

Group 6

Wiring Diagram

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6.1 Diagnosis and Repair Method Description

Diagnostic Procedure

Refer to the following procedures for circuit fault diagnosis:

1. Confirm Fault

To do proper repair, confirm the fault symptoms described by the customer first. Inspect the relevant component carefully to confirm fault symptoms and make record. DO NOT disassemble the component before confirming the fault scope and causes.

2. Read Wiring Diagram and Analyze Causes

Make a complete analysis and judgment on the fault components from power supply to grounding according to the sub-system wiring diagram and determine the repair solution. If it cannot be determined, please read the system description in "Description and Operation" section in the repair manual to understand the working principle. And inspect other circuits that has common part with the fault circuit, for example, the fuse, grounding, switch, etc. Inspect the common circuit not covered in step 1.

If other components in the common circuit work properly, it means that the fault exists in its own circuit. Otherwise, the fuse or grounding may have faults.

3. Inspect Circuits and Components

Always use the wiring diagram together with repair manual and refer to the diagnostic procedure for circuits and components in repair manual. For the circuit with a control module, fully use diagnostic tools to do the test. Effective diagnosis should be a logical and reasonable operation. Fully use the diagnostic procedures in the repair manual and start the inspection from the most likely causes and the components with easiest inspection way.

4. Repair Fault

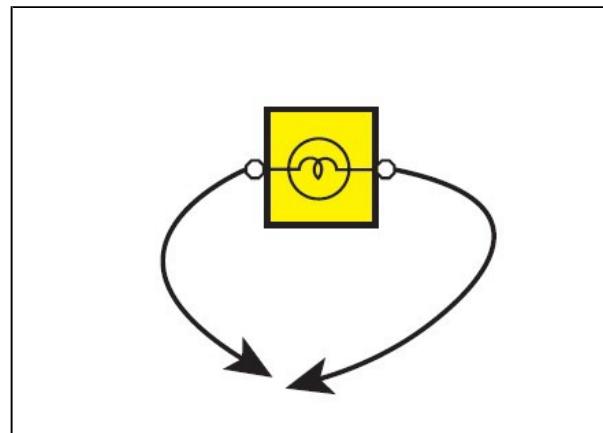
For the detected fault, refer to the wiring diagram and the description for fault treatment in repair manual. For example, the diagnostic procedure for poor grounding and the wiring harness connector treatment.

5. Confirm Circuit Working Condition

After repair, all functions should be reinspected to confirm that the fault is repaired. For the blown fault of fuse, inspect all the relevant circuits sharing this fuse.

Diagnostic Tools

1. Voltmeter and Test Lamp

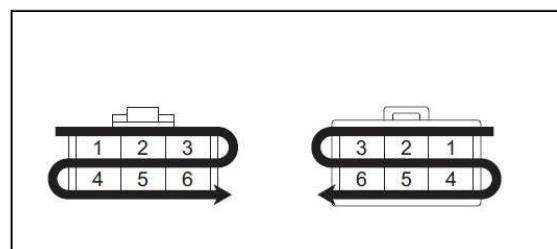


Use test lamp or voltmeter to inspect the circuit status. Check for voltage. Test lamp comprises a pair of wiring harnesses and a 12 V bulb. When inspecting, connect one wiring harness to the ground and the other one to the certain measurement point. If the bulb is lit, it means the measurement point has power supply.



WARNING: When inspecting the electronic control module voltage, DO NOT use test lamp to inspect the module circuit. Otherwise it could damage the interior circuit inside the module. Please use a voltmeter with 10 MΩ or higher internal resistance (for example, to inspect the ECU voltage circuit). Voltmeter has the same usage method as the test lamp, but voltmeter can show the voltage value of the circuit. Use a voltmeter with high impedance to test the voltage. If the circuit has poor connection, the voltmeter may show the normal value, but the voltage cannot drive the load successfully.

2. Self-powered Test Lamp and Ohmmeter



Use test lamp with own 12 V power supply or ohmmeter to inspect the circuit for continuity. Self-powered test lamp comprises a bulb, battery and a pair of wiring harnesses. The bulb will be lit when the two wiring harnesses are connected.

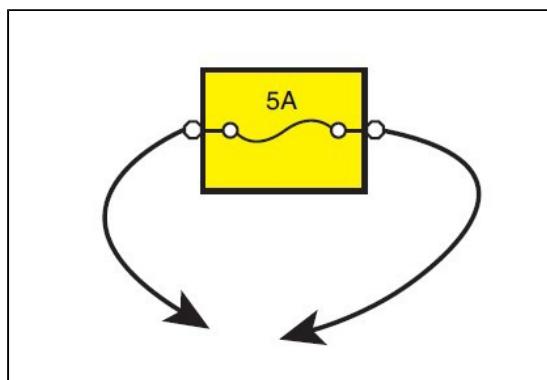
Before testing, disconnect the negative battery cable and pull out the fuse of circuit. To test the circuit for continuity, connect two wiring harnesses to the two measurement points. If the bulb is lit, it means the circuit is normal.



WARNING: DO NOT use self-powered test lamp to inspect the module circuit. Otherwise, it could damage the interior circuit of module. Please use an ohmmeter with 10 MΩ or higher internal resistance.

Ohmmeter has the same operation method as voltmeter, but ohmmeter can show the resistance value. The lower resistance, the better continuity.

3. Jumper Wire with Fuse



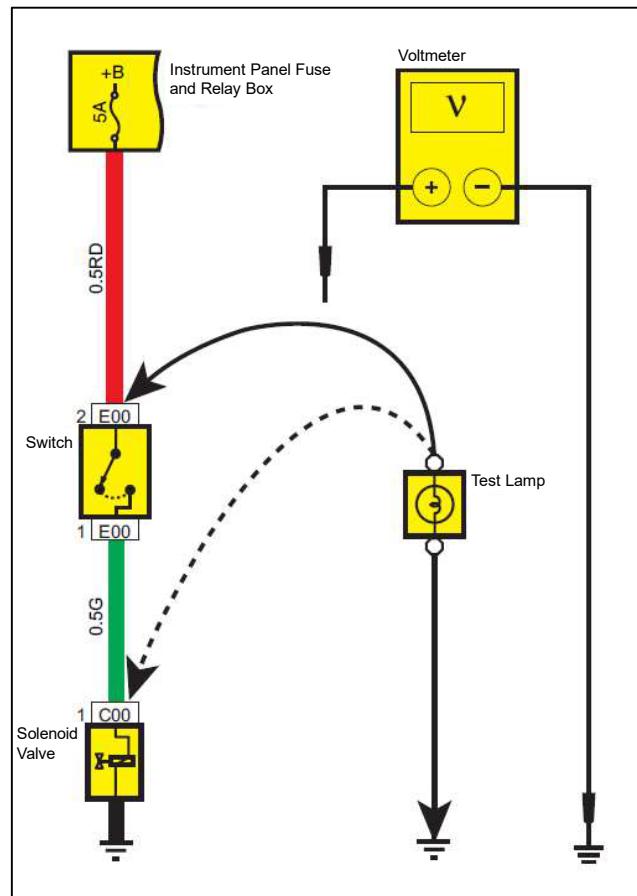
Use jumper wire to test a broken point for open loop circuit (circuit open). The jumper wire is a tool that should be in tandem with the circuit.



WARNING: To protect the circuit to be inspected, DO NOT use the fuse higher than the rated capacity of circuit to inspect relevant circuits. DO NOT use the jumper wire as the input or output signal when a control module such as ECU or TCU is in the circuit. Otherwise, it could damage the interior circuit of module.

Fault Testing

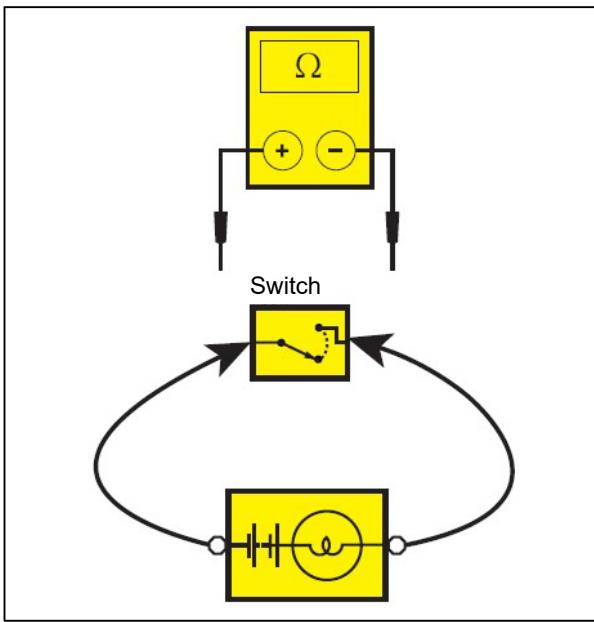
1. Voltage Testing



Voltage testing is to test the voltage at a certain point. When testing a certain connector terminal, insert the positive probe of circuit testing tool from back of connector without disassembling wiring harness connector.

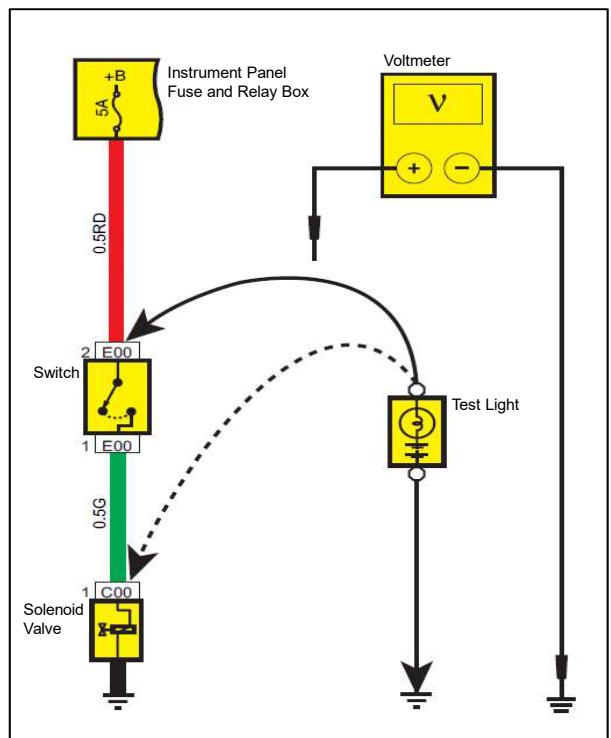
- 1 When testing the voltage with test lamp or voltmeter, connect the negative of testing tool to battery negative.
- 2 Connect the other end of wiring harness of the test lamp or positive probe of the voltmeter to the test position.
- 3 If a voltmeter is used and displayed voltage value is lower than the rated value at least 1 V, it means a circuit fault. If a test lamp is used and lamp is not lit, it means a circuit fault.

2. Power Testing



- 1 Disconnect the negative battery cable.
- 2 Connect one wiring harness of the self-powered test lamp or the probe of the ohmmeter to the test component. When using ohmmeter, please connect the two probes each other and use reset button to adjust the ohmmeter to zero.
- 3 Connect the other wiring harness of the test lamp or probe of the ohmmeter to the other side of the test load.
- 4 If the bulb is lit, it means the circuit is normal. If an ohmmeter is used and the resistance value is very low or close to 0 Ω, it means the component has good continuity.

3. Short Circuit Testing

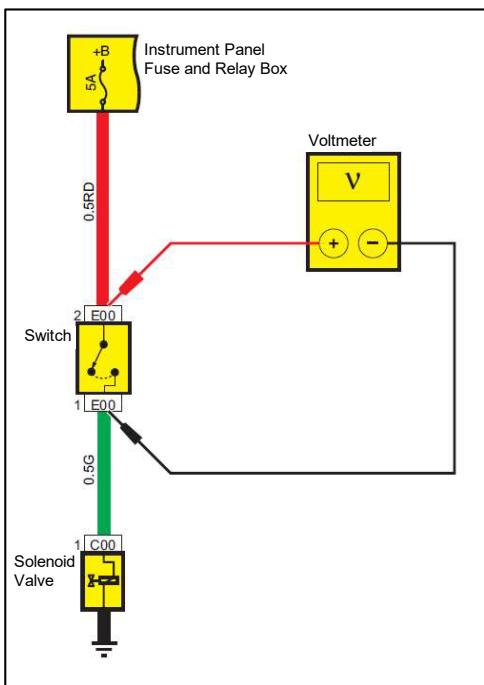


- 1 Disconnect the negative battery cable.
- 2 Connect one wiring harness of self-powered test lamp or one probe of ohmmeter to the output terminal of fuse.
- 3 Connect the other wiring harness of self-powered test lamp or other probe of ohmmeter to the grounding.
- 4 Disconnect all the electrical loads related to the fuse.

 **CAUTION:** If all the electrical loads related to the fuse are not disconnected, when testing the low resistance circuit such as lights, the ohmmeter will always display the low value. This will cause wrong judgment.

- 5 Do the inspection in sequence from the place closest to the fuse.
- 6 If the self-powered test lamp is lit or ohmmeter has value display less than 5 Ω, it means that the circuit is short to ground.

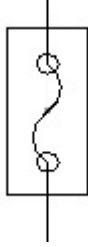
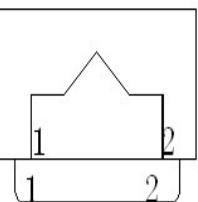
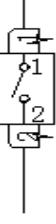
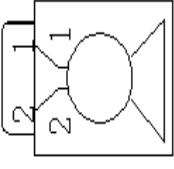
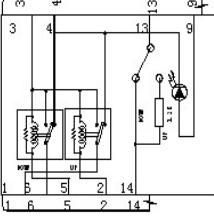
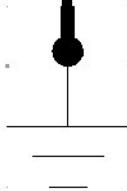
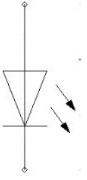
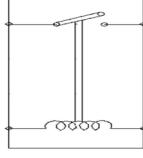
4. Voltage Drop Testing



- 1 Connect the positive probe of voltmeter to one end of the circuit close to battery (connector or switch side).
- 2 Connect the negative probe to the other end of the circuit (the other side of connector or switch).
- 3 Switch on or off to make the circuit work.
- 4 The voltmeter will display the voltage difference between the two test points.
- 5 If the voltage difference is more than 0.1 V (less than 50 mV for 5 V circuit), it means a circuit fault. Inspect for loose, oxidized or corrosive circuit.

6.2 Symbol and English Abbreviation Meaning

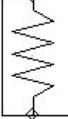
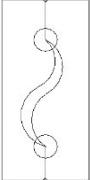
Symbol	Meaning	Symbol	Meaning
	Airbag		Twisted-pair Wire
	Side Collision Sensor		Seat Belt Buckle
	Bulb		Reversing Radar Sensor
	Motor		Knock Sensor
	Speed Sensor		Relay

Symbol	Meaning	Symbol	Meaning
	Quick-blow Fuse		Seat Belt Pretensioner
	Wiring Harness to Wiring Harness		Switch
	Anti-theft Horn		Window Switch
	Grounding Point		LED Lamp
	Switch		Relay

6.2.1-3

Symbol and English Abbreviation Meaning

6.2.1-3

Symbol	Meaning	Symbol	Meaning
	Thermistor		Slow-blow Fuse

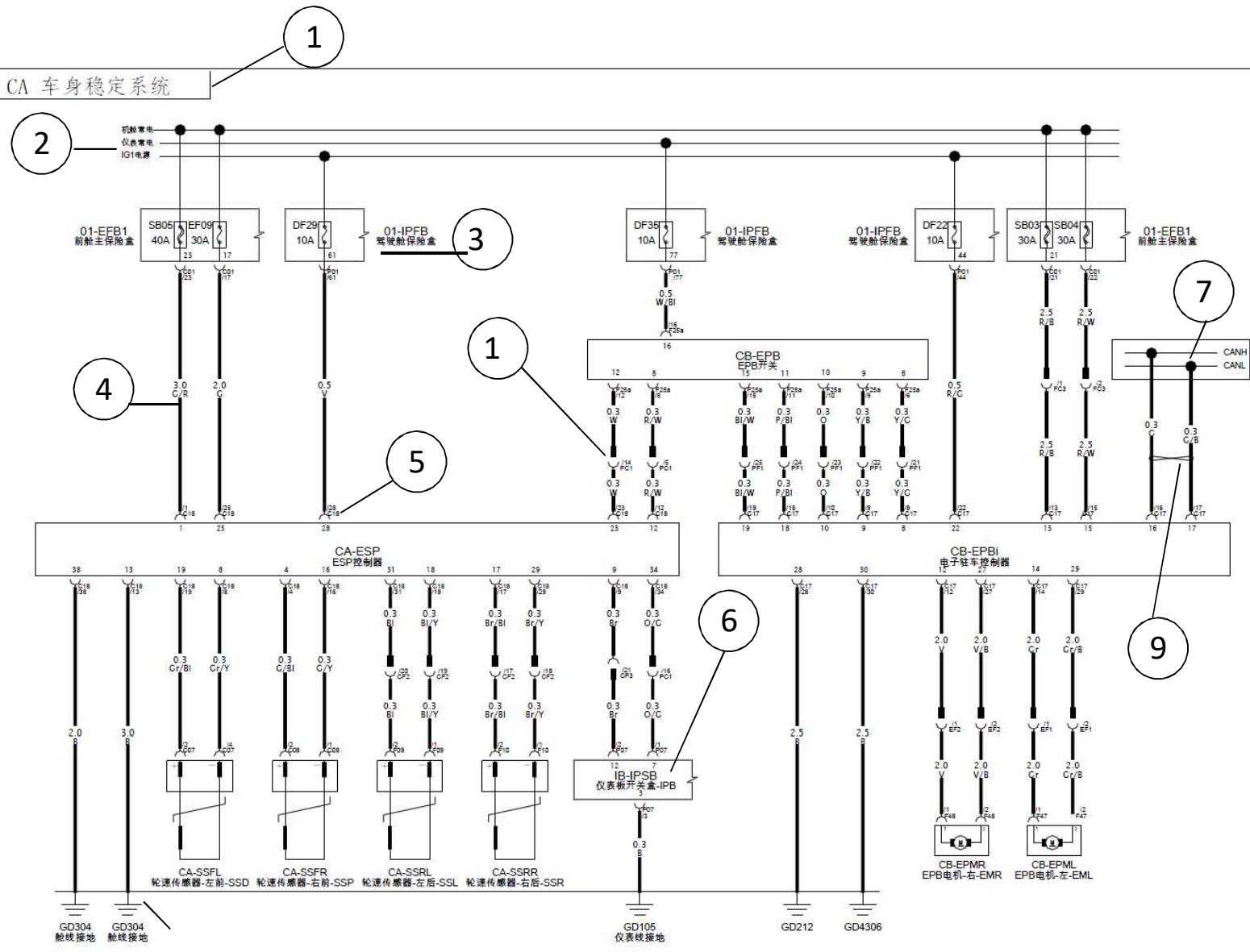
English Abbreviation	Meaning
AC	A/C Controller
ACC	Self-adaptive Cruise Control Module
ACM	Gearshift Actuator Control Module
ALCU	Atmosphere Lamp Control Module
AMP	External Power Amplifier
DCT	Automatic Transmission
ATB	All-Terrain Switch Module
AVM	Around View Module
BCM	Body Control Module
BSD	Blind Spot Detection Controller
CCP	Center Control Panel (Entertainment + A/C Control Panel)
DCDC	DC Converter
DCT	Dual-clutch Transmission
DDWCU	Driver Window Anti-pinch Controller
DMS	Driver Monitoring Camera
DSM	Driver Seat Module
EDL	Electronic Differential Lock
EMS	Electronic Injection Controller (Engine Management System)
EPB	Electrical Parking Brake
EPBi	Electrical Parking Brake Integrated (EPB+ESP)
ESCL	Electronic Steering Lock
ESL	Electronic Shift Lever
ESP	ESP Controller (Electronic Stability Program)
EPS	Electric Power Steering System
FCP_AC	A/C Front Control Panel
FCP_HU	Entertainment Front Control Panel
FSCM	Front Seat Heating and Ventilation Module

English Abbreviation	Meaning
GW	Gateway
HU	On-board Entertainment Basic Terminal (Head Unit)
HUD	Head-up Display Unit
IAM	Integrated Antenna Module
IBS	Smart Battery Sensor
iBCM	Intelligent Body Control Module
iCCU	Smart Cabin Control Module
IP	Instrument Cluster Controller
LAS	Lane Assist System
LCDAL	Left Side Assist Module
LCDAR	Right Side Assist Module
LCM	Light Control Module
MFS	Multi-functional Steering Wheel Module
NV	Night View Controller
OPI	Transmission Oil Pump Controller
PCP	Front Passenger Control Panel
PDWCU	Passenger Window Anti-pinch Controller
PEPS	Keyless Entry and Start
PSDL	Power Slide Door Module (Left)
PSDR	Power Slide Door Module (Right)
PTS	Vehicle Tailgate Controller
Q-Driver	Central Controller
RADM	Rear Assist Detection Module
RCP_AC	A/C Rear Control Panel
RCP_HU	Entertainment Rear Control Panel
RF	Radio Frequency Module
RFBT	Radio Frequency & Bluetooth Module

English Abbreviation	Meaning
RLDM	Left Rear Display Module
RLS	Rain/Light Sensor
RLWCU	Left Rear Window Anti-pinch Controller
RRDM	Right Rear Display Module
RRWCU	Right Rear Window Anti-pinch Controller
RRS	Reversing Radar System
RSCM	Rear Seat Heating and Ventilation Module
SAS	Steering Angle Sensor
SRCU	Sunroof Control Unit
SRS	Airbag Control Unit (Restraint System)
SSCU	Sunroof Sunshade Control Unit
SWH	Steering Wheel Heating Module
TBOX	On-board Communication Basic Terminal
TDM	Tailgate Door Module
WLCM	Wireless Charging Module
PCU	Power System Controller
PEU	Motor Controller
BMS	Battery Management Unit
iPUMP	Electric Oil Pump
OBC	Charger
PTC	Electric Heater

6.3 Wiring Diagram Reading Description

Wiring Diagram Example



①: System name. Each electrical system in the wiring diagram has a unique name and code, and the corresponding relationship is as follows:

Code	System Name	Code	System Name
AA	A/C Control System & Emergency Warning Lamp System	LB	Exterior Lamp System
AB	Rear Defroster System & Outside Rearview Mirror Heater System	LC	Interior Lamp System
CA	Body Stability System	MA	Wiper System
CB	Electric Parking System	MB	Rearview Mirror Control System
CC	Electric Power Steering System	PA	Engine Control System
EA	Seat System	PB	Engine Accessory System
GA	Starting Motor & Alternator System	SA	Airbag System
IA	Electrical Accessory System	SC	Self-adaptive Cruise System
IB	Instrument Cluster System	SD	Panoramic Display System
ID	Gateway System	SF	Electronic Steering Lock System
LA	Headlamp Lighting System	SG	Keyless Control System
SI	Parking Assist System	TA	TCU Control System
VA	Multimedia Control System	HA	Charging and Discharging Systems
HB	Front Drive System	WA	Window Control System
HD	Battery Management System	HE	Power Control System
WB	Door Lock Control System	WC	Sunroof Control System

②: System power supply, it indicates the power supply type supplied to fuse or load, and its meaning is as follows:

Engine compartment constant power supply indicates the battery power supply supplied by engine compartment fuse box and battery fuse box;

Instrument cluster constant power supply indicates the battery power supply supplied by instrument panel fuse box;

ACC indicates the power supply output when ignition switch is turned to "ACC";

IG1 indicates the power supply output when ignition switch is turned to "ON";

IG2 indicates the power supply output when ignition switch is turned to "ON".

③: Fuse box and fuse or relay information.

④: Circuit wire specification and color code.

3.0 G/R: Indicates a two-color wire with sectional area of 3.0 mm², and the primary color is green and the secondary color is red.

For example, 1.25 R: Indicates a red single-color wire with sectional area of 1.25 mm².

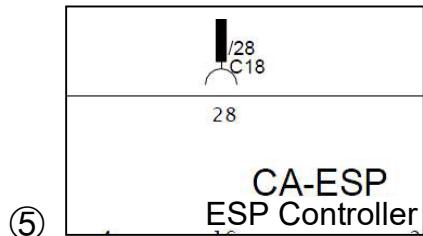
The number indicates the specification of wire sectional area (unit: mm²), the letter indicates the wire color, and the meaning of wire color code is shown in table below:

Color Code	Chinese Name	Meaning
B	黑色	Black
Bl	蓝色	Blue
Br	棕色	Brown
Y	黄色	Yellow
G	绿色	Green
S	灰色	Gray
Lg	浅绿	Light Green
O	橙色	Orange
P	粉红	Pink
V	紫色	Purple

Color Code	Chinese Name	Meaning
R	红色	Red
W	白色	White

In the above example, G/R represents the color of two-color wire. The first letter represents the primary color and the last letter represents the secondary color. (Primary color: The color with a large proportion of area in the two-color wire; Secondary color: The color with a small proportion of area in the two-color wire.)

Wires with only one letter indicates that the insulating surface is of one color, the letter indicates the color of wire.



⑤ : Indicates the connector code and corresponding terminal position.

C18--Indicates the connector with serial number 18 for engine compartment wiring harness (referred to as C), where indicates the connection of ESP connector;

/28--Indicates the 28th hole terminal in connector C18.

The connector code corresponding to the wiring harness is as follows:

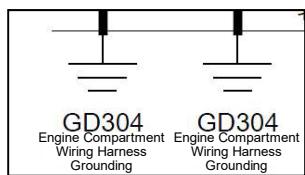
Wiring Harness Name	Corresponding Connector Code
Engine Wiring Harness	E
Engine Compartment Wiring Harness	C
Transmission Wiring Harness	T
Instrument Cluster Wiring Harness	P
Chassis Wiring Harness	F
Door Wiring Harness	D
Rear Bumper Wiring Harness	B

Wiring Harness Name	Corresponding Connector Code
Roof Wiring Harness	R
Front Bumper Wiring Harness	B
Tailgate Wiring Harness	D
EPB Wiring Harness	F

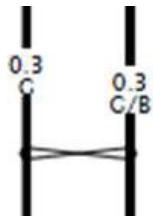
⑥ Electrical name.



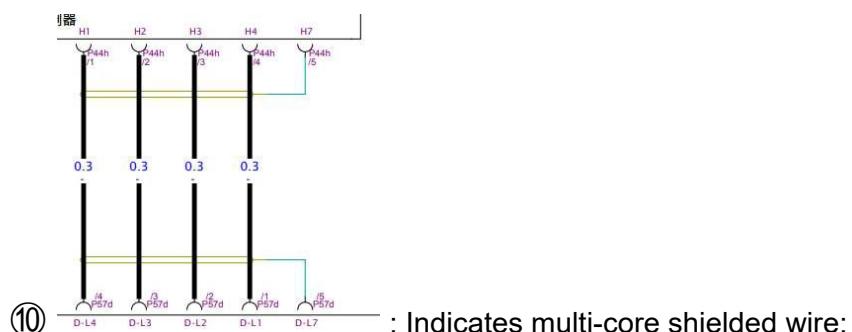
⑦ : Indicates the connecting point of wiring harness internal ground.



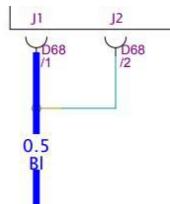
⑧ : Indicates the grounding point of wiring harness.



⑨ : Indicates the twisted-pair wire.



⑩ : Indicates multi-core shielded wire;



- (11) : Indicates single-core shielded wire;

- (12) : Adapter connector is indicated by two capital letters and number.

As shown in above figure, "PC1" indicates the adapter connector that connects instrument cluster wiring harness to engine compartment wiring harness with a series number of 1;

"/14": Indicates that the circuit is in space 14 of the connector.

Letter meaning is as follows:

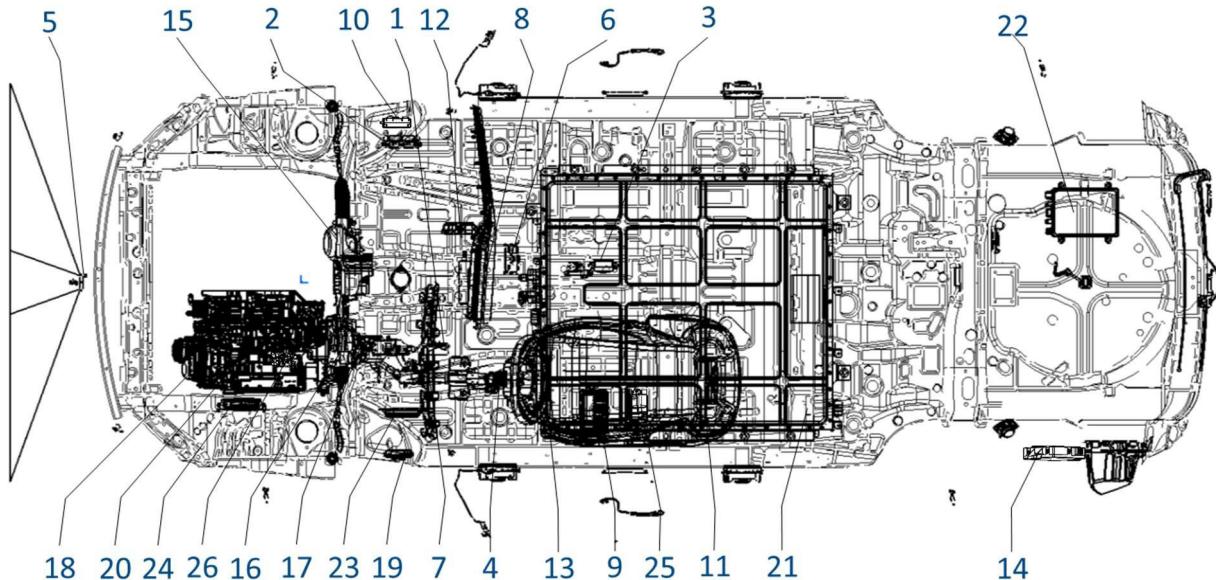
Code	Adapter Connector Meaning
PF	Instrument Cluster Wiring Harness - Chassis Wiring Harness
FP	Chassis Wiring Harness - Instrument Cluster Wiring Harness
PC	Instrument Cluster Wiring Harness - Engine Compartment Wiring Harness
CP	Engine Compartment Wiring Harness - Instrument Cluster Wiring Harness
CT	Engine Compartment Wiring Harness - Transmission Wiring Harness
TC	Transmission Wiring Harness - Engine Compartment Wiring Harness
EC	Engine Wiring Harness - Engine Compartment Wiring Harness
CE	Engine Compartment Wiring Harness - Engine Wiring Harness
FD	Chassis Wiring Harness - Door Wiring Harness
DF	Door Wiring Harness - Chassis Wiring Harness

FB	Chassis Wiring Harness - Rear Bumper Wiring Harness
BF	Rear Bumper Wiring Harness - Chassis Wiring Harness
PR	Instrument Cluster Wiring Harness - Roof Wiring Harness
RP	Roof Wiring Harness - Instrument Cluster Wiring Harness
FE	Chassis Wiring Harness - EPB Wiring Harness
EF	EPB Wiring Harness - Chassis Wiring Harness
PP1a	Instrument Cluster Wiring Harness to Auxiliary Fascia Console Wiring Harness
PP1b	Auxiliary Fascia Console Wiring Harness to Instrument Cluster Wiring Harness
PP2a	Adapter Wiring Harness to Panoramic TF Card Slot
PP2b	Panoramic TF Card Slot to Adapter Wiring Harness

6.4 Location Distribution

6.4.1 Vehicle Control Unit Distribution

Vehicle Control Unit Distribution Diagram



No.	Name	Note
1	Gateway Controller Assembly	Final RDE solution is integrated with No. 2, and gateway is canceled
2	Intelligent Body Controller Assembly	
3	Reversing Radar Controller Assembly	
4	Steering Angle Sensor Assembly	
5	Self-adaptive Cruise Controller Assembly	
6	Lane Departure Controller Assembly	
7	Instrument Cluster Assembly	
8	On-board Information and Entertainment Terminal Assembly	
9	External Power Amplifier Assembly	
10	Telematics Controller Assembly	
11	Driver Seat Assembly	
12	Thermal Management Integrated Controller Assembly	
13	Airbag Control Unit Assembly	
14	Tailgate Auto Open/Close System ECU Controller Assembly	
15	Power Steering Gear Assembly	
16	EPBi Actuator Assembly	

6.4.1-2

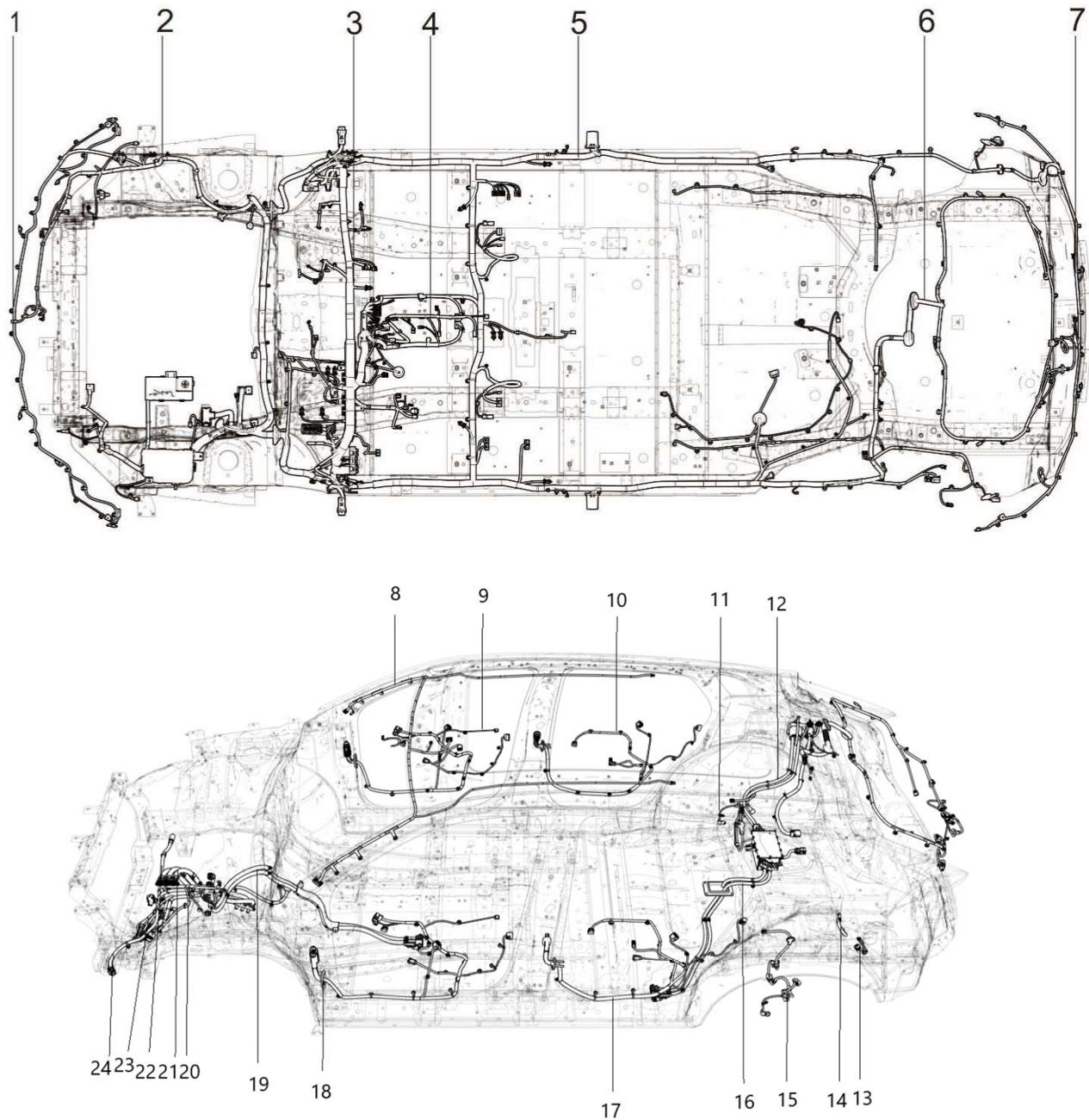
Vehicle Control Unit Distribution

6.4.1-2

17	Integrated Brake Control Module	
18	Automatic Transmission Assembly	
19	Electronic Shift Actuator Controller Assembly	Final RDE solution is integrated with No. 26, and controller is canceled
20	Motor Controller Assembly	
21	Power Battery Assembly	
22	Charger Assembly	
23	Power System Controller Assembly	
24	Engine Control Unit Assembly	
25	Ripple Anti-pinch Controller Assembly	
26	Electronic Shift Actuator Assembly	Final RDE solution

6.4.2 Vehicle Wiring Harness Distribution

Vehicle Wiring Harness Distribution Diagram



No.	Part No.	Name	Note
1	4000310-CR22/25/23	Front Bumper Wiring Harness Assembly	
2	4000030-CR58/59/75	Engine Compartment Wiring Harness Assembly	
3	4000010-CR58/59/75	Instrument Panel Wiring Harness Assembly	
4	4000260-CR02	Auxiliary Fascia Console Wiring Harness Assembly	
5	4000020-CR58/59/75	Chassis Wiring Harness Assembly	
6	4000120-CR22/25/23	Tailgate Wiring Harness Assembly	
7	4000200-CR03/04	Rear Bumper Wiring Harness Assembly	
8	4000040-CR02/10	Roof Wiring Harness Assembly	
9	4000060-CR22/24	Right Front Door Wiring Harness Assembly	
10	4000080-CR22/23	Right Rear Door Wiring Harness Assembly	
11	4000340-CR05	Electronic Parking Brake Motor Wiring Harness Assembly (Right)	
12	2105050-CR03	Alternate Current Charging Socket Wiring Harness Assembly	
13	4000170-CR03	Oil Pump Wiring Harness Assembly	
14	4000140-CR03	Battery Grounding Wiring Harness Assembly	
15	4000330-CR05	Electronic Parking Brake Motor Wiring Harness Assembly (Left)	
16	2105130-CR02	High Voltage Power Supply Wiring Harness Assembly II	
17	4000070-CR22/23	Left Rear Door Wiring Harness Assembly	
18	4000050-CR22/24	Left Front Door Wiring Harness Assembly	
19	2105010-CR02	High Voltage Power Supply Wiring Harness Assembly I	
20	4000370-CR03	Transmission Wiring Harness Assembly	
21	2105020-CR01	Three-phase Power Wiring Harness Assembly I	
22	2105030-CR01	Electric Compressor Power Supply Wiring Harness Assembly	
23	4000190-CR04	Transmission Grounding Wiring Harness Assembly	
24	2105120-CR01	PTC Input Wiring Harness Assembly	
25	4001130-CR01	New Energy System Grounding Wiring Harness Assembly	
26	2105110-CR03	DC Converter Output Negative Wiring Harness Assembly	

Tightening Torque

No.	Tightening Area	Specifications	Quantity	Tightening Torque
1	Vehicle Wiring Harness Grounding Bolt	Grounding Bolt	24	8 ± 1
2	Instrument Panel Fuse Box Retaining Screw	Cross Recessed Hexagon Head Screw	2	8 ± 1
3	Instrument Panel Fuse Box Retaining Nut	Hexagon Flange Nut	1	8 ± 1
4	Instrument Cluster Wiring Harness Protection Box Retaining Bolt	Hexagon Flange Bolt	5	8 ± 1
5	Engine Compartment Fuse Box Retaining Bolt	Cross Recessed Hexagon Head Screw	2	8 ± 1
6	Engine Compartment Wiring Harness Protection Box Retaining Bolt	Cross Recessed Hexagon Head Screw	1	6 ± 1
7	Engine Compartment Wiring Harness Protection Box Retaining Nut	Hexagon Flange Nut	1	6 ± 1
8	ECU Grounding Bolt	Grounding Bolt	1	8 ± 1
9	Chassis Junction Box Retaining Screw	Cross Recessed Hexagon Head Screw	2	6 ± 1
10	Electronic Parking Brake Motor Wiring Harness Assembly (Left)	Hexagon Flange Bolt	3	13 ± 1
11	Electronic Parking Brake Motor Wiring Harness Assembly (Right)	Hexagon Flange Bolt	3	13 ± 1
12	Battery Grounding Wiring Harness	Grounding Bolt	2	8 ± 1
13	Battery Grounding Wiring Harness	Hexagon Nut with Serrated Flange	1	8 ± 1
14	Transmission Grounding Wiring Harness	Grounding Bolt	2	8 ± 1
15	Transmission Grounding Wiring Harness	Hexagon Bolt, Spring Washer and Plate Washer Set	1	23 ± 2
16	Positive Fuse Box with M8 Nut	Hexagon Flange Nut	1	11 ± 1
17	Positive Terminal with M6 Nut	Hexagon Nut with Serrated Flange	2	8 ± 1
18	Positive Fuse Box Power Supply Wiring Harness with Nut (Starting Motor and Alternator, EPS and Engine Compartment Fuse Box Power Supply)	Terminal + Nut	4	6 ± 1
19	Starting Motor Power Supply Tightening Nut	Hexagon Nut with Serrated Flange	1	11 ± 1
20	Alternator Tightening Nut	Hexagon Nut with Serrated Flange	1	15 ± 1
21	Transmission Wiring Harness Grounding	Bolt	1	8 ± 1

6.4.2-4

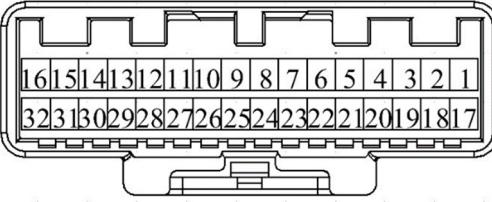
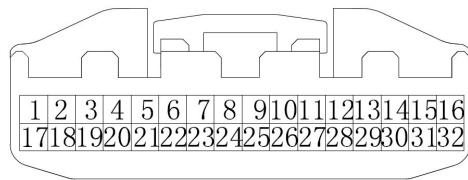
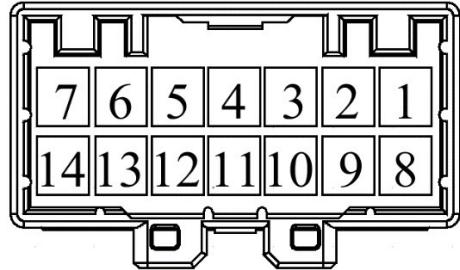
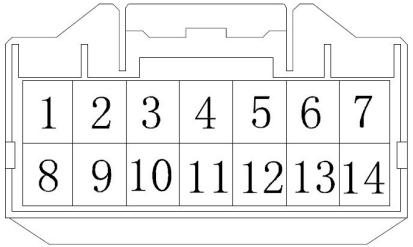
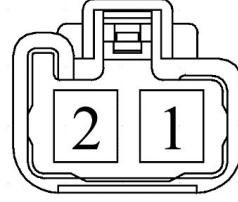
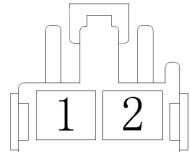
Vehicle Wiring Harness Distribution

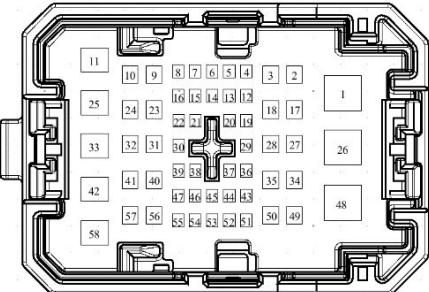
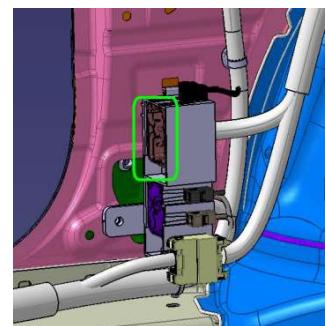
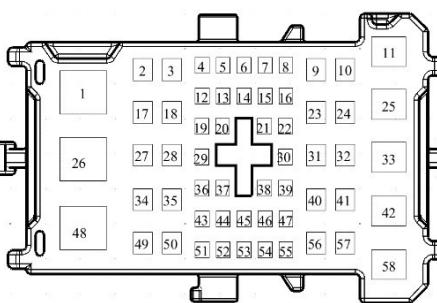
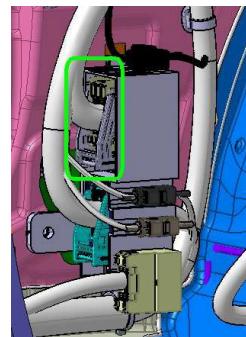
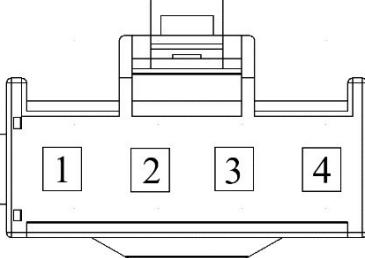
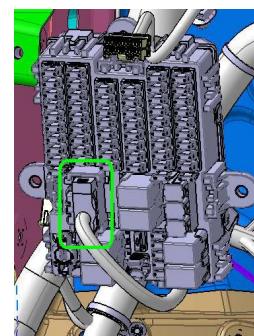
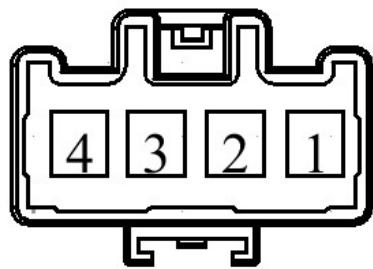
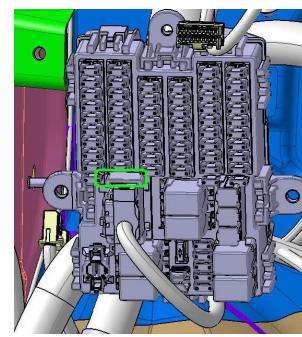
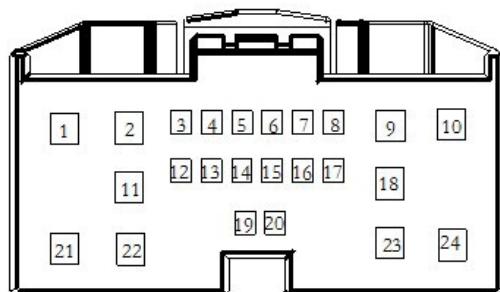
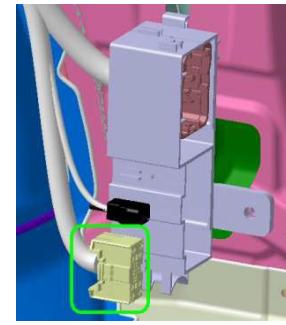
6.4.2-4

22	EPS Negative Grounding Bolt	Grounding Bolt	1	8 ± 1
23	TCU Grounding Bolt	Hexagon Flange Bolt	1	11 ± 1
24	Wring Harness Protection Box Retaining Bolt	Hexagon Flange Bolt	2	8 ± 1
25	Transmission Electronic Shift Grounding Bolt	Grounding Bolt	1	8 ± 1
26	Engine Compartment Wiring Harness BMS Grounding Branch Grounding Bolt	Grounding Bolt	1	8 ± 1
27	New Energy System Grounding Wiring Harness Assembly	Grounding Bolt	1	8 ± 1
28	DC Converter Output Negative Wiring Harness OBC Negative Grounding	Hexagon Flange Bolt	1	15 ± 1
29	Chassis Wiring Harness OBC Positive Grounding	Hexagon Flange Bolt	1	15 ± 1
30	Engine Compartment Wiring Harness Hub Set Wiper Water Pump Grounding	Grounding Bolt	1	8 ± 1

6.4.3 Wiring Harness Adapter Connector Distribution

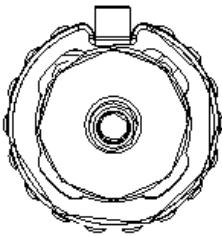
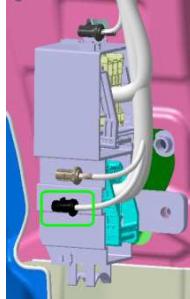
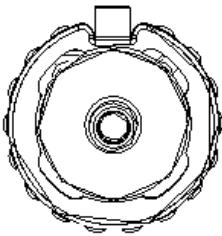
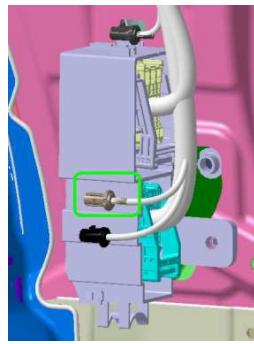
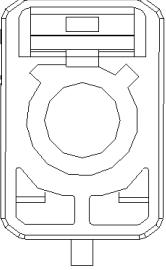
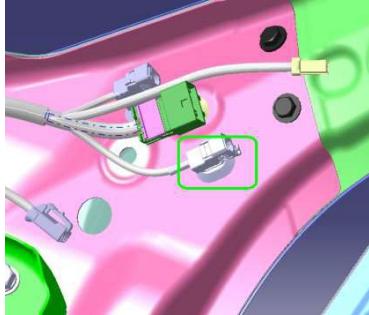
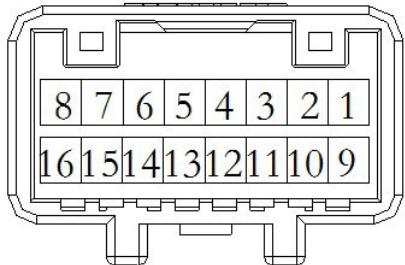
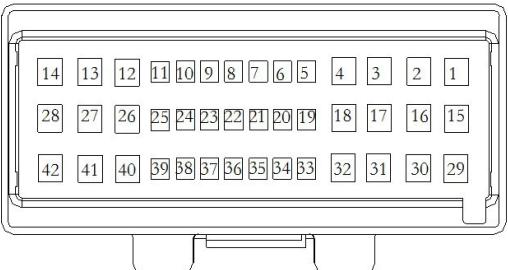
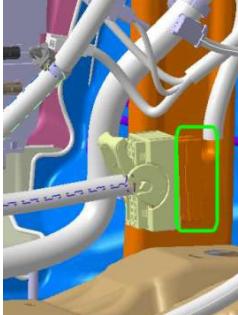
Code	Name	Interface View	Location View	Location Description
CB1	Engine Compartment to Front Bumper (1)			Inside Right Headlamp Beam
BC1	Front Bumper to Engine Compartment (1)			Inside Left Side Member
CP2	Engine Compartment to Instrument Cluster (Right 1)			Right A-pillar Lower
PC2	Instrument Cluster to Engine Compartment (Right 1)			Right A-pillar Lower

CE1a	Engine Compartment to Engine 1		/	Engine Compartment Fuse Box
EC1a	To Engine Compartment Fuse Box 1		/	Engine Compartment Fuse Box
CE2a	Engine Compartment to Engine 2		/	Engine Compartment Fuse Box
EC2a	To Engine Compartment Fuse Box 2		/	Engine Compartment Fuse Box
CE3a	Engine Compartment to Engine 3		/	Engine Compartment Fuse Box
EC3a	To Engine Compartment Fuse Box 3		/	Engine Compartment Fuse Box

CP1	Engine Compartment to Instrument Cluster (Left 1)			Left Lower A-pillar Wiring Harness Protection Box
PC1	Instrument Cluster to Engine Compartment (Left 1)			Under Instrument Panel Fuse Box
CP5	Engine Compartment to Instrument Cluster (Left 3)			Instrument Panel Fuse Box
PC5	Instrument Cluster to Engine Compartment (Left 3)			Instrument Panel Fuse Box
CF2	Engine Compartment to Chassis (Right 1)			Outside Right Lower A-pillar Wiring Harness Protection Box

CF4/ CP4	Engine Compartment to Chassis/ Instrument Cluster (Front Camera)			Outside Right Lower A-pillar Wiring Harness Protection Box
CF1	Engine Compartment to Chassis (Left 1)			Outside Right Lower A-pillar Wiring Harness Protection Box
PF2	Instrument Cluster to Chassis (Right)			Right Lower A-pillar Wiring Harness Protection Box
PR1	Instrument Cluster to Roof (Left 1)			Left A-pillar
PF1	Instrument Cluster to Chassis (Left 1)			Left Lower A-pillar Wiring Harness Protection Box

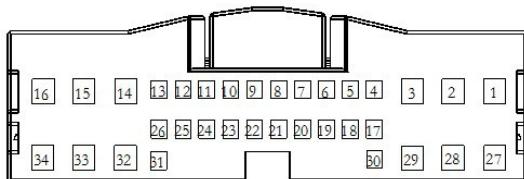
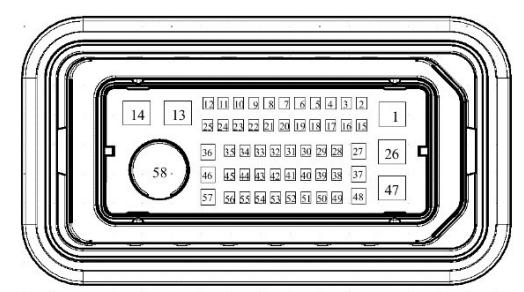
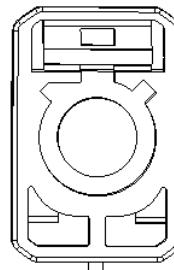
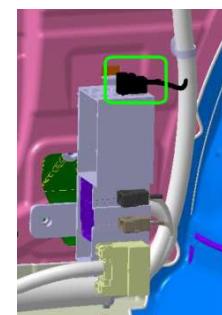
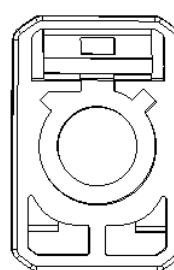
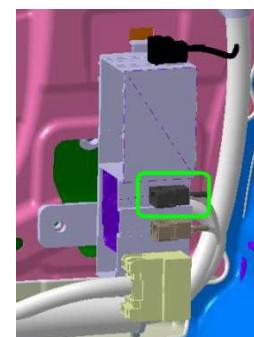
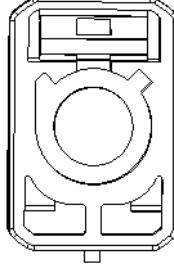
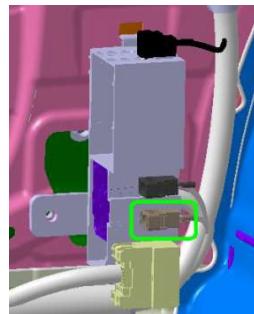
PF3	Instrument Cluster to Chassis (Left Camera)			Left Lower A-pillar Wiring Harness Protection Box
FP9	Instrument Cluster to Chassis (Streaming Camera)			Left Lower A-pillar Wiring Harness Protection Box
PF3	Instrument Cluster to Chassis (Rear Camera)			Left Lower A-pillar Wiring Harness Protection Box
PF10	Instrument Cluster to Chassis (APA Ethernet)			Right Lower A-pillar Wiring Harness Protection Box
PF4	Instrument Cluster to Chassis (Right Camera)			Right Lower A-pillar Wiring Harness Protection Box

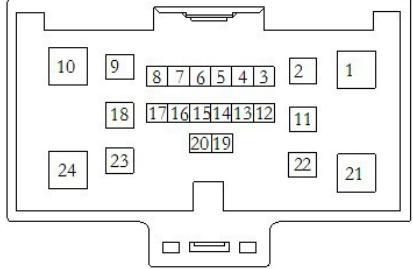
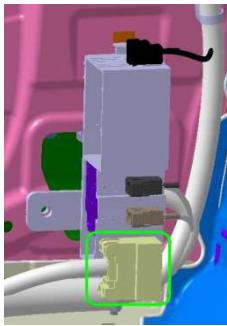
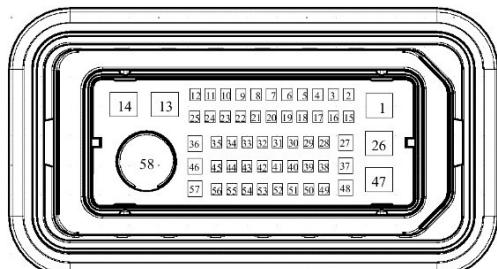
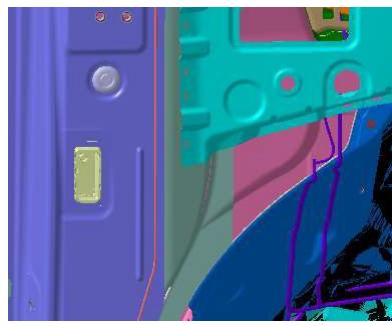
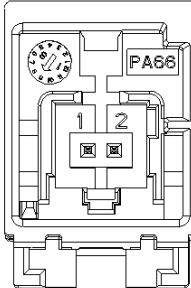
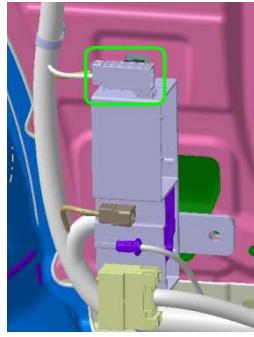
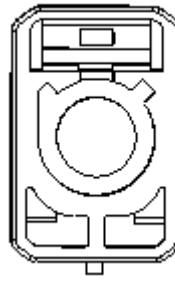
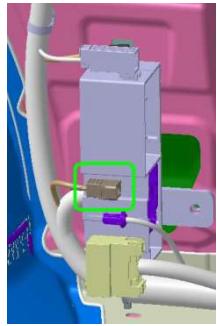
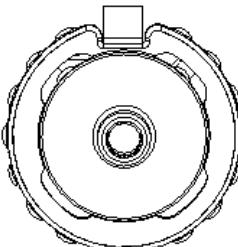
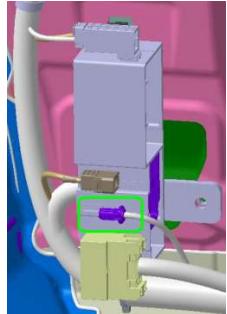
PC4	Instrument Cluster to Engine Compartment (Front Camera)			Right Lower A-pillar Wiring Harness Protection Box
PF6	Instrument Cluster to Chassis (APA Coaxial)			Right Lower A-pillar Wiring Harness Protection Box
	Instrument Cluster to Roof (GPS Feeder)			Right A-pillar
PR2	Instrument Cluster to Roof (Right)			Right A-pillar
PB1	Instrument Cluster to Auxiliary Fascia Console			Under Central Box

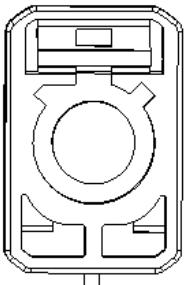
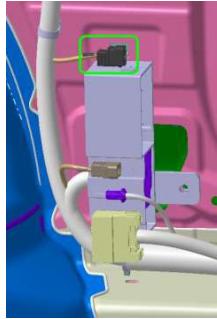
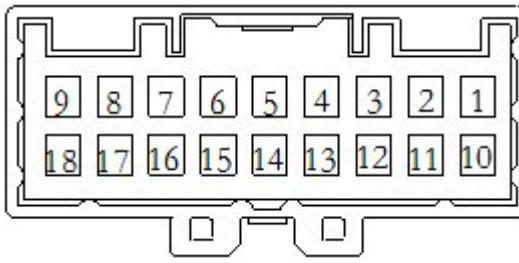
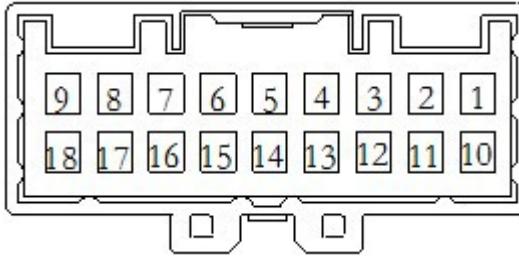
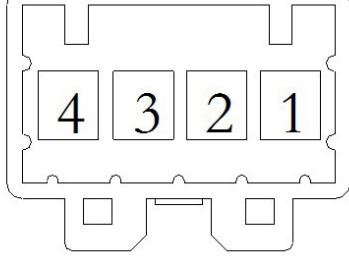
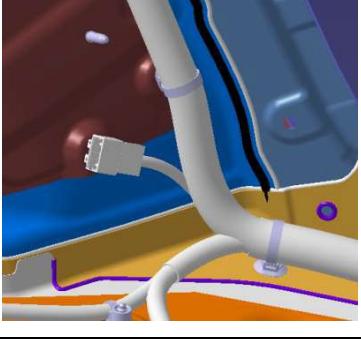
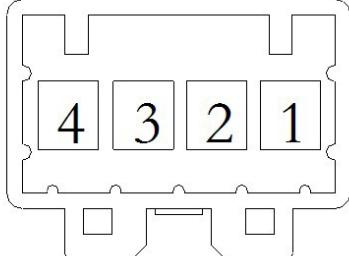
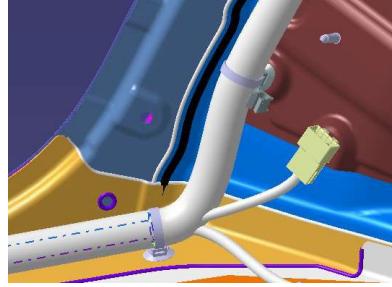
6.4.3-7

Wiring Harness Adapter Connector Distribution

6.4.3-7

PF7	Instrument Cluster to Chassis (Middle)			Under Central Box
FD1	Chassis to Left Front Door			Outside Left A-pillar
FP3	Chassis to Instrument Cluster (Left Camera)			Left Lower A-pillar Wiring Harness Protection Box
FP9	Chassis to Instrument Cluster (Streaming Camera)			Left Lower A-pillar Wiring Harness Protection Box
FC1	Chassis to Instrument Cluster (Rear Camera)			Left Lower A-pillar Wiring Harness Protection Box

FC1	Chassis to Engine Compartment (Left 1)			Left Lower A-pillar Wiring Harness Protection Box
FD2	Chassis to Right Front Door			Outside Right A-pillar
FP10	Chassis to Instrument Cluster (APA Ethernet)			Right Lower A-pillar Wiring Harness Protection Box
FP6	Chassis to Instrument Cluster (APA Coaxial)			Right Lower A-pillar Wiring Harness Protection Box
FC4	Chassis to Engine Compartment (Front Camera)			Right Lower A-pillar Wiring Harness Protection Box

FP4	Chassis to Instrument Cluster (Right Camera)			Under Central Box
FD3	Chassis to Left Rear Door			Left B-pillar
FD4	Chassis to Right Rear Door			Right B-pillar
FE1	Chassis to EPB - Left			Left Doorsill
FE2	Chassis to EPB - Right			Right Doorsill

6.4.3-10

Wiring Harness Adapter Connector Distribution

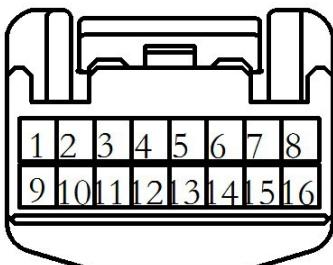
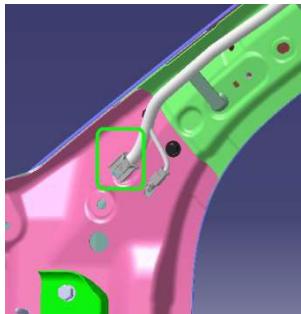
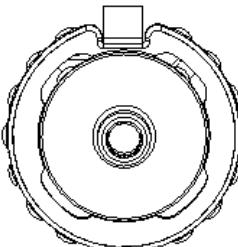
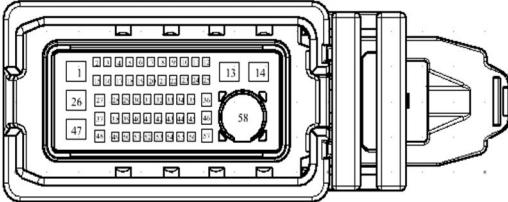
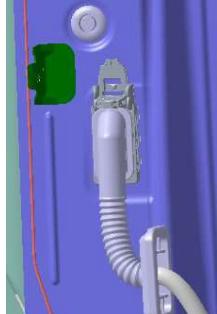
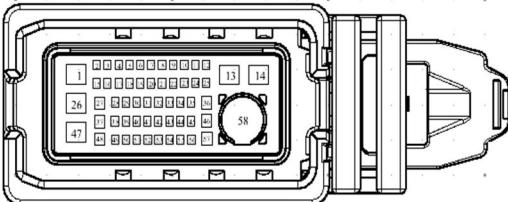
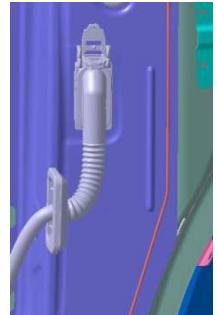
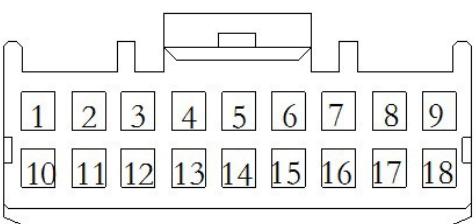
6.4.3-10

FB1	Chassis to Rear Bumper			Right D-pillar Lower
FD5	Chassis to Tailgate			Left D-pillar Upper
FD6	Chassis to Tailgate (Rear Camera)			Left D-pillar Upper
FD7	Chassis to Tailgate (Streaming Camera)			Left D-pillar Upper
RP1	Roof to Instrument Cluster (Left 1)			Left A-pillar Upper

6.4.3-11

Wiring Harness Adapter Connector Distribution

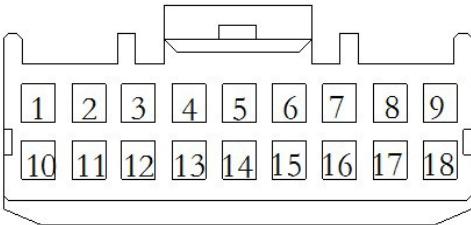
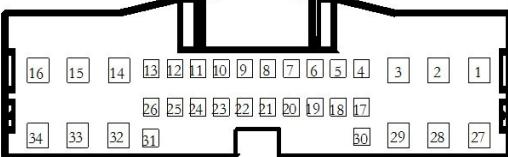
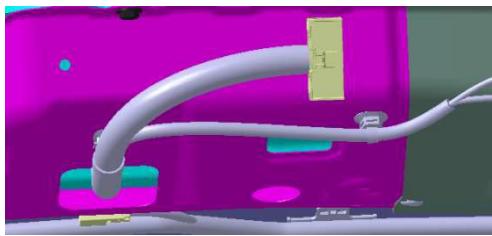
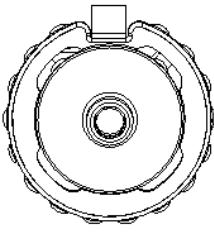
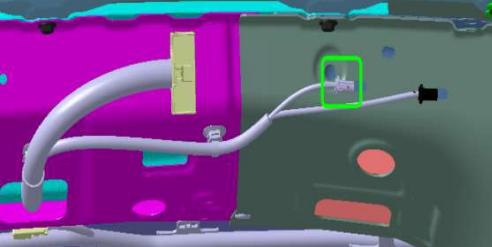
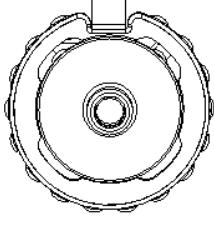
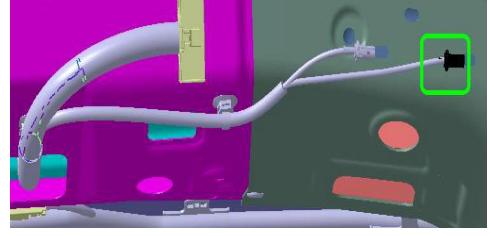
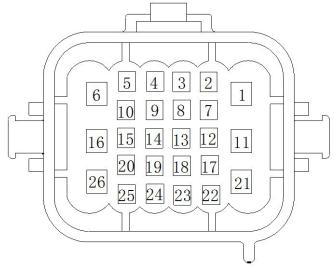
6.4.3-11

RP2	Roof to Instrument Cluster (Right)			Right A- pillar
FD6	Roof to Instrument Cluster (GPS Feeder)			Right A- pillar
DF1	Left Front Door to Chassis			Left A-pillar Lower
DF2	Right Front Door to Chassis			Right A- pillar Lower
DF3	Left Rear Door to Chassis			Left B-pillar

6.4.3-12

Wiring Harness Adapter Connector Distribution

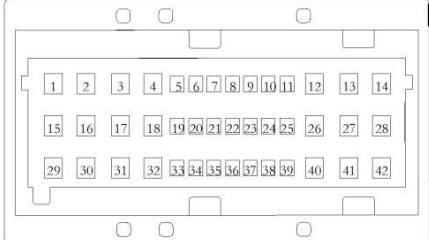
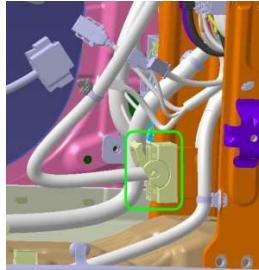
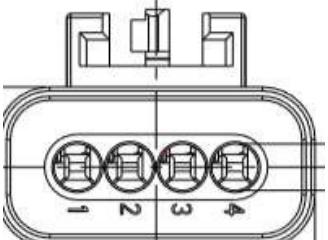
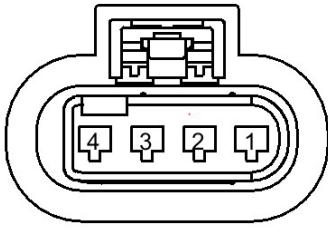
6.4.3-12

DF4	Right Rear Door to Chassis			Right A-pillar
DF5	Tailgate to Chassis			Left D-pillar Upper
DF6	Tailgate to Chassis 2 (Rear Camera)			Left D-pillar Upper
DF7	Tailgate to Chassis (Streaming Camera)			Left D-pillar Upper
BF1	Rear Bumper to Chassis			Right D-pillar Lower

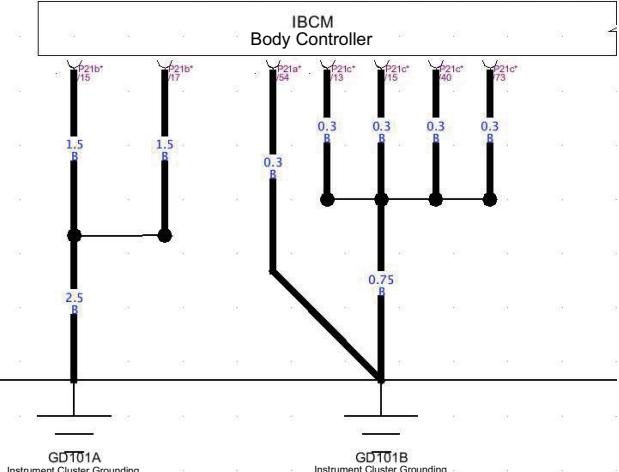
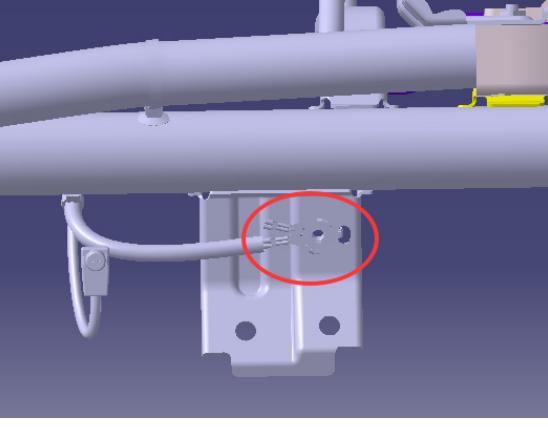
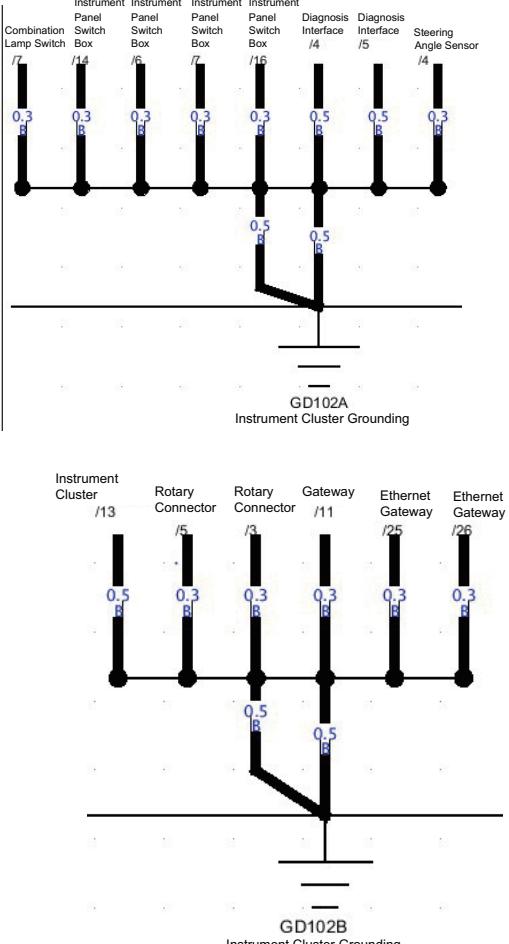
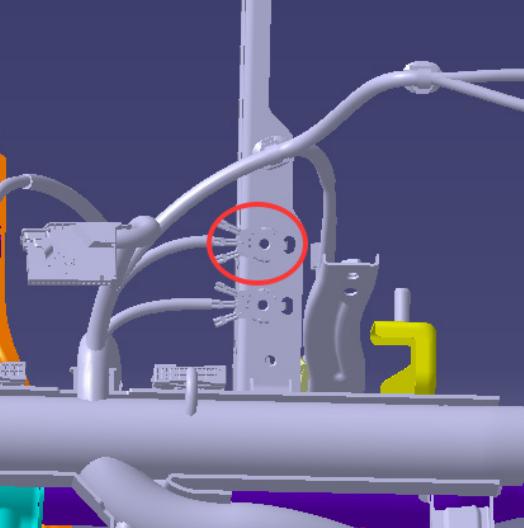
6.4.3-13

Wiring Harness Adapter Connector Distribution

6.4.3-13

BP1	Auxiliary Fascia Console to Instrument Cluster			Under Central Box
FM1	Chassis to Oil Pump Wiring Harness			Under Rear Seat
MF1	Oil Pump to Chassis Wiring Harness			Under Rear Seat

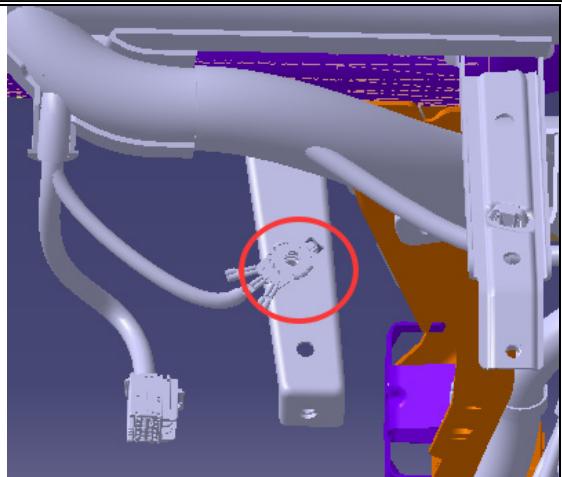
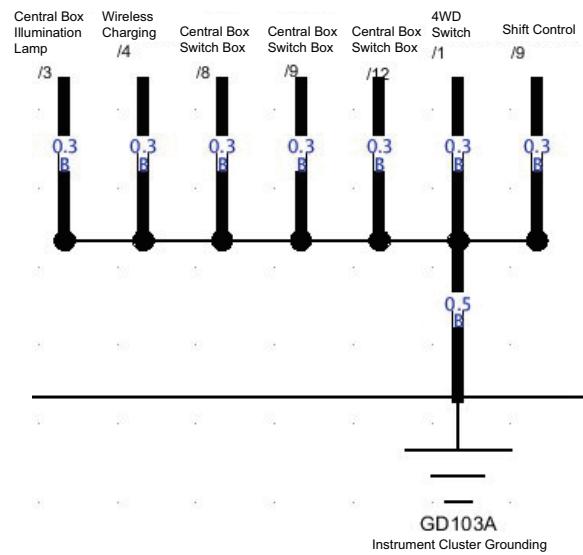
6.4.4 Grounding Point Distribution

Grounding Point	Grounding Distribution Connection	Location View
GD101	 <p>IBCM Body Controller</p> <p>GD101A Instrument Cluster Grounding</p> <p>GD101B Instrument Cluster Grounding</p>	
GD102	 <p>Instrument Cluster Lamp Switch Box /7 0.3 R</p> <p>Instrument Cluster Panel Switch Box /14 0.3 R</p> <p>Instrument Cluster Panel Switch Box /6 0.3 R</p> <p>Instrument Cluster Panel Switch Box /7 0.3 R</p> <p>Instrument Cluster Panel Switch Box /16 0.3 R</p> <p>Diagnosis Interface /4 0.5 R</p> <p>Diagnosis Interface /5 0.5 R</p> <p>Steering Angle Sensor /4 0.3 R</p> <p>Instrument Cluster /13 0.5 R</p> <p>Rotary Connector /5 0.3 R</p> <p>Rotary Connector /3 0.3 R</p> <p>Gateway /11 0.3 R</p> <p>Ethernet Gateway /25 0.3 R</p> <p>Ethernet Gateway /26 0.3 R</p> <p>GD102A Instrument Cluster Grounding</p> <p>GD102B Instrument Cluster Grounding</p>	

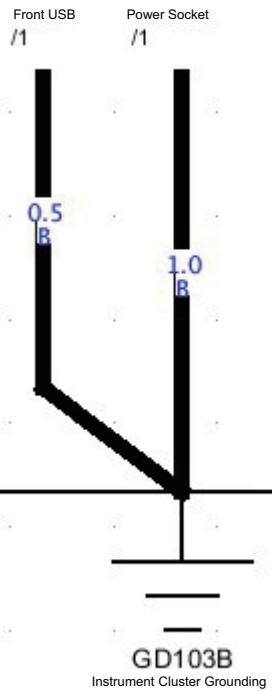
6.4.4-2

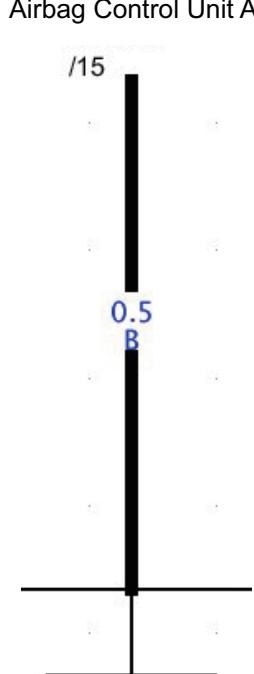
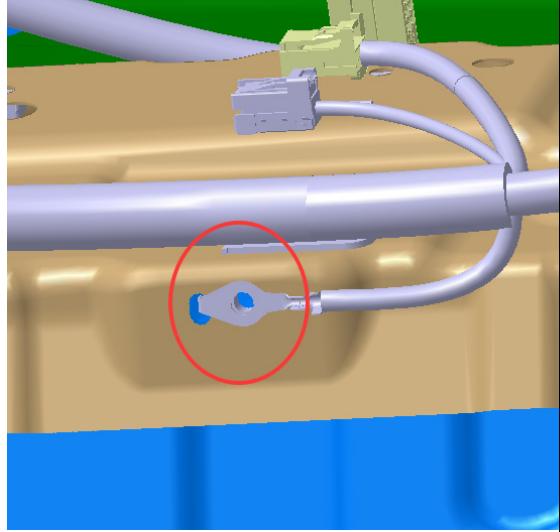
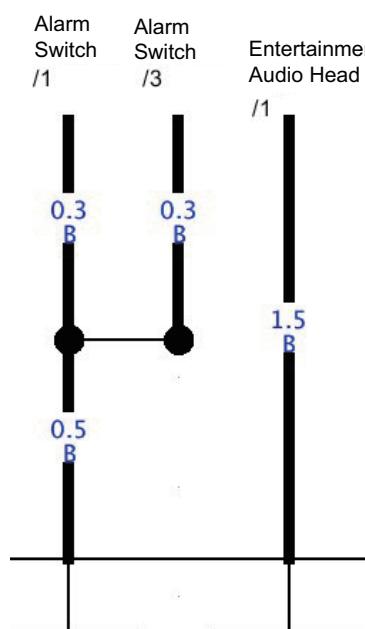
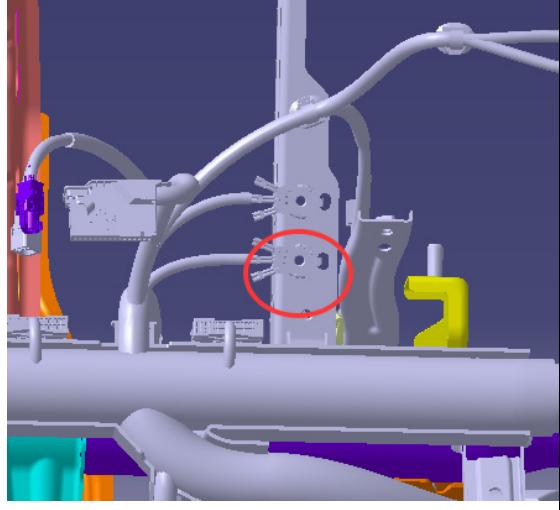
Grounding Point Distribution

6.4.4-2



GD103



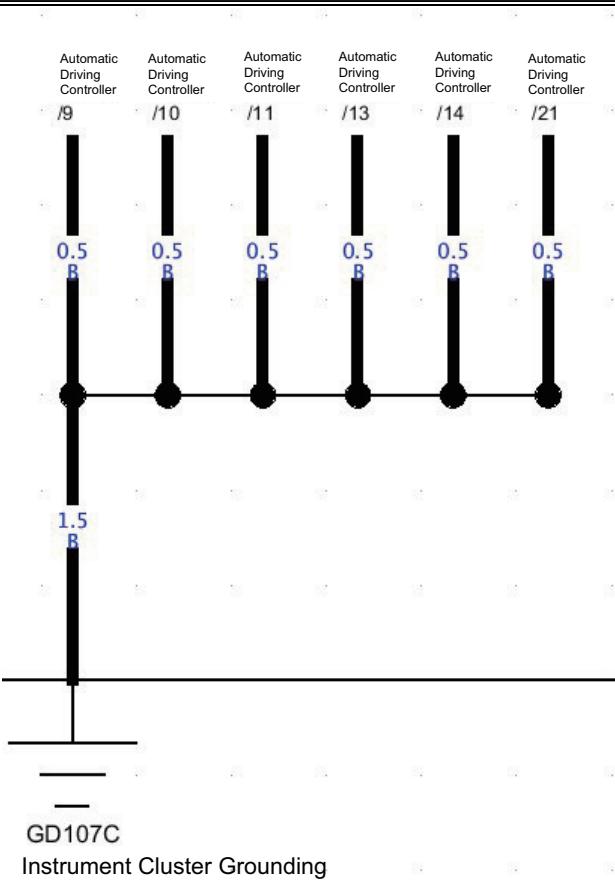
	<p>Airbag Control Unit A</p>  <p>GD104</p> <p>Instrument Cluster Wiring Harness Grounding</p>	
	<p>Alarm Switch /1 Alarm Switch /3 Entertainment and Audio Head Unit A /1</p>  <p>GD105</p> <p>Instrument Cluster Grounding Instrument Cluster Grounding</p>	

	<p>Central Control Display /4 Ion Generator /4 A/C Controller /30</p> <p>GD106</p> <p>GD106A Instrument Cluster Grounding</p> <p>GD106B Instrument Cluster Grounding</p>	
GD107	<p>HD Map Controller /3 Automatic Driving Controller /1 Automatic Driving Controller /2 Atmosphere Lamp Instrument Cluster - Left /3 Atmosphere Lamp Instrument Cluster - Right /3</p> <p>GD107A Instrument Cluster Grounding</p> <p>GD107B Instrument Cluster Grounding</p>	

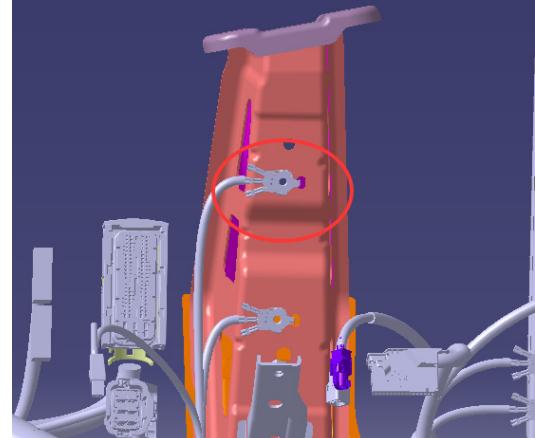
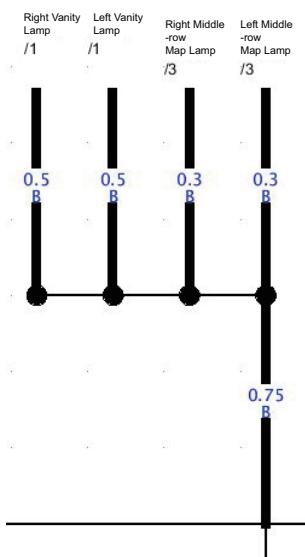
6.4.4-5

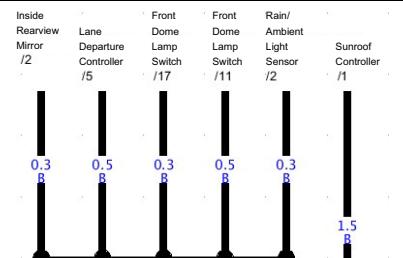
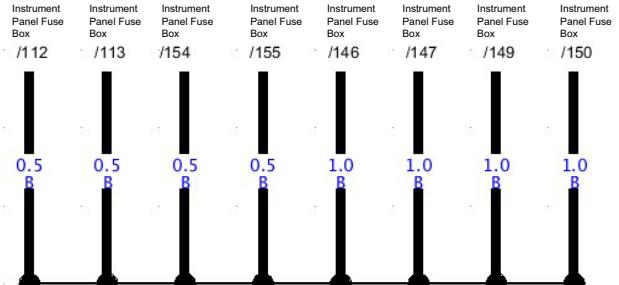
Grounding Point Distribution

6.4.4-5



GD108



GD108B
Instrument Cluster GroundingGD108C
Instrument Cluster Grounding

6.4.4-7

Grounding Point Distribution

6.4.4-7

	<p>Left Front Door Handle Switch /3 Left Front Door Handle Switch /4 Left Front Door Handle Switch /5 Left Rearview Mirror /9 Left Lock Motor /2 Left Rearview Mirror /16 Window Atmosphere Lamp /3 Four Doors Anti-pinch /10 Window Motor /3 Single Door Anti-pinch /11</p> <p>GD201 Chassis Wiring Harness Grounding</p>	
GD202	<p>Right Rearview Mirror /16 Right Rearview Mirror /9 Right Front Door Handle Switch /3 Window Switch Single Door Anti-pinch /7 Window Switch Four Doors Anti-pinch /10 Right Front Door Atmosphere Lamp /3 Window Motor /3 Right Front Door Handle Switch /4 Right Front Door Handle Switch /5</p> <p>GD202 Chassis Wiring Harness Grounding</p>	
GD203	<p>External Power Amplifier A /4 External Power Amplifier A /3 1.0 1.0 1.5</p> <p>GD203A Chassis Grounding</p>	

6.4.4-8

Grounding Point Distribution

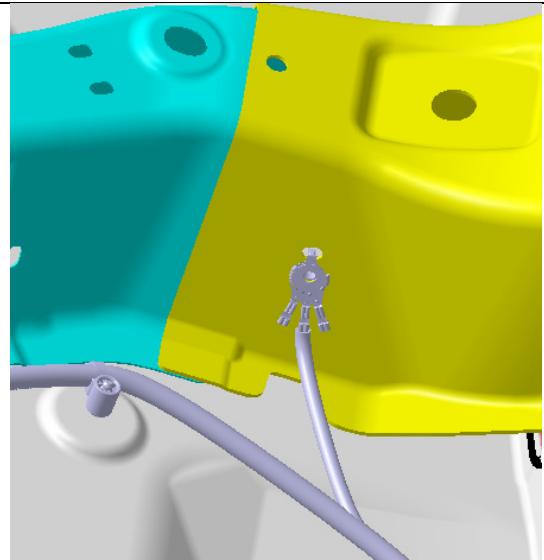
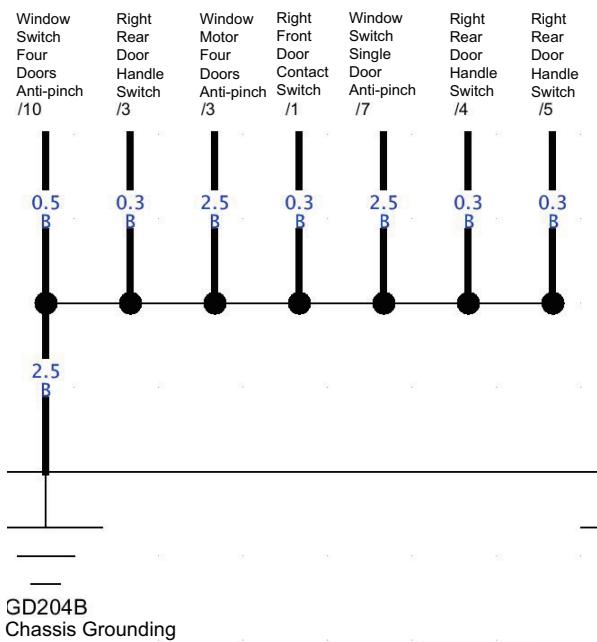
6.4.4-8

GD204		

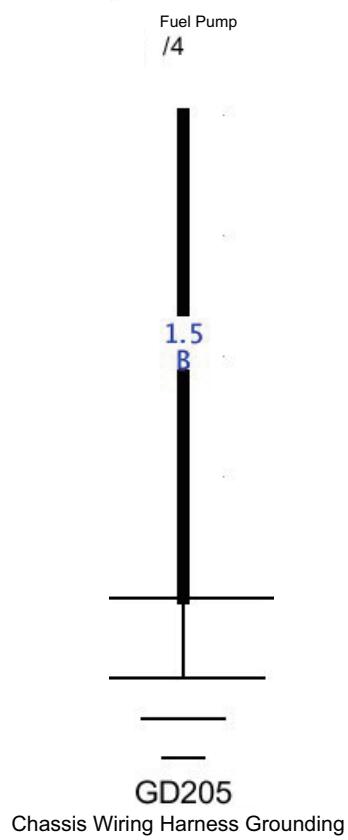
6.4.4-9

Grounding Point Distribution

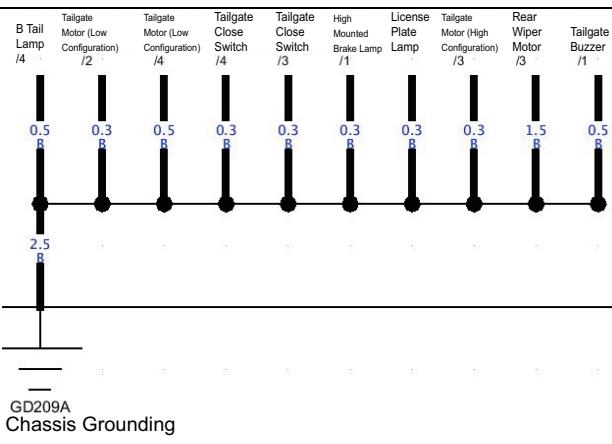
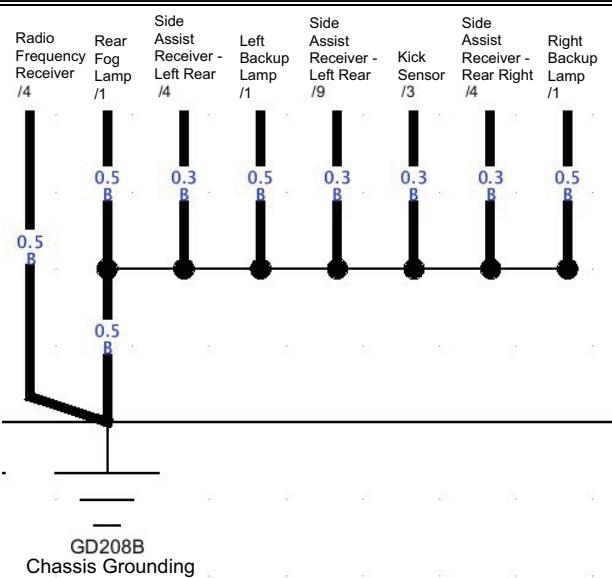
6.4.4-9



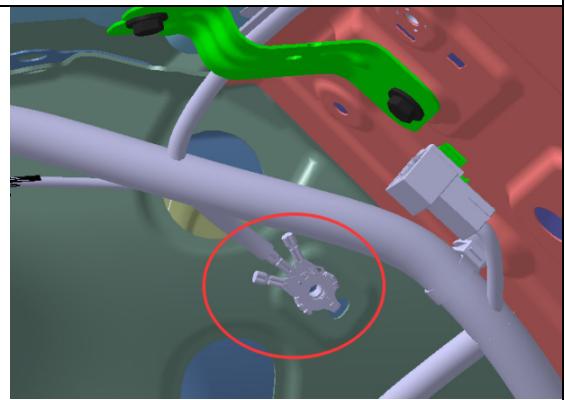
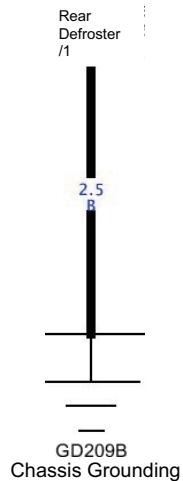
GD205

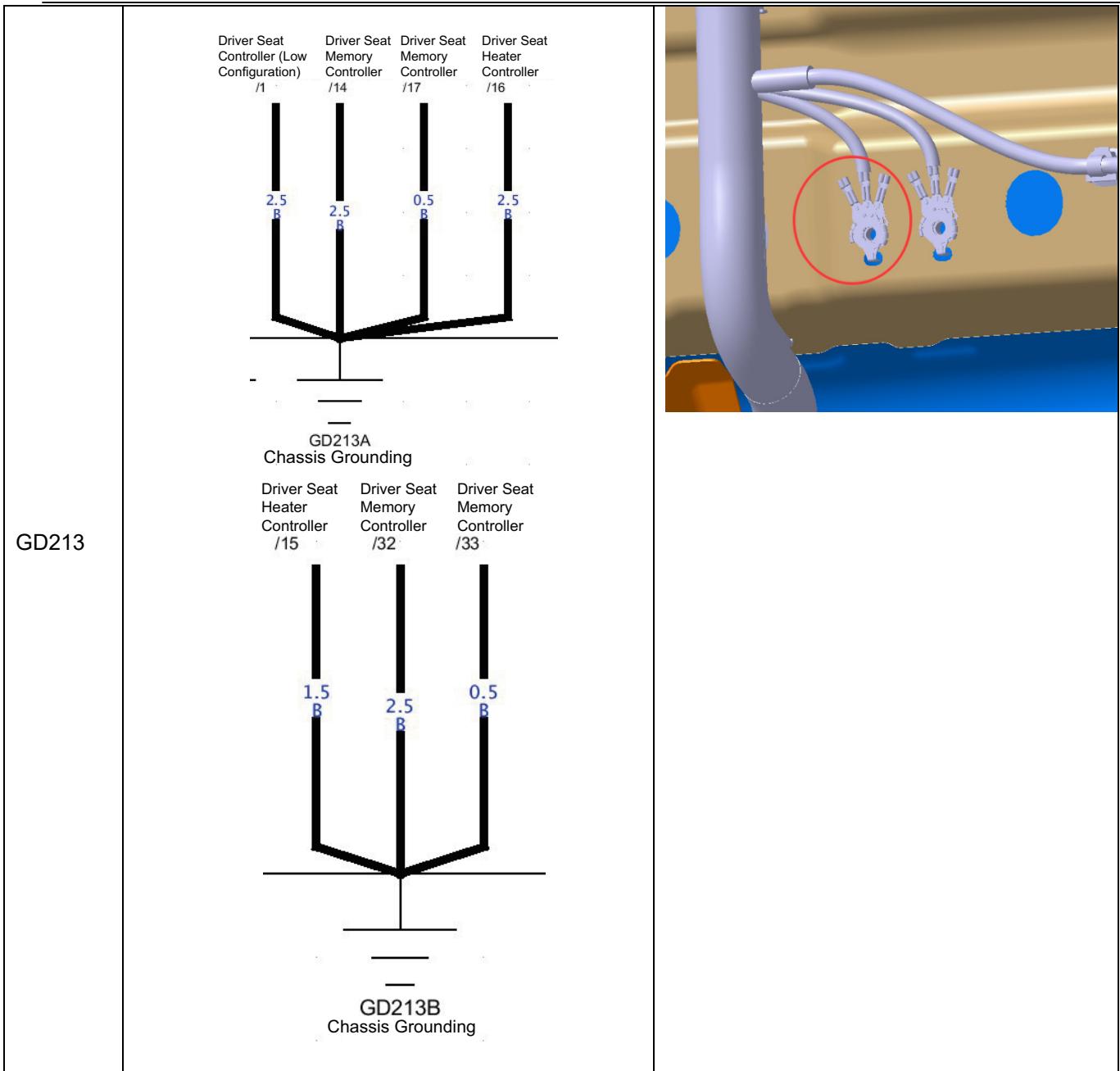


	<p>Power Tailgate Controller A /23</p> <p>Tailgate Lamp /2</p> <p>A Tail Lamp - Left /6</p> <p>Power Tailgate Controller B /5</p> <p>Left Rear Door Contact Switch /1</p>	
GD208	<p>A Tail Lamp - Right /6</p> <p>Right Rear Door Contact Switch /1</p>	

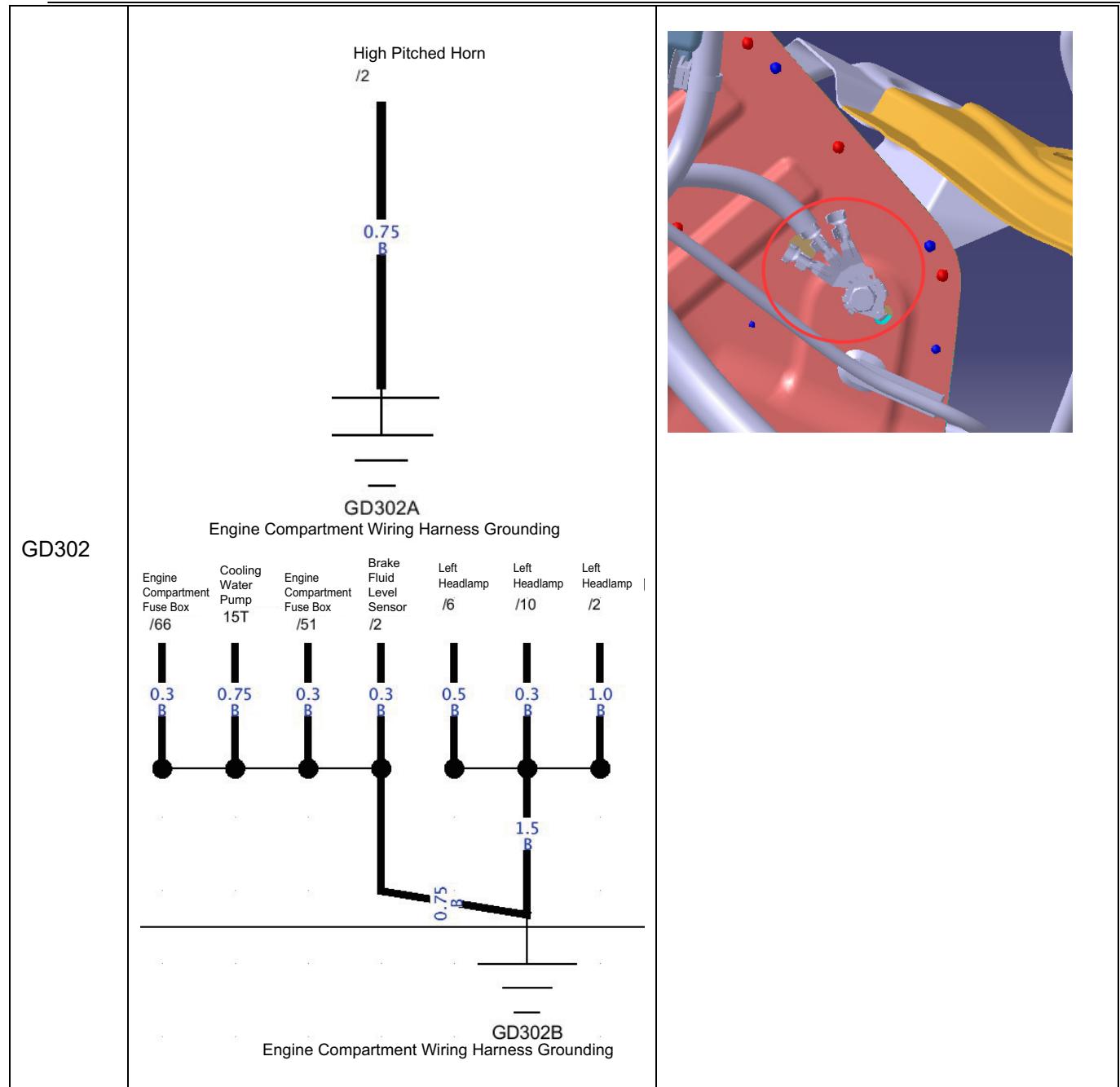


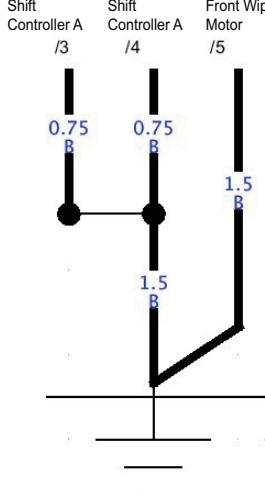
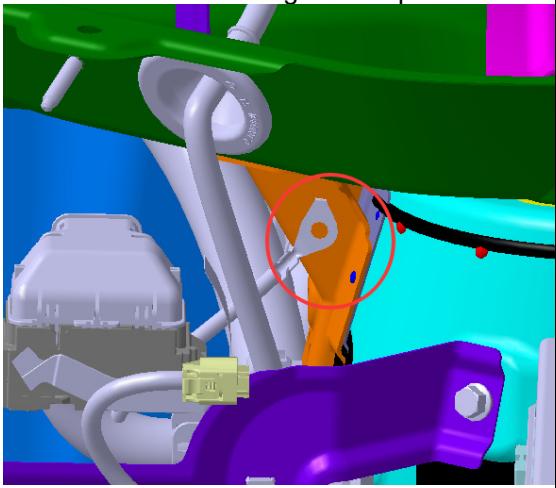
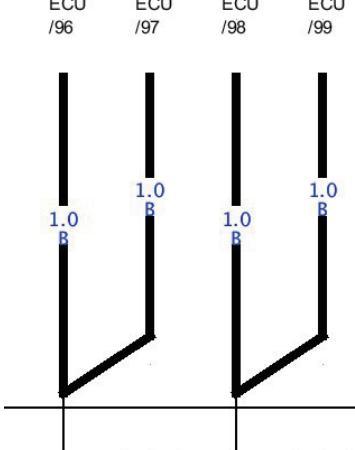
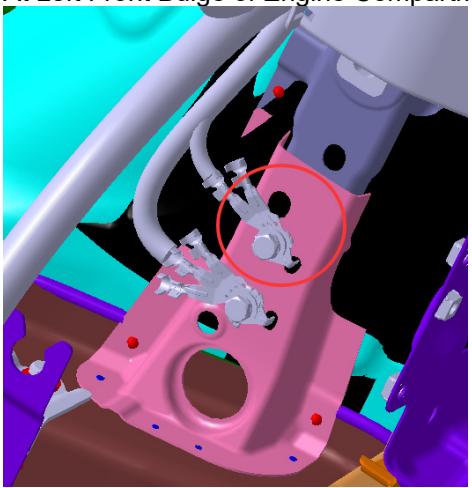
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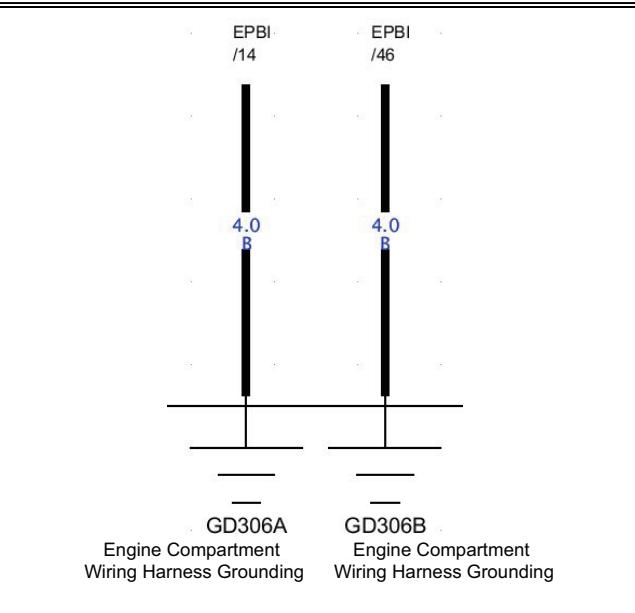
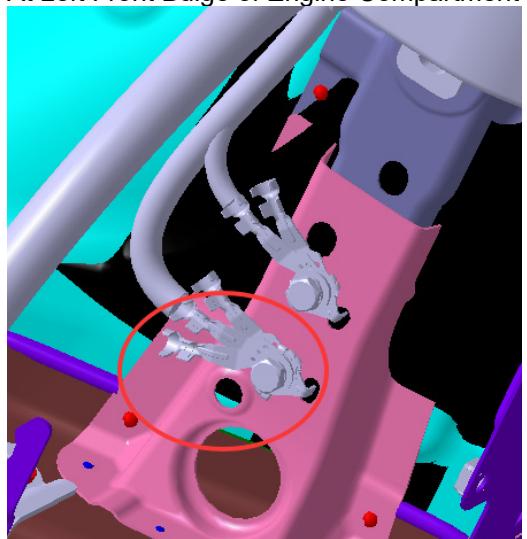
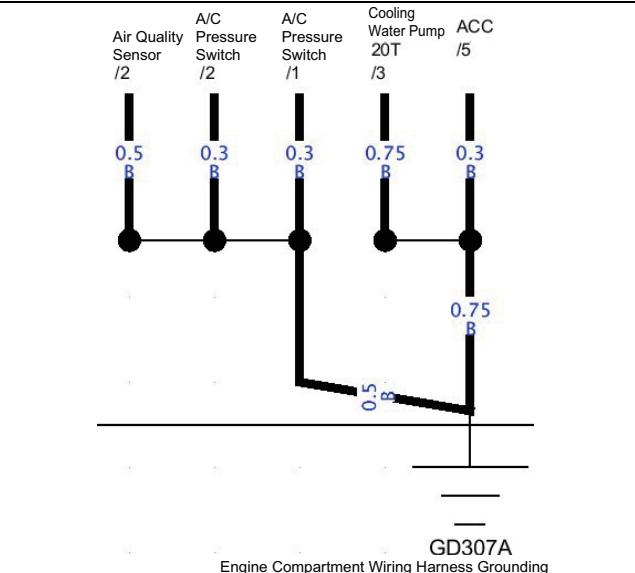
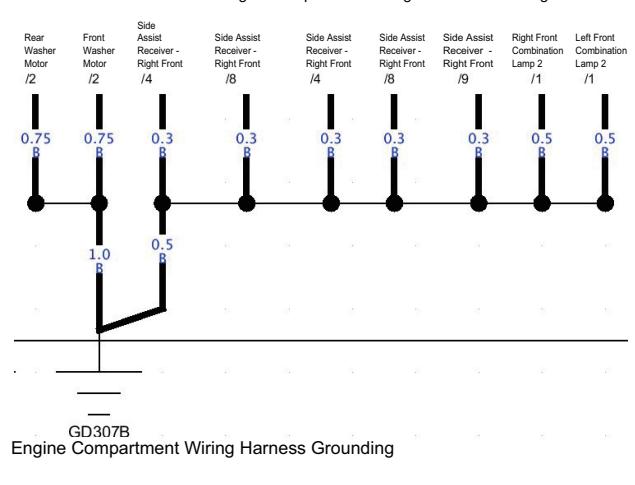
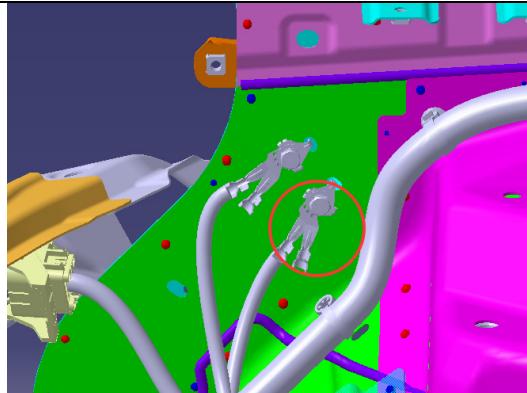


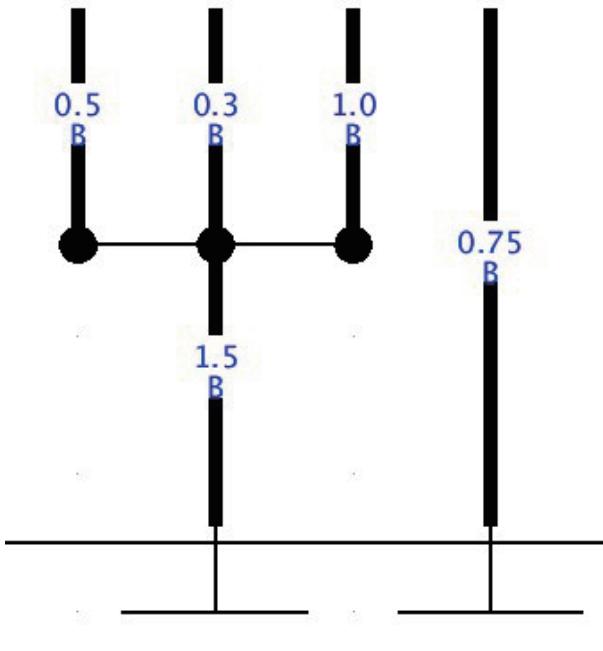
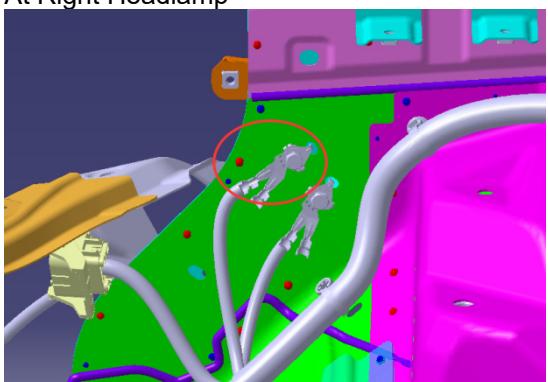


	<p>Front Passenger Seat Controller (Low Configuration) /1</p> <p>Front Passenger Seat Heater Controller /1</p> <p>Front Passenger Seat Heater Controller /6</p> <p>Front Passenger Seat Heater Controller /10</p> <p>GD214</p> <p>GD214A Chassis Grounding GD214B Chassis Grounding</p>	
GD301	<p>Cooling Fan /1</p> <p>GD301 Engine Compartment Wiring Harness Grounding</p>	<p>At Cooling Fan</p>



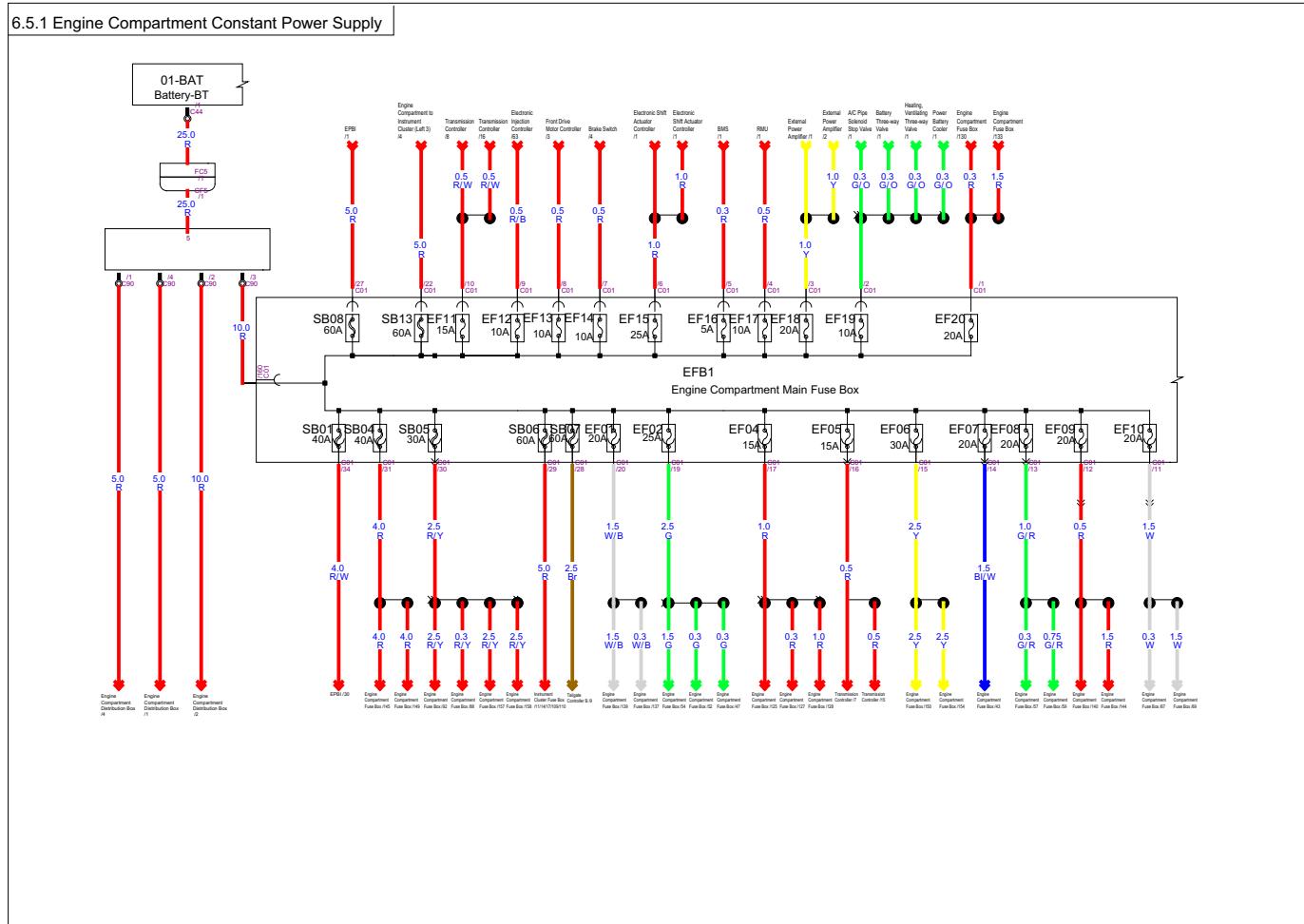
GD303B	 <p>Shift Controller A /3 Shift Controller A /4 Front Wiper Motor /5</p> <p>0.75 B 0.75 B 1.5 B</p> <p>1.5 B</p> <p>GD303</p> <p>Engine Compartment Wiring Harness Grounding</p>	<p>At Left Front ECU of Engine Compartment</p> 
GD304	 <p>ECU /96 ECU /97 ECU /98 ECU /99</p> <p>1.0 B 1.0 B 1.0 B 1.0 B</p> <p>GD304A GD304B</p> <p>Engine Compartment Wiring Harness Grounding Engine Compartment Wiring Harness Grounding</p>	<p>At Left Front Bulge of Engine Compartment</p> 

GD306	 <p>EPBI-14 /14</p> <p>EPBI-46 /46</p> <p>4.0 B</p> <p>4.0 B</p> <p>GD306A Engine Compartment Wiring Harness Grounding</p> <p>GD306B Engine Compartment Wiring Harness Grounding</p>	<p>At Left Front Bulge of Engine Compartment</p> 
GD307	 <p>Air Quality Sensor /2</p> <p>0.5 B</p> <p>A/C Pressure Switch /2</p> <p>0.3 B</p> <p>A/C Pressure Switch /1</p> <p>0.3 B</p> <p>Cooling Water Pump 20T /3</p> <p>0.75 B</p> <p>ACC /5</p> <p>0.3 B</p> <p>0.75 B</p> <p>0.5 B</p> <p>GD307A Engine Compartment Wiring Harness Grounding</p>  <p>Rear Washer Motor /2</p> <p>0.75 B</p> <p>Front Washer Motor /2</p> <p>0.75 B</p> <p>Side Assist Receiver - Right Front /4</p> <p>0.3 B</p> <p>Side Assist Receiver - Right Front /8</p> <p>0.3 B</p> <p>Side Assist Receiver - Right Front /4</p> <p>0.3 B</p> <p>Side Assist Receiver - Right Front /8</p> <p>0.3 B</p> <p>Side Assist Receiver - Right Front /9</p> <p>0.3 B</p> <p>Right Front Combination Lamp 2 /1</p> <p>0.5 B</p> <p>Left Front Combination Lamp 2 /1</p> <p>0.5 B</p> <p>1.0 B</p> <p>0.5 B</p> <p>GD307B Engine Compartment Wiring Harness Grounding</p>	

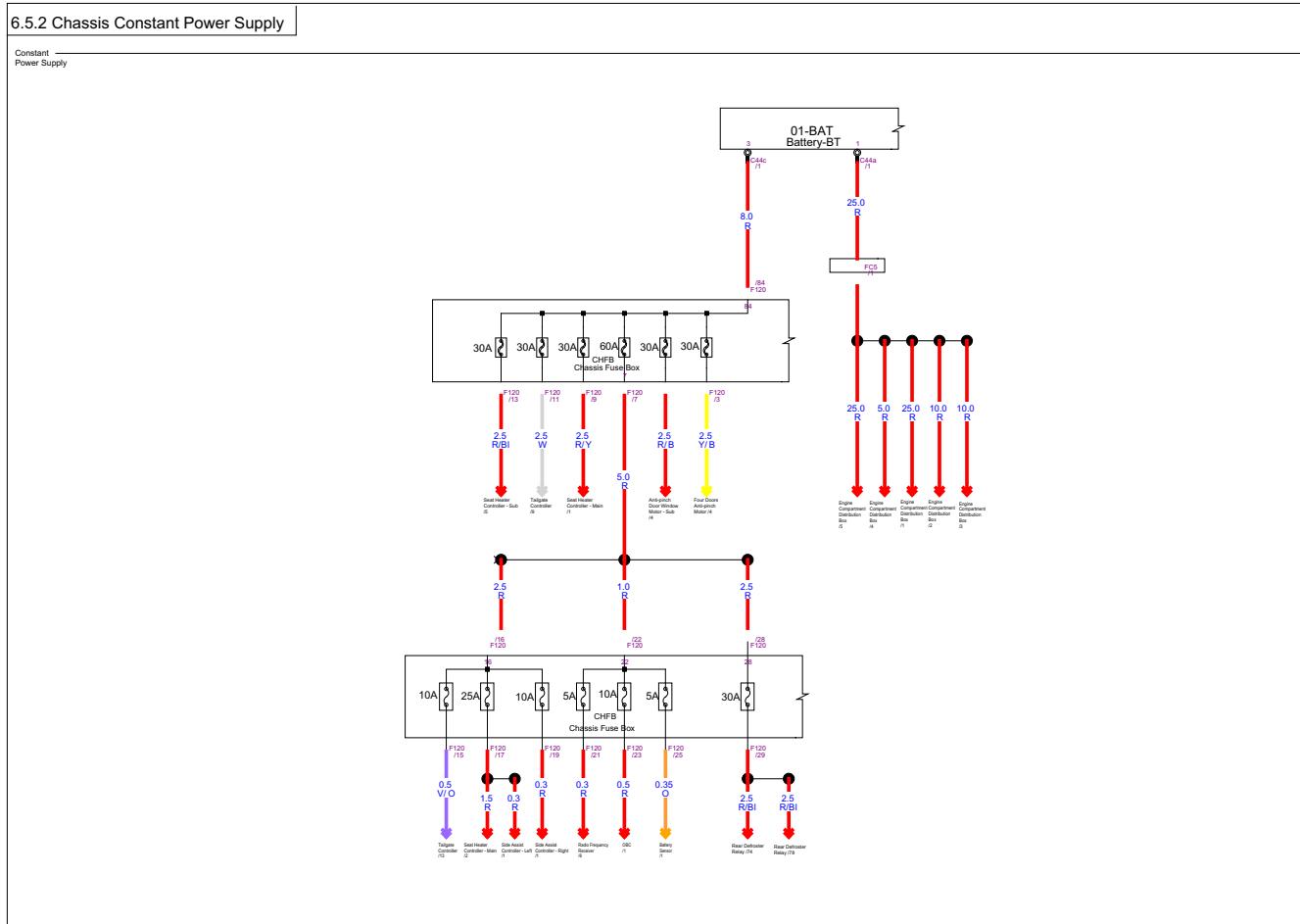
	Right Headlamp /6	Right Headlamp /10	Right Headlamp /2	Low Pitched Horn /2	At Right Headlamp
GD308					
	GD308A Engine Compartment Wiring Harness Grounding		GD308B Engine Compartment Wiring Harness Grounding		

6.5 Power Supply Distribution and Grounding

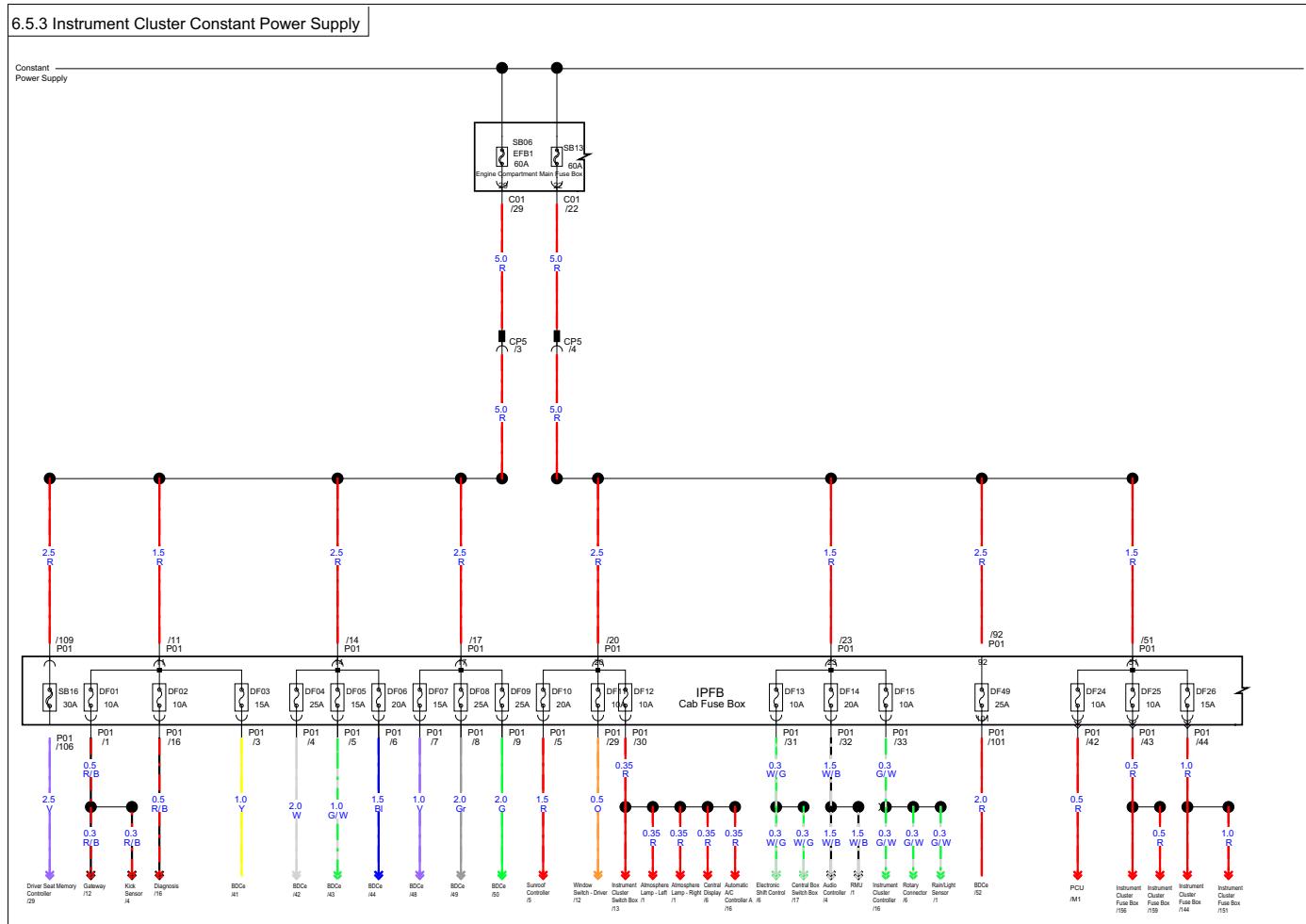
6.5.1 Engine Compartment Fuse Box Constant Power Supply



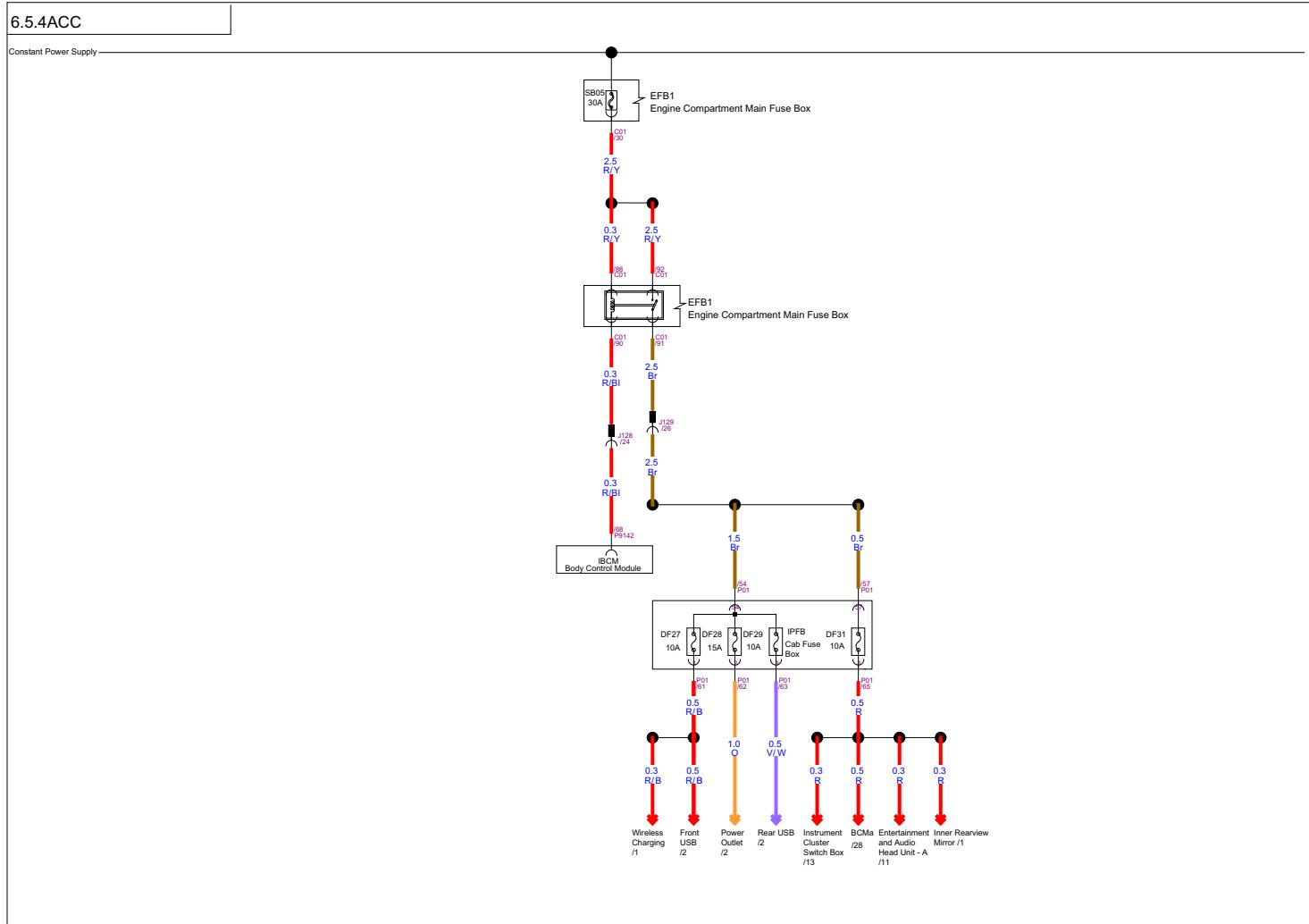
6.5.2 Chassis Fuse Box Constant Power Supply



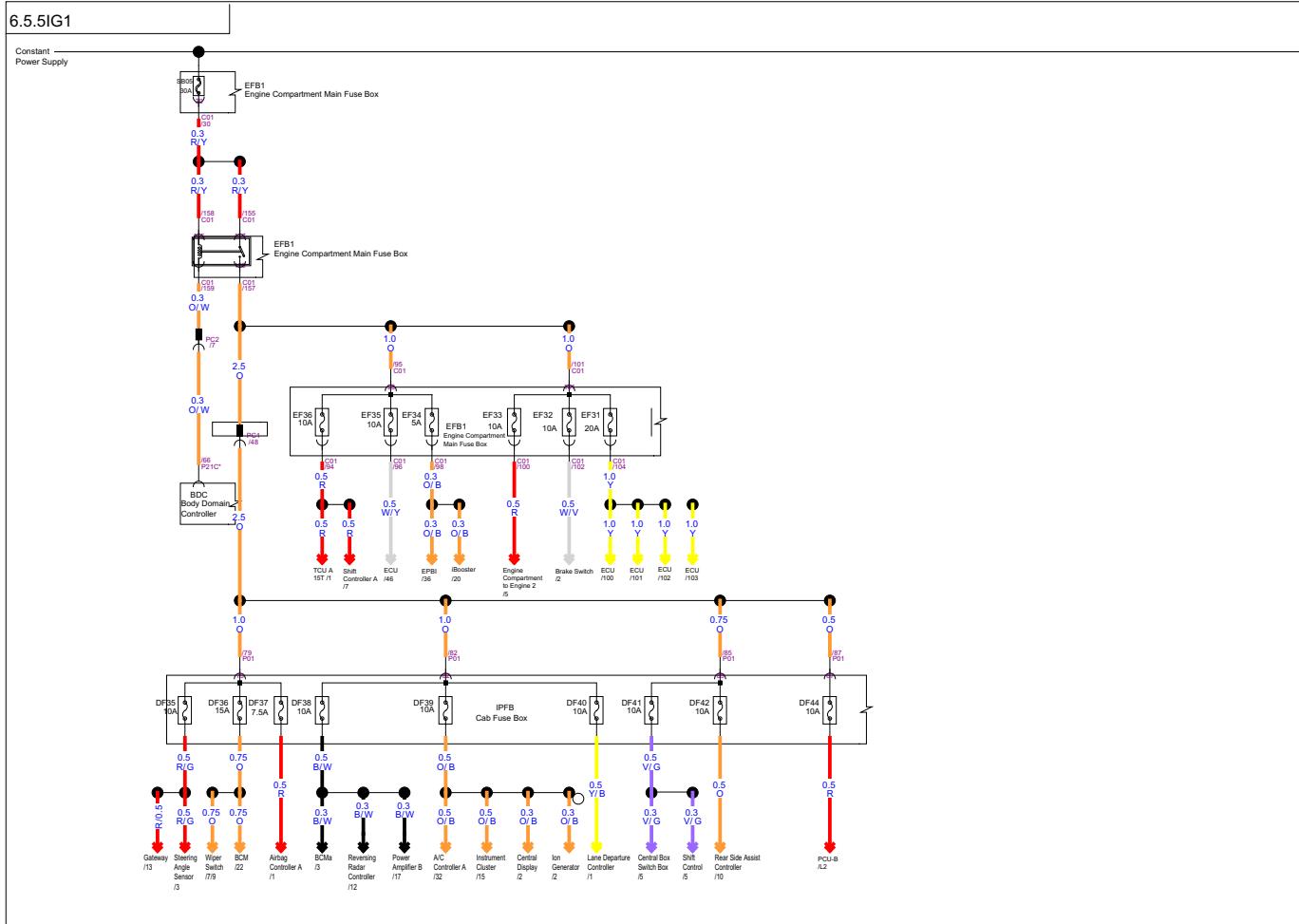
6.5.3 Instrument Panel Fuse Box Constant Power Supply



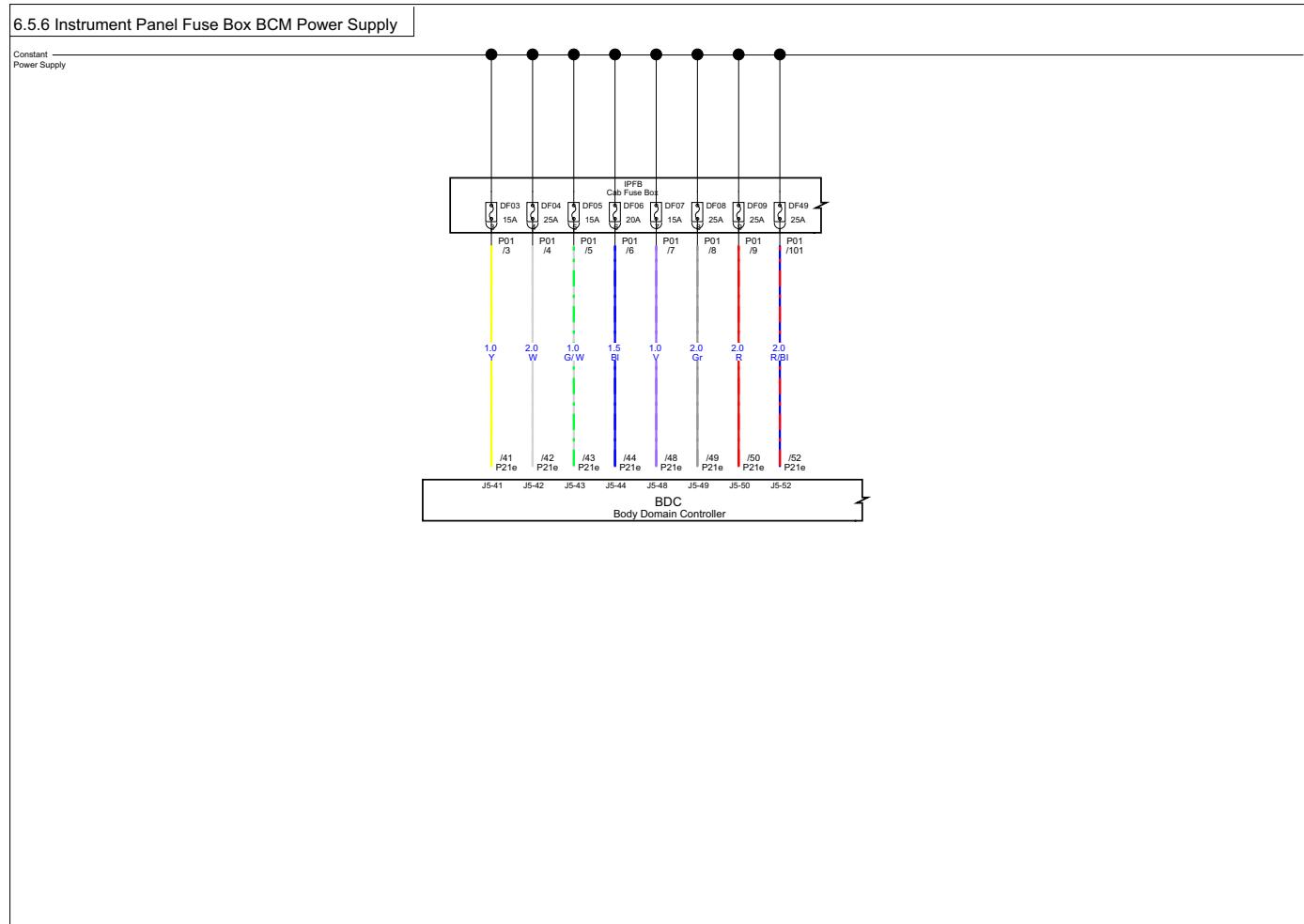
6.5.4 Fuse Box ACC Power Supply



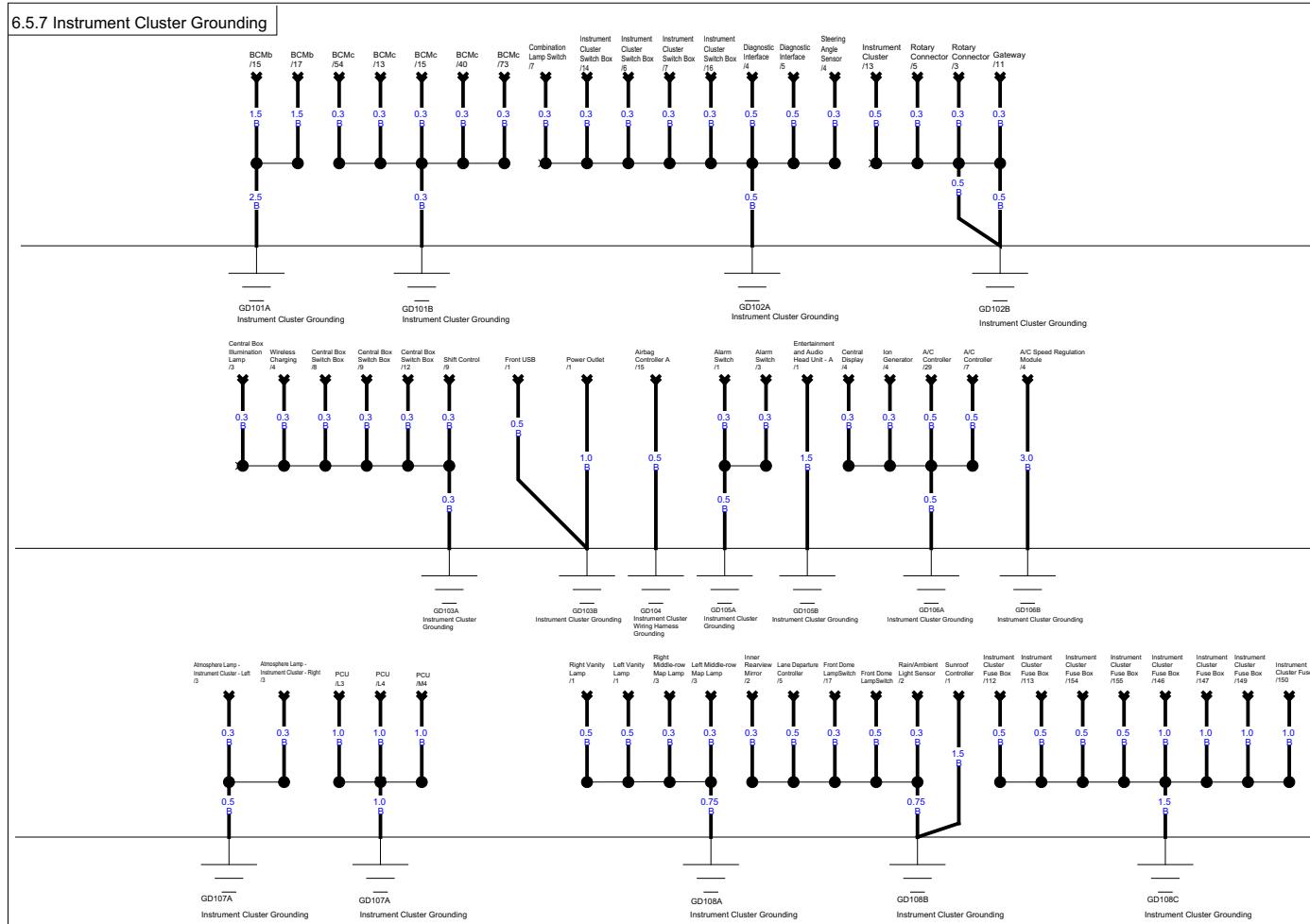
6.5.5 Fuse Box IG Power Supply



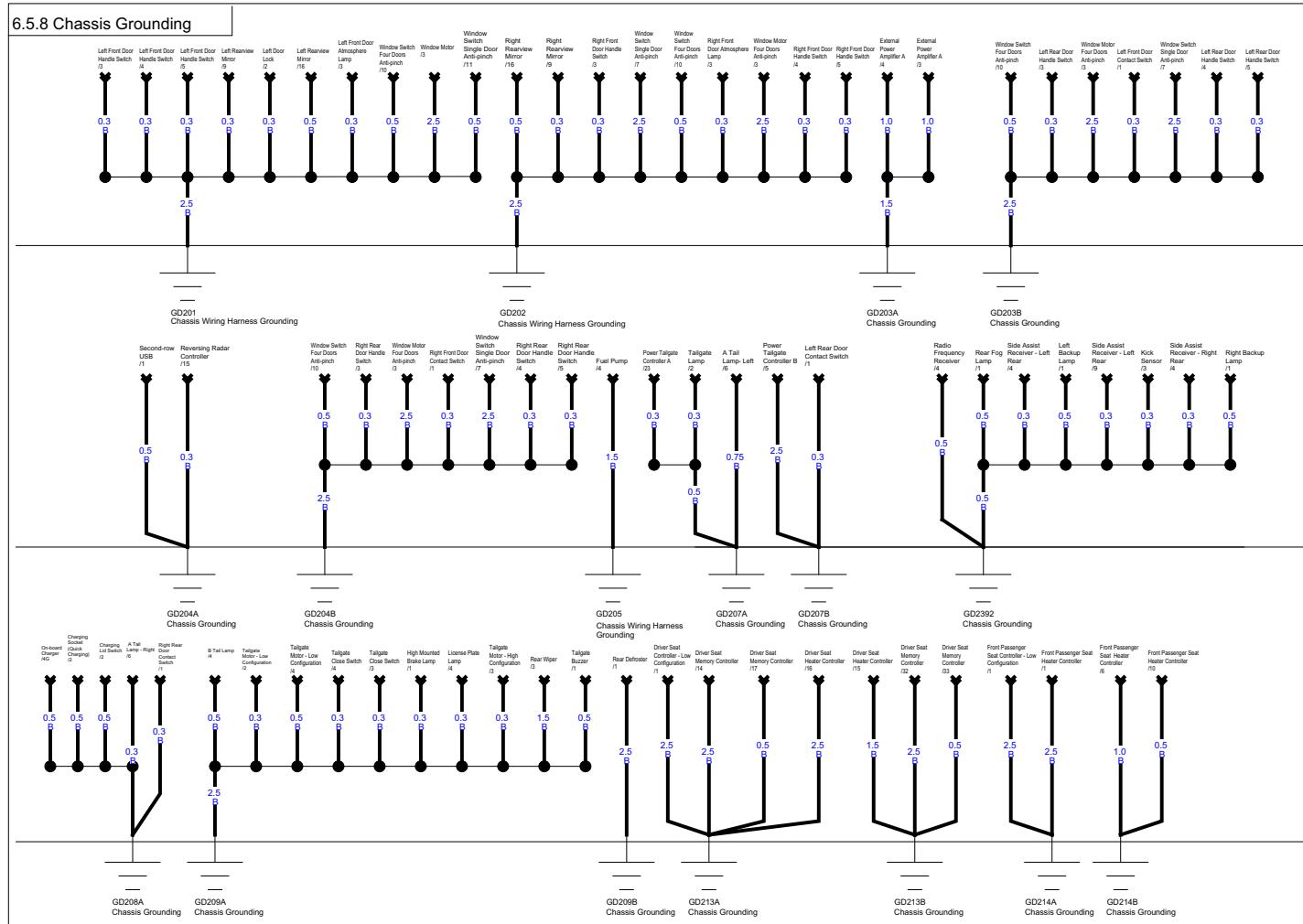
6.5.6 Instrument Panel Fuse Box BCM Power Supply



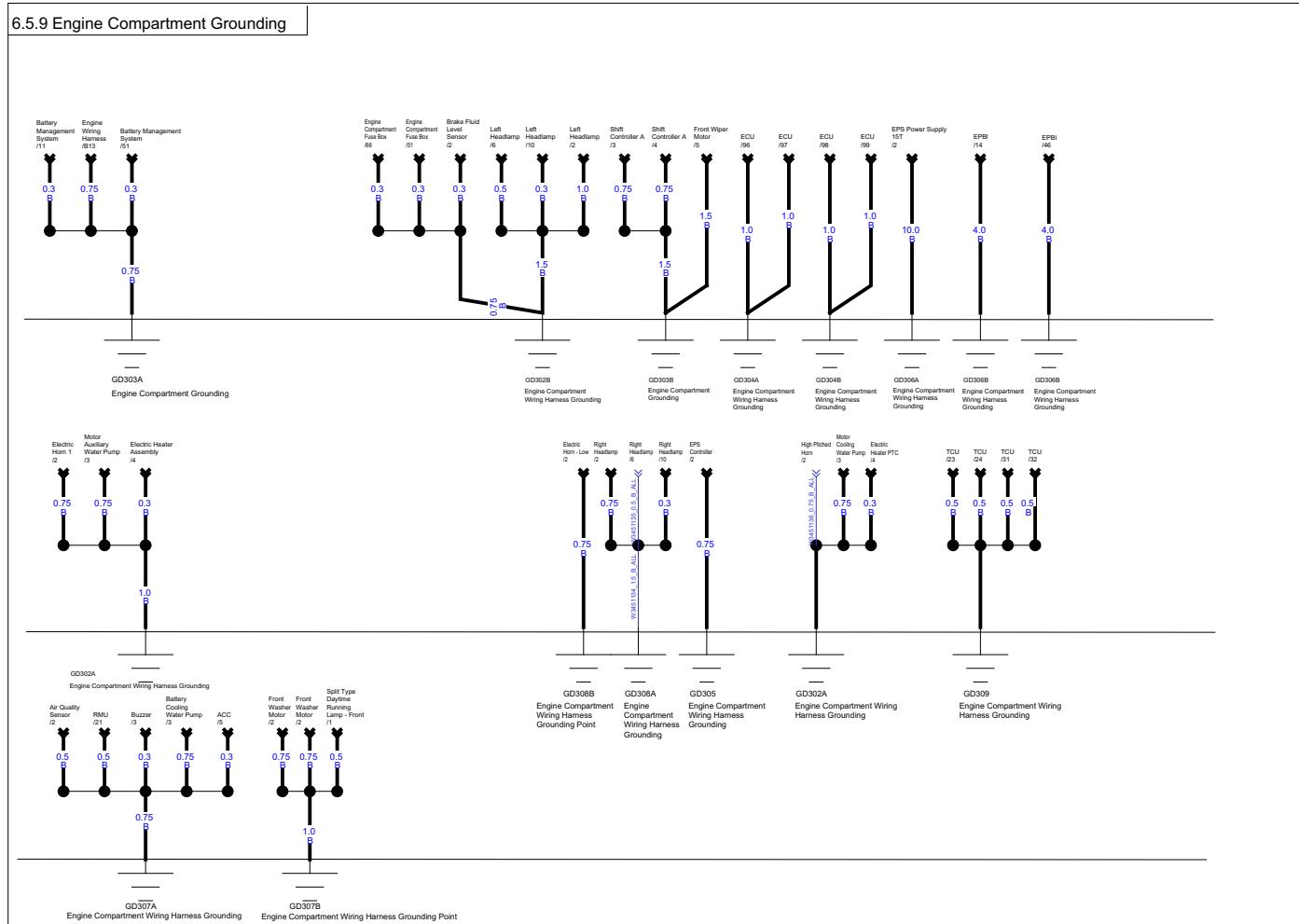
6.5.7 Instrument Cluster Grounding



6.5.8 Chassis Grounding



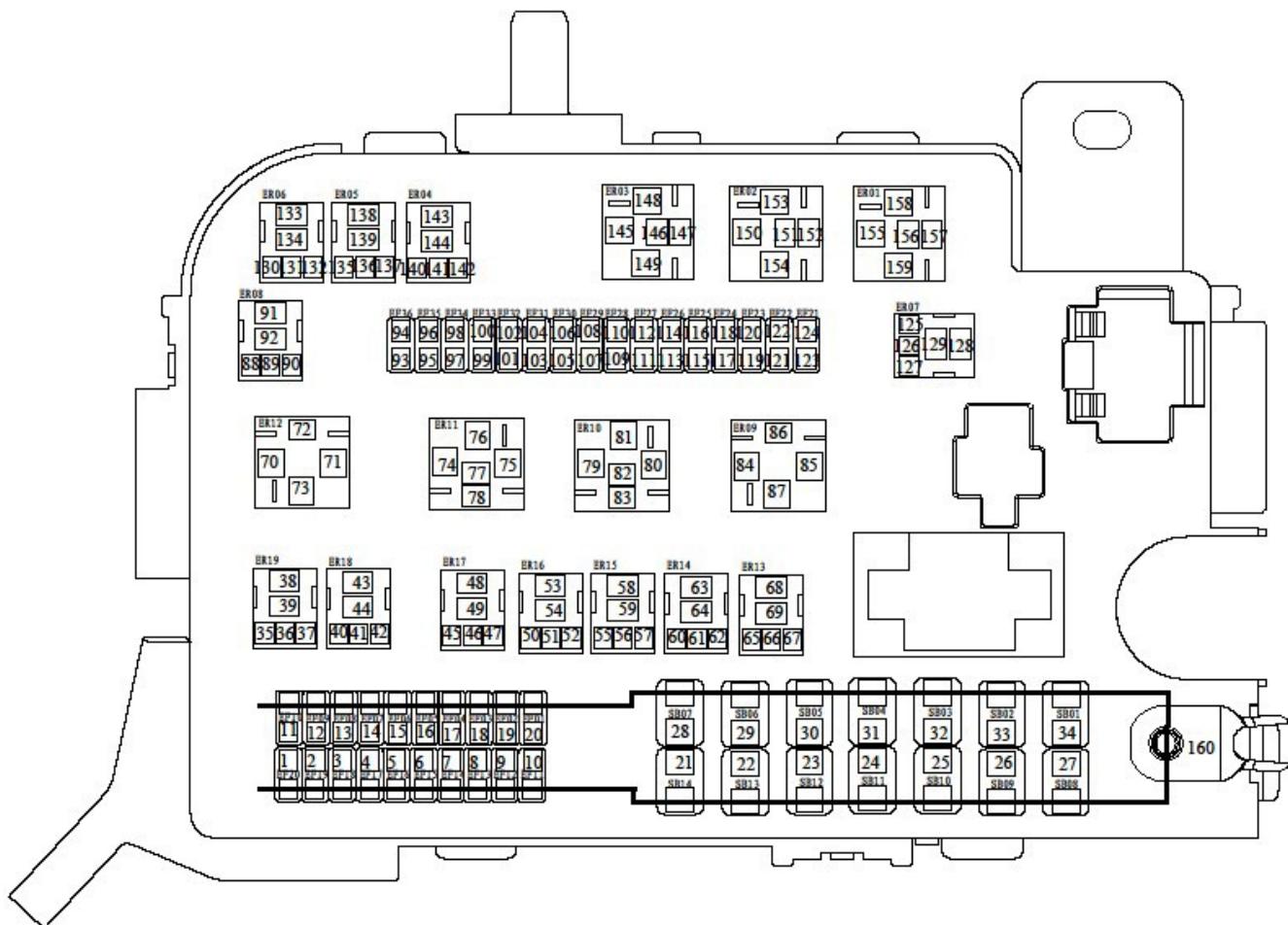
6.5.9 Engine Compartment Grounding



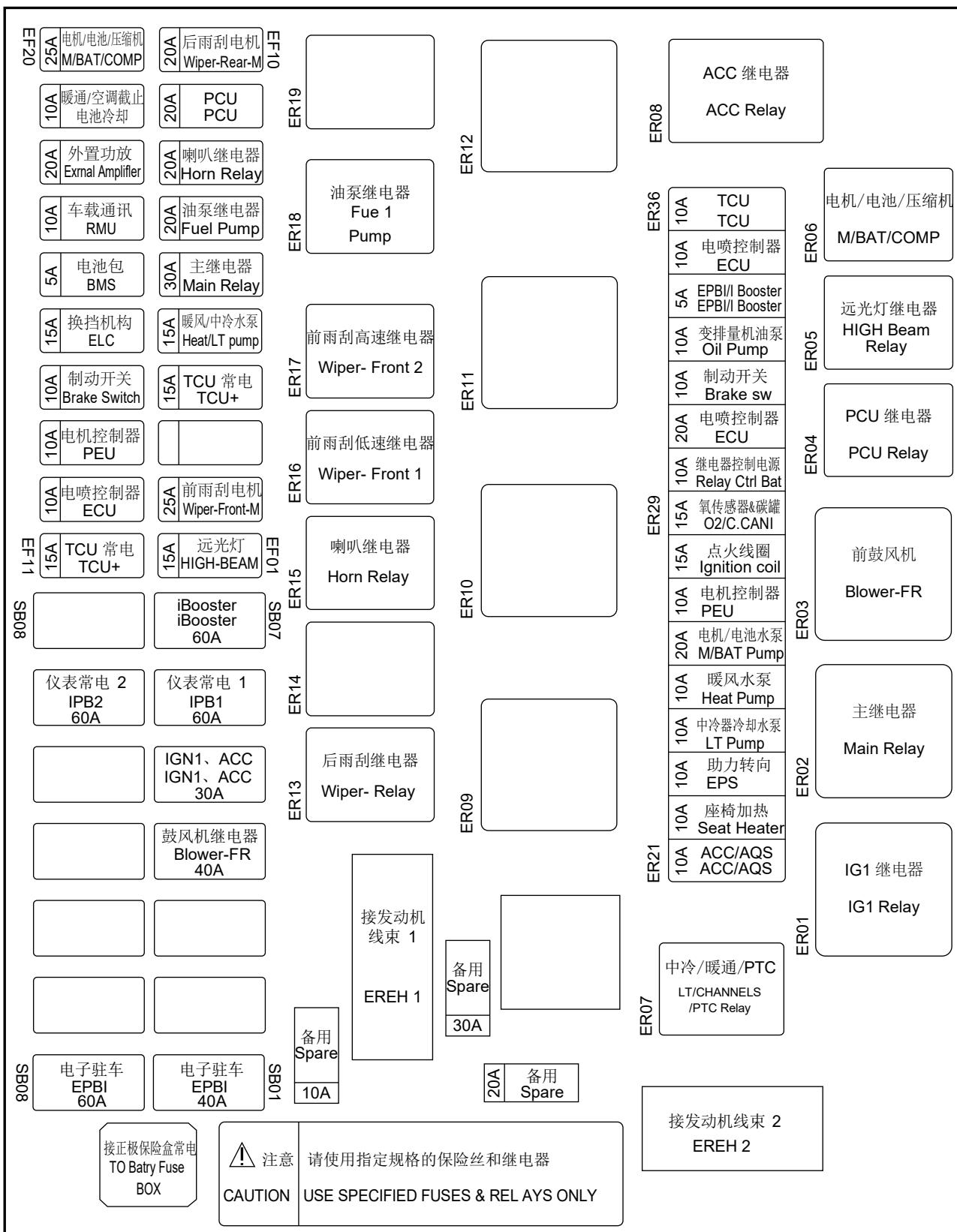
6.6 Fuse Box Details

6.6.1 Engine Compartment Fuse and Relay Distribution

Fuse box is arranged at left side of engine compartment, close to the battery.



Fuse Box Label



Engine Compartment Fuse (Quick-blow) Details

Fuse	Specifications	Load Name	Power Supply
EF01	20A	Low Beam Lamp	BAT
EF02	25A	Front Wiper Motor	BAT
EF03	/	/	BAT
EF04	15A	TCU	BAT
EF05	15A	Heater/Intercooler Water Pump	BAT
EF06	30A	Main Relay	BAT
EF07	20A	Fuel Pump	BAT
EF08	20A	Electric Horn	BAT
EF09	20A	PCU	BAT
EF10	20A	Rear Wiper Motor	BAT
EF11	15A	TCU	BAT
EF12	10A	Electronic Injection Controller	BAT
EF13	10A	PEU	BAT
EF14	10A	Brake Switch	BAT
EF15	15A	Shift Actuator	BAT
EF16	5A	BMS	BAT
EF17	10A	RMU	BAT
EF18	20A	Power Amplifier	BAT
EF19	10A	Heating, Ventilating and Air Conditioning Stop Valve	BAT
EF20	25A	Motor/Battery/Compressor	BAT
EF21	10A	ACC/AQS	IG1
EF22	10A	Seat Controller	IG1
EF23	10A	EPS	IG1
EF24	10A	Intercooler Cooling Water Pump	Main Relay Power Supply
EF25	10A	Heater Water Pump	Main Relay Power Supply
EF26	20A	Motor/Battery Water Pump	Main Relay Power Supply
EF27	/	/	/
EF28	15A	Ignition Coil	Main Relay Power Supply
EF29	15A	Air Intake Pressure Discharge Valve, Carbon Canister Control Valve, Intake OCV Valve, Exhaust OCV Valve, Front Oxygen Sensor and Rear Oxygen Sensor	Main Relay Power Supply
EF30	10A	Relay Coil Power Supply	Main Relay Power Supply
EF31	20A	Electronic Injection Controller	Main Relay Power Supply
EF32	10A	Brake Switch	Main Relay Power Supply
EF33	10A	Variable Displacement Oil Pump	IG1
EF34	5A	EPBI	IG1
EF35	10A	Electronic Injection ECU	IG1
EF36	10A	TCU, Shift Actuator Controller	IG1

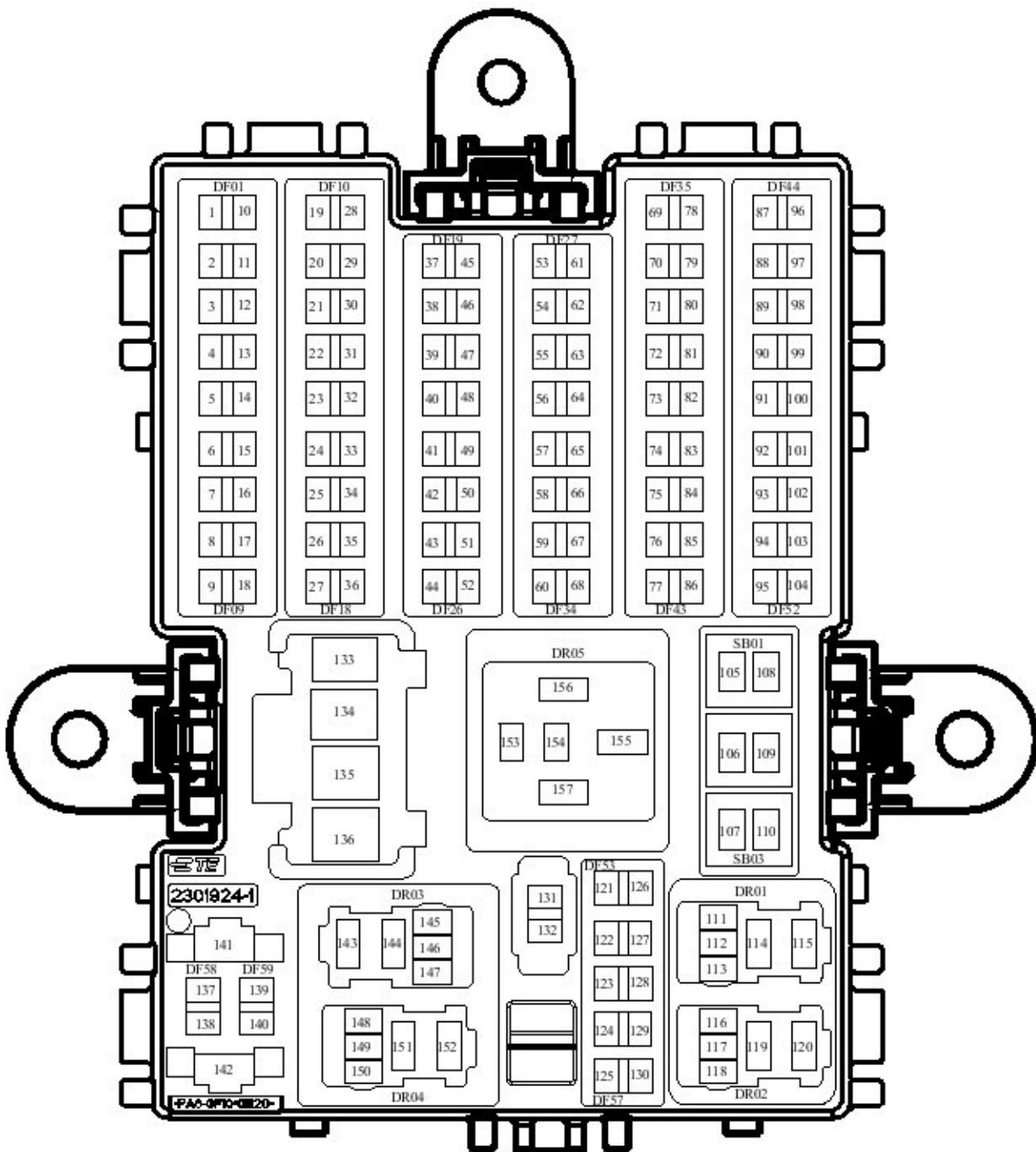
Engine Compartment Fuse (Slow-blow) Details			/
Fuse	Specifications	Load Name	Power Supply
SB01	40A	EPBI	BAT
SB02	/	/	BAT
SB03	/	/	BAT
SB04	40A	Blower	BAT
SB05	30A	ACC Relay	BAT
		IG1 Relay	BAT
SB06	60A	Instrument Cluster Constant Power Supply 1	BAT
SB07	60A	iBooster	BAT
SB08	60A	EPBI	BAT
SB09	/	/	/
SB10	/	/	BAT
SB11	/	/	BAT
SB12	/	/	BAT
SB13	60A	Instrument Cluster Constant Power Supply 2	BAT
SB14	/	/	BAT

Engine Compartment Fuse Box Relay Details

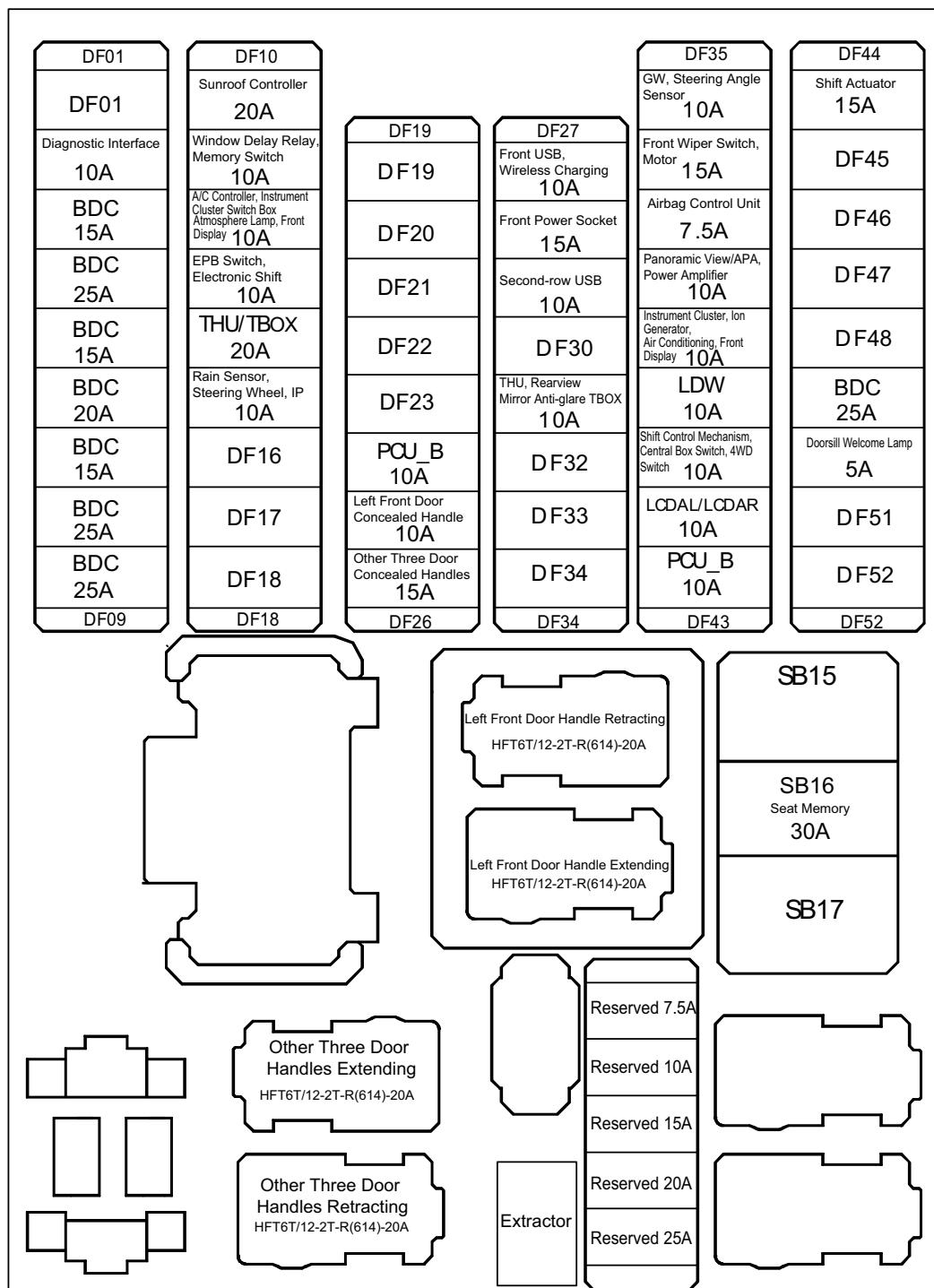
Name	Specifications	Corresponding Load	
ER01		IG1 Relay	
ER02		Main Relay	
ER03		Blower Relay	
ER04		PCU Relay	
ER05		High Beam Lamp Relay	
ER06		Motor/Battery/Compressor Relay	
ER07		Intercooler/HVAC Relay	
ER08		ACC Relay	
ER09		/	
ER10		/	
ER11		/	
ER12		/	
ER13		Rear Wiper Relay	
ER14		/	
ER15		Electric Horn Relay	
ER16		Front Wiper Relay 1	
ER17		Front Wiper Relay 2	
ER18		Oil Pump Relay	
ER19		/	

6.6.2 Instrument Panel Fuse and Relay Distribution

Fuse box is arranged in cab on driver side and under the instrument panel.



Instrument Panel Fuse Box Label



Instrument Panel Fuse (Quick-blow) Details

Fuse	Specifications	Load Name	Power Supply
/			
DF02	10A	Diagnostic Interface	BAT

6.6.2-3

Instrument Panel Fuse and Relay Distribution

6.6.2-3

DF03	15A	BDC	BAT
DF04	25A	BDC	BAT
DF05	15A	BDC	BAT
DF06	20A	BDC	BAT
DF07	15A	BDC	BAT
DF08	25A	BDC	BAT
DF09	25A	BDC	BAT
DF10	20A	Sunroof Controller	BAT
DF11	10A	Seat Memory Switch	BAT
DF12	10A	A/C Controller, Front Display, Multicolor Atmosphere Lamp, Instrument Cluster Switch Box (Memory Adjustment Rearview Mirror)	BAT
DF13	10A	EPB Switch, Electronic Shift	BAT
DF14	20A	THU	BAT
DF15	10A	Rain Sensor, Steering Wheel, IP	BAT
DF16	/	/	/
DF17	/	/	/
DF18	/	/	/
DF19	/	/	/
DF20	/	/	/
DF21	/	/	/
DF22	/	/	/
DF23	/	/	/
DF24	10A	PCU	BAT
DF25	10A	Left Front Door Concealed Handle	BAT
DF26	15A	Other Three Door Concealed Handles	BAT
DF27	10A	Front USB, Wireless Charging	ACC
DF28	15A	Front Power Socket	ACC
DF29	10A	Second-row USB	ACC
DF30	/	/	/
DF31	10A	THU, Inside Rearview Mirror, ACC Relay Feedback, Instrument Cluster Switch Box (Non-memory Adjustment Rearview Mirror)	ACC
DF32-DF34	/	/	/
DF35	10A	Gateway, Steering Angle Sensor	IG1
DF36	15A	Front/Rear Wiper and Washer	IG1
DF37	7.5A	SRS	IG1
DF38	10A	APA、IG1 Relay Feedback, Power Amplifier, Reversing Radar Controller	IG1
DF39	10A	A/C, Instrument Cluster, Ion Generator, Front Display, PM2.5	IG1
DF40	10A	LDW	IG1
DF41	10A	Shift Control Mechanism, Central Box Switch Box	IG1
DF42	10A	Side Assist Controller	IG1
DF43	10A	PCU	IG1
DF44	15A	Shift Mechanism	IG1
DF45-DF48	/	/	/
DF49	25A	BDC	BAT
DF50	5A	Doorsill Welcome Lamp	BAT
DF51-DF52	/	/	/

Instrument Panel Fuse (Slow-blow) Details

6.6.2-4

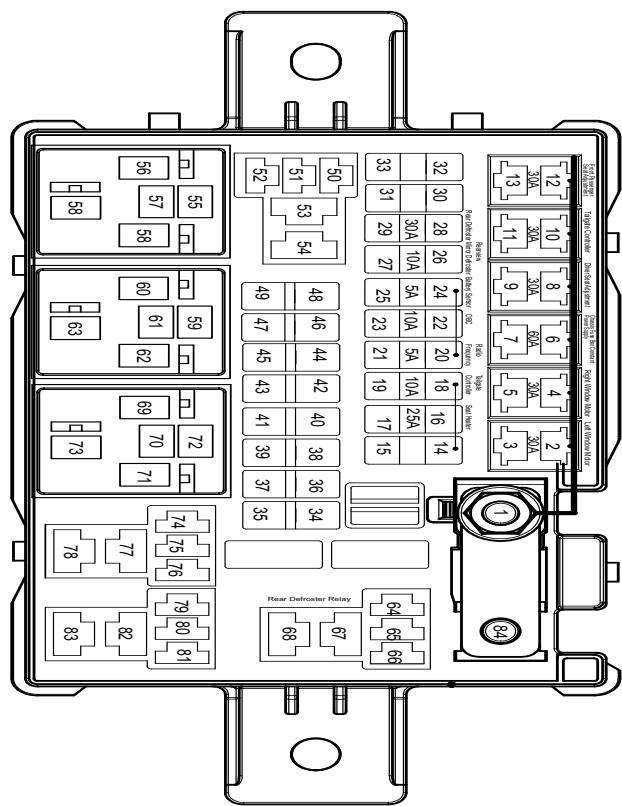
Instrument Panel Fuse and Relay Distribution

6.6.2-4

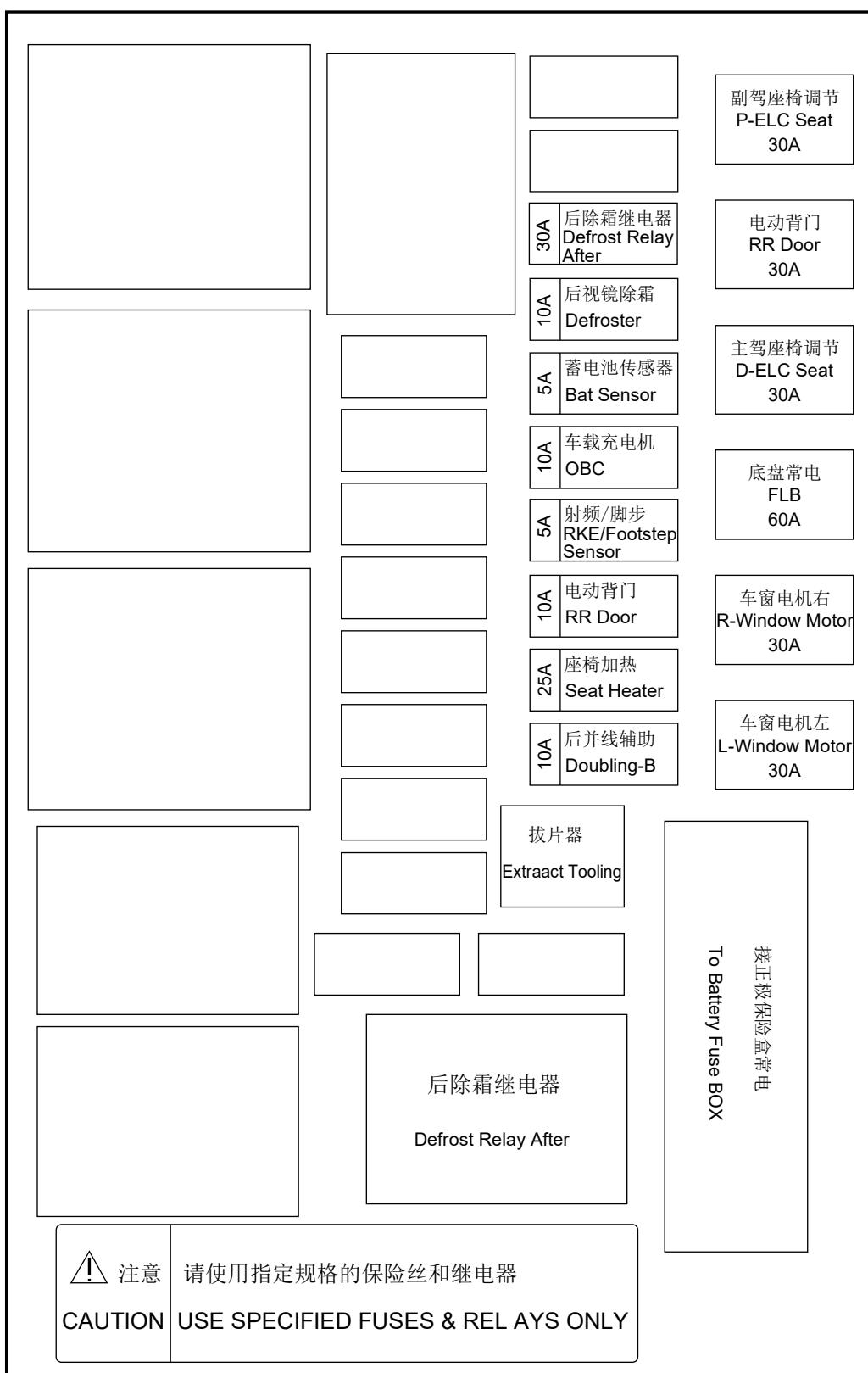
SB15	30A	Driver Electric Regulator	BAT
SB16	30A	Driver Seat Memory Controller	BAT
SB17	30A	Front Passenger Electric Regulator	BAT
Instrument Panel Fuse Box Relay Details			
Name	Specifications	Load Name	
DR01		/	/
DR02		/	/
DR03		Other Three Door Handles Extending Relay	
DR04		Other Three Door Handles Retracting Relay	
DR05		Left Front Door Handle Extending Relay	
DR06		Left Front Door Handle Retracting Relay	

6.6.3 Chassis Fuse and Relay Distribution

Fuse box is arranged under tailgate



Instrument Panel Fuse Box Label



Instrument Panel Fuse (Quick-blow) Details		
Fuse	Specifications	Load Name
YF01	10A	Side Assist
YF02	25A	Seat Heater
YF03	10A	Power Tailgate
YF04	5A	Radio Frequency/Kick Sensor
YF05	10A	On-board Charger
YF06	5A	Battery Sensor
YF07	10A	Rearview Mirror Defroster
YF08	30A	Rear Defroster Relay

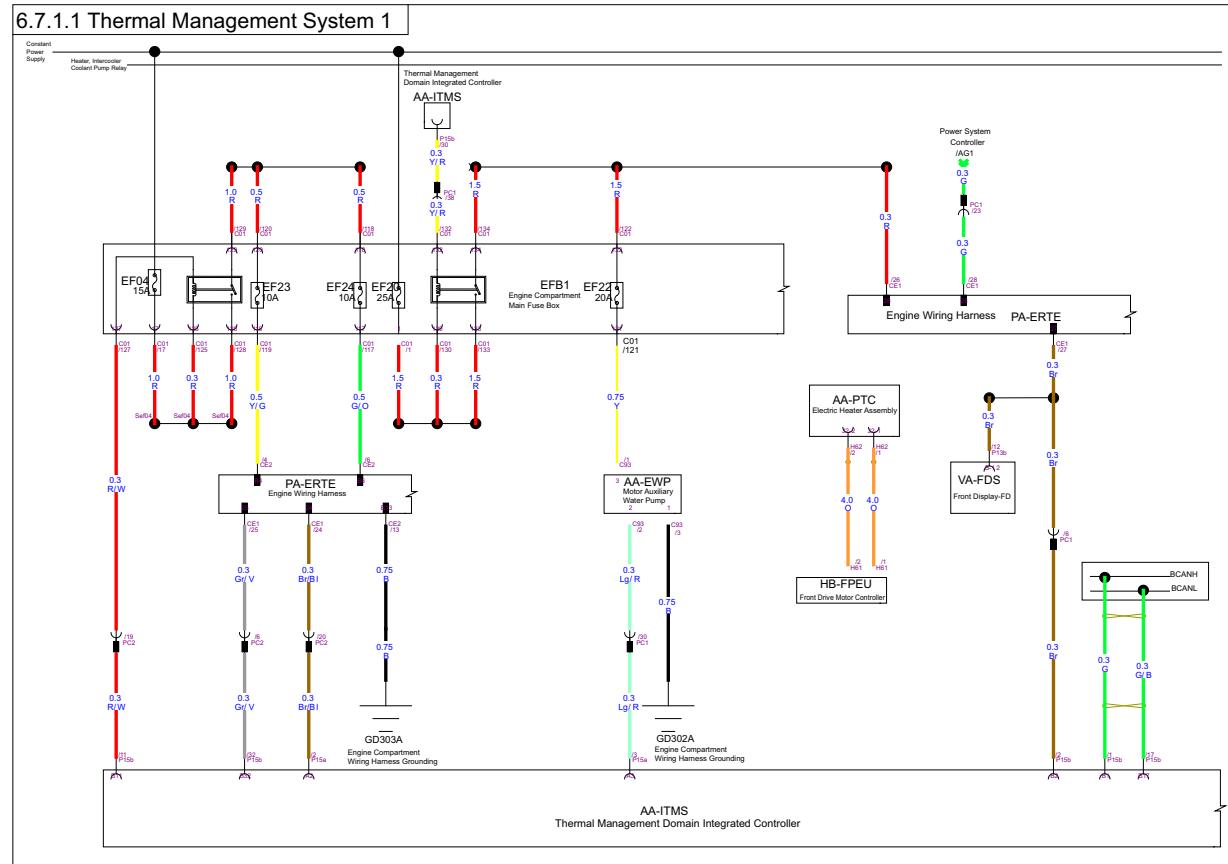
Instrument Panel Fuse (Slow-blow) Details		
Fuse	Specifications	Load Name
YB01	30A	Window Motor
YB02	30A	Window Motor
YB03	60A	Chassis Fuse Box Constant Power Supply
YB04	30A	Driver Seat Adjustment
YB05	30A	Tailgate Controller
YB06	30A	Front Passenger Seat Adjustment

Instrument Panel Fuse Box Relay Details		
Name	Specifications	Load Name
DR01		Rear Defroster Relay

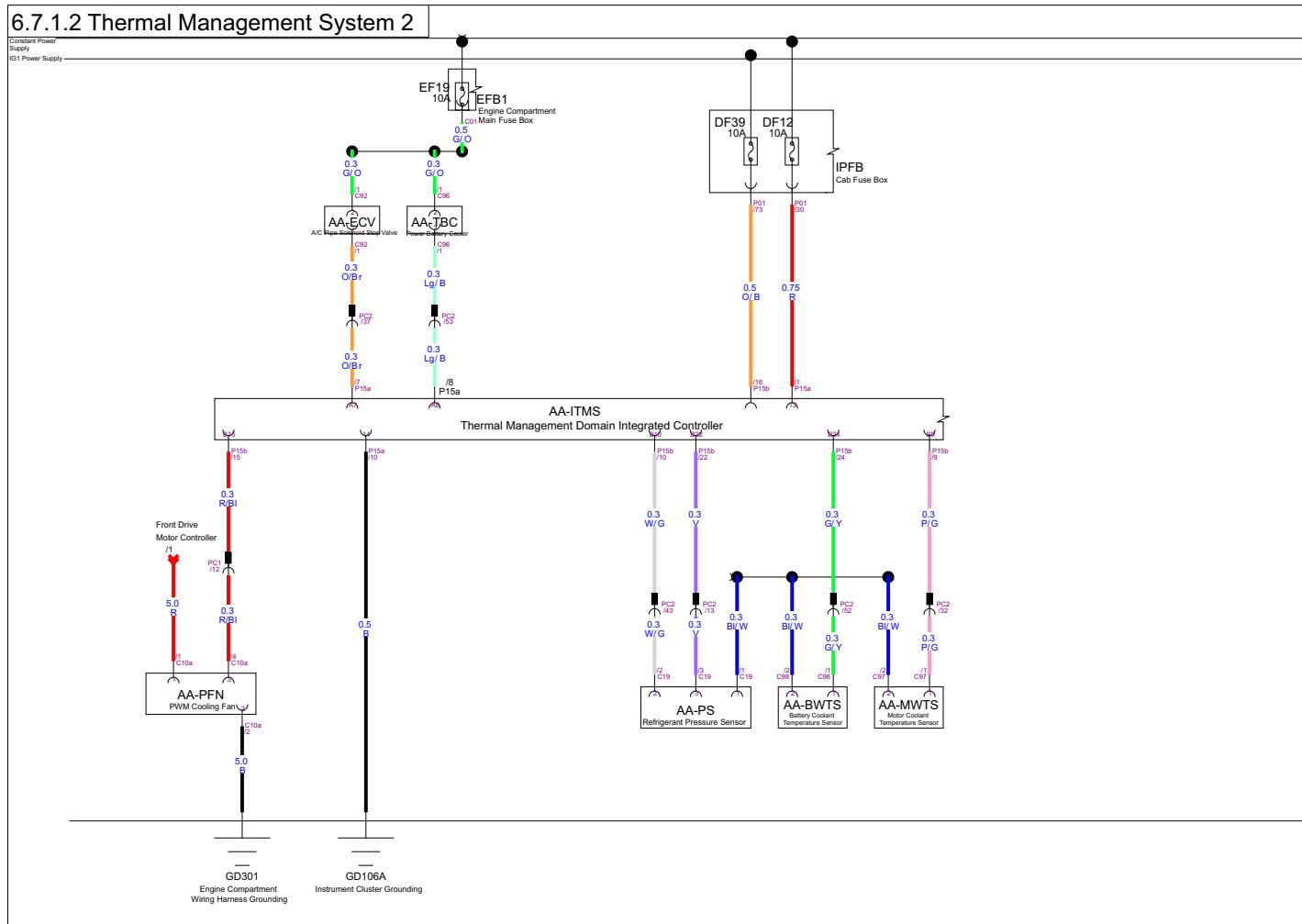
6.7 Electrical Sub System Wiring Diagram

6.7.1 A/C Control System

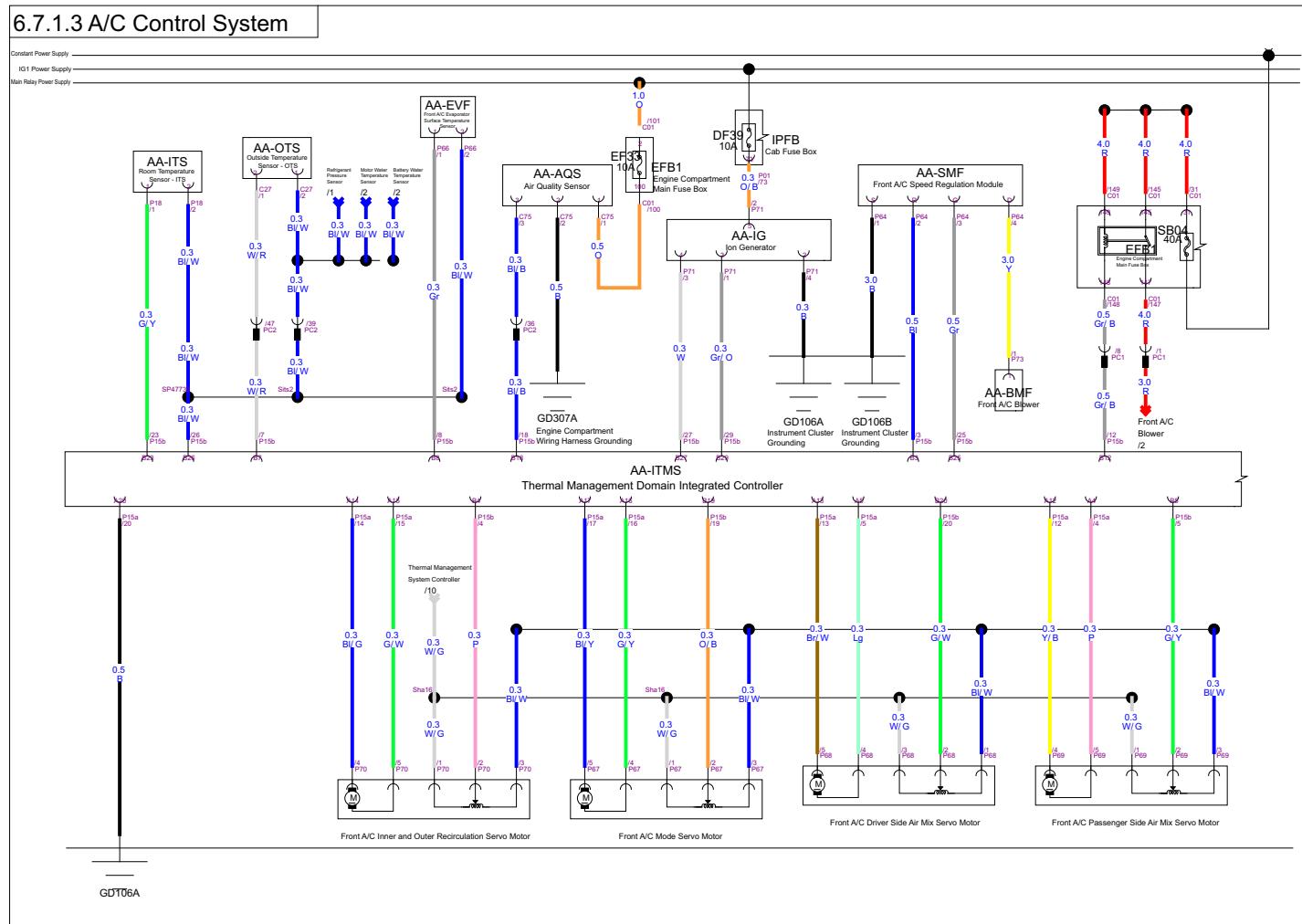
6.7.1.1 Thermal Management Control System 1



6.7.1.2 Thermal Management Control System 2

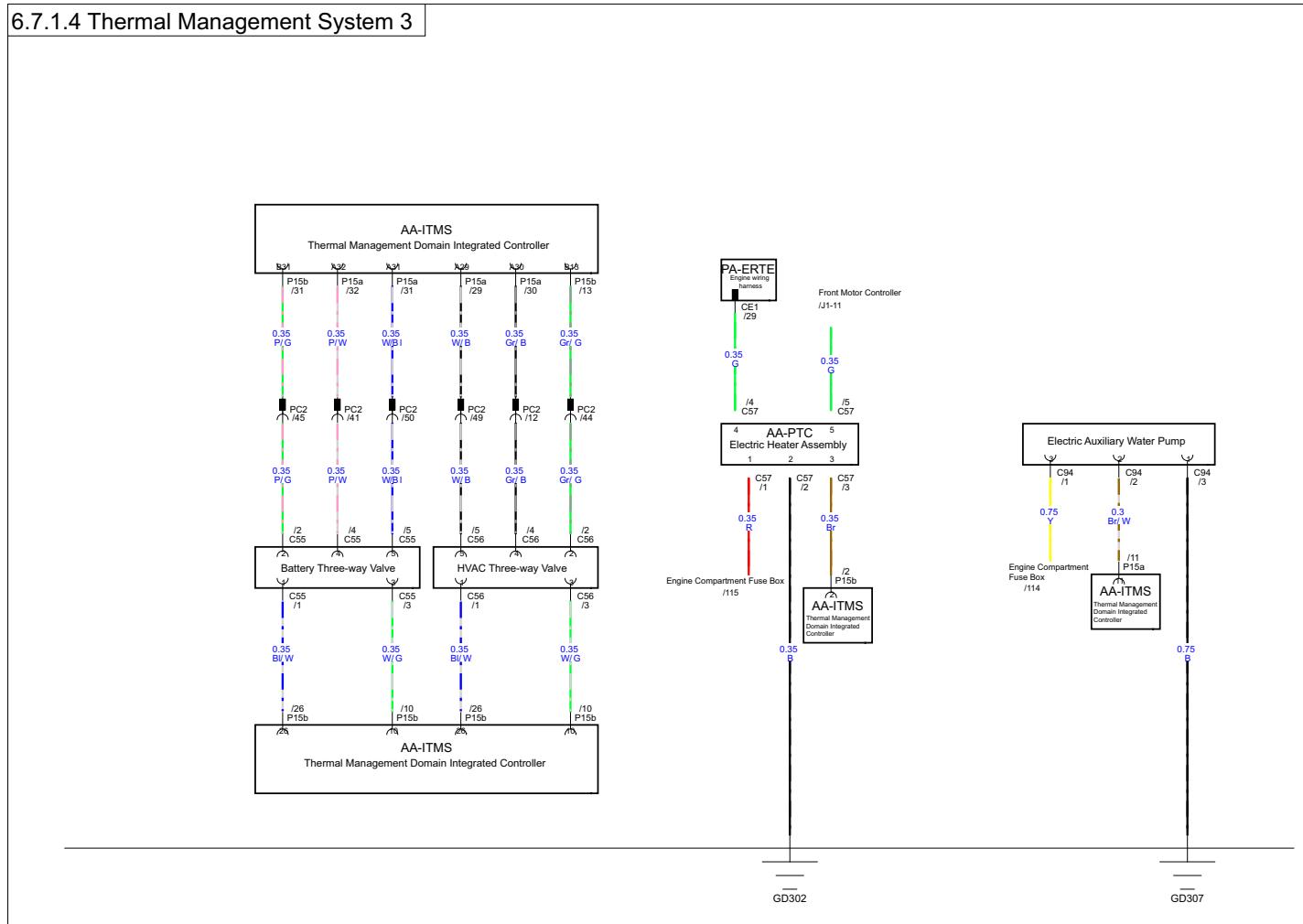


6.7.1.3 A/C Control System

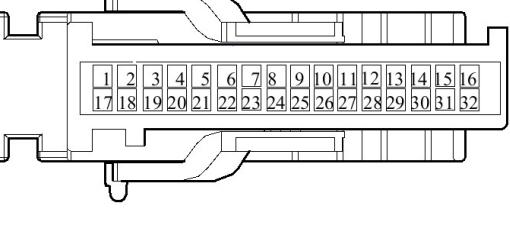


6.7.1.4 Thermal Management Control System 3

6.7.1.4 Thermal Management System 3



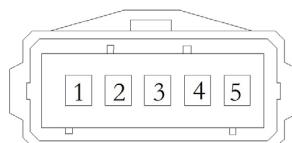
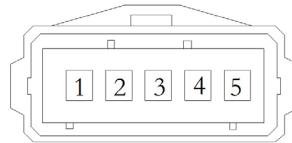
6.7.1.5 Connector View and Pin Definition

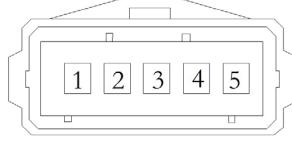
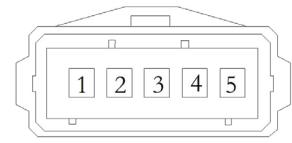
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P15a	Automatic A/C Controller		1	Power Supply	17	Face Damper Drive
			2	Intercooler Cooling Water Pump Speed Regulation	18	/
			3	Motor Cooling Water Pump Speed Regulation	19	/
			4	Right Refrigeration Damper Drive	20	Power Grounding
			5	Left Refrigeration Damper Drive	21	/
			6	HVAC Three-way Valve	22	/
			7	Expansion Valve/Stop Valve Drive	23	/
			8	Battery Cooler Stop Valve	24	/
			9	/	25	/
			10	Power Grounding	26	/
			11	Battery Cooling Water Pump Speed Regulation	27	/
			12	Right Heating Damper Drive	28	/

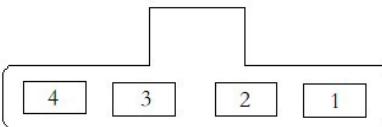
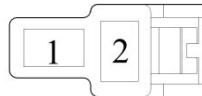
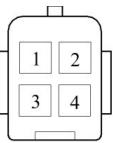
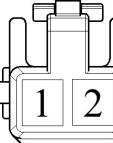
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
			13	Left Heating Damper Drive	29	HVAC Three-way Valve Motor Drive Negative
			14	Inner Recirculation Damper Drive	30	HVAC Three-way Valve Motor Drive Positive
			15	Outer Recirculation Damper Drive	31	Battery Three-way Valve Motor Drive Negative
			16	Defroster Damper Drive	32	Battery Three-way Valve Motor Drive Positive

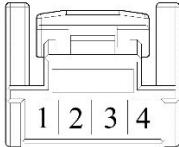
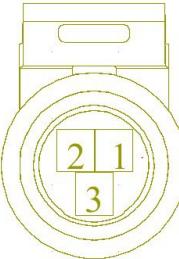
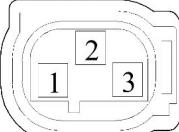
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P15b	Automatic A/C Controller		1	CAN_H	18	AQS Signal Input
			2	LIN Line	19	Mode Feedback Signal
			3	Blower Feedback Signal	20	Left Temperature Feedback
			4	Inner and Outer Recirculation Feedback Signal	22	Pressure Sensor
			5	Right Temperature Feedback	23	Room Temperature Sensor Signal
			7	Outside Temperature Sensor Signal	24	Battery Water Temperature Sensor Signal
			8	Evaporator Temperature Sensor Signal	25	Blower Speed Control Output
			9	Motor Water Temperature Sensor Signal	26	Sensor Grounding

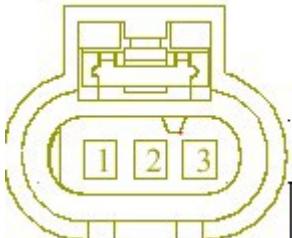
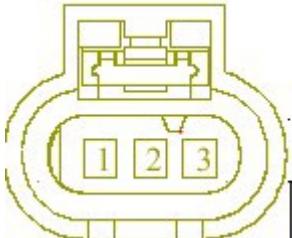
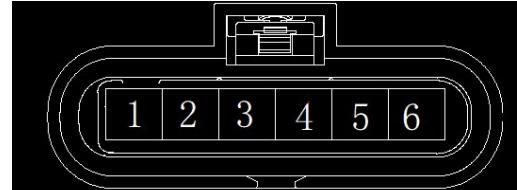
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
			10	5 V Sensor Power Supply Output	27	Ion Generator Diagnosis
			11	Intercooler/HVAC Water Pump, PTC Enable	28	PWM Fan Enable Control
			12	Blower Enable	29	Ion Generator Control
			13	HVAC Three-way Valve Voltage Feedback	30	Motor, Battery Cooling Water Pump, Electric Compressor Enable
			15	PWM Fan Control	31	Battery Three-way Valve Voltage Feedback
			16	Ignition Switch Signal Input	32	Heater Water Pump Speed Regulation Control
			17	CAN_L		

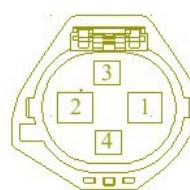
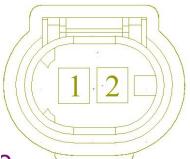
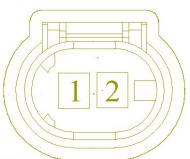
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P67	Front A/C Mode Servo Motor		1	5 V Power Supply +	4	Mode Damper Drive Signal (Defrost at +)
			2	Mode Damper Position Feedback Signal	5	Mode Damper Drive Signal (Face at +)
			3	Signal Grounding (Motor Feedback)		
P70	Front A/C Inner and Outer Recirculation Servo Motor		1	5 V Power Supply +	4	Inner and Outer Recirculation Damper Drive Signal (Inner Circulation at +)
			2	Inner and Outer Recirculation Damper Position Feedback Signal	5	Inner and Outer Recirculation Damper Drive Signal (Outer Circulation at +)
			3	Signal Grounding (Motor Feedback)		

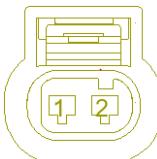
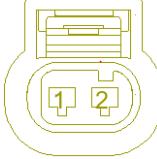
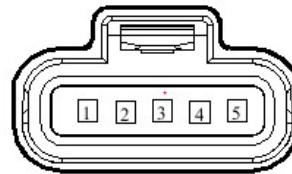
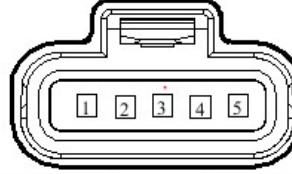
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P69	Front A/C Passenger Side Air Mix Servo Motor		1	5 V Power Supply +	4	Cool and Warm Damper Drive Signal (Full Warm Direction at +)
			2	Cool and Warm Damper Position Feedback Signal (Right)	5	Cool and Warm Damper Drive Signal (Full Cold Direction at +)
			3	Signal Grounding (Motor Feedback)		
P68	Front A/C Driver Side Air Mix Servo Motor		1	Signal Grounding (Motor Feedback)	4	Cool and Warm Damper Drive Signal (Full Cold Direction at +)
			2	Cool and Warm Damper Position Feedback Signal (Left)	5	Cool and Warm Damper Drive Signal (Full Warm Direction at +)
			3	5 V Power Supply +		

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P64	Front A/C Speed Regulation Module		1	To Blower Negative	3	Signal Feedback
			2	Signal Input	4	Negative
P73	Front A/C Blower		1	Blower Negative	2	Blower Motor (+)
P66	Evaporator Temperature Sensor		1	Evaporator Temperature Sensor	2	SGND Signal Grounding
P71	Ion Generator		1	Plasma Generator Enable Signal	3	Diagnosis Signal
			2	Plasma Ion Generator Power Supply +	4	Plasma Ion Generator Power Supply -
P18	Room Temperature Sensor		1	Sensor Signal	2	Sensor Grounding

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
C76	PM2.5 Sensor		1	IG Power Supply	3	LIN Communication
			2	Signal Grounding	4	Constant Power Supply
C19	Refrigerant Pressure Sensor		1	Grounding	3	Medium Voltage Signal (To ECU)
			2	Power Supply	/	
C27	Outside Temperature Sensor		1	Temperature Sensor Signal	2	Temperature Sensor Grounding
C75	Air Quality Sensor		1	IG1 Power Supply	3	Air Quality Level Input
			2	Sensor Grounding	/	/

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
C93	Motor Auxiliary Water Pump		1	Power Supply	3	Grounding
			2	Signal	/	
C94	Battery Auxiliary Water Pump		1	Power Supply	3	Power Supply Negative
			2	Speed Regulation and Fault Feedback	/	
C57	Electric Heater Assembly		1	Low Voltage Positive	4	High Voltage Interlock
			2	Low Voltage Negative	5	High Voltage Interlock
			3	LIN Signal	6	/

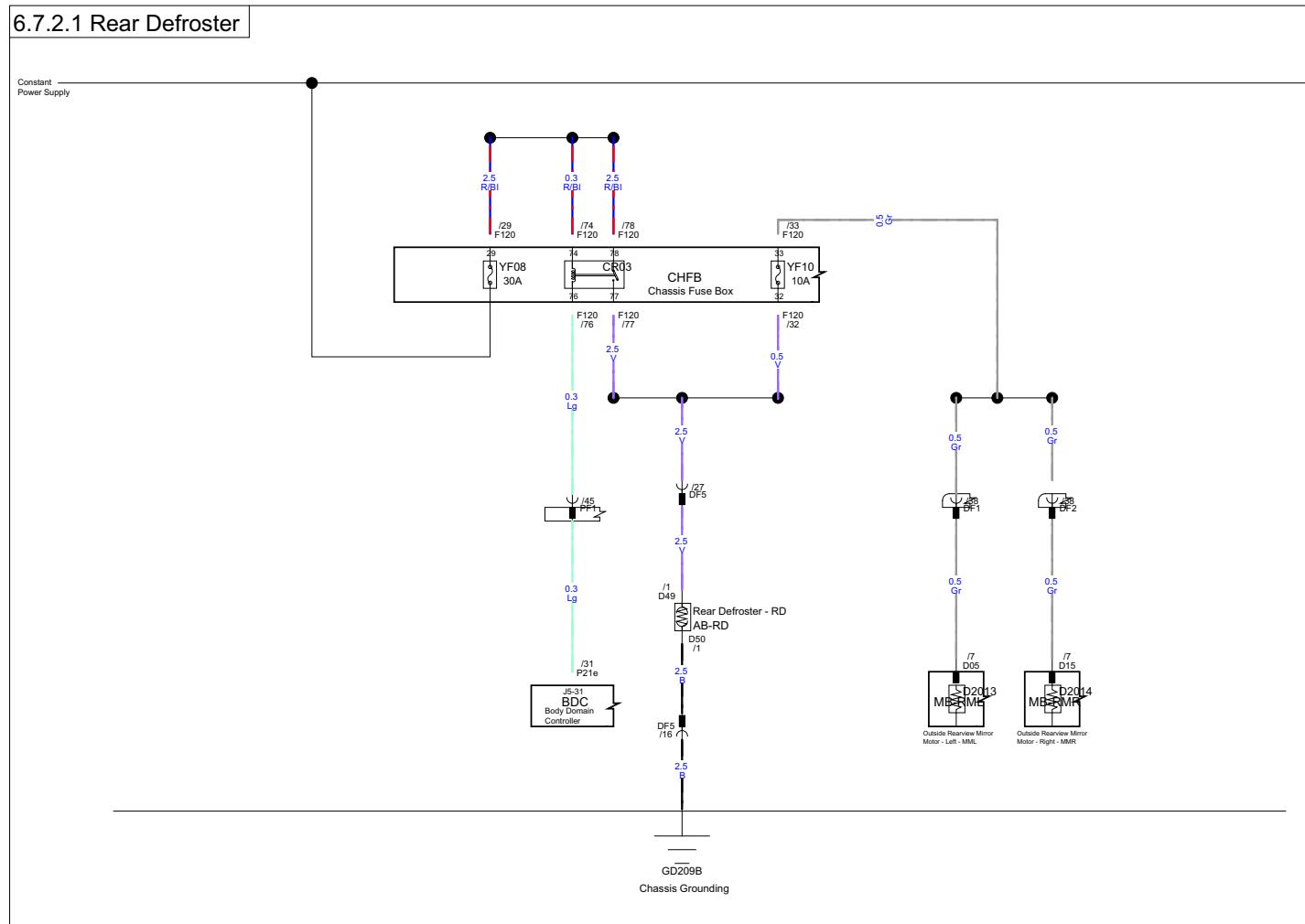
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
C10a	Cooling Fan		1	Power Supply	3	/
			2	Grounding	4	Signal
C92	A/C Pipe Electromagnetic Stop Valve		1	Power Supply	2	Signal
C96	Power Battery Cooler		1	Power Supply	2	Signal

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
C97	Motor Water Temperature Sensor		1	Signal	2	Grounding
C98	Battery Water Temperature Sensor		1	Signal	2	Grounding
C55	Battery Three-way Valve		1	Sensor Grounding	4	Motor +
			2	Feedback Signal	5	Motor -
			3	+ 5 V		
C56	HVAC Three-way Valve		1	Sensor Grounding	4	Motor +
			2	Feedback Signal	5	Motor -
			3	+ 5 V		

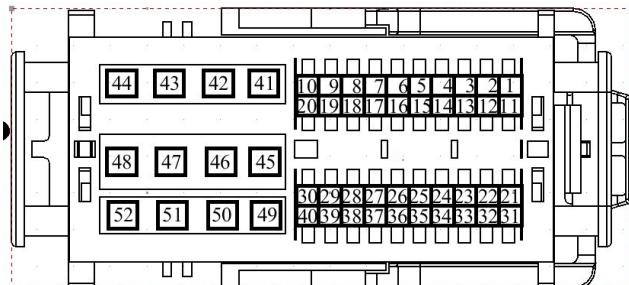
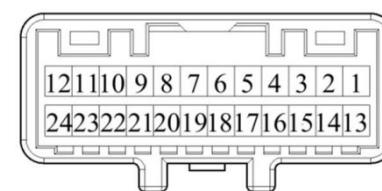
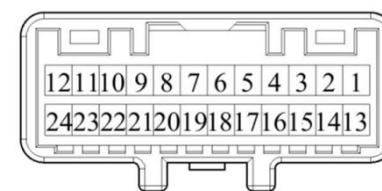
6.7.2 Rear Defroster and Rearview Mirror Heater System

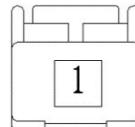
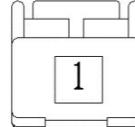
6.7.2.1 Rear Defroster and Rearview Mirror Heater System

6.7.2.1.1 Rear Defroster



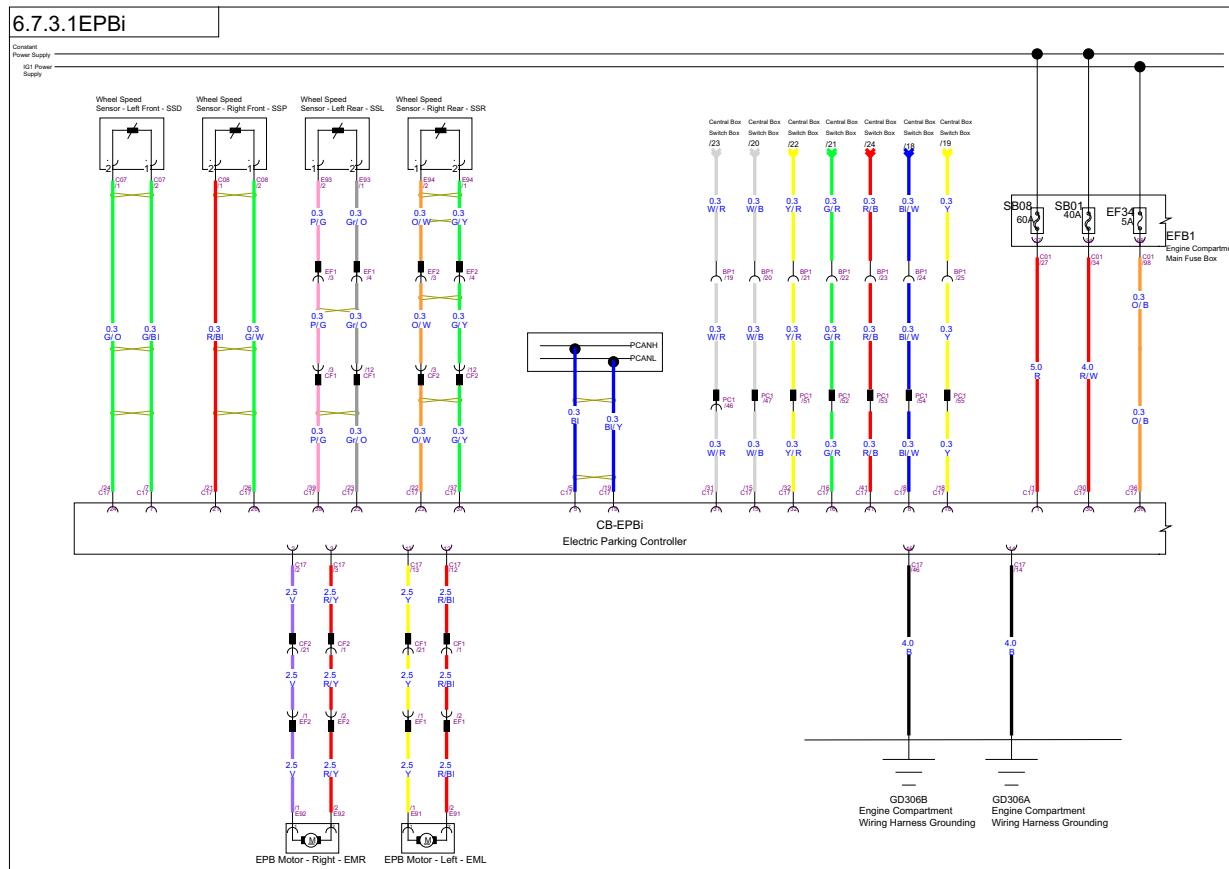
6.7.2.2 Connector View and Pin Definition

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P21e	BDCe		31	Rear Defroster Relay	/	/
D05	Left Front Door Outside Rearview Mirror		7	Heating Element Power Supply	/	/
D15	Right Front Door Outside Rearview Mirror		7	Heating Element Power Supply	/	/

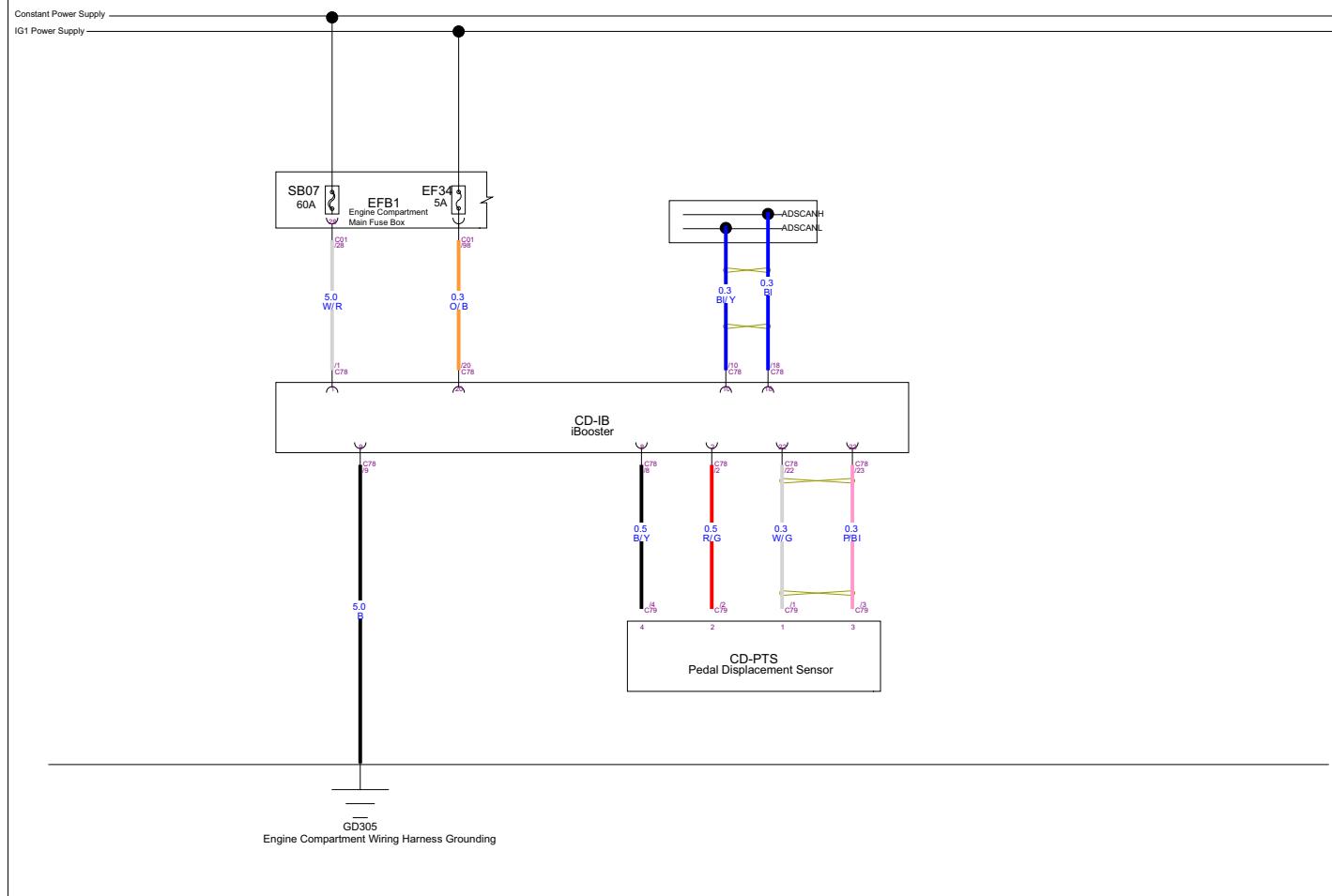
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
D49	Rear Defroster		1	Rear Defroster Positive	/	/
D50	Rear Defroster		1	Rear Defroster Negative	/	/

6.7.3 Body Stability System

6.7.3.1 Body Stability System

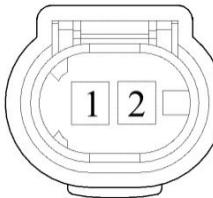
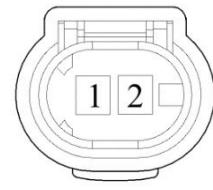


6.7.3.2 iBooster

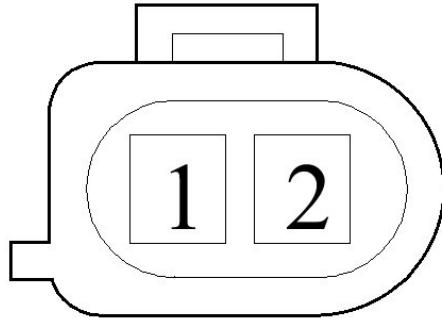
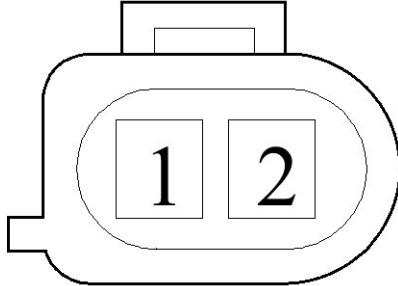


6.7.3.2 Connector View and Pin Definition

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
C17	EPBI		1	EPBI Motor Power Supply	21	Right Front Wheel Speed Sensor Power Supply
			2	Right Caliper Power Supply	22	Right Rear Wheel Speed Sensor Power Supply
			3	Right Caliper Power Supply	23	Left Rear Wheel Speed Sensor Signal
			5	CAN High	24	Left Front Wheel Speed Sensor Power Supply
			7	Left Front Wheel Speed Sensor Signal	26	Right Front Wheel Speed Sensor Signal
			8	AVH Switch Indicator	30	Caliper and Valve Power Supply
			12	Left Caliper Power Supply	31	EPB Switch 1
			13	Left Caliper Power Supply	32	EPB Switch 4

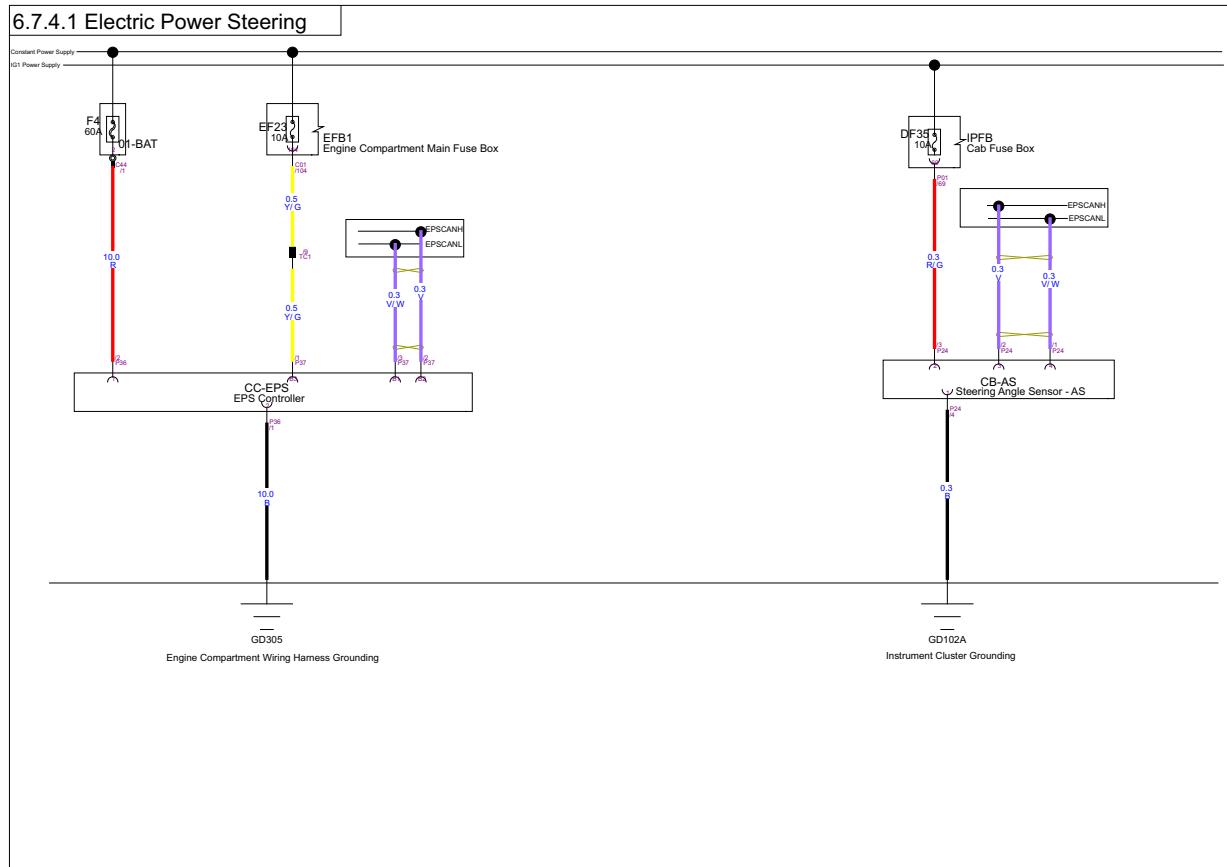
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
			14	Motor, Valve and ECU Grounding	36	IG1 Power Supply
			15	EPB Switch 3	37	Right Rear Wheel Speed Sensor Signal
			16	EPB Switch 6	39	Left Rear Wheel Speed Sensor Power Supply
			18	EPB Switch Indicator	41	AVH Switch
			19	CAN Low	46	Caliper and Valve Grounding
C07	Wheel Speed Sensor - Left Front		1	Left Front Wheel Speed Sensor Power Supply	2	Left Front Wheel Speed Sensor Grounding
C08	Wheel Speed Sensor - Right Front		1	Right Front Wheel Speed Sensor Power Supply	2	Right Front Wheel Speed Sensor Grounding

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P75a	Central Box Switch Box	<p>Pinout diagram for P75a connector showing 24 pins numbered 1 through 24 in two rows of 12. Pin 1 is at the bottom left, and Pin 24 is at the bottom right.</p>	18	AUTOHOLD Indicator Input Signal	22	EPB Signal SW4
			19	EPB Indicator Input Signal	23	EPB Signal SW1
			20	EPB Signal SW3	24	AUTOHOLD Switch Signal
			21	EPB Signal SW6		
E93	Wheel Speed Sensor - Left Rear	<p>Pinout diagram for E93 connector showing 2 pins numbered 1 and 2. Pin 1 is at the top, and Pin 2 is at the bottom.</p>	1	Left Rear Wheel Speed Sensor Grounding	2	Left Rear Wheel Speed Sensor Power Supply
E94	Wheel Speed Sensor - Right Rear	<p>Pinout diagram for E94 connector showing 2 pins numbered 1 and 2. Pin 1 is at the top, and Pin 2 is at the bottom.</p>	1	Left Rear Wheel Speed Sensor Grounding	2	Left Rear Wheel Speed Sensor Power Supply

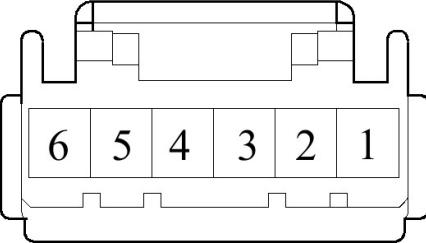
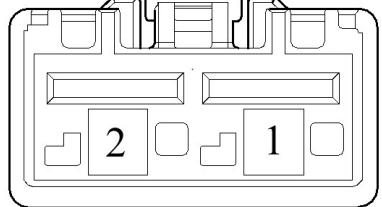
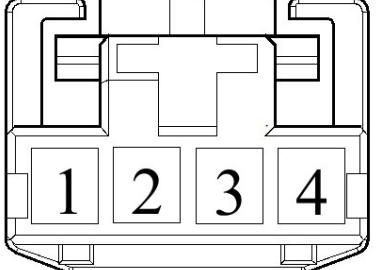
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
E91	Electronic Parking Brake (Left)		1	Left Caliper	2	Left Caliper
E92	Electronic Parking Brake (Right)		1	Right Caliper	2	Right Caliper

6.7.4 Electric Power Steering System

6.7.4.1 Electric Power Steering System

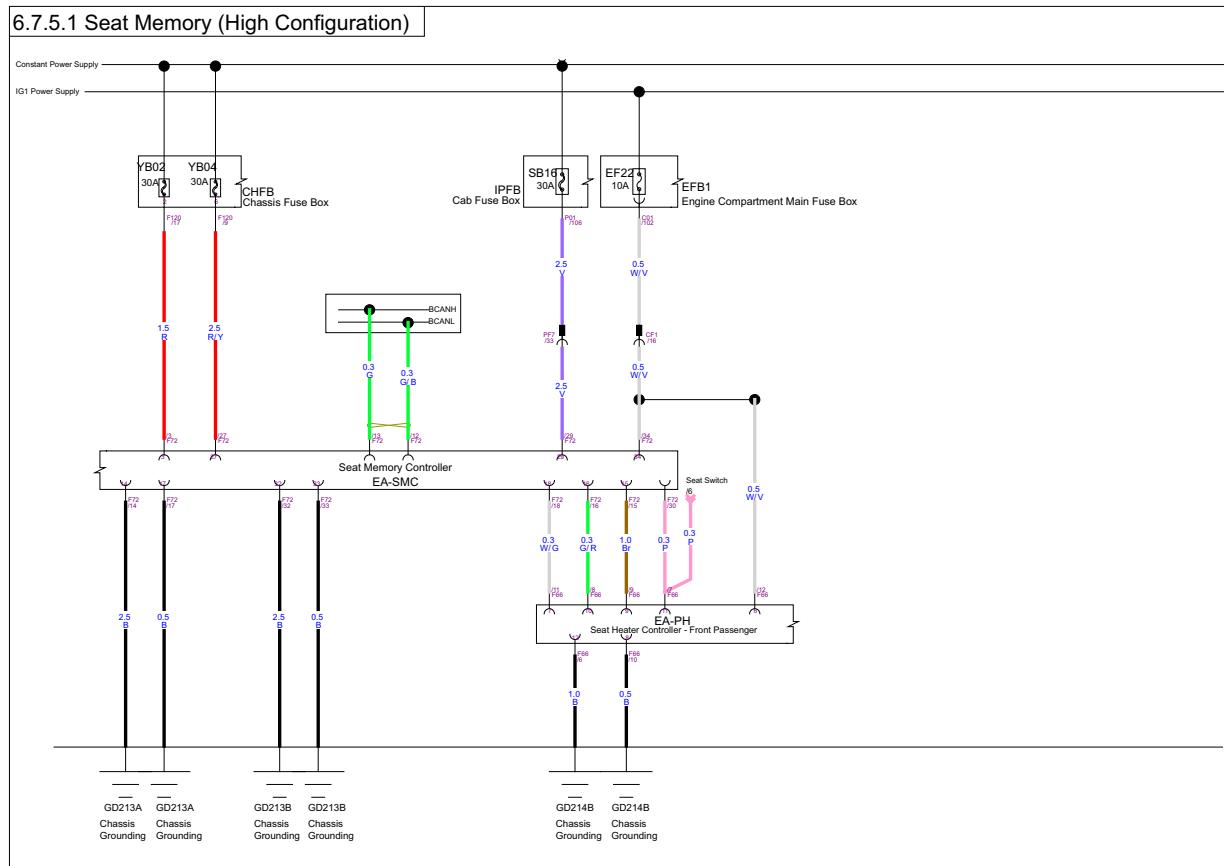


6.7.4.2 Connector View and Pin Definition

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
E95b	EPS Signal		3	CAN High	6	IG Power Supply
			4	CAN Low	/	/
E95a	EPS Power Supply		1	EPS Motor Power Supply	2	EPS Motor Grounding
P24	Steering Angle Sensor		1	CAN Low	3	IG Power Supply
			2	CAN High	4	Grounding

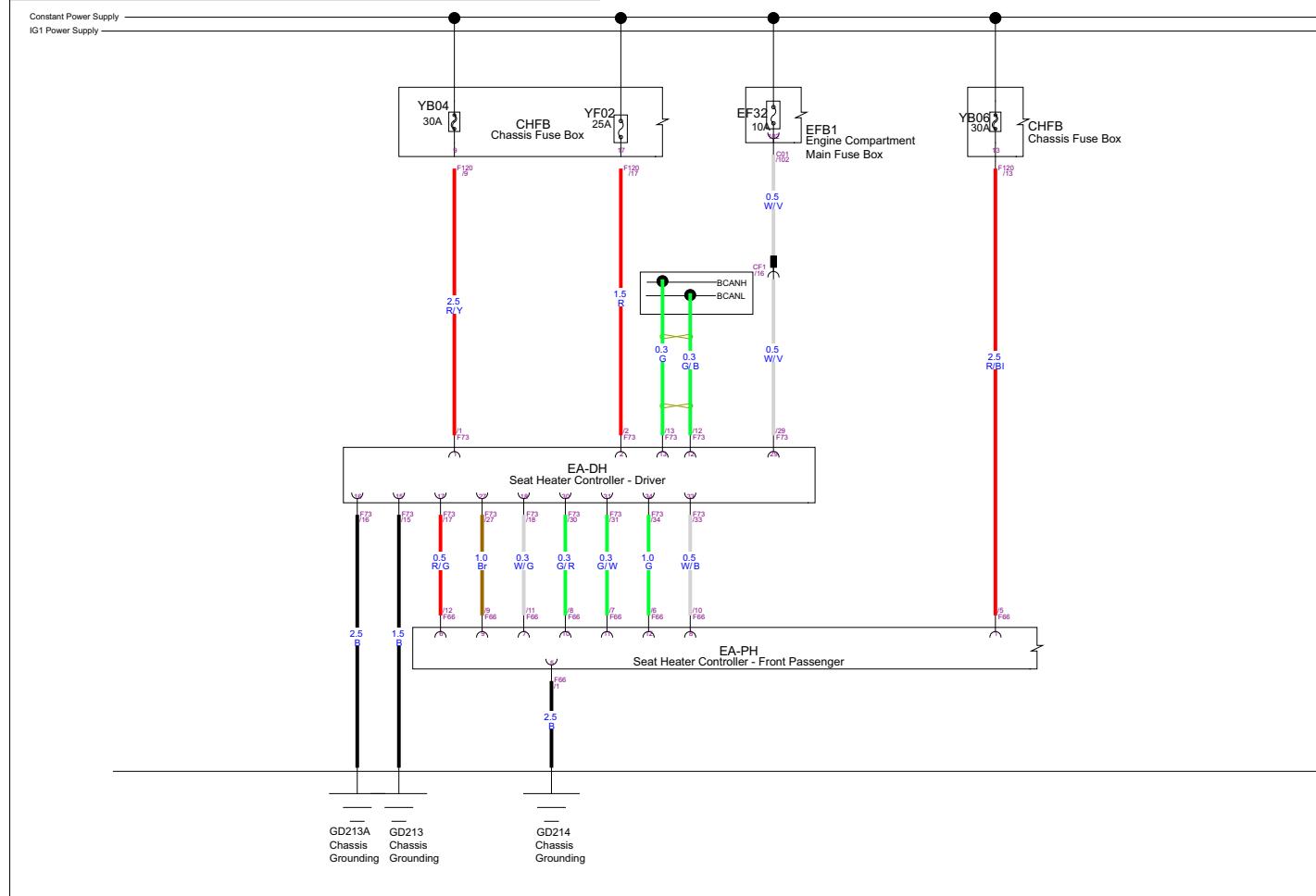
6.7.5 Seat Control System

6.7.5.1 Power Seat Adjustment and Heater System



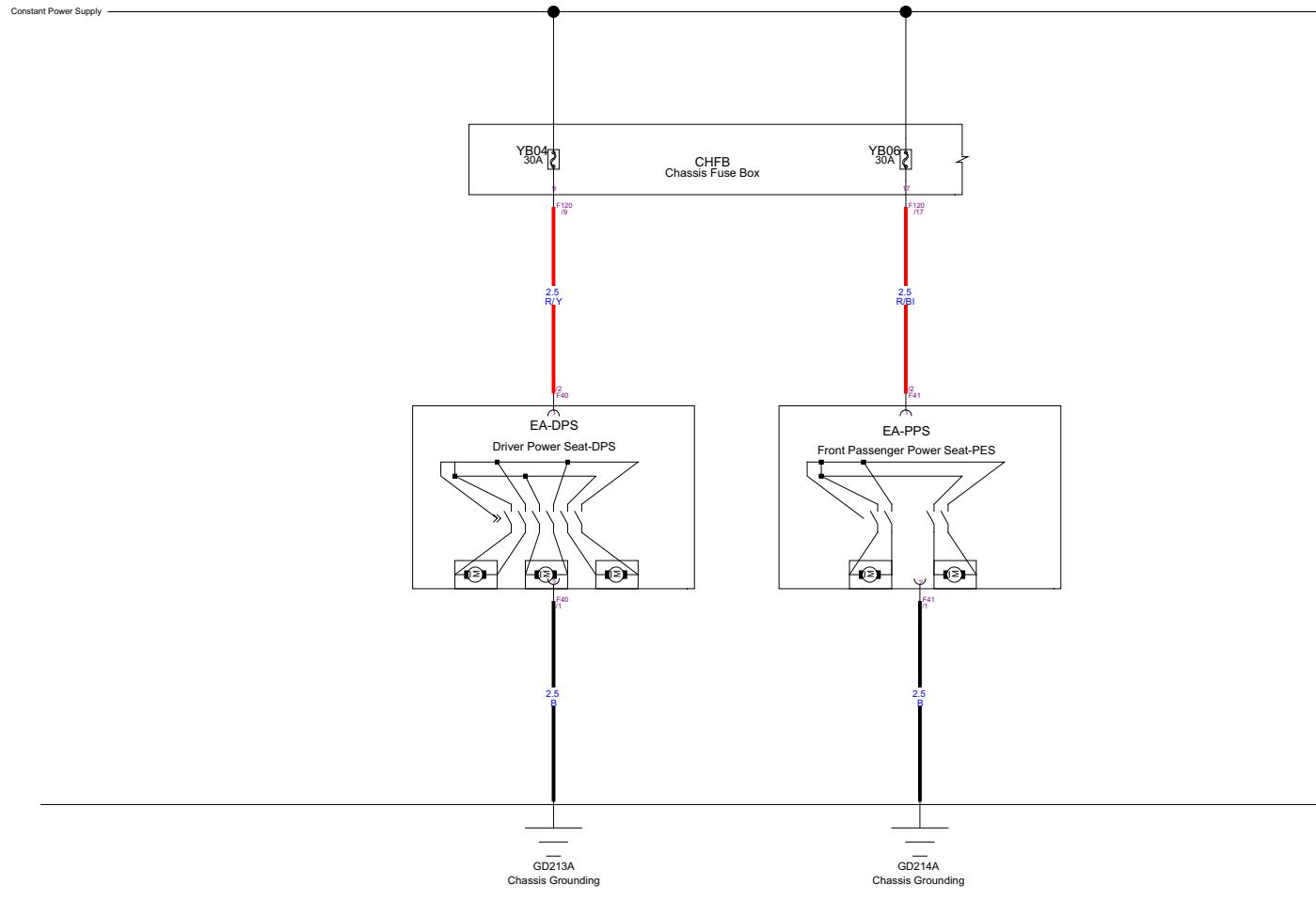
6.7.5.2 Power Seat Adjustment and Heater System

6.7.5.2 Seat Ventilation Heating (Medium Configuration)

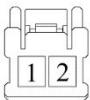
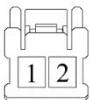
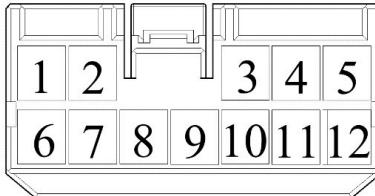


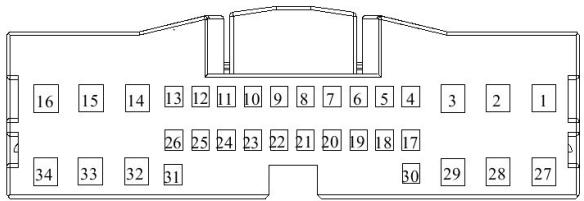
6.7.5.3 Power Seat Adjustment and Heater System

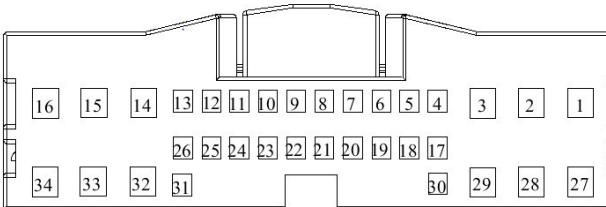
6.7.5.3 Seat Adjustment (Low Configuration)



6.7.5.4 Connector View and Pin Definition

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
F40	Power Seat Adjustment - Driver		1	Grounding	2	Battery Power Supply
F41	Power Seat Adjustment - Front Passenger		1	Grounding	2	Battery Power Supply
F66	Front Passenger Seat Electric Regulator and Front Heater Controller		1	Driver Electric Regulator Grounding	9	Heater B+ from Driver
			5	Driver Electric Regulator Power Supply	10	Power Supply GND from Blower
			6	HTD Power Supply GND from Driver	11	PMW from Driver
			7	NTC Sensor Power Supply GND from Driver	12	Blower Power Supply B+ from Driver
			8	NTC Sensor Power Supply GND from Driver	/	/

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
F73	Driver Adjustment and Heater Module		1 2 12 13 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	Driver Electric Regulator Power Supply Driver Heater Power Supply Blower/HTD Communication Adjustment Signal Blower/HTD Communication Adjustment Signal Driver Heater Grounding Driver Electric Regulator Grounding Front Passenger Blower Power Supply B+ Passenger Blower Power Supply GND Passenger HTD Power Supply GND	18 27 29 30 31 33 34	Front Passenger Ventilation PWM Front Passenger Heating Pad Drive IG1 Power Supply Front Passenger NTC Sensor Power Supply B+ Front Passenger NTC Sensor Power Supply GND Passenger Blower Power Supply GND Passenger HTD Power Supply GND

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
F72	Driver Seat Memory Controller		1 2 3 4 5 6 7	Rearview Mirror Position Sensor Grounding Rearview Mirror Position Sensor Power Supply Driver Seat Heater +/4-way Lumbar Support Left Rearview Mirror Horizontal Adjustment Output Left Rearview Mirror Up-Down Adjustment Output Left Rearview Mirror Horizontal Position Sensor Left Rearview Mirror Up-Down Position Sensor	18 19 20 21 22 23 24	Front Passenger Ventilation PWM Memory Setting Switch LED Drive Seat Memory Setting Button Seat Memory Selection Button Left Rearview Mirror Up-Down Output Left Rearview Mirror Left-Right Output Right Rearview Mirror Up-Down Output

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
			8	Right Rearview Mirror Up-Down Adjustment Output	25	Right Rearview Mirror Up-Down Output
			9	Right Rearview Mirror Horizontal Adjustment Output	26	Rearview Mirror Button Common End
			10	Right Rearview Mirror Horizontal Position Sensor	27	Seat Adjustment Power Supply 1 (Seat Front-rear, Up-down Adjustment)
			11	Right Rearview Mirror Up-Down Position Sensor	28	Left Rearview Mirror Motor Adjustment Common End
			12	Communication Signal Low	29	Seat Adjustment Power Supply 2 (Seatback/Tilt)
			13	Communication Signal Low	30	Seat Adjustment Power Supply 2 (Seatback/Tilt)
			14	Power 2 Grounding (Seatback Adjustment/Tilt Adjustment)	31	Right Rearview Mirror Motor Adjustment Common End
			15	Front Passenger Seat Heater Power Supply Output +	32	Right Rearview Mirror Motor Adjustment Common End

6.7.5-8

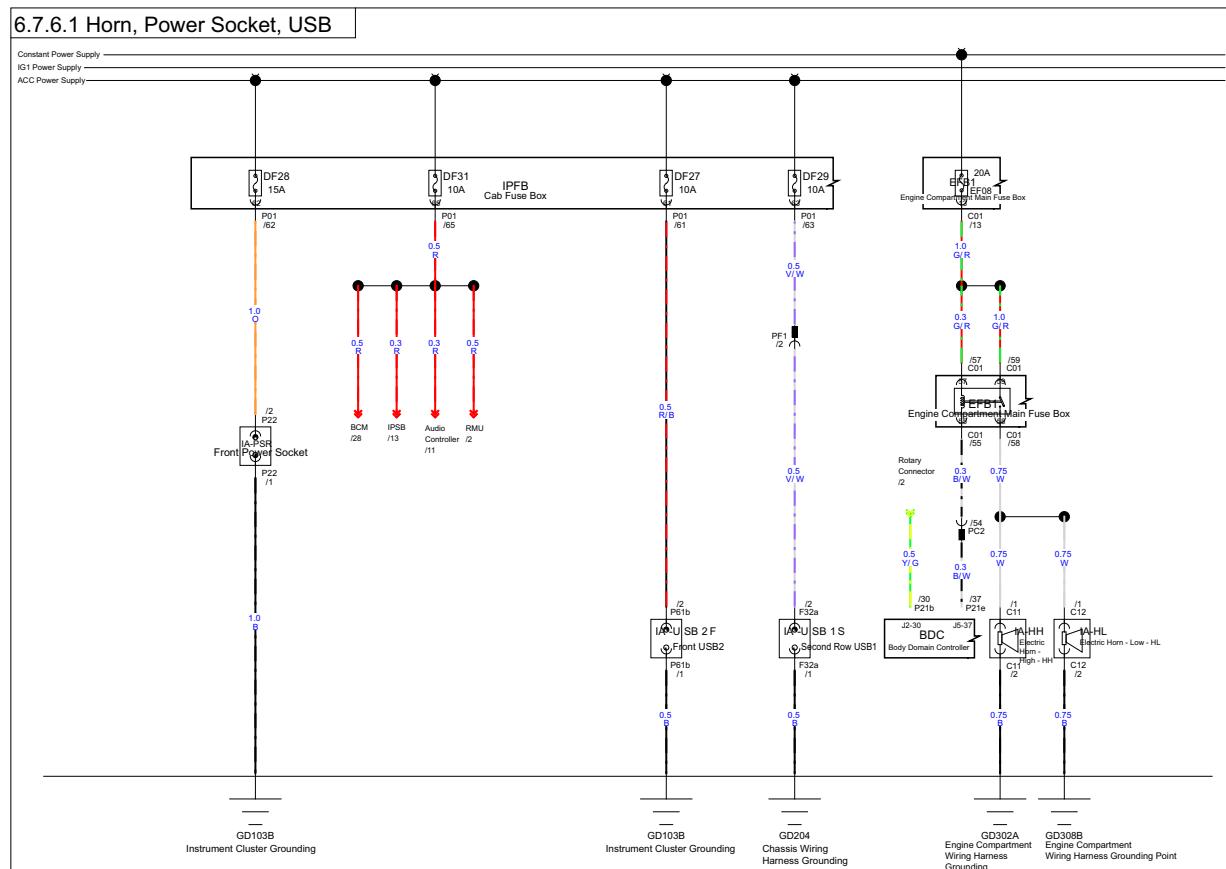
Seat Control System

6.7.5-8

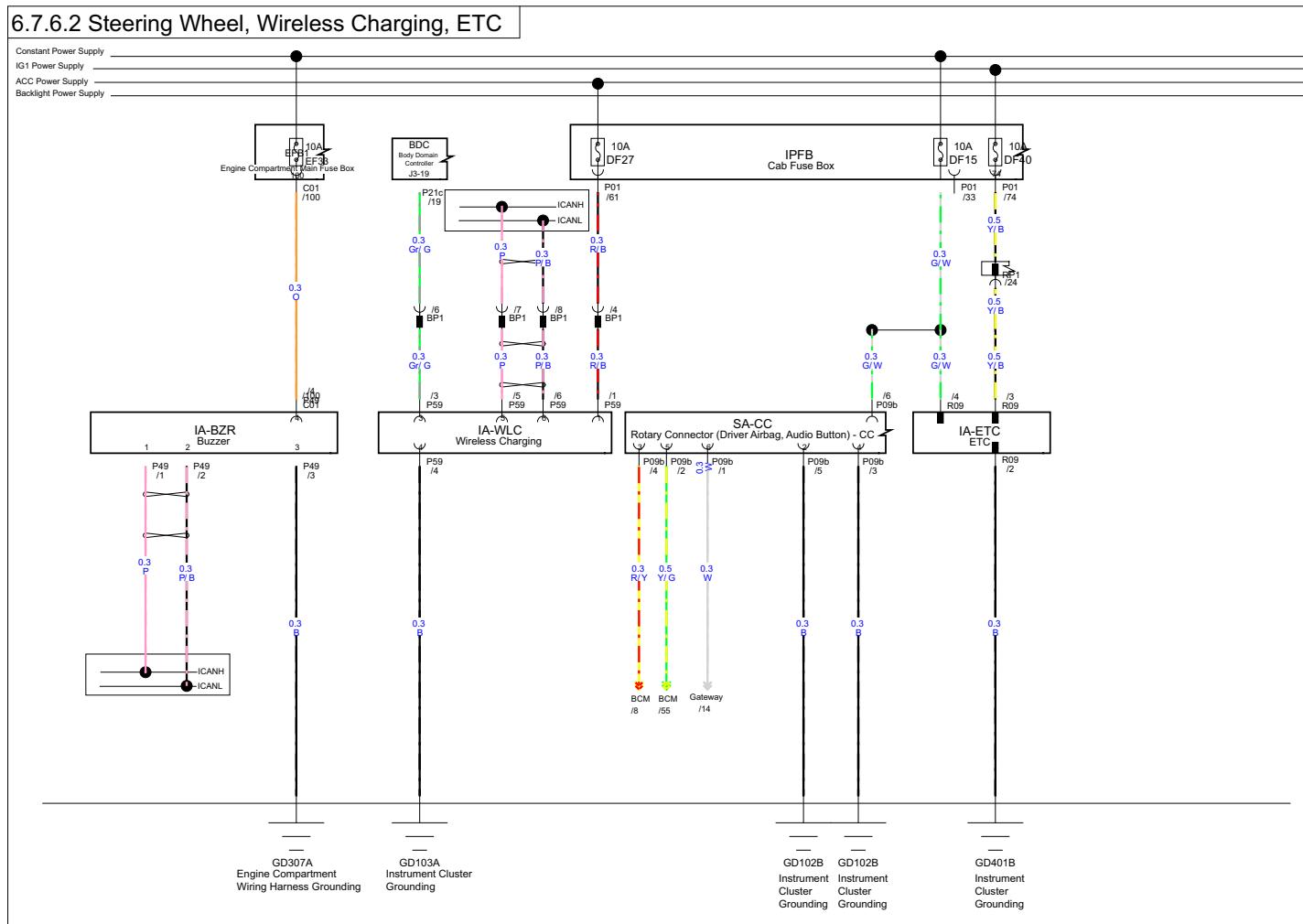
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
			16	Front Passenger Seat Heater NTC +	33	Lumbar Support Switch Grounding/Driver Heater Fan Grounding/Lumbar Support Grounding
			17	Memory Module Signal Grounding	34	IGN1 (Driver Fan)

6.7.6 Electrical Accessory System

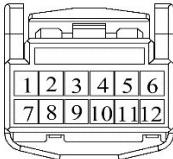
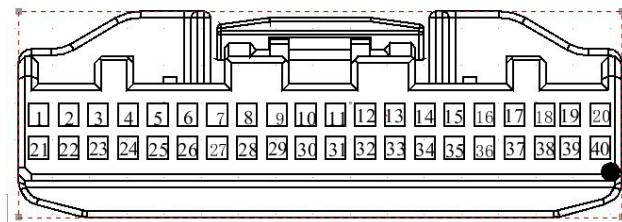
6.7.6.1 Horn, Charging Socket

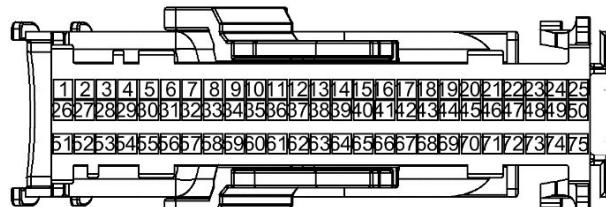
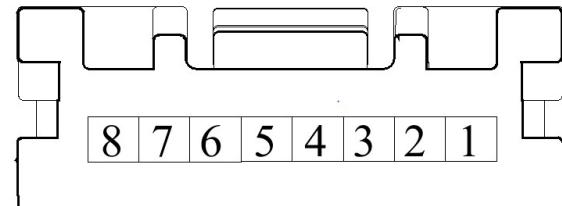
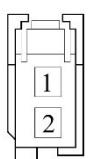
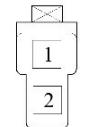


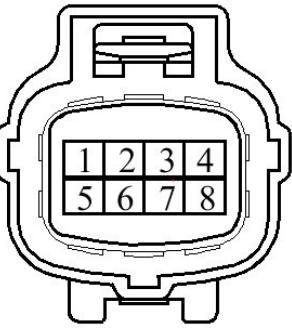
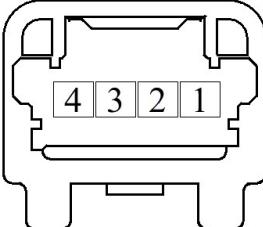
6.7.6.2 Steering Wheel



6.7.6.3 Connector View and Pin Definition

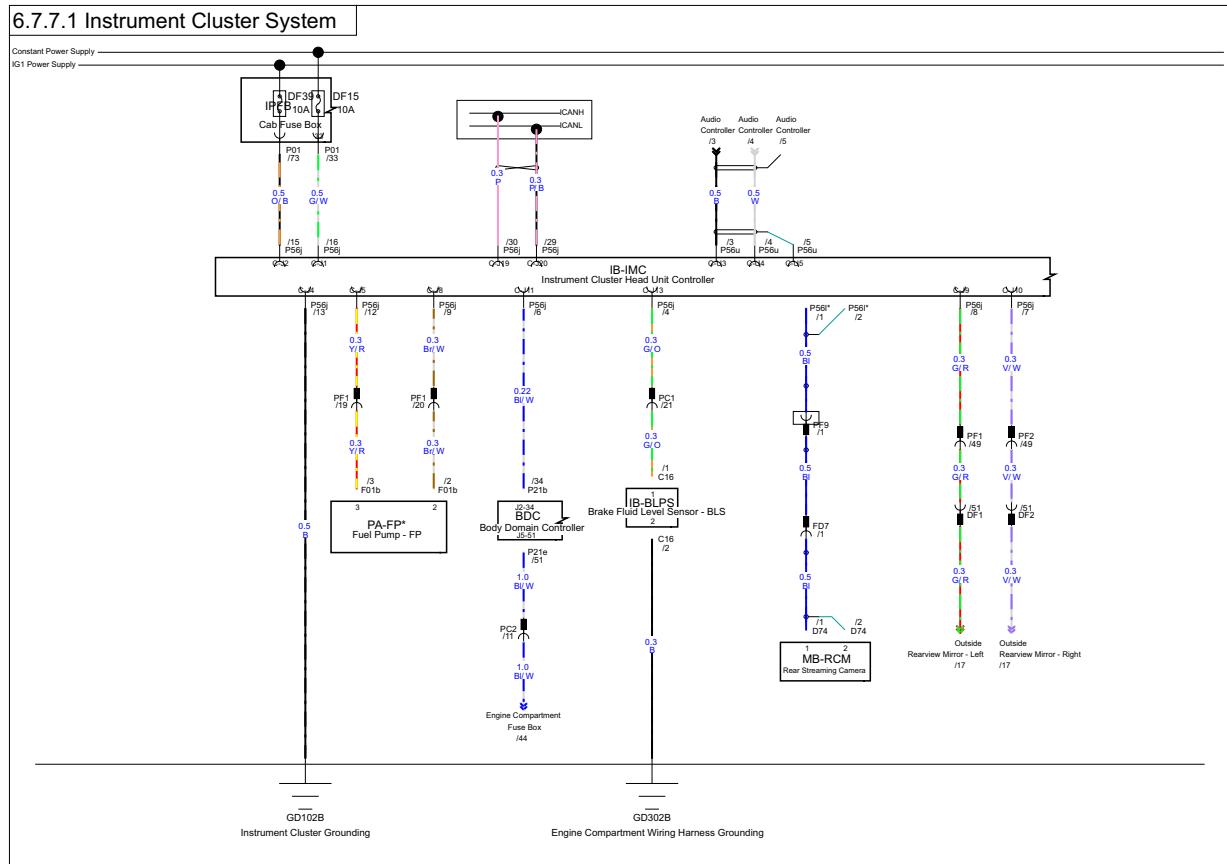
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P09b	Rotary Connector-Steering Wheel Audio Button (High Configuration)		1	LIN Line Signal	4	Backlight Power Supply
			2	Horn BCM Terminal Output	5	Grounding
			3	Backlight and Horn Grounding	6	Power Supply
R07	Inside Rearview Mirror		1	ACC Power Supply	/	/
			2	Grounding	/	/
			3	Backup Lamp Signal	/	/
			4	Outside Rearview Mirror Anti-glare Positive	/	/
			5	Outside Rearview Mirror Anti-glare Negative	/	/
P21b	BDCb		30	Horn Switch	/	

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P21c	BDCc		19	Wireless Charging Enable Signal	69	Horn Relay
P59	Wireless Charging		1	ACC Power Supply	5	Vehicle CAN High
			2	/	6	Vehicle CAN Low
			3	Wireless Charging Enable Signal	7	/
			4	Grounding	8	/
P61b	Front USB		1	Grounding	2	ACC Power Supply
F32a	Rear USB		1	Grounding	2	ACC Power Supply
P22	Front Power Socket		1	Grounding	2	ACC Power Supply

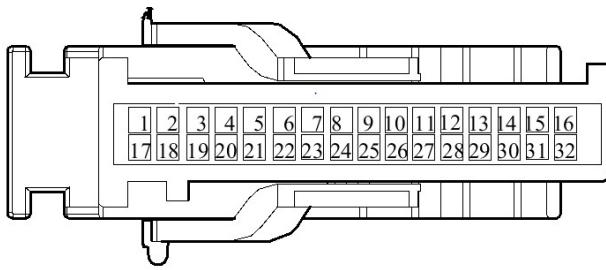
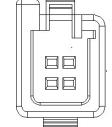
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
C12	Electric Horn		1	Horn Positive	2	Horn Negative
C11	Electric Horn		1	Horn Positive	2	Horn Negative
P49	Buzzer		1	CANH	3	Grounding
			2	CANL	4	IG Power Supply
R09	ETC		1	/	3	IG Power Supply
			2	Grounding	4	Constant Power Supply

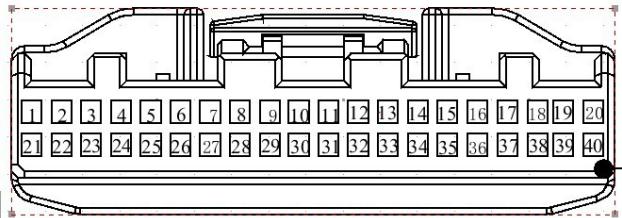
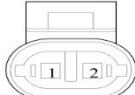
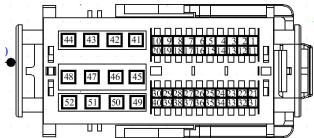
6.7.7 Instrument Cluster System

6.7.7.1 Instrument Cluster System



6.7.7.2 Connector View and Pin Definition

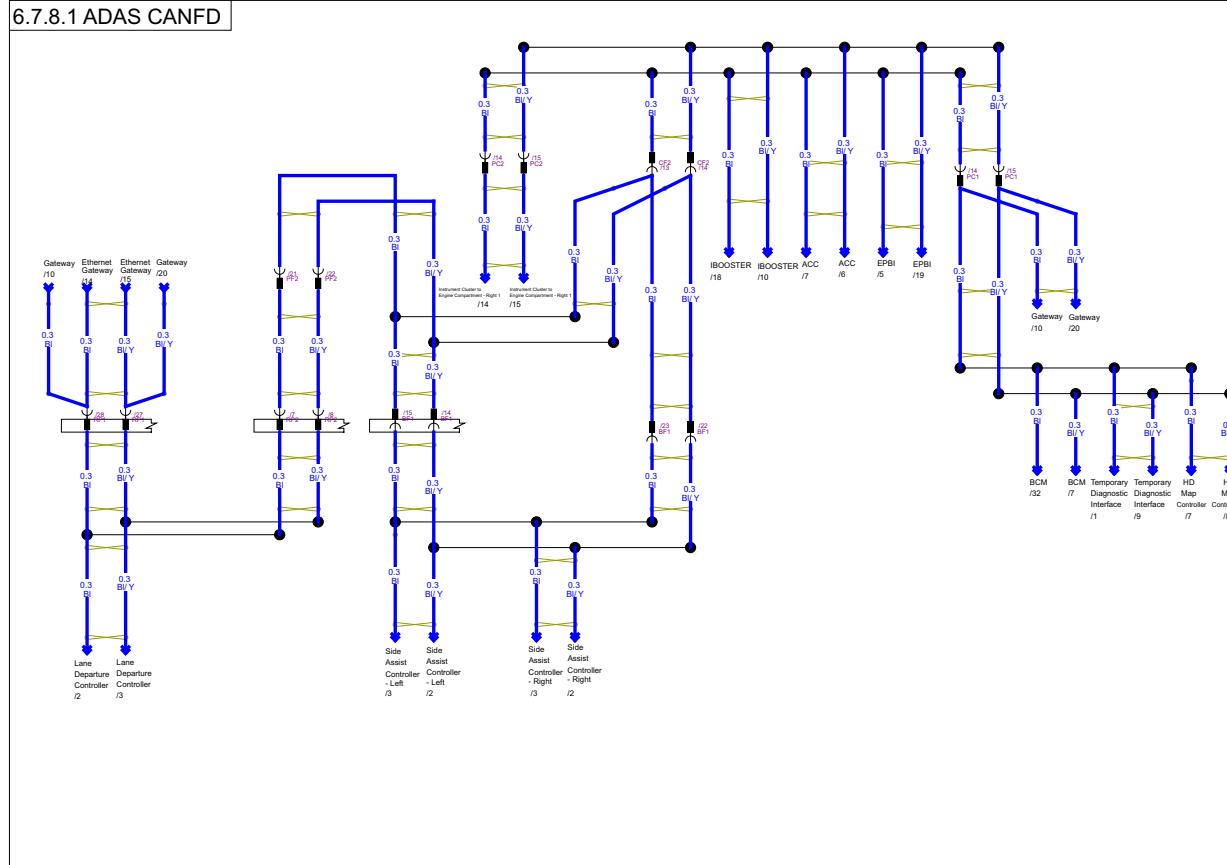
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition	
P56j	Instrument Cluster Head Unit Controller		4	Brake Fluid Level Signal	15	IG1 Power Supply	
			6	Anti-theft Indicator	16	Power Supply	
			7	Right Blind Spot Indicator Driver	26	Private CAN-L	
			8	Left Blind Spot Indicator Driver	27	Private CAN-H	
			9	Fuel Level Signal	29	Vehicle ICAN-L	
			12	Fuel Level Sensor Grounding	30	Vehicle ICAN-H	
			13	Instrument Cluster Grounding			
P56u/P44o	Instrument Cluster Head Unit Controller/On- board Entertainment Terminal Assembly			USB			

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P21b	BDCb		34	Anti-theft Indicator	/	/
C16	Brake Fluid Level Sensor		1	To Instrument Cluster Warning Lamp	2	Grounding
P21e	BDCe		51	Oil Pump Pressure Buildup Relay	/	/

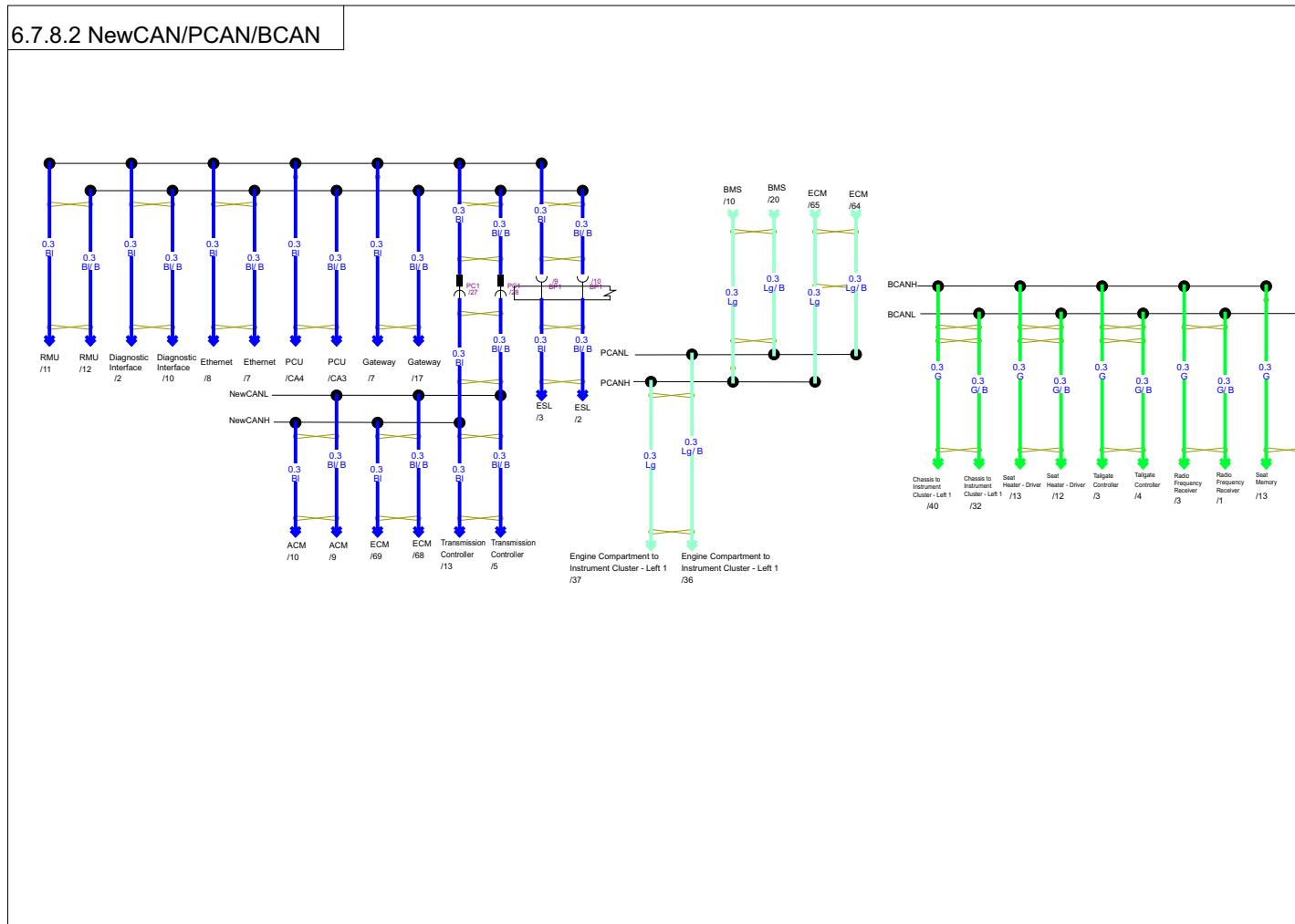
6.7.8 Gateway System

6.7.8.1 ADAS CANFD

6.7.8.1 ADAS CANFD

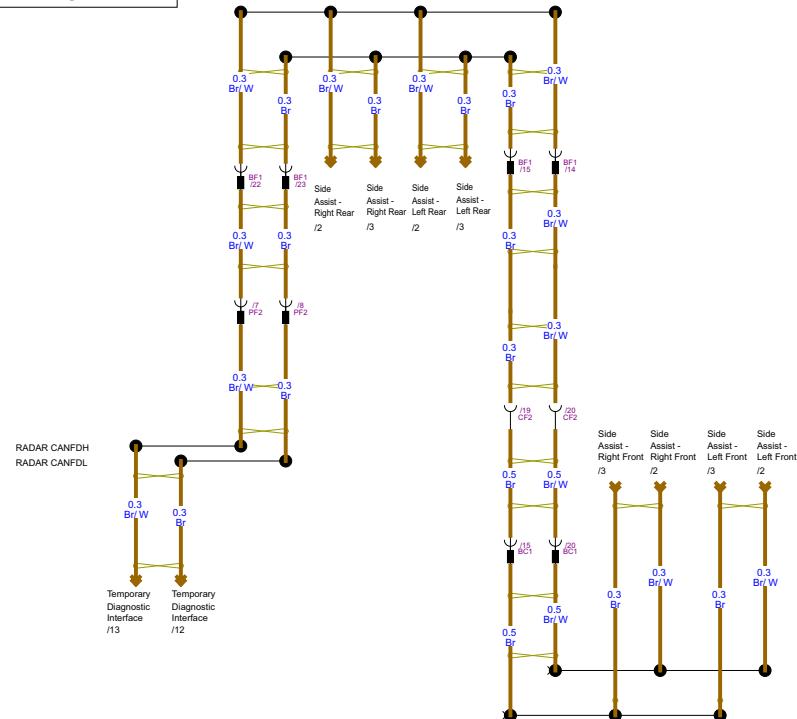


6.7.8.2 PCAN and BCAN



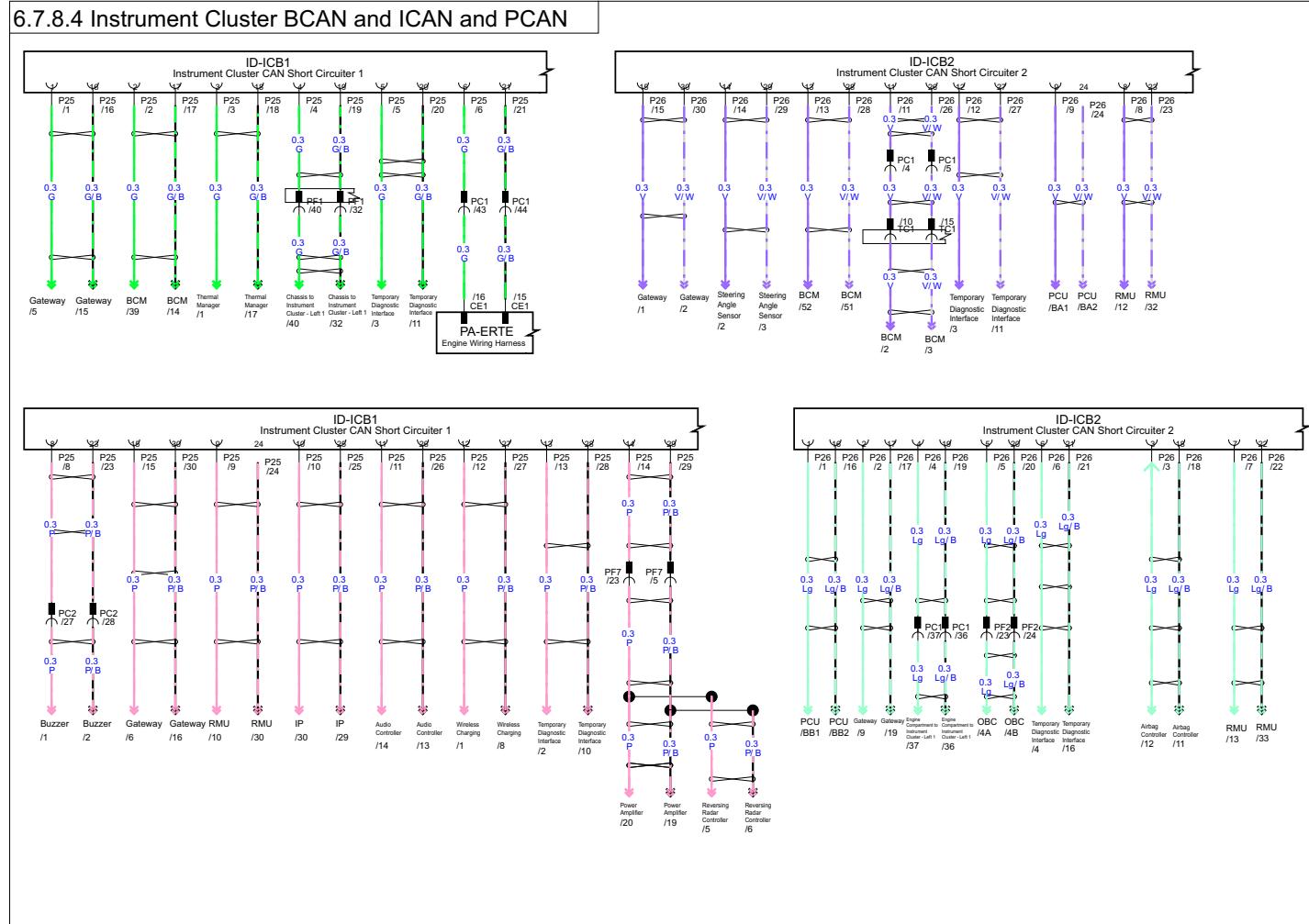
6.7.8.3 RADAR CANFD

6.7.8.3 RADAR CANFD



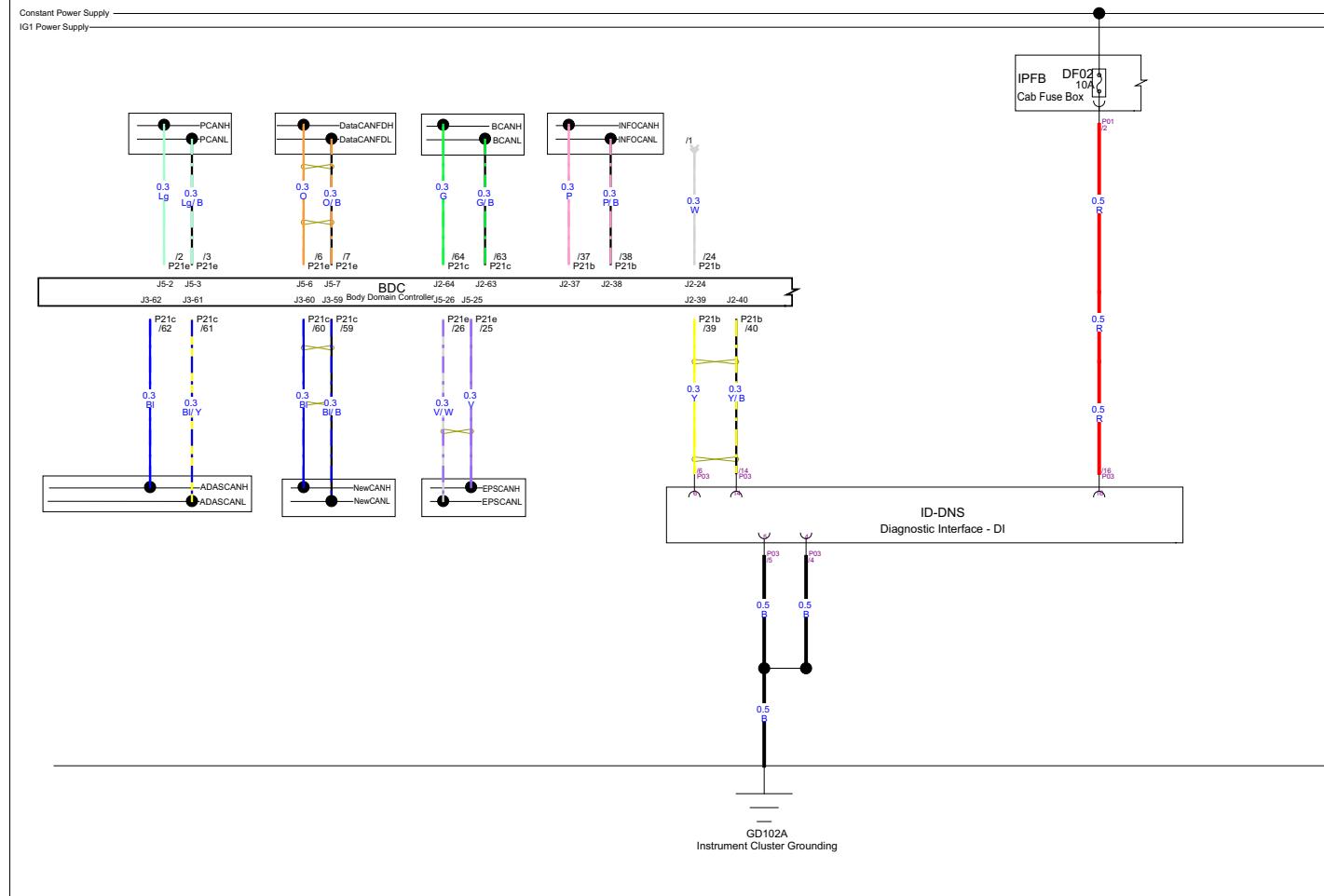
6.7.8.4 Instrument Cluster BCAN, ICAN, PCAN and EPSCAN

6.7.8.4 Instrument Cluster BCAN and ICAN and PCAN

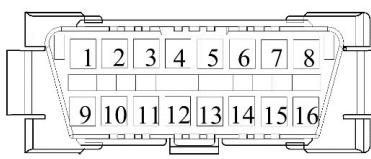


6.7.8.5 Gateway/Diagnostic Interface

6.7.8.5 Diagnostic Interface



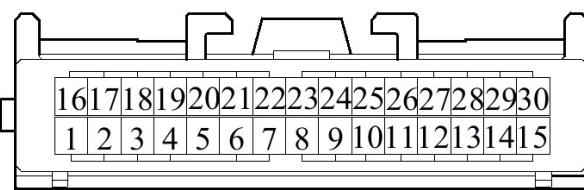
6.7.8.6 Connector View and Pin Definition

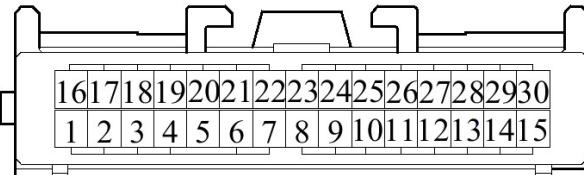
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P03	Diagnostic Interface		1	Ethernet RX +	9	Ethernet RX -
			4	Grounding	12	Ethernet TX +
			5	Grounding	13	Ethernet TX -
			6	DCAN-H	14	DCAN-L
			8	Ethernet Diagnosis	16	Constant Power Supply

6.7.8-7

Gateway System

6.7.8-7

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P25	Instrument Cluster CAN Short Circuite 1		1	To Gateway BCAN-H	16	To Gateway BCAN-L
			2	IBCM BCAN-H	17	IBCM BCAN-L
			3	A/C Controller BCAN-H	18	A/C Controller BCAN-L
			4	To Chassis BCAN-H	19	To Chassis BCAN-H-L
			10	THU ICAN-H	25	THU ICAN-L
			11	WC ICAN-H	26	WC ICAN-L
			13	To Chassis ICAN-H	28	To Chassis ICAN-L
			14	Instrument Cluster ICAN-H	29	Instrument Cluster ICAN-L
			15	To Gateway ICAN-H	30	To Gateway ICAN-L

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P26	Instrument Cluster CAN Short Circuite 2		1 2 3 4 5 6 10 11 12 13 14 15	To Gateway PCAN-H To Airbag PCAN-H To Engine Compartment PCAN-H Electronic Shift Control PCAN-H 4WD Controller PCAN-H ADS EPSCAN-H EPS Signal EPSCAN-H IBCM EPSCAN-H Steering Angle Sensor EPSCAN-H To Gateway EPSCAN-H	16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	To Gateway PCAN-L To Airbag PCAN-L To Engine Compartment PCAN-L Electronic Shift Control PCAN-L 4WD Controller PCAN-L ADS EPSCAN-L EPS Signal EPSCAN-L IBCM EPSCAN-L Steering Angle Sensor EPSCAN-L To Gateway EPSCAN-L

6.7.8-9

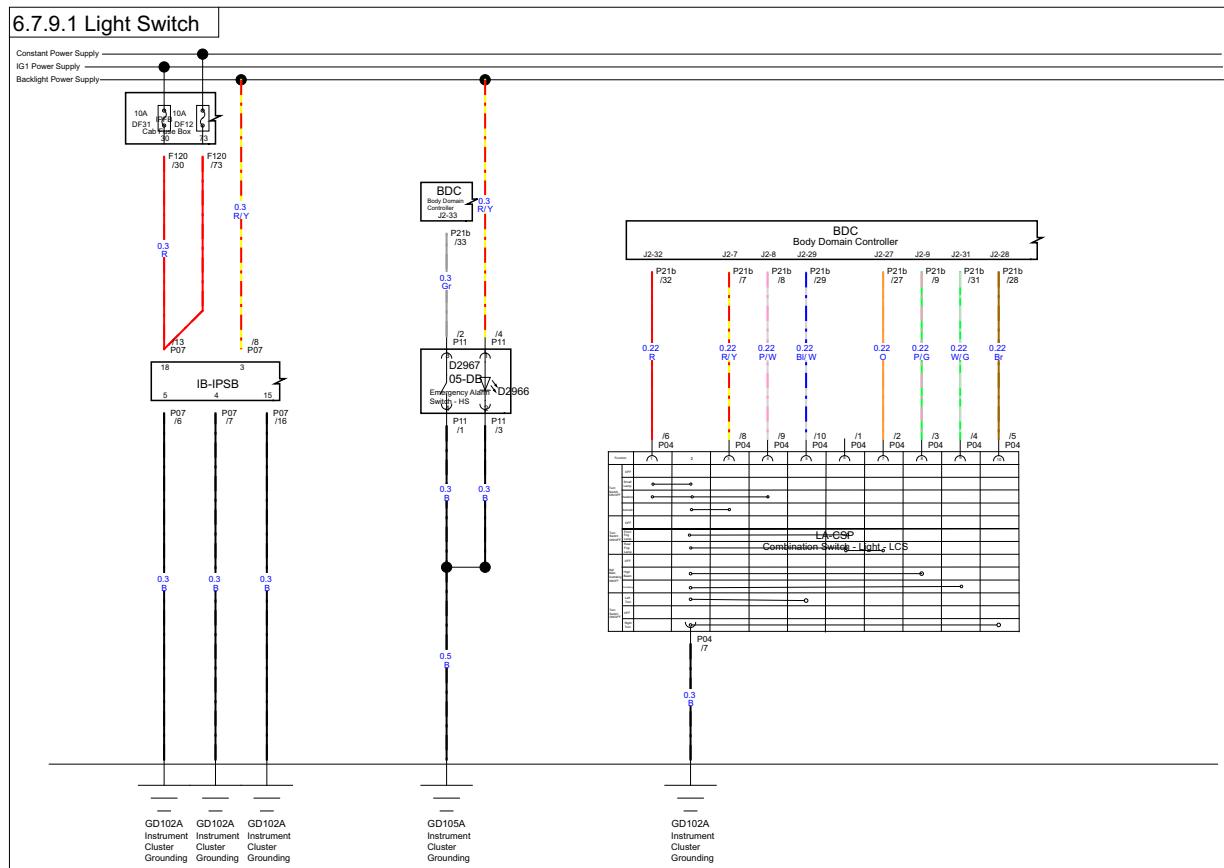
Gateway System

6.7.8-9

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P21b	BDCb		24	Rotary Connector	39	Diagnosis CANH
			37	INFOCANH	40	Diagnosis CANL
			38	INFOCANL		
P21c	BDCc		59	NEWCANL	62	ADASCANH
			60	NEWCANH	63	BCANL
			61	ADASCANL	64	BCANH
P21e	BDCe		2	PCANH	7	DataCANFDL
			3	PCANL	25	EPSCANH
			6	DataCANFDH	26	EPSCANL

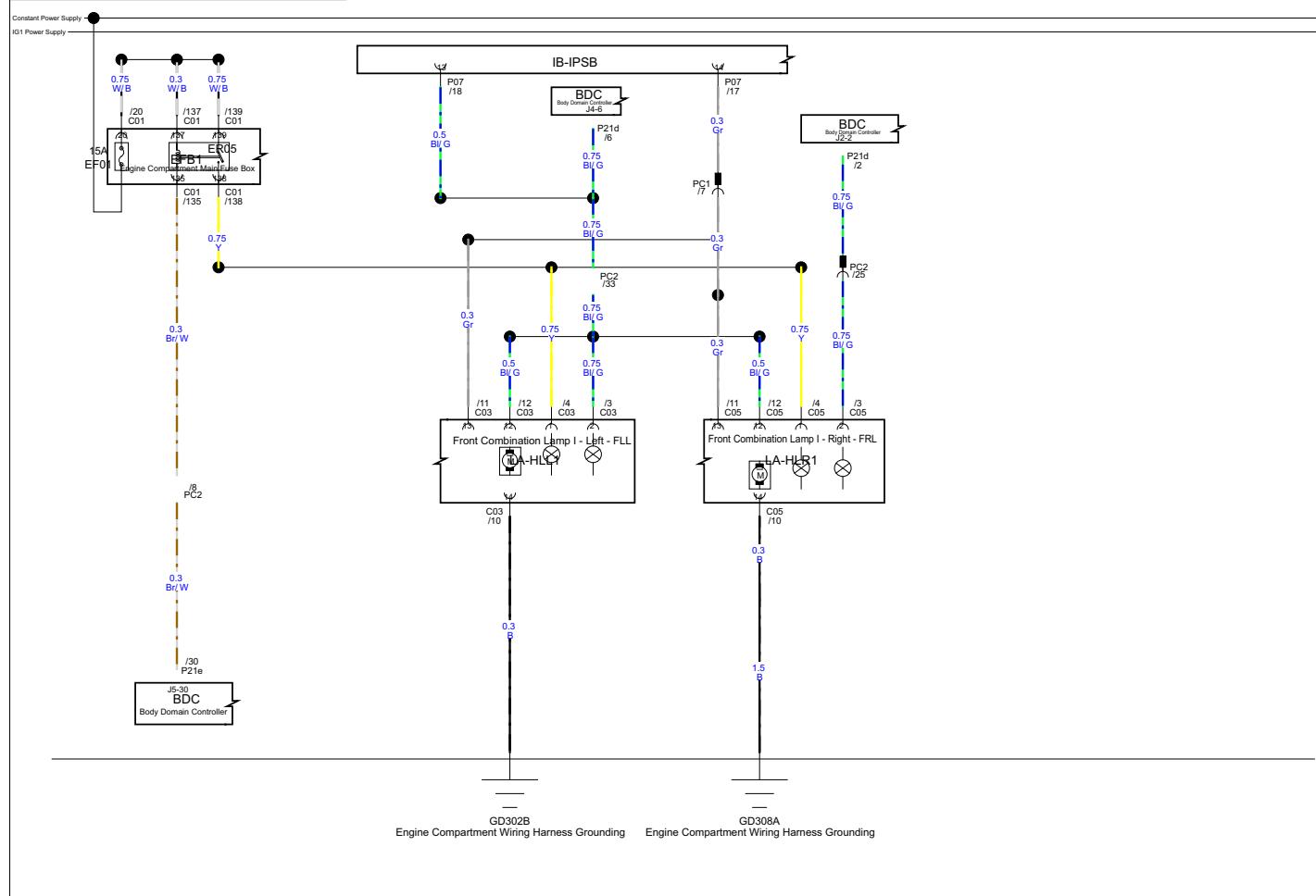
6.7.9 Lighting System

6.7.9.1 Light Switch Control



6.7.9.2 Headlamp

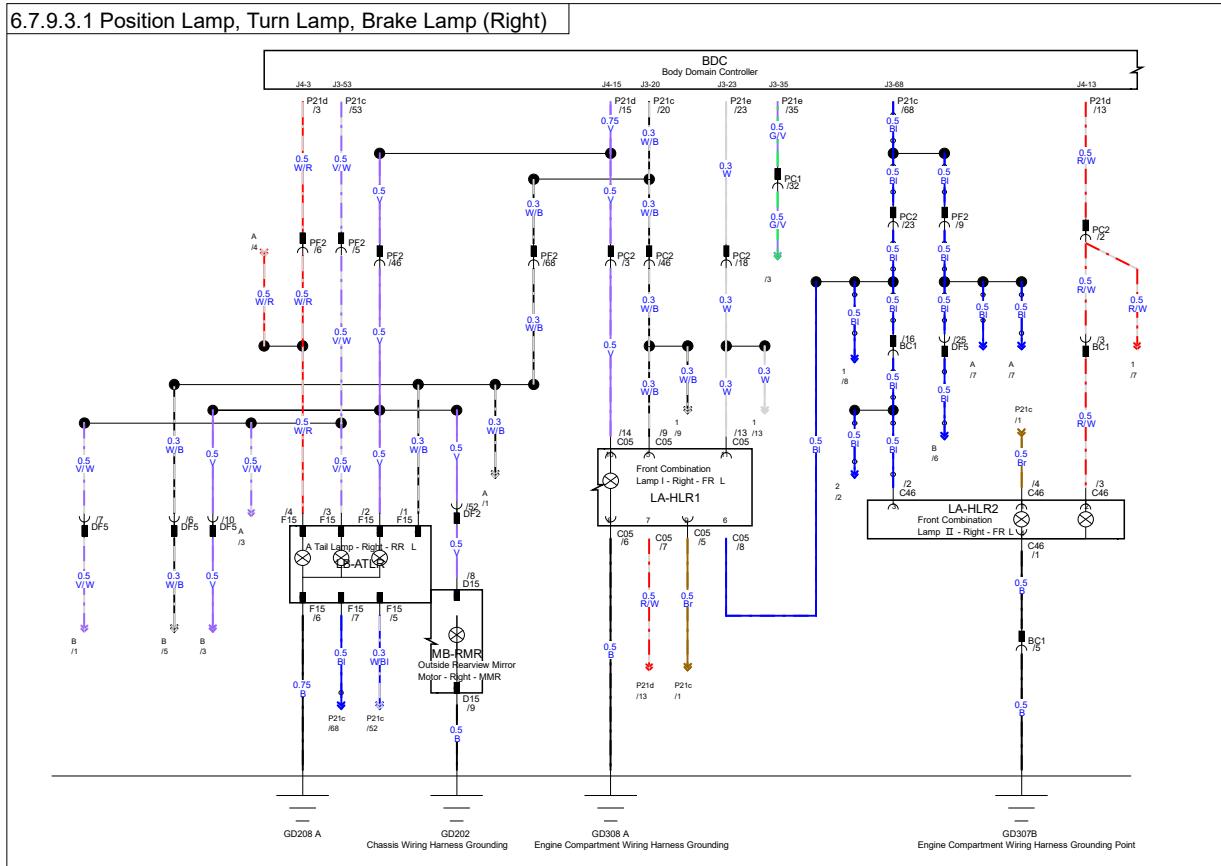
6.7.9.2 High, Low Beam Lamps



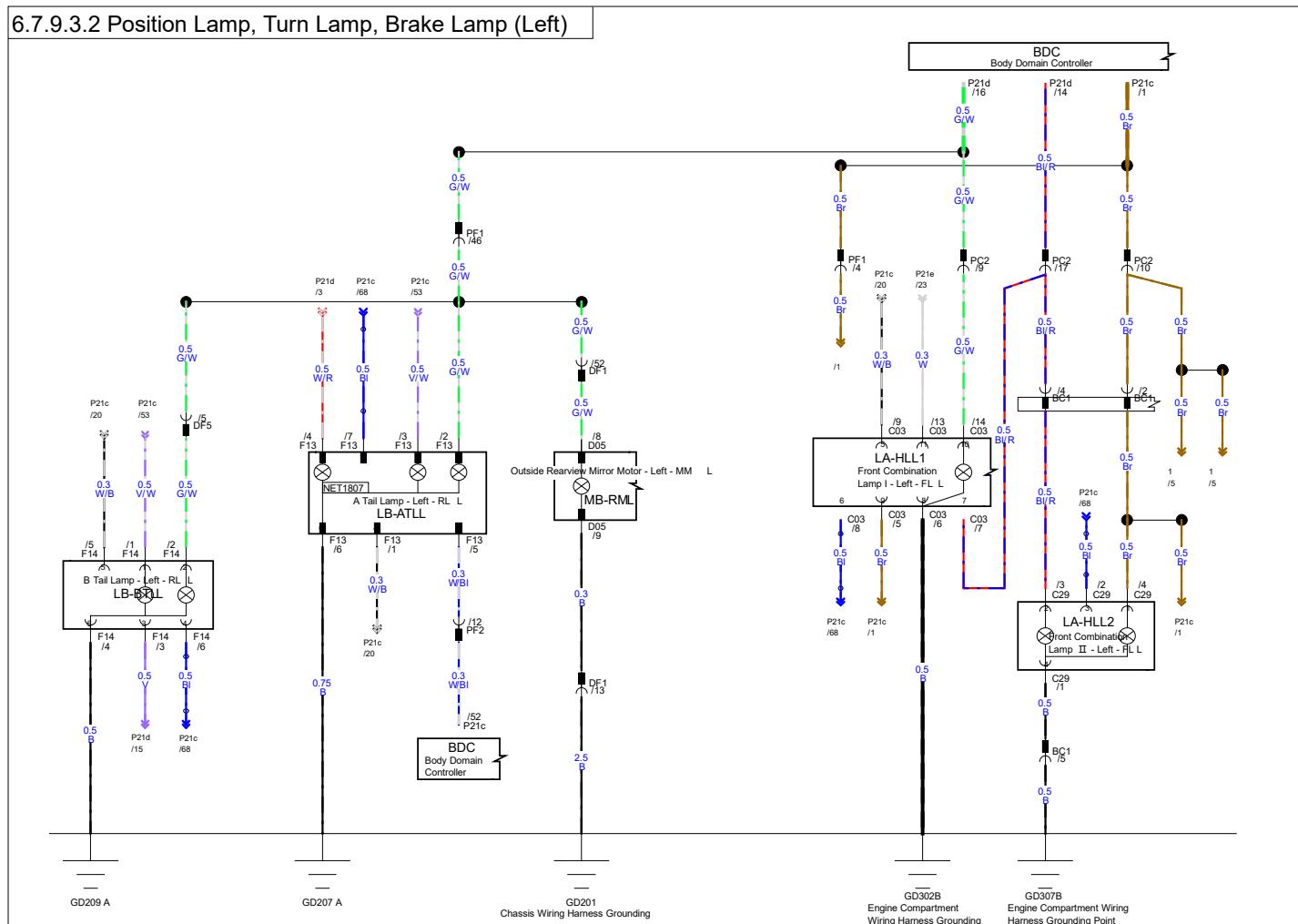
6.7.9.3 Signal Lamp

6.7.9.3.1 Signal Lamp (Right)

6.7.9.3.1 Position Lamp, Turn Lamp, Brake Lamp (Right)

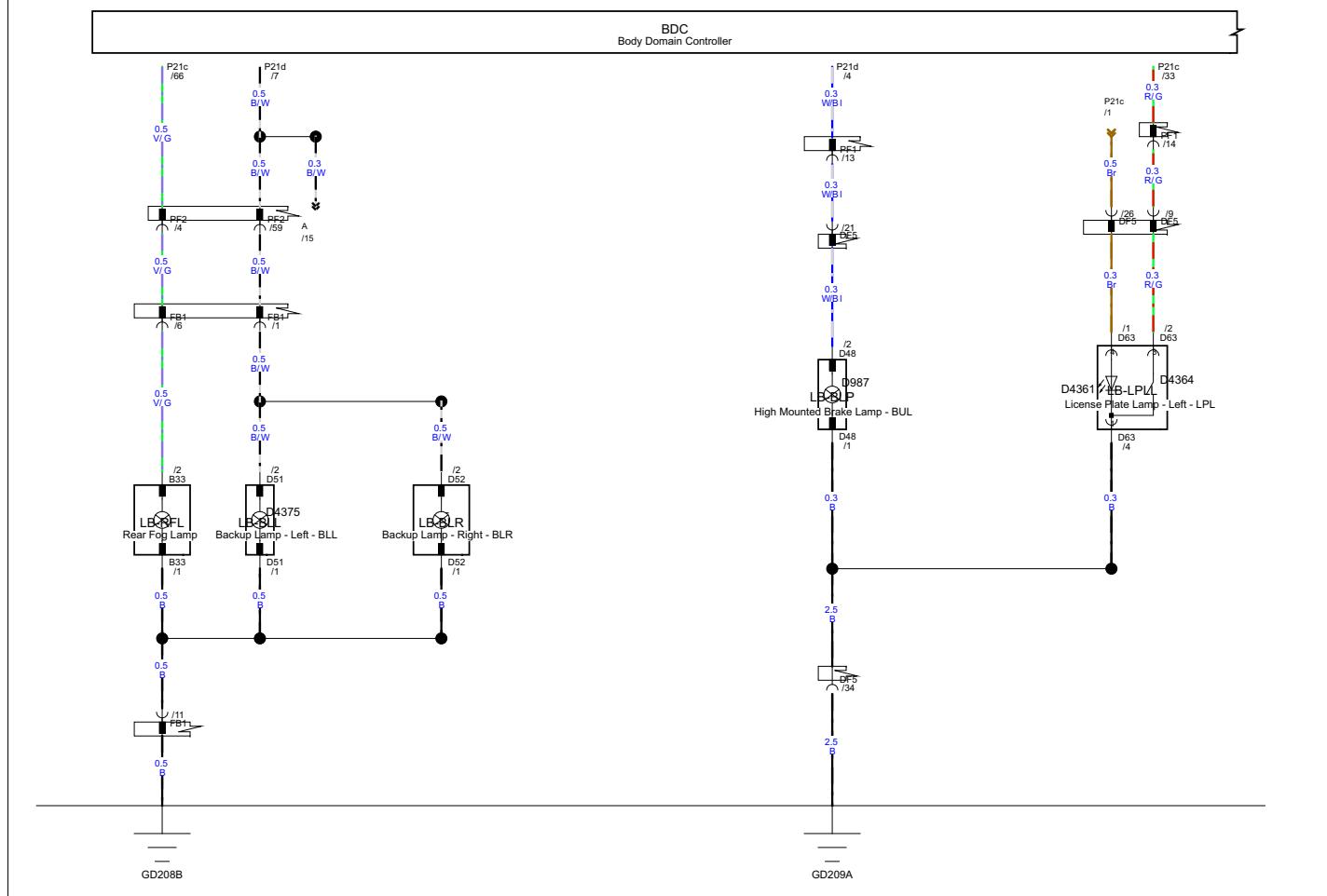


6.7.9.3.2 Signal Lamp (Left)



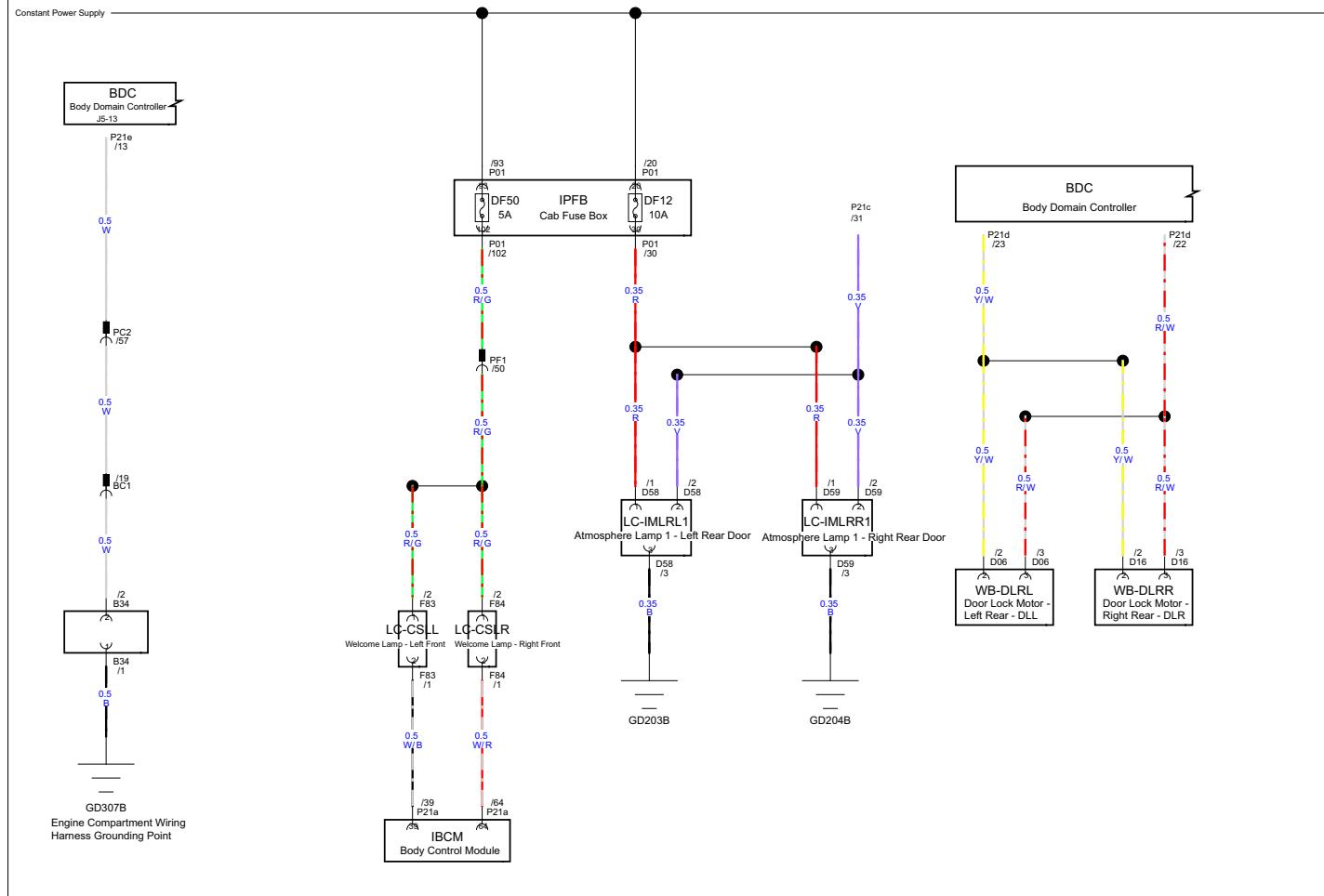
6.7.9.3.3 Signal Lamp (Rear)

6.7.9.3.3 Rear Fog Lamp, High Mounted Brake Lamp, License Plate Lamp, Backup Lamp



6.7.9.3.4 Emblem Lamp, Doorsill Lamp, Atmosphere Lamp

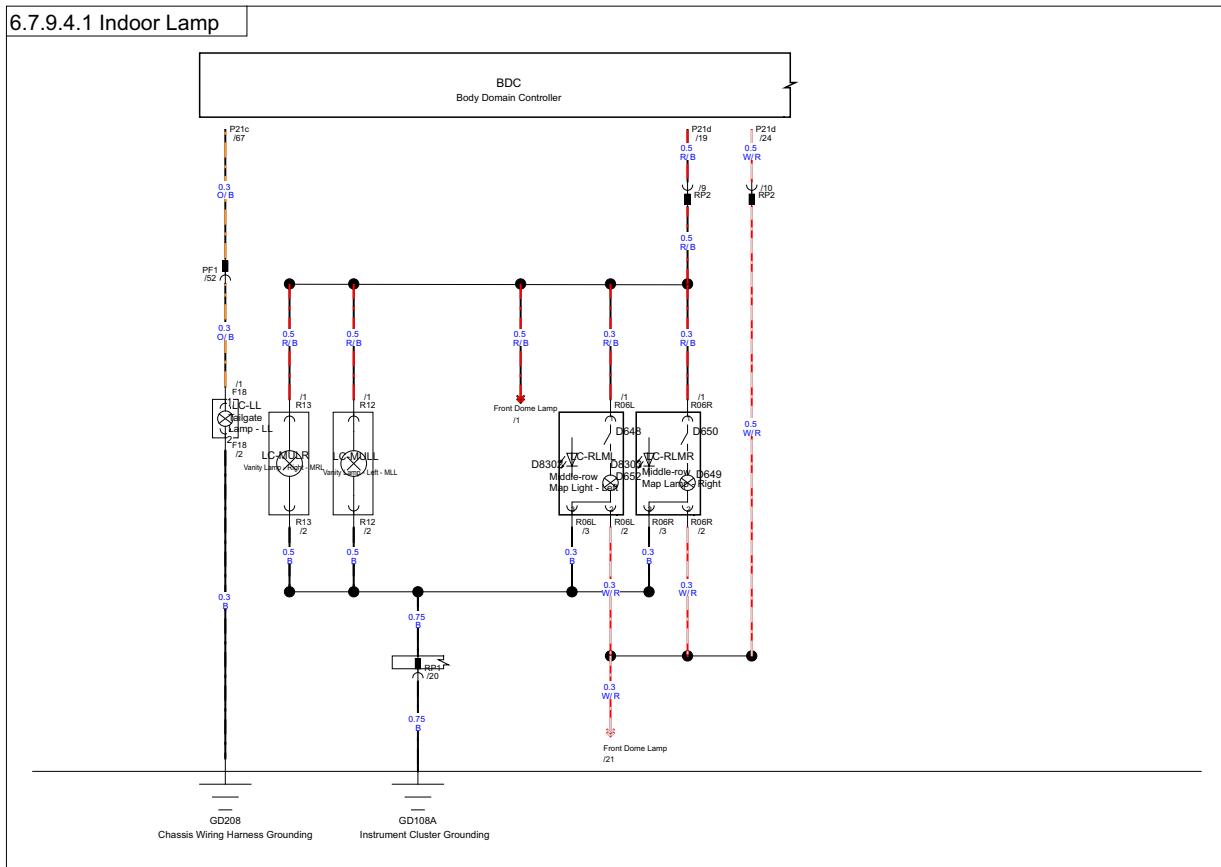
6.7.9.3.4 Emblem Lamp, Doorsill Welcome Lamp, Rear Door Atmosphere Lamp, Rear Door Lock



6.7.9.4 Interior Lamp

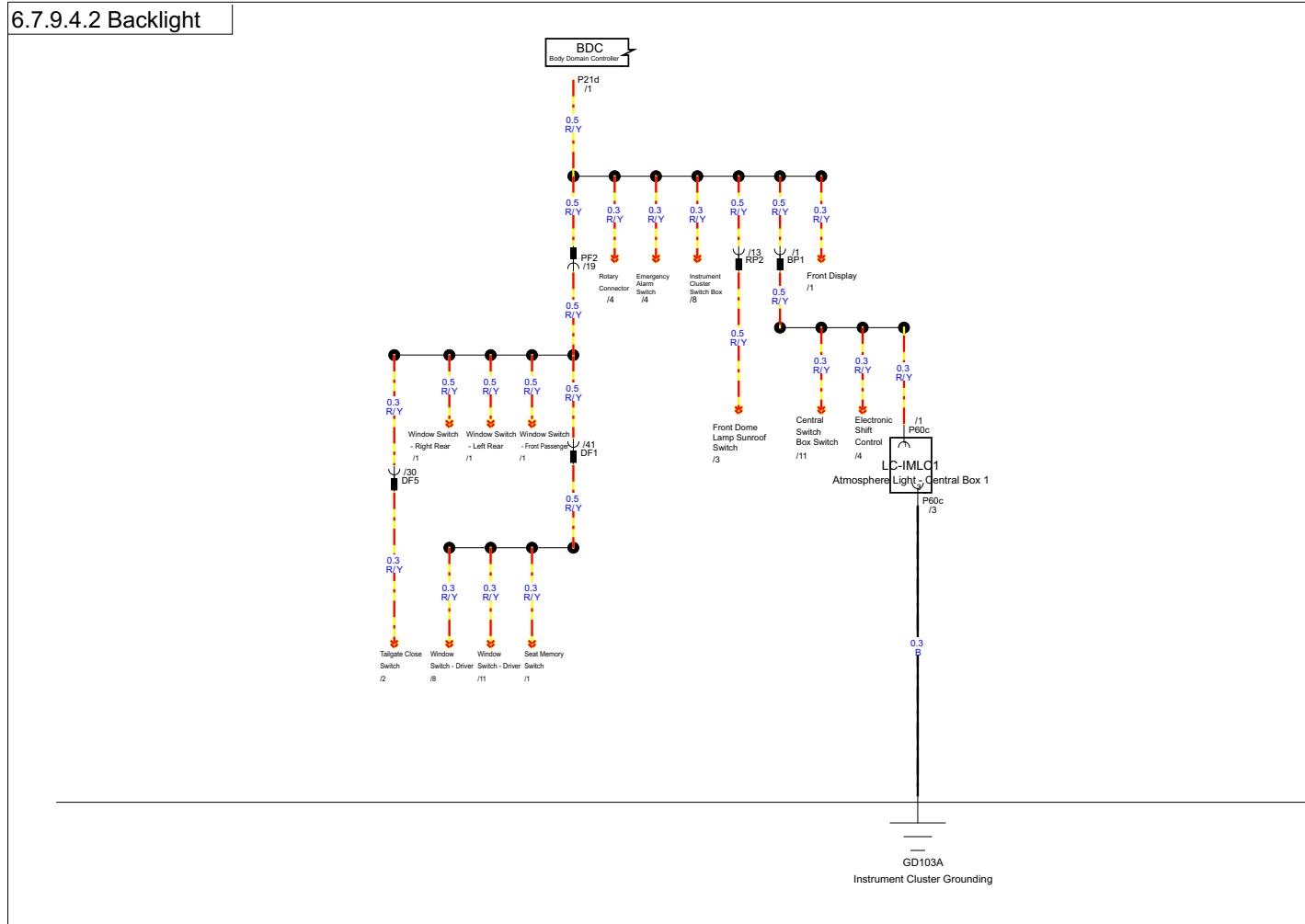
6.7.9.4.1 Interior Lamp

6.7.9.4.1 Indoor Lamp



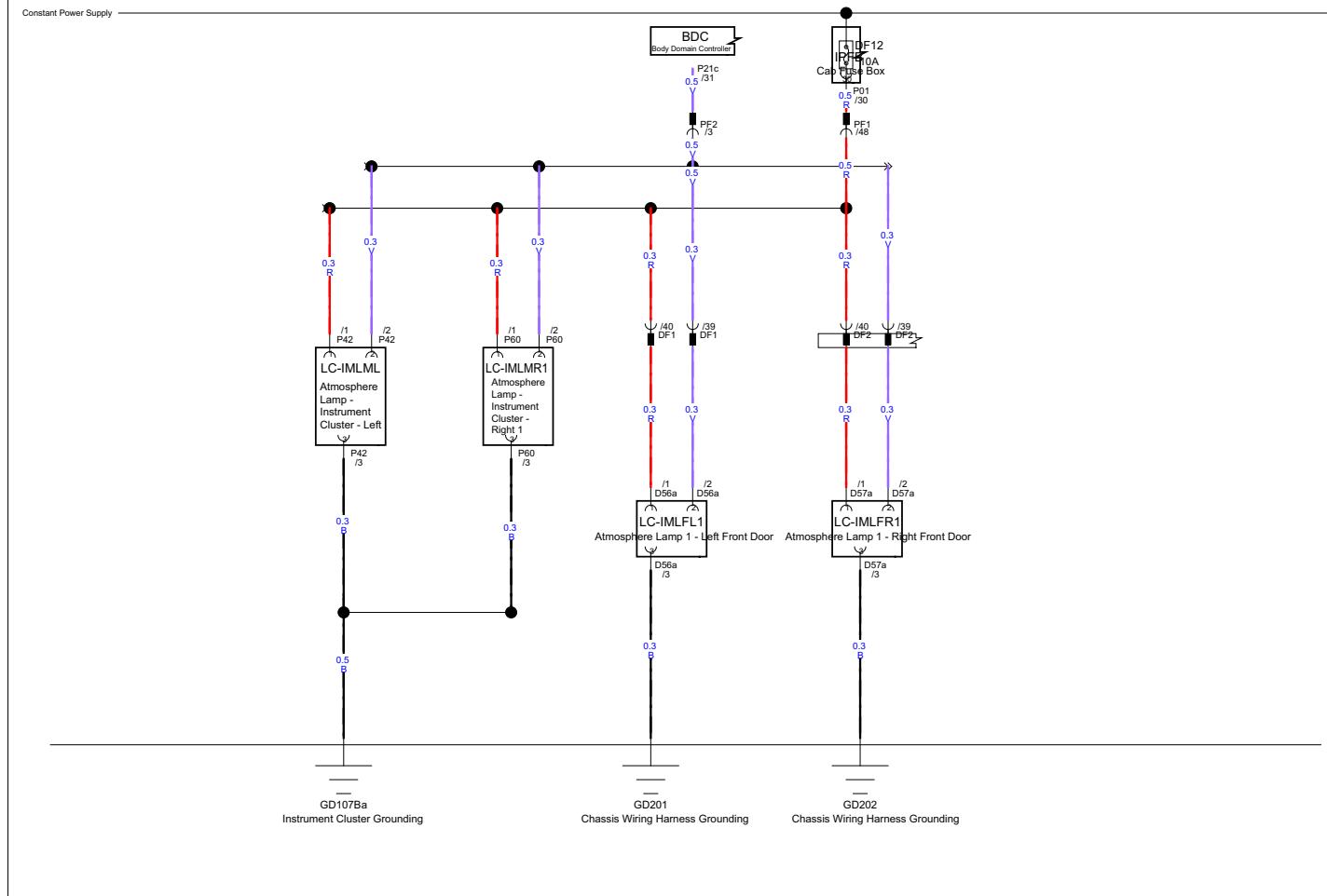
6.7.9.4.2 Backlight

6.7.9.4.2 Backlight

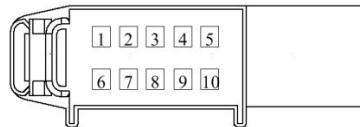


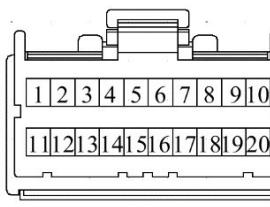
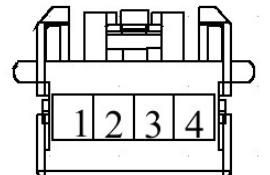
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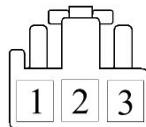
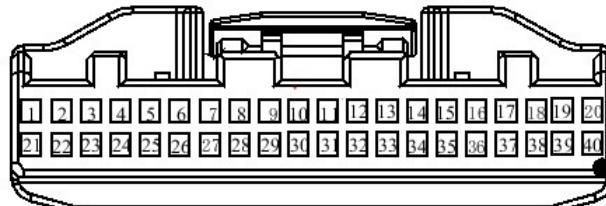
6.7.9.4.3 Atmosphere Lamp

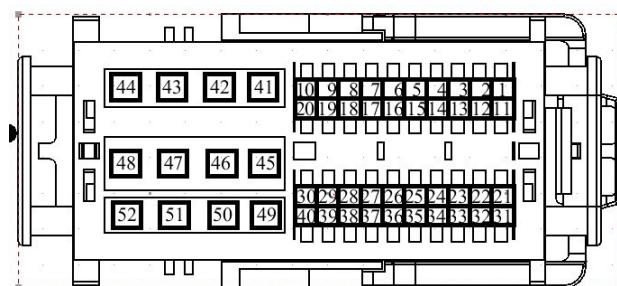
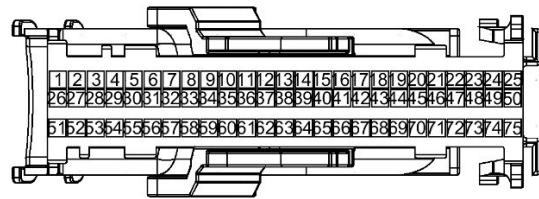


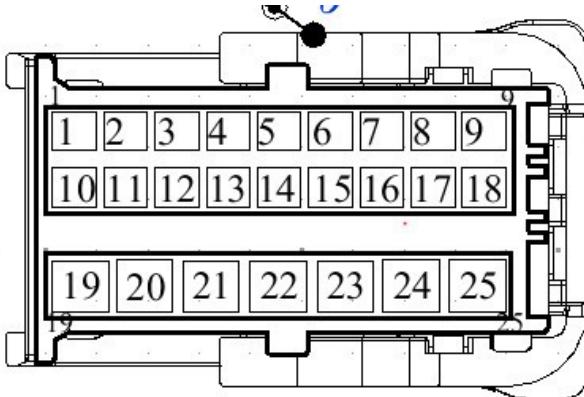
6.7.9.5 Connector View and Pin Definition

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P04	Combination Switch - Light		1	/	6	Position Lamp Switch
			2	Rear Fog Lamp Switch	7	Grounding
			3	High Beam	8	AUTO Switch
			4	Overtaking Lamp	9	Low Beam Switch
			5	Right Turn Lamp Switch	10	Left Turn Lamp Switch

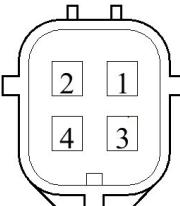
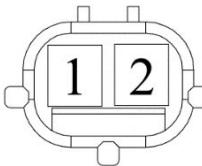
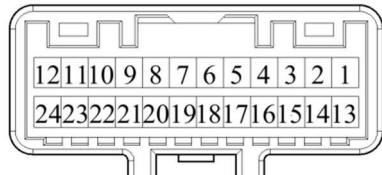
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P07	Instrument Panel Switch Assembly		4	Tailgate Switch Signal	13	Power Supply
			6	Tailgate Switch Grounding	14	Switch Grounding
			7	Backlight Grounding	16	Headlamp Leveling Grounding
			8	Backlight Power Supply	17	Headlamp Leveling Switch Output
			9	Right Rearview Mirror Up-Down Adjustment	18	Headlamp Leveling Power Supply
			10	Left Rearview Mirror Up-Down Adjustment	19	Right Rearview Mirror Left-Right Adjustment
			11	Rearview Mirror Folding	20	Left Rearview Mirror Left-Right Adjustment
			12	Rearview Mirror Adjustment Switch Common End	/	/
P11	Emergency Alarm Switch		1	Backlight Grounding	3	Signal Grounding
			2	To IBCM	4	Backlight Power Supply

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P42/P60/D56a/D57a/D58/D59	Atmosphere Lamp		1	Constant Power Supply	3	Grounding
			2	LIN Signal	/	/
P21b	BDCb		7	Automatic Light Switch		
			8	Low Beam Switch		
			9	High Beam Switch		
			27	Rear Fog Lamp		
			28	Right Turn Switch		
			29	Left Turn Switch		
			31	Overtaking Lamp Switch		
			32	Position Lamp Switch		
			33	Emergency Alarm Switch	/	/

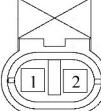
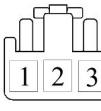
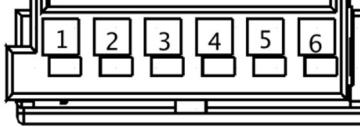
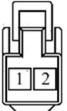
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P21e	BDCe		13	Front Light Emitting Emblem	36	Brake Switch
			23	Front Turn Lamp Open Diagnosis Input		
			30	High Beam Lamp Relay Signal		
P21c	BDCc		1	Front Position Lamp and License Plate Lamp	53	Rear Position Lamp
			20	Water Flow Turn Signal	66	Fog Lamp
			31	Atmosphere Lamp	67	Tailgate Lamp
			33	Tailgate Release Switch	68	Welcome Output Signal
			52	Rear Turn Lamp Diagnosis Feedback		

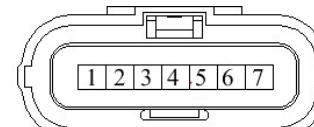
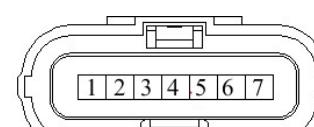
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P21d	BDCd		2	Right Low Beam Lamp	6	Left Low Beam Lamp
			3	Brake Lamp	15	Right Turn Lamp (Front/Rear)
			13	Right Daytime Running Lamp	16	Left Turn Lamp (Front/Rear)
			14	Left Daytime Running Lamp	7	Back-up Lamp Output
			4	High Mounted Brake Lamp	19	Energy Saving Output
			24	Dome Lamp Output	1	Backlight
			22	Lock	23	Unlock

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
C03/C05	Left Front Combination Lamp I Right Front Combination Lamp I		1	/	8	Timing Welcome Lamp Positive
			2	High/Low Beam Lamp Negative	9	Water Flow Turn Lamp Positive
			3	High Beam Lamp Positive	10	Light Adjustment Motor Negative
			4	High Beam Signal	11	Light Adjustment Motor Signal
			5	Position Lamp Positive	12	Light Adjustment Motor Positive
			6	Front Turn Lamp/Front Position Lamp/Daytime Running Lamp Negative	13	Front Turn Lamp Diagnosis Feedback Signal
			7	Daytime Running Lamp Positive	14	Front Turn Lamp Positive

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
C29/C46	Left Front Combination Lamp II		1	Front Position Lamp/Daytime Running Lamp Negative	3	Daytime Running Lamp Positive
	Right Front Combination Lamp II		2	Timing Welcome Lamp Positive	4	Front Position Lamp Positive
B33	Rear Combination Lamp - Rear Fog Lamp		1	Grounding	2	Rear Fog Lamp Power Supply
D51/D52	Left Rear Combination Lamp III		1	Grounding	2	Backup Lamp +
D05/D15	Left Front Door Outside Rearview Mirror Motor Right Front Door Outside Rearview Mirror Motor		8	Side Turn Lamp Power Supply	9	Side Turn Lamp Grounding Wire

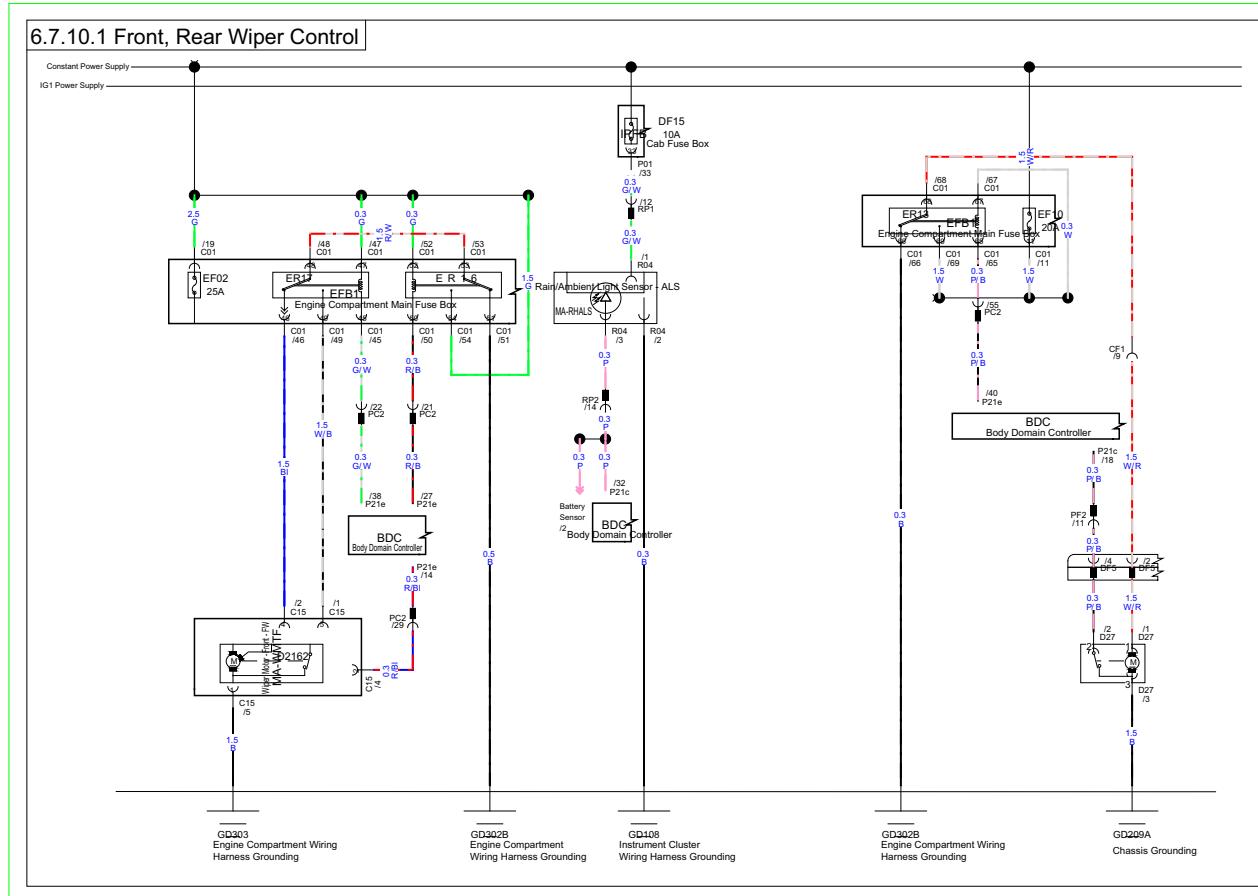
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
D63	License Plate Lamp and Switch Assembly		1	License Plate Lamp Positive	3	/
			2	Tailgate Release Switch	4	Grounding
D48	High Mounted Brake Lamp		1	Grounding	2	Positive
F14	Rear Combination Lamp II		1	Rear Position Lamp Positive	4	Grounding
			2	Left Rear Turn Lamp	5	Water Flow Turn Lamp Positive
			3	Right Rear Turn Lamp	6	Timing Welcome Lamp
F13/F15	Left Rear Combination Lamp I Right Rear Combination Lamp I		1	Water Flow Turn Lamp Positive	5	Rear Turn Lamp Abnormal Alarm
			2	Rear Turn Lamp +	6	Brake Lamp/Rear Position Lamp/Rear Turn Lamp GND
			3	Rear Position Lamp +	7	Timing Welcome Lamp
			4	Brake Lamp +	/	/

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
F18	Tailgate Lamp		1	Power Supply	2	Grounding
P60c	Central Box Lamp		1	Backlight Power Supply	3	Grounding
R06L/R06R	Rear Dome Lamp		1	Energy Saving Power Supply	3	Grounding
			2	Dome Lamp Power Supply	/	/
R12/R13	Vanity Lamp (Left) Vanity Lamp (Right)		1	Grounding	2	Energy Saving Power Supply
B34	Front Light Emitting Emblem Lamp		1	Grounding	2	Signal
F121	Rear Light Emitting Emblem Lamp		1	Grounding	2	Signal

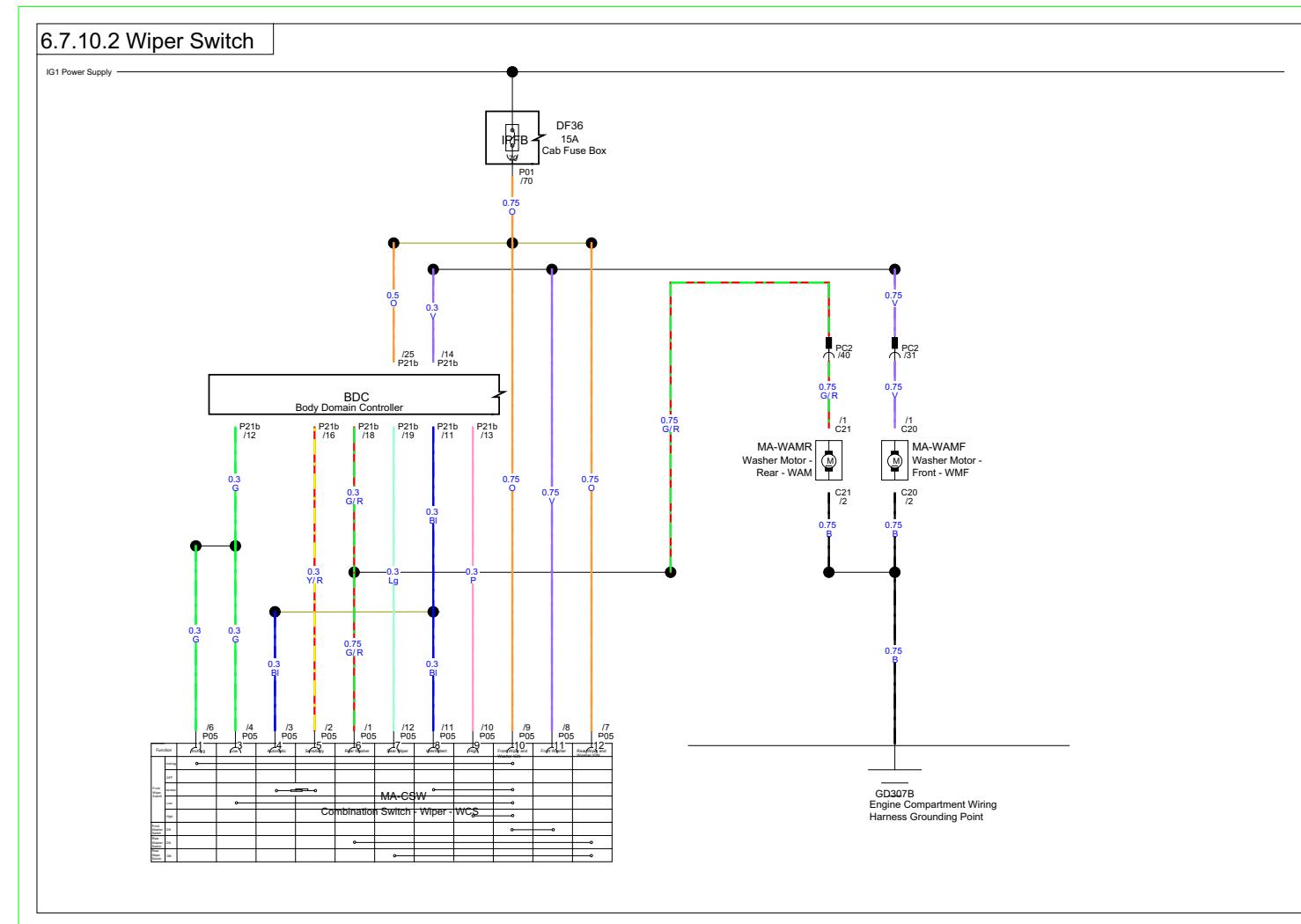
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
F83	Left Doorsill Lamp		1	Left Doorsill Lamp Signal	2	Power Supply
F84	Right Doorsill Lamp		1	Right Doorsill Lamp Signal	2	Power Supply
D06	Left Rear Door Lock Motor		2	Unlock	3	Lock
D16	Right Rear Door Lock Motor		2	Unlock	3	Lock

6.7.10 Wiper Control System

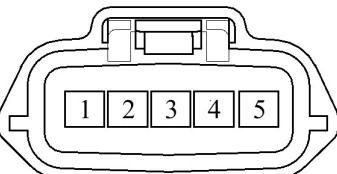
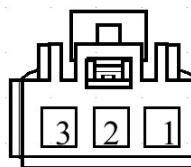
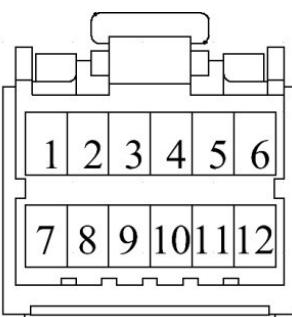
6.7.10.1 Front/Rear Wiper Control



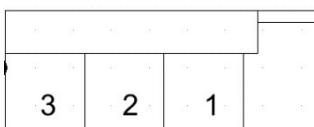
6.7.10.2 Wiper Switch



6.7.10.3 Connector View and Pin Definition

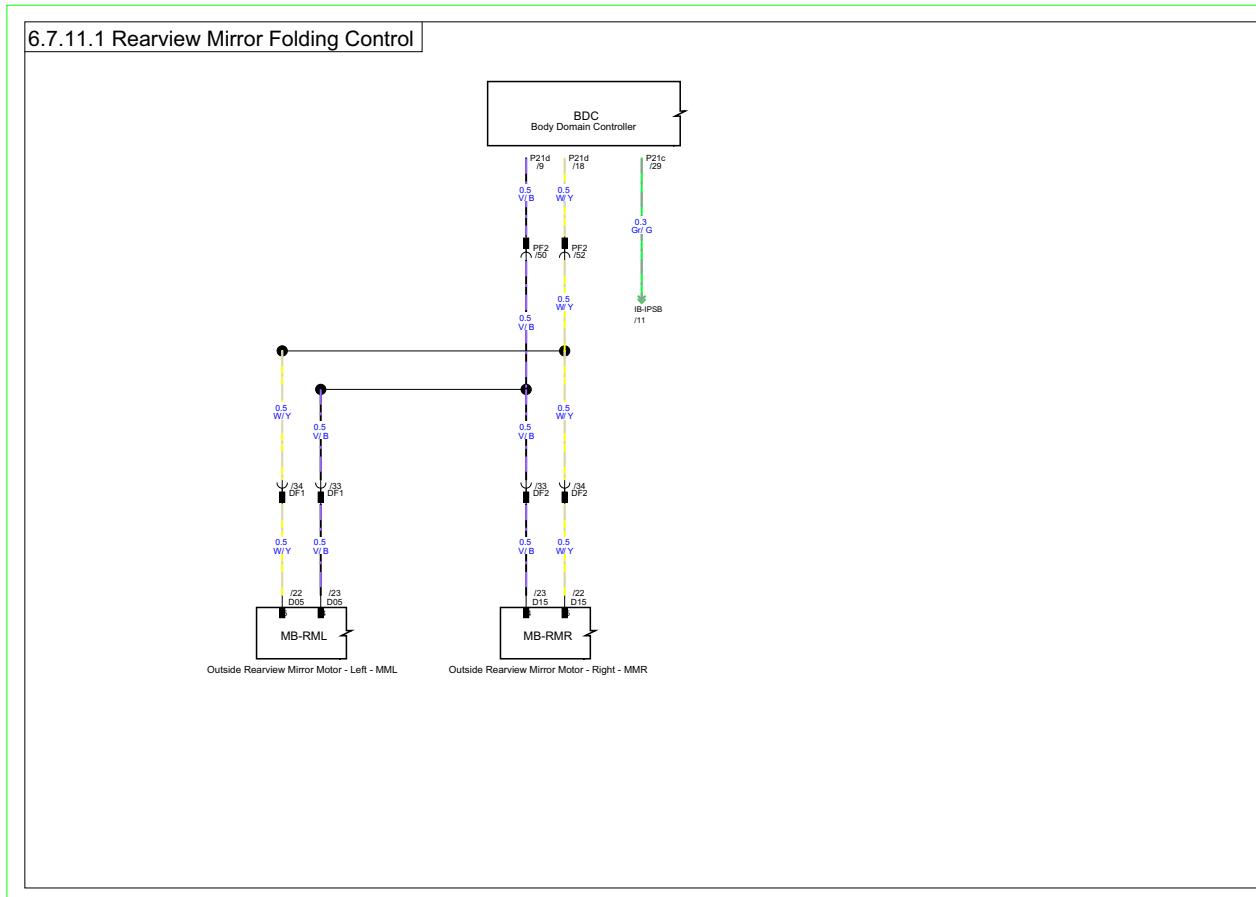
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
C15	Wiper Motor (Front)		1	High Speed	4	Reset
			2	Low Speed	5	Grounding
C20/C21	Washer Motor (Front) Washer Motor (Rear)		1	Motor Power Supply Positive	2	Motor Power Supply Negative
D27	Wiper Motor (Rear)		1	Rear Wiper Operation	3	GND
P05	Combination Switch - Wiper		2	Output Return Signal	/	/
			1	Rear Washer Switch	7	IGN - Rear
			2	Sensitivity	8	Front Washer Switch
			3	Automatic	9	IGN - Front
			4	Wiper Low Speed	10	Wiper High Speed
			5	/	11	Automatic Wiper
			6	Wiper Intermittent	12	Rear Wiper Switch

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P21b	BDCb		18	Rear Washer Switch	19	Rear Wiper Low Speed Switch
			13	Front Wiper High Speed Switch	14	Front Washer Switch
			12	Front Wiper Low Speed Switch	16	Sensitivity
			11	Front Wiper Automatic Switch	25	Washer IG Power Supply
P21c	BDCc		18	Rear Wiper Stop Signal	32	Rain/Ambient Light LIN Communication Bus and IBS
P21e	BDCe		14	Front Wiper Stop Signal	27	Front Wiper Low Speed Relay
			38	Front Wiper High Speed Relay	40	Rear Wiper Relay

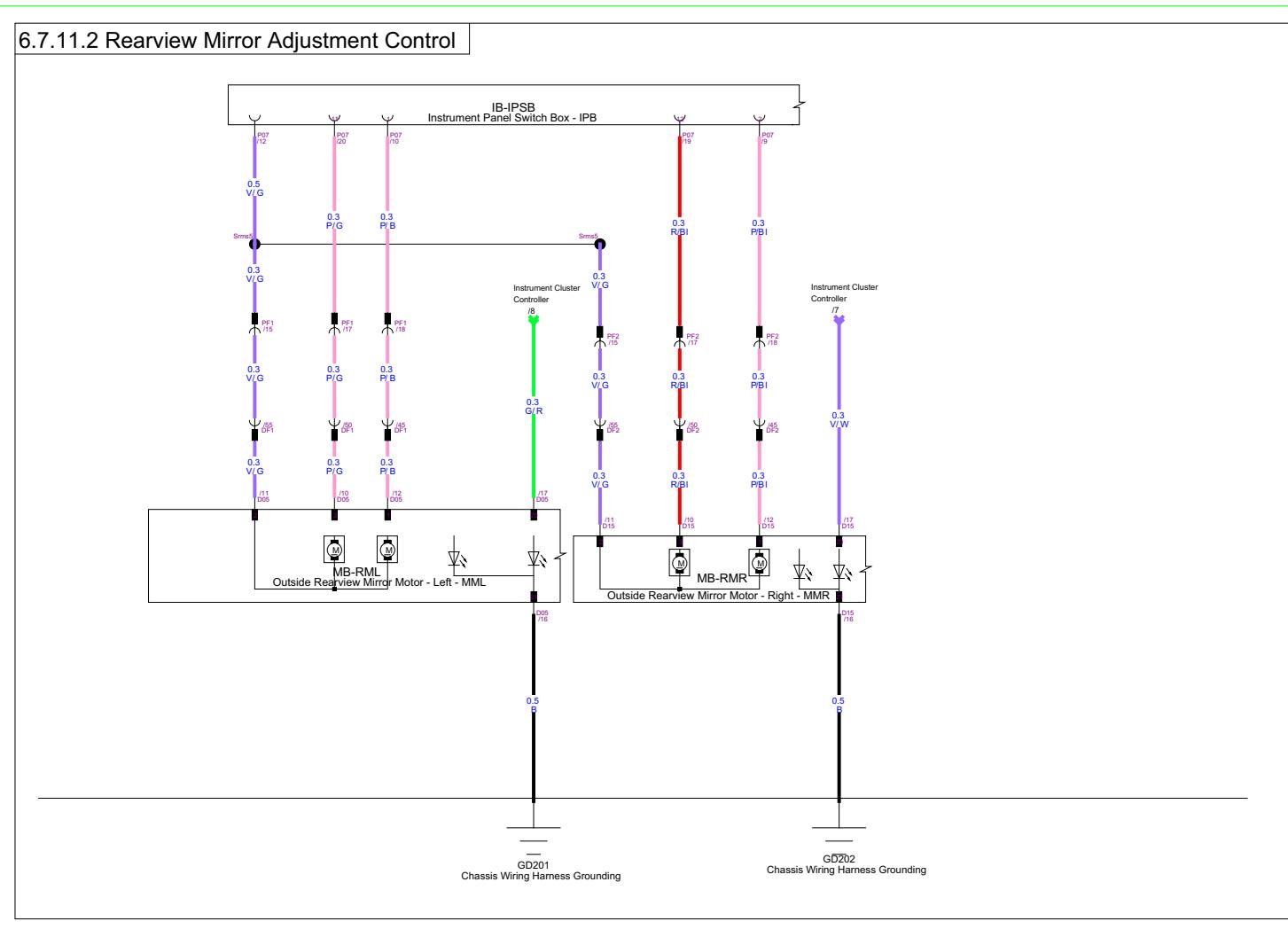
R04	Rain/Ambient Light Sensor		1	Constant Power Supply	3	LIN
			2	Grounding		

6.7.11 Rearview Mirror Control System

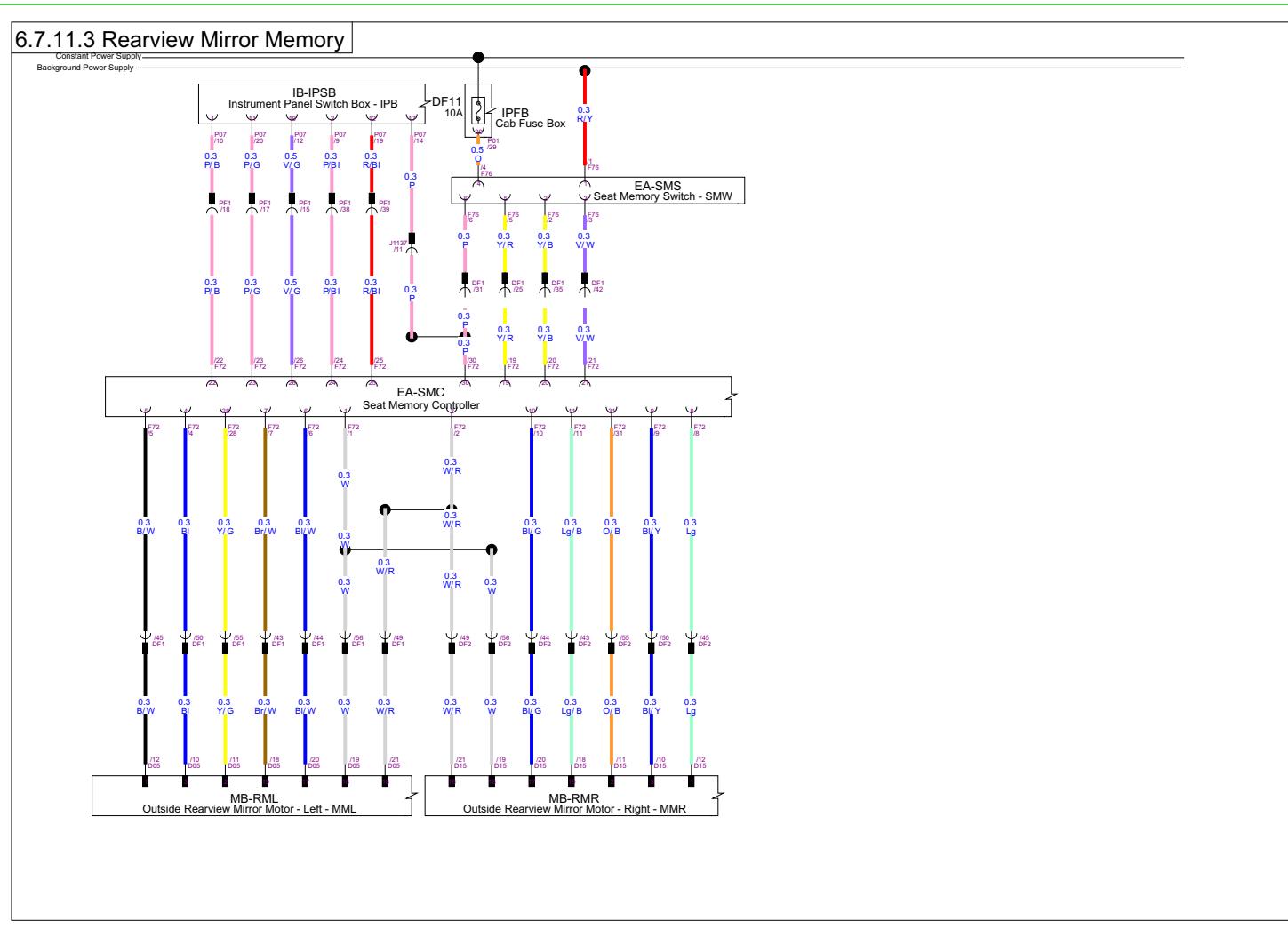
6.7.11.1 Rearview Mirror Folding Control



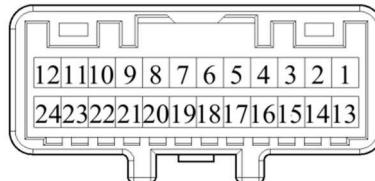
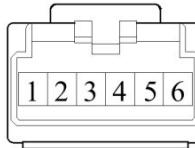
6.7.11.2 Rearview Mirror Adjustment Control



6.7.11.3 Rearview Mirror Memory



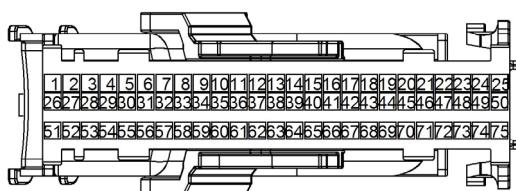
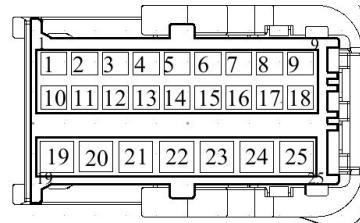
6.7.11.4 Connector View and Pin Definition

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
D15/D15	Left Front Door Outside Rearview Mirror Motor Right Front Door Outside Rearview Mirror Motor		10	Rearview Mirror Left-Right Adjustment	18	Up-Down Position Sensor
			11	Common End	19	Sensor Grounding
			12	Rearview Mirror Up-Down Adjustment	20	Left-Right Position Sensor
			13	Outside Rearview Mirror Anti-glare -	21	Sensor 5 V Power Supply
			14	Outside Rearview Mirror Anti-glare +	22	Rearview Mirror Reset
			17	Blind Spot Indicator	23	Rearview Mirror Folding
F76	Seat Memory Switch		1	Background Power Supply	4	Power Supply
			2	Seat Memory Setting Button	5	Memory Setting Switch LED Drive
			3	Seat Memory Selection Button	6	Seat Switch Adjustment -

6.7.11-5

Rearview Mirror Control System

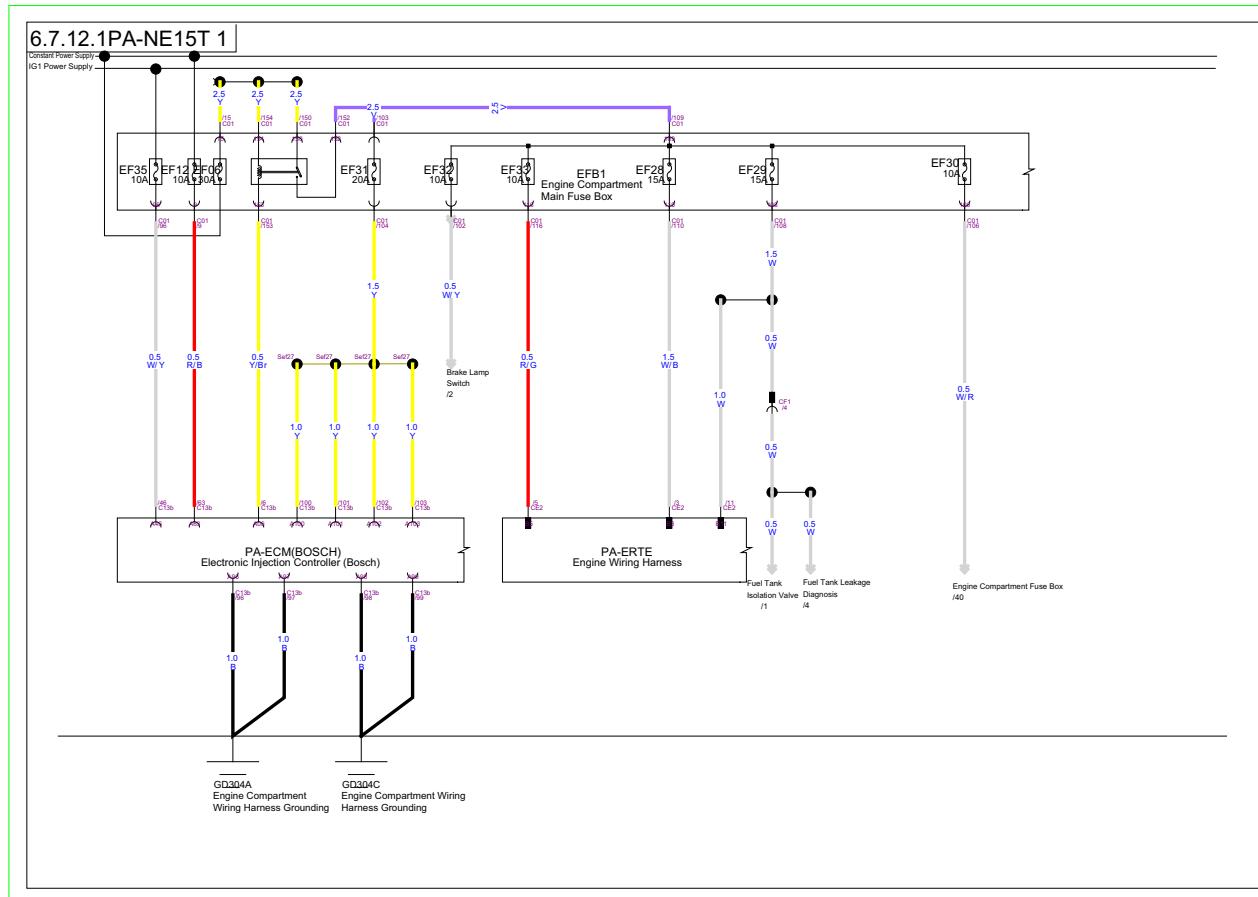
6.7.11-5

P21c	BDCc		29	Rearview Mirror Folding Switch	/	/
			/	/	/	/
P21d	BDCd		9	Rearview Mirror Folding Output	/	/
			18	Rearview Mirror Extending Output	/	/
F72	Seat Memory Controller		1	Rearview Mirror Position Sensor Grounding	20	Seat Memory Setting Button

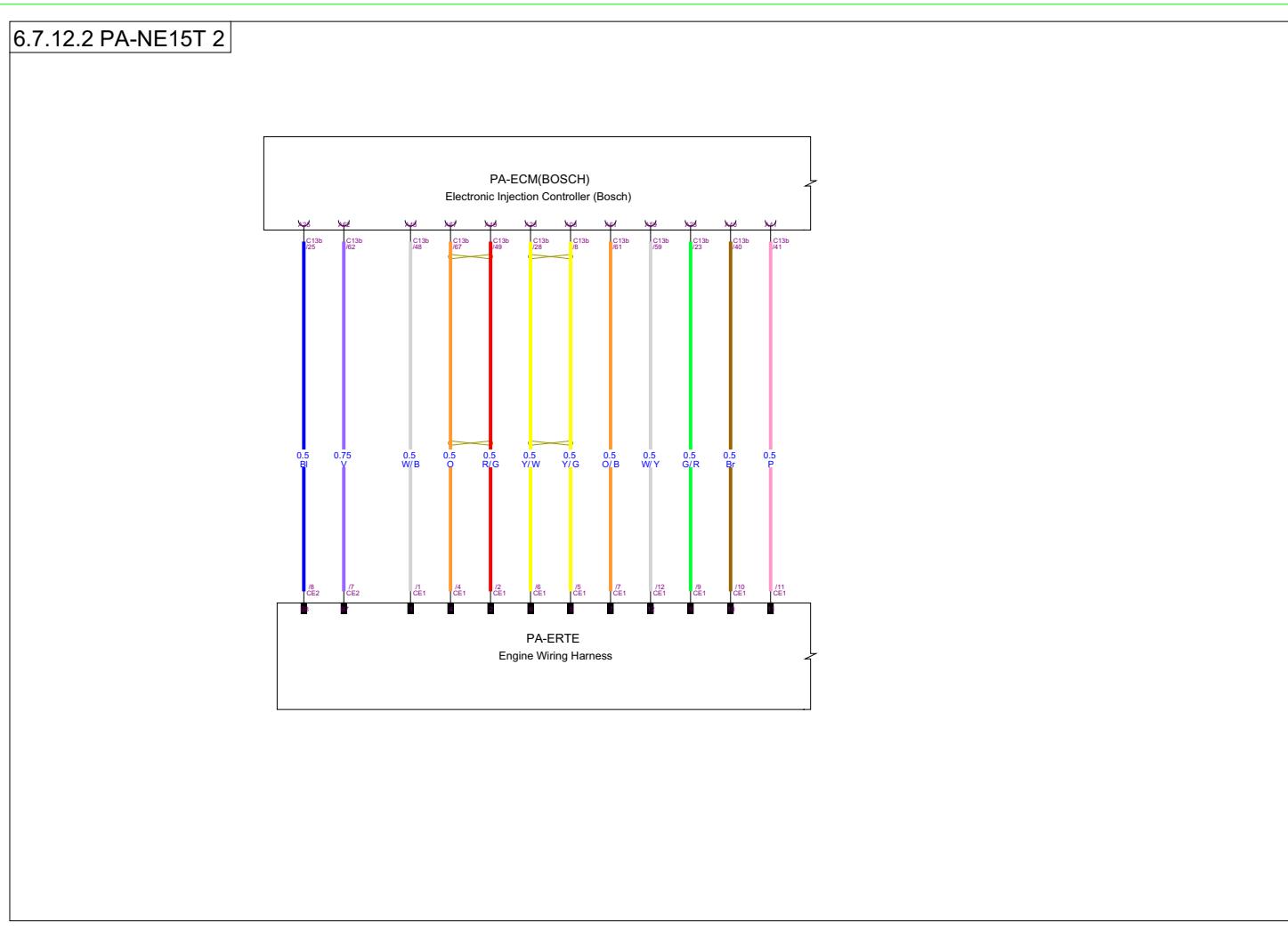
2	Rearview Mirror Position Sensor Power Supply	21	Seat Memory Selection Button	
4	Left Rearview Mirror Horizontal Adjustment Output	22	Left Rearview Mirror Up-Down Output	
5	Left Rearview Mirror Up-Down Adjustment Output	23	Left Rearview Mirror Left-Right Output	
6	Left Rearview Mirror Horizontal Position Sensor	24	Right Rearview Mirror Up-Down Output	
7	Left Rearview Mirror Up-Down Position Sensor	25	Right Rearview Mirror Left-Right Output	
8	Right Rearview Mirror Up-Down Adjustment Output	26	Rearview Mirror Button Common End	
9	Right Rearview Mirror Horizontal Adjustment Output	28	Left Rearview Mirror Motor Adjustment Common End	
10	Right Rearview Mirror Horizontal Position Sensor	30	Rearview Mirror Switch/Memory Switch/Driver/Front Passenger NTC - /Seat Switch Adjustment -	
11	Right Rearview Mirror Up-Down Position Sensor	31	Right Rearview Mirror Motor Adjustment Common End	
19	Memory Setting Switch LED Drive			

6.7.12 Engine Control System

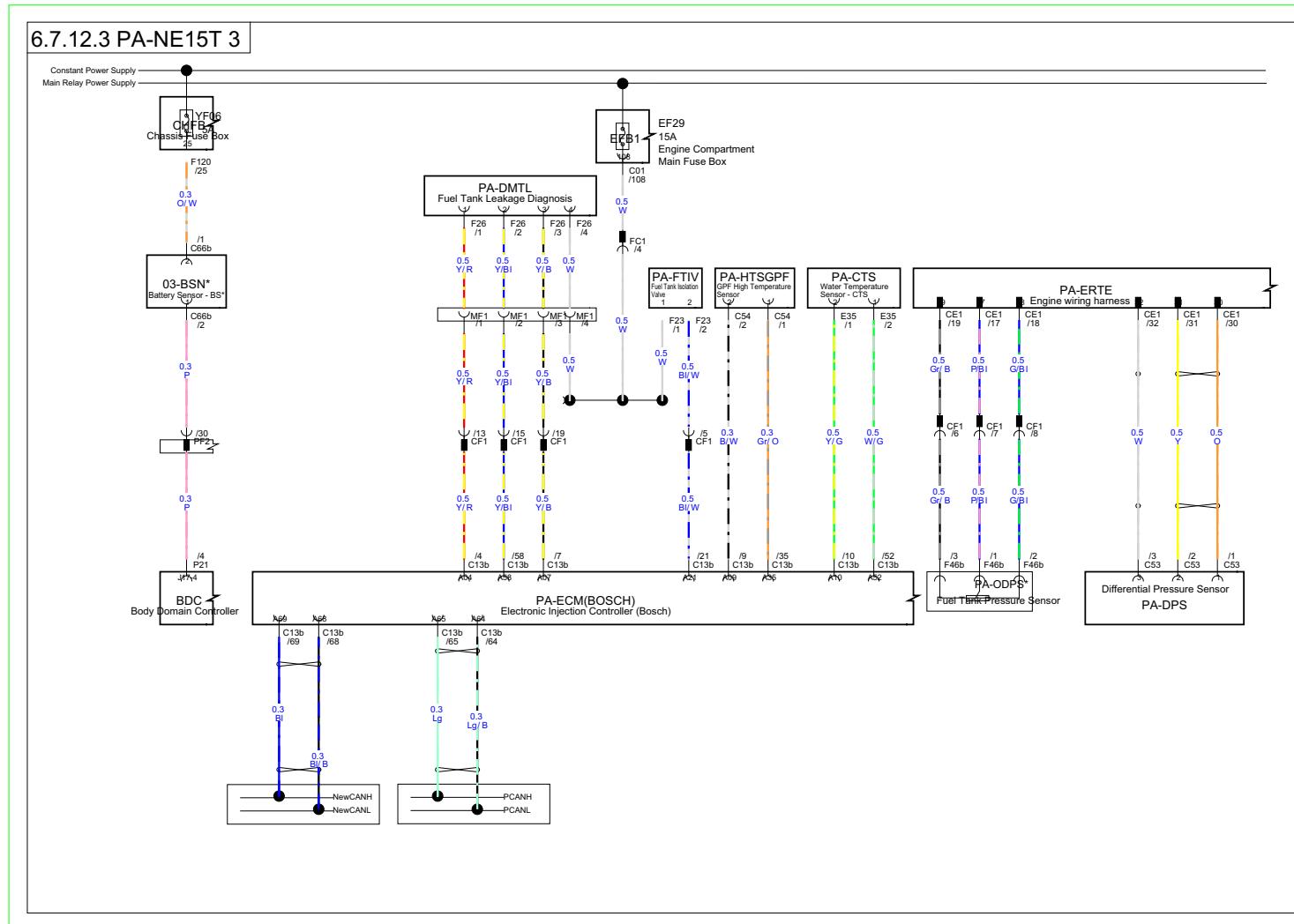
6.7.12.1 Engine Control System 1



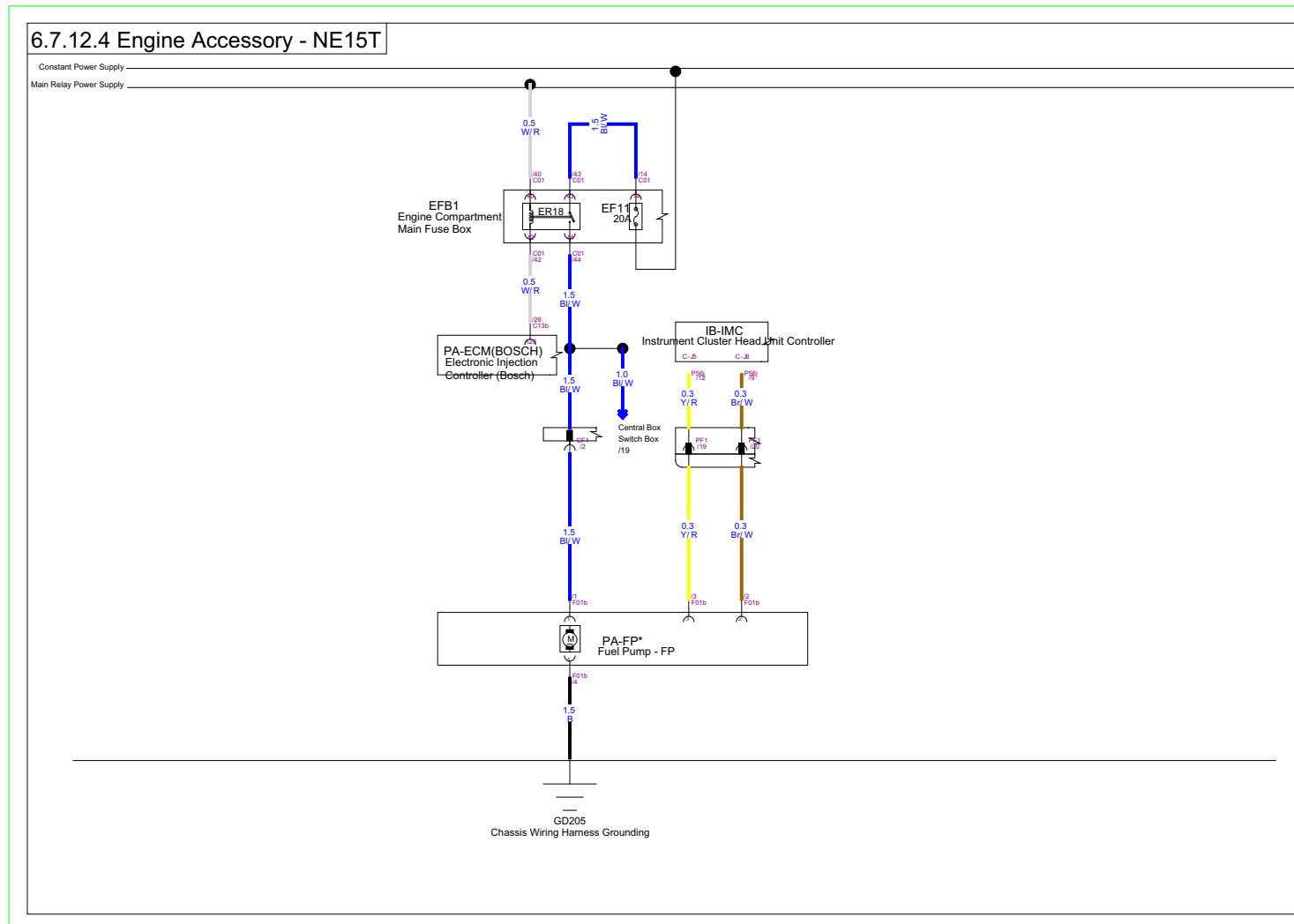
6.7.12.2 Engine Control System 2



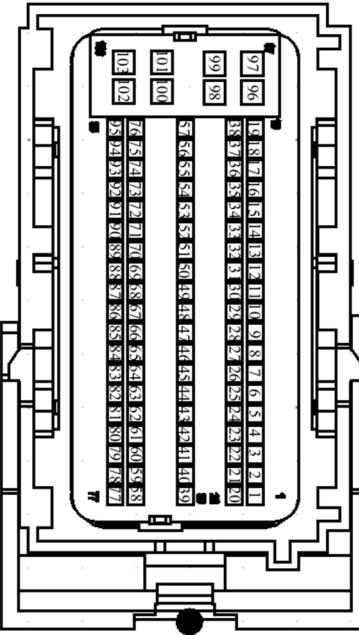
6.7.12.3 Engine Control System 3



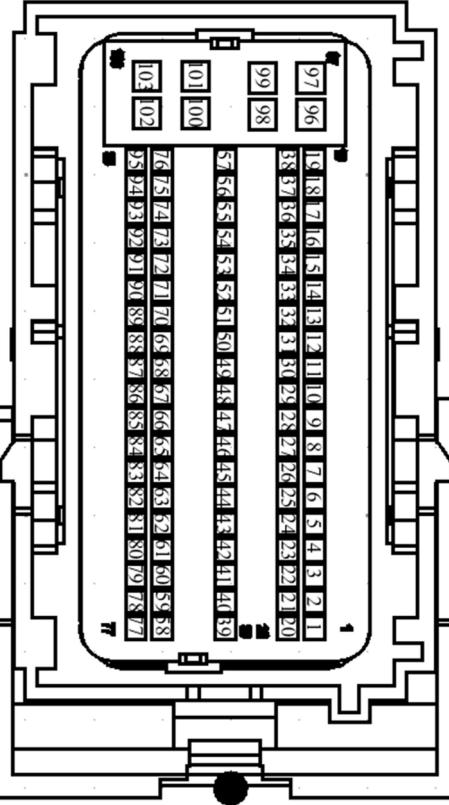
6.7.12.4 Engine Control System 4

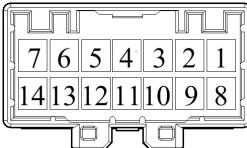
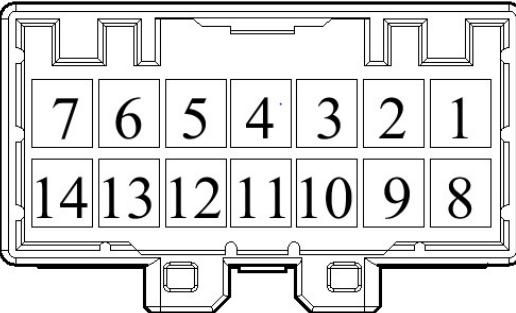


6.7.12.5 Connector View and Pin Definition

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
C13b	ECU - Engine Compartment Wiring Harness Terminal		1 2 5 6 8 9	Starting Motor Low Side Control Cooling Fan Relay Signal (Middle Speed) Electric Auxiliary Water Pump Main Relay Switch Oxygen Sensor GPF Temperature Sensor Grounding/Brake Vacuum Sensor Grounding	46 47 48 49 51 55	Ignition Switch LIN Bus Linear Oxygen IP Linear Oxygen VM Accelerator Pedal Position Sensor 2 Brake Lamp Switch Signal

			13	Accelerator Pedal Position Sensor 1 Grounding	56	Brake Switch
			14	Brake Vacuum Sensor Power Supply	57	Starting Motor Feedback Signal
			15	Accelerator Pedal Position Sensor 1 Power Supply	58	Carbon Canister Stop Valve
			16	Accelerator Pedal Sensor 2 Power Supply	59	Oil Pump Assembly
			20	Starting Motor Low Side Control	60	Electronic Thermostat 20T
			21	Cooling Fan Relay Signal (High Speed)	61	Switch Oxygen Heater
			22	Piston Cooling Nozzle Control Valve 15T	62	Linear Oxygen Heater
			23	Carbon Canister Control Valve	63	Constant Power Supply
			24	A/C Compressor Relay	64	Refresh and Body CAN Low

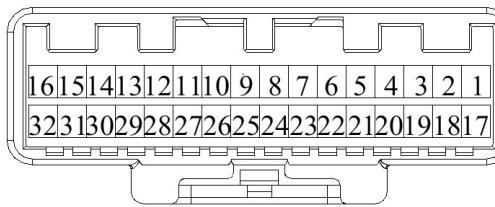
C13b	ECU - Engine Compartment Wiring Harness Terminal		25	Air Intake Pressure Discharge Control Valve	65	Refresh and Body CAN High
			26	Low Pressure Oil Pump Relay	67	Liner Oxygen
			28	Switch Oxygen Sensor Grounding	96	ECU Grounding 4
			29	Accelerator Pedal Position Sensor 2 Grounding	97	ECU Grounding 3
			30	Brake Vacuum Sensor Signal	98	ECU Grounding 2
			31	Accelerator Pedal Position Sensor 1	99	ECU Grounding 1
			33	Medium Voltage Signal	100	Main Relay Power Supply 1
			35	GPF Temperature Sensor Signal	101	Main Relay Power Supply 2
			39	Cooling Fan Relay Signal (Low Speed)	102	Main Relay Power Supply 3
			40	Central Electromagnet Signal (Exhaust)	103	Main Relay Power Supply 4
			41	Central Electromagnet Signal (Intake)		

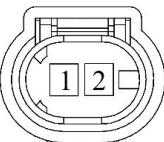
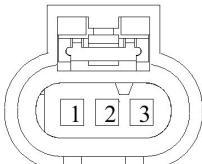
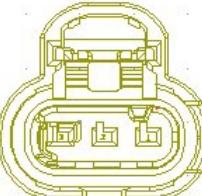
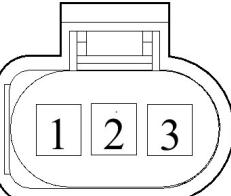
CE2	Engine Compartment to Engine 2 (15T)		1	LIN Bus	8	Air Intake Pressure Discharge Control Valve
			3	Main Relay Power Supply	11	Main Relay Power Supply
			4	Compressor Power Supply	13	Cooling Water Pump Grounding
			5	Main Relay Power Supply	14	Electric Auxiliary Water Pump Signal
			7	Linear Oxygen Heater	/	/
CE2a	Engine Compartment to Engine 2 (D20T)		1	LIN Bus	7	Differential Pressure Sensor Grounding
			2	Compressor Power Supply	8	Air Intake Pressure Discharge Control Valve
			4	Main Relay Power Supply	9	Differential Pressure Sensor P2 Output Signal
			5	Linear Oxygen Heater	10	Differential Pressure Sensor P1 Output Signal
			6	Differential Pressure Sensor Power Supply	11	Main Relay Power Supply

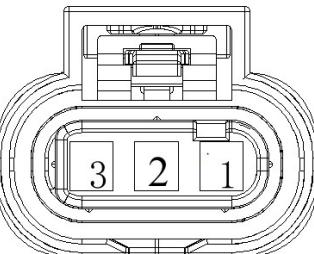
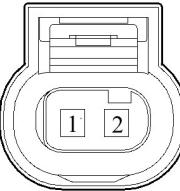
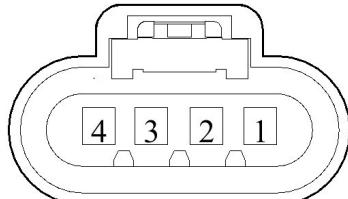
6.7.12-9

Engine Control System

6.7.12-9

CE1a	Engine Compartment to Engine 1		1	Linear Oxygen IP	9	Carbon Canister Control Valve
			2	Linear Oxygen VM	10	Central Electromagnet Signal (Exhaust)
			3	EPSCAN-H (20T)	11	Central Electromagnet Signal (Intake)
			4	Liner Oxygen	12	Oil Pump Assembly
			5	Switch Oxygen Sensor	14	EPSCAN-L (20T)
			6	Switch Oxygen Sensor Grounding	17	Fuel Tank Pressure Sensor Signal
			7	Switch Oxygen Heater	18	Fuel Tank Pressure Sensor Grounding
			8	Electronic Thermostat 20T/Piston Cooling Control Valve 15T	19	Fuel Tank Pressure Sensor Power Supply

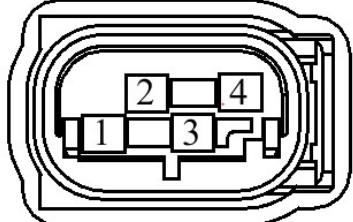
C66b	Battery Sensor		1	Battery Power Supply	2	LIN Signal
C72	Cooling Water Pump 20T		1	Main Relay Power Supply	3	Cooling Water Pump Grounding
			2	Cooling Water Pump Signal	/	/
C53	GPF Differential Pressure Sensor		1	Output Signal	3	Power Supply
			2	Grounding	/	/
F23	Carbon Canister Ventilation Stop Valve		1	Signal	2	Main Relay Power Supply
C74b	Brake Vacuum Sensor		1	Power Supply	3	Sensor Grounding
			2	Signal		

F46b	Fuel Tank Pressure Sensor		1	Signal Output	3	Power Supply
			2	Signal Grounding		
C54	GPF Temperature Sensor		1	Signal	2	Grounding
CE3a	Engine Compartment to Engine 3		1	Power Supply		
F01b	Fuel Pump		1	Power Supply	3	Fuel Sensor Grounding
			2	Fuel Level Signal	4	Grounding
F26	Fuel Tank Leakage Diagnosis		1	Motor (-)	3	Solenoid Valve (-)

6.7.12-12

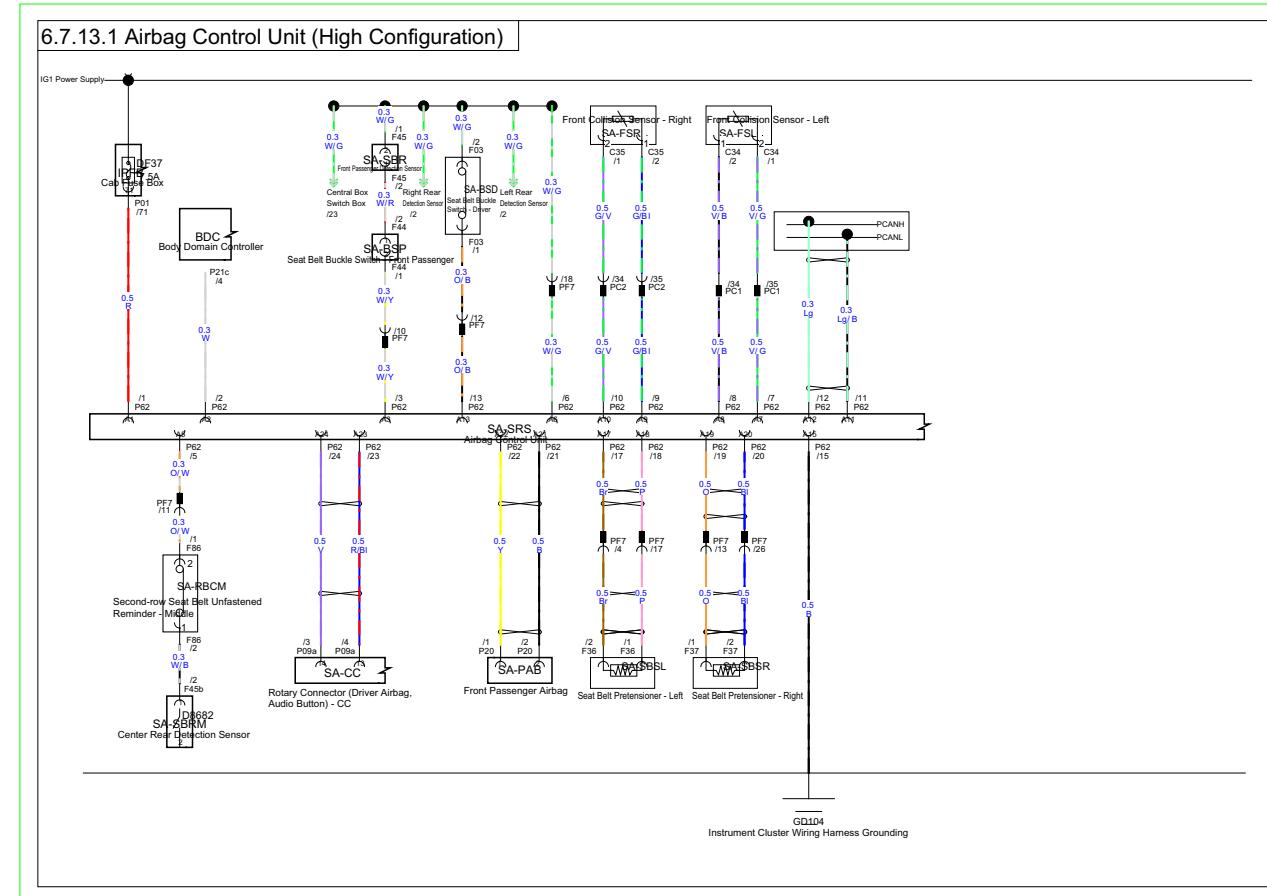
Engine Control System

6.7.12-12

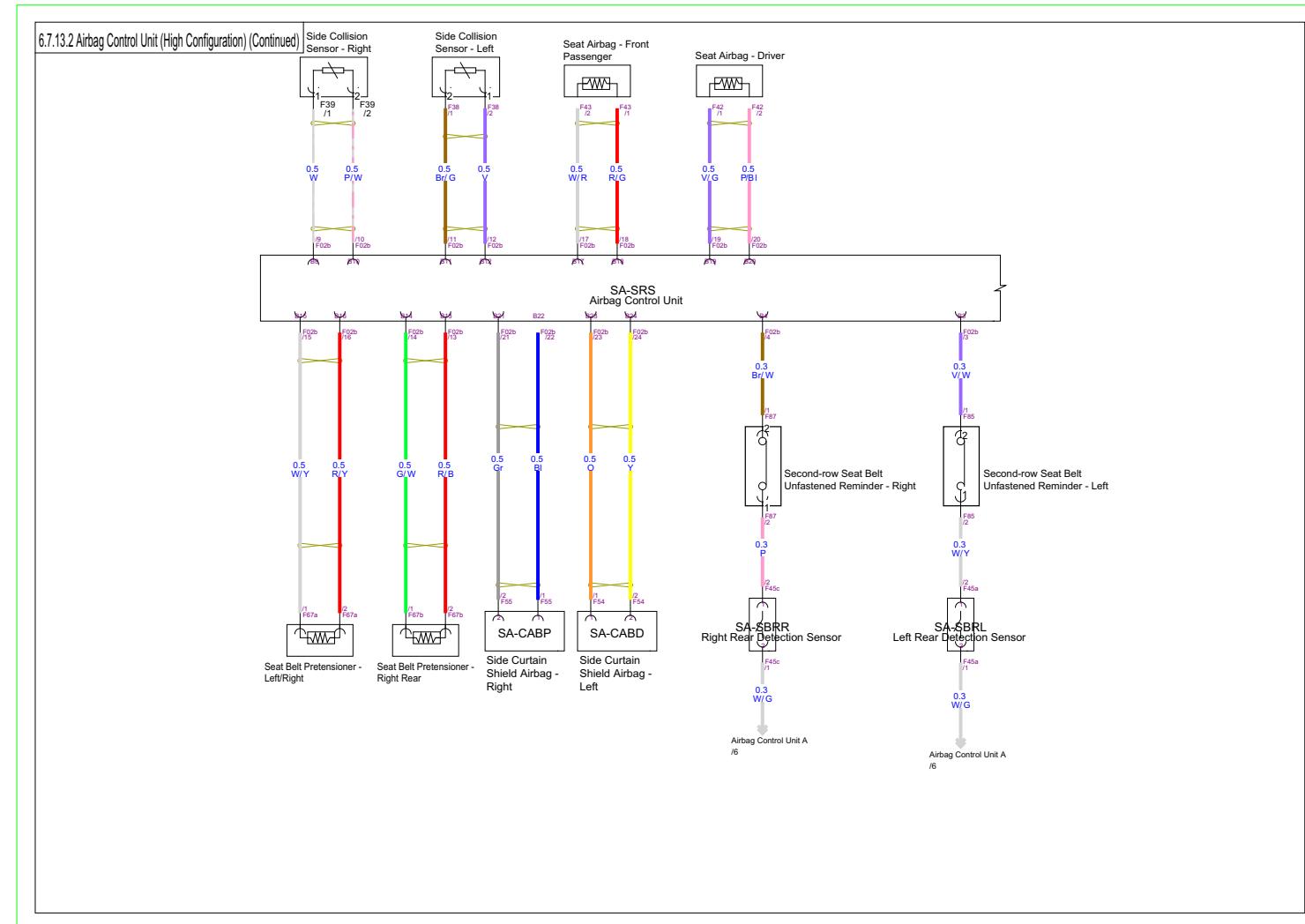
				2	Heating Element (-)	4	Power Supply (+)
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6.7.13 Airbag Control System

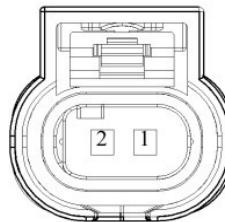
6.7.13.1 Airbag Control System

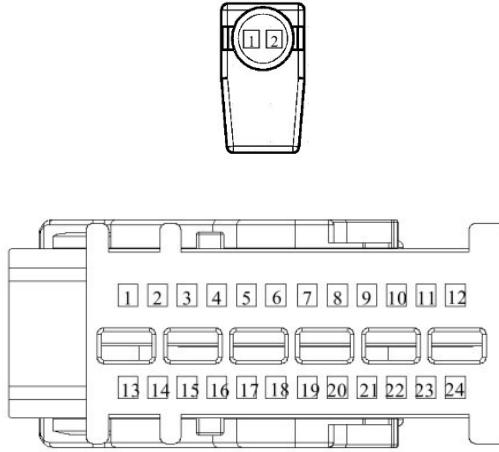


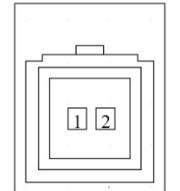
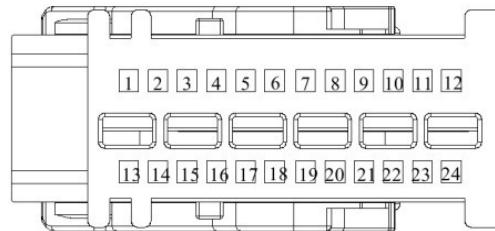
6.7.13.2 Airbag Control System

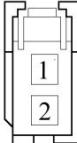
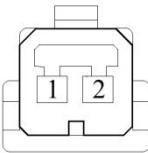
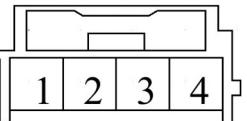
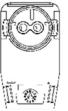
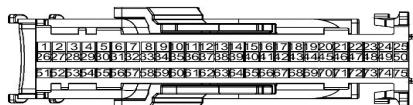


6.7.13.3 Connector View and Pin Definition

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
C34/C35	Left Front Collision Sensor/Right Front Collision Sensor		1 2 1 3	IG Power Supply Collision Output Front Collision Sensor Positive Passenger Seat Belt Buckle Connected with Passenger Detection Seat Cushion in Series	13 14 2 15	Driver Seat Belt Buckle / Front Collision Sensor Negative Power Supply Grounding
F03/F44	Seat Belt Buckle Switch (Driver)/Front Passenger Seat Belt Switch		4 5 1 6	/ Rear Center Seat Belt Buckle Power Supply Analog Grounding	16 17 2 18	/ Driver Seat Belt Pretensioner - Grounding Driver Seat Belt Pretensioner +

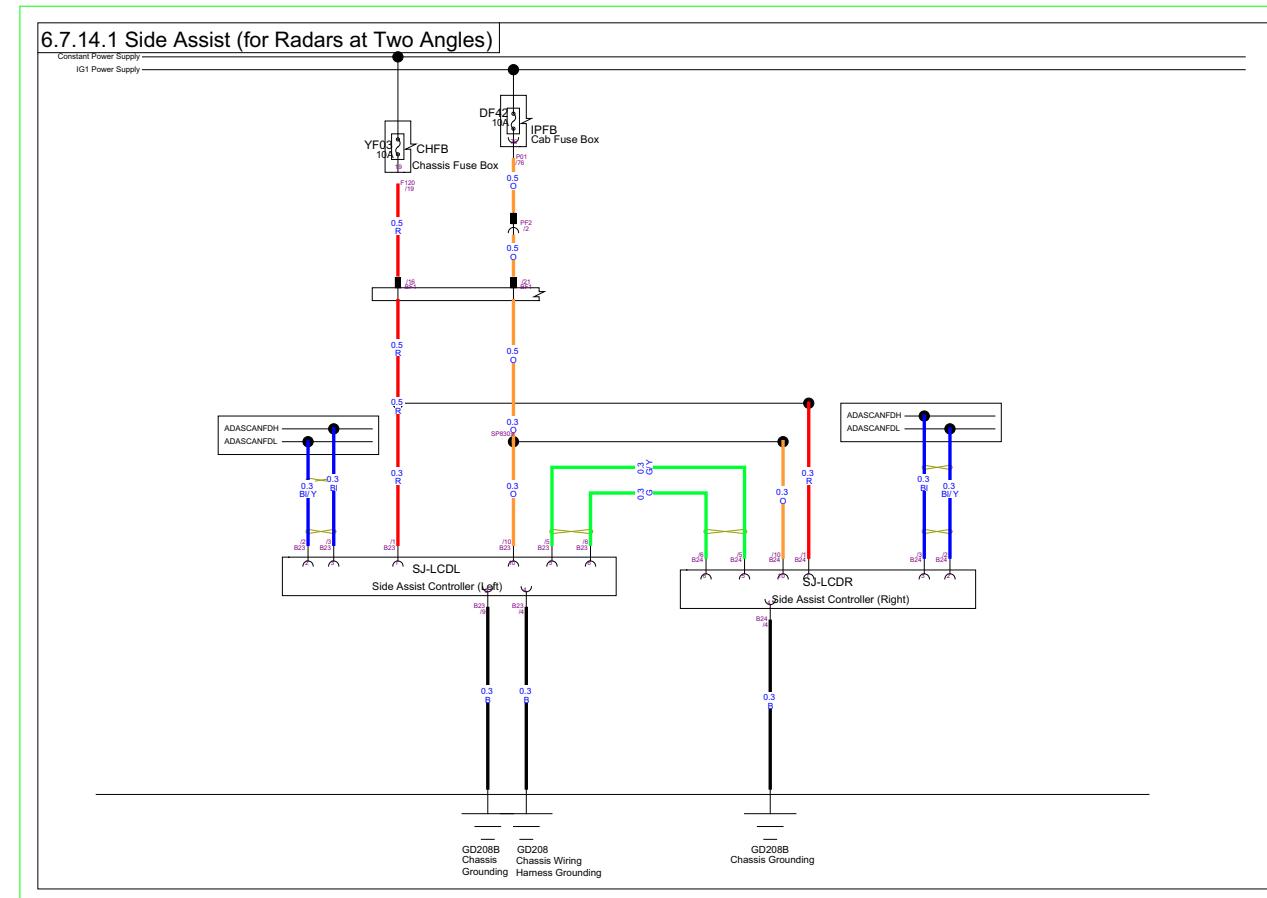
P62 F36/ F37/F67a	Airbag Control Unit A Driver/Front Passenger Seat Belt Retractor/Left Rear Seat Belt Retractor		7	Driver Side Front Collision Acceleration Sensor -	19	Passenger Seat Belt Pretensioner +
			8	Driver Side Front Collision Acceleration Sensor +	20	Passenger Seat Belt Pretensioner -
			1	Passenger Side Front Collision Acceleration Sensor +	21	Front Passenger Frontal Airbag -
			10	Passenger Side Front Collision Acceleration Sensor -	22	Front Passenger Frontal Airbag +
			11	PCAN_L	23	Driver Frontal Airbag +
			12	PCAN_H	24	Driver Frontal Airbag -

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
F38/F39	Driver Side Collision Sensor /Front Passenger Side Collision Sensor		1 1	/ Side Collision Negative	13 2	Rear Passenger Side Seat Belt Pretensioner - Side Collision Positive
			2	/	14	Rear Passenger Side Seat Belt Pretensioner +
F42/F43	Driver Seat Airbag/Front Passenger Seat Airbag		3	Driver Side Rear Seat Belt Buckle	15	Driver Side Rear Seat Belt Pretensioner +
			1 4	Seat Airbag Negative Rear Passenger Side Seat Belt Buckle	16	Seat Airbag Positive Driver Side Rear Seat Belt Pretensioner -
F02b	Airbag Control Unit B		5	/	17	Passenger Side Airbag -
			6	/	18	Passenger Side Airbag +
			7	/	19	Driver Side Airbag +
			8	/	20	Driver Side Airbag -
			9	Passenger Peripheral Acceleration Sensor +	21	Passenger Side Curtain Shield Airbag -
			10	Passenger Peripheral Acceleration Sensor -	22	Passenger Side Curtain Shield Airbag +
			11	Driver Peripheral Acceleration Sensor -	23	Driver Side Curtain Shield Airbag +
			12	Driver Peripheral Acceleration Sensor +	24	Driver Side Curtain Shield Airbag -

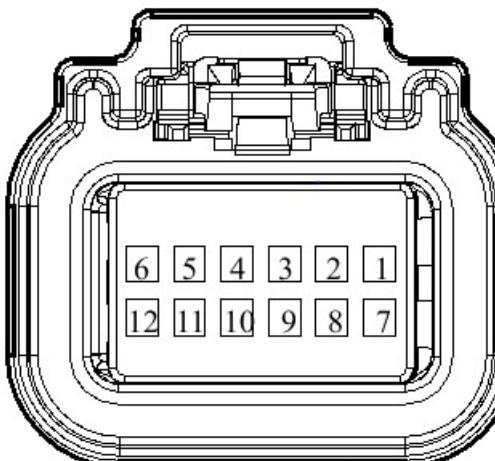
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
F45	Front Passenger Seat Sensor		1	Grounding	2	Power Supply
F45a/F45b/F45c	Left Rear Seat Sensor/Center Rear Seat Sensor/Right Rear Seat Sensor		1	Grounding	2	Power Supply
F54/F55	Left Curtain Shield Airbag/Right Curtain Shield Airbag		1	Negative	2	Positive
F85/F86/F87	Rear Seat Belt Buckle - Left/Center/Right		1	Power Supply	2	Grounding
P09a	Rotary Connector - Airbag		1	/	3	Airbag Circuit 2
			2	/	4	Airbag Circuit 1
P20	Front Passenger Airbag		1	Supply Ignition Current to Deploy PAB+	2	Supply Ignition Current to Deploy PAB-
P21c	BDCc		4	Collision Input		

6.7.14 Side Assist System

6.7.14.1 Side Assist System

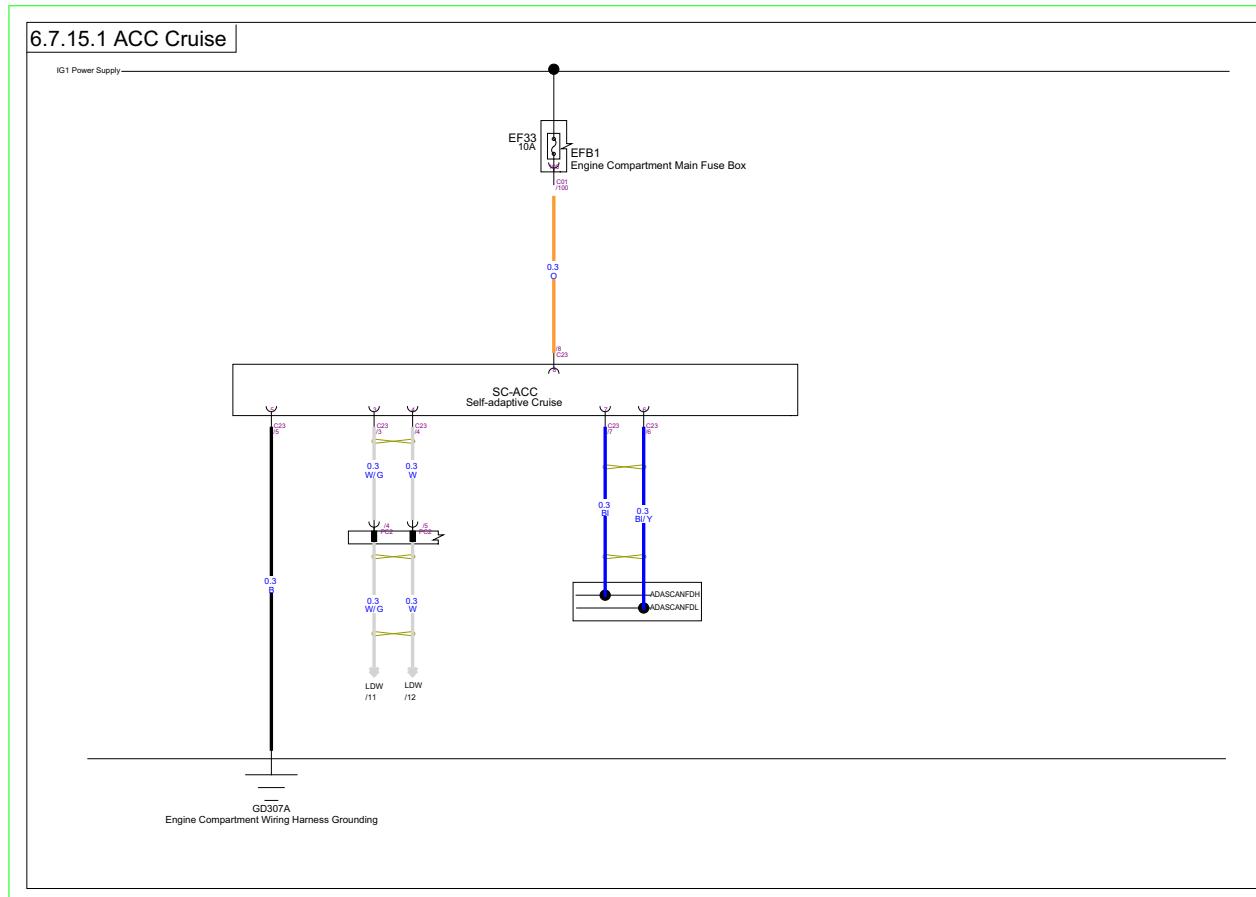


6.7.14.2 Connector View and Pin Definition

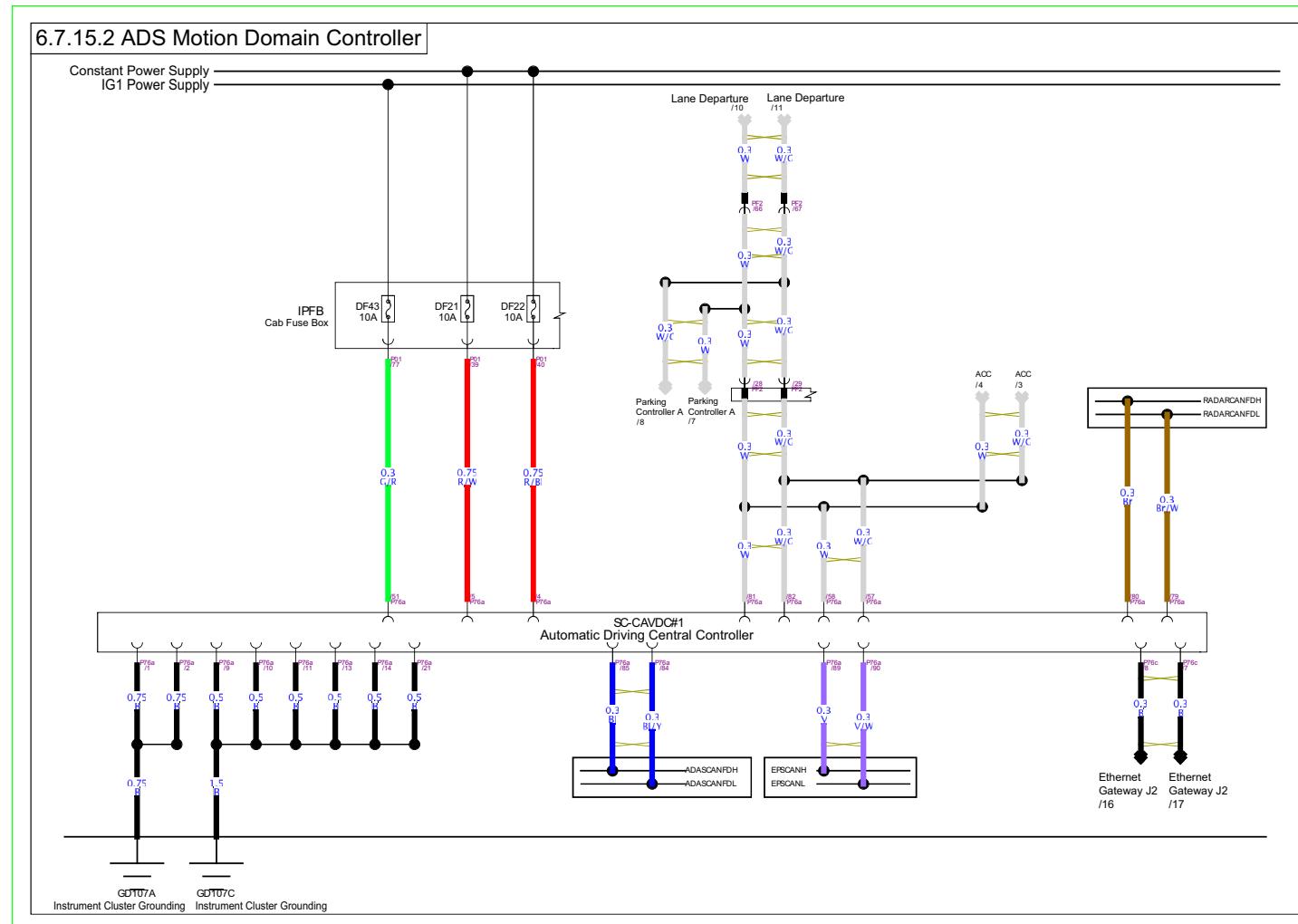
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
B23/B24	Side Assist Controller (Left/Right)		1	Constant Power Supply	5	Left/Right Radar Communication Private CAN-L

6.7.15 Cruise Control System

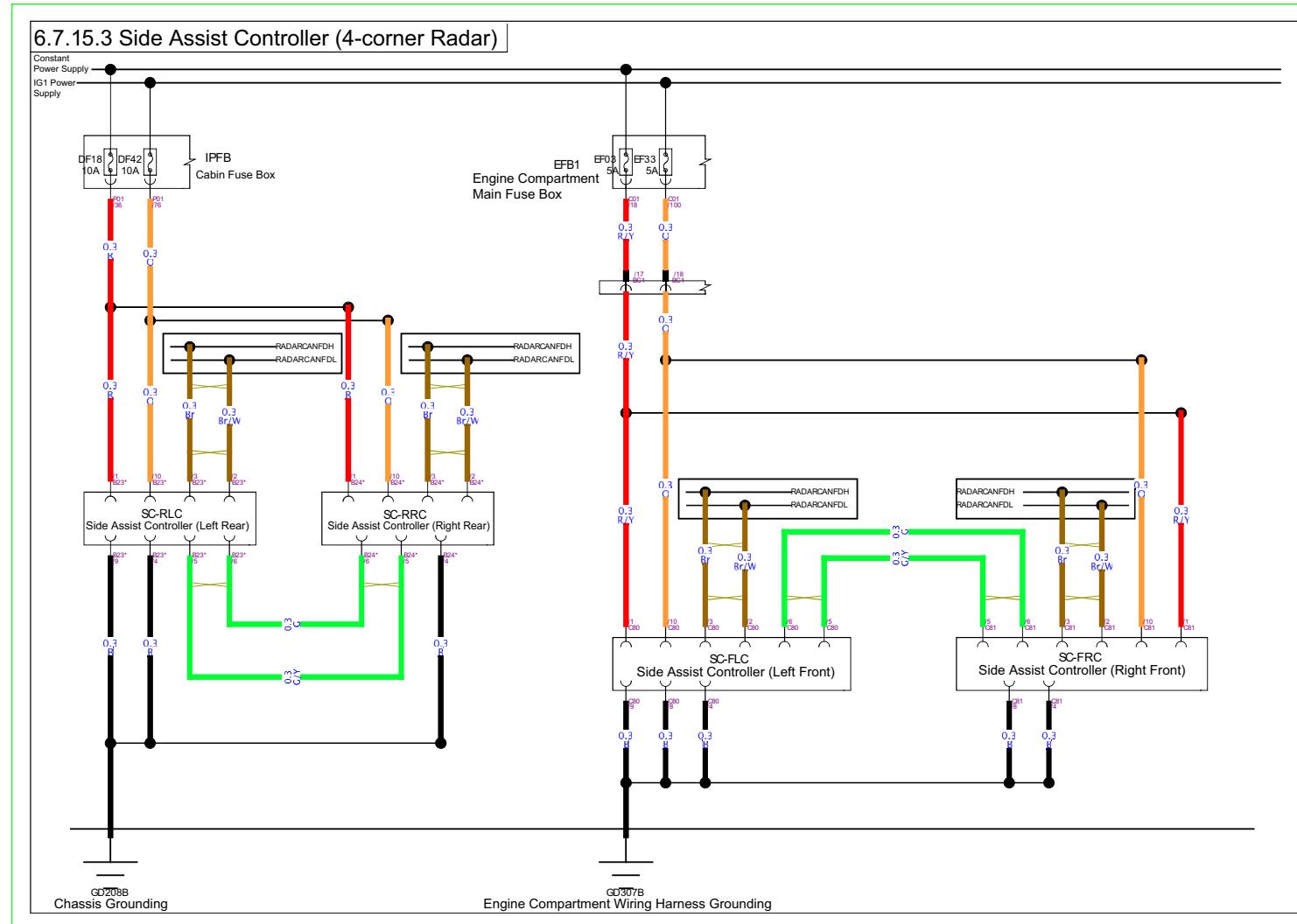
6.7.15.1 ACC Cruise Control



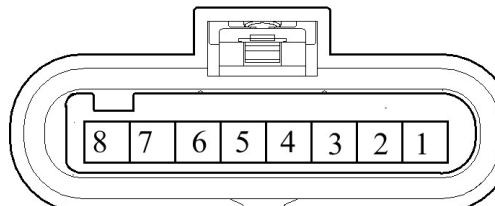
6.7.15.2 ADS Motion Domain Controller



6.7.15.3 Side Assist

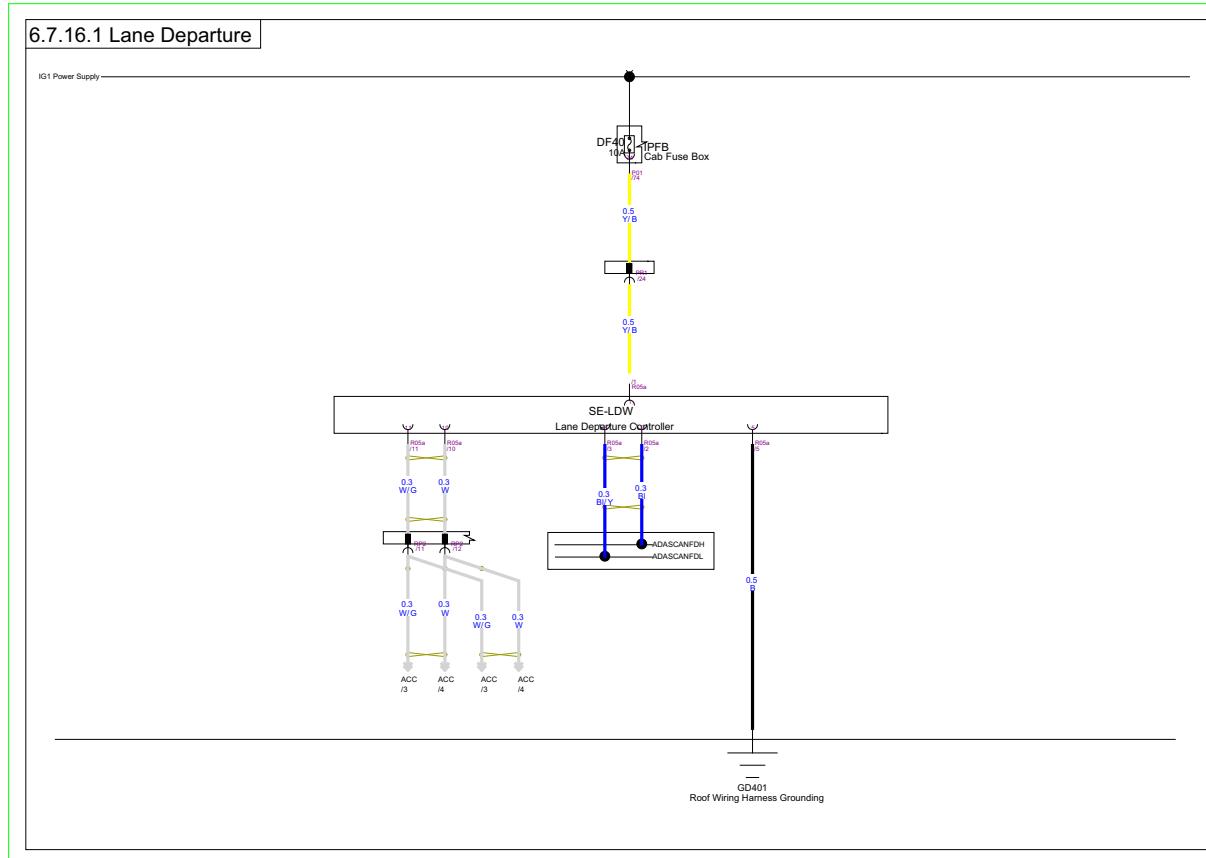


6.7.15.4 Connector View and Pin Definition

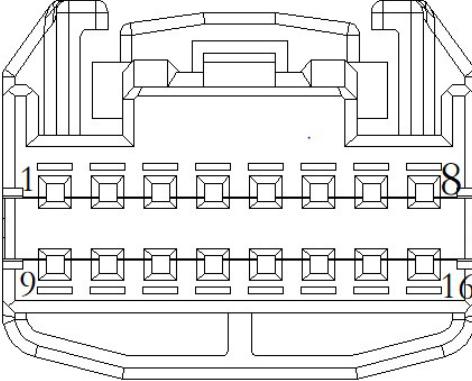
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
C23	Self-adaptive Cruise Controller		3	Private CAN Low	6	Vehicle CAN Low
			4	Private CAN High	7	Vehicle CAN High
			5	Sensor Grounding	8	Sensor Power Supply

6.7.16 Lane Departure System

6.7.16.1 Lane Departure System

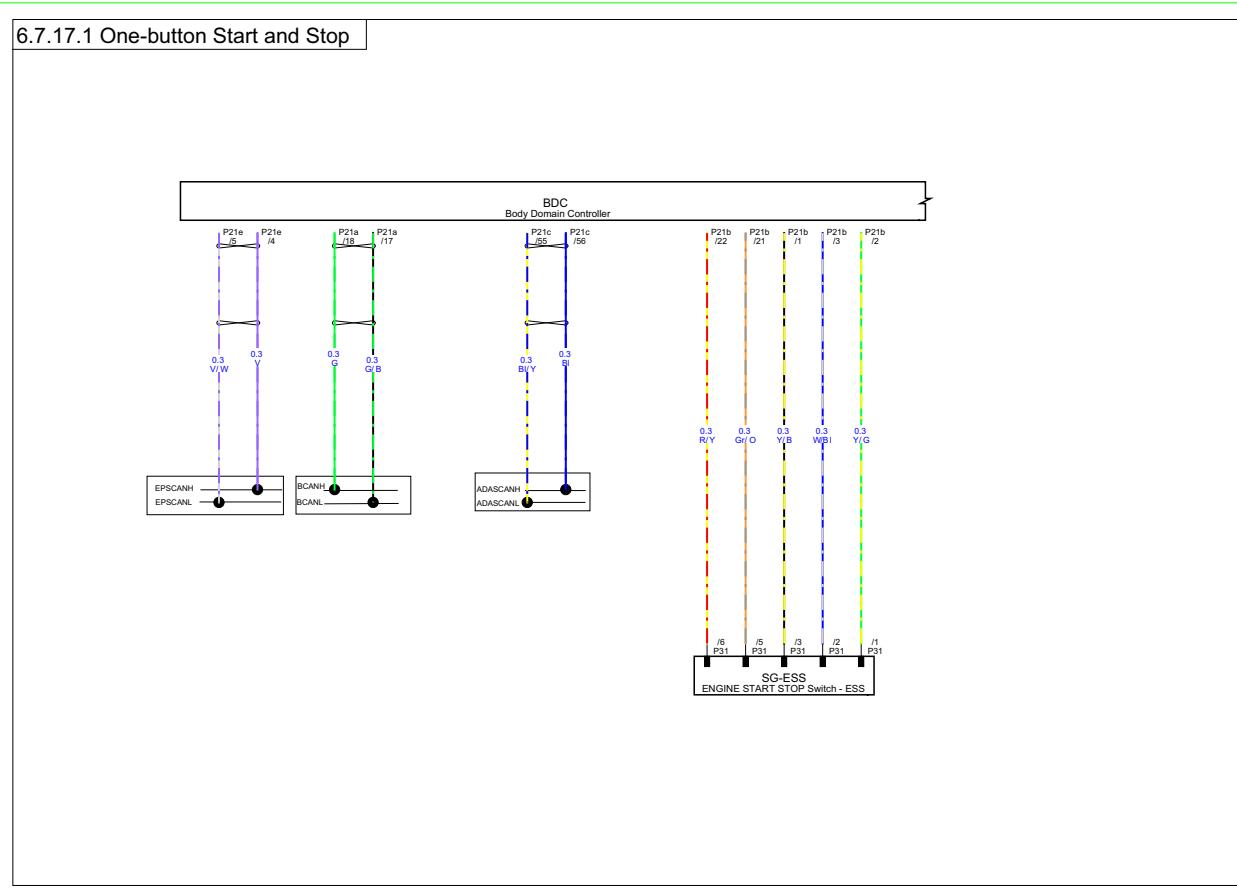


6.7.16.2 Connector View and Pin Definition

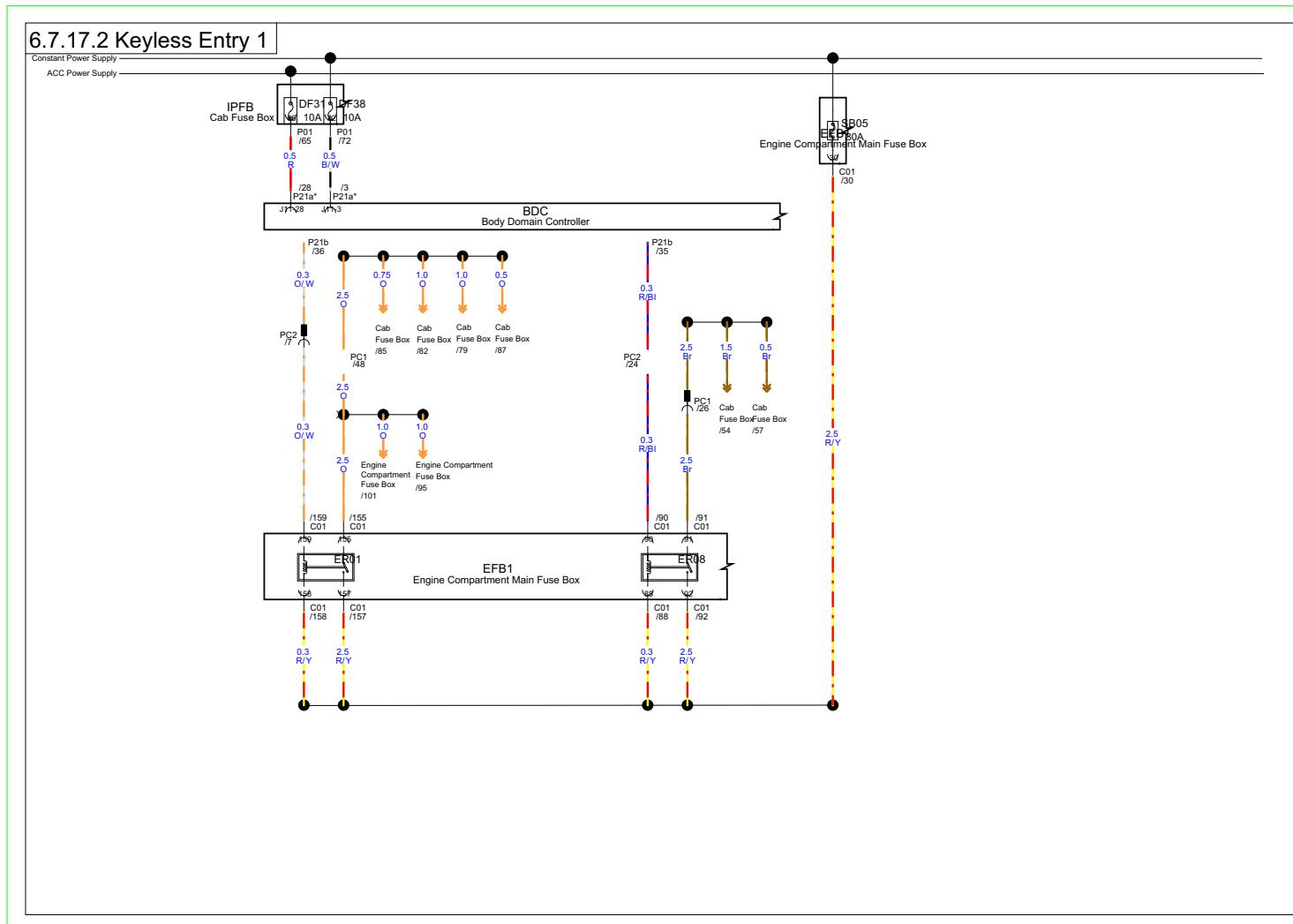
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
R05a	Lane Departure Controller		1 2 3	IG Power Supply CAN-H CAN-L	5 10 11	Grounding Private CANH Private CANL

6.7.17 Keyless Control System

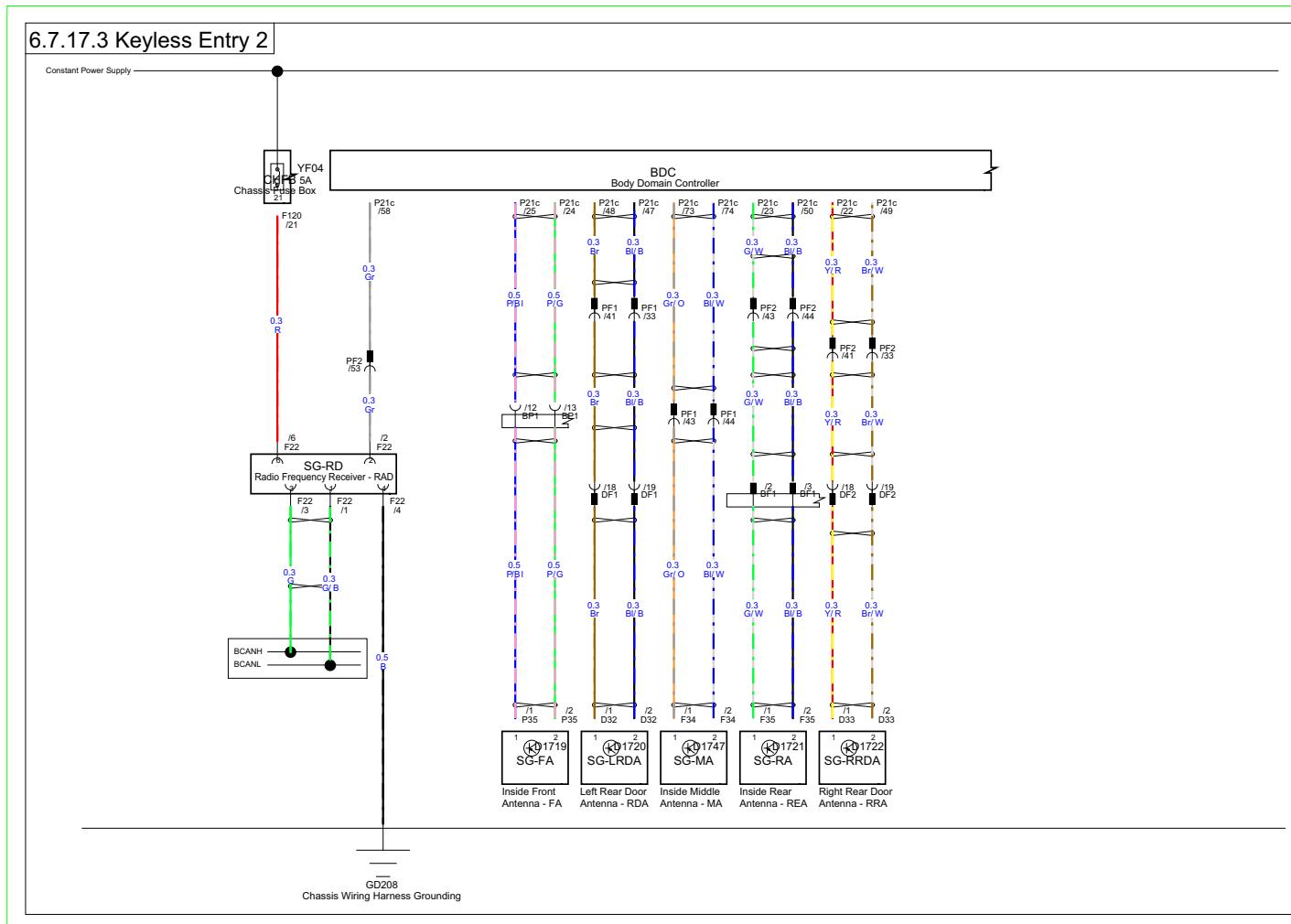
6.7.17.1 Keyless Start Control



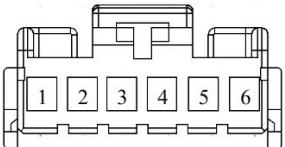
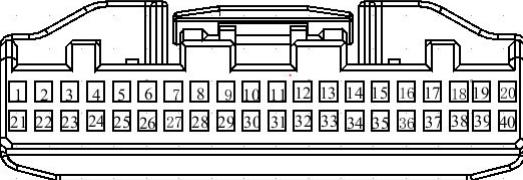
6.7.17.2 Keyless Entry Control

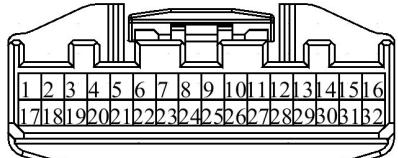
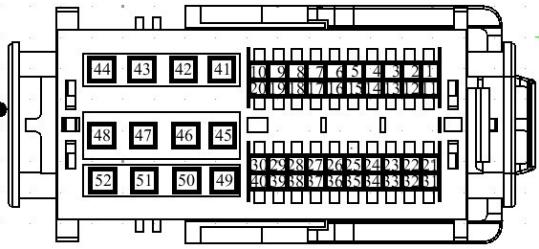
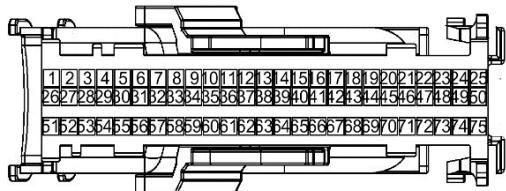


6.7.17.3 Keyless Entry Control



6.7.17.4 Connector View and Pin Definition

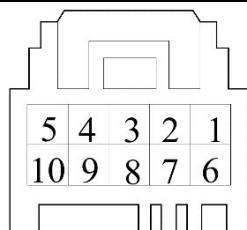
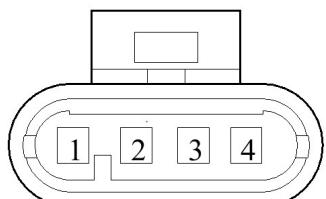
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
D32/D33/P35/F35/F34	Left Side Antenna/ Right Side Antenna/ Front Antenna/ Rear Antenna/ Middle Antenna		1	Antenna Positive	2	Antenna Negative
F22	Radio Frequency Receiver		1	BCAN-L	4	Grounding
			2	LIN Bus	6	Constant Power Supply
			3	BCAN-H	/	/
P21b	BDCb		1	Start and Stop Switch Grounding	21	ENGINE START STOP Switch Indicator (White)
			2	ENGINE START STOP Switch 1	22	ENGINE START STOP Switch Indicator (Green)
			3	ENGINE START STOP Switch 2	35	ACC Relay Coil
			4	ACC Relay Feedback	36	IG1 Relay Coil
			5	IG1 Relay Feedback		

P21a	BDCa		17	BodyCANL	18	BodyCANH
P21e	BDCe		4	EPSCANH	5	EPSCANL
P21c	BDCc		22	Right Antenna Positive	58	RFR LIN Communication Bus
			23	Rear Antenna Positive	60	Kick Sensor Signal
			24	Front Antenna Negative	73	Middle Antenna Positive
			25	Front Antenna Positive	74	Middle Antenna Negative
			47	Left Antenna Negative	/	/
			48	Left Antenna Positive	/	/
			49	Right Antenna Negative	/	/
			50	Rear Antenna Negative	/	/
			55	ADASCANFD-L	/	/
			56	ADASCANFD-H	/	/

6.7.17-6

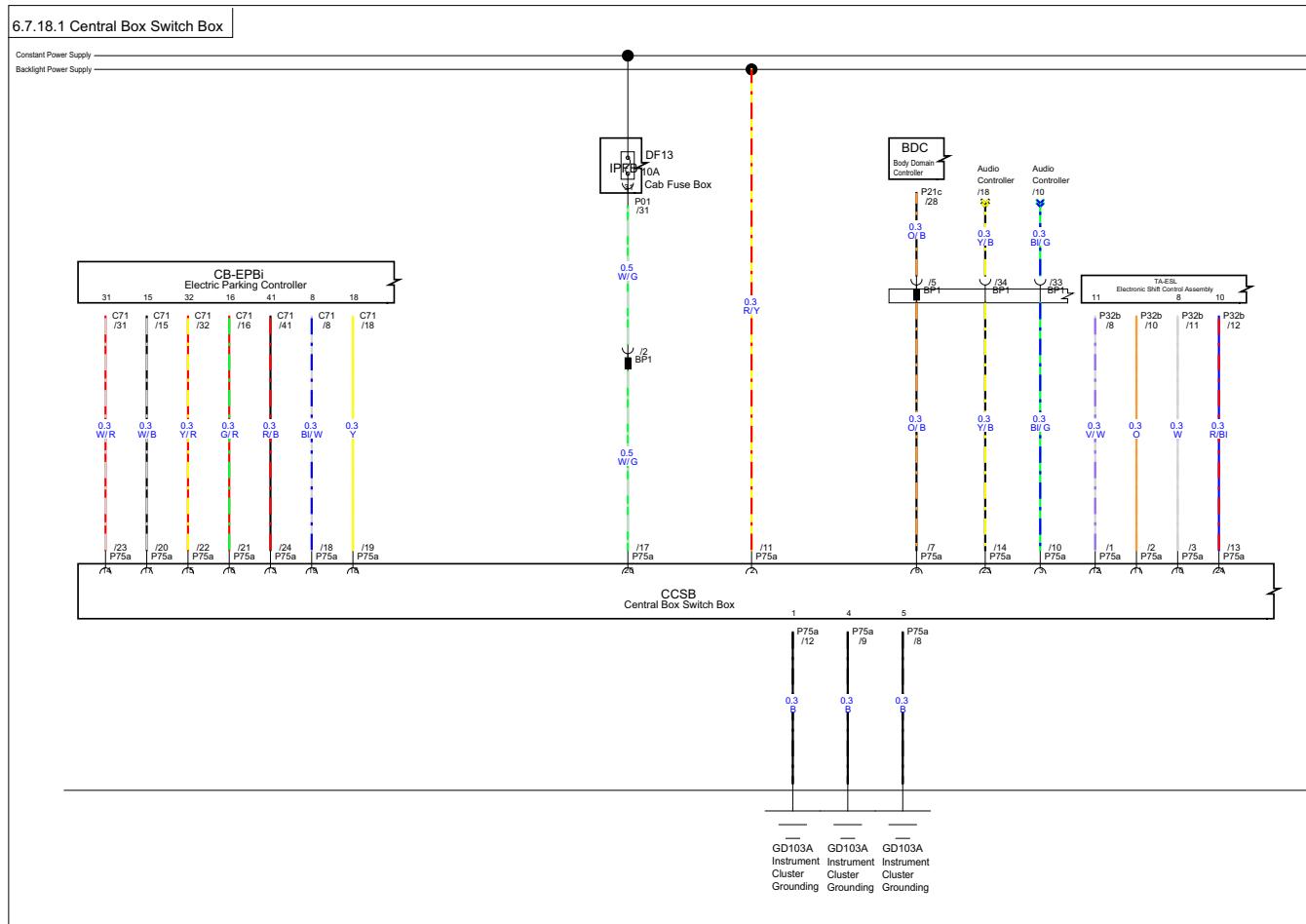
Keyless Control System

6.7.17-6

P31	ENGINE START STOP Switch		1	Button Signal 1 Output	4	/
			2	Button Signal 2 Output	5	White Indicator Positive
			3	Grounding	6	Blue Indicator Positive
B32	Kick Sensor		/	/	3	Grounding
			2	Kick Sensor Signal	4	Constant Power Supply

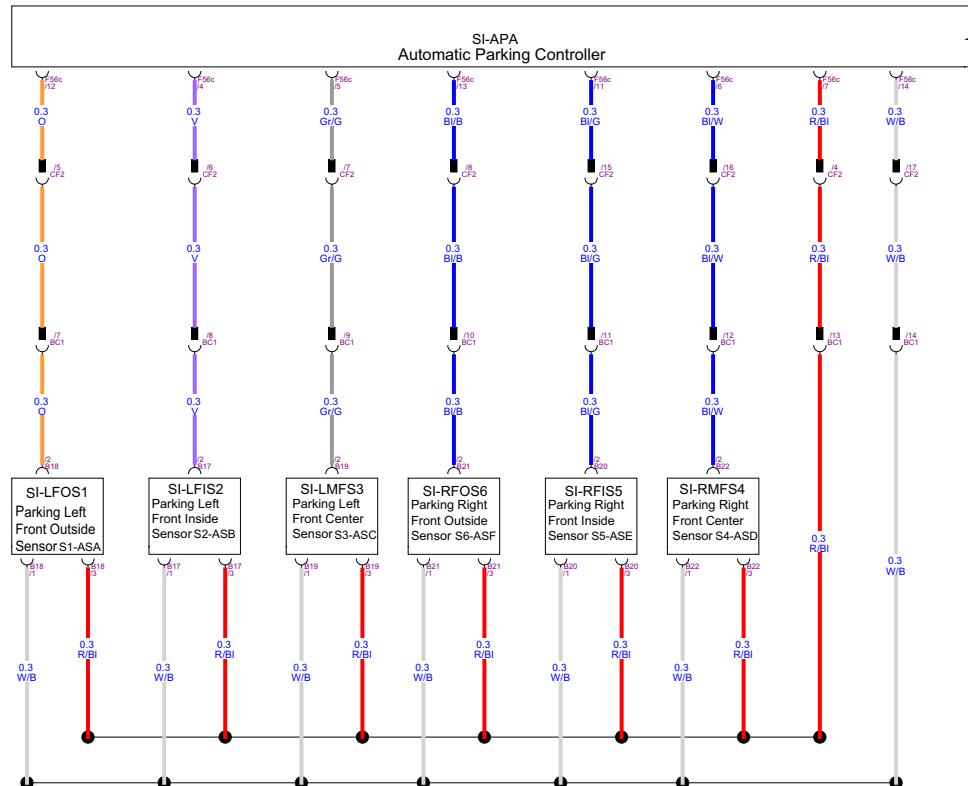
6.7.18 Parking Assist System

6.7.18.1 Parking System Switch Control



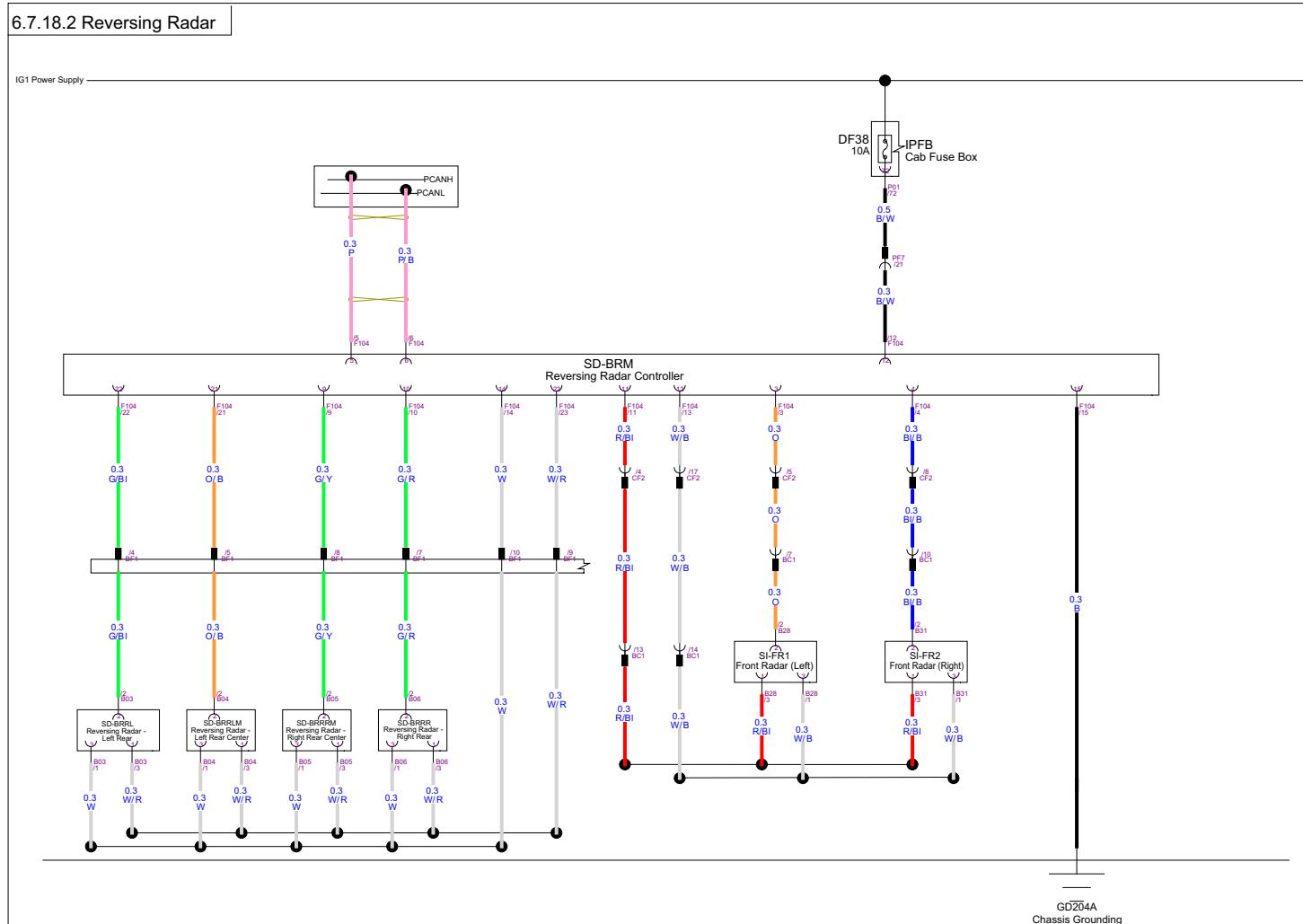
6.7.18.2 Parking System Front Sensor

6.7.19.3 APA SensorF

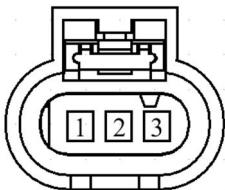
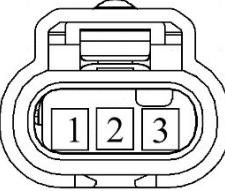
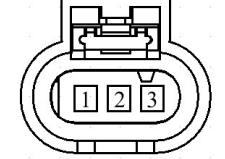


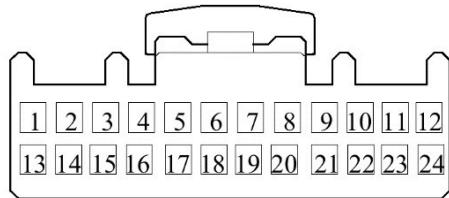
6.7.18.3 Reversing Radar Control System

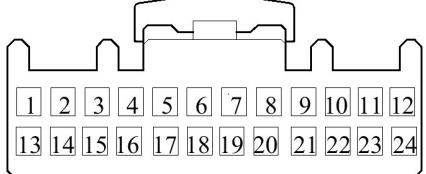
6.7.18.2 Reversing Radar

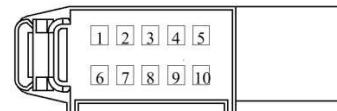


6.7.18.4 Connector View and Pin Definition

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
B03/B04/B05/ B06	Reversing Radar Sensor (Left Rear Corner/Left Rear Center/Right Rear Center/Right Rear Corner)		1	Sensor Grounding	3	Sensor Power Supply
			2	Provide Communication Data	/	/
B11/B12/B13/ /B14/B15/B16/ B17/B18/B 19/B20/B21/B 22	Parking Sensor (S10/S11/S12/S9 /S8/S7/S2/S1/S3/S5 /S6/S4)		1	Sensor Grounding	3	Sensor Power Supply
			2	Sensor Signal	/	/
B28/B31	Front Radar (Left/Right)		1	Sensor Grounding	3	Sensor Power Supply
			2	Provide Communication Data	/	/

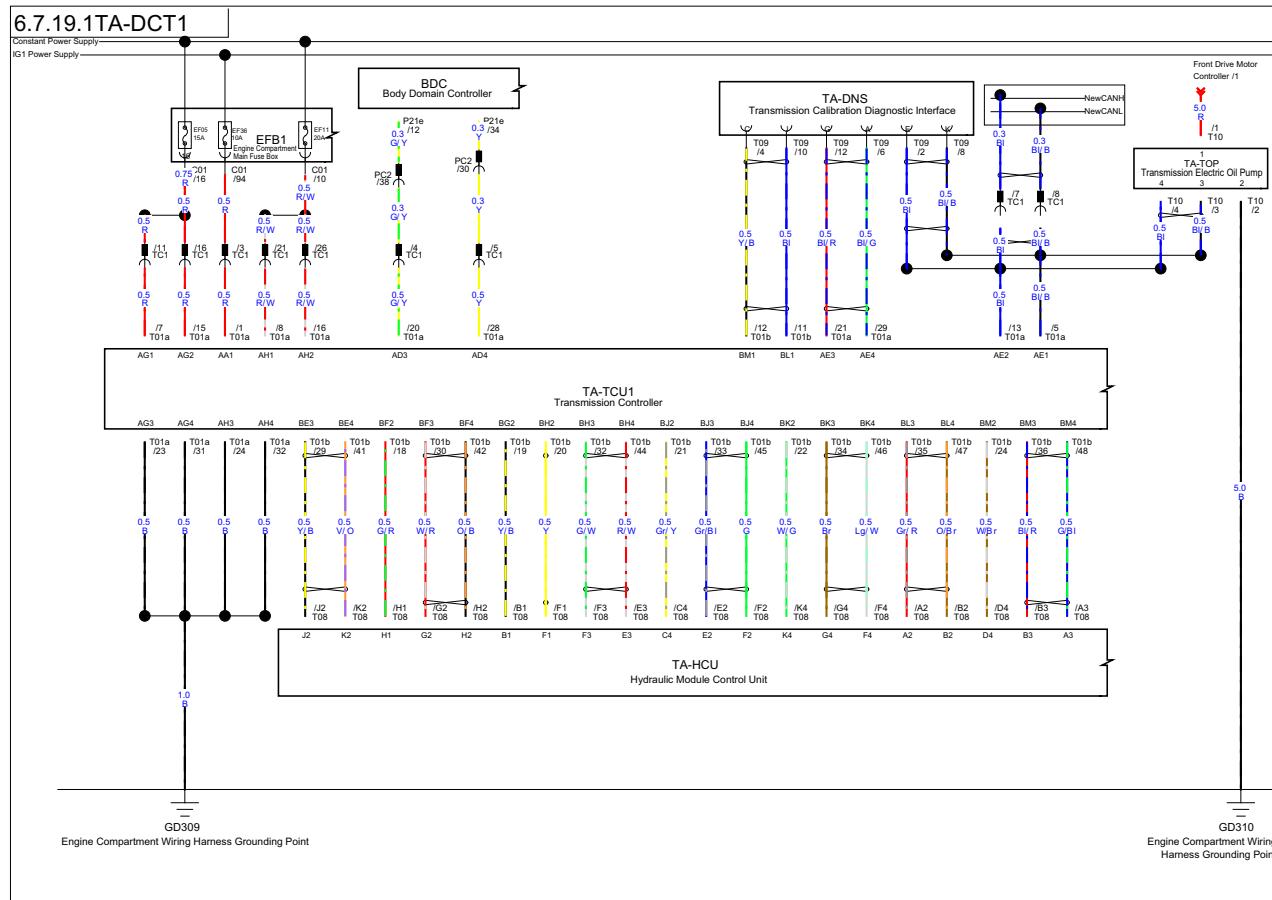
F104	Reversing Radar Controller		3	Outside Left Front Sensor	13	Front Sensor Grounding
			4	Outside Right Front Sensor	14	Rear Sensor Grounding
			5	ICAN-H	15	Grounding
			6	ICAN-L	/	/
			9	Center Right Rear Sensor	/	/
			10	Outside Right Rear Sensor	21	Center Left Rear Sensor
			11	Front Sensor Power Supply	22	Outside Left Rear Sensor
			12	IG Power Supply	23	Rear Sensor Power Supply

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P75a	Central Box Switch Box a		1	P Position Switch 2 Output Signal	12	Backlight Grounding
			2	P Position Switch 1 Output Signal	13	Shifter Grounding Signal
			3	P Position Indicator Input Signal	14	360 Switch Output Signal
			4	APA Switch Signal	17	Battery Power Supply
			5	APA Switch Power Supply	18	AUTOHOLD Indicator Input Signal
			6	APA Switch Indicator	19	EPB Indicator Input Signal
			7	Drive Mode Select Switch Output Signal	20	EPB Signal SW3
			8	Drive Mode Switch Grounding	21	EPB Signal SW6
			9	Switch Signal Grounding	22	EPB Signal SW4
			10	SAVE Switch Output Signal	23	EPB Signal SW1
			11	SAVE Switch Output Signal	24	AUTOHOLD Switch Output Signal

P75b	Central Box Switch Box b		1	Grounding	7	4WD Indicator Input Signal
			2	BACK Output Signal	8	AUTO Indicator Input Signal
			3	FORWARD Output Signal	9	2WD Indicator Input Signal
			6	Backlight Power Supply	10	Indicator Power Supply (+12 V)

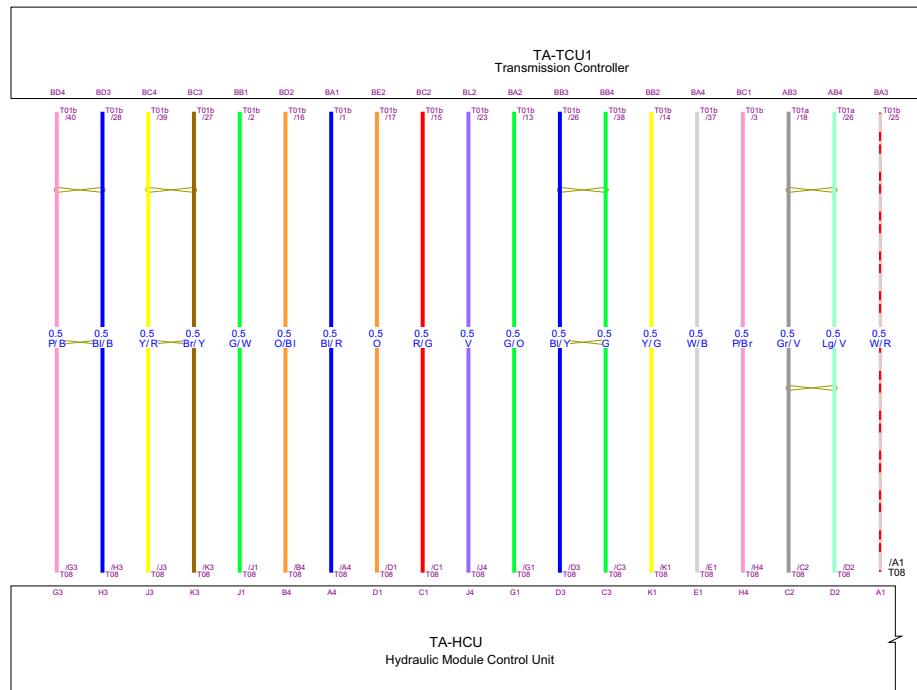
6.7.19 Automatic Transmission Control System

6.7.19.1 TA DCT - Transmission System 1

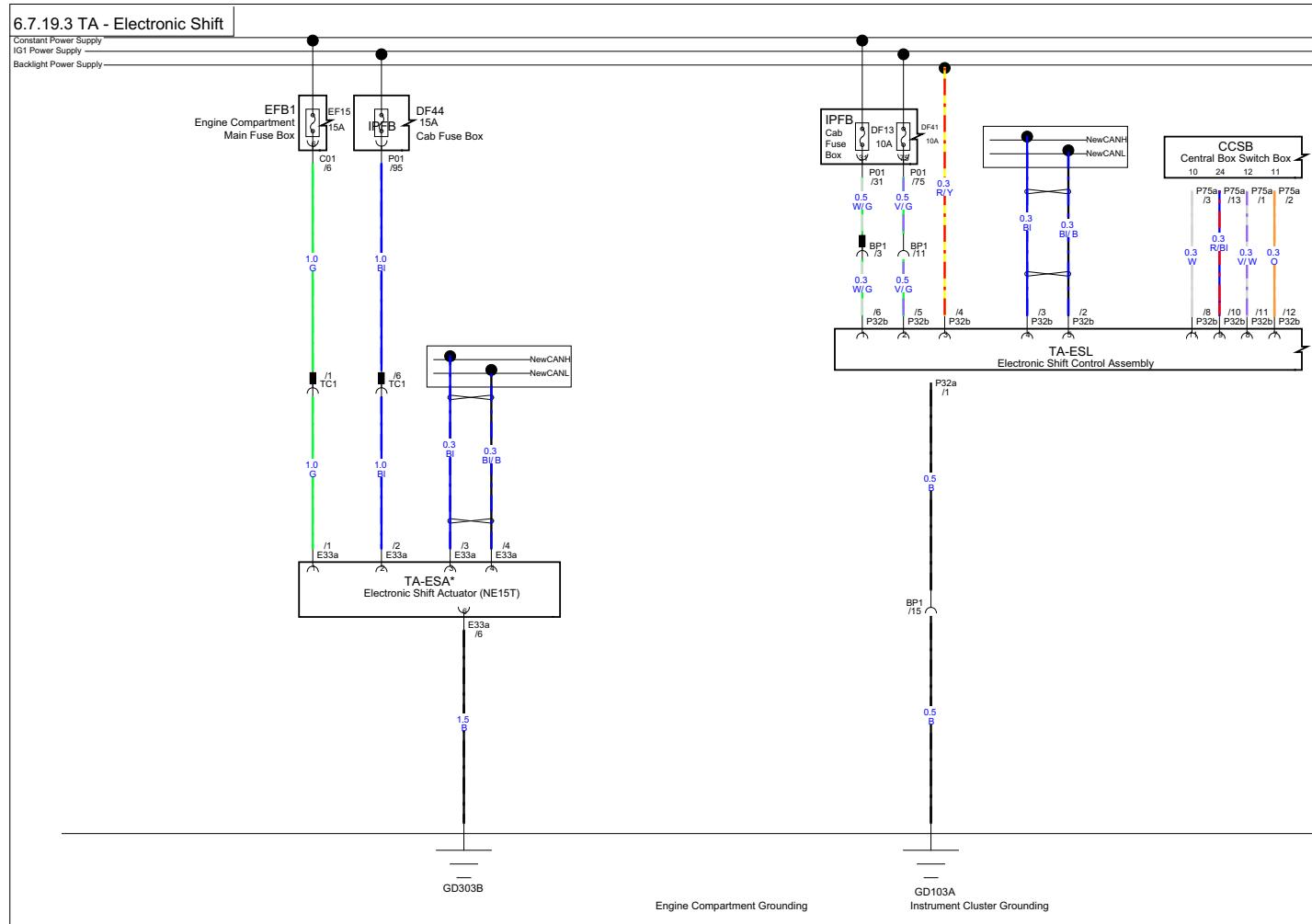


6.7.19.2 TA DCT - Transmission System 2

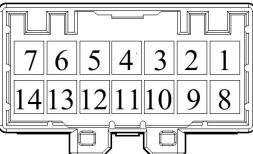
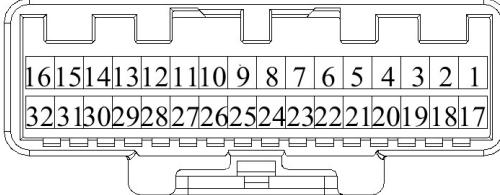
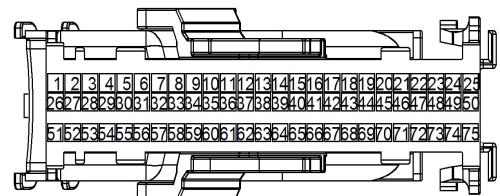
6.7.19.2TA-DCT2



6.7.19.3 TA - Electronic Shift



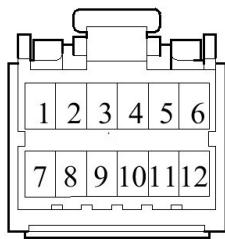
6.7.19.4 Connector View and Pin Definition

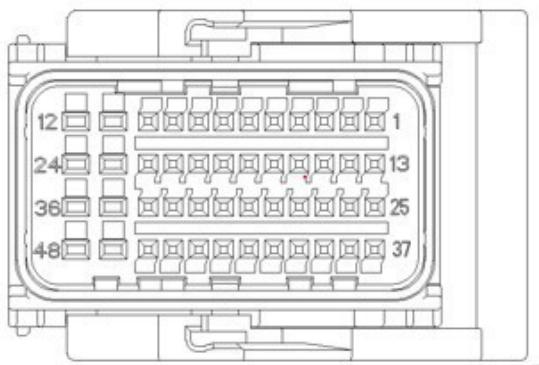
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
CE2a	Engine Compartment to Engine 2 (D20T)		3	TCU Power Supply	14	Shift Mechanism Motor +
			13	Shift Mechanism Motor -	/	/
CE1a	Engine Compartment to Engine 1 (D20T)		13	PCAN-L	29	PCAN-H
			24	P/N Position Switch	30	Shift Mechanism Grounding
			27	IG Power Supply	31	Shift Mechanism Position Feedback Signal
			28	Reverse Switch	32	Shift Mechanism 5 V Power Supply
P21a*	IBCM-J1 (Green)		18	Reverse Switch	20	P/N Position Switch

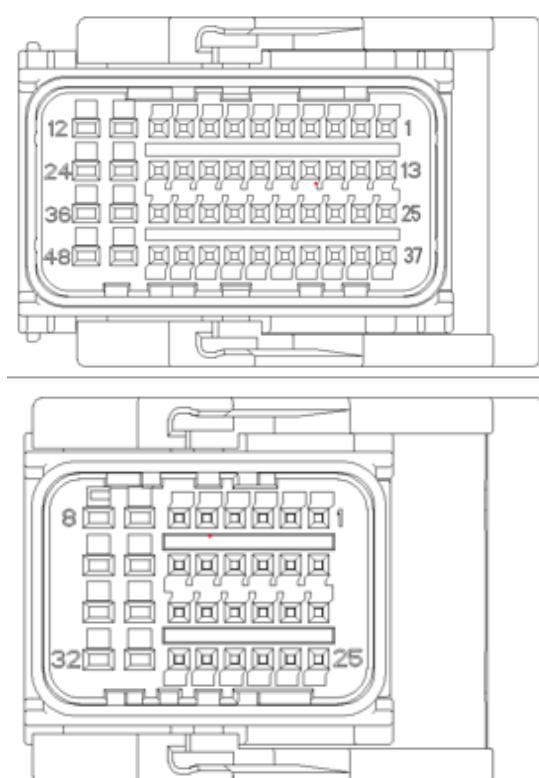
6.7.19-5

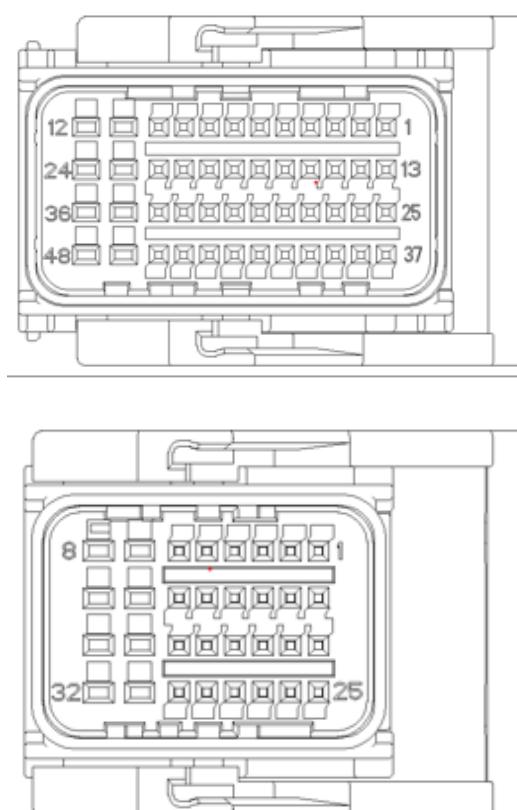
Automatic Transmission Control System

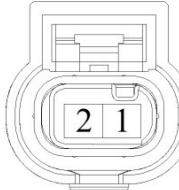
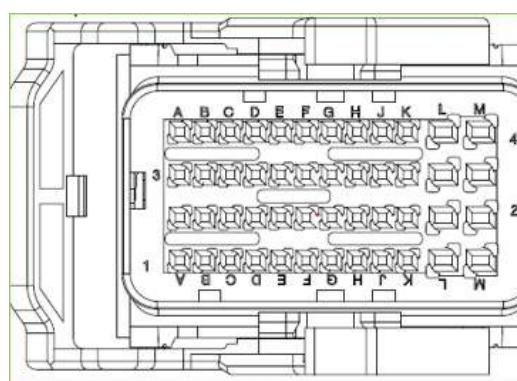
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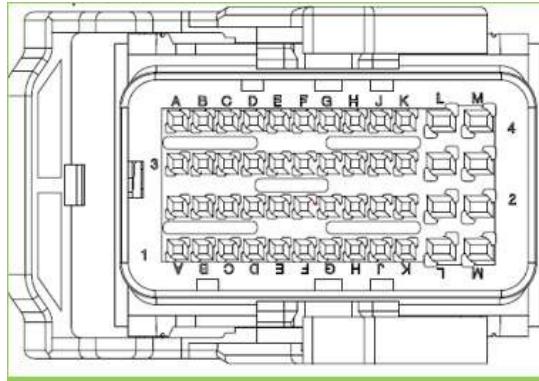
P32b	Electronic Shift Control Assembly		2	CAN Communication	8	PWM Signal Output to Central Box Switch to Illuminate P Character
			3	CAN Communication	9	Grounding
			4	Backlight Power Supply	10	Signal Grounding Output to Central Box Switch
			5	IG Power Supply	11	Receiving Central Box Switch P Signal 2
			6	Constant Power Supply	12	Receiving Central Box Switch P Signal 1

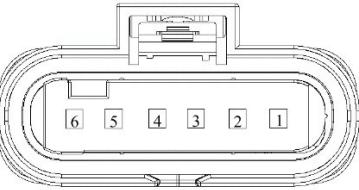
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
T01a	TCU (A)		1 5 7 8 13 15 16 18	IG Wake Up Signal Vehicle CAN_L Battery Constant Power Supply Battery Constant Power Supply Vehicle CAN_H Battery Constant Power Supply Battery Constant Power Supply 2-6 Gear Fork Control Solenoid Valve -	20 21 23 24 26 28 29 31	P/N Signal Output Calibration CAN_L Grounding Grounding 2-6 Gear Fork Control Solenoid Valve + Backup Lamp Signal Output Calibration CAN_H Grounding Grounding

T01b	TCU(B)		1	Input Shaft 2 Speed Sensor Signal Input	27	PV5 Main Pressure Control Solenoid Valve -
			2	Input Shaft 1 Speed Sensor Signal Input	28	K2 Clutch Control Solenoid Valve -
			3	HCU Oil Temperature Sensor Signal Input	29	Lubrication Control Solenoid Valve -
			4	P2 Oil Temperature Sensor Signal Input	30	Main Pressure Control Solenoid Valve ACV-
			11	Private CAN_L	32	K0 Clutch Control Solenoid Valve -
			12	Private CAN_L	33	3-5 Gear Fork Control Solenoid Valve -
			13	5 V Power Supply 1	34	N-1 Gear Fork Control Solenoid Valve -
			14	8 V Power Supply 1	35	PV4 Main Pressure Control Solenoid Valve -
			15	5 V Power Supply 2	36	K1 Clutch Control Solenoid Valve -
			16	8 V Power Supply 2	37	5 V Power Supply 1_Grounding

T01b	TCU(B)		17	Main Pressure Sensor Signal Input	38	R-4 Gear Fork Control Solenoid Valve +
			18	K2 Clutch Pressure Sensor Signal Input	39	PV5 Main Pressure Control Solenoid Valve +
			19	K1 Clutch Pressure Sensor Signal Input	40	K2 Clutch Control Solenoid Valve +
			20	K0 Pressure Sensor Signal Input	41	Lubrication Control Solenoid Valve +
			21	2-6 Gear Fork Position Sensor Position Signal Input	42	Main Pressure Control Solenoid Valve ACV+
			22	3-5 Gear Fork Position Sensor Position Signal Input	44	K0 Clutch Control Solenoid Valve +
			23	R-4 Gear Fork Position Sensor Position Signal Input	45	3-5 Gear Fork Control Solenoid Valve +
			24	N-1 Gear Fork Position Sensor Position Signal Input	46	N-1 Gear Fork Control Solenoid Valve +
			25	5 V Power Supply 2_Grounding	47	PV4 Main Pressure Control Solenoid Valve +
			26	R-4 Gear Fork Control Solenoid Valve -	48	K1 Clutch Control Solenoid Valve +

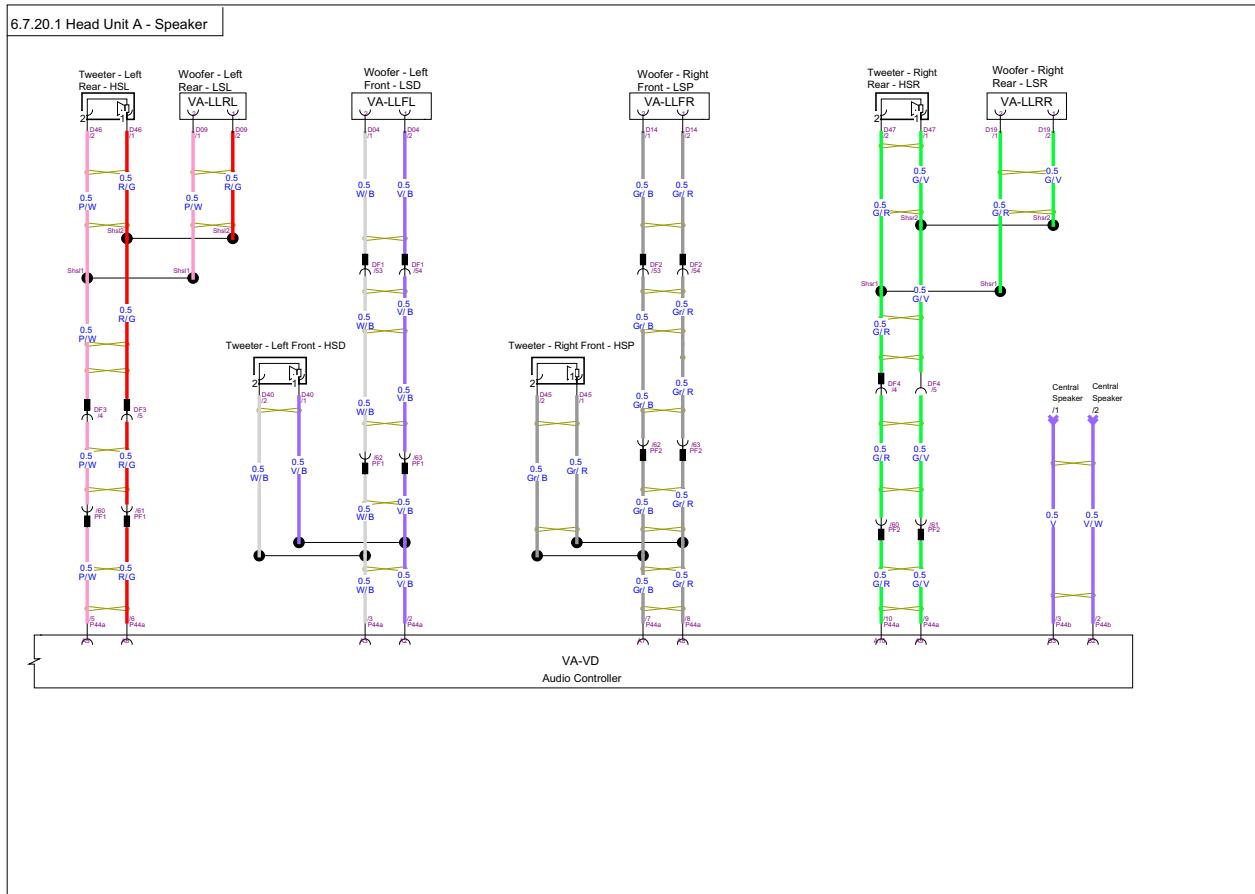
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
T04/T05/T06	Input Shaft 1 Speed Sensor/Output Shaft Speed Sensor/Input Shaft 2 Speed Sensor		1	Sensor Grounding	2	Sensor Power Supply
T08	HCU		A1	5 V Power Supply 2_Grounding	F2	3-5 Gear Fork Control Solenoid Valve +
			A2	PV4 Main Pressure Control Solenoid Valve -	F3	K0 Clutch Control Solenoid Valve -
			A3	K1 Clutch Control Solenoid Valve +	F4	N-1 Gear Fork Control Solenoid Valve +
			A4	Input Shaft 2 Speed Sensor Signal Input	G1	5 V Power Supply 1
			B1	K1 Clutch Pressure Sensor Signal	G2	Main Pressure Control Solenoid Valve ACV -
			B2	PV4 Main Pressure Control Solenoid Valve +	G3	K2 Clutch Control Solenoid Valve +
			B3	K1 Clutch Control Solenoid Valve -	G4	N-1 Gear Fork Control Solenoid Valve -
			B4	8 V Power Supply 2	H1	K2 Clutch Pressure Sensor Signal Input
			C1	5 V Power Supply 2	H2	Main Pressure Control Solenoid Valve ACV +

T08	HCU		C2	2-6 Gear Fork Control Solenoid Valve -	H3	K2 Clutch Control Solenoid Valve -
			C3	R-4 Gear Fork Control Solenoid Valve +	H4	HCU Oil Temperature Sensor Signal Input
			C4	2-6 Gear Fork Position Sensor Position Signal Input	J1	Input Shaft 1 Speed Sensor Signal Input
			D1	Main Pressure Sensor Signal Input	J2	Lubrication Control Solenoid Valve -
			D2	2-6 Gear Fork Control Solenoid Valve +	J3	PV5 Main Pressure Control Solenoid Valve +
			D3	R-4 Gear Fork Control Solenoid Valve -	J4	R-4 Gear Fork Position Sensor Position Signal Input
			D4	N-1 Gear Fork Position Sensor Position Signal Input	K1	8 V Power Supply 1
			E1	5 V Power Supply 1_Grounding	K2	Lubrication Control Solenoid Valve +
			E2	3-5 Gear Fork Control Solenoid Valve -	K3	PV5 Main Pressure Control Solenoid Valve -
			E3	K0 Clutch Control Solenoid Valve +	K4	3-5 Gear Fork Position Sensor Position Signal Input
			F1	K0 Pressure Sensor Signal Input		

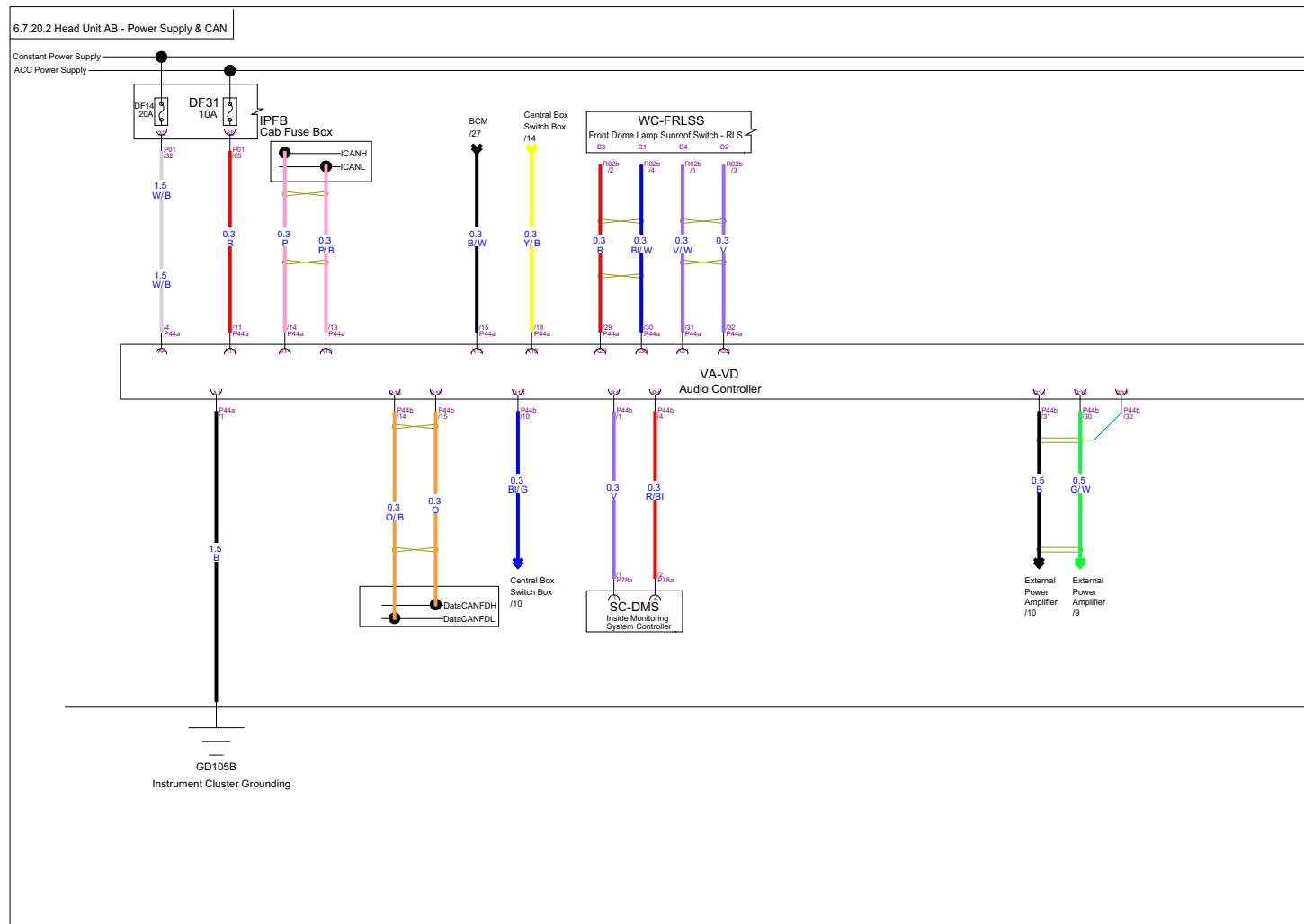
E33a	Electronic Shift Actuator		1	Constant Power Supply	4	NEWCANL
			2	IG Power Supply	5	Grounding
			3	NEWCANH	/	/

6.7.20 Multimedia Control System

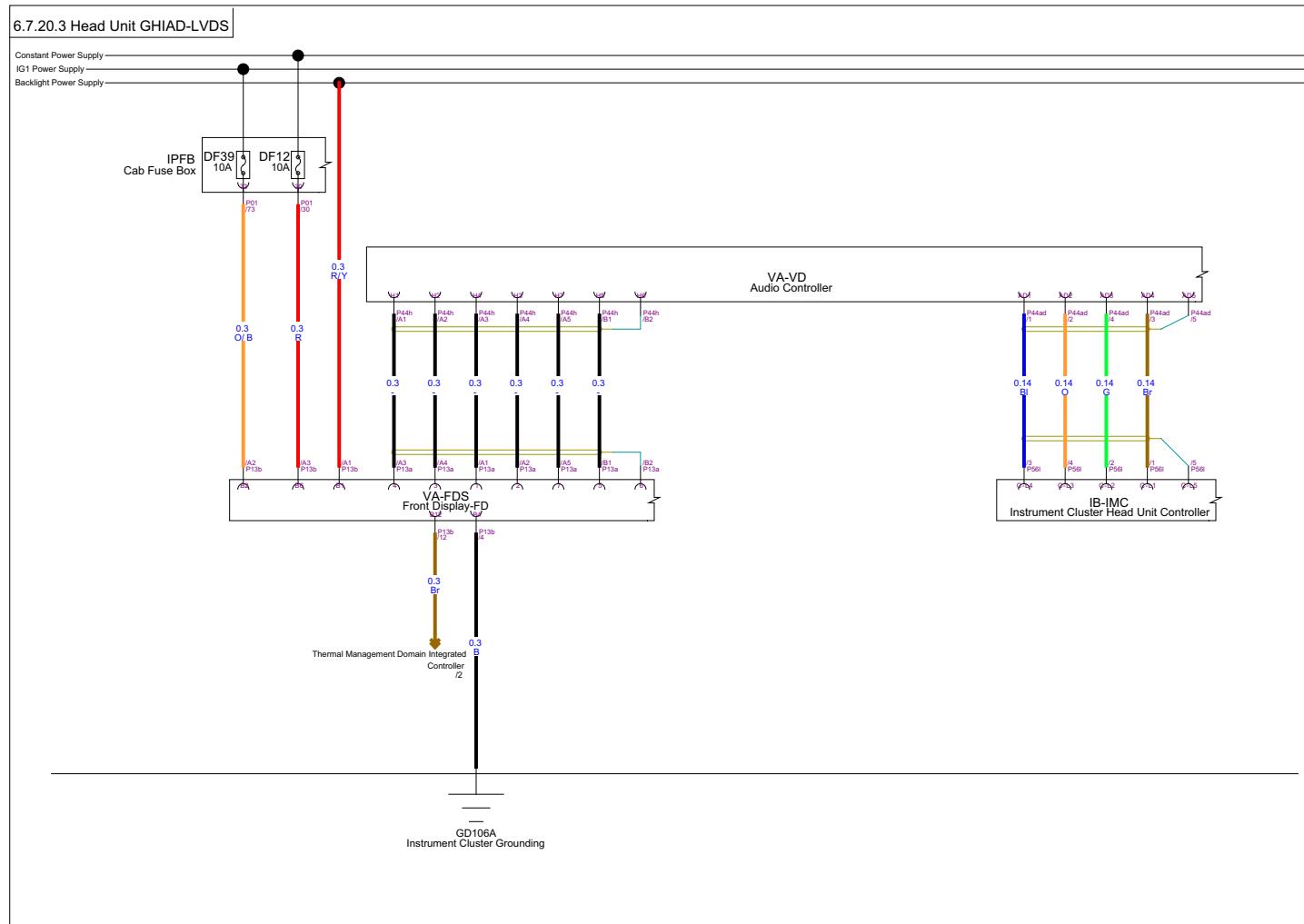
6.7.20.1 Speaker



6.7.20.2 Power Supply CAN Network

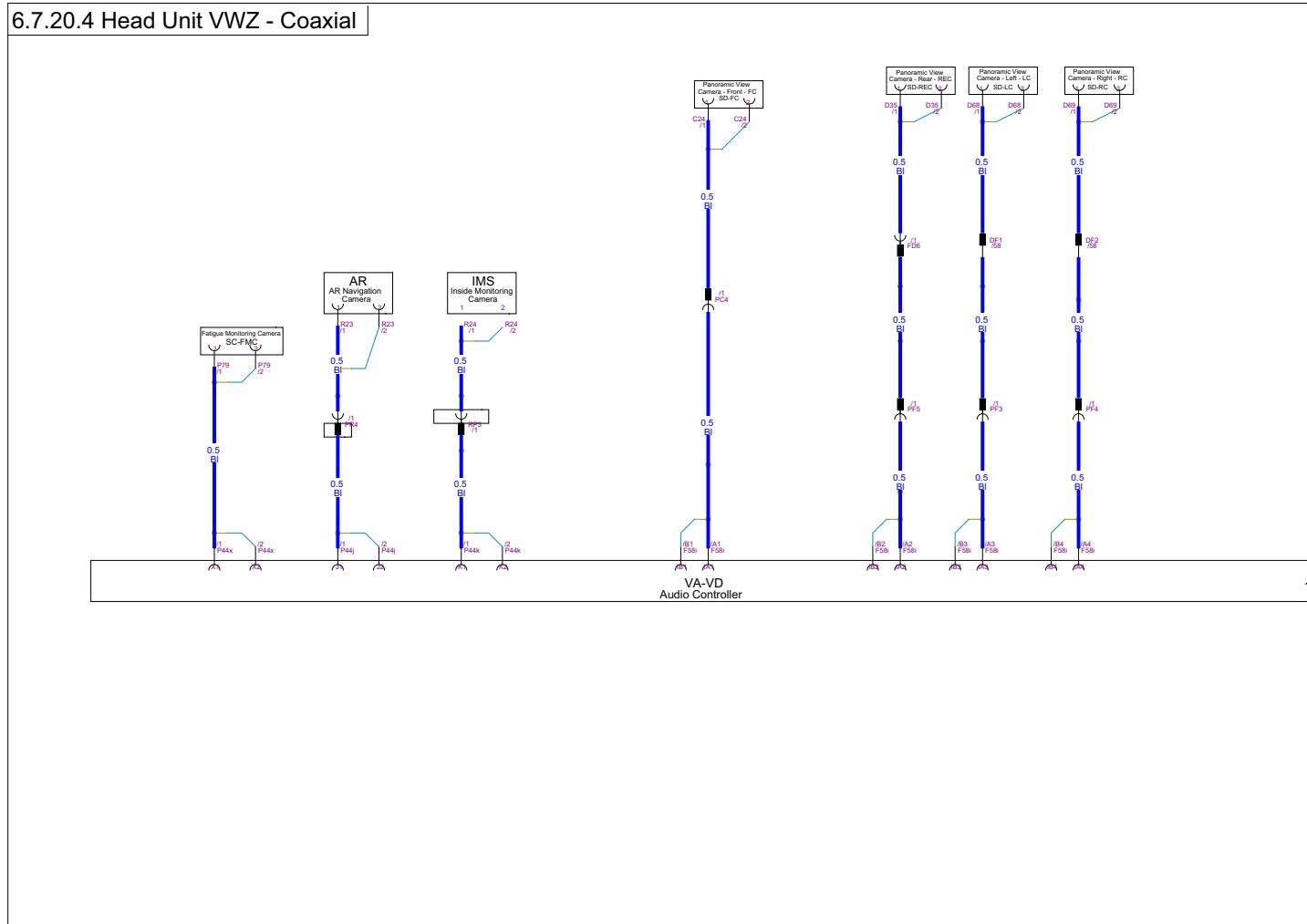


6.7.20.3 LVDS Line



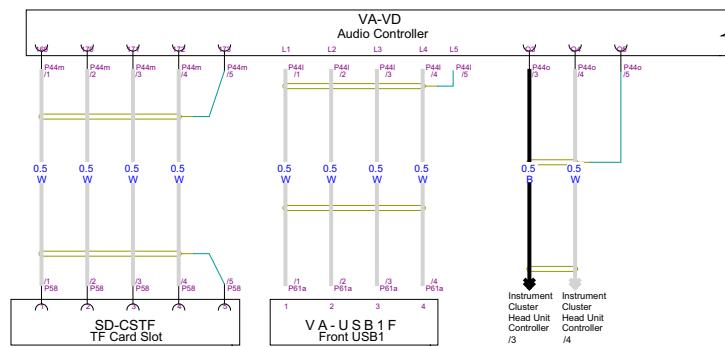
6.7.20.4 Coaxial Ethernet Cable

6.7.20.4 Head Unit VWZ - Coaxial

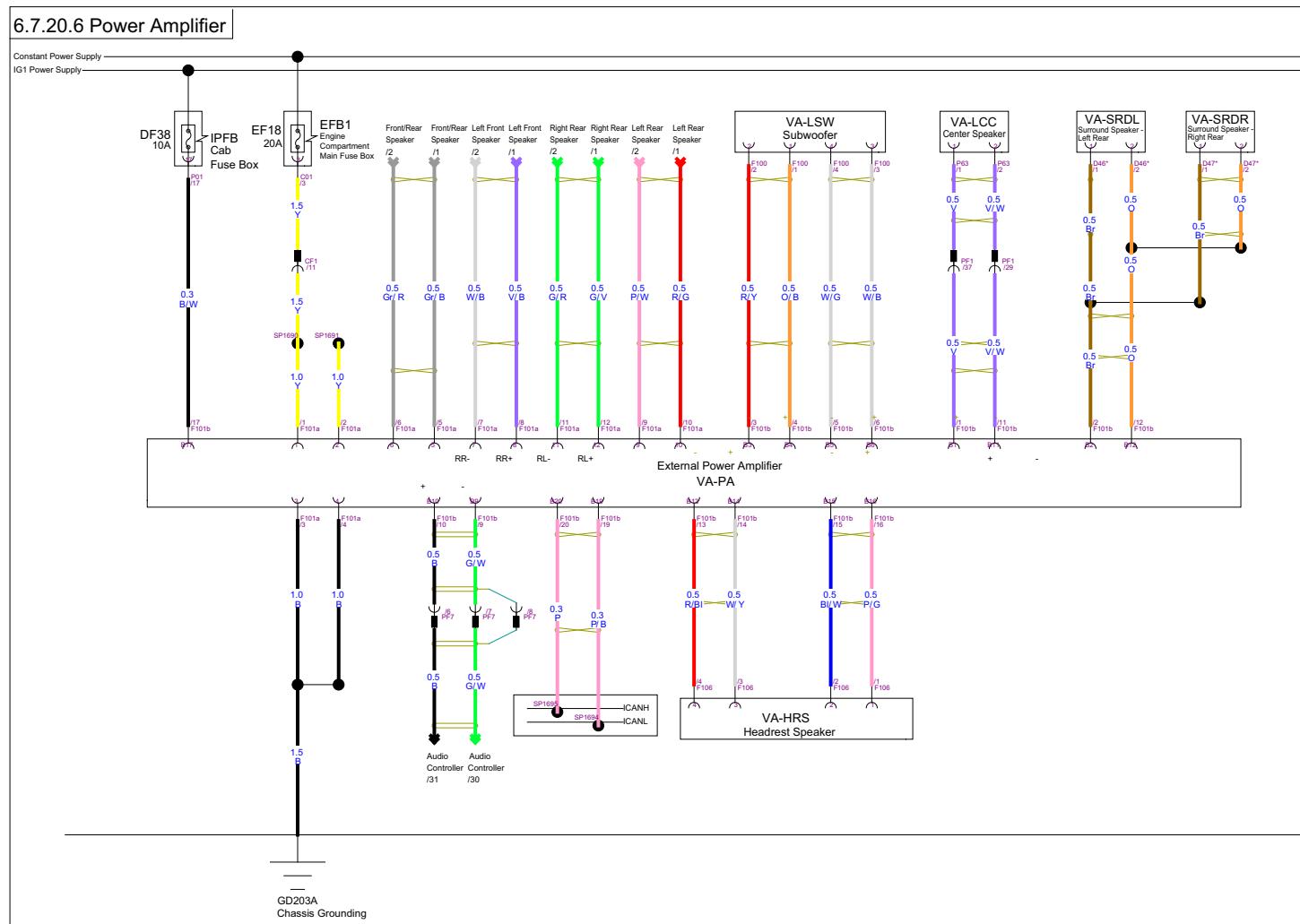


6.7.20.5 USB Cable

6.7.20.5 Head Unit LMNO - USB



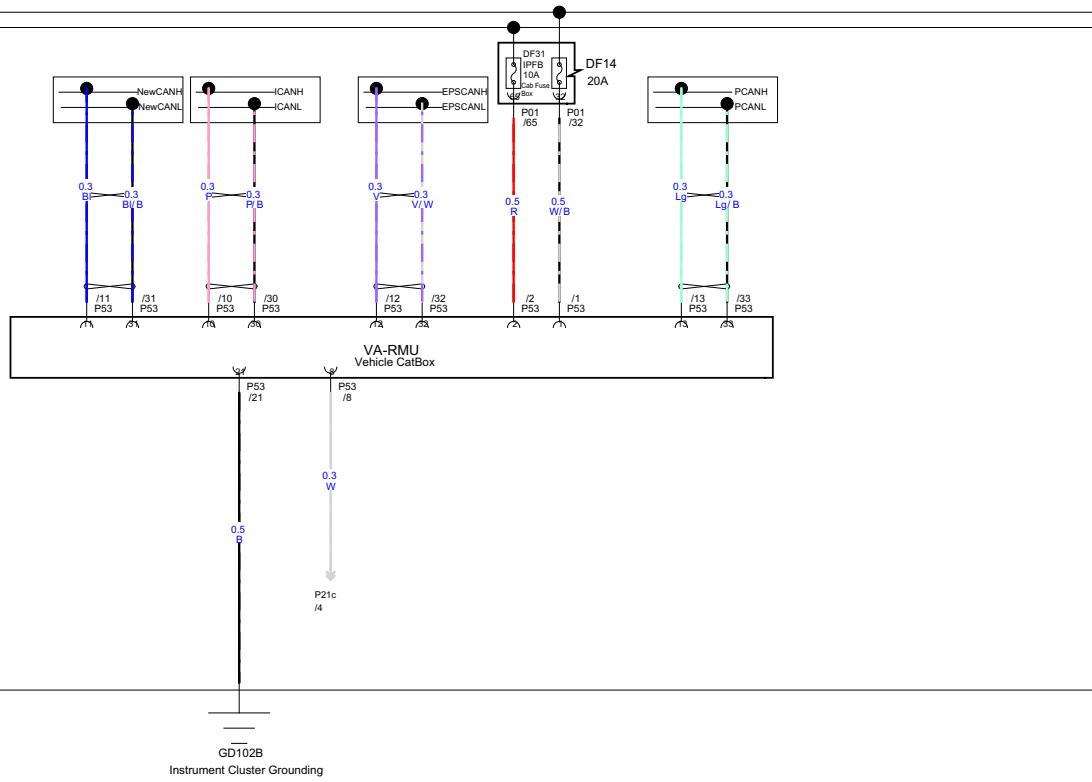
6.7.20.6 Power Amplifier



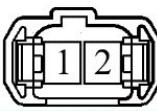
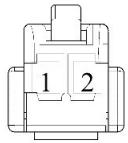
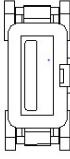
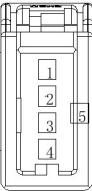
6.7.20.7 RMU

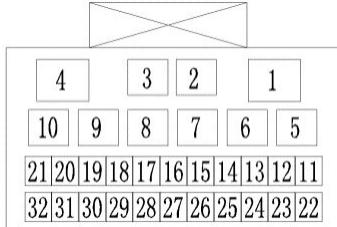
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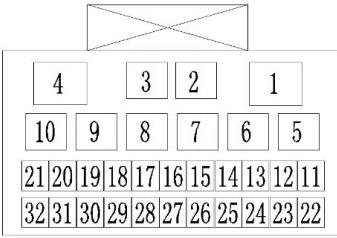
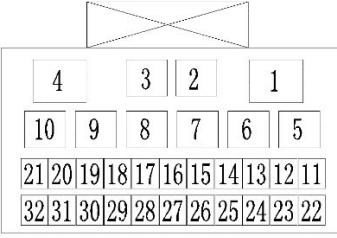
Constant Power Supply —
ACC Power Supply —

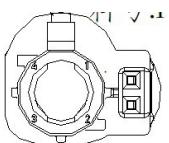
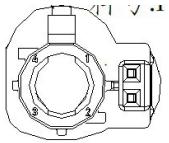
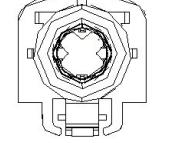
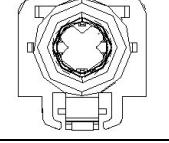
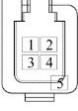
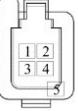
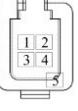


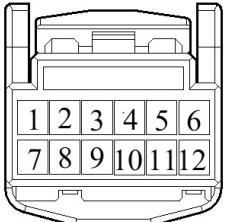
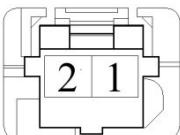
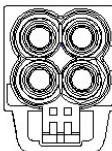
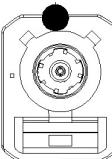
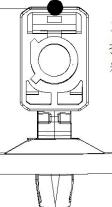
6.7.20.8 Connector View and Pin Definition

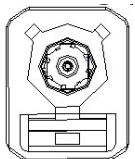
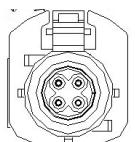
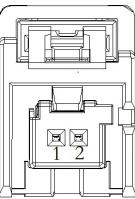
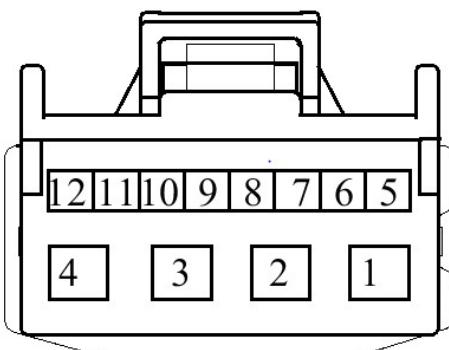
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
D04/D09/D14 /D19	Left Front Door/Left Rear Door/Right Front Door/Right Rear Door Woofer		1	Negative -	2	Positive +
D46/D47/D40 /D45	Tweeter (Left Rear Door/Right Rear Door/Left Front Door/Right Front Door)		1	Positive	2	Negative
P61a	USB for User			USB Cable		
P58	TF Card Slot			USB Cable		

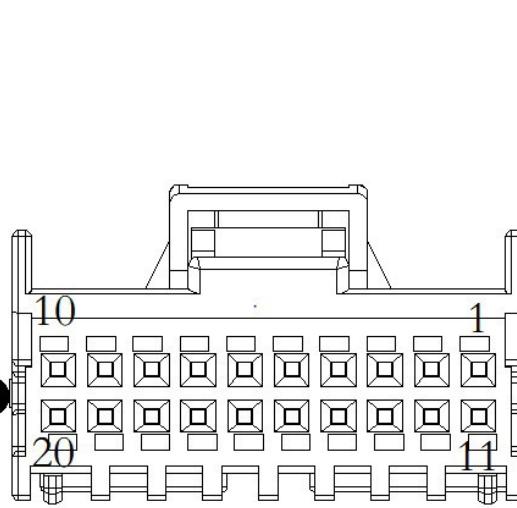
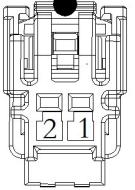
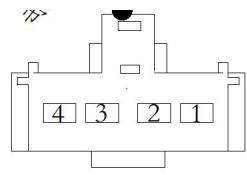
P44a	On-board Entertainment Terminal Assembly - A		1	Power Supply Grounding	13	Vehicle Info CAN
			2	Left Front Door Speaker + Tweeter	14	Vehicle Info CAN
			3	Left Front Door Speaker + Tweeter	15	Reversing Trigger Signal
			4	Constant Power Supply	16	Among Private CAN, HU and Instrument Cluster

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P44a	On-board Entertainment Terminal Assembly - A		5	Left Rear Door Speaker	17	Among Private CAN, HU and Instrument Cluster
			6	Left Rear Door Speaker	18	Panoramic Enable Switch
			7	Right Front Door Speaker + Tweeter	29	Microphone 1 Signal
			8	Right Front Door Speaker + Tweeter	30	Microphone 1 Signal Grounding
			9	Right Rear Door Speaker	31	Microphone 2 Signal
			10	Right Rear Door Speaker	32	Microphone 2 Signal Grounding
			11	ACC Power Supply	/	/
P44b	On-board Entertainment Terminal Assembly		1	AI Infrared Lamp Power Supply	14	High Speed CAN Bus CAN_FD_L
			2	Center Speaker	15	High Speed CAN Bus CAN_FD_L
			3	Center Speaker	30	A2B Bus N
			4	AI Infrared Lamp Power Supply Grounding	31	A2B Bus P
			10	Emergency Recording Switch	32	Video Shield Signal

P13a	LVDS - Central Control Display			Standard LVDS Transmission Line		
P44h	LVDS- Entertainment and Audio Head Unit			Standard LVDS Transmission Line		
P56l	LVDS - Instrument Cluster Display			Standard LVDS Transmission Line		
P44ad	LVDS- Entertainment and Audio Head Unit			Standard LVDS Transmission Line		
P44o	Entertainment and Audio Head Unit (USB for Instrument Cluster)			USB Cable		
P44l	Entertainment and Audio Head Unit (USB for User)			USB Cable		
P44m	Entertainment and Audio Head Unit (USB for Drive Recorder)			USB Cable		

P13b	Central Control Display		1	Backlight Power Supply	6	Constant Power Supply
			2	IG1 Power Supply	12	LIN
			4	Grounding	/	/
P78a	Infrared Camera		1	AI Infrared Lamp Power Supply	2	AI Infrared Lamp Power Supply Grounding
P54i	Panoramic Camera (4-way Coaxial)			Coaxial Line		
C24/D35	Panoramic Front/Rear Camera			Coaxial Line		
D68/D69	Panoramic Left/Right Camera			Coaxial Line		

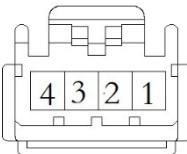
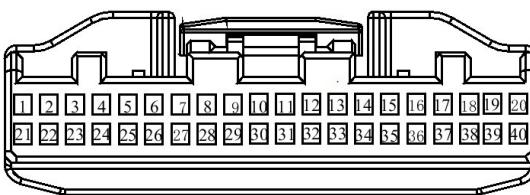
P44j/P44k/P4 4x/P44z	Entertainment and Audio Head Unit to AR Navigation/IMS/DM S/APA Coaxial			Coaxial Line		
R23/R24/P79	AR Navigation Camera/IMS Camera/DMS Camera			Coaxial Line		
P44w	Entertainment and Audio Head Unit to Ethernet			Ethernet		
F101a	External Power Amplifier A		1 2 3 4 5 6	Constant Power Supply Constant Power Supply Grounding Grounding Right Front Speaker Right Front Speaker	7 8 9 10 11 12	Left Front Speaker (Output) Left Front Speaker (Output) Left Rear Speaker (Output) Left Rear Speaker (Output) Right Rear Speaker (Output) Right Rear Speaker (Output)

F101b	External Power Amplifier B		1	Middle Speaker +	12	Surround Speaker -
			2	Surround Speaker +	13	Left Headrest Speaker -
			3	Subwoofer -	14	Left Headrest Speaker +
			4	Subwoofer +	15	Right Headrest Speaker -
			5	Subwoofer -	16	Right Headrest Speaker +
			6	Subwoofer +	17	IG1 Power Supply
			9	A2B Bus N	19	CAN- Signal Line
			10	A2B Bus P	20	CAN+ Signal Line
			11	Central Speaker -	/	/
P63/D46*/ D47*	Center Speaker/Left Headrest Speaker/Right Headrest Speaker		1	Speaker +	2	Speaker -
F106	Headrest Speaker		1	Left Headrest Speaker -	3	Right Headrest Speaker -
			2	Left Headrest Speaker +	4	Right Headrest Speaker +

6.7.20-15

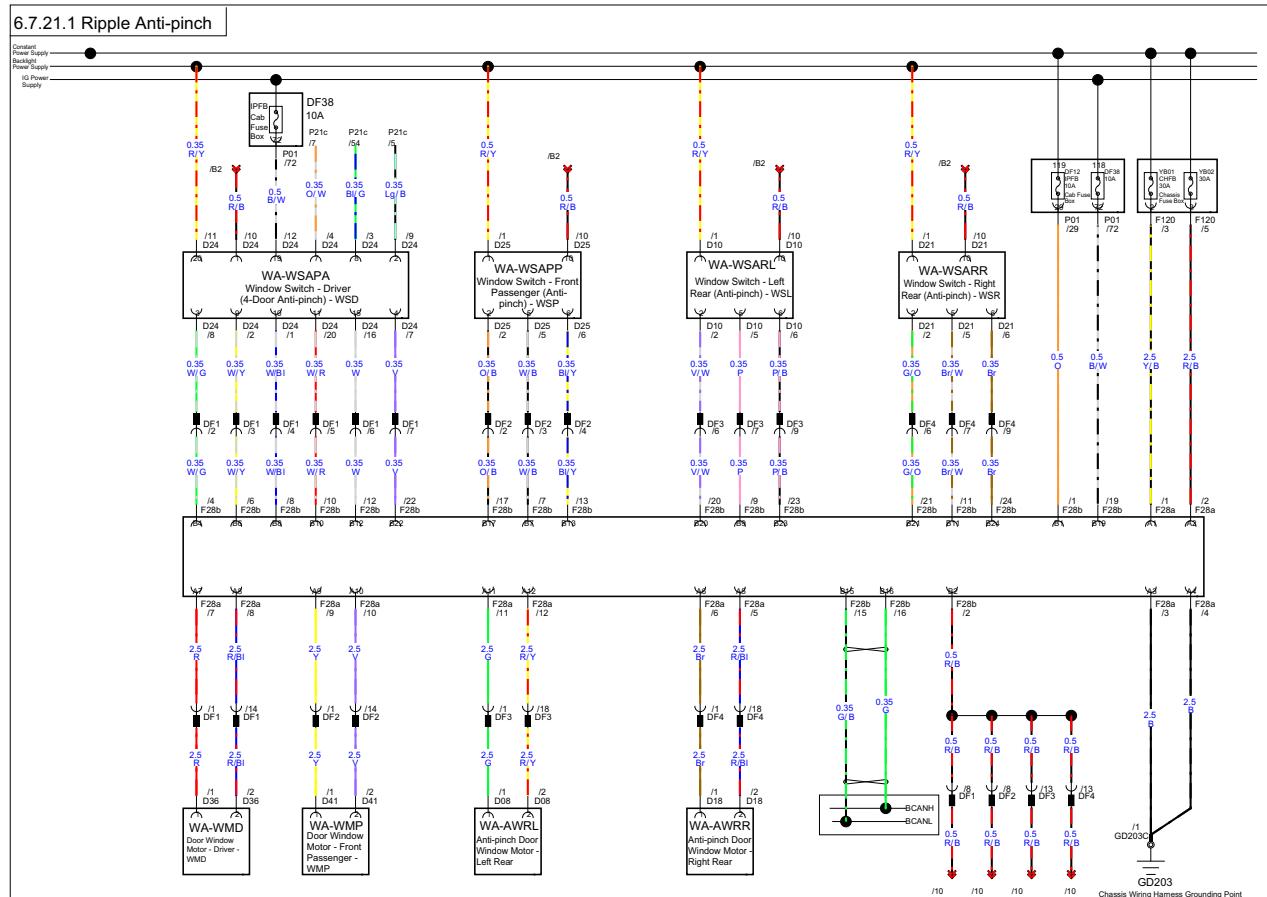
Multimedia Control System

6.7.20-15

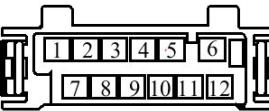
F100	Subwoofer		1	Subwoofer -	3	Subwoofer -
			2	Subwoofer +	4	Subwoofer +
P53	TBOX		1	Constant Power Supply	10	CANH
			2	ACC Power Supply	21	Grounding
			8	Collision Signal	30	CANL

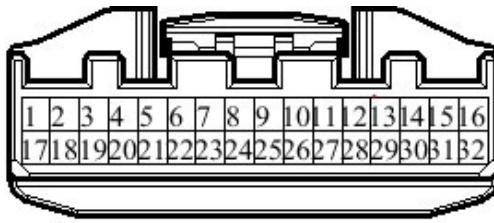
6.7.21 Window Control System

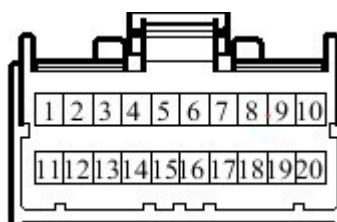
6.7.21.1 Ripple Anti-pinch System

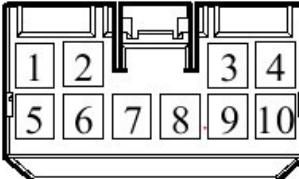
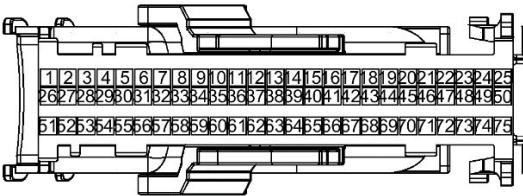
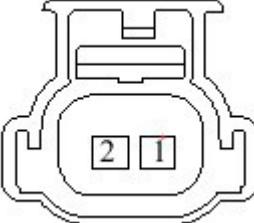


6.7.21.2 Connector View and Pin Definition

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
F28a	Ripple Anti-pinch Controller a		1	Power Supply Positive	7	Left Front Up

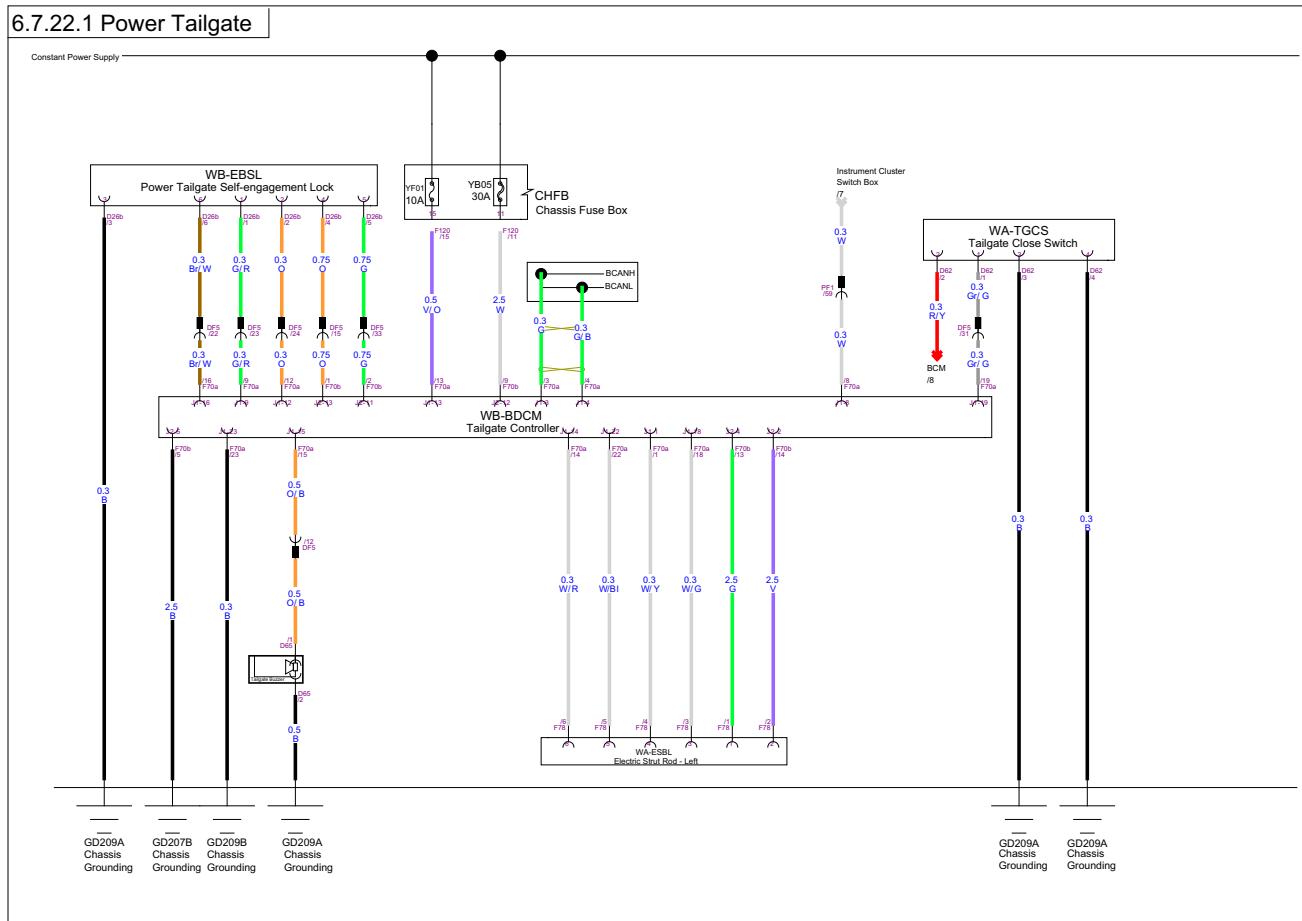
F28b	Ripple Anti-pinch Controller b		1	Power Supply	13	Right Front Window Up Input
			2	Switch Grounding	15	CAN_L
			4	Driver Window Left Front Up-Down Input	16	CAN_H
			6	Driver Window Right Front Up-Down Input	17	Right Front Window Auto Input
			7	Right Front Window Down Input	19	IGN Signal Input
			8	Driver Window Left Rear Up-Down Input	20	Left Rear Window Auto Input
			9	Left Rear Window Down Input	21	Right Rear Window Auto Input
			10	Driver Window Right Rear Up-Down Input	22	Passenger Inhibiting Indicator Output
			11	Right Rear Window Down Input	23	Left Rear Window Up Input
			12	Passenger Inhibiting Input (w_lock)	24	Right Rear Window Up Input

D24	Driver Window Switch		1	Left Rear Door Button Signal	11	Backlight Power Supply
			2	Right Front Door Button Signal	12	Power Supply
			3	Central Lock Signal (Lock)	13	/
			4	Central Lock Signal (Unlock)	14	/
			5	/	15	/
			6	/	16	Window Lock
			7	Window Lock Indicator Input	17	/
			8	Left Front Door Button Signal	18	/
			9	Door Lock Indicator Signal	19	/
			10	Power Supply Grounding	20	Right Rear Door Button Signal

D25/D10/D21	Front Passenger Window Switch/Left Rear Window Switch/Right Rear Window Switch		1	Background Lamp	6	Up Signal
			2	Automatic Button Signal	10	Grounding
			5	Down Signal		
P21c	BDCc		5	Central Lock Signal (Lock)	7	Central Lock Signal (Unlock)
			54	Door Lock Indicator Signal		
D36/D41/D08 /D18	Driver/Front Passenger/Left Rear/Right Rear Door Window Motor		1	Up	2	Down

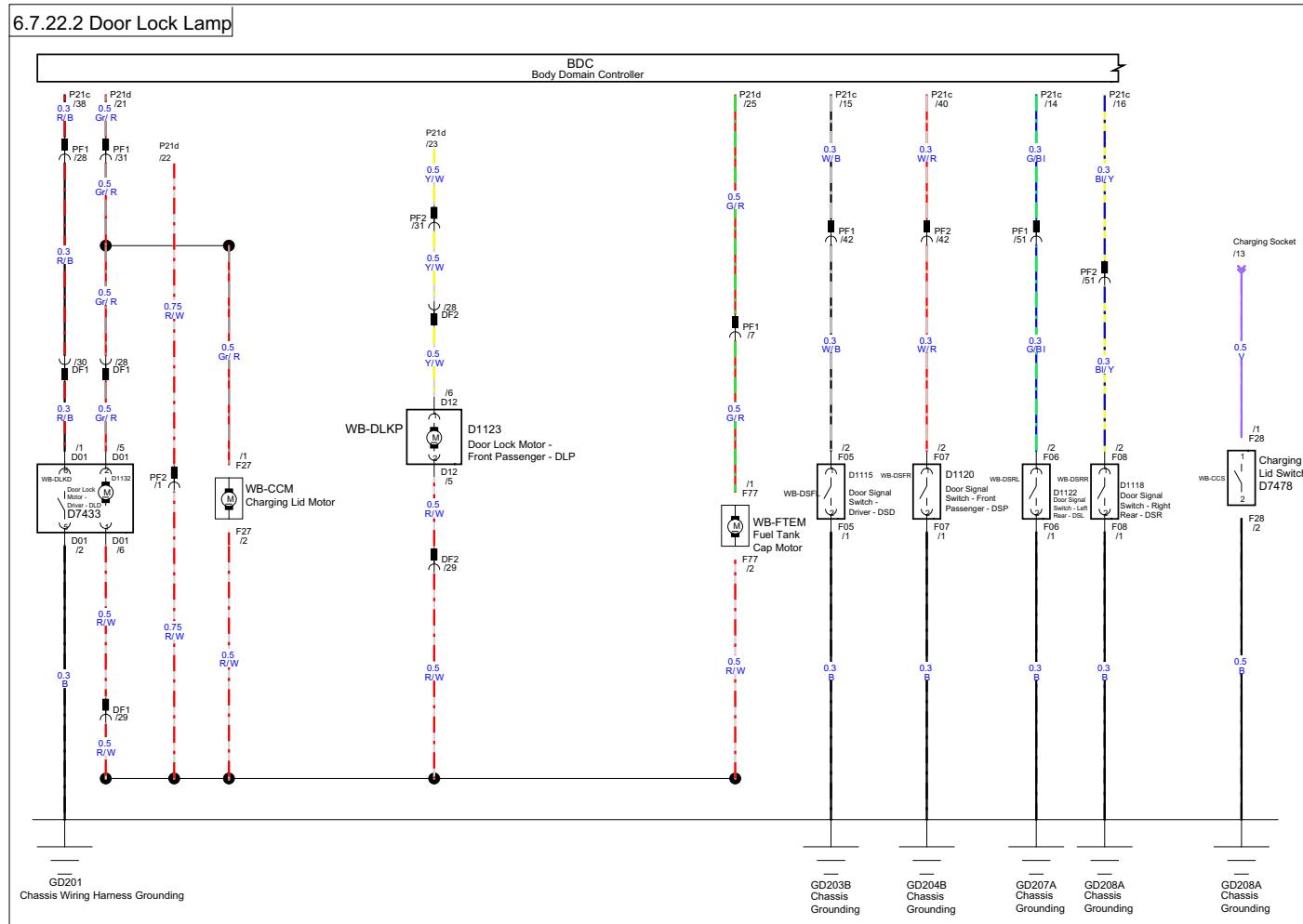
6.7.22 Door Lock Control System

6.7.22.1 Power Tailgate Control

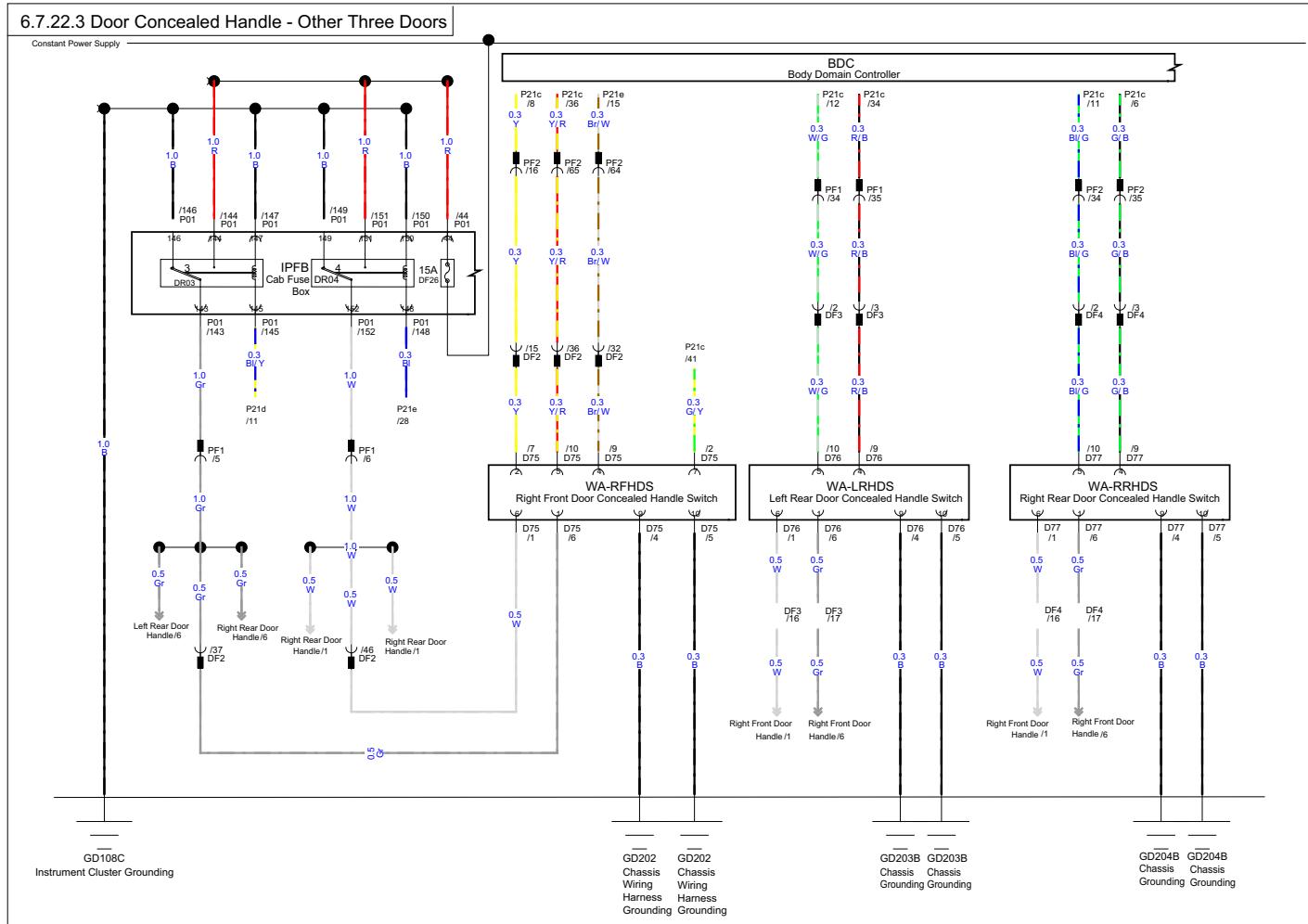


6.7.22.2 Door Lock Control

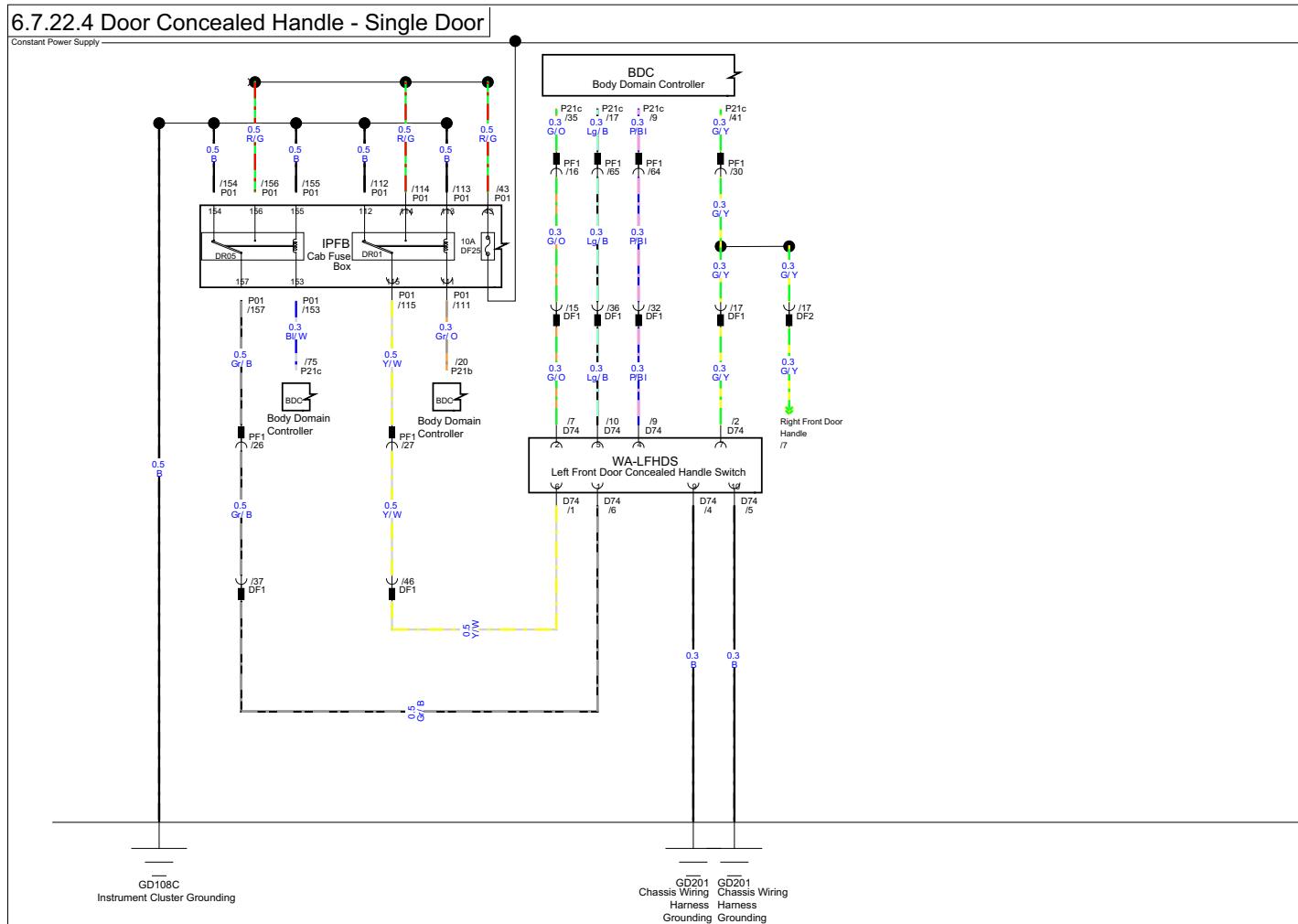
6.7.22.2 Door Lock Lamp



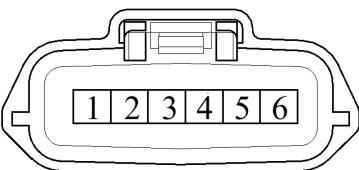
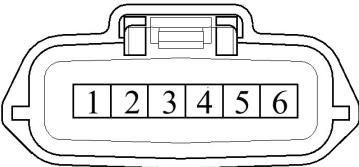
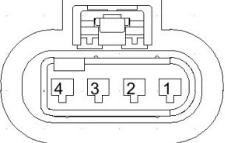
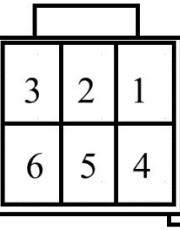
6.7.22.3 Concealed Door Handle Control 1

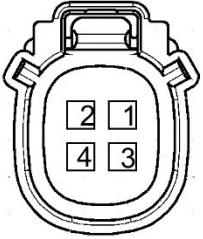
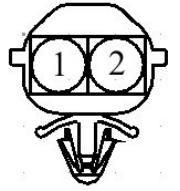
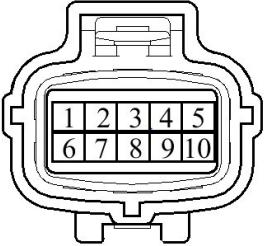


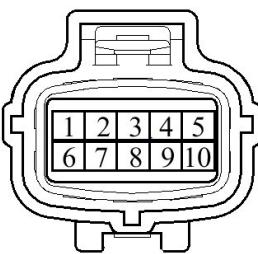
6.7.22.4 Concealed Door Handle Control 2



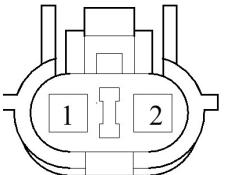
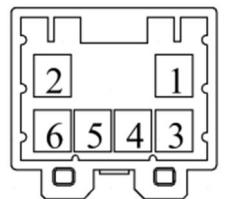
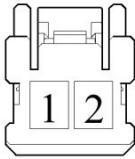
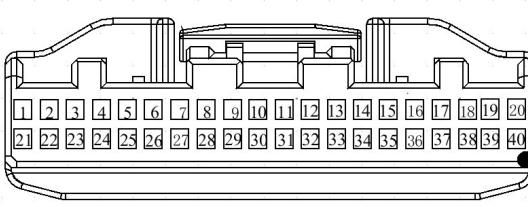
6.7.22.5 Connector View and Pin Definition

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
D01	To Left Front Door Lock Motor		1	Lock Status Signal	5	Central Unlock
			2	Signal Common End	6	Central Lock
D12	Door Lock Motor - Front Passenger		1	Unlock	2	Lock
D26a	Door Lock Motor - Tailgate (Low Configuration)		1	Tailgate Status	3	Tailgate Release
			2	Grounding	4	Grounding
D26b	Door Lock Motor - Tailgate (High Configuration)		1	Full Lock Position Judgment	4	Motor Drive Lock Self-engagement
			2	Half Lock Position Judgment	5	Motor Drive Unlock
			3	Common Grounding	6	Lock Inside Drive Mechanical Reset Signal

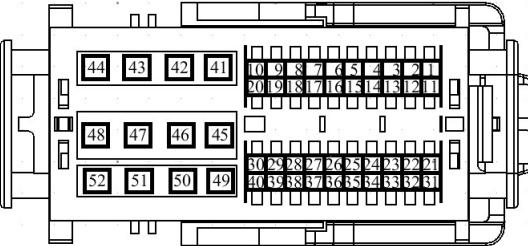
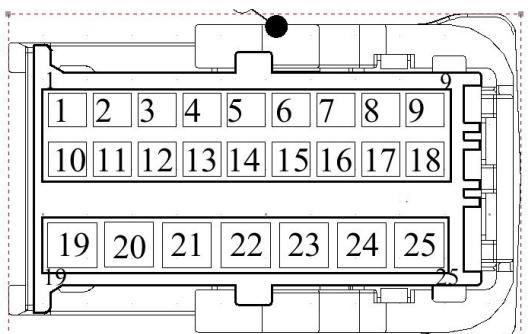
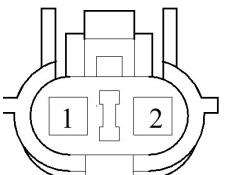
D62	Tailgate Close Switch		1	Power Tailgate Signal	3	Control Signal Grounding
			2	Backlight Power Supply	4	Backlight Power Supply Grounding
D65	Buzzer - Tailgate		1	Buzzer Grounding	2	Buzzer Drive
D74/D75	Concealed Door Handle Switch (Left Front) / (Right Front)		1	Motor Negative	6	Motor Positive
			2	Capacitor Switch -	7	Capacitor Switch +
			3	Atmosphere Lamp -	8	Atmosphere Lamp +
			4	Micro Switch 1 -	9	Micro Switch 1 +
			5	Micro Switch 2 -	10	Micro Switch 2 +

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
D76/D77	Concealed Door Handle Switch (Left Rear)/(Right Rear)		1	Motor Negative	6	Motor Positive
			3	Atmosphere Lamp -	8	Atmosphere Lamp +
			4	Micro Switch 1 -	9	Micro Switch 1 +
			5	Micro Switch 2 -	10	Micro Switch 2 +

F70a	Tailgate Controller 1		1	Hall Signal 1 Output	15	Buzzer Power Supply
			3	CAN H	16	Lock Inside Drive Mechanical Reset Signal
			4	CAN L	18	Supply Power to Hall Module
			8	Driver Electric Control Button Switch	19	Supply Power to Hall Module
			9	Full Lock Position Judgment	21	Half Lock Position Judgment
			13	Digital Power Supply	22	Hall Signal 2 Output
			14	Hall Grounding	23	GND
F70b	Tailgate Controller 2		1	Lock Motor Junction Terminal (Door Open by Unlocking)	9	Electric Power
			2	Lock Motor Junction Terminal (Door Close by Locking)	13	Drive Strut Rod Motor to Close Door
			5	Power Grounding	14	Drive Strut Rod Motor to Open Door

F77	Fuel Tank Cap Motor		1	Lock	2	Unlock
F78	Electric Strut Rod - Left		1	Drive Strut Rod Motor to Open Door	4	Hall Signal 1 Output
			2	Drive Strut Rod Motor to Close Door	5	Hall Signal 2 Output
			3	Supply Power to Hall Module	6	Hall Grounding
F05/F06/F07 /F08	Left Front/Left Rear/Right Front/Right Rear Door Contact Switch		1	Switch Signal Grounding	2	Switch Signal Power Supply
P21b	BDCb		20	Left Front Retracting Drive		

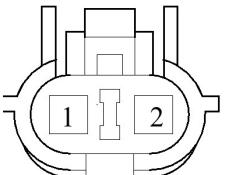
P21c	BDCc		6	Right Rear Door Concealed Handle Extending Position Switch	34	Left Rear Concealed Door Handle Extending Position Switch
			8	Right Front Door Handle Antenna	35	Left Front Door Handle Antenna
			9	Left Front Door Concealed Handle Extending Position Switch	36	Right Front Door Concealed Handle Retracting Position Switch
			11	Right Rear Door Concealed Handle Retracting Position Switch	38	Left Front Lock Status
			12	Left Rear Door Concealed Handle Retracting Position Switch	40	Right Front Door Status
			14	Left Rear Door Status	41	Left/Right Door Handle Antenna Negative
			15	Left Front Door Status	75	Left Front Extending Drive
			16	Right Rear Door Status		
			17	Left Front Door Concealed Handle Retracting Position Switch		

P21e	BDCe		15	Right Front Door Concealed Handle Extending Position Switch	28	Other Three Doors Retracting Drive
P21d	BDCd		11	Other Three Doors Extending Drive	25	Fuel Tank Cap Motor Signal
			21	Left Front Door Unlock Output		
			22	Lock Output		
			23	Other Three Doors Unlock Output		
F27	Charging Lid Motor		1	Unlock	2	Lock

6.7.22-12

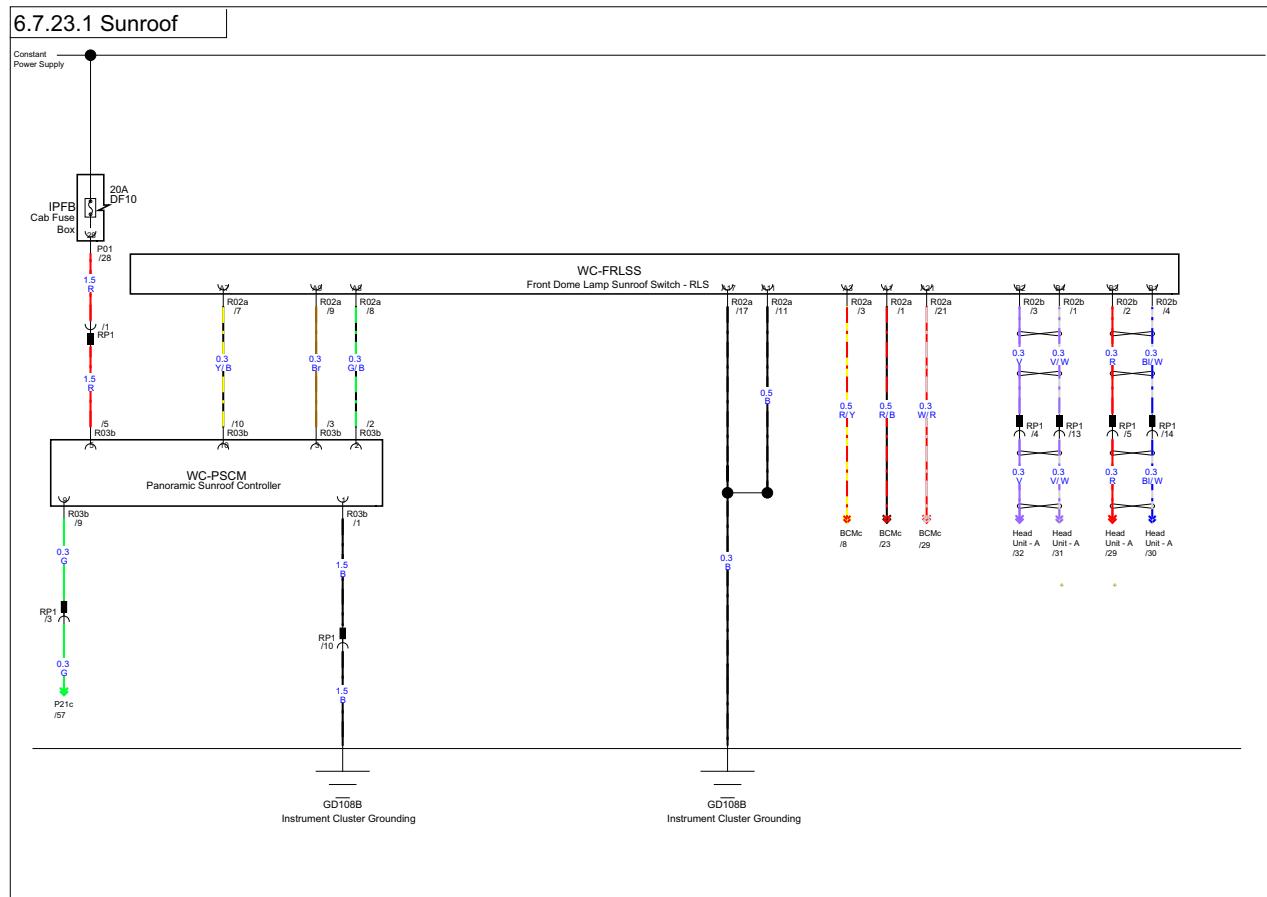
Door Lock Control System

6.7.22-12

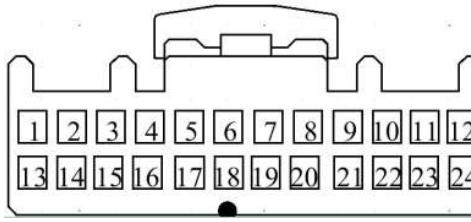
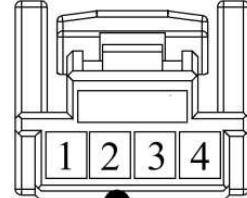
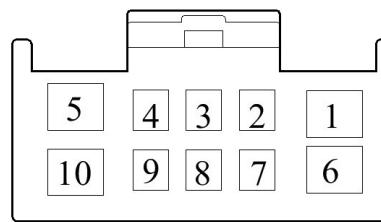
F28	Charging Lid Switch		1	Signal	2	Grounding
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6.7.23 Sunroof Control System

6.7.23.1 Sunroof Control System

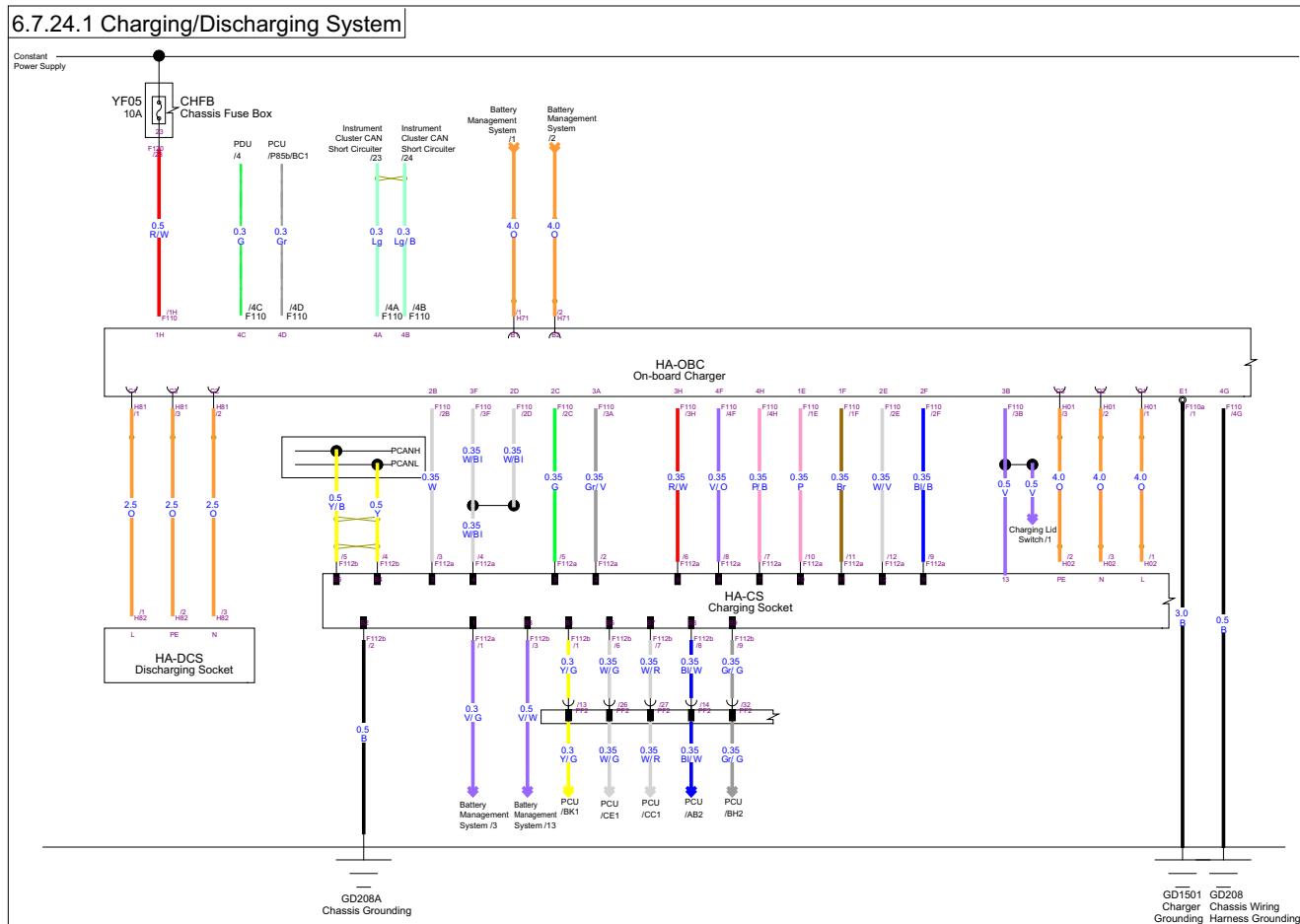


6.7.23.2 Connector View and Pin Definition

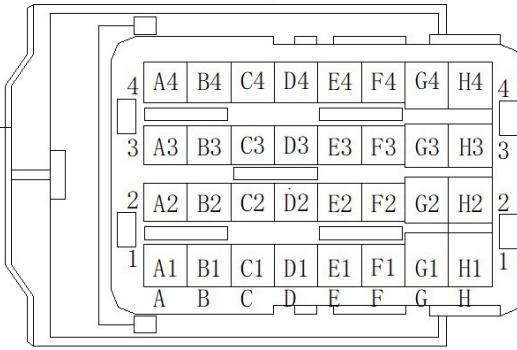
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
R02a	Front Dome Lamp + Sunroof		1 3 7 8	Map Lamp Power Supply Backlight Power Supply Sunroof Tilt Signal Sunroof Open Signal Output	9 11 17 21	Sunroof Close Signal Output Grounding Sunroof Button Signal Grounding Map Lamp BCM Control Signal
R02b	Microphone		1 2	Microphone 2 Signal Microphone 1 Signal	3 4	Microphone 2 Signal Grounding Microphone 1 Signal Grounding
R03b	Sunroof Controller		1 2 3	Grounding Sunroof Open Signal Sunroof Close Signal	5 9 10	Power Supply LIN Sunroof Tilt Signal

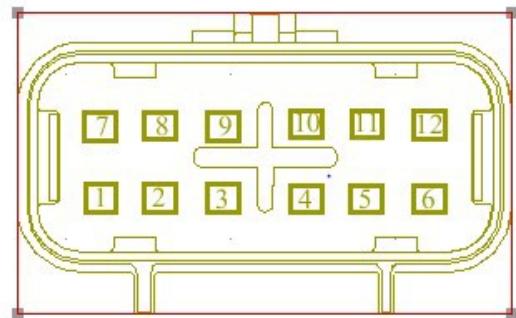
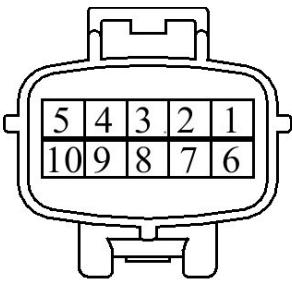
6.7.24 Charging and Discharging Systems

6.7.24.1 Charging and Discharging Systems



6.7.24.2 Connector View and Pin Definition

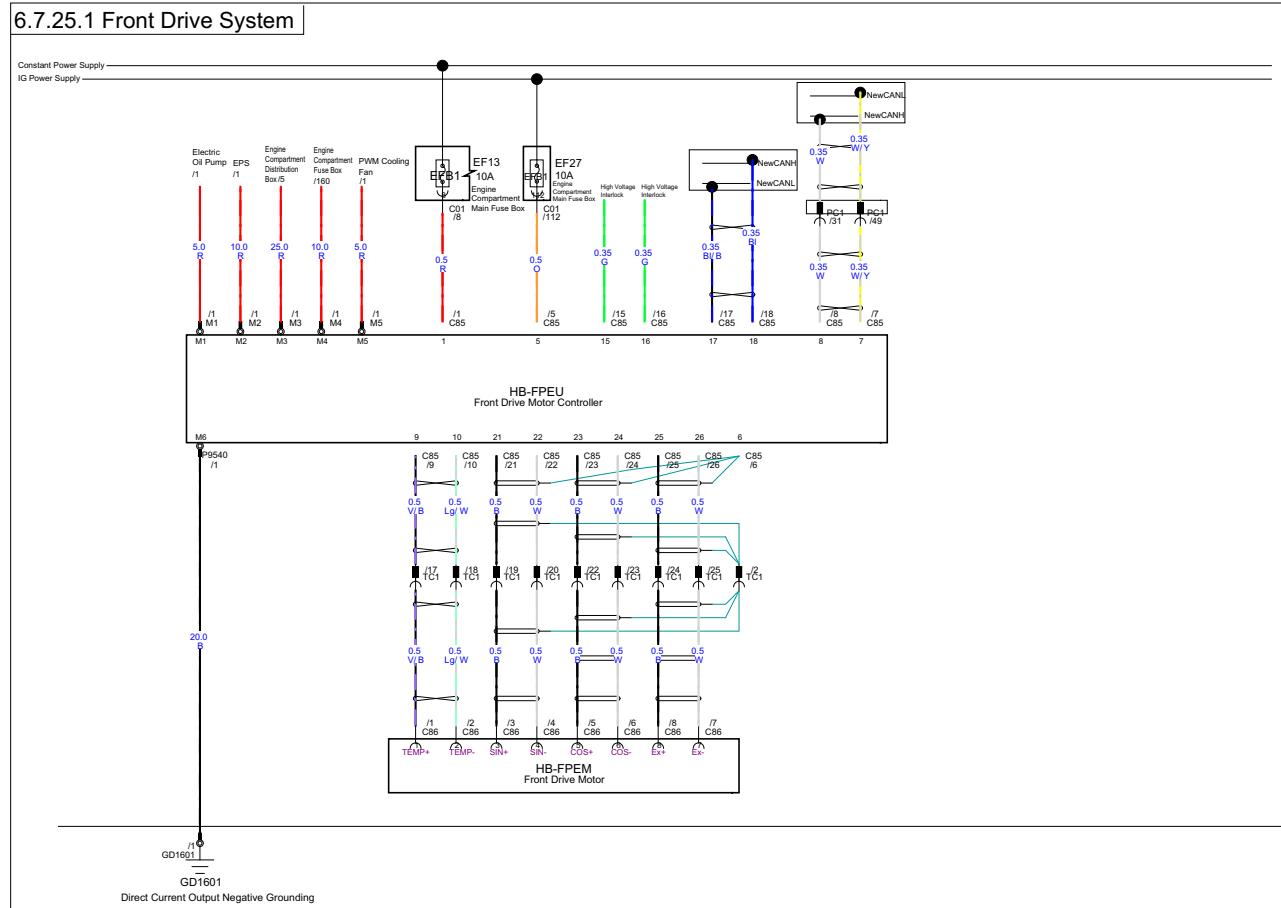
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
F110	On-board Charger		1E 1F 1H 2B 2C 2D 2E 2F 3A 3C	Red Indicator Green Indicator Constant Power Supply Charging Port Temperature Detection 1 Charging Port Temperature Detection 2 Charging Port Temperature Detection 1 Grounding Blue Indicator Lamp Strip Grounding Control Confirmation Charging Port Cover Plate Switch Signal	3F 3H 4A 4B 4C 4D 4F 4G 4H	Charging Port Temperature Detection 2 Grounding Electronic Lock Drive Positive CAN_H CAN_L High Voltage Interlock Input High Voltage Interlock Output Electronic Lock Status Detection Constant Power Supply Negative Electronic Lock Drive Negative

F112a	Charging Socket (Slow Charging)		1	Charging Connection Confirmation	7	Electronic Lock Drive 2
			2	Control Guide	8	Electronic Lock Feedback 2
			3	Temperature Sensor 1 + (L Position)	9	Grounding
			4	Temperature Sensor 1 and 2 Shared Line	10	LED Lamp: Red
			5	Temperature Sensor 2 + (N Position)	11	LED Lamp: Green
			6	Electronic Lock Drive 1	12	LED Lamp: Blue
F112b	Charging Socket (Quick Charging)		1	Low Voltage Auxiliary Power Supply Positive (A+)	5	Charging Communication CAN_L (S-)
			2	Low Voltage Auxiliary Power Supply Negative (A-)	6	Temperature Sensor 1+ (Direct Current DC+ Position)
			3	Charging Connection Confirmation (CC2)	7	Temperature Sensor 1- (Direct Current DC+ Position)
			4	Charging Communication CAN_H (S+)	/	/

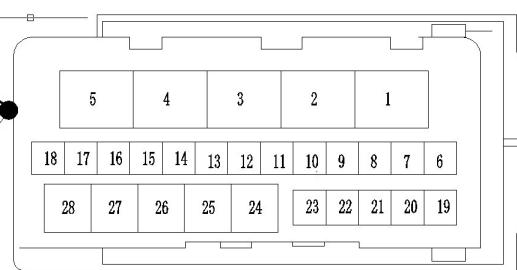
H71	On-board Charger Output Wiring Harness		1	Positive	2	Negative
H81	Alternate Current Output Socket		1	L	3	N
			2	PE	/	/
H01	Alternate Current Charging Socket		1	L	3	N
			2	PE	/	/

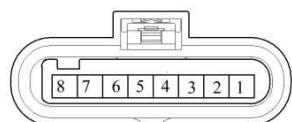
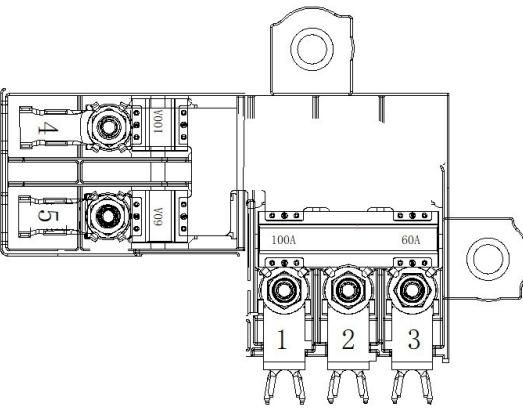
6.7.25 Front Drive System

6.7.25.1 Front Drive System



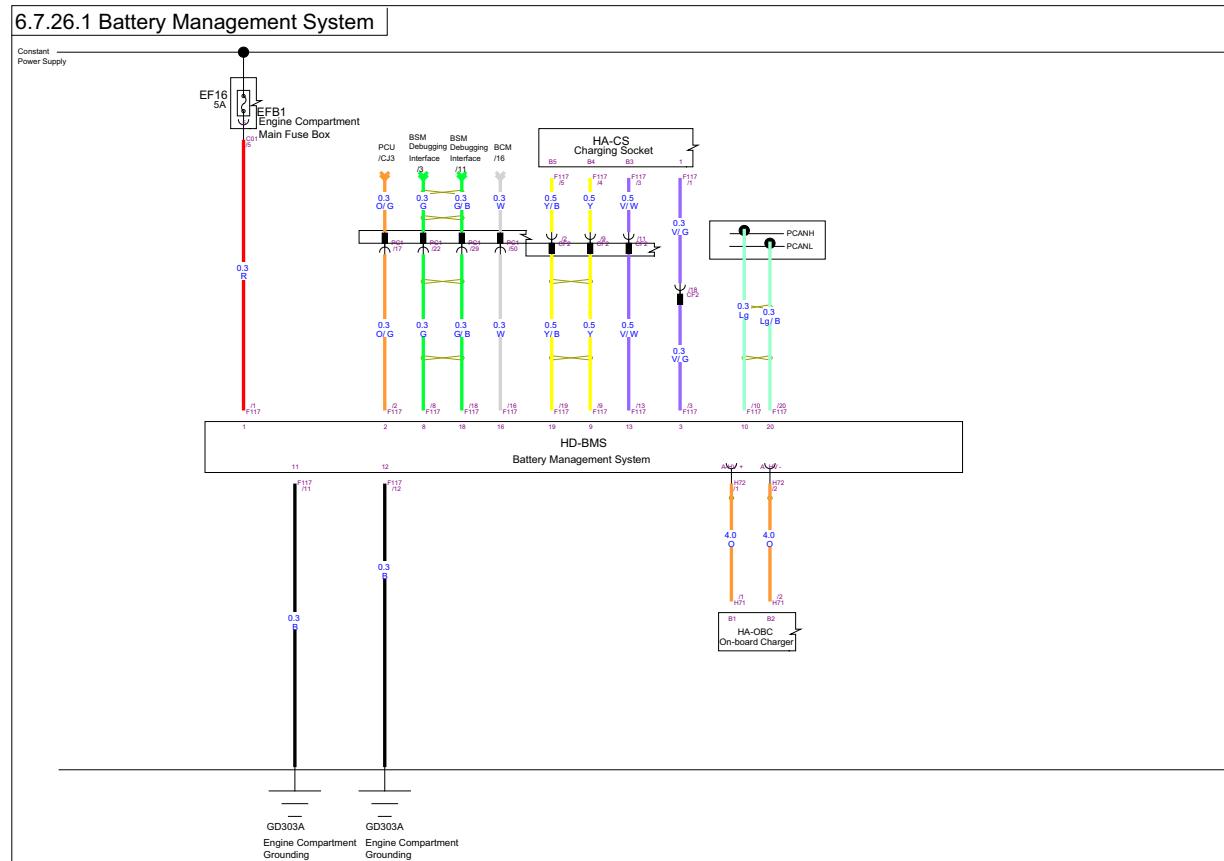
6.7.25.2 Connector View and Pin Definition

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
C85	Front Drive Motor Controller		1 5 6 7 8 9 15	Low Voltage 12V Power Supply IG Power Supply Shielded Layer Grounding Calibration CANL Calibration CANH Motor Temperature Sensor + Motor Temperature Sensor - High Voltage Interlock +	16 17 18 21 22 23 25	High Voltage Interlock - Vehicle communication CANL Vehicle Communication CANH Rotary Transformer Sin + Rotary Transformer Sin - Rotary Transformer Cos + Rotary Transformer Cos - Rotary Transformer Excitation + Rotary Transformer Excitation -

C86	Front Drive Motor		1	Temperature Sensor	5	Rotary Transformer Signal
			2	Temperature Sensor	6	Rotary Transformer Signal
			3	Rotary Transformer Signal	7	Rotary Transformer Signal
			4	Rotary Transformer Signal	8	Rotary Transformer Signal
C90a/C90b/ C90c/C90d/ C90e	Front Junction Box		1	Engine Compartment Fuse Box Power Supply	4	EPS
			2	Battery	5	Electric Oil Pump
			3	Fan	/	/

6.7.26 Battery Management System

6.7.26.1 Battery Management System

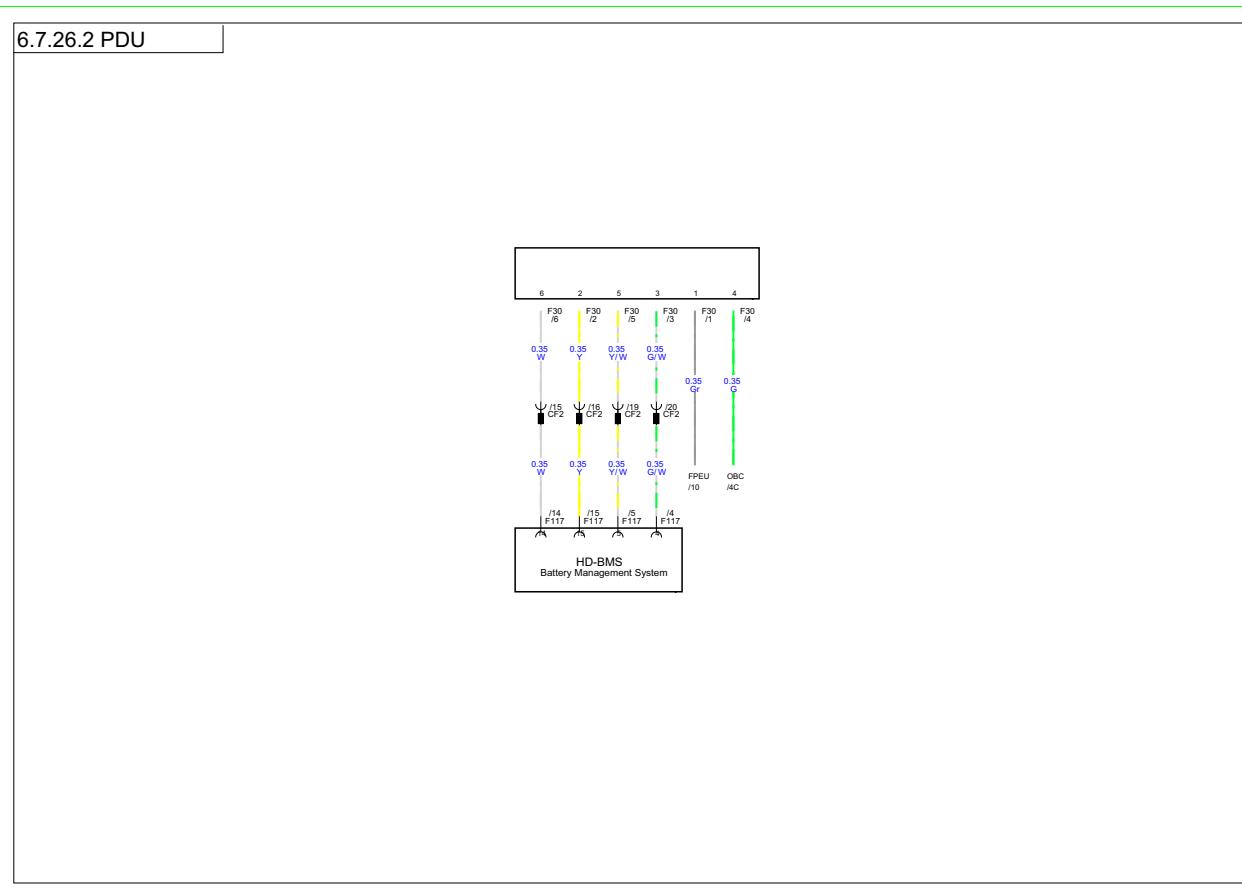


6.7.26-2

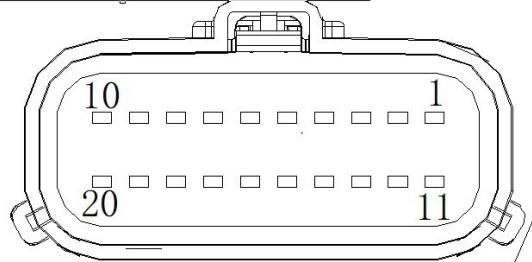
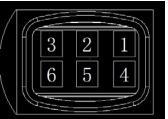
Battery Management System

6.7.26-2

6.7.26.2 PDU



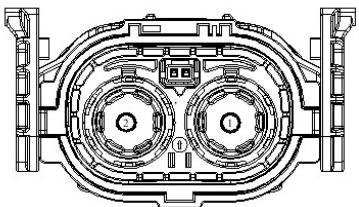
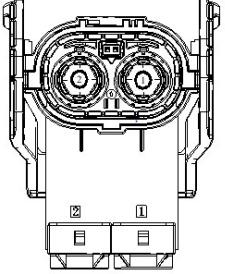
6.7.26.3 Connector View and Pin Definition

Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
F117	High Voltage Battery		1	Controller Power Supply Input	11	Controller Power Supply Grounding
			2	External Wake Up Signal Input	12	Power Grounding
			3	CC	13	Direct Current Charging Connection Confirmation Signal Input
			4	Quick Charging Relay High Side Control	14	Quick Charging Relay Low Side Control
			5	Quick Charging Relay Adhesion Diagnostic Interface +	15	Quick Charging Relay Adhesion Diagnostic Interface -
			6	/	16	Collision Sensor Signal Acquisition
			7	/	17	/
			8	Intranet CAN High	18	Intranet CAN Low
			9	Direct Current Charging CAN High	19	Direct Current Charging CAN Low
			10	Power CAN High	20	Power CAN Low
F30	High Voltage Junction Box		1	High Voltage Interlock Input	4	High Voltage Interlock Output
			2	Relay Auxiliary Contact Point Signal	5	Relay Auxiliary Contact Point Signal
			3	Relay Coil Control	6	Relay Coil Control

6.7.26-4

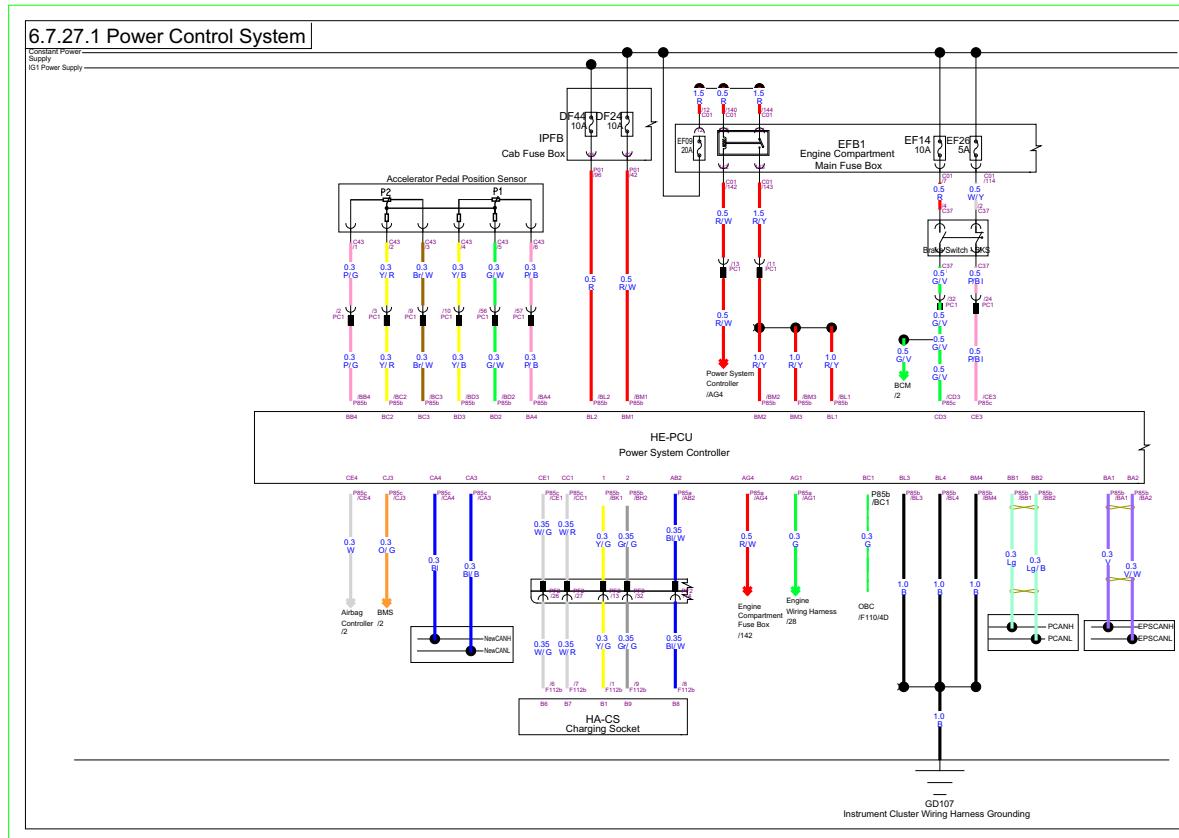
Battery Management System

6.7.26-4

H12	High Voltage Power Supply Wiring Harness Assembly 1		1	B-HV+	2	B-HV-
H72	On-board Charger Output Wiring Harness		1	A-HV+	2	A-HV-

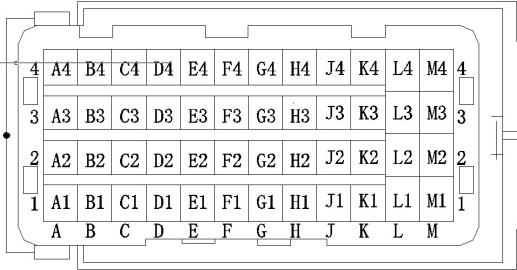
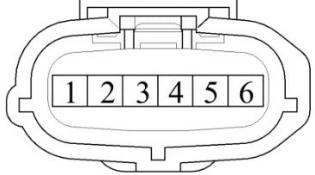
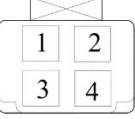
6.7.27 Power Control System

6.7.27.1 Power Control System



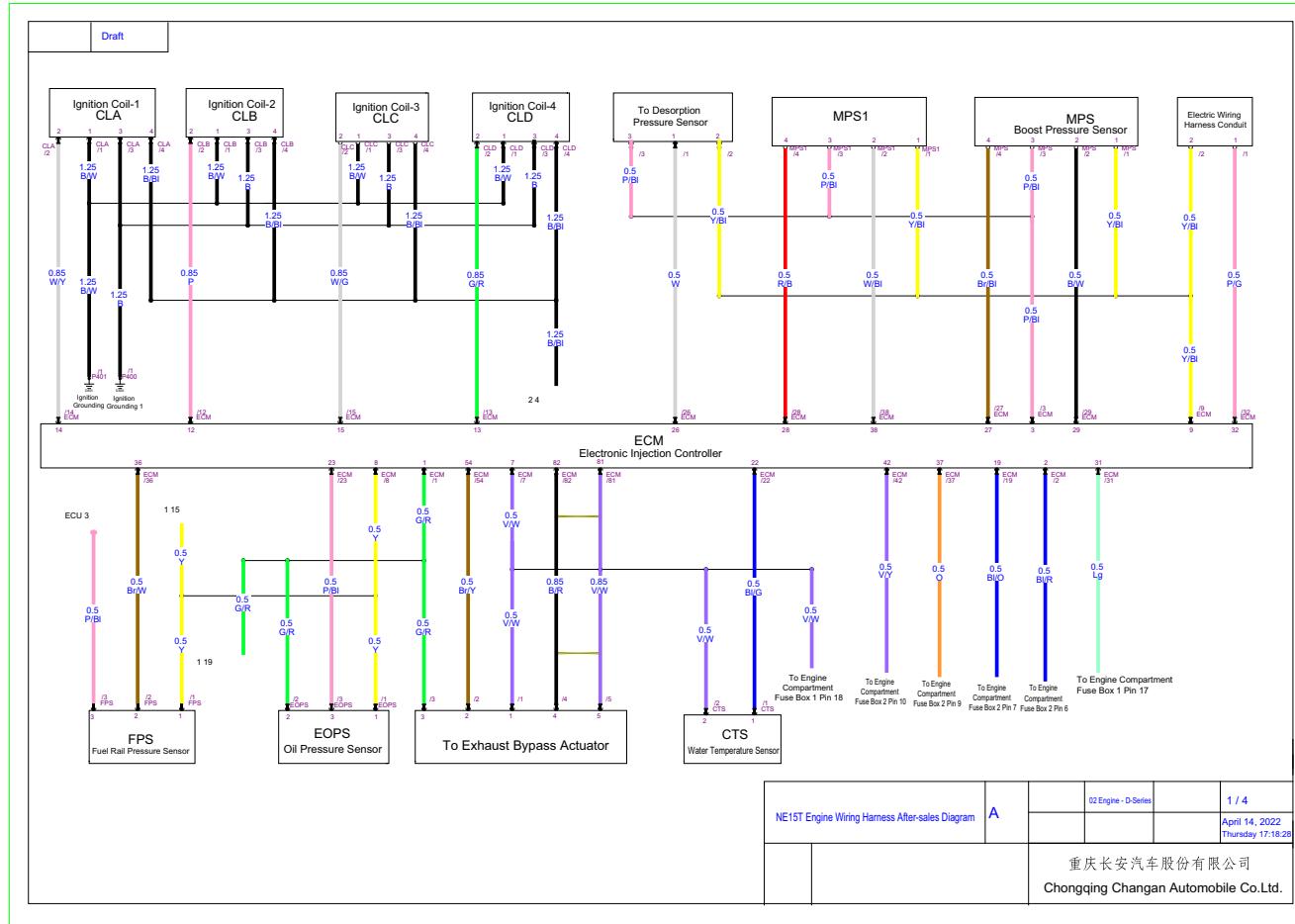
6.7.27.2 Connector View and Pin Definition

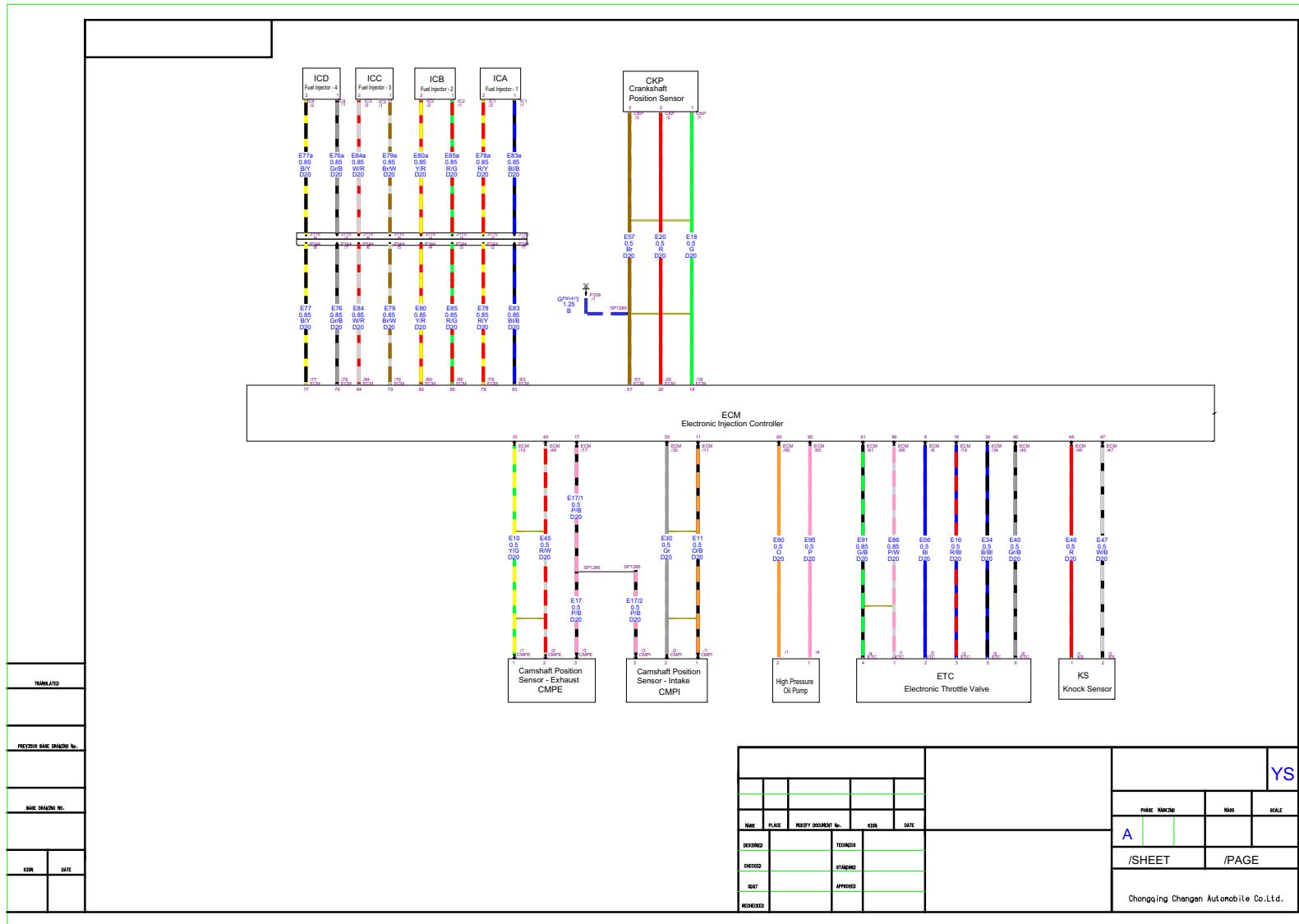
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
P58a	PCUa		AB2	DC Quick Charging Socket Temperature Signal 2	AG4	Main Relay
			AG1	High Voltage Interlock (Out)	/	/
P58b	PCUb		A1	EPSCAN High	H2	DC Quick Charging Socket Temperature Sensor Grounding 2
			A2	EPSCAN Low	K1	Low Voltage Auxiliary Power Supply Positive (A+)
			A4	Accelerator Pedal Power Supply 2	L1	Relay Feedback Power Supply
			B1	PCAN High	L2	Ignition Switch Power Supply
			B2	PCAN Low	L3	Power Grounding
			B4	Accelerator Pedal Power Supply 1	L4	Power Grounding
			C1	High Voltage Interlock (In)	M1	Constant Power Supply
			C2	Accelerator Pedal Signal 1	M2	Relay Feedback Power Supply
			C3	Accelerator Pedal Grounding 1	M3	Relay Feedback Power Supply
			D2	Accelerator Pedal Grounding 1	M4	Power Grounding

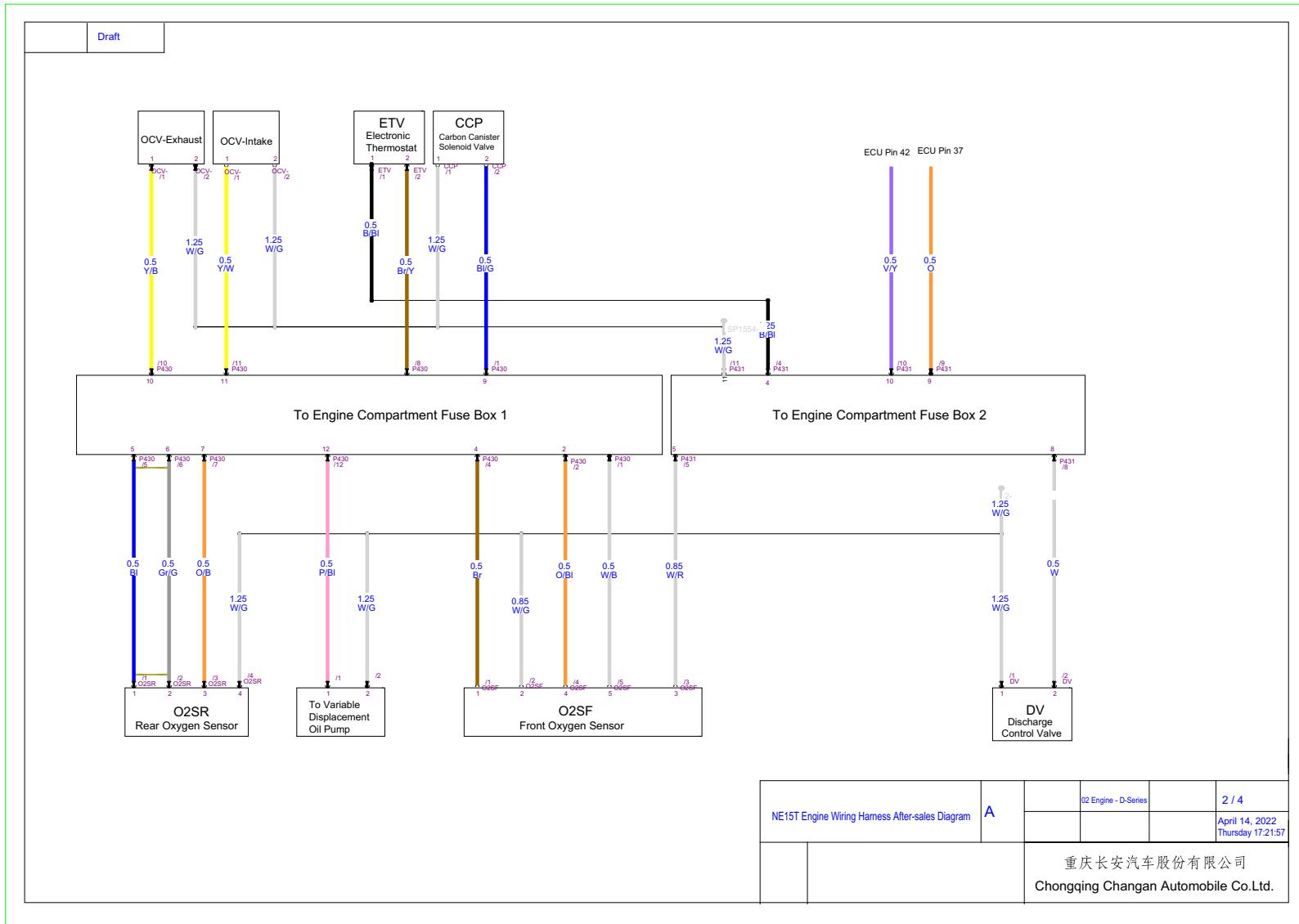
			D3	Accelerator Pedal Grounding 2	/	/
P58c	PCUc		A3	HEVCAN Low	E1	DC Quick Charging Socket Temperature Signal
			A4	HEVCAN Low	E3	Brake Pedal (Normally Closed)
			C1	DC Quick Charging Socket Temperature Sensor	E4	Collision Signal
			D3	Brake Pedal (Normally Open)	J3	BMS Wake Up Signal
C43b	Accelerator Pedal Position Sensor		1	Accelerator Pedal Position Sensor 1 Power Supply	4	Accelerator Pedal Position Sensor 2 Grounding
			2	Accelerator Pedal Position Sensor 1	5	Accelerator Pedal Position Sensor 2
			3	Accelerator Pedal Position Sensor 1 Grounding	6	Accelerator Pedal Sensor 2 Power Supply
C37a	Brake Switch		1	Signal	3	Signal
			2	Main Relay Power Supply	4	Constant Power Supply

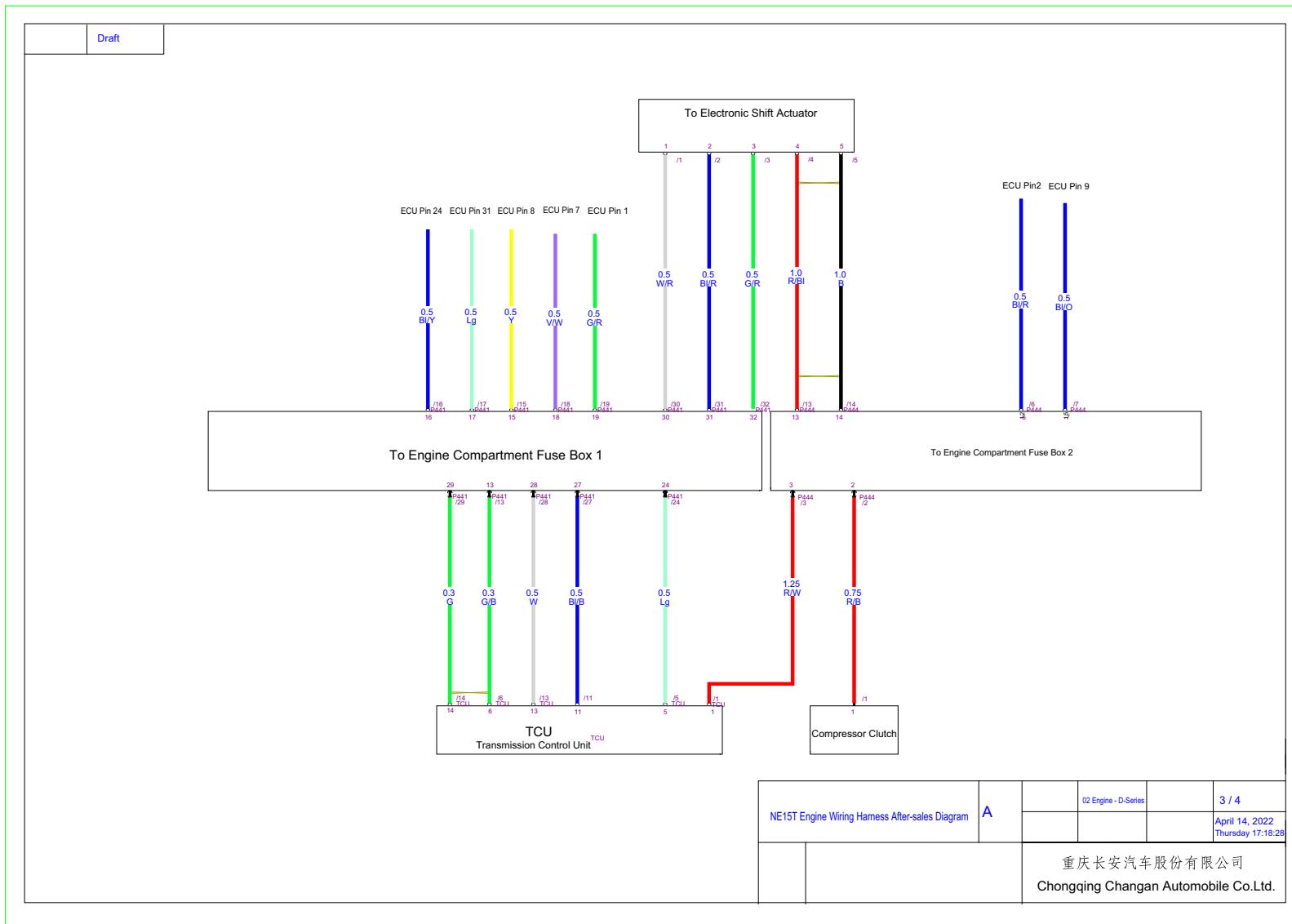
6.7.28 Engine Wiring Harness

6.7.28.1 Engine Control System

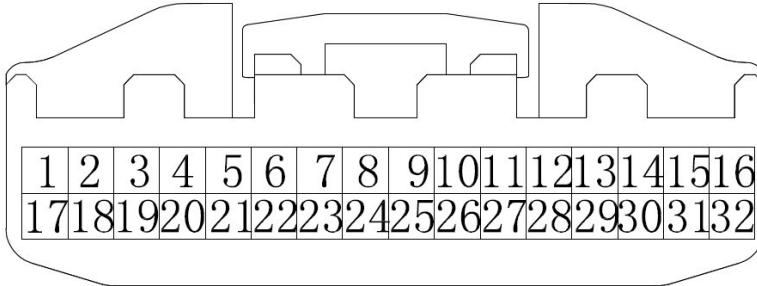
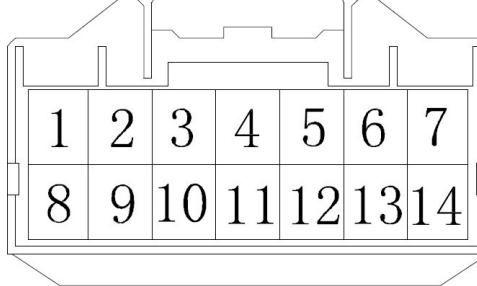
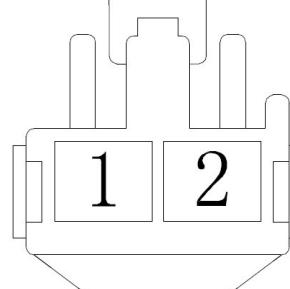


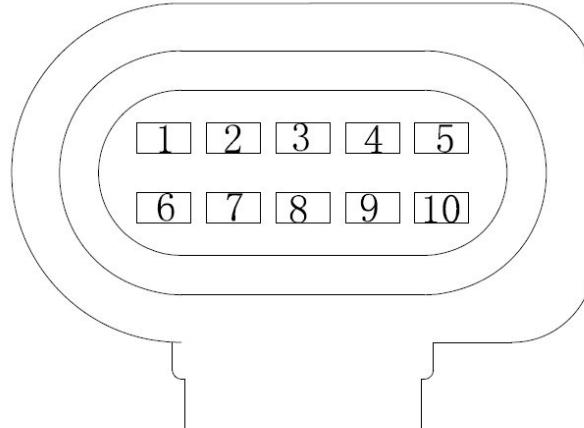
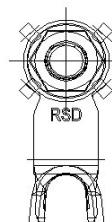
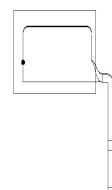


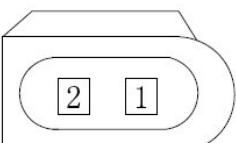
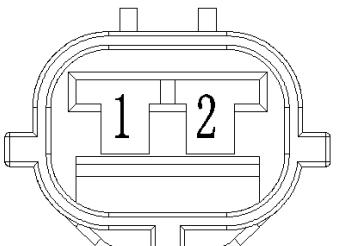


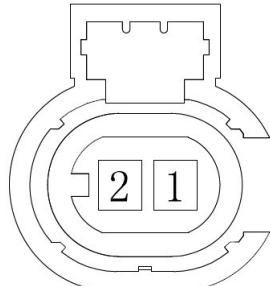
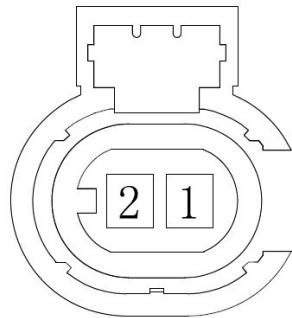
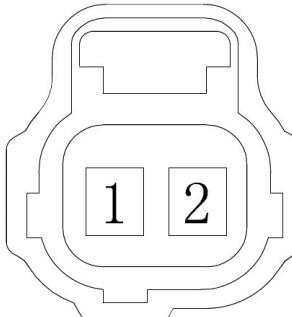


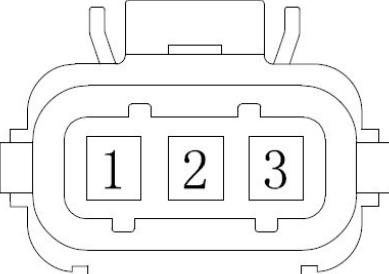
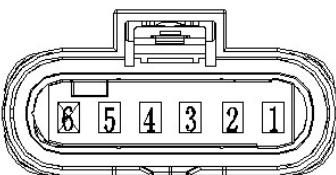
6.7.28.2 Connector View and Pin Definition

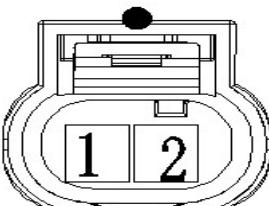
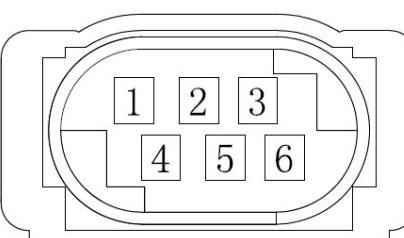
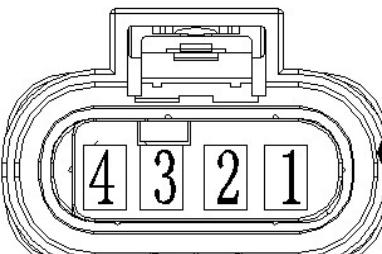
Connector Code	Wiring Harness Connector Name	Interface View																																
EC1	To Engine Compartment Fuse Box 1	 <table border="1"> <tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td></tr> <tr><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td><td>32</td></tr> </table>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																			
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32																			
EC2	To Engine Compartment Fuse Box 2	 <table border="1"> <tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr> <tr><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td></tr> </table>	1	2	3	4	5	6	7	8	9	10	11	12	13	14																		
1	2	3	4	5	6	7																												
8	9	10	11	12	13	14																												
EC3	To Engine Compartment Fuse Box 3	 <table border="1"> <tr><td>1</td><td>2</td></tr> </table>	1	2																														
1	2																																	

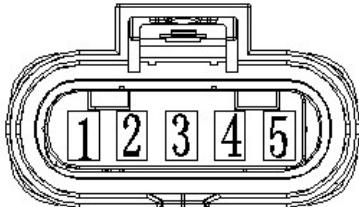
EE1	To Fuel Injector Adapter Wiring Harness Assembly		
E01	To Battery Fuse Box		Alternator Power Supply Output
E02	To Starting Motor Power Supply Terminal		To Starting Motor B+

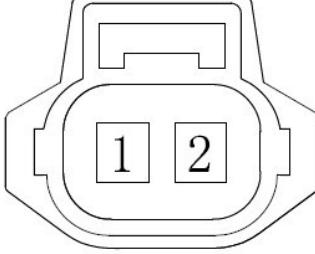
E02a	To Starting Motor Clutch		Starting Motor Signal			
E03	To Alternator 1		Alternator Power Supply Output			
E03a	To Alternator 2		1	Alternator LIN	2	/
E19	To Compressor Control Valve		1	Control Signal	2	/

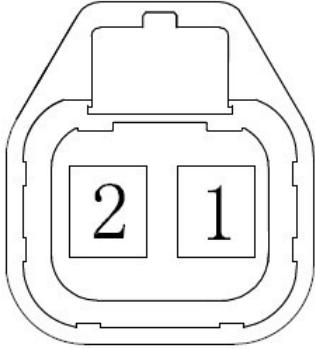
E25	To Intake OCV Control Valve		1	Power Supply	2	Control Signal
E26	To Exhaust OCV Valve		1	Power Supply	2	Control Signal
E27	To Discharge Control Valve		1	Power Supply	2	Control Signal

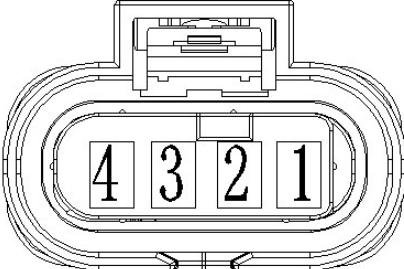
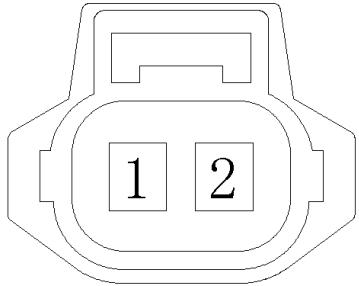
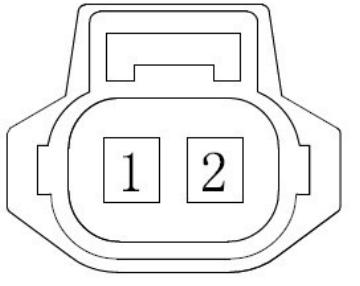
E31	To Fuel Rail Pressure Sensor		1	Sensor Grounding	3	5 V Power Supply
			2	Signal		
E33	Electronic Shift Actuator		1	5V	4	Motor +
			2	Position Signal	5	Motor -
			3	Grounding	6	/

E35	Water Temperature Sensor		1	Signal	2	Sensor Grounding
E36	To Electronic Throttle Valve		1	Electronic Throttle Control -	4	Electronic Throttle Control +
			2	Sensor Grounding	5	Throttle Position Sensor 2
			3	5 V Power Supply	6	Throttle Position Sensor 1
E37	To Rear Oxygen Sensor		1	Rear Oxygen Sensor	3	Rear Oxygen Sensor Heater
			2	Sensor Grounding	4	Power Supply

E38	To Linear Oxygen Sensor		1	Pump Current	4	Heater Positive
			2	Analog Grounding	5	Nernst Current
			3	Heater Negative	/	/

E39	To Variable Displacement Oil Pump		1	Control Signal	2	Power Supply

E40	To Electronic Thermostat		1	Signal	2	Power Supply
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E54/E55 /E56/E5 7	To Ignition Coil 1/2/3/4		1	Grounding	3	Grounding
			2	Ignition Control Signal		Power Supply
E58/E59 /E60/E6 1	To Fuel Injector 1/2/3/4		1	Control Signal (Fuel Injector Positive)	2	Control Signal (Fuel Injector Negative)
E62	To High Pressure Oil Pump		1	Oil Pressure Control Valve +	2	Oil Pressure Control Valve -

Connector Code	Wiring Harness Connector Name	Pin Layout Diagram (Front View)							
Hole Position	Pin Definition	Hole Position	Pin Definition	Hole Position	Pin Definition	Hole Position	Pin Definition		
1	5 V Power Supply	18	Crankshaft Position Sensor Power Supply	40	Electronic Throttle Valve Feedback Signal 1	85	Cylinder 2 Fuel Injector -		
2	Camshaft Position Sensor Power Supply (Intake)	20	Crankshaft Position Sensor Grounding	45	Camshaft Position Sensor Signal (Exhaust)	86	Electronic Throttle Valve Control -		
3	Sensor Power Supply	22	Water Temperature Sensor Signal 1	46	Knock Sensor (+)	90	Oil Pressure Control Valve -		
6	To Electronic Throttle Valve Grounding	23	Oil Pressure Sensor	47	Knock Sensor (-)	91	Electronic Throttle Valve Control +		

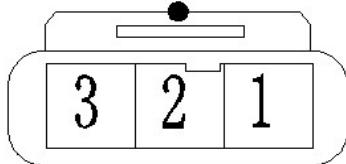
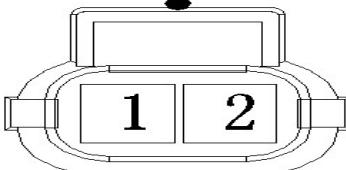
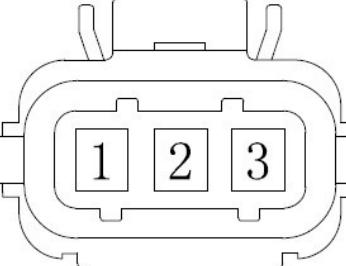
6.7.28-14

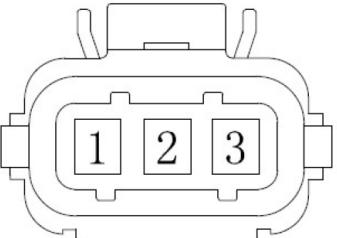
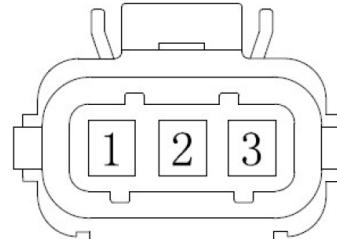
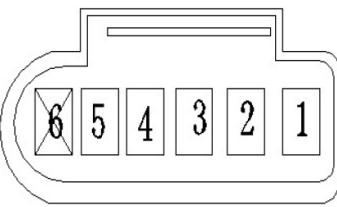
Engine Wiring Harness

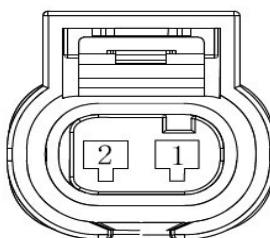
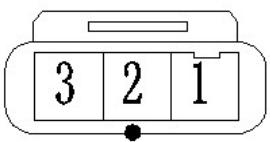
6.7.28-14

7	Sensor Grounding	24	Cruise Control Signal	54	Exhaust Bypass Actuator Signal	95	Oil Pressure Control Valve +	
8	Sensor Grounding	26	Desorption Pressure Sensor Signal	57	Crankshaft Position Sensor Signal			

9	Sensor Grounding	27	Boost Pressure Sensor Signal (Intercooler)	76	Cylinder 4 Fuel Injector +		
10	Camshaft Position Sensor Grounding (Exhaust)	28	Boost Pressure Sensor Signal	77	Cylinder 4 Fuel Injector -		
11	Camshaft Position Sensor Grounding (Intake)	29	Boost Temperature Sensor Signal (Intercooler)	78	Cylinder 1 Fuel Injector -		
12	Cylinder 2 Ignition	30	Camshaft Position Sensor Signal (Intake)	79	Cylinder 3 Fuel Injector +		
13	Cylinder 4 Ignition	31	Fuel Tank Pressure Sensor	80	Cylinder 2 Fuel Injector +		
14	Cylinder 1 Ignition	32	Electric Wiring Harness Conduit	81	Exhaust Bypass Actuator -		
15	Cylinder 3 Ignition	34	Electronic Throttle Valve Feedback Signal 2	82	Exhaust Bypass Actuator +		
16	Sensor Power Supply 5 V	36	Fuel Rail Pressure Sensor Signal	83	Cylinder 1 Fuel Injector +		
17	Sensor Power Supply 5 V	38	Boost Temperature Sensor Signal	84	Cylinder 3 Fuel Injector -		

Engine Wiring Harness Connector - Interface View and Pin Definition						
Connector Code	Wiring Harness Connector Name	Interface View	Hole Position	Pin Definition	Hole Position	Pin Definition
E63	To Crankshaft Position Sensor		1	Power Supply	3	Signal
E64	To Knock Sensor		1	Signal	2	Signal
E65	To Intake Camshaft Sensor		1	Sensor Grounding	3	Power Supply

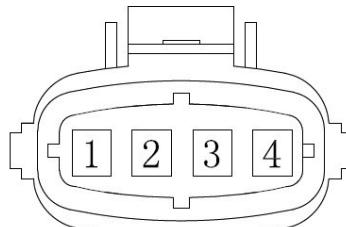
			2	Signal		
E66	To Exhaust Camshaft Sensor		1	Sensor Grounding	3	Power Supply
			2	Signal		
E71	To Exhaust Control Valve		1	Grounding	4	Electric Actuator Control +

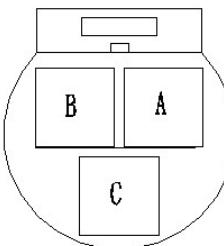
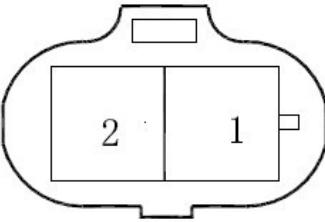
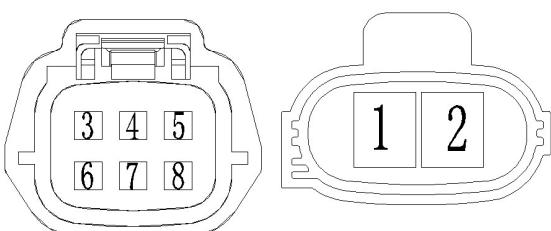
			2	Control Signal	5	Electric Actuator Control -
			3	Power Supply	6	/
E72	To Carbon Canister Control Valve		1	Control Signal	2	Power Supply
E82	To High Pressure Desorption Pressure Sensor		1	Signal	3	Power Supply
			2	Sensor Grounding		

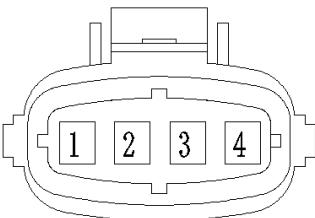
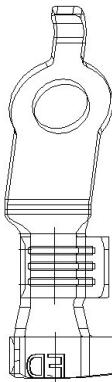
6.7.28-19

Engine Wiring Harness

6.7.28-19

E83	To Intake Pressure/Temperature Sensor		1	Sensor Grounding	3	5 V Power Supply
			2	Intake Temperature Sensor Signal	4	Intake Pressure Sensor Signal

E88	To Oil Pressure Sensor		A	Sensor Grounding	C	Signal
			B	Power Supply	/	/
E91	To Electric Wiring Harness PCV Conduit		1	Grounding	2	Power Supply
E92	EPS		1	Power Supply	5	CAN_L
			2	Grounding	6	/
			3	IG	7	/

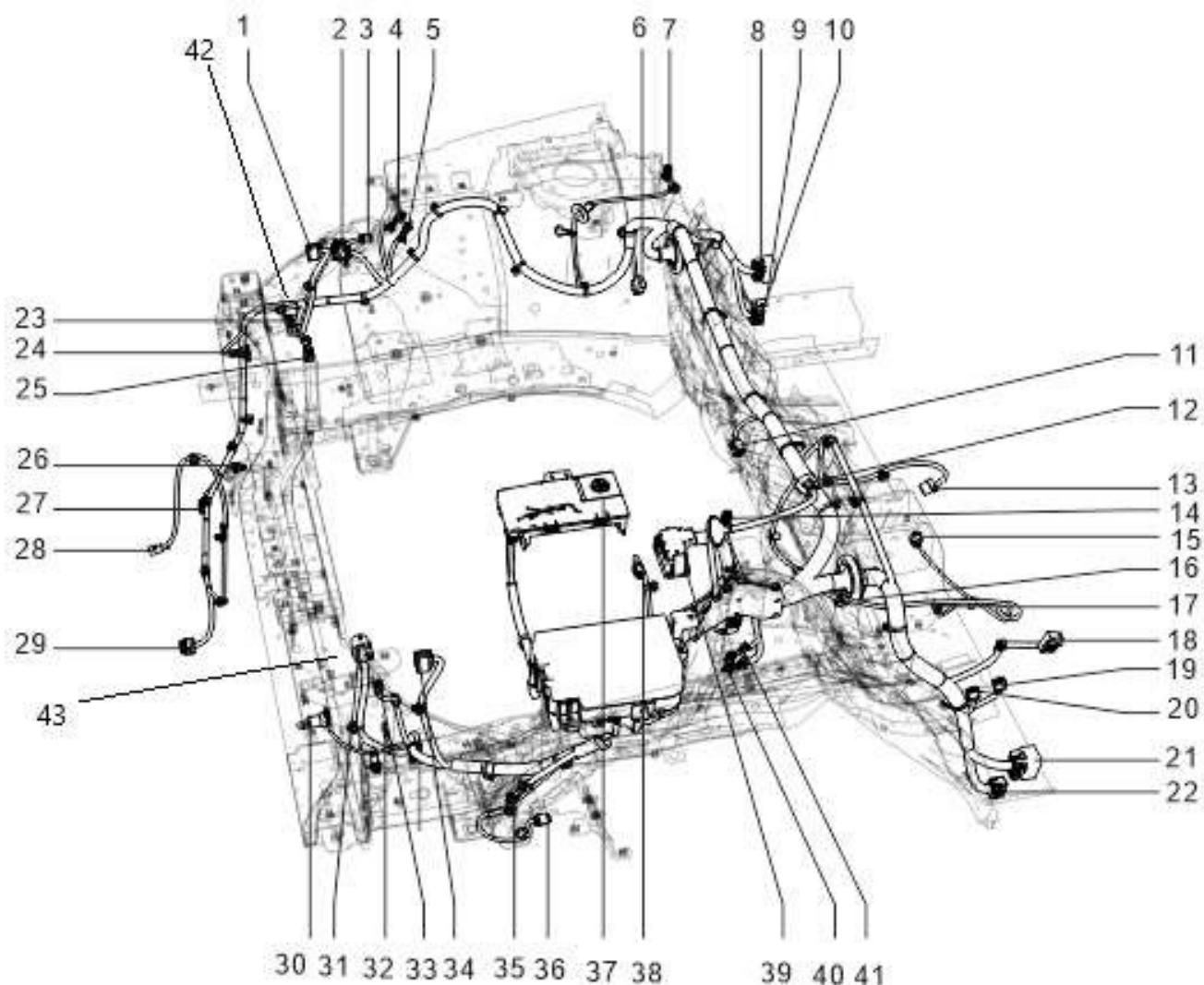
			4	CAN-H	8	/
E93	To Boost Pressure Sensor		1	Sensor Grounding	3	5 V Power Supply
			2	Intake Temperature Sensor Signal	4	Intake Pressure Sensor Signal
E94	EPS Positive		EPS Power Supply			

E95	EPS Negative		EPS Grounding
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6.8 Wiring Harness Distribution

6.8.1 Engine Compartment Wiring Harness

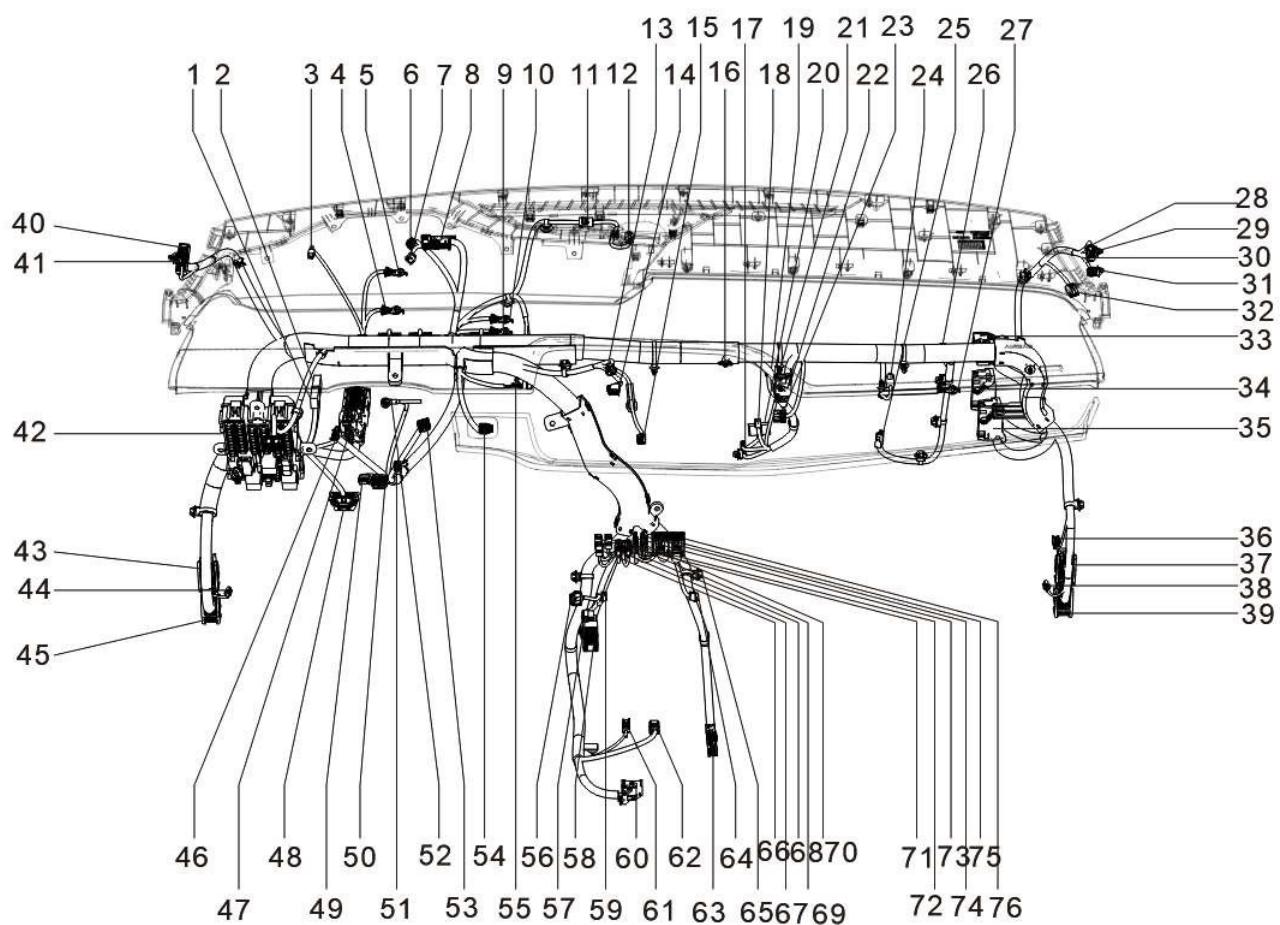
Engine Compartment Wiring Harness Connector					
No.	Code	Wiring Harness Connector Name	Wiring Harness Connector	Code	Wiring Harness Connector Name
1	C05	Front Combination Lamp - Right	25	C20	Washer Motor (Front)
2	CB1	Engine Compartment to Front Bumper (1)	26	C72	Cooling Water Pump
3	C08	Wheel Speed Sensor - Right Front	27	C27	Outside Temperature Sensor
4	GD308	Grounding Point GD308	28	C24	To Front Camera
5	GD307	Grounding Point GD307	29	C23	Self-adaptive Cruise Controller
6	C19	Refrigerant Pressure Sensor	30	C11	Electric Horn 1
7	C75	Air Quality Sensor	31	C10b	Cooling Fan (D20T)
8	CP2	Engine Compartment to Instrument Cluster (Right 1)	32	GD301	Grounding Point GD301
9	CF2	Engine Compartment to Chassis (Right 1)	33	C34	Front Collision Sensor - Left
10	CP4/CF4	Engine Compartment to Chassis/Instrument Cluster (Front Camera)	34	C03	Front Combination Lamp - Left
11	C74b	Vacuum Pressure Sensor (D20T)	35	GD302	Grounding Point GD302
12	C15	Wiper Motor	36	C07	Wheel Speed Sensor - Left Front
13	C37a	Brake Switch 2	37	C44a	Battery Positive - Engine Compartment Fuse Box
14	C16	Brake Fluid Level Sensor	38	C66b	Battery Sensor (D20)
15	C38	GPF Differential Pressure Sensor	39	C13b	ECU (D20T)
16	C43b	Accelerator Pedal Position Sensor (D20T)	40	GD304	Grounding Point GD304
17	C38*	GPF Temperature Sensor	41	GD306	Grounding Point GD306
18	CP5	Engine Compartment to Instrument Cluster (Left 3)	42	C55	Battery Three-way Valve
19	C82a	Electronic Shift Actuator Controller A	43	C56	HVAC Three-way Valve
20	C82b	Electronic Shift Actuator Controller B		C85	Front Motor Controller
21	CP1	Engine Compartment to Instrument Cluster (Left 1)			
22	CF1	Engine Compartment to Chassis (Left 1)			
23	C35	Front Collision Sensor - Right			
24	C12	Electric Horn 2			



6.8.2 Instrument Panel Wiring Harness

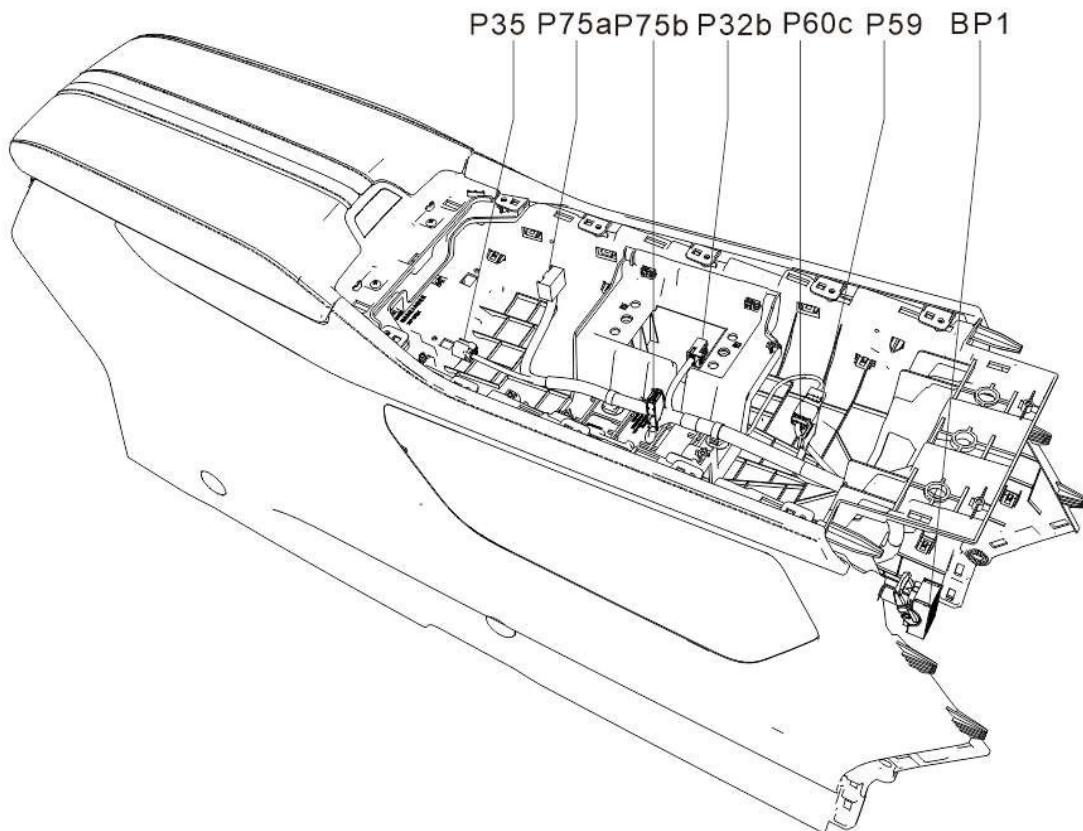
Instrument Panel Wiring Harness Connector					
Wiring Harness Connector No.	Code	Wiring Harness Connector Name	Wiring Harness Connector No.	Code	Wiring Harness Connector Name
1	P28**	Ethernet Gateway J2 (Ethernet)	39	PF2	Instrument Cluster to Chassis (Right)
2	P28*	Ethernet Gateway	40	PR1	Instrument Cluster to Roof (Left 1)
3	P56u	To Instrument Cluster Display USB	41	/	Instrument Cluster to Roof (Left 2)
4	GD108	Grounding Point GD108	42	P01	Instrument Panel Fuse Box
5	GD107	Grounding Point GD107	43	PC1	Instrument Cluster to Engine Compartment (Left 1)
6	P56k	Instrument Cluster (To Streaming Camera)	44	/	Instrument Cluster to Chassis (Streaming Camera)
7	P56l	Instrument Cluster (To Head Unit LVDS)	45	PF1	Instrument Cluster to Chassis (Left 1)
8	P36	EPS Power Supply Interface	46	P04	Combination Switch - Light
9	P56j	Instrument Cluster Head Unit Controller	47	P76a	Automatic Driving Central Controller a
10	GD105	Grounding Point GD105	48	P03	Diagnostic Interface
11	GD102	Grounding Point GD102	49	P09b	Rotary Connector (Multi-functional Switch)
12	P42	Atmosphere Lamp - Instrument Cluster Left	50	P09a	Rotary Connector (Driver Side Airbag High)
13	P63	Center Speaker	51	P05	Combination Switch - Wiper
14	P13a	To Front Display	52	P79	Infrared Camera
15	P11	Emergency Alarm Switch	53	P24	Steering Angle Sensor
16	GD106	Grounding Point GD106	54	P31	ENGINE START STOP Switch
17	P66	Front A/C Evaporator Surface Temperature	55	GD10 3	Grounding Point GD103
18	P69	Front A/C Passenger Side Air Mix Servo Motor	56	P61a	Front USB1 (Data Transmission)
19	P71	Ion Generator	57	P22	Power Socket
20	P64	Front A/C Speed Regulation Module	58	PB1	Instrument Cluster to Auxiliary Fascia Console
21	P67	Front A/C Mode Servo Motor	59	P61b	Data Reading
22	P15d	Automatic A/C Controller	60	P62	Airbag Control Unit A
23	P15a	Automatic A/C Controller	61	P21d	BDCd

24	P20	Front Passenger Airbag	62	P21e	BDCe
25	P73	Front A/C Blower	63	PF7	Instrument Cluster to Chassis (Middle)
26	P70	Front A/C Inner and Outer Recirculation Servo Motor	64	P61b	Front USB2 (Quick Charging)
27	GD101	Grounding Point GD101	65	P44h	Head Unit to Front Display
28		Instrument Cluster to Roof (Right 2)	66	P44j	AR Navigation
29	D45	Speaker 2(Right Front Door)	67	P44z	Head Unit To APA Coaxial
30	PR2	Instrument Cluster to Roof (Right)	68	P44ad	Head Unit to Instrument Cluster Screen
31	/	Instrument Cluster to Roof (GPS Feeder)	69	P44g	GPS Antenna
32	P60	Atmosphere Lamp - Instrument Cluster Right	70	P44t	Head Unit to Panoramic Four-Way Coaxial
33	P21a	BDCa	71	/	USB for Drive Recorder
34	P21b	BDCb	72	P44l	USB for User
35	P21c	BDCc	73	P44o	USB for Instrument Cluster
36	PF10	Instrument Cluster to Chassis (APA Ethernet)	74	P44W	Head Unit to Ethernet
37	PC2	Instrument Cluster to Engine Compartment (Right 1)	75	P44b	Entertainment and Audio Head Unit - B Gray
38	PF6	Instrument Cluster to Chassis (APA Coaxial)	76	P44a	Entertainment and Audio Head Unit - A Black



6.8.3 Auxiliary Fascia Console Wiring Harness Assembly

Auxiliary Fascia Console Wiring Harness Connector					
Wiring Harness Connector No.	Code	Wiring Harness Connector Name	Wiring Harness Connector No.	Code	Wiring Harness Connector Name
1	BP1	Auxiliary Fascia Console to Instrument Cluster	5	P32b	Electronic Shift Control Assembly
2	P59	Wireless Charging	6	P75a	Central Box Switch Box a
3	P60c	Atmosphere Light - Central Box 1	7	P35	Front Antenna
4	P75b	Central Box Switch Box b			



6.8.4 Chassis Wiring Harness

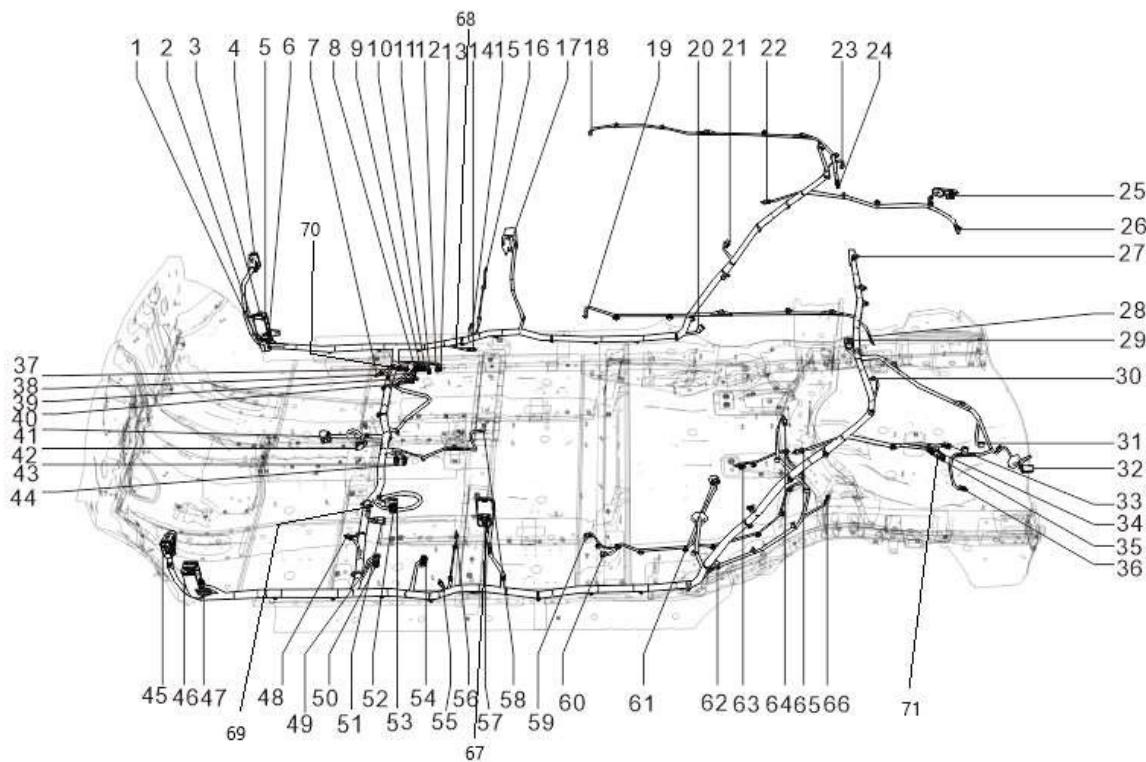
Chassis Wiring Harness Connector					
Wiring Harness Connector	Code	Wiring Harness Connector Name	Wiring Harness Connector	Code	Wiring Harness Connector Name
1	FC2	Chassis to Engine Compartment (Right 1)	37	F43	Front Passenger Side Airbag
2	FP6	Chassis to Instrument Cluster (APA-A)	38	F66	Seat Heater Controller (Front Passenger)
3	FP10	Chassis to Instrument Cluster (APA-A)	39	F45	Front Passenger Seat Sensor
4	FD2	Chassis to Right Front Door	40	F44	Front Passenger Seat Belt Switch
5	FC4	Chassis to Engine Compartment (Front Camera)	41	FP7	Chassis to Instrument Cluster (Middle)
6	FP2	Chassis to Instrument Cluster (Right)	42	F02b	Airbag Control Unit B
7	GD202	Grounding Point GD202	43	GD213	Grounding Point GD213
8	F56c	APA-C	44	GD214	Grounding Point GD214
9	F56b	APA-B	45	FD1	Chassis to Left Front Door
10	F56a	APA-A	46	FP1	Chassis to Instrument Cluster (Left 1)
11	F56l	APA to Ethernet	47	FC1	Chassis to Engine Compartment (Left 1)
12	F56e	APA to Head Unit Coaxial	48	GD201	Grounding Point GD201
13	F56f	APA to Panoramic Four-Way Coaxial	49	F101a	External Power Amplifier A
14	GD204	Grounding Point GD204	50	F101b	External Power Amplifier B
15	F39	Front Passenger Side Collision Sensor	51	F42	Driver Side Airbag
16	F07	Door Contact Switch - Right Front	52	F03	Driver Seat Belt Switch
17	FD4	Chassis to Right Rear Door	53	F72	Seat Memory Controller
18	F55	Right Curtain Shield Airbag	54	F97	4WD Controller
19	F54	Left Curtain Shield Airbag	55	F38	Driver Side Collision Sensor
20	FE2	Chassis to EPB - Right	56	F05	Door Contact Switch (Left Front)
21	F08	Door Contact Switch - Right Rear	57	FD3	Chassis to Left Rear Door
22	GD208	Grounding Point GD208	58	F32a	2nd Row USB1
23	D47*	Surround Speaker - Right Rear	59	F46b	Fuel Tank Pressure Sensor (D20T)

6.8.4-2

Chassis Wiring Harness

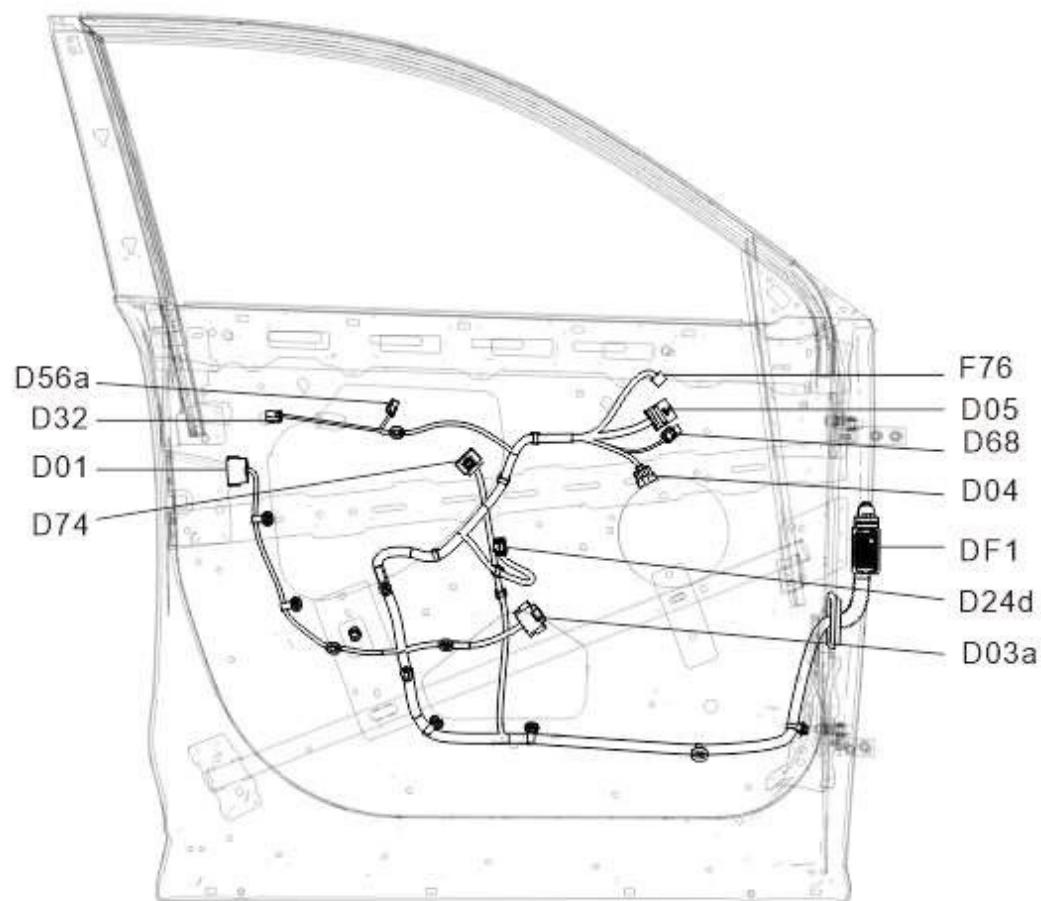
6.8.4-2

24	F22	Radio Frequency Receiver	60	F23	Carbon Canister Stop Valve
25	F15	A Tail Lamp - Right	61	F01b	Fuel Pump (D20T)
26	FB1	Chassis to Rear Bumper	62	FE1	Chassis to EPB - Left
27	FD5	Chassis to Tailgate	63	F98	4WD Torque Sensor
28	GD209	Grounding Point GD209	64	F34	Middle Antenna
29	F78	Electric Strut Rod - Left	65	GD207	Grounding Point GD207
30	D46*	Surround Speaker - Left Rear	66	D46*	Surround Speaker - Left Rear
31	F100	Subwoofer	67	F28a	Ripple Anti-pinch Controller a
32	F13	A Tail Lamp - Left	68	F28b	Ripple Anti-pinch Controller b
33	F18	Tailgate Lamp	69	F83	Left Front Doorsill Welcome Lamp
34	F70b	Tailgate Controller 2	70	F84	Right Front Doorsill Welcome Lamp
35	F70a	Tailgate Controller 1	71	F30	High Voltage Junction Box
36	F77	Fuel Tank Cap Motor	72		



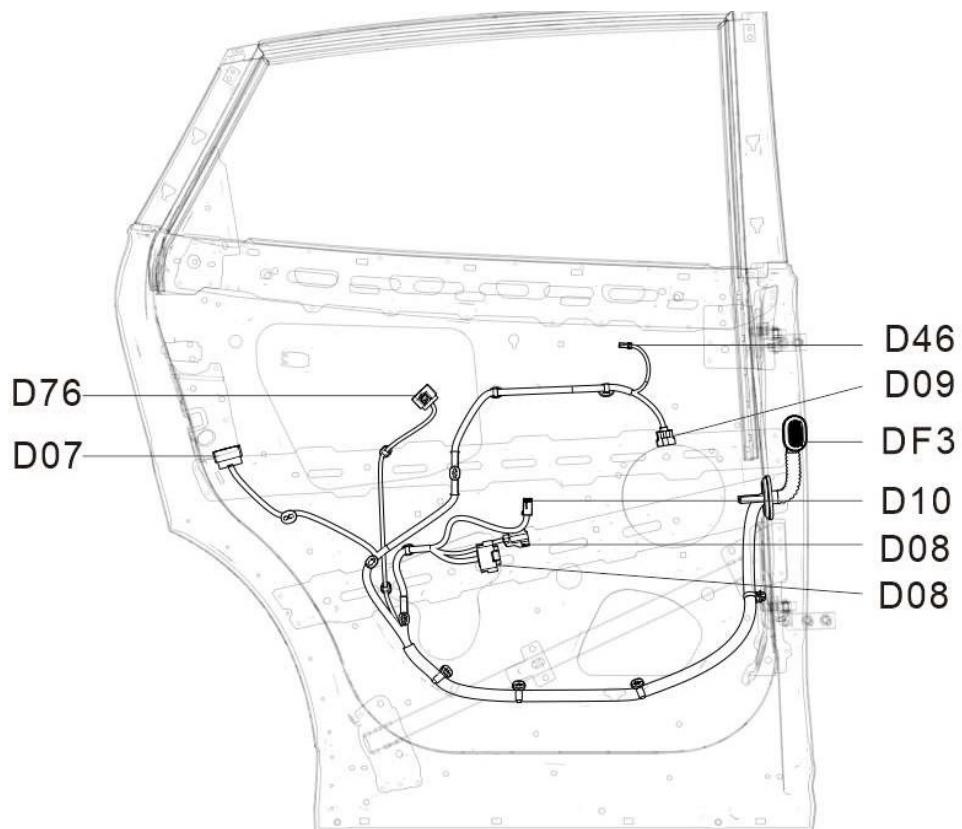
6.8.5 Left/Right Front Door Wiring Harness

Left Front Door Wiring Harness Connector					
Wiring Harness Connector No.	Code	Wiring Harness Connector Name	Wiring Harness Connector No.	Code	Wiring Harness Connector Name
1	DF1/DF2	Left Front Door to Chassis	7	D56a/D57a	Atmosphere Lamp 1 - Left/Right Front Door
2	D74/D75	Left/Right Front Door Concealed Handle Switch	8	D32/D33	Left/Right Side Antenna
3	D03/D13b	Window Motor 1 (Left Front Door)/Window Motor - Right Front Door (Anti-pinch)	9	D05/D15	Rearview Mirror (Left/Right Front Door)
4	D01/D12	Door Lock Motor (Left/Right Front Door)	10	F76	Seat Memory Switch
5	D24d/D25b	Window Switch - Driver (Four-Door Anti-pinch)/Window Motor - Front Passenger (Anti-pinch)	11	D68	Left/Right Camera
6	D04	Speaker 1 (Left/Right Front Door)			



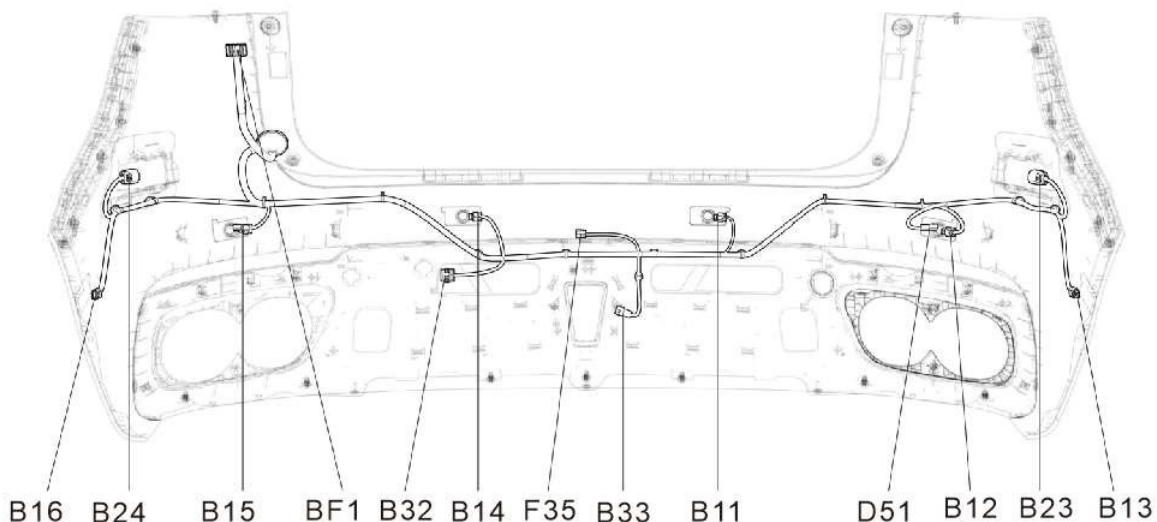
6.8.6 Left/Right Rear Door Wiring Harness

Left/Right Rear Door Wiring Harness Connector					
Wiring Harness Connector No.	Code	Wiring Harness Connector Name	Wiring Harness Connector No.	Code	Wiring Harness Connector Name
1	DF3/DF4	Left/Right Rear Door to Chassis	5	D09/D19	Speaker 1 (Left/Right Rear Door)
2	D08b/D18b	Window Motor - Left/Right Rear Door (Anti-pinch)	6	D10b/D21b	Window Switch - Left/Right Rear Door (Anti-pinch)
3	D76/D77	Left/Right Rear Door Concealed Handle Switch	7	D46/D47	Speaker 2 (Left/Right Rear Door)
4	D07/D17	Door Lock Motor (Left/Right Rear Door)	8	D58/D59	Atmosphere Lamp (Left/Right Rear Door)



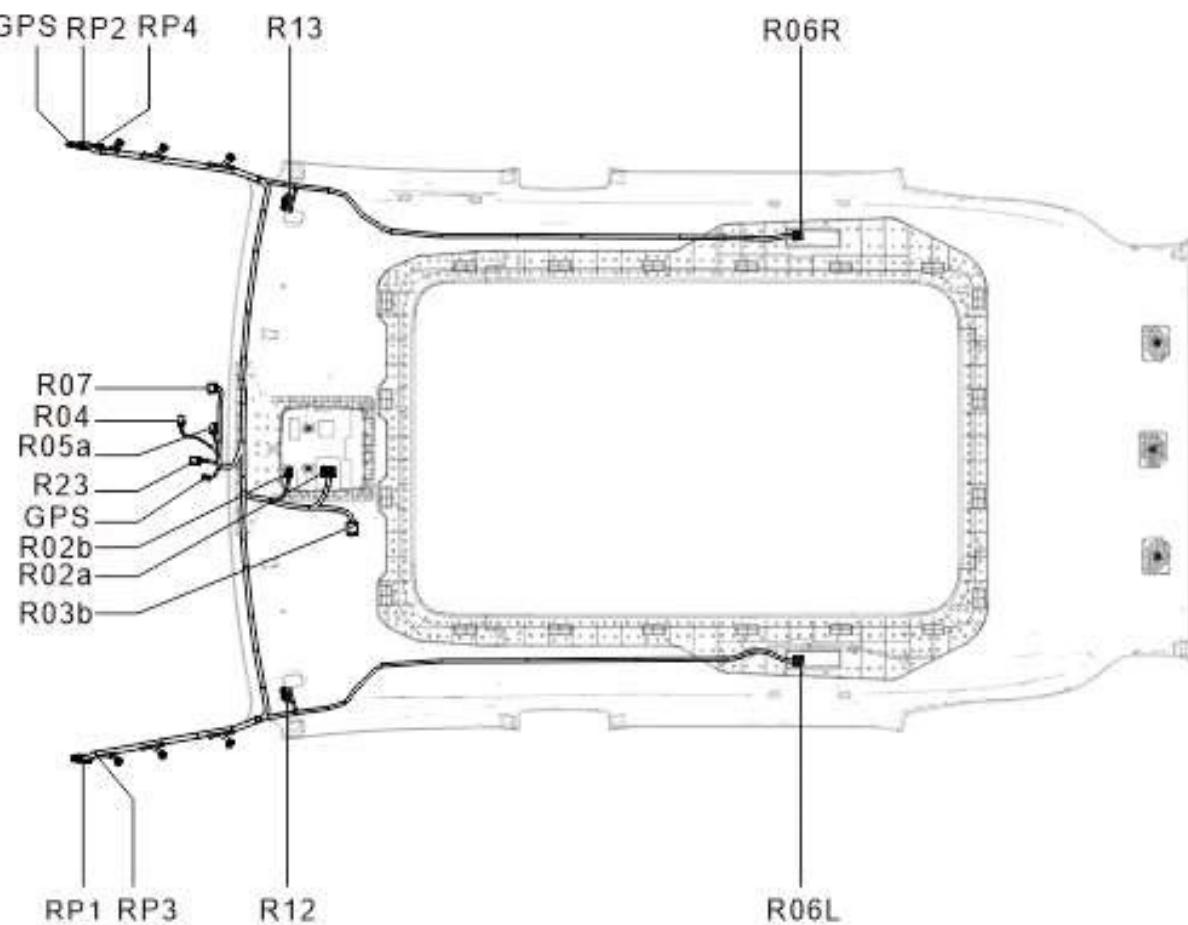
6.8.7 Rear Bumper Wiring Harness

Rear Bumper Wiring Harness Connector					
Wiring Harness Connector No.	Code	Wiring Harness Connector Name	Wiring Harness Connector No.	Code	Wiring Harness Connector Name
1	B24*	Side Assist Controller (Right)	8	D52	Backup Lamp (Right)
2	B16	Parking Right Rear Outside Sensor	9	B15	Parking Right Rear Inside Sensor S8
3	BF1	Rear Bumper to Chassis	10		
4	F35	Inside Rear Antenna	11	B33	Rear Fog Lamp
5	B11	Parking Left Rear Center Sensor	12	D51	Backup Lamp (Left)
6	B12	Parking Left Rear Inside Sensor	13	B13	Parking Left Rear Outside Sensor S12
7	B23*	Side Assist Controller (Left)	14	B14	Parking Right Rear Center Sensor S9



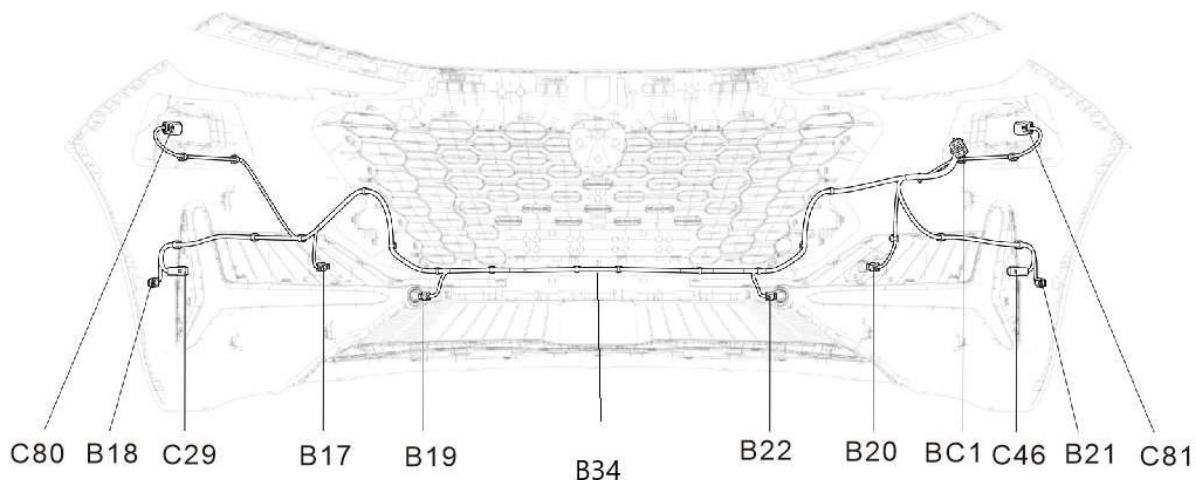
6.8.8 Roof Wiring Harness

Roof Wiring Harness Connector					
Wiring Harness Connector No.	Code	Wiring Harness Connector Name	Wiring Harness Connector No.	Code	Wiring Harness Connector Name
1	RP1	Roof to Instrument Cluster (Left 1)	8	R13	Vanity Lamp (Right)
2	R06L	Middle-row Map Lamp - Left	9	R06R	Middle-row Map Lamp - Right
3	R12	Vanity Lamp (Left)	10	L06R	Dome Lamp - Right Rear (Panoramic Sunroof)
4	R03b	Sunroof Controller (Panoramic)	11	RP3	Roof to Instrument Cluster (GPS)
5	R02a	Front Dome Lamp + Sunroof	12	GPS	GPS Feeder
6	R02b	Microphone	13	RP2	Roof to Instrument Cluster (Right)
7	R05a	Lane Departure Controller A	14	R07	Electronic Inside Rearview Mirror (Anti-glare)



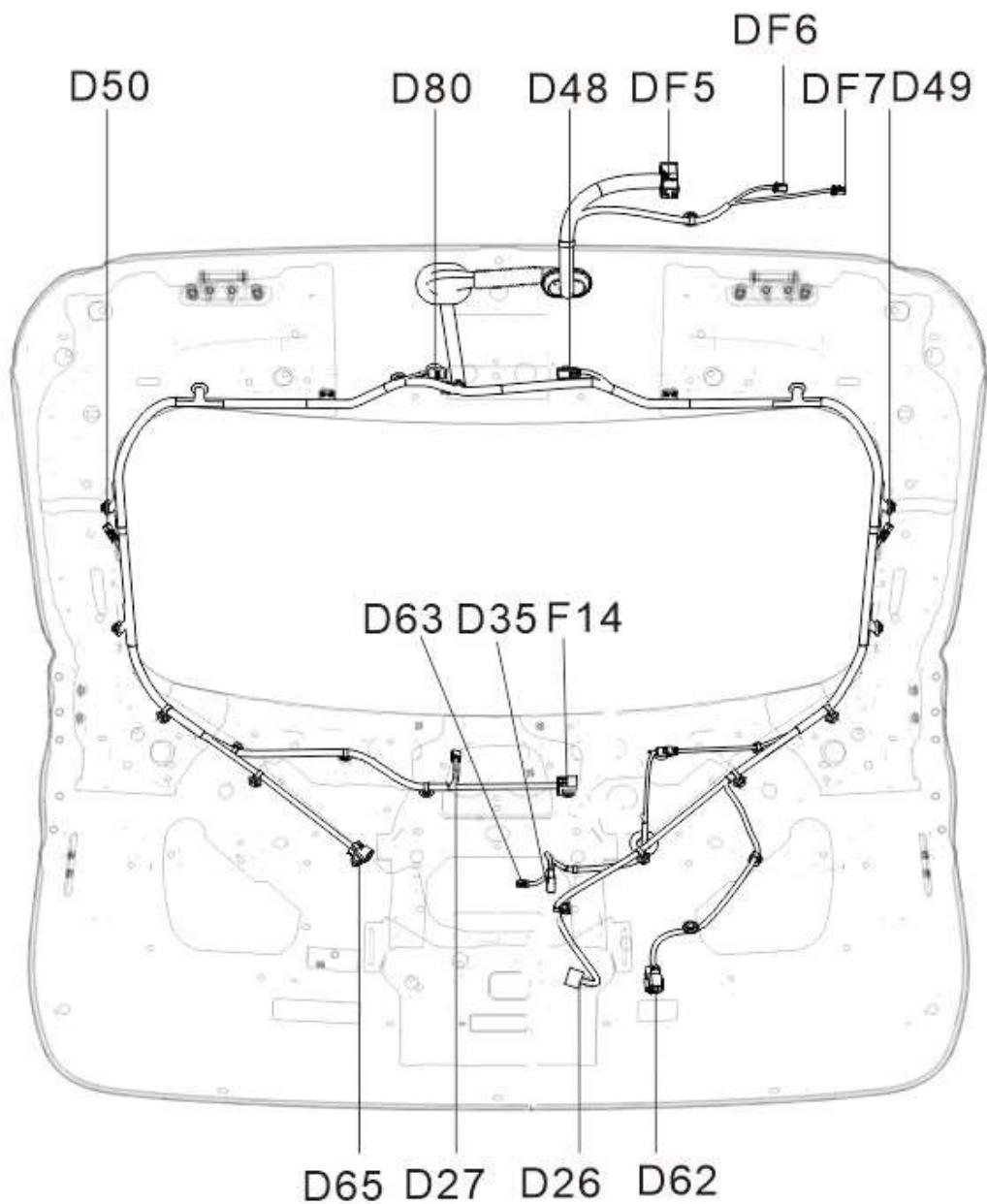
6.8.9 Front Bumper Wiring Harness

Front End Module Wiring Harness Connector					
Wiring Harness Connector No.	Code	Wiring Harness Connector Name	Wiring Harness Connector No.	Code	Wiring Harness Connector Name
1	BC1	Front Bumper to Engine Compartment (1)	7	B22	Parking Right Front Center Sensor
2	C81	Side Assist Controller (Right)	8	B19	Parking Left Front Center Sensor
3	B20	Parking Right Front Inside Sensor	9	B17	Parking Left Front Inside Sensor
4	B18	Parking Left Front Outside Sensor	10	C80	Side Assist Controller (Left)
5	C46	Front Combination Lamp (Right)	11	C29	Front Combination Lamp (Left)
6	B21	Parking Right Front Outside Sensor	12	B34	Front Light Emitting Emblem



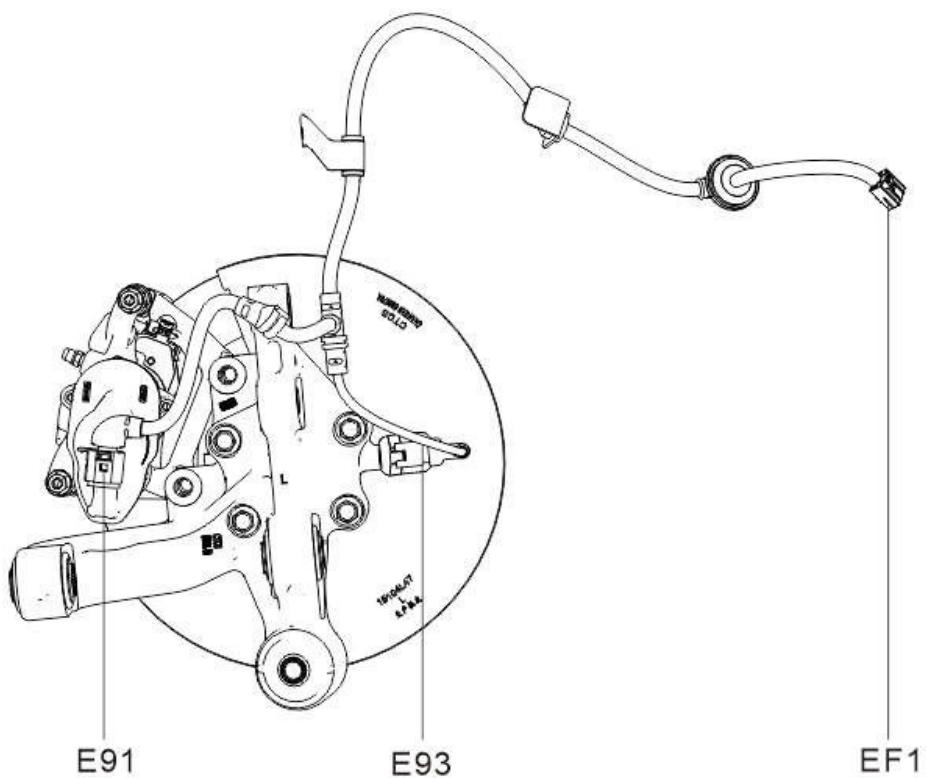
6.8.10 Tailgate Wiring Harness

Tailgate Wiring Harness Connector					
Wiring Harness Connector No.	Code	Wiring Harness Connector Name	Wiring Harness Connector No.	Code	Wiring Harness Connector Name
1	DF5	Tailgate to Chassis	8	D49	Rear Defroster Positive
2	DF6	Tailgate to Chassis 2 (Rear Camera)	9	D26a	Door Lock Motor - Tailgate (Low Configuration)
3	F14	B Tail Lamp - Left	10	D35	Rear Camera
4	D50	Rear Defroster Negative	11	D63	License Plate Lamp - Left
5	D48	High Mounted Brake Lamp	12	DF7	Tailgate to Chassis (Streaming Camera)
6	D80	Streaming Camera	13	D27	Wiper Motor (Rear)
7	D62	Tailgate Lock Motor (High Configuration 1)	14	D65	Buzzer - Tailgate
			15	F121	Rear Light Emitting Emblem



6.8.11 EPB Wiring Harness

EPB Wiring Harness Connector					
Wiring Harness Connector No.	Code	Wiring Harness Connector Name	Wiring Harness Connector No.	Code	Wiring Harness Connector Name
1	EF1/EF2	EPB Wiring Harness to Chassis - Left/Right	3	E91/E92	Left/Right Electronic Caliper
4	E93/E94	Left/Right Rear Vehicle Speed Sensor			



6.8.12 Engine Wiring Harness

Engine Wiring Harness Connector Summary - Connector			
Code	Wiring Harness Connector Name	Code	Wiring Harness Connector Name
EC1	To Engine Compartment Fuse Box 1	EC3	To Engine Compartment Fuse Box 3
EC2	To Engine Compartment Fuse Box 2	EE1	To Fuel Injector Adapter Wiring Harness

Engine Wiring Harness Connector Summary - Wiring Harness Connector			
Code	Wiring Harness Connector Name	Code	Wiring Harness Connector Name
E01	To Battery Fuse Box	E56	To Ignition Coil 3
E02	To Starting Motor Power Supply Terminal	E57	To Ignition Coil 4
E02a	To Starting Motor Clutch	E58	To Fuel Injector 1
E03	To Alternator 1	E59	To Fuel Injector 2
E03a	To Alternator 2	E60	To Fuel Injector 3
E08	To TCU	E61	To Fuel Injector 4
E19	To Compressor Clutch	E62	To High Pressure Oil Pump
E25	To Intake OCV Control Valve	E63	To Crankshaft Position Sensor
E26	To Exhaust OCV Control Valve	E64	To Knock Sensor
E27	To Discharge Control Valve	E65	To Intake Camshaft Sensor
E31	To Fuel Rail Pressure Sensor	E66	To Exhaust Camshaft Sensor
E33	Electronic Shift Actuator	E71	To Exhaust Bypass Actuator
E35	Water Temperature Sensor	E72	To Carbon Canister Control Valve
E36	To Electronic Throttle Valve	E82	To High Pressure Desorption Pressure Sensor
E37	To Rear Oxygen Sensor	E83	To Intake Pressure/Temperature Sensor
E38	To Linear Oxygen Sensor	E88	To Oil Pressure Sensor
E39	To Variable Displacement Oil Pump	E91	To Electric Wiring Harness PCV Conduit
E40	To Electronic Thermostat	E92	EPS
E47	To ECU (2.0T)	E93	To Boost Pressure Sensor
E54	To Ignition Coil 1	E94	EPS Positive
E55	To Ignition Coil 2	E95	EPS Negative

