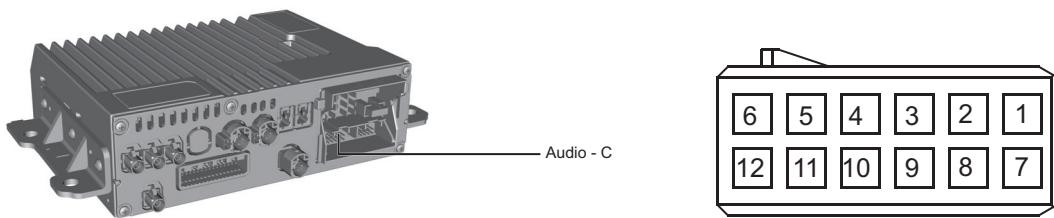
## Domain Controller (Audio Unit B) Terminal Definition



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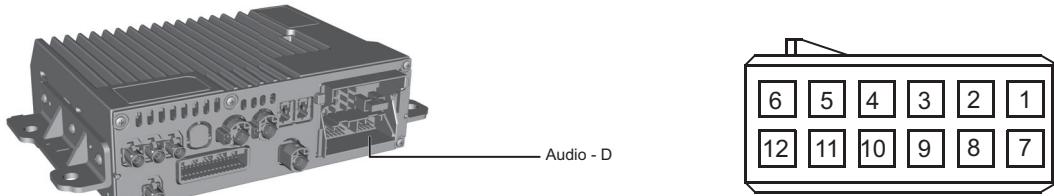
Pin	Definition	Pin	Definition
9	Steering Wheel Button Signal 1	13	ACC
10	Steering Wheel Button Ground	14	–
11	Steering Wheel Button Signal 2	15	Power Supply
12	Ground	16	Backlight Input

## Domain Controller (Audio Unit C) Terminal Definition



Pin	Definition	Pin	Definition
1	CAN H	7	CAN L
2	Ignition Signal	8	–
3	Left MIC– Signal	9	Left MIC+ Signal
4	Right R_MIC+ Signal	10	Right MIC– Signal
5	Camera Ground	11	Camera Power Supply
6	Camera Video –	12	Camera Video +

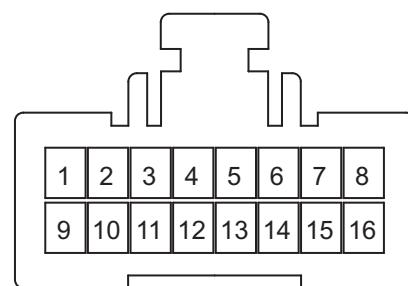
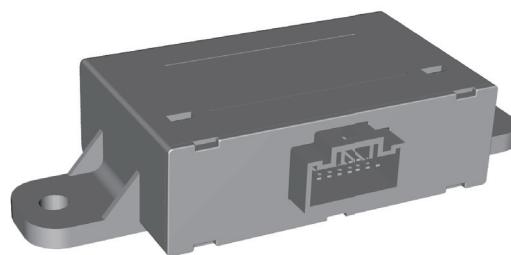
## Domain Controller (Audio Unit D) Terminal Definition



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Pin	Definition	Pin	Definition
1	T-BOX Audio Right Channel	7	–
2	T-BOX Audio Common Terminal Ground	8	–
3	T-BOX Mute Line Input	9	–
4	–	10	–
5	–	11	–
6	–	12	–

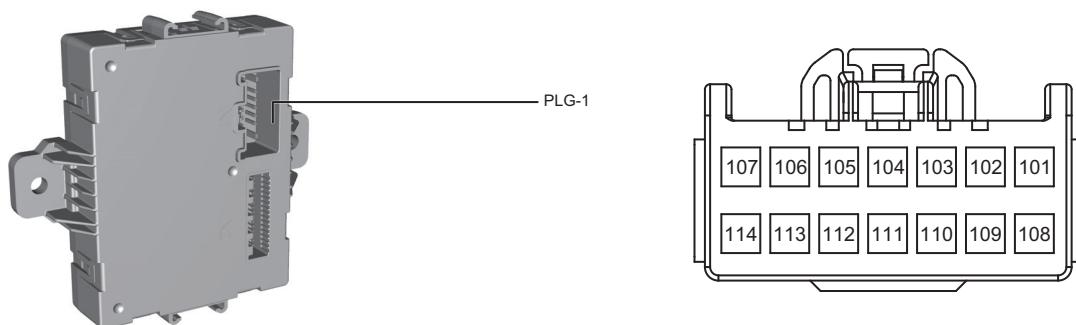
## Reversing Radar Controller Terminal Definition



Pin	Definition	Pin	Definition
1	R Gear (Reserved)	9	–
2	–	10	–
3	Power Supply	11	Sensor Power Supply
4	Rear Right Center Sensor	12	Sensor Ground
5	Body CAN_H	13	Body CAN_L
6	–	14	–
7	Rear Left Sensor	15	Rear Right Sensor
8	Rear Left Center Sensor	16	Power Supply Ground

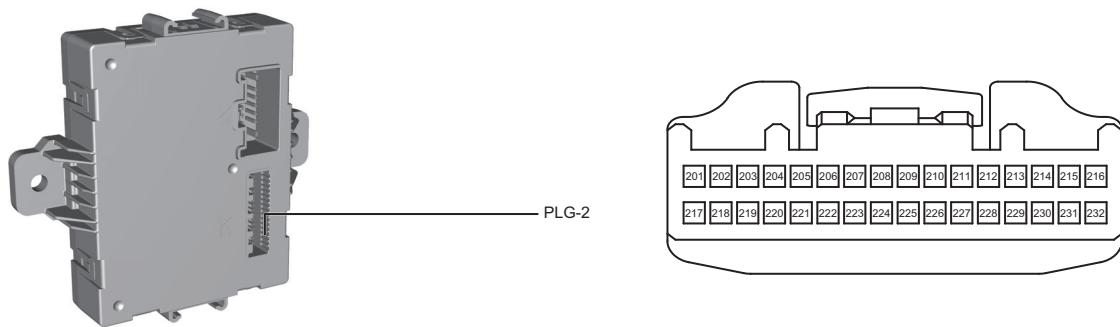
## Power Back Door Module – Terminal 1 Definition

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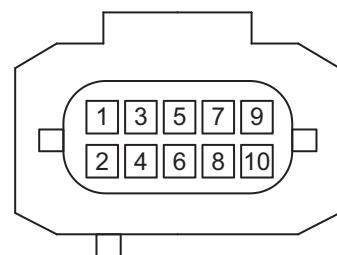
Pin	Definition	Pin	Definition
1-1	Driving Power Supply	1-8	–
1-2	Luggage Compartment Unlock Motor	1-9	Control Power Supply
1-3	–	1-10	–
1-4	Left Support Motor ON	1-11	Left Support Motor OFF
1-5	Self-engage Motor ON	1-12	Self-engage Lock OFF
1-6	–	1-13	–
1-7	Ground	1-14	–

## Power Back Door Control Module – Terminal 2 Definition



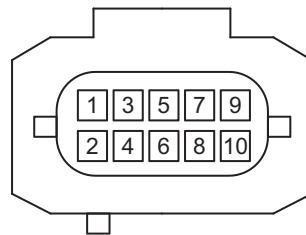
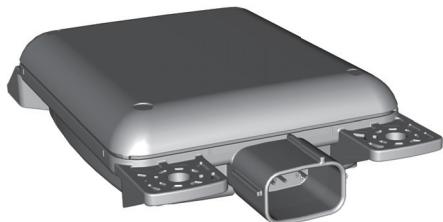
Pin	Definition	Pin	Definition
2-1	–	2-17	LIN Bus (Kick)
2-2	Luggage Compartment Opening Switch	2-18	Global Switch (Reserved)
2-3	Power Back Door Inside Switch	2-19	–
2-4	Power Back Door Driver Side Switch	2-20	–
2-5	–	2-21	–
2-6	–	2-22	–
2-7	Full-lock Switch	2-23	Key Request
2-8	–	2-24	–
2-9	Self-engage Lock Reset Signal	2-25	Left Support Hall Sensor B
2-10	Half-lock Switch	2-26	Left Support Hall Sensor A
2-11	–	2-27	Left Support Hall Sensor Power Supply
2-12	Left Anti-pinch Strip	2-28	Hall Sensor Ground
2-13	Right Anti-pinch Strip	2-29	–
2-14	Anti-pinch Strip Ground	2-30	–
2-15	–	2-31	–
2-16	CAN Bus High	2-32	CAN Bus Low

## Master Blind Spot Detection Module Terminal Definition



Pin	Definition	Pin	Definition
1	–	6	–
2	–	7	CAN-L
3	CAN-H	8	–
4	Internal CAN-H	9	Ground
5	Power Supply	10	Internal CAN-L

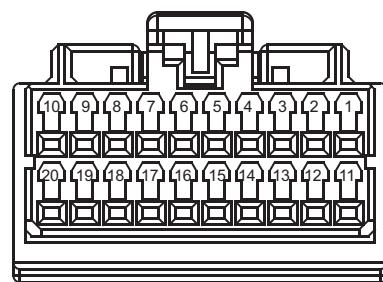
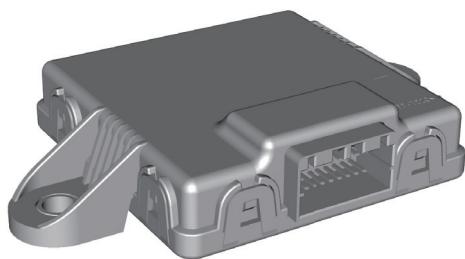
## Auxiliary Blind Spot Detection Module Terminal Definition



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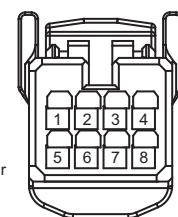
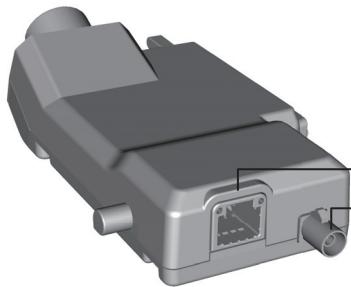
Pin	Definition	Pin	Definition
1	–	6	–
2	–	7	Right Side Indication Signal
3	Left Side Indication Signal	8	–
4	Internal CAN-H	9	Ground
5	Power Supply	10	Internal CAN-L

## Terminal Definition of Gateway



Pin	Definition	Pin	Definition
1	Body CAN-H	11	Body CAN-L
2	Power CAN-H	12	Power CAN-L
3	Chassis CAN-H	13	Chassis CAN-L
4	48V CAN-H(Reserved)	14	48V CAN-L (Reserved)
5	Information Entertainment CAN-H	15	Information Entertainment CAN-L
6	Diagnosis CAN-H	16	Diagnosis CAN-L
7	–	17	LIN Communication
8	–	18	Power Supply
9	–	19	Power Supply
10	–	20	Ground

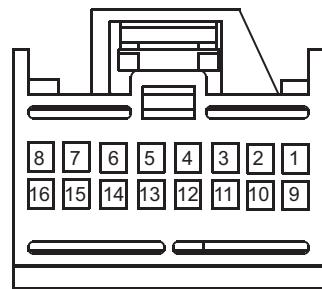
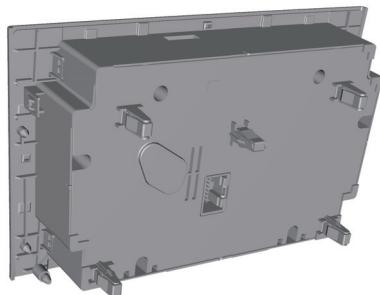
## Drive Recorder Terminal Definition



09

Pin	Definition	Pin	Definition
1	Power Supply	5	Ground
2	Ignition Signal	6	–
3	CAN_H	7	CAN_L
4	–	8	–

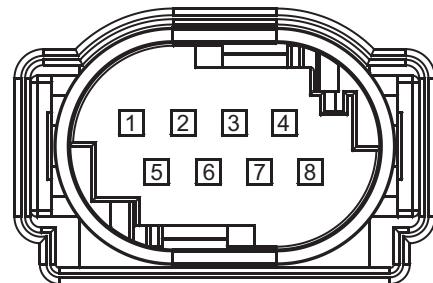
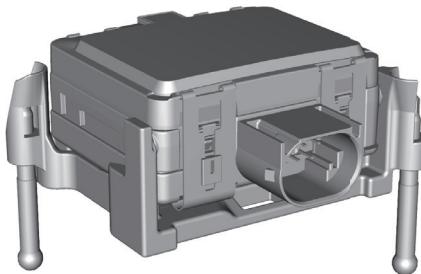
## A/C Control Panel Terminal Definition



Pin	Definition	Pin	Definition
1	–	9	–
2	–	10	–
3	Rear Defroster – Feedback Signal	11	–
4	Body CAN-H	12	–
5	Body CAN-L	13	–
6	Rear Defroster – Request Signal	14	–
7	Ground	15	–
8	KL15	16	KL30

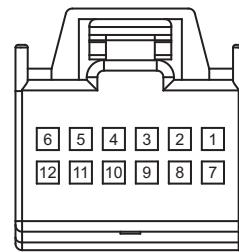
## Front Microwave Radar Module Terminal Definition

09



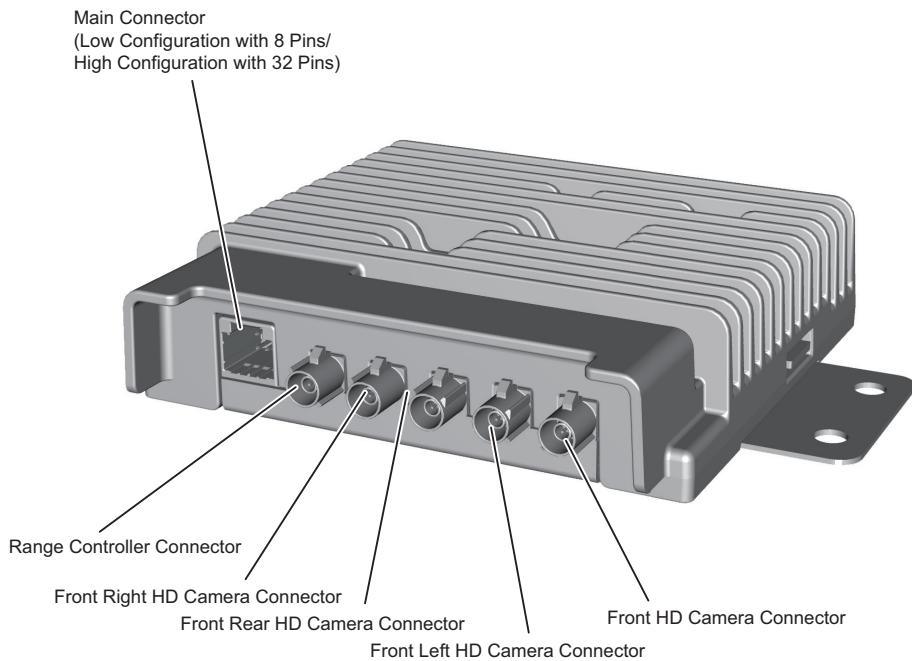
Pin	Definition	Pin	Definition
1	Ground	5	Internal CAN-H
2	CAN1-H	6	Internal CAN-L
3	CAN1-L	7	–
4	–	8	KL15

## Front Camera Module Terminal Definition



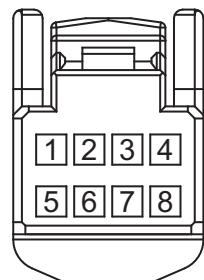
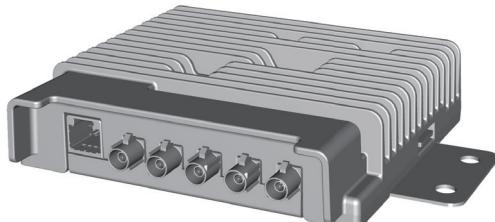
Pin	Definition	Pin	Definition
1	Internal CAN-L	7	Internal CAN-H
2	CAN-L	8	CAN-H
3	Reserved	9	Reserved
4	Reserved	10	Reserved
5	Ground	11	Reserved
6	KL15	12	Reserved

## Panoramic View Controller



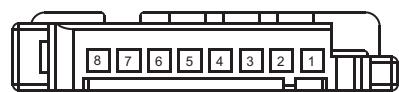
## Panoramic View Controller Terminal Definition

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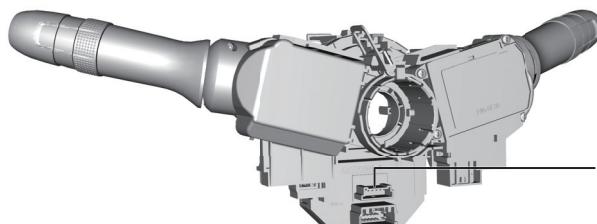
Pin	Definition	Pin	Definition
1	Reserved	5	Reserved
2	Body CAN+	6	Body CAN-
3	Ignition Signal	7	Switch
4	Ground	8	Power Supply

## Wireless Charging Module Terminal Definition

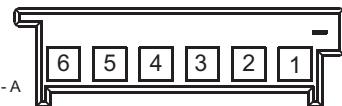


Pin	Definition	Pin	Definition
1	Power Supply	5	CAN-H
2	ACC Signal	6	CAN-L
3	-	7	Reserved
4	Ground	8	Reserved

## Steering Angle System – Terminal A Definition



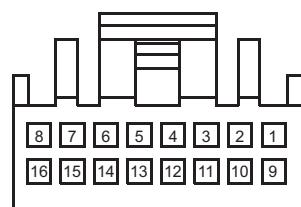
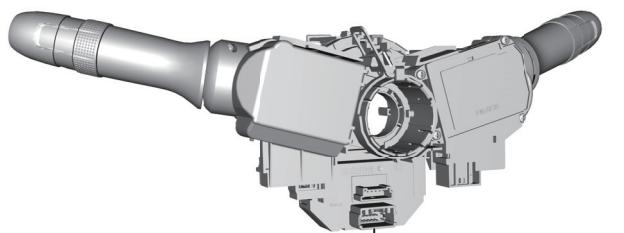
Steering Angle System - A



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Pin	Definition	Pin	Definition
1	CAN L	4	Ground
2	CAN H	5	-
3	Power Supply	6	-

## Steering Angle System – Terminal B Definition

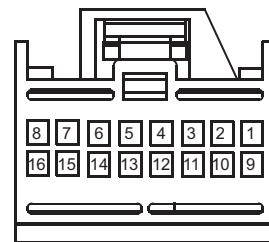
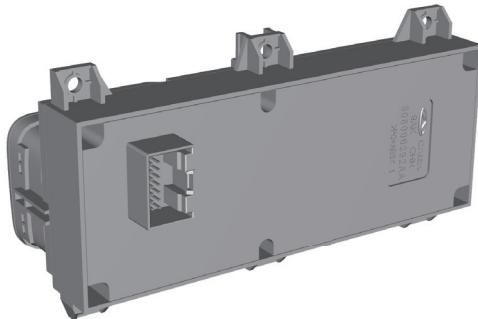


Steering Angle System - B

Pin	Definition	Pin	Definition
1	Airbag to Detonator (B1)	9	Airbag to Detonator (BM1)
2	–	10	Power Supply
3	Cruise Switch Output Signal	11	LIN
4	Cruise Ground	12	Ground
5	Audio Ground	13	–
6	Mode/Setting	14	Horn Switch Signal Output
7	–	15	–
8	–	16	–

## Electronic Shift Module

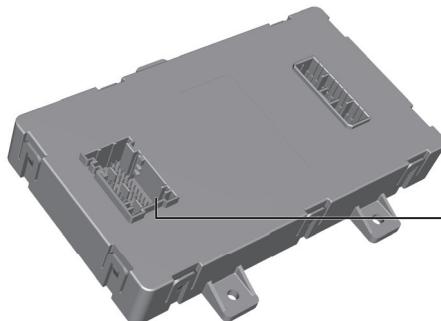
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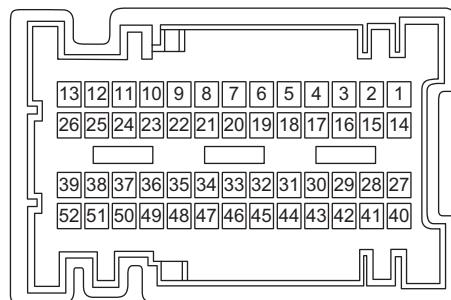
Pin	Definition	Pin	Definition
1	CAN-L	9	–
2	CAN-H	10	SW6
3	–	11	AUTOHOLD Switch Operation Indicator Drive
4	Ground	12	AUTOHOLD Switch Signal Output
5	Power Supply	13	SW4
6	–	14	SW3
7	Ignition Signal	15	EPB Switch Operation Indicator Driver

Pin	Definition	Pin	Definition
8	-	16	SW1

## Seat Control Module – Terminal A Definition



Seat Control Module - A

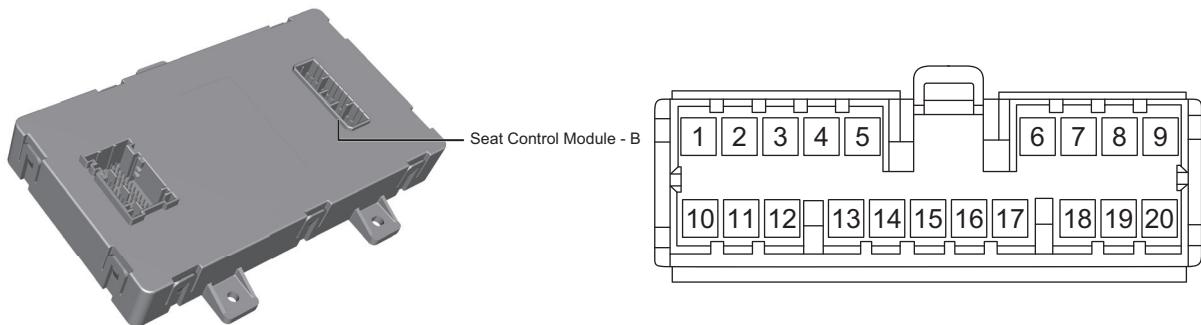


Pin	Definition	Pin	Definition
1	IGN-IN	27	Rear View Mirror Position Sensor Ground
2	Height Adjustment Input	28	Reserved Low Drive
3	-	29	Reserved Low Drive
4	Seatback Adjustment Input	30	Reserved Input
5	Cushion Adjustment Input (Reserved)	31	Reserved Lumbar Support Adjustment HALL Input
6	Lumbar Support Up and Down Adjustment Input (Reserved)	32	Reserved Lumbar Support Adjustment HALL Input
7	Lumbar Support Front and Back Adjustment Input (Reserved)	33	Height Adjustment HALL Input
8	Memory Switch (Reserved)	34	Horizontal Adjustment HALL Input
9	-	35	Seatback Adjustment HALL Input
10	Right Rear View Mirror Position Sensor Horizontal Input	36	Reserved Cushion Adjustment HALL Input
11	Left Rear View Mirror Position Sensor Horizontal Input	37	Right Rear View Mirror Vertical Adjustment Output
12	Right Rear View Mirror Position Sensor Vertical Input	38	Right Rear View Mirror Horizontal Adjustment Output
13	Left Rear View Mirror Position Sensor Vertical Input	39	Right Rear View Mirror Adjustment Common Terminal
14	Rear View Mirror Adjustment Sensor Power Supply	40	Reserved Ventilation PWM Output
15	Reserved	41	Reserved Ventilation PW Output
16	Front Right NTC Power Supply	42	Reserved Ventilation PW Output
17	Front Left NTC Power Supply	43	Reserved Ventilation PW Output
18	Reserved	44	HALL Signal Ground

Pin	Definition	Pin	Definition
19	Analog Ground	45	Front Left NTC Ground
20	Rear View Mirror Adjustment Switch (Up/Right)	46	Front Right NTC Ground
21	Rear View Mirror Adjustment Left and Right Select Switch	47	CAN H
22	Rear View Mirror Adjustment Switch (Down/Left)	48	CAN L
23	Reserved	49	Reserved
24	Reserved	50	Left Rear View Mirror Horizontal Output
25	Reserved Input	51	Left Rear View Mirror Adjustment Common Terminal
26	Reserved Input	52	Left Rear View Mirror Vertical Output

09

## Seat Control Module – Terminal B Definition



Pin	Definition	Pin	Definition
1	Front Right Seat Cushion Heating –	11	Seatback/Cushion Adjustment Common Terminal
2	Reserved Lumbar Support Adjustment	12	Seatback Adjustment Output
3	Reserved Lumbar Support Adjustment	13	Reserved Cushion Adjustment Output
4	Reserved HSD	14	Power Supply 2
5	Reserved HSD	15	Ground
6	Reserved Lumbar Support Adjustment	16	Ground
7	Reserved Lumbar Support Adjustment	17	Power Supply 1
8	Front Left Seat Cushion Heating	18	Height Adjustment Output
9	Front Left Seat Heating –	19	Horizontal Adjustment Output
10	Front Right Seat Heating +	20	Height/Horizontal Adjustment Common Terminal

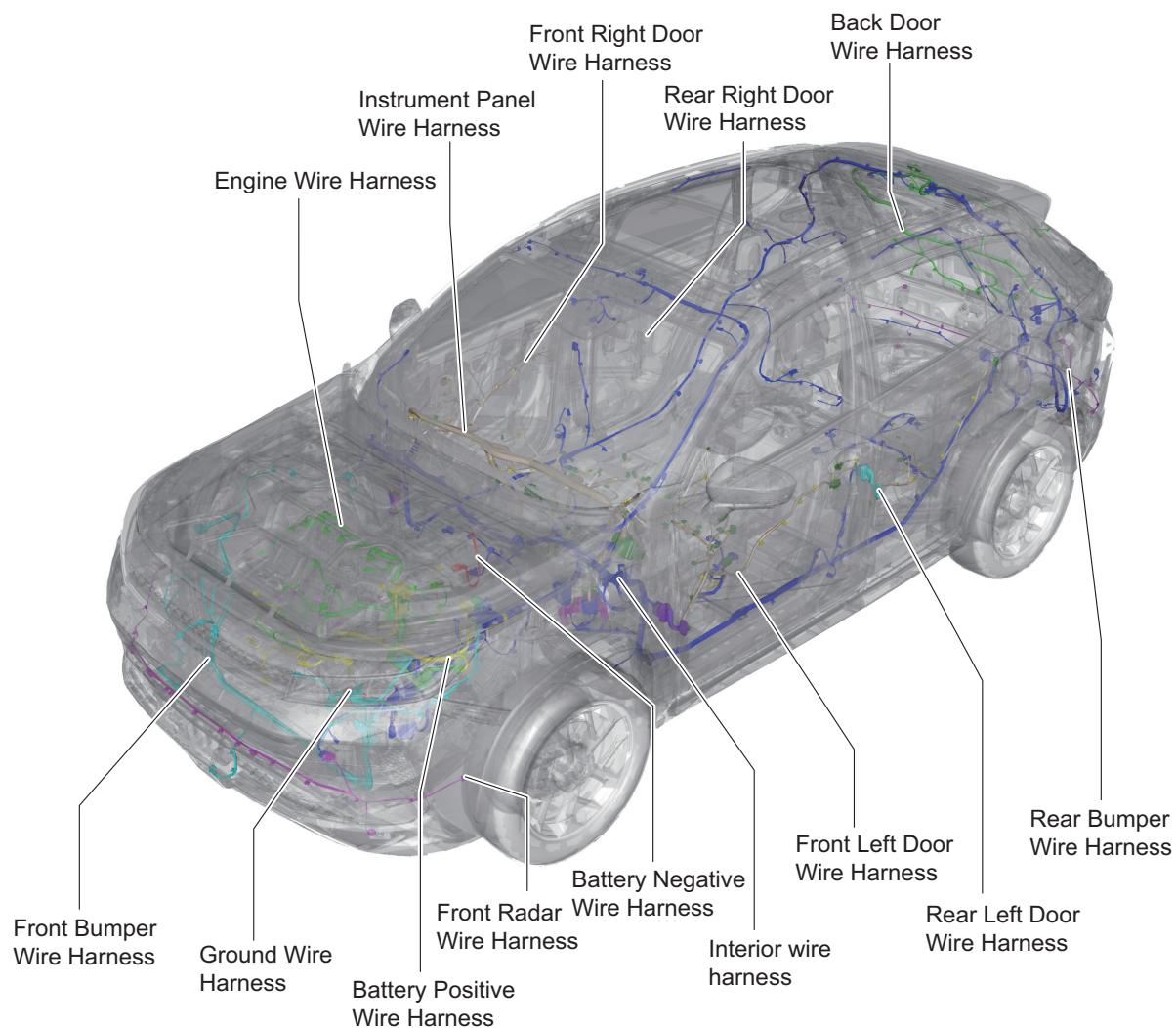
# Wire Harness Position Diagram

## General Description

This section introduces the location information of vehicle wire harness and electrical components in the form of graphics. Each part of vehicle wire harness has a specific color to distinguish different wire harnesses. However, color does not represent true color of wire harness.

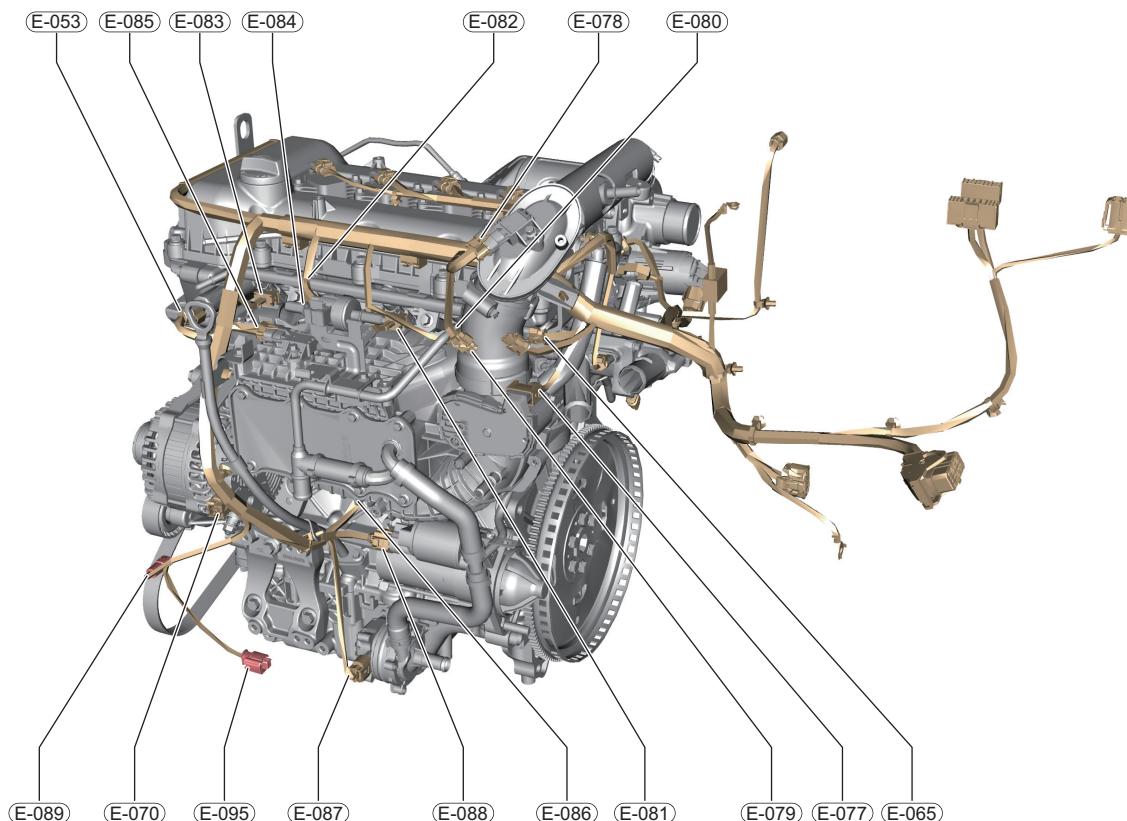
## Wire Harness Position Diagram

### Vehicle Wire Harness Layout



WHE000001

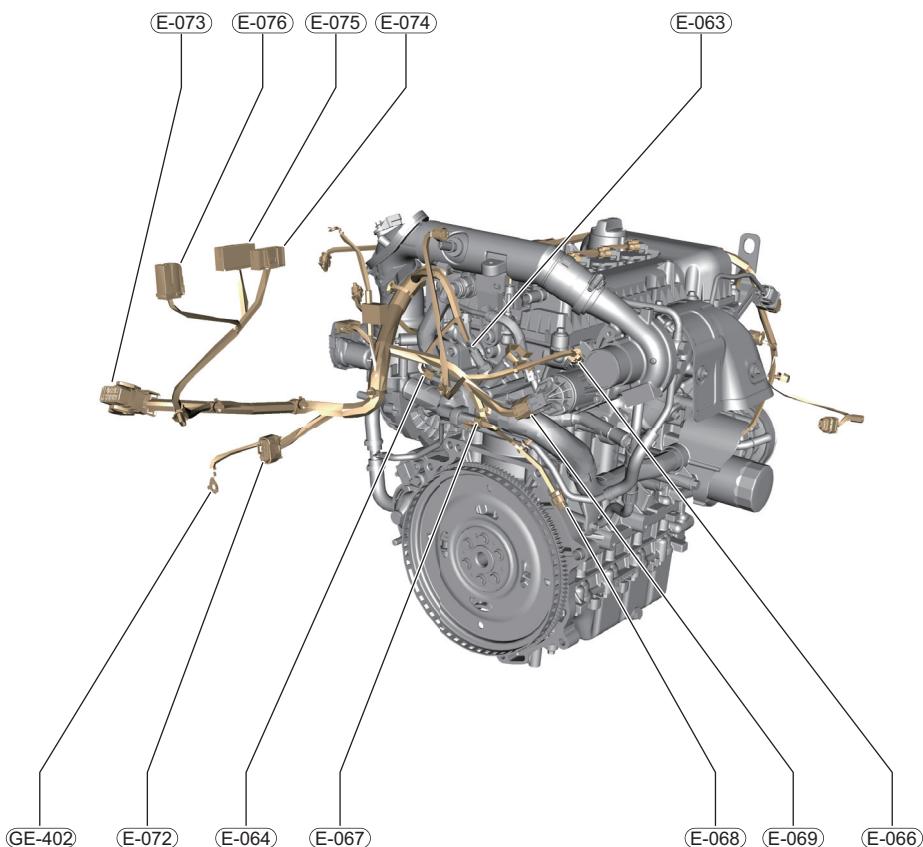
## Engine Wire Harness (1.5T)



WHE047001

Connector Number	Connector Pin/Color	Connector Name
E-053	B/2	Variable Camshaft Timing – Intake
E-065	B/3	Crankshaft Position Sensor – 1
E-070	B/3	Alternator – Adjustment
E-077	B/6	Electronic Throttle
E-078	B/4	Boost Pressure Sensor
E-079	B/3	Desorption Flow Detection Pressure Sensor
E-080	B/2	Fuel Injector –4
E-081	B/2	Fuel Injector –3
E-082	B/2	Fuel Injector –2
E-083	B/2	Fuel Injector –1
E-084	B/2	Canister Solenoid Valve
E-085	B/4	Intake Pressure Temperature Sensor
E-086	B/2	Knock Sensor
E-087	B/4	Electric Water Pump
E-088	/1	Starter – Excitation
E-089	B/2	Air Compressor Clutch
E-095	B/2	Compressor Solenoid Valve

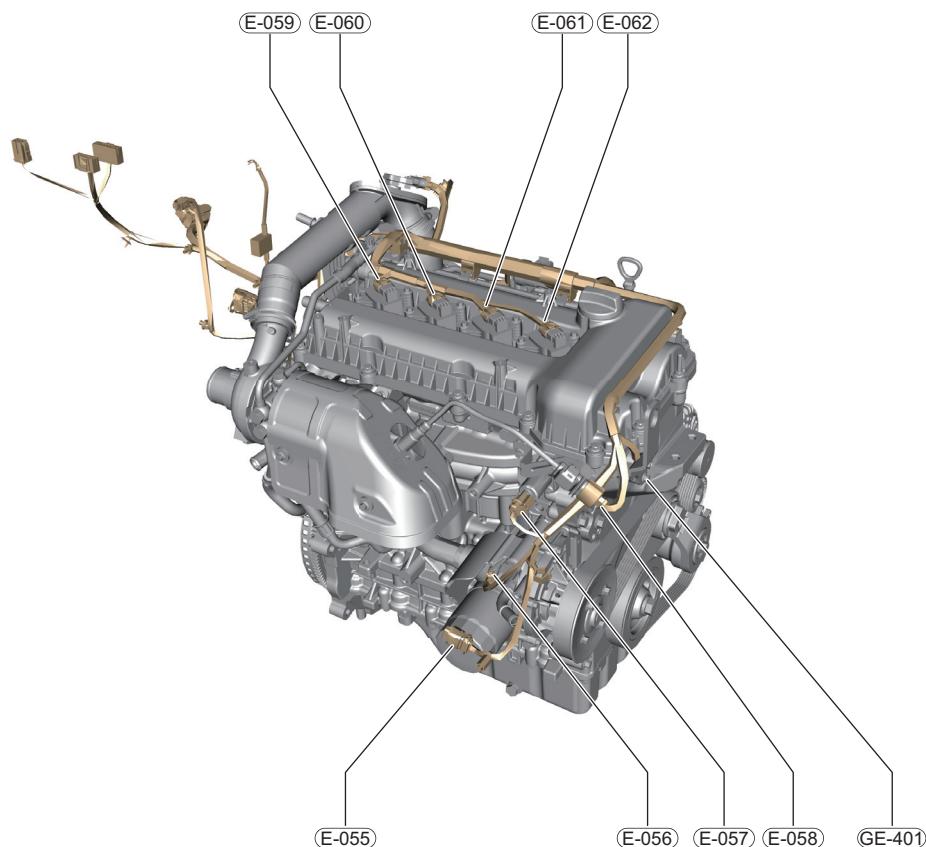
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WHE048001

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Connector Number	Connector Pin/Color	Connector Name
E-063	B/2	Coolant Temperature Sensor – Inlet
E-064	B/2	Coolant Temperature Sensor – Outlet
E-066	B/3	Crankshaft Position Sensor – 2
E-067	B/2	Electronic Thermostat
E-068	B/3	Engine Speed Sensor
E-069	B/6	Engine Booster Actuator
GE-402	/	Ground
E-072	B/26	to Interior Wire Harness
E-073	B/48	ECU1
E-074	W/18	Central Fuse and Relay Box Connector – A
E-075	W/16	Central Fuse and Relay Box Connector – B
E-076	W/2	Central Fuse and Relay Box Connector – F

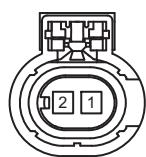


WHE049001

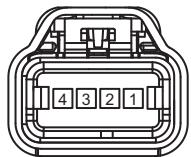
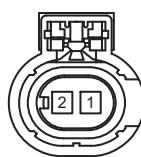
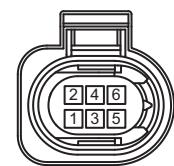
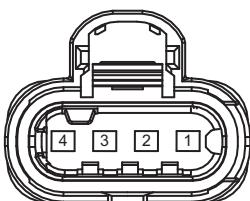
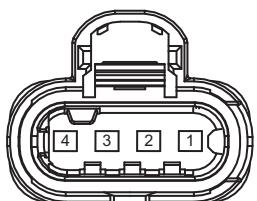
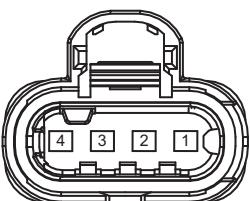
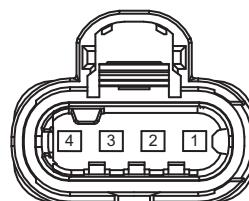
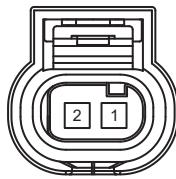
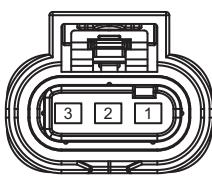
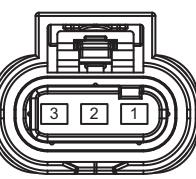
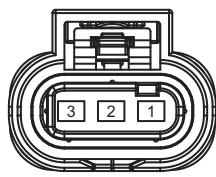
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Connector Number	Connector Pin/Color	Connector Name
GE-401	/	Ground
E-055	B/4	Rear Oxygen Sensor
E-056	B/1	Oil Pressure Switch
E-057	B/2	Variable Camshaft Timing – Exhaust
E-058	B/6	Front Oxygen Sensor
E-059	B/4	Ignition Coil –4
E-060	B/4	Ignition Coil –3
E-061	B/4	Ignition Coil –2
E-062	B/4	Ignition Coil –1

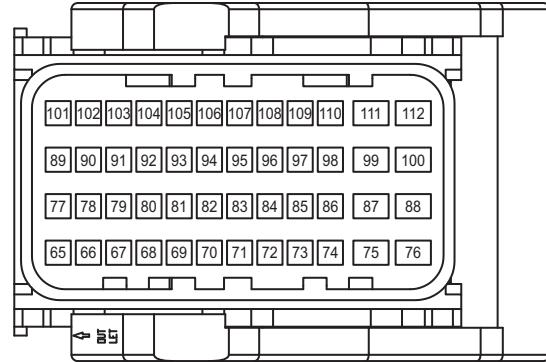
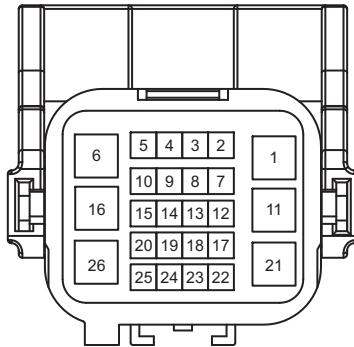
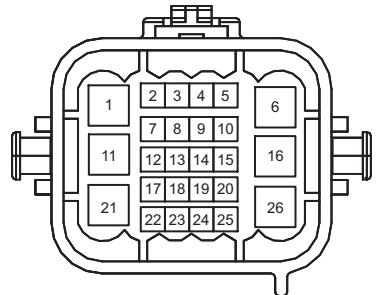
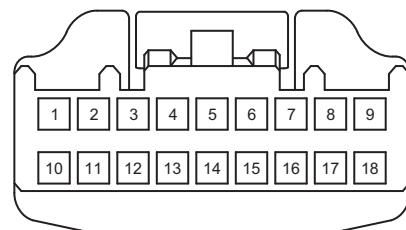
## Engine Wire Harness Connector List (1.5T)

(E-053)  
B

(GE-401)

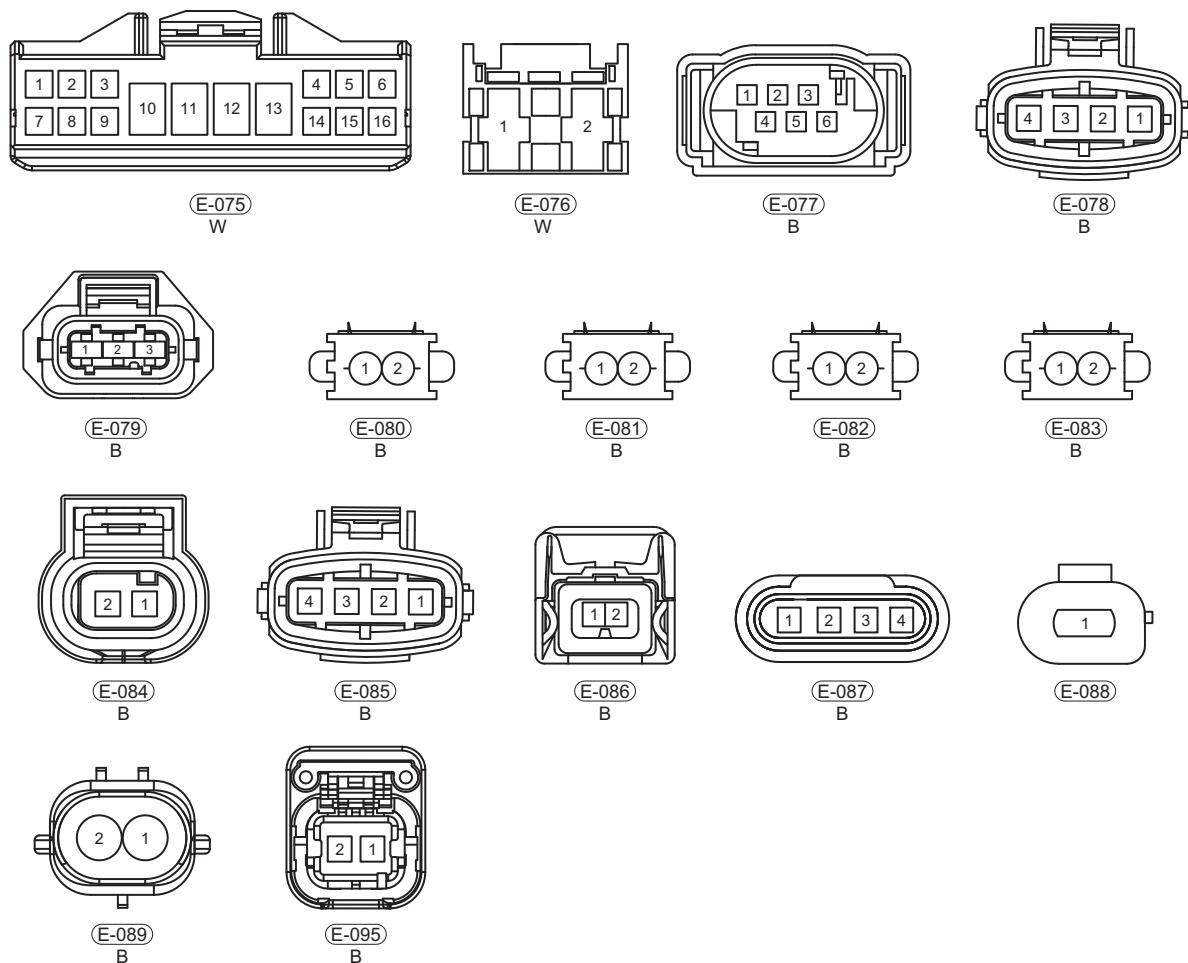
(E-055)  
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B(E-057)  
B(E-058)  
B(E-059)  
B(E-060)  
B(E-061)  
B(E-062)  
B(E-063)  
B(E-064)  
B(E-065)  
B(E-066)  
B(E-067)  
B(E-068)  
B(E-069)  
B

(GE-402)

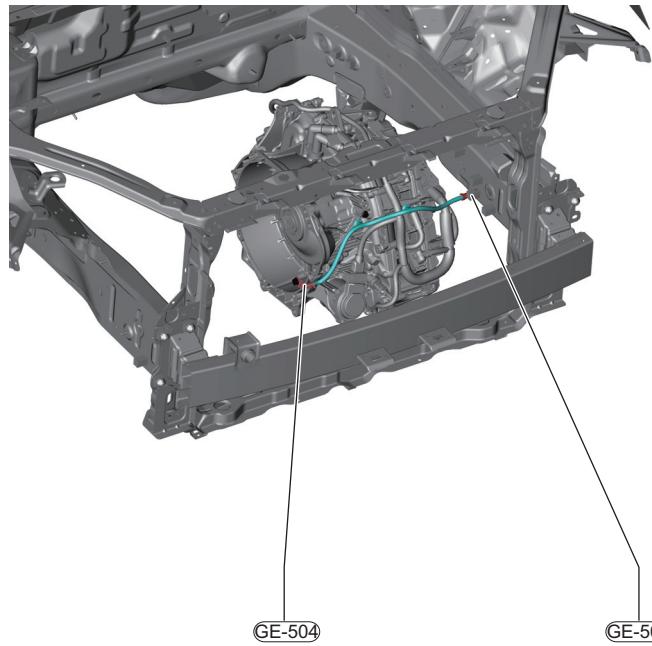
(E-073)  
B(E-072)  
B(B-127)  
B(E-074)  
W

EPU027001

## Engine Wire Harness Connector List (1.5T)



## Ground Wire Harness

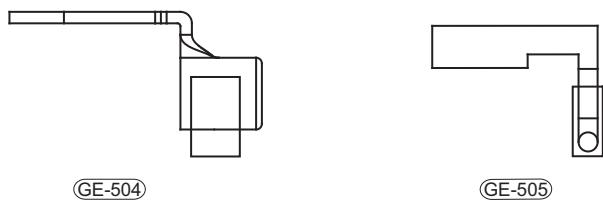


WHE005001

Connector Number	Connector Color/Pin	Connector Name
GE-504	-	Transmission Ground G301
GE-505	-	Body Ground G302

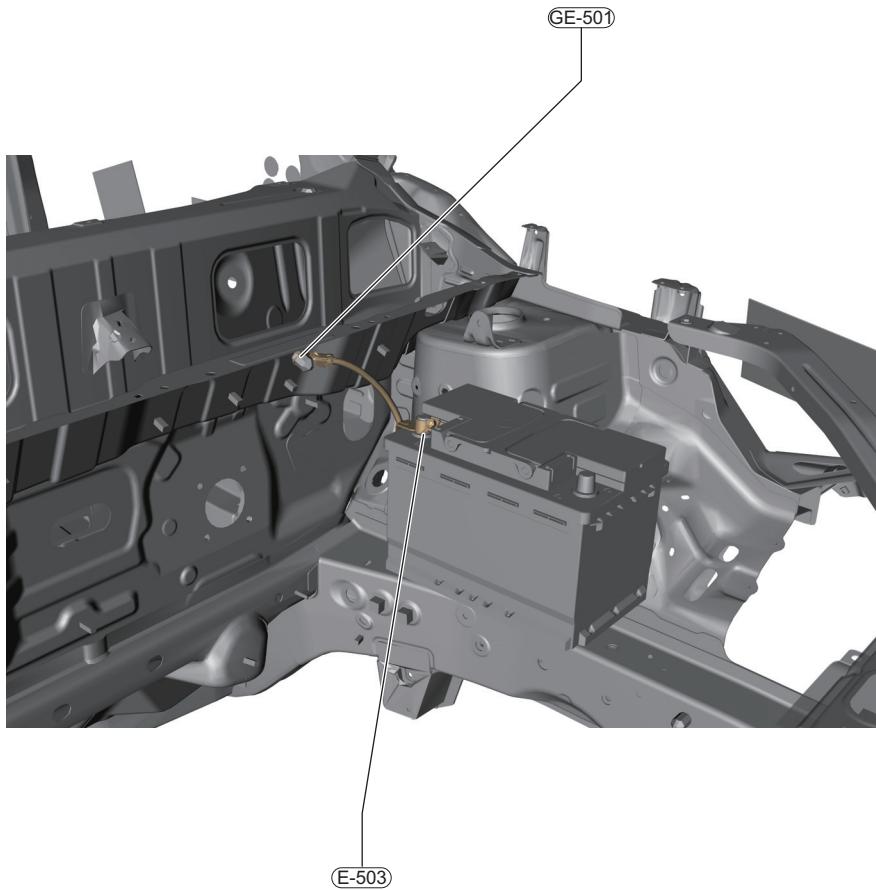
### Ground Wire Harness Connector List

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EPU011001

## Battery Negative Wire Harness

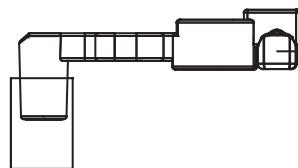
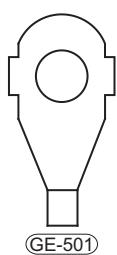


WHE006001

Connector Number	Connector Color/Pin	Connector Name
GE-501	-	Battery Negative Ground G201
GE-503	-	Battery Negative

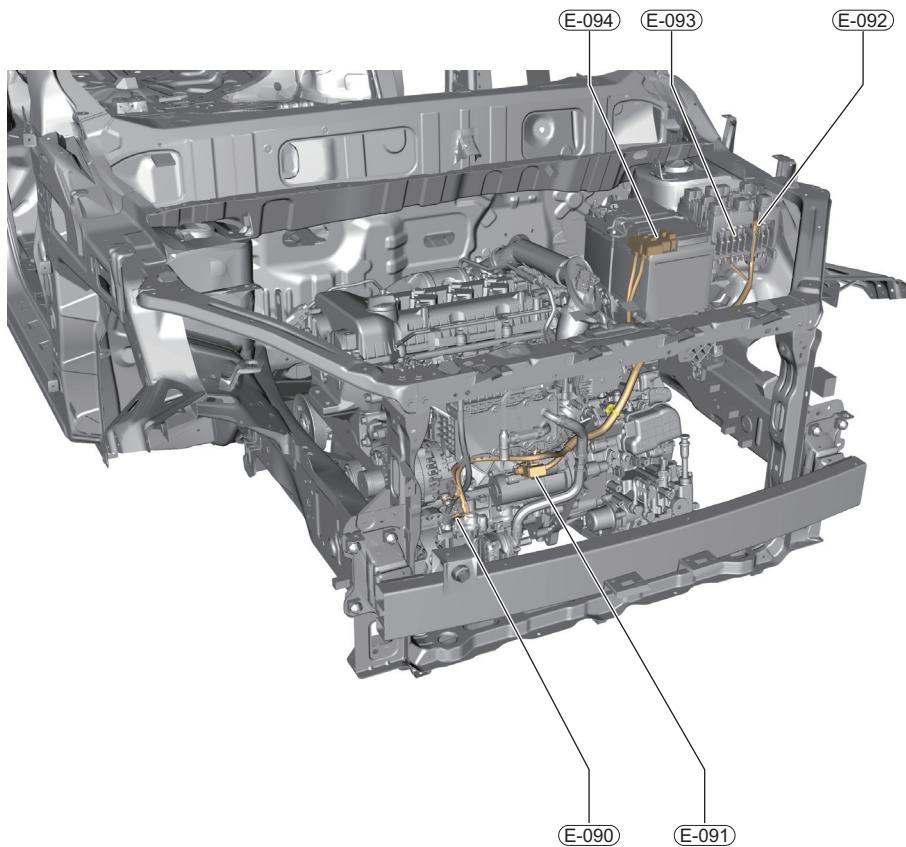
## Battery Negative Wire Harness Connector List

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EPU011001

## Battery Positive Wire Harness (1.5T)

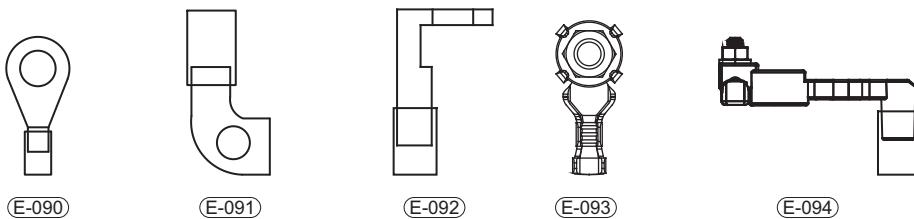


WHE050001

Connector Number	Connector Color/Pin	Connector Name
E-090	/	Alternator
E-091	/	Starter Post
E-092	/	Central Fuse and Relay Box Terminal
E-093	/	Central Fuse and Relay Box Interface – Alternator
E-094	/	Battery Positive Terminal

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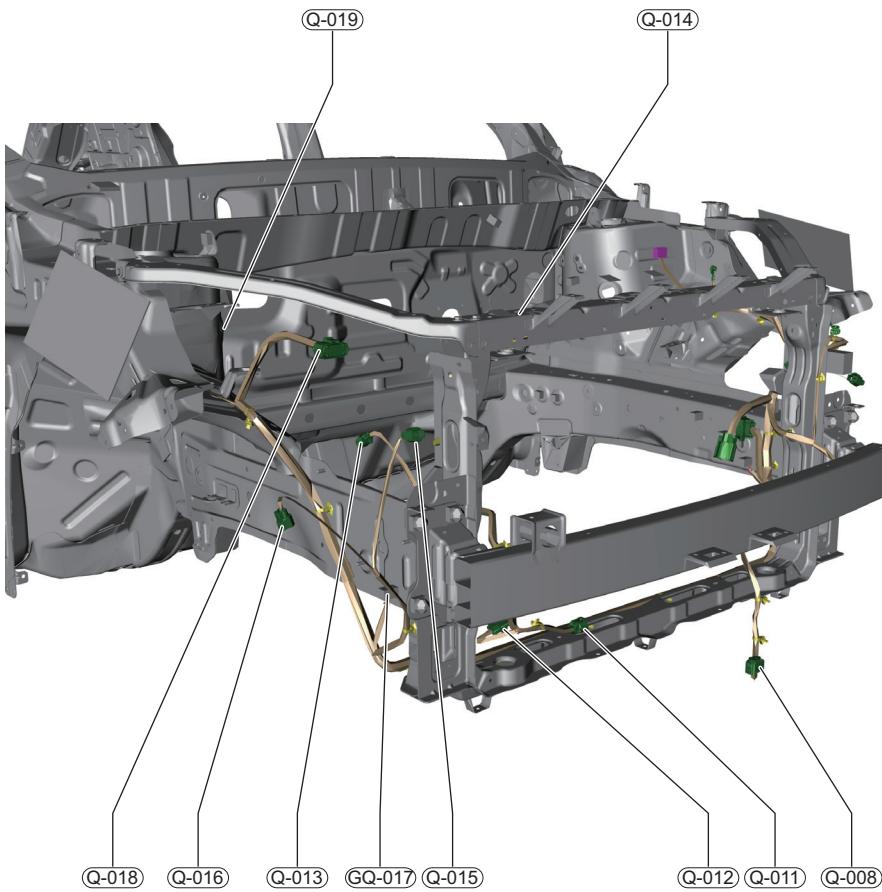
## Battery Positive Wire Harness Connector (1.5T)



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EPU029001

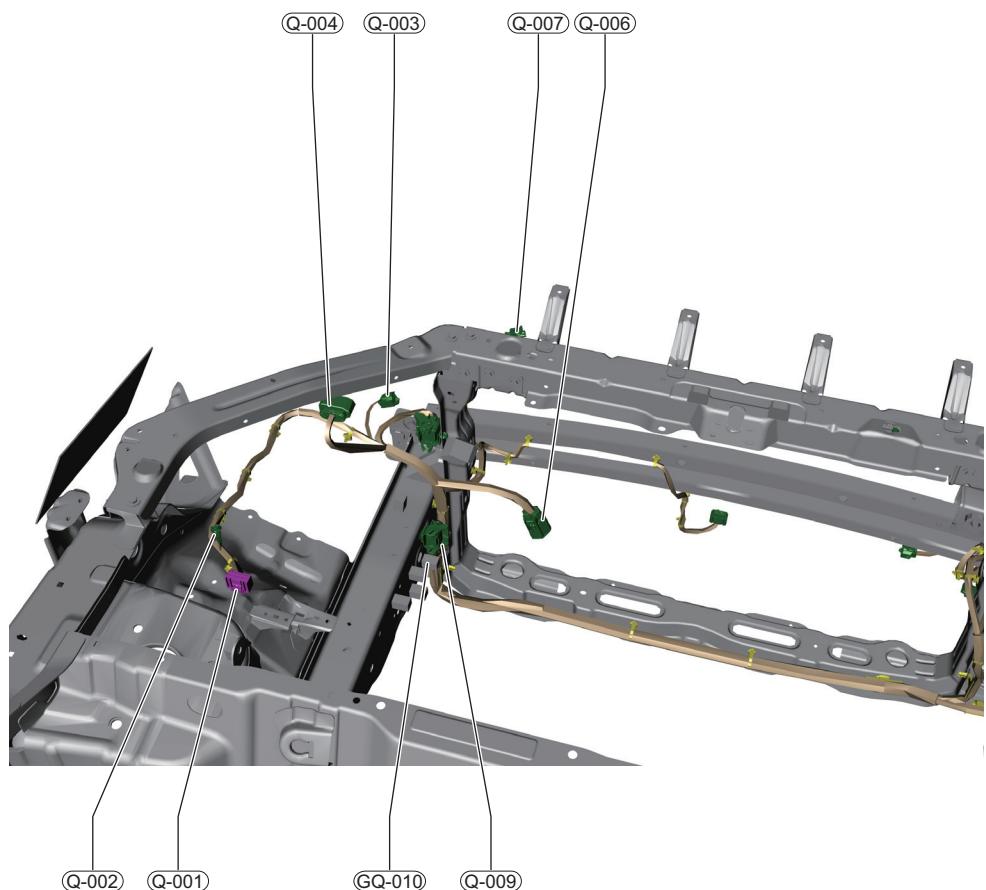
## Front Bumper Wire Harness



WHE008001

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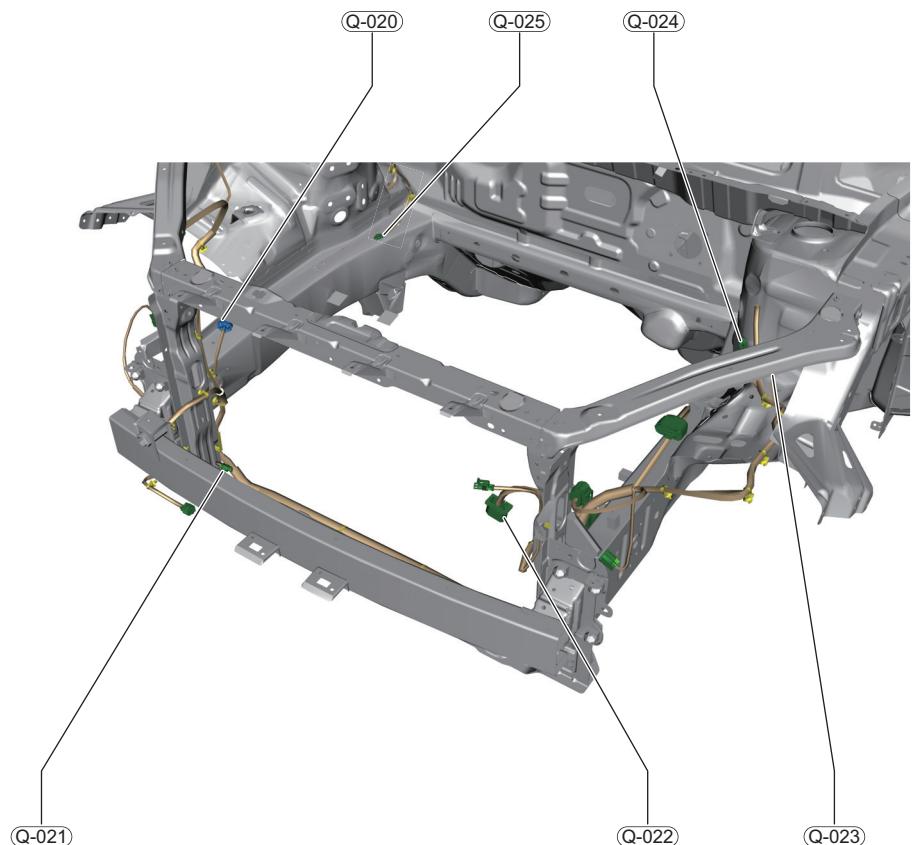
Connector Number	Connector Color/Pin	Connector Name
Q-008	B/8	Front Microwave Radar Module
Q-011	Gr/2	Outside Temperature Sensor
Q-012	B/4	Boost Pressure Sensor (1.6T)
Q-013	B/3	A/C Pressure Sensor
Q-014	W/3	Engine Compartment Contact Switch
Q-015	Gr/2	Low Pitched Horn
Q-016	Gr/2	Front Washer Motor
GQ-017	/	Ground G101
Q-018	B/14	Right Headlight Assembly
Q-019	B/2	Front Right Wheel Speed Sensor



WHE009001

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Connector Number	Connector Color/Pin	Connector Name
Q-001	W/14	Engine Compartment Fuse and Relay Box Connector C (1.6T)
Q-002	/	Engine Compartment Fuse and Relay Box Interface R7
Q-003	Gr/2	High Pitched Horn
Q-004	B/14	Left Headlight Assembly
Q-006	L/4	Cooling Fan Controller (1.6T)
Q-007	B/2	Front Position Light
Q-009	B/26	Interior Wire Harness Interface 1
GQ-010	/	Ground G102

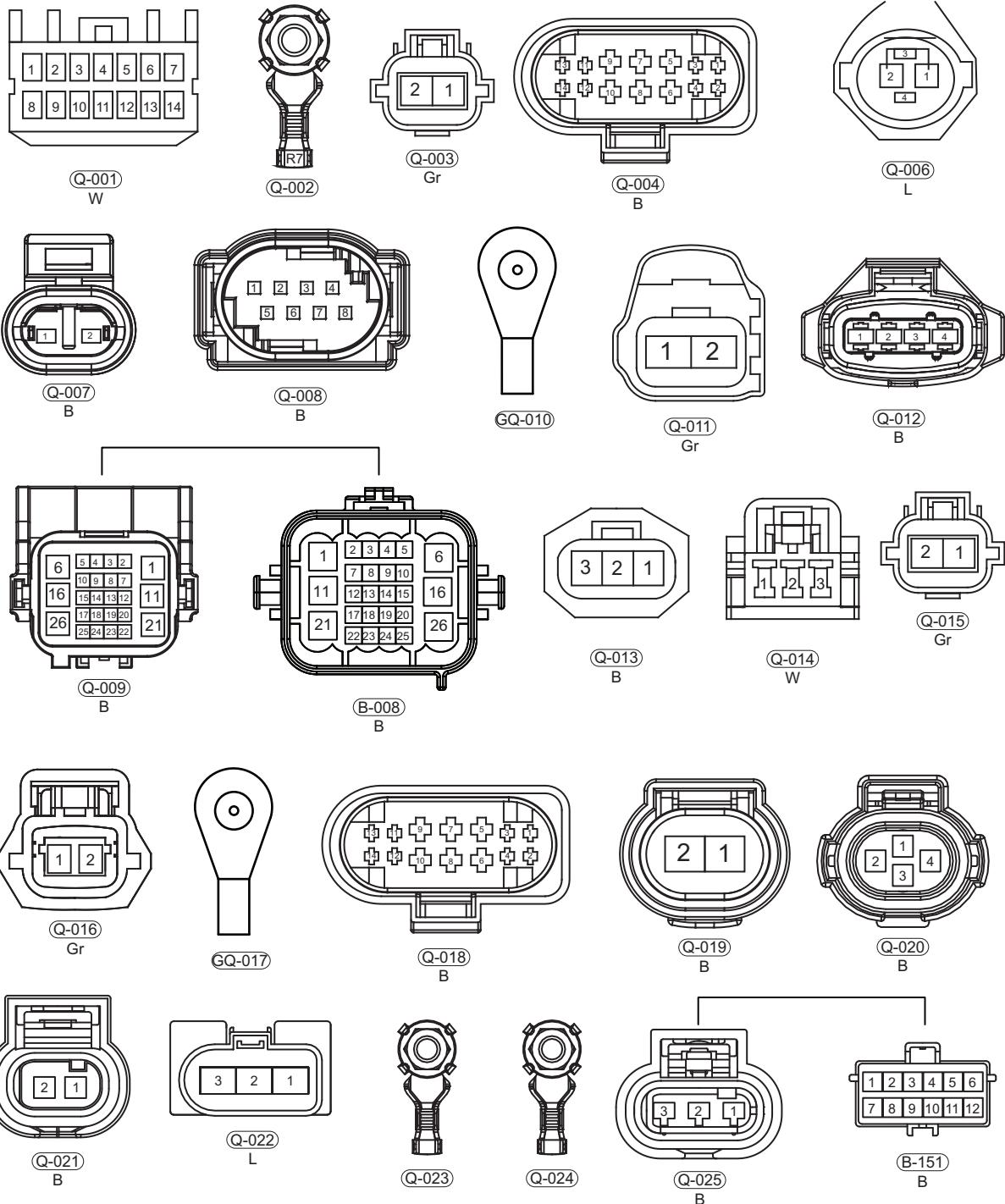


WHE051001

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Connector Number	Connector Color/Pin	Connector Name
Q-020	B/4	Pressure Switch (1.5T)
Q-021	B/2	3rd Coolant Temperature Sensor (1.5T)
Q-022	L/3	Cooling Fan (1.5T)
Q-023	/	Central Fuse and Relay Box Connector – Fan
Q-024	/	Central Fuse and Relay Box Connector – Fan
Q-025	/3	Low Pressure Oil Passage Pressure Sensor

## Front Bumper Wire Harness Connector List



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EPU018001

## Front Radar Wire Harness

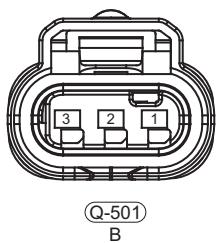
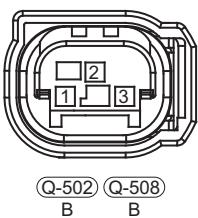
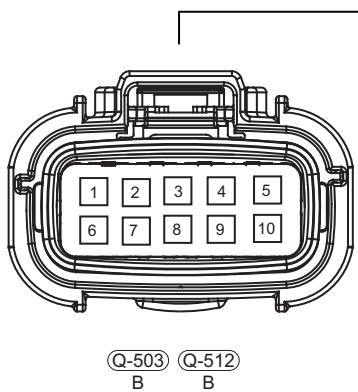
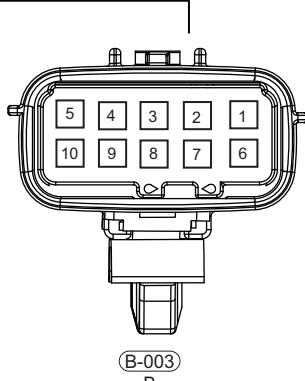
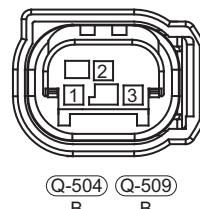
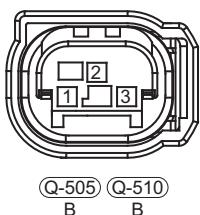
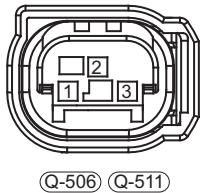
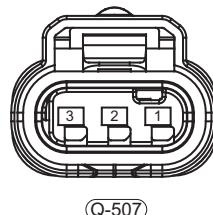


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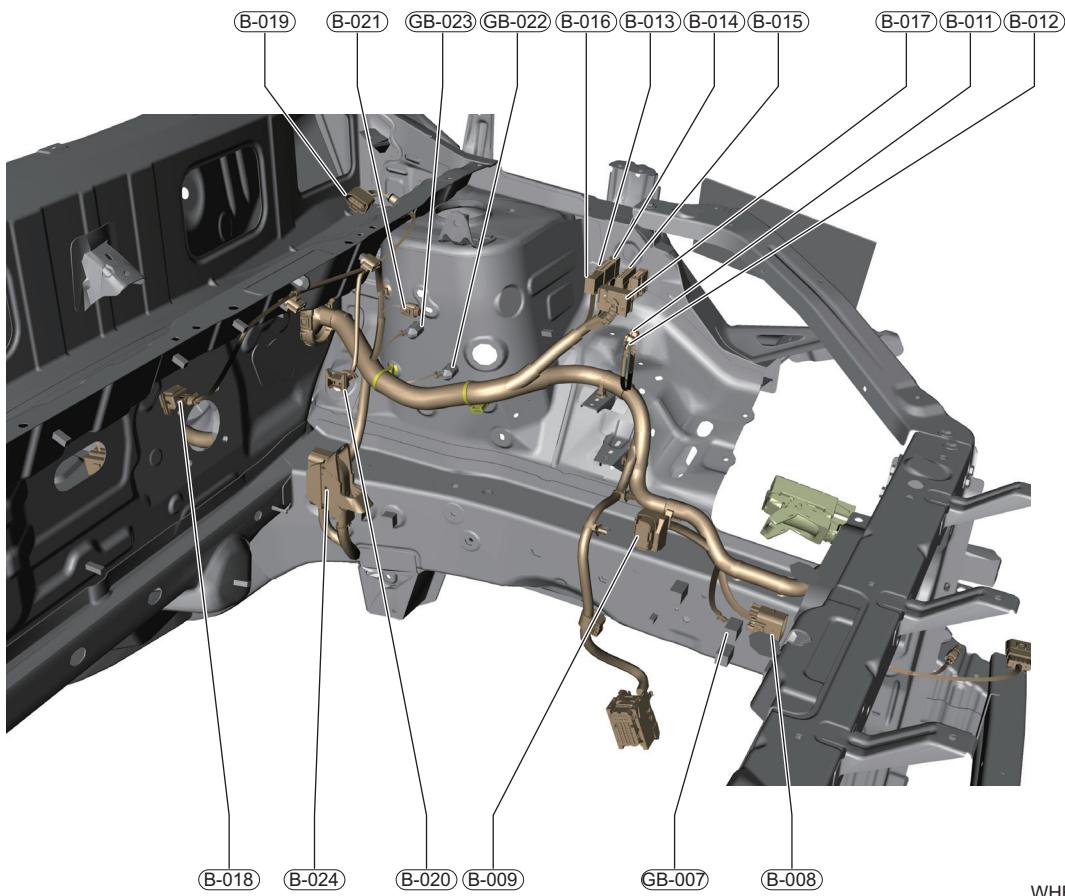
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Connector Number	Connector Color/Pin	Connector Name
Q-501	B/3	Front Left Long Distance Ultrasonic Sensor
Q-502	B/3	Front Left Radar Sensor APA
Q-503, 512	B/10	Interior Wire Harness Interface
Q-504	B/3	Front Left Center Radar Sensor APA
Q-505	B/3	Front Left Center Radar Sensor APA
Q-506	B/3	Front Right Radar Sensor APA
Q-507	B/3	Front Right Long Distance Ultrasonic Sensor
Q-508	/3	Front Left Sensor
Q-509	/3	Front Left Center Radar Sensor
Q-510	/3	Front Right Center Radar Sensor
Q-511	/3	Front Right Sensor

## Front Radar Wire Harness Connector List

(Q-501)  
B(Q-502)  
B (Q-508)  
B(Q-503)  
B (Q-512)  
B(B-003)  
B(Q-504)  
B (Q-509)  
B(Q-505)  
B (Q-510)  
B(Q-506)  
B (Q-511)  
B(Q-507)  
B

## Interior Wire Harness

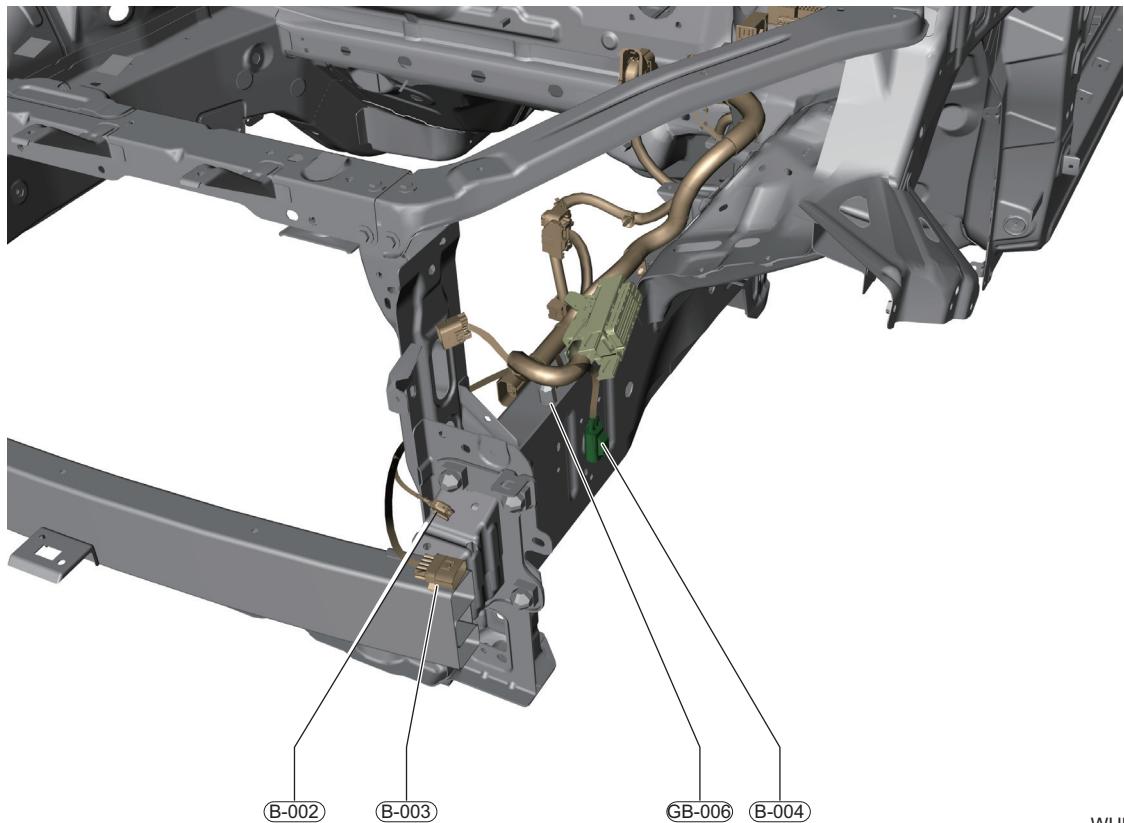


WHE011001

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Connector Number	Connector Color/Pin	Connector Name
GB-007	/	Ground G604
B-008	B/26	Front Bumper Wire Harness Interface 1
B-009	B/30	Engine Wire Harness Interface 4
B-011	/	Engine Compartment Relay Interface R3
B-012	/	Engine Compartment Relay Interface R2
B-013	W/12	Engine Compartment Fuse and Relay Box Connector J
B-014	W/40	Engine Compartment Fuse and Relay Box Connector H
B-015	W/16	Engine Compartment Fuse and Relay Box Connector E
B-016	W/12	Engine Compartment Fuse and Relay Box Connector D
B-017	B/14	Engine Compartment Fuse and Relay Box Connector G
B-018	Gr/3	Absolute Brake Vacuum Sensor
B-019	B/4	Front Wiper
B-020	B/2	Brake Fluid Sensor

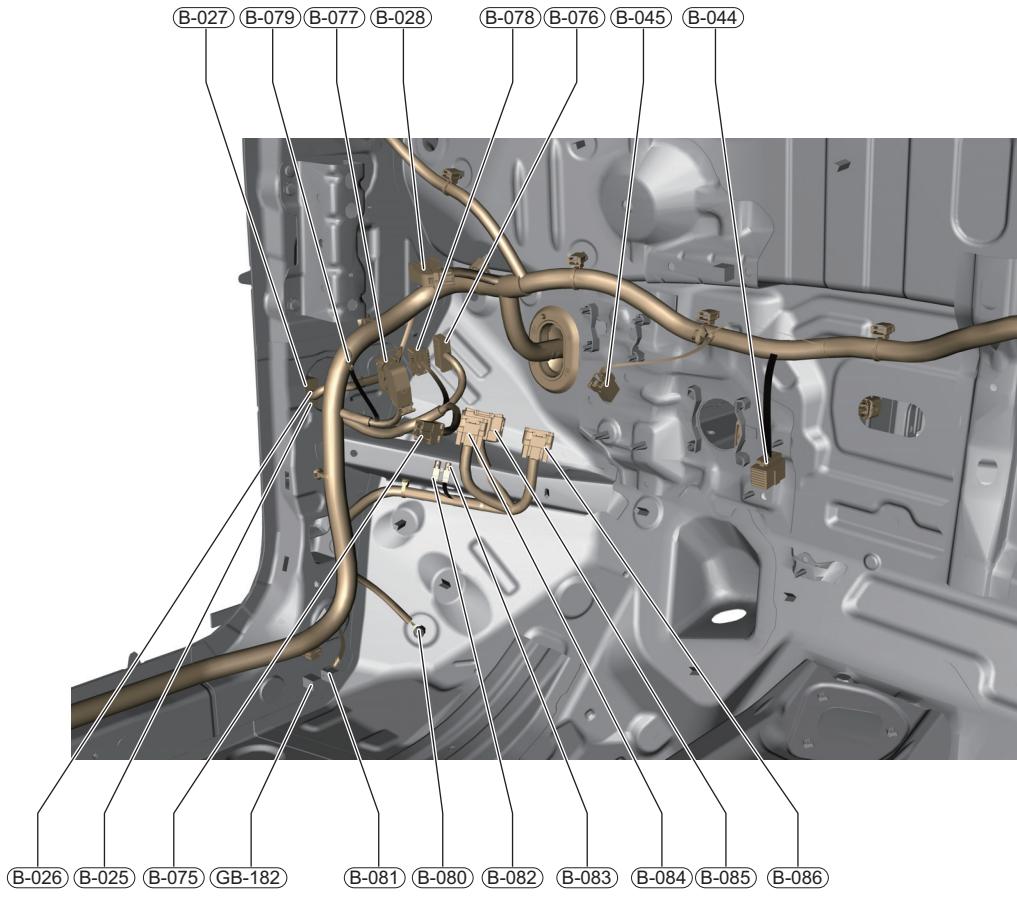
Connector Number	Connector Color/Pin	Connector Name
B-021	B/2	Front Left Wheel Speed Sensor
GB-022	/	Ground G603
GB-023	/	Ground G601
B-024	B/46	ESP2



WHE012001

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Connector Number	Connector Color/Pin	Connector Name
B-002	/	Front Camera Connector
B-003	B/10	Front Radar Wire Harness Interface
B-004	B/2	Electronic Vacuum Pump
GB-006	/	Ground G602

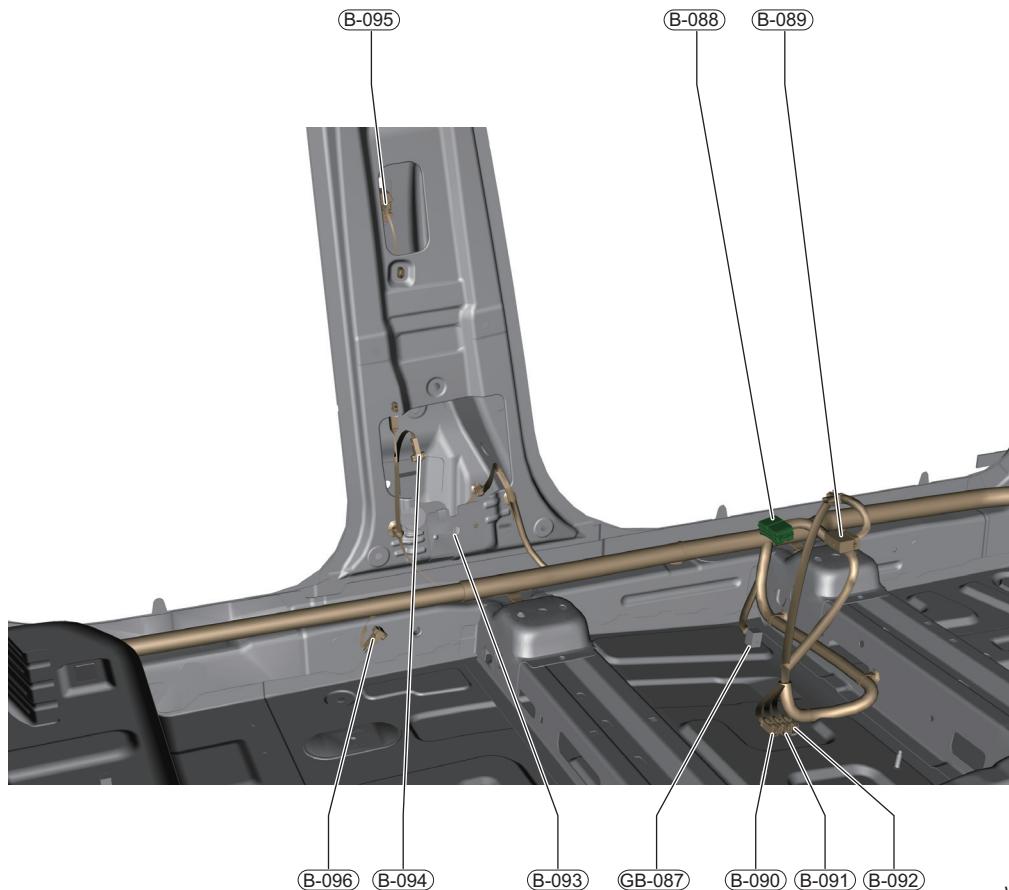


WHE013001

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Connector Number	Connector Color/Pin	Connector Name
B-025	W/26	Front Left Door Wire Harness Interface 2
B-026	/	Left HD Camera Connector
B-027	W/20	Front Left Door Wire Harness Interface 1
B-028	B/52	Body Controller Connector 1
B-044	B/6	Electronic Accelerator Pedal
B-045	W/4	Brake Switch
B-075	B/2	EPS
B-076	W/20	Body Controller Connector 5
B-077	W/12	Body Controller Connector 4
B-078	B/14	Body Controller Connector 3
B-079	/	Instrument Panel Fuse and Relay Box Power Supply
GB-080	/	Ground G606
GB-081	/	Ground G605
B-082	/	Face Recognition Antenna Adapter Connector
B-083	/	Drive Recorder Adapter Connector

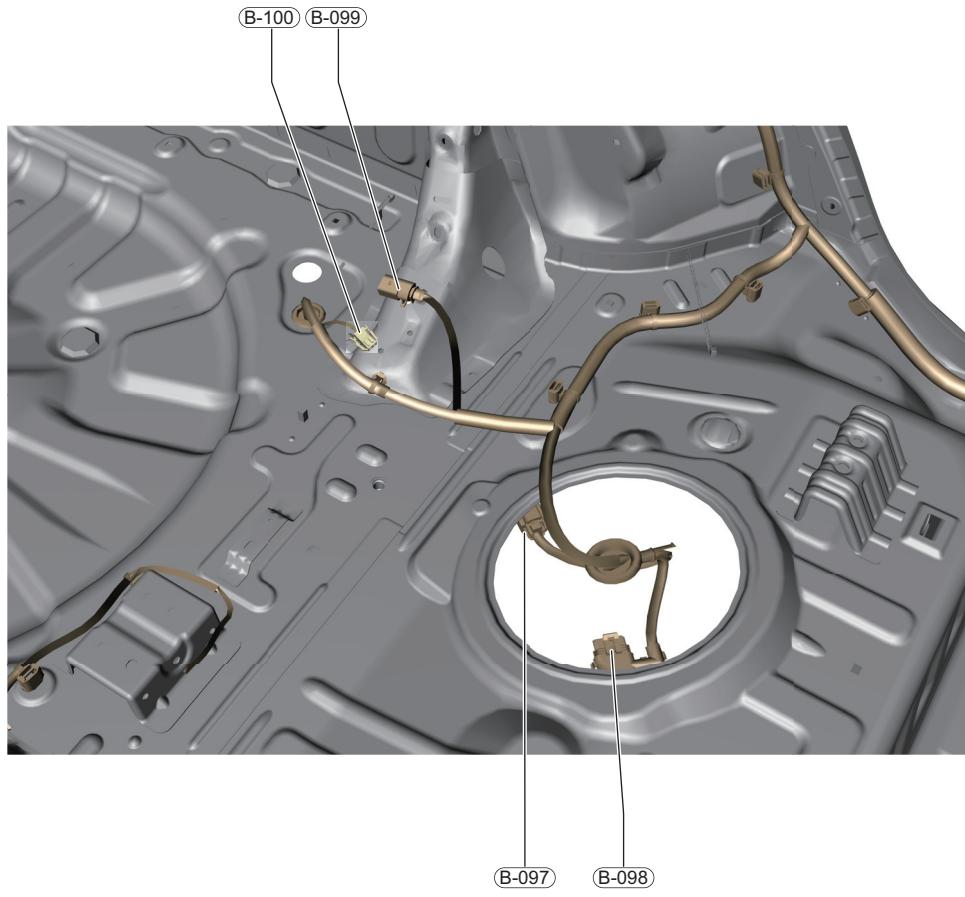
Connector Number	Connector Color/Pin	Connector Name
B-084	W/26	Instrument Panel Wire Harness Interface 5
B-085	W/40	Instrument Panel Wire Harness Interface 1
B-086	B/26	Instrument Panel Wire Harness Interface 2
GB-182	/	Ground G611



WHE014001

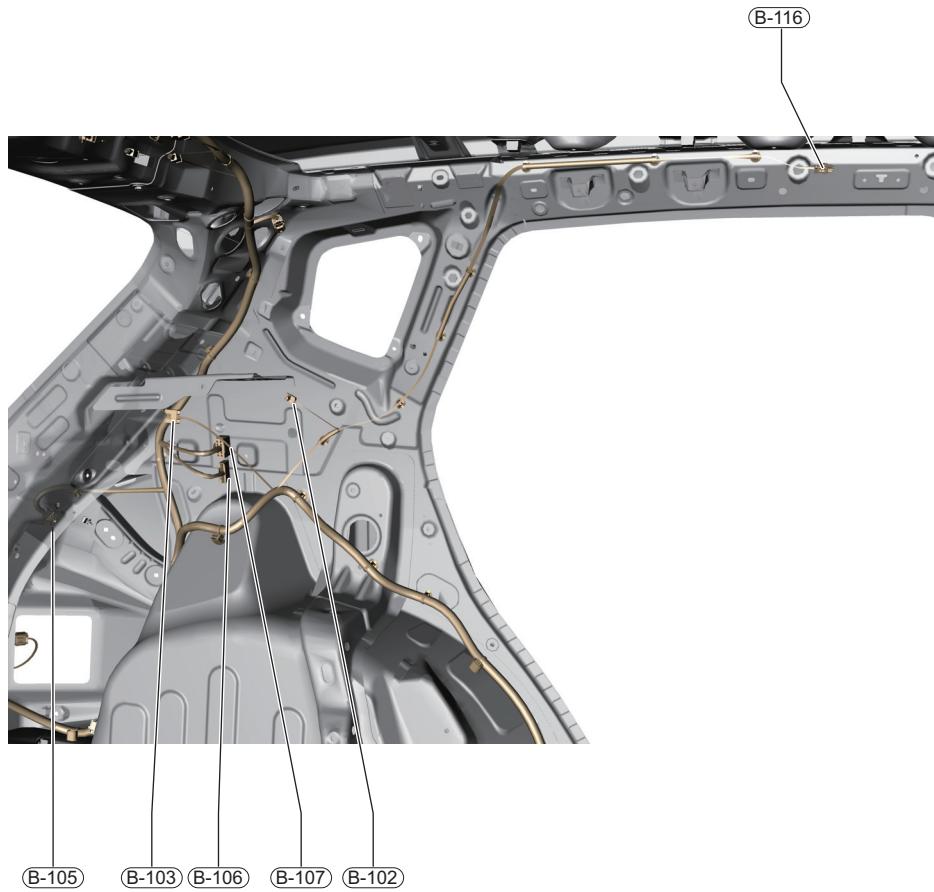
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Connector Number	Connector Color/Pin	Connector Name
GB-087	/	G607
B-088	B/32	Interior Wire Harness and Memory Seat Wire Harness Interface
B-089	Br/5	Driver Seat Adjustment
B-090	Y/	T-BOX Antenna
B-091	R/	T-BOX Antenna
B-092	L/	T-BOX Antenna
B-093	B/2	Left Side Collision Sensor
B-094	Y/2	Front Left Seat Belt Pretensioner
B-095	W/16	Rear Left Door Wire Harness Interface
B-096	Y/2	Front Left Pretensioner 2



WHE015001

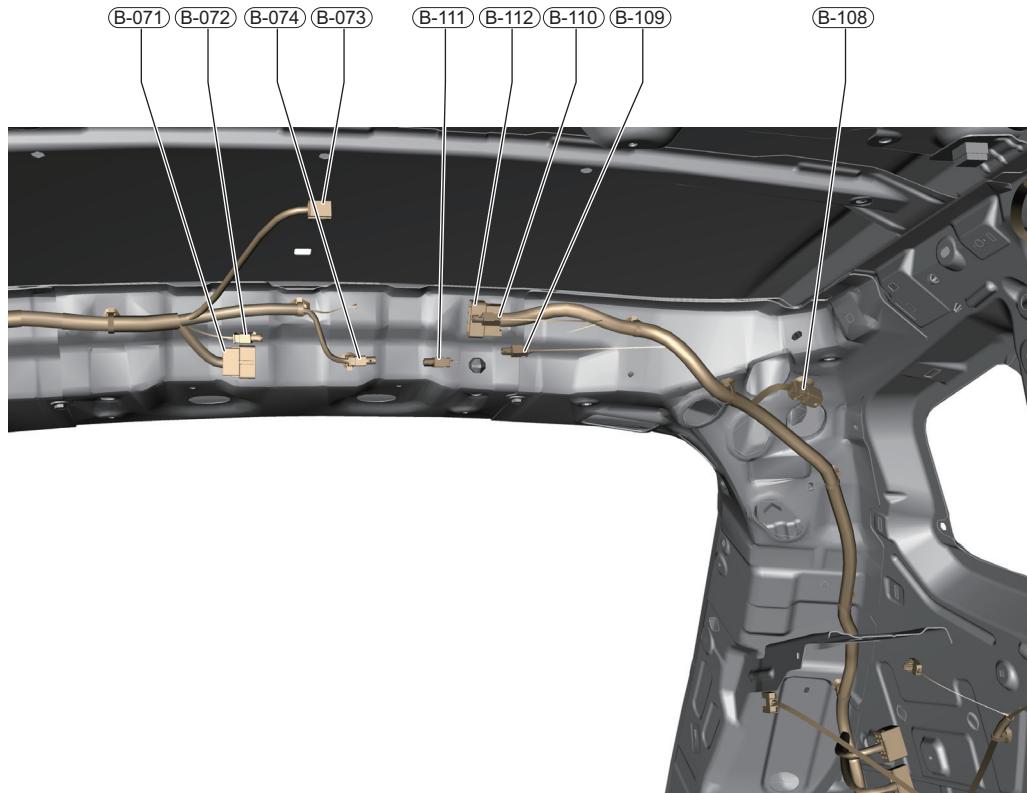
Connector Number	Connector Color/Pin	Connector Name
B-097	B/3	Fuel Tank Pressure Sensor
B-098	B/5	Fuel Pump and Fuel Level Sensor
B-099	W/4	Rear Left Caliper Wire harness Connector
B-100	B/2	Second Row Left Buckle Switch



WHE016001

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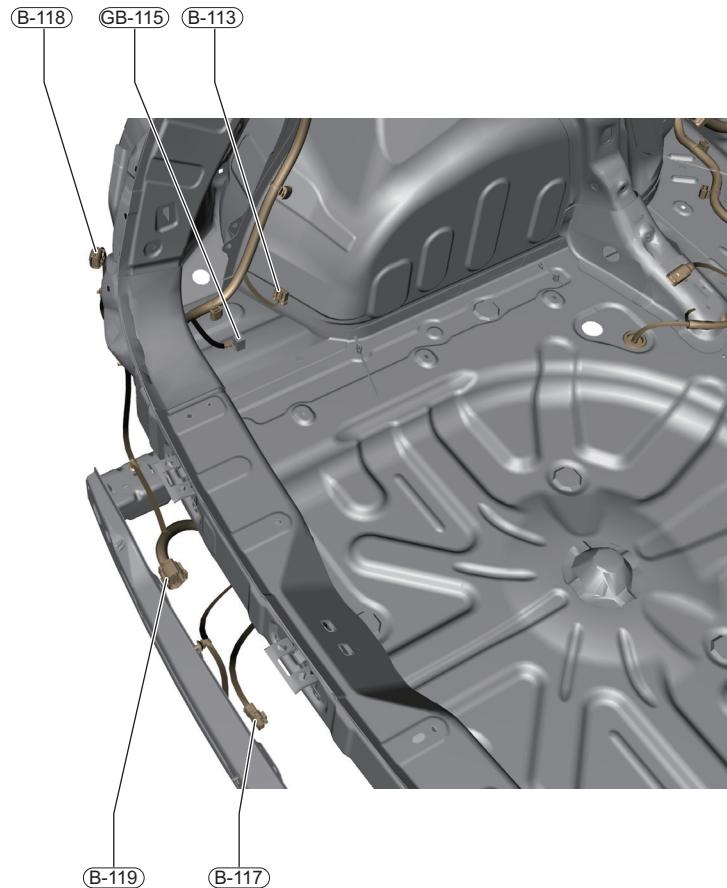
Connector Number	Connector Color/Pin	Connector Name
B-102	B/2	Rear Left Seat Belt Pretensioner
B-103	B/2	Luggage Compartment Light
B-105	W/10	Rear Left Combination Light (Body Part)
B-106	W/32	Power Back Door Module Connector 2
B-107	W/16	Power Back Door Module Connector 1
B-116	Y/2	Left Curtain Shield Airbag



WHE017001

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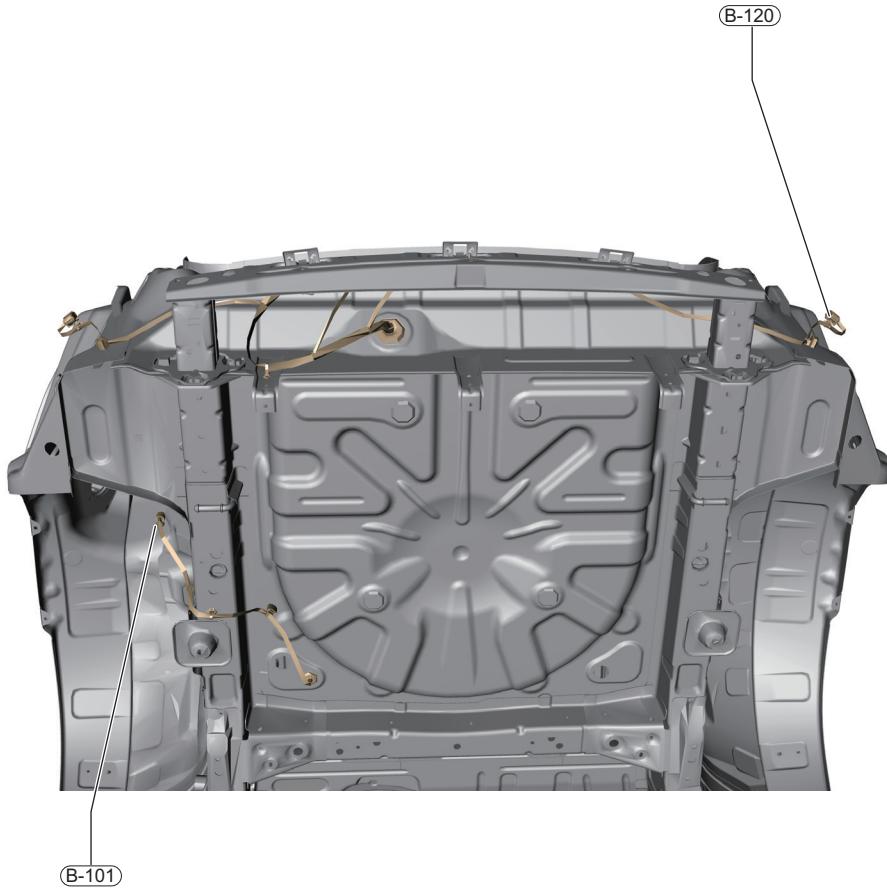
Connector Number	Connector Color/Pin	Connector Name
B-071	W/14	Back Door Interface 2
B-072	/	Radio Antenna
B-073	W/6	Rear Map Light
B-074	/	HD Camera Video Input
B-108	B/10	Power Support Rod
B-109	R/	GPS Antenna
B-110	P/	4G Auxiliary Antenna
B-111	Y/	4G Main Antenna
B-112	W/16	Back Door Wire Harness Interface 1



WHE018001

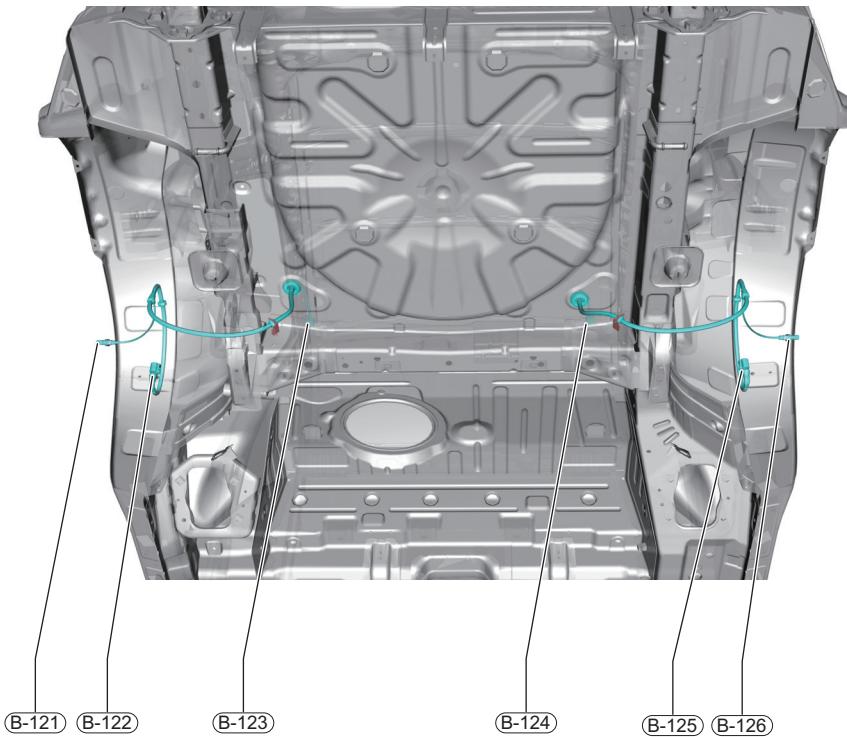
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Connector Number	Connector Color/Pin	Connector Name
B-113	W/16	Radar Control Module
GB-115	/	Ground G608
B-117	B/2	Rear External Low Frequency Antenna
B-118	B/10	Master Blind Spot Detection Module
B-119	B/12	Rear Bumper Wire Harness Interface



WHE019001

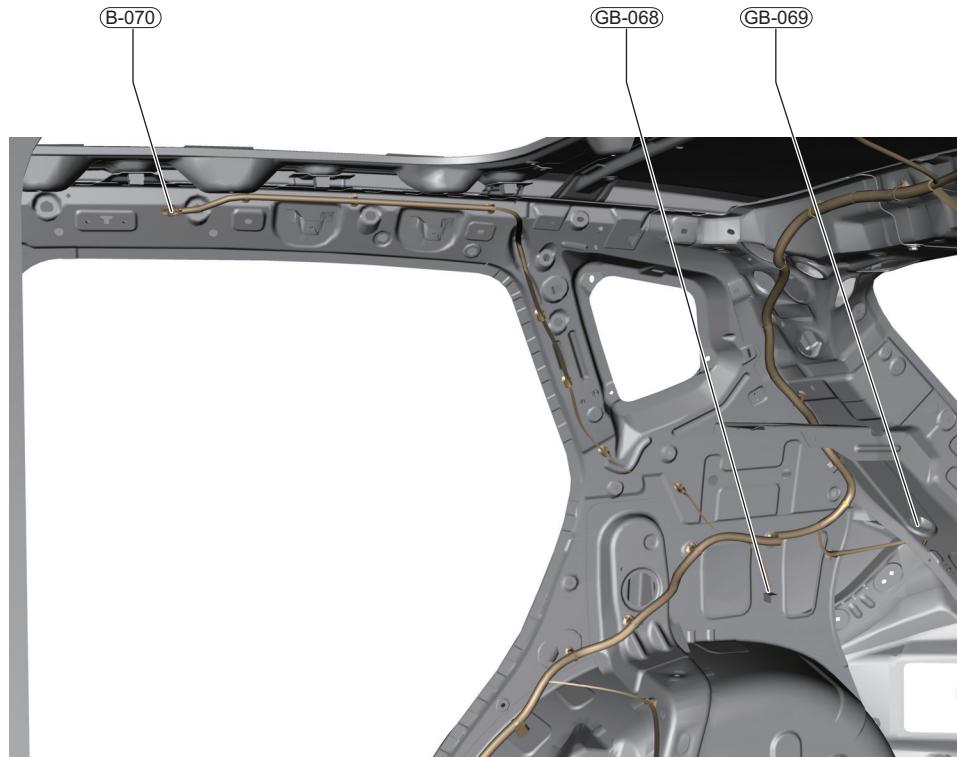
Connector Number	Connector Color/Pin	Connector Name
B-101	B/2	Canister Vent Valve
B-120	B/10	Sub Blind Spot Detection Module



WHE040001

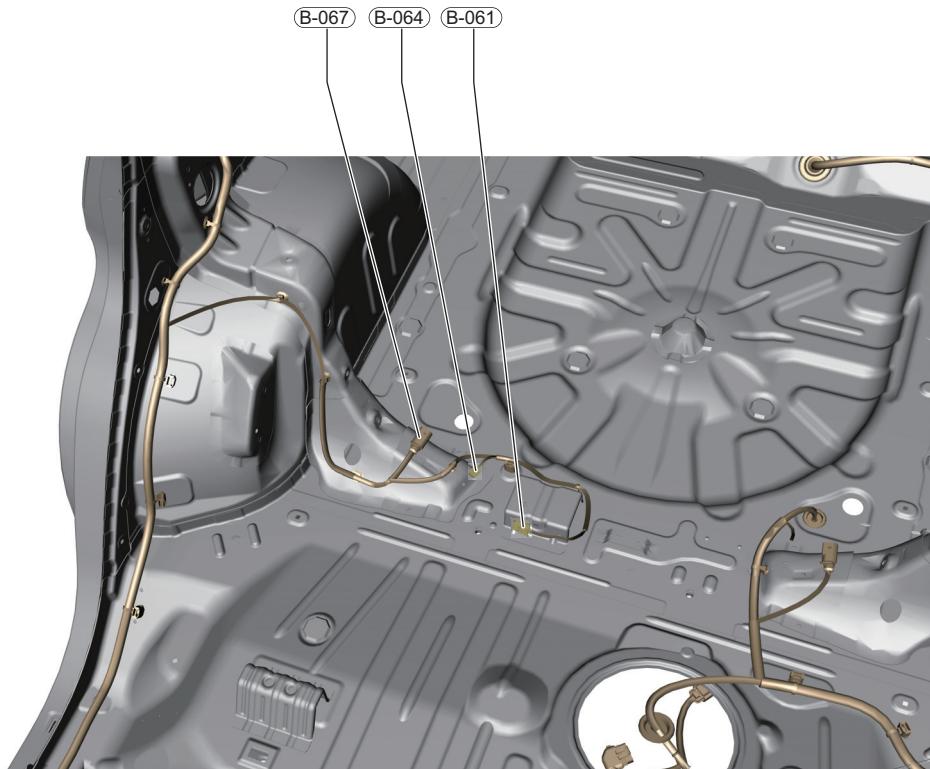
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Connector Number	Connector Color/Pin	Connector Name
B-121	/	Rear Left Wheel Speed Sensor
B-122	Br/2	EPB Left Pipe Wrench Motor
B-123	W/4	Rear Left Caliper Wire Harness Interface
B-124	W/4	Rear Right Caliper Wire Harness Interface
B-125	Br/2	EPB Right Pipe Wrench Motor
B-126	/	Rear Right Wheel Speed Sensor



WHE020001

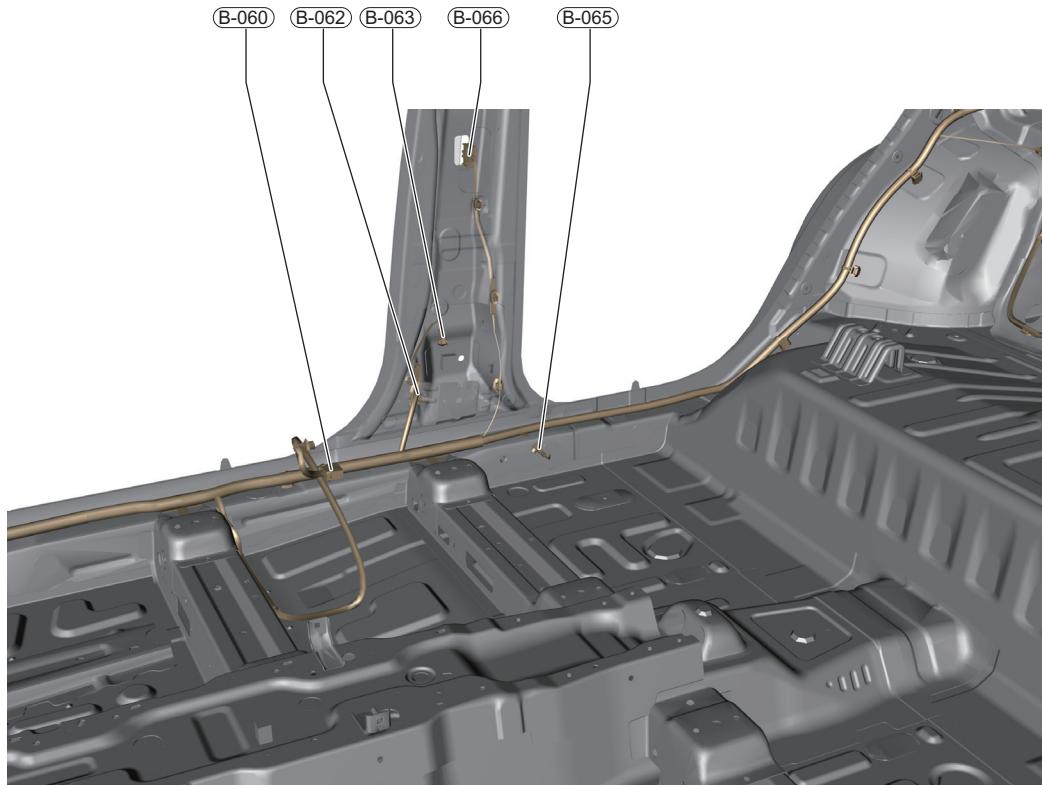
Connector Number	Connector Color/Pin	Connector Name
GB-068	/	Ground G609
B-069	W/10	Rear Right Combination Light (Body Part)
B-070	Y/2	Right Curtain Shield Airbag



WHE021001

Connector Number	Connector Color/Pin	Connector Name
B-061	B/2	Rear Left Center Seat Belt Switch
B-064	B/2	Rear Right Seat Belt Switch
B-067	W/4	Rear Right Caliper Wire Harness Interface

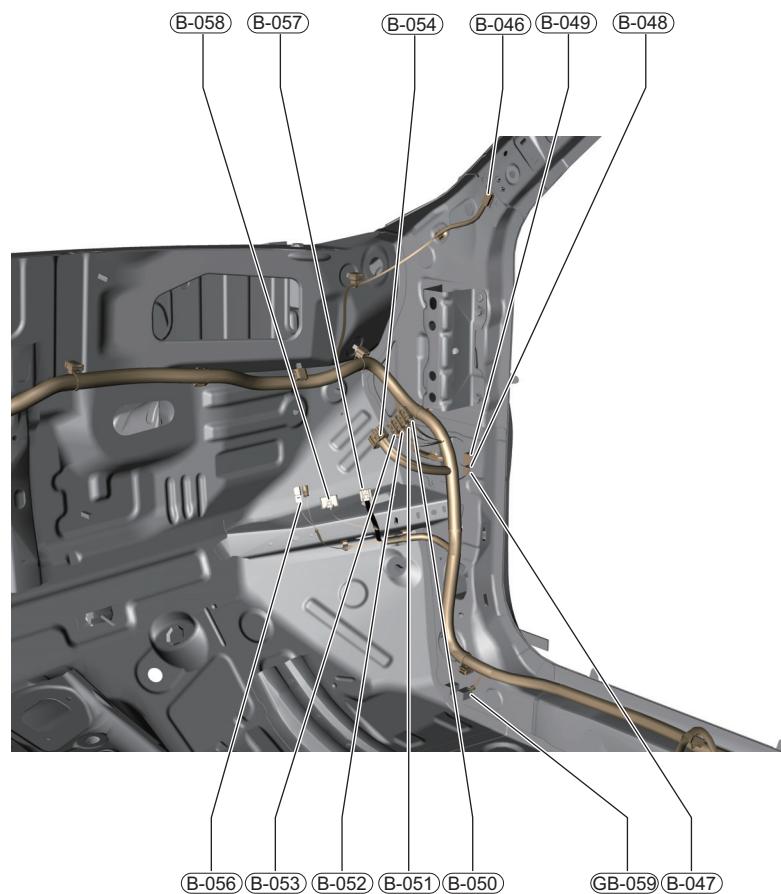
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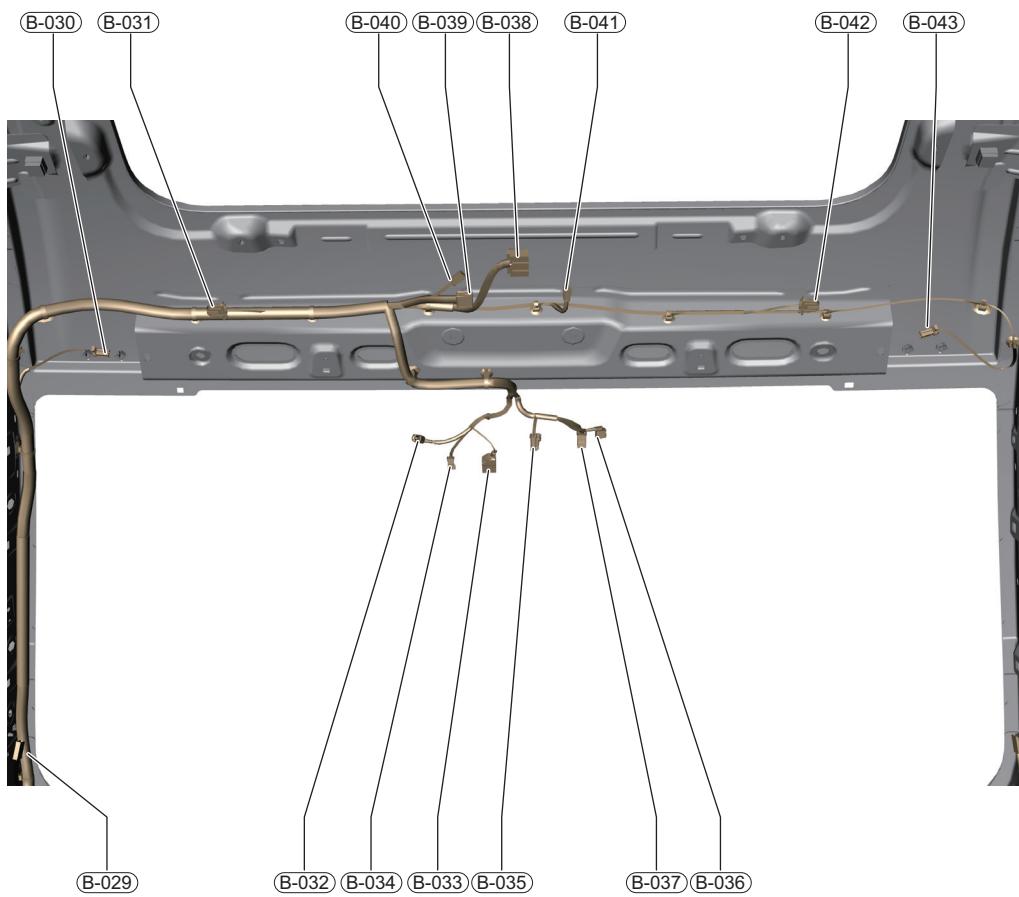
Connector Number	Connector Color/Pin	Connector Name
B-060	B/8	Passenger Seat Adjustment
B-062	B/2	Right Side Collision Sensor
B-063	Y/2	Front Right Pretensioner
B-065	Y/2	Front Right Seat Belt Pretensioner 2
B-066	W/16	Rear Right Door Wire Harness Interface



WHE023001

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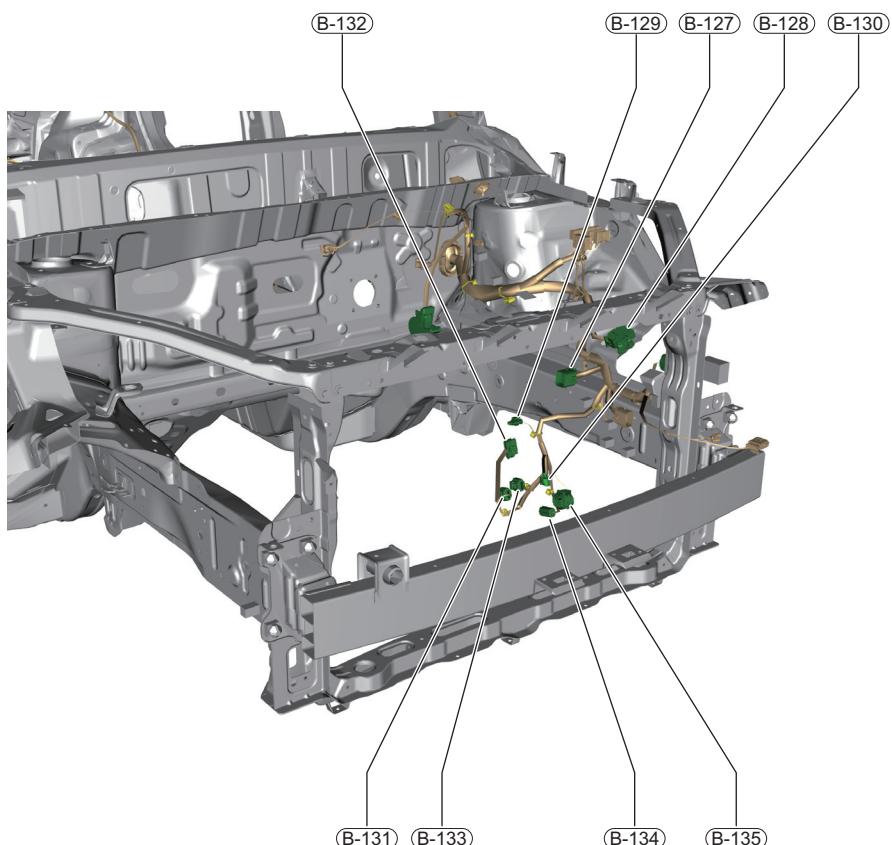
Connector Number	Connector Color/Pin	Connector Name
B-046	B/2	Front Right Tweeter
B-047	W/26	Front Right Door Wire Harness Interface 2
B-048	/	Right HD Camera Connector
B-049	W/20	Front Right Door Wire Harness Interface 1
B-050	/	HD Coaxial Socket
B-051	/	HD Coaxial Socket
B-052	/	HD Coaxial Socket
B-053	/	HD Coaxial Socket
B-054	W/8	Panoramic View Controller Module
B-056	W/	Radio Antenna
B-057	W/16	Instrument Panel Wire Harness Interface 3
B-058	W/14	Instrument Panel Wire Harness Interface 4
GB-059	/	Ground G610



WHE024001

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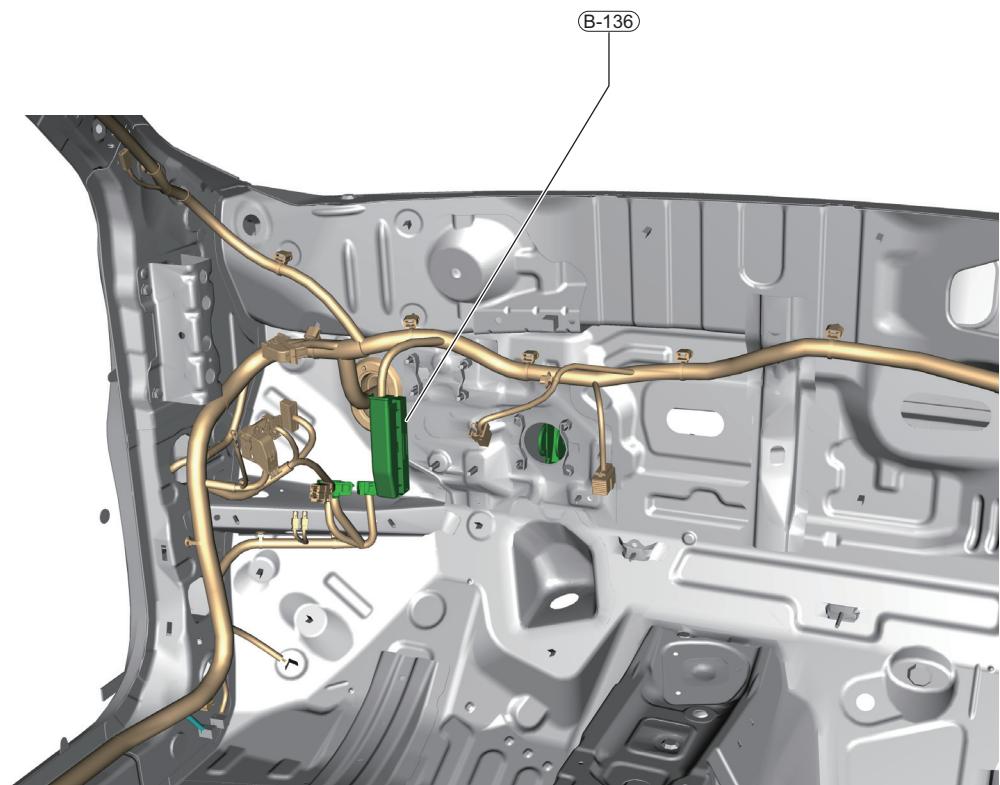
Connector Number	Connector Color/Pin	Connector Name
B-029	B/2	Front Left Tweeter
B-030	W/2	Left Vanity Mirror Light Switch
B-031	W/2	Left Vanity Mirror Light
B-032	/	Face Recognition Camera
B-033	W/14	Front Camera Module
B-034	B/3	Sunlight Rain Sensor
B-035	W/6	Inside Rear View Mirror
B-036	/	Drivie Recorder
B-037	W/8	Drivie Recorder
B-038	Gr/14	Sunroof
B-039	W/10	Front Map Light
B-040	W/2	Microphone 1
B-041	W/2	Microphone 2
B-042	W/2	Right Vanity Mirror Light
B-043	W/2	Right Vanity Mirror Light Switch



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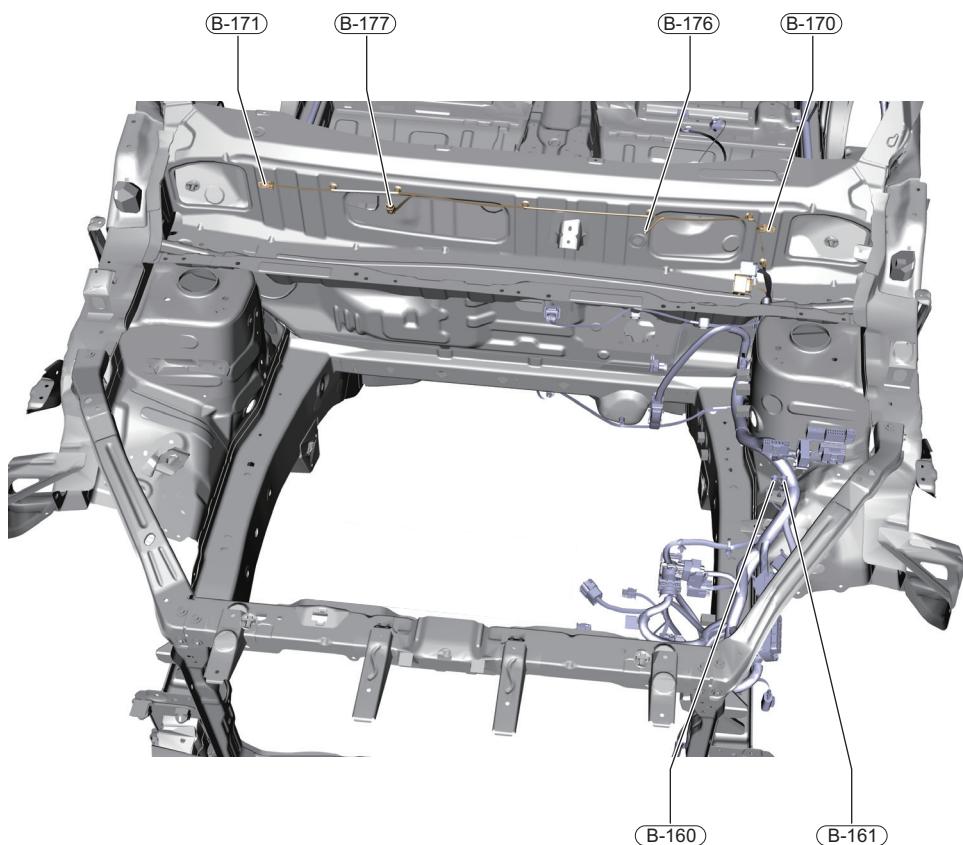
Connector Number	Connector Color/Pin	Connector Name
B-127	B/26	to Engine Wire Harness (1.5T)
B-128	B/64	ECU2 (1.5T)
B-129	B/4	Gear Switch (1.5T)
B-130	B/3	Primary Shaft Oil Pressure Sensor (1.5T)
B-131	B/3	Primary Shaft Speed Sensor (1.5T)
B-132	B/8	Electronic Shift Module (1.5T)
B-133	B/3	Turbine Speed Sensor (1.5T)
B-134	B/6	to Transmission Peripheral Wire Harness (1.5T)
B-135	B/24	to Transmission Connector (1.5T)



WHE053001

Connector Number	Connector Color/Pin	Connector Name
B-136	B/56	TCU

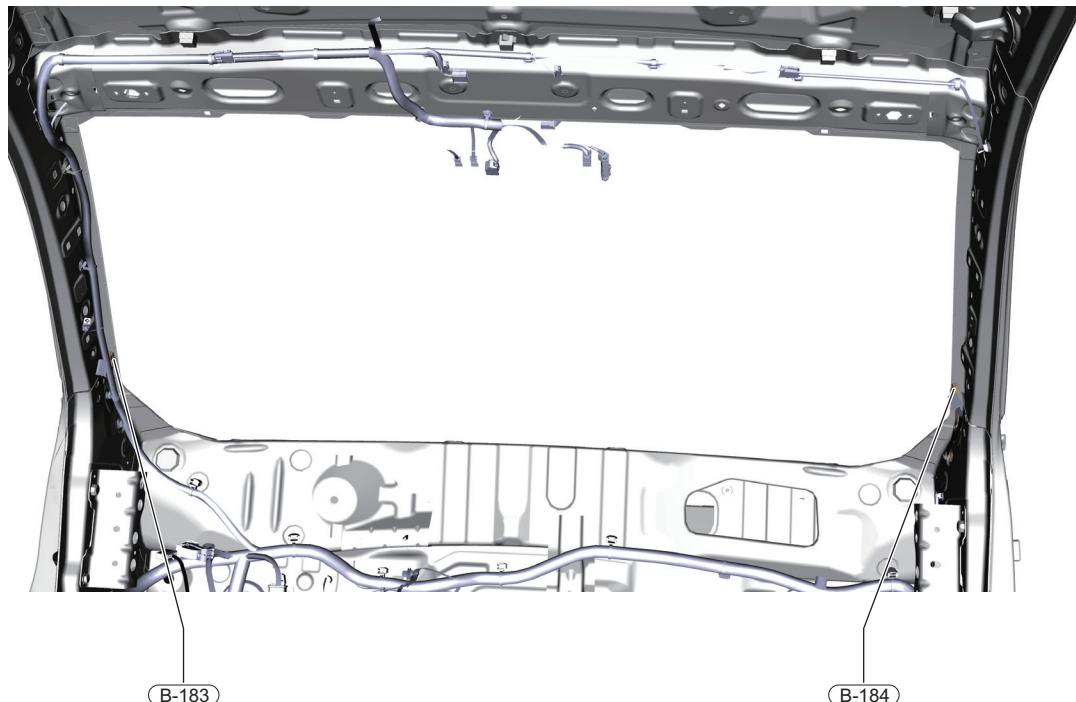
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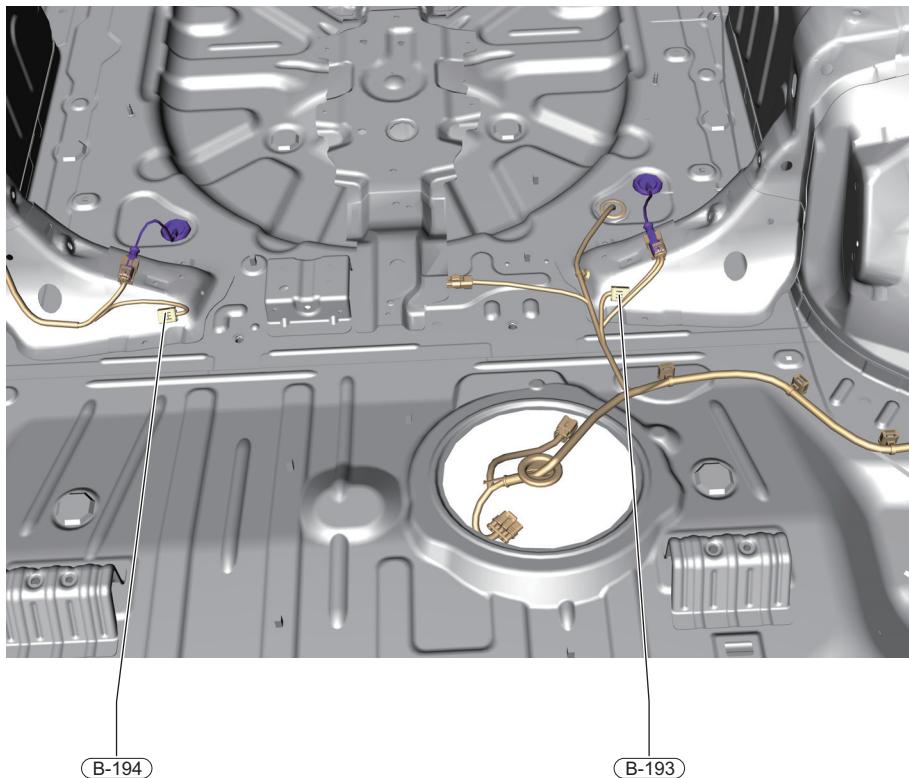
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Connector Number	Connector Color/Pin	Connector Name
B-160	/	Engine Compartment Relay Interface R5
B-161	/	Engine Compartment Relay Interface R8
B-170	/1	Windshield Heating Left
B-171	/1	Windshield Heating Right
B-176	B/2	Front Left Nozzle Heater
B-177	B/2	Front Right Nozzle Heater



WHE057001

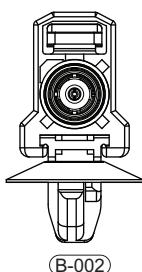
Connector Number	Connector Color/Pin	Connector Name
B-183	/1	Windshield Heating 1
B-184	/1	Windshield Heating 2



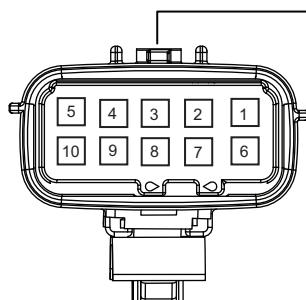
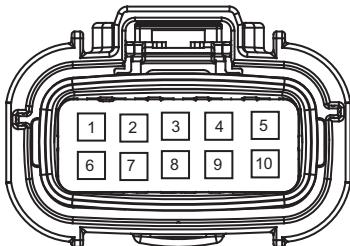
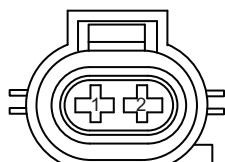
WHE059001

Connector Number	Connector Color/Pin	Connector Name
B-193	/6	Middle Row Right Seat Heating Device
B-194	/6	Middle Row Left Seat Heating Device

## Interior Wire Harness Connector List



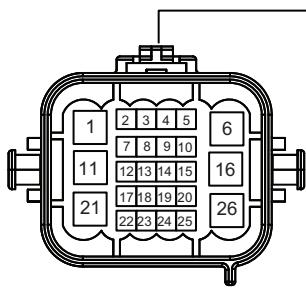
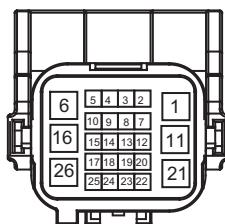
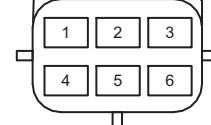
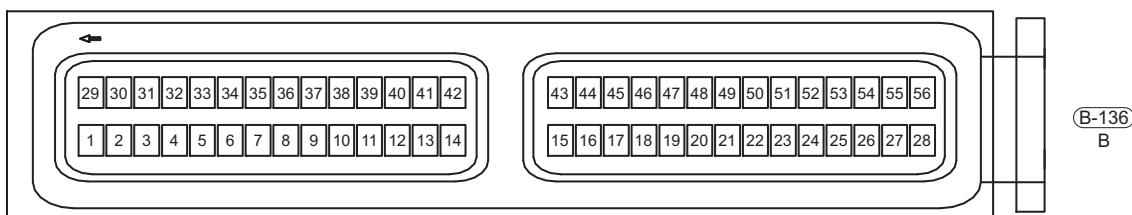
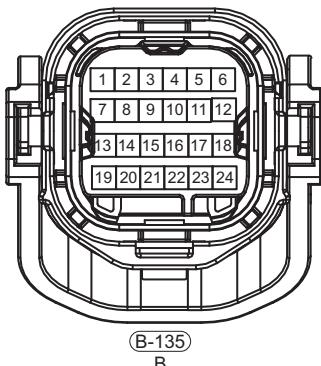
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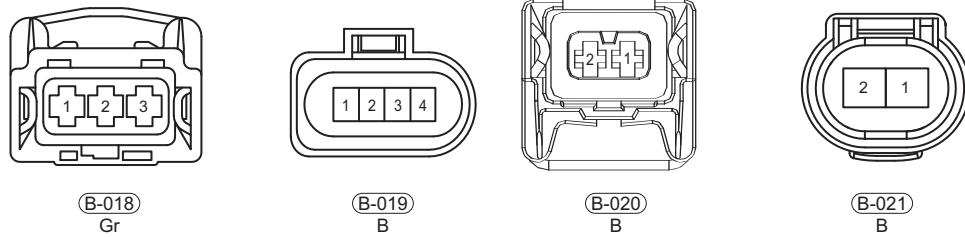
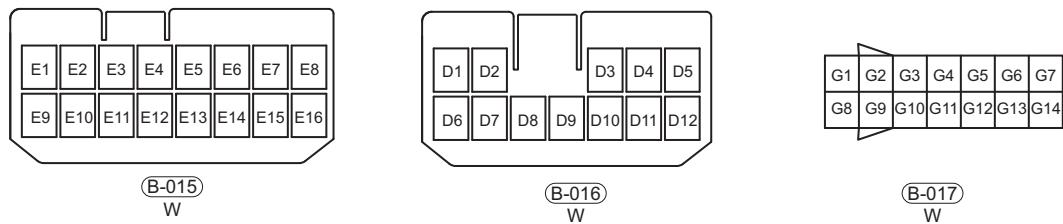
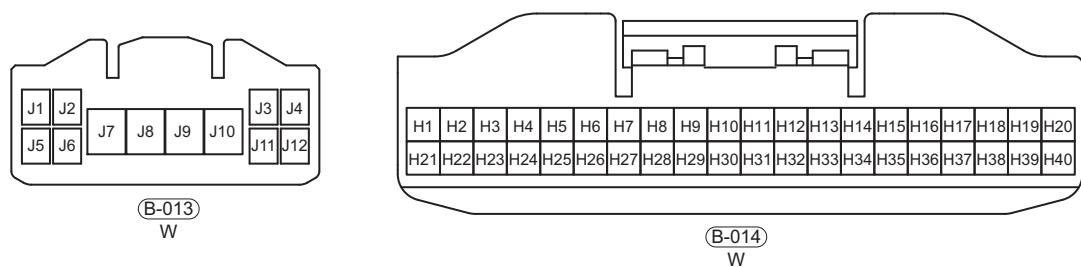
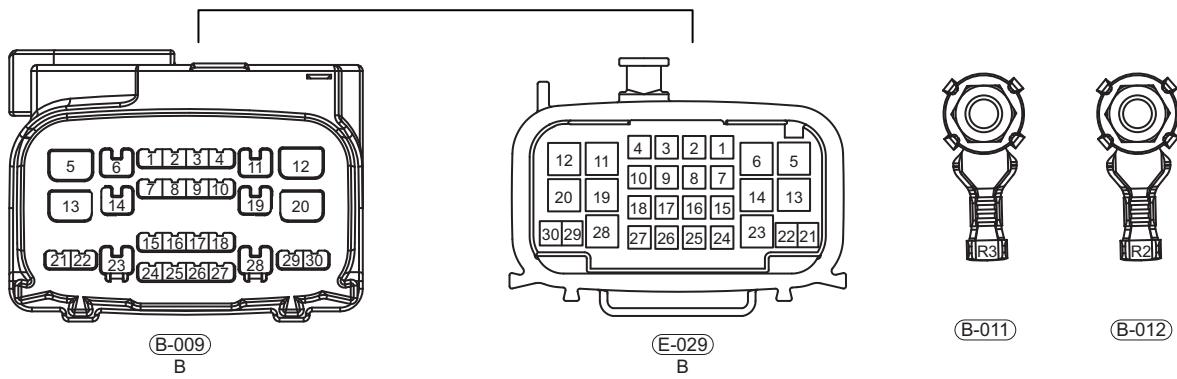
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GB-007

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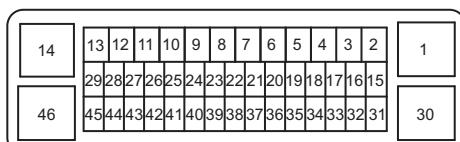
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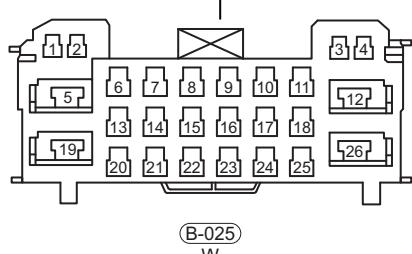


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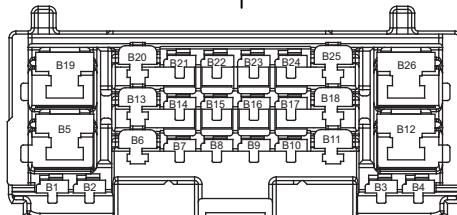
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(B-025)

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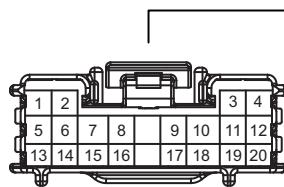


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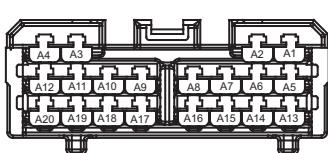


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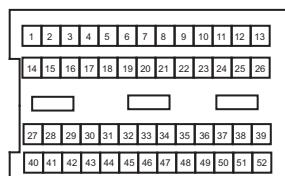
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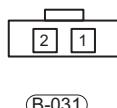


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(B-030)

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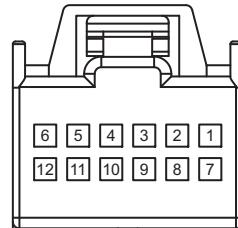


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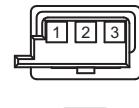
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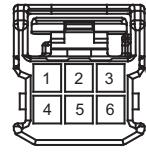


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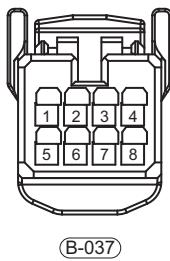
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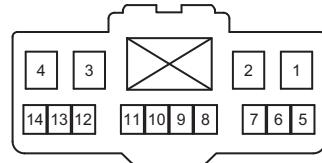


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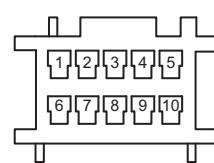
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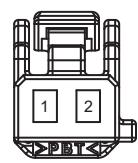
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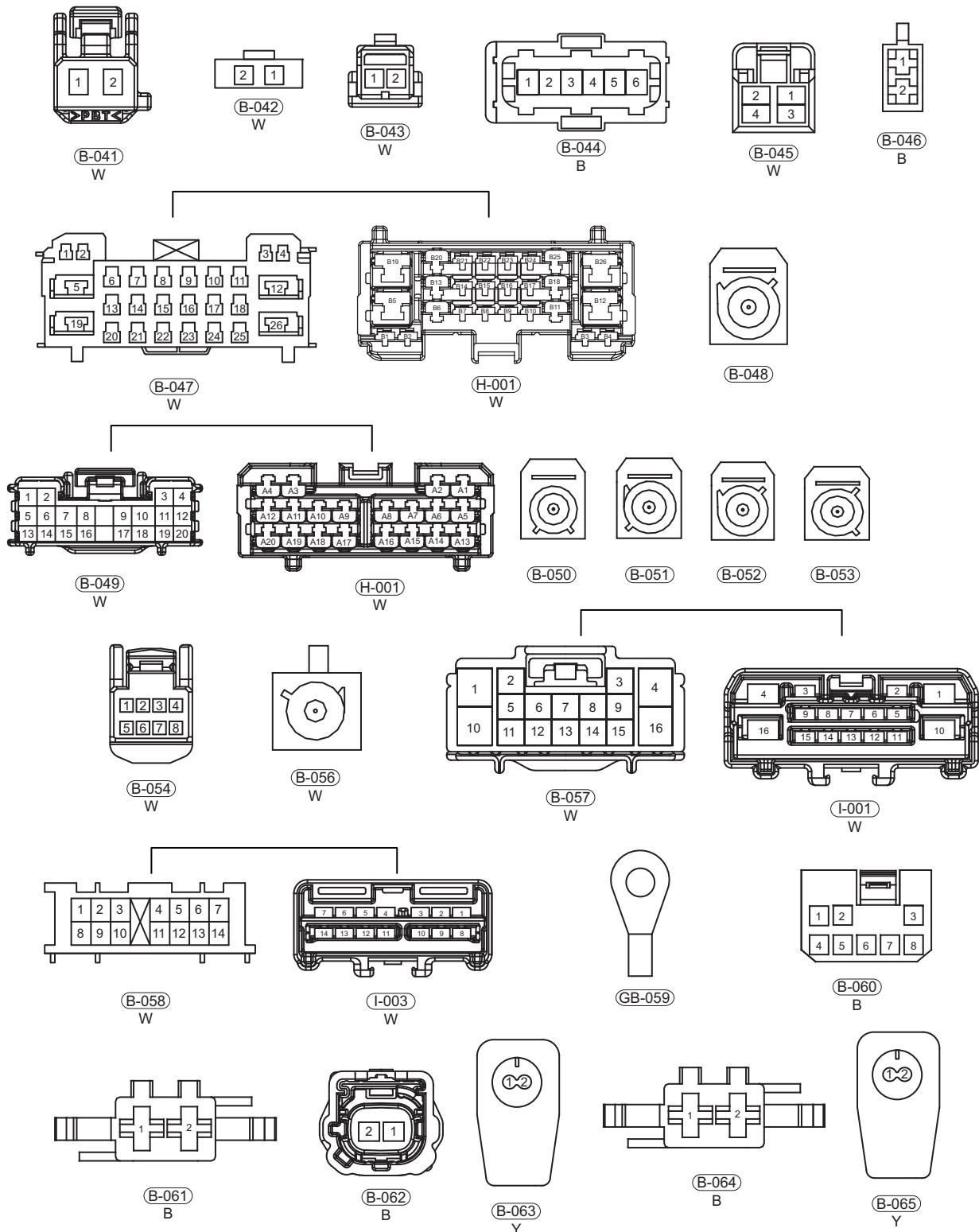
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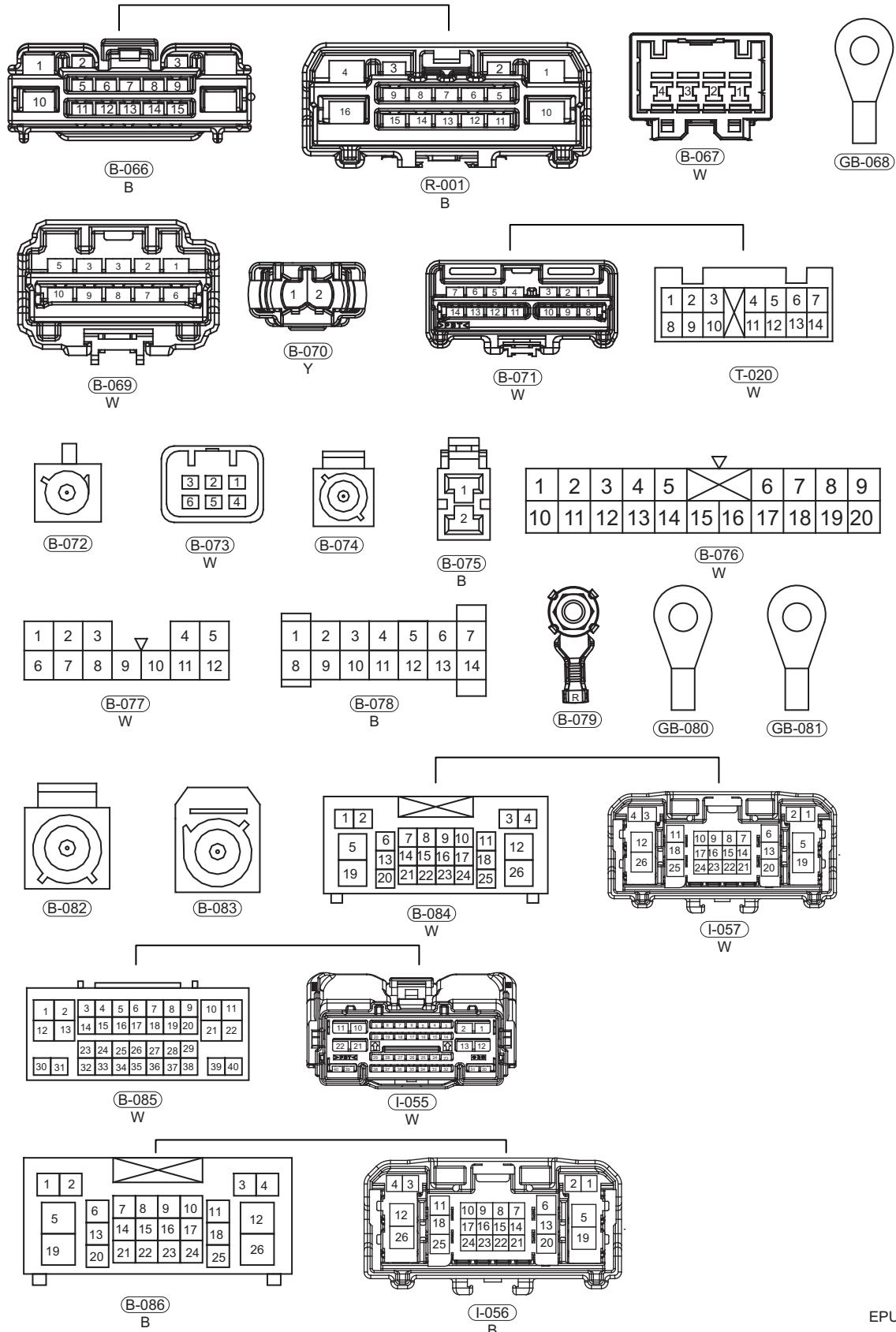
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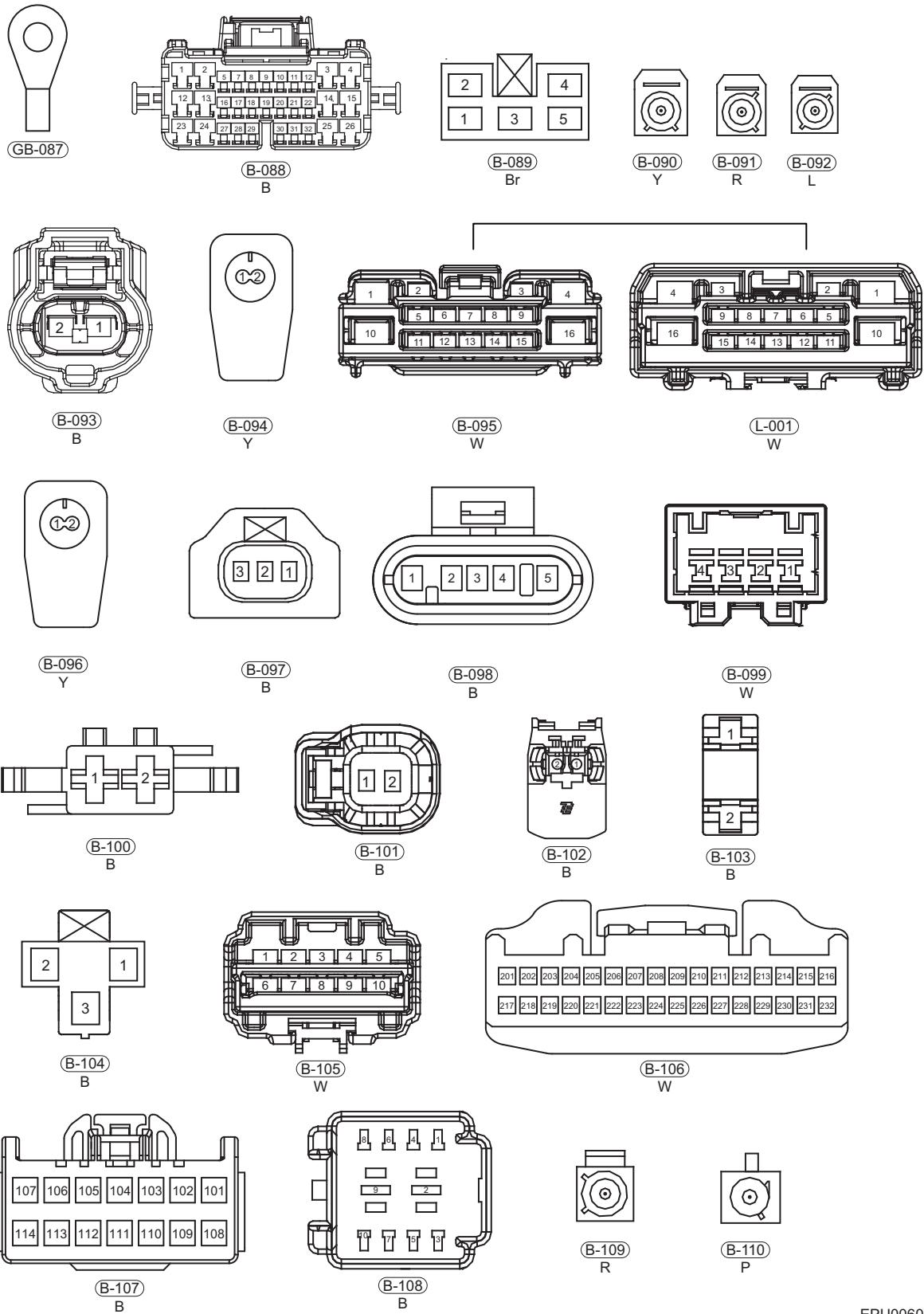


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EPU004001

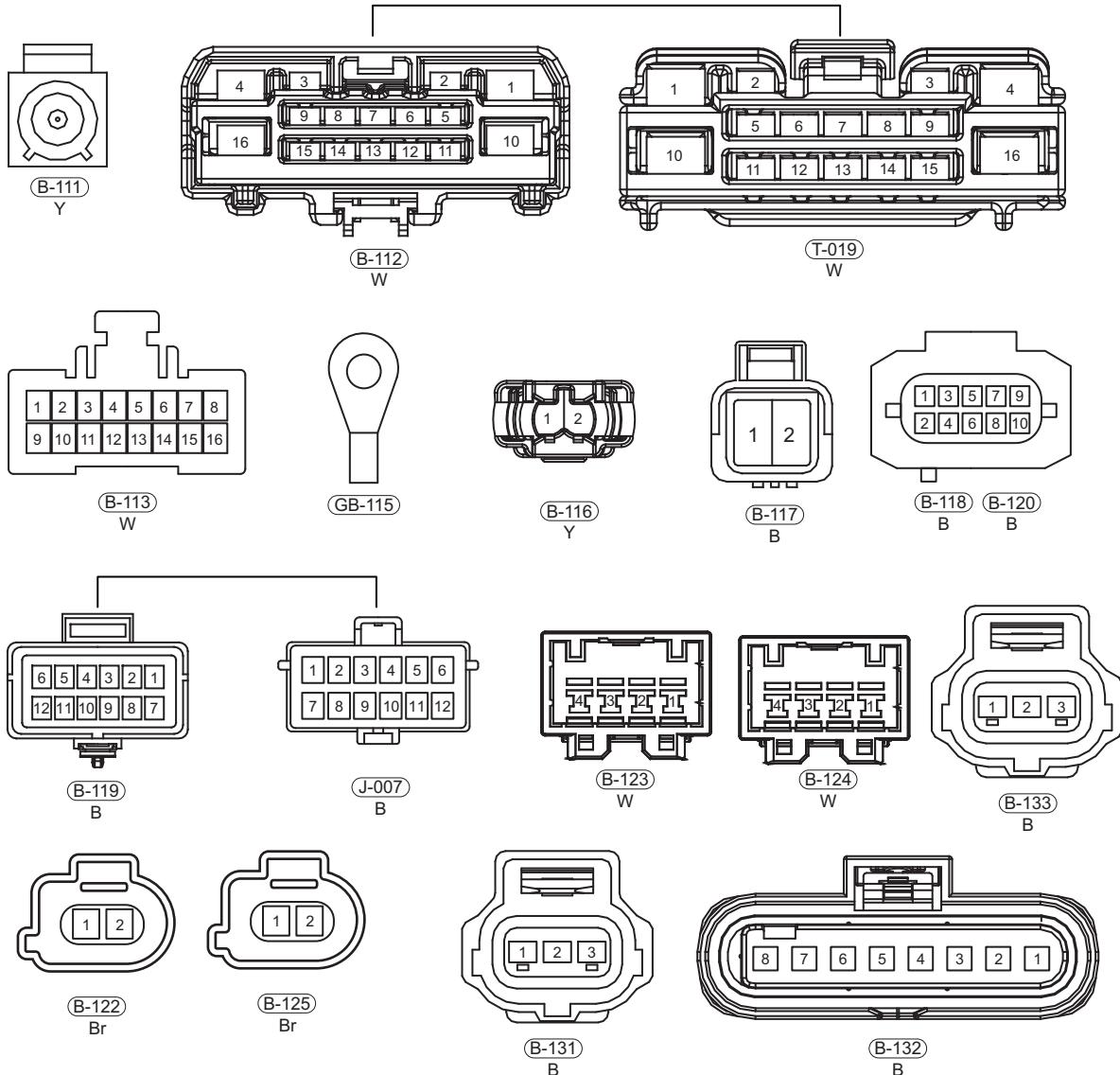


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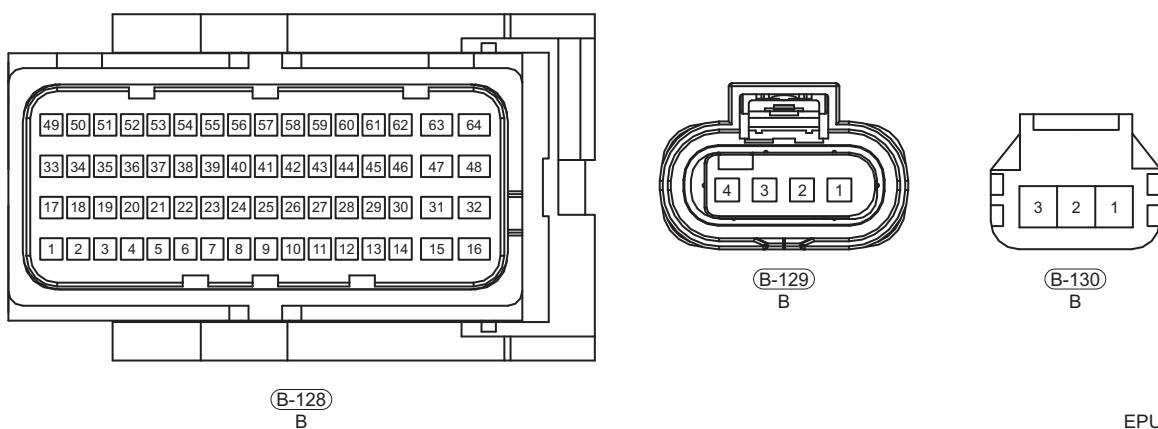


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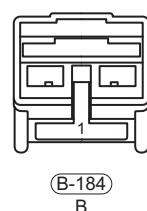
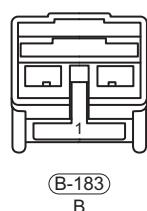
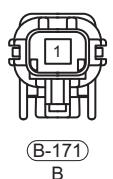
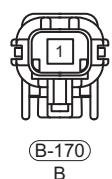
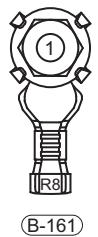
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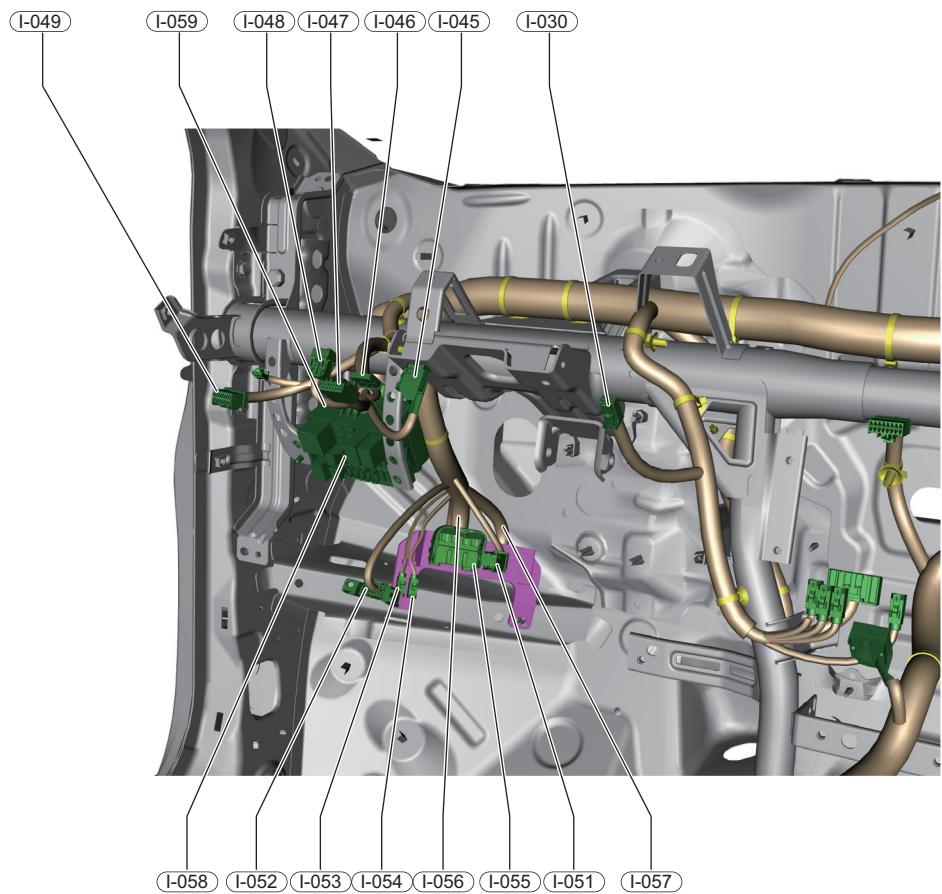
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EPU007002

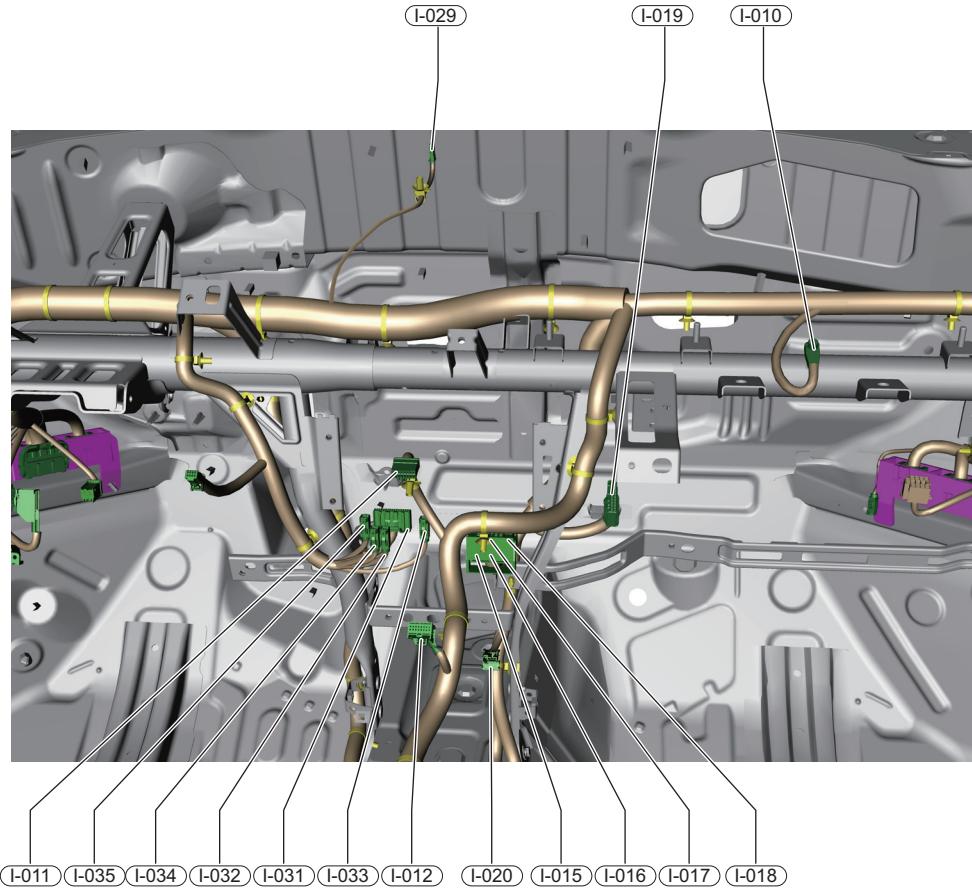
## Instrument Panel Wire Harness



WHE025001

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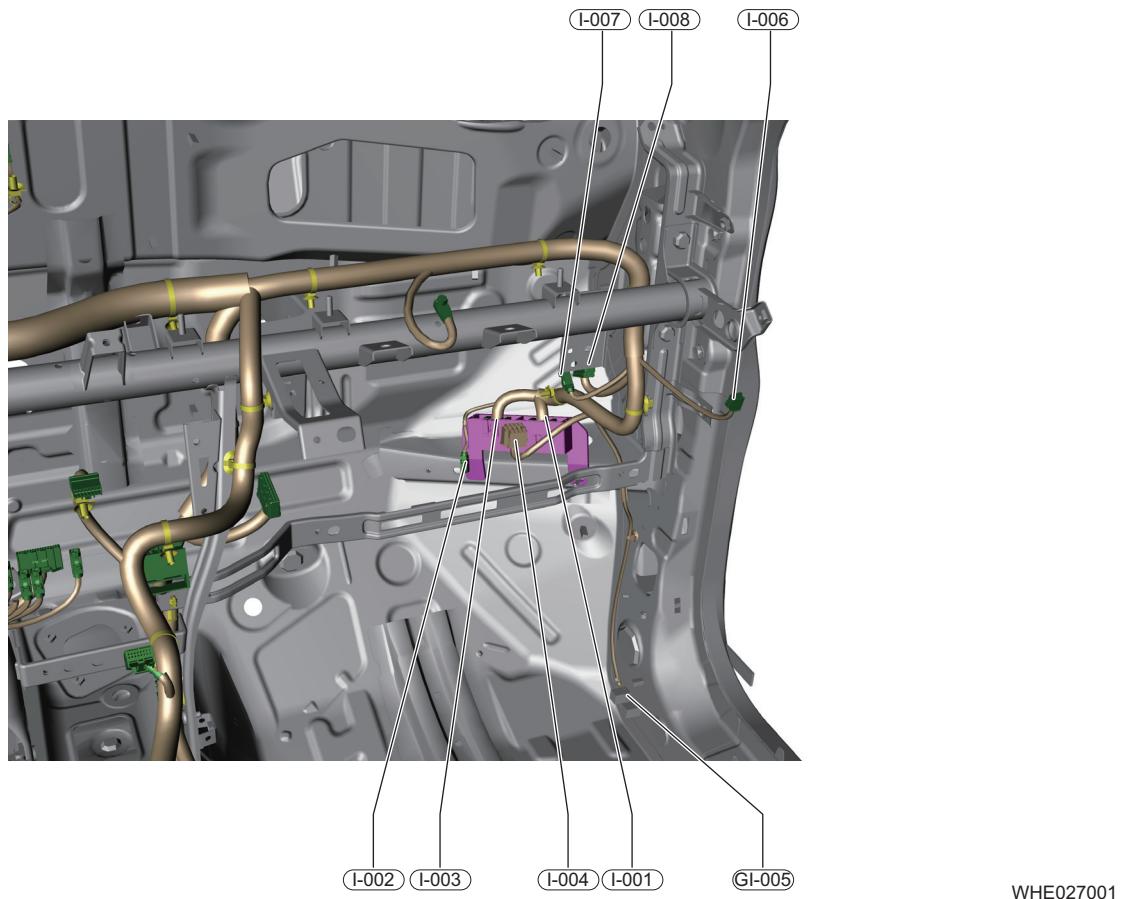
Connector Number	Connector Color/Pin	Connector Name
I-030	W/8	Ignition Switch
I-045	B/10	Wiper Switch
I-046	B/6	Steering Angle System (SAM)
I-047	W/16	Spiral Cable
I-048	B/10	Combination Switch – Light
I-049	W/20	Adjustment Switch Assembly
I-051	B/10	Electronic Power Steering System (EPS)
I-052	B/16	Diagnostic Interface
I-053	/	Face Recognition Antenna Adapter Connector
I-054	/	Drive Recorder Adapter Connector
I-055	W/40	Interior Wire Harness Interface 1
I-056	B/26	Interior Wire Harness Interface 2
I-057	W/26	Interior Wire Harness Interface 5
I-058	/	Instrument Panel Fuse and Relay Box
I-059	W/24	Body Controller Connector 2



WHE026001

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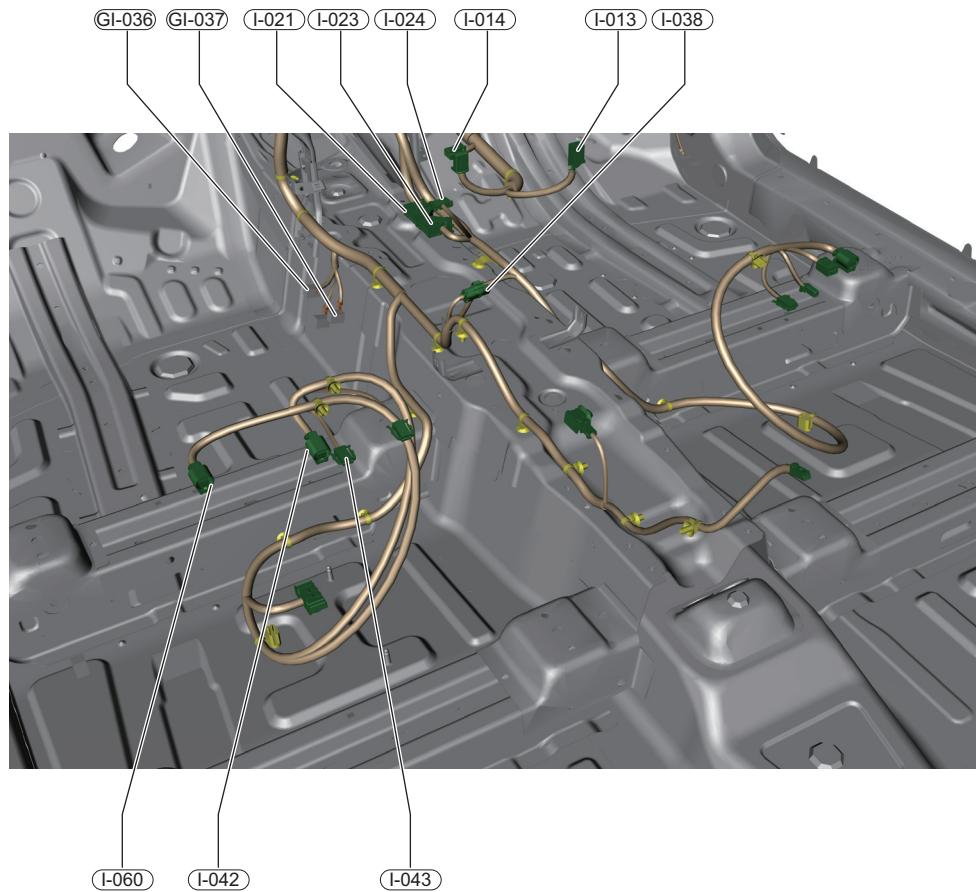
Connector Number	Connector Color/Pin	Connector Name
I-010	B/2	Front Passenger Airbag
I-011	W/16	Central Console Switch Assembly
I-012	Br/16	A/C Control Panel
I-015	B/16	Audio Head Unit B
I-016	G/12	Audio Head Unit D
I-017	L/12	Audio Head Unit C
I-018	Br/8	Audio Head Unit A
I-019	W/40	Passive Entry and Passive Start System (PEPS)
I-020	B/2	Backup Power Supply
I-029	B/4	Solar Sensor
I-031	W/32	Instrument Cluster
I-032	/	AVM Video Transmission Line
I-033	/	Radio Antenna
I-034	/	AR Navigation Camera Interface



WHE027001

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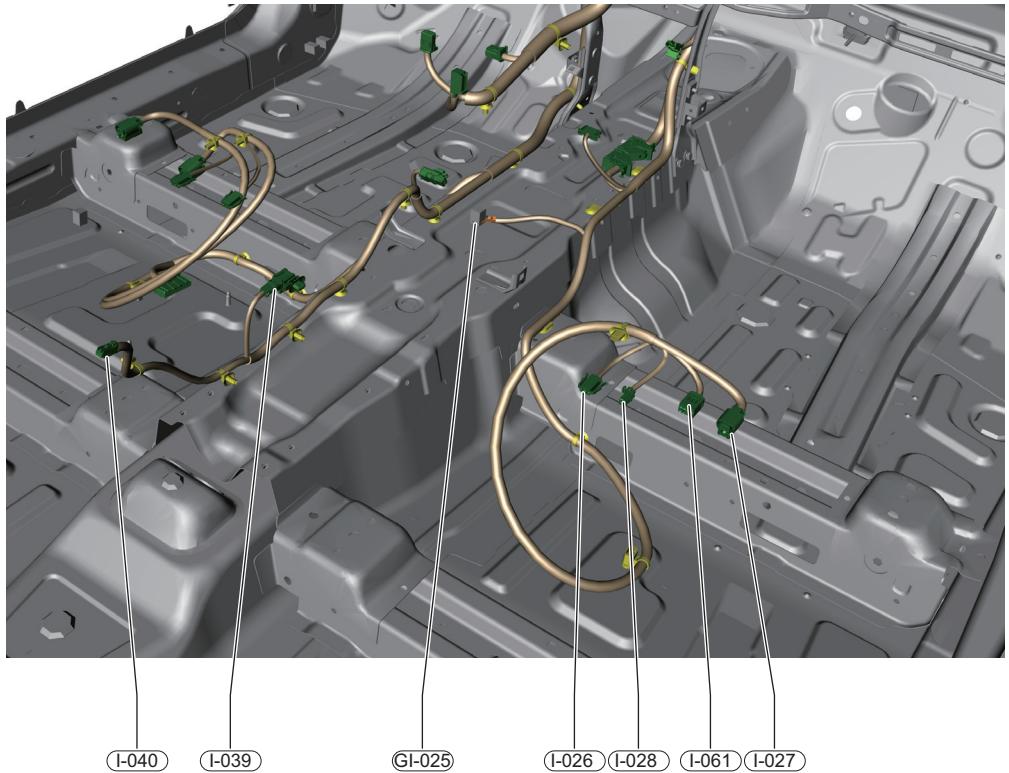
Connector Number	Connector Color/Pin	Connector Name
I-001	W/16	Interior Wire Harness Interface 3
I-002	/	Radio Antenna
I-003	W/14	Interior Wire Harness Interface 4
I-004	W/22	A/C Wire Harness Interface
GI-005	/	Ground G501
I-006	W/5	Instrument Panel Ambient Light
I-007	/	Video Signal Output
I-008	B/20	Central Gateway



WHE028001

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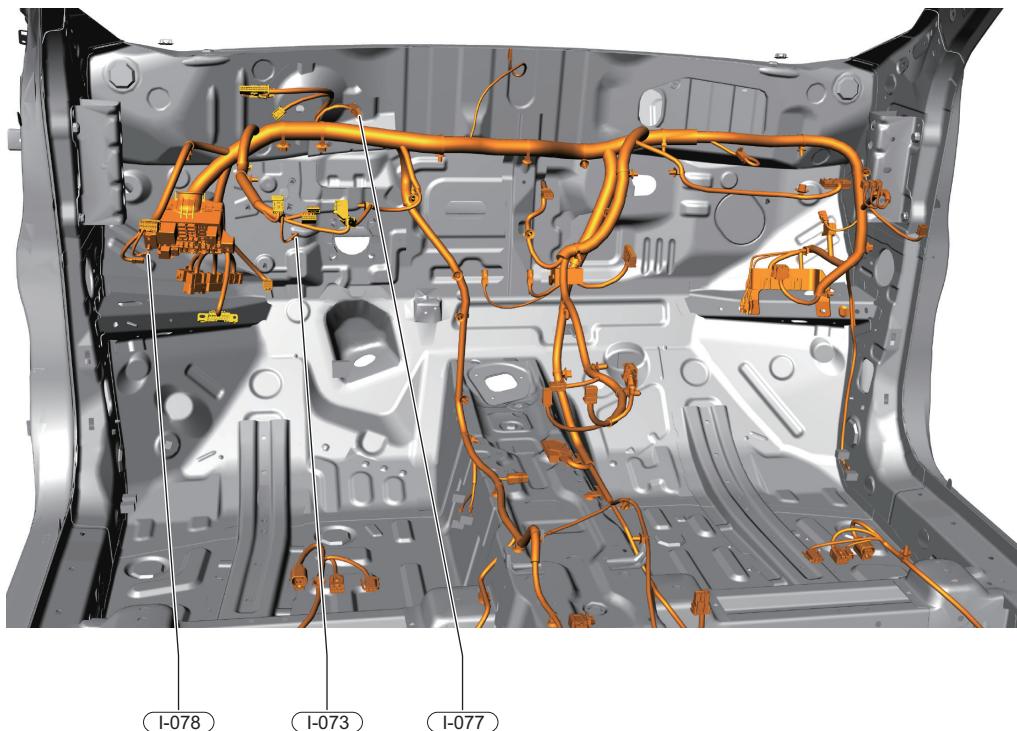
Connector Number	Connector Color/Pin	Connector Name
I-013	B/6	Audio Control Panel
I-014	Br/16	Electronic Shift Module (EPB Switch)
I-021	Gr/32	Airbag Control Module – Connector A (ABM-A)
I-023	B/24	Airbag Control Module – Connector B (ABM-B)
I-024	W/8	Mobile Phone Wireless Charging Module
GI-036	/	Ground G502
GI-037	/	Ground G503
I-038	B/2	Front Internal Low Frequency Antenna
I-042/I-044	Y/2	Front Left Seat Side Airbag
I-043	B/2	Driver Seat Belt Switch
I-060	B/6	Front Left Seat Heating



WHE029001

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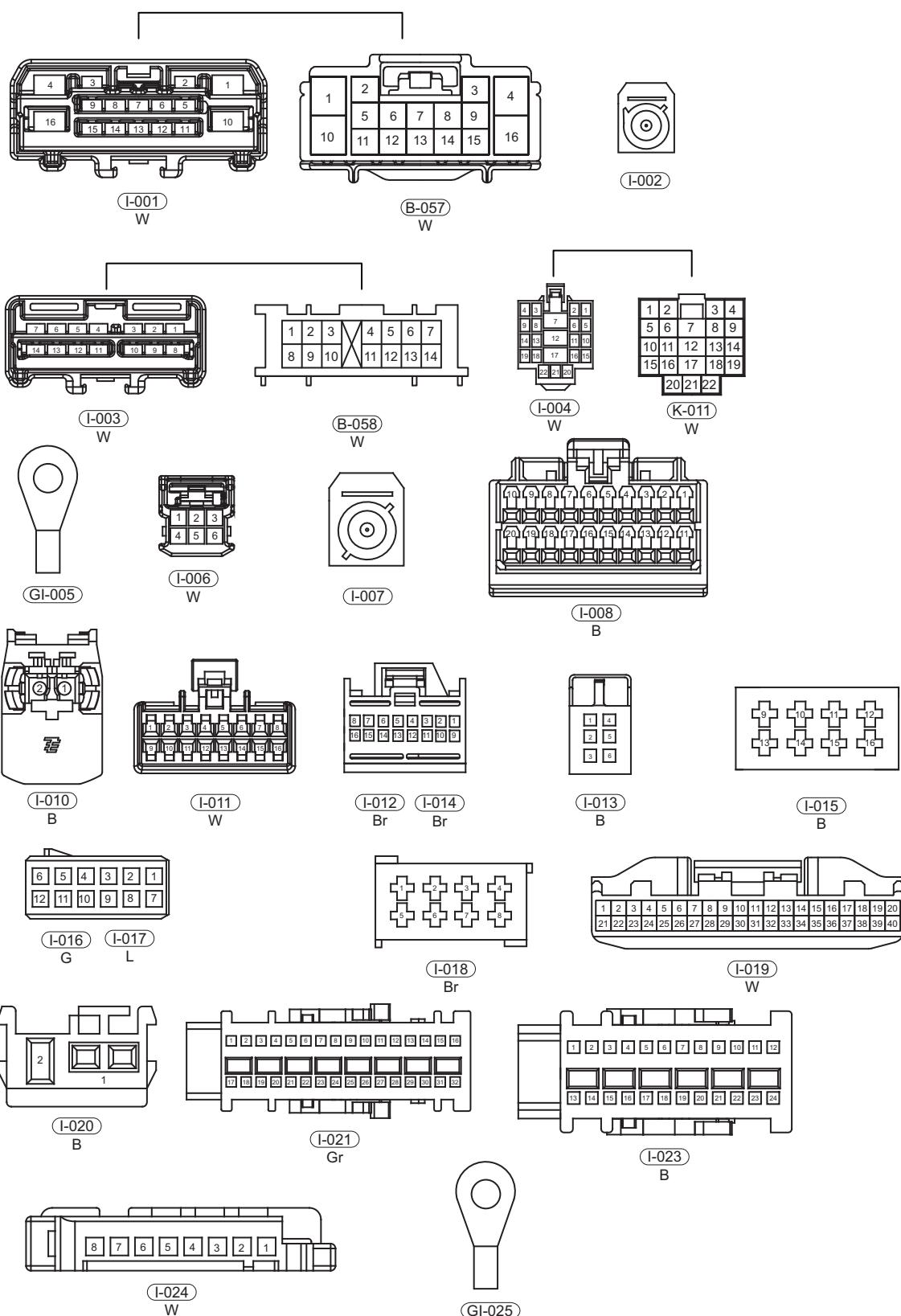
Connector Number	Connector Color/Pin	Connector Name
GI-025	/	Ground G504
I-026	B/2	Front Right Seat Belt Switch
I-027	Y/2	Front Right Seat Side Airbag
I-028	W/2	Front Passenger Detection
I-039	G/2	Anti-theft Coil
I-040	W/2	USB Charging Module
I-061	B/6	Front Right Seat Heating

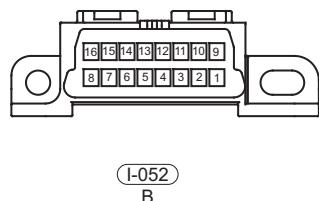
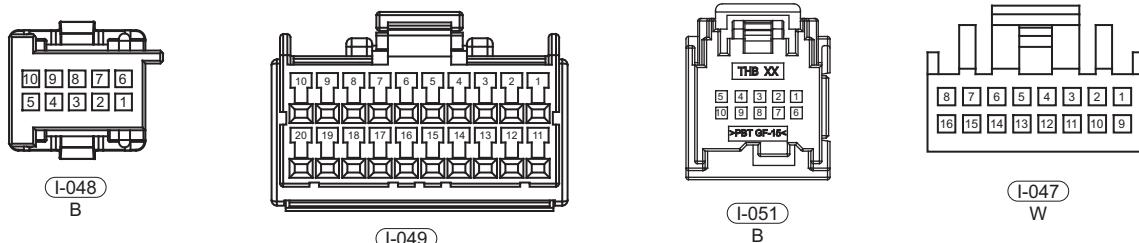
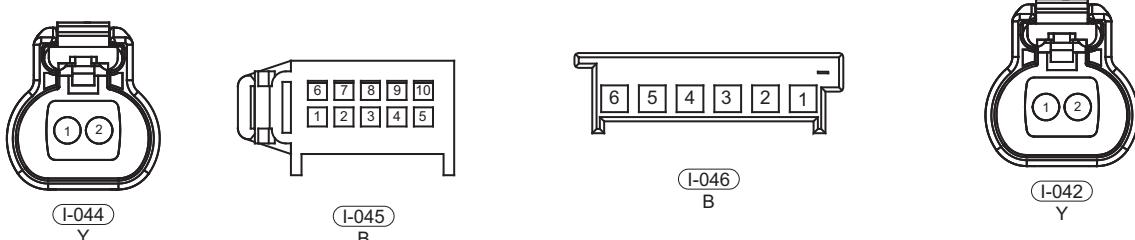
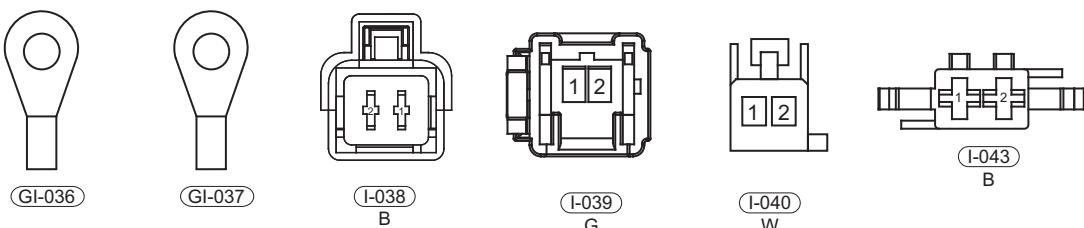
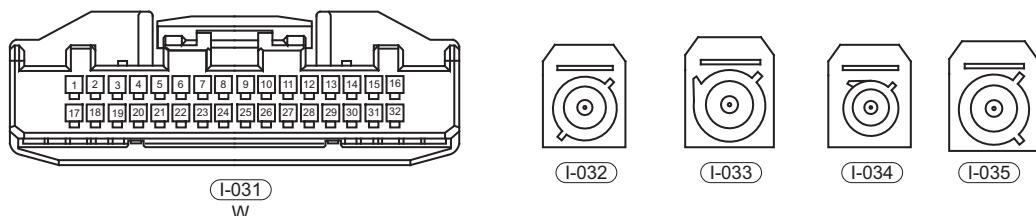
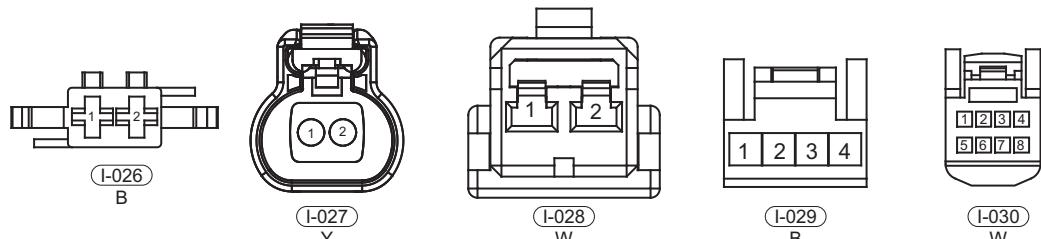


WHE058001

Connector Number	Connector Color/Pin	Connector Name
I-073	/2	Coil Spring – Steering Wheel Heating
I-077	/40	GLONASS Global Navigation Satellite System
I-078	/2	Speaker (GLONASS)

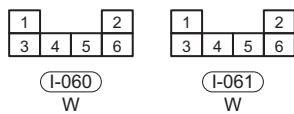
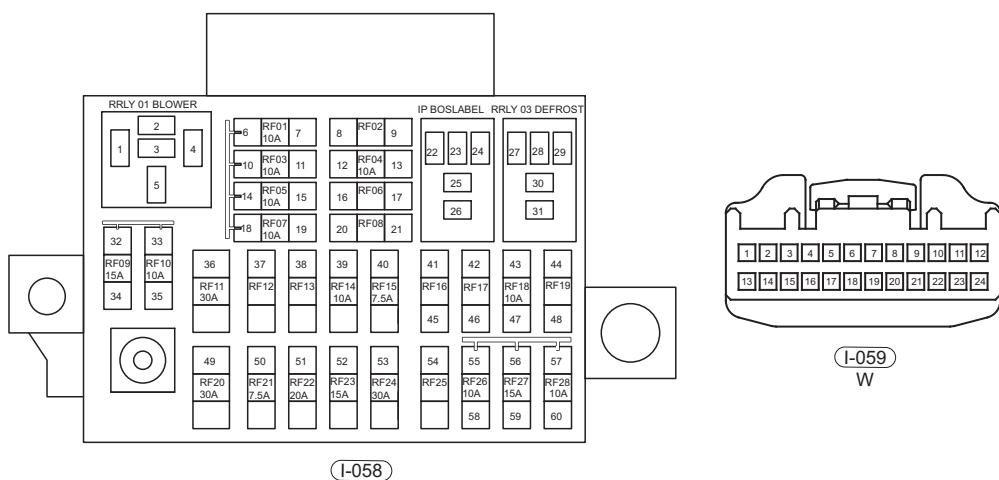
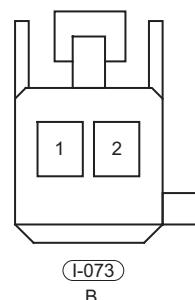
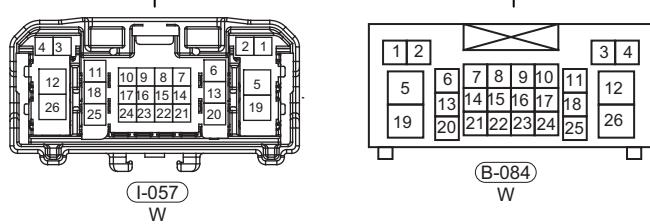
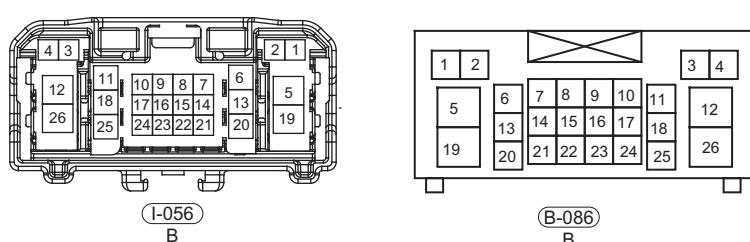
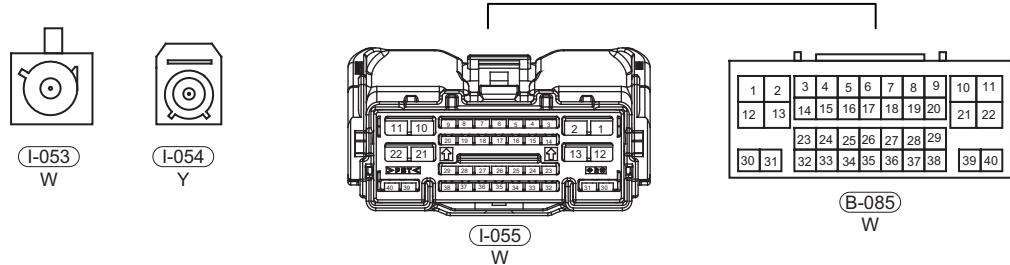
## Instrument Panel Wire Harness Connector List





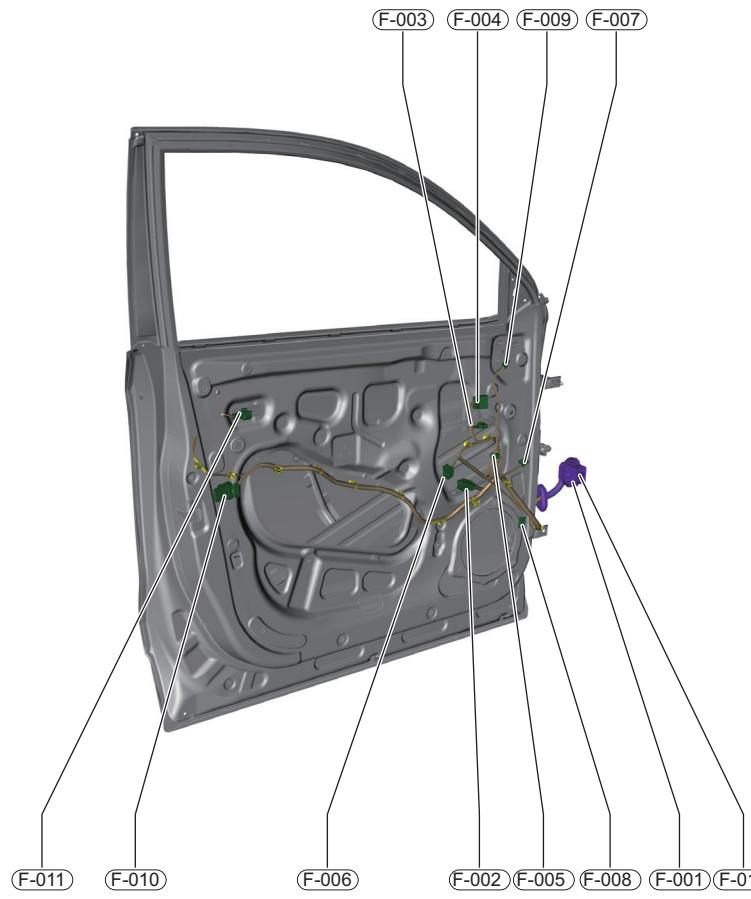
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EPU009001



EPU010001

## Front Left Door Wire Harness

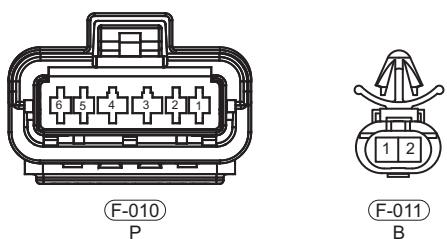
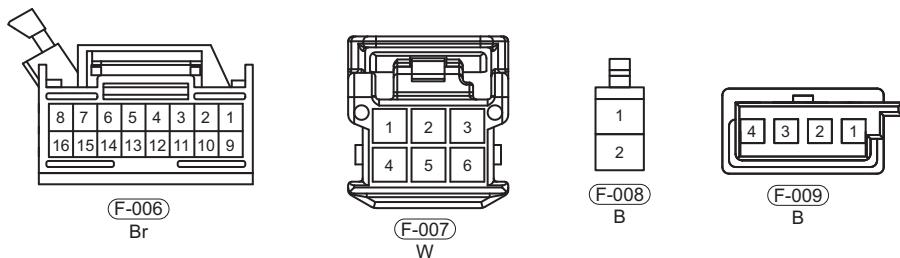
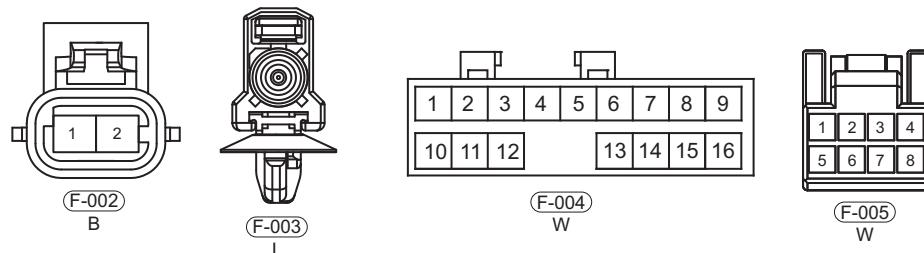
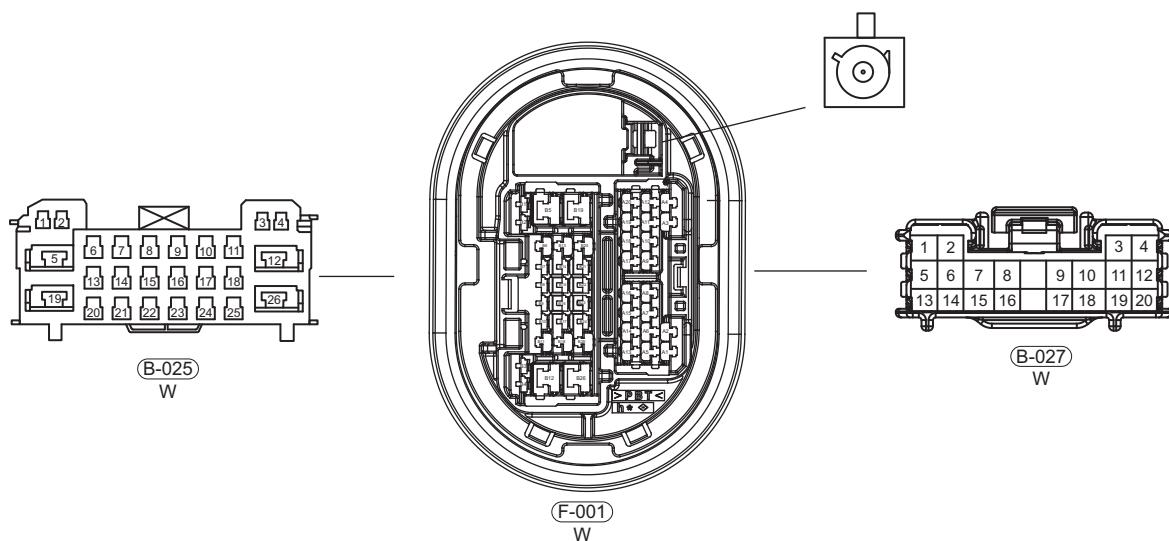


WHE030001

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Connector Number	Connector Color/Pin	Connector Name
F-001	W/20(A)	Interior Wire Harness Interface
	/	Left HD Camera Antenna (AVM)
	W/26(B)	Interior Wire Harness Interface
F-002	B/2	Front Left Door Power Glass Regulator
F-003	L/	Front Left HD Camera
F-004	W/16	Rear View Mirror Interface
F-005	W/8	Rear View Mirror Adjustment Switch
F-006	Br/16	Four Door Glass Regulator Switch
F-007	W/6	Front Left Door Ambient Light
F-008	B/2	Front Left Woofer
F-009	B/4	Central Control Lock Switch
F-010	P/6	Front Left Door Lock Motor (Front Left Door Contact Switch)
F-011	B/2	Front Left Door Handle Sensor

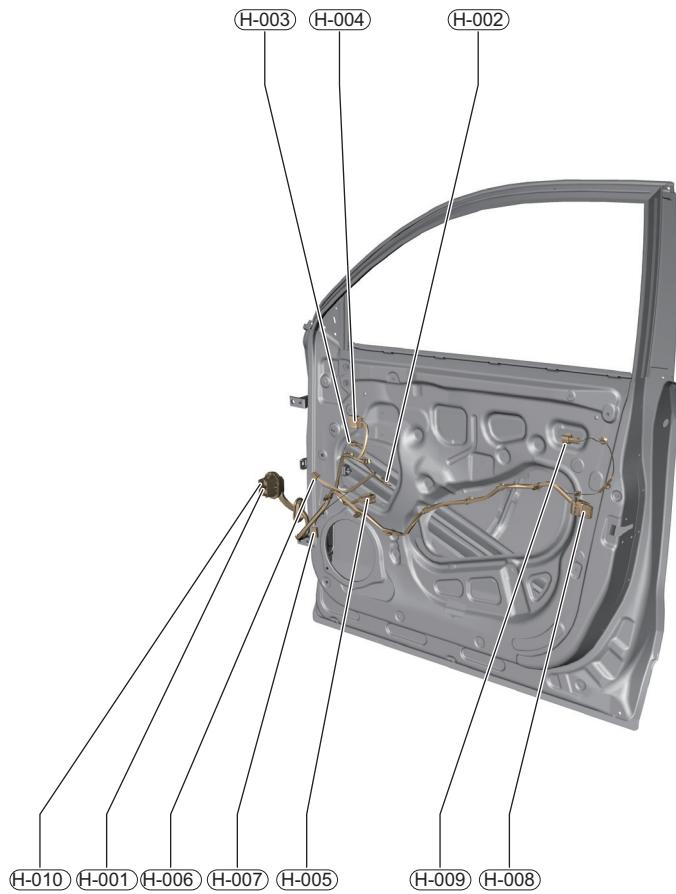
## Front Left Door Wire Harness Connector List



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EPU020001

## Front Right Door Wire Harness

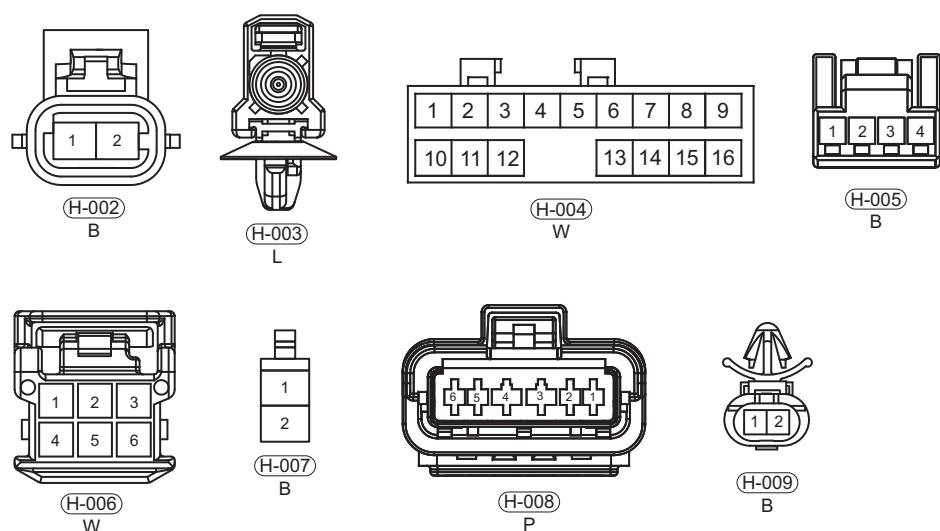
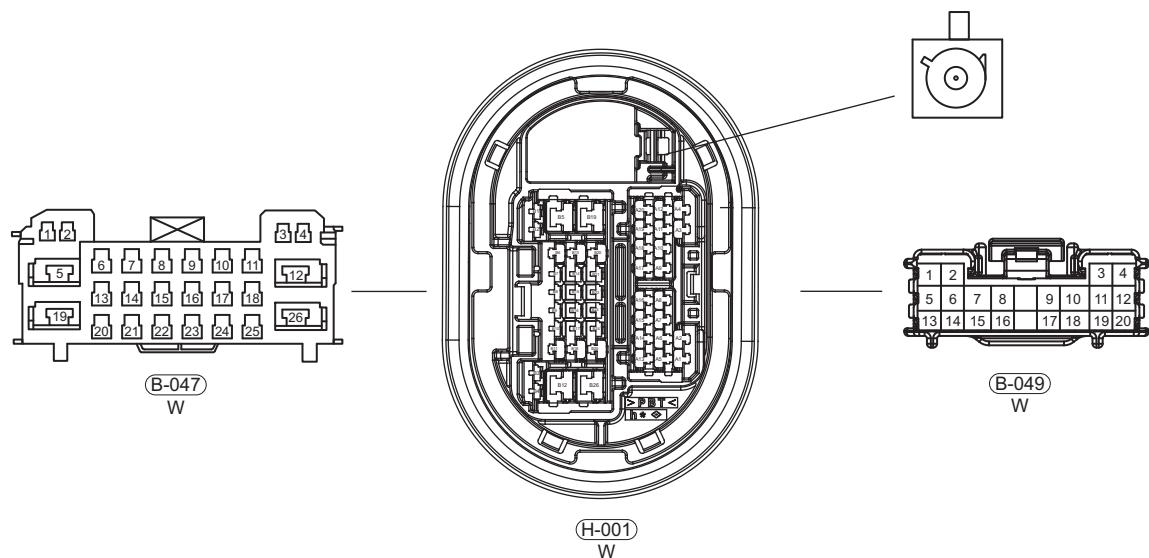


WHE031001

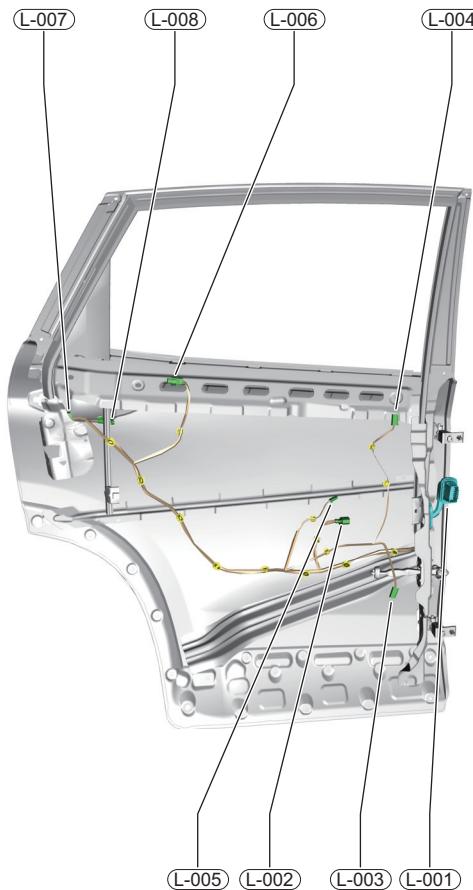
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Connector Number	Connector Color/Pin	Connector Name
H-001	W/20(A)	Interior Wire Harness Interface
	/	Right HD Camera Antenna (AVM)
	W/26(B)	Interior Wire Harness Interface
H-002	B/2	Front Right Door Power Glass Regulator
H-003	L/	Front Right Door HD Camera
H-004	W/16	Rear View Mirror Interface
H-005	B/4	Front Right Door Glass Regulator Switch
H-006	W/6	Front Right Door Ambient Light
H-007	B/2	Front Right Woofer
H-008	P/6	Front Right Door Lock Motor (Front Right Door Contact Switch)
H-009	B/2	Front Right Door Handle Sensor

## Front Right Door Wire Harness Connector List



## Rear Left Door Wire Harness

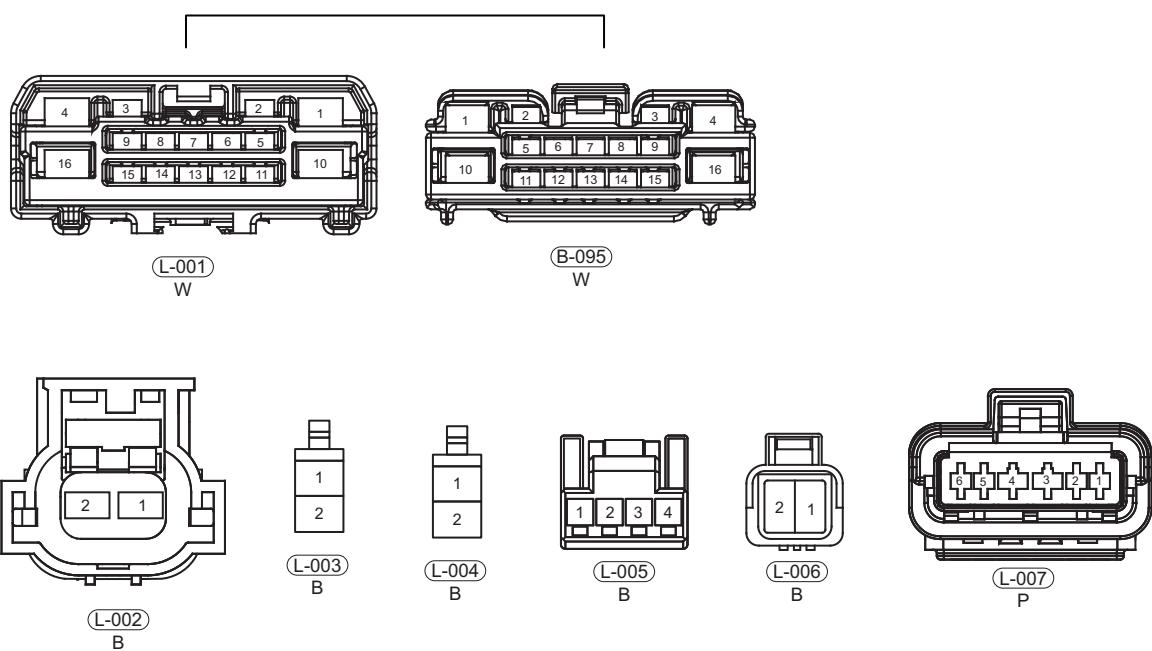


WHE032001

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Connector Number	Connector Color/Pin	Connector Name
L-001	W/16	Interior Wire Harness Interface
L-002	B/2	Rear Left Door Glass Regulator Motor
L-003	B/2	Rear Left Woofer
L-004	B/2	Rear Left Tweeter
L-005	B/4	Rear Left Glass Regulator Switch
L-006	B/2	Rear Left Door High Performance Antenna
L-007	P/6	Door Lock Motor
L-008	/4	Rear Left Door Bluetooth

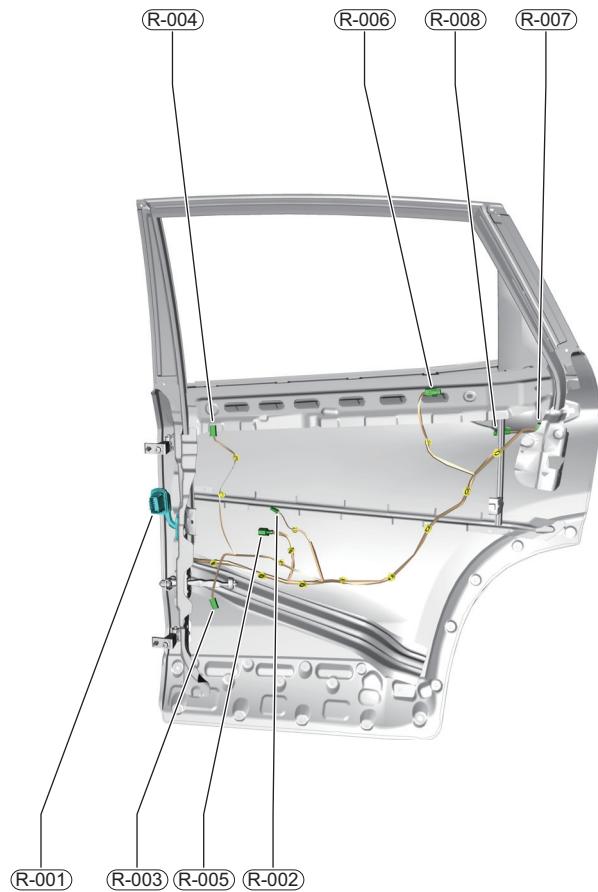
## Rear Left Door Wire Harness Connector List



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EPU022001

## Rear Right Door Wire Harness

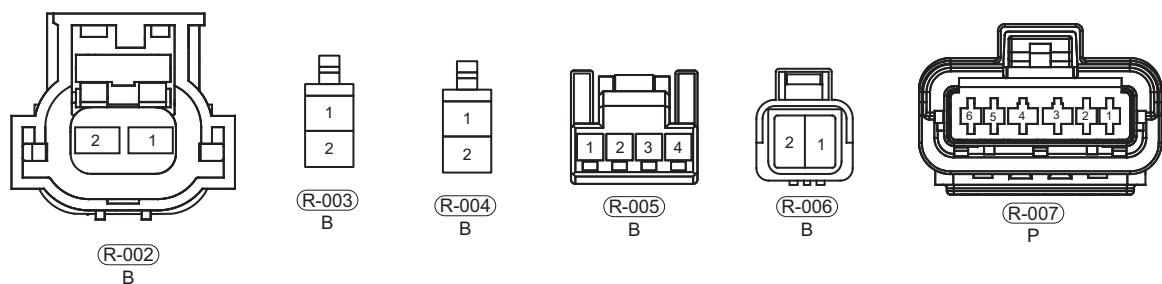
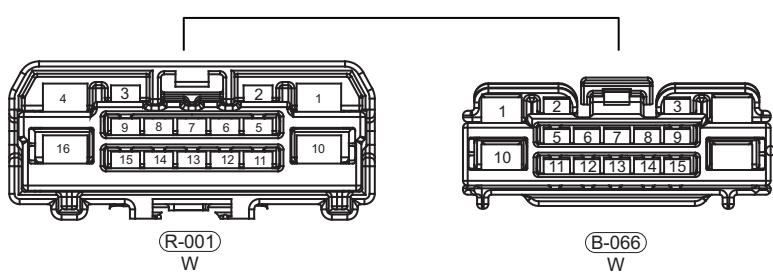


WHE033001

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Connector Number	Connector Color/Pin	Connector Name
R-001	W/16	Interior Wire Harness Interface
R-002	B/2	Rear Left Glass Regulator Switch
R-003	B/2	Rear Left Woofer
R-004	B/2	Rear Left Tweeter
R-005	B/4	Rear Left Door Glass Regulator Motor
R-006	B/2	Rear Right Door High Performance Antenna
R-007	P/6	Door Lock Motor
R-008	/4	Rear Left Door Bluetooth

## Rear Right Door Wire Harness Connector List



## Back Door Wire Harness



WHE039001

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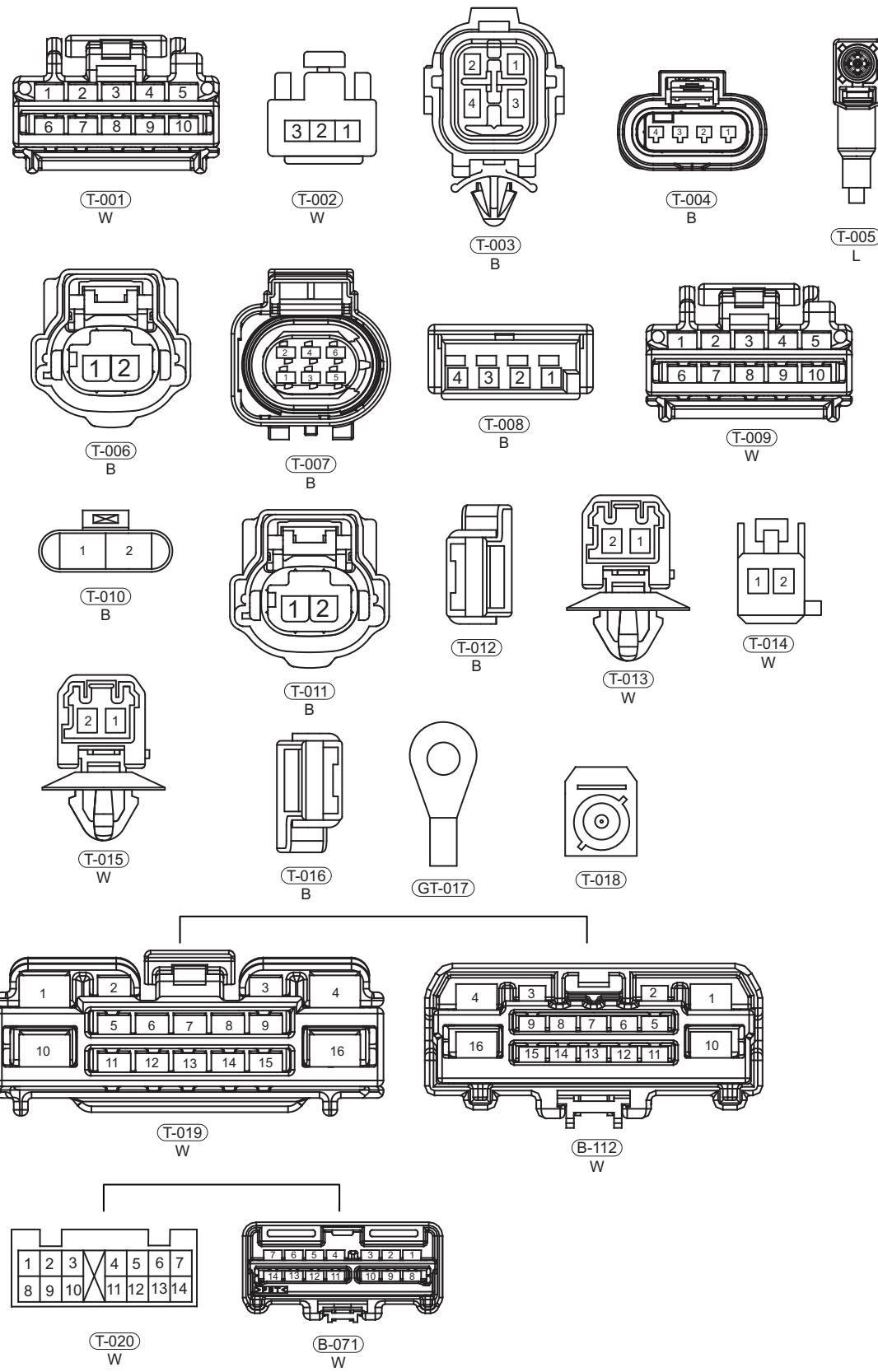
Connector Number	Connector Color/Pin	Connector Name
T-001	W/10	Rear Left Combination Light (Back Door Part)
T-002	W/3	Rear Wiper Motor
T-003	B/4	Rear Camera
T-004	B/4	Back Door Lock
T-005	L/	Back Door HD Camera
T-006	B/2	Left License Plate Light
T-007	B/6	Self-engage Fastener
T-008	B/4	Back Door Inside Switch
T-009	W/10	Rear Right Combination Light (Back Door Part)
T-010	B/2	Back Door Opener Switch
T-011	B/2	Right License Plate Light
T-012	B/	Rear Defroster Negative
T-013	W/2	Right Anti-pinch Sensor
T-014	W/2	High Mounted Stop Light
T-015	W/2	Left Anti-pinch Sensor
T-016	B/	Rear Defroster Positive

## 10 – Wire Harness Position Diagram

Connector Number	Connector Color/Pin	Connector Name
GT-017	/	Ground G701
T-018	L/	Back Door HD Camera Interface
T-019	W/16	Interior Wire Harness Interface 1
T-020	W/14	Interior Wire Harness Interface 2

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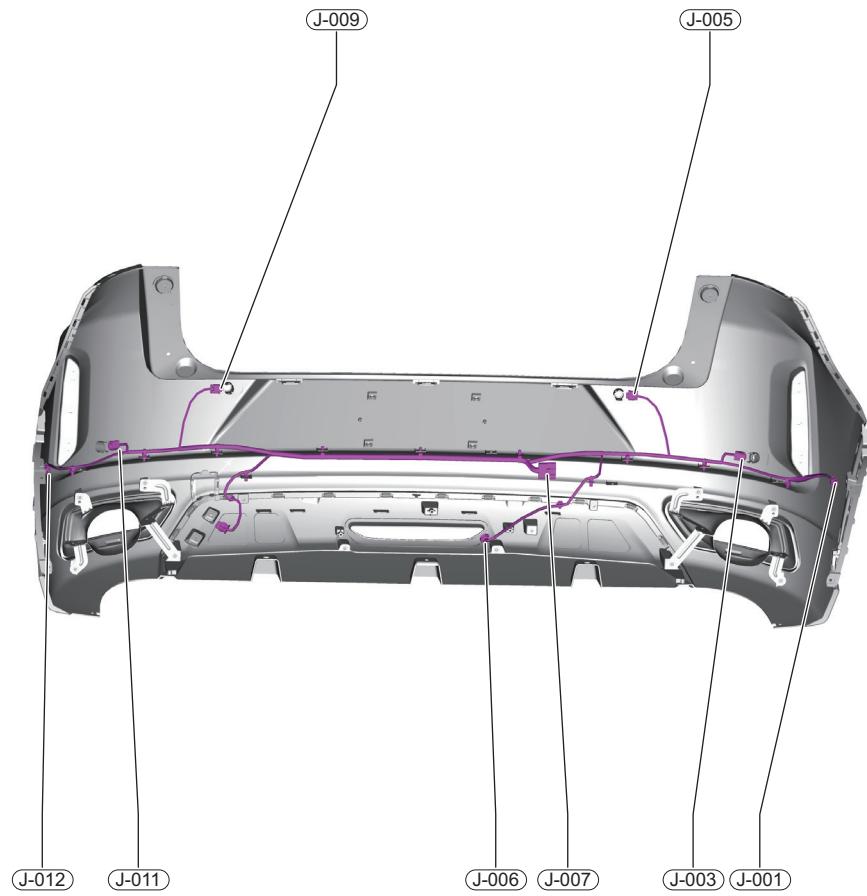
## Back door Wire Harness Connector List



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EPU017001

## Rear Bumper Wire Harness

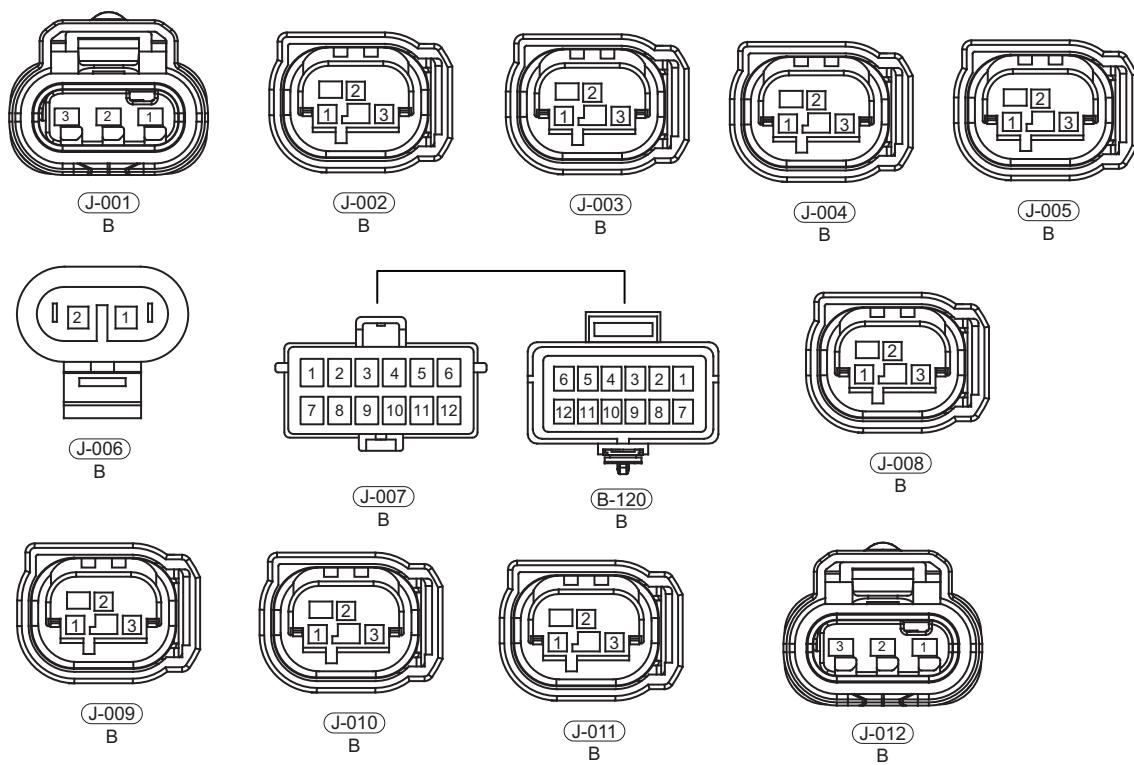


WHE034001

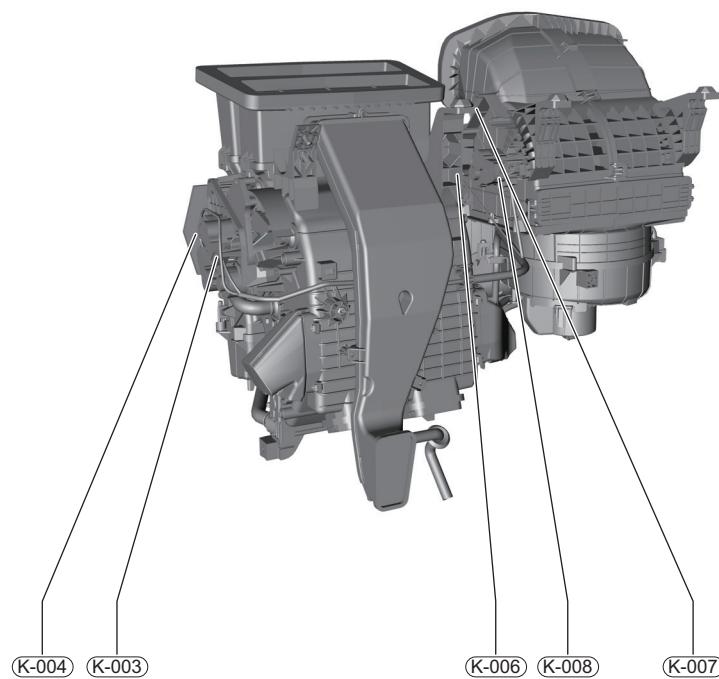
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Connector Number	Connector Color/Pin	Connector Name
J-001	B/3	Rear Left Long Distance Ultrasonic Sensor
J-003	B/3	Rear Left Radar Sensor
J-005	B/3	Rear Left Center Radar Sensor
J-006	B/2	Rear Fog Light
J-007	B/12	Interior Wire Harness Interface
J-009	B/3	Rear Right Center Radar Sensor
J-011	B/3	Rear Right Radar Sensor
J-012	B/3	Rear Right Long Distance Ultrasonic Sensor

## Rear Bumper Wire Harness Connector List

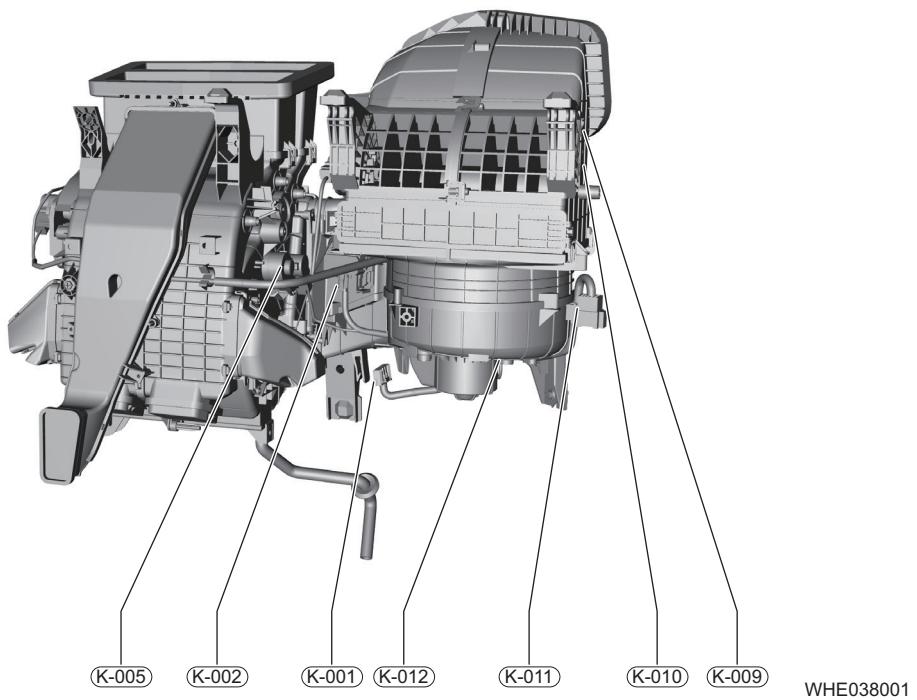


## Automatic A/C Wire Harness



WHE037001

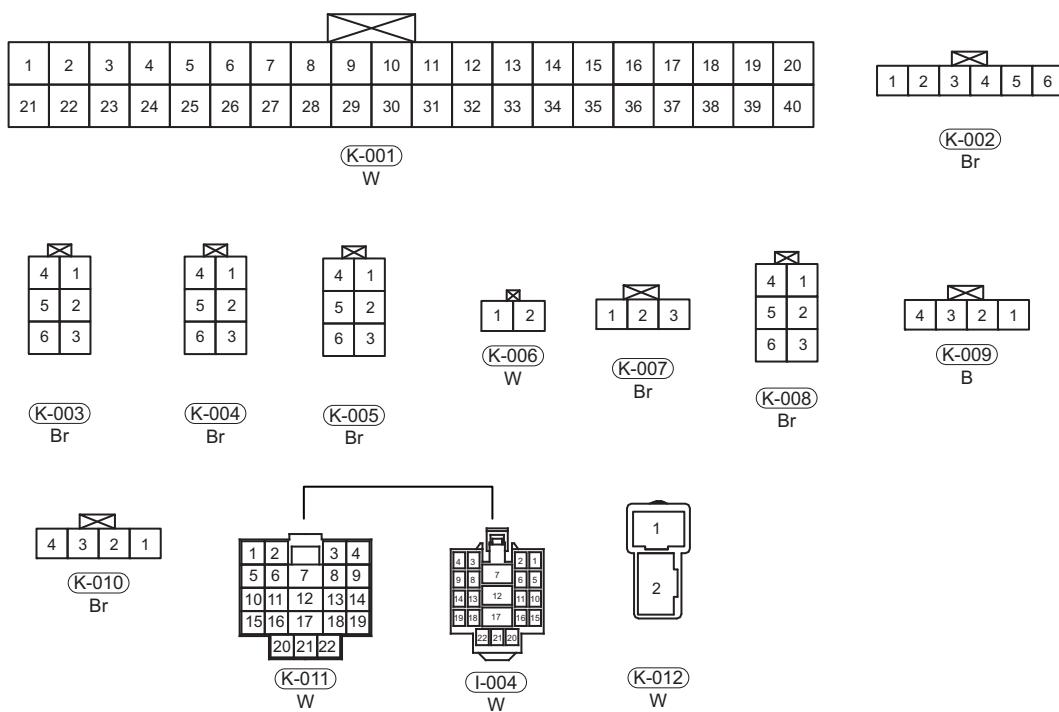
Connector Number	Connector Color/Pin	Connector Name
K-003	Br/6	Mode Damper Motor
K-004	Br/6	Left Mix Damper Motor
K-006	W/2	Evaporator Tank Temperature Sensor
K-007	Br/3	Air Quality Sensor
K-008	Br/6	Inner/outer Circulation Motor



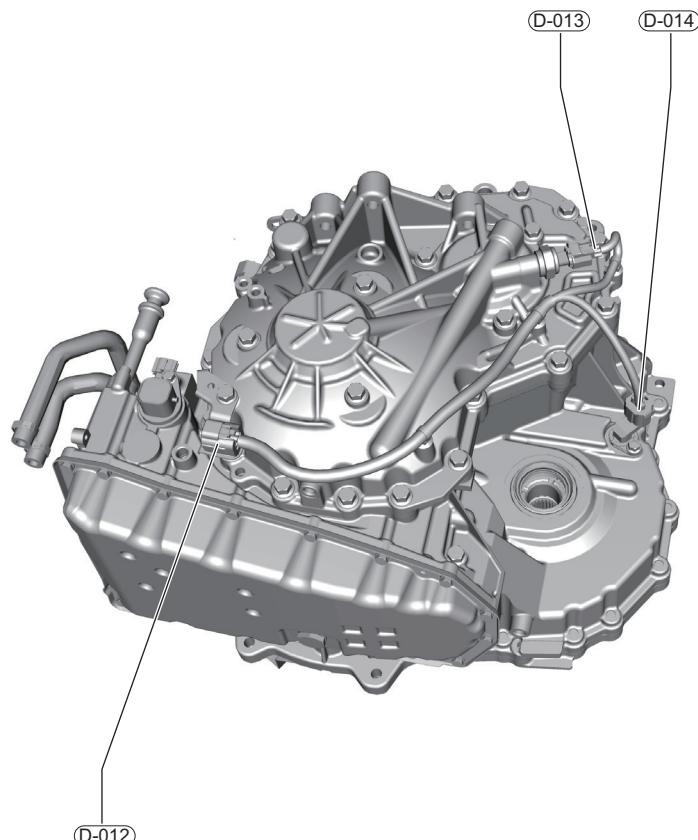
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Connector Number	Connector Color/Pin	Connector Name
K-001	W/40	Automatic A/C Control Module
K-002	Br/6	Speed Regulation Module
K-005	Br/6	Right Mix Damper Motor
K-009	B/4	External PM2.5 Sensor
K-010	Br/4	Internal PM2.5 Sensor
K-011	W/22	Instrument Panel Wire Harness Interface
K-012	W/2	Blower

## Automatic A/C Wire Harness Connector List



## Transmission Peripheral Wire Harness (CVT)

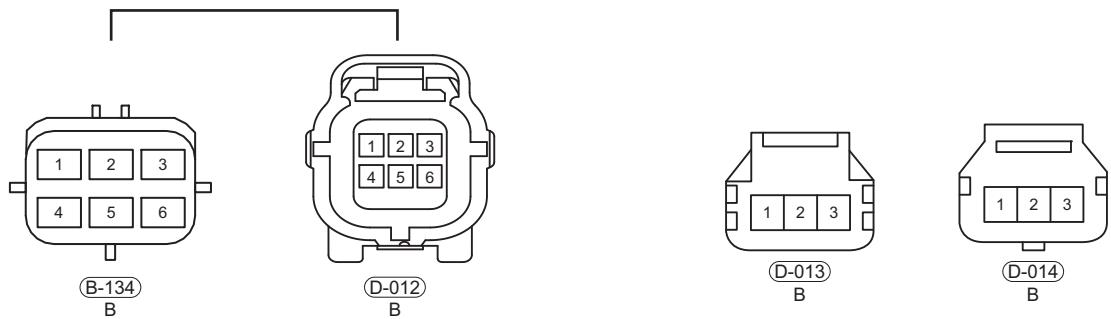


WHE054001

Connector Number	Connector Pin/Color	Connector Name
D-012	B/2	to Interior Wire Harness
D-013	B/3	Second Shaft Pressure Sensor
D-014	B/6	Second Shaft Speed Sensor

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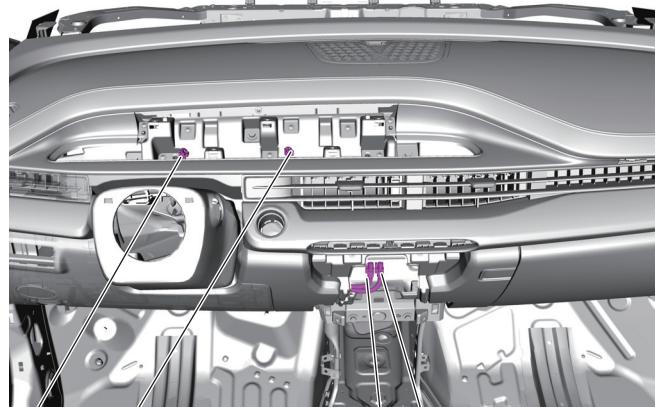
## Transmission Peripheral Wire Harness Connector List (CVT)



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EPU030001

## Display Connecting Wire Harness



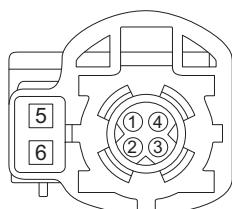
(X-001) (X-002)

(X-003) (X-004)

WHE041001

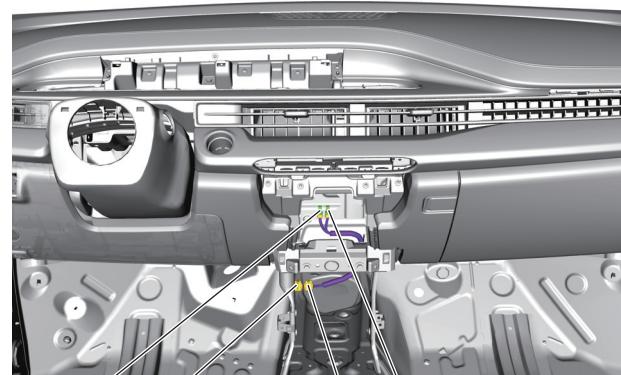
Connector Number	Connector Color/Pin	Connector Name
X-001	B/6	Instrument Cluster Display Connector
X-002	W/6	Audio Display Connector
X-003	B/6	Domain Controller Connector (Instrument Cluster)
X-004	W/6	Domain Controller Connector (Audio)

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(X-001) (X-002) (X-003) (X-004)  
B W B W

WHE044001

## USB Connecting Wire Harness

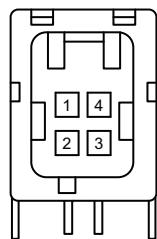


(U-001) (U-002) (U-003) (U-004)

WHE042001

Connector Number	Connector Color/Pin	Connector Name
U-001	B/4	USB1 Connector (Domain Controller Terminal)
U-002	L/4	USB1 Connector
U-003	B/4	USB2 Connector
U-004	B/4	USB2 Connector (Domain Controller Terminal)

10



(U-001) (U-002) (U-003) (U-004)  
B L B B

WHE045001

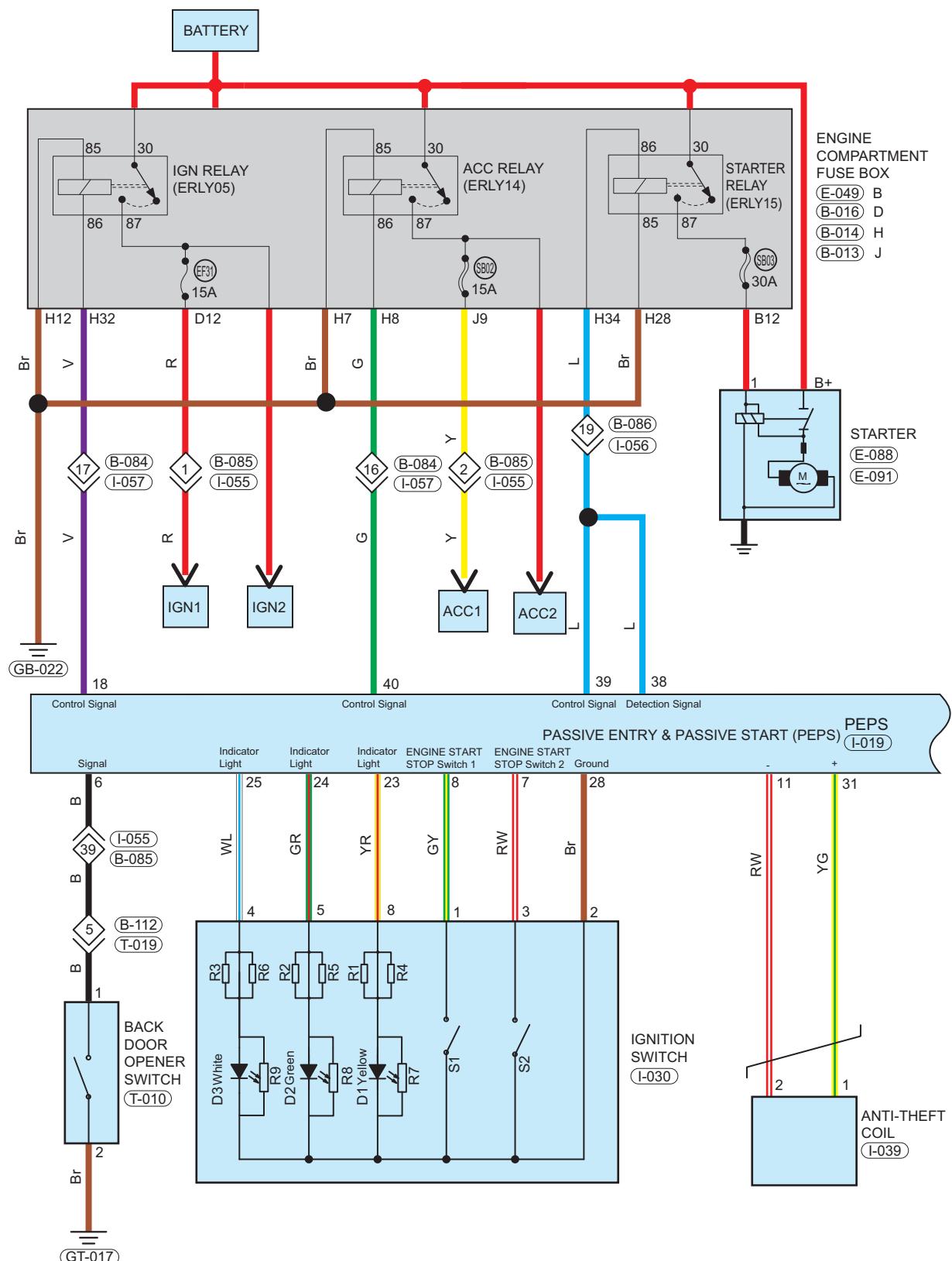
# System Circuit Diagram

## General Information

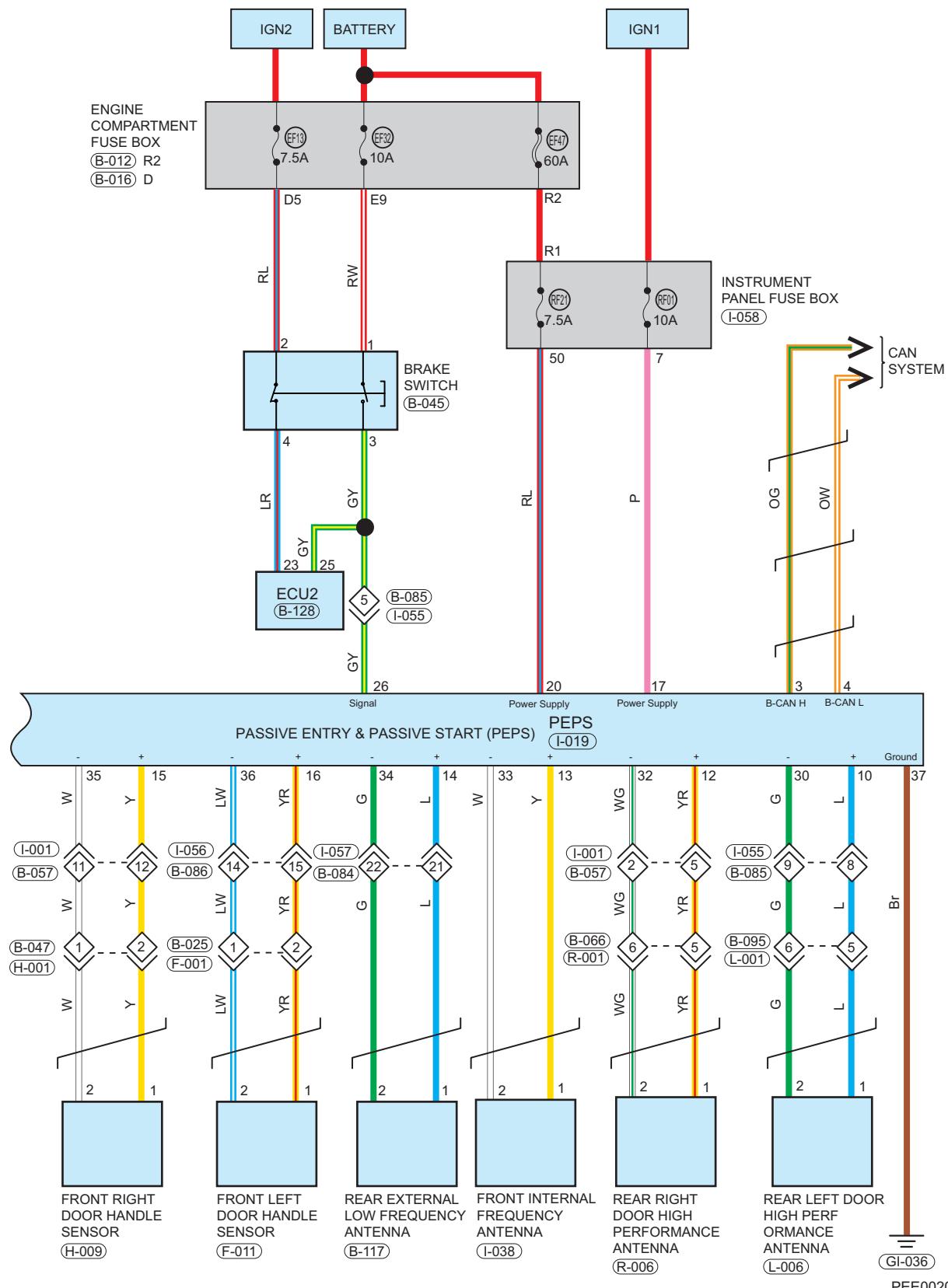
This section provides information about system circuit diagram, which is very important for troubleshooting electrical faults. When troubleshooting any problems, first understand the operation of the malfunction circuit (Refer to "System Circuit" or circuit diagram in the relevant repair manual).

After understanding the circuit operation, troubleshoot the malfunction circuit to find out the cause, then use the "Wire Harness Position Diagram" to find each wire harness, wire harness connector and ground point of the relevant circuit. For specifications or detailed removal and installation procedures, please refer to the relevant repair manual.

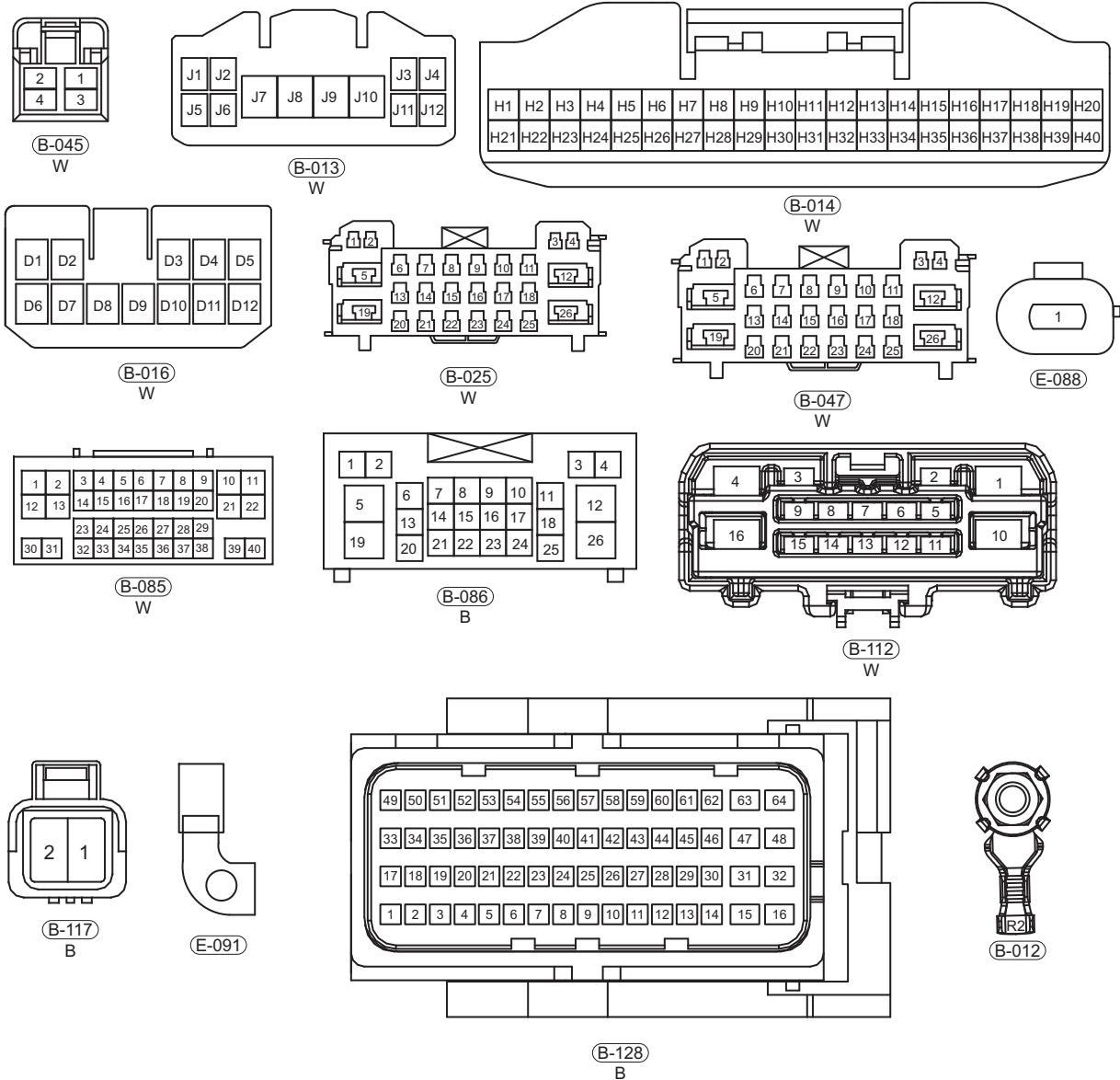
# Passive Entry and Passive Start System (PEPS)



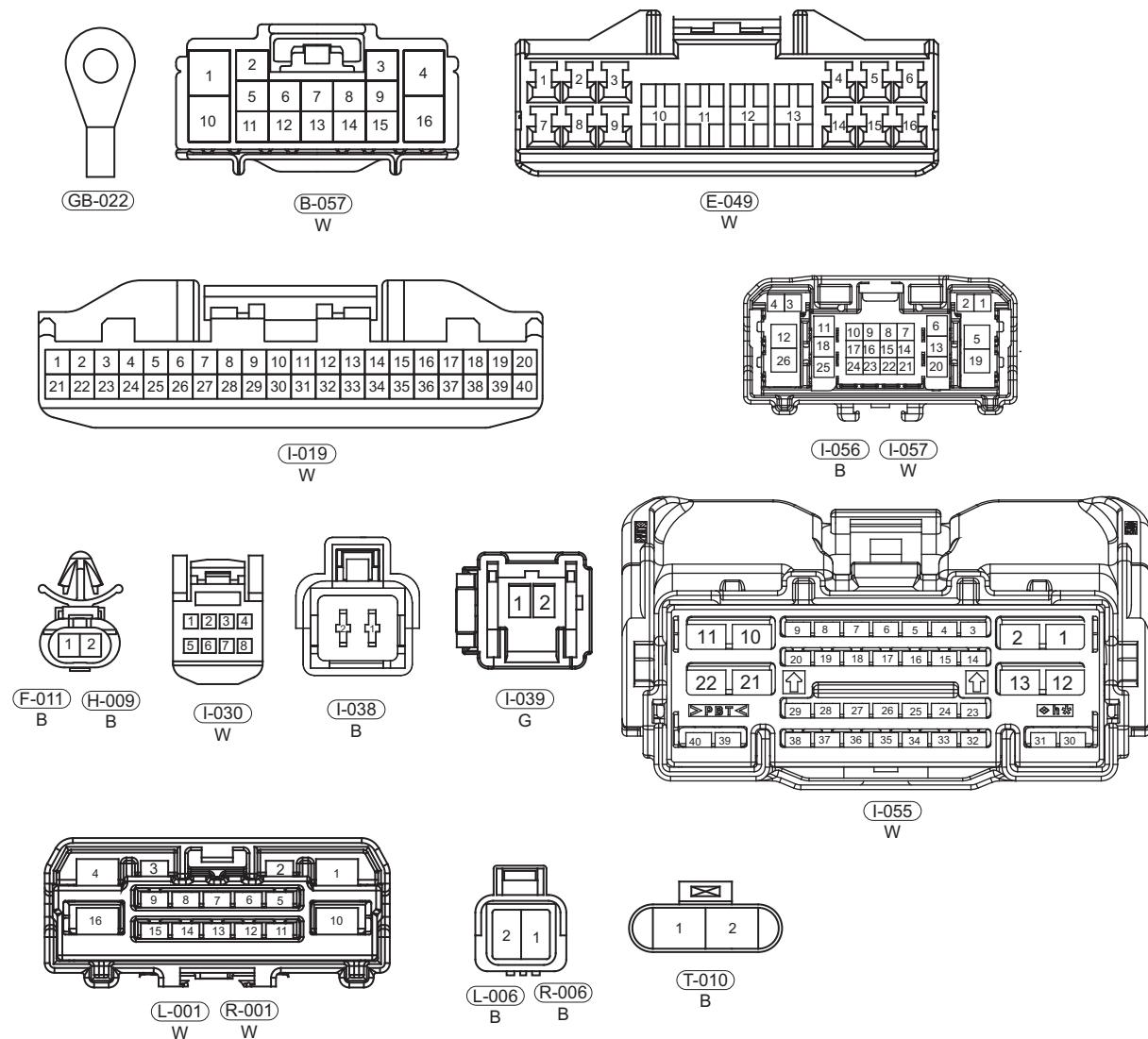
# Passive Entry and Passive Start System (PEPS)



## Passive Entry and Passive Start System (PEPS)

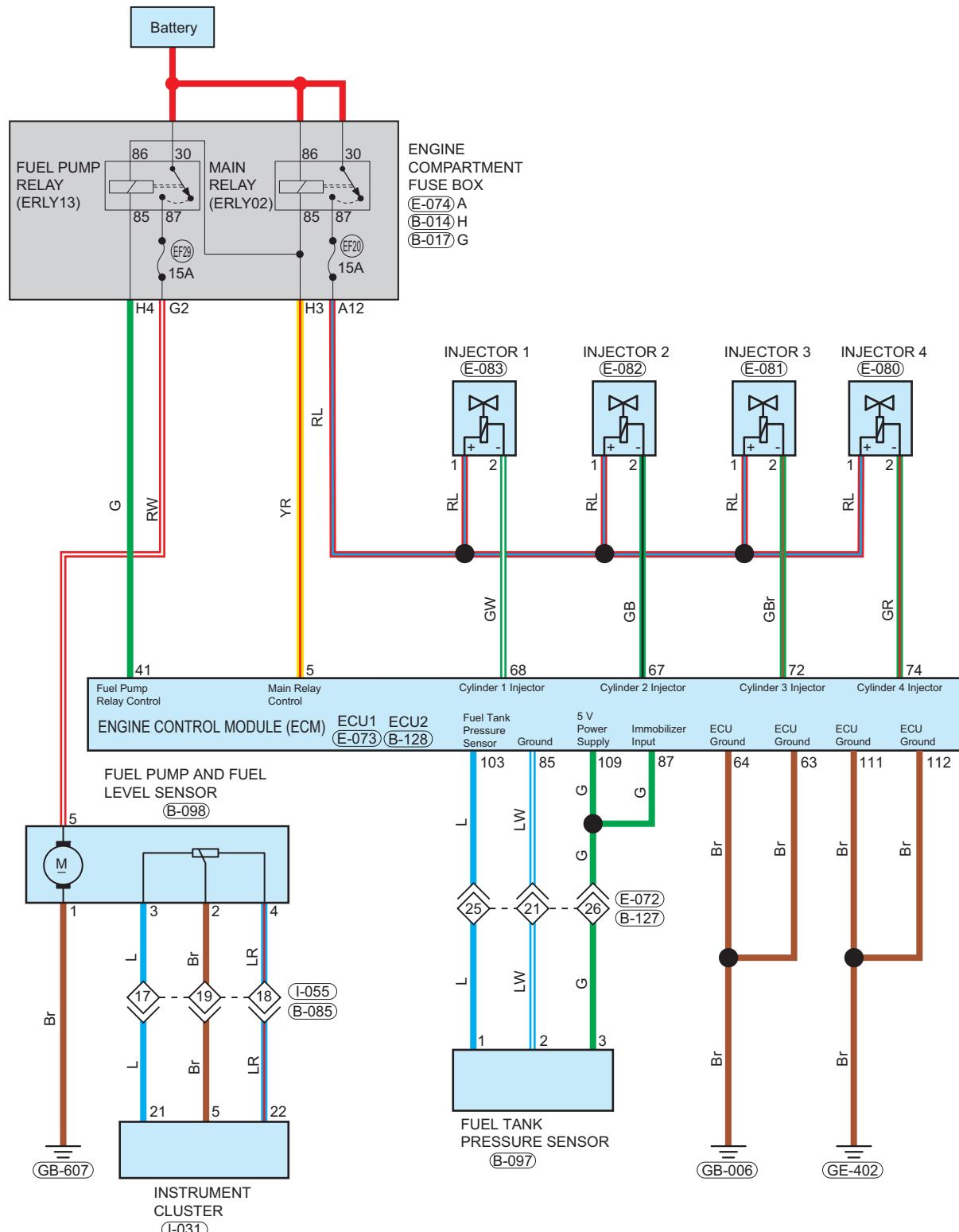


# Passive Entry and Passive Start System (PEPS)



# Engine Control System (EMS)(1.5 T)

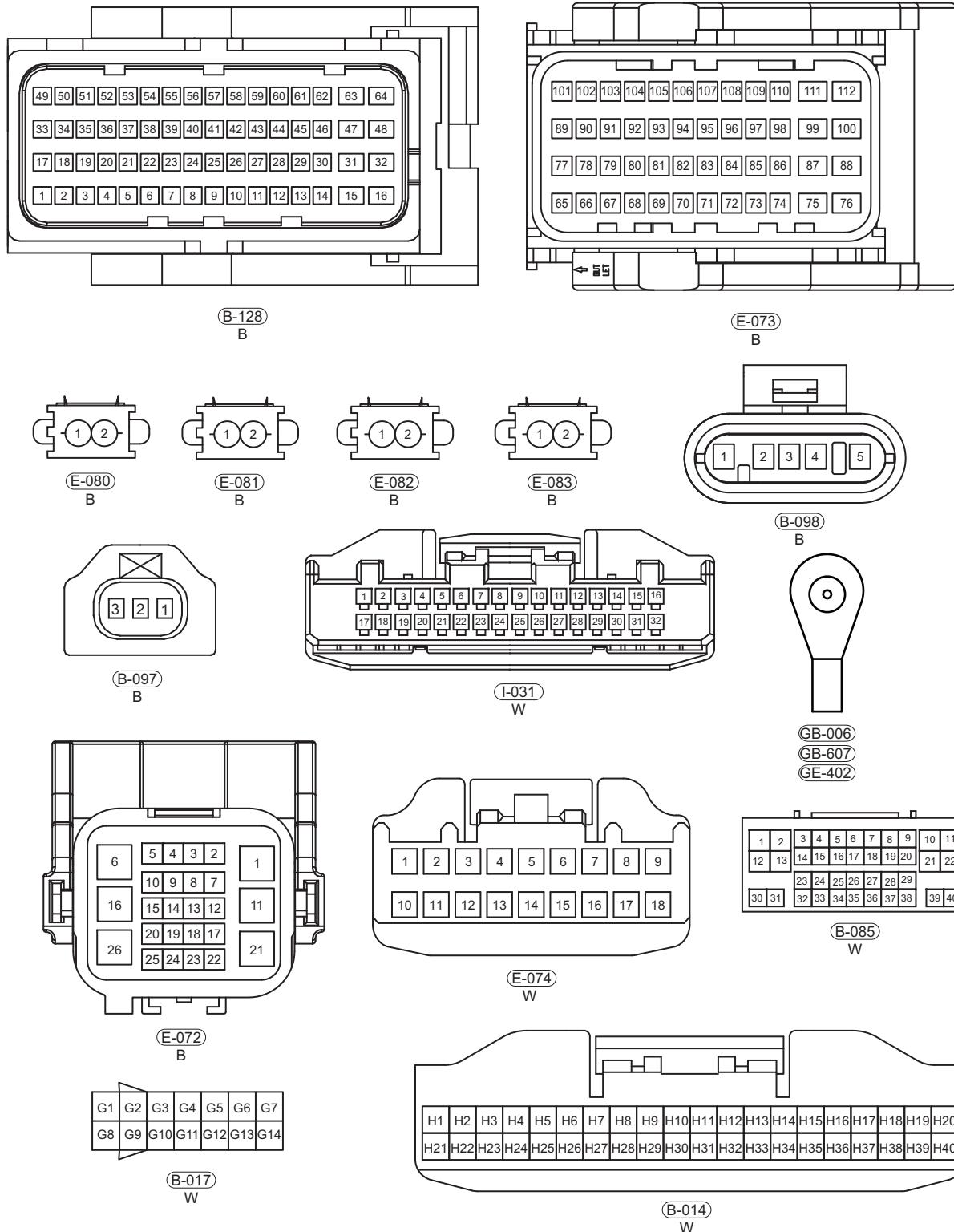
## Fuel System (1.5 T)



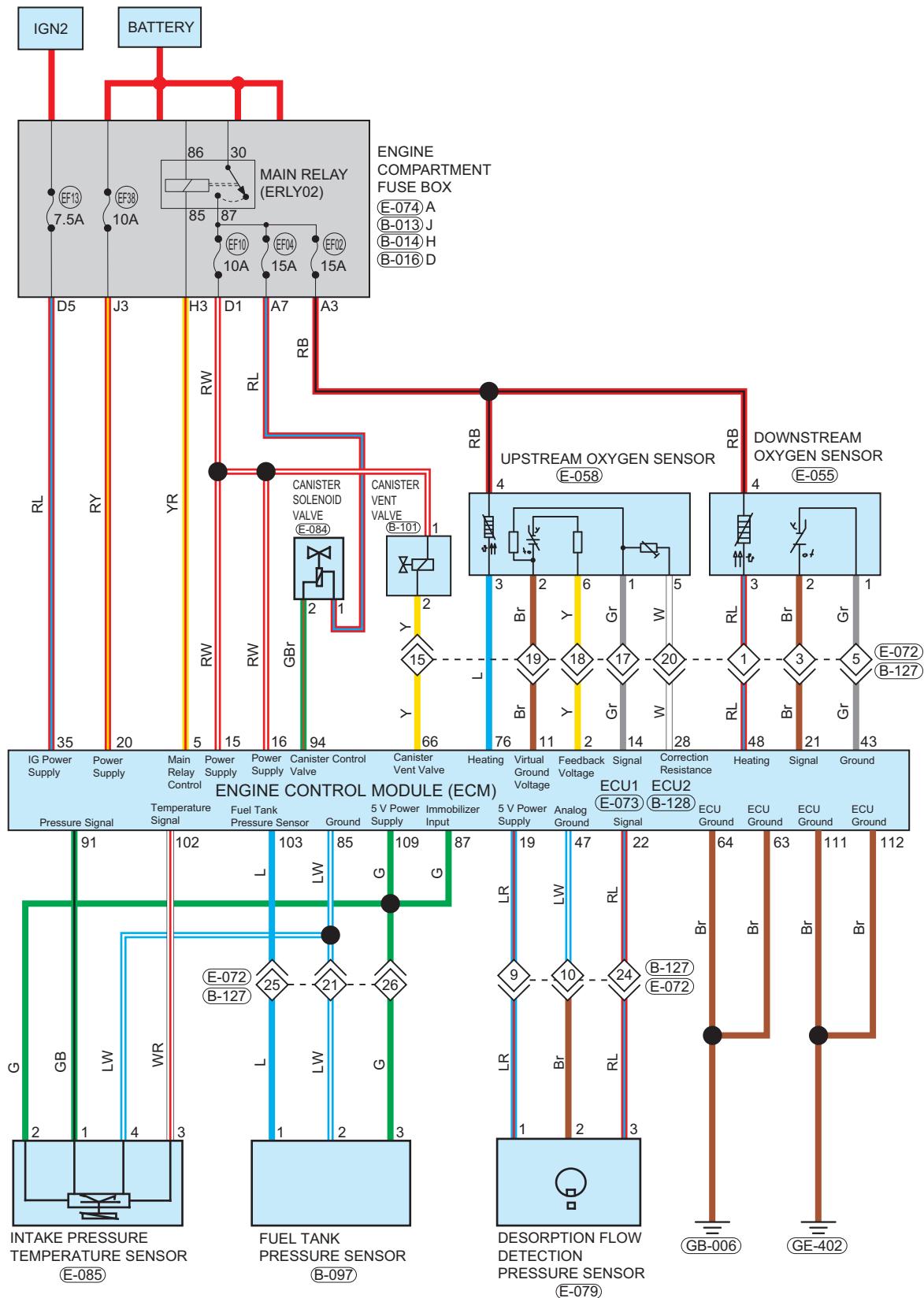
11

FUE003001

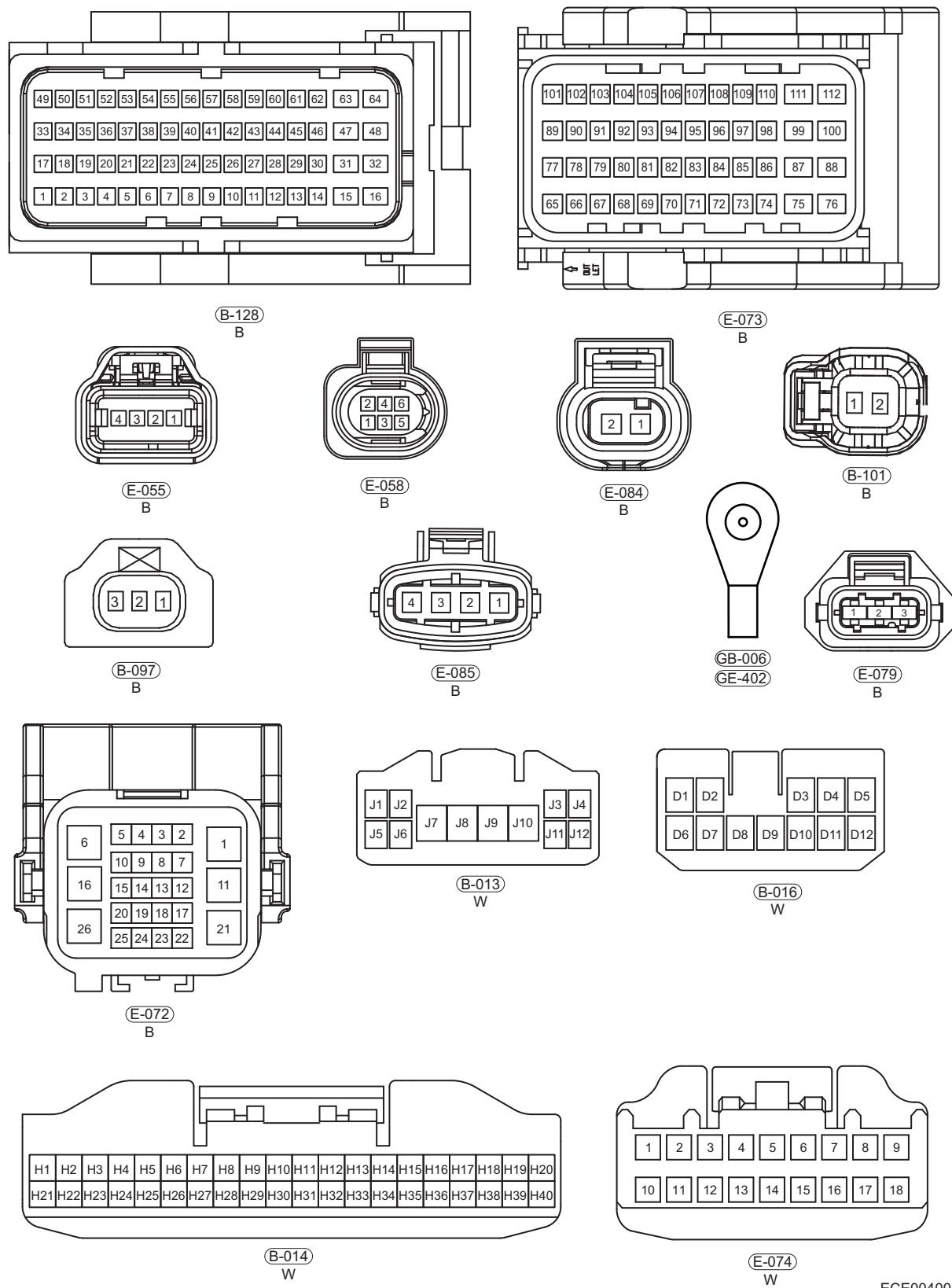
## Fuel System (1.5 T)



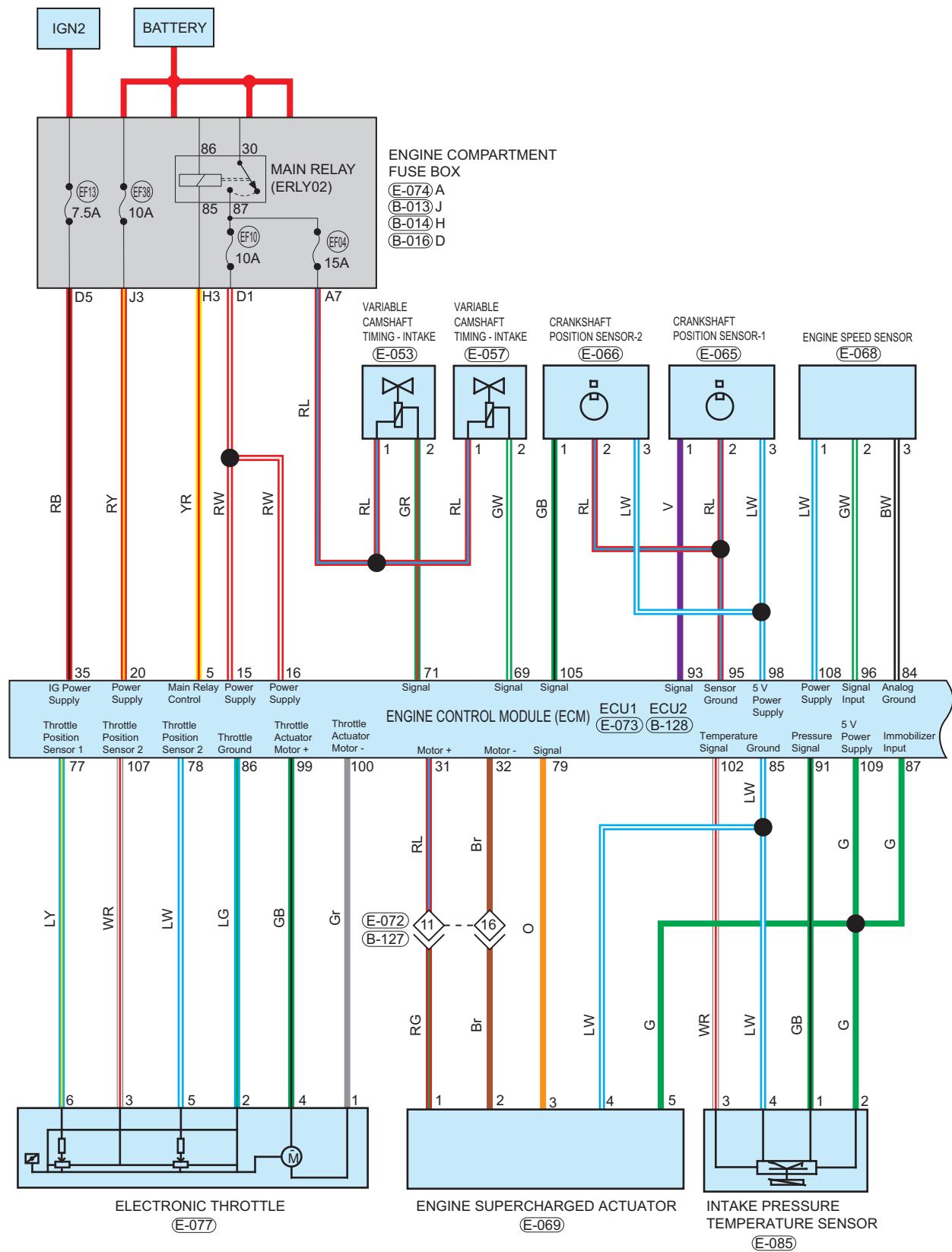
## Emission Control System (1.5 T)



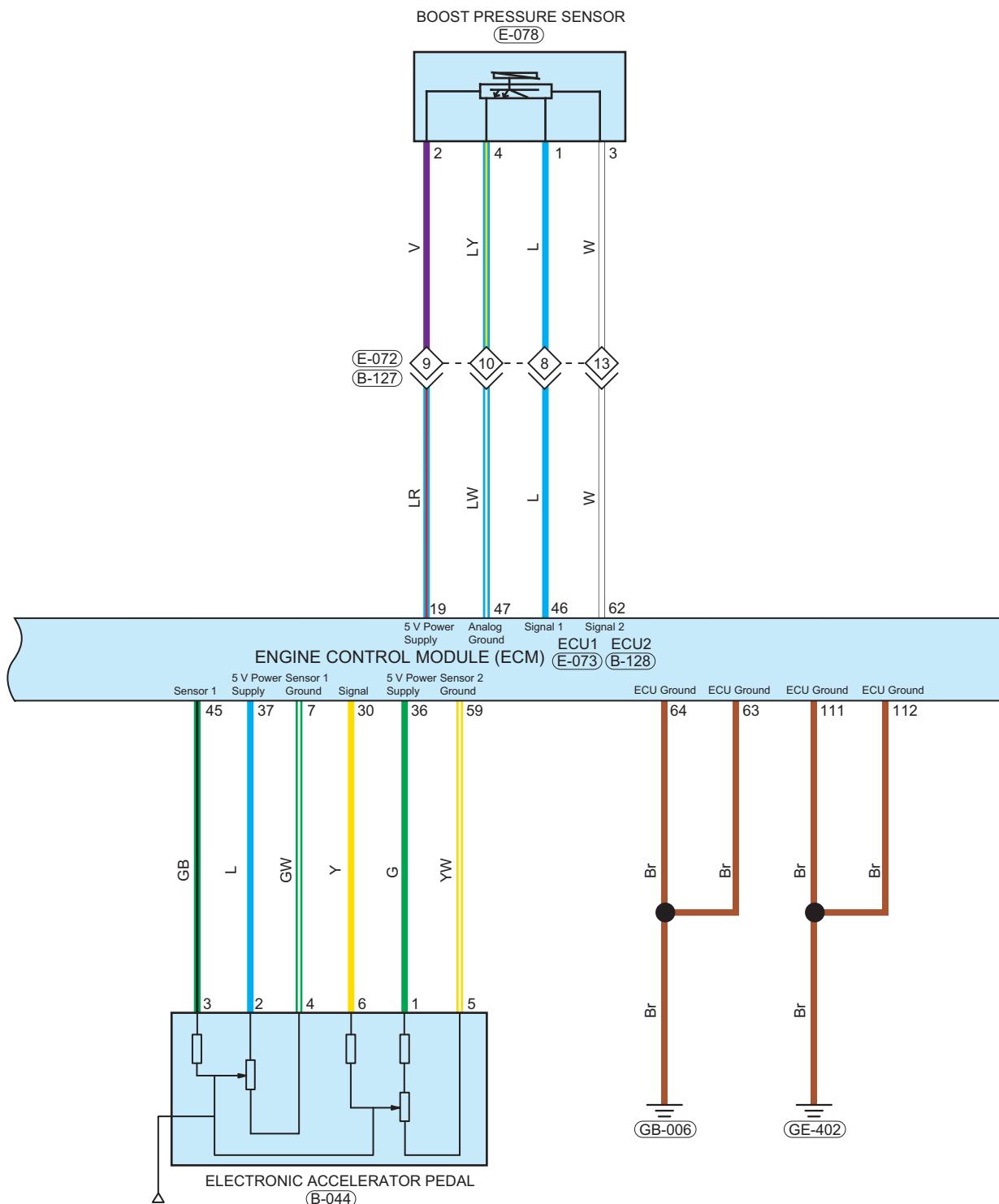
## Emission Control System (1.5 T)



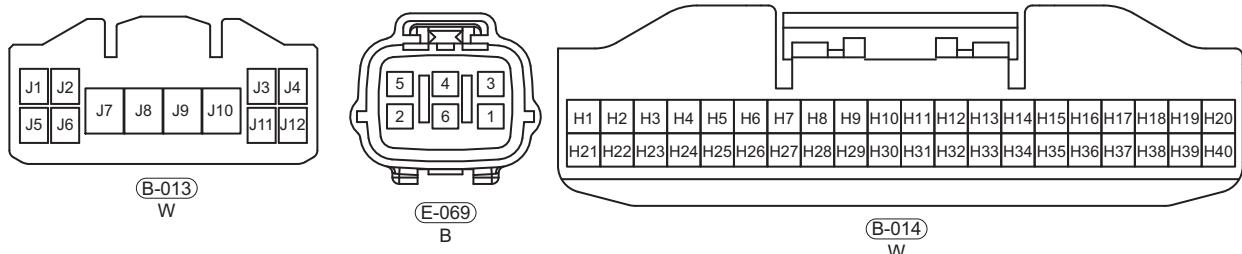
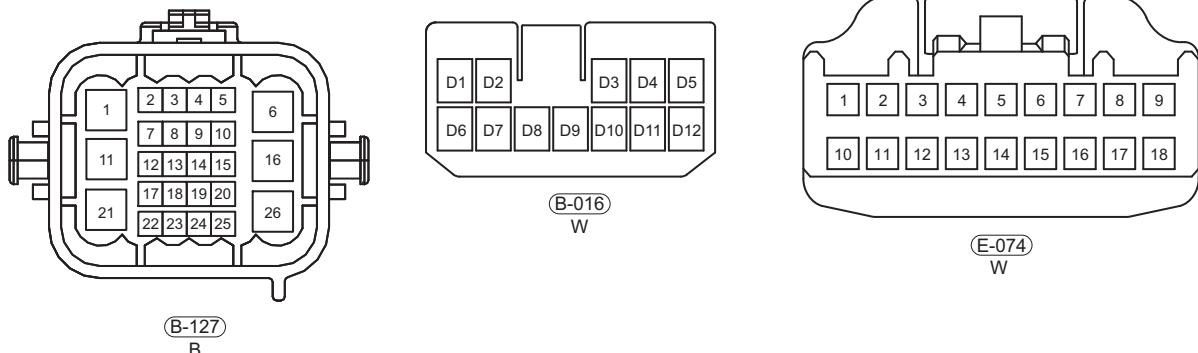
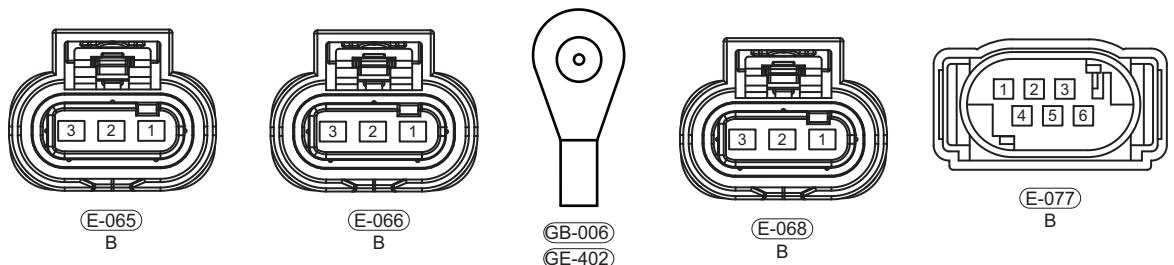
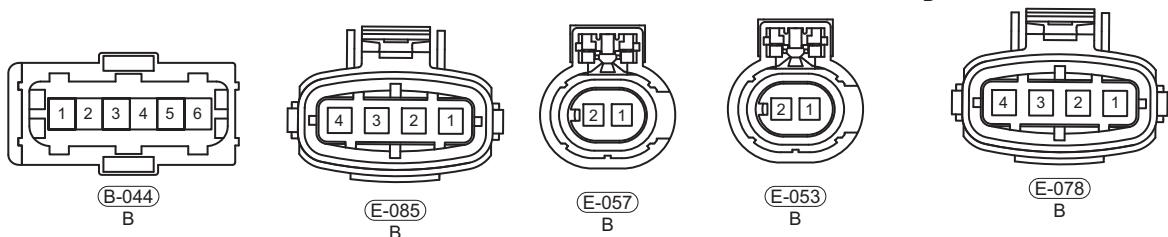
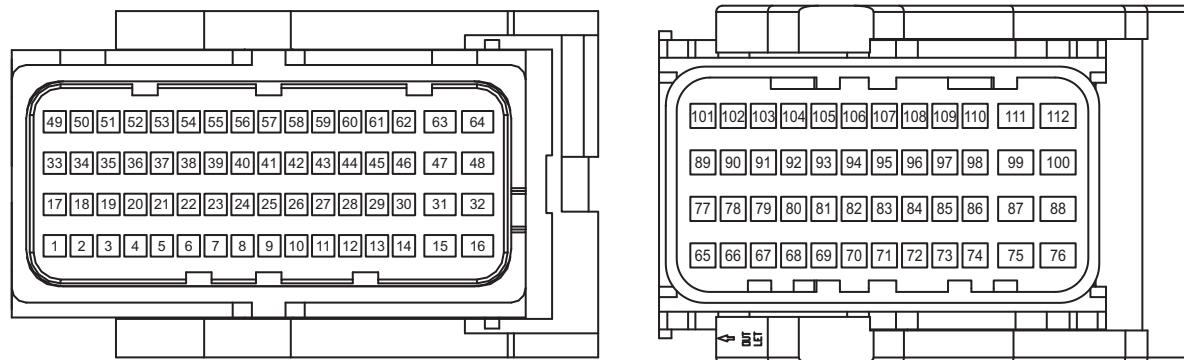
## Intake System (1.5 T)



## Intake System (1.5 T)

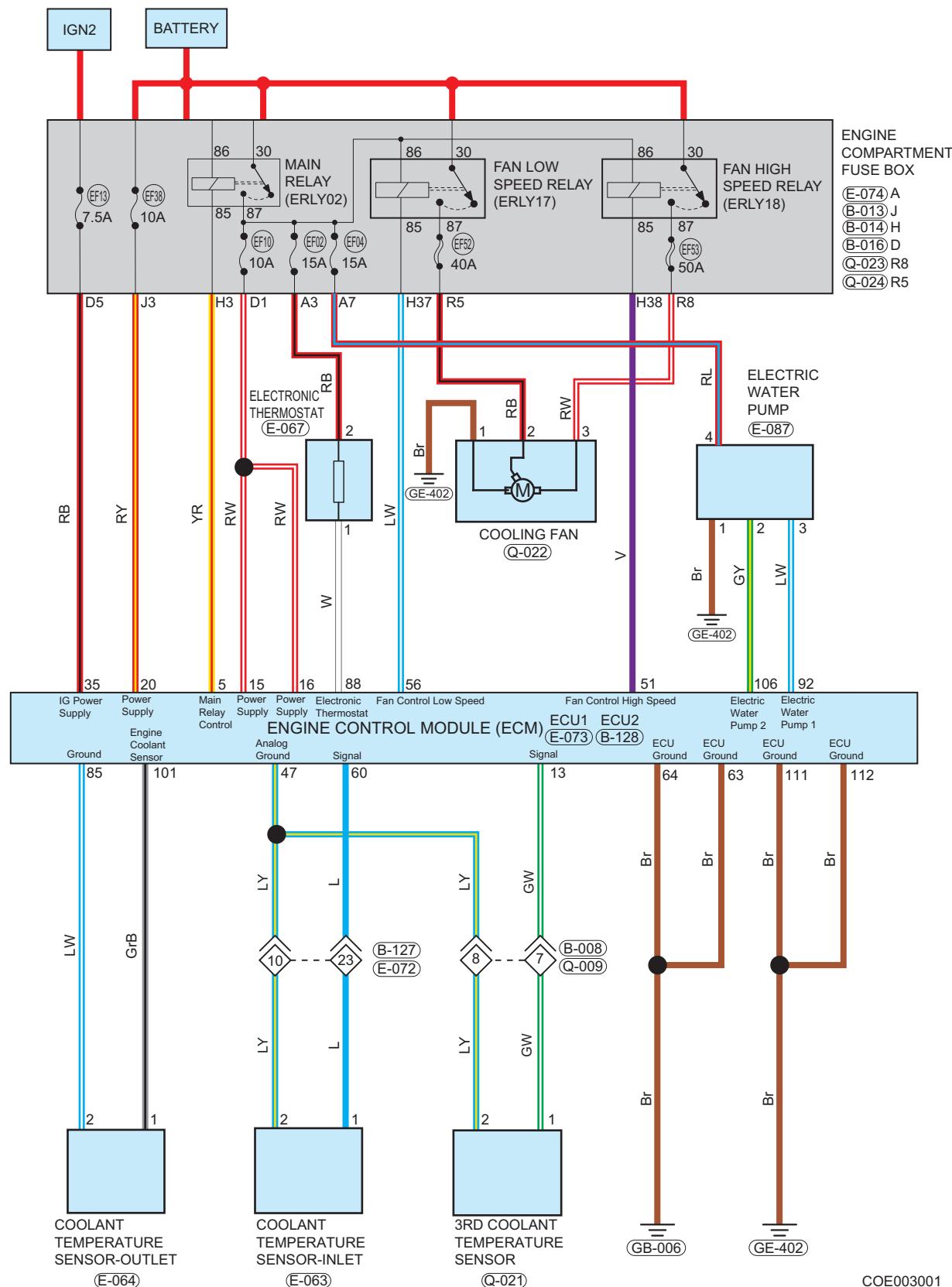


## Intake System (1.5 T)

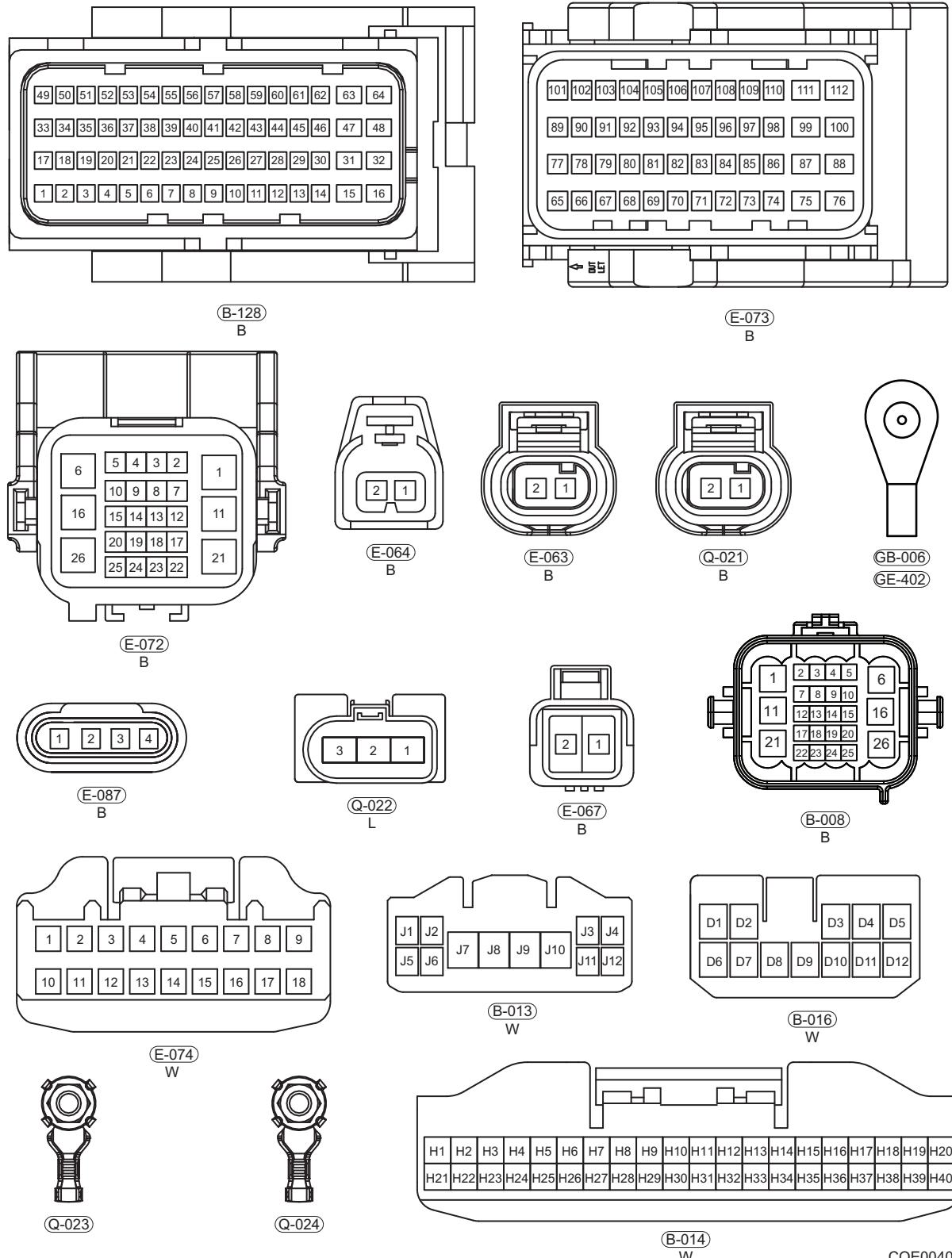


ITE005001

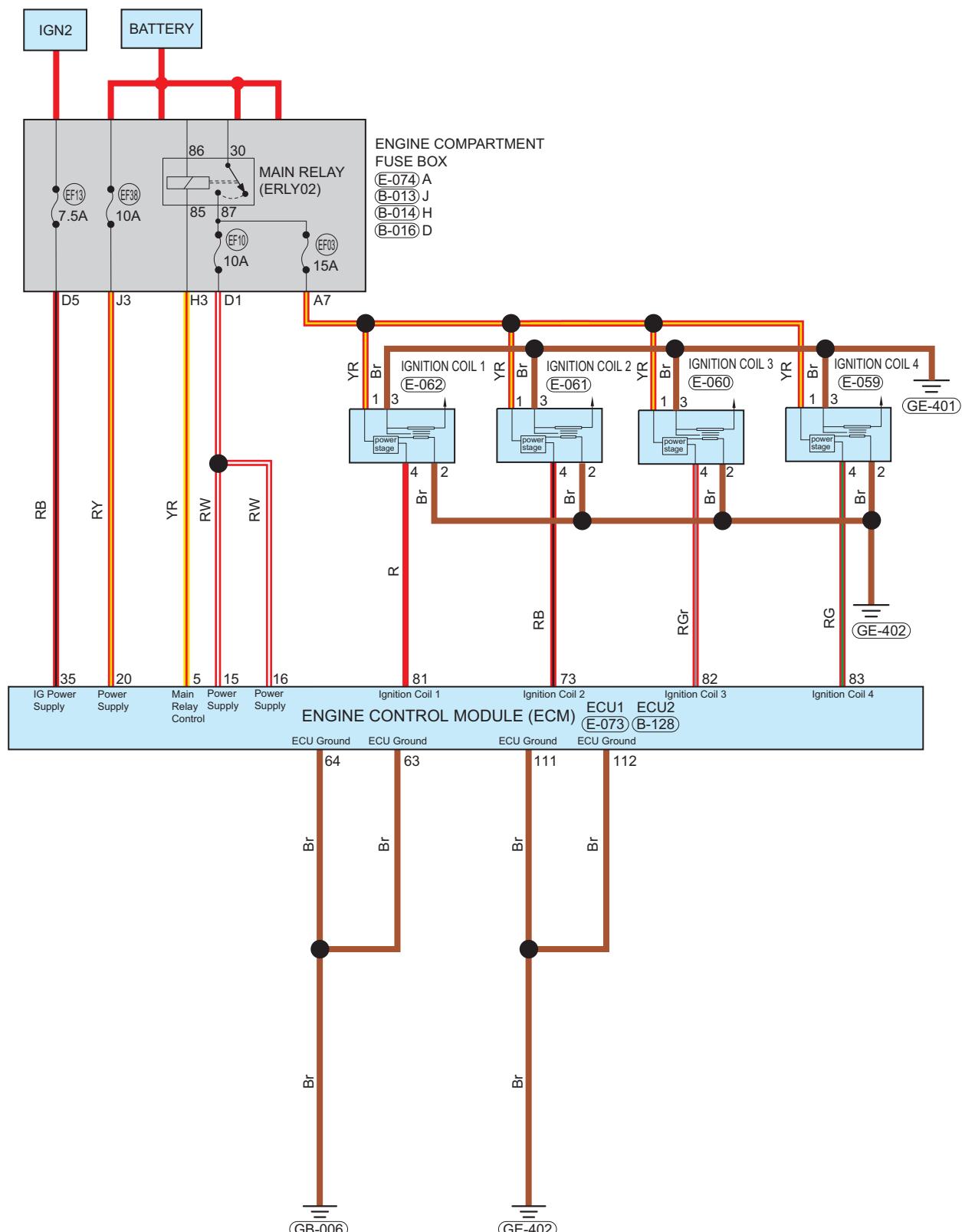
# Cooling System (1.5 T)



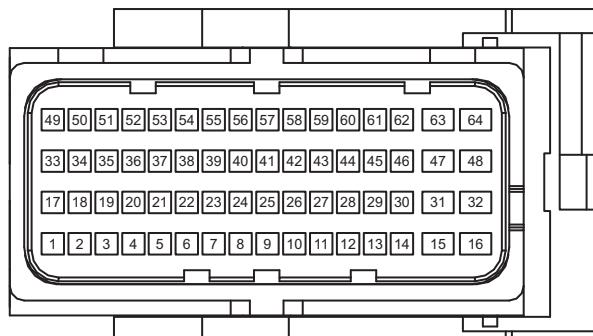
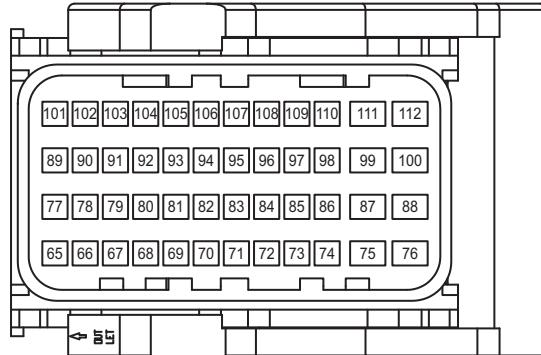
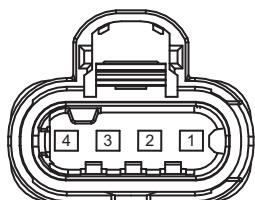
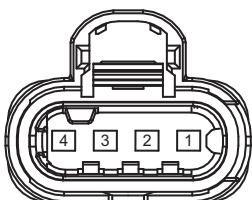
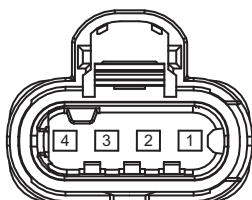
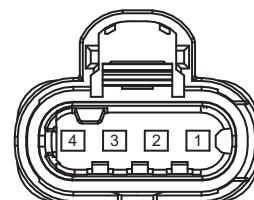
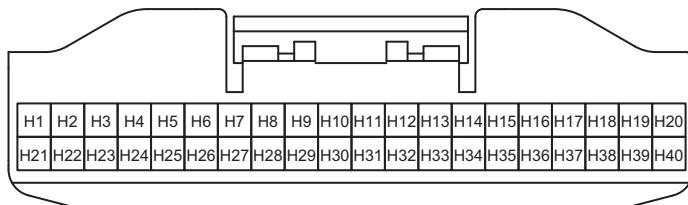
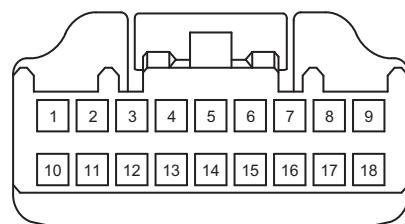
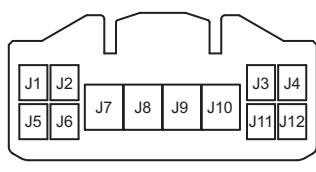
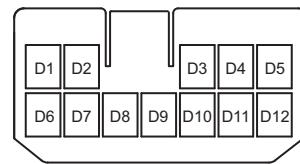
## Cooling System (1.5 T)



## Ignition System (1.5 T)



## Ignition System (1.5 T)

(B-128)  
B(E-073)  
B(E-059)  
B(E-060)  
B(E-061)  
B(E-062)  
B(B-014)  
W(E-074)  
W(B-013)  
W(B-016)  
W

GE-402

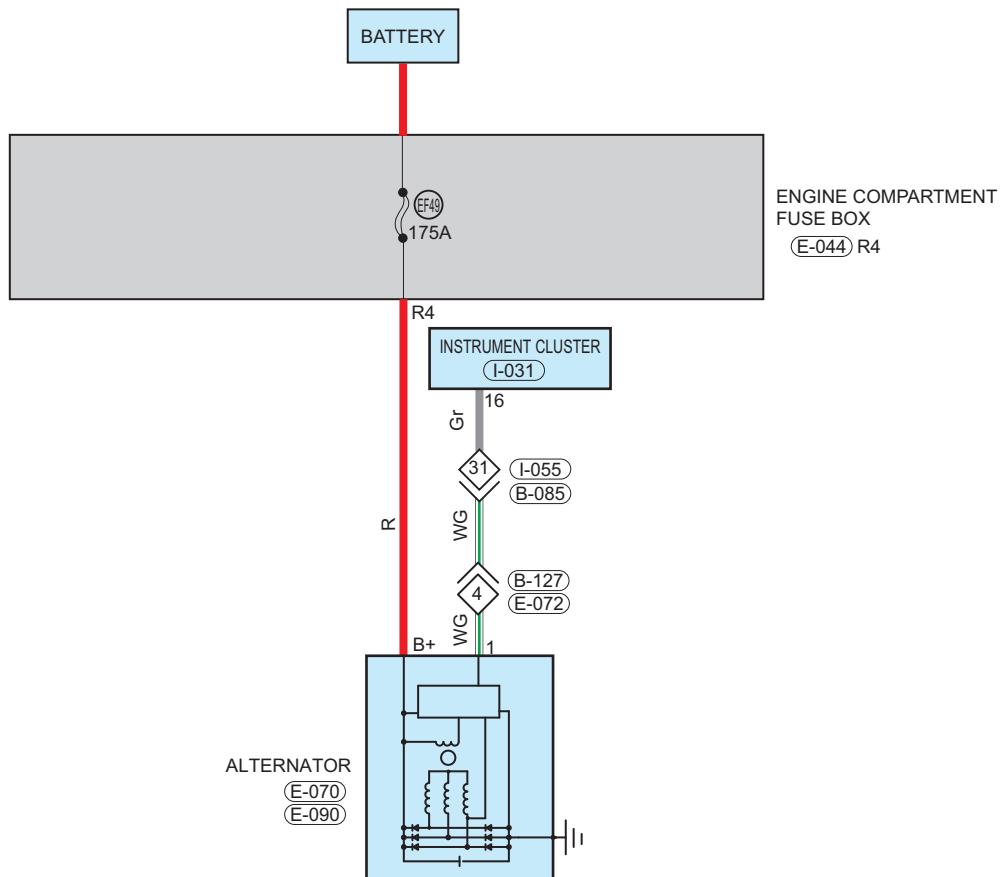


GB-006



GE-401

## Charging System (1.5 T)

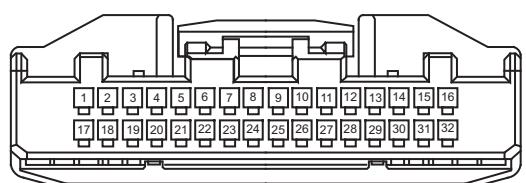


(E-090)



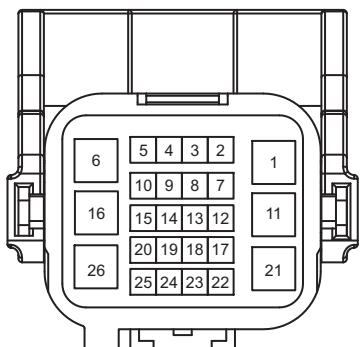
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B



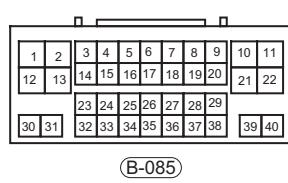
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W



(E-072)

B



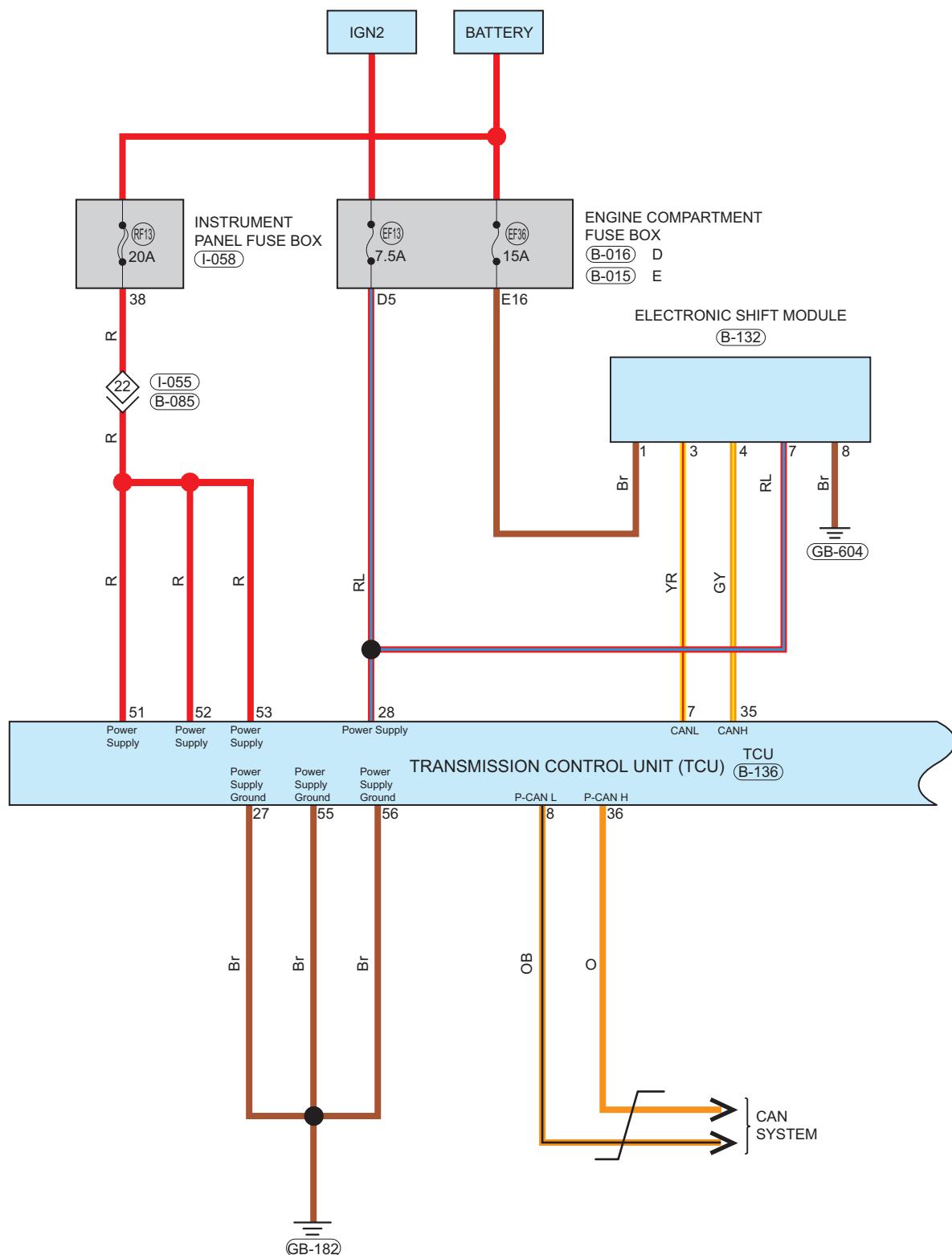
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W



(E-044)

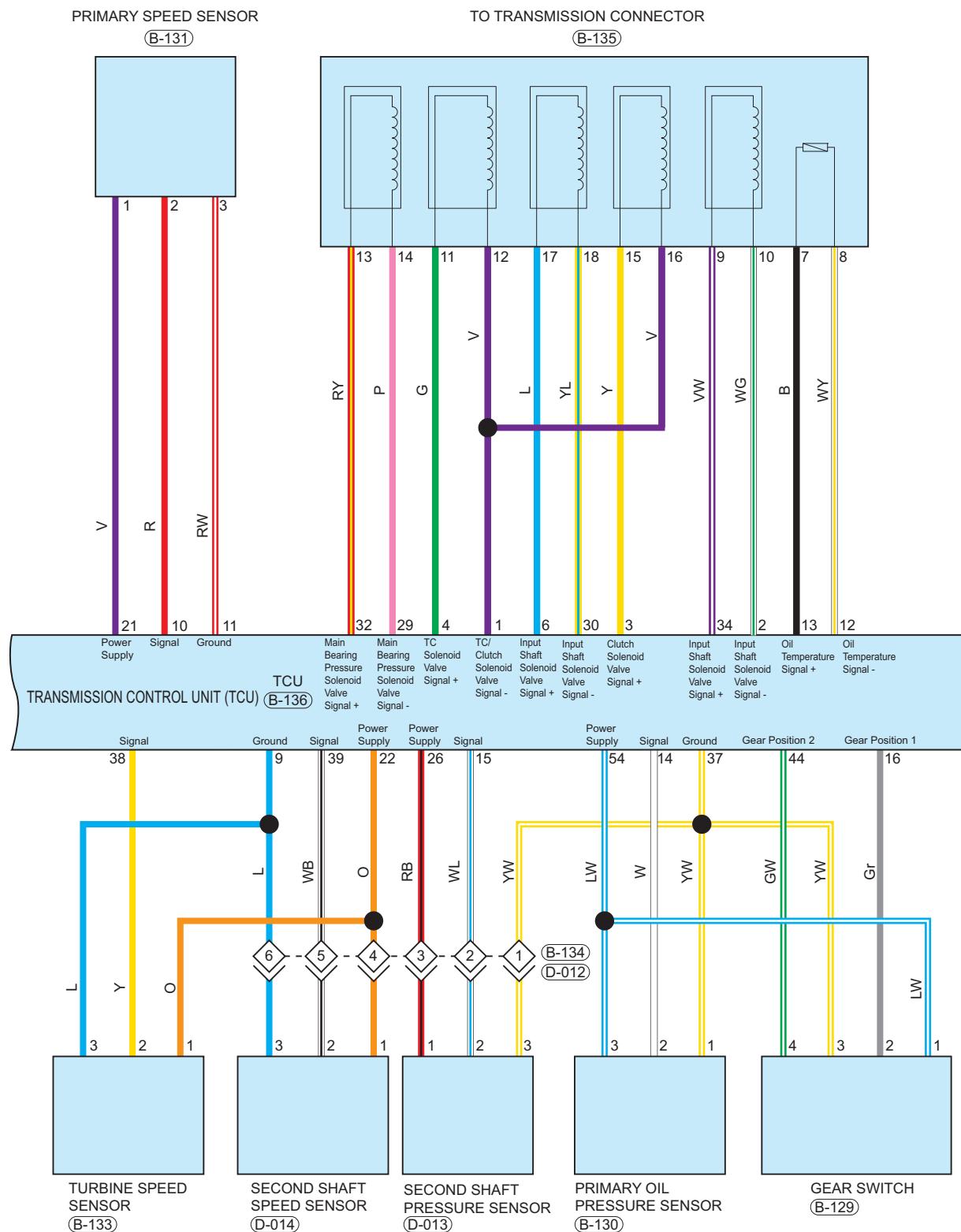
# Transmission Control System (CVT)



11

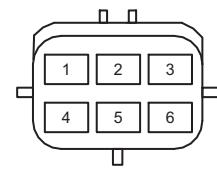
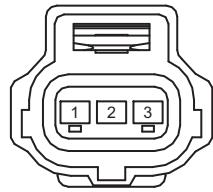
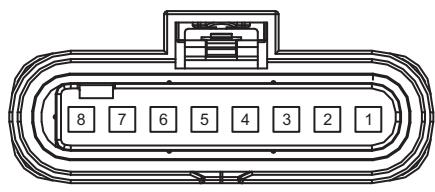
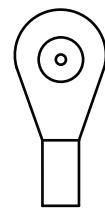
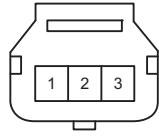
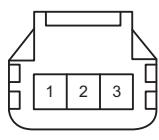
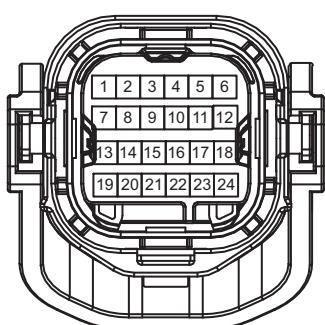
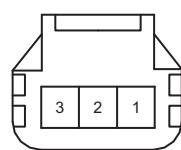
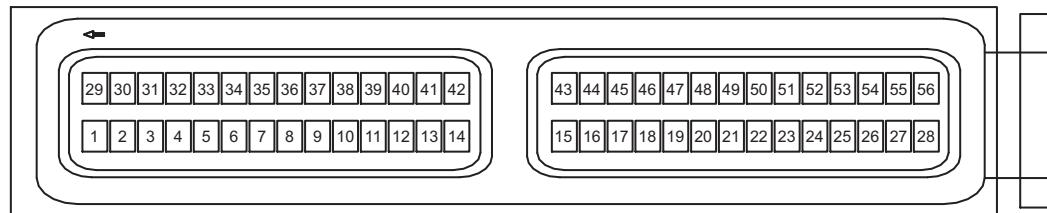
SAE005001

# Transmission Control System (CVT)

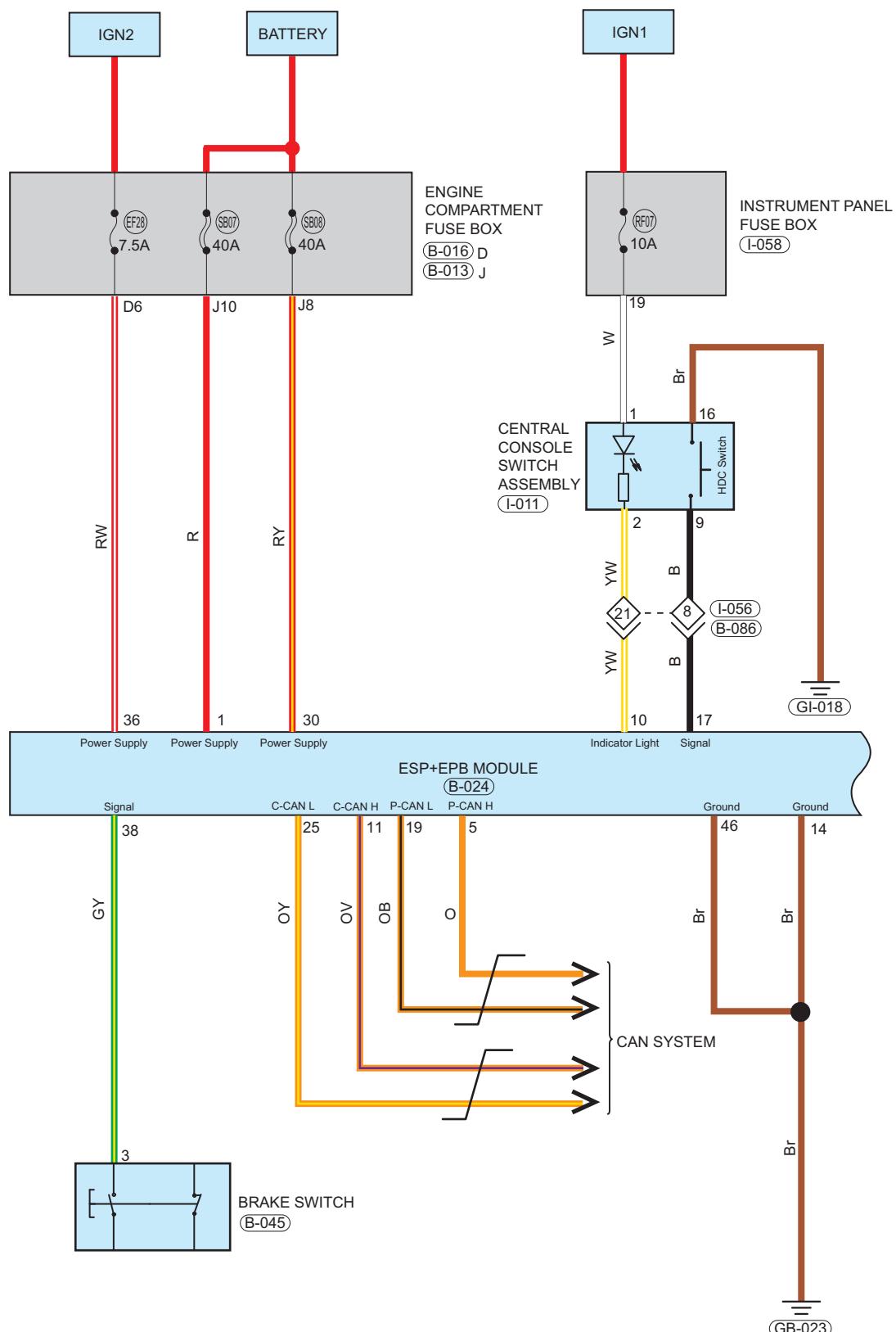


SAE008001

# Transmission Control System (CVT)



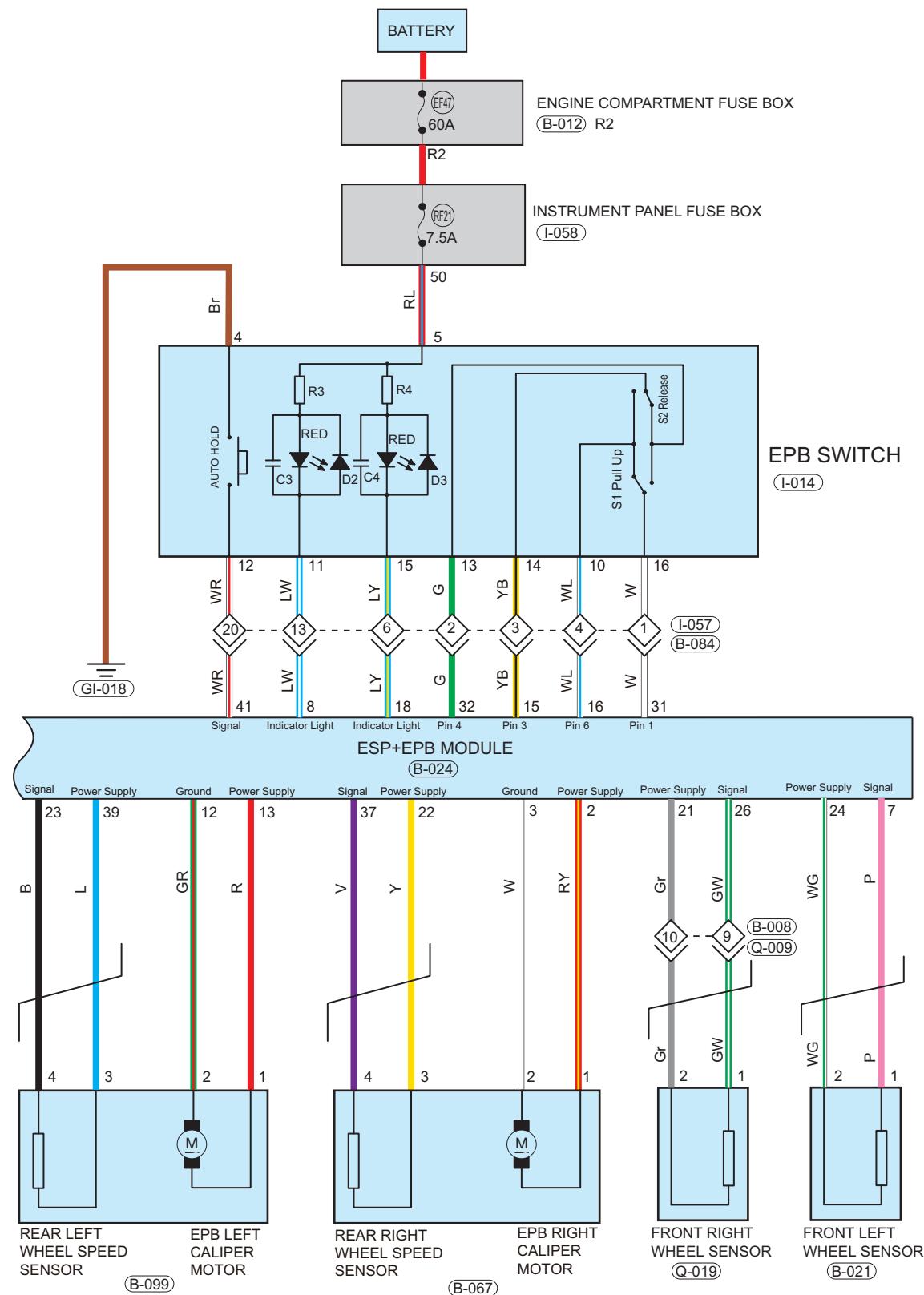
# Electronic Stability System (ESP&EPB)



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EPE001001

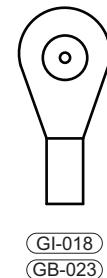
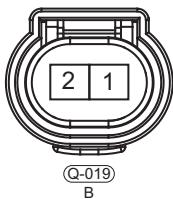
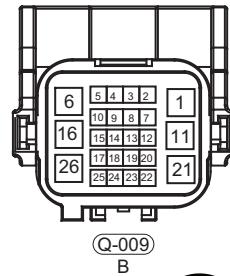
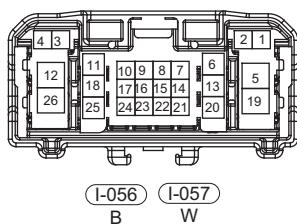
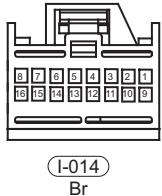
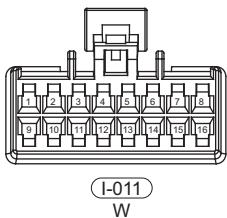
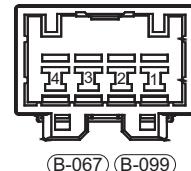
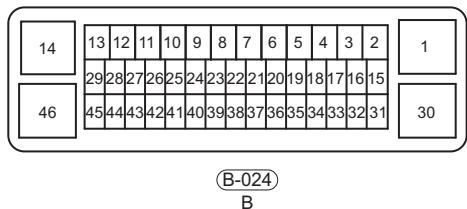
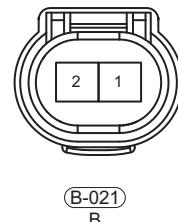
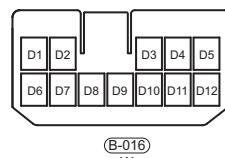
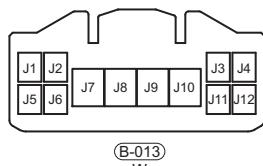
# Electronic Stability System (ESP&EPB)



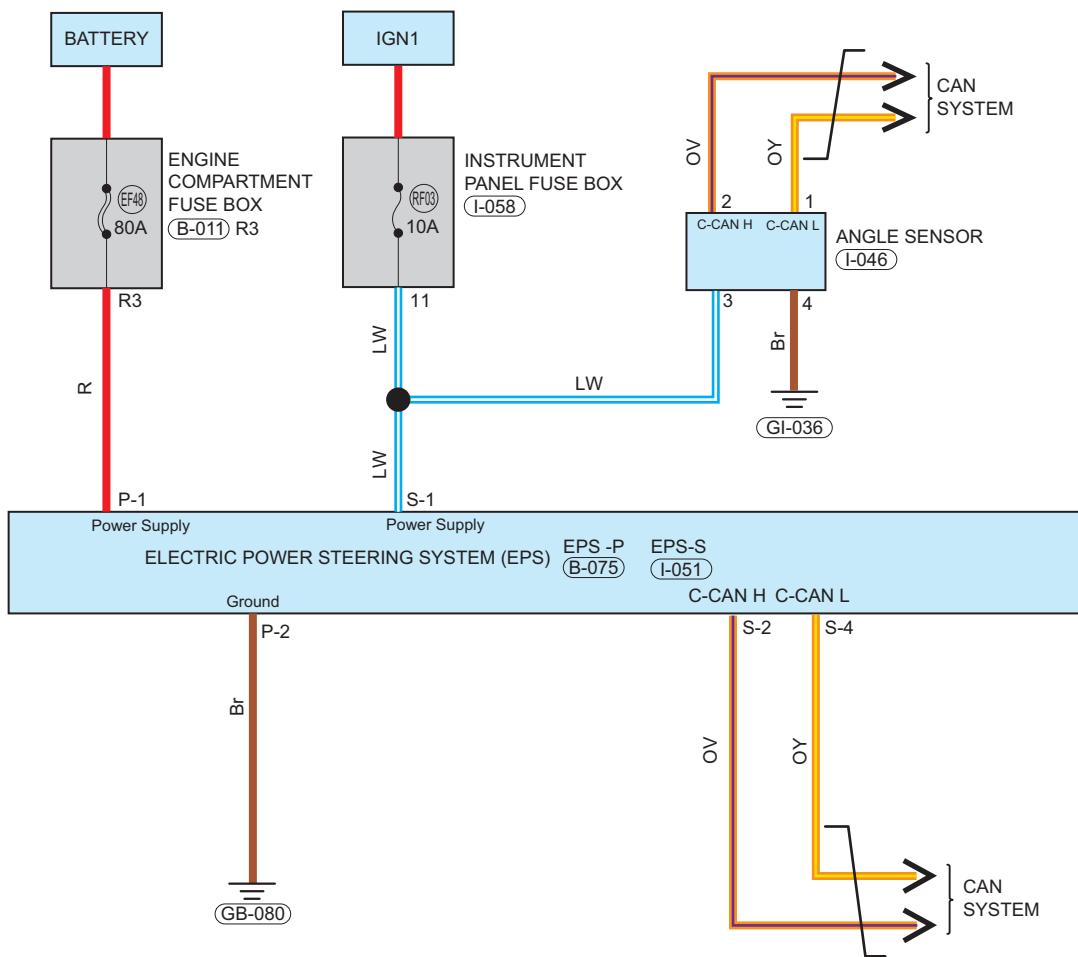
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EPE002001

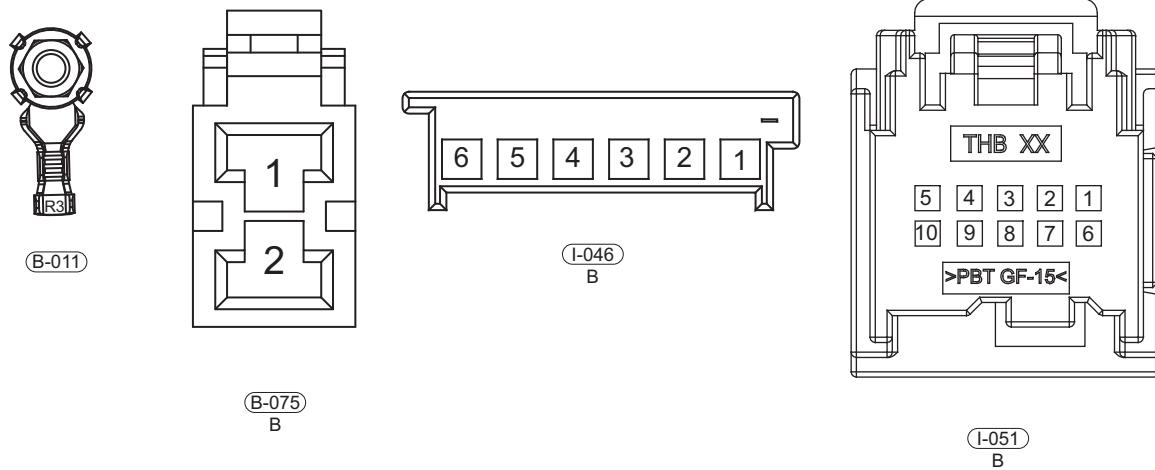
# Electronic Stability System (ESP&EPB)



# Electronic Power Steering System (EPS)

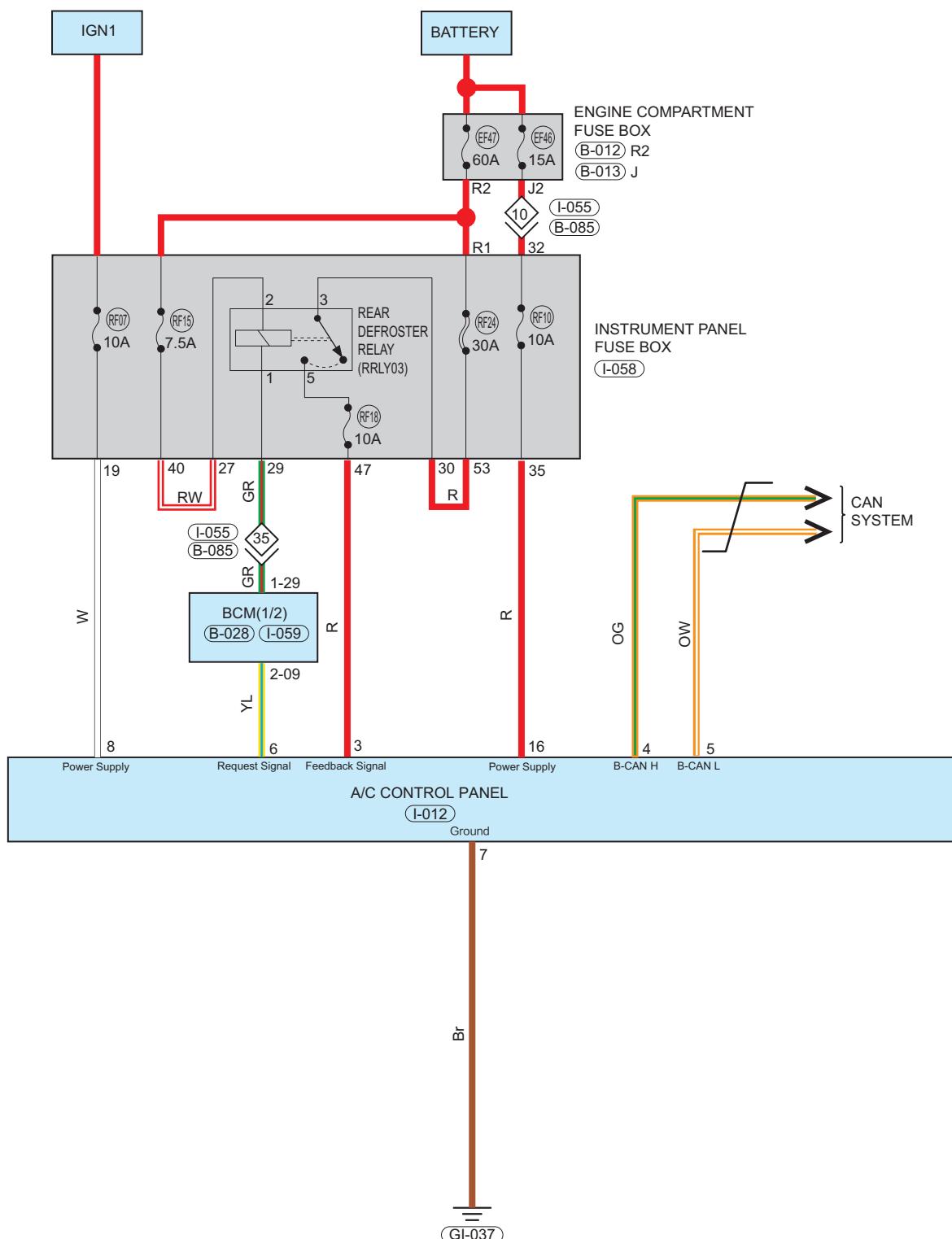


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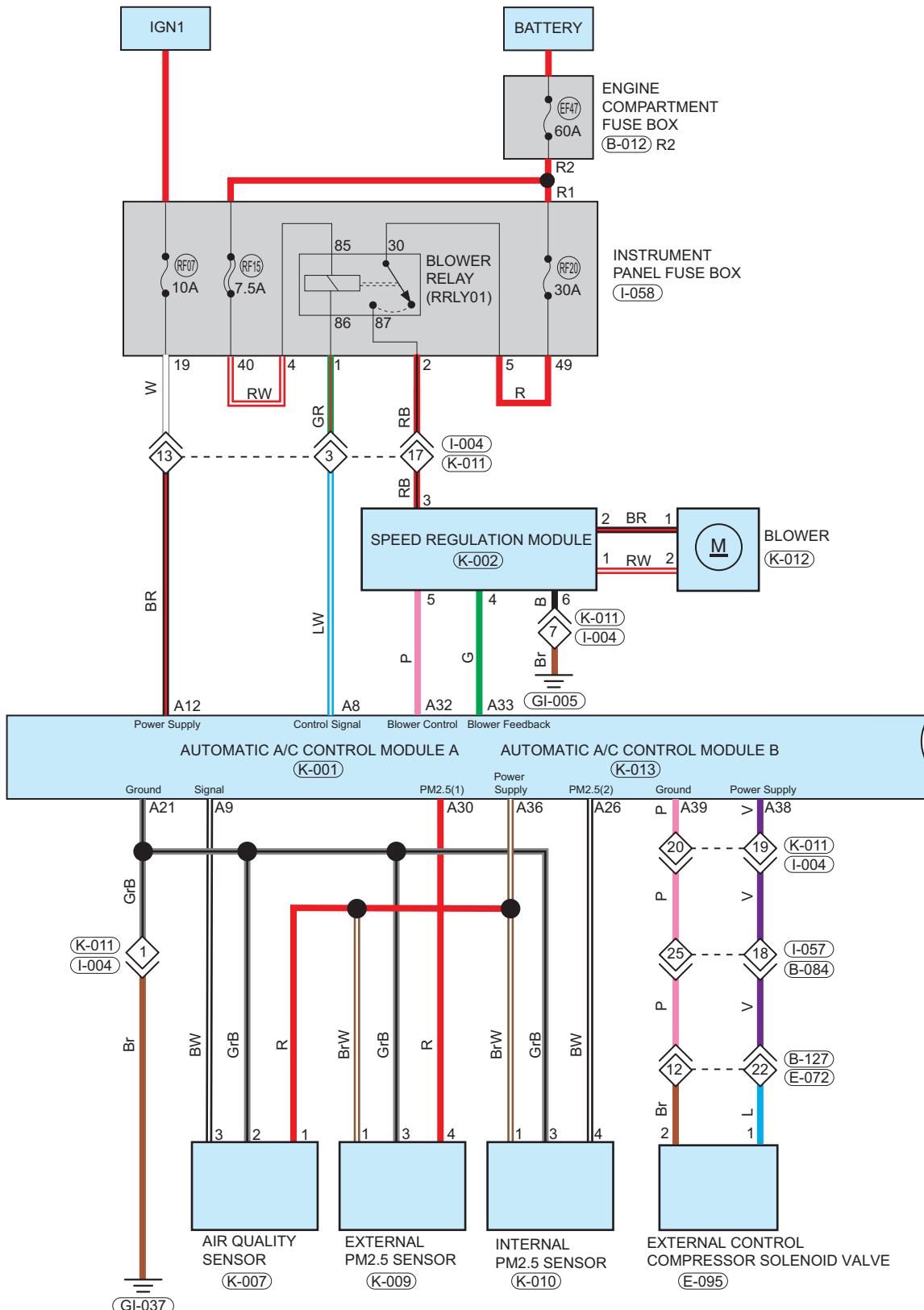


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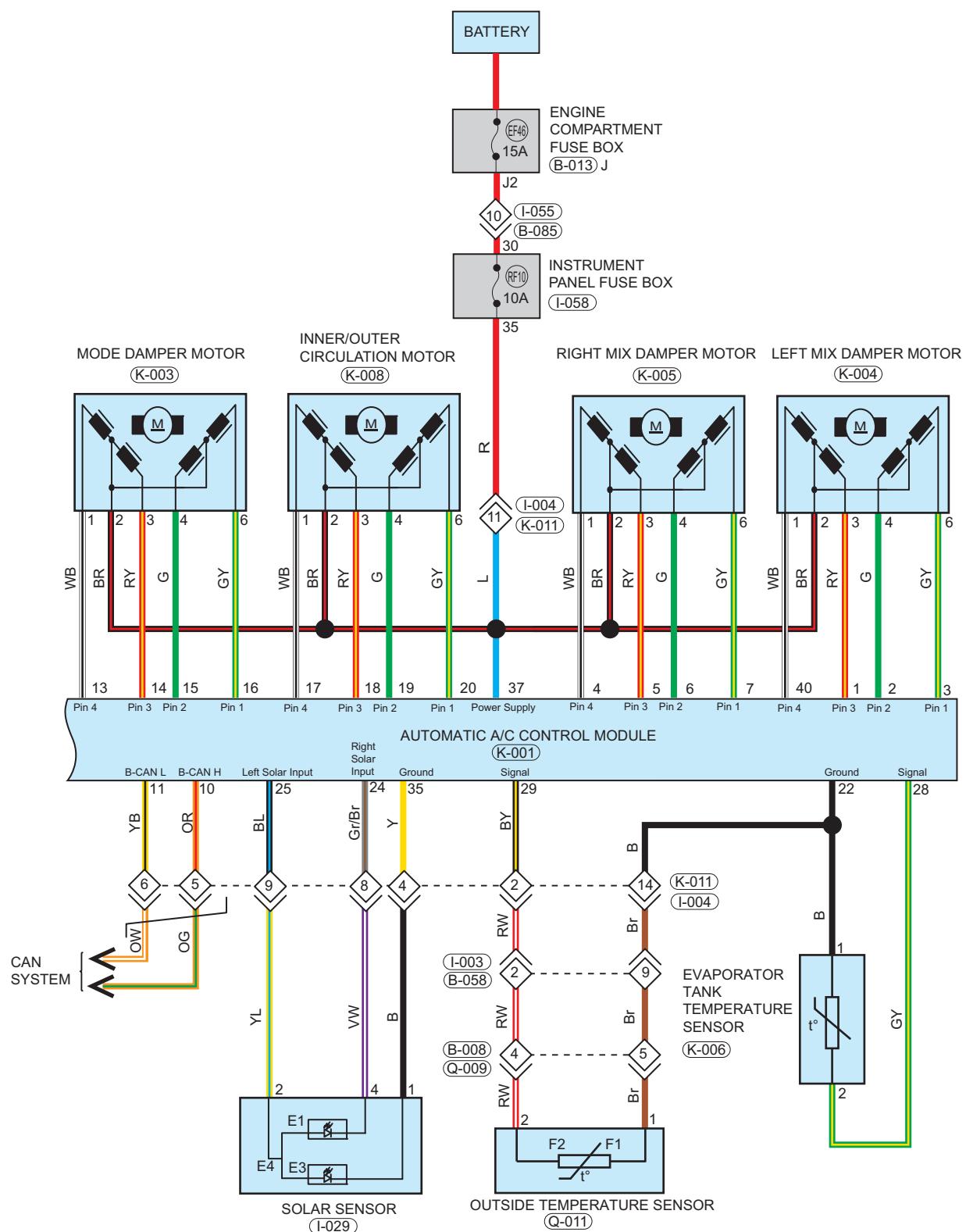
# Automatic A/C Control Panel



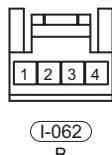
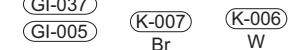
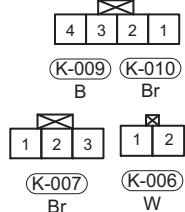
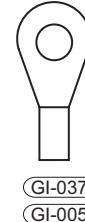
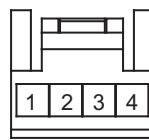
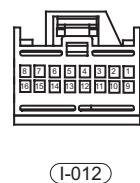
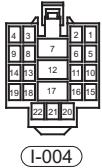
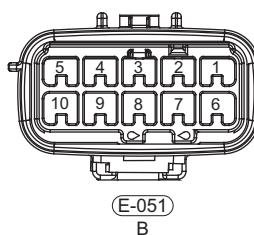
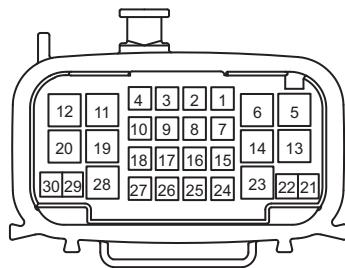
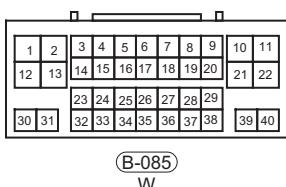
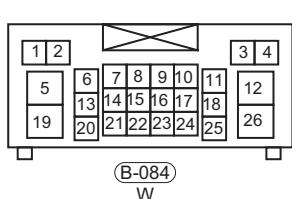
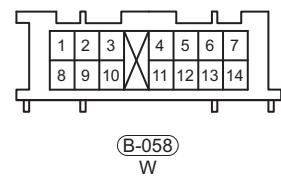
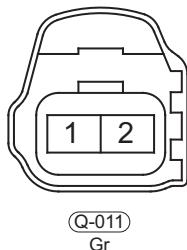
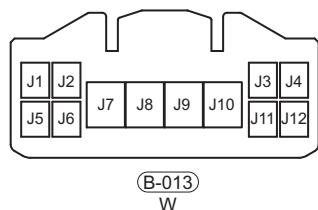
## Automatic A/C Control System (CLM)



# Automatic A/C Control System (CLM)

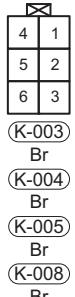
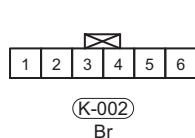


## Automatic A/C Control System (CLM)



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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(K-001) W

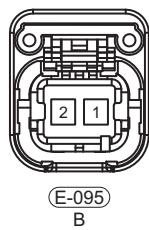
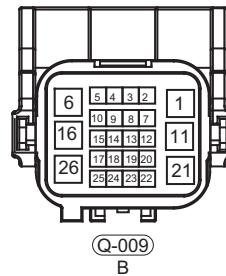
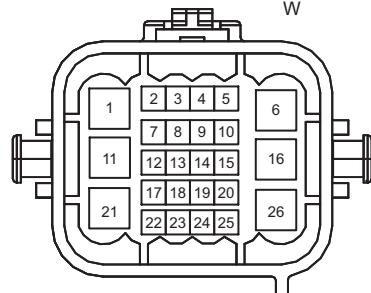


(K-003) Br

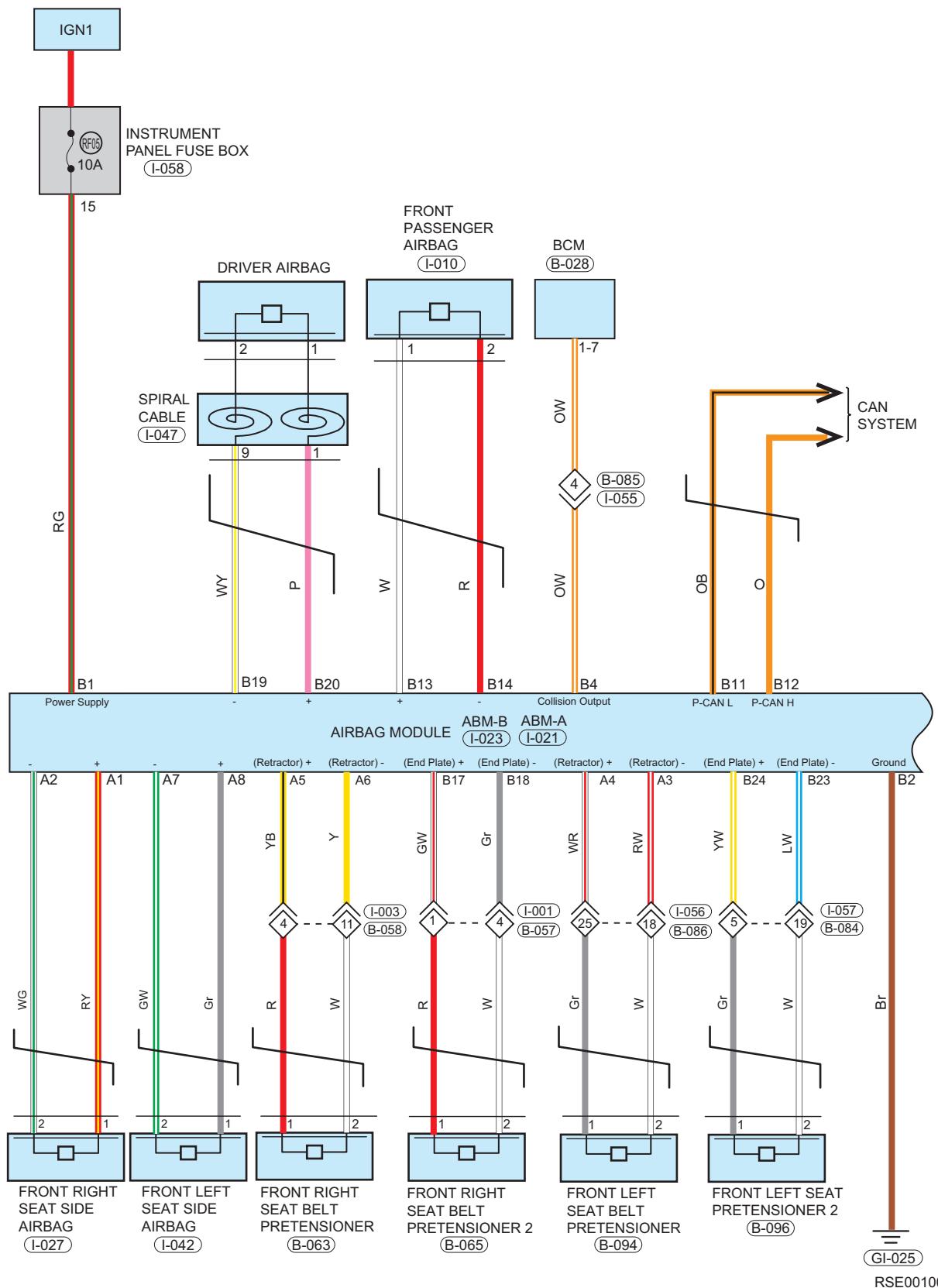
(K-004) Br

(K-005) Br

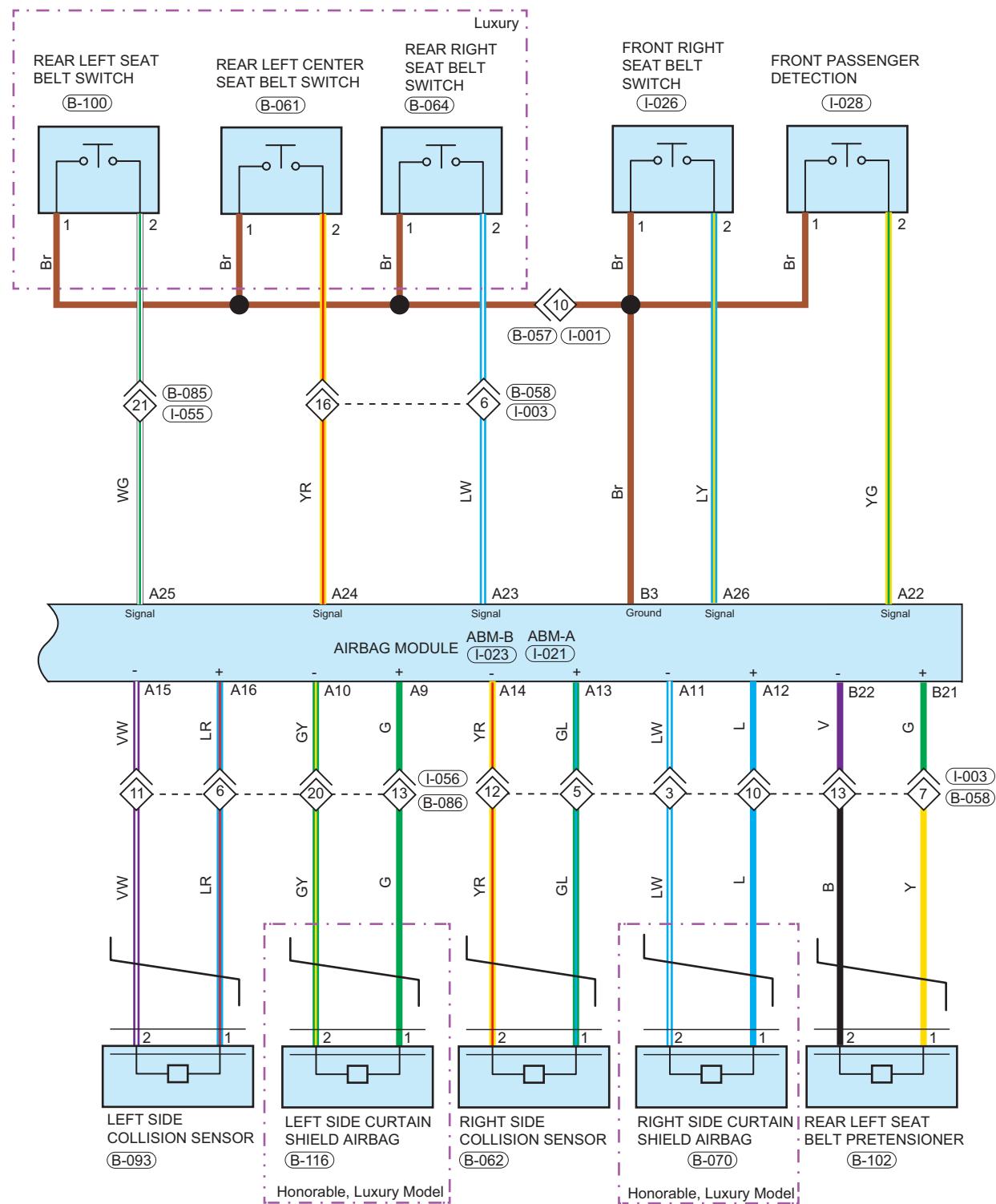
(K-008) Br



# Airbag System (SRS)



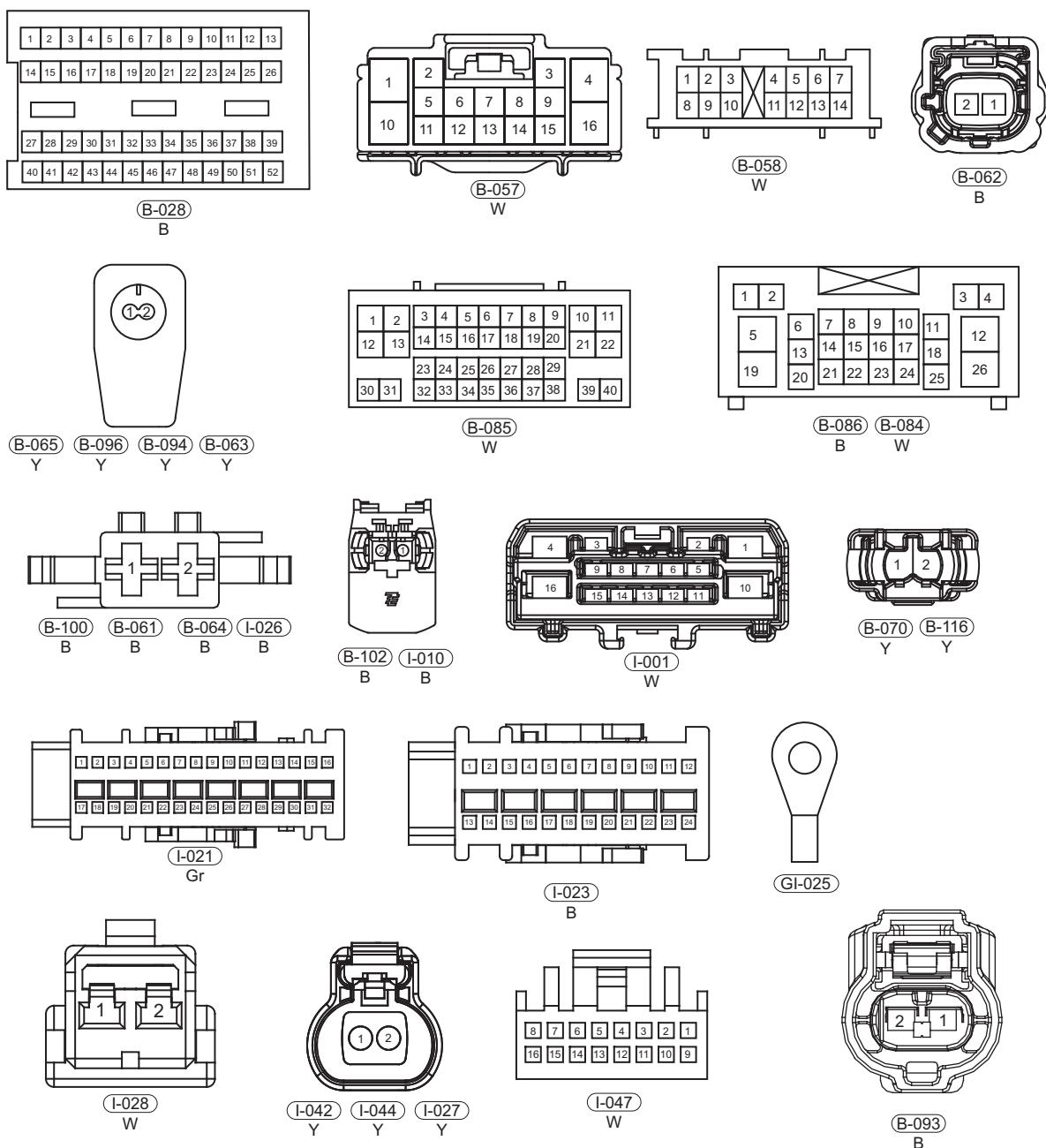
## Airbag System (SRS)



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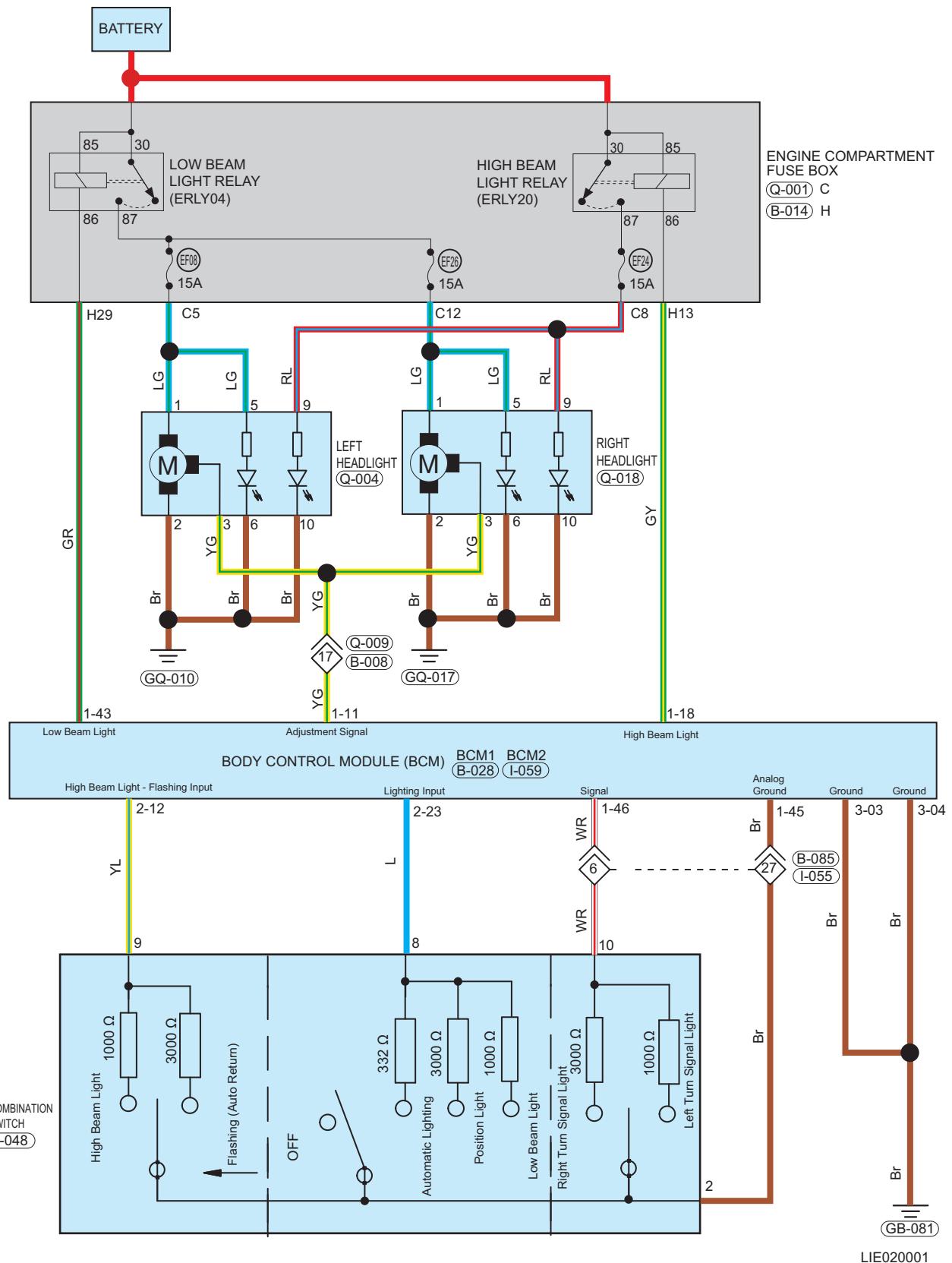
RSE002001

# Airbag System (SRS)

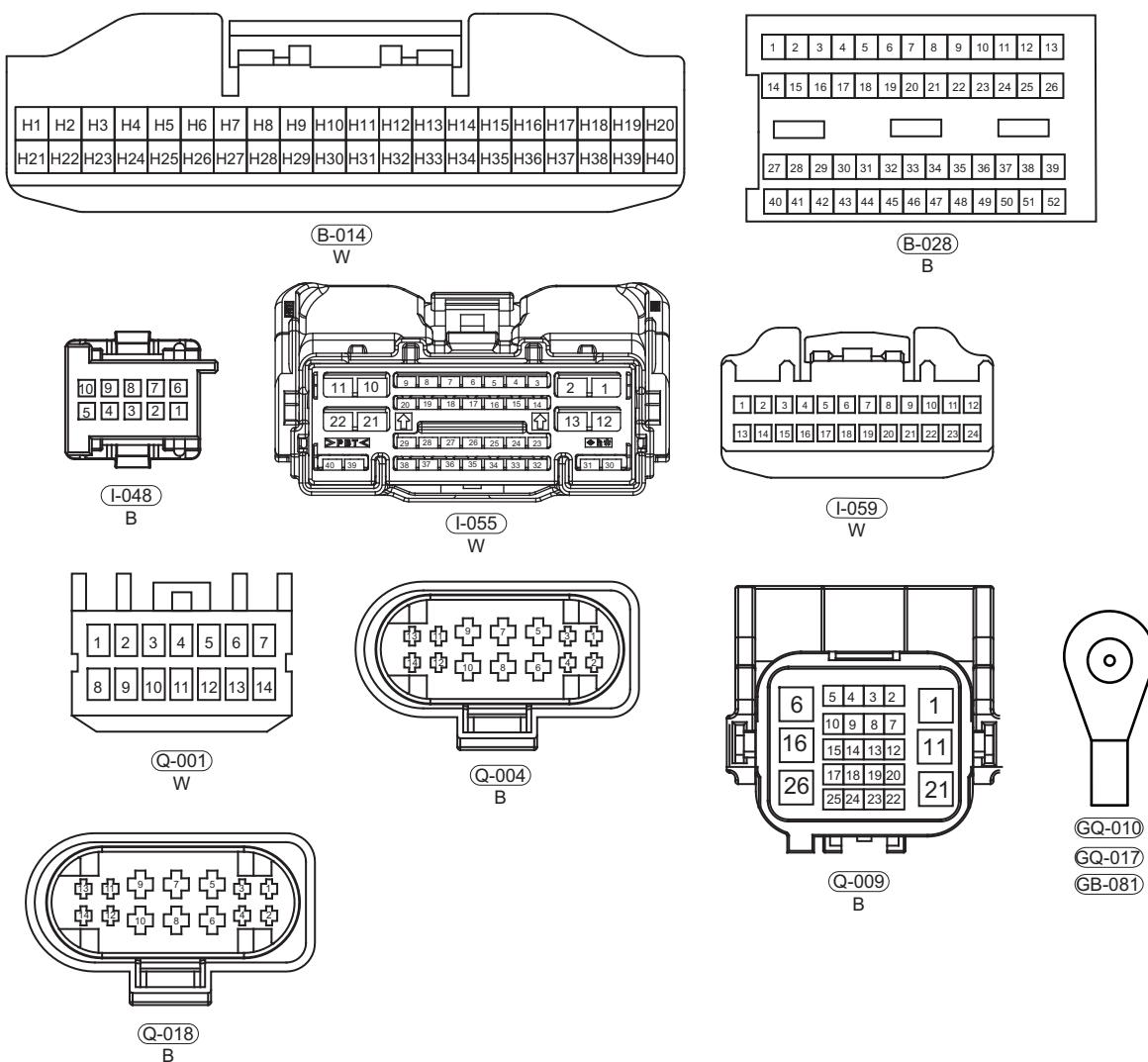


# Lighting System

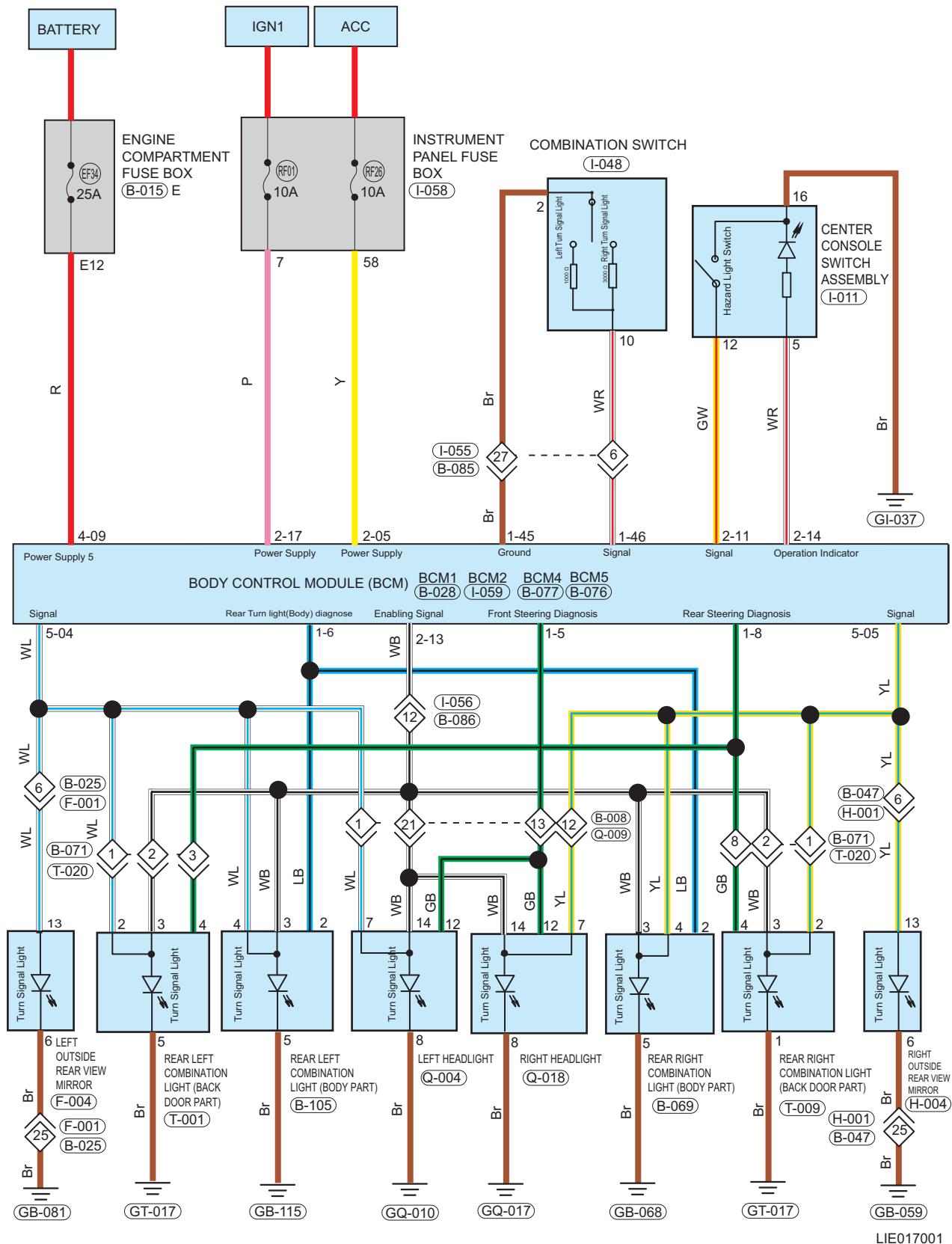
## High/Low Beam Light



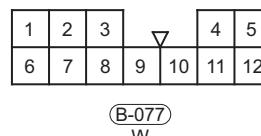
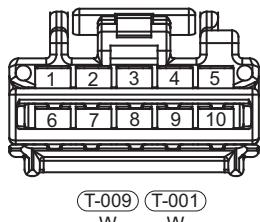
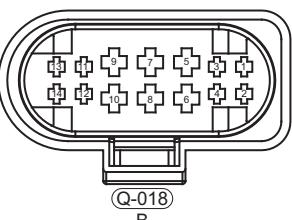
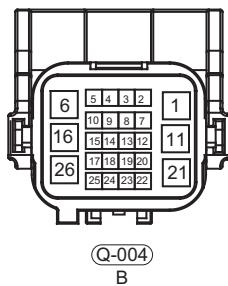
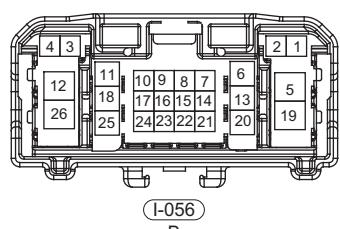
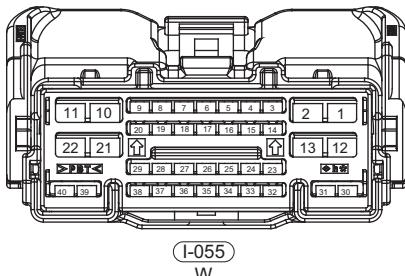
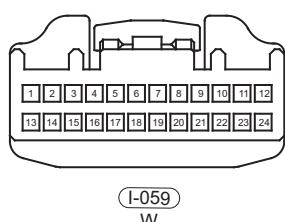
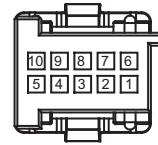
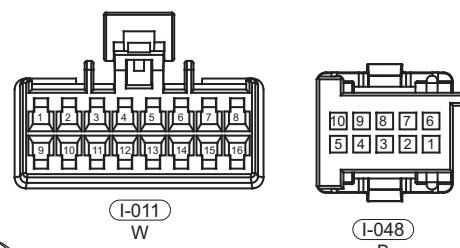
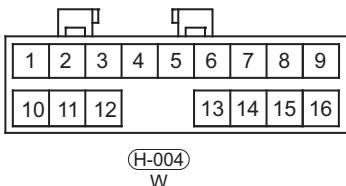
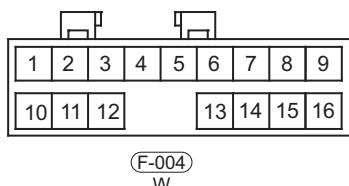
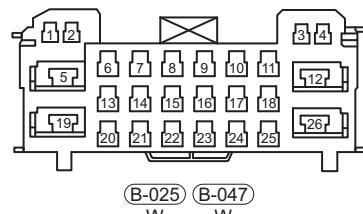
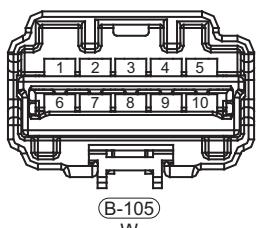
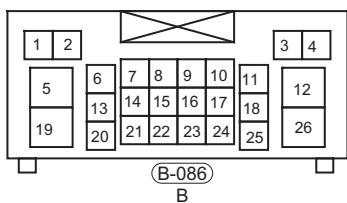
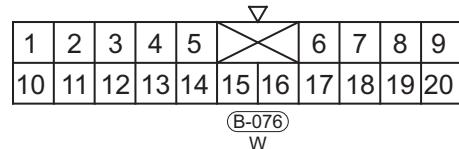
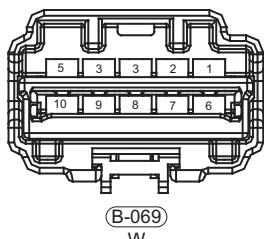
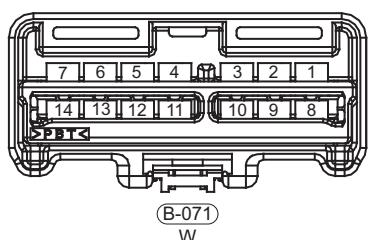
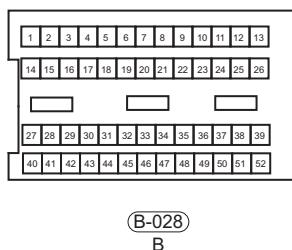
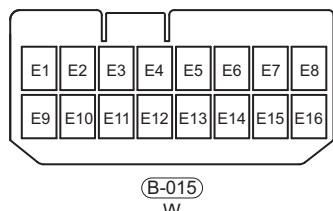
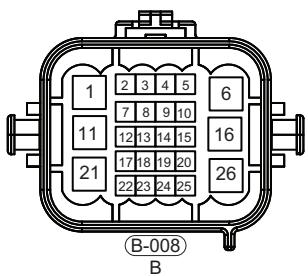
## High/Low Beam Light



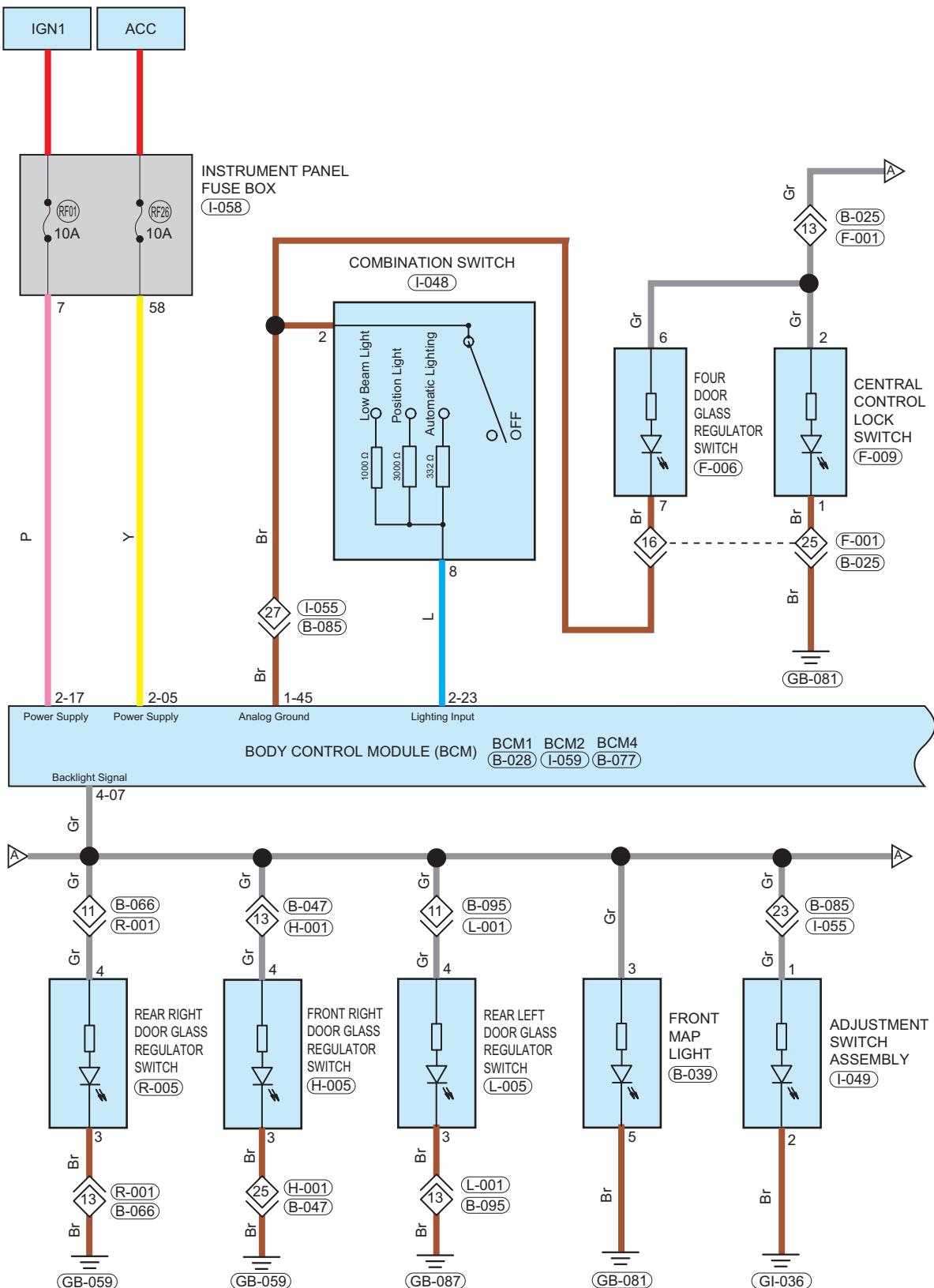
# Turn Signal Light



## Turn Signal Light

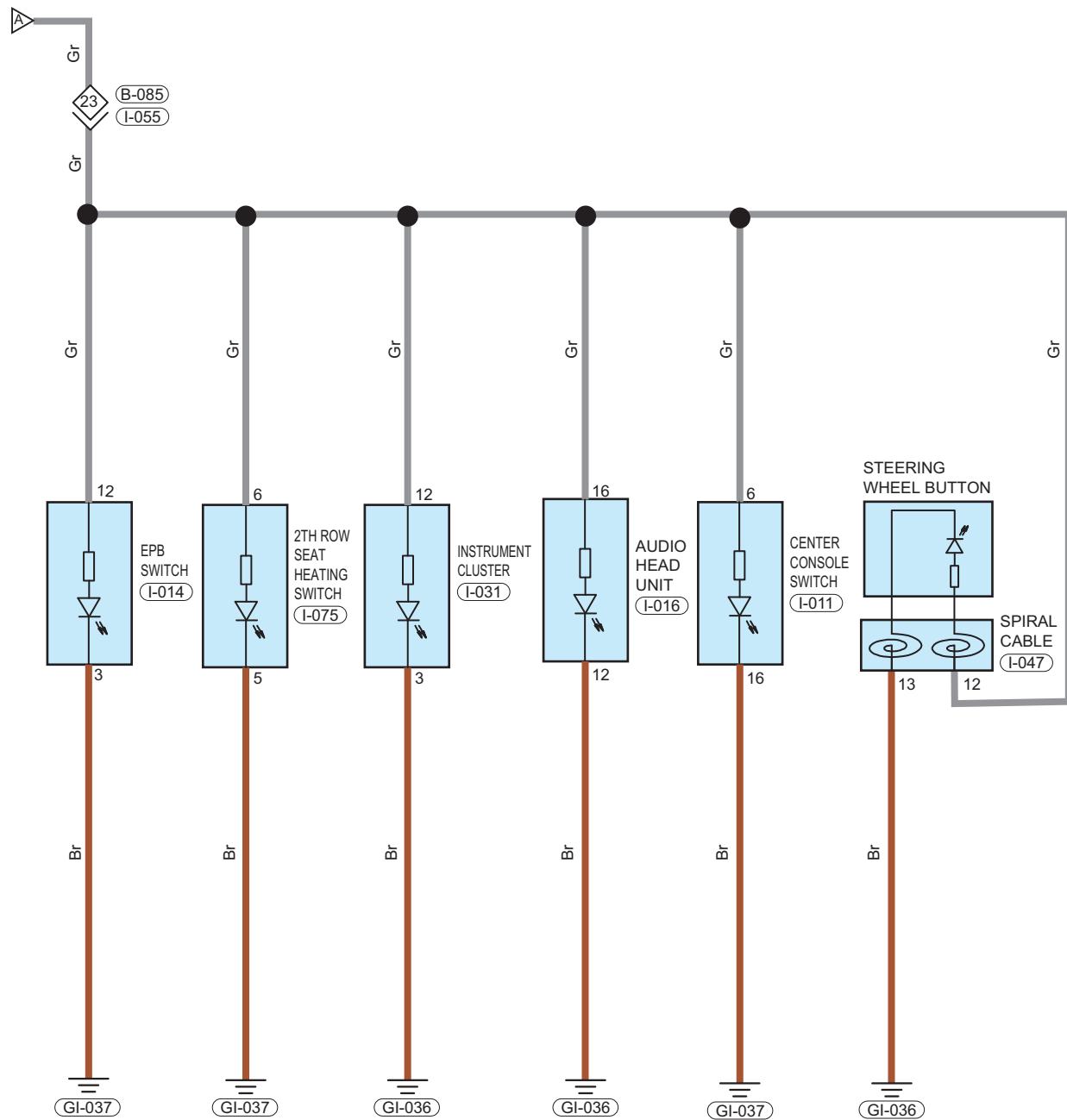


# Background Light

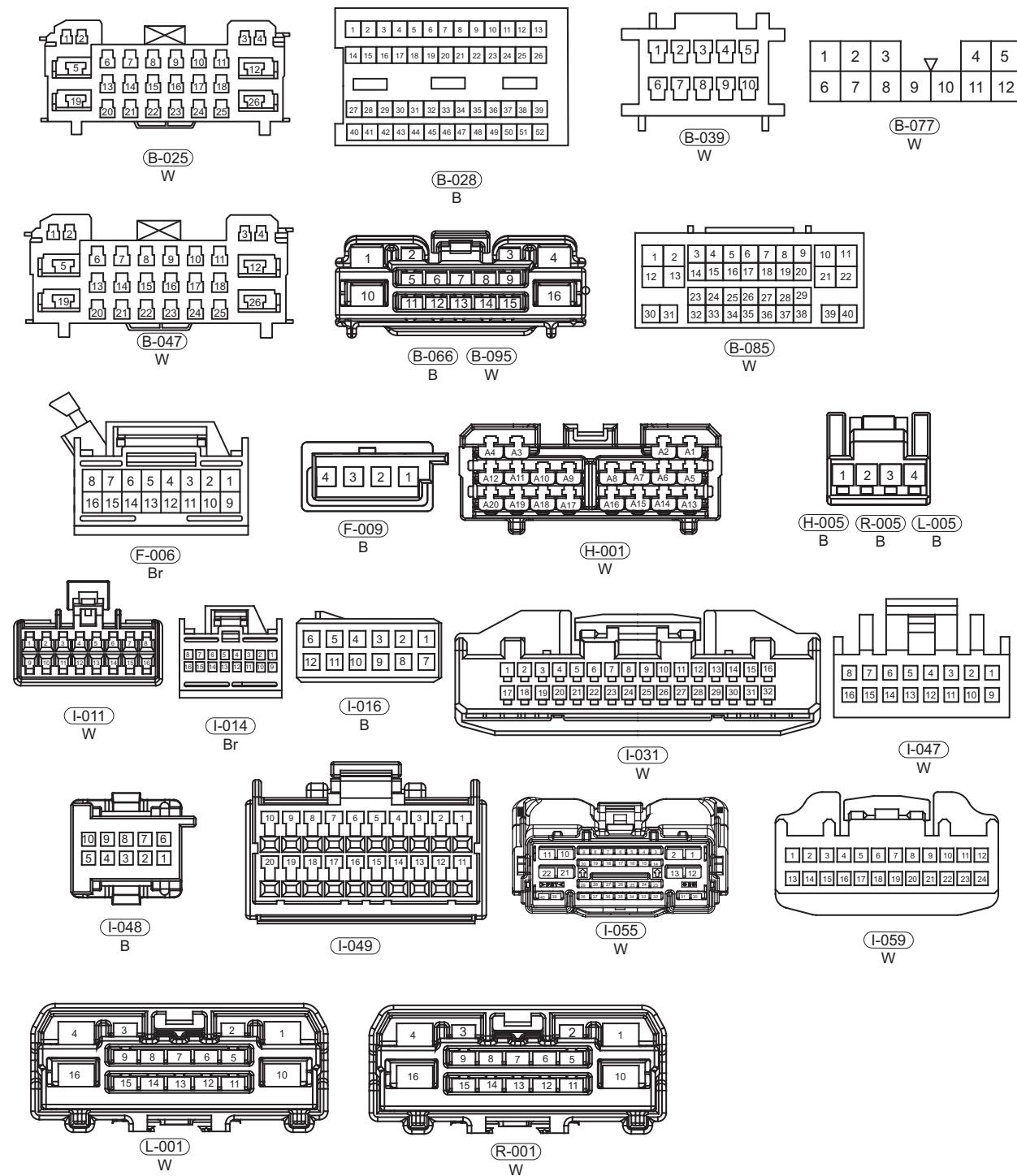


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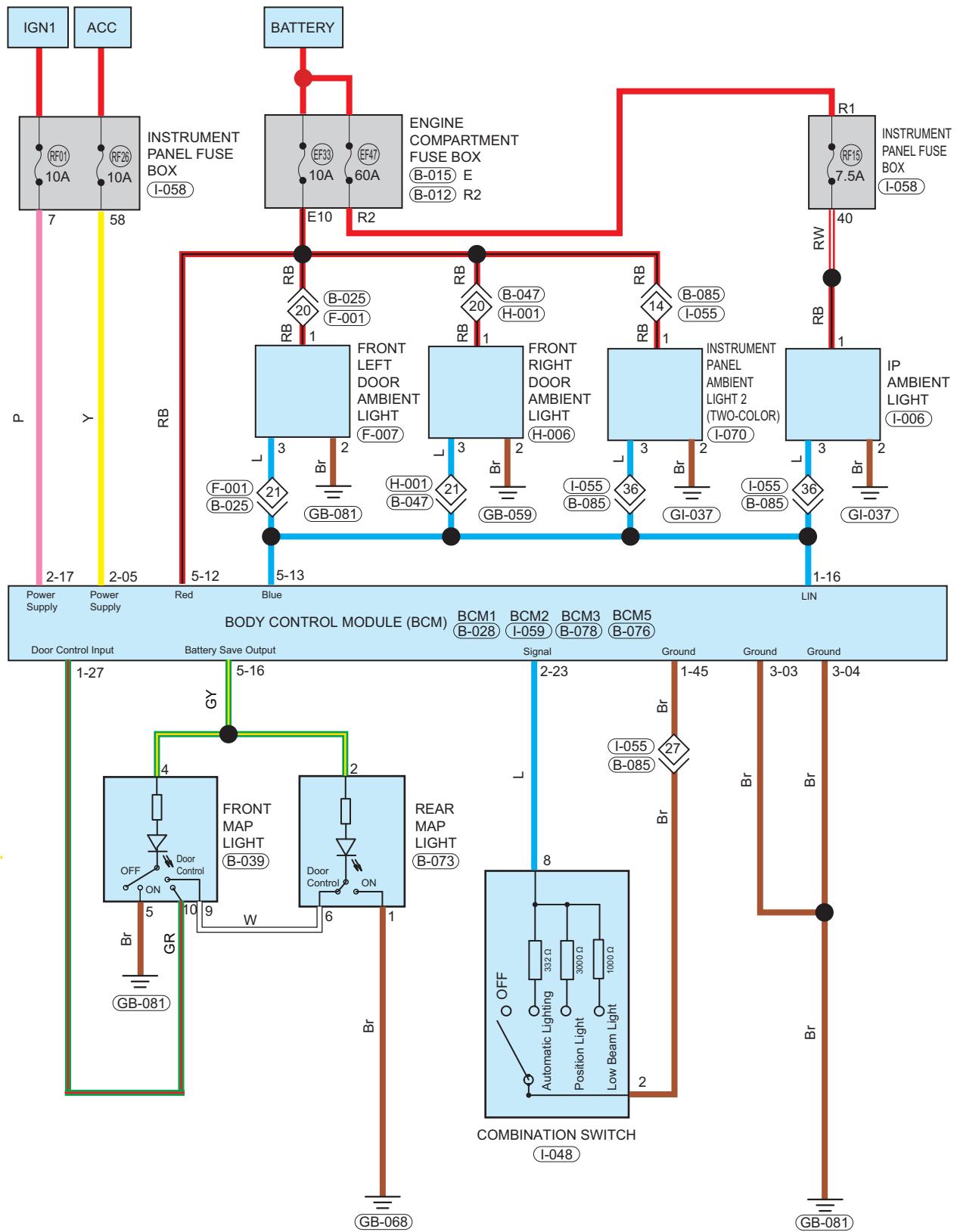
# Background Light



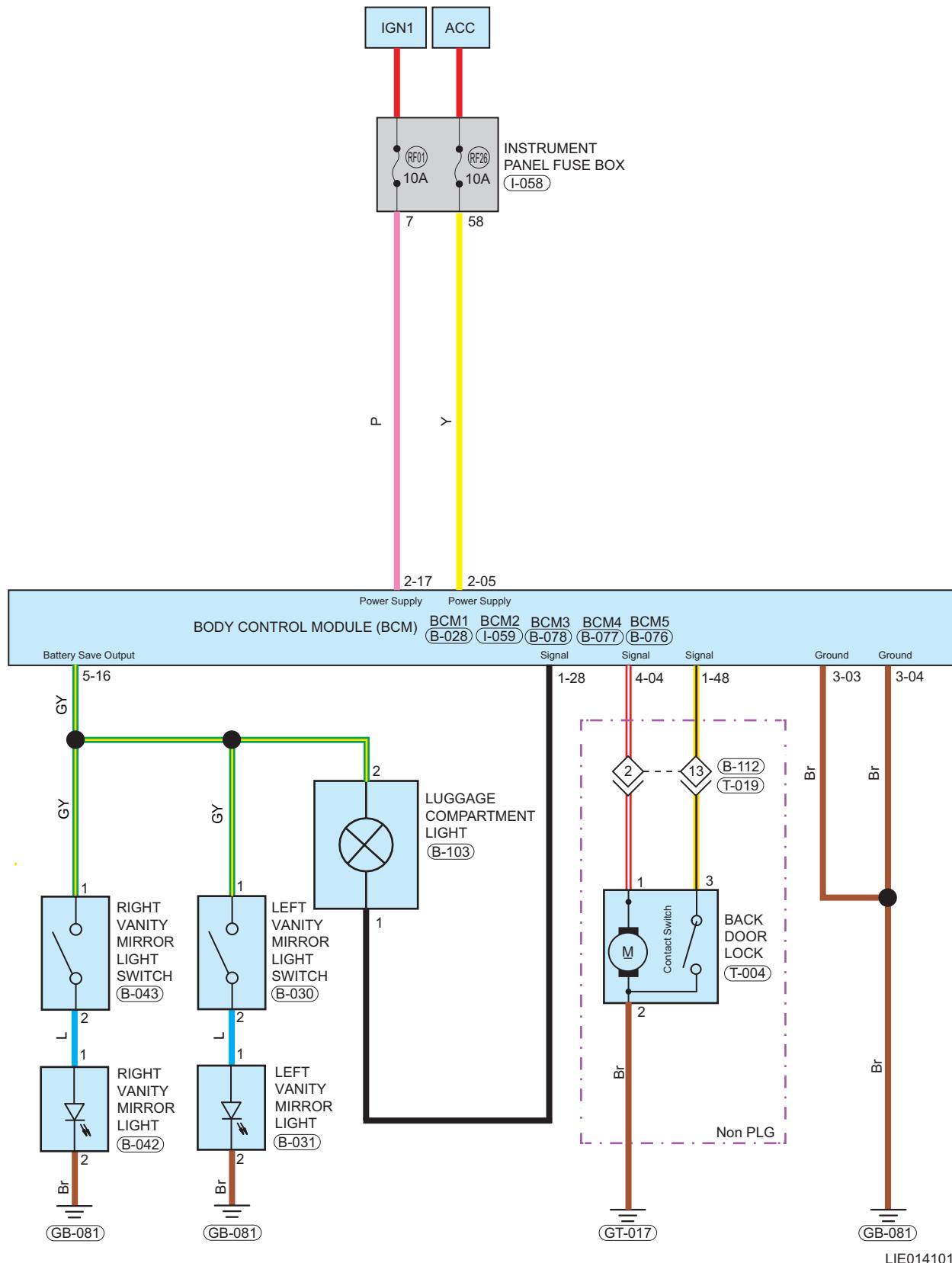
# Background Light



# Map Light, Ambient Light, Luggage Compartment Light, Vanity Light

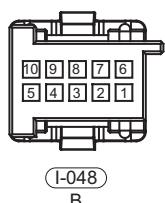
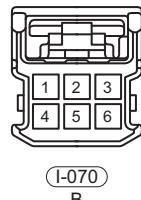
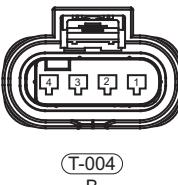
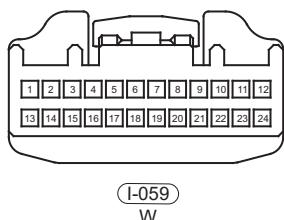
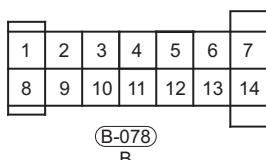
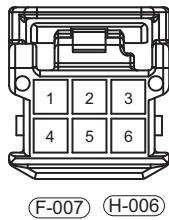
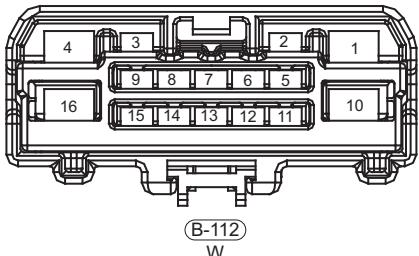
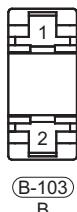
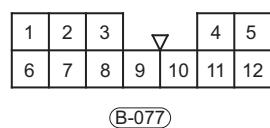
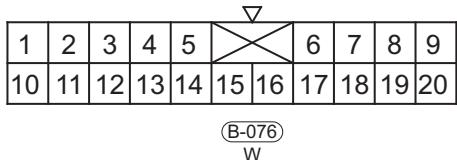
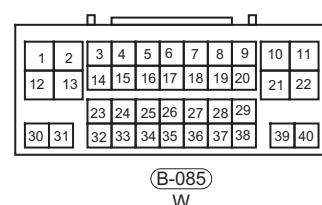
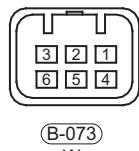
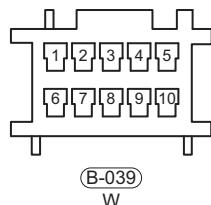
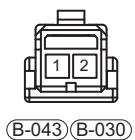
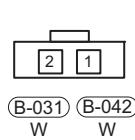
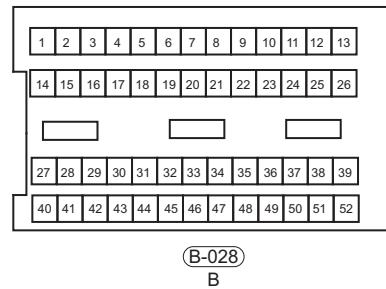
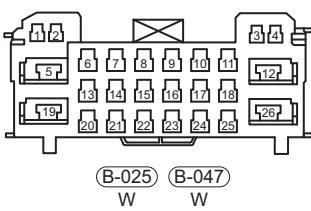
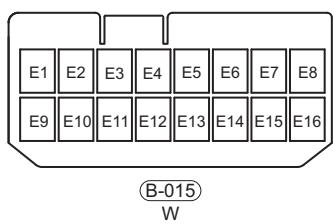


# Map Light, Ambient Light, Luggage Compartment Light, Vanity Light

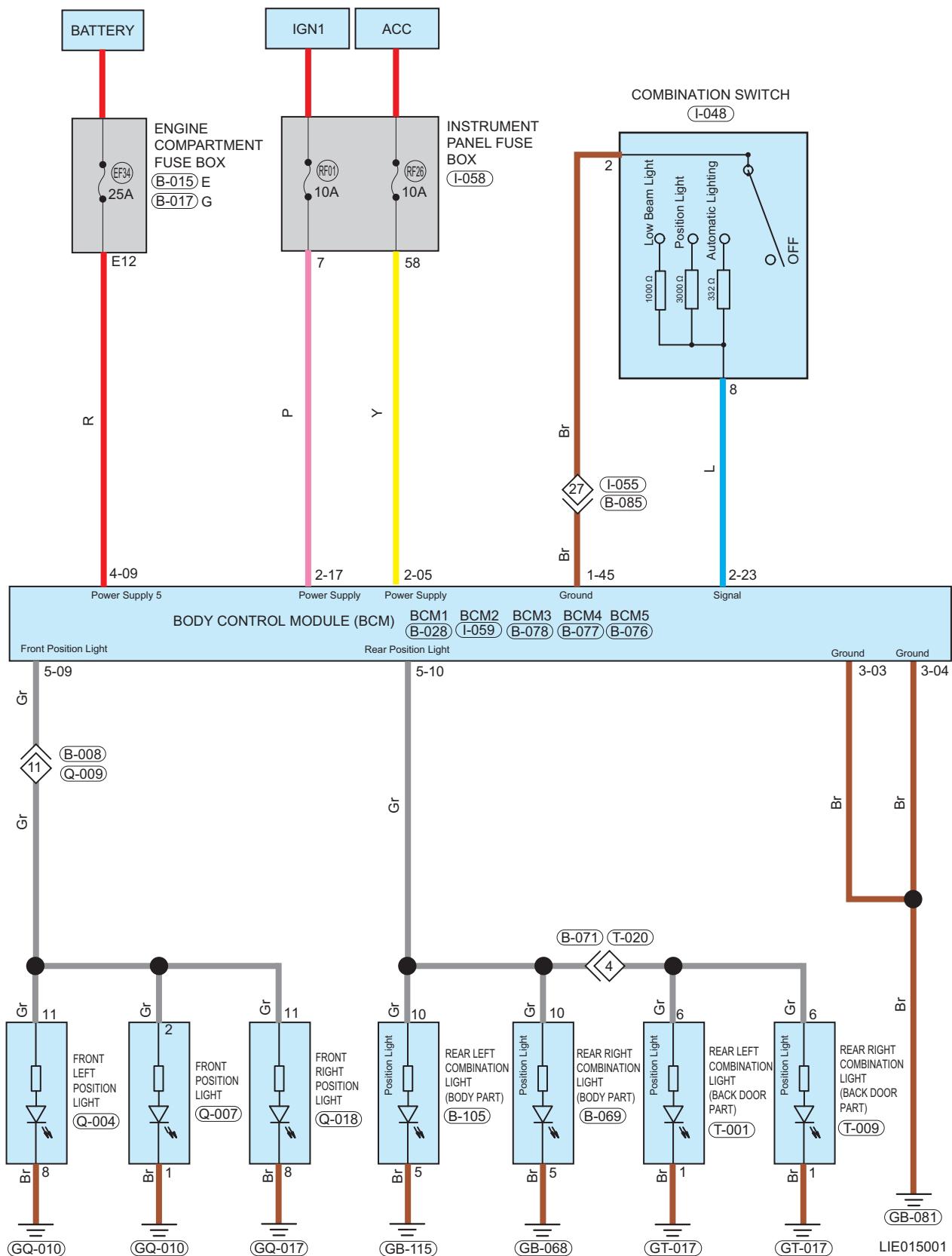


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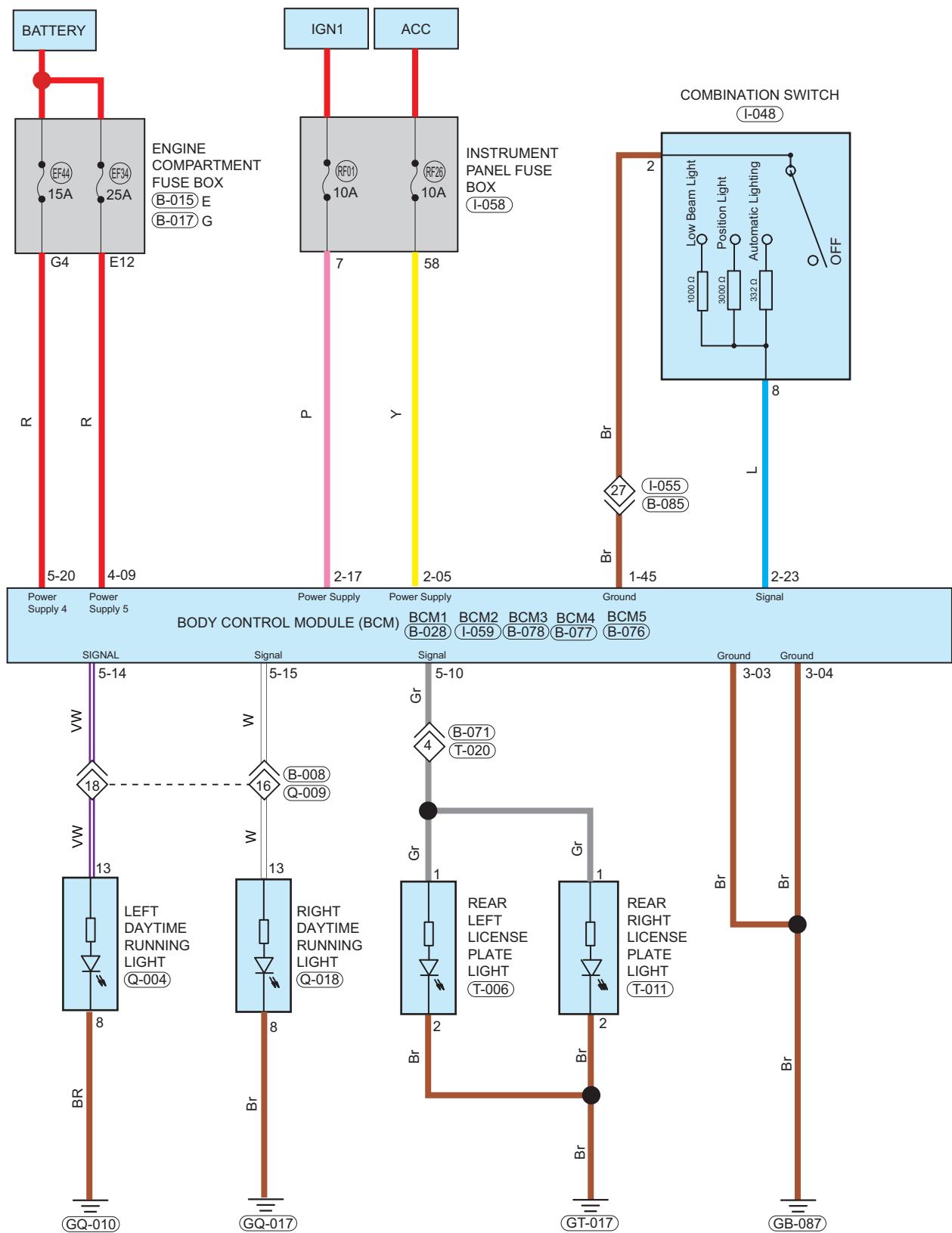
# Map Light, Ambient Light, Luggage Compartment Light, Vanity Light



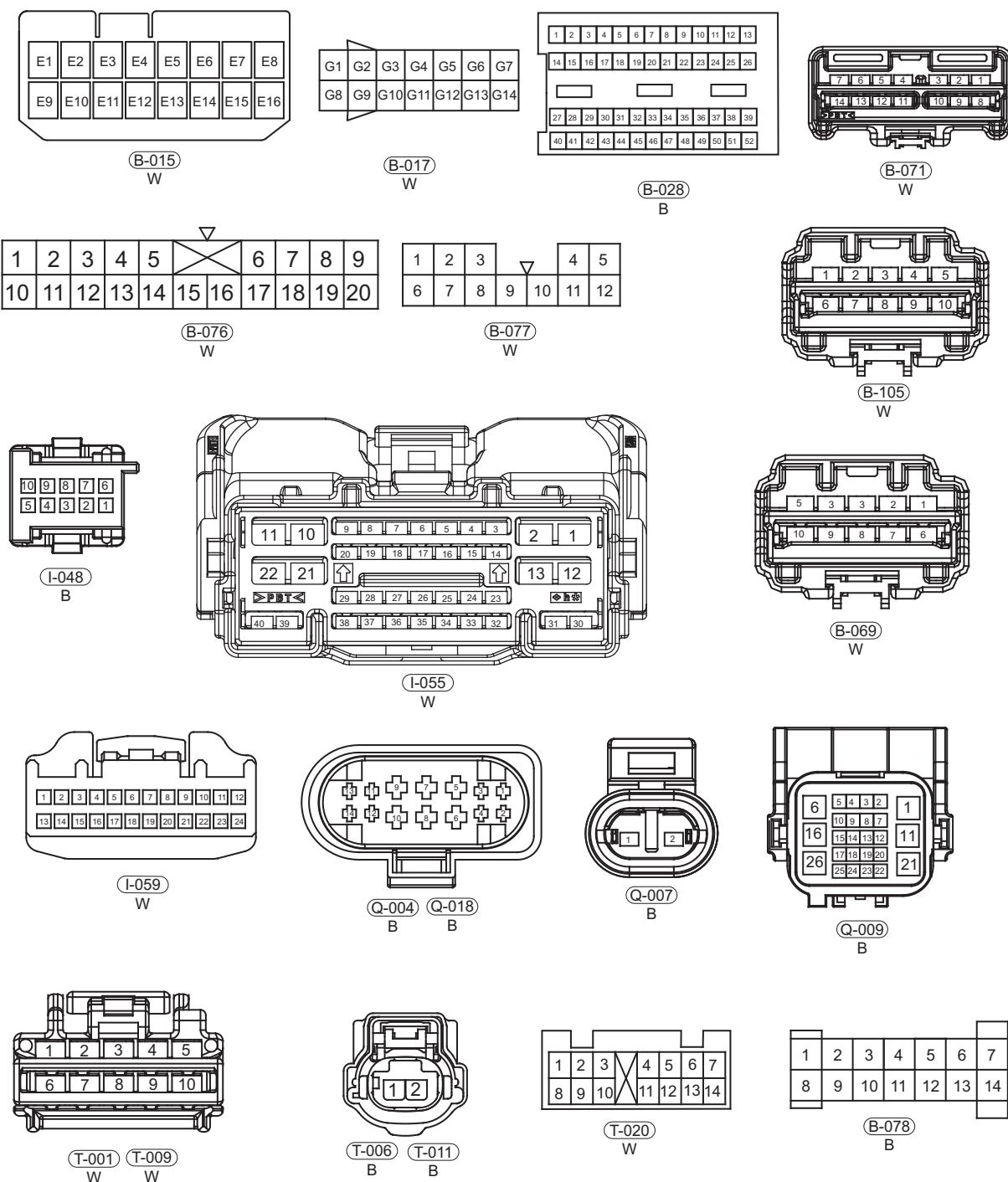
## Position Light, License Plate Light, Daytime Running Light



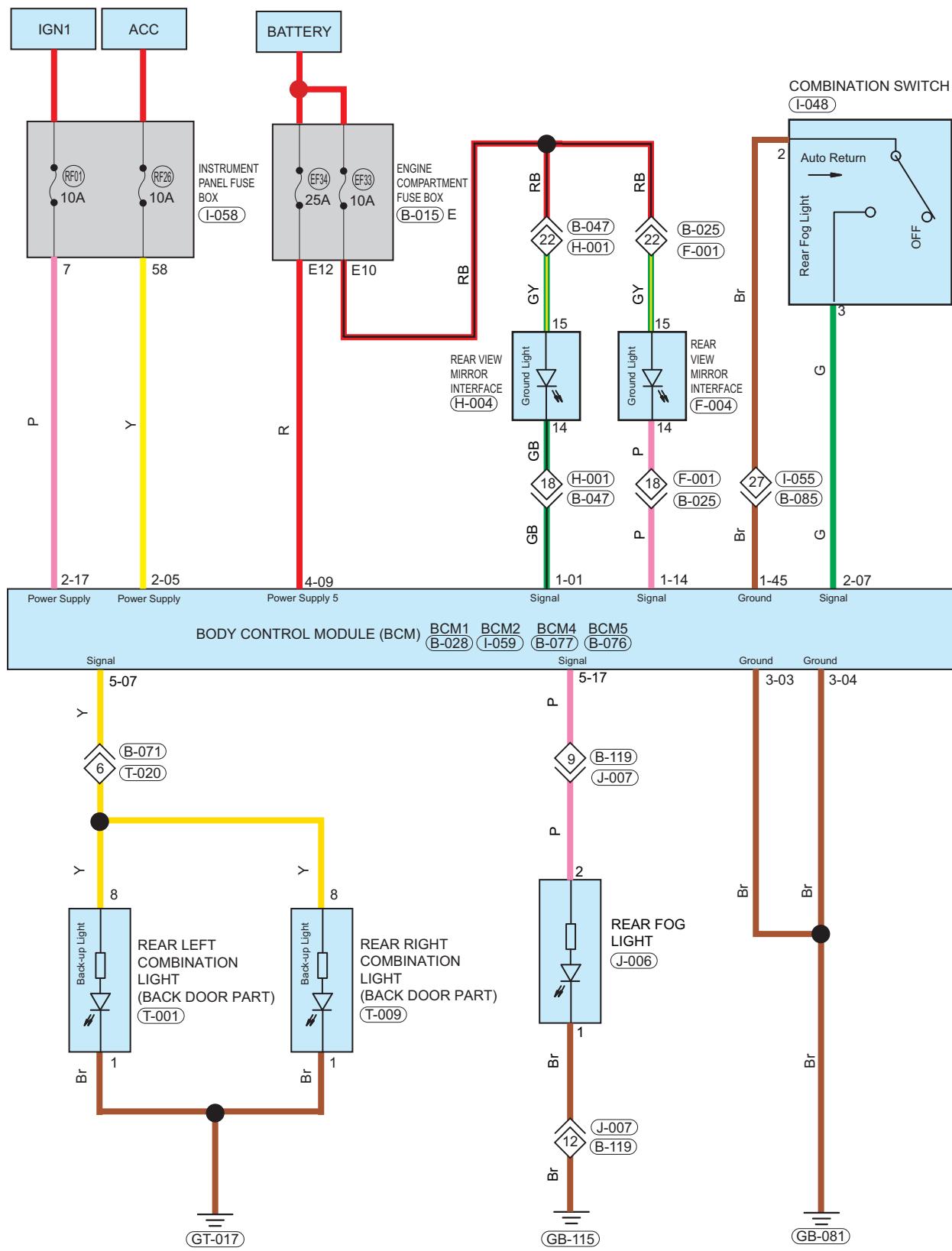
# Position Light, License Plate Light, Daytime Running Light



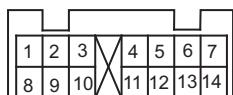
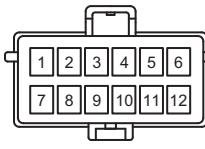
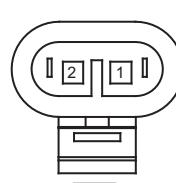
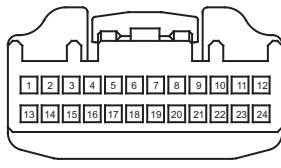
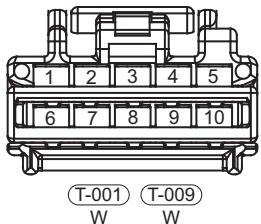
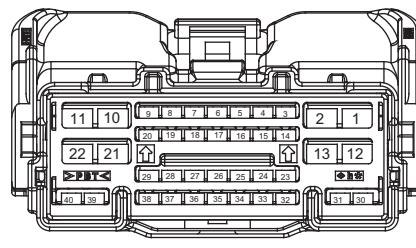
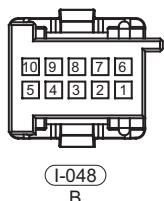
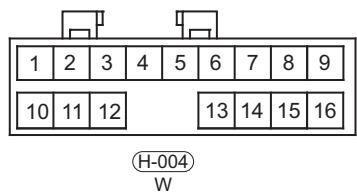
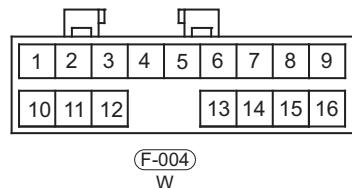
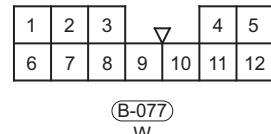
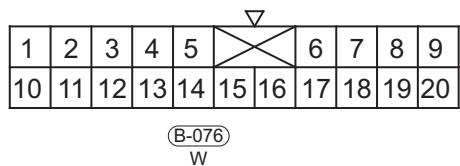
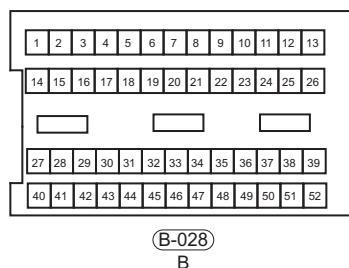
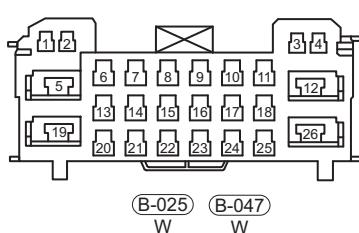
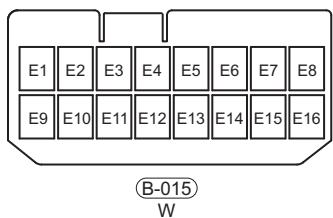
# Position Light, License Plate Light, Daytime Running Light



# Foot Light, Fog Light, Back-up Light

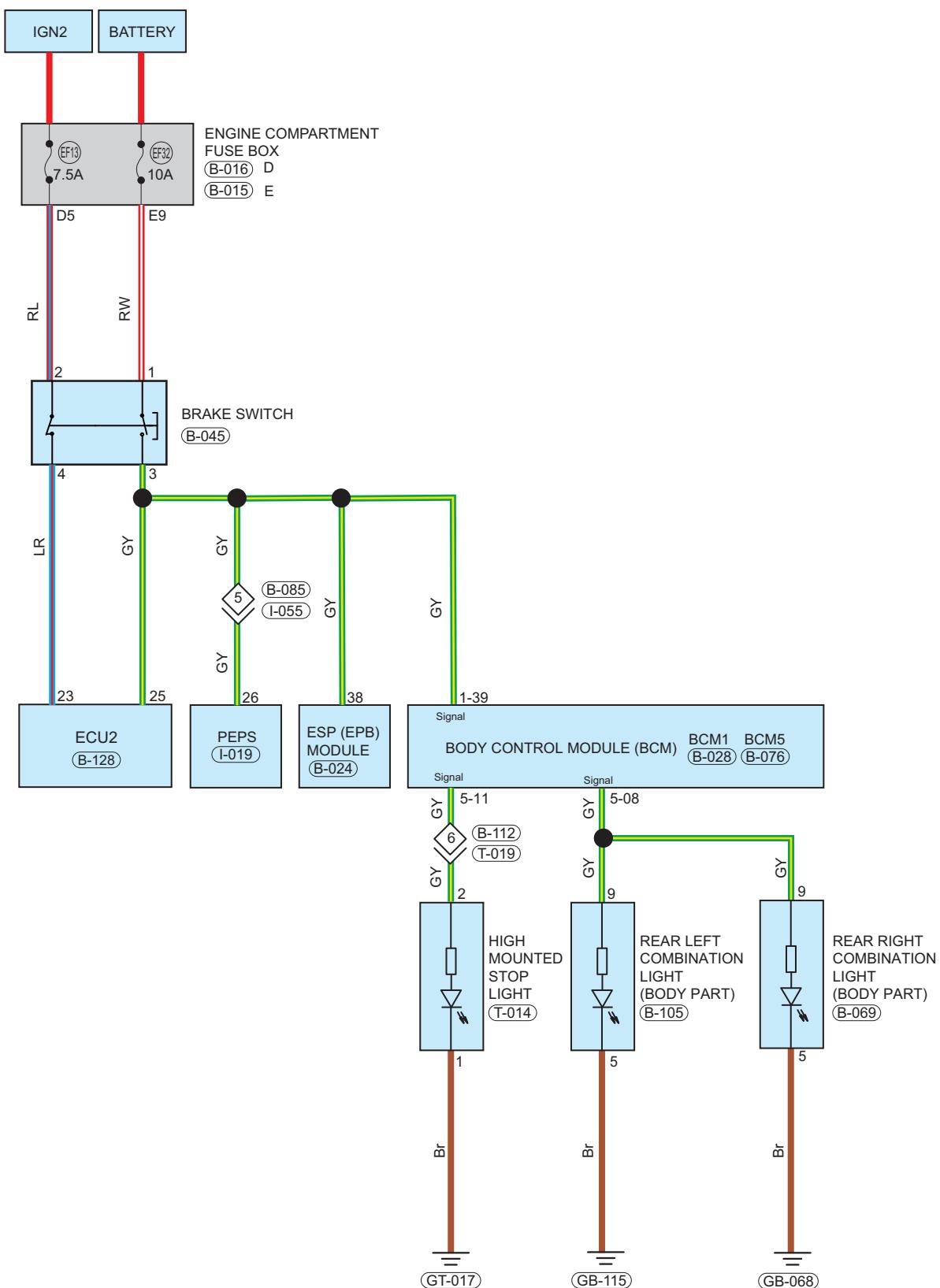


# Foot Light, Fog Light, Back-up Light



(T-020)  
W

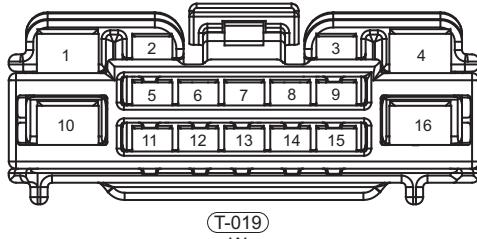
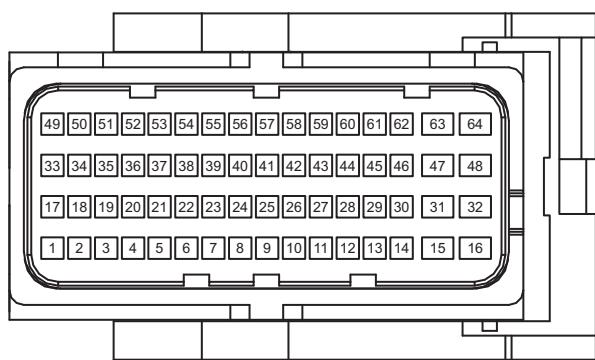
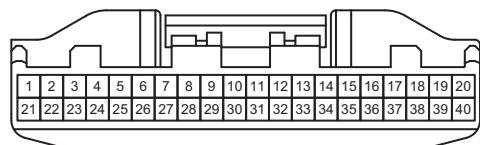
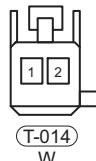
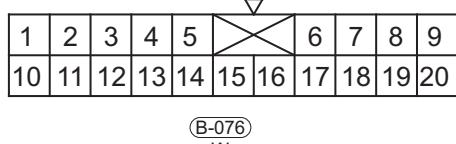
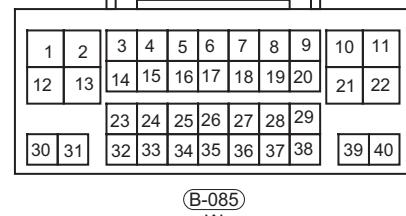
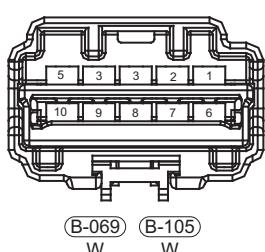
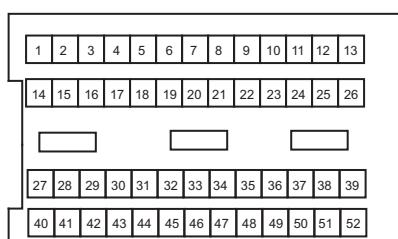
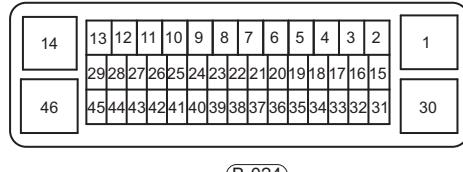
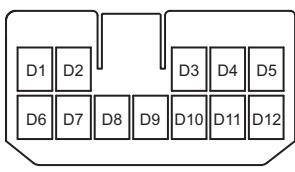
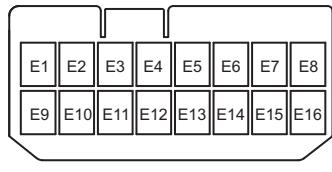
## Brake Light



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LIE004001

## Brake Light

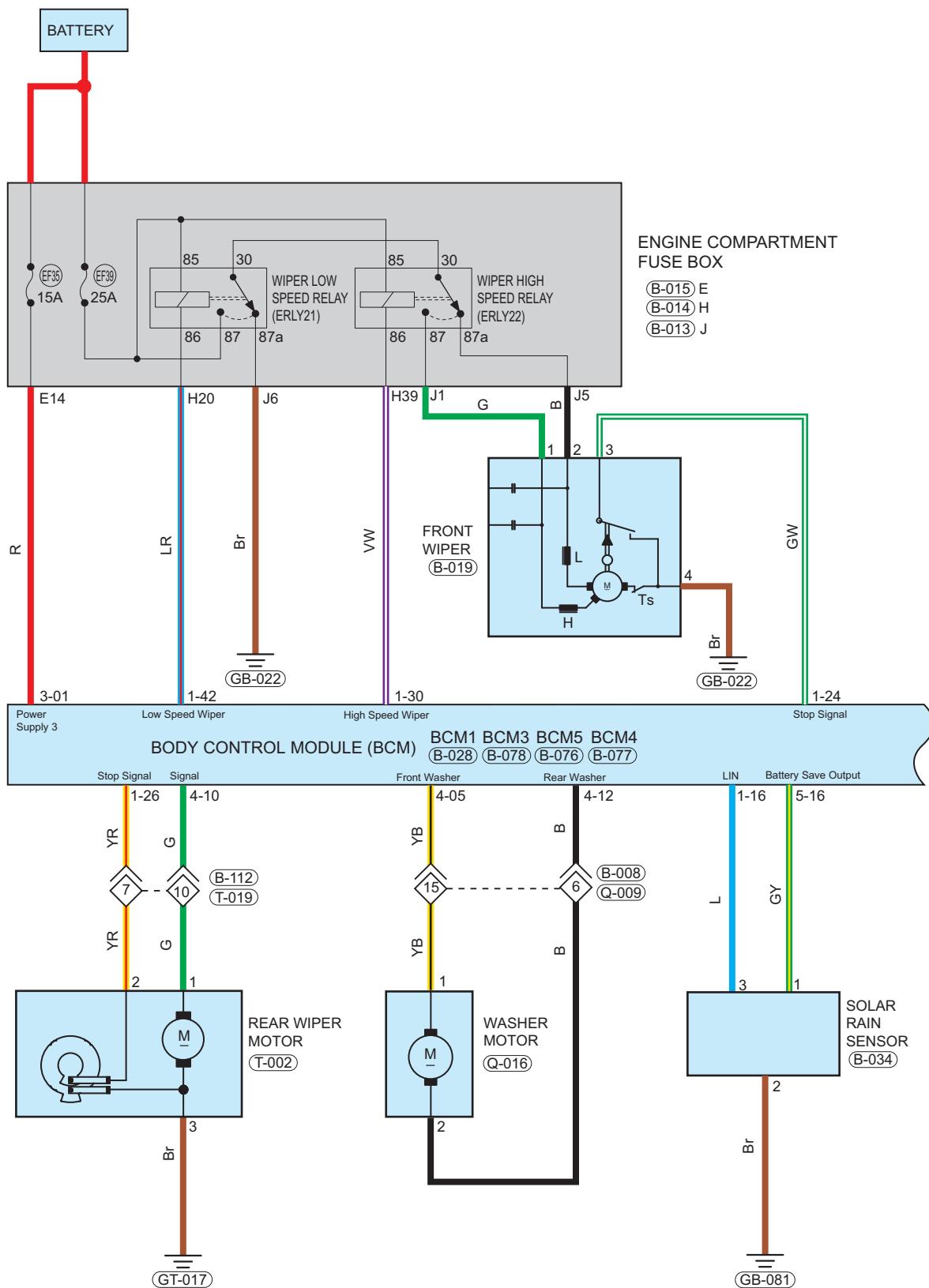


(GB-068)  
(GB-115)

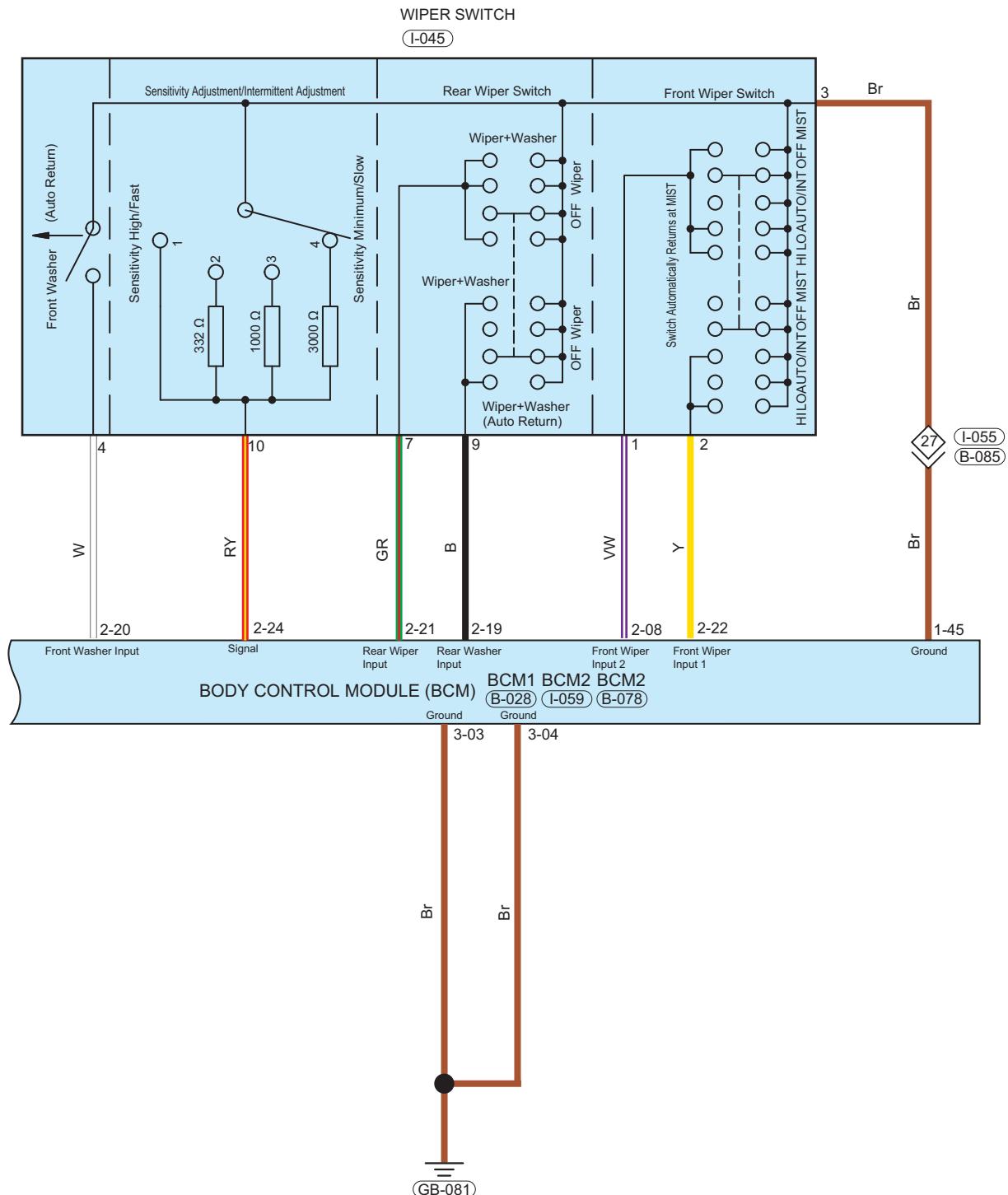


(GT-017)

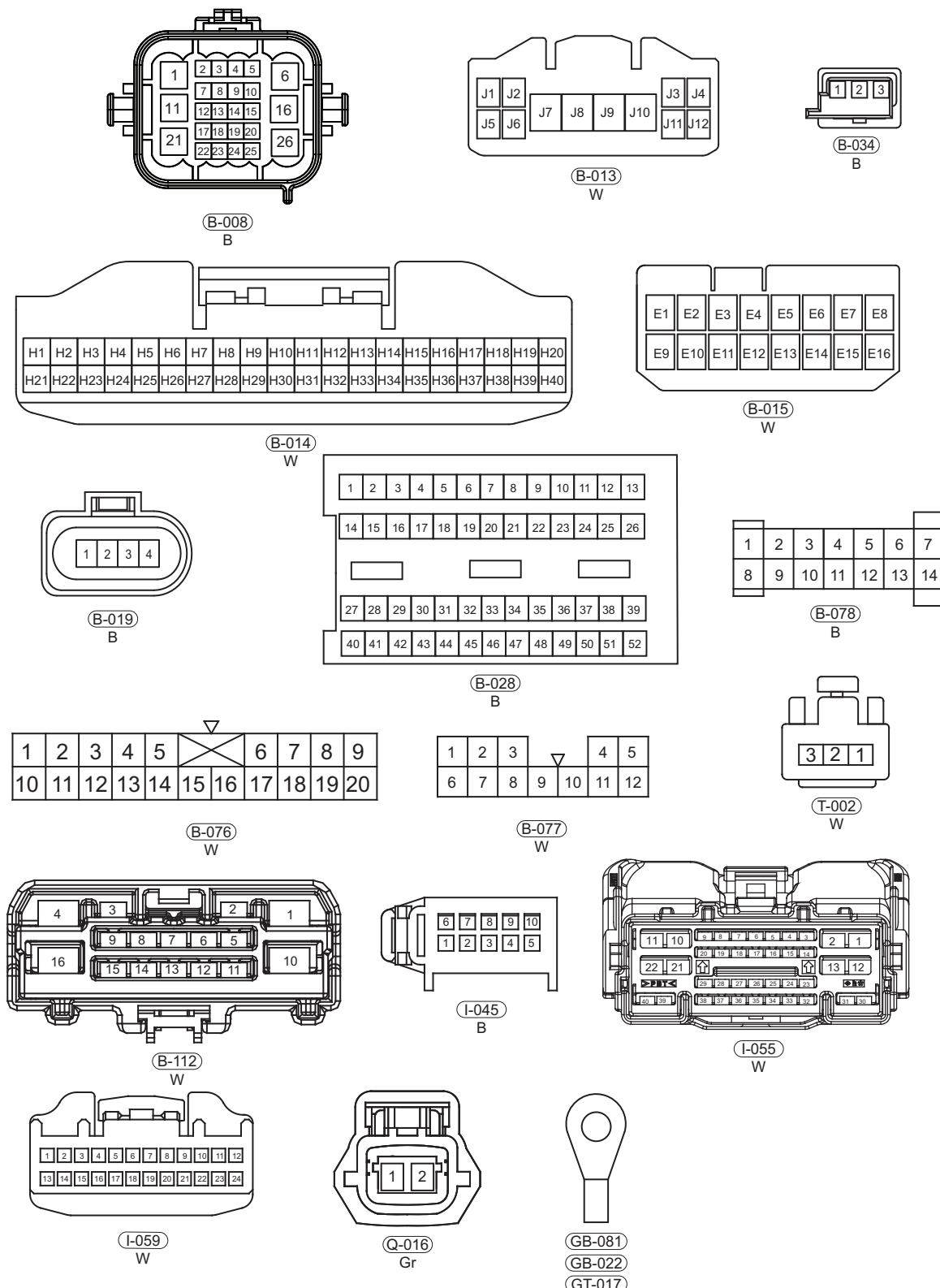
## Wiper and Washer



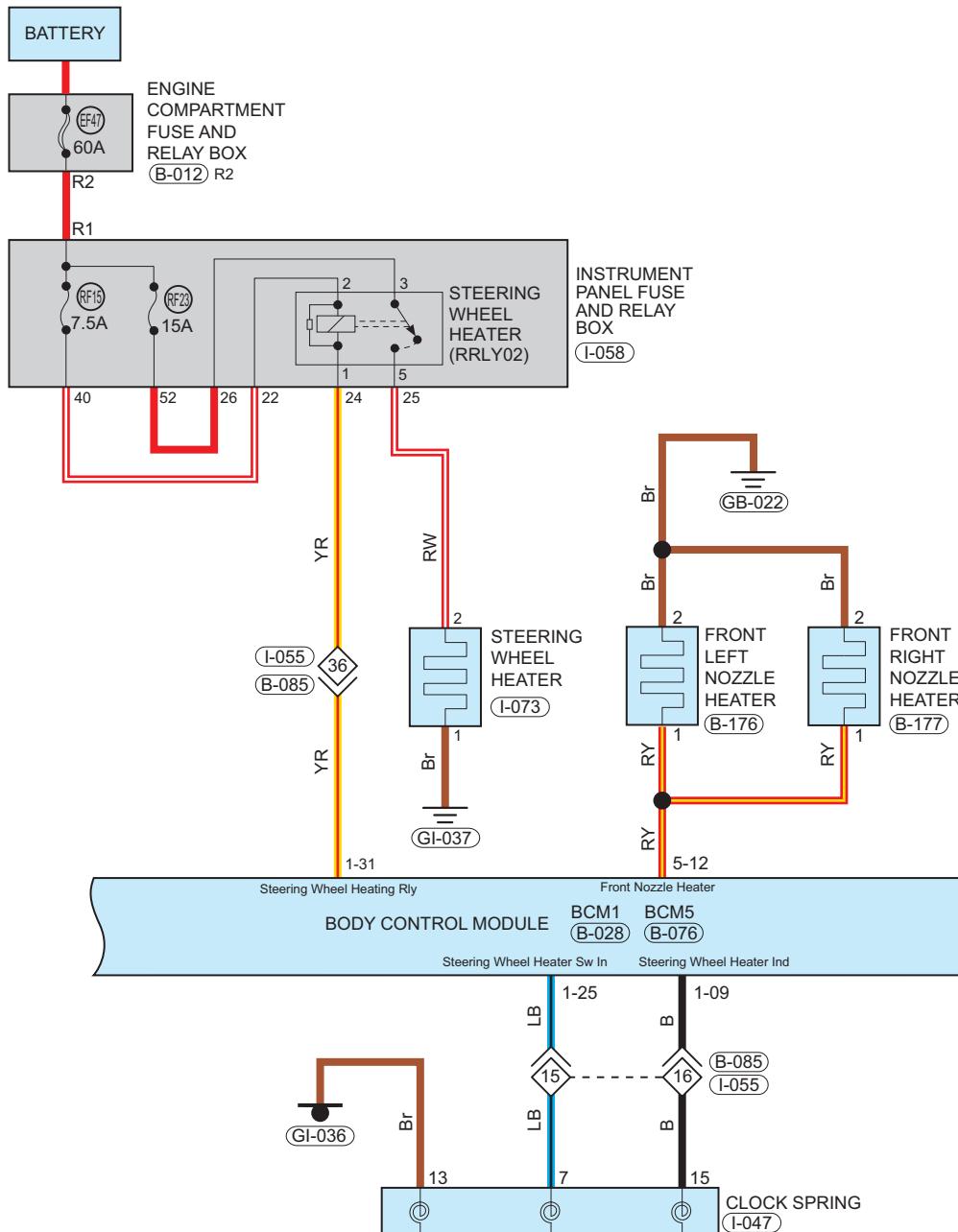
## Wiper and Washer



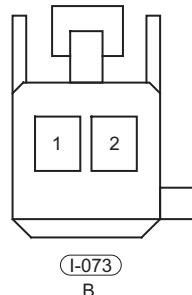
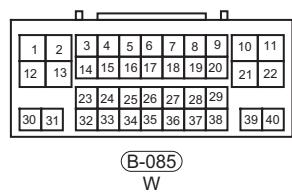
## Wiper and Washer



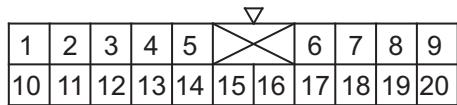
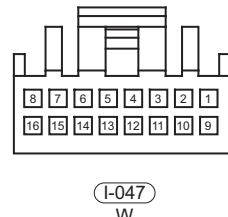
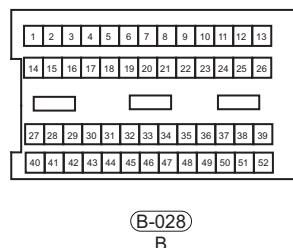
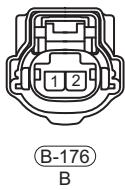
# Steering Wheel & Nozzle Heating



## Steering Wheel &amp; Nozzle Heating

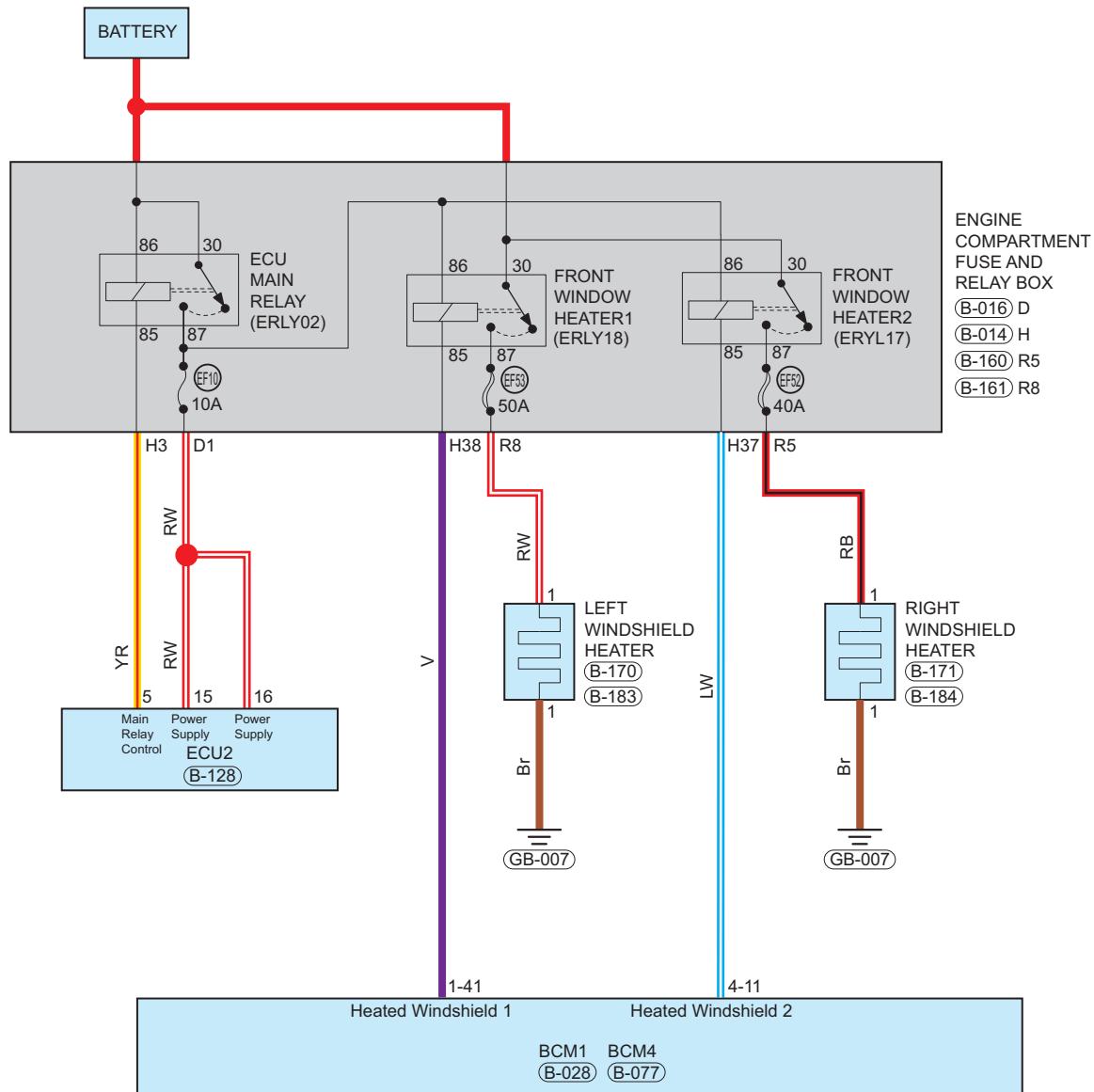


(GI-036)  
(GI-037)  
(GB-022)



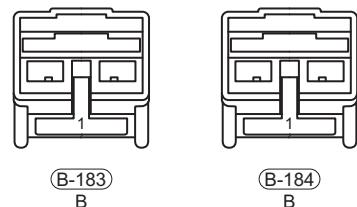
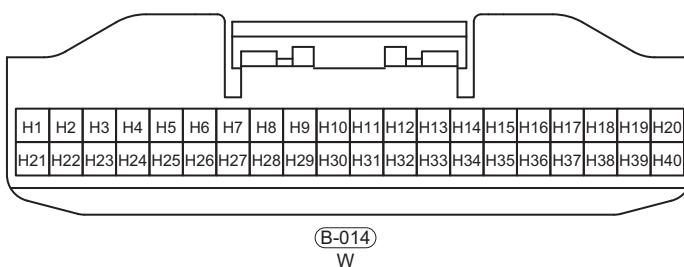
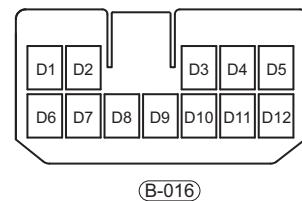
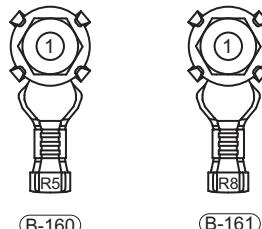
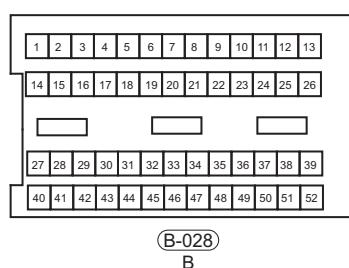
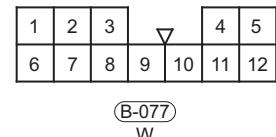
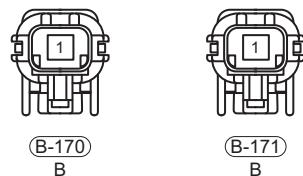
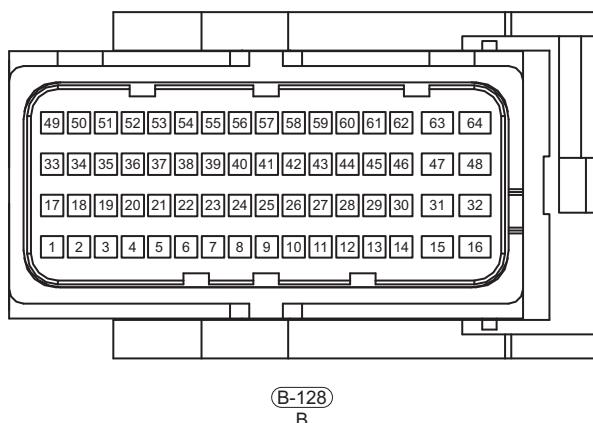
(B-076)  
W

## Windshield Heating

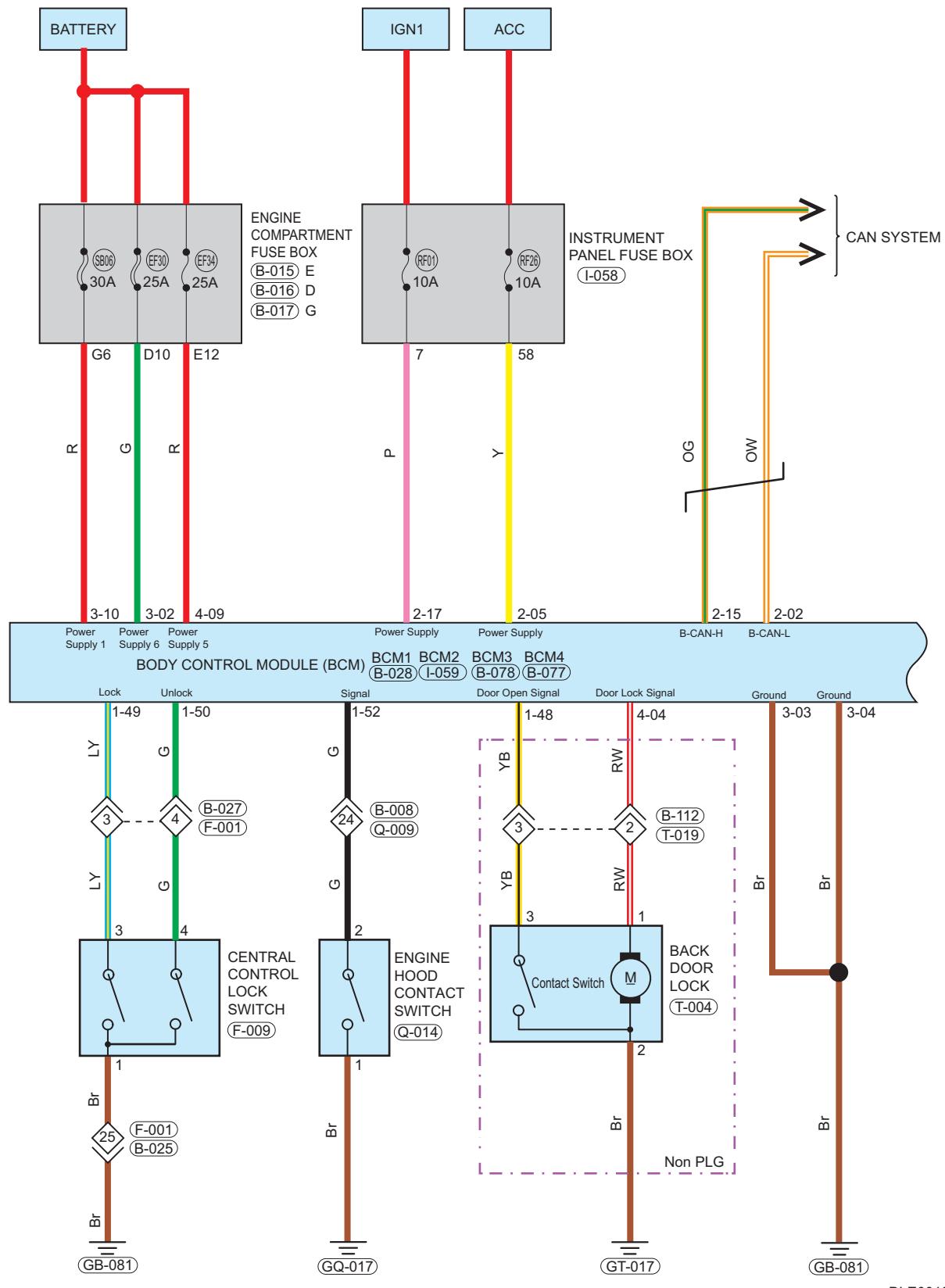


WWE003004

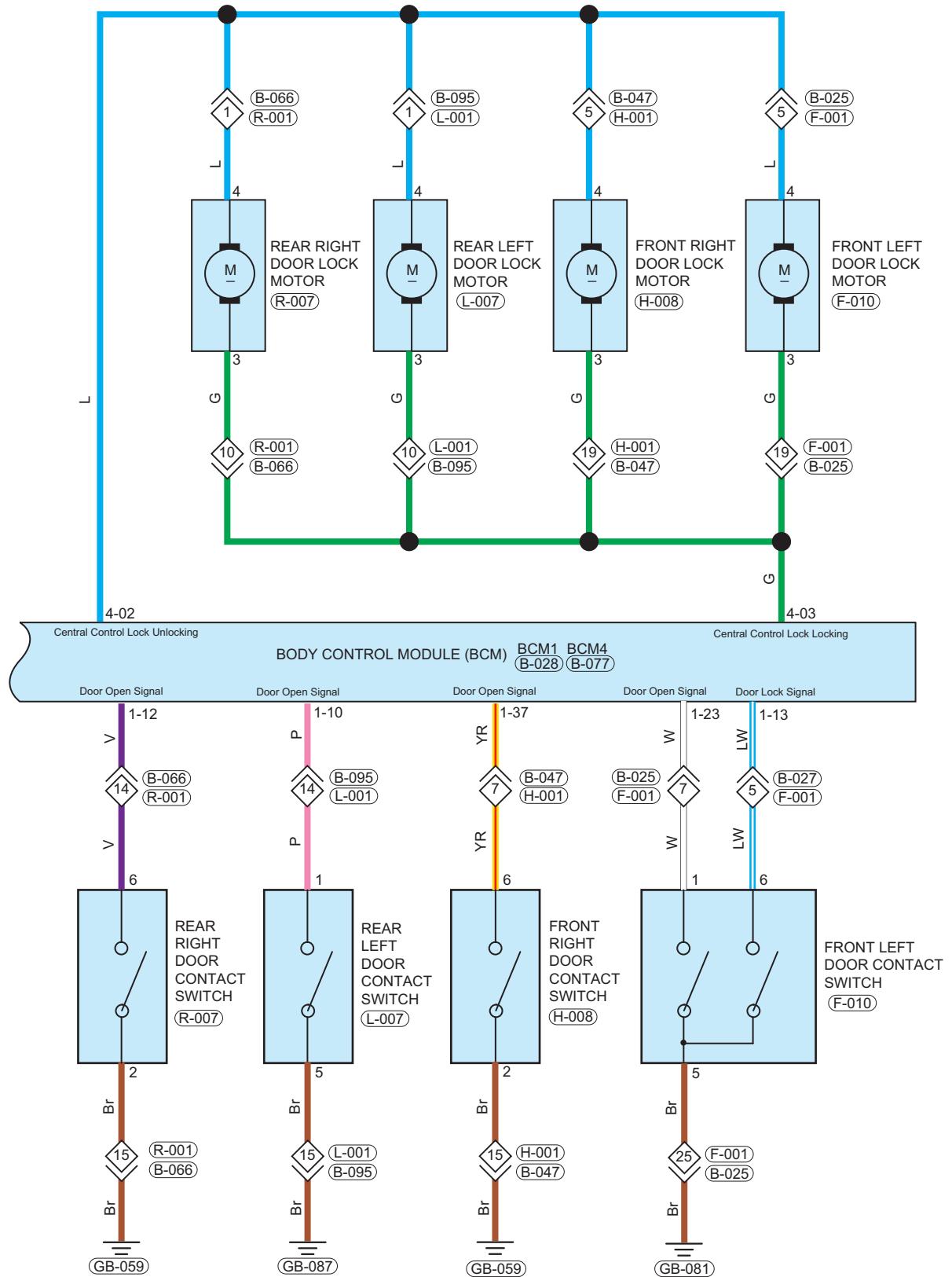
# Windshield Heating



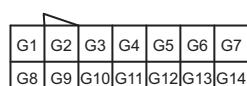
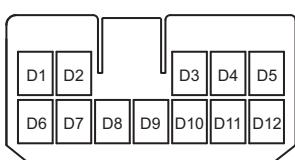
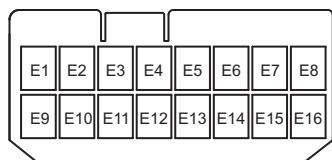
## Door Lock



## Door Lock



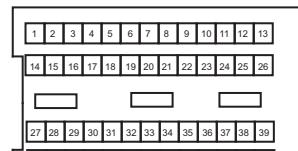
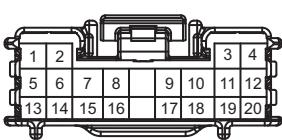
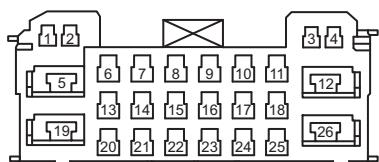
## Door Lock



(B-015) W

(B-016) W

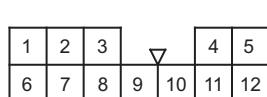
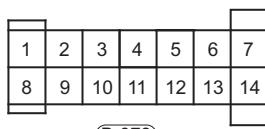
(B-017) W



(B-025) W (B-047) W

(B-027) W

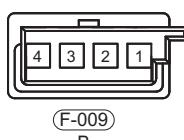
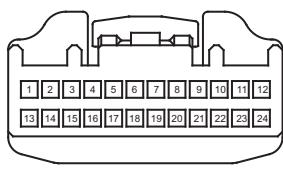
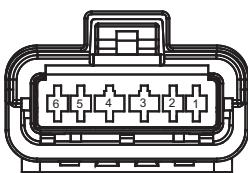
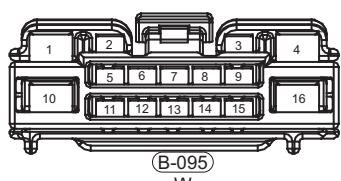
(B-028) B



(B-066) W

(B-078) B

(B-077) W

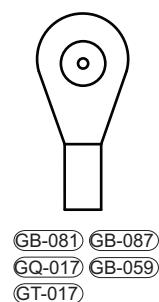
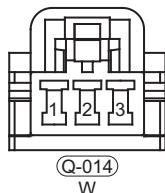
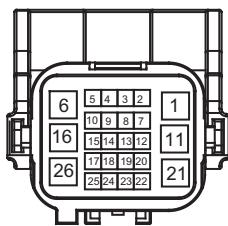
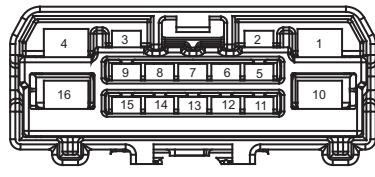


(B-095) W

(H-008) P (R-007) P  
(L-007) P (F-010) P

(I-059) W

(F-009) B



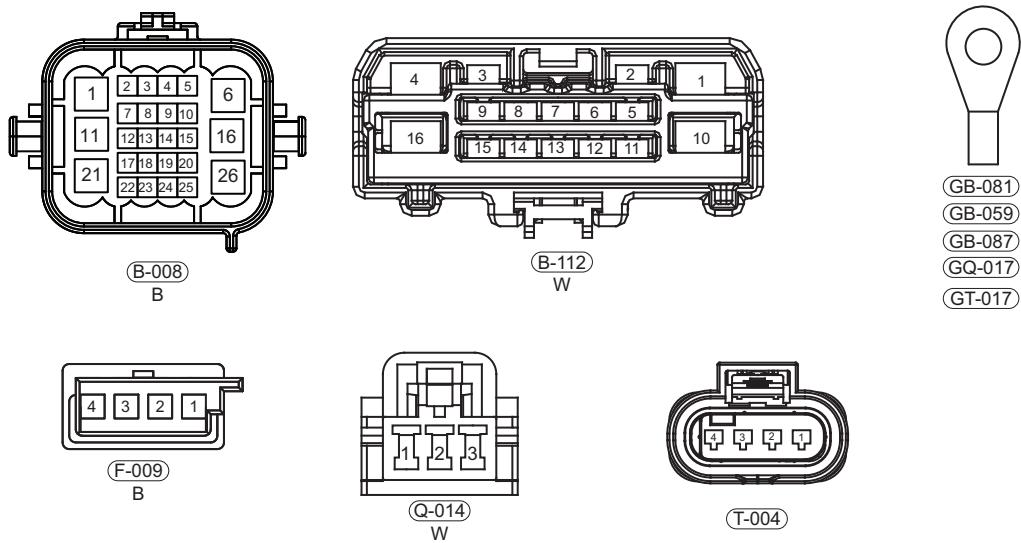
(L-001) W (R-001) W

(Q-009) B

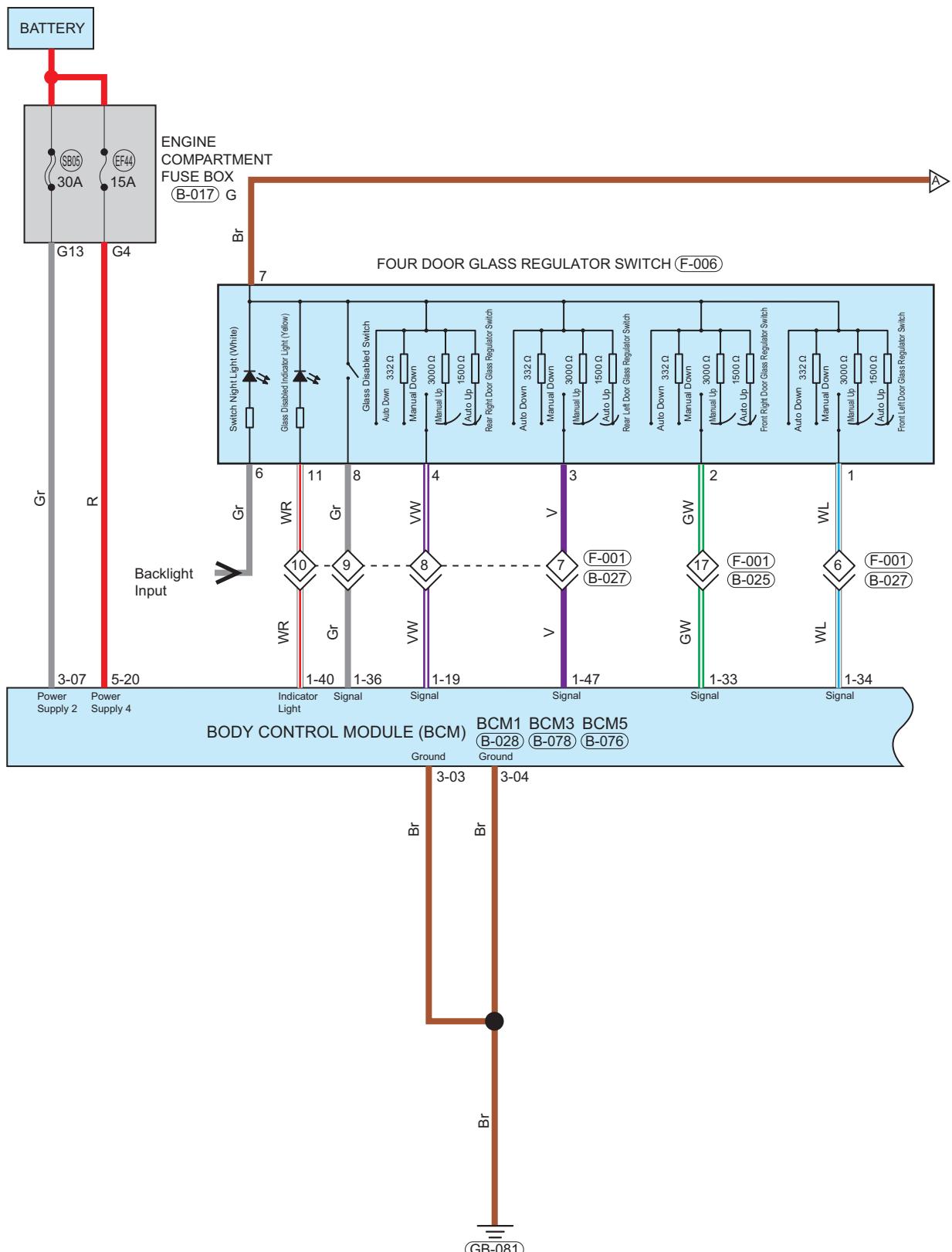
(Q-014) W

GB-081 GB-087  
GQ-017 GB-059  
GT-017

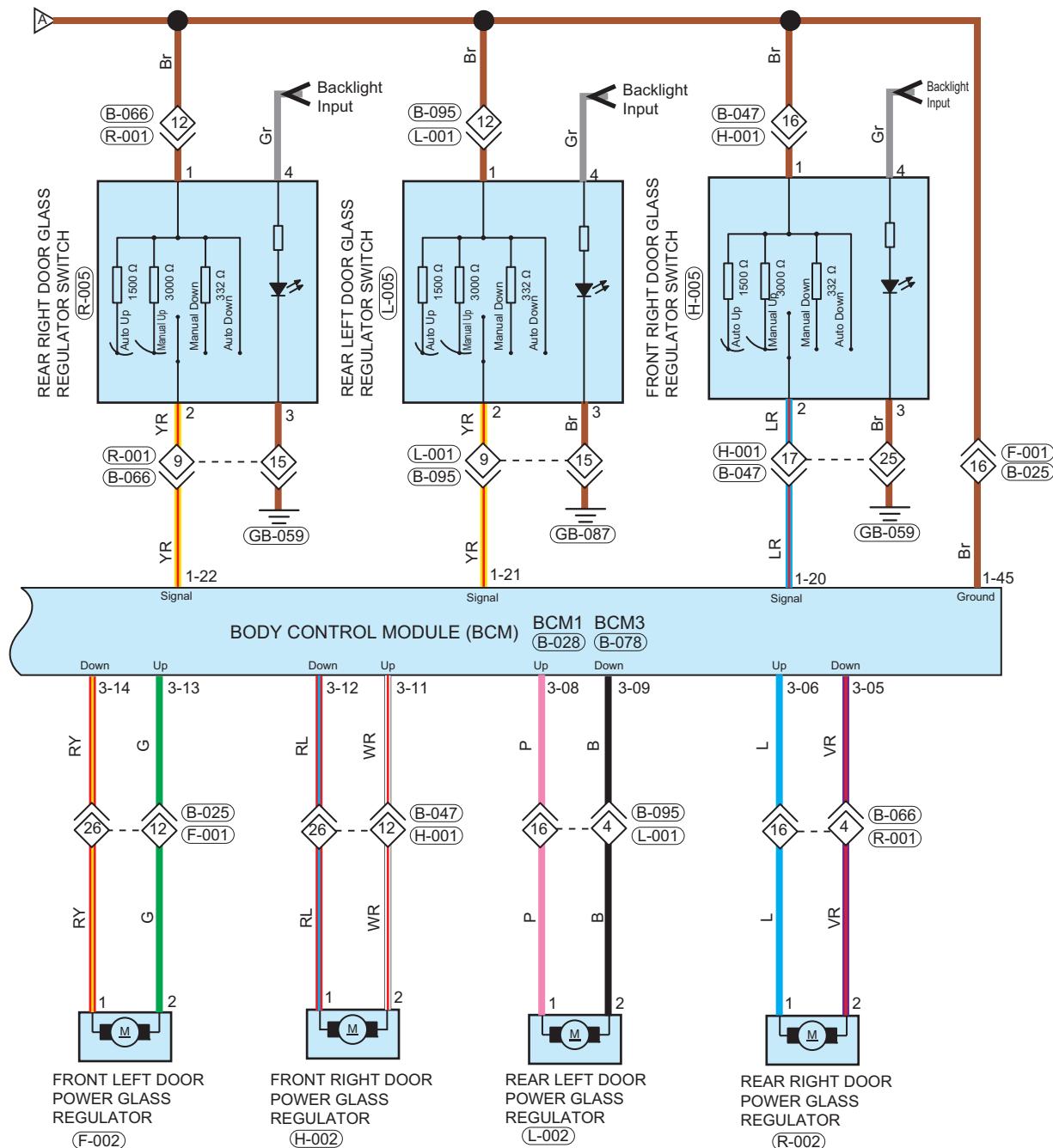
## Door Lock



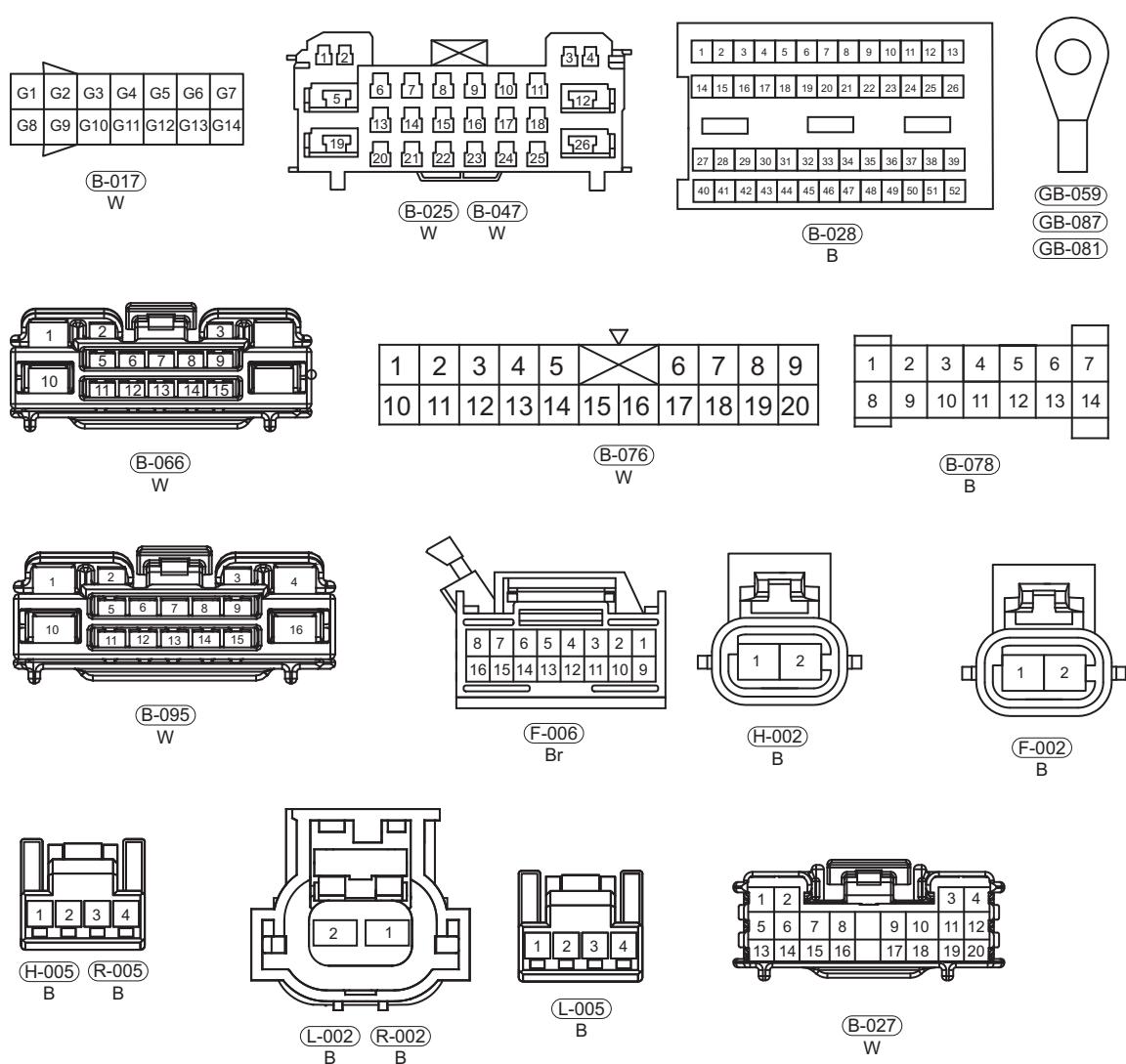
## Window



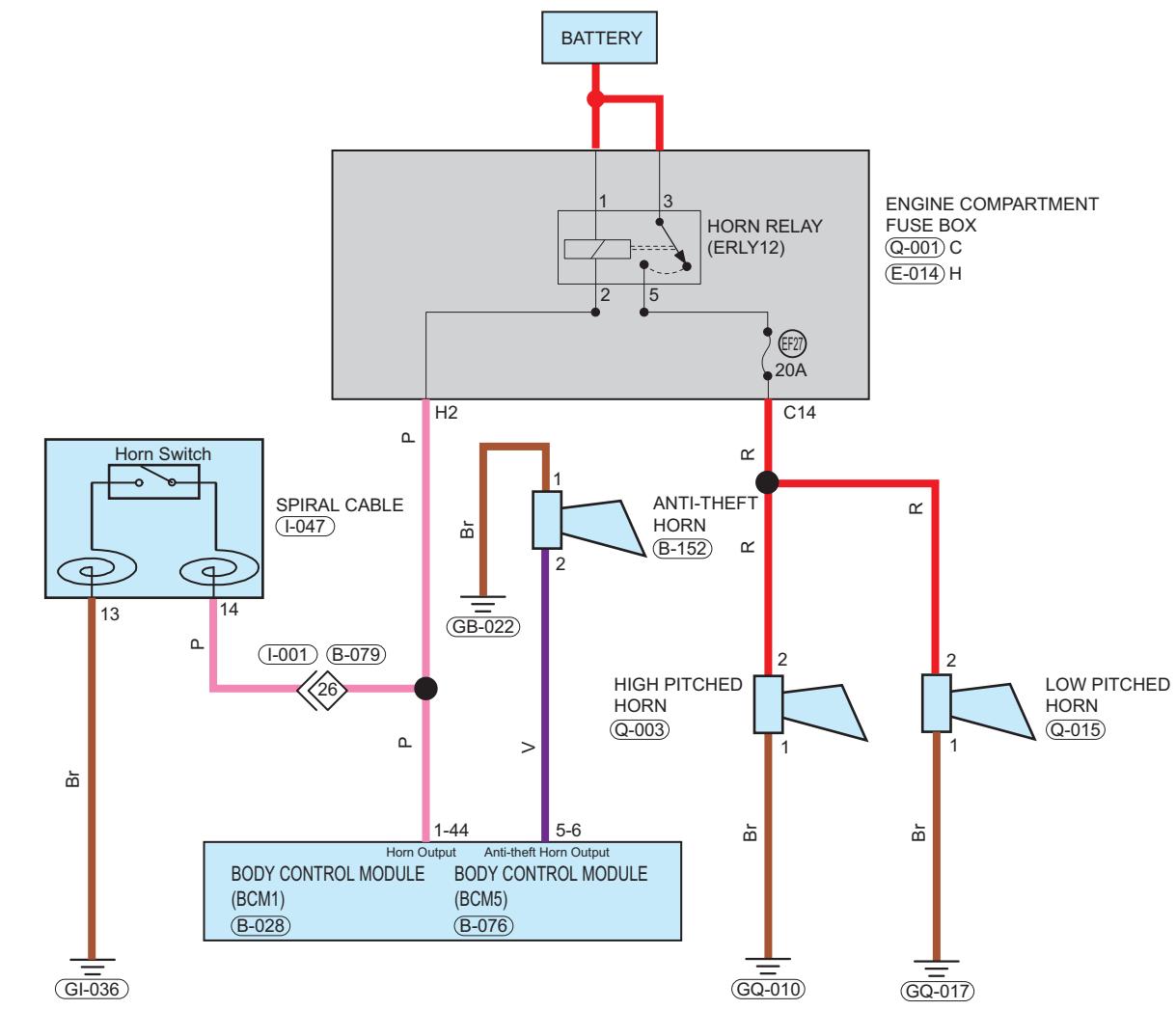
## Window



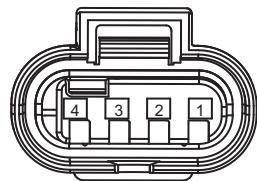
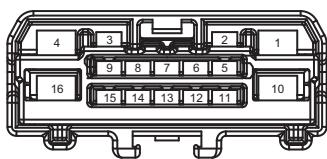
## Window



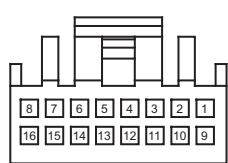
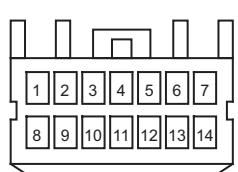
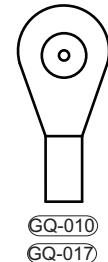
## Horn



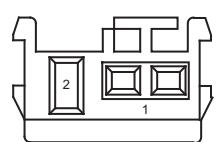
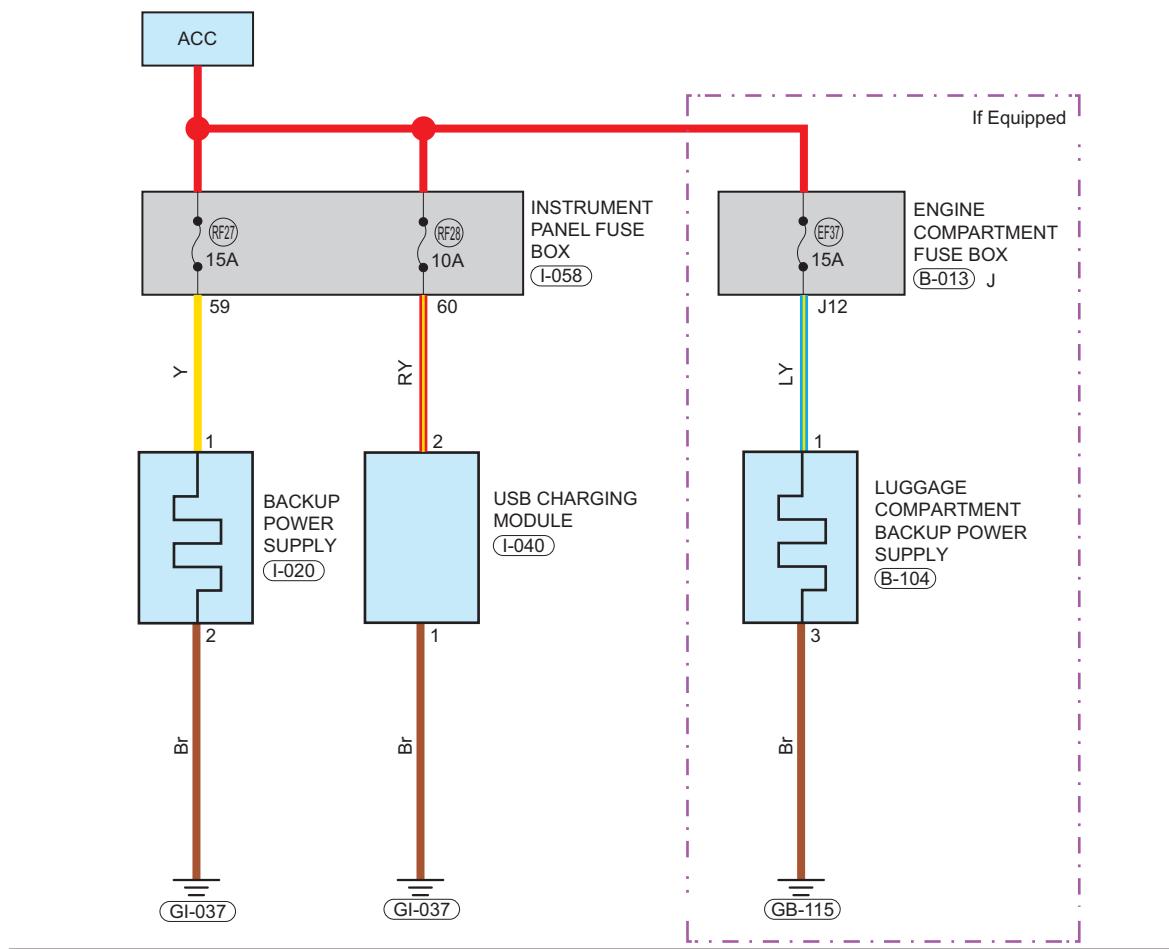
(B-079)

(E-014)  
B(I-001)  
W

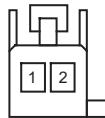
(GI-036)

(I-047)  
W(Q-001)  
W(Q-003)  
Gr  
(Q-015)  
Gr(GQ-010)  
(GQ-017)

## Other System (Backup Power Supply, USB Charging Module)



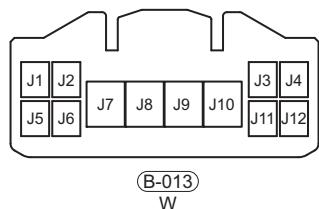
(I-020) B



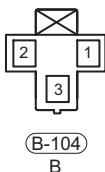
(I-040) W



(GI-037)



(B-013) W



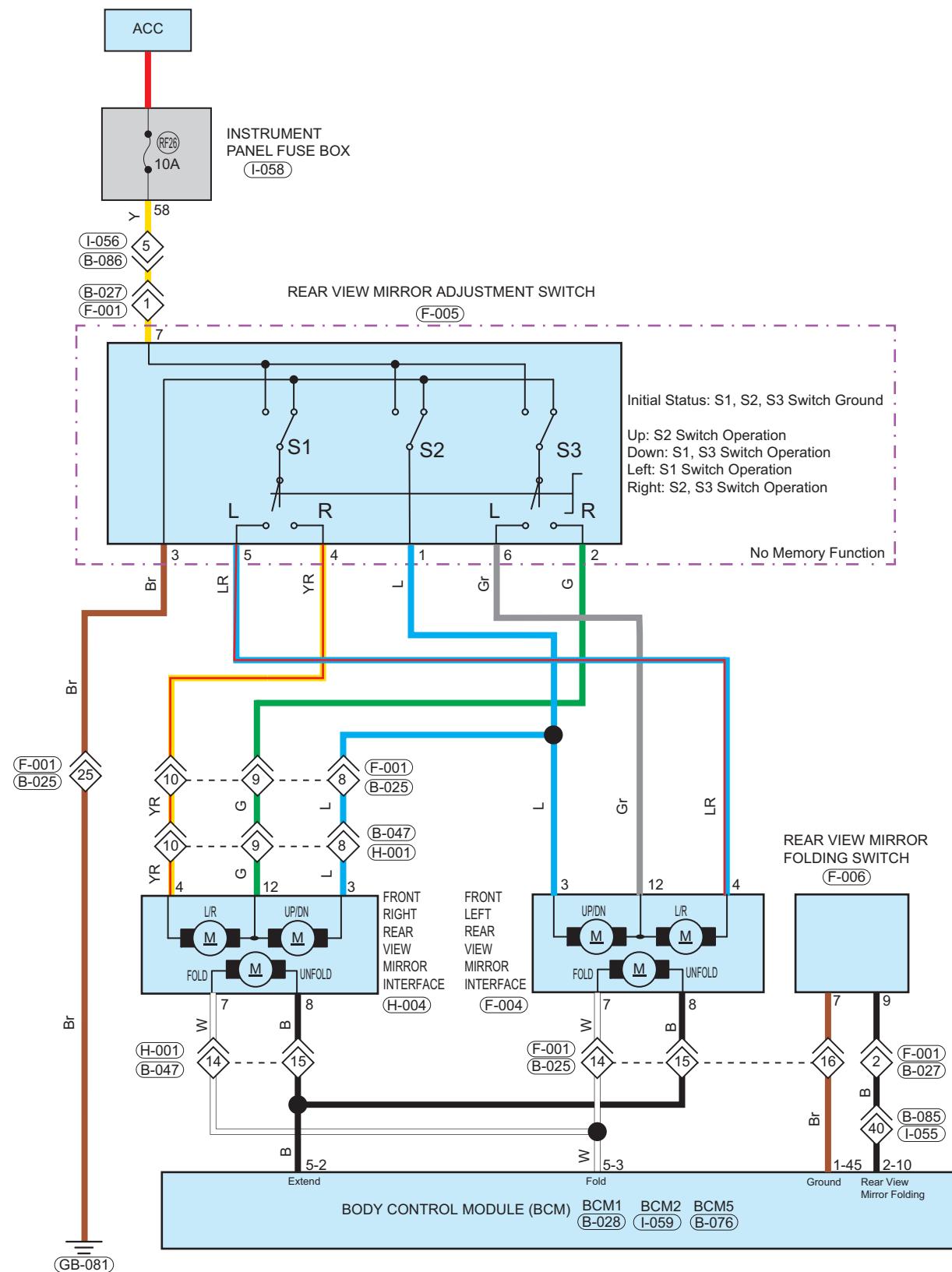
(B-104) B



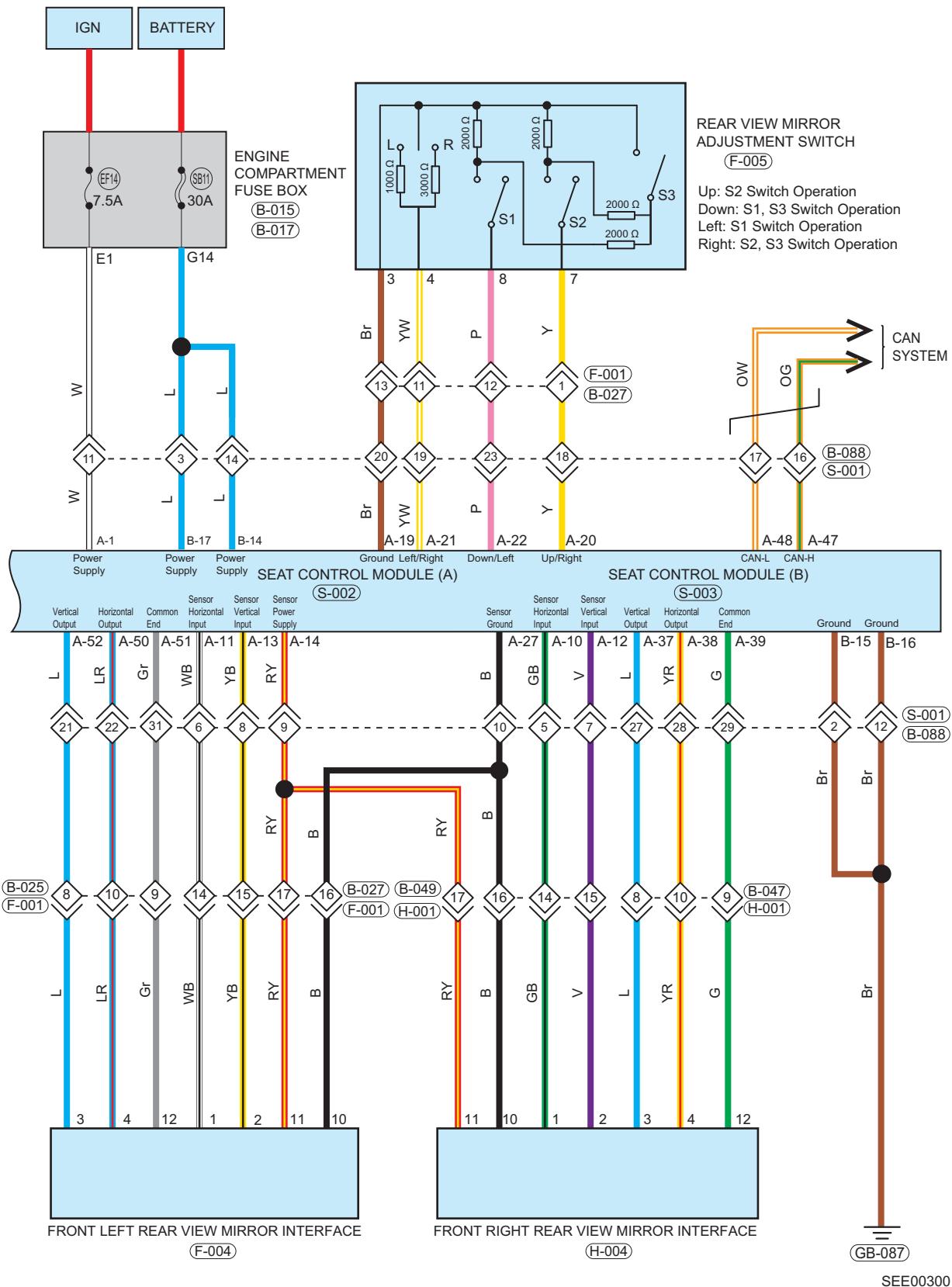
(GB-115)

OTE001001

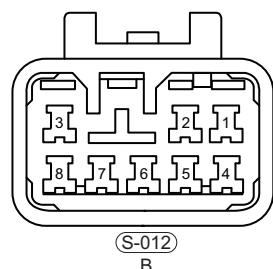
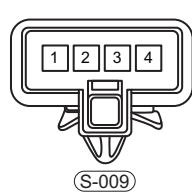
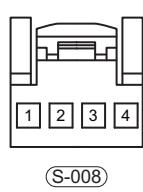
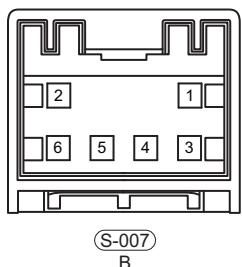
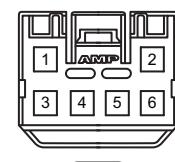
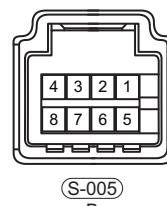
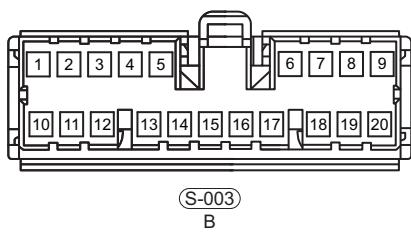
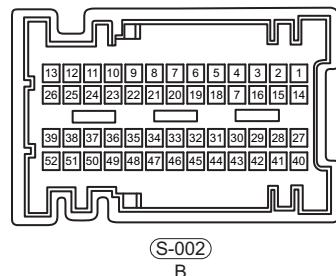
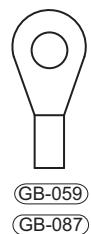
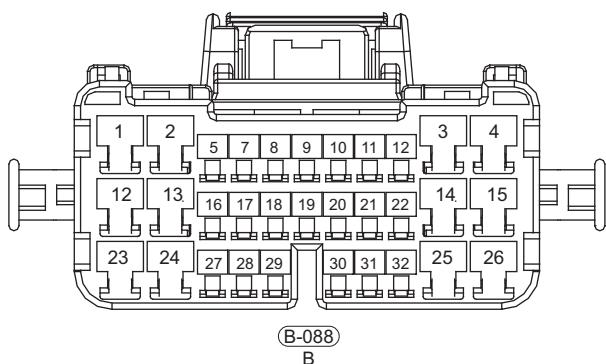
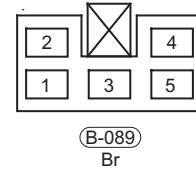
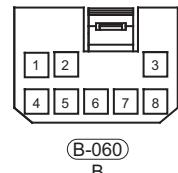
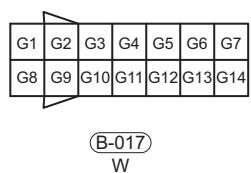
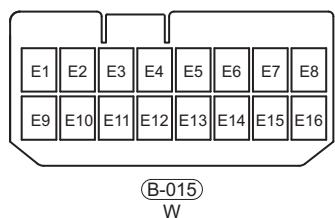
# Rear View Mirror Adjustment



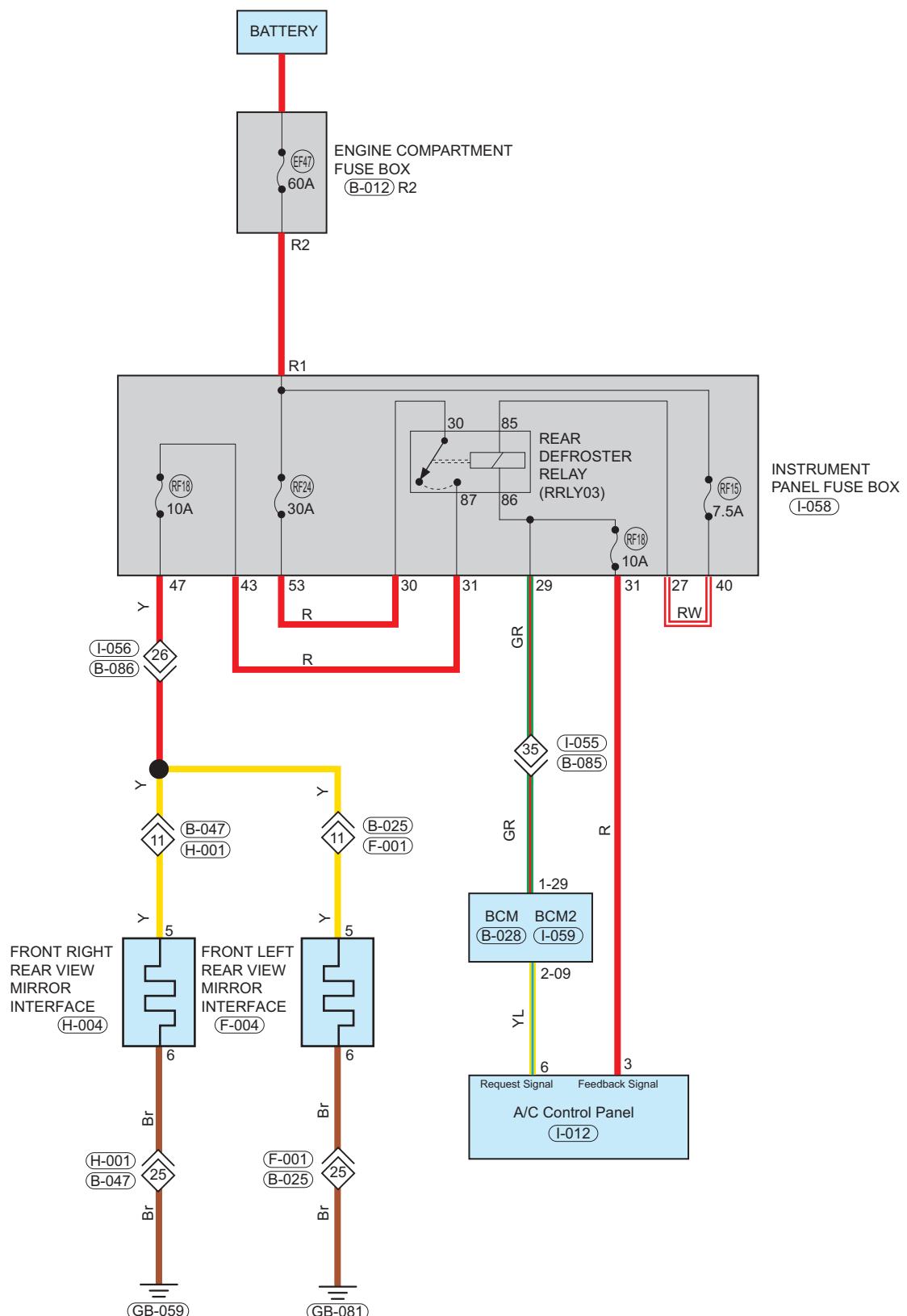
# Rear View Mirror Adjustment



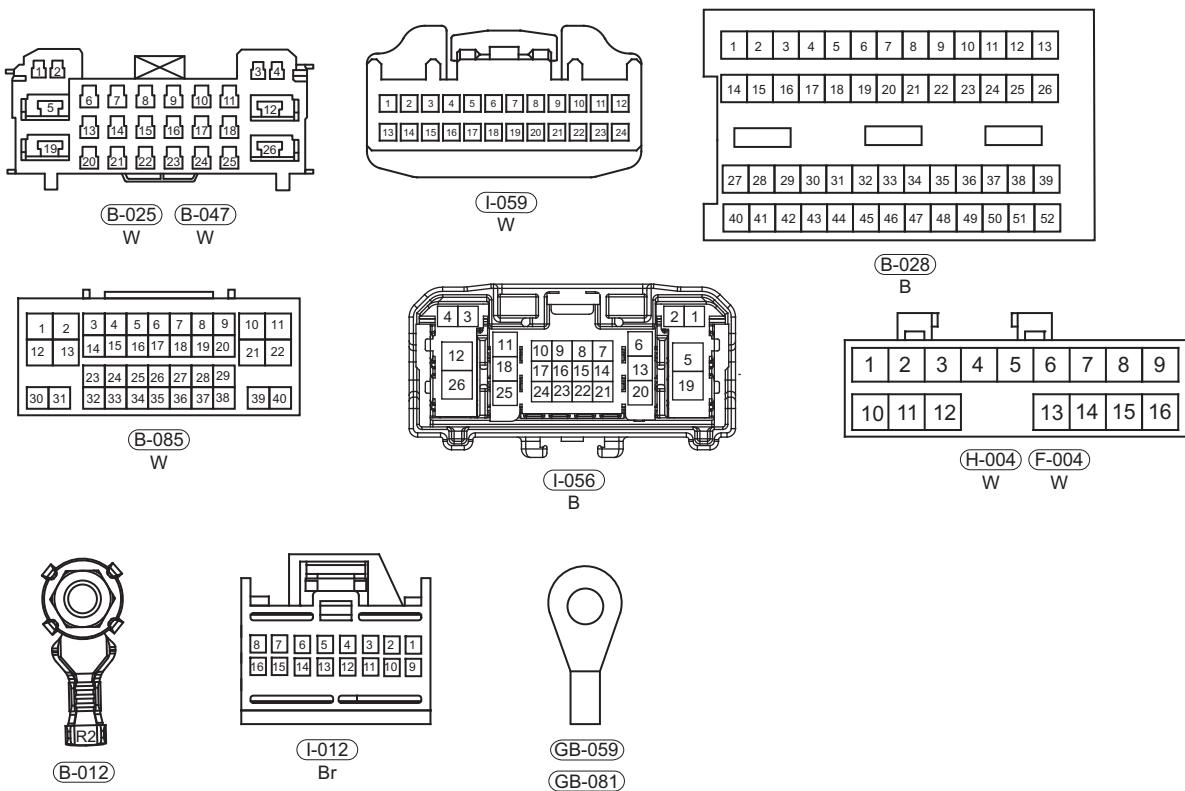
## Rear View Mirror Adjustment



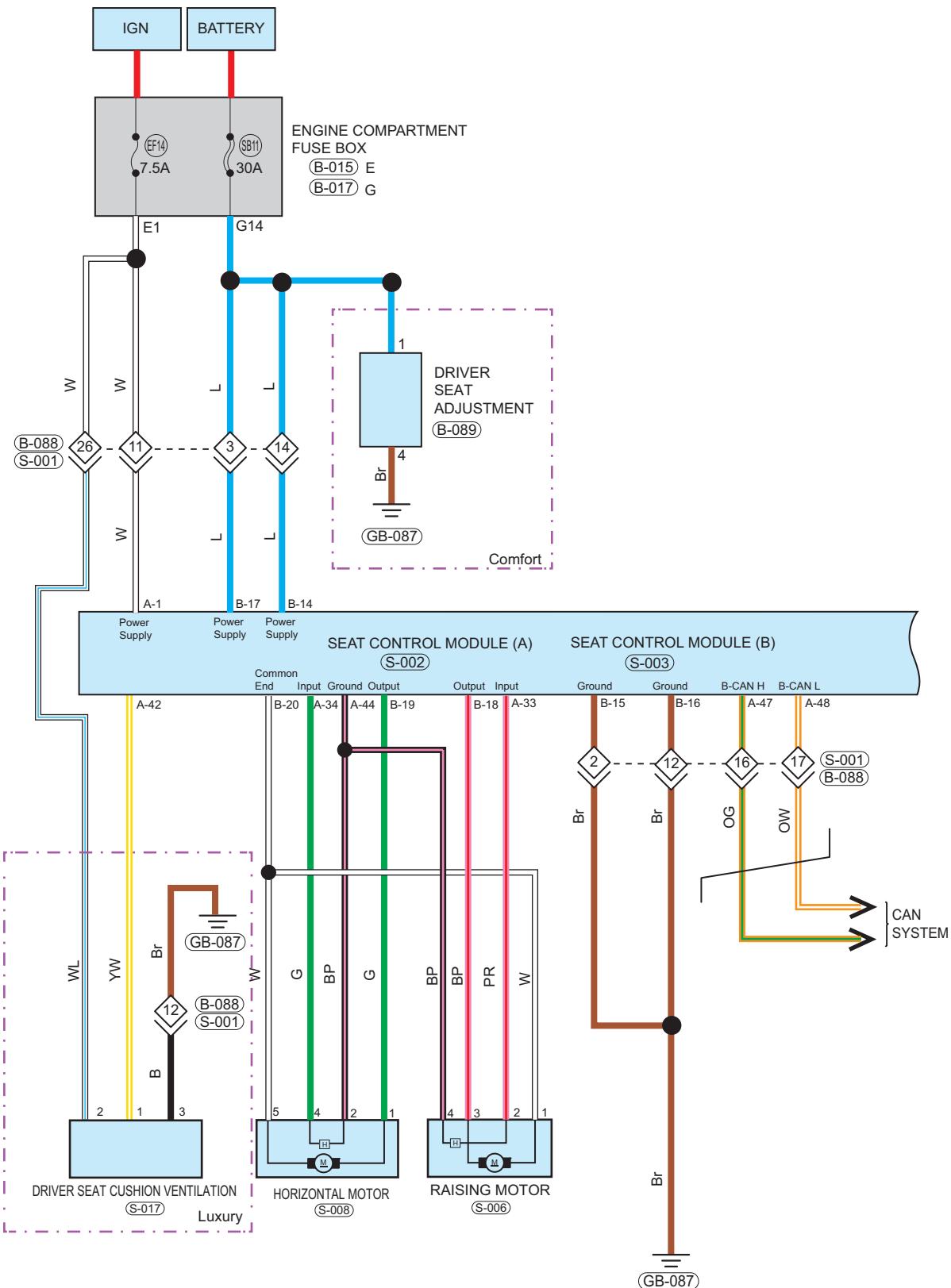
## Rear View Mirror Heating



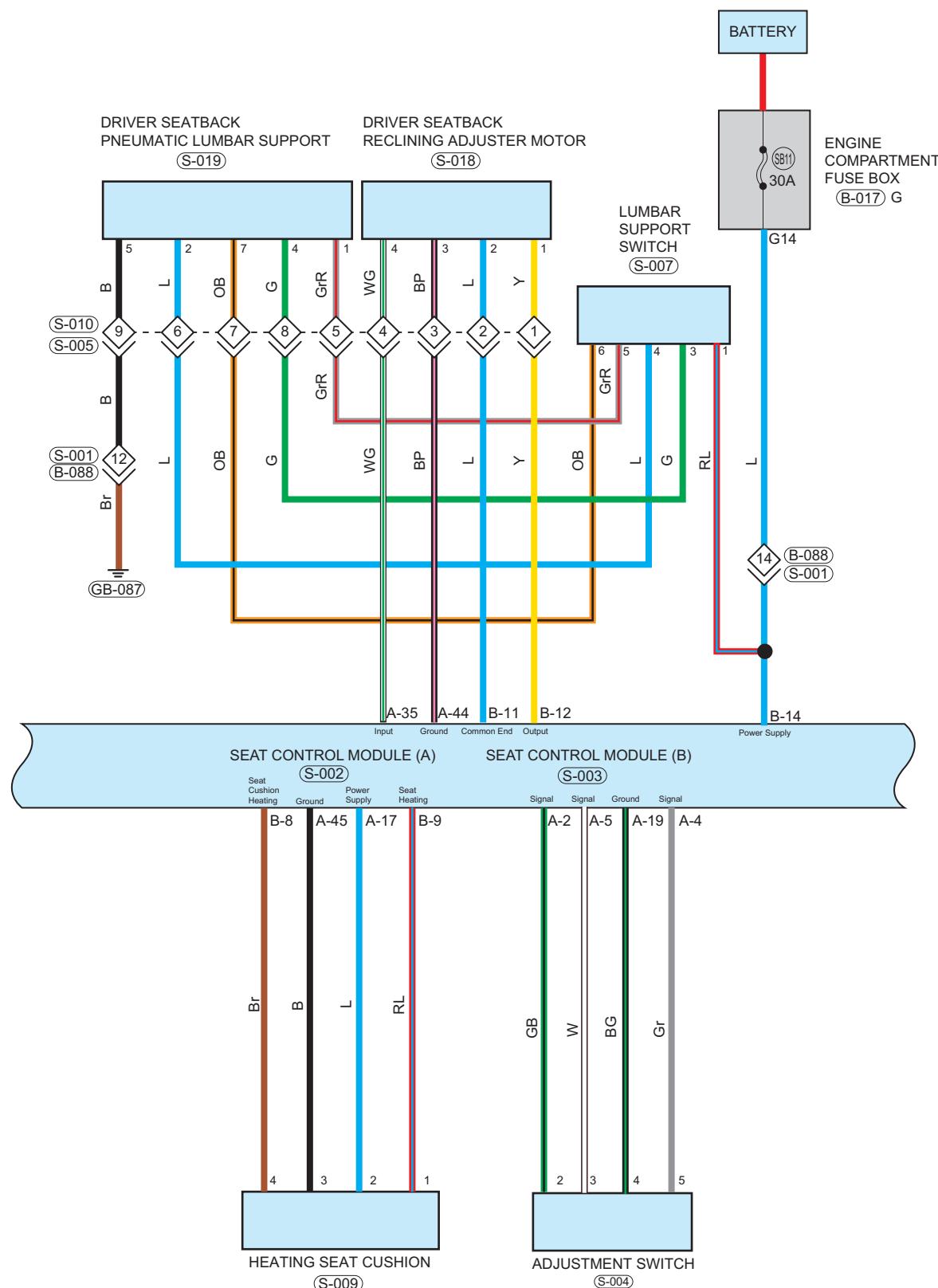
## Rear View Mirror Heating



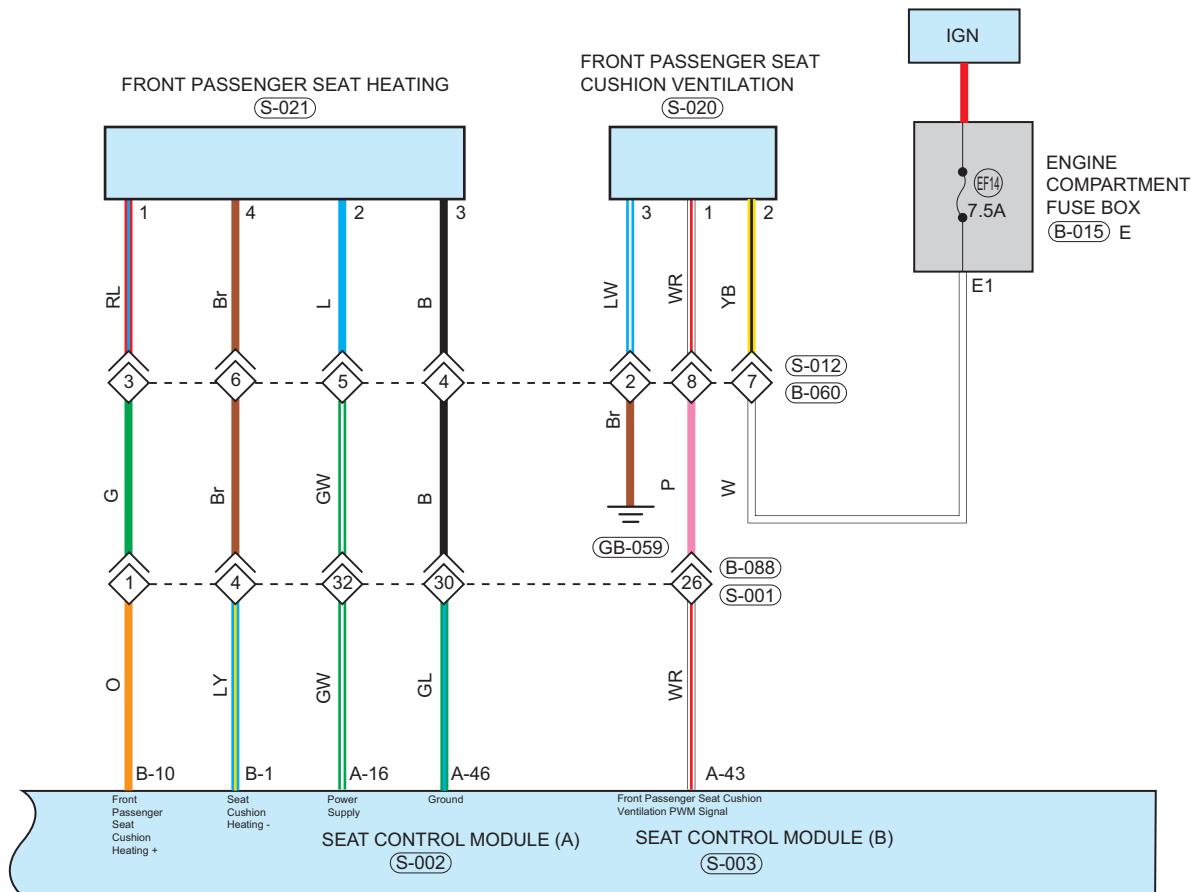
# Seat Adjustment



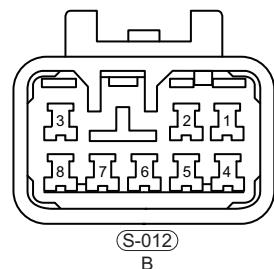
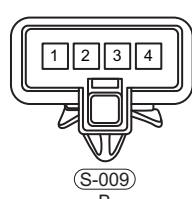
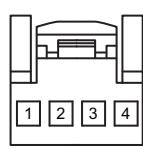
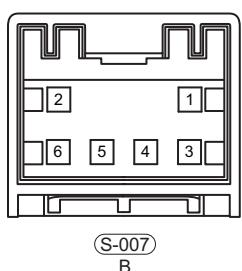
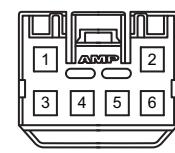
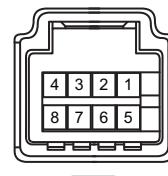
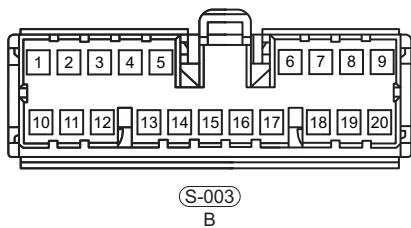
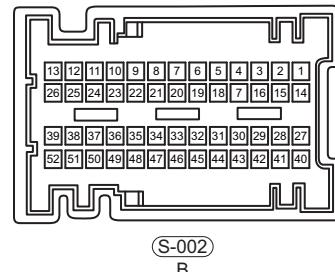
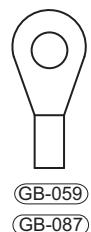
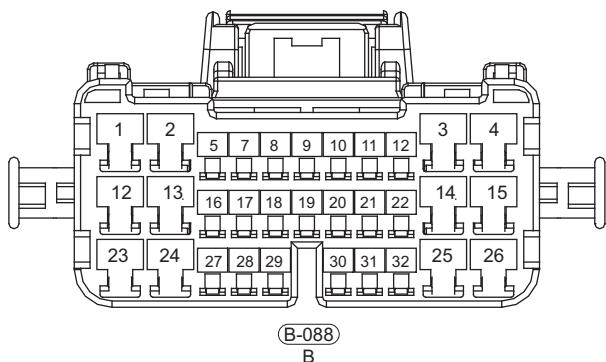
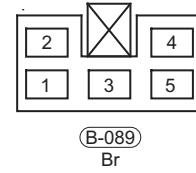
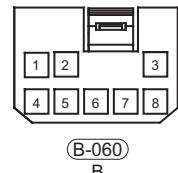
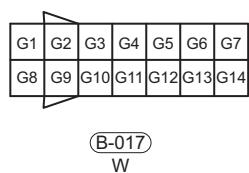
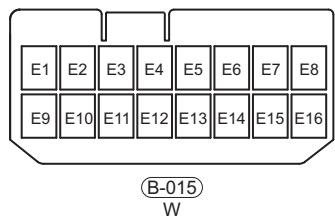
# Seat Adjustment



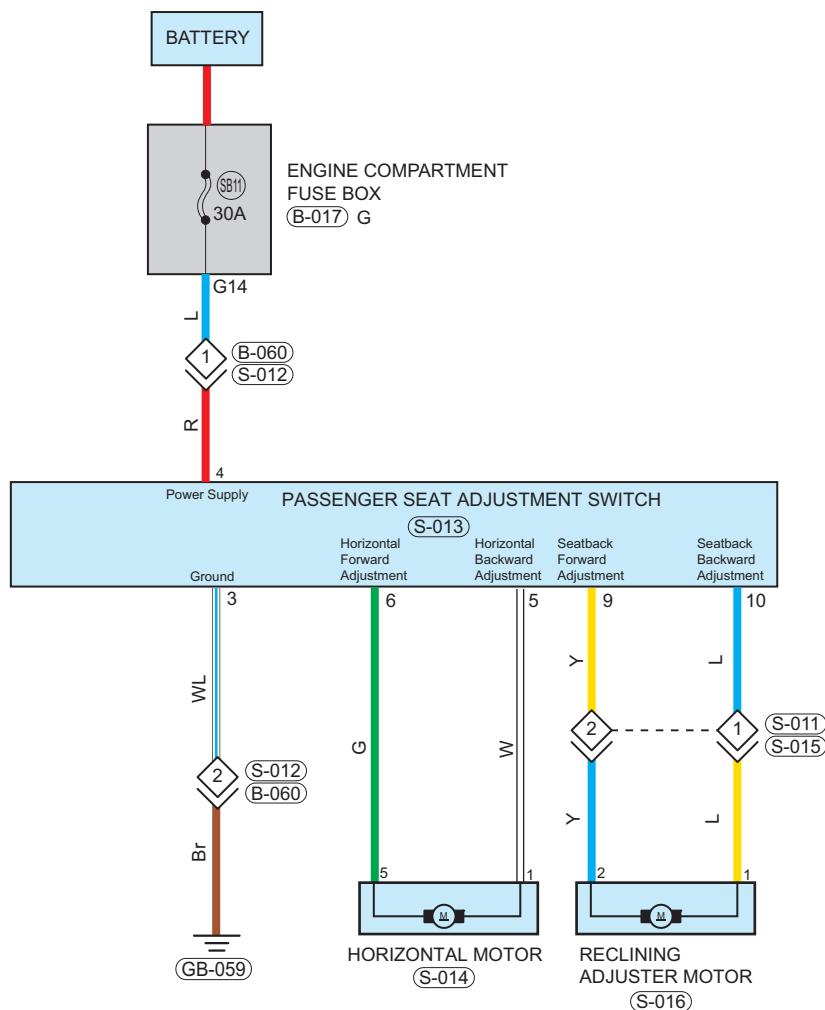
# Seat Adjustment



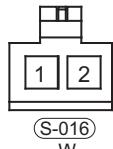
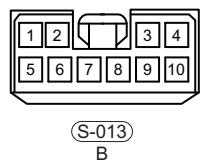
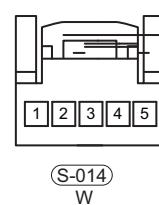
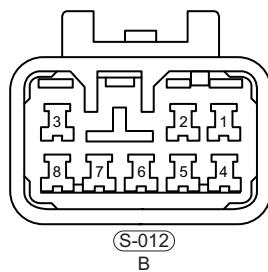
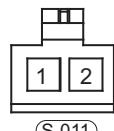
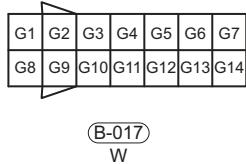
## Seat Adjustment



# Seat Adjustment

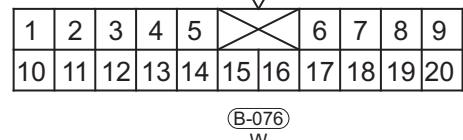
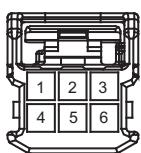
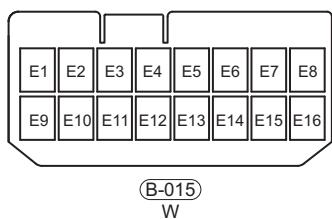
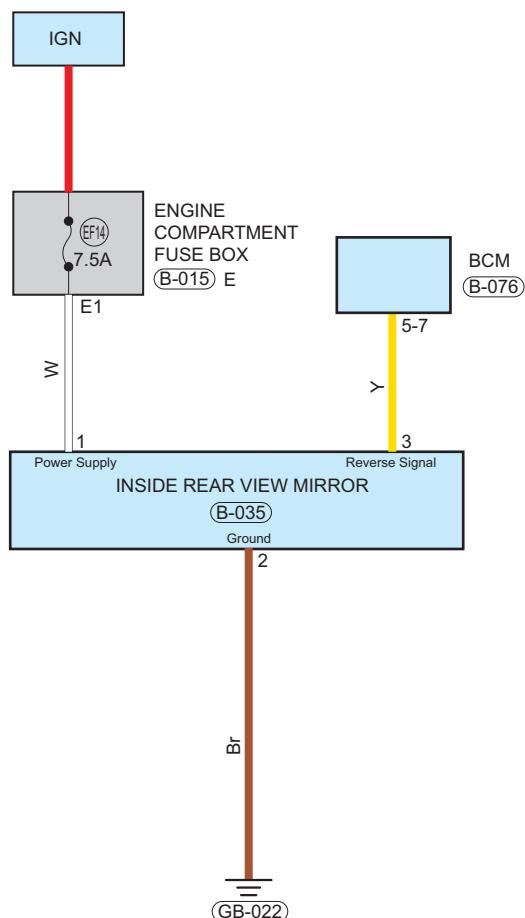


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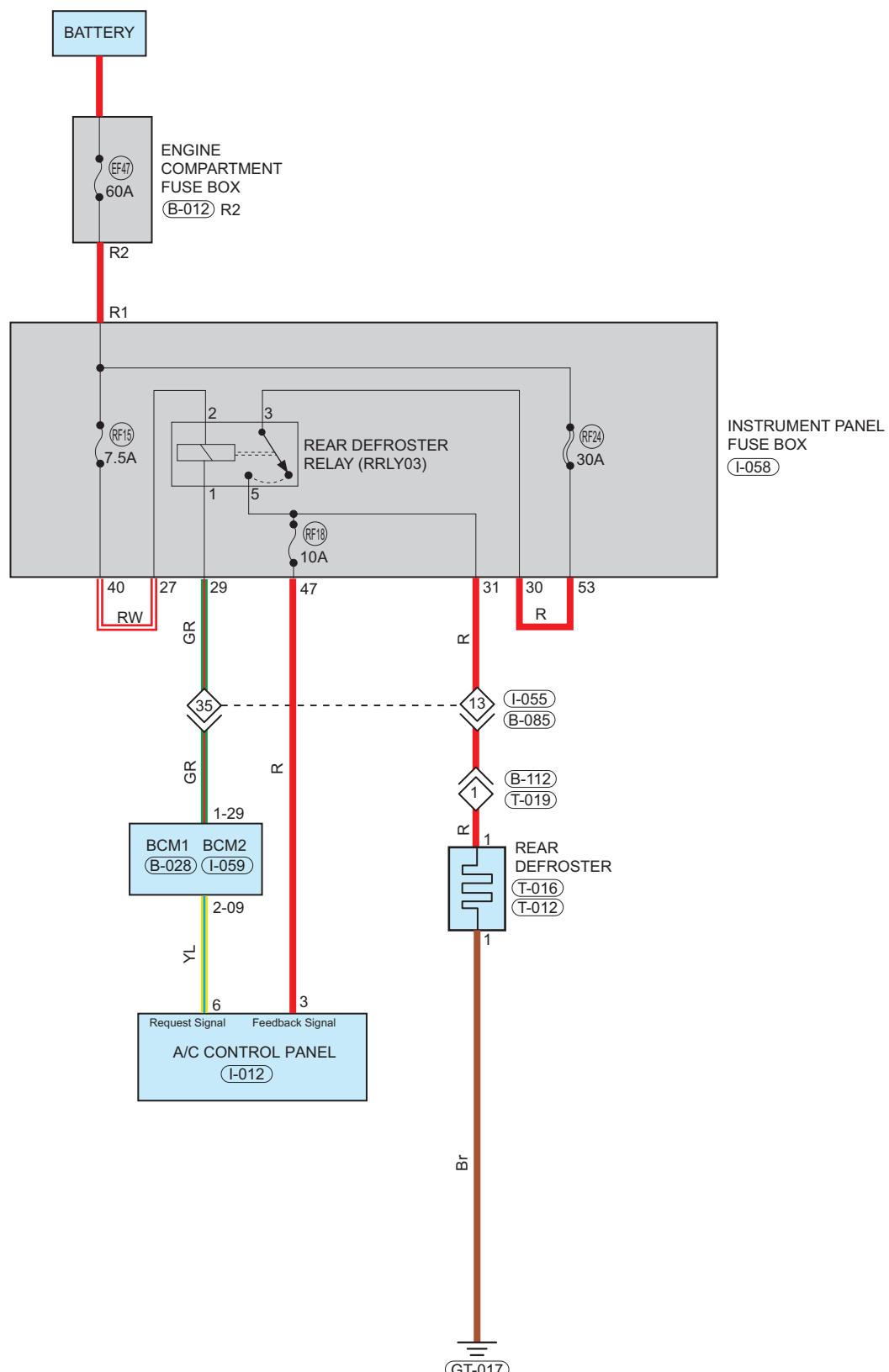


SEE006001

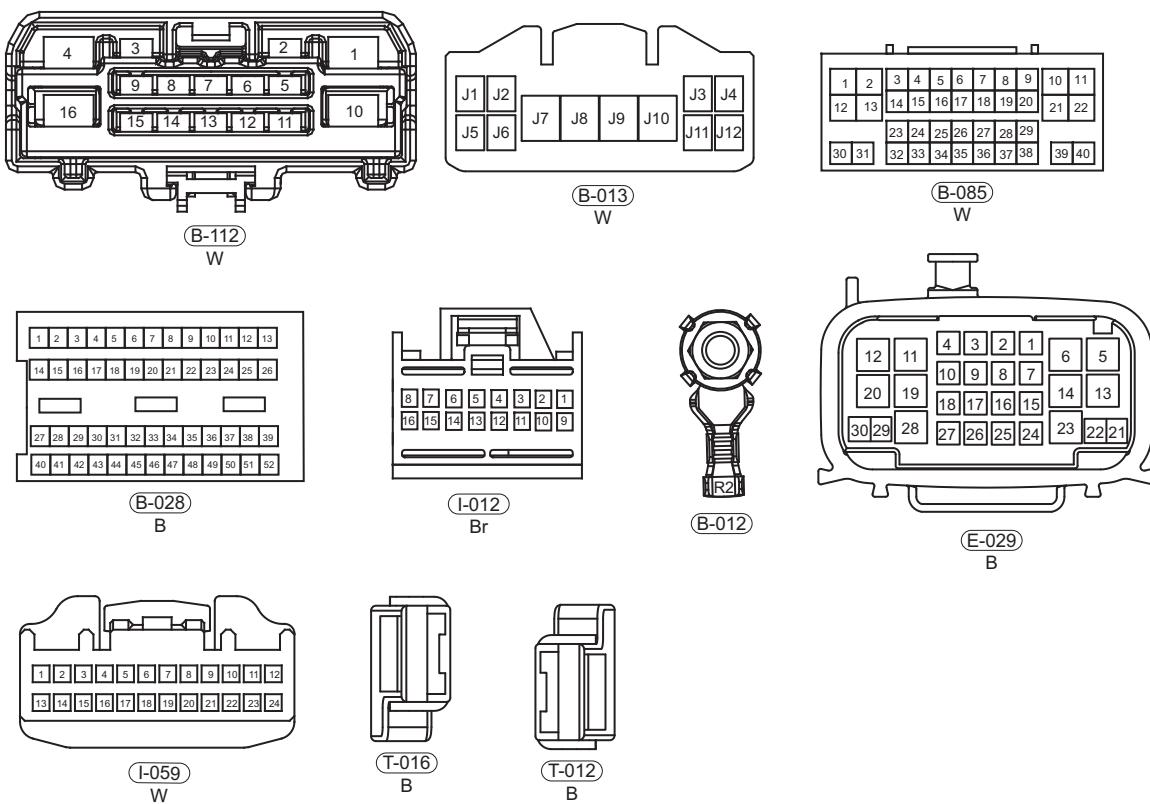
## Inside Rear View Mirror



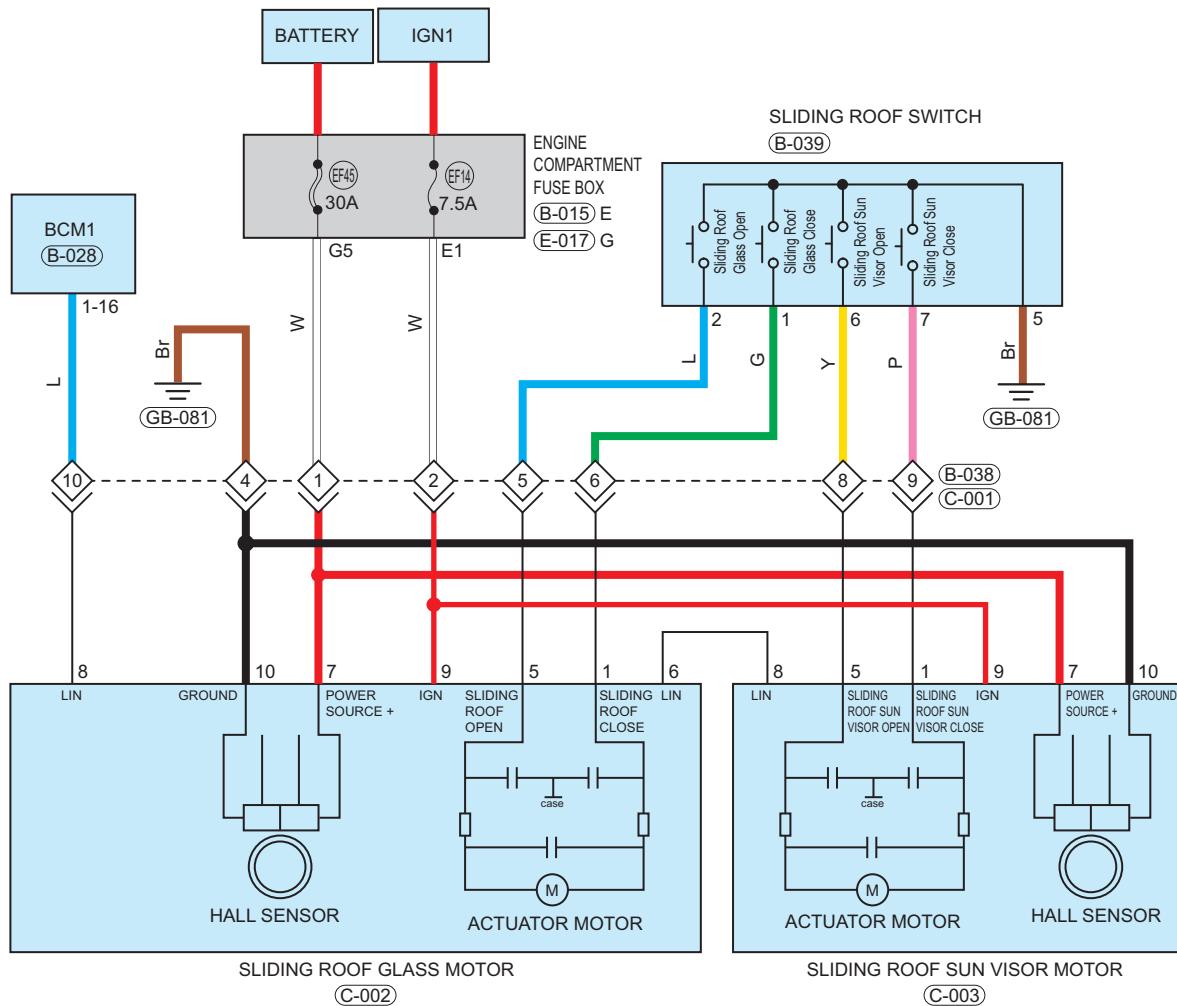
## Rear Defroster



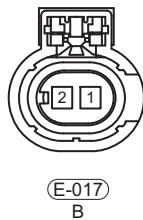
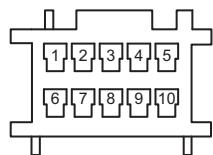
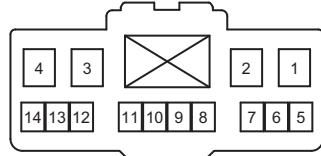
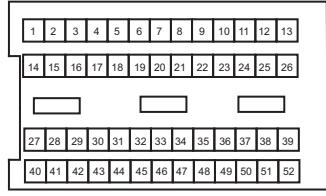
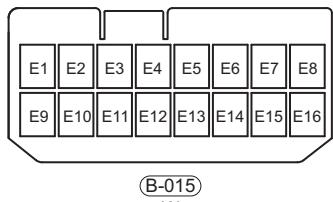
## Rear Defroster



## Sliding Roof

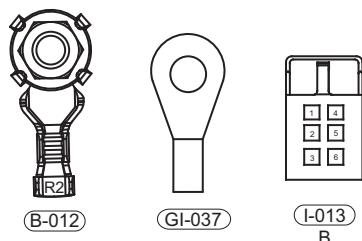
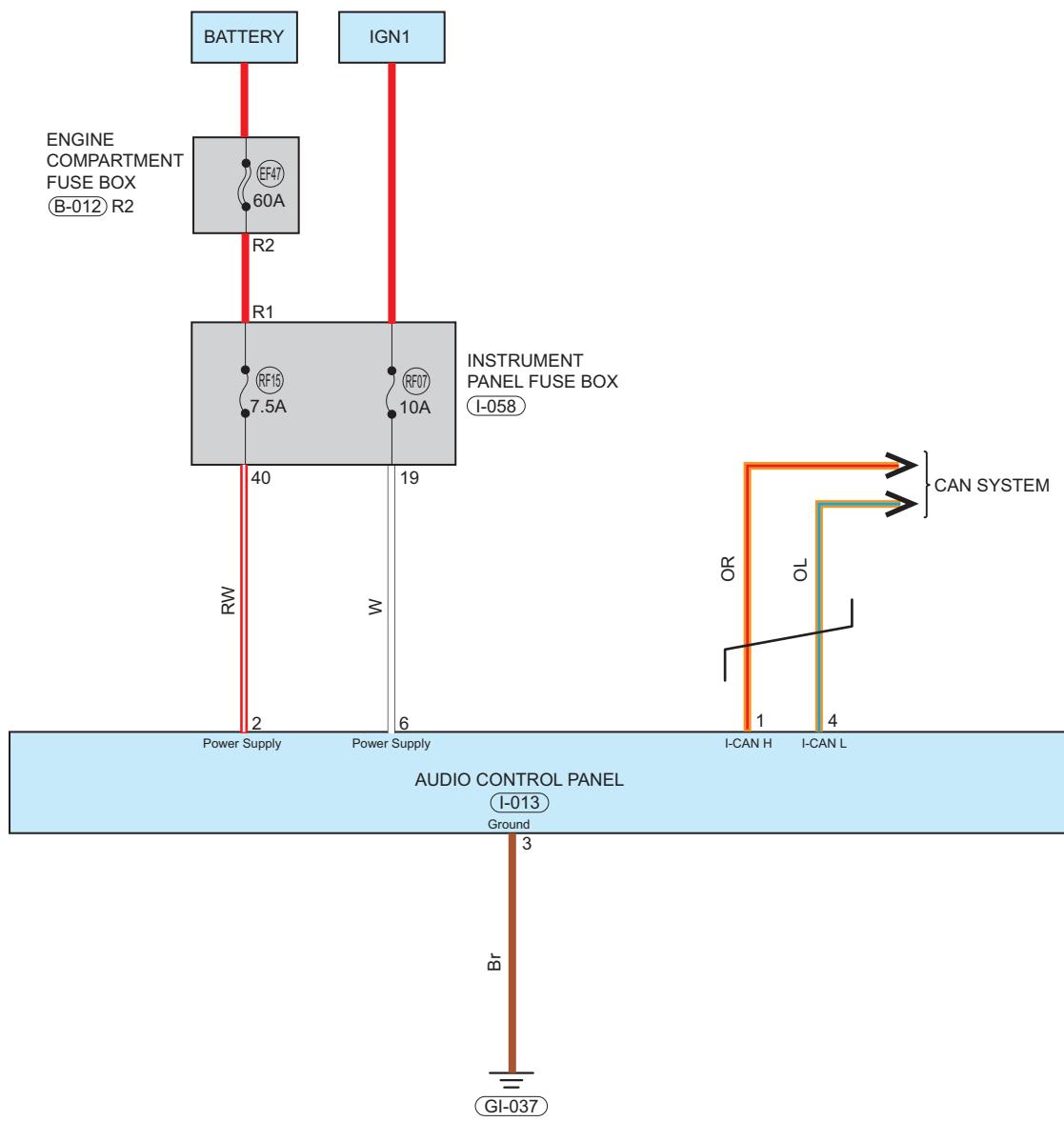


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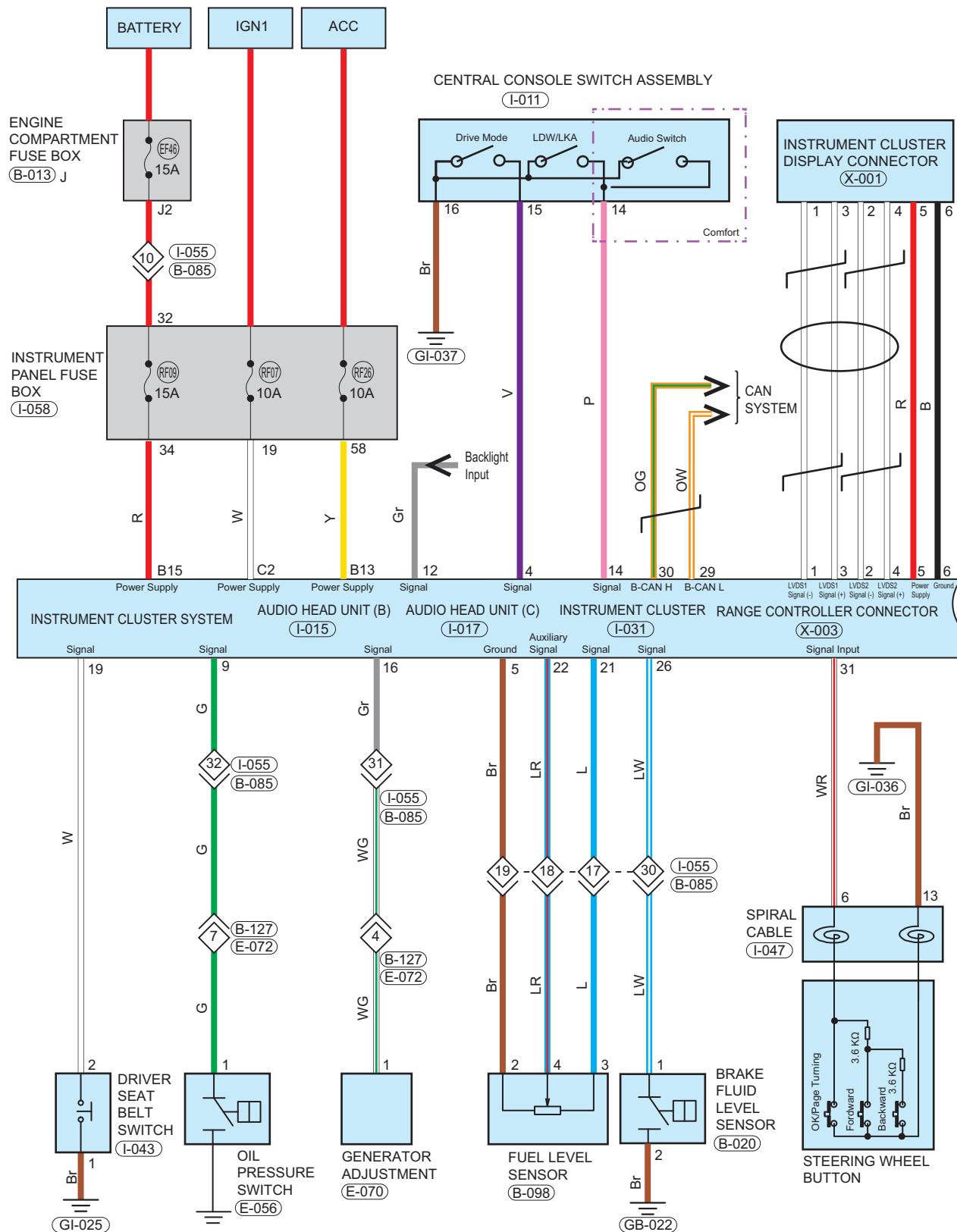


RFE001001

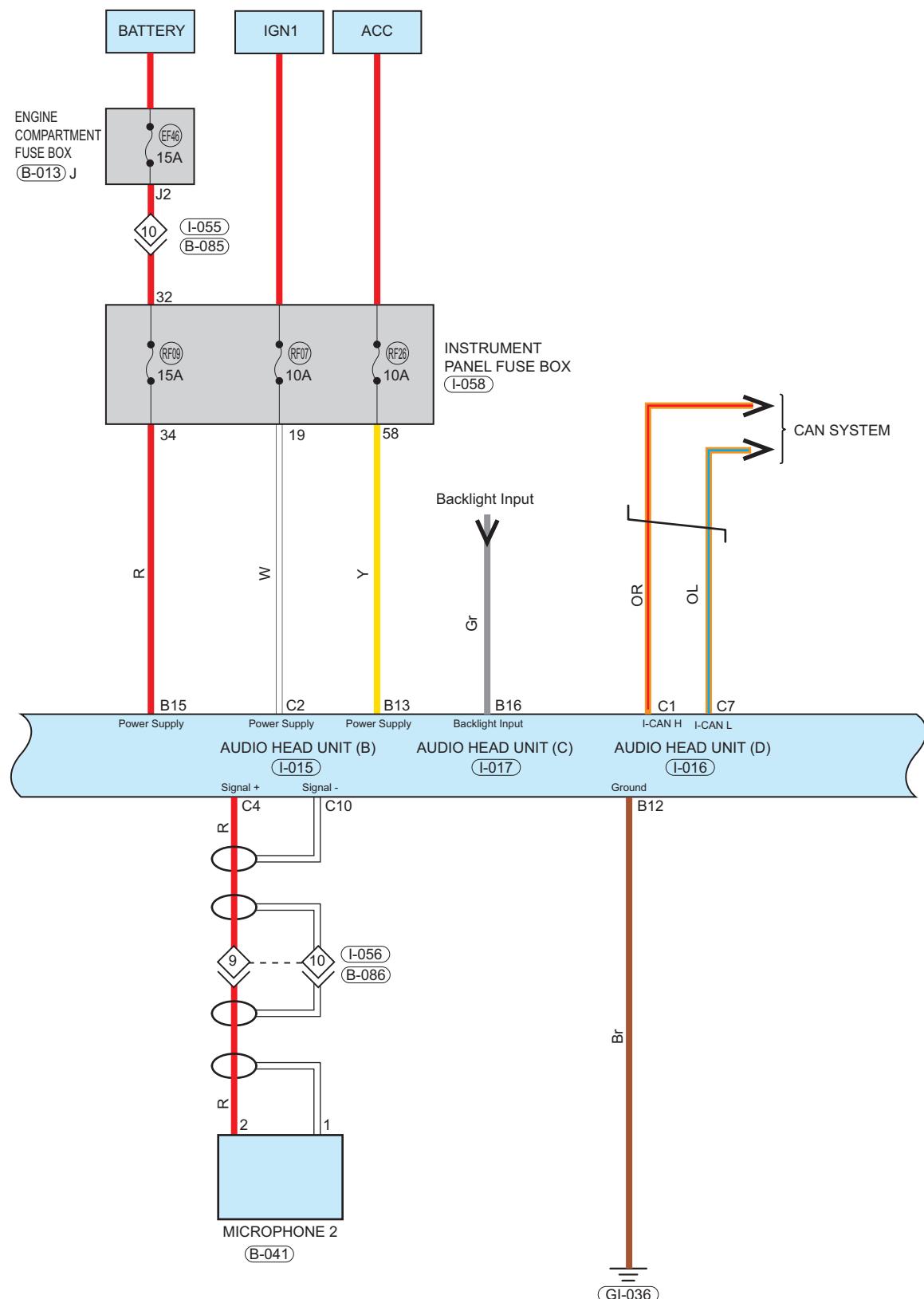
## Audio Control Panel (ACP)



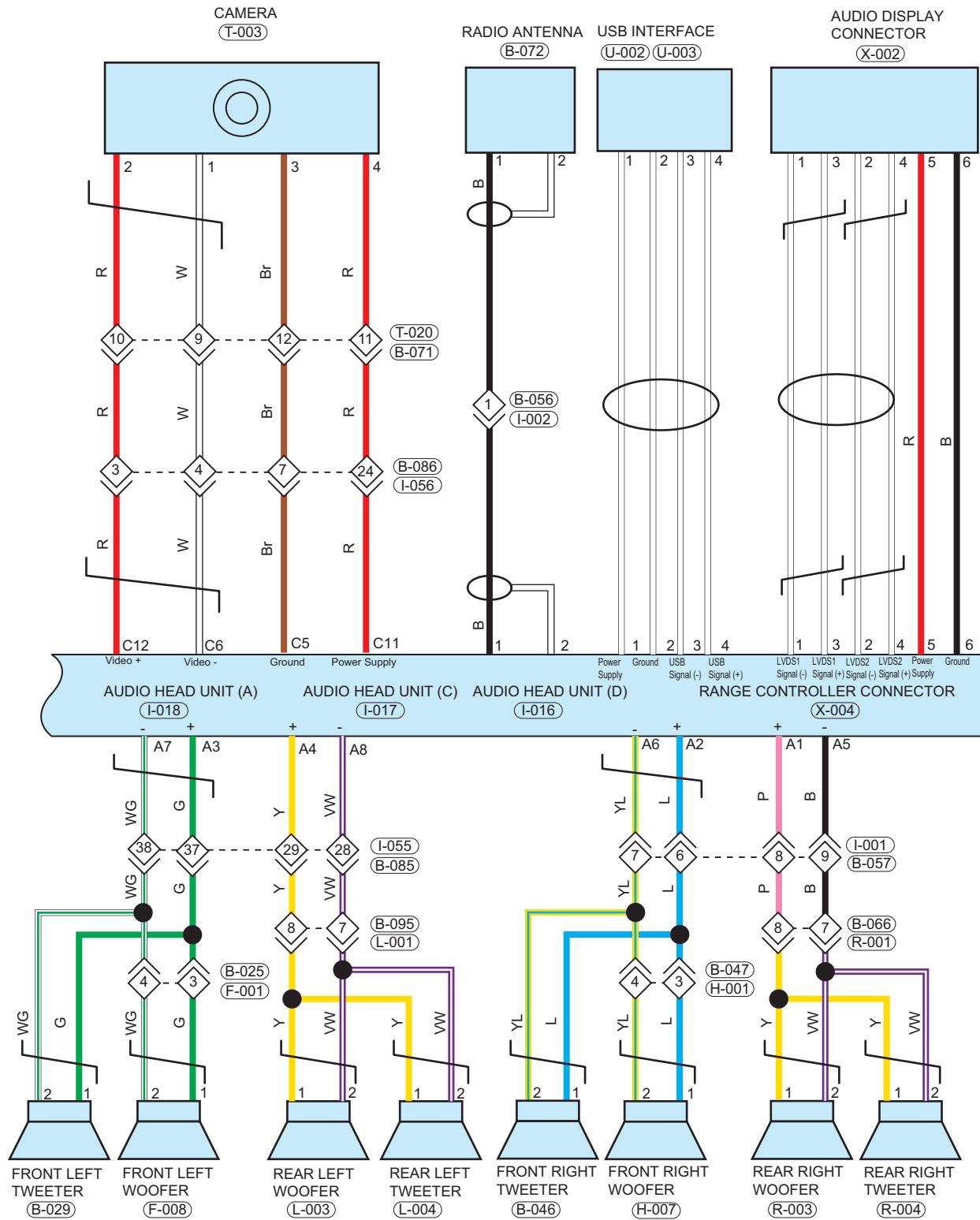
## Domain Controller (Instrument Cluster / Audio)



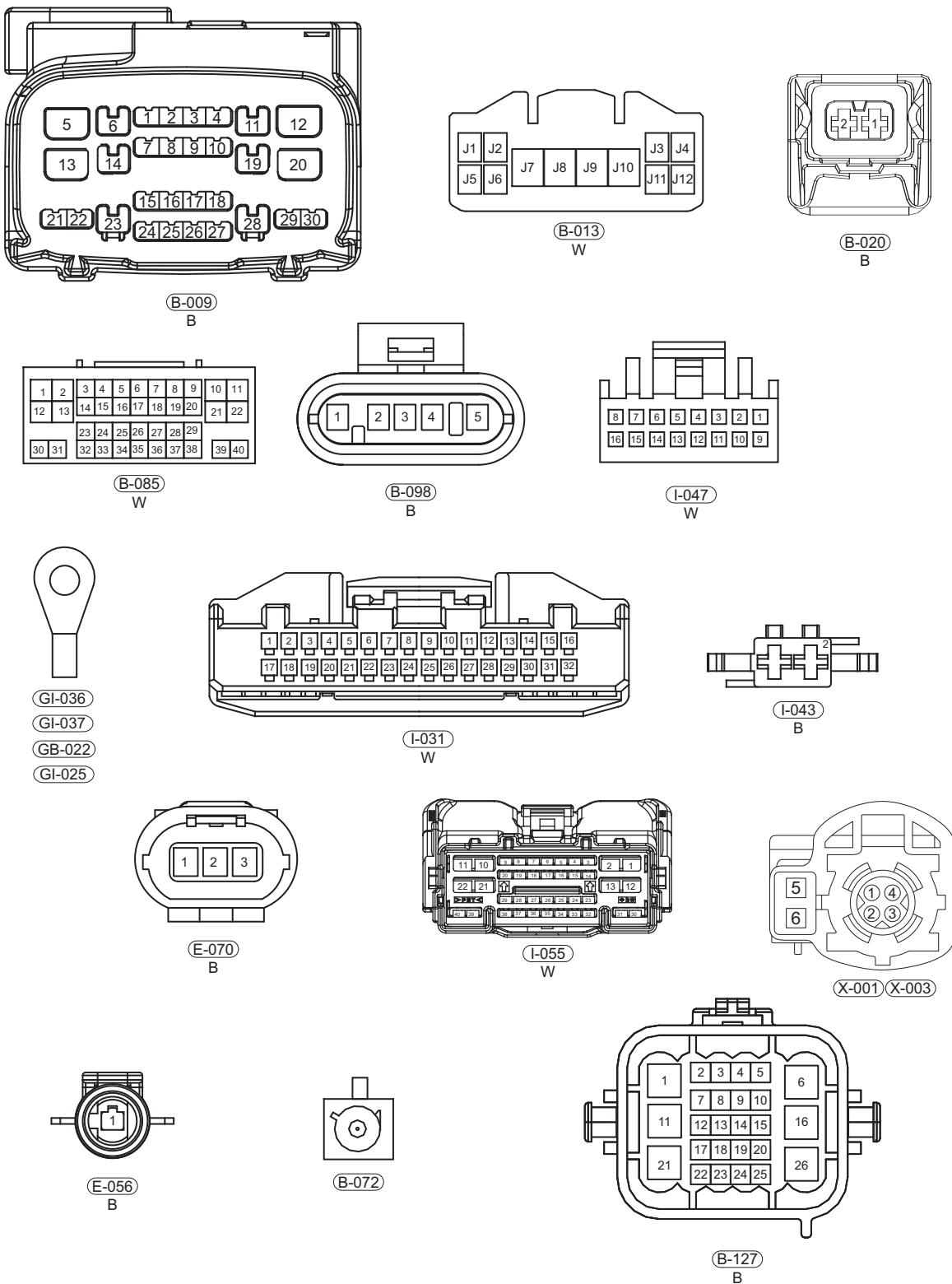
## Domain Controller(Instrument Cluster / Audio)



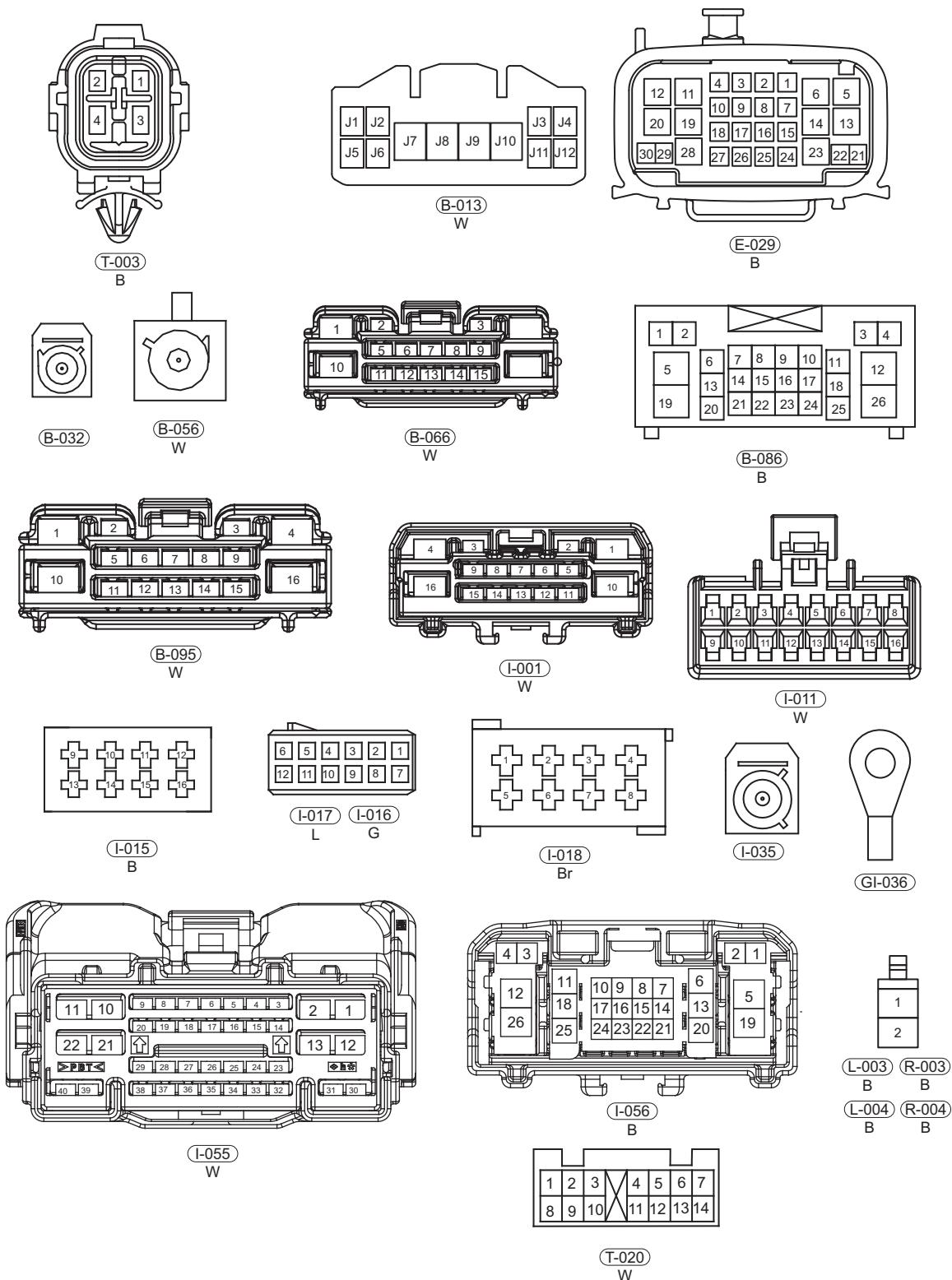
## Domain Controller(Instrument Cluster / Audio)



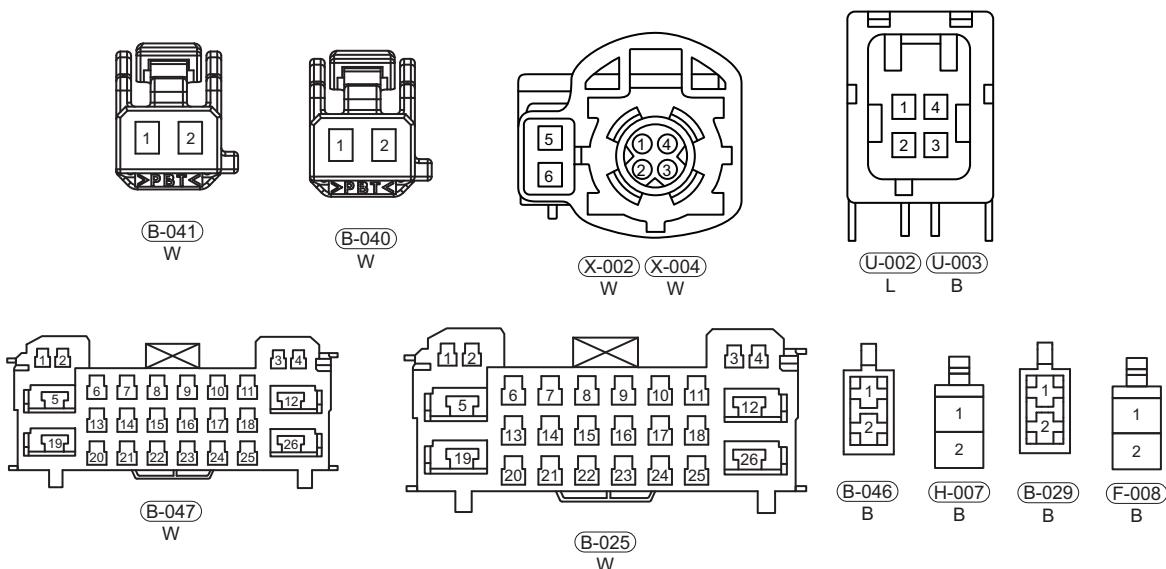
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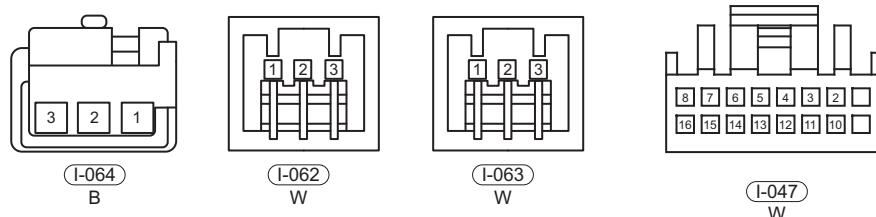
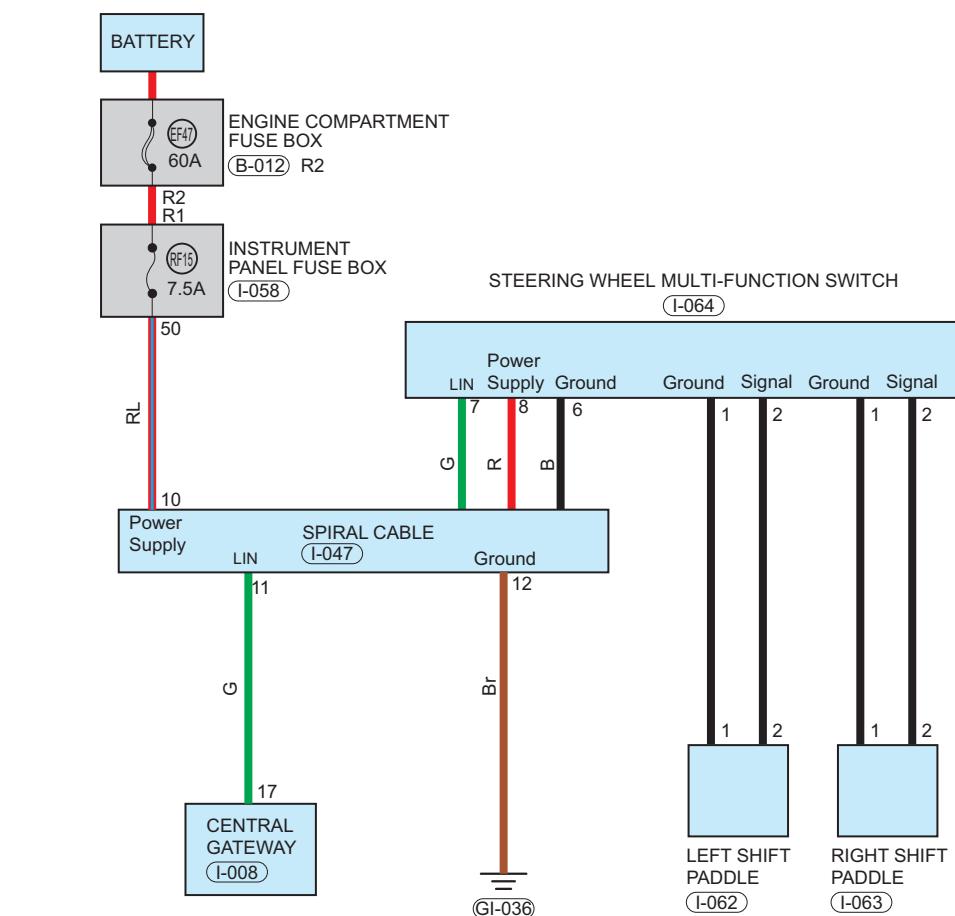
## Domain Controller(Instrument Cluster / Audio)



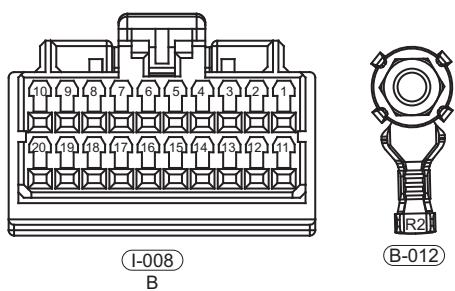
## Domain Controller(Instrument Cluster / Audio)



# Multi-function Steering Wheel

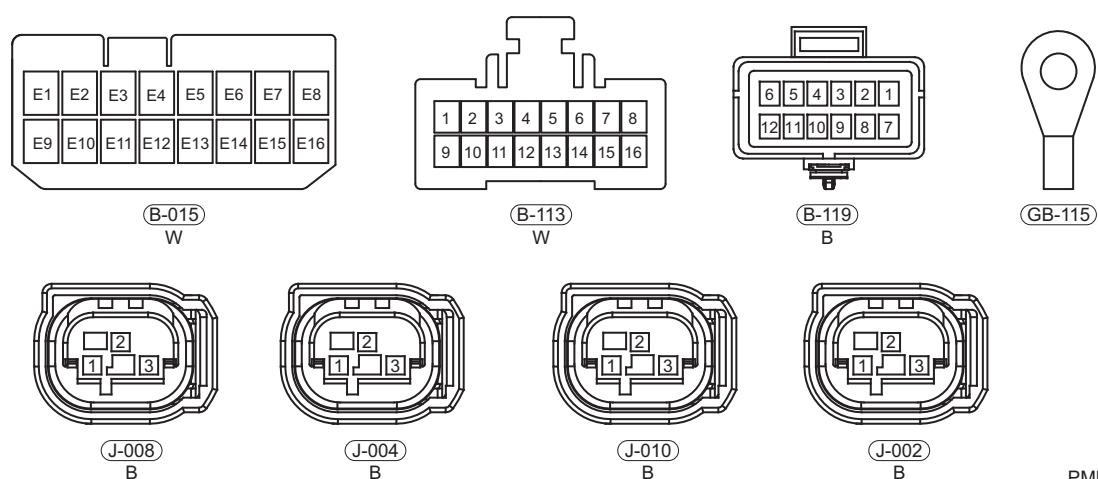
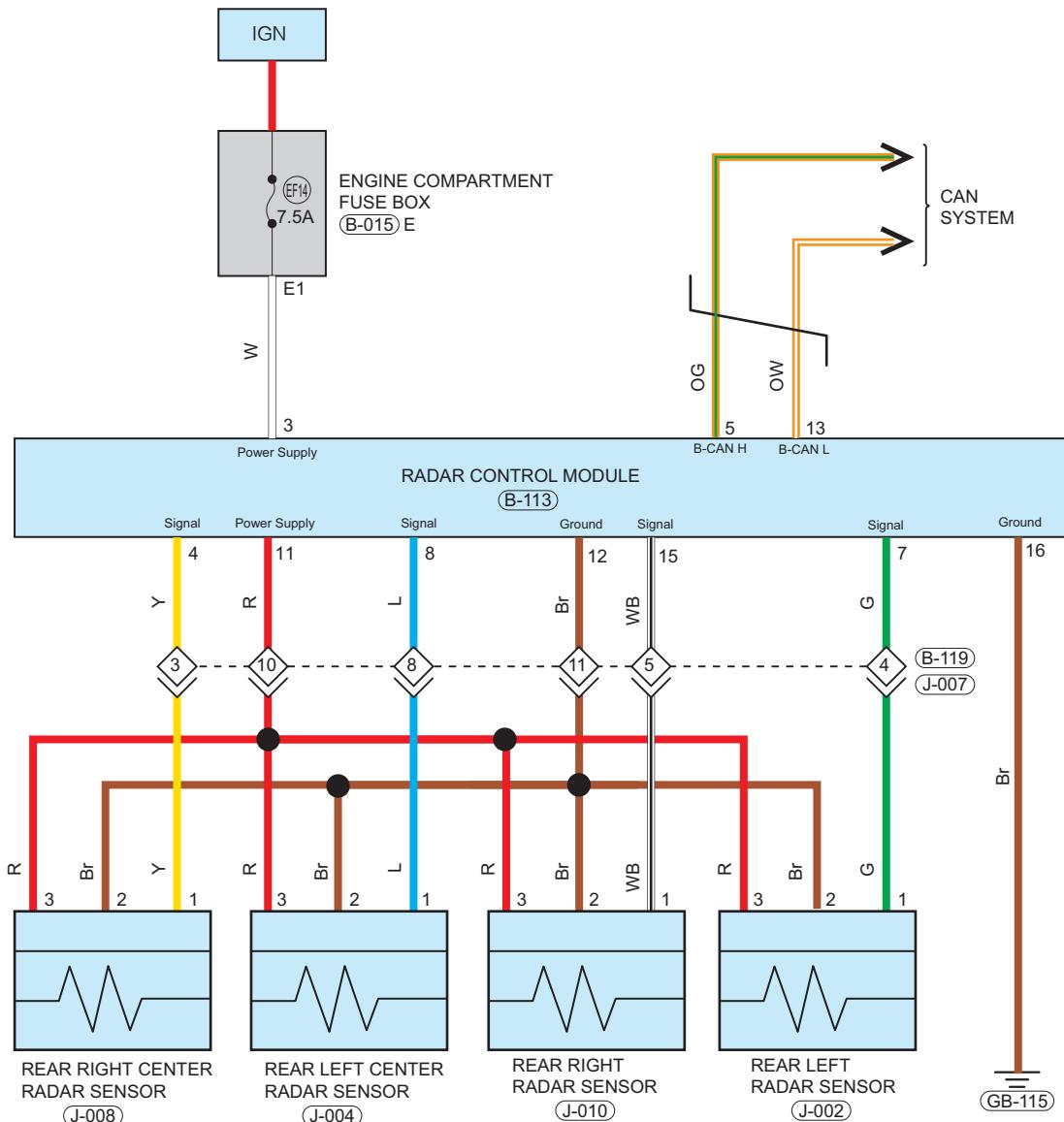


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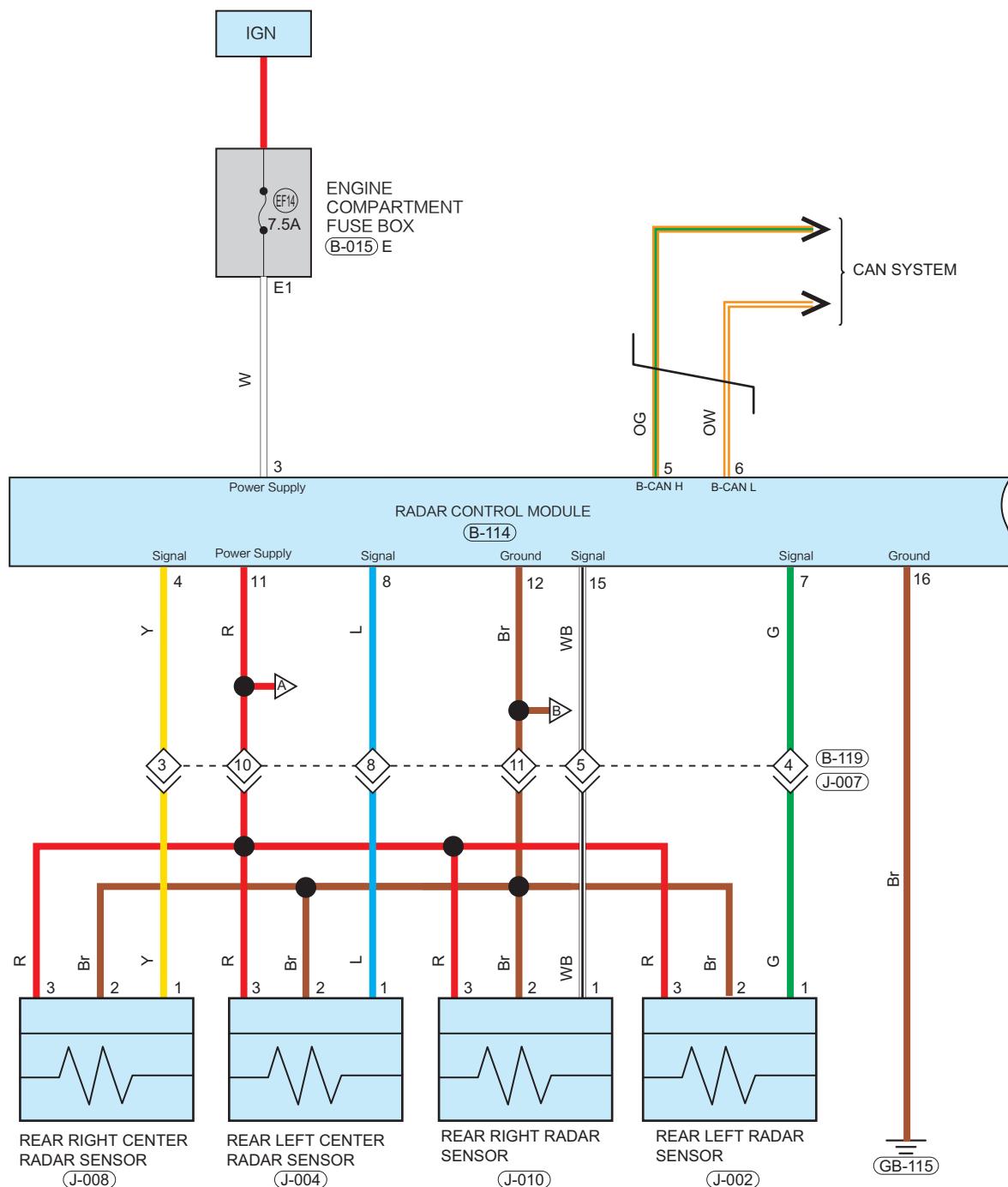


OTE004001

## Radar Assist System (RADAR)

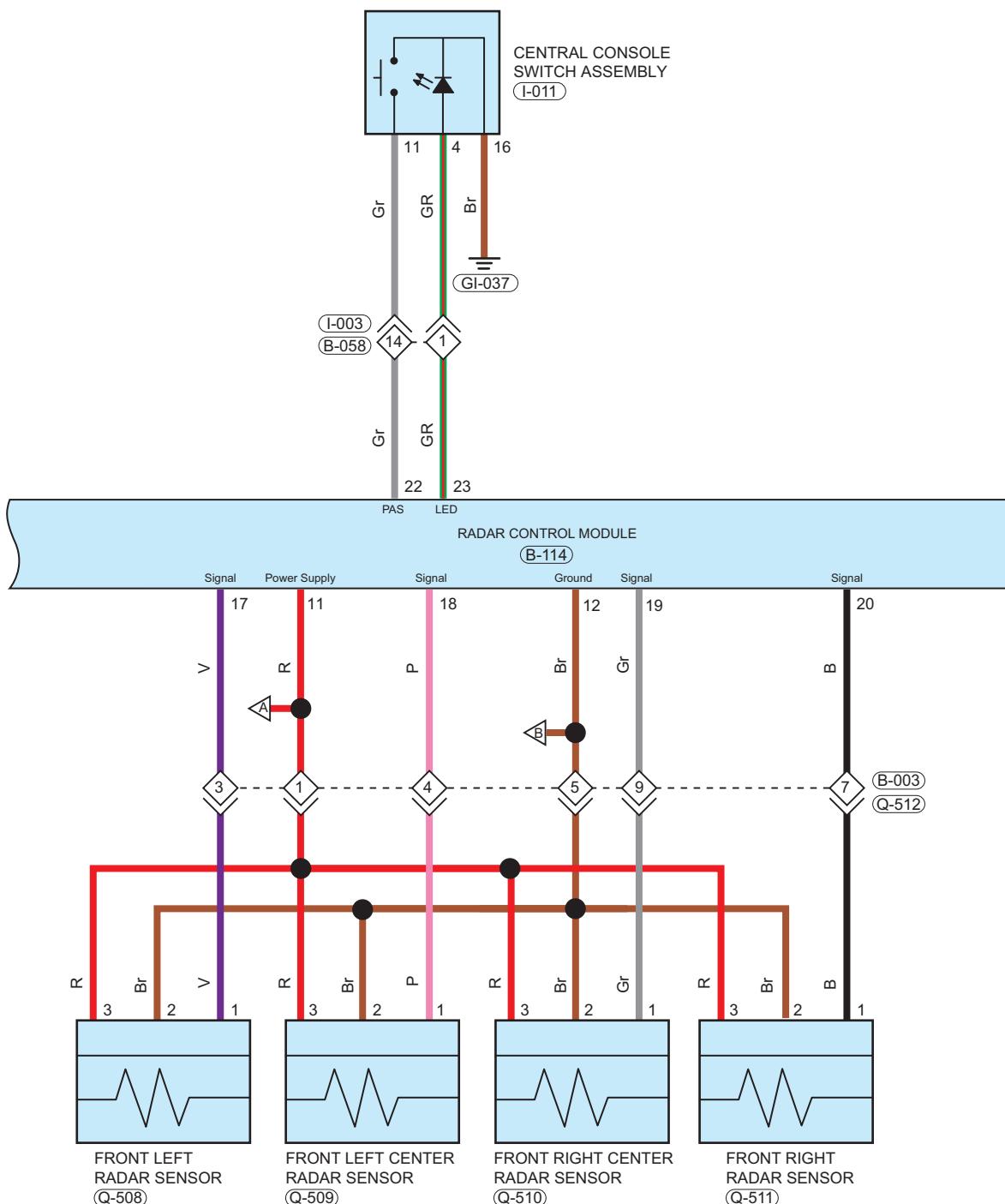


# Radar Assist System (RADAR)



PME001002

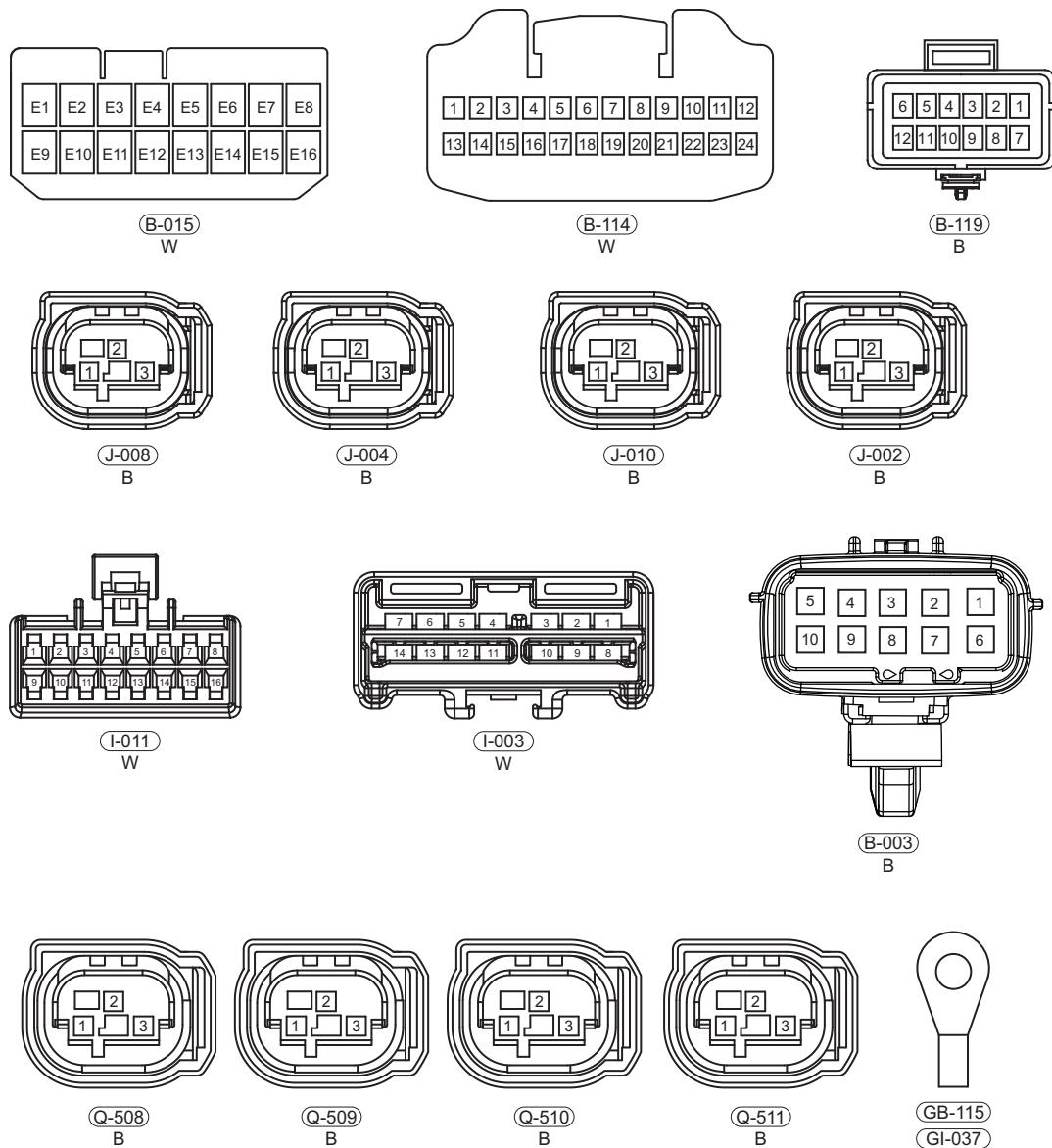
# Radar Assist System (RADAR)



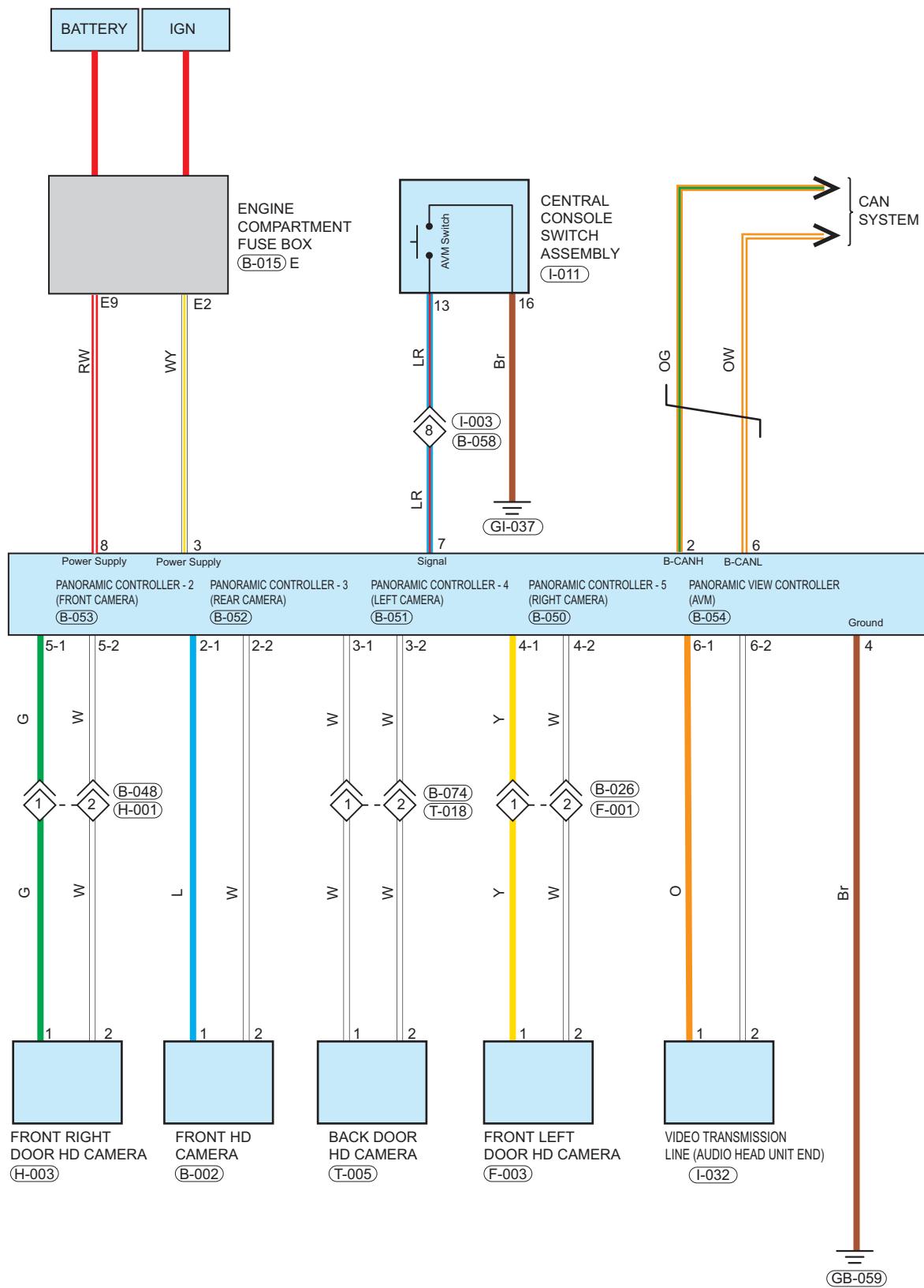
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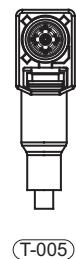
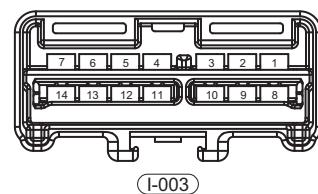
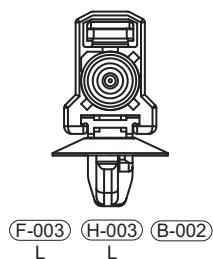
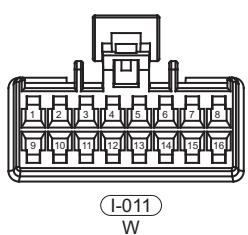
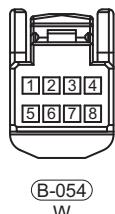
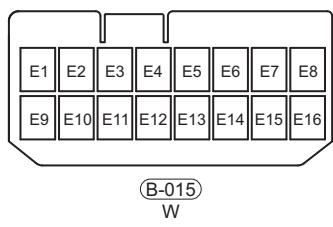
## Radar Assist System (RADAR)



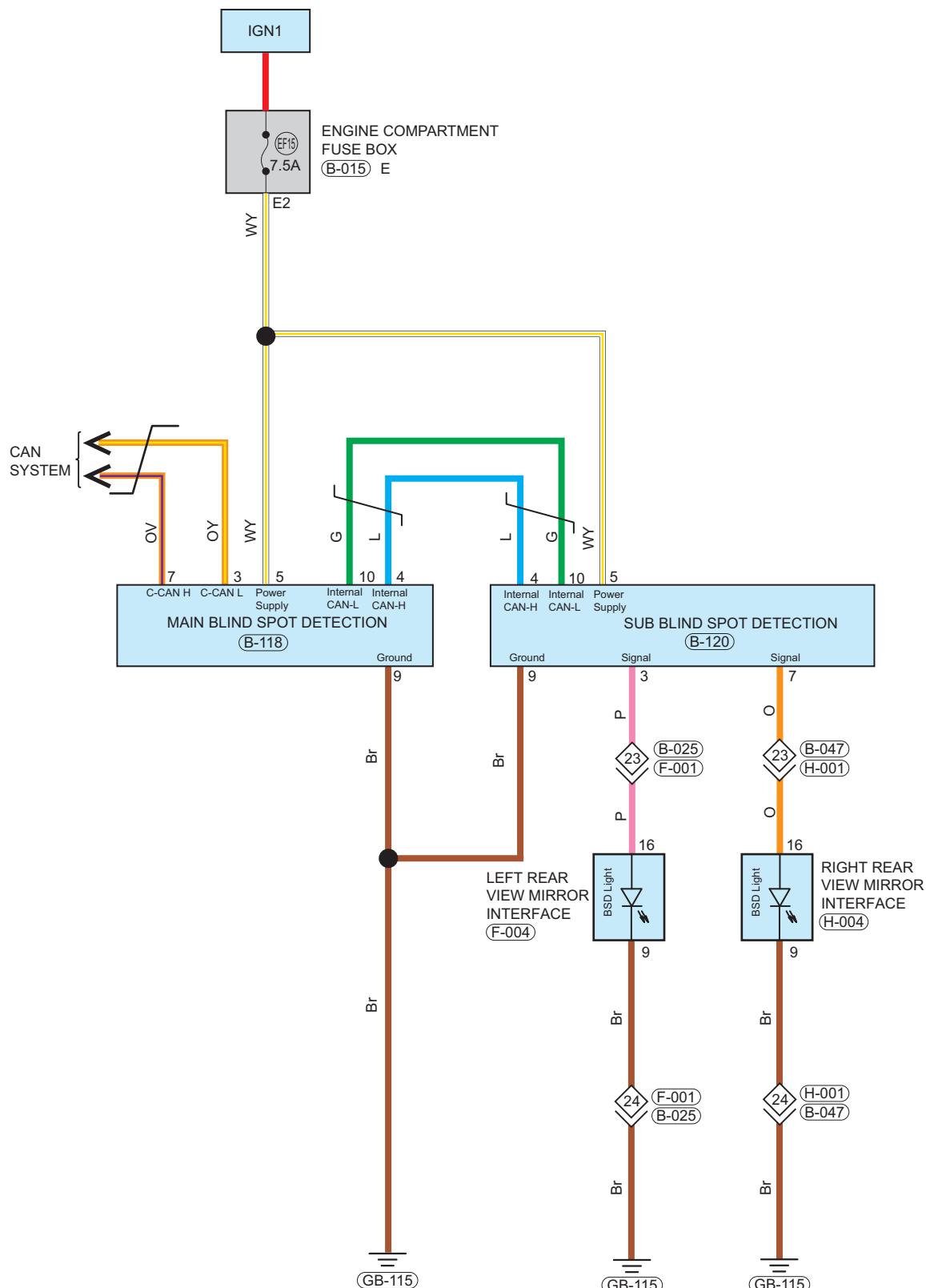
# Panoramic View Monitor System (AVM) (Prestigious, Luxury)



## Panoramic View Monitor System (AVM) (Prestigious, Luxury)



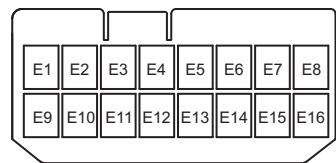
# Blind Spot Detection System (BSD)



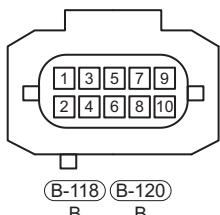
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BSE001001

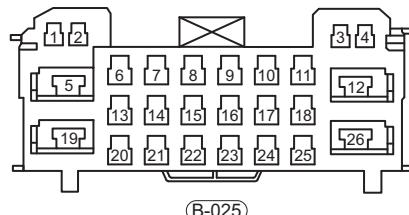
## Blind Spot Detection System (BSD)



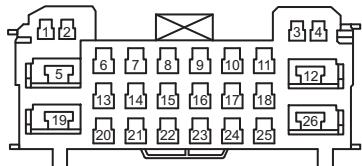
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W



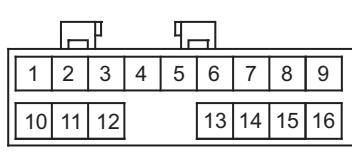
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B      B



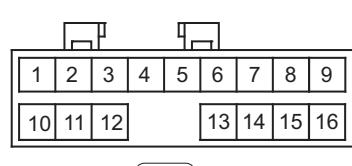
(B-025)  
W



(B-047)  
W



(F-004)  
W

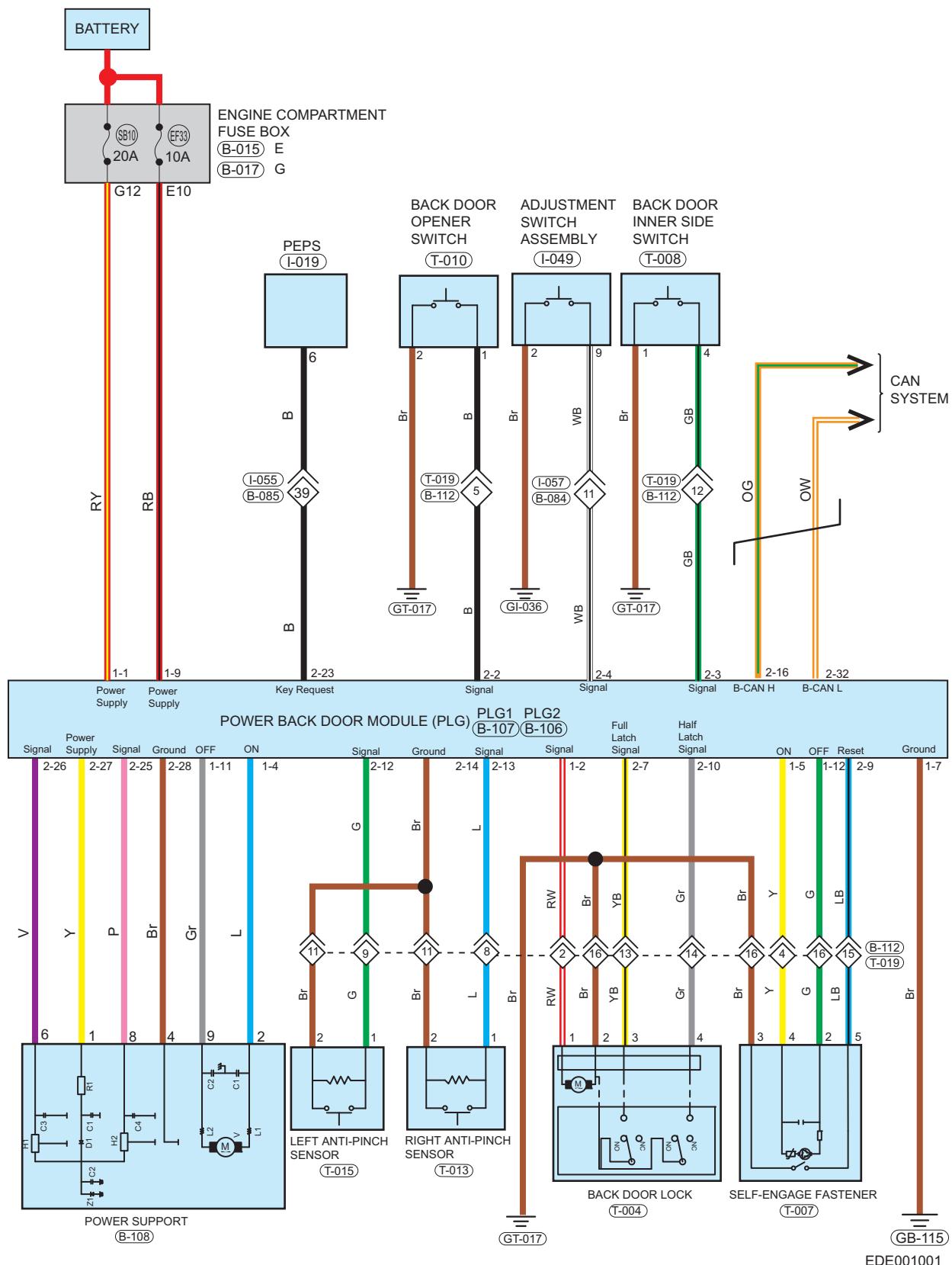


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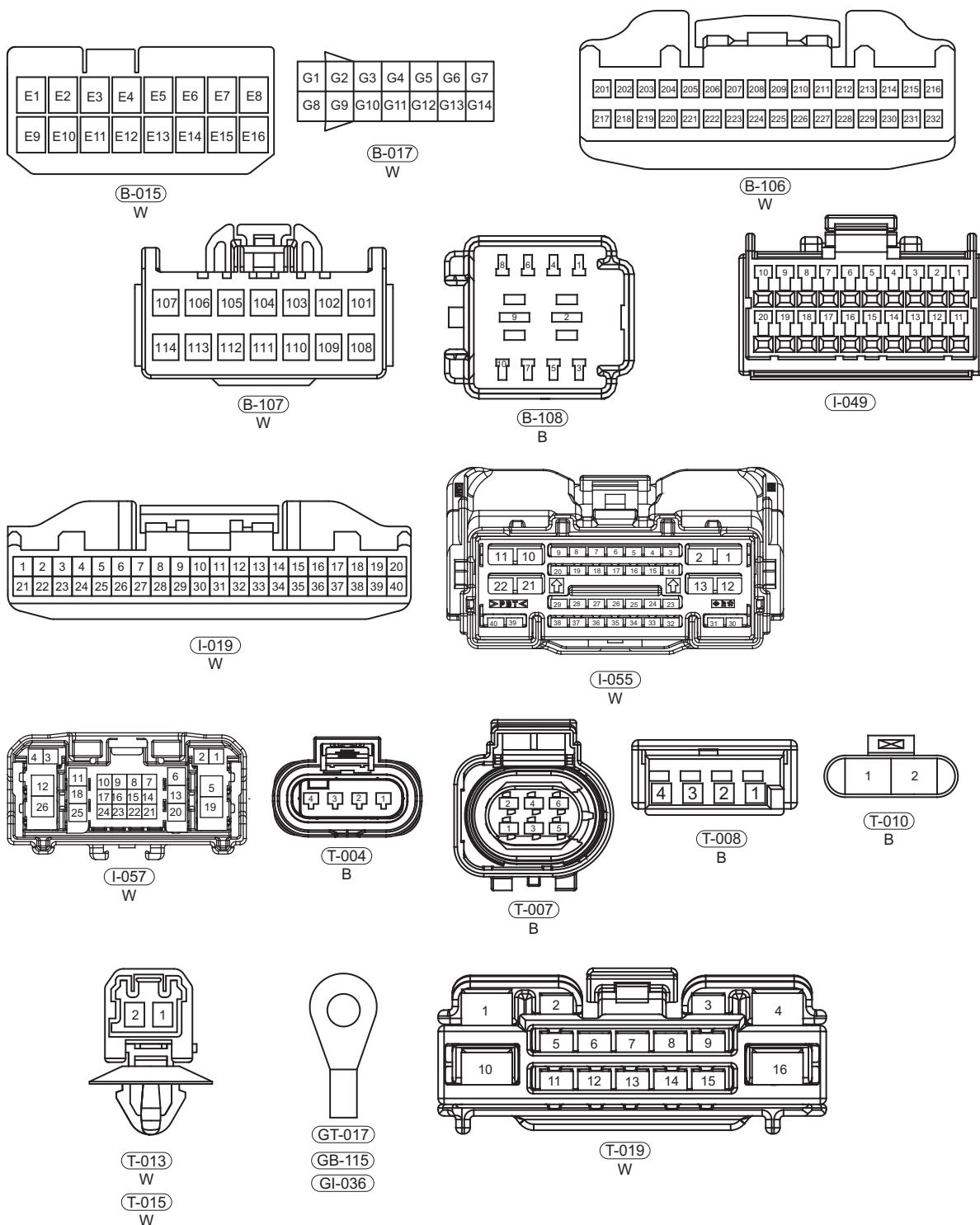


(GB-115)

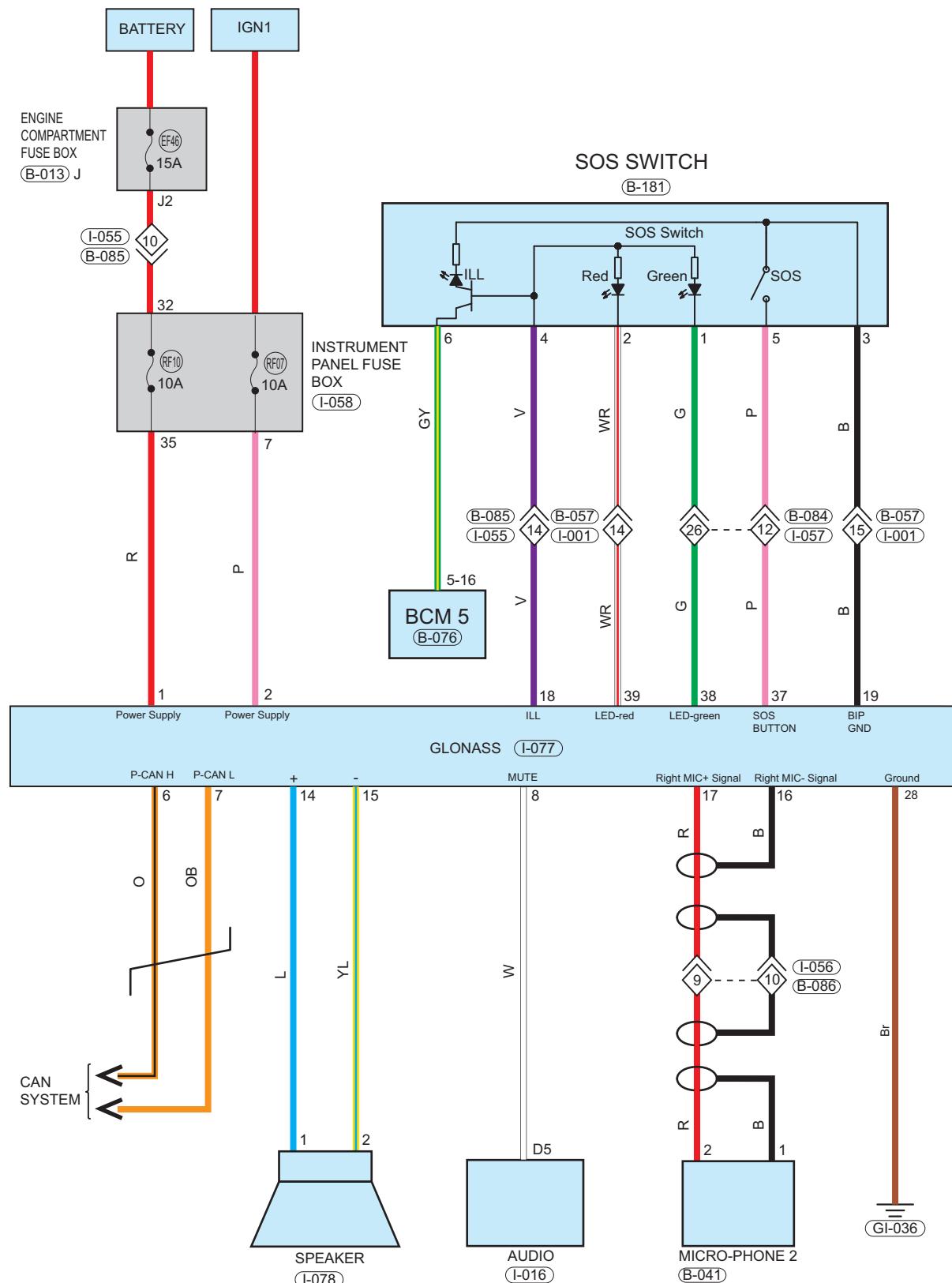
# Power Back Door System (PLG)



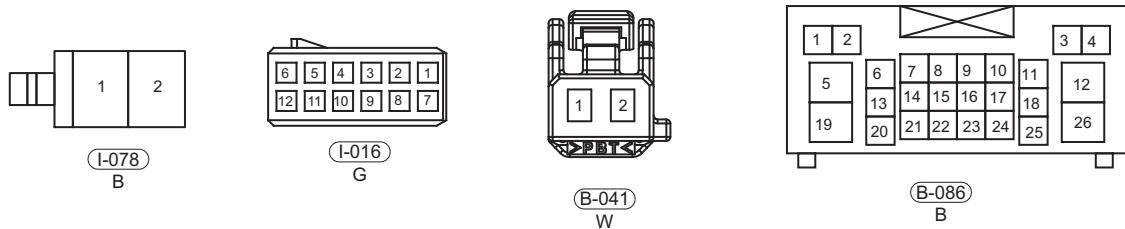
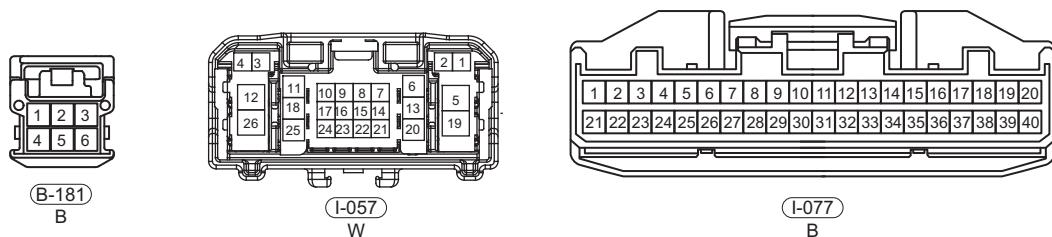
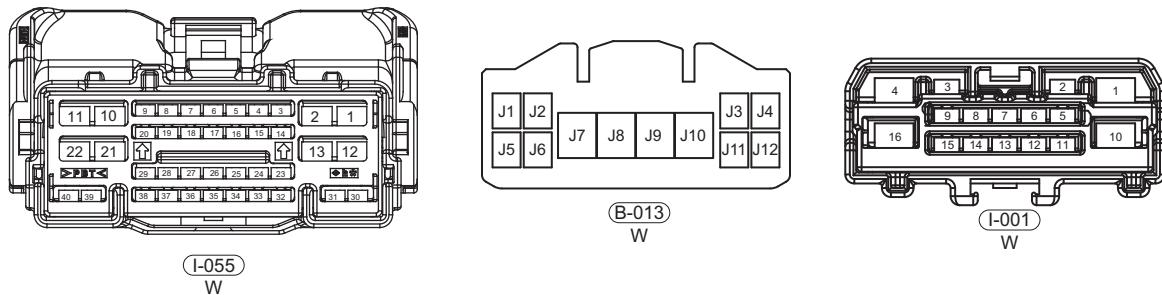
## Power Back Door System (PLG)



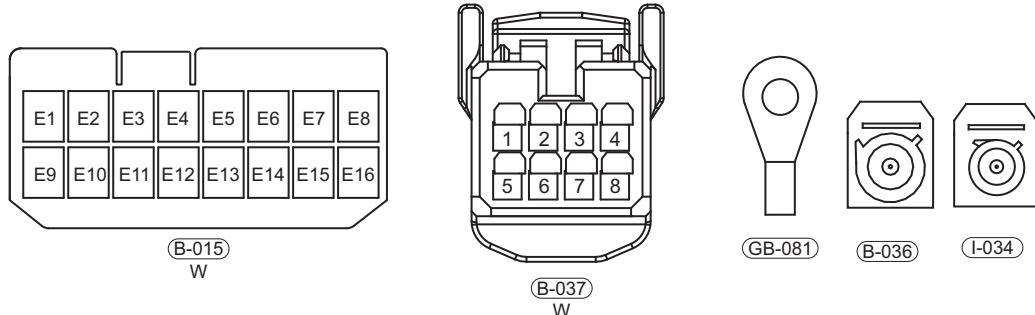
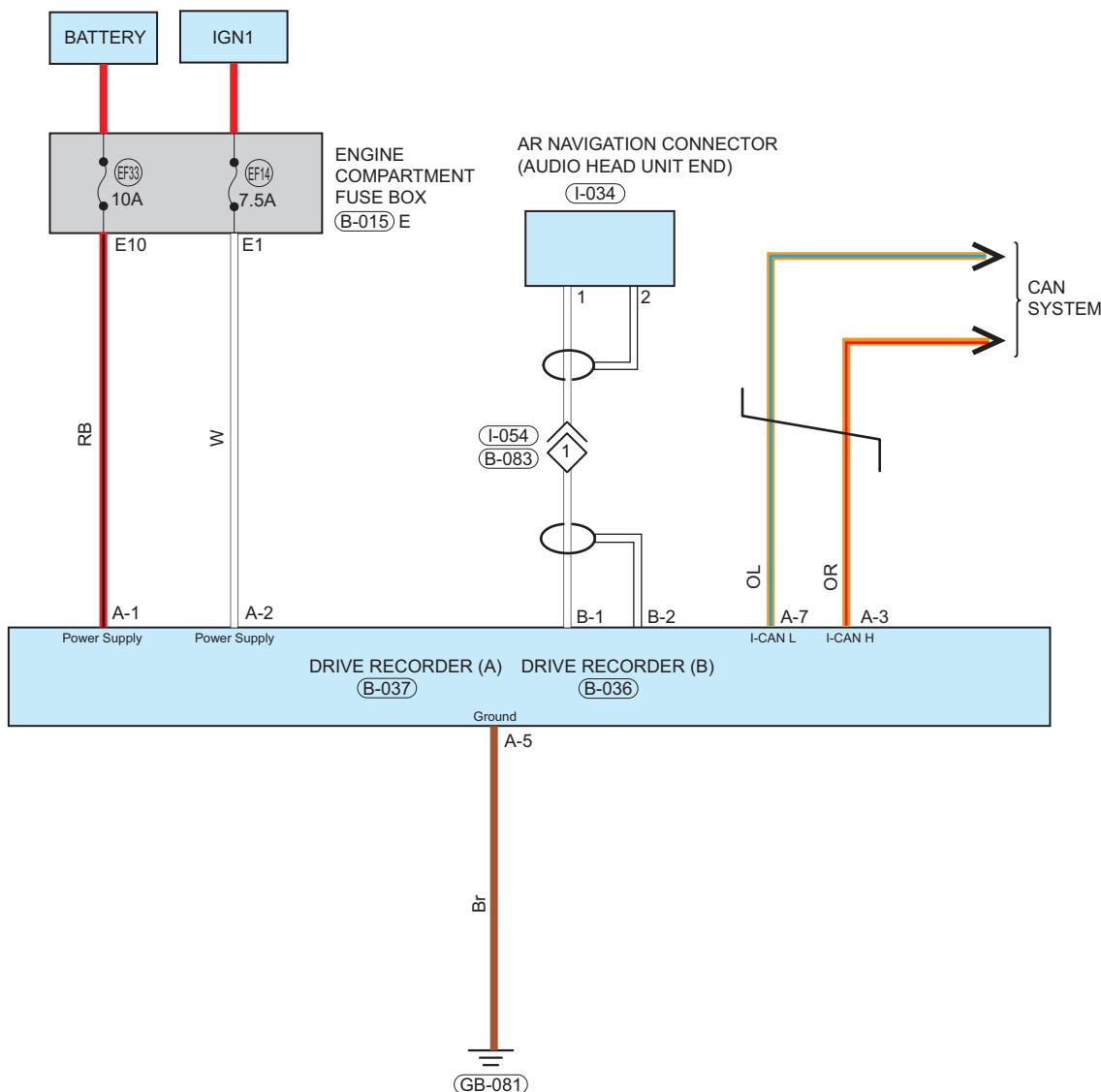
# GLONASS Global Navigation Satellite System



## GLONASS Global Navigation Satellite System



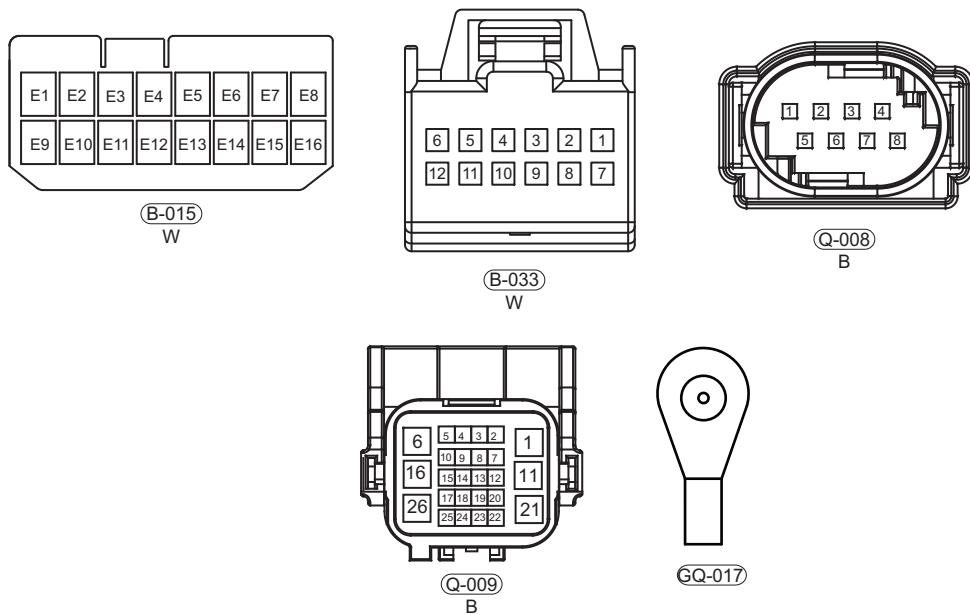
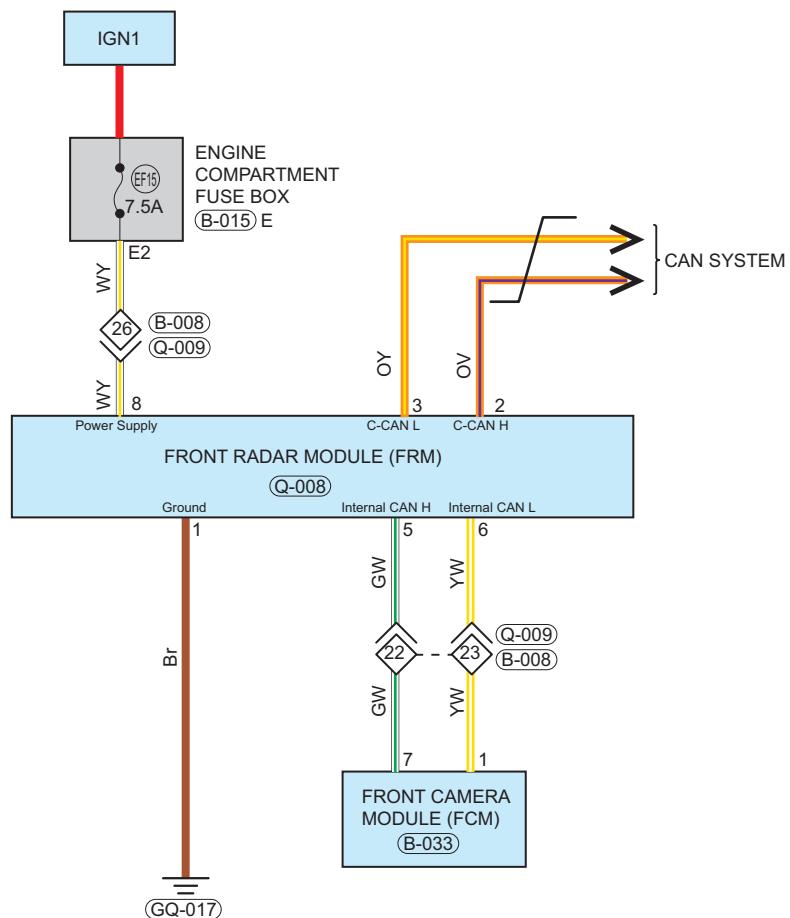
## Drive Recorder (DVR)



11

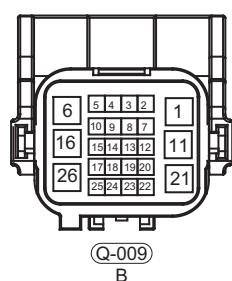
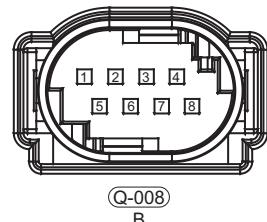
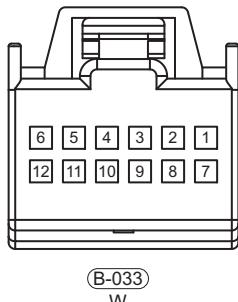
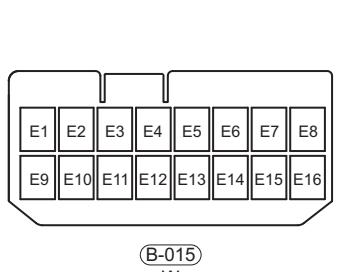
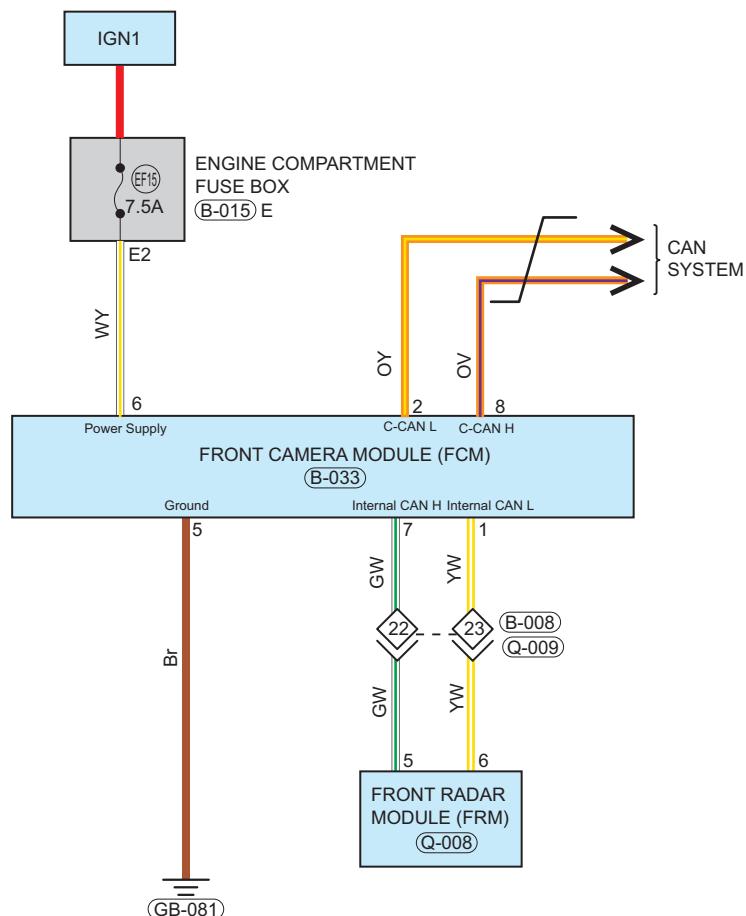
DVE001001

## Front Radar Module (FRM)

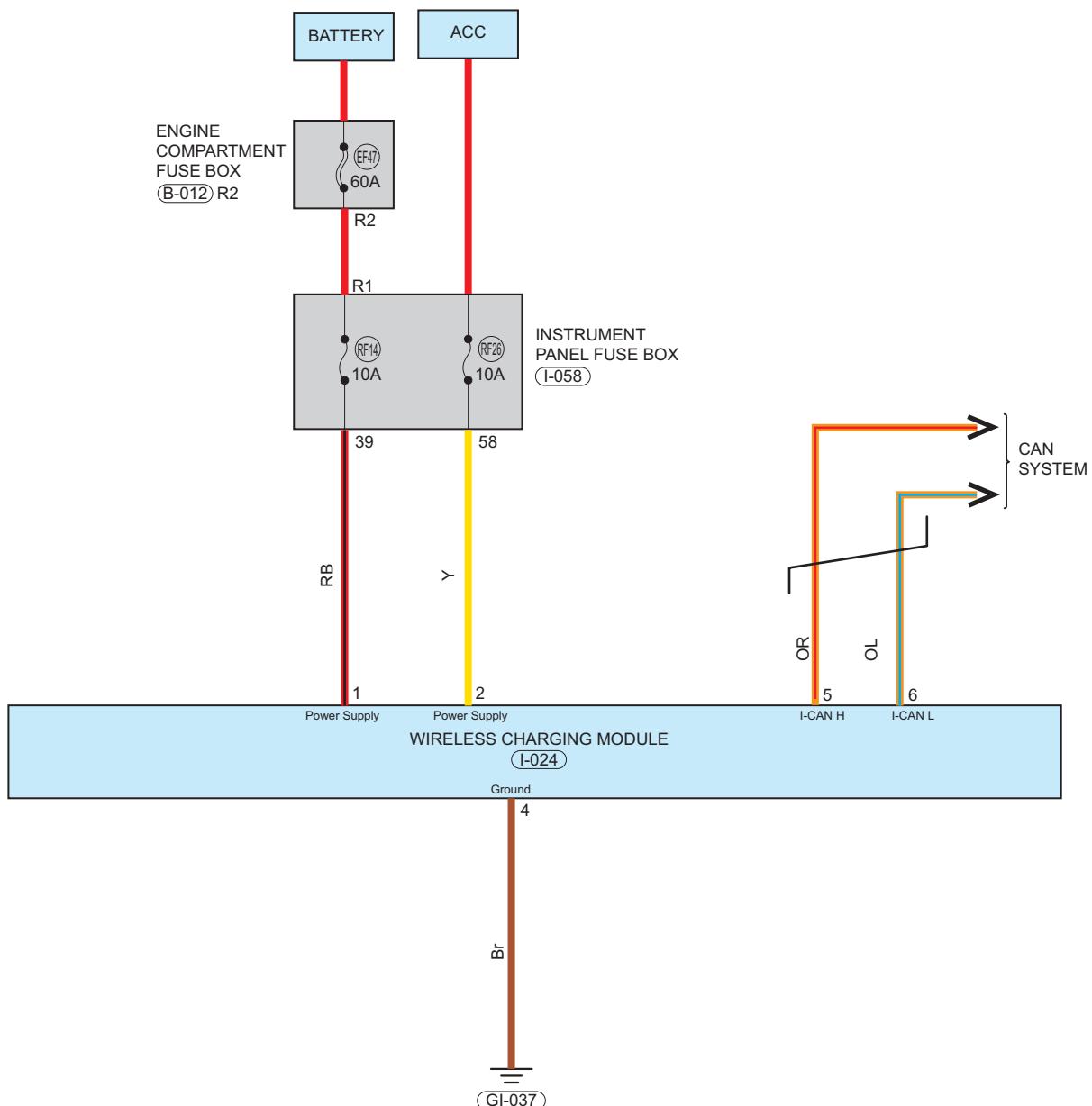


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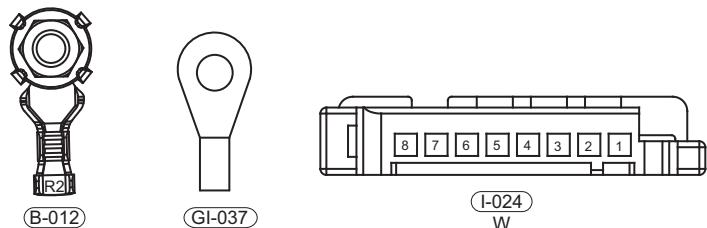
## Front Camera System (FCM)



## Wireless Charging System (CWC)

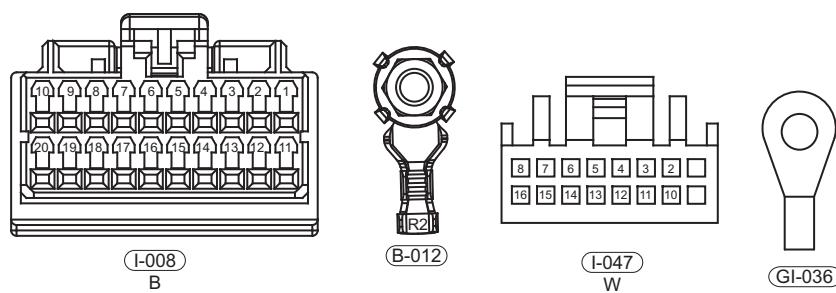
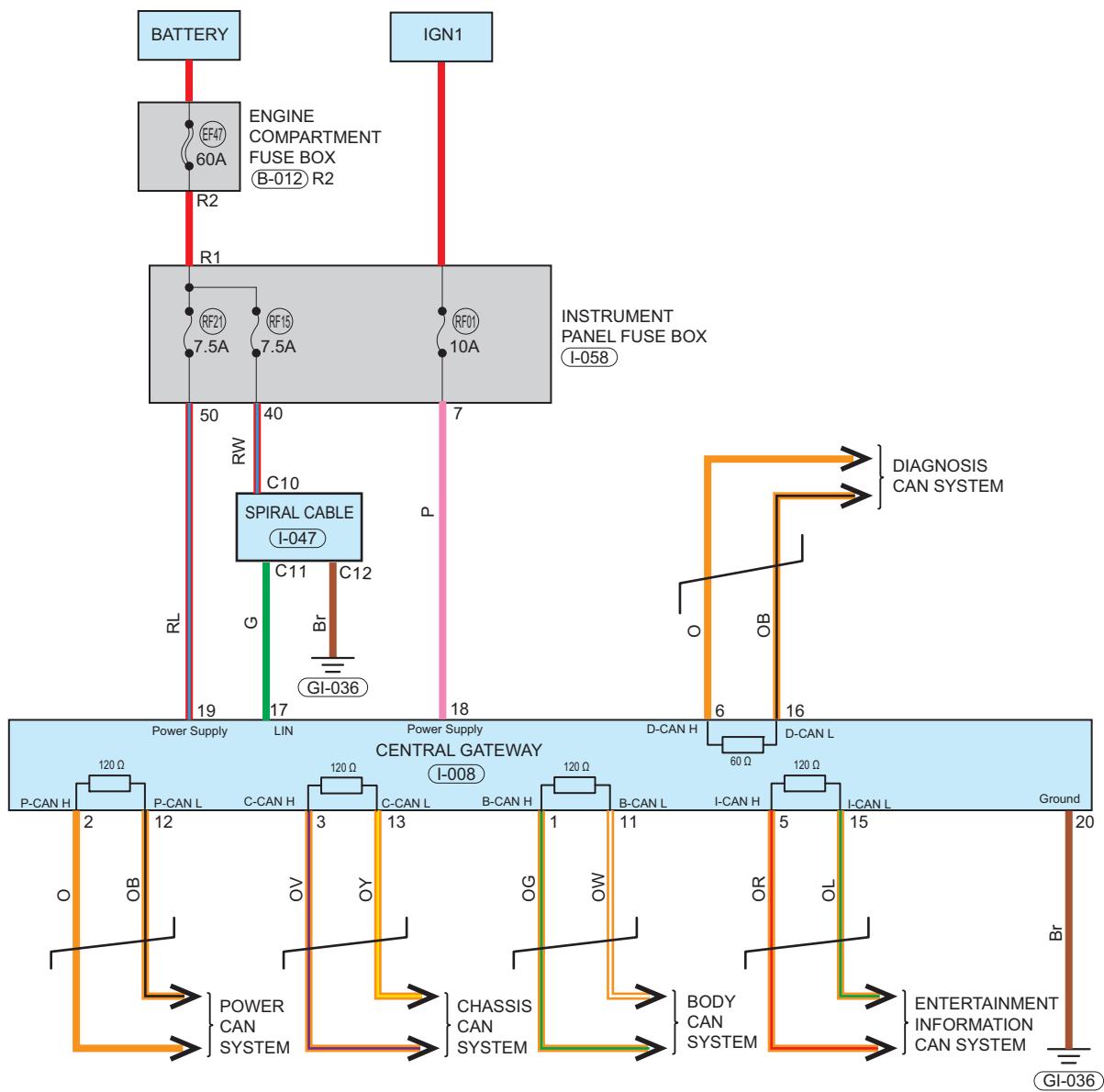


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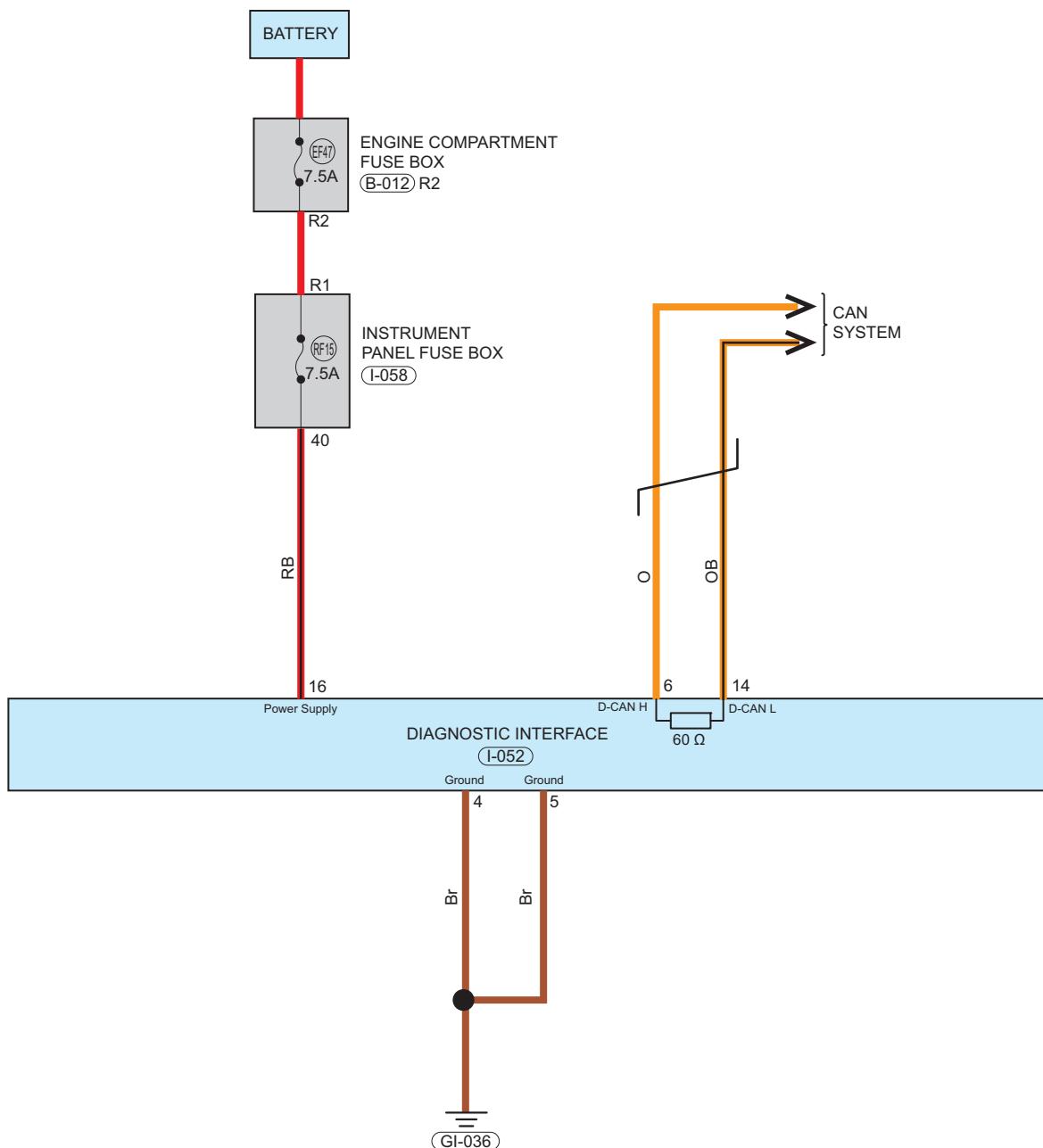


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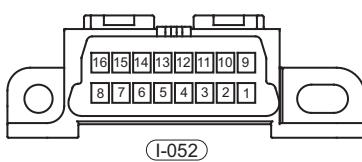
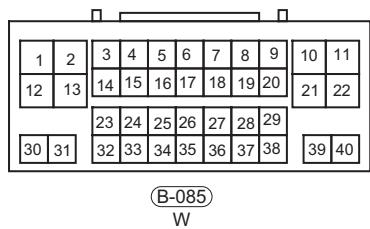
## Central Gateway (CGW)



# Diagnostic Interface

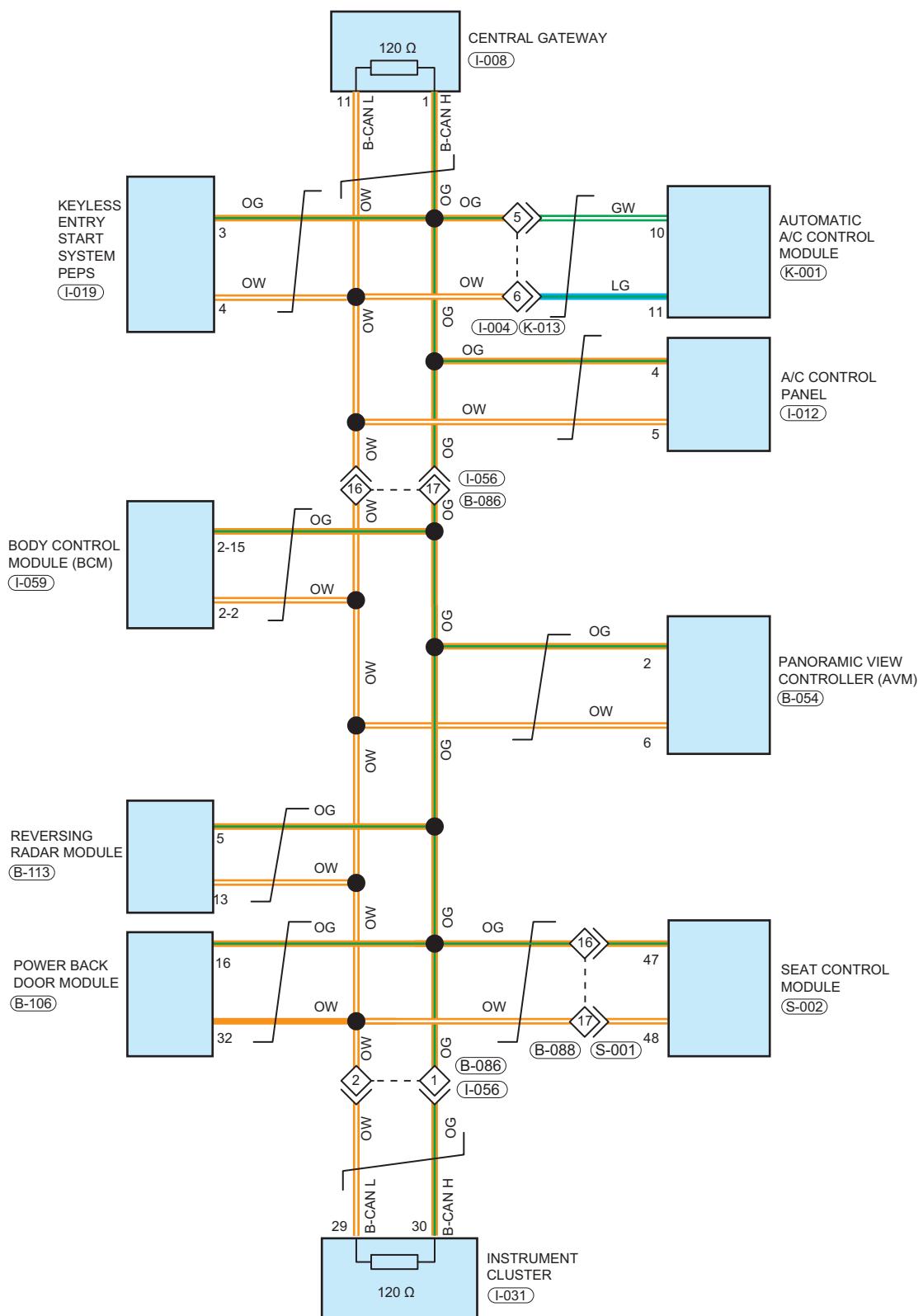


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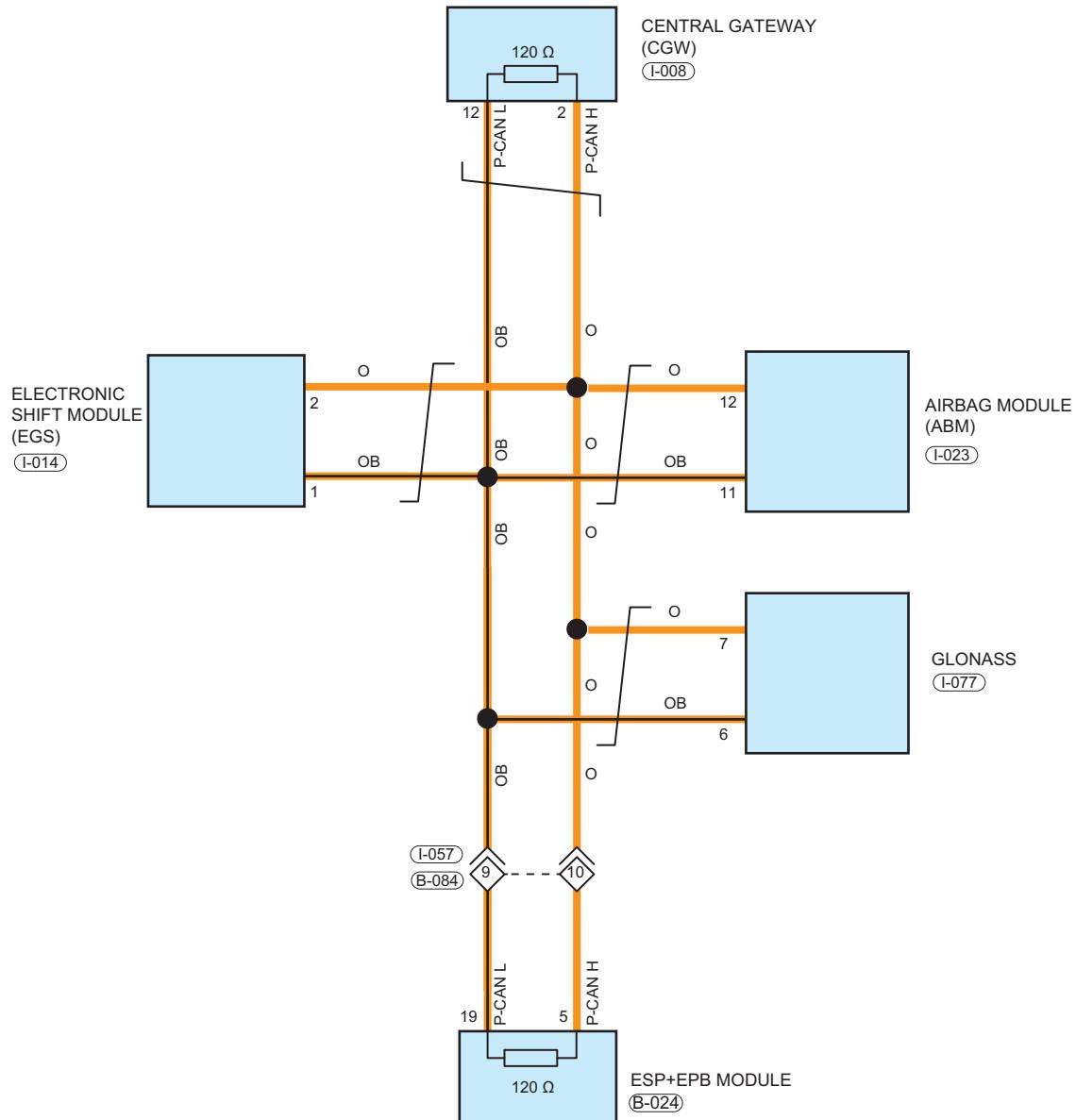


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# Body CAN System



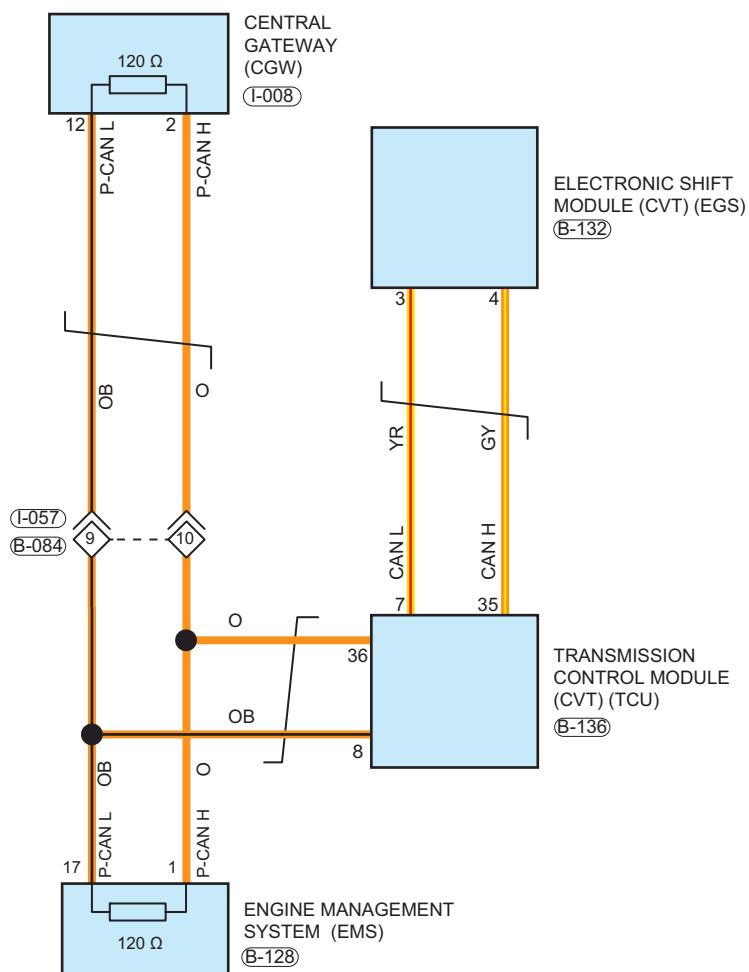
# Power CAN System



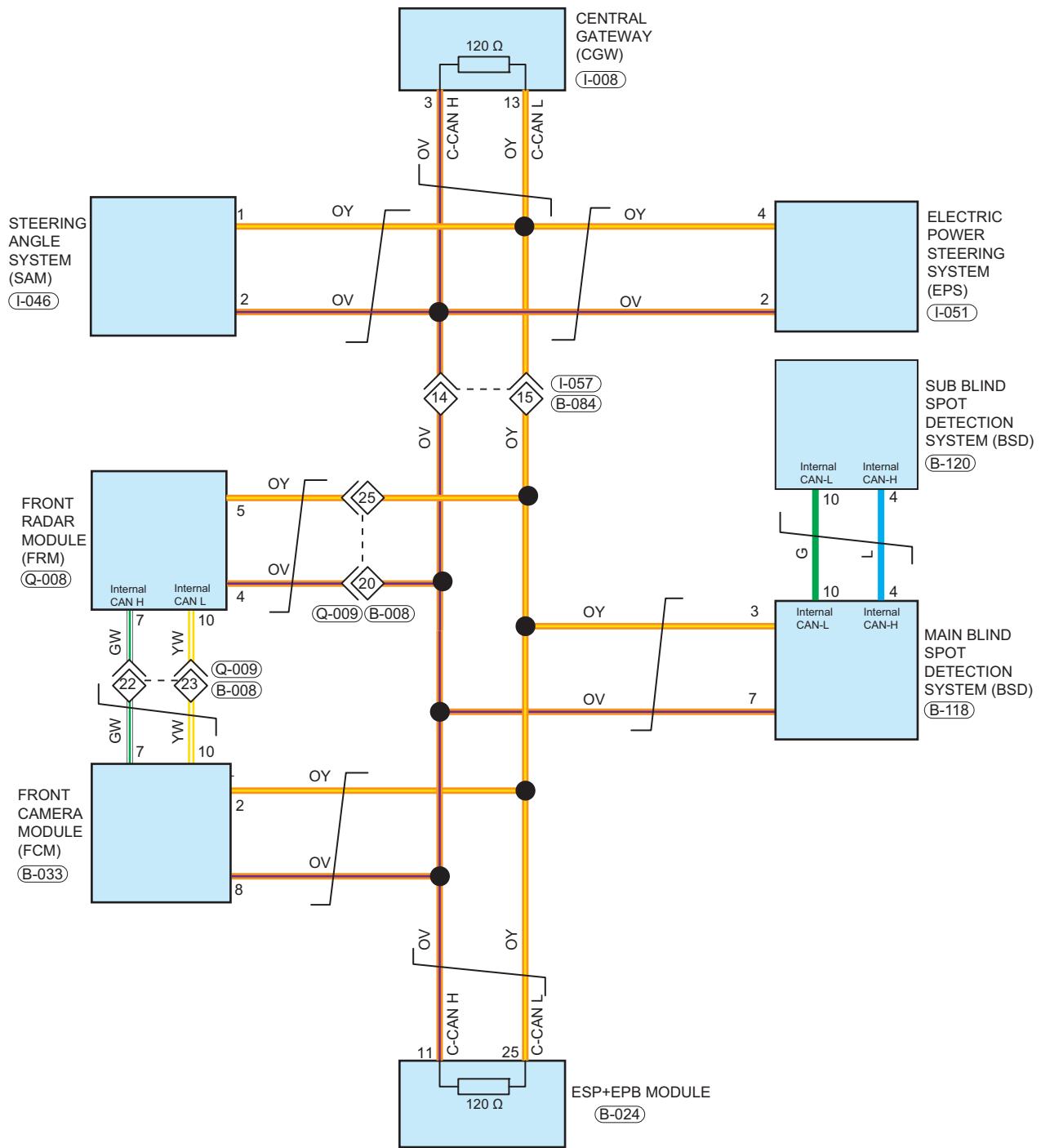
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CAE003001

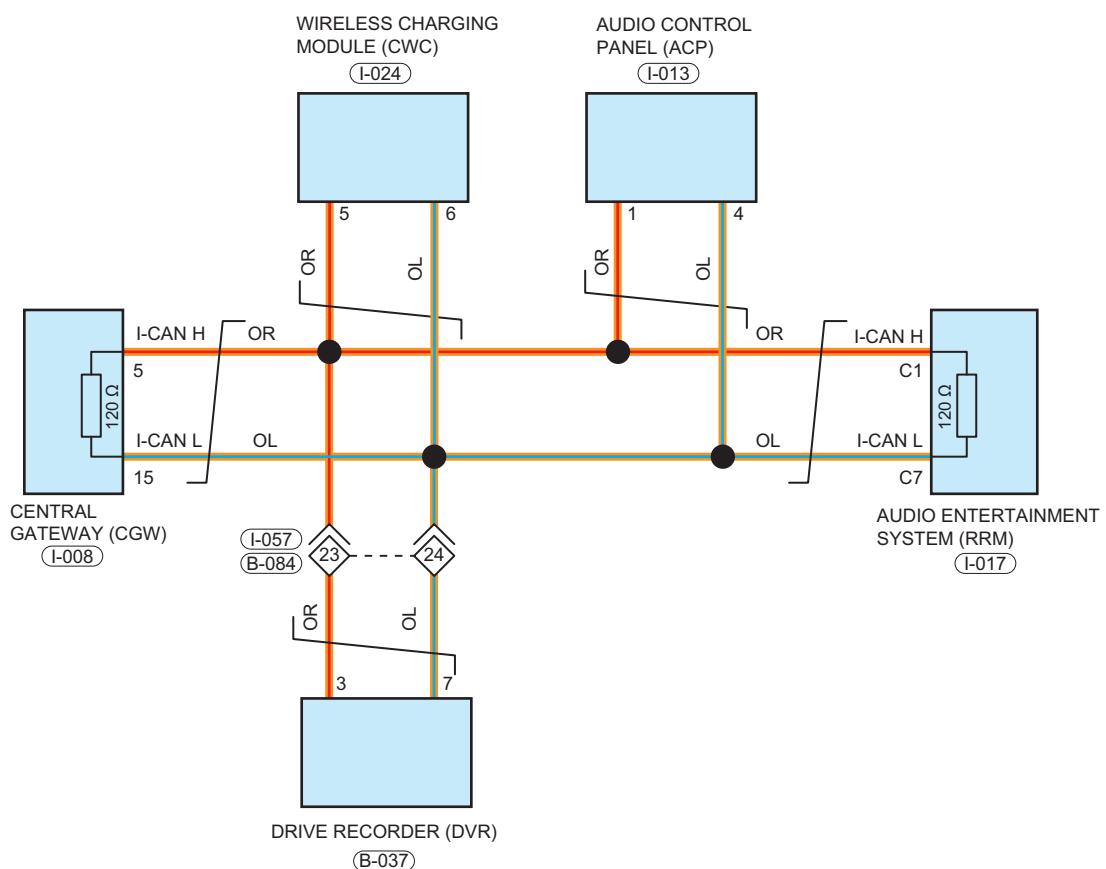
# Power CAN System



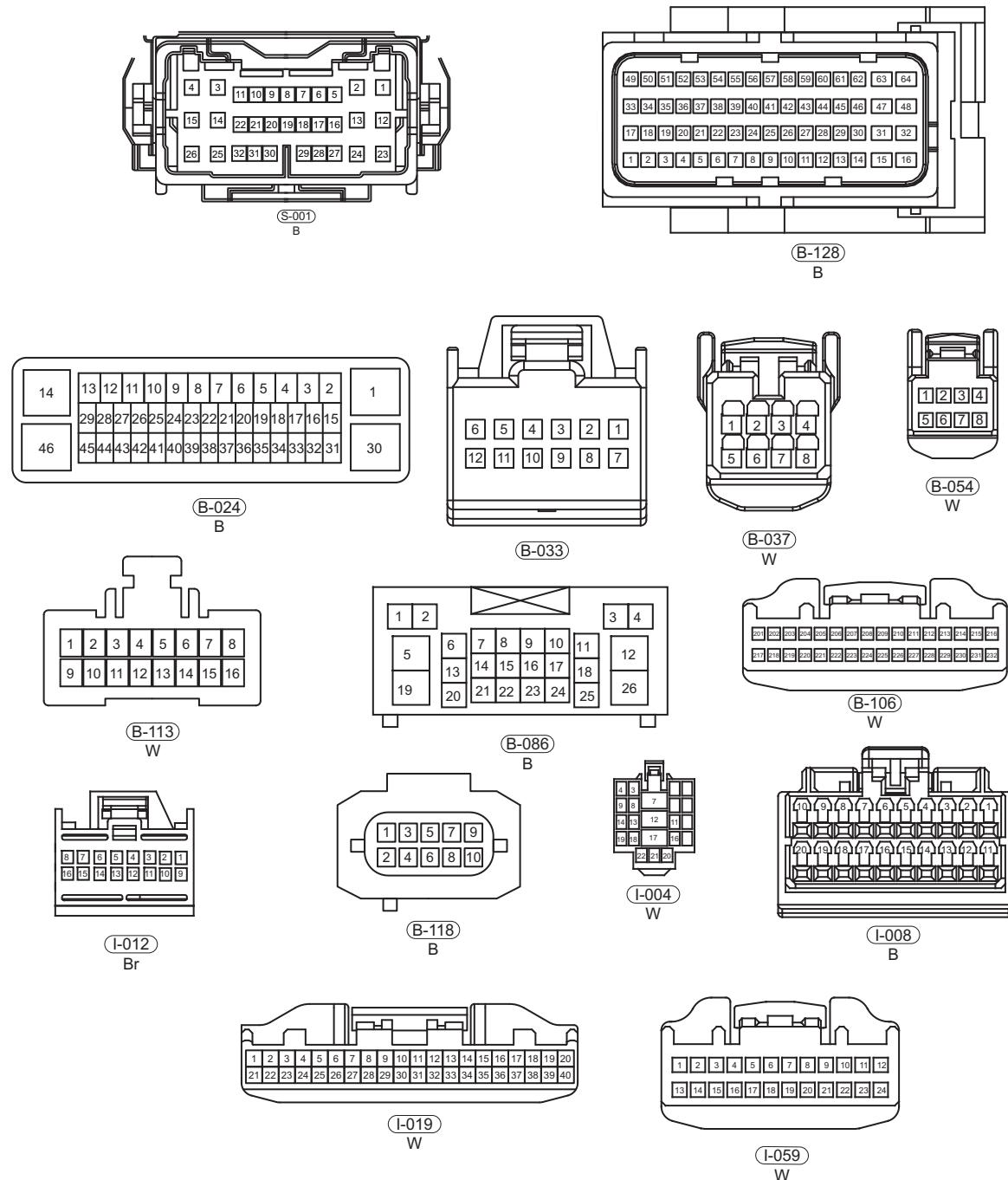
# Chassis CAN System



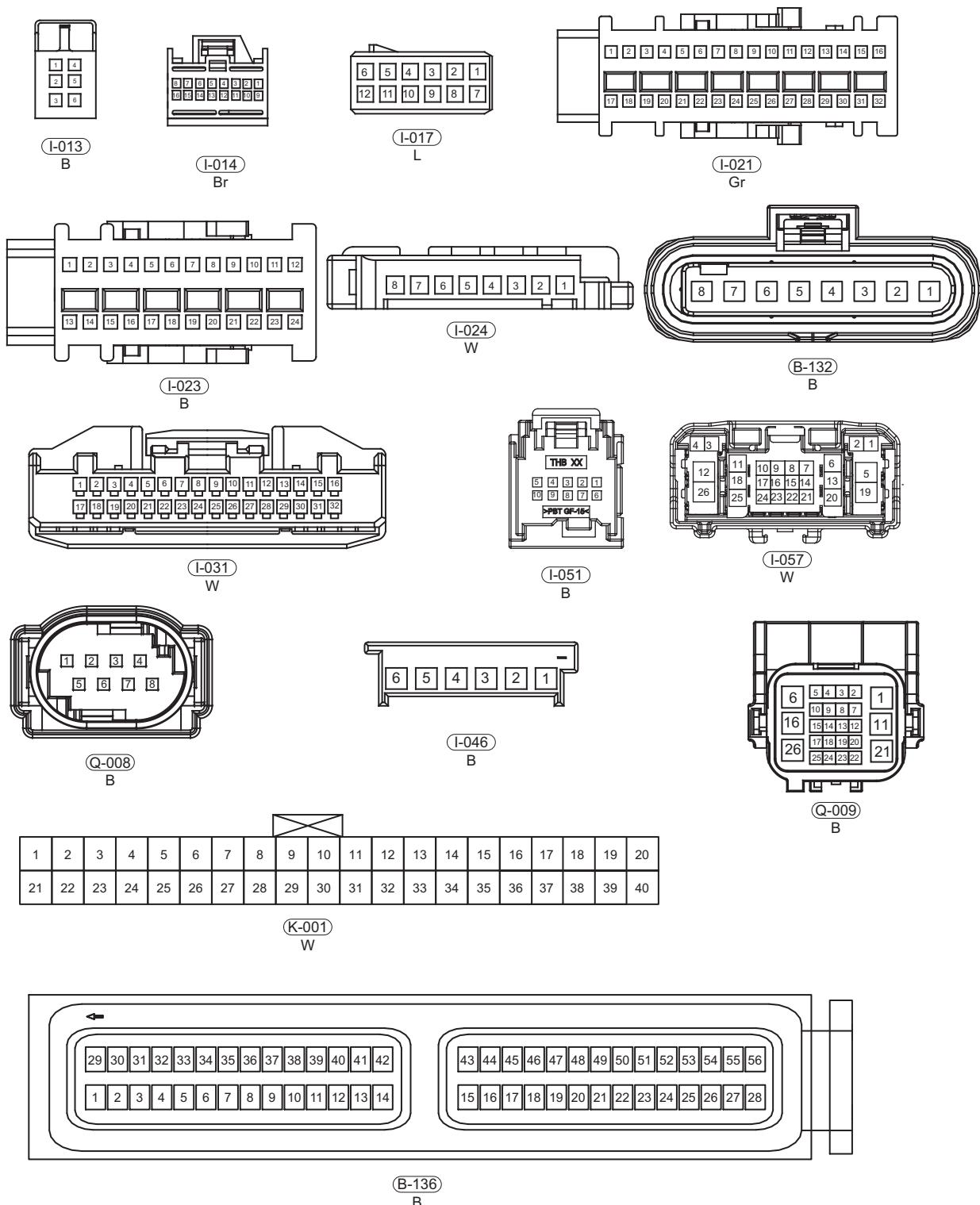
# Entertainment Information CAN System



## CAN System



# CAN System



# Overall Circuit Diagram

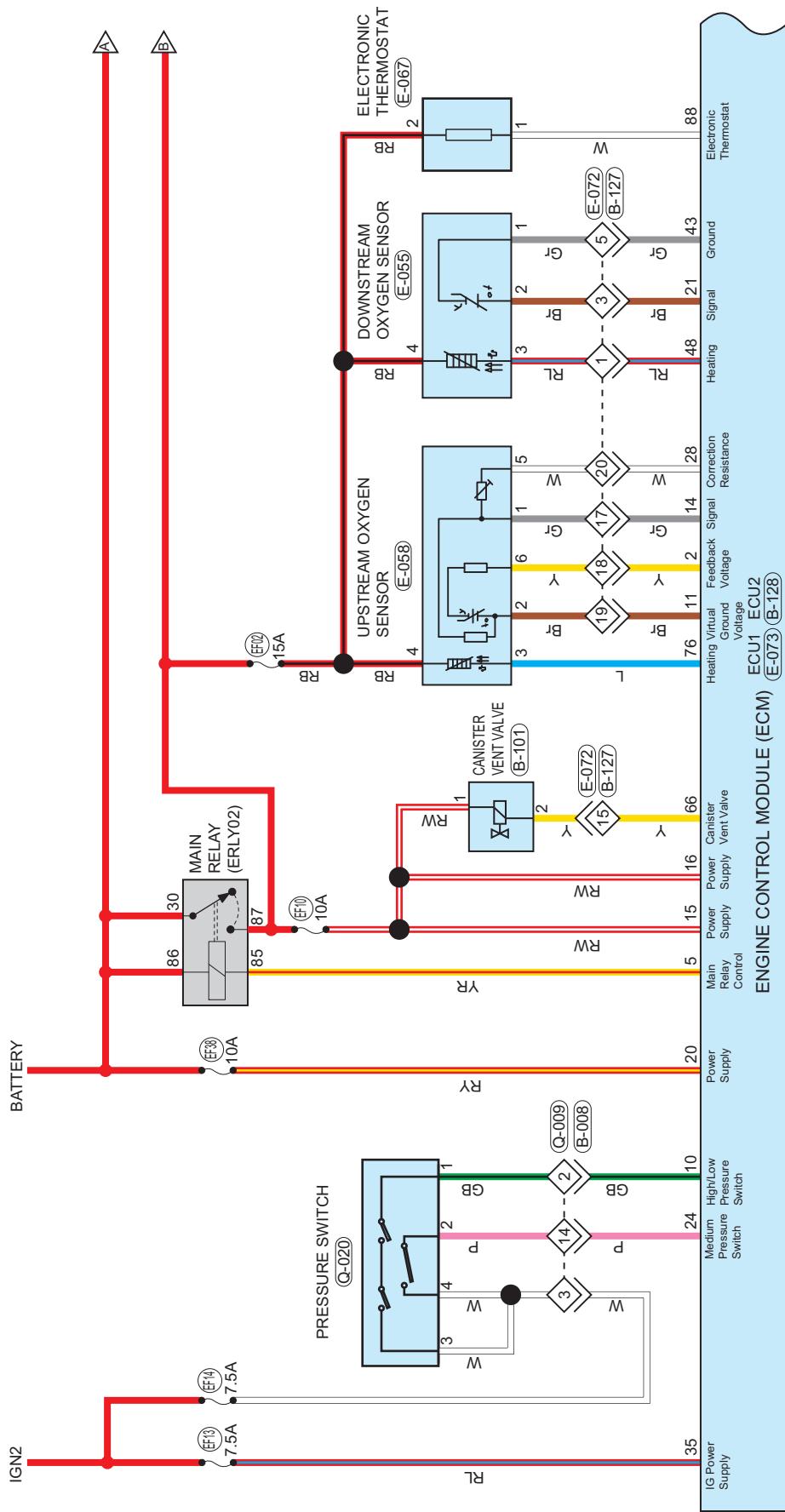
## General Information

This section provides information about system circuit diagram, which is very important for troubleshooting electrical faults. When troubleshooting any problems, first understand the operation of the malfunction circuit (Refer to "System Circuit" or circuit diagram in the relevant repair manual).

After understanding the circuit operation, troubleshoot the malfunction circuit to find out the cause, then use the "Wire Harness Position Diagram" to find each wire harness, wire harness connector and ground point of the relevant circuit. For specifications or detailed removal and installation procedures, please refer to the relevant repair manual.

# Engine Control System (EMS)(1.5T)

12 – Overall Circuit Diagram



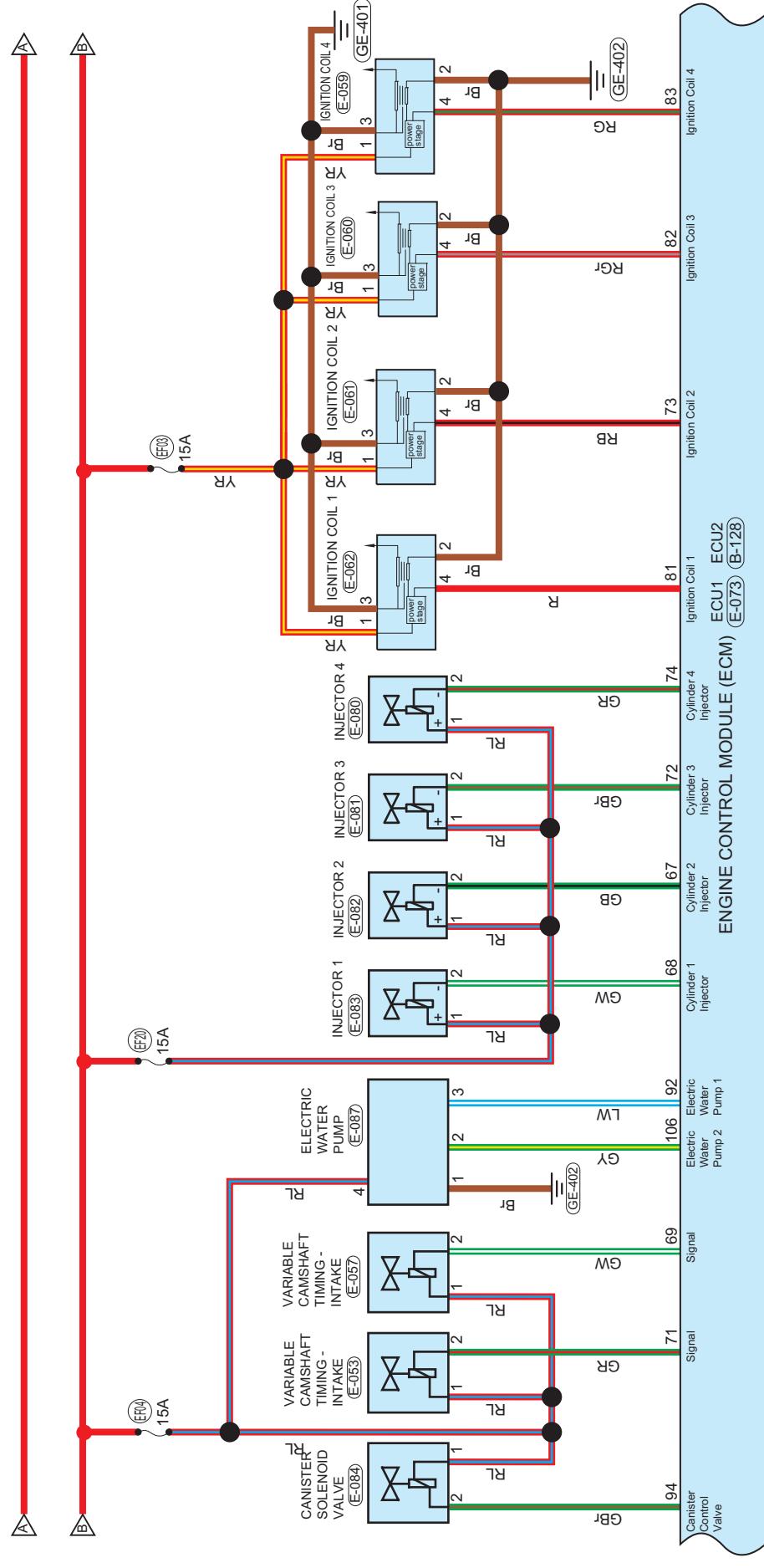
EWD062001

12-2

12

12 – Overall Circuit Diagram

## Engine Control System (EMS)(1.5T)



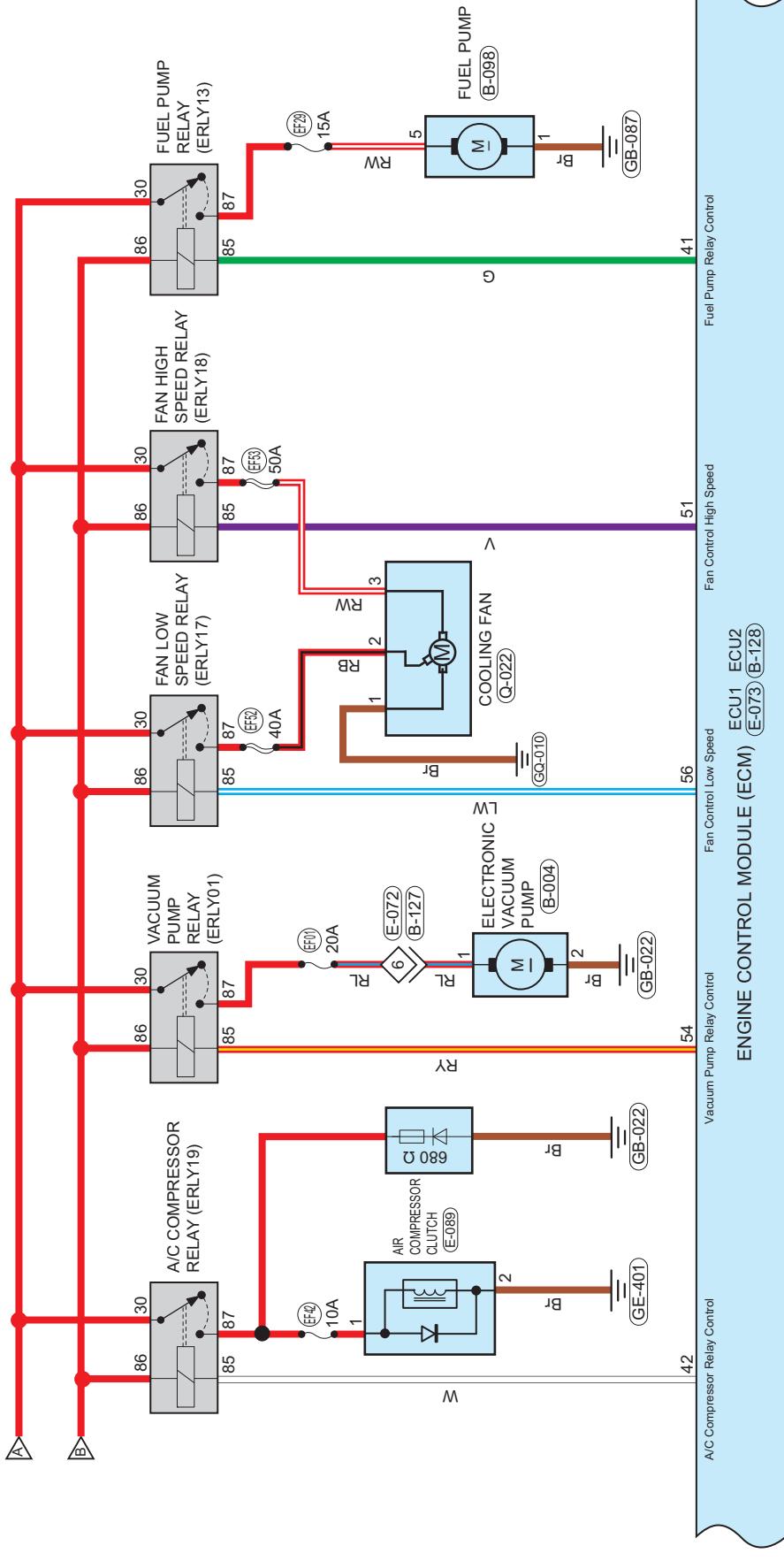
EWD063001

12-3



## Engine Control System (EMS)(1.5T)

### 12 – Overall Circuit Diagram

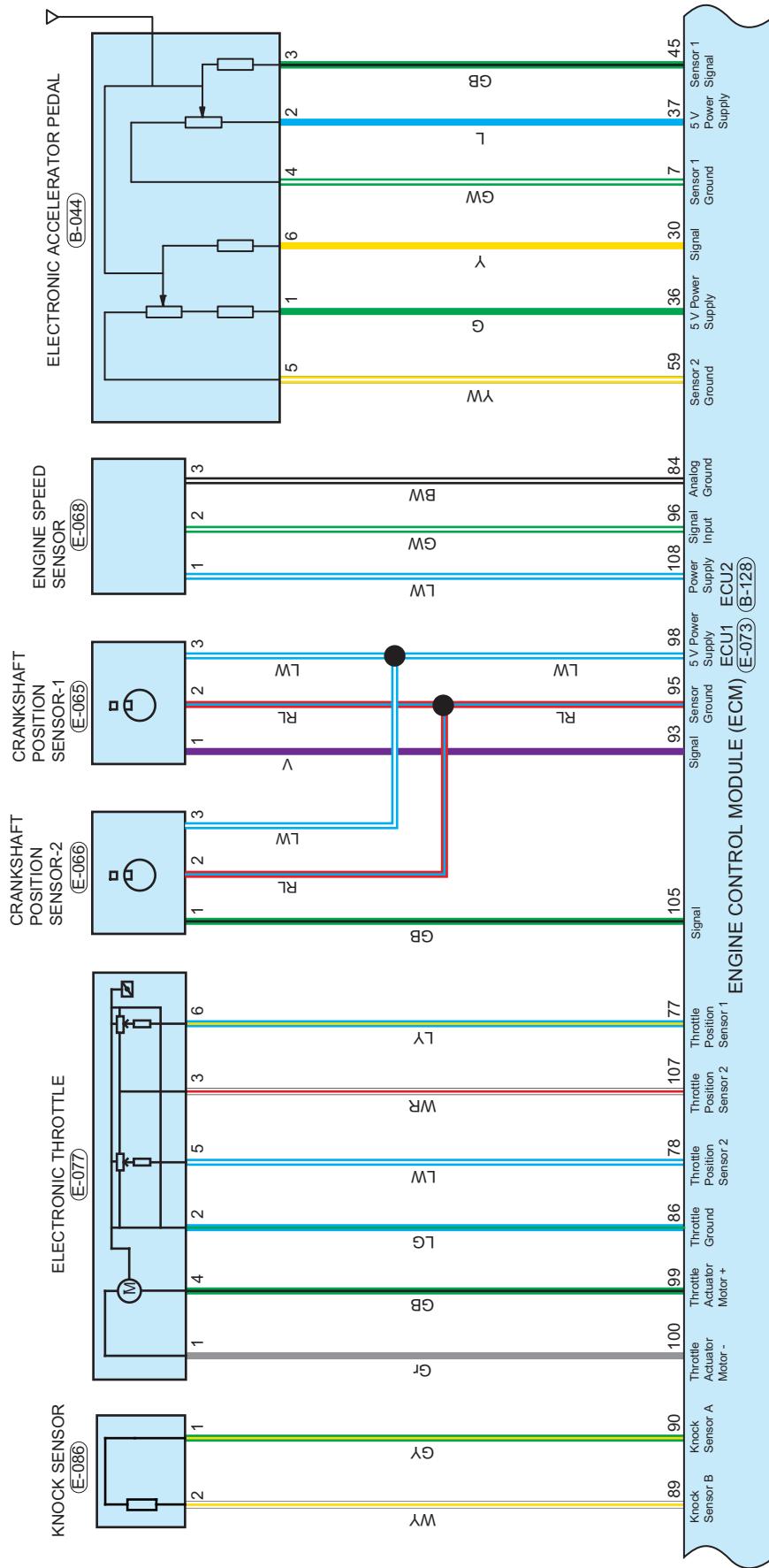


EWD064001

12-4



## Engine Control System (EMS)(1.5T)

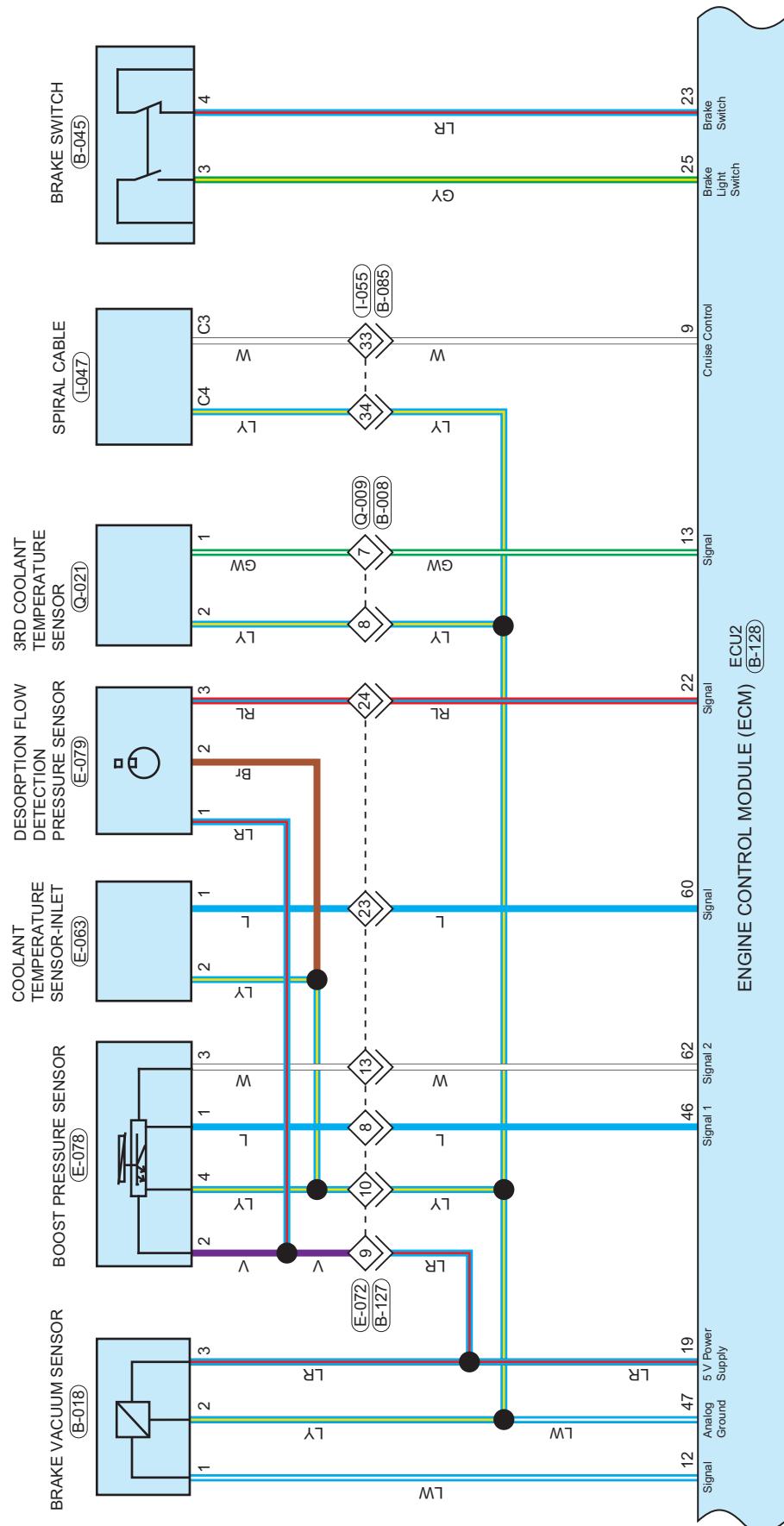


EWD060001



## Engine Control System (EMS)(1.5T)

12 – Overall Circuit Diagram



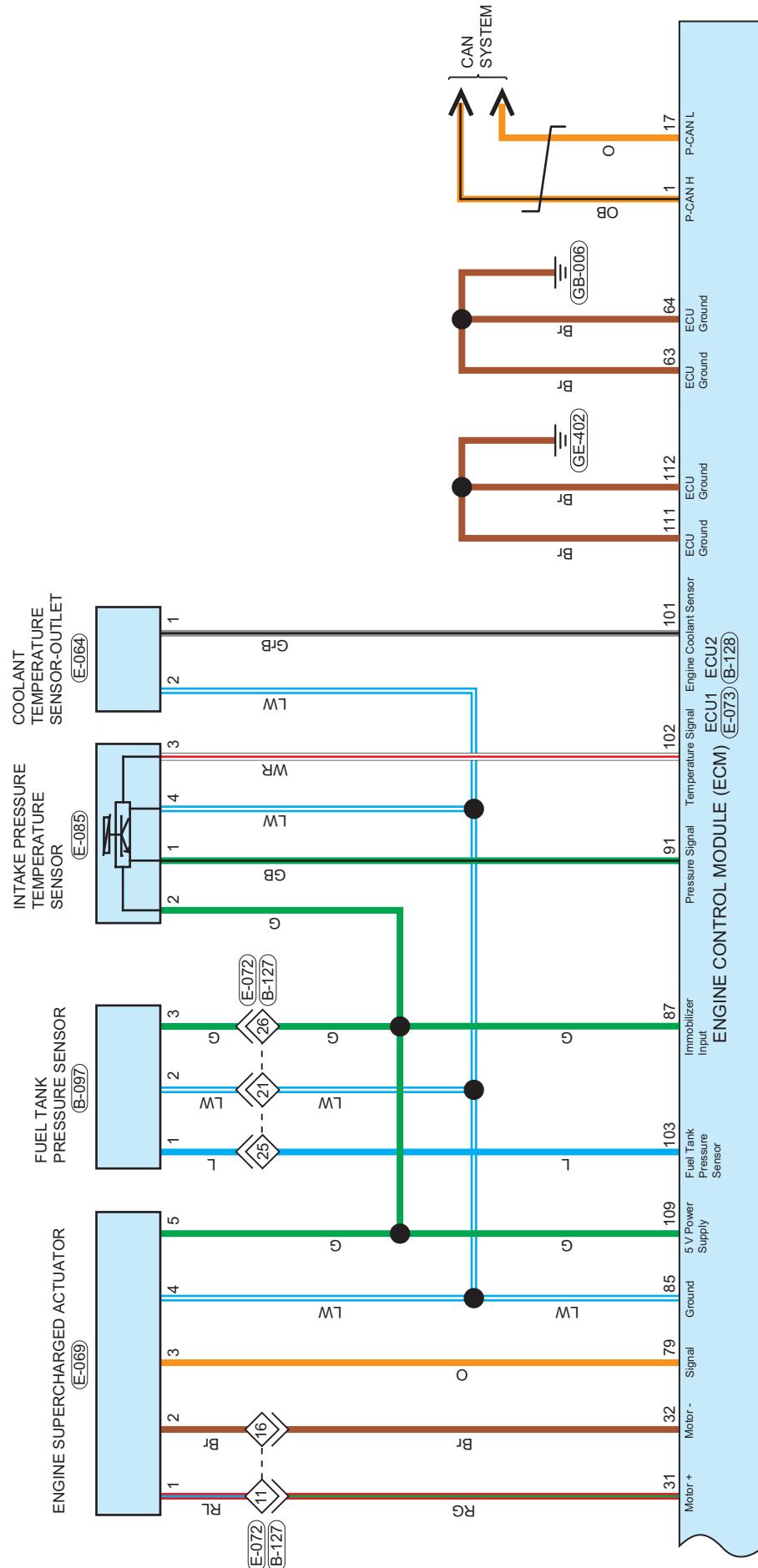
EWD066001

12-6



12

## Engine Control System (EMS)(1.5T)

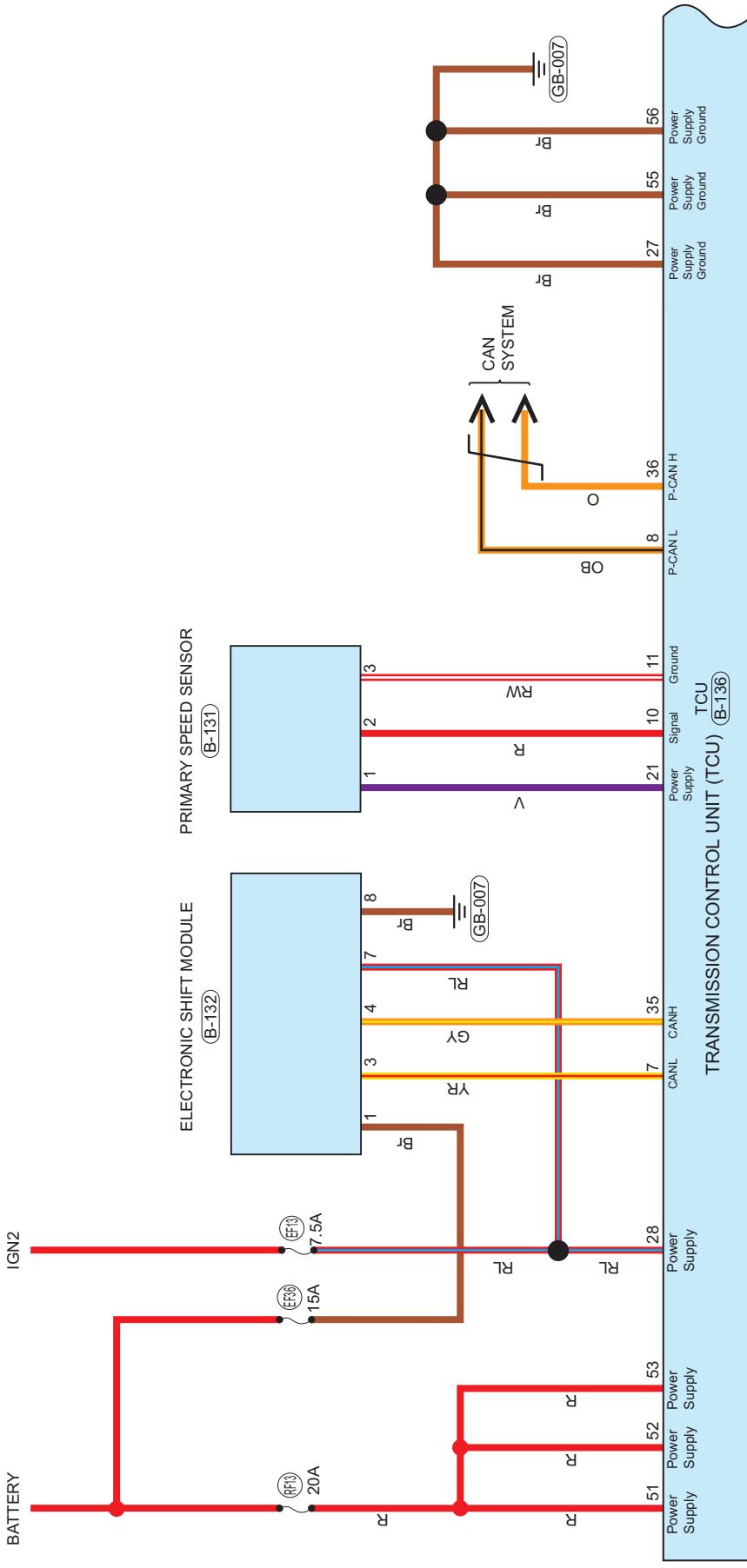


EWD057001



## Transmission Control System (CVT)

12 – Overall Circuit Diagram

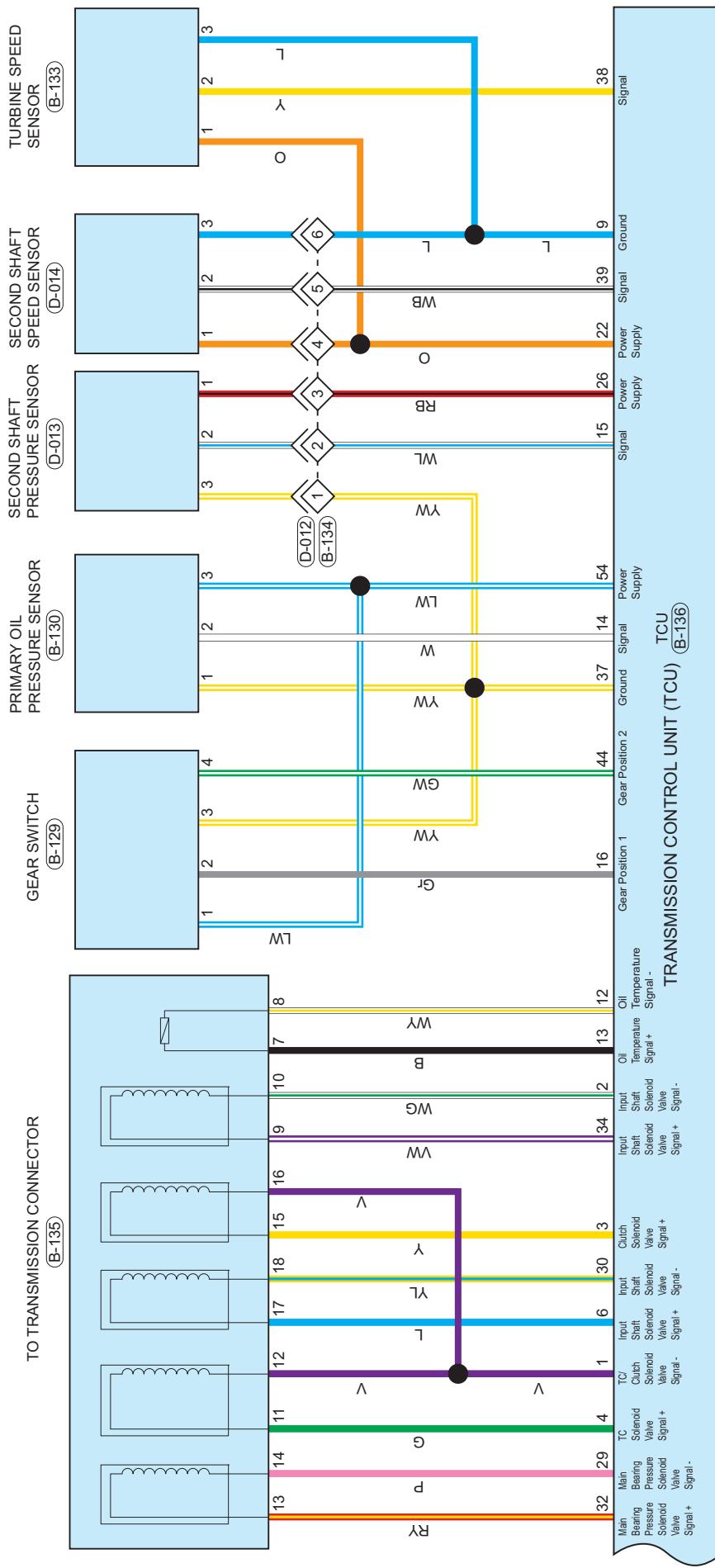


EWD058001

12-8

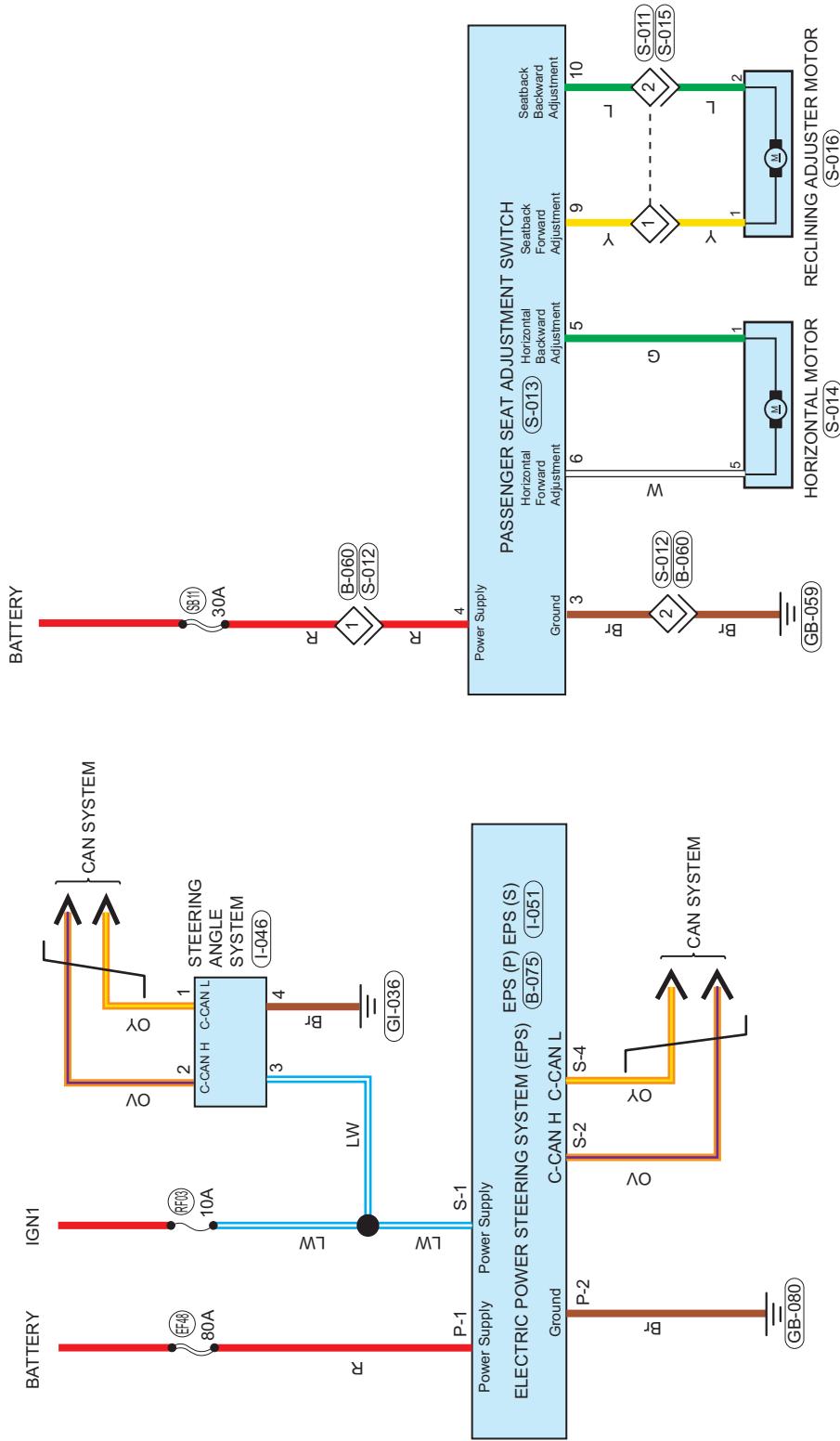


## Transmission Control System (CVT)



EWD059001

## Electronic Power Steering System (EPS) / Electronic Shift Module (EGS) / Passenger Seat Adjustment

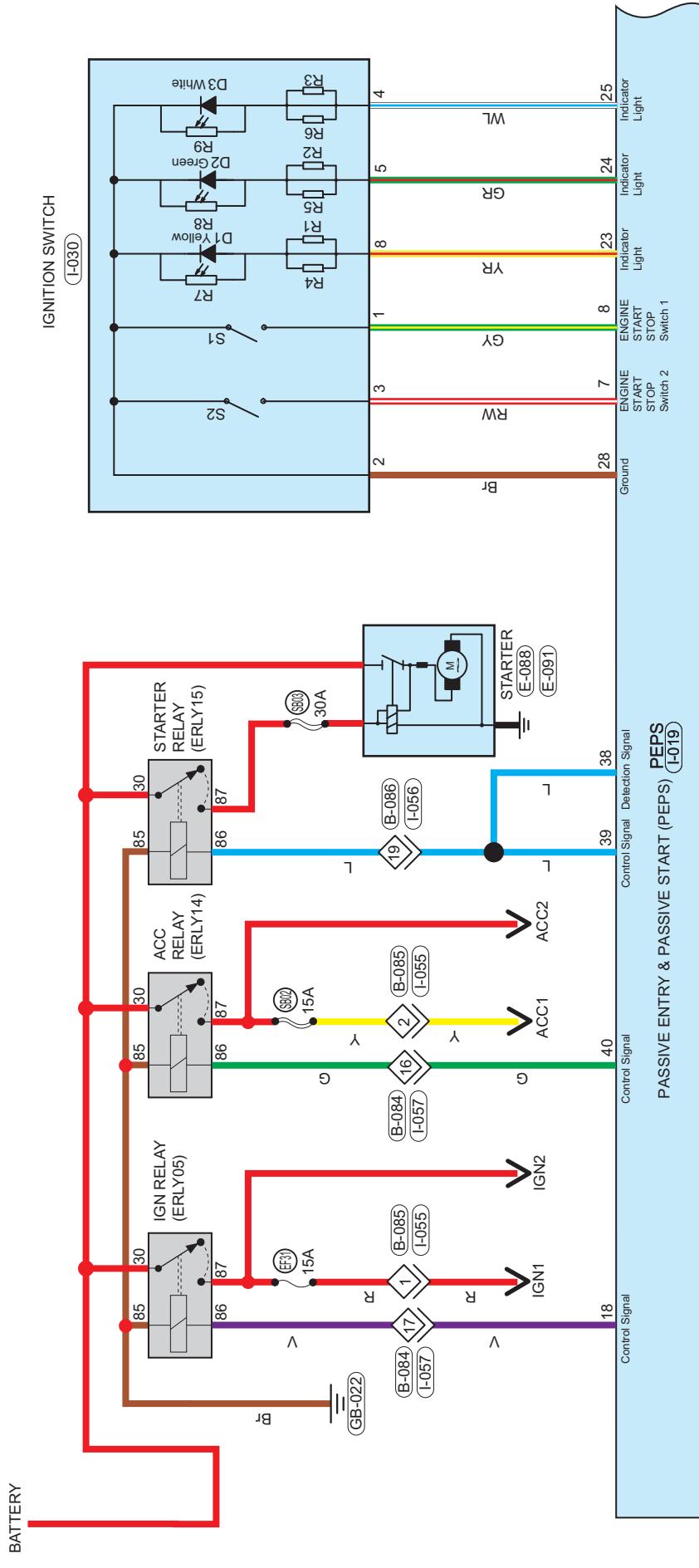


EWD041001

12-10

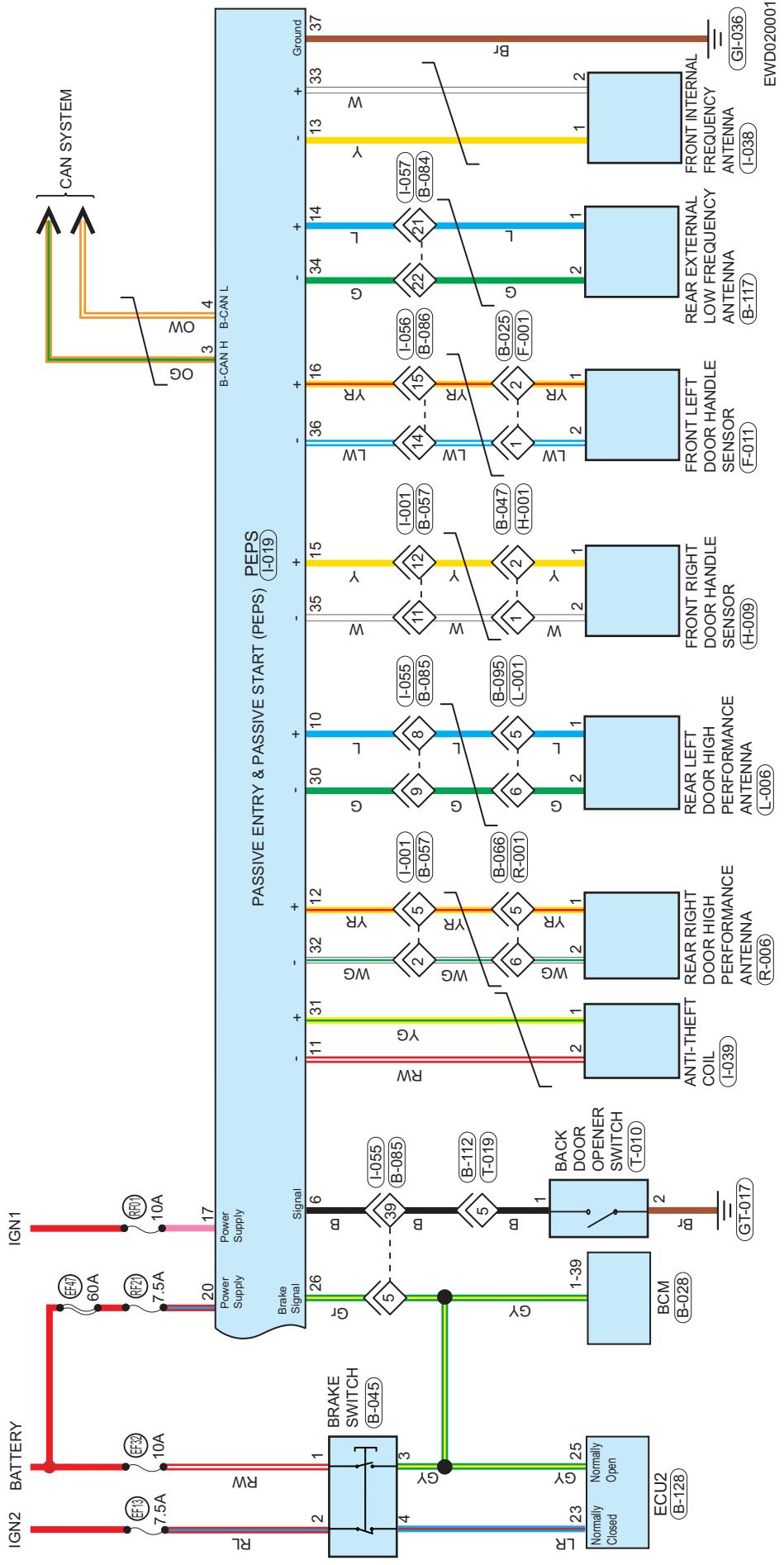


## Passive Entry and Passive Start System

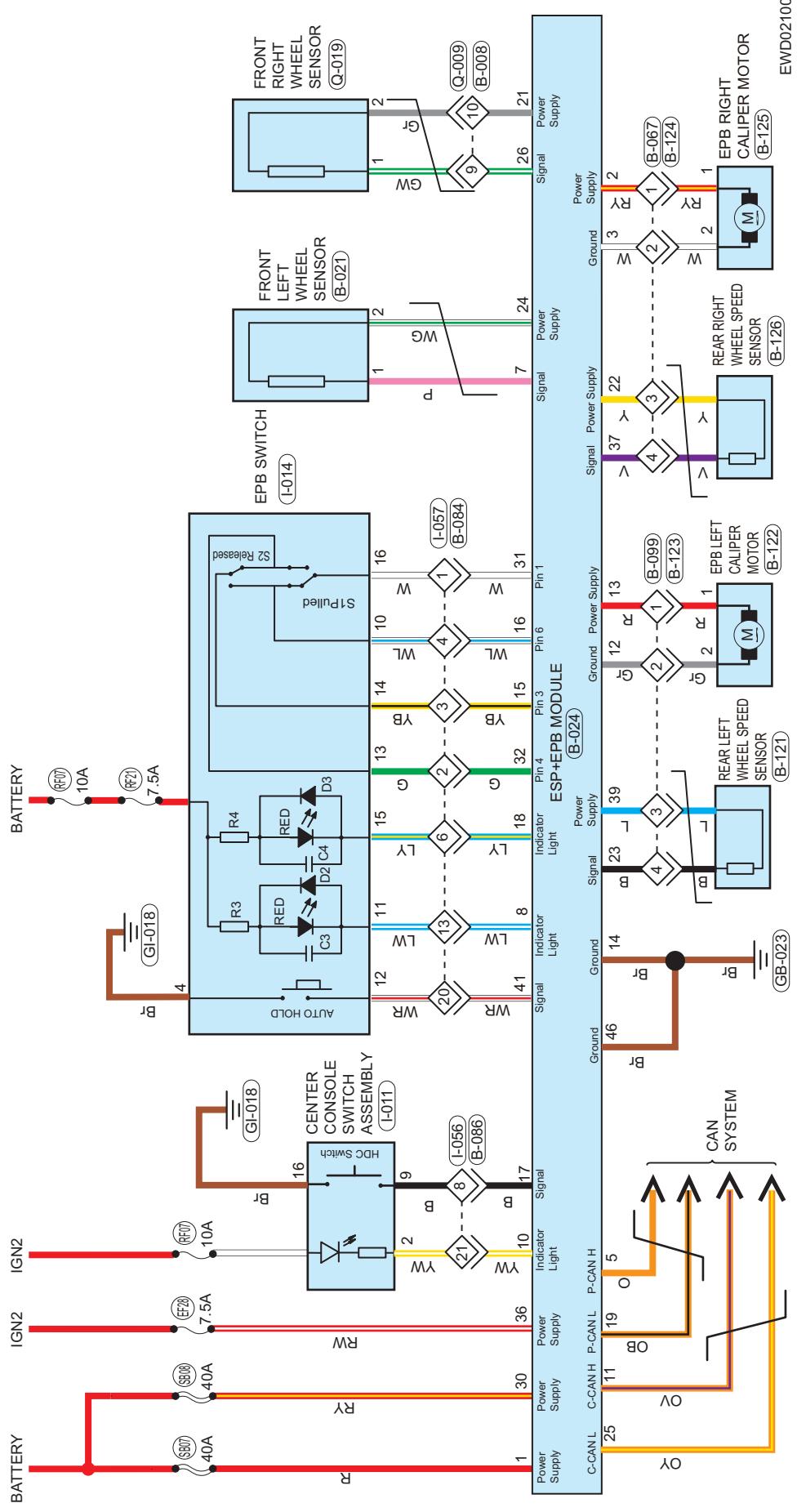


EWDO19001

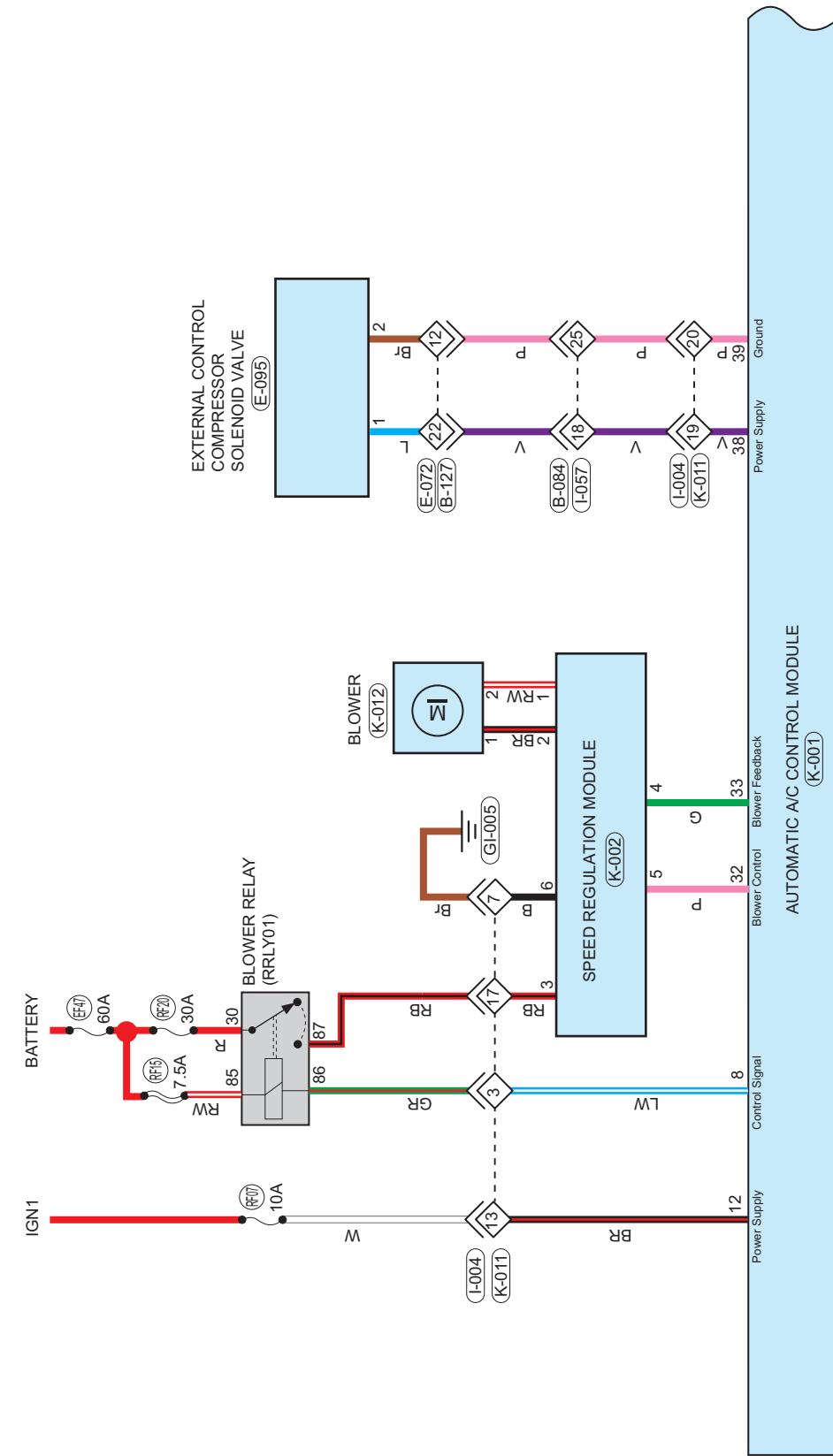
## Passive Entry and Passive Start System



## Electronic Stability System (ESP) (Integrated EPB Module)

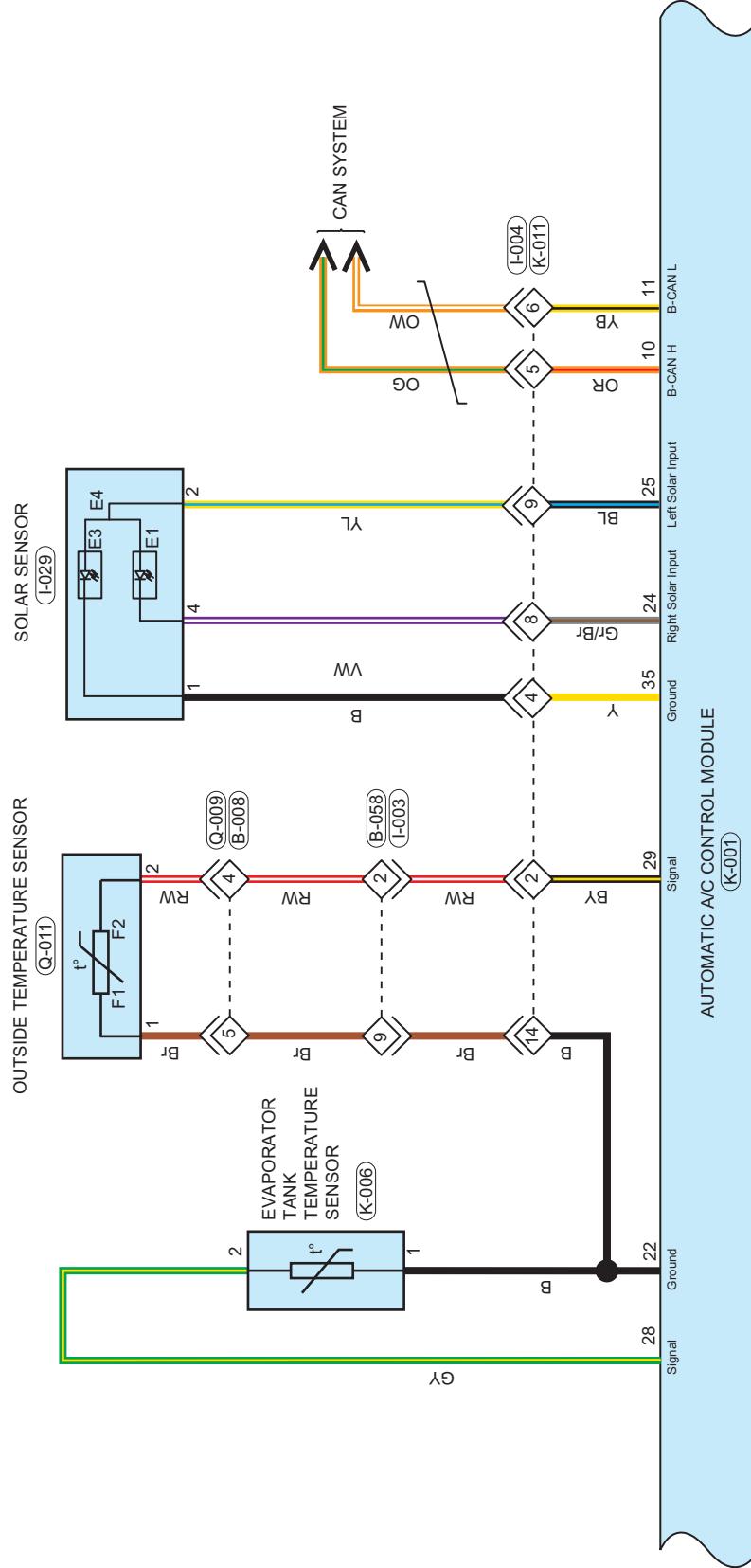


## Automatic A/C System (CLM)



12

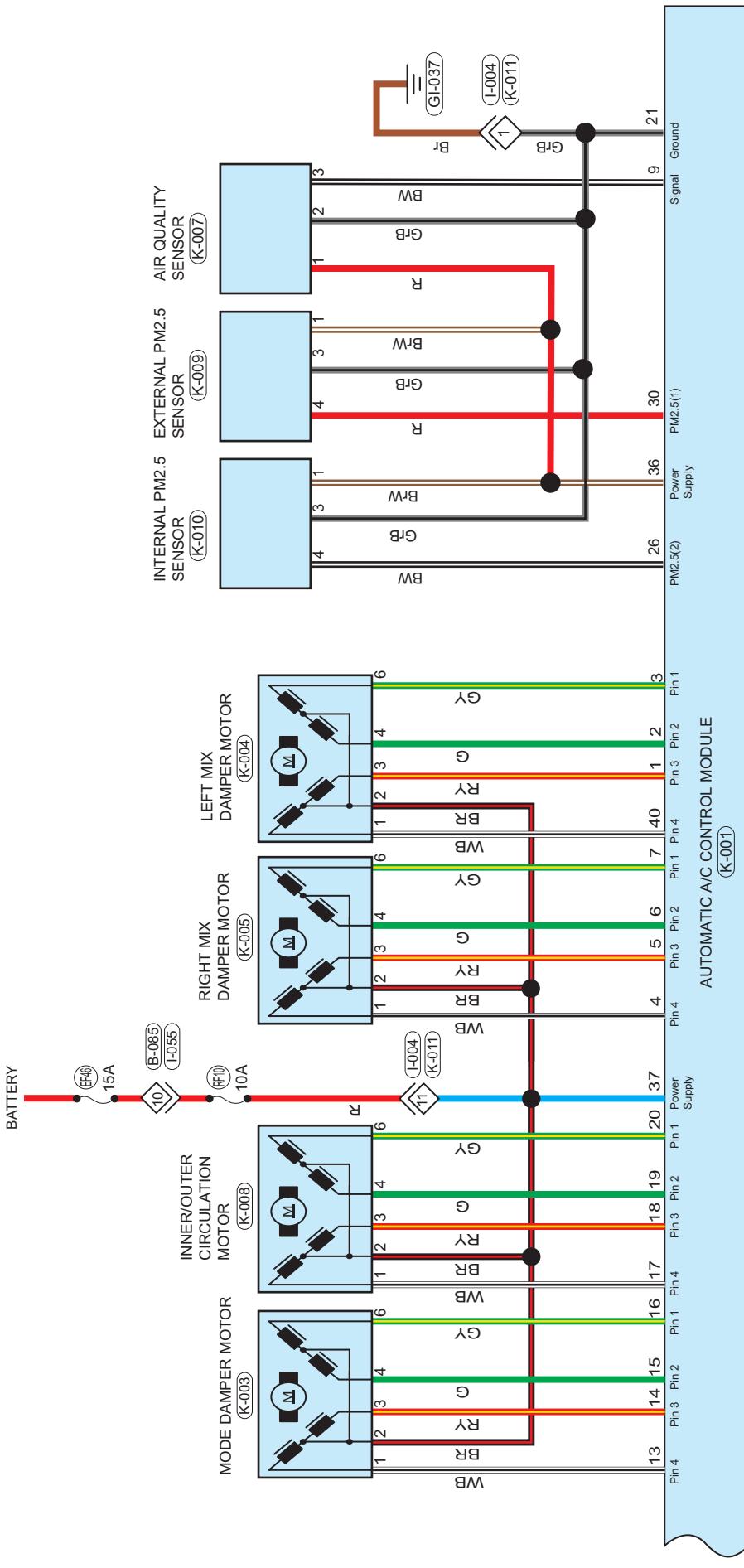
## Automatic A/C System (CLM)



EWD022001

## Automatic A/C System (CLM)

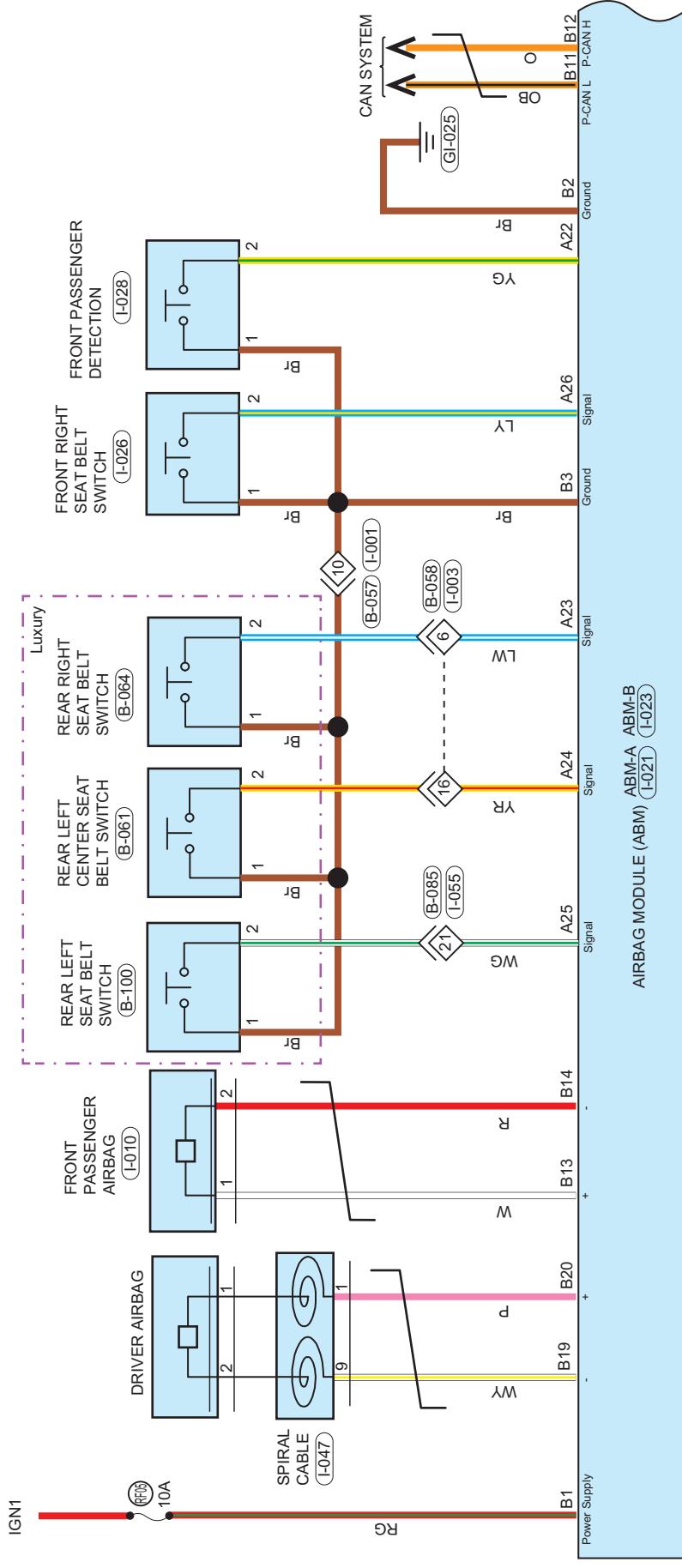
12 – Overall Circuit Diagram



EWD023001

12-16

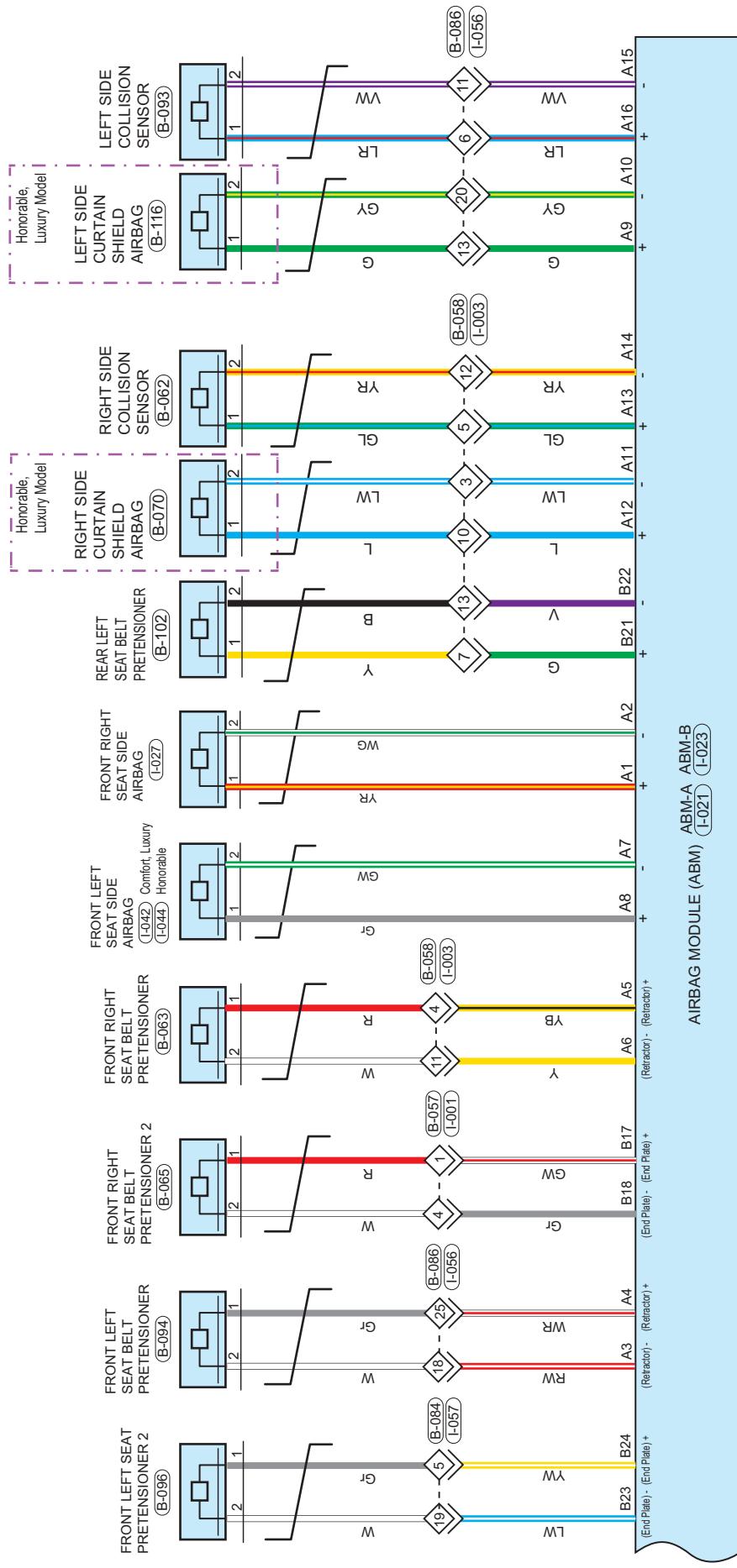
## Supplemental Restraint System



EWD024001

## Supplemental Restraint System

12 – Overall Circuit Diagram



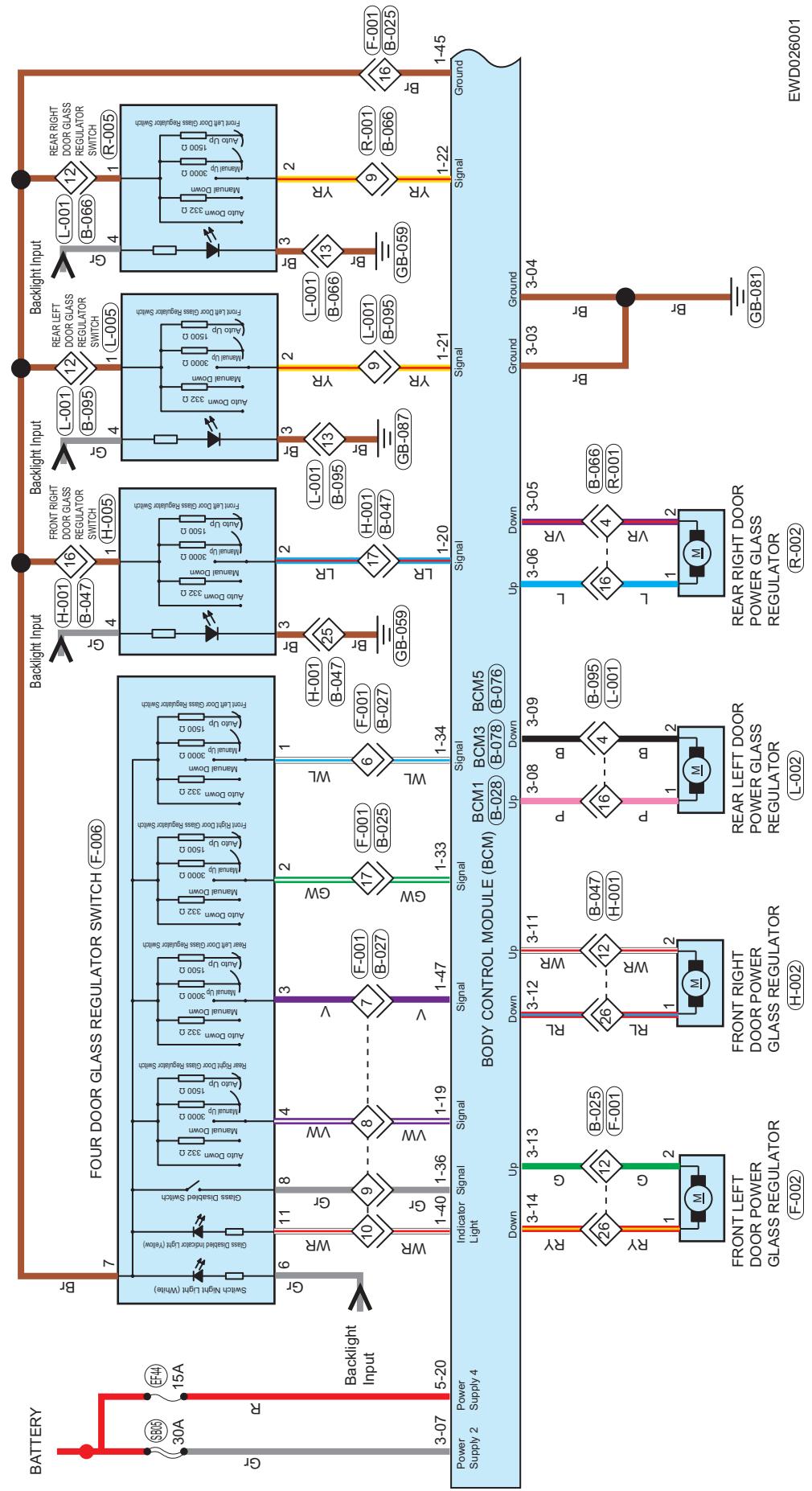
EWD025001

12-18



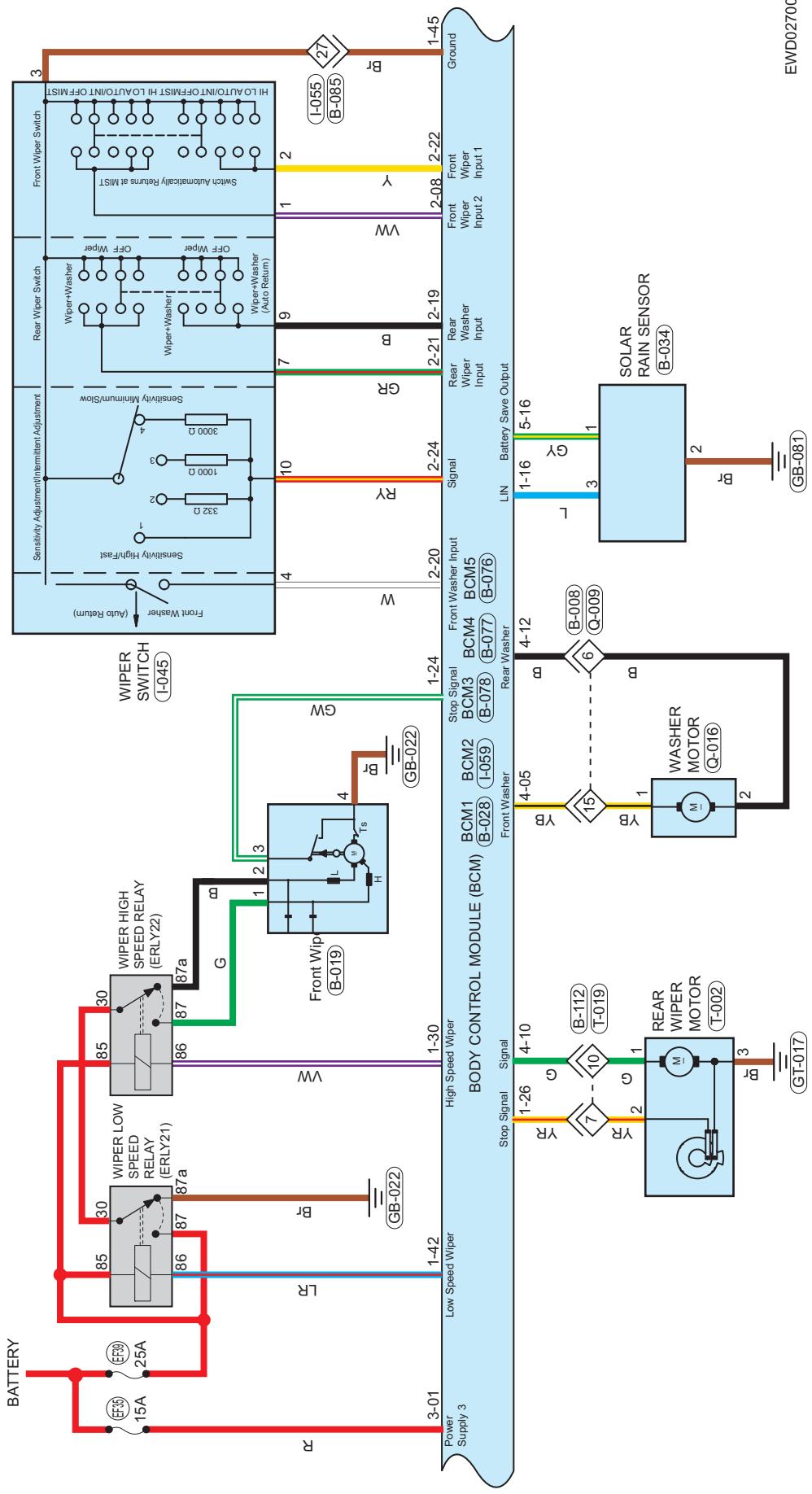
12

## Body Control Module (BCM)



## Body Control Module (BCM)

12 – Overall Circuit Diagram

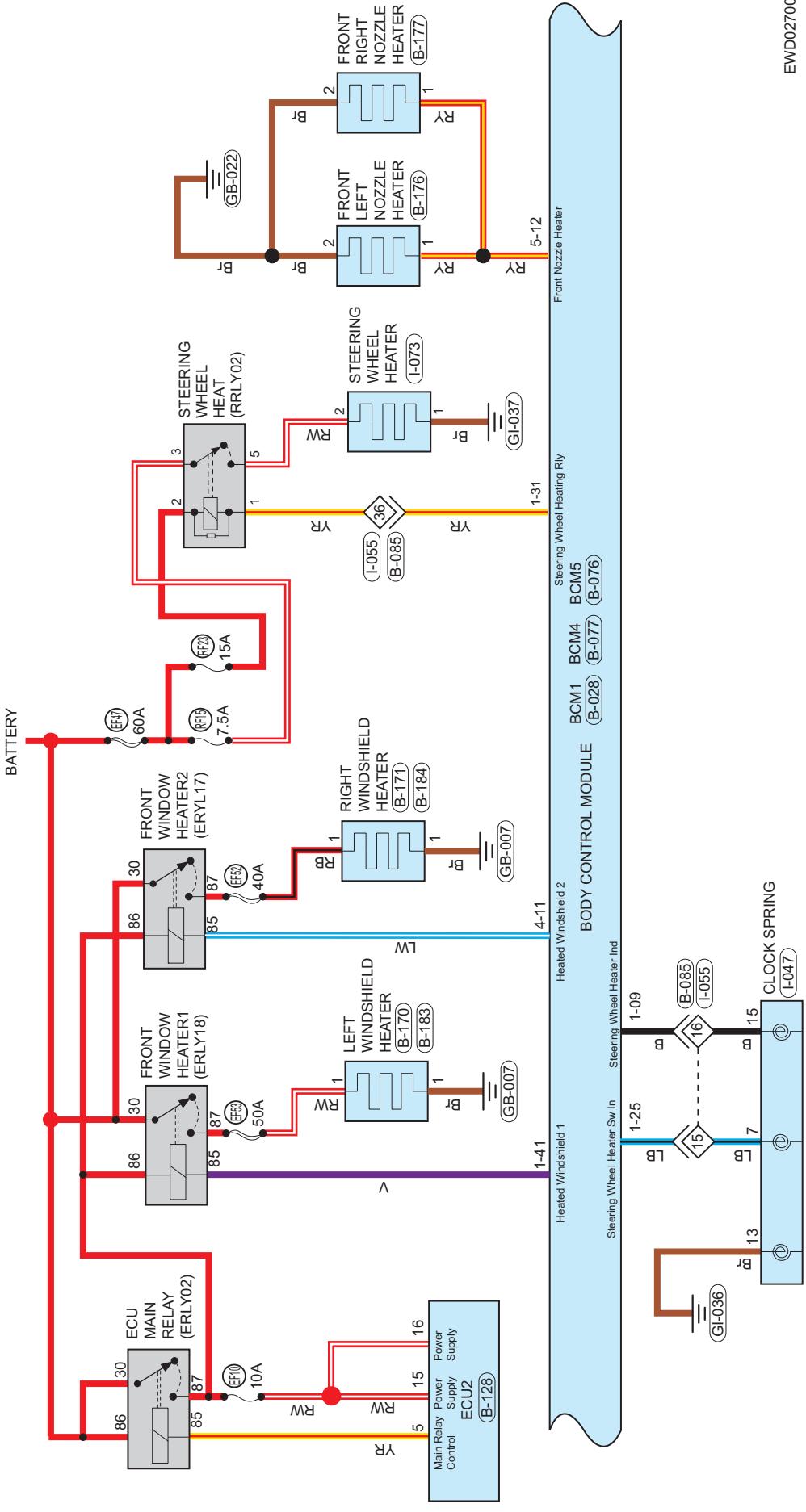


EWD027001

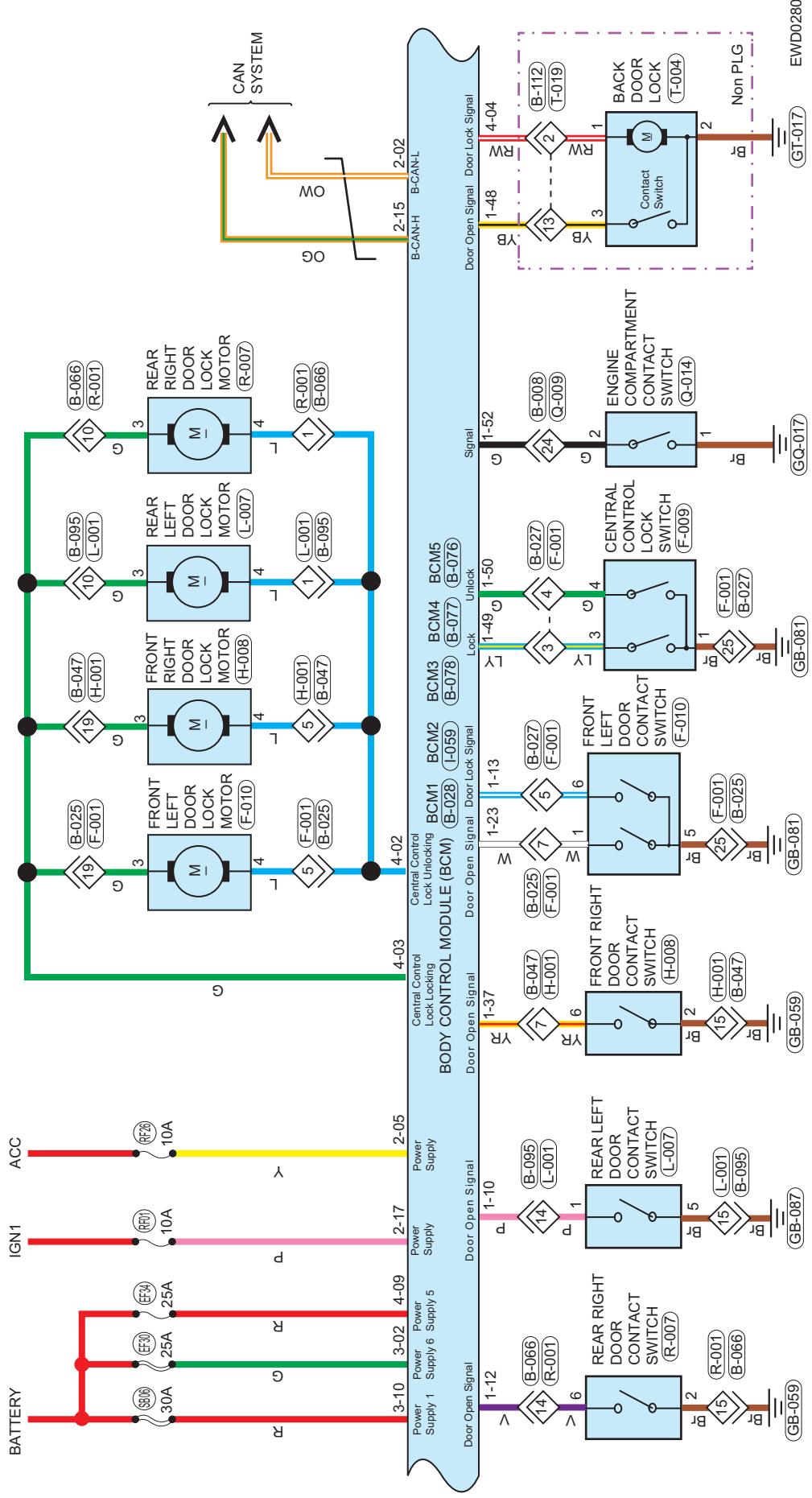
12-20



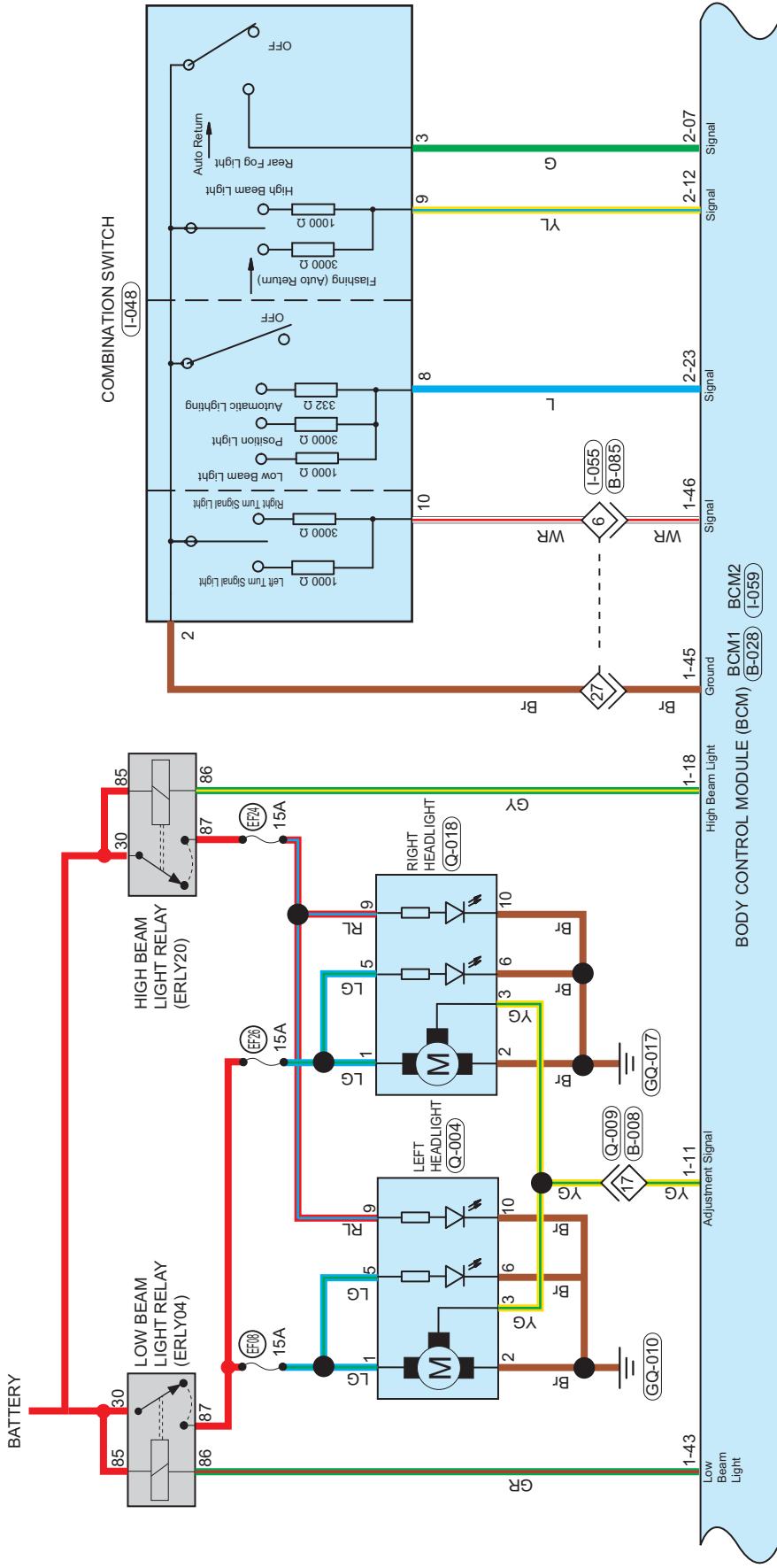
## Body Control Module (BCM)



## Body Control Module (BCM)

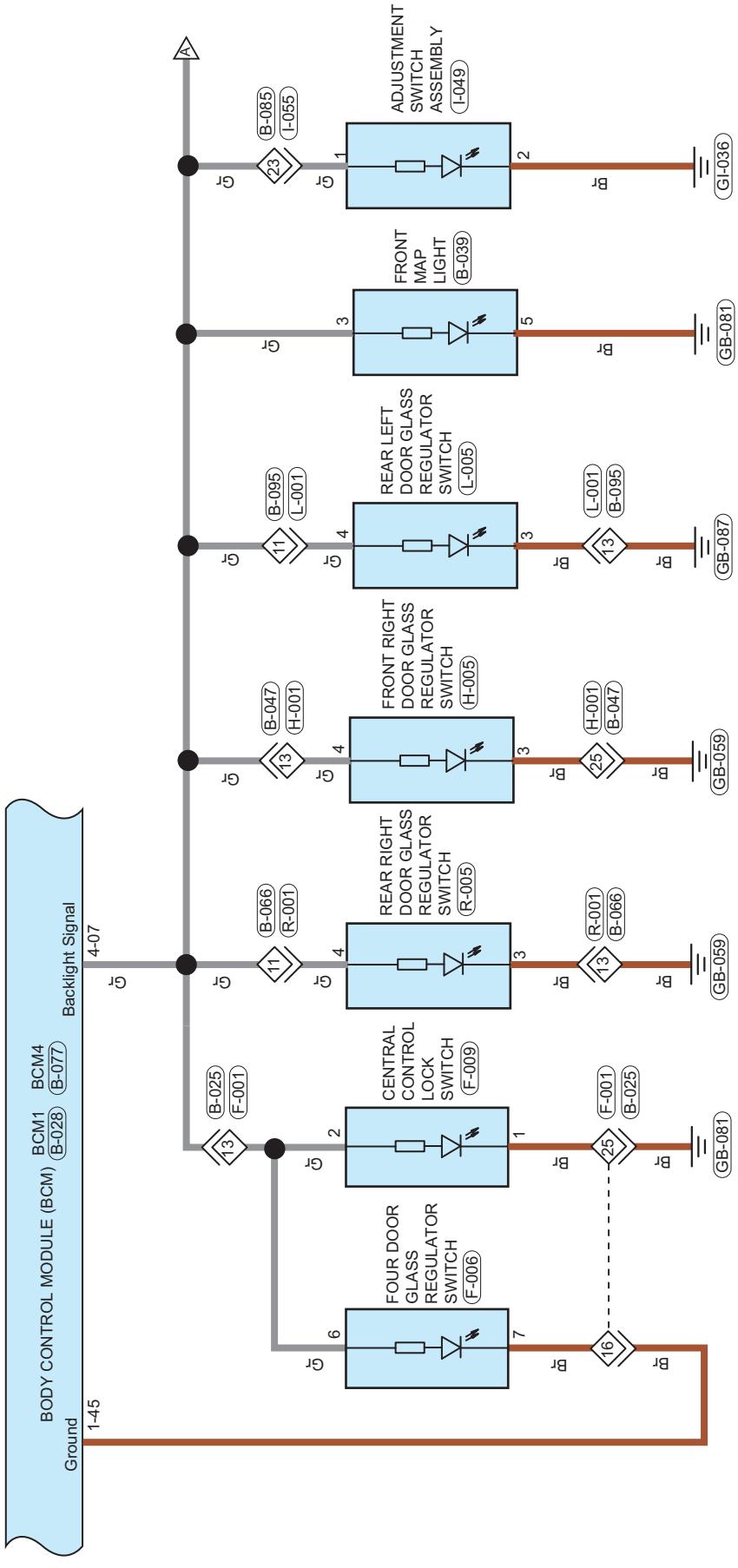


## Body Control Module (BCM)



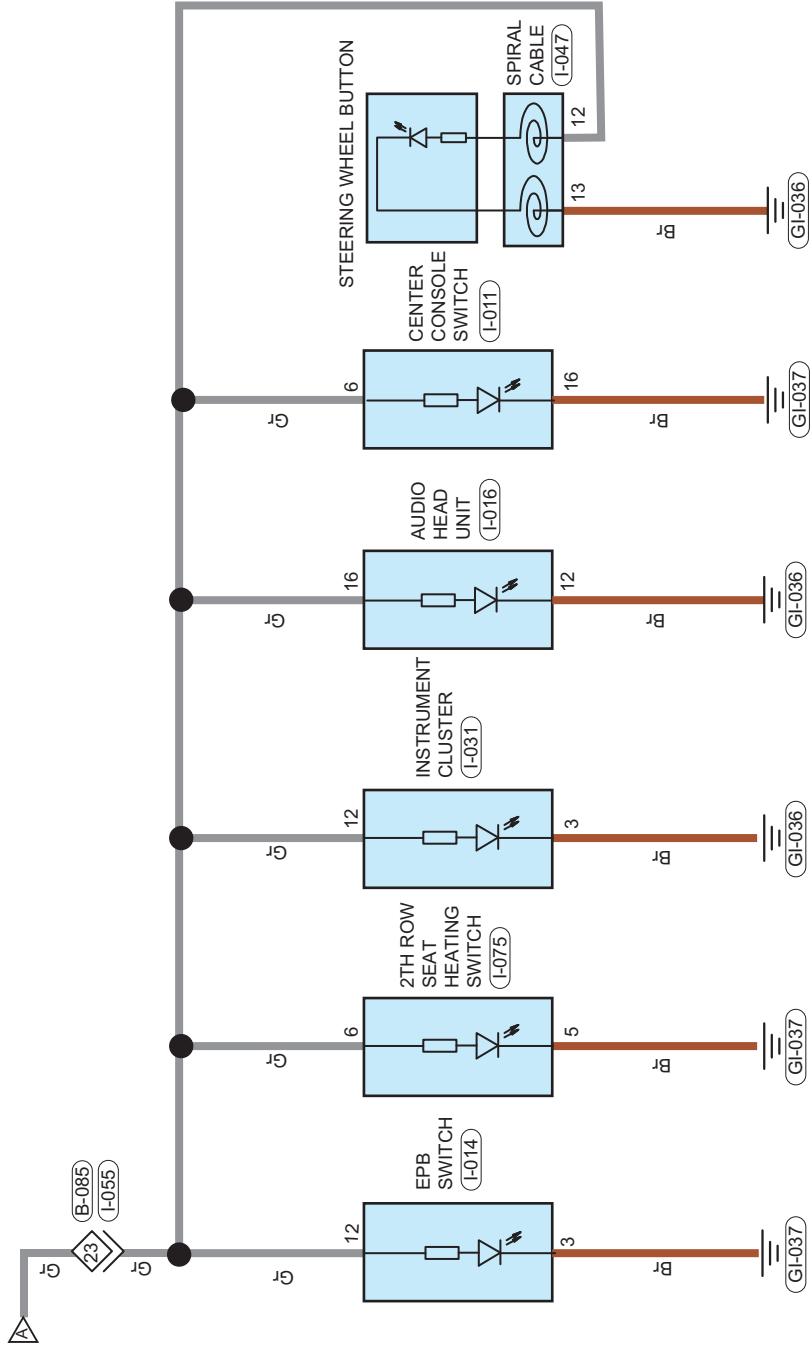
EWD029001

## Body Control Module (BCM)

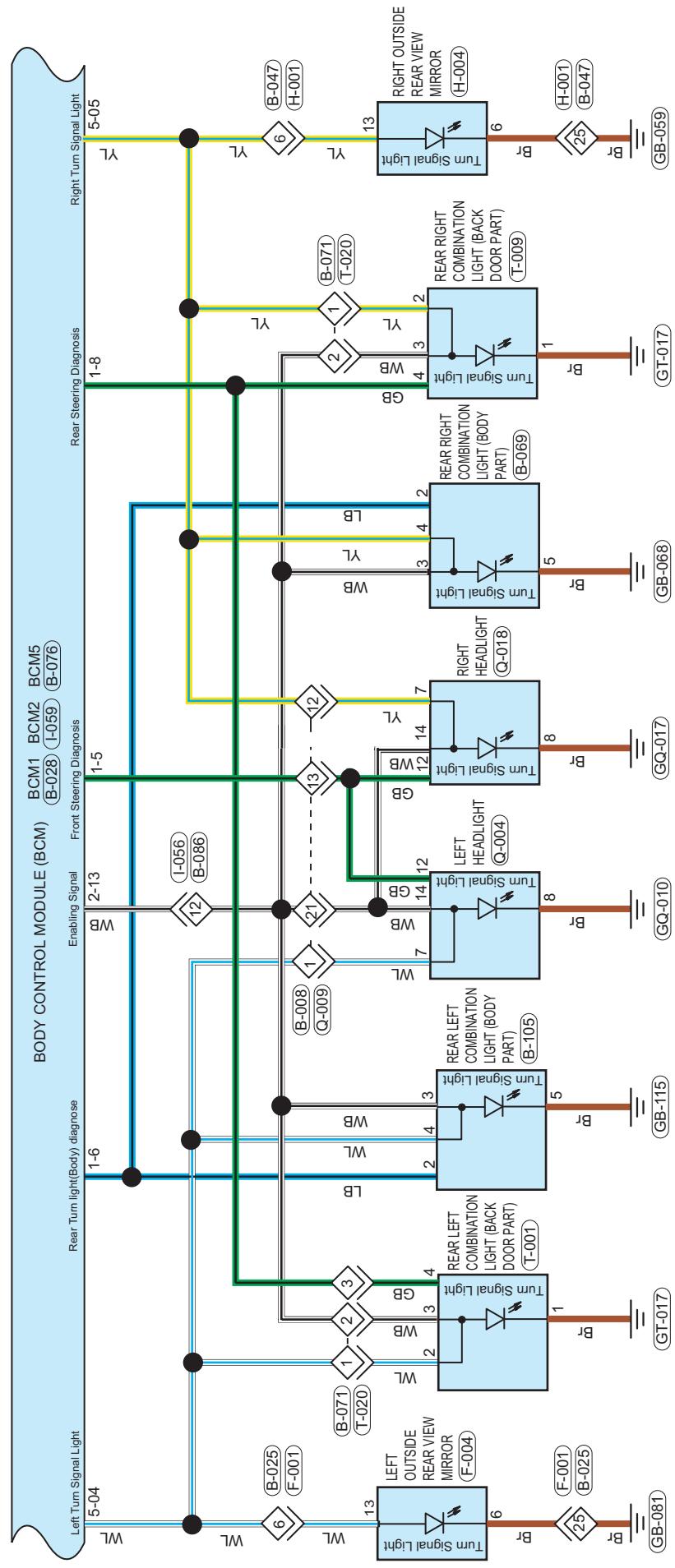


12

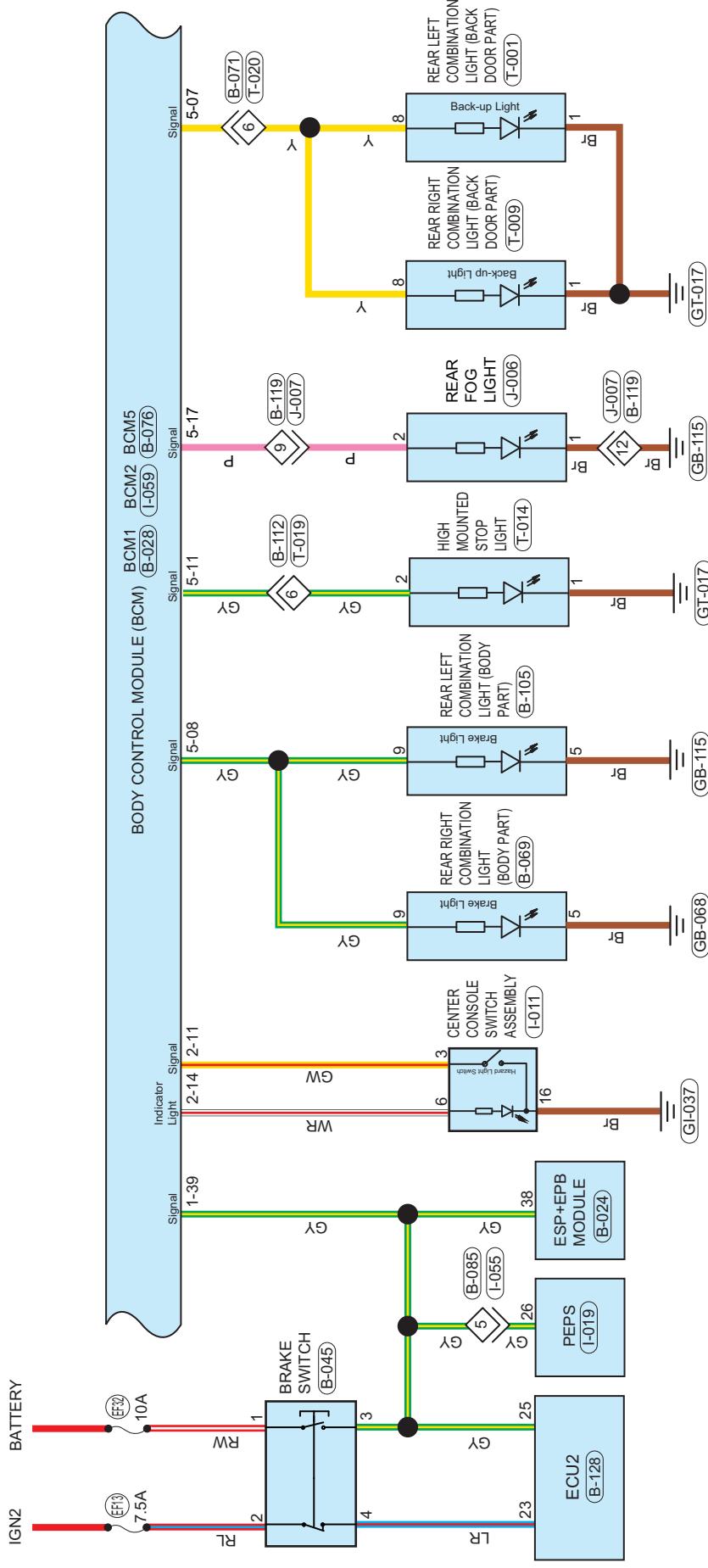
## Body Control Module (BCM)



## Body Control Module (BCM)



## Body Control Module (BCM)

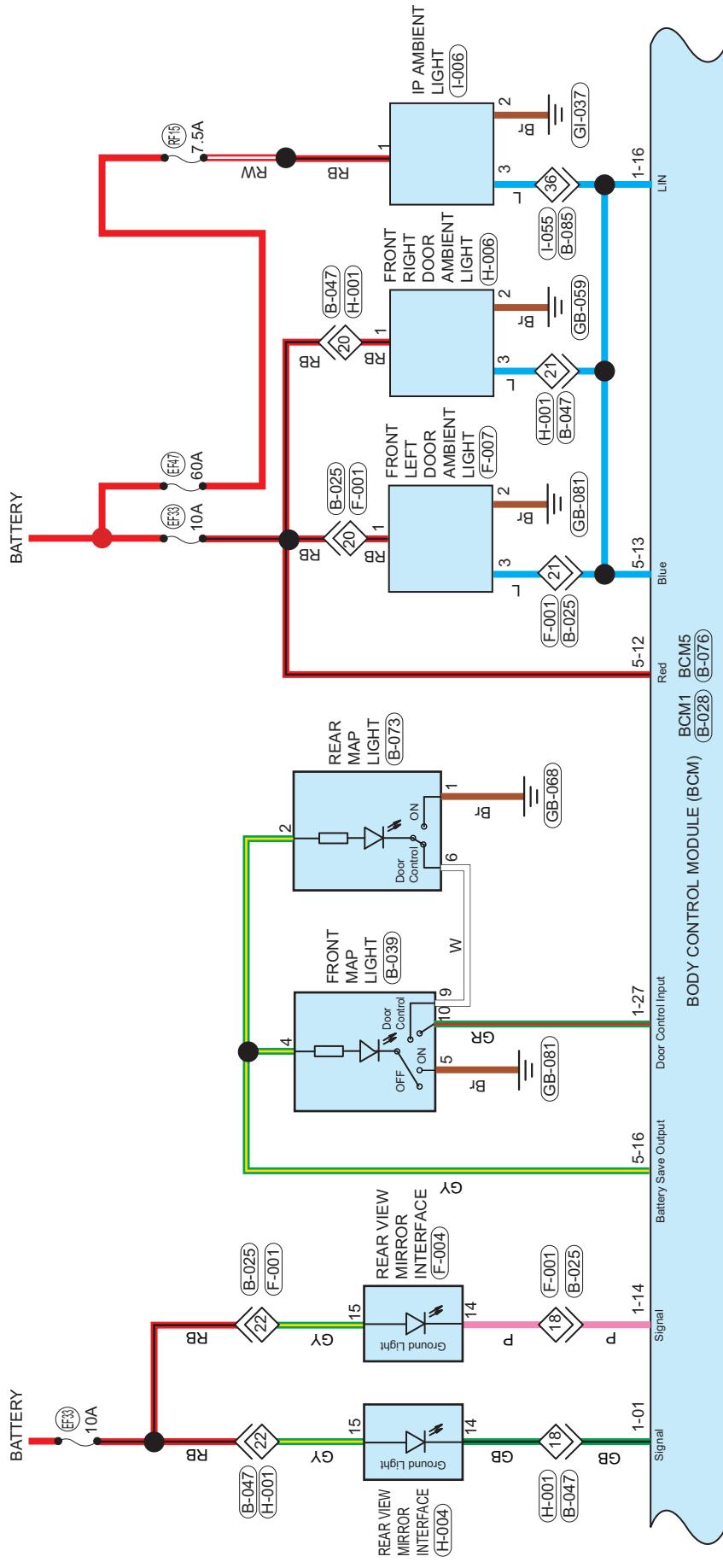


EWD033001



## Body Control Module (BCM)

12 – Overall Circuit Diagram



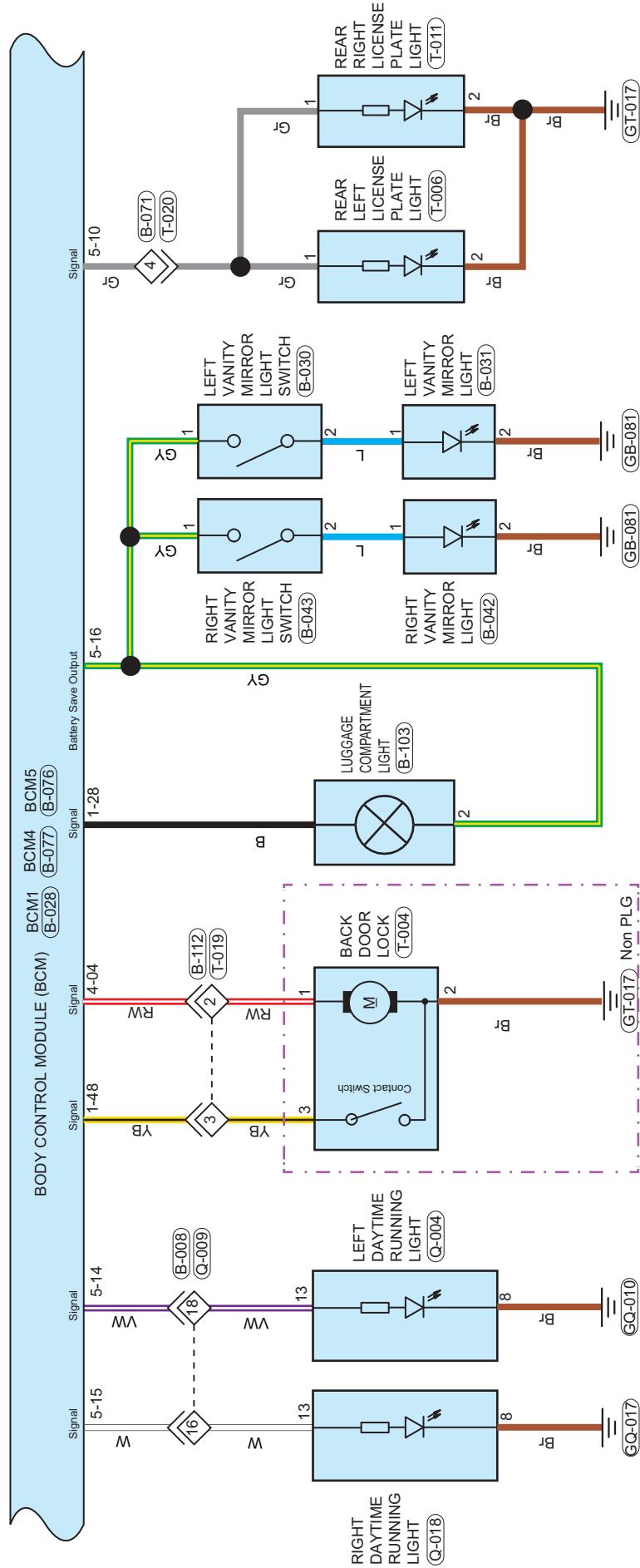
EWD034001

12-28

12



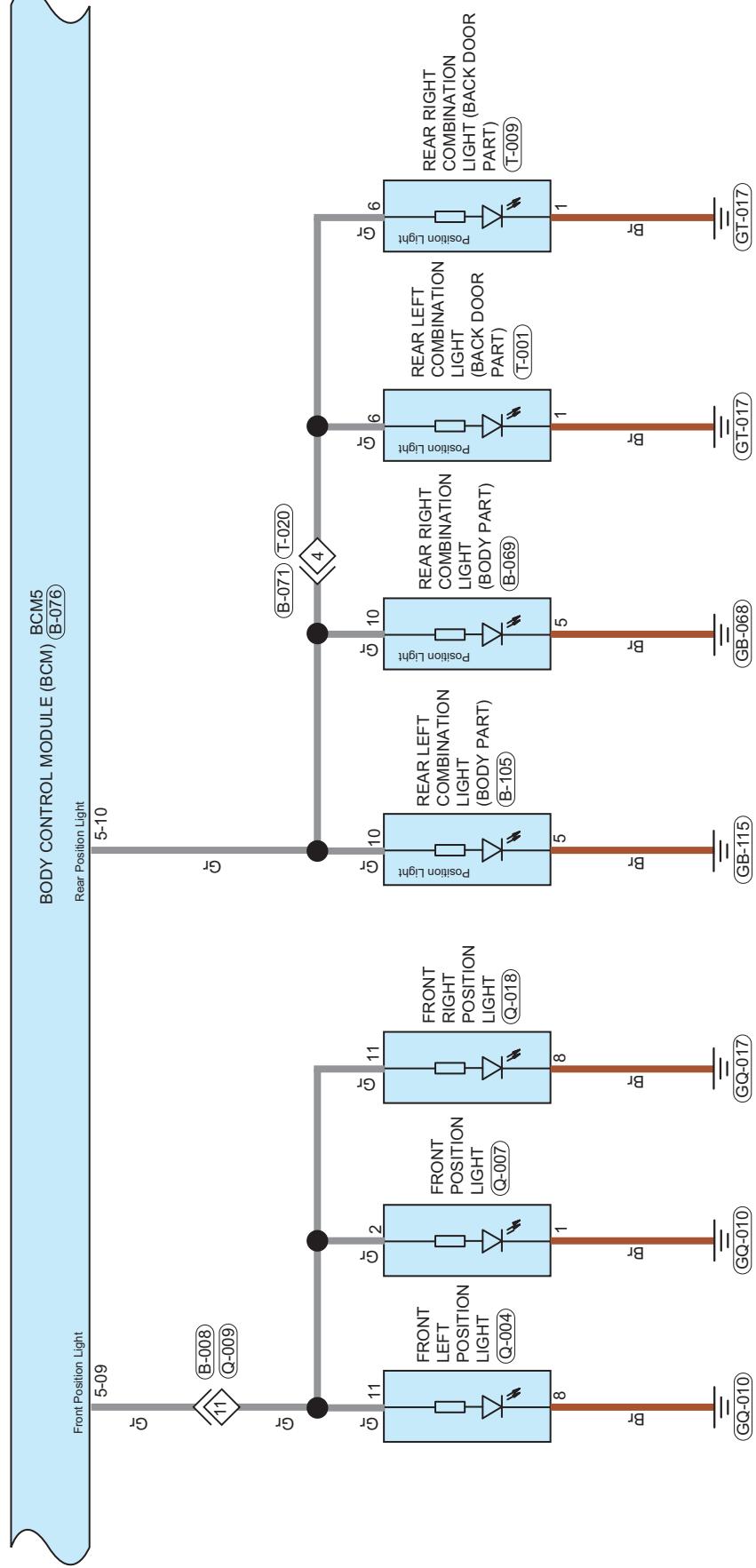
## Body Control Module (BCM)



EWD035001

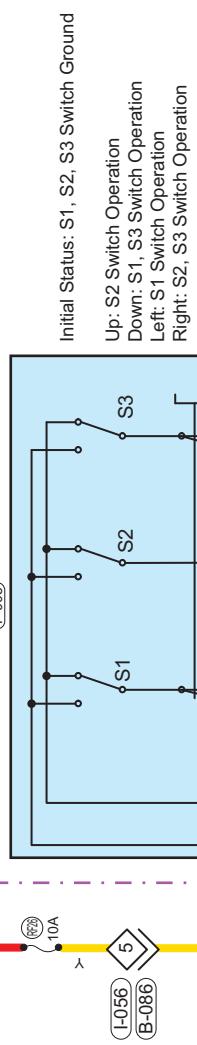
## Body Control Module (BCM)

12 – Overall Circuit Diagram

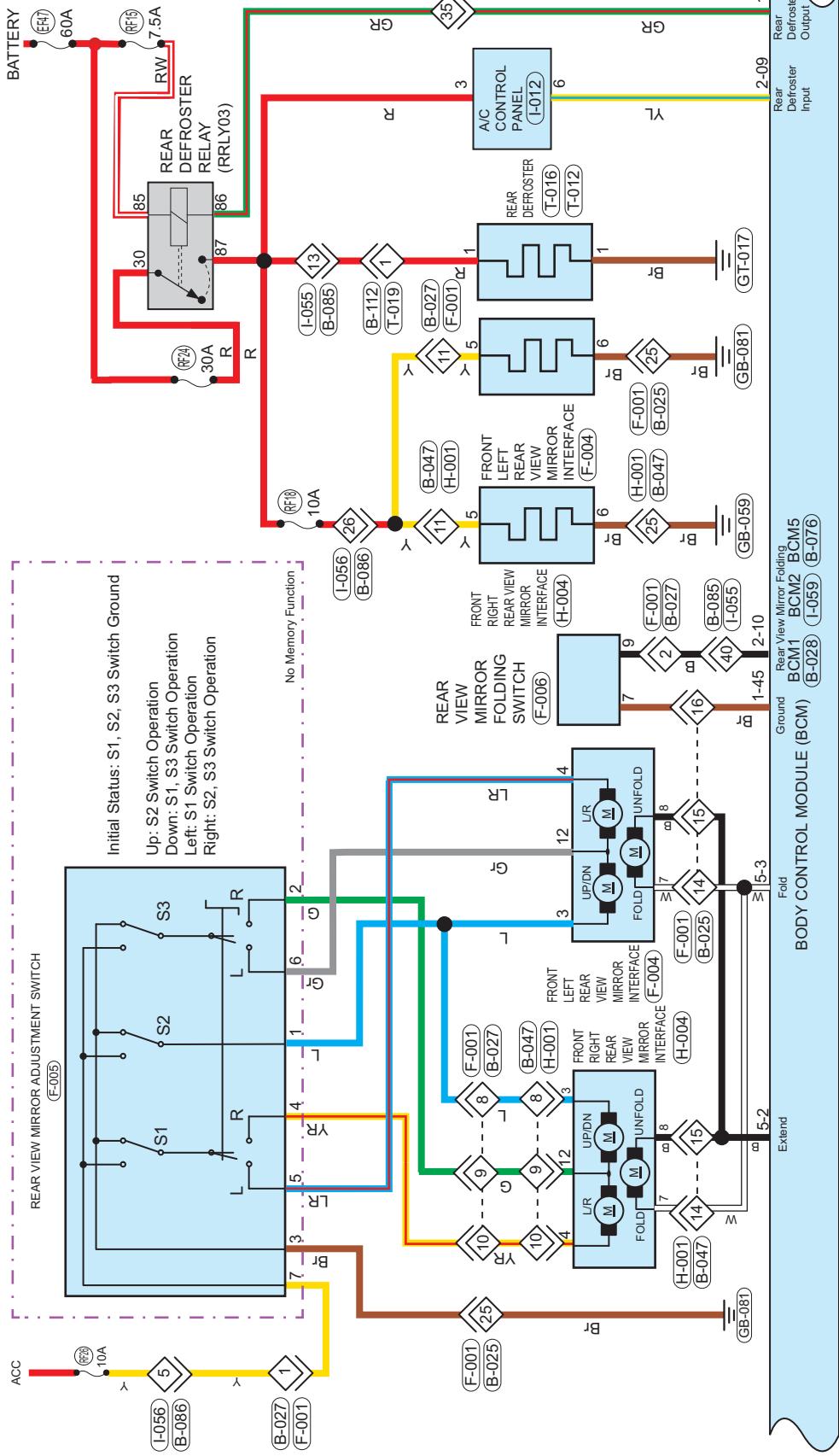


## Body Control Module (BCM)

ACC → REARVIEW MIRROR ADJUSTMENT SWITCH (F-005)

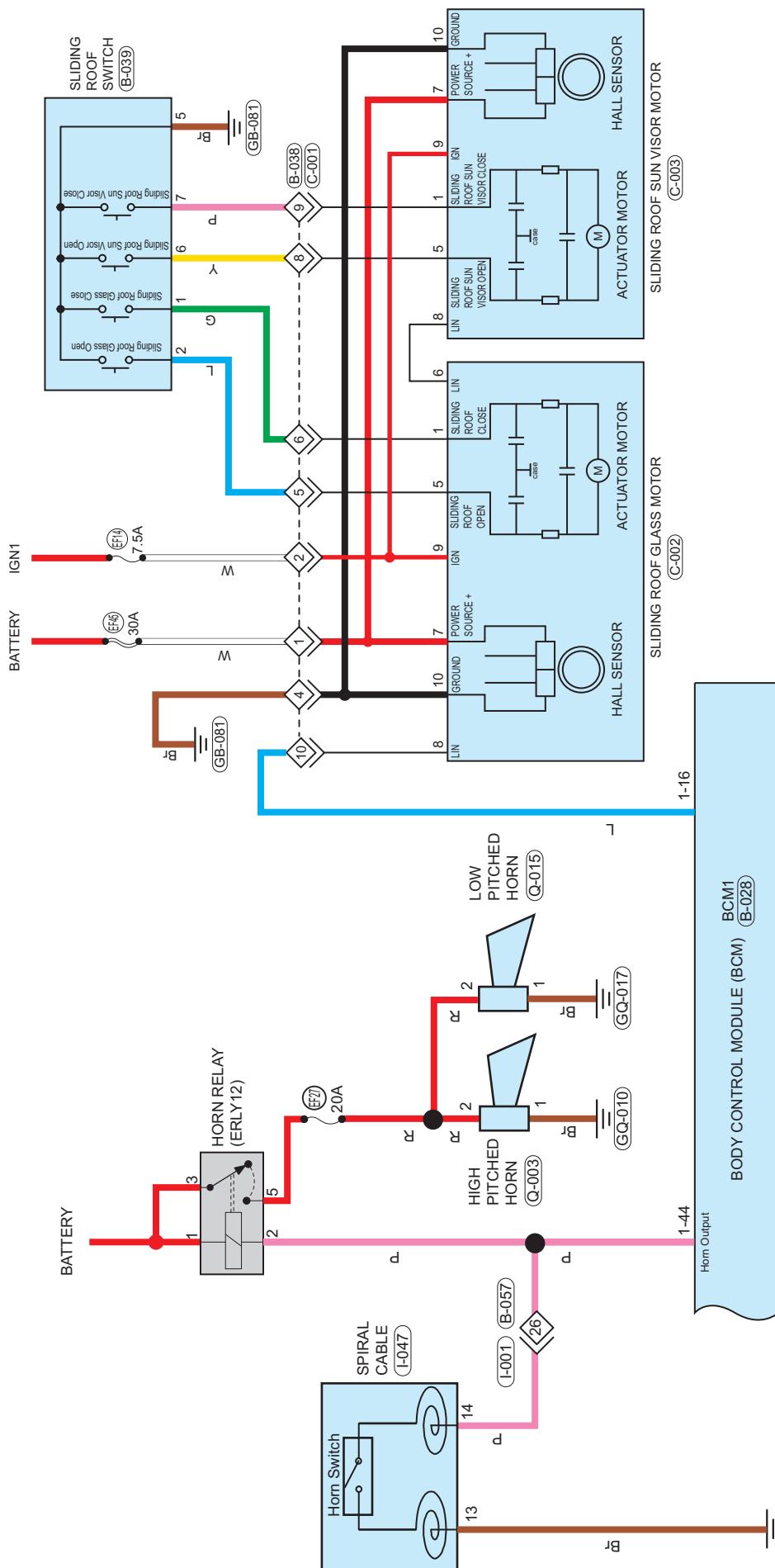


Initial Status: S1, S2, S3 Switch Ground  
Up: S2 Switch Operation  
Down: S1, S3 Switch Operation  
Left: S1 Switch Operation  
Right: S2, S3 Switch Operation

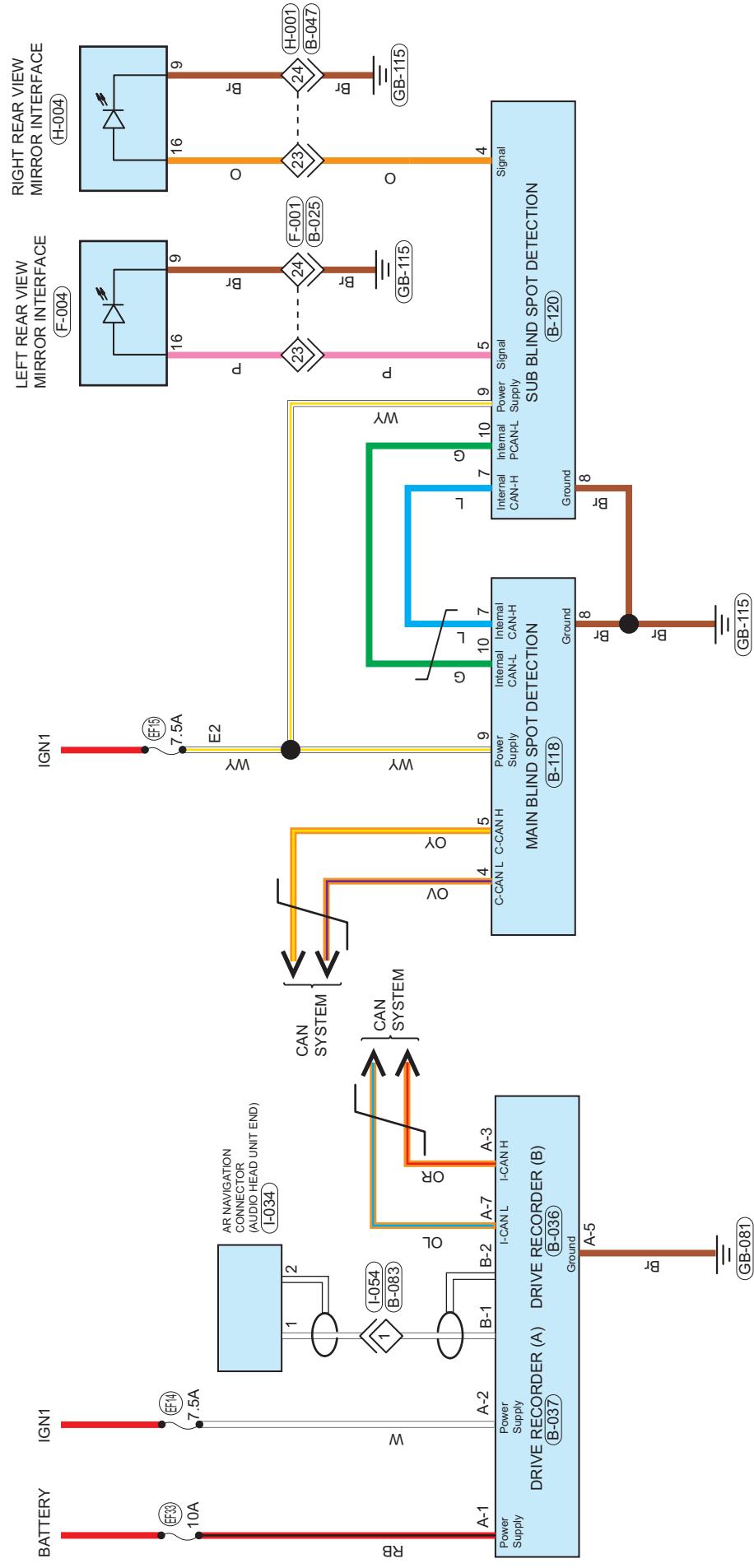


## Body Control Module (BCM)

12 – Overall Circuit Diagram

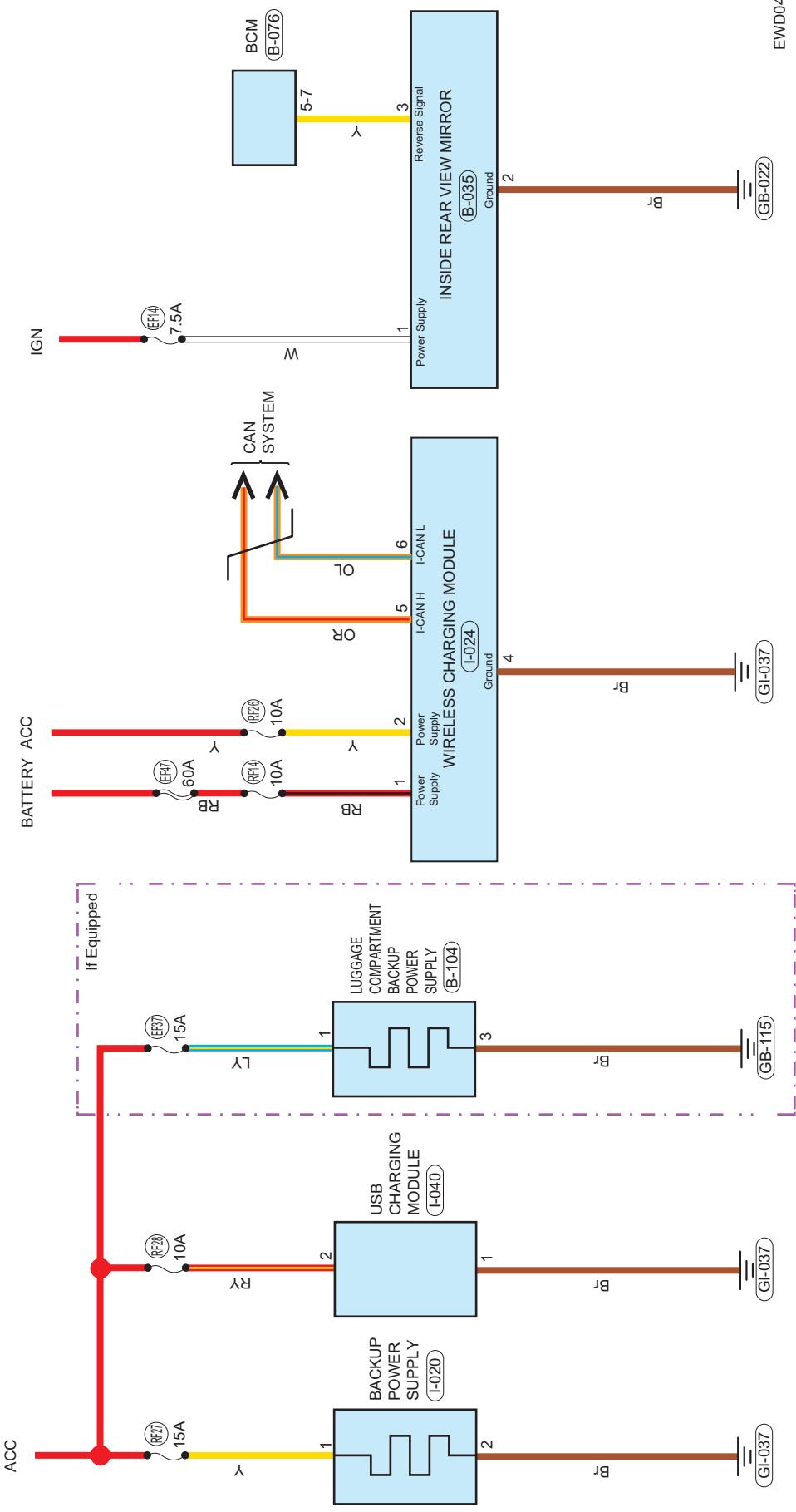


## Drive Recorder (DVR) / Blind Spot Detection System (BSD)



EWD039001

## Backup Power Supply / Wireless Charging System (CwC) / Inside Rear View Mirror



EWD040001

(GB-022)

(GI-037)

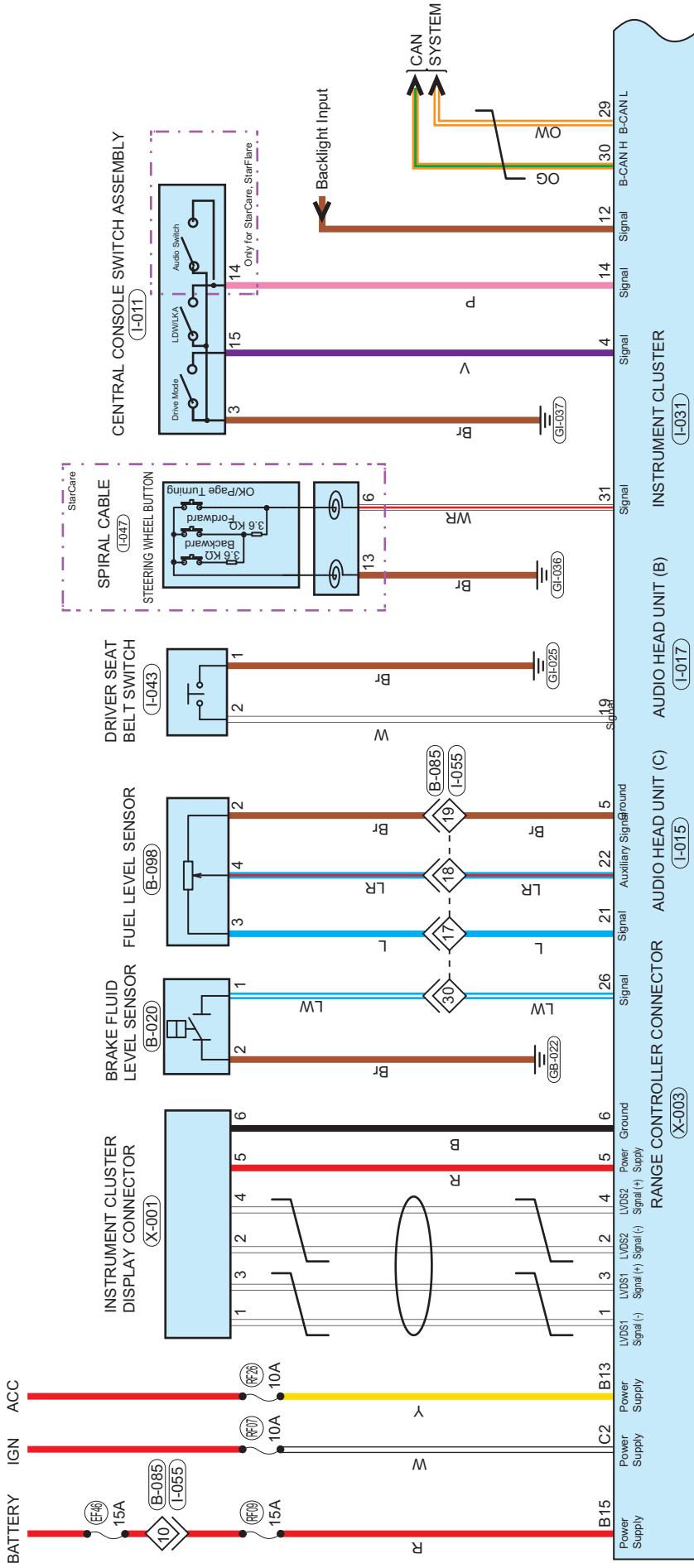
(GB-115)

(GI-037)

(GI-037)

12-34

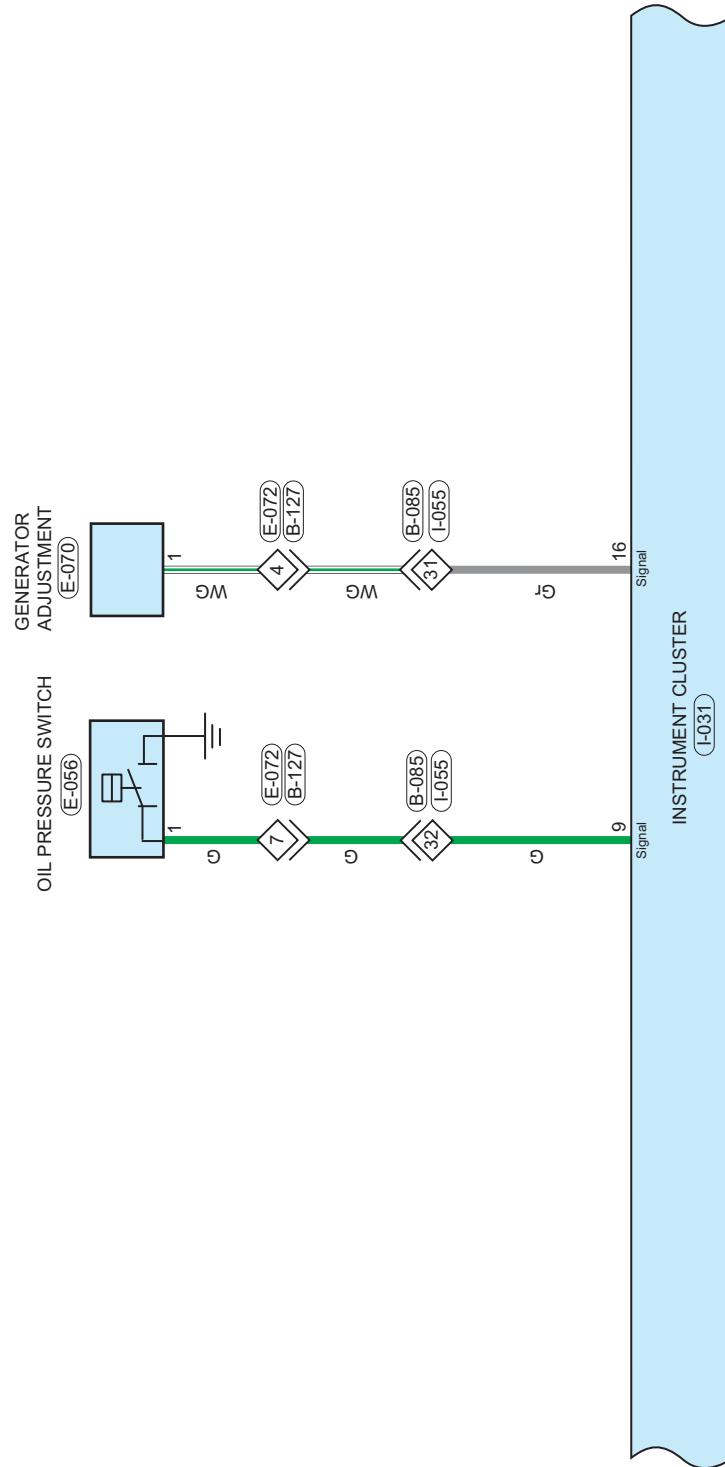
## Domain Controller (Instrument Cluster / Audio)



EWD042001

## Domain Controller (Instrument Cluster / Audio)

12 – Overall Circuit Diagram

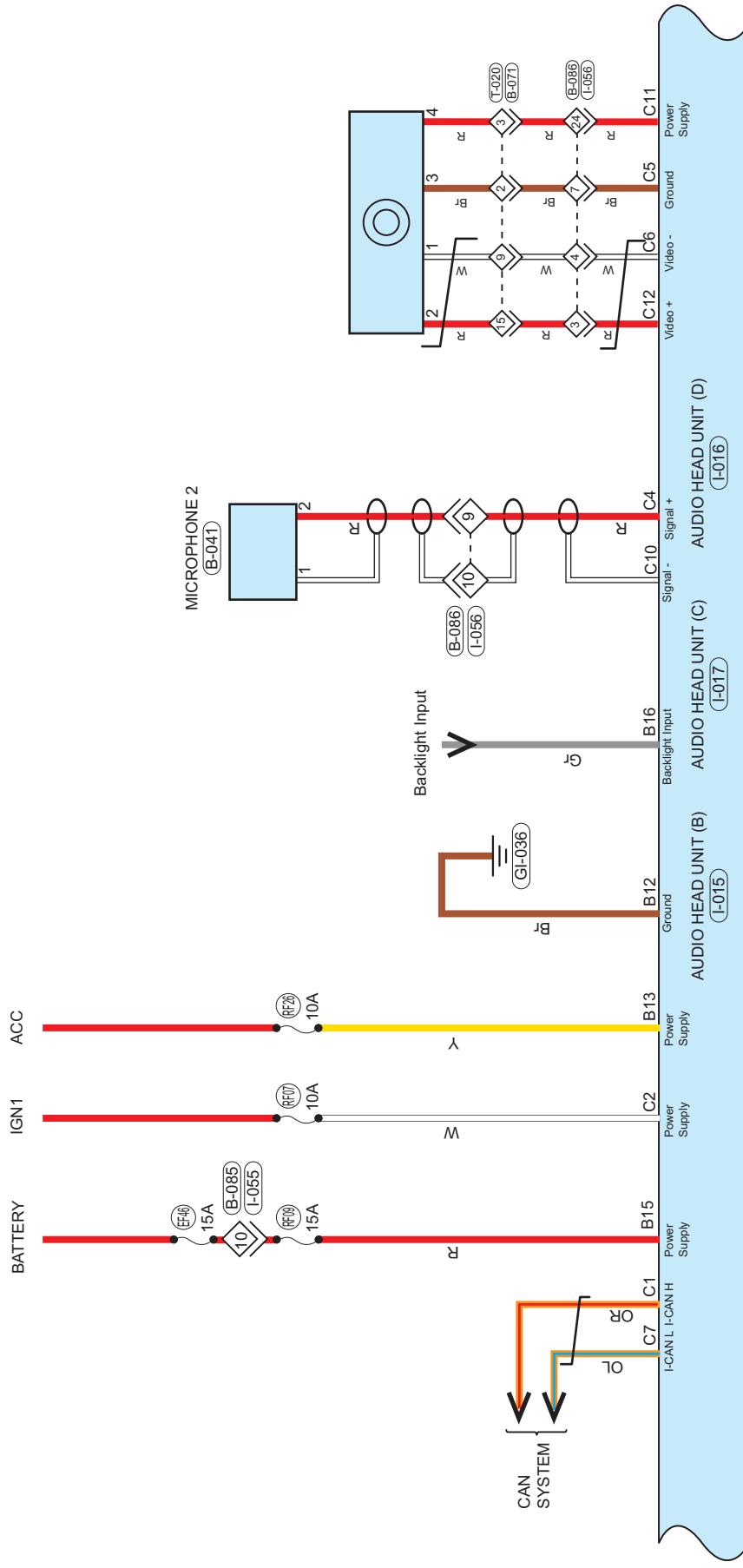


EWD061001

12-36

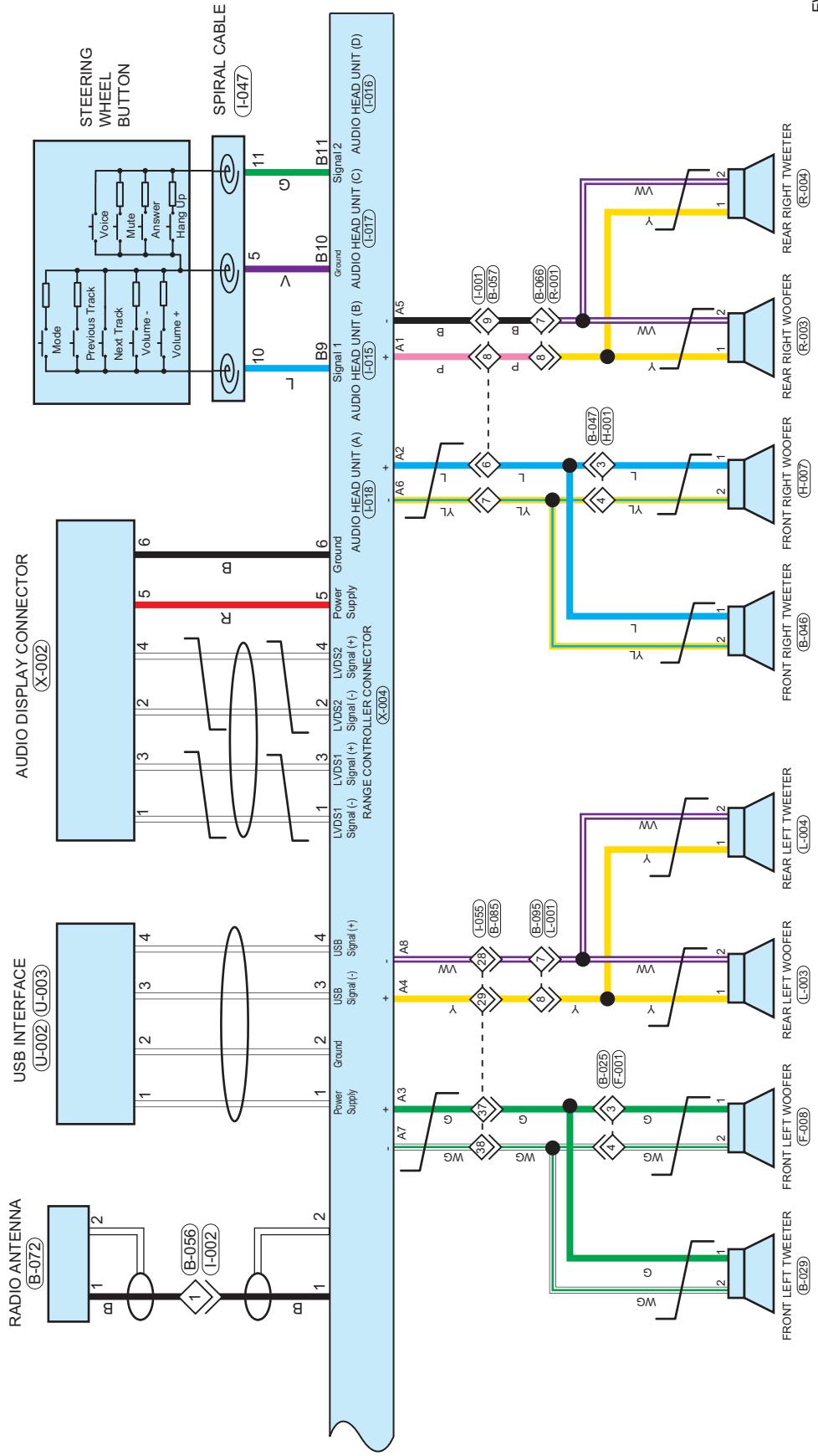


## Domain Controller (Instrument Cluster / Audio)

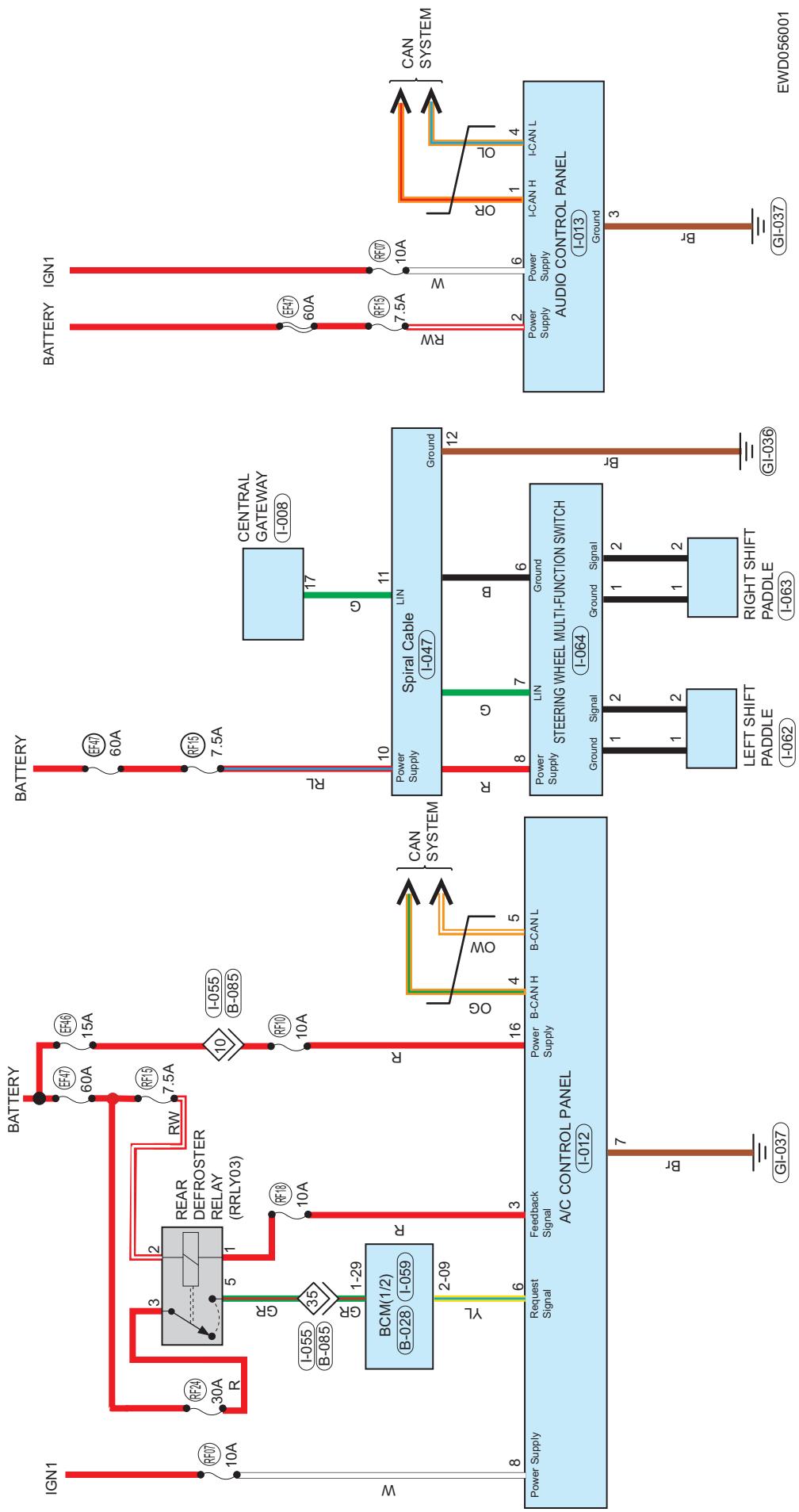


EWD043001

## Domain Controller (Instrument Cluster / Audio)

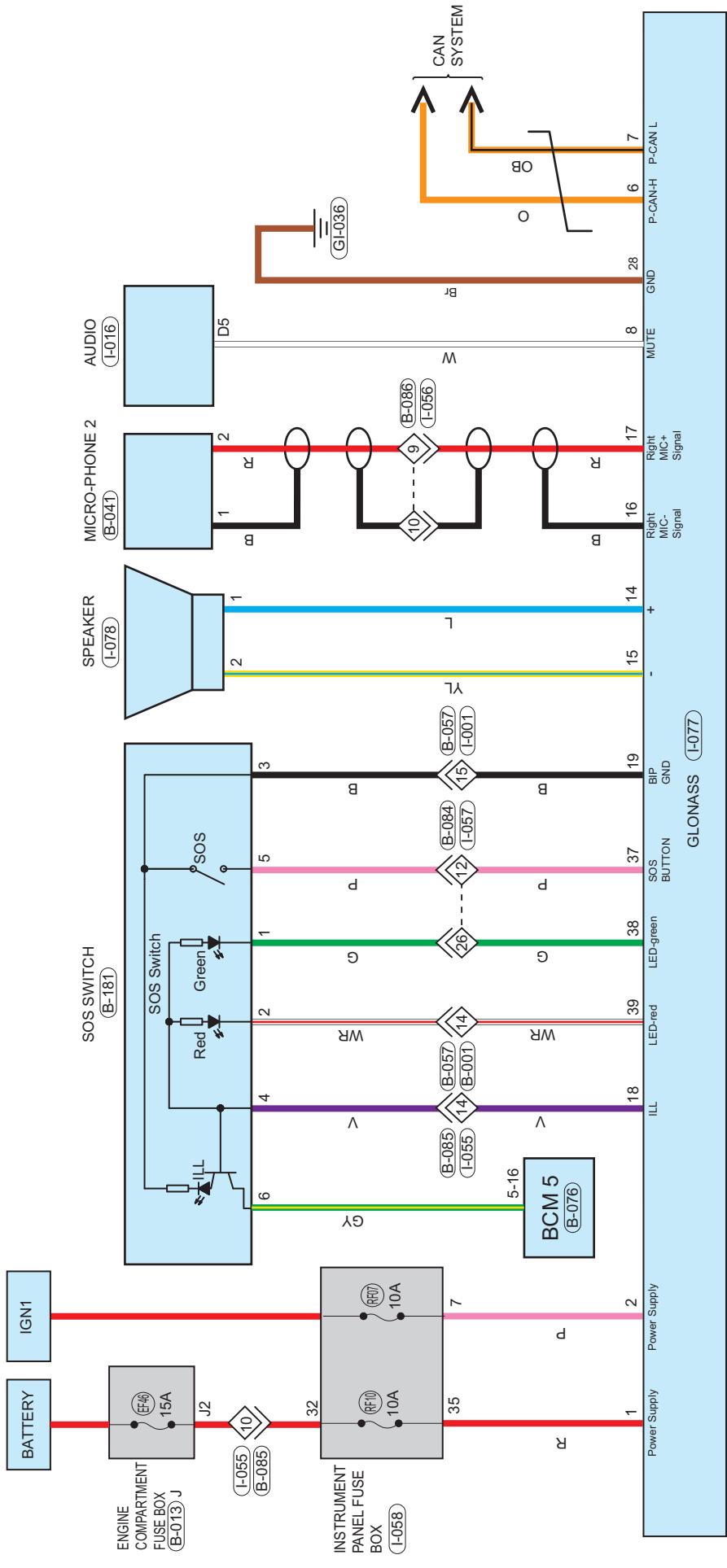


## A/C Control Panel / Multi-function Steering Wheel / Audio Control Panel



## GLONASS Global Navigation Satellite System

12 – Overall Circuit Diagram

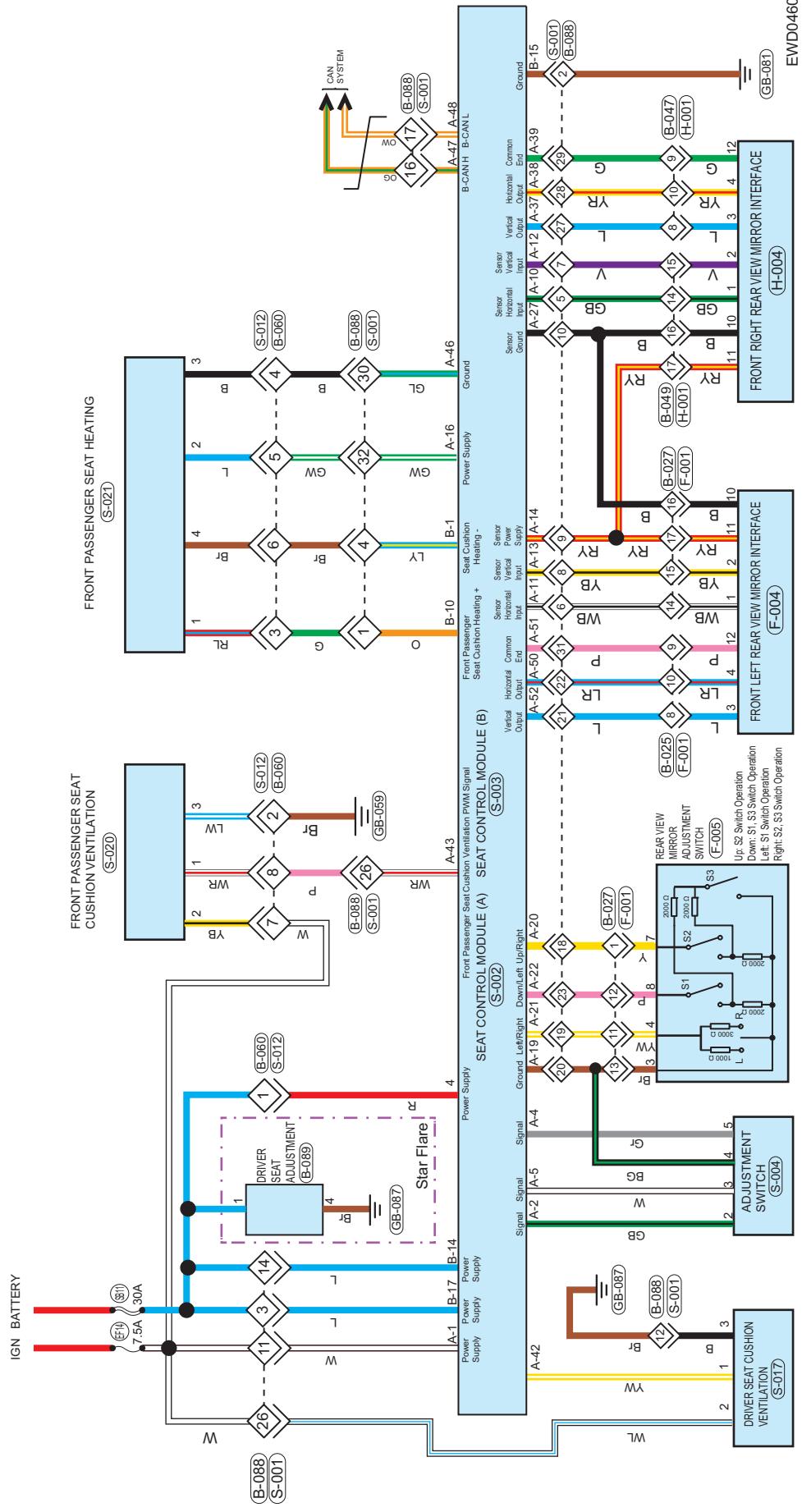


EWD056002

12-40

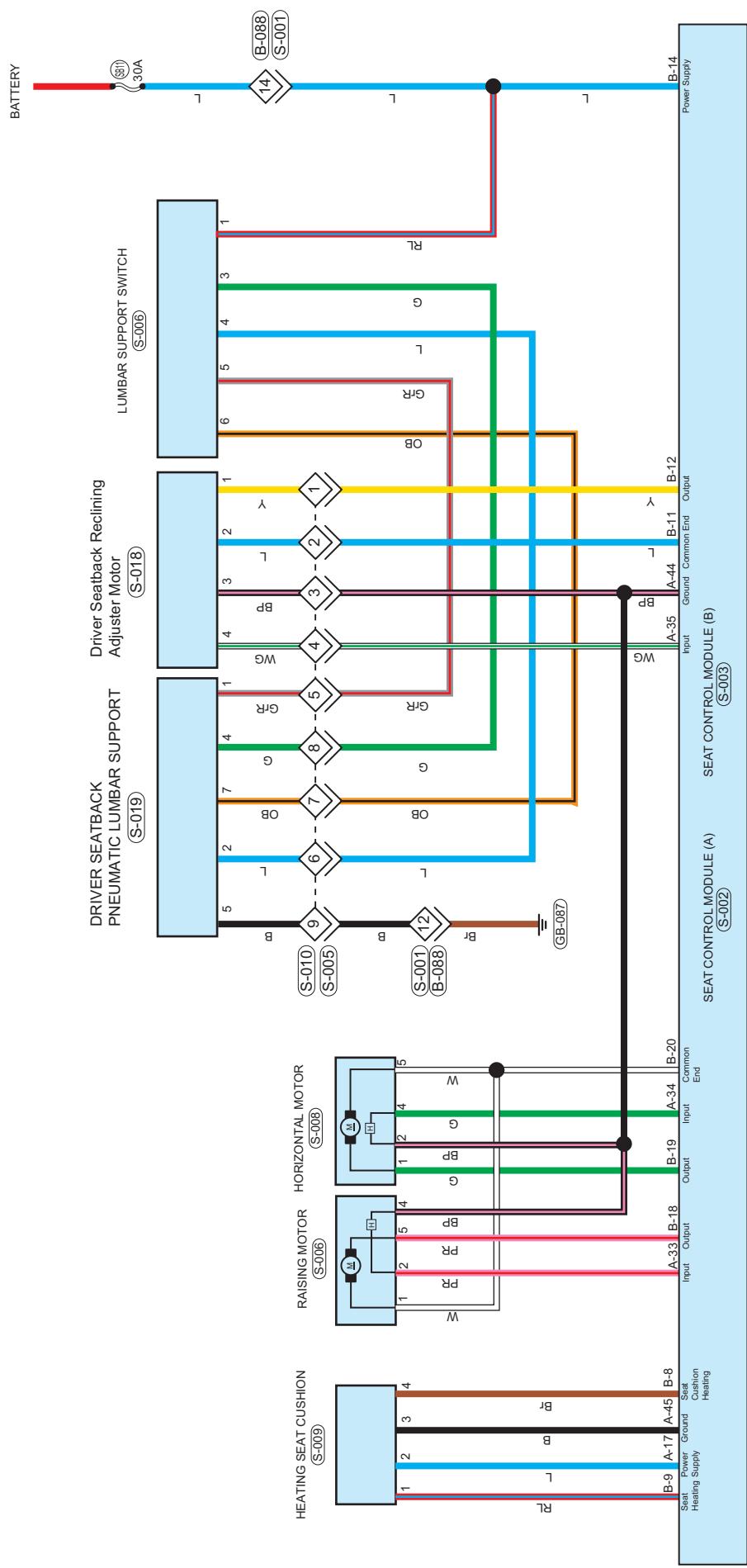


## Seat Control Module (SCU)



## Seat Control Module (SCU)

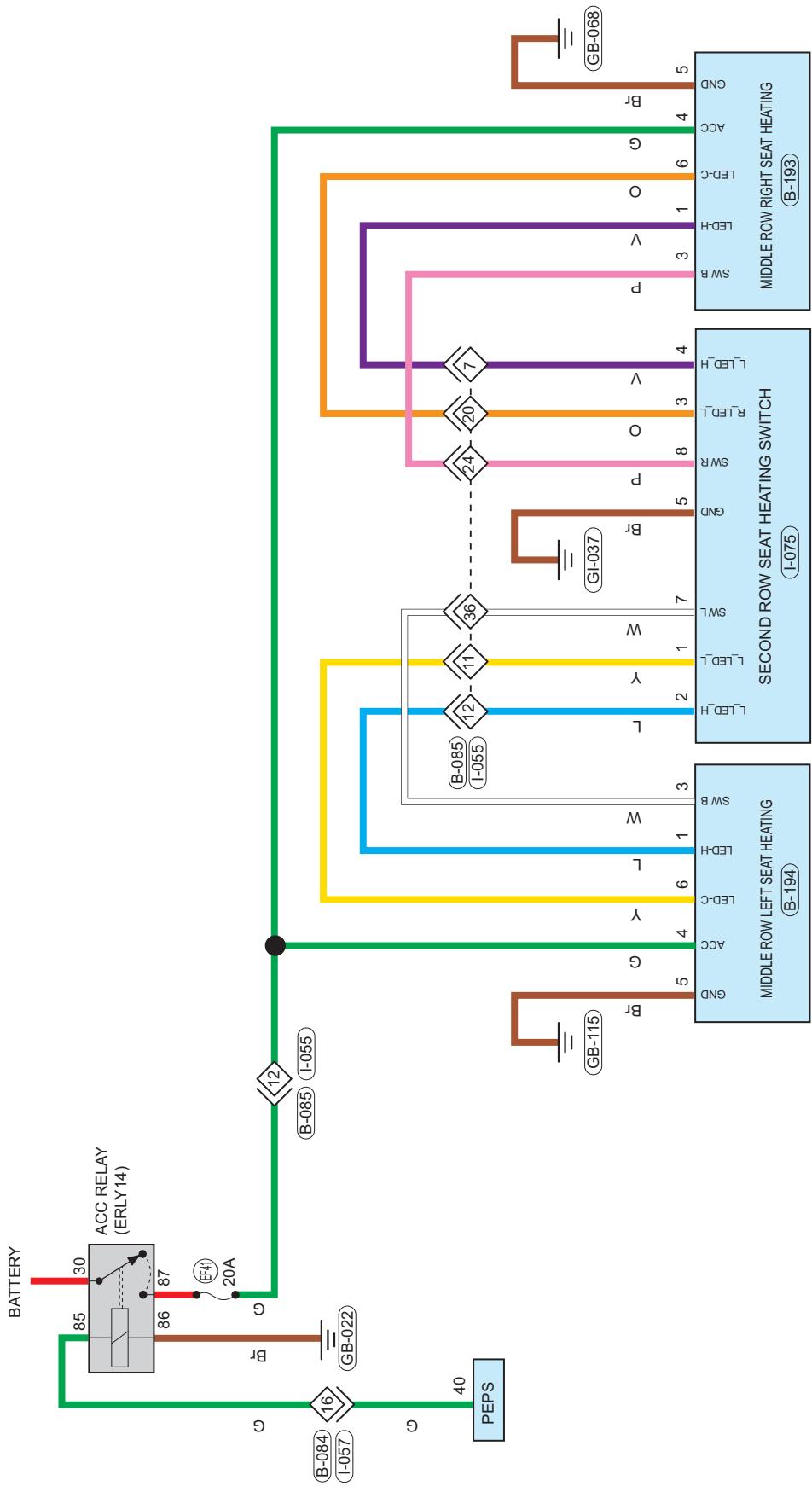
12 – Overall Circuit Diagram



EWD046002

12-42

## Seat Control Module (SCU)

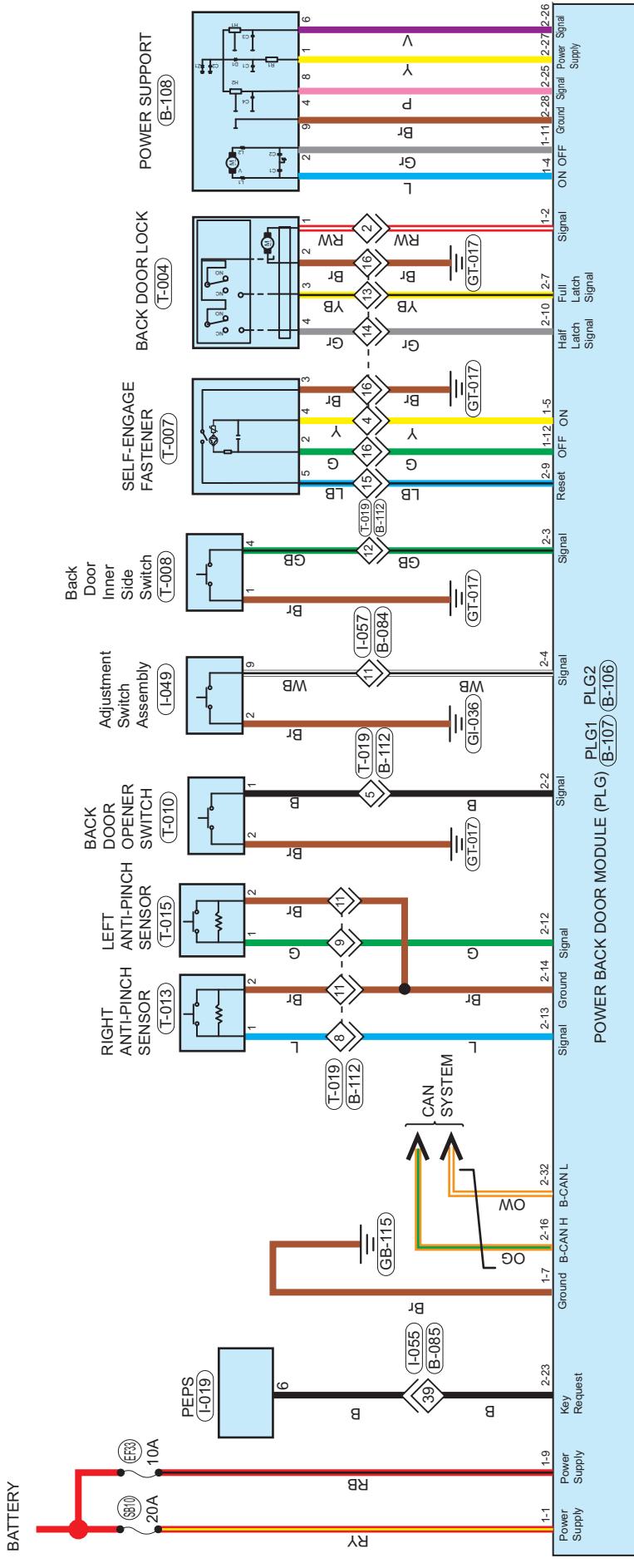


EWD046003



## Power Back Door System (PLG)

12 – Overall Circuit Diagram

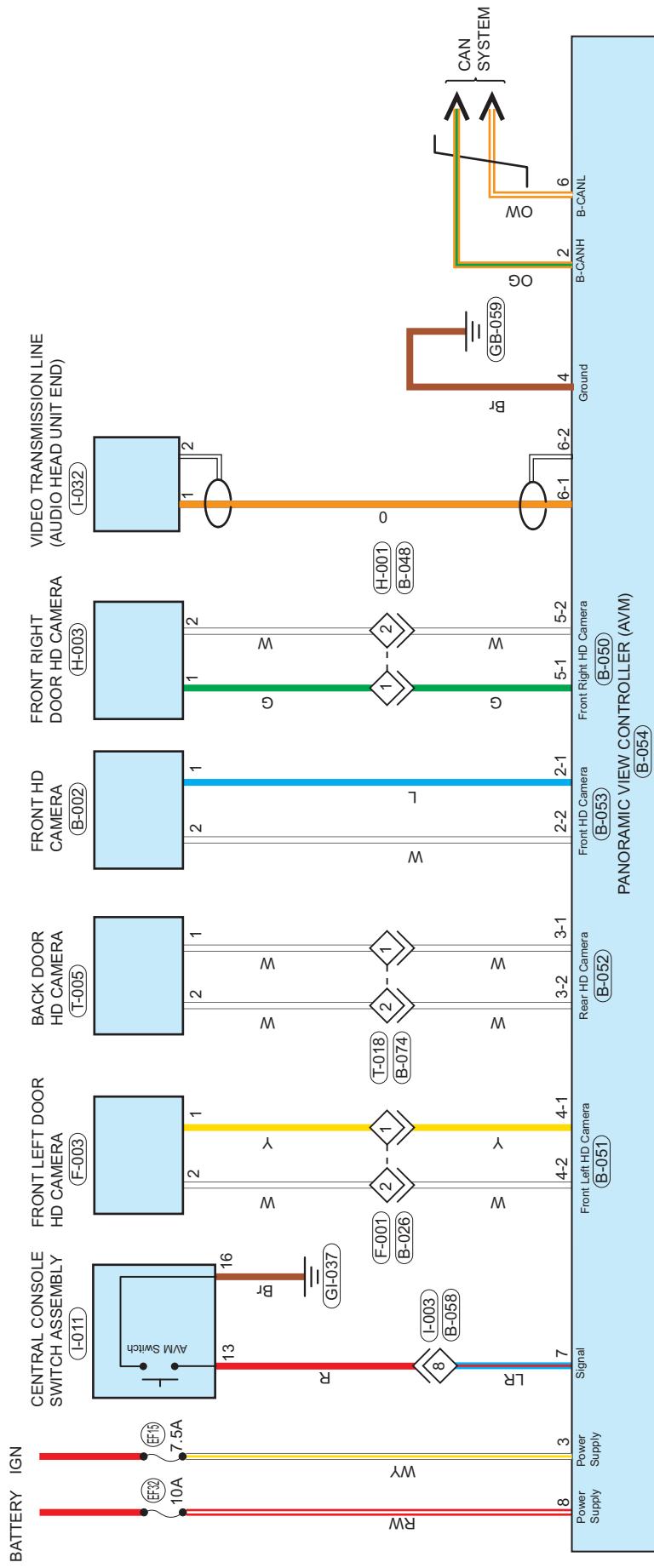


EWD047001

12-44

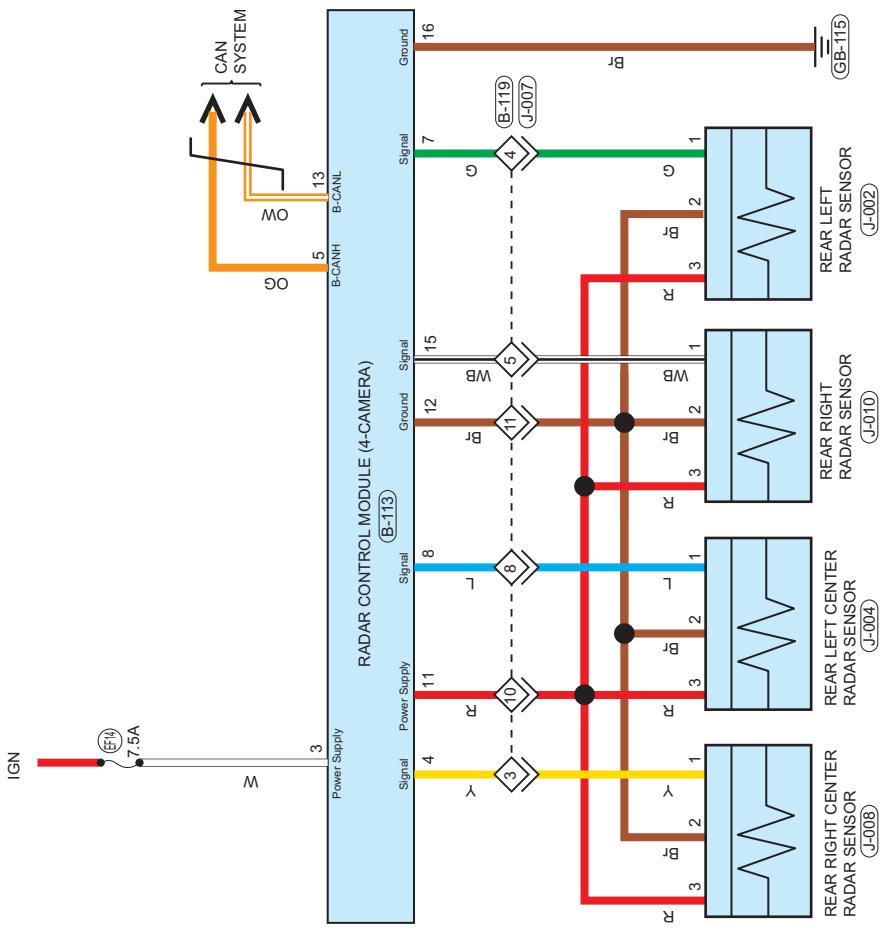
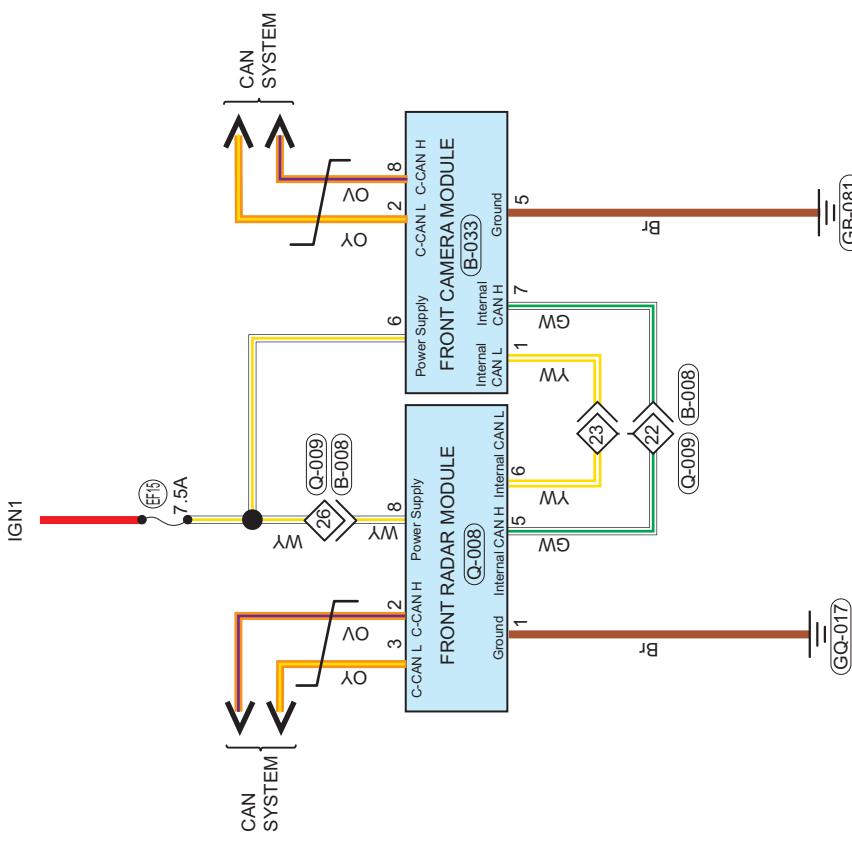


## Panoramic Control System (AVM)

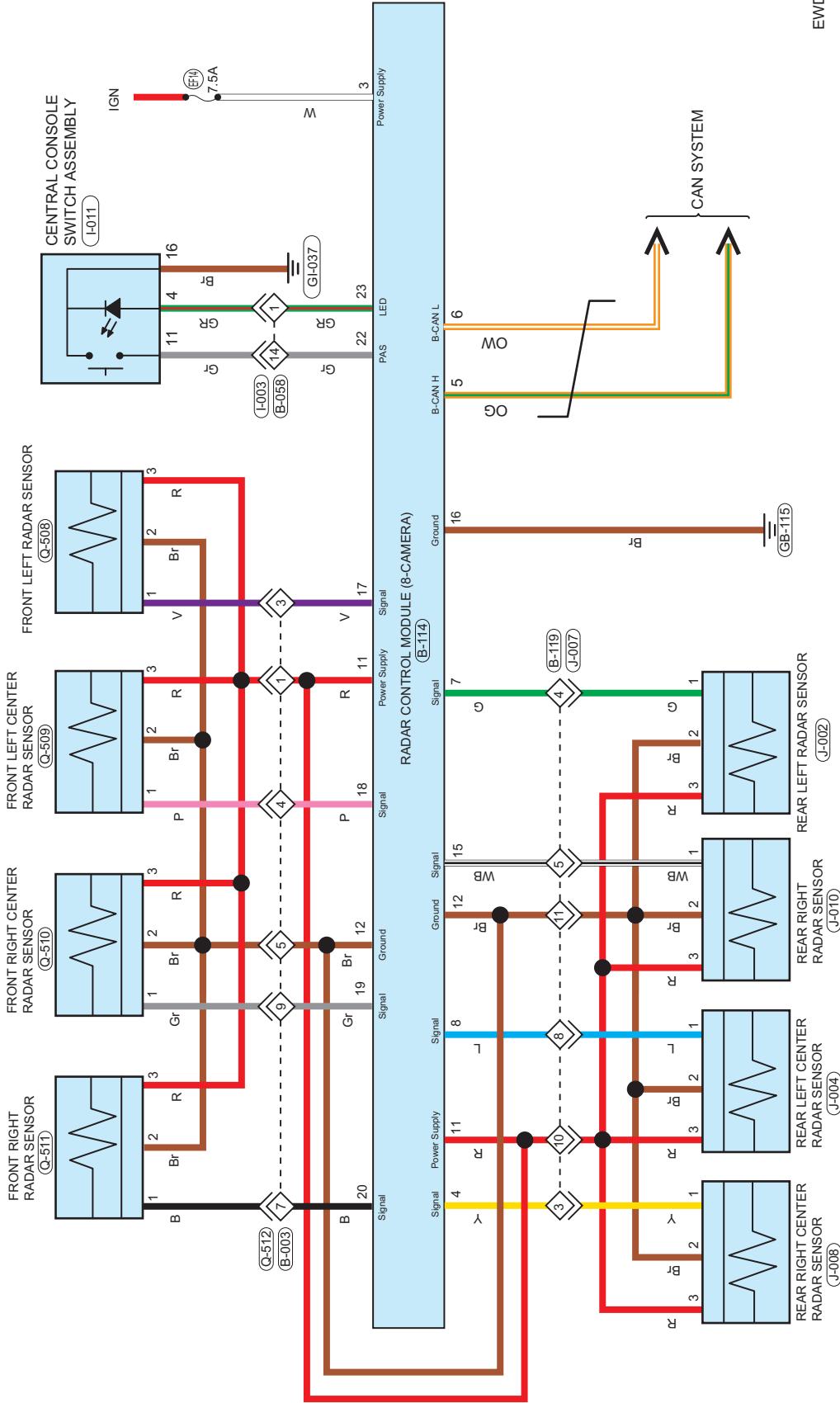


EWD049001

## Radar Assist System (4 Cameras) / Front Radar Module (FRM) / Front Camera Module (FCM)

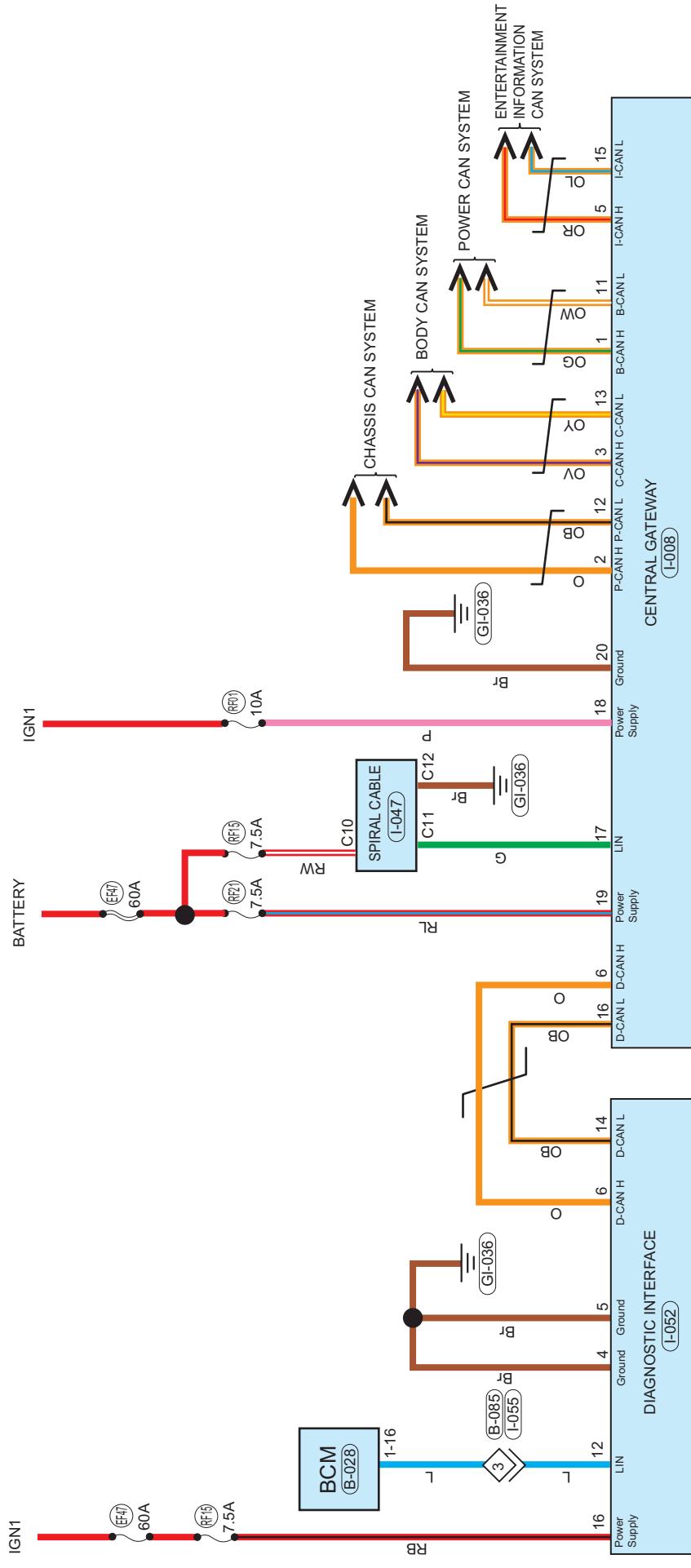


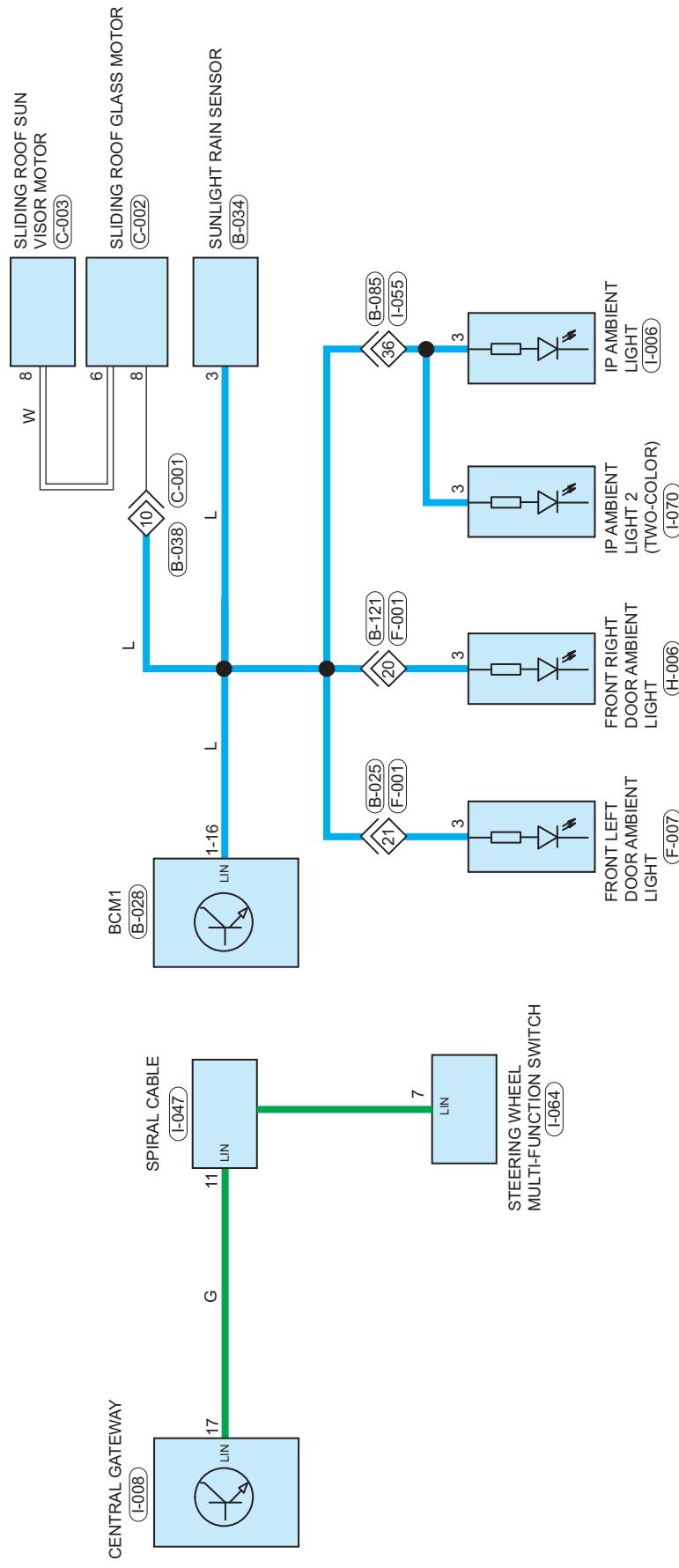
## Radar Assist System (8 Cameras)



EWD048002

## Diagnostic Interface / Central Gateway (CGW)

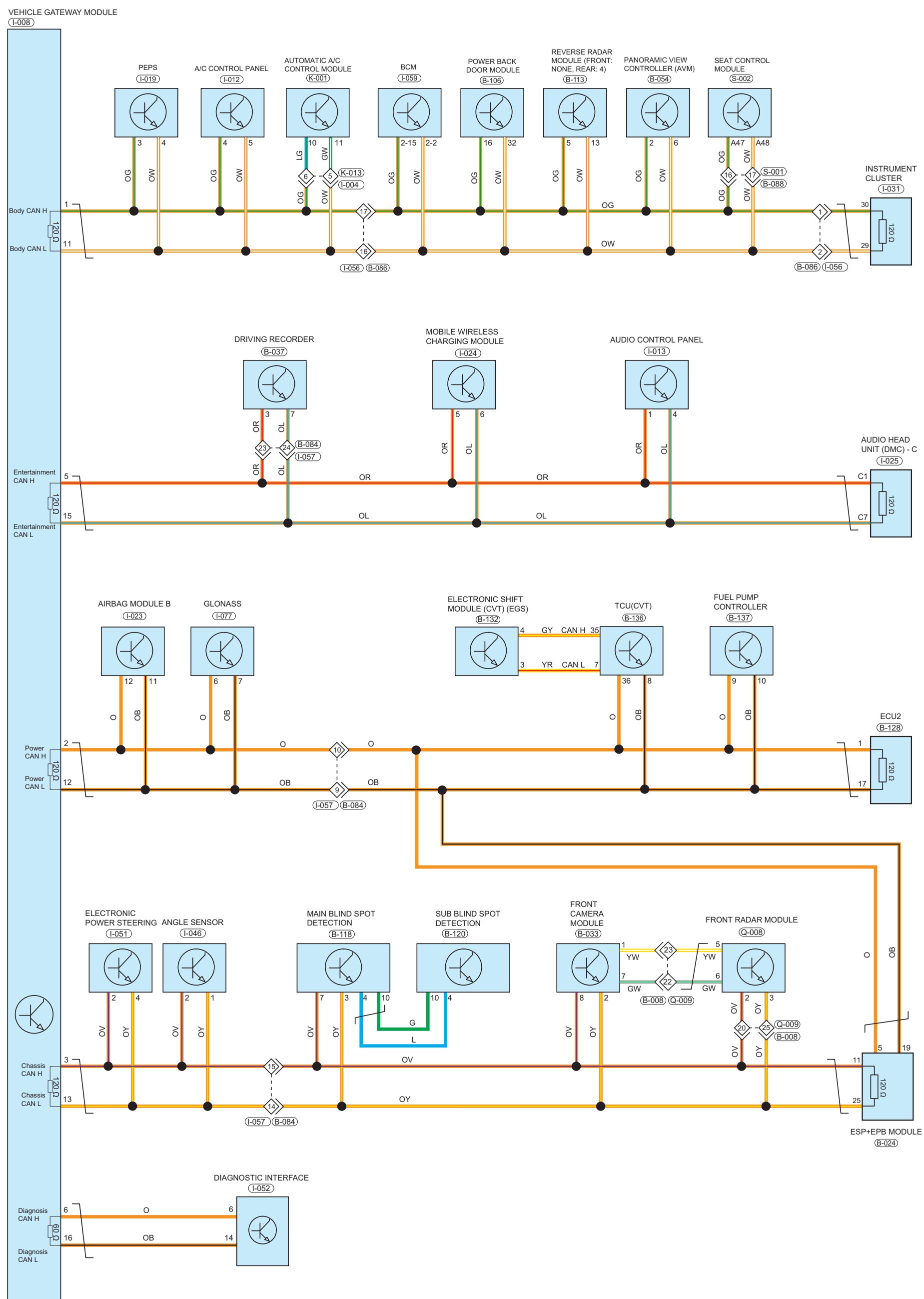




EWD055002



## CAN System



EWD051001