
Overview

Precautions for Battery Disconnection

Before servicing any electrical component, ensure the ignition key is in "OFF" or "LOCK" position and all electrical loads are turned "OFF", unless otherwise stated in the operating procedure. If the exposed live terminals can be accessed easily by any tool or device, be sure to disconnect the negative battery cable. Violation of these safety instructions could cause personal injury and/or damage to the vehicle or its components.

Precautions for Electric Cooling Fan

The fan under the engine cover may start and cause injury even when the engine is not running. Be careful to keep your hands, clothes and tool away from any electric fan under the engine cover.

Precautions for Moving Parts and Hot Surfaces

When the engine is running, be careful not to contact with moving parts and hot surfaces, to avoid injury.

Precautions for Radiator Cap Removal

To avoid scalding, do not remove the radiator cap or expansion tank cover while the engine is hot. Otherwise the boiling fluid and steam will be blown out of the cooling system.

Precautions for Vehicle Lifting

Before removing any main component from one end of the vehicle, or using a hook to support the vehicle, use a jack stand to support the other end. This can avoid vehicle damage, serious personal injury and even death.

Precautions for Hood and Liftgate

When removing, installing or disconnecting any hood and liftgate component, other devices must be used for support to avoid the risk of vehicle damage or personal injury.

Precautions for Window Removal

When processing any type of window glass, use approved safety goggles and gloves, to avoid injury.

Precautions for Fasteners

Use the correct fastener in the correct location. Fastener replacement must have correct part number. Fasteners requiring the use of thread locking compound, lubricants,

anti-corrosion compound or sealant or fasteners requiring replacement are identified in the service procedure. Do not use paints, lubricants, or corrosion inhibitors on fasteners or fastener joint surfaces unless specified. These coating will affect the torque and connection force of the fastener and cause damages to fastener. Follow correct tightening sequence and torque for fastener installation.

Precautions for Road Tests

Road test vehicles under safe conditions and observe all traffic regulations. Do not attempt any operation that could compromise the control of the vehicle. Violation of the above safety instructions may lead to serious personal injury and vehicle damage.

General Information

Technical Parameters

Main Vehicle Dimension Parameters

Product model	SH1032D8BEV-9
Driving type	4X2, rear wheel drive
Length of outline dimension, mm	5365
Width of outline dimension, mm	1900
Height of outline dimension, mm	1809
Length of cargo bar board, mm	1485
Width of cargo bar board, mm	1510
Height of cargo bar board, mm	530
Wheel base, mm	3155
Front/rear suspension, mm	942/1268
Front track/rear track, mm	1580/1580
Minimum turning circle diameter, m	13.6

Complete Vehicle Mass Parameters

Product model	SH1032D8BEV-9
Maximum allowable total mass, kg	3495
Curb weight, kg	2270
Rated load, in kg	900
Axle load (front/rear axle load under curb weight), kg	1545/1950
Number of seats	5

General Information

Dynamic Performance Index

Items		Parameter values
Product model		SH1032D8BEV-9
Maximum design speed, km/hour		105
Maximum gradability, %		28
Acceleration capacity, s	0-30 km/h acceleration time	5.5
Driving range, km	Driving at a constant speed of 40 km/h	450
	Working condition method	535

Main Drive Motor Parameters

Model	TZ220XS612B1
Type	Permanent magnet synchronous motor
Rated speed, rpm	4000
Peak speed, rpm	12000
Rated power, KW	65
Peak power, KW	130
Rated torque, Nm	155
Peak torque, Nm	310
Motor operating voltage, V	240 ~ 420

Chassis Technical Parameters:

Items	Parameter values
Front suspension structure	Double wishbone independent suspension
Rear suspension structure	Vertical type spring non-independent suspension
Form specifications of steel plate spring	Five leaf spring
Requirements for steel wheel dynamic balance	Both sides of the remaining dynamic imbalance is less than: 10 g
Dynamic balance of aluminum wheels	Both sides of the remaining dynamic imbalance is less than: 8 g
Rational range of brake pedal free stroke	Within 10 mm
Rational use range of brake friction pair	Friction material thickness is greater than 2 mm

Wheels and Tires

Items	Items	
Wheel specification	16x7J	17x7J
Tire dimension	245/70R16 107S	245/65R17 111H
Front tire pressure (cold state)	220kPa/2.2bar/32psi	250kPa/2.5bar/36psi
Rear tire pressure (cold state)	300kPa/3.0bar/44psi	290kPa/2.9bar/42psi

Wheel Alignment Parameters

Items		Parameter values
Front wheels	Toe-in angle	0±0.15° Total toe-in ≤ 0.15°
	Camber angle	0±0.5° Difference between left and right ≤ 0.5°
	Kingpin caster	3.6±0.5° Difference between left and right ≤ 0.5°
Rear wheels	Toe-in angle	0°±0.25°
	Camber angle	0°±0.5°
	Thrust Angle	0°±0.25°

General Information

Lifting and Towing

Vehicle Lifting

Lifting

Lifting Description

Before lifting the vehicle off the ground, note the followings:

- The ground for parking vehicles should be level and firm.
- Pull the parking brake.
- Select P gear or N gear for the transmission.

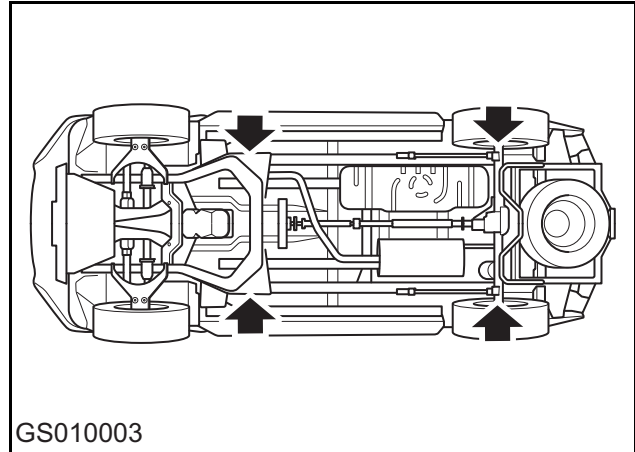
Do not put the jack or axle bracket under the following components:

- Body structural members
- Bumpers
- Fuel lines
- Brake pipelines
- Front suspension arm
- Steering linkage
- Rear suspension arm
- Fuel tank
- Engine oil pan
- Transmission housing
- Rear towing eye

Prompt: Lift and support the front of vehicle under the front supporting point of user and/or under the support bracket on the front part of front subframe.

Front/Rear Supporting Point of the Vehicle

The jack of the vehicle is only applied to replace wheels in emergency. Do not use it for other purposes.



If using the jack to replace wheels, ensure that the jack is placed on a solid level ground and under the supporting point near the wheel to be removed. Note that the round head of the jack must be placed under the corresponding groove of the bottom plate.

Warning: Do not operate under a vehicle supported by a jack only. The vehicle must be supported on a safe device.

Hydraulic jack

The hydraulic jack used must have a bearing capacity of at least 1500kg.

Warning: Only when the vehicle is safely and reliably supported can you operate under the vehicle.

Warning: Please use a block to lock the wheel when using the jack. Lifting and Supporting the Vehicle.

Front wheel jacking point: on the plane under the longitudinal beam (between the 4th beam and the 2nd suspension).

Rear wheel jacking point: on the rear axle housing (90mm from the rear leaf spring), and the concave side of the jack shall be aligned with the curved surface of the rear axle housing sleeve. The jack of the vehicle is only

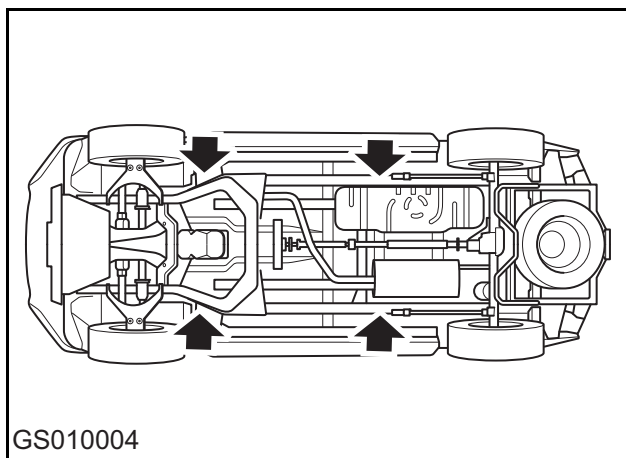
applied to replace wheels in emergency, do not use it for any other purpose.

Caution: *The vehicle can only be lifted or supported on a specified position. Otherwise it may cause body or chassis component damage.*

Warning: *Only when the vehicle is safely and reliably supported can you operate under the vehicle.*

Warning: *Please use a block to lock the wheel when using the jack.*

Warning: *Column Lifter*



Place the cushion on the corresponding lifting point for lifting.

Front lifting point: between the 4th beam and the 2nd suspension.

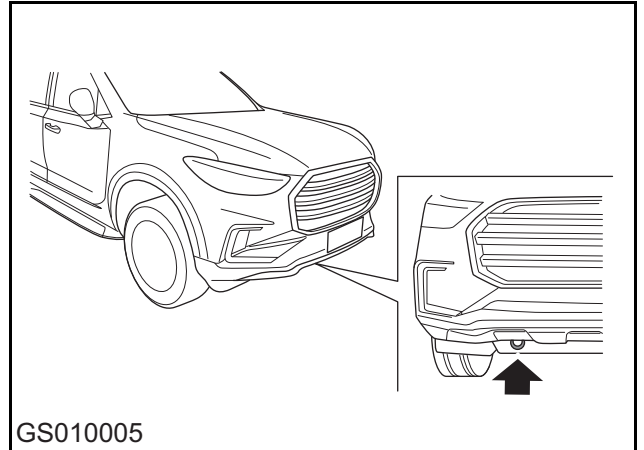
Rear lifting point: on the plane before the leaf spring bracket.

Roadside Assistance

Instructions for Roadside Assistance

It is recommended to use a rescue trailer or a two-wheeled rescue vehicle. The front towing point is used to tow the vehicle in emergency.

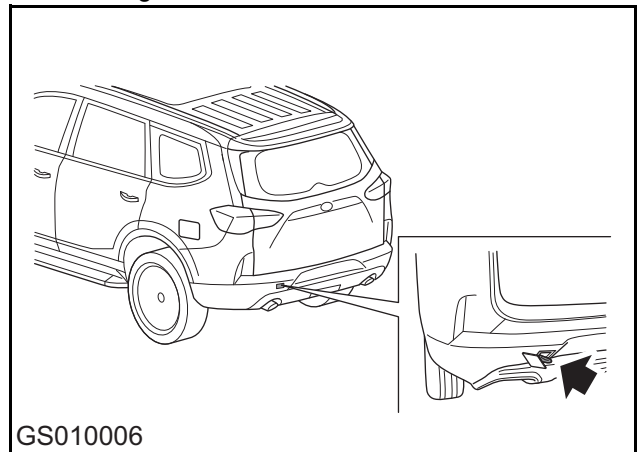
Front Towing Eye



A non-removable towing eye at the front of the vehicle may be used for rescue. The front towing eye is welded to the lower right side of the anti-collision beam.

Caution: *The mass that the front towing eye can bear is 1/2GVW (total mass), do not exceed this value.*

Rear Towing Hook



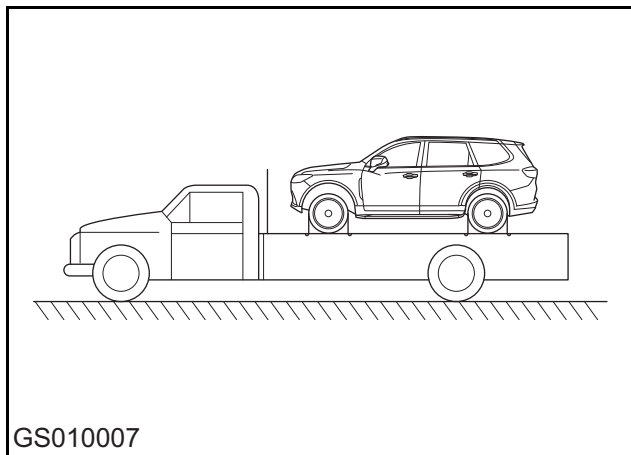
A removable towing hook at the rear of the vehicle may be used for rescue. The towing hook is generally stored in the vehicle toolbox and should be put back after use. To install the towing hook, remove the towing hook cover on the right of the rear bumper first, then screw the towing hook into the mounting position of the rear bumper assembly (bumper beam). The rear towing hook can only be used to tow light vehicles. The rear towing

General Information

point of the vehicle equipped with manual transmission may be used for rear towing.

Caution: *The mass that the rear towing eye can bear is 1/2 GVW (total mass). Do not tow a vehicle with the mass greater than this value.*

AWD Vehicles



The AWD vehicles must be towed using a wheel lift and wheel trolley or flat-bed trailer with all wheels off the ground.

Vehicle Towing

When towing a vehicle or making a vehicle be towed, be sure to observe relevant national regulations on vehicle towing.

Caution: *Inform the rescue personnel that the vehicle being towed is a pure electric vehicle before towing. Please read the rescue information card supplied with the vehicle. Remove the key before towing, and disconnect the manual service disconnect from the high-voltage battery pack during the entire towing process.*

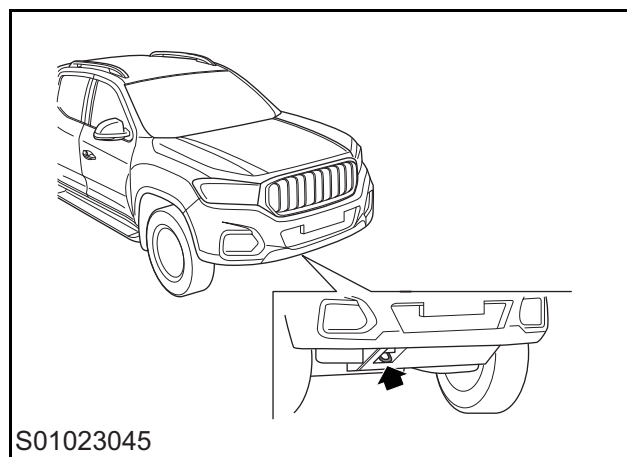
Towing Eye

Front towing eye: the front towing eye is located at the lower right part of the front bumper.

Note: For any vehicle equipped with a towing eye plug, the towing eye plug should be removed when towing the vehicle. Firstly, press the upper end of the cover inwards and rotate to pull out the towing eye cover outwards. After dismantling, please keep the towing ring cover with the vehicle to prevent it from being lost, and reinstall it after towing the vehicle.

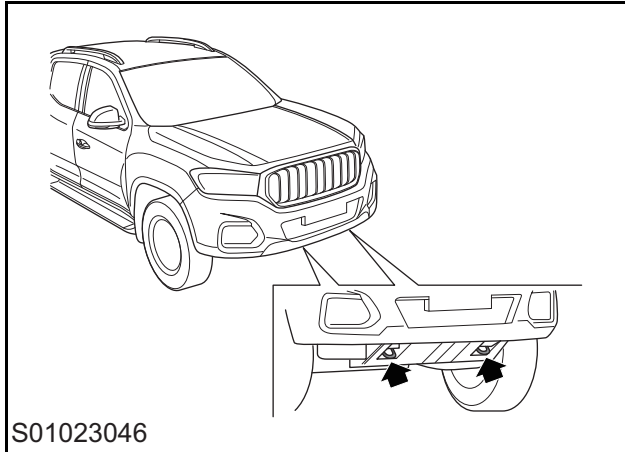
Type one

Reminder: It applies to the vehicles equipped with one towing eye.



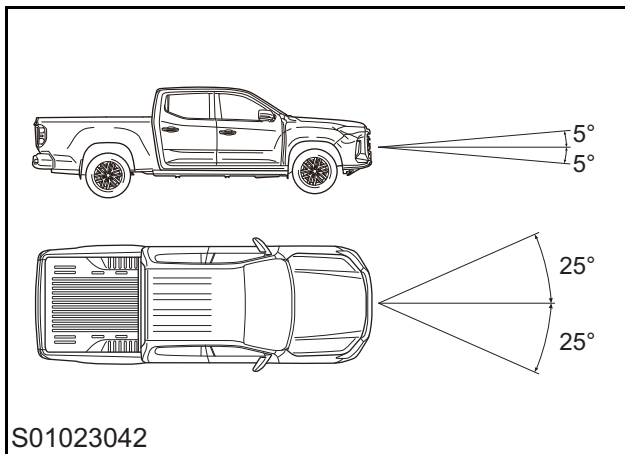
Type two

Reminder: It applies to the vehicles equipped with two towing eyes.



Caution: The mass that the front towing eye can bear is 1/2GVW (total mass). Do not tow the vehicle with a mass more than this value.

The application range of towing rope is as shown below:



Caution: DO NOT tow the vehicle with its rear wheels on the ground or using a plate trailer directly.

Caution: When the vehicle is loaded to and unloaded from the towing vehicle, its speed shall not be higher than 5 km/h with its rear wheels on the ground.

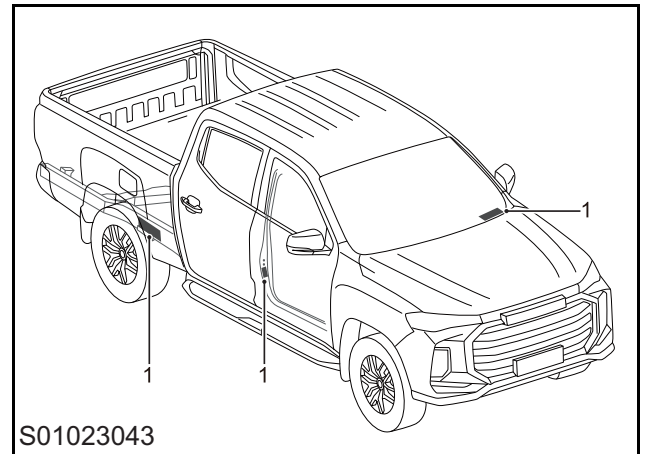
Caution: When the vehicle is towed with its rear wheels off the ground, the towing speed shall not be higher than 30 km/h and the towing distance shall not exceed 50 km.

Caution: The vehicle is not designed for towing other vehicles.

Caution: It is prohibited to tow a vehicle in reverse, otherwise the gear mechanism in the electric drive system may be damaged.

Vehicle Identification Number

Vehicle Identification Number (VIN) - Location



1 Vehicle Identification Number (VIN)

Vehicle Identification Number (VIN)

VINs on the vehicle:

- On the right rear girder of vehicle (seal position).
- On the vehicle identification plate on right B-pillar.
- On the instrument panel at the left lower corner of the windshield, visible through the left lower corner of the windshield;

The data link connector is located under the left instrument panel, and the VIN information can be read from the electronic control unit with our dedicated after-sales scan tool.

Example: LSFAM120 XXXXXXXXX

General Information

Digits	Definition	Code	Description
1-3	World manufacturer identification code (WMI)	LSF	Automaker identification number
4	Vehicle brand	A	MAXUS
5	Maximum total mass (t)	M	M<3.5t
6	Driver compartment type	1	Cab over engine
7	Power source feature: power (KW), fuel	2	Rear
8	Brake, wheelbase (m)	0	$40 \leq P < 500$ (Drive motor peak power), pure electric
9	Check digit	-	0-9 or x
10	Year of production	M	2021
11	Assembly plant	A	SAIC MAXUS Automotive Co., Ltd
12-17	Production serial number	-	Serial numbers are arranged continuously starting from 1

Model and Number of Drive Motor

The model and number of the drive motor are stamped on the drive motor housing.

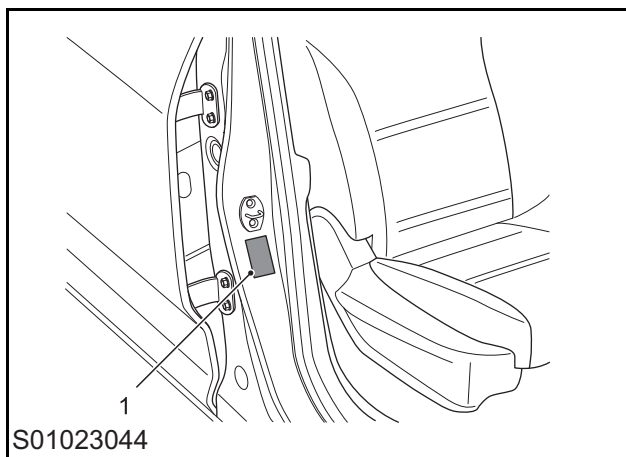
Vehicle Identification Plate

Information contained on the vehicle identification plate

- Vehicle identification number
- Brand
- Vehicle model
- Drive motor model
- Drive motor peak power
- Maximum allowable total mass
- Rated voltage of power battery system
- Rated capacity of power battery system
- Manufacture date
- Manufacturing country
- Manufacturer
- Curb mass

Location of Vehicle Identification Plate

The vehicle identification plate (1) is located on the front bottom of right B-pillar.



General Information

Maintenance and Lubrication

Recommended Fluids

Items	Brand & Model	Capacity
Coolant (Electric Drive System), L	D-35(-35 °C)	9.35
Brake fluid, L	Laika 901-4 DOT 4	0.8
Washer fluid, L	General low freezing point detergent	3.8
Air conditioning refrigerant, g	R134a	580±30
Electric transaxle lubricant, L	Tempo GL-5 80W-90	3.5

Electric Drive System

Specification

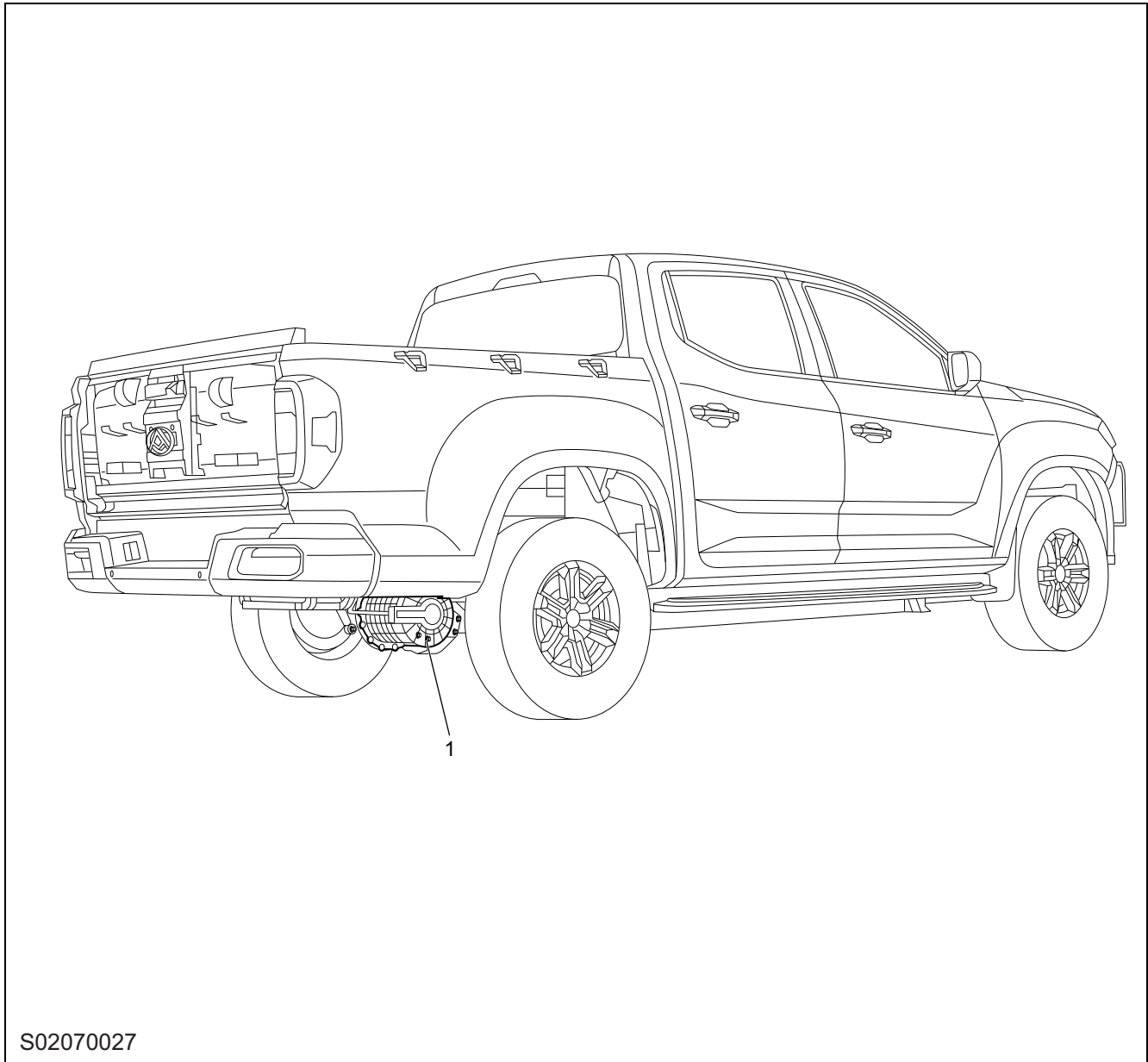
Fastener Specifications

Name	Torque (Nm)
Bolt - Drive Motor to Reducer	55±5 Nm
Bolt - Reducer to Rear Axle	50±5 Nm
Bolt - Drive Motor Ground Wire to Drive Motor	9±1 Nm
Bolt - Drive Motor Ground Wire to Body	22±2 Nm
Bolt/Screw - Motor Three-phase Harness	9±1 Nm
Bolt - Motor Three-phase Harness	22±2 Nm
Bolt - Motor Controller Bracket	65±5 Nm

Electric Drive System

Layout

Electric Drive Motor Layout



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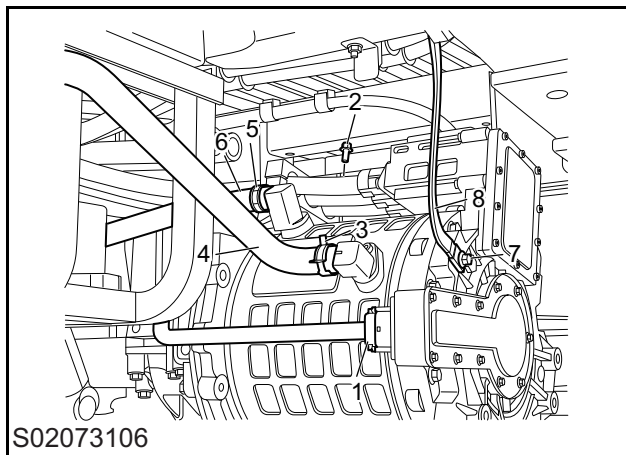
- 1 Electric Drive Motor

Service Guide

Drive Motor Replacement

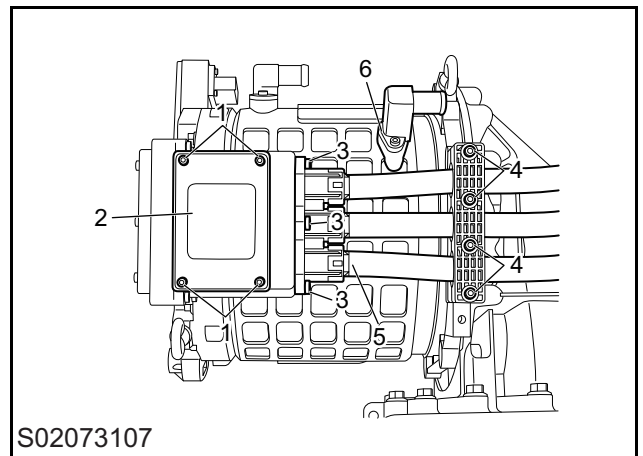
Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the service switch. Refer to "Service Switch Replacement".
- 3 Drain the power system coolant. Refer to "Power System Coolant Drain and Refill".
- 4 Disconnect the electrical connector (1) of the drive motor.
- 5 Remove 1 retaining bolt (2) fixing the chassis rear harness bracket to the drive motor.
- 6 Loosen the clamp (3), and disconnect the motor controller to motor hose (4) from the drive motor.
- 7 Loosen the clamp (5), and disconnect the CDU to motor controller pipe (rear section) (6) from the drive motor.
- 8 Remove 1 retaining bolt (7) fixing the drive motor ground wire to the drive motor.



- 9 Remove 4 retaining screws (1) from the drive motor cover plate, and remove the drive motor cover plate (2).
- 10 Remove 3 retaining bolts fixing the motor three-phase harness to the drive motor.
- 11 Remove 3 retaining screws (3) fixing the motor three-phase harness to the drive motor.
- 12 Remove 4 retaining screws (4) fixing the motor three-phase harness to the drive motor.
- 13 Remove the motor three-phase harness (5).
- 14 Support the drive motor with a lifting tool.

- 15 Remove 12 retaining bolts fixing the drive motor to the reducer.
- 16 Remove the drive motor (6).



- 17 Remove the drive motor from the lifting tool.

Installation

- 1 Place the drive motor on the lifting tool.
- 2 Install the drive motor.
- 3 Install 12 retaining bolts fixing the drive motor to the reducer, tighten them to 55 ± 5 Nm, and check the torque.
- 4 Remove the lifting tool.
- 5 Restore the motor three-phase harness.
- 6 Install 7 retaining screws fixing the motor three-phase harness to the drive motor, tighten them to 9 ± 1 Nm, and check the torque.
- 7 Install 3 retaining bolts fixing the motor three-phase harness to the drive motor, tighten them to 22 ± 2 Nm, and check the torque.
- 8 Install the drive motor cover plate.

Caution: During installation, seal rings on the drive motor cover plate should be replaced with new ones.

- 9 Install 4 retaining screws on the drive motor cover plate.
- 10 Install and tighten 1 retaining bolt fixing the drive motor ground wire to the drive motor.
- 11 Connect the CDU to motor controller pipe (rear section) to the drive motor, and secure it with a clamp.

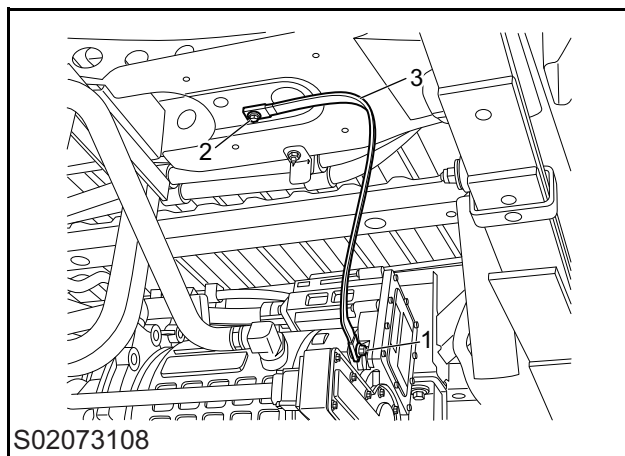
Electric Drive System

- 12 Connect the motor controller to motor hose to the drive motor, and secure it with a clamp.
- 13 Install 1 retaining bolt fixing the chassis rear harness bracket to the drive motor, tighten it to 22 ± 2 Nm, and check the torque.
- 14 Connect the electrical connector of the drive motor.
- 15 Refill the power system coolant. Refer to "Coolant Drain and Refill".
- 16 Install the service switch. Refer to "Service Switch Replacement".
- 17 Connect the negative battery cable.
- 18 Perform the module self-learning operation.

Drive Motor Ground Wire Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Raise the vehicle.
- 3 Remove 1 retaining bolt fixing the drive motor ground wire to the drive motor.
- 4 Remove 1 retaining bolt fixing the drive motor ground wire to the 7th beam assembly, and remove the drive motor ground wire.



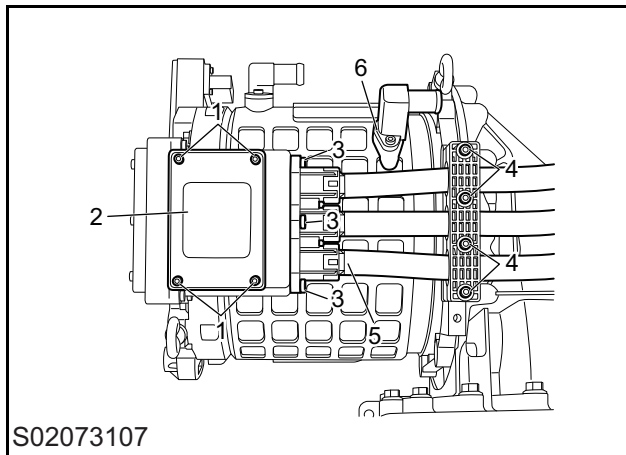
Installation

- 1 Place the drive motor ground wire, install 1 retaining bolt fixing the drive motor ground wire to the vehicle body, tighten it to 9 ± 1 Nm, and check the torque.
- 2 Install 1 retaining bolt fixing the drive motor ground wire to the drive motor, tighten it to 22 ± 2 Nm, and check the torque.
- 3 Lower the vehicle.
- 4 Connect the negative battery cable.

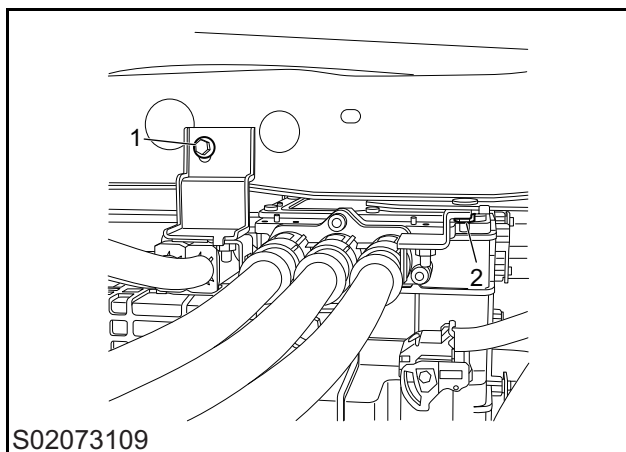
Motor Three-phase Harness Replacement

Removal

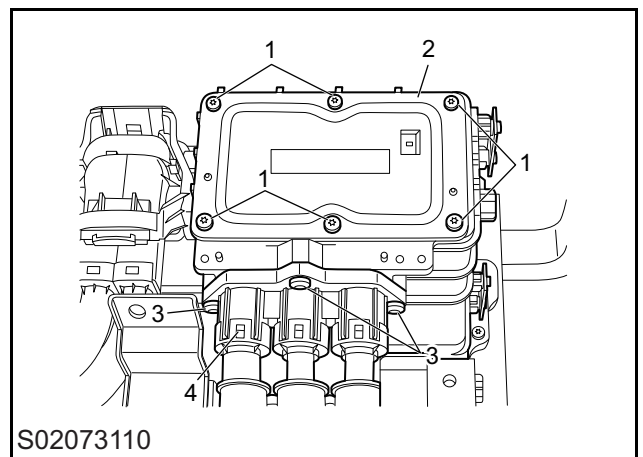
- 1 Disconnect the negative battery cable.
- 2 Remove the service switch. Refer to "Service Switch Replacement".
- 3 Remove 4 retaining screws (1) from the drive motor cover plate, and remove the drive motor cover plate (2).
- 4 Remove 3 retaining bolts fixing the motor three-phase harness to the drive motor.
- 5 Remove 3 retaining screws (3) fixing the motor three-phase harness to the drive motor.
- 6 Remove 4 retaining screws (4) fixing the motor three-phase harness to the drive motor.
- 7 Remove the motor three-phase harness (5).



- 8 Remove 1 retaining bolt (1) fixing the motor three-phase harness to the 7th beam assembly.
- 9 Remove 1 retaining nut (2) fixing the motor three-phase harness to the 7th beam assembly.



- 10 Support the motor controller bracket, remove 4 retaining bolts fixing the motor controller bracket to the 7th beam assembly, slowly lower the motor controller bracket, and leave space for removing the motor controller cover plate.
- 11 Remove 6 retaining screws (1) from the motor controller cover plate, and remove the motor controller cover plate (2).
- 12 Remove 3 retaining bolts fixing the motor three-phase harness to the motor controller.
- 13 Remove 3 retaining screws (3) fixing the motor three-phase harness to the motor controller.
- 14 Remove the motor three-phase harness (4).



Installation

- 1 Install the motor three-phase harness.
- 2 Install 3 retaining screws fixing the motor three-phase harness to the motor controller, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Install 3 retaining bolts fixing the motor three-phase harness to the motor controller, tighten them to 22 ± 2 Nm, and check the torque.
- 4 Install the motor controller cover plate.

Caution: During installation, seal rings on the motor controller cover plate should be replaced with new ones.

- 5 Install and tighten 6 retaining screws on the motor controller cover plate.
- 6 Install 4 retaining bolts fixing the motor controller bracket to the 7th beam assembly, tighten them to 65 ± 5 Nm, and check the torque.

Electric Drive System

- 7 Install 1 retaining nut fixing the motor three-phase harness to the 7th beam assembly, tighten it to 9 ± 1 Nm, and check the torque.
- 8 Install 1 retaining bolt fixing the motor three-phase harness to the 7th beam assembly, tighten it to 9 ± 1 Nm, and check the torque.
- 9 Install 7 retaining screws fixing the motor three-phase harness to the drive motor, tighten them to 9 ± 1 Nm, and check the torque.
- 10 Install 3 retaining bolts fixing the motor three-phase harness to the drive motor, tighten them to 22 ± 2 Nm, and check the torque.
- 11 Install the drive motor cover plate.

Caution: During installation, seal rings on the drive motor cover plate must be replaced with new ones.

- 12 Install and tighten 4 retaining screws on the drive motor cover plate.
- 13 Install the service switch. Refer to "Service Switch Replacement".
- 14 Connect the negative battery cable.

Power and Control System

Specification

Fastener Specifications

Name	Torque (Nm)
Bolt - Motor Controller to Motor Controller Bracket	35±3 Nm
Bolt - Motor Controller Bracket	65±5 Nm
Bolt - Motor Controller Ground Wire	22±2 Nm
Bolt - Motor Controller Harness Assembly	9±1 Nm
Bolt/Screw - Motor Three-phase Harness	9±1 Nm
Bolt - Motor Three-phase Harness	22±2 Nm
Bolt - Power Battery Output Harness Assembly	9±1 Nm
Nut - Front Electric Heater High-voltage Harness Assembly	9±1 Nm
Bolt - Motor Cooling Connecting Pipe	9±1 Nm
Bolt - Charging and Distribution Unit Assembly	22±2 Nm
Bolt - Battery Cable	22±2 Nm
Bolt - Charging and Distribution Unit to Frame	65±5 Nm
Bolt - Integral AC/DC Charging Harness Assembly	5±1 Nm
Bolt - Integral AC/DC Charging Harness Assembly	9±1 Nm
Bolt - Power Battery Bottom Guard Plate	110±10 Nm
Nut - Power Battery Bottom Guard Plate	22±2 Nm
Bolt - Adapter Bracket to Longitudinal Beam	110±10 Nm
Bolt - Battery to Adapter Bracket	50±5 Nm
Bolt - Power Battery Ground	9±1 Nm

Power and Control System

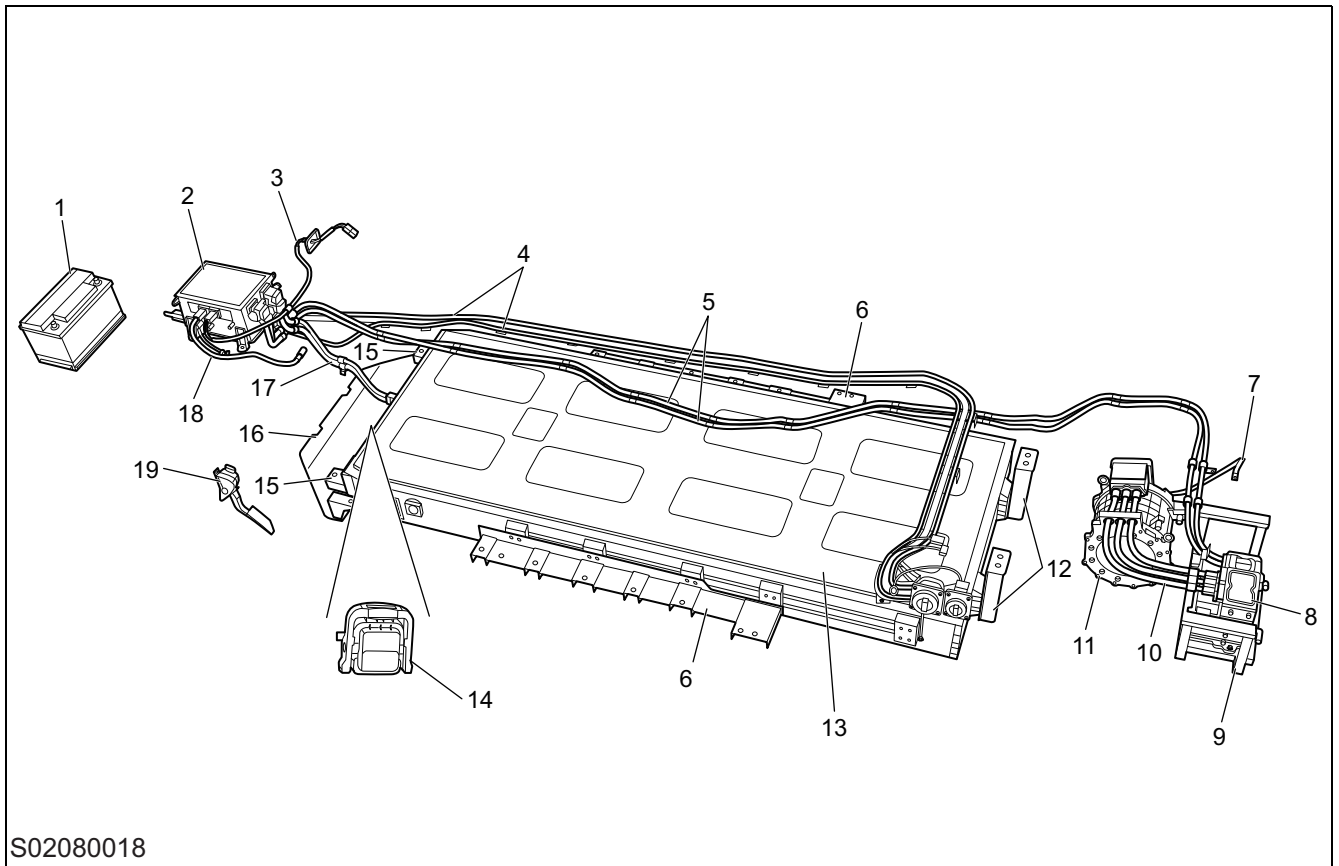
Parameters

Power Battery Parameters

Battery type	Lithium iron phosphate
Voltage range (V)	275 ~ 401.5
Total energy (KWh) 23±2 °C , 1/3C	88.55kwh
Battery pack capacity (Ah) 23±2 °C , 1/3C	250Ah
Single electric core	125Ah
Combination mode	2P110S
Environment temperature range (°C)	-30 ~ 60
Environmental relative humidity	15%~90%
Storage temperature (°C)	-30 ~ 60
The cycle life of the battery pack (DOD100%)	2000 times
Continuous charge current	200A
Maximum charge current	500A 30s
Maximum discharge current	500A 30s
Continuous discharge current	200A
The value of insulation resistance test (MΩ)	1000VDC, ≥ 10MΩ
Weight (kg)	645 kg (without bracket)

Layout

Power and Control System Layout



- | | |
|---|---|
| 1 Battery | 10 Motor Three-phase Harness |
| 2 Charging and Distribution Unit Assembly | 11 Drive Motor |
| 3 Front Electric Heater High-voltage Harness Assembly | 12 Power Battery Rear Bracket |
| 4 Integral AC/DC Charging Harness Assembly | 13 Power Battery Assembly |
| 5 Motor Controller Harness Assembly | 14 Manual Switch |
| 6 Power Battery Side Bracket | 15 Power Battery Front Bracket |
| 7 Drive Motor Ground Wire | 16 Power Battery Bottom Guard Plate |
| 8 Motor Controller | 17 High-voltage Battery Output Harness Assembly |
| 9 Motor Controller Bracket | 18 Front Air Compressor Harness Assembly |
| | 19 Accelerator Pedal Assembly |

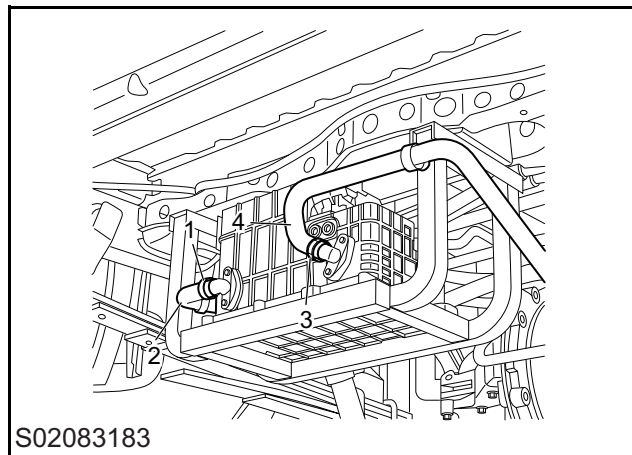
Power and Control System

Service Guide

Motor Controller Replacement

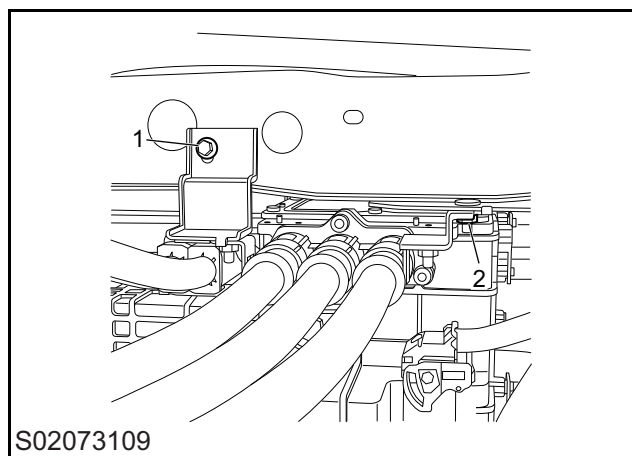
Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the service switch. Refer to "Service Switch Replacement".
- 3 Drain the power system coolant. Refer to "Coolant Drain and Refill".
- 4 Loosen the clamp (1), and disconnect the CDU to motor controller pipe (rear section) (2) from the motor controller.
- 5 Loosen the clamp (3), and disconnect the motor controller to motor hose (4) from the motor controller.



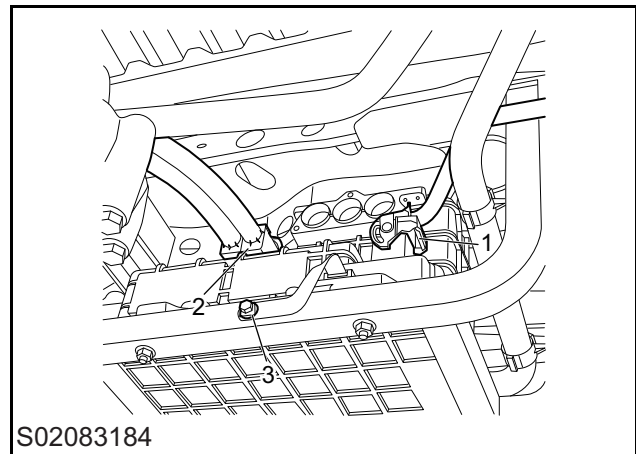
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- 6 Remove 1 retaining bolt (1) fixing the motor three-phase harness to the 7th beam assembly.
- 7 Remove 1 retaining nut (2) fixing the motor three-phase harness to the 7th beam assembly.



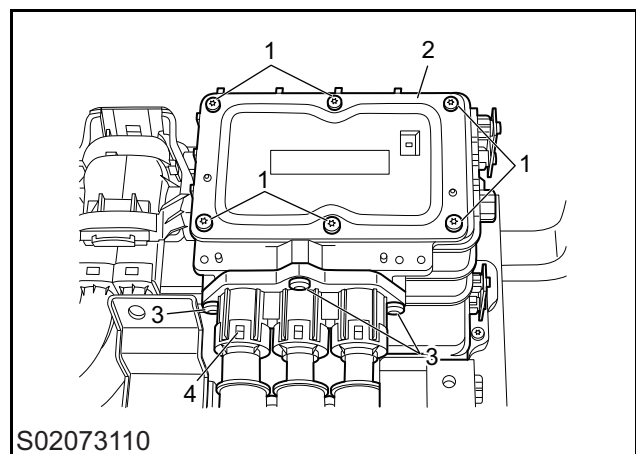
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- 8 Disconnect the electrical connector (1) at the low voltage end of the motor controller.
- 9 Disconnect the electrical connector (2) at the high voltage end of the motor controller.
- 10 Remove 1 retaining bolt (3) fixing the motor controller ground wire to the motor controller bracket.



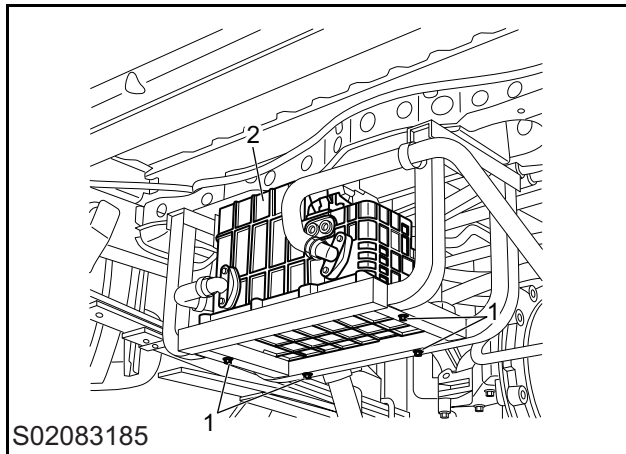
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- 11 Support the motor controller bracket, remove 4 retaining bolts fixing the motor controller bracket to the 7th beam assembly, slowly lower the motor controller bracket, and leave space for removing the motor controller cover plate.
- 12 Remove 6 retaining screws (1) from the motor controller cover plate, and remove the motor controller cover plate (2).
- 13 Remove 3 retaining bolts fixing the motor three-phase harness to the motor controller.
- 14 Remove 3 retaining screws (3) fixing the motor three-phase harness to the motor controller.
- 15 Remove the motor three-phase harness (4).



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- 16 Remove 4 retaining nuts (1) fixing the motor controller to the motor controller bracket.
- 17 Remove the motor controller (2).



Installation

- 1 Install the motor controller.
- 2 Install 4 retaining nuts fixing the motor controller to the motor controller bracket, tighten them to 35 ± 3 Nm, and check the torque.
- 3 Install the motor three-phase harness.
- 4 Install 3 retaining screws fixing the motor three-phase harness to the motor controller, tighten them to 9 ± 1 Nm, and check the torque.
- 5 Install 3 retaining bolts fixing the motor three-phase harness to the motor controller, tighten them to 22 ± 2 Nm, and check the torque.
- 6 Install the motor controller cover plate.

Caution: During installation, seal rings on the motor controller cover plate must be replaced with new ones.

- 7 Install and tighten 6 retaining screws on the motor controller cover plate.
- 8 Install 4 retaining bolts fixing the motor controller bracket to the 7th beam assembly, tighten them to 65 ± 5 Nm, and check the torque.
- 9 Install 1 retaining bolt fixing the motor controller ground wire to the motor controller bracket, tighten it to 22 ± 2 Nm, and check the torque.
- 10 Connect the electrical connector at the high voltage end of the motor controller.
- 11 Connect the electrical connector at the low voltage end of the motor controller.

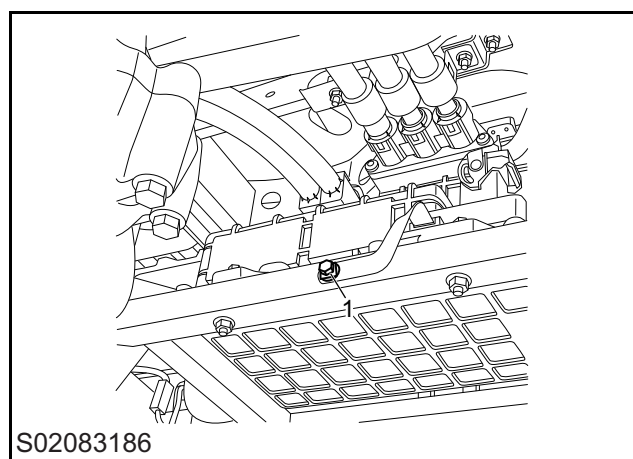
- 12 Install 1 retaining nut fixing the motor three-phase harness to the 7th beam assembly, tighten it to 9 ± 1 Nm, and check the torque.
- 13 Install 1 retaining bolt fixing the motor three-phase harness to the 7th beam assembly, tighten it to 9 ± 1 Nm, and check the torque.
- 14 Connect the motor controller to motor hose to the motor controller, and secure it with a clamp.
- 15 Connect the CDU to motor controller pipe (rear section) to the motor controller, and secure it with a clamp.
- 16 Refill the power system coolant. Refer to "Coolant Drain and Refill".
- 17 Install the service switch. Refer to "Service Switch Replacement".
- 18 Connect the negative battery cable.
- 19 Perform self-learning operation for the motor controller.

Power and Control System

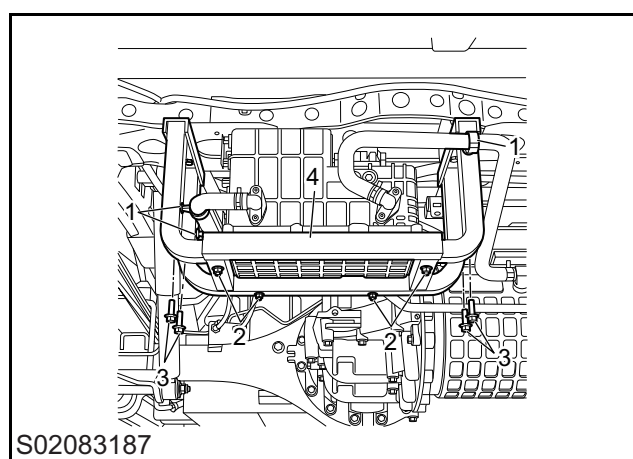
Motor Controller Bracket Replacement

Removal

- 1 Remove 1 retaining bolt (1) fixing the motor controller ground wire to the motor controller bracket.



- 2 Support the motor controller with a lifting tool.
- 3 Remove the retaining clip (1) from the motor controller pipe.
- 4 Remove 4 retaining nuts (2) fixing the motor controller to the motor controller bracket.
- 5 Remove 4 retaining bolts (3) fixing the motor controller bracket to the 7th beam assembly, and remove the motor controller bracket (4).



Installation

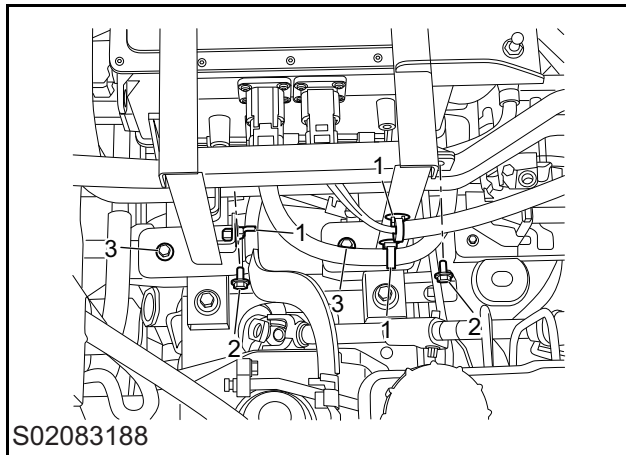
- 1 Place the motor controller bracket, install 4 retaining bolts fixing the motor controller bracket to the 7th beam assembly, tighten them to 65 ± 5 Nm, and check the torque.

- 2 Install 4 retaining nuts fixing the motor controller to the motor controller bracket, tighten them to 35 ± 3 Nm, and check the torque.
- 3 Install the retaining clip on the motor controller pipe.
- 4 Remove the lifting tool.
- 5 Install 1 retaining bolt fixing the motor controller ground wire to the motor controller bracket, tighten it to 22 ± 2 Nm, and check the torque.

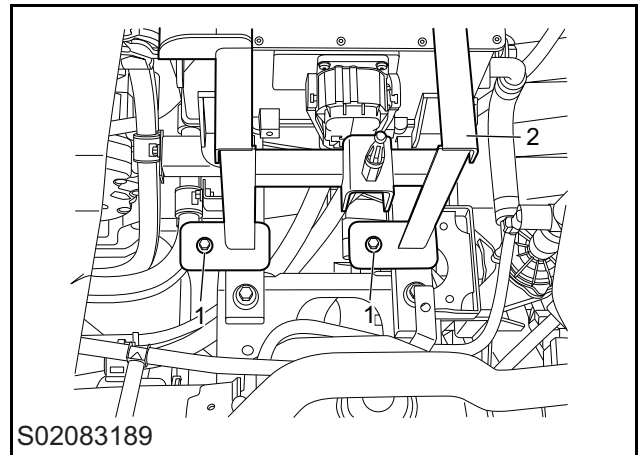
Front Compartment Trim Cover Mounting Bracket Replacement

Removal

- 1 Remove the engine hood assembly. Refer to "Engine Hood Assembly Replacement".
- 2 Remove the clip (1) from the front compartment trim cover mounting bracket.
- 3 Remove 2 retaining bolts (2) fixing the CDU to motor controller pipe (front section) to the front compartment trim cover mounting bracket.
- 4 Remove 2 retaining bolts (3) fixing the front compartment trim cover mounting bracket to the charging and distribution unit mounting support assembly.



- 5 Remove 2 retaining bolts (1) fixing the front compartment trim cover mounting bracket to the charging and distribution unit mounting support assembly, and remove the front compartment trim cover mounting bracket (2).



Installation

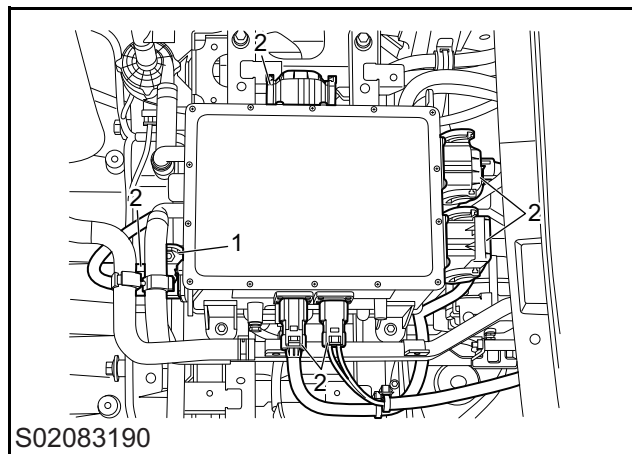
- 1 Install the front compartment trim cover mounting bracket, install 4 retaining bolts fixing the front compartment trim cover mounting bracket to the charging and distribution unit mounting support assembly, tighten them to 22 ± 2 Nm, and check the torque.
- 2 Install 2 retaining bolts fixing the CDU to motor controller pipe (front section) to the front compartment trim cover mounting bracket, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Install the clips on the front compartment trim cover mounting bracket.
- 4 Install the engine hood assembly. Refer to "Engine Hood Assembly Replacement".

Power and Control System

Charging and Distribution Unit Assembly Replacement

Removal

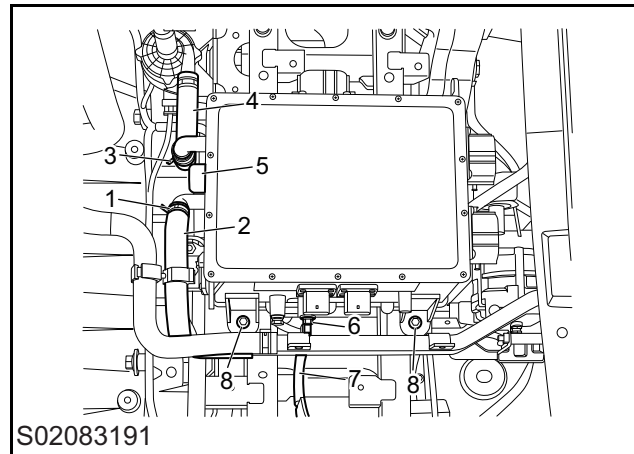
- 1 Disconnect the negative battery cable.
- 2 Remove the service switch. Refer to "Service Switch Replacement".
- 3 Drain the power system coolant. Refer to "Coolant Drain and Refill".
- 4 Remove the engine hood assembly. Refer to "Engine Hood Assembly Replacement".
- 5 Remove the front compartment trim cover mounting bracket. Refer to "Front Compartment Trim Cover Mounting Bracket Replacement".
- 6 Disconnect the electrical connector (1) at the low voltage end of the charging and distribution unit assembly.
- 7 Disconnect the electrical connector (2) at the high voltage end of the charging and distribution unit assembly.



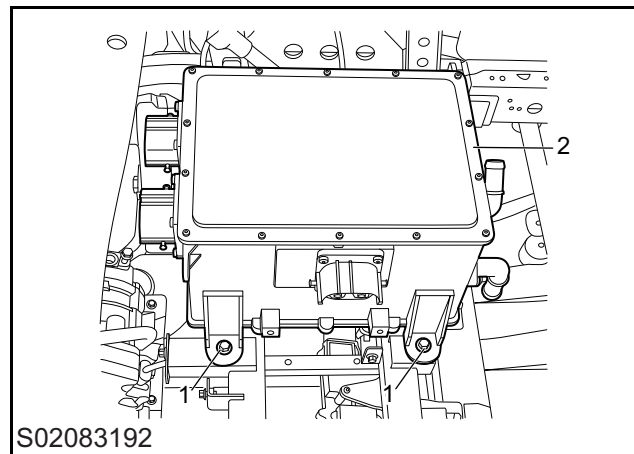
- 8 Loosen the clamp (1), and disconnect the CDU to motor controller pipe (front section) (2) from the charging and distribution unit assembly.
- 9 Loosen the clamp (3), and disconnect the electronic water pump to DCDC hose (4) from the charging and distribution unit assembly.
- 10 Lift the battery harness sheath (5).
- 11 Remove 1 retaining bolt fixing the battery harness to the charging and distribution unit assembly.
- 12 Remove 1 retaining bolt (6) fixing the charging and distribution unit harness to the charging and

distribution unit assembly, and remove the charging and distribution unit harness (7).

- 13 Remove 2 retaining bolts (8) fixing the charging and distribution unit assembly to the charging and distribution unit mounting support assembly.



- 14 Remove 2 retaining bolts (1) fixing the charging and distribution unit assembly to the charging and distribution unit mounting support assembly, and remove the charging and distribution unit assembly (2).



Installation

- 1 Install the charging and distribution unit assembly, install 4 retaining bolts fixing the charging and distribution unit assembly to the charging and distribution unit mounting support assembly, tighten them to 22 ± 2 Nm, and check the torque.
- 2 Restore the charging and distribution unit harness, install 1 retaining bolt fixing the charging and distribution unit harness to the

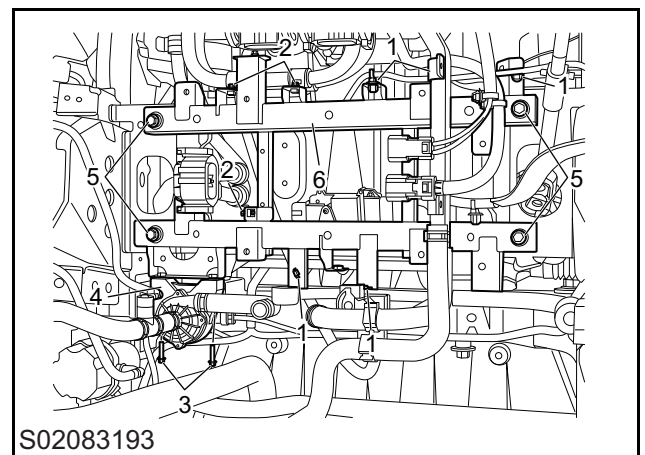
charging and distribution unit assembly, tighten it to 22±2 Nm, and check the torque.

- 3 Install 1 retaining bolt fixing the battery harness to the charging and distribution unit assembly, tighten it to 22±2 Nm, and check the torque.
- 4 Restore the battery harness sheath.
- 5 Connect the electronic water pump to DCDC hose to the charging and distribution unit assembly, and secure it with a clamp.
- 6 Connect the CDU to motor controller pipe (front section) to the charging and distribution unit assembly, and secure it with a clamp.
- 7 Connect the electrical connector at the high voltage end of the charging and distribution unit assembly.
- 8 Connect the electrical connector at the low voltage end of the charging and distribution unit assembly.
- 9 Install the front compartment trim cover mounting bracket. Refer to "Front Compartment Trim Cover Mounting Bracket Replacement".
- 10 Install the engine hood assembly. Refer to "Engine Hood Assembly Replacement".
- 11 Refill the power system coolant. Refer to "Coolant Drain and Refill".
- 12 Install the service switch. Refer to "Service Switch Replacement".
- 13 Connect the negative battery cable.

Charging and Distribution Unit Mounting Support Assembly Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the service switch. Refer to "Service Switch Replacement".
- 3 Drain the power system coolant. Refer to "Coolant Drain and Refill".
- 4 Remove the engine hood assembly. Refer to "Engine Hood Assembly Replacement".
- 5 Remove the front compartment trim cover mounting bracket. Refer to "Front Compartment Trim Cover Mounting Bracket Replacement".
- 6 Remove the charging and distribution unit assembly. Refer to "Charging and Distribution Unit Assembly Replacement".
- 7 Remove the retaining clip (1) from the harness.
- 8 Remove 3 retaining bolts (2) fixing the high-voltage harness to the charging and distribution unit mounting support assembly.
- 9 Remove 2 retaining bolts (3) fixing the electronic water pump to the charging and distribution unit mounting support assembly, and remove the electronic water pump (4).
- 10 Remove 4 retaining bolts (5) fixing the charging and distribution unit mounting support assembly to the engine mount bracket.
- 11 Remove the charging and distribution unit mounting support assembly (6).



Installation

- 1 Install the charging and distribution unit mounting support assembly.

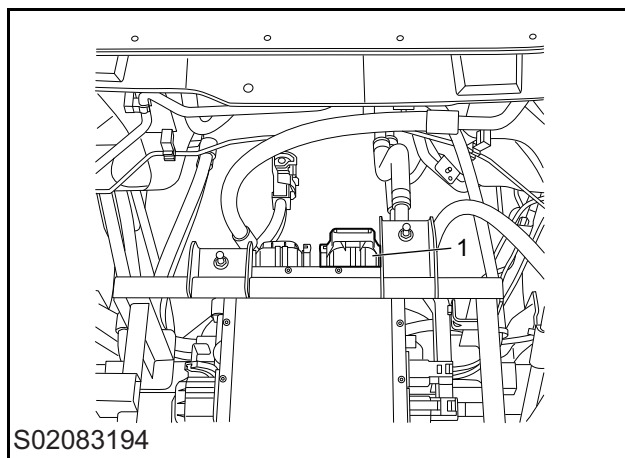
Power and Control System

- 2 Install 4 retaining bolts fixing the charging and distribution unit mounting support assembly to the engine mount bracket, tighten them to 65 ± 5 Nm, and check the torque.
- 3 Restore the electronic water pump, install 2 retaining bolts fixing the electronic water pump to the charging and distribution unit mounting support assembly, tighten them to 9 ± 1 Nm, and check the torque.
- 4 Install 3 retaining bolts fixing the high-voltage harness to the charging and distribution unit mounting support assembly, tighten them to 9 ± 1 Nm, and check the torque.
- 5 Install the retaining clips on the harness.
- 6 Install the charging and distribution unit assembly. Refer to "Charging and Distribution Unit Assembly Replacement".
- 7 Install the front compartment trim cover mounting bracket. Refer to "Front Compartment Trim Cover Mounting Bracket Replacement".
- 8 Install the engine hood assembly. Refer to "Engine Hood Assembly Replacement".
- 9 Refill the power system coolant. Refer to "Coolant Drain and Refill".
- 10 Install the service switch. Refer to "Service Switch Replacement".
- 11 Connect the negative battery cable.

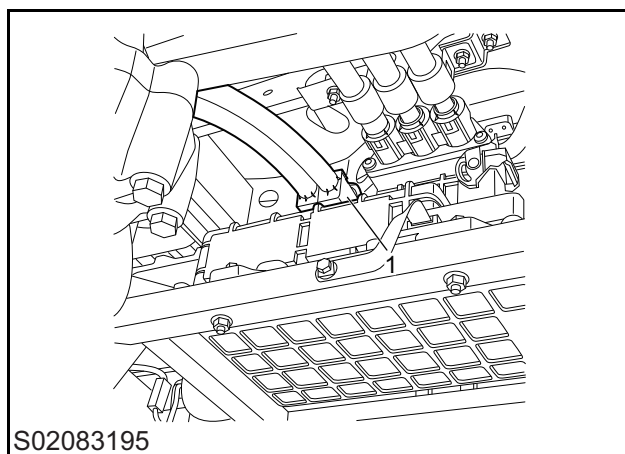
Motor Controller Harness Assembly Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the service switch. Refer to "Service Switch Replacement".
- 3 Remove the engine hood assembly. Refer to "Engine Hood Assembly Replacement".
- 4 Disconnect the electrical connector (1) at the high voltage end of the charging and distribution unit assembly.



- 5 Remove the electric vehicle battery. Refer to "Electric Vehicle Battery Replacement".
- 6 Disconnect the electrical connector (1) at the high voltage end of the motor controller.



- 7 Remove 11 retaining bolts and 3 retaining nuts from the motor controller harness assembly.
- 8 Remove the motor controller harness assembly.

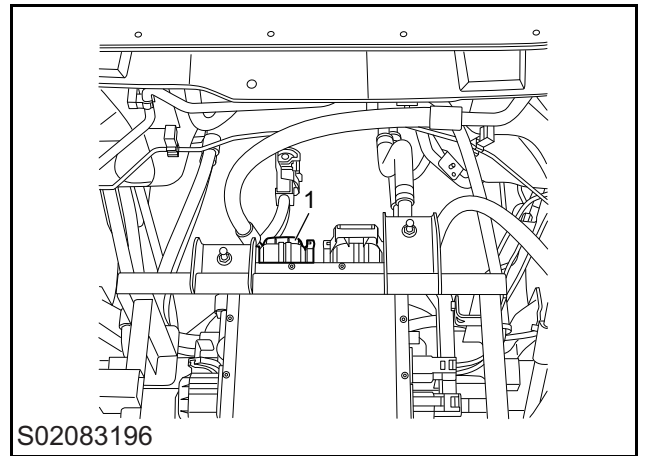
Installation

- 1 Install the motor controller harness assembly.
- 2 Install 11 retaining bolts and 3 retaining nuts on the motor controller harness assembly, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Connect the electrical connector at the high voltage end of the motor controller.
- 4 Install the electric vehicle battery. Refer to "Electric Vehicle Battery Replacement".
- 5 Connect the electrical connector at the high voltage end of the charging and distribution unit assembly.
- 6 Install the engine hood assembly. Refer to "Engine Hood Assembly Replacement".
- 7 Install the service switch. Refer to "Service Switch Replacement".
- 8 Connect the negative battery cable.

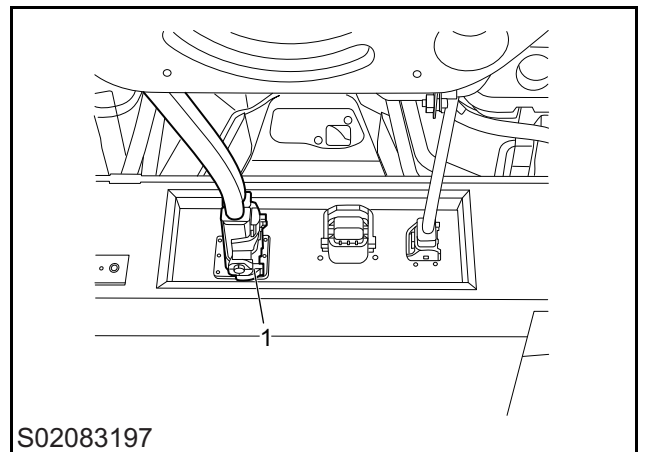
High-voltage Battery Output Harness Assembly Replacement

Removal

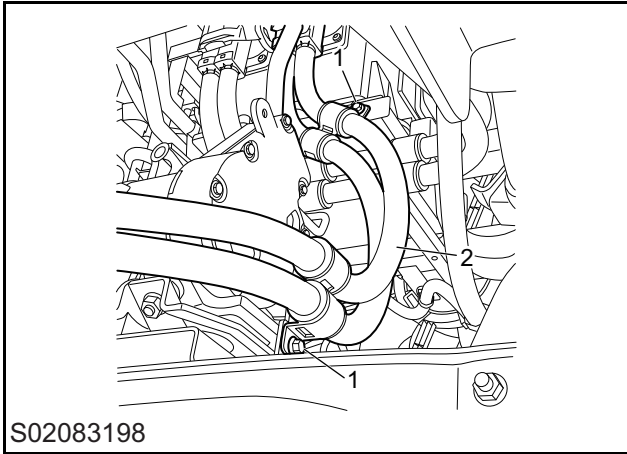
- 1 Disconnect the negative battery cable.
- 2 Remove the service switch. Refer to "Service Switch Replacement".
- 3 Remove the engine hood assembly. Refer to "Engine Hood Assembly Replacement".
- 4 Disconnect the electrical connector (1) at the high voltage end of the charging and distribution unit assembly.



- 5 Disconnect the electrical connector (1) at the high voltage end of the electric vehicle battery.



- 6 Remove 2 retaining bolts (1) from the high-voltage battery output harness assembly.
- 7 Remove the high-voltage battery output harness assembly (2).



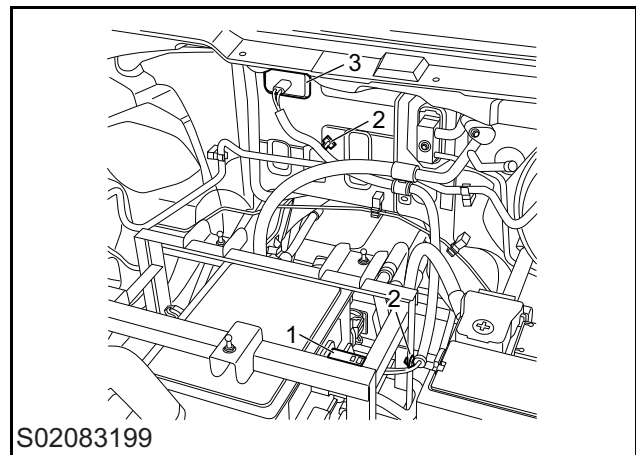
Installation

- 1 Install the high-voltage battery output harness assembly.
- 2 Install 2 retaining bolts on the high-voltage battery output harness assembly, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Connect the electrical connector at the high voltage end of the electric vehicle battery.
- 4 Connect the electrical connector at the high voltage end of the charging and distribution unit assembly.
- 5 Install the engine hood assembly. Refer to "Engine Hood Assembly Replacement".
- 6 Install the service switch. Refer to "Service Switch Replacement".
- 7 Connect the negative battery cable.

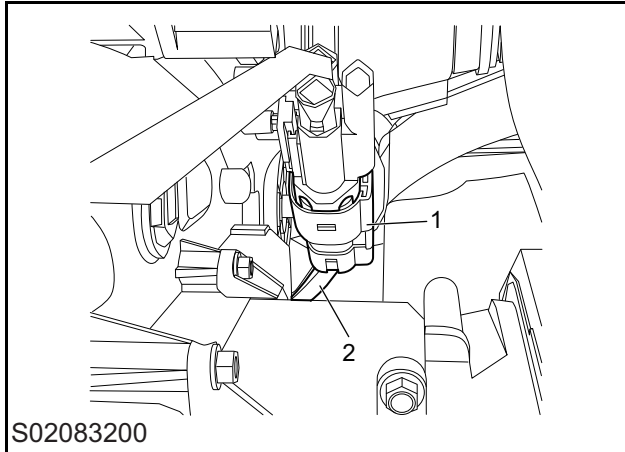
Front Electric Heater High-voltage Harness Assembly Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the service switch. Refer to "Service Switch Replacement".
- 3 Remove the engine hood assembly. Refer to "Engine Hood Assembly Replacement".
- 4 Disconnect the electrical connector (1) at the high voltage end of the charging and distribution unit assembly.
- 5 Remove the retaining clip (2) from the front electric heater high-voltage harness assembly.
- 6 Remove the retaining nut fixing the front electric heater high-voltage harness assembly to the vehicle body.
- 7 Remove the rubber sleeve (3) from the front electric heater high-voltage harness assembly.



- 8 Disconnect the electrical connector (1) of the front A/C assembly.
- 9 Remove the front electric heater high-voltage harness assembly (2).



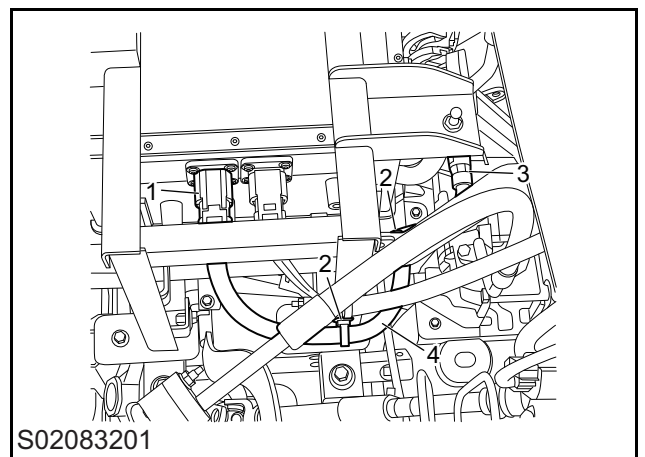
Installation

- 1 Install the front electric heater high-voltage harness assembly.
- 2 Connect the electrical connector of the front A/C assembly.
- 3 Install the rubber sleeve from the front electric heater high-voltage harness assembly.
- 4 Install the retaining nut fixing the front electric heater high-voltage harness assembly to the vehicle body, tighten it to 9 ± 1 Nm, and check the torque.
- 5 Install the retaining clips on the front electric heater high-voltage harness assembly.
- 6 Connect the electrical connector at the high voltage end of the charging and distribution unit assembly.
- 7 Install the engine hood assembly. Refer to "Engine Hood Assembly Replacement".
- 8 Install the service switch. Refer to "Service Switch Replacement".
- 9 Connect the negative battery cable.

Front Air Compressor Harness Assembly Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the service switch. Refer to "Service Switch Replacement".
- 3 Remove the engine hood assembly. Refer to "Engine Hood Assembly Replacement".
- 4 Disconnect the electrical connector (1) at the high voltage end of the charging and distribution unit assembly.
- 5 Remove the retaining clip (2) from the front air compressor harness assembly.
- 6 Disconnect the electrical connector (3) at the high voltage end of the A/C compressor assembly.
- 7 Remove the front air compressor harness assembly (4).



Installation

- 1 Install the front air compressor harness assembly.
- 2 Connect the electrical connector at the high voltage end of the A/C compressor assembly.
- 3 Install the retaining clips on the front air compressor harness assembly.
- 4 Connect the electrical connector at the high voltage end of the charging and distribution unit assembly.
- 5 Install the engine hood assembly. Refer to "Engine Hood Assembly Replacement".

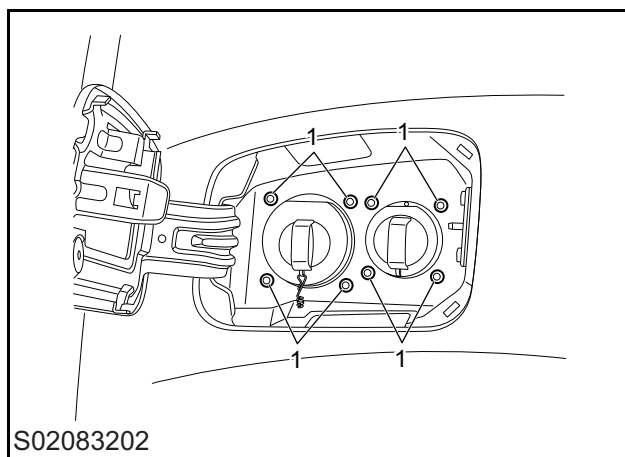
Power and Control System

- 6 Install the service switch. Refer to "Service Switch Replacement".
- 7 Connect the negative battery cable.

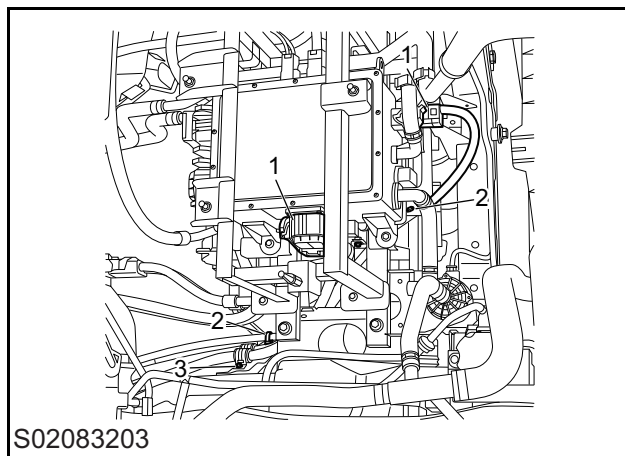
Integral AC/DC Charging Harness Assembly Replacement

Removal

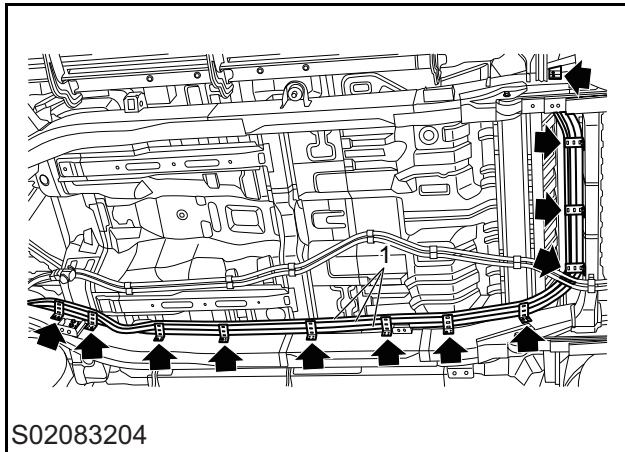
- 1 Open the charging port door assembly.
- 2 Disconnect the negative battery cable.
- 3 Remove the service switch. Refer to "Service Switch Replacement".
- 4 Remove 8 retaining screws (1) fixing the integral AC/DC charging harness assembly to the vehicle body.



- 5 Remove the engine hood assembly. Refer to "Engine Hood Assembly Replacement".
- 6 Disconnect the electrical connector (1) at the high voltage end of the charging and distribution unit assembly.
- 7 Remove the retaining clip (2) from the integral AC/DC charging harness assembly.
- 8 Remove 2 retaining bolts (3) from the integral AC/DC charging harness assembly.



- 9 Remove the rear wheelhouse liner. Refer to "Rear Wheelhouse Liner Replacement".
- 10 Remove the electric vehicle battery. Refer to "Electric Vehicle Battery Replacement".
- 11 Remove the retaining bolts from the integral AC/DC charging harness assembly.
- 12 Remove the integral AC/DC charging harness assembly (1).
- 10 Install the service switch. Refer to "Service Switch Replacement".
- 11 Connect the negative battery cable.



Installation

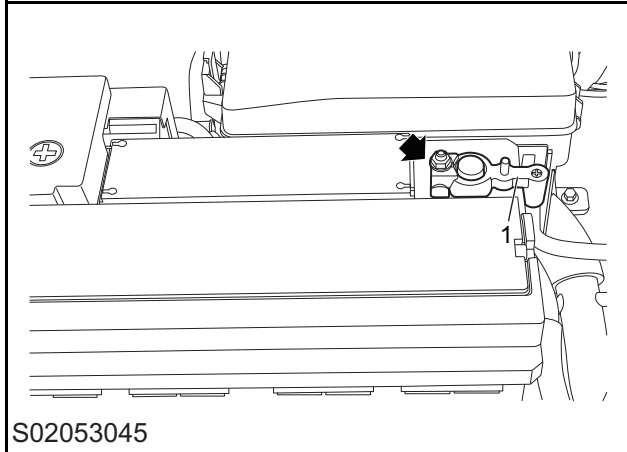
- 1 Install the integral AC/DC charging harness assembly.
- 2 Install the retaining bolts on the integral AC/DC charging harness assembly, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Install the electric vehicle battery. Refer to "Electric Vehicle Battery Replacement".
- 4 Install the rear wheelhouse liner. Refer to "Rear Wheelhouse Liner Replacement".
- 5 Install the retaining clips on the integral AC/DC charging harness assembly.
- 6 Connect the electrical connector at the high voltage end of the charging and distribution unit assembly.
- 7 Install the engine hood assembly. Refer to "Engine Hood Assembly Replacement".
- 8 Install the retaining screws fixing the integral AC/DC charging harness assembly to the vehicle body, tighten them to 5 ± 1 Nm, and check the torque.
- 9 Close the charging port door assembly.

Power and Control System

Negative Battery Cable Disconnection and Connection

Disconnection

- 1 Turn off the start switch.
- 2 Loosen the retaining nut fixing the battery negative.
- 3 Remove the battery negative (1).



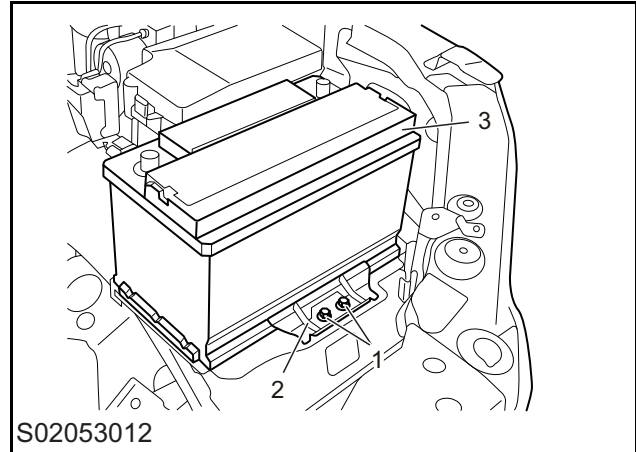
Connection

- 1 Install the battery negative.
- 2 Tighten the retaining nut of the battery negative.

Battery Assembly Replacement

Removal

- 1 Turn off the start switch.
- 2 Remove the positive/negative battery cable.
- 3 Remove 2 retaining bolts (1) from the battery lock block, and remove the battery lock block (2).
- 4 Remove the battery assembly (3).



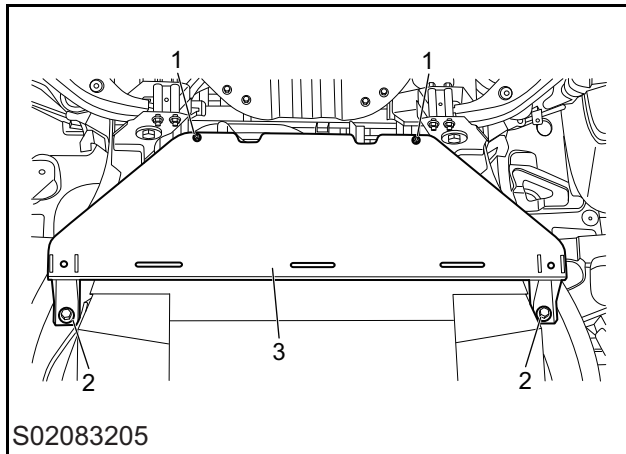
Installation

- 1 Install the battery assembly.
- 2 Place the battery lock block, install 2 retaining bolts on the battery lock block, tighten them to 22 ± 2 Nm, and check the torque.
- 3 Install the battery positive and negative cables.

Power Battery Bottom Guard Plate Replacement

Removal

- 1 Raise the vehicle.
- 2 Remove the nuts (1) of the power battery bottom guard plate.
- 3 Remove the bolts (2) of the power battery bottom guard plate.
- 4 Remove the power battery bottom guard plate (3).



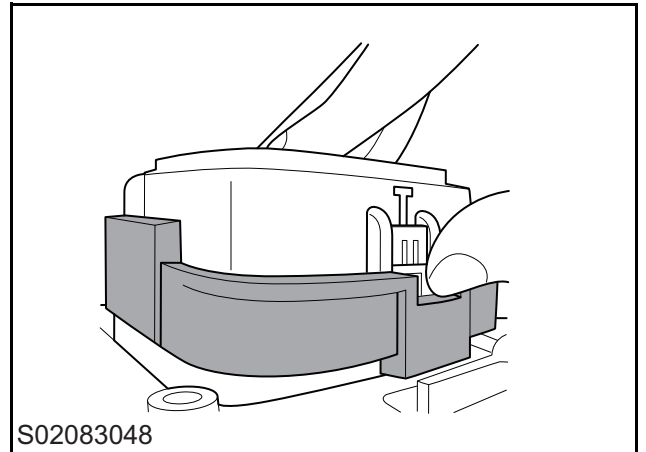
Installation

- 1 Install the power battery bottom guard plate.
- 2 Install the bolts of the power battery bottom guard plate, tighten them to 110 ± 10 Nm, and check the torque.
- 3 Install the nuts of the power battery bottom guard plate, tighten them to 22 ± 2 Nm, and check the torque.
- 4 Lower the vehicle.

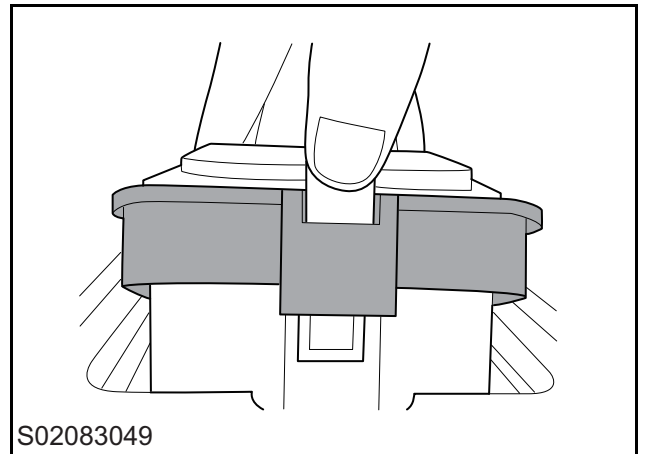
Service Switch Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the power battery floor guard plate. Refer to "Power Battery Floor Guard plate Replacement".
- 3 Press the lock button on the black handle.



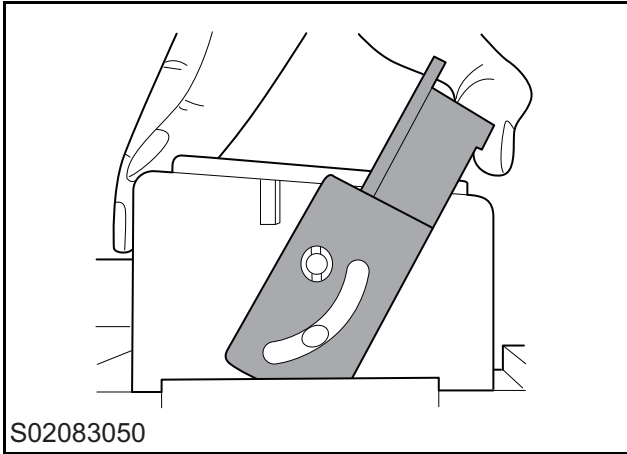
- 4 Pull out the lock button on the black handle upwards.



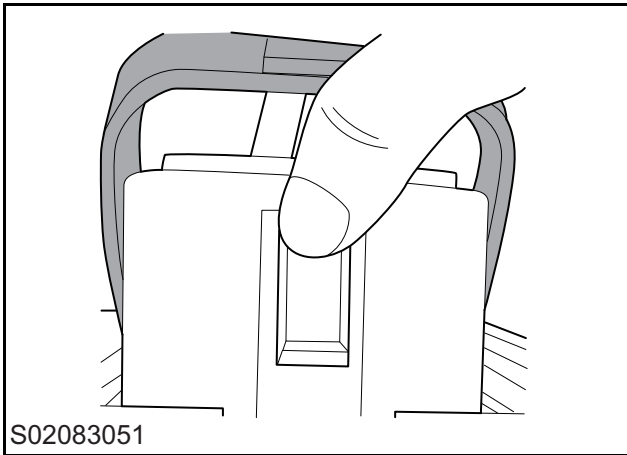
- 5 And rotate the black handle to about 60° and stop.

Power and Control System

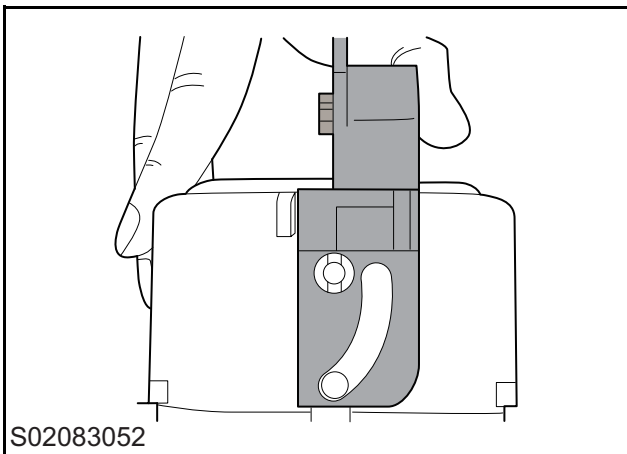
- 4 Install the power battery floor guard plate. Refer to "Power Battery Floor Guard Plate Replacement".
- 5 Connect the negative battery cable.



- 6 Press the elastic button inwards.



- 7 Rotate the handle to 90°, and pull out the plug.



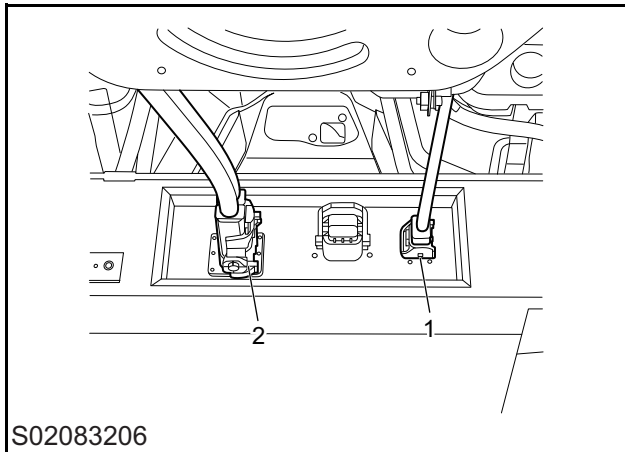
Installation

- 1 Insert the service switch.
- 2 Rotate the black handle to horizontal state until a "click" sound of hook is heard.
- 3 Press the lock button on the black handle.

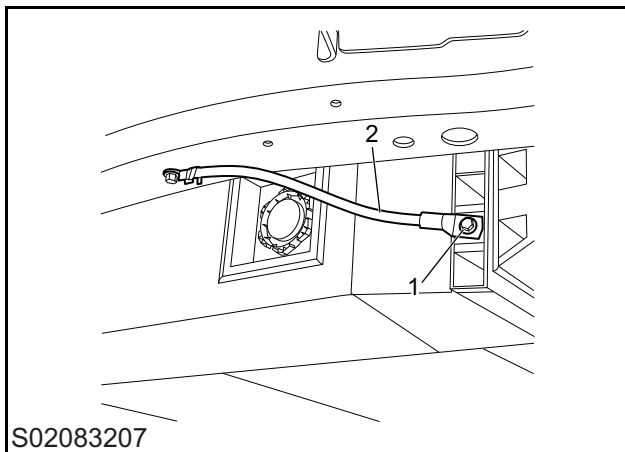
Power Battery Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the service switch. Refer to "Service Switch Replacement".
- 3 Disconnect the electrical connector (1) at the low voltage end of the electric vehicle battery.
- 4 Disconnect the electrical connector (2) at the high voltage end of the electric vehicle battery.

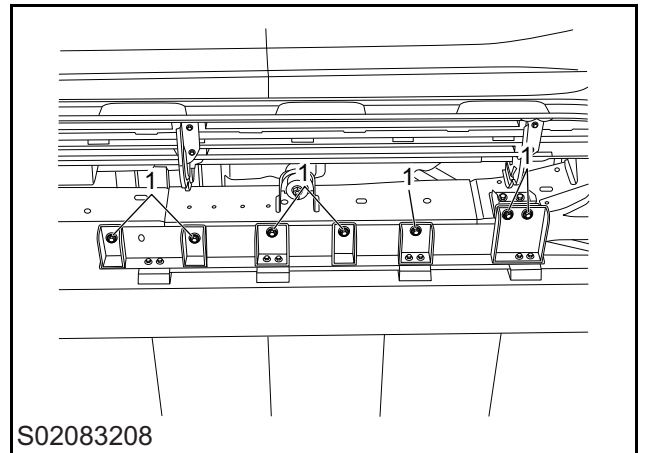


- 5 Remove 1 retaining bolt (1) fixing the electric vehicle battery ground wire to the electric vehicle battery, and remove the electric vehicle battery ground wire (2).

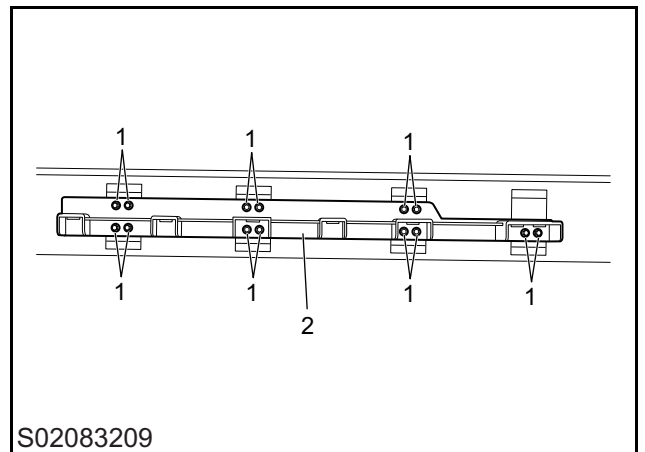


- 6 Support the electric vehicle battery with a lifting device.
- 7 Remove the front-end battery bracket. Refer to "Front-end Battery Bracket Replacement".
- 8 Remove the rear-end battery bracket. Refer to "Rear-end Battery Bracket Replacement".

- 9 Remove 7 retaining bolts (1) fixing the left and right battery brackets to the vehicle body.



- 10 Lower the lifting device.
- 11 Remove 14 retaining bolts (1) fixing the left and right battery brackets to the electric vehicle battery, and remove the left and right battery brackets (2).



- 12 Move the electric vehicle battery to a safe place for storage.

Installation

- 1 Place the left and right battery brackets, install 14 retaining bolts fixing the left and right battery brackets to the electric vehicle battery, tighten them to 50 ± 5 Nm, and check the torque.
- 2 Place the electric vehicle battery on the lifting device.
- 3 Lift the electric vehicle battery to a proper position.

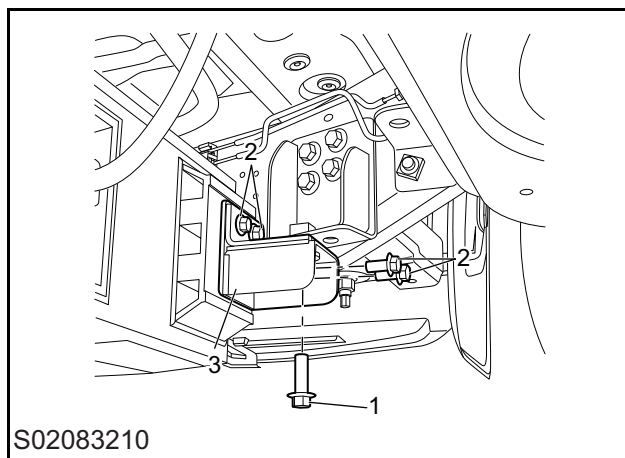
Power and Control System

- 4 Install 7 retaining bolts fixing the left and right battery brackets to the vehicle body, tighten them to 110 ± 10 Nm, and check the torque.
- 5 Install the rear-end battery bracket. Refer to "Rear-end Battery Bracket Replacement".
- 6 Install the front-end battery bracket. Refer to "Front-end Battery Bracket Replacement".
- 7 Remove the lifting device.
- 8 Restore the electric vehicle battery ground wire, install 1 retaining bolt fixing the electric vehicle battery ground wire to the electric vehicle battery, tighten it to 9 ± 1 Nm, and check the torque.
- 9 Connect the electrical connector at the high voltage end of the electric vehicle battery.
- 10 Connect the electrical connector at the low voltage end of the electric vehicle battery.
- 11 Install the service switch. Refer to "Service Switch Replacement".
- 12 Connect the negative battery cable.

Front-end Battery Bracket Replacement

Removal

- 1 Raise the vehicle.
- 2 Support the electric vehicle battery with a lifting device.
- 3 Remove 1 retaining bolt (1) fixing the front-end battery bracket to the battery front-end mounting bracket.
- 4 Remove 4 retaining bolts (2) fixing the front-end battery bracket to the electric vehicle battery, and remove the front-end battery bracket (3).



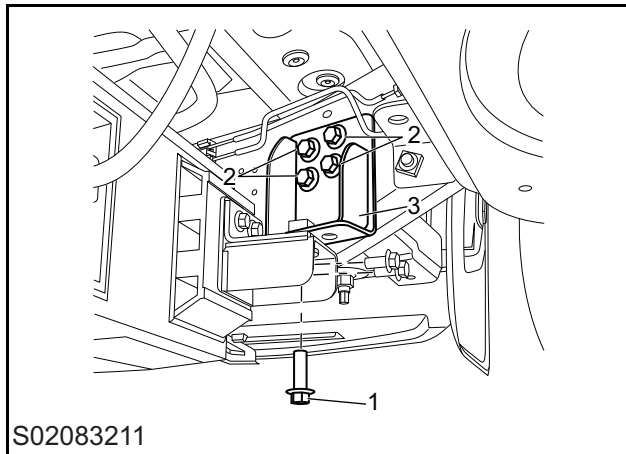
Installation

- 1 Place the front-end battery bracket, install 4 retaining bolts fixing the front-end battery bracket to the electric vehicle battery, tighten them to 50 ± 5 Nm, and check the torque.
- 2 Install 1 retaining bolt fixing the front-end battery bracket to the battery front-end mounting bracket, tighten it to 110 ± 10 Nm, and check the torque.
- 3 Remove the lifting device.
- 4 Lower the vehicle.

Battery Front-end Mounting Bracket Replacement

Removal

- 1 Raise the vehicle.
- 2 Support the electric vehicle battery with a lifting device.
- 3 Remove 1 retaining bolt (1) fixing the battery front-end mounting bracket to the front-end battery bracket.
- 4 Remove 4 retaining bolts (2) fixing the battery front-end mounting bracket to the vehicle body, and remove the battery front-end mounting bracket (3).



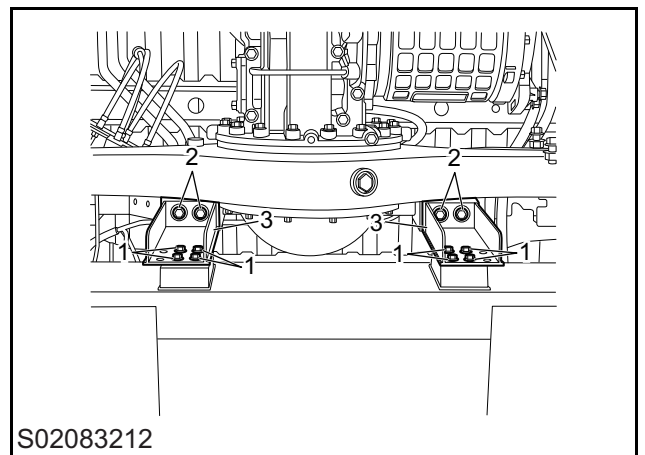
Installation

- 1 Place the battery front-end mounting bracket, and install 4 retaining bolts fixing the battery front-end mounting bracket to the vehicle body.
- 2 Install 1 retaining bolt fixing the battery front-end mounting bracket to the front-end battery bracket, tighten it to 110 ± 10 Nm, and check the torque.
- 3 Remove the lifting device.
- 4 Lower the vehicle.

Rear-end Battery Bracket Replacement

Removal

- 1 Raise the vehicle.
- 2 Support the electric vehicle battery with a lifting device.
- 3 Remove 8 retaining bolts (1) fixing the rear-end battery bracket to the electric vehicle battery.
- 4 Remove 4 retaining bolts (2) fixing the rear-end battery bracket to the vehicle body, and remove the rear-end battery bracket (3).



Installation

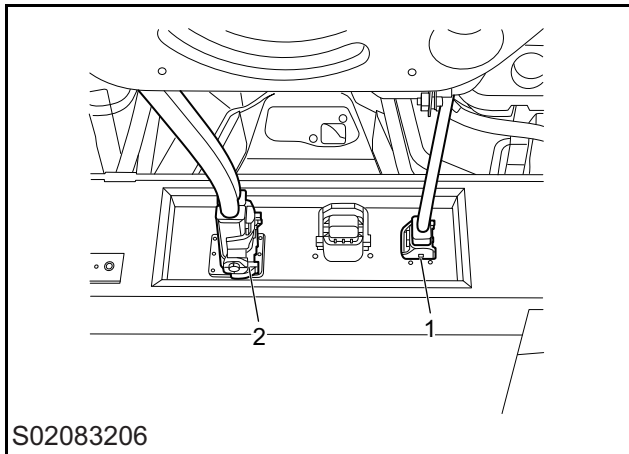
- 1 Place the rear-end battery bracket, install 4 retaining bolts fixing the rear-end battery bracket to the vehicle body, tighten them to 110 ± 10 Nm, and check the torque.
- 2 Install 8 retaining bolts fixing the rear-end battery bracket to the electric vehicle battery, tighten them to 55 ± 5 Nm, and check the torque.
- 3 Remove the lifting device.
- 4 Lower the vehicle.

Power and Control System

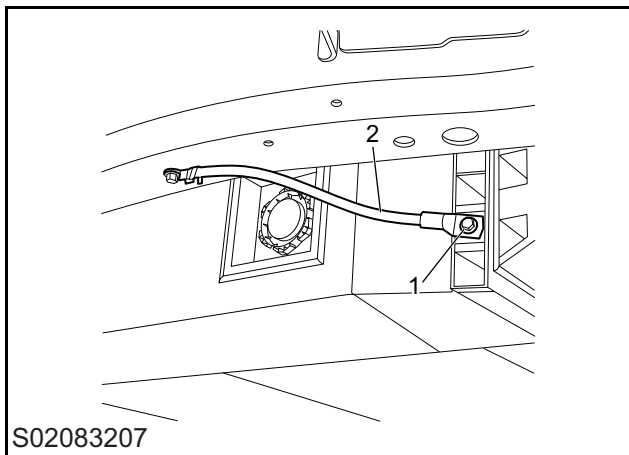
Left and Right Battery Bracket Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the power battery bottom guard plate. Refer to "Power Battery Bottom Guard Plate Replacement".
- 3 Disconnect the electrical connector (1) at the low voltage end of the electric vehicle battery.
- 4 Disconnect the electrical connector (2) at the high voltage end of the electric vehicle battery.

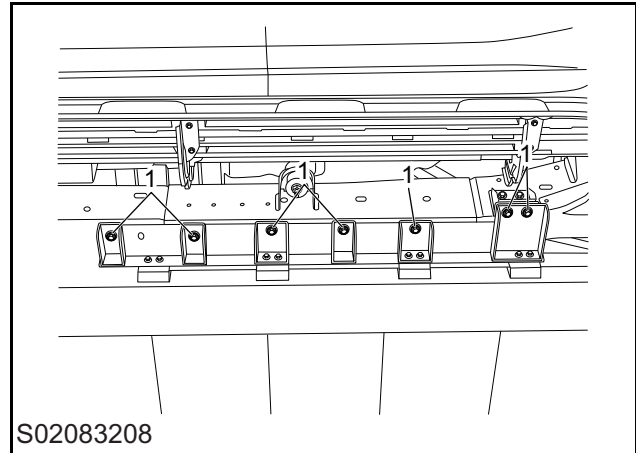


- 5 Remove 1 retaining bolt (1) fixing the electric vehicle battery ground wire to the electric vehicle battery, and remove the electric vehicle battery ground wire (2).

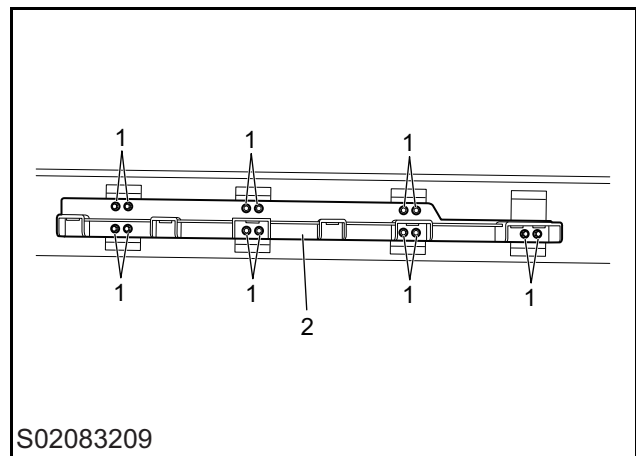


- 6 Support the electric vehicle battery with a lifting device.
- 7 Remove the front-end battery bracket. Refer to "Front-end Battery Bracket Replacement".

- 8 Remove the rear-end battery bracket. Refer to "Rear-end Battery Bracket Replacement".
- 9 Remove 7 retaining bolts (1) fixing the left and right battery brackets to the vehicle body.



- 10 Lower the lifting device.
- 11 Remove 14 retaining bolts (1) fixing the left and right battery brackets to the electric vehicle battery, and remove the left and right battery brackets (2).



Installation

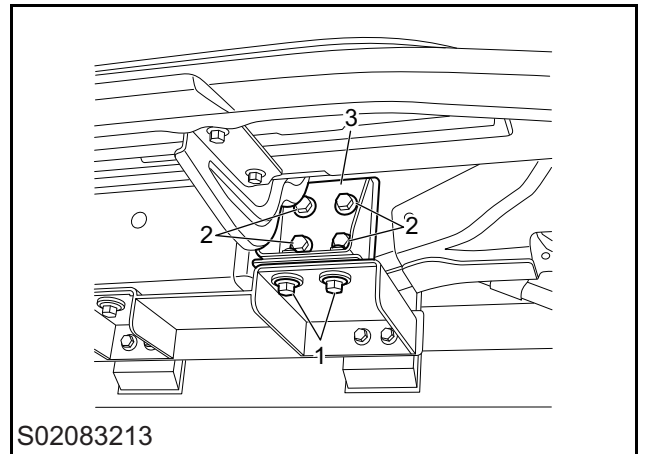
- 1 Place the left and right battery brackets, install 14 retaining bolts fixing the left and right battery brackets to the electric vehicle battery, tighten them to 50 ± 5 Nm, and check the torque.
- 2 Lift the electric vehicle battery to a proper position.
- 3 Install 7 retaining bolts fixing the left and right battery brackets to the vehicle body, tighten them to 110 ± 10 Nm, and check the torque.

- 4 Install the rear-end battery bracket. Refer to "Rear-end Battery Bracket Replacement".
- 5 Install the front-end battery bracket. Refer to "Front-end Battery Bracket Replacement".
- 6 Remove the lifting device.
- 7 Restore the electric vehicle battery ground wire, install 1 retaining bolt fixing the electric vehicle battery ground wire to the electric vehicle battery, tighten it to 9 ± 1 Nm, and check the torque.
- 8 Connect the electrical connector at the high voltage end of the electric vehicle battery.
- 9 Connect the electrical connector at the low voltage end of the electric vehicle battery.
- 10 Install the power battery bottom guard plate. Refer to "Power Battery Bottom Guard Plate Replacement".
- 11 Connect the negative battery cable.

Power Battery Rear-end Mounting Bracket Replacement

Removal

- 1 Raise the vehicle.
- 2 Support the electric vehicle battery with a lifting device.
- 3 Remove 2 retaining bolts (1) fixing the battery bracket to the battery pack rear-end mounting bracket.
- 4 Remove 4 retaining bolts (2) fixing the battery pack rear-end mounting bracket to the vehicle body, and remove the battery pack rear-end mounting bracket (3).



Installation

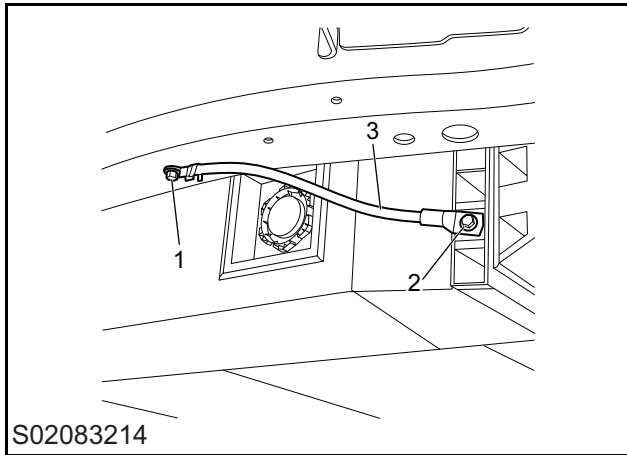
- 1 Place the battery pack rear-end mounting bracket, and install 4 retaining bolts fixing the battery pack rear-end mounting bracket to the vehicle body.
- 2 Install 2 retaining bolts fixing the battery bracket to the battery pack rear-end mounting bracket, tighten them to 110 ± 10 Nm, and check the torque.
- 3 Remove the lifting device.
- 4 Lower the vehicle.

Power and Control System

Power Battery Ground Wire Replacement

Removal

- 1 Raise the vehicle.
- 2 Remove 1 retaining bolt (1) fixing the electric vehicle battery ground wire to the vehicle body.
- 3 Remove 1 retaining bolt (2) fixing the electric vehicle battery ground wire to the electric vehicle battery, and remove the electric vehicle battery ground wire (3).



Installation

- 1 Place the electric vehicle battery ground wire, and install 1 retaining bolt fixing the electric vehicle battery ground wire to the electric vehicle battery.
- 2 Install 1 retaining bolt fixing the electric vehicle battery ground wire to the vehicle body, tighten it to 9 ± 1 Nm, and check the torque.
- 3 Lower the vehicle.

Power Cooling System

Specification

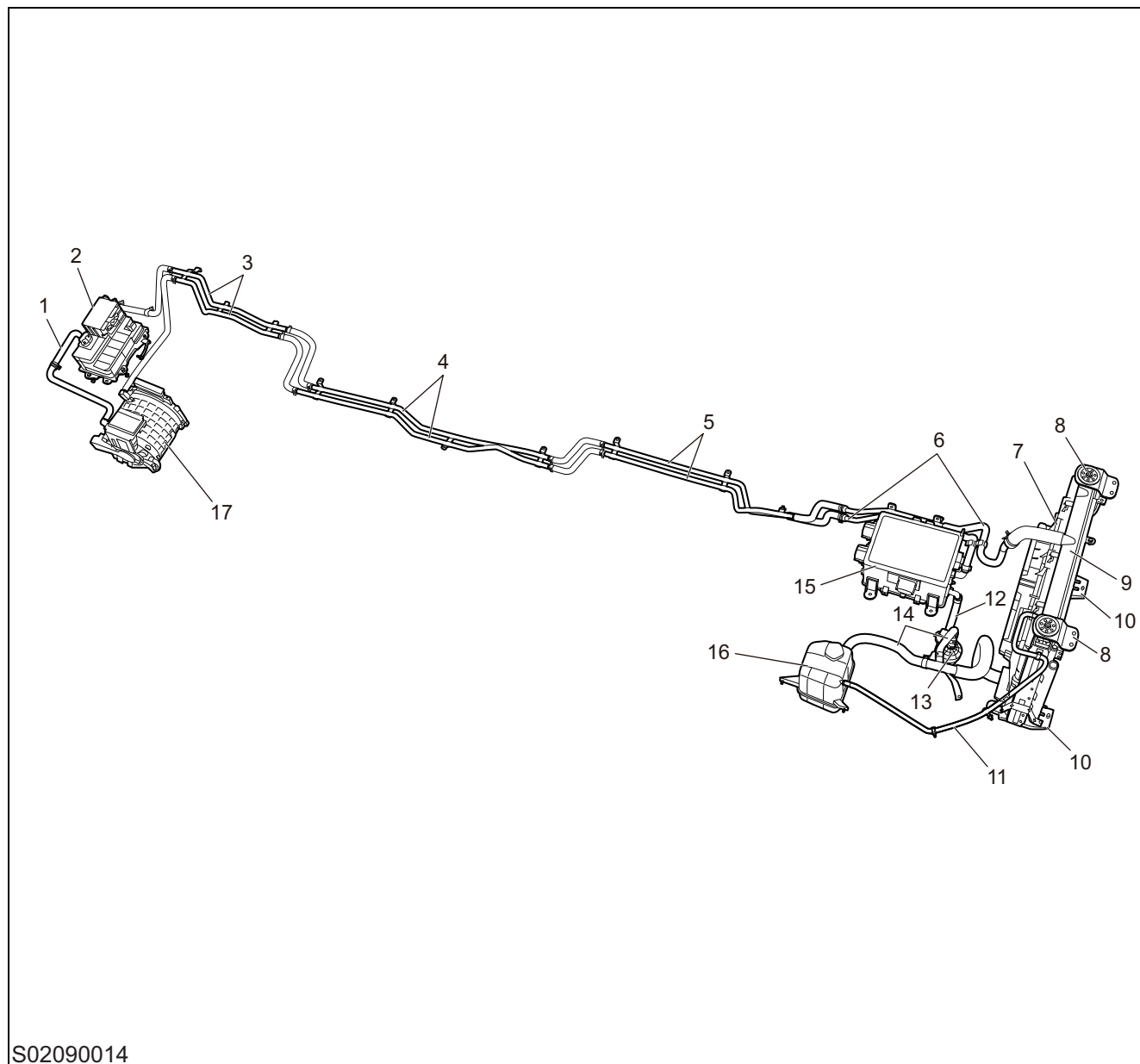
Fastener Specifications

Name	Torque (Nm)
Bolt - Expansion Tank to Frame	5±1 Nm
Bolt - Water/Coolant Radiator Assembly Outlet Pipe	9±1 Nm
Bolt - Motor Cooling Connecting Pipe	9±1 Nm
Bolt - Electronic Water Pump to Water Pump Bracket	9±1 Nm
Bolt - Cooling Fan Radiator	5±1 Nm
Bolt - Radiator Upper Support	22±2 Nm
Bolt - Radiator Upper Support	5±1 Nm

Power Cooling System

Layout

Power Cooling System Layout



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- | | | | |
|---|---|----|---|
| 1 | Motor Controller to Motor Hose | 7 | Cooling Fan Assembly |
| 2 | Motor Controller | 8 | Radiator Upper Mounting Bracket |
| 3 | Charging and Distribution Unit Assembly to Motor Controller Hose (Rear Section) | 9 | Radiator Assembly |
| 4 | Charging and Distribution Unit Assembly to Motor Controller Hose (Middle Section) | 10 | Radiator Lower Mounting Bracket |
| 5 | Charging and Distribution Unit Assembly to Motor Controller Hose (Middle Section) | 11 | Radiator Exhaust Hose |
| 6 | Charging and Distribution Unit Assembly to Motor Controller Hose (Front Section) | 12 | Electronic Water Pump to Charging And Distribution Unit Assembly Hose |
| | | 13 | Electronic Water Pump |
| | | 14 | Radiator Water Outlet Pipe Assembly |

- 15 Charging and Distribution Unit Assembly
- 16 Expansion Tank
- 17 Drive Motor

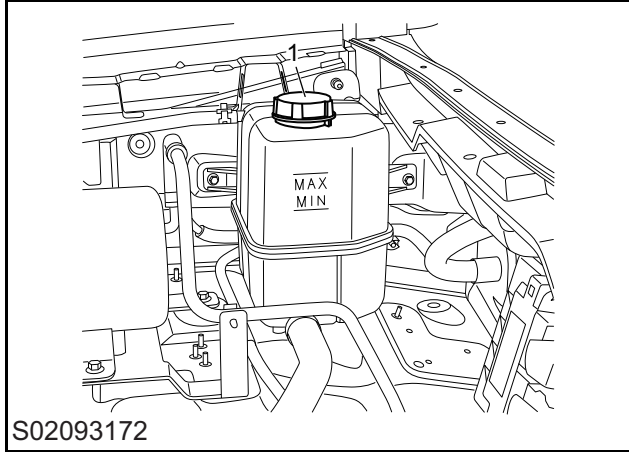
Power Cooling System

Service Guide

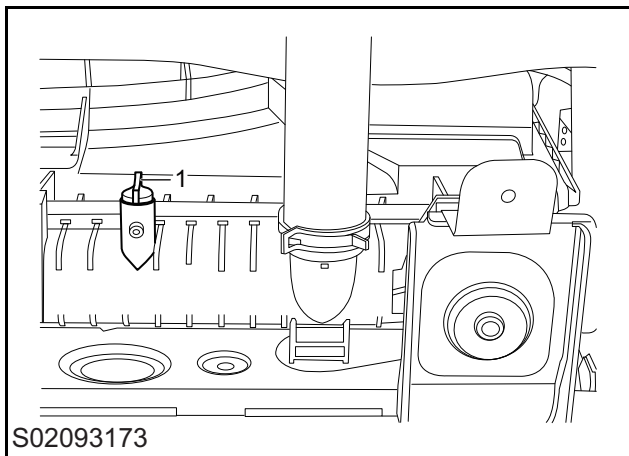
Coolant Drain and Refill

Drain

- 1 Remove the expansion tank cover (1).



- 2 Remove the front bottom deflector. Refer to "Front Bottom Deflector Replacement".
- 3 Remove the condenser lower guard plate. Refer to "Condenser Lower Guard Plate Replacement".
- 4 Fix a suitable container to collect the coolant.
- 5 Unscrew the drain valve (1) from the radiator assembly and drain the power system coolant.



Refill

- 1 Tighten the drain valve on the radiator assembly.
- 2 Refill the coolant until it reaches the MAX line of the expansion tank and remains stationary.
- 3 Connect the scan tool, conduct actuator test - VCU - motor cooling water pump enable

operation, to enable the electronic water pump to operate, then the coolant in the expansion tank will be immediately evacuated; refill the coolant immediately to be between MIN and MAX, and repeat this process 3-5 times until the expansion tank level is stable.

Caution: Be sure to refill the coolant within 13s after the expansion tank anti-freezing liquid is evacuated, otherwise water pump dry-run protection mechanism may be triggered.

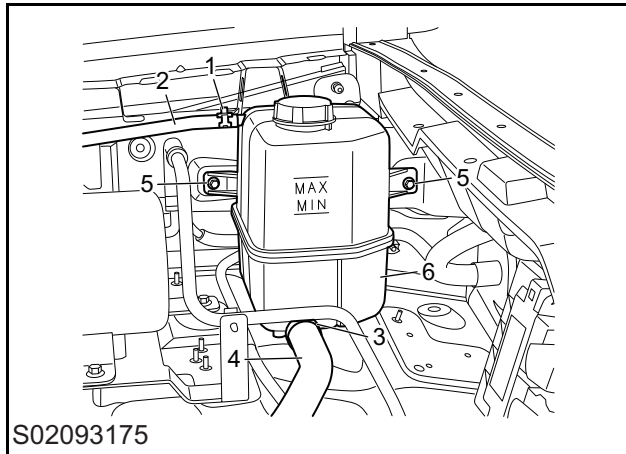


- 4 Continue to operate the water pump for 15 minutes after the level is stable, and the expansion tank level has no drop.
- 5 Check the expansion tank coolant level, and check the cooling system for leakage.
- 6 Install the expansion tank cap.
- 7 Install the condenser lower guard plate. Refer to "Condenser Lower Guard Plate Replacement".
- 8 Install the front bottom deflector. Refer to "Front Bottom Deflector Replacement".

Expansion Tank Replacement

Removal

- 1 Drain the power system coolant. Refer to "Coolant Drain and Refill".
- 2 Loosen the clamp (1), and disconnect the radiator exhaust hose (2) from the expansion tank.
- 3 Loosen the clamp (3), and disconnect the radiator water outlet pipe assembly (4) from the expansion tank.
- 4 Remove 2 retaining bolts (5) fixing the expansion tank to the vehicle body.
- 5 Remove the expansion tank (6).



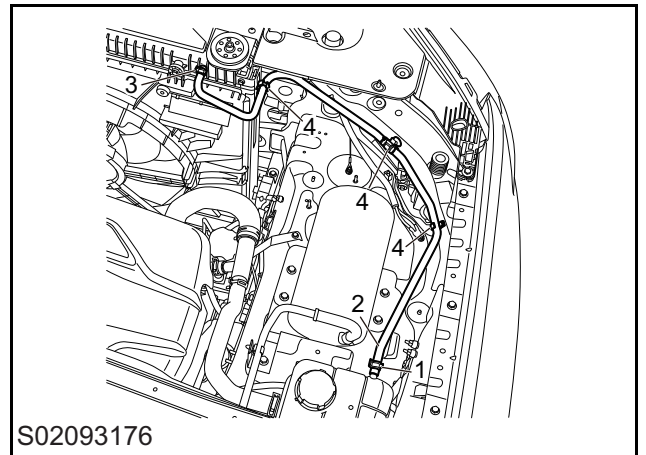
Installation

- 1 Install the expansion tank.
- 2 Install 2 retaining bolts fixing the expansion tank to the vehicle body, tighten them to 5 ± 1 Nm, and check the torque.
- 3 Connect the radiator water outlet pipe assembly to the expansion tank and secure it with a clamp.
- 4 Connect the radiator exhaust hose to the expansion tank and secure it with a clamp.
- 5 Refill the power system coolant. Refer to "Coolant Drain and Refill".

Radiator Exhaust Pipe Assembly Replacement

Removal

- 1 Drain the power system coolant. Refer to "Coolant Drain and Refill".
- 2 Loosen the clamp (1), and disconnect the radiator exhaust pipe assembly (2) from the expansion tank.
- 3 Loosen the clamp (3), and disconnect the radiator exhaust pipe assembly (2) from the radiator assembly.
- 4 Remove the clip (4) from the radiator exhaust pipe assembly, and remove the radiator exhaust pipe assembly (2).



Installation

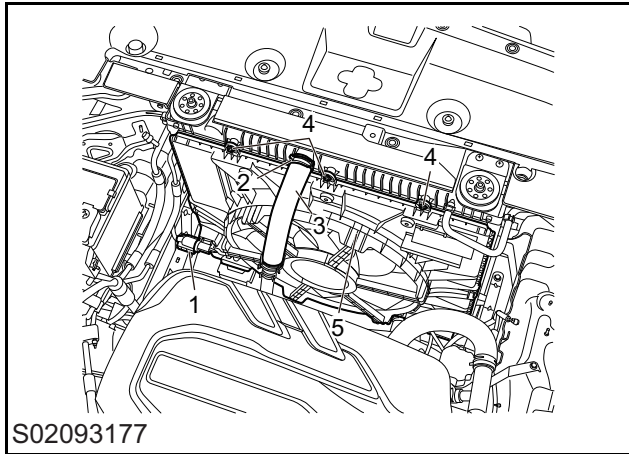
- 1 Place the radiator exhaust pipe assembly, and install the clips on the radiator exhaust pipe assembly.
- 2 Connect the engine exhaust pipe assembly to the radiator assembly and secure it with a clamp.
- 3 Install the clip fixing the engine exhaust pipe assembly to the air filter.
- 4 Connect the radiator exhaust pipe assembly to the expansion tank and secure it with a clamp.
- 5 Refill the power system coolant. Refer to "Coolant Drain and Refill".

Power Cooling System

Cooling Fan Assembly Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Drain the power system coolant. Refer to "Coolant Drain and Refill".
- 3 Disconnect the electrical connector (1) of the cooling fan assembly.
- 4 Loosen the clamp (2), and disconnect the charging and distribution unit assembly to motor controller pipe (front section) (3) from the radiator assembly.
- 5 Remove 3 retaining bolts (4) fixing the cooling fan assembly to the radiator assembly.
- 6 Remove the cooling fan assembly (5).



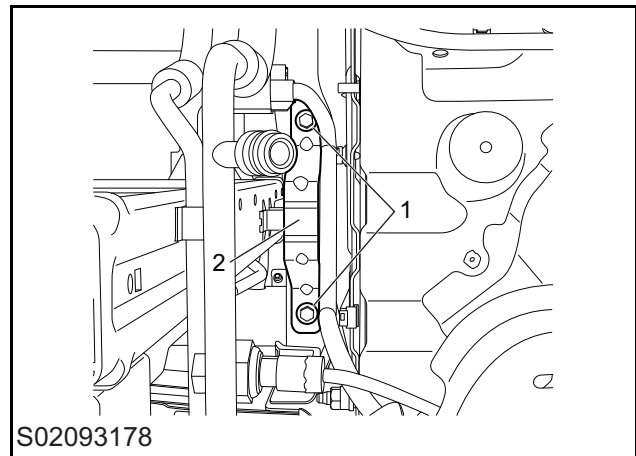
Installation

- 1 Install the cooling fan assembly.
- 2 Install 3 retaining bolts fixing the cooling fan assembly to the radiator assembly, tighten them to 5 ± 1 Nm, and check the torque.
- 3 Connect the charging and distribution unit assembly to motor controller pipe (front section) to the radiator assembly, and secure it with a clamp.
- 4 Connect the electrical connector of the cooling fan assembly.
- 5 Refill the power system coolant. Refer to "Coolant Drain and Refill".
- 6 Connect the negative battery cable.

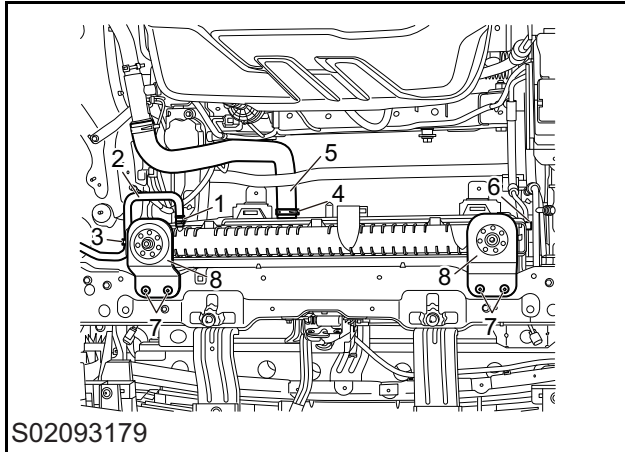
Radiator Assembly Replacement

Removal

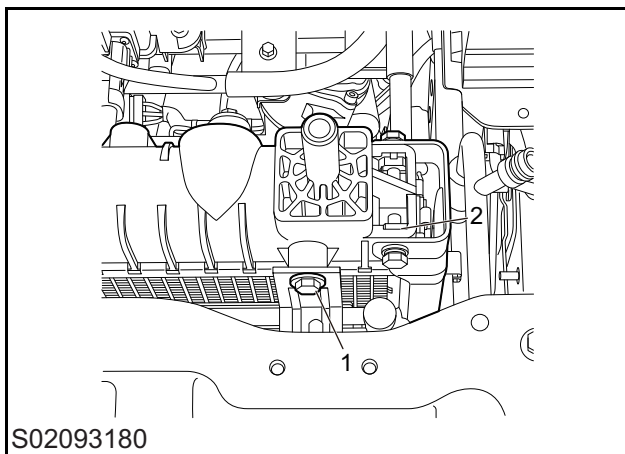
- 1 Remove the front grille cover plate. Refer to "Front Grille Cover Plate Replacement".
- 2 Drain the power system coolant. Refer to "Coolant Drain and Refill".
- 3 Remove the engine cooling fan assembly. Refer to "Engine Cooling Fan Assembly Replacement".
- 4 Remove 2 retaining bolts (1) fixing the left and right radiator upper mounting brackets to the vehicle body, and remove the radiator upper mounting brackets (2).



- 5 Loosen the clamp (1), and disconnect the radiator exhaust hose (2) from the radiator assembly.
- 6 Remove 1 retaining clip (3) from the radiator exhaust hose.
- 7 Loosen the clamp (4), and disconnect the radiator water outlet pipe assembly (5) from the radiator assembly.
- 8 Remove 1 retaining clip (6) from the condenser inlet/outlet pipe assembly.
- 9 Remove 4 retaining bolts (7) fixing the radiator upper mounting bracket to the vehicle body, and remove the radiator upper mounting bracket (8).



- 10 Remove 1 retaining bolt (1) fixing the left and right sides of the condenser assembly to the radiator assembly.
- 11 Remove the radiator assembly (2).



Installation

- 1 Install the radiator assembly.
- 2 Install 1 retaining bolt fixing the left and right sides of the condenser assembly to the radiator assembly, tighten it to 9 ± 1 Nm, and check the torque.
- 3 Place the radiator upper mounting bracket, install 4 retaining bolts fixing the radiator upper mounting bracket to the vehicle body, tighten them to 5 ± 1 Nm, and check the torque.
- 4 Install 1 retaining clip on the condenser inlet/outlet pipe assembly.
- 5 Connect the radiator water outlet pipe assembly to the radiator assembly and secure it with a clamp.

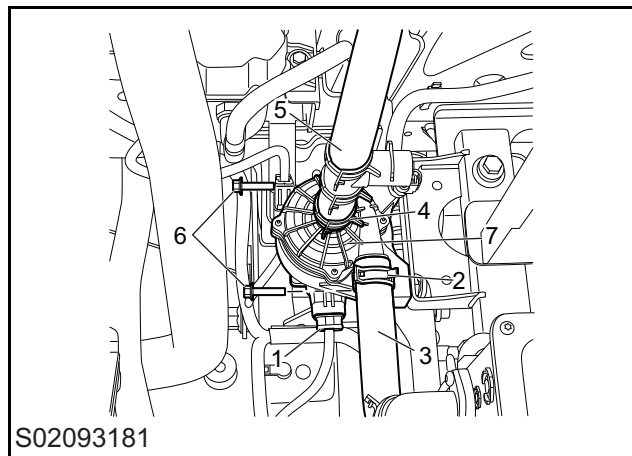
- 6 Install 1 retaining clip on the radiator exhaust hose.
- 7 Connect the radiator exhaust hose to the radiator assembly and secure it with a clamp.
- 8 Place the left and right radiator upper mounting brackets, install 2 retaining bolts fixing the left and right radiator upper mounting brackets to the vehicle body, tighten them to 22 ± 2 Nm, and check the torque.
- 9 Install the engine cooling fan assembly. Refer to "Engine Cooling Fan Assembly Replacement".
- 10 Refill the power system coolant. Refer to "Coolant Drain and Refill".
- 11 Install the front grille cover plate. Refer to "Front Grille Cover Plate Replacement".

Power Cooling System

Electronic Water Pump Replacement

Removal

- 1 Drain the power system coolant. Refer to "Coolant Drain and Refill".
- 2 Disconnect the electrical connector (1) of the electronic water pump.
- 3 Loosen the clamp (2), and disconnect the electronic water pump to charging and distribution unit assembly hose (3) from the electronic water pump.
- 4 Loosen the clamp (4), and disconnect the radiator water outlet pipe assembly (5) from the electronic water pump.
- 5 Remove 1 retaining bolt (6) fixing the electronic water pump to the vehicle body, and remove the electronic water pump (7).



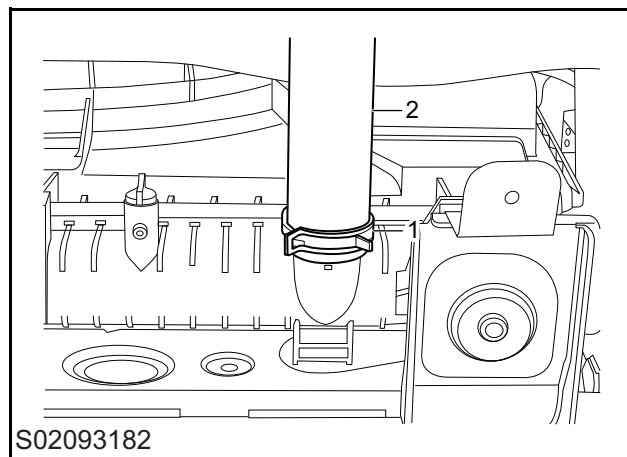
Installation

- 1 Place the electronic water pump, install 2 retaining bolts fixing the electronic water pump to the vehicle body, tighten them to 9 ± 1 Nm, and check the torque.
- 2 Connect the radiator water outlet pipe assembly to the electronic water pump and secure it with a clamp.
- 3 Connect the electronic water pump to charging and distribution unit assembly hose to the electronic water pump and secure it with a clamp.
- 4 Connect the electrical connector of the electronic water pump.
- 5 Refill the power system coolant. Refer to "Coolant Drain and Refill".

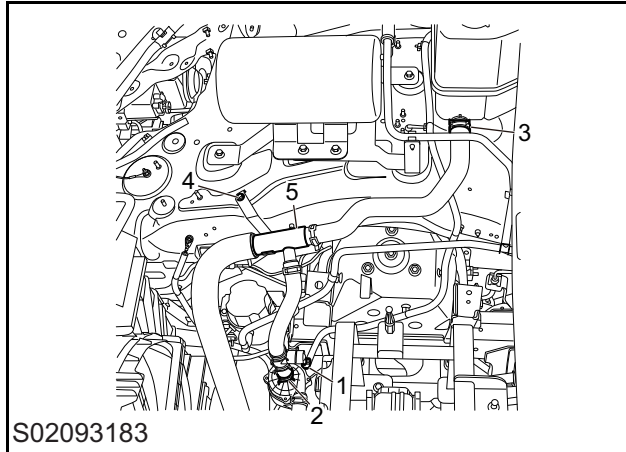
Radiator Water Outlet Pipe Assembly Replacement

Removal

- 1 Drain the power system coolant. Refer to "Coolant Drain and Refill".
- 2 Loosen the clamp (1), and disconnect the radiator water outlet pipe assembly (2) from the radiator assembly.



- 3 Disconnect the electrical connector (1) from the radiator water outlet pipe assembly.
- 4 Loosen the clamp (2), and disconnect the radiator water outlet pipe assembly from the electronic water pump.
- 5 Loosen the clamp (3), and disconnect the radiator water outlet pipe assembly from the expansion tank.
- 6 Remove 1 retaining bolt (4) from the radiator water outlet pipe assembly, and remove the radiator water outlet pipe assembly (5).



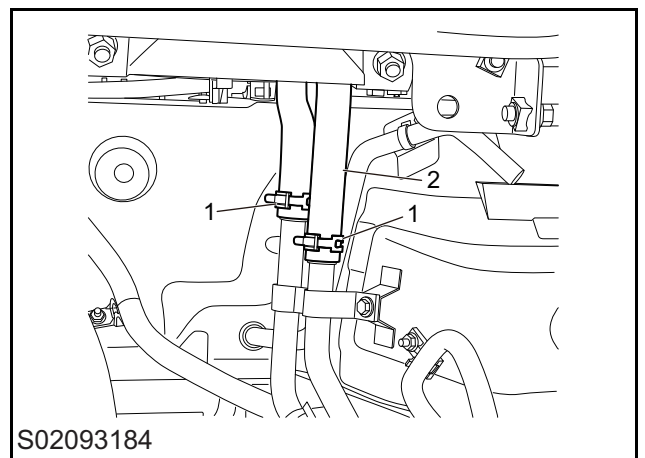
Installation

- 1 Place the radiator water outlet pipe assembly, install 1 retaining bolt on the radiator water outlet pipe assembly, tighten it to 9 ± 1 Nm, and check the torque.
- 2 Connect the radiator water outlet pipe assembly to the expansion tank and secure it with a clamp.
- 3 Connect the radiator water outlet pipe assembly to the electronic water pump and secure it with a clamp.
- 4 Connect the electrical connector on the radiator water outlet pipe assembly.
- 5 Connect the radiator water outlet pipe assembly to the radiator assembly and secure it with a clamp.
- 6 Refill the power system coolant. Refer to "Coolant Drain and Refill".

Charging and Distribution Unit Assembly to Motor Controller Pipe (Front Section) Replacement

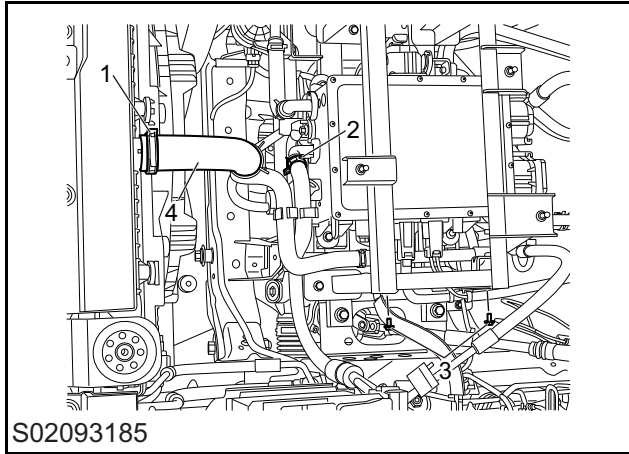
Removal

- 1 Remove the engine cover assembly. Refer to "Engine Cover Assembly Replacement".
- 2 Drain the power system coolant. Refer to "Coolant Drain and Refill".
- 3 Loosen the clamp (1), and disconnect the charging and distribution unit assembly to motor controller pipe (front section) (2) from the charging and distribution unit assembly to motor controller pipe (middle section).



- 4 Loosen the clamp (1), and disconnect the charging and distribution unit assembly to motor controller pipe (front section) from the radiator assembly.
- 5 Loosen the clamp (2), and disconnect the charging and distribution unit assembly to motor controller pipe (front section) from the charging and distribution unit assembly.
- 6 Remove 2 retaining bolts (3) from the charging and distribution unit assembly to motor controller pipe (front section).
- 7 Remove the charging and distribution unit assembly to motor controller pipe (front section) (4).

Power Cooling System



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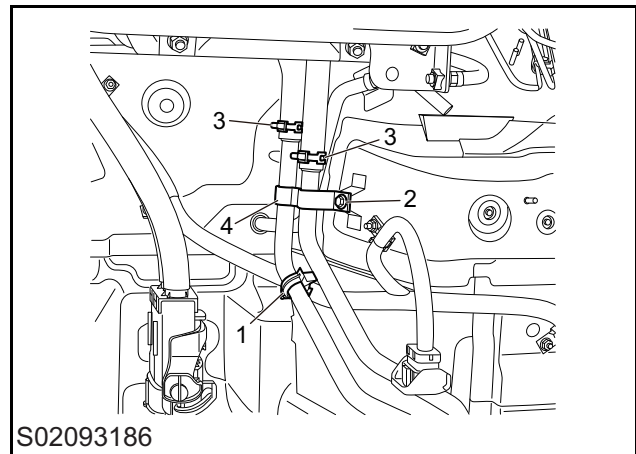
Installation

- 1 Install the charging and distribution unit assembly to motor controller pipe (front section).
- 2 Install 2 retaining bolts on the charging and distribution unit assembly to motor controller pipe (front section), tighten them to 9 ± 1 Nm, and check the torque.
- 3 Connect the charging and distribution unit assembly to motor controller pipe (front section) to the charging and distribution unit assembly, and secure it with a clamp.
- 4 Connect the charging and distribution unit assembly to motor controller pipe (front section) to the radiator assembly, and secure it with a clamp.
- 5 Connect the charging and distribution unit assembly to motor controller pipe (front section) to the charging and distribution unit assembly to motor controller pipe (middle section), and secure it with a clamp.
- 6 Refill the power system coolant. Refer to "Coolant Drain and Refill".
- 7 Install the engine cover assembly. Refer to "Engine Cover Assembly Replacement".

Charging and Distribution Unit Assembly to Motor Controller Pipe (Middle Section) Replacement

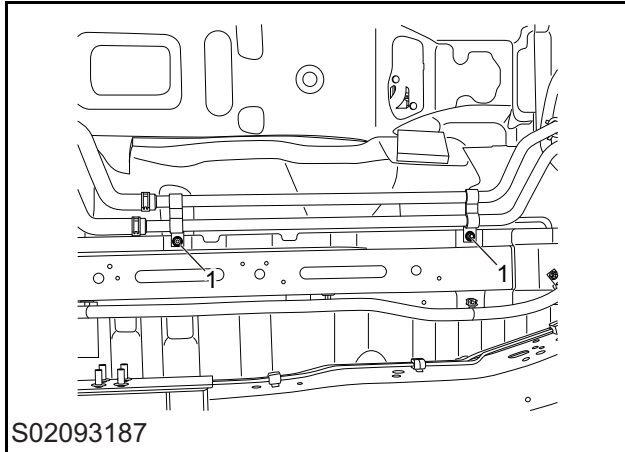
Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the service switch. Refer to "Service Switch Replacement".
- 3 Drain the power system coolant. Refer to "Coolant Drain and Refill".
- 4 Remove the electric vehicle battery. Refer to "Electric Vehicle Battery Replacement".
- 5 Remove the clip (1) from the engine compartment harness assembly.
- 6 Remove 1 retaining bolt (2) fixing the charging and distribution unit assembly to motor controller pipe (middle section) to the vehicle body.
- 7 Loosen the clamp (3), and disconnect the charging and distribution unit assembly to motor controller pipe (middle section) (4) from the charging and distribution unit assembly to motor controller pipe (front section).

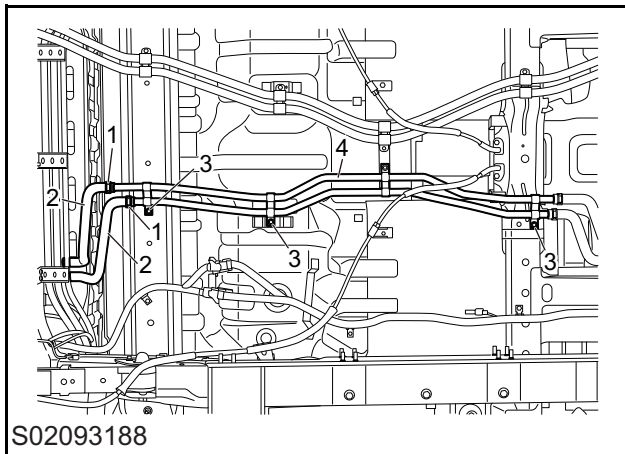


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- 8 Remove 2 retaining nuts (1) fixing the charging and distribution unit assembly to motor controller pipe (middle section) to the vehicle body.



- 9 Loosen the clamp (1), and disconnect the charging and distribution unit assembly to motor controller pipe (middle section) (2) from the charging and distribution unit assembly to motor controller pipe (rear section).
- 10 Remove 3 retaining bolts (3) fixing the charging and distribution unit assembly to motor controller pipe (middle section) to the vehicle body, and remove the charging and distribution unit assembly to motor controller pipe (middle section) (4).



Installation

- 1 Place the charging and distribution unit assembly to motor controller pipe (middle section), install 4 retaining bolts fixing the charging and distribution unit assembly to motor controller pipe (middle section) to the vehicle body, tighten them to 9 ± 1 Nm, and check the torque.
- 2 Connect the charging and distribution unit assembly to motor controller pipe (middle section) to the charging and distribution unit

assembly to motor controller pipe (rear section), and secure it with a clamp.

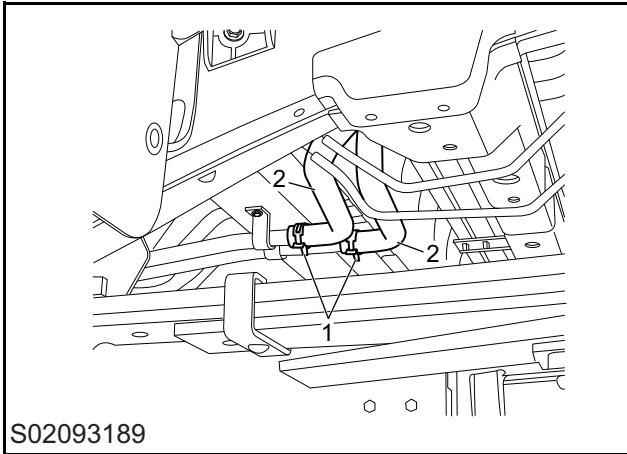
- 3 Install 2 retaining nuts fixing the charging and distribution unit assembly to motor controller pipe (middle section) to the vehicle body, tighten them to 9 ± 1 Nm, and check the torque.
- 4 Connect the charging and distribution unit assembly to motor controller pipe (middle section) to the charging and distribution unit assembly to motor controller pipe (front section), and secure it with a clamp.
- 5 Install the clip on the engine compartment harness assembly.
- 6 Install the electric vehicle battery. Refer to "Electric Vehicle Battery Replacement".
- 7 Refill the power system coolant. Refer to "Coolant Drain and Refill".
- 8 Install the service switch. Refer to "Service Switch Replacement".
- 9 Connect the negative battery cable.

Power Cooling System

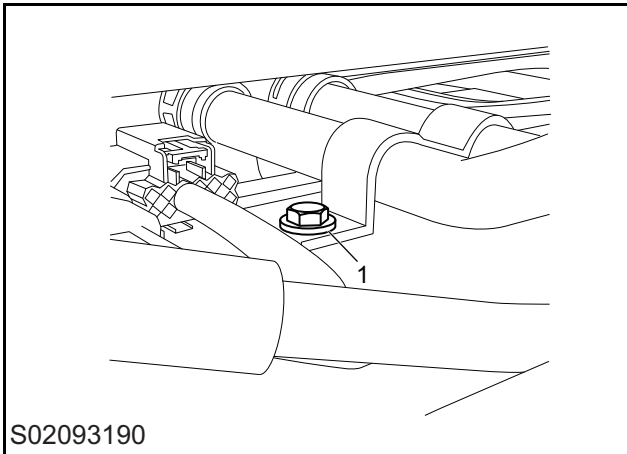
Charging and Distribution Unit Assembly to Motor Controller Pipe (Rear Section) Replacement

Removal

- 1 Drain the power system coolant. Refer to "Coolant Drain and Refill".
- 2 Loosen the clamp (1), and disconnect the charging and distribution unit assembly to motor controller pipe (rear section) (2) from the charging and distribution unit assembly to motor controller pipe (middle section).

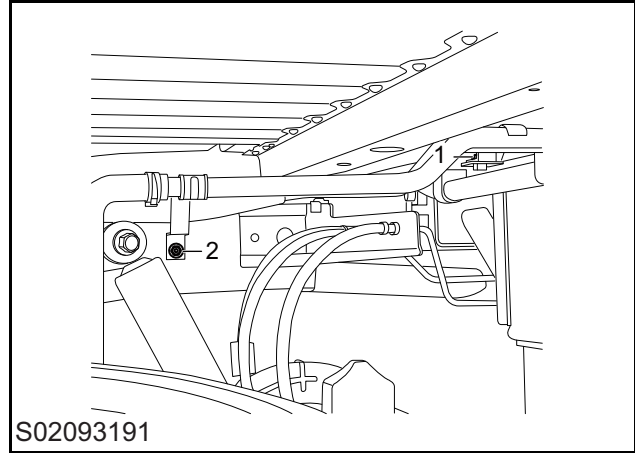


- 3 Remove 1 retaining bolt (1) fixing the charging and distribution unit assembly to motor controller pipe (rear section) to the 6th beam assembly.

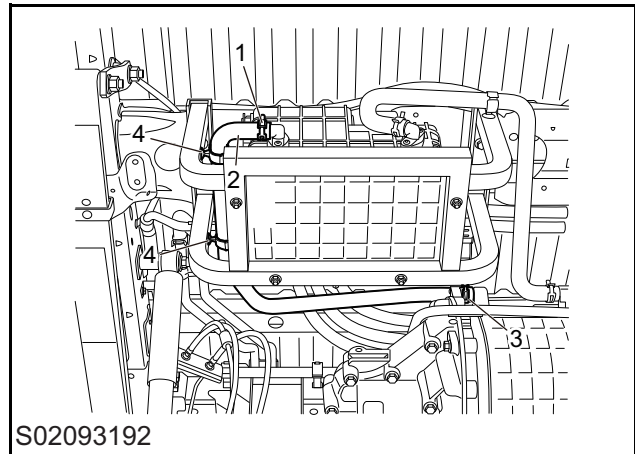


- 4 Remove 1 retaining bolt (1) fixing the charging and distribution unit assembly to motor controller pipe (rear section) to the battery pack mounting beam assembly.
- 5 Remove 1 retaining bolt (2) fixing the charging and distribution unit assembly to motor controller

pipe (rear section) to the left longitudinal beam 4th beam assembly.



- 6 Loosen the clamp (1), and disconnect the charging and distribution unit assembly to motor controller pipe (rear section) (2) from the motor controller.
- 7 Loosen the clamp (3), and disconnect the charging and distribution unit assembly to motor controller pipe (rear section) (2) from the drive motor.
- 8 Remove 2 retaining clips (4) from the charging and distribution unit assembly to motor controller pipe (rear section), and remove the charging and distribution unit assembly to motor controller pipe (rear section) (2).



Installation

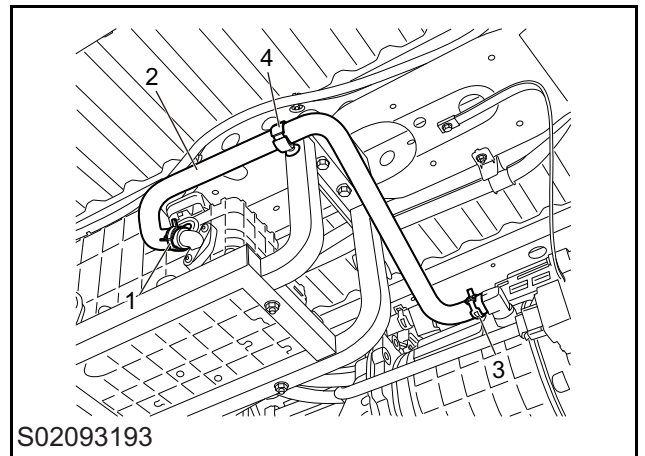
- 1 Place the charging and distribution unit assembly to motor controller pipe (rear section), and install 2 retaining clips on the charging and distribution unit assembly to motor controller pipe (rear section).

- 2 Connect the charging and distribution unit assembly to motor controller pipe (rear section) to the drive motor, and secure it with a clamp.
- 3 Connect the charging and distribution unit assembly to motor controller pipe (rear section) to the motor controller, and secure it with a clamp.
- 4 Install 1 retaining bolt fixing the charging and distribution unit assembly to motor controller pipe (rear section) to the left longitudinal beam 4th beam assembly, tighten it to 9 ± 1 Nm, and check the torque.
- 5 Install 1 retaining bolt fixing the charging and distribution unit assembly to motor controller pipe (rear section) to the battery pack mounting beam assembly, tighten it to 9 ± 1 Nm, and check the torque.
- 6 Install 1 retaining bolt fixing the charging and distribution unit assembly to motor controller pipe (rear section) to the 6th beam assembly, tighten it to 9 ± 1 Nm, and check the torque.
- 7 Connect the charging and distribution unit assembly to motor controller pipe (rear section) to the charging and distribution unit assembly to motor controller pipe (middle section), and secure it with a clamp.
- 8 Refill the power system coolant. Refer to "Coolant Drain and Refill".

Motor Controller to Motor Hose Replacement

Removal

- 1 Drain the power system coolant. Refer to "Coolant Drain and Refill".
- 2 Loosen the clamp (1), and disconnect the motor controller to motor hose (2) from the motor controller.
- 3 Loosen the clamp (3), and disconnect the motor controller to motor hose (2) from the drive motor.
- 4 Remove 1 retaining clip (4) from the motor controller to motor hose, and remove the motor controller to motor hose (5).



Installation

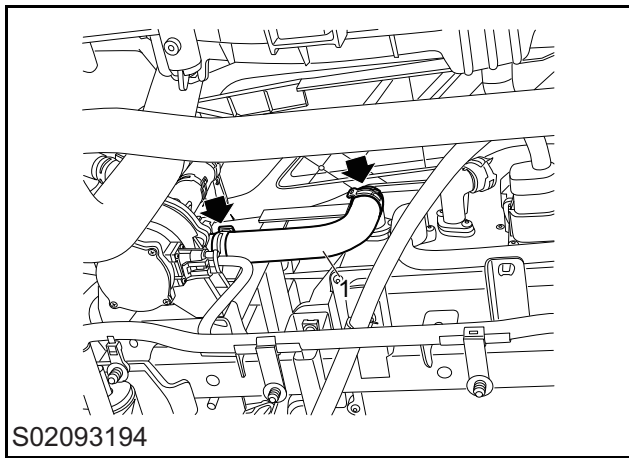
- 1 Place the motor controller to motor hose, and install 1 retaining clip on the motor controller to motor hose.
- 2 Connect the motor controller to motor hose to the drive motor, and secure it with a clamp.
- 3 Connect the motor controller to motor hose to the motor controller, and secure it with a clamp.
- 4 Refill the power system coolant. Refer to "Coolant Drain and Refill".

Power Cooling System

Electronic Water Pump to Charging and Distribution Unit Assembly Hose Replacement

Removal

- 1 Drain the power system coolant. Refer to "Coolant Drain and Refill".
- 2 Disconnect the clamps at both ends of the electronic water pump to charging and distribution unit assembly hose.
- 3 Remove the electronic water pump to charging and distribution unit assembly hose (1).



Installation

- 1 Install the electronic water pump to charging and distribution unit assembly hose.
- 2 Install the clamps at both ends of the electronic water pump to charging and distribution unit assembly hose.
- 3 Refill the power system coolant. Refer to "Coolant Drain and Refill".

Rear Axle

Specification

Fastener Specifications

Name	Torque (Nm)
Drain Bolt	70±15 Nm
Filler Bolt	70±15 Nm
Bolt - Final Drive Assembly to Rear Axle Housing Assembly	50±5 Nm
Nut - Axle Shaft Assembly to Rear Axle Housing Assembly	120±10 Nm
Nut - Rear Shock Absorber to Lower Bracket	110±10 Nm
Nut - U-bolt	120±10 Nm
Bolt - Input Shaft Oil Seal End Cover	24 Nm
Bolt - Intermediate Shaft End Cover	24 Nm
Bolt - Final Drive Upper Housing to Lower Housing	50 Nm
Bolt - Bearing Adjustment Locking Plate	12 Nm
Bolt - Output Gear to Differential	60 Nm

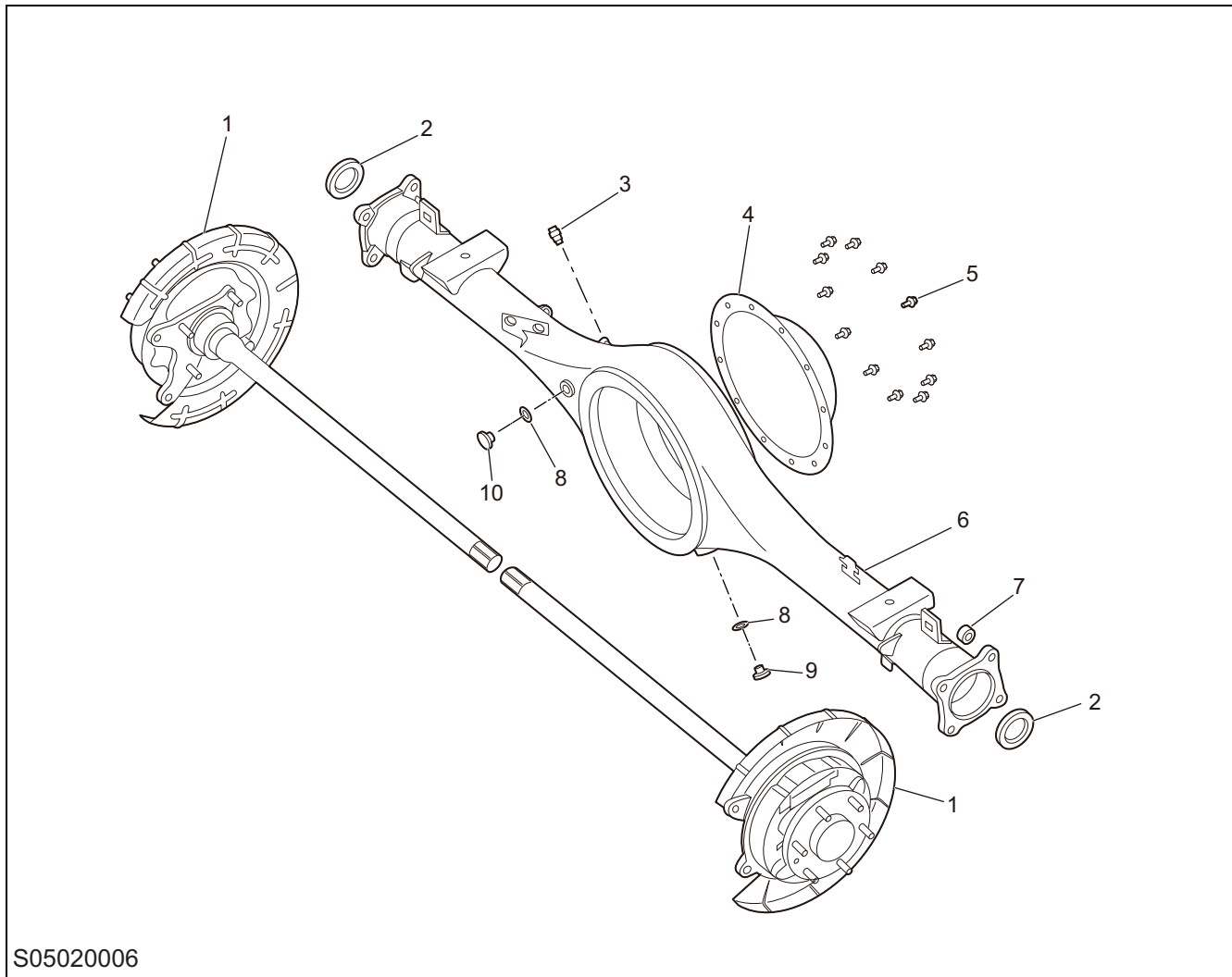
Parameters

Type	Load-bearing transaxle
Rear axle speed ratio	3.818/3.636
Final drive gear ratio	11/42 11/40
Drive gear support bearing	Two tapered roller bearings
Drive gear rotating torque	1.8-2.2Nm
Adjustment method	Elastic spacer bush
Gasket thickness adjustment	1.6-2.2mm
Differential support bearing	Two tapered roller bearings
Differential function	The assembly shall meet the differential function without dead center or abnormal noise
Adjustment method	Regulating nut adjustment
Drive and driven gear surface contact area and backlash adjustment method	Differential regulating nut adjustment; drive gear gasket adjustment
Gasket thickness adjustment	1.6-2.2mm
Drive and driven gear backlash	0.13-0.18mm
Drive and driven gear backlash variation	< 0.1mm
Axle shaft assembly bearing	Double-row tapered roller bearing

Rear Axle

Layout

Exploded View of Rear Axle



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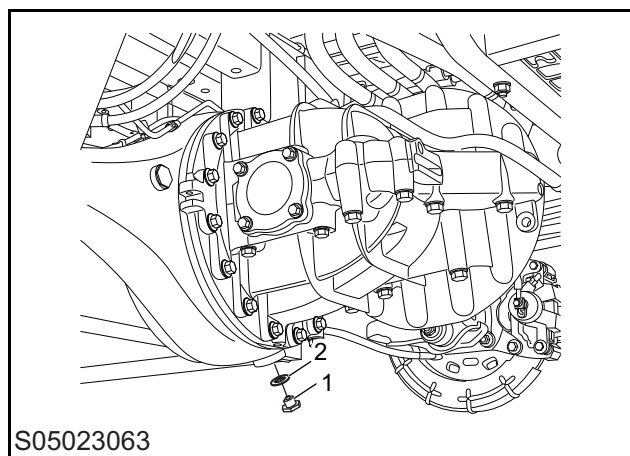
- | | | | |
|---|----------------------------|----|-----------------------------|
| 1 | Axle Shaft Assembly | 7 | Rear Brake to Rear Axle Nut |
| 2 | Oil Seal | 8 | Gasket |
| 3 | Breather Plug Assembly | 9 | Drain Bolt |
| 4 | Rear Cover Assembly | 10 | Filler Bolt |
| 5 | Rear Cover Bolt | | |
| 6 | Rear Axle Housing Assembly | | |

Service Guide

Rear Axle Gear Oil Drain and Refill

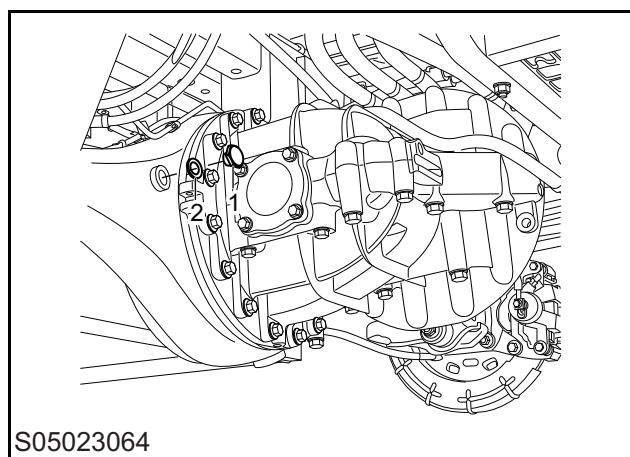
Drain

- 1 Raise the vehicle.
- 2 Place an appropriate container under the transmission to collect the gear oil.
- 3 Remove the drain plug (1), discard the seal washer (2), and drain the gear oil.



Refill

- 1 Install a new seal washer and drain plug, tighten them to 70 ± 15 Nm, and clean the oil stains around the drain plug.
- 2 Remove the filler plug (1), discard the seal washer (2), and refill the specified GL-5 80W-90 (Tempo) gear oil. Refer to "General Information".
- 3 Install the filler bolt, tighten it to 70 ± 15 Nm, and clean the oil stains around the drain plug.



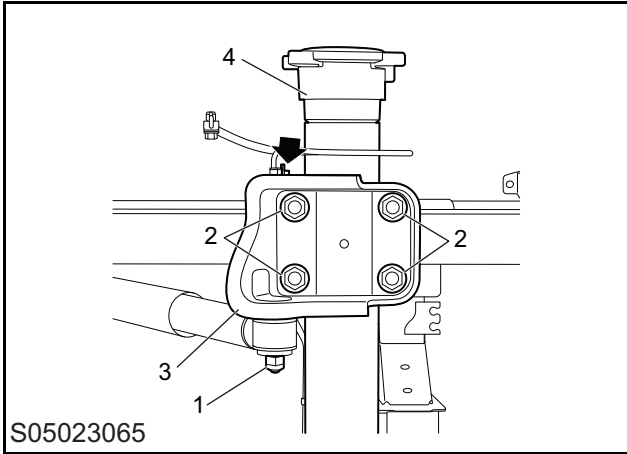
- 4 Lower the vehicle.

Rear Axle Housing Assembly Replacement

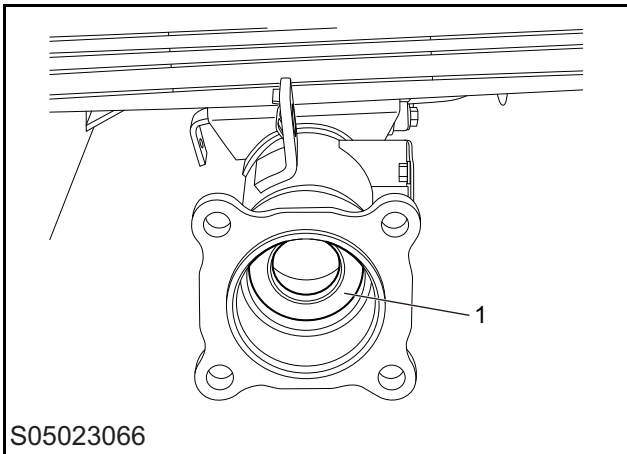
Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the service switch. Refer to "Service Switch Replacement".
- 3 Drain the rear axle gear oil. Refer to "Rear Axle Gear Oil Drain and Refill".
- 4 Remove the left and right rear wheels. Refer to "Wheel Replacement".
- 5 Remove the left and right rear wheel speed sensor assemblies. Refer to "Rear Wheel Speed Sensor Assembly Replacement".
- 6 Remove the left and right rear brake discs. Refer to "Rear Brake Disc Replacement".
- 7 Remove the left and right parking brake shoes. Refer to "Parking Brake Shoe Replacement".
- 8 Remove the drive motor. Refer to "Drive Motor Replacement".
- 9 Remove the final drive assembly. Refer to "Final Drive Assembly Replacement".
- 10 Remove the axle shaft assembly. Refer to "Axle Shaft Assembly Replacement".
- 11 Support the rear axle housing assembly with a jack.
- 12 Remove the rear brake line from the rear axle housing assembly.
- 13 Remove 1 retaining nut (1) fixing the left and right rear shock absorber assemblies to the rear axle housing assembly.
- 14 Remove 4 retaining nuts (2) fixing the left and right rear leaf spring lower bracket assemblies to the rear axle housing assembly, and remove the left and right rear leaf spring lower bracket assemblies (3).
- 15 Remove the rear axle housing assembly (4).

Rear Axle



16 Remove the oil seal (1) from the rear axle housing assembly.



17 Lower the jack slowly and remove the rear axle housing assembly.

Installation

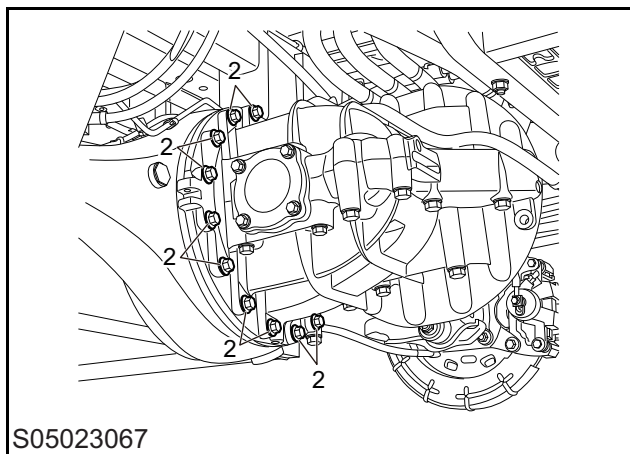
- 1 Place the rear axle housing assembly on the jack, and lift the jack to a proper position.
- 2 Install the new oil seal to the rear axle housing assembly.
- 3 Install the left and right rear leaf spring lower bracket assemblies, install 4 retaining nuts fixing the left and right rear leaf spring lower bracket assemblies to the rear axle housing assembly, tighten them to 120 ± 10 Nm, and check the torque.
- 4 Install 1 retaining nut fixing the left and right rear shock absorber assemblies to the rear axle housing assembly, tighten it to 110 ± 10 Nm, and check the torque.
- 5 Remove the jack.

- 6 Install the axle shaft assembly. Refer to "Axle Shaft Assembly Replacement".
- 7 Install the rear brake line to the rear axle housing assembly.
- 8 Install the final drive assembly. Refer to "Final Drive Assembly Replacement".
- 9 Install the drive motor. Refer to "Drive Motor Replacement".
- 10 Install the left and right parking brake shoes. Refer to "Parking Brake Shoe Replacement".
- 11 Install the left and right rear brake discs. Refer to "Rear Brake Disc Replacement".
- 12 Install the left and right rear wheel speed sensor assemblies. Refer to "Rear Wheel Speed Sensor Assembly Replacement".
- 13 Install the left and right rear wheels. Refer to "Wheel Replacement".
- 14 Refill the rear axle gear oil. Refer to "Rear Axle Gear Oil Drain and Refill".
- 15 Install the service switch. Refer to "Service Switch Replacement".
- 16 Connect the negative battery cable.

Final Drive Assembly Replacement

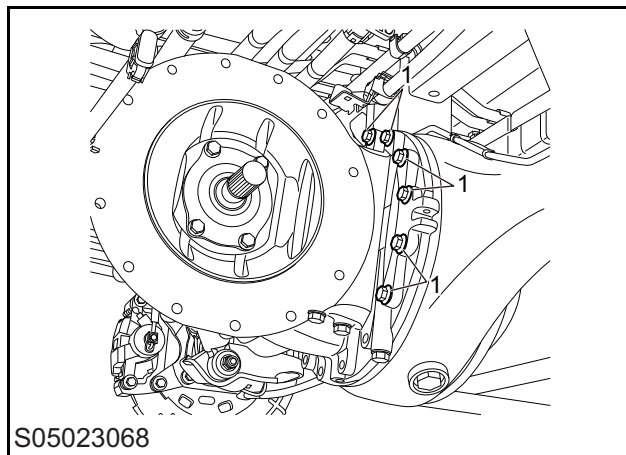
Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the service switch. Refer to "Service Switch Replacement".
- 3 Remove the drive motor. Refer to "Drive Motor Replacement".
- 4 Drain the rear axle gear oil. Refer to "Rear Axle Gear Oil Drain and Refill".
- 5 Support the final drive assembly with a jack.
- 6 Remove the retaining clip (1) fixing the chassis harness to the final drive assembly.
- 7 Remove 10 retaining bolts (2) fixing the final drive assembly to the rear axle housing assembly.



- 8 Remove 6 retaining bolts (1) fixing the final drive assembly to the rear axle housing assembly.
- 9 Remove the final drive assembly (2).

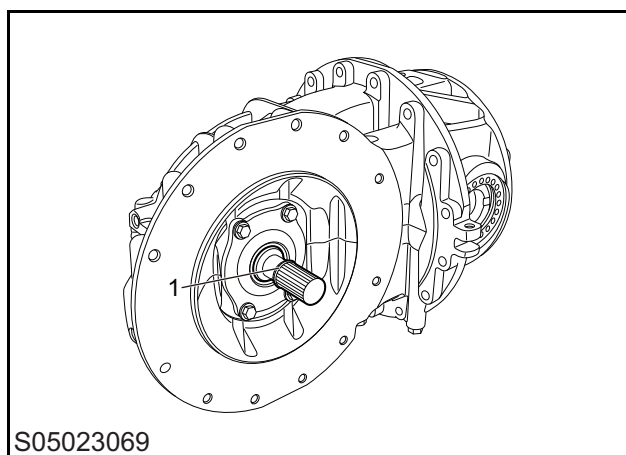
Caution: Cover the contact surface between the rear axle housing assembly and the final drive assembly with a plastic film to prevent dust from entering.



Installation

- 1 Clean the contact surface between the rear axle housing assembly and the final drive assembly with detergent.
- 2 Evenly apply sealant on the contact surface between the rear axle housing assembly and the final drive assembly.
- 3 Place the final drive assembly on the jack, and lift the jack to a proper position.
- 4 Install the final drive assembly.

Caution: Before installation, the seal ring (1) on the input shaft of the final drive assembly must be replaced with a new one.



- 5 Install 16 retaining bolts fixing the final drive assembly to the rear axle housing assembly, tighten them to 50 ± 5 Nm, and check the torque.
- 6 Remove the jack.
- 7 Install the retaining clip fixing the chassis harness to the final drive assembly.

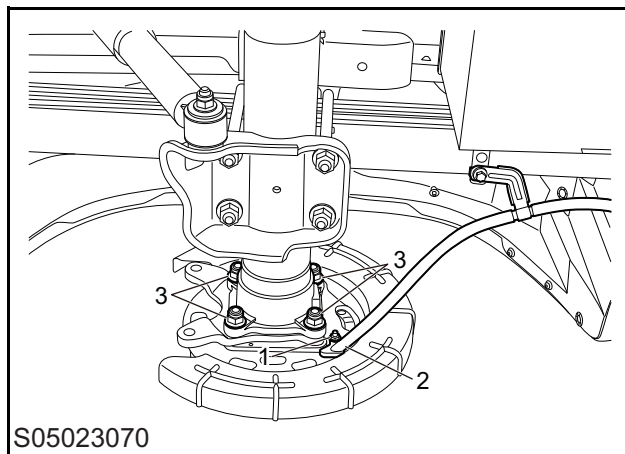
Rear Axle

- 8 Refill the rear axle gear oil. Refer to "Rear Axle Gear Oil Drain and Refill".
- 9 Install the drive motor. Refer to "Drive Motor Replacement".
- 10 Install the service switch. Refer to "Service Switch Replacement".
- 11 Connect the negative battery cable.

Axle Shaft Assembly Replacement

Removal

- 1 Drain the rear axle gear oil. Refer to "Rear Axle Gear Oil Drain and Refill".
- 2 Remove the left and right rear wheels. Refer to "Wheel Replacement".
- 3 Remove the left and right rear wheel speed sensor assemblies. Refer to "Rear Wheel Speed Sensor Assembly Replacement".
- 4 Remove the left and right rear brake discs. Refer to "Rear Brake Disc Replacement".
- 5 Remove the left and right parking brake shoes. Refer to "Parking Brake Shoe Replacement".
- 6 Remove 1 retaining nut (1) from the left and right rear parking brake cable assemblies, and remove the left and right rear parking brake cable assemblies (2).
- 7 Remove 4 retaining nuts (3) fixing the bearing seat to the rear axle housing assembly.



- 8 Remove the axle shaft assembly.

Installation

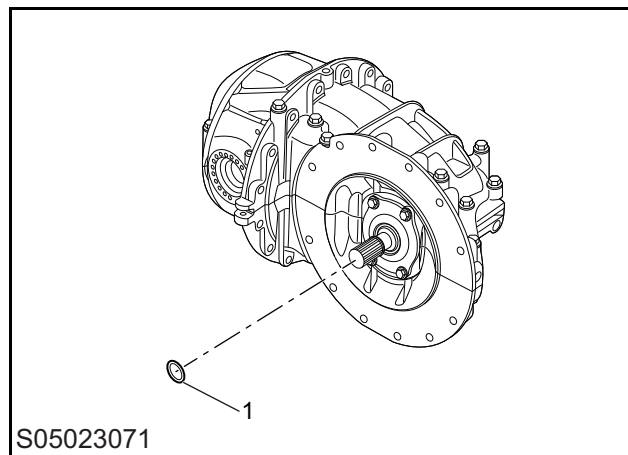
- 1 Install the axle shaft assembly.
- 2 Install 4 retaining nuts fixing the axle shaft assembly to the rear axle housing assembly, tighten them to 120 ± 10 Nm, and check the torque.
- 3 Restore the left and right rear parking brake cable assemblies, install and tighten 1 retaining nut on the left and right rear parking brake cable assemblies.
- 4 Install the left and right parking brake shoes. Refer to "Parking Brake Shoe Replacement".

- 5 Install the left and right rear brake discs. Refer to "Rear Brake Disc Replacement".
- 6 Install the left and right rear wheel speed sensor assemblies. Refer to "Rear Wheel Speed Sensor Assembly Replacement".
- 7 Install the left and right rear wheels. Refer to "Wheel Replacement".
- 8 Refill the rear axle gear oil. Refer to "Rear Axle Gear Oil Drain and Refill".

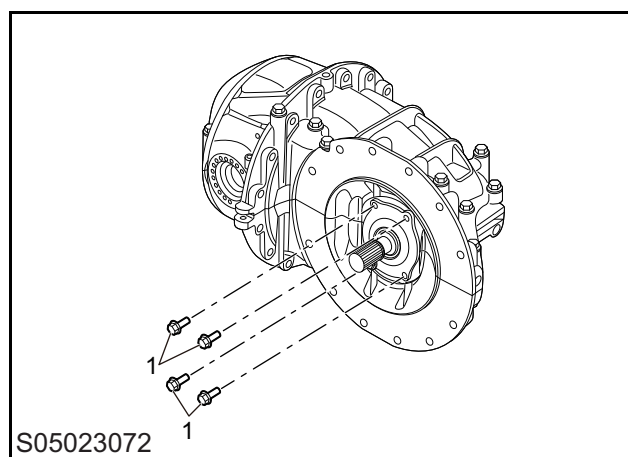
Final Drive Assembly Disassembly and Assembly

Disassembly

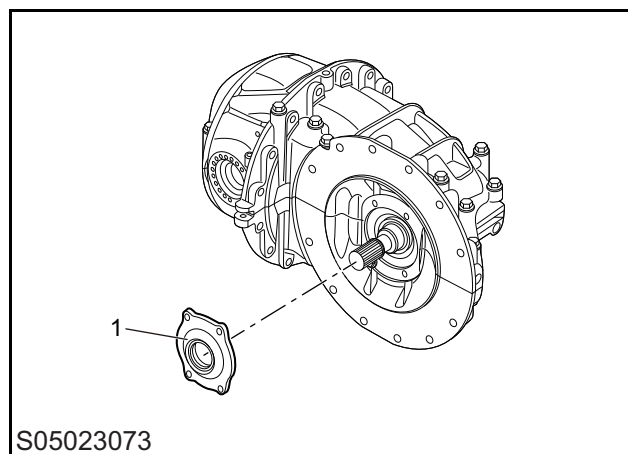
- 1 Remove the O-ring (1) from the input shaft.



- 2 Remove 4 retaining bolts (1) fixing the input shaft oil seal end cover to the final drive housing.



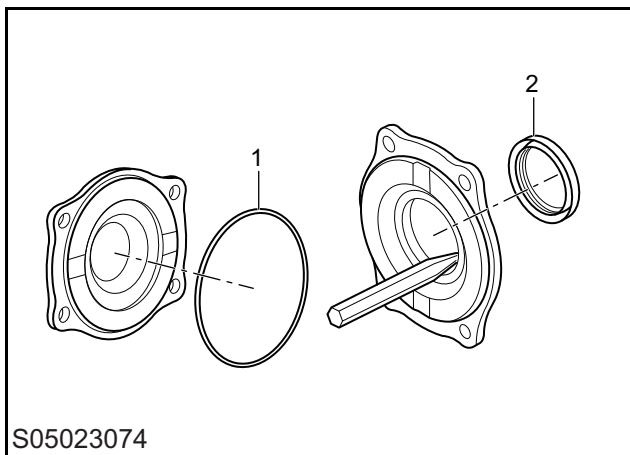
- 3 Remove the input shaft oil seal end cover (1) from the final drive housing.



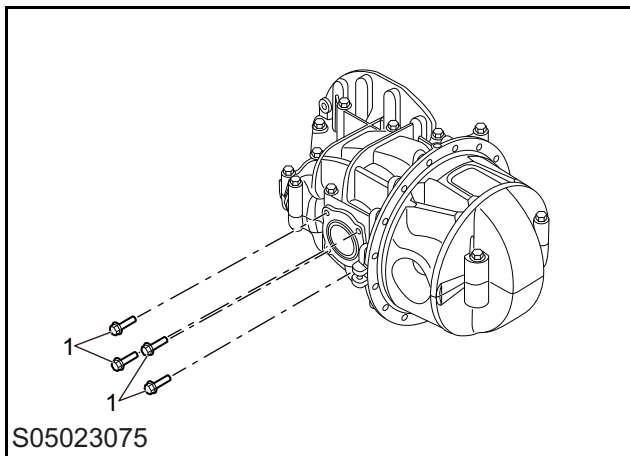
Rear Axle

- 4 Remove and discard the O-ring (1) from the input shaft oil seal end cover, and remove the input shaft oil seal (2).

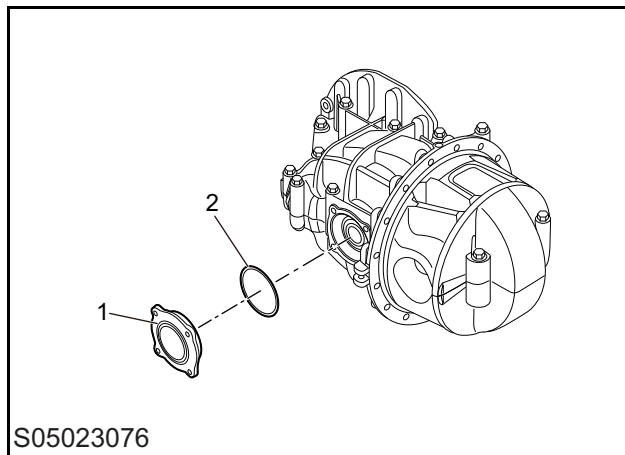
Caution: Do not use sharp tools to forcibly remove the seal ring between the seal ring and the input shaft oil seal end cover. Otherwise, grooves and scratches may cause the seal to leak when installing a new seal.



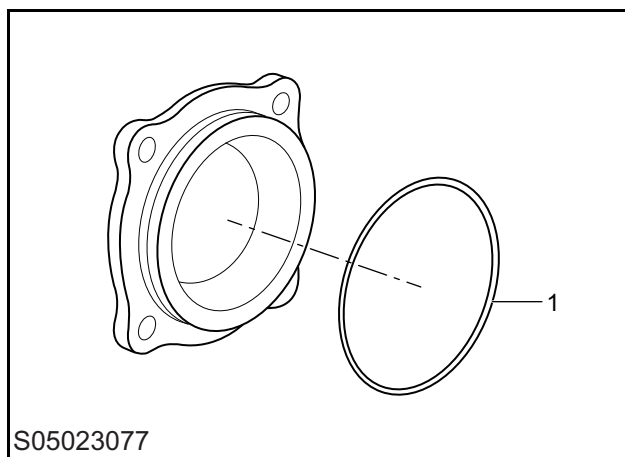
- 5 Remove 4 retaining bolts (1) fixing the intermediate shaft bearing end cap to the final drive housing.



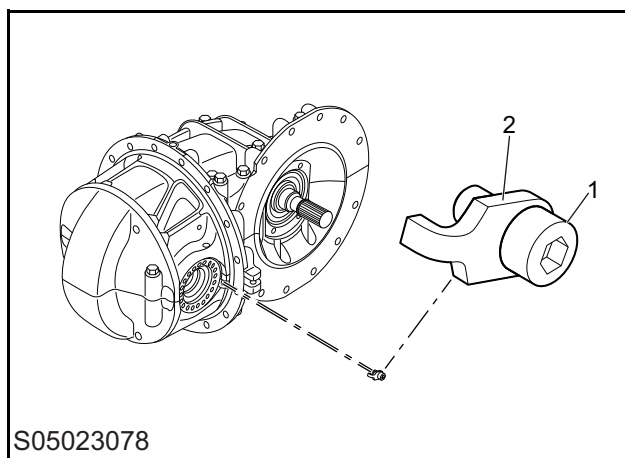
- 6 Remove the intermediate shaft bearing end cap (1) from the final drive housing.
- 7 Remove the preload adjustment gasket (2) from the tapered roller bearing and put it aside.



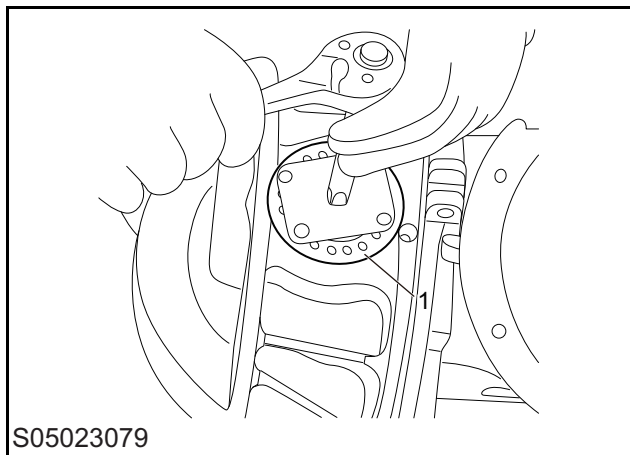
- 8 Remove and discard the O-ring (1) from the intermediate shaft bearing end cap.



- 9 Remove 1 retaining bolt (1) and locking plate (2) from the differential tapered roller bearing adjusting ring.

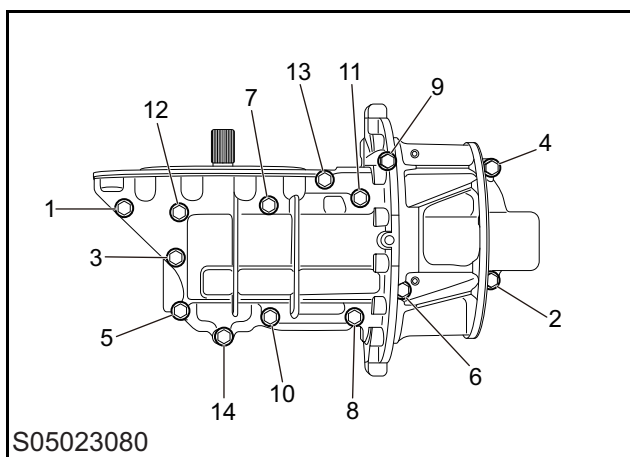


- 10 Unscrew and remove the differential tapered roller bearing adjusting ring (1) with the special tool.

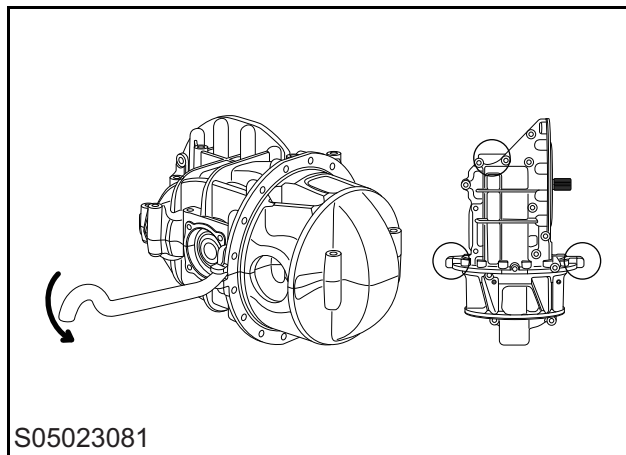


11 Remove 14 retaining bolts of the final drive upper and lower housings in the sequence as numbered.

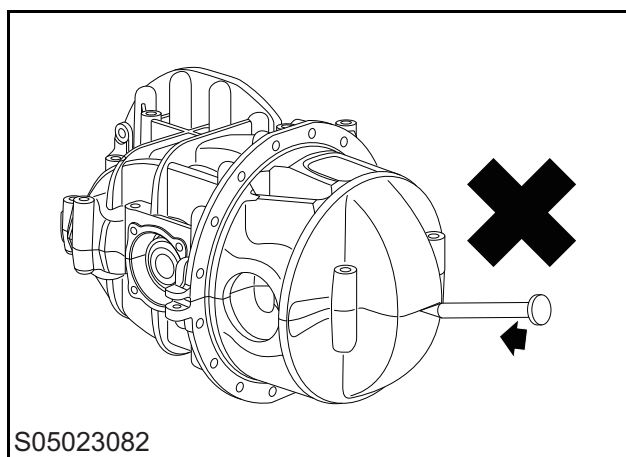
Caution: This sequence may reduce the risk of deformation of the final drive housing.



12 Since the sealant on the junction surface between the final drive upper and lower housings will act as adhesive, three jack supporting points (1) have been reserved on the final drive housing, and a lever may be used to separate the housings.

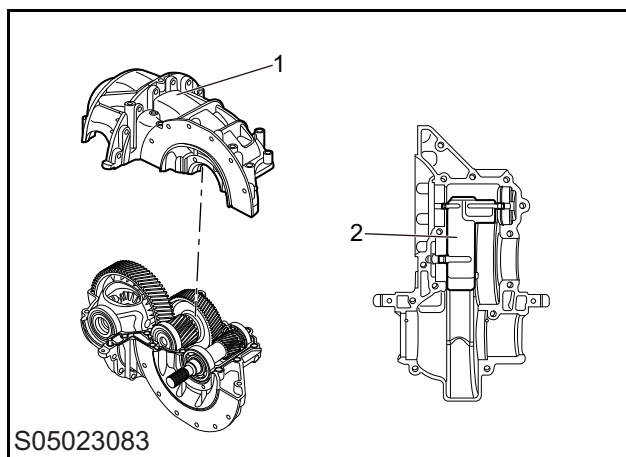


Caution: Do not try to forcibly separate the upper and lower housings with a chisel. This will damage the sealing surface.



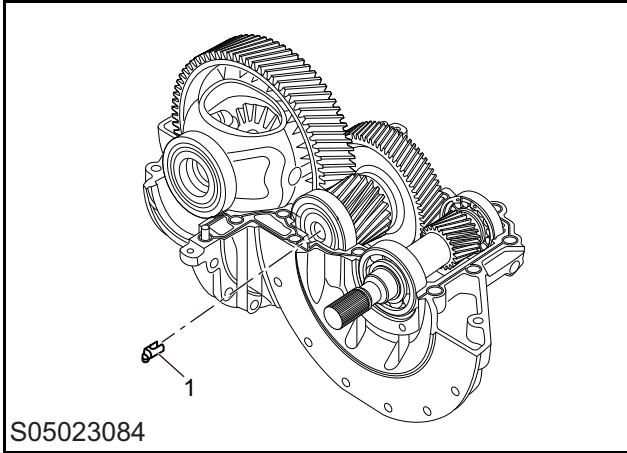
13 Remove the final drive upper housing (1) together with the main oil pan (2).

Caution: This main oil pan will still remain in the upper housing.



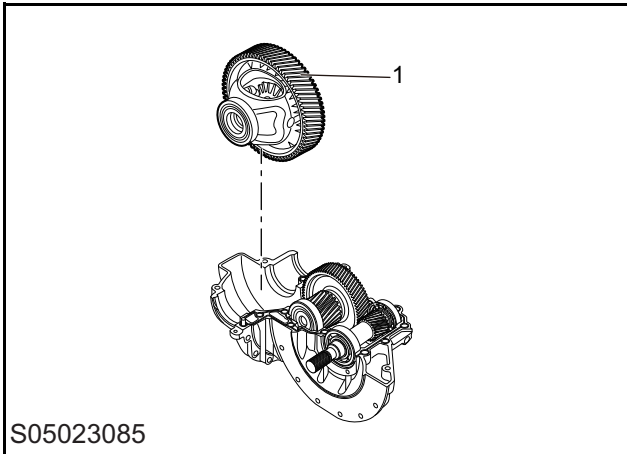
Rear Axle

- 14 Remove the oil pipe (1) from the intermediate shaft.



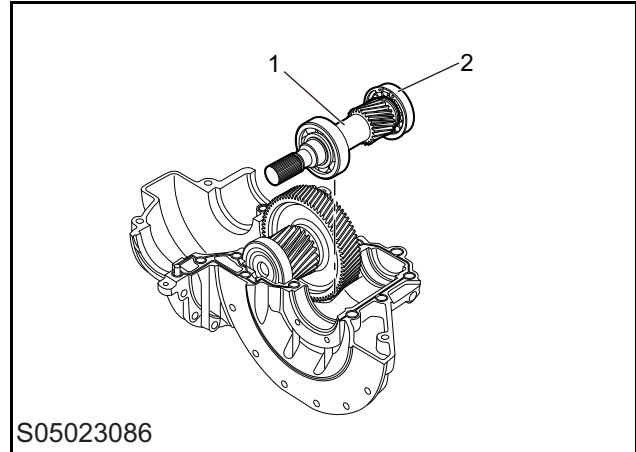
- 15 Remove the differential and output shaft gear (1) from the final drive lower housing.

Caution: Since this component is heavy, care must be taken to prevent hand injury. The outer ring of the differential tapered roller bearing shall not be disengaged from the differential, and it shall be ensured that the left and right bearings are not exchanged when the differential is removed.



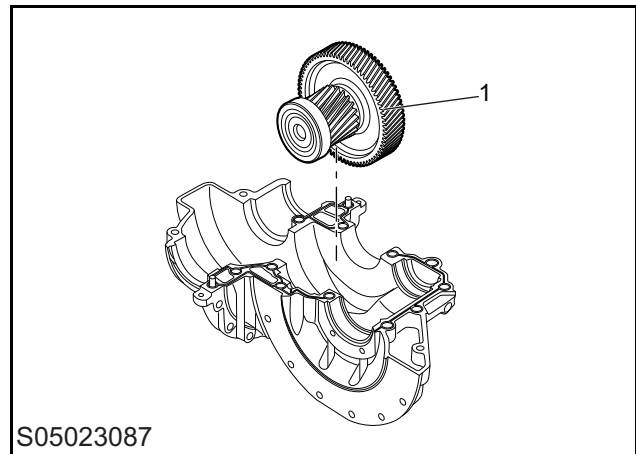
- 16 Remove the input shaft component (1) from the final drive lower housing.

Caution: During removal, the outer ring (2) of the roller bearing must be fixed on the input shaft.



- 17 Remove the intermediate shaft component (1) from the final drive lower housing.

Caution: As with the differential, when the outer rings of the left and right tapered roller bearings are placed on the workbench, do not drop or exchange them.

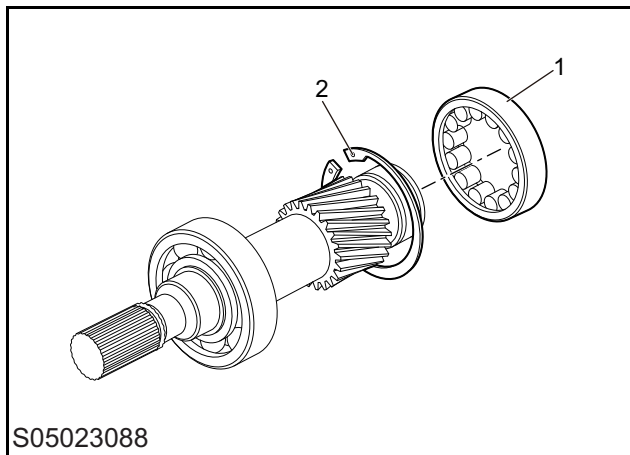


Assembly

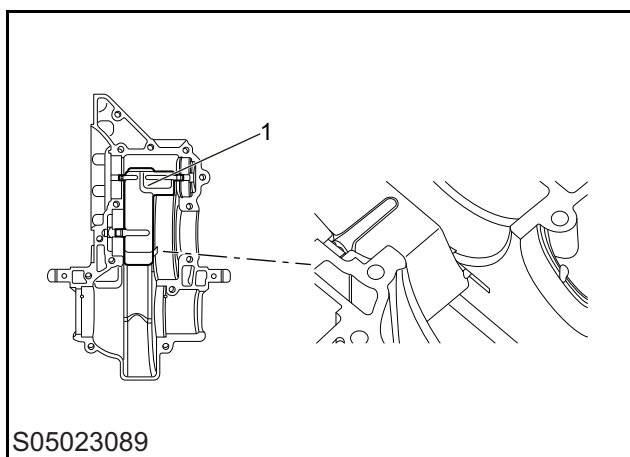
- 1 Place the outer ring of the intermediate shaft tapered roller bearing on the bearing, and carefully place the intermediate shaft in the lower housing.
- 2 Insert the oil pipe (1) into the locating groove of the intermediate shaft and lower housing.

Caution: After installing the oil pipe, the intermediate shaft and bearing must be fully pushed towards the motor side of the housing.

- 3 Place the larger bearing (1) and locating circlip (2) on the input shaft, and slide the cylindrical roller bearing onto the bearing inner ring on the shaft.

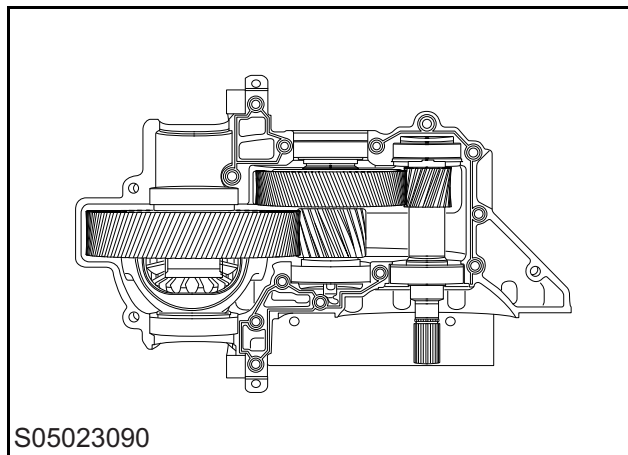


- 4 To assist in assembly, apply some general-purpose grease to the larger circlip, so that it fits close to the surface of the cylindrical roller bearing outer raceway. When the input shaft assembly is put into the lower housing, ensure that the opening of the circlip faces upwards, and the circlip is located in the groove of the lower housing.
- 5 Install the differential to the final drive lower housing, and ensure that the bearing outer ring is in its designated position.
- 6 Place the oil pan (1) in the final drive upper housing, ensure that both retaining clips snap into place securely, and lubricate all gears and bearings.

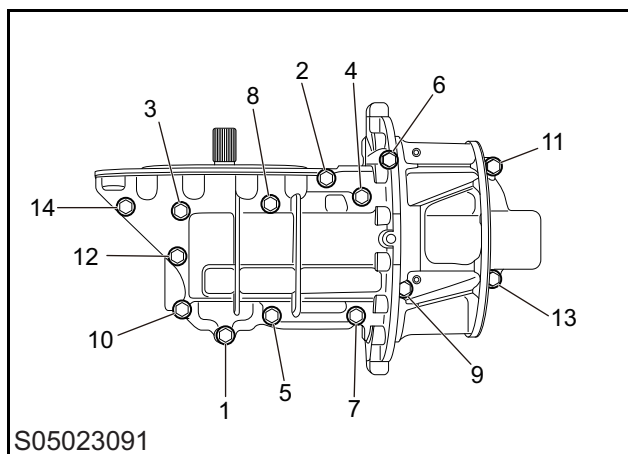


- 7 Apply a sealant bead with a diameter of 2 mm on the final drive lower housing according to the sealant path diagram.

Caution: Do not apply the bead on the junction surface.

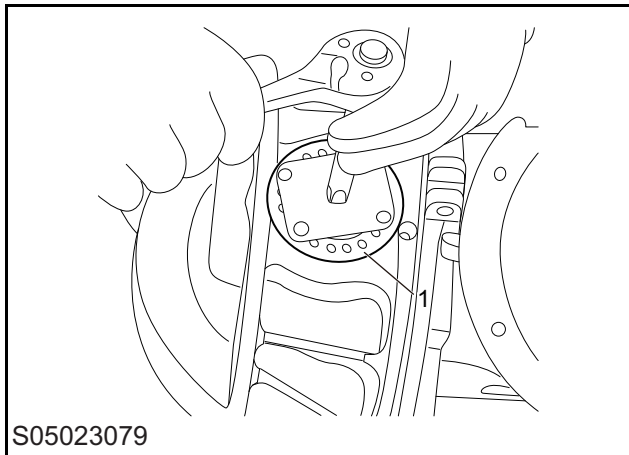


- 8 Install the final drive upper and lower housings vertically downward.
- 9 Install 14 retaining bolts on the final drive housing in the sequence as shown. Tighten all bolts to 50 Nm in the sequence as shown in 2 to 3 times, and check the torque.



- 10 Screw the differential bearing adjusting ring into the final drive housing with a special tool, tighten it to 90 Nm and loosen it, and manually rotate the locking nut until it cannot be rotated.

Rear Axle



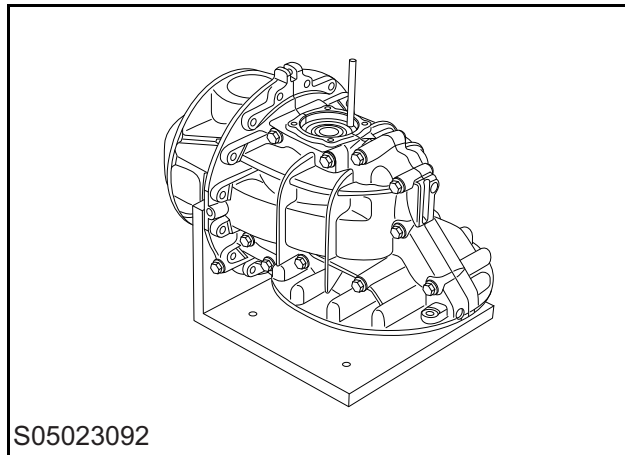
- 11 Gently tap or carefully press the input shaft oil seal into the input shaft oil seal end cover with a suitable tool.

Caution: Apply general-purpose grease on the sealing lip to provide start-up lubrication.

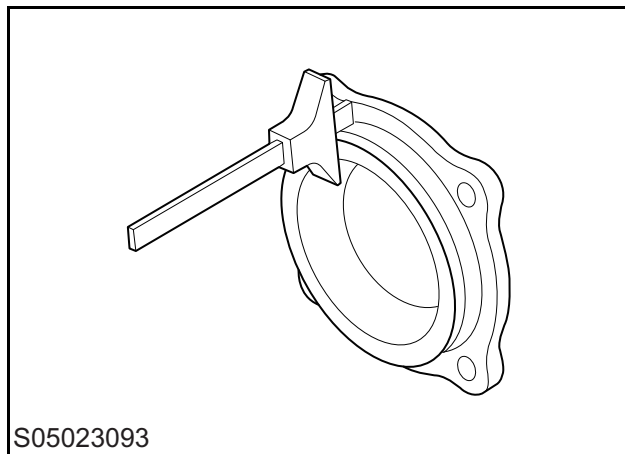
- 12 Install the input shaft oil seal end cover O-ring to the housing and gently lubricate it with oil.
- 13 Install the input shaft oil seal end cover.

Caution: In order to protect the sealing lip from damage, wrap the tape around the input shaft spline while closing the cover.

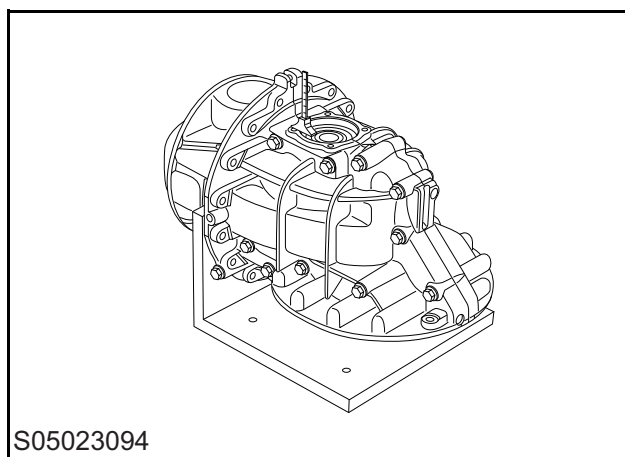
- 14 Install 4 retaining bolts fixing the input shaft oil seal end cover to the final drive housing, tighten them to 24 Nm, and check the torque.
- 15 Remove the tape from the input shaft spline. Lubricate the input shaft O-ring, and slide it into the locating groove of the input shaft.
- 16 Reinstall the final drive assembly to the fixture so that the intermediate shaft is vertical. Tap the outer ring of the intermediate shaft tapered roller bearing with a small brass punch to ensure that it comes into full contact with the bearing rolling element. Then rotate the input shaft for at least 10 times.



- 17 Measure the depth of the intermediate shaft bearing cap end cap boss with a depth gauge. Conduct the measurement at 3 radial positions and note the average value of 3 readings.



- 18 Measure the depth of the bearing outer raceway from the housing surface with the same gauge. Conduct the measurement at 3 positions and note the average value of 3 readings.



19 Calculate the value of the bearing preload gasket as follows.

For example:

Measurement of boss depth = 10.5mm; measurement of bearing depth = 12.2mm; subtract 10.5mm from 12.2mm to get 1.7mm. This is the distance between the bearing seat end face and the bearing outer ring.

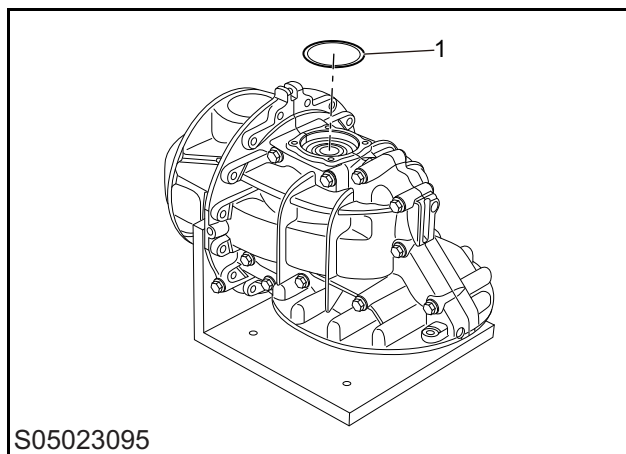
Therefore, the gasket required is 1.80mm by adding the selected gasket 1.7mm and the specified preload of 0.100mm. If the exact size of the gasket required is not available within the gasket range, select the next higher gasket.

Caution: If the shaft and/or bearing has been replaced with a new one, do not assume that the gasket removed during removal is of the correct size.

Gasket Size

SN.	Specification (mm)
1	0.4
2	0.5
3	0.6
4	0.7
5	0.8
6	0.9
7	1.0
8	1.1
9	1.2
10	1.3
11	1.4

20 Place the selected gasket (1) on the top of the bearing.



21 Gently lubricate and insert the O-ring into the groove of the bearing end cap.

22 Install the bearing cap end cap.

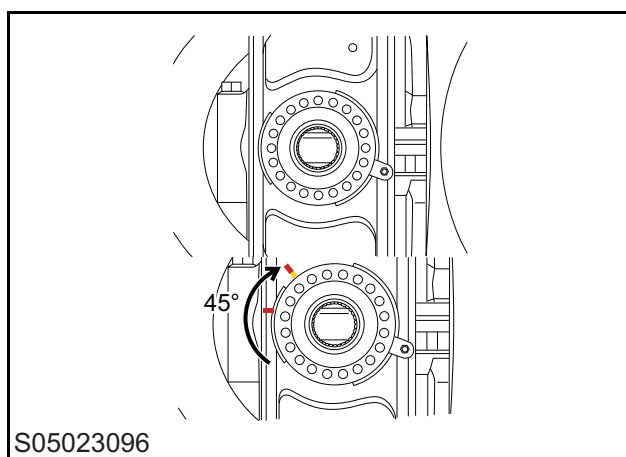
Caution: Do not loosen the "O" ring when installing the bearing cap end cap.

23 Install 4 retaining bolts fixing the bearing cap end cap to the final drive housing, tighten them to 24 Nm, and check the torque.

24 Fix the final drive assembly, so that the differential bearing adjuster is vertical. Rotate the input shaft for at least 20 times to align the tapered bearing rolling element.

25 Make a mark on the bearing adjusting ring and another mark on the housing at an angle of 45° with the ring mark. Tighten the ring until both marks are aligned.

Caution: If the hole in the ring cannot be aligned with the locking plate, further tighten the ring to align the hole. Do not unscrew the ring to align it with the locking plate.



Rear Axle

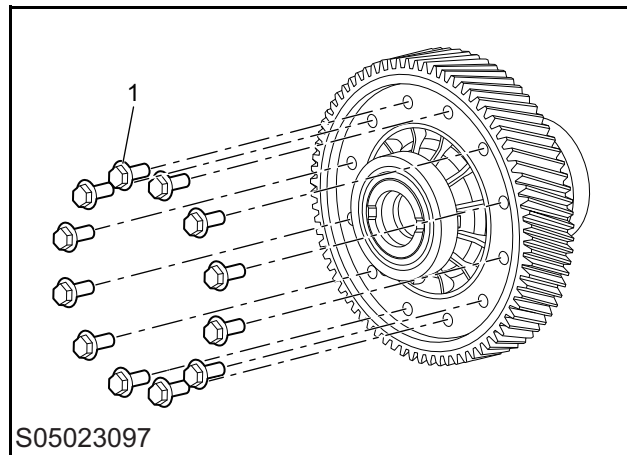
- 26 Install the locking plate, install 1 retaining bolt fixing the locking plate to the final drive housing, tighten it to 12 Nm, and check the torque.

Differential Assembly Disassembly and Assembly

Caution: When handling the differential assembly, be careful not to damage the retainer of the tapered roller bearing.

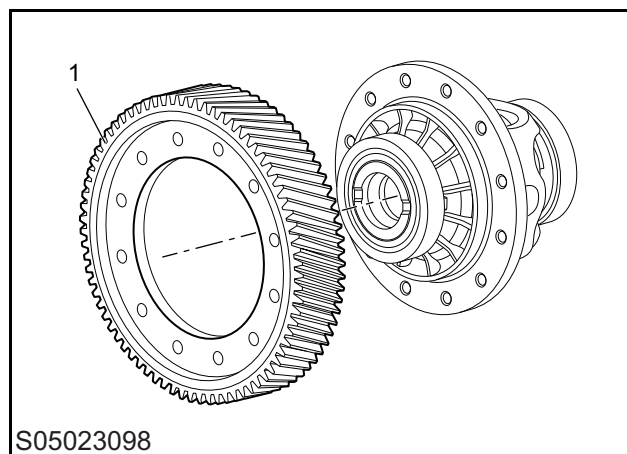
Disassembly

- 1 Hold the differential assembly firmly, and remove 12 retaining bolts (1) fixing the output gear to the differential housing.

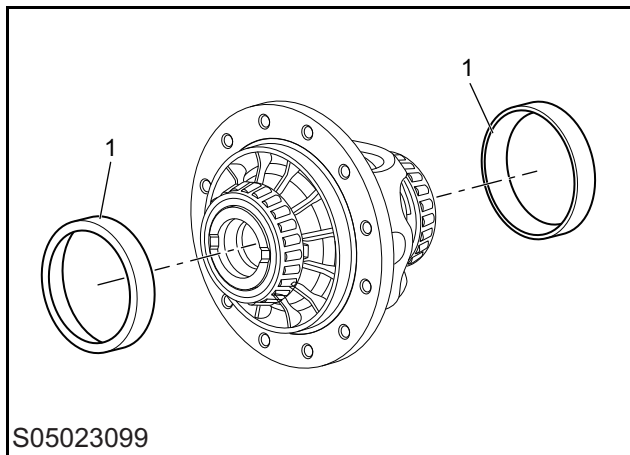


- 2 Remove the output gear (1) from the differential housing.

Caution: If it cannot be pulled out by hand, a soft mallet may be used to tap it.



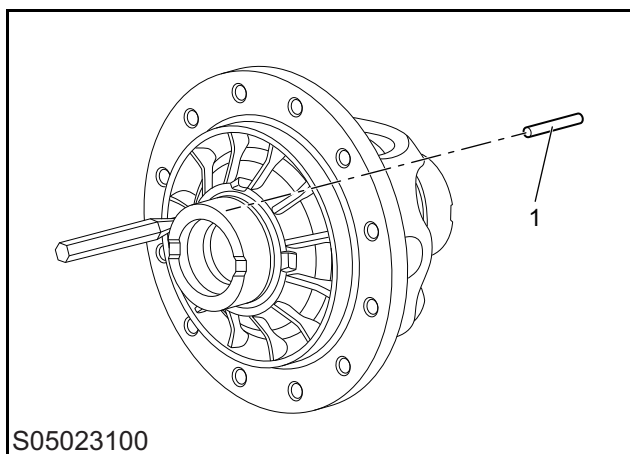
- 3 Remove the bearing outer ring (1) from each bearing.



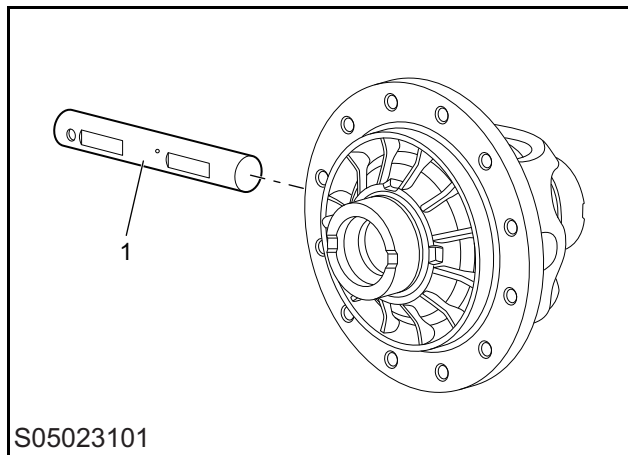
- 4 Pull out the inner ring of the differential tapered roller bearing with a suitable puller.

Caution: After removing the inner ring of each bearing, be sure to keep it on its own outer bearing race.

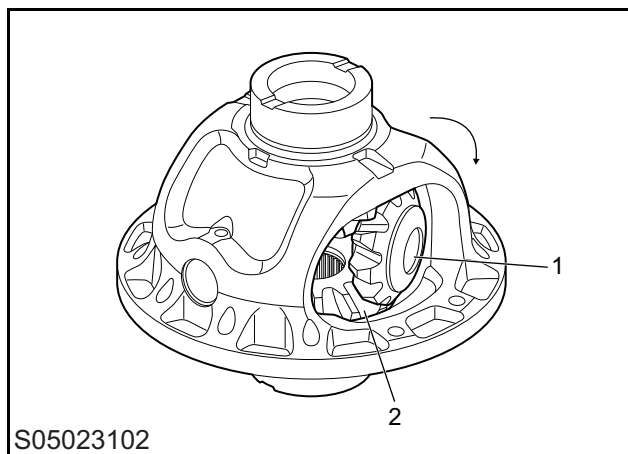
- 5 Hammer the spring pin (1) fixing the differential cross shaft with a punch.



- 6 Remove the differential cross shaft (1) from the differential housing.

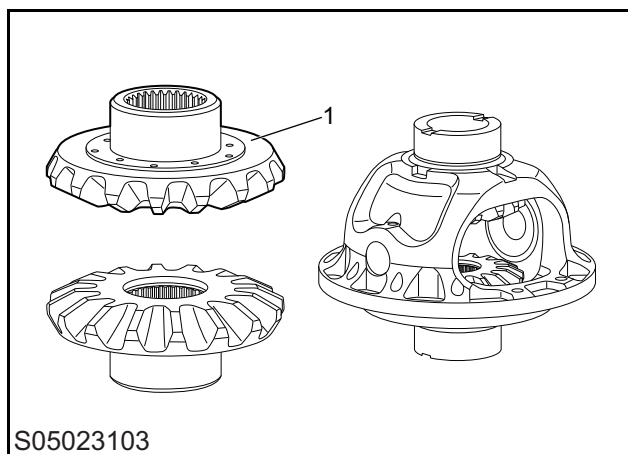


- 7 Rotate the differential planetary gear (1) and remove it through the window on the differential housing. Next, raise the differential side gear (2) with the thrust washer.



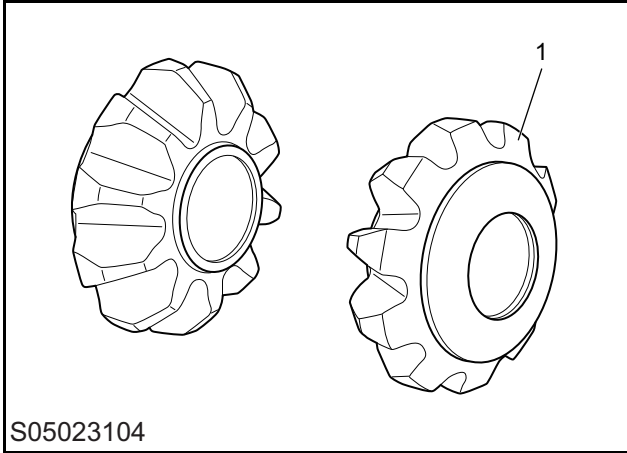
Assembly

- 1 Lubricate the thrust washer (1) on each side gear with oil, and place both gears in the differential housing.

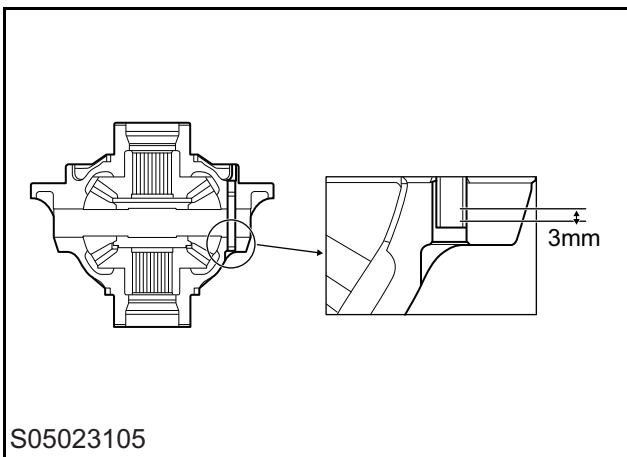


Rear Axle

- 2 Lubricate the spherical thrust surface (1) on the planetary gear with oil.



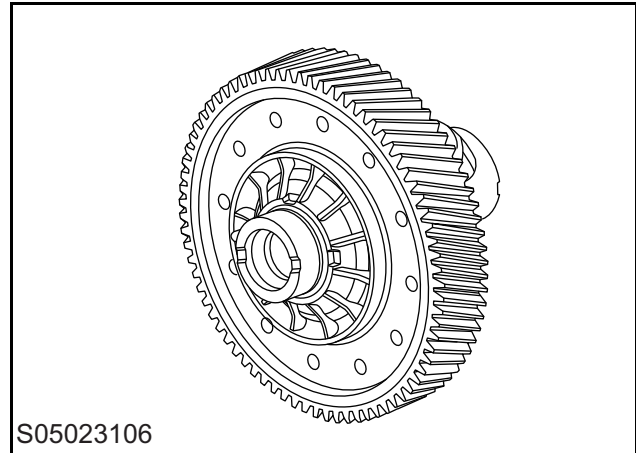
- 3 Engage the planetary gear and side gear. Rotate the planetary gear and side gear to bring the planetary gear into the differential housing, and align the hole of the planetary gear with the cross pin hole in the differential housing.
- 4 Lubricate the cross pin and planetary gear holes with oil. Push the cross pin into the differential housing, and ensure that its direction is correct, so that the hole in the pin is aligned with the drilled hole in the differential housing for fixing the spring pin.
- 5 Insert a proper punch into the differential housing to a depth of 3mm from the drive spring pin of the rear housing.



- 6 Lubricate the teeth of the planetary gear and side gear with lubricant, and turn them to ensure that they rotate freely.

Caution: Some slight dents may be felt if the gear is "precision forged" and the gear teeth are not machined.

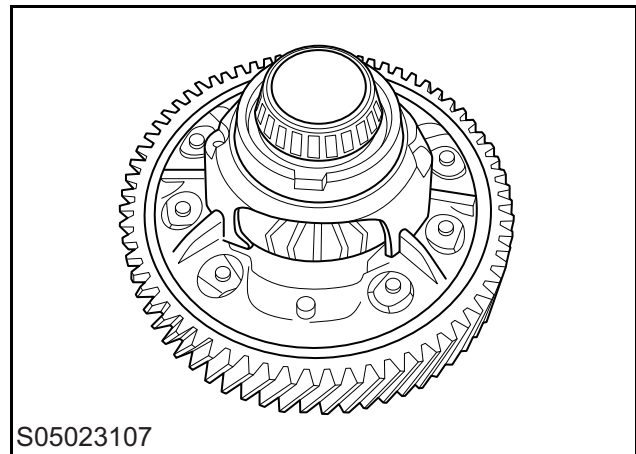
- 7 Fix the differential housing firmly and place the output drive gear on the differential housing. Ensure that the retaining bolts are clean and free of oil. Apply Loctite 270 to at least 4 complete threads of each bolt.



- 8 Install 12 retaining bolts fixing the output gear to the differential housing, tighten them to 60 Nm, and check the torque.

Caution: Tighten the bolts in the criss-cross direction to ensure that the gear is tightened evenly.

- 9 Press the differential tapered roller bearing onto the differential housing with the differential bearing pressing tool (NQ007ST).



Intermediate Shaft Disassembly and Assembly

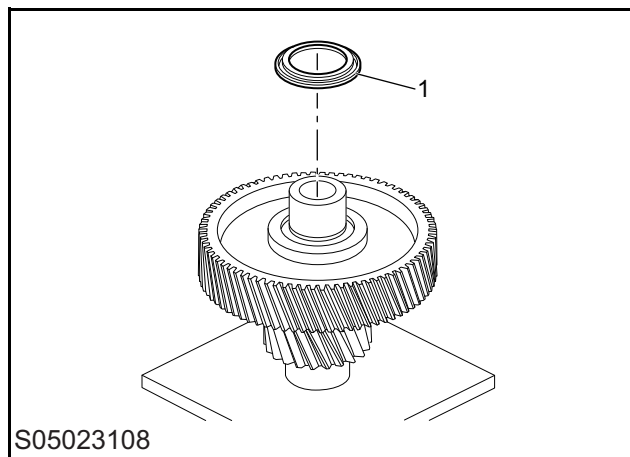
Disassembly

- 1 Remove the bearing outer ring.
- 2 Remove each tapered roller bearing from the end of the shaft with a proper puller.

Caution: After removal, ensure that the outer rings are placed with the bearings in pairs. Bearing inner ring gasket behind the large gear.

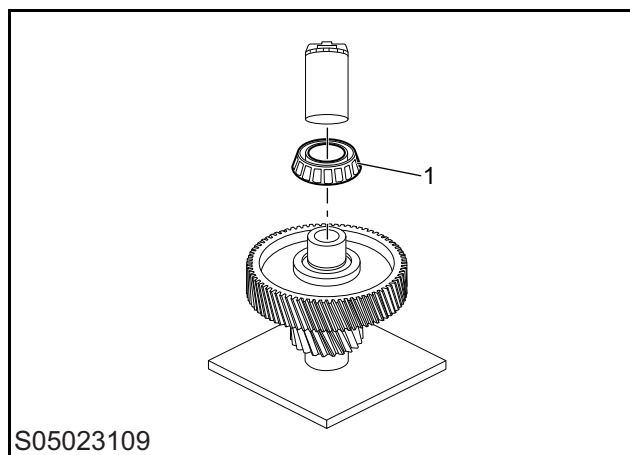
Assembly

- 1 Place the stop gasket (1) on the large gear side of the intermediate shaft, and ensure that its orientation is correct.



S05023108

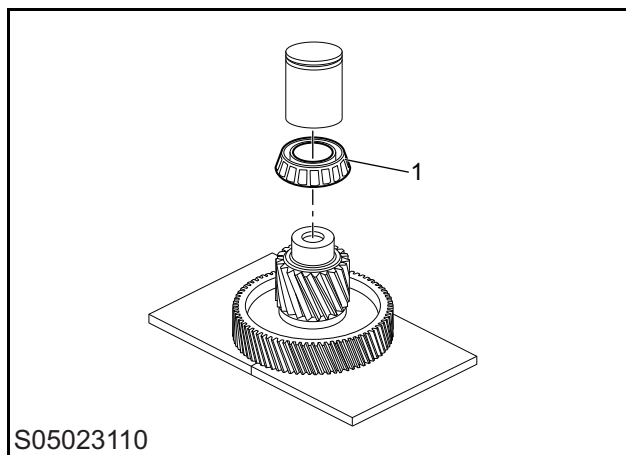
- 2 Press the intermediate shaft tapered roller bearing (1) onto the intermediate shaft on the large gear side first with the special tool C00189283-3.



S05023109

- 3 Exchange the intermediate shaft on the press with the support under the large gear. In this case, the inner ring interference fit load of the

bearing is relatively small, so it can be supported under the gear. Fully press the tapered roller inner ring (1) onto the intermediate shaft with the special tool C00051486.



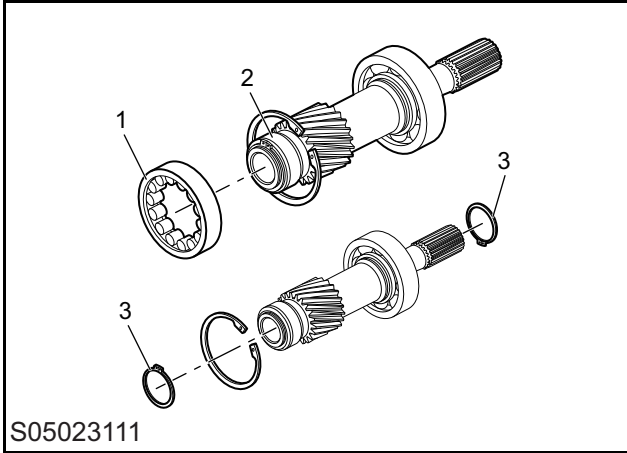
S05023110

Rear Axle

Input Shaft Disassembly and Assembly

Disassembly

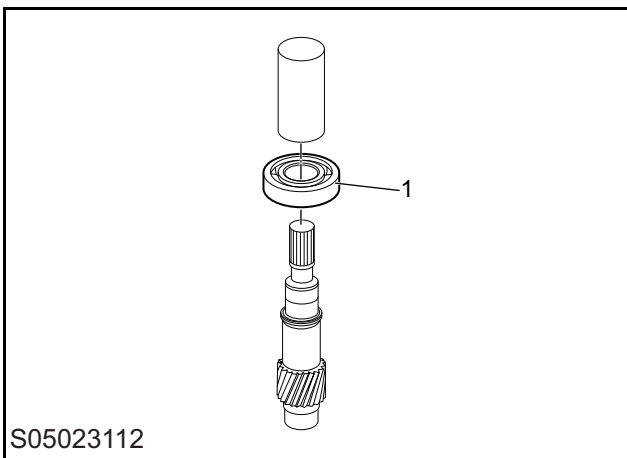
- 1 Note that the outer ring (1) of cylindrical roller bearing with rolling element will slide off the shaft while the inner ring (2) will remain in place. Remove the circlips (3) fixing the bearing from both ends of the shaft. The large bearing locating circlips may also easily fall off from the shaft without tools.



- 2 Remove the inner ring of the cylindrical roller bearing from the shaft with a proper puller.
- 3 Remove the ball bearing from the input shaft with a proper puller.

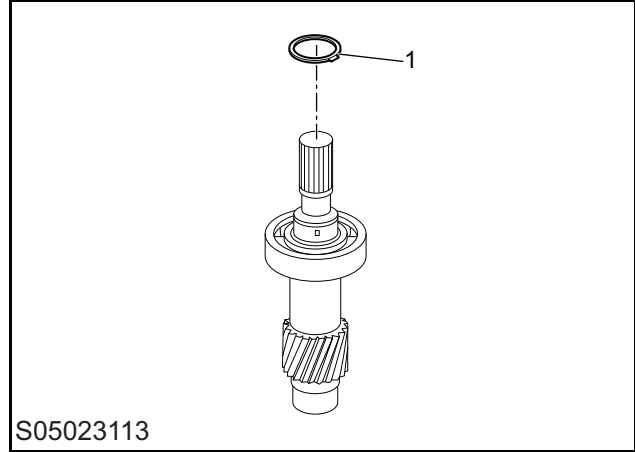
Assembly

- 1 Support the gear end of the input shaft on the pressure plate, and press the input shaft ball bearing (1) onto the shaft with a special tool C00089942.

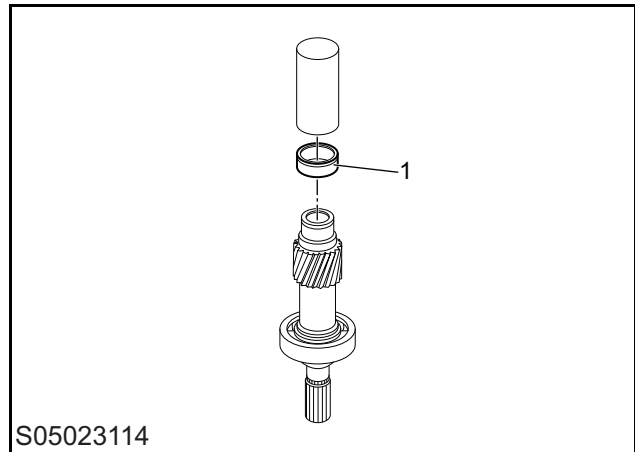


- 2 Install the ball bearing retaining circlip (1).

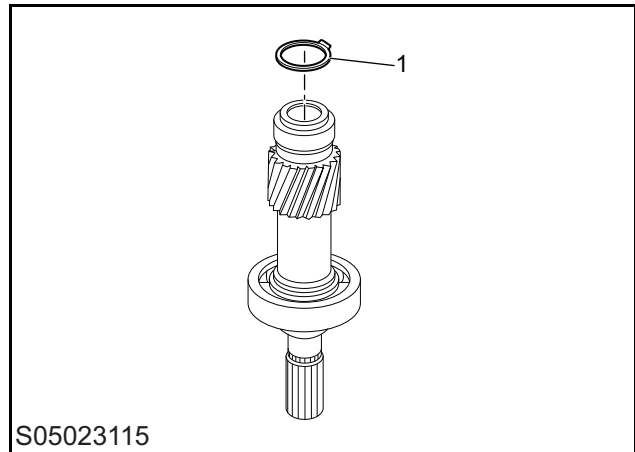
Caution: Do not scratch or damage the boot on the input shaft. As with all circlips, do not overexpand it and ensure that it fits tightly in the groove of the input shaft.



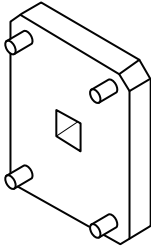

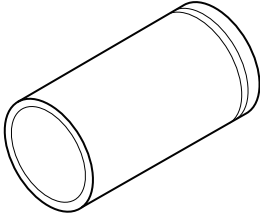
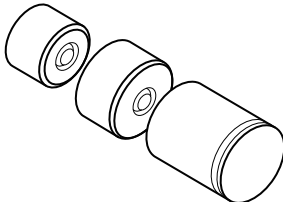
- 3 Turn over the input shaft, and fully press the inner ring (1) of the cylindrical roller bearing onto the input shaft with the special tool C00089942.

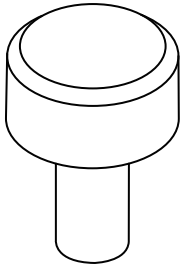


- 4 Install the cylindrical roller bearing retaining circlip (1).



Special Tool

SN.	Tool Number/ Description	Illustration
1	Lock nut remover/installer C00189262	 <p>C00189262</p>
2	Installer for the inner bearing inner ring of front axle drive gear C00089942	 <p>C00089942</p>
3	Installer for inner ring of differential cone bearing C00051486	 <p>C00051486</p>
4	Rear suspension upper swing arm bushing remover/installer C00189283-3	 <p>C00189283</p>

SN.	Tool Number/ Description	Illustration
5	Differential bearing installer C00189266	 <p>C00189266</p>

Power Steering

Specification

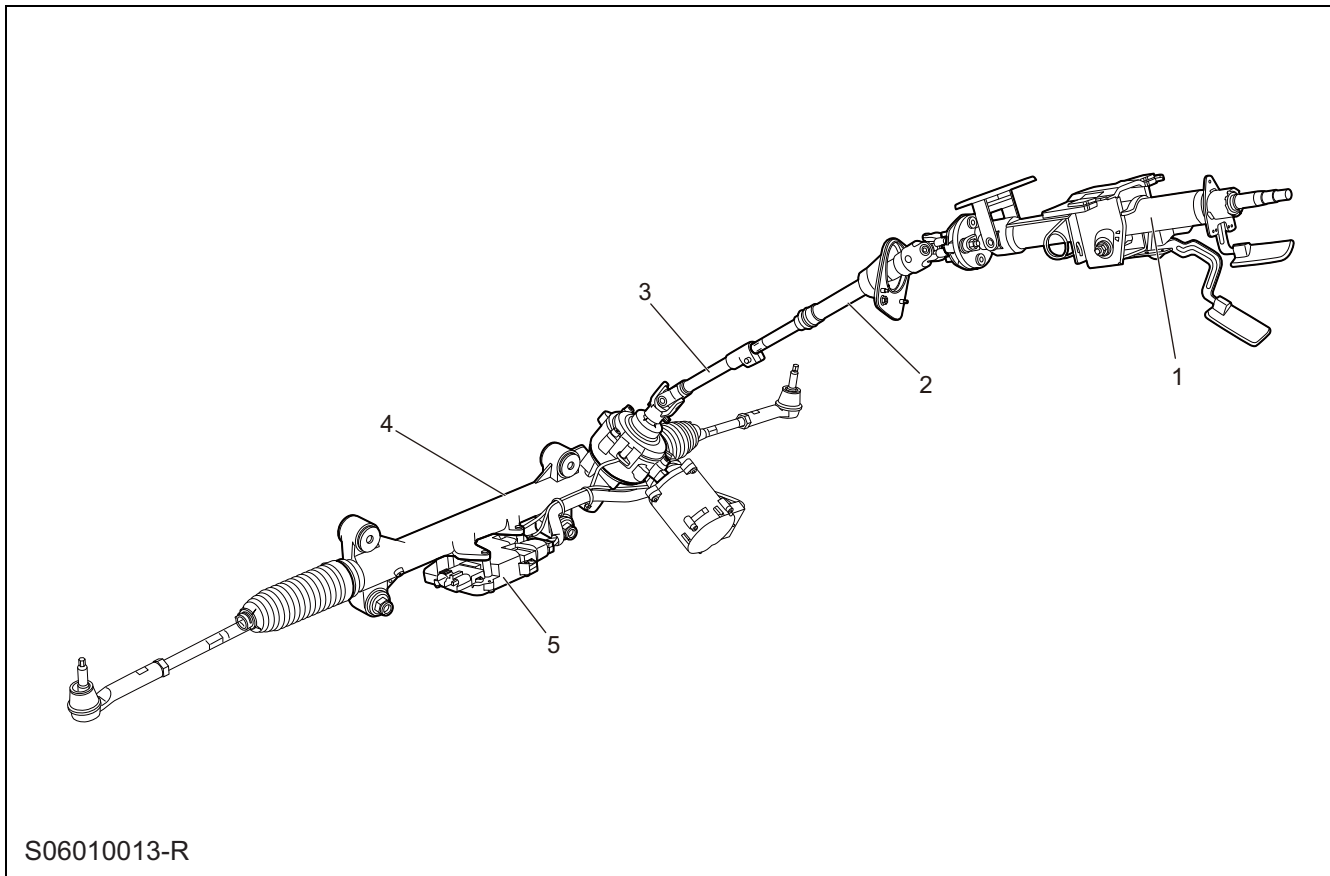
Fastener Specifications

Name	Torque (Nm)
Nut - Steering Intermediate Shaft Dust Shield to Body Dash Panel	9±1 Nm
Bolt - Steering Intermediate Shaft to Steering Gear	23±2 Nm
Bolt - Steering Column to Intermediate Shaft	23±2 Nm
Bolt - Intermediate Shaft to Extension Shaft	30±3 Nm
Bolt - Steering Intermediate Shaft to Steering Gear	23±2 Nm
Nut - Steering Gear Outer Tie Rod to Steering Knuckle	90±5 Nm
Nut - Subframe to Steering Gear	180±10 Nm
Bolt - Subframe to Steering Gear	180±10 Nm
Bolt - Subframe to Steering Gear	100±10 Nm

Power Steering

Layout

Power Steering System Layout



- | | | | |
|---|---------------------------------------|---|--------------------------------|
| 1 | Steering Column Assembly | 4 | Power Steering Gear Assembly |
| 2 | Steering Intermediate Shaft Assembly | 5 | Power Steering Gear Controller |
| 3 | Steering intermediate shaft extension | | |

Service Guide

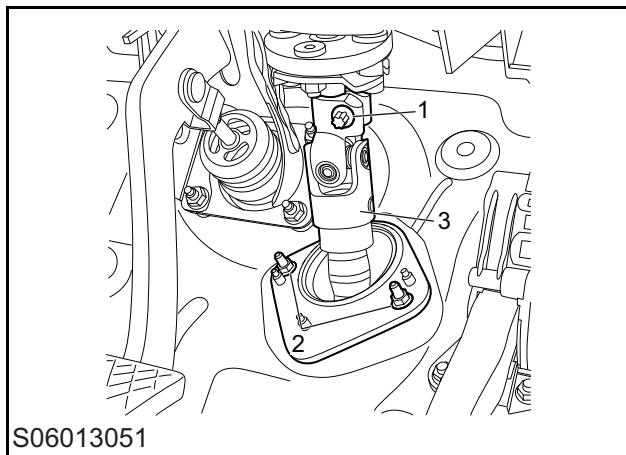
Steering Intermediate Shaft Assembly Replacement

Removal

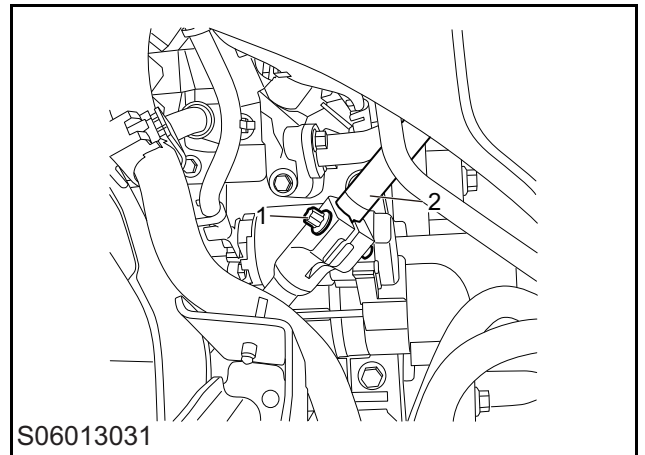
- 1 Remove 1 retaining bolt (1) fixing the steering intermediate shaft assembly to the steering column assembly.

Caution: Lock the steering wheel before disassembly.

- 2 Remove 2 retaining nuts (2) fixing the steering intermediate shaft assembly to the vehicle body.
- 3 Disconnect the steering intermediate shaft assembly (3) from the steering column assembly.



- 4 Remove the left front wheel. Refer to "Wheel Replacement".
- 5 Remove 1 retaining bolt (1) fixing the steering intermediate shaft assembly to the steering intermediate shaft extension.
- 6 Disconnect the steering intermediate shaft assembly from the steering intermediate shaft extension.
- 7 Remove the steering intermediate shaft assembly (2).



Installation

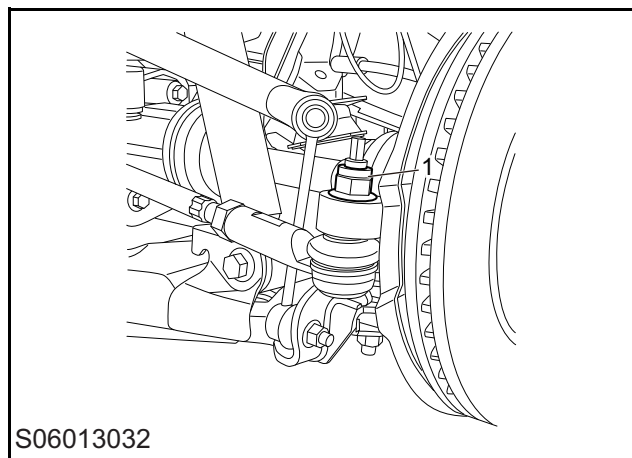
- 1 Install the steering intermediate shaft assembly.
- 2 Connect the steering intermediate shaft assembly to the steering intermediate shaft extension.
- 3 Install 1 retaining bolt fixing the steering intermediate shaft assembly to the steering intermediate shaft extension, tighten it to 30 ± 3 Nm, and check the torque.
- 4 Install the left front wheel. Refer to "Wheel Replacement".
- 5 Connect the steering intermediate shaft assembly to the steering column assembly.
- 6 Install 2 retaining nuts fixing the steering intermediate shaft assembly to the vehicle body, tighten them to 9 ± 1 Nm, and check the torque.
- 7 Install 1 retaining bolt fixing the steering intermediate shaft assembly to the steering column assembly, tighten it to 23 ± 2 Nm, and check the torque.

Power Steering

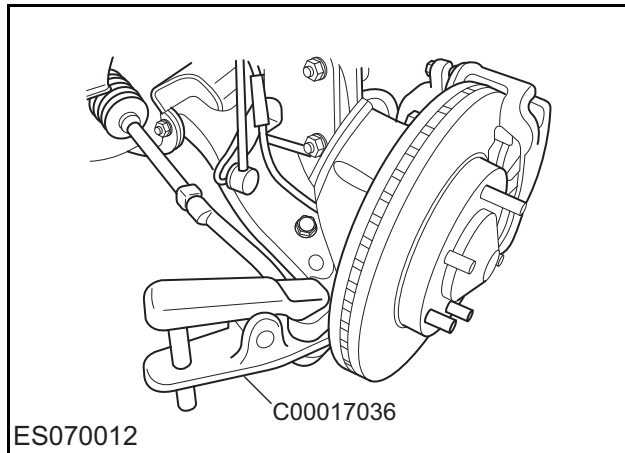
Power Steering Gear Assembly Replacement

Removal

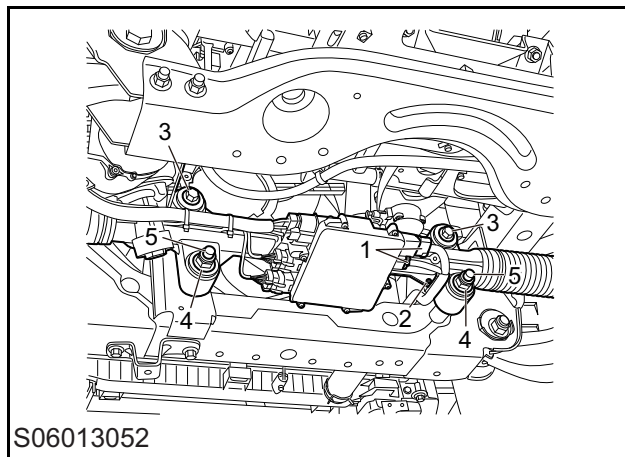
- 1 Disconnect the negative battery cable.
- 2 Remove the service switch. Refer to "Service Switch Replacement".
- 3 Remove the left and right front wheels. Refer to "Wheel Replacement".
- 4 Remove the front bottom deflector. Refer to "Front Bottom Deflector Replacement".
- 5 Remove the condenser lower guard plate. Refer to "Condenser Lower Guard Plate Replacement".
- 6 Remove the steering intermediate shaft assembly. Refer to "Steering Intermediate Shaft Assembly Replacement".
- 7 Remove the steering intermediate shaft extension. Refer to "Steering Intermediate Shaft Extension Replacement".
- 8 Remove the retaining nuts (1) fixing the left and right steering gear outer tie rods to the steering knuckles.



- 9 Use the tool C00017036 to separate the ball head of the steering gear outer tie rod.
- 10 Drain the power steering fluid.



- 11 Disconnect the electrical connector (1) of the power steering gear controller.
- 12 Remove the clip (2) from the battery harness assembly.
- 13 Remove 2 retaining bolts (3) fixing the power steering gear to the vehicle body.
- 14 Remove 2 retaining nuts (4) and 2 retaining bolts (5) fixing the power steering gear assembly to the vehicle body.
- 15 Remove the power steering gear assembly (6).



Installation

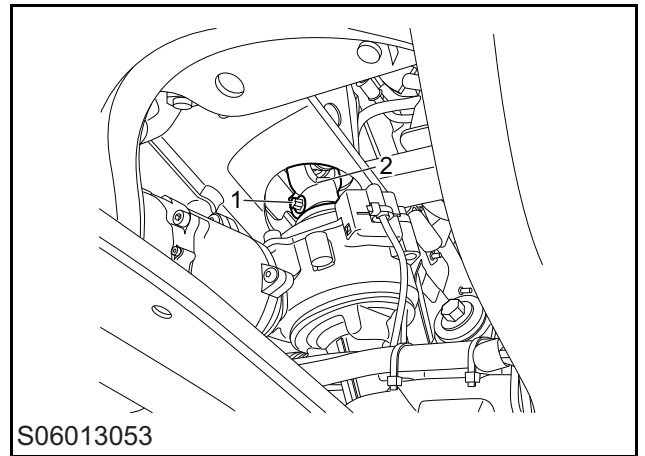
- 1 Place the power steering gear assembly.
- 2 Install 2 retaining bolts and 2 retaining nuts fixing the power steering gear to the vehicle body, tighten them to 180 ± 10 Nm, and check the torque.
- 3 Install 2 retaining bolts fixing the power steering gear to the vehicle body, tighten them to 100 ± 10 Nm, and check the torque.

- 4 Connect the ball joint of the steering gear outer tie rod to the steering knuckle, install a new retaining nut, tighten it to 90 ± 5 Nm, and check the torque.
- 5 Install the clip on the battery harness assembly.
- 6 Connect the electrical connector of the power steering gear controller.
- 7 Install the steering intermediate shaft extension. Refer to "Steering Intermediate Shaft Extension Replacement".
- 8 Install the steering intermediate shaft assembly. Refer to "Steering Intermediate Shaft Assembly Replacement".
- 9 Install the condenser lower guard plate. Refer to "Condenser Lower Guard Plate Replacement".
- 10 Install the front bottom deflector. Refer to "Front Bottom Deflector Replacement".
- 11 Install the left and right front wheels. Refer to "Wheel Replacement".
- 12 Install the service switch. Refer to "Service Switch Replacement".
- 13 Connect the negative battery cable.

Steering Intermediate Shaft Extension Replacement

Removal

- 1 Remove the left front wheel. Refer to "Wheel Replacement".
- 2 Remove the steering intermediate shaft assembly. Refer to "Steering Intermediate Shaft Assembly Replacement".
- 3 Remove 1 retaining bolt (1) fixing the steering intermediate shaft extension to the power steering gear assembly.
- 4 Remove the steering intermediate shaft extension (2).



Installation

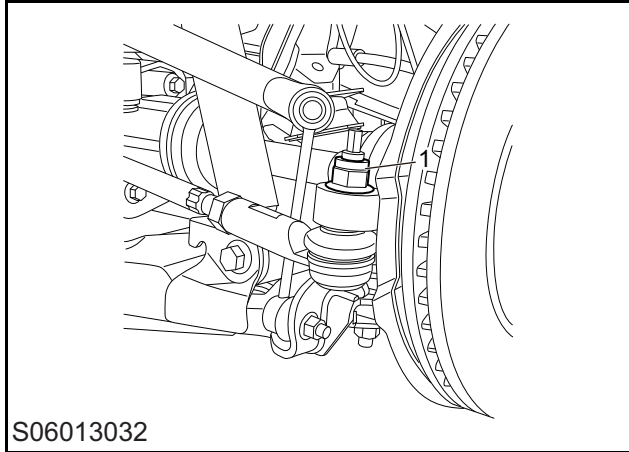
- 1 Install the steering intermediate shaft extension.
- 2 Install 1 retaining bolt fixing the steering intermediate shaft extension to the power steering gear assembly, tighten it to 23 ± 2 Nm, and check the torque.
- 3 Install the steering intermediate shaft assembly. Refer to "Steering Intermediate Shaft Assembly Replacement".
- 4 Install the left front wheel. Refer to "Wheel Replacement".

Power Steering

Steering Gear Outer Tie Rod Replacement

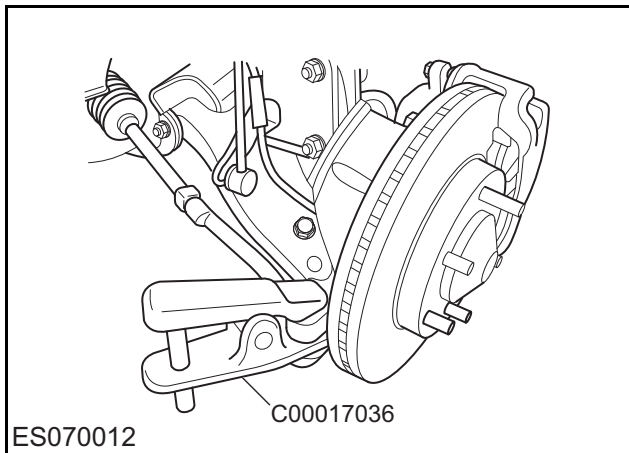
Removal

- 1 Remove wheels. Refer to "Wheel Replacement".
- 2 Remove the retaining nuts (1) fixing the steering gear outer tie rod to the steering knuckle.

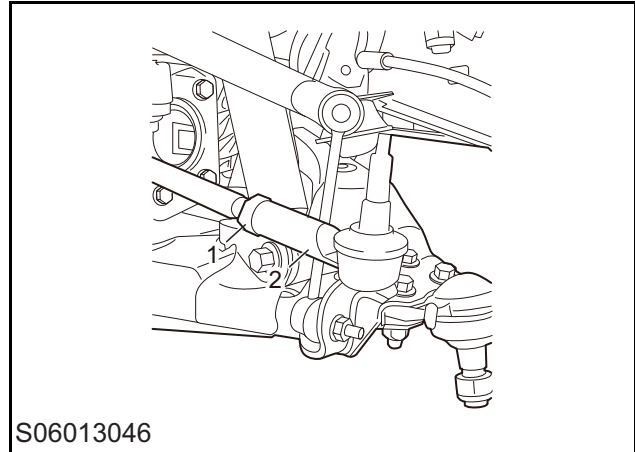


- 3 Use the tool C00017036 to separate the ball head of the steering gear outer tie rod.

ES070012



- 4 Release the locking nut of the steering outer tie rod (1).
- 5 Mark the relative position of the steering gear outer tie rod on the inner tie rod thread, and unscrew the steering gear outer tie rod (2) from the power steering gear.



Installation

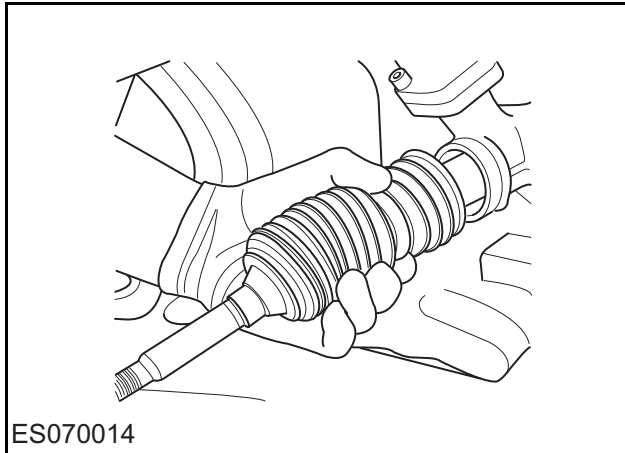
- 1 Tighten the steering gear outer tie rod to the marked position on the inner tie rod thread, and make the steering gear outer tie rod ball joint upward. Do not tighten the locking nut of the steering gear outer tie rod.
- 2 Connect the ball joint of the steering gear outer tie rod to the steering knuckle, install a new retaining nut, tighten it to 90 ± 5 Nm, and check the torque.
- 3 Install the wheels. Refer to "Wheel Replacement".
- 4 Align four wheels.
- 5 Tighten the locking nut of the steering gear outer tie rod to 65 Nm, and check the torque.

Steering Gear Dust Shield Replacement

Removal

- 1 Remove the steering gear outer tie rod. Refer to "Steering Gear Outer Tie Rod Replacement".
- 2 Loosen the clamp and remove the steering gear dust shield (1).

Caution: After disassembly, the clamps must be replaced with new ones.

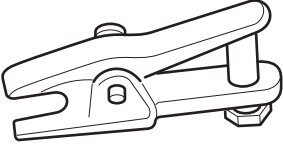


Installation

- 1 Clean the mating face of the dust shield on the steering gear.
- 2 Apply silicone oil around the mating face of the dust shield and the steering gear.
- 3 Install the dust shield and rotate it manually 3 turns and above.
- 4 Install a new clamp and tighten it.
- 5 Install the steering gear outer tie rod. Refer to "Steering Gear Outer Tie Rod Replacement".

Power Steering

Special Tool

SN.	Tool Number/ Description	Illustration
1	C00017036 Flywheel Clamp	 C00017036

Steering Wheel and Steering Column

Specification

Fastener Specifications

Name	Torque (Nm)
Nut - Steering Wheel Assembly	35±3 Nm
Nut - Steering Column Assembly	23±2 Nm
Bolt - Steering Column Assembly	23±2 Nm
Bolt - Steering Column Assembly to Intermediate Shaft	23±2 Nm

Parameters

Steering Column Type	Two-way adjustable, collapsible energy absorption type
Steering wheel Turns - from the dead point at one side to that at the other side	3.4
Total drive ratio	18.5
Minimum turning circle diameter	≤ 12.6m
Type of Electric Steering Gear	Rack-assist electric power steering

Steering Wheel and Steering Column

Service Guide

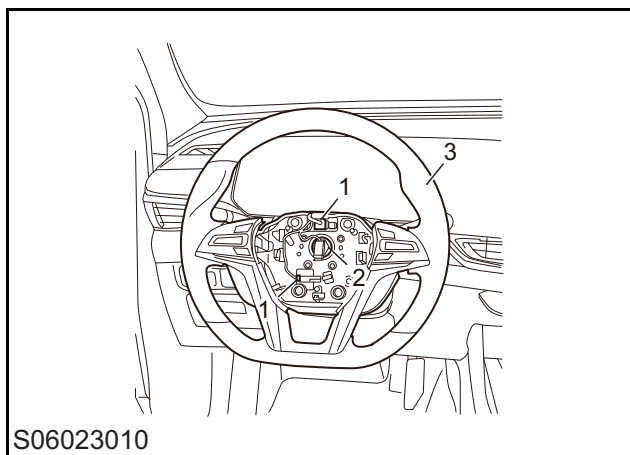
Steering Wheel Assembly Replacement

Removal

- 1 Remove the driver airbag module assembly. Refer to "Driver Airbag Module Assembly Replacement".
- 2 Disconnect the electrical connector (1) of the steering wheel assembly.
- 3 Remove 1 retaining nut (2) fixing the steering wheel assembly to the steering column assembly.
- 4 Remove the steering wheel assembly (3).

Caution: Before dismantling, mark the installation between the steering wheel and the steering column.

- 5 After disassembly, please do not turn the clock spring indiscriminately.



Installation

- 1 Install the steering wheel assembly.

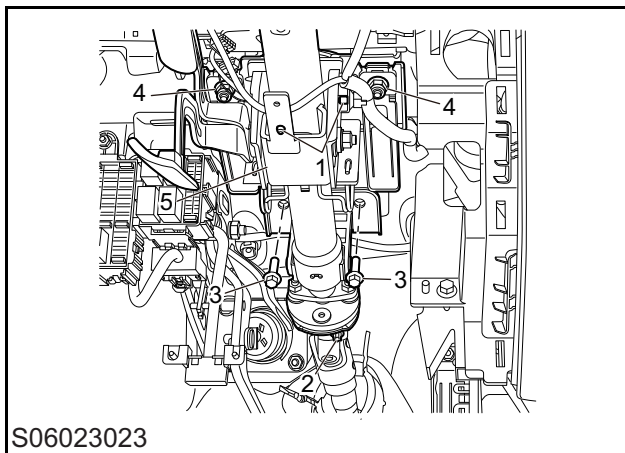
Caution: When installing the steering wheel, ensure the steering column is matched with the rectangular key slot of the steering wheel.

- 2 Install 1 retaining nut fixing steering wheel assembly to the steering column assembly, tighten it to 35 ± 3 Nm, and check the torque.
- 3 Connect the electrical connector of the steering wheel assembly.
- 4 Install the driver airbag module assembly. Refer to "Driver Airbag Module Assembly Replacement".

Steering Column Assembly Replacement

Removal

- 1 Remove the driver airbag module assembly. Refer to "Driver Airbag Module Assembly Replacement".
- 2 Remove the steering wheel assembly. Refer to "Steering Wheel Assembly Replacement".
- 3 Remove the lower steering column shroud assembly. Refer to "Lower Steering Column Shroud Assembly Replacement".
- 4 Remove the clock spring assembly and the clock spring returning ring. Refer to "Clock Spring Assembly and Clock Spring Returning Ring Replacement".
- 5 Remove the combination switch assembly. Refer to "Combination Switch Assembly Replacement".
- 6 Remove the combination switch base. Refer to "Combination Switch Base Replacement".
- 7 Remove the ignition switch assembly. Refer to "Ignition Switch Assembly Replacement".
- 8 Remove the clip (1) from the instrument harness.
- 9 Remove 1 retaining bolt (2) fixing the steering column assembly to the steering intermediate shaft assembly.
- 10 Remove 2 retaining bolts (3) and 2 retaining nuts (4) fixing the steering column assembly to the instrument beam.
- 11 Remove the steering column assembly (5).
- 2 Install 2 retaining nuts fixing the steering column assembly to the instrument beam, tighten them to 23 ± 2 Nm, and check the torque.
- 3 Install 2 retaining bolts fixing the steering column assembly to the instrument beam, tighten them to 23 ± 2 Nm, and check the torque.
- 4 Install 1 retaining bolt fixing the steering column assembly to the steering intermediate shaft assembly, tighten it to 23 ± 2 Nm, and check the torque.
- 5 Install the clip on the instrument harness.
- 6 Install the ignition switch assembly. Refer to "Ignition Switch Assembly Replacement".
- 7 Install the combination switch base. Refer to "Combination Switch Base Replacement".
- 8 Install the combination switch assembly. Refer to "Combination Switch Assembly Replacement".
- 9 Install the clock spring assembly and the clock spring returning ring. Refer to "Clock Spring Assembly and Clock Spring Returning Ring Replacement".
- 10 Install the lower steering column shroud assembly. Refer to "Lower Steering Column Shroud Assembly Replacement".
- 11 Install the steering wheel assembly. Refer to "Steering Wheel Assembly Replacement".
- 12 Install the driver airbag module assembly. Refer to "Driver Airbag Module Assembly Replacement".



Installation

- 1 Install the steering column assembly.

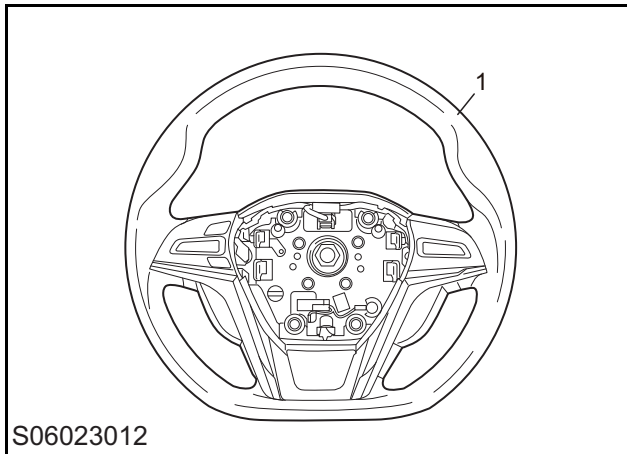
Steering Wheel and Steering Column

Steering Wheel Switch Replacement

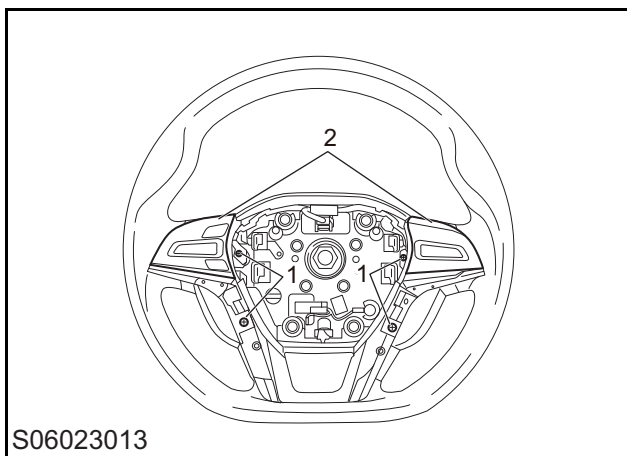
Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the driver airbag module assembly. Refer to "Driver Airbag Module Assembly Replacement".
- 3 Disconnect the electrical connector of the steering wheel switch.
- 4 Carefully remove the steering wheel trim strip (1).

- 4 Connect the electrical connector of the steering wheel switch.
- 5 Install the driver airbag module assembly. Refer to "Driver Airbag Module Assembly Replacement".
- 6 Connect the negative battery cable.



- 5 Unscrew the steering wheel switch screws (1).
- 6 Remove the steering wheel assembly switch (2).



Installation

- 1 Install the steering wheel assembly switch.
- 2 Install the steering wheel switch screws and tighten them.
- 3 Install the steering wheel trim strip.

General Diagnosis of Suspension System

General Diagnosis of Suspension System

Specification

Fastener Specifications

Name	Torque (Nm)
Nut - Front Suspension Lower Swing Arm Adjustment	240±20 Nm
Nut - Steering Tie Rod Adjustment	65 Nm

Four-Wheel Alignment Parameters

Items		Parameter values
Front wheels	Toe-in angle	0±0.15° Total toe-in ≤ 0.15°
	Camber angle	0±0.5° Difference between left and right ≤ 0.5°
	Kingpin caster	3.6±0.5° Difference between left and right ≤ 0.5°
Rear wheels	Toe-in angle	0°±0.25°
	Camber angle	0°±0.5°
	Thrust angle	0°±0.25°

General Diagnosis of Suspension System

Service Guide

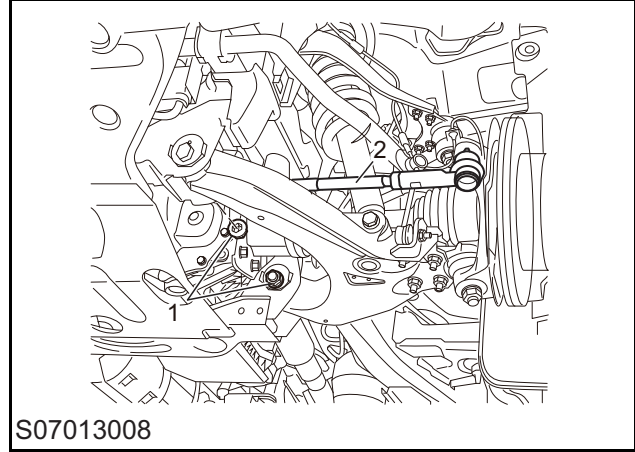
Four-wheel Alignment

Check

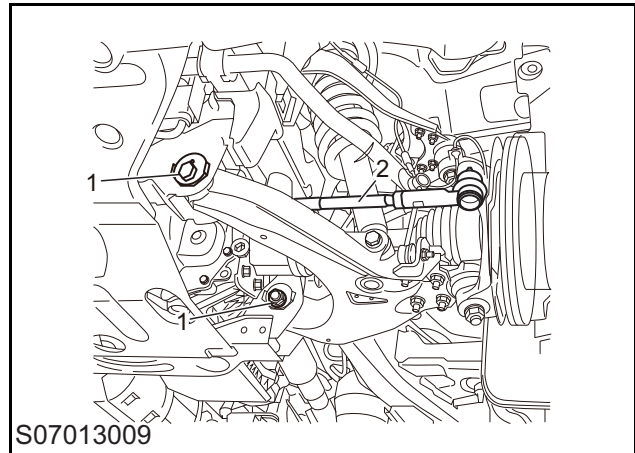
- 1 Ensure that the correct vehicle data has been entered into the equipment.
- 2 Check if the steering tie rod ball joint, front lower swing arm ball joint and wheel bearing are worn or run properly. Replace or repair if necessary.
- 3 Check the tire pressure.
- 4 Lift the vehicle from the lifting platform. Ensure that vehicle weight is on the support. Ensure that the size of the mounting clamp for wheels has been calibrated correctly and fixed safely to the vehicle.
- 5 Ensure that the camera device is fixed and aligned properly.
- 6 Conduct the alignment of the wheels according to instruction of equipment manufacturer. Refer to "Four-Wheel Alignment Parameters".
- 7 Ensure that the steering wheel is in middle position.

Front Wheel Alignment

- 1 Loosen the left and right front suspension lower swing arm nuts (1) and the left and right steering tie rod adjusting nuts (2).



- 2 Adjust the angle of the front suspension lower swing arm adjusting bolt (1) and the length of the steering tie rod (2) to make four-wheel alignment parameters fall in the target range (adjust according to indication of four-wheel aligner system).



- 3 Tighten the front suspension lower swing arm adjusting bolt to 240 ± 20 Nm; Tighten the locking nut of the steering tie rod to 65 Nm.
- 4 After adjustment, turn the steering wheel leftward and rightward to a fully locked position and check whether wheels interfere the front suspension.

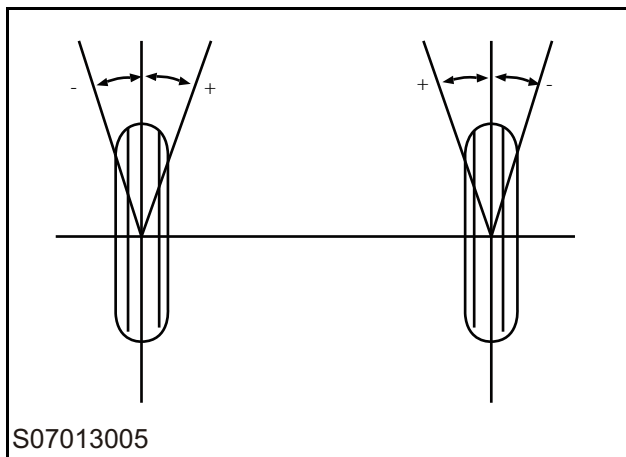
Description and Operation

Side-sway Description

Side-sway refers to the unintentional drift or deviation of a vehicle from a straight direction to either side when applying force by hand on the steering wheel. Side-sway is a symptom resulting from over-sensitive response of the vehicle to external disturbances such as uneven road and crosswind, which may be aggravated by poor returnability of steering mechanism.

Toe-in Description

Wheel toe-in refers to the degree that the front and/or rear wheels deflect inward or outward from the front position. When the wheels deflect inward, the toe-in is positive (+). When the wheels deflect outward, the toe-in is negative (-). The actual value of the toe-in is normally a fraction of a degree. The function of the toe-in is to ensure that wheels on both sides roll in parallel. The toe-in also compensates for a small amount of deviation caused by the wheel support system when the wheels roll forward. In other words, with the vehicle standing still and the wheels set with toe-in, the wheels tend to roll in parallel on the road when the vehicle is moving. Improper adjustment of the toe-in will lead to premature tire wear and unstable steering.



Memory Steering Description

Memory steering refers to the tendency of a vehicle to deviate to the last turning direction operated by the driver. In addition, after turning in the opposite, the vehicle tends to deviate to that direction.

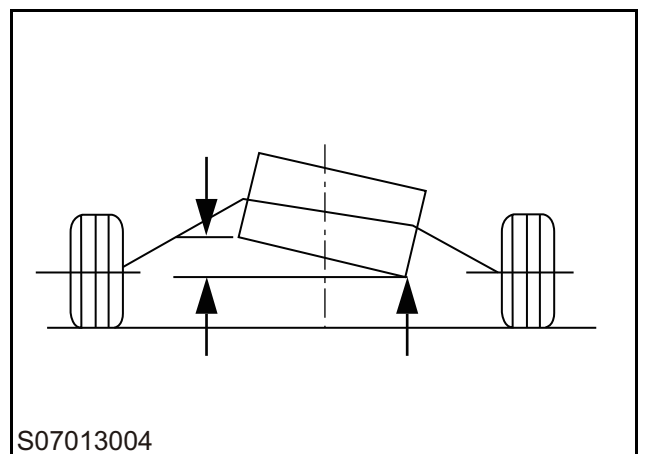
Scrub Radius Description

Theoretically, the scrub radius should be as small as possible. Typically, the steering kingpin inclination (SAI) intersects the centerline of the tire and wheels below the road surface to form a positive scrub radius. In the strut structure, the steering axis inclination (SAI) is much larger than the long arm/short arm suspension system. This allows the steering axis inclination (SAI) and wheel camber to intersect above the road surface, which forms a negative scrub radius. The smaller the scrub radius, the better the directional stability. The installation of wheels added after sales leads to additional deviation of the vehicle, which may significantly increase the scrub radius. The newly installed wheels may cause the centerline of the tire to deviate further from the spindle. This will increase the scrub radius.

A larger scrub radius can cause severe shimmy after hitting the uneven road surface. Four wheel drive vehicles with large tires use a steering shock absorber to compensate for the increased scrub radius. The scrub radius can not be measured directly with conventional methods. The scrub radius is geometrically designed by the engineer during the design phase of the suspension system.

Torque Steering Description

When hardly accelerated, the vehicle may deviate in one direction. During deceleration, the vehicle may deviate in another direction.



On the specific vehicle, the following factors may cause the torque steering to be more obvious:

General Diagnosis of Suspension System

- A right front tire with a smaller diameter causes a right guide torque. Check the front tires for differences in brand, structure or size. If the tires look similar, exchange the front tires on both sides and retest the vehicle. Tires and wheel assemblies have had a significant impact on the correction of torque steering.
- There are great differences between the pressure of front right and front left tires.
- The difference between the left and right side of the axle angle in the front view may cause the vehicle to deviate significantly when steering. The deviation will appear on the side where the axle tilts downward most from the differential to the wheel. The axle tilts downward from the differential. The inclination between the transaxle surface and the horizontal plane can be used as a sign of the tilt angle of the axle. The higher side of the transaxle surface (as shown on the left) has the maximum axle angle which tilts downward.

Deviation Description

Vehicle deviation refers to the force applied to the steering wheel to keep the vehicle running in a straight line when the vehicle is driving on a typical straight line at a constant high speed.

Prompt: It is normal for a vehicle to deviate in road slope direction. Deviations are usually caused by the following factors:

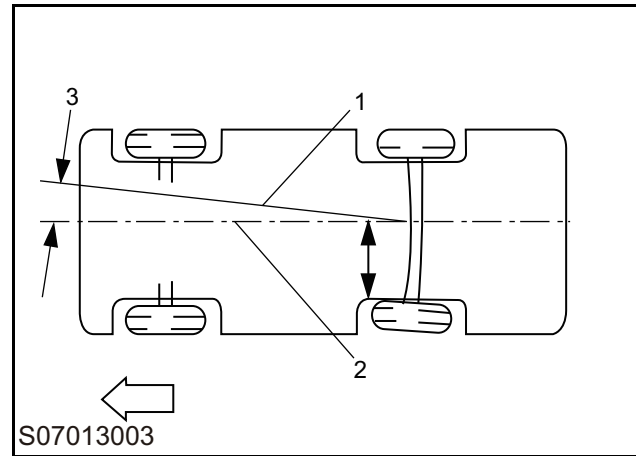
- Road slope
- Changes of tire structure
- Wheel alignment (difference between left and rear kingpin casters of front wheels and difference between cambers of left and right wheels)
- Unbalanced steering gear
- The steering position of electronic power steering (EPS) and torque sensor are not properly calibrated

Thrust Angle Description

The front wheels are used for vehicle orientation or steering. The rear wheels control the trace. This trace action is related to the thrust angle (3). The thrust angle is the track that rear wheels travel. Theoretically, the thrust angle is geometrically consistent with the body centerline (2).

As shown in the figure, the left rear wheel is a positive toe-in, resulting in the thrust line (1) to deviate from the

center. The resulting deviation from the centerline is regarded as the thrust angle.



The incorrectly set thrust angle may make the driving route of vehicle looks like a "dog track", which may cause the steering wheel to fail to return or the axle to be mistaken for bending. The thrust angle can be checked during wheel alignment.

A positive thrust angle indicates that the thrust line points to the right side of the vehicle (RHS).

A negative thrust angle indicates that the thrust line points to the left side of the vehicle (LHS).

If the thrust angle exceeds the specified value, altering the axle-to-body relationship will change the reading of thrust angle.

If the vehicle exceeds in the positive (+) direction (moving forward on the right side and/or backward on the left side), the thrust angle will be moved toward the zero angle position.

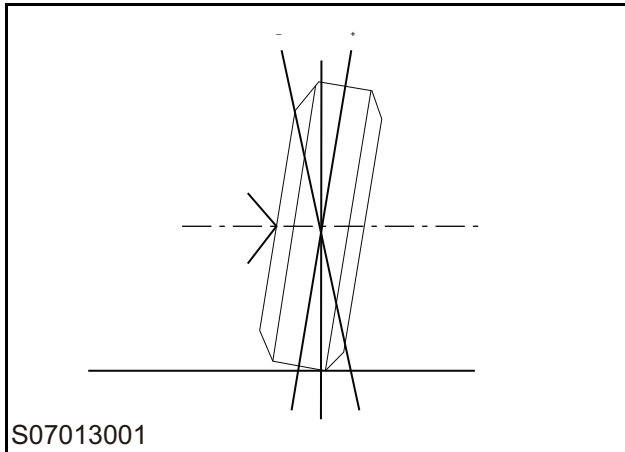
If the vehicle is in the negative (-) direction (moving backward on the right side and/or forward on the left side), the thrust angle will be moved toward the zero angle position.

Camber Angle Description

Wheel camber refers to the angle at which the wheel deviates from the vertical direction when viewed from the front of the vehicle. When the top of the wheel tilts outward, the wheel camber is positive (+). When the top of the wheel tilts inward, the wheel camber is negative (??). The degree of tilt is measured by the angle of deviation from the vertical direction. The set value of

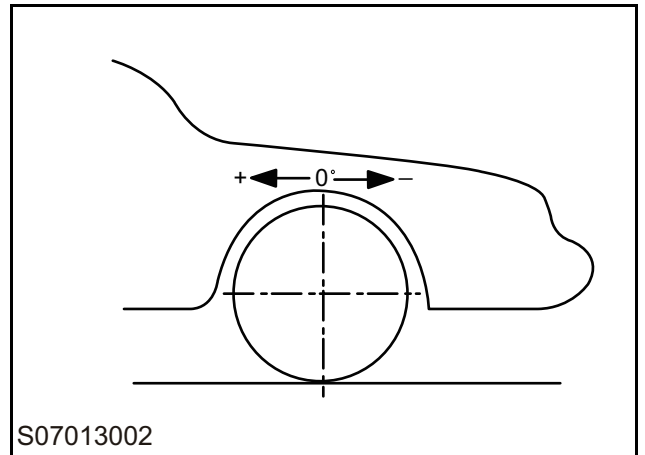
wheel camber has influence on direction control and tire wear.

- Large positive wheel camber may cause premature wear to the outside of tires and the excessive wear of suspension parts.
- Large negative wheel camber may cause premature wear to the inside of tires and the excessive wear of suspension parts.
- If the cambers on both sides differ from each other by 1° or above, the vehicle may deviate to the side with larger camber.



Kingpin Caster Description

Kingpin caster refers to the angle at which the highest point of the steering axis tilts forward or backward when viewed from the side of the vehicle. Tilting backward is positive (+) while forward is negative (-). The kingpin caster affects the direction control during steering instead of the tire wear. The kingpin caster is affected by the height of the vehicle, so it is of great importance to keep the body at the design height. Overloaded vehicle or weak or slack rear spring will affect the kingpin caster. When the rear part of the vehicle is lower than the designed body leveling height, the front suspension moves towards the direction where the positive kingpin caster increases. When the rear part of the vehicle is higher than the designed body leveling height, the front suspension moves towards the direction where the positive kingpin caster decreases.



It is difficult to steer at high speed with a small positive kingpin caster, and the wheel return performance decreases after the steering is completed. If the positive kingpin caster of one wheel is larger than that of other wheels, the wheel will deflect toward the center of the vehicle. In this case, even if the positive kingpin caster is extremely small, it will cause the vehicle to deviate.

General Diagnosis of Suspension System

Front Suspension

Specification

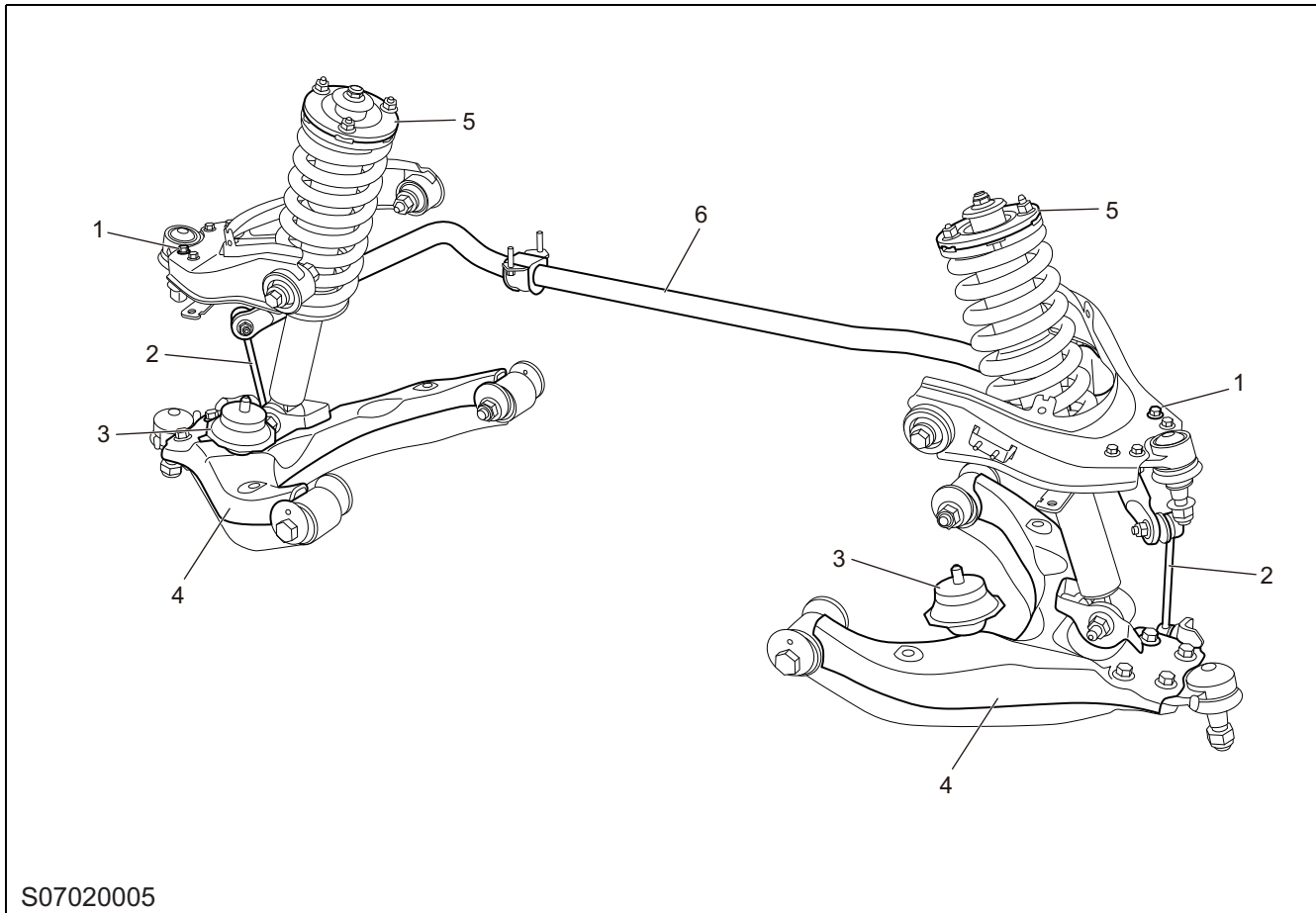
Fastener Specifications

Name	Torque (Nm)
Nut - Front Suspension Upper Swing Arm Assembly to Steering Knuckle	100±10 Nm
Nut - Front Suspension Upper Swing Arm Assembly to Body	160±10 Nm
Nut - Front Suspension Upper Swing Arm Assembly to Body	160±10 Nm
Nut - Wheel Speed Sensor	9±1 Nm
Nut - Connecting Rod to Front Suspension Lower Swing Arm Assembly	50±5 Nm
Nut - Front Connecting Rod to Front Stabilizer Bar	65±5 Nm
Bolts and Nuts - Front Shock Absorber to Front Suspension Lower Swing Arm Assembly	180±10 Nm
Nut - Front Suspension Lower Swing Arm Assembly to Steering Knuckle	150±10 Nm
Nut - Steering Gear Outer Tie Rod Ball Joint to Steering Knuckle	150±10 Nm
Front Suspension Bumper Block	95±9 Nm
Bolt - Stabilizer Bar Bushing Clamp	35±5 Nm
Nut - Front Shock Absorber Assembly to Body	65±5 Nm
Bolts and Nuts - Lower Swing Arm Ball Head	125±10 Nm

Front Suspension

Layout

Front Suspension Layout



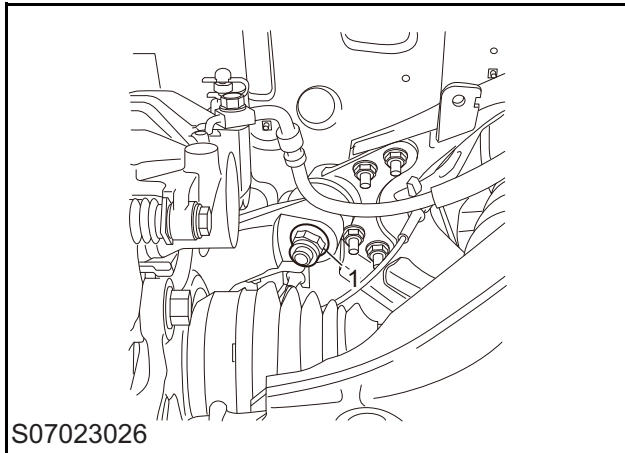
- | | | | |
|---|---|---|--|
| 1 | Front Suspension Upper Swing Arm Assembly | 4 | Front Suspension Lower Swing Arm Assembly |
| 2 | Front Suspension Stabilizer Bar Connecting Rod Assembly | 5 | Front Shock Absorber Strut and Spring Assembly |
| 3 | Front Suspension Bumper Block | 6 | Front Suspension Stabilizer Bar Assembly |

Service Guide

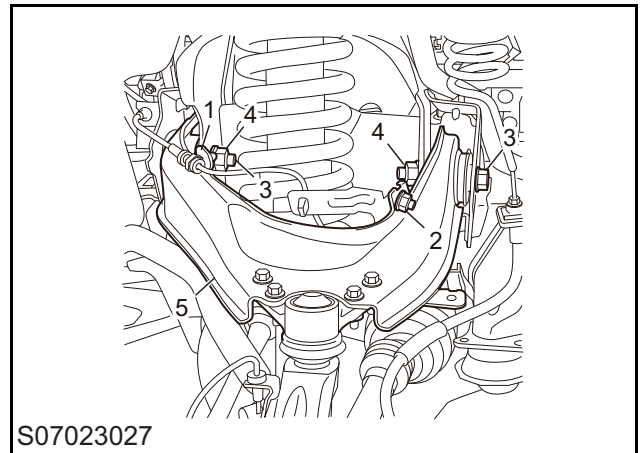
Front Suspension Upper Swing Arm Assembly Replacement

Removal

- 1 Remove wheels. Refer to "Wheel Replacement".
- 2 Remove the retaining nut (1) fixing the front suspension upper swing arm assembly to the steering knuckle.



- 3 Disconnect the front suspension upper swing arm assembly from the steering knuckle. If necessary, use the ball-head puller C00017036.
- 4 Remove the retaining clip (1) fixing the wheel speed sensor harness to the front suspension upper swing arm assembly.
- 5 Remove the retaining nut (2) fixing the wheel speed sensor mounting bracket to the front suspension upper swing arm assembly.
- 6 Remove 2 connecting bolts (3) and 2 nuts (4) fixing the front suspension upper swing arm assembly to the vehicle body.
- 7 Remove the front suspension upper swing arm assembly (5).



Installation

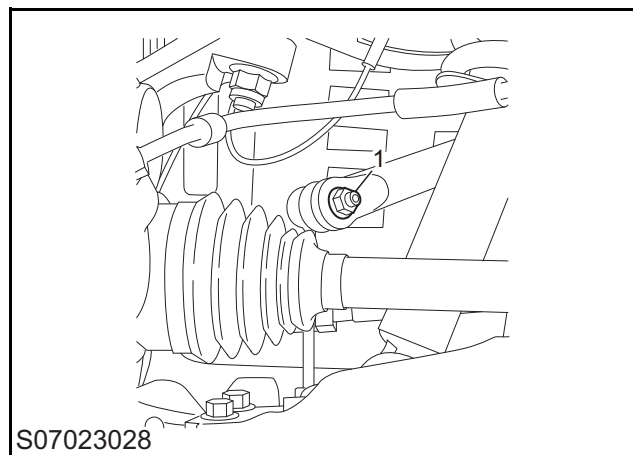
- 1 Install the front suspension upper swing arm assembly.
- 2 Install 2 bolts and 2 nuts connecting the front suspension upper swing arm assembly to the vehicle body, tighten them to 160 ± 10 Nm, and check the torque.
- 3 Install the retaining nut fixing the wheel speed sensor mounting bracket to the front suspension upper swing arm assembly, tighten it to 9 ± 1 Nm, and check the torque.
- 4 Install the retaining clip fixing the wheel speed sensor harness to the front suspension upper swing arm assembly.
- 5 Install the retaining nut fixing the front suspension upper swing arm assembly to the steering knuckle, tighten it to 100 ± 10 Nm, and check the torque.
- 6 Install the wheels. Refer to "Wheel Replacement".

Front Suspension

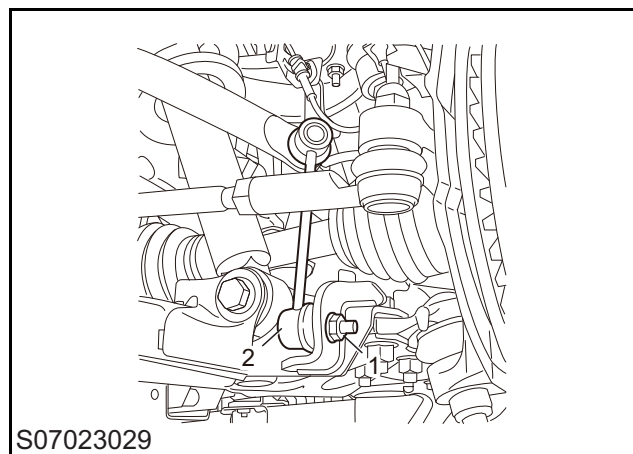
Front Suspension Stabilizer Bar Connecting Rod Assembly Replacement

Removal

- 1 Remove 1 retaining nut (1) fixing the front suspension stabilizer bar connecting rod assembly to the front stabilizer bar.



- 2 Remove 1 retaining nut (1) fixing the front suspension stabilizer bar connecting rod assembly to the front suspension lower swing arm assembly.
- 3 Remove the front suspension stabilizer bar connecting rod assembly (2).



Installation

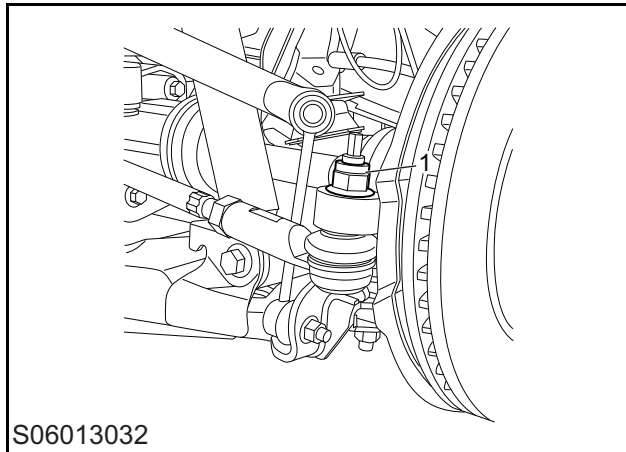
- 1 Install the front suspension stabilizer bar connecting rod assembly.
- 2 Install 1 retaining nut fixing the front suspension stabilizer bar connecting rod assembly to the front suspension lower swing arm assembly, tighten it to 50 ± 5 Nm, and check the torque.

- 3 Install 1 retaining nut fixing the front suspension stabilizer bar connecting rod assembly to the front stabilizer bar, tighten it to 65 ± 5 Nm, and check the torque.

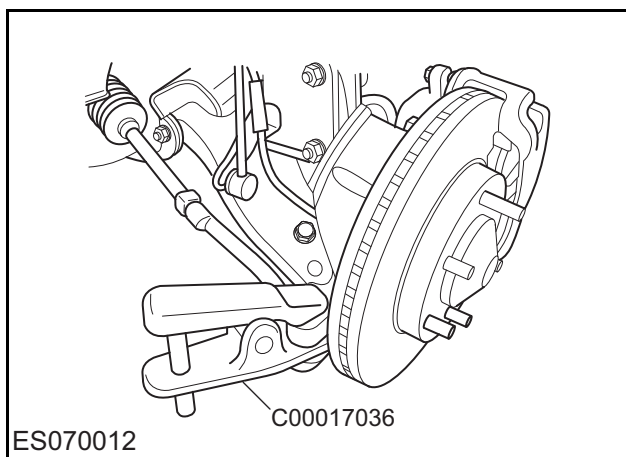
Front Suspension Lower Swing Arm Assembly Replacement

Removal

- 1 Remove wheels. Refer to "Wheel Replacement".
- 2 Remove the retaining nuts (1) fixing the steering gear outer tie rod to the steering knuckle.

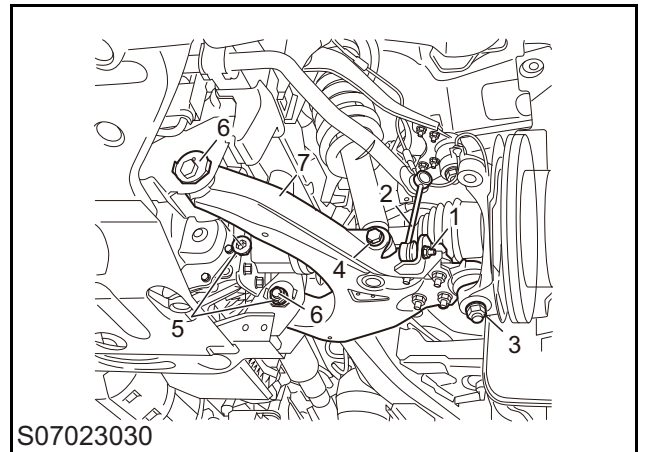


- 3 Use the tool C00017036 to separate the ball head of the steering gear outer tie rod.



- 4 Remove the retaining nut (1) fixing the front suspension stabilizer bar connecting rod assembly to the front suspension lower swing arm assembly.
- 5 Disconnect the front suspension stabilizer bar connecting rod assembly (2) from the front suspension lower swing arm assembly.
- 6 Remove 1 retaining nut (3) fixing the front suspension lower swing arm assembly to the steering knuckle.

- 7 Remove 1 retaining bolt (4) fixing the front shock absorber assembly to the front suspension lower swing arm assembly.
- 8 Remove 2 nuts (5) and 2 connecting bolts (6) fixing the front suspension lower swing arm assembly to the vehicle body.
- 9 Remove the front suspension lower swing arm assembly (7).



Installation

- 1 Install the front suspension lower swing arm assembly.
- 2 Install 2 nuts and 2 connecting bolts fixing the front suspension lower swing arm assembly to the vehicle body, tighten them to 240 ± 20 Nm, and check the torque.
- 3 Install 1 retaining bolt fixing the front shock absorber assembly to the front suspension lower swing arm assembly, tighten it to 180 ± 10 Nm, and check the torque.
- 4 Install 1 retaining nut fixing the front suspension lower swing arm assembly to the steering knuckle, tighten it to 150 ± 10 Nm, and check the torque.
- 5 Connect the front suspension stabilizer bar connecting rod assembly to the front suspension lower swing arm assembly.
- 6 Install the retaining nut fixing the front suspension stabilizer bar connecting rod assembly to the front suspension lower swing arm assembly, tighten it to 50 ± 5 Nm, and check the torque.
- 7 Connect the ball joint of the steering gear outer tie rod to the steering knuckle, install a new

Front Suspension

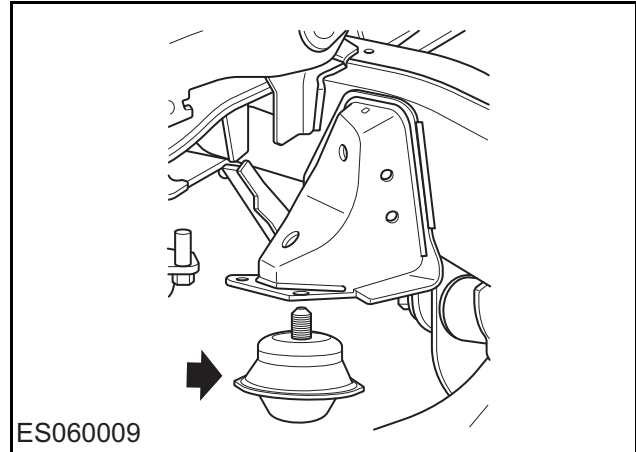
retaining nut, tighten it to 150 ± 10 Nm, and check the torque.

- 8 Install the wheels. Refer to "Wheel Replacement".
- 9 Align four wheels.

Front Suspension Bumper Block Replacement

Removal

- 1 Raise the vehicle.
- 2 Use the special tool C00089915 to remove the front suspension bumper block.



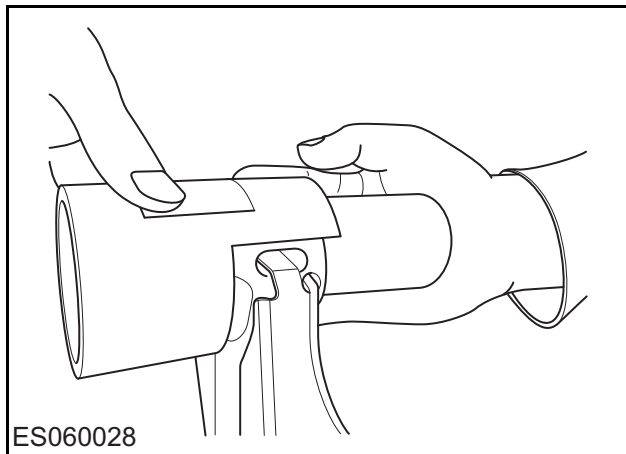
Installation

- 1 Use the special tool C00089915 to install the front suspension bumper block, tighten it to 95 ± 9 Nm, and check the torque.
- 2 Lower the vehicle.

Front Suspension Lower Swing Arm Bushing Replacement

Removal

- 1 Remove the front suspension lower swing arm assembly. Refer to "Front Suspension Lower Arm Assembly Replacement".
- 2 Use the special tool C00089916 to press out the front suspension lower swing arm bushing. It must be pressed out vertically to prevent sleeve deformation.



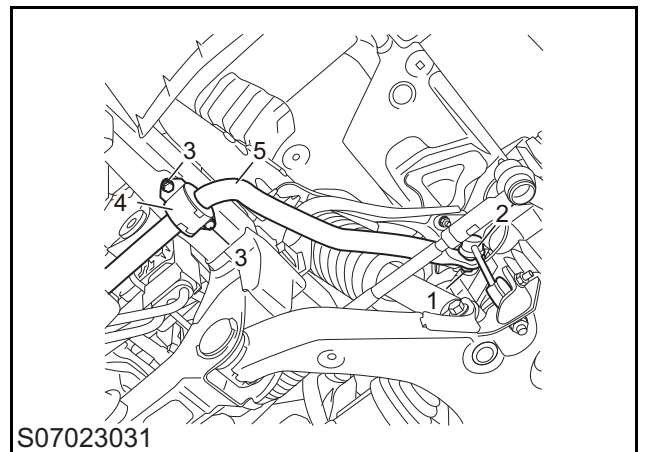
Installation

- 1 Check the sleeve for deformation. If any, replace the lower swing arm assembly; press vertically the bushing into sleeve, with the press-in force controlled within 12~40 KN. If beyond the range, replace the lower swing arm assembly.
- 2 Install the front suspension lower swing arm assembly. Refer to "Front Suspension Lower Arm Assembly Replacement".

Front Suspension Stabilizer Bar Assembly Replacement

Removal

- 1 Remove the front bottom deflector. Refer to "Front Bottom Deflector Replacement".
- 2 Remove the engine lower guard plate. Refer to "Engine Lower Guard Plate Replacement".
- 3 Remove the condenser lower guard plate. Refer to "Condenser Lower Guard Plate Replacement".
- 4 Remove 1 retaining nut (1) fixing the front suspension stabilizer bar assembly to the left and right front suspension stabilizer bar link assemblies.
- 5 Disconnect the front suspension stabilizer bar assembly from the left and right front suspension stabilizer bar link assemblies (2).
- 6 Remove 2 retaining bolts (3) fixing the front suspension stabilizer bar assembly to the left and right front suspension stabilizer bar bushing clamps.
- 7 Remove the left and right front suspension stabilizer bar bushing clamps (4).
- 8 Remove the front suspension stabilizer bar assembly (5).



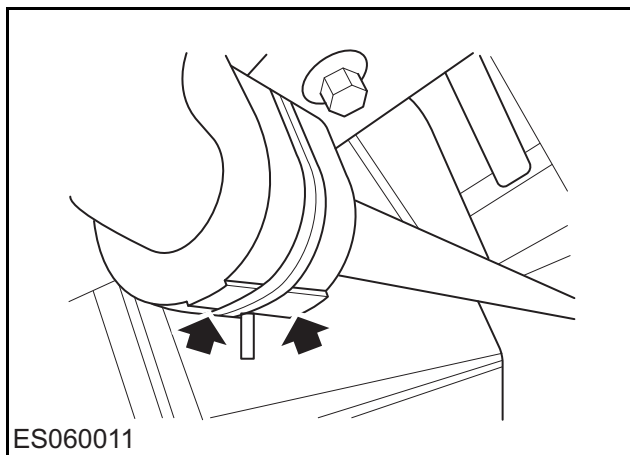
Installation

- 1 Install the front suspension stabilizer bar assembly.
- 2 Install 2 retaining bolts fixing the front suspension stabilizer bar assembly to the left and right front suspension stabilizer bar bushing clamps, tighten them to 35 ± 5 Nm, and check the torque.

Front Suspension

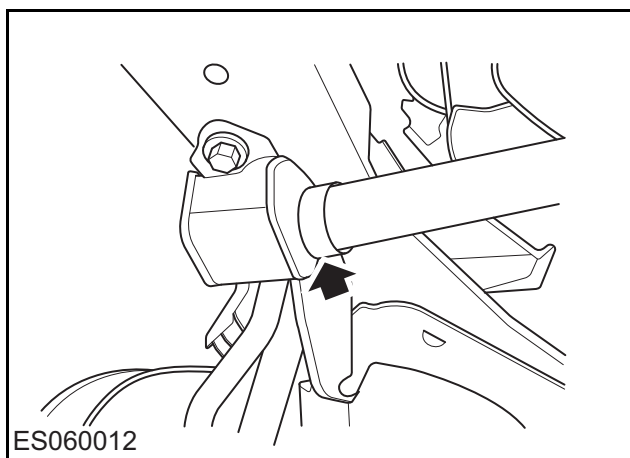
Caution:

- The front suspension stabilizer bar bushing clamp should not press the two lugs at the lower part of the bushing, which are outside the front suspension stabilizer bar bushing clamp.

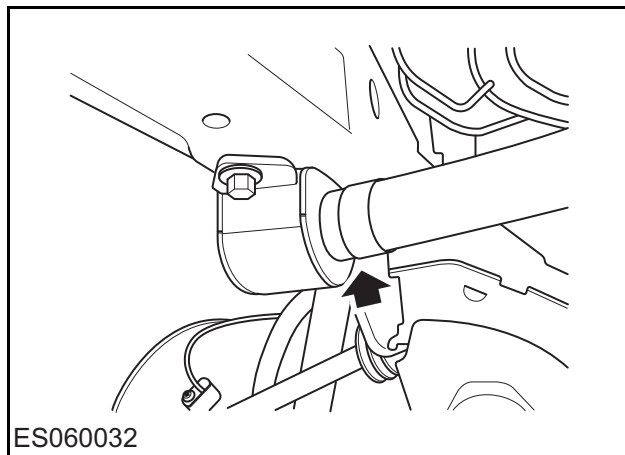


- The white mark on horizontal stabilizer bar shall be flush with the bushing.

Correct Picture



Incorrect Picture

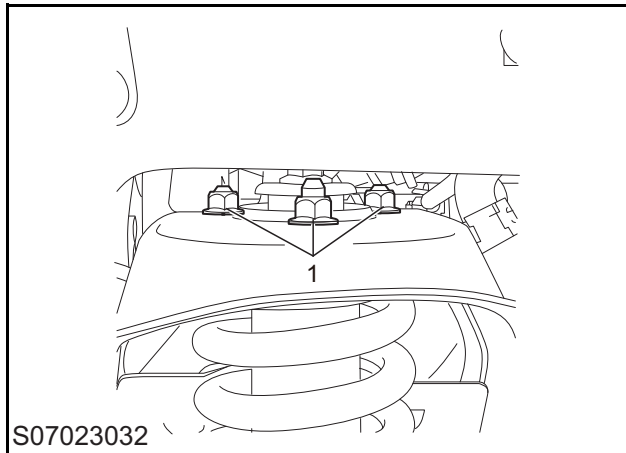


- 3 Connect the front suspension stabilizer bar assembly to the left and right front suspension stabilizer bar link assemblies.
- 4 Install 1 retaining nut fixing the front suspension stabilizer bar assembly to the left and right front suspension stabilizer bar link assemblies, tighten it to 65 ± 5 Nm, and check the torque.
- 5 Install the condenser lower guard plate. Refer to "Condenser Lower Guard Plate Replacement".
- 6 Install the engine lower guard plate. Refer to "Engine Lower Guard Plate Replacement".
- 7 Install the front bottom deflector. Refer to "Front Bottom Deflector Replacement".

Front Shock Absorber Assembly Replacement

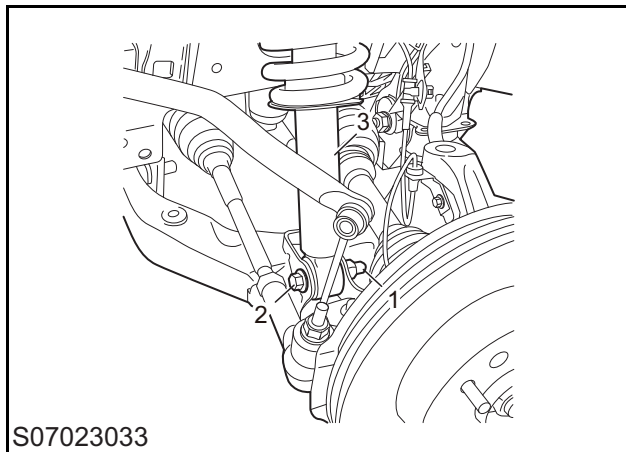
Removal

- 1 Remove the front suspension upper swing arm assembly. Refer to "Front Suspension Upper Swing Arm Assembly Replacement".
- 2 Remove 3 retaining nuts (1) fixing the front shock absorber assembly to the vehicle body.



- 3 Install 3 retaining nuts fixing the front shock absorber assembly to the vehicle body, tighten them to 65 ± 5 Nm, and check the torque.
- 4 Install the front suspension upper swing arm assembly. Refer to "Front Suspension Upper Swing Arm Assembly Replacement".

- 3 Remove 1 retaining nut (1) and 1 connecting bolt (2) fixing the front shock absorber assembly to the front suspension lower swing arm assembly.
- 4 Remove the front shock absorber assembly (3).



Installation

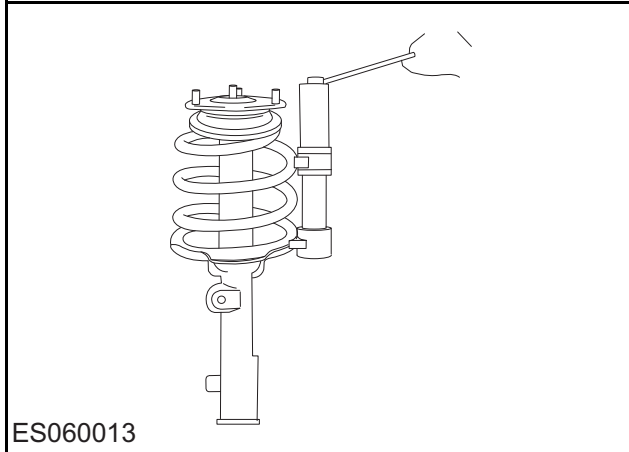
- 1 Install the front shock absorber assembly.
- 2 Install 1 retaining nut and 1 connecting bolt fixing the front shock absorber assembly to the front suspension lower swing arm assembly, tighten them to 180 ± 10 Nm, and check the torque.

Front Suspension

Front Shock Absorber Subassembly Replacement

Removal

- 1 Remove the front shock absorber assembly. Refer to "Front Shock Absorber Assembly Replacement".
- 2 Fix the spring compressors C00017035-1 and C00017035-2 to the front shock absorber spring.

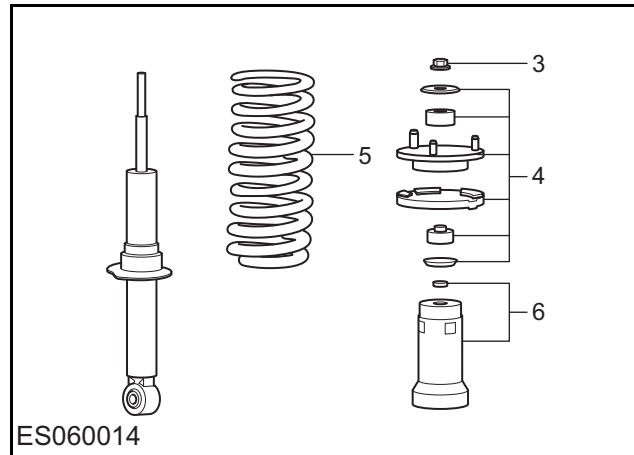


- 3 Unscrew the nut on the top of front shock absorber and discard it.

Warning: Make sure the spring compressor has compressed the spring and removed the bearing pressure from shock absorber before removing self-locking nut on the top of front shock absorber strut.

Caution: Ensure that the black coating of the spring is not damaged.

- 4 Remove the upper gasket, upper vibration isolator, front shock absorber upper spring seat, front shock absorber upper spring seat rubber gasket, lower vibration isolator, lower gasket and lower washer.



- 5 Remove the coil spring of front shock absorber.
- 6 Remove the dust shield and lower washer of front shock absorber.
- 7 Release the pressure of coil spring, loosen adapter from spring compressor and remove the coil spring.

Installation

- 1 Check the front shock absorber strut, upper/lower vibration isolators, washers, front shock absorber upper spring seat and front shock absorber dust shield for signs of crack, aging and damage.
- 2 Clean the front shock absorber strut and washers.
- 3 Successively install the washer, dust shield, washer, lower gasket and lower vibration isolator to the front shock absorber assembly.
- 4 Install the coil spring of front shock absorber to front shock absorber strut.
- 5 Locate the spring compressor to the front shock absorber, use spring compressor C00017035-1 and C00017035-2 to compress the spring.
- 6 Ensure correct relative installation position, install the upper vibration isolator of front shock absorber, rubber gasket of upper spring seat and upper spring seat of front shock absorber to the front shock absorber shaft.
- 7 Install the upper washer of front shock absorber and new nuts and tighten to $70\pm 5\text{Nm}$.
- 8 Release the elasticity of spring, loosen the adapter of spring compressor and take off the spring compressor.

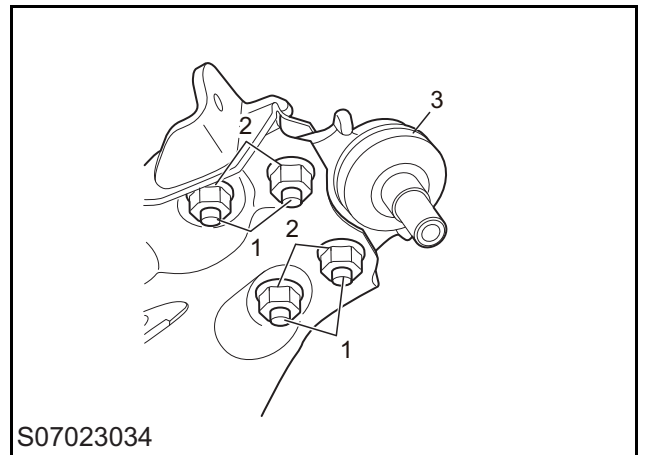
- 9 Clean the junction between front shock absorber/spring assembly and the body.
- 10 Install the front shock absorber assembly. Refer to "Front Shock Absorber Assembly Replacement".

Lower Swing Arm Ball Head Replacement

Caution: *This ball joint sleeve repair method is only applicable when the outer ball joint sleeve of the front lower swing arm is damaged during repair or maintenance. If the vehicle has been driving with a damaged sleeve for a period of time, this repair method is not applicable anymore and the front lower swing arm assembly must be replaced.*

Removal

- 1 Remove the front lower swing arm assembly
- 2 Remove bolts (1) and nuts (2) fixing the lower swing arm ball head.
- 3 Remove the lower swing arm ball head (3).



Installation

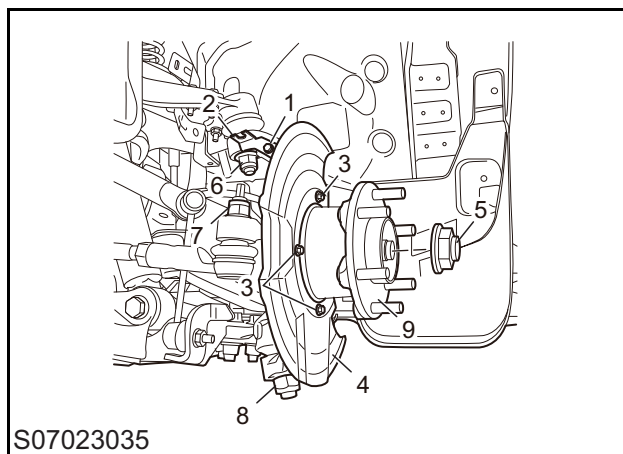
- 1 Install the lower swing arm ball head to the front lower swing arm assembly.
- 2 Install the bolts and nuts fixing the lower swing arm ball head, tighten them to 125 ± 10 Nm, and check the torque.
- 3 Install the front lower swing arm assembly. Refer to "Front Lower Swing Arm Replacement".

Front Suspension

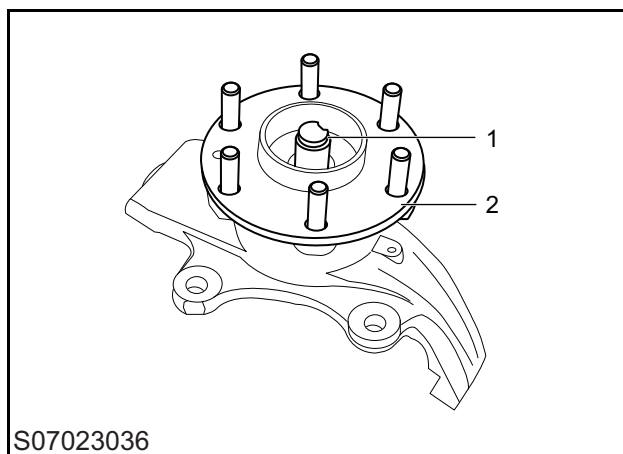
Front Suspension Steering Knuckle Replacement

Removal

- 1 Remove wheels. Refer to "Wheel Replacement".
- 2 Remove the front brake disc. Refer to "Front Brake Disc Replacement".
- 3 Remove the left front wheel speed sensor. Refer to "Front Wheel Sensor Replacement".
- 4 Remove 1 retaining bolt (1) fixing the front wheel speed sensor mounting bracket to the steering knuckle, and remove the front wheel speed sensor mounting bracket (2).
- 5 Remove 3 retaining bolts (3) fixing the front brake disc mudguard to the steering knuckle, and remove the front brake disc mudguard (4).
- 6 Pry off the lock catch of the front hub locking nut and remove the front hub locking nut (5).
- 7 Remove 1 retaining nut (6) fixing the front suspension swing arm assembly to the steering knuckle.
- 8 Disconnect the front suspension upper swing arm assembly from the steering knuckle. If necessary, use the ball-head puller C00017036.
- 9 Remove 1 retaining nut (7) fixing the steering gear outer tie rod to the steering knuckle.
- 10 Disconnect the steering gear outer tie rod from the steering knuckle. If necessary, use the ball head puller C00017036.
- 11 Remove 1 retaining nut (8) fixing the front suspension lower swing arm assembly to the steering knuckle.
- 12 Disconnect the front suspension lower swing arm assembly from the steering knuckle. If necessary, remove the steering knuckle of the front suspension and front hub assembly (9) (2WD) with a ball head puller C00017036.
- 13 Remove the drive axle from the front hub assembly, and remove the front suspension steering knuckle and front hub assembly (9) (4WD).

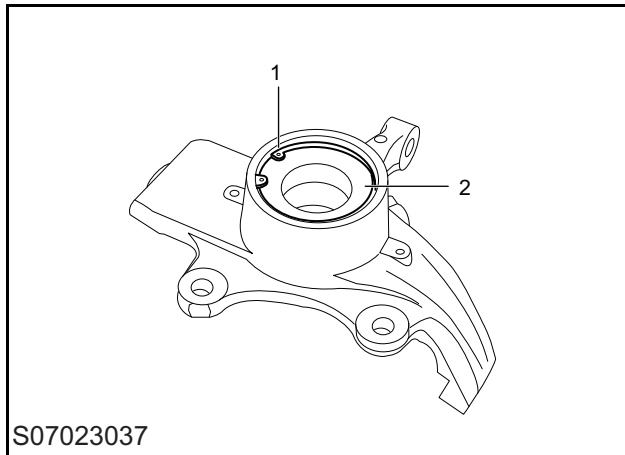


- 14 Press the central spindle out of the front hub assembly (2WD).
- 15 Press the front hub assembly out from the front hub bearing.



- 16 Remove the circlip (1) from the front hub bearing.
- 17 Press the front hub bearing (2) out of the front suspension knuckle.

Caution: When pressing out the bearing, take care to avoid producing burr on the inner cavity hole surface of steering knuckle.



Installation

- 1 Check and confirm there is no damages and impact traces on components, and no damages and impurities on machined component surface.
- 2 Press the front hub bearing into the front suspension knuckle.

Caution: Make sure the outer ring of bearing contacts closely with inner hole shaft shoulder of steering knuckle. Press-in force shall not exceed 60KN.

- 3 Install the circlip on the front hub bearing.

Caution: Put the circlip into the slot of steering knuckle inner hole with a caliper, and take care not to damage the bearing seal ring.

- 4 Press the front hub assembly into the front hub bearing.

Caution: Ensure that the front hub shaft shoulder is tightly attached to the end face of the inner ring of the front hub bearing.

- 5 Press the central spindle into the front hub assembly (2WD).
- 6 Install the drive axle to the front suspension steering knuckle and front hub assembly (4WD).
- 7 Install the front suspension lower swing arm assembly to the front suspension steering knuckle and front hub assembly.
- 8 Install 1 retaining nut fixing the front suspension lower swing arm assembly to the steering knuckle.
- 9 Install 1 retaining nut fixing the steering gear outer tie rod to the steering knuckle.

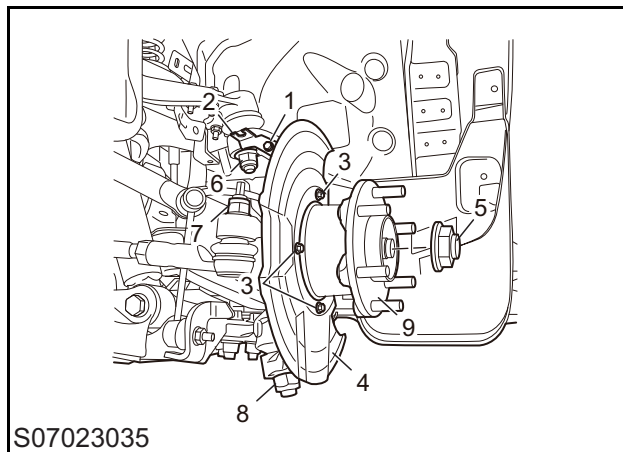
- 10 Install 1 retaining nut fixing the front suspension upper swing arm assembly to the steering knuckle.
- 11 Install the front hub locking nut and fix the front hub locking nut in place.
- 12 Place the front brake disc mudguard and install 3 retaining bolts fixing the front brake disc mudguard to the steering knuckle.
- 13 Place the front wheel speed sensor mounting bracket and install 1 retaining bolt fixing the front wheel speed sensor mounting bracket to the steering knuckle.
- 14 Install the left front wheel speed sensor. Refer to "Front Wheel Sensor Replacement".
- 15 Install the front brake disc. Refer to "Front Brake Disc Replacement".
- 16 Install the wheels. Refer to "Wheel Replacement".

Front Suspension

Front Hub Assembly Replacement

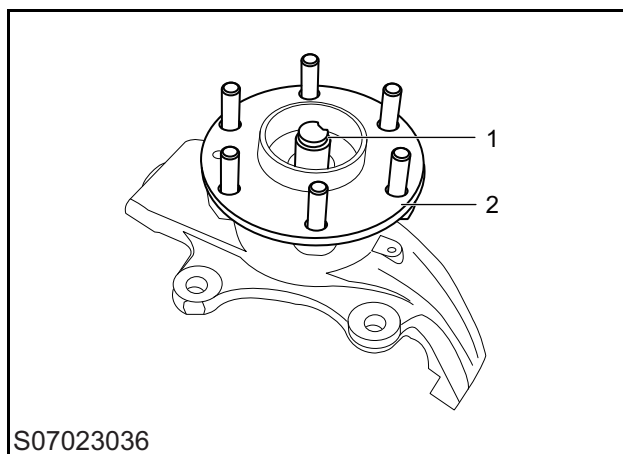
Removal

- 1 Remove wheels. Refer to "Wheel Replacement".
- 2 Remove the front brake disc. Refer to "Front Brake Disc Replacement".
- 3 Remove the left front wheel speed sensor. Refer to "Front Wheel Sensor Replacement".
- 4 Remove 1 retaining bolt (1) fixing the front wheel speed sensor mounting bracket to the steering knuckle, and remove the front wheel speed sensor mounting bracket (2).
- 5 Remove 3 retaining bolts (3) fixing the front brake disc mudguard to the steering knuckle, and remove the front brake disc mudguard (4).
- 6 Pry off the lock catch of the front hub locking nut and remove the front hub locking nut (5).
- 7 Remove 1 retaining nut (6) fixing the front suspension swing arm assembly to the steering knuckle.
- 8 Disconnect the front suspension upper swing arm assembly from the steering knuckle. If necessary, use the ball-head puller C00017036.
- 9 Remove 1 retaining nut (7) fixing the steering gear outer tie rod to the steering knuckle.
- 10 Disconnect the steering gear outer tie rod from the steering knuckle. If necessary, use the ball head puller C00017036.
- 11 Remove 1 retaining nut (8) fixing the front suspension lower swing arm assembly to the steering knuckle.
- 12 Disconnect the front suspension lower swing arm assembly from the steering knuckle. If necessary, remove the steering knuckle of the front suspension and front hub assembly (9) (2WD) with a ball head puller C00017036.
- 13 Remove the drive axle from the front hub assembly, and remove the front suspension steering knuckle and front hub assembly (9) (4WD).



S07023035

- 14 Press the central spindle out of the front hub assembly (2WD).
- 15 Press the front hub assembly out from the front hub bearing.



S07023036

Installation

- 1 Check and confirm there is no damages and impact traces on components, and no damages and impurities on machined component surface.
- 2 Press the front hub assembly into the front hub bearing.

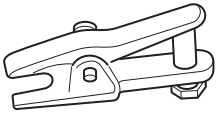
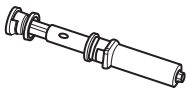
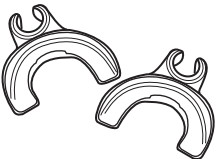
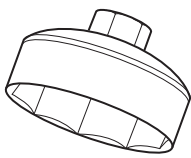
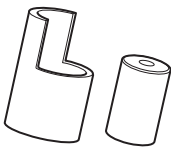
Caution: Ensure that the front hub shaft shoulder is tightly attached to the end face of the inner ring of the front hub bearing.

- 3 Press the central spindle into the front hub assembly (2WD).
- 4 Install the drive axle to the front suspension steering knuckle and front hub assembly (4WD).
- 5 Install the front suspension lower swing arm assembly to the front suspension steering knuckle and front hub assembly.

- 6 Install 1 retaining nut fixing the front suspension lower swing arm assembly to the steering knuckle.
- 7 Install 1 retaining nut fixing the steering gear outer tie rod to the steering knuckle.
- 8 Install 1 retaining nut fixing the front suspension upper swing arm assembly to the steering knuckle.
- 9 Install the front hub locking nut and fix the front hub locking nut in place.
- 10 Place the front brake disc mudguard and install 3 retaining bolts fixing the front brake disc mudguard to the steering knuckle.
- 11 Place the front wheel speed sensor mounting bracket and install 1 retaining bolt fixing the front wheel speed sensor mounting bracket to the steering knuckle.
- 12 Install the left front wheel speed sensor. Refer to "Front Wheel Sensor Replacement".
- 13 Install the front brake disc. Refer to "Front Brake Disc Replacement".
- 14 Install the wheels. Refer to "Wheel Replacement".

Front Suspension

Special Tool

Tool Number and Description	Illustration
C00017036 Ball head puller	 C00017036
C00017035-1 MacPherson spring damper removal and installation tool 1	 C00017035-1
C00017035-2 MacPherson spring damper removal and installation tool 2	 C00017035-2
C00089915 Lower swing arm bumper block removal and installation tool	 C00089915
C00089916 Lower arm bushing remover	 C00089916

Rear Suspension

Specification

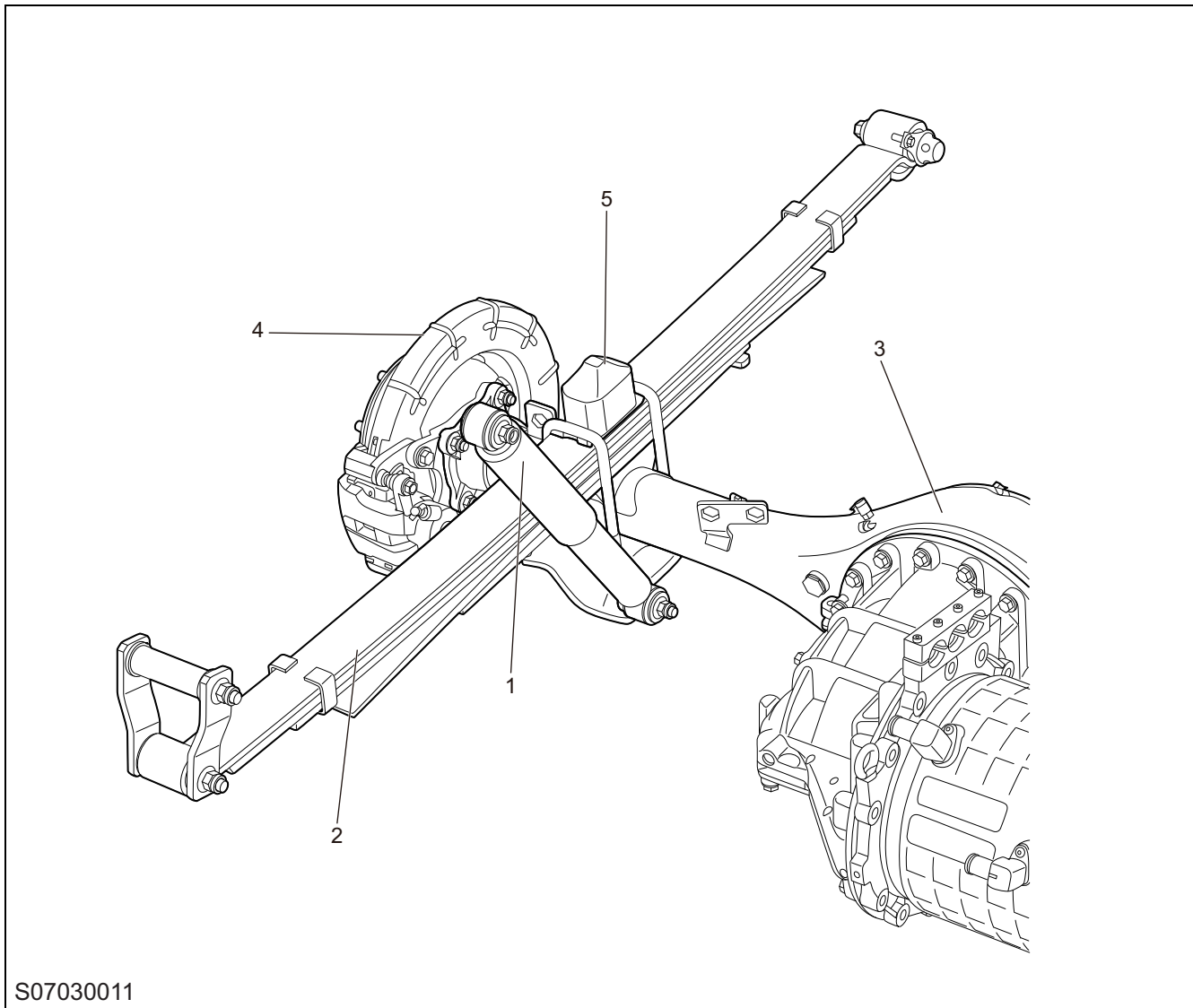
Fastener Specifications

Name	Torque (Nm)
Bolt - Parking Brake Cable Bracket	9±1 Nm
Nut - Rear Shock Absorber to Lower Bracket	110±10 Nm
Bolt - Rear Leaf Spring Front Spring Eye	190±10 Nm
Nut - Rear Leaf Spring Shackle	110±10 Nm
Bolt - Leaf Spring Front Spring Ear Bolt Shield to Frame	22±2 Nm
Nut - Rear Leaf Spring Front Spring Eye Bushing	190±10 Nm
Nut - U-bolt	120±10 Nm

Rear Suspension

Layout

Rear Suspension Layout



- 1 Rear Shock Absorber Assembly
- 2 Rear Leaf Spring Assembly
- 3 Rear Axle Assembly

- 4 Rear Brake Assembly
- 5 Rear Leaf Spring Bumper Block

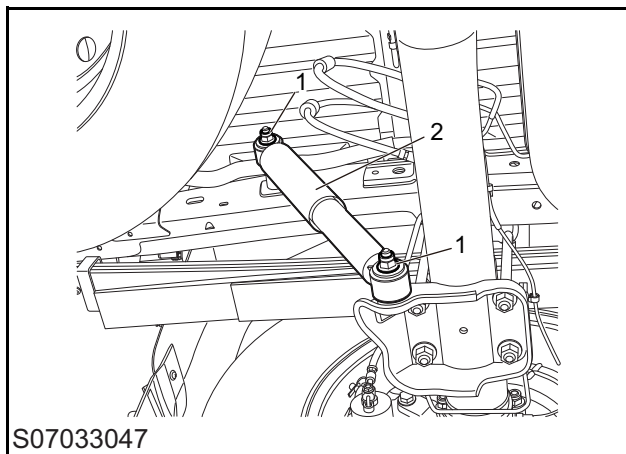
Service Guide

Rear Suspension Shock Absorber Assembly Replacement

Removal

- 1 Raise the vehicle.
- 2 Remove 2 retaining nuts (1) from the rear suspension shock absorber assembly.
- 3 Remove the rear suspension shock absorber assembly (2).

Caution: Hold one end, check whether there is resistance when the shock absorber extends and compresses quickly. If not, the shock absorber has deteriorated and needs to be replaced.



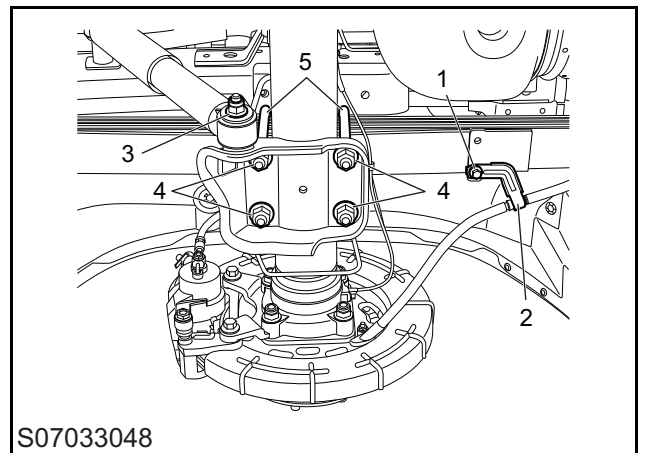
Installation

- 1 Install the rear suspension shock absorber assembly.
- 2 Install the nut fixing the rear suspension shock absorber assembly to the lower bracket, tighten it to 110 ± 10 Nm, and check the torque.
- 3 Install the nut fixing the rear suspension damper assembly to the frame, tighten it to 75 ± 7 Nm, and check the torque.
- 4 Lower the vehicle.

Rear Leaf Spring Assembly Replacement

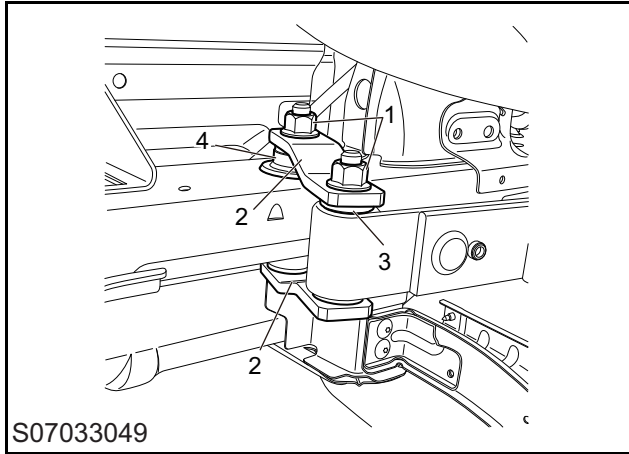
Removal

- 1 Raise the vehicle.
- 2 Use a jack to support rear axle housing to prevent rear axle assembly from moving downward.
- 3 Remove 1 retaining bolt (1) fixing the rear parking brake cable assembly to the rear leaf spring assembly, and remove the rear parking brake cable assembly (2).
- 4 Remove 1 retaining nut (3) fixing the rear shock absorber assembly to the rear leaf spring assembly.
- 5 Remove 4 retaining nuts (4) fixing the rear leaf spring to the rear axle assembly, and remove the U-bolt (5), rear suspension bumper block and rear leaf spring lower bracket assembly (6).

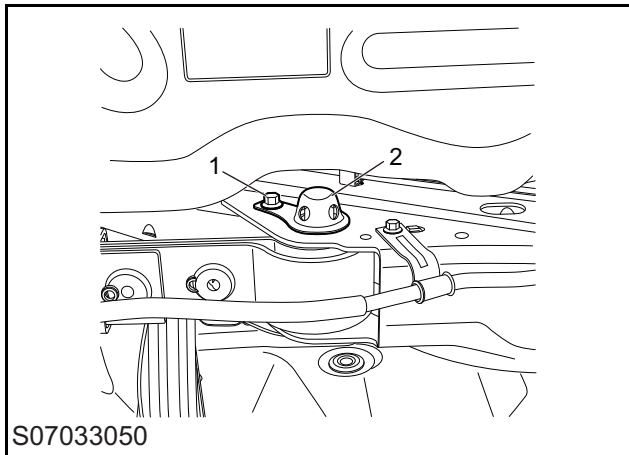


- 6 Remove 2 retaining nuts (1) fixing the rear leaf spring to the frame, and remove the rear leaf spring shackle cover plate (2), the rear leaf spring rear spring eye bushing (3) and the rear leaf spring rear shackle sleeve (4).

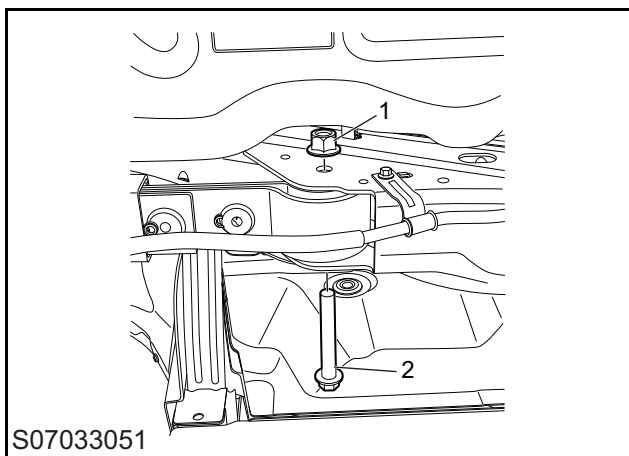
Rear Suspension



- 7 Remove 1 retaining bolt (1) from the rear leaf spring front spring eye bolt shield, and remove the rear leaf spring front spring eye bolt shield (2).



- 8 Remove the retaining nut (1) and connecting bolt (2) fixing the rear leaf spring to the frame.

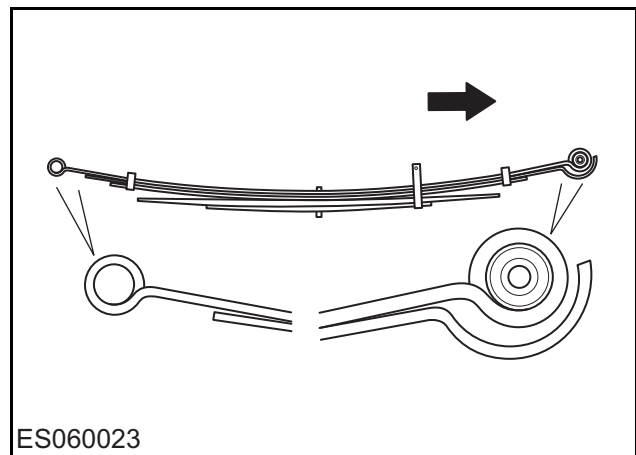


- 9 Lower the jack to take out the rear leaf spring assembly.

- 10 Check the rear leaf spring front spring eye bushing, the rear leaf spring rear spring eye bushing and the rear leaf spring rear shackle sleeve for any aging and wear. Use the special tool C00089917 to force out the front spring eye bushing of rear leaf spring if necessary.

Installation

- 1 Use the special tool C00089917 to press fit the rear leaf spring front spring eye bushing onto the rear leaf spring assembly.
- 2 Install the rear leaf spring rear shackle sleeve into the frame hole.
- 3 Adjust the height of the jack appropriately and install the leaf spring assembly. Pay attention to direction during installation. Specific differences are illustrated below, where arrow points to the front.



- 4 Install the connecting bolts and retaining nuts fixing the rear leaf spring to the frame, tighten them to 190 ± 10 Nm, and check the torque.
- 5 Install the rear leaf spring front spring eye bolt shield, install 1 retaining bolt on the rear leaf spring front spring eye bolt shield, tighten it to 22 ± 2 Nm, and check the torque.
- 6 Install the rear leaf spring shackle cover plate, the rear leaf spring rear spring eye bushing and the rear leaf spring rear shackle sleeve, install 2 retaining nuts fixing the rear leaf spring to the frame, tighten them to 190 ± 10 Nm, and check the torque.
- 7 Install the U-bolt, rear suspension bumper block, and rear leaf spring lower bracket assembly, install 4 retaining nuts fixing the rear leaf spring to the rear axle assembly, tighten them to 120 ± 10 Nm, and check the torque.

- 8 Install 1 retaining nut fixing the rear shock absorber assembly to the rear leaf spring assembly, tighten it to 110 ± 10 Nm, and check the torque.
- 9 Restore the rear parking brake cable assembly, install 1 retaining bolt fixing the rear parking brake cable assembly to the rear leaf spring assembly, tighten it to 9 ± 1 Nm, and check the torque.
- 10 Remove the jack.
- 11 Lower the vehicle.

Rear Suspension

Tires and Wheels

Specification

Fastener Specifications

Name	Torque (Nm)
Nut - Wheel	125±13 Nm

Tires and Wheels

Service Guide

Wheel Replacement

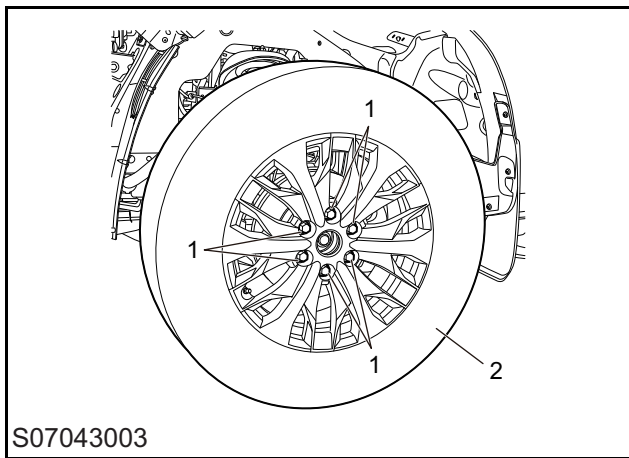
Warning: DO NOT lubricate the rim and tire with lubricant containing silicone oil. Clean the tire bead before removal of tire. Lubricate the area completely using 50% lubricating oil and 50% water before installation.

Warning: Use a tire changer to remove tires and avoid using manual tools or tire lever alone to replace tires, otherwise wheel disk or rim may be damaged.

Removal

- 1 Place the vehicle on the lifting platform and lift it to a certain height.
- 2 Remove the wheel trim cover with a screwdriver.
- 3 Remove 6 wheel nuts (1) with a socket wrench.
- 4 Remove the wheel (2).

Caution: Avoid placing the hub panel towards the ground to prevent scratches.



- 5 Take down the wheel balance block and record the location and mass of each balance block for re-installation. (if applicable)
- 6 Loosen the valve cap to release the air. Remove the tire and pull out the wheel valve or tire pressure monitoring sensor.

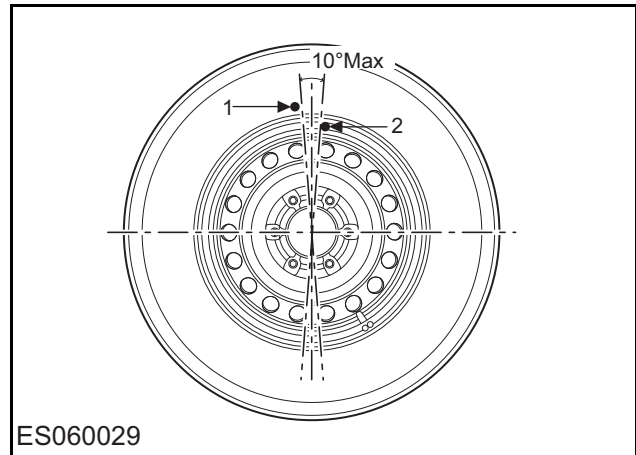
Installation

Caution: Brush away the deposited corrosion on the mounting surfaces of wheel, brake drum and brake disc with scraping tool or steel wire brush before the installation of wheels. During the installation, improper mating of metal mounting

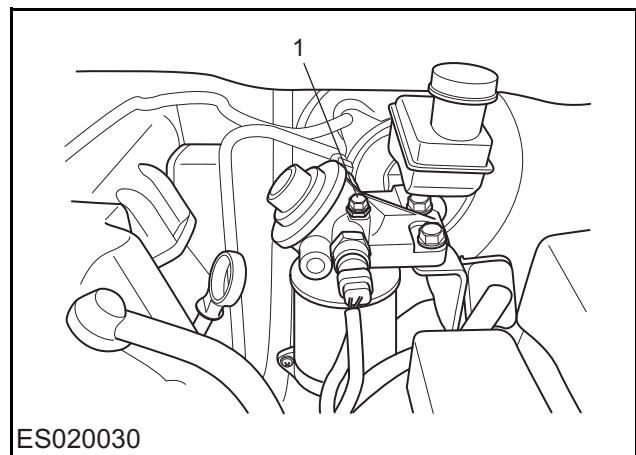
surface and metal will cause the looseness of wheel bolts. The wheel may thus fall off in driving, resulting in vehicle out of control and even personal injury.

Caution: DO NOT damage the tire during assembly, especially the tire bead.

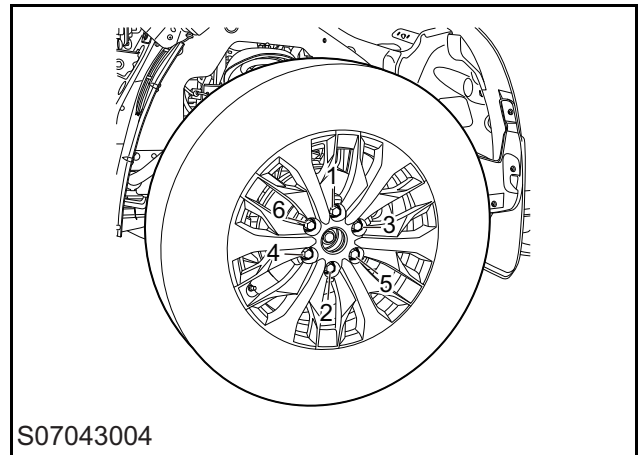
- 1 Install the wheel valve assembly and ensure it is fully matched and sealed with the rim.
- 2 Install the tire with the tire changer and align the tire to the matching marks on the wheel.
 - During the installation of steel wheel, the tire with mark 1 of $\phi 10$ red dot shall be installed on the same side with the steel wheel with mark 2 of $\phi 8$ white dot (if marked) at 0 angle. The tire assembly is required to be within 10 degrees after the installation.



- During the installation of alloy wheel, the tire with mark 1 of $\phi 10$ red dot shall be installed on the same side with the alloy wheel with mark 2 of $\phi 10$ red dot (if marked) at 0 angle. The tire assembly is required to be within 10 degrees after installation.



- 3 Inflate the tire until the wheel disk is in place. Ensure the locating ring at the outer side of the tire bead is around the wheel rim flange on both sides. This method can ensure the correct position of tire bead.
- 4 Check the air tightness of the valve with soap water, and reinstall it in case of any leak.
- 5 After each wheel is assembled, carry out the dynamic balance test to the tire with a tire dynamic balancer.
- 6 Pay attention to the followings when installing the balance block:
 - After installation of the steel wheel assembly, the allowable unilateral residual unbalance is 10 grams or less for the main tire, and 15 grams or less for the spare tire. The maximum weight of the balance block is 60 grams on the outer side and no more than 180 grams on both sides.
 - After the installation of the alloy wheel assembly, the allowable unilateral residual unbalance is 8 grams or less. The maximum weight of the balance block is 80 grams unilaterally and no more than 160 grams on both sides.
- 7 After the wheel dynamic balance test, determine the mass of the balance block and install it on the wheel.
- 8 Install the wheel trim cover.
- 9 Install the wheel, and tighten the wheel nuts with a socket wrench in the sequence as shown in the following figure, with a tightening torque of 125 ± 13 Nm.



Warning: *The leaked oil on the vertical surface between the wheel, the brake disc and brake drum will cause wheel looseness in driving, thereby resulting in personal injury accidents due to vehicle out of control. DO NOT heat to loosen the wheel fastened tightly, which will shorten the service life of the wheel, wheel bolt, hub and bearing assembly. The wheel nuts must be tightened to the correct torque in proper sequence to prevent distortion of the wheel, brake disc and brake drum.*

Service Brake

Specification

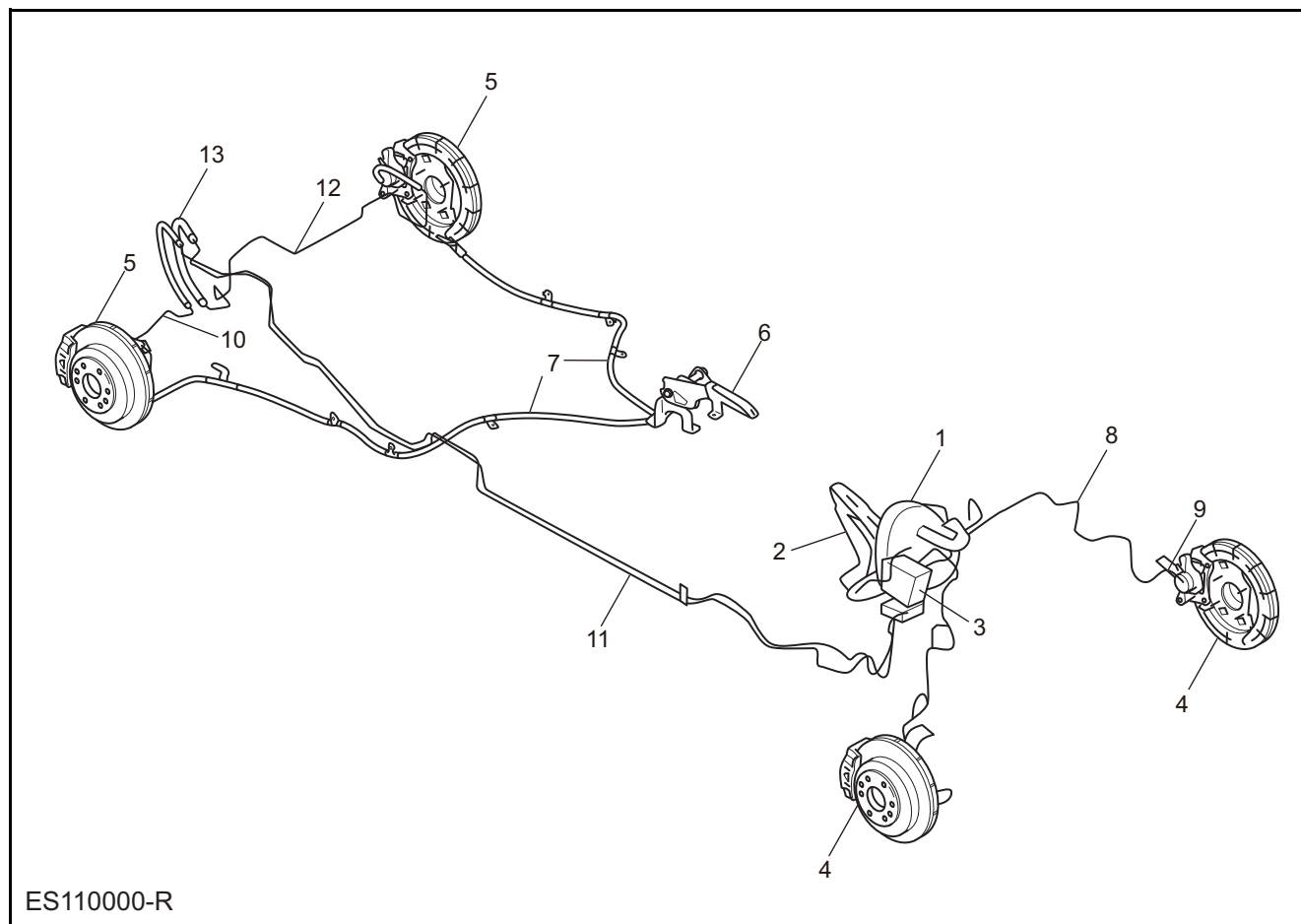
Fastener Specifications

Name	Torque (Nm)
Bolt - Front Brake Caliper	30-35 Nm
Bolt - Rear Brake Caliper	50-60 Nm
Bolt - Brake Hose to Brake Caliper	35±3 Nm
Bolt - Front Brake Caliper Knuckle	200±20 Nm
Screw - Brake Disc to Hub	9±1 Nm
Bolt - Rear Brake Caliper to Rear Axle	130±10 Nm
Nut - Brake Pedal Assembly to Body	20±2 Nm
Brake Pipeline	15±2 Nm
Nut - Brake Master Pump to Vacuum Booster	20±2 Nm
Bolt - Vacuum Cylinder Bracket	22±2 Nm
Bolt - Vacuum Cylinder	22±2 Nm
Bolt - Electronic Vacuum Pump	9±1 Nm
Bolt - EVP Bracket	22±2 Nm

Service Brake

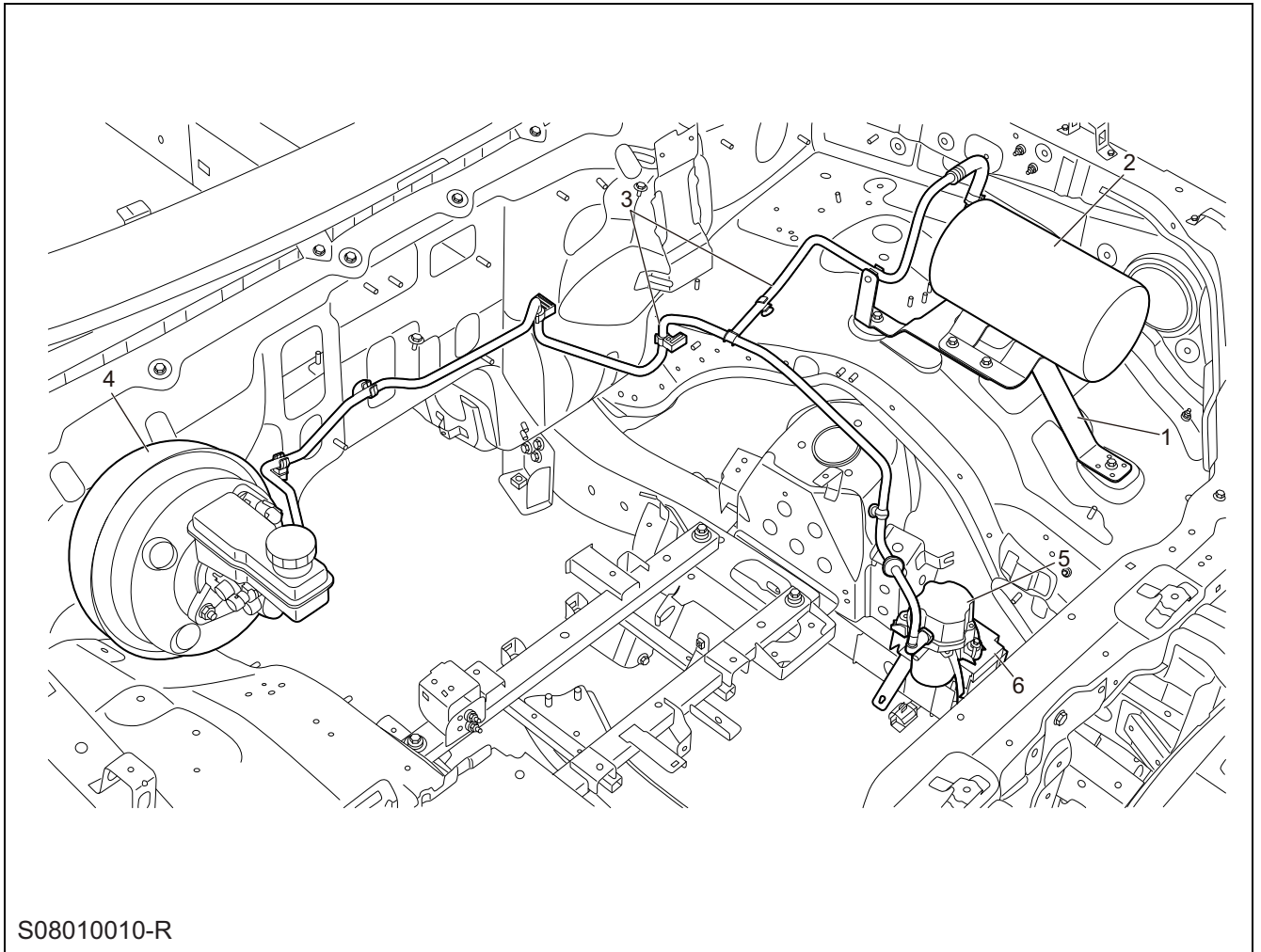
Layout

Brake System Layout



- | | | | |
|---|----------------------------|----|----------------------------------|
| 1 | Vacuum Booster Assembly | 8 | Front Brake Pipe |
| 2 | Brake Pedal Assembly | 9 | Front Brake Hose |
| 3 | ABS/ESP | 10 | Rear Brake Pipe (Front Section) |
| 4 | Front Brake Angle Assembly | 11 | Rear Brake Pipe (Middle Section) |
| 5 | Rear Brake Assembly | 12 | Rear Brake Pipe (Rear Section) |
| 6 | Parking Brake Handle | 13 | Rear Brake Hose |
| 7 | Parking Brake Cable | | |

Brake System Layout 2

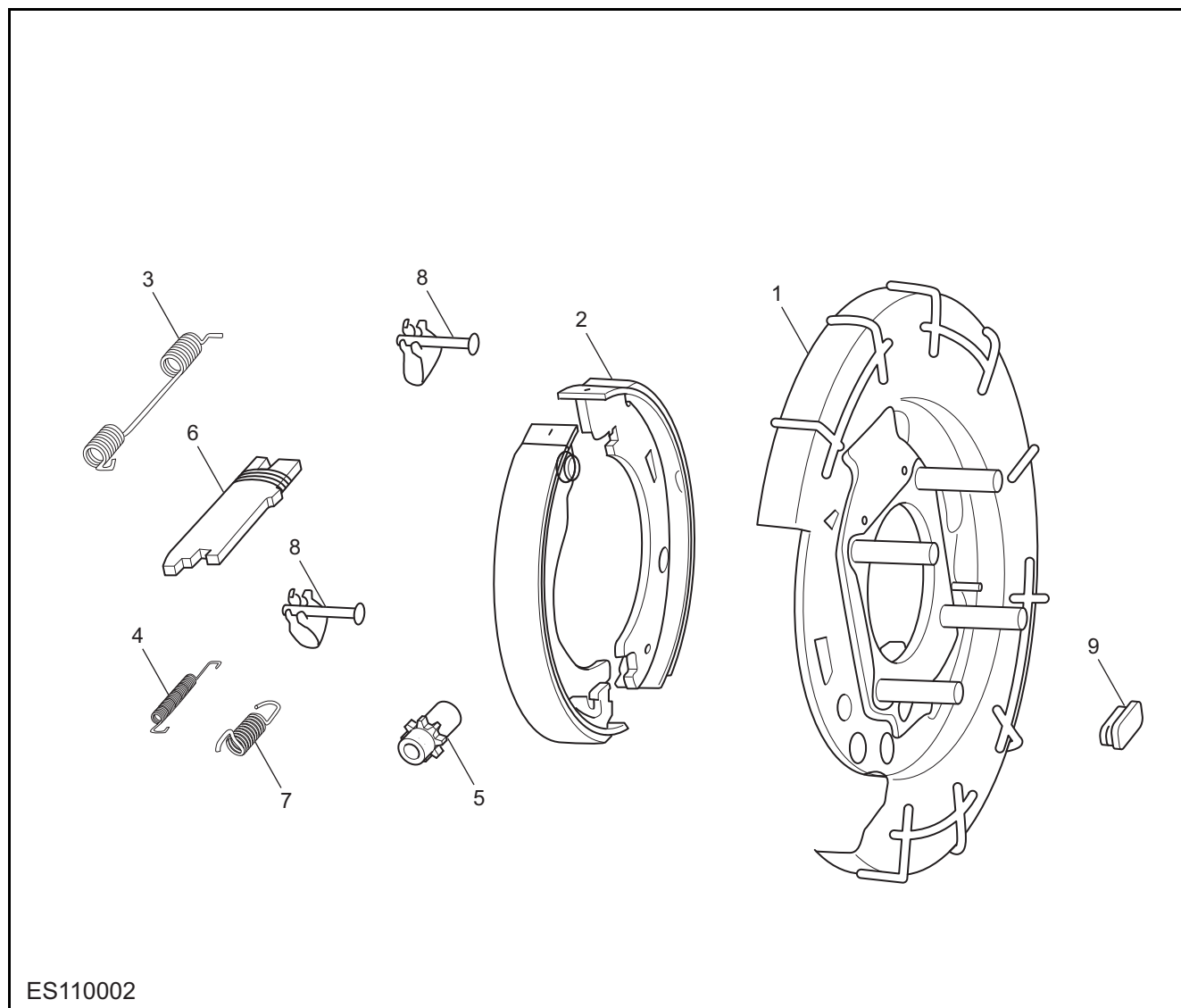


- 1 Vacuum Cylinder Bracket
- 2 Vacuum Cylinder
- 3 Vacuum Tube Assembly

- 4 Vacuum Booster Assembly
- 5 Electronic Vacuum Pump
- 6 Electronic Vacuum Pump Bracket

Service Brake

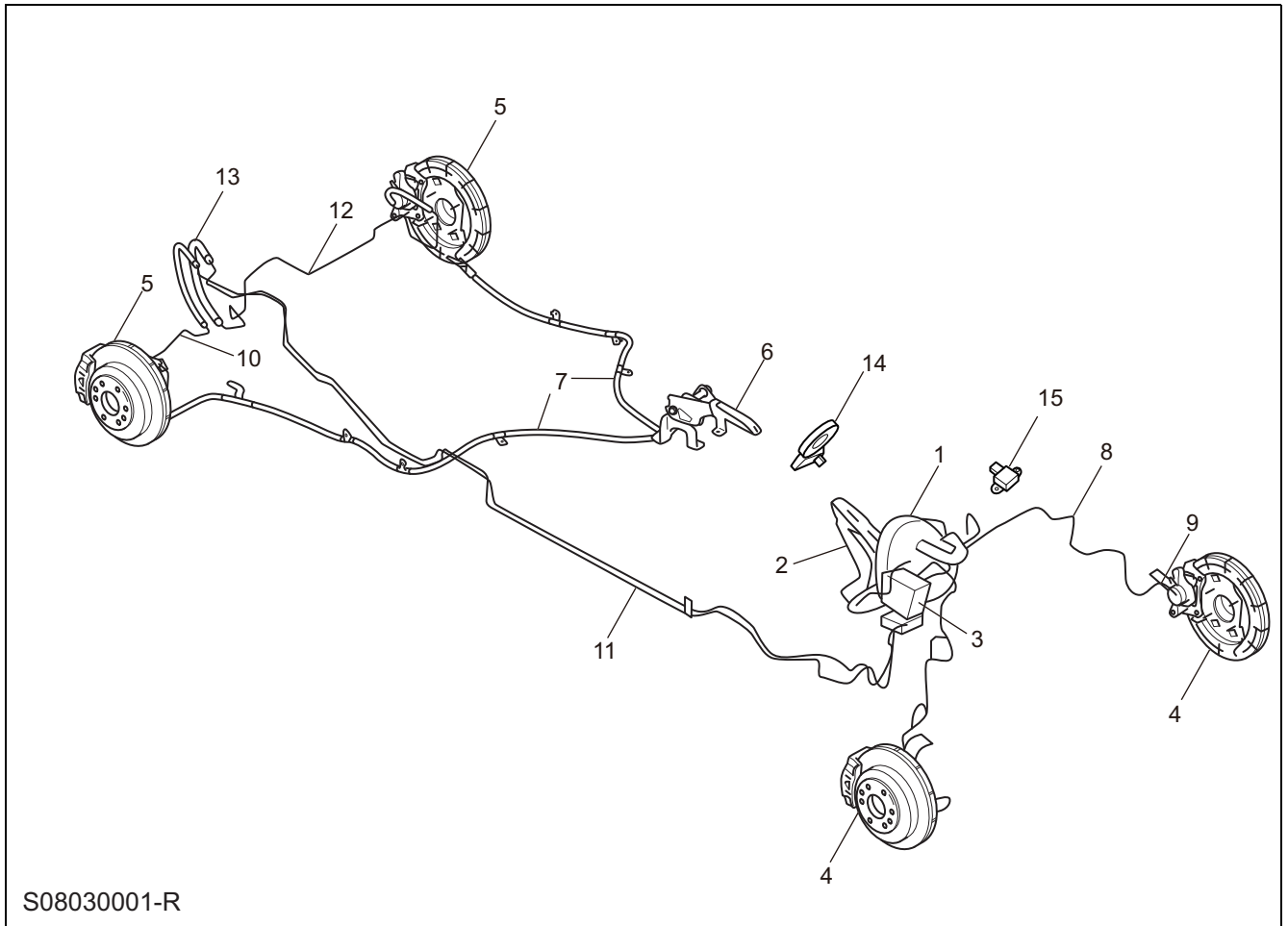
Exploded View of Parking Brake



ES110002

- | | | | |
|---|-------------------------------|---|------------------------------|
| 1 | Parking Baseplate | 6 | Parking Push Board |
| 2 | Brake Shoe | 7 | Brake Pressure Spring |
| 3 | Upper Return Spring | 8 | Shoe Limiting Pin and Spring |
| 4 | Lower Return Spring | 9 | Observation Hole Plug |
| 5 | Clearance Adjusting Mechanism | | |

Exploded View of Front and Rear Brake Calipers



- | | |
|---|-------------------------------------|
| 1 Vacuum Booster Assembly | 9 Front Brake Hose |
| 2 Brake Pedal Assembly | 10 Rear Brake Pipe (Front Section) |
| 3 ABS/ESP | 11 Rear Brake Pipe (Middle Section) |
| 4 Front Brake Angle Assembly | 12 Rear Brake Pipe (Rear Section) |
| 5 Rear brake assembly | 13 Rear Brake Hose |
| 6 Parking Brake Handle (Mechanical Parking) | 14 Steering Angle Sensor |
| 7 Parking Brake Cable (Mechanical Parking) | 15 Yaw Angle Sensor |
| 8 Front Brake Pipe | |

Service Brake

Service Guide

Brake Disc Check

Removal

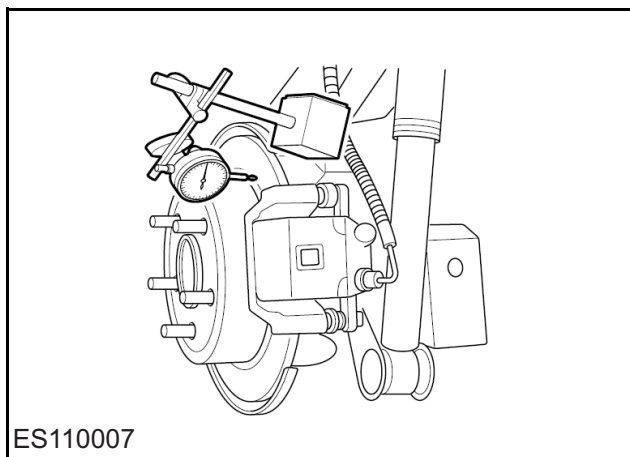
- 1 Remove wheels. Refer to "Wheel Replacement".
- 2 Remove the bolt fixing the brake caliper to the steering knuckle, remove the brake caliper assembly and hold it with the bracket.

Caution: Do not hang the brake caliper on the hose.

- 3 Clear slight rust spots, scratches and grooves on the operating surface of brake disc with an abrasive paper. In case of severe wear signs, scratches or cracks on the operating surface, conduct turning to the brake disc or replace it with a new one.
- 4 Measure the brake disc thickness of more than 8 testing points on the circumference of contact center between the brake disc and friction lining with an outer-diameter dial indicator. The minimum thickness of brake disc shall not be lower than the value specified in Technical Parameters. If it exceeds the limit, the brake disc must be replaced.

Caution: Brake discs must be replaced in pairs, unless the mileage does not reach 1,500km after this brake disc is replaced.

- 5 Fix the dial indicator onto the steering knuckle as illustrated below. Fix the dial indicator measuring head onto the position 10mm away from the brake disc edge.



- 6 Zero set the dial indicator and rotate wheels for a circle to measure the runout of the brake disc, which shall not exceed the value specified in the

technical parameters, otherwise, it will lead to vibration and jitter of the pedal during braking.

- 7 If the brake disc runout exceeds the limit:
 - 1) Remove the brake disc.
 - 2) Ensure the flange between the brake disc to the hub is clean.
 - 3) Install the brake disc.
 - 4) Check the brake disc runout according to the aforesaid steps.
- 5) If the runout exceeds the limit, replace the brake disc
- 8 Install the brake caliper assembly.
- 9 Install the wheels. Refer to "Wheel Replacement".
- 10 Depress the brake pedal for several times to adjust the brake block.

Brake System Drain

The following steps show the drain method of the overall system. When the main or auxiliary line becomes an independent line, operate the line which shall be drained. Only when the brake pipe is disconnected with the brake hose and there is little oil loss, the hydraulic system can be drained partially.

Warning: Protect eyes and skin from contacting the brake fluid.

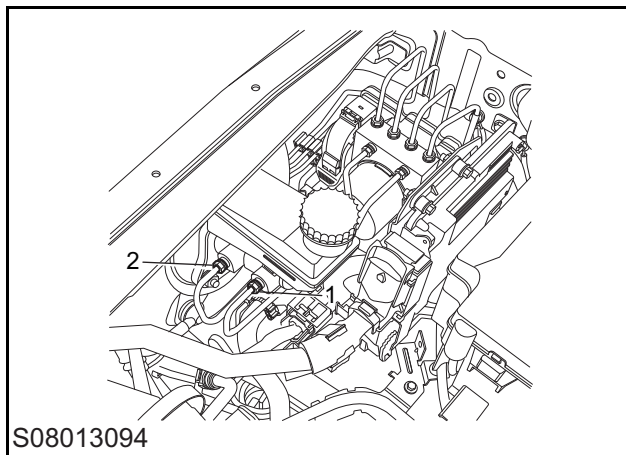
Caution: DO NOT reuse the brake fluid drained from the brake system.

Drain

- 1 Fill the brake fluid reservoir to the MAX marking position.

Caution: Ensure new brake fluid level is between the MIN and MAX during the whole drainage.

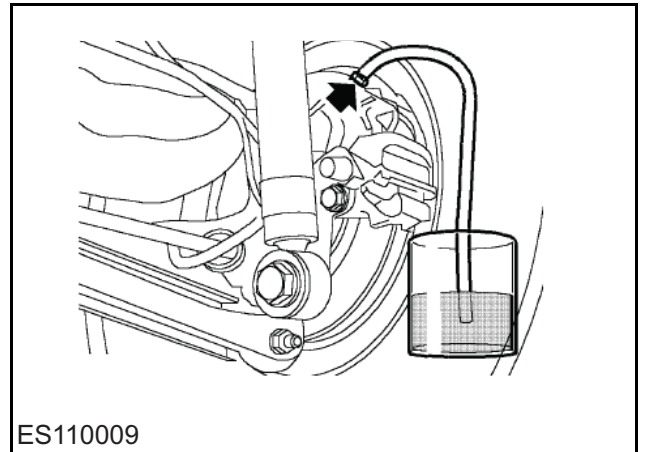
- 2 Lift the vehicle from the lifting platform.
- 3 Start the engine. Do not conduct air clearance operation with the engine shut down, which may damage the vacuum booster.
- 4 Exhaust the brake master cylinder assembly.



- 1) Connect the brake pipe.
- 2) Depress the brake pedal slowly all the way down and hold it.
- 3) Loosen the brake pipe joint 1.
- 4) Re-tighten the brake pipe joint, and leave the brake pedal to return slowly.
- 5) Repeat the aforesaid steps until there is no air bleed when the joint 1 of the brake pipe is loosened.

- 6) Repeat the aforesaid steps to bleed air from the joint 2 of the brake tube.

- 5 Remove the bleeder screw cap from the rear right brake caliper, and install the hose onto the exhaust screw. Insert the free end of hose into the container filled with new brake fluid.



- 6 Apply braking onto the brake pedal for several times, and apply stable pressure onto it.
- 7 Loosen the bleed screw to separate the brake fluid from air. Leave the brake pedal to return without any external force.
- 8 Depress the brake pedal to the maximum stroke steadily, and leave it to return without any external force. Repeat this operations for several times until the brake fluid containing no bubble flows into the container. Then fix the brake pedal to the maximum stroke position, tighten the drain screw to 9-13Nm, and loosen the brake pedal.
- 9 Remove the hose from the drain screw, and install the bleed nut.
- 10 Repeat the drain procedures for the rest 3 brake calipers according to the sequence below:

Rear right, rear left, front right and front left

Warning: The incorrect drain sequence may severely weaken the braking efficiency.

- 11 Shut down the engine.
- 12 Lower the vehicle.
- 13 Fill the brake fluid reservoir to the MAX marking line.
- 14 Apply braking and check for leakage.

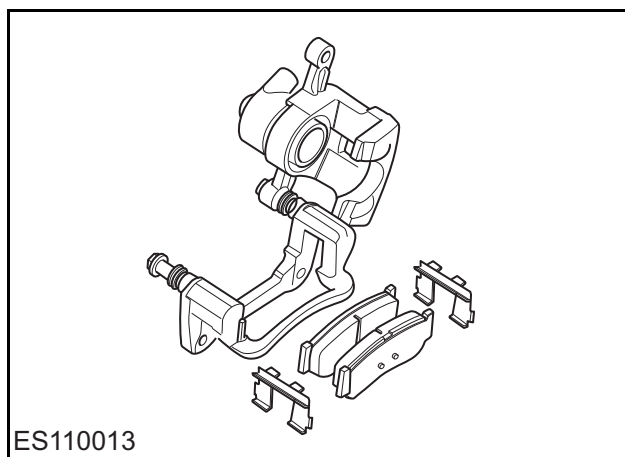
Service Brake

- 15 Test the vehicle on road. When the braking works, check whether the free stroke of brake pedal is within 10mm. If the brake pedal feels soft, do not drive the vehicle. Confirm whether the unacceptable brake pedal foot feeling and the stroke is not caused by the misalignment of the brake friction lining or other mechanical faults. Then repeat the brake system exhaust process. Besides, if the aforesaid exhaust process does not achieve the ideal effect due to the severe brake fluid loss, drain the ABS/ESP regulator. This operation is conducted through the scan tool. Refer to Instructions for SAIC Commercial Vehicle Scan Tool for details.

Front/Rear Brake Lining Replacement (Mechanical Parking)

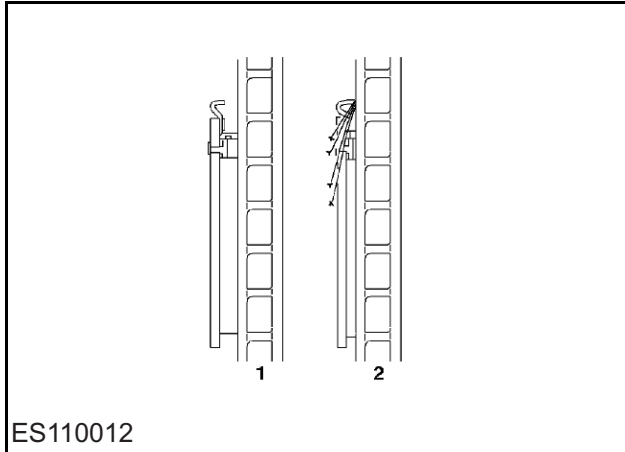
Removal

- 1 Remove wheels. Refer to "Wheel Replacement".
- 2 Press the brake piston back with a screwdriver.
- 3 Loosen the guide pin, rotate the caliper body to a certain angle, and remove the snap ring and brake shoe from the bracket.
- 4 Turn up the brake caliper and remove the front brake lining.



Installation

- 1 Clean the circlip, front brake caliper and front brake caliper bracket.
- 2 Check the front brake caliper and the seal for any damage.
- 3 Check the front brake lining. The front brake lining has a wear indicator. As shown in the figure, when the brakes make noise due to the wear lower than the specification, the friction lining shall be replaced. The thickness of friction lining shall not be lower than the value specified in Technical Parameters.



- 4 Install the circlip.
- 5 Install the front brake linings.

Warning: *The brake linings of front wheels must be replaced together, otherwise the braking efficiency may be weakened.*

- 6 Install the caliper guide pin, and the tightening torque of the front brake caliper is 30-35 Nm, while the tightening torque of the rear brake caliper is 50-60 Nm.
- 7 Install the wheels. Refer to "Wheel Replacement".

Caution: *After starting the engine, step on the brake pedal several times prior to driving.*

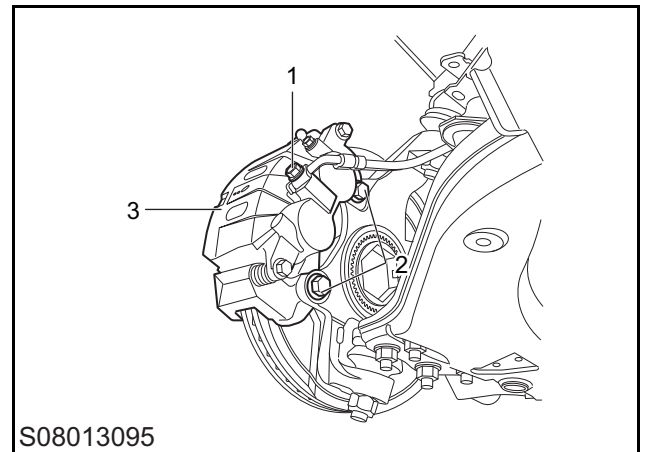
Front Brake Caliper Assembly Replacement

Removal

- 1 Remove wheels. Refer to "Wheel Replacement".
- 2 Place a container under the vehicle to collect spilled oil.
- 3 Loosen the bolt (1) fixing the brake hose to brake cylinder.

Caution: *Before disconnecting or removing the brake pipeline, ensure the middle area and connecting joints around the junction surface are clean. Plug the joints of oil pipe and brake caliper with plugs to prevent pollutants from entering.*

- 4 Remove 2 retaining bolts (2) fixing the front brake caliper assembly to the steering knuckle.
- 5 Remove the front brake caliper assembly (3).



Installation

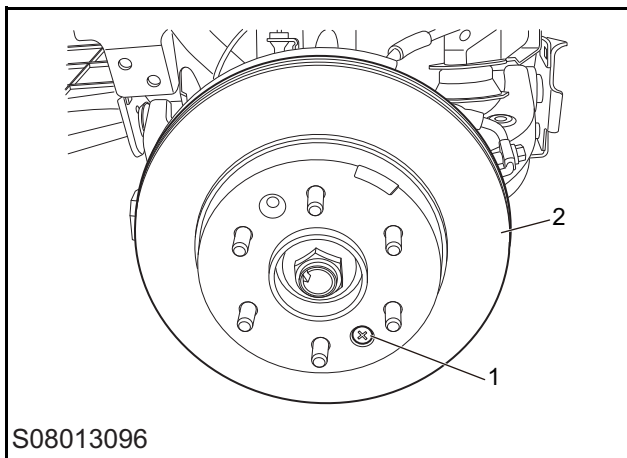
- 1 Install the front brake caliper assembly.
- 2 Install 2 retaining bolts fixing the front brake caliper assembly to the steering knuckle, tighten them to 200 ± 20 Nm, and check the torque.
- 3 Tighten the bolt fixing the brake hose to the caliper to 35 ± 3 Nm, and check the torque.
- 4 Drain the brake system. Refer to "Brake System Drain".
- 5 Install the wheels. Refer to "Wheel Replacement".

Service Brake

Front Brake Disc Replacement

Removal

- 1 Remove wheels. Refer to "Wheel Replacement".
- 2 Press the brake piston back with a screwdriver.
- 3 Remove 2 retaining bolts fixing the front brake caliper assembly to the steering knuckle.
- 4 Hang the front brake caliper assembly on the vehicle body with iron wire.
- 5 Remove 1 retaining screw (1) fixing the front brake disc to the front hub assembly, and remove the front brake disc (2).



Installation

- 1 Check the front brake disc runout. Refer to "Brake Disc Check".
- 2 Install the front brake disc, install 1 retaining screw fixing the front brake disc to the front hub assembly, tighten it to 9 ± 1 Nm, and check the torque.
- 3 Install the front brake caliper assembly.
- 4 Install 2 retaining bolts fixing the front brake caliper assembly to the steering knuckle, tighten them to 200 ± 20 Nm, and check the torque.
- 5 Install the wheels. Refer to "Wheel Replacement".

Caution: After starting the engine, step on the brake pedal several times prior to driving.

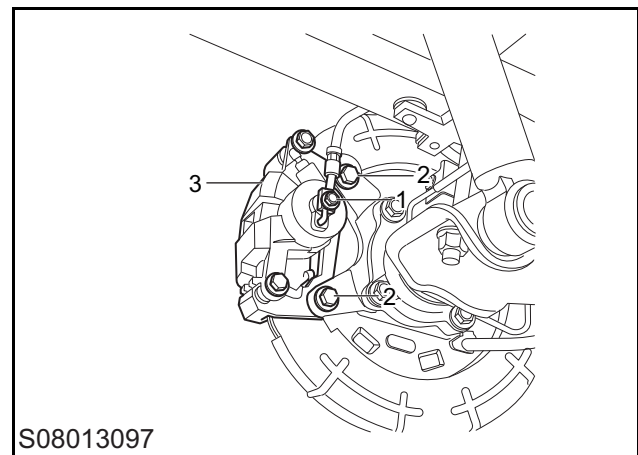
Rear Brake Caliper Assembly Replacement

Removal

- 1 Remove wheels. Refer to "Wheel Replacement".
- 2 Press the brake piston back with a screwdriver.
- 3 Place a container under the vehicle to collect spilled oil.
- 4 Loosen the bolt (1) fixing the brake hose to brake cylinder.

Caution: Before disconnecting or removing the brake pipeline, ensure the middle area and connecting joints around the junction surface are clean. Plug the joints of oil pipe and brake caliper with plugs to prevent pollutants from entering.

- 5 Remove 2 retaining bolts (2) fixing the rear caliper assembly to the rear axle assembly.
- 6 Remove the rear caliper assembly (3).



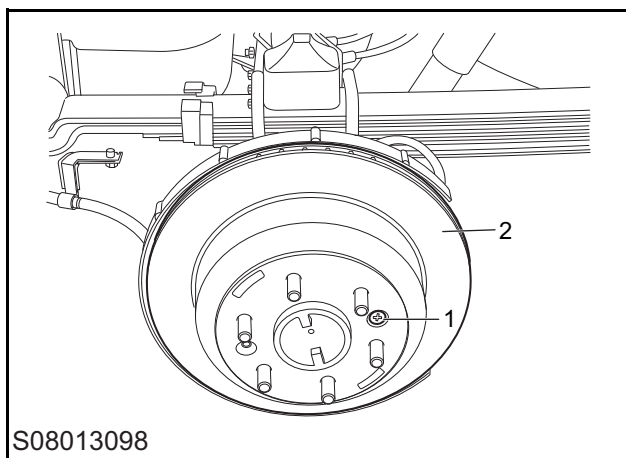
Installation

- 1 Install the rear caliper assembly.
- 2 Install 2 retaining bolts fixing the rear brake caliper assembly to the rear axle assembly, tighten them to 130 ± 10 Nm, and check the torque.
- 3 Tighten the bolt fixing the brake hose to the brake cylinder to 35 ± 3 Nm, and check the torque.
- 4 Drain the brake system. Refer to "Brake System Drain".
- 5 Install the wheels. Refer to "Wheel Replacement".

Rear Brake Disc Assembly Replacement

Removal

- 1 Remove wheels. Refer to "Wheel Replacement".
- 2 Press the brake piston back with a screwdriver.
- 3 Remove 2 retaining bolts fixing the rear caliper assembly to the rear axle assembly.
- 4 Hang the rear brake caliper assembly on the vehicle body with iron wire.
- 5 Remove 1 retaining screw (1) fixing the rear brake disc to the rear axle assembly, and remove the rear brake disc (2).



Installation

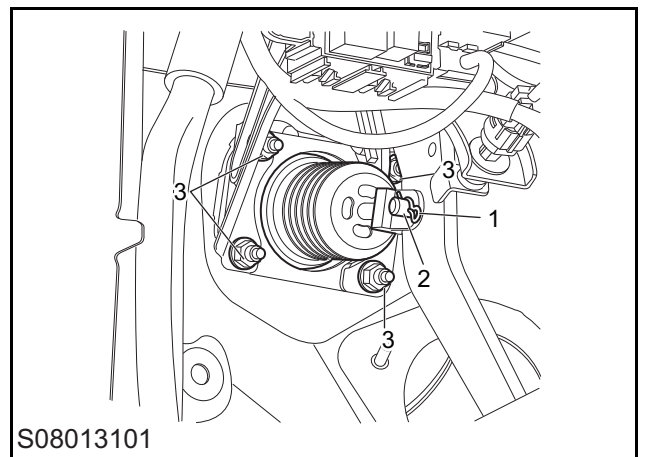
- 1 Check the runout of the rear brake disc. Refer to "Brake Disc Check".
- 2 Install the rear brake disc, install 1 retaining screw fixing the rear brake disc to the rear axle, tighten it to 9 ± 1 Nm, and check the torque.
- 3 Install the rear caliper assembly.
- 4 Install 2 retaining bolts fixing the rear brake caliper assembly to the rear axle assembly, tighten them to 130 ± 10 Nm, and check the torque.
- 5 Install the wheels. Refer to "Wheel Replacement".

Caution: After starting the engine, step on the brake pedal several times prior to driving.

Vacuum Booster Assembly Replacement

Removal

- 1 Remove the brake master pump and the reservoir. Refer to "Brake Master Pump and Reservoir Replacement".
- 2 Remove the vacuum tube assembly from the vacuum booster assembly.
- 3 Remove the cotter pin (1) and the pin shaft (2) fixing the vacuum booster to the brake pedal.
- 4 Remove 4 retaining nuts (3) fixing the vacuum booster assembly to the vehicle body.
- 5 Remove the vacuum booster assembly (4).



- 6 Remove the vacuum booster gasket and discard it.

Installation

- 1 Install the vacuum booster gasket.
- 2 Install the vacuum booster assembly.
- 3 Install 4 retaining nuts fixing the brake pedal assembly to the vehicle body, tighten them to 20 ± 2 Nm, and check the torque.
- 4 Install the cotter pin and the pin shaft fixing the vacuum booster to the brake pedal.

Caution: Apply proper amount of lubricating grease on the surfaces of pin shaft and pedal hole, and do not install the pin shaft reversely.

- 5 Install the vacuum tube assembly to the vacuum booster assembly.

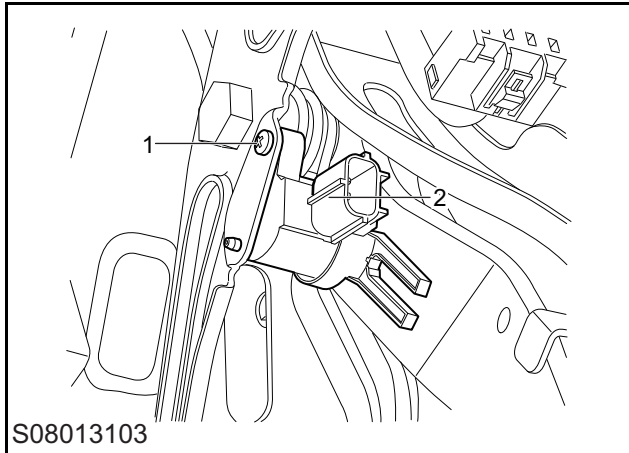
Install the brake master pump and the reservoir. Refer to "Brake Master Pump and Reservoir Replacement".

Service Brake

Brake Pedal Position Sensor Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Disconnect the electrical connector of the brake pedal position sensor.
- 3 Remove 1 retaining screw (1) from the brake pedal position sensor and remove the brake pedal position sensor (2).



Installation

- 1 Place the brake pedal position sensor, install and tighten 1 retaining screw on the brake pedal position sensor.

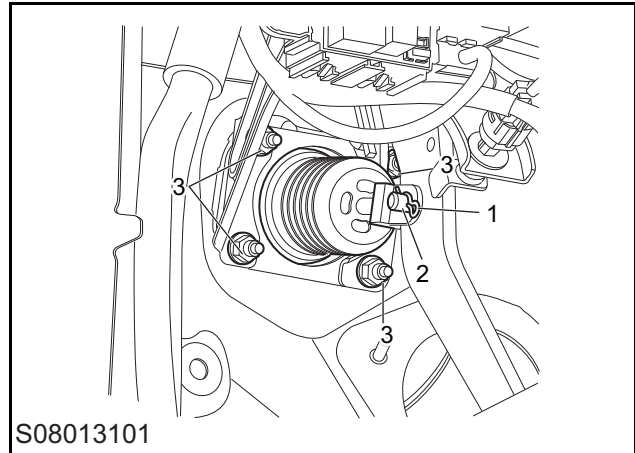
Caution: Apply proper amount of grease to the surface of vacuum booster push rod U-fork hole and pedal hole.

- 2 Connect the electrical connector of the brake pedal position sensor.
- 3 Connect the negative battery cable.

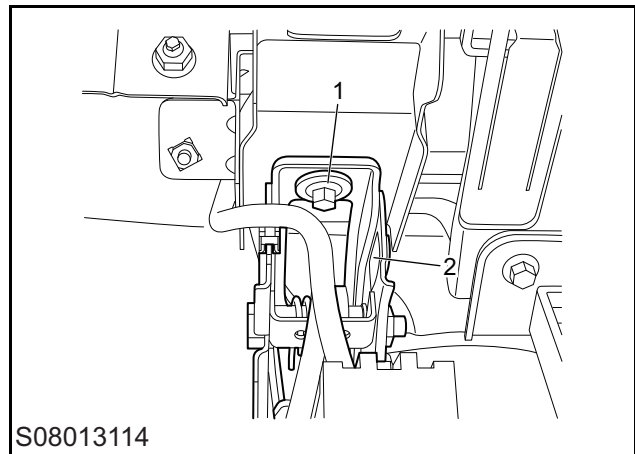
Brake Pedal Assembly Replacement

Removal

- 1 Remove the brake pedal position sensor. Refer to "Brake Pedal Position Sensor Replacement".
- 2 Remove the cotter pin (1) and the pin shaft (2) fixing the vacuum booster to the brake pedal.
- 3 Remove 4 retaining nuts (3) fixing the brake pedal assembly to the vehicle body.



- 4 Remove 1 retaining bolt (1) fixing the brake pedal assembly to the instrument beam assembly.
- 5 Remove the brake pedal assembly (2).



Installation

- 1 Install the brake pedal assembly.
- 2 Install 1 retaining bolt fixing the brake pedal assembly to the instrument beam assembly, tighten it to 20 ± 2 Nm, and check the torque.

- 3 Install 4 retaining nuts fixing the brake pedal assembly to the vehicle body, tighten them to 20 ± 2 Nm, and check the torque.
- 4 Install the cotter pin and the pin shaft fixing the vacuum booster to the brake pedal.

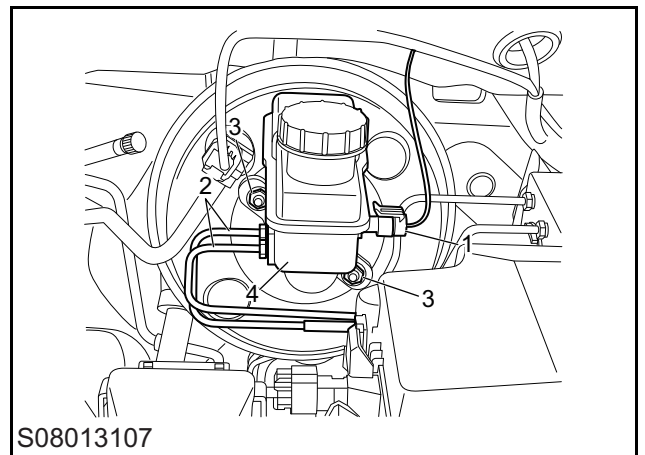
Caution: Apply proper amount of lubricating grease on the surfaces of pin shaft, vacuum booster push rod U-fork hole and pedal hole. Do not install the pin shaft reversely.

- 5 Install the brake pedal position sensor. Refer to "Brake Pedal Position Sensor Replacement".
- 6 Install the brake lamp switch. Refer to "Brake Lamp Switch Replacement".

Brake Master Pump and Reservoir Replacement

Removal

- 1 Drain the brake fluid reservoir.
- Caution:** If brake fluid splashes on the painting surface, flush the affected area with cold water immediately. Do not allow direct skin contact with the brake fluid to prevent any injury.
- 2 Disconnect the electrical connector (1) from the brake master pump to the reservoir.
 - 3 Disconnect the brake pipe from the brake master pump (2).
 - 4 Remove 2 retaining nut (3) fixing the brake master pump to the vacuum booster.
 - 5 Remove the brake master pump and the reservoir (4).



Installation

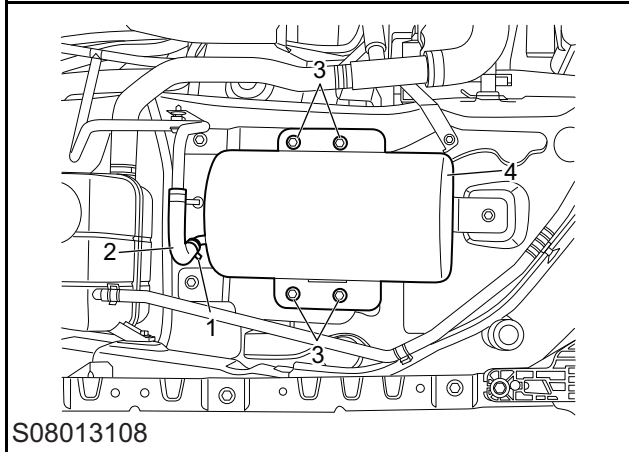
- 1 Install the brake master pump and the reservoir.
- 2 Install 2 retaining nuts fixing the brake master pump to the vacuum booster, tighten them to 20 ± 2 Nm, and check the torque.
- 3 Connect the brake pipe to the brake master pump, tighten it to 15 ± 2 Nm, and check the torque.
- 4 Connect the electrical connector from the brake master pump to the reservoir.
- 5 Bleed the brake system. Refer to "Brake System Drain".

Service Brake

Vacuum Cylinder Assembly Replacement

Removal

- 1 Loosen the clip (1) to disconnect the vacuum tube assembly (2) from the vacuum cylinder assembly.
- 2 Remove 4 retaining bolts (3) fixing the vacuum tube assembly to the vacuum tube bracket, and remove the vacuum tube assembly (4).



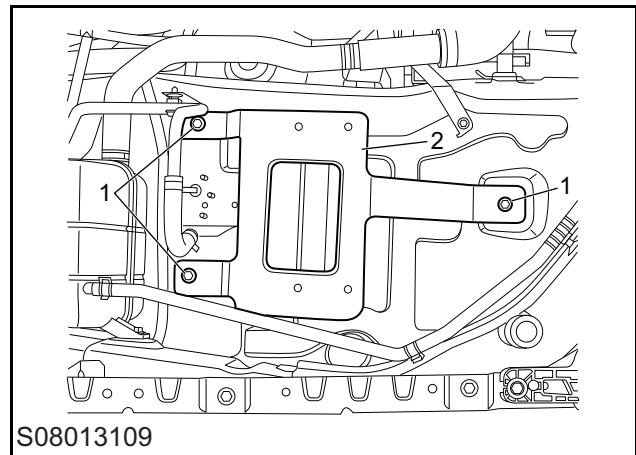
Installation

- 1 Place the vacuum tube assembly, install 4 retaining bolts fixing the vacuum tube assembly to the vacuum tube bracket, tighten them to 22 ± 2 Nm, and check the torque.
- 2 Connect the vacuum tube assembly and the vacuum cylinder assembly, and fix them with clamps.

Vacuum Cylinder Bracket Replacement

Removal

- 1 Remove the vacuum tube assembly. Refer to "Vacuum Tube Assembly Replacement".
- 2 Remove 3 retaining bolts (1) fixing the vacuum tube bracket to the vehicle body, and remove the vacuum tube bracket (2).



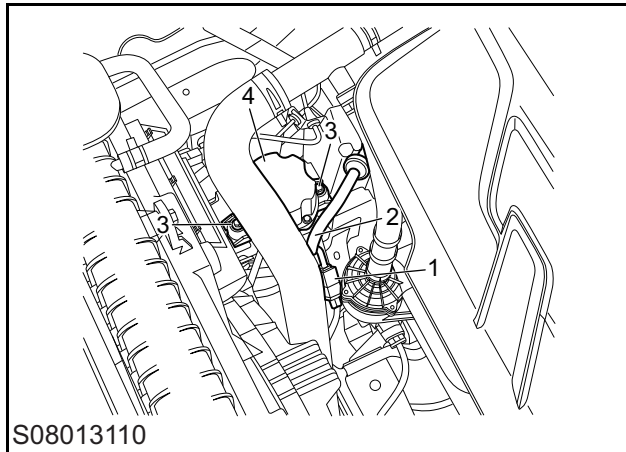
Installation

- 1 Place the vacuum tube bracket, install 4 retaining bolts fixing the vacuum tube bracket to the vehicle body, tighten them to 22 ± 2 Nm, and check the torque.
- 2 Install the vacuum tube assembly. Refer to "Vacuum Tube Assembly Replacement".

Electronic Vacuum Pump Replacement

Removal

- 1 Disconnect the electrical connector (1) of the electronic vacuum pump.
- 2 Press the clip to disconnect the vacuum tube assembly (2) from the electronic vacuum pump.
- 3 Remove 2 retaining bolts (3) fixing the electronic vacuum pump to the vehicle body, and remove the electronic vacuum pump (4).



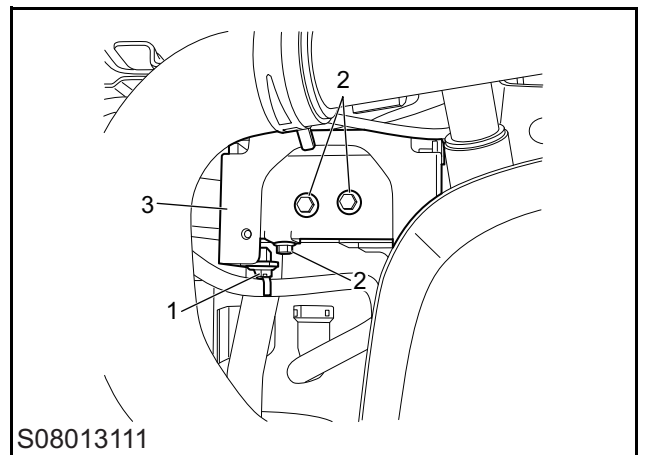
Installation

- 1 Place the electronic vacuum pump, install 2 retaining bolts fixing the electronic vacuum pump to the vehicle body, tighten them to 9 ± 1 Nm, and check the torque.
- 2 Connect the vacuum tube assembly to the electronic vacuum pump.
- 3 Connect the electrical connector of the electronic vacuum pump.

Electronic Vacuum Pump Bracket Replacement

Removal

- 1 Remove the vacuum tube assembly. Refer to "Vacuum Tube Assembly Replacement".
- 2 Remove the clip (1) from the battery harness assembly.
- 3 Remove 3 retaining bolts (2) fixing the electronic vacuum pump bracket to the vehicle body, and remove the EVP bracket (3).



Installation

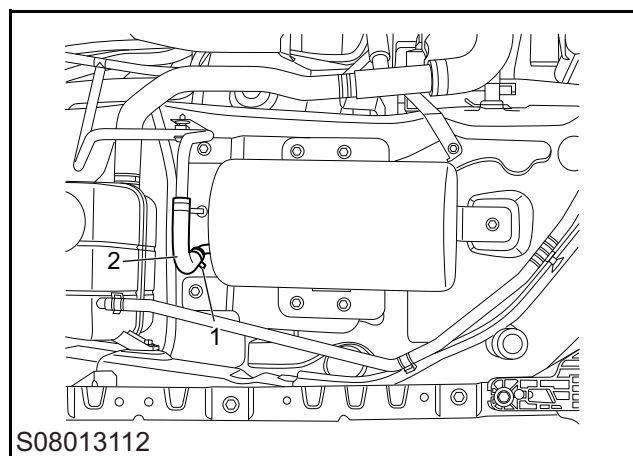
- 1 Place the electronic vacuum pump bracket, install 3 retaining bolts fixing the electronic vacuum pump bracket to the vehicle body, tighten them to 22 ± 2 Nm, and check the torque.
- 2 Install the clip on the battery harness assembly.
- 3 Install the vacuum tube assembly. Refer to "Vacuum Tube Assembly Replacement".

Service Brake

Vacuum Tube Assembly Replacement

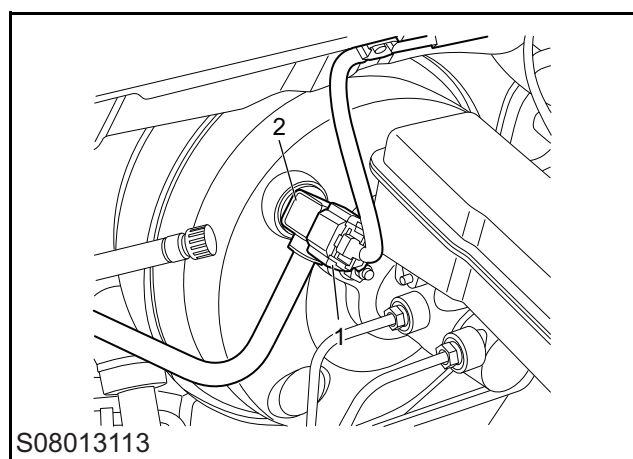
Removal

- 1 Loosen the clip (1) to disconnect the vacuum tube assembly (2) from the vacuum cylinder assembly.
- 2 Remove 4 retaining bolts (3) fixing the vacuum tube assembly to the vacuum tube bracket, and remove the vacuum tube assembly (4).



- 3 Connect the vacuum tube assembly to the electronic vacuum pump.
- 4 Connect the vacuum tube assembly to the electronic vacuum pump.
- 5 Connect the vacuum tube assembly and the vacuum cylinder assembly, and fix them with clamps.

- 3 Press the clip to disconnect the vacuum tube assembly from the electronic vacuum pump.
- 4 Disconnect the electrical connector (1) from the vacuum tube assembly.
- 5 Remove the clip from the vacuum tube assembly, and remove the vacuum tube assembly (2).



Installation

- 1 Place the vacuum tube assembly, and install the clip on the vacuum tube assembly.
- 2 Connect the electrical connector on the vacuum tube assembly.

Parking brake

Specification

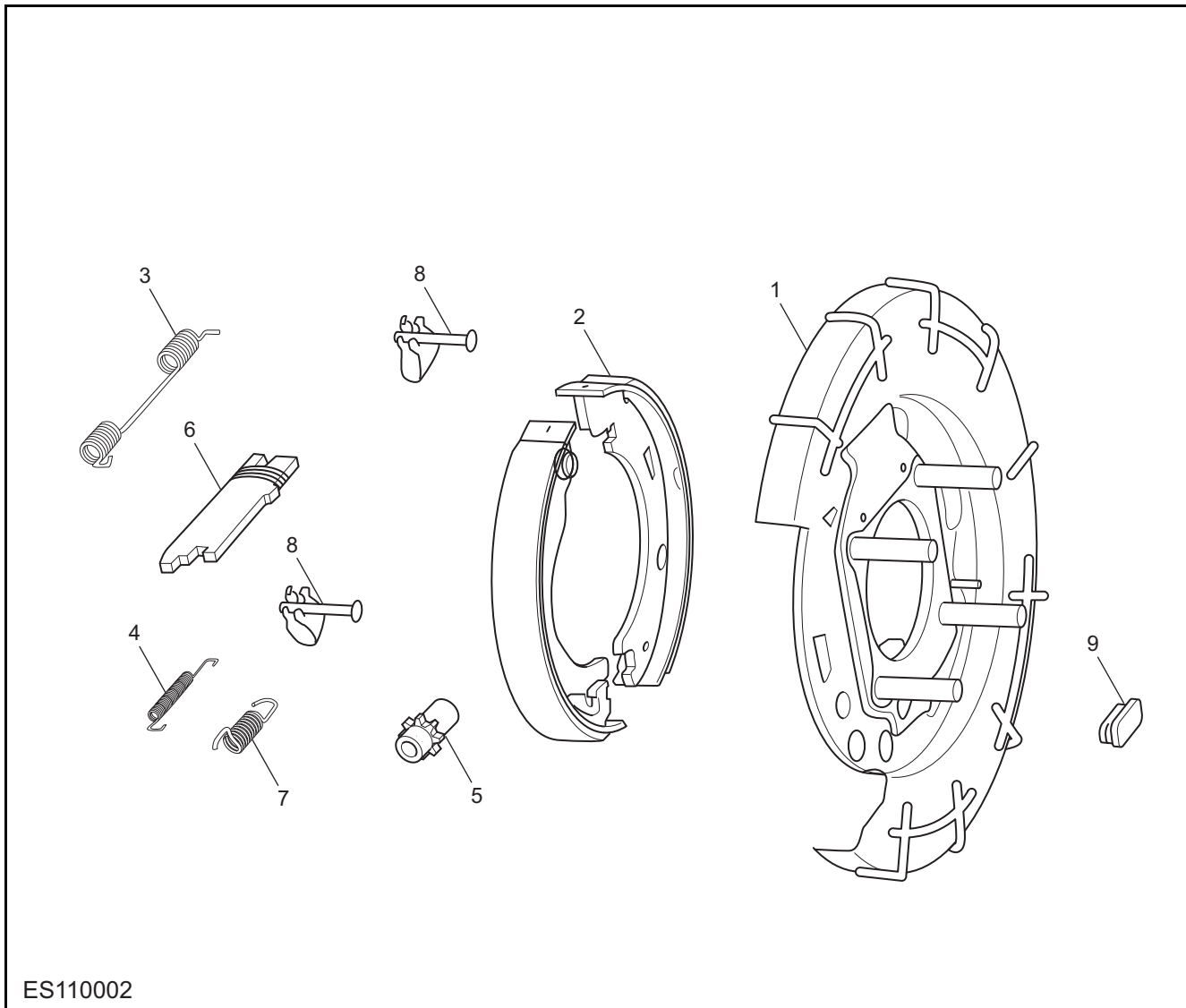
Fastener Specifications

Name	Torque (Nm)
Bolt - Parking Brake Cable Bracket	9±1 Nm
Bolt - Parking Brake Control Mechanism	9±1 Nm

Parking brake

Layout

Exploded View of Parking Brake



ES110002

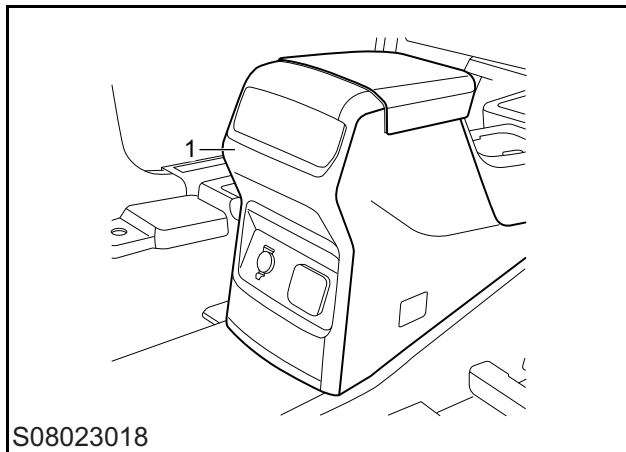
- | | | | |
|---|-------------------------------|---|------------------------------|
| 1 | Parking Baseplate | 6 | Parking Push Board |
| 2 | Brake Shoe | 7 | Brake Pressure Spring |
| 3 | Upper Return Spring | 8 | Shoe Limiting Pin and Spring |
| 4 | Lower Return Spring | 9 | Observation Hole Plug |
| 5 | Clearance Adjusting Mechanism | | |

Service Guide

Parking Brake Handle Assembly Adjustment

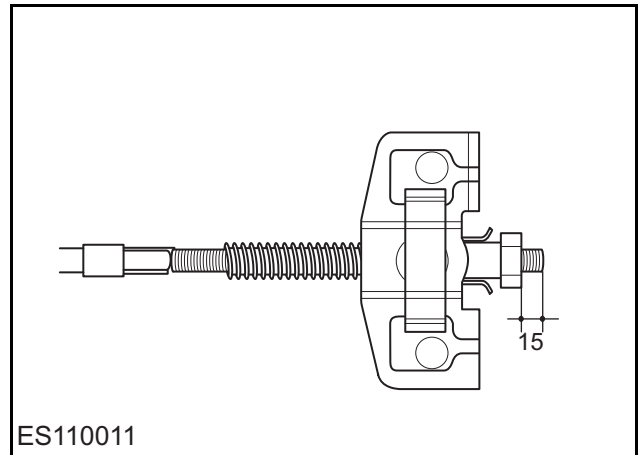
Before adjusting the parking brake cable, adjust the parking brake clearance adjusting mechanism first.

- 1 Clamp wheels and release the parking brake handle (push it to the bottom).
- 2 Keep lifting the vehicle from the lifting platform until wheels leave the ground.
- 3 Then apply a force within 200N to pull up the parking brake handle by 6~7 teeth generally, and the rear wheels will be locked. After the brake pedal is completely released, rear wheels can rotate freely. Otherwise it is required to adjust the clearance between the parking brake shoe and brake drum and then adjust the length of parking brake cable.
- 4 The parking brake cable lever assembly can be seen after the rear cover plate (1) of auxiliary fascia console is removed.



- 5 Loosen the regulating nut at the parking brake cable lever with exposed length of screw not less than 15 mm.

Caution: The vehicle must be supported on a safe device.



- 6 Remove rear wheels.
 - 7 Adjustment of the clearance between brake shoes of rear wheels:
 - 1) Keep rotating the parking brake clearance adjusting ratchet with a flat screwdriver or equivalent to expand the brake shoe outwards until the rear brake disc is slightly hindered when rotating. (The clearance adjusting mechanism will be pushed outwards for 0.125mm after adjustment by every tooth)
 - 2) Loosen the clearance adjusting ratchet for 5~7 teeth.
 - 3) Ensure the rear brake disc can rotate freely without obstruction. Adjustment of the clearance between brake shoes of rear wheels (for drum brake)
- Caution: The clearance between the brake shoe of drum brake and brake disc can be adjusted automatically.**
- 1) Keep depressing and loosening the brake pedal repeatedly until the automatic adjuster makes no click sound.
 - 2) Loosen the brake pedal. Ensure the rear brake disc can rotate freely without obstruction.
 - 8 Move the parking brake handle back and forth for 5 times to set the rear brake shoes and hand brake cable.
 - 9 Screw and tighten the regulating nut at the parking brake cable lever, and when the parking brake handle is required to pull up by 6-7 teeth, two rear wheels will be locked, and the required force by the handle is within 200N.
 - 10 Move the parking brake handle up and down completely.

Parking brake

- 11 Loosen the parking brake handle and ensure the rear brake disc can rotate without obstruction.
- 12 Rotate the ignition key to ON position.
- 13 Pull up the parking brake handle for 6~7 teeth. Then the parking brake indicator lamp will go on and both rear brake discs will be locked; loosen the parking brake handle. Then the parking brake indicator lamp will go out and rear brake discs can rotate freely. Re-adjust if the adjustment result is nonconforming.
- 14 Turn off the ignition key.
- 15 Install the rear cover plate of auxiliary fascia console.
- 16 Install rear wheels.
- 17 Lower the vehicle.

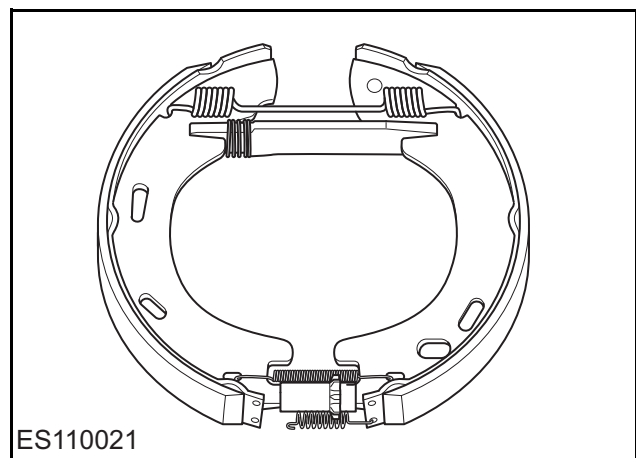
Parking Brake Shoe Replacement

Removal

- 1 Remove wheels. Refer to "Wheel Replacement".
- 2 Remove the rear brake disc assembly. Refer to "Rear Brake Disc Assembly Replacement".
- 3 Check the parking brake shoe. The parking brake shoe must be replaced in any of the following cases:
 - 1) The thickness of parking brake lining friction lining material is less than 2mm.
 - 2) The brake friction lining fractures.
 - 3) The brake friction lining is contaminated by engine oil or oil fluid.
- 4 Loosen the brake shoe limiting pin and spring, and loosen the rear parking brake shoe assembly from the rear brake disc guard plate.
- 5 Remove the rear parking brake cable from the parking brake shoe.
- 6 Remove the parking brake shoe components and note their installation positions.

Installation

- 1 Clean the rear brake disc guard plate and brake disc, and check whether the brake drum is worn uniformly.
- 2 Check the state of spring in the parking brake, and replace it if necessary.
- 3 Assemble the parking brake shoe components.



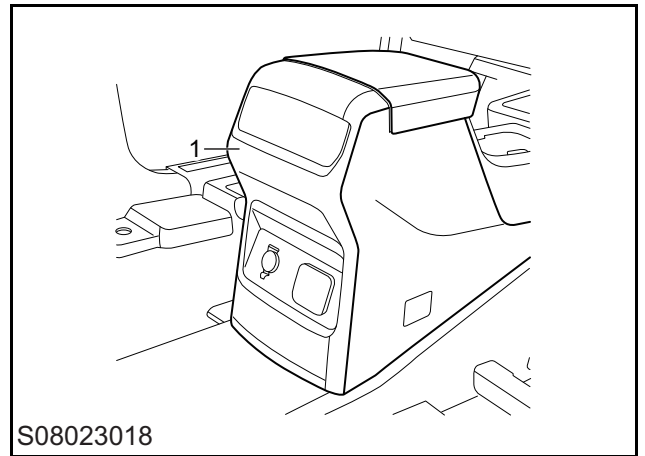
- 4 Fix the rear parking brake cable onto the parking brake shoe.

- 5 Fix the parking brake shoe components onto the brake disc guard plate with limiting pin and spring.
- 6 Install the rear brake disc assembly. Refer to "Rear Brake Disc Assembly Replacement".
- 7 Adjust the parking brake clearance.
- 8 Install the wheels. Refer to "Wheel Replacement".

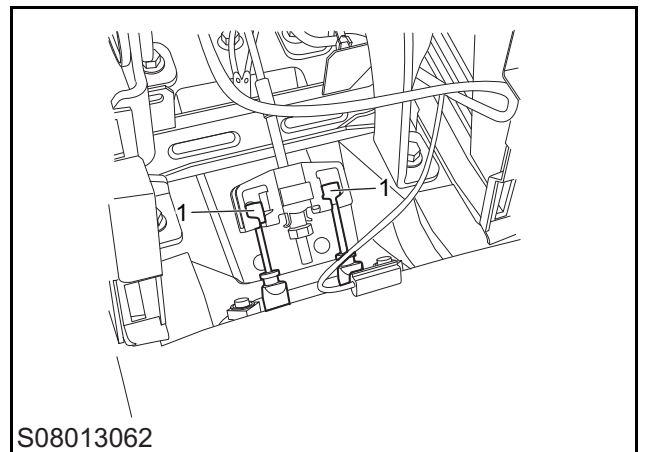
Rear Parking Brake Cable Assembly Replacement

Removal

- 1 Remove the service switch. Refer to "Service Switch Replacement".
- 2 Remove the electric vehicle battery. Refer to "Electric Vehicle Battery Replacement".
- 3 Remove the left and right parking brake shoes. Refer to "Parking Brake Shoe Replacement".
- 4 Remove the rear cover plate assembly (1) of the auxiliary fascia console.



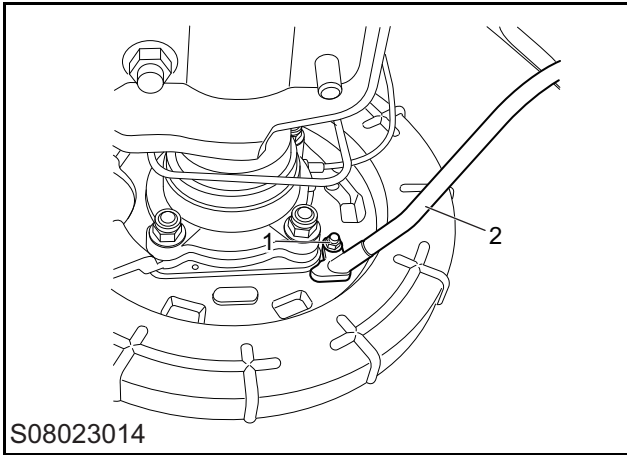
- 5 Disconnect the rear parking brake cable assembly (1) from the parking brake balancer.



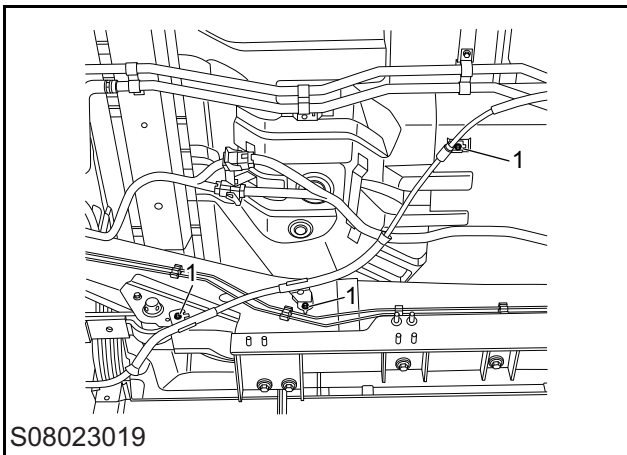
- 6 Remove the left and right parking brake shoes. Refer to "Parking Brake Shoe Replacement".
- 7 Remove 1 retaining bolt (1) fixing the left and right rear parking brake cable assemblies to the parking brake assembly.

Parking brake

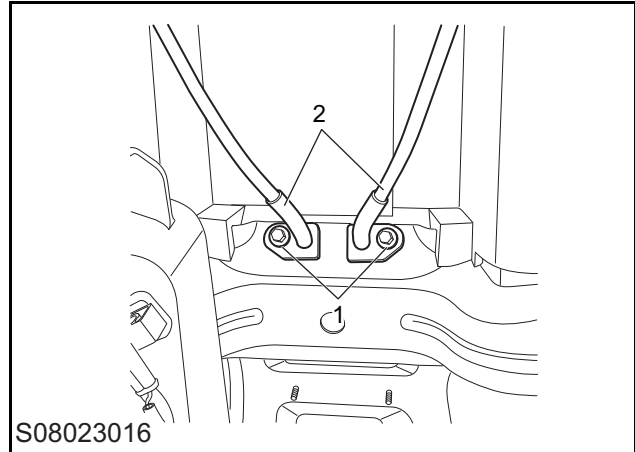
- 8 Disconnect the left and right rear parking brake cable assemblies (2) from the parking brake assembly.



- 9 Remove 3 retaining bolts (1) fixing the left and right rear parking brake cable assemblies to the vehicle body.



- 10 Remove 2 retaining bolts (1) fixing the left and right rear parking brake cable assemblies to the floor beam, and remove the left and right rear parking brake cable assemblies (2).



Installation

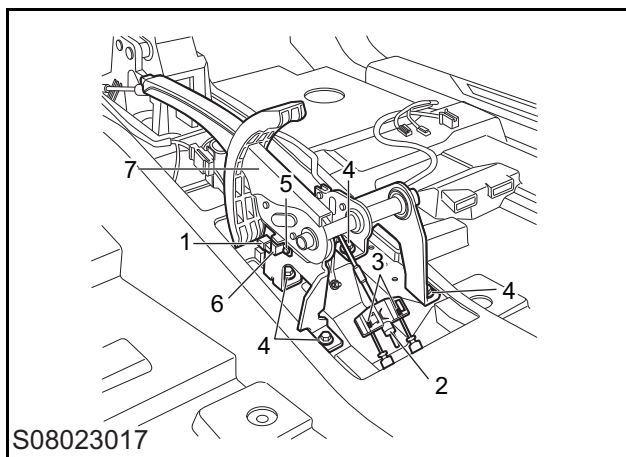
- 1 Place the left and right rear parking brake cable assemblies, and connect the rear parking brake cable assembly to the parking brake balancer.
- 2 Install 2 retaining bolts fixing the left and right rear parking brake cable assemblies to the floor beam, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Install 3 retaining bolts fixing the left and right rear parking brake cable assemblies to the vehicle body, tighten them to 9 ± 1 Nm, and check the torque.
- 4 Install 1 retaining bolt fixing the left and right rear parking brake cable assemblies to the rear leaf spring, tighten it to 9 ± 1 Nm, and check the torque.
- 5 Connect the left and right rear parking brake cable assemblies to the parking brake assembly.
- 6 Install 1 retaining nut fixing the left and right rear parking brake cable assemblies to the parking brake assembly.
- 7 Install the left and right parking brake shoes. Refer to "Parking Brake Shoe Replacement".
- 8 Adjust the parking brake.
- 9 Install the rear cover plate assembly of the auxiliary fascia console.
- 10 Install the electric vehicle battery. Refer to "Electric Vehicle Battery Replacement".
- 11 Install the service switch. Refer to "Service Switch Replacement".

Parking Brake Handle Assembly Replacement

Removal

- 1 Remove the auxiliary fascia console assembly. Refer to "Auxiliary Fascia Console Body Assembly Replacement".
- 2 Disconnect the electrical connector (1) of the parking brake handle assembly.
- 3 Loosen the adjusting nut (2) of the parking brake handle lever.
- 4 Remove the rear parking brake cable assembly (3).
- 5 Remove 4 retaining bolts (4) fixing the parking brake handle assembly to the vehicle body.
- 6 Remove 1 retaining screw (5) from the parking brake switch and remove the parking brake switch (6).
- 7 Remove the parking brake handle assembly (7).

- 6 Install the auxiliary fascia console assembly. Refer to "Auxiliary Fascia Console Body Assembly Replacement".



Installation

- 1 Place the parking brake switch, and install 1 retaining screw on the parking brake switch.
- 2 Place the parking brake handle assembly, install 4 retaining bolts fixing the parking brake handle assembly to the vehicle body, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Install the rear parking brake cable assembly.
- 4 Tighten the adjusting nut of the parking brake handle lever.
- 5 Connect the electrical connector of the parking brake handle assembly.

Antilock Brake System

Specification

Fastener Specifications

Name	Torque (Nm)
Bolt - Regulator Bracket to Body	22±2 Nm
Nut - Regulator to Bracket	9±1 Nm

Antilock Brake System

Service Guide

ABS Regulator Replacement

Removal

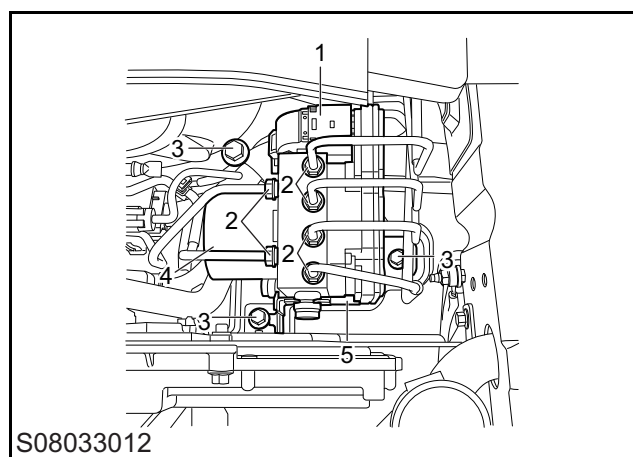
- 1 Disconnect the negative battery cable.
- 2 Place a piece of cloth under the ABS regulator to absorb the spilled oil.

Caution: The brake fluid may damage the paint surface. If it spills by accident, wipe it rapidly and clean these areas.

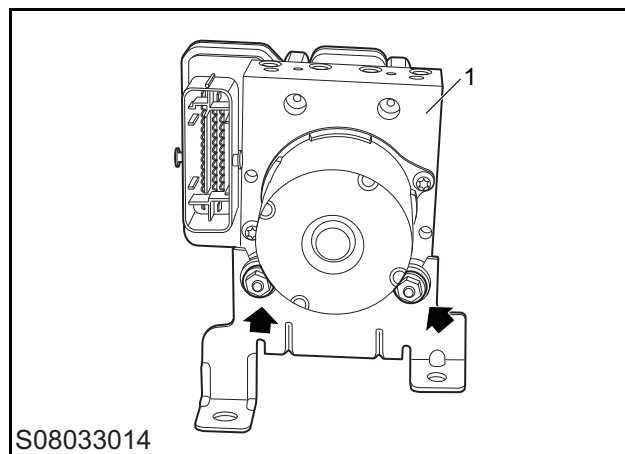
- 3 Depress the brake pedal and support it with a pedal bracket to avoid brake fluid from flowing out after the brake pipeline is removed.
- 4 Disconnect the electrical connector (1) of the ABS regulator.
- 5 Mark the position of ABS regulator oil outlet for assembling. Then disconnect 6 brake pipes (2) from the ABS regulator.

Caution: Before disconnection, ensure the middle area and connecting joints around the junction are clean. Plug oil pipe joints with plugs to prevent pollutants from entering.

- 6 Remove 3 retaining bolts (3) fixing the ABS regulator bracket to the vehicle body, and remove the ABS regulator (4) and the regulator bracket (5).



- 7 Remove the retaining bolts and shock pads fixing the ABS regulator to the ABS regulator bracket.
- 8 Remove the ABS regulator (1) from the ABS regulator bracket.



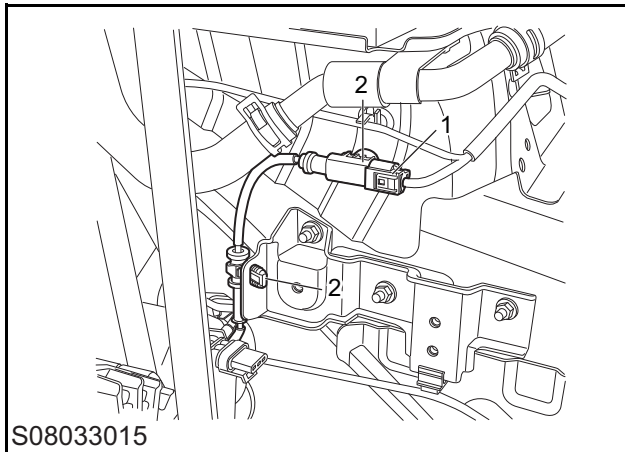
Installation

- 1 Install the shock pads on the ABS regulator bracket.
- 2 Install the ABS regulator to the ABS regulator bracket.
- 3 Install the nuts fixing the ABS regulator to the ABS regulator bracket, tighten them to 9 ± 1 Nm, and check the torque.
- 4 Install the ABS regulator and the regulator bracket.
- 5 Install the retaining bolts fixing the ABS regulator bracket to the vehicle body, tighten them to 22 ± 2 Nm, and check the torque.
- 6 Clean up the brake connector.
- 7 According to the marks made during removal, connect 6 pipes to correct pipe orifices respectively. Tighten brake pipe joints to 15 ± 2 Nm.
- 8 Connect the electrical connector of the ABS regulator.
- 9 Loosen the pedal bracket. Refill brake fluid to Max position.
- 10 Connect the negative battery cable.
- 11 Drain the ABS regulator. If the replaced regulator has been filled with oil, generally there is no need to drain the regulator. The drain operation can be conducted through the scan tool. Refer to Instructions for SAIC Commercial Vehicle Scan Tool for details.
- 12 Drain the brake system. Refer to "Brake System Drain".
- 13 Connect the scan tool to clear the DTC.

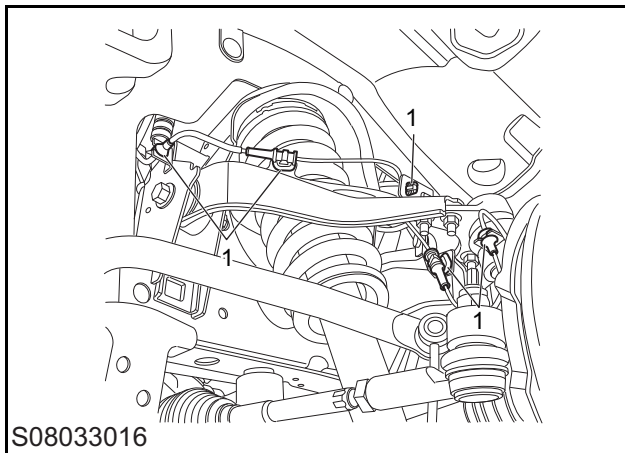
Front Wheel Speed Sensor Assembly Replacement

Removal

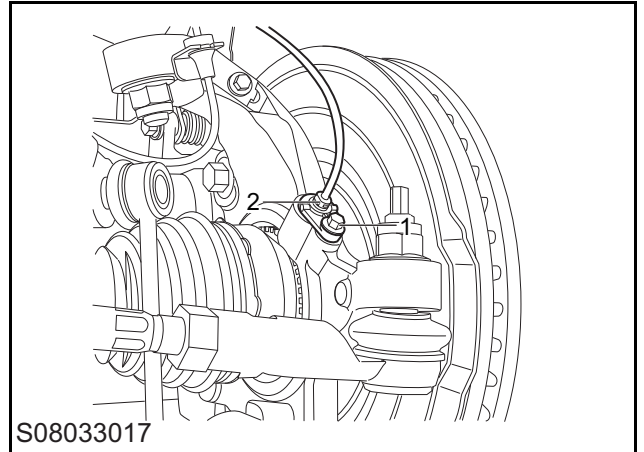
- 1 Disconnect the negative battery cable.
- 2 Remove wheels. Refer to "Wheel Replacement".
- 3 Disconnect the electrical connector (1) of the front wheel speed sensor assembly.
- 4 Remove 2 clips (2) from the front wheel speed sensor assembly.



- 5 Remove the clip (1) from the front wheel speed sensor assembly.



- 6 Remove 1 retaining bolt (1) fixing the front wheel speed sensor assembly to the front suspension steering knuckle.
- 7 Remove the front wheel speed sensor assembly (2).



Installation

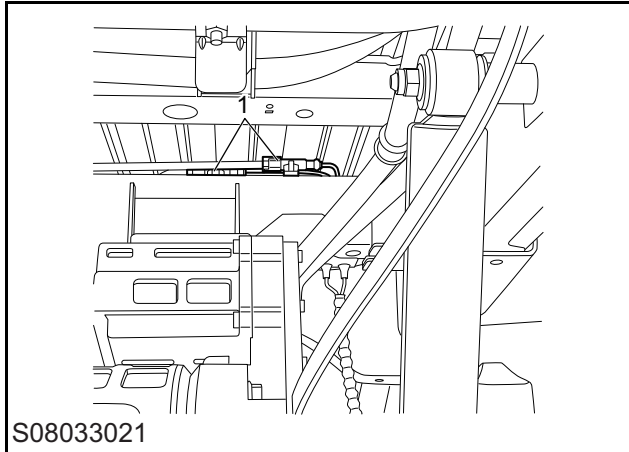
- 1 Install the front wheel speed sensor assembly.
- 2 Install 1 retaining bolt fixing the front wheel speed sensor assembly to the front suspension steering knuckle, tighten it to 9 ± 1 Nm, and check the torque.
- 3 Install the clip on the front wheel speed sensor assembly.
- 4 Connect the electrical connector of the front wheel speed sensor assembly.
- 5 Install the wheels. Refer to "Wheel Replacement".
- 6 Connect the negative battery cable.

Antilock Brake System

Rear Wheel Speed Sensor Assembly Replacement

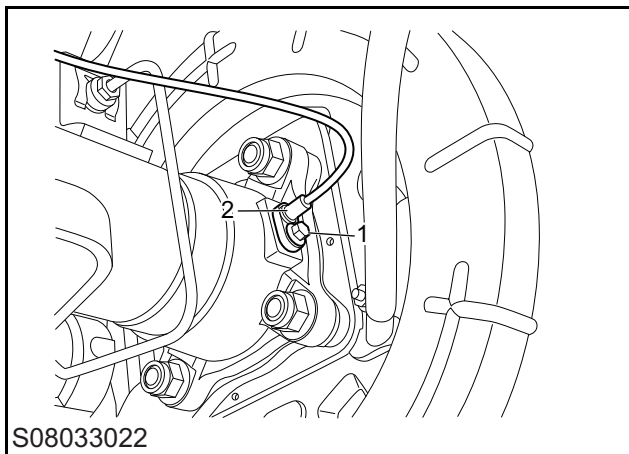
Removal

- 1 Raise the vehicle.
- 2 Disconnect the electrical connector (1) of the rear wheel speed sensor assembly.



- 3 Install the clip fixing the rear wheel speed sensor assembly to the rear axle assembly.
- 4 Install the clip fixing the rear wheel speed sensor assembly to the vehicle body.
- 5 Connect the electrical connector of the rear wheel speed sensor assembly.
- 6 Lower the vehicle.

- 3 Remove the clip from the rear wheel speed sensor assembly.
- 4 Remove 1 retaining bolt (1) fixing the left and right rear wheel speed sensor assemblies to the rear axle assembly.
- 5 Remove the left and right rear wheel speed sensor assemblies (2).



Installation

- 1 Install the left and right rear wheel speed sensor assemblies.
- 2 Install 1 retaining bolt fixing the left and right rear wheel speed sensor assemblies to the rear axle assembly, tighten it to 9 ± 1 Nm, and check the torque.

Heating, Ventilation and Air Conditioning System

Specification

Fastener Specifications

Name	Torque (Nm)
Nut - A/C Pipe Assembly to Body	9±1 Nm
Bolt - A/C Pipe to Front Expansion Valve Pipe	9±1 Nm
Bolt - A/C Pipe Assembly	9±1 Nm
Bolt - Compressor Exhaust Pipe	22±2 Nm
Bolt - A/C Pipe to Condenser	9±1 Nm
Bolt - Condenser Fixing	9±1 Nm
Bolt - Upper Radiator Beam Mounting Bracket	9±1 Nm
Bolt - Engine Hood Lock Assembly	9±1 Nm
Screw - Radiator Grille	5±0.5 Nm
Bolt - Compressor to Compressor Retaining Bracket	22±2 Nm
Nut - A/C Compressor Retaining Bracket	22±2 Nm
Bolt - Compressor Bracket Assembly to Body	22±2 Nm
Nut - A/C Compressor Retaining Bracket	22±2 Nm
Bolt - Compressor Ground Wire to Compressor	22±2 Nm
Nut - Front HVAC Assembly to Body	9±1 Nm

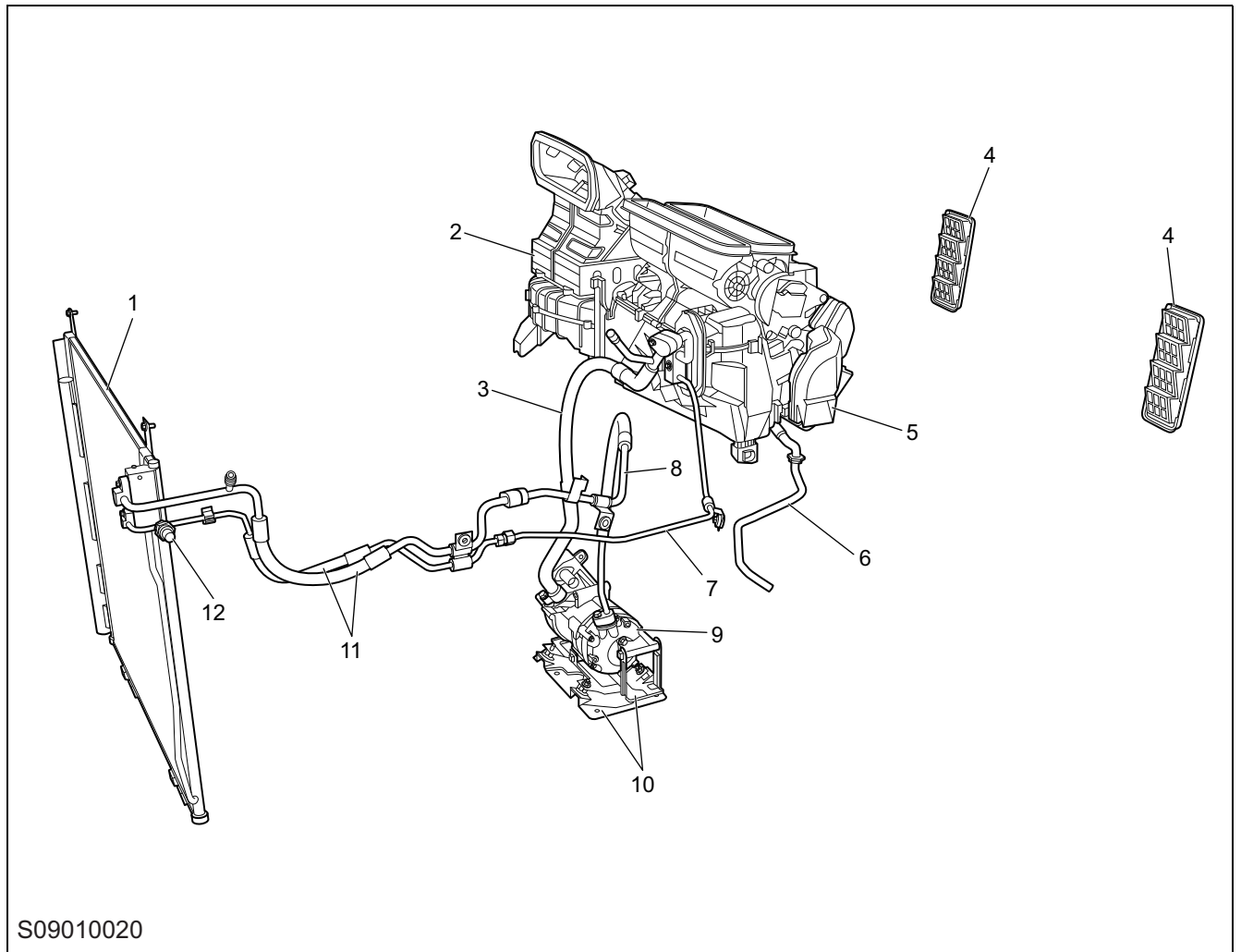
Heating, Ventilation and Air Conditioning System

Parameters

Compressor type	27A
Compressor displacement	27CC
Rated voltage	155V-450V
Rotational speed of compressor	
·Minimum speed	800
·Maximum speed	8500
A/C lubricant type	SP-A2
Total lubricant filling level	150
Refrigerant type	R134a
Refrigerant filling amount	580±30g
Evaporator temperature sensor	
·Compressor ON	4 °C
·Compressor OFF	1 °C
Pressure protection	
·High-pressure protection opening pressure	2.65MPa
·Low-pressure protection opening pressure	0.196MPa
PTC (Electric heater)	5w

Layout

A/C System Layout



S09010020

- | | | | |
|---|---|----|--------------------------------------|
| 1 | Condenser Assembly | 7 | Front A/C Inlet/Outlet Pipe Assembly |
| 2 | Front A/C Assembly | 8 | Compressor Exhaust Pipe Assembly |
| 3 | Compressor Intake Pipe Assembly | 9 | A/C Compressor |
| 4 | Passenger Compartment Exhaust Outlet Assembly | 10 | A/C Compressor Bracket |
| 5 | Driver's Footwell Air Duct | 11 | Condenser Inlet/Outlet Pipe Assembly |
| 6 | Drain Pipe | 12 | Refrigerant Pressure Sensor |

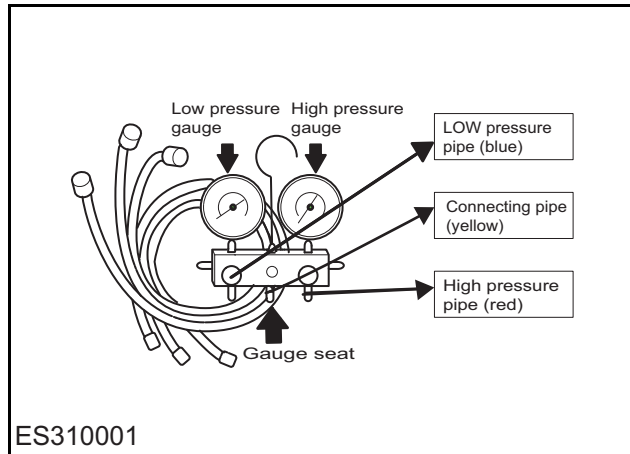
Heating, Ventilation and Air Conditioning System

Service Guide

Refrigerant Drain and Refill

Drain

- 1 Connect 3 pipes onto the manifold gauge as required.
- 2 Respectively connect the red high-pressure pipe and blue low-pressure pipe onto the flush valve of A/C system.
- 3 Prepare one measuring cup, place the yellow intermediate pipe into the measuring cup and cover it with a clean cloth to prevent the refrigerant oil from spraying out.
- 4 Slowly turn the blue and red knobs on the manifold gauge, then refrigerant and refrigeration oil will flow out slowly.
- 5 After the refrigerant in the system is drained completely, tighten the high and low pressure knobs on the gauge, and remove the pipe.
- 6 The refrigeration oil drained out is sucked into the system in virtue of the vacuum in the system and manifold gauge after vacuuming the system.



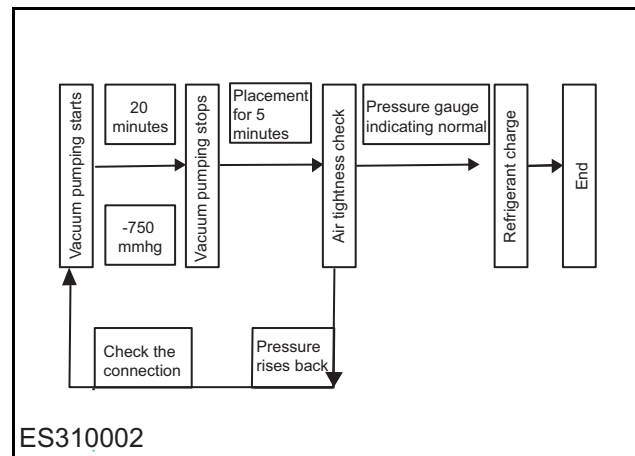
Refill

- 1 Confirm the system is vacuum without leakage, connect the intermediate pipe connecting the manifold gauge to the vacuum pump to the joint of refrigerant tank.
- 2 Place the refrigerant tank on an electronic scale, open the refrigerant tank valve, and loosen the intermediate pipe on the manifold gauge to release air in the pipe. Do not tighten the joint until refrigerant flows out from the joint.
- 3 Check and record the weight on the electronic scale, turn on the high-voltage switch on the manifold gauge so that the refrigerant flows into the A/C system, and observe the weight on the electronic scale anytime.
- 4 When the refilling amount reaches the specified weight, turn off the manifold gauge switch and subsequently the refrigerant tank valve switch.
- 5 Remove the manifold gauge, and refilling is finished.

Note: High pressure: 31.4MPa

Low pressure: 0.196MPa

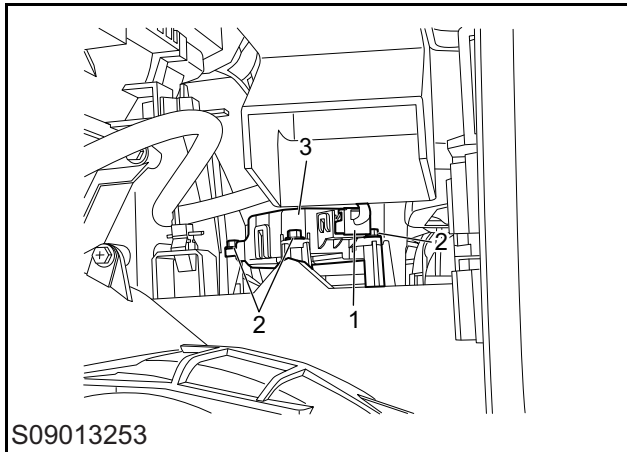
Medium pressure: 1.57MPa



Internal/External Circulation Motor Replacement

Removal

- 1 Disconnect the electrical connector (1) of the internal/external circulation motor.
- 2 Remove 3 retaining screws (2) from the internal/external circulation motor.
- 3 Remove the internal/external circulation motor (3).



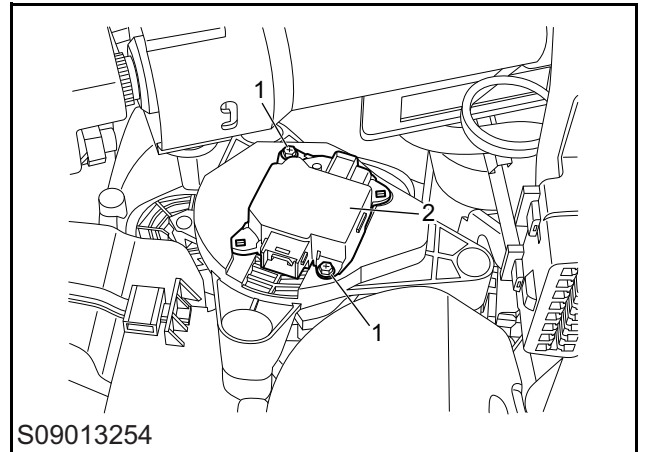
Installation

- 1 Install the internal/external circulation motor.
- 2 Install 3 retaining screws on the internal/external circulation motor.
- 3 Connect the electrical connectors of the internal/external circulation motors.
- 4 Install the front passenger baseboard assembly.

Mode Motor Replacement

Removal

- 1 Disconnect the electrical connector of the mode motor.
- 2 Remove 2 retaining screws (1) from the mode motor.
- 3 Remove the mode motor (2).



Installation

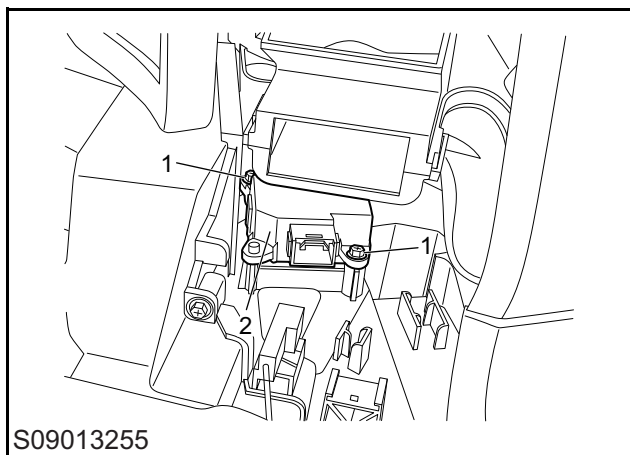
- 1 Install the mode motor.
- 2 Install 2 retaining screws on the mode motor.
- 3 Connect the electrical connector of the mode motor.

Heating, Ventilation and Air Conditioning System

A/C Motor Replacement

Removal

- 1 Disconnect the electrical connector of the A/C motor.
- 2 Remove 2 retaining screws (1) from the A/C motor.
- 3 Remove the A/C motor (2).



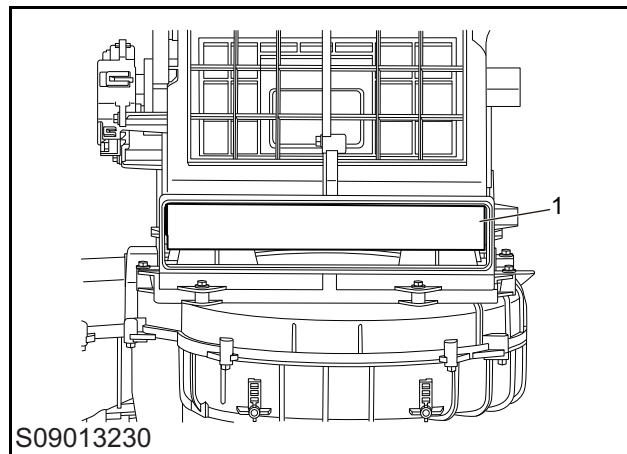
Installation

- 1 Install the A/C motors.
- 2 Install 2 retaining screws on the A/C motor.
- 3 Connect the electrical connector of the A/C motor.

A/C Filter Replacement

Removal

- 1 Remove the glove box assembly. Refer to "Glove Box Assembly Replacement".
- 2 Remove the A/C filter element cover plate.
- 3 Remove the A/C filter element (1).



Installation

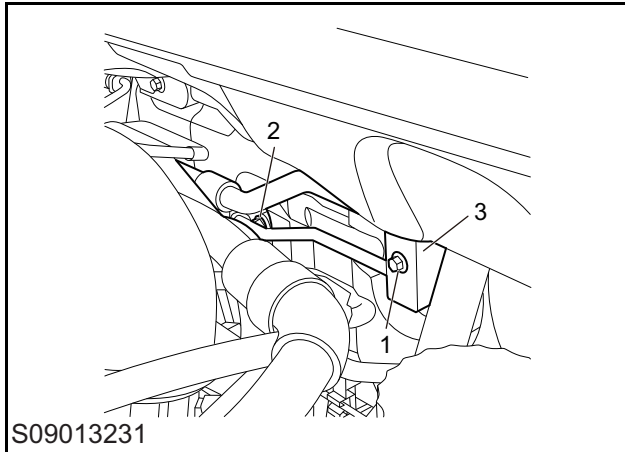
- 1 Install the A/C filter element.
- 2 Install the A/C filter element cover plate. Refer to "A/C Filter Element Cover Plate Replacement".
- 3 Install the glove box assembly. Refer to "Glove Box Assembly Replacement".

Expansion Valve Replacement

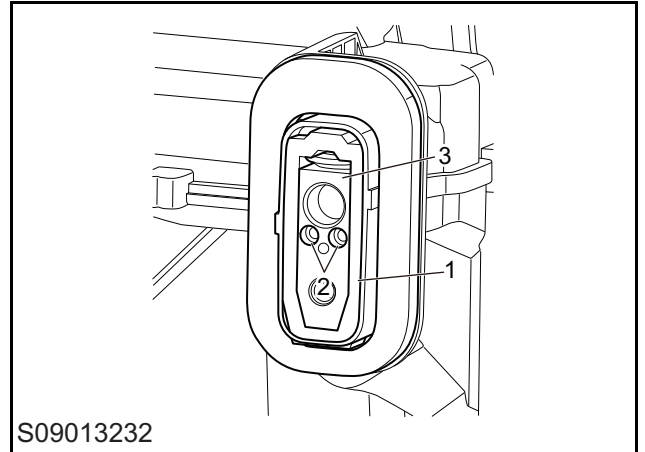
Removal

- 1 Drain the refrigerant. Refer to "Refrigerant Drain and Refill".
- 2 Remove the engine cover assembly. Refer to "Engine Cover Assembly".
- 3 Remove 1 retaining bolt (1) from the front A/C inlet/outlet pipe assembly.
- 4 Remove 1 retaining nut (2) from the front A/C inlet/outlet pipe assembly bracket.
- 5 Disconnect the front A/C inlet/outlet pipe assembly (3) from the expansion valve.

Caution: Plug the joints of the front A/C inlet/outlet pipe assembly and the expansion valve with plugs to prevent dust from entering.



- 6 Remove the expansion valve sponge (1).
- 7 Remove 2 retaining bolts (2) from the expansion valve.
- 8 Remove the expansion valve (3).



Installation

- 1 Install the expansion valve.

Caution: Seal rings on the front HVAC pipelines must be replaced with new ones.

- 2 Install and tighten 2 retaining bolts on the expansion valve.
- 3 Install the expansion valve sponge.
- 4 Connect the front A/C inlet/outlet pipe assembly to the expansion valve.

Caution: Seal rings on the front A/C inlet/outlet pipe assembly must be replaced with new ones.

- 5 Install 1 retaining nut on the front A/C inlet/outlet pipe assembly bracket, tighten it to 9 ± 1 Nm, and check the torque.
- 6 Install 1 retaining bolt on the front A/C inlet/outlet pipe assembly, tighten it to 9 ± 1 Nm, and check the torque.
- 7 Install the engine cover assembly. Refer to "Engine Cover Assembly".
- 8 Refill the refrigerant. Refer to "Refrigerant Drain and Refill".

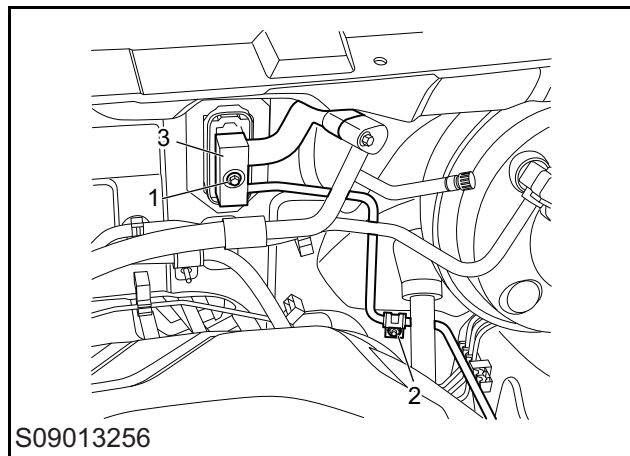
Heating, Ventilation and Air Conditioning System

Front A/C Assembly Replacement

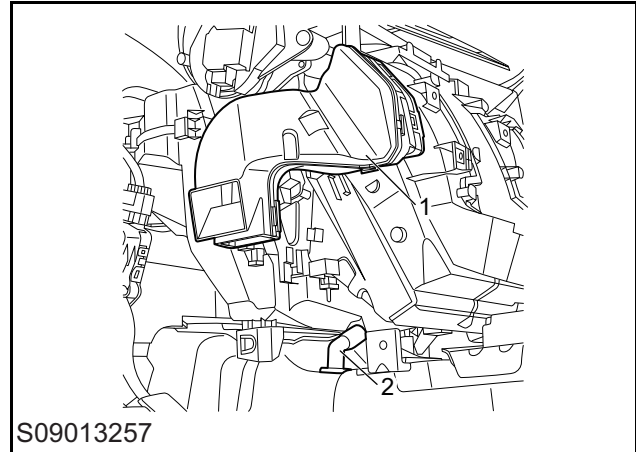
Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the service switch. Refer to "Service Switch Replacement".
- 3 Drain the refrigerant. Refer to "Refrigerant Drain and Refill".
- 4 Remove the instrument panel beam assembly. Refer to "Instrument Panel Beam Assembly Replacement".
- 5 Remove 1 retaining bolt (1) fixing the front A/C inlet/outlet pipe assembly to the expansion valve.
- 6 Remove 1 retaining nut (2) fixing the front A/C inlet/outlet pipe assembly to the dash panel.
- 7 Disconnect the front A/C inlet/outlet pipe assembly (3) from the front A/C assembly.

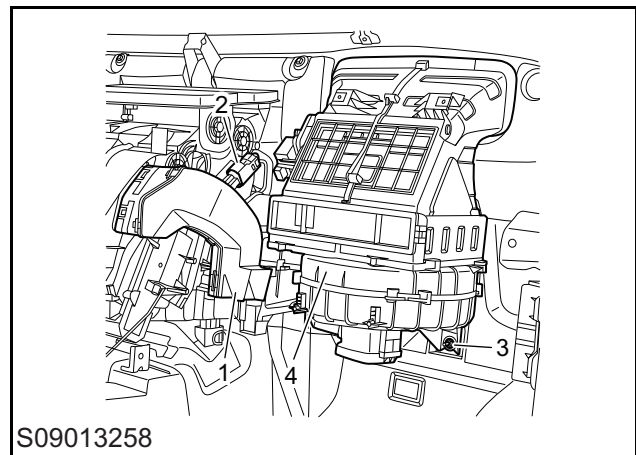
Caution: Plug the joints of the front A/C inlet/outlet pipe assembly and the expansion valve with plugs to prevent dust from entering.



- 8 Disconnect the electrical connector at the low voltage end of the front A/C assembly.
- 9 Remove the clip fixing the instrument harness assembly to the front A/C assembly.
- 10 Remove the driver's footwell air duct (1).
- 11 Remove the front A/C system assembly drain pipe (2).



- 12 Remove the front passenger footwell air duct (1).
- 13 Disconnect the electrical connector (2) at the high voltage end of the front A/C assembly.
- 14 Remove 1 retaining nut (3) fixing the front A/C assembly to the dash panel.
- 15 Remove the front A/C assembly (4).



Installation

- 1 Install the front A/C assembly.
- 2 Install 1 retaining nut fixing the front A/C assembly to the dash panel, tighten it to 9 ± 1 Nm, and check the torque.
- 3 Connect the electrical connector at the high voltage end of the front A/C assembly.
- 4 Install the front passenger footwell air duct.
- 5 Install the front A/C system assembly drain pipe.
- 6 Install the driver's footwell air duct.
- 7 Install the clip fixing the instrument harness assembly to the front A/C assembly.

- 8 Connect the electrical connector at the low voltage end of the front A/C assembly.
- 9 Connect the front A/C inlet/outlet pipe assembly to the front A/C assembly.

Caution: Seal rings on the front A/C inlet/outlet pipe assembly must be replaced with new ones.

- 10 Install 1 retaining nut fixing the front A/C inlet/outlet pipe assembly to the dash panel, tighten it to 9 ± 1 Nm, and check the torque.
- 11 Install 1 retaining bolt fixing the front A/C inlet/outlet pipe assembly to the expansion valve, tighten it to 9 ± 1 Nm, and check the torque.
- 12 Install the instrument panel beam assembly. Refer to "Instrument Panel Beam Assembly Replacement".
- 13 Refill the refrigerant. Refer to "Refrigerant Drain and Refill".
- 14 Install the service switch. Refer to "Service Switch Replacement".
- 15 Connect the negative battery cable.

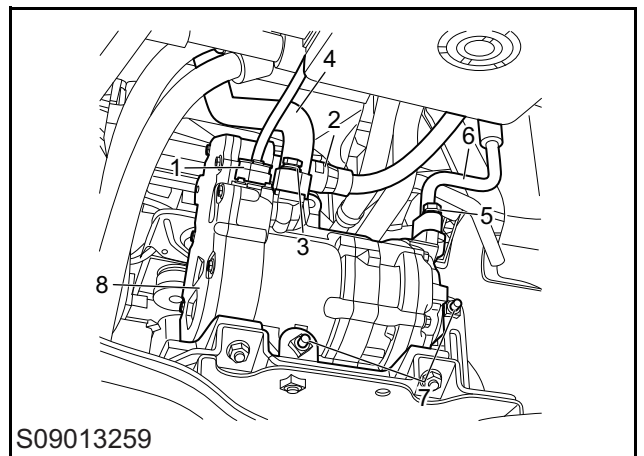
A/C Compressor Assembly Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the service switch. Refer to "Service Switch Replacement".
- 3 Drain the refrigerant. Refer to "Refrigerant Drain and Refill".
- 4 Raise the vehicle.
- 5 Disconnect the electrical connector (1) at the low voltage end of the A/C compressor assembly.
- 6 Disconnect the electrical connector (2) at the high voltage end of the A/C compressor assembly.
- 7 Remove 1 retaining bolt (3) from the compressor inlet pipe assembly.
- 8 Remove the compressor intake pipe assembly (4).

Caution: Plug the joints of the compressor inlet pipe assembly and the A/C compressor to prevent dust from entering.

- 9 Remove 1 retaining bolt (5) from the compressor outlet pipe assembly.
- 10 Remove the A/C compressor outlet pipe assembly (6).
- 11 Remove 2 retaining bolts (7) fixing the A/C compressor assembly to the compressor bracket, and remove the A/C compressor assembly (8).



Installation

- 1 Place the A/C compressor assembly, install 2 retaining bolts fixing the A/C compressor

Heating, Ventilation and Air Conditioning System

assembly to the compressor bracket, tighten them to 22 ± 2 Nm, and check the torque.

Caution: When installing the bolts, remember to install the compressor ground wire.

2 Install the compressor outlet pipe assembly.

Caution: Seal rings on the compressor outlet pipe assembly must be replaced with new ones.

3 Install 1 retaining bolt on the compressor outlet pipe assembly, tighten it to 22 ± 2 Nm, and check the torque.

4 Install the compressor inlet pipe assembly.

Caution: Seal rings on the compressor inlet pipe assembly must be replaced with new ones.

5 Install 1 retaining bolt on the compressor inlet pipe assembly, tighten it to 22 ± 2 Nm, and check the torque.

6 Connect the electrical connector at the high voltage end of the A/C compressor assembly.

7 Install the electrical connector at the low voltage end of the A/C compressor assembly.

8 Lower the vehicle.

9 Refill the refrigerant. Refer to "Refrigerant Drain and Refill".

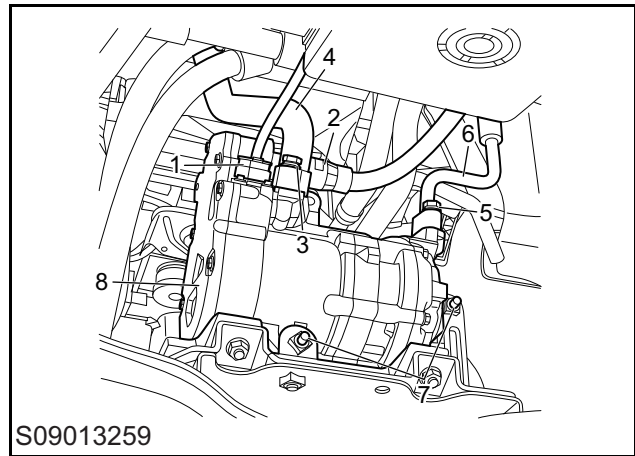
10 Install the service switch. Refer to "Service Switch Replacement".

11 Connect the negative battery cable.

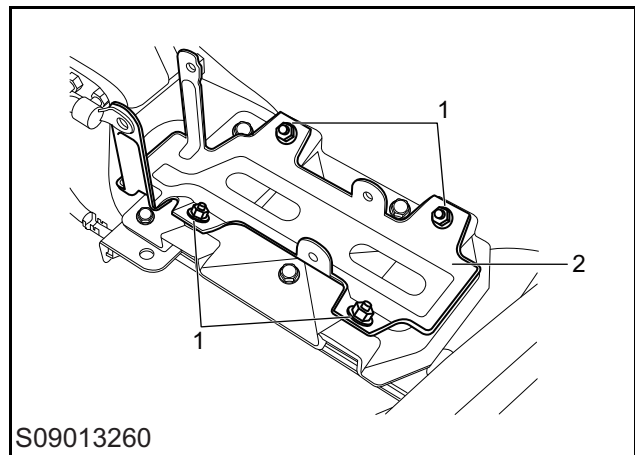
A/C Compressor Bracket Assembly Replacement

Removal

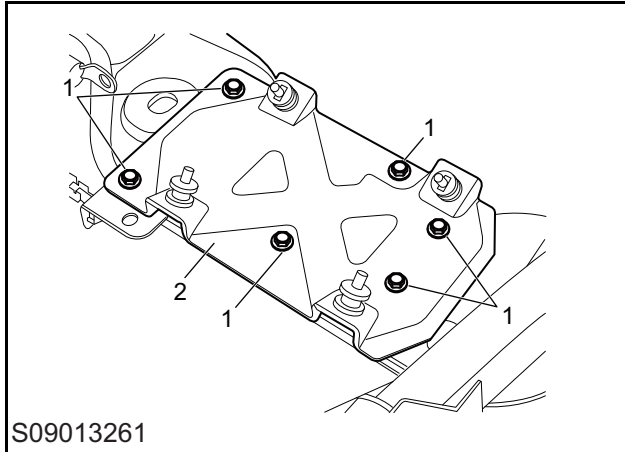
- 1 Disconnect the negative battery cable.
- 2 Remove the service switch. Refer to "Service Switch Replacement".
- 3 Raise the vehicle.
- 4 Remove 2 retaining bolts (1) fixing the A/C compressor assembly to the compressor bracket, remove the A/C compressor assembly (2), and lift it with a rope.



- 5 Remove 4 retaining nuts (1) from the compressor bracket assembly, and remove the compressor bracket assembly (2).



- 6 Remove 4 retaining bolts (1) from the compressor bracket assembly, and remove the compressor bracket assembly (2).



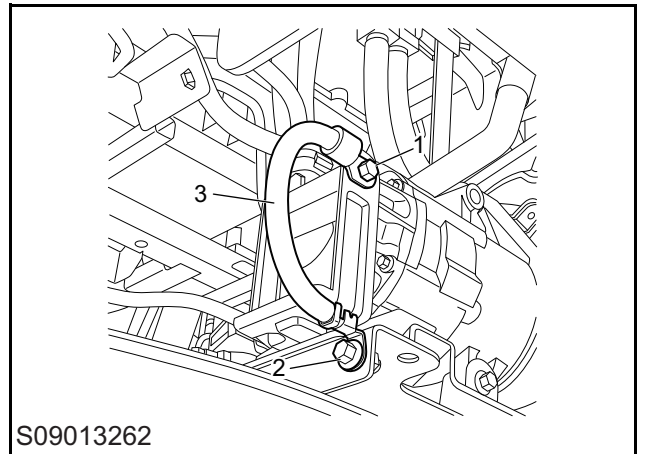
Installation

- 1 Install the compressor bracket assembly and 4 retaining bolts on the compressor bracket assembly, tighten them to 22 ± 2 Nm, and check the torque.
- 2 Install the compressor bracket assembly and 4 retaining nuts on the compressor bracket assembly, tighten them to 22 ± 2 Nm, and check the torque.
- 3 Loosen the rope, install the A/C compressor assembly, install 2 retaining bolts fixing the A/C compressor assembly to the compressor bracket, tighten them to 22 ± 2 Nm, and check the torque.
- 4 Lower the vehicle.
- 5 Install the service switch. Refer to "Service Switch Replacement".
- 6 Connect the negative battery cable.

Compressor Ground Wire Replacement

Removal

- 1 Raise the vehicle.
- 2 Remove 1 retaining bolt (1) fixing the compressor ground wire to the A/C compressor assembly.
- 3 Remove 1 retaining bolt (2) fixing the compressor ground wire to the 3rd beam assembly, and remove the compressor ground wire (3).



Installation

- 1 Place the compressor ground wire, install 1 retaining bolt fixing the compressor ground wire to the 3rd beam assembly, tighten it to 22 ± 2 Nm, and check the torque.
- 2 Install 1 retaining bolt fixing the compressor ground wire to the A/C compressor assembly, tighten it to 22 ± 2 Nm, and check the torque.
- 3 Lower the vehicle.

Heating, Ventilation and Air Conditioning System

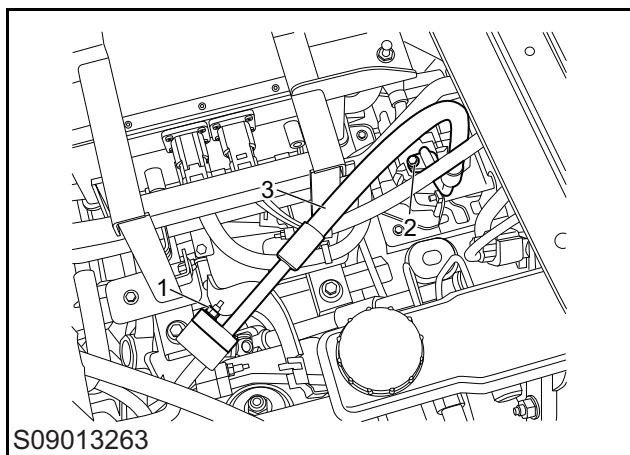
Compressor Exhaust Pipe Assembly Replacement

- 5 Refill the refrigerant. Refer to "Refrigerant Drain and Refill".

Removal

- 1 Drain the refrigerant. Refer to "Refrigerant Drain and Refill".
- 2 Remove the engine cover assembly. Refer to "Engine Cover Assembly Replacement".
- 3 Remove 1 retaining nut (1) fixing the compressor exhaust pipe assembly to the condenser inlet/outlet pipe assembly.
- 4 Remove 1 retaining bolt (2) fixing the compressor exhaust pipe assembly to the A/C compressor assembly.
- 5 Remove the A/C compressor exhaust pipe assembly (3).

Caution: Plug the joints of the condenser inlet/outlet pipe assembly and the A/C compressor to prevent dust from entering.



Installation

- 1 Install the compressor exhaust pipe assembly.

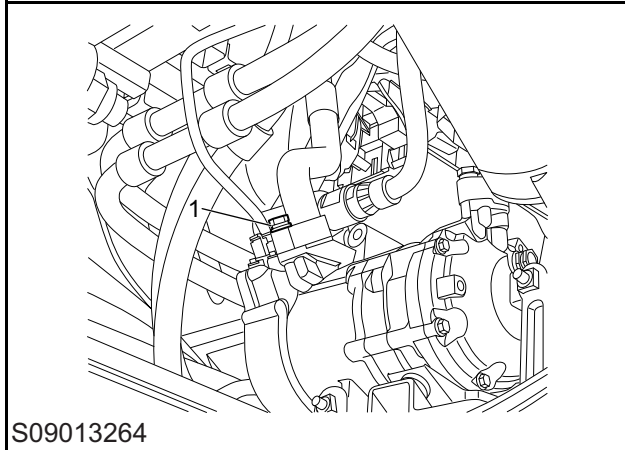
Caution: Seal rings on the compressor exhaust pipe assembly must be replaced with new ones.

- 2 Install 1 retaining bolt fixing the A/C compressor exhaust pipe assembly to the A/C compressor assembly, tighten it to 22 ± 2 Nm, and check the torque.
- 3 Install 1 retaining nut fixing the compressor exhaust pipe assembly to the condenser inlet/outlet pipe assembly, tighten it to 9 ± 1 Nm, and check the torque.
- 4 Install the engine cover assembly. Refer to "Engine Cover Assembly Replacement".

Compressor Intake Pipe Assembly Replacement

Removal

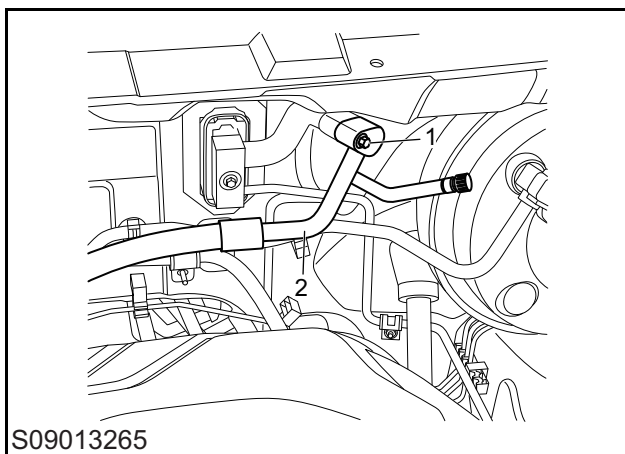
- 1 Drain the refrigerant. Refer to "Refrigerant Drain and Refill".
- 2 Remove 1 retaining bolt (1) fixing the compressor inlet pipe assembly to the A/C compressor assembly.



- 2 Install 1 retaining nut fixing the compressor inlet pipe assembly to the front A/C inlet/outlet pipe assembly, tighten it to 9 ± 1 Nm, and check the torque.
- 3 Install 1 retaining bolt fixing the compressor inlet pipe assembly to the A/C compressor assembly, tighten it to 22 ± 2 Nm, and check the torque.
- 4 Refill the refrigerant. Refer to "Refrigerant Drain and Refill".

- 3 Remove 1 retaining bolt (1) fixing the compressor inlet pipe assembly to the front A/C inlet/outlet pipe assembly.
- 4 Remove the A/C compressor inlet pipe assembly (2).

Caution: Plug the joints of the front A/C inlet/outlet pipe assembly and the A/C compressor to prevent dust from entering.



Installation

- 1 Install the A/C inlet pipe assembly.

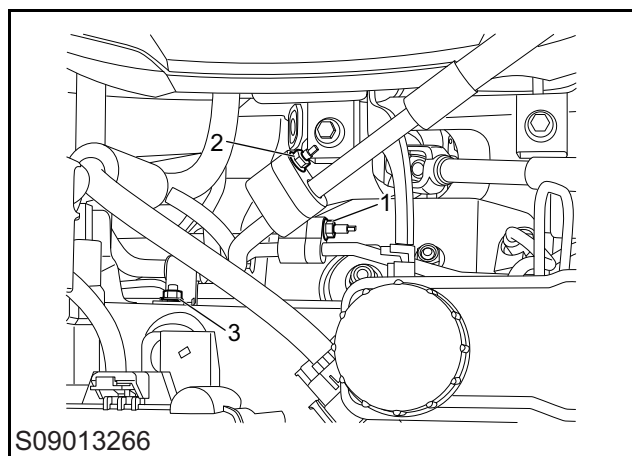
Caution: Seal rings on the compressor inlet pipe assembly must be replaced with new ones.

Heating, Ventilation and Air Conditioning System

Condenser Inlet/Outlet Pipe Assembly Replacement

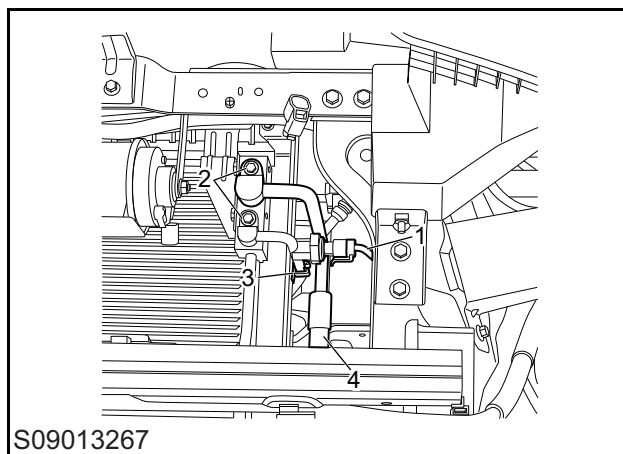
Removal

- 1 Drain the refrigerant. Refer to "Refrigerant Drain and Refill".
- 2 Remove the front grille cover plate. Refer to "Front Grille Cover Plate Replacement".
- 3 Remove 1 retaining nut (1) fixing the front A/C inlet/outlet pipe assembly to the condenser inlet/outlet pipe assembly.
- 4 Remove 1 retaining nut (2) fixing the compressor exhaust pipe assembly to the condenser inlet/outlet pipe assembly.
- 5 Remove 1 retaining nut (3) fixing the compressor exhaust pipe assembly to the vehicle body.



- 6 Disconnect the electrical connector (1) of the condenser inlet/outlet pipe assembly.
- 7 Remove 2 retaining bolts (2) fixing the condenser inlet/outlet pipe assembly to the condenser assembly.
- 8 Pry off the clip (3) and remove the condenser inlet/outlet pipe assembly (4).

Caution: Plug the joints of the condenser inlet/outlet pipe assembly, the condenser assembly, the front A/C inlet/outlet pipe assembly and the compressor exhaust pipe assembly to prevent dust from entering.



Installation

- 1 Snap the condenser inlet/outlet pipe assembly into the clip to install the condenser inlet/outlet pipe assembly.

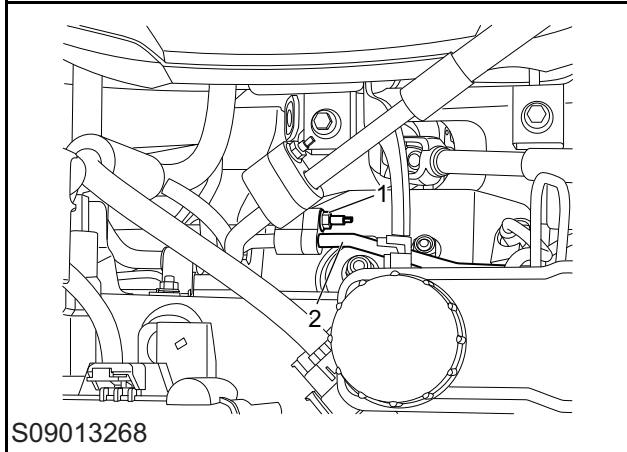
Caution: Seal rings on the condenser outlet pipe assembly, the front A/C inlet/outlet pipe assembly and the compressor exhaust pipe assembly must be replaced with new ones.

- 2 Install 2 retaining bolts fixing the condenser inlet/outlet pipe assembly to the condenser assembly, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Connect the electrical connector of the condenser inlet/outlet pipe assembly.
- 4 Install 1 retaining nut fixing the compressor exhaust pipe assembly to the vehicle body, tighten it to 9 ± 1 Nm, and check the torque.
- 5 Install 1 retaining nut fixing the compressor exhaust pipe assembly to the condenser inlet/outlet pipe assembly, tighten it to 9 ± 1 Nm, and check the torque.
- 6 Install 1 retaining nut fixing the front A/C inlet/outlet pipe assembly to the condenser inlet/outlet pipe assembly, tighten it to 9 ± 1 Nm, and check the torque.
- 7 Install the front grille cover plate. Refer to "Front Grille Cover Plate Replacement".
- 8 Refill the refrigerant. Refer to "Refrigerant Drain and Refill".

Front A/C Inlet/Outlet Pipe Assembly Replacement

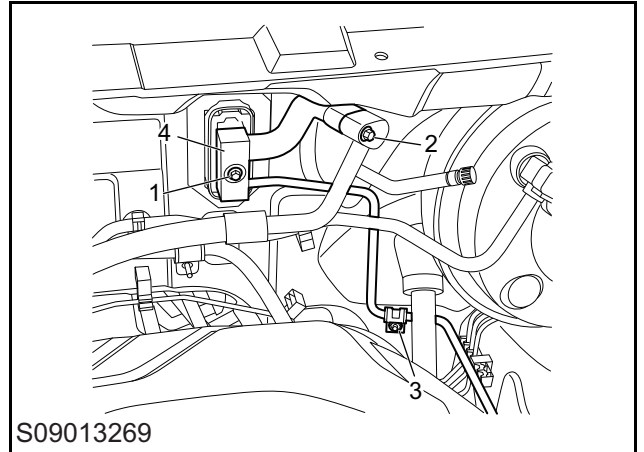
Removal

- 1 Drain the refrigerant. Refer to "Refrigerant Drain and Refill".
- 2 Remove 1 retaining nut (1) fixing the front A/C inlet/outlet pipe assembly to the condenser inlet/outlet pipe assembly.



- 3 Remove 1 retaining bolt (1) fixing the front A/C inlet/outlet pipe assembly to the expansion valve.
- 4 Remove 1 retaining bolt (2) fixing the front A/C inlet/outlet pipe assembly to the compressor inlet pipe assembly.
- 5 Remove 1 retaining nut (3) fixing the front A/C inlet/outlet pipe assembly to the dash panel.
- 6 Remove the front A/C inlet/outlet pipe assembly (4).

Caution: Plug the joints of the front A/C inlet/outlet pipe assembly, the expansion valve, the compressor inlet pipe and the condenser inlet/outlet pipe to prevent dust from entering.



Installation

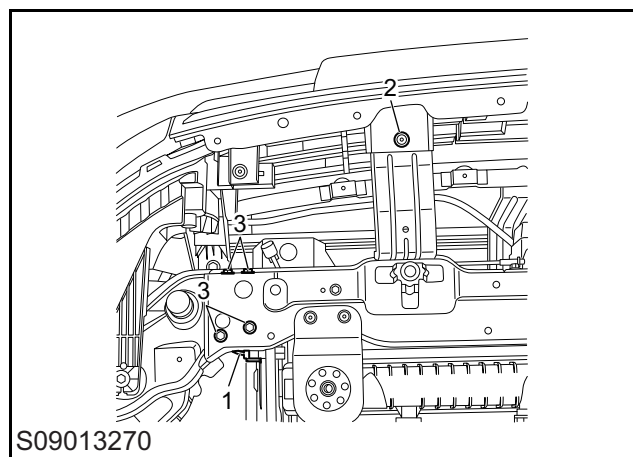
- 1 Install the front A/C inlet/outlet pipe assembly.
- Caution:** Seal rings on the front A/C inlet/outlet pipe assembly, the expansion valve, the compressor inlet pipe and the condenser inlet/outlet pipe must be replaced with new ones.
- 2 Install 1 retaining nut fixing the front A/C inlet/outlet pipe assembly to the dash panel, tighten it to 9 ± 1 Nm, and check the torque.
 - 3 Install 1 retaining bolt fixing the front A/C inlet/outlet pipe assembly to the compressor inlet pipe assembly, tighten it to 9 ± 1 Nm, and check the torque.
 - 4 Install 1 retaining bolt fixing the front A/C inlet/outlet pipe assembly to the expansion valve, tighten it to 9 ± 1 Nm, and check the torque.
 - 5 Install 1 retaining nut fixing the front A/C inlet/outlet pipe assembly to the condenser inlet/outlet pipe assembly, tighten it to 9 ± 1 Nm, and check the torque.
 - 6 Refill the refrigerant. Refer to "Refrigerant Drain and Refill".

Heating, Ventilation and Air Conditioning System

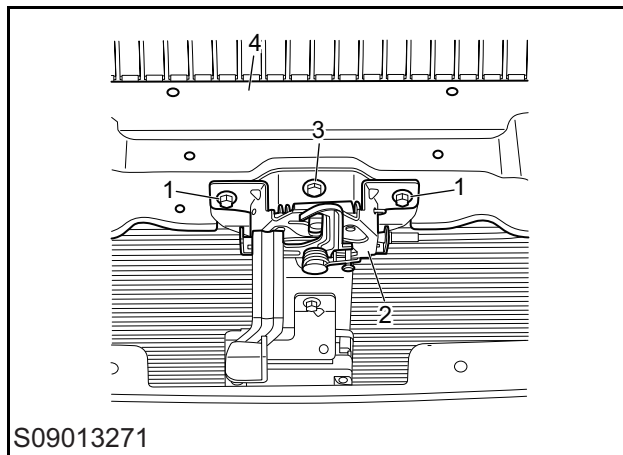
Condenser Assembly Replacement

Removal

- 1 Drain the refrigerant. Refer to "Refrigerant Drain and Refill".
- 2 Remove the front grille cover plate. Refer to "Front Grille Cover Plate Replacement".
- 3 Disconnect the electrical connectors of the tweeter/woofer.
- 4 Remove the clip (1) of the left/right engine compartment harness assembly.
- 5 Remove 1 retaining screw (2) from the left/right front bumper mounting bracket.
- 6 Remove 4 retaining bolts (3) from the left/right upper beam plate of radiator.



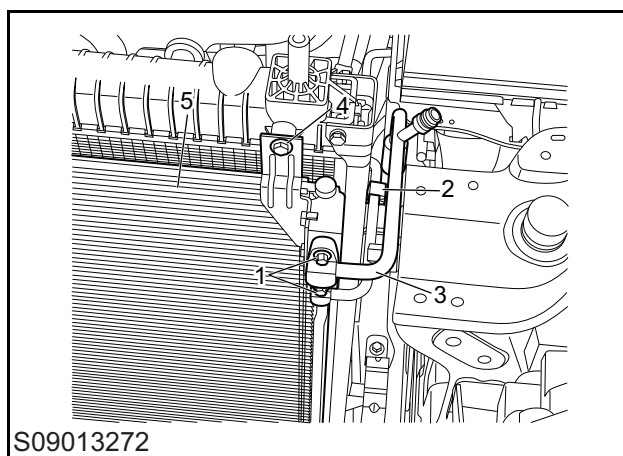
- 7 Remove 2 retaining bolts (1) from the engine hood lock body assembly.
- 8 Remove the engine hood lock body assembly (2).
- 9 Remove 1 retaining bolt (3) fixing the upper radiator beam mounting bracket to the upper beam plate of radiator.
- 10 Remove the upper beam plate of radiator (4).



- 11 Remove 2 retaining bolts (1) fixing the condenser inlet/outlet pipe assembly to the condenser assembly.
- 12 Pry off the clip (2) and disconnect the condenser inlet/outlet pipe assembly (3) from the condenser assembly (4).

Caution: Plug the joints of the condenser inlet/outlet pipe assembly and the condenser assembly to prevent dust from entering.

- 13 Remove 1 retaining bolt (5) fixing the left and right sides of the condenser assembly to the radiator assembly.
- 14 Remove the condenser assembly (5) from the radiator assembly.



Installation

- 1 Install the condenser assembly to the radiator assembly.
- 2 Install 1 retaining bolt fixing the left and right sides of the condenser assembly to the radiator

assembly, tighten it to 9 ± 1 Nm, and check the torque.

- 3 Snap the condenser inlet/outlet pipe assembly into the clip to connect the condenser inlet/outlet pipe assembly to the condenser assembly.

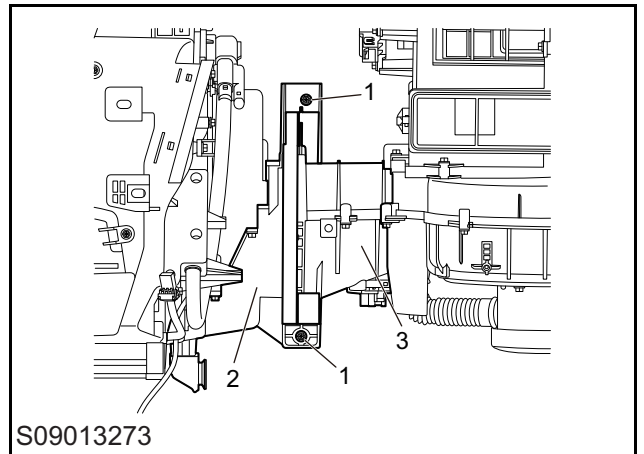
Caution: Seal rings on the condenser inlet/outlet pipe assembly must be replaced with new ones.

- 4 Install 2 retaining bolts fixing the condenser inlet/outlet pipe assembly to the condenser assembly, tighten them to 9 ± 1 Nm, and check the torque.
- 5 Restore the upper beam plate of radiator.
- 6 Install 1 retaining bolt fixing the upper radiator beam mounting bracket to the upper beam plate of radiator, tighten it to 9 ± 1 Nm, and check the torque.
- 7 Restore the engine hood lock body assembly.
- 8 Install 2 retaining bolts on the engine hood lock body assembly, tighten them to 9 ± 1 Nm, and check the torque.
- 9 Install 4 retaining bolts on the left/right upper beam plate of radiator, tighten them to 9 ± 1 Nm, and check the torque.
- 10 Install 1 retaining screw on the left/right front bumper mounting bracket, tighten it to 5 ± 0.5 Nm, and check the torque.
- 11 Install the clip of the left/right engine compartment harness assembly.
- 12 Connect the electrical connectors of the tweeter/woofer.
- 13 Install the front grille cover plate. Refer to "Front Grille Cover Plate Replacement".
- 14 Refill the coolant. Refer to "Coolant Drain and Refill".

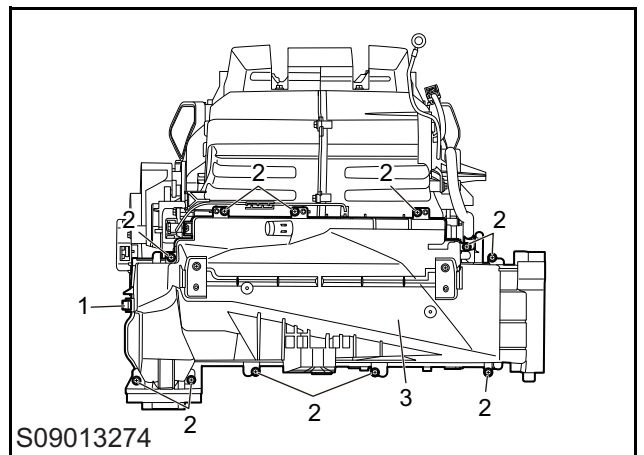
Evaporator Core Assembly Replacement

Removal

- 1 Remove the front A/C assembly. Refer to "Front A/C Assembly Replacement".
- 2 Remove the expansion valve. Refer to "Expansion Valve Replacement".
- 3 Remove 2 retaining screws (1) fixing the blower housing to the evaporator housing.
- 4 Remove the blower housing (3) from the evaporator housing (2).



- 5 Remove the evaporator housing retaining ring (1).
- 6 Remove 11 retaining screws (2) fixing the evaporator lower housing to the evaporator left housing.
- 7 Remove the evaporator lower housing (3).



Heating, Ventilation and Air Conditioning System

- 8 Remove the evaporator core assembly.

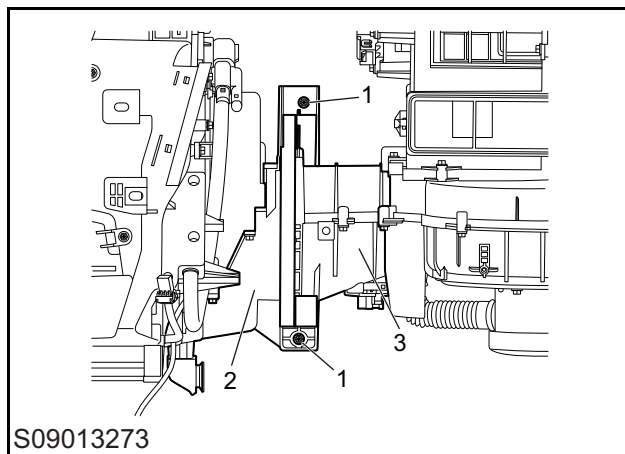
Installation

- 1 Install the evaporator core assembly.
- 2 Install the evaporator lower housing.
- 3 Install 11 retaining screws fixing the evaporator lower housing to the evaporator left housing.
- 4 Install the evaporator housing retaining ring.
- 5 Install the blower housing to the evaporator housing.
- 6 Install 2 retaining screws fixing the blower housing to the evaporator housing.
- 7 Install the expansion valve. Refer to "Expansion Valve Replacement".
- 8 Install the front A/C assembly. Refer to "Front A/C Assembly Replacement".

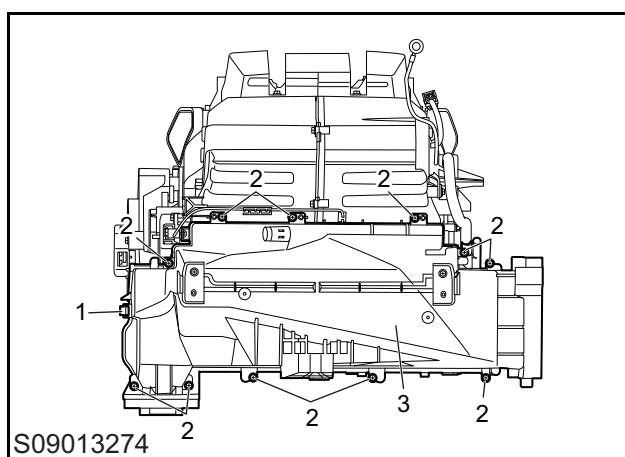
Evaporator Temperature Sensor Replacement

Removal

- 1 Remove the front A/C assembly. Refer to "Front A/C Assembly Replacement".
- 2 Remove 2 retaining screws (1) fixing the blower housing to the evaporator housing.
- 3 Remove the blower housing (3) from the evaporator housing (2).



- 4 Remove the evaporator housing retaining ring (1).
- 5 Remove 11 retaining screws (2) fixing the evaporator lower housing to the evaporator left housing.
- 6 Remove the evaporator lower housing (3).



- 7 Pry off the clip and remove the evaporator temperature sensor.

Installation

- 1 Install the evaporator temperature sensor.

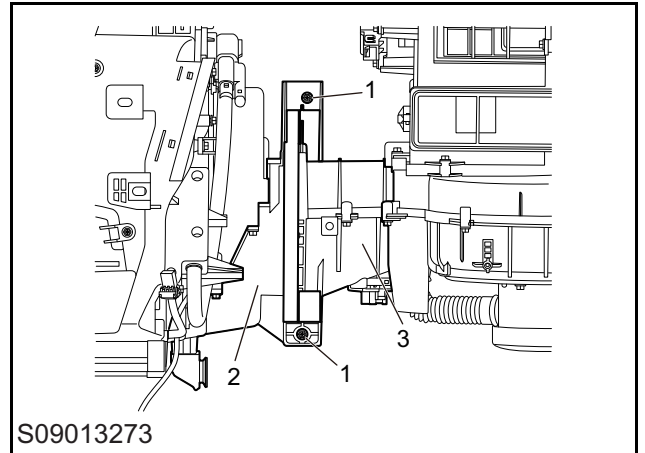
Heating, Ventilation and Air Conditioning System

- 2 Install the evaporator lower housing.
- 3 Install 11 retaining screws fixing the evaporator lower housing to the evaporator left housing.
- 4 Install the evaporator housing retaining ring.
- 5 Install the blower housing to the evaporator housing.
- 6 Install 2 retaining screws fixing the blower housing to the evaporator housing.
- 7 Install the front A/C assembly. Refer to "Front A/C Assembly Replacement".

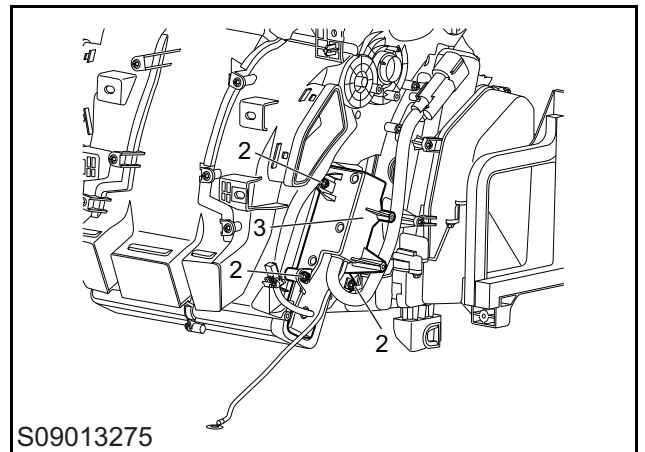
Front Electric Heater Assembly Replacement

Removal

- 1 Remove the front A/C assembly. Refer to "Front A/C Assembly Replacement".
- 2 Remove 2 retaining screws (1) fixing the blower housing to the evaporator housing.
- 3 Remove the blower housing (3) from the evaporator housing (2).



- 4 Remove the clip (1) from the front electric heater assembly harness.
- 5 Remove 3 retaining screws (2) fixing the heater core to the evaporator right housing.
- 6 Remove the front electric heater assembly (3).



Installation

- 1 Install the front electric heater assembly.
- 2 Install 3 retaining screws fixing the heater core cover plate to the evaporator right housing.
- 3 Install the clip on the front electric heater assembly harness.

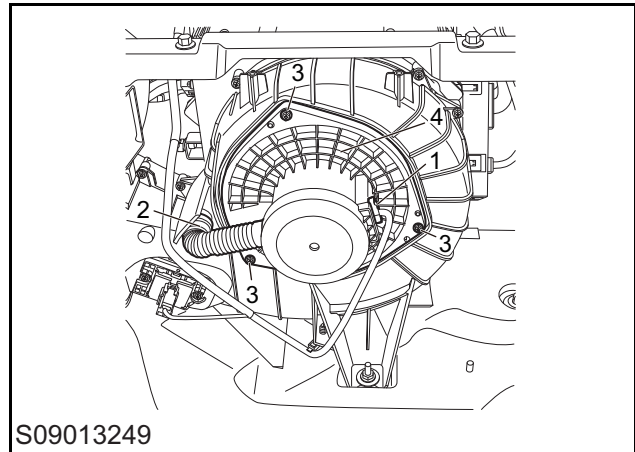
Heating, Ventilation and Air Conditioning System

- 4 Install the blower housing to the evaporator housing.
- 5 Install 2 retaining screws fixing the blower housing to the evaporator housing.
- 6 Install the front A/C assembly. Refer to "Front A/C Assembly Replacement".

Blower Assembly Replacement

Removal

- 1 Disconnect the electrical connector (1) of the blower assembly.
- 2 Remove the blower pipe (2) from the blower housing.
- 3 Remove 3 retaining screws (3) fixing the blower assembly to the blower housing, and remove the blower assembly (4).



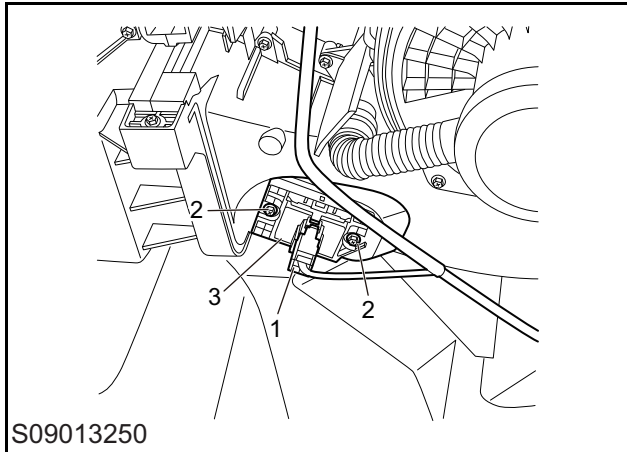
Installation

- 1 Place the blower assembly, and install 3 retaining screws fixing the blower assembly to the blower housing.
- 2 Install the blower pipe to the blower housing.
- 3 Connect the electrical connector of the blower assembly.

Blower Speed Regulating Module Replacement

Removal

- 1 Disconnect the electrical connector (1) of the blower speed regulating module.
- 2 Remove 2 retaining screws (2) fixing the blower speed regulating module to the blower housing, and remove the blower speed regulating module (3).



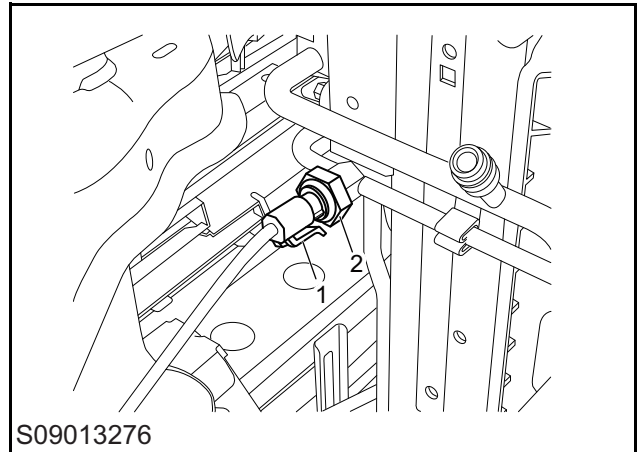
Installation

- 1 Install the blower speed regulating module
- 2 Install 2 retaining screws fixing the blower speed regulating module to the blower housing.
- 3 Connect the electrical connector of the blower speed regulating module.

Refrigerant Pressure Sensor Replacement

Removal

- 1 Drain the refrigerant. Refer to "Refrigerant Drain and Refill".
- 2 Disconnect the electrical connector (1) of the refrigerant pressure sensor.
- 3 Remove the refrigerant pressure sensor (2).



Installation

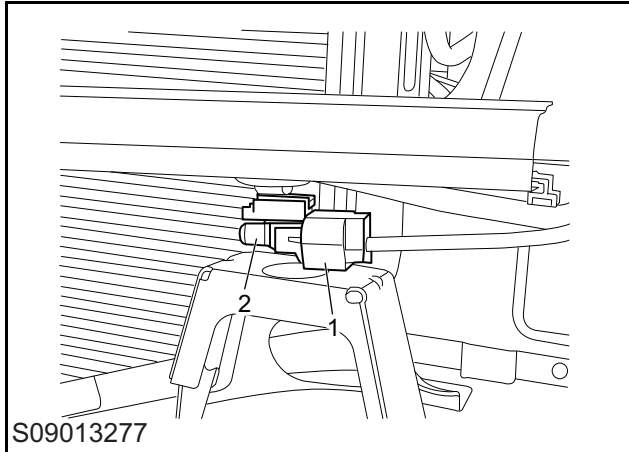
- 1 Install the refrigerant pressure sensor.
- 2 Connect the electrical connector of the refrigerant pressure sensor.
- 3 Refill the refrigerant. Refer to "Refrigerant Drain and Refill".

Heating, Ventilation and Air Conditioning System

Ambient Temperature Sensor Replacement

Removal

- 1 Disconnect the electrical connector (1) of the ambient temperature sensor.
- 2 Pry off the clip and remove the ambient temperature sensor (2).



Installation

- 1 Install the ambient temperature sensor.
- 2 Connect the electrical connector of the ambient temperature sensor.

Interior Lighting

Specification

Parameters

Name	Specification
Front ceiling reading lamp	W5W
Rear ceiling reading lamp	W5W

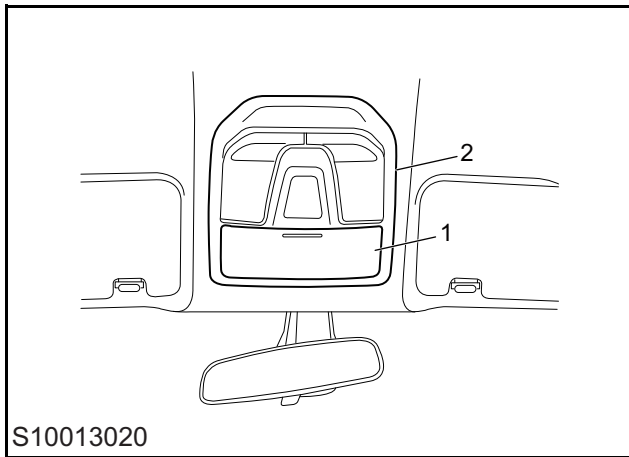
Interior Lighting

Service Guide

Front Ceiling Interior Reading Lamp Assembly Replacement

Removal

- 1 Open the glasses case lid (1).
- 2 Remove 2 retaining screws fixing the front ceiling interior reading lamp assembly to the roof.
- 3 Pry off the clip and remove the front ceiling interior reading lamp assembly from the roof.
- 4 Disconnect the electrical connector of the front ceiling interior reading lamp and remove the front ceiling interior reading lamp assembly (2).



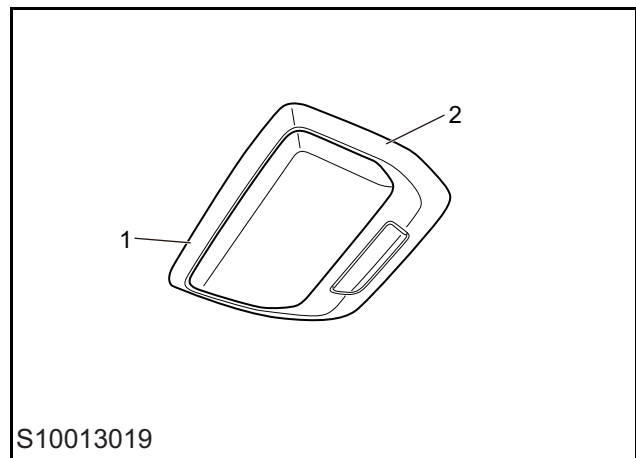
Installation

- 1 Place the front ceiling interior reading lamp, and connect the electrical connector of the front ceiling interior reading lamp.
- 2 Install the front ceiling interior reading lamp to the roof.
- 3 Install and tighten 2 retaining screws fixing the front ceiling interior reading lamp assembly to the roof.
- 4 Close the glasses case lid.

Rear Ceiling Interior Reading Lamp Assembly Replacement

Removal

- 1 Pry the lampshade (1) of the rear ceiling interior reading lamp.
- 2 Remove 2 retaining screws fixing the rear ceiling interior reading lamp to the roof.
- 3 Pry off the clip and remove the rear ceiling interior reading lamp from the roof.
- 4 Disconnect the electrical connector of the rear ceiling interior reading lamp, and remove the rear ceiling interior reading lamp assembly (2).



Installation

- 1 Place the rear ceiling interior reading lamp, and connect the electrical connector of the rear ceiling interior reading lamp.
- 2 Install the rear ceiling interior reading lamp to the roof.
- 3 Install and tighten 2 retaining screws fixing the rear ceiling interior reading lamp assembly to the roof.
- 4 Close the lampshade of the rear ceiling interior reading lamp.

Exterior Lighting

Specification

Fastener Specifications

Name	Torque (Nm)
Bolt - Daytime Running Lamp	5±0.5 Nm
Bolt - Front Combination Lamp	5±0.5 Nm
Bolt - Rear Combination Lamp	5±1 Nm

Bulb Specification

Bulb	Specification
Front low beam lamp bulb	H7
Front low beam lamp bulb	H7
Rear turning signal lamp	W16W
Reverse lamp	PY21W

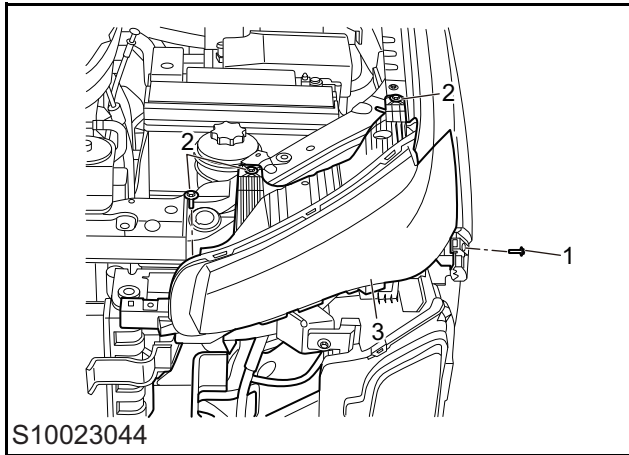
Exterior Lighting

Service Guide

Daytime Running Lamp Replacement

Removal

- 1 Remove the front bumper assembly. Refer to "Front Bumper Assembly Replacement".
- 2 Remove 1 retaining screw (1) and 3 retaining bolts (2) from the daytime running lamp.
- 3 Remove the daytime running lamp from the body.
- 4 Disconnect the electrical connector of the daytime running lamp and remove the daytime running lamp (3).



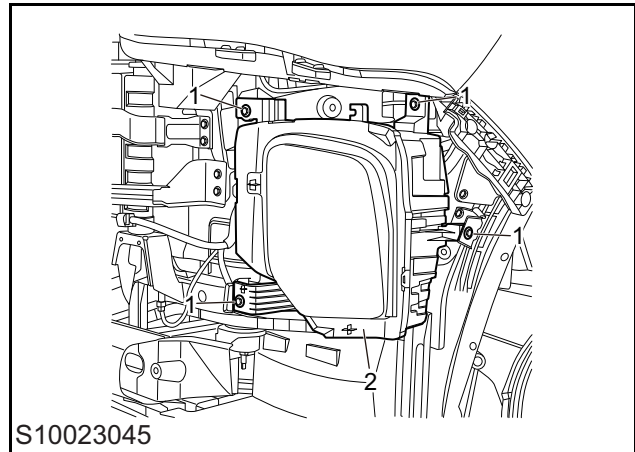
Installation

- 1 Place the daytime running lamp, and connect the electrical connector of the daytime running lamp.
- 2 Install the daytime running lamp to the vehicle body.
- 3 Install 1 retaining screw and 3 retaining bolts on the daytime running lamp, tighten them to 5 ± 0.5 Nm, and check the torque.
- 4 Install the front bumper assembly. Refer to "Front Bumper Assembly Replacement".

Front Combination Lamp Replacement

Removal

- 1 Remove the front bumper assembly. Refer to "Front Bumper Assembly Replacement".
- 2 Remove 4 retaining bolts (1) fixing the front combination lamp to the vehicle body.
- 3 Disconnect the electrical connector of the front combination lamp and remove the front combination lamp (2).



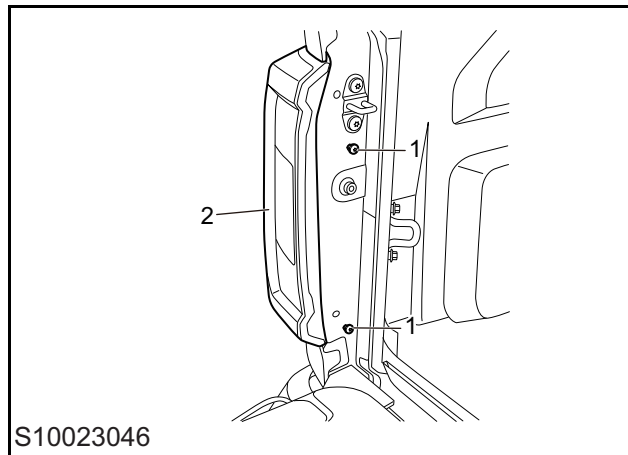
Installation

- 1 Connect the electrical connector of the front combination lamp and install the front combination lamp.
- 2 Install 4 retaining bolts fixing the front combination lamp to the vehicle body, tighten them to 5 ± 0.5 Nm, and check the torque.
- 3 Install the front bumper assembly. Refer to "Front Bumper Assembly Replacement".

Rear Combination Lamp Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Open the rear panel.
- 3 Remove 2 retaining screws (1) fixing the rear combination lamp to the vehicle body.
- 4 Remove the rear combination lamp (2) from the vehicle body.



- 5 Disconnect the electrical connector of the rear combination lamp and remove the rear combination lamp.

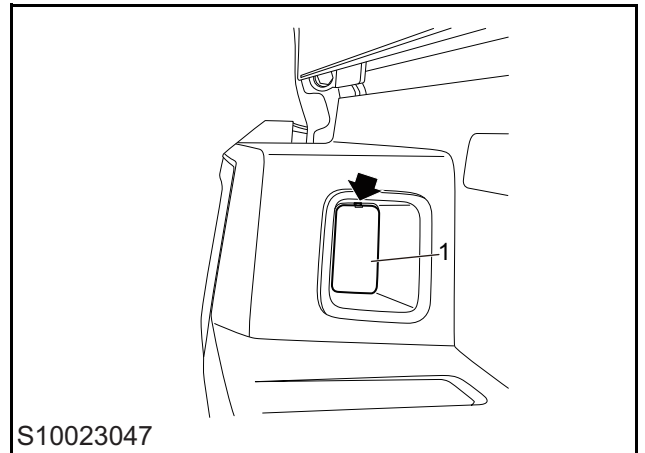
Installation

- 1 Place the rear combination lamp, and connect the electrical connector of the rear combination lamp.
- 2 Install the rear combination lamp on the vehicle body.
- 3 Install 2 retaining screws fixing the rear combination lamp to the vehicle body, tighten them to 5 ± 1 Nm, and check the torque.
- 4 Connect the negative battery cable.

License Lamp Replacement

Removal

- 1 Use a small screw to pry off the clip through the access hole and remove the license plate lamp assembly.
- 2 Disconnect the electrical connector of the license plate lamp assembly and remove the license plate lamp assembly (1).



Installation

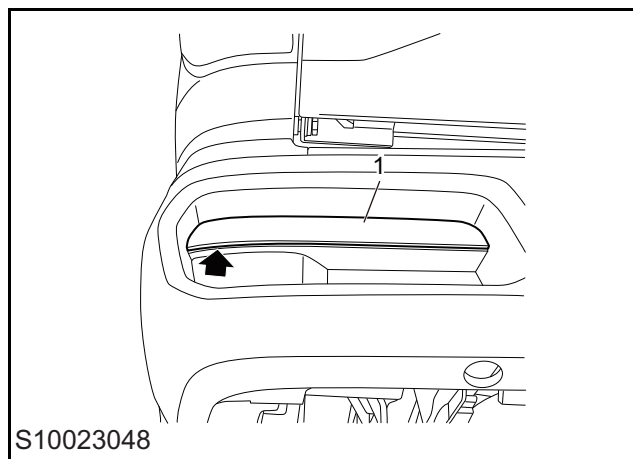
- 1 Place the license plate lamp assembly and connect the electrical connector of the license plate lamp assembly.
- 2 Install the license plate lamp assembly.

Exterior Lighting

Reflex Reflector Replacement

Removal

- 1 Use a small screwdriver to pry off the clip through the access hole and remove the reflex reflector (1).



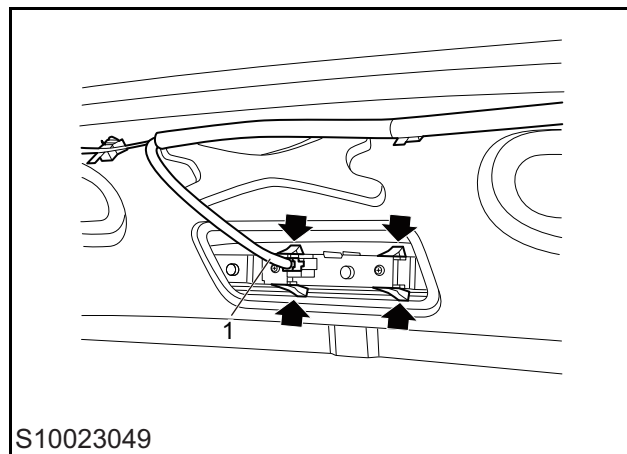
Installation

- 1 Install the reflex reflector.

High-mounted Stop Lamp Replacement

Removal

- 1 Remove the driver compartment roof interior assembly. Refer to "Driver Compartment Roof Interior Assembly Replacement".
- 2 Disconnect the electrical connector of the high-mounted stop lamp.
- 3 Pry off the clip and remove the high-mounted stop lamp.



Installation

- 1 Place the high-mounted stop lamp and connect the electrical connector of the high-mounted stop lamp.
- 2 Install the high-mounted stop lamp to the vehicle body.
- 3 Install the driver compartment roof interior assembly. Refer to "Driver Compartment Roof Interior Assembly Replacement".

Description and Operation

Front Combination Lamp Dimming

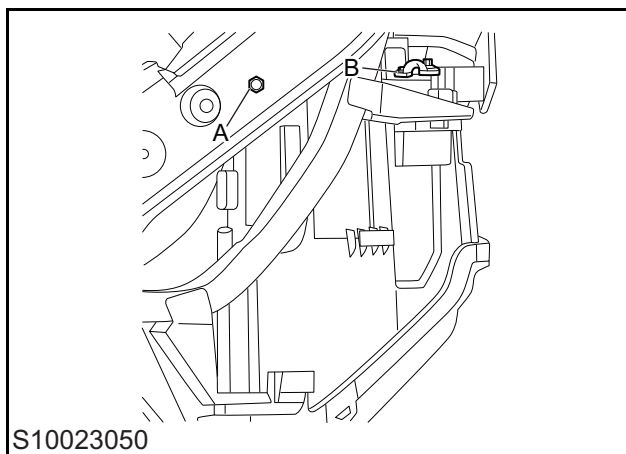
Downline dimming of headlamps means manually adjusting the illumination angle of headlamps through dimming bolts on headlamps, ensuring that the initial illumination of low/high-beam of headlamps meets the requirements of laws and regulations.

The steps of headlamp downline dimming are as follows:

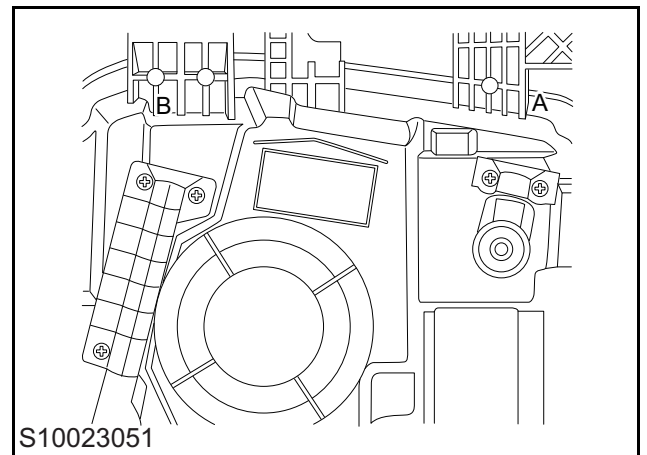
- 1 With only one person sitting in the driver's seat of the non-loading vehicle parked on the flat ground;
- 2 Turn the key to ON to start the engine;
- 3 Turn off other electrical appliances except headlamps and front fog lamps;
- 4 Turn the low beam regulating switch of the headlamp to "0" position;
- 5 Align the vehicle under test with the headlamp detector at a prescribed distance;
- 6 Turn on the low beam of the headlamp and test it with the headlamp detector; meanwhile, manually regulate the dimming bolt of the headlamp until the design requirement is met;
- 7 Manual dimming completed.

Caution: Steps 3 and 4 must be executed, otherwise the light intensity will be affected.

Top View



Front View



A is to adjust the light pattern to move up and down;

B is to adjust the light pattern to move left and right;

Firstly adjust light pattern by moving it up and down until the requirement is met, then adjust light pattern by moving it left and right until the requirement is met.

Left Headlamp:

When A is being adjusted, clockwise turning will be downward adjustment;

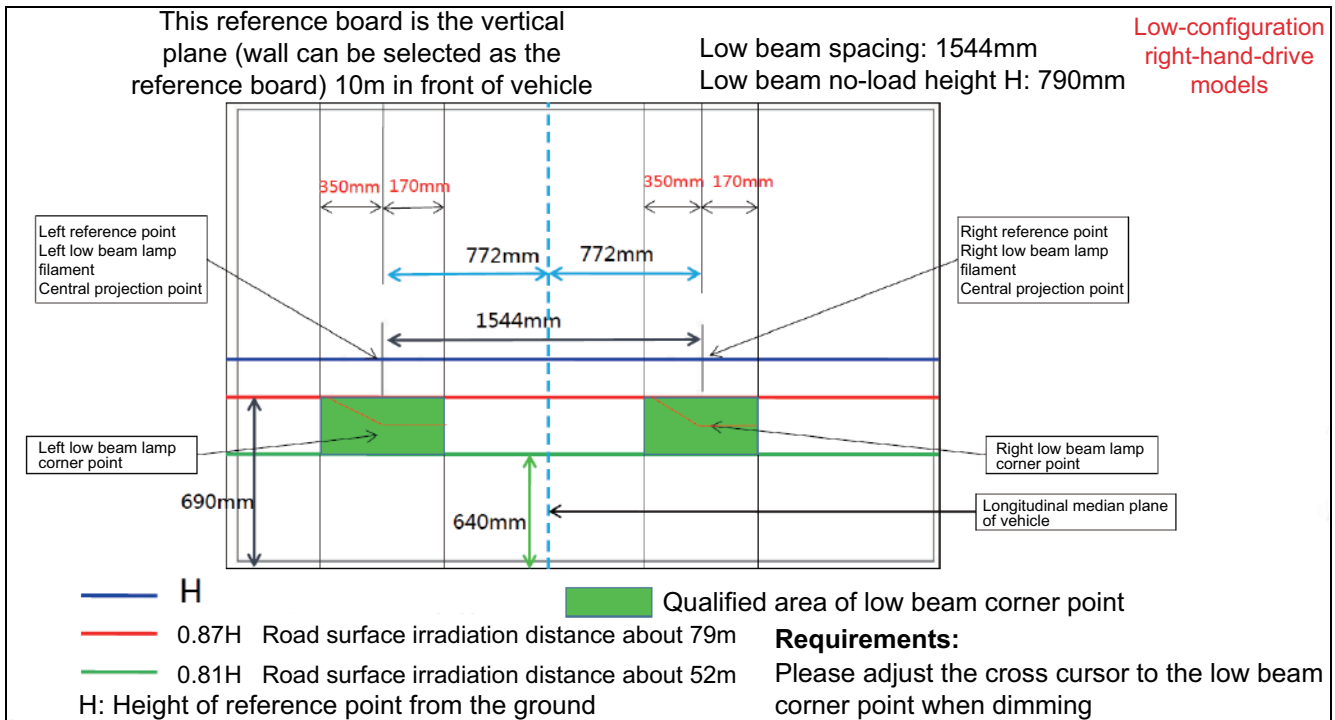
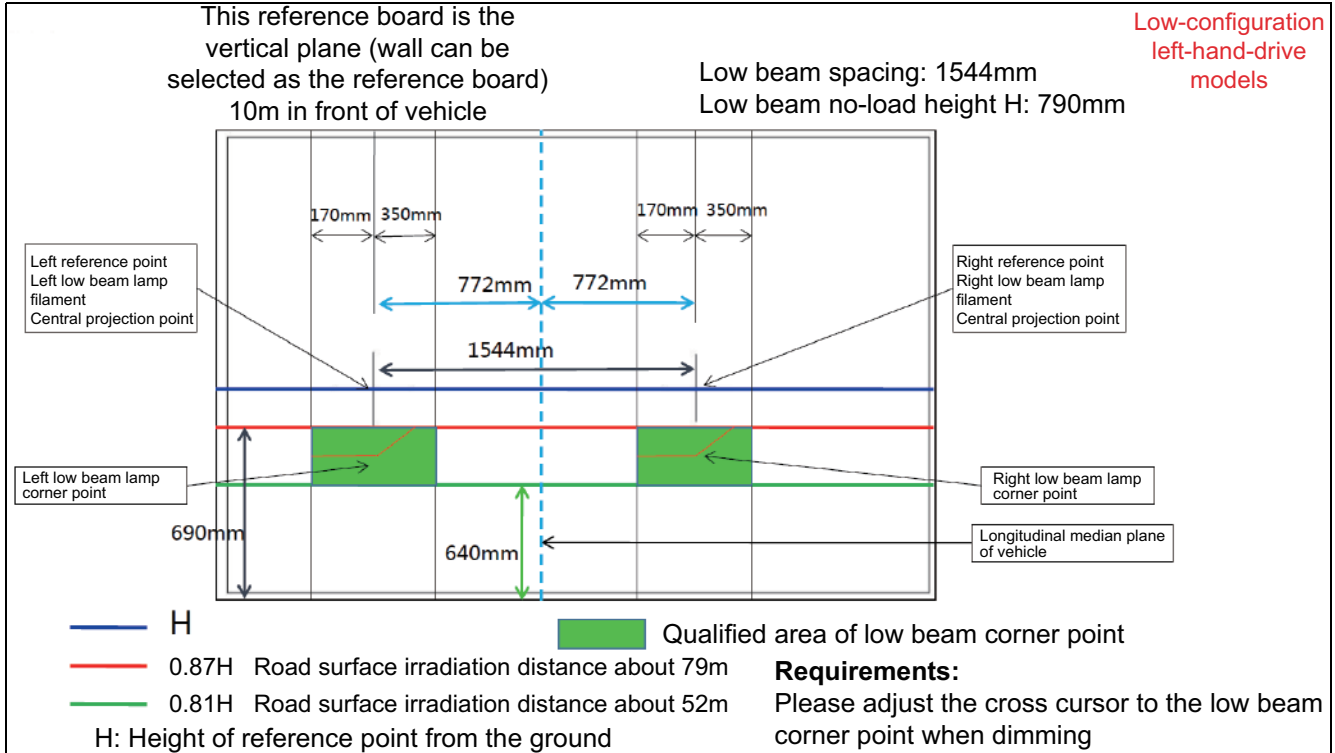
When B is being adjusted, clockwise turning will be right adjustment.

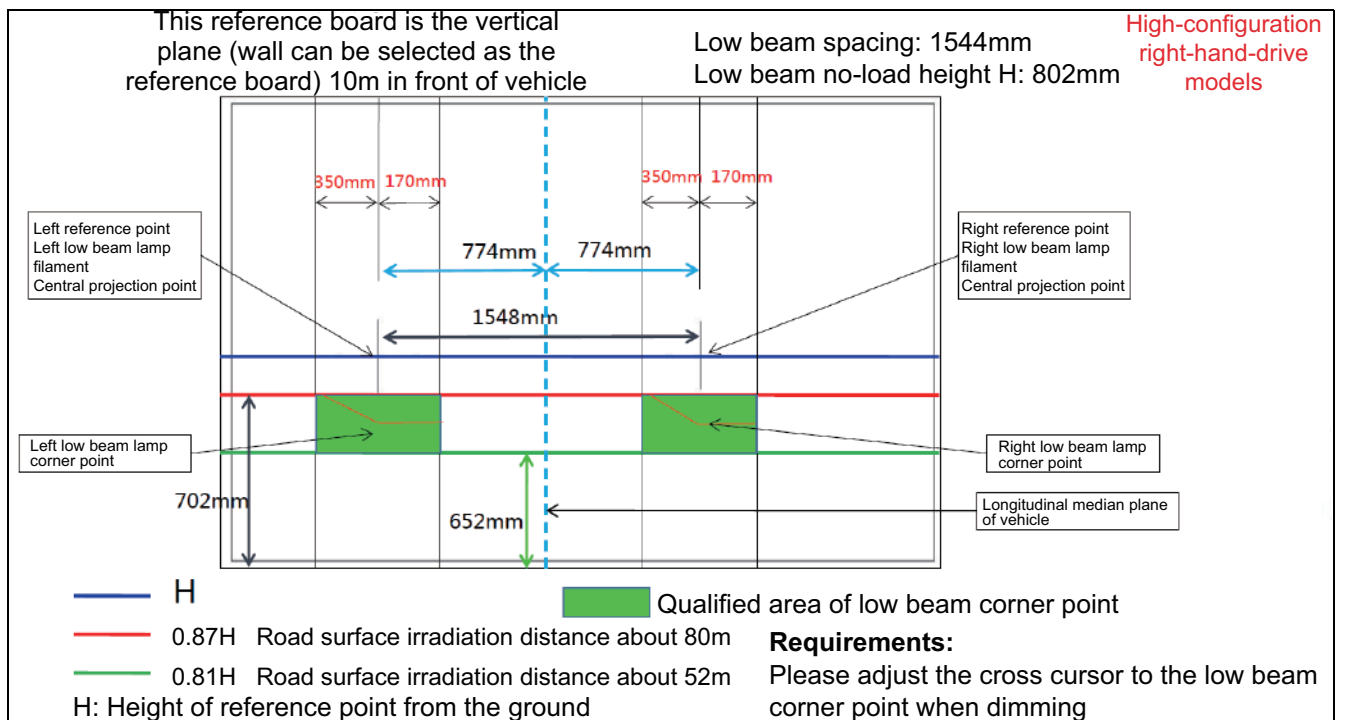
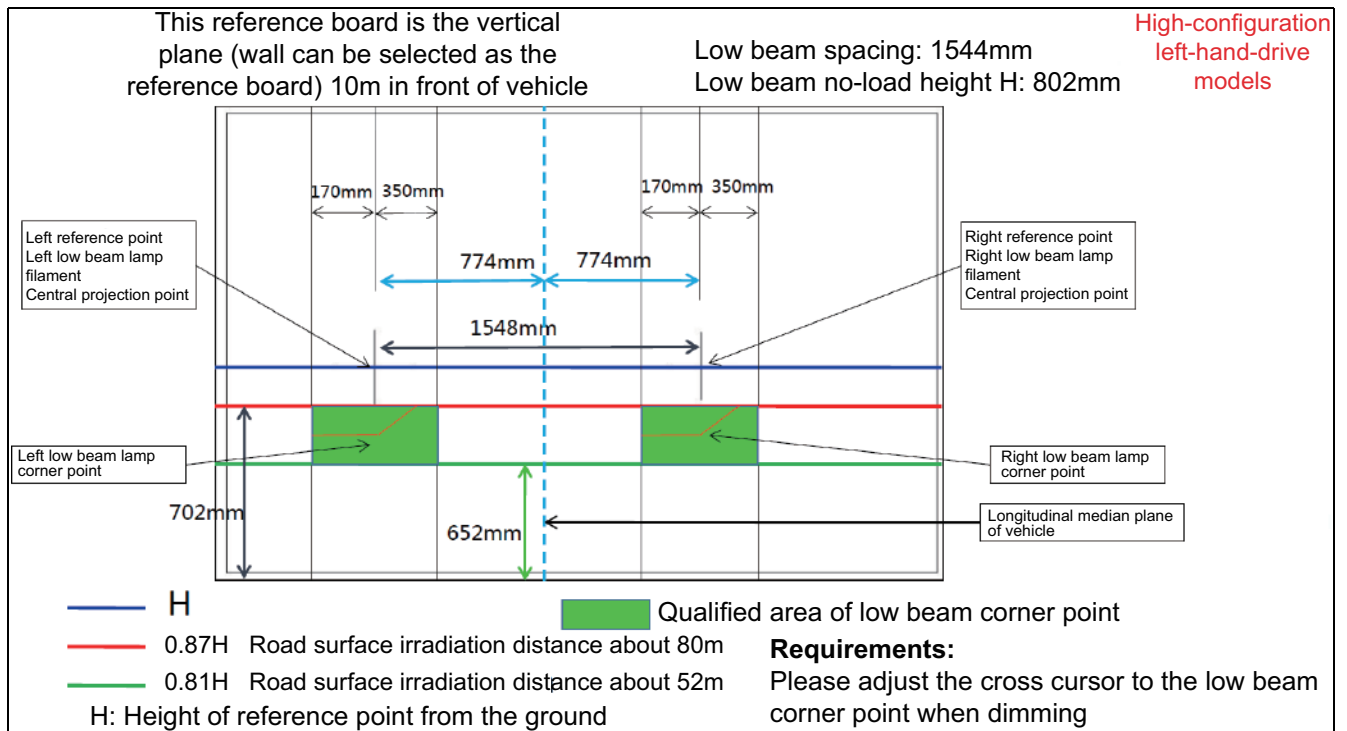
Right Headlamp:

When A is being adjusted, clockwise turning will be downward adjustment;

When B is being adjusted, clockwise turning will be left adjustment.

Exterior Lighting





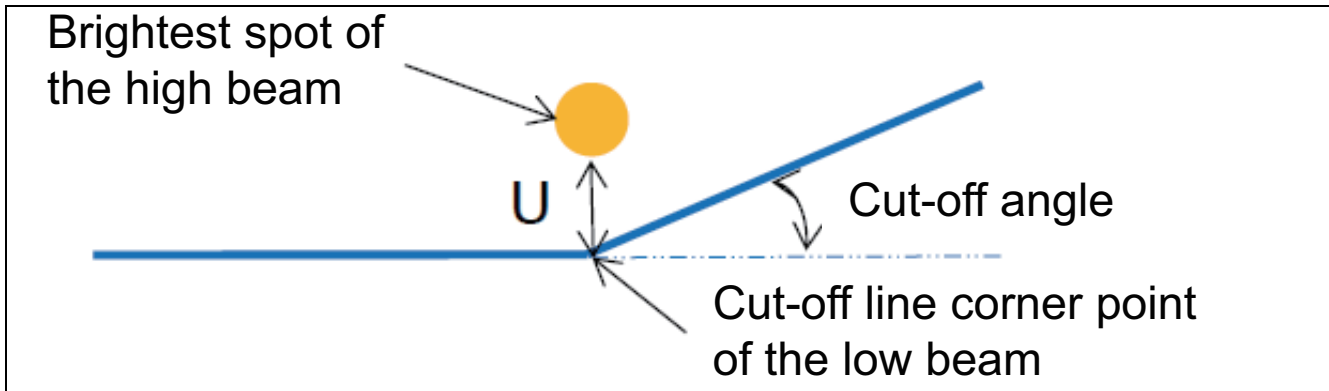
Low/high beam adjusting is integrated in the low/high-configuration headlamps. According to GB7258, the high beam will be no longer adjusted separately; However, it needs to ensure that the light intensity at the brightest spot of the high beam is not less than 30000 CD on the premise that the lamp terminal voltage is not less than 13.2V.

Design position of brightest spot of high beam: After the adjustment of the cut-off angle, the relative position of the brightest spot of the high beam is as below.

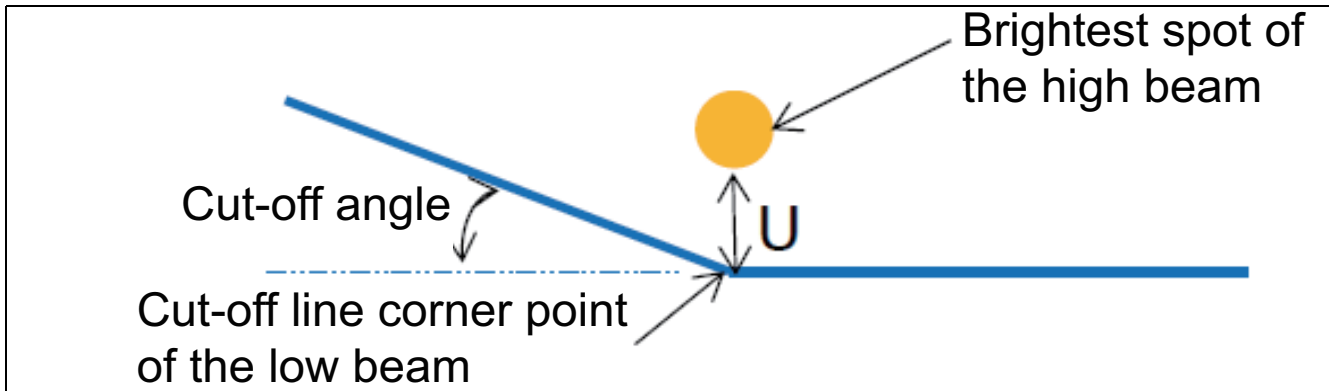
Exterior Lighting

		Cut-off angle	The brightest point of the high beam (U)
Low-configuration	For left-hand-drive models:	15°	-0.3°
	For right-hand-drive models:	15°	-0.3°
High-configuration	For left-hand-drive models:	45°	-0.5°
	For right-hand-drive models:	45°	-0.5°

For left-hand-drive models:



For right-hand-drive models:



Instrument Panel and Console

Specification

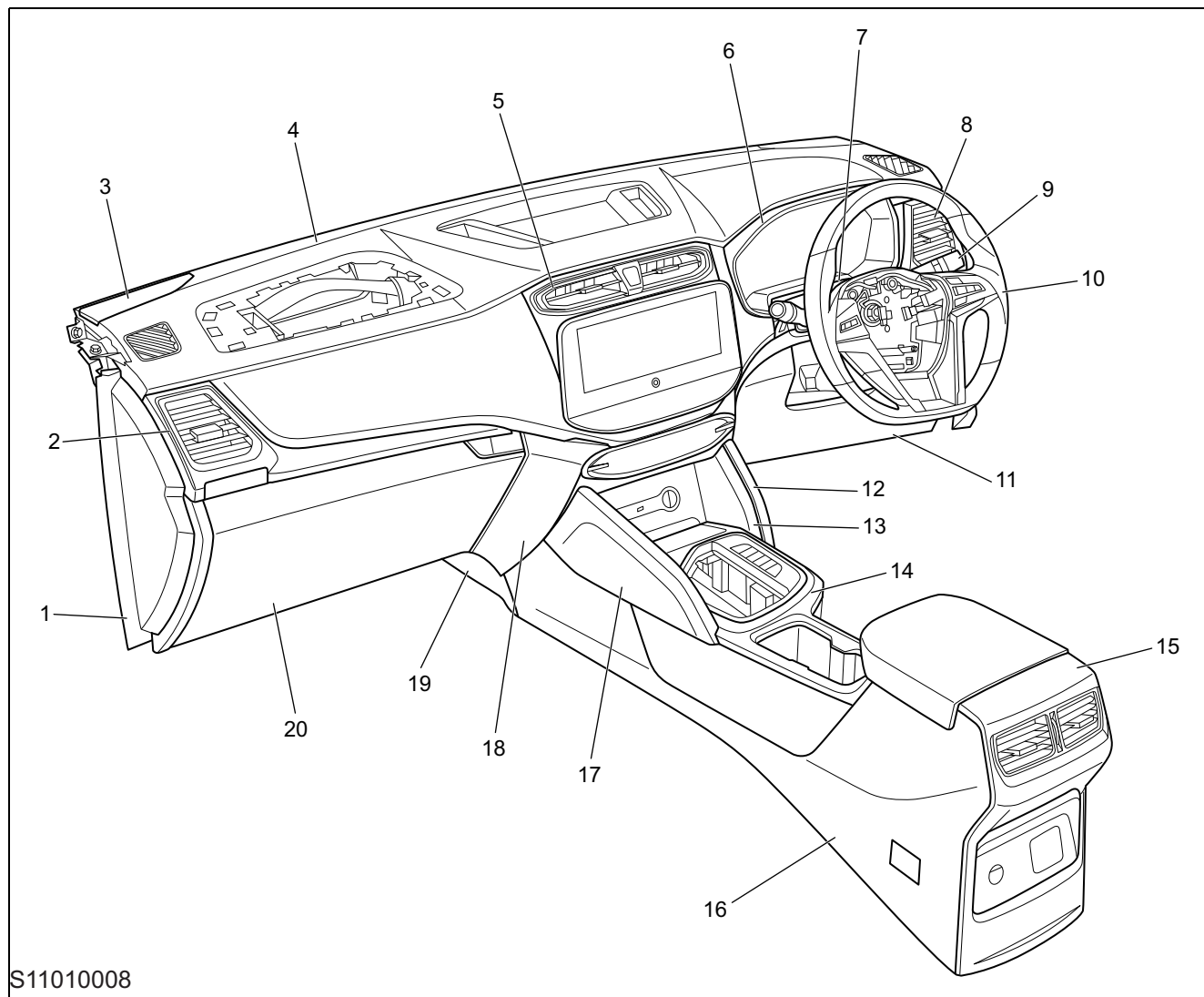
Fastener Specifications

Name	Torque (Nm)
Bolt - Instrument Panel Body	5±1 Nm
Bolt - Instrument Panel Beam	20±2 Nm
Bolt - Instrument Panel Beam to Front HVAC Assembly	9±1 Nm
Bolt - Instrument Harness to Instrument Panel Beam	5±1 Nm
Nut - Fuse Box to Instrument Panel Beam	5±1 Nm
Bolt - Auxiliary Fascia Console Body	5±1 Nm
Bolt - Front Passenger Airbag Assembly to Beam	9±1 Nm

Instrument Panel and Console

Layout

Instrument Panel and Console Layout



S11010008

- | | | | |
|----|--|----|---|
| 1 | Left Cover Plate Assembly | 11 | Instrument Panel Driver Side Lower Guard Plate Assembly |
| 2 | Left Air Outlet Panel Assembly | 12 | Right Coated Trim Panel Assembly |
| 3 | Speaker Grille Assembly | 13 | USB Panel |
| 4 | Instrument Panel Body Assembly | 14 | Upper Trim Panel Assembly of Auxiliary Fascia Console |
| 5 | Instrument Panel Central Air Outlet Panel Assembly | 15 | Auxiliary Fascia Console Rear Panel Assembly |
| 6 | Instrument Cluster Shroud Assembly | 16 | Auxiliary Fascia Console Body Assembly |
| 7 | Upper/Lower Steering Column Shroud Assembly | 17 | Left Coated Trim Panel Assembly |
| 8 | Right Air Outlet Panel Assembly | 18 | Instrument Panel Central Lower Trim Panel Assembly |
| 9 | Combination Switch | 19 | Auxiliary Fascia Console Left Forward Extending Plate |
| 10 | Steering Wheel | | |

20 Glove Box Assembly

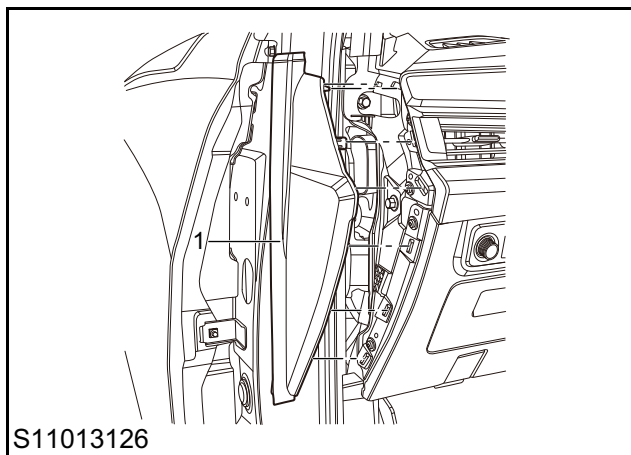
Instrument Panel and Console

Service Guide

Instrument Panel Side End Cover Assembly Replacement

Removal

- 1 Pry off the clip and remove the instrument panel side end cover assembly from the instrument panel.



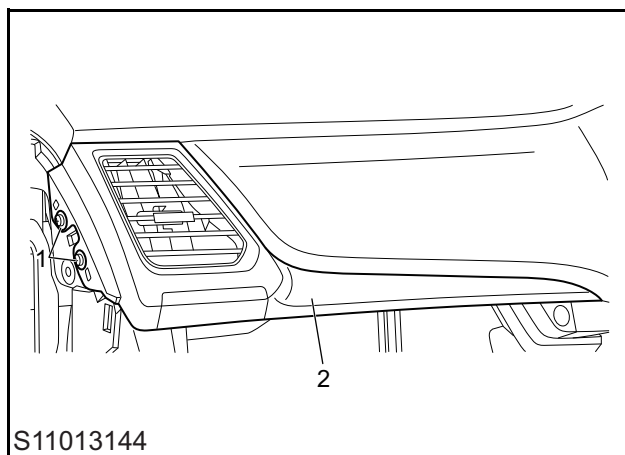
Installation

- 1 Install the instrument panel side end cover assembly on the instrument panel.

Instrument Panel Left Air Outlet Assembly Replacement

Removal

- 1 Remove the left end cover assembly. Refer to "Instrument Panel Side End Cover Assembly Replacement".
- 2 Remove the screw (1) of the instrument panel left air outlet assembly.
- 3 Remove the instrument panel left air outlet assembly (2).



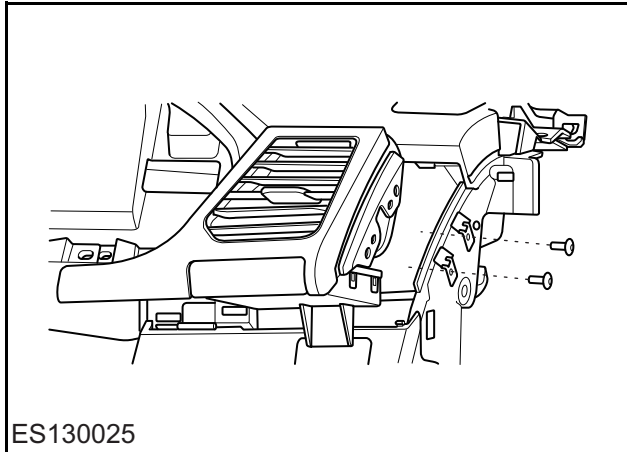
Installation

- 1 Install the instrument panel left air outlet assembly.
- 2 Install and tighten the screw of the instrument panel left air outlet assembly.
- 3 Install the left end cover assembly. Refer to "Instrument Panel Side End Cover Assembly Replacement".

Instrument Panel Right Air Outlet Assembly Replacement

Removal

- 1 Remove the right end cover assembly. Refer to "Instrument Panel Side End Cover Assembly Replacement".
- 2 Remove the screw of the instrument panel left air outlet assembly.
- 3 Remove the instrument panel left air outlet assembly.



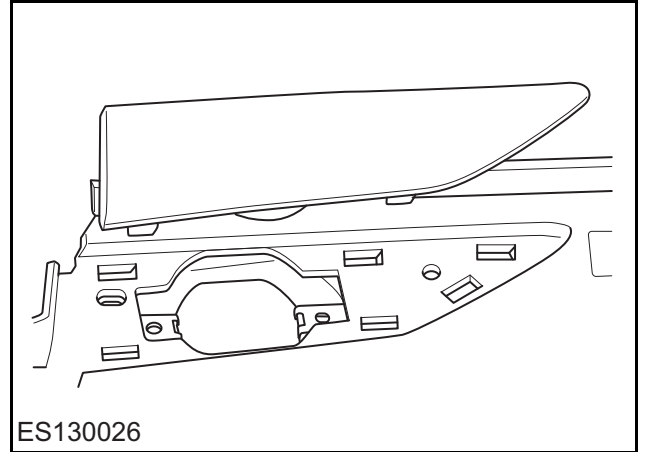
Installation

- 1 Install the instrument panel left air outlet assembly.
- 2 Install and tighten the screw of the instrument panel left air outlet assembly.
- 3 Install the right end cover assembly. Refer to "Instrument Panel Side End Cover Assembly Replacement".

Instrument Panel Loudspeaker Grille Replacement

Removal

- 1 Slightly pry upward with a proper tool.
- 2 Remove the instrument panel loudspeaker grille.



Installation

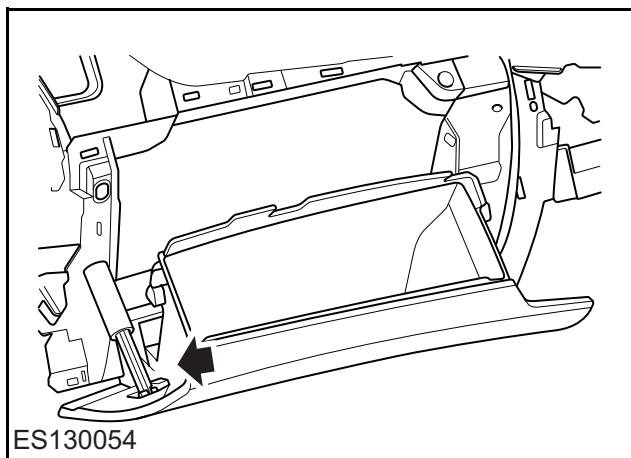
- 1 Install the speaker grille onto the instrument panel, and ensure it is installed in place.

Instrument Panel and Console

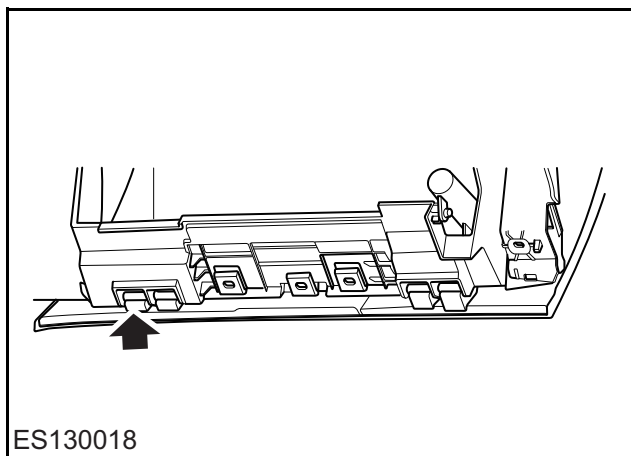
Glove Box Assembly Replacement

Removal

- 1 Disconnect the glove box damper.



- 2 Remove the glove box from the glove box rotating shaft.



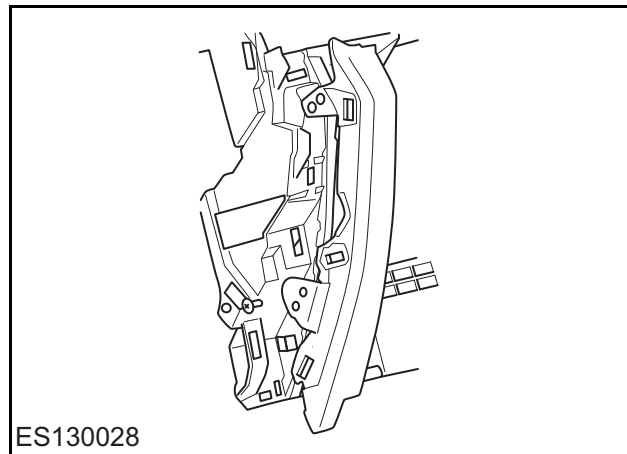
Installation

- 1 Install the glove box onto the glove box rotating shaft.
- 2 Connect the glove box damper.

Glove Box Side Trim Panel Assembly Replacement

Removal

- 1 Remove the left end cover assembly. Refer to "Instrument Panel Side End Cover Assembly Replacement".
- 2 Unscrew two retaining screws from one side of glove box side trim panel.
- 3 Pull out the glove box side trim panel assembly.



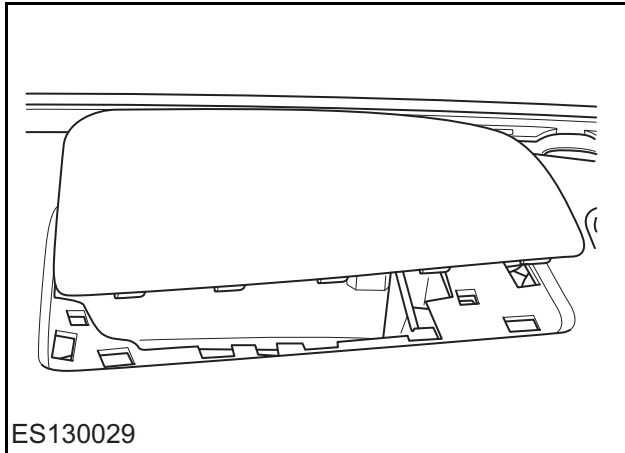
Installation

- 1 Install the glove box side trim panel assembly.
- 2 Install and tighten 2 retaining screws on one side of the glove box side trim panel.
- 3 Install the left end cover assembly. Refer to "Instrument Panel Side End Cover Assembly Replacement".

Front Passenger Airbag Cover Plate Replacement

Removal

- 1 Slightly pry the cover plate from its lower left corner with a proper tool.
- 2 Pry clips along the edge in turn (be careful to prevent damaging clips).
- 3 Remove the front passenger airbag cover plate.



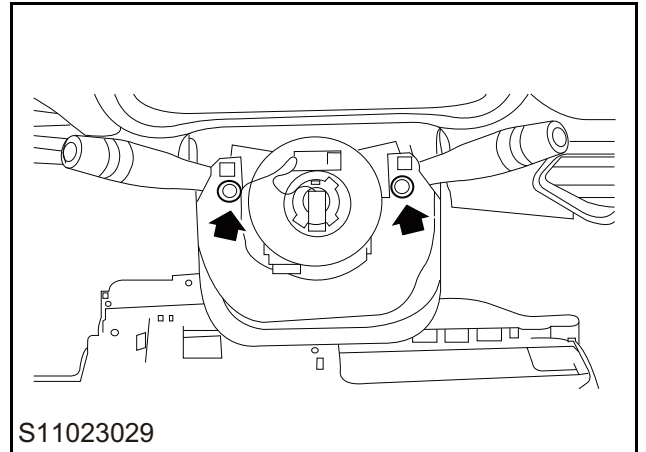
Installation

- 1 Install the front passenger airbag cover plate, and check whether it is installed in place.

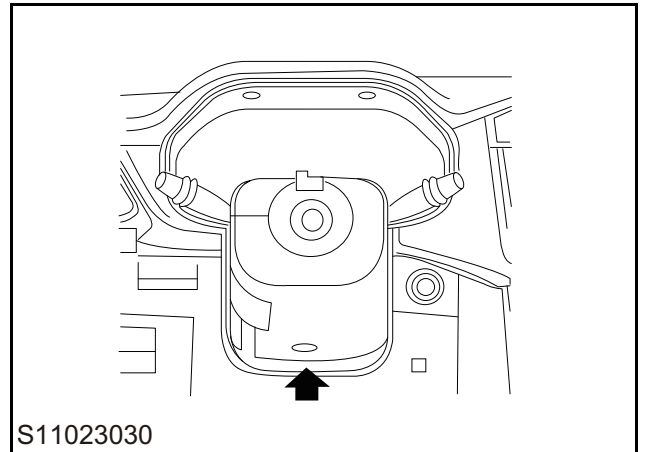
Upper and Lower Steering Column Shrouds Replacement

Removal

- 1 Pry off the upper steering column shroud with a proper tool.
- 2 Rotate the steering wheel to a proper position, and remove the screws connecting the lower steering column shroud to the combination switch base.



- 3 Remove the screws from the bottom of lower steering column shroud.
- 4 Remove the lower steering column shroud.



Installation

- 1 Install the lower steering column shroud.
- 2 Install and tighten the screws on the bottom of lower steering column shroud.
- 3 Install and tighten the screws connecting the lower steering column shroud to the combination switch base.

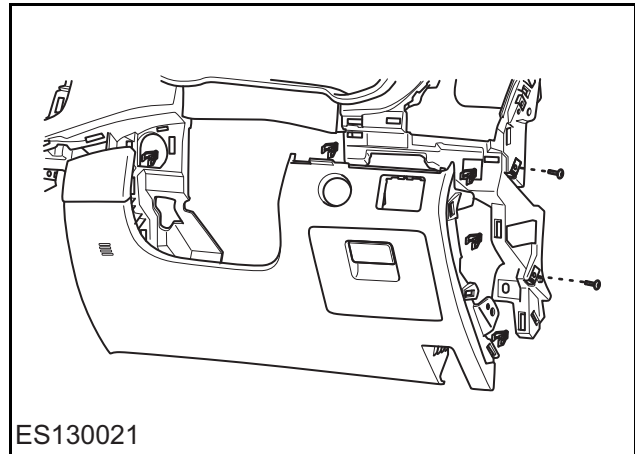
Instrument Panel and Console

- 4 Install the upper steering column shroud.

Driver Side Lower Guard Plate Assembly Replacement

Removal

- 1 Remove the right air outlet panel assembly. Refer to "Right Air Outlet Panel Assembly Replacement".
- 2 Remove 2 screws connecting the driver side lower guard plate assembly to body.
- 3 Remove the bonnet cable handle.
- 4 Remove the connecting bolt (bottom) from data link connector.
- 5 Remove the driver side lower guard plate assembly.



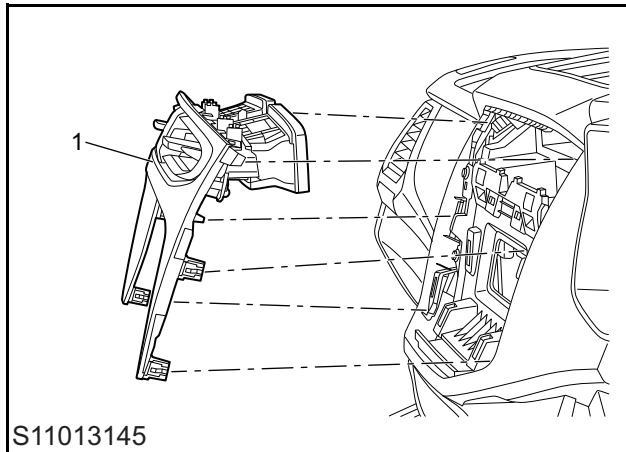
Installation

- 1 Install the driver side lower guard plate assembly.
- 2 Install and tighten the connecting bolt of the data link connector.
- 3 Install the engine hood cable handle.
- 4 Install and tighten 2 screws connecting the driver side lower guard plate assembly to the body.
- 5 Install the right air outlet panel assembly. Refer to "Right Air Outlet Panel Assembly Replacement".

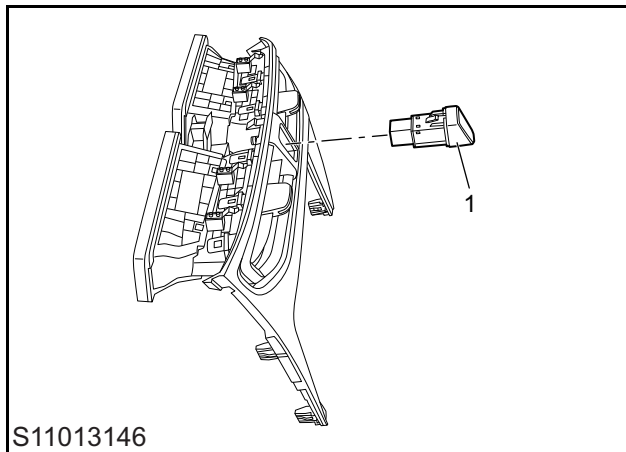
Instrument Panel Central Air Outlet Panel Assembly Replacement

Removal

- 1 Remove the entertainment system display. Refer to "Entertainment System Display Replacement".
- 2 Carefully pry out the clip, and remove the instrument panel central air outlet panel assembly.
- 3 Disconnect the electrical connector of the double trip alarm switch.



- 4 If required, carefully remove the double trip alarm switch (1).



Installation

- 1 Install the double trip alarm switch onto the central air outlet panel assembly of the instrument panel.
- 2 Connect the electrical connector of the double trip alarm switch.
- 3 Install the instrument panel central air outlet panel assembly.

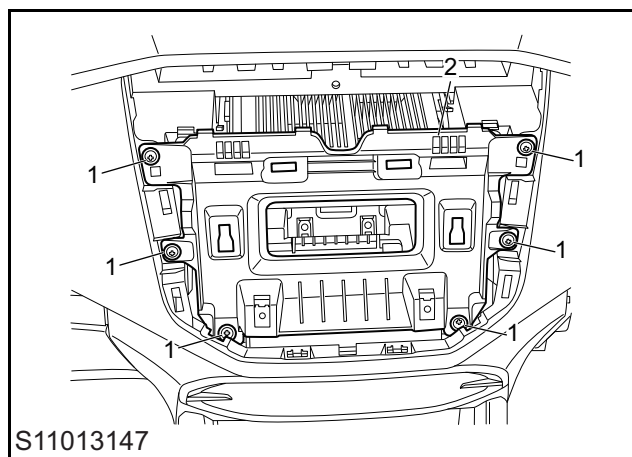
- 4 Install the entertainment system display. Refer to "Entertainment System Display Replacement".

Instrument Panel and Console

Instrument Panel Central Mounting Bracket Replacement

Removal

- 1 Remove the instrument panel central air outlet panel assembly. Refer to "Instrument Panel Central Air Outlet Panel Assembly Replacement".
- 2 Remove the bolt (1) of the central mounting bracket of the instrument panel.
- 3 Remove the central mounting bracket (2) of the instrument panel.



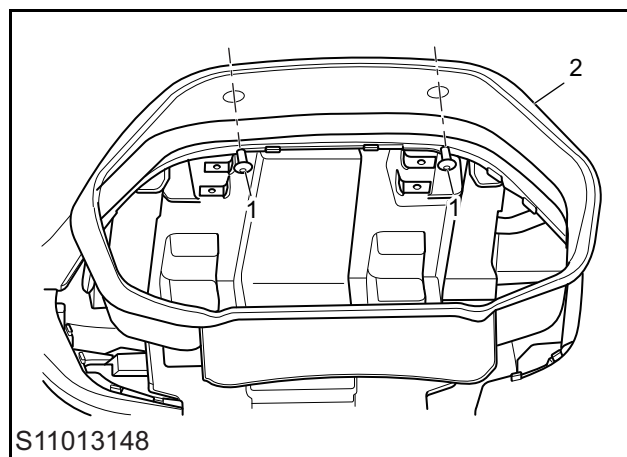
Installation

- 1 Install the instrument panel central mounting bracket.
- 2 Install and tighten the bolt of the instrument panel central mounting bracket.
- 3 Install the instrument panel central air outlet panel assembly. Refer to "Instrument Panel Central Air Outlet Panel Assembly Replacement".

Instrument Cluster Shroud Assembly Replacement

Removal

- 1 Remove the right instrument panel cover plate assembly. Refer to "Instrument Panel Cover Plate Assembly Replacement".
- 2 Remove the right air outlet panel assembly. Refer to "Right Air Outlet Panel Assembly Replacement".
- 3 Remove the upper steering column shroud. Refer to "Upper Steering Column Shroud Replacement".
- 4 Remove 2 retaining screws (1) of the instrument cluster shroud.
- 5 Remove the instrument cluster shroud (2) by slowly prying it off with a proper tool.



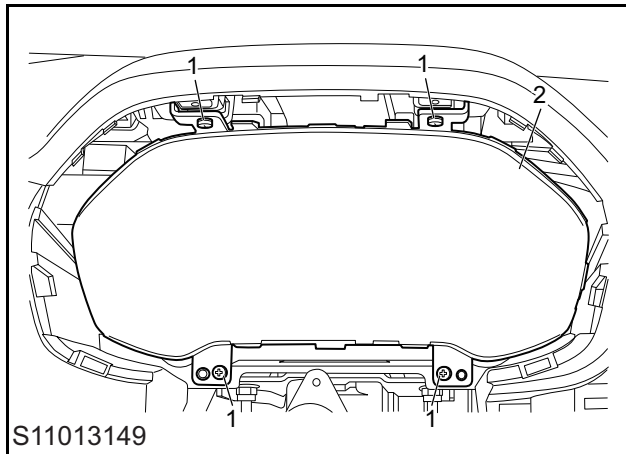
Installation

- 1 Install the instrument cluster shroud onto the instrument panel.
- 2 Install and tighten the screw of the instrument cluster shroud.
- 3 Install the right air outlet panel assembly. Refer to "Right Air Outlet Panel Assembly Replacement".
- 4 Install the right instrument panel cover plate assembly. Refer to "Instrument Panel Cover Plate Assembly Replacement".

Instrument Cluster Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the instrument pack shroud assembly. Refer to "Instrument Pack Shroud Assembly Replacement".
- 3 Remove 4 bolts (1) fixing the instrument cluster.
- 4 Remove the instrument cluster assembly (2).
- 5 Disconnect the electrical connector.



Installation

- 1 Connect the electrical connector.
- 2 Install the instrument pack assembly.
- 3 Install and tighten 4 bolts fixing the instrument cluster.
- 4 Install the instrument pack shroud assembly. Refer to "Instrument Pack Shroud Assembly Replacement".
- 5 Connect the negative battery cable.
- 6 Perform the self-learning of the new module. Refer to "Operating Instructions for After-sales Scan Tool Software - IPK Controller".

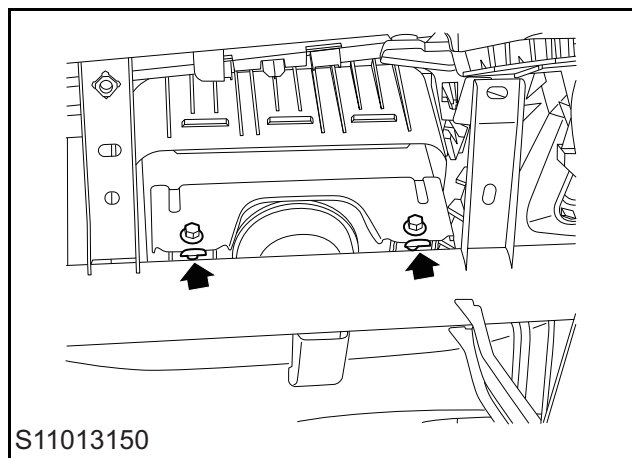
Instrument Panel Body Assembly Replacement

Removal

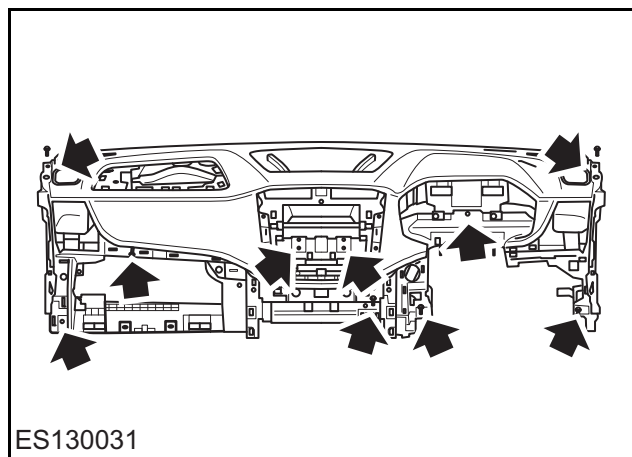
- 1 Remove the left and right A-pillar upper trim panel assemblies. Refer to "A-pillar Upper Trim Panel Assembly Replacement".
- 2 Remove the left and right instrument panel side end cover assemblies. Refer to "Instrument Panel Side End Cover Assembly Replacement".
- 3 Remove the instrument panel left air outlet assembly. Refer to "Instrument Panel Left Air Outlet Assembly Replacement".
- 4 Remove the instrument panel right air outlet assembly. Refer to "Instrument Panel Right Air Outlet Assembly Replacement".
- 5 Remove the ignition switch. Refer to "Ignition Switch Replacement".
- 6 Remove the entertainment system display. Refer to "Entertainment System Display Replacement".
- 7 Remove the entertainment system mainframe. Refer to "Entertainment System Mainframe Replacement".
- 8 Remove the left and right tweeters. Refer to "Tweeter Replacement".
- 9 Remove the rearview mirror regulating and dimmer switch assembly. Refer to "Rearview Mirror Regulating and Dimmer Switch Assembly Replacement".
- 10 Remove the driver airbag module assembly. Refer to "Driver Airbag Module Assembly Replacement".
- 11 Remove the steering wheel assembly. Refer to "Steering Wheel Assembly Replacement".
- 12 Remove the upper and lower steering column shroud assembly. Refer to "Upper and Lower Steering Column Shroud Assembly Replacement".
- 13 Remove the combination switch assembly. Refer to "Combination Switch Assembly Replacement".
- 14 Remove the clock spring assembly and the clock spring returning ring. Refer to "Clock Spring Assembly and Clock Spring Returning Ring Replacement".

Instrument Panel and Console

- 15 Remove the combination switch base. Refer to "Combination Switch Base Replacement".
- 16 Remove the instrument pack. Refer to "Instrument Pack Replacement".
- 17 Remove the instrument panel driver side lower guard plate assembly. Refer to "Instrument Panel Driver Side Lower Guard Plate Assembly Replacement".
- 18 Remove the glove box assembly. Refer to "Glove Box Assembly Replacement".
- 19 Remove the bolt fixing the front passenger airbag assembly to the beam.



- 20 Disconnect the harness connector of the front passenger airbag assembly.
- 21 Remove the auxiliary fascia console body assembly. Refer to "Auxiliary Fascia Console Body Assembly Replacement".
- 22 Remove the bolt fixing the instrument panel body assembly.

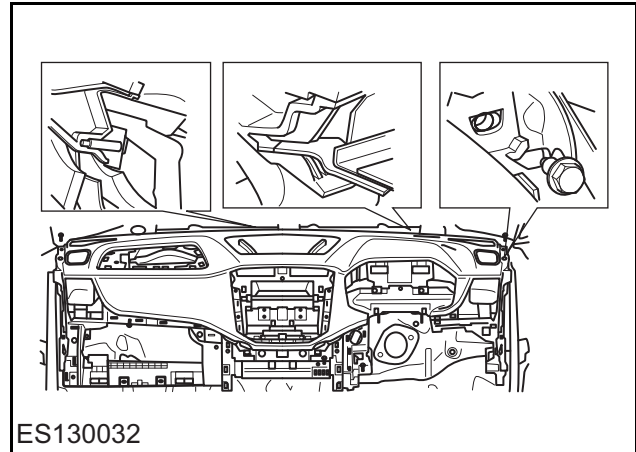


- 23 Remove the instrument panel body assembly (3).

Installation

- 1 Install the instrument panel body assembly.

Caution: Connect the instrument panel body to the dash panel with one pin in the middle and each insert slice on both sides, and fasten it to the side wall inner plate by each bolt on both ends respectively.



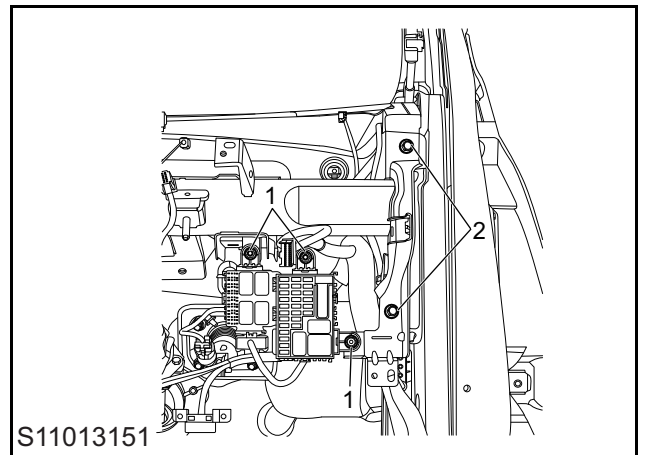
- 2 Install the bolt fixing the instrument panel body assembly, tighten it to 5 ± 1 Nm, and check the torque.
- 3 Install the auxiliary fascia console body assembly. Refer to "Auxiliary Fascia Console Body Assembly Replacement".
- 4 Install the bolt fixing the front passenger airbag assembly to the beam, tighten it to 9 ± 1 Nm, and check the torque.
- 5 Install the glove box assembly. Refer to "Glove Box Assembly Replacement".
- 6 Install the instrument panel driver side lower guard plate assembly. Refer to "Instrument Panel Driver Side Lower Guard Plate Assembly Replacement".
- 7 Install the instrument pack. Refer to "Instrument Pack Replacement".
- 8 Install the combination switch base. Refer to "Combination Switch Base Replacement".
- 9 Install the clock spring assembly and the clock spring returning ring. Refer to "Clock Spring Assembly and Clock Spring Returning Ring Replacement".

- 10 Install the combination switch assembly. Refer to "Combination Switch Assembly Replacement".
- 11 Install the upper and lower steering column shroud assembly. Refer to "Upper and Lower Steering Column Shroud Assembly Replacement".
- 12 Install the steering wheel assembly. Refer to "Steering Wheel Assembly Replacement".
- 13 Install the driver airbag module assembly. Refer to "Driver Airbag Module Assembly Replacement".
- 14 Install the rearview mirror regulating and dimmer switch assembly. Refer to "Rearview Mirror Regulating and Dimmer Switch Assembly Replacement".
- 15 Install the left and right tweeters. Refer to "Tweeter Replacement".
- 16 Install the entertainment system mainframe. Refer to "Entertainment System Mainframe Replacement".
- 17 Install the entertainment system display. Refer to "Entertainment System Display Replacement".
- 18 Install the ignition switch. Refer to "Ignition Switch Replacement".
- 19 Install the instrument panel right air outlet assembly. Refer to "Instrument Panel Right Air Outlet Assembly Replacement".
- 20 Install the instrument panel left air outlet assembly. Refer to "Instrument Panel Left Air Outlet Assembly Replacement".
- 21 Install the left and right instrument panel side end cover assembly. Refer to "Instrument Panel Side End Cover Assembly Replacement".
- 22 Install the left and right A-pillar upper trim panel assembly. Refer to "A-pillar Upper Trim Panel Assembly Replacement".

Instrument Panel Beam Assembly Replacement

Removal

- 1 Remove the instrument panel body assembly. Refer to "Instrument Panel Body Assembly Replacement".
- 2 Remove the steering column assembly. Refer to "Steering Column Assembly Replacement".
- 3 Unscrew two bolts connecting the instrument panel beam to the beam bracket.
- 4 Unscrew two bolts connecting the instrument panel beam to both ends of body.
- 5 Remove the bolt fixing the instrument panel beam to the front HVAC assembly.



- 6 Disconnect the instrument panel harness assembly.
- 7 Remove the instrument panel beam assembly.

Installation

- 1 Install the instrument panel beam assembly.
- 2 Install the bolt fixing the instrument panel beam assembly, tighten it to 20 ± 2 Nm, and check the torque.
- 3 Install 5 retaining bolts fixing the instrument panel beam to the front HVAC assembly, tighten them to 9 ± 1 Nm, and check the torque.
- 4 Install 6 retaining bolts fixing the instrument harness to the instrument panel beam, tighten them to 5 ± 1 Nm, and check the torque.
- 5 Install 3 retaining nuts fixing the fuse box to the instrument panel beam, tighten them to 5 ± 1 Nm, and check the torque.

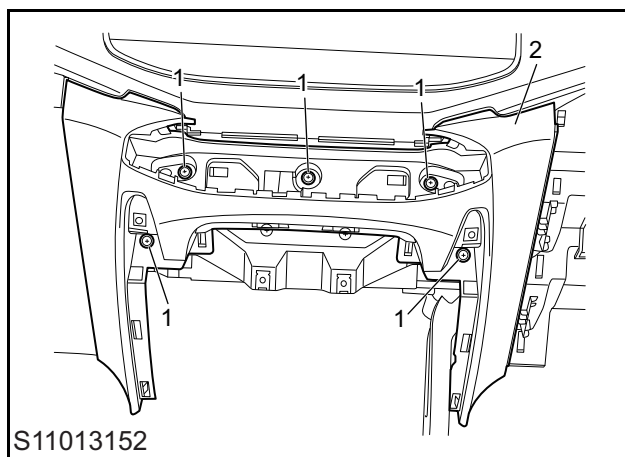
Instrument Panel and Console

- 6 Install the clip fixing the instrument harness to the instrument panel beam.
- 7 Install the steering column assembly. Refer to "Steering Column Assembly Replacement".
- 8 Install the instrument panel body assembly. Refer to "Instrument Panel Body Assembly Replacement".

Instrument Panel Central Lower Trim Panel Assembly Replacement

Removal

- 1 Remove the auxiliary fascia console body assembly. Refer to "Auxiliary Fascia Console Body Assembly Replacement".
- 2 Unscrew the front A/C control panel. Refer to "Front A/C Control Panel Replacement".
- 3 Remove the screw (1) of the instrument panel central lower trim panel assembly.
- 4 Remove the instrument panel central lower trim panel assembly (2).



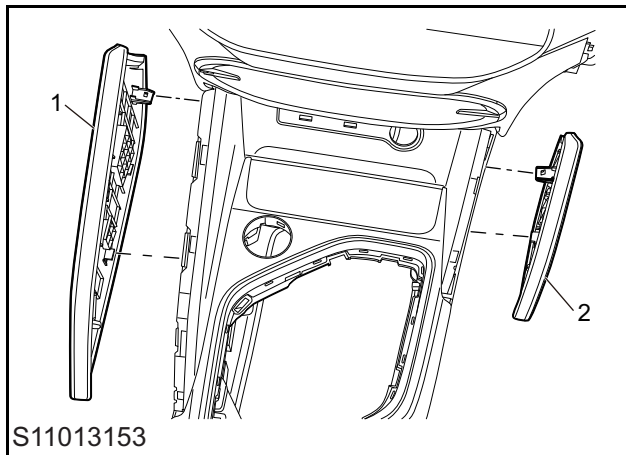
Installation

- 1 Install the instrument panel central lower trim panel assembly.
- 2 Install and tighten the screw of the instrument panel central lower trim panel assembly.
- 3 Install the auxiliary fascia console body assembly. Refer to "Auxiliary Fascia Console Body Assembly Replacement".
- 4 Install the front A/C control panel. Refer to "Front A/C Control Panel Replacement".

Left and Right Coated Trim Panel Assembly Replacement

Removal

- 1 Remove the left coated trim panel assembly (1) with a proper tool.
- 2 Remove the right coated trim panel assembly (2) with a proper tool.



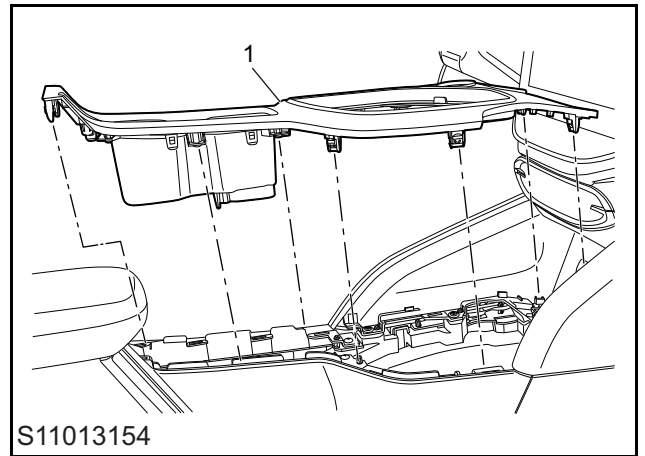
Installation

- 1 Install the left and right coated trim panel assembly in place.

Auxiliary Fascia Console Upper Trim Panel Assembly Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the shifting handle and the dust shield. Refer to "Shifting Handle Replacement".
- 3 Carefully remove the auxiliary fascia console upper trim panel assembly (1).
- 4 Disconnect the electrical connector of the switch connection from the upper trim panel assembly of the auxiliary fascia console.



Installation

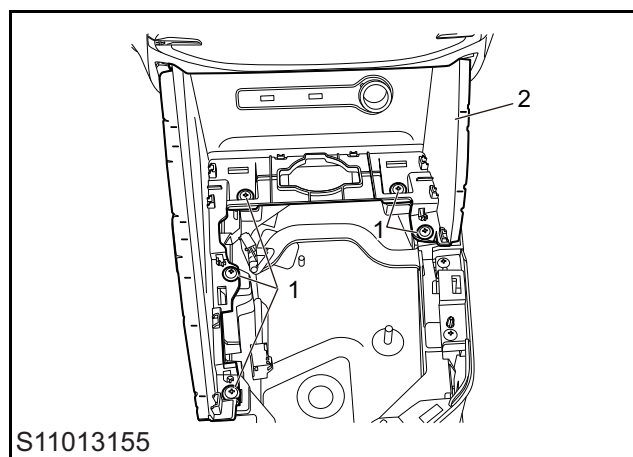
- 1 Connect the electrical connector of the switch connection.
- 2 Install the auxiliary fascia console upper trim panel assembly onto the auxiliary fascia console.
- 3 Install the shifting handle and the dust shield. Refer to "Shifting Handle Replacement".
- 4 Connect the negative battery cable.

Instrument Panel and Console

USB Panel Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the left and right coated trim panel assembly. Refer to "Left and Right Coated Trim Panel Assembly Replacement".
- 3 Remove the auxiliary fascia console upper trim panel assembly. Refer to "Auxiliary Fascia Console Upper Trim Panel Assembly Replacement".
- 4 Carefully remove the screw (1) of the USB panel assembly.
- 5 Remove the USB panel assembly (2).
- 6 Disconnect the electrical connector of the USB switch and the cigar lighter on the USB panel assembly.



Installation

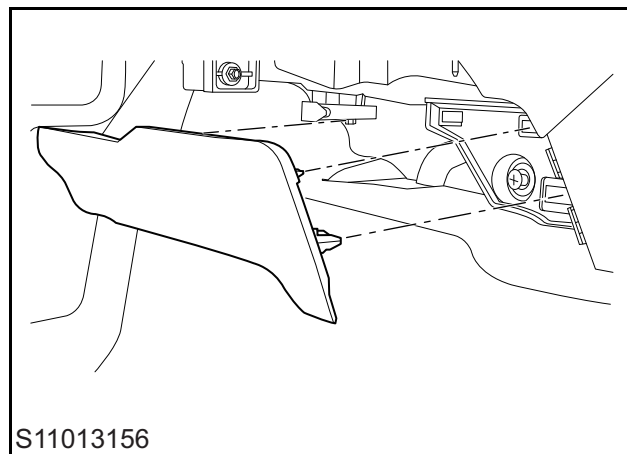
- 1 Connect the electrical connector of the USB switch and the cigar lighter.
- 2 Install the USB panel assembly onto the auxiliary fascia console.
- 3 Install and tighten the screw of the USB panel assembly.
- 4 Install the auxiliary fascia console upper trim panel assembly. Refer to "Auxiliary Fascia Console Upper Trim Panel Assembly Replacement".
- 5 Install the left and right coated trim panel assembly. Refer to "Left and Right Coated Trim Panel Assembly Replacement".
- 6 Connect the negative battery cable.

Auxiliary Fascia Console Forward Extending Plate Replacement

Removal

- 1 Pry off the clip with a proper tool, and remove the forward extending plate (1) of auxiliary fascia console from the front HVAC.

Caution: It is divided into left and right parts, and the figure shows the schematic diagram on the left.



Installation

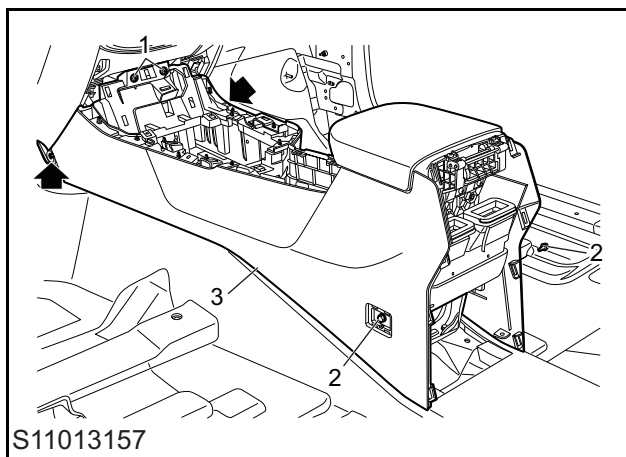
- 1 Install the forward extending plate of the auxiliary fascia console onto the front HVAC, and fasten the clip in place.

Auxiliary Fascia Console Body Assembly Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the USB panel. Refer to "USB Panel Replacement".
- 3 Remove the rear panel assembly of the console. Refer to "Auxiliary Fascia Console Rear Panel Assembly Replacement".
- 4 Remove the auxiliary fascia console forward extending plate. Refer to "Auxiliary Fascia Console Forward Extending Plate Replacement".
- 5 Remove 2 clips fixing the front auxiliary fascia console to the front floor connecting bracket.
- 6 Remove the screw (1) connecting the front auxiliary fascia console to the instrument panel.
- 7 Remove the left and right auxiliary fascia console plugs.
- 8 Remove the retaining bolt (2) fixing the left and right auxiliary fascia console plug to the floor connecting bracket of rear auxiliary fascia console.
- 9 Remove the retaining clip fixing the instrument panel harness to the auxiliary fascia console.
- 10 Remove the auxiliary fascia console body assembly (3).

- 3 Install the retaining bolts fixing the left and right auxiliary fascia console covers to the auxiliary fascia console rear floor connecting bracket, tighten them to 5 ± 1 Nm, and check the torque.
- 4 Install and tighten the screw connecting the front auxiliary fascia console to the instrument panel.
- 5 Install the left and right auxiliary fascia console covers.
- 6 Install 2 clips fixing the front auxiliary fascia console to the front floor connecting bracket.
- 7 Install the auxiliary fascia console forward extending plate. Refer to "Auxiliary Fascia Console Forward Extending Plate Replacement".
- 8 Install the auxiliary fascia console rear panel assembly. Refer to "Auxiliary Fascia Console Rear Panel Assembly Replacement".
- 9 Install the USB panel. Refer to "USB Panel Replacement".
- 10 Connect the negative battery cable.



Installation

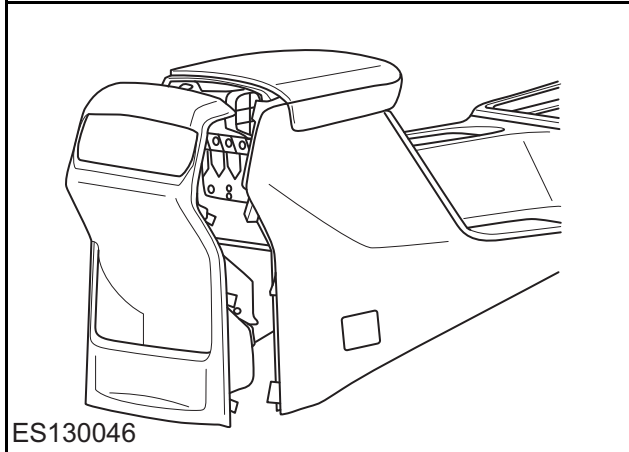
- 1 Place the auxiliary fascia console body assembly.
- 2 Install the retaining clip fixing the instrument panel harness to the auxiliary fascia console.

Instrument Panel and Console

Auxiliary Fascia Console Rear Panel Assembly Replacement

Removal

- 1 Pry off the clip of rear panel assembly of auxiliary fascia console.
- 2 Disconnect the electrical connector.
- 3 Remove rear panel assembly.



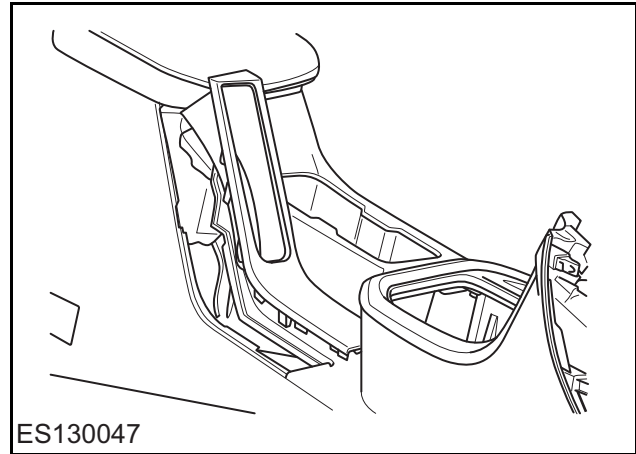
Installation

- 1 Connect the electrical connector.
- 2 Locate rear panel assembly of auxiliary fascia console to auxiliary fascia console, pat the clip into position.

Front Handbrake Cover Plate Replacement

Removal

- 1 Move the auxiliary fascia console armrest backwards.
- 2 Pull out the handbrake cover plate from the auxiliary fascia console body assembly upwards hard.



Installation

- 1 Locate the front handbrake cover plate onto the auxiliary fascia console, and pat the clip into position.

Driver Compartment Interiors and Switches

Specification

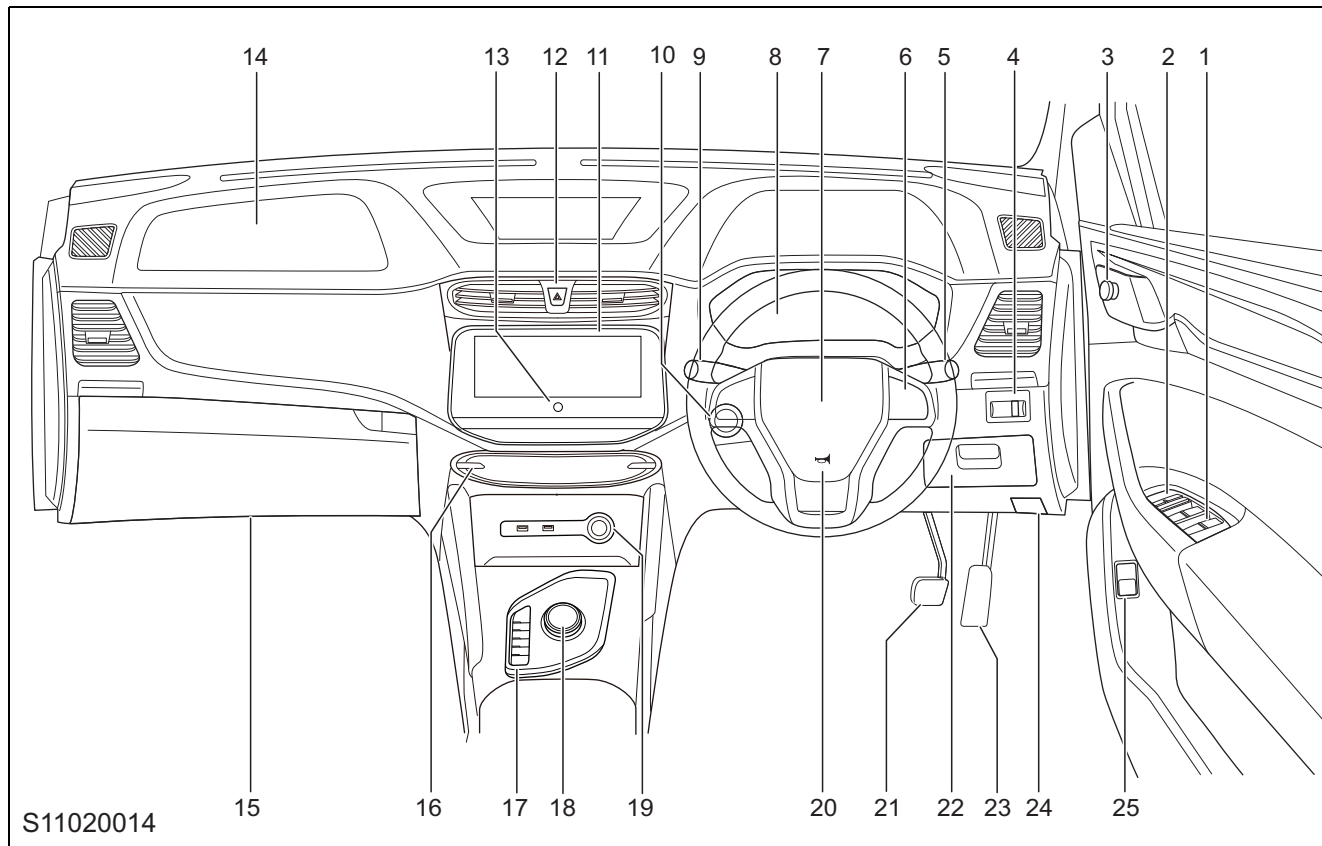
Fastener Specifications

Name	Torque (Nm)
Screw - A-pillar Handle	5±1 Nm
Bolt - Sun Visor	5±1 Nm
Screw - B-pillar Handle	5±1 Nm

Driver Compartment Interiors and Switches

Layout

Driver Compartment Interiors and Switches Layout



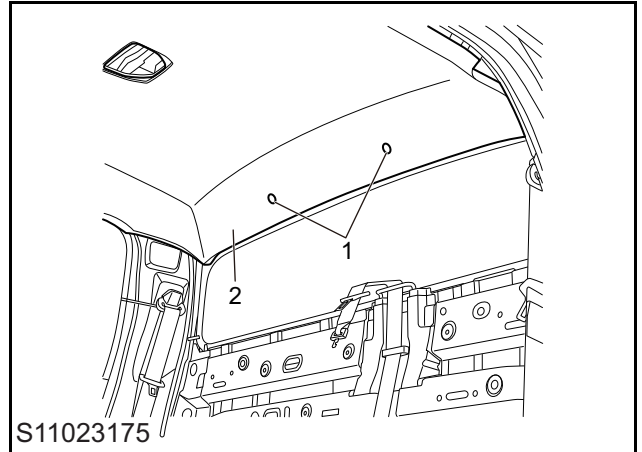
- | | |
|--|---|
| 1 Window Control Switch | 13 In-Car Entertainment System Control Switch |
| 2 Central Lock Switch | 14 Front Passenger Airbag |
| 3 Power Regulating Switch of Exterior Rearview Mirror | 15 Glove Box |
| 4 Headlamp Leveling Switch, Instrument Panel Illumination Control Switch | 16 A/C Control Panel |
| 5 Combination Lamp Control and Direction Indicator Lamp Lever, Instrument Cluster Setting Switch | 17 Switch Assembly on the Side of the Shift Lever |
| 6 Volume Control, Mute, Audio Source and Bluetooth Phone Interchanger, Cruise Switch | 18 Shift Knob |
| 7 Driver Airbag | 19 USB Port, 12V Power Socket |
| 8 Instrument Cluster | 20 Horn Button |
| 9 Wiper and Washer Control Lever, Instrument Panel Menu Switch | 21 Accelerator Pedal |
| 10 Ignition Switch | 22 Storage Box |
| 11 Entertainment System | 23 Brake Pedal |
| 12 Hazard Warning Lamp Switch | 24 Engine Cover Release Device |
| | 25 Charging Port Door Switch |

Service Guide

Driver Compartment Roof Interior Assembly Replacement

Removal

- 1 Remove the left and right sunshade assemblies. Refer to "Sunshade Replacement".
- 2 Remove the front ceiling interior reading lamp assembly. Refer to "Front Ceiling Interior Reading Lamp Assembly Replacement".
- 3 Remove the rear ceiling interior reading lamp assembly. Refer to "Rear Ceiling Interior Reading Lamp Assembly Replacement".
- 4 Remove the front passenger ceiling handle. Refer to "Passenger Compartment Ceiling Handle Replacement".
- 5 Remove the left and right passenger compartment ceiling handles. Refer to "Passenger Compartment Ceiling Handle Replacement".
- 6 Remove the left and right A-pillar upper trim panel assemblies. Refer to "A-pillar Upper Trim Panel Assembly Replacement".
- 7 Remove the left and right B-pillar upper trim panel assemblies. Refer to "B-pillar Upper Trim Panel Assembly Replacement".
- 8 Remove the left and right C-pillar upper trim panel assemblies. Refer to "C-pillar Upper Trim Panel Assembly Replacement".
- 9 Remove 2 retaining clips (1) from the driver compartment roof interior assembly.
- 10 Remove the driver compartment roof interior assembly (2).



Installation

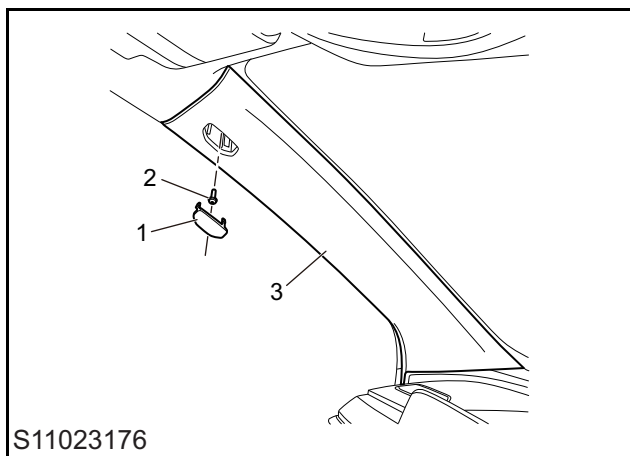
- 1 Install the driver compartment roof interior assembly.
- 2 Install 2 retaining clips on the driver compartment roof interior assembly.
- 3 Install the left and right C-pillar upper trim panel assemblies. Refer to "C-pillar Upper Trim Panel Assembly Replacement".
- 4 Install the left and right B-pillar upper trim panel assemblies. Refer to "B-pillar Upper Trim Panel Assembly Replacement".
- 5 Install the left and right A-pillar upper trim panel assemblies. Refer to "A-pillar Upper Trim Panel Assembly Replacement".
- 6 Install the left and right passenger compartment ceiling handles. Refer to "Passenger Compartment Ceiling Handle Replacement".
- 7 Install the front passenger ceiling handle. Refer to "Passenger Compartment Ceiling Handle Replacement".
- 8 Install the rear ceiling interior reading lamp assembly. Refer to "Rear Ceiling Interior Reading Lamp Assembly Replacement".
- 9 Install the front ceiling interior reading lamp assembly. Refer to "Front Ceiling Interior Reading Lamp Assembly Replacement".
- 10 Install the left and right sunshade assemblies. Refer to "Sunshade Replacement".

Driver Compartment Interiors and Switches

A-pillar Upper Trim Panel Assembly Replacement

Removal

- 1 Remove the A-pillar upper trim cover (1).
- 2 Remove 1 retaining screw (2) fixing the A-pillar upper trim panel assembly.
- 3 Pry off the clips and remove the A-pillar upper trim panel assembly (3).



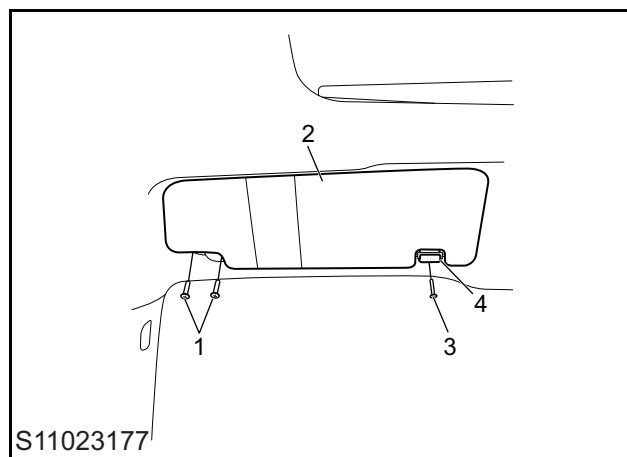
Installation

- 1 Install the A-pillar upper trim panel assembly.
- 2 Install 1 retaining screw on the A-pillar upper trim panel assembly, tighten it to 5 ± 1 Nm, and check the torque.
- 3 Install the A-pillar upper trim cover.

Sun Visor Assembly Replacement

Removal

- 1 Turn down the sun visor assembly and remove 2 retaining screws (1) fixing the sun visor assembly to the roof.
- 2 Remove the sun visor assembly (2).
- 3 Remove 1 retaining screw (3) fixing the sunshade fixing support assembly to the roof.
- 4 Remove the sunshade fixing support assembly (4).



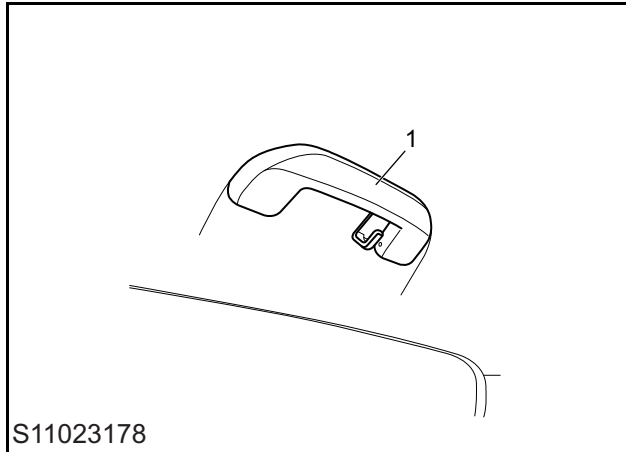
Installation

- 1 Install the sunshade fixing support assembly.
- 2 Install and tighten 1 retaining screw fixing the sunshade fixing support assembly to the roof.
- 3 Install the sun visor assembly.
- 4 Install 2 screws fixing the sun visor assembly to the roof, tighten them to 5 ± 1 Nm, and check the torque.
- 5 Turn up the sun visor assembly.

Passenger Compartment Ceiling Handle Replacement

Removal

- 1 Pull down the passenger compartment ceiling handle, and remove 2 plugs.
- 2 Remove 2 retaining screws fixing the passenger compartment ceiling handle to the vehicle body, and remove the passenger compartment ceiling handle (1).



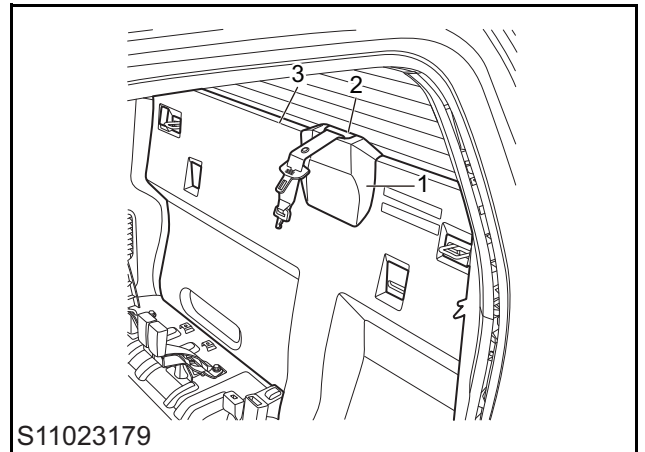
Installation

- 1 Place the passenger compartment ceiling handle, install 2 retaining screws fixing the passenger compartment ceiling handle to the vehicle body, tighten them to 5 ± 1 Nm, and check the torque.
- 2 Install 2 covers.

Rear Enclosure Panel Assembly Replacement

Removal

- 1 Remove the rear triple-seat assembly. Refer to "Rear Triple-seat Assembly Replacement".
- 2 Pry off the clip and remove the rear seat belt lower guard plate (1) and the rear seat belt upper guard plate (2).
- 3 Pry off the clip and remove the rear enclosure panel assembly (3).



Installation

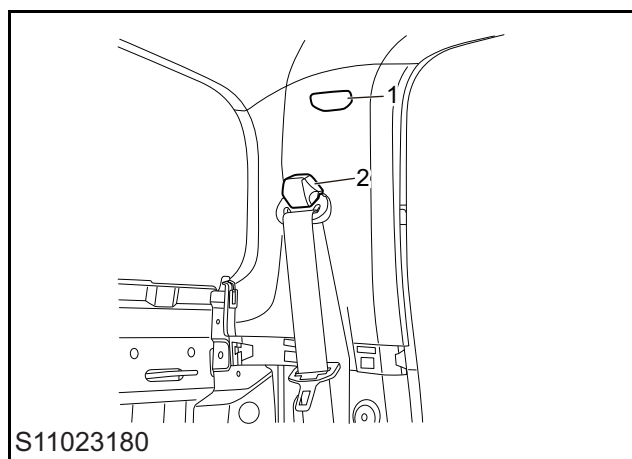
- 1 Install the rear enclosure panel assembly.
- 2 Install the rear seat belt lower guard plate and the rear seat belt upper guard plate.
- 3 Install the rear triple-seat assembly. Refer to "Rear Triple-seat Assembly Replacement".

Driver Compartment Interiors and Switches

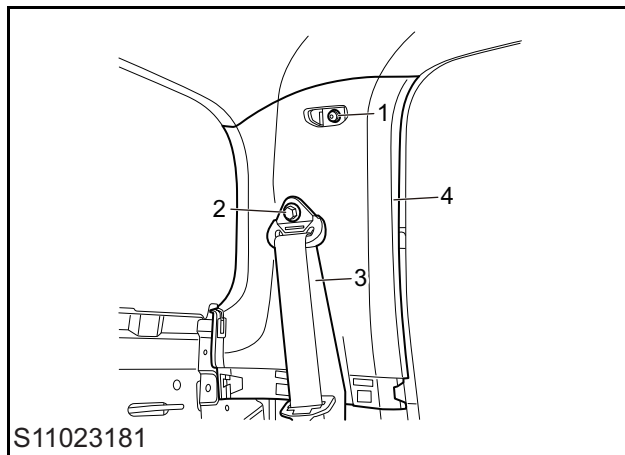
C Pillar Upper Trim Panel Assembly Replacement

Removal

- 1 Remove the rear triple-seat assembly. Refer to "Rear Triple-seat Assembly Replacement".
- 2 Remove the rear enclosure panel assembly. Refer to "Rear Enclosure Panel Assembly Replacement".
- 3 Remove the C-pillar lower trim panel assembly. Refer to "C-pillar Lower Trim Panel Assembly Replacement".
- 4 Remove the C-pillar upper trim panel cover (1).
- 5 Remove the seat belt guide ring cover (2).



- 6 Remove 1 retaining screw (1) fixing the C-pillar upper trim panel assembly to the vehicle body.
- 7 Remove 1 retaining bolt (2) from the second row seat belt assembly.
- 8 Remove the second row seat belt (3).
- 9 Pry off the clip and remove the C-pillar upper trim panel assembly (4).



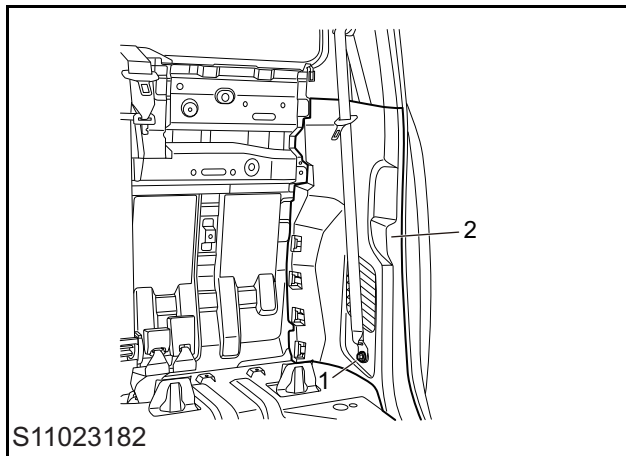
Installation

- 1 Install the C-pillar upper trim panel assembly.
- 2 Restore the second row seat belt.
- 3 Install 1 retaining bolt on the second row seat belt assembly.
- 4 Install 1 retaining screw fixing the C-pillar upper trim panel assembly to the vehicle body.
- 5 Install the seat belt guide ring cover.
- 6 Install the C-pillar upper trim panel cover.
- 7 Install the C-pillar lower trim panel assembly. Refer to "C-pillar Lower Trim Panel Assembly Replacement".
- 8 Install the rear enclosure panel assembly. Refer to "Rear Enclosure Panel Assembly Replacement".
- 9 Install the rear triple-seat assembly. Refer to "Rear Triple-seat Assembly Replacement".

C Pillar Lower Trim Panel Assembly Replacement

Removal

- 1 Remove the rear triple-seat assembly. Refer to "Rear Triple-seat Assembly Replacement".
- 2 Remove the rear enclosure panel assembly. Refer to "Rear Enclosure Panel Assembly Replacement".
- 3 Remove 1 retaining bolt (1) from the second row seat belt assembly.
- 4 Pry off the clip and remove the C-pillar lower trim panel assembly (2).



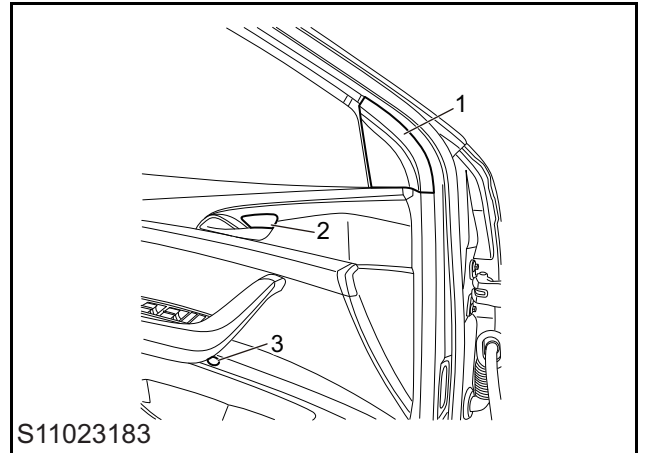
Installation

- 1 Install the C-pillar lower trim panel assembly.
- 2 Install 1 retaining bolt on the second row seat belt assembly.
- 3 Install the rear enclosure panel assembly. Refer to "Rear Enclosure Panel Assembly Replacement".
- 4 Install the rear triple-seat assembly. Refer to "Rear Triple-seat Assembly Replacement".

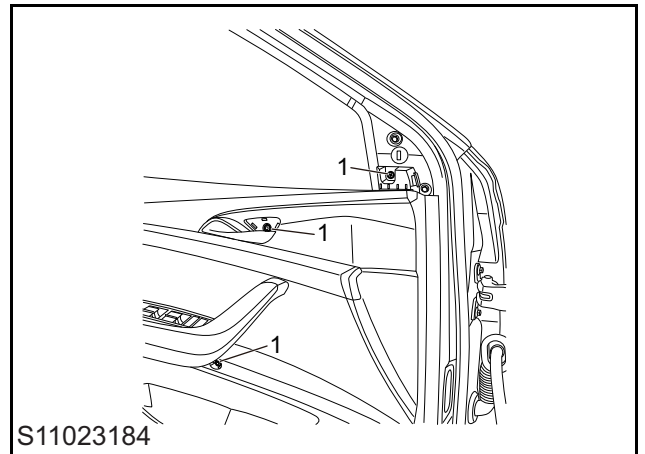
Front Left Door Interior Trim Panel Assembly Replacement

Removal

- 1 Remove the inner cover plate (1) of the front door quarter window.
- 2 Remove the front door front-end cover plate assembly (2).
- 3 Remove the plugs (3).

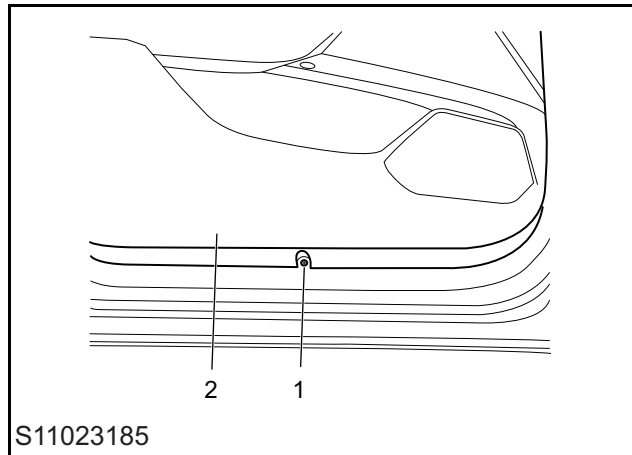


- 4 Remove 3 retaining screws (1) from the front door interior trim panel.



- 5 Remove 1 retaining screw (1) from the front door interior trim panel.
- 6 Pry off the clip and remove the front left door interior trim panel assembly (2).

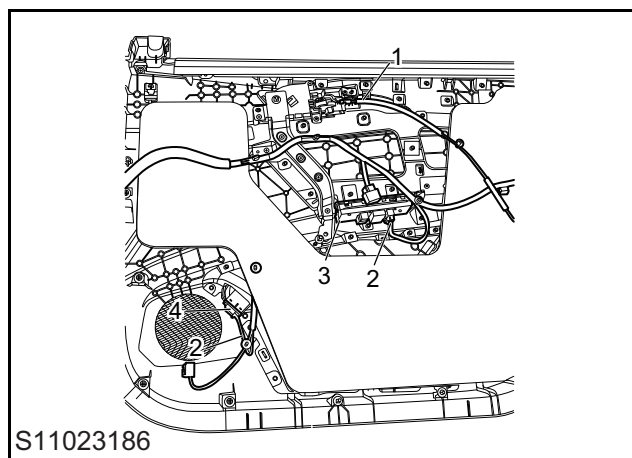
Driver Compartment Interiors and Switches



Caution: Please check that the clips on the front door trim panel are all in good condition.

- 6 Install and tighten 4 retaining screws on the front door trim panel.
- 7 Install the plug.
- 8 Install the front door front-end cover plate assembly.
- 9 Install the inner cover plate of the front door quarter window.

- 7 Remove the front door inner opening cable (1).
- 8 Disconnect the electrical connector (2) between the driver side window regulator switch assembly and the fuel tank cap switch assembly.
- 9 Pry off the clip and remove the driver side window regulator switch assembly (3).
- 10 Pry off the clip and remove the fuel tank cap switch assembly (4).



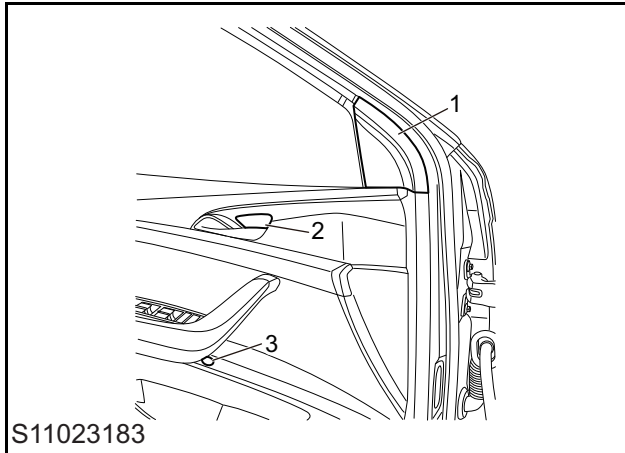
Installation

- 1 Install the fuel tank cap switch assembly.
- 2 Install the driver side window regulator switch assembly.
- 3 Connect the electrical connectors of the driver side window regulator switch assembly and the fuel tank cap switch assembly.
- 4 Install the front door inner opening cable.
- 5 Install the front left door interior trim panel assembly.

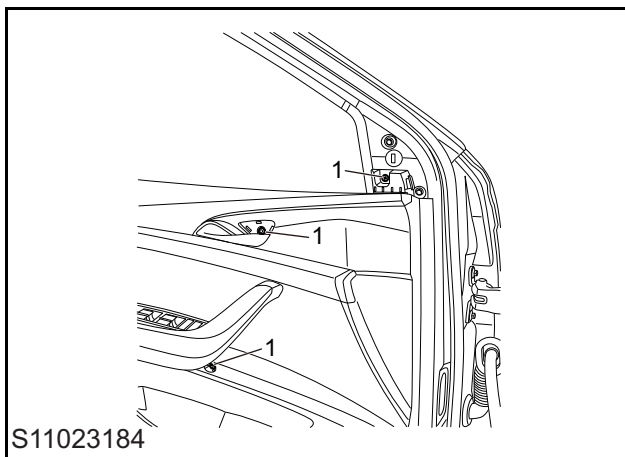
Driver Side Window Regulator Switch Assembly Replacement

Removal

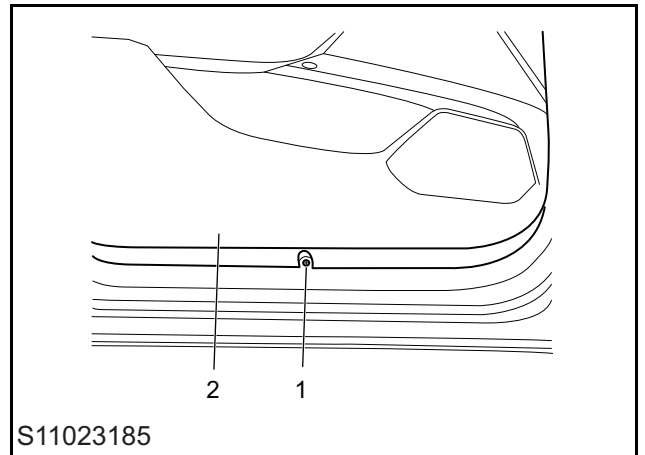
- 1 Remove the inner cover plate (1) of the front door quarter window.
- 2 Remove the front door front-end cover plate assembly (2).
- 3 Remove the plugs (3).



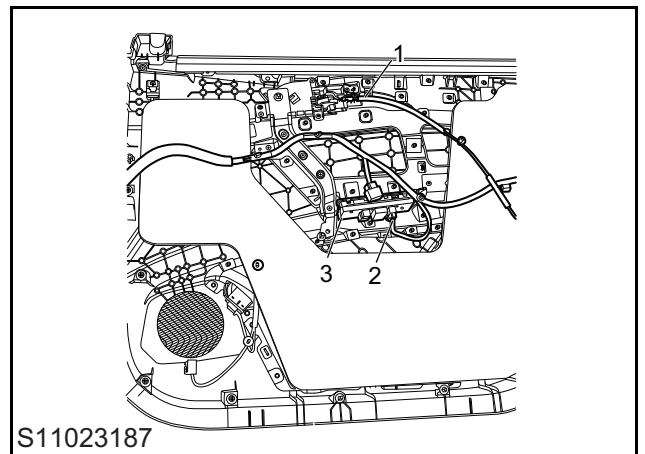
- 4 Remove 3 retaining screws (1) from the front door interior trim panel.



- 5 Remove 1 retaining screw (1) from the front door interior trim panel.
- 6 Pry off the clip and remove the front door interior trim panel assembly (2).



- 7 Remove the front door inner opening cable (1).
- 8 Disconnect the electrical connector (2) of the driver side window regulator switch assembly.
- 9 Pry off the clip and remove the driver side window regulator switch assembly (3).



Installation

- 1 Install the driver side window regulator switch assembly.
- 2 Install the electrical connector of the driver side window regulator switch assembly.
- 3 Install the front door inner opening cable.
- 4 Install the front door interior trim panel assembly.

Caution: Please check that the clips on the front door trim panel are all in good condition.

- 5 Install 4 retaining screws on the front door trim panel.
- 6 Install the plug.

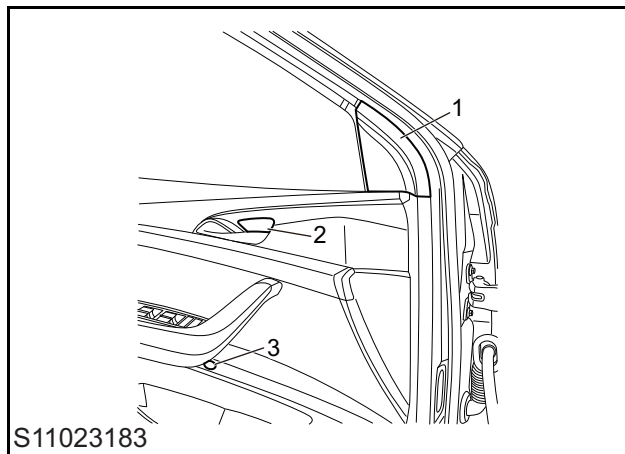
Driver Compartment Interiors and Switches

- 7 Install the front door front-end cover plate assembly.
- 8 Install the inner cover plate of the front door quarter window.

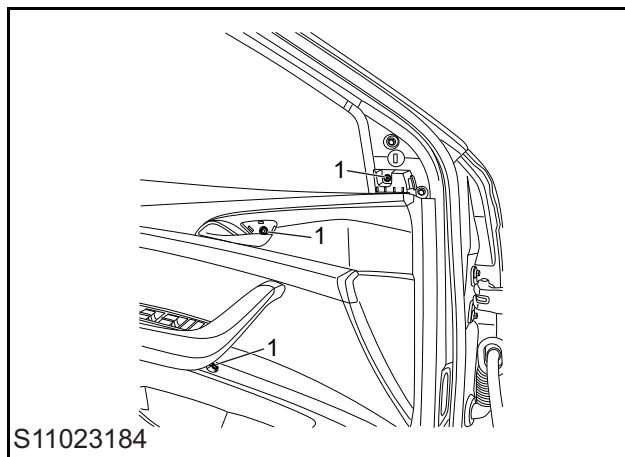
Fuel Tank Cap Switch Assembly Replacement

Removal

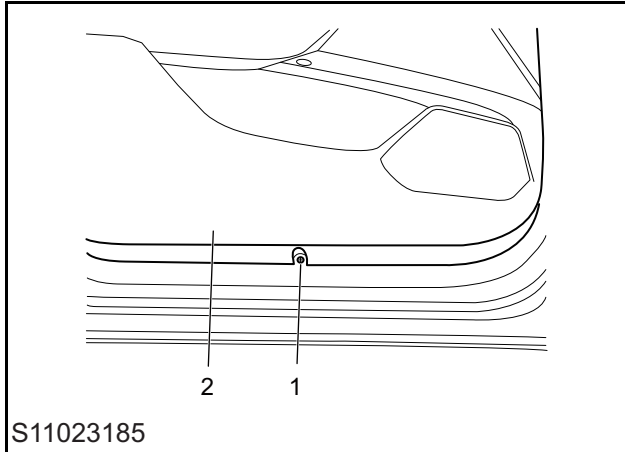
- 1 Remove the inner cover plate (1) of the front door quarter window.
- 2 Remove the front door front-end cover plate assembly (2).
- 3 Remove the plugs (3).



- 4 Remove 3 retaining screws (1) from the front door interior trim panel.

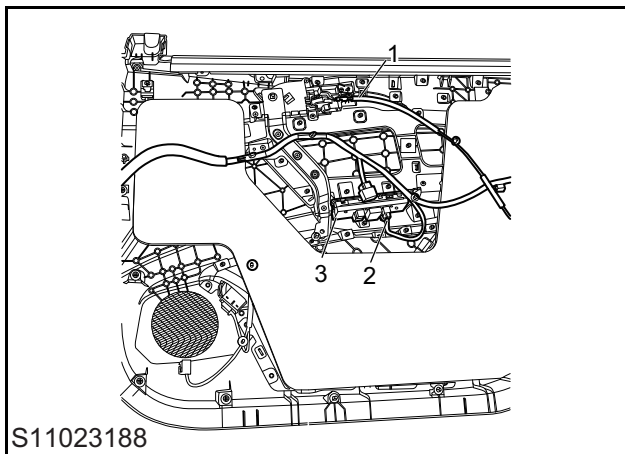


- 5 Remove 1 retaining screw (1) from the front door interior trim panel.
- 6 Pry off the clip and remove the front door interior trim panel assembly (2).



- 8 Install the inner cover plate of the front door quarter window.

- 7 Remove the front door inner opening cable (1).
- 8 Disconnect the electrical connector (2) of the fuel tank cap switch assembly.
- 9 Pry off the clip and remove the fuel tank cap switch assembly (3).



Installation

- 1 Install the fuel tank cap switch assembly.
- 2 Connect the electrical connector of the fuel tank cap switch assembly.
- 3 Install the front door inner opening cable.
- 4 Install the front door interior trim panel assembly.

Caution: Please check that the clips on the front door trim panel are all in good condition.

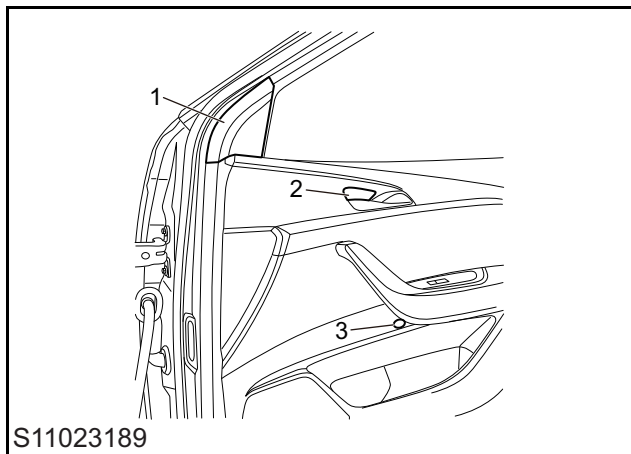
- 5 Install and tighten 4 retaining screws on the front door trim panel.
- 6 Install the plug.
- 7 Install the front door front-end cover plate assembly.

Driver Compartment Interiors and Switches

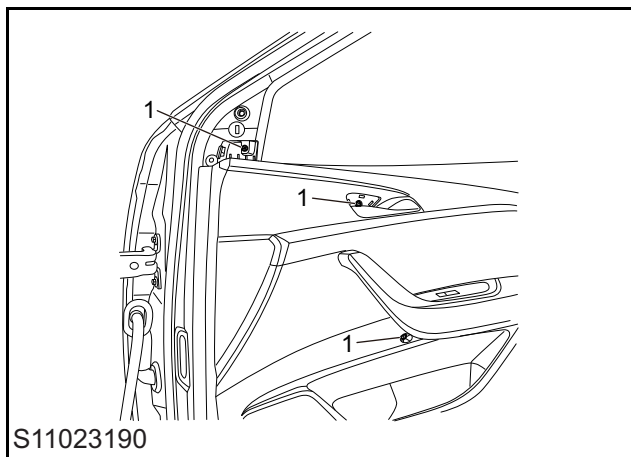
Front Right Door Interior Trim Panel Assembly Replacement

Removal

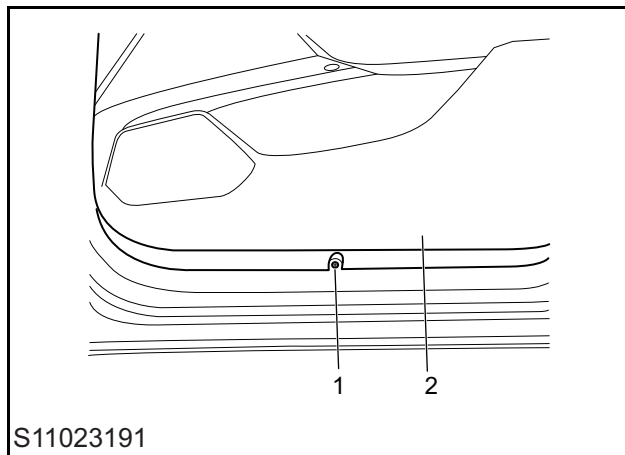
- 1 Remove the inner cover plate (1) of the front door quarter window.
- 2 Remove the front door front-end cover plate assembly (2).
- 3 Remove the plugs (3).



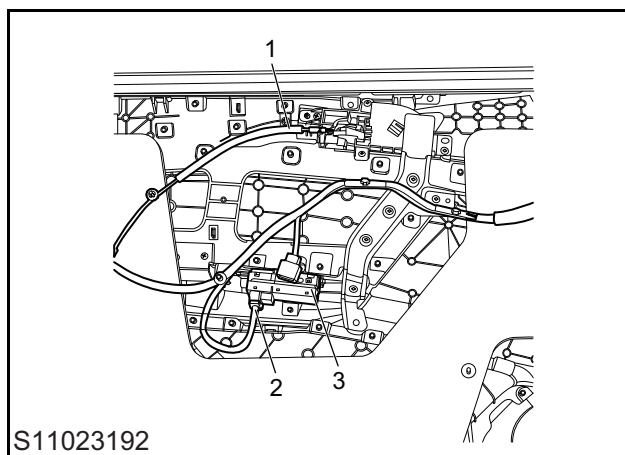
- 4 Remove 3 retaining screws (1) from the front door interior trim panel.



- 5 Remove 1 retaining screw (1) from the front door interior trim panel.
- 6 Pry off the clip and remove the front right door trim panel assembly (2).



- 7 Remove the front door inner opening cable (1).
- 8 Disconnect the electrical connector (2) of the passenger window regulator switch assembly.
- 9 Pry off the clip and remove the passenger window regulator switch assembly (3).



Installation

- 1 Install the passenger window regulator switch assembly.
- 2 Connect the electrical connector of the passenger window regulator switch assembly.
- 3 Install the front door inner opening cable.
- 4 Install the front right door interior trim panel assembly.

Caution: Please check that the clips on the front door trim panel are all in good condition.

- 5 Install 4 retaining screws on the front door trim panel.
- 6 Install the plug.

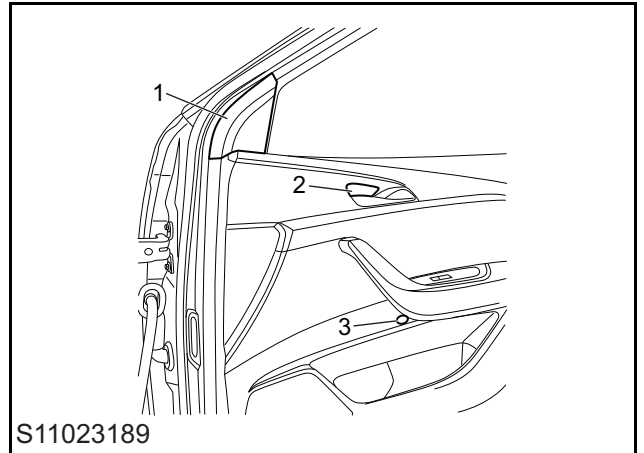
Driver Compartment Interiors and Switches

- 7 Install the front door front-end cover plate assembly.
- 8 Install the inner cover plate of the front door quarter window.

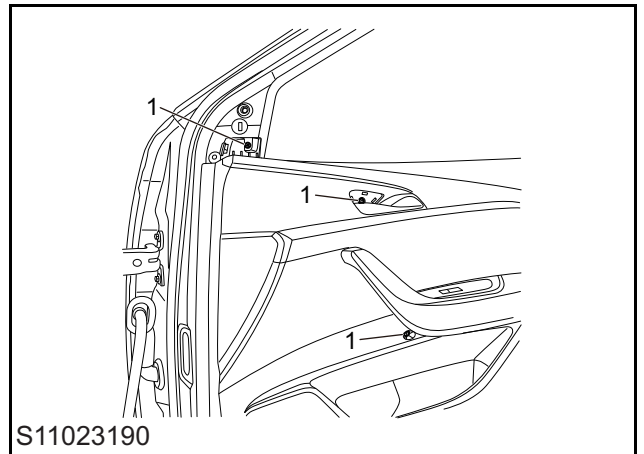
Passenger Window Regulator Switch Assembly Replacement

Removal

- 1 Remove the inner cover plate (1) of the front door quarter window.
- 2 Remove the front door front-end cover plate assembly (2).
- 3 Remove the plugs (3).

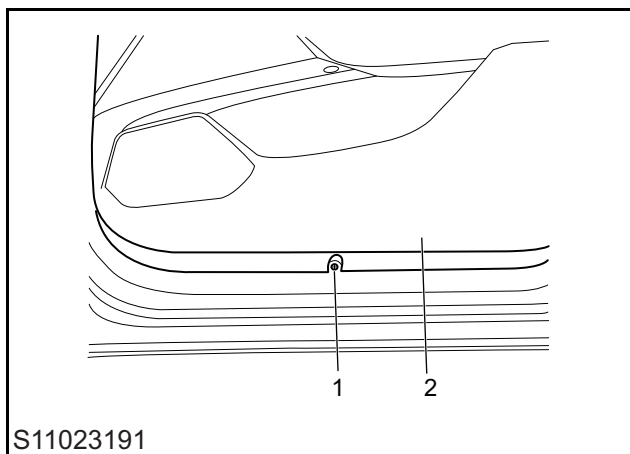


- 4 Remove 3 retaining screws (1) from the front door interior trim panel.



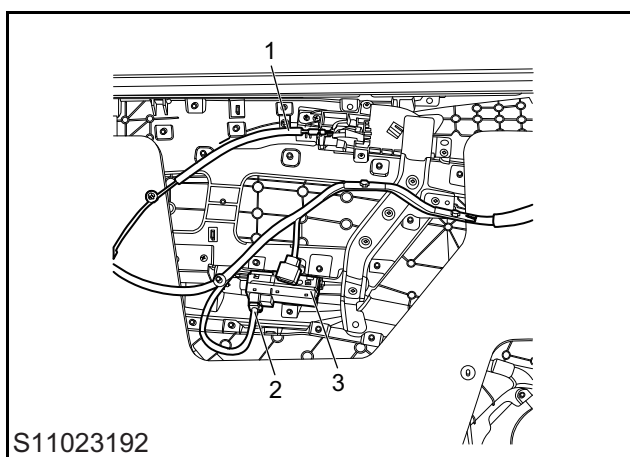
- 5 Remove 1 retaining screw (1) from the front door interior trim panel.
- 6 Pry off the clip and remove the front right door trim panel assembly (2).

Driver Compartment Interiors and Switches



- 7 Install the front door front-end cover plate assembly.
- 8 Install the inner cover plate of the front door quarter window.

- 7 Remove the front door inner opening cable (1).
- 8 Disconnect the electrical connector (2) of the passenger window regulator switch assembly.
- 9 Pry off the clip and remove the passenger window regulator switch assembly (3).



Installation

- 1 Install the passenger window regulator switch assembly.
- 2 Connect the electrical connector of the passenger window regulator switch assembly.
- 3 Install the front door inner opening cable.
- 4 Install the front right door interior trim panel assembly.

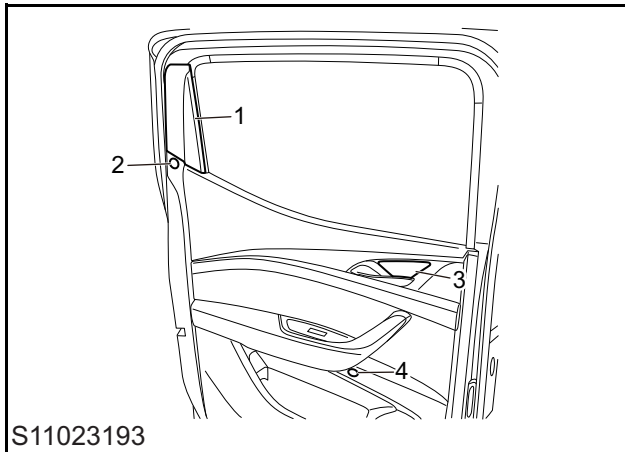
Caution: Please check that the clips on the front door trim panel are all in good condition.

- 5 Install 4 retaining screws on the front door trim panel.
- 6 Install the plug.

Rear Door Interior Trim Panel Assembly Replacement

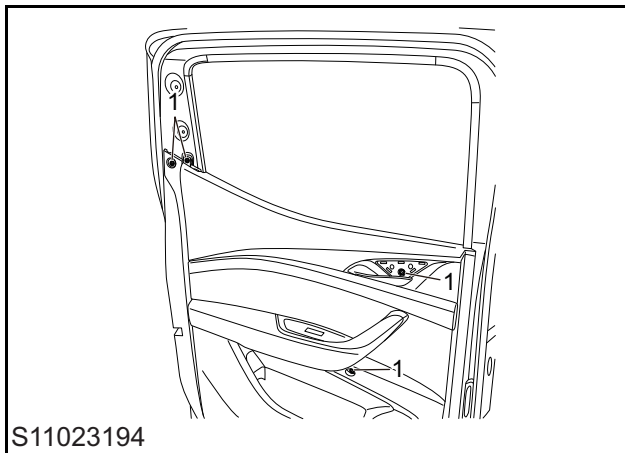
Removal

- 1 Remove the inner cover plate (1) of the rear door quarter window.
- 2 Remove the screw cap (2).
- 3 Remove the rear door front-end cover plate assembly (3).
- 4 Remove the plugs (4).



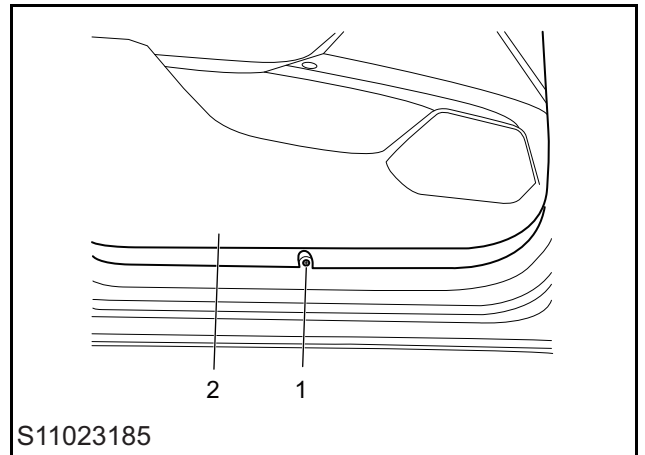
S11023193

- 5 Remove 4 retaining screws (1) from the rear door trim panel.



S11023194

- 6 Remove 1 retaining screw (1) from the rear door trim panel.
- 7 Pry off the clip and remove the rear door trim panel assembly (2).



S11023185

- 8 Remove the rear door inner opening cable.
- 9 Disconnect the electrical connector of the passenger window regulator switch assembly.
- 10 Pry off the clip and remove the passenger window regulator switch assembly.

Driver Compartment Interiors and Switches

Installation

- 1 Install the passenger window regulator switch assembly.
- 2 Connect the electrical connector of the passenger window regulator switch assembly.
- 3 Install the rear door inner opening cable.
- 4 Install the rear door interior trim panel assembly.

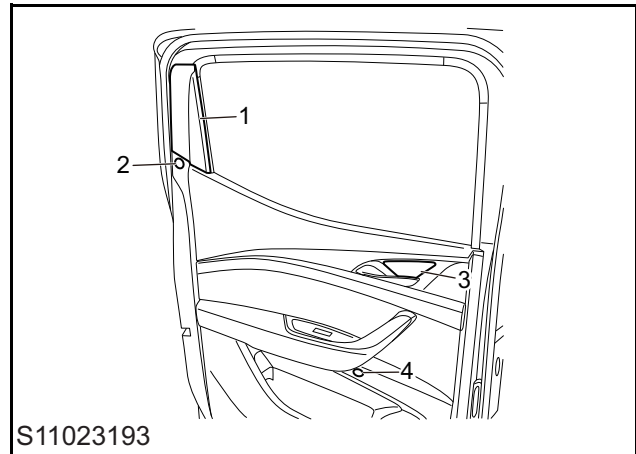
Caution: Please check that the clips on the rear door trim panel are all in good condition.

- 5 Install 5 retaining screws on the rear door interior trim panel.
- 6 Install the plug.
- 7 Install the rear door front-end cover plate assembly.
- 8 Install the screw cover.
- 9 Install the inner cover plate of the rear door quarter window.

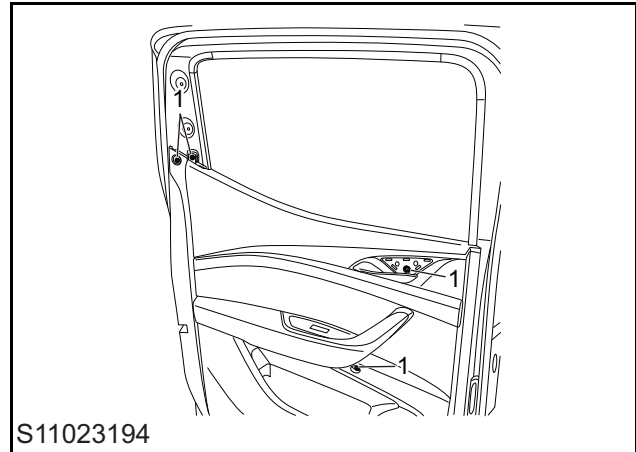
Passenger Window Regulator Switch Assembly Replacement

Removal

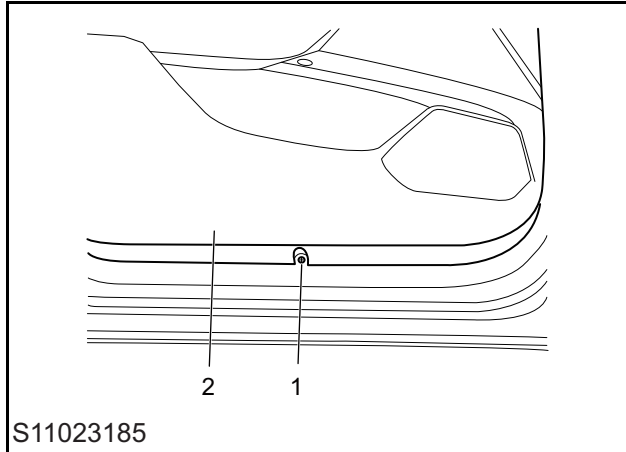
- 1 Remove the inner cover plate (1) of the rear door quarter window.
- 2 Remove the screw cap (2).
- 3 Remove the rear door front-end cover plate assembly (3).
- 4 Remove the plugs (4).



- 5 Remove 4 retaining screws (1) from the rear door trim panel.



- 6 Remove 1 retaining screw (1) from the rear door trim panel.
- 7 Pry off the clip and remove the rear door trim panel assembly (2).



- 8 Remove the rear door inner opening cable.
- 9 Disconnect the electrical connector of the passenger window regulator switch assembly.
- 10 Pry off the clip and remove the passenger window regulator switch assembly.

Installation

- 1 Install the passenger window regulator switch assembly.
- 2 Connect the electrical connector of the passenger window regulator switch assembly.
- 3 Install the rear door inner opening cable.
- 4 Install the rear door interior trim panel assembly.

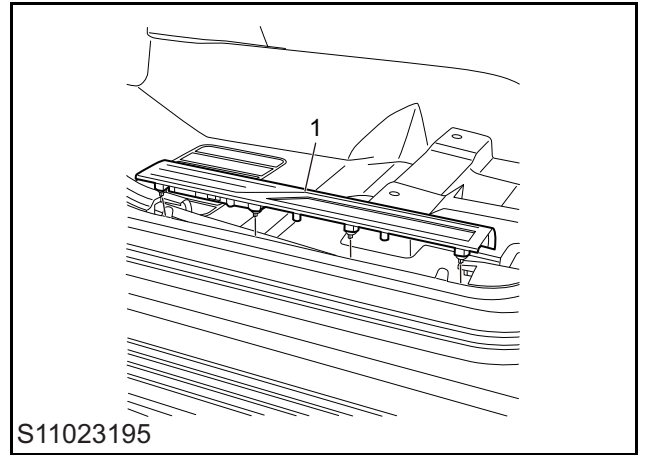
Caution: Please check that the clips on the rear door trim panel are all in good condition.

- 5 Install 5 retaining screws on the rear door interior trim panel.
- 6 Install the plug.
- 7 Install the rear door front-end cover plate assembly.
- 8 Install the screw cover.
- 9 Install the inner cover plate of the rear door quarter window.

Front Door Courtesy Panel Covering Replacement

Removal

- 1 Pry off the clip and remove the front door courtesy panel covering (1).



Installation

- 1 Install the front door courtesy panel covering.

Driver Compartment Interiors and Switches

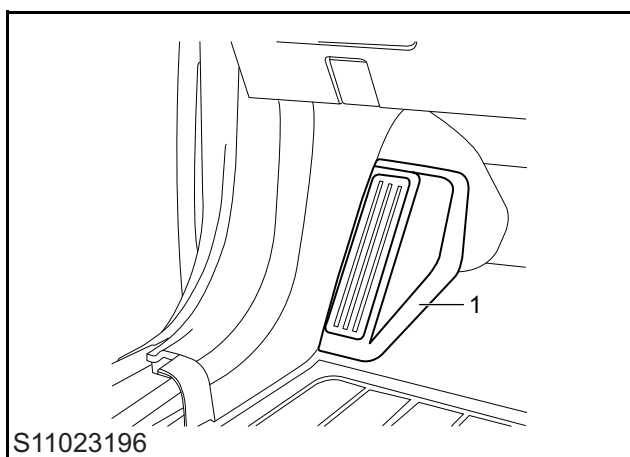
Left A-pillar Lower Trim Panel Assembly Replacement

Removal

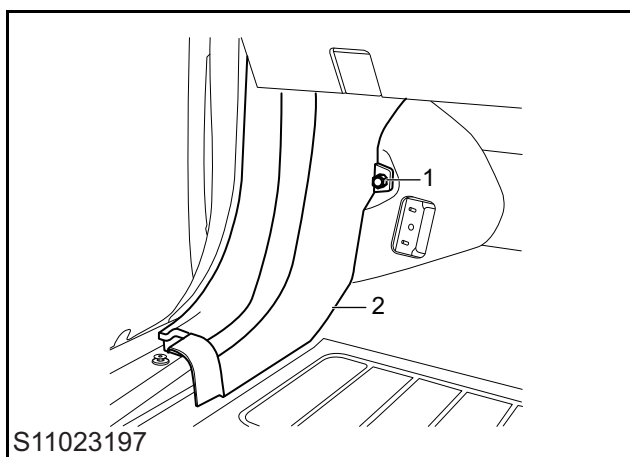
- 1 Remove the front door courtesy panel covering. Refer to "Front Door Courtesy Panel Covering Replacement".
- 2 Remove the left instrument panel side end cover assembly. Refer to "Instrument Panel Side End Cover Assembly Replacement".
- 3 Remove the footrest assembly (1).

4 Install the left instrument panel side end cover assembly. Refer to "Instrument Panel Side End Cover Assembly Replacement".

5 Install the front door courtesy panel covering. Refer to "Front Door Courtesy Panel Covering Replacement".



- 4 Remove the plastic nut (1) from the A-pillar lower trim panel assembly.
- 5 Pry off the clip and remove the left A-pillar lower trim panel assembly (2).



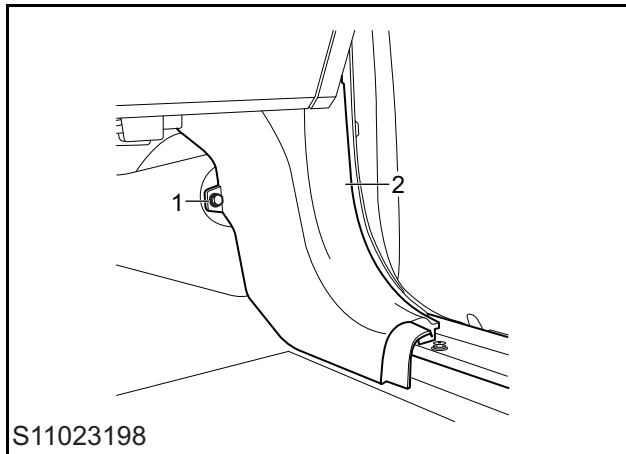
Installation

- 1 Install the left A-pillar lower trim panel assembly.
- 2 Install the plastic nut on the A-pillar lower trim panel assembly.
- 3 Install the footrest assembly.

Right A-pillar Lower Trim Panel Assembly Replacement

Removal

- 1 Remove the front door courtesy panel covering. Refer to "Front Door Courtesy Panel Covering Replacement".
- 2 Remove the right instrument panel side end cover assembly. Refer to "Instrument Panel Side End Cover Assembly Replacement".
- 3 Remove the plastic nut (1) from the right A-pillar lower trim panel assembly.
- 4 Pry off the clip and remove the right A-pillar lower trim panel assembly (2).



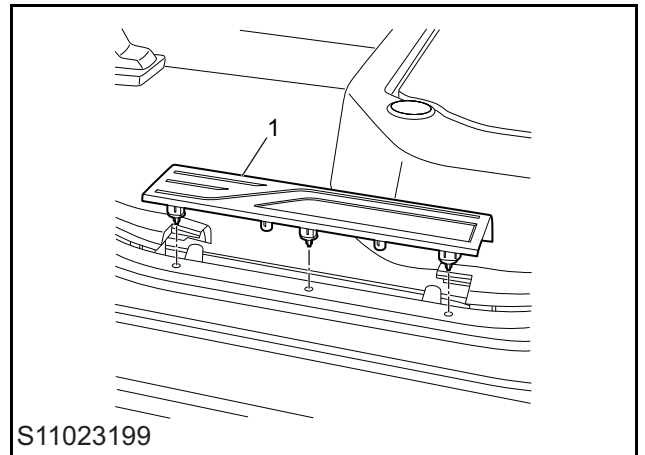
Installation

- 1 Install the right A-pillar lower trim panel assembly.
- 2 Install the plastic nut on the right A-pillar lower trim panel assembly.
- 3 Install the right instrument panel side end cover assembly. Refer to "Instrument Panel Side End Cover Assembly Replacement".
- 4 Install the front door courtesy panel covering. Refer to "Front Door Courtesy Panel Covering Replacement".

Rear Door Courtesy Panel Covering Replacement

Removal

- 1 Pry off the clip and remove the rear door courtesy panel covering (1).



Installation

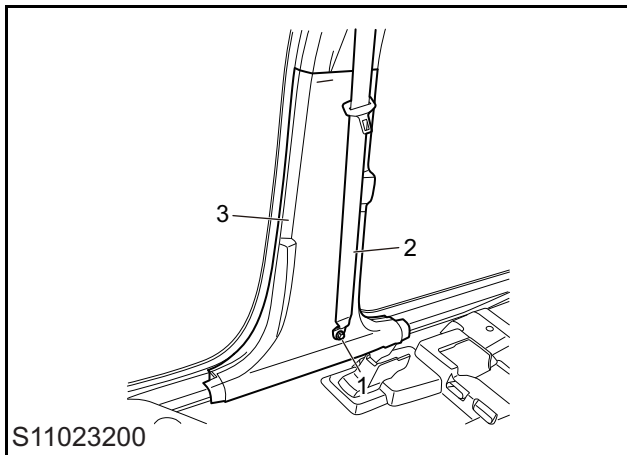
- 1 Install the rear door courtesy panel covering.

Driver Compartment Interiors and Switches

B Pillar Lower Trim Panel Assembly Replacement

Removal

- 1 Remove the front door courtesy panel covering. Refer to "Front Door Courtesy Panel Covering Replacement".
- 2 Remove the rear door courtesy panel covering. Refer to "Rear Door Courtesy Panel Covering Replacement".
- 3 Remove 1 retaining bolt (1) from the front force-limiting seat belt assembly.
- 4 Remove the front force-limiting seat belt (2).
- 5 Pry off the clip and remove the B-pillar lower trim panel assembly (3).



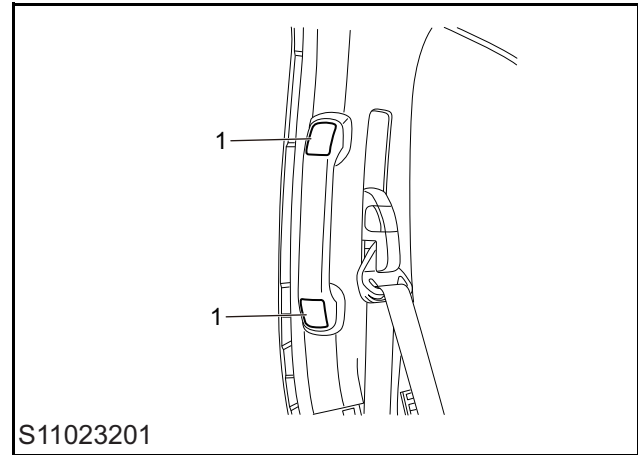
Installation

- 1 Install the B-pillar lower trim panel assembly.
- 2 Install the front force-limiting seat belt.
- 3 Install 1 retaining bolt on the front force-limiting seat belt assembly.
- 4 Install the rear door courtesy panel covering. Refer to "Rear Door Courtesy Panel Covering Replacement".
- 5 Install the front door courtesy panel covering. Refer to "Front Door Courtesy Panel Covering Replacement".

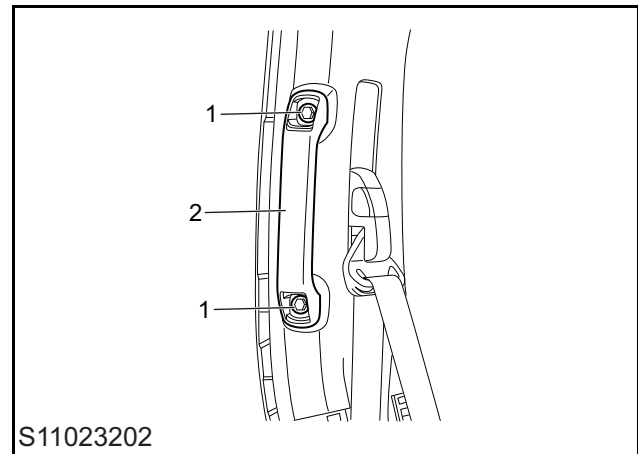
B-pillar Handle Assembly Replacement

Removal

- 1 Remove the plugs (1).



- 2 Remove 2 retaining bolts (1) fixing the B-pillar handle assembly to the vehicle body.
- 3 Remove the B-pillar handle assembly (2).



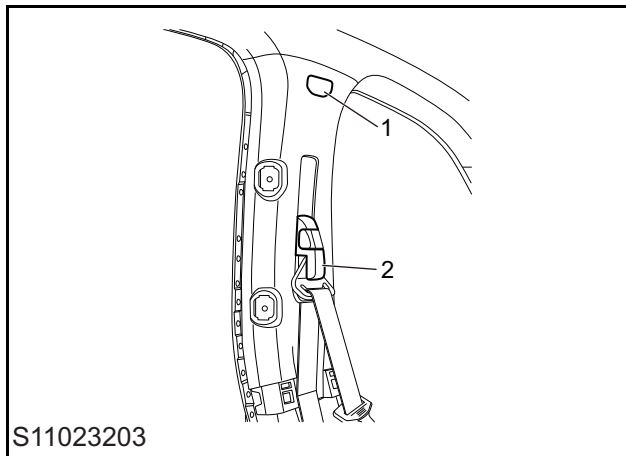
Installation

- 1 Install the B-pillar handle assembly.
- 2 Install 2 retaining bolts fixing the B-pillar handle assembly to the vehicle body.
- 3 Install the plug.

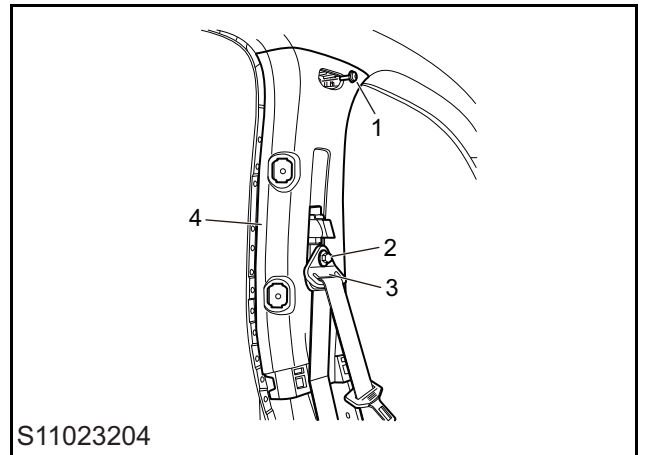
B Pillar Upper Trim Panel Assembly Replacement

Removal

- 1 Remove the B-pillar lower trim panel assembly. Refer to "B-pillar Lower Trim Panel Assembly Replacement".
- 2 Remove the B-pillar handle assembly. Refer to "B-pillar handle Assembly Replacement".
- 3 Remove the plug (1) of the B-pillar upper trim panel.
- 4 Remove the front seat belt height regulator cover (2).



- 5 Remove 1 retaining screw (1) from the B-pillar upper trim panel.
- 6 Remove 1 retaining bolt (2) from the front force-limiting seat belt assembly.
- 7 Remove the front force-limiting seat belt assembly (3).
- 8 Pry off the clips and remove the B-pillar upper trim panel assembly (4).



Installation

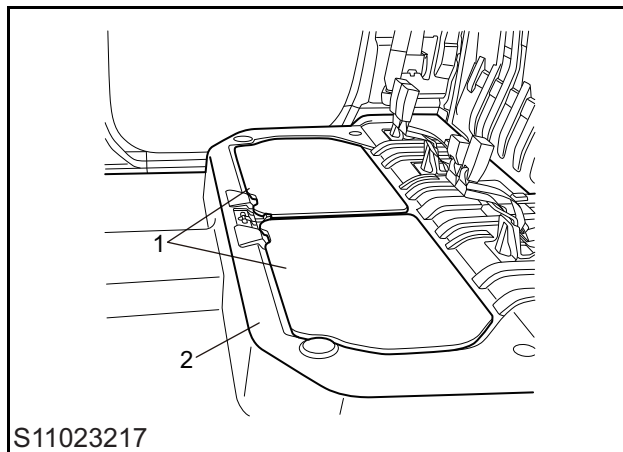
- 1 Install the B-pillar upper trim panel assembly.
- 2 Install the front force-limiting seat belt assembly.
- 3 Install 1 retaining bolt on the front force-limiting seat belt assembly.
- 4 Install 1 retaining screw on the B-pillar upper trim panel.
- 5 Install the seat belt height adjuster cover.
- 6 Install the B-pillar upper trim cover.
- 7 Install the B-pillar handle assembly. Refer to "B-pillar handle Assembly Replacement".
- 8 Install the B-pillar lower trim panel assembly. Refer to "B-pillar Lower Trim Panel Assembly Replacement".

Driver Compartment Interiors and Switches

Driver Compartment Floor Covering Replacement

Removal

- 1 Remove the driver seat assembly. Refer to "Driver Seat Assembly Replacement".
- 2 Remove the front passenger seat assembly. Refer to "Front Passenger Seat Assembly Replacement".
- 3 Remove the rear triple-seat assembly. Refer to "Rear Triple-seat Assembly Replacement".
- 4 Remove the auxiliary fascia console body assembly. Refer to "Auxiliary Fascia Console Body Assembly Replacement (6MT)/Auxiliary Fascia Console Body Assembly Replacement (6AT)/Auxiliary Fascia Console Body Assembly Replacement (8AT)".
- 5 Remove the left and right front door courtesy panel coverings. Refer to "Front Door Courtesy Panel Covering Replacement".
- 6 Remove the left and right instrument panel side end cover assemblies. Refer to "Instrument Panel Side End Cover Assembly Replacement".
- 7 Remove the left and right A-pillar lower trim panel assemblies. Refer to "Left A-pillar Lower Trim Panel Assembly/Right A-pillar Lower Trim Panel Assembly Replacement".
- 8 Remove the left and right B-pillar lower trim panel assemblies. Refer to "B-pillar Lower Trim Panel Assembly Replacement".
- 9 Remove the left and rear door courtesy panel coverings. Refer to "Rear Door Courtesy Panel Covering Replacement".
- 10 Remove the rear enclosure panel assembly. Refer to "Rear Enclosure Panel Assembly Replacement".
- 11 Remove the left and right C-pillar lower trim panel assemblies. Refer to "C-pillar Lower Trim Panel Assembly Replacement".
- 12 Remove the second row seat cover plate (1).
- 13 Remove the driver compartment floor covering (2).



Installation

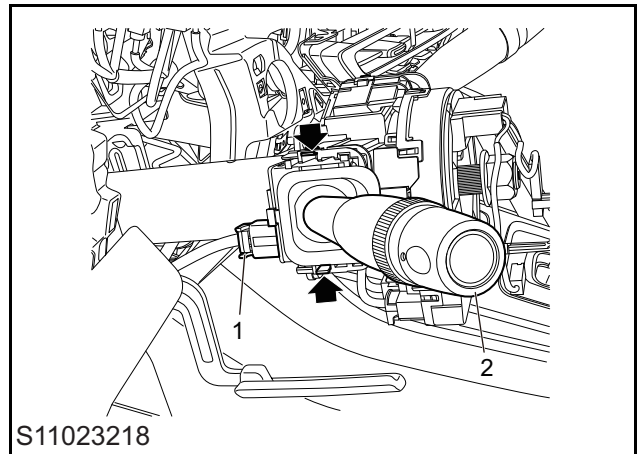
- 1 Install the driver compartment floor covering.
- 2 Install the second row seat cover plate.
- 3 Install the left and right C-pillar lower trim panel assemblies. Refer to "C-pillar Lower Trim Panel Assembly Replacement".
- 4 Install the rear enclosure panel assembly. Refer to "Rear Enclosure Panel Assembly Replacement".
- 5 Install the left and right rear door courtesy panel coverings. Refer to "Rear Door Courtesy Panel Covering Replacement".
- 6 Install the left and right B-pillar lower trim panel assemblies. Refer to "B-pillar Lower Trim Panel Assembly Replacement".
- 7 Install the left and right A-pillar lower trim panel assemblies. Refer to "Left A-pillar Lower Trim Panel Assembly/Right A-pillar Lower Trim Panel Assembly Replacement".
- 8 Install the left and right instrument panel side end cover assemblies. Refer to "Instrument Panel Side End Cover Assembly Replacement".
- 9 Install the left and right front door courtesy panel coverings. Refer to "Front Door Courtesy Panel Covering Replacement".
- 10 Install the auxiliary fascia console body assembly. Refer to "Auxiliary Fascia Console Body Assembly Replacement (6MT)/Auxiliary Fascia Console Body Assembly Replacement (6AT)/Auxiliary Fascia Console Body Assembly Replacement (8AT)".
- 11 Install the rear triple-seat assembly. Refer to "Rear Triple-seat Assembly Replacement".

Driver Compartment Interiors and Switches

- 12 Install the front passenger seat assembly. Refer to "Front Passenger Seat Assembly Replacement".
- 13 Install the driver seat assembly. Refer to "Driver Seat Assembly Replacement".

Combination Switch Assembly Replacement *Removal*

- 1 Disconnect the negative battery cable.
- 2 Remove the lower steering column shroud assembly. Refer to "Lower Steering Column Shroud Assembly Replacement".
- 3 Disconnect the electrical connector (1) of the combination switch assembly.
- 4 Pry off the clip, and remove the combination switch assembly (2).



Installation

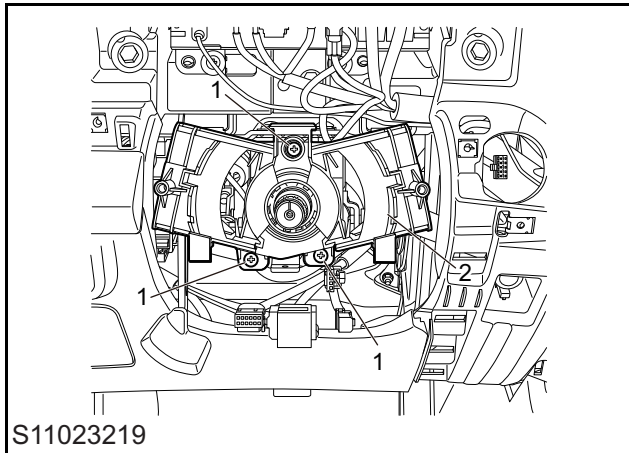
- 1 Install the combination switch assembly.
- 2 Connect the electrical connector of the combination switch assembly.
- 3 Install the lower steering column shroud assembly. Refer to "Lower Steering Column Shroud Assembly Replacement".
- 4 Connect the negative battery cable.

Driver Compartment Interiors and Switches

Combination Switch Base Replacement

Removal

- 1 Remove the driver airbag module assembly. Refer to "Driver Airbag Module Assembly Replacement".
 - 2 Remove the steering wheel assembly. Refer to "Steering Wheel Assembly Replacement".
 - 3 Remove the lower steering column shroud assembly. Refer to "Lower Steering Column Shroud Assembly Replacement".
 - 4 Remove the clock spring assembly and the clock spring returning ring. Refer to "Clock Spring Assembly and Clock Spring Returning Ring Replacement".
 - 5 Remove the combination switch assembly. Refer to "Combination Switch Assembly Replacement".
 - 6 Remove 3 retaining screws (1) fixing the combination switch base to the steering column.
 - 7 Remove the combination switch base (2).
- 5 Install the lower steering column shroud assembly. Refer to "Lower Steering Column Shroud Assembly Replacement".
 - 6 Install the steering wheel assembly. Refer to "Steering Wheel Assembly Replacement".
 - 7 Install the driver airbag module assembly. Refer to "Driver Airbag Module Assembly Replacement".



Installation

- 1 Install the combination switch base.
- 2 Install 3 retaining screws fixing the combination switch base to the steering column.
- 3 Install the combination switch assembly. Refer to "Combination Switch Assembly Replacement".
- 4 Install the clock spring assembly and the clock spring returning ring. Refer to "Clock Spring Assembly and Clock Spring Returning Ring Replacement".

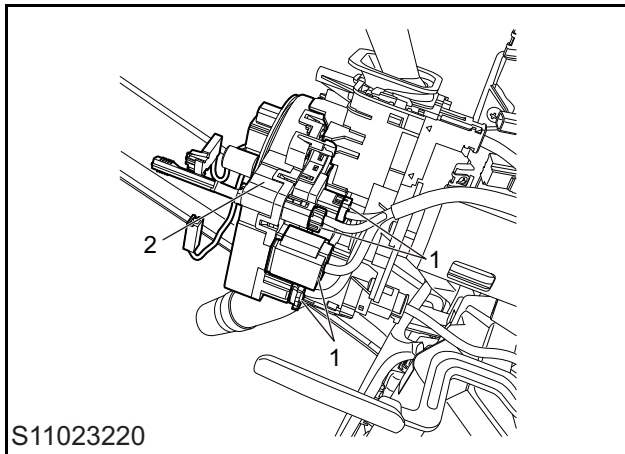
Clock Spring Assembly and Clock Spring Returning Ring Replacement

Removal

- 1 Remove the driver airbag module assembly. Refer to "Driver Airbag Module Assembly Replacement".
- 2 Remove the steering wheel assembly. Refer to "Steering Wheel Assembly Replacement".
- 3 Remove the lower steering column shroud assembly. Refer to "Lower Steering Column Shroud Assembly Replacement".
- 4 Disconnect the electrical connector (1) of the clock spring assembly and the clock spring returning ring.
- 5 Pry off the clip, and remove the clock spring assembly and the clock spring returning ring (2).

rotate freely and deviate from the center position.

- When installing the steering wheel, pull out the pin to confirm whether the clock spring is at the center position (If a yellow mark is visible on the clock spring surface window, it means the spring is centered). If yes, fix the steering wheel.
 - If not, adjust the spring to the center position, and install the steering wheel.
 - Removal and installation of the clock spring may cause the position change to the steering angle sensor, please carry out zero calibration for the steering angle sensor with an aftermarket scan tool after the installation (If not calibrated, ESP warning indicator may keep ON).
- 5 Install the driver airbag module assembly. Refer to "Driver Airbag Module Assembly Replacement".



Installation

- 1 Install the clock spring assembly and the clock spring returning ring.
- 2 Connect the electrical connector of the clock spring assembly and the clock spring returning ring.
- 3 Install the lower steering column shroud assembly. Refer to "Lower Steering Column Shroud Assembly Replacement".
- 4 Install the steering wheel assembly. Refer to "Steering Wheel Assembly Replacement".

Caution: Installation Requirements of the Clock Spring:

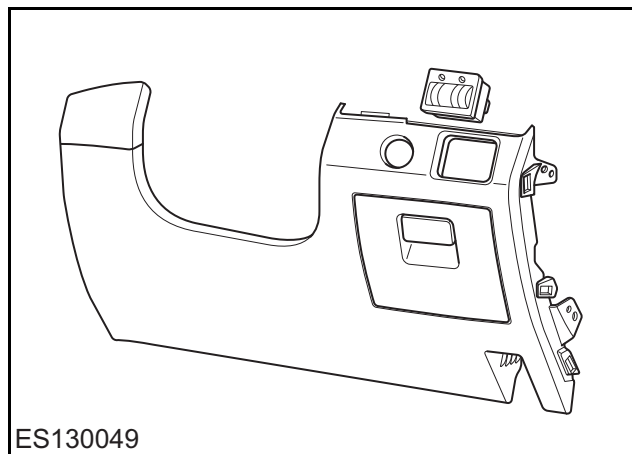
- The clock spring is retained with a pin, which shall not be pulled out before installing the steering wheel, otherwise the clock spring will

Driver Compartment Interiors and Switches

Dimmer Switch Assembly Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the driver side lower guard plate assembly. Refer to "Driver Side Lower Guard Plate Assembly Replacement".
- 3 Disconnect the dimmer switch connector.
- 4 Remove the dimmer switch assembly.



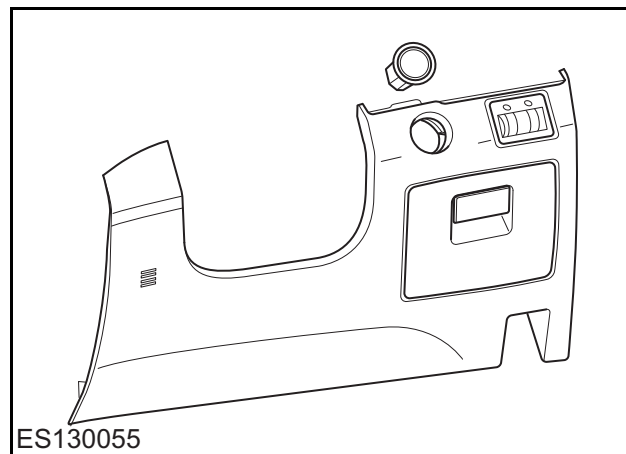
Installation

- 1 Install the dimmer switch assembly onto the driver side lower guard plate assembly.
- 2 Connect the dimmer switch connector.
- 3 Install the driver side lower guard plate assembly. Refer to "Driver Side Lower Guard Plate Assembly Replacement".
- 4 Connect the negative battery cable.

Start-stop Switch Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the driver side lower guard plate assembly. Refer to "Driver Side Lower Guard Plate Assembly Replacement".
- 3 Disconnect the start-stop switch connector.
- 4 Remove the start-stop switch.



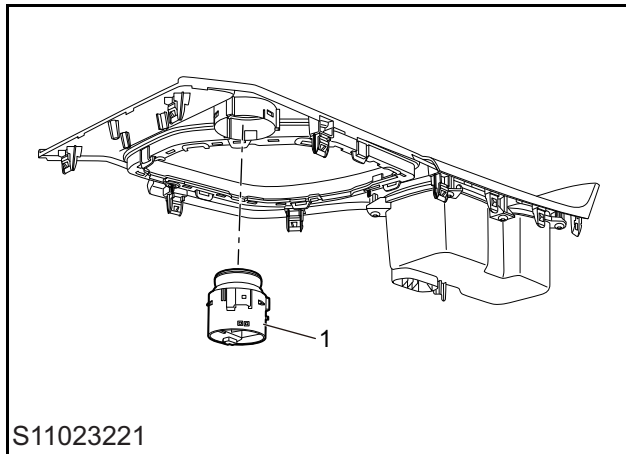
Installation

- 1 Install the start/stop switch onto the driver side lower guard plate assembly.
- 2 Connect the start/stop switch connector.
- 3 Install the driver side lower guard plate assembly. Refer to "Driver Side Lower Guard Plate Assembly Replacement".
- 4 Connect the negative battery cable.

Drive Conversion Switch Assembly Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the auxiliary fascia console upper trim panel assembly. Refer to "Auxiliary Fascia Console Upper Trim Panel Assembly Replacement".
- 3 Disconnect the drive switch connector.
- 4 Remove the drive conversion switch.



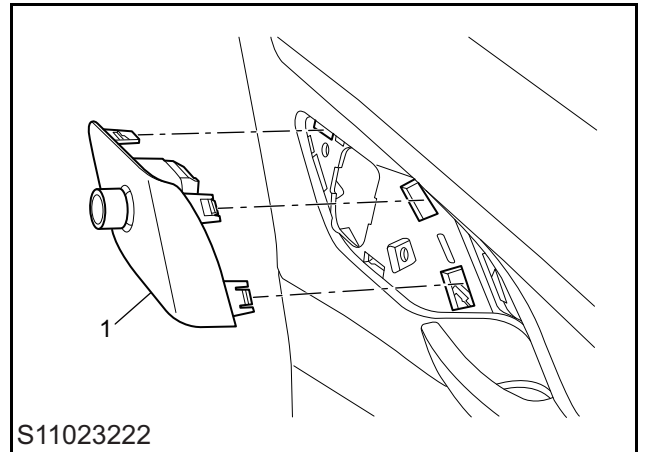
Installation

- 1 Install the drive conversion switch onto the auxiliary fascia console upper trim panel assembly.
- 2 Connect the drive conversion switch connector.
- 3 Install the auxiliary fascia console upper trim panel assembly. Refer to "Auxiliary Fascia Console Upper Trim Panel Assembly Replacement".
- 4 Connect the negative battery cable.

Rearview Mirror Regulating Switch Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the driver side front door interior trim panel assembly. Refer to "Driver Side Front Door Interior Trim Panel Assembly Replacement".
- 3 Disconnect the rearview mirror regulating switch connector.



Installation

- 1 Install the rearview mirror regulating switch onto the driver side front door interior trim panel assembly.
- 2 Connect the rearview mirror regulating switch connector.
- 3 Install the front door interior trim panel assembly at the driver side. Refer to "Driver Side Front Door Interior Trim Panel Assembly Replacement".
- 4 Connect the negative battery cable.

Seats

Specification

Fastener Specifications

Name	Torque (Nm)
Bolt - Driver Seat	58±5 Nm
Bolt - Front Passenger Seat	58±5 Nm
Bolt - Rear Seat	58±5 Nm

Seats

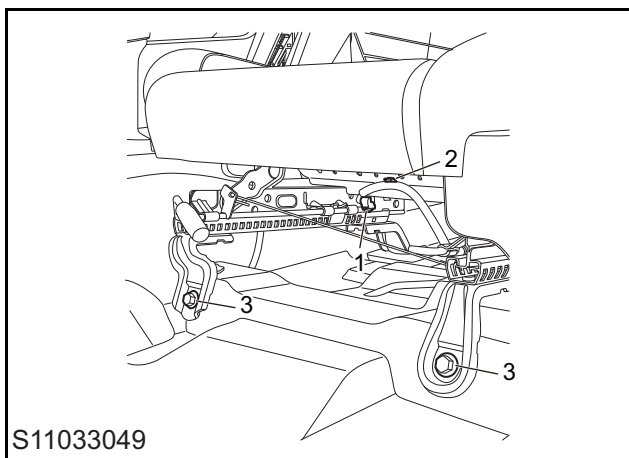
Service Guide

Driver Seat Assembly Replacement

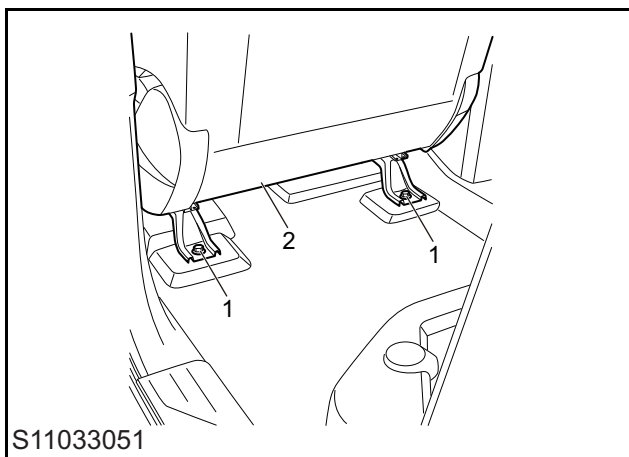
Removal

- 1 Disconnect the negative battery cable.
- 2 Disconnect the electrical connector (1) of the driver seat assembly.
- 3 Remove the clip (2) fixing the floor harness to the driver seat assembly.
- 4 Remove 2 retaining bolts (3) fixing the driver seat assembly to the floor.

- 2 Install 4 retaining bolts fixing the driver seat assembly to the floor, tighten them to 58 ± 5 Nm, and check the torque.
- 3 Install the clip fixing the floor harness to the driver seat assembly.
- 4 Connect the electrical connector of the driver seat assembly.
- 5 Connect the negative battery cable.



- 5 Remove 2 retaining bolts (1) fixing the driver seat assembly to the floor, and remove the driver seat assembly (2).



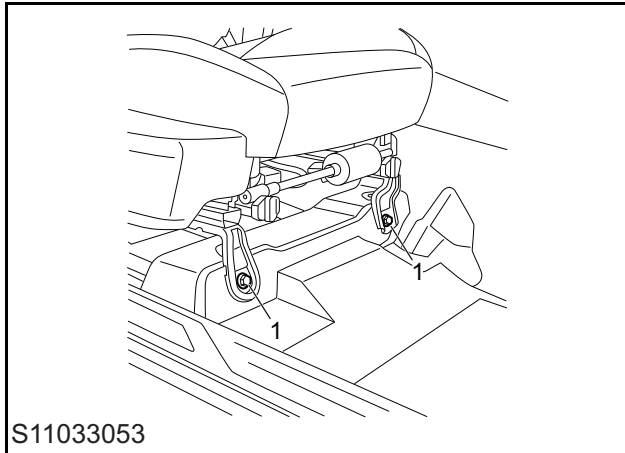
Installation

- 1 Place the driver seat assembly to a proper position.

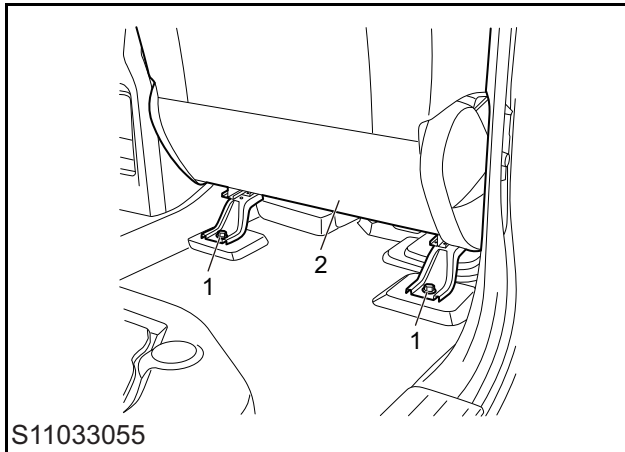
Front Single Passenger Seat Assembly Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Disconnect the electrical connector of the front single passenger seat assembly.
- 3 Remove 2 retaining bolts (1) fixing the front single passenger seat assembly to the floor.



- 4 Remove 2 retaining bolts (1) fixing the front single passenger seat assembly to the floor, and take out the front single passenger seat assembly (2).



Installation

- 1 Place the front single passenger seat assembly to a proper position.
- 2 Install 4 retaining bolts fixing the front single passenger seat assembly to the floor, tighten them to 58 ± 5 Nm, and check the torque.
- 3 Install the clip fixing the floor harness to the front single passenger seat assembly.

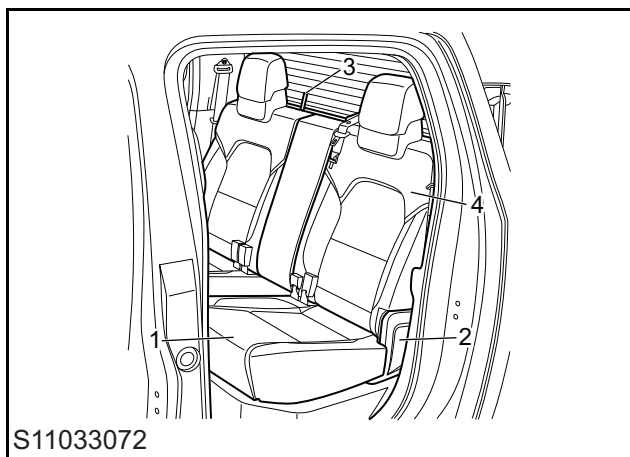
- 4 Connect the electrical connector of the front single passenger seat assembly.
- 5 Connect the negative battery cable.

Seats

Rear Triple-Seat Assembly Replacement

Removal

- 1 Pull up the top tether of the rear triple-seat cushion, and remove the rear triple-seat cushion (1).
- 2 Remove the left and right rear seat left mounting leg covers (2).
- 3 Pull up the tether (3) of the rear triple-seat backrest cushion, and turn down the rear triple-seat backrest cushion (4).
- 4 Remove 2 retaining bolts fixing the left and right rear triple-seat backrest cushion supports to the floor, and remove the rear triple-seat backrest cushion (4).



Installation

- 1 Place the rear triple-seat backrest cushion to a proper position.
- 2 Install 2 retaining bolts fixing the left and right rear triple-seat backrest cushion supports to the floor, tighten them to 58 ± 5 Nm, and check the torque.
- 3 Turn up the rear triple-seat backrest cushion.
- 4 Install the left and right rear seat left mounting leg covers.
- 5 Install the rear triple-seat cushion.

Exteriors

Specification

Fastener Specifications

Name	Torque (Nm)
Bolt - Condenser Lower Guard Plate	16 ± 2 Nm
Bolt - Front Windshield Cover Plate Assembly	5±1 Nm
Bolt/Screw - Rear Wheelhouse Liner	9±1 Nm
Bolt - Side Sliding Door Courtesy Bracket to Courtesy	22±2 Nm
Bolt - Windshield Gutter Channel Assembly	9±1 Nm
Bolt - Gutter Channel Connecting Plate	9±1 Nm

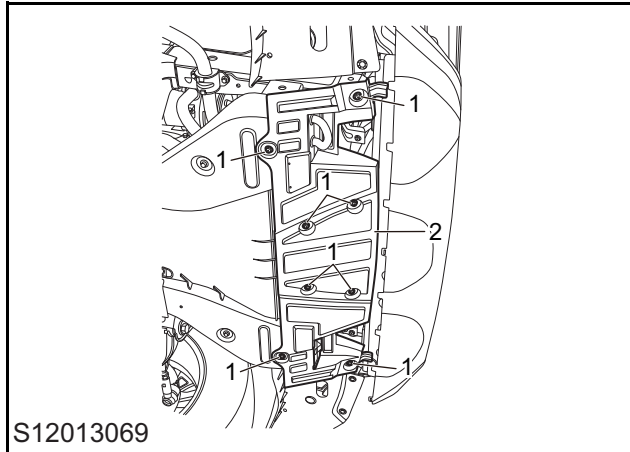
Exteriors

Service Guide

Front Bottom Deflector Replacement

Removal

- 1 Remove 8 retaining screws (1) from the front bottom deflector, and remove the front bottom deflector (2).



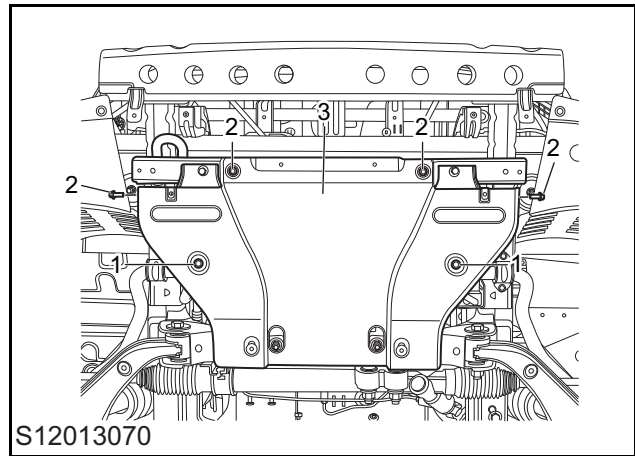
Installation

- 1 Place the front bottom deflector, install and tighten 8 retaining screws on the front bottom deflector.

Condenser Lower Guard Plate Replacement

Removal

- 1 Remove the front bottom deflector. Refer to "Front Bottom Deflector Replacement".
- 2 Remove the engine lower guard plate. Refer to "Engine Lower Guard Plate Replacement".
- 3 Remove 2 retaining clips from the condenser lower guard plate.
- 4 Remove 4 retaining bolts from the condenser lower guard plate, and remove the condenser lower guard plate.



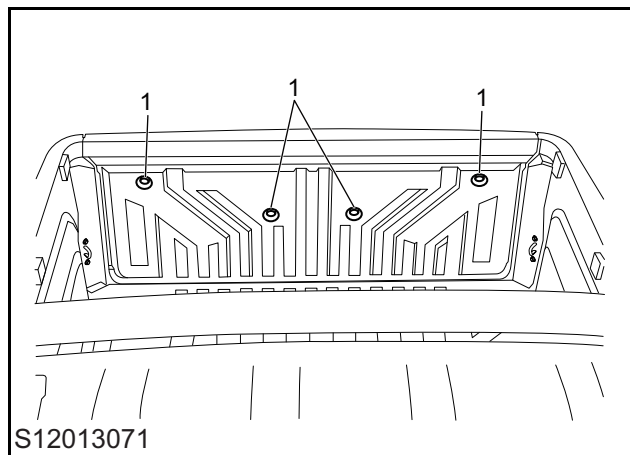
Installation

- 1 Place the condenser lower guard plate, install 4 retaining bolts on the condenser lower guard plate, tighten them to 16 ± 2 Nm, and check the torque.
- 2 Install 2 retaining clips on the condenser lower guard plate.
- 3 Install the engine lower guard plate. Refer to "Engine Lower Guard Plate Replacement".
- 4 Install the front bottom deflector. Refer to "Front Bottom Deflector Replacement".

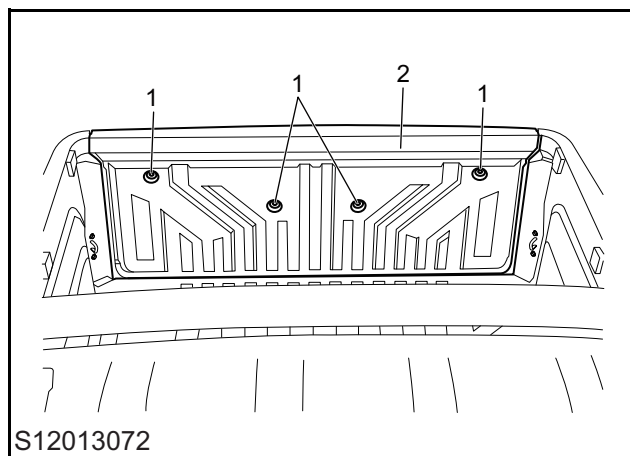
Cargo Compartment Door Trim Replacement

Removal

- 1 Remove 4 screw caps (1) from the cargo compartment door trim.



- 2 Remove 4 retaining screws (1) from the cargo compartment door trim.
- 3 Remove the cargo compartment door trim (2).



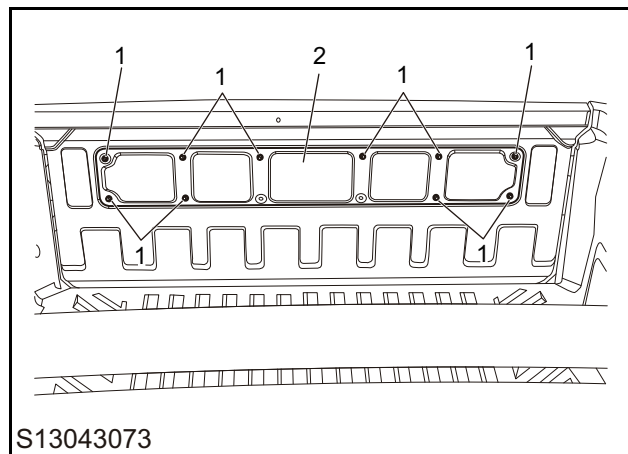
Installation

- 1 Install the cargo compartment door trim.
- 2 Install and tighten 4 retaining screws on the cargo compartment door trim.
- 3 Install 4 screw caps on the cargo compartment door trim.

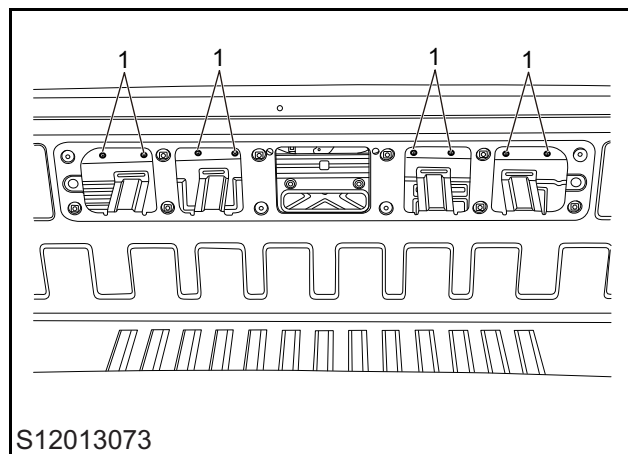
Tailgate Trim Panel Replacement

Removal

- 1 Remove the cargo compartment door trim. Refer to "Cargo Compartment Door Trim Replacement".
- 2 Remove 8 retaining screws (1) from the cover of the rear panel inner panel.
- 3 Remove the cover of the rear panel inner panel (2).

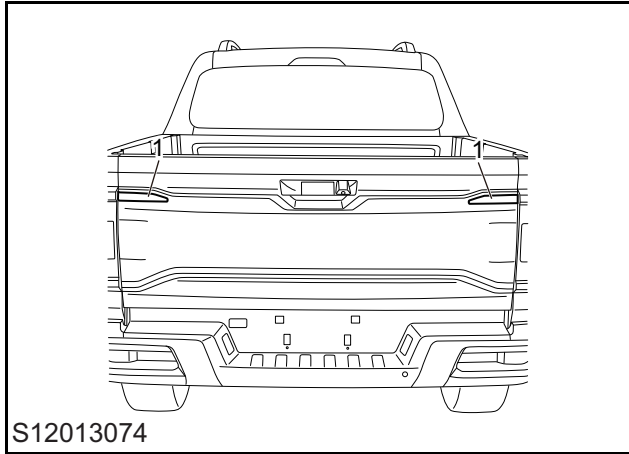


- 4 Remove 8 retaining screws (1) from the tailgate trim panel.

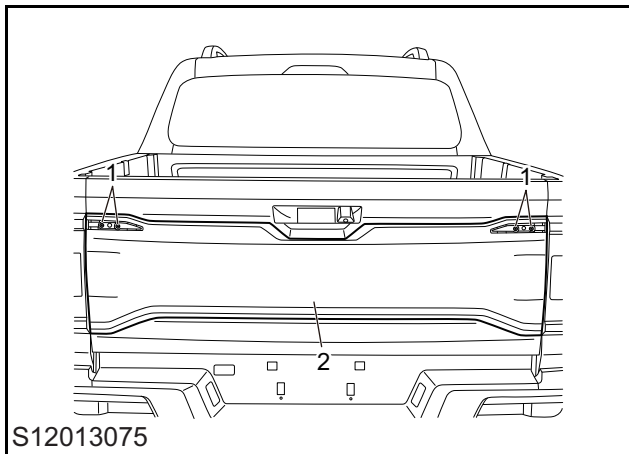


- 5 Remove the tailgate trim strip (1).

Exteriors



- 6 Remove 4 retaining screws (1) from the tailgate trim panel.
- 7 Pry off the clips and remove the tailgate trim panel (2).



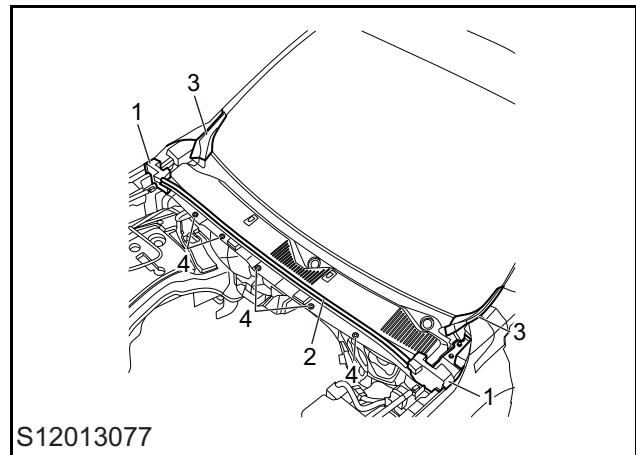
Installation

- 1 Install the tailgate trim panel.
- 2 Install and tighten 12 retaining screws on the tailgate trim panel.
- 3 Install the tailgate trim strip.
- 4 Install the cover of the rear panel inner panel.
- 5 Install and tighten 8 retaining screws on the cover of the rear panel inner panel.
- 6 Install the cargo compartment door trim. Refer to "Cargo Compartment Door Trim Replacement".

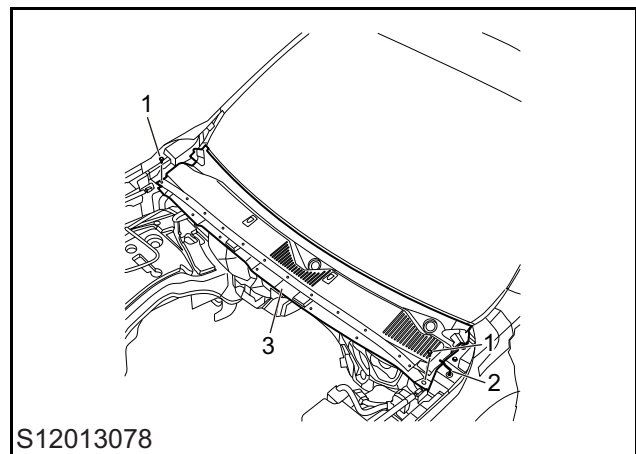
Front Windshield Cover Plate Assembly Replacement

Removal

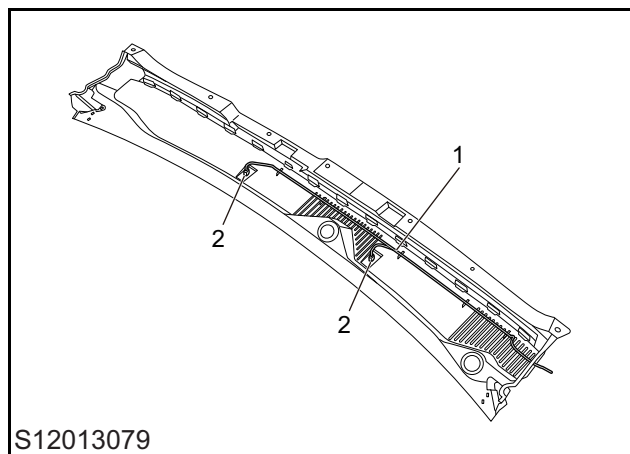
- 1 Remove the wiper blades. Refer to "Wiper Blade Replacement".
- 2 Remove the wiper arm assembly. Refer to "Wiper Arm Assembly Replacement".
- 3 Remove the front windshield cover block (1).
- 4 Pry off the clips and remove the rear sealing strip (2) of the engine hood.
- 5 Pry the clips and remove the front windshield cover plate trim cover (3).
- 6 Remove 5 retaining clips (4) from the front windshield cover plate assembly.



- 7 Remove 2 retaining bolts (1) from the front windshield cover plate assembly.
- 8 Disconnect the front washer fluid hose connector (2) and remove the front windshield cover plate assembly (3).



- 9 Remove the front washer fluid hose (1) from the front windshield cover plate assembly.
- 10 Remove the windshield washer nozzle (2) from the front windshield cover plate assembly.



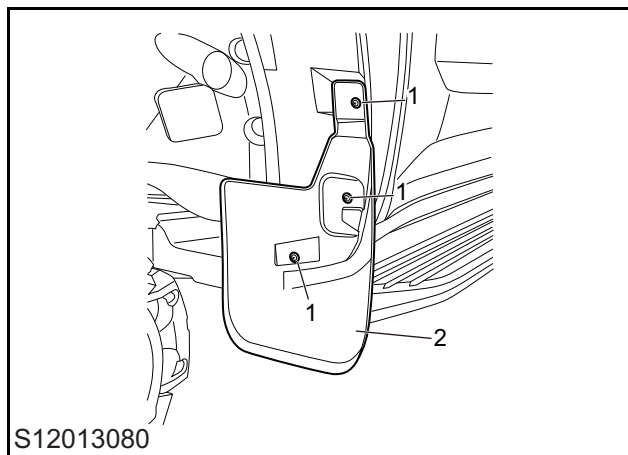
Installation

- 1 Install the windshield washer nozzle to the front windshield cover plate assembly.
- 2 Install the front washer fluid hose to the front windshield cover plate assembly.
- 3 Install the windshield cover assembly and connect the front washer fluid hose connector.
- 4 Install 2 retaining bolts on the front windshield cover plate assembly, tighten them to 5 ± 1 Nm, and check the torque.
- 5 Install 5 retaining clips on the front windshield cover plate assembly.
- 6 Install the front windshield cover plate trim cover.
- 7 Install the rear sealing strip of the engine hood.
- 8 Install the front windshield cover block.
- 9 Install the wiper arm assembly. Refer to "Wiper Arm Assembly Replacement".
- 10 Install the wiper blades. Refer to "Wiper Blade Replacement".

Front Mudguard Replacement

Removal

- 1 Remove 3 retaining screws (1) from the front mudguard and remove the front mudguard (2).



Installation

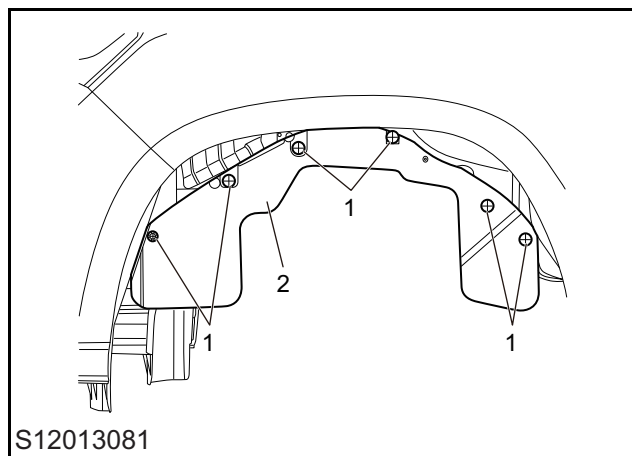
- 1 Install the front mudguard, install and tighten 3 retaining screws on the front mudguard.

Exteriors

Wheelhouse Trim Replacement

Removal

- 1 Remove 6 retaining clips (1) from the wheelhouse trim, and remove the wheelhouse trim (2).



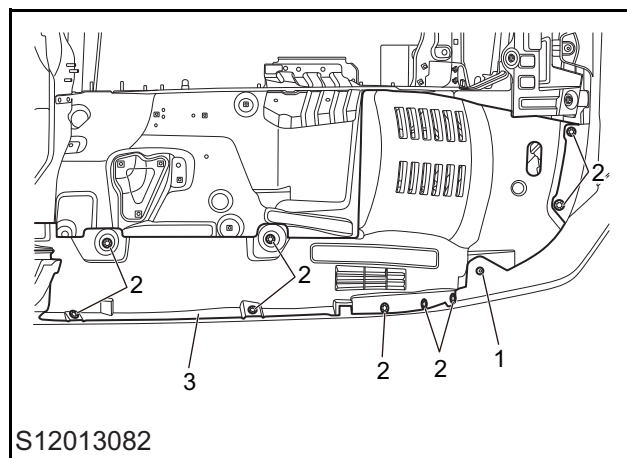
Installation

- 1 Install the wheelhouse trim and 6 retaining clips on the wheelhouse trim.

Front Wheelhouse Liner Replacement

Removal

- 1 Remove the wheelhouse trim. Refer to "Wheelhouse Trim Replacement".
- 2 Remove the front mudguard. Refer to "Front Mudguard Replacement".
- 3 Remove 1 retaining screw (1) from the front wheelhouse liner.
- 4 Remove 9 retaining clips (2) from the front wheelhouse liner.
- 5 Remove the front wheelhouse liner (3).



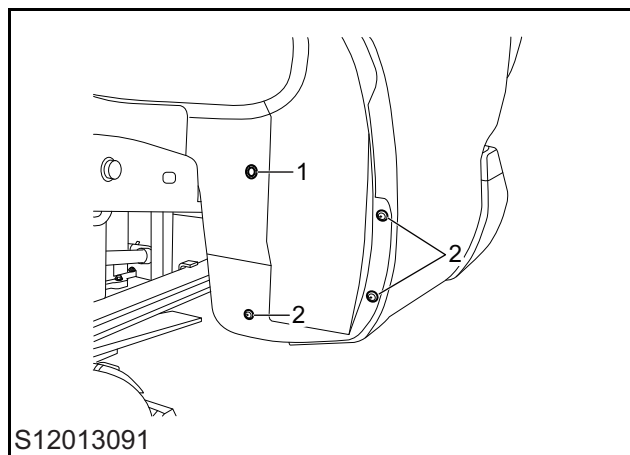
Installation

- 1 Install the front wheelhouse liner.
- 2 Install 9 retaining clips on the front wheelhouse liner.
- 3 Install and tighten 1 retaining screw on the front wheelhouse liner.
- 4 Install the front mudguard. Refer to "Front Mudguard Replacement".
- 5 Install the wheelhouse trim. Refer to "Wheelhouse Trim Replacement".

Rear Wheelhouse Liner Replacement

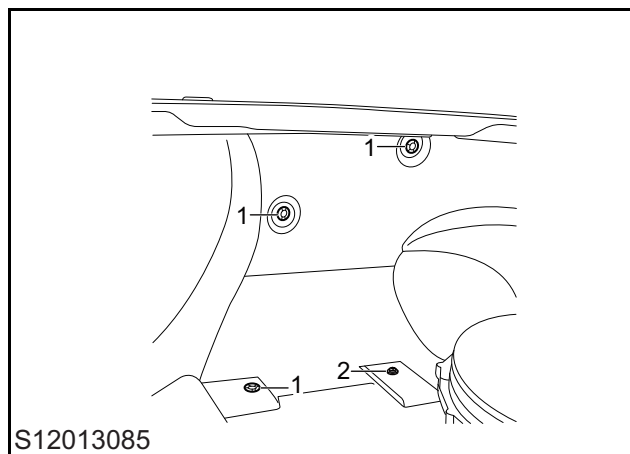
Removal

- 1 Remove 1 retaining clip (1) from the rear wheelhouse liner.
- 2 Remove 3 retaining screws (2) from the rear wheelhouse liner.



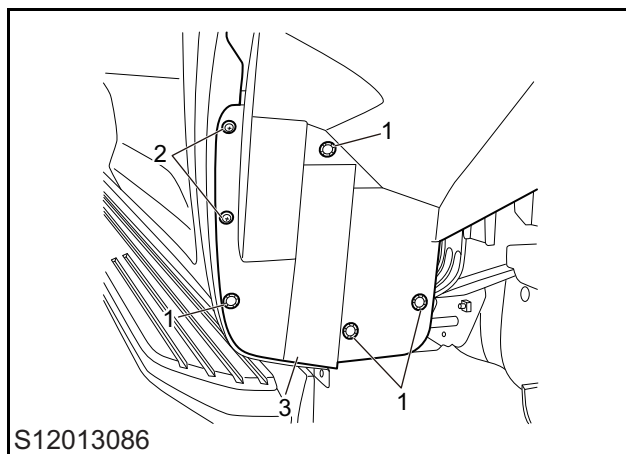
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- 3 Remove 3 retaining clips (1) from the rear wheelhouse liner.
- 4 Remove 1 retaining screw (2) fixing the rear wheelhouse liner to the cargo compartment 2nd beam connecting plate.



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- 5 Remove 4 retaining clips (1) from the rear wheelhouse liner.
- 6 Remove 2 retaining screws (2) from the rear wheelhouse liner.
- 7 Remove the rear wheelhouse liner (3).



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Installation

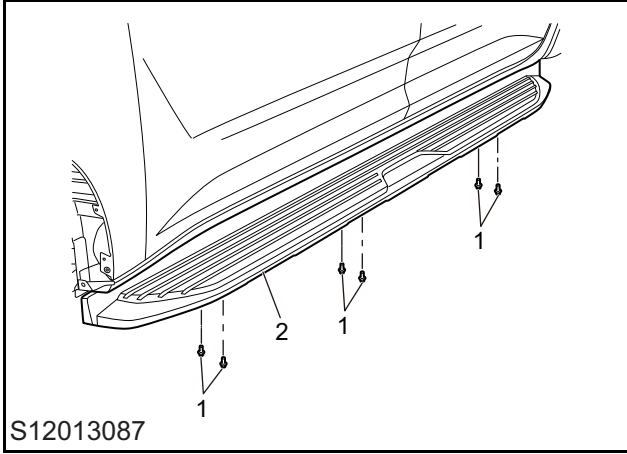
- 1 Install the rear wheelhouse liner.
- 2 Install 1 retaining screw fixing the rear wheelhouse liner to the cargo compartment 2nd beam connecting plate, tighten it to 9 ± 1 Nm, and check the torque.
- 3 Install and tighten 5 retaining screws on the rear wheelhouse liner.
- 4 Install 8 retaining clips on the rear wheelhouse liner.

Exteriors

Side Fixed Pedal Assembly Replacement

Removal

- 1 Remove 6 retaining bolts (1) fixing the side fixed pedal assembly to the bracket, and remove the side fixed pedal assembly (2).



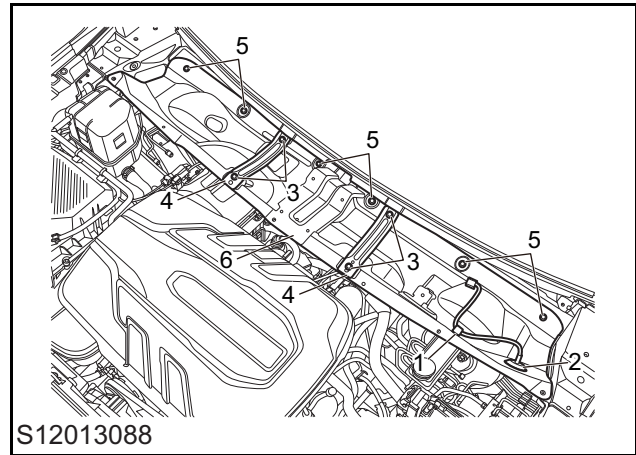
Installation

- 1 Place the side fixed pedal assembly, install 6 retaining bolts fixing the side fixed pedal assembly to the bracket, tighten them to 22 ± 2 Nm, and check the torque.

Windshield Gutter Channel Replacement

Removal

- 1 Remove the wiper blades. Refer to "Wiper Blade Replacement".
- 2 Remove the wiper arm assembly. Refer to "Wiper Arm Assembly Replacement".
- 3 Remove the windshield cover plate assembly. Refer to "Front Windshield Cover Plate Assembly Replacement".
- 4 Remove the wiper motor assembly. Refer to "Wiper Motor Assembly Replacement".
- 5 Remove the clip (1) from the engine compartment harness.
- 6 Remove the engine compartment harness rubber sleeve (2) and remove the engine compartment harness.
- 7 Remove 4 retaining bolts (3) fixing the junction plate to the vehicle body, and remove the junction plate (4).
- 8 Remove 6 retaining bolts (5) fixing the windshield gutter channel to the vehicle body, and remove the windshield gutter channel (6).



Installation

- 1 Install the windshield gutter channel.
- 2 Install 6 retaining bolts fixing the windshield gutter channel to the vehicle body, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Install the junction plate, install 4 retaining bolts fixing the junction plate to the vehicle body, tighten them to 9 ± 1 Nm, and check the torque.

- 4 Place the engine compartment harness and install the rubber sleeve of the engine compartment harness.
- 5 Install the clips on the engine compartment harness.
- 6 Install the wiper motor assembly. Refer to "Wiper Motor Assembly Replacement".
- 7 Install the front windshield cover plate assembly. Refer to "Front Windshield Cover Plate Assembly Replacement".
- 8 Install the wiper arm assembly. Refer to "Wiper Arm Assembly Replacement".
- 9 Install the wiper blades. Refer to "Wiper Blade Replacement".

Rearview Mirrors

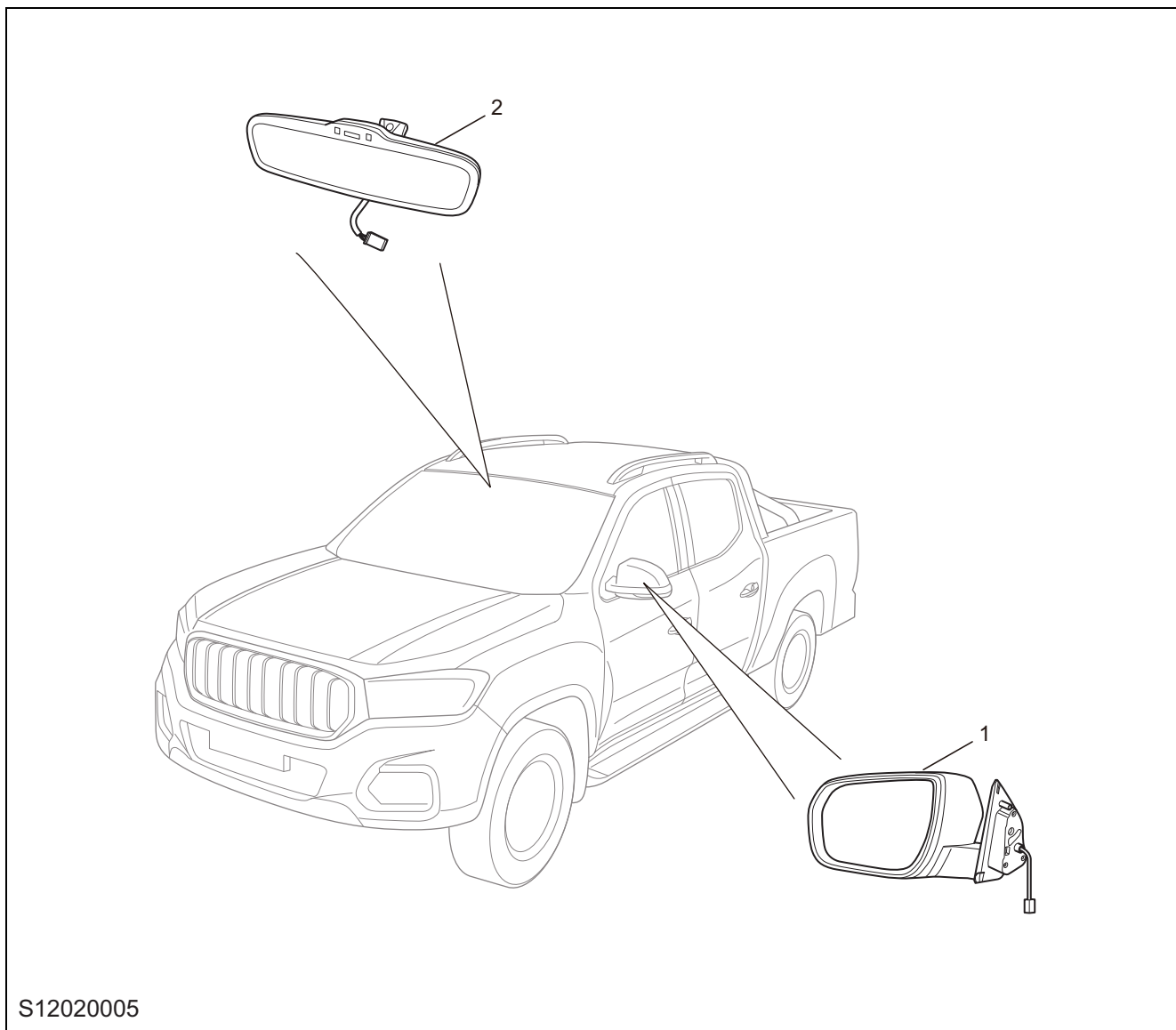
Specification

Fastener Specifications

Name	Torque (Nm)
Bolt - Exterior Rearview Mirrors	9±1 Nm

Rearview Mirrors

Layout



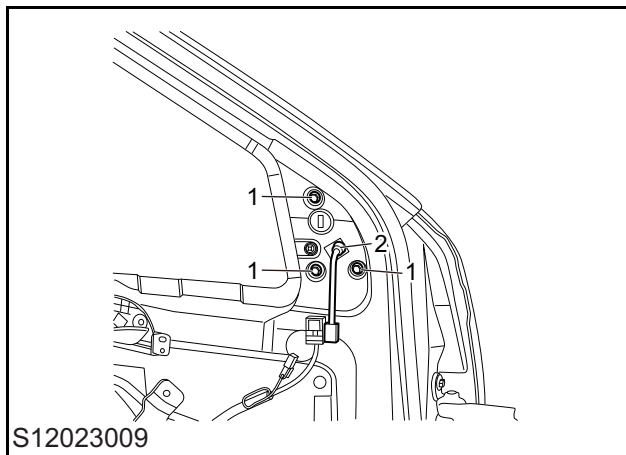
- 1 Exterior Rearview Mirrors
- 2 Interior rearview mirror

Service Guide

Exterior Rearview Mirror Assembly Replacement

Removal

- 1 Remove the front door interior trim panel assembly. Refer to "Front Door Interior Trim Panel Assembly Replacement".
- 2 Disconnect the electrical connector of the exterior rearview mirror assembly.
- 3 Remove 3 retaining bolts (1) fixing the exterior rearview mirror assembly to the door.
- 4 Remove the exterior rearview mirror assembly (2).



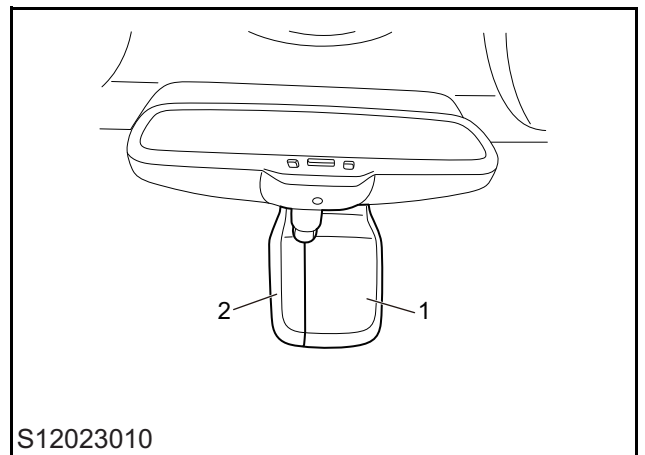
Installation

- 1 Install the exterior rearview mirror assembly.
- 2 Install 3 bolts fixing the exterior rearview mirror assembly to the door, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Install the electrical connector of the exterior rearview mirror assembly.
- 4 Install the front door interior trim panel assembly. Refer to "Front Door Interior Trim Panel Assembly Replacement".

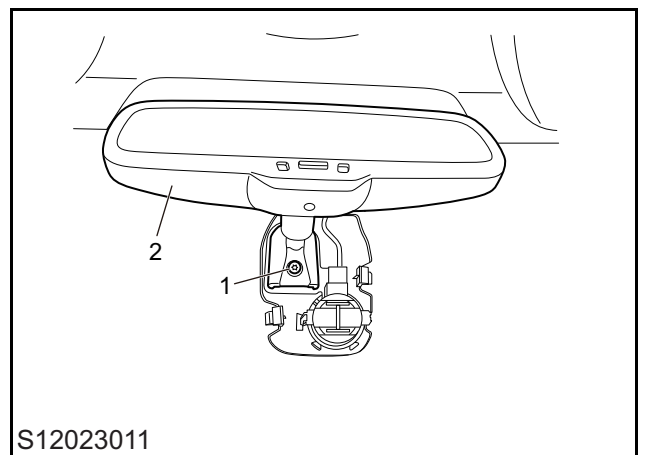
Interior Rearview Mirror Assembly Replacement

Removal

- 1 Remove the front ceiling interior reading lamp assembly. Refer to "Front Ceiling Interior Reading Lamp Assembly Replacement".
- 2 Disconnect the electrical connector of the interior rearview mirror assembly.
- 3 Remove the covers (1) and (2) of the rain/solar sensor.



- 4 Remove 1 retaining screw (1) from the interior rearview mirror assembly, and remove the interior rearview mirror assembly (2).



Installation

- 1 Place the interior rearview mirror assembly, install and tighten 1 retaining screw on the interior rearview mirror assembly.
- 2 Install the cover of the rain/solar sensor.
- 3 Connect the electrical connector of the interior rearview mirror assembly.

Rearview Mirrors

- 4 Install the front ceiling interior reading lamp assembly. Refer to "Front Ceiling Interior Reading Lamp Assembly Replacement".

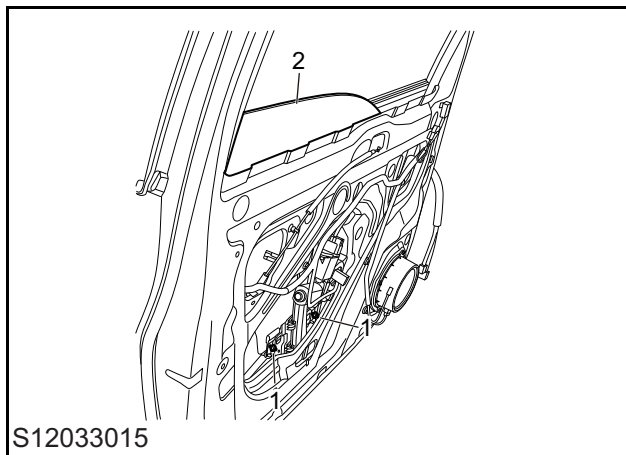
Stationary Windows

Service Guide

Front Door Glass Replacement

Removal

- 1 Remove the front door interior trim panel assembly. Refer to "Front Left Door Interior Trim Panel Assembly Replacement/Front Right Door Interior Trim Panel Assembly Replacement".
- 2 Remove the front door waterproof membrane.
- 3 Adjust the front door glass to the proper position.
- 4 Loosen the retaining nut (1) from the front door glass regulator assembly.
- 5 Pull the front door glass out of the front door glass regulator assembly.
- 6 Remove the front door glass (2) from the front door.



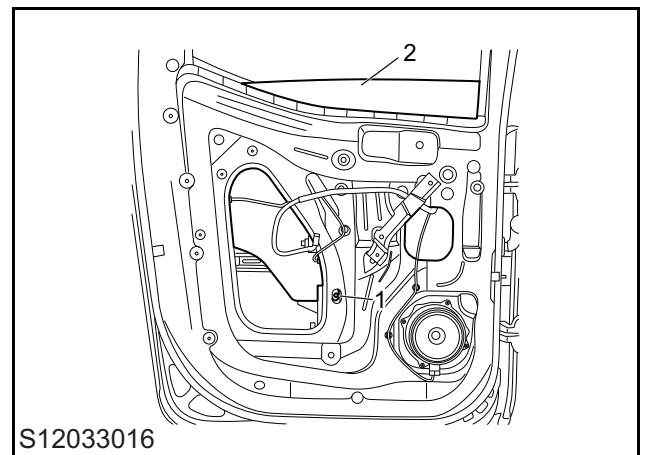
Installation

- 1 Place the front door glass into the front door.
- 2 Install the front door glass to the front door glass regulator assembly.
- 3 Tighten the retaining nuts on the front door glass regulator assembly.
- 4 Install the waterproof membrane on the front door.
- 5 Install the front door interior trim panel assembly. Refer to "Front Left Door Interior Trim Panel Assembly Replacement/Front Right Door Interior Trim Panel Assembly Replacement".

Rear Door Glass Replacement

Removal

- 1 Remove the rear door interior trim panel assembly. Refer to "Rear Door Interior Trim Panel Assembly Replacement".
- 2 Remove the rear door waterproof membrane.
- 3 Adjust the rear door glass to the proper position.
- 4 Push the clips (1) of the rear door glass regulator assembly out of the rear door glass with a screwdriver.
- 5 Pull the rear door glass out of the rear door glass regulator assembly.
- 6 Remove the rear door glass (2) from the rear door.



Installation

- 1 Place the rear door glass into the rear door.
- 2 Install the rear door glass to the rear door glass regulator assembly, and a click will be heard at the same time.
- 3 Install the waterproof membrane of the rear door.
- 4 Install the rear door interior trim panel assembly. Refer to "Rear Door Interior Trim Panel Assembly Replacement".

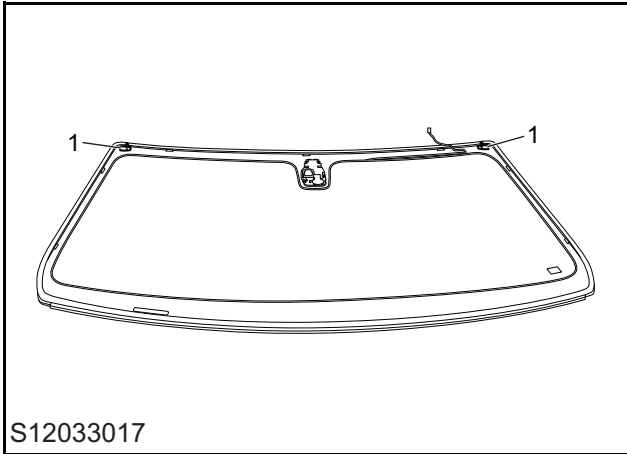
Stationary Windows

Front Windshield Glass Assembly Replacement

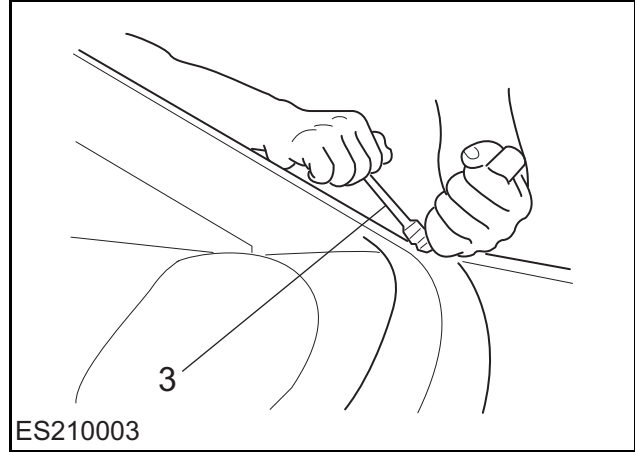
Removal

- 1 Remove the wiper blades. Refer to "Wiper Blade Replacement".
- 2 Remove the wiper arm assembly. Refer to "Wiper Arm Assembly Replacement".
- 3 Remove the windshield cover plate assembly. Refer to "Front Windshield Cover Plate Assembly Replacement".
- 4 Remove the interior rearview mirror assembly. Refer to "Interior Rearview Mirror Assembly Replacement".
- 5 Remove the rain/solar sensor. Refer to "Rain/Solar Sensor Replacement".
- 6 Disconnect the electrical connector of the antenna.
- 7 Cut the adhesive around the windshield with tool.

Caution: There are locating pins (1) in the upper left corner and upper right corner of the front windshield glass. Please pay attention when cutting.



- 8 Remove the front windshield glass assembly.



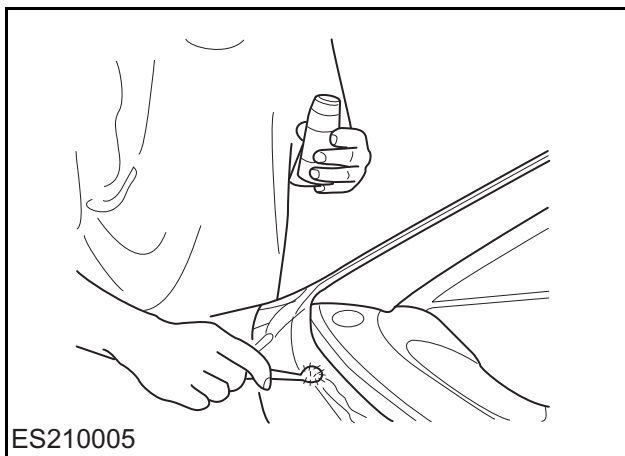
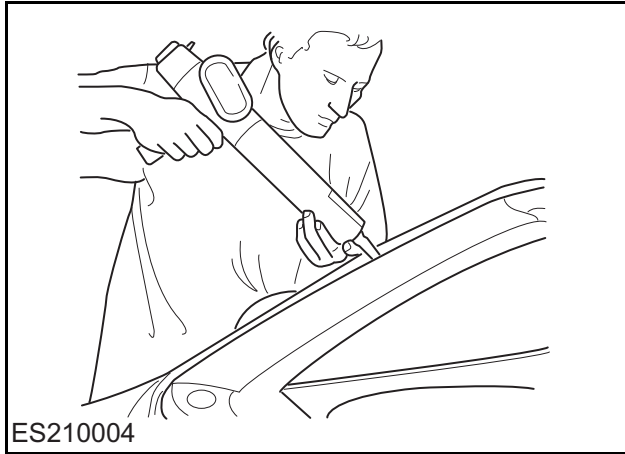
Installation

- 1 Wipe the inner surface of glass with clean cloth or bleached fiber (roll paper) immersed with a proper amount of specified glass cleaner, and clean the body paint with organic solvent inactive to the surface (such as acetone), then dry it for at least 5 minutes.

Caution: The used cloth or bleached fiber (roll paper) must be replaced. Use the cleaner directly and never dilute it with water.

Warning: To avoid any adverse reaction between cleaner and primer or polyurethane adhesive, prevent the cleaner from contacting with newly painted primer or polyurethane adhesive. Do not use the cleaner to remove excess primer or polyurethane adhesive; the surface to be cleaned must be complete dry before applying primer or polyurethane adhesive.

- 2 Fully shake the glass primer and paint primer. Dip a small amount of mixture with a clean brush or gauze and evenly wipe the surface of the glass and top fixing frame which have been cleaned by cleaner. One-time instead of repeated painting is required with drying time of approximately 5-15 minutes.



Caution: The surface coated with primer must be dry and free from dust, grease and other contaminants that may affect adhesion. Shake up the primer to prevent it from precipitation each time it is not in use for a long period.

Warning: Do not apply primer onto the body and glass with any remaining polyurethane adhesive, otherwise it may result in poor adhesion of the newly coated polyurethane adhesive.

- 3 Apply a layer of 8mm wide polyurethane adhesive evenly, continuously and vertically around the windshield with standard pneumatic or manual glue gun by reference to the glue track.
- 4 Align the upper locating pin of the windshield with the body hole.
- 5 Press the windshield in place.
- 6 Stick tape around the windshield to keep it in the correct installation position until the polyurethane adhesive is solidified.

Caution: For moisture-curable polyurethane adhesive, solidify it at 21°C (70°F) or higher temperature and the relative humidity no less than 30% for at least 6 hours. It takes at least 24 hours for the polyurethane adhesive to be fully solidified. For chemical-curable polyurethane adhesive, solidify it for at least 1 hour. DO NOT touch the repaired area until the minimum solidification time has elapsed.

- 7 Conduct a rain test, that is, shower the windshield softly with warm water to check the windshield for any sign of leakage.
- 8 If any leakage is found, apply more polyurethane adhesive around the leakage point. If it still leaks, remove the front windshield glass and repeat the whole procedure.
- 9 Connect the electrical connector of the antenna.
- 10 Install the rain/solar sensor. Refer to "Rain/Solar Sensor Replacement".
- 11 Install the interior rearview mirror assembly. Refer to "Interior Rearview Mirror Assembly Replacement".
- 12 Install the front windshield cover plate assembly. Refer to "Front Windshield Cover Plate Assembly Replacement".
- 13 Install the wiper arm assembly. Refer to "Wiper Arm Assembly Replacement".
- 14 Install the wiper blades. Refer to "Wiper Blade Replacement".

Stationary Windows

Rear Windshield Assembly Replacement

The replacement procedures of the rear window are similar to that of the front windshield. But note: Please disconnect/connect the electrical connector of the heating wires during removal and installation of the rear windshield assembly with heating wires.

Bumper

Specification

Fastener Specifications

Name	Torque (Nm)
Bolt - Front Bumper Bottom	5±1 Nm
Bolt - Front Bumper Upper Mounting Beam Assembly	9±1 Nm
Bolt - Front Bumper Beam Assembly	65±5 Nm
Bolt - Rear Bumper Assembly to Frame	40±5 Nm
Bolt - Rear Bumper Frame to Body	80±5 Nm

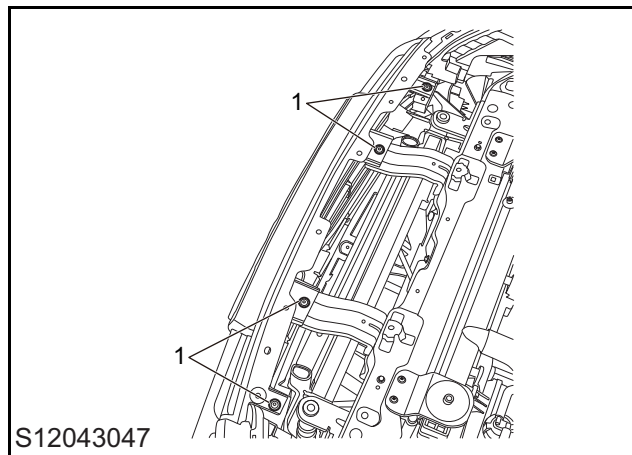
Bumper

Service Guide

Front Bumper Assembly Replacement

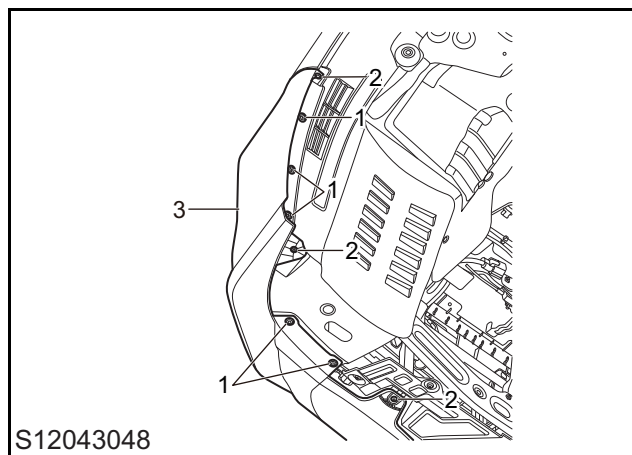
Removal

- 1 Remove the front grille cover plate. Refer to "Front Grille Cover Plate Replacement".
- 2 Remove 4 retaining screws (1) from the front bumper assembly.



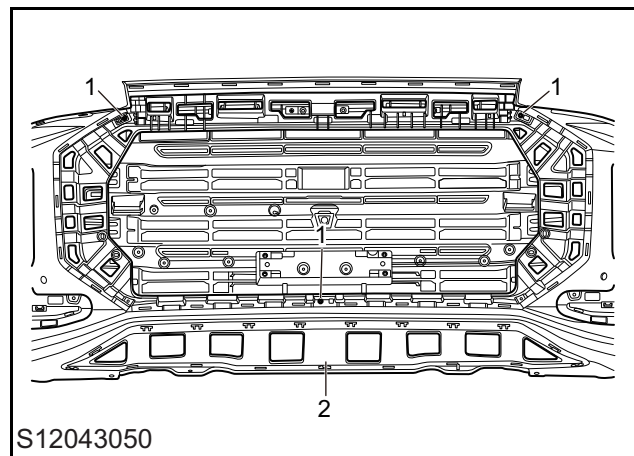
- 3 Remove the retaining clips (1) from the left and right front bumper assemblies.
- 4 Remove the retaining screws (2) from the left and right front bumper assemblies.
- 5 Remove the front bumper assembly (3) outward from both sides of the front bumper assembly.

Caution: This step can be done with two people together.



- 6 Remove 3 retaining screws (1) fixing the front grille assembly to the front bumper assembly.

- 7 Pry off the clips and remove the front bumper assembly (2) from the front grille assembly.



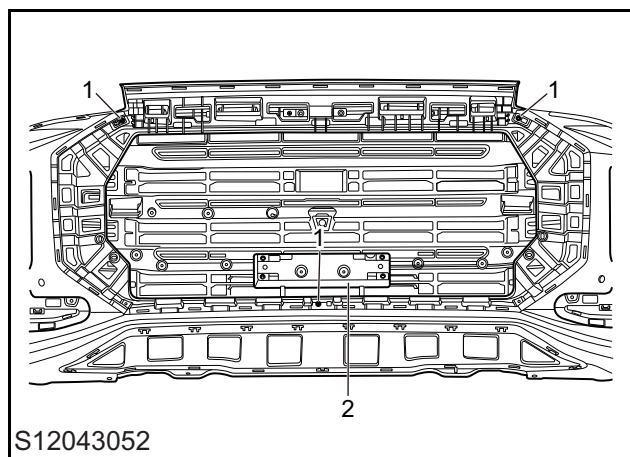
Installation

- 1 Install the front bumper assembly to the front grille assembly.
- 2 Install and tighten 3 retaining screws fixing the front grille assembly to the front bumper assembly.
- 3 Place the front bumper harness assembly and connect the electrical connector of the front bumper harness assembly.
- 4 Install the front bumper harness assembly.
- 5 Install 5 retaining clips on the left and right front bumper assemblies.
- 6 Install the retaining screws on the front bumper assemblies, tighten them to 5 ± 1 Nm, and check the torque.
- 7 Install the front grille cover plate. Refer to "Front Grille Cover Plate Replacement".

Front Grille Assembly Replacement

Removal

- 1 Remove the front grille cover plate. Refer to "Front Grille Cover Plate Replacement".
- 2 Remove the front bumper assembly. Refer to "Front Bumper Assembly Replacement".
- 3 Remove 3 retaining screws (1) fixing the front grille assembly to the front bumper assembly.
- 4 Pry off the clips and remove the front grille assembly (2) from the front bumper assembly.



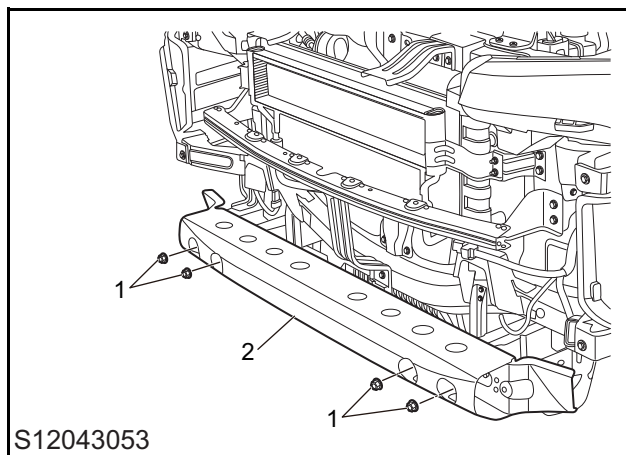
Installation

- 1 Install the front grille assembly to the front bumper assembly.
- 2 Install and tighten 3 retaining screws fixing the front grille assembly to the front bumper assembly.
- 3 Install the front bumper assembly. Refer to "Front Bumper Assembly Replacement".
- 4 Install the front grille cover plate. Refer to "Front Grille Cover Plate Replacement".

Front Bumper Beam Assembly Replacement

Removal

- 1 Remove the front bumper assembly. Refer to "Front Bumper Assembly Replacement".
- 2 Remove 4 retaining nuts (1) fixing the front bumper beam assembly to the frame.
- 3 Remove the front bumper beam assembly (2).



Installation

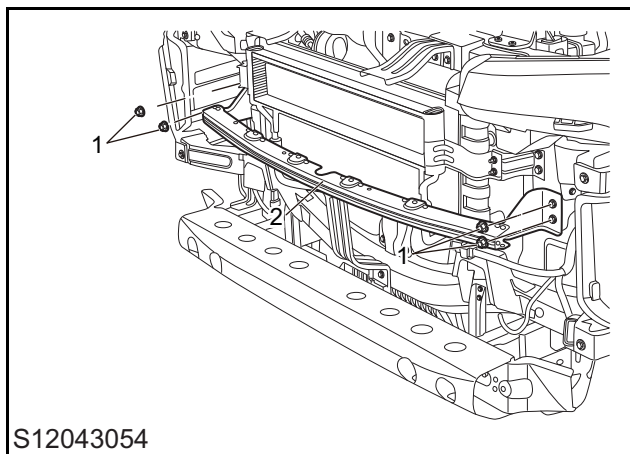
- 1 Install the front bumper beam assembly.
- 2 Install 4 retaining nuts fixing the front bumper beam assembly to the frame, tighten them to 65 ± 5 Nm, and check the torque.
- 3 Install the front bumper assembly. Refer to "Front Bumper Assembly Replacement".

Bumper

Front Bumper Upper Mounting Beam Assembly Replacement

Removal

- 1 Remove the front bumper assembly. Refer to "Front Bumper Assembly Replacement".
- 2 Remove 4 retaining bolts (1) fixing the front bumper mounting beam assembly to the frame.
- 3 Remove the front bumper upper mounting beam assembly (2).



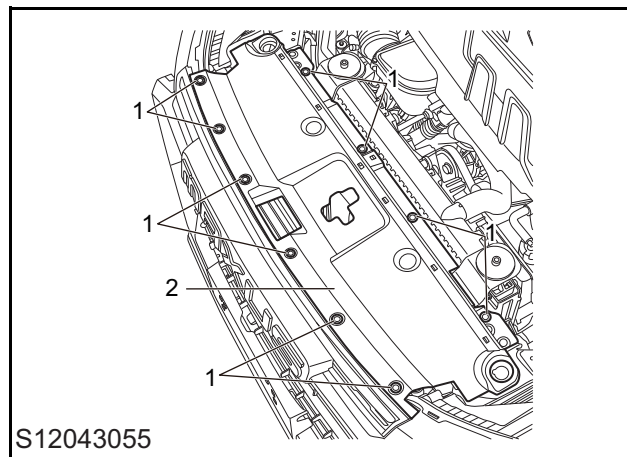
Installation

- 1 Install the front bumper upper mounting beam assembly.
- 2 Install 4 retaining bolts fixing the front bumper upper mounting beam assembly to the frame, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Install the front bumper assembly. Refer to "Front Bumper Assembly Replacement".

Front Grille Cover Plate Replacement

Removal

- 1 Remove 10 retaining clips from the front grille cover plate.
- 2 Remove the front grille cover plate.



Installation

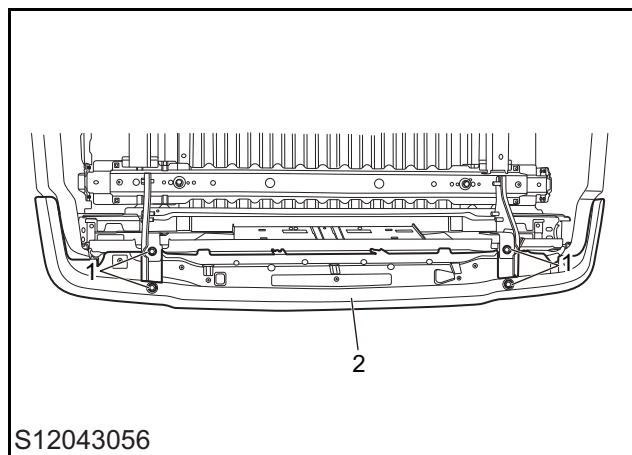
- 1 Install the front grille cover plate.
- 2 Install 10 retaining clips on the front grille cover plate.

Rear Bumper Assembly Replacement

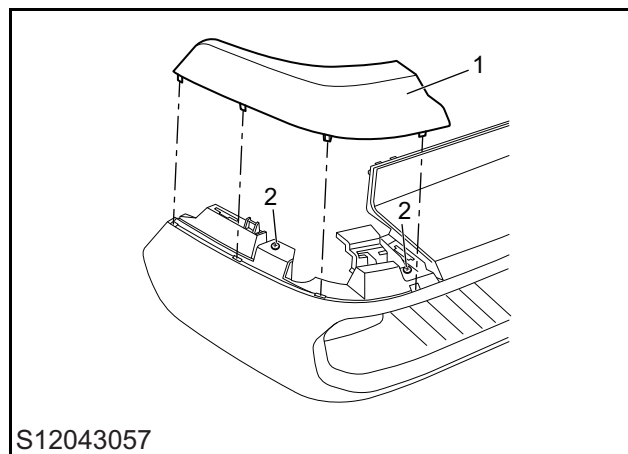
Removal

- 1 Raise the vehicle.
- 2 Remove the license lamp assembly. Refer to "License Plate Lamp Assembly Replacement".
- 3 Remove the reflex reflector. Refer to "Reflex Reflector Replacement".
- 4 Remove the retaining clips from the rear bumper harness assembly.
- 5 Disconnect the electrical connector of the rear bumper harness assembly.
- 6 Remove the retaining bolts (1) fixing the rear bumper assembly to the frame.
- 7 Remove the rear bumper beam and rear bumper assembly (2).

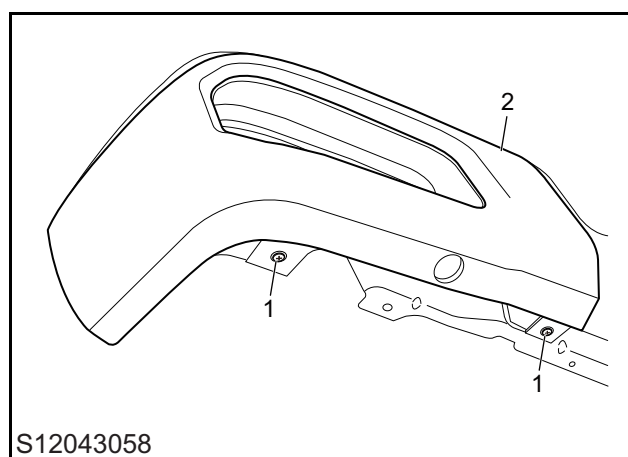
Caution: Disconnect the electrical connector of the reversing radar sensor.



- 8 Remove the cover.
- 9 Pry off the clips and remove the left and right rear bumper trim panels (1).
- 10 Remove 2 retaining screws (2) from the left and right rear bumper side panels.



- 11 Remove 2 retaining screws (1) from the left and right rear bumper side panels.
- 12 Remove the left and right rear bumper side panels (2).



Installation

- 1 Install the left and right rear bumper side panels.
- 2 Install and tighten 4 retaining screws on the left and right rear bumper side panels.
- 3 Install the left and right rear bumper trim panels.
- 4 Install the plug.
- 5 Connect the electrical connector of the reversing radar sensor.
- 6 Install the rear bumper beam assembly and rear bumper assembly.
- 7 Install 4 retaining bolts fixing the rear bumper assembly to the frame, tighten them to 40 ± 5 Nm, and check the torque.
- 8 Install the retaining clips on the rear bumper harness assembly.

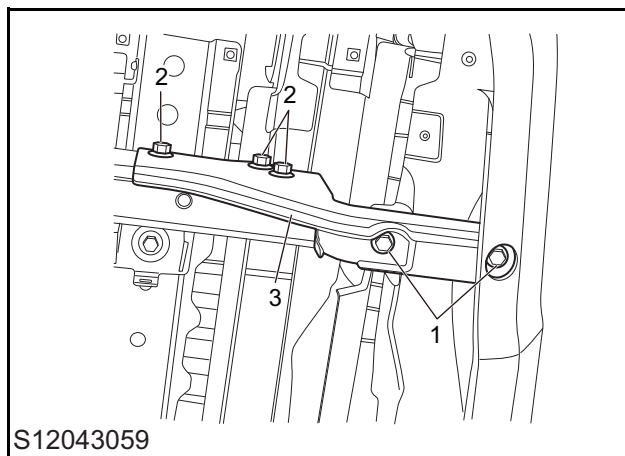
Bumper

- 9 Connect the electrical connector of the rear bumper harness assembly.
- 10 Install the reflex reflector. Refer to "Reflex Reflector Replacement".
- 11 Install the license plate lamp assembly. Refer to "License Plate Lamp Assembly Replacement".
- 12 Lower the vehicle.

Rear Bumper Retaining Bracket Replacement

Removal

- 1 Raise the vehicle.
- 2 Remove the bolt (1) fixing the rear bumper retaining bracket to the rear bumper.
- 3 Remove the bolt (2) fixing the rear bumper retaining bracket to the body.
- 4 Remove the rear bumper retaining bracket (3).



Installation

- 1 Install the rear bumper retaining bracket.
- 2 Install the bolt fixing the rear bumper retaining bracket to the rear bumper, tighten it to 40 ± 5 Nm, and check the torque.
- 3 Install the bolt fixing the rear bumper retaining bracket to the body, tighten it to 80 ± 5 Nm, and check the torque.
- 4 Lower the vehicle.

Wiper/Washer System

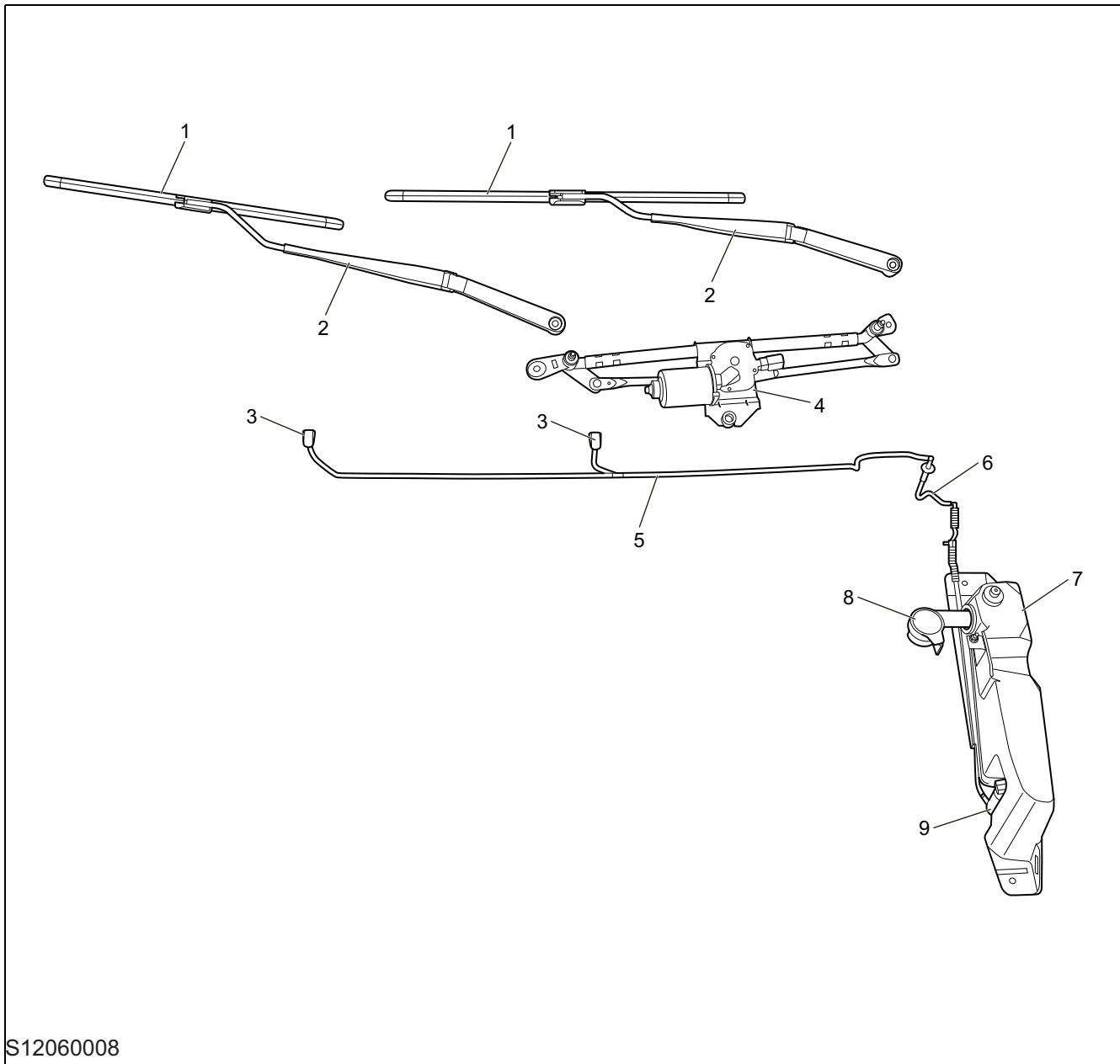
Specification

Fastener Specifications

Name	Torque (Nm)
Nut - Wiper Arm	22±2 Nm
Bolt - Wiper Motor Assembly	9±1 Nm
Bolt - Front Washer Fluid Reservoir Assembly	9±1 Nm
Nut - Front Washer Fluid Reservoir Assembly	9±1 Nm
Bolt - Washer Fluid Reservoir Cover Assembly	9±1 Nm

Wiper/Washer System

Layout



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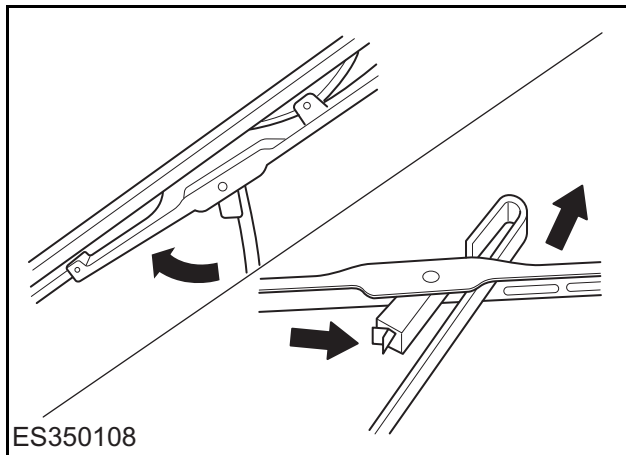
- | | | | |
|---|----------------------------|---|---------------------------------------|
| 1 | Wiper Blade | 6 | Front Washer Hose Assembly |
| 2 | Wiper Arm | 7 | Front Washer Fluid Reservoir Body |
| 3 | Windshield Washer Nozzle | 8 | Washer Fluid Reservoir Cover Assembly |
| 4 | Wiper Motor Assembly | 9 | Windshield Washer Pump |
| 5 | Front Washer Hose Assembly | | |

Service Guide

Wiper Blade Replacement

Removal

- 1 Flip up the wiper arm.
- 2 Rotate the wiper blade on the wiper arm.
- 3 Slide the wiper blade down along the wiper arm while holding down the retaining clip to remove the wiper blade.



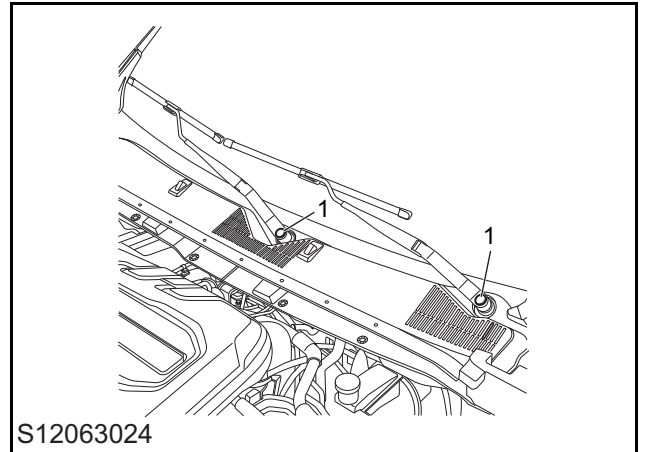
Installation

- 1 Slide the wiper blade into the wiper arm until the retaining clip engages.
- 2 Flip down the wiper arm and position the wiper blade on the windshield.

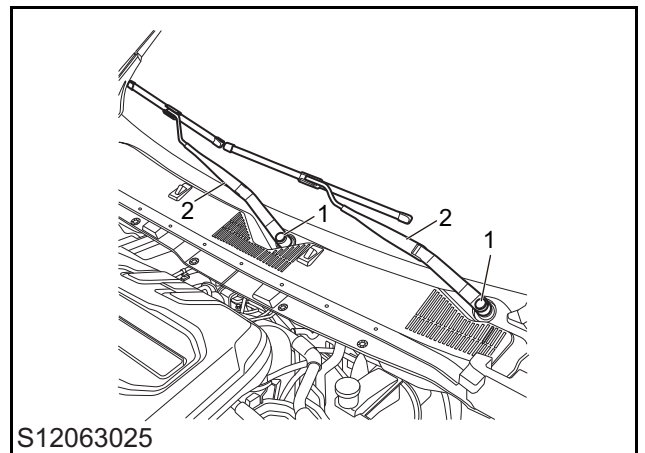
Wiper Arm Assembly Replacement

Removal

- 1 Remove the wiper blades. Refer to "Wiper Blade Replacement".
- 2 Open the engine hood.
- 3 Remove the wiper arm caps (1).



- 4 Remove 2 retaining nuts (1) from the wiper arm assembly.
- 5 Flip up the wiper arm and remove the wiper arm assembly (2).



Installation

- 1 Flip up the wiper arm and install the wiper arm assembly.

Caution: Adjust the angle of wiper arm before installing.

- 2 Install 2 retaining nuts on the wiper arm assembly, tighten them to 22 ± 2 Nm, and check the torque.
- 3 Install the wiper arm cap.

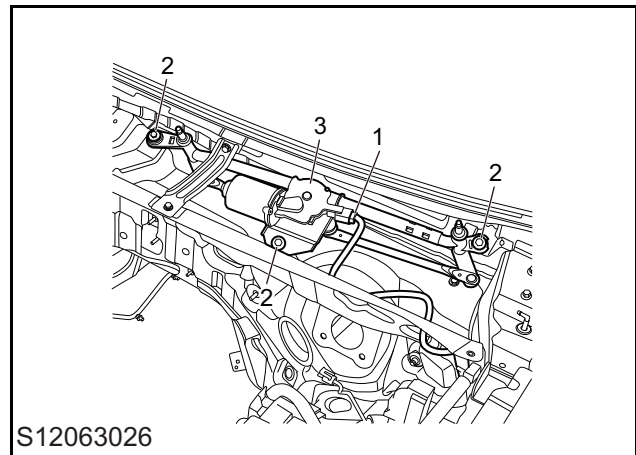
Wiper/Washer System

- 4 Flip down the wiper arm.
- 5 Close the engine hood.
- 6 Install the wiper blades. Refer to "Wiper Blade Replacement".

Wiper Motor Assembly Replacement

Removal

- 1 Remove the wiper blades. Refer to "Wiper Blade Replacement".
- 2 Remove the wiper arm assembly. Refer to "Wiper Arm Assembly Replacement".
- 3 Remove the windshield cover plate assembly. Refer to "Front Windshield Cover Plate Assembly Replacement".
- 4 Disconnect the electrical connector (1) of the wiper motor assembly.
- 5 Remove 3 retaining bolts (2) fixing the wiper motor assembly to the vehicle body, and remove the wiper motor assembly (3).



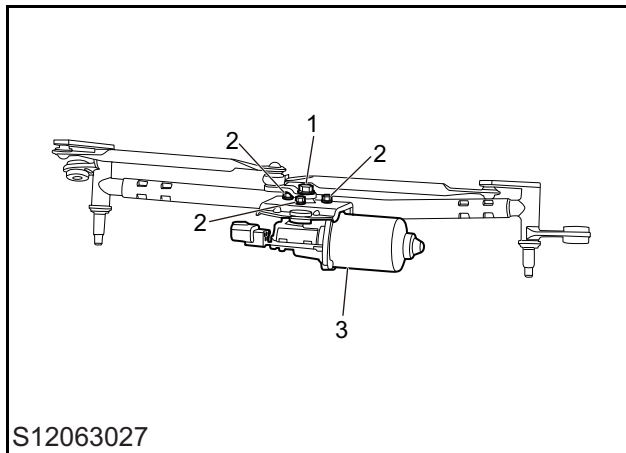
Installation

- 1 Install the wiper motor assembly.
- 2 Install 3 retaining bolts fixing the wiper motor assembly to the vehicle body, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Connect the electrical connector of the wiper motor assembly.
- 4 Install the front windshield cover plate assembly. Refer to "Front Windshield Cover Plate Assembly Replacement".
- 5 Install the wiper arm assembly. Refer to "Wiper Arm Assembly Replacement".
- 6 Install the wiper blades. Refer to "Wiper Blade Replacement".

Wiper Motor Replacement

Removal

- 1 Remove the wiper blades. Refer to "Wiper Blade Replacement".
- 2 Remove the wiper arm assembly. Refer to "Wiper Arm Assembly Replacement".
- 3 Remove the windshield cover plate assembly. Refer to "Front Windshield Cover Plate Assembly Replacement".
- 4 Remove the wiper motor assembly. Refer to "Wiper Motor Assembly Replacement".
- 5 Remove 1 retaining nut (1) and 3 retaining bolts (2) fixing the wiper motor to the wiper linkage.
- 6 Remove the wiper motor (3).



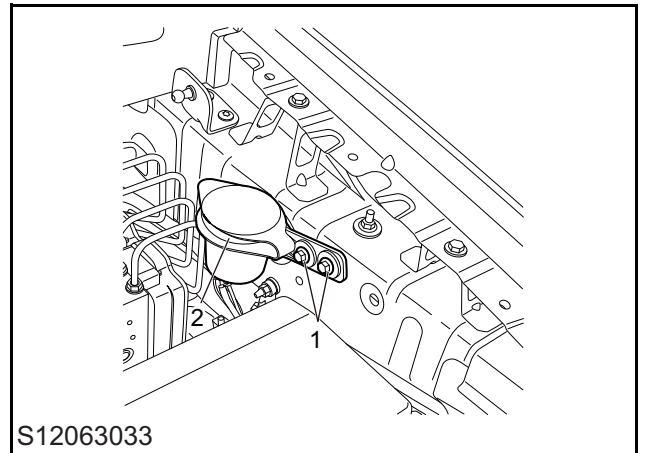
Installation

- 1 Install the wiper motor.
- 2 Install and tighten 1 retaining nut and 3 retaining bolts fixing the wiper motor to the wiper linkage.
- 3 Install the wiper motor assembly. Refer to "Wiper Motor Assembly Replacement".
- 4 Install the front windshield cover plate assembly. Refer to "Front Windshield Cover Plate Assembly Replacement".
- 5 Install the wiper arm assembly. Refer to "Wiper Arm Assembly Replacement".
- 6 Install the wiper blades. Refer to "Wiper Blade Replacement".

Washer Reservoir Cover Assembly Replacement

Removal

- 1 Remove 2 retaining bolts (1) fixing the washer fluid reservoir cover assembly to the vehicle body.
- 2 Remove the washer fluid reservoir cover assembly (2).



Installation

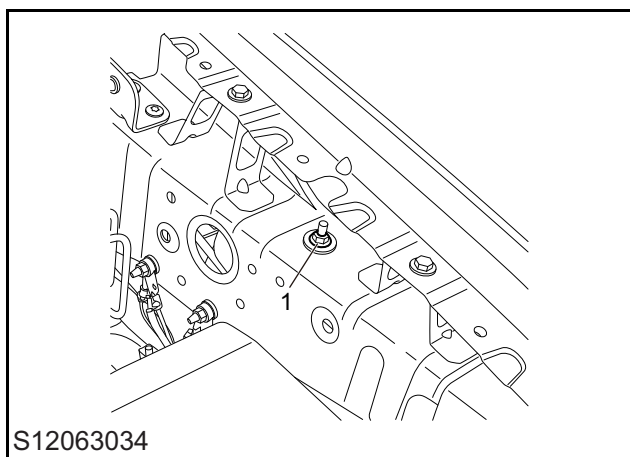
- 1 Install the washer fluid reservoir cover assembly.
- 2 Install 2 retaining bolts fixing the washer fluid reservoir cover assembly to the vehicle body, tighten them to 9 ± 1 Nm, and check the torque.

Wiper/Washer System

Front Washer Fluid Reservoir Assembly Replacement

Removal

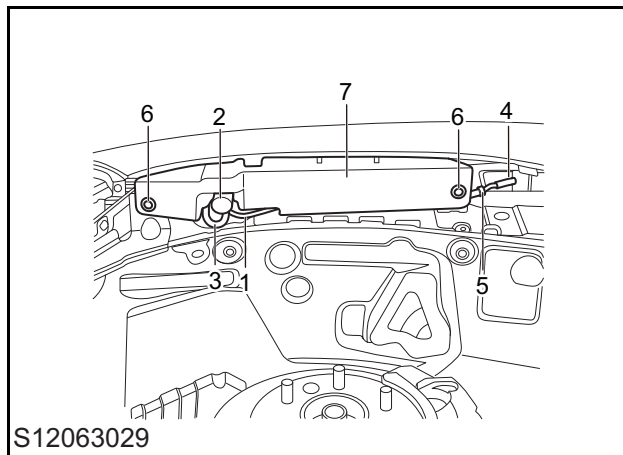
- 1 Remove the washer fluid reservoir cover assembly. Refer to "Washer Fluid Reservoir Cover Assembly Replacement".
- 2 Remove the front wheelhouse liner. Refer to "Front Wheelhouse Liner Replacement".
- 3 Remove 1 retaining nut (1) fixing the front washer fluid reservoir assembly to the vehicle body.



- 4 Disconnect the front windshield washer pump from the front washer fluid hose (1).
- 5 Remove the front windshield washer pump (2).

Caution: During removal, collect the water in the washer fluid reservoir with a basin.

- 6 Disconnect the electrical connector (3) of the front windshield washer pump.
- 7 Disconnect the connector of the front washer fluid hose assembly.
- 8 Remove the clips from the front washer fluid hose assembly.
- 9 Remove 2 retaining bolts fixing the washer fluid reservoir cover assembly to the vehicle body, and remove the front washer fluid reservoir assembly.



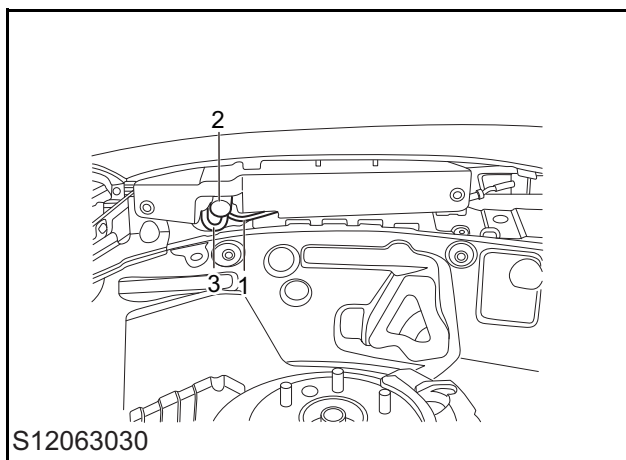
Installation

- 1 Install the front washer fluid reservoir assembly, install 2 retaining bolts fixing the washer fluid reservoir cover assembly to the vehicle body, tighten them to 9 ± 1 Nm, and check the torque.
- 2 Install the clips on the front washer fluid hose assembly.
- 3 Connect the connector of the front washer fluid hose assembly.
- 4 Connect the electrical connector of the front windshield washer pump.
- 5 Connect the front windshield washer pump and the front washer fluid hose.
- 6 Install the front windshield washer pump.
- 7 Install 1 retaining nut fixing the front washer fluid reservoir assembly to the vehicle body, tighten it to 9 ± 1 Nm, and check the torque.
- 8 Install the front wheelhouse liner. Refer to "Front Wheelhouse Liner Replacement".
- 9 Install the washer fluid reservoir cover assembly. Refer to "Washer Fluid Reservoir Cover Assembly Replacement".

Front Windshield Washer Pump Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the front wheelhouse liner. Refer to "Front Wheelhouse Liner Replacement".
- 3 Disconnect the front windshield washer pump from the front washer fluid hose (1).
- 4 Remove the front windshield washer pump (2).
- 5 Disconnect the electrical connector (3) of the front windshield washer pump.



Installation

- 1 Connect the electrical connector of the front windshield washer pump.
- 2 Connect the front windshield washer pump and the front washer fluid hose.
- 3 Install the front windshield washer pump.
- 4 Install the front wheelhouse liner. Refer to "Front Wheelhouse Liner Replacement".
- 5 Connect the negative battery cable.

Door Front End

Specification

Fastener Specifications

Name	Torque (Nm)
Bolt - Engine Hood Hinge Assembly	22±2 Nm
Bolt - Fender	9±1 Nm
Bolt - Engine Hood Lock Body Assembly	9±1 Nm

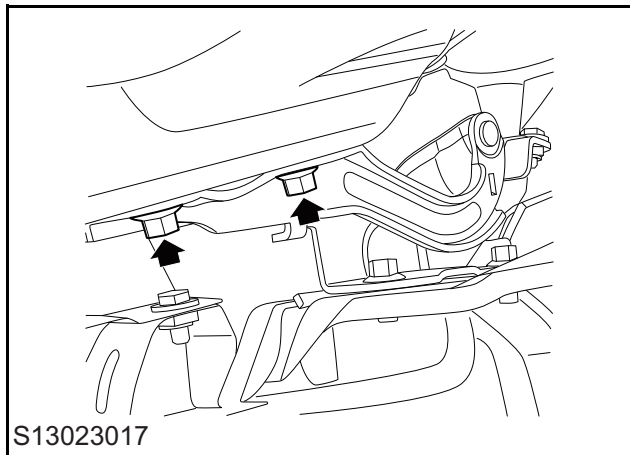
Door Front End

Service Guide

Engine Hood Assembly Replacement

Removal

- 1 Open the engine hood.
- 2 Remove the bolts fixing the left and right hood hinge assemblies to the engine hood assembly.
- 3 Remove the engine hood assembly.



Caution: This step must be carried out by two people together.

Installation

- 1 Install the engine hood assembly.

Caution: This step must be carried out by two people together.

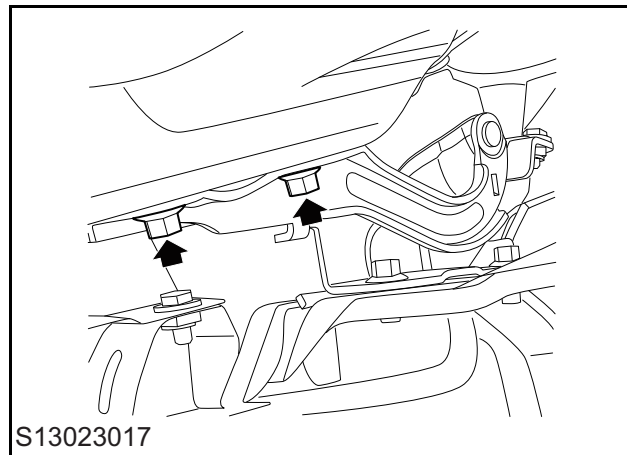
- 2 Install the retaining bolts fixing the left and right hood hinge assemblies to the engine hood assembly, tighten them to 22 ± 2 Nm, and check the torque.
- 3 Close the engine hood assembly.

Engine Hood Hinge Assembly Replacement

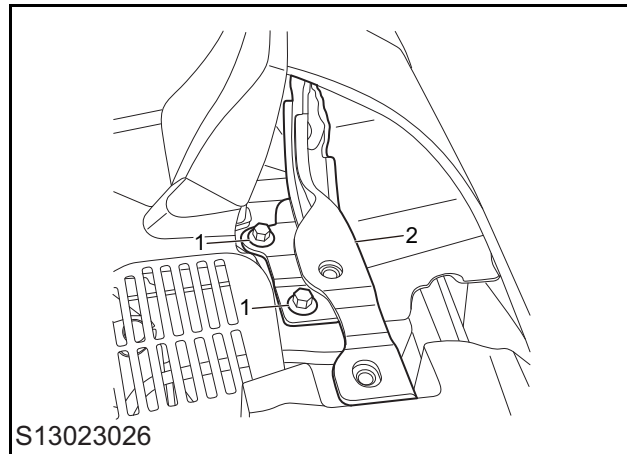
Removal

- 1 Remove 2 retaining nuts (1) fixing the engine hood hinge assembly to the engine hood assembly.

Caution: This step must be carried out by two people together.



- 2 Remove 2 bolts (1) fixing the engine hood hinge assembly to the vehicle body.
- 3 Remove the engine hood hinge assembly (2).



Installation

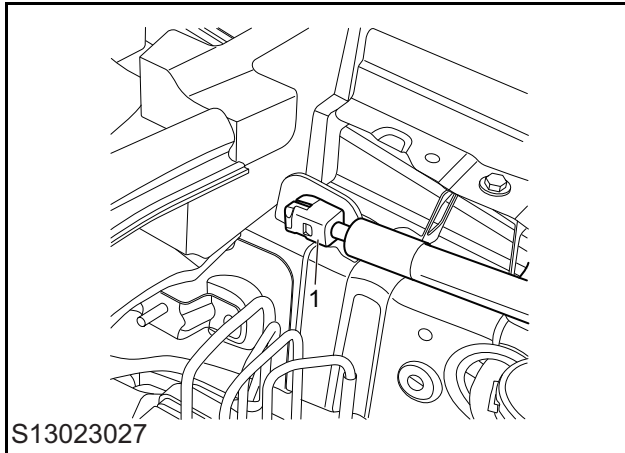
- 1 Install the engine hood hinge assembly.
- 2 Install 2 bolts fixing the engine hood hinge assembly to the vehicle body, tighten them to 22 ± 2 Nm, and check the torque.
- 3 Install 2 retaining bolts fixing the engine hood hinge assembly to the engine hood assembly, tighten them to 22 ± 2 Nm, and check the torque.

Engine Hood Pneumatic Support Rod Assembly Replacement

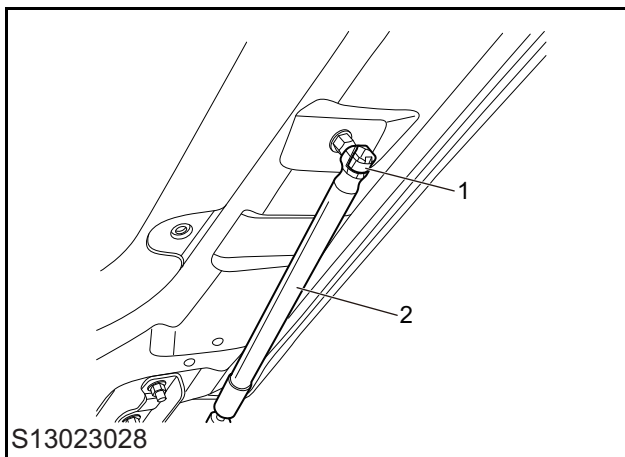
Removal

- 1 Open the engine hood.
- 2 Pry off the clip and remove the engine hood pneumatic support rod assembly.

Caution: This step must be carried out by two people together.



- 3 Pry off the clip and remove the engine hood pneumatic support rod assembly.



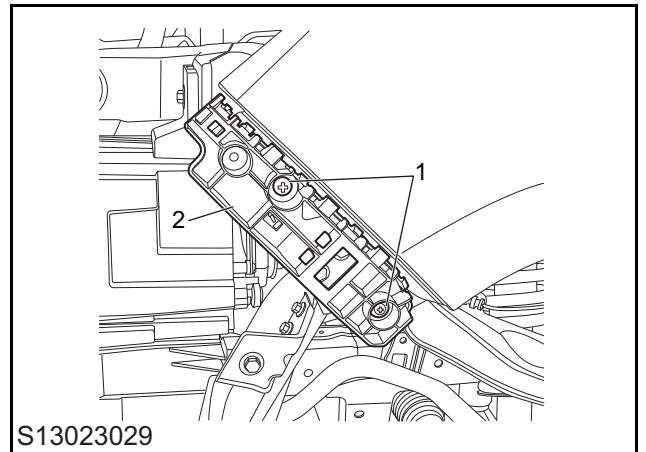
Installation

- 1 Install the engine hood pneumatic support rod assembly and the clip.

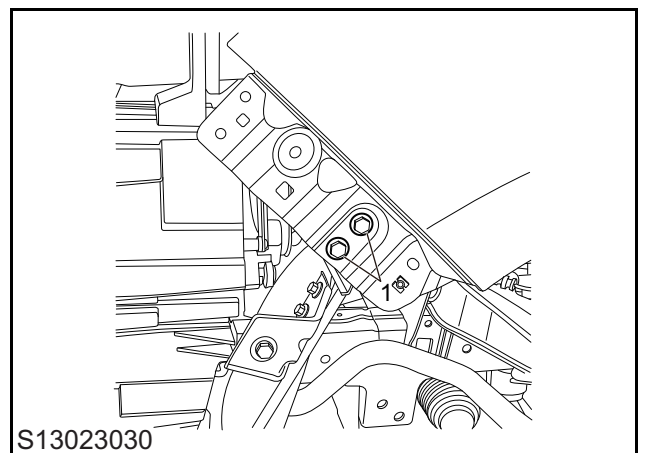
Fender Replacement

Removal

- 1 Remove the front bumper assembly. Refer to "Front Bumper Assembly Replacement".
- 2 Remove the daytime running lamp. Refer to "Daytime Running Lamp Replacement".
- 3 Remove the wheelhouse trim. Refer to "Wheelhouse Trim Replacement".
- 4 Remove the front mudguard. Refer to "Front Mudguard Replacement".
- 5 Remove the front wheelhouse liner. Refer to "Front Wheelhouse Liner Replacement".
- 6 Remove 2 retaining screws (1) fixing the front bumper bracket to the fender, and remove the front bumper bracket (2).

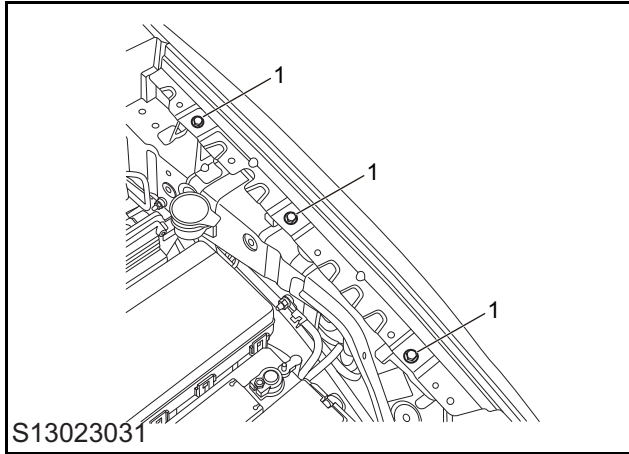


- 7 Remove 2 retaining bolts (1) fixing the fender to the vehicle body.

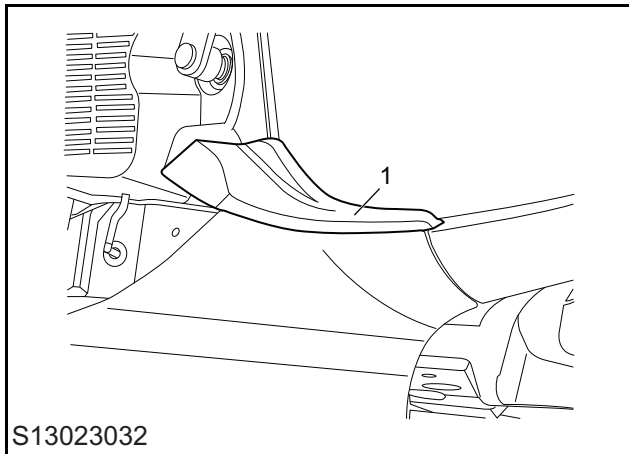


- 8 Remove 3 retaining bolts (1) fixing the fender to the vehicle body.

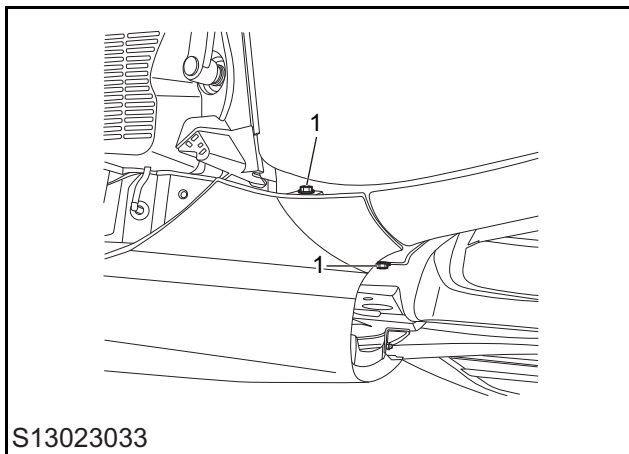
Door Front End



- 9 Pry the clips and remove the front windshield cover plate trim cover (1).

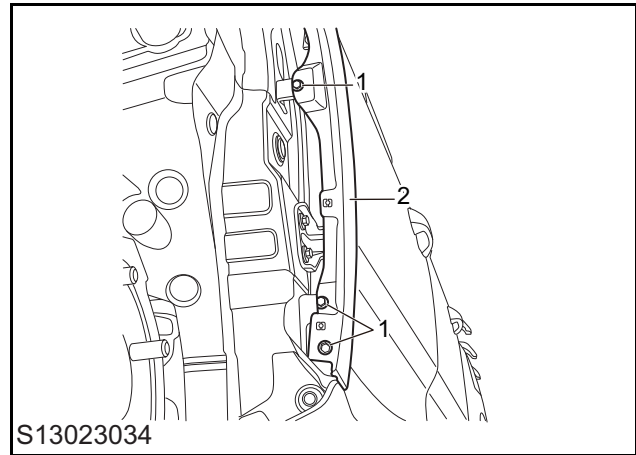


- 10 Remove 2 retaining bolts (1) fixing the fender to the vehicle body.



- 11 Remove the fender sound-absorbing cotton.
- 12 Remove 3 retaining bolts (1) fixing the fender to the vehicle body.

- 13 Remove the fender (2).



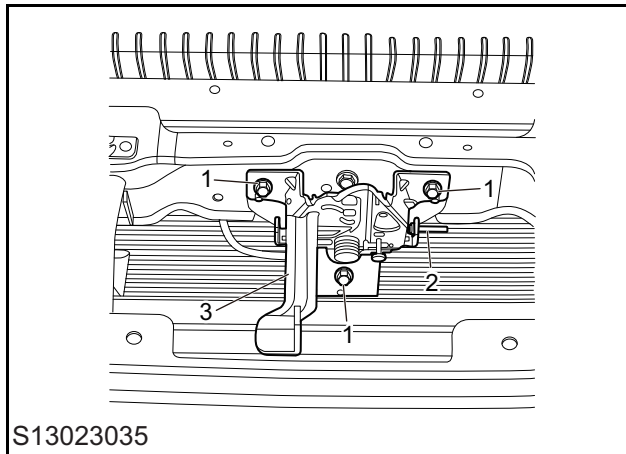
Installation

- 1 Install the fender.
- 2 Install 10 retaining bolts fixing the fender to the vehicle body, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Install the front windshield cover plate trim cover.
- 4 Place the front bumper bracket, install 2 retaining screws fixing the front bumper bracket to the fender, tighten them to 9 ± 1 Nm, and check the torque.
- 5 Install the front wheelhouse liner. Refer to "Front Wheelhouse Liner Replacement".
- 6 Install the front mudguard. Refer to "Front Mudguard Replacement".
- 7 Install the wheelhouse trim. Refer to "Wheelhouse Trim Replacement".
- 8 Install the daytime running lamp. Refer to "Daytime Running Lamp Replacement".
- 9 Install the front bumper assembly. Refer to "Front Bumper Assembly Replacement".

Engine Hood Lock Assembly Replacement

Removal

- 1 Remove the front grille cover plate. Refer to "Front Grille Cover Plate Replacement".
- 2 Disconnect the electrical connector of the engine hood lock body assembly.
- 3 Remove the bolts (1) fixing the engine hood lock body assembly to the vehicle body.
- 4 Remove the engine hood unlock cable (2) and the engine hood lock body assembly (3).



Installation

- 1 Place the engine hood lock body assembly and install the engine hood unlock cable.
- 2 Install 2 bolts fixing the engine hood lock body assembly to the vehicle body, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Connect the electrical connector of the engine hood lock body assembly.
- 4 Install the front grille cover plate. Refer to "Front Grille Cover Plate Replacement".

Frame and Underbody

Specification

Fastener Specifications

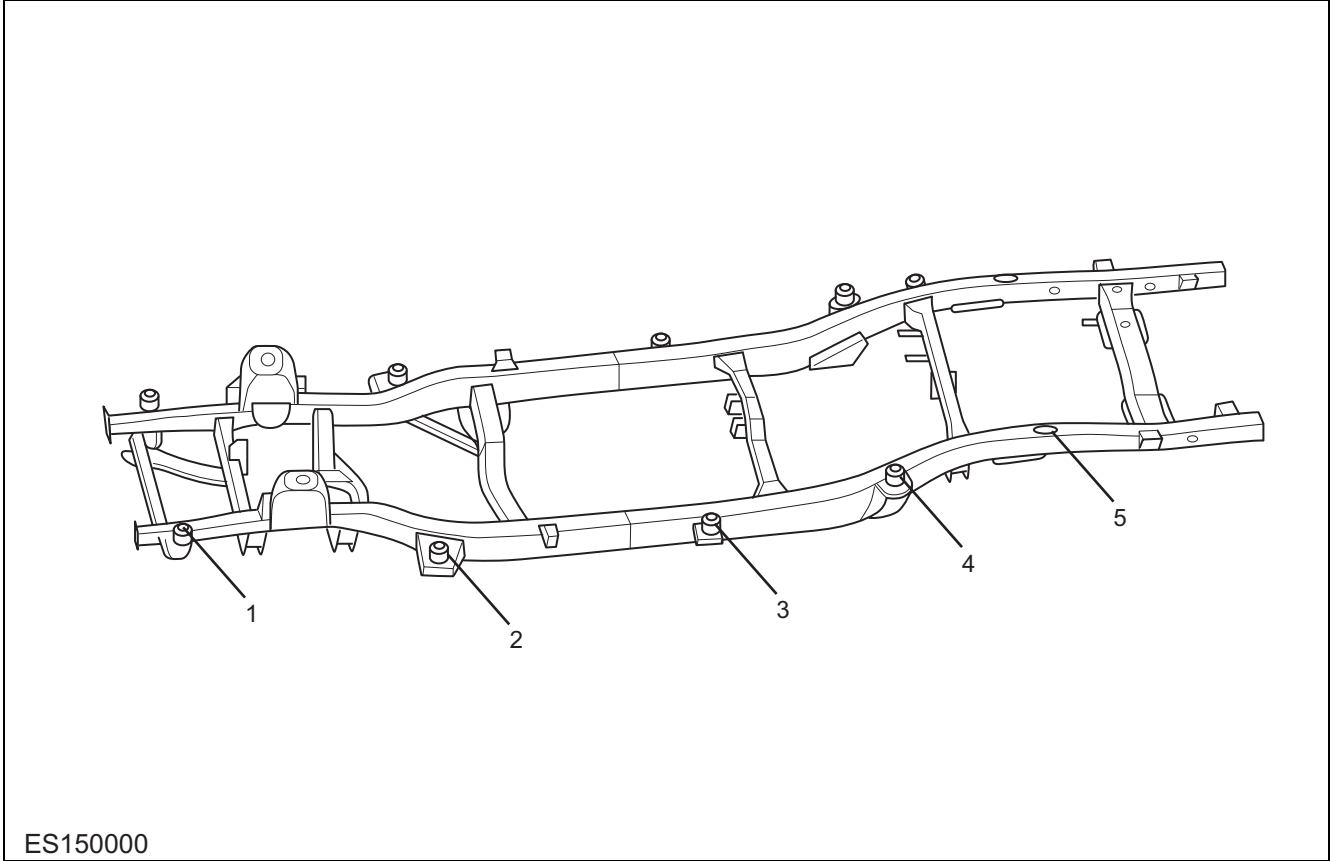
Name	Torque (Nm)
Nut - Mounts 1 and 4	70±5 Nm
Nut - Mounts 2 and 3	190±10 Nm
Bolt - Longitudinal Thrust Beam	45±5 Nm
Bolt - Longitudinal Thrust Beam	70±10 Nm

Frame and Underbody

Layout

Body Mount Layout

ES150000



1 Body Mount 1

2 Body Mount 2

3 Body Mount 3

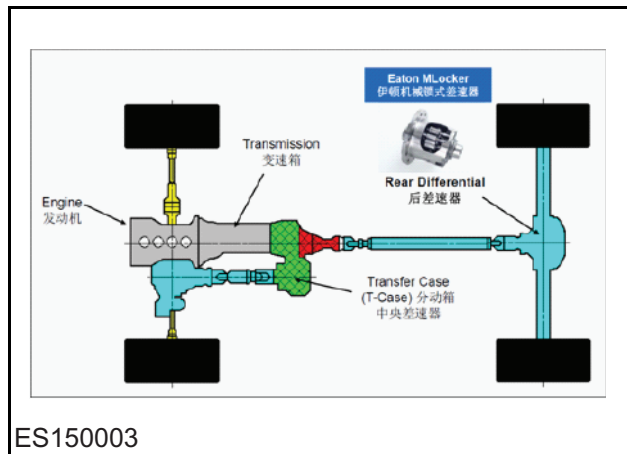
4 Body Mount 4

5 Cargo Box Soft Gasket

Service Guide

Mount Installation

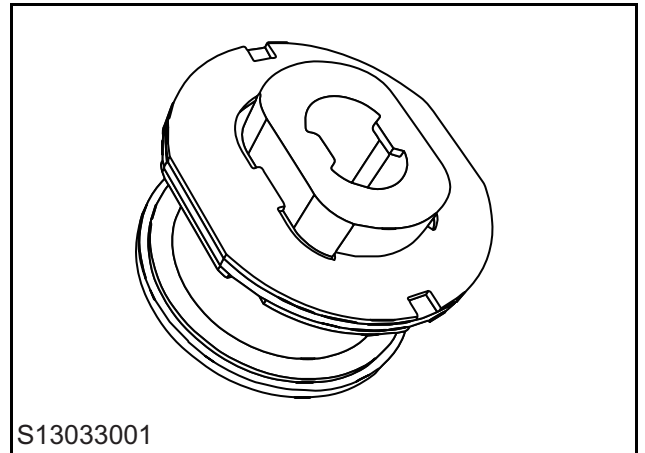
- 1 Install upper gasket 1 on the frame.
- 2 Install the body, and align the frame with the body mounting hole.
- 3 Install the 2nd left mount first.
 - Pass bolt 2 through the body hole from top to bottom.
 - Install limit sleeve 3 and lower soft gasket 4.
 - Install nut 5. The sleeve controls the initial compression of the upper/lower soft gasket, tighten the nut to allow the frame of the upper/lower soft gasket and the two ends of the sleeve to touch the limit device. Tighten the nut to 190 ± 10 Nm.



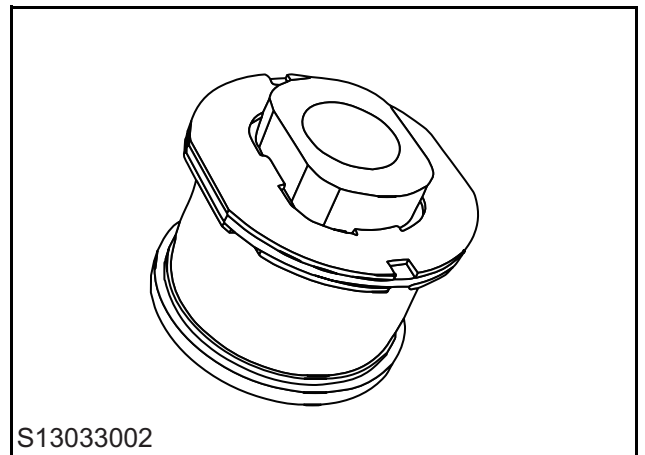
- 4 Install the 4th left mount, and tighten the nut to 190 ± 10 Nm. Install the remaining mounts (1st, 2nd right, 3rd, 4th right). For specific installation procedures, follow the procedures of the 2nd left mount.

Upper Soft Gasket Identification

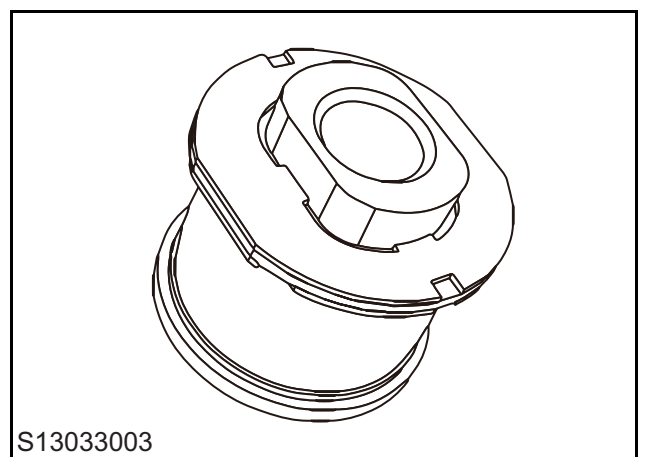
- 1 Mounts of the 1st row.



- 2 Mounts of the 2nd row.

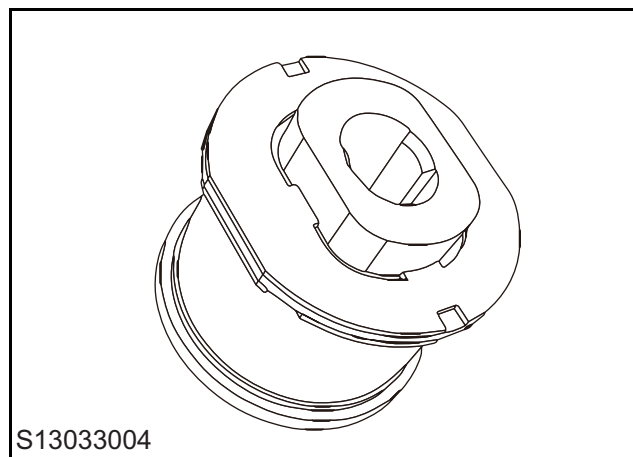


- 3 Mounts of the 3rd row.



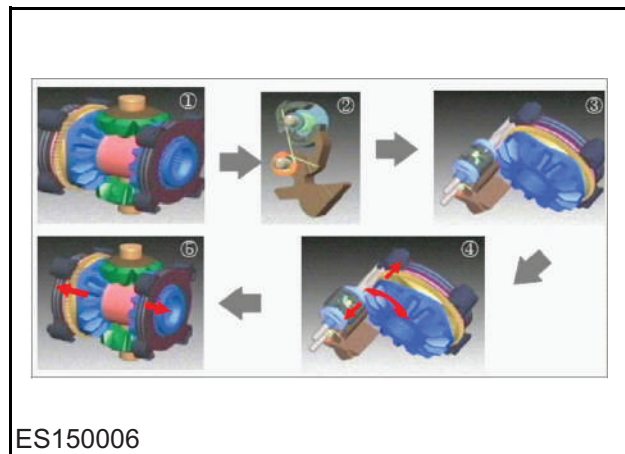
- 4 Mounts of the 4th row.

Frame and Underbody

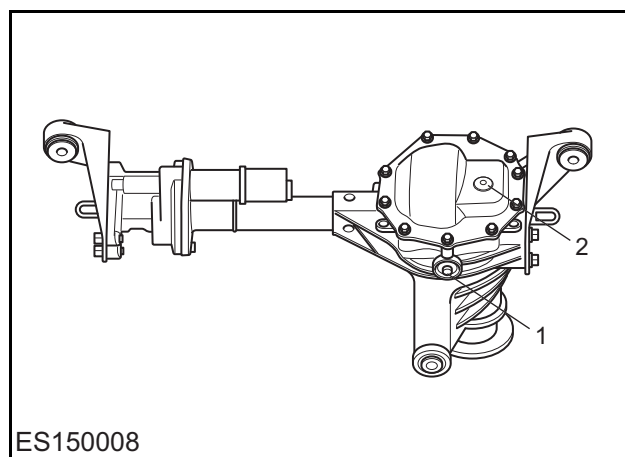


Lower Soft Gasket Identification

- 1 The 1st and 4th soft gaskets have a smaller hole, and the front 1st soft gasket is higher than that of the 4th.

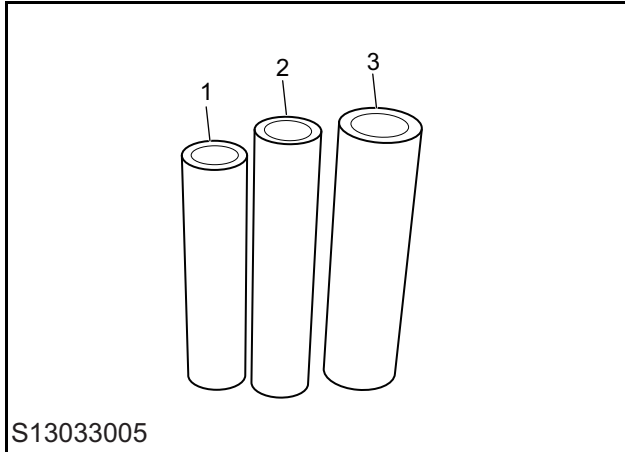


- 2 The 2nd and 3rd soft gaskets have a larger hole.



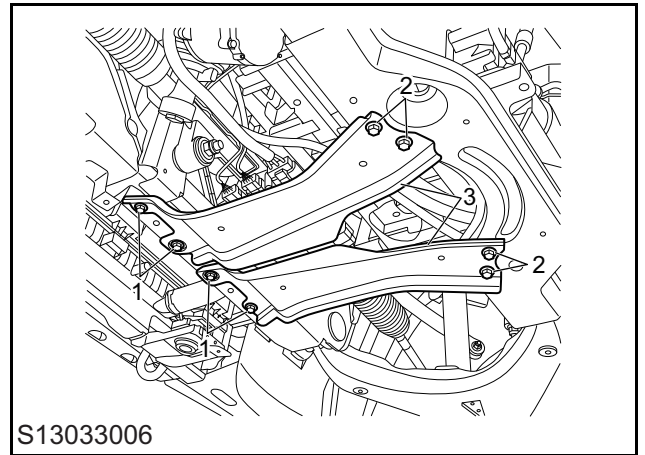
Limit Sleeve Identification

The 1st (1) is the shortest, the 4th (2) has basically the same length as the 2nd and 3rd (3), and the 2nd and 3rd rows are identical and the thickest.



Longitudinal Thrust Beam Assembly Replacement

- 1 Remove the front bottom deflector. Refer to "Front Bottom Deflector Replacement".
- 2 Remove the condenser lower guard plate. Refer to "Condenser Lower Guard Plate Replacement".
- 3 Remove 4 retaining bolts (1) fixing the longitudinal thrust beam assembly to the 2nd beam assembly.
- 4 Remove 4 retaining bolts (1) fixing the longitudinal thrust beam assembly to the 3rd beam assembly, and remove the longitudinal thrust beam assembly (2).



Installation

- 1 Place the longitudinal thrust beam assembly, install 4 retaining bolts fixing the longitudinal thrust beam assembly to the 3rd beam assembly, tighten them to 45 ± 5 Nm, and check the torque.
- 2 Install 4 retaining bolts fixing the longitudinal thrust beam assembly to the 2nd beam assembly, tighten them to 70 ± 10 Nm, and check the torque.
- 3 Install the condenser lower guard plate. Refer to "Condenser Lower Guard Plate Replacement".
- 4 Install the front bottom deflector. Refer to "Front Bottom Deflector Replacement".

Door

Specification

Fastener Specifications

Name	Torque (Nm)
Bolt - Hinge to Door	26±3 Nm
Bolt - Hinge to Body	33±3 Nm
Bolt - Door Check to Body	22±2 Nm
Bolt - Door Check to Vehicle Door	9±1 Nm
Bolt - Front Door Lock Body Assembly to Vehicle Door	9±1 Nm
Bolt - Rear Door Lock Body Assembly to Vehicle Door	9±1 Nm
Bolt - Front Door Lock Catch Assembly	22±2 Nm
Bolt - Rear Door Lock Catch Assembly	22±2 Nm
Bolt - Rear Panel Hinge Assembly to Rear Panel	22±2 Nm
Bolt - Maximum Opening Check	22±2 Nm
Bolt - Rear Panel Hinge Assembly to Body	45±5 Nm
Bolt - Rear Panel Lock Catch Assembly	22±2 Nm
Bolt - Outer Cord Hook	9±1 Nm
Bolt - Internal Cord Hook	22±2 Nm
Bolt - Cargo Compartment Guardrail	22±2 Nm

Door

Service Guide

Front Door Assembly Adjustment

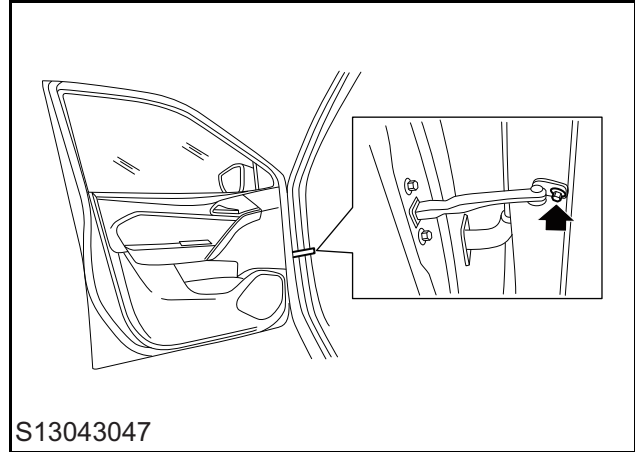
Adjustment

- 1 Loosen the hinge bolts of the front door assembly to adjust the front door assembly.
- 2 Adjust the gap between the front door and the A-pillar, front fender, rear sliding door and sill panel evenly, and make the front door flush with the A-pillar, front fender, rear sliding door and sill panel.
- 3 Tighten the bolts fixing the hinge to the door to 26 ± 3 Nm, and the bolts fixing the hinge to the vehicle body to 33 ± 3 Nm, and check the torque.

Front Door Assembly Replacement

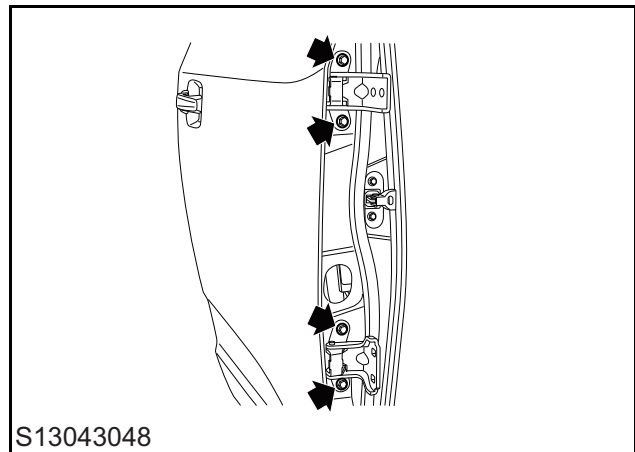
Removal

- 1 Disconnect the negative battery cable.
- 2 Open the front door.
- 3 Put the wooden block on the jack, and place the jack under the front door to provide support.
- 4 Remove the mounting bolts fixing the door check to the body side.



- 5 With the help of an assistant, hold the door and remove the bolts fixing the upper and lower hinges to the door side.

Caution: Do not scratch the paint when removing or installing the door assembly.



- 6 With the help of an assistant, hold the door, pry off the rubber seal ring on the body side, and pull out the harness connector to disconnect it.
- 7 Remove the front door assembly.

Installation

- 1 Position the door to the vehicle body with the help of an assistant.
- 2 Connect the connector and insert the rubber seal ring into the mounting hole of the vehicle body.
- 3 Install the retaining bolts fixing the upper and lower hinges of the front door to the door, tighten them to 26 ± 3 Nm, and check the torque.
- 4 Install the retaining bolt fixing the door check to the vehicle body side, tighten it to 22 ± 2 Nm, and check the torque.
- 5 Close the door and check the door opening and closing. For adjustments, refer to "Front Door Adjustment".
- 6 Connect the negative battery cable.

Rear Door Assembly Adjustment

Adjustment

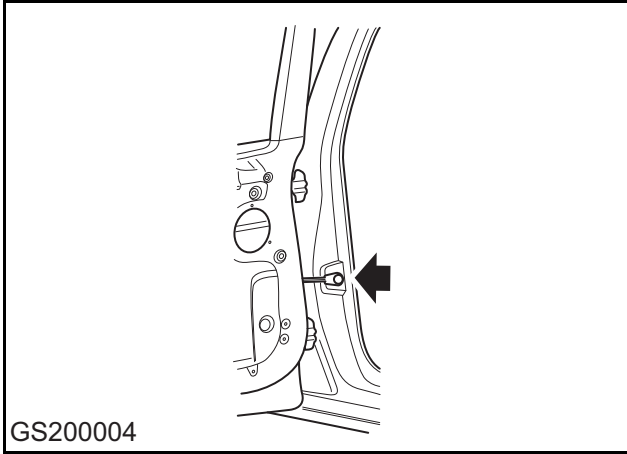
- 1 Loosen the rear hinge bolts of the front door assembly to adjust the front door assembly.
- 2 Adjust the rear door so that the gap between the rear door and the roof, C-pillar, front door and sill panel is even, and make the rear door flush with the roof, C-pillar, front door and sill panel.
- 3 Tighten the bolts fixing the hinge to the door to 26 ± 3 Nm, and the bolts fixing the hinge to the vehicle body to 33 ± 3 Nm, and check the torque.

Door

Rear Door Assembly Replacement

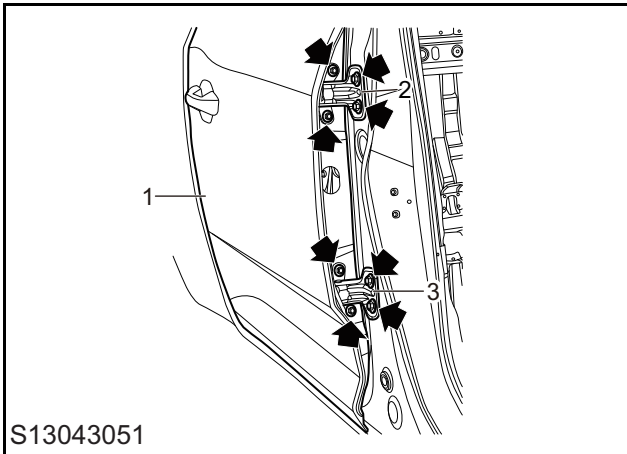
Removal

- 1 Disconnect the negative battery cable.
- 2 Open the rear door.
- 3 Put the wooden block on the jack, and then place the jack under the rear door to provide support.
- 4 Remove the mounting bolts fixing the door check to the body side.



- 5 With the help of an assistant, hold the door and remove the bolts fixing the upper and lower hinges to the door side.

Caution: Do not scratch the paint when removing or installing the door assembly.



- 6 With the help of an assistant, hold the door, pry off the rubber seal ring on the body side, and pull out the harness connector to disconnect it.
- 7 Remove the rear door assembly.

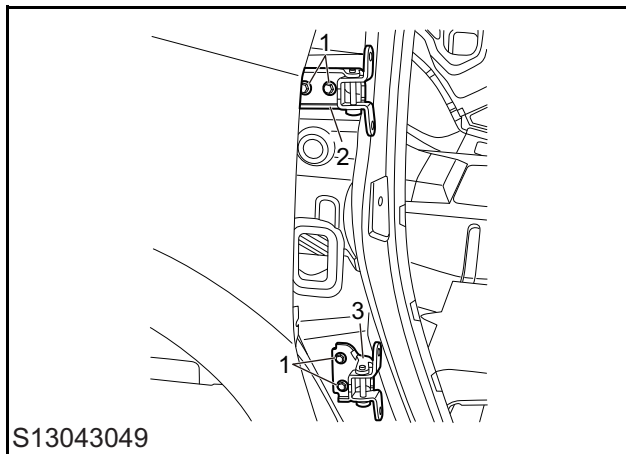
Installation

- 1 Position the door to the vehicle body with the help of an assistant.
- 2 Connect the connector and insert the rubber seal ring into the mounting hole of the vehicle body.
- 3 Install the retaining bolts fixing the upper and lower hinges of the rear door to the door, tighten them to 26 ± 3 Nm, and check the torque.
- 4 Install the retaining bolt fixing the door check to the vehicle body side, tighten it to 22 ± 2 Nm, and check the torque.
- 5 Close the door and check the door opening and closing. For adjustments, please refer to "Rear Door Adjustment".
- 6 Connect the negative battery cable.

Front Door Upper Hinge and Lower Hinge Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the front door. Refer to "Front Door Assembly Replacement".
- 3 Remove the bolts (1) of the front door hinge.
- 4 Remove the front door upper hinge (2) and lower hinge (3).



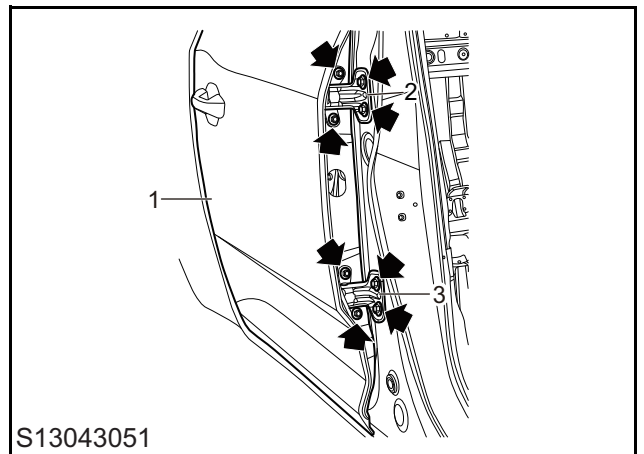
Installation

- 1 Install the front door upper hinge and lower hinge.
- 2 Install the bolts fixing the front door hinge to the vehicle body, tighten them to 33 ± 3 Nm, and check the torque.
- 3 Install the front door. Refer to "Front Door Assembly Replacement".
- 4 Connect the negative battery cable.

Rear Door Upper Hinge and Lower Hinge Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the rear door. Refer to "Rear Door Assembly Replacement".
- 3 Remove the rear door hinge bolts.
- 4 Remove the rear door upper hinge (2) and lower hinge (3).



Installation

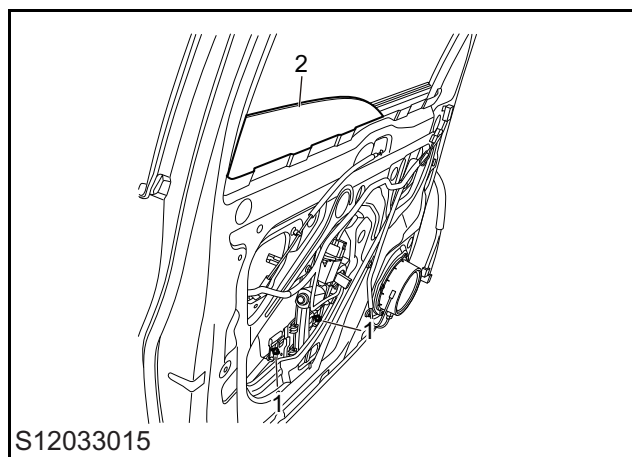
- 1 Install the front door upper hinge and lower hinge.
- 2 Install the bolts fixing the front door hinge to the vehicle body, tighten them to 33 ± 3 Nm, and check the torque.
- 3 Install the front door. Refer to "Front Door Assembly Replacement".
- 4 Connect the negative battery cable.

Door

Front Door Glass Replacement

Removal

- 1 Remove the front door interior trim panel assembly. Refer to "Front Left Door Interior Trim Panel Assembly Replacement/Front Right Door Interior Trim Panel Assembly Replacement".
- 2 Remove the front door waterproof membrane.
- 3 Adjust the front door glass to the proper position.
- 4 Loosen the retaining nut (1) from the front door glass regulator assembly.
- 5 Pull the front door glass out of the front door glass regulator assembly.
- 6 Remove the front door glass (2) from the front door.



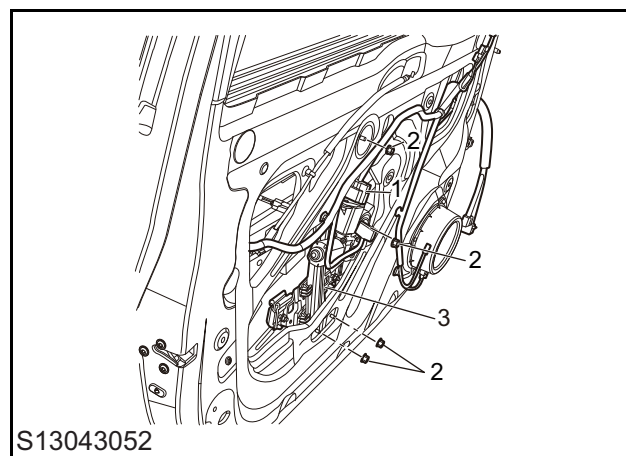
Installation

- 1 Place the front door glass into the front door.
- 2 Install the front door glass to the front door glass regulator assembly.
- 3 Tighten the retaining nuts on the front door glass regulator assembly.
- 4 Install the waterproof membrane on the front door.
- 5 Install the front door interior trim panel assembly. Refer to "Front Left Door Interior Trim Panel Assembly Replacement/Front Right Door Interior Trim Panel Assembly Replacement".

Front Door Glass Regulator Assembly Replacement

Removal

- 1 Remove the front door interior trim panel assembly. Refer to "Front Left Door Interior Trim Panel Assembly Replacement/Front Right Door Interior Trim Panel Assembly Replacement".
- 2 Remove the front door glass. Refer to "Front Door Glass Replacement".
- 3 Disconnect the electrical connector (1) of the front door glass regulator assembly.
- 4 Remove 4 retaining nuts (2) fixing the front door glass regulator assembly to the door.
- 5 Remove the front door glass regulator assembly (3).



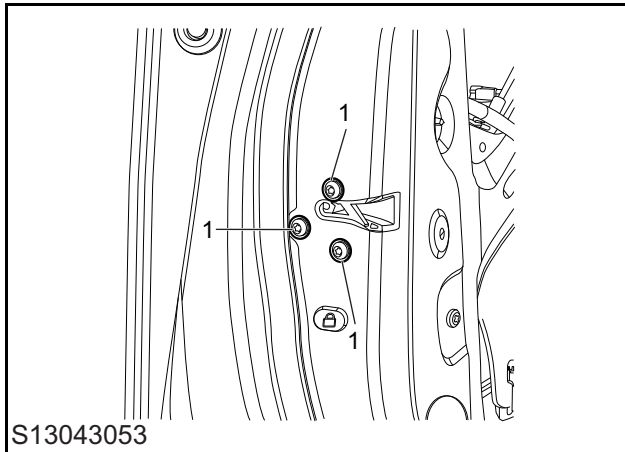
Installation

- 1 Install the front door glass regulator assembly.
- 2 Install and tighten 4 retaining nuts fixing the front door glass regulator assembly to the door.
- 3 Connect the electrical connector of the front door glass regulator assembly.
- 4 Install the front door glass. Refer to "Front Door Glass Replacement".
- 5 Install the front door interior trim panel assembly. Refer to "Front Left Door Interior Trim Panel Assembly Replacement/Front Right Door Interior Trim Panel Assembly Replacement".

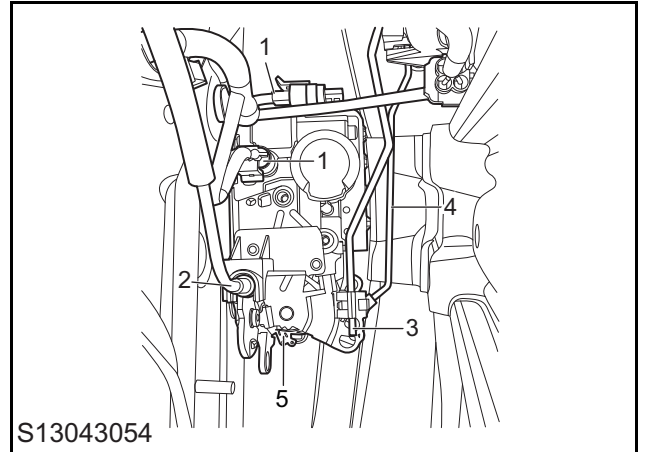
Front Door Lock Assembly Replacement

Removal

- 1 Remove the front door interior trim panel assembly. Refer to "Front Left Door Interior Trim Panel Assembly Replacement/Front Right Door Interior Trim Panel Assembly Replacement".
- 2 Remove the front door waterproof membrane.
- 3 Remove 3 retaining screws (1) fixing the front door lock body assembly to the door.



- 4 Disconnect the electrical connector (1) of the front door lock body assembly.
- 5 Remove the front door inner opening cable (2).
- 6 Loosen the clip and remove the front door outer handle pull rod (3).
- 7 Loosen the clip and remove the front door lock cylinder lever (4).
- 8 Remove the front door lock body assembly (5).



Installation

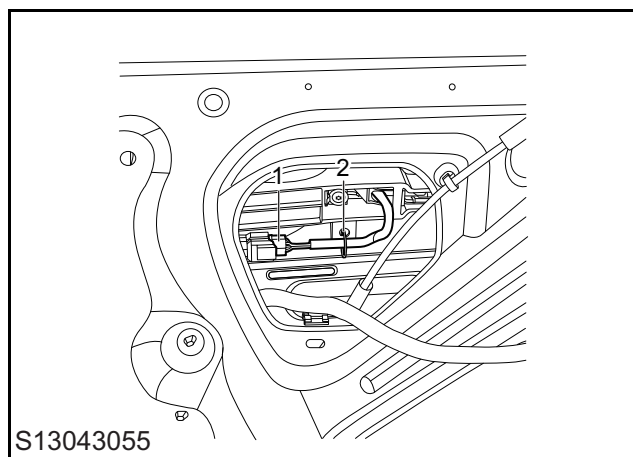
- 1 Install the front door lock body assembly.
- 2 Install the front door lock cylinder lever and the clip.
- 3 Install the front door outer handle pull rod and the clip.
- 4 Install the front door inner opening cable.
- 5 Install the clip on the front door inner cable.
- 6 Connect the electrical connector of the front door lock body assembly.
- 7 Install 3 retaining screws fixing the front door lock body assembly to the door, tighten them to 9 ± 1 Nm, and check the torque.
- 8 Install the waterproof membrane on the front door.
- 9 Install the front door interior trim panel assembly. Refer to "Front Left Door Interior Trim Panel Assembly Replacement/Front Right Door Interior Trim Panel Assembly Replacement".

Door

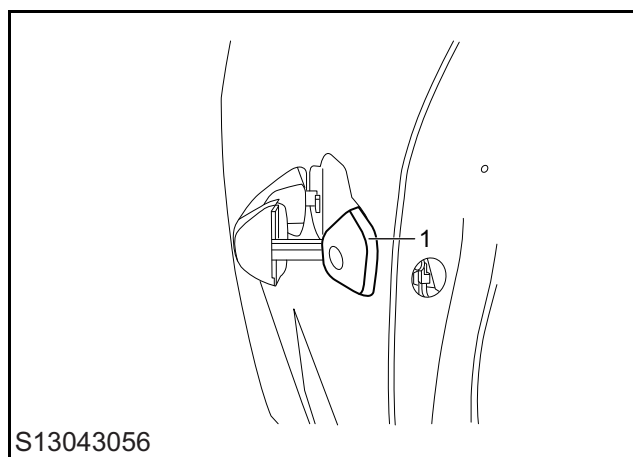
Front Door Outer Handle Pull Rod Assembly Replacement

Removal

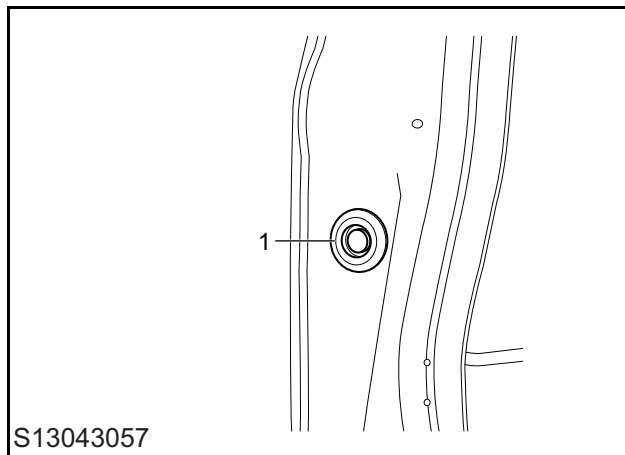
- 1 Remove the front door interior trim panel assembly. Refer to "Front Left Door Interior Trim Panel Assembly Replacement/Front Right Door Interior Trim Panel Assembly Replacement".
- 2 Remove the front door waterproof membrane.
- 3 Disconnect the electrical connector (1) of the front door outer handle pull rod assembly.
- 4 Remove the ties (2) from the front door outer handle pull rod assembly.



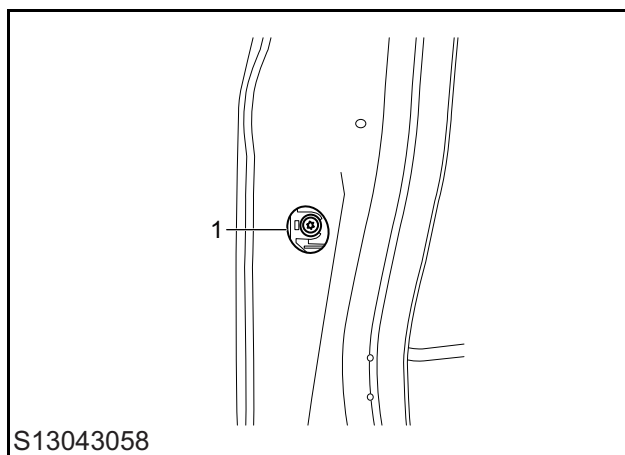
- 5 Pull the handle outward and remove the outer handle cover (1).



- 6 Remove the plug (1).



- 7 Loosen the retaining bolt (1) and remove the front door outer handle pull rod assembly.



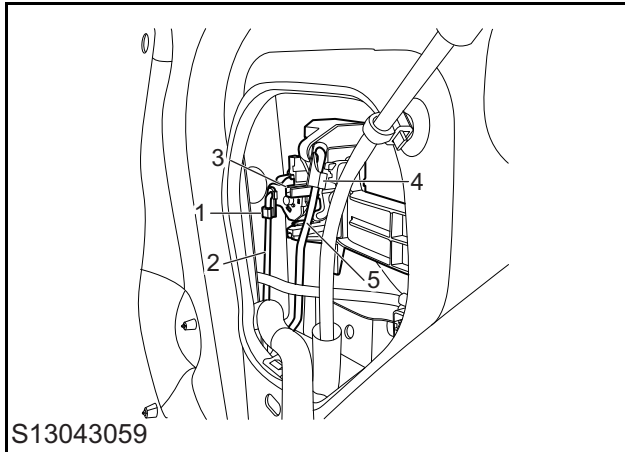
Installation

- 1 Install the front door outer handle pull rod assembly and tighten the retaining bolts.
- 2 Install the plug.
- 3 Pull the handle outward and install the outer handle cover.
- 4 Install the ties on the front door outer handle pull rod assembly.
- 5 Connect the electrical connector of the front door outer handle pull rod assembly.
- 6 Install the waterproof membrane on the front door.
- 7 Install the front door interior trim panel assembly. Refer to "Front Left Door Interior Trim Panel Assembly Replacement/Front Right Door Interior Trim Panel Assembly Replacement".

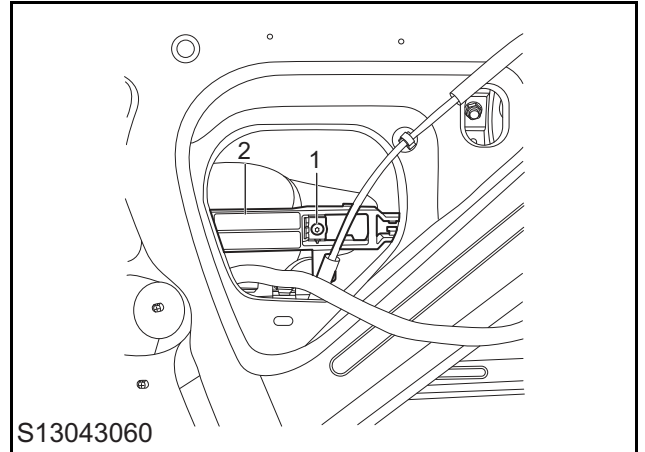
Front Door Outer Handle Bracket Assembly Replacement

Removal

- 1 Remove the front door interior trim panel assembly. Refer to "Front Left Door Interior Trim Panel Assembly Replacement/Front Right Door Interior Trim Panel Assembly Replacement".
- 2 Remove the front door outer handle pull rod assembly. Refer to "Front Door Outer Handle Pull Rod Assembly Replacement".
- 3 Loosen the clip (1) and remove the front door lock cylinder lever (2) (front left door).
- 4 Remove the front door lock cylinder assembly (3) (front left door).
- 5 Loosen the clip (4) and remove the front door outer handle pull rod (5).



- 6 Remove the retaining bolt (1) from the front door outer handle bracket assembly, and remove the base.
- 7 Remove the front door outer handle bracket assembly (2).



Installation

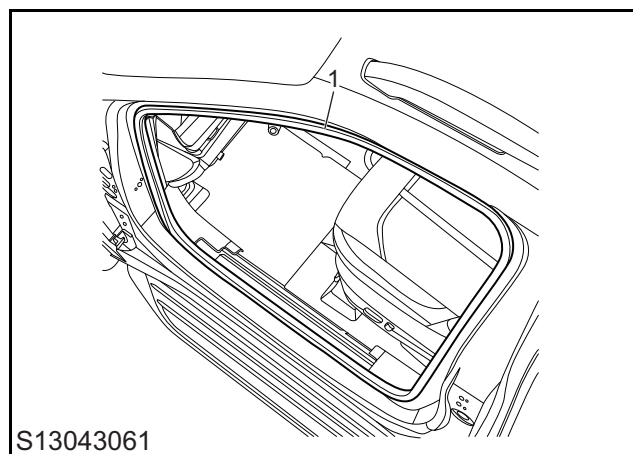
- 1 Install the front door outer handle bracket assembly.
- 2 Install the base, install and tighten the retaining bolts on the front door outer handle bracket assembly.
- 3 Install the front door outer handle pull rod.
- 4 Install the front door lock cylinder assembly (front left door).
- 5 Install the front door lock cylinder lever (front left door).
- 6 Install the front door outer handle pull rod assembly. Refer to "Front Door Outer Handle Pull Rod Assembly Replacement".
- 7 Install the front door interior trim panel assembly. Refer to "Front Left Door Interior Trim Panel Assembly Replacement/Front Right Door Interior Trim Panel Assembly Replacement".

Door

Front Door Frame Weatherstrip Replacement

Removal

- 1 Remove the front door courtesy panel covering. Refer to "Front Door Courtesy Panel Covering Replacement".
- 2 Pry off the clip and remove the front door frame weatherstrips (1).



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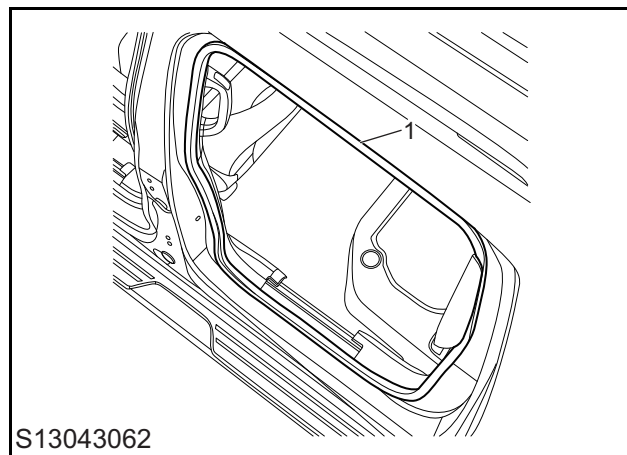
Installation

- 1 Place the front door frame weatherstrips and install the clip.
- 2 Install the front door courtesy panel covering. Refer to "Front Door Courtesy Panel Covering Replacement".

Rear Door Frame Weatherstrip Replacement

Removal

- 1 Remove the rear door courtesy panel covering. Refer to "Rear Door Courtesy Panel Covering Replacement".
- 2 Pry off the clip and remove the rear door frame weatherstrips (1).



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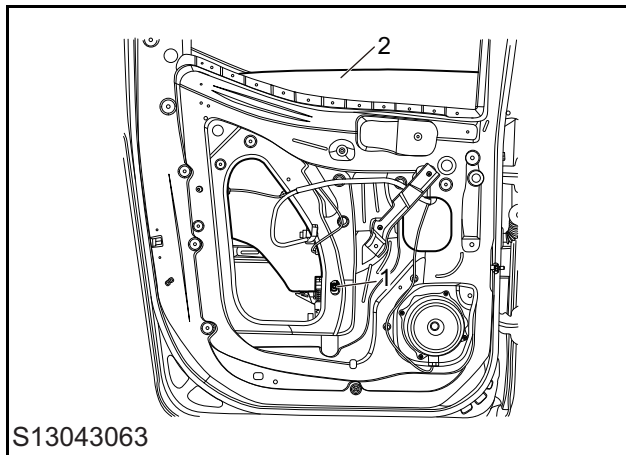
Installation

- 1 Place the rear door frame weatherstrips and install the clip.
- 2 Install the rear door courtesy panel covering. Refer to "Rear Door Courtesy Panel Covering Replacement".

Rear Door Glass Replacement

Removal

- 1 Remove the rear door interior trim panel assembly. Refer to "Rear Door Interior Trim Panel Assembly Replacement".
- 2 Remove the rear door waterproof membrane.
- 3 Adjust the rear door glass to the proper position.
- 4 Push the clips (1) of the rear door glass regulator assembly out of the rear door glass with a screwdriver.
- 5 Pull the rear door glass out of the rear door glass regulator assembly.
- 6 Remove the rear door glass (2) from the rear door.



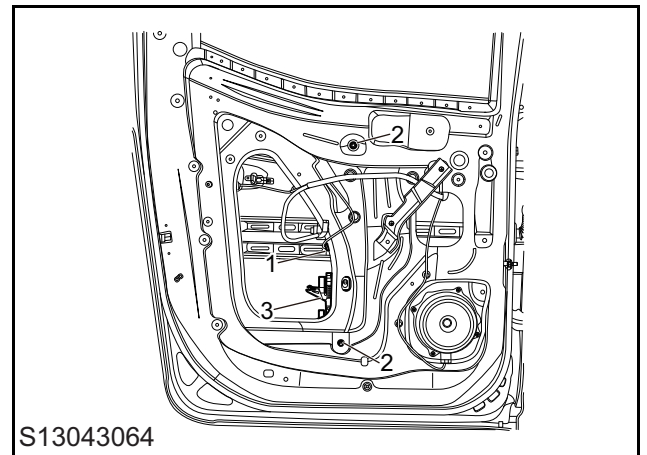
Installation

- 1 Place the rear door glass into the rear door.
- 2 Install the rear door glass to the rear door glass regulator assembly, and a click will be heard at the same time.
- 3 Install the waterproof membrane of the rear door.
- 4 Install the rear door interior trim panel assembly. Refer to "Rear Door Interior Trim Panel Assembly Replacement".

Rear Door Glass Regulator Assembly Replacement

Removal

- 1 Remove the rear door interior trim panel assembly. Refer to "Rear Door Interior Trim Panel Assembly Replacement".
- 2 Remove the rear door glass. Refer to "Rear Door Glass Replacement".
- 3 Disconnect the electrical connector (1) of the rear door glass regulator assembly.
- 4 Remove 2 retaining nuts (2) fixing the rear door glass regulator assembly to the door.
- 5 Remove the rear door glass regulator assembly (3).



Installation

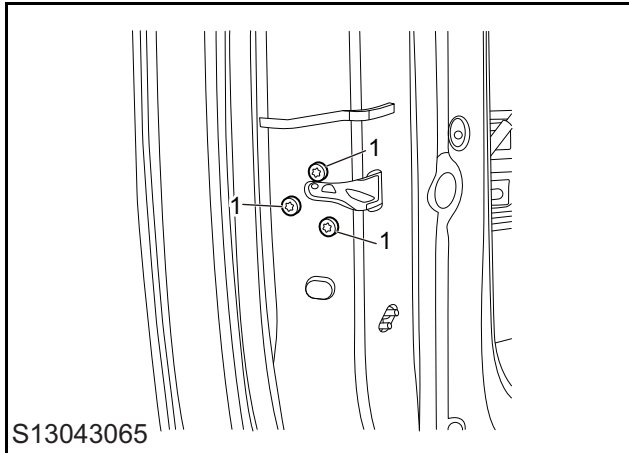
- 1 Install the rear door glass regulator assembly.
- 2 Install and tighten 2 retaining nuts fixing the rear door glass regulator assembly to the door.
- 3 Connect the electrical connector of the rear door glass regulator assembly.
- 4 Install the rear door glass. Refer to "Rear Door Glass Replacement".
- 5 Install the rear door interior trim panel assembly. Refer to "Rear Door Interior Trim Panel Assembly Replacement".

Door

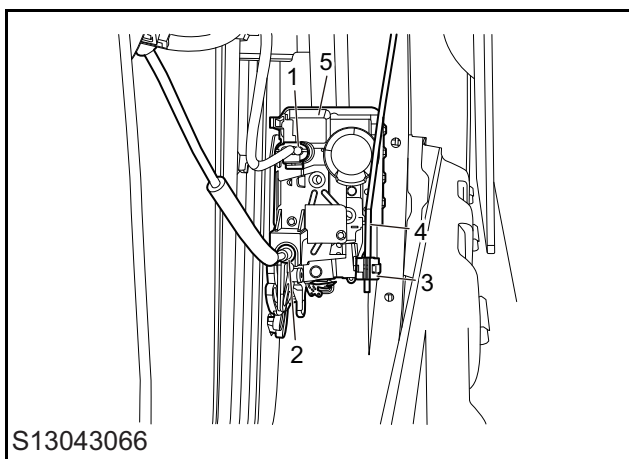
Rear Door Lock Assembly Replacement

Removal

- 1 Remove the rear door interior trim panel assembly. Refer to "Rear Door Interior Trim Panel Assembly Replacement".
- 2 Remove the rear door waterproof membrane.
- 3 Remove 3 retaining screws (1) fixing the rear door lock body assembly to the door.



- 4 Disconnect the electrical connector (1) of the rear door lock body assembly.
- 5 Remove the rear door inner cable (2).
- 6 Loosen the clip (3) and remove the rear door outer handle pull rod (4).
- 7 Remove the rear door lock body assembly (5).



Installation

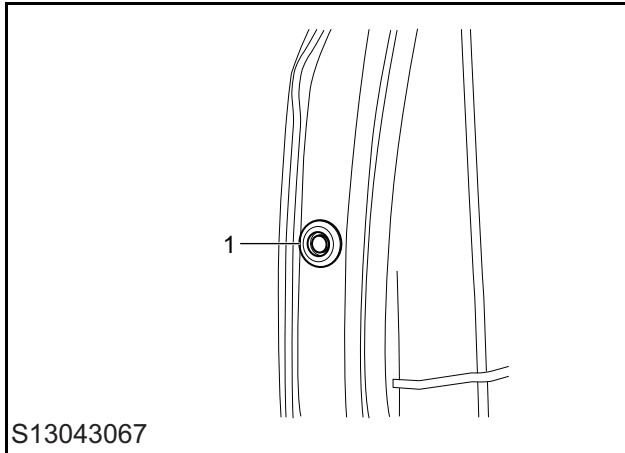
- 1 Install the rear door lock body assembly.
- 2 Install the rear door outer handle pull rod and the clip.

- 3 Install the rear door inner opening cable.
- 4 Install the clip on the rear door inner cable.
- 5 Connect the electrical connector of the rear door lock body assembly.
- 6 Install 3 retaining screws fixing the rear door lock body assembly to the door, tighten them to 9 ± 1 Nm, and check the torque.
- 7 Install the waterproof membrane of the rear door.
- 8 Install the rear door interior trim panel assembly. Refer to "Rear Door Interior Trim Panel Assembly Replacement".

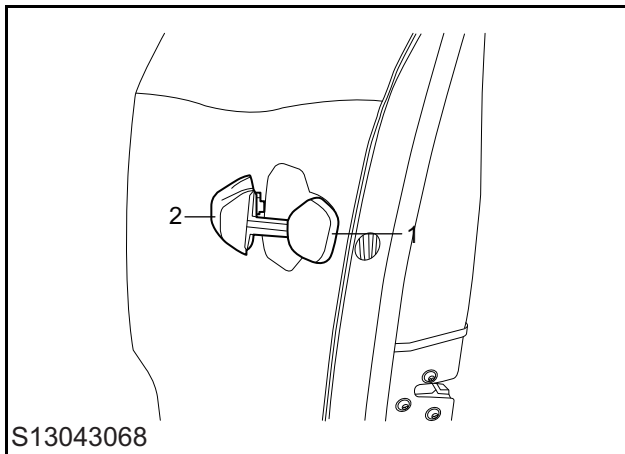
Rear Door Outer Handle Pull Rod Assembly Replacement

Removal

- 1 Remove the rear door interior trim panel assembly. Refer to "Rear Door Interior Trim Panel Assembly Replacement".
- 2 Remove the rear door waterproof membrane.
- 3 Remove the plug (1).



- 4 Loosen the retaining bolt, pull the handle outward, and remove the outer handle cover (1).
- 5 Remove the rear door outer handle pull rod assembly.



Installation

- 1 Install the rear door outer handle pull rod assembly.
- 2 Pull the handle outward, install the outer handle cover, and tighten the retaining bolts.
- 3 Install the plug.
- 4 Install the waterproof membrane of the rear door.

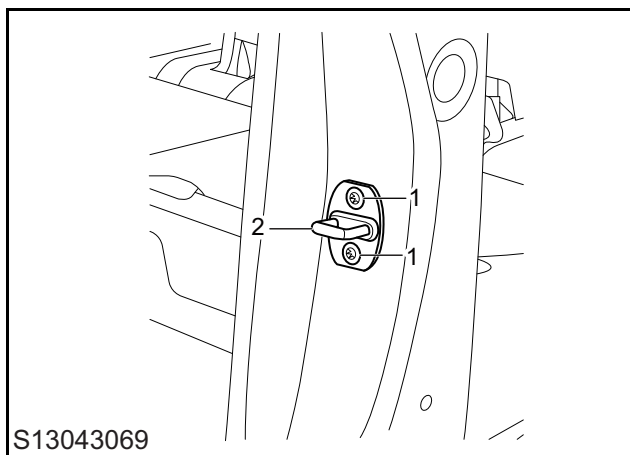
- 5 Install the rear door interior trim panel assembly. Refer to "Rear Door Interior Trim Panel Assembly Replacement".

Door

Front Door Lock Catch Assembly Replacement

Removal

- 1 Remove 2 retaining screws (1) fixing the front door lock catch assembly to the vehicle body, and remove the front door lock catch assembly (2).



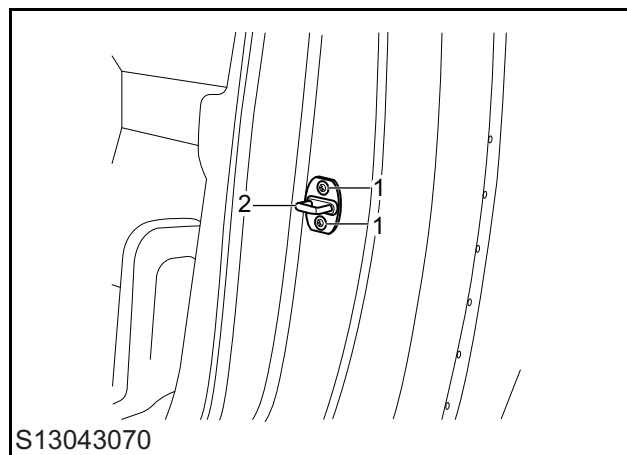
Installation

- 1 Place the front door lock catch assembly, install 2 retaining screws of the front door lock catch assembly to the vehicle body, tighten them to 22 ± 2 Nm, and check the torque.

Rear Door Lock Catch Assembly Replacement

Removal

- 1 Remove 2 retaining screws (1) fixing the rear door lock catch assembly to the vehicle body, and remove the rear door lock catch assembly (2).



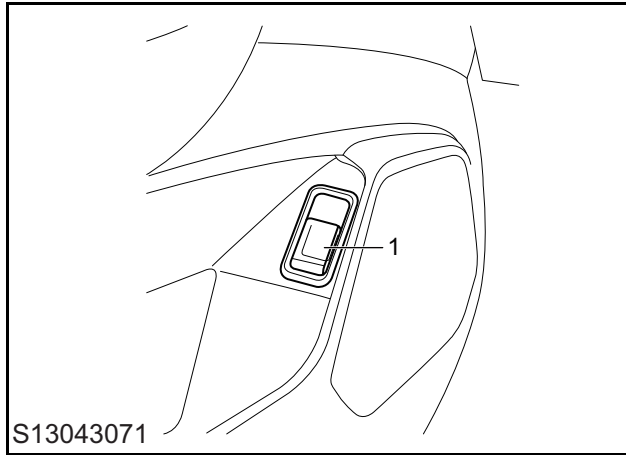
Installation

- 1 Place the rear door lock catch assembly, install 2 retaining screws fixing the rear door lock catch assembly to the vehicle body, tighten them to 22 ± 2 Nm, and check the torque.

Fuel Filler Flap Assembly Replacement

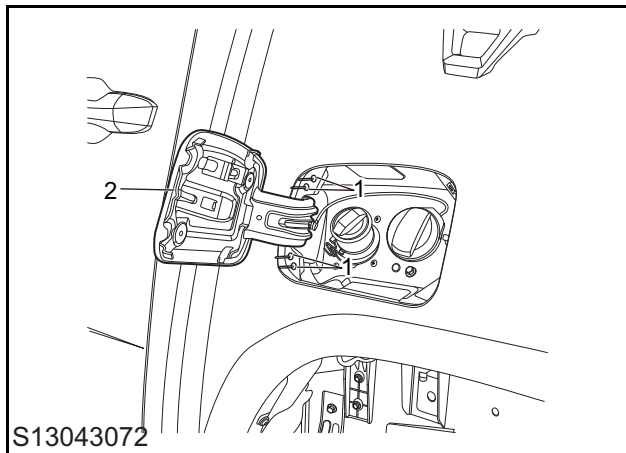
Removal

- 1 After power-on, open the driver's door, pull the charging port lid switch assembly (1) to open the charging port door assembly.



- 4 Close the charging port door assembly and test whether the opening and closing of the charging port door assembly are smooth.

- 2 Remove the clip of the charging port lid.
- 3 Open the charging port door assembly to the maximum position by hand.
- 4 Use an electric drill to knock out 4 rivets (1) on the charging port door assembly.
- 5 Remove the charging port door assembly (2).



Installation

- 1 Install the charging port door assembly.
- 2 Fix the charging port door assembly to the vehicle body with a rivet gun.

Caution: Adjust and rivet the position of the charging port door assembly.

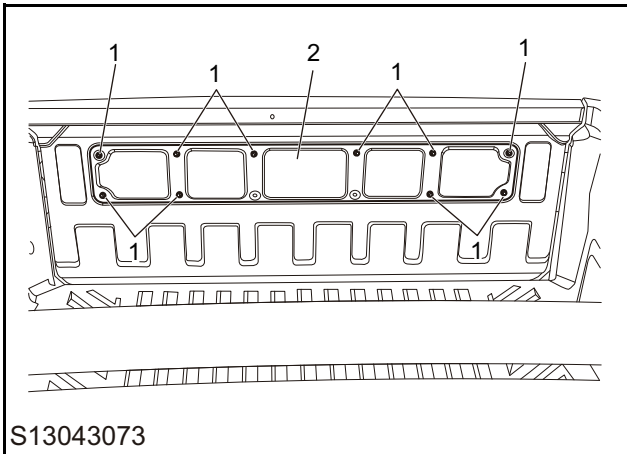
- 3 Install the clip of the fuel filler cap.

Door

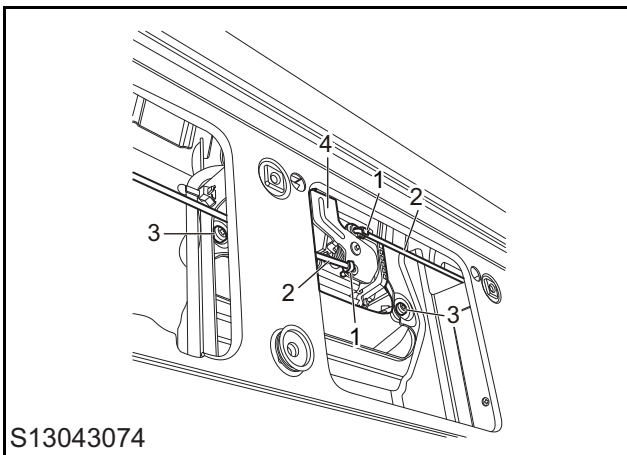
Rear Panel Outer Handle Assembly Replacement

Removal

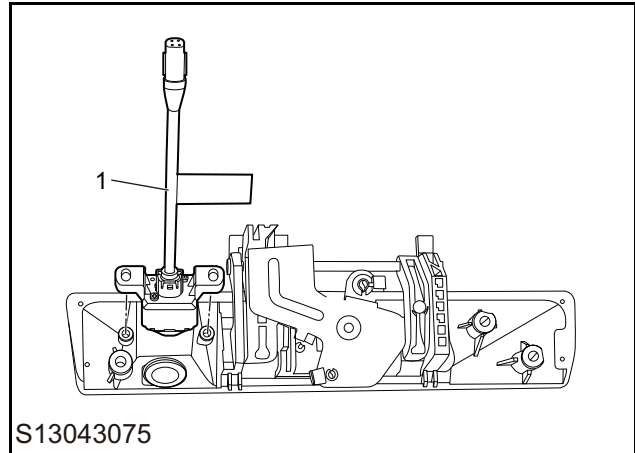
- 1 Remove the cargo compartment door trim. Refer to "Cargo Compartment Door Trim Replacement".
- 2 Remove 8 retaining screws (1) from the cover of the rear panel inner panel.
- 3 Remove the cover of the rear panel inner panel (2).



- 4 Disconnect the electrical connector of the rearview camera.
- 5 Disconnect the clip (1) and remove the rear panel outer link (2).
- 6 Remove 2 retaining screws (3) from the rear panel outer handle assembly.
- 7 Remove the rear panel outer handle assembly (4) and the rearview camera.



- 8 Remove 2 retaining screws from the rearview camera and remove the rearview camera (1).



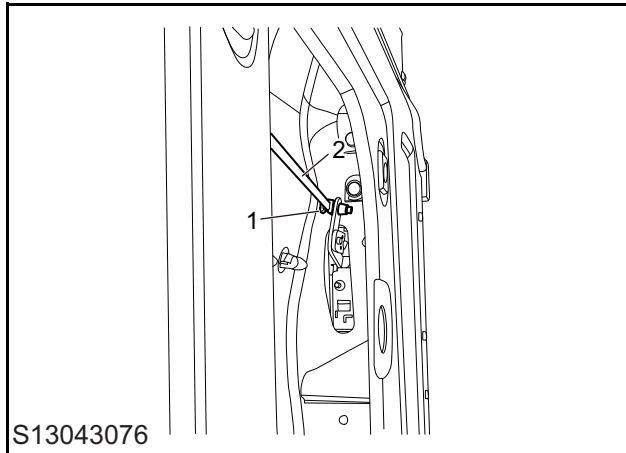
Installation

- 1 Place the rearview camera, install and tighten 2 retaining screws on the rearview camera.
- 2 Install the rear panel outer handle assembly and the rearview camera.
- 3 Install and tighten 2 retaining screws on the rear panel outer handle assembly.
- 4 Install the rear panel outer link and fix the clip.
- 5 Connect the electrical connector of the rearview camera.
- 6 Install the cover of the rear panel inner panel.
- 7 Install and tighten 8 retaining screws on the cover of the rear panel inner panel.
- 8 Install the cargo compartment door trim. Refer to "Cargo Compartment Door Trim Replacement".

Rear Panel Lock Assembly Replacement

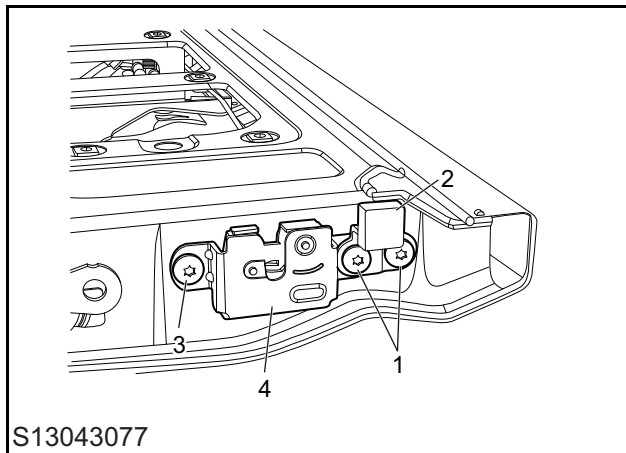
Removal

- 1 Open the rear panel.
- 2 Disconnect the clip (1) and remove the rear panel outer link (2).



- 3 Install 2 retaining screws on the rear panel bumper block, tighten them to 22 ± 2 Nm, and check the torque.
- 4 Install the rear panel outer link and fix the clip.
- 5 Close the rear panel.

- 3 Remove 2 retaining screws (1) from the rear panel bumper block.
- 4 Remove the rear panel bumper block (2).
- 5 Remove 1 retaining screw (3) from the rear panel lock body assembly, and remove the rear panel lock body assembly (4).



Installation

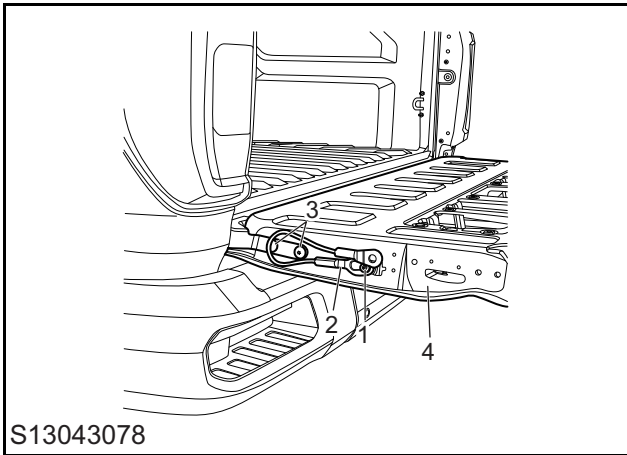
- 1 Place the rear panel lock body assembly, install 1 retaining screw on the rear panel lock body assembly, tighten it to 22 ± 2 Nm, and check the torque.
- 2 Install the rear panel bumper block.

Door

Rear Panel Replacement

Removal

- 1 Remove the cargo compartment door trim. Refer to "Cargo Compartment Door Trim Replacement".
 - 2 Remove the rear panel outer handle assembly. Refer to "Rear Panel Outer Handle Assembly Replacement".
 - 3 Remove the left and right rear panel lock body assemblies. Refer to "Rear Panel Lock Body Assembly Replacement".
 - 4 Pry off the clip and remove the camera harness.
 - 5 Remove the cargo compartment door weatherstrips.
 - 6 Loosen 1 retaining bolt (1) on the left and right rear panel stopper for maximum opening, and remove the left and right rear panel stopper for maximum opening (2).
 - 7 Remove 2 retaining bolts (3) fixing the left and right rear panel hinge assemblies to the rear panel
 - 8 Remove the rear panel (4).
- 5 Install the camera harness and fix the clip.
 - 6 Install the left and right rear panel lock body assemblies. Refer to "Rear Panel Lock Body Assembly Replacement".
 - 7 install the rear panel outer handle assembly. Refer to "Rear Panel Outer Handle Assembly Replacement".
 - 8 Install the cargo compartment door trim. Refer to "Cargo Compartment Door Trim Replacement".



Installation

- 1 Install the rear panel.
- 2 Install 2 retaining bolts fixing the left and right rear panel hinge assemblies to the rear panel, tighten them to 22 ± 2 Nm, and check the torque.
- 3 Install the left and right rear panel stopper for maximum opening, tighten 1 retaining bolt on the left and right rear panel stopper for maximum opening to 22 ± 2 Nm, and check the torque.
- 4 Install the cargo compartment weatherstrips.

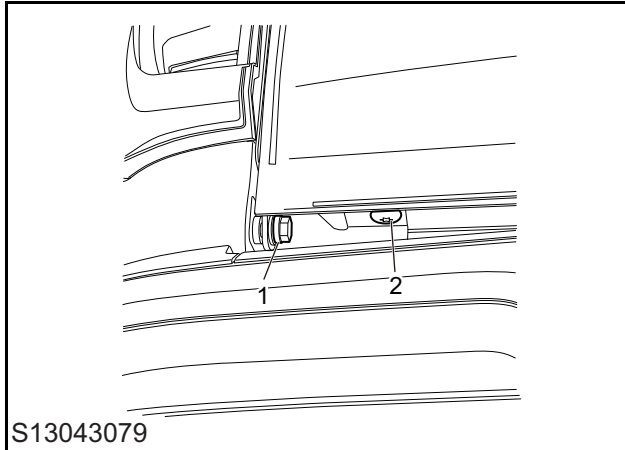
Rear Panel Hinge Assembly Replacement

Removal

- 1 Remove 1 retaining bolt (1) fixing the rear panel hinge assembly to the rear panel.
- 2 Remove 1 retaining bolt (2) fixing the rear panel hinge assembly to the vehicle body.

3 Remove the auxiliary tools.

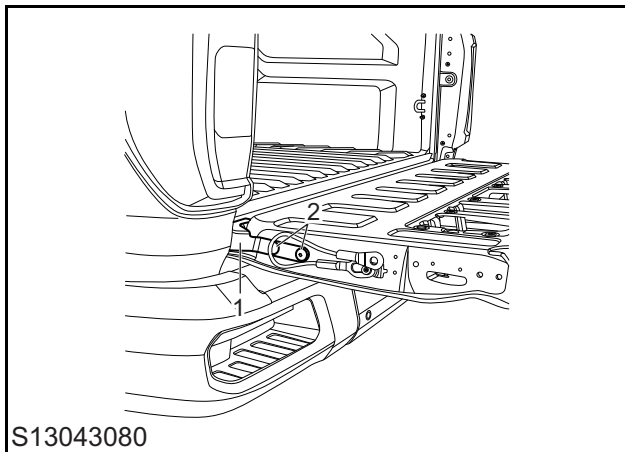
4 Close the rear panel.



3 Open the rear panel.

Caution: Support the rear panel with auxiliary tools.

- 4 Remove 2 retaining bolts (1) fixing the rear panel hinge assembly to the rear panel, and remove the rear panel hinge assembly (2).



Installation

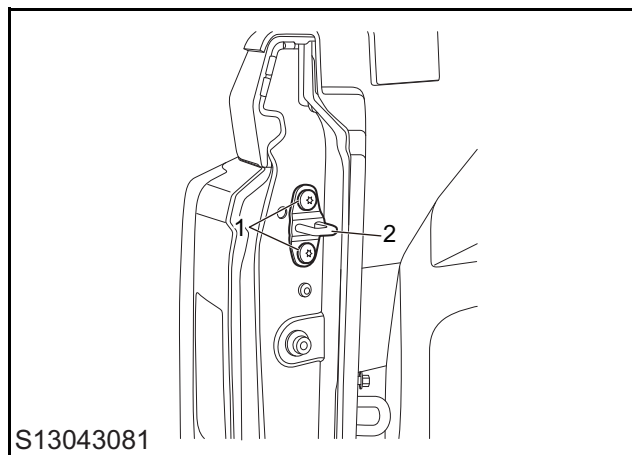
- 1 Place the rear panel hinge assembly, install 3 retaining bolts fixing the rear panel hinge assembly to the rear panel, tighten them to 22 ± 2 Nm, and check the torque.
- 2 Install 1 retaining bolt fixing the rear panel hinge assembly to the vehicle body, tighten it to 45 ± 5 Nm, and check the torque.

Door

Rear Panel Lock Catch Assembly Replacement

Removal

- 1 Remove 2 retaining bolts (1) fixing the rear panel lock catch assembly to the vehicle body, and remove the rear panel lock catch assembly (2).



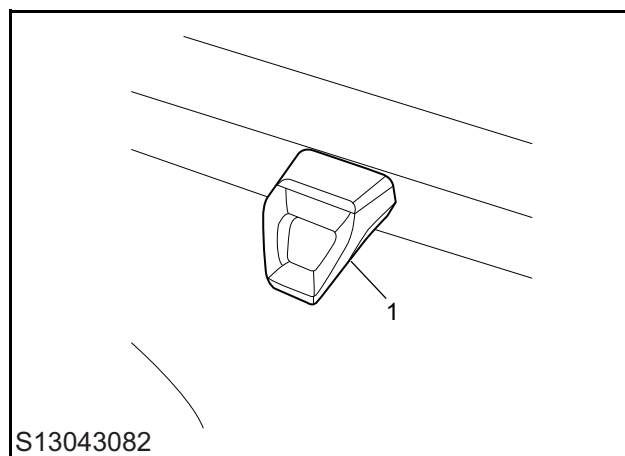
Installation

- 1 Place the rear panel lock catch assembly, install 2 retaining bolts fixing the rear panel lock catch assembly to the vehicle body, tighten them to 22 ± 2 Nm, and check the torque.

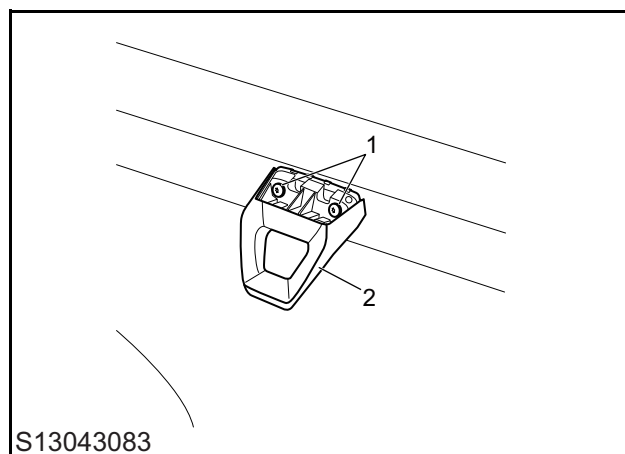
Outer Cord Hook Replacement

Removal

- 1 Remove the outer cord hook cover.



- 2 Remove 2 retaining screws (1) from the outer cord hook, and remove the outer cord hook (2).



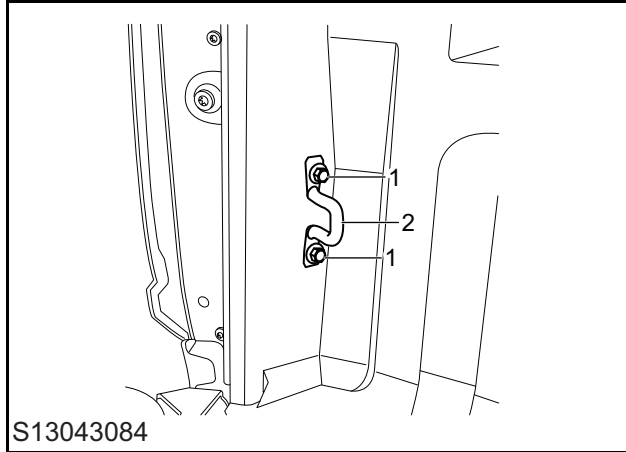
Installation

- 1 Install the outer cord hook, install 2 retaining screws on the outer cord hook, tighten them to 9 ± 1 Nm, and check the torque.
- 2 Install the outer cord hook cover.

Internal Cord Hook Replacement

Removal

- 1 Remove 2 retaining bolts (1) from the internal cord hook and remove the internal cord hook (2).



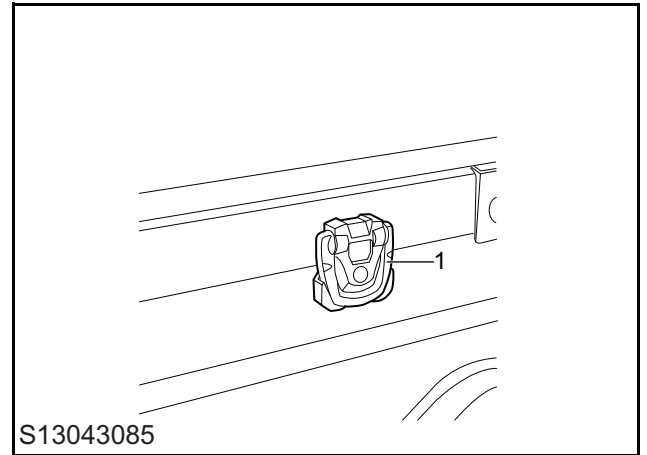
Installation

- 1 Place the internal cord hook, install 2 retaining bolts on the inner cord hook, tighten them to 22 ± 2 Nm, and check the torque.

Binding Ring Replacement

Removal

- 1 Open the binding ring cover (1).



- 2 Remove the retaining bolts from the binding ring and remove the binding ring.

Installation

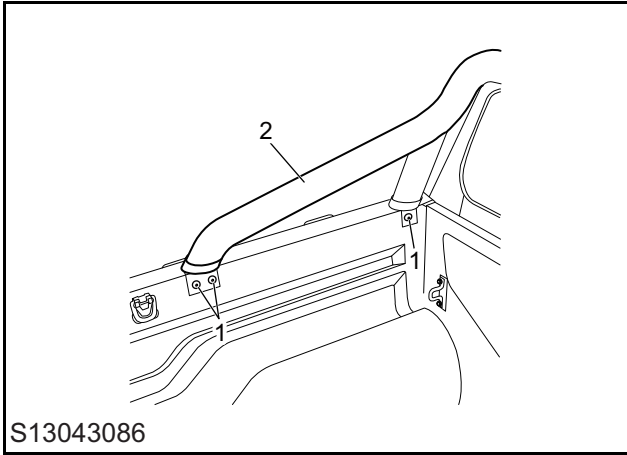
- 1 Install the binding ring and the retaining bolts on it.
- 2 Close the binding ring cover.

Door

Cargo Compartment Guardrail Replacement

Removal

- 1 Remove 3 retaining bolts (1) fixing the left and right cargo compartment guardrails to the vehicle body.
- 2 Remove the cargo compartment guardrails (2).



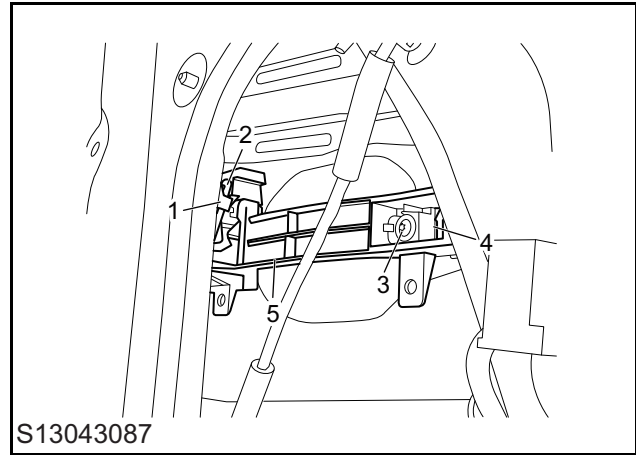
Installation

- 1 Install the cargo compartment guardrail.
- 2 Install 3 retaining bolts fixing the left and right cargo compartment guardrails to the vehicle body, tighten them to 22 ± 2 Nm, and check the torque.

Rear Door Outer Handle Bracket Assembly Replacement

Removal

- 1 Remove the rear door interior trim panel assembly. Refer to "Rear Door Interior Trim Panel Assembly Replacement".
- 2 Remove the rear door outer handle pull rod assembly. Refer to "Rear Door Outer Handle Pull Rod Assembly Replacement".
- 3 Loosen the clip (1) and remove the rear door outer handle pull rod (2).
- 4 Remove the retaining screw (3) from the rear door outer handle bracket assembly, and remove the base (4).
- 5 Remove the rear door outer handle bracket assembly (5).



Installation

- 1 Install the rear door outer handle bracket assembly.
- 2 Install the base and the retaining screws on the rear door outer handle bracket assembly, tighten them to 9 ± 1 Nm and check the torque.
- 3 Install the rear door outer handle pull rod and fix the clip.
- 4 Install the rear door outer handle pull rod assembly. Refer to "Rear Door Outer Handle Pull Rod Assembly Replacement".
- 5 Install the rear door interior trim panel assembly. Refer to "Rear Door Interior Trim Panel Assembly Replacement".

Horn

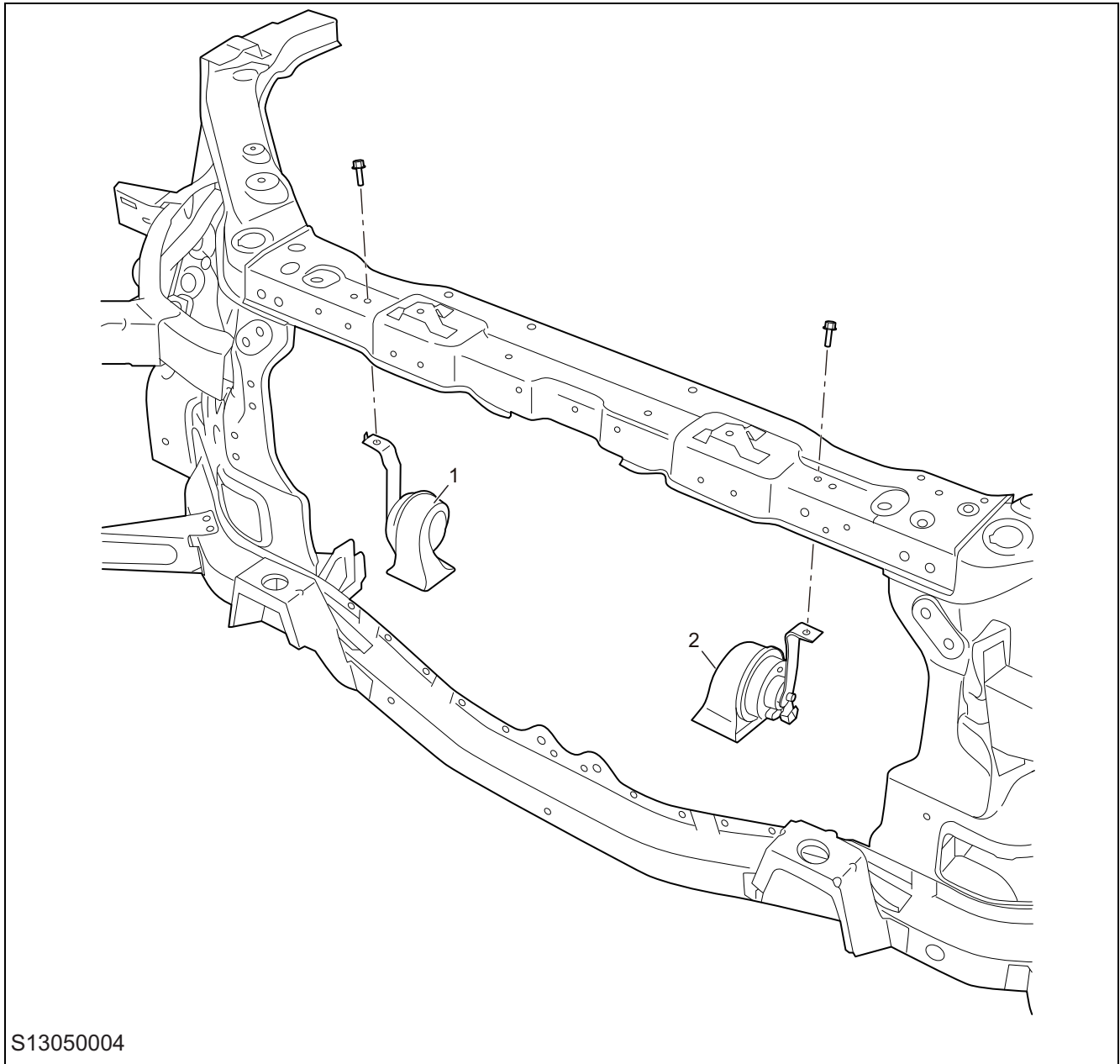
Specification

Fastener Specifications

Name	Torque (Nm)
Bolt - Horn	9±1 Nm

Horn

Layout



S13050004

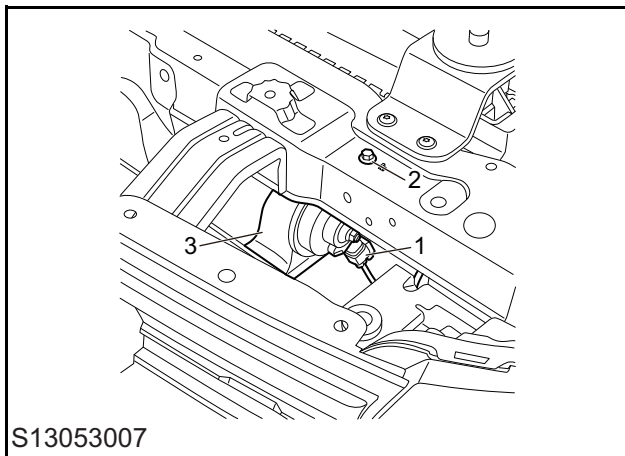
1 Tweeter

2 Woofer

Service Guide

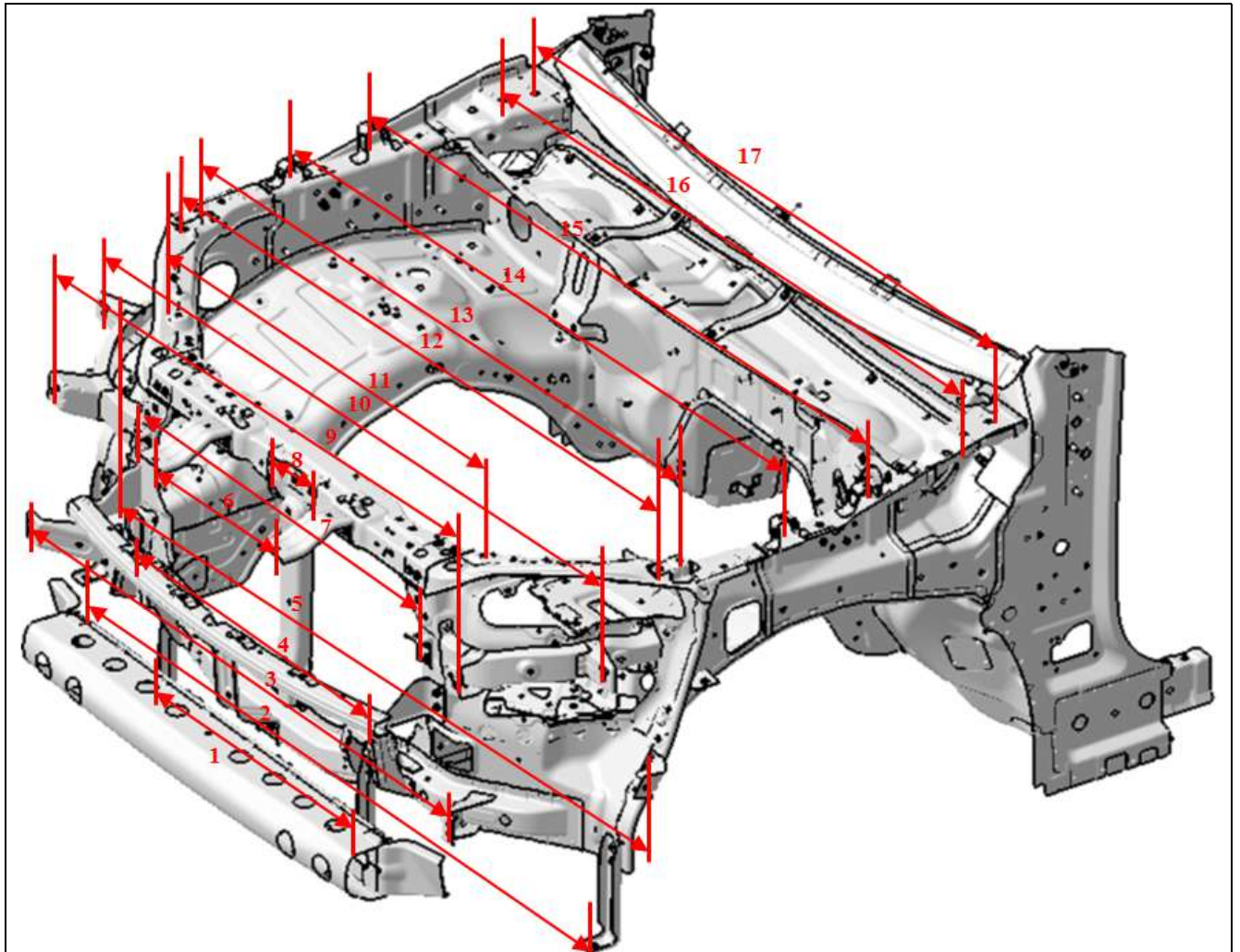
Horn Replacement**Removal**

- 1 Remove the front grille cover plate. Refer to "Front Grille Cover Plate Replacement".
- 2 Disconnect the electrical connectors (1) of the tweeter/woofer.
- 3 Remove the retaining bolts (2) fixing the tweeter/woofer to the vehicle body, and remove the tweeter/woofer (3).

**Installation**

- 1 Place the tweeter/woofer, install the retaining bolts fixing the tweeter/woofer to the vehicle body, tighten them to 9 ± 1 Nm, and check the torque.
- 2 Connect the electrical connectors of the tweeter/woofer.
- 3 Install the front grille cover plate. Refer to "Front Grille Cover Plate Replacement".

Overall Dimension
 Engine Compartment



- | | |
|---|---|
| 1. Front Bumper Lower Mounting Hole 1 | 12. Daytime Running Lamp Upper Mounting Point 2 (Symmetric) |
| 2. Front Bumper Lower Mounting Hole 2 | 13. Fender Front Mounting Point (Symmetric) |
| 3. Headlamp Lower Mounting Hole (Symmetric) | 14. Fender Middle Mounting Point (symmetric) |
| 4. Radiator Retaining Bracket Mounting Hole | 15. Fender Rear Mounting Point (symmetric) |
| 5. Headlamp Middle Mounting Hole (Symmetric) | 16. Bonnet Hinge Front Mounting Hole (Symmetric) |
| 6. Front Bumper Upper Mounting Hole | 17. Bonnet Hinge Rear Mounting Hole (Symmetric) |
| 7. Daytime Running Lamp Lower Mounting Hole | |
| 8. Mounting Hole on the Engine Cover Lock (Symmetric) | |
| 9. Headlamp Upper Mounting Hole 1 (Symmetric) | |
| 10. Headlamp Upper Mounting Hole 2 (Symmetric) | |
| 11. Daytime Running Lamp Upper Mounting Point 1 (Symmetric) | |

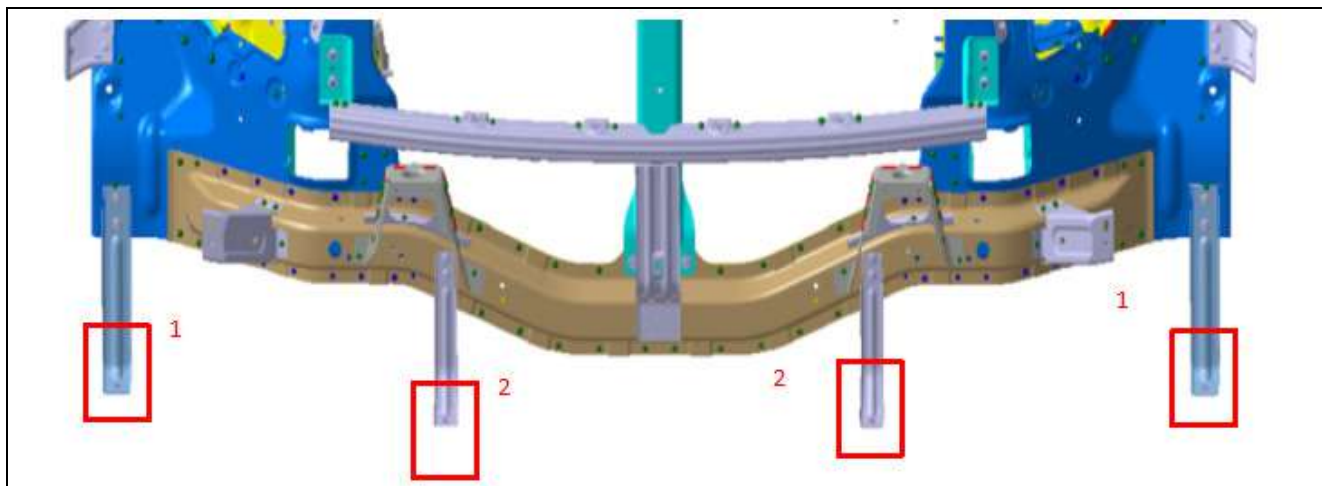
Overall Dimension

Reference point	Reference dimension (mm)	Reference point	Reference dimension (mm)
1-1	1607	8-8	122
2-2	628	9-9	1272
3-3	1322	10-10	1582
4-4	717	11-11	1060
5-5	1750	12-12	1520
6-6	384	13-13	1523
7-7	888	14-14	1551
		15-15	1561
		16-16	1454
		17-17	1430

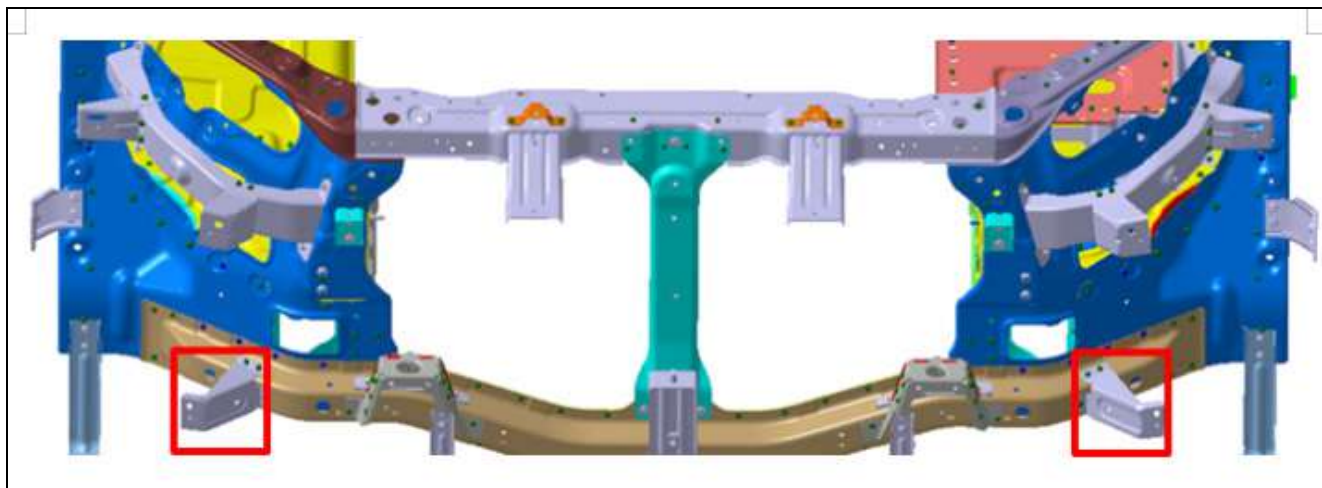
Front Compartment Mounting Hole Description

2. Front Bumper Lower Mounting Hole 2

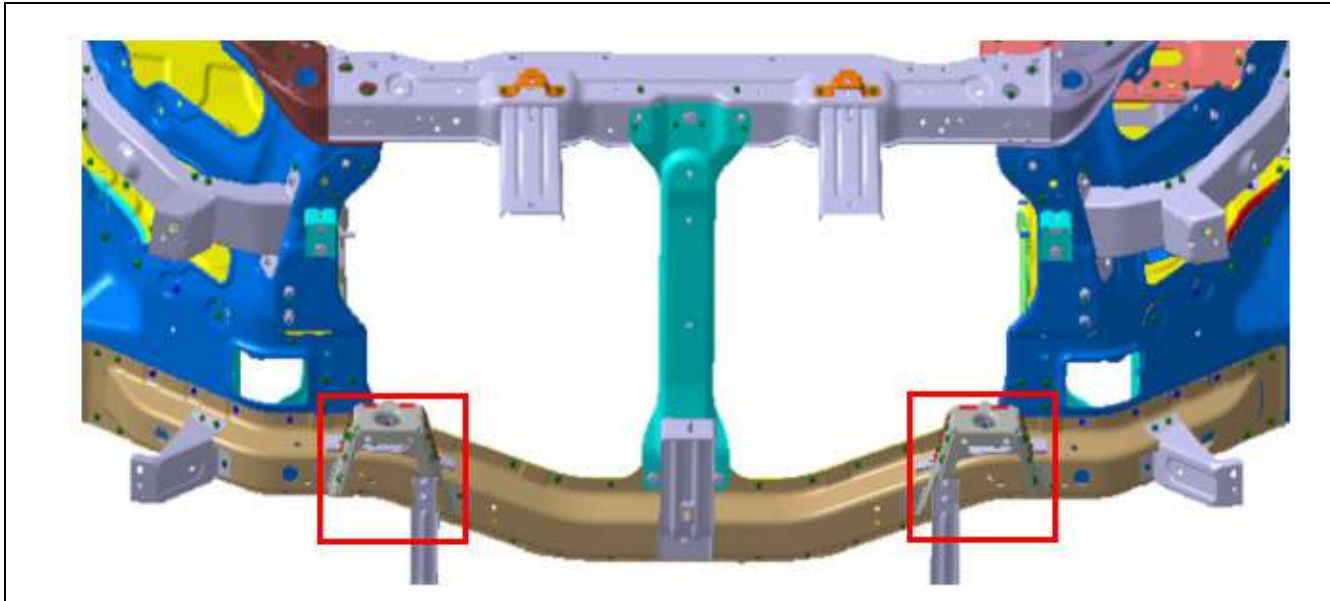
1. Front Bumper Lower Mounting Hole 1



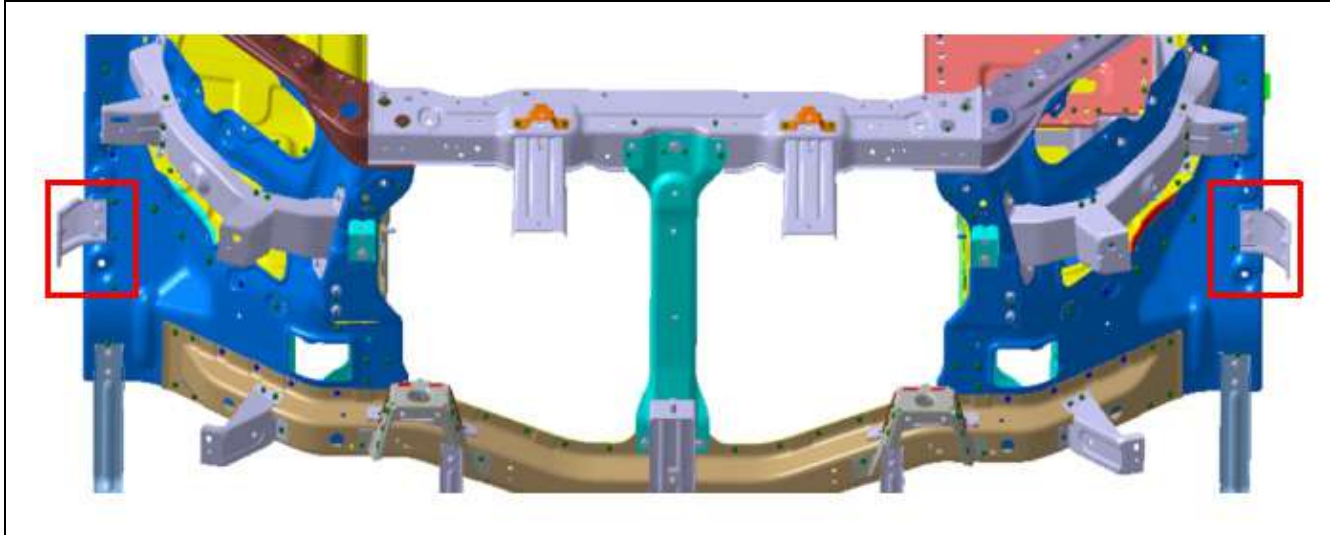
3. Headlamp Lower Mounting Hole (Symmetric)



4. Radiator Retaining Bracket Mounting Hole

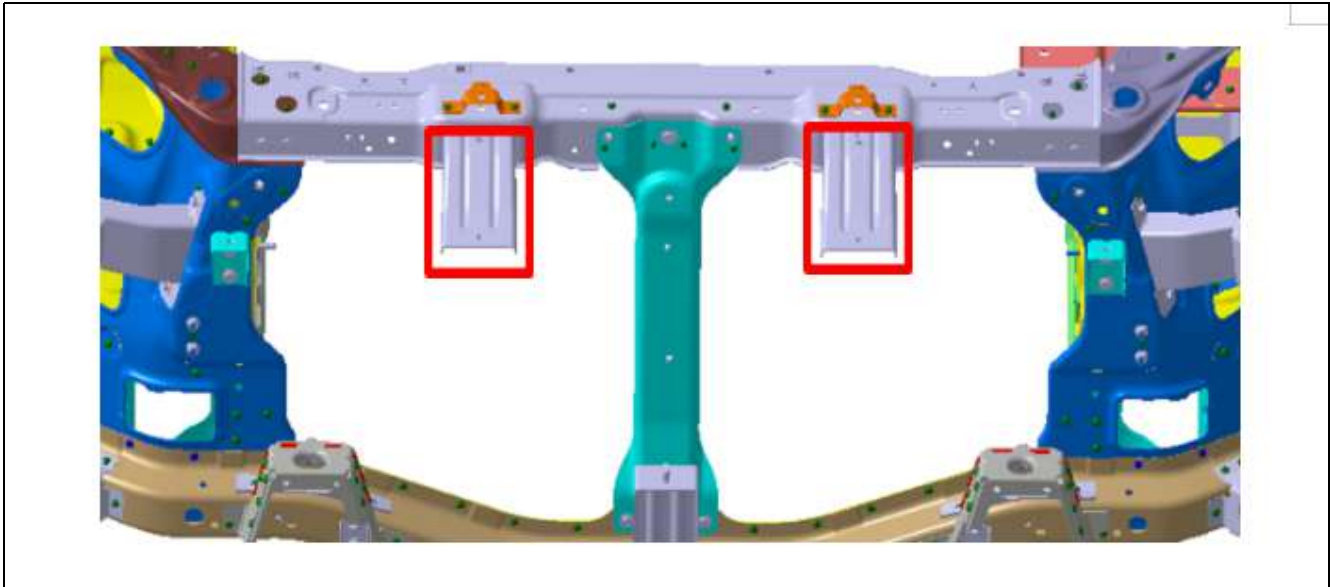


5. Headlamp Middle Mounting Hole (Symmetric)

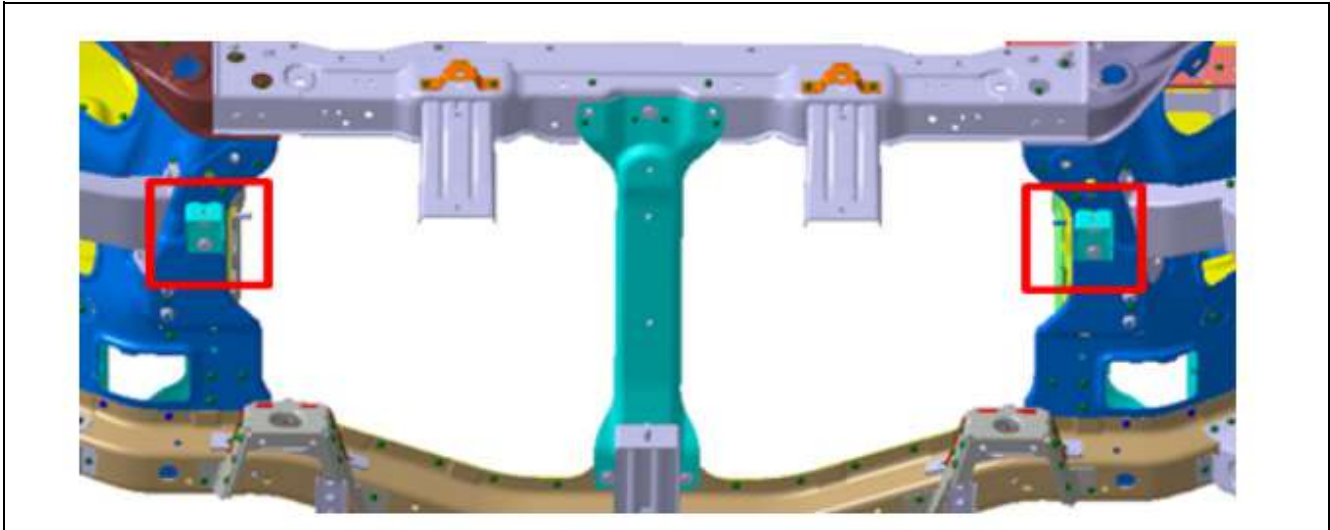


6. Front Bumper Upper Mounting Hole

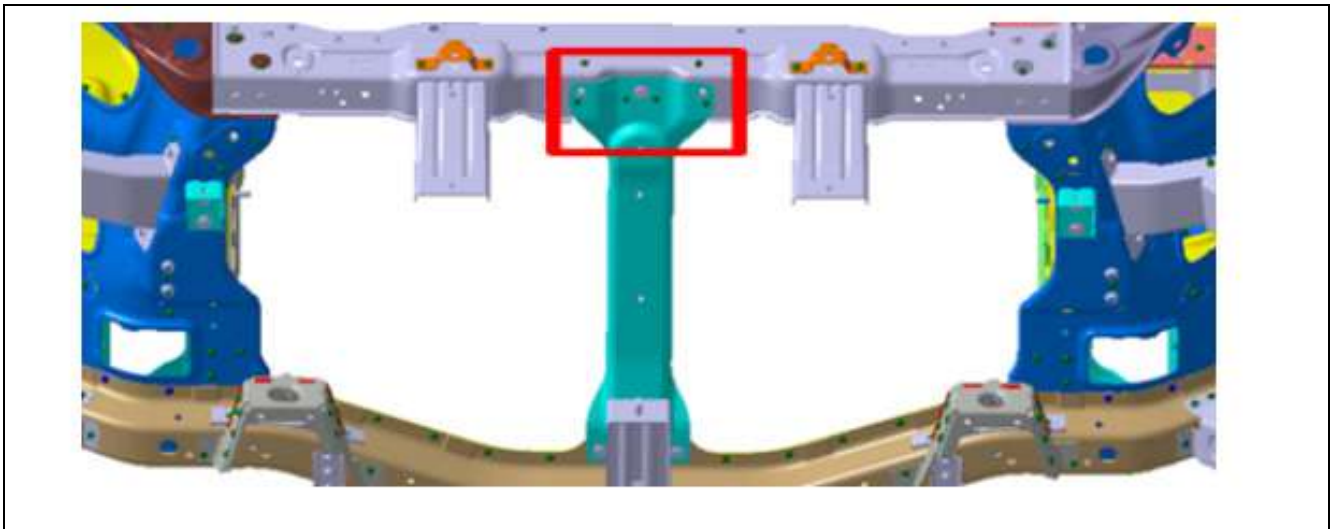
Overall Dimension



7. Daytime Running Lamp Lower Mounting Hole

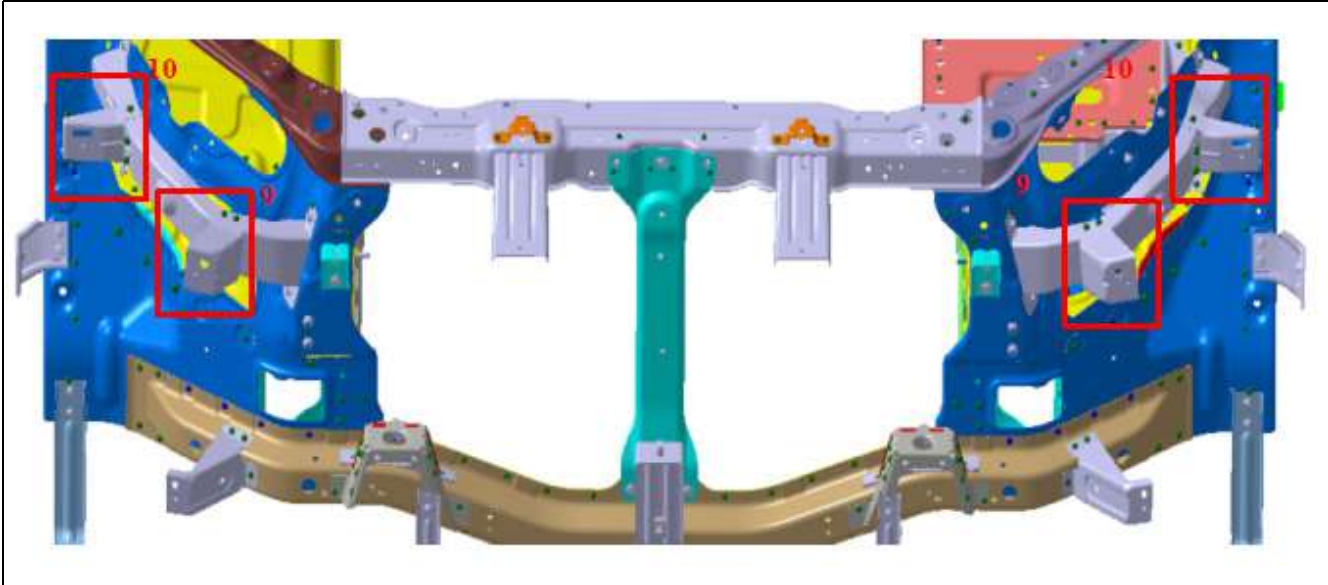


8. Lock Upper Mounting Hole (Symmetric)



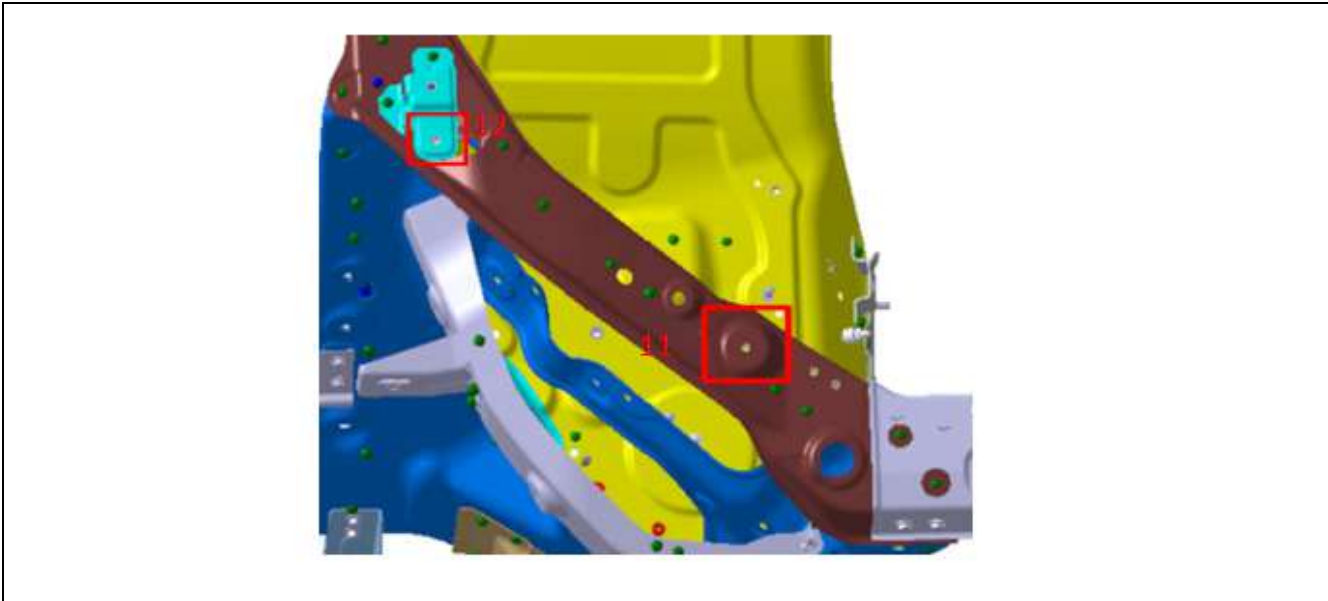
9. Headlamp Upper Mounting Hole 1 (Symmetric)

10. Headlamp Upper Mounting Hole 2 (Symmetric)



11. Daytime Running Lamp Upper Mounting Point 1 (Symmetric)

12. Daytime Running Lamp Upper Mounting Point 2 (Symmetric)

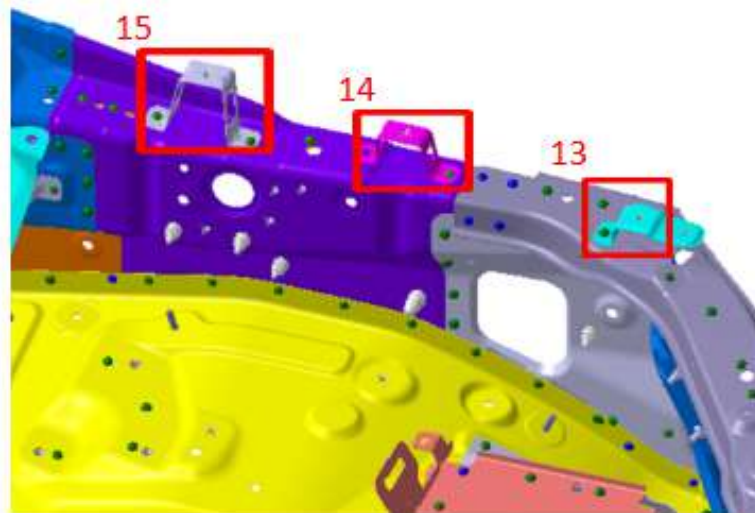


13. Fender Front Mounting Point (Symmetric)

14. Fender Middle Mounting Point (Symmetric)

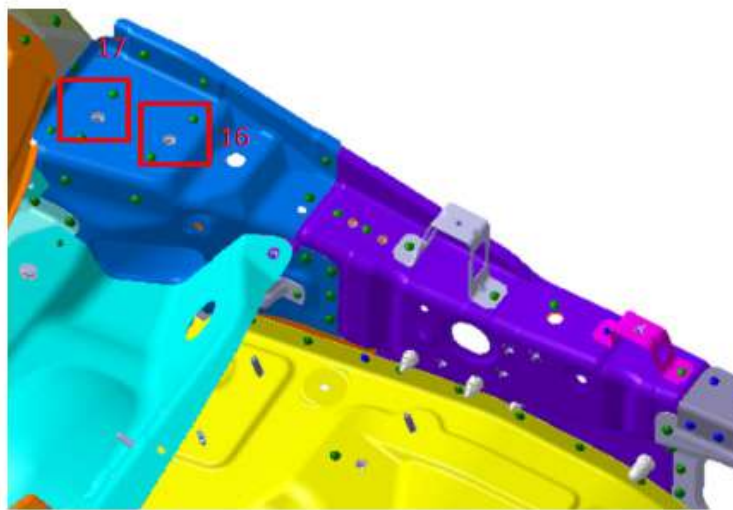
15. Fender Rear Mounting Point (symmetric)

Overall Dimension

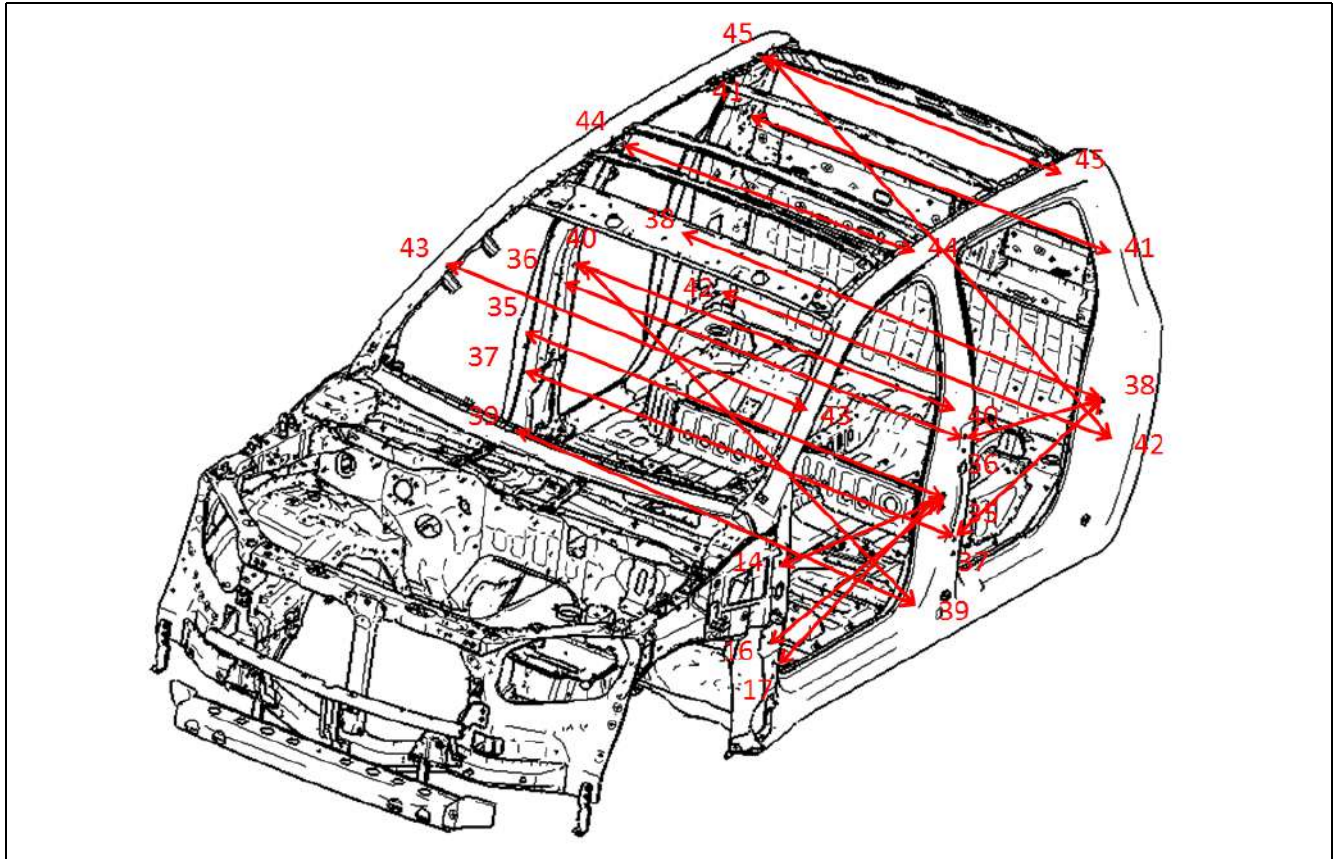


16. Bonnet Hinge Front Mounting Hole (Symmetric)

17. Bonnet Hinge Rear Mounting Hole (Symmetric)



Body Compartment Assembly



- 14. Front Door Upper Hinge Lower Mounting Hole
- 16. Quarter Locating Hole
- 17. Front Door Lower Hinge Upper Mounting Hole
- 35. Front Door Lock Catch Upper Mounting Hole
- 36. Rear Door Upper Hinge Upper Mounting Hole
- 37. Rear Door Lower Hinge Lower Mounting Hole
- 38. Rear Door Lock Catch Upper Mounting Hole
- 39. Front Seat Belt Locating Point

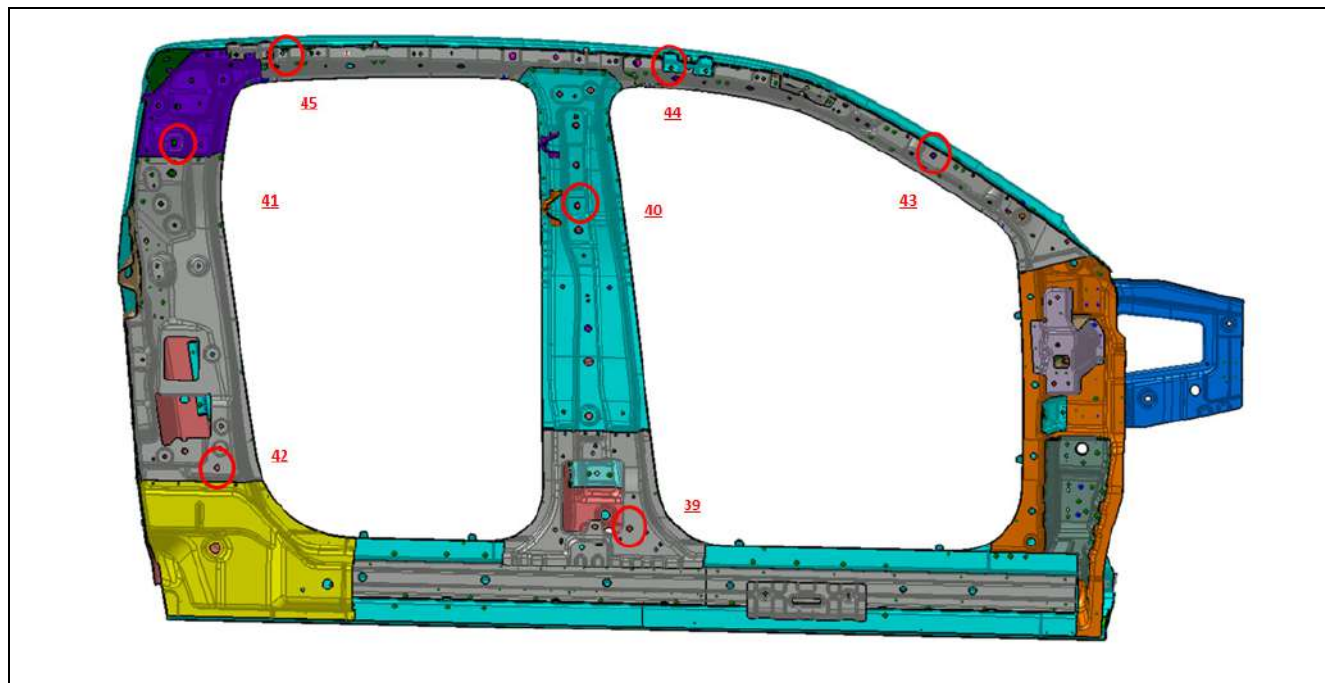
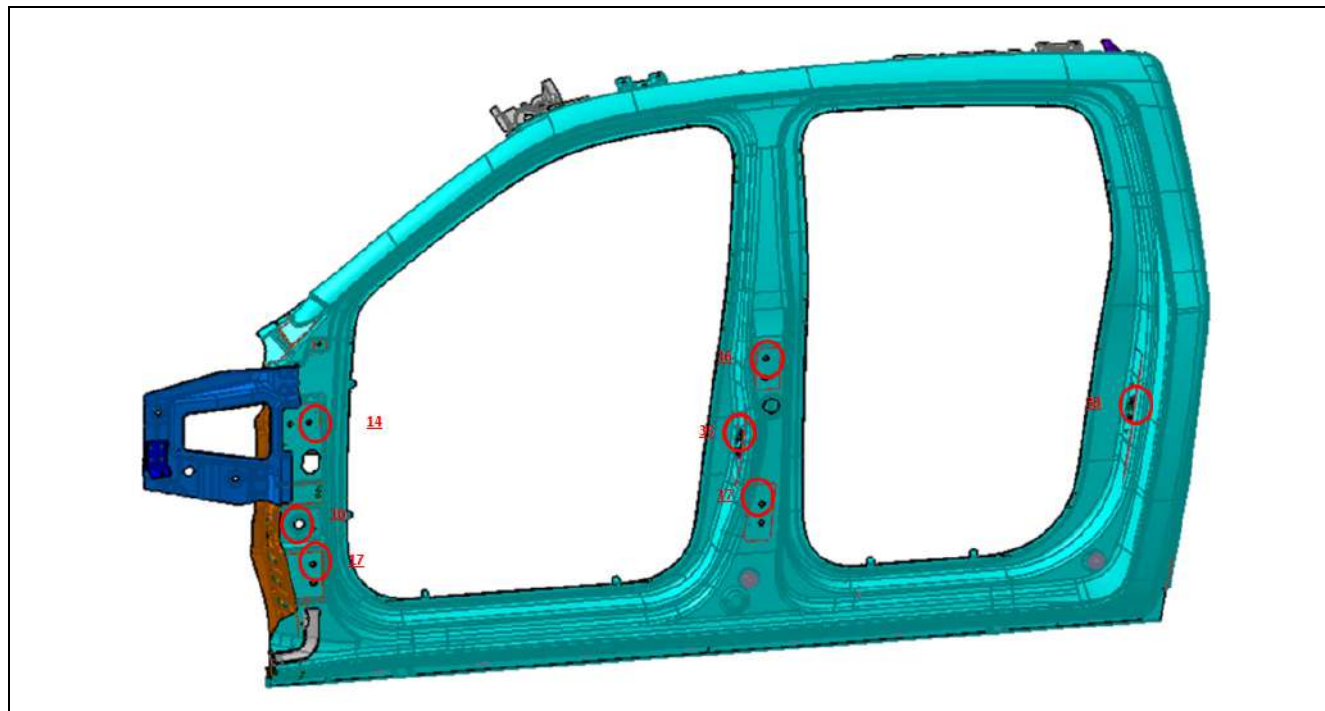
- 40. Front Seat Belt Adjuster Lower Locating Point
- 41. Rear Seat Belt Adjuster Lower Locating Point
- 42. Rear Seat Belt Adjuster Lower Locating Point
- 43. A-pillar Inner Panel Locating Point
- 44. Front Armrest Bracket Lower Locating Point
- 45. Left Quarter Upper Inner Panel Frame Rear Part Locating Point

Reference point	Reference dimension (mm)	Reference point	Reference dimension (mm)
35-35	1582	44-44	1049
36-36	1624	45-45	1132
37-37	1652	14LH-35LH	1053
38-38	1583	16LH-35LH	1078
39-39	1433	17LH-35LH	1064
40-40	1428	36LH-38LH	919
41-41	1315	37LH-38LH	919

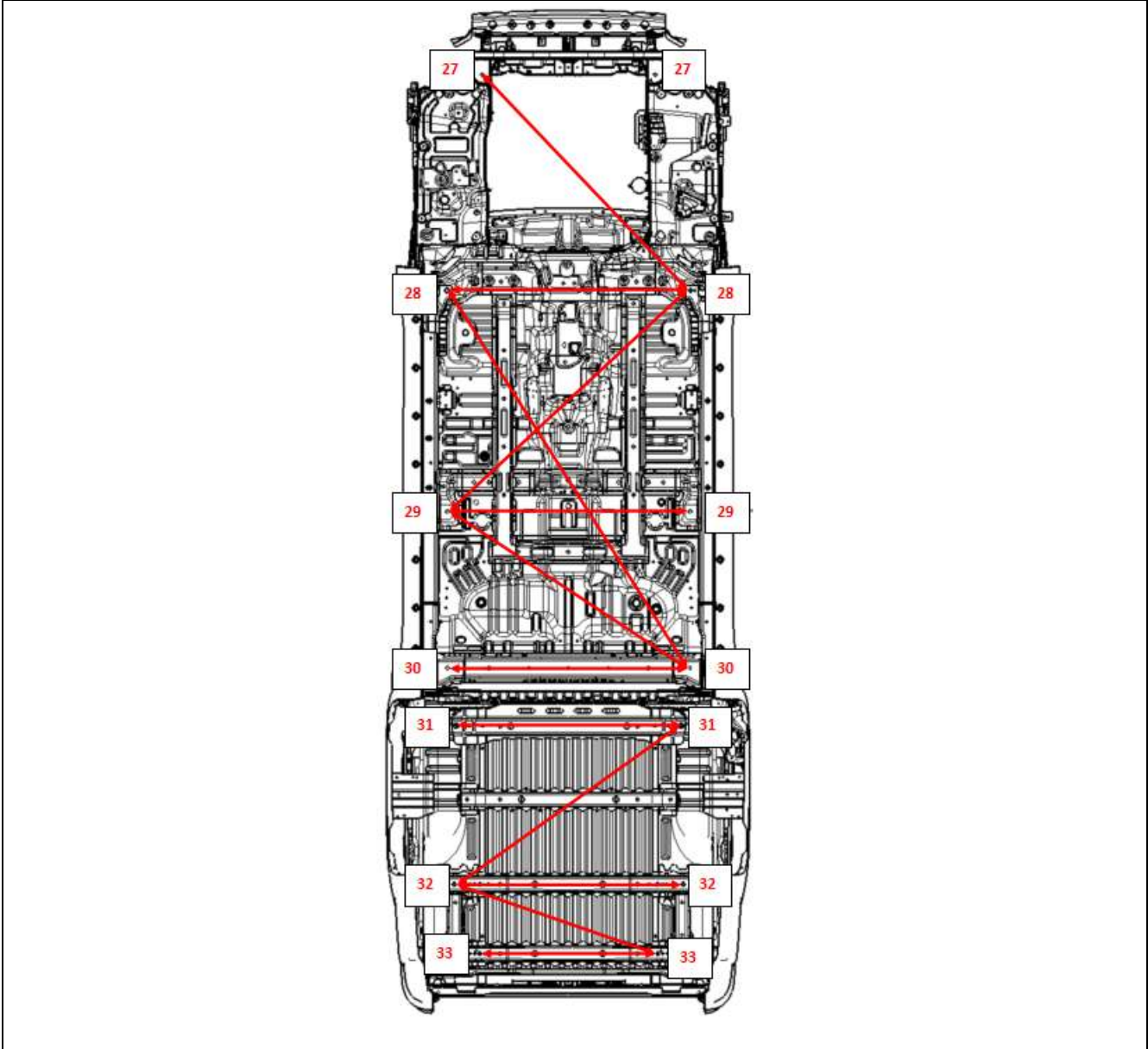
Overall Dimension

Reference point	Reference dimension (mm)	Reference point	Reference dimension (mm)
42-42	1431	39LH-40RH	1618
43-43	1335	42LH-45RH	1625

Body Compartment Mounting Hole Illustration



Underbody



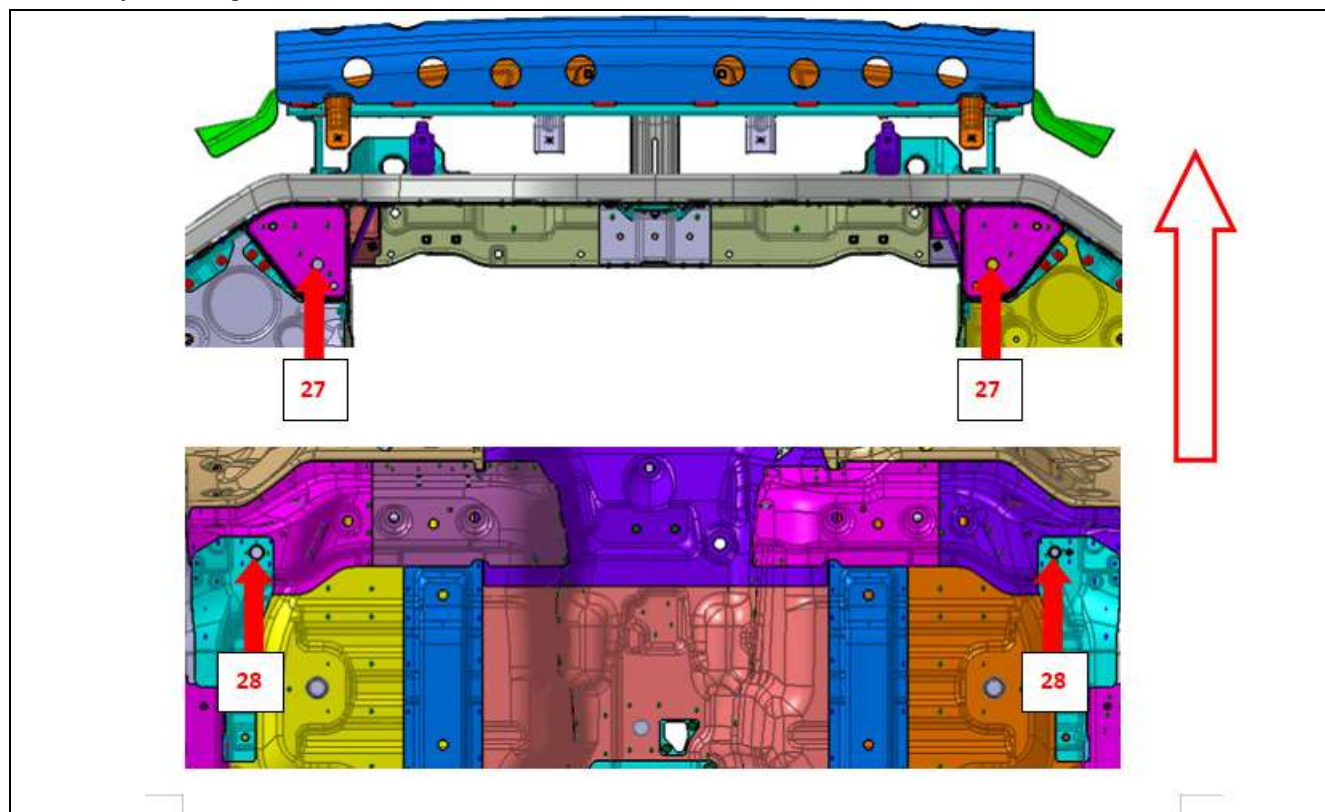
- 27. Body Mount 1 Mounting Hole (symmetric)
- 28. Body Mount 2 Mounting Hole (symmetric)
- 29. Body Mount 3 Mounting Hole (symmetric)
- 30. Body Mount 4 Mounting Hole (symmetric)
- 31. Cargo Compartment Mount 1 Mounting Hole (symmetric)
- 32. Cargo Compartment Mount 2 Mounting Hole (symmetric)
- 33. Cargo Compartment Mount 3 Mounting Hole (symmetric)

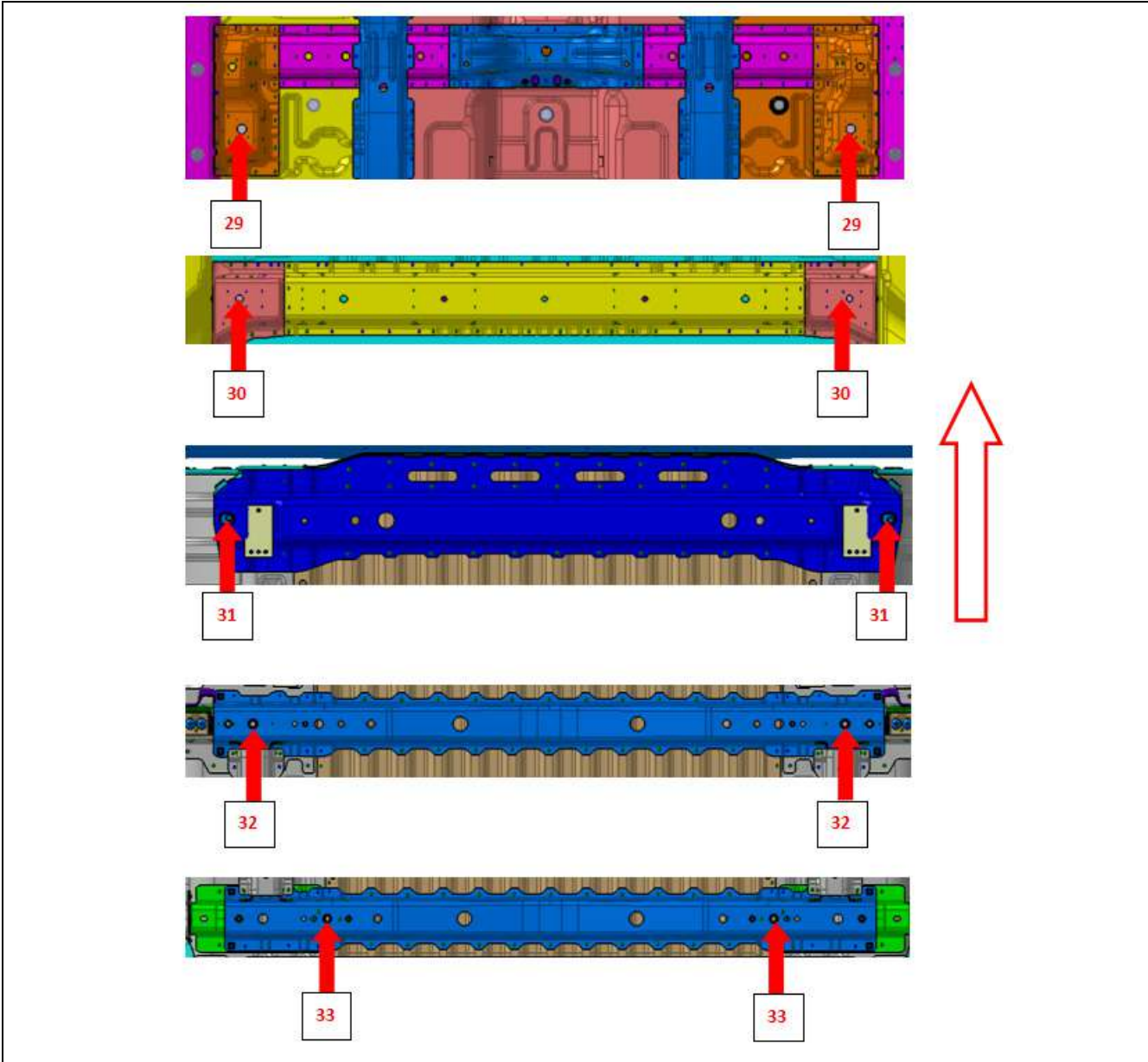
Reference point	Reference dimension (mm)	Reference point	Reference dimension (mm)
27-27	910	27RH-28LH	1577
28-28	1280	28LH-29RH	1719
29-29	1276	28RH-30LH	2349

Overall Dimension

Reference point	Reference dimension (mm)	Reference point	Reference dimension (mm)
30-30	1276	29RH-30LH	1521
31-31	1183	31LH-32RH	1452
32-32	1204	32RH-33LH	1129
33-33	936		

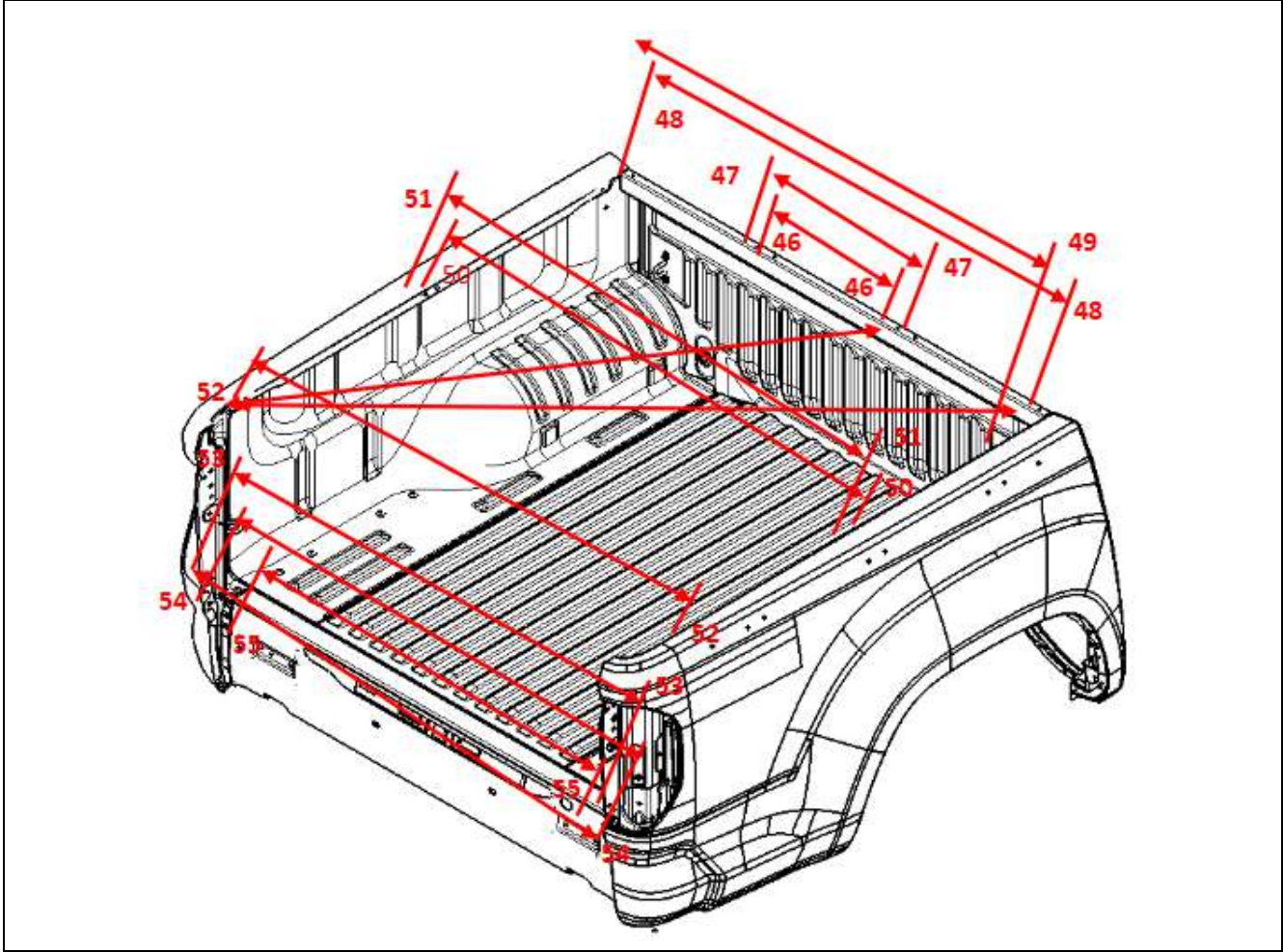
Underbody Mounting Hole Illustration





Overall Dimension

Truck Compartment



46. Compartment Guardrail Mounting Hole (symmetric)

47. Compartment Guardrail Mounting Hole (symmetric)

48. Compartment Guardrail Mounting Hole (symmetric)

49. Compartment Side Door Outer Panel Fixing Hole (symmetric)

50. Compartment Guardrail Mounting Hole (symmetric)

51. Compartment Guardrail Mounting Hole (symmetric)

52. Compartment Side Door Outer Panel Fixing Hole (symmetric)

53. Side Door Inner Panel Locating Hole (symmetric)

54. Compartment Rear Panel Mounting Hole (symmetric)

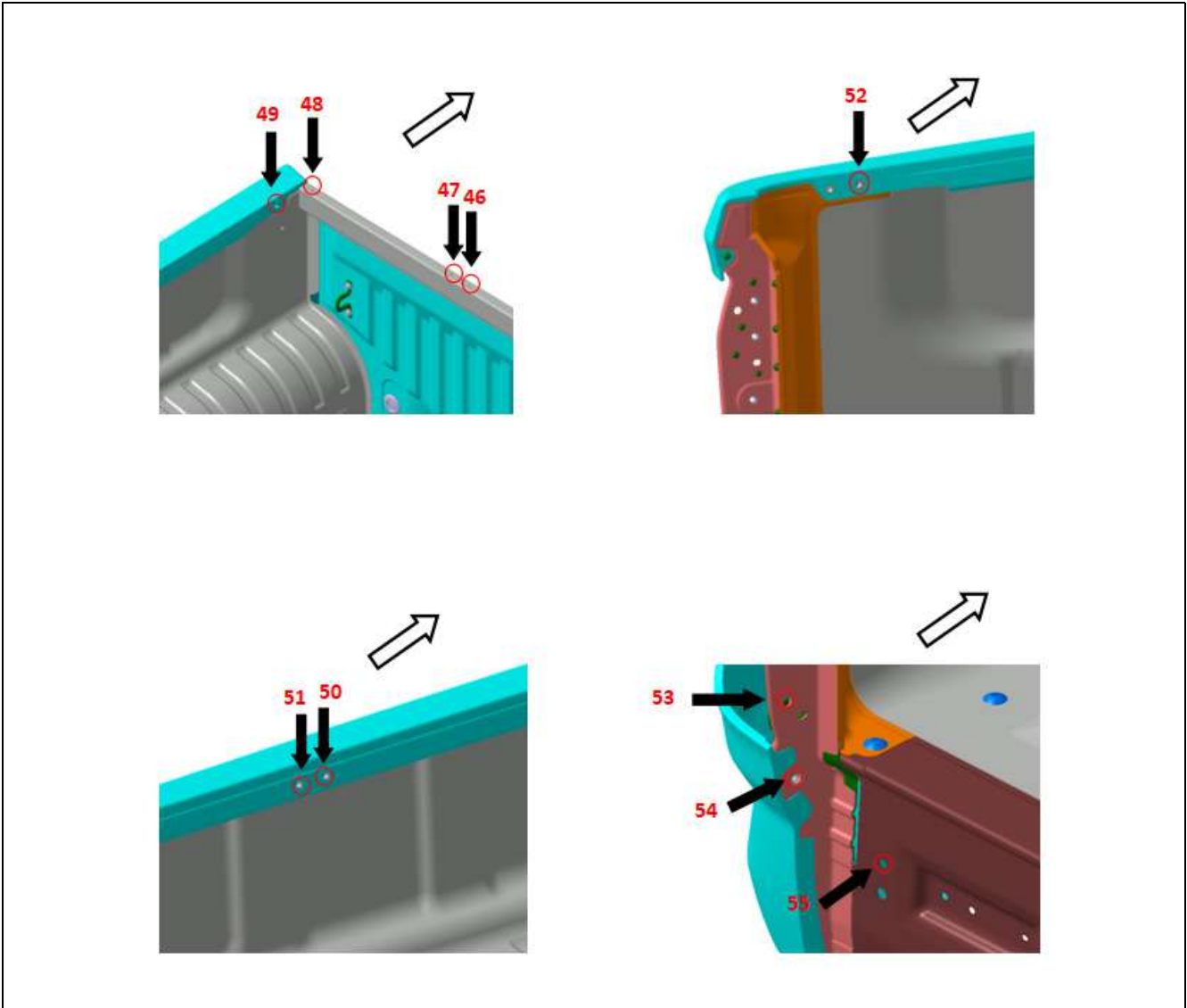
55. Rubber Bumper Mounting Hole (symmetric)

Reference point	Reference dimension (mm)	Reference point	Reference dimension (mm)
46-46	439	46RH-52LH	1665
47-47	559	48RH-52LH	2002
48-48	1446	53LH-54RH	1435
49-49	1513		
50-50	1509		
51-51	1509		

Overall Dimension

Reference point	Reference dimension (mm)	Reference point	Reference dimension (mm)
52-52	1511		
53-53	1431		
54-54	1432		
55-55	1310		

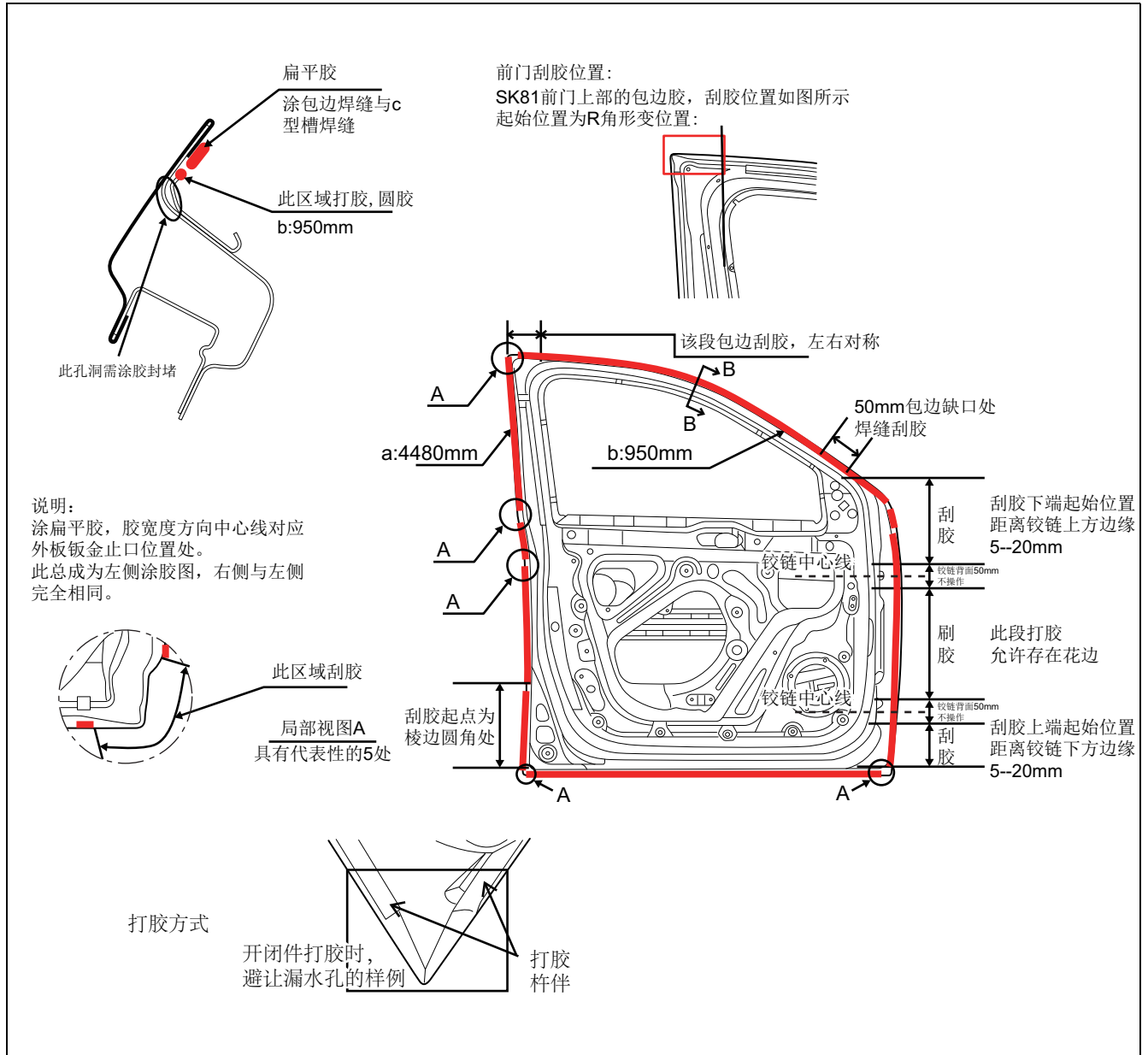
Truck Compartment Mounting Hole Illustration



Overall Dimension

Door and Hood Sealant

Sealing - Front Door



Assembly Description

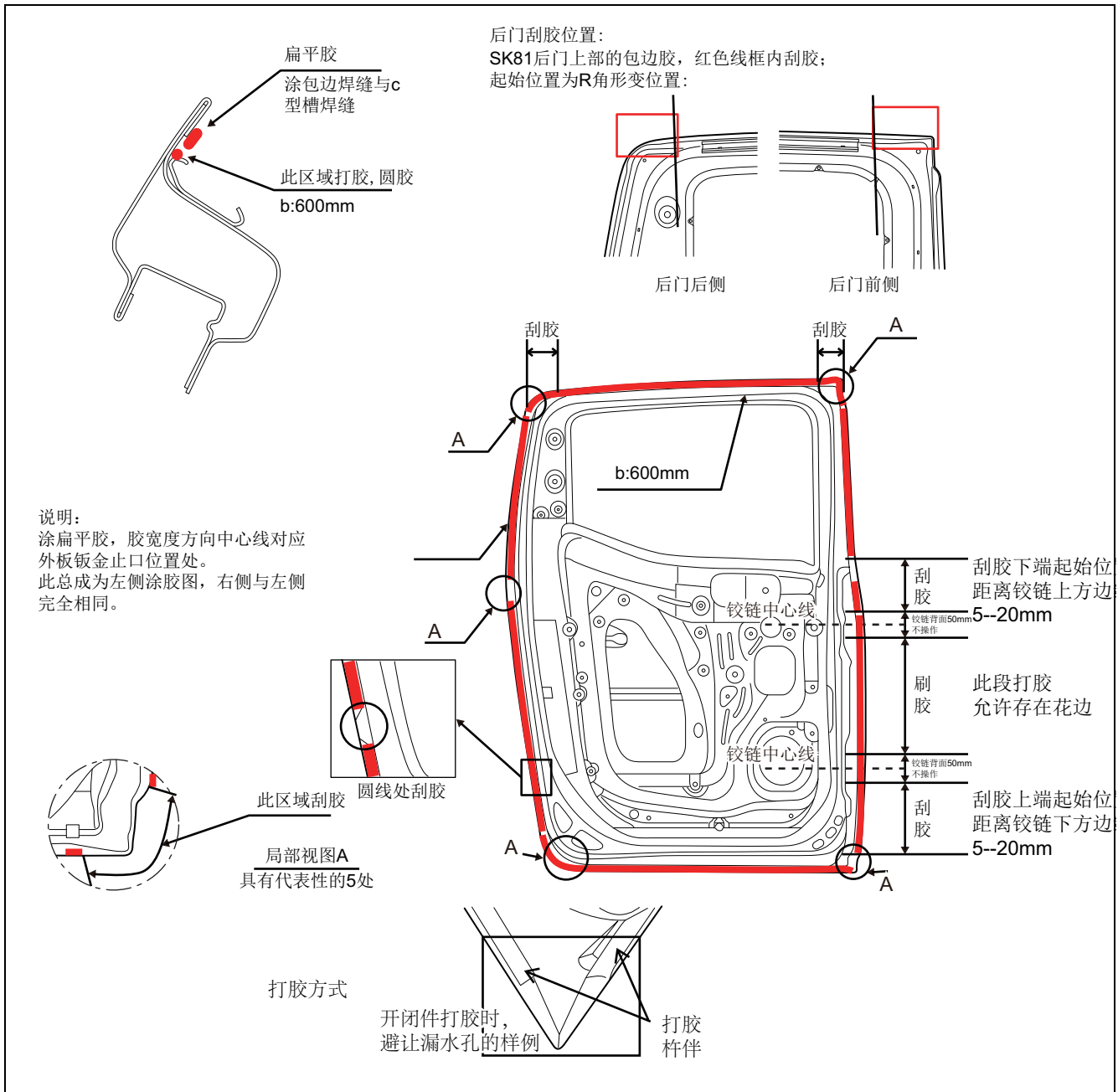
Apply sealant on the front door as shown in the red line.

The front door sealant bead groove is as shown in Section X-X, and the drain hole should not be blocked.

Remove the sealant locally according to the area as shown.

Door and Hood Sealant

Sealing - Rear Door

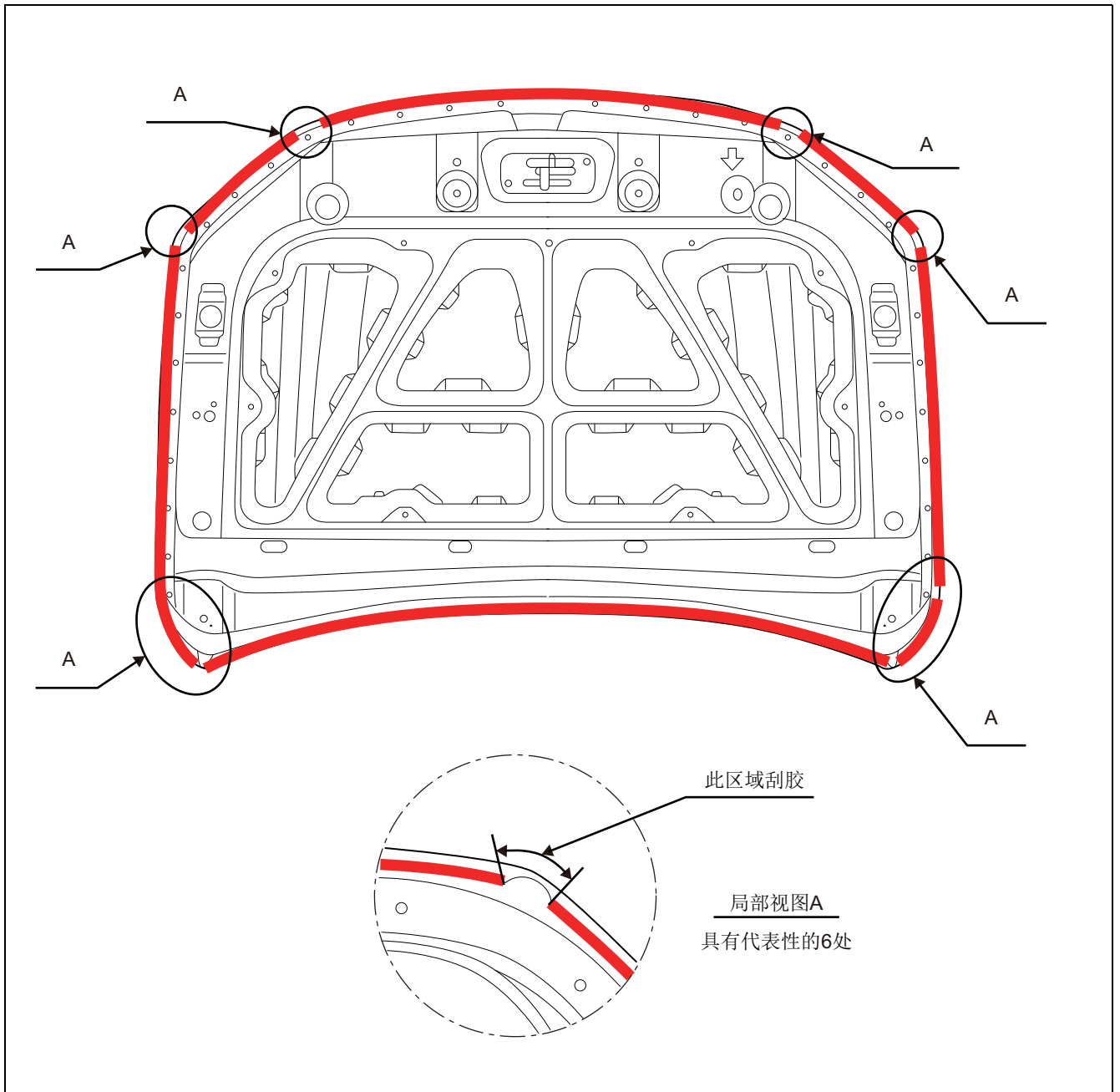


Assembly Description

Manually apply sealant to the area as shown on the rear door according to the requirements as shown.

The rear door sealant bead groove is as shown in Section X-X, and the drain hole should not be blocked.

Sealing - Engine Hood



Assembly Description

Seal the engine hood as shown, and apply sealant to the red area.

Remove the sealant from the areas in black line.

Seat Belt

Specification

Fastener Specifications

Name	Torque (Nm)
Bolt - Front Seat Belt	50±5 Nm
Bolt - Front Seat Belt	50±5 Nm
Bolt - Front Seat Belt Height Regulator	50±5 Nm
Bolt - Seat Belt Double-ended Buckle Assembly	50±5 Nm

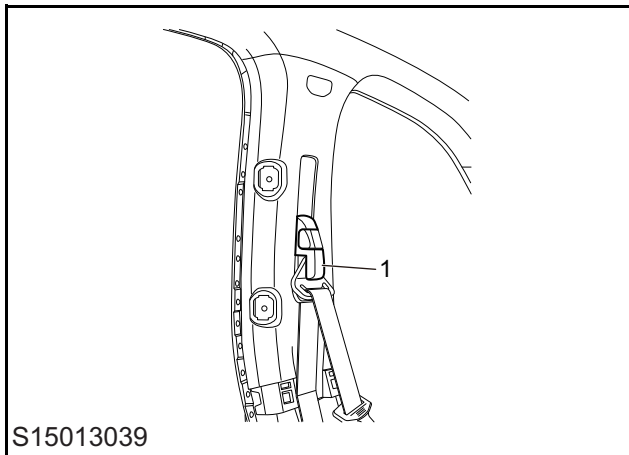
Seat Belt

Service Guide

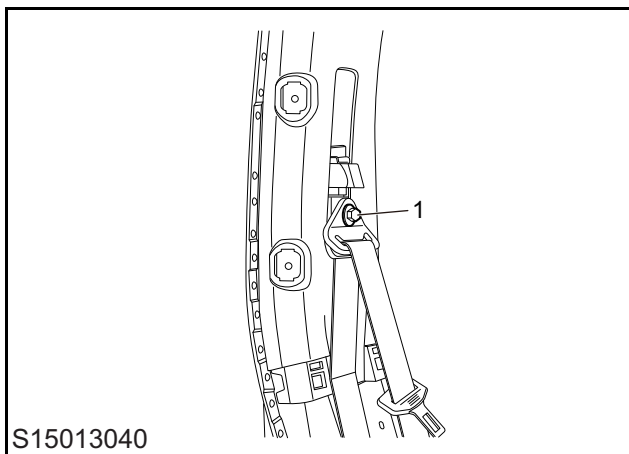
Front Force-limiting Seat Belt Assembly Replacement

Removal

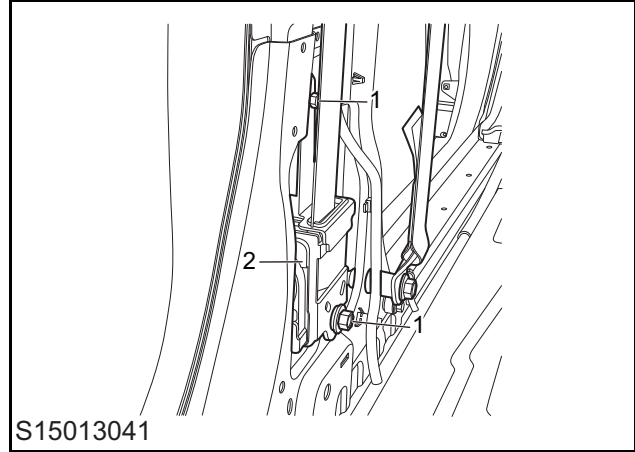
- 1 Remove the rear door courtesy panel covering. Refer to "Rear Door Courtesy Panel Covering Replacement".
- 2 Remove the front door courtesy panel covering. Refer to "Front Door Courtesy Panel Covering Replacement".
- 3 Remove the B-pillar lower trim panel assembly. Refer to "B-pillar Lower Trim Panel Assembly Replacement".
- 4 Remove the B-pillar handle assembly. Refer to "B-pillar handle Assembly Replacement".
- 5 Remove the front seat belt height regulator cover (1).



- 6 Remove 1 retaining bolt (1) from the front force-limiting seat belt assembly.



- 7 Remove 2 retaining bolts (1) from the front force-limiting seat belt assembly.
- 8 Remove the front force-limiting seat belt assembly (2).



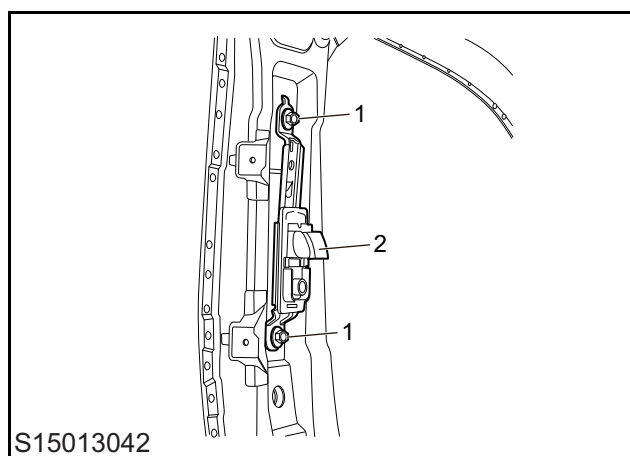
Installation

- 1 Install the front force-limiting seat belt assembly.
- 2 Install 3 retaining bolts on the front force-limiting seat belt assembly, tighten them to 50 ± 5 Nm, and check the torque.
- 3 Install the seat belt height adjuster cover.
- 4 Install the B-pillar handle assembly. Refer to "B-pillar handle Assembly Replacement".
- 5 Install the B-pillar lower trim panel assembly. Refer to "B-pillar Lower Trim Panel Assembly Replacement".
- 6 Install the front door courtesy panel covering. Refer to "Front Door Courtesy Panel Covering Replacement".
- 7 Install the rear door courtesy panel covering. Refer to "Rear Door Courtesy Panel Covering Replacement".

Front Seat Belt Height Regulator Replacement

Removal

- 1 Remove the B-pillar lower trim panel assembly. Refer to "B-pillar Lower Trim Panel Assembly Replacement".
- 2 Remove the B-pillar handle assembly. Refer to "B-pillar handle Assembly Replacement".
- 3 Remove the B pillar upper trim panel assembly. Refer to "B-pillar Upper Trim Panel Assembly Replacement".
- 4 Remove 2 retaining bolts (1) fixing the front seat belt height adjuster to the vehicle body.
- 5 Remove the front seat belt height adjuster (2).



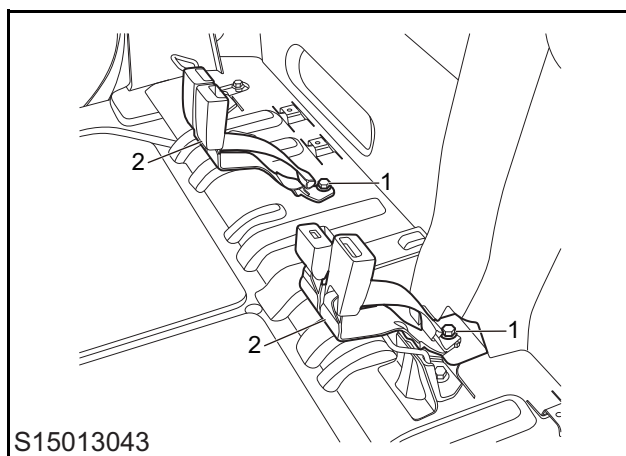
Installation

- 1 Install the front seat belt height adjuster.
- 2 Install 2 retaining bolts fixing the front seat belt height adjuster to the vehicle body, tighten them to 50 ± 5 Nm, and check the torque.
- 3 Install the B-pillar upper trim panel assembly. Refer to "B-pillar Upper Trim Panel Assembly Replacement".
- 4 Install the B-pillar handle assembly. Refer to "B-pillar handle Assembly Replacement".
- 5 Install the B-pillar lower trim panel assembly. Refer to "B-pillar Lower Trim Panel Assembly Replacement".

Seat Belt Double-ended Buckle Assembly Replacement

Removal

- 1 Turn down the backrest of the rear triple-seat.
- 2 Remove 1 retaining bolt (1) fixing the seat belt double-ended buckle assembly to the floor, and remove the seat belt double-ended buckle assembly (2).



Installation

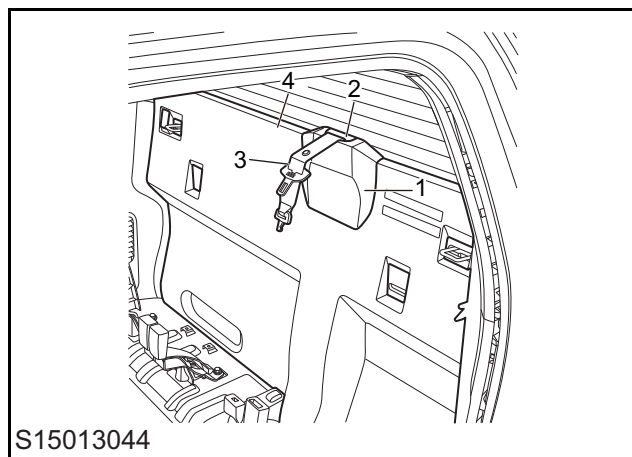
- 1 Place the seat belt double-ended buckle assembly, install 1 retaining bolt fixing the seat belt double-ended buckle assembly to the floor, tighten it to 50 ± 5 Nm, and check the torque.
- 2 Turn up the backrest of the rear triple-seat.

Seat Belt

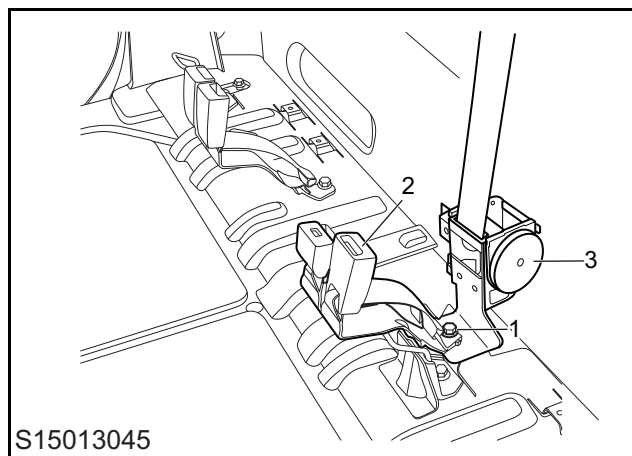
Rear Passenger Seat Belt Assembly Replacement (Middle)

Removal

- 1 Remove the rear triple-seat assembly. Refer to "Rear Triple-seat Assembly Replacement".
- 2 Pry off the clip and remove the rear seat belt lower guard plate (1) and the rear seat belt upper guard plate (2).
- 3 Pry off the clip, remove the rear seat belt upper guard plate (2) from the rear seat belt lower guard plate (1), and remove the rear passenger seat belt assembly (3).
- 4 Pry off the clip and remove the rear enclosure panel assembly (4).



- 5 Remove 1 retaining bolt (1) fixing the seat belt double-ended buckle assembly to the floor.
- 6 Remove the seat belt double-ended buckle assembly (2) and the rear passenger seat belt assembly (3).



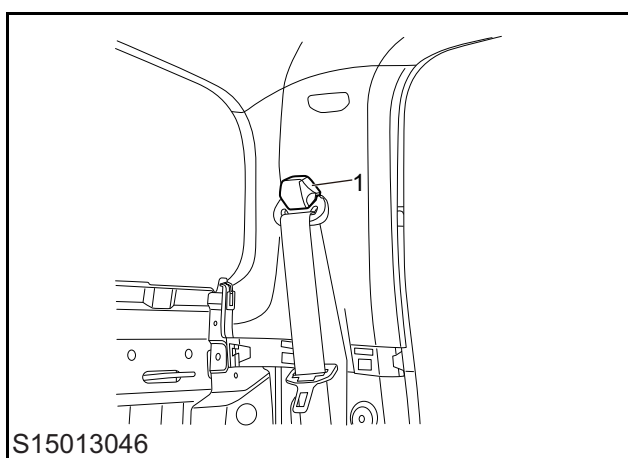
Installation

- 1 Install the seat belt double-ended buckle assembly and the rear passenger seat belt assembly.
- 2 Install 1 retaining bolt fixing the seat belt double-ended buckle assembly to the floor, tighten it to 50 ± 5 Nm, and check the torque.
- 3 Install the rear enclosure panel assembly.
- 4 Restore the rear passenger seat belt assembly, and install the rear seat belt upper guard plate on the rear seat belt lower guard plate.
- 5 Install the rear seat belt lower guard plate and the rear seat belt upper guard plate.
- 6 Install the rear triple-seat assembly. Refer to "Rear Triple-seat Assembly Replacement".

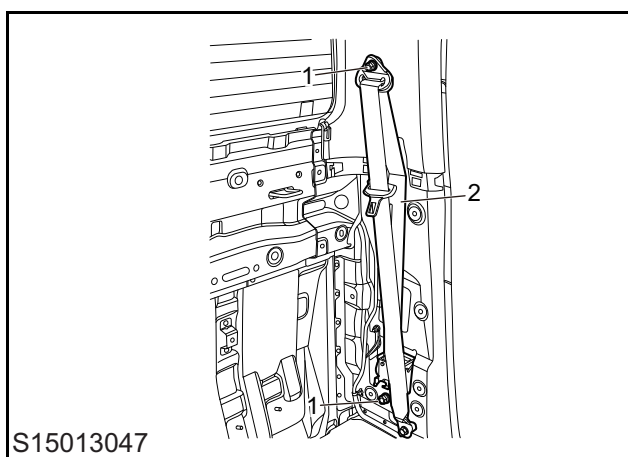
Rear Passenger Seat Belt Assembly Replacement (Both Sides)

Removal

- 1 Remove the rear triple-seat assembly. Refer to "Rear Triple-seat Assembly Replacement".
- 2 Remove the rear enclosure panel assembly. Refer to "Rear Enclosure Panel Assembly Replacement".
- 3 Remove the C-pillar lower trim panel assembly. Refer to "C-pillar Lower Trim Panel Assembly Replacement".
- 4 Remove the seat belt guide ring cover (1).



- 5 Remove 2 retaining bolts (1) from the rear passenger seat belt assembly.
- 6 Remove the rear passenger seat belt assembly (2).



Installation

- 1 Install the rear passenger seat belt assembly.

- 2 Install 2 retaining bolts on the rear passenger seat belt assembly, tighten them to 50 ± 5 Nm, and check the torque.
- 3 Install the seat belt guide ring cover.
- 4 Install the C-pillar lower trim panel assembly. Refer to "C-pillar Lower Trim Panel Assembly Replacement".
- 5 Install the rear enclosure panel assembly. Refer to "Rear Enclosure Panel Assembly Replacement".
- 6 Install the rear triple-seat assembly. Refer to "Rear Triple-seat Assembly Replacement".

Supplemental Inflatable Restraint (SIR)

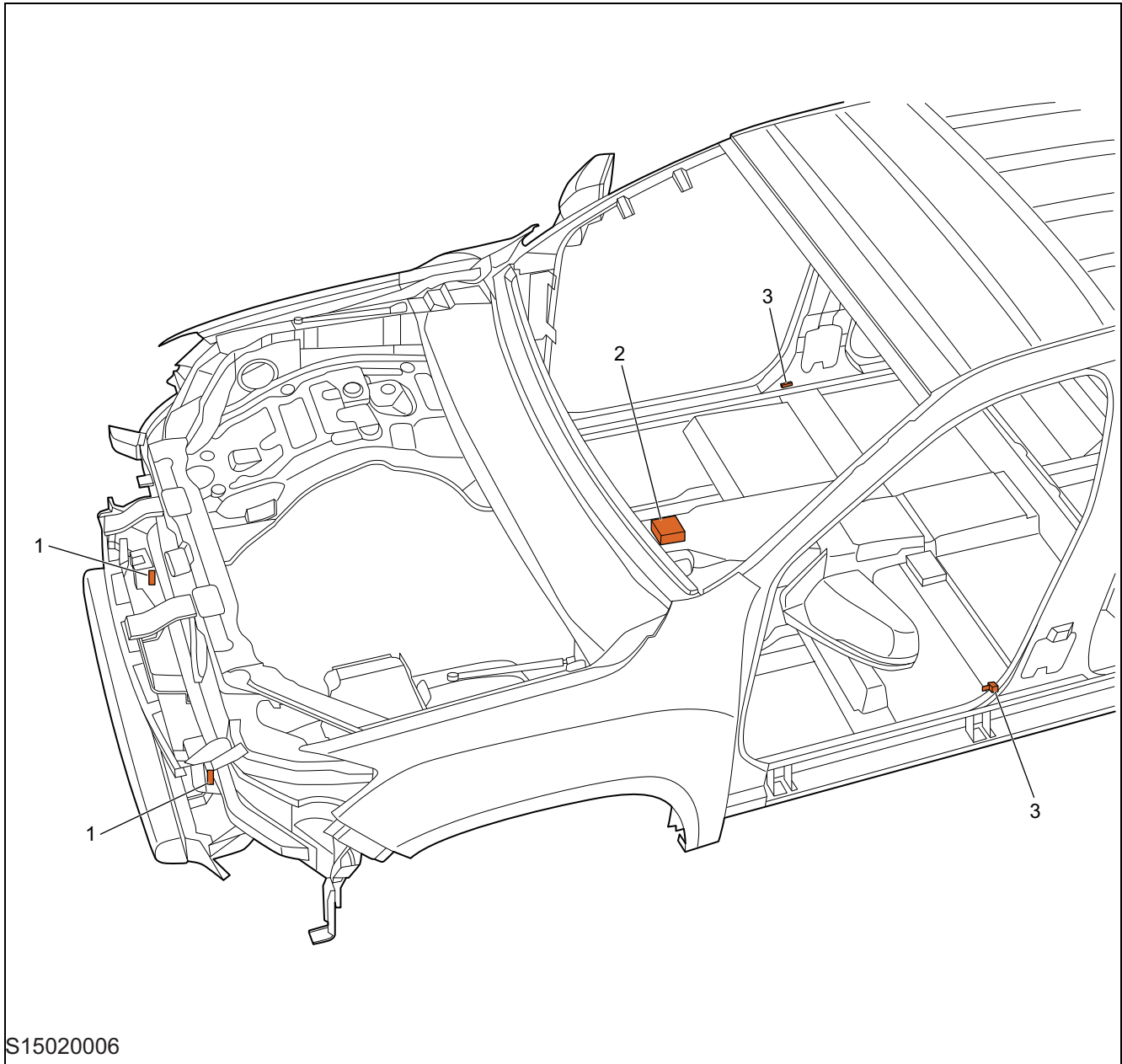
Specification

Fastener Specifications

Name	Torque (Nm)
Bolt - Passenger Airbag	9±1 Nm
Nut - Airbag Control and Diagnostic Unit Assembly	9±1 Nm
Bolt - Airbag Front Impact Sensor	9±1 Nm
Bolt - Airbag Side Impact Sensor	9±1 Nm

Supplemental Inflatable Restraint (SIR)

Layout



S15020006

- 1 Airbag Front Impact Sensor
- 2 Airbag Control and Diagnostic Unit Assembly
- 3 Airbag Side Impact Sensor

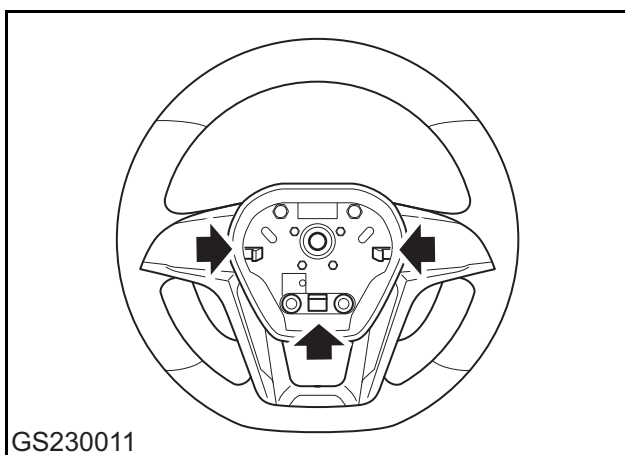
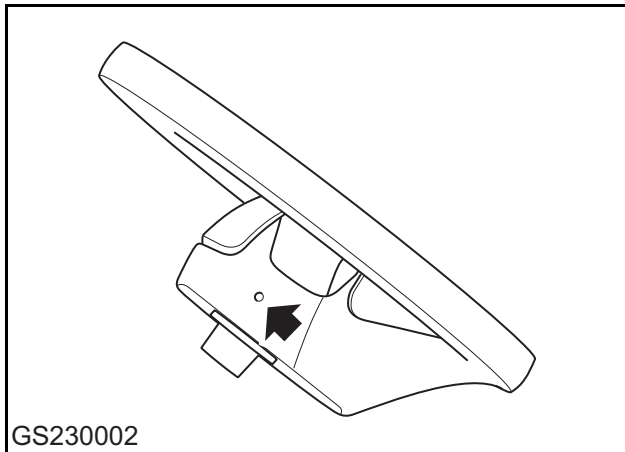
Service Guide

Driver Airbag Module Assembly Replacement

Removal

Warning: *DO NOT remove the airbag until the battery (or any possible auxiliary power supply of the vehicle) is disconnected and the capacitor of SRS control module is discharged for at least 10 min.*

- 1 Disconnect the negative battery cable.
- 2 Make sure that the wheels are in a position of straight driving and pry off the circlips on both sides and the lower circlip with the screwdriver (the maximum diameter shall be no more than 5 mm).



- 3 Lift the airbag module assembly from the steering wheel carefully and disconnect the airbag electrical connector.

Caution: *The airbag electrical connector has a safety buckle to secure it in place. Loosen the safety buckle before removing the connector.*

- 4 Store the airbag in place according to storage requirements.

Installation

- 1 Place the driver airbag module assembly and connect the electrical connector of the driver airbag module assembly.
- 2 Install the driver airbag module assembly to the steering wheel.
- 3 Connect the negative battery cable.

Caution: *Check the operation of SRS warning lamp after installation.*

Supplemental Inflatable Restraint (SIR)

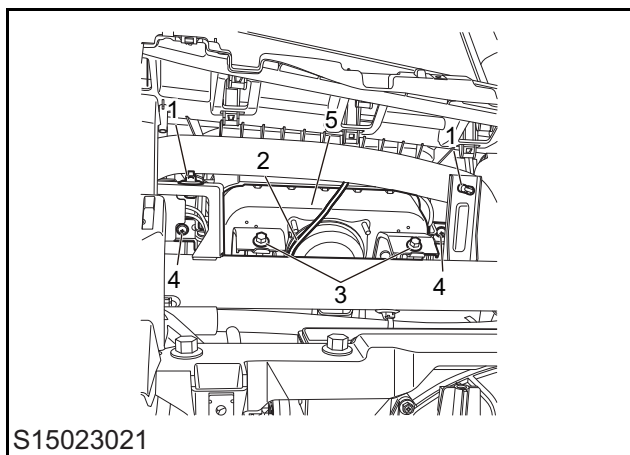
Front Passenger Airbag Assembly Replacement

Removal

Warning: DO NOT remove the airbag until the battery (or any possible auxiliary power supply of the vehicle) is disconnected and the capacitor of SRS control module is discharged for at least 10 min.

- 1 Disconnect the negative battery cable.
- 2 Remove the glove box assembly. Refer to "Glove Box Assembly Replacement".
- 3 Remove the retaining clip (1) from the instrument harness.
- 4 Disconnect the electrical connector (2) of the front passenger airbag assembly.
- 5 Remove 2 retaining bolts (3) and 2 retaining screws (4) from the front passenger airbag assembly.
- 6 Press the front passenger airbag assembly into the outer frame, pry off the clip, and then remove the front passenger airbag assembly (5).

- 6 Install the glove box assembly. Refer to "Glove Box Assembly Replacement".
- 7 Connect the negative battery cable.



Installation

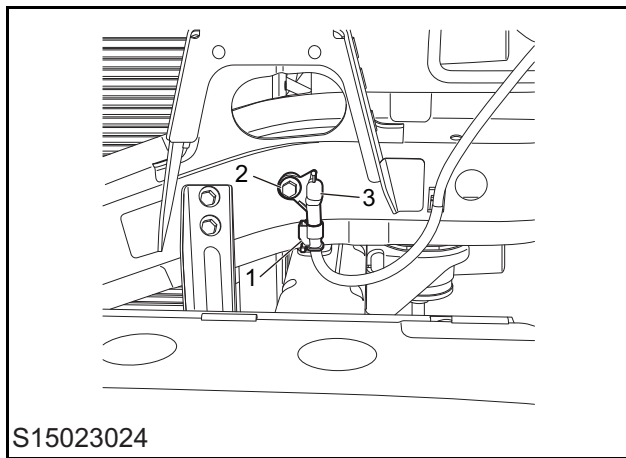
- 1 Install the front passenger airbag assembly.
- 2 Install 2 retaining bolts on the front passenger airbag assembly, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Install and tighten 2 retaining screws of the front passenger airbag assembly.
- 4 Connect the electrical connector of the front passenger airbag assembly.
- 5 Install the retaining clip on the instrument harness.

Airbag Front Impact Sensor Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the front bottom deflector. Refer to "Front Bottom Deflector Replacement".
- 3 Disconnect the electrical connector (1) of the airbag front impact sensor.
- 4 Remove 1 retaining bolt (2) fixing the airbag front impact sensor to the vehicle body, and remove the airbag front impact sensor (3).

Caution: *There is one on each side.*



Installation

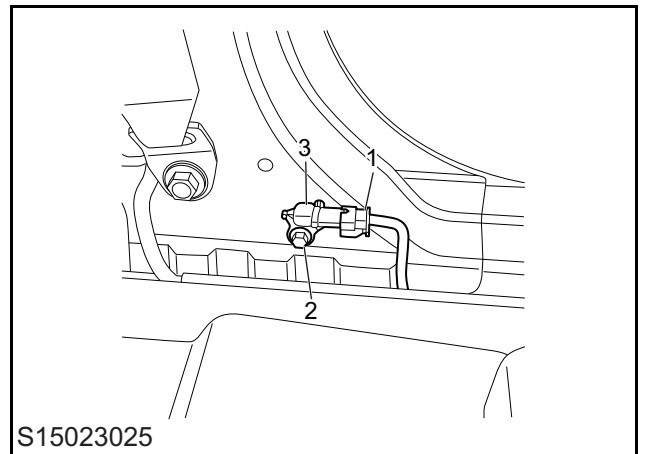
- 1 Place the airbag front impact sensor, install 1 retaining bolt fixing the airbag front impact sensor to the vehicle body, tighten it to 9 ± 1 Nm, and check the torque.
- 2 Connect the electrical connector of the airbag front impact sensor.
- 3 Install the front bottom deflector. Refer to "Front Bottom Deflector Replacement".
- 4 Connect the negative battery cable.

Airbag Side Impact Sensor Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the rear door courtesy panel covering. Refer to "Rear Door Courtesy Panel Covering Replacement".
- 3 Remove the front door courtesy panel covering. Refer to "Front Door Courtesy Panel Covering Replacement".
- 4 Remove the B-pillar lower trim panel assembly. Refer to "B-pillar Lower Trim Panel Assembly Replacement".
- 5 Disconnect the electrical connector (1) of the airbag side impact sensor.
- 6 Remove 1 retaining bolt (2) fixing the airbag side impact sensor to the vehicle body, and remove the airbag side impact sensor (3).

Caution: *There is one on each side.*



Installation

- 1 Place the airbag side impact sensor, install 1 retaining bolt fixing the airbag side impact sensor to the vehicle body, tighten it to 9 ± 1 Nm, and check the torque.
- 2 Connect the electrical connector of the airbag side impact sensor.
- 3 Install the B-pillar lower trim panel assembly. Refer to "B-pillar Lower Trim Panel Assembly Replacement".
- 4 Install the front door courtesy panel covering. Refer to "Front Door Courtesy Panel Covering Replacement".

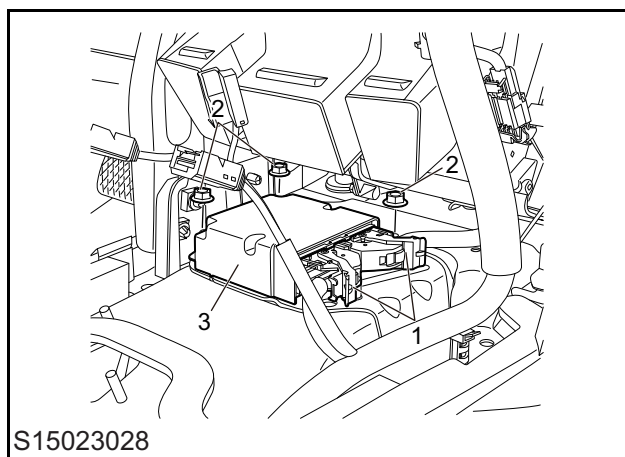
Supplemental Inflatable Restraint (SIR)

- 5 Install the rear door courtesy panel covering. Refer to "Rear Door Courtesy Panel Covering Replacement".
- 6 Connect the negative battery cable.

Airbag Control and Diagnostic Unit Assembly Replacement

Removal

- 1 Remove the auxiliary fascia console assembly. Refer to "Auxiliary Fascia Console Assembly Replacement".
- 2 Disconnect the electrical connector (1) of the airbag control and diagnostic unit assembly.
- 3 Remove 3 retaining nuts (2) fixing the airbag control and diagnostic unit assembly to the floor.
- 4 Remove the airbag control and diagnostic unit assembly (3).



Installation

- 1 Install the airbag control and diagnostic unit assembly.
- 2 Install 3 retaining nuts fixing the airbag control and diagnostic unit assembly to the floor, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Connect the electrical connector of the airbag control and diagnostic unit assembly.
- 4 Install the auxiliary fascia console. Refer to "Auxiliary Fascia Console Assembly Replacement".

Parking Assist System

Specification

Fastener Specifications

Name	Torque (Nm)
Screw - Rear Panel Outer Handle Assembly	9±1 Nm

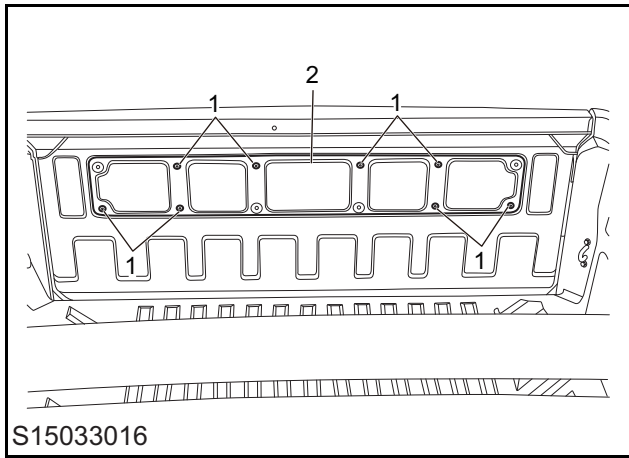
Parking Assist System

Service Guide

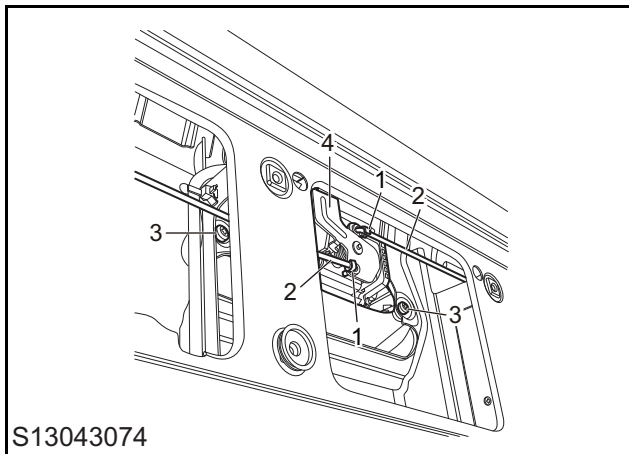
Rearview Camera Replacement

Removal

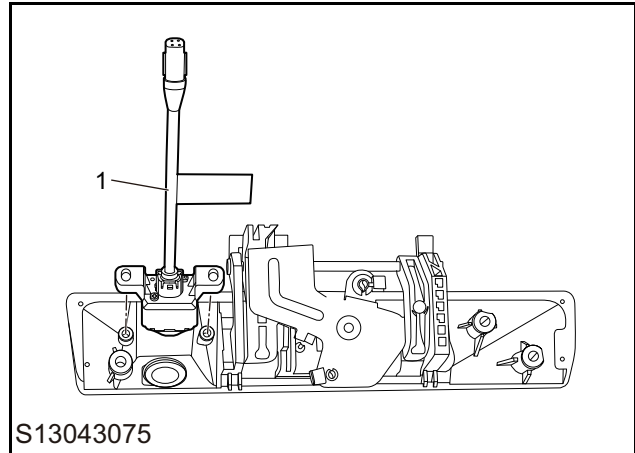
- 1 Remove the cargo compartment door trim. Refer to "Cargo Compartment Door Trim Replacement".
- 2 Remove the retaining screws (1) from the cover of the rear panel inner panel.
- 3 Remove the cover of the rear panel inner panel (2).



- 4 Disconnect the electrical connector of the rearview camera.
- 5 Disconnect the clip (1) and remove the rear panel outer link (2).
- 6 Remove 2 retaining screws (3) from the rear panel outer handle assembly.
- 7 Remove the rear panel outer handle assembly (4) and the rearview camera.



- 8 Remove 2 retaining screws (1) from the rearview camera and remove the rearview camera (2).



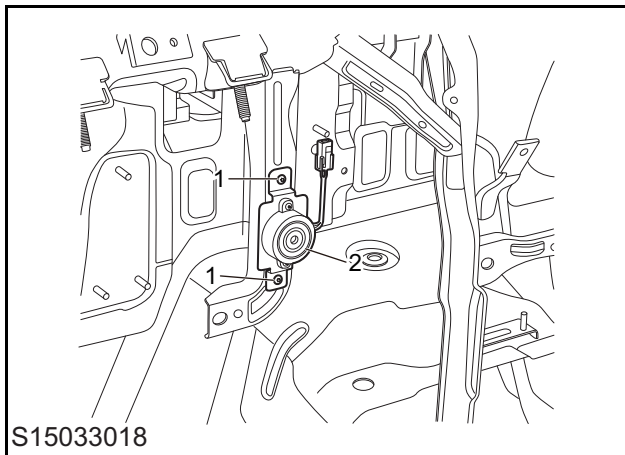
Installation

- 1 Place the rearview camera, install and tighten 2 retaining screws on the rearview camera.
- 2 Install the rear panel outer handle assembly and the rearview camera.
- 3 Install 2 retaining screws on the rear panel outer handle assembly, tighten them to 9 ± 1 Nm, and check the torque.
- 4 Install the rear panel outer link and fix the clip.
- 5 Connect the electrical connector of the rearview camera.
- 6 Install the cover of the rear panel inner panel.
- 7 Install and tighten 12 retaining screws on the cover of the rear panel inner panel.
- 8 Install the cargo compartment door trim. Refer to "Cargo Compartment Door Trim Replacement".

Radar Buzzer Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the instrument panel body. Refer to "Instrument Panel Body Replacement".
- 3 Disconnect the electrical connector of the radar buzzer.
- 4 Remove the retaining screws (1) fixing the radar buzzer to the instrument panel beam assembly.
- 5 Remove the radar buzzer (2).



Installation

- 1 Place the radar buzzer, install and tighten the retaining screws fixing the radar buzzer to the instrument panel beam.
- 2 Connect the electrical connector of the radar buzzer.
- 3 Install the instrument panel body. Refer to "Instrument Panel Body Replacement".
- 4 Connect the negative battery cable.

Keyless Start and Immobilizer (Including Key Start)

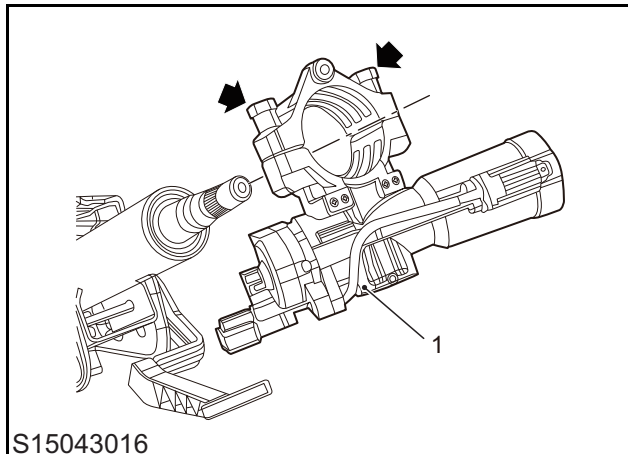
Keyless Start and Immobilizer (Including Key Start)

Service Guide

Ignition Switch Replacement

Removal

- 1 Remove the steering column shroud. Refer to "Steering Column Shroud Replacement".
- 2 Remove the steering column switch. Refer to "Steering Column Switch Replacement".
- 3 Disconnect the electrical connector of the ignition switch.
- 4 Remove the dead bolt of the ignition switch.
- 5 Remove the ignition switch (1).



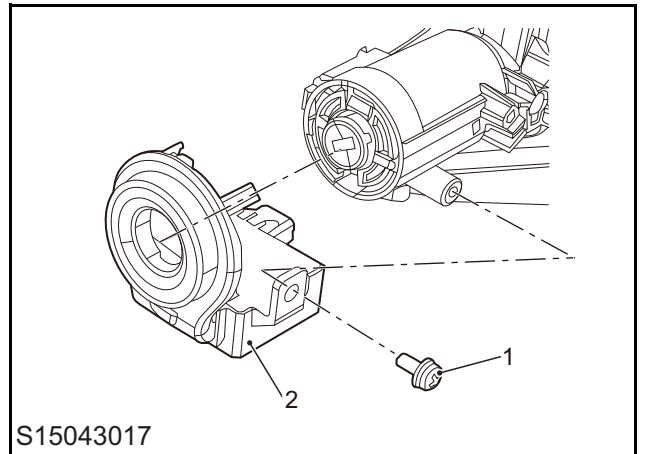
Installation

- 1 Install a new ignition switch.
- 2 Install two dead bolts of the ignition switch, and tighten them evenly until the bolt heads fall off.
- 3 Connect the electrical connector of the ignition switch.
- 4 Install the steering column switch. Refer to "Steering Column Switch Replacement".
- 5 Install the steering column shroud. Refer to "Steering Column Shroud Replacement".

Immobilizer Base Station Replacement

Removal

- 1 Remove the steering column shroud. Refer to "Steering Column Shroud Replacement".
- 2 Disconnect the electrical connector of the immobilizer base station.
- 3 Remove the screws of the immobilizer base station.
- 4 Remove the immobilizer base station (1).



Installation

- 1 Install the immobilizer base station.
- 2 Install and tighten the screws of the immobilizer base station.
- 3 Connect the electrical connector of the immobilizer base station.
- 4 Install the steering column shroud. Refer to "Steering Column Shroud Replacement".

Entertainment and Navigation System

Specification

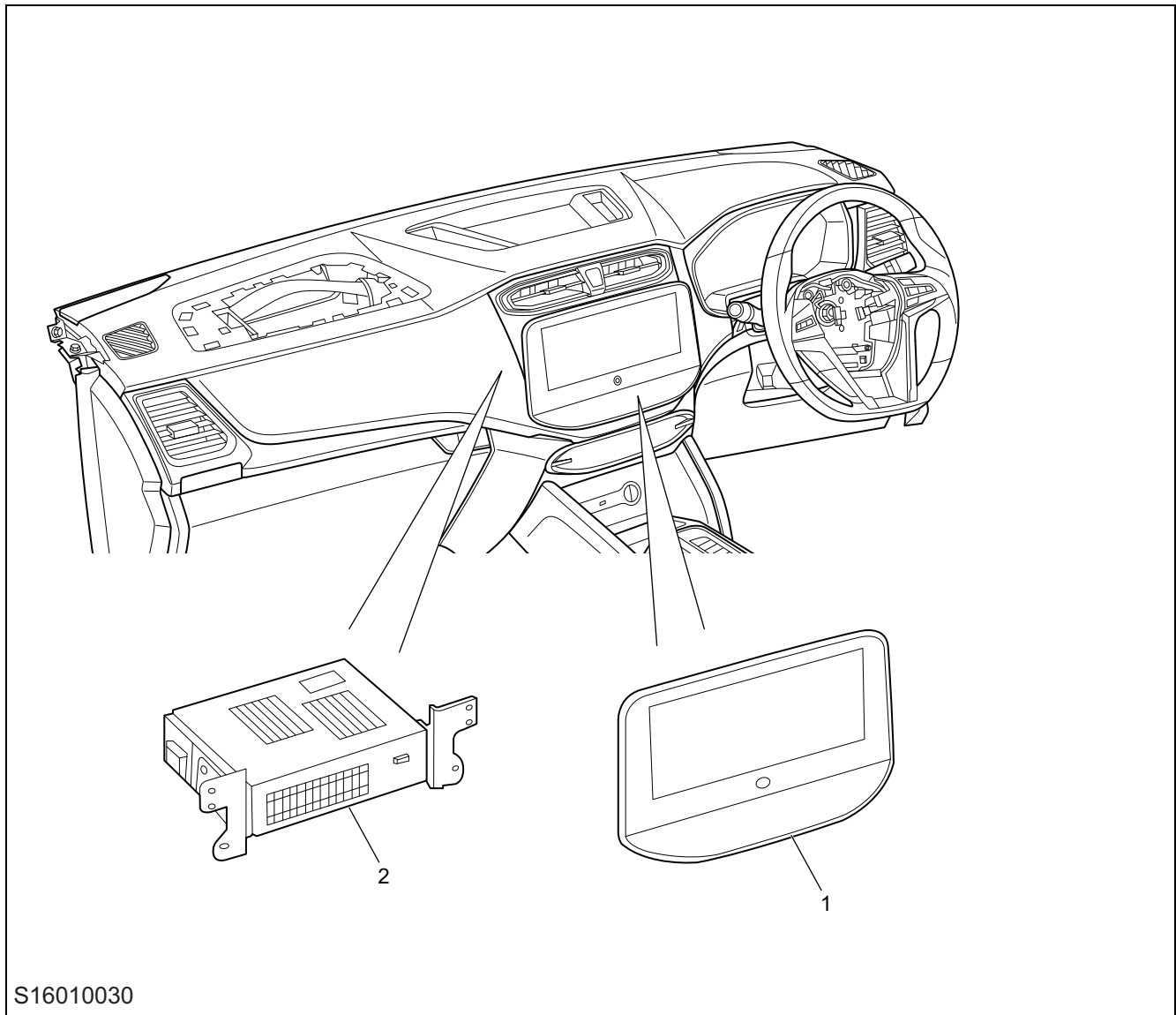
Fastener Specifications

Name	Torque (Nm)
Bolt - Low-speed Alarm Buzzer Module	9±1 Nm

Entertainment and Navigation System

Layout

Entertainment System Layout



1 Entertainment System Display

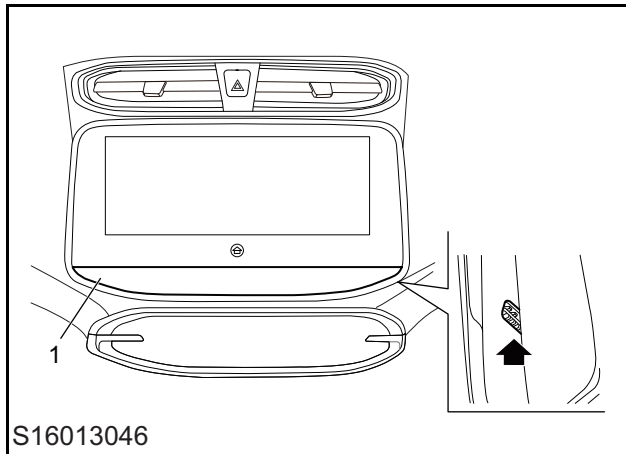
2 Entertainment System Mainframe

Service Guide

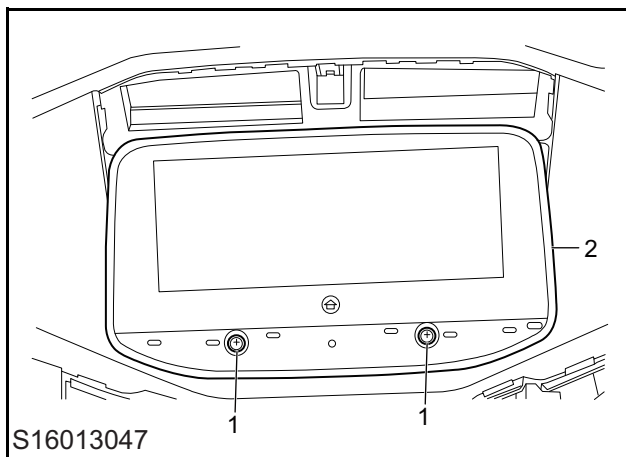
Entertainment System Display Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Use a proper tool to push out the cover plate (1) of the display as shown.



- 3 Remove the bolt (1) of the entertainment system display.
- 4 Remove the entertainment system display (2).
- 5 Disconnect the electrical connector of the entertainment system display.



Installation

- 1 Connect the electrical connector of the entertainment system display.
- 2 Install the entertainment system display.
- 3 Install and tighten the bolt of the entertainment system display.

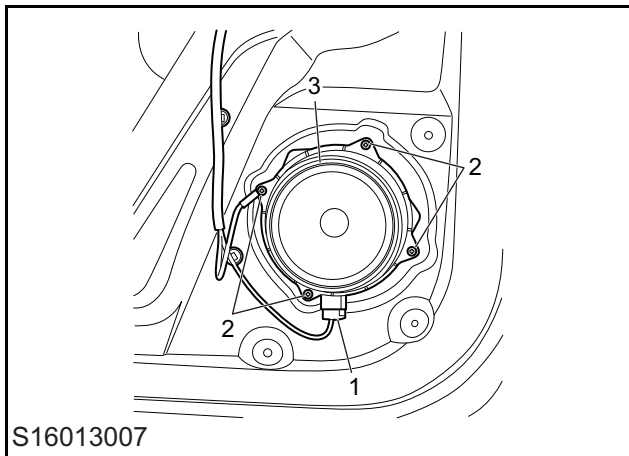
- 4 Install the cover plate of the display onto the display.
- 5 Connect the negative battery cable.

Entertainment and Navigation System

Front Loudspeaker Replacement

Removal

- 1 Remove the front door interior trim panel assembly. Refer to "Front Left Door Interior Trim Panel Assembly Replacement/Front Right Door Interior Trim Panel Assembly Replacement".
- 2 Disconnect the electrical connector (1) of the front speaker.
- 3 Remove 4 retaining screws (2) fixing the front speaker to the door, and remove the front speaker (3).



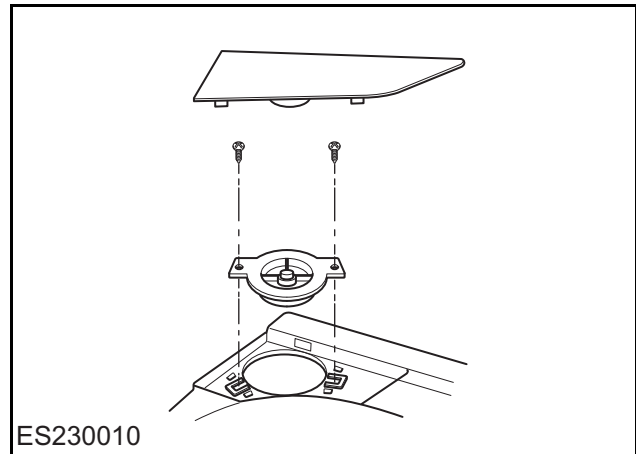
Installation

- 1 Install the front speaker.
- 2 Install and tighten 4 screws fixing the front speaker to the door.
- 3 Connect the electrical connector of the front speaker.
- 4 Install the front door interior trim panel assembly. Refer to "Front Left Door Interior Trim Panel Assembly Replacement/Front Right Door Interior Trim Panel Assembly Replacement".

Front Tweeter Replacement

Removal

- 1 Pry off the clips and remove the speaker grille assembly.
- 2 Remove 2 retaining screws fixing the front tweeter to the instrument panel.
- 3 Remove the front tweeter from the instrument panel.
- 4 Disconnect the electrical connector of the front tweeter and remove the front tweeter.



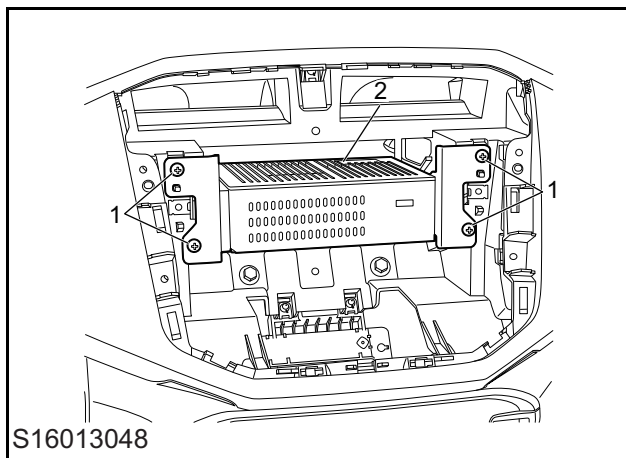
Installation

- 1 Place the front tweeter and connect the electrical connector of the front tweeter.
- 2 Install the front tweeter on the instrument panel.
- 3 Install and tighten 2 retaining screws fixing the front tweeter to the instrument panel.
- 4 Install the front grille cover plate assembly.

Entertainment System Mainframe Replacement

Removal

- 1 Remove the entertainment system display. Refer to "Entertainment System Display Replacement".
- 2 Remove 4 retaining screws (1) from the entertainment system mainframe.
- 3 Remove the entertainment system display from the instrument panel.
- 4 Disconnect the electrical connector of the entertainment system mainframe, and remove the entertainment system mainframe (2).



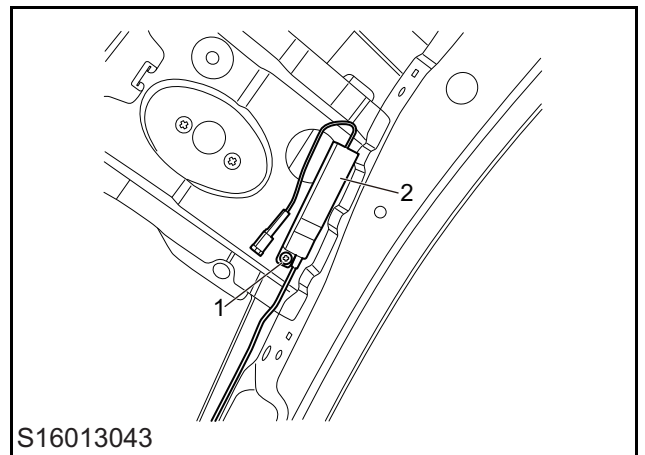
Installation

- 1 Install the entertainment system mainframe.
- 2 Connect the electrical connector of the entertainment system mainframe.
- 3 Install and tighten 4 retaining screws on the entertainment system mainframe.
- 4 Install the entertainment system mainframe to the instrument panel.
- 5 Install the entertainment system display. Refer to "Entertainment System Display Replacement".

Printed Antenna Amplifier Assembly Replacement

Removal

- 1 Remove the instrument panel body assembly. Refer to "Instrument Panel Body Assembly Replacement".
- 2 Remove the driver compartment roof interior assembly. Refer to "Driver Compartment Roof Interior Assembly Replacement".
- 3 Remove the clips and ties fixing the printed antenna amplifier assembly.
- 4 Disconnect the electrical connector of the printed antenna amplifier assembly.
- 5 Remove 1 retaining screw (1) fixing the printed antenna amplifier assembly to the vehicle body, and remove the printed antenna amplifier assembly (2).



Installation

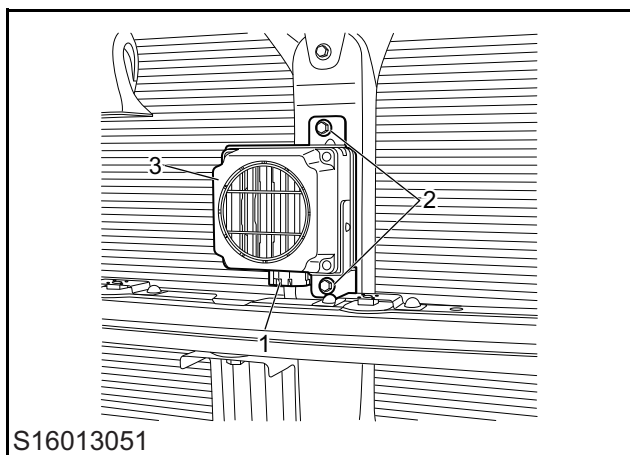
- 1 Install the printed antenna amplifier assembly.
- 2 Install and tighten 1 retaining screw fixing the printed antenna amplifier assembly to the vehicle body.
- 3 Connect the electrical connector of the printed antenna amplifier assembly.
- 4 Install the clips and ties fixing the printed antenna amplifier assembly.
- 5 Install the driver compartment roof interior assembly. Refer to "Driver Compartment Roof Interior Assembly Replacement".
- 6 Install the instrument panel body assembly. Refer to "Instrument Panel Body Assembly Replacement".

Entertainment and Navigation System

Low-speed Alarm Buzzer Module Replacement

Removal

- 1 Remove the front grille cover plate. Refer to "Front Grille Cover Plate Replacement".
- 2 Disconnect the electrical connector of low-speed alarm buzzer module.
- 3 Remove 2 retaining bolts from the low-speed alarm buzzer module, and remove the low-speed alarm buzzer module.



Installation

- 1 Place the low-speed alarm buzzer module, install 2 retaining bolts to the low-speed alarm buzzer module, tighten them to 9 ± 1 Nm, and check the torque.
- 2 Connect the electrical connector of low-speed alarm buzzer module.
- 3 Install the front grille cover plate. Refer to "Front Grille Cover Plate Replacement".

Power Socket and Harness

Specification

Fastener Specifications

Name	Torque (Nm)
Nut- On-board Inverter Assembly	9±1 Nm
Bolt - Motor Controller Harness Assembly	9±1 Nm

Power Socket and Harness

Service Guide

Cigar Lighter Outlet Replacement

Removal

- 1 Open the ashtray cover.
- 2 Remove the cigar lighter from the cigar lighter outlet.
- 3 Pry off the clip and remove the cigar lighter outlet from the cigar lighter mounting ring.
- 4 Disconnect the electrical connector of the cigar lighter outlet and remove the cigar lighter outlet.

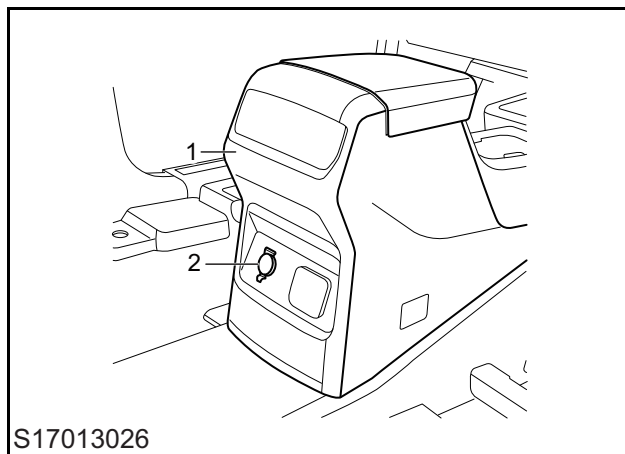
Installation

- 1 Place the cigar lighter outlet and connect the electrical connector of the cigar lighter outlet.
- 2 Install the cigar lighter outlet on the cigar lighter mounting ring.
- 3 Install the cigar lighter on the cigar lighter outlet.
- 4 Close the ashtray cover.

Power Outlet Assembly Replacement

Removal

- 1 Use a proper tool to pry off the clip and remove the auxiliary fascia console rear panel assembly (1).
- 2 Disconnect the electrical connector of the power outlet.
- 3 Remove the AC power outlet (2) from the auxiliary fascia console rear panel assembly.



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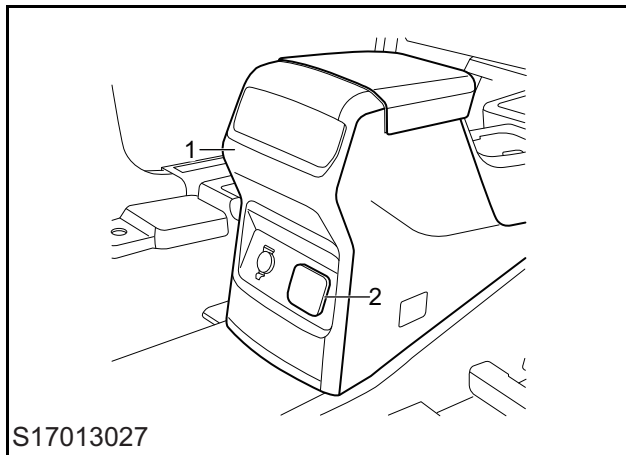
Installation

- 1 Install the AC power outlet to the auxiliary fascia console rear panel.
- 2 Connect the electrical connector of the power outlet.
- 3 Install the auxiliary fascia console rear panel assembly.

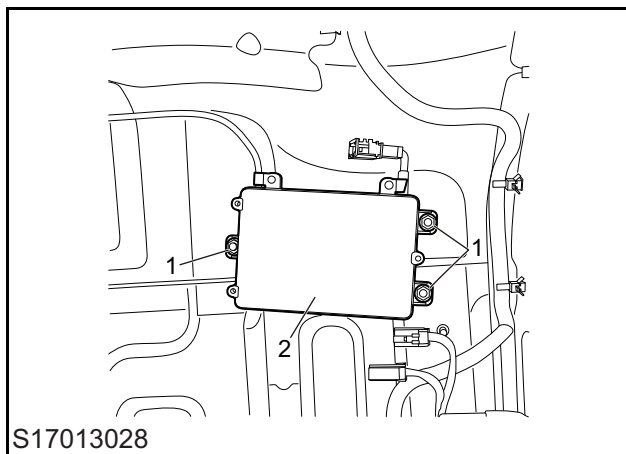
On-board Inverter Assembly Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the front single passenger seat assembly. Refer to "Front Single Passenger Seat Assembly Replacement".
- 3 Use a proper tool to pry off the clip and remove the auxiliary fascia console rear panel assembly (1).
- 4 Remove the clips fixing the on-board inverter assembly to the auxiliary fascia console rear panel assembly.
- 5 Remove the AC power outlet (2) from the auxiliary fascia console rear panel assembly.



- 6 Disconnect the electrical connector of the on-board inverter assembly.
- 7 Remove 3 retaining nuts (1) fixing the on-board inverter assembly to the floor.
- 8 Remove the on-board inverter assembly (2).



Installation

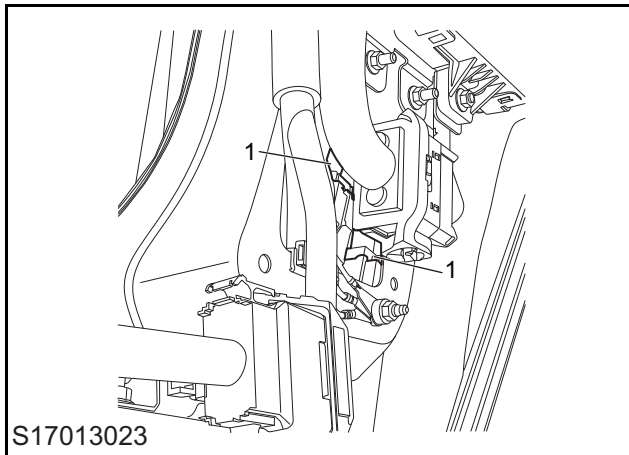
- 1 Install the on-board inverter assembly.
- 2 Install 3 retaining nuts fixing the on-board inverter assembly to the floor, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Connect the electrical connector of the on-board inverter assembly.
- 4 Install the AC power outlet to the auxiliary fascia console rear panel.
- 5 Install the clips on the on-board inverter assembly to the auxiliary fascia console rear panel assembly.
- 6 Install the auxiliary fascia console rear panel assembly.
- 7 Install the front single passenger seat assembly. Refer to "Front Single Passenger Seat Assembly Replacement".
- 8 Connect the negative battery cable.

Power Socket and Harness

Front Door Harness Assembly Replacement

Removal

- 1 Remove the front door interior trim panel assembly. Refer to "Front Left Door Interior Trim Panel Assembly Replacement/Front Right Door Interior Trim Panel Assembly Replacement".
- 2 Remove the front door courtesy panel covering. Refer to "Front Door Courtesy Panel Covering Replacement".
- 3 Remove the instrument panel side end cover assembly. Refer to "Instrument Panel Side End Cover Assembly Replacement".
- 4 Remove the A-pillar lower trim panel assembly. Refer to "Left A-pillar Lower Trim Panel Assembly Replacement/Right A-pillar Lower Trim Panel Assembly Replacement".
- 5 Remove the front door waterproof membrane.
- 6 Disconnect the electrical connector (1) of the front door harness assembly.



- 7 Disconnect the electrical connector of the front speaker.
- 8 Disconnect the electrical connector of the exterior rearview mirror assembly.
- 9 Disconnect the electrical connector of the front door lock body assembly.
- 10 Disconnect the electrical connector of the front door outer handle pull rod assembly.
- 11 Remove the rubber sleeve from the front door harness assembly.
- 12 Remove the retaining clip from the front door harness assembly.
- 13 Remove the front door harness assembly.

Installation

- 1 Install the front door harness assembly.
- 2 Install the rubber sleeve on the front door harness assembly.
- 3 Install the retaining clips on the front door harness assembly.
- 4 Connect the electrical connector of the front door outer handle pull rod assembly.
- 5 Connect the electrical connector of the front door lock body assembly.
- 6 Connect the electrical connector of the exterior rearview mirror assembly.
- 7 Connect the electrical connector of the front speaker.
- 8 Connect the electrical connector of the front door harness assembly.
- 9 Install the waterproof membrane on the front door.
- 10 Install the A-pillar lower trim panel assembly. Refer to "Left A-pillar Lower Trim Panel Assembly Replacement/Right A-pillar Lower Trim Panel Assembly Replacement".
- 11 Install the instrument panel side end cover assembly. Refer to "Instrument Panel Side End Cover Assembly Replacement".
- 12 Install the front door courtesy panel covering. Refer to "Front Door Courtesy Panel Covering Replacement".
- 13 Install the front door interior trim panel assembly. Refer to "Front Left Door Interior Trim Panel Assembly Replacement/Front Right Door Interior Trim Panel Assembly Replacement".

Rear Door Harness Assembly Replacement

Removal

- 1 Remove the rear door interior trim panel assembly. Refer to "Rear Door Interior Trim Panel Assembly Replacement".
- 2 Remove the rear door courtesy panel covering. Refer to "Rear Door Courtesy Panel Covering Replacement".
- 3 Remove the front door courtesy panel covering. Refer to "Front Door Courtesy Panel Covering Replacement".
- 4 Remove the B-pillar lower trim panel assembly. Refer to "B-pillar Lower Trim Panel Assembly Replacement".
- 5 Remove the rear door waterproof membrane.
- 6 Disconnect the electrical connector of the rear door harness assembly.
- 7 Disconnect the electrical connector of the rear speaker.
- 8 Disconnect the electrical connector of the rear door lock body assembly.
- 9 Remove the rubber sleeve from the rear door harness assembly.
- 10 Remove the retaining clip from the rear door harness assembly.
- 11 Remove the rear door harness assembly.

Installation

- 1 Install the rear door harness assembly.
- 2 Install the rubber sleeve on the rear door harness assembly.
- 3 Install the retaining clips on the rear door harness assembly.
- 4 Connect the electrical connector of the rear door lock body assembly.
- 5 Connect the electrical connector of the rear speaker.
- 6 Connect the electrical connector of the rear door harness assembly.
- 7 Install the waterproof membrane of the rear door.
- 8 Install the B-pillar lower trim panel assembly. Refer to "B-pillar Lower Trim Panel Assembly Replacement".

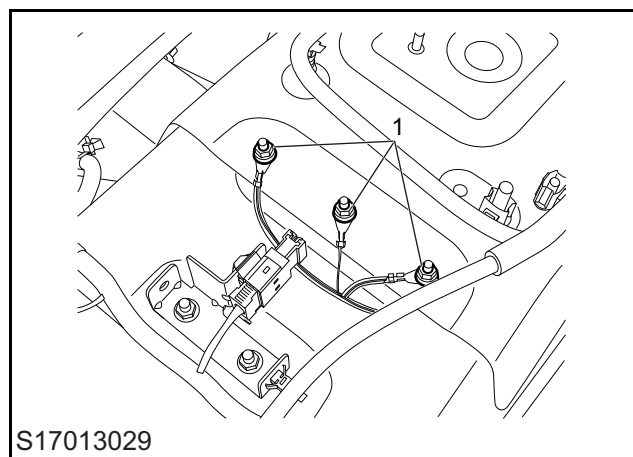
- 9 Install the front door courtesy panel covering. Refer to "Front Door Courtesy Panel Covering Replacement".
- 10 Install the rear door courtesy panel covering. Refer to "Rear Door Courtesy Panel Covering Replacement".
- 11 Install the rear door interior trim panel assembly. Refer to "Rear Door Interior Trim Panel Assembly Replacement".

Power Socket and Harness

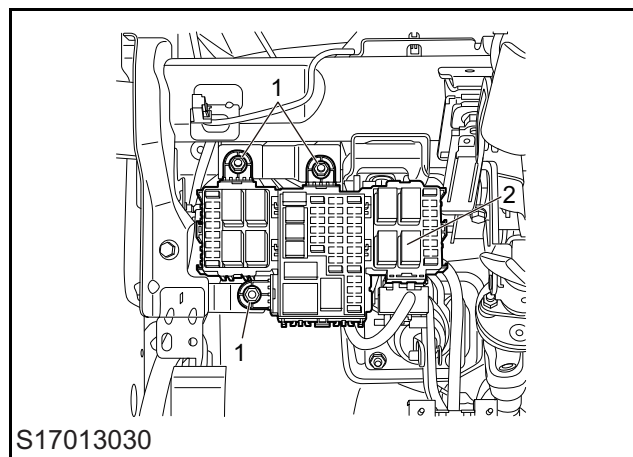
Instrument Harness Assembly Replacement

Removal

- 1 Remove the auxiliary fascia console body assembly. Refer to "Auxiliary Fascia Console Body Assembly Replacement".
- 2 Remove the instrument panel body assembly. Refer to "Instrument Panel Body Assembly Replacement".
- 3 Disconnect the electrical connector from the instrument harness assembly.
- 4 Remove the retaining clips from the instrument harness assembly.
- 5 Remove 3 retaining nuts fixing the instrument harness assembly to the central channel.



- 6 Remove 3 retaining nuts (1) fixing the instrument harness assembly to the instrument panel beam assembly.
- 7 Remove the instrument harness assembly (2).



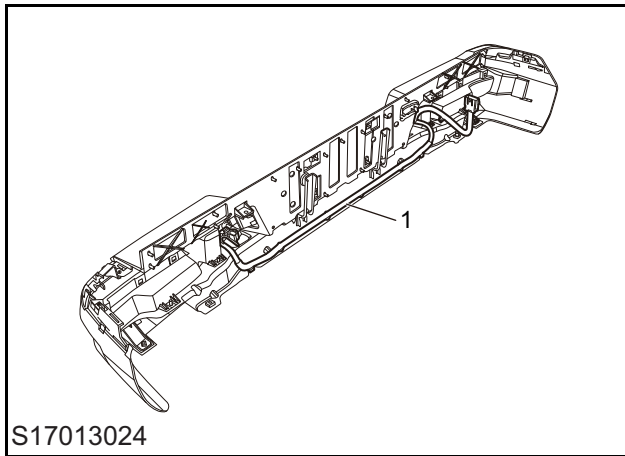
Installation

- 1 Install the instrument harness assembly.
- 2 Install 3 retaining nuts fixing the instrument harness assembly to the instrument panel beam assembly, tighten them to 5 ± 1 Nm, and check the torque.
- 3 Install and tighten 3 retaining nuts fixing the instrument harness assembly to the central channel.
- 4 Install the retaining clips on the instrument harness assembly.
- 5 Connect the electrical connector on the instrument harness assembly.
- 6 Install the instrument panel body assembly. Refer to "Instrument Panel Body Assembly Replacement".
- 7 Install the auxiliary fascia console body assembly. Refer to "Auxiliary Fascia Console Body Assembly Replacement".

Rear Bumper Harness Assembly Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the rear bumper assembly. Refer to "Rear Bumper Assembly Replacement".
- 3 Disconnect the electrical connector of the reversing radar sensor.
- 4 Remove the retaining clip from the rear bumper harness assembly and remove the rear bumper harness assembly (1).



Installation

- 1 Place the rear bumper harness assembly, and install the retaining clip on the rear bumper harness assembly.
- 2 Connect the electrical connector of the reversing radar sensor.
- 3 Install the rear bumper assembly. Refer to "Rear Bumper Assembly Replacement".
- 4 Connect the negative battery cable.

Front Bumper Harness Assembly Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the front grille cover plate. Refer to "Front Grille Cover Plate Replacement".
- 3 Remove the front bumper assembly. Refer to "Front Bumper Assembly Replacement".
- 4 Pry off the clips and remove the front bumper harness assembly.

Installation

- 1 Install the front bumper harness assembly.
- 2 Place the front bumper harness assembly and connect the electrical connector of the front bumper harness assembly.
- 3 Install the front bumper harness assembly. Front bumper assembly. Refer to "Front Bumper Assembly Replacement".
- 4 Install the front grille cover plate. Refer to "Front Grille Cover Plate Replacement".
- 5 Connect the negative battery cable.

Data Communication

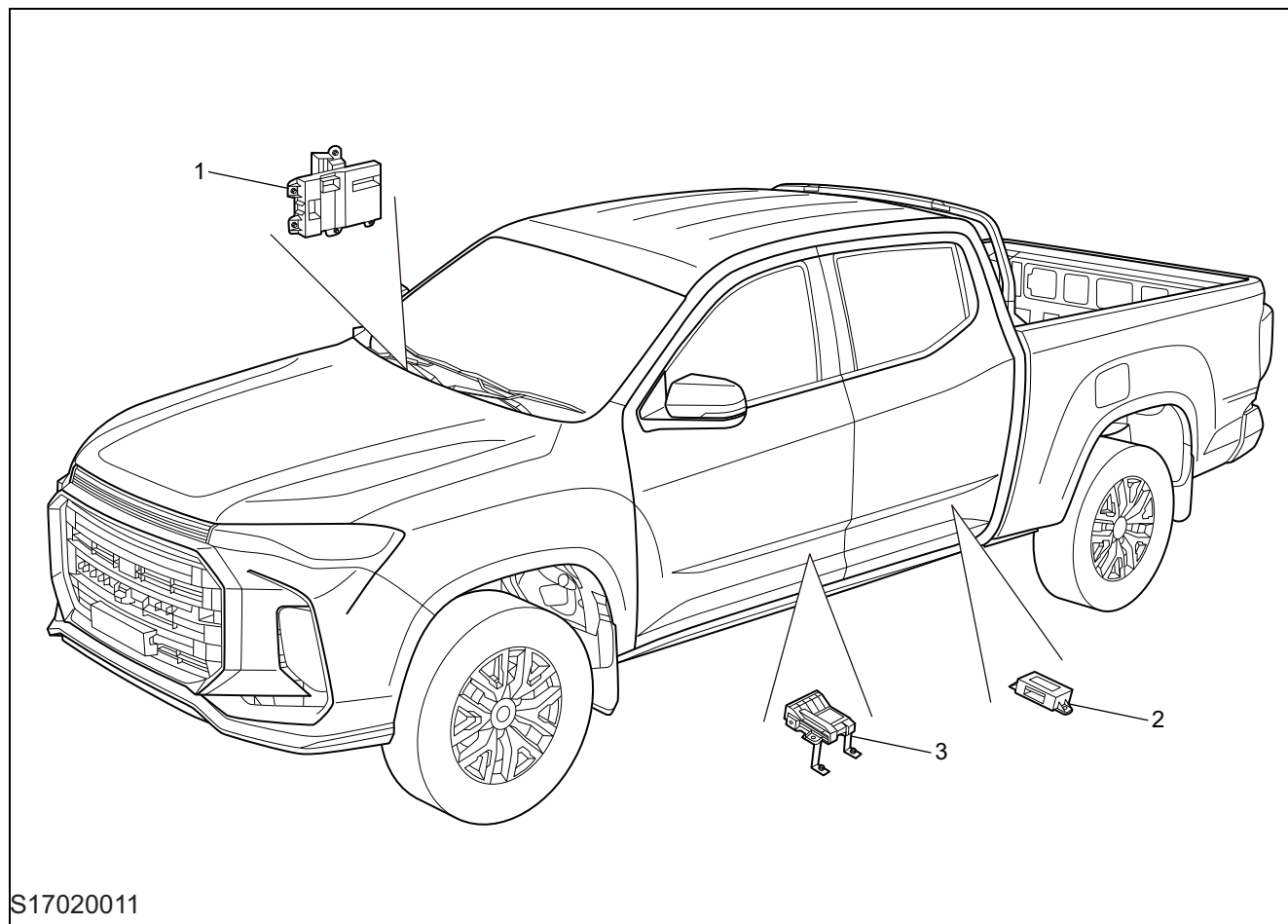
Specification

Fastener Specifications

Name	Torque (Nm)
Nut - Body Controller	5±1 Nm
Bolt - Body Controller	9±1 Nm
Bolt - 4G Antenna Assembly	9±1 Nm
Bolt - Remote Monitoring Module	9±1 Nm
Nut - Gateway Bracket to Floor	9±1 Nm

Data Communication

Layout



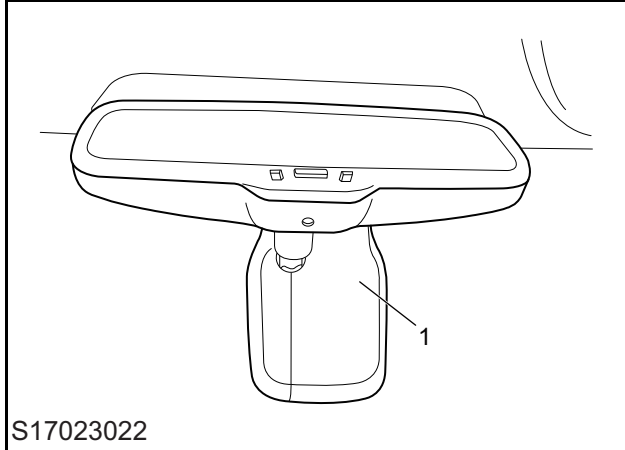
- 1 Body Control Module (Lower Part of the Instrument Panel at Driver Side)
- 2 Towing Module Controller (Lower Part of the Front Passenger Seat)
- 3 Gateway Assembly (Lower Left Side of Rear Seat)

Service Guide

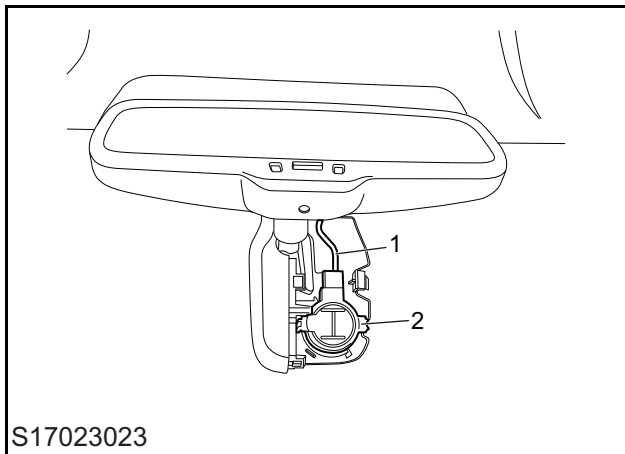
Rain/Solar Sensor Replacement

Removal

- 1 Remove the rain/solar sensor cover (1).



- 2 Disconnect the electrical connector (1) of the rain/solar sensor.
- 3 Pry off the clip and remove the rain/solar sensor (2).



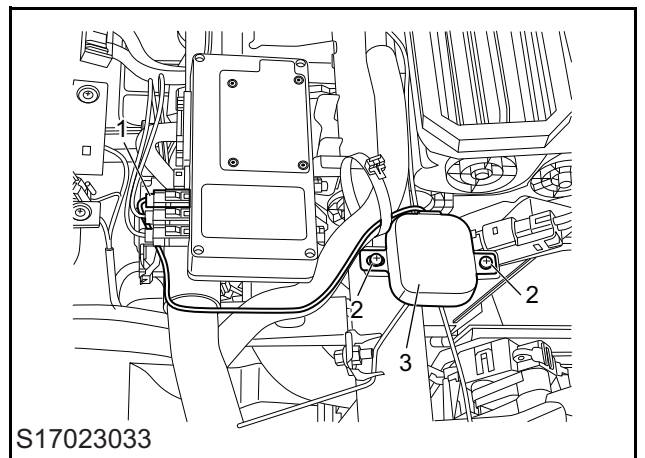
Installation

- 1 Install the rain/solar sensor.
- 2 Connect the electrical connector of the rain/solar sensor.
- 3 Install the cover of the rain/solar sensor.

BD/GPS Output Antenna Replacement

Removal

- 1 Remove the instrument panel assembly. Refer to "Instrument Panel Assembly Replacement".
- 2 Disconnect the electrical connector (1) of the BD/GPS output antenna.
- 3 Remove the clip from the BD/GPS output antenna.
- 4 Remove 2 retaining bolts (2) fixing the BD/GPS output antenna to the instrument panel beam.
- 5 Remove the BD/GPS output antenna (3).



Installation

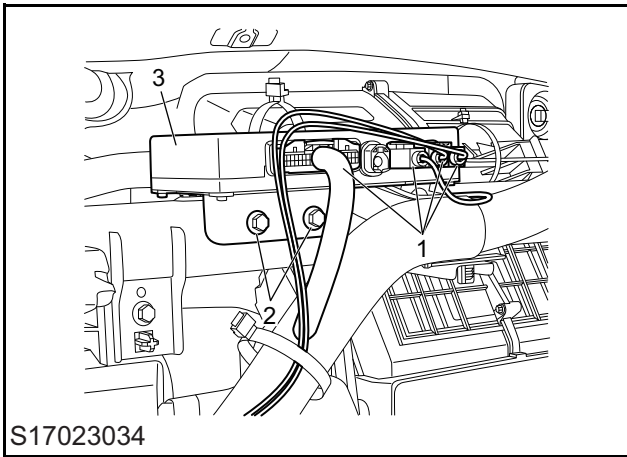
- 1 Install the BD/GPS output antenna.
- 2 Install and tighten 2 retaining bolts fixing the BD/GPS output antenna to the instrument panel beam.
- 3 Install the clip on the BD/GPS output antenna.
- 4 Connect the electrical connector of the BD/GPS output antenna.
- 5 Install the instrument panel assembly. Refer to "Instrument Panel Assembly Replacement".

Data Communication

Remote Monitoring Module Replacement

Removal

- 1 Remove the instrument panel assembly. Refer to "Instrument Panel Assembly Replacement".
- 2 Disconnect the electrical connector (1) of the remote monitoring module.
- 3 Remove 2 retaining bolts (2) fixing the remote monitoring module to the instrument beam.
- 4 Remove the remote monitoring module (3).



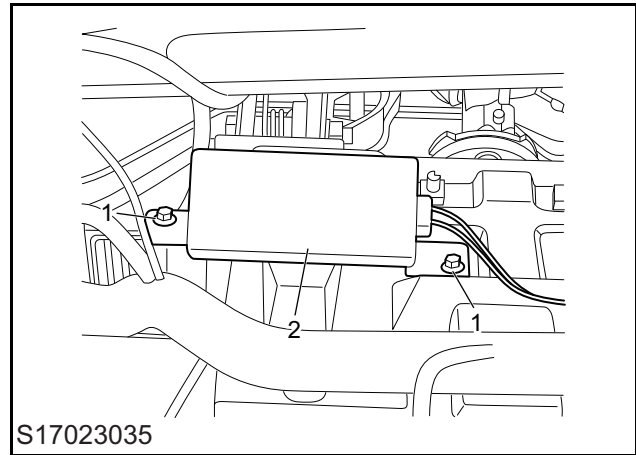
Installation

- 1 Install the remote monitoring module.
- 2 Install 2 retaining bolts fixing the remote monitoring module to the instrument beam, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Connect the electrical connector of the remote monitoring module.
- 4 Install the instrument panel assembly. Refer to "Instrument Panel Assembly Replacement".

4G Antenna Assembly Replacement

Removal

- 1 Remove the instrument panel assembly. Refer to "Instrument Panel Assembly Replacement".
- 2 Disconnect the electrical connector of the 4G antenna assembly.
- 3 Remove the clip from the 4G antenna assembly.
- 4 Remove 2 retaining bolts (1) fixing the 4G antenna assembly to the instrument panel beam.
- 5 Remove the 4G antenna assembly (2).



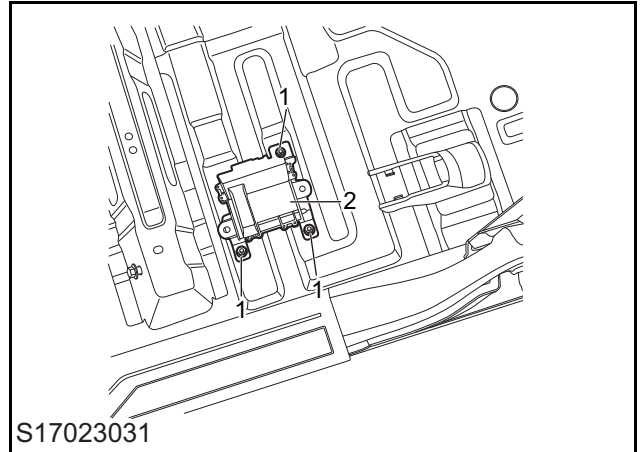
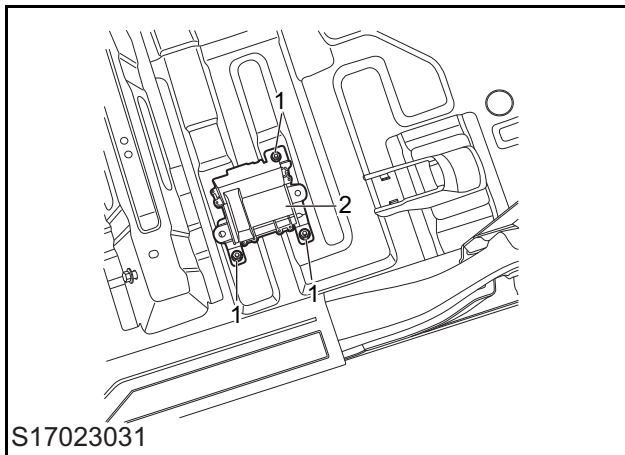
Installation

- 1 Install the 4G antenna assembly.
- 2 Install 2 retaining bolts fixing the 4G antenna assembly to the instrument beam, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Install the clip on the 4G antenna assembly.
- 4 Connect the electrical connector of the 4G antenna assembly.
- 5 Install the instrument panel assembly. Refer to "Instrument Panel Assembly Replacement".

Gateway Assembly Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the front passenger seat. Refer to "Front Passenger Seat Replacement".
- 3 Disconnect the electrical connector of the gateway assembly.
- 4 Remove 3 retaining nuts (1) fixing the gateway assembly to the vehicle body.
- 5 Remove the gateway assembly (2).



Installation

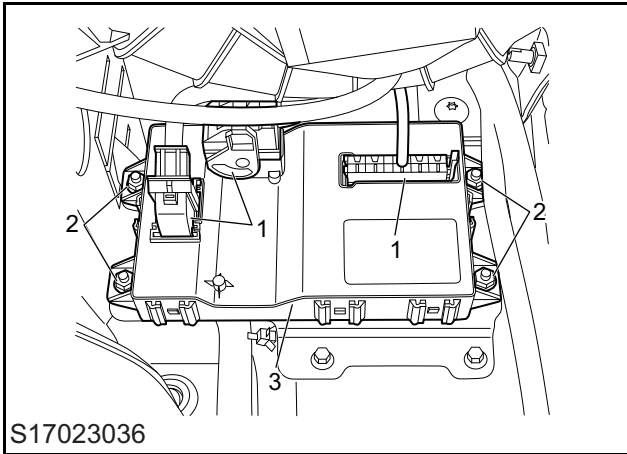
- 1 Install the gateway assembly.
- 2 Install 3 retaining nuts fixing the gateway assembly to the vehicle body, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Connect the electrical connector of the gateway assembly.
- 4 Install the front passenger seat. Refer to "Front Passenger Seat Replacement".
- 5 Connect the negative battery cable.

Data Communication

Body Control Module Replacement

Removal

- 1 Remove the right A-pillar lower trim panel assembly. Refer to "Right A-pillar Lower Trim Panel Assembly Replacement".
- 2 Disconnect the electrical connector (1) of the body control module.
- 3 Remove 4 retaining nuts (2) from the body control module.
- 4 Remove the body control module (3).



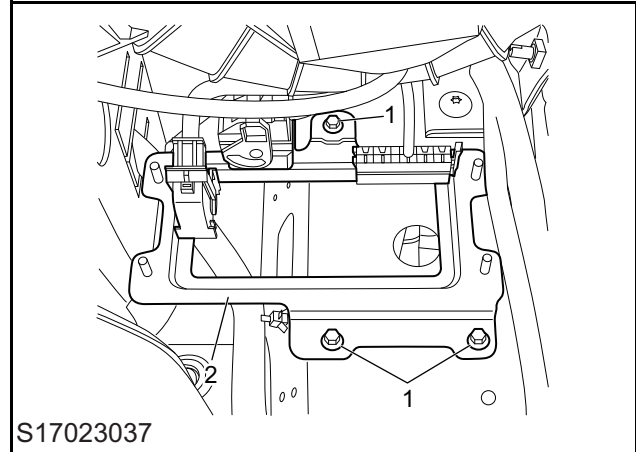
Installation

- 1 Install the body control module.
- 2 Install 4 retaining nuts on the body control module, tighten them to 5 ± 1 Nm, and check the torque.
- 3 Connect the electrical connector of the body control module.
- 4 Install the right A-pillar lower trim panel assembly. Refer to "Right A-pillar Lower Trim Panel Assembly Replacement".
- 5 Perform the self-learning of the new module.

Body Controller Bracket Replacement

Removal

- 1 Remove the body control module. Refer to "Body Control Module Replacement".
- 2 Remove 3 retaining bolts (1) from the body controller bracket.
- 3 Remove the body controller bracket (2).



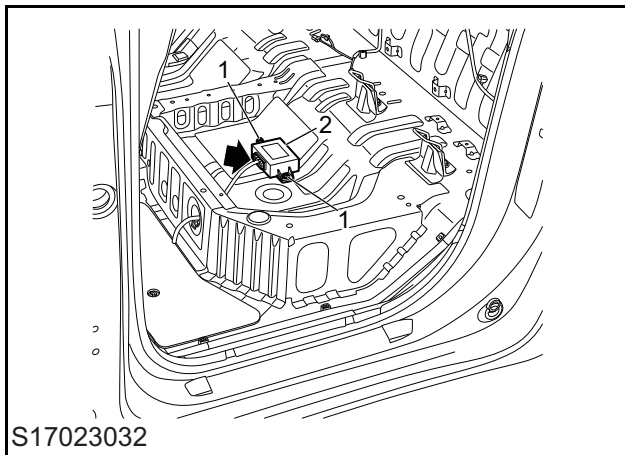
Installation

- 1 Install the body controller bracket.
- 2 Install 3 retaining bolts on the body control module, tighten them to 9 ± 1 Nm, and check the torque.
- 3 Install the body control module. Refer to "Body Control Module Replacement".

Towing Module Controller Replacement

Removal

- 1 Disconnect the negative battery cable.
- 2 Remove the rear triple-seat assembly. Refer to "Rear Triple-seat Assembly Replacement".
- 3 Disconnect the electrical connector of the towing module controller.
- 4 Remove the nut (1) of the towing module controller.
- 5 Remove the towing module controller (2).



Installation

- 1 Connect the towing module controller.
- 2 Install the nut of the towing module controller, tighten it to 9 ± 1 Nm and check the torque.
- 3 Connect the electrical connector of the towing module controller.
- 4 Install the rear triple seat assembly. Refer to "Rear Triple-seat Assembly Replacement".
- 5 Connect the negative battery cable.

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1.1 Electrical protection

Summary

The instructions below aim to ensure the safety of the operator and prevent the damage to the electrical and electronic components.

Equipment

Before the vehicle test procedures, ensure that the relevant test equipment works normally, the wiring harness and connector are well connected.

Warning: ensure that the high-voltage terminals, adapters and diagnostic equipment for testing are fully insulated or isolated to prevent the personal accidents and minimize the possibility of electric shock before any operation on the ignition system.

Polarity

It is forbidden to connect the two poles of the battery reversely. When connecting to the test equipment, the two poles must be connected correctly

Disconnect the battery

Before disconnecting the battery, turn off all the electrical equipment. When the battery is disconnected, some data may be lost, such as clock time.

Warning: In order to prevent the damage to the electrical equipment, it is necessary to disconnect the battery when repairing the electrical system of the vehicle. When disconnecting the battery, the grounding terminal must be disconnected first; when connecting, it must be connected finally.

Ensure that the battery wiring harness connection is correct at any time, and properly arranged, away from any potential hazards.

Battery charging

When the battery is charged outside the vehicle, good ventilation must be ensured on the top of the battery. When the battery is charged and discharged for about 15 minutes, hydrogen will be released from the battery. This gas is flammable.

Always ensure the good ventilation in the battery charging area at any time, and prevent the open flames and sparks.

Connector and wiring harness

Make sure that the electronic parts and connectors are dry and free of oil before disconnecting and connecting the test equipment. It is forbidden to remove and install the connector with tools and by pulling the wiring harness.

Keep the greasy hands from touching the electronic connection area when replacing the parts. Make sure that the connector is dry free of oil and that the connector clamps are fully engaged.

System Overview 1-2

1.2 Wiring harness color information

Wiring harness color	Wiring harness color (English)	Wiring harness color (Chinese)
BK	Black	Black
BN	Brown	Brown
BU	Blue	Blue
GY	Gray	Grey
GN	Green	Green
NAT	Nature	Natural color
OG	Orange	Orange
PK	Pink	Pink
PU	Purple	Purple
RD	Red	Red
TN	Tan	Brown
WH	White	White
YE	Yellow	Yellow
D-BU	Dark Blue	Dark Blue
L-BU	Little Blue	Little Blue
D-GN	Dark Green	Dark Green
L-GN	Little Green	Light Green
YE/BK	Yellow/Black	Yellow/Black
BARE	Bare	Shield bear wire

Note: Combination of two color codes is the mixed color code, and the first letter indicates the main color and the last letter indicates the auxiliary color. (For example: YE/WH indicates the mixed color wire with yellow as the main color and white as the auxiliary color.)

1.3 Wiring harness code explanation

Harness code	Harness name
BT	Battery positive harness
BTN	Battery negative harness
CCU	Chassis harness high voltage
CHA	Chassis harness low voltage
CNSL	Center console harness
DCA	DCDC positive harness
DDR	Driver's door harness
DN	DCDC negative harness
ENT	Engine ground harness
EPS	Electric power steering harness
IP	Instrument harness
RLD	Left sliding door harness
EN	Engine harness
EB	Front compartment harness
OIL	Fuel tank harness
PD	Front passenger door harness
PFL	Front bumper harness (left)
PFM	Front bumper harness (middle)
PFR	Front bumper harness (right)
DD	Driver's door harness
PU	Main power harness
RF	Ceiling harness
PR	Rear bumper harness
RRD	Right shift door harness
TL	Tailgate harness
USB	USB harness

System Overview 1-4

1.4 Configuration code

English code	Configuration Name
2.8 FGT	VM 2.8FGT Engine
2.8 VGT	VM 2.8VGT Engine
4G69	4G69 Engine
NLE2.0T	NLE2.0T Engine
ALL	Standard configuration
LGC	Low chassis
HGC	High chassis
4WD	Electric four-wheel drive
MT	Manual gearbox
AT	Automatic transmission (6-speed Bunch)
5MT-SAIC	5-speed Aixin manual transmission
6MT-DYMOS	6-speed Demus manual transmission
RCSW	Cruise control
EFAC	Electronically controlled front axle half shaft clutch
ESP	Body Electronic Stability System
TPMS	Tire pressure monitoring system
SPHM	Electric heated exterior rearview mirror
SPHCM	Electric folding belt heated exterior rearview mirror
PGAM	Automatic anti dazzle interior rearview mirror
CIGAR	The cigarette lighter
PST	Electric 6-way seats for the front and front passenger
FSHF	Main and auxiliary seat heating
SRSH	High configuration of airbag ECU
SRSL	Low configuration of airbag ECU
DAB	Driver airbag
PAB	Passenger airbag
FRSAB	Driver and passenger side airbags
CAB	With front and rear through air curtain
D2PSB	Driver adjustable bipolar pre tensioned force limiting safety belt
D1PSB	Driver adjustable single pole pre tensioned force limiting safety belt
DSBR	Only driver's safety belt unfastened reminder
FSBR	Only the reminder that the front seat belt is not fastened
SBR	Reminder that the safety belt of the whole vehicle is not fastened
P2PSB	Front passenger adjustable bipolar pre tensioned force limiting safety belt
P1PSB	Front passenger adjustable single pole pre tensioned force limiting safety belt
LDW	Lane departure warning system
BSD	Blind area monitoring system
BL	Backlight adjustment

English code	Configuration Name
XELP	LED headlights
HALP	Halogen headlights
AFS	Adaptive headlight system
FFOG	Front fog lamp
DRLP	Daytime driving light
FRLP	Front roof lamp
PZLP	Rear roof lamp
RRDEFROST	Electric heating defrosting of rear window
RCAM	Rear reversing camera
2WD	Two drive
BSV	360 ° Panoramic image
CHMSL	High mounted brake lamp
PEPS	Keyless entry and start system
-PEPS	Non keyless entry and start system
PDC	PDC Parking Distance Control
RLS	Rain and sunlight sensor
ANTIPIN	One button lifting (with anti pinch)
1 SHOT	One button descent
RREGL	Rear electric window regulator
INV	220V convenient power supply
12V DC	12V power supply
AT A/C	Automatic front air conditioner
RADIO	Radio
BLTH	Bluetooth
10-SCREEN	10 Inch touch screen
TBOX	Internet of Vehicles
2 SPEAKER	2 Speakers
4 SPEAKER	4 Speakers
6 SPEAKER	6 Speakers
PTANT	Antenna amplifier (RADIO)
TRAILER	Trailer
GTWY	Gateway
-GTWY	Non gateway
HTOL	Single warmth
-HTOL	Non singleton warmth
MFSW	Multi function steering wheel
GCC	Middle East countries
-GCC	Non Middle East countries
600W	600 watt fan
480W	480 watt fan
EPS	Electric power steering

System Overview 1-6

1.5 How to use the circuit diagram

Power supply mode description

B+	Battery positive	Positive battery
ACC	Ignition switch unlocks	Ignition switch unlocks
IG1	Ignition switch 1	Ignition switch 1
IG2	Ignition switch 2	Ignition switch 1
ST	Ignition switch starts	Ignition switch starts

Wire properties

IP 5391AD PU FLRB 0.35

The description of the wire properties is located above the wire in the circuit diagram.

“IP” indicates the instrument panel wiring harness;

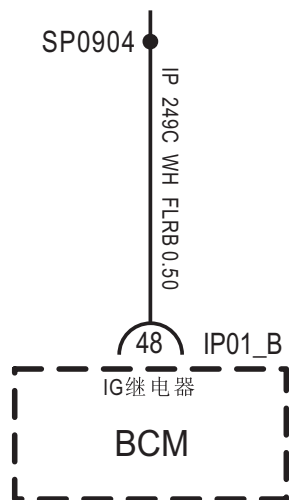
“5391AD” indicates the wire code;

“PU” indicates the wire color, refer to “wiring harness color information” for details.

“0.35” indicates the section area of the wire, in square millimeter;

“AT” indicates 6AT Bunge

Connector



For example: IP01_B indicates connector IP01_B, pin No. 48.

---Indicating the female connector

---Indicating the male connector

Grounding point



Grounding points are generally indicated by double-loop symbols, marked with grounding points, as shown in Figure G_EBR3.

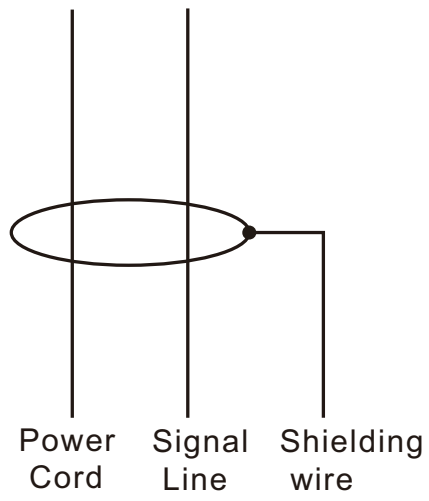
Twisted pair



The twisted pair is shown as in the circuit diagram.

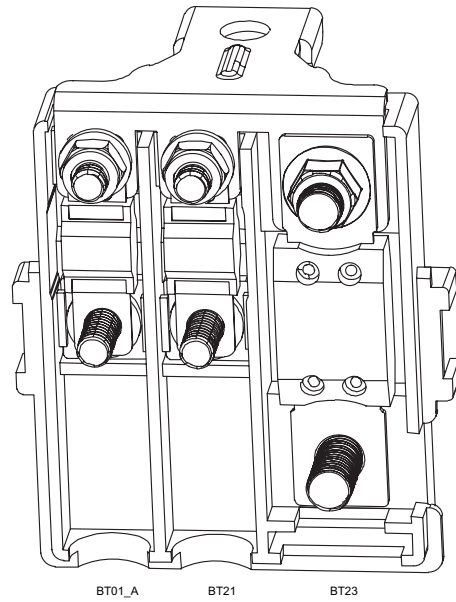
System Overview 1-8

Shielding wire



The shielding wire is as shown in the circuit diagram.

2.1 Battery positive fuse box

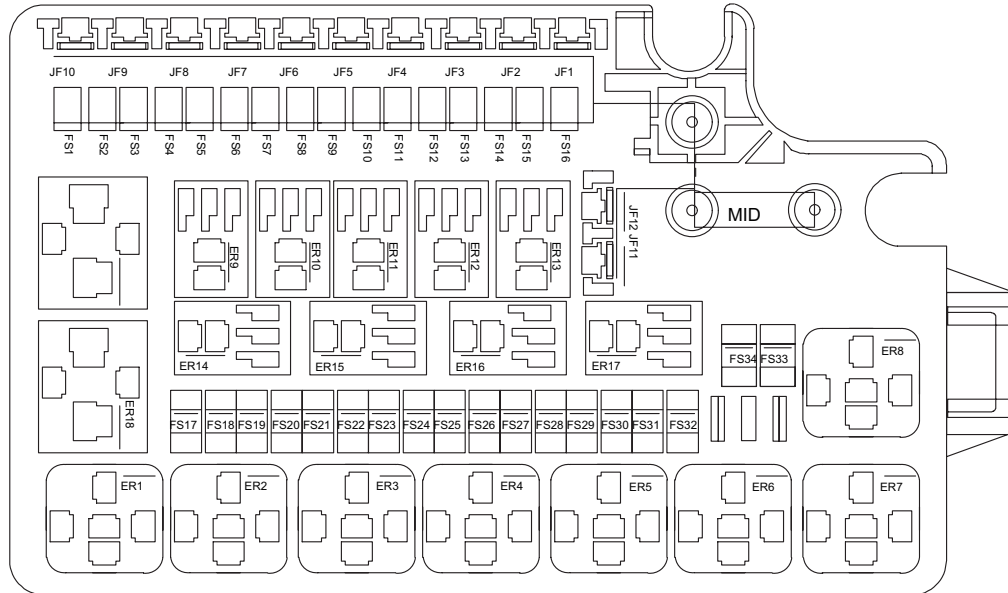


2.1.1 Fuse Information Sheet

Fuse box	Specifications	Functions
P-MGA	175A	UEC (engine compartment fuse box)
P-MIDI	100A	Electric power steering
P-MG5	250A	Three in one controller

Fuse box 2-10

2.2 Engine compartment fuse box



2.2.1 Fuse Information Sheet

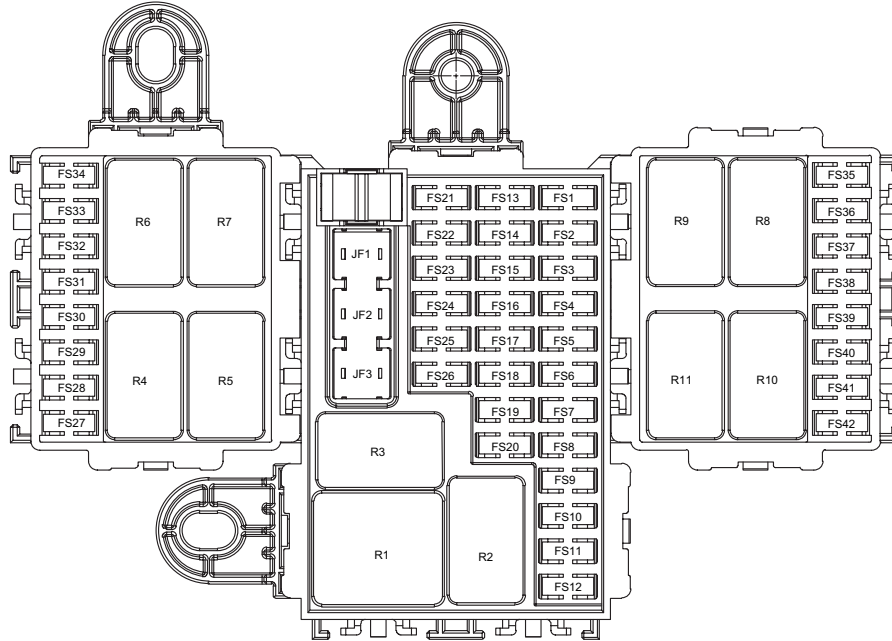
Fuse	Specifications	Function
U-JF01	30A	Main relay
U-JF02	40A	VCU/BMS/CDU/EVCC
U-JF03	30A	Electronic vacuum pump
U-JF04	30A	IEC (instrument panel fuse box) power supply 1 (IG/220V)
U-JF05	30A	IE power supply 2 (window regulator motor)
U-JF06	30A	IEC power supply 3
U-JF07	30A	IEC power supply 4
U-JF08	30A	Anti lock system power (motor) ABS_ MOT
U-JF09	40A	Front blower
U-JF11	60A	Window regulator motor/sunroof
U-JF12	30A	IEC power supply 3
U-FS1	15A	Motor controller PEU
U-FS2	25A	Defrost/rearview mirror
U-FS3	30A	IEC power supply 6
U-FS4	30A	Trailer power
U-FS5	25A	Anti lock system power supply_ valve

Fuse	Specifications	Function
U-FS6	30A	Trailer module ECU power
U-FS7	25A	Front wiper
U-FS8	10A	Ignition switch (PEPS/electronic steering column lock)
U-FS9	15A	Air conditioning compressor
U-FS10	30A	IEC (instrument panel fuse box) power supply 7
U-FS12	30A	IEC (instrument panel fuse box) power supply 5
U-FS13	25A	Low beam lamp/adjusting motor
U-FS14	20A	High beam
U-FS15	10A	Daylight/position light/rear fog light
U-FS16	20A	IEC (instrument panel fuse box) power supply 8
U-FS17	20A	VCU host electrical power supply 1
U-FS18	20A	Water pump
U-FS19	15A	Main relay power supply 3
U-FS20	10A	Vehicle controller KL30 power supply
U-FS21	15A	Water pump
U-FS22	10A	EVCC KL30 power supply
U-FS23	10A	BMS KL30 power supply
U-FS24	30A	fuel pump
U-FS26	10A	Three in one controller KL30 power supply
U-FS28	15A	Left high beam lamp
U-FS29	15A	Right high beam lamp
U-FS30	15A	Left low beam lamp
U-FS31	15A	Right low beam lamp
U-FS32	10A	Headlight adjustment
U-MD1	80A	Cooling fan 600W

2.2.2 Relay information sheet

Relay	Specifications (A)	Functions
U-R02	-	Electronic vacuum pump relay
U-R03	-	FAN LOW
U-R04	-	Starter
U-R05	-	Fuel filter heater/fuel pump
U-R06	-	Wiper power relay
U-R07	-	Wiper speed regulating relay
U-R08	-	Main relay
U-R10	-	Rear fog lamp relay
U-R11	-	Position light relay
U-R14	-	Low beam lamp relay
U-R15	-	High beam relay
U-R16	-	Left daytime running lamp relay
U-R17	-	Right daytime running light relay

2.3 Instrument panel fuse box



2.3.1 Fuse Information Sheet

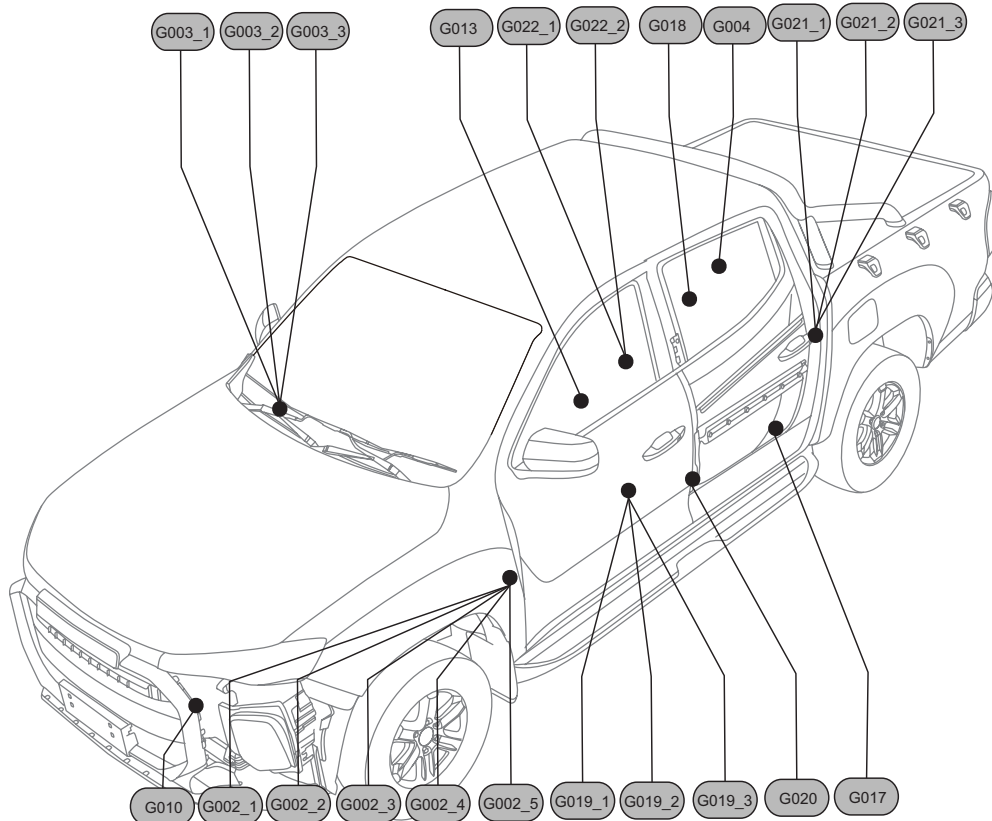
Fuse	Specifications	Function
I-JF02	25A	Driver's seat adjustment
I-JF03	25A	Front passenger seat adjustment
I-FS01	10A	Low speed alarm/three in one controller
I-FS02	10A	Instrument/body control unit/key entry/blind zone monitoring
I-FS03	10A	Airbag control unit
I-FS04	7.5A	Anti lock system/electronic stability system
I-FS05	10A	Trailer unit/DASH CAM/Lane departure assist
I-FS06	7.5A	Electric power steering/front air conditioning panel
I-FS08	25A	BCM_ Central locking
I-FS09	7.5A	BCM_ Interior lights
I-FS10	10A	BCM_ Fuel tank cap actuator
I-FS11	10A	BCM_ Windshield washing
I-FS12	25A	BCM_ Exterior lamp
I-FS13	10A	10 inch screen/Internet of Vehicles
I-FS14	25A	Inverter
I-FS15	10A	Driver seat heating

Fuse	Specifications	Function
I-FS16	10A	Front passenger seat heating
I-FS17	15A	12V socket/blower relay coil
I-FS18	10A	Inverter/rearview mirror adjustment
I-FS19	20A	The cigarette lighter
I-FS20	10A	Gateway/Radio/Sunroof
I-FS21	10A	Diagnostic port/rear camera
I-FS22	10A	Shift control unit
I-FS23	25A	Entertainment system/radio
I-FS24	10A	Instrument/anti-theft base station
I-FS25	20A	Horn
I-FS26	10A	Front air conditioning panel/lane departure assist
I-FS27	10A	Air conditioning heating/motor control unit KL15
I-FS28	10A	Front blower feedback signal
I-FS29	25A	Driver window regulator motor
I-FS30	25A	Front passenger window lifter motor
I-FS31	25A	Rear left window regulator motor
I-FS32	25A	Rear right window regulator motor
I-FS33	15A	Gateway
I-FS34	7.5A	Exterior rearview mirror heating
I-FS37	25A	Trailer power 1
I-FS38	25A	Trailer power 2

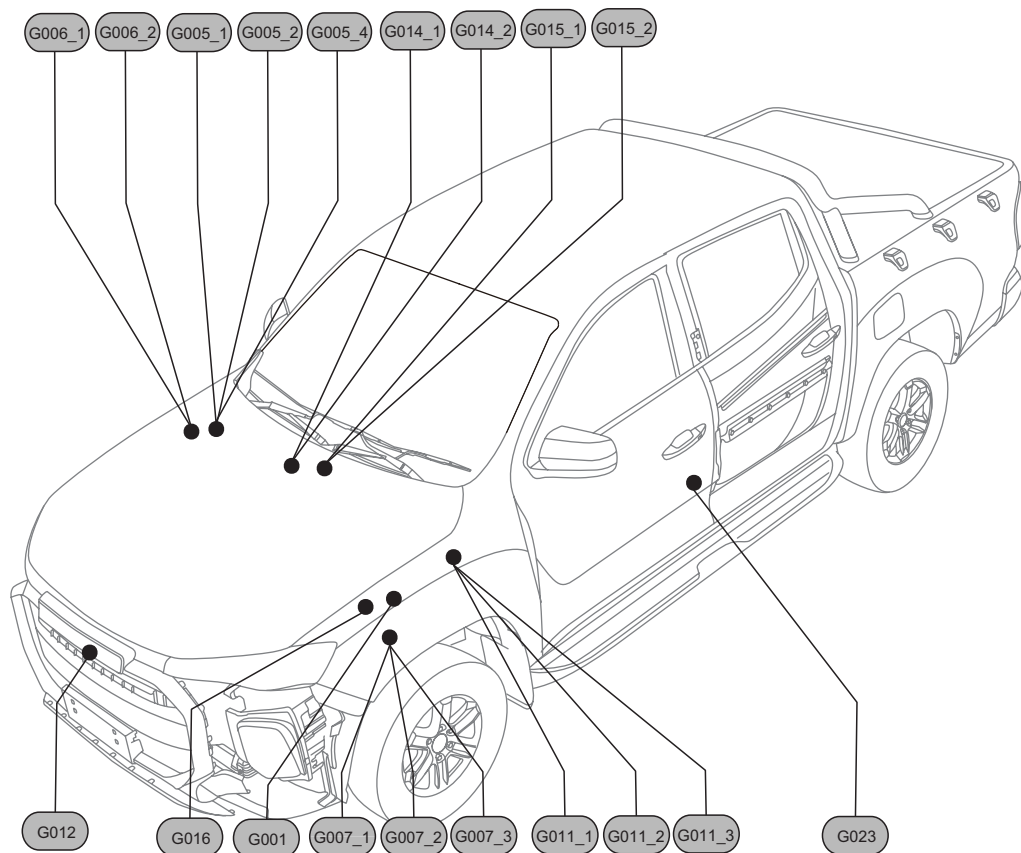
2.3.2 Relay information table

Relay	Specifications (A)	Functions
I-R01	-	Front blower relay
I-R02	-	ACC Relay
I-R03	-	IG Relay
I-R05	-	Horn relay
I-R06	-	Left window regulator motor relay
I-R07	-	Right window regulator motor relay
I-R08	-	Driver's power seat adjustment relay
I-R09	-	Passenger's power seat adjustment relay
I-R10	-	Rear view mirror and rear window heating relay

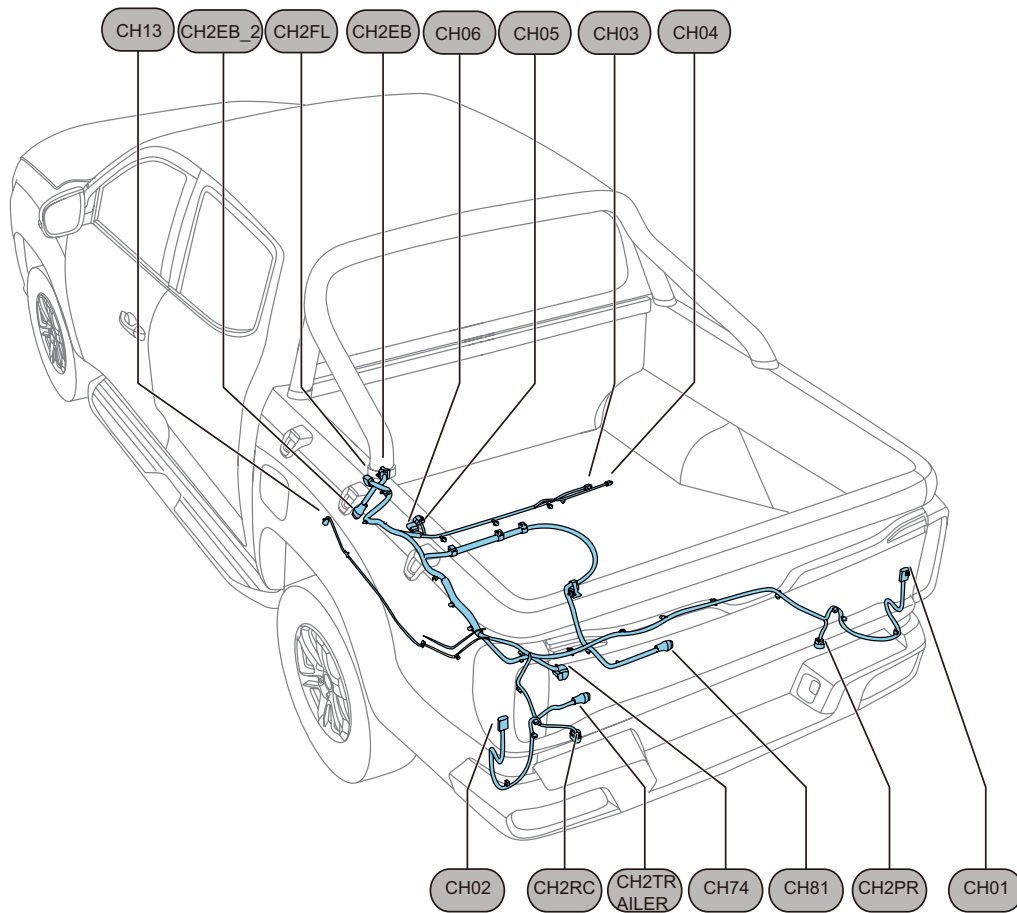
3.1 Distribution and location diagram of grounding points



Grounding Point Distribution and Location 3-16

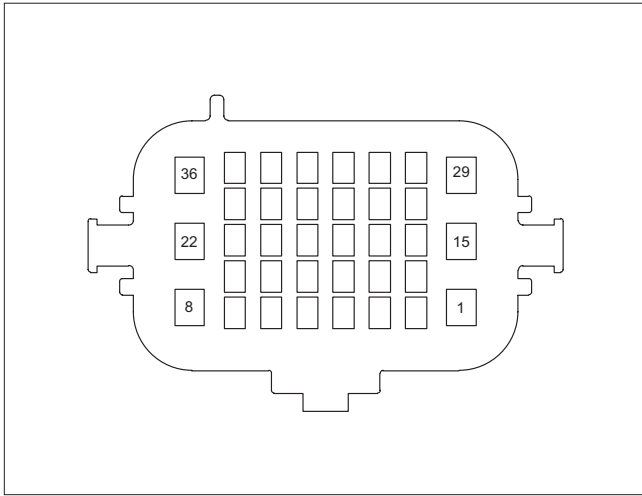


4.1 Rear chassis harness



Wiring Harness Distribution and Pin Definition of Electrical Components 4-18

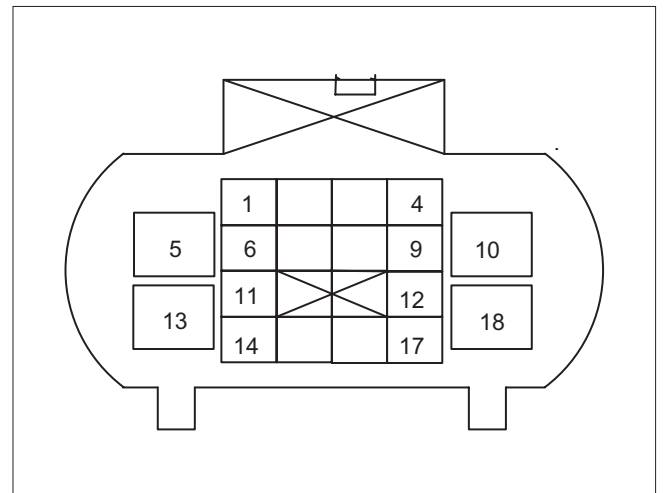
4.1.1 Description of CH connector of chassis rear harness



CH2EB_2 Connected to engine room harness
CONN 36 M BLK SLD

Pin No.	Color	Functions	Re- marks
1	-	-	
2	YE/WH	CAN1_H	
3	YE/D-BU	CAN1_L	
4	BN	Slow charging temp_L1/L2/L3-	
5	VT	Slow charging temp_N+	
6	WH	Slow charging temp_N-/DC--	
7	RD/WH	KL15	
8	-	-	
9	BARE	Shielding wire	
10	BK	GND	
11	BK	GND	
12	-	-	
13	OG/BN	TemDC+	
14	OG/L-GN	Fast charging temp_DC+/DC--	
15	-	-	
16	D-BU	LOCKING	
17	-	-	

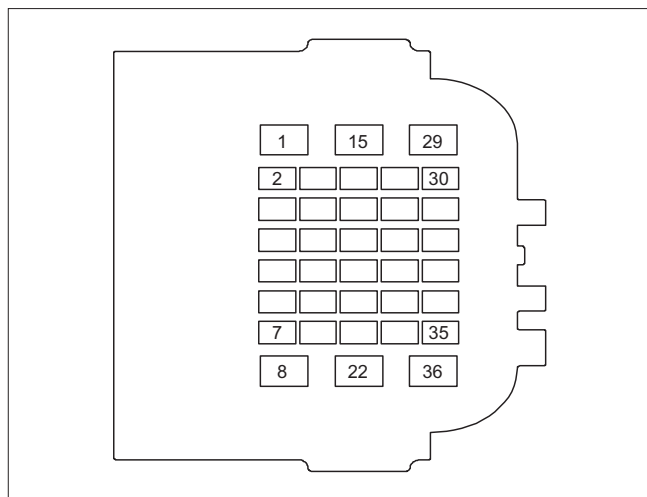
Pin No.	Color	Functions	Re- marks
17	D-GN/ WH	P_CAN_L	
18	-	-	
19	-	-	
20	-	-	
21	-	-	
22	-	-	
23	GRN	UNLOCKING	
24	YE	LOCKING_ FEEDBACK	
25	-	-	
26	-	-	
27	-	-	
28	-	-	
29	-	-	
30	-	-	
31	-	-	
32	-	-	
33	RD	KL30	
34	OG	TemL1	
35	-	-	
36	YE/VT	Shielding wire	



CH2FL Ground floor harness
CONN 36 M BLK SLD

Wiring Harness Distribution and Pin Definition of Electrical Components 4-19

Pin No.	Color	Functions	Re- marks
1	-	-	
2	-	-	
3	-	-	
4	RD/BK	Power Supply	
5	Br	RIGHT TURN SIG	
6	BK	GND	
7	-	-	
8	VT	BRAKE SIG	
9	BN/D-BU	LEFT TURN SIG	
10	BK	GND	
11	D-BU	BACK UP SIG	
12	RD/BK	REAR FOG SIG	
13	GY	LEFT POSITION SIG	
14	L-GN	CP	
15	BN/WH	PE	
16	VT	PP	
17	-	-	
18	L-BU	RIGHT POSITION SIG	

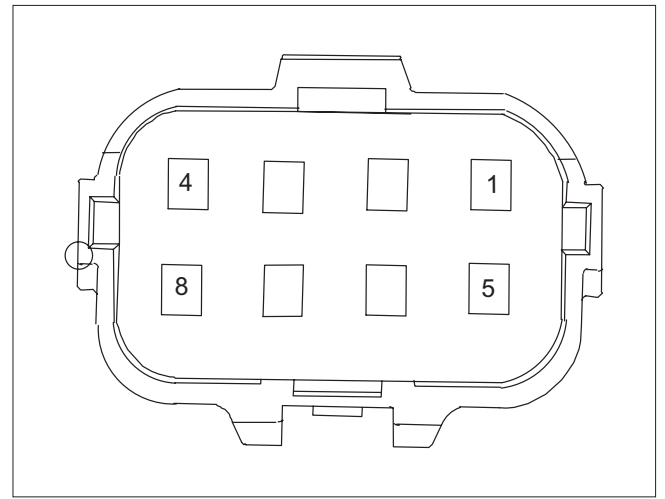


CH2EB Connected to engine room harness
CONN 36 F 1.5 2.8 SLD

Pin No.	Color	Functions	Re- marks
1	-	-	
2	-	-	
3	L-GN	ID	
4	OG	R-SHIFT	
5	-	-	
6	-	-	
7	-	-	
8	BK	GND	
9	RD	Power Supply	
10	L-GN	WSS-RL	
11	PU	WSS_RR	
12	GY/BK	WSP_RR	
13	-	-	
14	-	-	
15	-	-	
16	BK	GND	
17	BN	Position LP	
18	L-BU/WH	LEFT TURN LP	
19	D-BU/WH	RIGHT TURN LP	
20	PU/BK	Brake light	
21	OG	Power Supply	
22	-	-	
23	OG/BK	REVERSE LP	
24	WH	Power Supply	
25	-	-	
26	-	-	
27	GY/BK	WSS_RL	
28	BK	GND	
29	RD/YE	Power Supply	
30	BK	GND	
31	BK	GND	
32	WH	CVBS1	

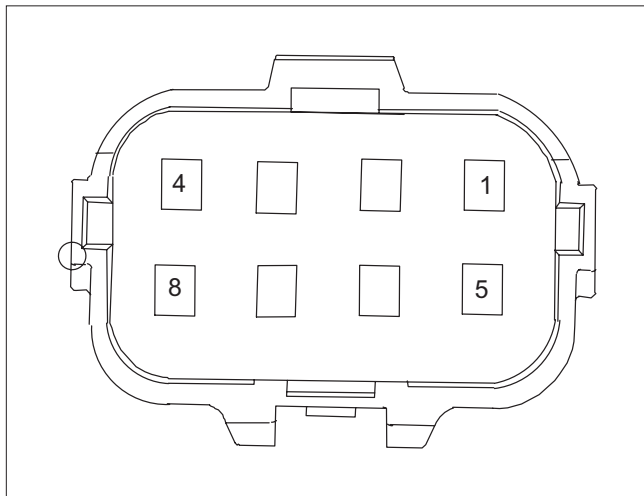
Wiring Harness Distribution and Pin Definition of Electrical Components 4-20

Pin No.	Color	Functions	Re- marks
33	BARE	Shielding wire	
34	BK	GND	
35	YE	R SIG	
36	-	-	



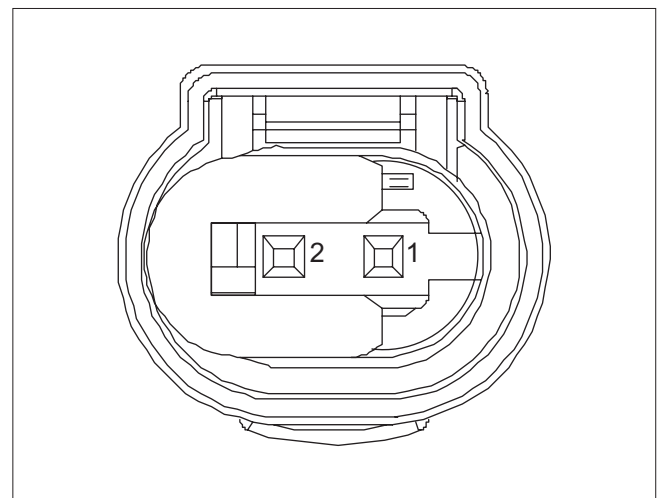
CH02 COMBINE LP_RR
CONN 8 M BLK

Pin No.	Color	Functions	Re- marks
1	PU/BK	Brake light	
2	BN	Position IP	
3	D-BU/WH	Right turn signal	
4	BK	GND	
5	OG	PWR	
6	OG/BK	PWR	
7	BK	GND	
8	-	-	



CH01 COMBINE LP_RL
CONN 8 M BLK

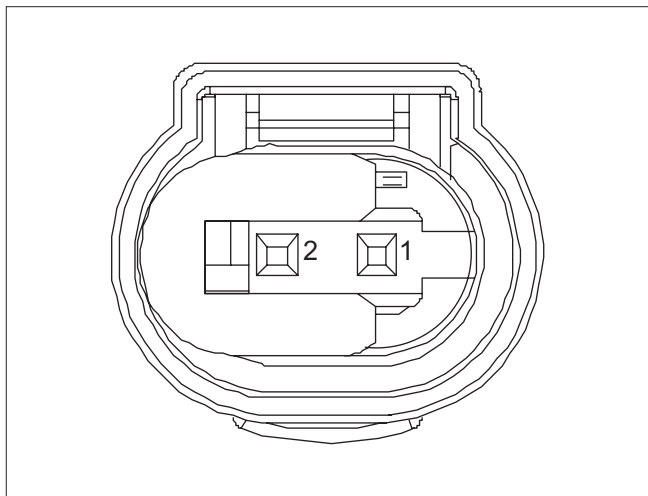
Pin No.	Color	Functions	Re- marks
1	PU/BK	Brake light	
2	BN	Position IP	
3	L-BU/WH	Left steering IP	
4	BK	GND	
5	OG	PWR	
6	OG/BK	PWR	
7	BK	GND	
8	-	-	



CH03 WSS_RL
ASM CONN 2 F 0.64 MQS BLK SLD

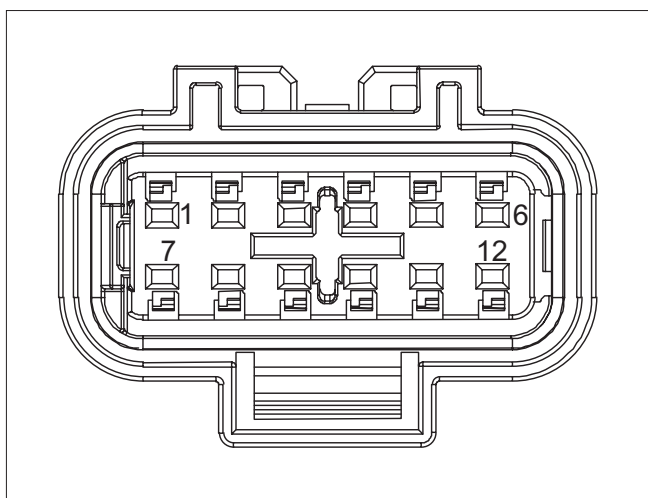
Wiring Harness Distribution and Pin Definition of Electrical Components 4-21

Pin No.	Color	Functions	Re- marks
1	L-GN	WSS_RL	
2	GY/BK	WSP_RL	



CH04 WSS_RR
ASM CONN 2 F 0.64 MQS BLK SLD

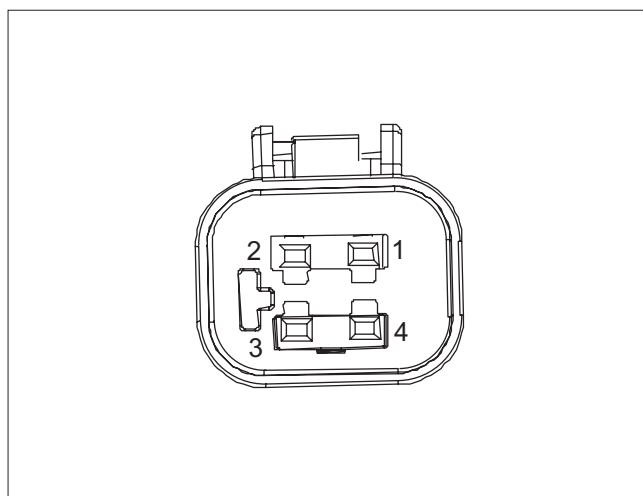
Pin No.	Color	Functions	Re- marks
1	PU	WSS_RR	
2	GY/BK	WSP_RR	



CH05 CHARGE
CONN 12 F 1.2 MCON-CB BLK SLD

Pin No.	Color	Functions	Re- marks
1	OG/L-GN	TemDC+(-)	

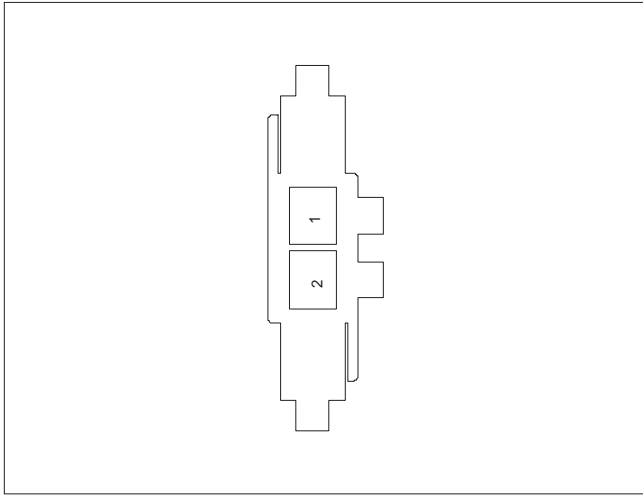
Pin No.	Color	Functions	Re- marks
2	OG/BN	TemDC+(+)	
3	BN	Tem(-)	
4	YE/VT	TemDC-(+)	
5	WH	TemDC-(-)	
6	OG	TemL1(+)	
7	VT	TemN(+)	
8	L-GN	EVCC Charge(CP)	
9	BN/WH	EVCC Charge(PE)	
10	VT	EVCC Charge(PP)	
11	-	-	
12	-	-	



CH06 CHARGE LOCK
CONN 4 M 1.2 MCON-CB BLK SLD

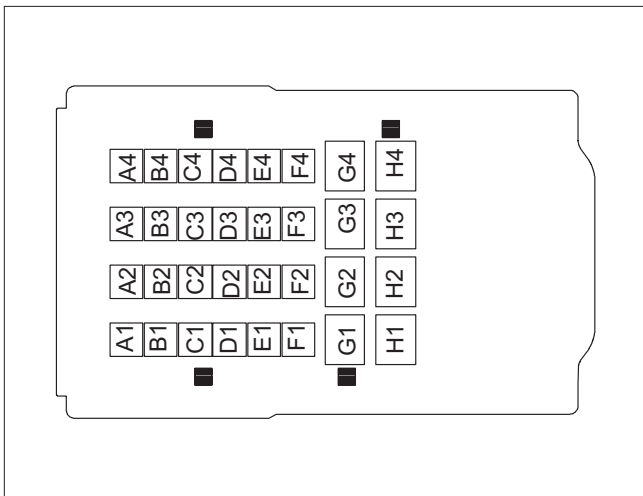
Pin No.	Color	Functions	Re- marks
1	D-BU	LOCK	
2	GRN	UNLOCK	
3	YE	STATE FB	
4	BK	FB GND	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-22



CH13 FUEL FLAP ACTUATOR
CONN 2 F 2.8 TIMER BLK JR PWR

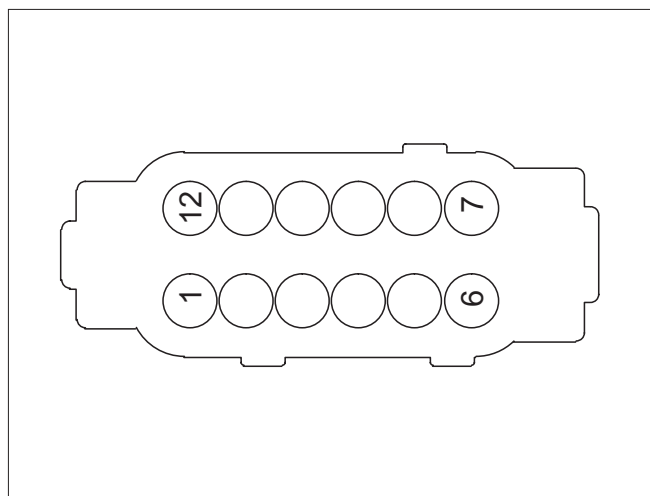
Pin No.	Color	Functions	Re- marks
1	BK	GND	
2	WH	FUEL FLAP ACTUATOR	



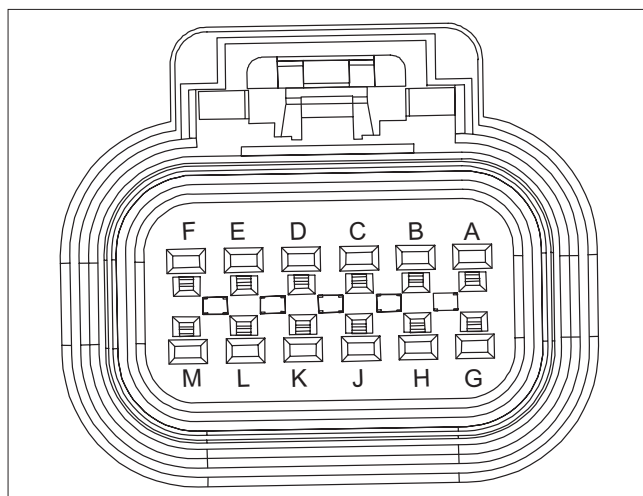
CH74 PEU
ASM CONN 32 F 0.6 1.5 SLD

Pin No.	Color	Functions	Re- marks
A1	YE/D-BU	CAN1_L	
A2	-	-	
A3	D-BU	E_A_NTCO	
A4	D-BU/YE	RESOLVER ERR_POS	

Pin No.	Color	Functions	Re- marks
B1	YE/WH	CAN1_H	
B2	-	-	
B3	VT/BK	M_A_NTCO	
B4	WH/RD	RESOLVER ERR_NEG	
C1	-	-	
C2	RD/WH	KL15	
C3	-	-	
C4	BN	RESOLVER SINHI	
D1	-	-	
D2	-	-	
D3	-	-	
D4	0.5	RESOLVER SINLO	
E1	RD	KL30	
E2	BK	GND	
E3	-	-	
E4	GY/WH	RESOLVER COSHI	
F1	RD	KL30	
F2	BK	GND	
F3	-	-	
F4	D-GN/OG	RESOLVER COSLO	
G1	-	-	
G2	-	-	
G3	-	-	
G4	-	-	
H1	-	-	
H2	-	-	
H3	-	-	
H4	BK	Shielding wire	



CH81 TM
ASM CONN 12 F 1.0 DTM GRA SLD

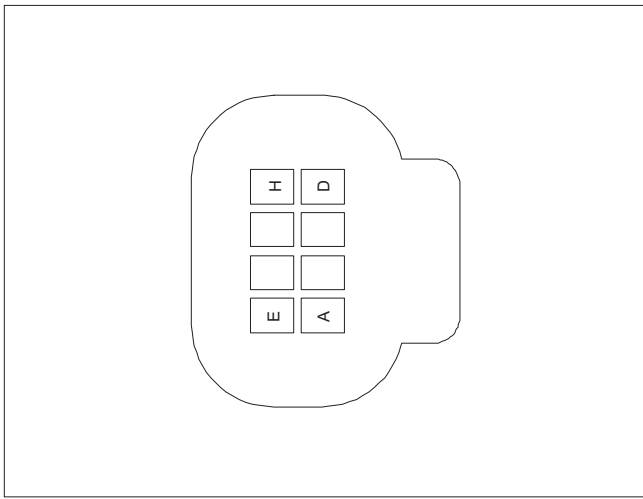


CH2PR Connected to reversing radar harness
ASM CONN 12 F GT 150 BLK SLD

Pin No.	Color	Functions	Re- marks
1	D-BU	TEMP SENSOR1+	
2	VT/BK	TEMP SENSOR1-	
3	-	-	
4	-	-	
5	WH	SHIELD	
6	-	-	
7	D-GN/OG	COS LO	
8	GY/WH	COS HI	
9	YE/WH	SIN LO	
10	BN	SIN HI	
11	WH/RD	REF LO	
12	D-BU/YE	REF	

Pin No.	Color	Functions	Re- marks
A	BN	Position Ip	
B	-	-	
C	BK	GND	
D	BK	GND	
E	L-GN	PWR	
F	OG	R-SHIFT	
G	BK	GND	
H	BK	GND	
J	VT	PWR	
K	L-GNWH	signal	
L	OG	Power Supply	
M	GY	PWR	

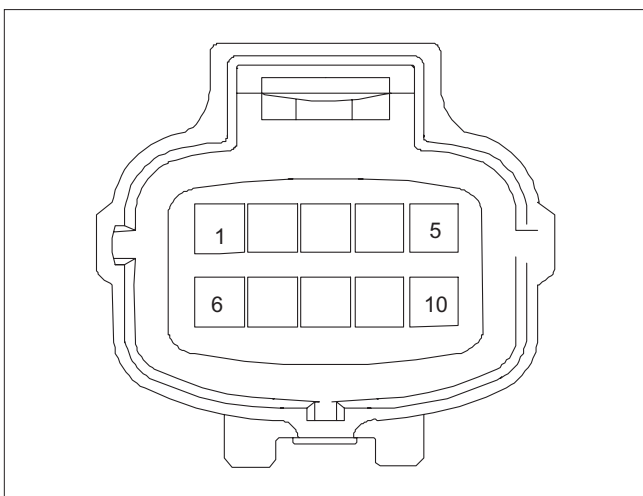
Wiring Harness Distribution and Pin Definition of Electrical Components 4-24



CH2RC Connected to camera harness
ASM CONN 12 F GT 150 BLK SLD

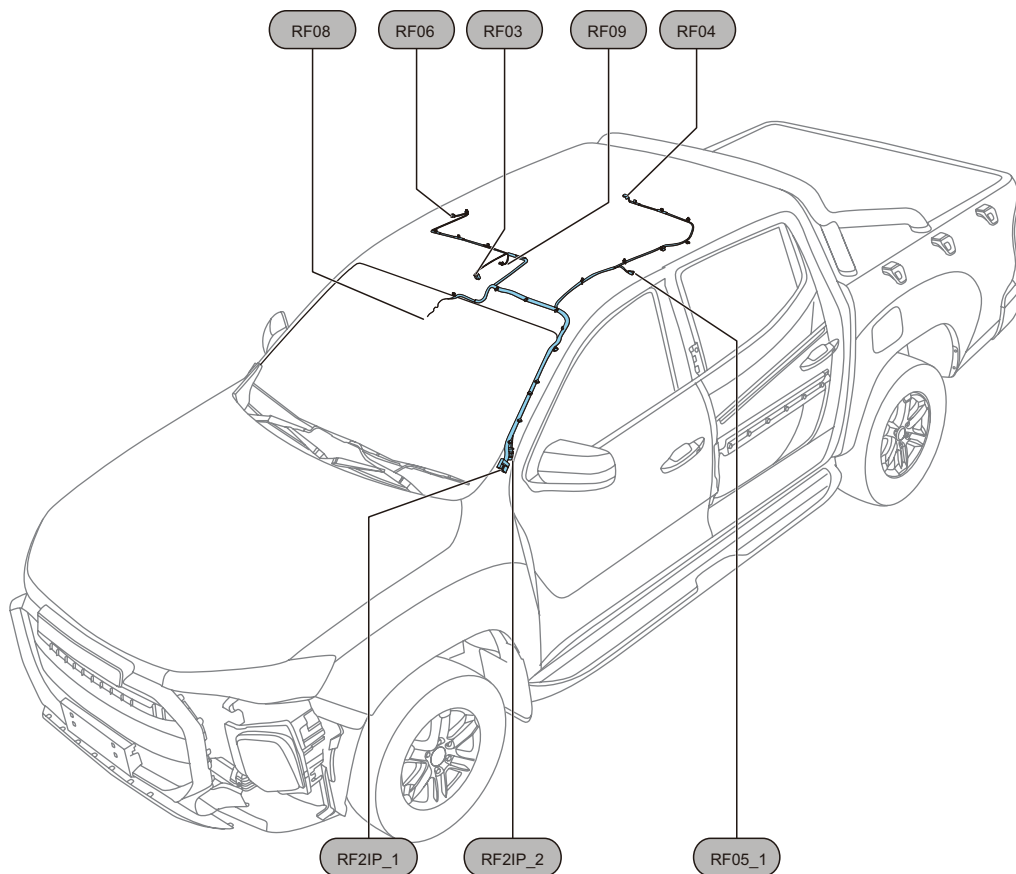
Pin No.	Color	Functions	Re- marks
A	WH	CVBS1	
B	BARE	Shielding wire	
C	BN/OG	signal	
D	YE	R SIG	
E	RD	PWR	
F	BK	GND	
G	-	-	
H	-	-	

Pin No.	Color	Functions	Re- marks
1	RD/YE	signal	
2	VT	BRAKE SIG	
3	D-BU	BACK UP SIG	
4	D-GN	REAR FOG SIG	
5	BN	RIGHT TURN SIG	
6	BK	GND	
7	GY	LEFT POSITION SIG	
8	L-BU	RIGHT POSITION SIG	
9	BN/D-BU	LEFT TURN SIG	
10	RD/BK	PWR	



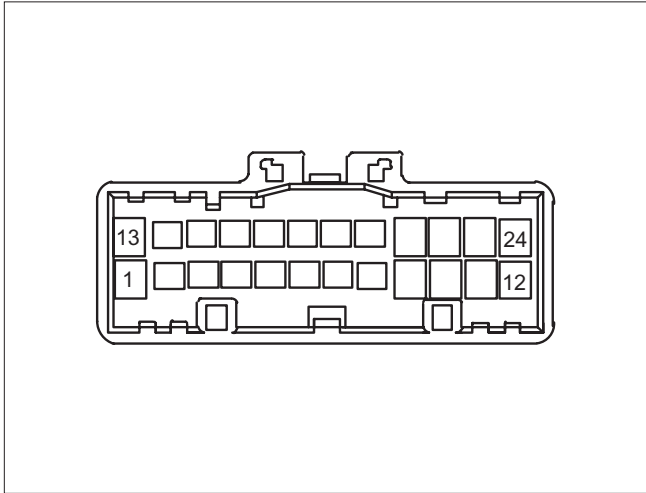
CH2TRAILERChassis connected to trailer harness
CONN 4 F 025 NAT

4.2 Ceiling harness



Wiring Harness Distribution and Pin Definition of Electrical Components 4-26

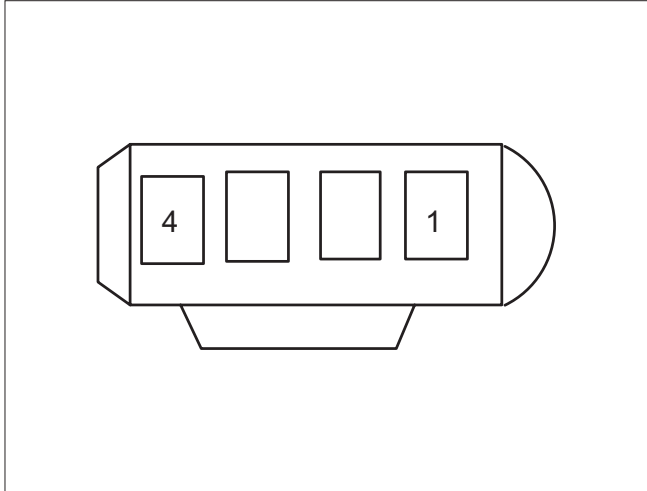
4.2.1 Description of roof harness RF connector



RF2IP_1 Connected to instrument harness
CONN 24 M 040 090 NAT

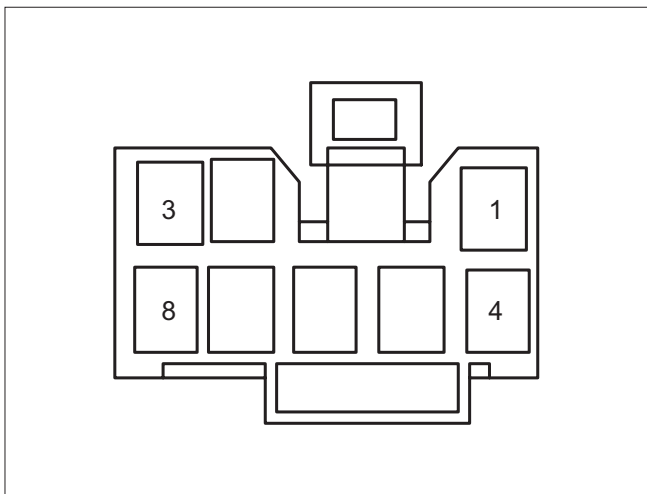
Pin No.	Color	Functions	Re- marks
1	-	-	
2	-	-	
3	-	-	
4	TN	RLS	
5	L-GN	signal	
6	GY/BK	ROOF LP LSD	
7	PK/BK	ROOF LP HSD	
8	-	-	
9	-	-	
10	YE	signal	
11	BARE	Shielding wire	
12	-	-	
13	-	-	
14	-	-	
15	-	-	
16	-	-	
17	-	-	
18	-	-	
19	-	-	
20	-	-	
21	-	-	

Pin No.	Color	Functions	Re- marks
22	-	-	
23	BK	GND	
24	BK	GND	



RF2IP_2 Connected to instrument harness
ASM CONN 4 M DCS-2 1.5 MULTI

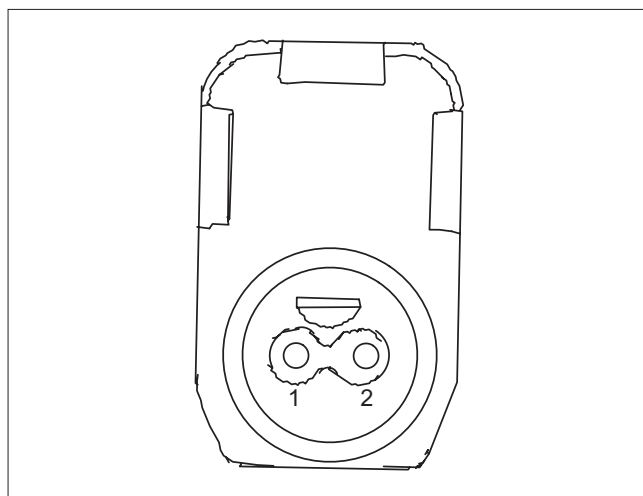
Pin No.	Color	Functions	Re- marks
1	YE	left CAB inflator+	
2	BK	GND	
3	D-BU	Right CAB inflator+	
4	BK	GND	



RF03 FRT ROOM LP (-SUNROOF)
CONN 8 F 090 NAT

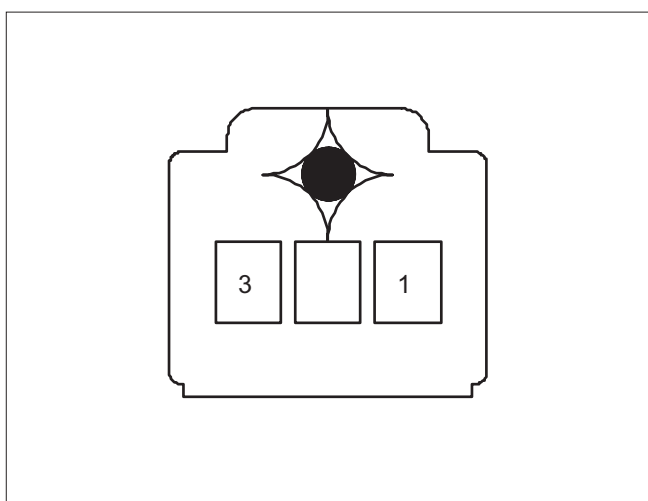
Wiring Harness Distribution and Pin Definition of Electrical Components 4-27

Pin No.	Color	Functions	Re- marks
1	PK/BK	ROOF LP HSD	
2	GY/BK	ROOF LP LSD	
3	-	-	
4	BK	GND	
5	BK	GND	
6	-	-	
7	-	-	
8	-	-	



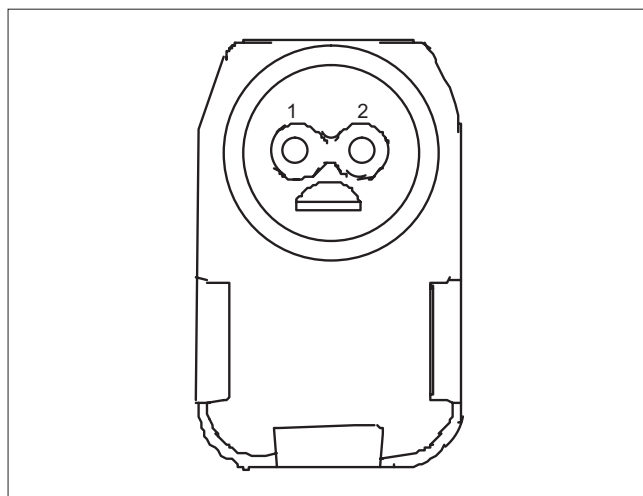
RF05_1 CAB_DRV
MISC SUBHARNNESS AIRBAG YEL L3220.00

Pin No.	Color	Functions	Re- marks
1	YE	signal	
2	BK	GND	



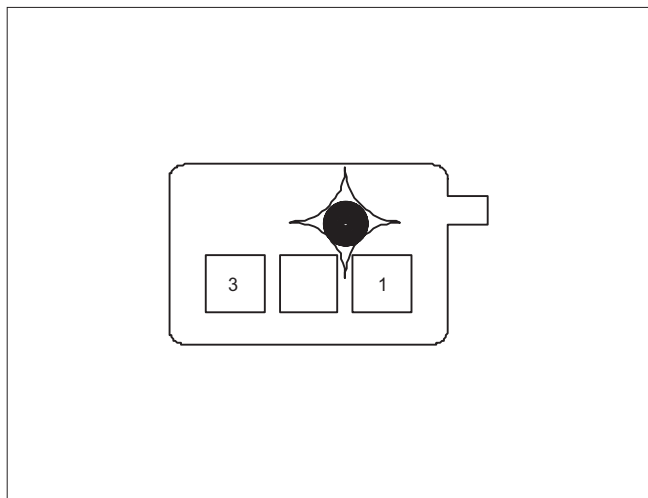
RF04 REAR ROOM LP
CONN 3 F 070 NAT

Pin No.	Color	Functions	Re- marks
1	GY/BK	ROOF LP HSD	
2	BK	GND	
3	VT/BK	ROOF LP LSD	



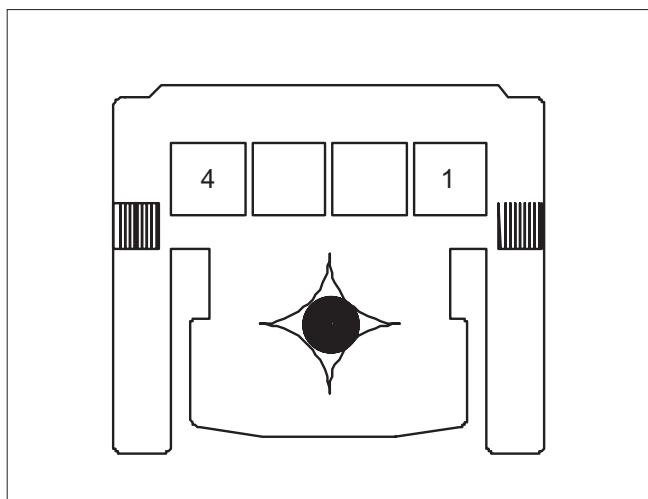
RF06 CAB_PAS
MISC SUBHARNNESS AIRBAG YEL L4470 .00

Pin No.	Color	Functions	Re- marks
1	D-BU	signal	
2	BK	GND	



RF08 RAIN LIGHT SEN
CONN 3 F 0.64 MQS BLK

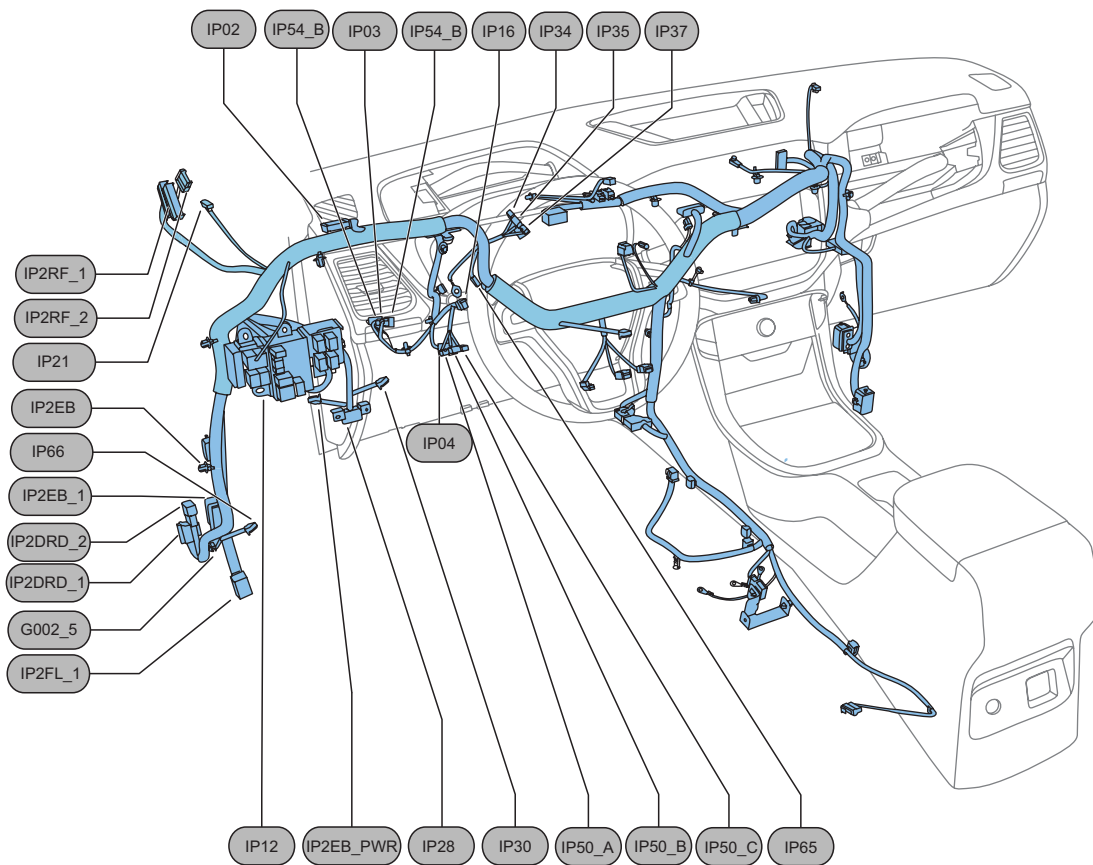
Pin No.	Color	Functions	Re- marks
1	L-GN	PWR	
2	BK	GND	
3	TN	RLS	

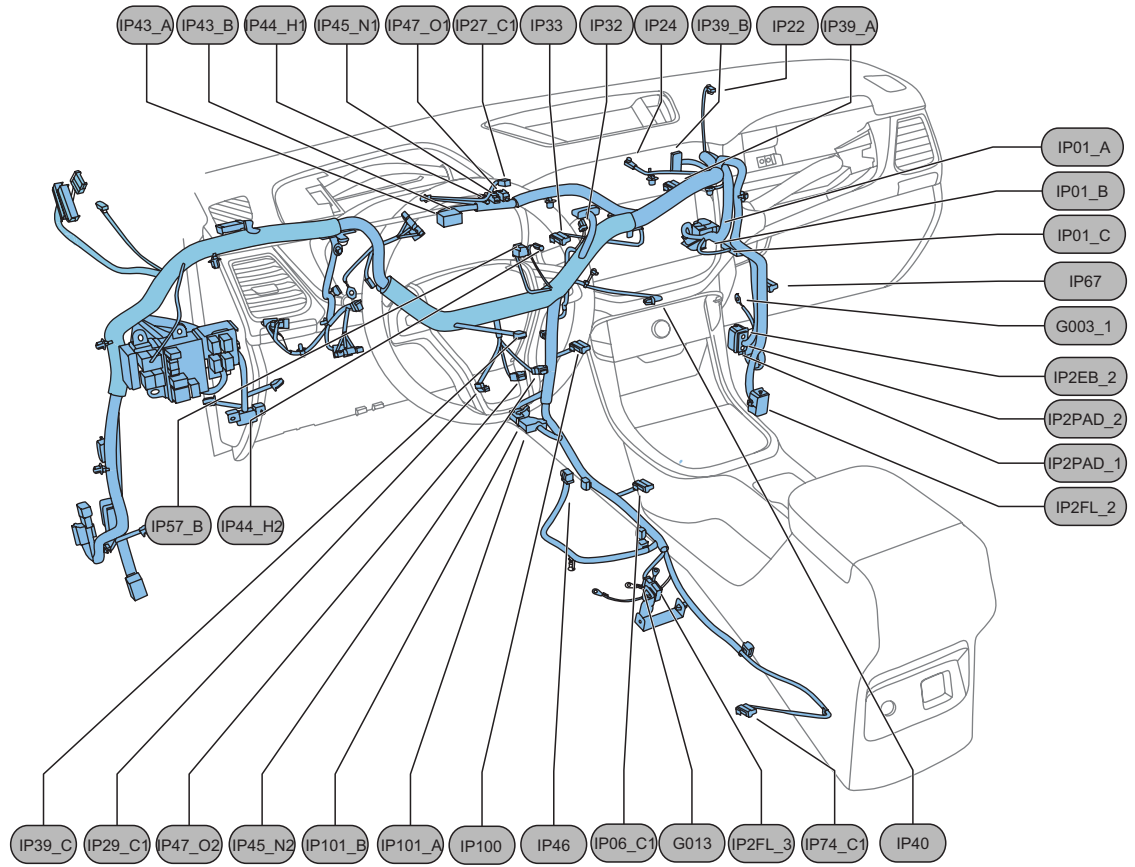


RF09 MICROPHONE
CONN 4 F 025 NAT

Pin No.	Color	Functions	Re- marks
1	BARE	Shielding wire	
2	YE	signal	
3	-	-	
4	-	-	

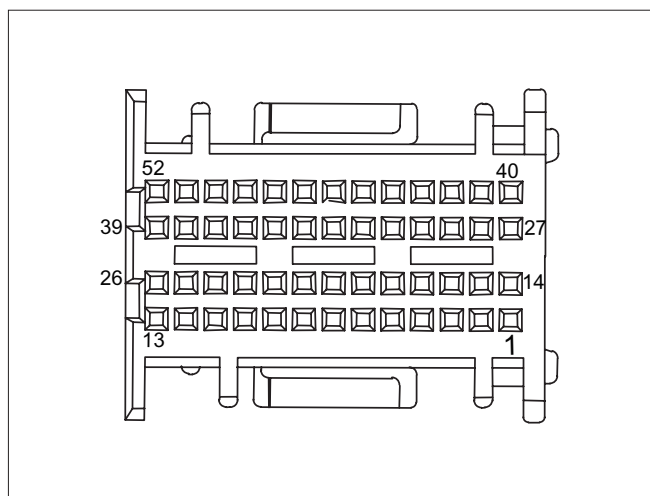
4.3 Instrument harness





Wiring Harness Distribution and Pin Definition of Electrical Components 4-31

4.3.1 Description of instrument harness IPR connector



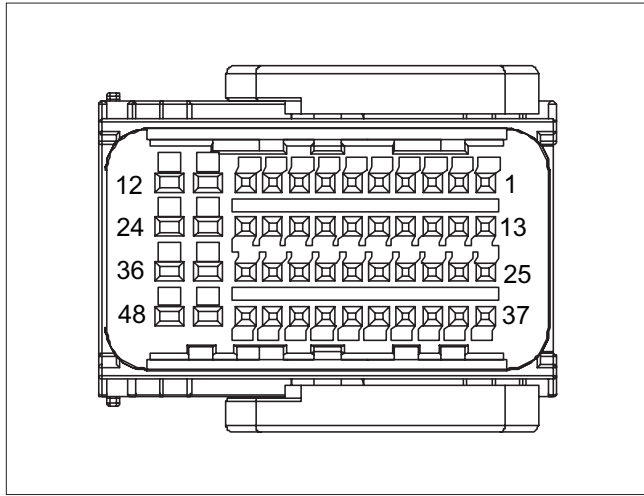
IPR01_A BCM A
ASM CONN 52 F 0.64 MQS BLK

Pin No.	Color	Functions	Re- marks
1	-	-	
2	VT	IGNITION SIG	
3	YE	BRAKE PEDAL SW	
4	BK	SGND3	
5	-	-	
6	-	-	
7	BN	KLR SW	
8	RD/YE	KL15 IGN SW	
9	BN	HAZARD SW	
10	-	-	
11	GY	SECURITY TELL TALE	
12	-	-	
13	L-GN	TURN_LH DIAG	
14	-	-	
15	D-BU	POSITION LP	
16	L-BU	FRT WIPER SIG 2(Low)	
17	-	-	
18	-	-	
19	-	-	

Pin No.	Color	Functions	Re- marks
20	-	-	
21	D-GN	TURN_RH DIAG	
22	D-BU/BK	MASTER UNLOCK SW	
23	WH	MAIN SW OF LIGHT	
24	VT	FRT WASH SW	
25	GY/WH	GND_DIMMER SW	
26	-	-	
27	VT/BK	ROOF LP HSD	
28	-	-	
29	BN/OG	WIPER SW GND	
30	-	-	
31	-	-	
32	YE	MAIN BEAM FLASH SW	
33	L-GN	FRT WIPER INT LVL	
34	TN	RIGHT TURN SW	
35	OG/BK	WAKE UP ENABLE	
36	-	-	
37	L-BU	REAR FOG LP SW	
38	-	-	
39	-	-	
40	-	-	
41	YE/BN	CAN1_L	
42	YE/BK	CAN1_H	
43	-	-	
44	-	-	
45	D-BU/YE	FRT WIPER INT LVL	
46	WH	5V	
47	D-BU/YE	MASTER LOCK SW	
48	-	-	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-32

Pin No.	Color	Functions	Re- marks
49	-	-	
50	-	-	
51	L-BU	IGNITION RING ILLUM	
52	-	-	



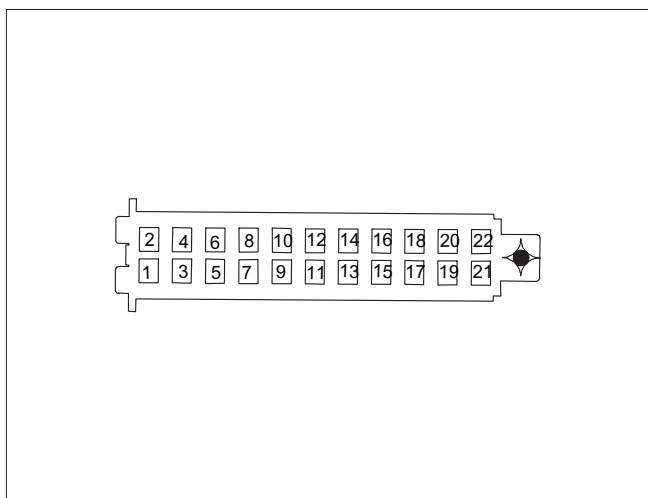
I PR01_B BCM_B
CONN 48 F 1.5 MQS MX 150

Pin No.	Color	Functions	Re- marks
1	L-BU/BK	DOOR AJAR RL SW	
2	L-GN/BK	DOOR AJAR RR SW	
3	VT/BK	DRI_SNIB_LOCK_ UNLOCK_FB_SW	
4	L-BU	SNIB LOCK/ UNLOCK FB SW_ PAS	
5	GY	HODD AJAR SW(HIGH)/BRAKE PEDAL SEN PWR(LOW)	
6	WH	RAP/ACC Relay	
7	GY	LEFT TURN SW	
8	BK	SGND4	
9	-	-	
10	-	-	

Pin No.	Color	Functions	Re- marks
11	-	-	
12	GY/BK	ROOF LP LSD	
13	D-BU	KL15 IGNITION SW	
14	YE	Rear Fog LP	
15	-	-	
16	PU	DAYTIME LP_L	
17	GY	FRT WIPER PWR RELAY	
18	BN	MAIN BEAM RELAY	
19	D-GN	MAIN BEAM SW	
20	-	-	
21	YE	FRT WIPER PARK SW	
22	YE/GY	ECO/POW	
23	PU/BK	Brake light	
24	L-BU/WH	LEFT TURN LP	
25	L-BU	CHMSL	
26	-	-	
27	BN/OG	DOOR AJAR SW_ PAS	
28	-	-	
29	D-BU	DAYTIME LP_R	
30	-	-	
31	TN	FRT WIPER SPEED RELAY	
32	-	-	
33	-	-	
34	D-GN	IMMO	
35	D-BU/WH	Right turn signal	
36	OG/BK	REVERSE LP	
37	OG	CRASH SIG	
38	YE	-	
39	GY/BK	DOOR AJAR SW_ DRV	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-33

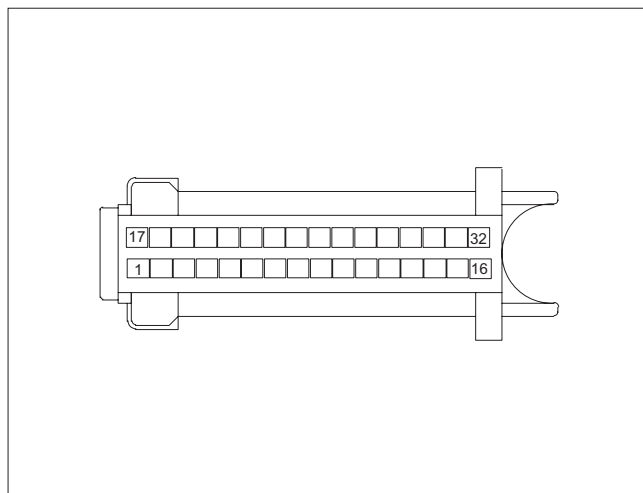
Pin No.	Color	Functions	Re- marks
40	VT/BK	Fuel flap switch	
41	VT/WH	DIPPED BEAM RELAY	
42	TN	Horn relay	
43	-	-	
44	-	-	
45	-	-	
46	TN	RLS	
47	YE	ACC WAKEUP	
48	YE	KL15 RELAY IG1	



I PR01_C BCM_C
CONN 22 F 2.8 TIMER BLK JR PWR

Pin No.	Color	Functions	Re- marks
1	RD/D-BU	KL30_INT LP	
2	-	-	
3	RD/WH	KL30_EXT LP	
4	-	-	
5	PU/WH	DIMMER ILL	
6	-	-	
7	BK	GND	
8	-	-	
9	BK	GND	

Pin No.	Color	Functions	Re- marks
10	-	-	
11	WH	FUEL FLAP ACTUATOR	
12	-	-	
13	OG	FRT WASH MOTOR	
14	RD/WH	KL30_CD L	
15	RD/WH	KL30_FUEL FLAP	
16	-	-	
17	RD/BK	KL30_FRT WASH	
18	TN	CDL_LOCK_MOTORS	
19	BK	GND	
20	GY	CDL_UNLOCK_MOTORS	
21	BK	GND	
22	BK	GND	

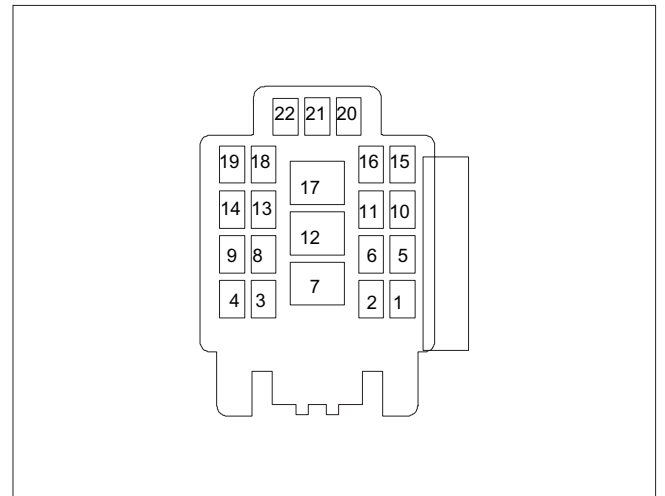


I PR02 CLUSTER
CONN COVER ASSY

Pin No.	Color	Functions	Re- marks
1	RD/YE	KL15	
2	RD/WH	KL30	
3	-	-	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-34

Pin No.	Color	Functions	Re- marks
4	-	-	
5	PU/WH	SET1_LIGHT	
6	VT/BK	SET2_WIPER	
7	-	-	
8	PU	BRAKE WARNING	
9	YE/BK	PARKING BRAKE	
10	-	-	
11	-	-	
12	-	-	
13	-	-	
14	YE/WH	CAN_H	
15	YE/RD	CAN_L	
16	BK	GND_PWR	
17	BK	GND_PWR	
18	-	-	
19	-	-	
20	-	-	
21	-	-	
22	-	-	
23	-	-	
24	-	-	
25	-	-	
26	-	-	
27	YE	DRV SEAT BELT WARNING	
28	-	-	
29	GY	IMMO LP+	
30	-	-	
31	-	-	
32	BK	IMMO LP-	

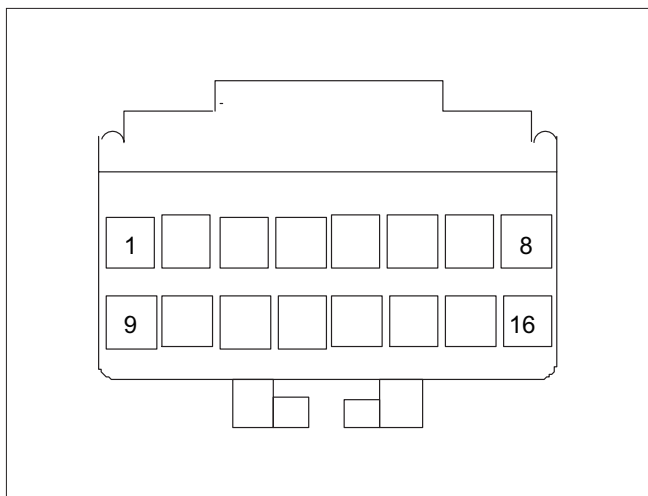


IPR2DRD_1 Connected to driver's door harness 1
CONN 22 M 070 II 250 II

Pin No.	Color	Functions	Re- marks
1	L-BU/WH	LEFT TURN LP	
2	RD/WH	KL30	
3	YE	MOT UP_PD	
4	TN	MOT DOWN_PD	
5	YE/BK	(ALL)WINDOW LOCK	
6	-	-	
7	WH	RAP	
8	TN	Audio LF+	
9	GY	Audio LF-	
10	RD/WH	PWR	
11	-	-	
12	TN	CDL_LOCK_ MOTORS	
13	-	-	
14	VT/BK	DRI_SNIB_LOCK_ UNLOCK_FB_SW	
15	GY/BK	D00R AJAR SW_ DRV	
16	-	-	
17	GY	CDL_UNLOCK_ MOTORS	
18	-	-	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-35

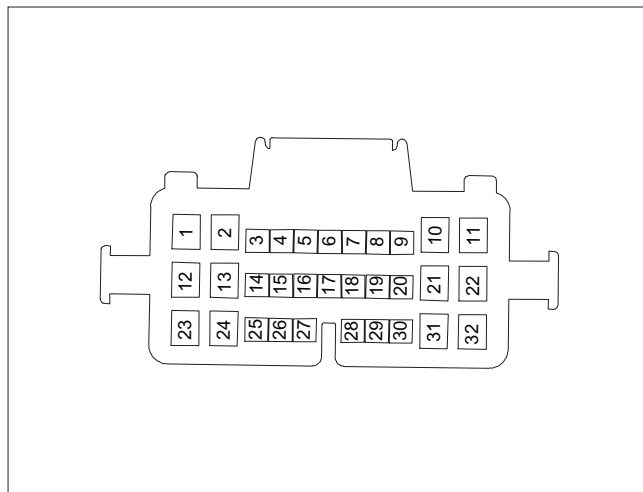
Pin No.	Color	Functions	Re- marks
19	-	-	
20	-	-	
21	-	-	
22	BK	GND	



IPR2DRD_2 Connected to driver's door harness 2
ASCII 16M HSG ASSY

Pin No.	Color	Functions	Re- marks
1	D-BU/YE	Primary lock	
2	D-BU/BK	Main unlocking	
3	-	-	
4	PU/WH	DIMMER ILL	
5	VT/BK	Fuel flap switch	
6	D-GN	MOT UP_RL	
7	PU	MOT DOWN_RL	
8	L-GN	MOT UP_RR	
9	GY	MOT DOWN_RR	
10	BN/WH	signal	
11	OG	PWR	
12	GY	PWR	
13	BK	GND	
14	-	-	

Pin No.	Color	Functions	Re- marks
15	-	-	
16	WH	PWR	



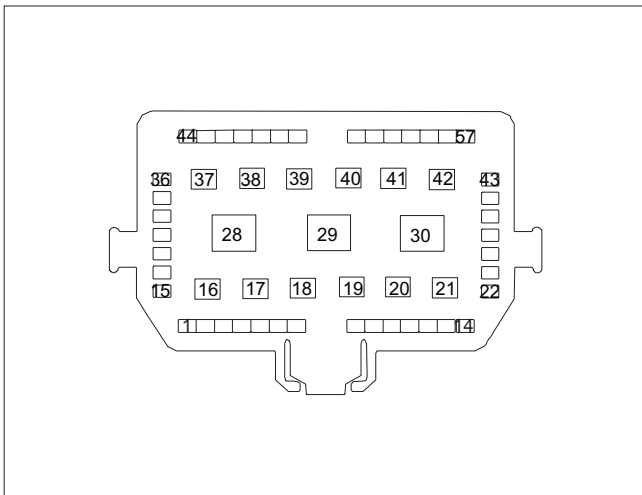
IPR2EB Connected to engine room harness
CONN 32 F 040 III 090 II SLD

Pin No.	Color	Functions	Re- marks
1	-	-	
2	-	-	
3	-	-	
4	-	-	
5	-	-	
6	YE/D-BU	CAN_L	
7	OG/D-GN	LIN	
8	YE/RD	CAN BUS_H_VCU	
9	YE/GY	CAN BUS_L_VCU	
10	-	-	
11	-	-	
12	-	-	
13	-	-	
14	YE/WH	CAN BUS_H_VCU_ MCU	
15	YE/D-BU	CAN BUS_L_VCU_ MCU	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-36

Pin No.	Color	Functions	Re- marks
16	-	-	
17	-	-	
18	-	-	
19	YE/WH	PET CAN_H	
20	RD/WH	KL15	
21	-	-	
22	-	-	
23	-	-	
24	-	-	
25	YE/D-GN	BMS-CHARGE CANH	
26	D-BU	BMS-CHARGE CANL	
27	-	-	
28	YE/BK	CAN_H	
29	YE/BN	CAN_L	
30	BARE	Shielding wire	
31	-	-	
32	-	-	

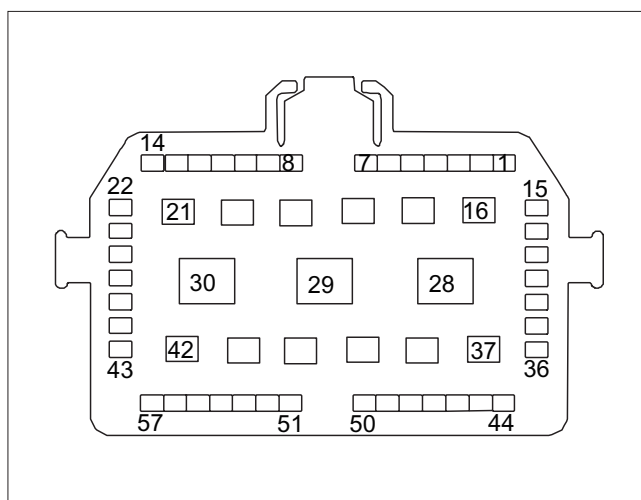
Pin No.	Color	Functions	Re- marks
1	-	-	
2	-	-	
3	YE/D-BU	CAN_H	
4	YE/L-GN	CAN_L	
5	RD/YE	KL30	
6	-	-	
7	-	-	
8	-	-	
9	-	-	
10	D-GN	PWR	
11	OG/BK	OUT	
12	-	-	
13	RD/BK	PWR	
14	-	-	
15	RD/WH	COMM ENABLE HS(IG)	
16	-	-	
17	RD/WH	PWR	
18	RD/YE	PWR	
19	-	-	
20	D-GN	-	
21	-	-	
22	-	-	
23	-	-	
24	-	-	
25	TN	signal	
26	-	-	
27	YE/BK	TEMP_AMB	
28	RD/BK	signal	
29	RD	PWR	
30	RD/WH	PWR	
31	BN/WH	PWR_IGN	



IPR2EB_1 Connected to engine room harness1
ASM CONN 57 F 0.64 2.8 6.3

Wiring Harness Distribution and Pin Definition of Electrical Components 4-37

Pin No.	Color	Functions	Re- marks
32	-	-	
33	OG/BK	R-SHIFT	
34	-	-	
35	-	-	
36	-	-	
37	RD/YE	PWR	
38	RD/BK	PWR	
39	RD/BK	KL30	
40	RD/BN	KL30	
41	OG	Crash_PWM	
42	-	-	
43	PU	Brake warning	
44	WH	CVBS1	
45	BARE	Shielding wire	
46	OG/BK	Reverse gear Lp	
47	-	-	
48	-	-	
49	-	-	
50	GY	+5V	
51	OG/BK	Vout	
52	-	-	
53	-	-	
54	D-GN/ WH	ESP OFF_LAMP	
55	L-GN	HDC_LAMP	
56	D-BU	ESP OFF	
57	D-BU/WH	HDC_SW	



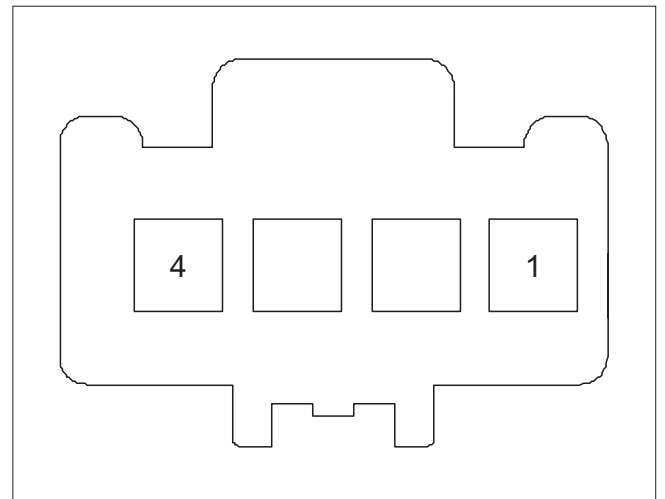
IPR2EB_2 Connected to engine room harness2
ASM CONN 57 F 0.64 2.8 6.3

Pin No.	Color	Functions	Re- marks
1	-	-	
2	RD/BK	signal	
3	-	-	
4	-	-	
5	-	-	
6	GY	VINI	
7	GY/WH	GNDI	
8	YE	SIG1	
9	GY	Wiper PWR relay	
10	TN	Wiper speed relay	
11	D-BU	Position lp	
12	-	-	
13	-	-	
14	D-BU	DAYTIME LP_R	
15	PU	DAYTIME LP_L	
16	-	-	
17	-	-	
18	-	-	
19	RD/WH	PWR	
20	-	-	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-38

Pin No.	Color	Functions	Re- marks
21	-	-	
22	YE	Left FIS sensor-	
23	D-GN	Right FIS sensor+	
24	GY	Right FIS sensor-	
25	D-BU/WH	Right turn signal	
26	PU/BK	Brake light	
27	YE	Rear fog lamp	
28	-	-	
29	-	-	
30	-	-	
31	-	-	
32	-	-	
33	-	-	
34	-	-	
35	-	-	
36	-	-	
37	L-GN	TURN_LH DIAG	
38	D-GN	TURN_RH DIAG	
39	-	-	
40	-	-	
41	-	-	
42	-	-	
43	-	-	
44	-	-	
45	VT/BK	Left FIS sensor+	
46	YE	ACC wake-up	
47	-	-	
48	-	-	
49	BN	High beam relay	
50	VT/WH	Low beam lamp relay	

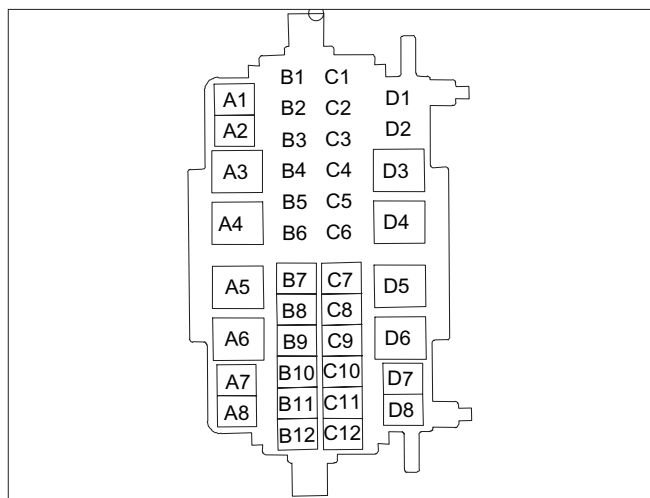
Pin No.	Color	Functions	Re- marks
51	L-BU/WH	Turn left	
52	YE	FRT wiper park switch	
53	-	-	
54	-	-	
55	OG	Front cleaning motor	
56	WH	Fuel flap actuator	
57	OG/BK	REVERSE	



IPR2EB_PWR LINK 1 Connected to engine room harness
PWR
CONN 4 M 312 NAT

Pin No.	Color	Functions	Re- marks
1	RD/YE	PWR	
2	RD/BK	PWR	
3	RD	Power Supply	
4	RD/WH	signal	

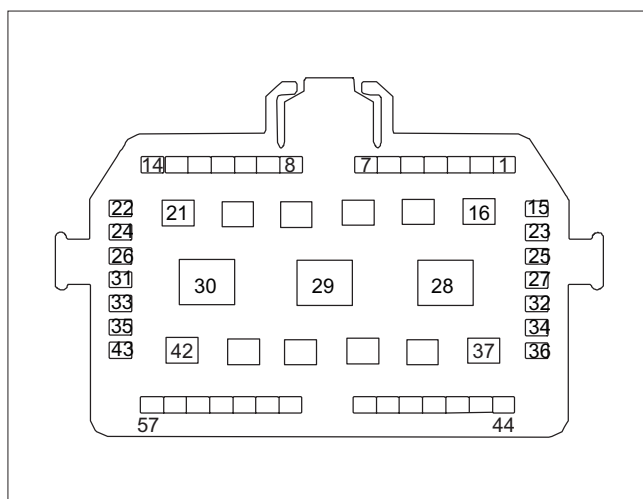
Wiring Harness Distribution and Pin Definition of Electrical Components 4-39



IPR2FL_1 Instrument ground plate harness
CONN 40 F GT 150 280

Pin No.	Color	Functions	Re- marks
A1	L-BU	CHMSL	
A2	WH	signal	
A3	RD/WH	PWR	
A4	-	-	
A5	-	-	
A6	GY	HDI2_KLR	
A7	BN	KL30	
A8	RD/WH	HDI1_KL15	
B1	L-GN	signal	
B2	D-GN	MOT UP_RL	
B3	PU	MOT DOWN_RL	
B4	YE/BK	WINDOW LOCK	
B5	PU/WH	DIMMER ILL	
B6	D-BU	signal	
B7	L-GN	MOT UP_RR	
B8	GY	MOT DOWN_RR	
B9	YE/BK	WINDOW LOCK	
B10	PU/WH	DIMMER ILL	
B11	-	-	
B12	-	-	

Pin No.	Color	Functions	Re- marks
C1	WH/BK	Right B-pillar sensor+	
C2	PU/WH	Right B-pillar sensor-	
C3	D-GN	Left B-pillar sensor+	
C4	WH/BK	Left B-pillar sensor-	
C5	RD/YE	KL30	
C6	PU/BK	BRSKE LP	
C7	RD/WH	PWR	
C8	-	-	
C9	-	-	
C10	-	-	
C11	YE/D-BU	CAN_H	
C12	YE/WH	CAN_L	
D1	YE	Rear belt buckle	
D2	PK/WH	BUCKLE	
D3	YE	Driver buckle switch	
D4	RD/WH	PWR	
D5	BN	signal	
D6	YE	SW	
D7	-	-	
D8	-	-	



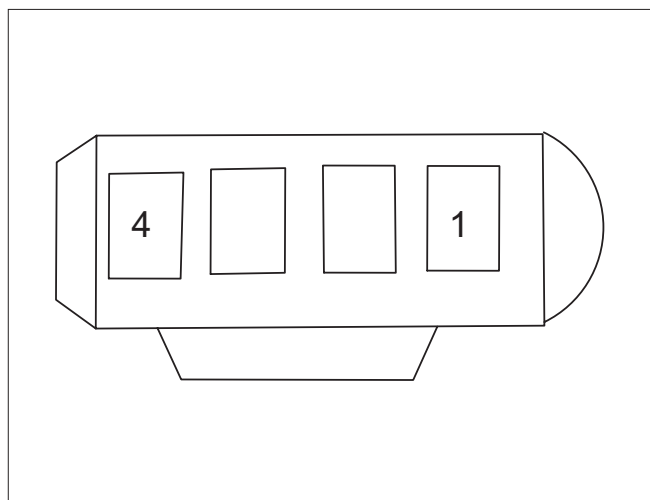
Wiring Harness Distribution and Pin Definition of Electrical Components 4-40

IPR2FL_2 Instrument ground plate harness 2
 ASM CONN 57 F 0.64 2.8 6.3

Pin No.	Color	Functions	Re- marks
1	-	-	
2	-	-	
3	YE/L-GN	CH_CAN_L	
4	-	-	
5	PU	Rear belt buckle	
6	YE/BK	PT_CAN_H	
7	-	-	
8	-	-	
9	YE/WH	INFO_CAN_H	
10	YE/RD	INFO_CAN_L	
11	YE/BK	PT_CAN_H	
12	YE/BN	BD_CAN_L	
13	YE/GY	DIGN_CAN_H	
14	YE/OG	DIGN_CAN_L	
15	YE/D-BU	CH_CAN_H	
16	-	-	
17	TN	RAP/ACC Relay	
18	TN	RAP	
19	GY	CDL_UNLOCK_MOTORS	
20	-	-	
21	-	-	
22	-	-	
23	-	-	
24	-	-	
25	-	-	
26	-	-	
27	-	-	
28	RD	KL30	
29	RD	KL30	

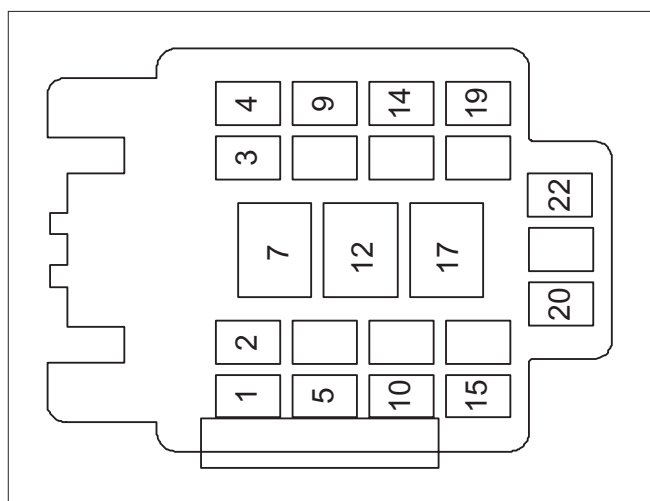
Pin No.	Color	Functions	Re- marks
30	-	-	
31	YE/BK	Parking brake	
32	L-BU/BK	DOOR AJAR RL SW	
33	YE/BN	PT_CAN_L	
34	L-GN/BK	DOOR AJAR RR SW	
35	-	-	
36	-	-	
37	-	-	
38	-	-	
39	-	-	
40	-	-	
41	GY	Engine	
42	-	-	
43	OG	FUNCTION	
44	-	-	
45	-	-	
46	-	-	
47	-	-	
48	WH	(STD)RAP	
49	WH	(STD)RAP	
50	-	-	
51	-	-	
52	-	-	
53	-	-	
54	-	-	
55	-	-	
56	-	-	
57	-	-	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-41



IPR2FL_3 Instrument ground plate harness 3
ASM CONN 4 M DCS-2 1.5 MULTI

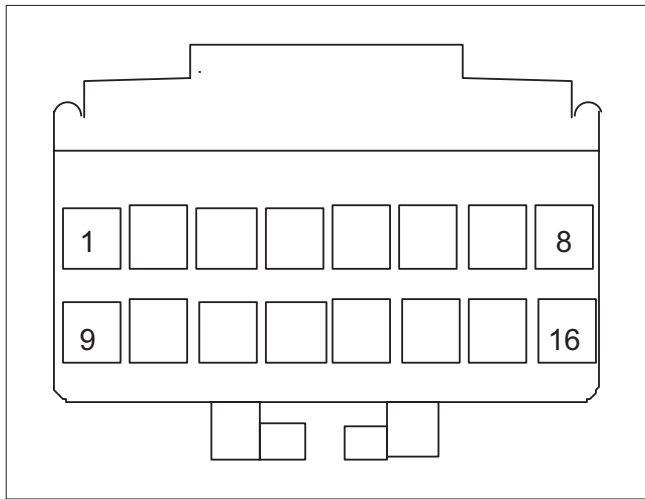
Pin No.	Color	Functions	Re- marks
1	BN	Height of front left air bag	
2	YE/BK	Low degree of front left air bag	
3	BN/OG	Height of right front airbag	
4	L-GN	Low degree of right front airbag	



IPR2PAD_1 Instrument connected to passenger side door harness
CONN 22 M 070 250

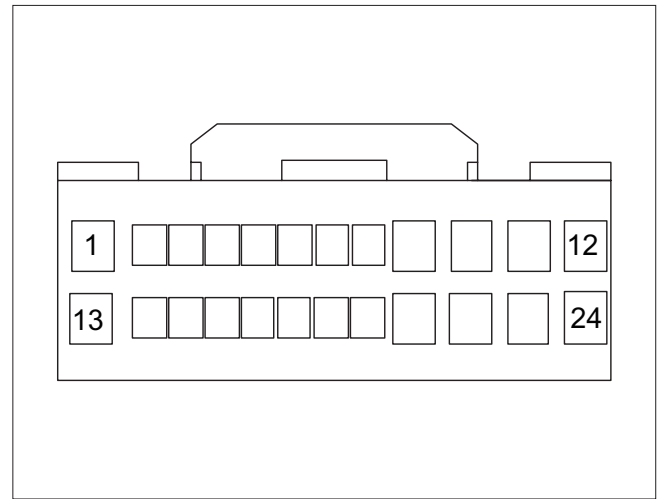
Pin No.	Color	Functions	Re- marks
1	D-BU/WH	Right turn signal	
2	RD/WH	PWR	
3	YE	(ALL) MOT UP_PD	
4	TN	(ALL) MOT DOWN_PD	
5	BK	GND	
6	PU/WH	DIMMER ILL	
7	WH	(STD) RAP	
8	L-GN	Audio RF+	
9	PU	Audio RF-	
10	RD/WH	Signal	
11	BARE	Shielding wire	
12	TN	CDL_LOCK_MOTORS	
13	GY	CDL_UNLOCK_MOTORS	
14	L-BU	SNIB LOCK/ UNLOCK FB SW_PAS	
15	BN/OG	DOOR AJAR SW_PAS	
16	-	-	
17	-	-	
18	-	-	
19	-	-	
20	-	-	
21	-	-	
22	BK	GND	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-42



IPR2PAD_2 Instrument connected to passenger door lock harness
ASCII 16M HSG ASSY

Pin No.	Color	Functions	Re- marks
1	GY	Signal	
2	-	-	
3	-	-	
4	-	-	
5	-	-	
6	BK	GND	
7	-	-	
8	-	-	
9	-	-	
10	-	-	
11	-	-	
12	-	-	
13	-	-	
14	-	-	
15	-	-	
16	-	-	

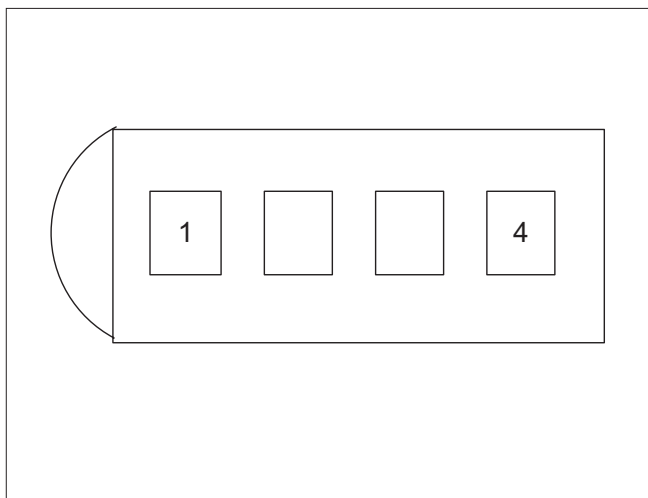


IPR2RF_1 Instrument connected to ceiling harness
ASM CONN 24 F 040 III 090 ASC

Pin No.	Color	Functions	Re- marks
1	-	-	
2	-	-	
3	-	-	
4	TN	RLS	
5	BN	signal	
6	GY/BK	ROOF LP LSD	
7	VT/BK	ROOF LP HSD	
8	-	-	
9	-	-	
10	L-GN	MIC1 +/TBOX MIC+	
11	BARE	Shielding wire	
12	-	-	
13	-	-	
14	-	-	
15	-	-	
16	-	-	
17	-	-	
18	-	-	
19	-	-	
20	-	-	

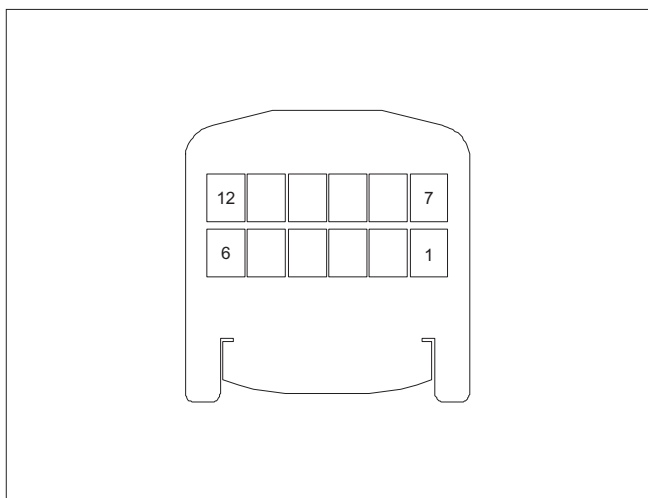
Wiring Harness Distribution and Pin Definition of Electrical Components 4-43

Pin No.	Color	Functions	Re- marks
21	-	-	
22	-	-	
23	BK	GND	
24	BK	GND	



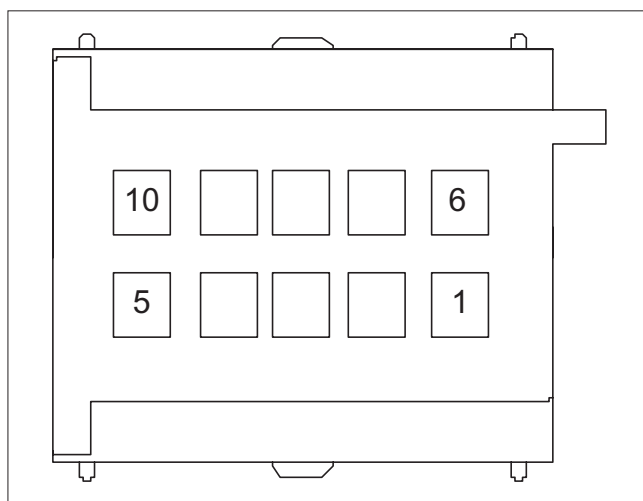
I PR2RF_2 Instrument connected to ceiling harness
CONN 4 F DCS-2 1.5 BLK

Pin No.	Color	Functions	Re- marks
1	PU/WH	Left CAB inflator+	
2	PK	Left CAB inflator-	
3	YE/BK	Right CAB inflator+	
4	WH/BK	Right CAB inflator-	



I PR03 COMBINE SW_LP
CONN 12 F 025 BLK

Pin No.	Color	Functions	Re- marks
1	GY/WH	GND_DIMMER SW	
2	TN	Right turn switch	
3	-	-	
4	-	-	
5	YE	High beam flasher	
6	BK	GND	
7	WH	Main lighting switch	
8	L-BU	Rear fog lamp low pressure switch	
9	-	-	
10	PU/WH	SET1_LIGHT	
11	GY	Left turn switch	
12	D-GN	High beam switch	



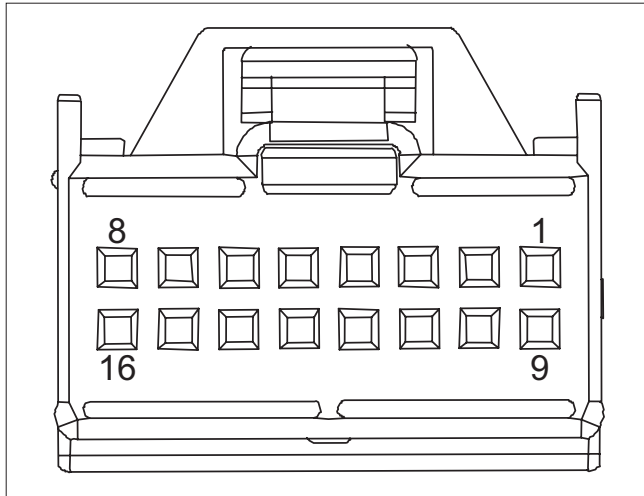
I PR04 COMBINE SW WIPER
CONN 10 F 0.64 MQS BLK

Pin No.	Color	Functions	Re- marks
1	BK	GND	
2	VT/BK	SET2_WIPER	
3	-	-	
4	-	-	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-44

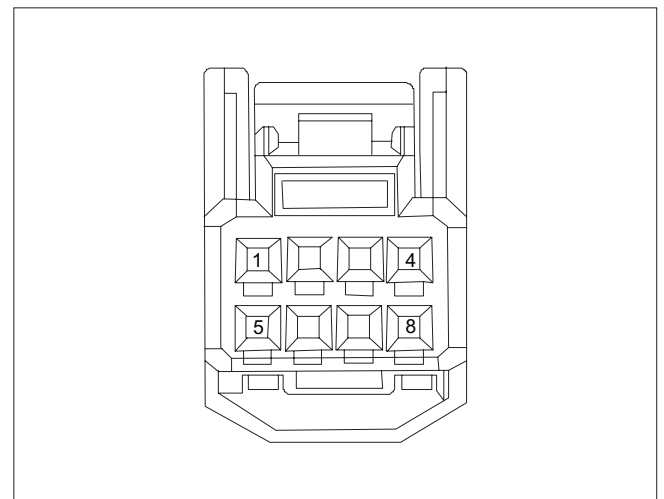
Pin No.	Color	Functions	Re- marks
5	BN/OG	Wiper switch grounding	
6	VT	Front washing switch	
7	L-GN	Front wiper signal 1 (high)	
8	BK	GND	
9	L-BU	Front wiper signal 1 (low)	
10	D-BU/YE	Front wiper inner layer	

Pin No.	Color	Functions	Re- marks
10	D-BU/WH	HDC_SW	
11	YE/GN	AD+	
12	GY/WH	AD-	
13	-	-	
14	-	-	
15	-	-	
16	-	-	



IPR06_C1 CONSOLE SW-R
CONN 16 F 0.64 BRN

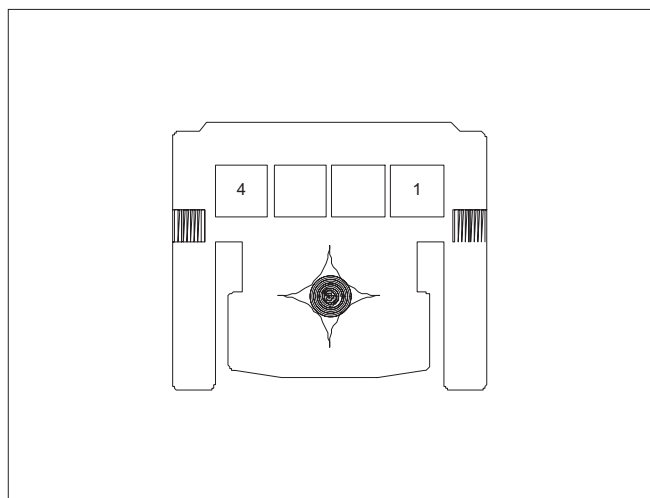
Pin No.	Color	Functions	Re- marks
1	PU/WH	ILL+	
2	BK	ILL-	
3	-	-	
4	-	-	
5	-	-	
6	BN/WH	IGN 6	
7	D-GN/ WH	ESP OFF_LAMP	
8	D-BU	ESP OFF	
9	L-GN	HDC_LAMP	



IPR12 DIMMER SW
ASM CONN 8 F 064 NAT

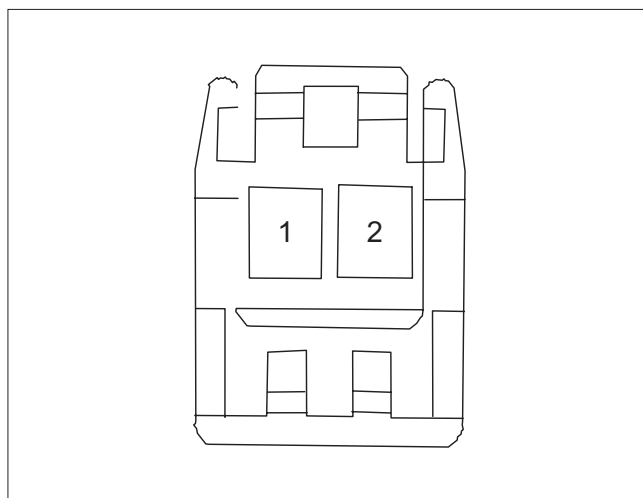
Pin No.	Color	Functions	Re- marks
1	D-GN	PWR	
2	OG/BK	OUT	
3	BK	GND	
4	PU/WH	DIMMER ILL	
5	-	-	
6	BK	GND	
7	-	-	
8	-	-	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-45



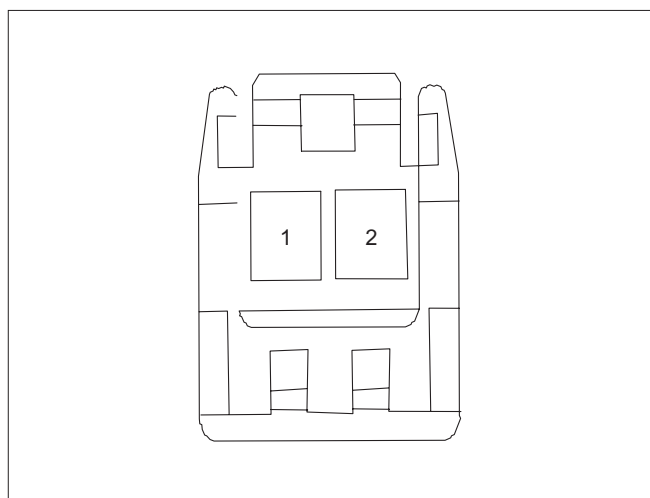
IPR16 IMMO_BCM
CONN 4 F 025 NAT

Pin No.	Color	Functions	Re- marks
1	RD/WH	PWR	
2	BK	GND	
3	D-GN	IMMO	
4	L-BU	Ignition lighting	



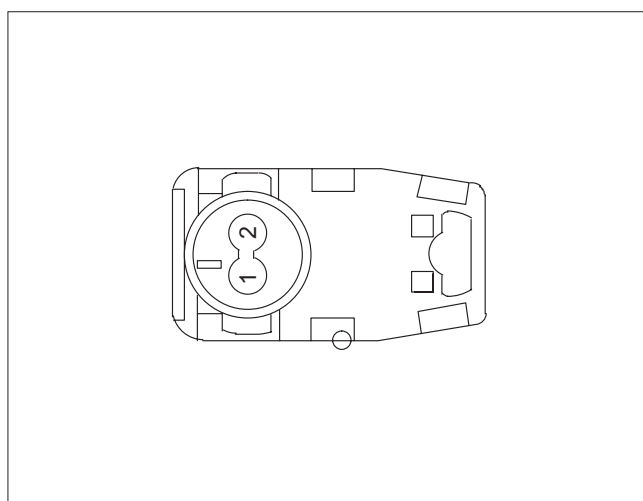
IPR22 HI SPEAKER_RH
Connector Housing

Pin No.	Color	Functions	Re- marks
1	L-GN	Audio RF+	
2	PU	Audio RF-	



IPR21 HI SPEAKER_LH
Connector Housing

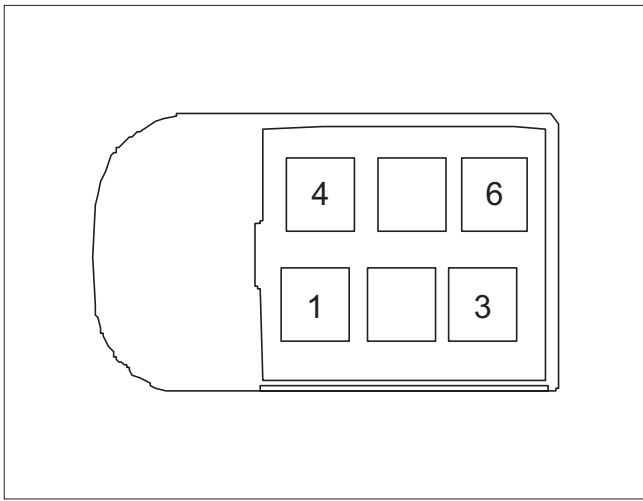
Pin No.	Color	Functions	Re- marks
1	TN	Audio LF+	
2	GY	Audio LF-	



IPR24 PAB
ASM MISC SUBHARNESS PIGTAIL

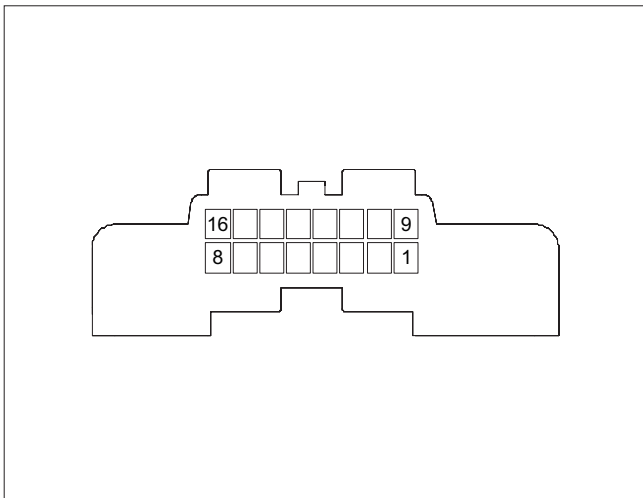
Pin No.	Color	Functions	Re- marks
1	L-GN	Front passenger airbag high	
2	OG	Front passenger airbag low	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-46



IPR27_C1 HAZARD SW_CA
CONN 6 F 0.64 MQS WHT

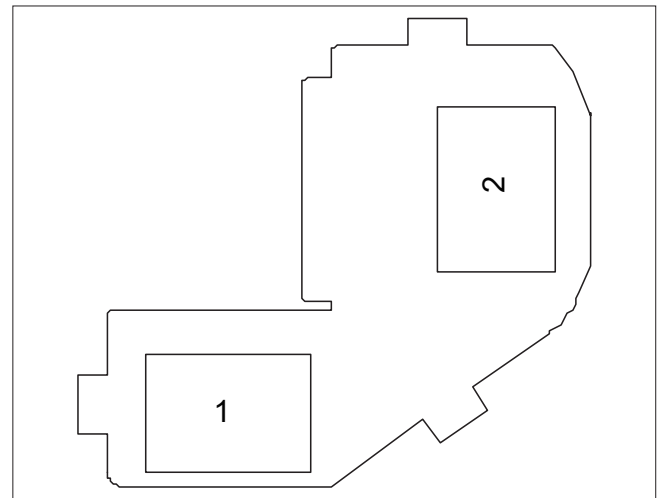
Pin No.	Color	Functions	Re- marks
1	BK	GND	
2	-	-	
3	PU/WH	DIMMER ILL	
4	BK	GND	
5	BN	HAZARD SW	
6	-	-	



IPR28 OBD
CONN 16 F BLK

Pin No.	Color	Functions	Re- marks
1	YE/D-GN	BMS-CHARGE CANH	

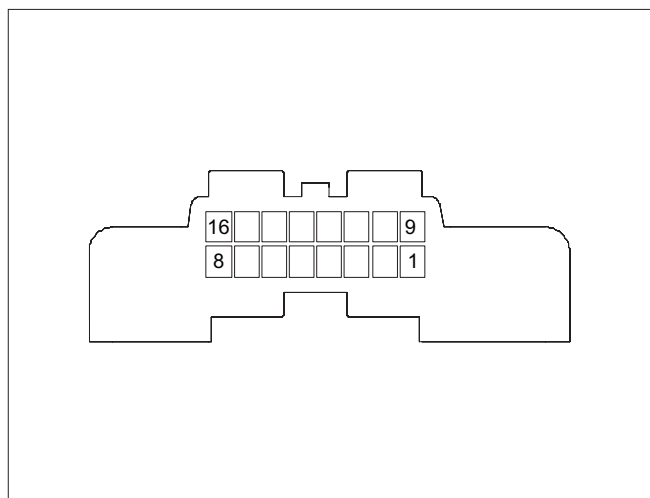
Pin No.	Color	Functions	Re- marks
2	D-BU	BMS-CHARGE CANL	
3	-	-	
4	BK	Chassis ground	
5	BK	Signal ground	
6	YE/GY	CAN_H	
7	-	-	
8	-	-	
9	-	-	
10	-	-	
11	-	-	
12	-	-	
13	-	-	
14	YE/OG	CAN_L	
15	-	-	
16	RD/WH	V_BATT supply	



IPR29_C1 CIAR LIGHTER_C1
CONN 2 F 250 BLK

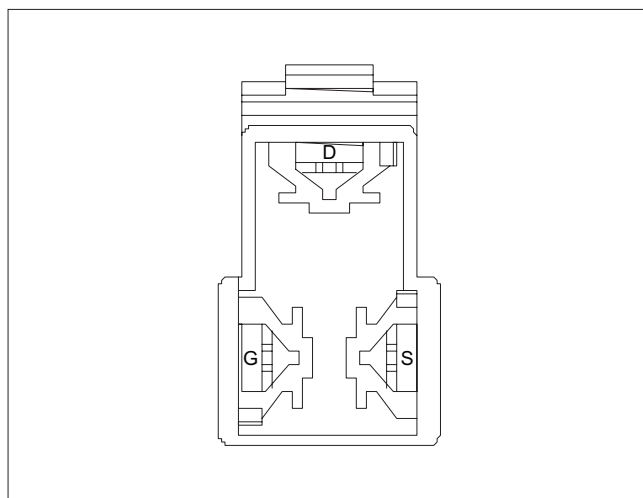
Pin No.	Color	Functions	Re- marks
1	RD/BK	PWR	
2	BK	GND	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-47



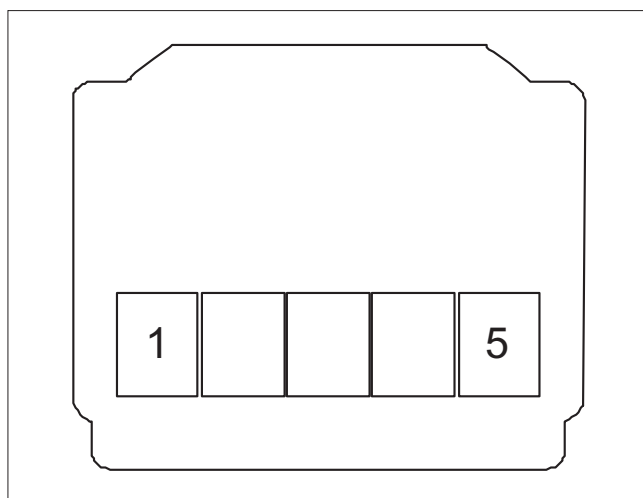
IPR30 DEBUGGING OBD
CONN 16 F BLK

Pin No.	Color	Functions	Re- marks
1	YE/RD	CAN BUS_H_VCU	
2	YE/GY	CAN BUS_L_VCU	
3	YE/BK	CAN BUS-H-BD	
4	BK	Chassis ground	
5	BK	Signal ground	
6	YE/BK	CAN BUS-H-PT	
7	YE/WH	CAN BUS_H_VCU_ MCU	
8	YE/D-BU	CAN BUS_L_VCU_ MCU	
9	YE/WH	CAN BUS_H_Info	
10	YE/RD	CAN BUS_L_Info	
11	YE/BN	CAN BUS-L-BD	
12	YE/D-BU	CAN BUS-H-CH	
13	YE/L-GN	CAN BUS-L-CH	
14	YE/BN	CAN BUS-L-PT	
15	-	-	
16	RD/WH	V_BATT supply	



IPR32 A/C RESISTANCE
CONN 3F 6.3 NAT SLD

Pin No.	Color	Functions	Re- marks
D	OG	PWR	
S	BK	GND	
G	PU/WH	LPM	

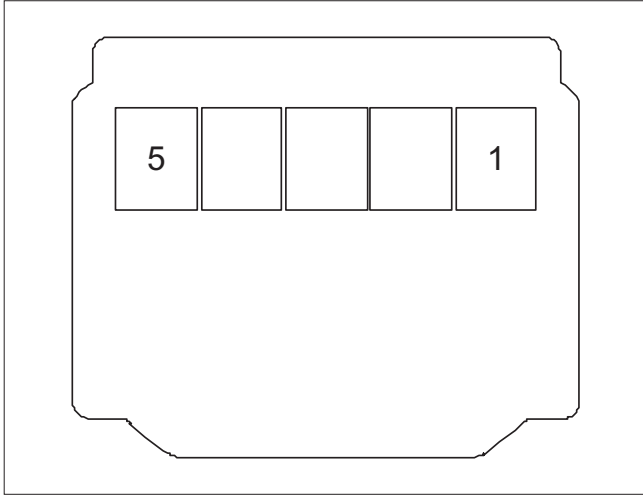


IPR33 FRESH CYC ACTUATOR
Housing

Pin No.	Color	Functions	Re- marks
1	-	-	
2	-	-	
3	-	-	
4	BN/OG	MOTOR_R/F+	

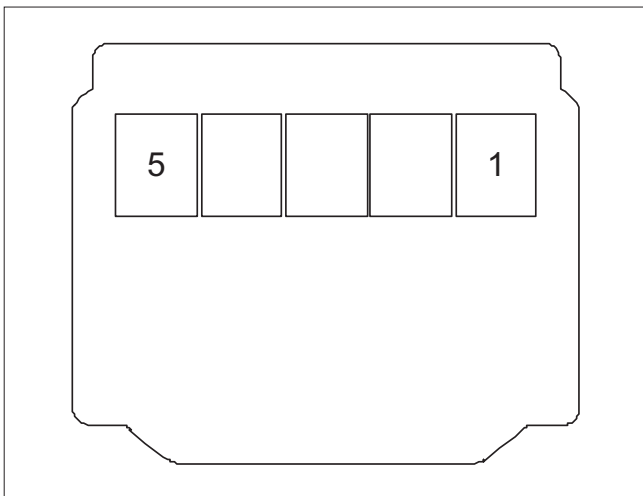
Wiring Harness Distribution and Pin Definition of Electrical Components 4-48

Pin No.	Color	Functions	Re- marks
5	D-GN	MOTOR_R/F-	



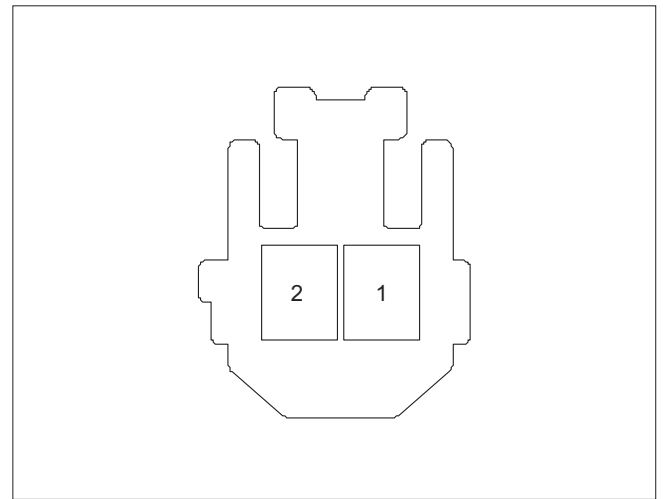
IPR34 AIP MIX TEMP MOT
Housing

Pin No.	Color	Functions	Re- marks
1	YE	SENSOR_GND	
2	L-BU	MOTOR_MODE_ FB	
3	GY	REF_5V	
4	D-BU	Motor temperature+	
5	L-GN	Motor temperature-	



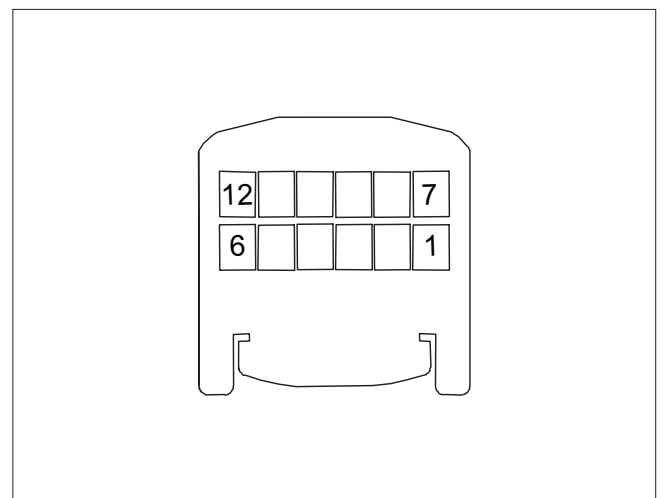
IPR35 MODE MOT
Housing

Pin No.	Color	Functions	Re- marks
1	YE	MOTOR_MODE_ FB	
2	L-GN	MOTOR_MODE_ FB	
3	GY	REF_5V	
4	WH	MOTOR_MODE+	
5	TN	-	



IPR37 EVAP TEMP SEN
CONN 2 F 090 II NAT

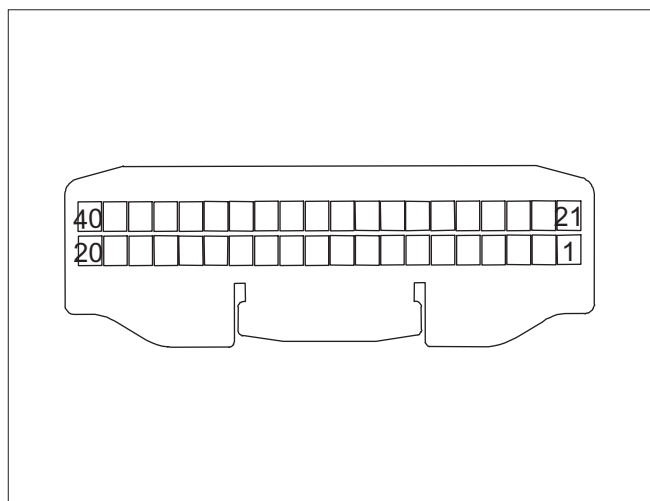
Pin No.	Color	Functions	Re- marks
1	TN	signal	
2	GY	TEMP_F_EVAP	



Wiring Harness Distribution and Pin Definition of Electrical Components 4-49

IPR39_A FRT A/C CONT PNL II HCM
CONN 12 F 025 NAT

Pin No.	Color	Functions	Re- marks
1	YE	SENSOR_GND	
2	YE/BN	CAN_H	
3	YE/BK	CAN_L	
4	BK	GND	
5	RD/WH	KL15	
6	BN	KL30	
7	-	-	
8	OG	BLOWER_FB_SIG	
9	PU/WH	LPM	
10	-	-	
11	OG/D-GN	LIN	
12	GY	REF_5V	



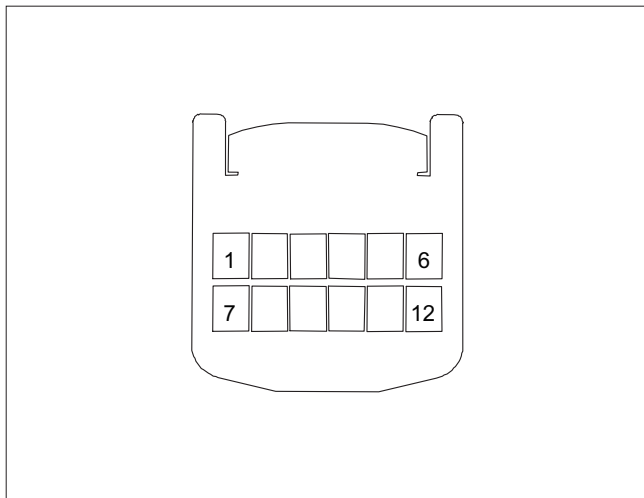
IPR39_B FRT A/C CONT PNL II HCM
CONN 40 F 064 NAT

Pin No.	Color	Functions	Re- marks
1	OG/BK	Signal compression sensor	
2	-	-	
3	-	-	

Pin No.	Color	Functions	Re- marks
4	-	-	
5	-	-	
6	L-GN	MOTOR_MODE_FB	
7	-	-	
8	L-BU	MOTOR_TEMP_FB	
9	-	-	
10	-	-	
11	-	-	
12	RD/WH	REAR_DEFORST_CTRL	
13	-	-	
14	-	-	
15	TN	MOTOR_MODE-	
16	WH	MOTOR_MODE+	
17	D-GN	MOTOR_R/F-	
18	BN/OG	MOTOR_R/F+	
19	D-BU	MOTOR_TEMP+	
20	L-GN	MOTOR_TEMP-	
21	-	-	
22	-	-	
23	-	-	
24	-	-	
25	-	-	
26	-	-	
27	-	-	
28	-	-	
29	-	-	
30	-	-	
31	-	-	
32	-	-	
33	-	-	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-50

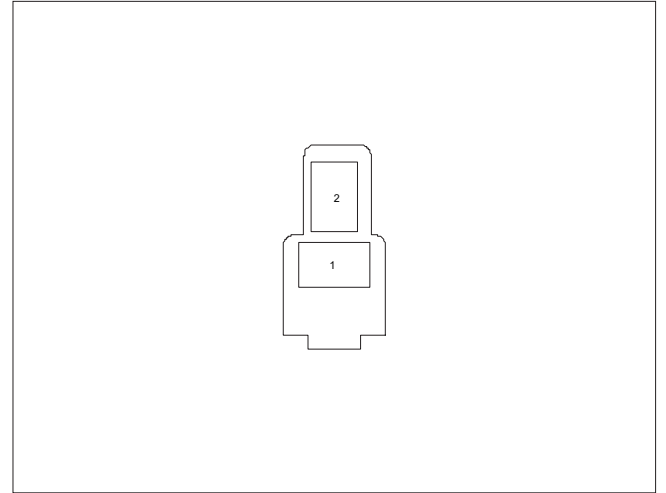
Pin No.	Color	Functions	Re- marks
34	-	-	
35	-	-	
36	-	-	
37	-	-	
38	-	-	
39	YE/BK	TEMP_AMB	
40	GY	TEMP_F_EVAP	



IPR39_C FRT A/C CONT PNL
CONN 12 F 025 BLK

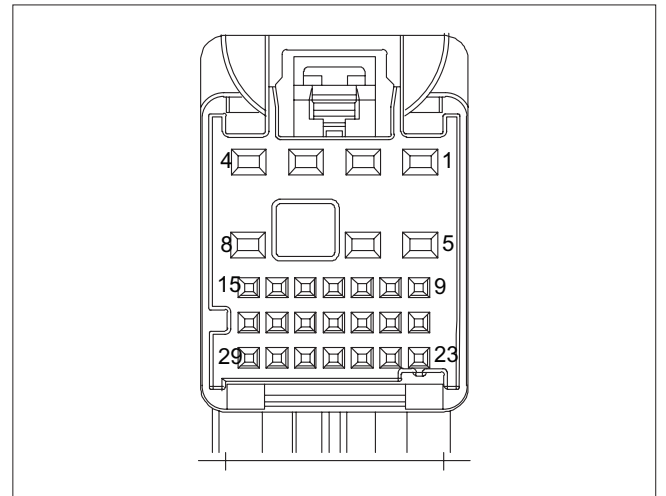
Pin No.	Color	Functions	Re- marks
1	-	-	
2	-	-	
3	-	-	
4	-	-	
5	-	-	
6	OG/D-GN	LIN_HCM	
7	-	-	
8	BN	KL30	
9	RD/WH	KL15	
10	-	-	
11	BK	GND	

Pin No.	Color	Functions	Re- marks
12	-	-	



IPR40 FRT BLOWER MOT
CONN 2 F NAT

Pin No.	Color	Functions	Re- marks
1	RD/WH	KL30	
2	OG	signal	

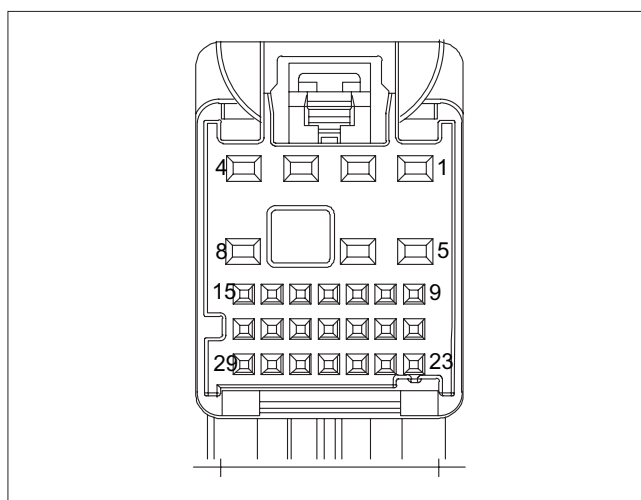


IPR43_A 2712 RADIO
ASM CONN 28 FO.5 NANOMQS 1.2 MSA OCS 1.2

Pin No.	Color	Functions	Re- marks
1	GY	Audio LF-	
2	Br	Audio LF+	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-51

Pin No.	Color	Functions	Re- marks
3	Lg	Audio RF+	
4	VT	Audio RF-	
5	BK	GND1	
6	BK	GND2	
7	-	-	
8	-	-	
9	L-GN	SWC1_IN	
10	WH/BK	GND(SWC)	
11	L-BU	SWC2_IN	
12	-	-	
13	-	-	
14	WH	CVBS1(Rear camera)	
15	BK	CVBS1_GND	
16	BU	MIC1 +/TBOX MIC+	
17	BK	MIC1 -/TBOX MIC-	
18	-	-	
19	-	-	
20	-	-	
21	-	-	
22	-	-	
23	-	-	
24	-	-	
25	-	-	
26	-	-	
27	-	-	
28	-	-	
29	-	-	

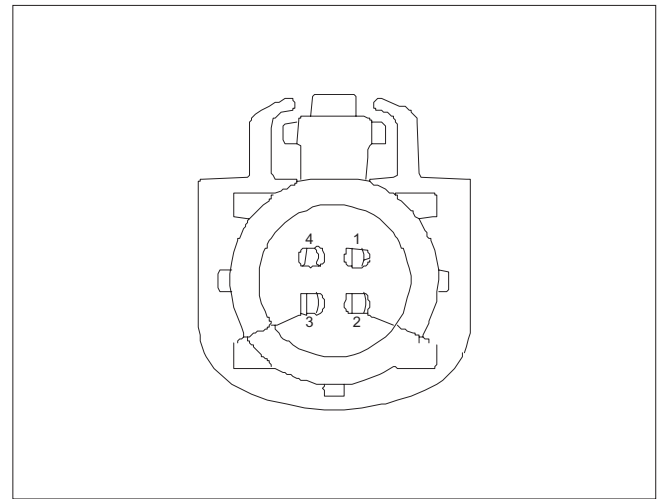


IPR43_B 2712 RADIO
ASM CONN 28 FO.5 NANOMQS 1.2 MSA OCS 1.2

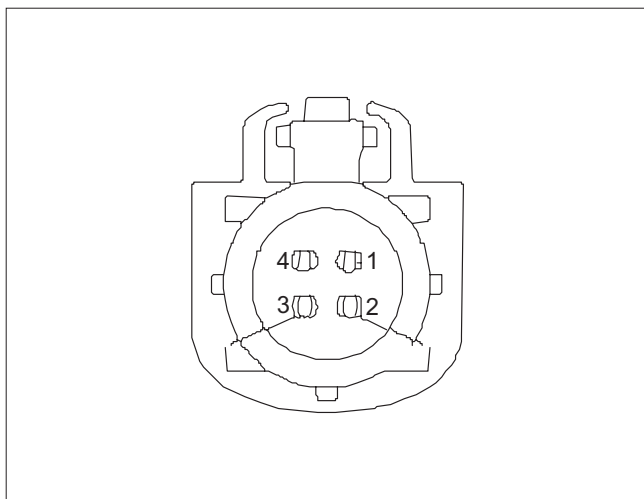
Pin No.	Color	Functions	Re- marks
1	-	-	
2	-	-	
3	-	-	
4	-	-	
5	RD/WH	KL30_1	
6	RD/WH	KL30_2	
7	-	-	
8	-	-	
9	-	-	
10	-	-	
11	RD/WH	FCDEN	
12	RD	HOME_KEY	
13	-	-	
14	YE/RD	HS-CAN_H	
15	YE/WH	HS-CAN_L	
16	-	-	
17	-	-	
18	-	-	
19	-	-	
20	-	-	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-52

Pin No.	Color	Functions	Re- marks
21	-	-	
22	-	-	
23	-	-	
24	-	-	
25	-	-	
26	-	-	
27	-	-	
28	BK	GND	
29	-	-	



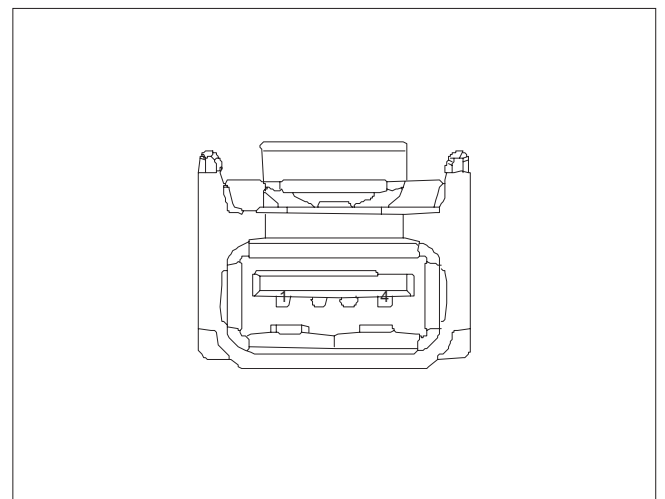
IPR44_H2 10.25inch SCREEN
ASM SUBH ANTENNA L1100.00



IPR44_H1 2712 RADIO
ASM CONN 28 F0.5 NANOMQS 1.2 MSA OCS 1.2

Pin No.	Color	Functions	Re- marks
1	WH	Data for FCD 1 +	
2	RD	Data for FCD 2 +	
3	BK	Data for FCD 1 -	
4	BN	Data for FCD 2 -	

Pin No.	Color	Functions	Re- marks
1	BN	Data for FCD 2 -	
2	BK	Data for FCD 1 -	
3	RD	Data for FCD 3 +	
4	WH	Data for FCD 1 +	

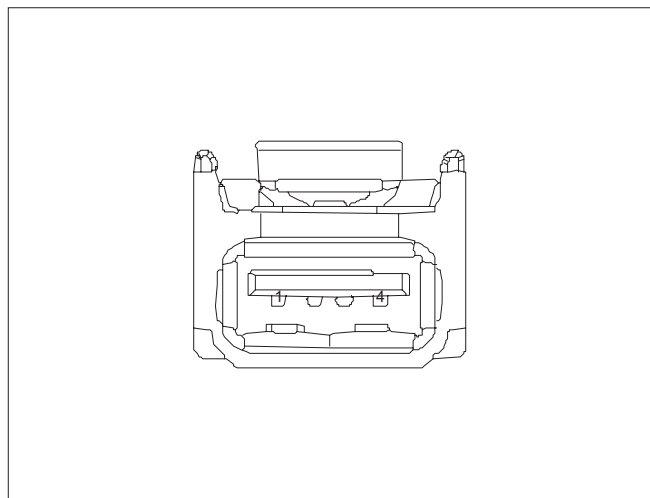


IPR45_N1 2712 RADIO
ASM SUBH USB BLK

Pin No.	Color	Functions	Re- marks
1	BN/WH	USB1_VBUS	
2	GY/RD	USB1_DN	
3	BN	USB1_DP	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-53

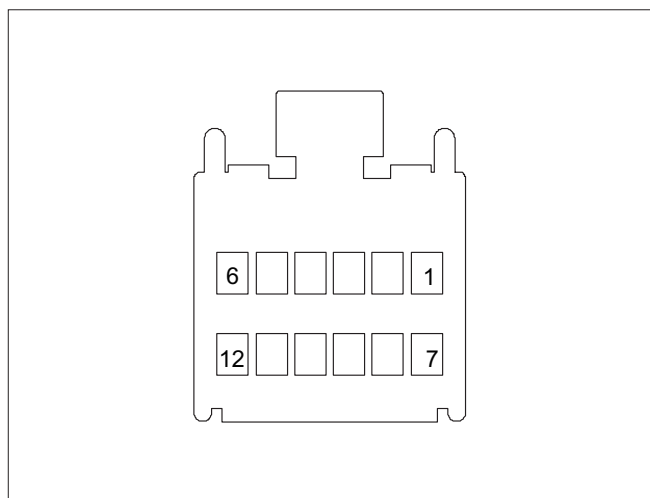
Pin No.	Color	Functions	Re- marks
4	WH/VT	USB1_GND	



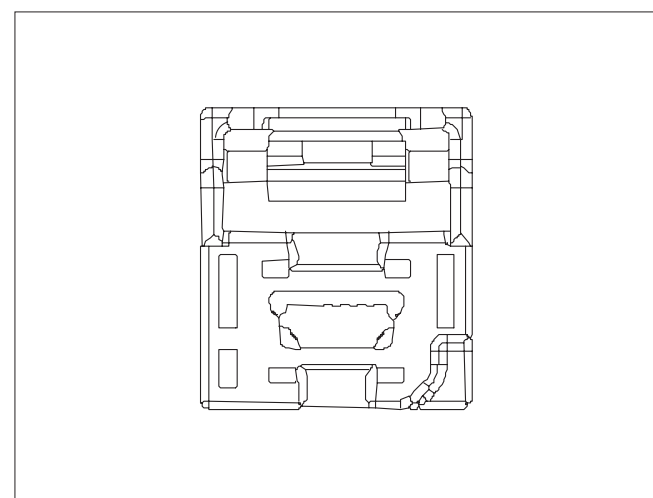
IPR45_N2 DVD USB1
ASM SUBH USB BLK

Pin No.	Color	Functions	Re- marks
1	-	-	
2	-	-	
3	-	-	
4	-	-	
5	-	-	
6	-	-	
7	BK	GND	
8	RD/WH	KL15	
9	PU/WH	ILL	
10	RD/WH	KL30	
11	YE/BN	CAN_L	
12	YE/BK	CAN_H	

Pin No.	Color	Functions	Re- marks
1	BN/WH	USB1_VBUS	
2	GY/RD	USB1_DN	
3	BN	USB1_DP	
4	WH/VT	USB1_GND	



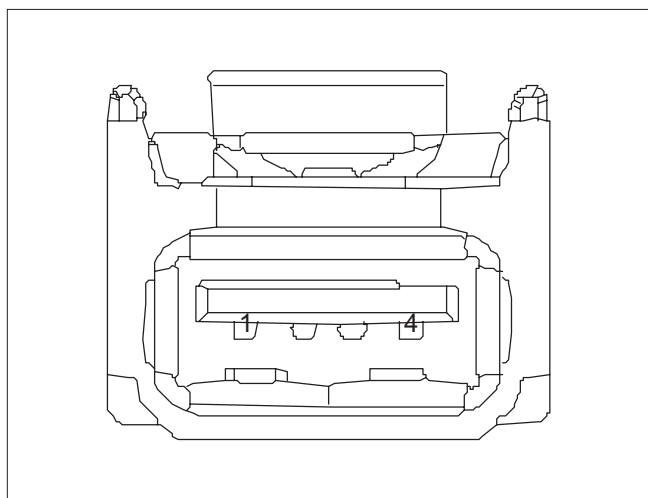
IPR46 SCU
CONN 12 F 040 MULTI LOCK BLK



IPR47_01 2717 RADIO
ASM SUBH USB BLK

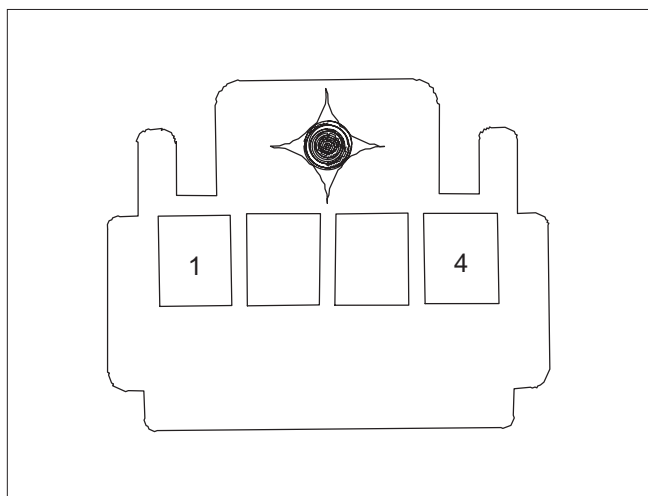
Pin No.	Color	Functions	Re- marks
1	BN/WH	USB2_VBUS	
2	GY/RD	USB2_DN	
3	BN	USB2_DP	
4	WH/VT	USB2_GND	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-54



I PR47_02 DVD USB2
ASM SUBH USB BLK

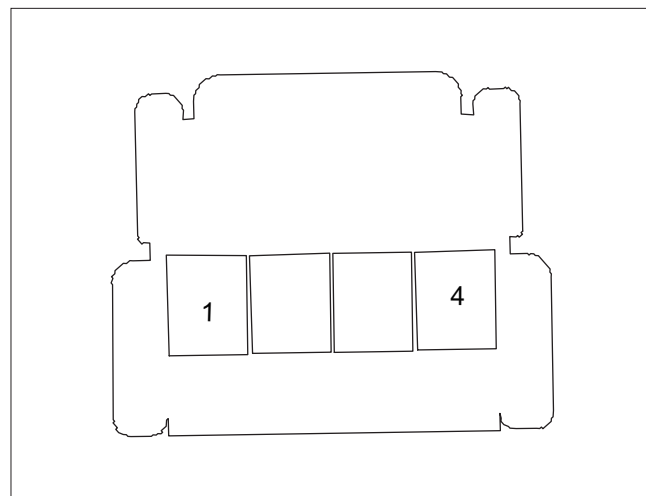
Pin No.	Color	Functions	Re- marks
1	BN/WH	USB2_VBUS	
2	GY/RD	USB2_DN	
3	BN	USB2_DP	
4	WH/VT	USB2_GND	



I PR50_A CLOCK SPRING
ASM CONN 4 F 040 III NAT

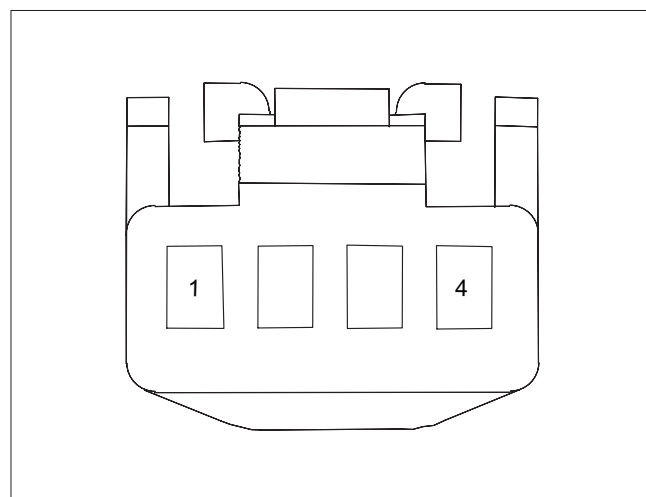
Pin No.	Color	Functions	Re- marks
1	BK	JP4_1 HORN-	
2	TN	JP4_2 HORN+	
3	BK	JP4_3 DAB+	

Pin No.	Color	Functions	Re- marks
4	BN	JP4_4 DAB-	



I PR50_B CLOCK SPRING
CONN 4 F 040 MULTI-LOCK BLK

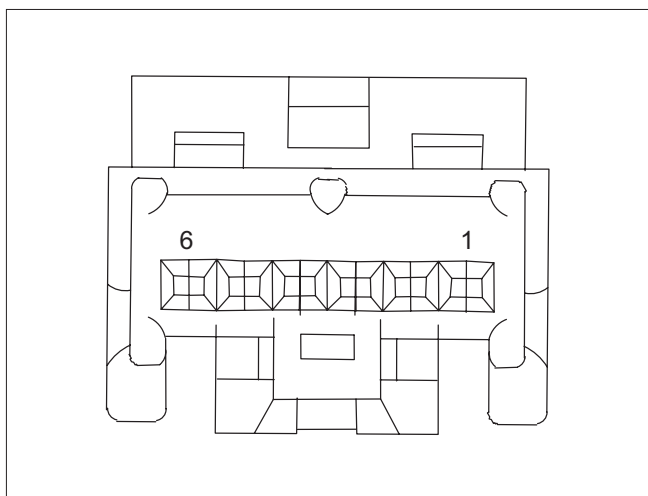
Pin No.	Color	Functions	Re- marks
1	L-GN	JP5_1 SW1	
2	L-BU	JP5_2 SW2	
3	-	-	
4	-	-	



I PR50_C CLOCK SPRING
ASM CONN 4 F 040 III NAT

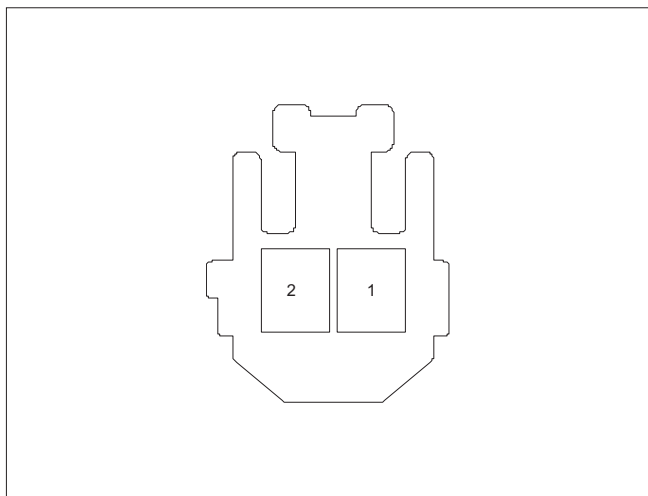
Wiring Harness Distribution and Pin Definition of Electrical Components 4-55

Pin No.	Color	Functions	Re- marks
1	BK	GND	
2	PU/WH	DIMMER ILL	
3	-	-	
4	WH	JP6_4 COMMON	



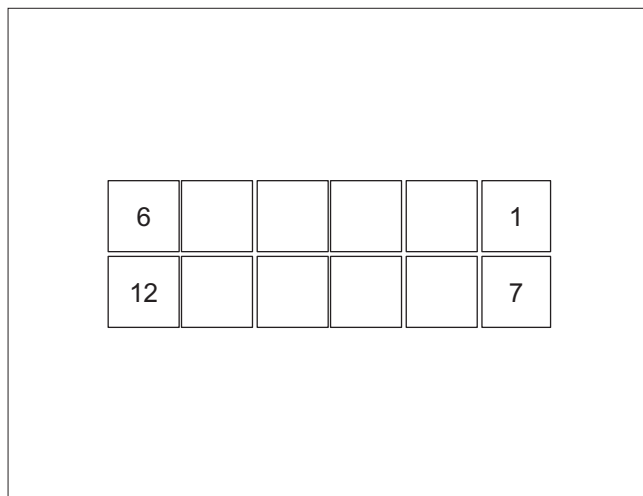
IPR54_A IGNITION SW
Housing

Pin No.	Color	Functions	Re- marks
1	D-BU	RUN/CRANK	
2	RD/BK	Battery	
3	BN	ACCESSORY	
4	L-GN	TO KEY-IN SW	
5	VT	OFF/RUN/CRANK	
6	WH	REGULATED PWR	



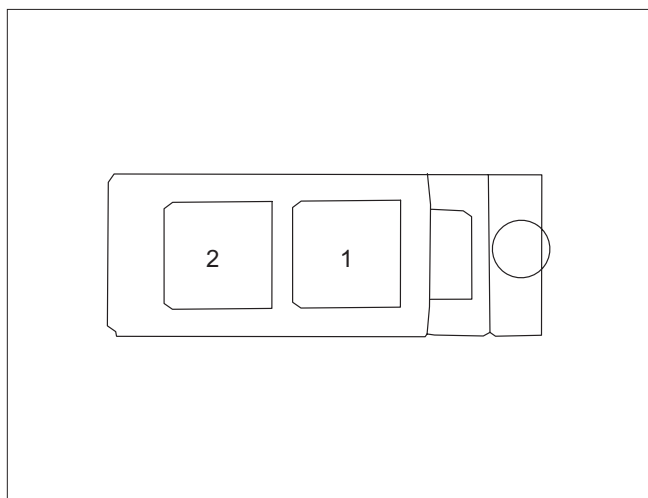
IPR54_B IGNITION SW
Housing

Pin No.	Color	Functions	Re- marks
1	VT	KEY-IN TO PMM	
2	L-GN	BATT FROM KEY- IN SW	



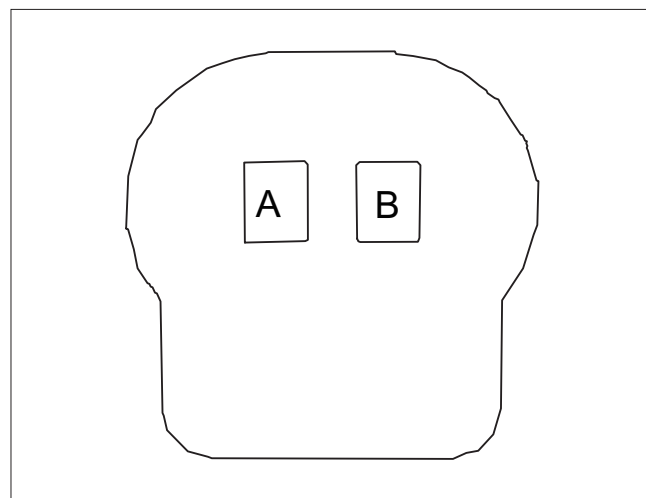
IPR57_B IGNITION SW
CONN 12 F 0.64 BRN

Pin No.	Color	Functions	Re- marks
1	RD/WH	KL30	
2	-	-	
3	-	-	
4	RD	HOME+	
5	RD/WH	Enable	
6	-	-	
7	BK	RUN/CRANK	
8	BK	GND	
9	-	-	
10	-	-	
11	-	-	
12	-	-	



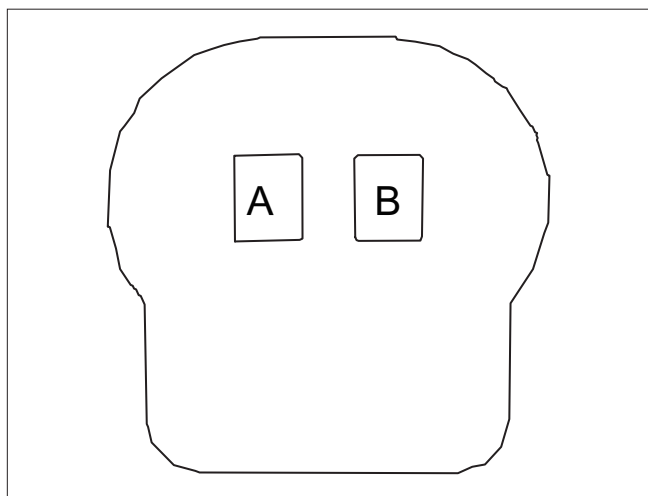
IPR65 BEEP
CONN 2F

Pin No.	Color	Functions	Re- marks
1	L-GN	WAKE UP ENABLE	
2	OG/BK	ID	



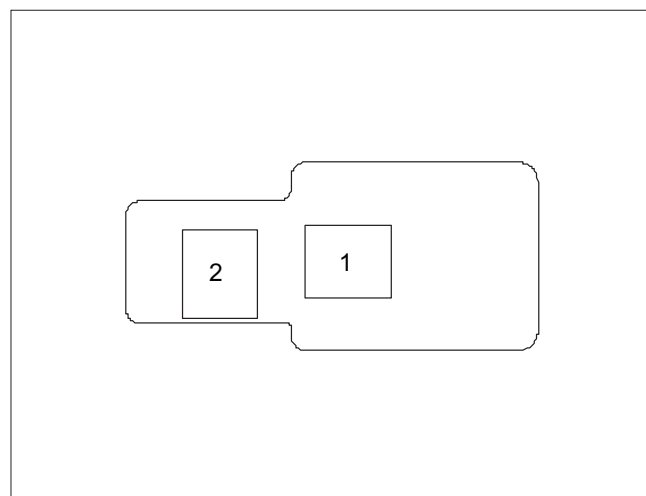
IPR67 TR_BD
ASM CONN 2 F GT 150 SLD

Pin No.	Color	Functions	Re- marks
A	YE/BK	BD_CAN_H	
B	YE/BN	BD_CAN_L	



IPR66 TR_DIAG
ASM CONN 2 F GT 150 SLD

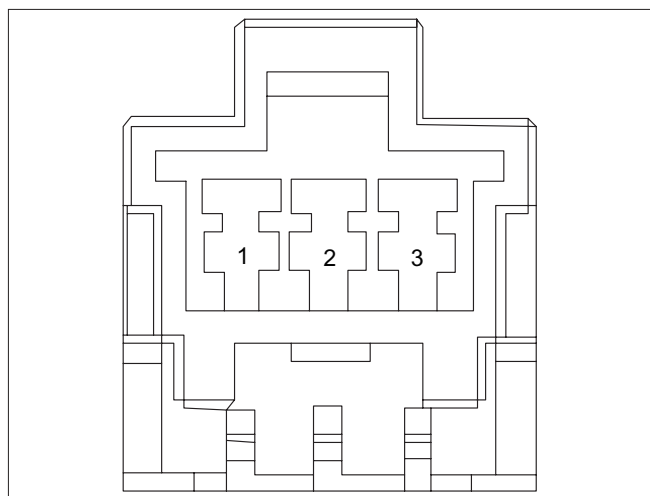
Pin No.	Color	Functions	Re- marks
A	YE/GY	CAN_H	
B	YE/OG	CAN_L	



IPR74 12V OUTLET_C1
CONN 2 F 250 NAT

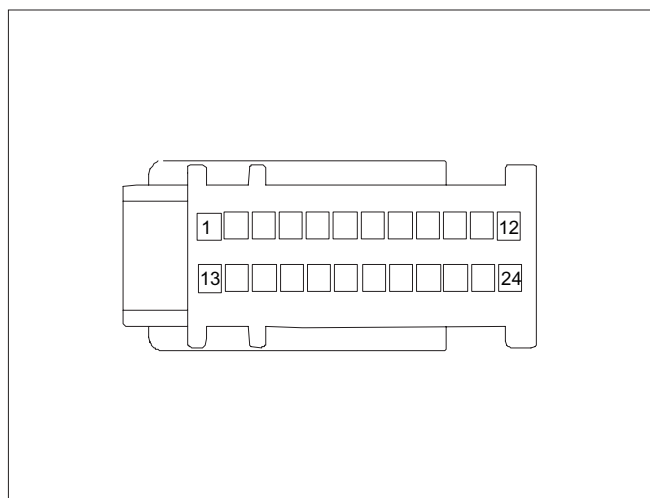
Pin No.	Color	Functions	Re- marks
1	BK	GND	
2	RD/BK	PWR	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-57



IPR100 12V PTC
CONN 3 M NAT

Pin No.	Color	Functions	Re- marks
1	RD/WH	KL15	
2	OG/D-GN	LIN	
3	BK	GND	

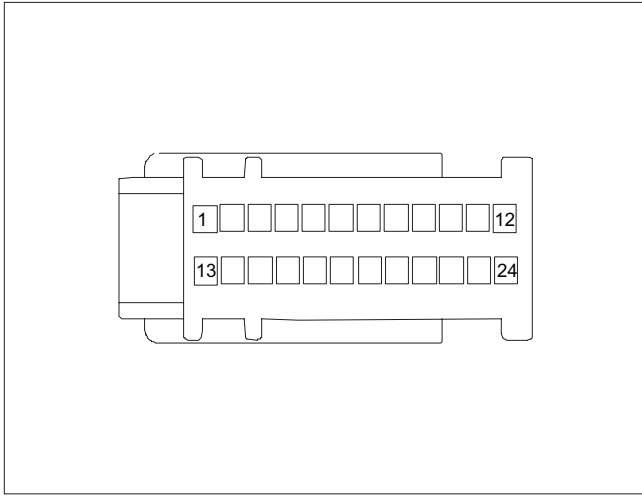


IPR101_A SRS ESU
CONNECTOR 24F

Pin No.	Color	Functions	Re- marks
1	RD/WH	VBAT KL15	
2	OG	Crash out signal	
3	BK	GND	

Pin No.	Color	Functions	Re- marks
4	YE	Driver Buckle Switch IN	
5	OG	FUNCTION	
6	-	-	
7	-	-	
8	PK/WH	FUNCTION	
9	-	-	
10	-	-	
11	-	-	
12	-	-	
13	PK	Left CAB inflator-	
14	PU/WH	Left CAB inflator+	
15	BN/OG	Front Right. Side Airbag High	
16	L-GN	Front Right. Side Airbag Low	
17	WH/BK	Right CAB inflator-	
18	YE/BK	Right CAB inflator+	
19	BN	Front Left Side Airbag High	
20	YE/BK	Front Left Side Airbag Low	
21	-	-	
22	-	-	
23	-	-	
24	-	-	

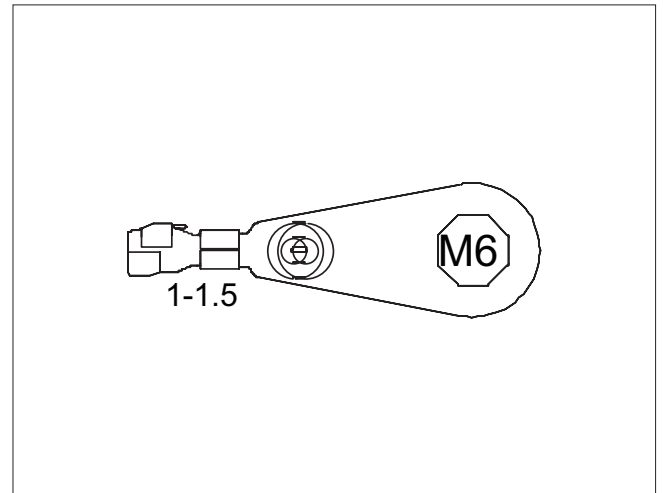
Wiring Harness Distribution and Pin Definition of Electrical Components 4-58



IPR101_B SRS ECU
CONNECTOR 24F

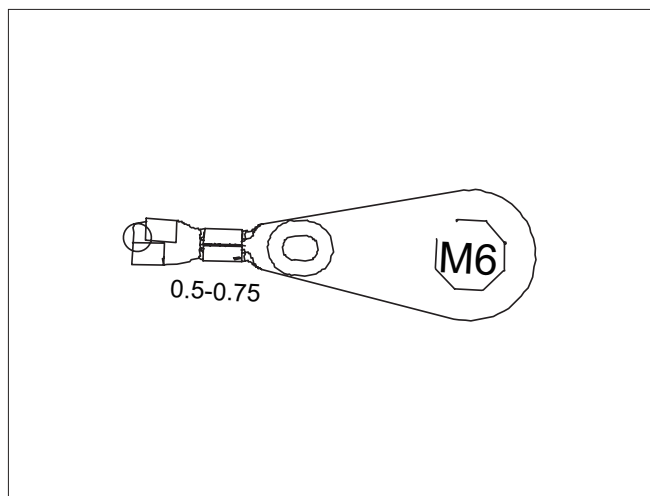
Pin No.	Color	Functions	Re- marks
1	GY	Right side FIS sensor (-)	
2	WH/BK	Left side B-pillar sensor (-)	
3	YE/BK	CAN_H	
4	YE/BN	CAN_L	
5	YE	Rear Row Buckle SW In(LEFT)	
6	PU	Rear Row Buckle SW In(RIGHT)	
7	D-GN	Right side FIS sensor (+)	
8	D-GN	Left side B-pillar sensor (+)	
9	PU/WH	Right side B-pillar sensor (-)	
10	WH/BK	Right side B-pillar sensor (+)	
11	VT/BK	Left side FIS sensor (+)	
12	YE	Left side FIS sensor (-)	
13	-	-	
14	-	-	
15	-	-	

Pin No.	Color	Functions	Re- marks
16	-	-	
17	-	-	
18	-	-	
19	-	-	
20	-	-	
21	OG	Front Pass. Airbag Low	
22	L-GN	Front Pass. Airbag High	
23	TN	Front Driver Airbag High	
24	BN	Front Driver Airbag Low	



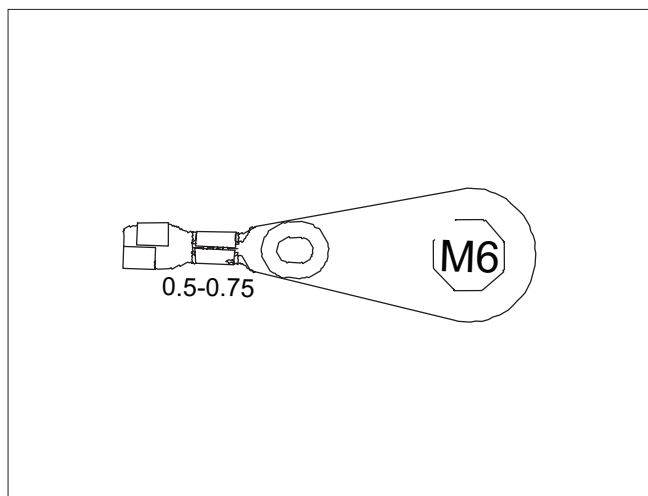
G026_1
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



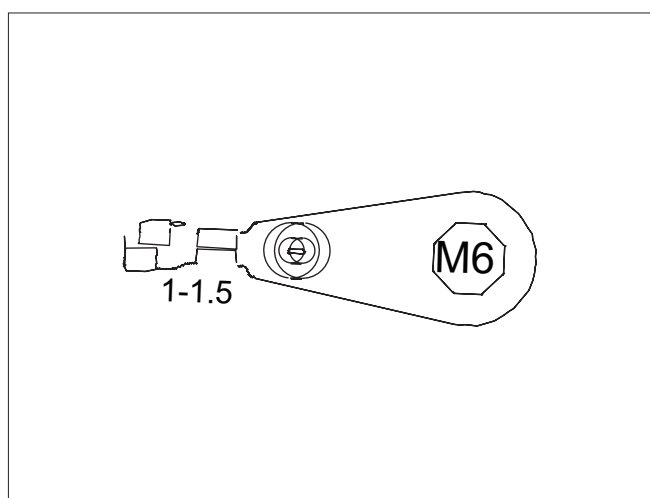
G026_2
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	KB	GND	



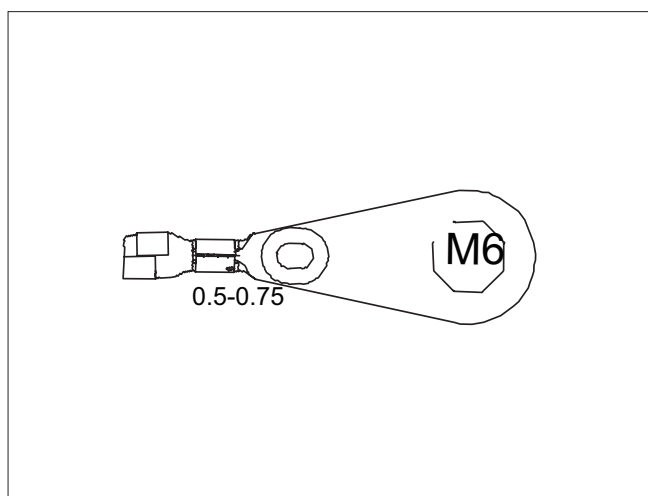
G026_4
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



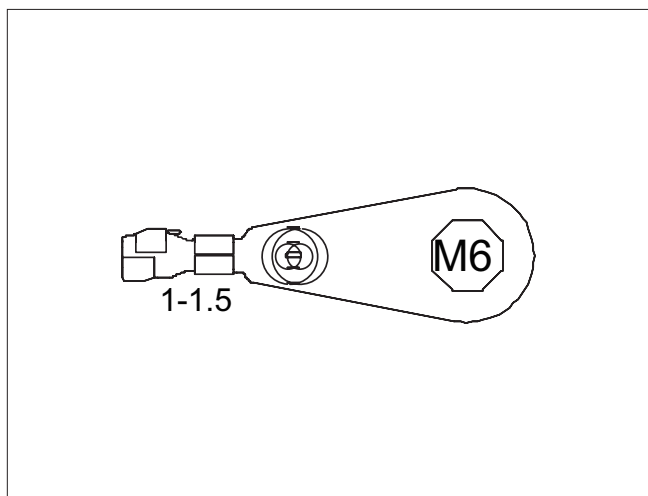
G026_3
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



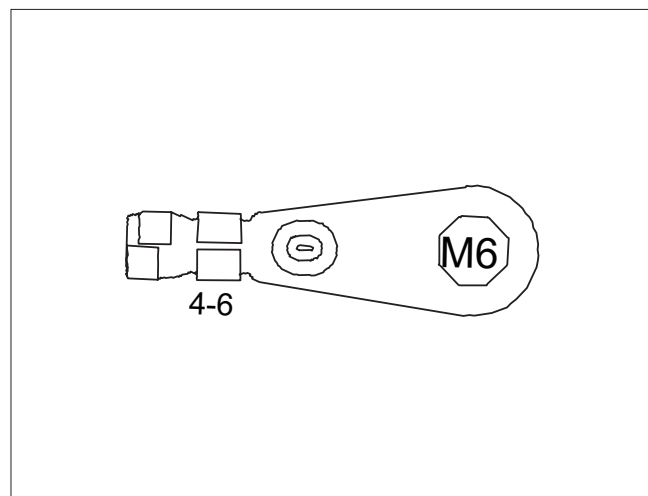
G026_5
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



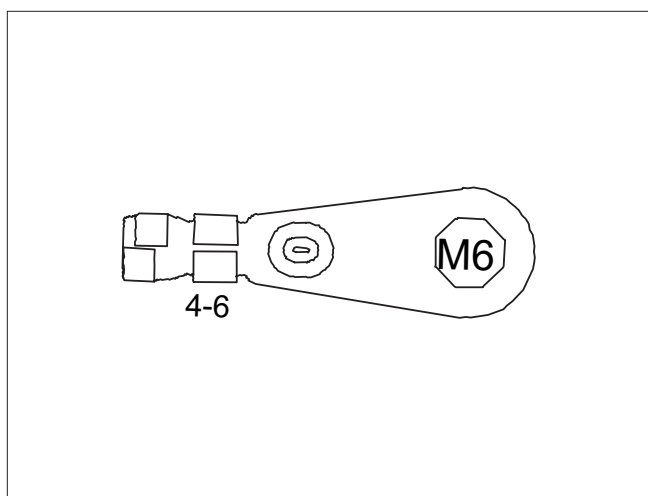
G027_1
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



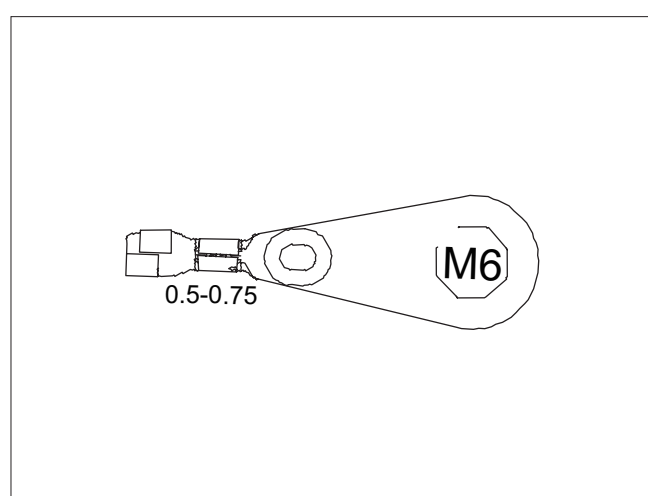
G027_3
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



G027_2
RING-M6 Engine Compartment

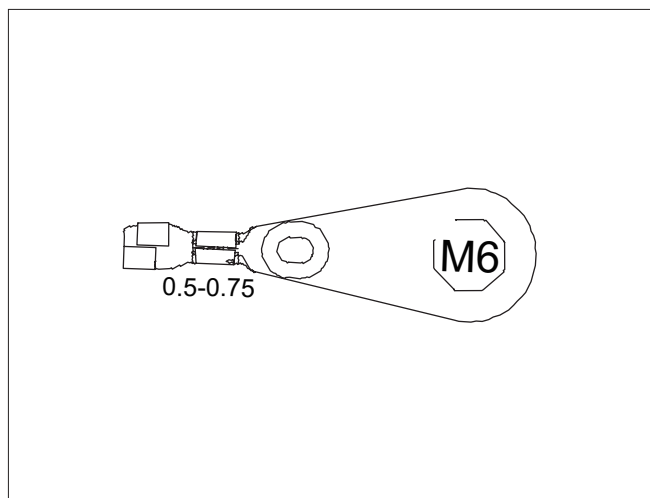
Pin No.	Color	Functions	Re- marks
1	BK	GND	



G014_1
RING-M6 Engine Compartment

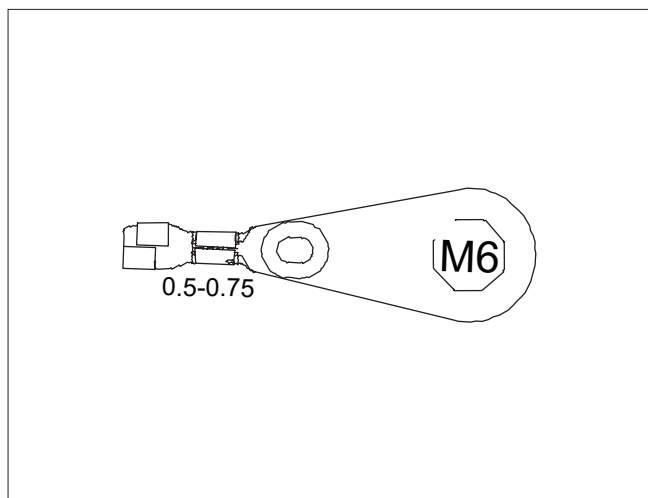
Pin No.	Color	Functions	Re- marks
1	BK	GND	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-61



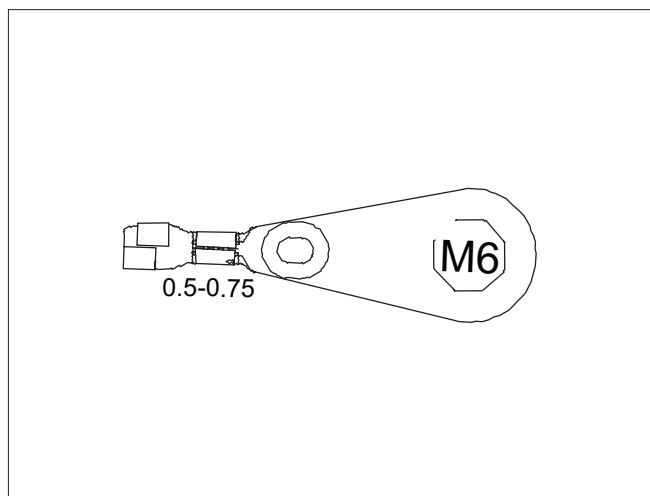
G014_2
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



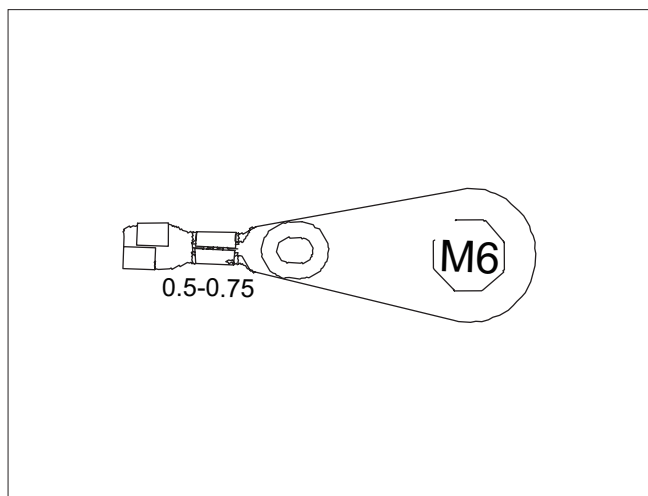
G015_2
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



G015_1
RING-M6 Engine Compartment

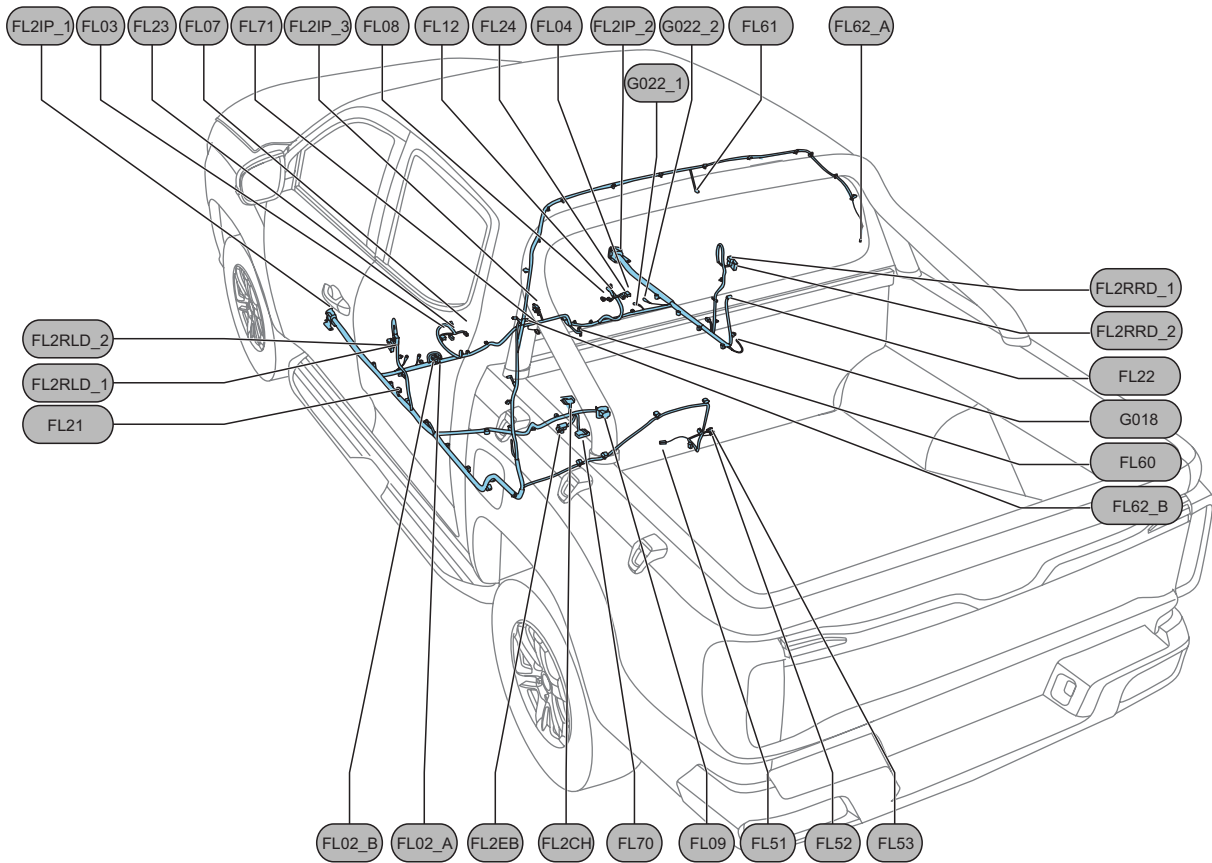
Pin No.	Color	Functions	Re- marks
1	BK	GND	



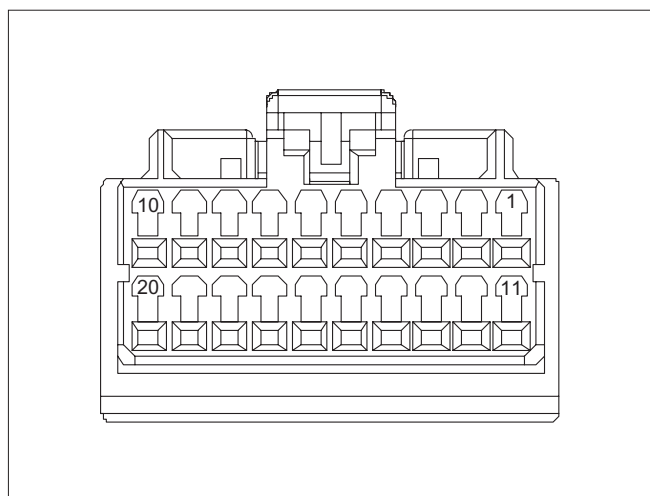
G016
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	

4.4 Floor harness

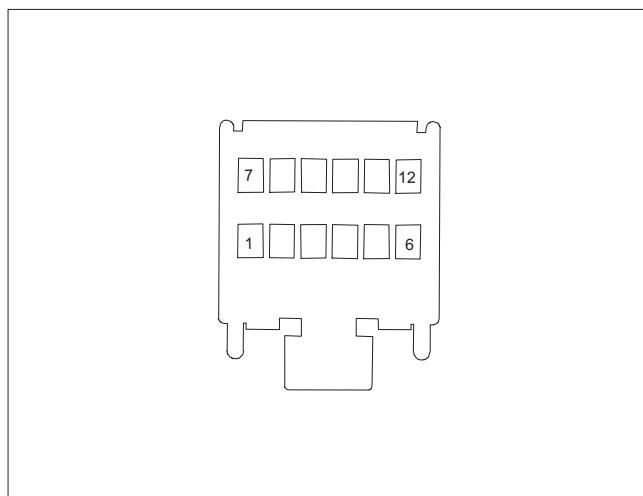


4.4.1 Description of floor harness FL connector



FL02_A GATEWAY
Receptacle Housing

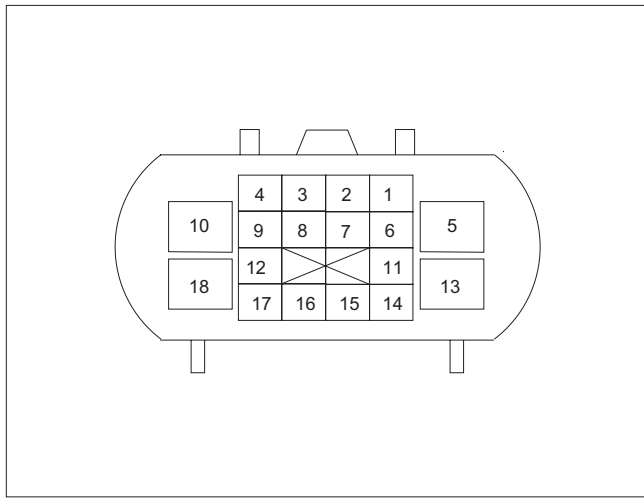
Pin No.	Color	Functions	Re- marks
1	YE/GY	CH_CAN_H	
2	YE/D-BU	CH_CAN_H	
3	YE/BK	BD_CAN_H	
4	YE/BK	PT_CAN_H	
5	YE/WH	INFO_CAN_H	
6	YE/WH	EPT_CAN_H	
7	-	-	
8	-	-	
9	-	-	
10	-	-	
11	YE/OG	DIAG_CAN_L	
12	YE/L-GN	CH_CAN_L	
13	YE/BN	BD_CAN_L	
14	YE/BN	PT_CAN_L	
15	YE/RD	INFO_CAN_L	
16	YE/D-BU	EPT_CAN_L	
17	-	-	
18	RD/WH	HDL1_KL15	
19	BN	KL30	
20	BK	KL31	



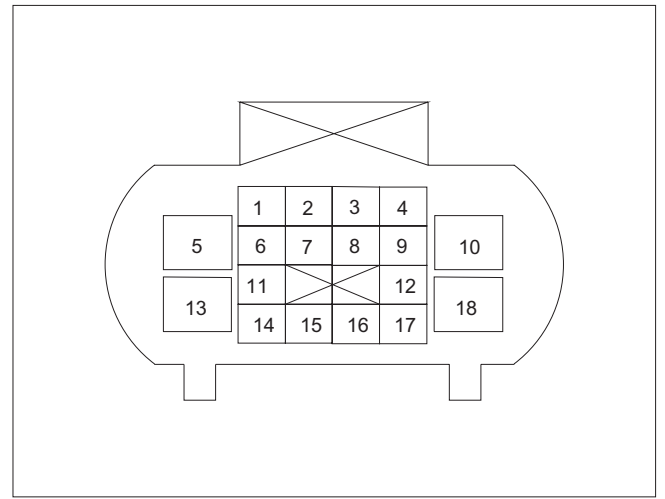
FL02_B GATEWAY
CONN 12 F 040 MULTI-LOCK BLK

Pin No.	Color	Functions	Re- marks
1	-	-	
2	-	-	
3	-	-	
4	-	-	
5	-	-	
6	BK	KL31	
7	-	-	
8	-	-	
9	-	-	
10	-	-	
11	D-BU	HDI2_KLR	
12	BN	KL30	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-64



FL2CH Floor to chassis harness
SUMITOMO

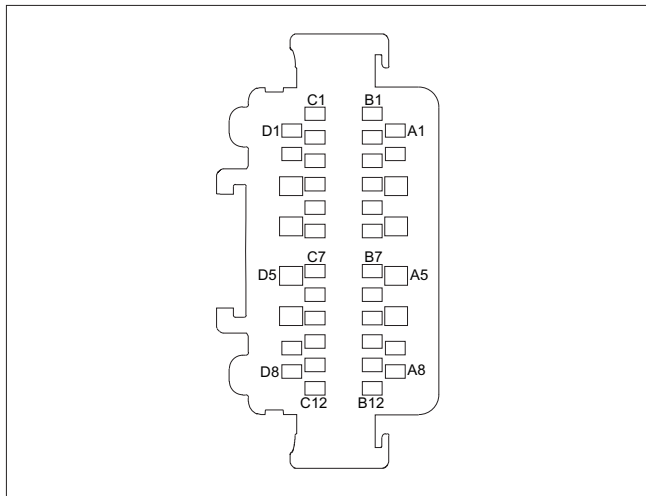


FL2EB Floor to engine room harness
MOLEX 6188-5911

Pin No.	Color	Functions	Re- marks
1	-	-	
2	-	-	
3	-	-	
4	RD/WH	KL30	
5	BN	Brake right turn signal	
6	BK	GND	
7	-	-	
8	VT	Brake signal	
9	BN/D-BU	Left turn signal lamp	
10	BK	GND	
11	BU	BACK UP SIG	
12	GN	Rear fog signal	
13	GY	Left position signal	
14	GN	CP	
15	Br/WH	PE	
16	VT	PP	
17	-	-	
18	-	-	

Pin No.	Color	Functions	Re- marks
1	VT	CP	
2	LG	CC	
3	YE/WH	Fast charging temp_ DC++	
4	-	-	
5	VT	Fast charging wakeup_A	
6	BK	Fast charging wake- up-	
7	GY	Slow charging temp_L3+/BMS Wakeup EVCC	
8	-	-	
9	-	-	
10	-	-	
11	-	-	
12	-	-	
13	-	-	
14	YE/WH	CAN2_H	
15	BU/YE	CAN2_L	
16	BK	Shielding wire	
17	-	-	
18	-	-	

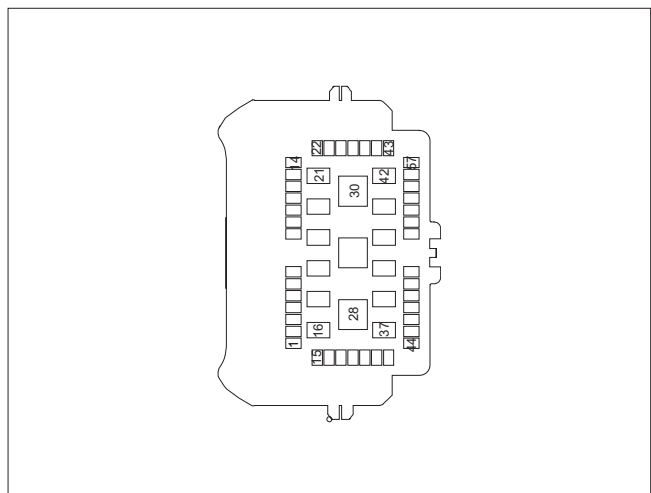
Wiring Harness Distribution and Pin Definition of Electrical Components 4-65



FL2IPR_1 Floor connected to instrument harness 1
CONN 40 M GT 150 280

Pin No.	Color	Functions	Re- marks
A1	L-BU	CHMSL	
A2	WH	Signal	
A3	RD/WH	PWR	
A4	-	-	
A5	-	-	
A6	D-BU	HDI2_KLR	
A7	BN	KL30	
A8	RD/WH	HDI1_KL15	
B1	L-GN	Signal	
B2	D-GN	MOT UP_RL	
B3	PU	MOT DOWN_RL	
B4	YE/BK	WINDOW LOCK	
B5	PU/WH	DIMMER ILL	
B6	D-BU	Signal	
B7	L-GN	MOT UP_RR	
B8	GY	MOT DOWN_RR	
B9	YE/BK	WINDOW LOCK	
B10	PU/WH	DIMMER ILL	
B11	-	-	
B12	-	-	
C1	WH/BK	Right B-pillar sensor+	

Pin No.	Color	Functions	Re- marks
C2	PU/WH	Right B-pillar sensor-	
C3	D-GN	Left B-pillar sensor+	
C4	WH/BK	Left B-pillar sensor-	
C5	RD/YE	KL30	
C6	VT/BK	BRSKE LP	
C7	RD/WH	PWR	
C8	-	-	
C9	-	-	
C10	-	-	
C11	YE/D-BU	CAN_H	
C12	YE/WH	CAN_L	
D1	YE	Rear belt buckle	
D2	PK/WH	BUCKLE	
D3	YE	Driver buckle switch	
D4	RD/WH	PWR	
D5	BN	signal	
D6	YE	SW	
D7	-	-	
D8	-	-	



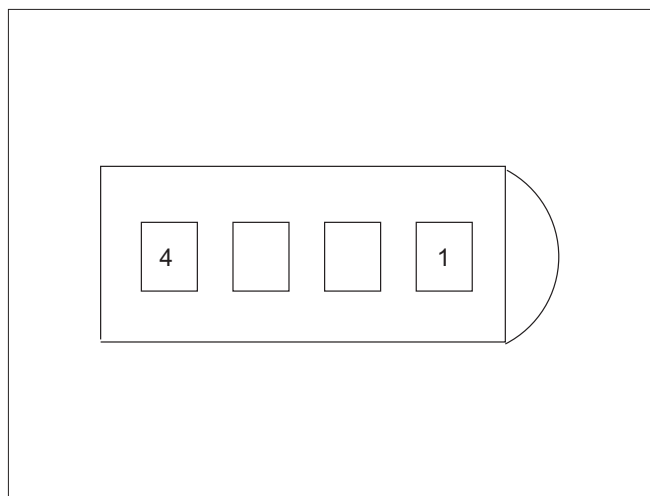
FL2IPR_2 Connected to instrument harness
ASM CONN 57 M 0.64 GET 2.8 6.3 YESC

Wiring Harness Distribution and Pin Definition of Electrical Components 4-66

Pin No.	Color	Functions	Re- marks
1	-	-	
2	-	-	
3	YE/L-GN	CH_CAN_L	
4	-	-	
5	VT	Rear belt buckle	
6	YE/BK	PT_CAN_H	
7	-	-	
8	-	-	
9	YE/WH	INFO_CAN_H	
10	YE/RD	INFO_CAN_L	
11	YE/BK	PT_CAN_H	
12	YE/BN	BD_CAN_L	
13	YE/GY	DIGN_CAN_H	
14	YE/OG	DIGN_CAN_L	
15	YE/D-BU	CH_CAN_H	
16	-	-	
17	TN	RAP/ACC Relay	
18	TN	RAP	
19	GY	CDL_UNLOCK_ MOTORS	
20	-	-	
21	-	-	
22	-	-	
23	-	-	
24	-	-	
25	-	-	
26	-	-	
27	-	-	
28	RD	KL30	
29	RD	KL30	
30	-	-	

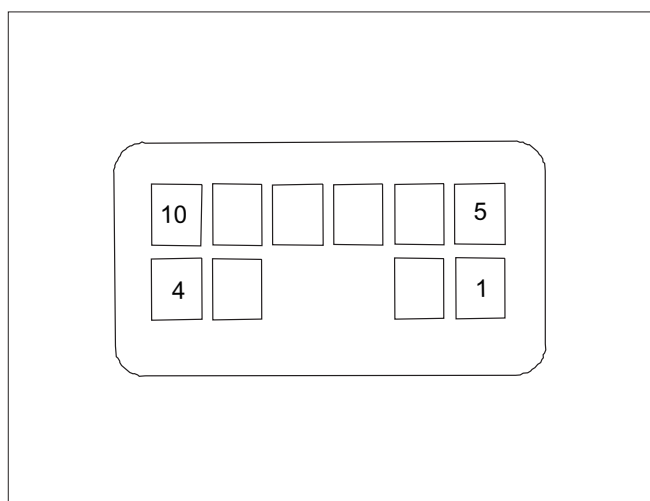
Pin No.	Color	Functions	Re- marks
31	YE/BK	Parking brake	
32	L-BU/BK	DOOR AJAR RL SW	
33	YE/BN	PT_CAN_L	
34	L-GN/BK	DOOR AJAR RR SW	
35	-	-	
36	-	-	
37	-	-	
38	-	-	
39	-	-	
40	-	-	
41	GY	Engine	
42	-	-	
43	OG	FUNCTION	
44	-	-	
45	-	-	
46	-	-	
47	-	-	
48	WH	(STD)RAP	
49	WH	(STD)RAP	
50	-	-	
51	-	-	
52	-	-	
53	-	-	
54	-	-	
55	-	-	
56	-	-	
57	-	-	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-67



FL2IPR_3 Connected to instrument harness
CONN 4 F DCS-2 1.5 BLK

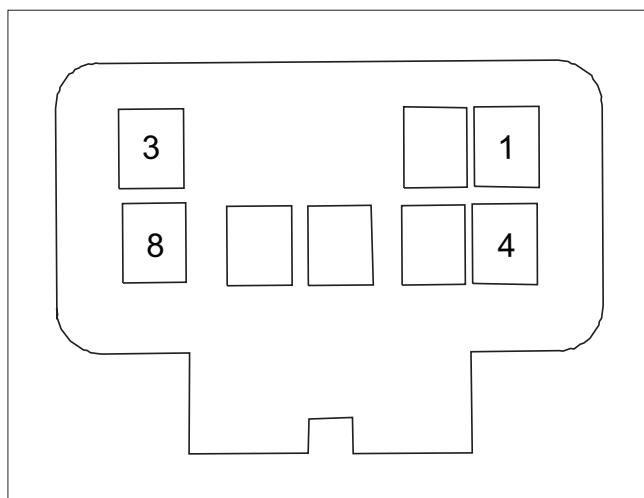
Pin No.	Color	Functions	Re- marks
1	BN	Height of front left air bag	
2	YE/BK	Low degree of front left air bag	
3	BN/OG	Height of right front airbag	
4	L-GN	Low degree of right front airbag	



FL2RLD_1 Connected to left rear door harness 1
CONN 10 M 2.3 NAT

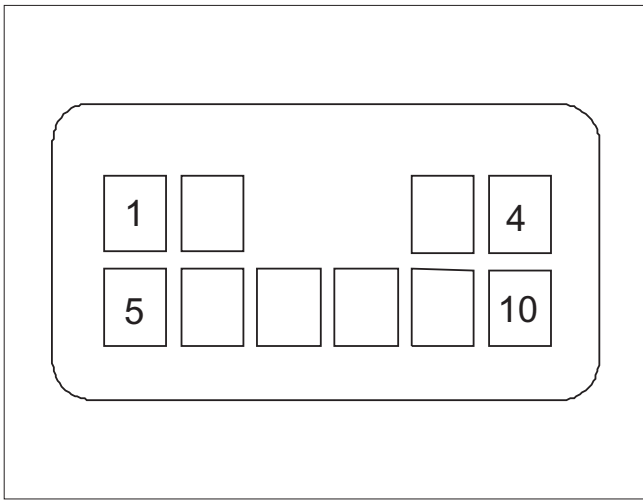
Pin No.	Color	Functions	Re- marks
1	BK	GND	

Pin No.	Color	Functions	Re- marks
2	L-GN	signal	
3	D-GN	MOT UP_RL	
4	PU	MOT DOWN_RL	
5	YE/BK	WINDOW LOCK	
6	PU/WH	DIMMER ILL	
7	WH	RAP	
8	TN	CDL_LOCK_MOTORS	
9	GY	CDL_UNLOCK_MOTORS	
10	L-BU/BK	DOOR AJAR RL SW	

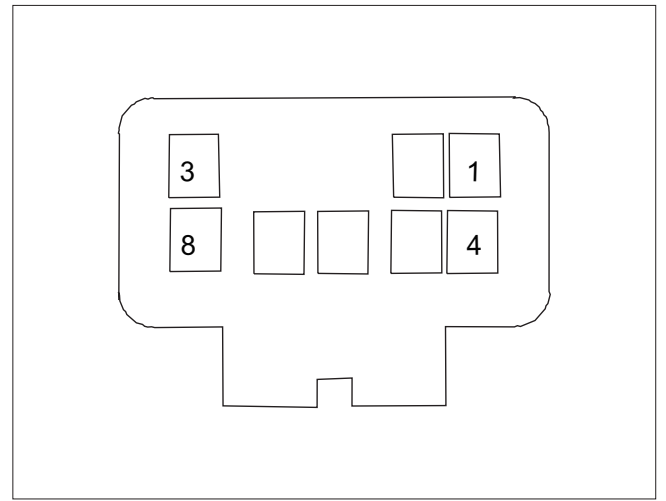


FL2RLD_2 Connected to left rear door harness 2
CONN 8 M 090 NAT

Pin No.	Color	Functions	Re- marks
1	BK	GND	
2	WH	CAN_L	
3	YE	CAN_H	
4	-	-	
5	-	-	
6	-	-	
7	-	-	
8	-	-	



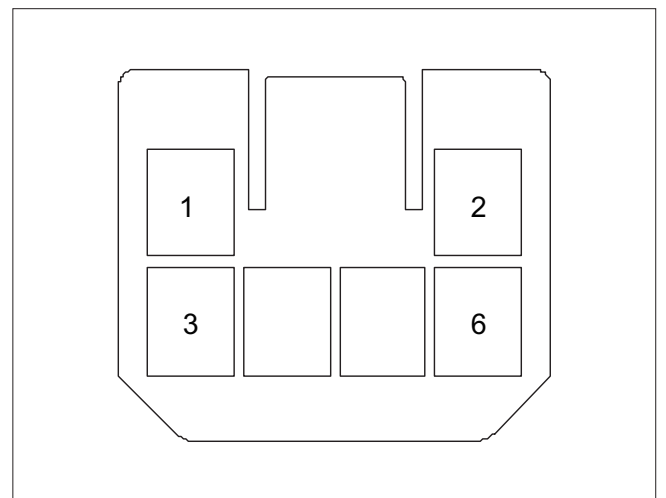
FL2RRD_1 Floor is connected to right rear door harness assembly
CONN 10 M 2.3 NAT



FL2RRD_2 Floor is connected to right rear door harness assembly
CONN 8 M 090 NAT

Pin No.	Color	Functions	Re- marks
1	BK	GND	
2	D-BU	signal	
3	L-GN	MOT UP_RR	
4	GY	MOT DOWN_RR	
5	YE/BK	WINDOW LOCK	
6	PU/WH	DIMMER ILL	
7	WH	RAP	
8	TN	CDL_LOCK_MOTORS	
9	GY	CDL_UNLOCK_MOTORS	
10	L-GN/BK	DOOR AJAR RR SW	

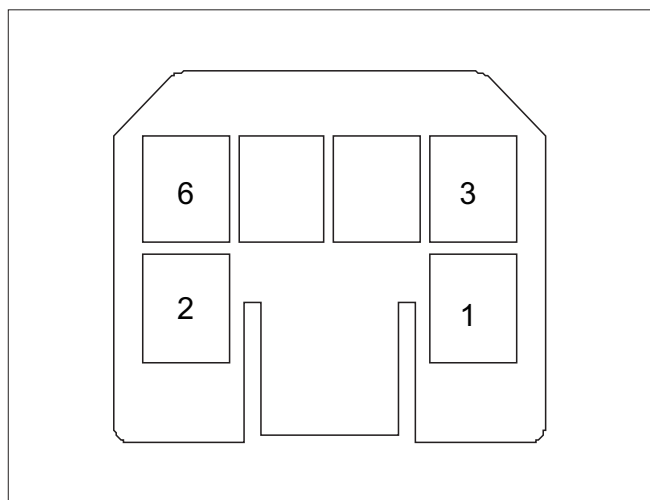
Pin No.	Color	Functions	Re- marks
1	BK	GND	
2	D-BU	CAN_H	
3	WH	CAN-L	
4	-	-	
5	-	-	
6	-	-	
7	-	-	
8	-	-	



FLO3 SEAT ADJUST_DRV
ASM CONN 6 F 090 NAT

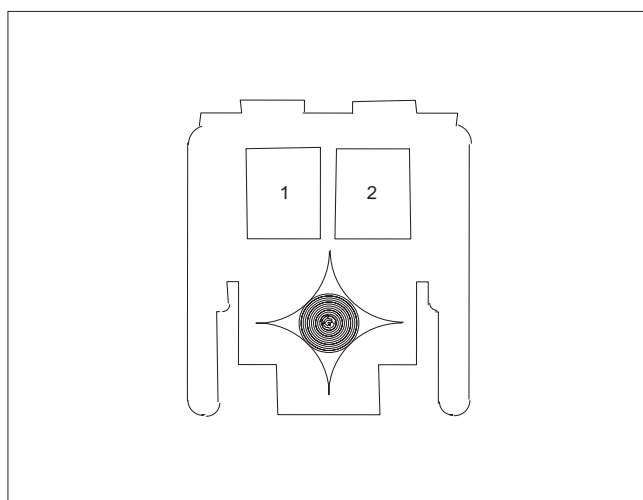
Wiring Harness Distribution and Pin Definition of Electrical Components 4-69

Pin No.	Color	Functions	Re- marks
1	BN	PWR	
2	BK	GND	
3	-	-	
4	-	-	
5	-	-	
6	-	-	



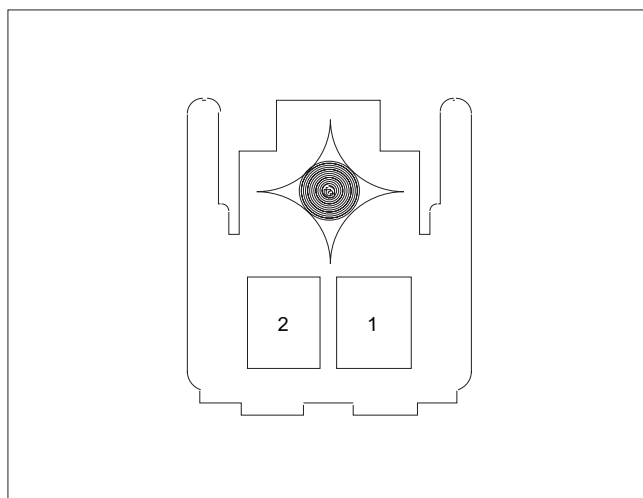
FLO4 SEAT ADJUST_PAS
ASM CONN 6 F 090 NAT

Pin No.	Color	Functions	Re- marks
1	YE	PWR	
2	BK	GND	
3	-	-	
4	-	-	
5	-	-	
6	-	-	



FLO7 BUCKLE_DRV
Receptacle Housing

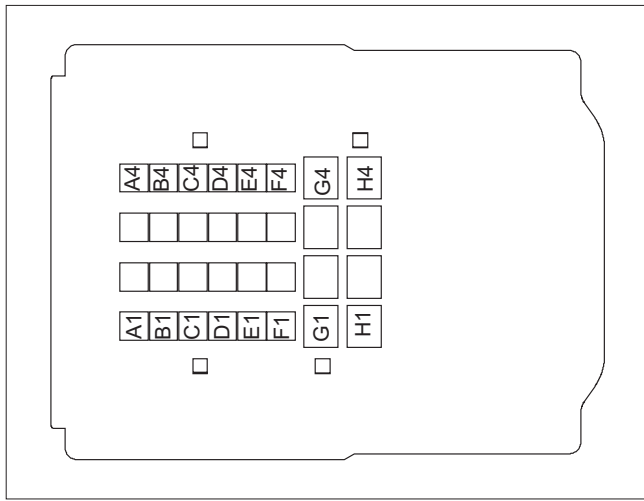
Pin No.	Color	Functions	Re- marks
1	YE	Driver buckle switch IN	
2	BK	GND	



FLO8 BUCKLE_PAS
CONN 2 F 070 SDL NAT

Pin No.	Color	Functions	Re- marks
1	OG	BUCKLE	
2	D-BU	GND	

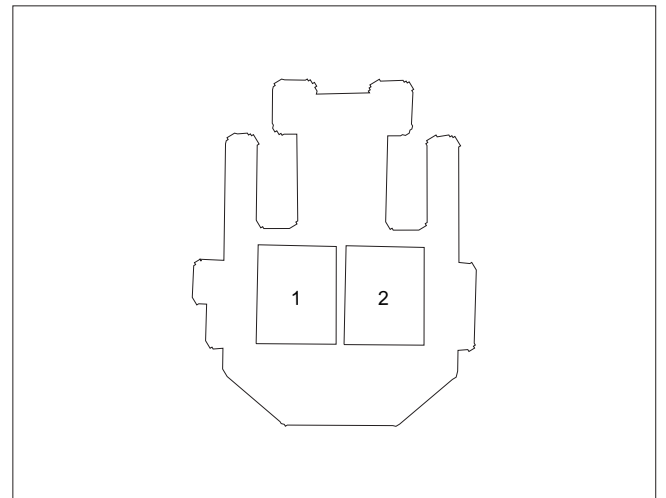
Wiring Harness Distribution and Pin Definition of Electrical Components 4-70



FL09 EVCC
ASM CONN 32 F 0.6 1.5 SLD

Pin No.	Color	Functions	Re- marks
A1	-	-	
A2	-	-	
A3	RD/YE	KL30	
A4	BK	GND1	
B1	-	-	
Pin No.	Color	Functions	Re- marks
B2	-	-	
B3	GY	BMS Wakeup EVCC	
B4	BK	GND2(A-)	
C1	-	-	
C2	-	-	
C3	VT	CP1	
C4	VT	DC Wakeup(A+)	
D1	-	-	
D2	-	-	
D3	L-GN	CC	
D4	YE/WH	CC2	
E1	-	-	
E2	L-GN	EVCC Charge(CP)	

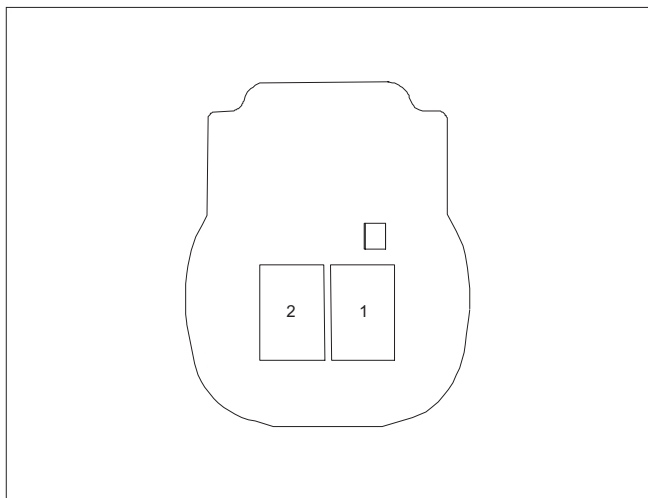
E3	YE/D-GN	DC CAN H	
E4	YE/BK	PT CAN H	
F1	BN/WH	EVCC Charge(PE)	
F2	VT	EVCC Charge(PP)	
F3	D-BU	GND	
F4	YE/BN	PT CAN L	
G1	-	-	
G2	-	-	
G3	-	-	
G4	-	-	
H1	-	-	
H2	-	-	
H3	-	-	
H4	-	-	



FL12R SBR_PAS
CONN 2 F 090 II NAT

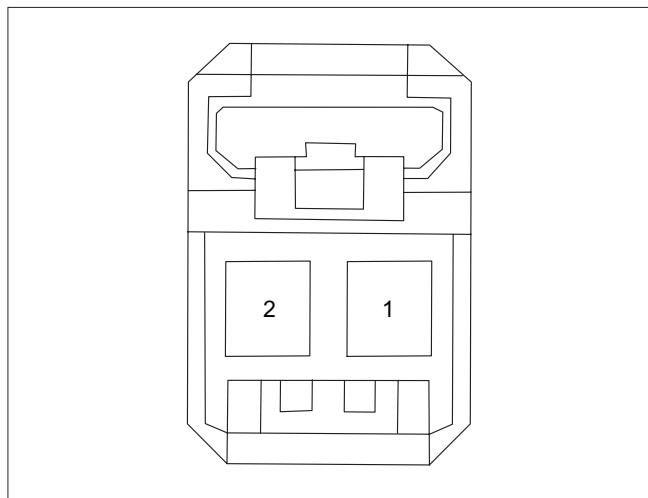
Pin No.	Color	Functions	Re- marks
1	D-BU	SBR-	
2	BK	SBR+	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-71



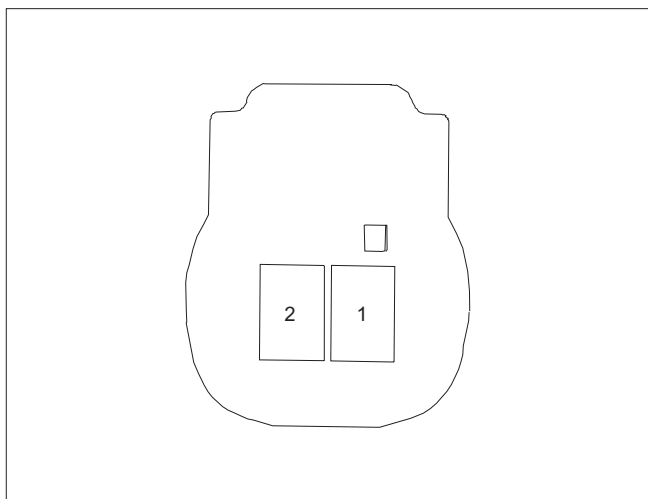
FL21 PAS_DRV
CONN 2 F 090 II NAT

Pin No.	Color	Functions	Re- marks
1	D-GN	SIG	
2	WH/BK	GND	



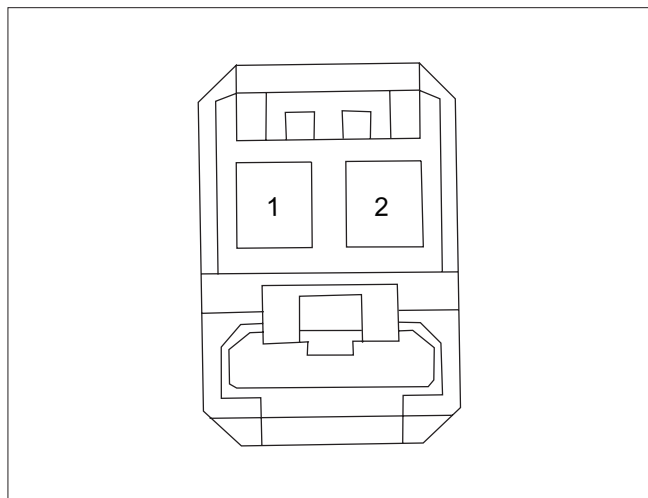
FL23 SAB_DRV
CONN 2 F 2.1 YEL

Pin No.	Color	Functions	Re- marks
1	BN	Front Left Side Airbag High	
2	YE/BK	Front Left Side Airbag Low	



FL22 PAS_PAS
ASM CONN 2 F 1.2 MCON-LL YEL SLD

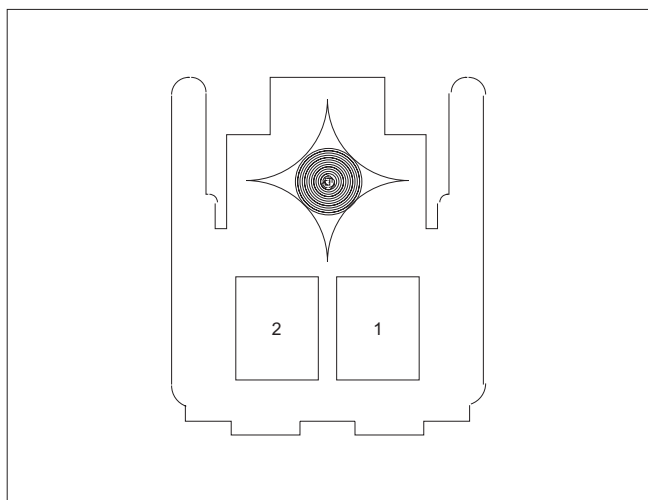
Pin No.	Color	Functions	Re- marks
1	WH/BK	SIG	
2	PU/WH	GND	



FL24 SAB_PAS
CONN 2 F 2.1 YEL

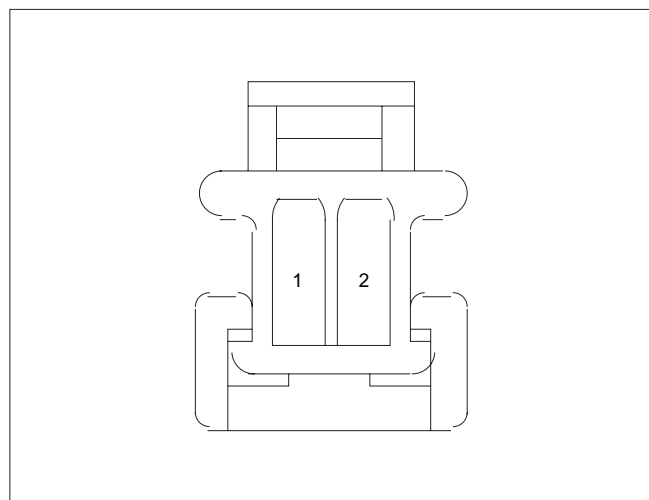
Pin No.	Color	Functions	Re- marks
1	BN/OG	Front Right Side Airbag High	
2	L-GN	Front Right Side Airbag Low	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-72



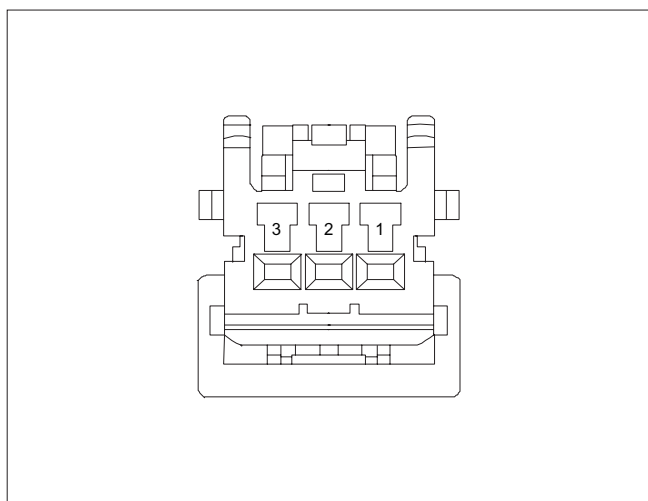
FL51 BUCKLE_RL
CONN 2 F 070 SDL NAT

Pin No.	Color	Functions	Re- marks
1	YE	BUCKLE	
2	BK	GND	



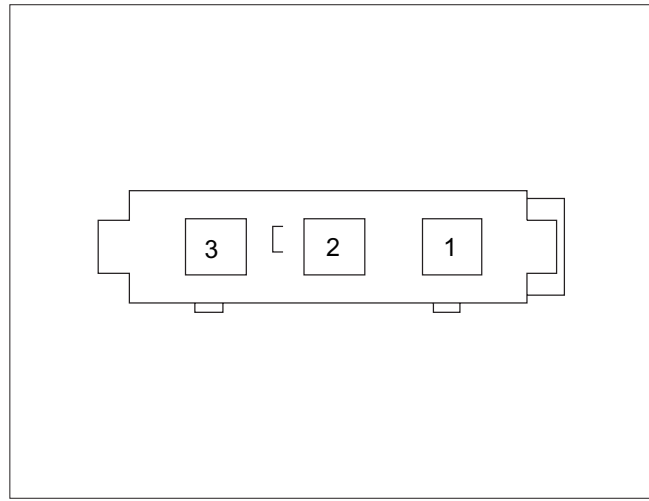
FL53 BUCKLE_RM
CONN 2 F 040 BRN

Pin No.	Color	Functions	Re- marks
1	PK/WH	BUCKLE	
2	BK	GND	



FL52 BUCKLE_RR
ASM CONN 3 F 040 WHT

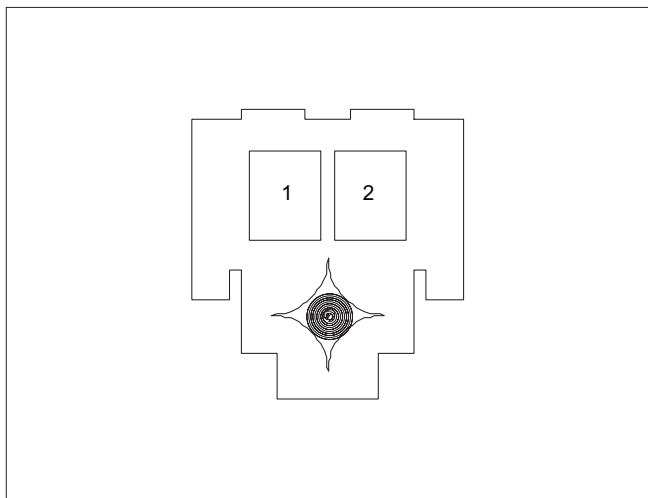
Pin No.	Color	Functions	Re- marks
1	VT	signal	
2	-	-	
3	BK	GND	



FL60 220V INVERTER
CONN 3 F 4.8 BLK

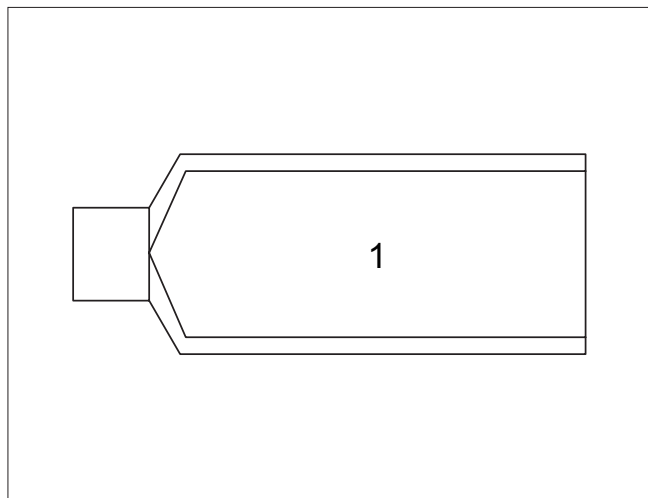
Pin No.	Color	Functions	Re- marks
1	BK	GND	
2	RD/WH	PWR	
3	WH	signal	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-73



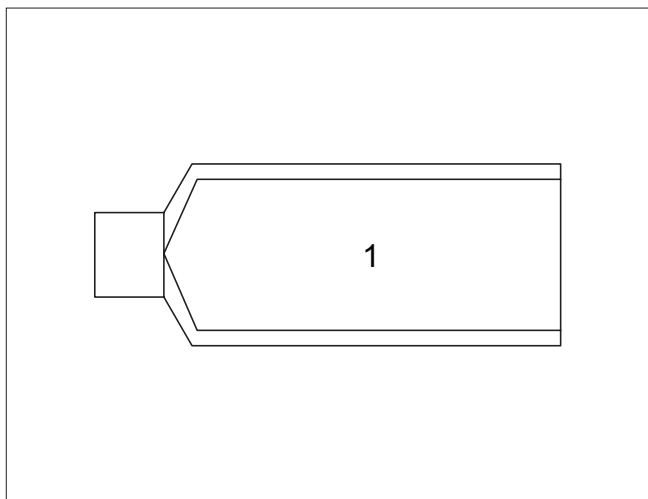
FL61 CHMSL
CONN 2F 070 WHT

Pin No.	Color	Functions	Re- marks
1	L-BU	CHMSL	
2	BK	GND	



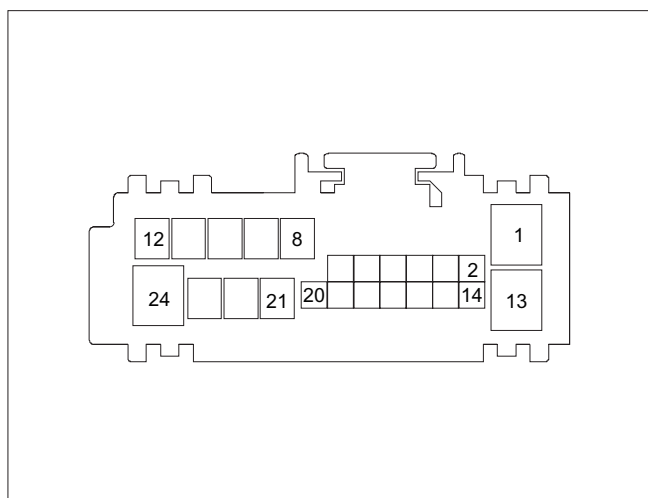
FL62_B REAR WIN HEATER
CONN

Pin No.	Color	Functions	Re- marks
1	BK	GND	



FL62_A REAR WIN HEATER
CONN

Pin No.	Color	Functions	Re- marks
1	RD/WH	PWR	

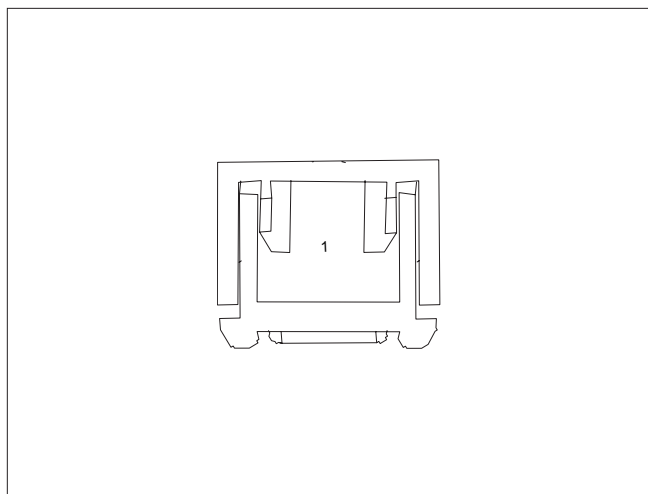


FL70 TRAILER ECU
ASM CONN 24 F 0.64 1.5 2.8

Pin No.	Color	Functions	Re- marks
1	RD	KL30	
2	-	-	
3	-	-	
4	YE/BK	CAN_H	
5	YE/BN	CAN_L	
6	VT/BK	BRAKE SW	

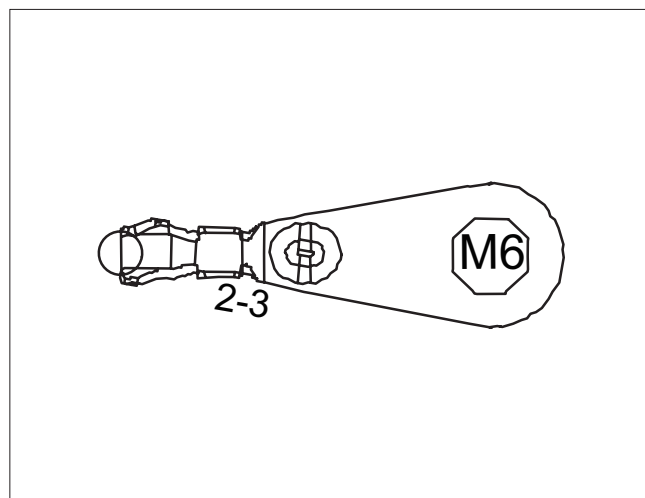
Wiring Harness Distribution and Pin Definition of Electrical Components 4-74

Pin No.	Color	Functions	Re- marks
7	-	-	
8	BN	RIGHT TURN SIG	
9	BN/D-BU	LEFT TURN SIG	
10	D-BU	BACK UP SIG	
11	D-GN	REAR FOG SIG	
12	BK	GND	
13	RD	KL30	
14	-	-	
15	-	-	
16	-	-	
17	-	-	
18	-	-	
19	-	-	
20	-	-	
21	GY	Left position SIG	
22	L-BU	Right position SIG	
23	VT	Brake SIG	
24	BK	GND	



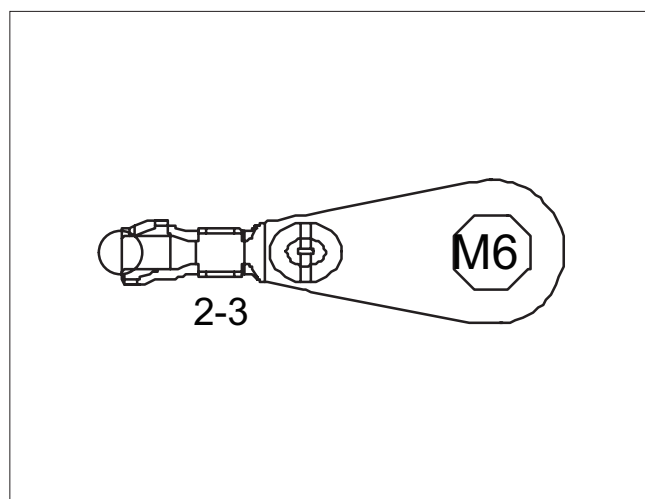
FL71 PARKING BRAKE SW
CONN 1 F 250 NAT

Pin No.	Color	Functions	Re- marks
1	YE/BK	PWR	



G017
RING-M6 Engine Compartment

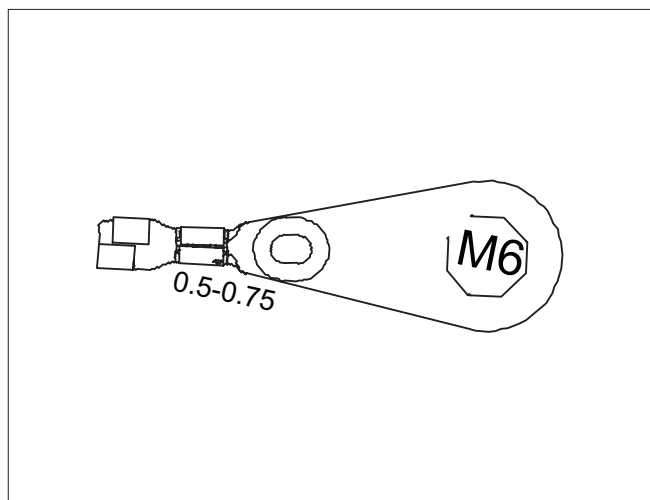
Pin No.	Color	Functions	Re- marks
1	BK	GND	



G018
RING-M6 Engine Compartment

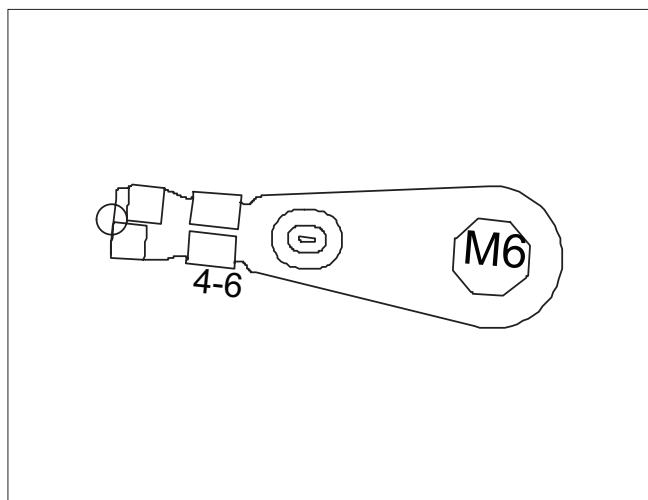
Pin No.	Color	Functions	Re- marks
1	BK	GND	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-75



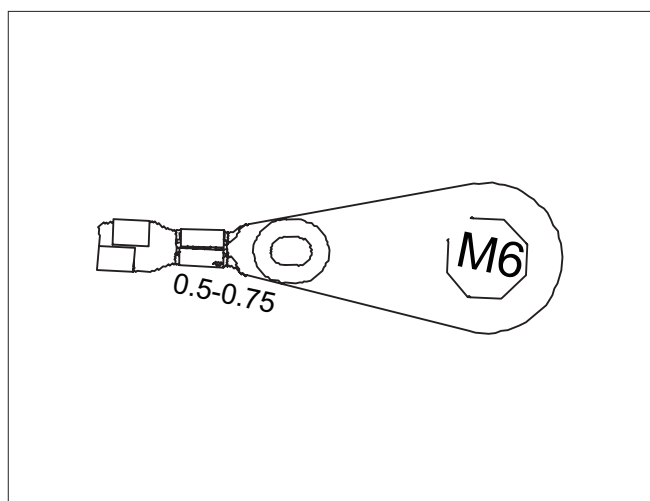
G020
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



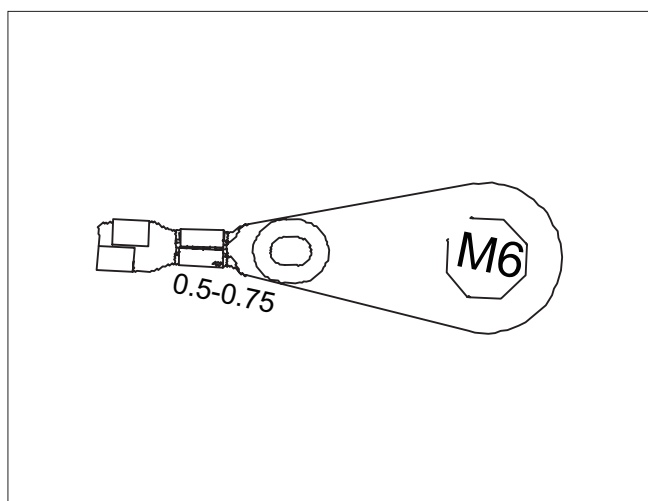
G019_2
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



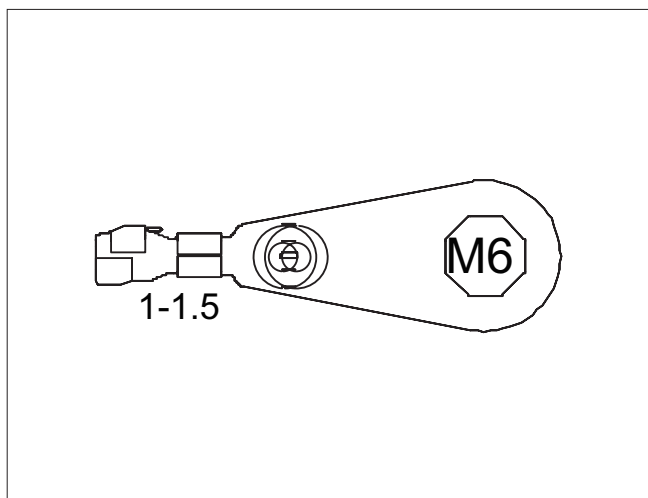
G019_1
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



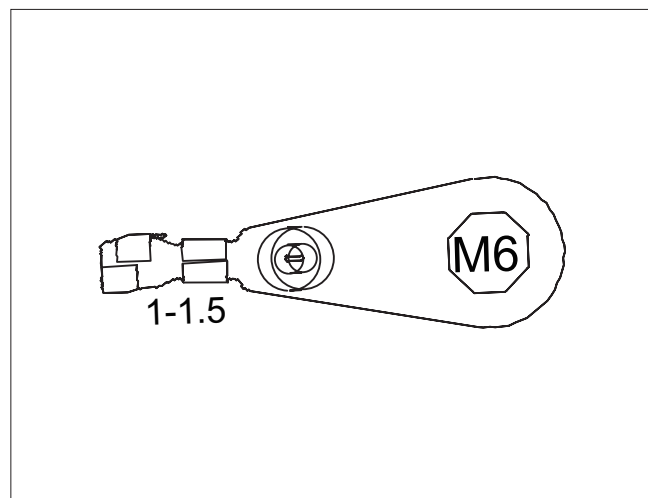
G019_3
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



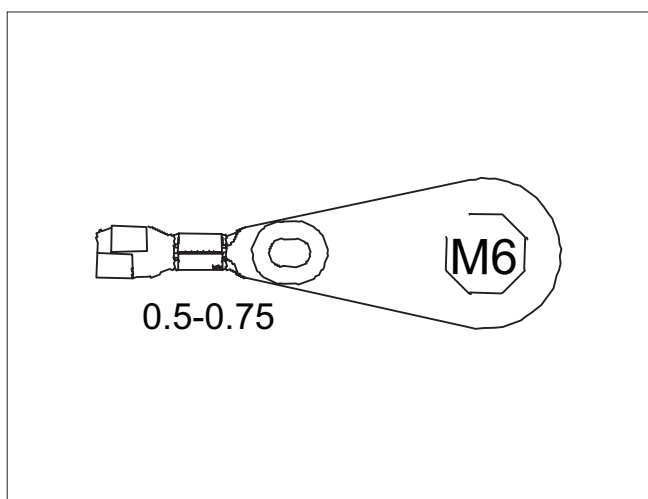
G021_1
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



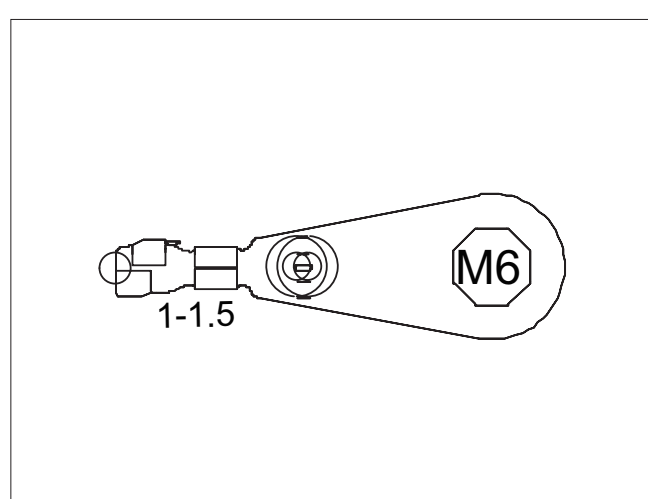
G021_3
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



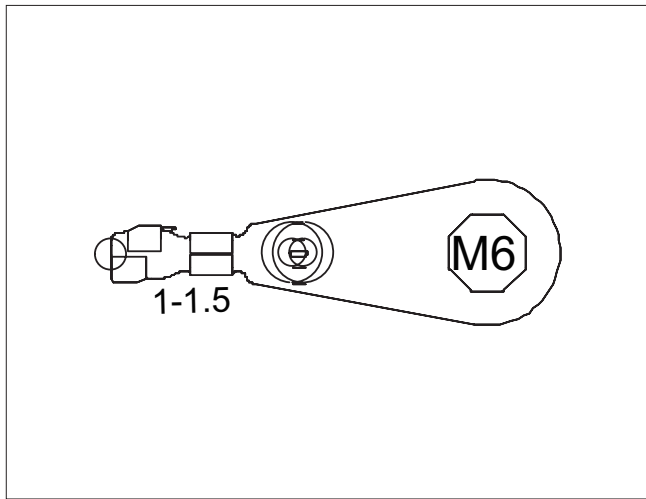
G021_2
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



G022_1
RING-M6 Engine Compartment

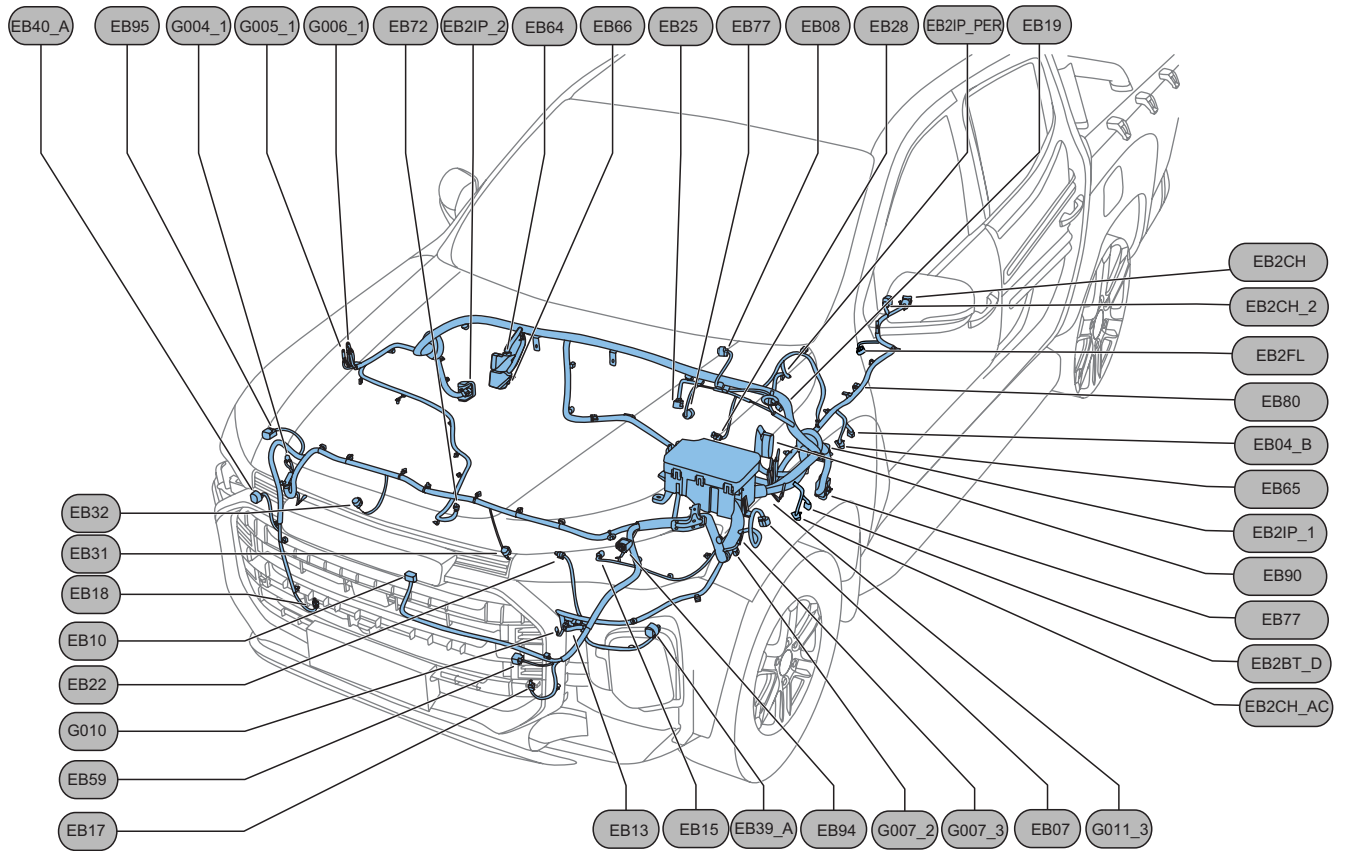
Pin No.	Color	Functions	Re- marks
1	BK	GND	



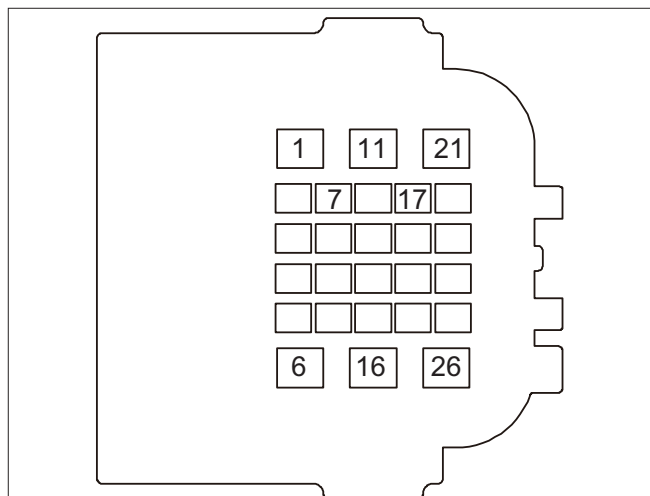
G022_2
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	

4.5 Cabin harness



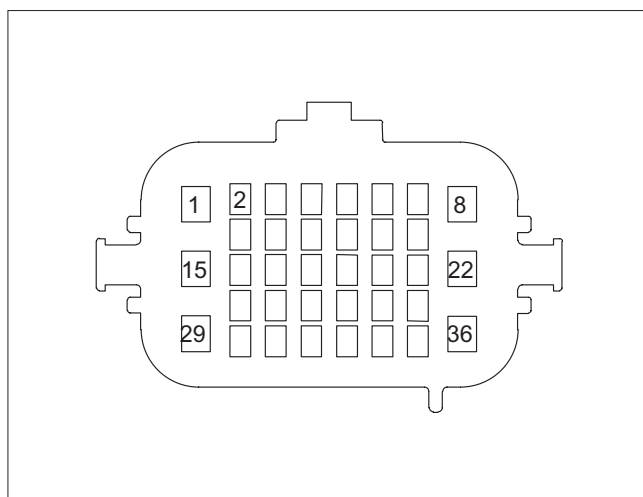
4.5.1 Engine room harness EB connector description



EB2BT_D Engine compartment to battery harness
ASM CONN 26 F 1.5 MTII 2.8 JPT SLD

Pin No.	Color	Functions	Re- marks
1	RD/WH	COMM ENABLE HS(IG)	
2	VT/BK	B+	
3	BK	GND	
4	L-BU/WH	PWM	
5	BK	Fast charging negative relay-	
6	RD	B+	
7	YE/D-BU	CAN_H	
8	YE/L-GN	CAN_L	
9	BK	pwg_gnd	
10	BK	Fast charging negative relay+	
11	-	-	
12	RD/GY	pwg_12v	
13	BARE	Shielding wire	
14	YE/BN	CAN_L	
15	YE/BK	CAN_H	
16	BK	B-	
17	GY/WH	WSP_FR	

Pin No.	Color	Functions	Re- marks
18	D-GN	WSS_FR	
19	RD/BK	Wakeup in	
20	WH/RD	Fast charging negative relay+	
21	WH	Fast charging positive relay+	
22	-	-	
23	-	-	
24	-	-	
25	-	-	
26	-	-	

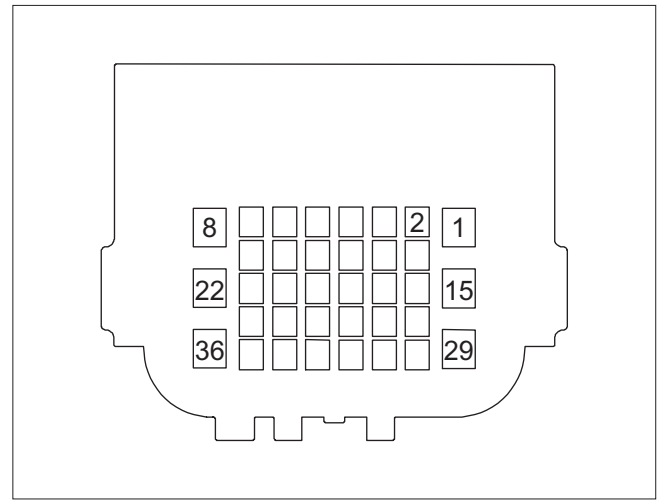


EB2CH_1 发动机舱接底盘线束 1
CONN 36 M 1.6 2.8 BLK SLD

Pin No.	Color	Functions	Re- marks
1	-	-	
2	-	-	
3	L-GN	ID	
4	OG	R-SHIFT	
5	-	-	
6	-	-	
7	-	-	
8	BK	GND	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-80

Pin No.	Color	Functions	Re- marks
9	RD	Signal	
10	L-GN	WSS-RL	
11	PU	WSS_RR	
12	GY/BK	WSP_RR	
13	-	-	
14	-	-	
15	-	-	
16	BK	GND	
17	BN	Signal position LP	
18	L-BU/WH	Left steering LP	
19	D-BU/WH	Right turn signal	
20	PU/BK	Brake light	
21	OG	Signal	
22	-	-	
23	OG/BK	Signal	
24	WH	Signal	
25	-	-	
26	-	-	
27	GY/BK	WSS_RL	
28	BK	GND	
29	RD/YE	Signal	
30	BK	GND	
31	BK	GND	
32	WH	REAR VIDEO+	
33	BARE	Shielding wire	
34	BK	GND	
35	YE	R SIG	
36	-	-	



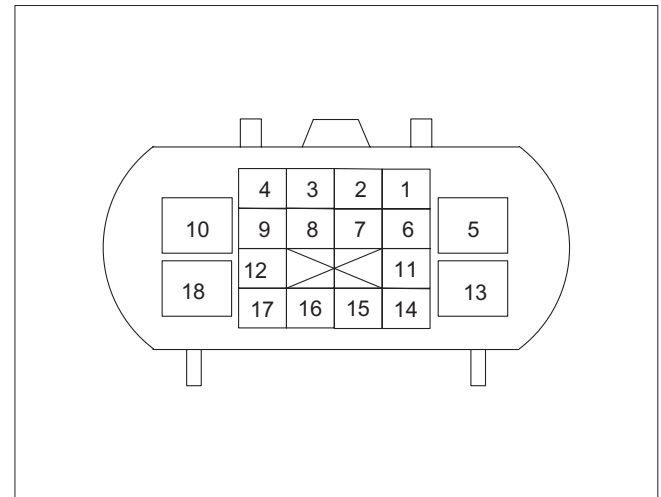
EB2CH_2 Engine compartment to chassis harness 2
CONN 36 F 1.5 2.8 SLD

Pin No.	Color	Functions	Re- marks
1	-	-	
2	YE/WH	CAN1_H	
3	YE/D-BU	CAN1_L	
4	BN	Slow switching temperature_ L1/L2/ L3	
5	VT	Slow charging temperature_ N+	
6	WH	Slow charging temperature_ N-/ DC--	
7	RD/WH	KL15	
8	-	-	
9	BARE	Shielding wire	
10	BK	GND	
11	BK	GND	
12	-	-	
13	OG/BN	TemDC+	
14	OG/L-GN	Fast charging temperature_ DC+/ DC--	
15	-	-	
16	D-BU	LOCKING	
17	-	-	

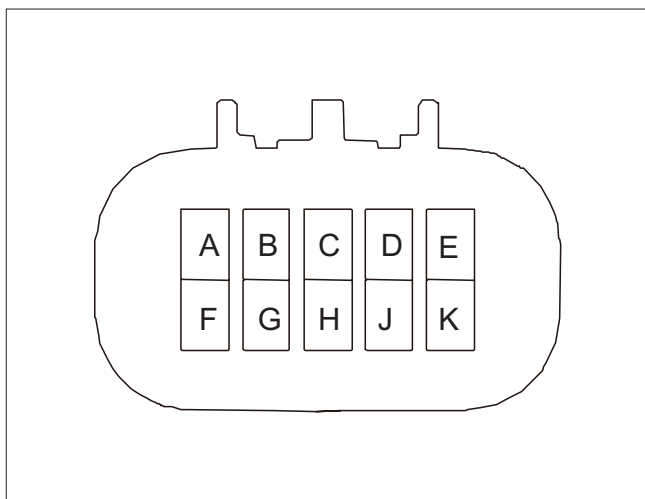
Wiring Harness Distribution and Pin Definition of Electrical Components 4-81

Pin No.	Color	Functions	Re- marks
17	D-GN/ WH	P_CAN_L	
18	-	-	
19	-	-	
20	-	-	
21	-	-	
22	-	-	
23	GRN	Unlock	
24	YE	LOCKING_ FEEDBACK	
25	-	-	
26	-	-	
27	-	-	
28	-	-	
29	-	-	
30	-	-	
31	-	-	
32	-	-	
33	RD	KL30	
34	OG	TemL1	
35	-	-	
36	YE/VT	TemDC-	

Pin No.	Color	Functions	Re- marks
A	D-GN	KL30	
B	OG/D-GN	LIN	
C	TN	HVIL_IN	
D	TN	HVIL_OUT	
E	BK	GND	
F	-	-	
G	-	-	
H	-	-	
J	-	-	
K	-	-	



EB2FL Engine compartment ground plate harness
ASM CONN 10 M GT 150 BLK SLD

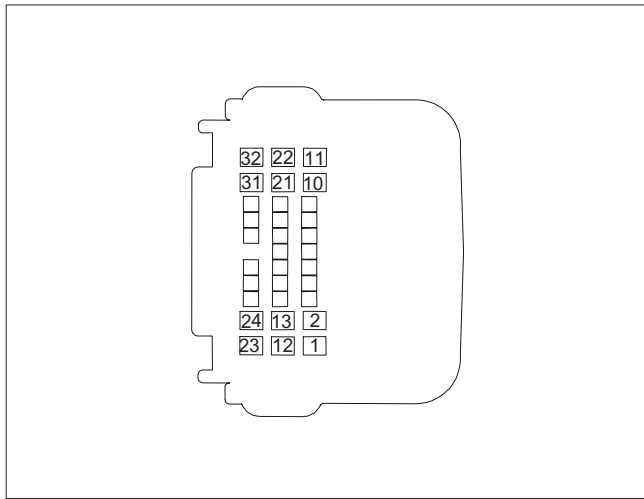


EB2CH_AC Engine compartment to chassis harness 3
ASM CONN 10 M GT 150 BLK SLD

Pin No.	Color	Functions	Re- marks
1	VT	CP	
2	LG	CC	
3	YE/WH	Fast charging temperature_ DC++	
4	-	-	
5	VT	Fast charging wake- up_ A+	
6	BK	Fast charging wake- up_ A-	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-82

Pin No.	Color	Functions	Re- marks
7	GY	Slow charging temperature_ L3+/ BMS Wake up EVCC	
8	-	-	
9	-	-	
10	-	-	
11	-	-	
12	-	-	
13	-	-	
14	YE/GN	CAN2_H	
15	D-BU/YE	CAN2_L	
16	BARE	Shielding wire	
17	-	-	
18	-	-	

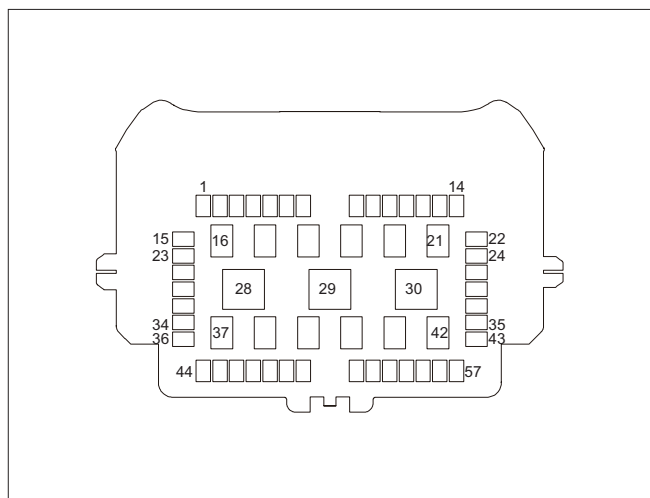


EB2IP Engine compartment to instrument harness
CONN 32 M 040 III 090 II SLD

Pin No.	Color	Functions	Re- marks
1	-	-	
2	-	-	
3	-	-	
4	-	-	

Pin No.	Color	Functions	Re- marks
5	-	-	
6	YE/D-BU	CAN_L	
7	OG/D-GN	LIN	
8	YE/RD	CAN BUS_H_VCU	
9	YE/GY	CAN BUS_L_VCU	
10	-	-	
11	-	-	
12	-	-	
13	-	-	
14	YE/WH	CAN BUS_H_VCU_ MCU	
15	YE/D-BU	CAN BUS_L_VCU_ MCU	
16	-	-	
17	-	-	
18	-	-	
19	YE/WH	PET CAN_H	
20	RD/WH	KL15	
21	-	-	
22	-	-	
23	-	-	
24	-	-	
25	YE/D-GN	BMS-CHARGE CANH	
26	D-BU	BMS-CHARGE CANL	
27	BARE	Shielding wire	
28	YE/BK	CAN_H	
29	YE/BN	CAN_L	
30	BARE	Shielding wire	
31	-	-	
32	-	-	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-83



EB2IPR_1 Engine compartment harness connected to instrument harness 1
 ASM CONN 57 M 0.64X42 GET 2.8X12 6.3X3

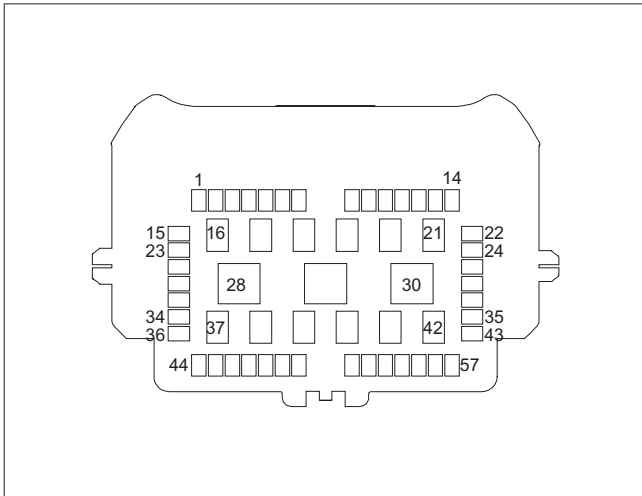
Pin No.	Color	Functions	Re- marks
1	-	-	
2	-	-	
3	YE/D-BU	CAN_H	
4	YE/L-GN	CAN_L	
5	RD/YE	KL30	
6	-	-	
7	-	-	
8	-	-	
9	-	-	
10	D-GN	PWR	
11	OG/BK	OUT	
12	-	-	
13	RD/BK	PWR	
14	-	-	
15	RD/WH	COMM ENABLE HS(IG)	
16	-	-	
17	RD/WH	PWR	
18	RD/YE	PWR	
19	-	-	
20	D-GN	PWR	

Pin No.	Color	Functions	Re- marks
21	-	-	
22	-	-	
23	-	-	
24	-	-	
25	TN	signal	
26	-	-	
27	YE/BK	TEMP_AMB	
28	RD/BK	PWR	
29	RD	PWR	
30	RD/WH	PWR	
31	GY/BK	PWR_IGN	
32	L-GN	-	
33	OG	R-SHIFT	
34	-	-	
35	-	-	
36	-	-	
37	RD/YE	PWR	
38	RD/BK	PWR	
39	RD/BK	KL30	
40	RD/BN	KL30	
41	OG	Crash_PWM	
42	-	-	
43	PU	Brake warning	
44	WH	CVBS1	
45	BARE	Shielding wire	
46	YE	Reverse gear Ip	
47	-	-	
48	-	-	
49	-	-	
50	GY	+5V	
51	OG/BK	Vout	
52	-	-	
53	-	-	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-84

Pin No.	Color	Functions	Re- marks
54	D-GN/ WH	ESP OFF_LAMP	
55	L-GN	HDC_LAMP	
56	D-BU	ESP OFF	
57	D-BU/WH	HDC_SW	

Pin No.	Color	Functions	Re- marks
15	PU	DAYTIME LP_L	
16	-	-	
17	-	-	
18	-	-	
19	RD	PWR	
20	-	-	
21	-	-	
22	YE	Left FIS sensor-	
23	D-GN	Right FIS sensor+	
24	GY	Right FIS sensor-	
25	D-BU/WH	Right turn signal	
26	PU/BK	BRAKE LP	
27	YE	Rear fog LP	
28	-	-	
29	-	-	
30	-	-	
31	-	-	
32	-	-	
33	-	-	
34	-	-	
35	-	-	
36	-	-	
37	L-GN	TURN_LH DIAG	
38	D-GN	TURN_RH DIAG	
39	-	-	
40	-	-	
41	-	-	
42	-	-	
43	-	-	
44	-	-	
45	VT/BK	Left FIS sensor+	
46	YE	ACC WAKEUP	
47	-	-	
48	-	-	

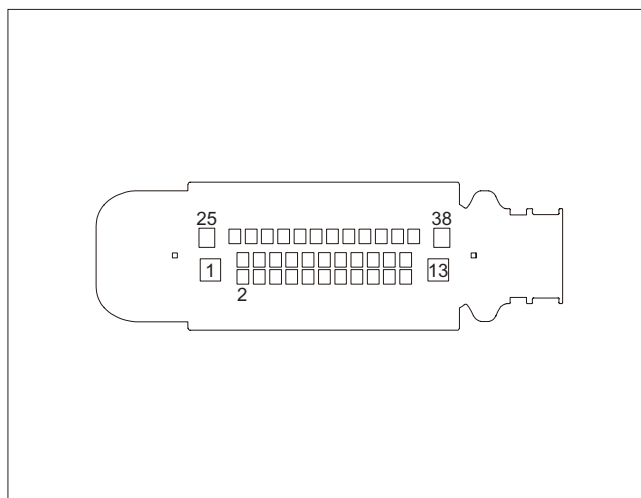


EB2IPR_2 Engine compartment to instrument harness
2
ASM CONN 57 M 0.64X42 GET 2.8X12 6.3X3

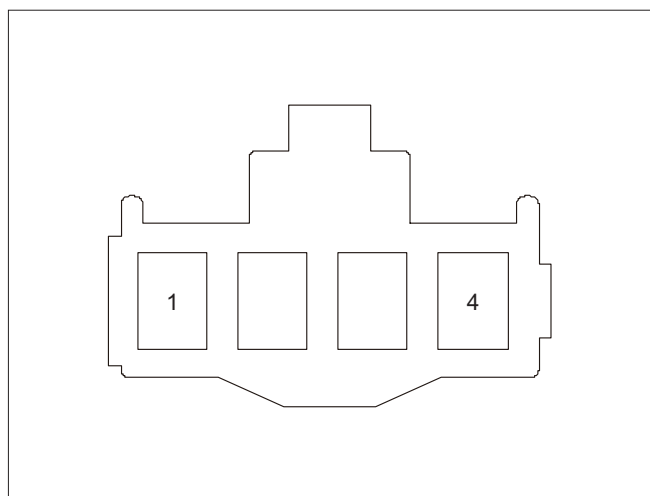
Pin No.	Color	Functions	Re- marks
1	-	-	
2	RD/BK	signal	
3	YE	signal	
4	PU	signal	
5	VT/BK	signal	
6	GY	VINI	
7	YE/BK	GNDI	
8	YE	SIG1	
9	GY	Wiper power relay	
10	TN	Wiper speed relay	
11	D-BU	Position LP	
12	-	-	
13	-	-	
14	D-BU	DAYTIME LP_R	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-85

Pin No.	Color	Functions	Re- marks
49	BN	High beam relay	
50	VT/WH	Low beam lamp relay	
51	L-BU/WH	turn left	
52	YE	FRT wiper park switch	
53	-	-	
54	-	-	
55	OG	FRT cleaning motor	
56	WH	Fuel flap actuator	
57	OG/BK	REVERSE	



EB04_B ABS/ESP/ESC
CONN 38 F 1.5 BTL 2.8 BTL 4.8 BTL SLD



EB2IPR_PWR LINK 1 Engine compartment to instrument
harness_PWR LINK 1
ASM CONN 4 F 312 NAT

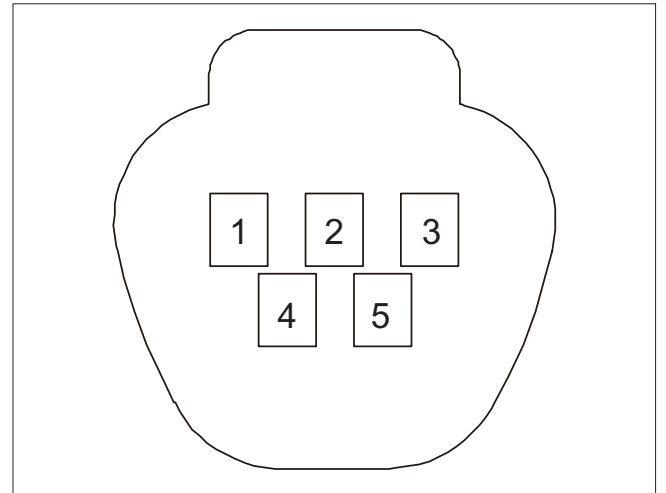
Pin No.	Color	Functions	Re- marks
1	RD/YE	PWR	
2	RD/BK	PWR	
3	RD	Power Supply	
4	RD/WH	PWR	

Pin No.	Color	Functions	Re- marks
1	VT	PWR_MOTOR	
2	-	-	
3	-	-	
4	D-GN	WSS_FR	
5	-	-	
6	L-GN	HDC_LAMP	
7	-	-	
8	D-BU/WH	WSS_FL	
9	-	-	
10	-	-	
11	-	-	
12	D-BU	ESP_OFF	
13	BK	GND_MOTOR	
14	YE/L-GN	CAN1M	
15	D-BU/WH	HDC_SW	
16	GY/WH	WSP_FR	
17	GY/BK	WSP_RR	
18	L-GN	WSS_RL	
19	GY/WH	WSP_FL	
20	-	-	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-86

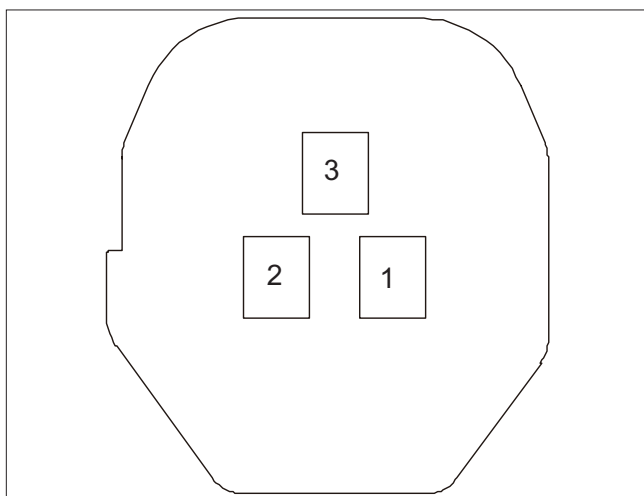
Pin No.	Color	Functions	Re- marks
21	-	-	
22	-	-	
23	D-GN/ WH	PALA	
24	-	-	
25	PU	PWR_VALVE	
26	YE/D-BU	CAN1P	
27	-	-	
28	GY/BK	PWR_IGN	
29	PU	WSS_RR	
30	-	-	
31	GY/BK	WSP_RL	
32	-	-	
33	-	-	
34	-	-	
35	-	-	
36	-	-	
37	-	-	
38	BK	GND_ECU	

Pin No.	Color	Functions	Re- marks
1	BK	GND	
2	OG	FRT cleaning motor	
3	-	-	

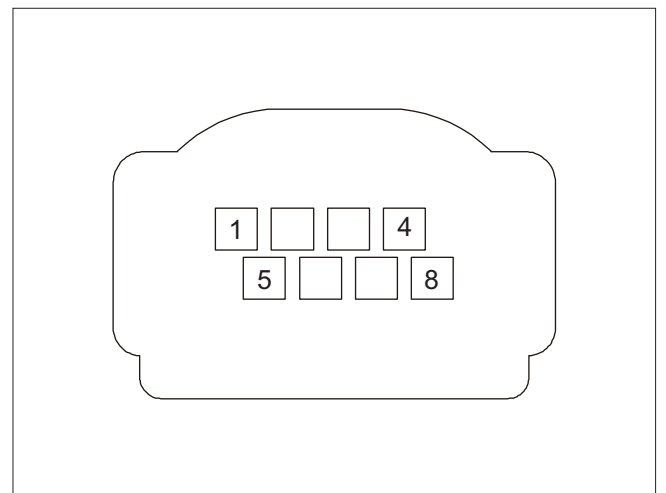


EBO8R FRT WIPER MOT
CONN 5 F GRA

Pin No.	Color	Functions	Re- marks
1	-	-	
2	YE	FRT wiper park switch	
3	PU	Signal	
4	BK	GND	
5	D-GN	Signal	



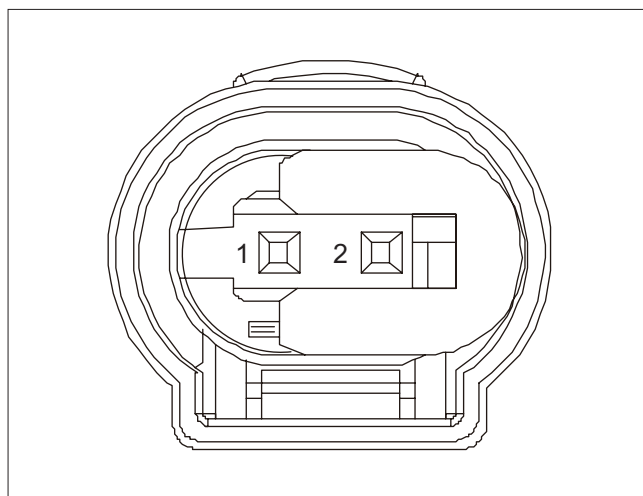
EBO7 FRT WIN WASH PUMP
ASM CONN 3 F 090 II GRA SLD WP



Wiring Harness Distribution and Pin Definition of Electrical Components 4-87

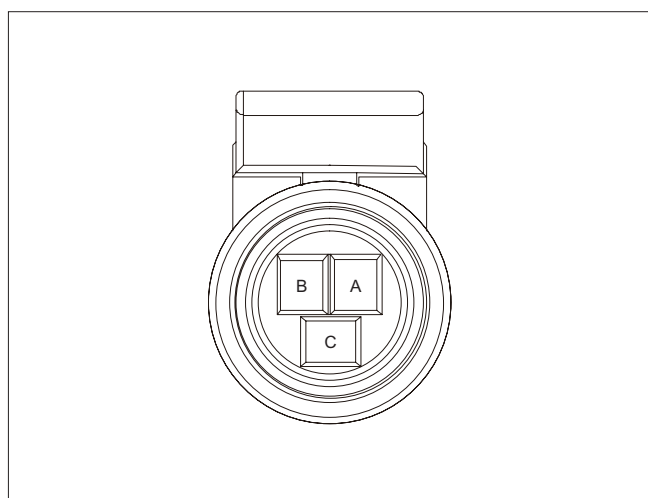
EB10 AVAS
ASM CONN 8 F MQS BLK SLD

Pin No.	Color	Functions	Re- marks
1	YE/BN	CAN_L	
2	GY/VT	SW2	
3	L-GN	-	
4	BK	GND	
5	YE/BK	CAN_H	
6	VT/WH	LED	
7	-	-	
8	RD/BK	IG1	



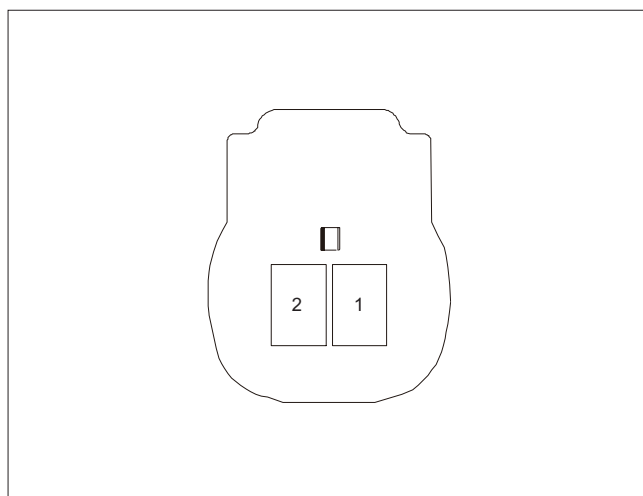
EB15 WSS_FL
ASM CONN 2 F 0.64 MQS BLK SLD

Pin No.	Color	Functions	Re- marks
1	D-BU/WH	WSS_FL	
2	GY/WH	WSP_FL	



EB13 A/C PRESSURE SEN
ASM CONN 3 F M/P 150 BLK SLD

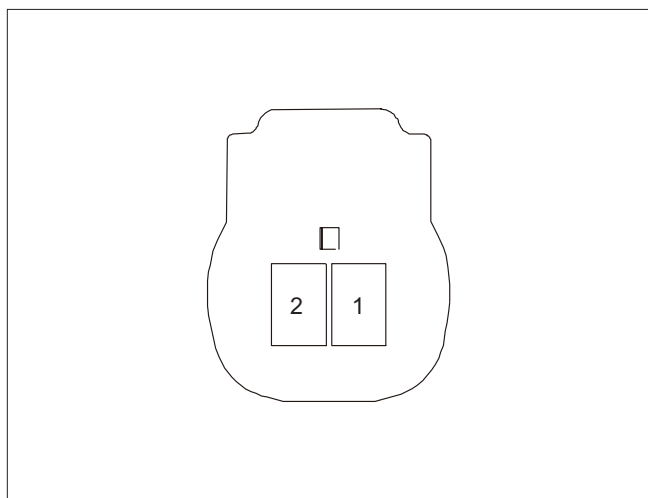
Pin No.	Color	Functions	Re- marks
A	TN	GND	
B	GY	+5V	
C	OG/BK	Vout	



EB17 主驾正碰传感器
ASM CONN 2 F 1.2 MCON-LL YEL SLD

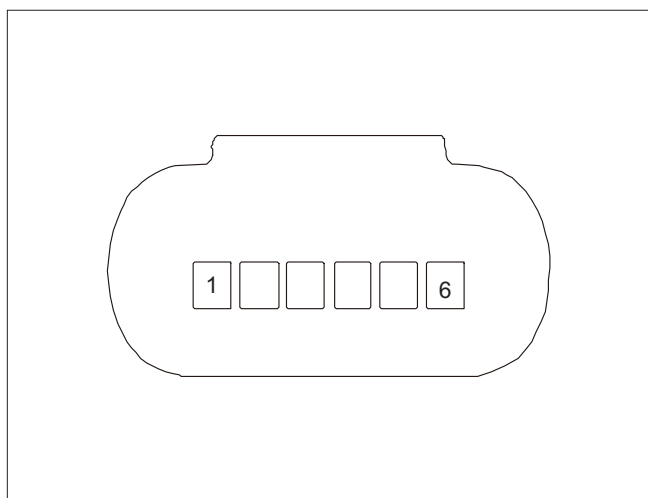
Pin No.	Color	Functions	Re- marks
1	VT/BK	Left FIS sensor (+)	
2	YE	Left FIS sensor (-)	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-88



EB18 UFS_PAS
ASM CONN 2 F 1.2 MCON-LL YEL SLD

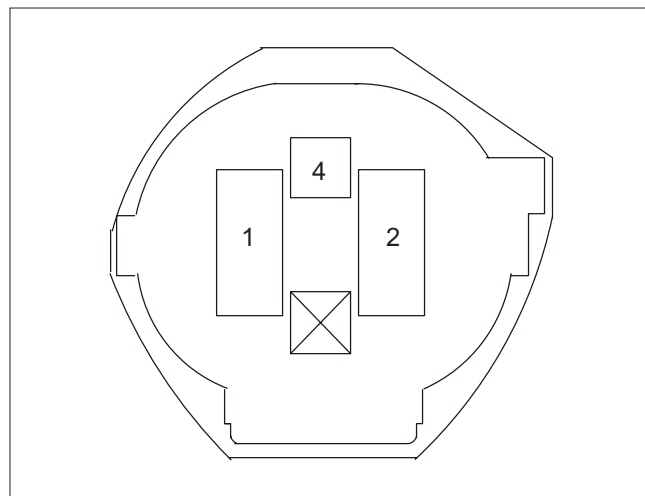
Pin No.	Color	Functions	Re- marks
1	D-GN	Right FIS sensor(+)	
2	GY	Right FIS sensor(-)	



EB19R DUAL BRAKE PEDAL
CONN 6 F 025 BLK SLD

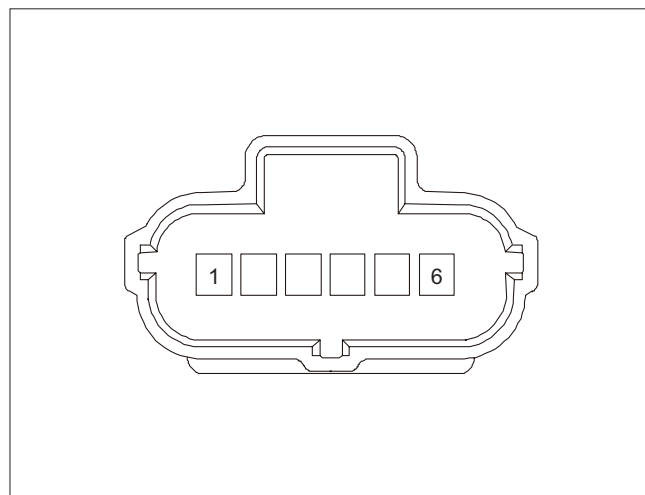
Pin No.	Color	Functions	Re- marks
1	D-BU	VIN2	
2	VT	GND2	
3	D-BU/WH	SIG2	
4	YE	VIN1	
5	GY	SIG1	

Pin No.	Color	Functions	Re- marks
6	YE/BK	GND1	



EB22 COOLING FAN 600W
Connector

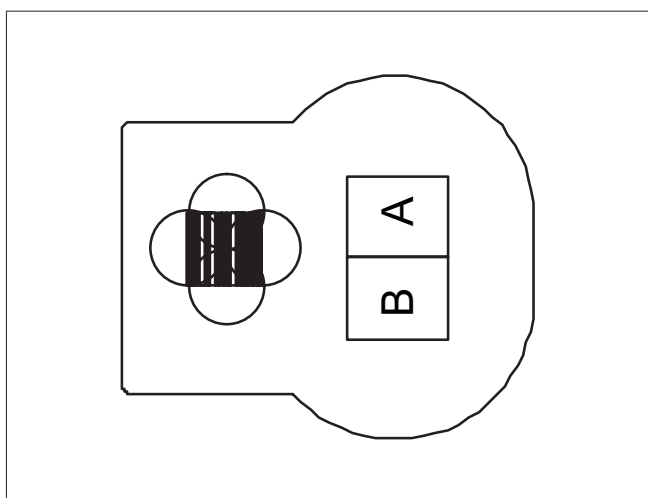
Pin No.	Color	Functions	Re- marks
1	RD	RED	
2	BK	GND	
3	-	-	
4	D-BU	PWM	



EB25R ACCELERATOR PEDAL
ASM CONN 6 F 1.8 BLK SLD

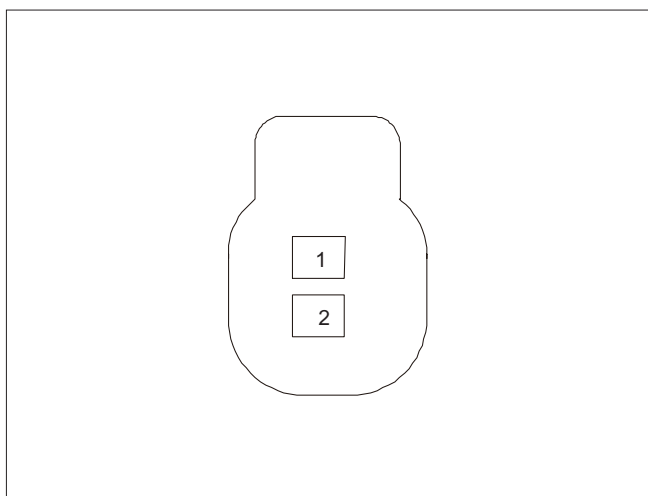
Wiring Harness Distribution and Pin Definition of Electrical Components 4-89

Pin No.	Color	Functions	Re- marks
1	WH/BK	vbat_2	
2	L-BU	SIG_2	
3	D-GN	GND_2	
4	VT	GND_1	
5	D-BU	SIG_1	
6	BN	vbat_1	



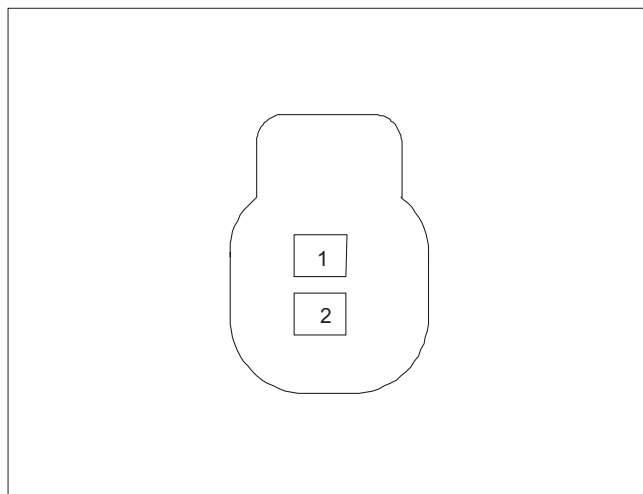
EB28R BRAKE LEVEL SEN
ASM CONN 2 F MP 150.2 BLK SLD

Pin No.	Color	Functions	Re- marks
A	PU	SIG	
B	BK	GND	



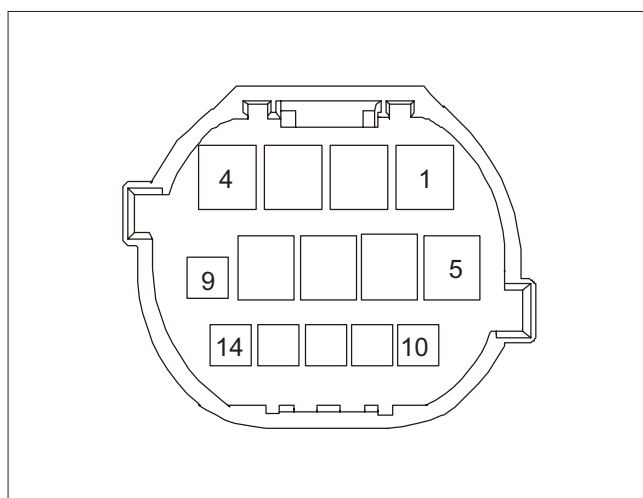
EB31 HORN_L
ASM CONN 2 F GT 150 BLK SLD

Pin No.	Color	Functions	Re- marks
1	D-GN	KL30	
2	BK	GND	



EB32 HORN_R
ASM CONN 2 F GT 150 BLK SLD

Pin No.	Color	Functions	Re- marks
1	D-GN	KL30	
2	BK	GND	

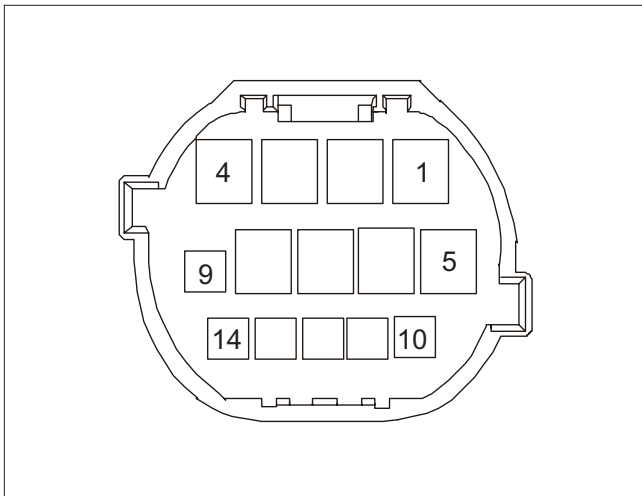


EB39_A HEAD LP_LH
ASM CONN 14 F 025 060

Wiring Harness Distribution and Pin Definition of Electrical Components 4-90

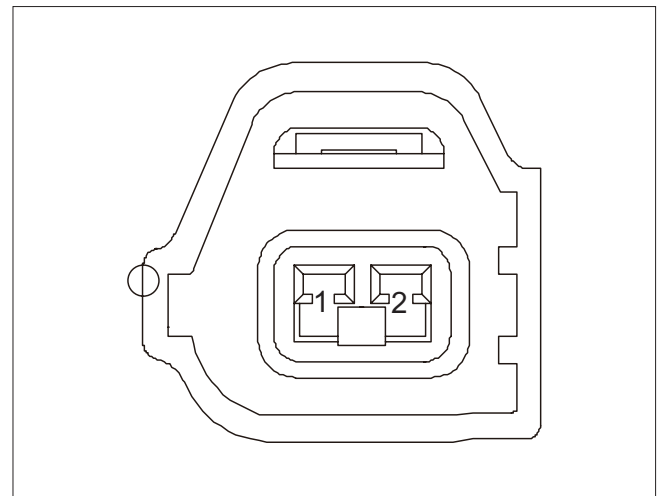
Pin No.	Color	Functions	Re- marks
1	TN/WH	LO BEAM+	
2	L-GN/BK	HI BEAM+	
3	-	-	
4	-	-	
5	BK	LO BEAM-	
6	BK	HI BEAM-	
7	-	-	
8	-	-	
9	-	-	
10	-	-	
11	-	-	
12	D-GN	MOT+	
13	BK	MOT-	
14	OG/BK	MOT SIG	

Pin No.	Color	Functions	Re- marks
4	-	-	
5	BK	LO BEAM-	
6	BK	HIBEAM-	
7	-	-	
8	-	-	
9	-	-	
10	-	-	
11	-	-	
12	D-GN	MOT+	
13	BK	MOT-	
14	OG/BK	MOT SIG	



EB40_A HEAD LP_RH
ASM CONN 14 F 025 060

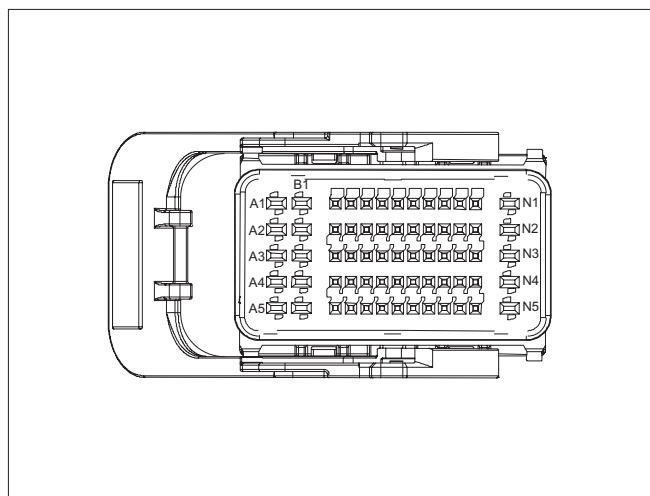
Pin No.	Color	Functions	Re- marks
1	YE	LO BEAM+	
2	D-GN/ WH	HI BEAM+	
3	-	-	



EB59 AMBIENT TEMP SEN
CONN 2 F SEALED

Pin No.	Color	Functions	Re- marks
1	TN	NEG	
2	YE/BK	POS	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-91



EB64R VCU

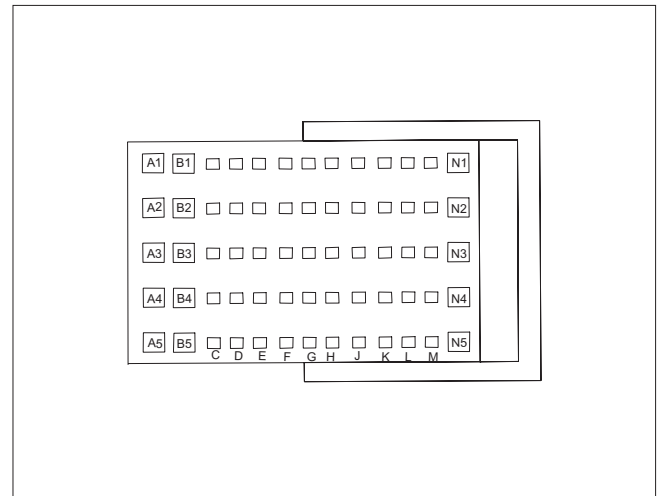
ASM CONN 65 F 0.64 MQS Q. 5MX150 SLD

Pin No.	Color	Functions	Re- marks
A1	-	-	
A2	-	-	
A3	-	-	
A4	-	-	
A5	BK	G_G_GNDPOW3	
B1	BK	G_G_GNDPOW2	
B2	-	-	
B3	-	-	
B4	-	-	
B5	BK	G_G_GNDPOW4	
C1	-	-	
C2	-	-	
C3	WH	G_R_007	
C4	-	-	
C5	-	-	
D1	-	-	
D2	VT	G_R_006	
D3	D-BU/WH	I_A_Analog Input11	
D4	-	-	
D5	YE/RD	B_D_CAN1L	
E1	-	-	
E2	-	-	

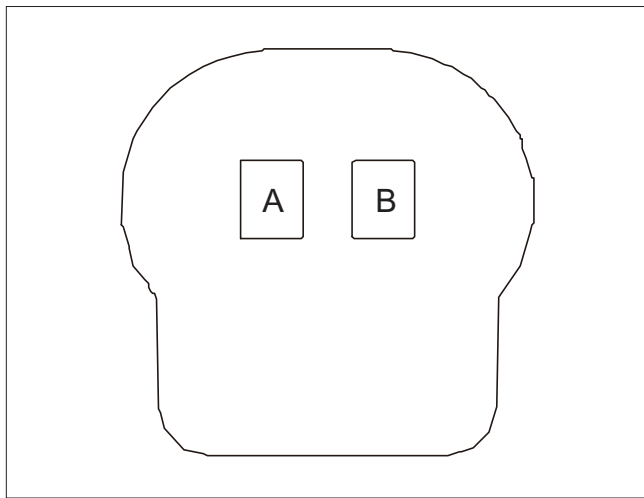
Pin No.	Color	Functions	Re- marks
E3	VT	WATER TEMP-	
E4	GY	I_A_Analog Input 18	
E5	YE/GY	EPT CANH	
F1	-	-	
F2	-	-	
F3	-	-	
F4	-	-	
F5	-	-	
G1	-	-	
G2	-	-	
G3	-	-	
G4	-	-	
G5	YE/BN	CAN_L_7	
H1	-	-	
H2	-	-	
H3	-	-	
H4	-	-	
H5	YE/BK	CAN_H 8	
J1	-	-	
J2	-	-	
J3	-	-	
J4	YE/D-BU	EPT CANL	
J5	-	-	
K1	-	-	
K2	YE	I_S_ACC	
K3	-	-	
K4	YE/WH	EPT CANH	
K5	-	-	
L1	-	-	
L2	RD/BK	I_S_ON	
L3	-	-	
L4	-	-	
M1	YE/BK	O_V_SENSOR1	
M2	BN	O_S_MR	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-92

Pin No.	Color	Functions	Re- marks
M3	-	-	
M4	-	-	
M5	RD	V_V_UBD	
N1	-	-	
N2	RD/WH	V_V_UBR 39	
N3	RD/WH	V_V_UBR 52	
N4	BK	G_G_GNDPOW1	
N5	RD	O_V_SENSOR2	



EB66R VCU
CONN 65 F 0.6 BMK 1.5 MCP(left)



EB65 TR_CH
282080-1

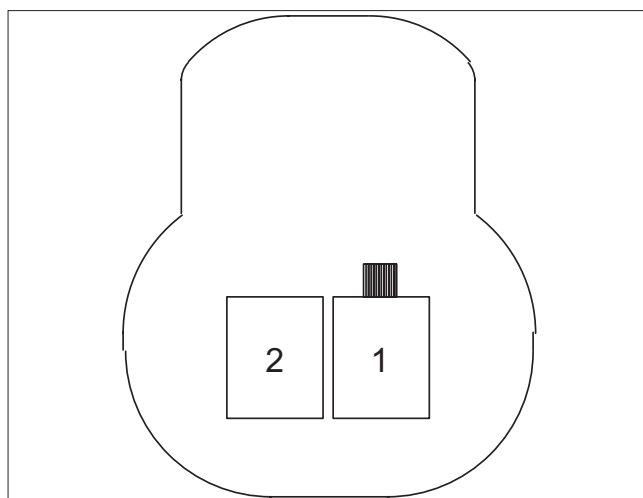
Pin No.	Color	Functions	Re- marks
A	YE/D-BU	CAN1P	
B	YE/L-GN	CAN1M	

Pin No.	Color	Functions	Re- marks
A1	-	-	
A2	-	-	
A3	-	-	
A4	-	-	
A5	-	-	
B1	-	-	
B2	-	-	
B3	-	-	
B4	-	-	
B5	-	-	
C1	-	-	
C2	-	-	
C3	D-BU	O_V_PEDAL1	
C4	WH	O_V_PEDAL1	
C5	-	-	
D1	-	-	
D2	-	-	
D3	L-BU/WH	O_V_PEDAL1	
D4	-	-	
D5	-	-	

Wiring Harness Distribution and Pin Definition of Electrical Components 4-93

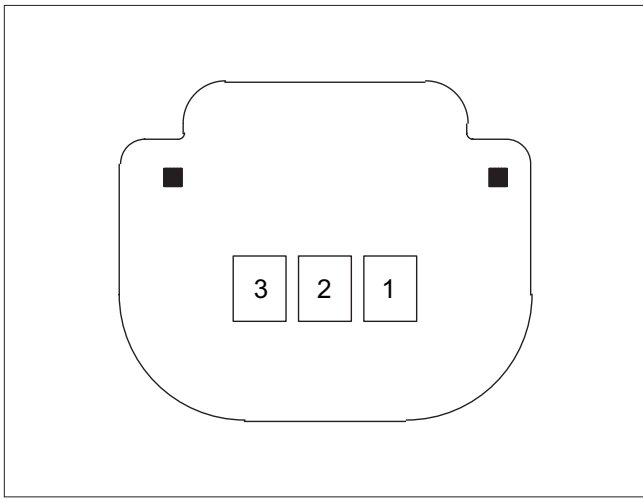
Pin No.	Color	Functions	Re- marks
E1	-	-	
E2	-	-	
E3	BN	O_V_PEDAL1	
E4	-	-	
E5	-	-	
F1	-	-	
F2	-	-	
F3	WH/BK	G_R_PEDAL2	
F4	L-BU	G_R_PEDAL2	
F5	-	-	
G1	-	-	
G2	-	-	
G3	-	-	
G4	D-BU	G_R_PEDAL2	
G5	VT	G_R_PEDAL2	
H1	-	-	
H2	-	-	
H3	-	-	
H4	-	-	
H5	D-GN	G_R_PEDAL2	
J1	-	-	
J2	-	-	
J3	-	-	
J4	-	-	
J5	-	-	
K1	-	-	
K2	-	-	
K3	-	-	
K4	L-GN	WATER TEMP+	
K5	-	-	
L1	-	-	

Pin No.	Color	Functions	Re- marks
L2	-	-	
L3	-	-	
L4	-	-	
L5	-	-	
M1	-	-	
M2	-	-	
M3	-	-	
M4	-	-	
M5	-	-	
N1	-	-	
N2	-	-	
N3	-	-	
N4	-	-	
N5	D-BU	WATER TEMP+	



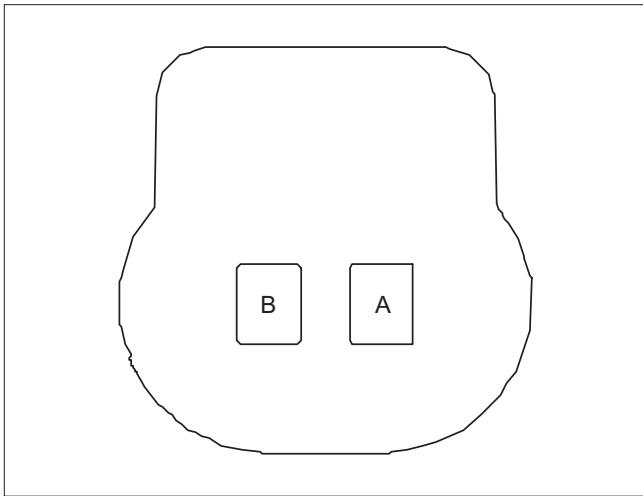
EB72 WATER TEMP SENSOR
ASM CONN 2 F 1.2 MCON-CB BLK SLD

Pin No.	Color	Functions	Re- marks
1	VT	FUNCTION-	
2	L-GN	FUNCTION+	



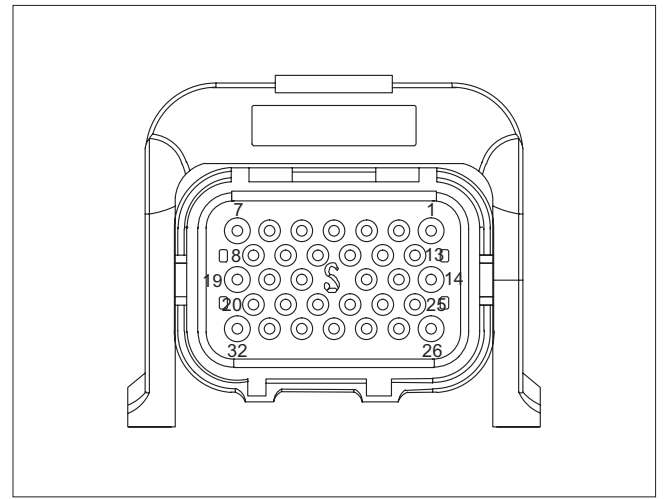
EB77R VACUUM PRESSURE SENSOR
ASM CONN 3 F GT 150 SLD

Pin No.	Color	Functions	Re- marks
1	GY	Vout	
2	WH	GND	
3	YE/BK	VS	



EB80 TR_EPT
ASM CONN 2 F GT 150 SLD

Pin No.	Color	Functions	Re- marks
A	YE/WH	EPT CANH	
B	YE/D-BU	EPT CANL	

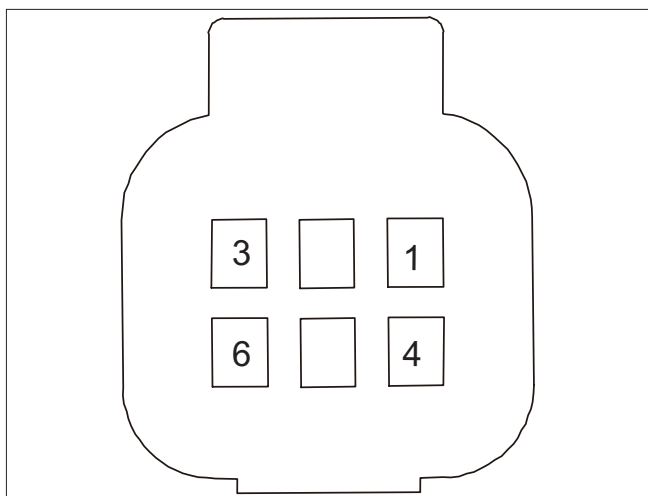


EB90 BMS
CONN 32 F 1.0 1.6

Pin No.	Color	Functions	Re- marks
1	RD/YE	KL30	
2	TN	HVIL_IN	
3	TN	HVIL_OUT	
4	YE/BK	CAN_H	
5	YE/BN	CAN_L	
6	BARE	Shielding wire	
7	D-BU	Locking	
8	RD/BK	KL15	
9	YE	Lock feedback	
10	GY	Slow charging temperature_L3+/ BMS Wake up EVCC	
11	VT	-	
12	WH	Fast charging positive relay+	
13	WH/RD	Fast charging negative relay+	
14	BK	KL31	
15	YE/WH	CC2	
16	OG	Crash_PWM	
17	-	-	

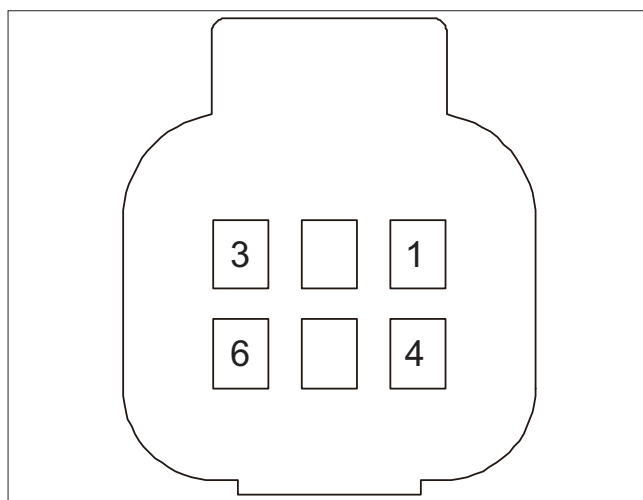
Wiring Harness Distribution and Pin Definition of Electrical Components 4-95

Pin No.	Color	Functions	Re- marks
18	-	-	
19	BK	Fast charging wake-up_A+	
20	D-BU	CAN2_L	
21	VT	Fast charging wake-up_A+kau	
22	VT	CP	
23	L-GN	CC	
24	OG	Slow change temperature_L1+	
25	YE/VT	Fast charging temp_DC+	
26	OG/BN	Fast charging temperature_DC++	
27	BN	Slowly changing temperature_L1/L2/L3-	
28	VT	Slow charging temperature+	
29	WH	Slow charging temperature_N-/DC--	
30	OG/L-GN	Fast charging temp_DC+/DC--	
31	YE/D-GN	-	
32	GRN	Unlock	



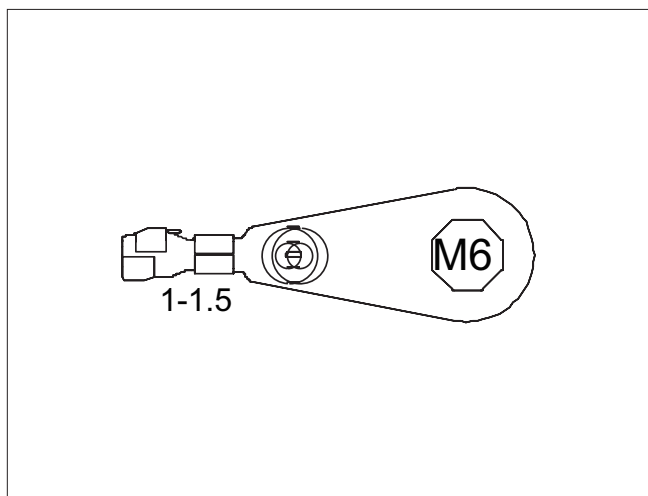
EB94 DAYTIME LP_L
CONN 6 F 090 BLK SLD

Pin No.	Color	Functions	Re- marks
1	L-BU	DRL	
2	BN	Position LP	
3	BK	GND	
4	L-BU/WH	cornering LP	
5	L-GN	TURN SIG	
6	-	-	



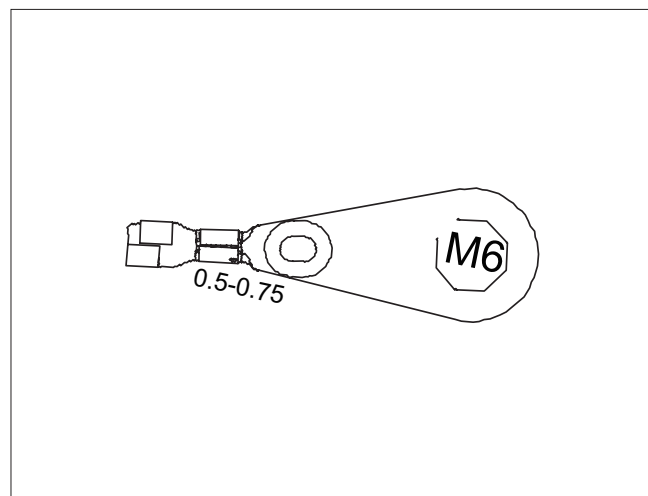
EB95 DAYTIME LP_R
CONN 6 F 090 BLK SLD

Pin No.	Color	Functions	Re- marks
1	D-BU	DRL	
2	BN	POSITION LP	
3	BK	GND	
4	D-BU/WH	TURN LP	
5	D-GN	TURN SIG	
6	-	-	



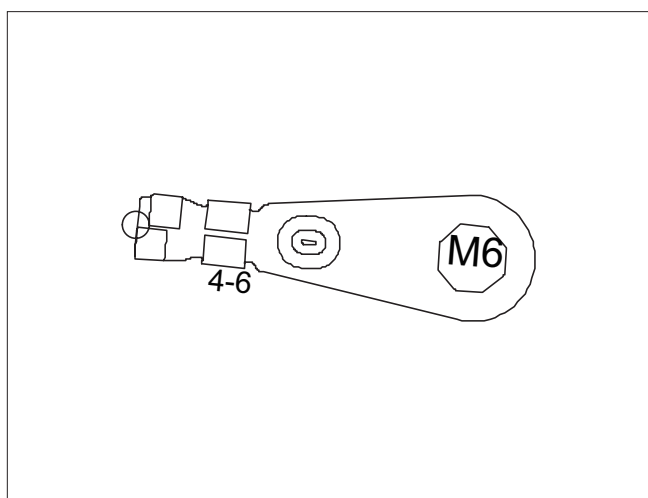
G004
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



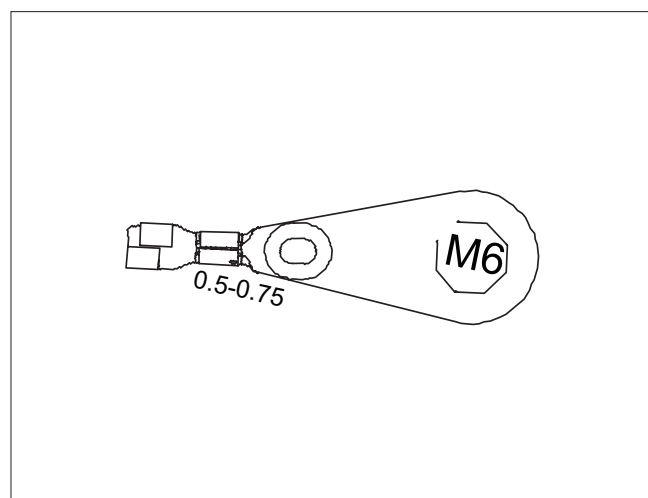
G005_2
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



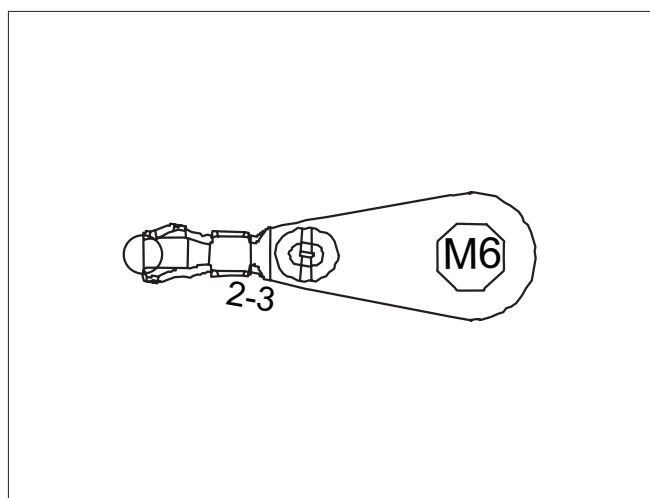
G005_1
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



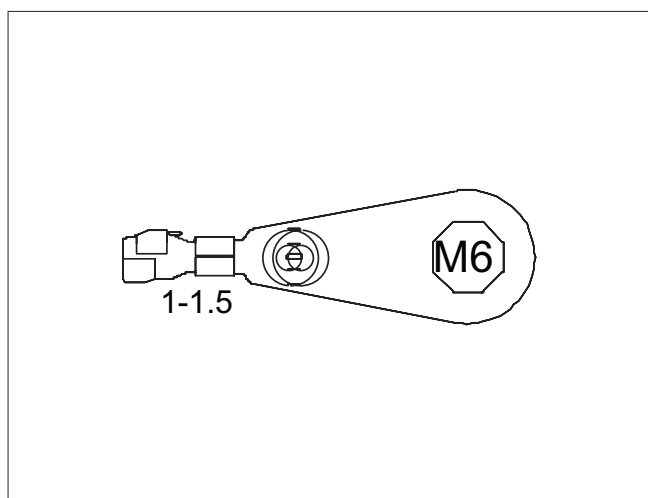
G005_4
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



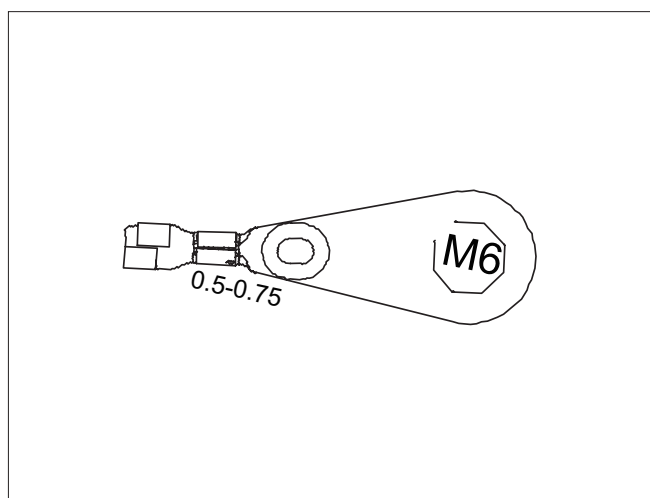
G006_1
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



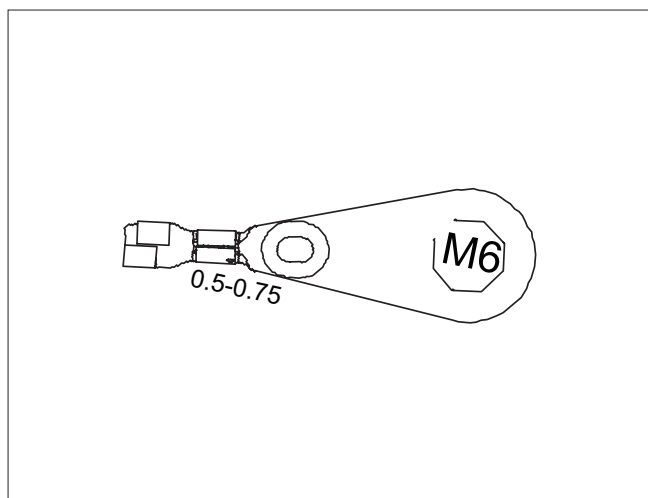
G007_1
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



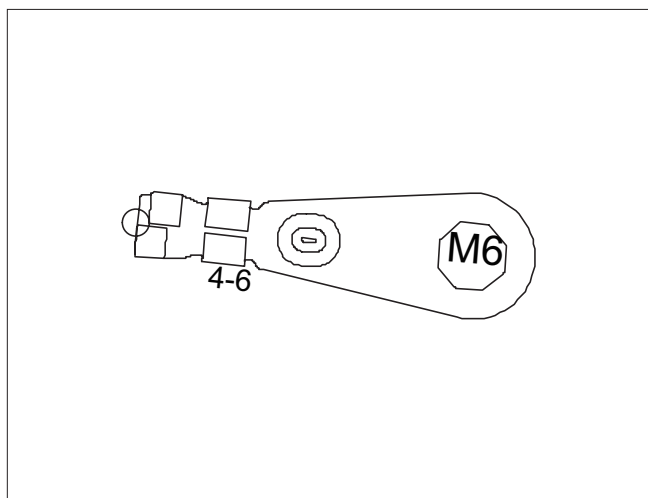
G006_2
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



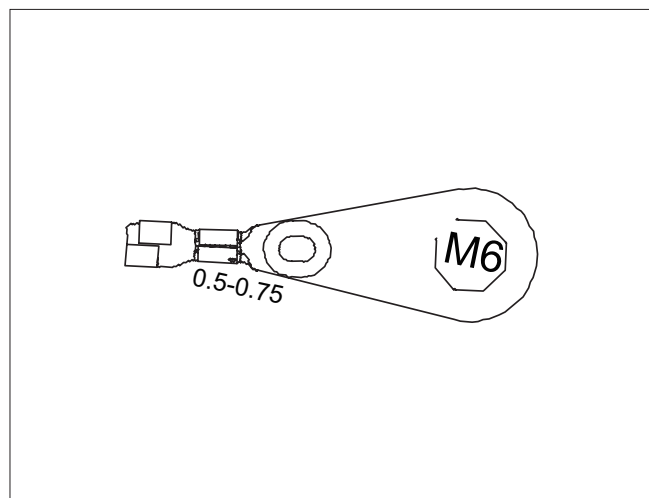
G007_2
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



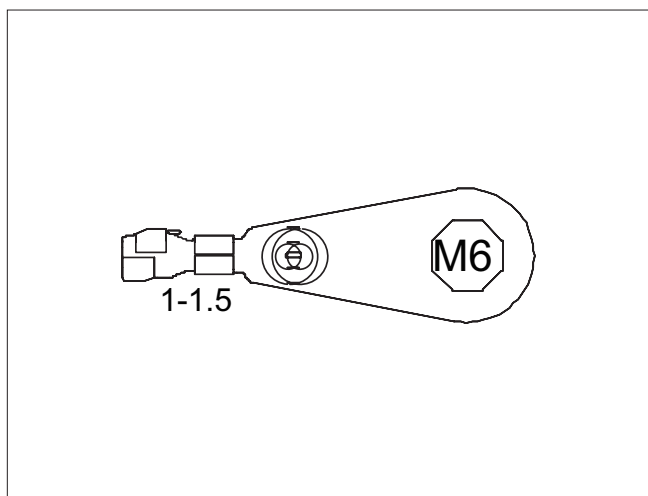
G009_1
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



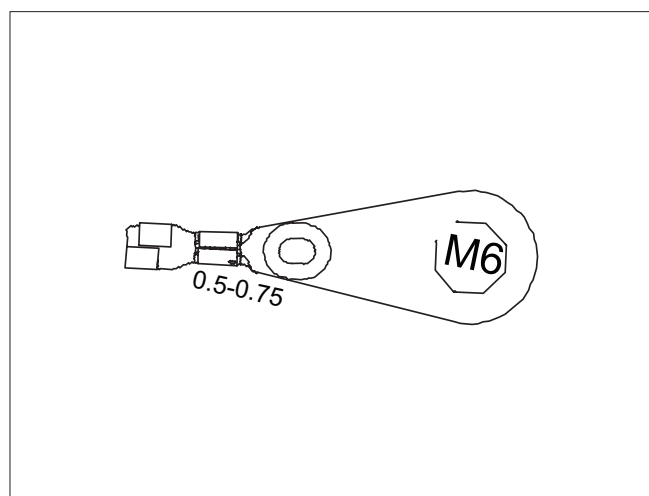
G011_1
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



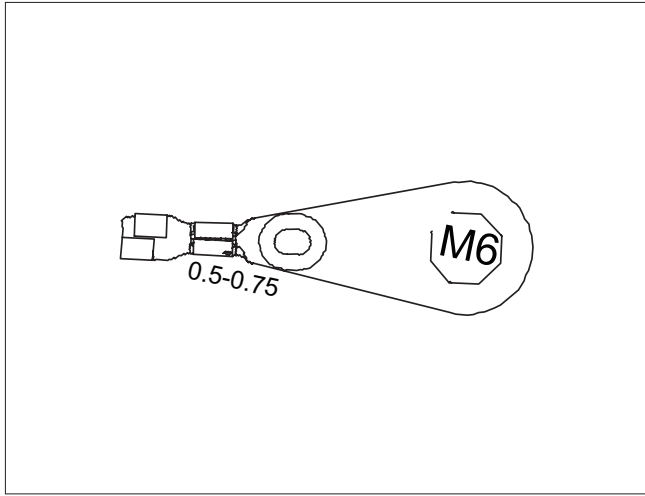
G009_2
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	



G011_2
RING-M6 Engine Compartment

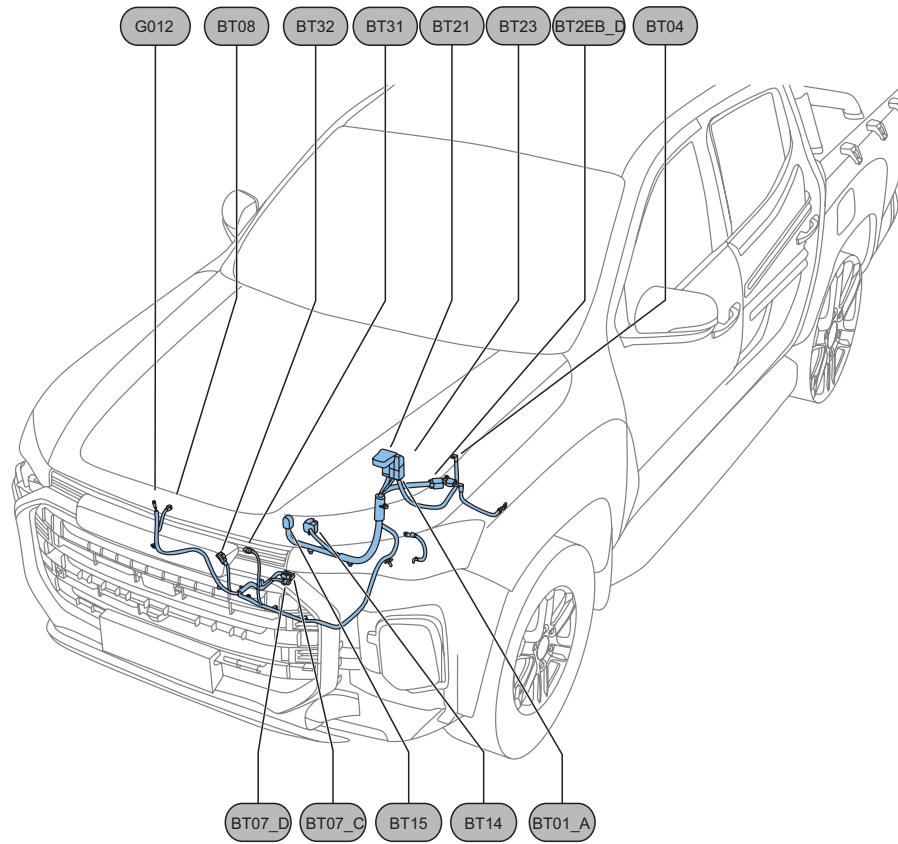
Pin No.	Color	Functions	Re- marks
1	BK	GND	



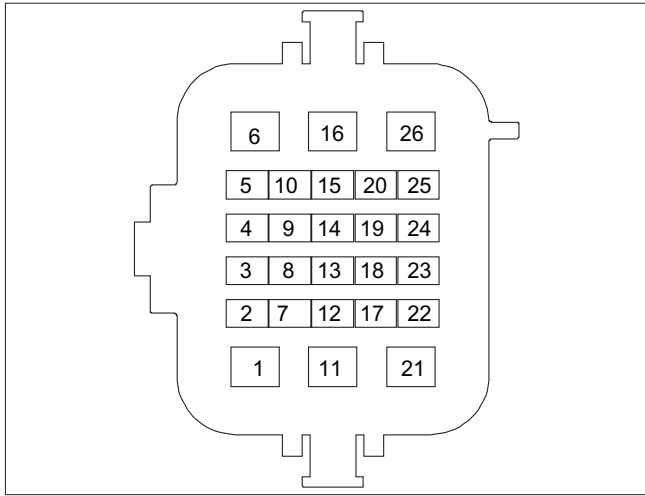
G011_3
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	

4.6 Battery harness



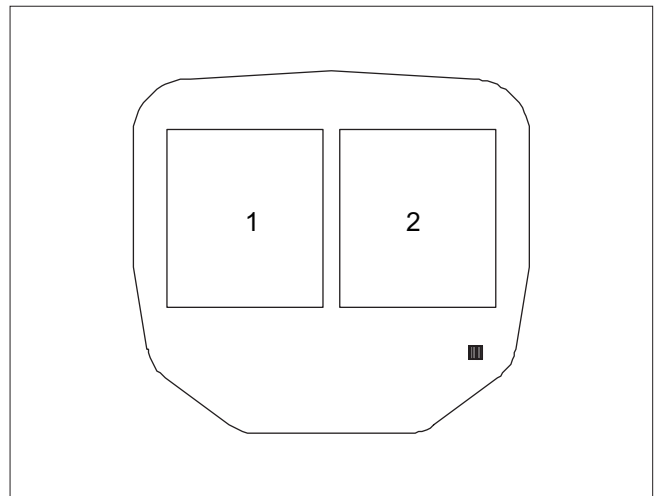
4.6.1 Battery harness BT connector description



BT2EB_D Battery connected to engine compartment harness
CONN 26 M BLK

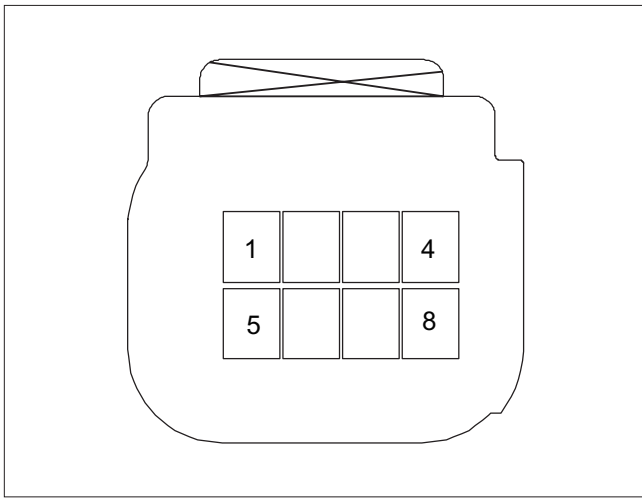
Pin No.	Color	Functions	Re- marks
17	GY/WH	WSP_FR	
18	D-GN	WSS_FR	
19	RD/BK	Wakeup in	
20	WH/RD	Fast charging negative relay+	
21	WH	Fast charging positive relay+	
22	-	-	
23	-	-	
24	-	-	
25	-	-	
26	-	-	

Pin No.	Color	Functions	Re- marks
1	RD/WH	COMM ENABLE HS(IG)	
2	VT/BK	B+	
3	BK	GND	
4	L-BU/WH	PWM	
5	BK	Fast charging negative relay-	
6	RD	B+	
7	YE/D-BU	CAN_H	
8	YE/L-GN	CAN_L	
9	BK	pwg_gnd	
10	BK	Fast charging positive relay-	
11	-	-	
12	RD/GY	pwg_12v	
13	BARE	Shielding wire	
14	YE/BN	CAN_L	
15	YE/BK	CAN_H	
16	BK	B-	



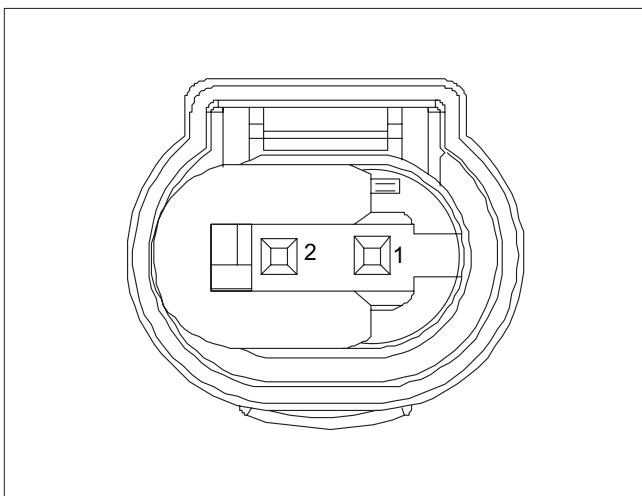
BT07R_C EPS ECU(EU)
ASM CONN 2 F 9.5 BLK SLD

Pin No.	Color	Functions	Re- marks
1	BK	GND	
2	RD/BK	KL30	



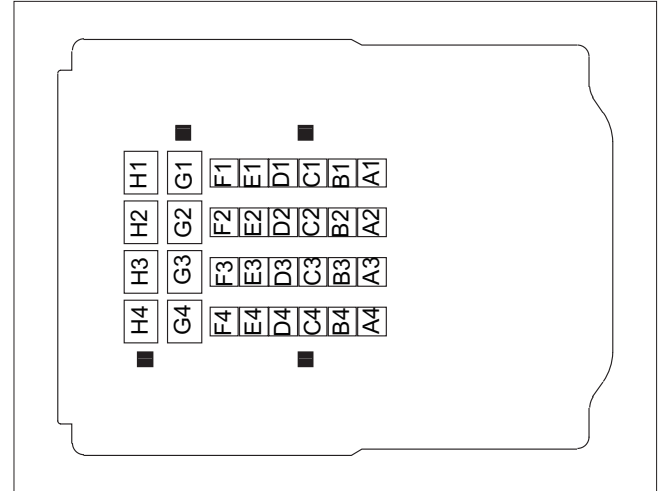
BT07R_D EPS ECU(EU)
ASM CONN 9 F 0.64 GEN Y BLK SLD BASE 10

Pin No.	Color	Functions	Re- marks
1	-	-	
2	-	-	
3	-	-	
4	-	-	
5	YE/L-GN	CAN_L	
6	YE/D-BU	CAN_H	
7	RD/WH	KL15	
8	-	-	



BT08 WSS_FR
ASM CONN 2 F 0.64 MQS BLK SLD

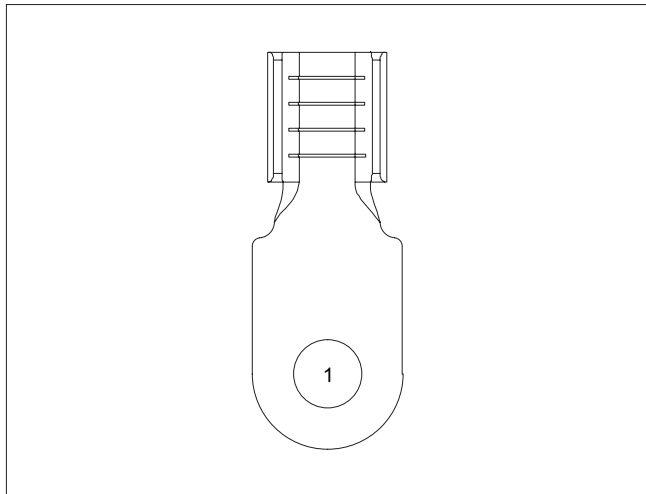
Pin No.	Color	Functions	Re- marks
1	GY	WSS_FR	
2	GY	WSP_FR	



BT14 CDU
ASM CONN 32 F 0.6 1.5 SLD

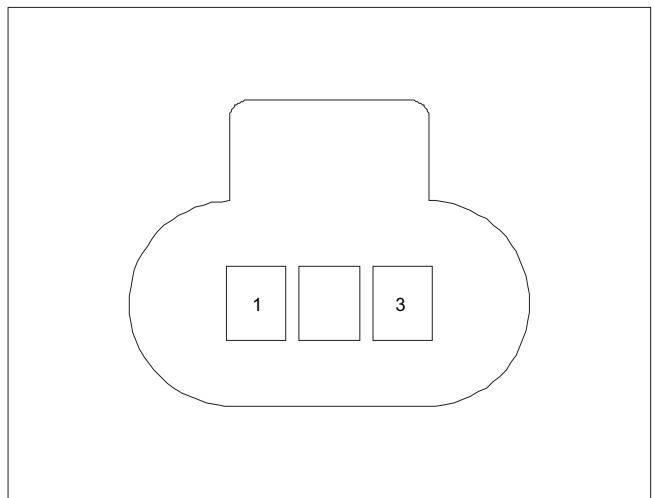
Pin No.	Color	Functions	Re- marks
A1	-	-	
A2	-	-	
A3	-	-	
A4	YE/BK	CAN_H	
B1	-	-	
B2	-	-	
B3	-	-	
B4	YE/BN	CAN_L	
C1	-	-	
C2	-	-	
C3	-	-	
C4	-	-	
D1	-	-	
D2	-	-	
D3	RD/BK	Wakeup in	
D4	-	-	
E1	WH	Fast charging positive relay+	

Pin No.	Color	Functions	Re- marks
E2	-	-	
E3	WH/RD	Fast charging negative relay+	
E4	-	-	
F1	BK	Fast charging positive relay-	
F2	-	-	
F3	BK	Fast charging positive relay-	
F4	-	-	
G1	-	-	
G2	-	-	
G3	-	-	
G4	BK	pwg_gnd	
H1	RD/GY	pwg_12v	
H2	-	-	
H3	-	-	
H4	-	-	



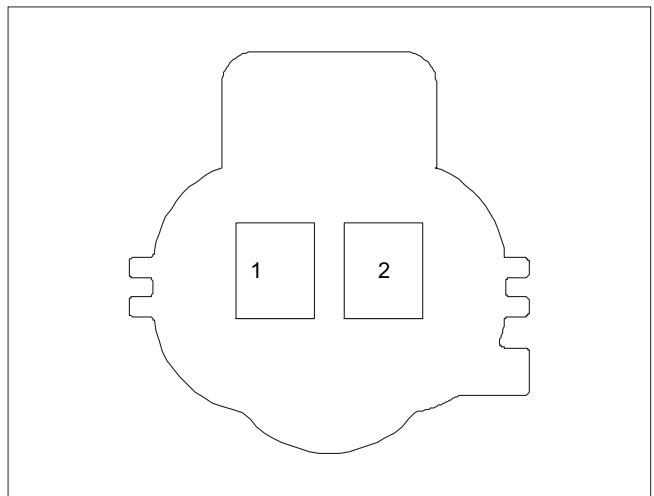
BT15 CDU
TERM RING

Pin No.	Color	Functions	Re- marks
1	RD	12+	



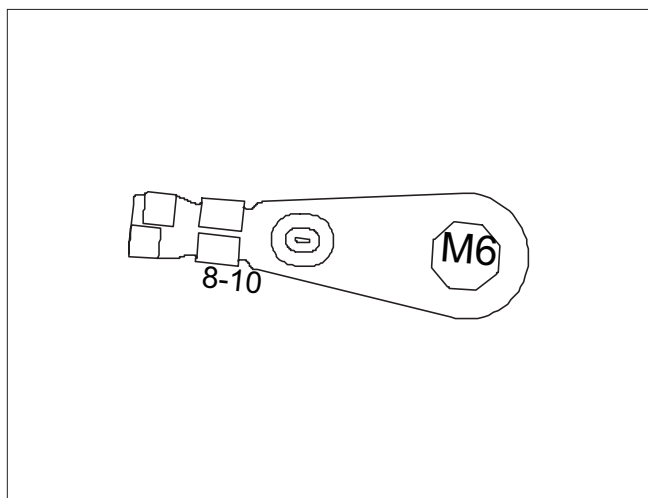
BT31 WAER PUMP
Connector

Pin No.	Color	Functions	Re- marks
1	VT/BT	B+	
2	L-BU/WH	PWM	
3	BK	GND	



BT32 EElectronic Vacuum Pump
ASM CONN 2 M 2.8 GRA SLD

Pin No.	Color	Functions	Re- marks
1	RD	B+	
2	BK	B-	

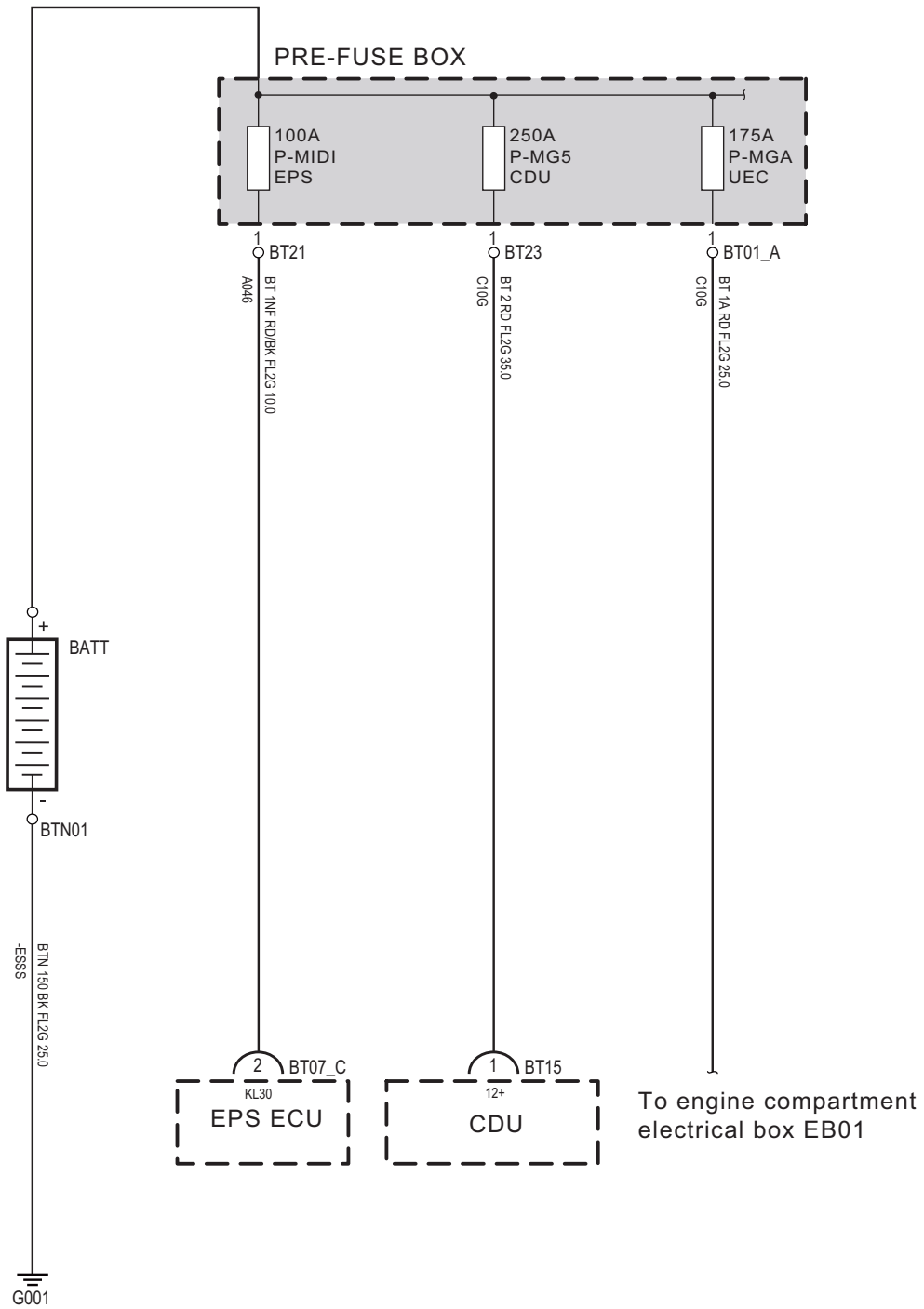


G012
RING-M6 Engine Compartment

Pin No.	Color	Functions	Re- marks
1	BK	GND	

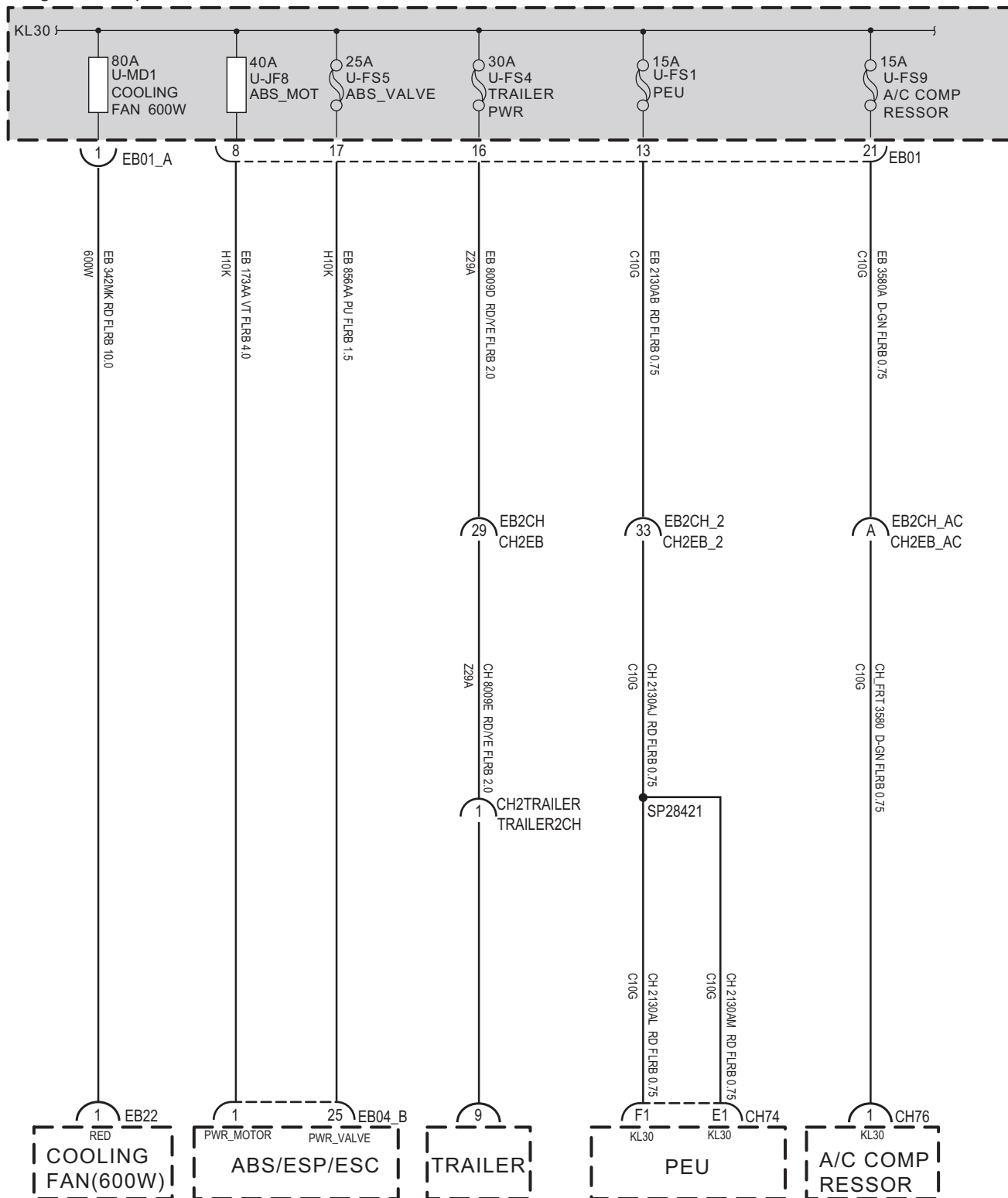
5.1 Power distribution

5.1.1 Power distribution 1



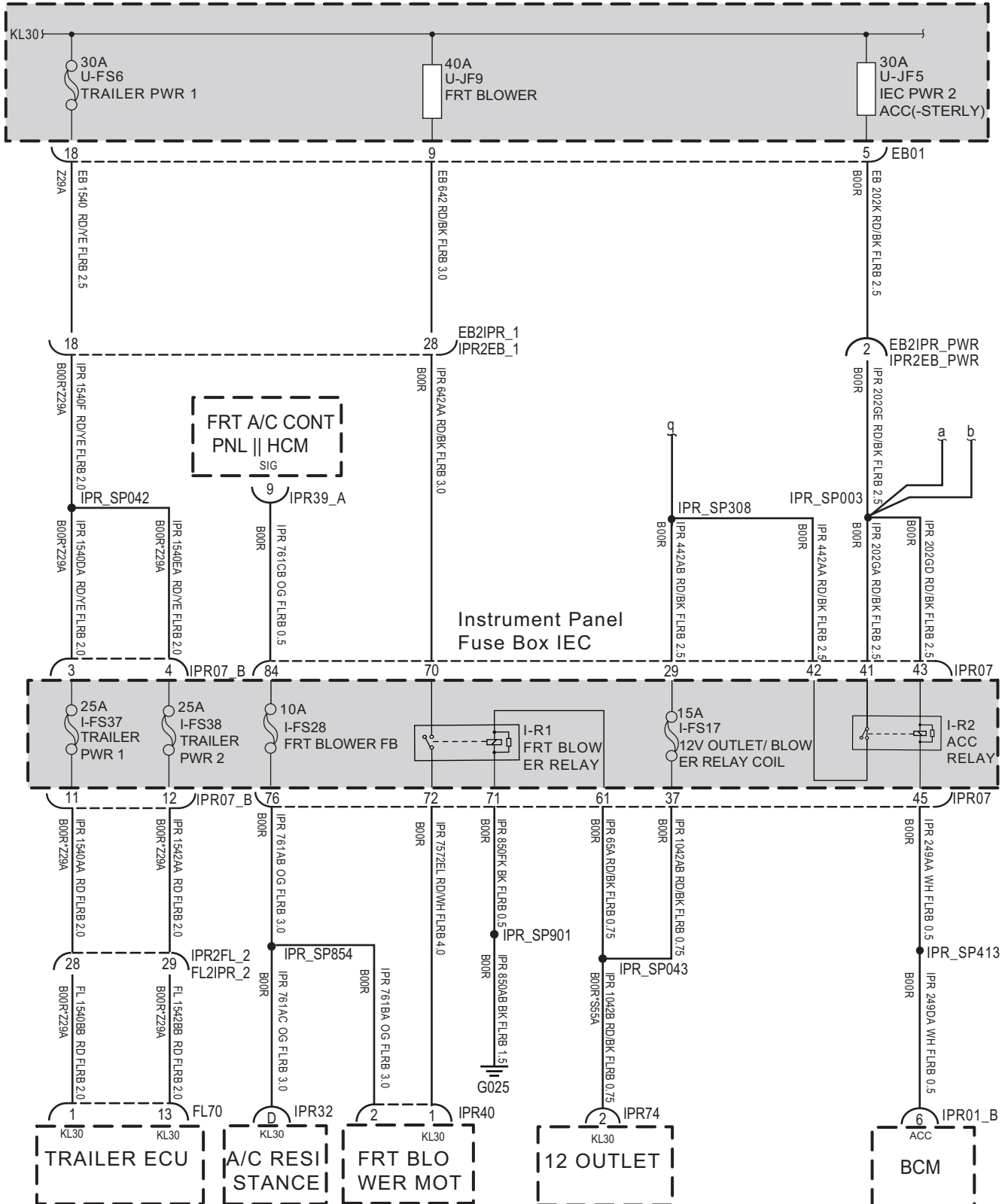
5.1.2 Power distribution 2

Engine Compartment Fuse Box UEC



5.1.3 Power distribution 3

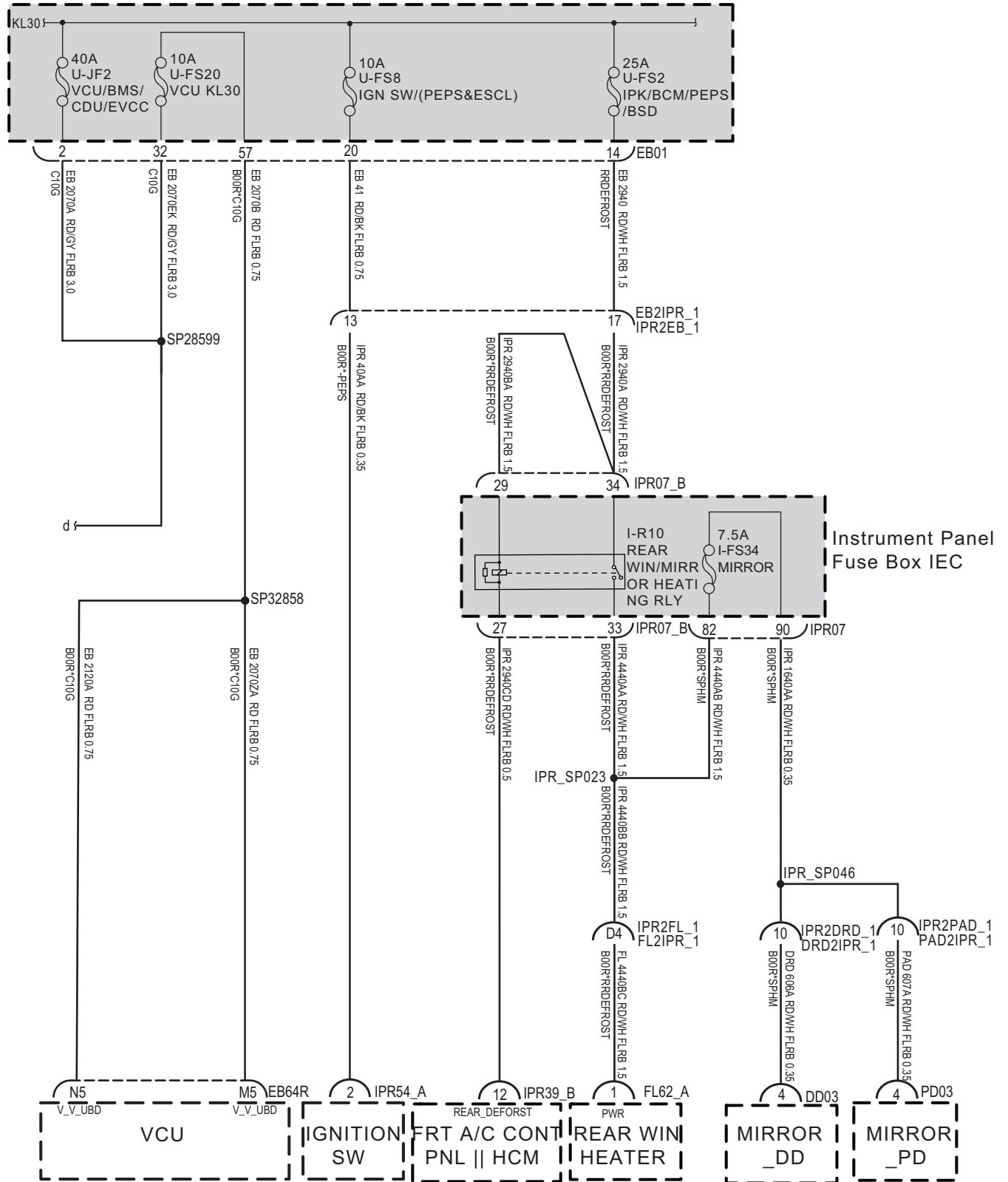
Engine Compartment Fuse Box UEC



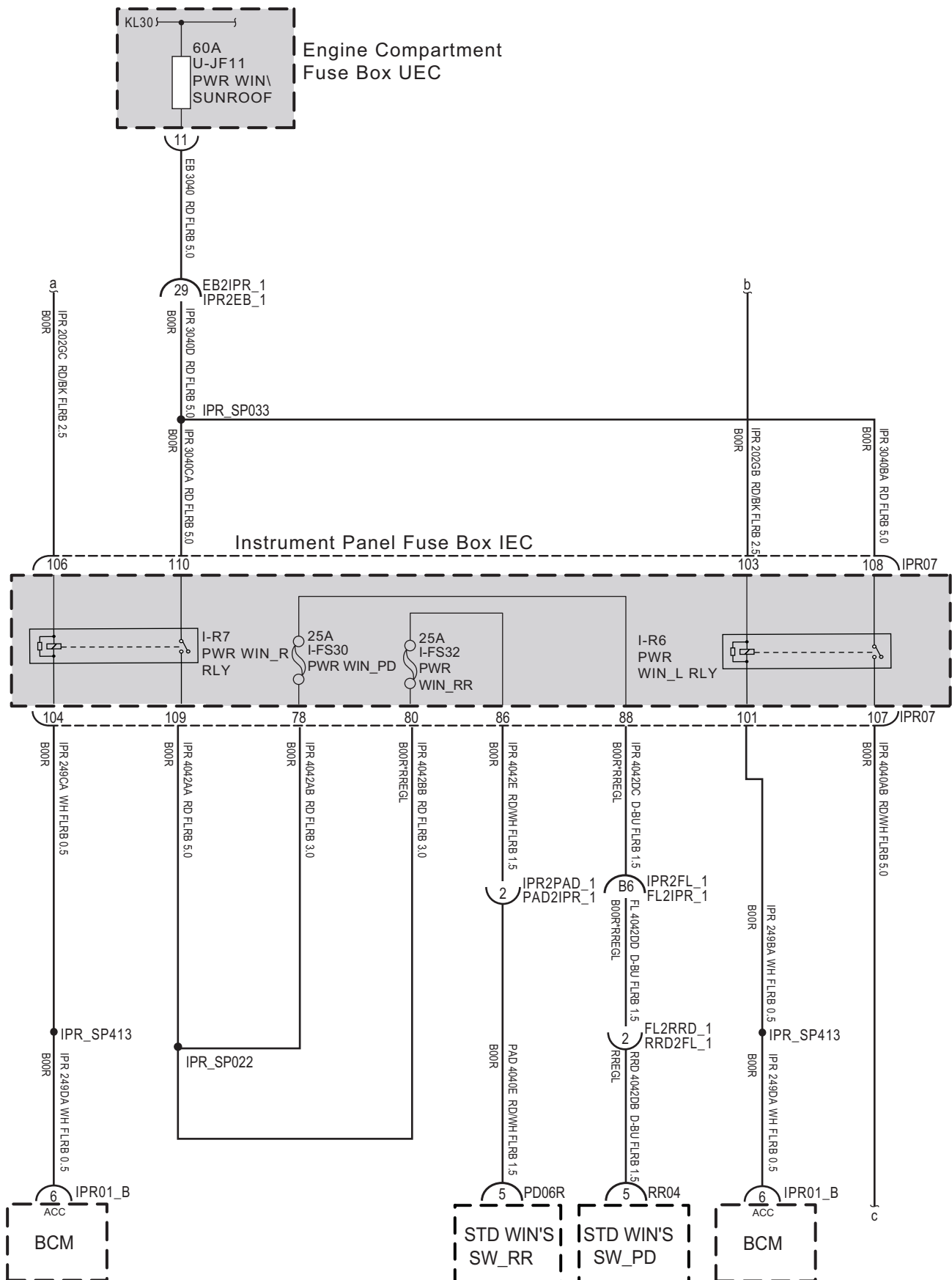
电路图 5-108

5.1.4 Power distribution 4

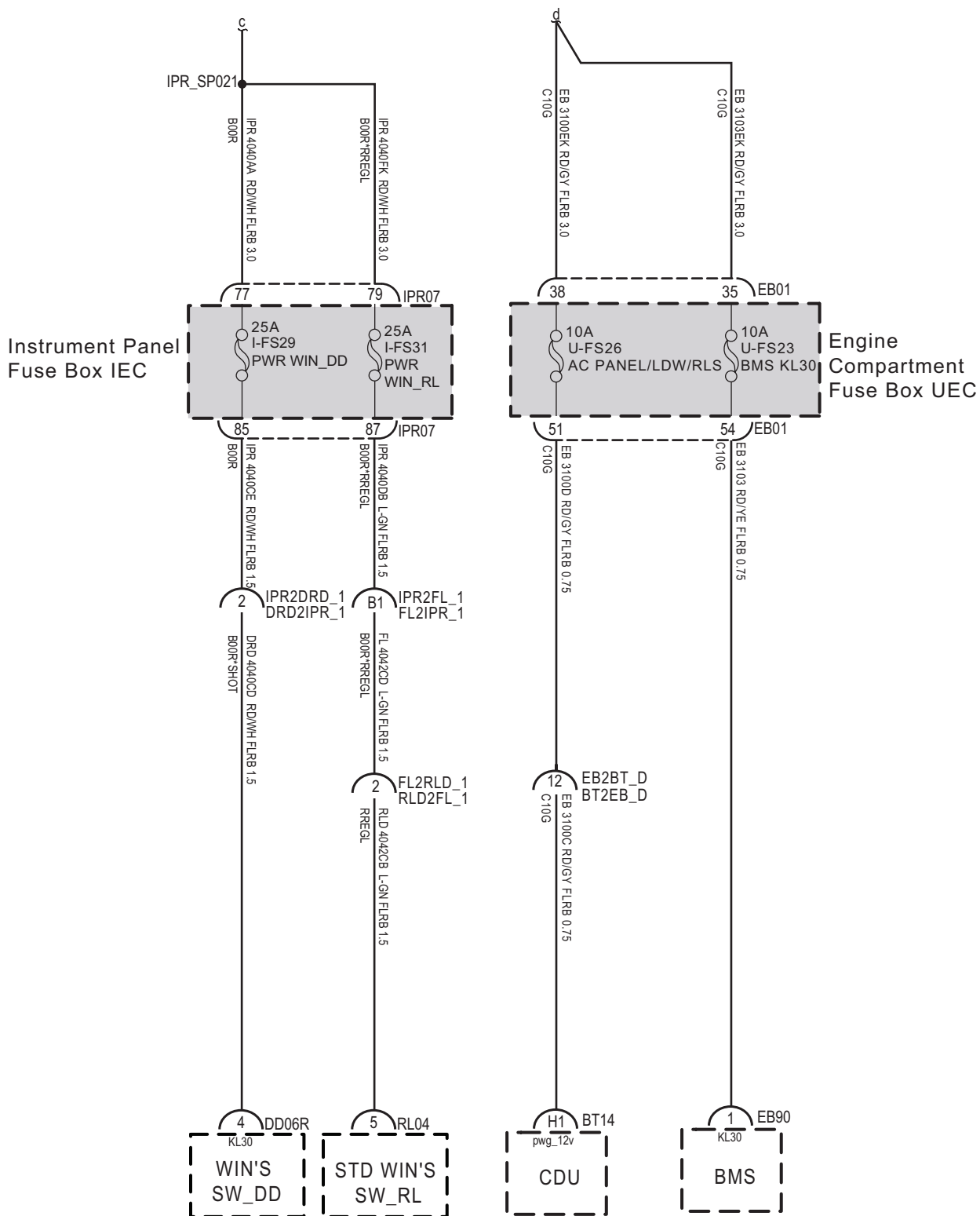
Engine Compartment Fuse Box UEC



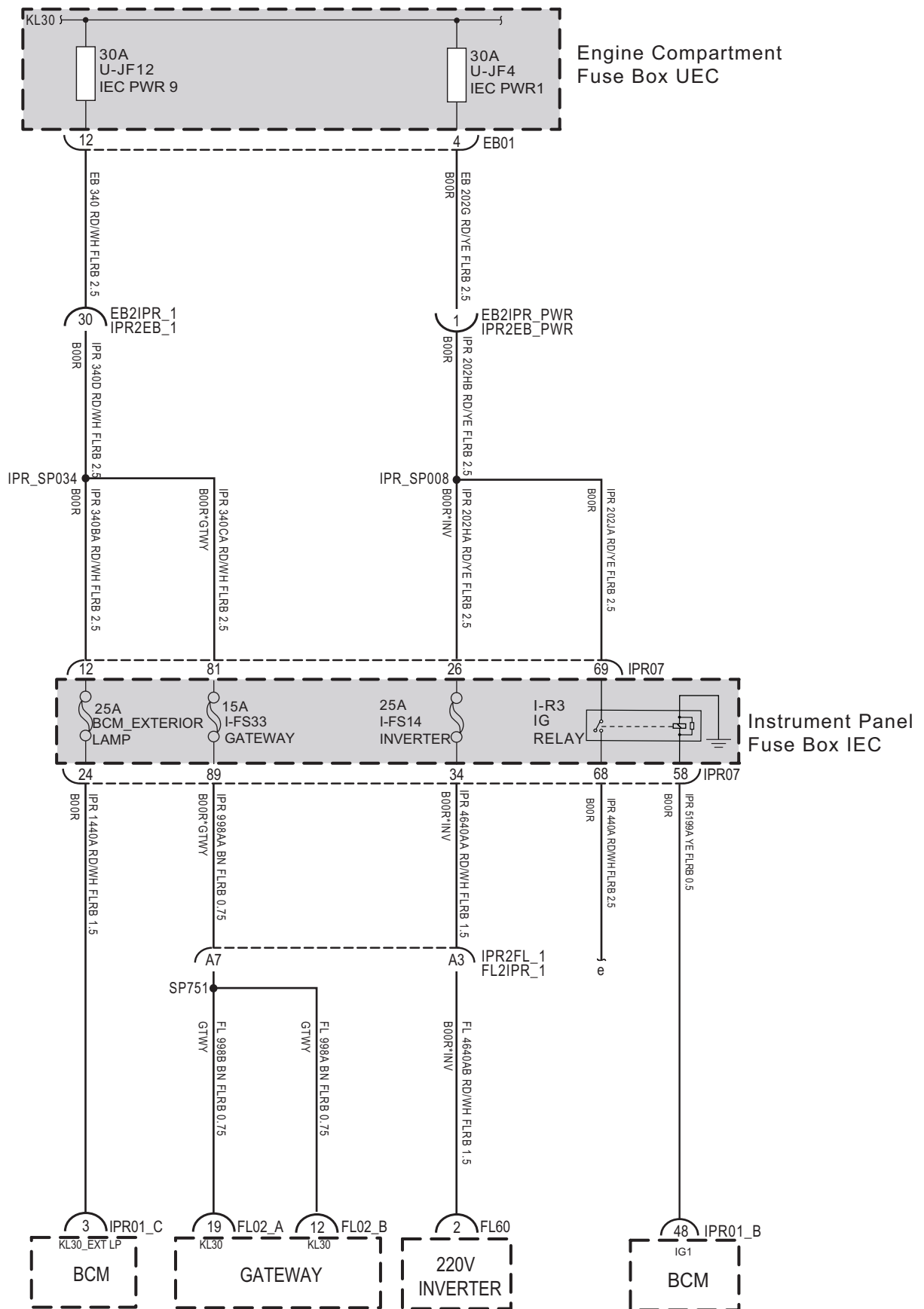
5.1.5 Power distribution 5



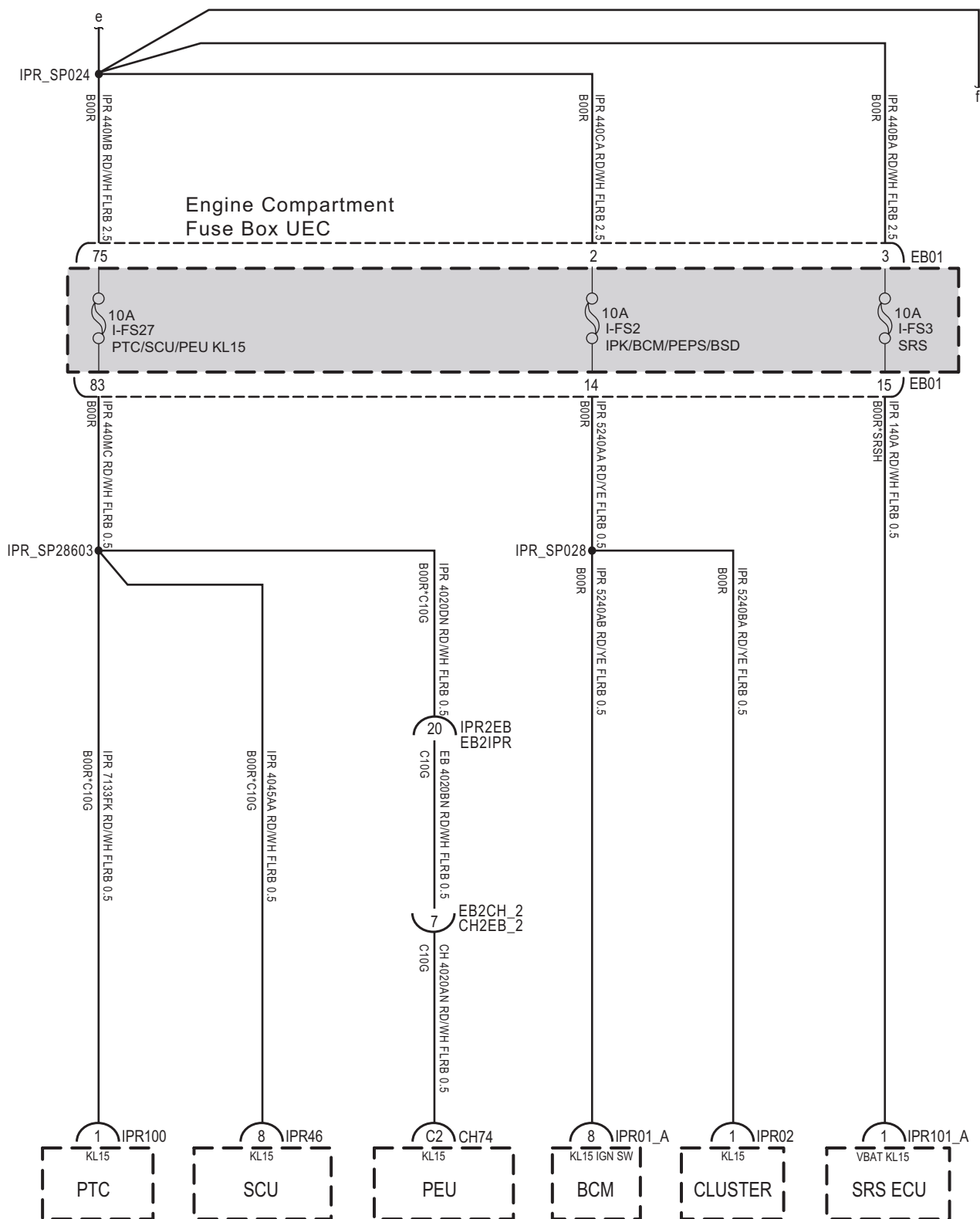
5.1.6 Power distribution 6



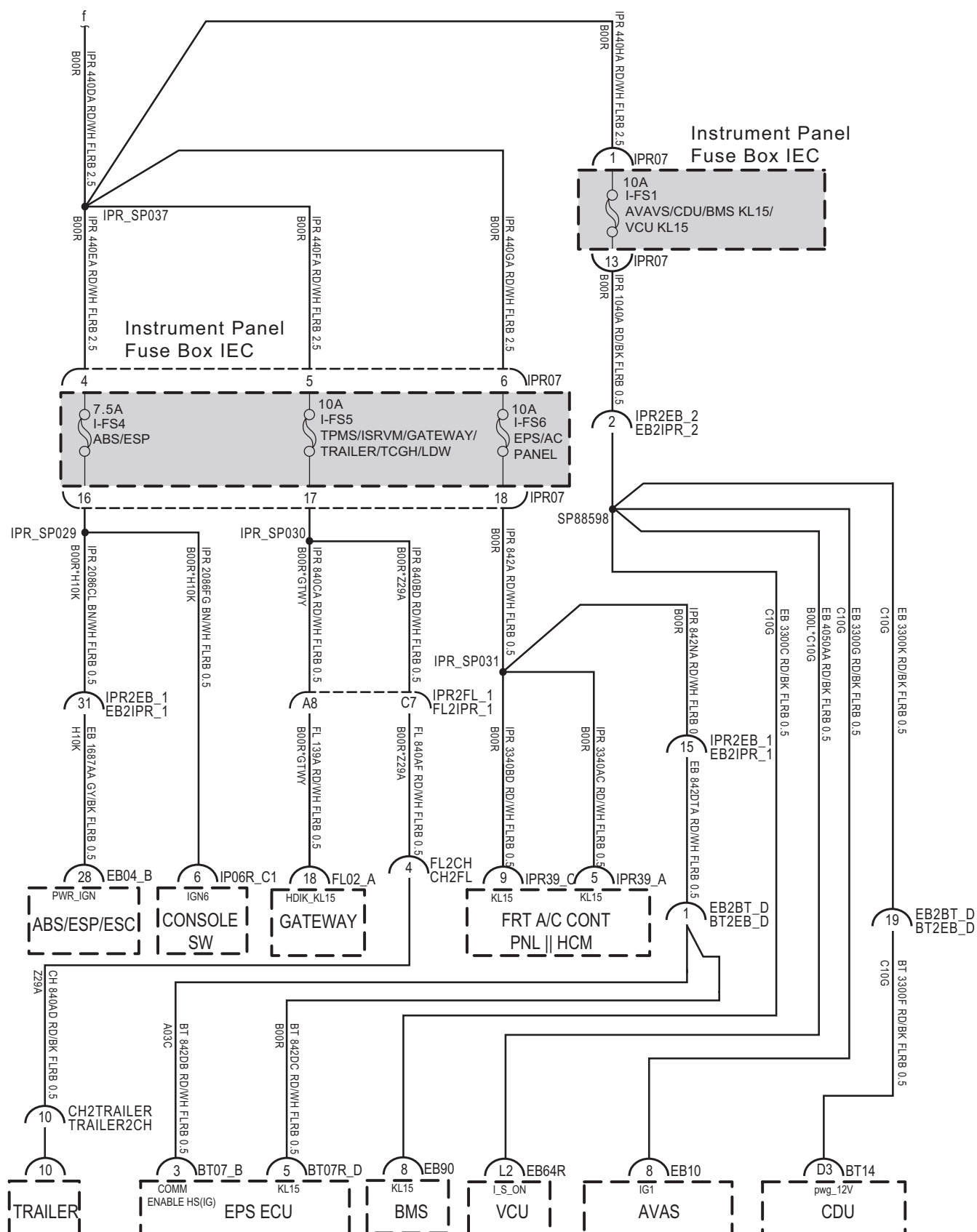
5.1.7 Power distribution 7



5.1.8 Power distribution 8

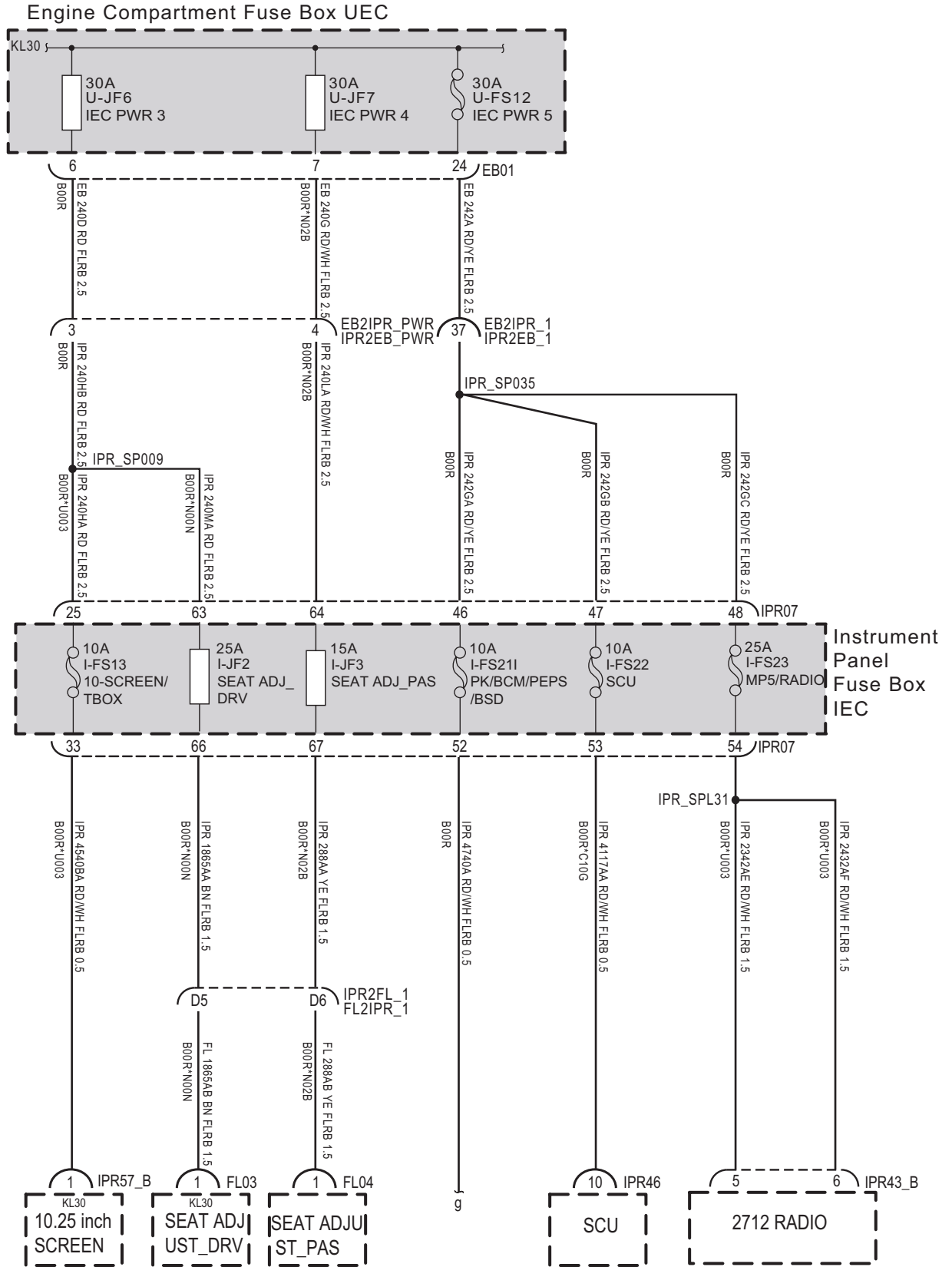


5.1.9 Power distribution 9

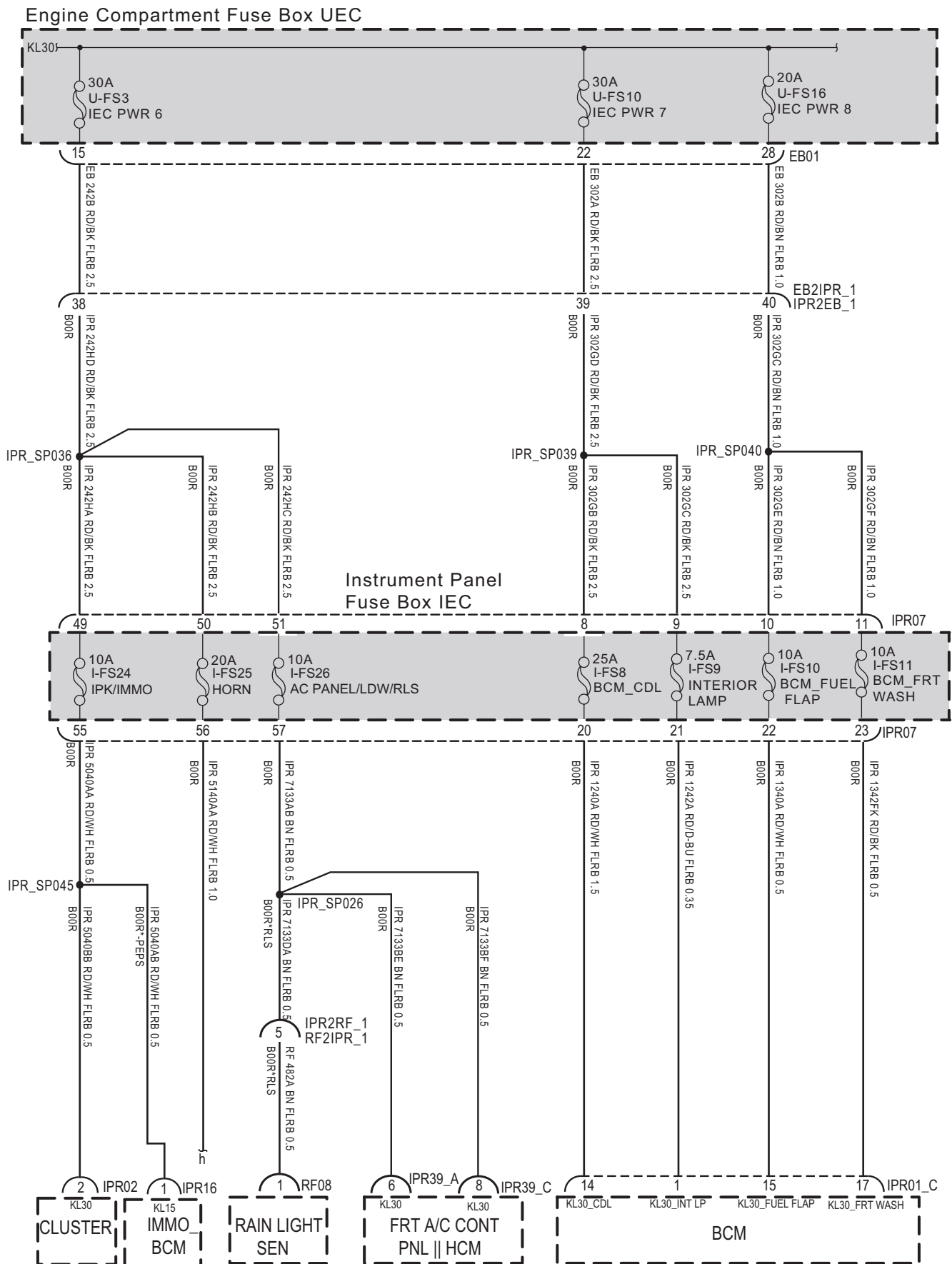


电路图 5-114

5.1.10 Power distribution 10

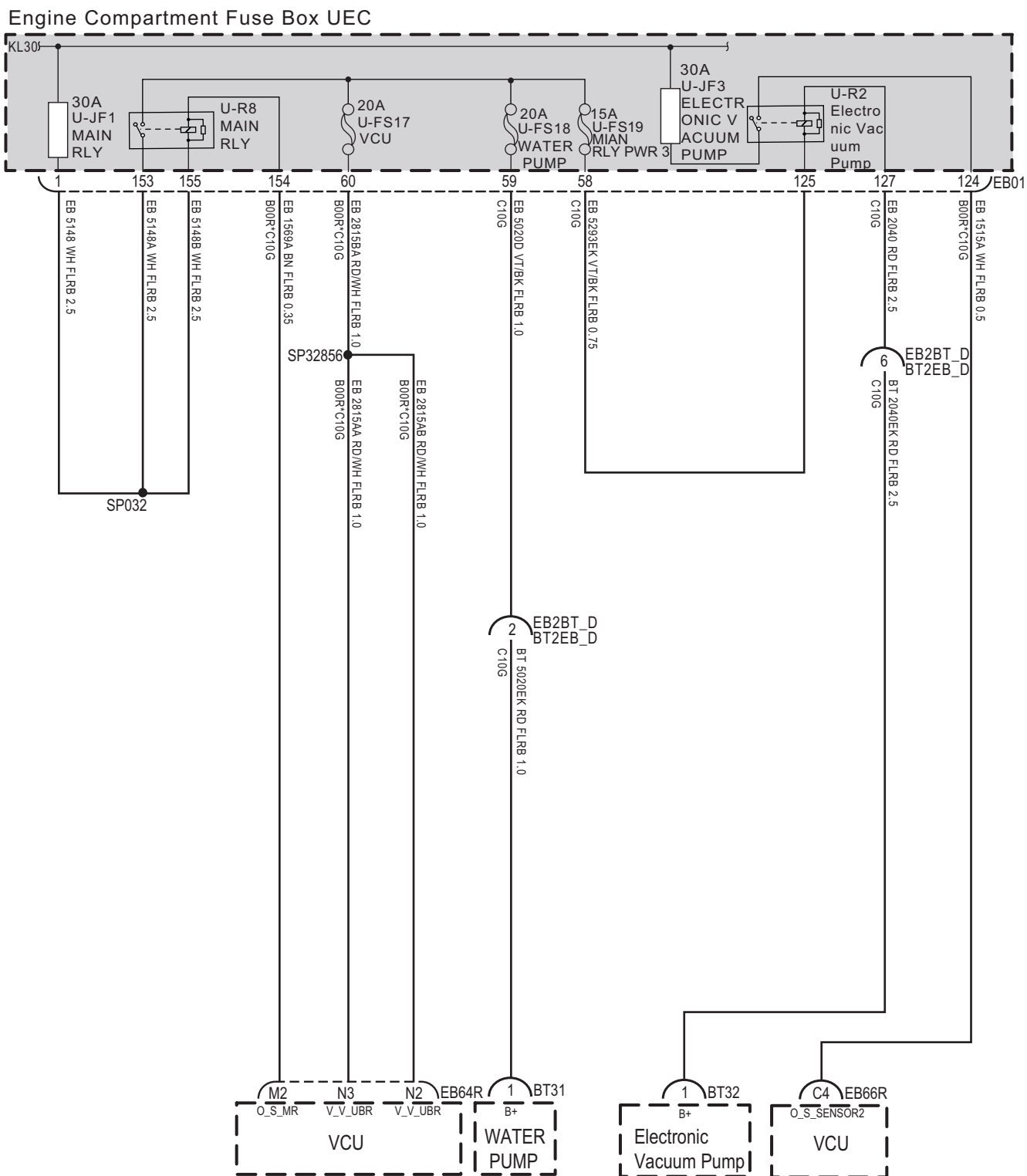


5.1.11 Power distribution 11

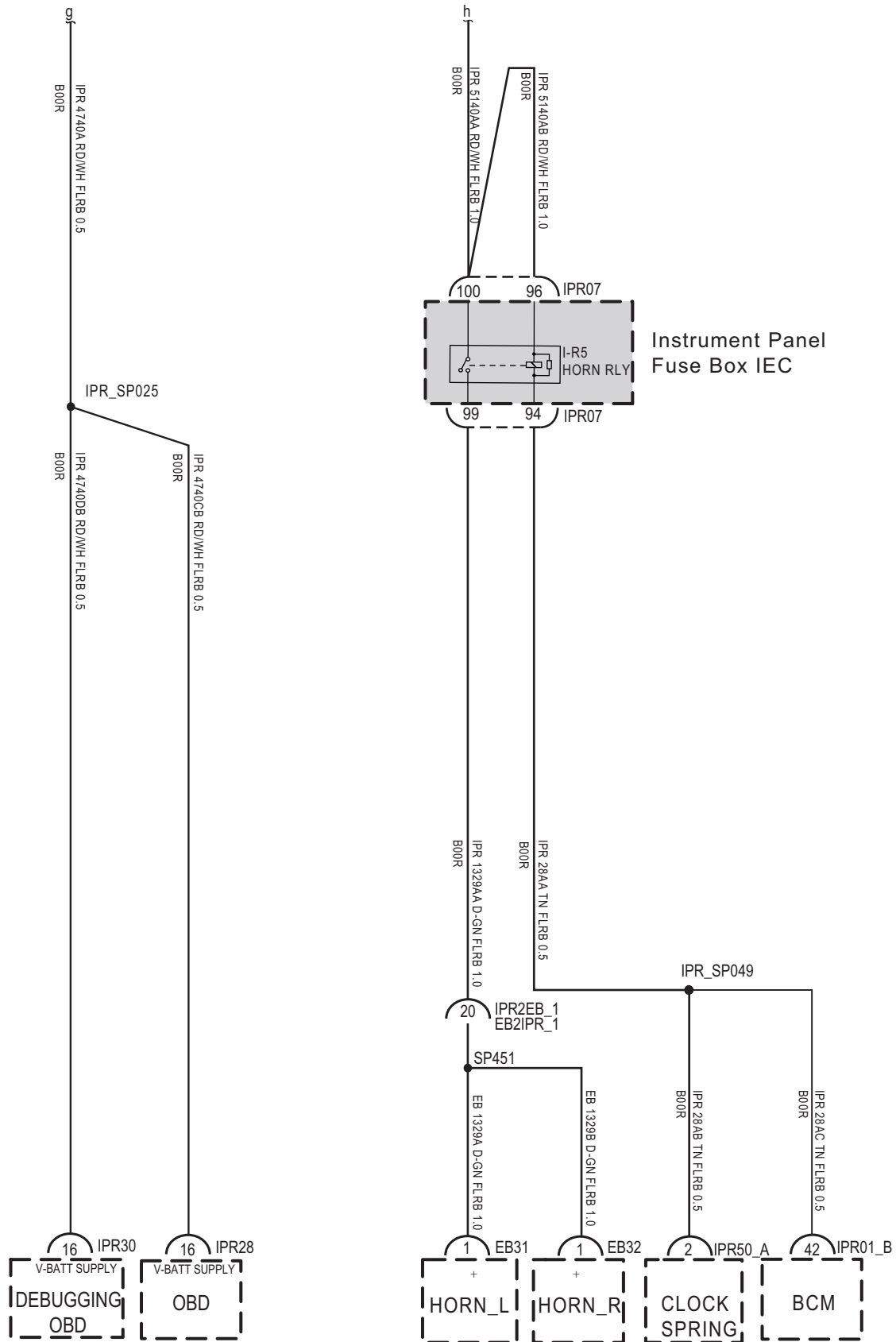


电路图 5-116

5.1.12 Power distribution 12



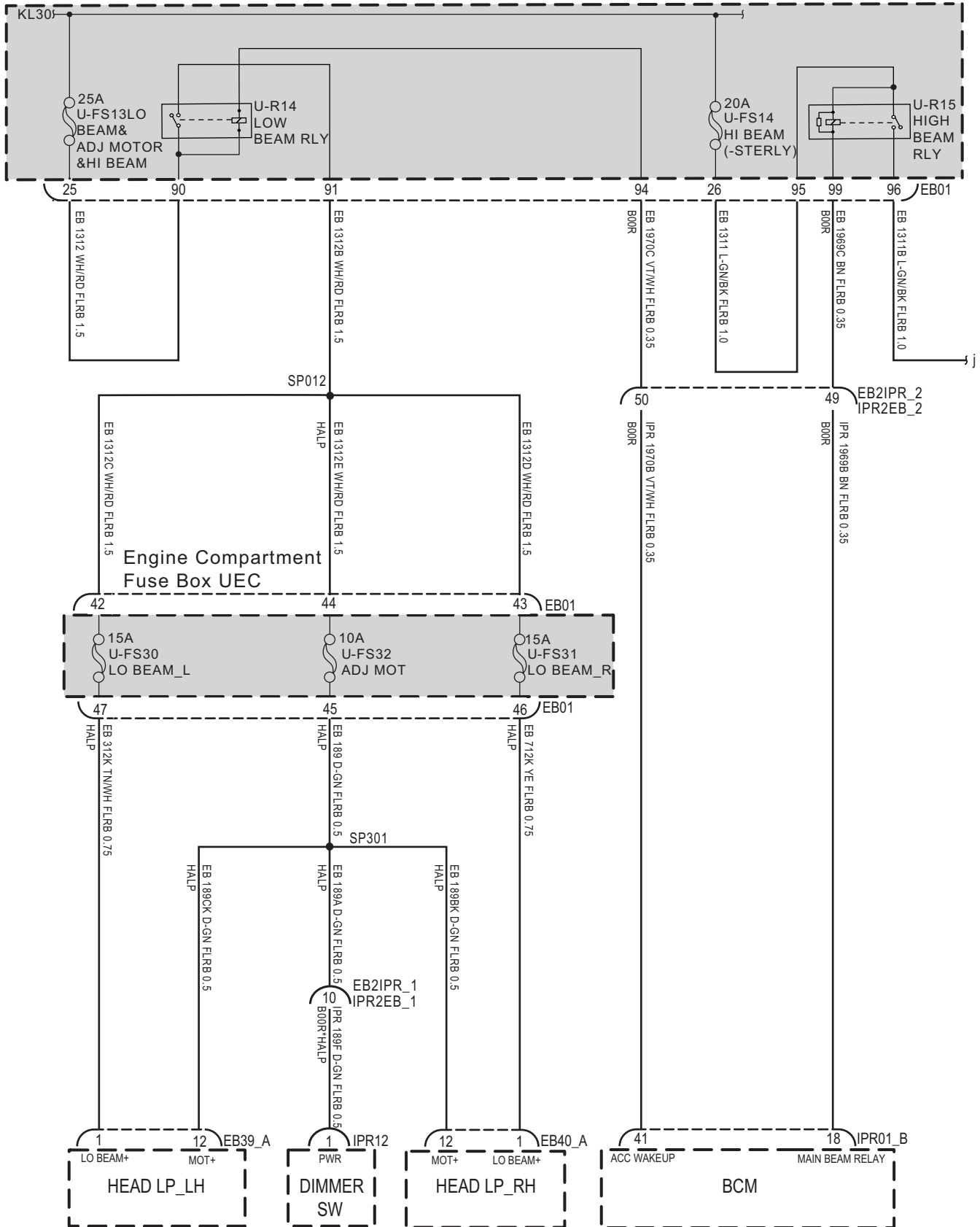
5.1.13 Power distribution 13



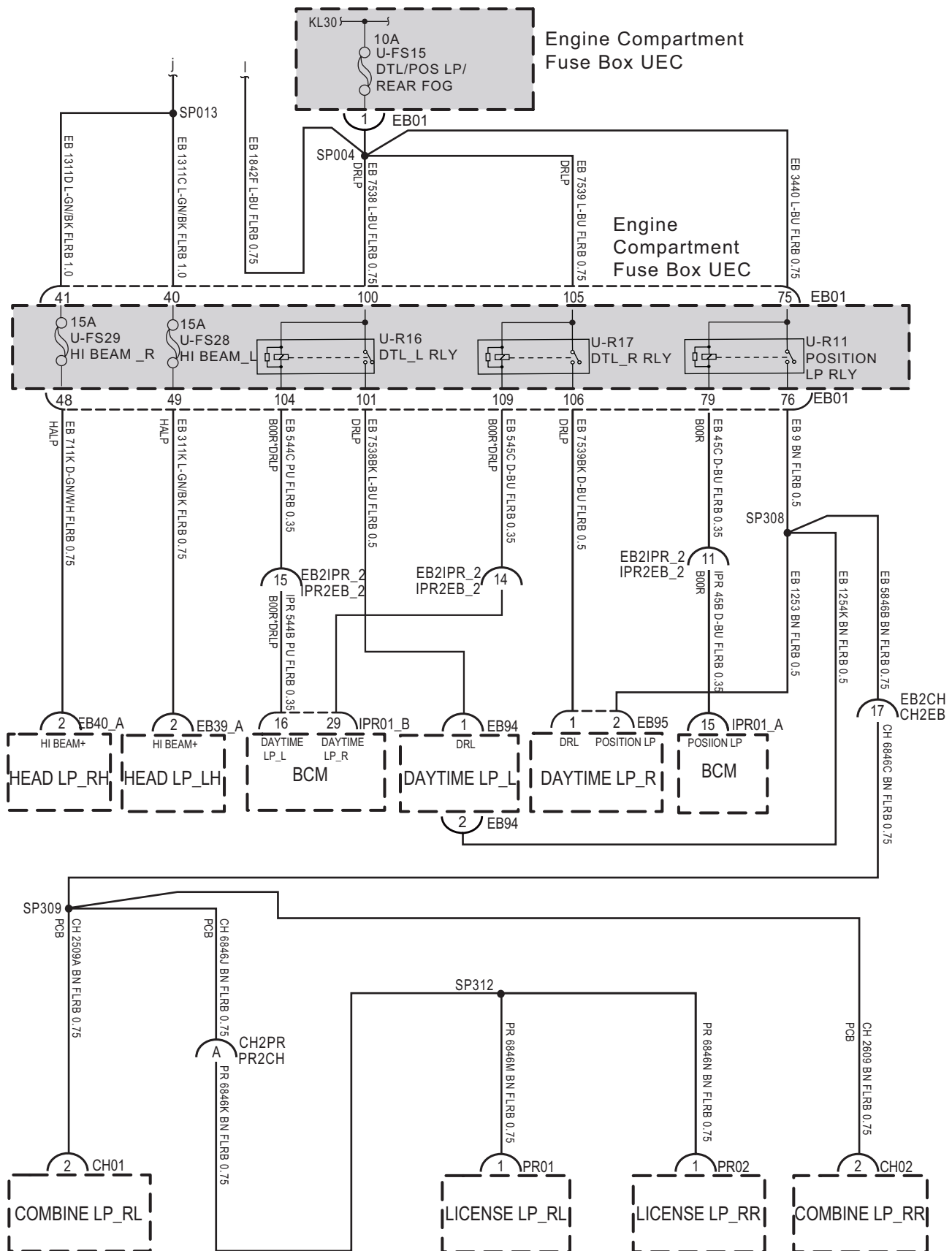
电路图 5-118

5.1.14 Power distribution 14

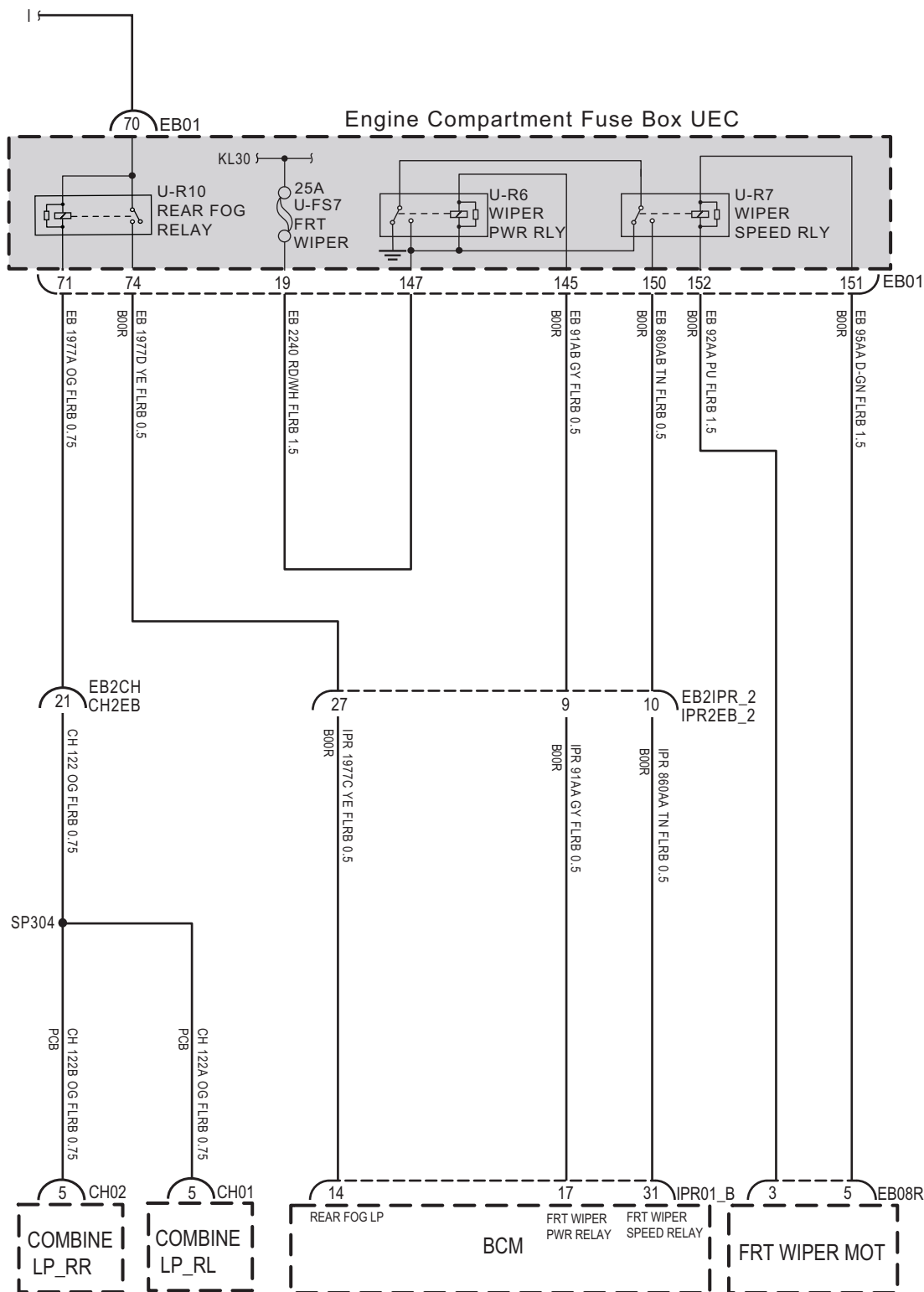
Engine Compartment Fuse Box UEC



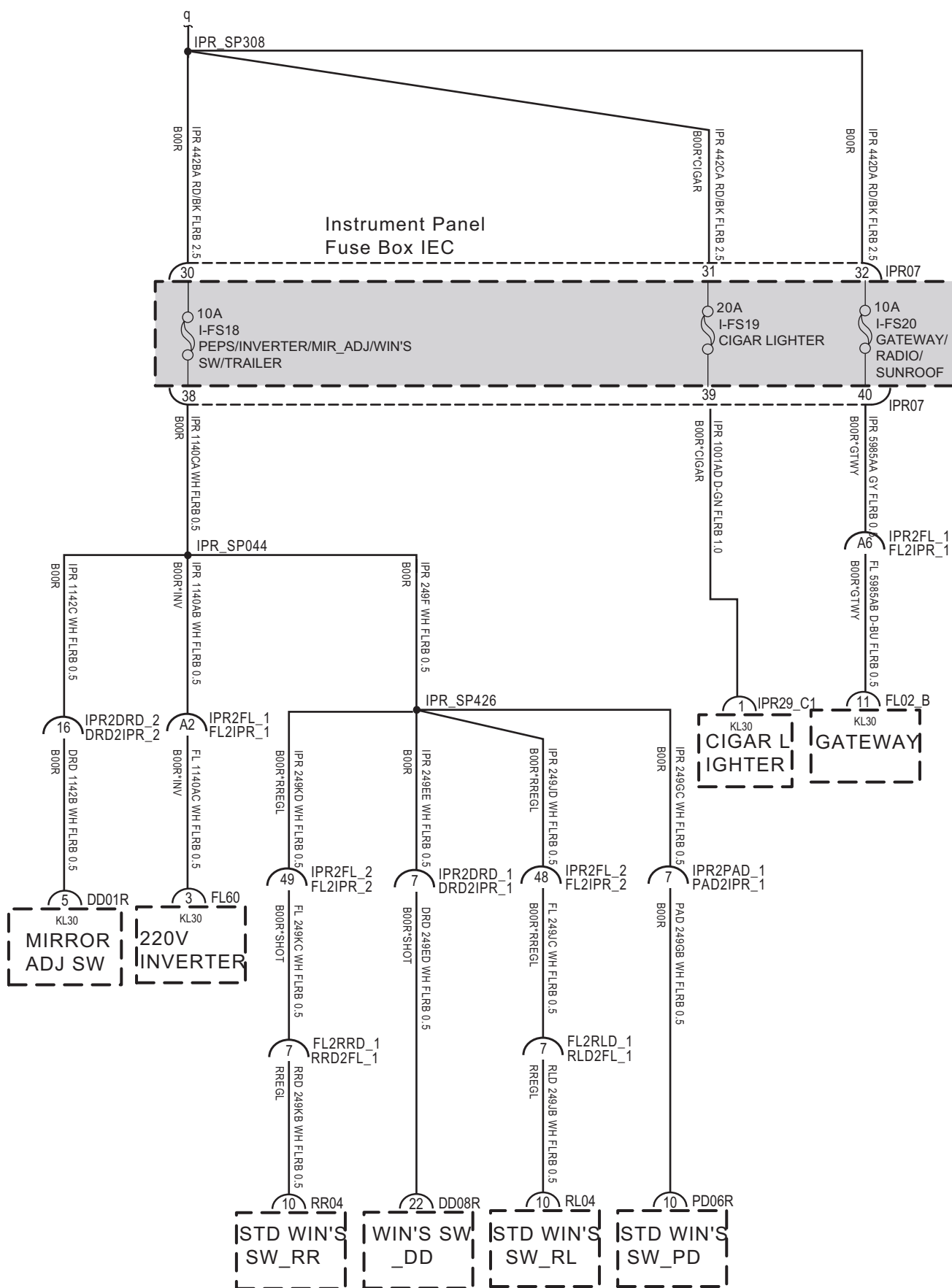
5.1.15 Power distribution 15



5.1.16 Power distribution 16



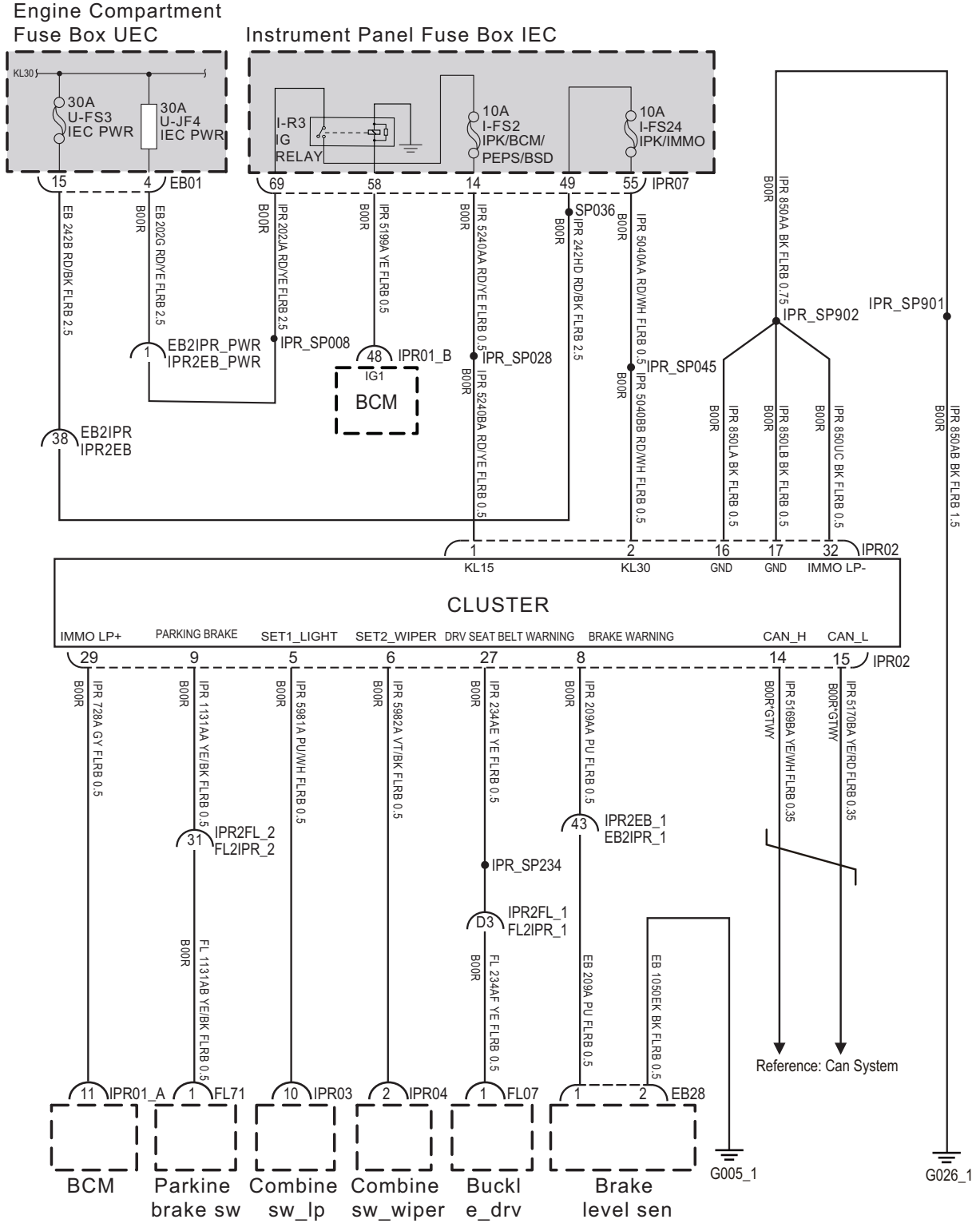
5.1.17 Power distribution 17



电路图 5-122

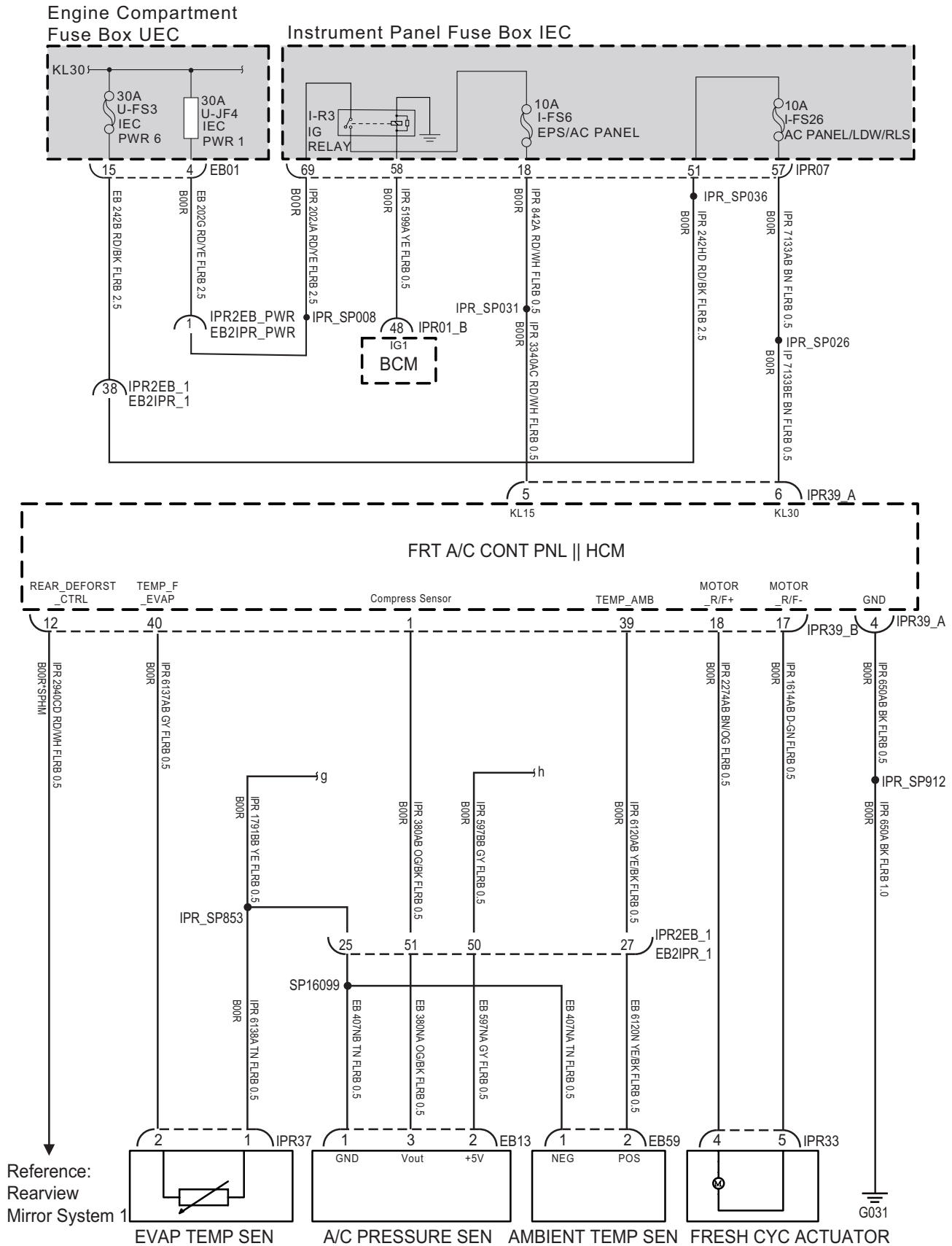
5.2 Combination instrument

5.2.1 Instrument cluster



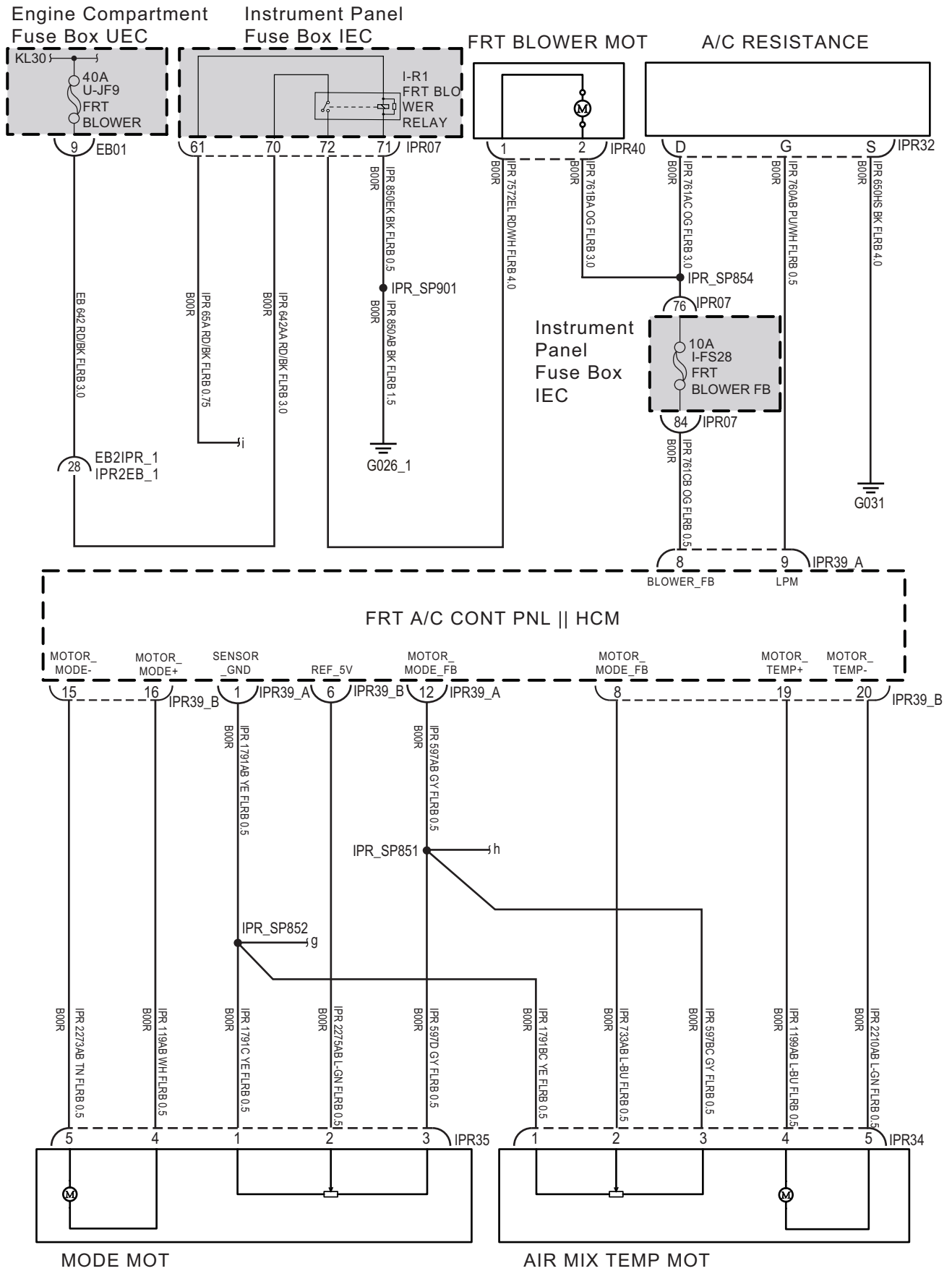
5.3 Air conditioning system

5.3.1 Air conditioning system 1

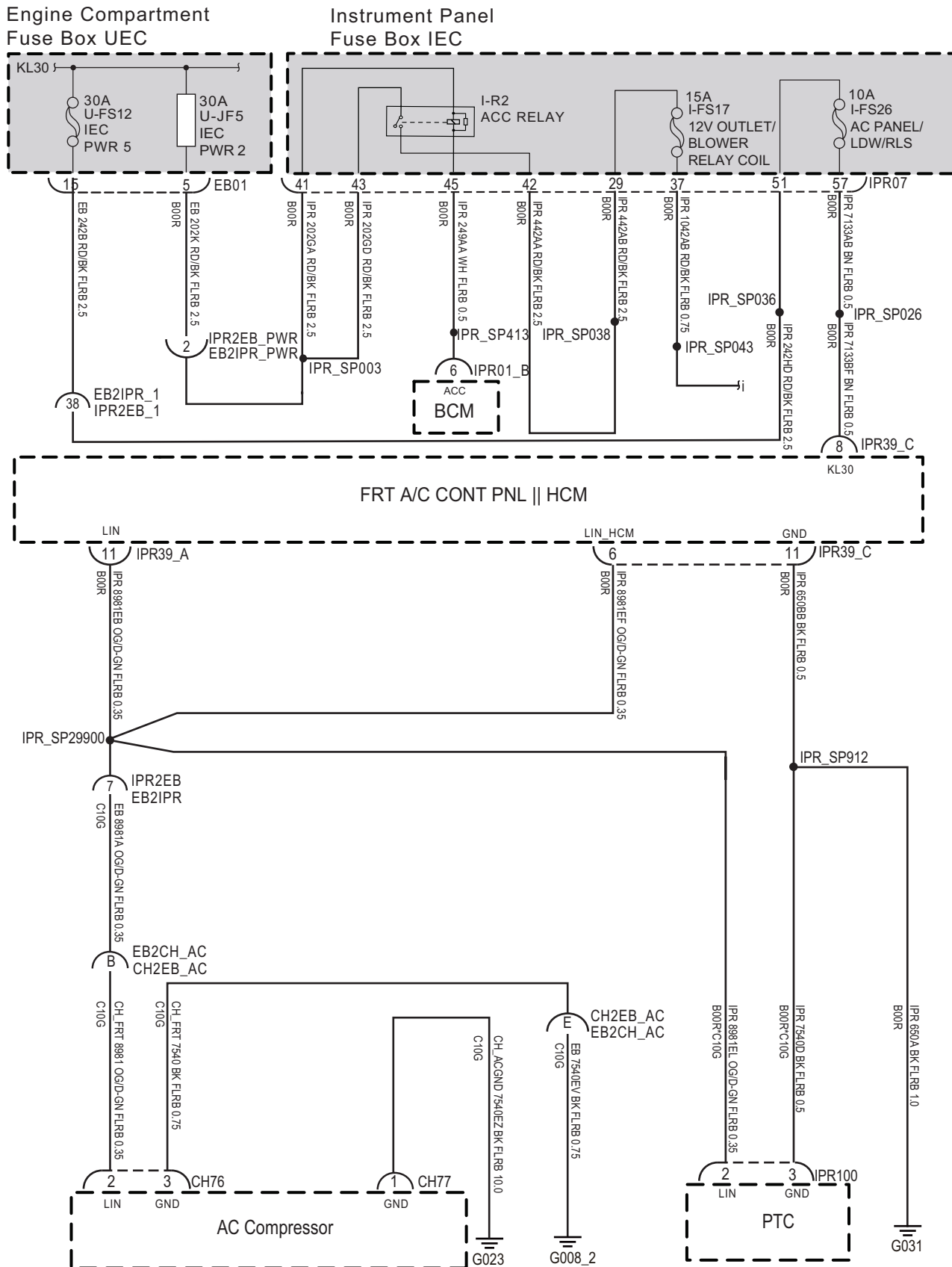


电路图 5-124

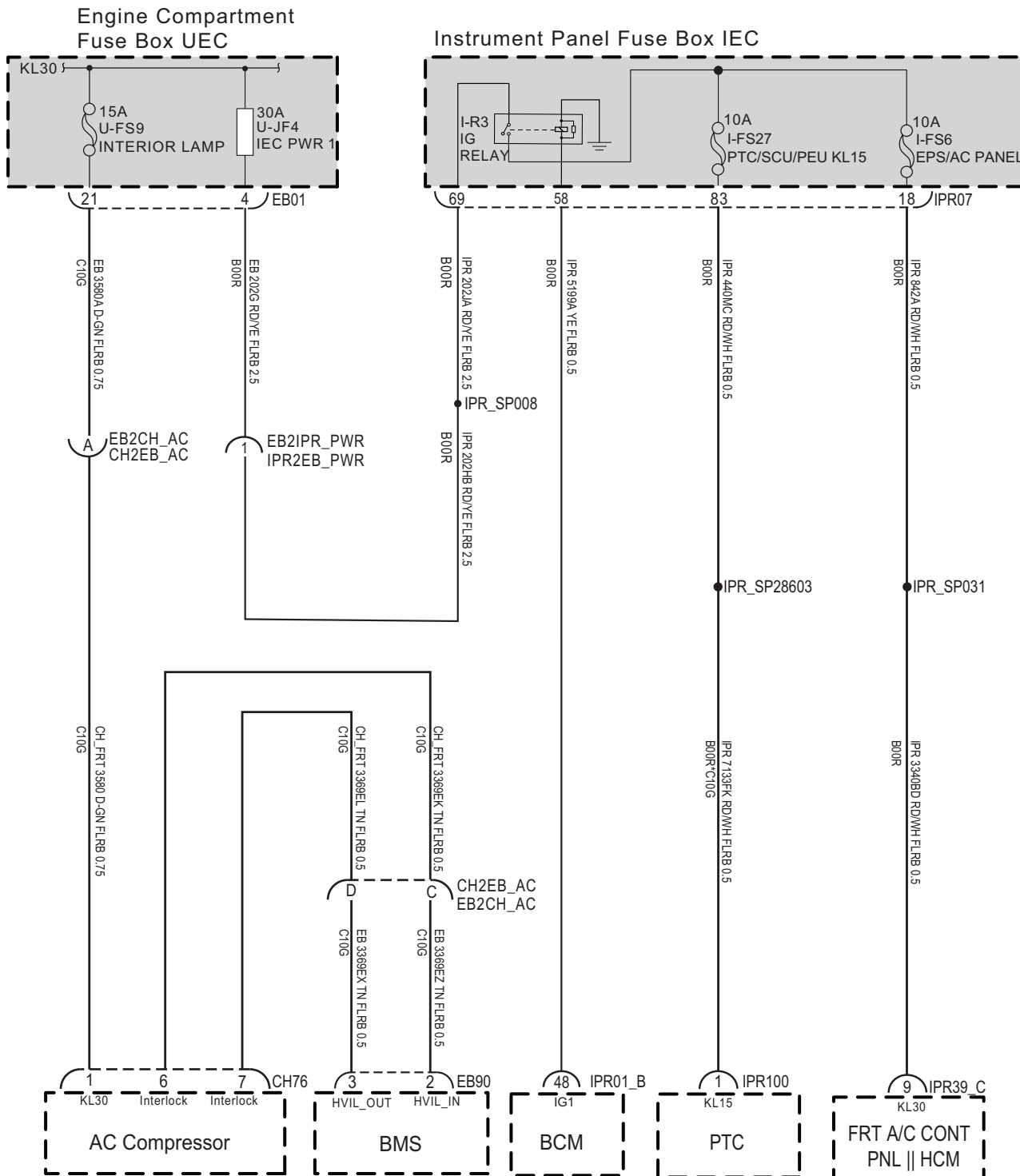
5.3.2 Air conditioning system 2



5.3.3 Air conditioning system 3

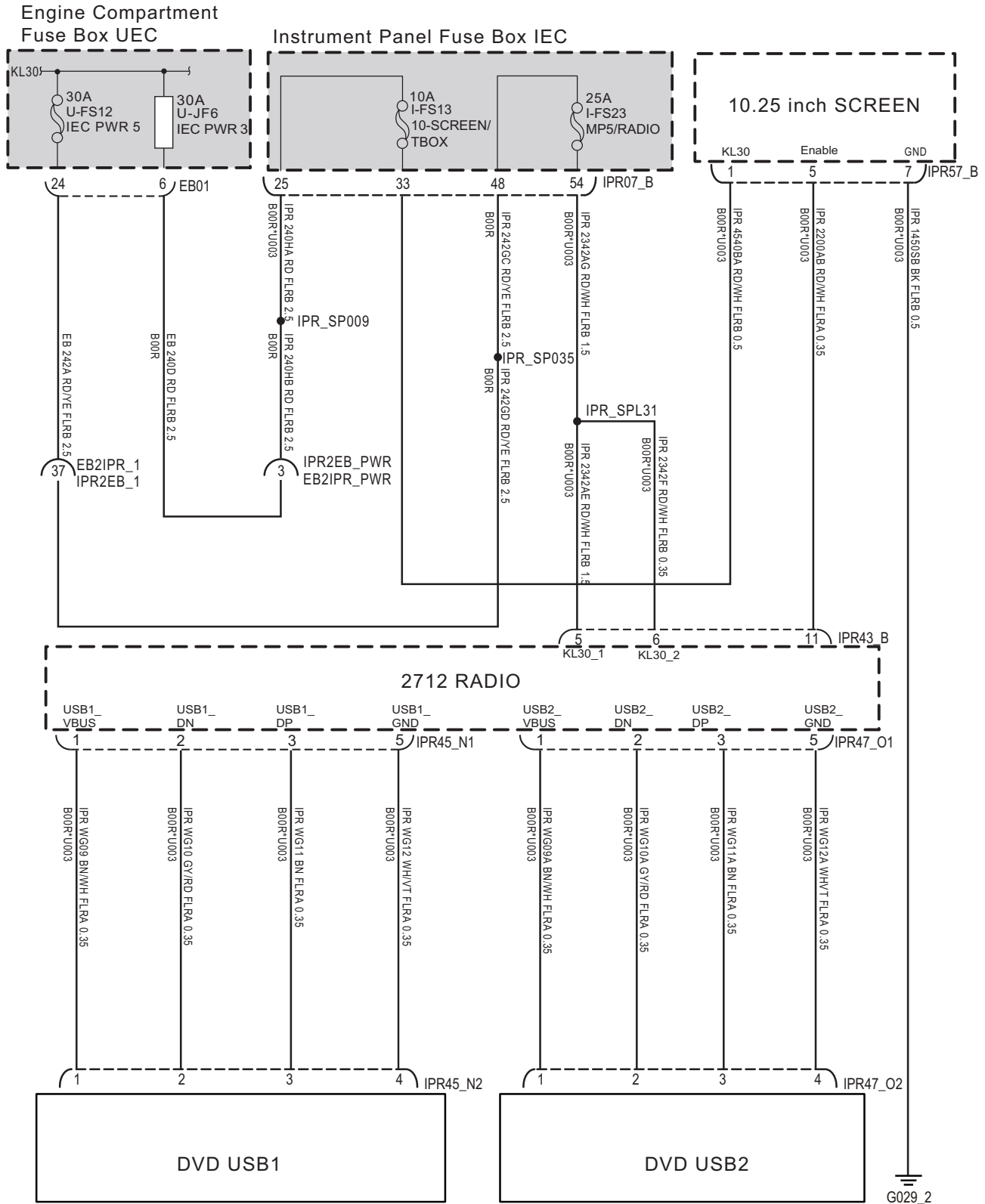


5.3.4 Air conditioning system 4

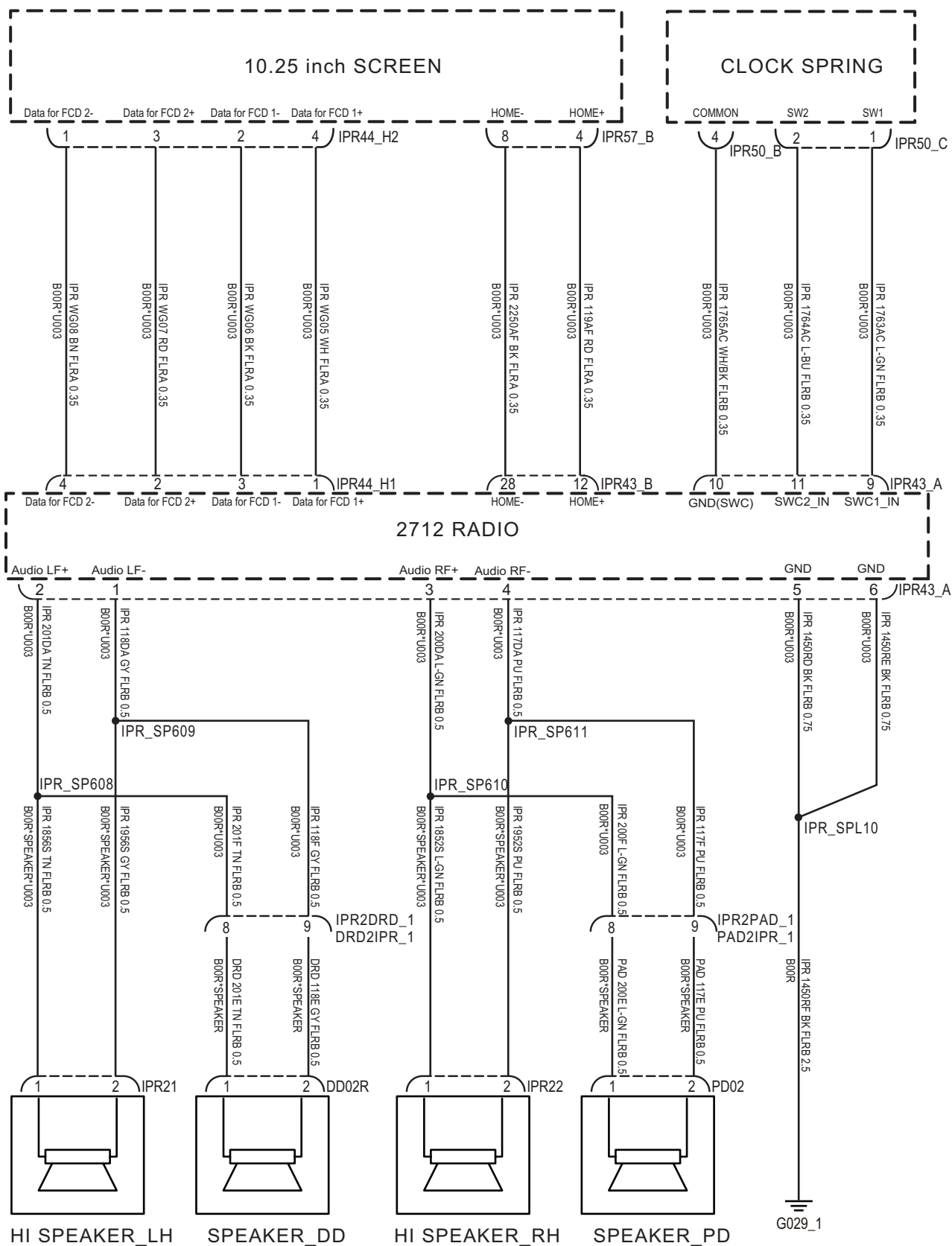


5.4 Occupant entertainment system

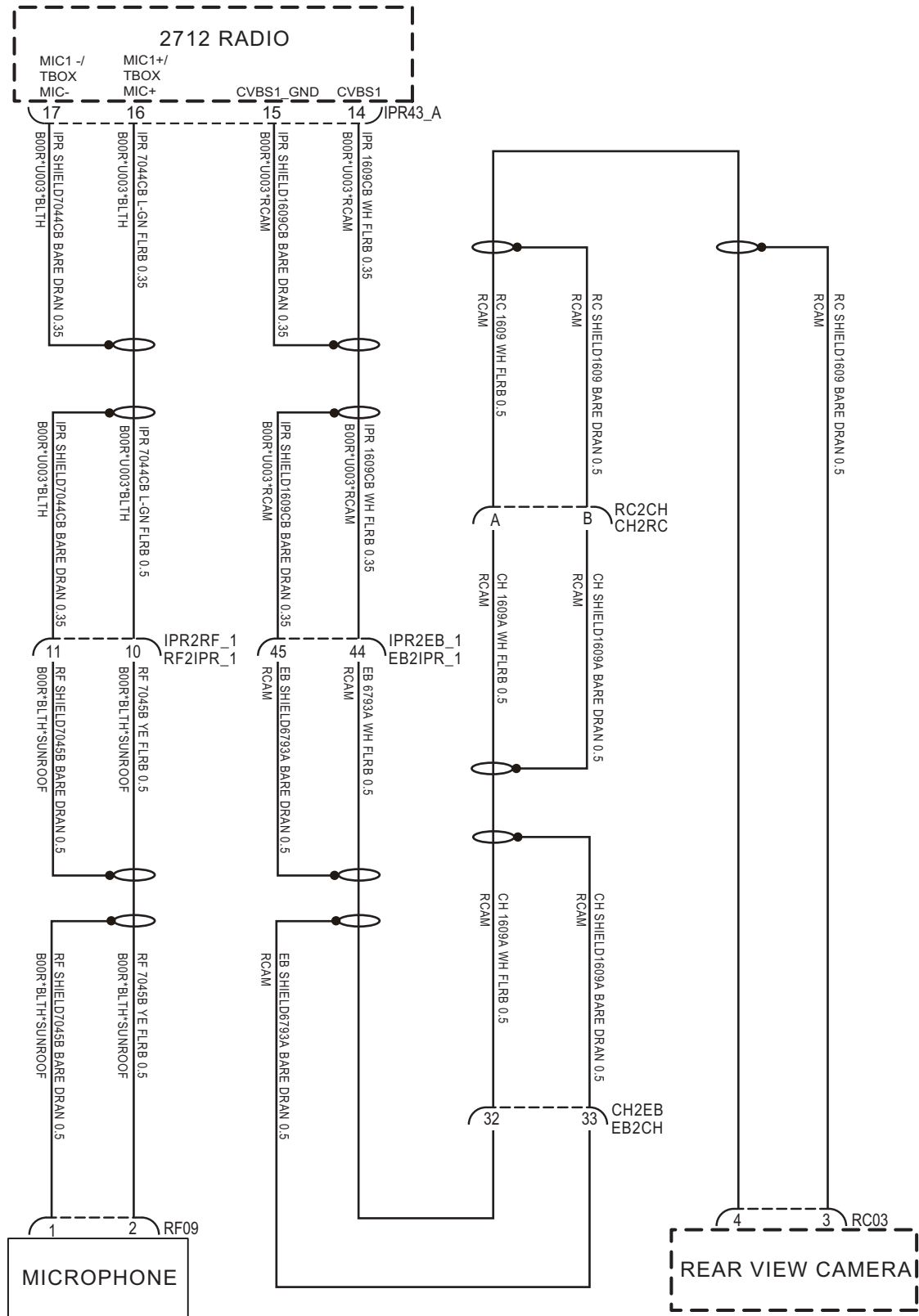
5.4.1 Occupant entertainment system 1



5.4.2 Occupant entertainment system 2

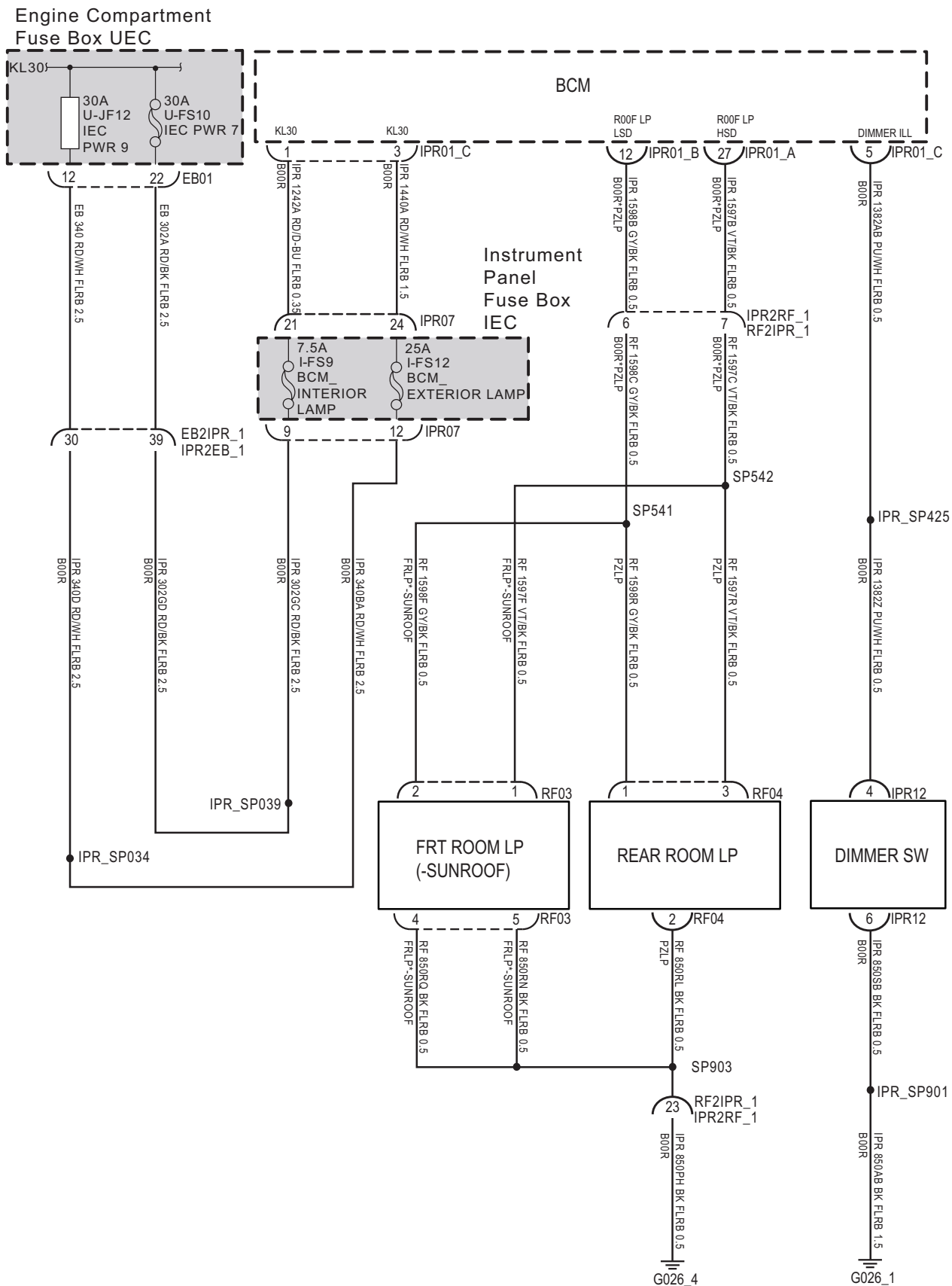


5.4.3 Occupant entertainment system 3



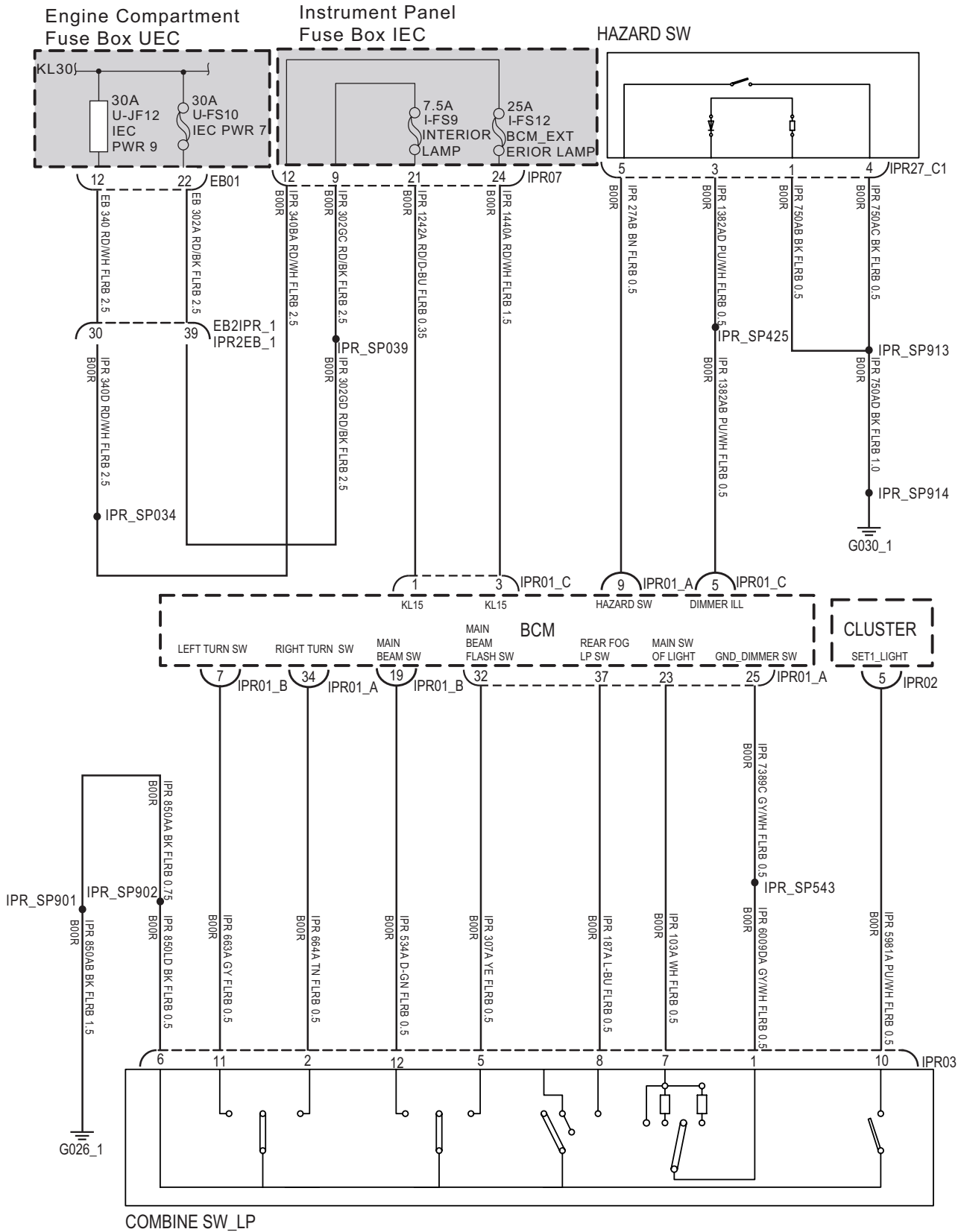
5.5 Interior lighting system

5.5.1 Interior lighting system



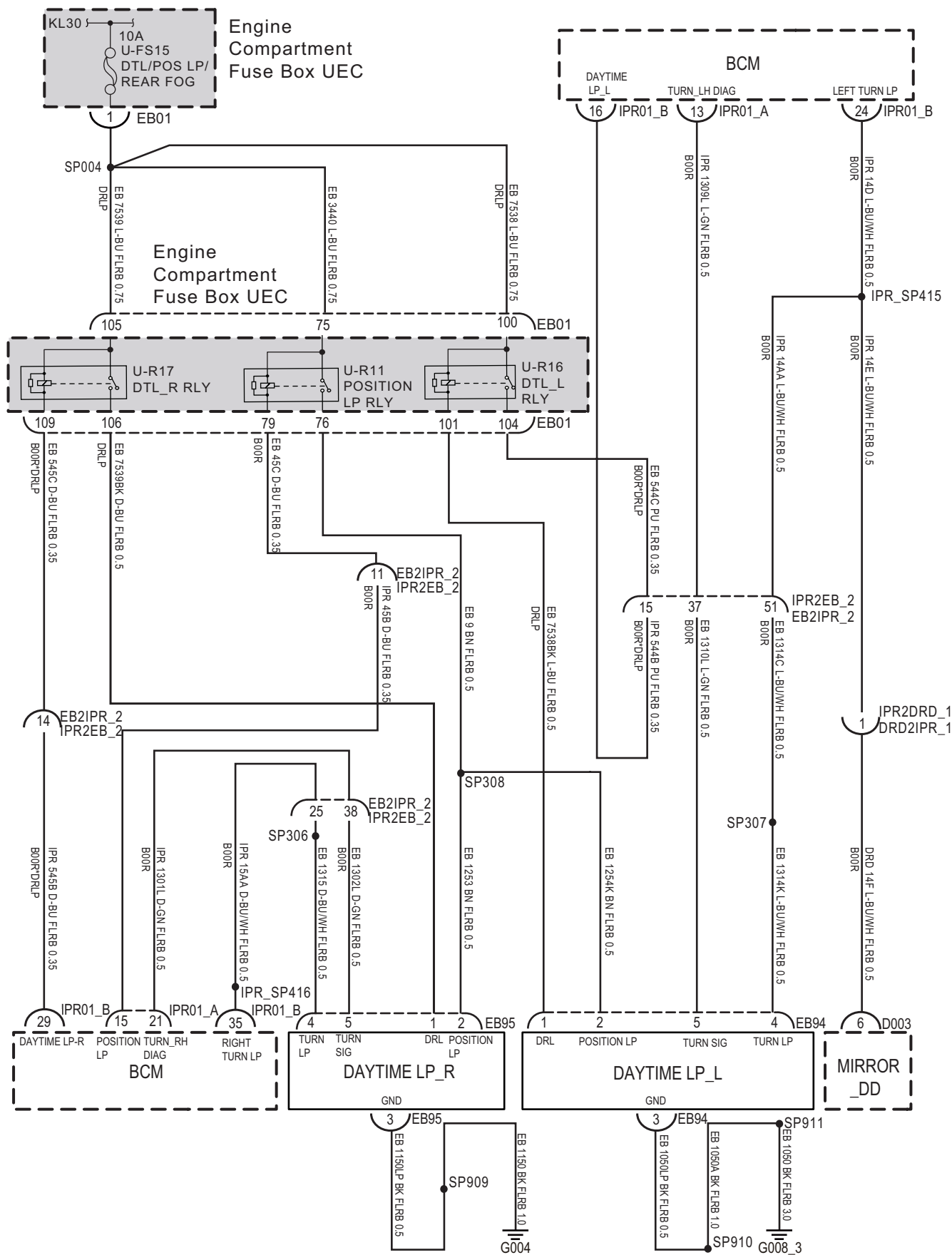
5.6 Exterior lighting system

5.6.1 Exterior lighting system 1

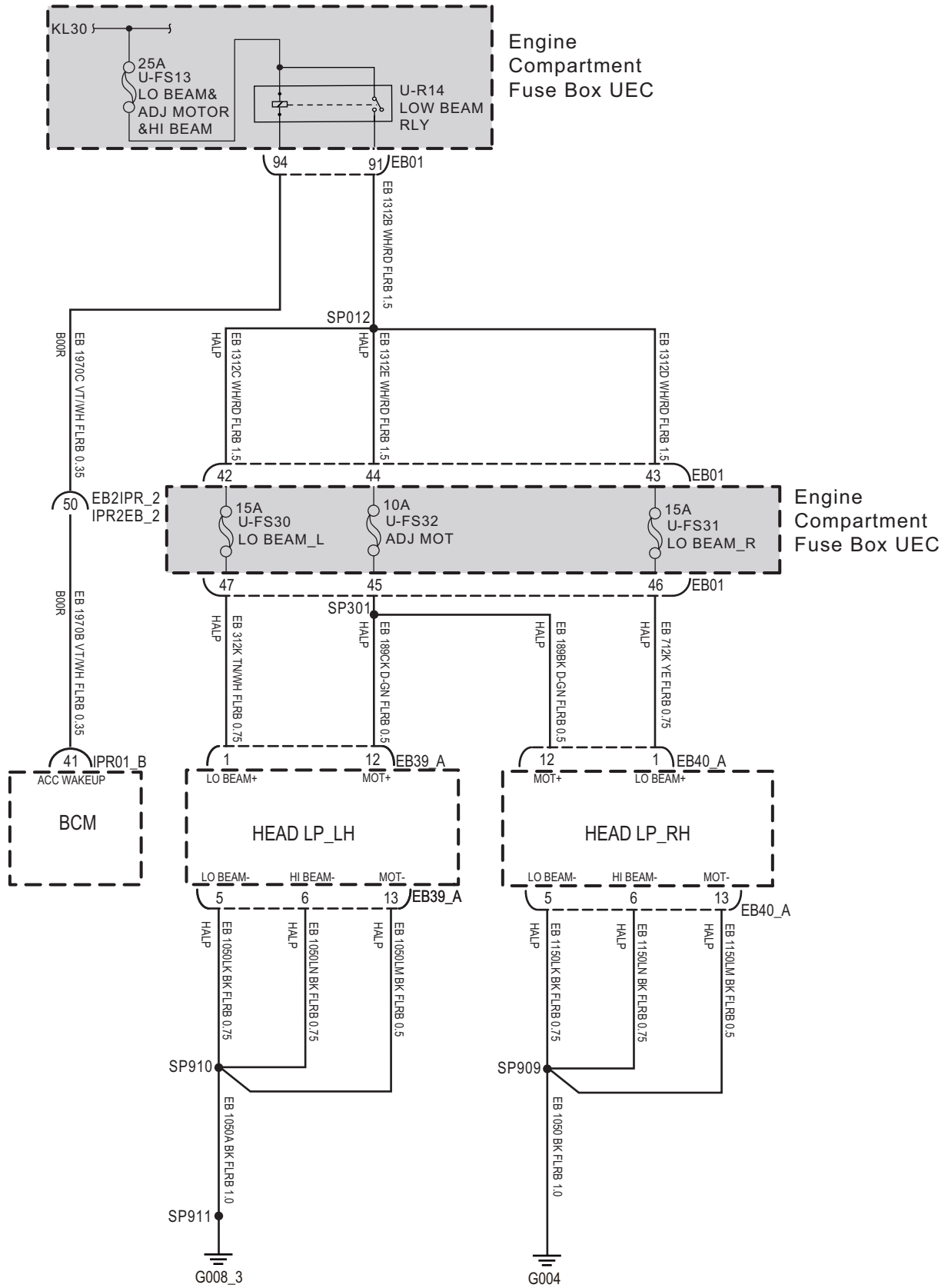


电路图 5-132

5.6.2 Exterior lighting system 2

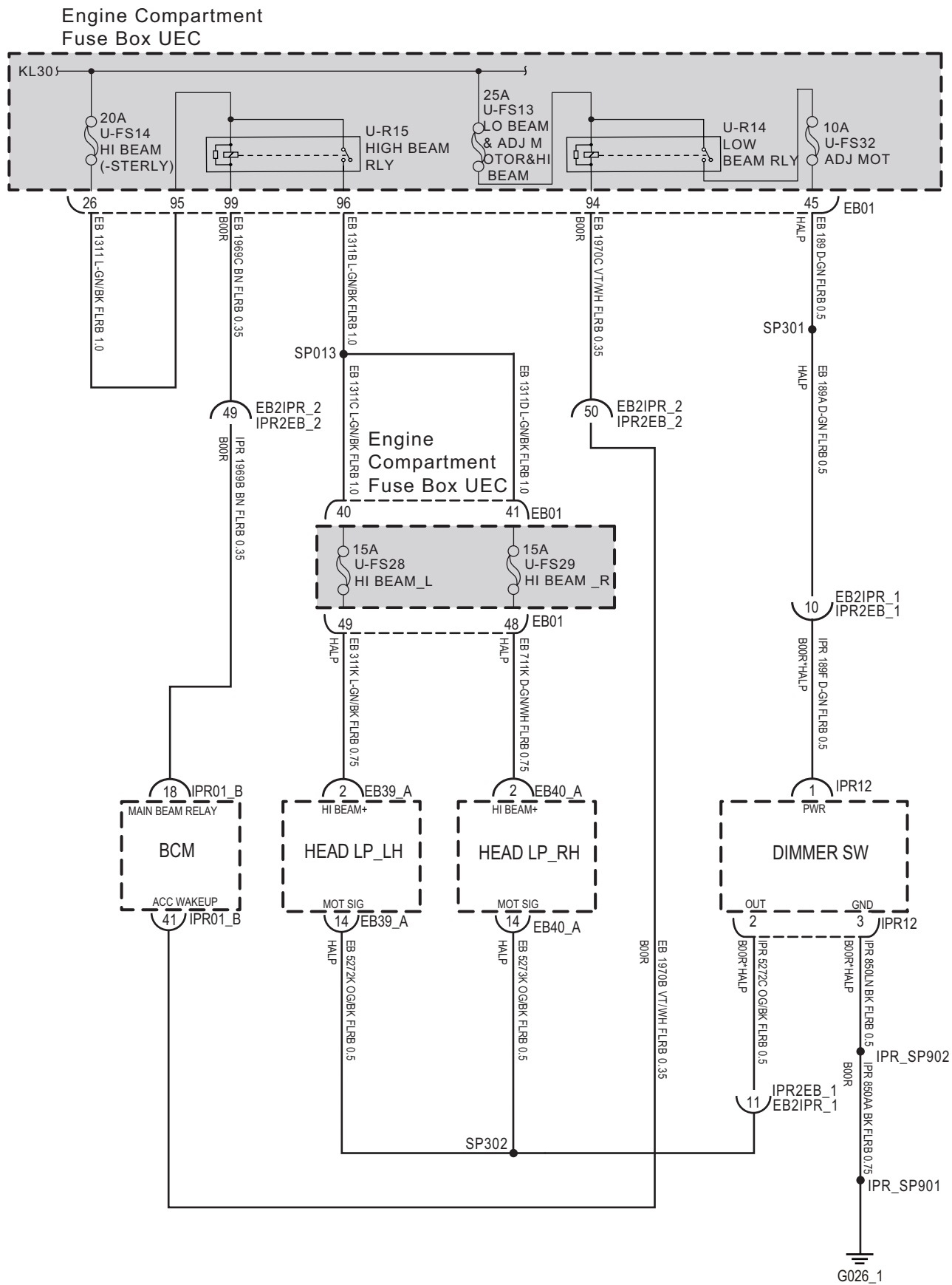


5.6.3 Exterior lighting system 3

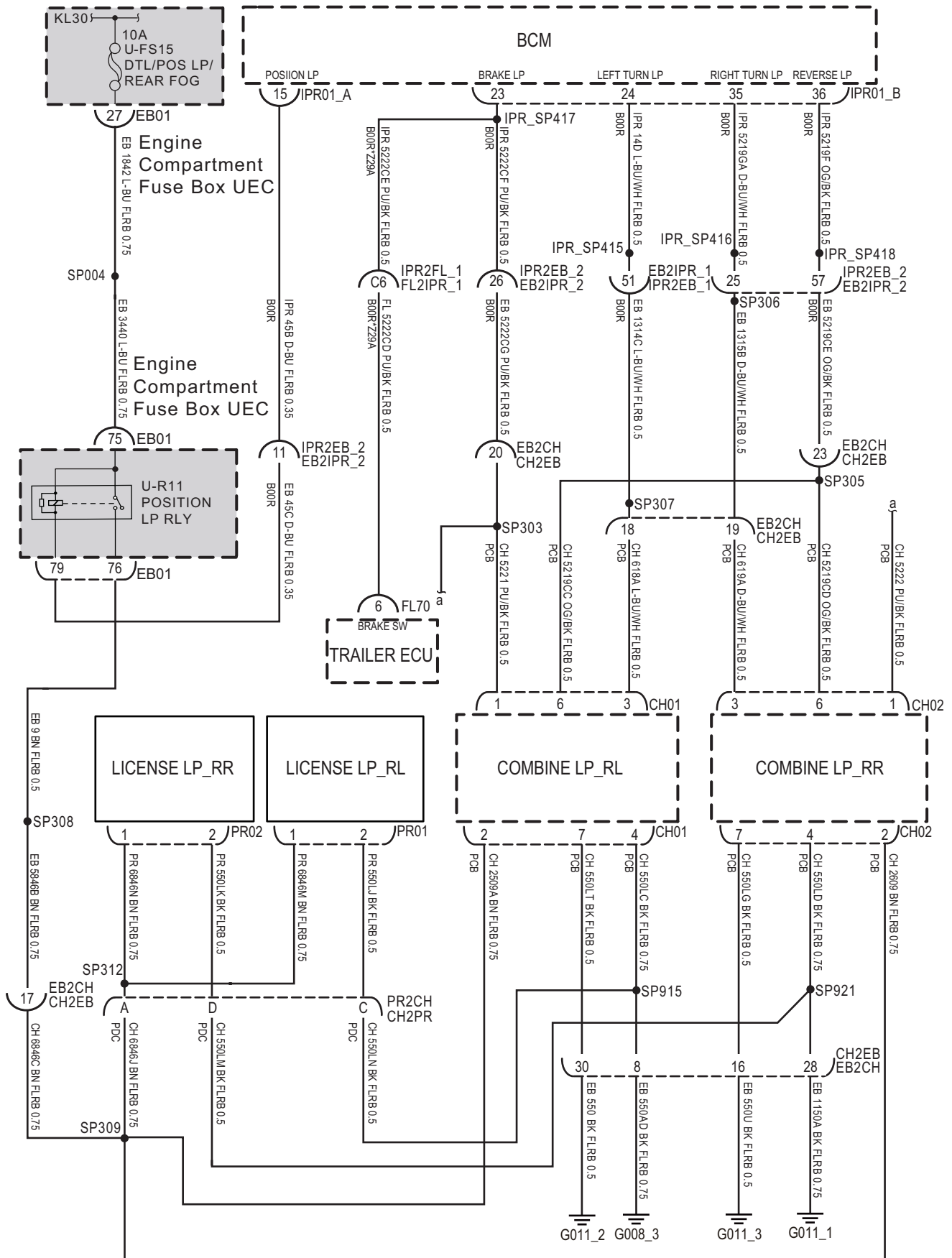


电路图 5-134

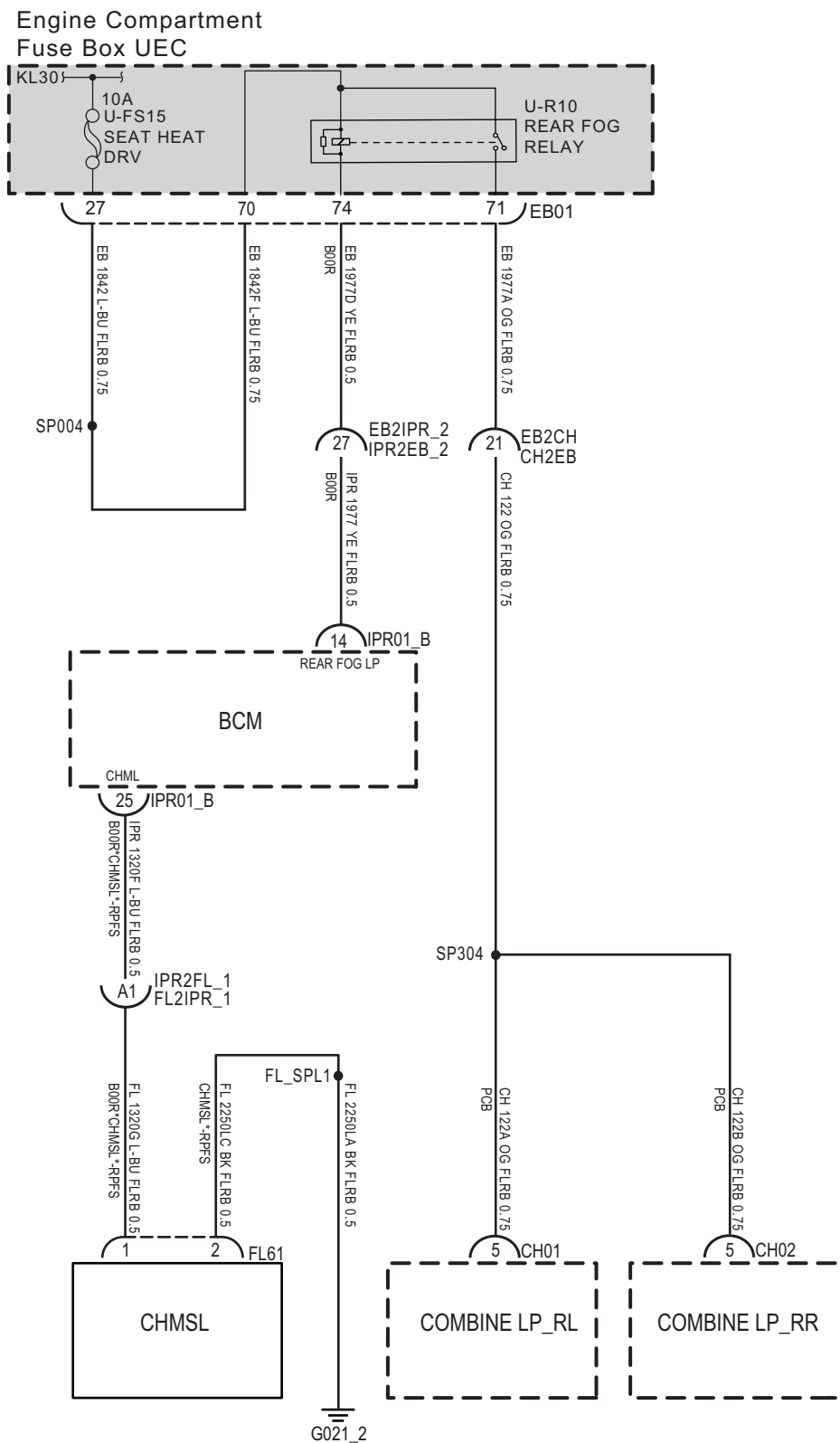
5.6.4 Exterior lighting system 4



5.6.5 Exterior lighting system 5

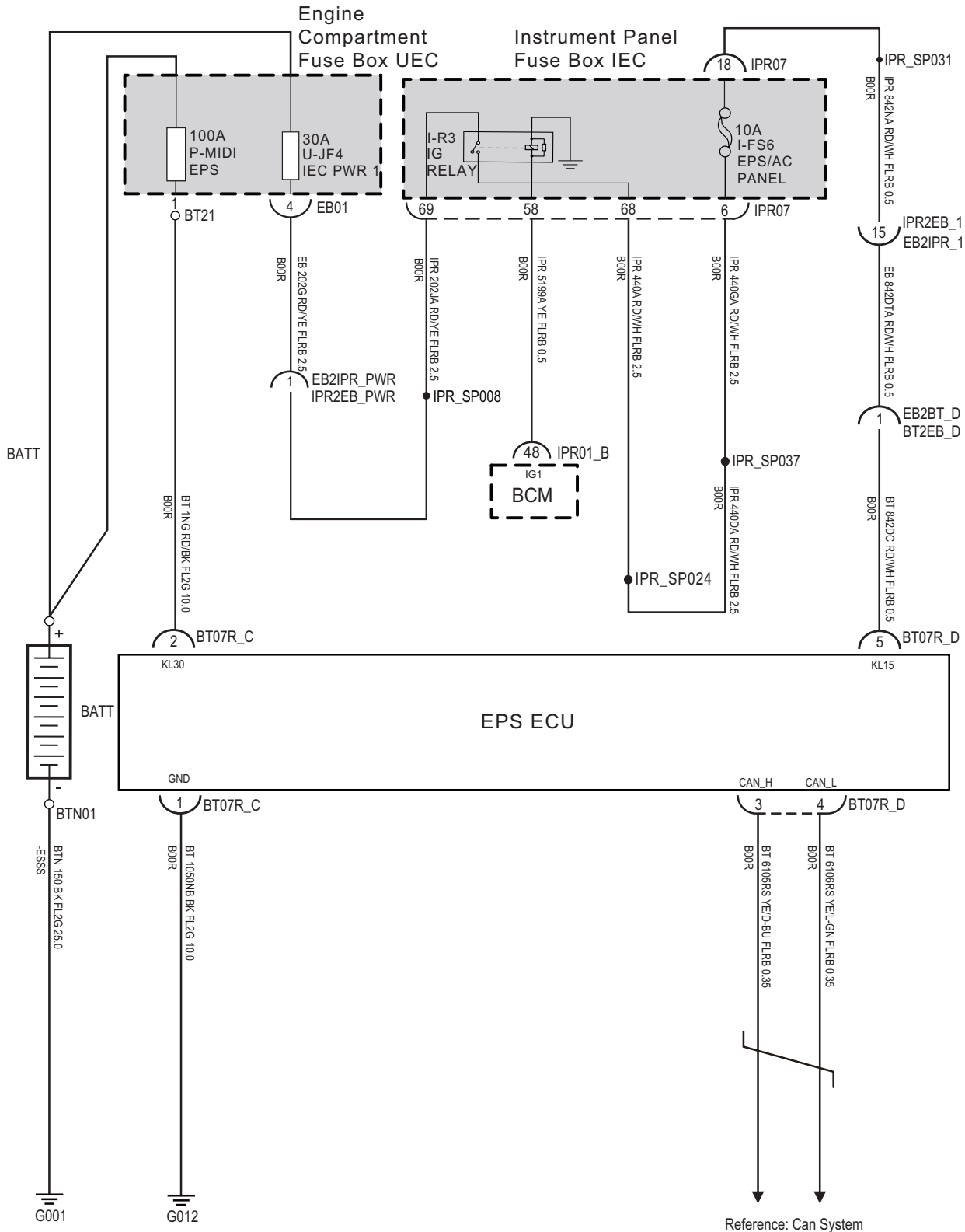


5.6.6 Exterior lighting system 6



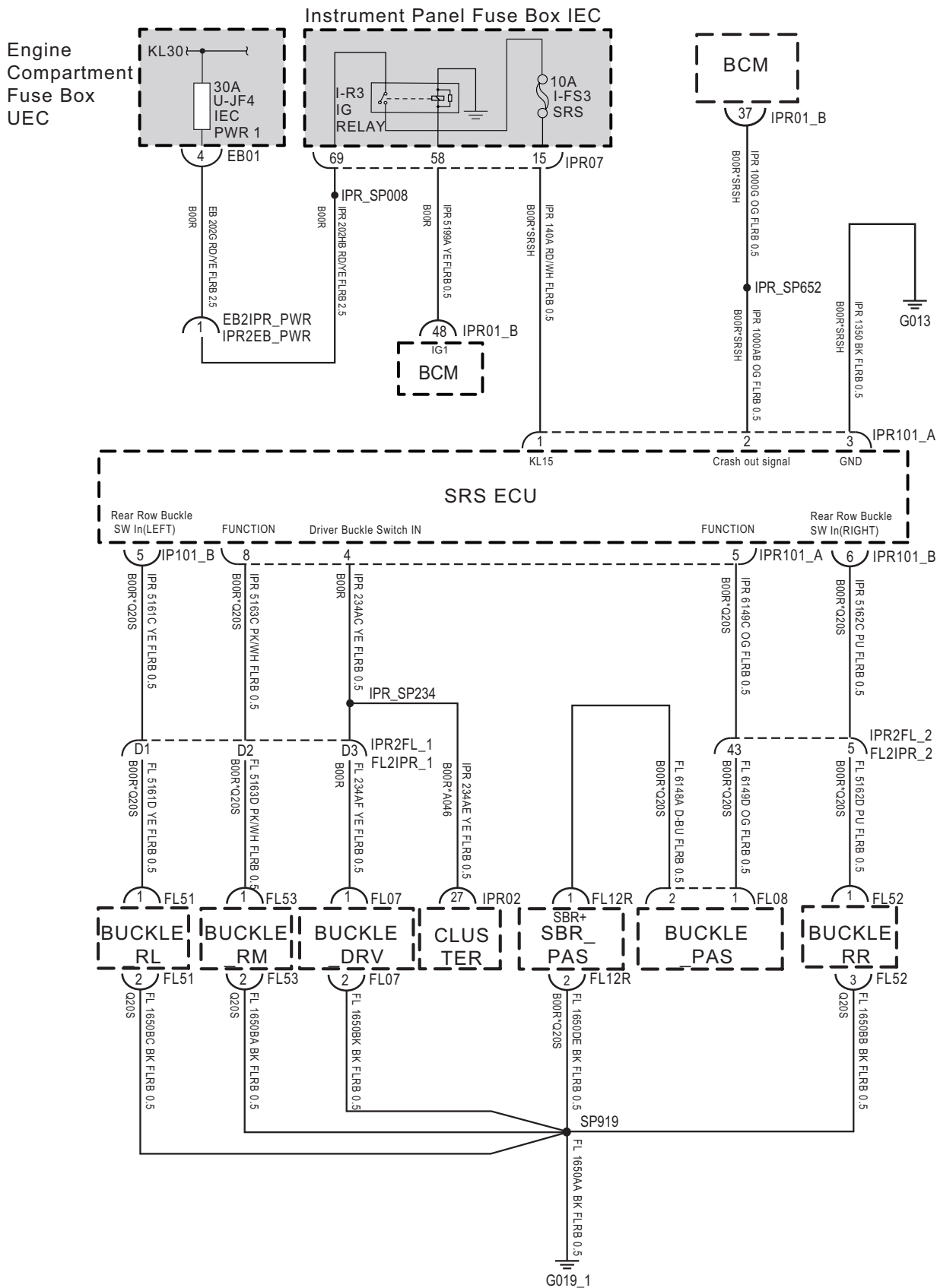
5.7 Electric power steering system

5.7.1 Electric power steering system

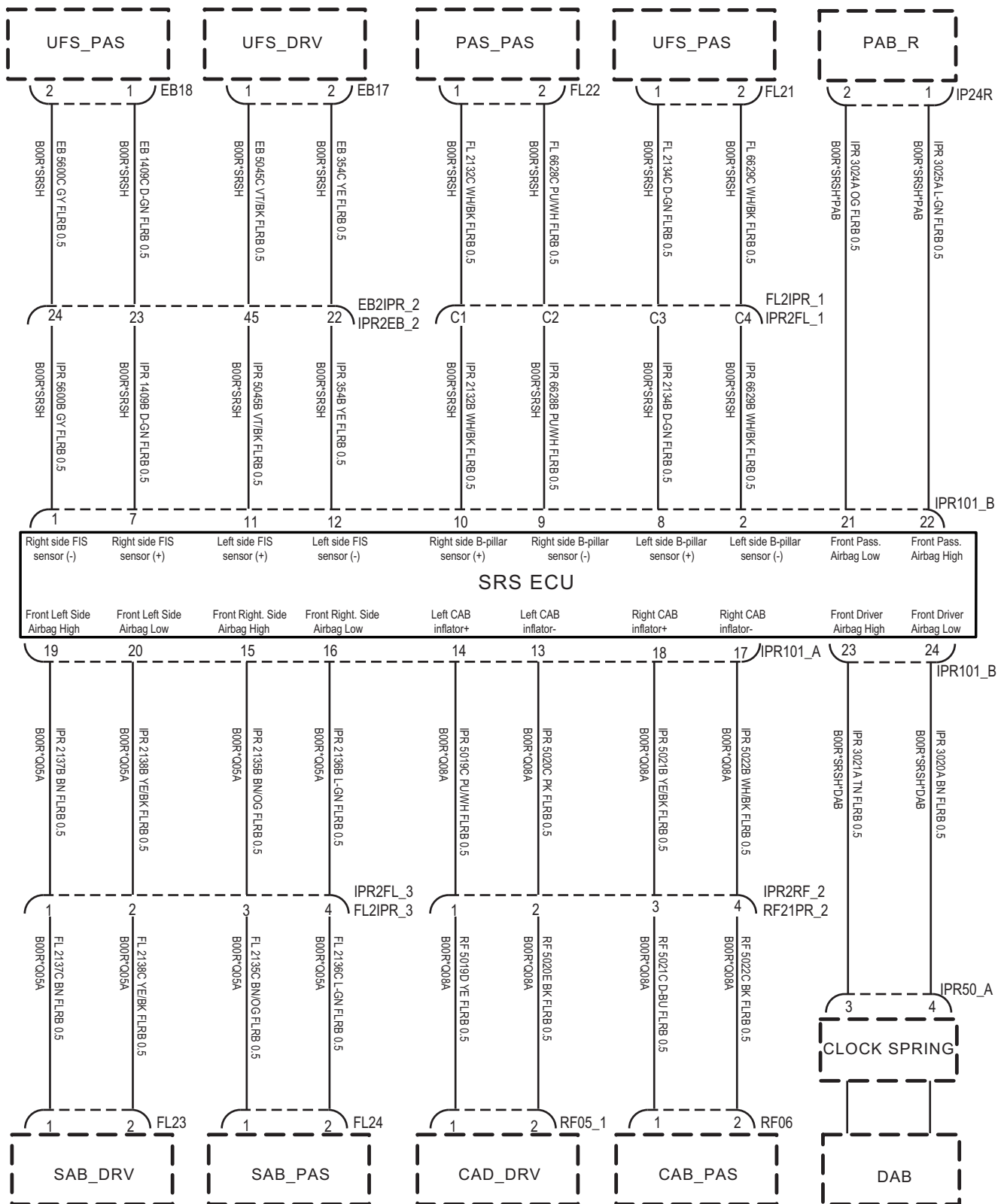


5.8 Occupant protection system

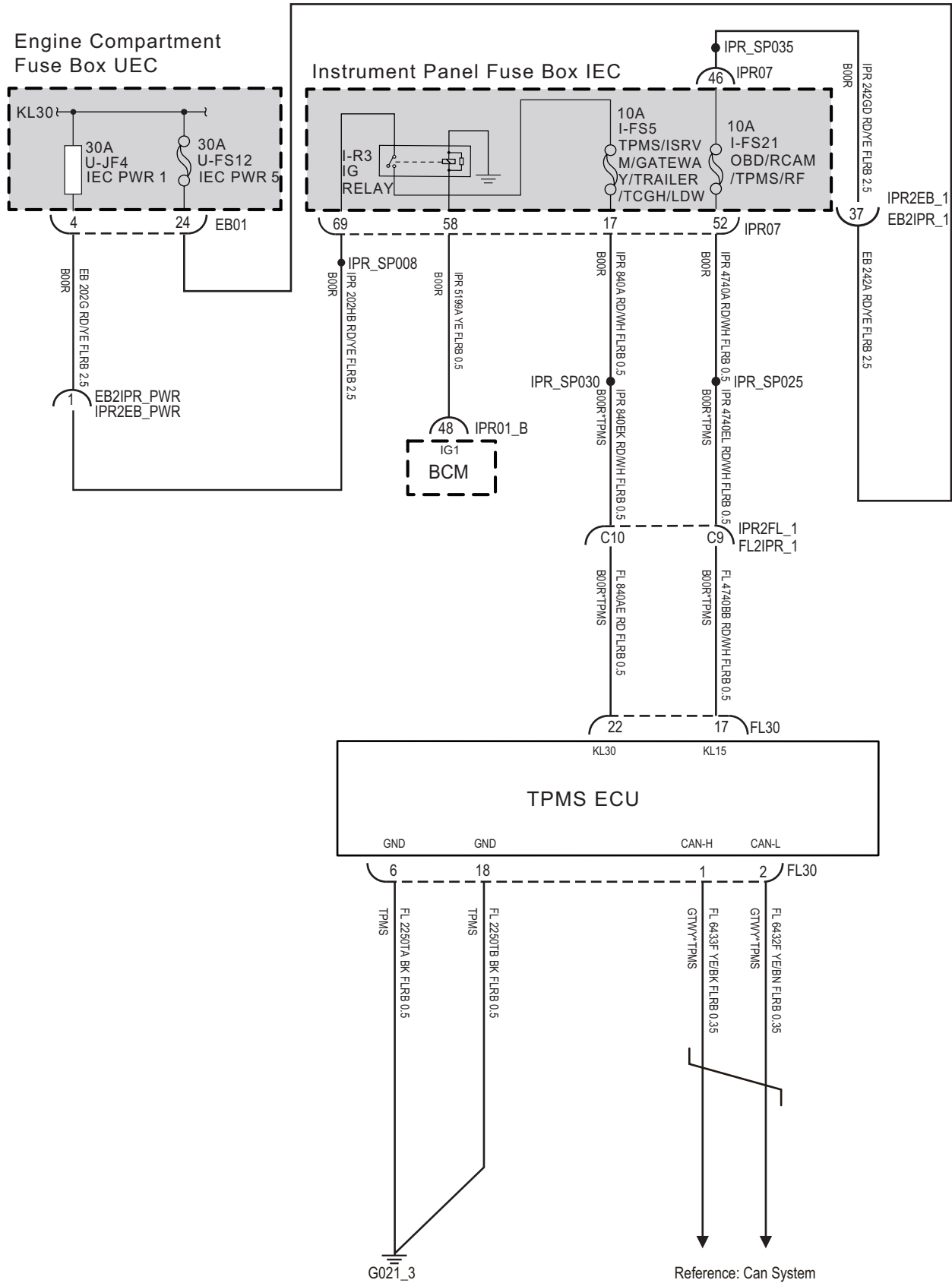
5.8.1 Occupant protection system 1



5.8.2 Occupant protection system 2

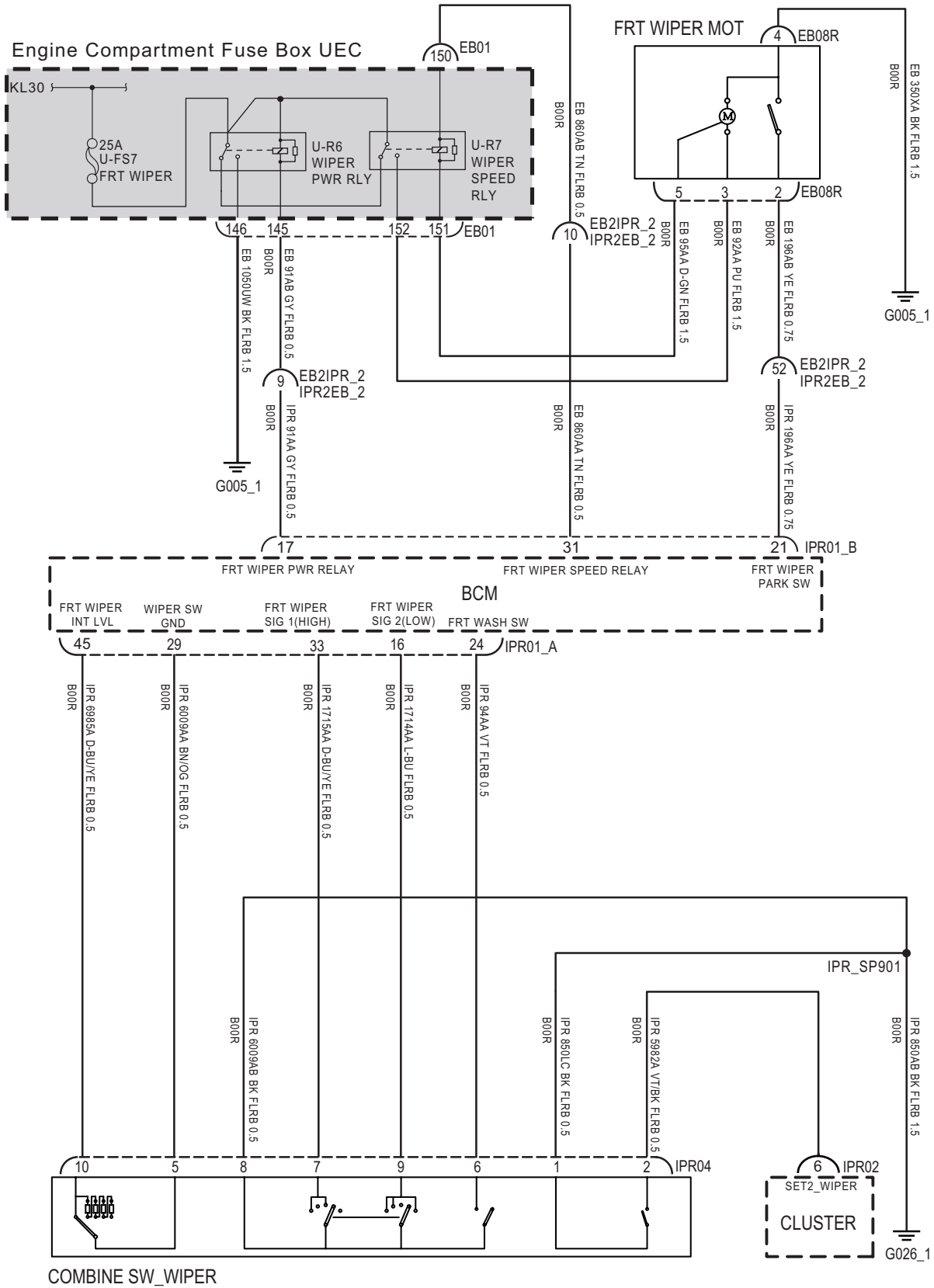


5.8.3 Occupant protection system 3



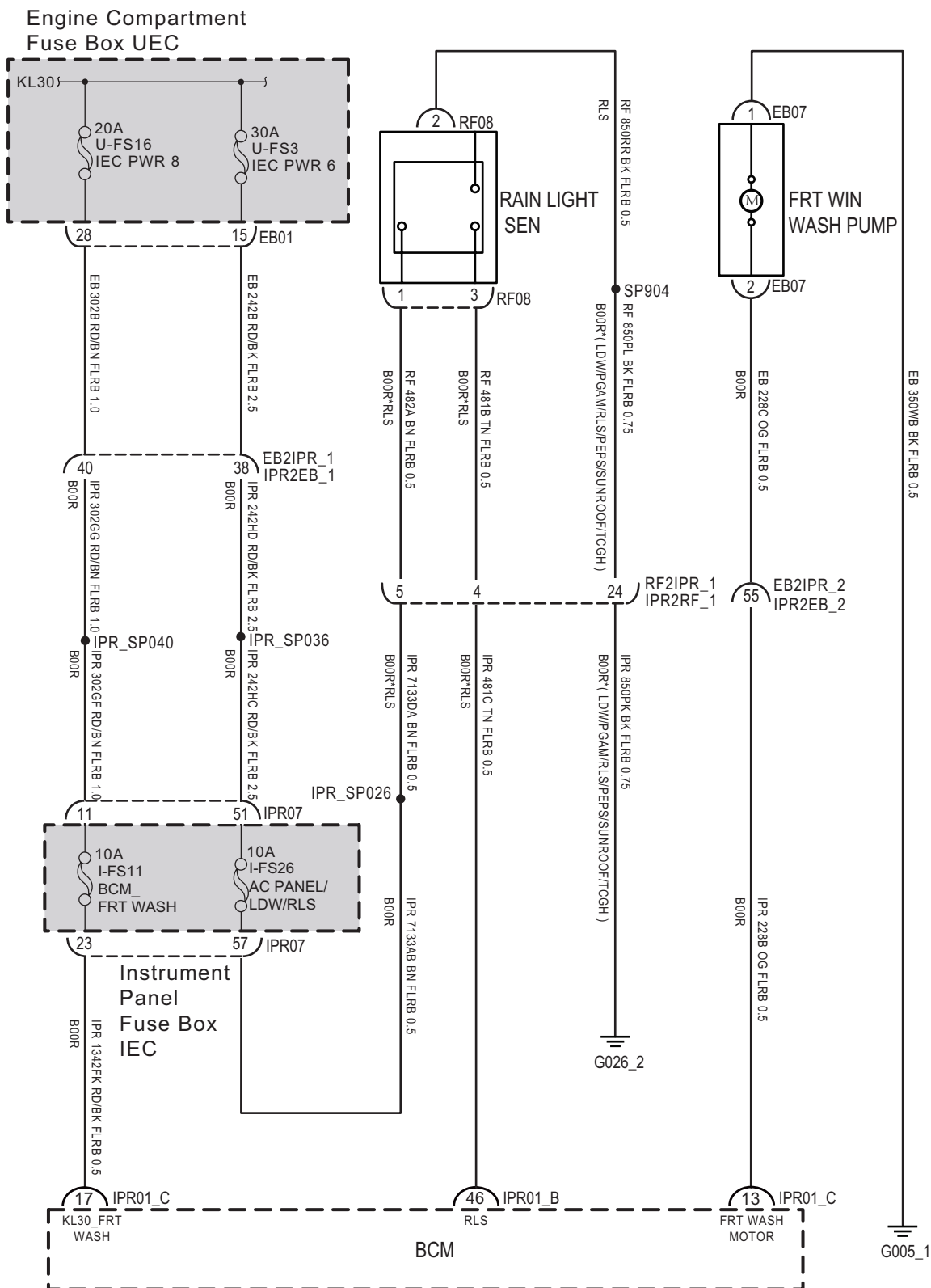
5.9 Wiper washing system

5.9.1 Wiper washing system 1



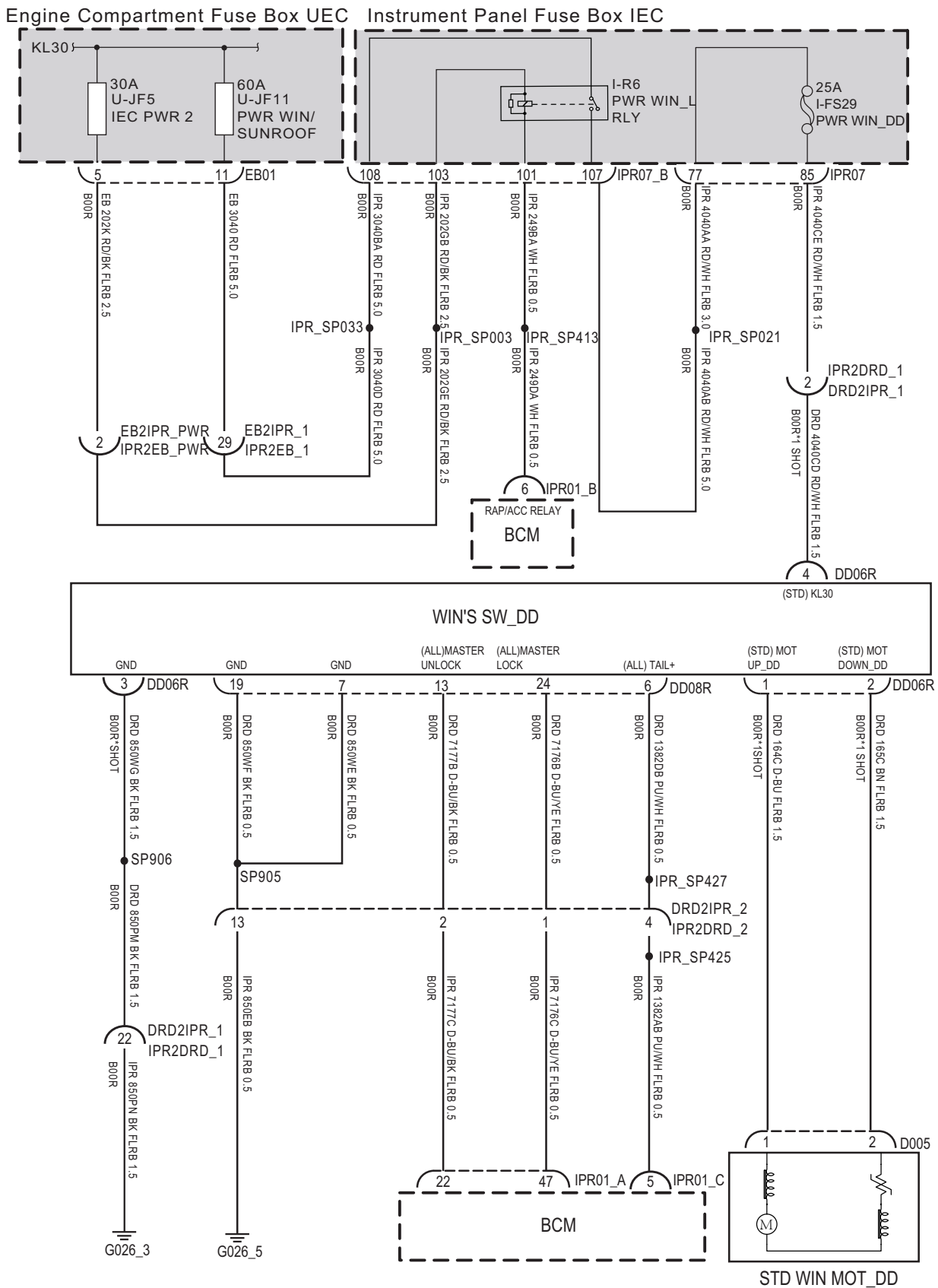
电路图 5-142

5.9.1 Wiper washing system 2

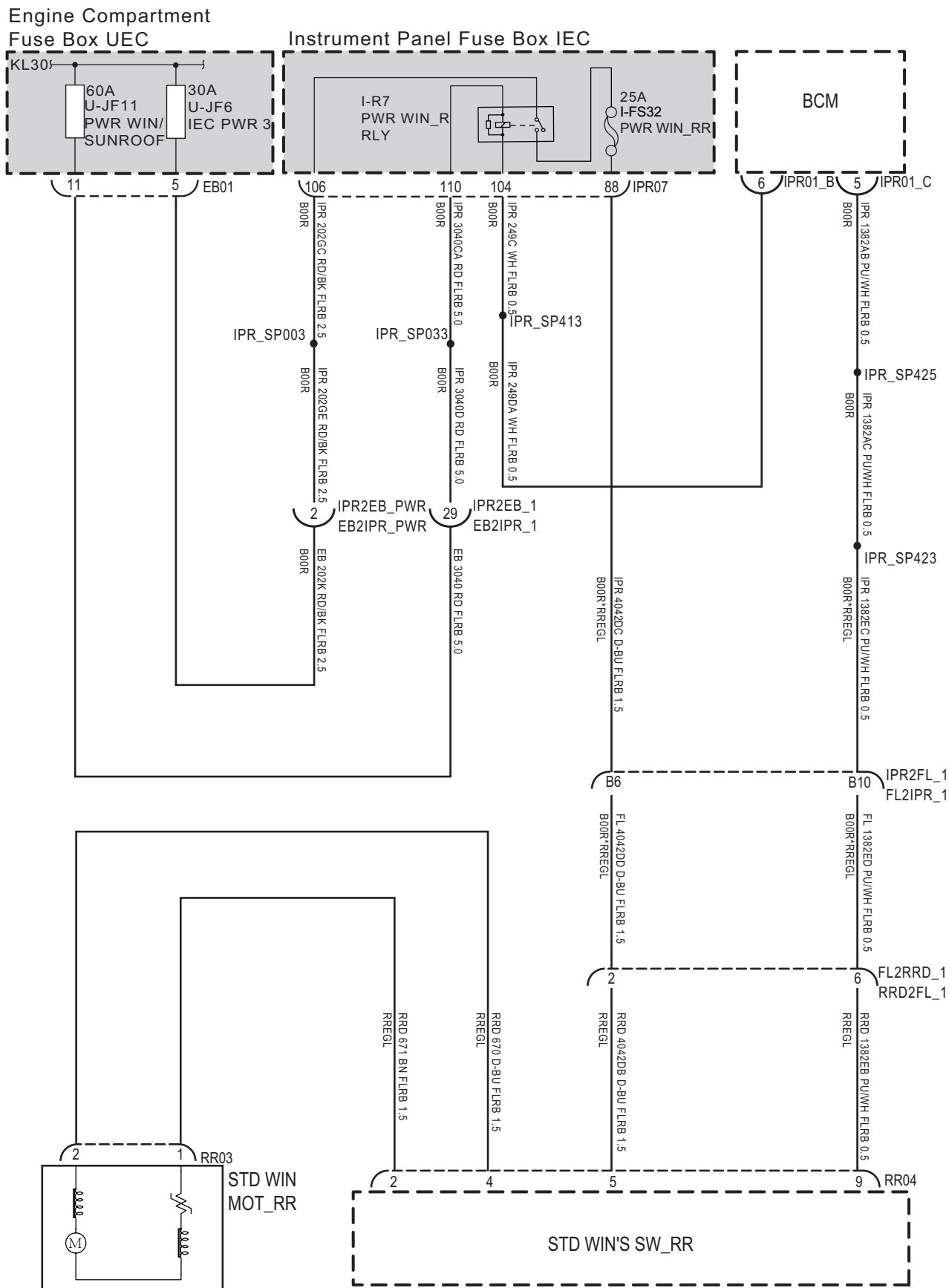


5.10 Electric window system

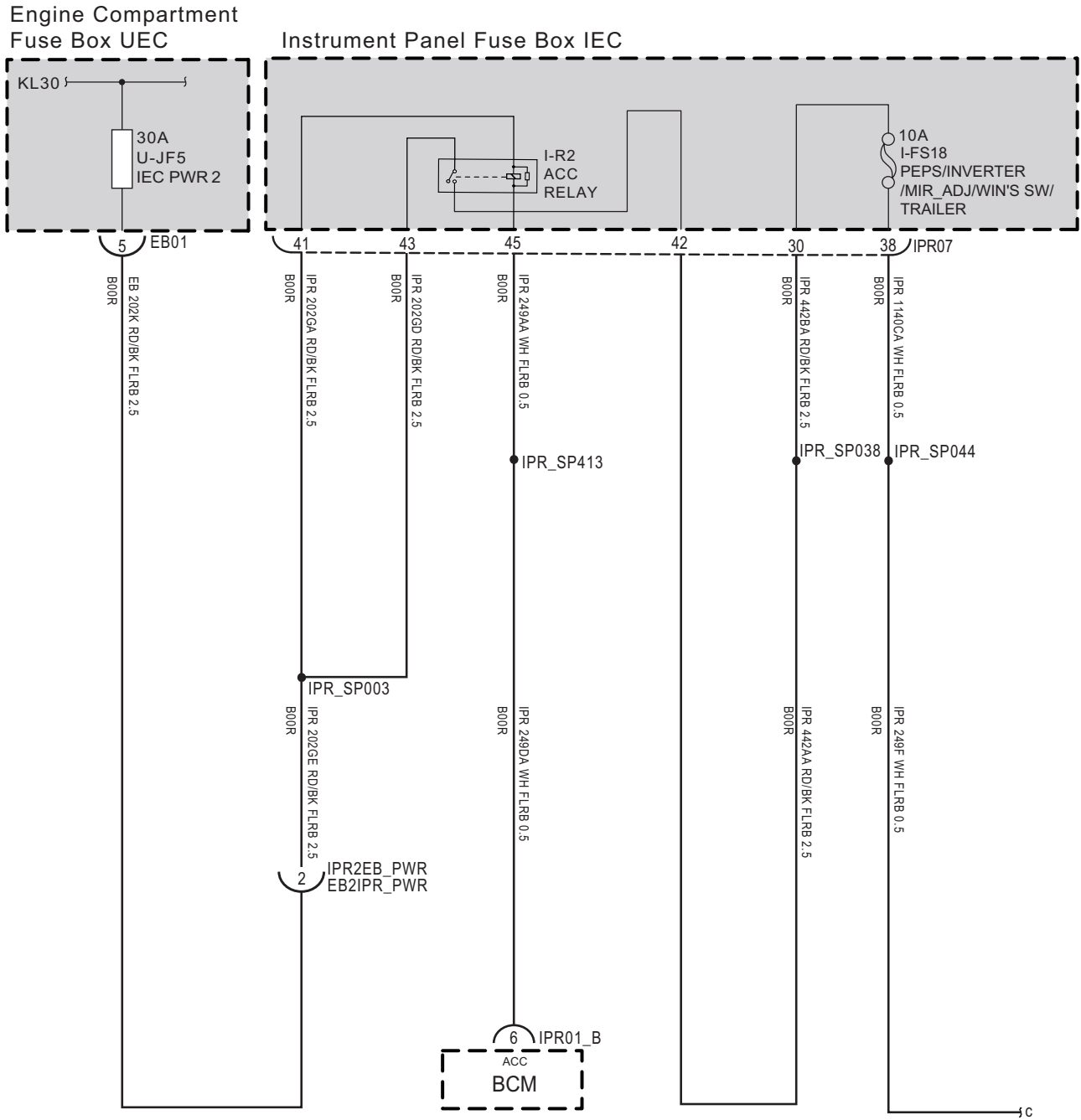
5.10.1 Electric window system 1



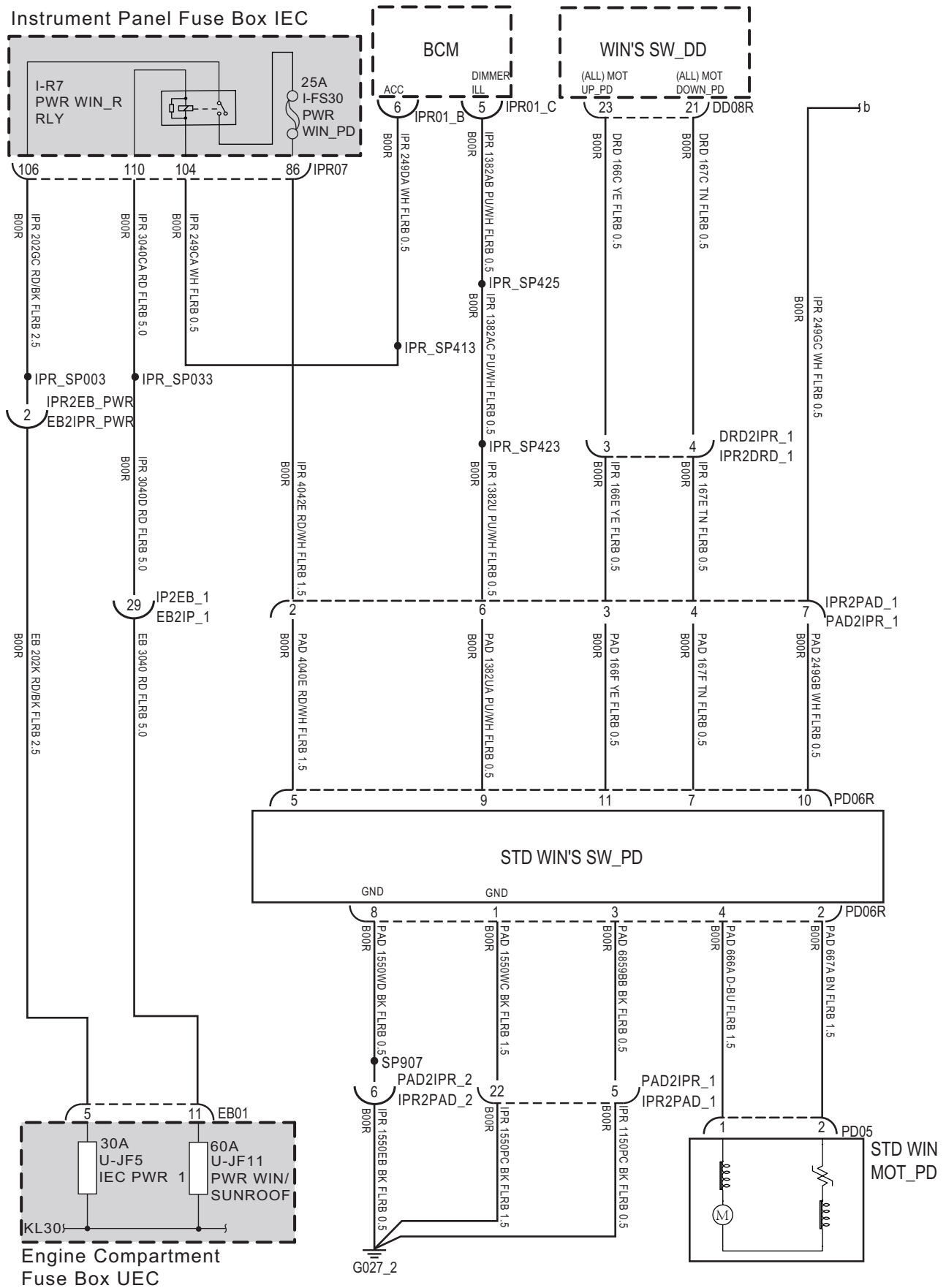
5.10.2 Electric window system 2



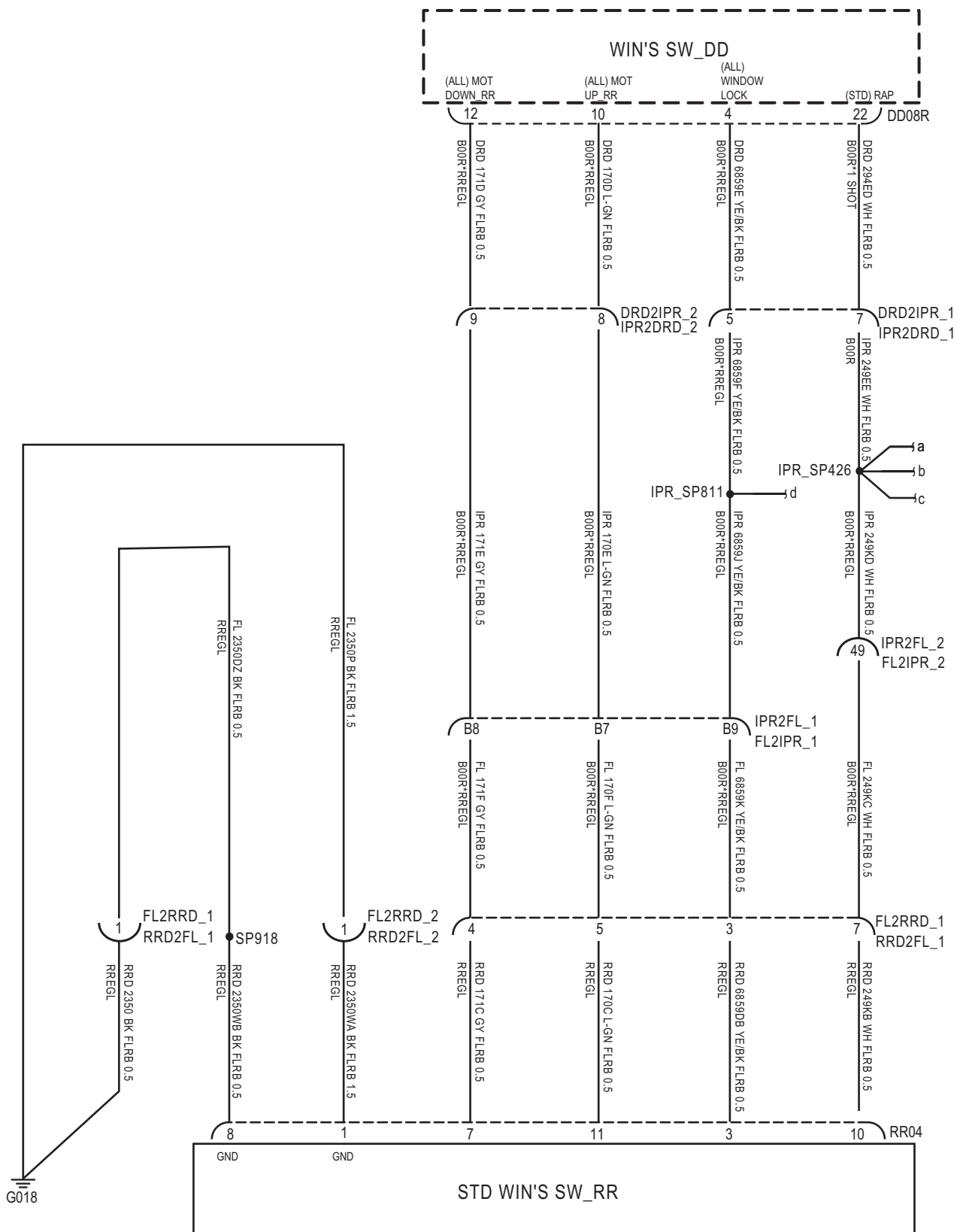
5.10.3 Electric window system 3



5.10.5 Electric window system 5

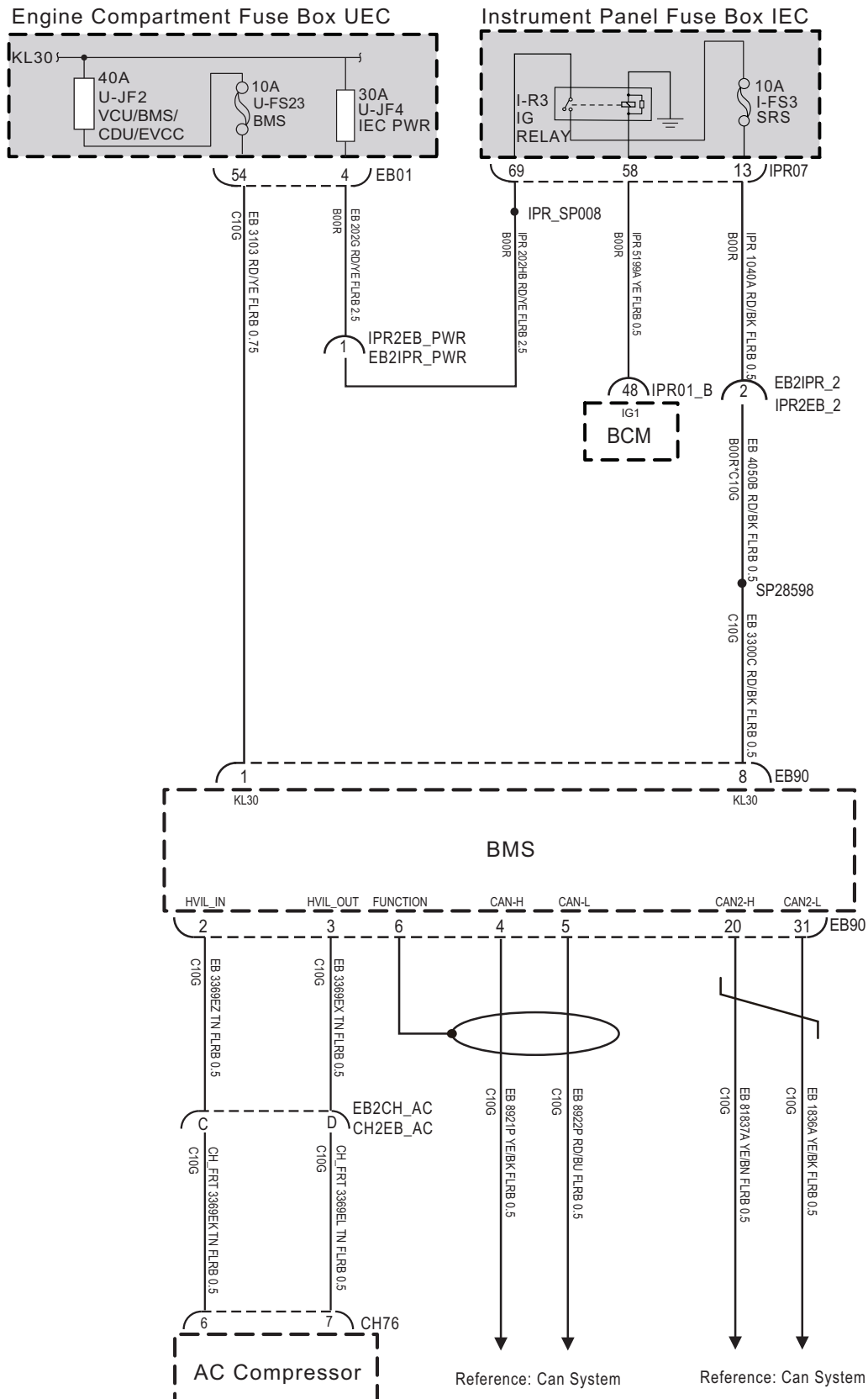


5.10.6 Electric window system 6

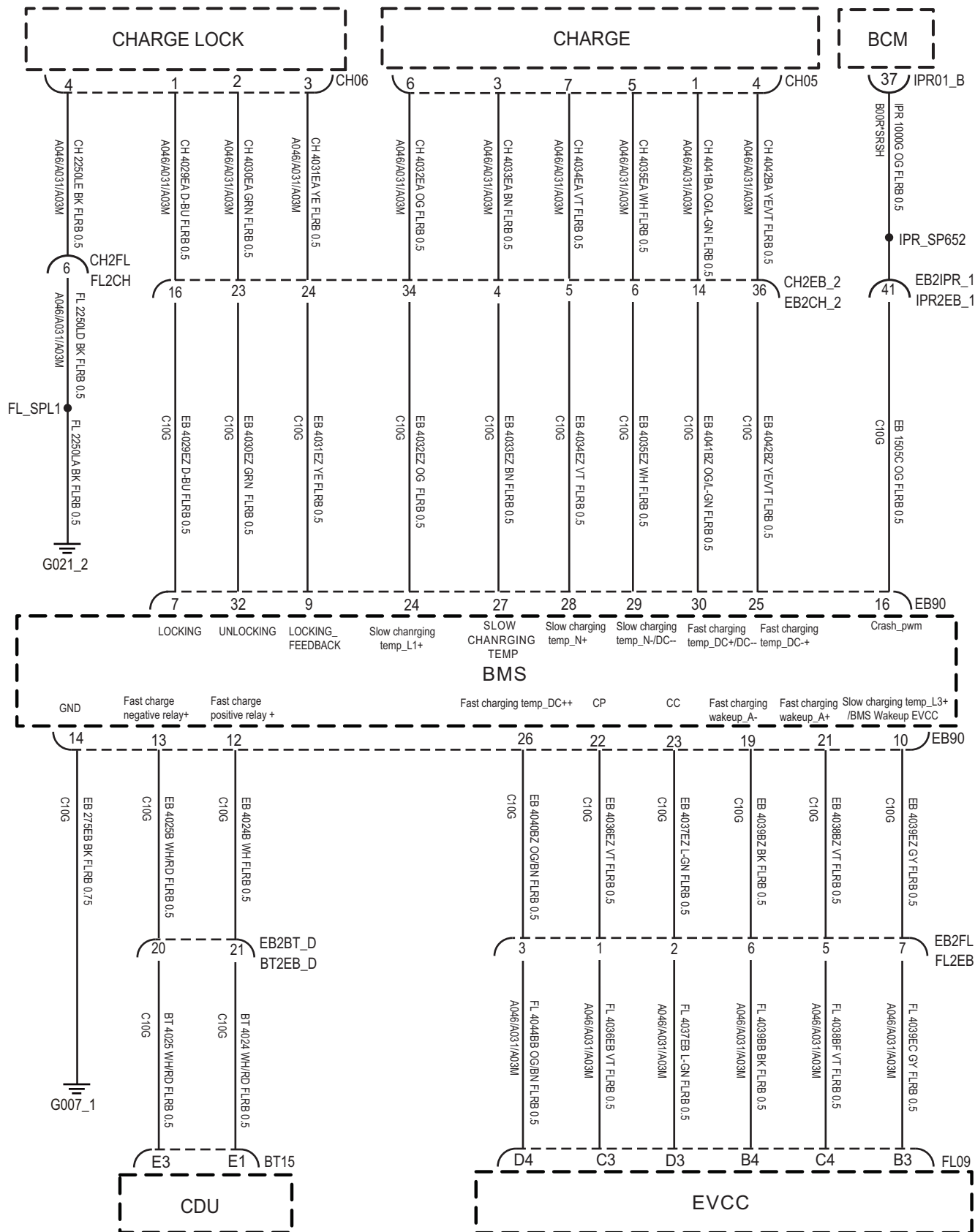


5.11 Battery management system

5.11.1 Battery management system 1

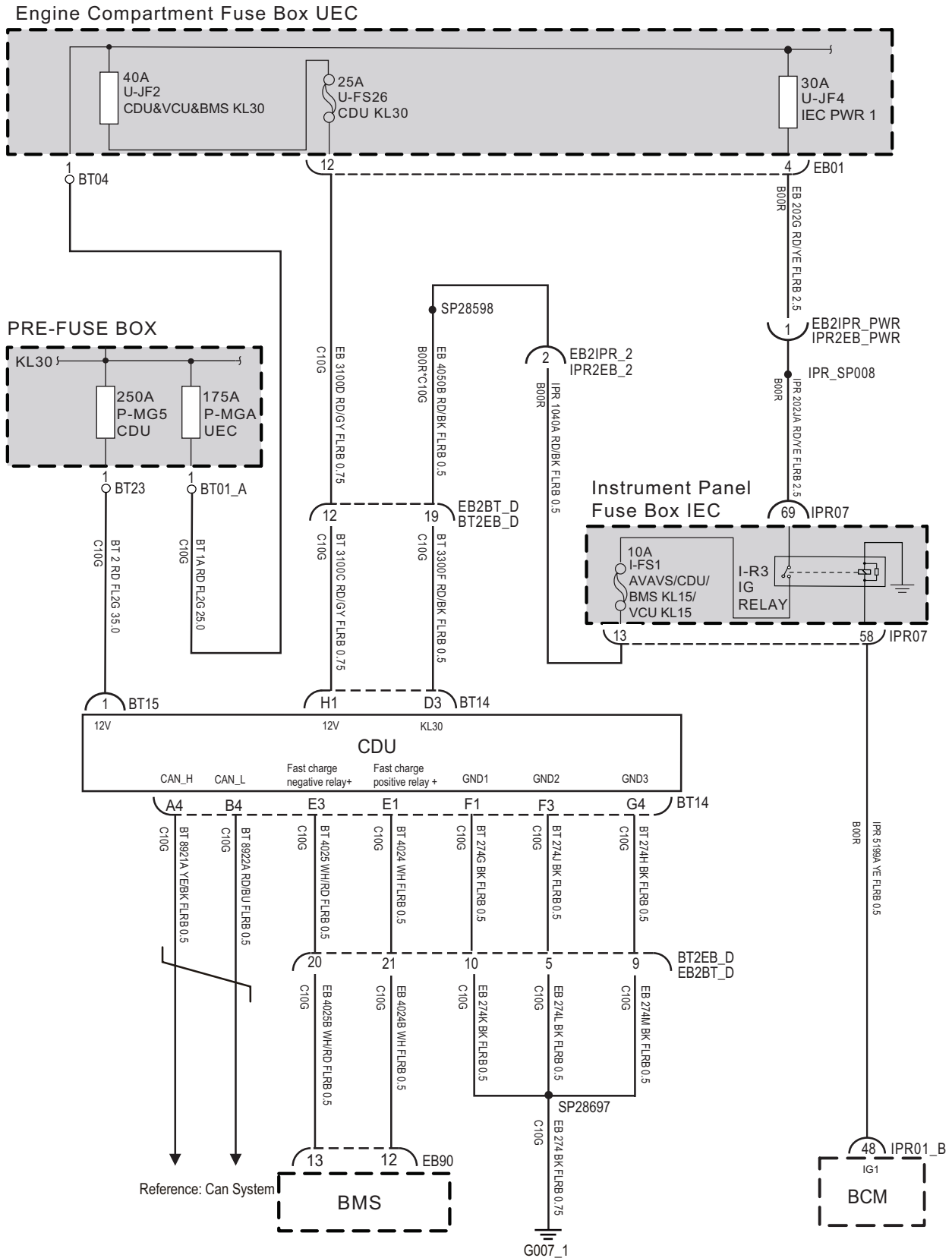


5.11.2 Battery management system 2

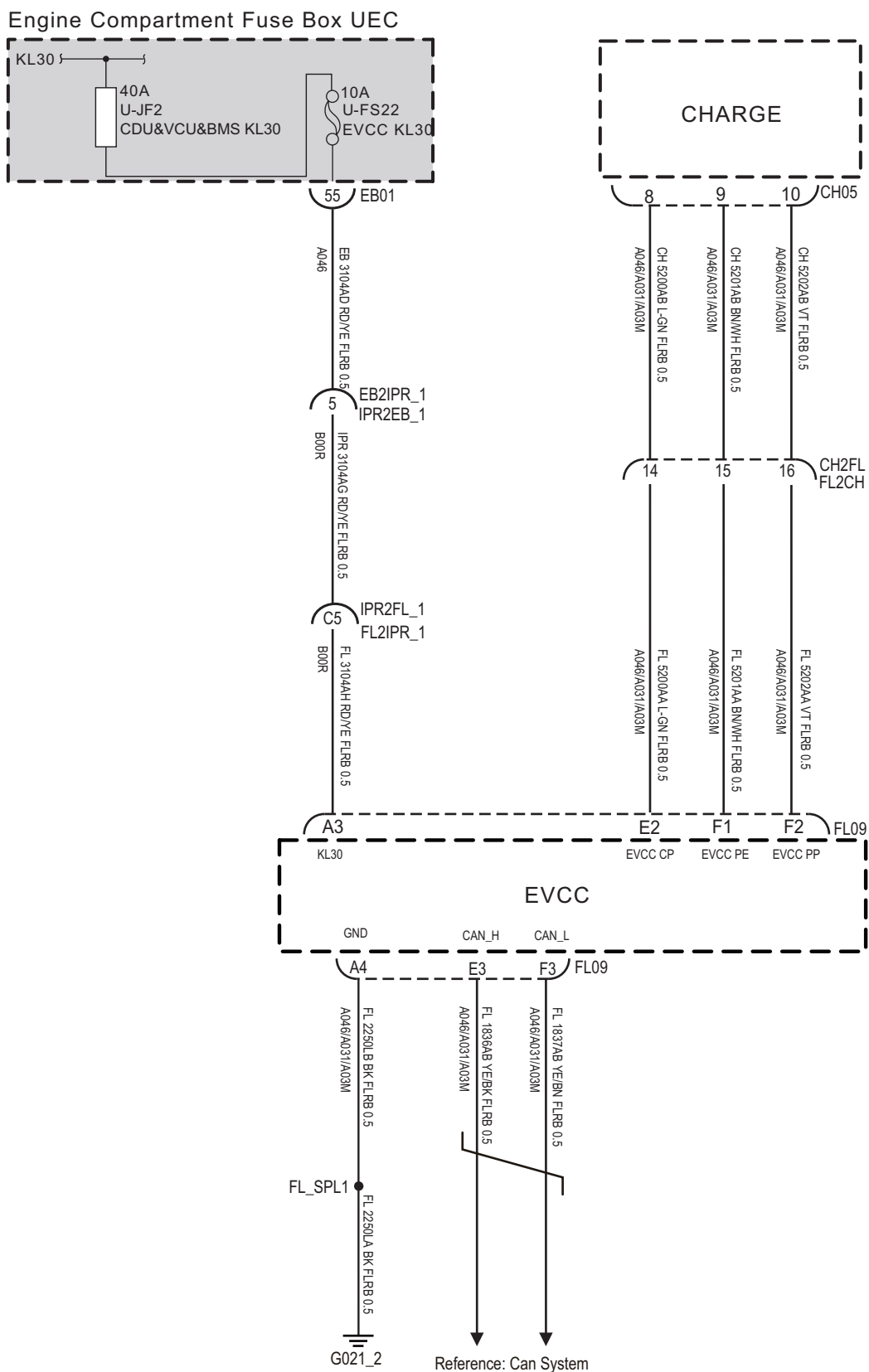


5.12 Charging system

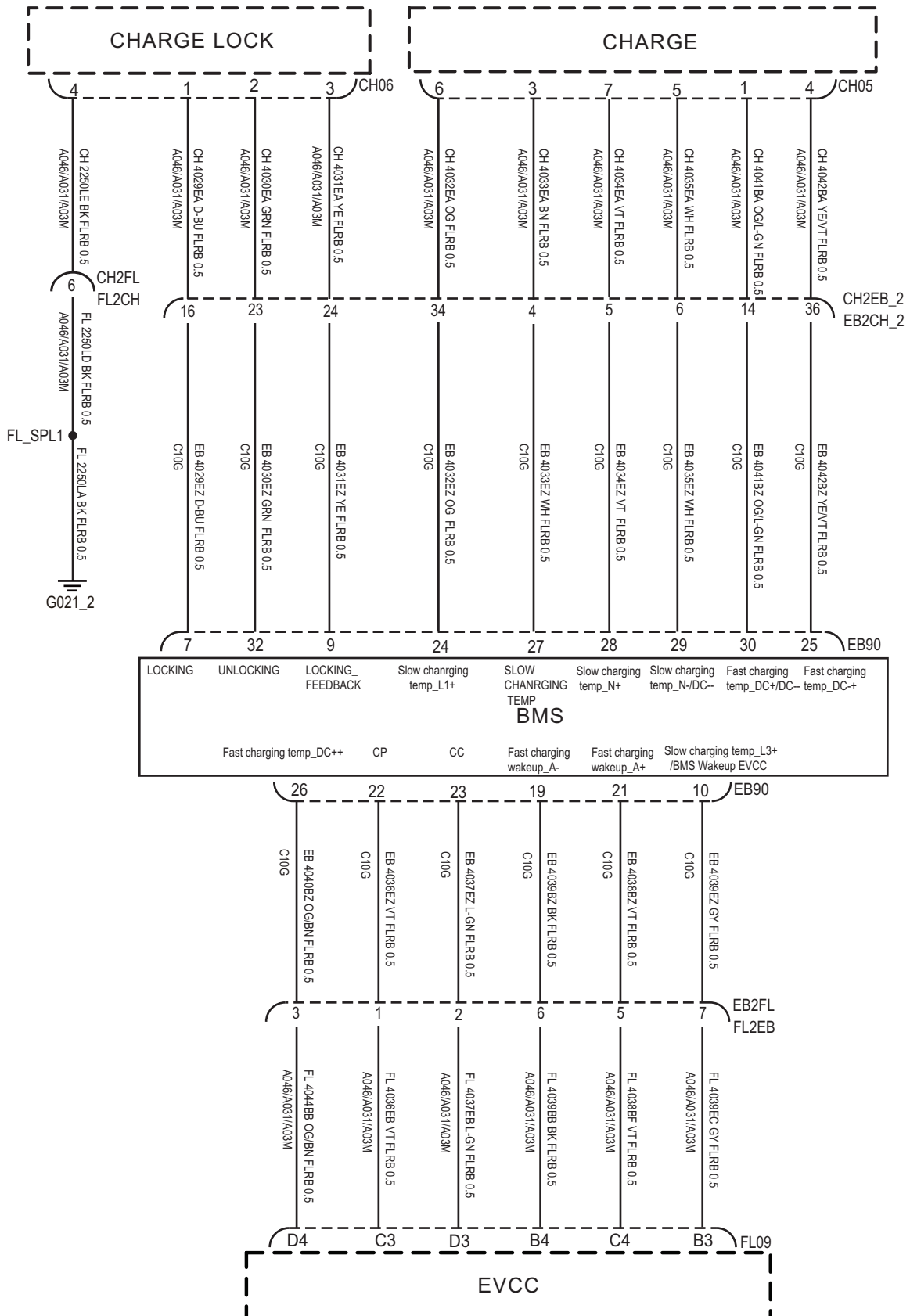
5.12.1 Charging system 1



5.12.2 Charging system 2



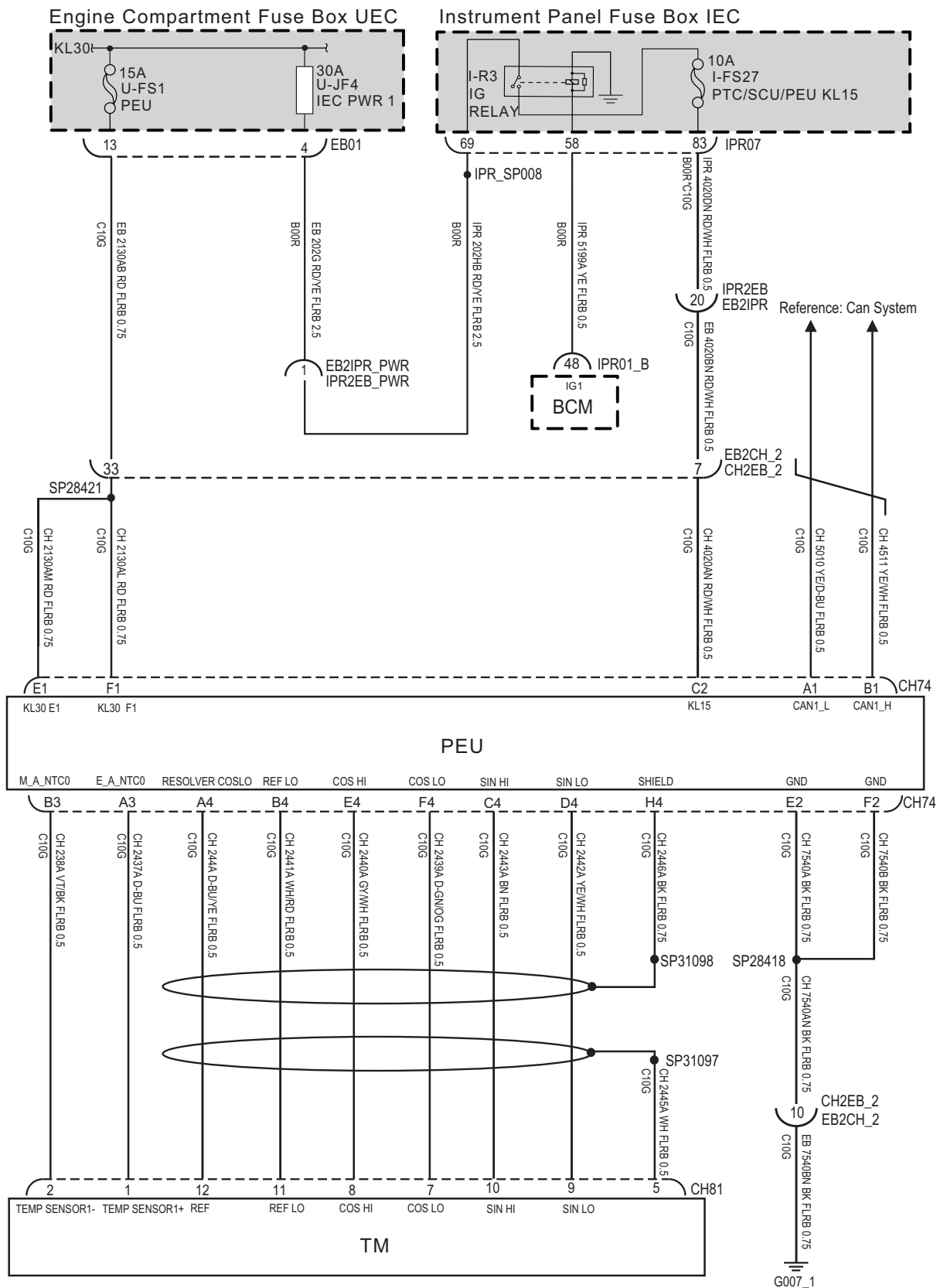
5.12.3 Charging system 3



电路图 5-154

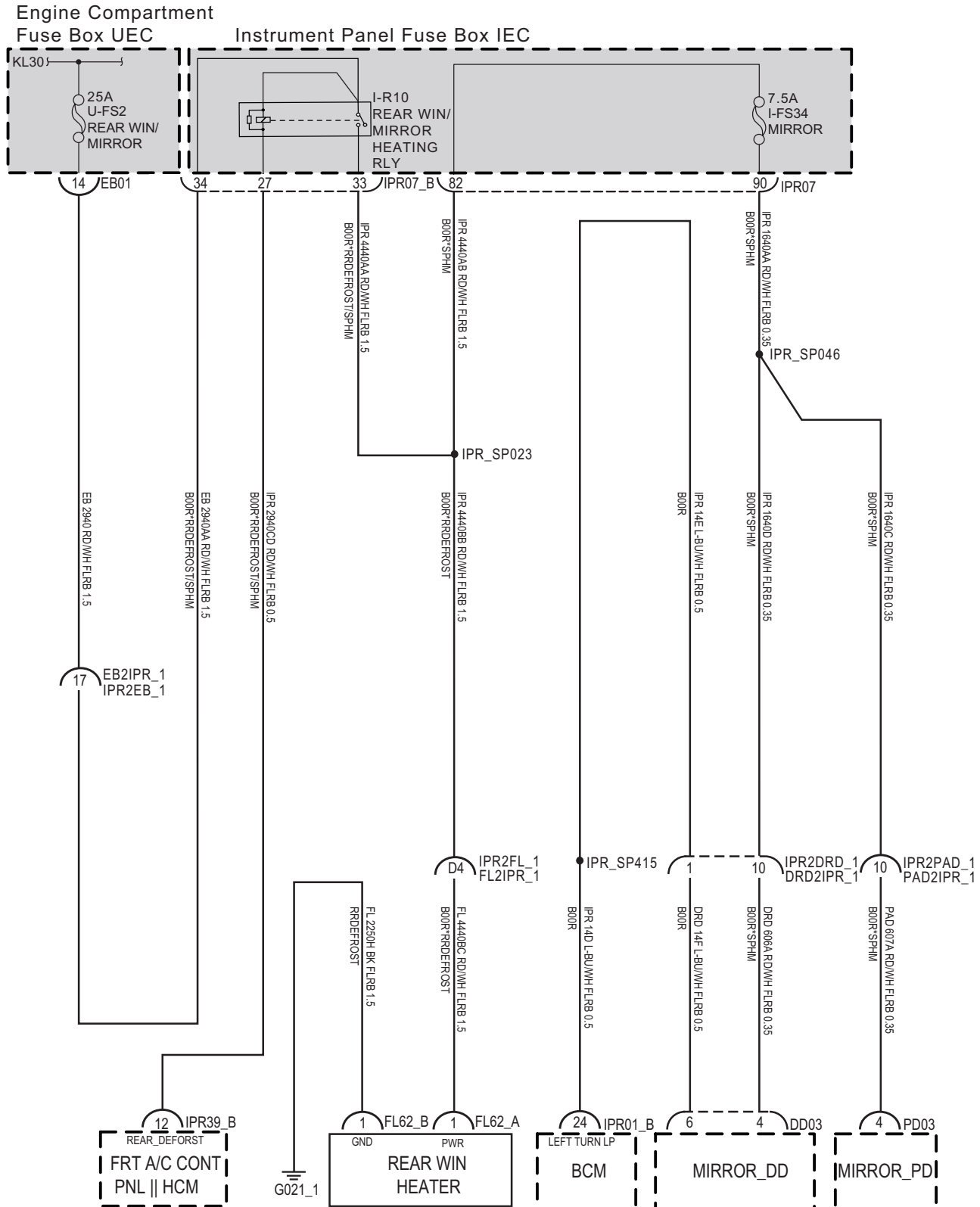
5.13 Drive system (motor controller)

5.13.1 Drive system (motor controller)



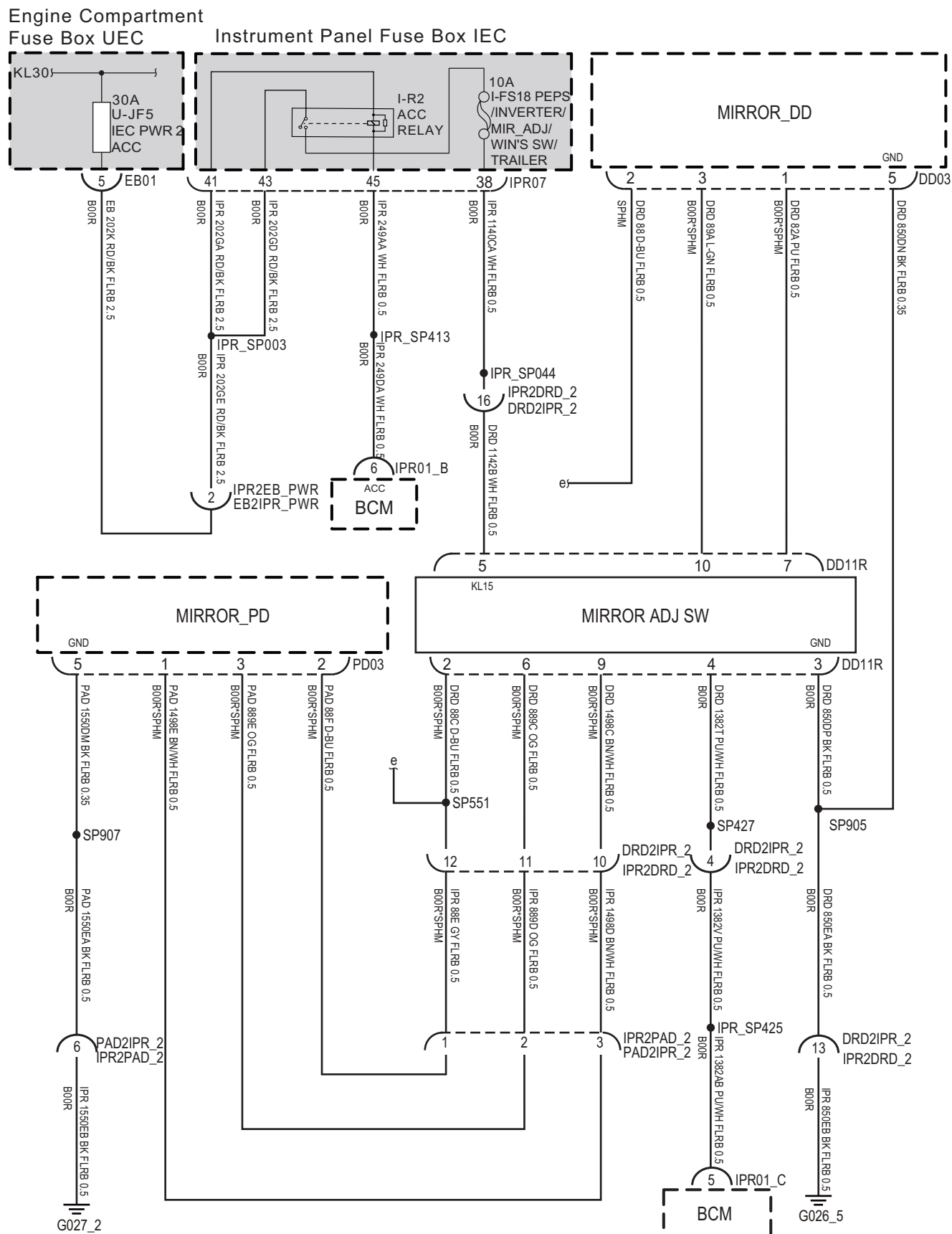
5.14 Rear view mirror system

5.14.1 Rear view mirror system 1



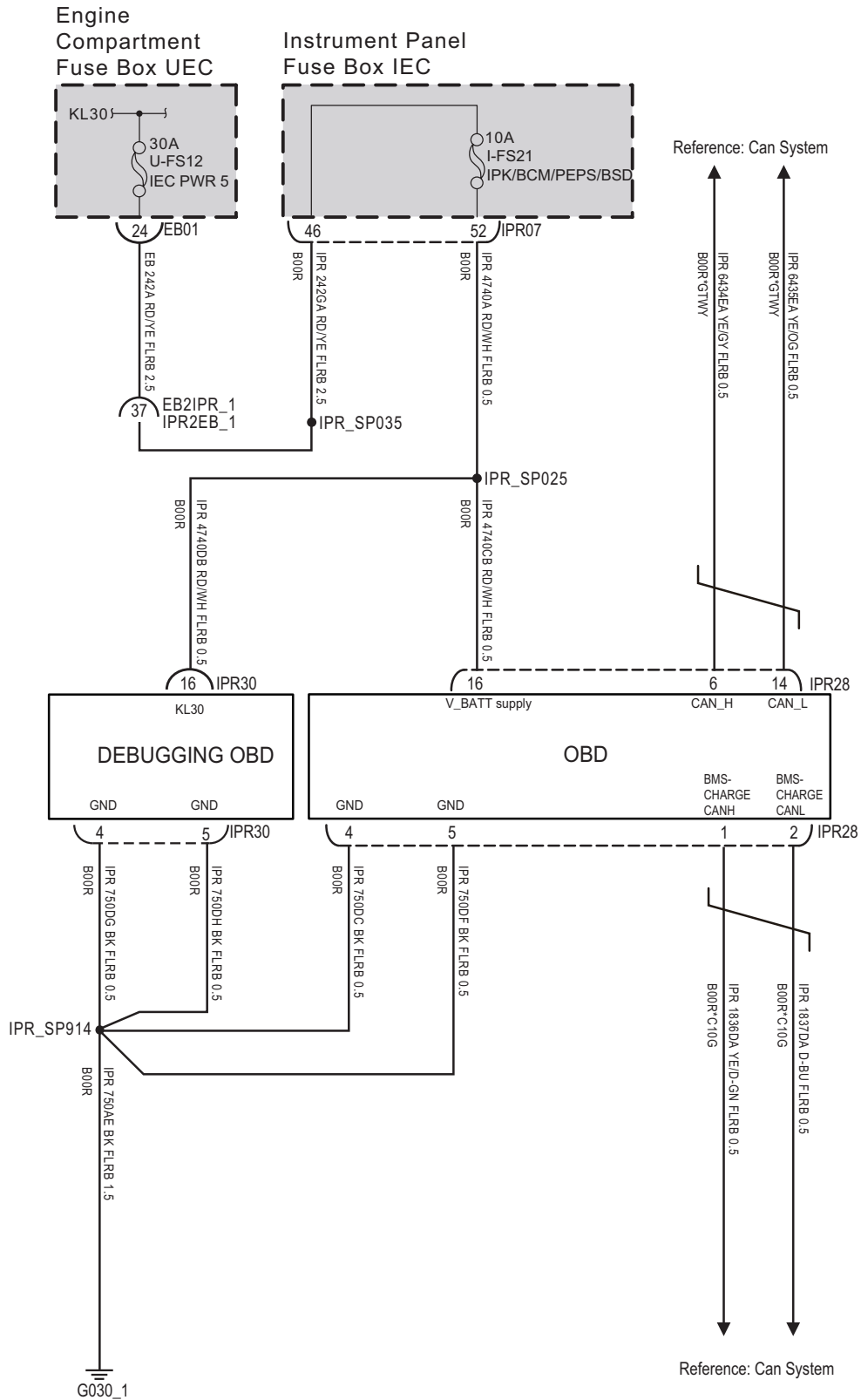
电路图 5-156

5.14.2 Rear view mirror system 2



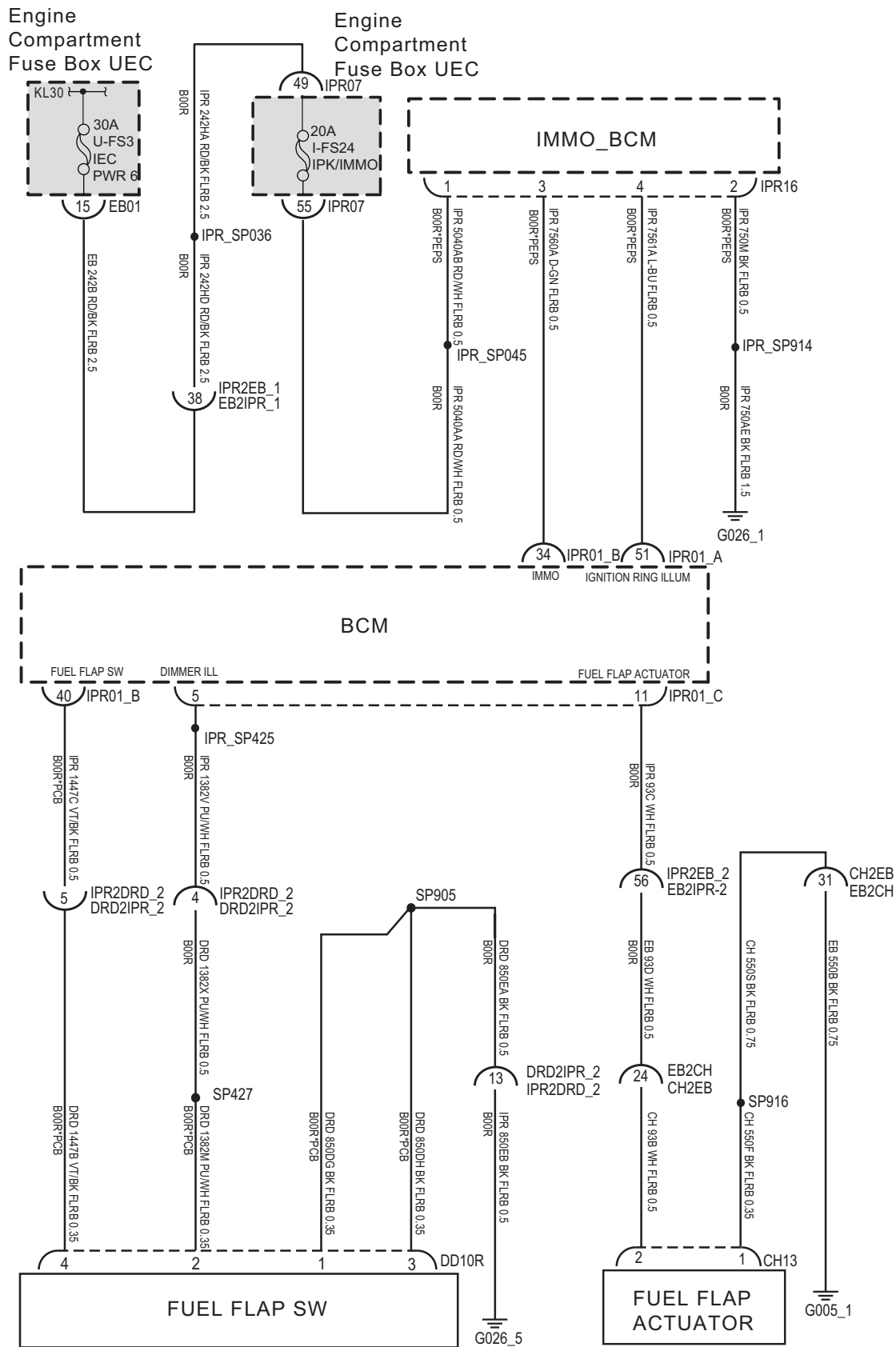
5.15 Debug diagnostic system

5.15.1 Debug diagnostic system

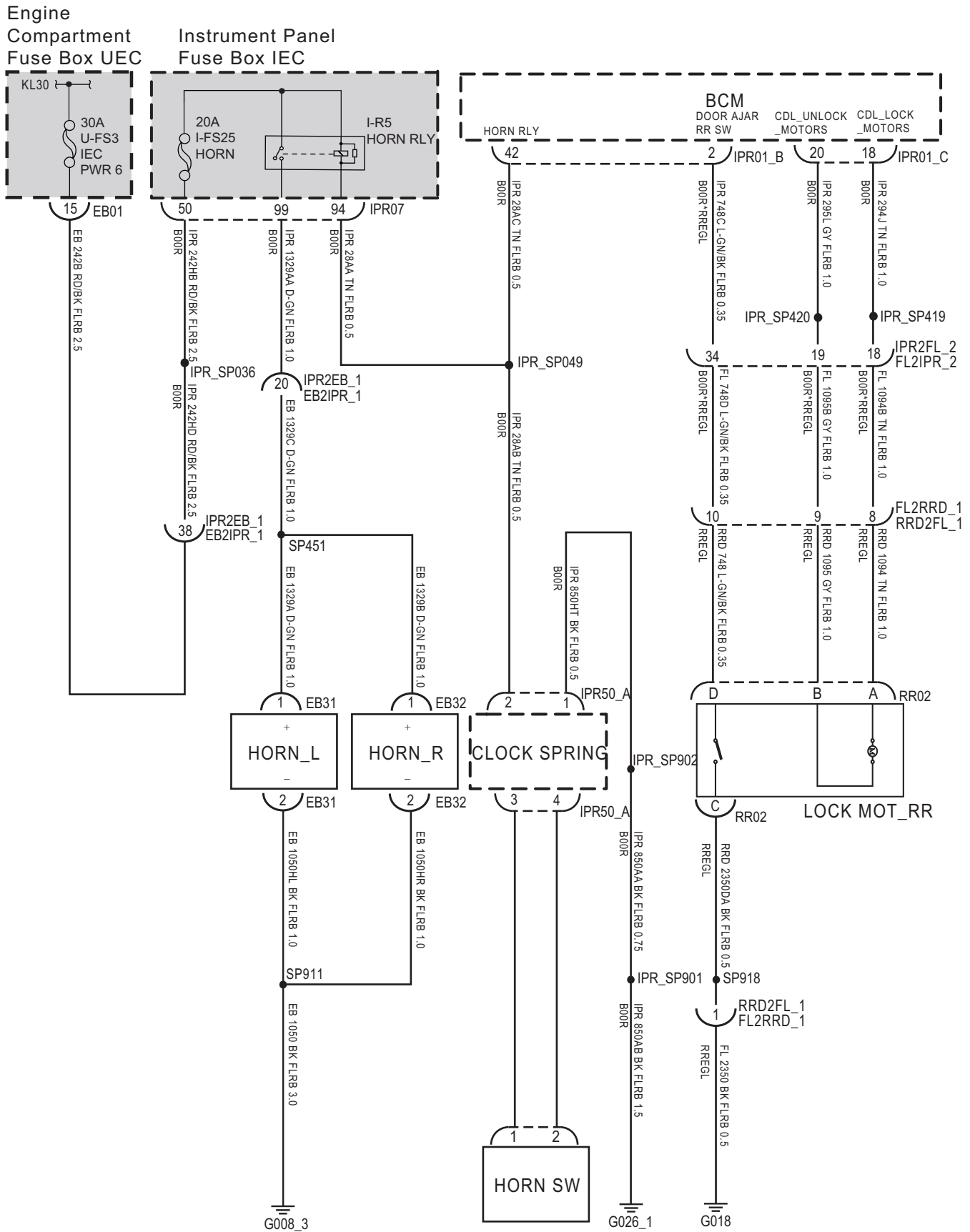


5.16 Anti theft system

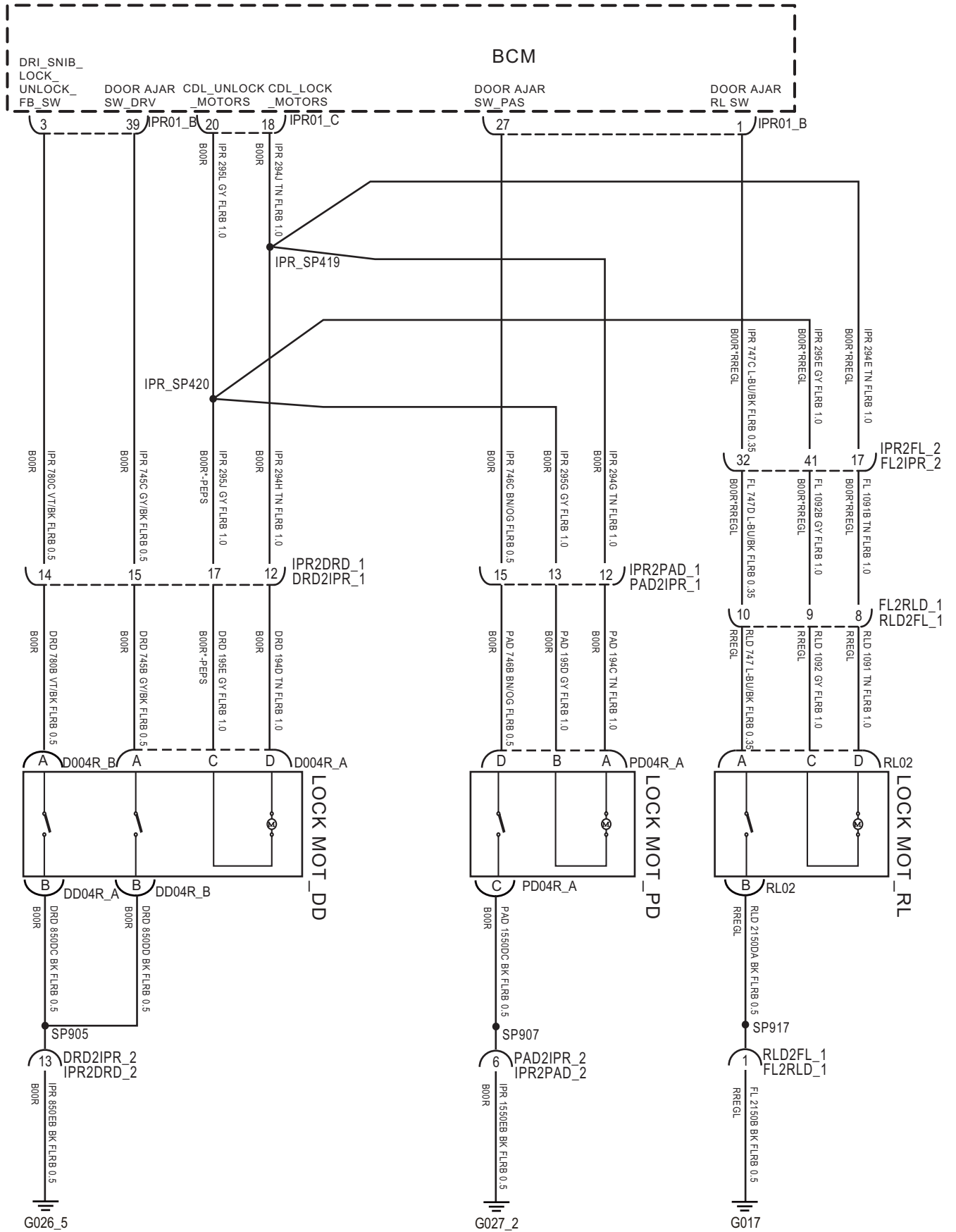
5.16.1 Anti theft system 1



5.16.2 Anti theft system 2

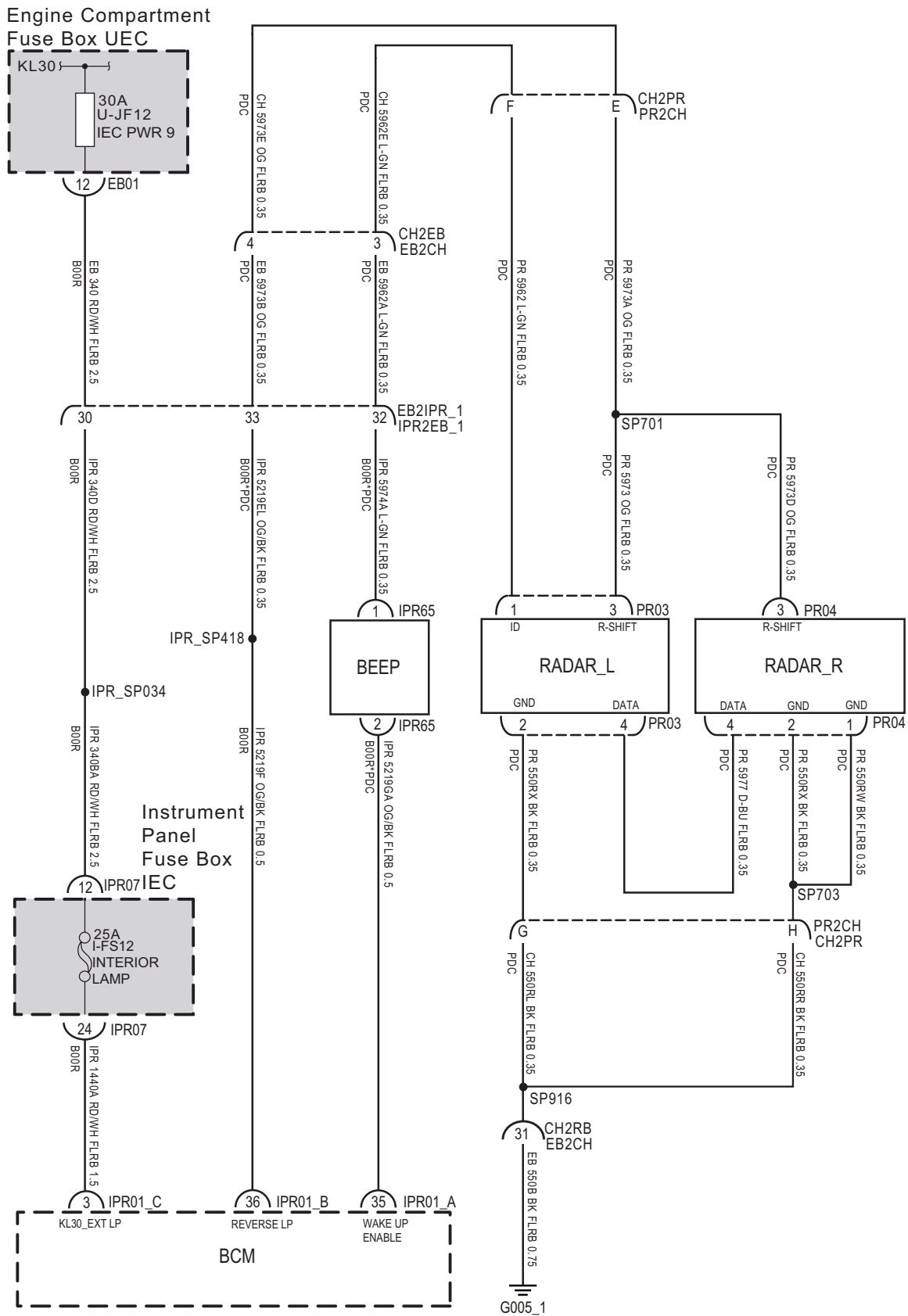


5.16.3 Anti theft system 3



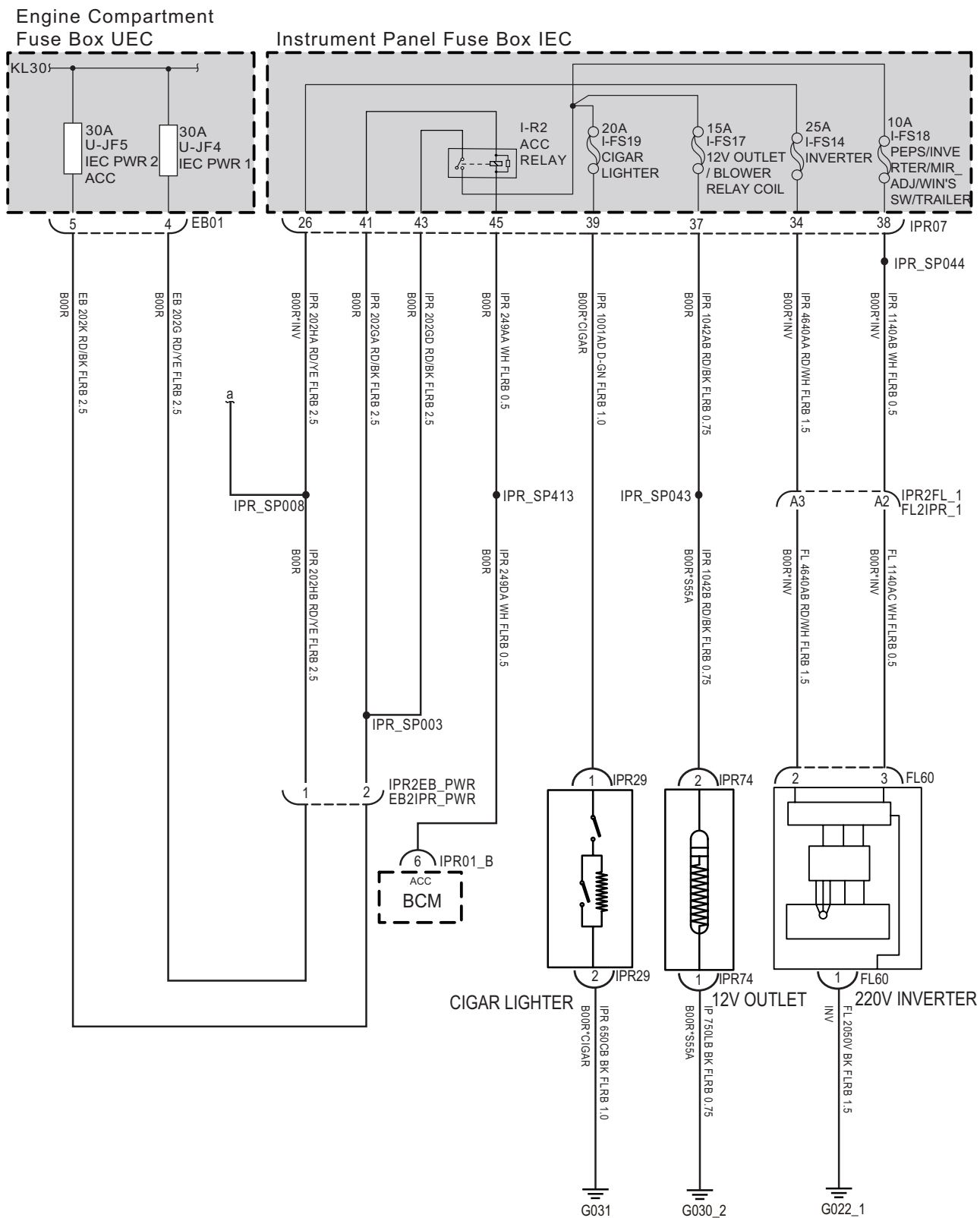
5.17 Parking aid system

5.17.1 Parking aid system

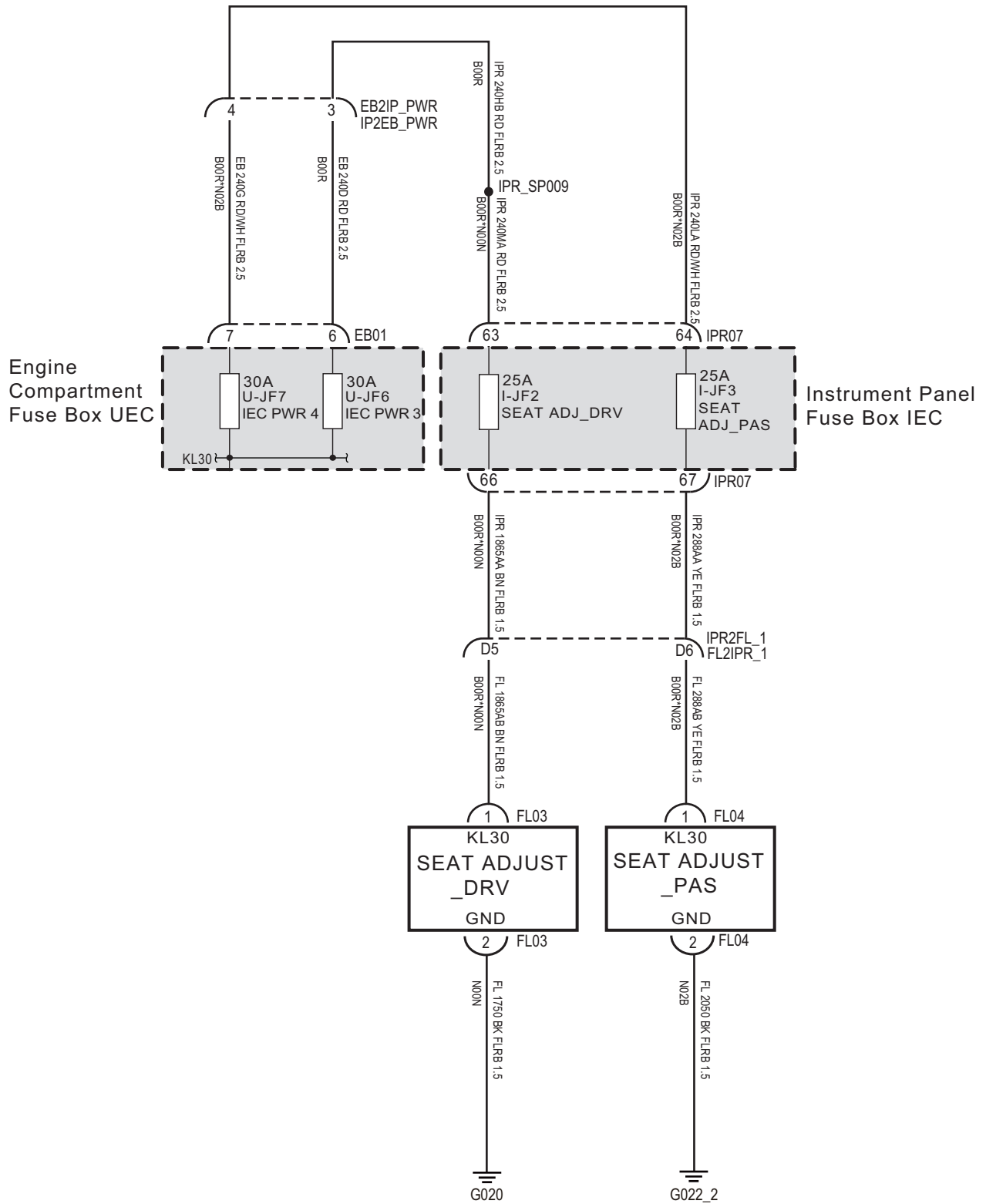


5.18 Auxiliary equipment

5.18.1 Auxiliary equipment 1

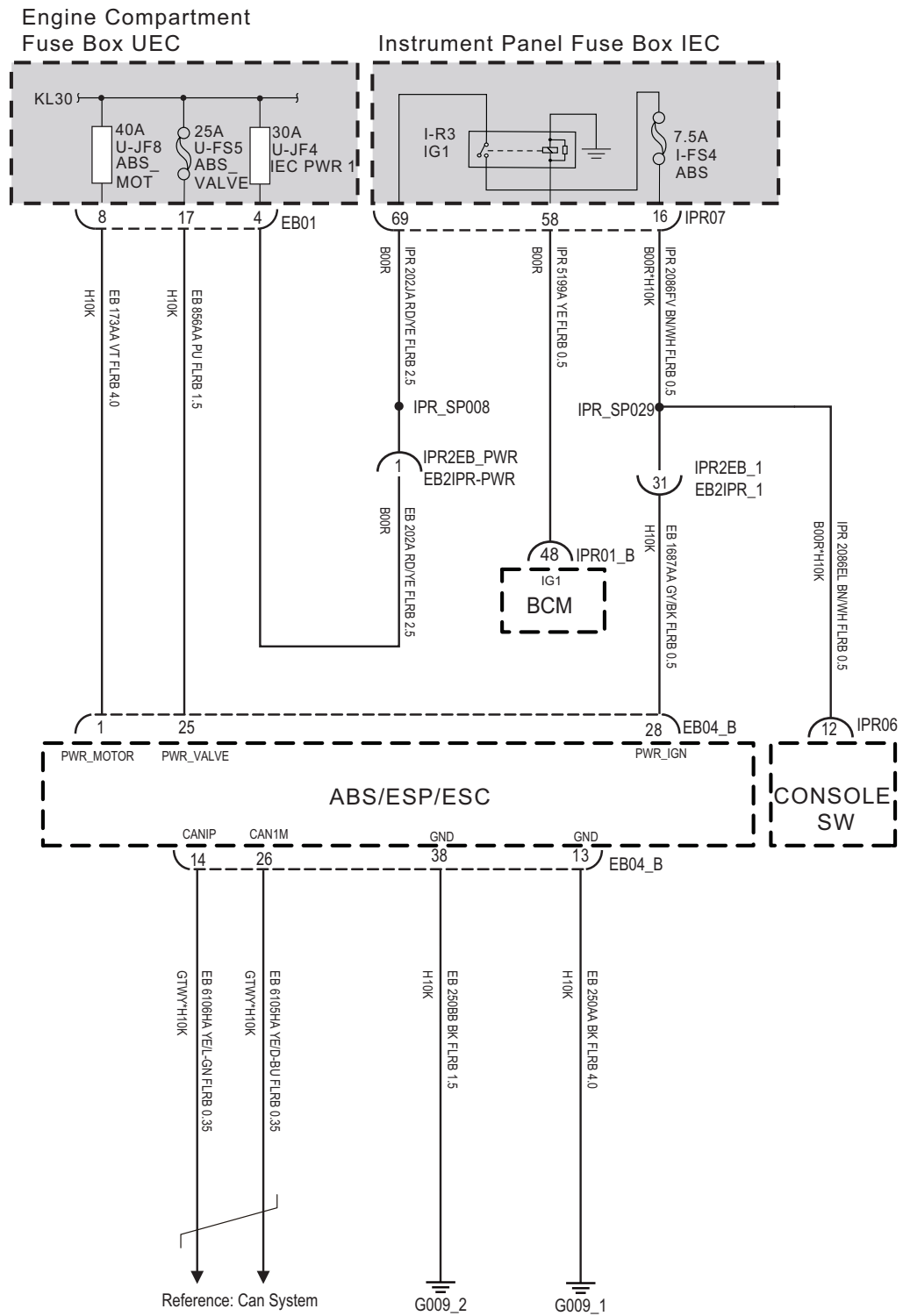


5.18.2 Auxiliary equipment 2

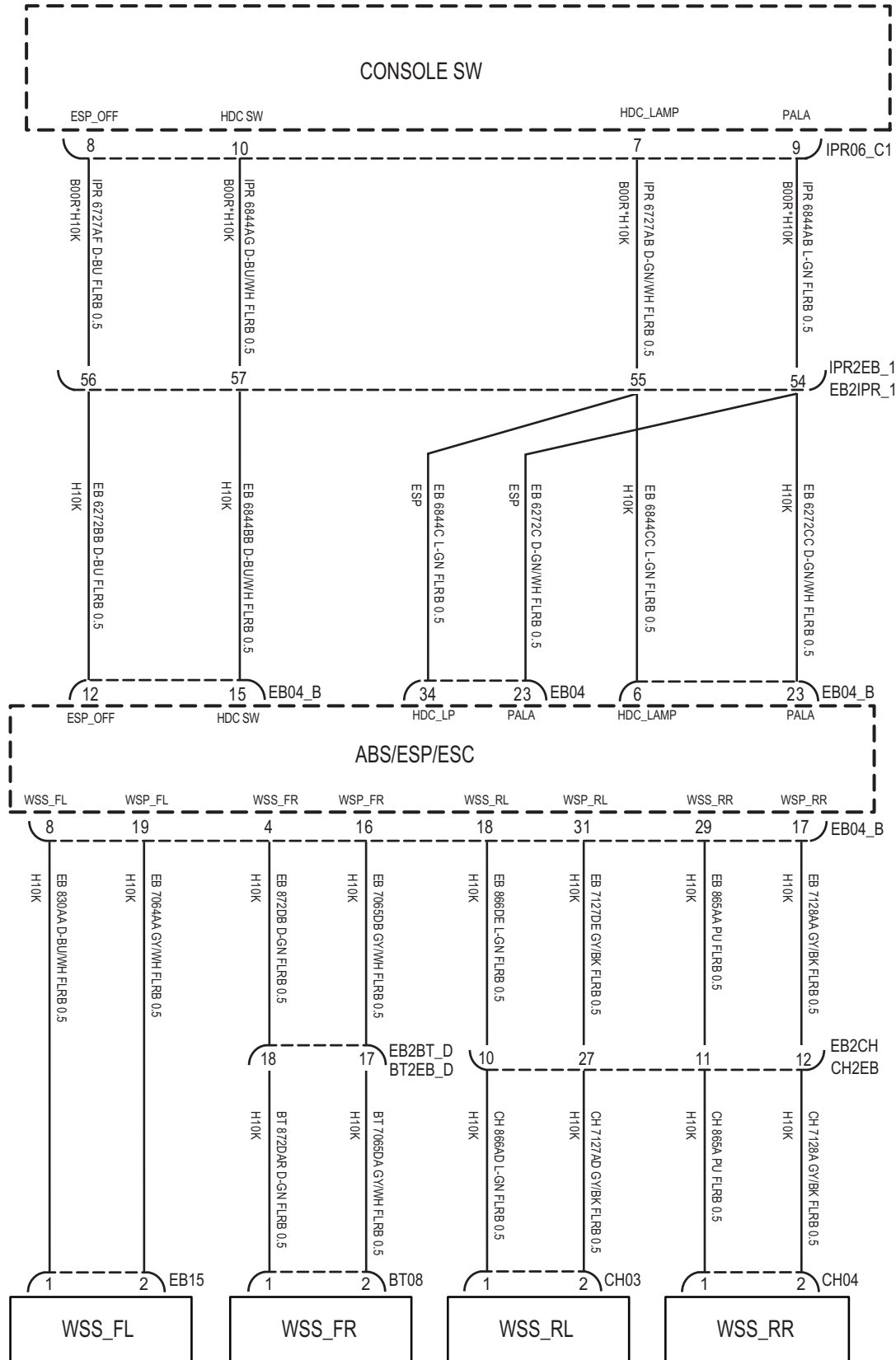


5. 19 Braking system

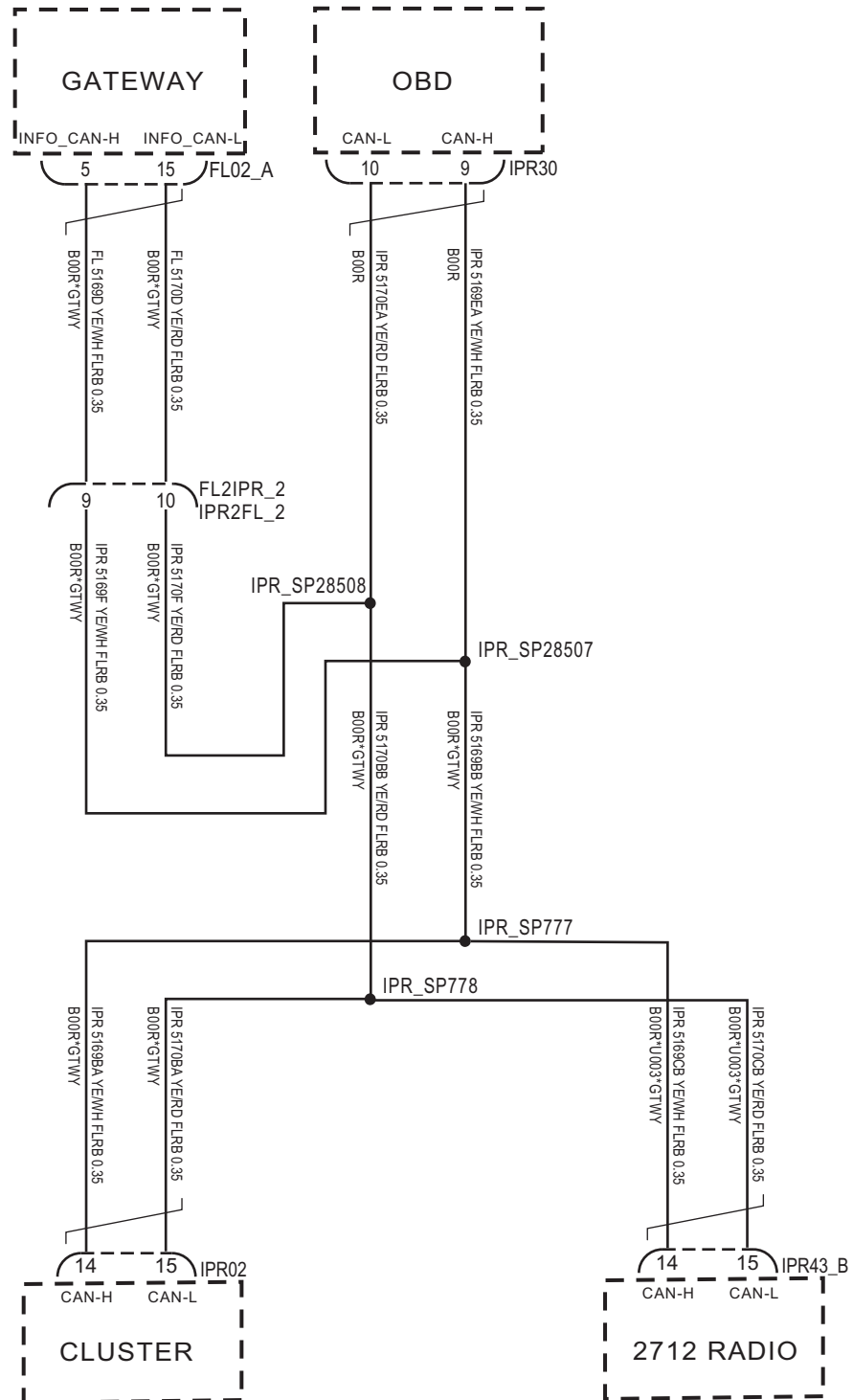
5. 19. 1 Braking system 1



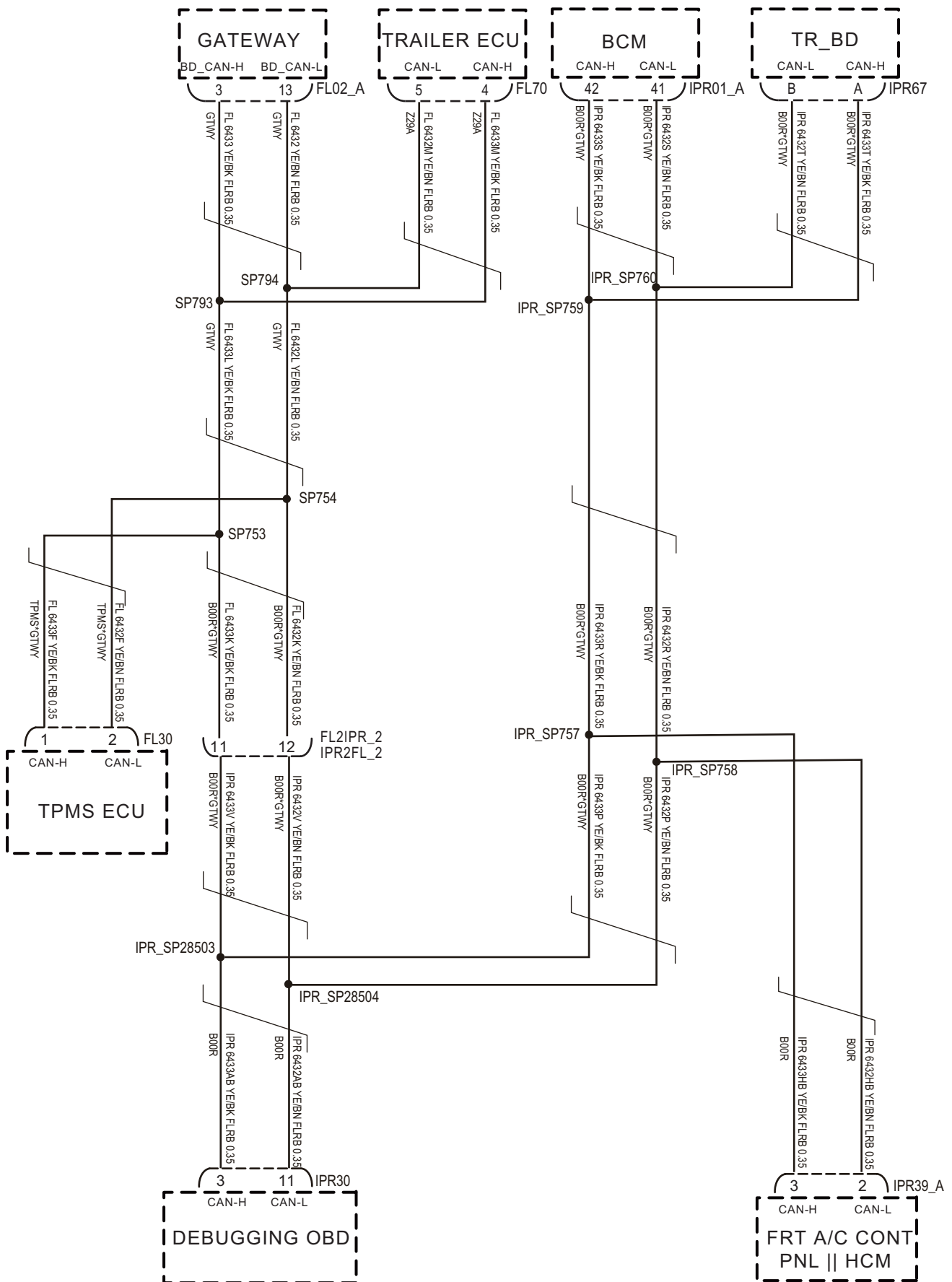
5.19.2 Braking system 2



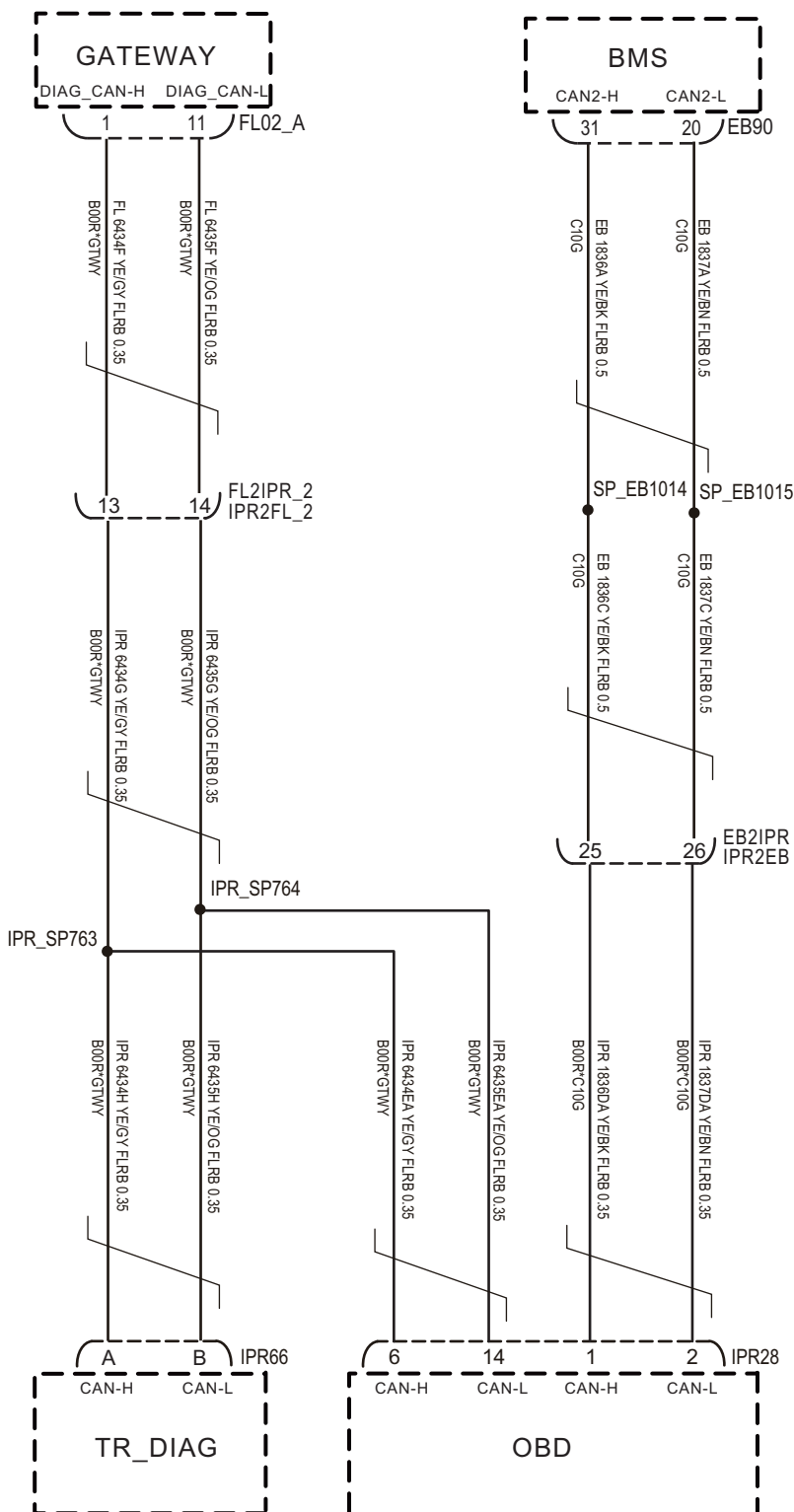
5.20.2 CAN data communication system 2



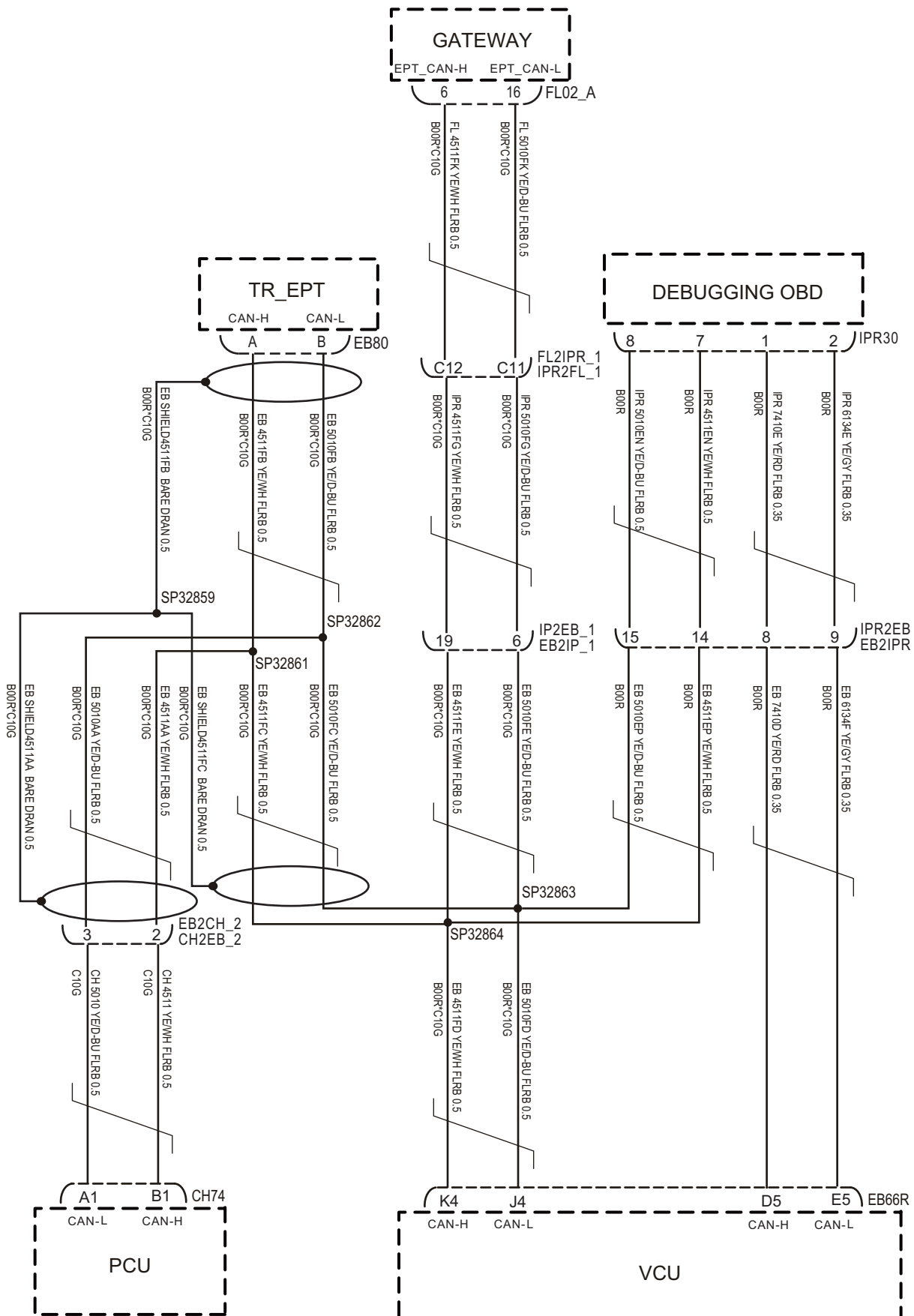
5.20.3 CAN data communication system 3



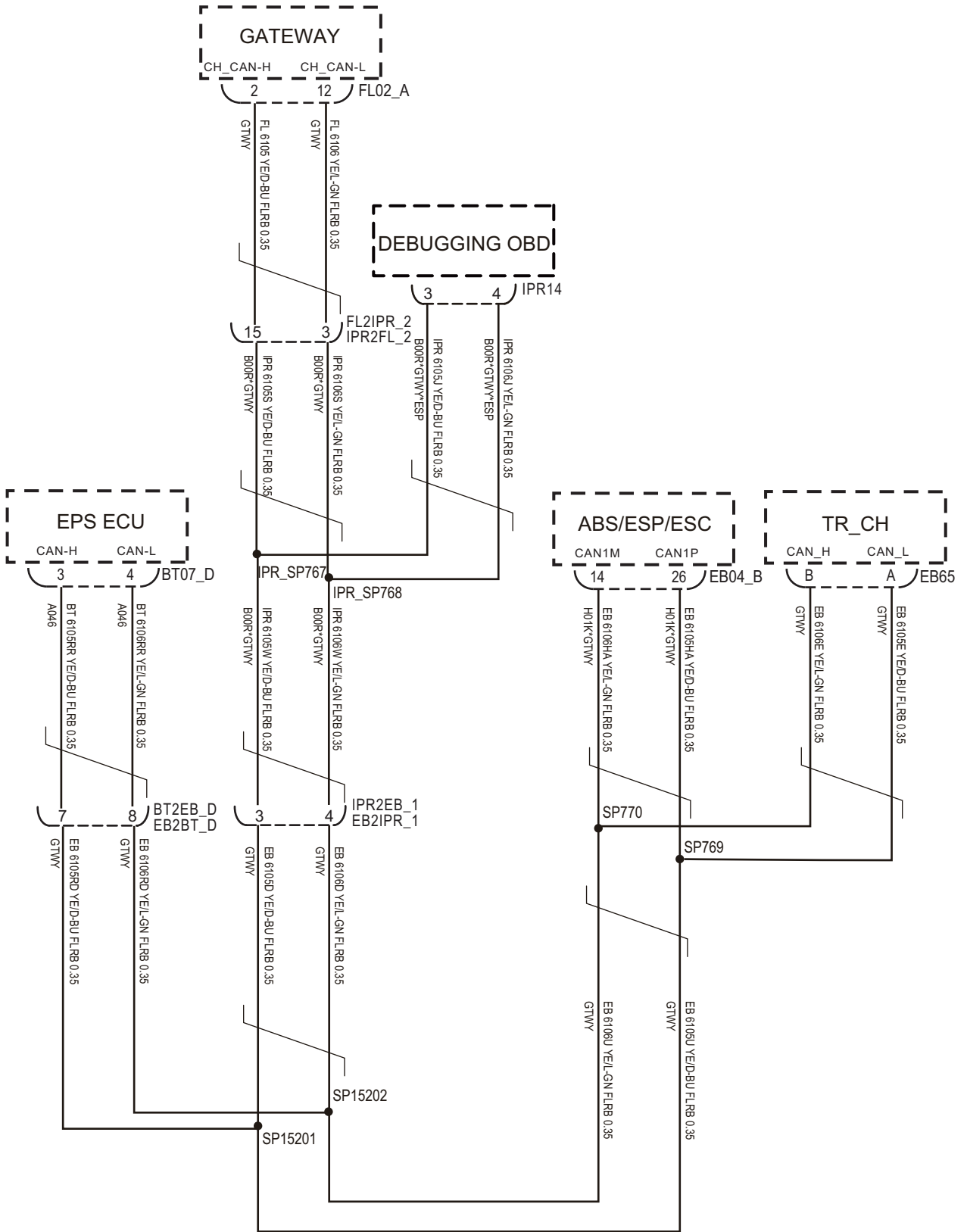
5.20.4 CAN data communication system 4



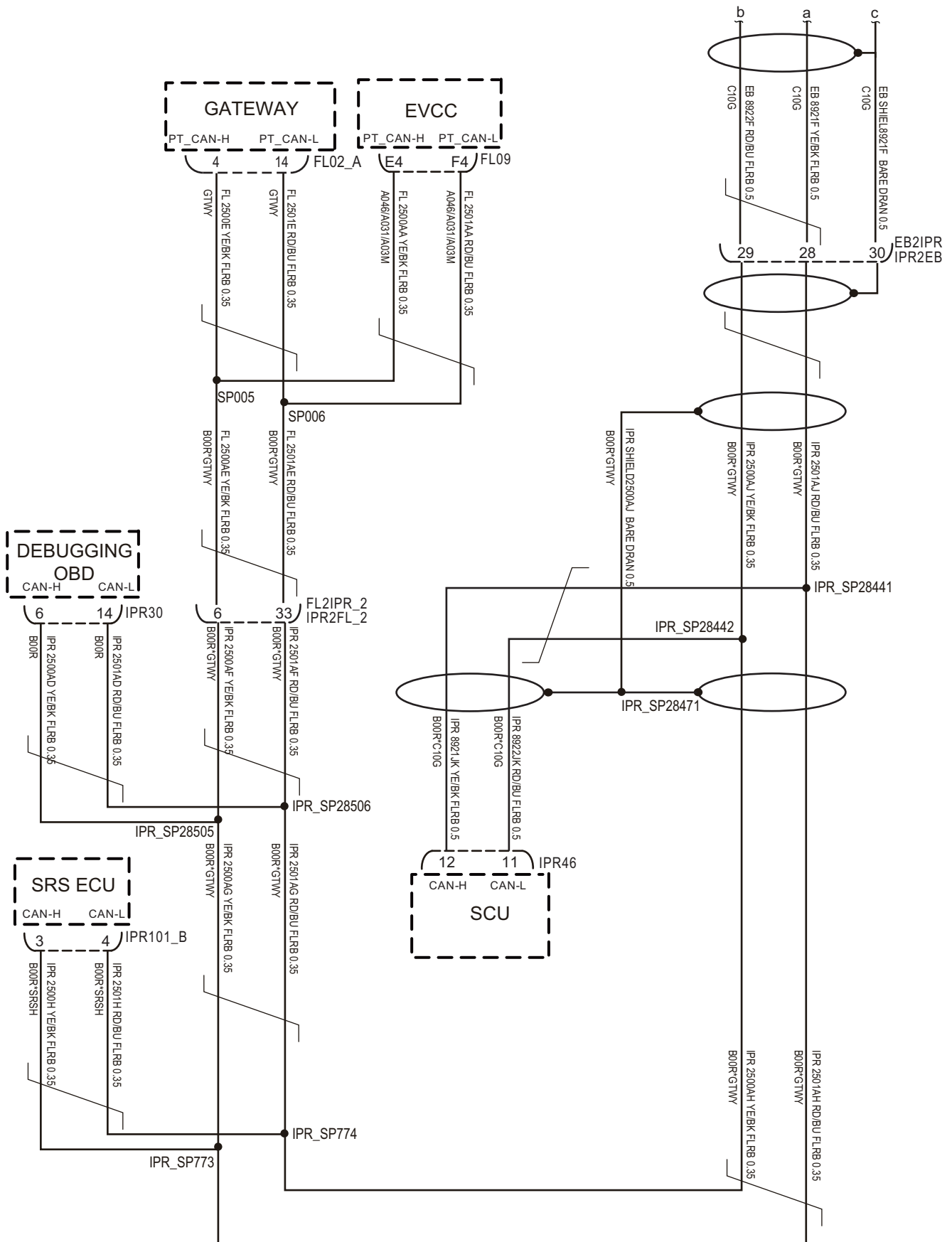
5.20.5 CAN data communication system 5



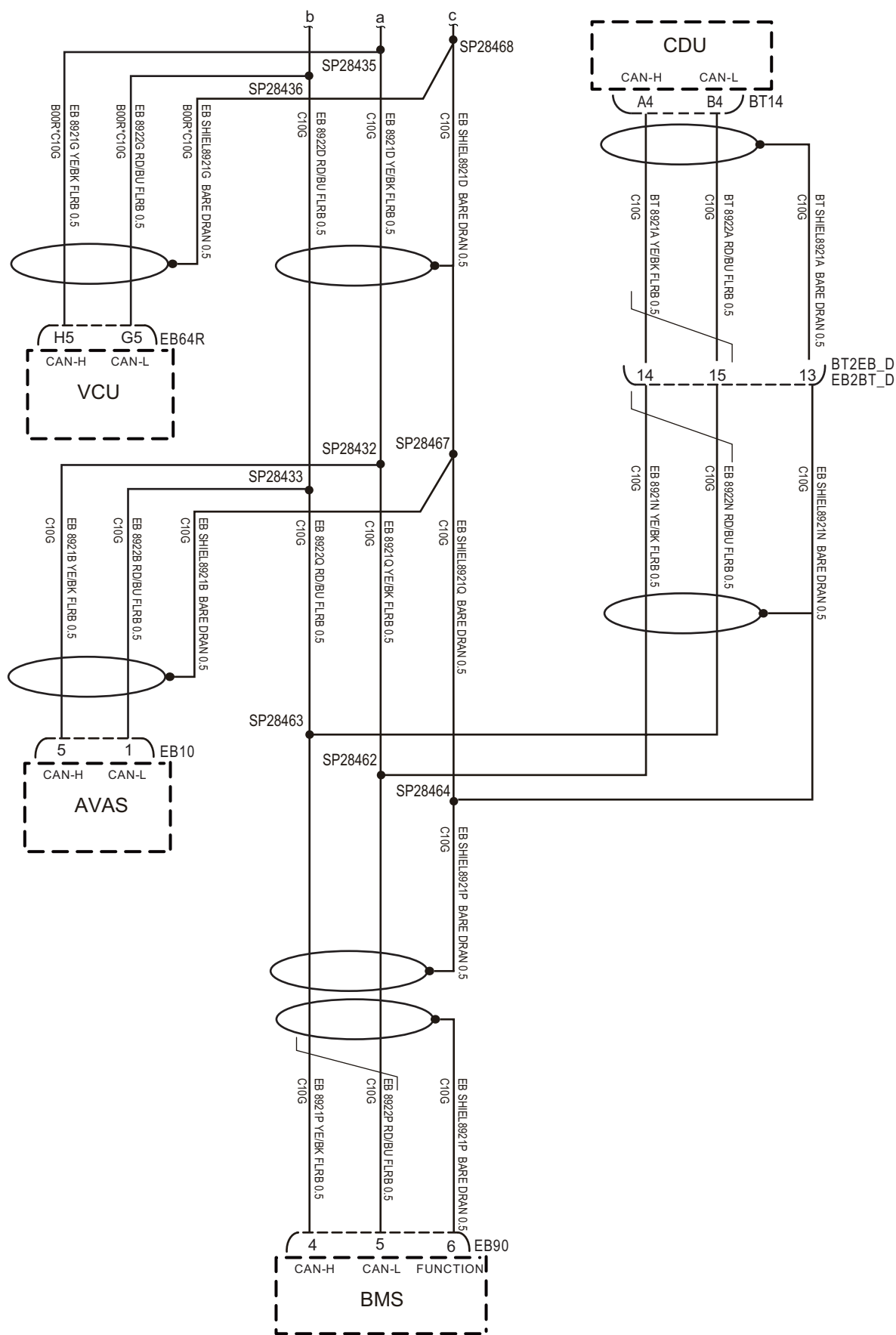
5.20.6 CAN data communication system 6



5.20.7 CAN data communication system 7

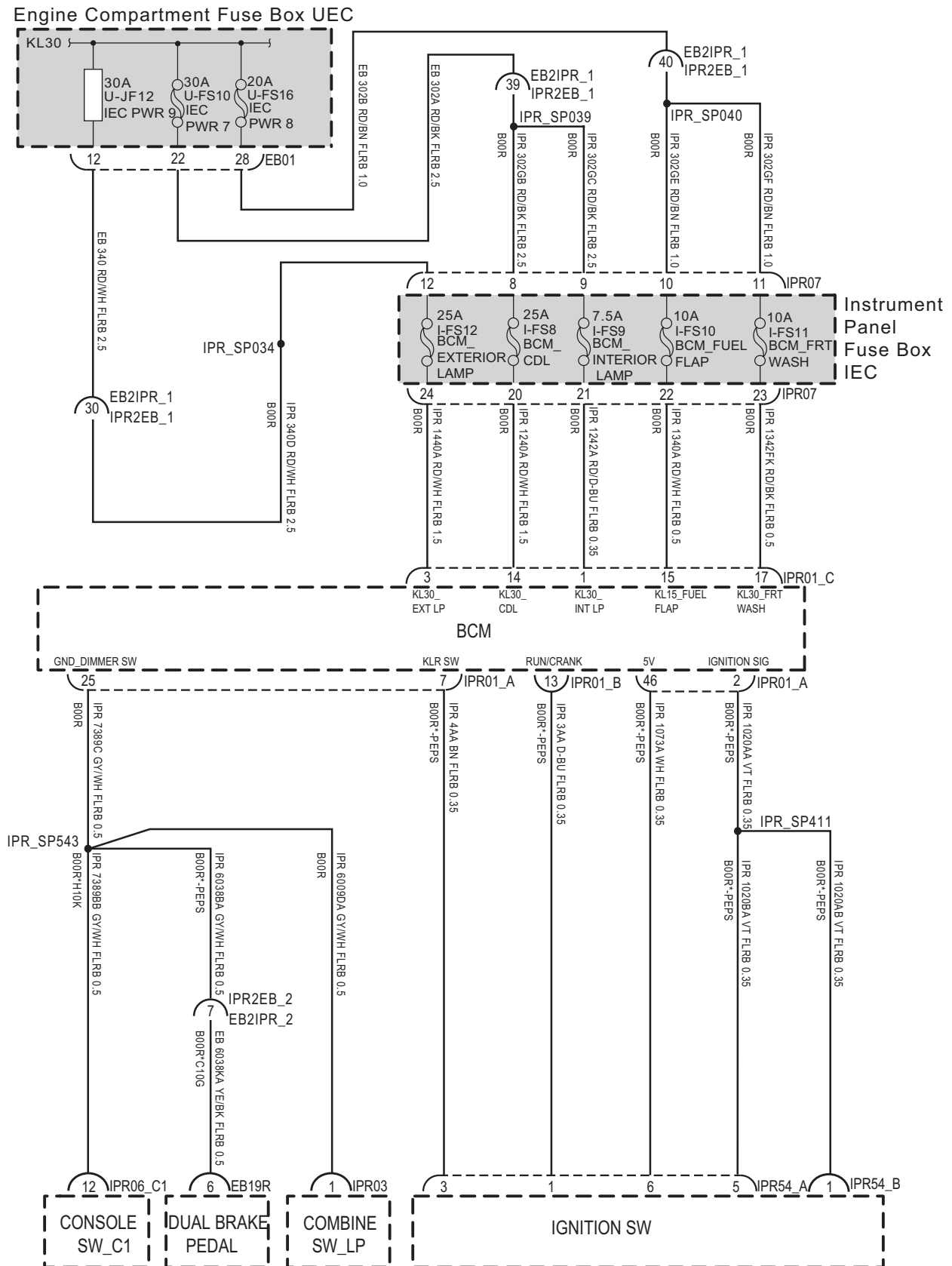


5.20.8 CAN data communication system 8

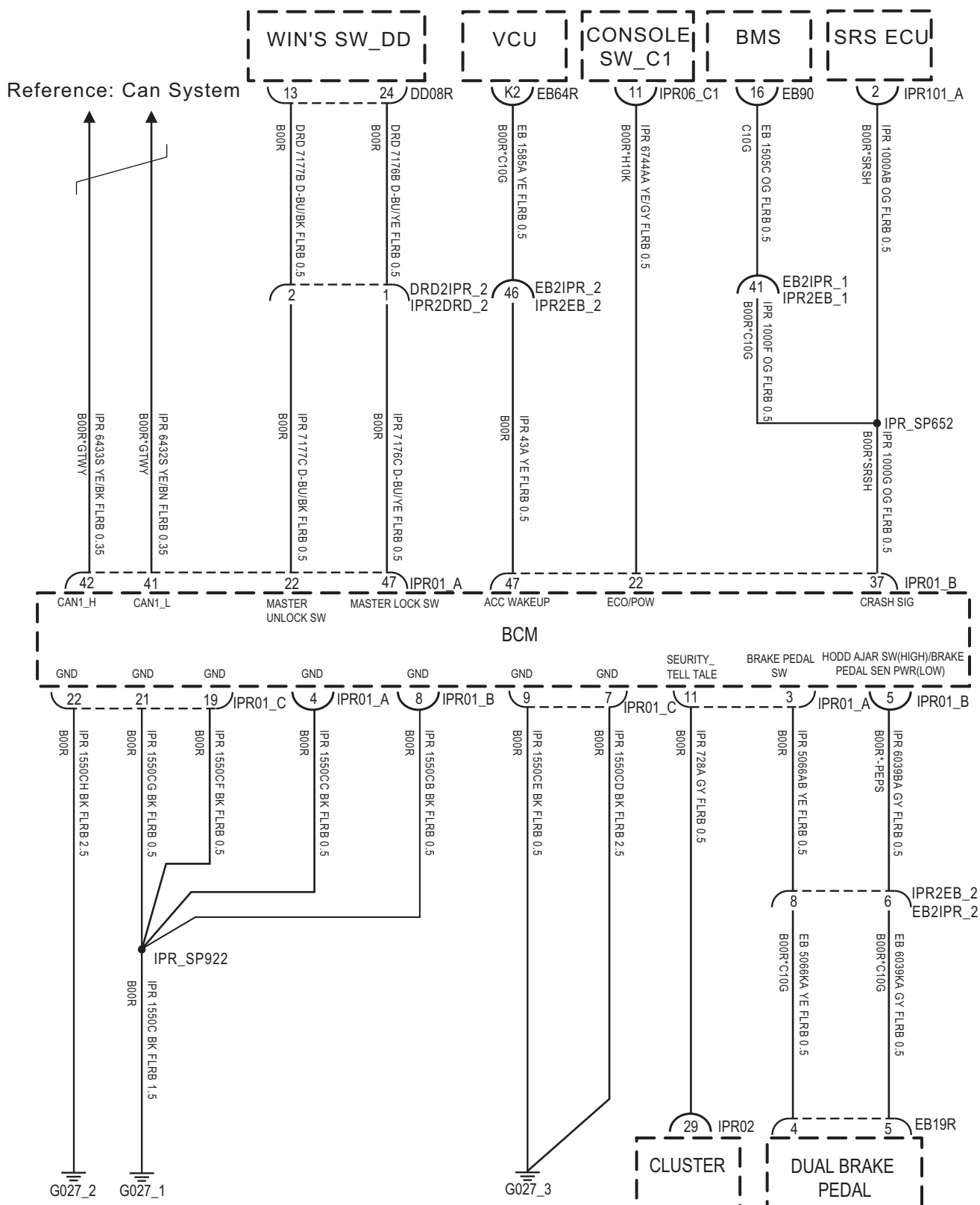


5.21 Body control system

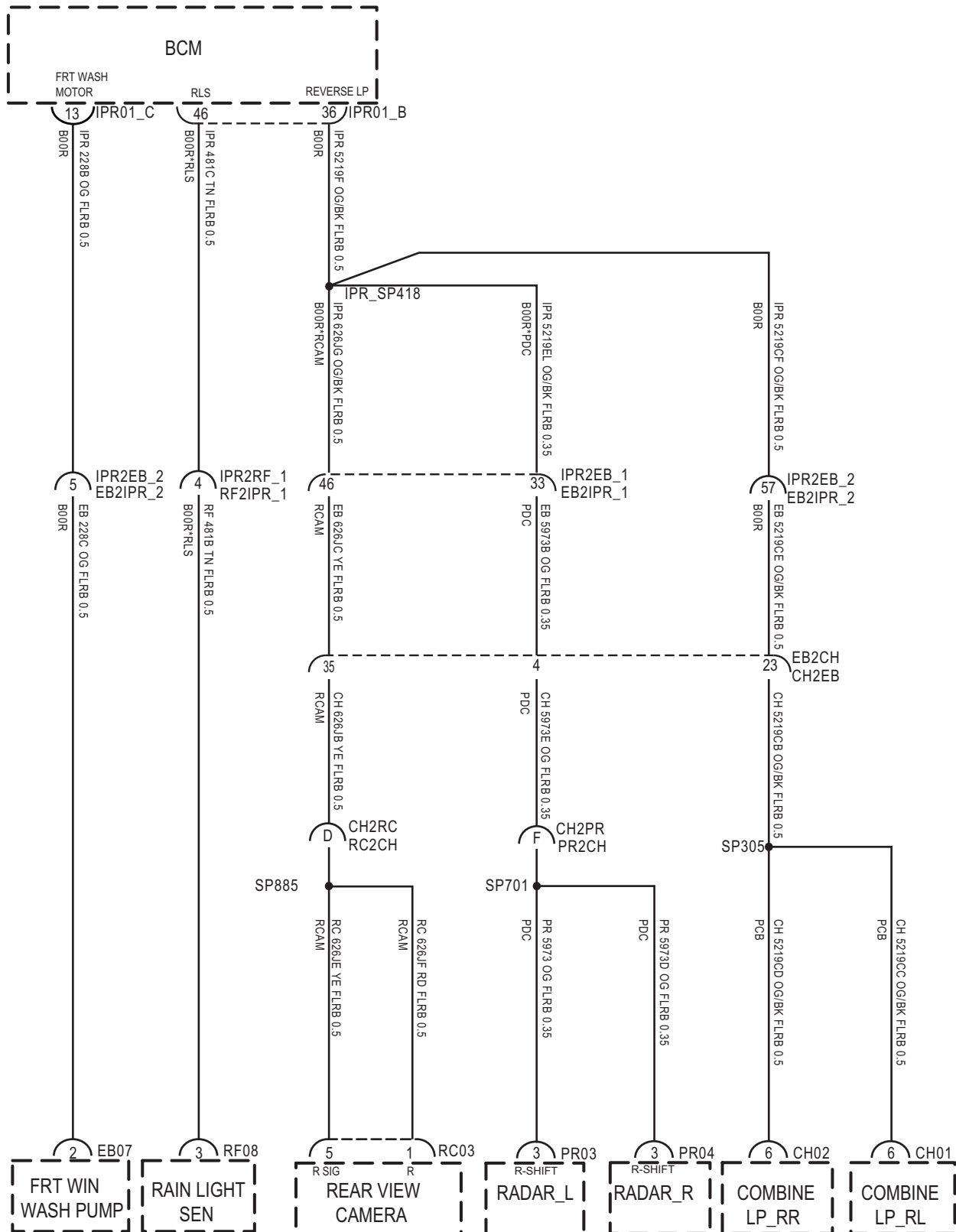
5.21.1 Body control system 1



5.21.2 Body control system 2

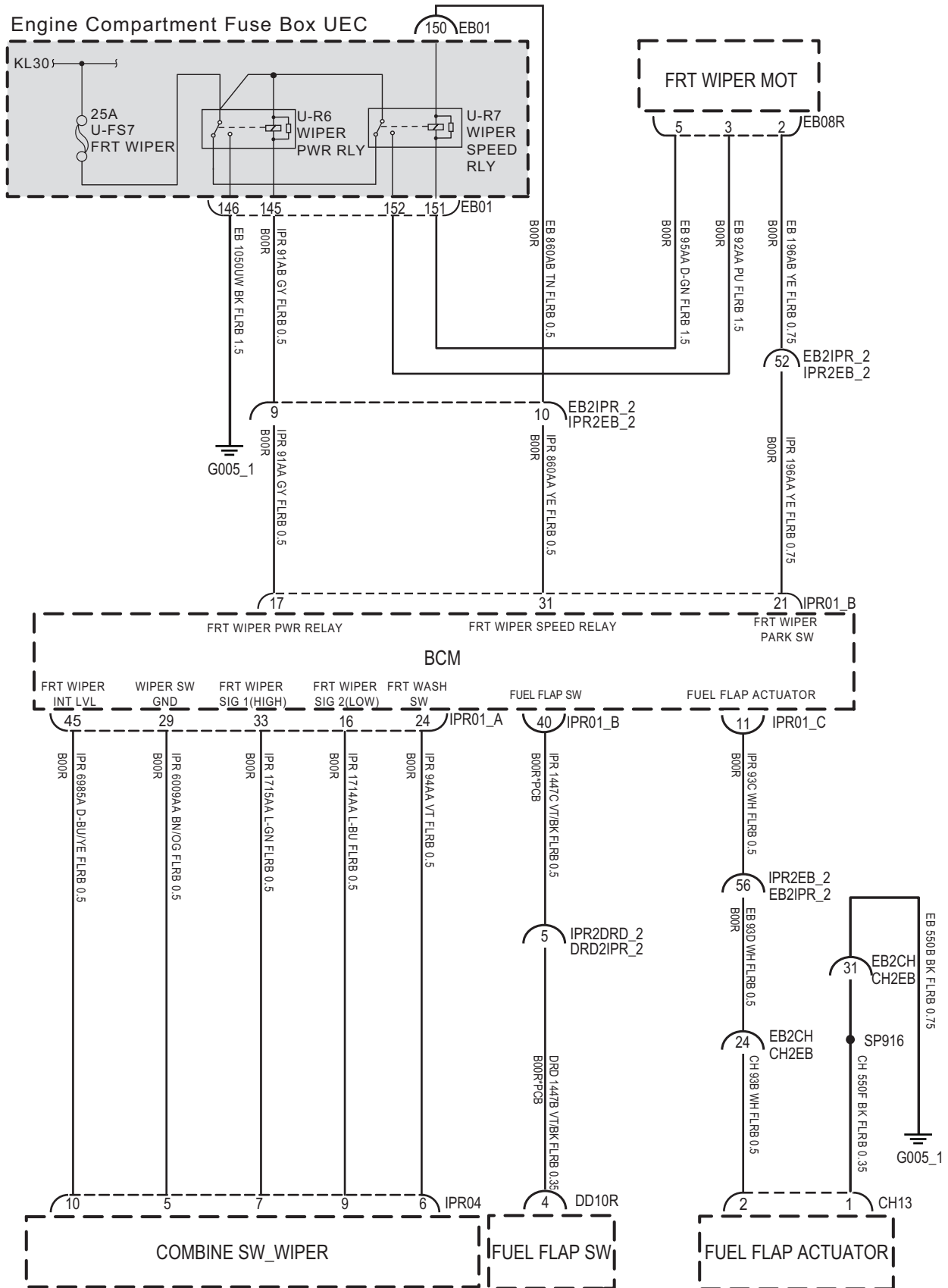


5. 21. 3 Body control system 3

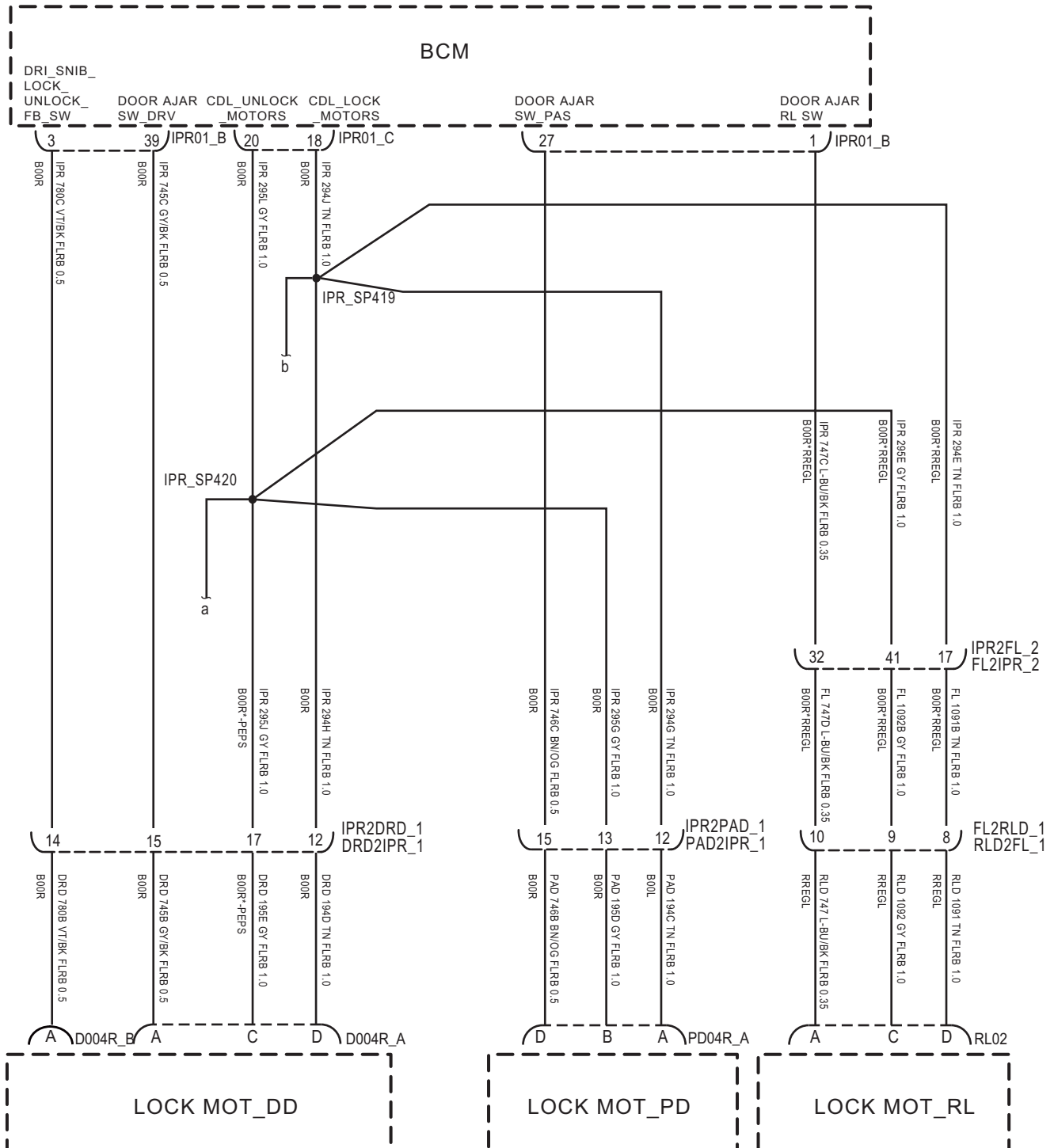


电路图 5-178

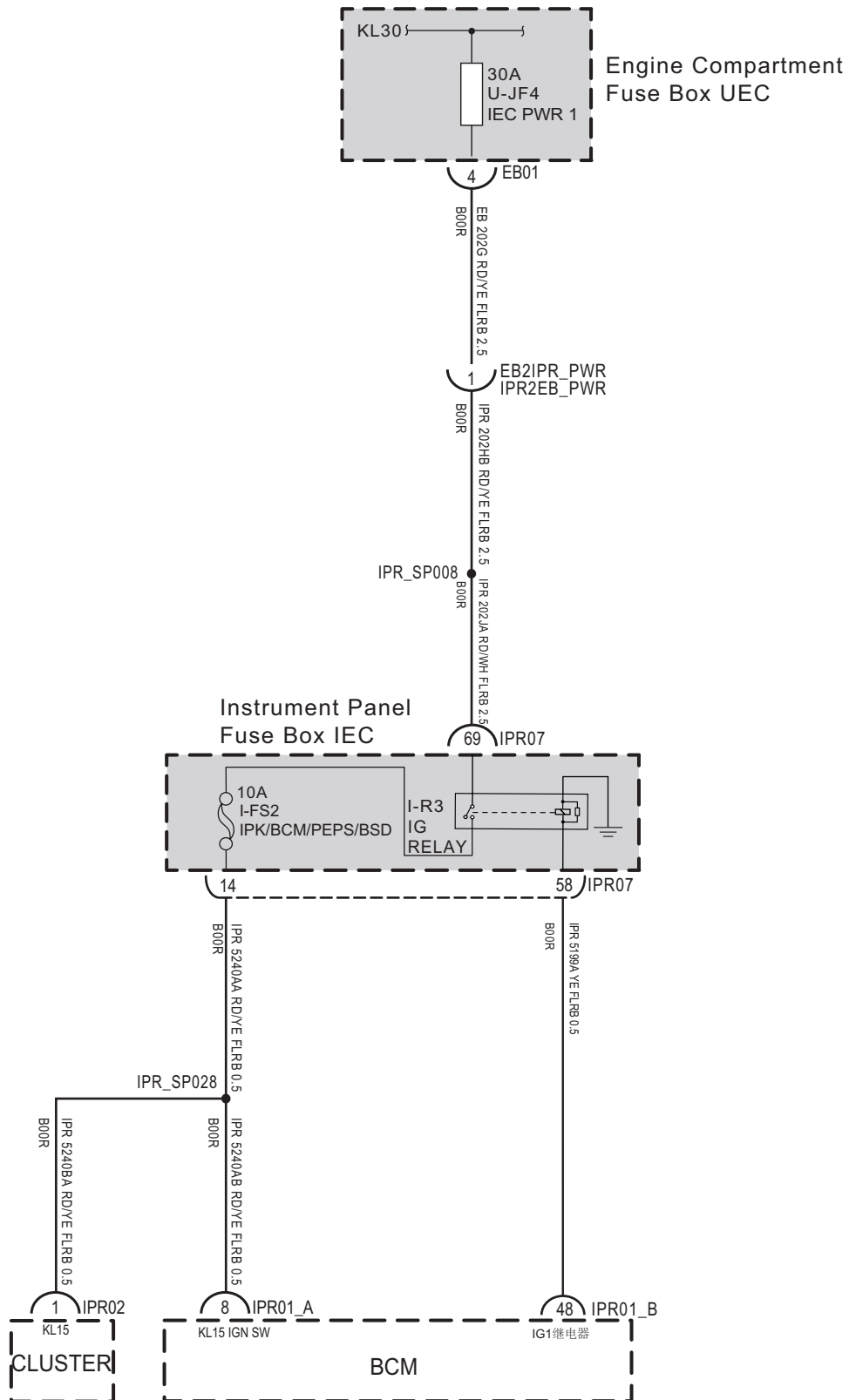
5.21.4 Body control system 4



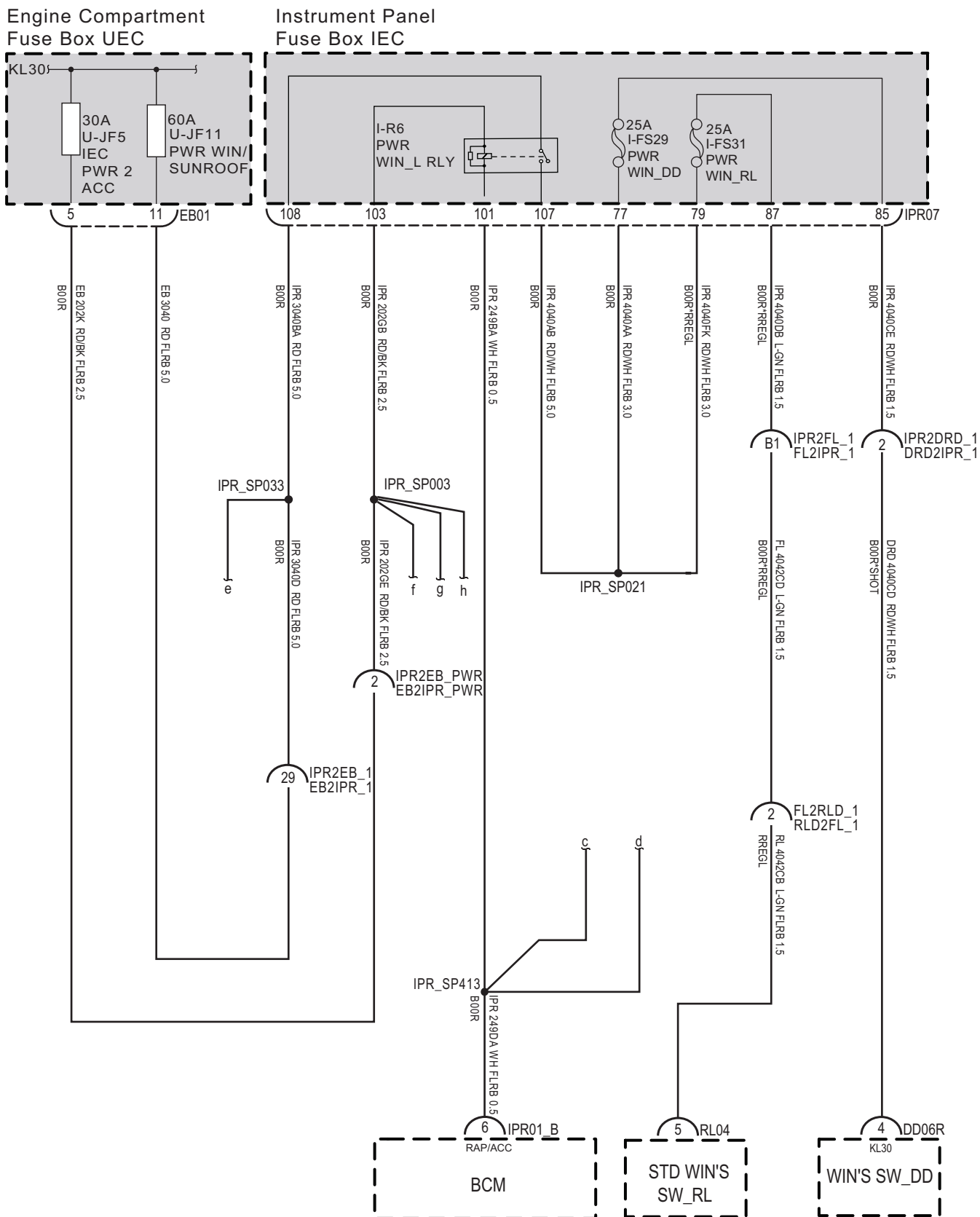
5.21.5 Body control system 5



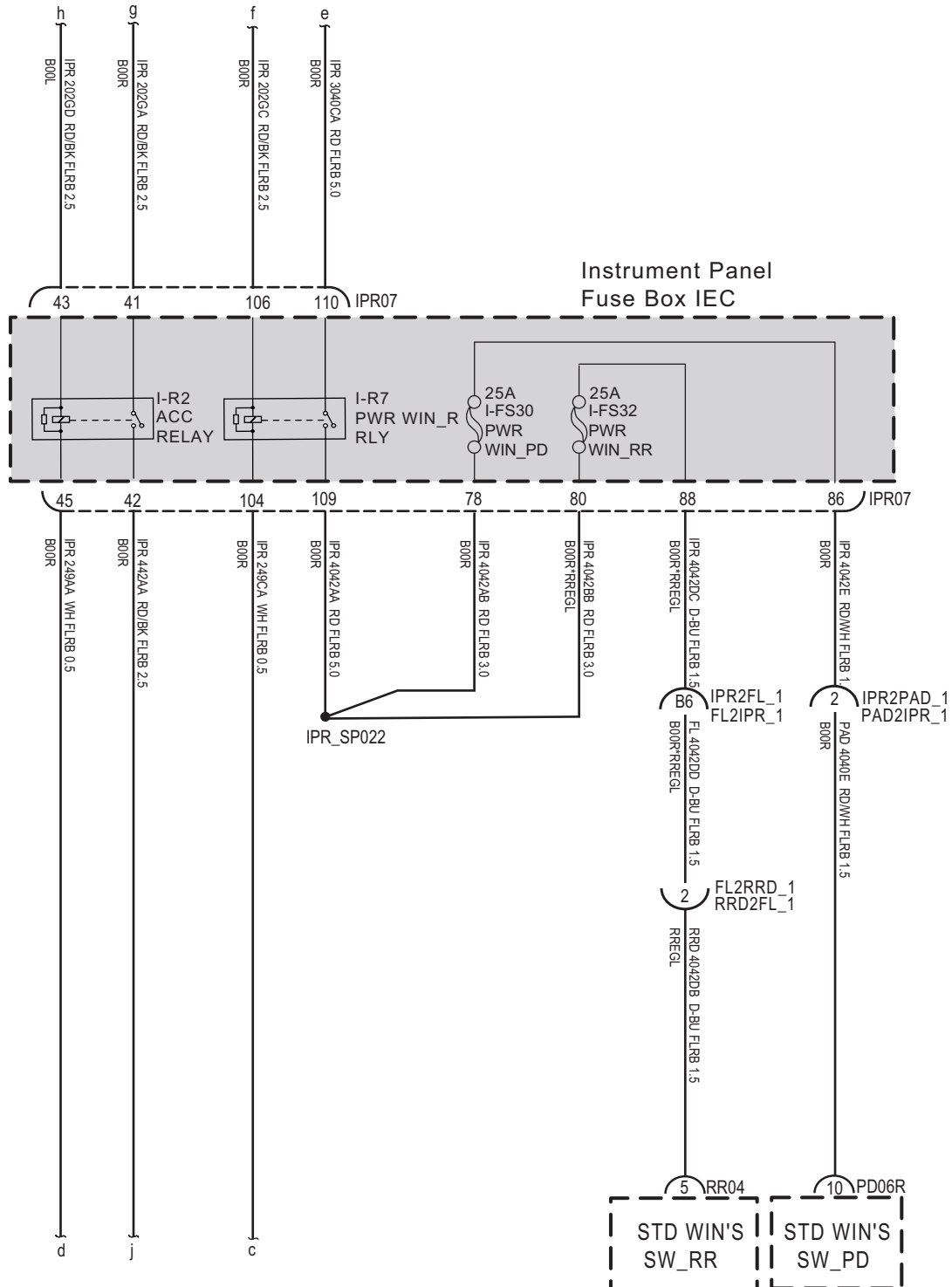
5.21.7 Body control system 7



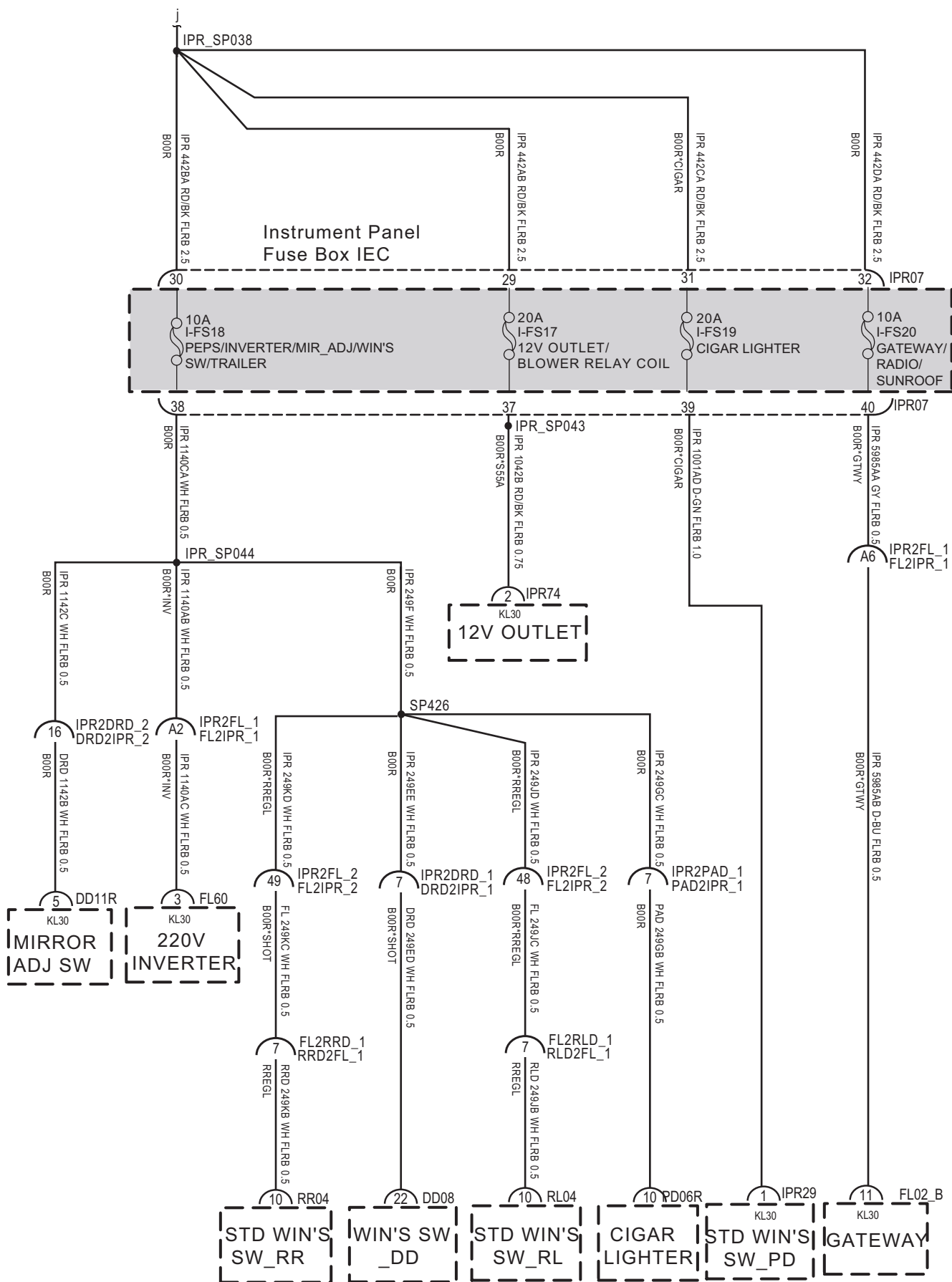
5.21.8 Body control system 8



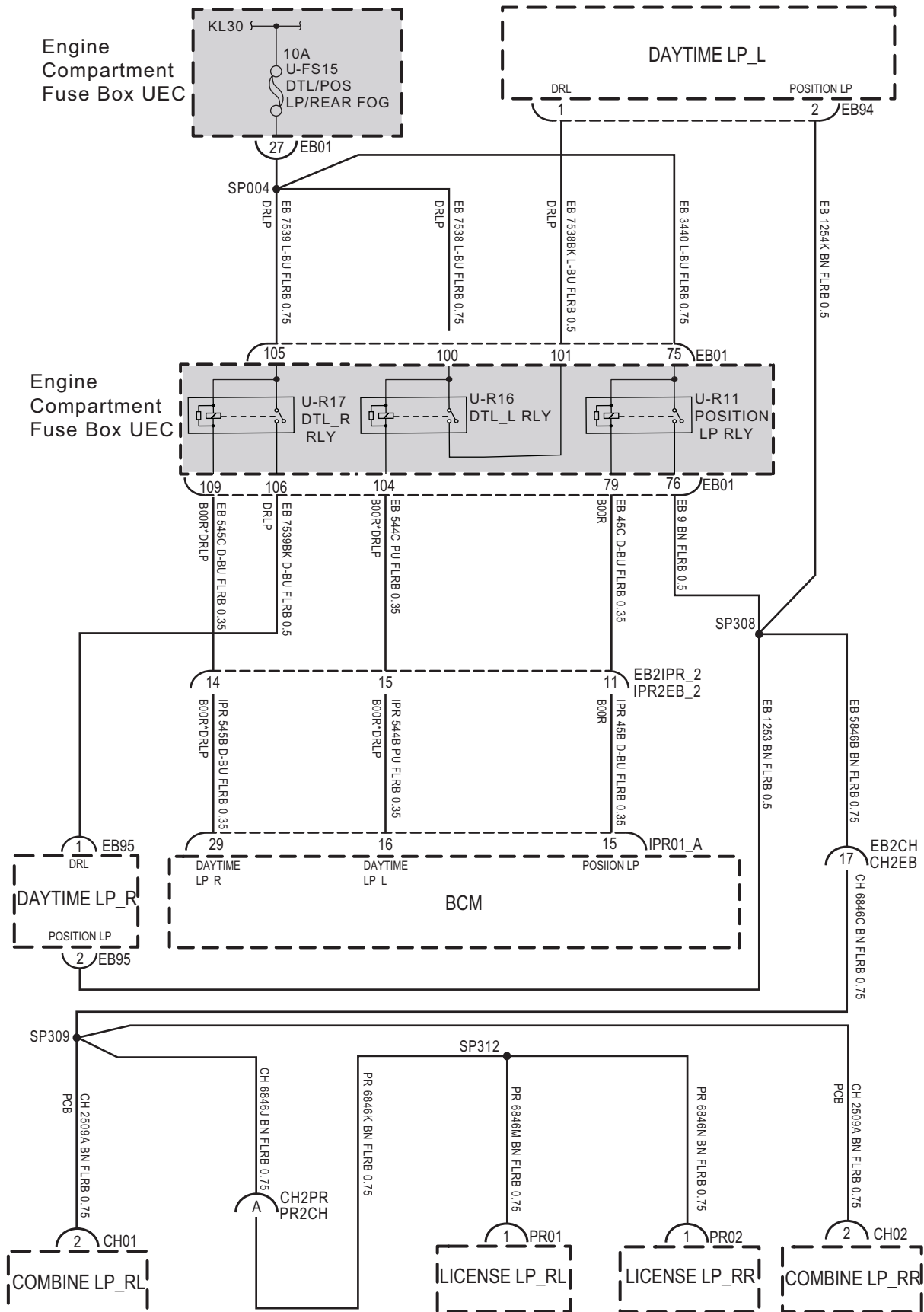
5.21.9 Body control system 9



5.21.10 Body control system 10

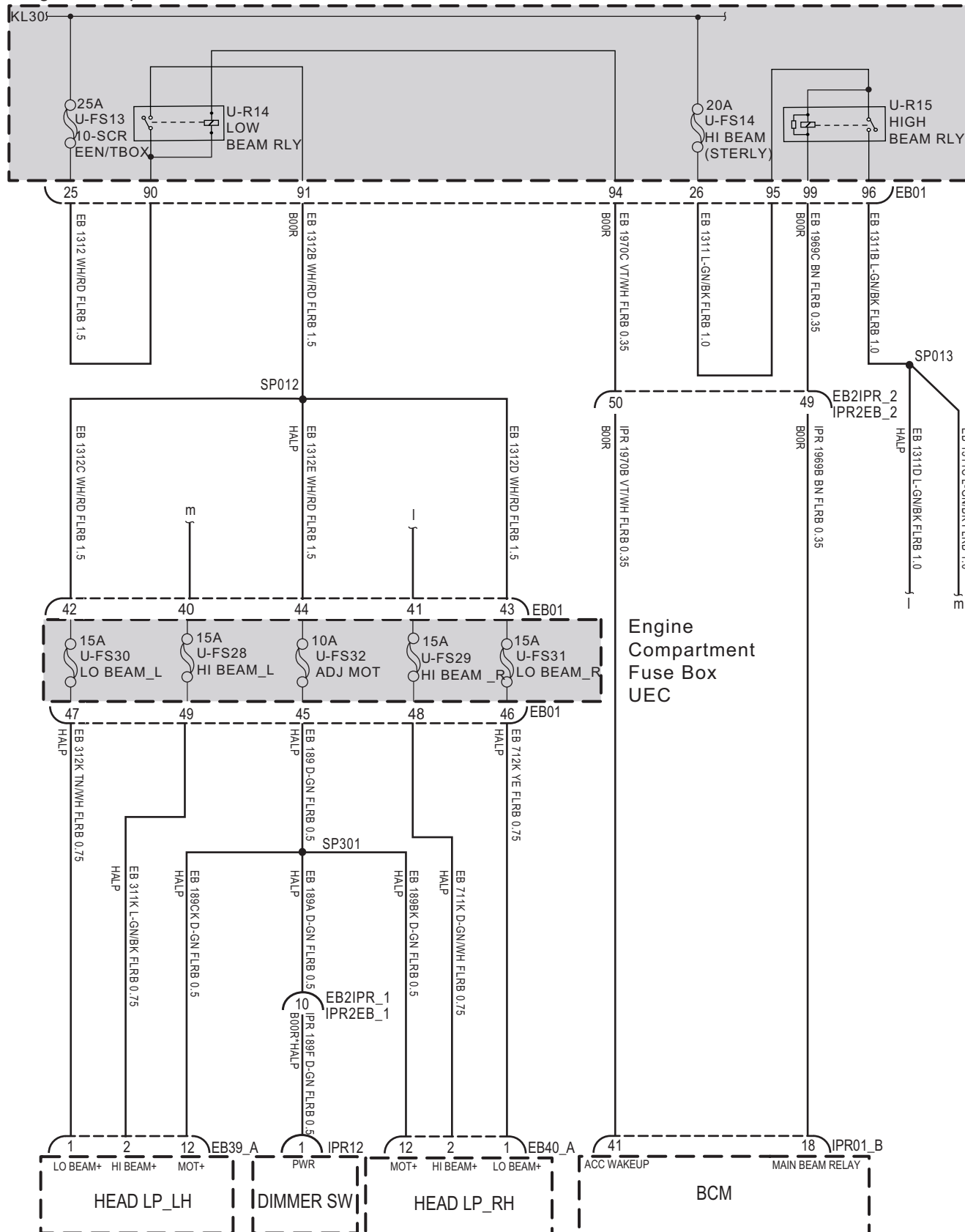


5. 21. 11 Body control system 11

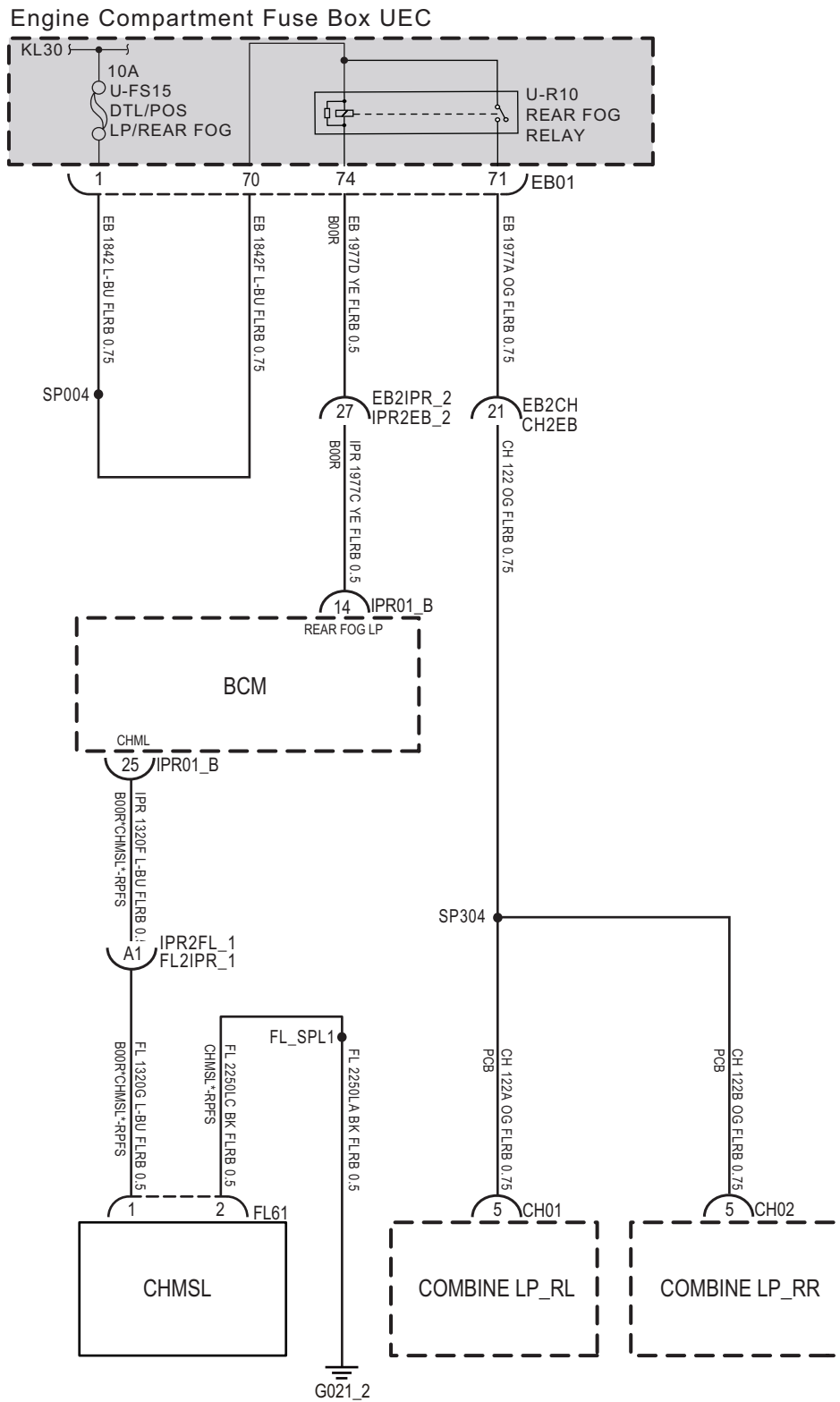


5.21.12 Body control system 12

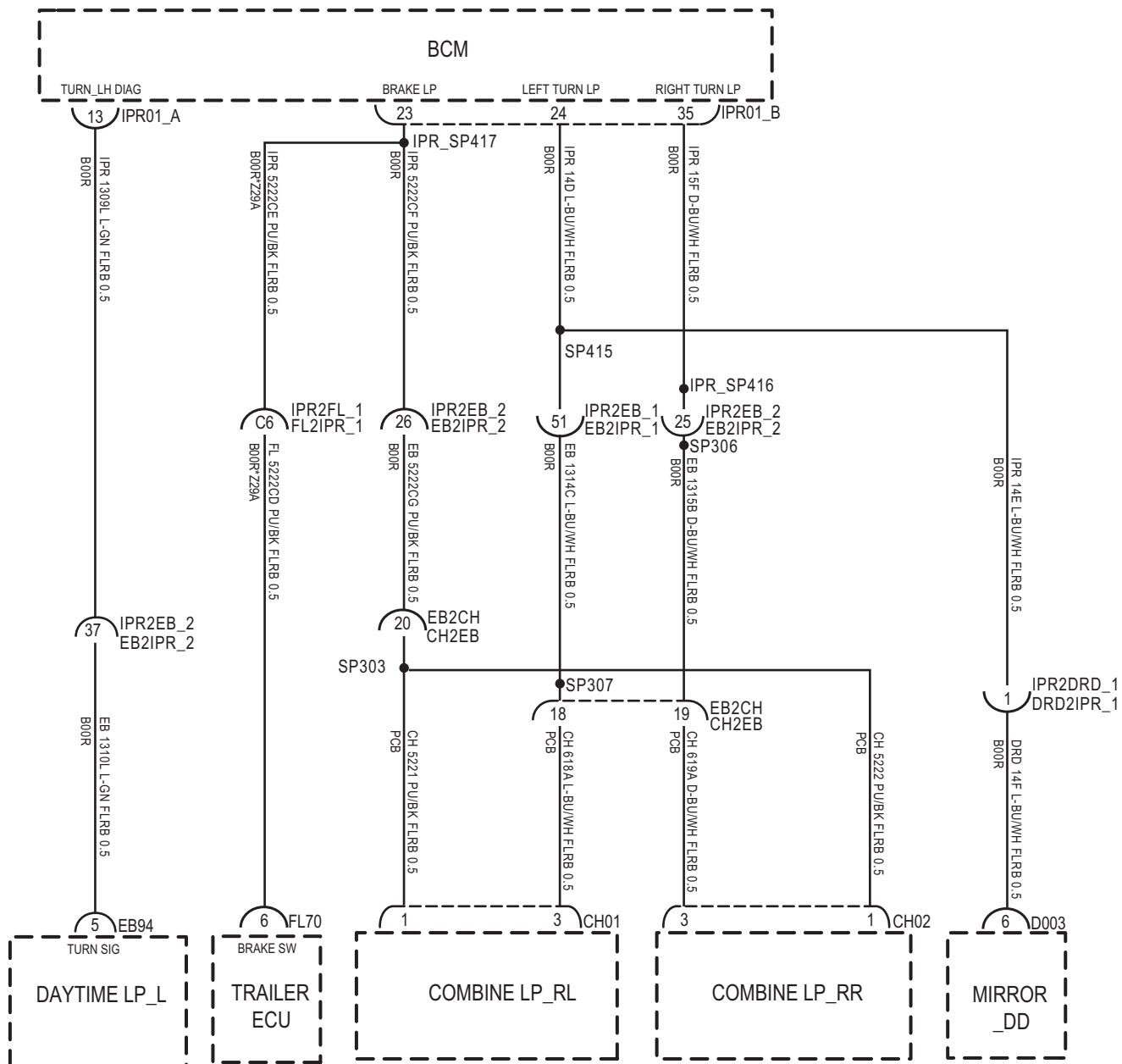
Engine Compartment Fuse Box UEC



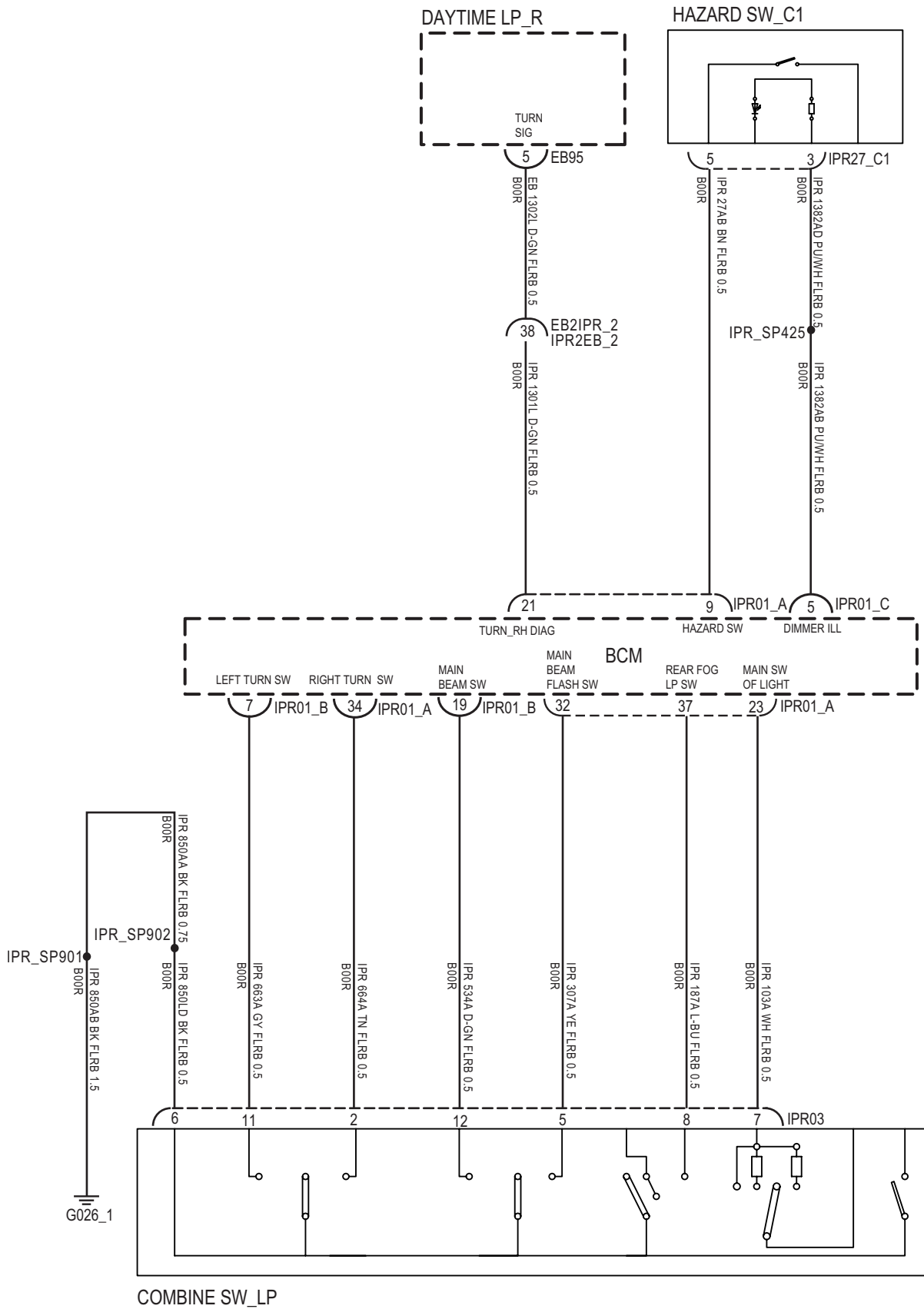
5. 21. 13 Body control system 13



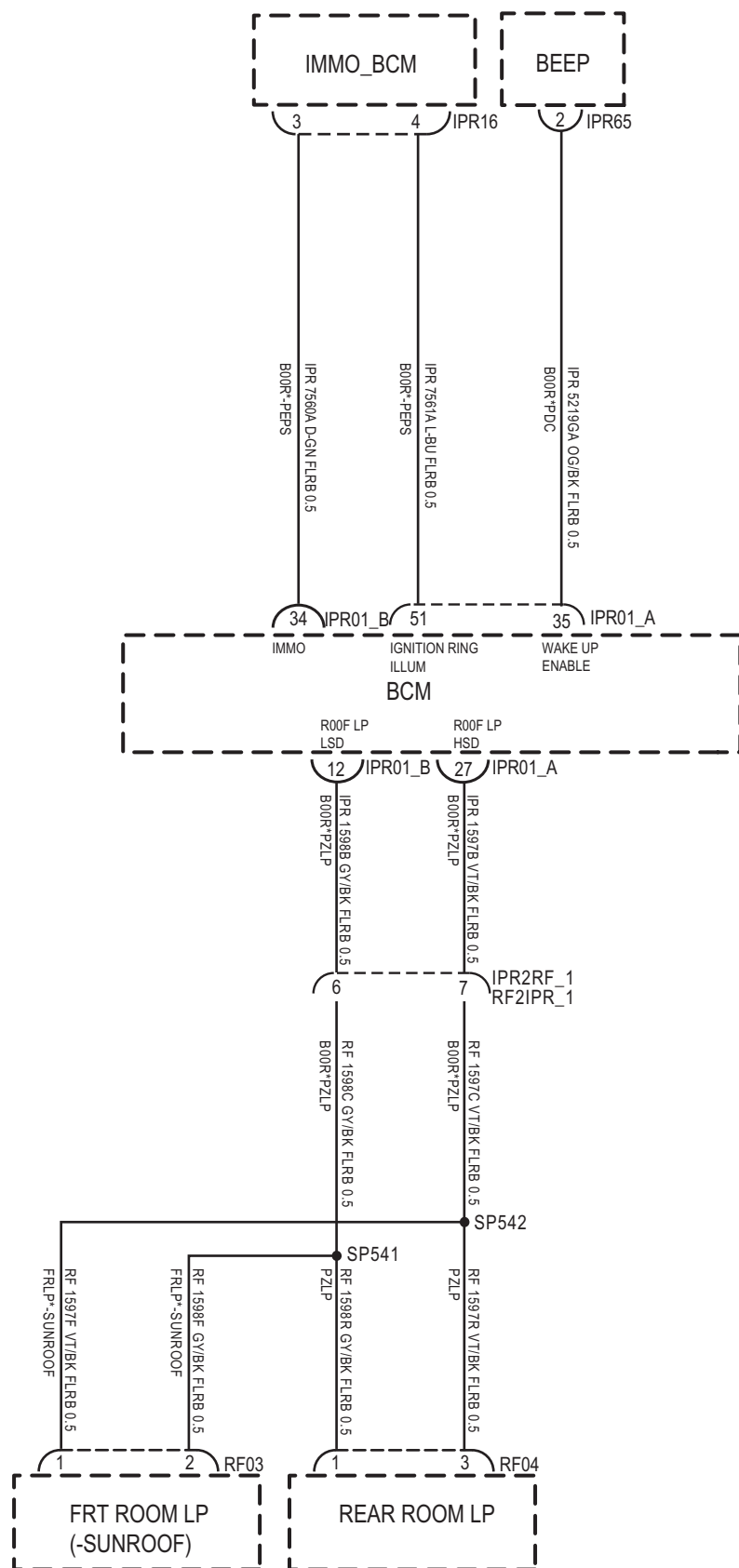
5.21.14 Body control system 14



5.21.15 Body control system 15

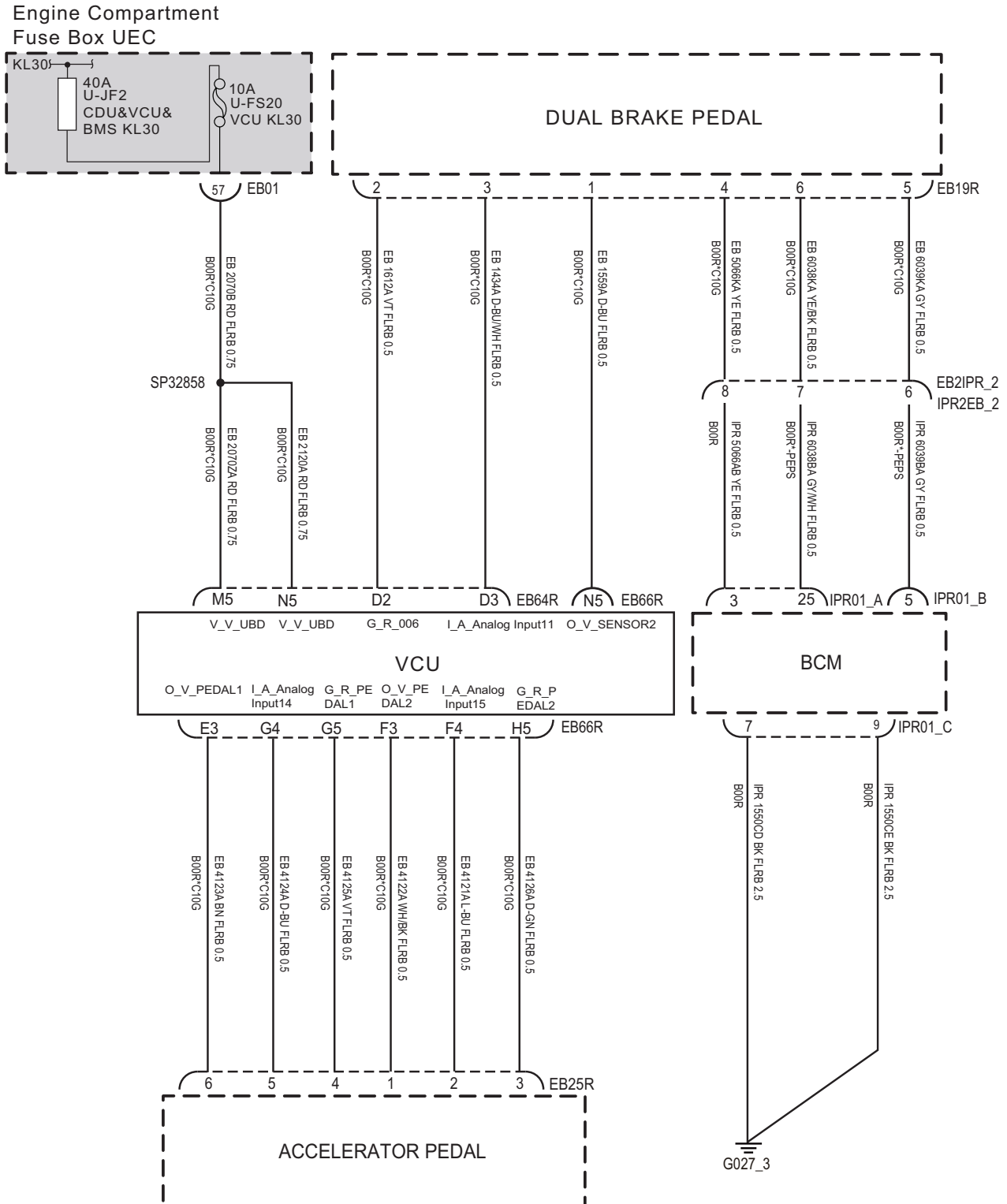


5.21.16 Body control system 16



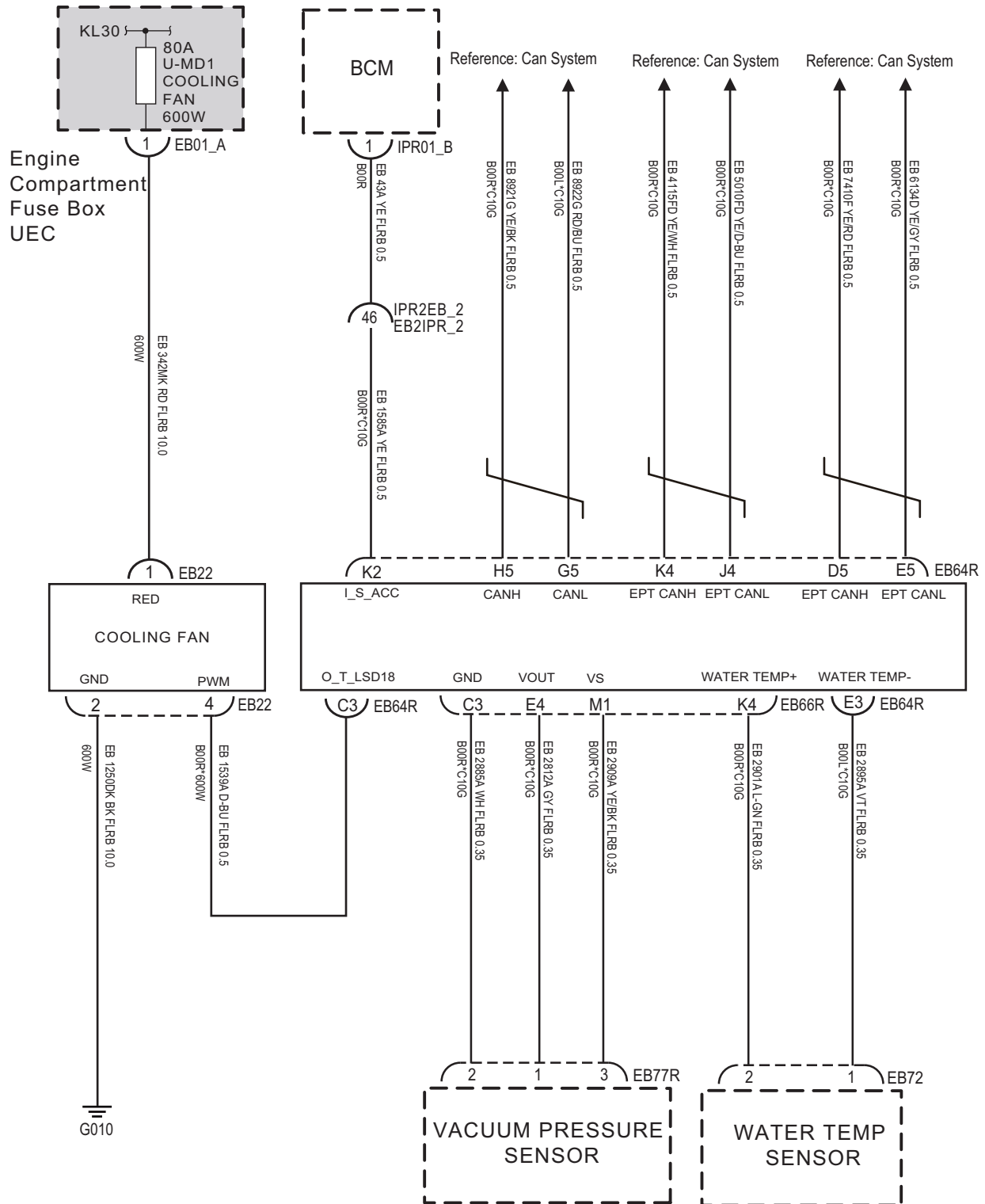
5.22 Vehicle control system

5.22.1 Vehicle control system 1

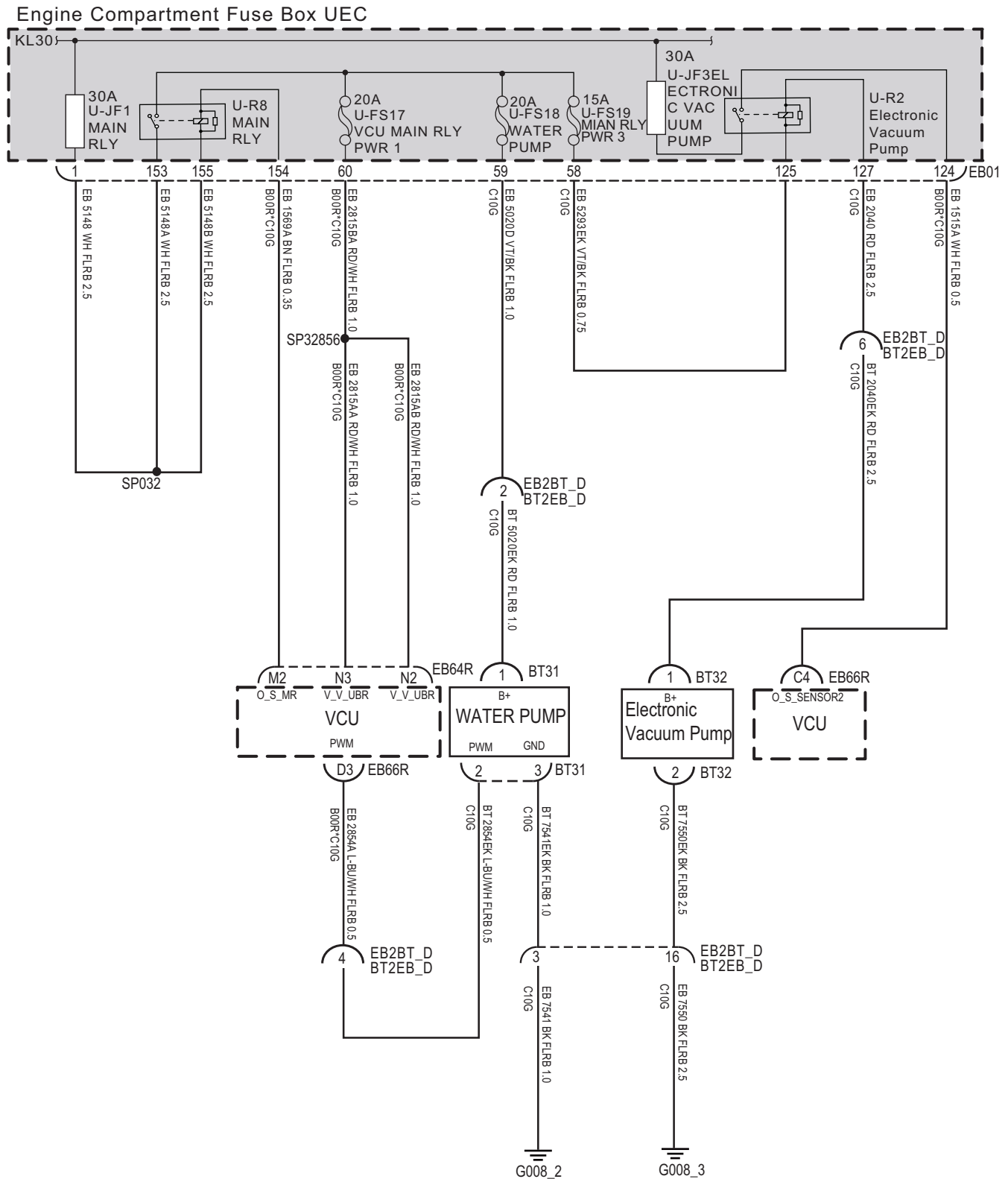


电路图 5-192

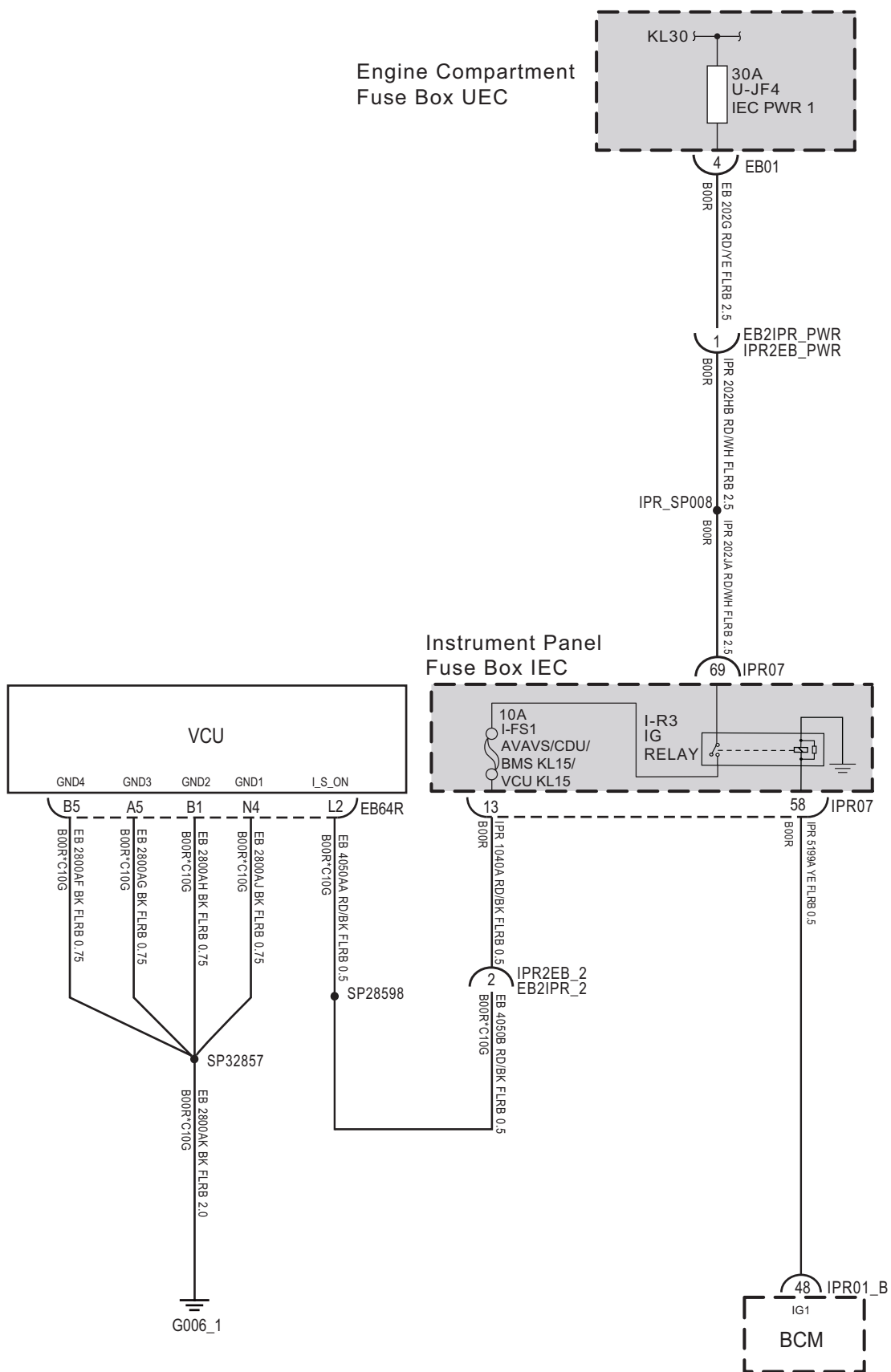
5.22.2 Vehicle control system 2



5.22.3 Vehicle control system 3

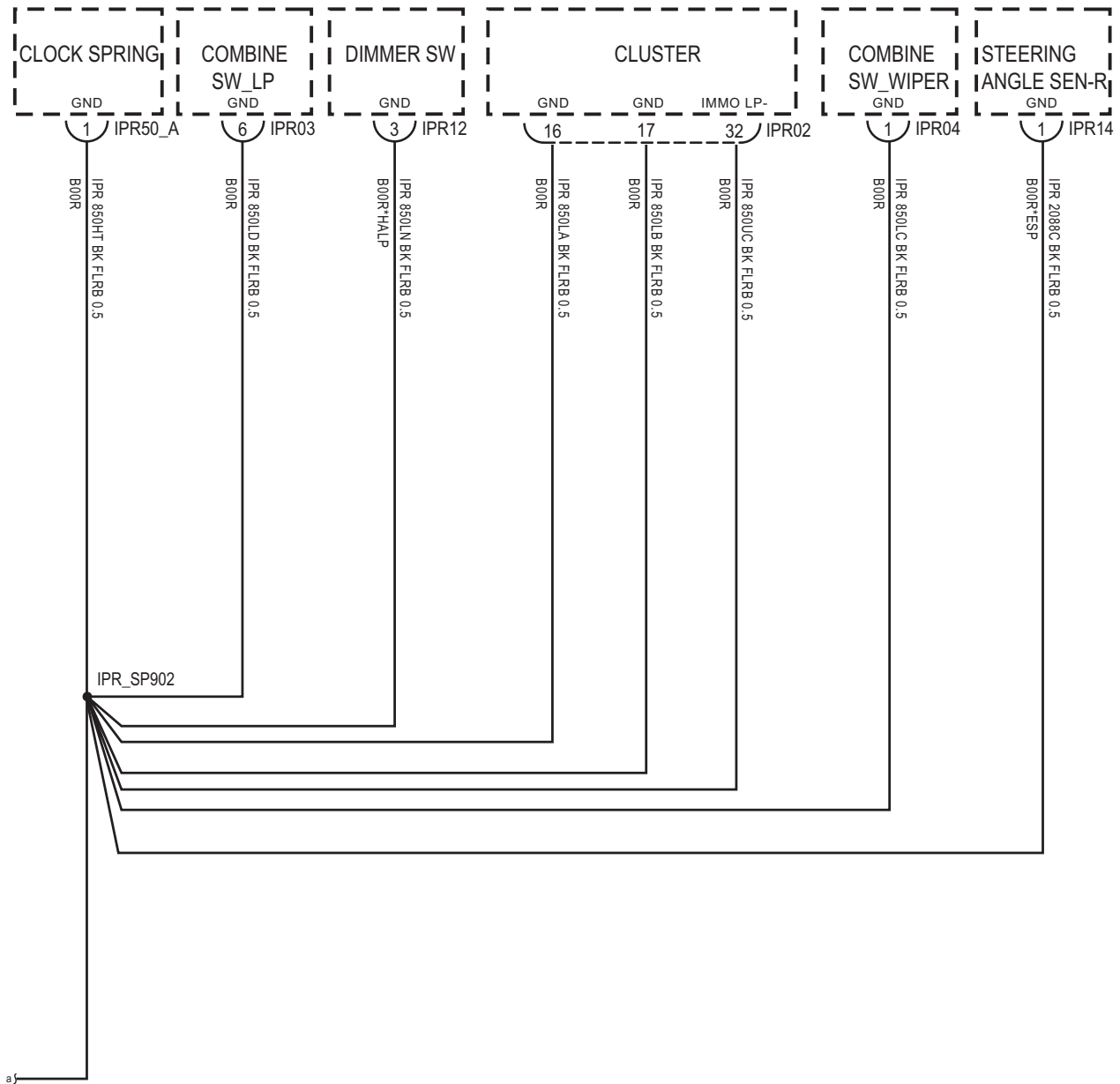


5.22.4 Vehicle control system 4

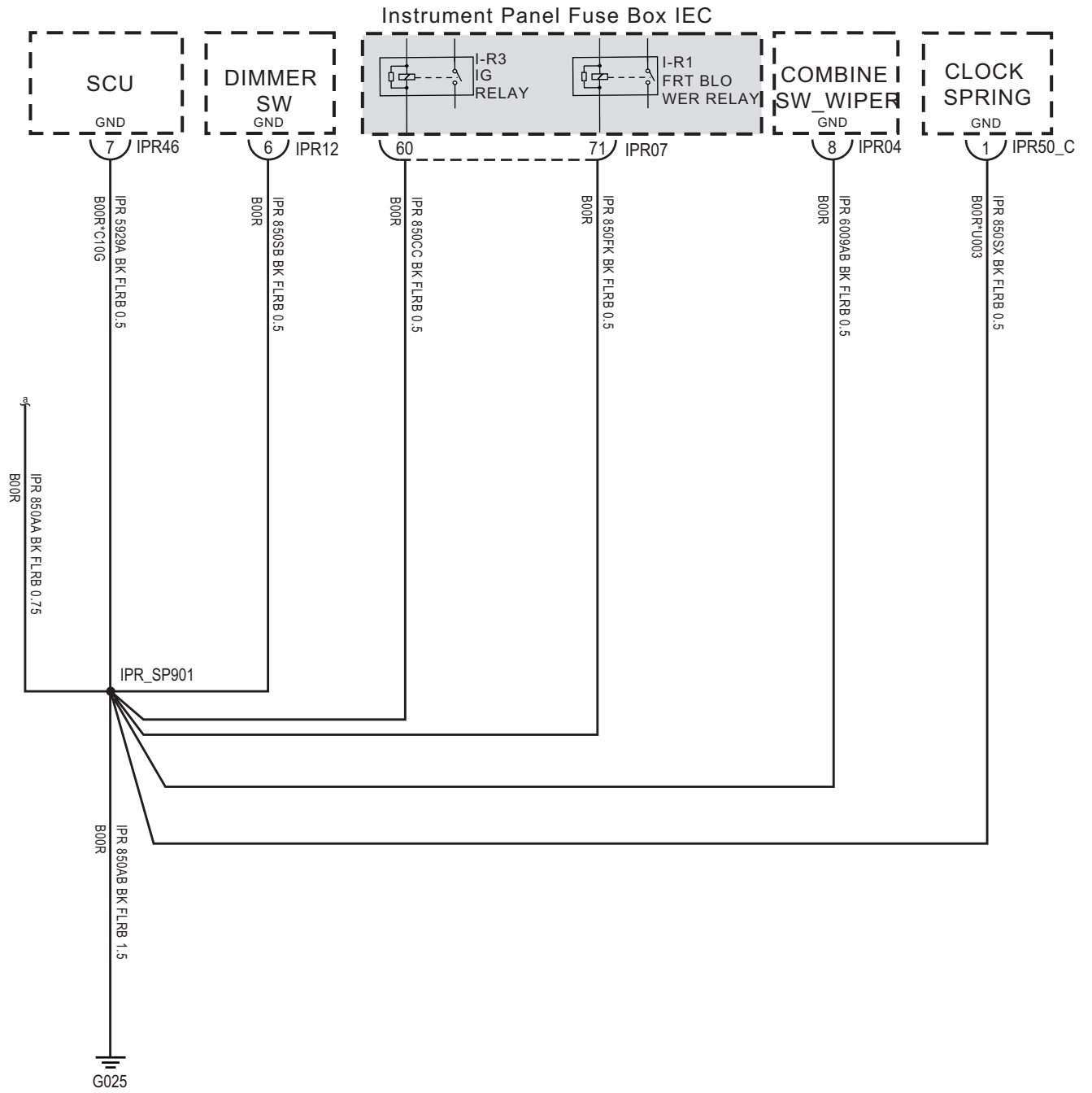


5.23 Earth point assignment

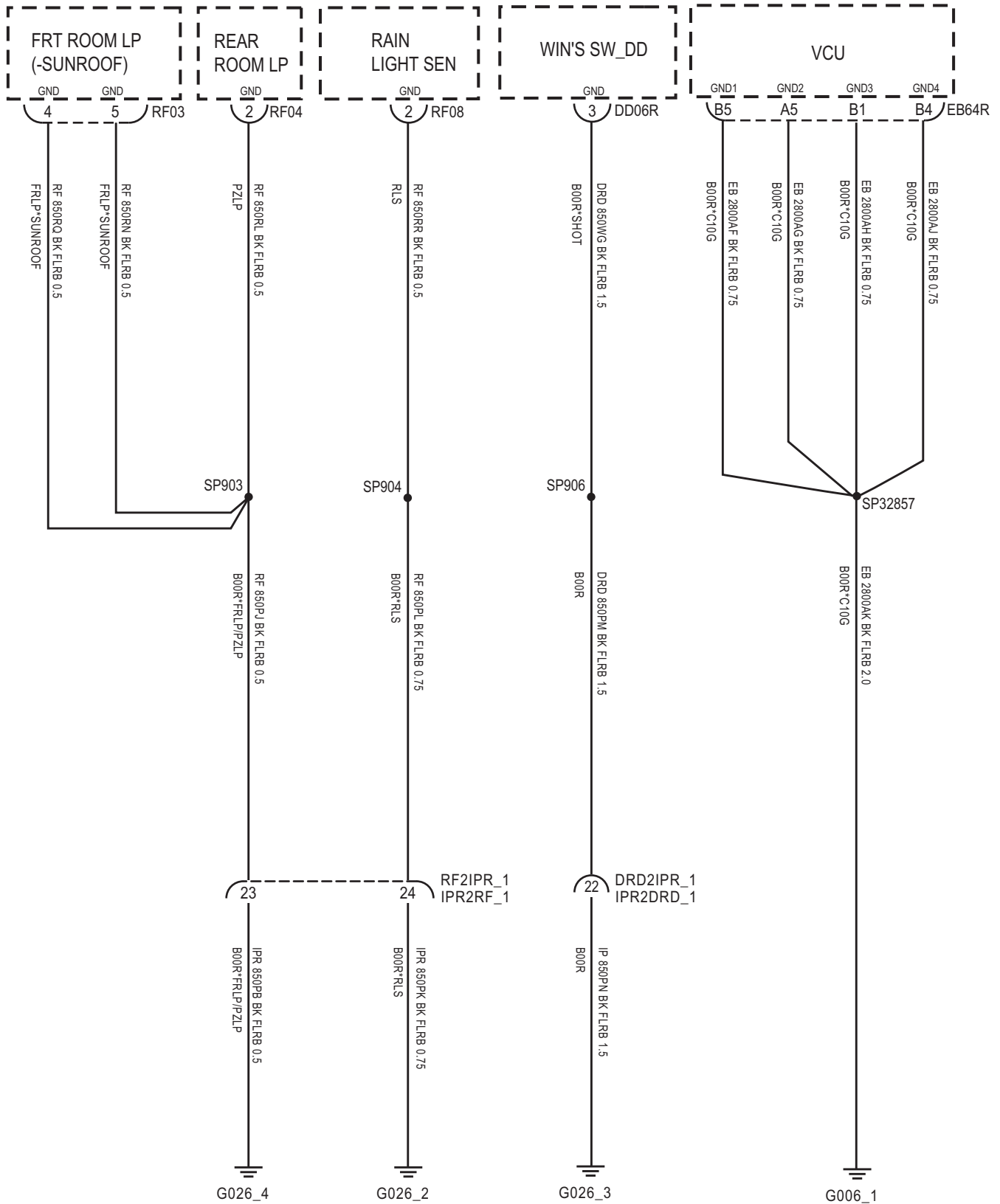
5.23.1 Earth point assignment 1



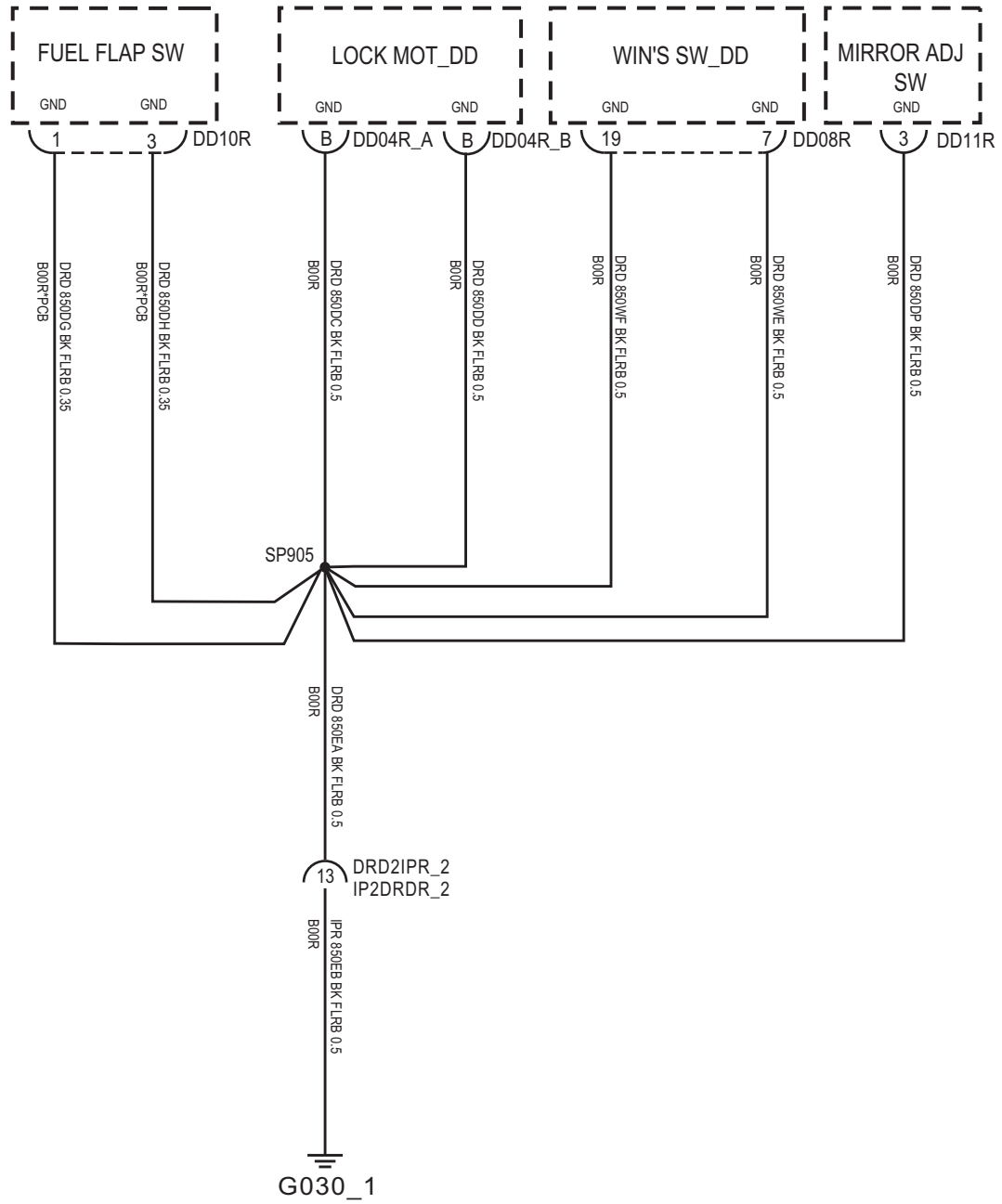
5.23.2 Earth point assignment 2



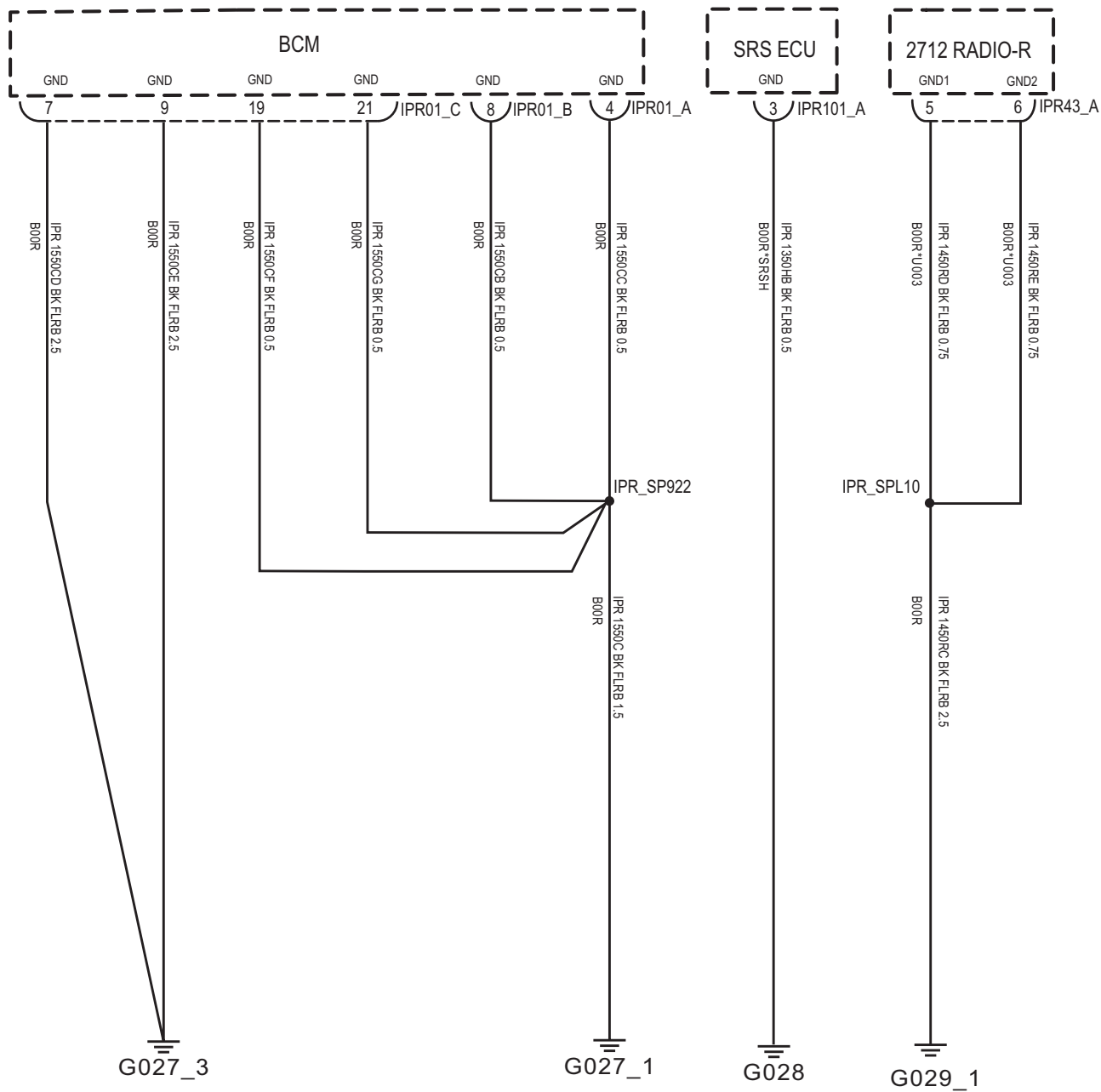
5.23.3 Earth point assignment 3



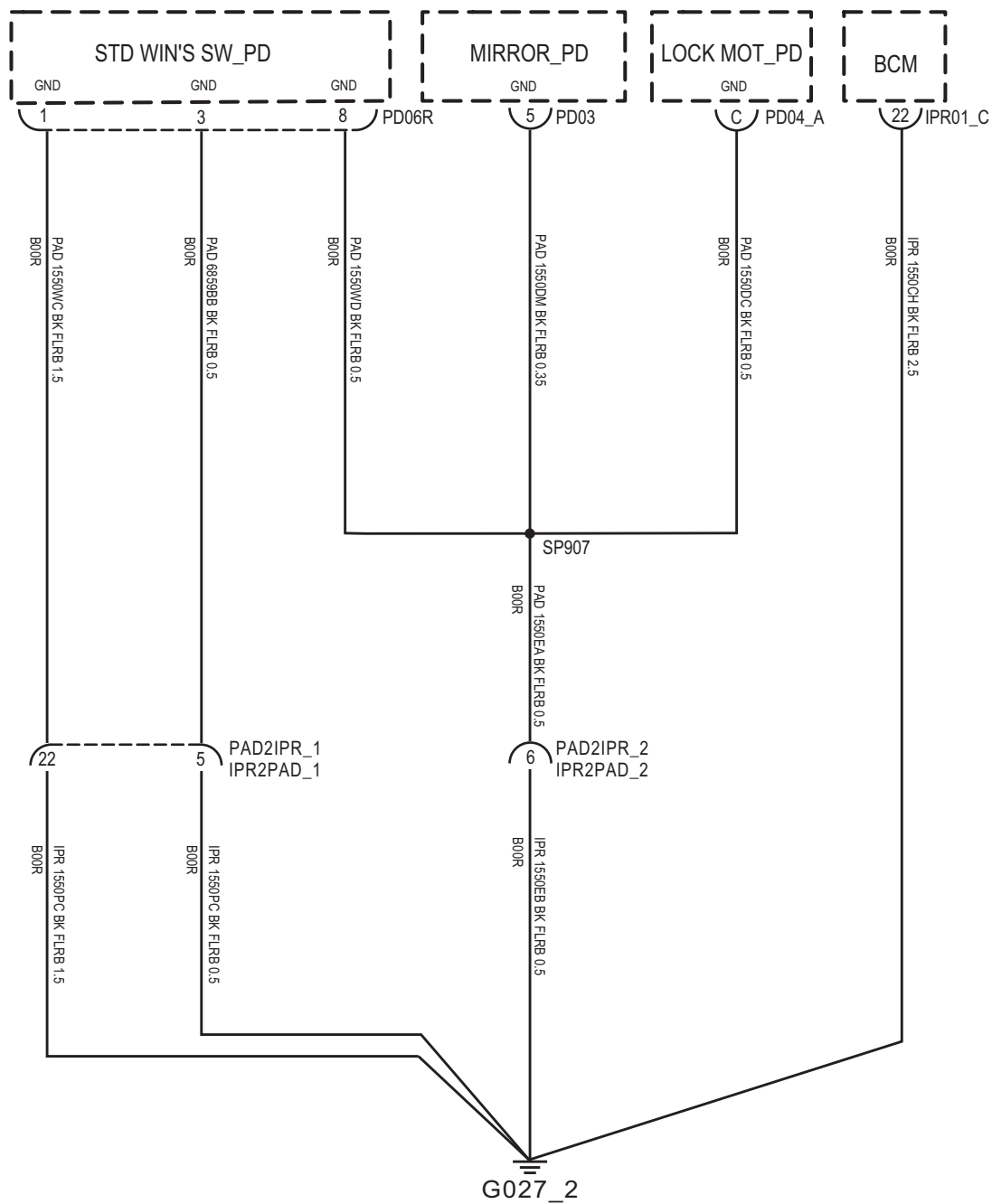
5.23.4 Earth point assignment 4



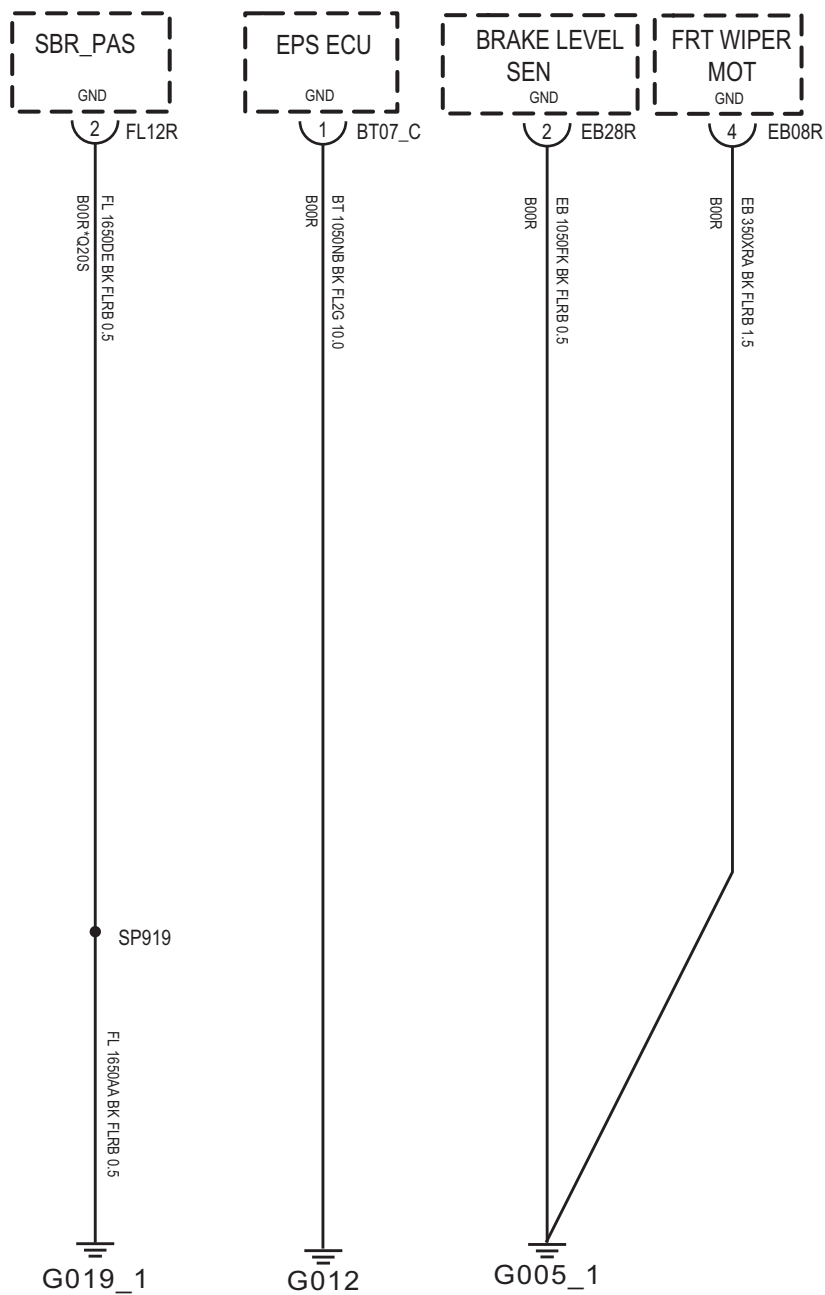
5.23.5 Earth point assignment 5



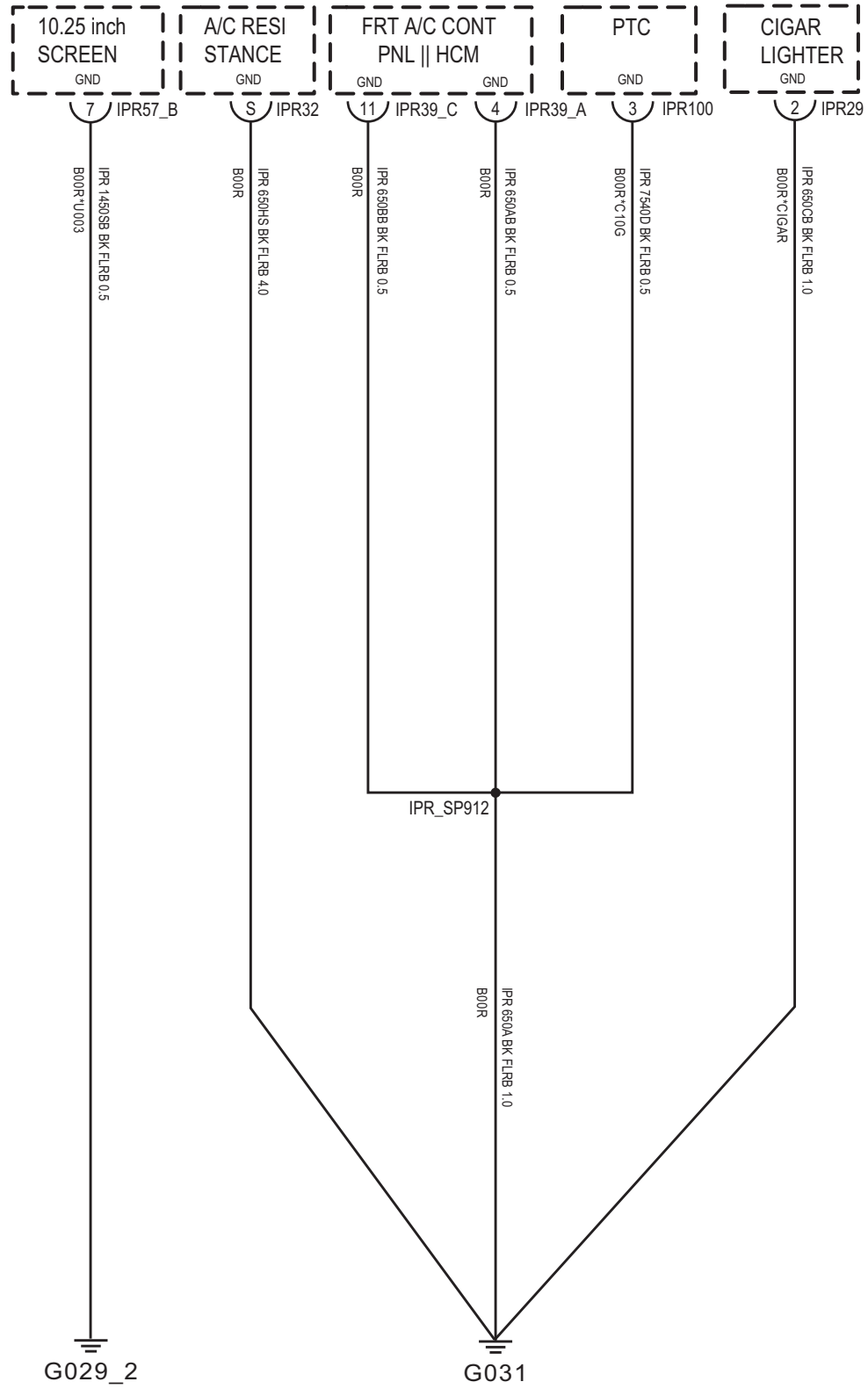
5.23.6 Earth point assignment 6



5.23.7 Earth point assignment 7



5.23.8 Earth point assignment 8



5.23.9 Earth point assignment 9

