ENGINE HOOD/DOOR

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GENERAL INFORMATION

Overview

Description

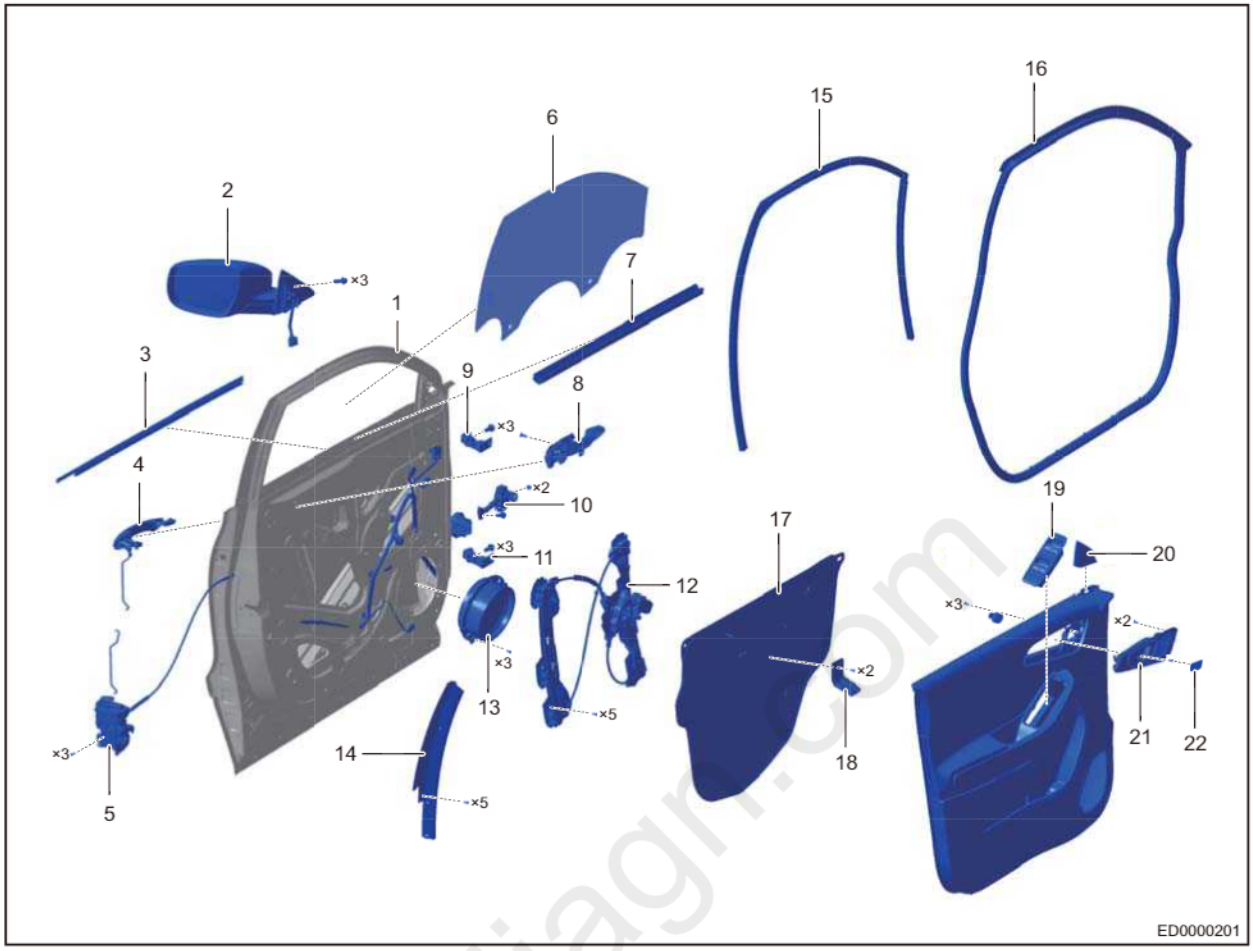
Engine Hood Assembly



1 - Engine Hood Assembly	2 - Engine Hood Upper Adjusting Block
3 - Engine Hood Right Weatherstrip	4 - Engine Hood Support Upper Fixing Seat
5 - Engine Hood Support Assembly	6 - Engine Hood Left Weatherstrip
7 - Right Engine Hood Hinge Assembly	8 - Left Engine Hood Hinge Assembly
9 - Engine Hood Sound-absorbing Pad	10 - Engine Compartment Contact Switch

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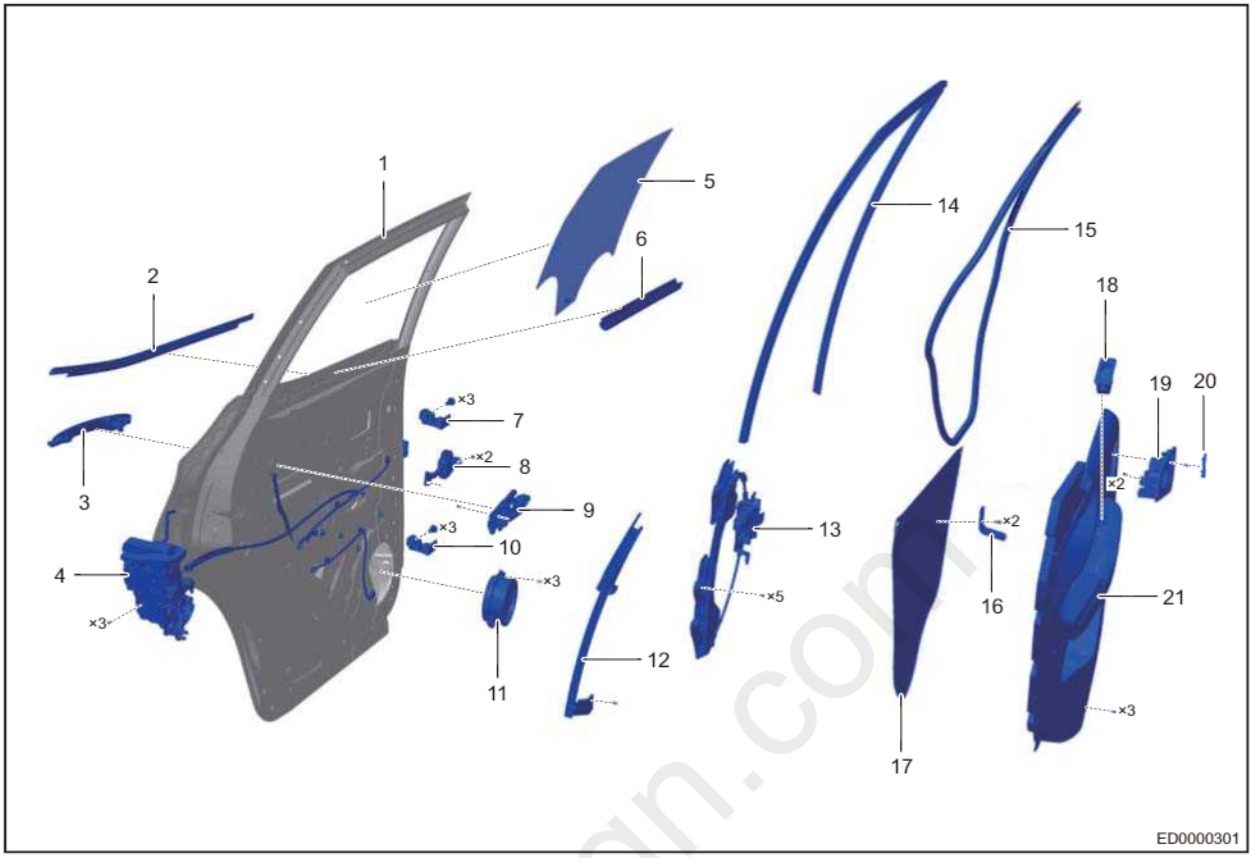
Front Assembly



1 - Front Assembly	2 - Outside Rear View Mirror Assembly
3 - Front Door Outer Weather Bar	4 - Front Door Outside Handle
5 - Front Door Lock Assembly	6 - Front Door Glass Assembly
7 - Front Door Inner Weather Bar	8 - Front Door Outside Handle Seat Assembly
9 - Front Door Upper Hinge Assembly	10 - Front Door Stopper Assembly
11 - Front Door Lower Hinge Assembly	12 - Front Door Power Glass Regulator Assembly
13 - Front Door Woofer	14 - Front Door Rear Guide Rail Assembly
15 - Front Door Glass Run	16 - Front Door Frame Weatherstrip
17 - Front Door Protective Film Assembly	18 - Front Door Handle Mounting Bracket Assembly
19 - Power Glass Regulator and Control Master Switch Assembly	20 - Outside Rear View Mirror Inner Triangular Block
21 - Front Door Inside Handle	22 - Front Door Inside Handle Screw Cover Plug

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Rear Door Assembly



1 - Rear Door Assembly	2 - Rear Door Outer Weather Bar Assembly
3 - Rear Door Outside Handle	4 - Rear Door Lock Assembly
5 - Rear Door Glass Assembly	6 - Rear Door Inner Weather Bar
7 - Rear Door Upper Hinge Assembly	8 - Rear Door Stopper Assembly
9 - Rear Door Outside Handle Seat Assembly	10 - Rear Door Lower Hinge Assembly
11 - Rear Door Woofer	12 - Rear Door Rear Guide Rail Assembly
13 - Rear Door Power Glass Regulator Assembly	14 - Rear Door Glass Run
15 - Rear Door Frame Weatherstrip	16 - Rear Door Handle Mounting Bracket Assembly
17 - Rear Door Protective Film Assembly	18 - Rear Door Power Glass Regulator Switch Assembly
19 - Rear Door Inside Handle Assembly	20 - Rear Door Inside Handle Screw Cover Plug
21 - Rear Door Inner Protector Assembly	

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Back Door Assembly



1 - Back Door Assembly	2 - Back Door Left Hinge Assembly
3 - Back Door Right Hinge Assembly	4 - Rear Wiper Motor Assembly
5 - Left Anti-pinch Strip Assembly	6 - Back Door Self Pick-up Assembly
7 - Back Door Lower Edge Switch	8 - Rear Door Lock Assembly
9 - Back Door Upper Protector Assembly	10 - Back Door Right Protector Assembly
11 - Back Door Left Protector Assembly	12 - Back Door Lower Protector Assembly
13 - Right Anti-pinch Strip Assembly	14 - Power Support Assembly
15 - Back Door Right Air Spring	16 - Instrument Panel Switch
17 - Power Back Door Controller	18 - Kick Sensor Module
19 - Kick Sensor Sensing Antenna	

The vehicle is designed as a structure with four doors & two covers (front left door, rear left door, front right door, rear right door, power back door (power back door system consists of PLG module, power support, anti-pinch strip, each functional switch, back door and pick-up mechanism, etc. When system receives functional switch signal, it opens or closes back door, which is driven by motor) and hood.

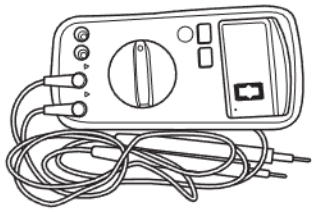
Specifications

Torque Specifications

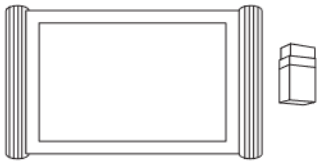
Description	Torque (N·m)
Engine Support Fixing Screw	1.5 ± 0.5
Engine Hood Hinge Fixing Nut	22 ± 1.0
Engine Hood Lock Assembly Fixing Nut	10 ± 1.0
Front Door Protector Fixing Screw	1.5 ± 0.5
Front Door Inside Handle Fixing Screw	1.5 ± 0.5
Front Door Metal Bracket Fixing Bolt	5 ± 1.0
Front Door Outside Handle Fixing Screw	5 ± 1.0
Front Door Outside Handle Seat Fixing Screw	1.5 ± 0.5
Fixing Nut Between Stopper and Door	24 ± 2.0
Fixing Bolt Between Door and Hinge	55 ± 5.0
Fixing Bolt Between Hinge Assembly and Body Quarter	32 ± 3.0
Door Lock Striker Fixing Bolt	23 ± 2.0
Back Door Lower Protector Assembly Fixing Screw	1.5 ± 0.5
Back Door Switch Fixing Nut	3 ± 0.5

Tools

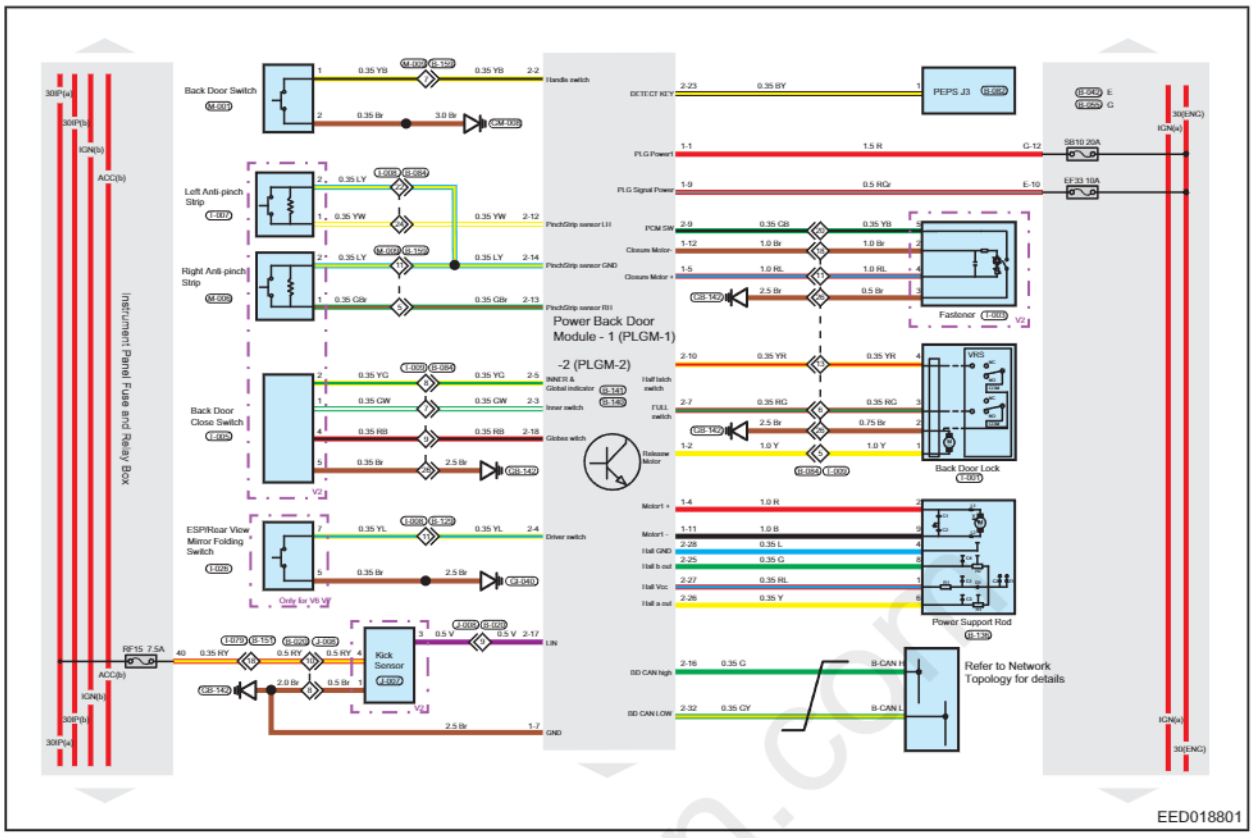
General Tool

Digital Multimeter	 002

Special Tool

X-431 PAD Diagnostic Tester	 001

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Function Description

Function Description of Power Back Door

Function	
1 - Opening or Closing Back Door by Instrument Panel Switch	2 - Opening Back Door by Back Door Outside Opener Switch
3 - Closing Back Door by Back Door Lower Edge Switch	4 - Opening or Closing Back Door by Remote Key Switch
5 - Opening Height Setting	6 - Soft Stopping Function
7 - Jam Protection Function	8 - Hard Closing for Self-protection
9 - Operating Back Door Manually	10 - Mechanical Unlocking Function
11 - On-line Refreshing Function	12 - DVD Setting On Height
13 - Opening/Closing Back Door by DVD Voice	14 - T-BOX APP
15 - Sleeping On Condition	16 - Opening/Closing Door by Kicking
17 - Environment Self-adaptation	18 - Emergency Stopping Function
18 - Diagnosis and Recording Function	

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Power Back Door Opening Method



Instrument Panel Switch

1. On: When power back door is closed, power back door will be opened if the switch is pressed long, meanwhile, turn signal light flashes twice quickly and instrument cluster sounds twice.
2. Off: When power back door is opened, power back door will be closed if the switch is pressed long, meanwhile, turn signal light flashes twice quickly and instrument cluster sounds twice.
3. Pause: When power back door is closing or opening, if this switch is shortly pressed, power back door will stop immediately. When the switch is pressed shortly again and hold for 1.5 s, power back door will operate in the opposite direction until it is fully closed or opened. At the same time, turn signal light flashes twice quickly and instrument cluster sounds twice.

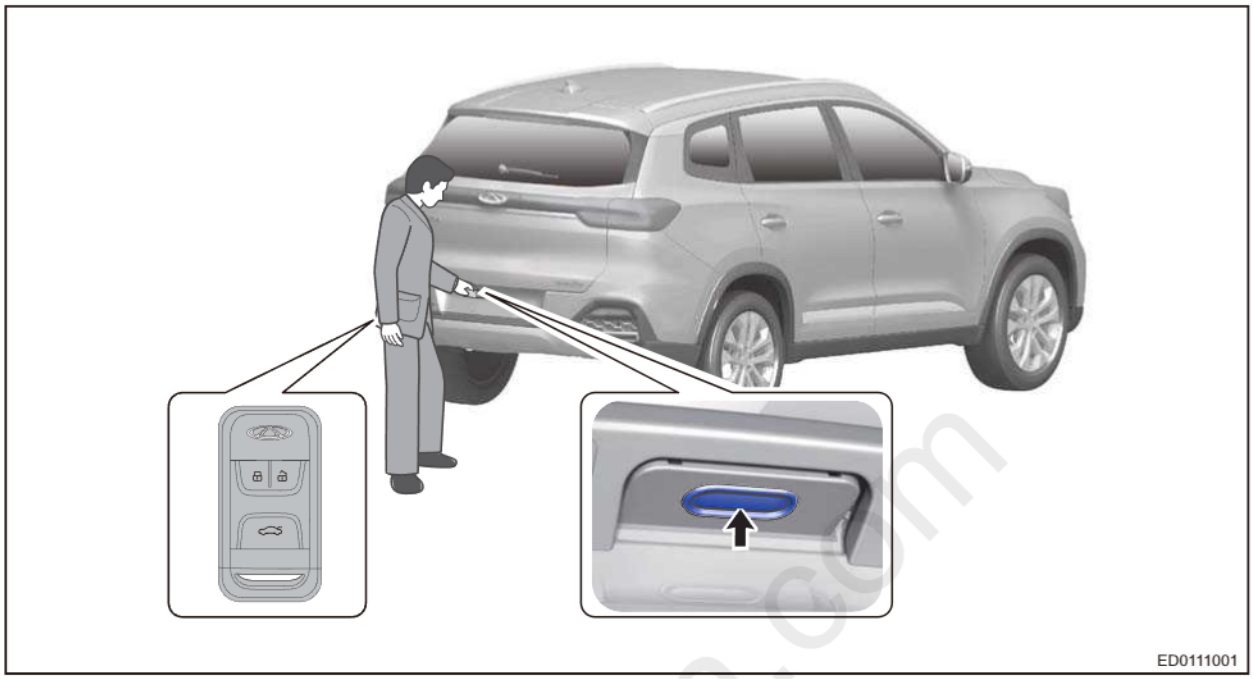


Back Door Switch

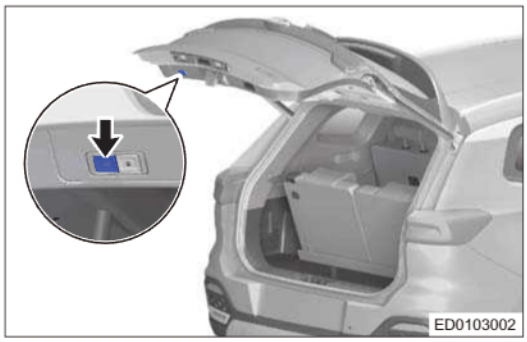
1. Activated in non-fortifying state: When power back door is closed, power back door will be opened if the switch is pressed shortly, meanwhile, turn signal light flashes twice quickly and instrument cluster sounds twice.

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2. Activated in fortifying state (PEPS): When power back door is closed, it is necessary to carry smart key to approach the back of vehicle. The power back door will be opened after the switch is pressed shortly, meanwhile, the turn signal flashes twice quickly and the instrument cluster buzzer sounds twice.



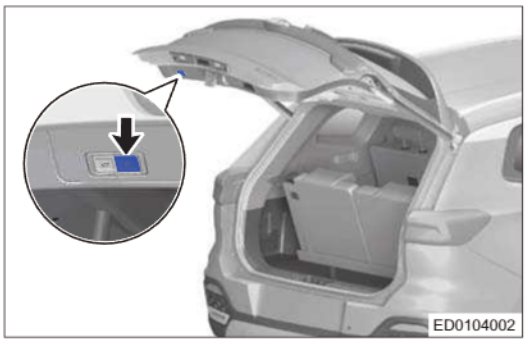
3. Off: When power back door is open, power back door will be closed after the switch is pressed shortly, meanwhile, turn signal light flashes twice quickly and instrument cluster sounds twice.
4. Pause: When power back door is closing or opening, if the switch is pressed shortly, power back door stops immediately. When the switch is pressed shortly again, power back door will operate in the opposite direction until it is fully closed or opened. Meanwhile, turn signal light flashes twice quickly and instrument cluster sounds twice.



Back Door Lower Edge Switch

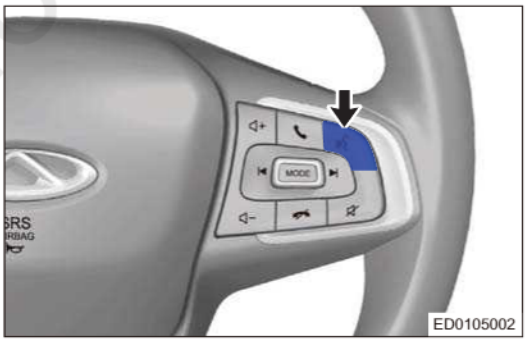
1. On: When the power back door is closed (at the original position), back door will not be opened after the switch is pressed. But if the power back door is above the original position and below the soft stopping position, back door will be opened after the switch is pressed; meanwhile, the turn signal light flashes twice quickly and the instrument panel buzzer sounds twice.
2. Off: When the power back door is open, back door will be closed after the switch is pressed shortly; meanwhile, the turn signal light flashes twice quickly and the the instrument panel buzzer sounds twice.
3. Pause: When power back door is closing or opening, if the switch is pressed shortly, power back door stops immediately. When the switch is pressed shortly again, power back door will operate in the opposite direction until it is fully closed or opened. Meanwhile, turn signal light flashes twice quickly and instrument cluster sounds twice.

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Back Door Lower Edge Lock Switch

1. On: When the power back door is closed, back door will not be opened after the switch is triggered (without On function).
2. Off: When the power back door is open, if the switch is pressed shortly, back door will be closed; At the same time, the turn signal light flashes twice quickly and the meter emits buzzer alarm twice. If the vehicle meets other armed conditions, the vehicle will lock automatically and enter the armed state.
3. Pause: During the power back door is closing, if the switch is pressed shortly, back door will stop immediately. When the switch is pressed shortly again, back door will operate in the opposite direction until it is fully closed or opened. Meanwhile, turn signal light flashes twice quickly and instrument cluster sounds twice.



Voice On and Off

1. On: When the power back door is closed, back door is can be opened by voice way in audio entertainment system; meanwhile, turn signal light flashes twice quickly and instrument cluster sounds twice.
2. Off: When the power back door is open, the power back door can be closed by voice way in in audio entertainment system; meanwhile, turn signal light flashes twice quickly and instrument cluster sounds twice.

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Kick On and Off



1. Only the ignition switch is in OFF position, kick function can operate while it is disabled with ignition switch in ACC and ON. If central control is in locked condition, it is necessary to carry legal key to activate kick function. If central control is in unlocked condition, it is not necessary to carry key.
   (a) When the power back door is closed, stretch out a single foot to make the kick action along the lower edge of bumper. At this time, the turn signal flashes rapidly twice, and the instrument cluster buzzer sounds twice, and then the power back door executes the opening action.
   Caution:
   - After once kick action is finished, move the body backward timely to avoid contacting with back door, and the power back door will open automatically. During this period, please do not do kick action again, in case the system collects the signal again to suspend the operation of back door.
   - After the kick action is finished, wait for a while, if the there is no sound and light prompt from vehicle, it indicates that kick action isn't recognized, so it is necessary to perform kick action again.
   - Note that the kicking area should be just below rear license plate of vehicle.
   - If operations are performed in kicking area for a long time (such as in heavy rain and snow, washing and wiping the car, repairing vehicle at rear bumper, towing the vehicle, move back and forth at rear bumper, etc.), the system will enter surrounding protection mode. At this time, kick function will have some delay or insensitivity, which is normal, not a malfunction. After about 10s leaving kick sensing area, the system will exit surrounding protection mode.
2. When the power back door is open, stretch out a single foot to make the kick action along the lower edge of bumper. At this time, the turn signal flashes rapidly twice, and the instrument cluster buzzer sounds twice, and then the power back door executes the closing action.

Open and Close with Wireless Key



1. On: When power back door is closed, power back door will be opened if back door opener button on remote control key is pressed and hold for 1.5 s, meanwhile, turn signal light flashes twice quickly and instrument cluster sounds twice.
2. Off: When power back door is open, power back door will be closed if back door opener button on remote control key is pressed and hold for 1.5 s, meanwhile, turn signal light flashes twice quickly and instrument cluster sounds twice.
3. Pause: When power back door is closing or opening, if the back door opener button on remote control key is shortly pressed, power back door will stop immediately. When the back door opener button on remote control key is pressed and hold for 1.5 s, power back door will operate in the opposite direction until it is fully closed or opened. At the same time, turn signal light flashes twice quickly and instrument cluster sounds twice.

Open and Close with Remote Control

Caution:

- Refer to Remote Control Chapter



Open Mechanically/Close Manually

1. Open mechanically: When the power back door is closed, it can be opened by manually pushing the white push plate on the lock body inside the luggage compartment. (When the power back door is opened in this state, the electric support bar does not work, and power back door is opened in a purely mechanical way).

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2. Close manually: When the power back door is opened, it can be closed manually. (When the power back door is closed in this state, the electric support bar does not work, and power back door is closed in a purely manual way).

   Caution:

   - When closing the power back door manually, it is not advisable to close it quickly. The closing speed should be reduced as much as possible. Because the system has function of self-protection, when the internal motor speed of electric support bar is greater than 12000 rpm, the PLG module will suppress the motor speed by outputting forward current to protect the electric support bar.

Power Back Door Opening Height Setting

1. Set by audio/visual system.

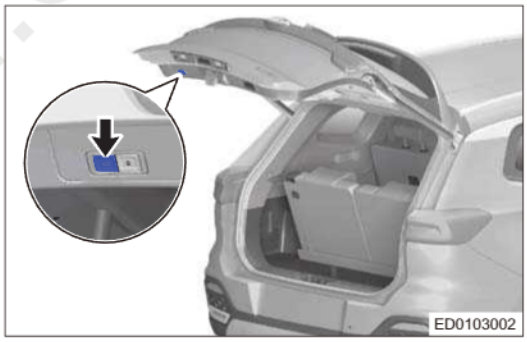
   (a) Touch "Vehicle Setting" on no disc DVD display and enter vehicle setting screen.
   (b) Touch "Back Door Opening" on "Vehicle Setting" screen to adjust opening height of back door.
   (c) Range of back door opening height: 50% - 100%.



2. Set by back door lower edge switch.

   (a) Open the back door and adjust it to desired height.
   Caution:
   - It is recommended that the height required for the back door should not be too low, or the opening height of back door cannot be set.

   (b) Press and hold the back door lower switch for more than 3 s until the vehicle lights up, and the back door opening height is set successfully.



Power Back Door Soft Stopping Function

1. Soft stop function: When the power back door moves from origin point to top dead center, it will stop at the soft stop position and allow it to stop stably. Avoid certain impact on the motor and the power back door from shaking when it stops after it moves to the top dead center.

Power Back Door Jam Protection Function

1. Hall jam protection: Hall sensors are integrated inside the electric support bar to indirectly monitor the current position of power back door so that it can operate in a uniform and stable state while further realizing jam protection function.

   (a) Back door opening jam protection: If the power back door is blocked when it encounters an obstacle during opening, the position information stops in unit time, and the current of motor rises, the torque increases, the speed reduces. When these conditions are met, jam protection function is triggered, and the power back door will close until it is completely closed.
   (b) Back door closing jam protection: If the power back door is blocked when it encounters an obstacle during closing, the position information stops in unit time, and the current of motor rises, the torque increases, the speed reduces. When these conditions are met, jam protection function is triggered, and the power back door will open until it is completely closed (open position is according to height setting).

2. Jam protection strip: The left and right sides of power back door are respectively equipped with jam protection strips, which cause the signal voltage to change through the change of their resistance values, thus further realizing jam protection function.
   (a) Back door closing jam protection: If the jam protection strip is squeezed by an obstacle while the power back door is closing, its internal resistance value decreases and the output signal voltage becomes low. At this time, jam protection function is triggered, and the power back door will open until it is completely closed (open position is according to height setting).

Power Back Door Surrounding Adaption

1. Surrounding adaption: According to the environmental impact of natural areas, for example, in winter, back door will be frozen, covered by snow on a snowy day, in windy day, and vehicles stopped on the ramp, etc., the system will make adaptive adjustment according to the current factors and be able to open or close the power back door accordingly. But if the back door freezes more serious, the weight of snow for more than 3 kg, parking slope is greater than 20°, etc. The power back door may be impossible to operate, which is normal, not a malfunction.

Power Back Door Sleeping On Condition

1. When power back door is open, but there is no further operation on power back door within 15 minutes. After 15 minutes, the system will enter sleeping condition. Meanwhile, back door illumination light will go off, realizing engery reservation function. If any power back door action is activated, the system will be waken up to actuate corresponding action.

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DIAGNOSIS & TESTING

Diagnosis Content

Diagnosis Procedure

Hint:
Use following procedures to troubleshoot the brake control system.

1	Vehicle brought to workshop

Result

Proceed to
Next

Next

2	Check battery voltage

Check if battery voltage is normal.

OK

Standard voltage: Not less than 12 V

Result

Proceed to
OK
NG

NG → Check and repair battery

OK

3	Customer problem analysis

Result

Proceed to
Next

Next

4	Check and clear DTCs

Result

Proceed to
Next

Next

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5	Confirm and reappear problem

Result

Proceed to
No DTC
Current DTC
History DTC

History DTC

6	Problem Repair (No DTC)

Result

Proceed to
Next

Next → Go to step 8

7	Troubleshoot according to Diagnostic Trouble Code (DTC) chart

Result

Proceed to
Next

Next → Go to step 8

8	Troubleshoot according to Problem Symptoms Table

Result

Proceed to
Next

Next

9	Conduct test and confirm malfunction has been repaired

Result

Proceed to
Next

Next → End

DTC Confirmation Procedure

Confirm that battery voltage is normal before performing following procedures.

- Turn ignition switch to OFF.

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- Connect the diagnostic tester (the latest software) to Data Link Connector (DLC).
- Turn ignition switch to ON.
- Use the diagnostic tester to record and clear stored DTCs.
- Turn ignition switch to OFF and wait several seconds.
- Using the diagnostic tester, select Read DTCs.
- If DTC is detected, malfunction indicated by DTC is current. Go to diagnosis procedure - Step 1.
- If no DTC is detected, malfunction indicated by DTC is intermittent Please refer to Intermittent DTC Troubleshooting.

System Diagnostic

1. Description
   (a) Instrument cluster data and Diagnostic Trouble Code (DTC) can be read from OBD diagnostic interface of vehicle. When system seems to be malfunctioning, use diagnostic tester to check for a malfunction and perform repairs.
2. Check battery voltage
   (a) Standard Voltage:
   Not less than 12 V
   If voltage is below 12 V, check and repair battery before proceeding to next step.

Intermittent DTC Troubleshooting

If malfunction is intermittent, perform the followings:

- Check if connector is loose.
- Check if wire harness is worn, pierced, pinched or partially broken.
- Wiggle related wire harness and connector and observe if signal in related circuit is interrupted.
- If possible, try to duplicate conditions under which DTC was set.
- Look for data that has changed or DTC to reset during wiggle test.
- Check for broken, bent, protruded or corroded terminals.
- Inspect wheel speed sensors and mounting areas for damage, foreign matter, etc. that will cause incorrect signals.
- Check and clean all wire harness connectors and ground parts related to DTC.
- If multiple trouble codes were set, refer to circuit diagrams to look for any common ground circuit or power supply circuit applied to DTC.
- Refer to any Technical Bulletin that may apply to this malfunction.

Ground Inspection

Ground points are very important to the proper operation of circuits. Ground points are often exposed to moisture, dirt and other corrosive environments. Corrosion (rust) may increase load resistance. This situation may change the way in which a circuit works. Circuits are very sensitive to proper grounding. A loose or corroded ground can affect the control circuit. Check the ground points as follows:

1. Remove ground bolt or nut.
2. Check all contact surfaces for tarnish, dirt and rust, etc.
3. Clean as necessary to ensure that contacting is in good condition.
4. Reinstall ground bolt or nut securely.
5. Check if add-on accessories interfere with ground circuit.
6. If several wire harnesses are crimped into one ground terminal, check for proper crimps. Make sure that all wire harnesses are clean and securely fastened while providing a good ground path.

Diagnostic Trouble Code (DTC) Chart

DTC	DTC Definition
U0073-88	CAN Busoff Failure
U0140-87	Lost Communication with BCM
U0214-87	Lost communication with PEPS

DTC	DTC Definition
U0151-87	Lost communication with ABM
U0164-87	Lost Communication With Climate Module
U0155-87	Lost communication with ICM
U0101-87	Lost communication with TCU
U0129-87	Lost communication with BSM
U0100-87	Lost Communication With EMS
U1300-55	Software Configuration Error
U1191-87	PLG Lost Communication With KSM
B1A90-16	VBAT Power is Open Circuit
B1A91-15	LH Pinch Strip Sensor Failure
B1A92-15	RH Pinch Strip Sensor Failure
B1A93-07	Driver Switch Failure
B1A94-07	Handle switch failure
B1A95-07	Inner Switch Failure
B1A96-07	Global Switch Failure
B1A97-01	LH Hall Pulse is out of Range
B1A98-13	LH Hall Sensor Failure (LH Spindle Unit Failure)
B1A99-14	LH Hall Sensor Power Supply Failure
B1A9F-1C	LH Spindle Motor Output Failure
B1AA0-1D	LH Spindle Motor Overload
B1AA1-1C	Cinch Latch Motor Output Failure
B1AA2-1D	Cinch Latch Motor Overload
B1AA3-1C	Release Motor Output Failure
B1AA4-07	Half/Full Latch Abnormality
B1AA5-07	PCM Switch Failure
B1AA6-07	PLG Position is out of Range
B1AA7-07	Dual Spindles Position Misalignment
B1AA8-07	Cinch Failure
B1AA9-07	Closure Motor Overheat
B1AAA-04	ECU Failure
B1AAB-17	Ks Over Voltage Error
B1AAC-16	Ks Under Voltage Error
B1AAD-01	Ks Electrode Error
B1AAE-45	Ks ECU ROM Error
B1AAF-87	Ks LIN Response Error

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DTC	U0073-88	CAN Busoff Failure
DTC	U0140-87	Lost Communication with BCM
DTC	U0214-87	Lost communication with PEPS
DTC	U0151-87	Lost communication with ABM
DTC	U0164-87	Lost Communication With Climate Module
DTC	U0155-87	Lost Communication with ICM
DTC	U0101-87	Lost communication with TCU
DTC	U0129-87	Lost communication with BSM
DTC	U0100-87	Lost Communication with EMS
DTC	B1AAF-87	Ks LIN Response Error
DTC	U1191-87	PLG Lost Communication With KSM

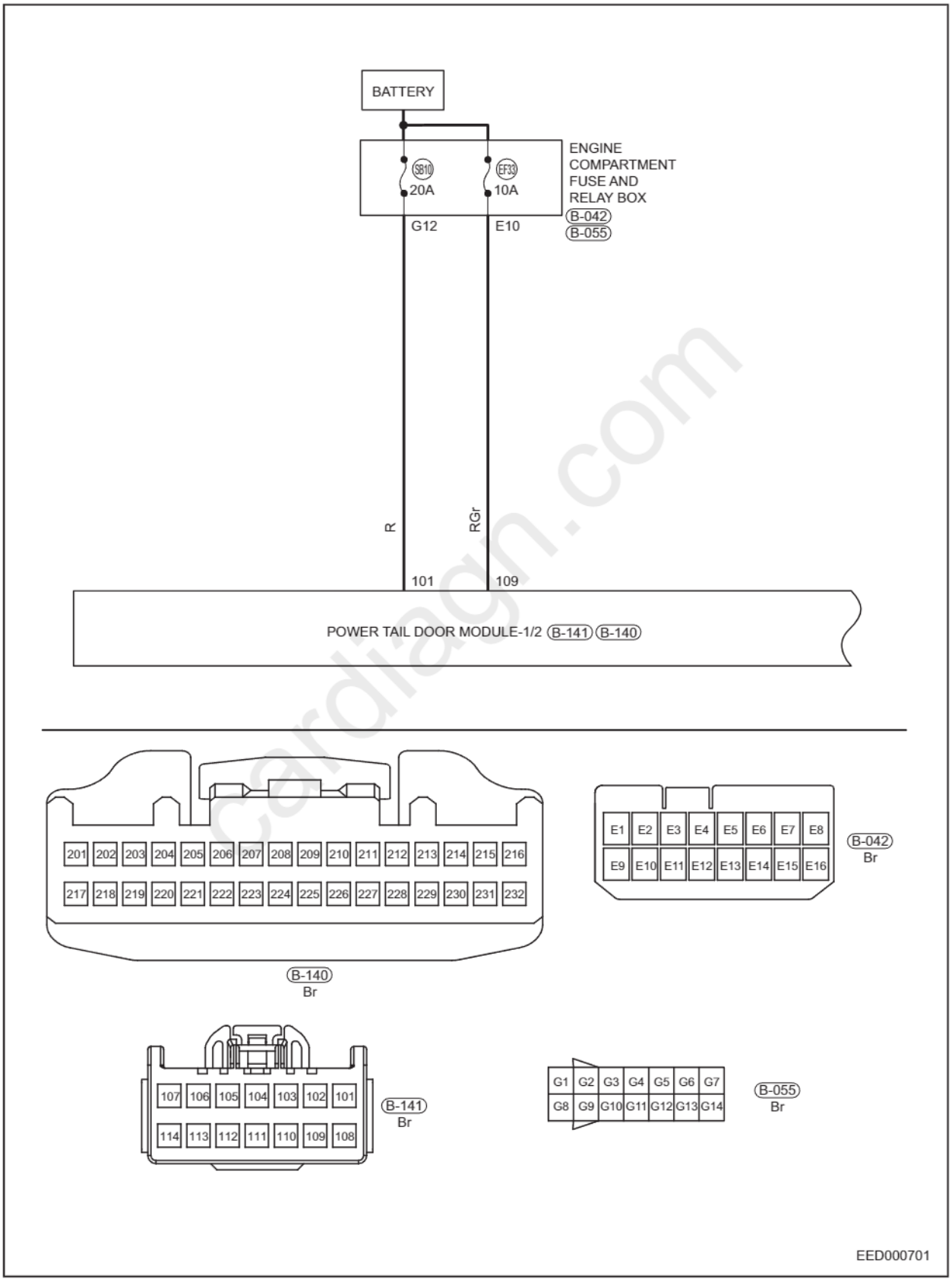
Procedure

1	Refer to CAN system

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DTC	B1A90-16	VBAT Power is Open Circuit

Circuit Diagram



cardiagn.com

Description

DTC	DTC Definition
B1A90-16	VBAT Power is Open Circuit

Caution:
When performing electrical equipment diagnosis and test, always refer to circuit diagram for related circuit and component information.

Confirmation Procedure
Confirm that battery voltage is no less than 12 V before performing following procedures.

Procedure

1	Check fuse

(a) Check if fuse SB10 or EF33 is blown.

Result

Proceed to
OK
NG

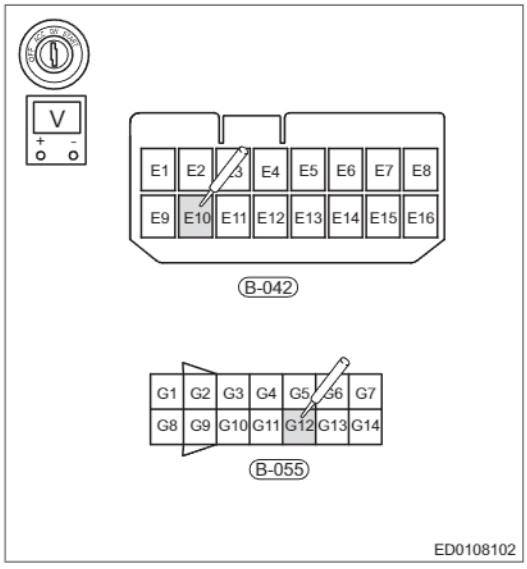
NG → **Replace fuse**

OK →

2	Check output voltage of engine compartment fuse and relay box

(a) Turn ENGINE START STOP switch to ON.
(b) Check the voltage between terminal 10 of engine compartment fuse and relay box B-042, terminal 12 of engine compartment fuse and relay box B-055 and ground. (Perform measurement with a digital multimeter)

Multimeter Connection	Condition	Specified Condition
B-042 (E10) - Body ground	ON	Not less than 12 V
B-055 (G12) - Body ground	ON	Not less than 12 V



Result

Proceed to
OK
NG

NG → **Replace engine compartment fuse and relay box assembly**

OK →

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3	Check wire harness for open

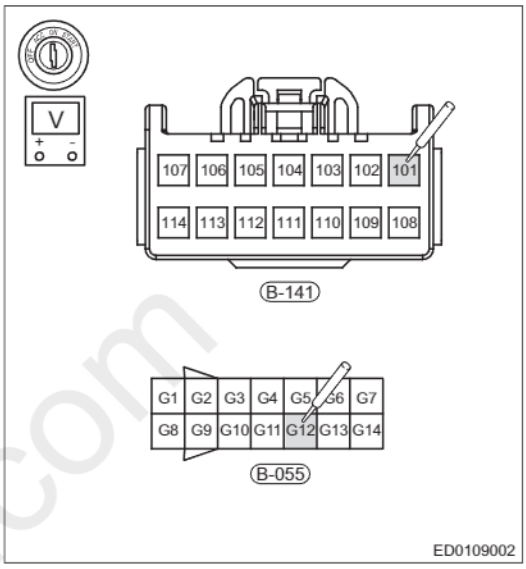
(a) Turn ignition switch to OFF.
(b) Disconnect the negative battery cable.
(c) Disconnect power back door module connector B-141 and engine compartment fuse and relay box connector B-055
(d) Using ohm band of digital multimeter, measure resistance between connector B-141 (101) - B055 (G12) to check wire harness for open.

OK

Multimeter Connection	Condition	Specified Condition
B-141 (101) - B-055 (G12)	ENGINE START STOP switch OFF	≤ 1 Ω

Result

Proceed to
OK
NG



OK	Replace PLG module assembly
NG	Handle and repair related wire harness

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DTC	B1A93-07	Driver Switch Failure

DTC	B1A94-07	Handle switch failure

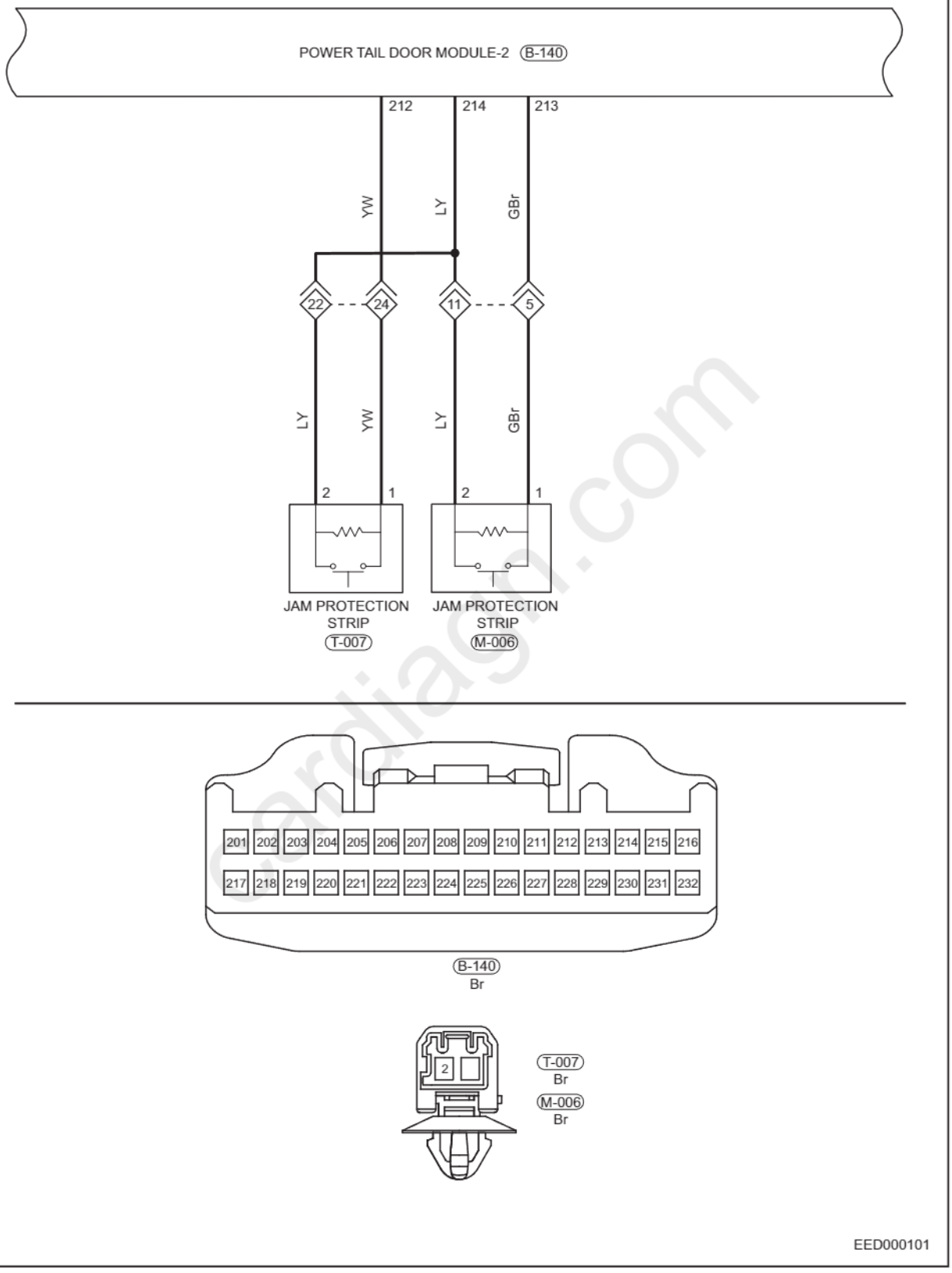
Procedure
Refer to PEPS system

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DTC	B1A91-15	LH Pinch Strip Sensor Failure
DTC	B1A92-15	RH Pinch Strip Sensor Failure

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Circuit Diagram



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Description

DTC	DTC Definition
B1A91-15	LH Pinch Strip Sensor Failure
B1A92-15	RH Pinch Strip Sensor Failure

Caution:
When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.
Take left spindle pinch strip as example. For right bar pinch strip, refer to left side.

1	Check left spindle pinch strip connector

(a) Turn ignition switch to OFF.
(b) Disconnect the negative battery cable.
(c) Disconnect left pinch strip connector T-007 and connector B-084.
(d) Check wire harness, connector and terminal for deformation, bend or damage.

Result

Proceed to
OK
NG

NG → **Repair or replace left pinch strip wire harness**

OK

2	Check left spindle pinch strip wire harness for short

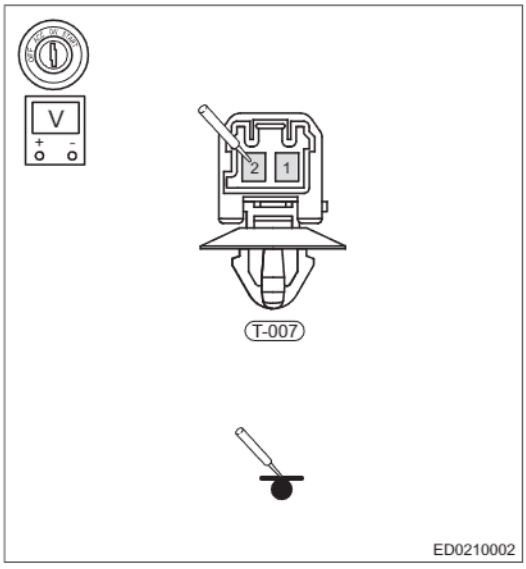
(a) Disconnect the negative battery cable.
(b) Turn ignition switch to ON
(c) Disconnect left spindle pinch strip connector T-007 and measure if left pinch strip is short to power supply

OK

Multimeter Connection	Condition	Specified Condition
T-007 (2) - Body ground	Always	≈ 0 V
T-007 (1) - Body ground	Always	5 V

Result

Proceed to
OK
NG



NG → **Repair or replace left pinch strip wire harness**

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OK

3	Test left spindle pinch strip

(a) Turn ignition switch to OFF.
(b) Disconnect left pinch strip wire harness connector and measure left spindle pinch strip inner resistance with digital multimeter.

Warning:

- The measurement result is minus multimeter error when measuring internal resistance of actuator.

Result

Proceed to
OK
NG

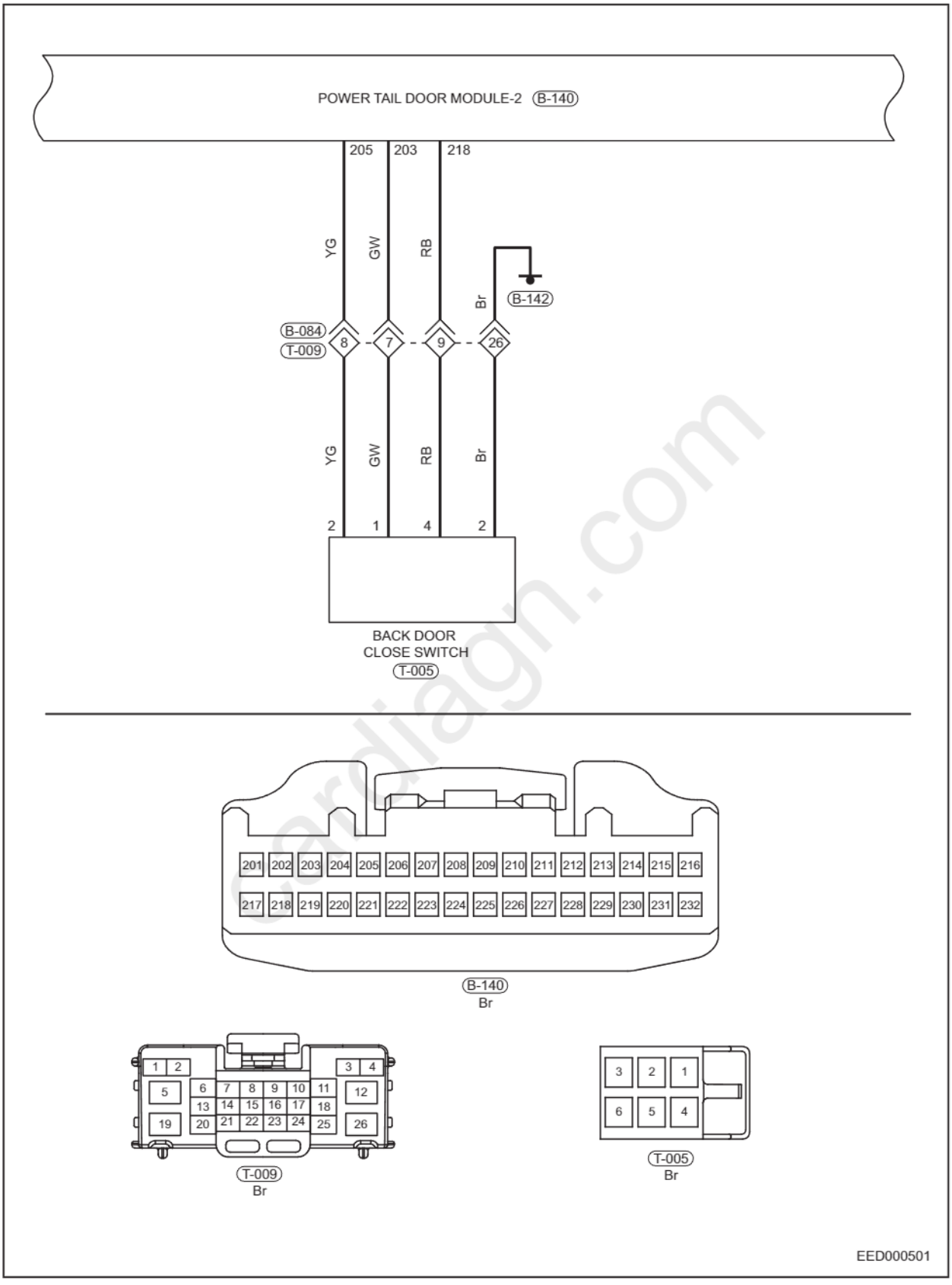
OK	System is normal
NG	Replace left spindle pinch strip

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DTC	B1A95-07	Inner Switch Failure
DTC	B1A96-07	Global Switch Failure

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Circuit Diagram



DTC	DTC Definition
B1A95-07	Inner Switch Failure

DTC	DTC Definition
B1A96-07	Global Switch Failure

Caution:
When performing electrical equipment diagnosis and test, always refer to circuit diagram for related circuit and component information.

Problem causes:
- Back door closer switch assembly.
- Wire harness or connector.
- Power back door module assembly.

Procedure

1	Check vehicle malfunction condition

(a) Check if the back door can be closed normally after back door closer switch is pushed.

Result

Proceed to
OK
NG

NG → **Turn off vehicle power supply (disconnect the negative battery cable), then turn on power supply again and clear DTC.**

OK

2	Check if back door closer switch power supply is normal.

(a) Turn ENGINE START STOP switch to ON.
(b) According to the below table, use digital multimeter to detect back door switch signal.

OK

Multimeter Connection	Condition	Specified Condition
T-005 (1) - Body ground	Initial condition	12 V
	Inner switch pushed	1.5 V
T-005 (2) - Body ground	Inner switch pushed	12 V
T-005 (4) - Body ground	Initial condition	12 V
	Global Switch Failure	1.5 V
T-005 (4) - Body ground	Always	0 V

Result

Proceed to
OK
NG

NG → **Check if power supply fuse is burnt.**

OK

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3	Check wire harness and connector

(a) Disconnect the connector T005.
(b) Check if wire harnesses are worn, pierced, pinched or partially broken.
(c) Check for broken, bent, protruded or corroded terminals.
(d) Check if terminal contact pins of related connectors are in good condition.

Result

Proceed to
OK
NG

NG → **Repair or replace wire harness and connector**

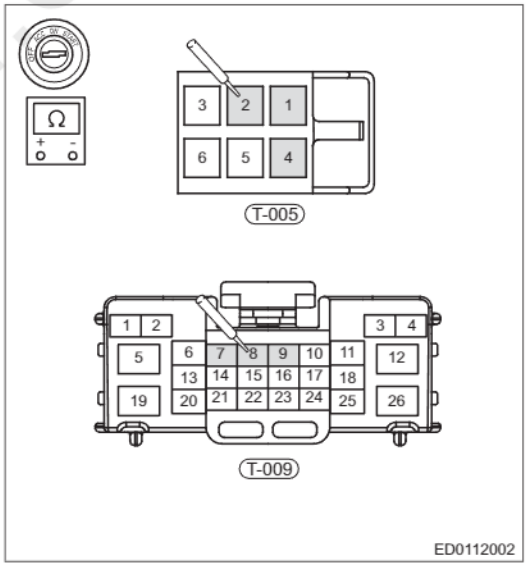
OK

4	Check back door closer switch wire harness

(a) Turn ENGINE START STOP switch to OFF.
(b) Disconnect the connectors T-009 and T-005.
(c) Using ohm band of multimeter, check resistance among T-005 (2) - T009 (8), T-005 (1) - T-009 (7), T-005 (4) - T-009 (9).

OK

Multimeter Connection	Condition	Specified Condition
T-005 (2) - T009 (8)	ENGINE START STOP switch OFF	≤ 1 Ω
T-005 (1) - T-009 (7)		≤ 1 Ω
T-005 (4) - T-009 (9)		≤ 1 Ω

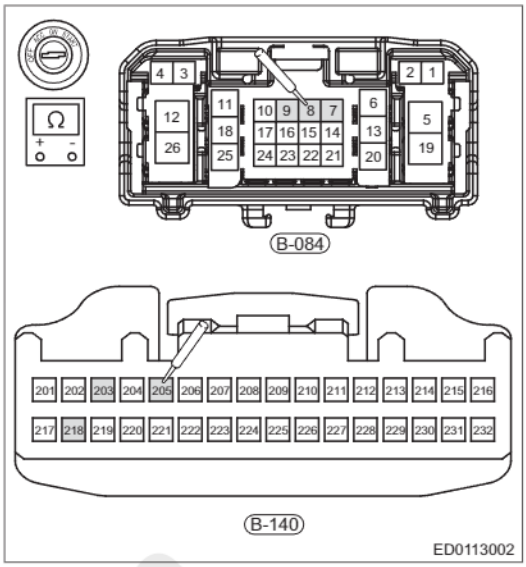


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(d) Using ohm band of multimeter, check for continuity between B-084 (8) - B-140 (5), B-084 (7) - B-140 (3), and B-084 (9) - B-140 (18).

OK

Multimeter Connection	Condition	Specified Condition
B-084 (8) - B-140 (205)	ENGINE START STOP switch OFF	≤ 1 Ω
B-084 (7) - B-140 (203)		≤ 1 Ω
B-084 (9) - B-140 (218)		≤ 1 Ω



Result

Proceed to
OK
NG

NG → **Replace back door closer switch assembly.**

OK

5	Reconfirm DTCs

(a) Connect all connectors.
(b) Connect the negative battery cable.
(c) Turn ENGINE START STOP switch to OFF.
(d) Use diagnostic tester (the latest software) to read the DTCs stored in body control system again.

Result

Proceed to
OK
NG

OK → **System is normal**

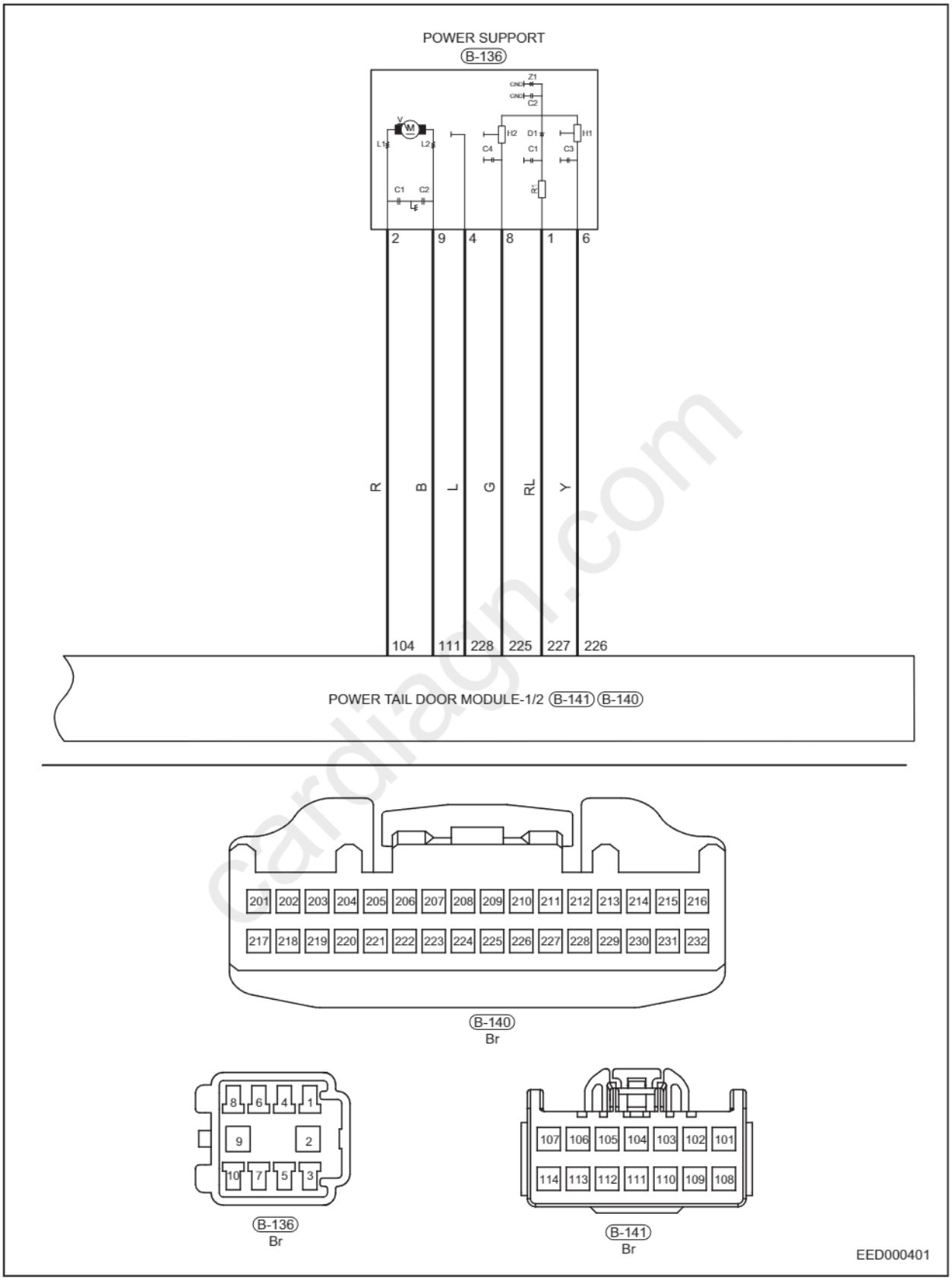
NG → **Replace PLG module assembly**

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DTC	B1A98-13	LH Hall Sensor Failure (LH Spindle Unit Failure)
DTC	B1A99-14	LH Hall Sensor Power Supply Failure
DTC	B1A97-01	LH Hall Pulse is out of Range

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Circuit Diagram



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Description

DTC	DTC Definition
B1A98-13	LH Hall Sensor Failure (LH Spindle Unit Failure)
B1A99-14	LH Hall Sensor Power Supply Failure
B1A97-01	LH Hall Pulse is out of Range

Caution:
When performing electrical equipment diagnosis and test, always refer to circuit diagram for related circuit and component information.

Problem causes:
- Power Support Assembly
- Wire harness or connector.
- Power back door module assembly.

Procedure

1	Check left support wire harness connector

(a) Turn ENGINE STRART STOP switch to OFF and disconnect power support connector B-136.
(b) Check for broken, bent, protruded or corroded terminals.
(c) Check if wire harnesses are worn, pierced, pinched or partially broken.

Result

Proceed to
OK
NG

NG → **Repair or replace wire harness and connector**

OK

2	Check sensor power supply

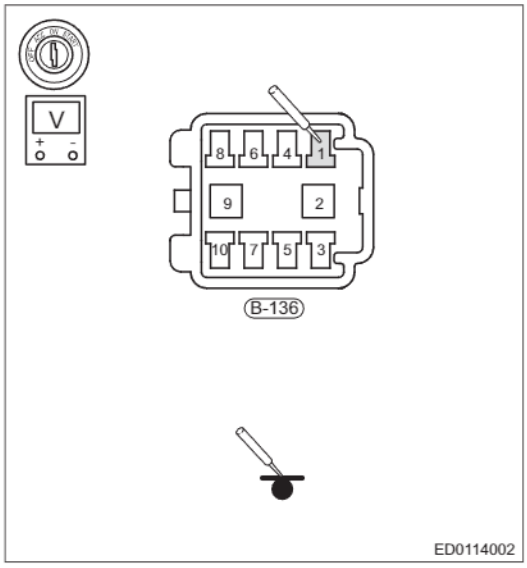
(a) Turn ignition switch to ON.
(b) Disconnect connector B-136, use multimeter to measure the voltage at terminal No.1 to body ground. The specified voltage should be no less than 12 V.

OK

Multimeter Connection	Condition	Specified Condition
B-136 (1) - Body ground	Ignition switch ON	Not less than 12 V

Result

Proceed to
OK
NG



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NG → Repair or replace wire harness and connector

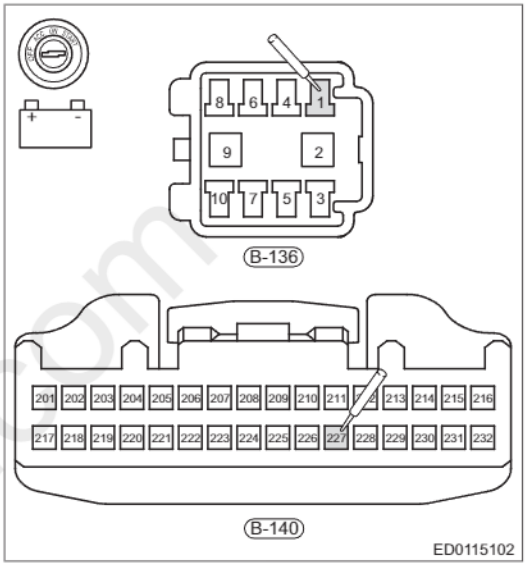
OK

3 Check power supply wire harness

(a) Turn ENGINE START STOP switch to OFF.
(b) Disconnect power back door module connectors B-140 and B-136.
(c) Use ohm band of multimeter to individually check if B-140 (27) and B-136 (1) are short to power supply.

OK

Multimeter Connection	Condition	Specified Condition
B-140 (227) - Battery (+)	ENGINE START STOP switch OFF	∞
B-136 (1) - Battery (+)	ENGINE START STOP switch OFF	∞



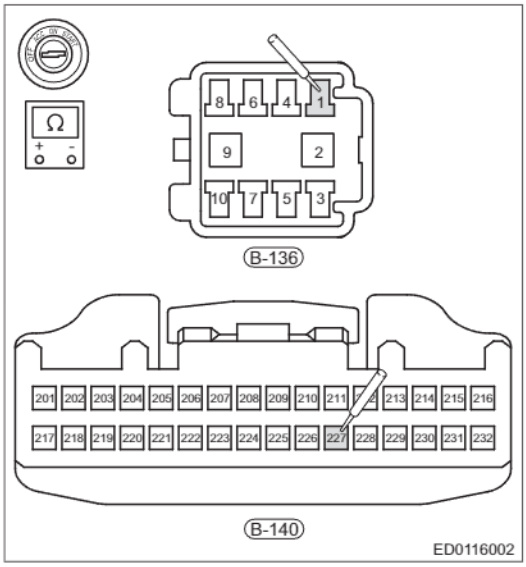
(d) Using ohm band of multimeter, check for continuity between I-140 (27) and B-136 (1).

OK

Multimeter Connection	Condition	Specified Condition
B-140 (227) - B-136 (1)	ENGINE START STOP switch OFF	≤ 1 Ω

Result

Proceed to
OK
NG



NG → Repair or replace power support

OK

4 Reconfirm DTCs

(a) Connect all connectors.

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(b) Connect the negative battery cable.
(c) Turn ENGINE START STOP switch to ON.
(d) Use diagnostic tester (the latest software) to read the DTCs stored in body control system again.

Result

Proceed to
OK
NG

OK	System is normal
NG	Replace PLG module assembly

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DTC	B1AA6-07	PLG Position is out of Range

Description

DTC	DTC Definition
B1AA6-07	PLG Position is out of Range

1	Check the appearance of power support

(a) Check if the appearance of power support is deformed and damaged.

Result

Proceed to
OK
NG

NG → **Repair or replace power support.**

OK ↓

2	Check the power support

(a) Install power support to new vehicle to observe if the same malfunction occurs simultaneously.

Result

Proceed to
OK
NG

NG → **Repair or replace power support.**

OK ↓

3	Reconfirm DTCs

(a) Connect all connectors.
(b) Connect the negative battery cable.
(c) Turn ENGINE START STOP switch to ON.
(d) Use diagnostic tester (the latest software) to read the DTCs stored in body control system again.

Result

Proceed to
OK
NG

OK → **System is normal**

NG → **Replace PLG module assembly**

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DTC	B1A9A-1C	LH Spindle Motor Output Failure

DTC	B1A9B-1D	LH Spindle Motor Overload

Description

DTC	DTC Definition
B1A9A-1C	LH Spindle Motor Output Failure
B1A9B-1D	LH Spindle Motor Overload

Caution:
When performing electrical equipment diagnosis and test, always refer to circuit diagram for related circuit and component information.

Problem causes:
- Power Support Assembly
- Wire harness or connector.
- Power back door module assembly.

1	Check left spindle motor connector

(a) Turn ENGINE START STOP switch to OFF.
(b) Disconnect connector B-136 and check if there is any damage in connector terminals.

Result

Proceed to
OK
NG

NG → Repair or replace power support.

OK →

2	Check motor power supply

(a) Turn ENGINE START STOP switch to ON.

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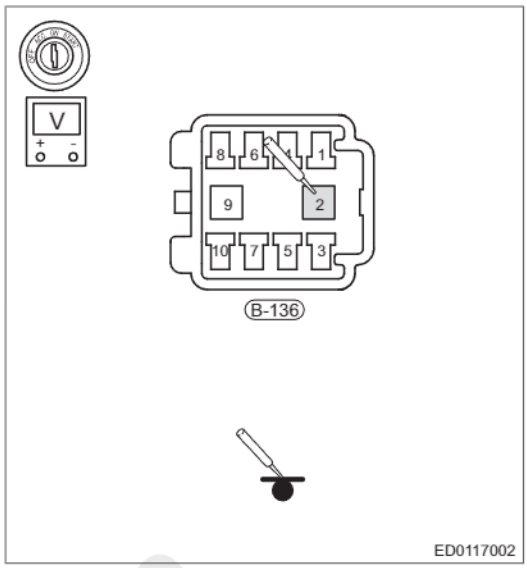
(b) Disconnect support B-136 and use voltage band of multimeter to measure the voltage of B-136 (2) to ground. The specified voltage should be no less than 12 V.

OK

Multimeter Connection	Condition	Specified Condition
B-136 (2) - Body ground	Ignition switch ON	No less than 12 V

Result

Proceed to
OK
NG



NG → **Repair and replace power supply wire harness**

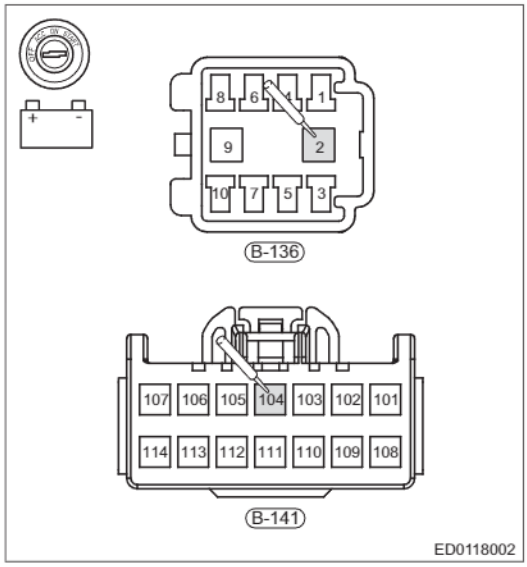
OK

3	Check motor power supply again

(a) Turn ENGINE START STOP switch to OFF.
(b) Disconnect power back door module connectors B-141 and B-136.
(c) Using ohm band of multimeter, check for continuity between B-141 (104), B-136 (2) and battery (+), and check if they are short to power supply.

OK

Multimeter Connection	Condition	Specified Condition
B-141 (104) - Battery (+)	ENGINE START STOP switch OFF	∞
B-136 (2) - Battery (+)		∞



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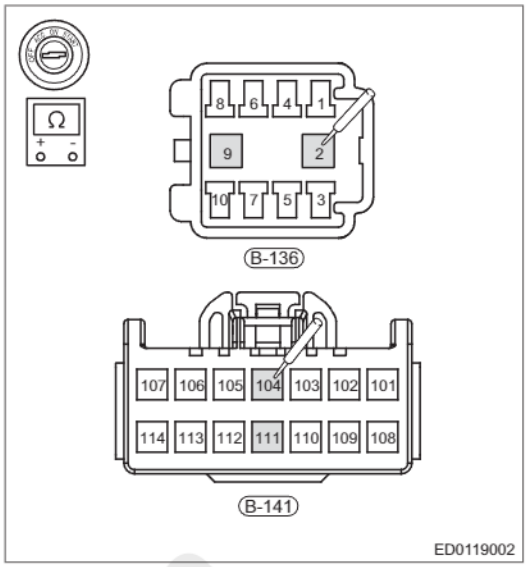
(d) Using ohm band of multimeter, check for continuity between H-141 (4) - B-136 (2) and H-141 (11) - B-136 (9) separately.

OK

Multimeter Connection	Condition	Specified Condition
B-141 (104) - B-136 (2)	ENGINE START STOP switch OFF	≤ 1 Ω
B-141 (111) - B-136 (9)		≤ 1 Ω

Result

Proceed to
OK
NG



NG → **Repair or replace left spindle motor.**

OK

4 Reconfirm DTCs

(a) Connect all connectors.
(b) Connect the negative battery cable.
(c) Turn ENGINE START STOP switch to ON.
(d) Use diagnostic tester (the latest software) to read the DTCs stored in body control system again.

Result

Proceed to
OK
NG

OK → **System is normal**

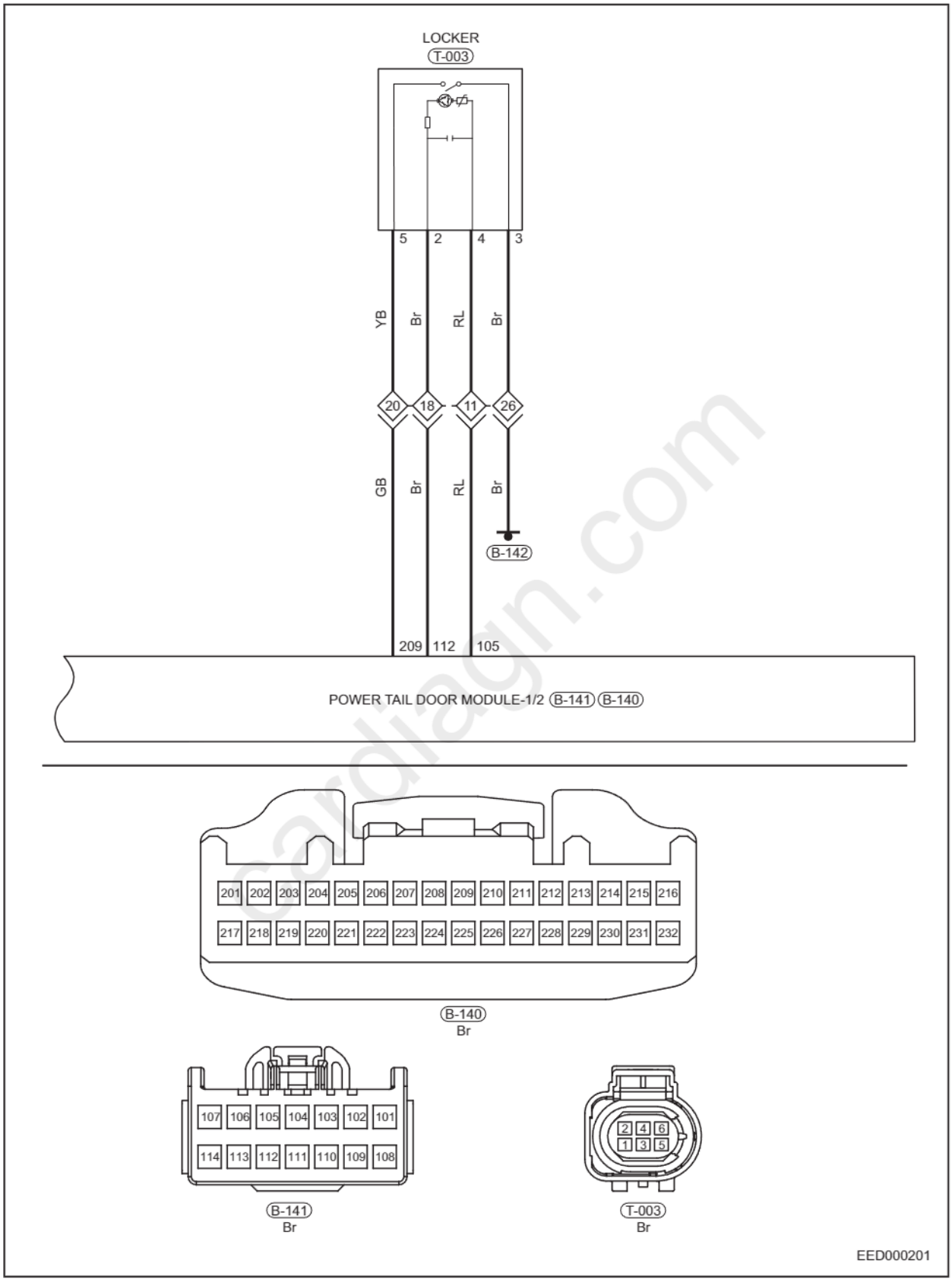
NG → **Replace PLG module assembly**

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DTC	B1AA1-1C	Cinch Latch Motor Output Failure
DTC	B1AA2-1D	Cinch Latch Motor Overload
DTC	B1AA9-07	Closure Motor Overheat

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Circuit Diagram



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Description

DTC	DTC Definition
B1AA1-1C	Cinch Latch Motor Output Failure
B1AA2-1D	Cinch Latch Motor Overload
B1AA9-07	Closure Motor Overheat

Caution:
When performing electrical equipment diagnosis and test, always refer to circuit diagram for related circuit and component information.

Problem causes:
- Fastener assembly.
- Wire harness or connector.
- Power back door module assembly.

1	Check fastener motor connector

(a) Turn ENGINE START STOP switch to OFF.
(b) Disconnect the connectors T-003 and T-009 and check terminals

Result

Proceed to
OK
NG

NG → Repair or replace motor wire harness

OK

2	Check fastener motor signal voltage

(a) Turn ENGINE START STOP switch to ON.
(b) Use multimeter to measure the voltage of T-003 (5). The specified voltage should be not less than 12 V.

OK

Multimeter Connection	Condition	Specified Condition
T-003 (5) - Ground	Ignition switch ON	Not less than 12 V

Result

Proceed to
OK
NG



NG → Repair or replace motor wire harness

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OK

3	Check fastener motor wire harness

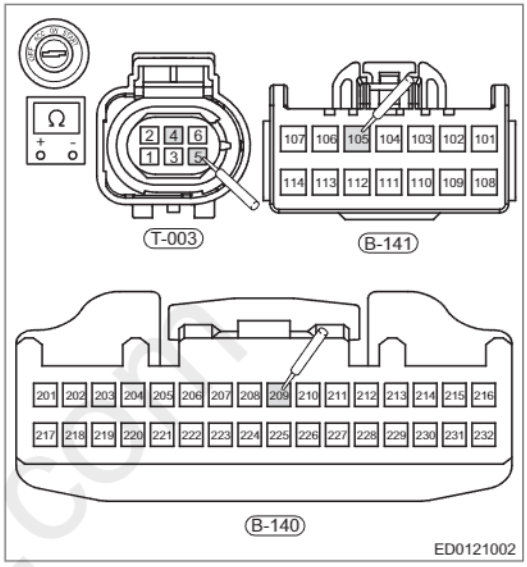
(a) Turn ENGINE START STOP switch to OFF.
(b) Disconnect the connectors T-003, B-141, B-140.
(c) Using ohm band of multimeter, check for continuity among T-003 (5), T-003 (4) and B-141 (105), B-140 (209).

OK

Multimeter Connection	Condition	Specified Condition
B-003 (5) - B-140 (209)	ENGINE START STOP switch OFF	≤ 1 Ω
T-003 (4) - B-141 (105)		≤ 1 Ω

Result

Proceed to
OK
NG



NG → Repair or replace motor wire harness

OK

4	Check motor control circuit

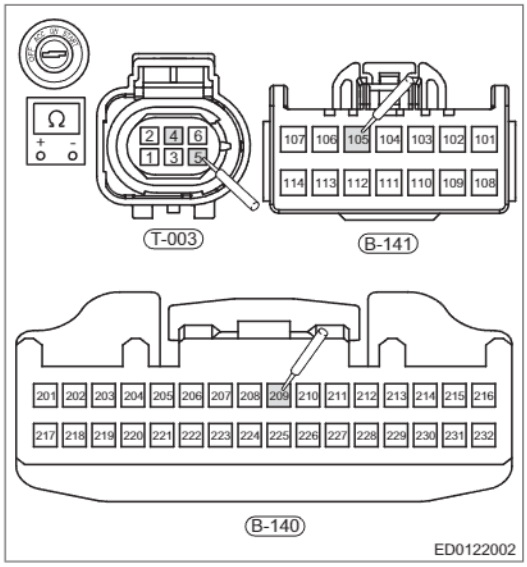
(a) Turn ENGINE START STOP switch to OFF, disconnect the negative battery cable.
(b) Disconnect fastener motor connector T-003 and PLGM connector B-140.
(c) Using ohm band of multimeter, check for continuity to battery (+) between B-141 (5) and T-003 (4).

OK

Multimeter Connection	Condition	Specified Condition
B-003 (5) - B-140 (209)	ENGINE START STOP switch OFF	≤ 1 Ω
T-003 (4) - B-141 (105)		≤ 1 Ω

Result

Proceed to
OK
NG



NG → Repair or replace motor wire harness

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OK

5	Reconfirm DTCs

(a) Connect all connectors.
(b) Connect the negative battery cable.
(c) Turn ENGINE START STOP switch to ON.
(d) Use diagnostic tester (the latest software) to read the DTCs stored in body control system again.

Result

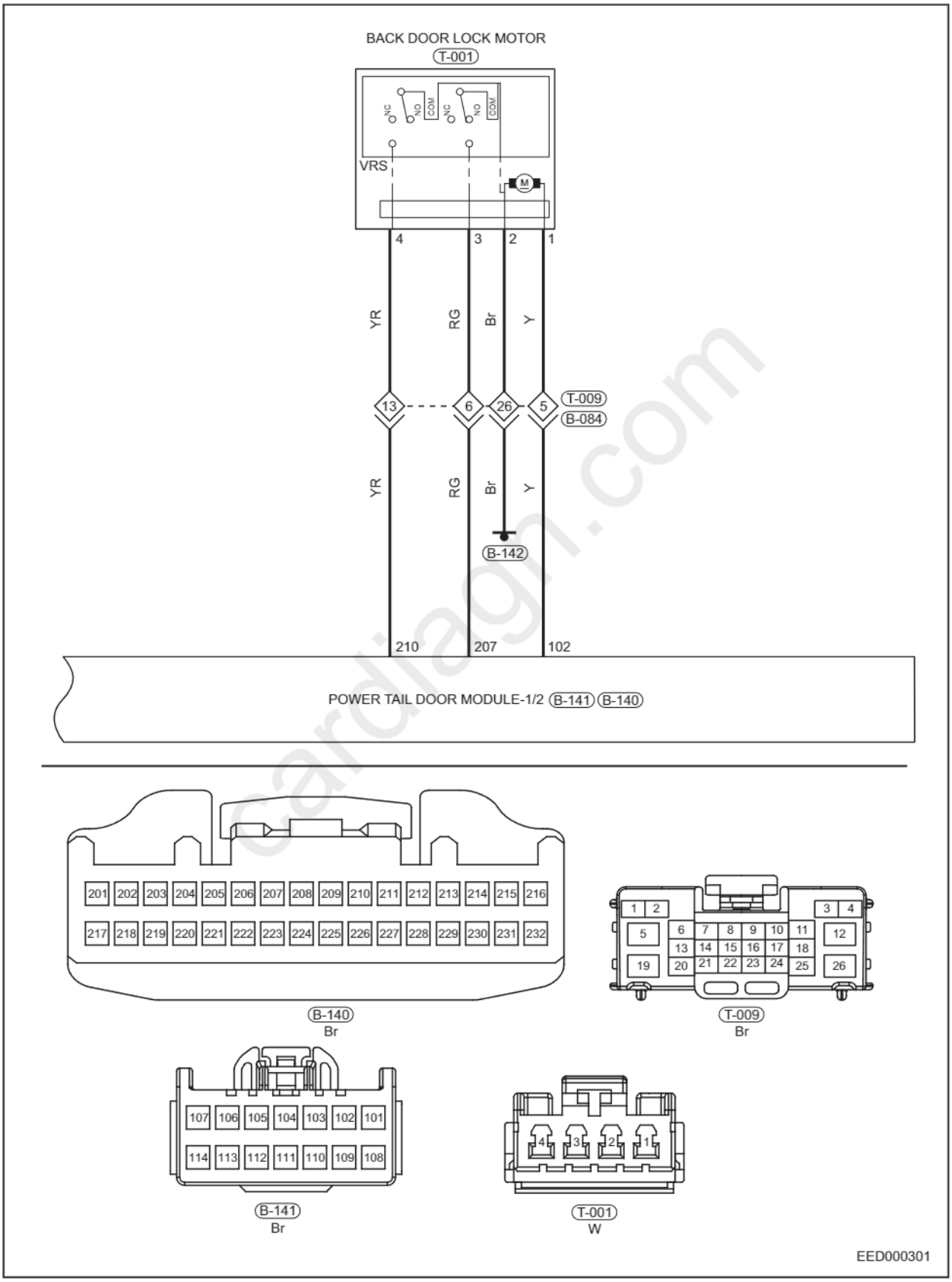
Proceed to
OK
NG

OK	System is normal
NG	Replace fastener assembly

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DTC	B1AA3-1C	Release Motor Output Failure

Circuit Diagram



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Description

DTC	DTC Definition
B1AA3-1C	Release Motor Output Failure

Caution:
When performing electrical equipment diagnosis and test, always refer to circuit diagram for related circuit and component information.

Problem causes:
- Back Door Lock Assembly
- Wire harness or connector.
- Power back door module assembly.

1	Check release motor connector

(a) Turn ENGINE START STOP switch to OFF, disconnect the negative battery cable.
(b) Disconnect back door lock connector T-001
(c) Check if wire harnesses are worn, pierced, pinched or partially broken.
(d) Check for broken, bent, protruded or corroded terminals.

Result

Proceed to
OK
NG

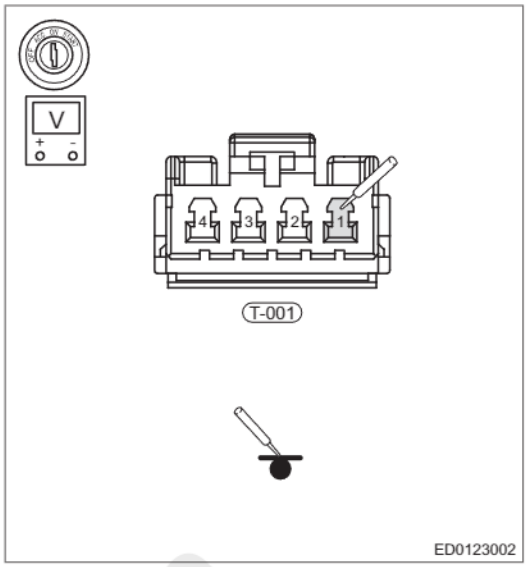
NG → **Repair or replace back door lock wire harness**

OK

2	Check release motor wire harness connector

(a) Disconnect back door lock connector T-001.
(b) Turn ENGINE START STOP switch to ON.

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(c) Use multimeter to measure the voltage of T-001 (1). The specified voltage should be not less than 12 V.

Inspect power supply voltage

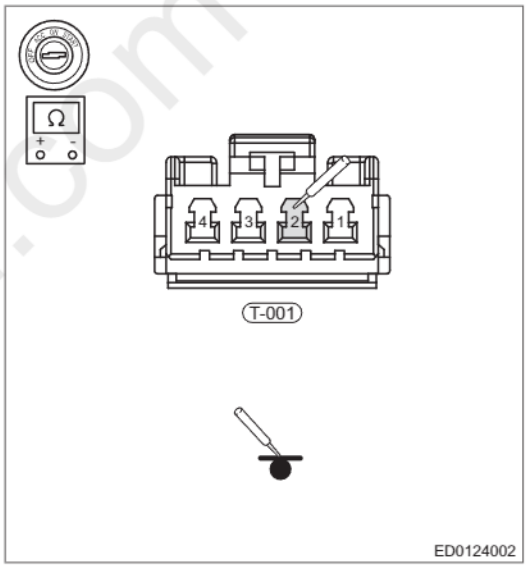
Multimeter Connection	Condition	Specified Condition
T-001 (1) - Body ground	Ignition switch ON	Not less than 12 V

Check for Open

Multimeter Connection	Condition	Specified Condition
T-001 (2) - Body ground	ENGINE START STOP switch OFF	≤ 1 Ω

Result

Proceed to
OK
NG



NG → **Repair or replace back door lock wire harness**

OK

3	Check back door lock

(a) Install back door lock of faulty vehicle to new vehicle and check if it is normal.

Result

Proceed to
OK
NG

NG → **Replace back door lock**

OK

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4	Reconfirm DTCs

(a) Connect all connectors.
(b) Connect the negative battery cable.
(c) Turn ENGINE START STOP switch to ON.
(d) Use diagnostic tester (the latest software) to read the DTCs stored in body control system again.

Result

Proceed to
OK
NG

OK	System is normal
NG	Replace PLG module assembly

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DTC	B1AA4-07	Half/Full Latch Abnormality

DTC	B1AA5-07	PCM Switch Failure

Description

DTC	DTC Definition
B1AA4-07	Half/Full Latch Abnormality
B1AA5-07	PCM Switch Failure

Caution:
When performing electrical equipment diagnosis and test, always refer to circuit diagram for related circuit and component information.

1	Check back door lock wire harness connector

(a) Disconnect the connector T-003.
(b) Check if wire harnesses are worn, pierced, pinched or partially broken.

Result

Proceed to
OK
NG

NG → **Repair or replace back door lock wire harness**

OK

2	Check half-latch/full-latch position signal

Check signal voltage

(a) Disconnect the wire harness connector T-001.
(b) Turn ENGINE START STOP switch to ON.
(c) Use multimeter to measure the voltage of T-001 (4), T-001 (3). The specified voltage should be not less than 12 V.

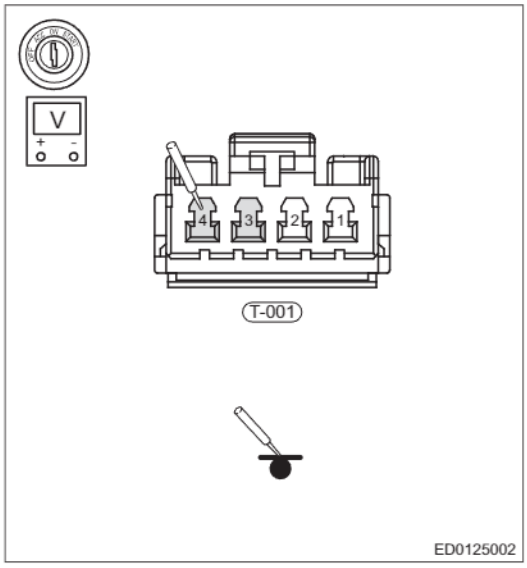
Multimeter Connection	Condition	Specified Condition
T-001 (4) - Body ground	Ignition switch ON	Not less than 12 V
T-001 (3) - Body ground		Not less than 12 V

Check for Open

Multimeter Connection	Condition	Specified Condition
T-001 (2) - Body ground	ENGINE START STOP switch OFF	≤ 1 Ω

Result

Proceed to
OK
NG



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NG → Repair or replace back door lock wire harness

OK

3	Check back door lock

(a) Install back door lock of faulty vehicle to new vehicle and check if it is normal.

Result

Proceed to
OK
NG

NG → Replace back door lock

OK

4	Reconfirm DTCs

(a) Connect all connectors.
(b) Connect the negative battery cable.
(c) Turn ENGINE START STOP switch to ON.
(d) Use diagnostic tester (the latest software) to read the DTCs stored in body control system again.

Result

Proceed to
OK
NG

OK → System is normal

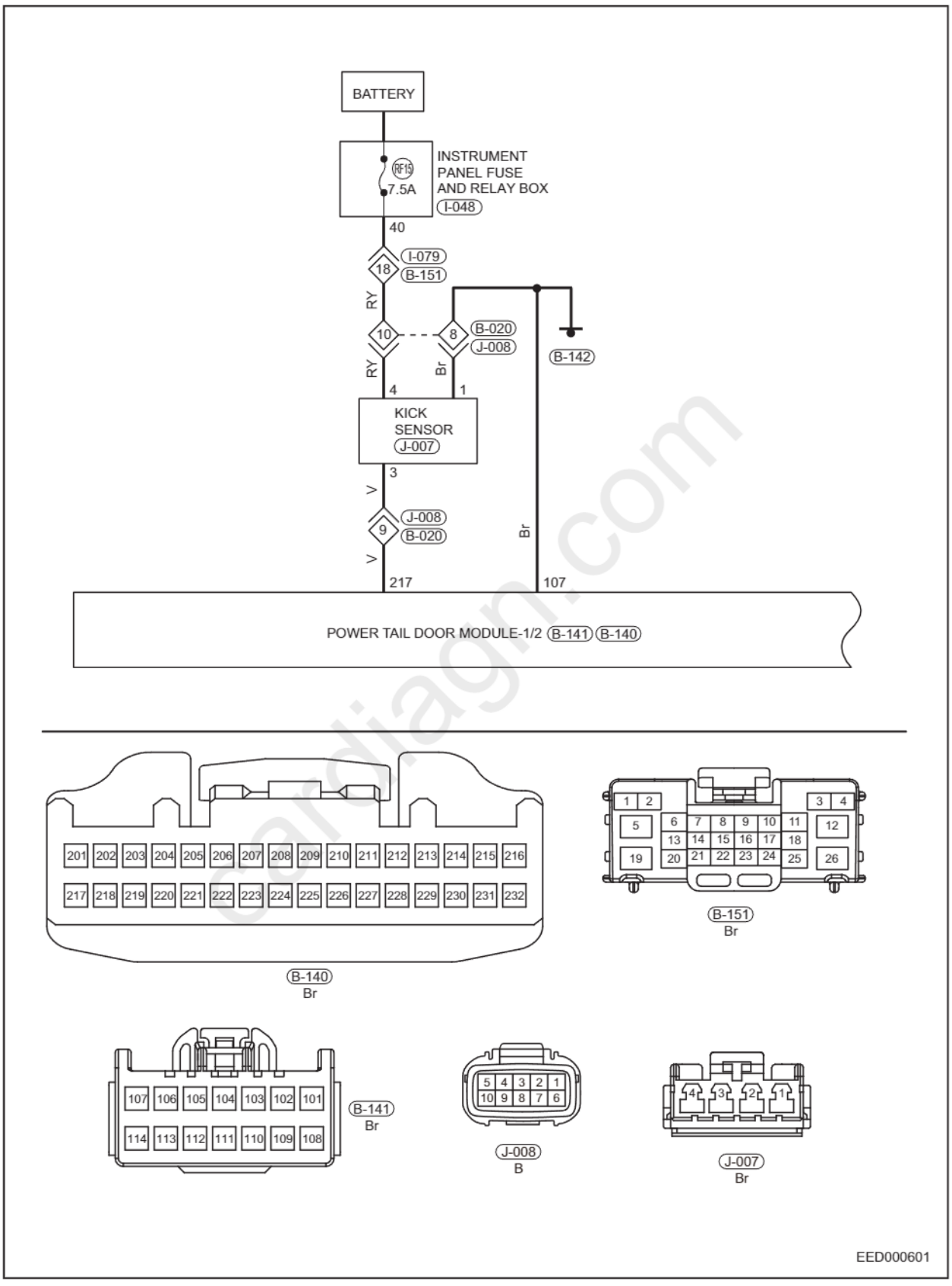
NG → Replace PLG module assembly

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DTC	B1AAB-17	Ks Over Voltage Error
DTC	B1AAC-16	Ks Under Voltage Error
DTC	B1AAD-01	Ks Electrode Error
DTC	B1AAE-45	Ks ECU ROM Error

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Circuit Diagram



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Description

DTC	DTC Definition
B1AAB-17	Ks Over Voltage Error
B1AAC-16	Ks Under Voltage Error
B1AAD-01	Ks Electrode Error
B1AAE-45	Ks ECU ROM Error

Caution:
When performing electrical equipment diagnosis and test, always refer to circuit diagram for related circuit and component information.

1	Check battery voltage

(a) Check that battery terminals are not loose or corroded.
(b) Turn ENGINE START STOP switch and measure battery voltage with a digital multimeter. The rated voltage should be between 12 V - 13 V.

Result

Proceed to
OK
NG

NG → Check or replace battery

OK

2	Check fuse RF15

(a) Check if fuse RF15 is blown or no power.

Result

Proceed to
OK
NG

NG → Replace fuse or check the cause for no power

OK

3	Check the power voltage of kick sensor

(a) Turn ignition switch to ON.

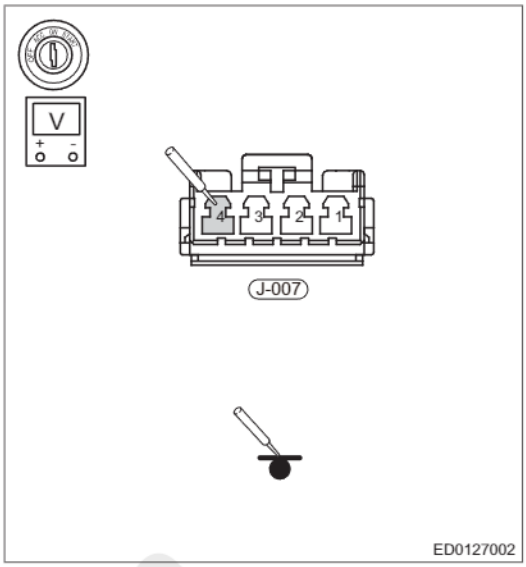
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(b) Use multimeter to measure the voltage between J-007 (4) and body ground. The specified voltage should be not less than 12 V.

Multimeter Connection	Condition	Specified Condition
J-007 (4) - Body ground	Ignition switch ON	Not less than 12 V

Result

Proceed to
OK
NG



NG → **Repair or replace speed sensor wire harness**

OK

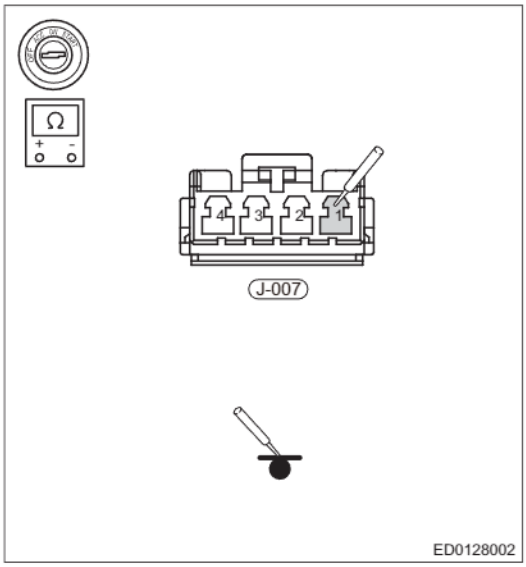
4 Check wire harness for open

(a) Turn ENGINE START STOP switch to OFF.
(b) Disconnect kick sensor connector J-007. Check if wire harnesses are worn, pierced, pinched or partially broken.
(c) Check continuity between J-007 (A1) and body ground with ohm band of multimeter.

Multimeter Connection	Condition	Specified Condition
J-007 (1) - Body ground	ENGINE START STOP switch OFF	≤ 1 Ω

Result

Proceed to
OK
NG



NG → **Repair or replace speed sensor wire harness**

OK

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5	Check kick sensor

(a) Install kick sensor of faulty vehicle to new vehicle and observe if it is normal.

Result

Proceed to
OK
NG

NG → Replace kick sensor

OK →

6	Reconfirm DTCs

(a) Connect all connectors.
(b) Connect the negative battery cable.
(c) Turn ENGINE START STOP switch to ON.
(d) Use diagnostic tester (the latest software) to read the DTCs stored in body control system again.

Result

Proceed to
OK
NG

OK → System is normal

NG → Replace PLG module assembly

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DTC	B1AAA-04	ECU Failure

Description

DTC	DTC Definition
B1AAA-04	ECU Failure

Caution:
When performing electrical equipment diagnosis and test, always refer to circuit diagram for related circuit and component information.

1	Clear DTCs

(a) Use diagnostic tester to enter PLG system to actuate DTC clearing.
(b) After DTC clearing, reconfirm DTCs

Result

Proceed to
OK
NG

OK → **Reconfirm power back door operating function**

NG → **Replace PLG module assembly**

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ON-VEHICLE SERVICE

Open the hood assembly

Removal

Warning/Caution/Hint

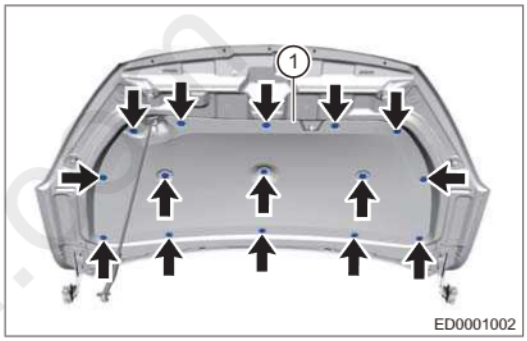
Caution:

- Be sure to wear necessary safety equipment to prevent accidents, when removing engine hood lock assembly.
- During removal of engine hood assembly, avoid engine hood falling off during operation, resulting in damage to body or front windshield.

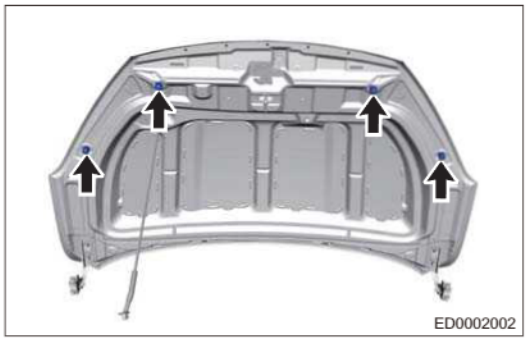
Warning:

- When removing engine hood assembly, an assistant is needed to hold it. Try to prevent hood from dropping or suddenly closing to cause accidents during operation.

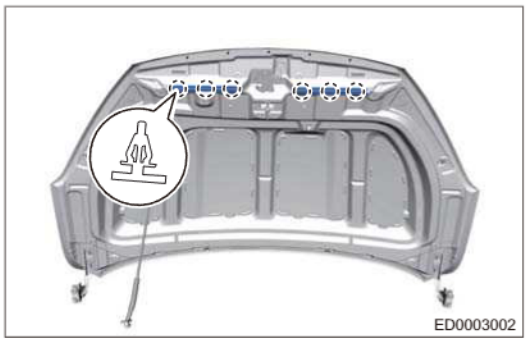
1. Remove the engine compartment sound insulator.
   (a) Remove clips (arrow) on engine compartment sound insulator (1).



2. Remove the engine hood adjustable buffer block.
   (a) Rotate engine hood adjustable buffer block (arrow) in counterclockwise and remove it.



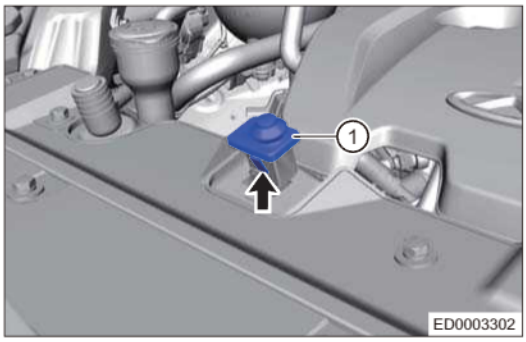
3. Remove the engine weatherstrip.
   (a) Disengage clips from engine weatherstrip and remove weatherstrip.



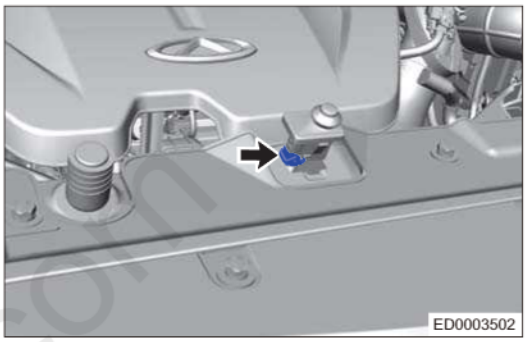
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4. Remove the engine compartment contact switch

(a) Remove rubber protector (1) from engine compartment contact switch, and using a screwdriver wrapped with protective tape, pry off fixing clip (arrow) from engine compartment contact switch.



(b) Disconnect wire harness connector (arrow) from engine compartment contact switch and remove compartment contact switch



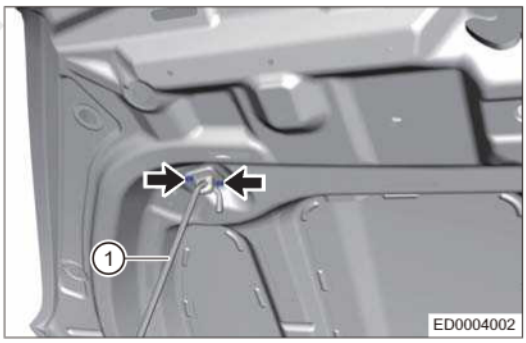
5. Remove the engine hood support.

(a) Remove 2 fixing screws (arrow) from mounting seat and remove engine hood support (1).

Tightening torque
1.5 ± 0.5 N·m

Caution:
- Be sure to wear necessary safety equipment to prevent accidents, when removing engine hood support.
- Try to prevent body paint surface from being scratched when removing engine hood support.
- During removal of engine hood support, avoid engine hood falling off during operation, resulting in damage to body or front windshield.

Warning:
- When removing engine hood support, an assistant is needed to hold it. Try to prevent hood from dropping or suddenly closing to cause accidents during operation.

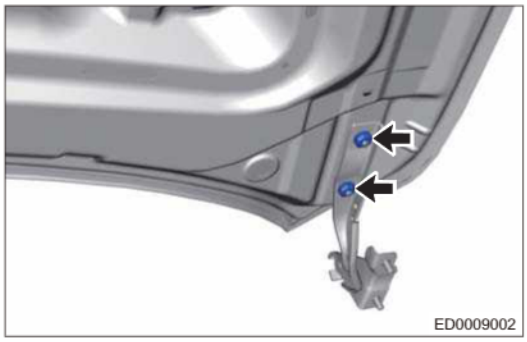


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6. Remove the engine hood assembly.

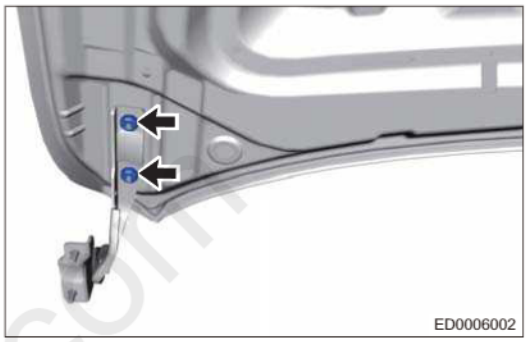
   (a) Remove 2 fixing nuts (arrow) between engine hood assembly and engine hood left hinge assembly.

   Tightening torque
   22 ± 1.0 N·m



   (b) Remove 2 fixing nuts (arrow) between engine hood assembly and engine hood right hinge assembly and remove engine hood assembly.

   Tightening torque
   22 ± 1.0 N·m



Installation

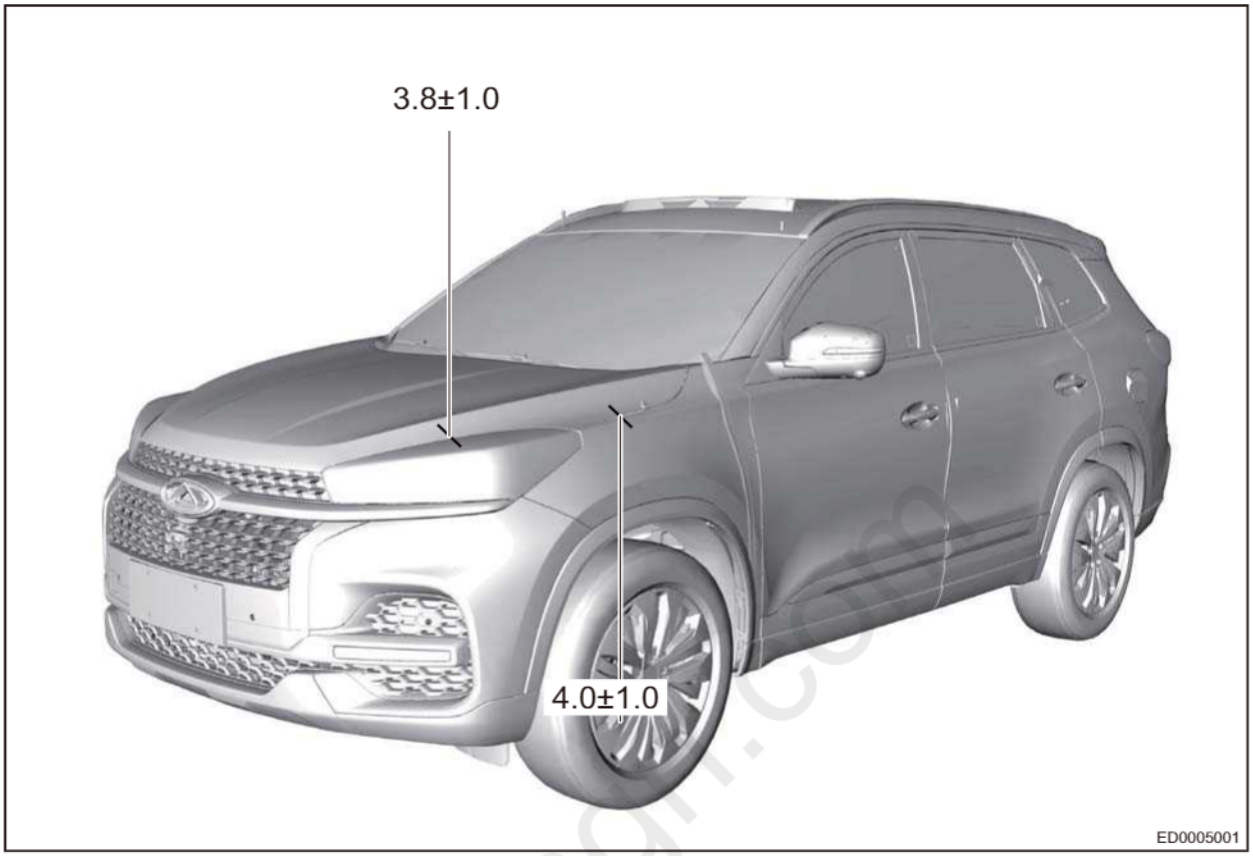
1. Installation is in the reverse order of removal.

Adjustment

1. Adjust the hood assembly.
   (a) Loosen fixing bolts of engine hood hinge assembly.
   (b) Adjust the clearance of engine hood assembly within standard range and pre-tighten fixing bolts of engine hood hinge assembly.

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(c) Standard ranges of clearance between installation position of hood assembly and each part are as in illustration.



(d) After adjustment, tighten fixing bolts between hood hinge assembly and hood assembly to specified torque.

Tightening torque

22 ± 1.0 N·m

(e) After adjustment, tighten fixing bolts between hood hinge assembly and body to specified torque.

Tightening torque

22 ± 1.0 N·m

2. Adjust the height of hood front end with adjustment blocks.

(a) Raise or lower the hood front end by rotating the adjustment blocks clockwise or counterclockwise.



(b) After adjustment, make sure that alignment between hood assembly and wing assembly is within the standard range.

Standard alignment

3.8 ± 1.0 mm

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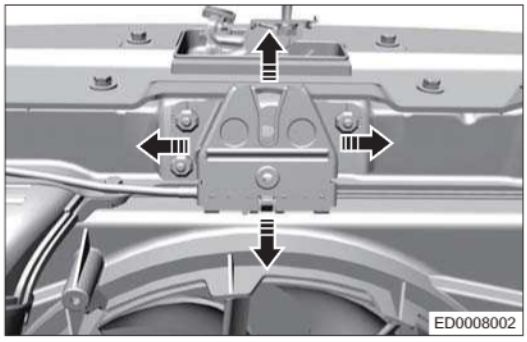
(c) After adjustment, make sure that alignment between hood assembly and front combination light is within the standard range.

Standard alignment

4.0 ± 1.0 mm

3. Adjust the hood lock assembly.

(a) Slightly loosen the fixing bolts of hood lock assembly, and adjust the hood lock assembly in direction of arrow.



(b) Tighten the hood lock assembly fixing bolts to specified torque after adjustment.

Tightening torque

9 ± 1.5 N·m

Inspection

1. Check hood for wear or deformation during installation, and repair as necessary.
2. Check if fixing bolts are set in position. Tighten them to specified torque as necessary.
3. Check if clearance and alignment between hood assembly installation position and each part are within the specified range. Adjust as necessary.

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Hood Hinge Assembly

Removal

Warning/Caution/Hint

Hint:

- Use same procedures for right and left sides.
- Procedures listed below are for left side.

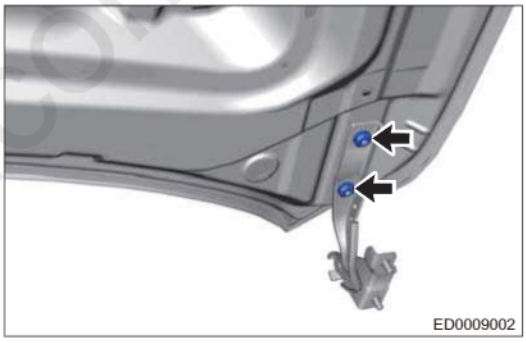
Caution:

- Be sure to wear necessary safety equipment to prevent accidents, when removing engine hood hinge assembly.
- During removal of engine hood hinge assembly, avoid engine hood falling off during operation, resulting in damage to body or front windshield.

Warning:

- When removing engine hood hinge assembly, an assistant is needed to hold it. Try to prevent hood from dropping or suddenly closing to cause accidents during operation.

1. Remove the engine hood left hinge assembly.
   (a) Remove the wing trim panel assembly.
   (b) Remove the wing assembly.
   (c) Remove 2 fixing nuts (arrow) between left hinge assembly and engine hood assembly.
   Tightening torque
   22 ± 1.0 N·m



   (d) Remove 2 fixing bolts (arrow) between engine hood left hinge assembly and body.
   Tightening torque
   22 ± 1.0 N·m



   (e) Remove the engine hood left hinge assembly.

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Engine Hood Cable Assembly

Removal

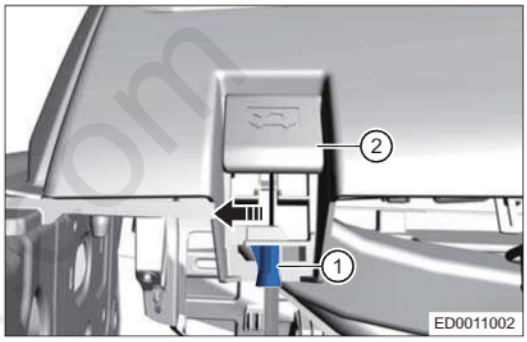
Warning/Caution/Hint

Caution:

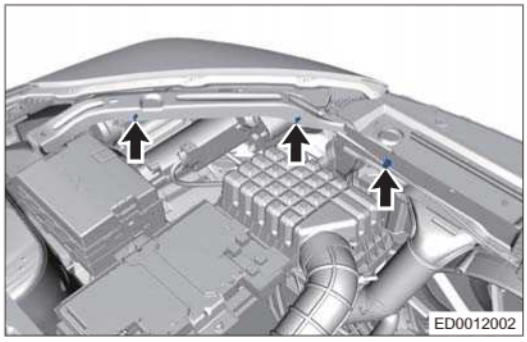
- Be sure to wear necessary safety equipment to prevent accidents, when removing engine hood cable assembly.
- Prevent interior and body paint from being scratched, when removing engine hood cable assembly.

1. Turn off all electrical equipment and the ENGINE START STOP switch.
2. Disconnect the negative battery cable.
3. Remove the wing assembly (See page 50-18).
4. Remove the engine hood lock assembly (See page 36-34).
5. Remove the A-pillar lower protector assembly (See page 51-14).
6. Remove the engine hood cable assembly.

(a) Disengage engine hood cable assembly (1) from engine hood grip drive block (2) in direction of arrow.

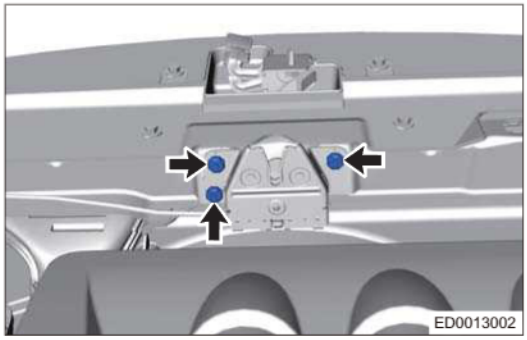


(b) Disengage fixing clips from engine hood cable assembly.



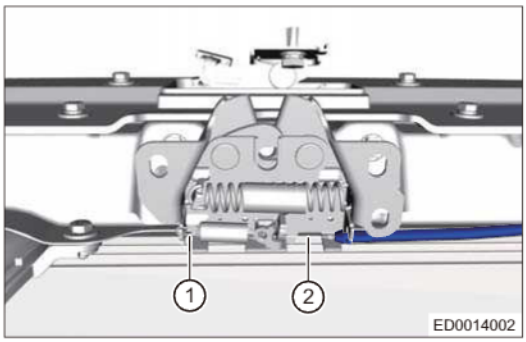
(c) Remove 3 fixing nuts (arrow) from engine hood lock.

Tightening torque
10 ± 1.0 N·m



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(d) Remove engine hood cable return spring (1) and disengage engine hood cable from hood locking block (2).



(e) Remove the engine hood cable assembly.

Installation

1. Installation is in the reverse order of removal.

Caution:

- After installing hood cable assembly, make sure that hood can be opened smoothly without seizuring.

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Front Door Inner Protector Assembly

Removal

Warning/Caution/Hint

Hint:

- Use same procedures for right and left sides.
- Procedures listed below are for left side.

Caution:

- Be sure to wear safety equipment to prevent accidents, when removing front door inner protector assembly.
- Try to prevent front door inner protector surface from being damaged, when removing front door inner protector assembly.

1. Turn off all electrical equipment and the ENGINE START STOP switch.
2. Disconnect the negative battery cable.
3. Remove the left outside rear view mirror inner triangular block.
   (a) Using interior special tool, pry off clips from outside rear view mirror inner triangular block, and remove the outside rear view mirror inner triangular block.



4. Remove the front left door inner protector assembly.
   (a) Using an interior crow plate, pry off front left door inside handle screw block cover (1).

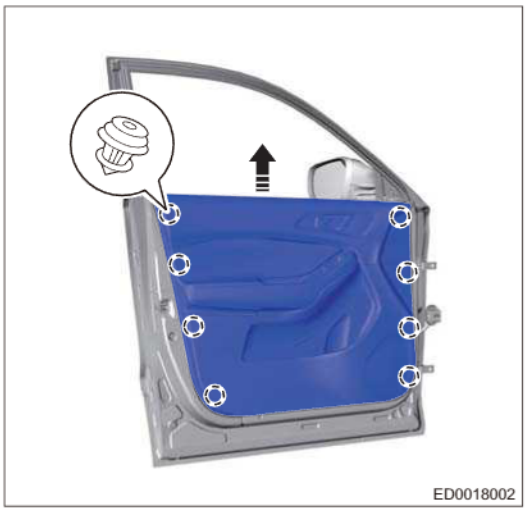


   (b) Remove 4 fixing screws (arrow) from front door inner protector assembly.
   Tightening torque
   1.5 ± 0.5 N·m

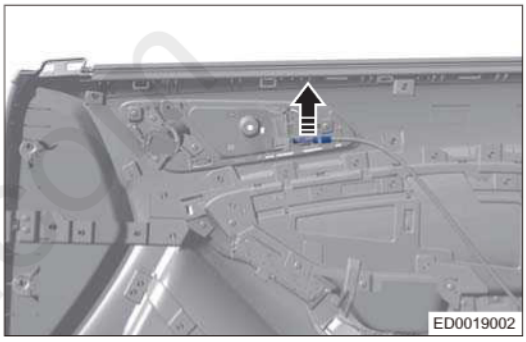


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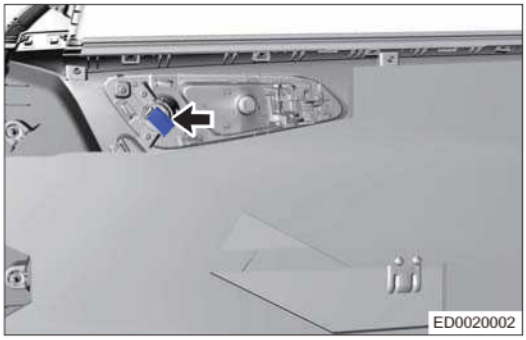
(c) Using an interior crow plate, pry off the clips on front door inner protector assembly, and loosen the front door inner protector assembly in direction of arrow.



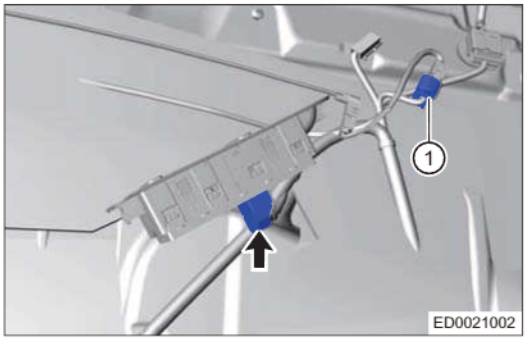
(d) Disengage the front door inside handle cable (arrow) from front door inside handle.



(e) Disconnect the tweeter speaker connector (arrow).



(f) Disconnect front door power glass regulator switch connector plug (arrow) and atmosphere light plug (1).



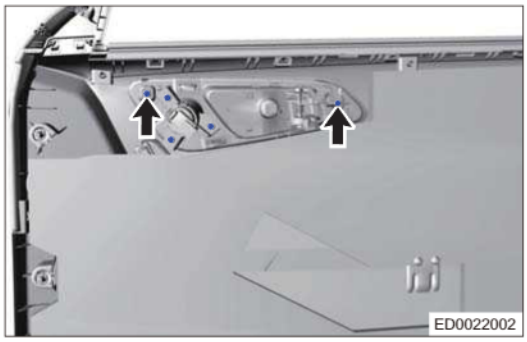
(g) Remove the front left door inner protector assembly.

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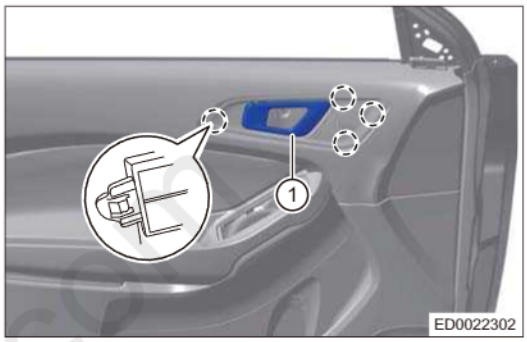
5. Remove the front door inside handle.

   (a) Remove 2 fixing screws (arrow) from front door inside handle.

   Tightening torque
   1.5 ± 0.5 N·m



   (b) Using a screwdriver wrapped with protective tape, pry off claws on front door inside handle, and remove front door inside handle (1).



Installation

1. Installation is in the reverse order of removal.

   Caution:
   - Replace damaged clips and install front door inner protector assembly in place, when installing front door inner protector assembly.
   - Install connectors in place, when installing front door inner protector assembly.
   - Check that each function can operate properly, after installing front door inner protector assembly.

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Front Assembly

Removal

Warning/Caution/Hint

Hint:

- Use same procedures for right and left sides.
- Procedures listed below are for left side.

Caution:

- When removing front door assembly, be sure to wear safety equipment to prevent accidents.
- Try to prevent body paint surface from being scratched, when removing front door assembly.

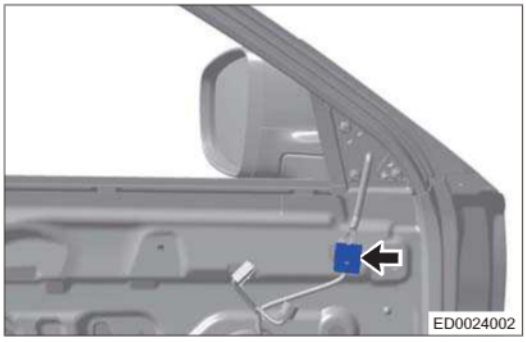
Warning:

- When removing front door assembly, an assistant is needed to hold front door, to prevent front door from dropping to cause accidents during operation.

1. Turn off all electrical equipment and the ENGINE START STOP switch.
2. Disconnect the negative battery cable.
3. Remove the front left door inner protector assembly (See page 49-68).
4. Remove the front left door protective film assembly.
   (a) Remove 2 fixing bolts (arrow) and front left door metal bracket.
   Tightening torque
   5 ± 1.0 N·m


ED0023002

   (b) Disconnect the left rear view mirror connector plug (arrow).


ED0024002

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(c) Disconnect the full-range speaker connector (arrow).


ED0025002

(d) As shown in illustration, remove the front left door protective film assembly (1) by gently peeling it along edges from one corner of front left door protective film assembly.

Warning:

- Try to prevent front door protective film from being damaged, when removing front door protective film assembly.
- Place front door protective film assembly properly after removal, and avoid adhesive sticker on front door protective film assembly from sticking to other components.



ED0026002

5. Remove the front left door full-range speaker assembly (See page 38-30).
6. Remove the front left door weather bar (See page 45-70).
7. Remove the front door glass upper run (See page 45-72).
8. Remove the front door glass assembly (See page 45-73).
9. Remove the front door glass guide rail assembly (See page 45-74).
10. Remove the front door power glass regulator (See page 45-75).
11. Remove the front left door lock assembly (See page 36-35).
12. Remove the front left door key cylinder assembly (See page 36-38).
13. Remove the front left door outside handle.

(a) Using interior special tool, pry off front left door lock block cover (arrow).

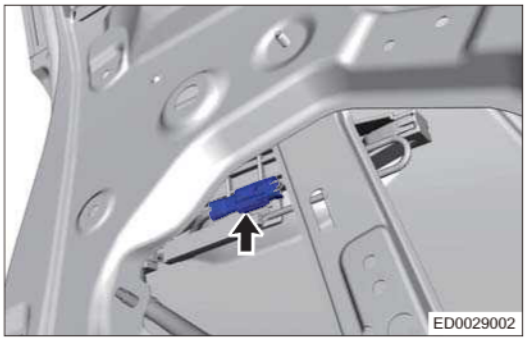


(b) Loosen the fixing screw (arrow) from front door outside handle and remove lock cylinder assembly (1).

Tightening torque
5 ± 1.0 N·m



(c) Disconnect the left door handle sensor connector (arrow).



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(d) Slide and pull the front door outside handle in direction of arrow, and remove it.

Hint:

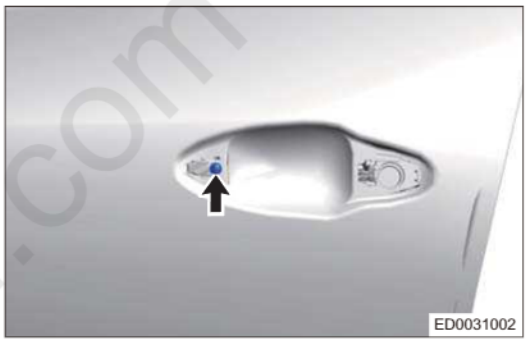
- It is not necessary to remove the fixing screw from front door outside handle cover because fixing screw is integrated with front door handle base.


ED0030002

14. Remove the front left door outside handle seat assembly.

(a) Remove the fixing screw (arrow) from front door outside handle seat assembly.

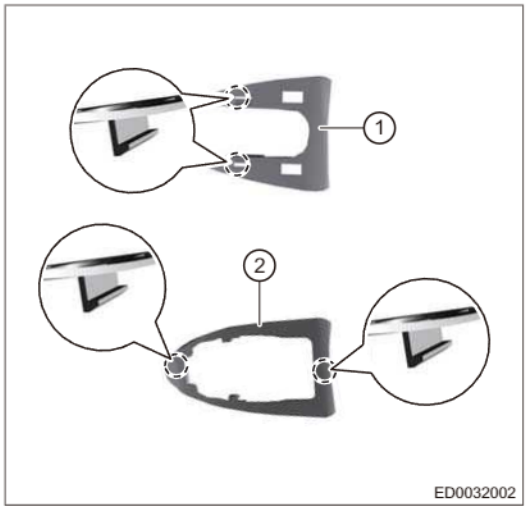
Tightening torque
1.5 ± 0.5 N·m


ED0031002

(b) Disengage clips from door lock connecting rod and remove front left door outside handle seat assembly.

15. Remove the front left door outside handle gasket.

(a) Disengage claws from front door outside handle front shim, and remove front right door outside handle front shim (1).

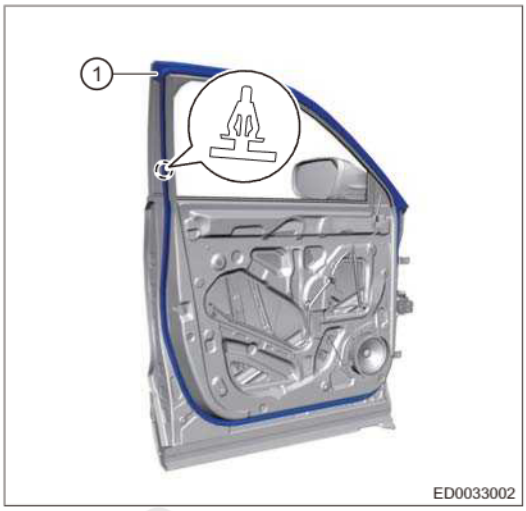


ED0032002

(b) Disengage claws from front door outside handle rear shim, and remove front right door outside handle front shim (2).

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16. Remove the front left door frame weatherstrip.
    (a) Disengage clips from front door frame weatherstrip, and remove front left door frame weatherstrip (1).



17. Disconnect the front left door wire harness connector.
    (a) Using screwdriver wrapped with tape, pry off front door wire harness dust boot.

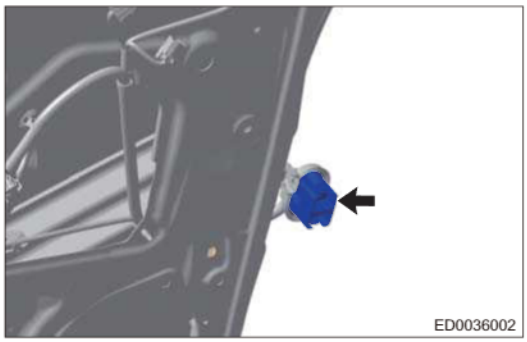


    (b) Using screwdriver wrapped with tape, pry off claws (arrow) of front door wire harness connector.



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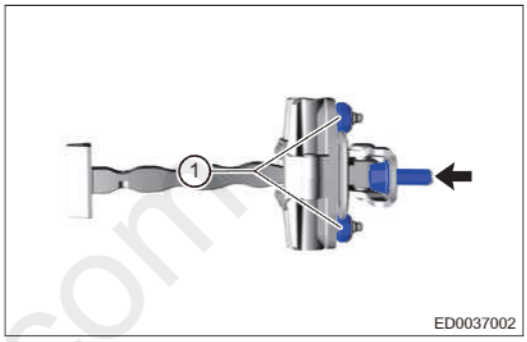
(c) Disconnect the front left wire harness connectors (arrow).


ED0036002

18. Remove the front left door check assembly.

(a) Remove coupling nut (1) between door check and door.

Tightening torque
24 ± 2.0 N·m



ED0037002

(b) Remove 1 coupling bolt (arrow) between door check and front left door.

Tightening torque
55 ± 5.0 N·m

(c) Remove the front left door check assembly

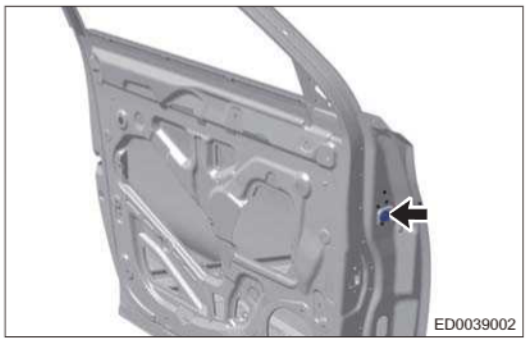
19. Remove the front left door assembly.

(a) Disconnect the front left door wire harness connector.

(b) Remove the front left door check assembly

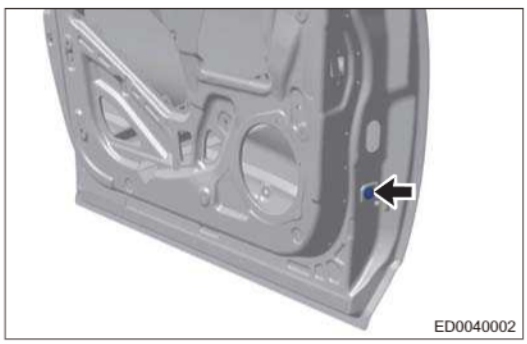
(c) Remove 1 fixing bolts (arrow) between door and upper hinge.

Tightening torque
55 ± 5.0 N·m


ED0039002

(d) Remove 1 fixing bolts (arrow) between door and lower hinge.

Tightening torque
55 ± 5.0 N·m


ED0040002

(e) Remove the front left door assembly.

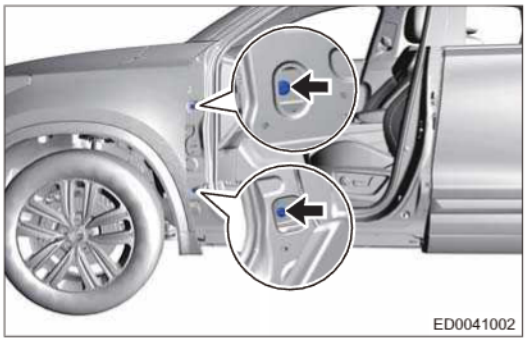
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20. Remove the front left door hinge assembly.

(a) Remove 2 fixing bolts (arrow) between front door hinge assembly and quarter assembly.

Tightening torque

32 ± 3.0 N·m



(b) Remove 2 fixing bolts (arrow) between front door lower hinge assembly and quarter assembly.

Tightening torque

32 ± 3.0 N·m

Installation

1. Installation is in the reverse order of removal.

Caution:

- Replace damaged clips and install front door inner protector in place, when installing front door inner protector.
- Stick protective film in specified position, not in a wrong position or an asymmetric position between left and right sides or cover the mounting holes of other installation parts.
- DO NOT drag protective film when sticking. It should be installed under its original condition and ensure sheet metal is clean before installation.
- Finished protective film should have no defects, such as wrinkles, bubbles or turnups.
- Finished protective film should have powerful adherence. Protective film sticking should be finished at one time. Avoid repeat sticking.

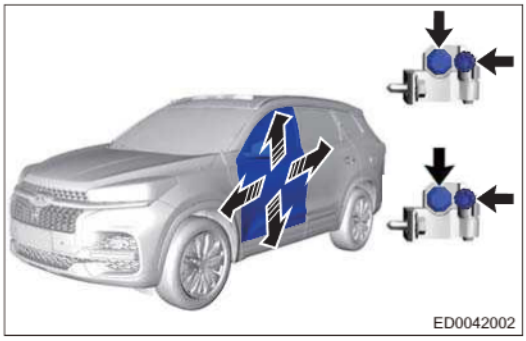
Warning:

- When installing front door assembly, an assistant is needed to hold front door, to prevent front door from dropping to cause accidents during operation.
- When installing front door assembly, be sure to wear safety equipment to prevent accidents.

Adjustment

1. Adjust the front assembly.

(a) Loosen 4 fixing bolts between front door hinge assembly and quarter, and adjust the front door assembly position in direction of arrow as shown in illustration.



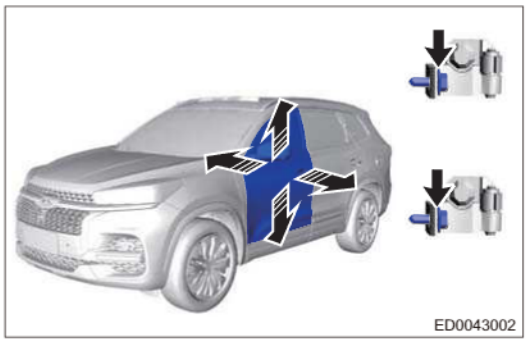
(b) Tighten the fixing bolts on front door hinge assembly to specified torque after adjustment.

Tightening torque

32 ± 3.0 N·m

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(c) Loosen 2 fixing bolts between front door hinge assembly and door, and adjust the front door assembly position in direction of arrow as shown in illustration.



(d) Tighten the fixing bolts on front door hinge assembly to specified torque after adjustment.

Tightening torque

32 ± 3.0 N·m

(e) Standard ranges of clearance and alignment between installation positions of front door assembly and each part are as shown in illustration.



(f) After adjustment, make sure that alignment between front door assembly and rear door assembly is within the standard range.

Standard alignment

4.0 ± 0.7 mm

(g) After adjustment, make sure that alignment between front door assembly and rear door assembly is within the standard range.

Standard alignment

3.8 (+1.0/-0.5) mm

2. Adjust the front door lock striker.

   (a) Slightly loosen the fixing screws on front door lock striker and tap it with a plastic hammer in direction of arrow to adjust the lock striker position.



   (b) Tighten the fixing screws on front door lock striker to specified torque after adjustment.

   Tightening torque

   23 ± 2.0 N·m

Inspection

1. Check front door assembly for wear or deformation during installation, and repair as necessary.
2. Check if fixing bolts are set in position. Tighten them to specified torque as necessary.
3. Check if clearance and alignment between front door assembly installation position and each part are within the specified range. Adjust as necessary.

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Rear Door Inner Protector Assembly

Removal

Warning/Caution/Hint

Hint:

- Use same procedures for right and left sides.
- Procedures listed below are for left side.

Caution:

- Be sure to wear safety equipment to prevent accidents, when removing rear door inner protector assembly.
- Try to prevent rear door inner protector surface from being damaged, when removing rear door inner protector assembly.

1. Turn off all electrical equipment and the ENGINE START STOP switch.
2. Disconnect the negative battery cable.
3. Remove the left rear door inside handle screw block cover.
   (a) Using an interior crow plate, pry off rear left door inside handle fixing bolt block cover and inside handle block cover (1).



4. Remove the rear left door inner protector assembly.
   (a) Remove 4 fixing screws (arrow) from rear left door inner protector assembly.
   Tightening torque
   1.5 ± 0.5 N·m



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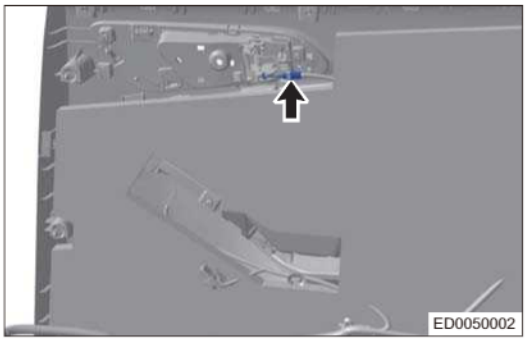
(b) Using an interior crow plate, pry off the clips and remove the rear door inner protector assembly in direction of arrow.


ED0048002

(c) Disconnect the connector from rear door power glass regulator switch (arrow).


ED0049002

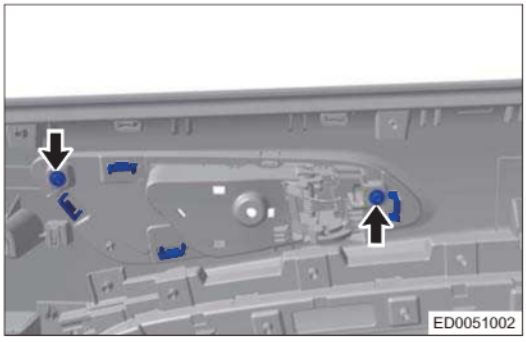
(d) Disengage handle cable (arrow) from rear door inside handle and remove the inner protector assembly.


ED0050002

5. Remove the rear door inside handle.

(a) Remove 2 fixing screws (arrow) from rear door inside handle.

Tightening torque
1.5 ± 0.5 N·m


ED0051002

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(b) Using interior special tool, pry off the claws from rear door inside handle, and remove rear door inside handle.

Installation

1. Installation is in the reverse order of removal.

Caution:

- Replace damaged clips and install it in place, when installing rear door inner protector assembly.
- Check that inside handle assembly can operate properly, after installing rear door inner protector assembly.

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Rear Door Assembly

Removal

Warning/Caution/Hint

Hint:

- Use same procedures for right and left sides.
- Procedures listed below are for left side.

Caution:

- When removing rear door assembly, be sure to wear safety equipment to prevent accidents.
- Try to prevent body paint surface from being scratched, when removing rear door assembly.

Warning:

- When removing rear door assembly, an assistant is needed to hold rear door, to prevent front door from dropping to cause accidents during operation.

1. Turn off all electrical equipment and the ENGINE START STOP switch.
2. Disconnect the negative battery cable.
3. Remove the rear left door inner protector assembly (See page 45-77).
4. Remove the front left door protective film assembly.

(a) Remove 2 fixing bolts (arrow) from rear door metal bracket and remove front left door metal bracket (1).

Tightening torque
5 ± 1.0 N·m



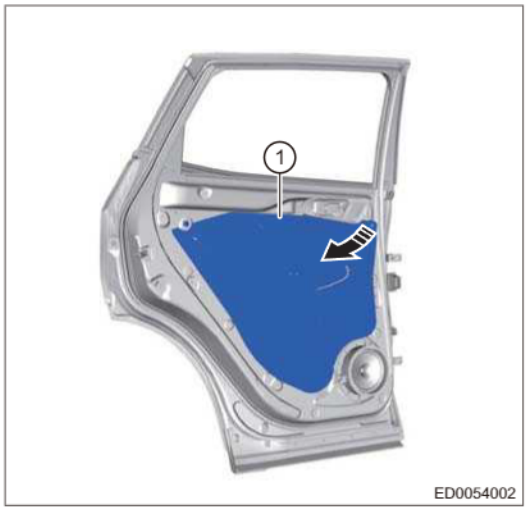
(b) Disconnect the full-range speaker connector (arrow).



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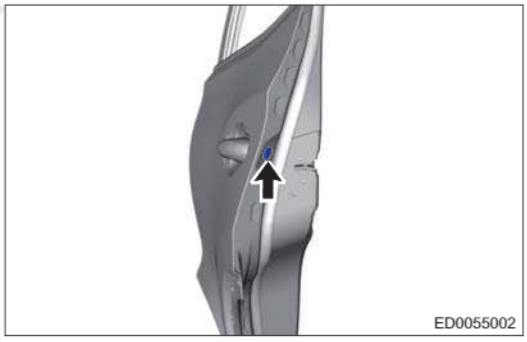
(c) As shown in illustration, remove the rear left door protective film assembly (1) by gently peeling it along edges from one corner of rear left door protective film assembly.

Caution:
- Try to prevent rear door protective film from being damaged, when removing rear door protective film assembly.
- Place rear door protective film assembly properly after removal, and avoid adhesive sticker on rear door protective film assembly from sticking to other components.



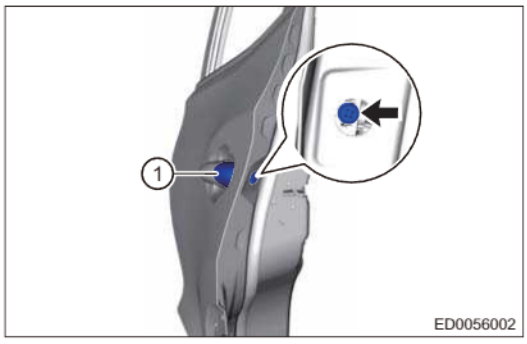
5. Remove the rear left door full-range speaker.
6. Remove the rear left door weather bar (See page 45-80).
7. Remove the rear door glass upper Run (See page 45-81).
8. Remove the rear door glass assembly (See page 45-82).
9. Remove the rear door glass guide rail assembly.
10. Remove the rear door power glass regulator (See page 45-84).
11. Remove the rear left door lock assembly (See page 36-41).
12. Remove the rear left door outside handle cover.

(a) Remove the rear door outside handle block cover (arrow).



(b) Loosen the fixing screw (arrow) on rear door outside handle cover, and remove the rear door outside handle cover (1).

Tightening torque
5 ± 1.0 N·m



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13. Remove the rear left door outside handle.

(a) Slide and pull the rear door outside handle in direction of arrow, and remove it.



14. Remove the rear left door outside handle seat assembly.

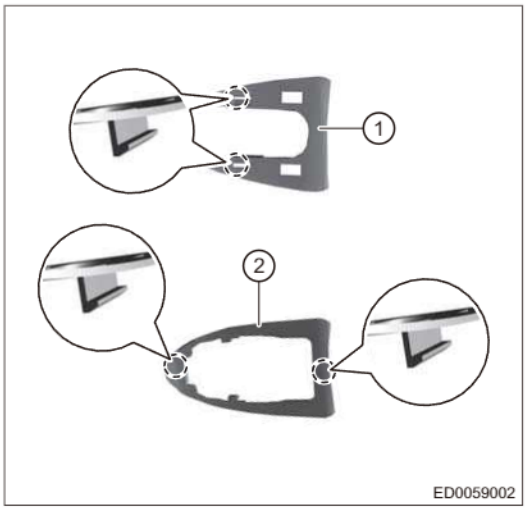
(a) Remove 1 fixing screw (arrow) from rear door outside handle seat assembly, and remove rear door outside handle seat assembly.

Tightening torque
1.5 ± 0.5 N·m



15. Remove the rear left door outside handle shim.

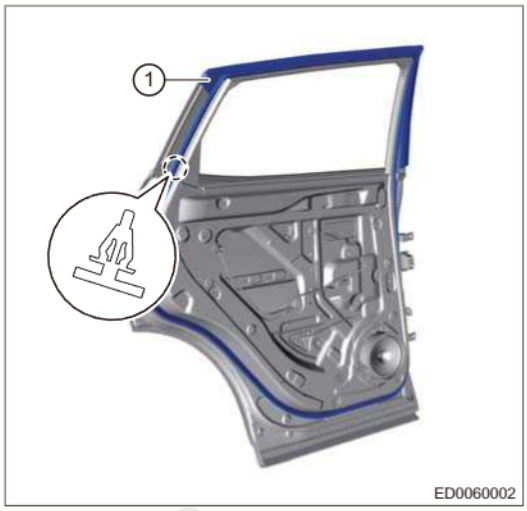
(a) Disengage claws from rear door outside handle front shim, and remove rear left door outside handle front shim (1).



(b) Disengage claws from rear door outside handle rear shim, and remove rear left door outside handle rear shim (2).

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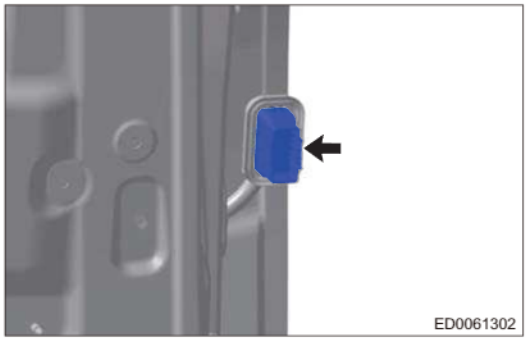
16. Remove the rear left door frame weatherstrip.
    (a) Disengage clips from rear door frame weatherstrip, and remove rear left door frame weatherstrip (1).



17. Disconnect the rear left door connector.
    (a) Using interior special tool, pry up the rear left door dust boot.

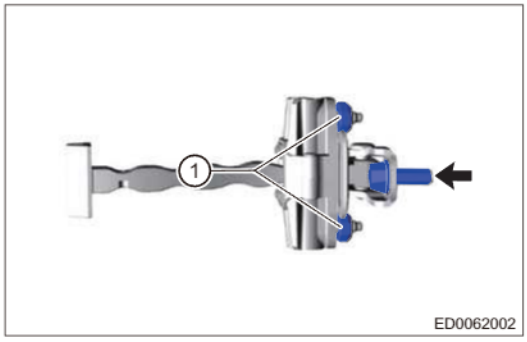


    (b) Using interior special tool, pry up the claws of connector.



    (c) Disconnect the rear left door wire harness connectors (arrow).
18. Remove the rear left door check.
    (a) Remove 2 nuts (1) between door check and front left door.

        Tightening torque
        24 ± 2.0 N·m



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(b) Remove coupling bolt (arrow) between door check and body.

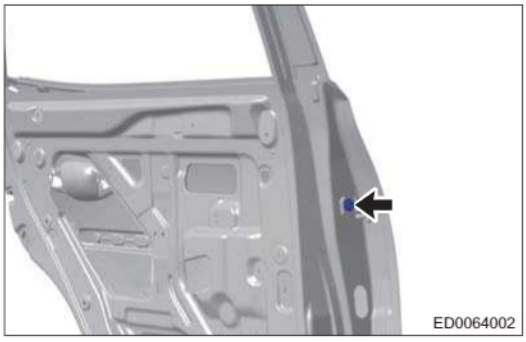
Tightening torque
55 ± 5.0 N·m

(c) Remove rear left door check assembly from door assembly.

19. Remove the rear left door assembly.

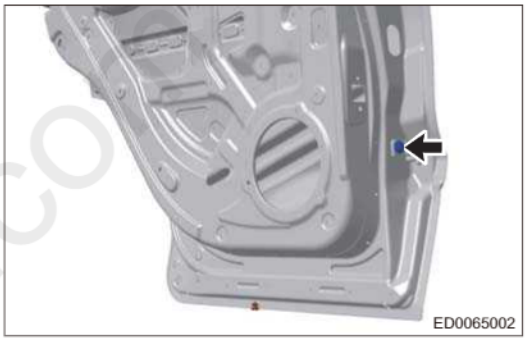
(a) Remove 1 fixing bolt (arrow) between rear door upper hinge assembly and rear door assembly.

Tightening torque
55 ± 5.0 N·m


ED0064002

(b) Remove 1 fixing bolt (arrow) between rear door lower hinge assembly and rear door assembly.

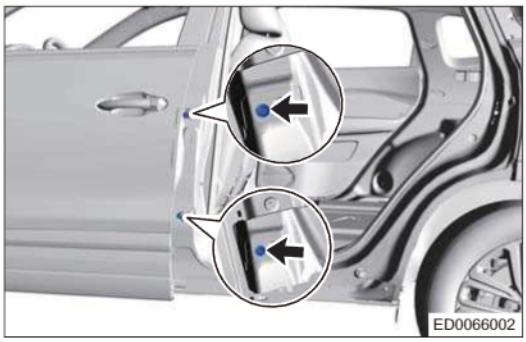
Tightening torque
55 ± 5.0 N·m


ED0065002

20. Remove the rear left door hinge assembly.

(a) Remove 2 fixing bolts (arrow) between front door upper hinge assembly and quarter.

Tightening torque
32 ± 3.0 N·m


ED0066002

(b) Remove 2 fixing bolts (arrow) between front door lower hinge assembly and quarter.

Tightening torque
32 ± 3.0 N·m

(c) Remove the rear left door hinge assembly

Installation

1. Installation is in the reverse order of removal.

Caution:

- Replace damaged clips and install rear doorsill pressure platein place, when installing rear doorsill pressure plate.
- Stick protective film in specified position, not in a wrong position or an asymmetric position between left and right sides or cover the mounting holes of other installation parts.
- DO NOT drag protective film when sticking. It should be installed under its original condition and ensure sheet metal is clean before installation.

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- Finished protective film should have no defects, such as wrinkles, bubbles or turnups.
- Finished protective film should have powerful adherence. Protective film sticking should be finished at one time. Avoid repeat sticking.

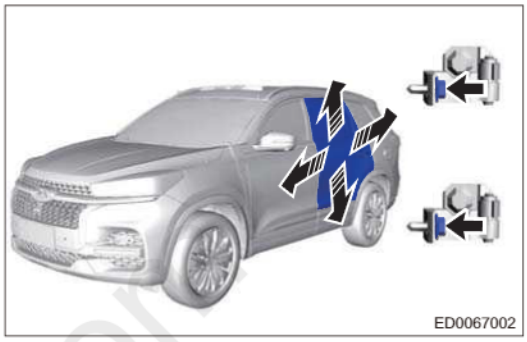
Warning:

- When installing rear door assembly, be sure to wear safety equipment to prevent accidents.
- Be sure to wear safety equipment to prevent accidents, when installing front door assembly.

Adjustment

1. Adjust the rear door assembly.

(a) Loosen the fixing bolts on rear door hinge assembly and adjust the rear door assembly position in direction of arrow.

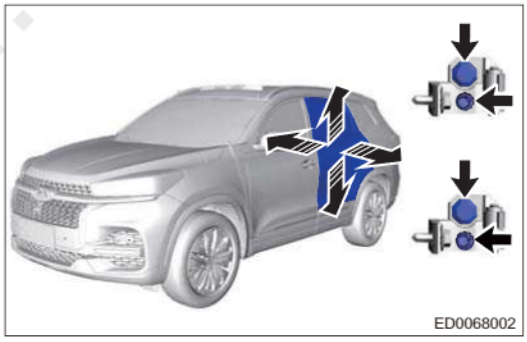


(b) Tighten the fixing bolts on rear door hinge assembly to specified torque after adjustment.

Tightening torque

55 ± 5.0 N·m

(c) Loosen the fixing bolts on rear door hinge assembly and adjust the rear door assembly position in direction of arrow.



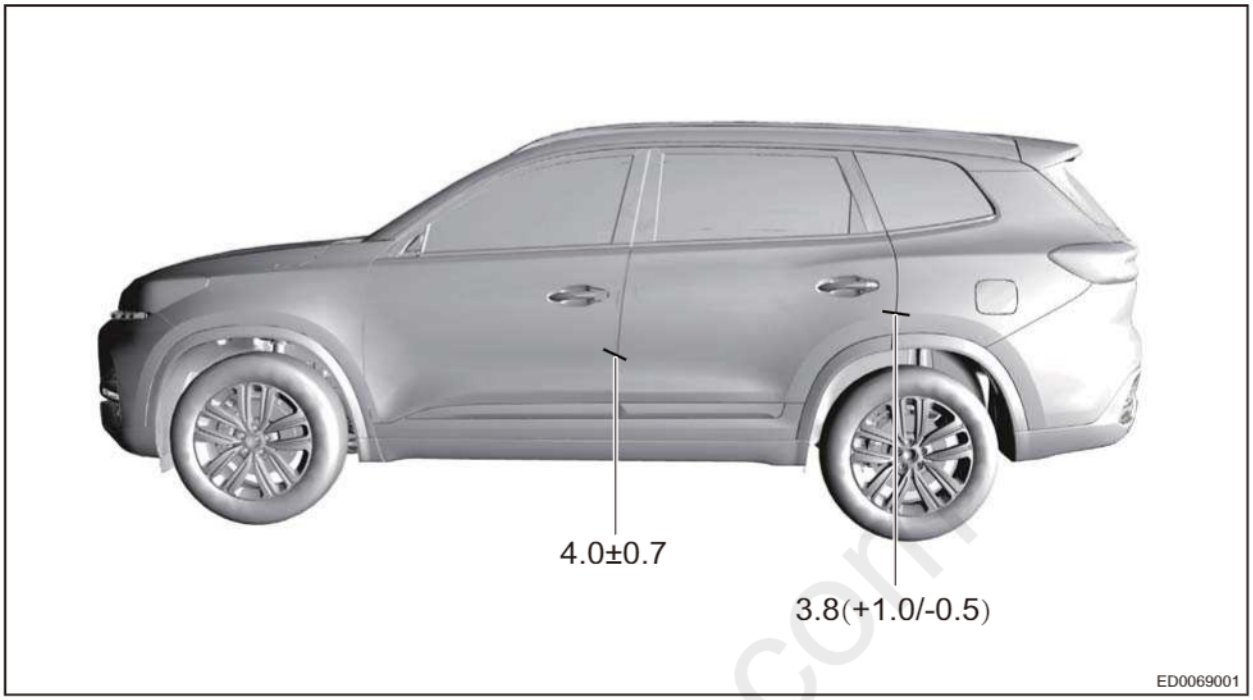
(d) Tighten the fixing bolts on rear door hinge assembly to specified torque after adjustment.

Tightening torque

32 ± 3.0 N·m

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(e) Standard ranges of clearance between installation position of rear door assembly and each part are as shown in illustration.



(f) After adjustment, make sure that alignment between rear door assembly and front door assembly within the standard range.

Standard alignment

4.0 ± 0.7mm

(g) After adjustment, make sure that alignment between rear door assembly and body outer panel is within the standard range.

Standard alignment

3.8 (+1.0/-0.5) mm

2. Adjust the rear left door lock striker assembly.

(a) Slightly loosen the fixing screws on rear door lock striker and tap it with a plastic hammer in direction of arrow to adjust the striker position.



(b) Tighten the fixing screws on rear door lock striker assembly to specified torque after adjustment.

Tightening torque

23 ± 2.0 N·m

Inspection

1. Check rear door assembly for wear or deformation during installation, and repair as necessary.
2. Check if fixing bolts are set in position. Tighten them to specified torque as necessary.
3. Check if clearance and alignment between rear door assembly installation position and each part are within the specified range. Adjust as necessary.

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Back Door Protector Assembly

Removal

Warning/Caution/Hint

Caution:

- When removing back door protector assembly, be sure to wear safety equipment to prevent accidents.
- When removing back door protector assembly, try to prevent body paint surface from being scratched.

1. Turn off all electrical equipment and the ENGINE START STOP switch.
2. Disconnect the negative battery cable.
3. Remove the luggage compartment door adjustable buffer blocks

   (a) Rotate 2 luggage compartment door adjustable buffer blocks (arrow) in counterclockwise and remove it.



4. Remove the luggage compartment door adjustment upper trim board assembly.

   (a) Using a screwdriver wrapped with protective tape, pry off claws from back door frame upper protector assembly.



   (b) Remove the back door upper trim board assembly.

5. Remove the back door left protector assembly (take left side as example).

   (a) Using a screwdriver wrapped with protective tape, pry off plastic claws from back door frame left protector assembly.



   (b) Remove the back door left trim board assembly.

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6. Remove the back door mechanical opener trim cover.

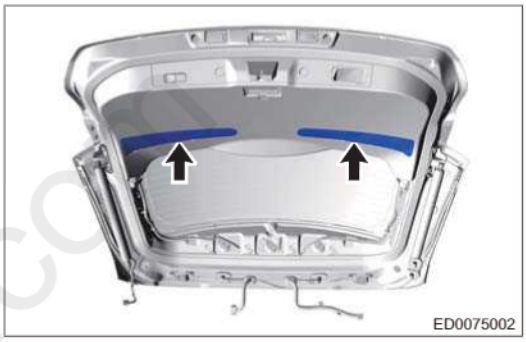
(a) Using a screwdriver wrapped with protective tape, pry off claws from back door mechanical opener trim cover.



(b) Remove the back door mechanical opener trim cover (1).

7. Remove the left/right position light service trim cover.

(a) Using a screwdriver wrapped with protective tape, pry up the claws from left/right position light.



(b) Remove the left/right position light service trim cover.

8. Remove the back door lower protector assembly.

(a) Using a screwdriver wrapped with protective tape, pry off trim cover (arrow) from luggage compartment door lower protector assembly.



(b) Remove the fixing screws (arrow) from luggage compartment door lower protector assembly.

Tightening torque
1.5 ± 0.5 N·m



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(c) Using a screwdriver wrapped with protective tape, pry off the back door inside switch assembly (1) and disconnect connector.



(d) Using a screwdriver wrapped with protective tape, pry off claws from luggage compartment door lower protector assembly.



(e) Remove the back door lower protector assembly.

Installation

1. Installation is in the reverse order of removal.

Caution:

- When installing back door protector assembly, be sure to wear safety equipment to prevent accidents.
- When installing back door assembly, try to prevent body paint surface from being scratched.

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Back Door Assembly

Removal

Warning/Caution/Hint

Caution:

- When removing truck lid assembly, be sure to wear safety equipment to prevent accidents.
- When removing truck lid assembly, try to prevent body paint surface from being scratched.

Warning:

- When removing back door assembly, an assistant is needed to hold it. Try to prevent truck lid from dropping or suddenly closing to cause accidents during operation.

1. Turn off all electrical equipment and the ENGINE START STOP switch.
2. Disconnect the negative battery cable.
3. Remove the back door protector assembly (See page 49-90).
4. Remove the back door wiper arm (See page 35-19).
5. Remove the back door wiper motor assembly (See page 35-20).
6. Remove the back door wiper washer nozzle (See page 35-22).
7. Remove the combination taillight (See page 34-66).
8. Remove the back door switch assembly (See page 49-98).
9. Remove the back door opening weatherstrip (See page 51-12).
10. Remove the roof assembly (See page 51-24).
11. Remove the back door assembly.

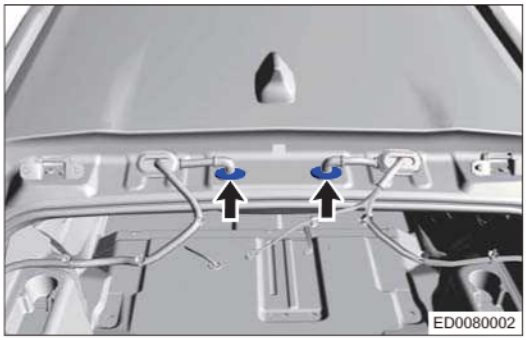
(a) Remove 4 fixing bolts (arrow) from back door left and right hinges

Tightening torque

23 ± 2.0 N·m

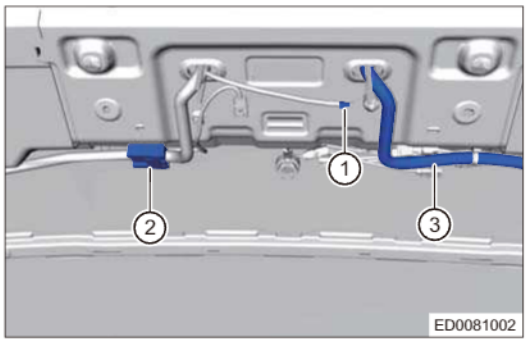


(b) Using interior special tool, pry up the back door wire harness dust boot.



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(c) Disconnect back door wire harness assembly connector plug (2), back door wire harness ground fixing nut (1) and back door wiper spraying pipe joint (3).



(d) Using a screwdriver wrapped with protective tape, pry off the upper fixing clip between left power support and right air spring.



(e) Remove the back door assembly.

12. Remove the back door hinge assembly.

(a) Remove 4 fixing bolts (arrow) from back door hinge.

Tightening torque
23 ± 2.0 N·m



(b) Remove the back door hinge assembly.

Installation

1. Installation is in the reverse order of removal.

Warning:

- When removing back door hinge assembly, an assistant is needed to hold it. During operation, prevent the back door from dropping, which may cause an accident.

Caution:

- When installing luggage compartment door assembly, be sure to wear safety equipment to prevent accidents.
- When installing luggage compartment door assembly, try to prevent body paint surface from being scratched.
- After installing back door assembly, it is necessary to perform panoramic image calibration.

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Adjustment

1. Adjust the back door assembly

(a) Loosen the fixing bolts on rear door hinge assembly and adjust the rear door assembly position in direction of arrow.



(b) Tighten back door assembly fixing bolts to specified torques after adjustment.

Tightening torque

23 ± 2.0 N·m

(c) Loosen the fixing bolts on rear door hinge assembly and adjust the rear door assembly position in direction of arrow.



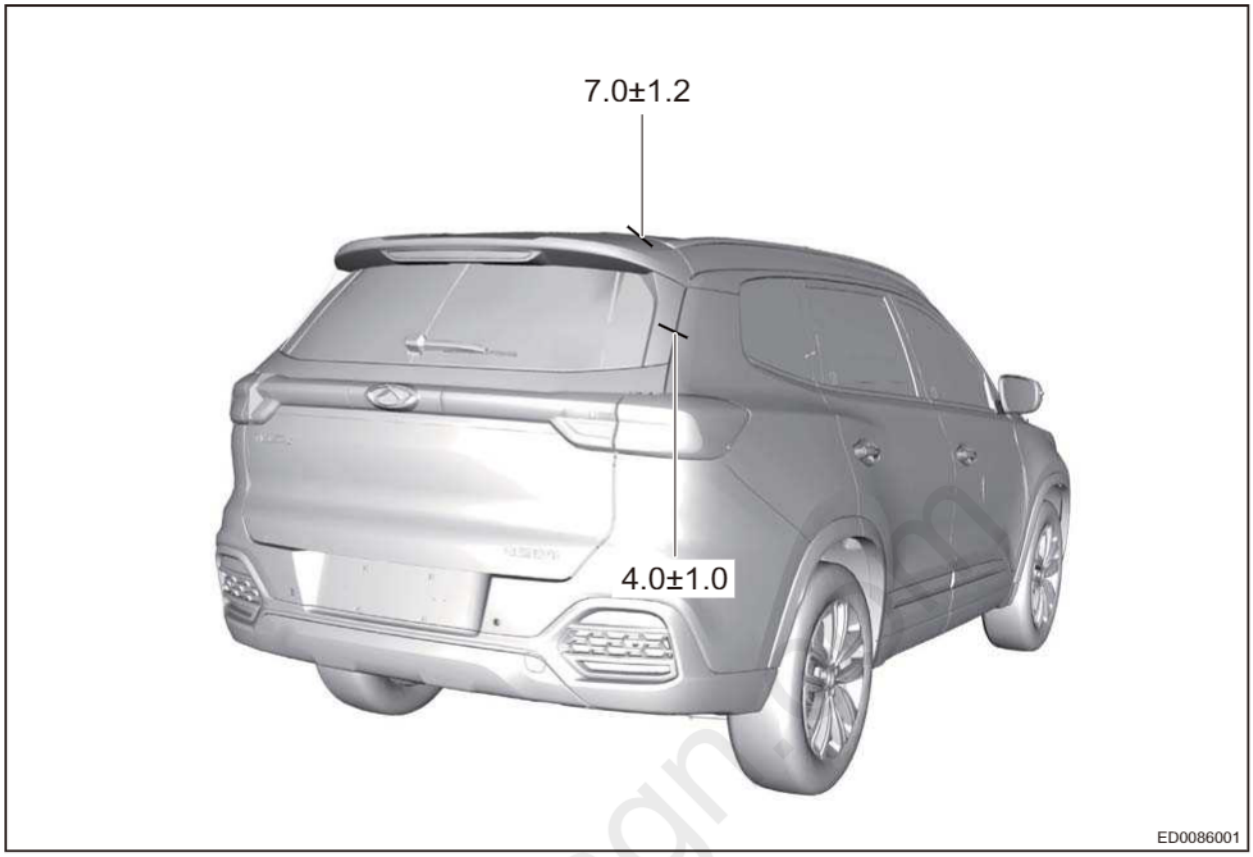
(d) Tighten back door assembly fixing bolts to specified torques after adjustment.

Tightening torque

23 ± 2.0 N·m

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(e) Standard ranges of clearance between installation position of back door assembly and each part are as shown in illustration.



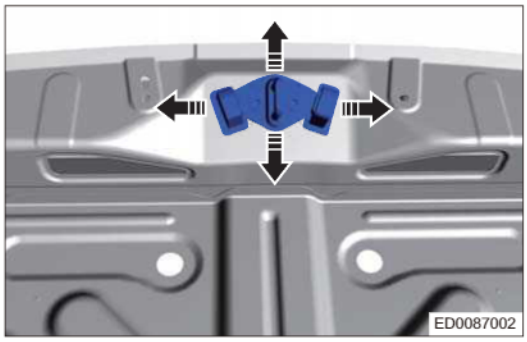
2. Adjust the height of back door assembly with back door assembly adjustable buffer block.

(a) Raise or lower the trunk lid by rotating the back door assembly adjustable buffer block clockwise or counterclockwise.



3. Adjust the back door assembly.

(a) Loosen the fixing bolts on rear door lock striker assembly and adjust the rear door assembly position in direction of arrow as shown in illustration.



(b) Tighten the fixing screws on back door lock striker assembly to specified torque after adjustment.

Tightening torque

23 ± 2.0 N·m

Inspection

1. Check back door for wear or deformation during installation, and repair as necessary.
2. Check if fixing bolts, fixing screws are set in position. Tighten them to specified torque as necessary.
3. Check if clearance and alignment between back door assembly installation position and each part are within the specified range. Adjust as necessary.

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Back Door Switch Assembly

Removal

Warning/Caution/Hint

Caution:

- When installing back door switch assembly, be sure to wear safety equipment to prevent accidents.
- When installing back door assembly, try to prevent body paint surface from being scratched.

1. Turn off all electrical equipment and the ENGINE START STOP switch.
2. Disconnect the negative battery cable.
3. Remove the rear camera assembly (See page 39-47).
4. Remove the back door switch assembly.

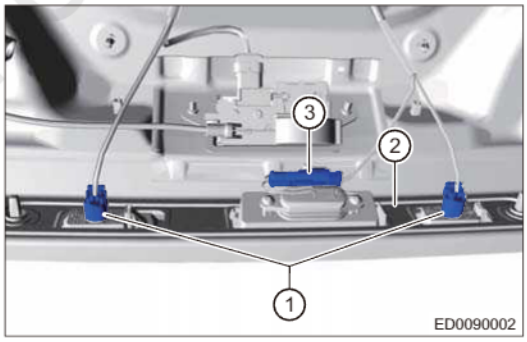
   (a) Remove 2 fixing nuts (arrow) from back door switch.

   Tightening torque

   3 ± 0.5 N·m



   (b) Using a screwdriver wrapped with protective tape, pry off back door switch assembly, and disconnect license plate light (1) camera connector (2) back door switch connector (3).



   (c) Remove the back door switch assembly.

Installation

1. Installation is in the reverse order of removal.

   Caution:

   - After back door opener switch assembly is installed, install the connector into place.
   - After back door opener switch assembly is installed, it is necessary to confirm that the function can operate normally.
   - After installing back door opener switch assembly, it is necessary to perform panoramic image calibration.

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Back Door Power Support Assembly

Removal

Warning/Caution/Hint

Hint:

- Left side is power support with wire harness and right side is balance bar without wire harness.
- The following is the operation procedure of power support.

Caution:

- When removing back door power support assembly, be sure to wear safety equipment to prevent accidents.
- When installing back door power support assembly, try to prevent body paint surface from being scratched.

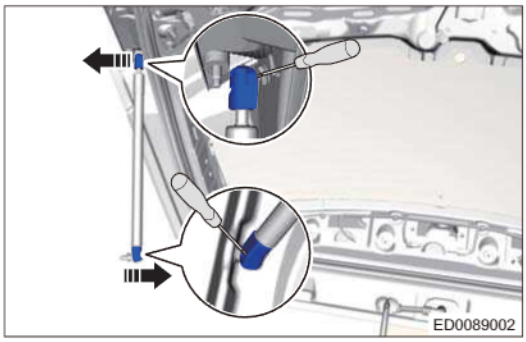
Warning:

- When removing back door power support assembly, pay attention to not separate power support by lateral force and during removal, one assistance is needed to hold back door; avoid back door falling down or closing suddenly during opening, resulting in accidents.
- Remove power support assembly carefully and avoid it falling down. Once it falls down, internal mechanical damage may occur, which may cause the power support impossible to use.

1. Turn off all electrical equipment and the ENGINE START STOP switch.
2. Disconnect the negative battery cable.
3. Remove the left back door power support assembly.
   (a) Using a screwdriver wrapped with protective tape, pry off left C-pillar upper protector (until it is possible to disconnect power support connector).
   (b) Disconnect the power support connector (arrow).



   (c) Using a screwdriver wrapped with protective tape, pry off fixing clips (arrow) from upper and lower parts of back door power support.



   (d) Remove the power support assembly in direction of arrow.

Installation

1. Installation is in the reverse order of removal.
   Warning:
   - When removing back door power support assembly, one assistance is needed to hold back door; avoid back door falling down or closing suddenly during opening, resulting in accidents.

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Caution:

- When removing back door power support assembly, be sure to wear safety equipment to prevent accidents.
- During removal of back door power support assembly, avoid back door falling off during operation, resulting in damage to body or front windshield.
- When installing back door power support assembly, it is necessary for wire harness grommet to be installed in place. If not, water leakage may occur at this area.

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Back Door Air Spring Assembly

Removal

Warning/Caution/Hint

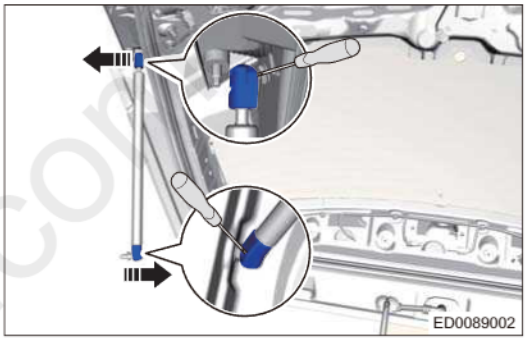
Caution:

- When removing luggage compartment door air spring assembly, be sure to wear necessary safety equipment to prevent accidents.
- When installing back door air spring assembly, try to prevent body paint surface from being scratched.

Warning:

- When removing back door air spring assembly, one assistance is needed to hold back door; avoid back door falling down or closing suddenly during opening, resulting in accidents.

1. Turn off all electrical equipment and the ENGINE START STOP switch.
2. Disconnect the negative battery cable.
3. Remove the right back door air spring assembly.
   (a) Using a screwdriver wrapped with protective tape, pry off fixing clips (arrow) from upper part of back door air spring.



   (b) Using a screwdriver wrapped with protective tape, pry off fixing clips (arrow) from lower part of back door air spring.
   (c) Remove the air spring assembly in direction of arrow.

Installation

1. Installation is in the reverse order of removal.

   Warning:

   - When removing back door air spring assembly, one assistance is needed to hold back door; avoid back door falling down or closing suddenly during opening, resulting in accidents.

   Caution:

   - When removing luggage compartment door air spring assembly, be sure to wear necessary safety equipment to prevent accidents.
   - During removal of back door air spring assembly, avoid back door falling off during operation, resulting in damage to body or front windshield.

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Back Door Anti-pinch Strip Assembly

Removal

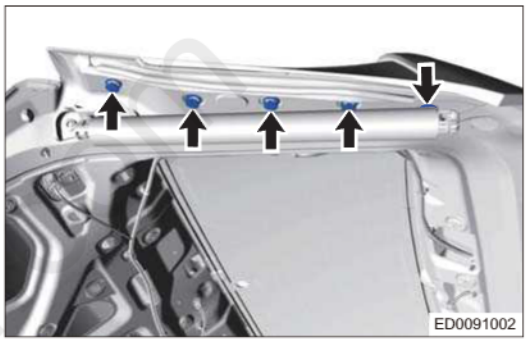
Warning/Caution/Hint

Caution:

- When removing back door assembly, be sure to wear safety equipment to prevent accidents.
- When installing back door anti-pin strip assembly, try to prevent body paint surface from being scratched.
- Use the same procedure for left anti-pinch strip assembly and right anti-pin strip assembly.
- Procedure listed below are for left anti-pinch strip.

1. Turn off all electrical equipment and the ENGINE START STOP switch.
2. Disconnect the negative battery cable.
3. Remove the left back door protector assembly (See page 49-90).
4. Remove the back door anti-pinch strip assembly.

   (a) Using a screwdriver wrapped with protective tape, pry off fixing plastic nuts (arrow) from back door anti-pinch assembly.



   (b) Disconnect the anti-pinch connector (arrow).



   (c) Remove the back door anti-pinch strip assembly.

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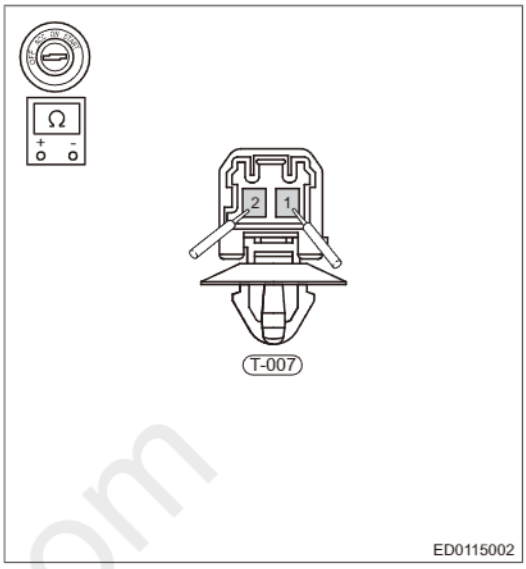
Inspection

Check if the anti-pinch function of anti-pinch strip is normal.

1. Check the jam protection function

   (a) Turn ignition switch to OFF position. Measure the resistance of occupancy sensor with a digital multimeter, standard resistance is shown in the table below:

Multimeter Connection	Condition	Specified Condition (at room temperature)
T-007 (1) - T-007 (2)	Jamming	31 Ω
T-007 (1) - T-007 (2)	Without jamming	5560 Ω



Installation

1. Installation is in the reverse order of removal.

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Power Back Door Module Assembly

Removal

Warning/Caution/Hint

Caution:

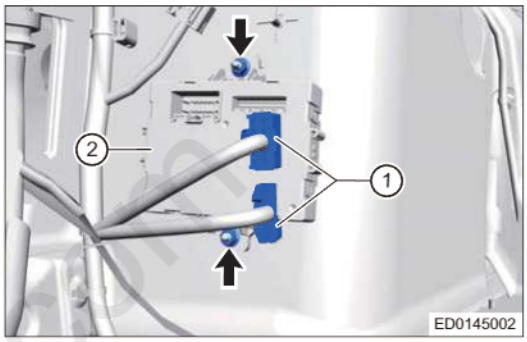
- When removing back door module assembly, be sure to wear safety equipment to prevent accidents.
- When installing back door module assembly, try to prevent body paint surface from being scratched.

1. Turn off all electrical equipment and the ENGINE START STOP switch.
2. Disconnect the negative battery cable.
3. Remove the C-pillar left lower protector assembly (See page 51-17).
4. Remove the power back door module assembly.

   (a) Remove fixing nuts (arrow) from power back door module and disconnect power back door module wiring harness connector plug (1).

   Tightening torque

   7 ± 1 N·m



   (b) Remove the power back door module (2).

Installation

1. Installation is in the reverse order of removal.

   Caution:

   - After replacing power back door module, use diagnostic tester to perform self-learning operation, perform corresponding operation on each functional switch after learning is successful, so as to check each function of power back door operates normally.
   - When disconnecting battery negative cable or power back door module power supply; after power is turned on again, it is necessary to perform fortifying on vehicle.

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Power Back Door Instrument Cluster Switch Assembly

Removal

Warning/Caution/Hint

Caution:

- Be sure to wear safety equipment to prevent accidents, when removing power back door instrument cluster switch assembly.
- When installing back door instrument cluster switch assembly, try to prevent body paint surface from being scratched.

1. Turn off all electrical equipment and the ENGINE START STOP switch.
2. Disconnect the negative battery cable.
3. Remove the power back door instrument cluster switch assembly.

   (a) Using a screwdriver wrapped with protective tape, pry off power back door instrument cluster switch.



   (b) Disconnect lighting adjustment switch connector (1), rear view mirror folding switch connector (2) and power back door switch connector (3).



   (c) Remove the instrument cluster power switch assembly.

Installation

1. Installation is in the reverse order of removal.

   Caution:

   - Install the power back door instrument cluster switch assembly and install connector into place.
   - After power back door instrument cluster switch assembly is installed, it is necessary to confirm that the function can operate normally.

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Kick Sensor Module Assembly

Removal

Warning/Caution/Hint

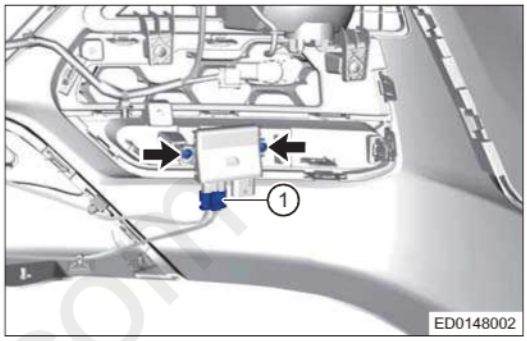
Caution:

- When removing kick sensor module assembly, be sure to wear safety equipment to prevent accidents.
- When installing kick sensor module assembly, try to prevent body paint surface from being scratched.

1. Turn off all electrical equipment and the ENGINE START STOP switch.
2. Disconnect the negative battery cable.
3. Remove the kick sensor module assembly.

   (a) Remove 2 fixing screws (arrow) from kick sensor and disconnect kick sensor module wire harness connector plug (1).

   Tightening torque
   1.5 ± 0.5 N·m



   (b) Remove the kick sensor module assembly.

Installation

1. Installation is in the reverse order of removal.

   Caution:

   - After replacing kick sensor module, turn IGN to OFF, close four doors, carry PEPS key within 30 cm away from vehicle, do kick action in vertical direction toward license plate fixing area with foot face less than 8 cm away from rear bumper bottom for 0.5 s ~ 1.5 s. After action is completed, turn signal light flashes twice and back door is opened/closed automatically. Back door will stop when such action is performed during back door operation.
   - If the function fails to operate due to several times of irregular actions, the system will enter environmental protection mode. Wait for 10 s and kick it again. In environmental protection mode, there is some delay in back door opening, which is normal.

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Kick Sensor Sensing Antenna

Removal

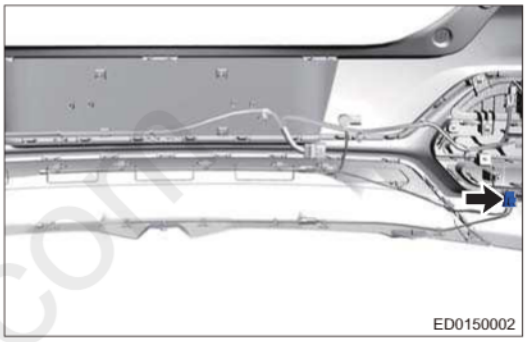
Warning/Caution/Hint

Caution:

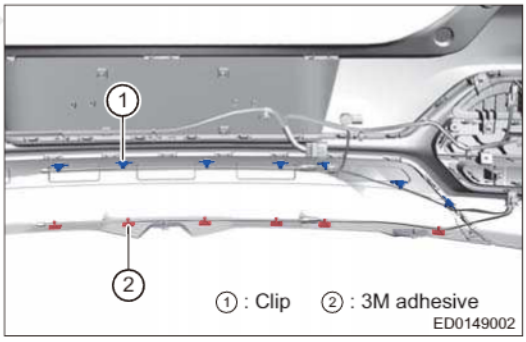
- When removing kick sensor sensing antenna assembly, be sure to wear safety equipment to prevent accidents.
- When installing kick sensor sensing antenna assembly, try to prevent body paint surface from being scratched.

1. Turn off all electrical equipment and the ENGINE START STOP switch.
2. Disconnect the negative battery cable.
3. Remove the kick sensor sensing antenna assembly.

   (a) Disconnect the kick sensor module wire harness connector plug (1).



   (b) Use tool to pry off upper fixing clips of sensing antenna and remove lower sensing antenna (lower sensing antenna is fixed with 3M adhesive (2)).



Installation

1. Installation is in the reverse order of removal.

   Caution:

   - Then antenna in sensing area should be installed flatly without any bending and breakage. There is no such requirements for antenna connecting wire.
   - Before adhering sensing antenna, first peel off bumper sticker protection film.
   - If the environmental temperature doesn't meet the adhering temperature requirements (adhering temperature should be 18°C-40°C), it is necessary to warm up the 3M adhesive of kick sensor sensing antenna in advance. The advanced temperature should be 23°C.
   - There is mark box reserved for mark adhering with 3M adhesive adhered into box.
   - When adhering, it is necessary to apply some pressure on 3M adhesive and the pressure range is 10-50N/cm^2.
   - After antenna is adhered, avoid contacting/shaking antenna and keep antenna stationary.

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