AIRBAG CONTROL SYSTEM

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Warnings and Precautions

Warnings

1. Before removing airbag system components, disconnect the negative battery cable and wait for at least 90 seconds. Before servicing steering system, remove the driver airbag and spiral cable for safekeeping.
2. If vehicle has been involved in a minor collision but the airbags do not deploy, always inspect airbag components.
3. If airbags may be touched during servicing, remove the airbags as necessary and keep it properly before servicing.
4. Never use airbag components from another vehicle. When replacing the airbag components, parts of the same model should be selected for replacement.
5. If an airbag component is dropped or if there are any cracks, dents or other defects in the case, bracket or connector, it must be replaced with an airbag component with same model.
6. Information labels are attached to the periphery of airbag components. Always follow the cautions and instructions on labels.
7. Do not use a common multimeter to measure the resistance of airbag. Only use a multimeter with high impedance for measurement. Otherwise, the airbag may be deployed.

Precautions

1. Never expose airbag components directly to hot air or open flame.
2. Never attempt to disassemble or repair airbag components.
3. Removed airbags should be kept properly. Never put other objects on them. If triggered accidentally, it may cause personal injury.
4. As a disposable component, the airbag must be replaced after deployment and never reuse.
5. Always dispose of vehicle together with airbags, or the airbags may be triggered accidentally to cause personal injury.

Precautions During Usage

Airbag is passive safety system component. In order to actually protect the passengers in collision with airbag, users should follow the precautions related to airbag usage:

- Driver and passengers should use belt correctly. Correct belt usage can protect human body and reduce the personal injury in accidents.
- DO NOT add any additional units without permission that may interfere or damage belt pretensioner or airbag.
- DO NOT place any objects on steering wheel and front passenger side instrument panel, or these objects may cut into the inflated airbag or become trajectile to injure human body.
- DO NOT add or reversely place seat cover for seats with side airbag.
- Children that are under twelve are not allowed to sit in front seat. For vehicles equipped with passenger airbag, backward facing child seat is not allowed to use on front passenger seat.
- It’s only allowed to install genuine spare parts.
- Only authorized personnel can remove the controller, wire harness and connector from airbag.
- If airbag and belt pretensioner are deployed in accident, airbag controller and all wire harness with airbag connectors must be replaced together with airbag and belt.
- Airbag controller in all vehicles have been matched and verified and it’s forbidden to change vehicle structure and airbag controller. Random addition and modification of airbag controller and wire harness will make airbag controller operate abnormally, leading to airbag fault deployment and undeployment, which results in personal injury.

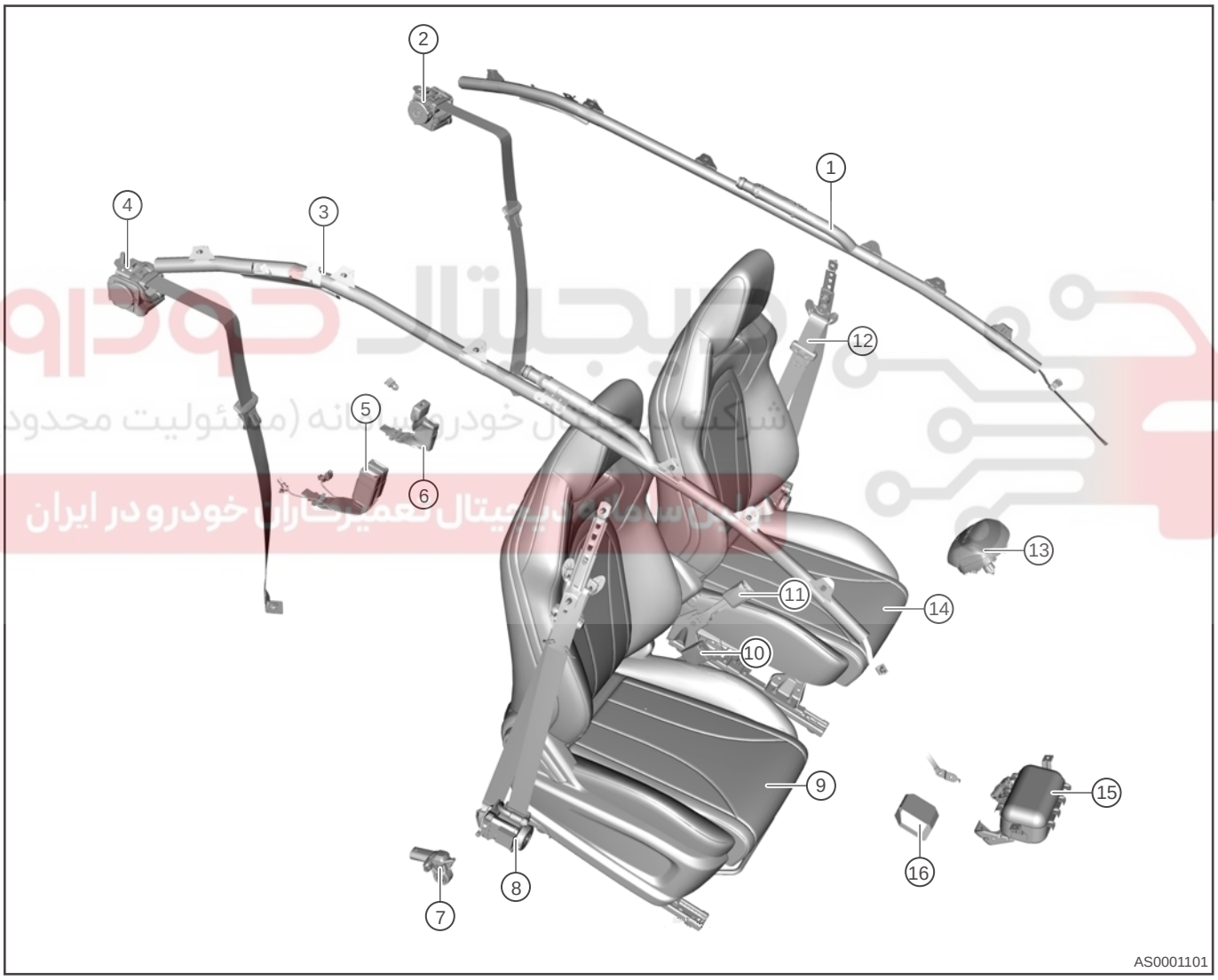
- Airbag manufacturer suggests that the airbag should be replaced after 10 years.

System Overview

System Description

Supplemental restraint system (SRS) consists of Airbag Control Module (ACM), driver airbag/front passenger airbag, front side airbag, curtain airbag, seat belt and other components. Circuit is continuously monitored and controlled by the airbag controller assembly. Airbag indicator on instrument cluster illuminates for approximately 6 seconds for a test each time ENGINE START STOP switch is turned to “ON”. Airbag indicator goes off after the test is completed. If indicator comes on at any time other than test time, it indicates that there is a problem in supplemental restraint system circuit.

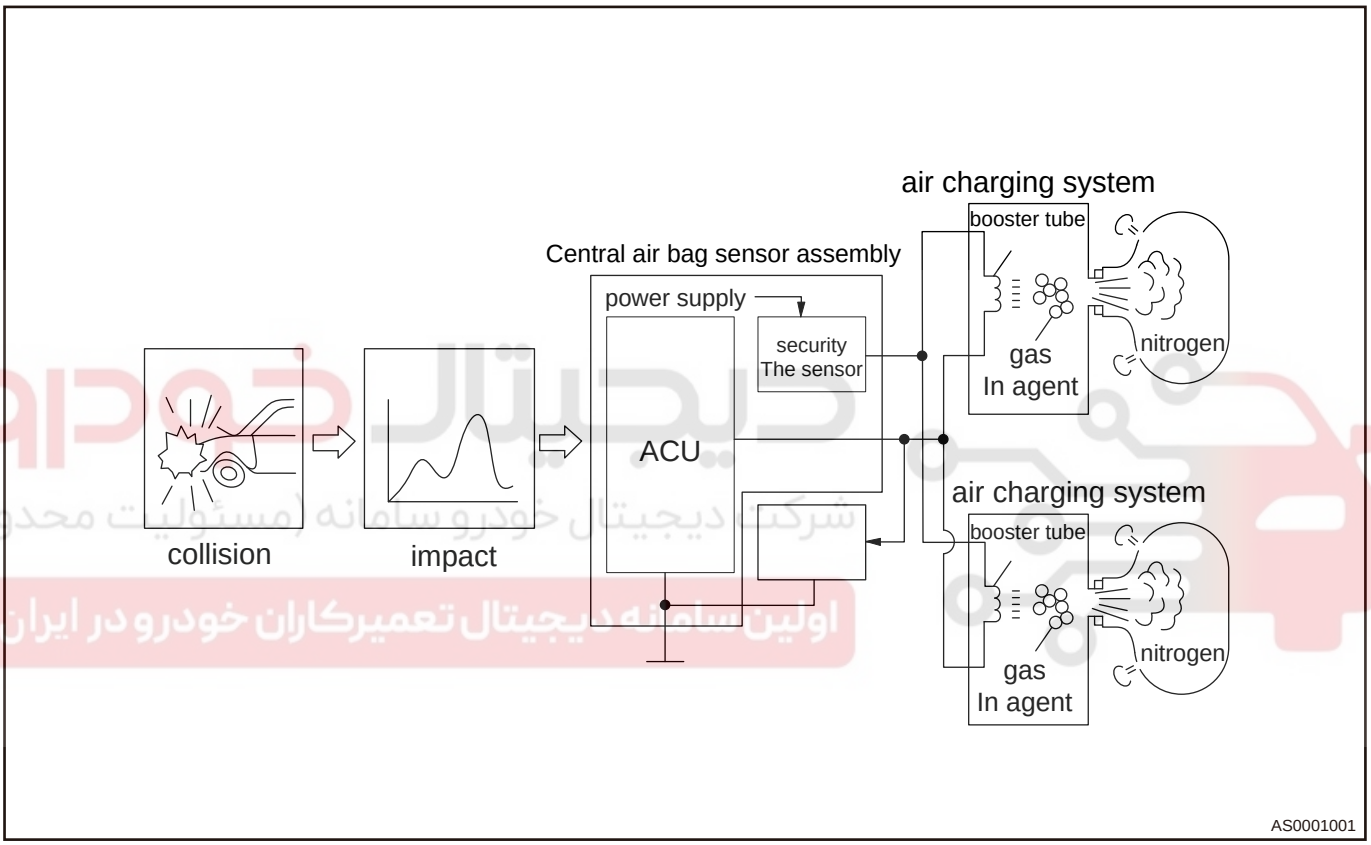
System Components Diagram



1	Left Curtain Shield Airbag Assembly	9	Front Passenger Side Seat Airbag Assembly
2	Rear Left Seat Belt Assembly	10	Front Right Seat Belt Buckle Assembly
3	Right Curtain Shield Airbag Assembly	11	Front Left Seat Belt Buckle Assembly

4	Rear Right Seat Belt Assembly	12	Front Left Seat Belt Assembly
5	Double Buckle Assembly	13	Driver Airbag Assembly
6	Small Buckle Lock Assembly	14	Driver Side Seat Airbag Assembly
7	Right Side Collision Sensor	15	Front Passenger Airbag Assembly
8	Front Right Seat Belt Assembly	16	Airbag Controller Assembly

System Schematic Diagram



- Whether the airbag is deployed depends on the deceleration signal of the vehicle during the collision. When the deceleration signal reaches the set actviation conditions; The microprocessor in the airbag controller of the supplemental restraint system sends signal to inflator unit of the corresponding airbag to rapidly deploy the airbag, thus protecting the occupant.

1. The airbag controller controls the airbag and seat belt.
   - Seat belt signals of front passenger and rear seat belt are directly transmitted to the airbag controller through hard wire connection.
   - The airbag controller directly controls whether the airbags and curtain shield actuators are activated. When a collision occurs, the airbag controller will determine whether to issue the ignition command according to the detailed ignition condition strategy.
2. This vehicle adopts the occupant restraint system, which includes active and supplemental types. Active restraint system requires occupants to take some actions, such as fastening seat belt; while supplemental restraint system requires no actions from occupants.

   Airbag controller is a real-time embedded electronic control unit designed for passenger protection in cabin.

The main function of airbag controller is to trigger passive safety related devices such as airbags and pretensioner in the event of a crash.

a. Active restraint system

i. Driver seat belt and front passenger seat belt.

ii. Rear seat belt.

b. Supplemental restraint system

i. Airbag system.

Collision Operating Condition

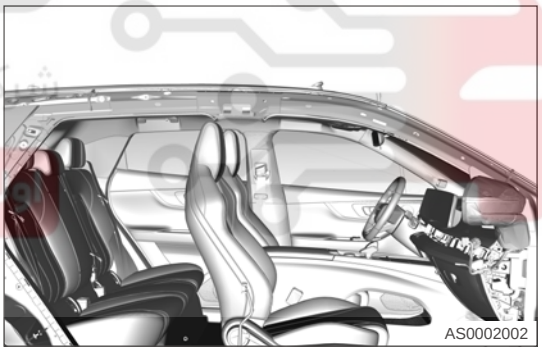
Hint:
When the collision reaches the set ignition threshold.

1. Front collision

- Front collision is detected by the sensor in controller;
- Front collision ignition deployment circuit: driver and passenger front airbags, all seat belt with pretensioners.

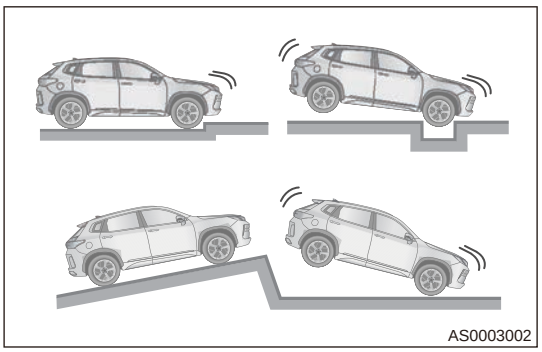
2. Side collision

- Side collision is detected by the side collision sensor in B-pillar and the Sensor in controller.

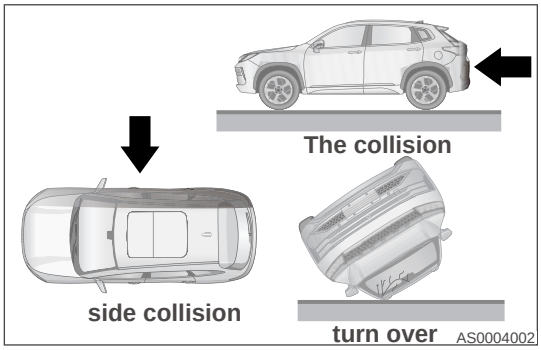


3. Other collisions

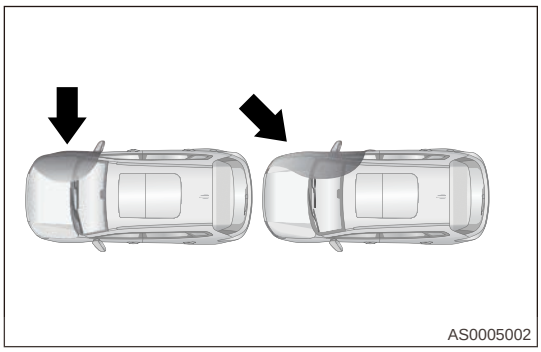
- If the bottom of vehicle is subjected to a severe impact, the driver airbag and front passenger airbag may also deploy as shown in illustration.



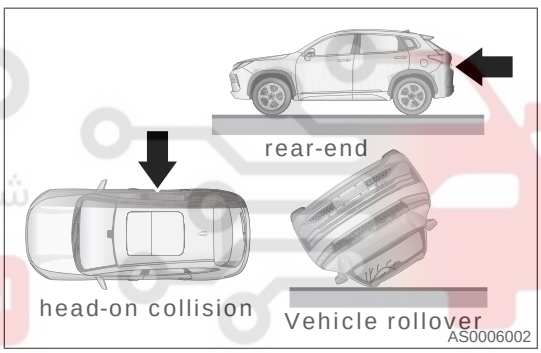
- When vehicle is involved in side collision, rear collision, roll over or frontal collision at low speed as shown in illustration, the driver airbag and front passenger airbag will not generally deploy.



- As shown in illustration, if a collision to the side of the vehicle body other than the passenger compartment, or the vehicle is subjected to a collision from the side at certain angles, the front side airbag and curtain shield airbag may not deploy.



- The side airbag and curtain shield airbag will not generally deploy if the vehicle is involved in a front collision, rear collision or roll over.



System Components Description

Airbag Control Module
The controller controls ignition circuit and activates airbag (and belt pretensioner) according to set activation threshold to keep occupants at proper position in the cabin when accident occurs, thus protecting occupants.

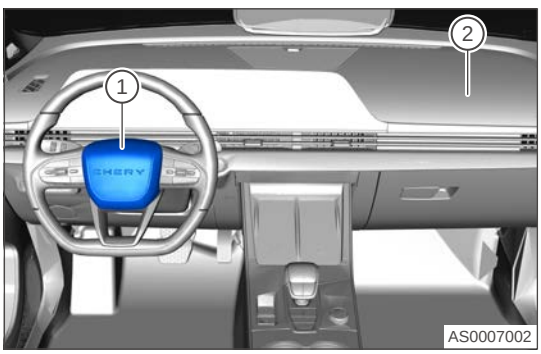
Driver Front Airbag and Passenger Front Airbag
Driver front airbag is located on the steering wheel and integrated with the horn switch. Passenger front airbag is located above the glove box and inside the instrument panel upper body. As shown in illustration:

1. Position of driver front airbag.

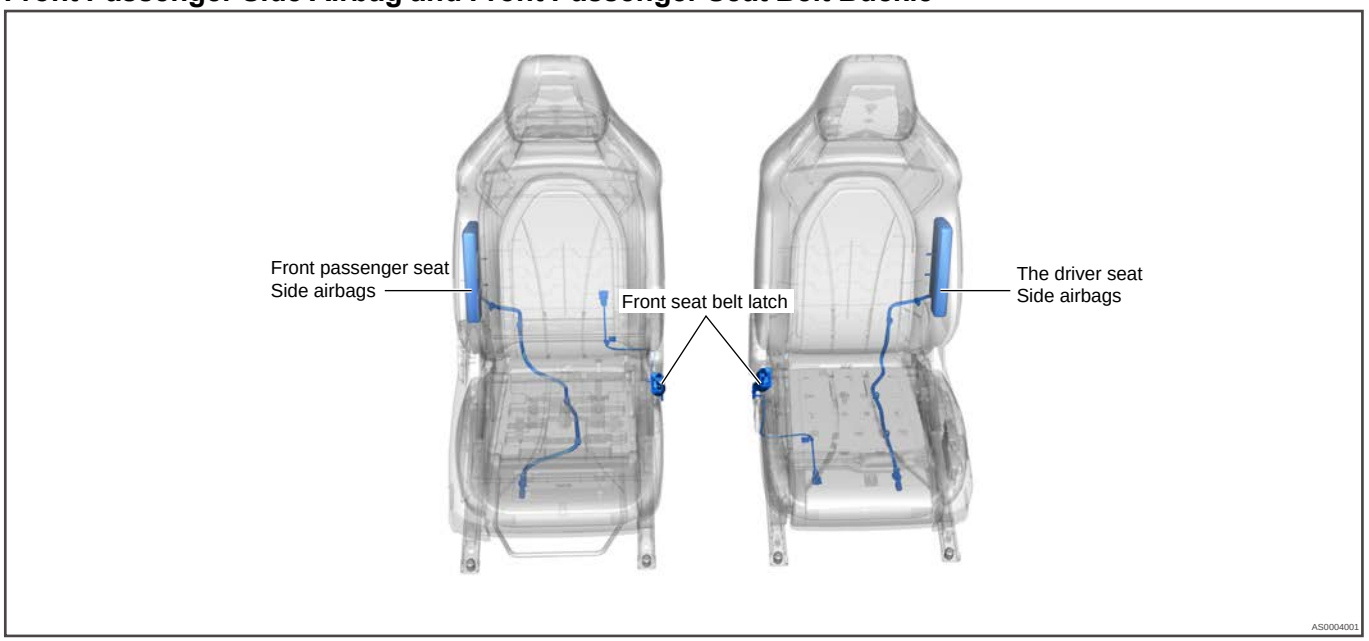
   Resistance: 2.0 ± 0.3 Ω

2. Position of front passenger front airbag.

   Resistance: 2.0 ± 0.3 Ω

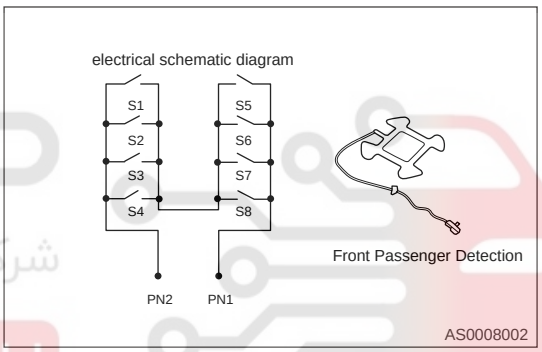


Front Passenger Side Airbag and Front Passenger Seat Belt Buckle

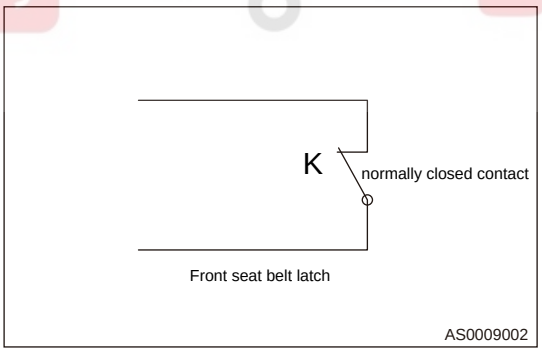


Airbag resistance on seat: 2.0 + 0.5 / -0.3Ω, it’ s strictly forbidden to measure resistance with multimeter!

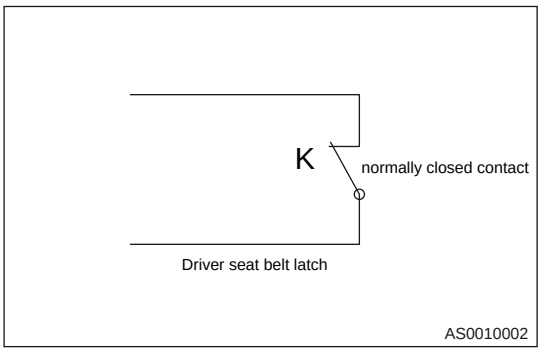
- Front passenger detection device schematic diagram as shown in illustration: Passenger loading status: When detected external resistance is lower than 100 Ω, it’ s judged that there is passenger. When resistance is higher than 400 Ω, it’ s judged that there is no passenger.



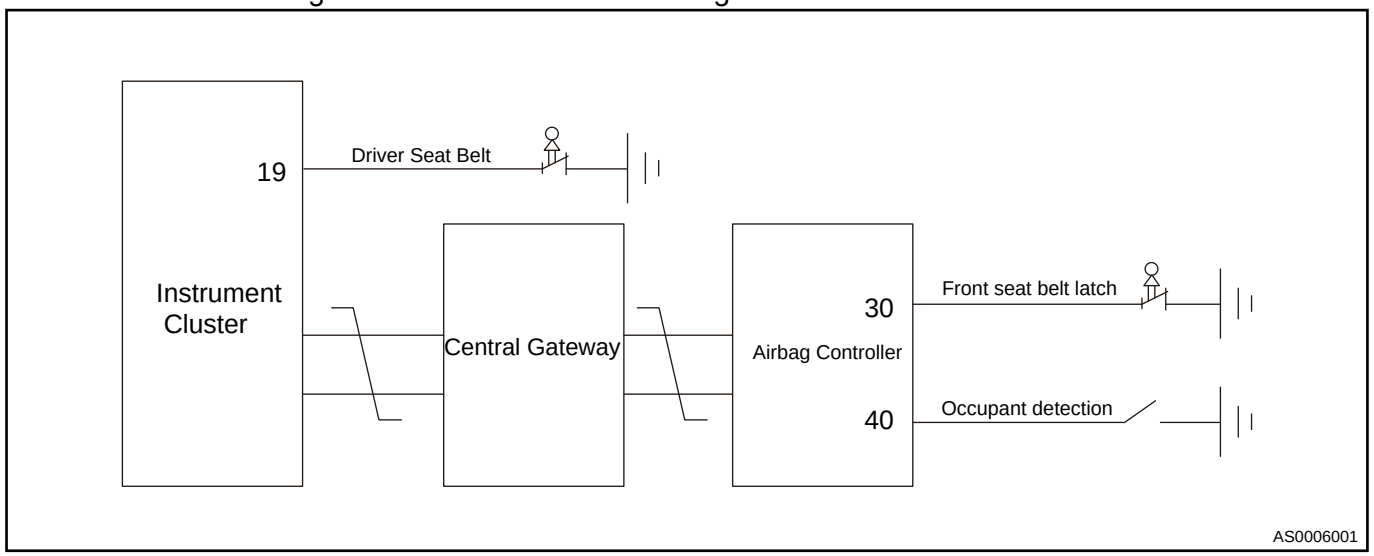
- Front passenger seat belt buckle schematic diagram is as shown in illustration. Front passenger seat belt buckle status: When detected external resistance is lower than 400 Ω, it’ s judged that the seat belt is not fastened. When resistance is higher than 900 Ω, it’ s judged that the seat belt is fastened.



- Driver seat belt buckle schematic diagram is as shown in illustration. The buckle is connected to the 19# terminal of instrument cluster. When ENGINE START STOP switch is ON, if the 19# terminal is high level / suspending, the driver seat belt warning in instrument cluster does not alarm; if the 19# terminal is low level, it will alarm.



Electrical schematic diagram related to seat belt warning is as follows:



Warning strategy is as follows

When ENGINE START STOP switch is in ON position:

If the driver wears the seat belt, the driver seat belt warning light goes off; If the seat belt is not fastened, the driver seat belt warning symbol flashes, and the buzzer will sound when vehicle speed is ⩾25 km/h, to remind the driver to wear the seat belt;

When ENGINE START STOP switch is in ON position:

The passenger seat belt buckle switch detection and passenger detection device operate together to confirm the logic of front passenger seat belt reminder warning light.If there is an adult on the seat (signal of the detection device), and the seat belt is not fastened, the passenger seat belt warning symbol flashes, and the buzzer will sound when vehicle speed is 25 km/h or more, to remind the passenger to wear the seat belt. If the seat belt is fastened, the alarm will stop.

When seat belt warning is operating:

If the seat belt is fastened, the alarm will stop.

Shift to R position or warning for 100 seconds has finished, the buzzer stops sounding and indication warning continues.

Curtain Shield Airbag

Curtain shield airbag is mainly used to protect the head of passengers during side collision. The curtain shield airbag is installed in the inner side of roof and body quarter sheet metal, usually run through the front and rear, and it is controlled by the lateral acceleration sensor in the body. It will deploy when the lateral acceleration is greater than the calibrated threshold.

Resistance: 2.0 ± 0.3 Ω

Seat Belt

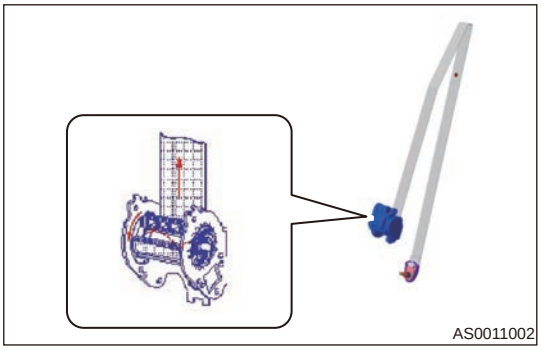
Following types of belts are equipped together with common emergency lock type seat belt:

1. Emergency lock type belt

   Reduce the pressure of belt on passengers, protect the occupants and prevent second collision.

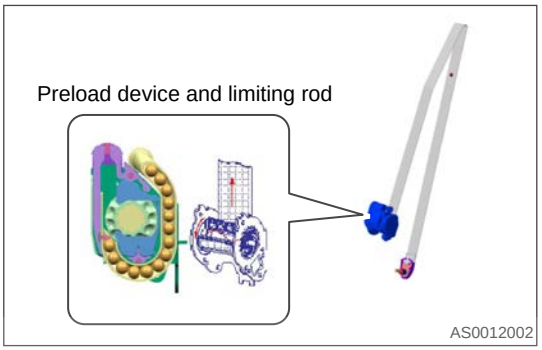
2. Limiting type belt

   Besides common emergency lock type belt, limiter lever is added. Reduce the pressure of belt on passengers, protect the occupants and prevent second collision.



3. Limiting type belt with pretensioner

   Besides common emergency lock type belt, pretensioner and limiter lever are added, which tightens the belt, reduces the pressure of belt on passengers, protects the occupants and prevents second collision during deployment.



Post-accident Repair and Inspection

1. Post-accident components replacement of deployed airbag.
   a. Airbag controller components should be replaced immediately in accordance with the provisions in this manual after the airbag is deployed in an accident.
2. Post-accident components replacement of seat belt.

   Hint:

   After the collision, the seat belt replacement can be divided into the following two situations:
   - The seat belt with pretensioner is determined to be activated or not depending on the form of the collision.
   - Restraint and emergency locking are based on the presence or absence of an occupant.

   a. Some seat belts need to be replaced or recommended to be replaced if airbag is deployed in an accident.

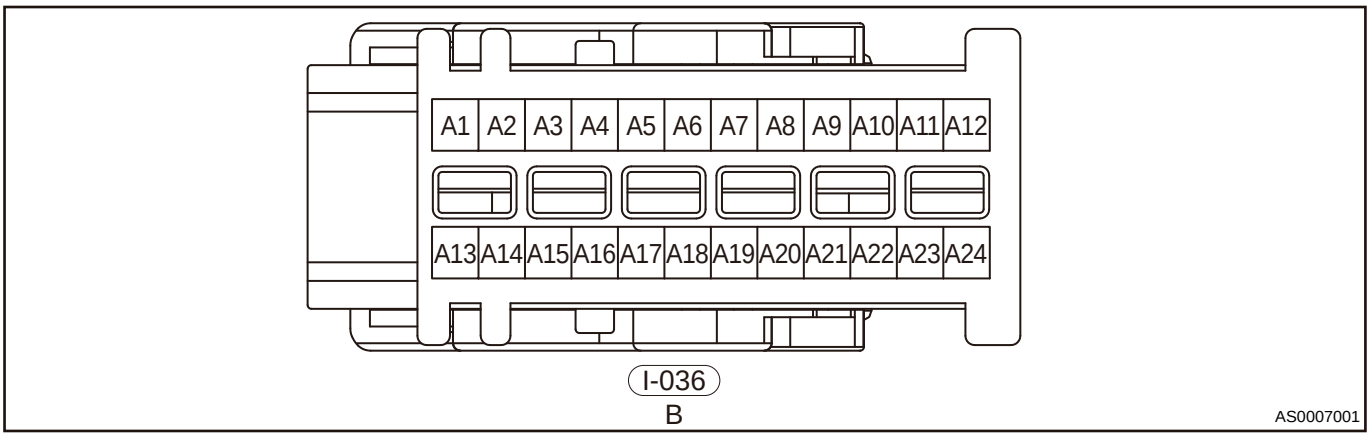
Seat Belt	Replace or Not
Used limiting type belt in the event of an accident	It is necessary to replace it
Seat belt with pretensioner that must be exploded or has been exploded	It is necessary to replace it
Used common emergency lock type belt in the event of an accident	It is necessary to replace it
Height adjuster (the seat belt had been used in the event of an accident)	It is necessary to replace it

3. Post-accident inspection of other components
   a. No matter whether the airbag is deployed or not, specific inspection must be carried out after any collision. The steering column must be measured for dimension. Check the instrument panel and steering column cover for cracks or other damage, check the instrument panel support for deformation, bending, cracks or other damage and check the seat belt and installation fixing point.

System Circuit Diagram

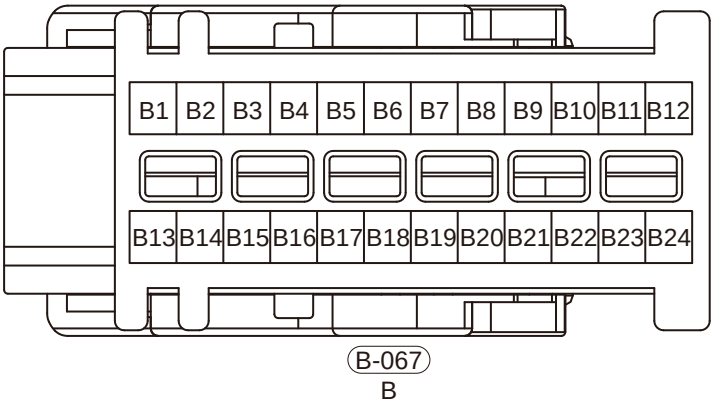
Module Terminal Definition

Airbag Module A



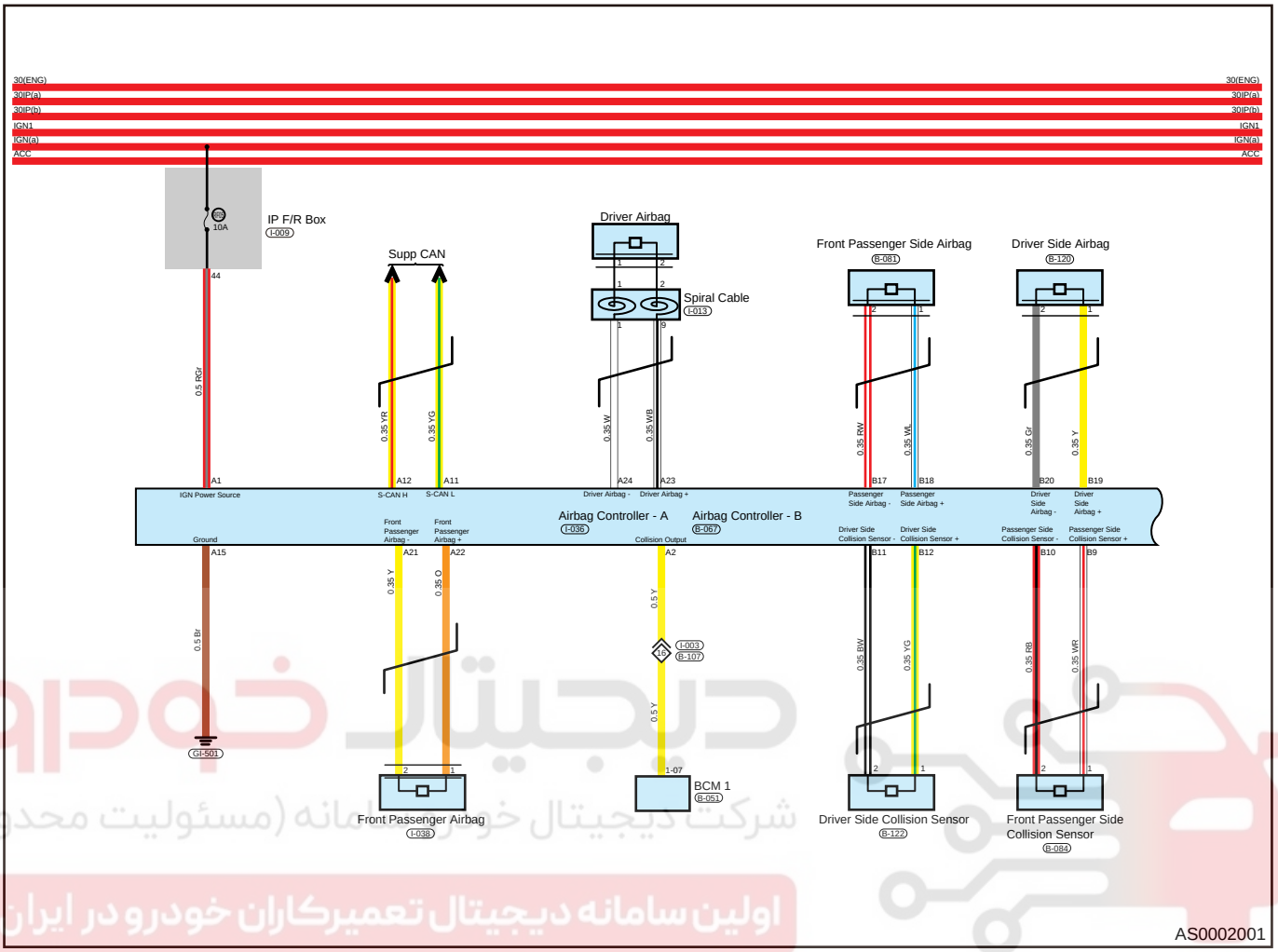
Pin	Definition	Pin	Definition
1	Power Source Positive	2	Collision Output
3	Second Row Left Belt Buckle Switch	4	Second Row Middle Belt Buckle Switch
5	Passenger Airbag SW	6	Second Row Right Belt Buckle Switch
7	-	8	-
9	-	10	-
11	CAN Low	12	CAN High
13	Passenger Seat Belt Buckle Switch	14	Front Passenger Detection
15	Power Source Ground	16	-
17	Seat Belt Pretensioner FR -	18	Seat Belt Pretensioner FR +
19	Seat Belt Pretensioner RL +	20	Seat Belt Pretensioner RL -
21	Front Passenger Airbag -	22	Front Passenger Airbag +
23	Driver Airbag +	24	Driver Airbag -

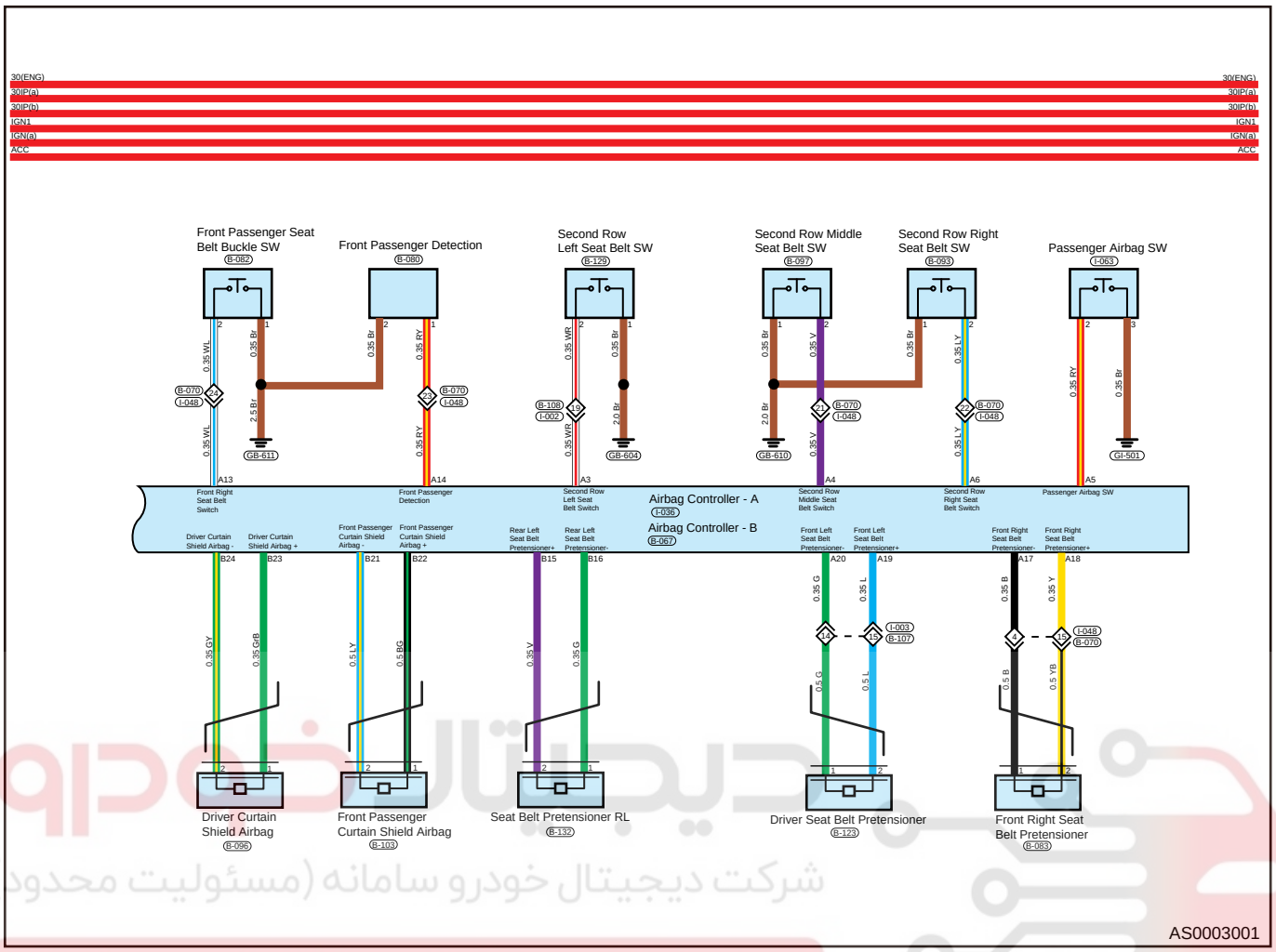
Airbag Module B



Pin	Definition	Pin	Definition
1	-	2	-
3	-	4	-
5	-	6	-
7	-	8	-
9	Right Side Collision Sensor +	10	Right Side Collision Sensor -
11	Left Side Collision Sensor -	12	Left Side Collision Sensor +
13	-	14	-
15	Rear Left Seat Belt Pretensioner +	16	Rear Left Seat Belt Pretensioner -
17	Front Right Side Airbag -	18	Front Right Side Airbag +
19	Front Left Side Airbag +	20	Front Left Side Airbag -
21	Front Right Side Curtain Shield Airbag -	22	Front Right Side Curtain Shield Airbag +
23	Front Left Side Curtain Shield Airbag +	24	Front Left Side Curtain Shield Airbag -

Circuit Diagram



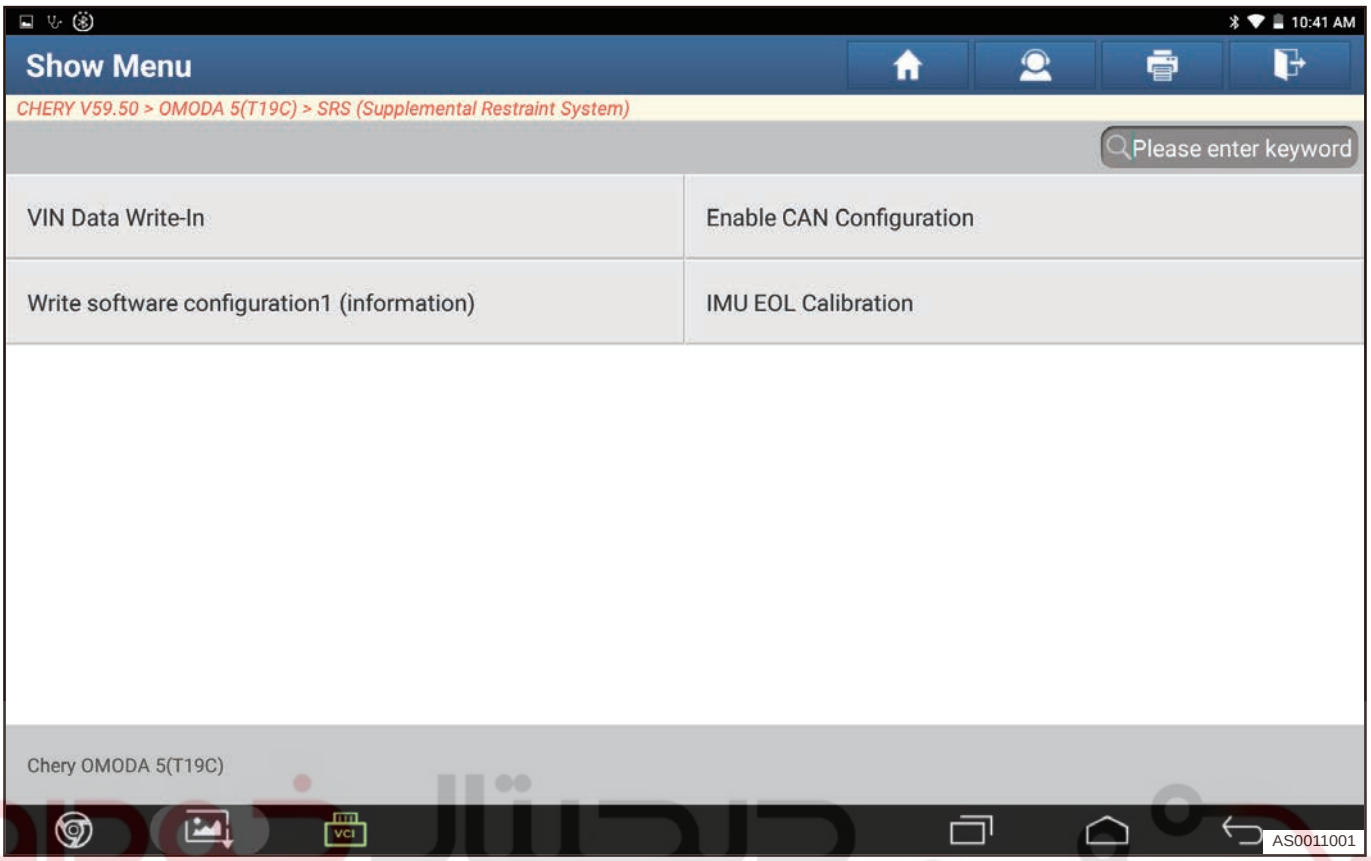


Matching Learning

Module Matching Learning

Items	Applicable Situations	Actions Required by Diagnostic Tester	Note
Module replacement	· Module damaged, needs replacement	VIN data write-inWrite software configuration1 (information)	

1. Connect diagnostic tester, turn ENGINE START STOP switch to ON.
2. Select the model.
3. Proceed to next interface and click “SRS (Supplemental Restrain System)” to select.
4. Enter next screen and click “Special Function”.
5. Select “VIN Data Write-In” / “Write software configuration1 (information)”.



- When all conditions are satisfied, ACU starts to write the configuration word. After writing, ACU automatically restarts and detects if there is a current fault. The time for determining and writing the configuration word is about 10 s;
- Case 1: No fault, ACU directly locks the configuration;
- Case 2: There is a fault, all associated DTC faults are solved in ACU before the configuration can be locked.
- If ACU configuration needs to be changed after locking, activate it again through the diagnostic tester and turn on ACU reconfiguration function.
- State description for airbag light:
  a.When the vehicle is powered on and initialized, airbag light will be on for 6 seconds and off for 1 second;
  b.The airbag light flashes during the initial configuration of ACU factory or activating configuration again using the diagnostic tester;
  c.After ACU configuration is completed, if there is a fault, the airbag light will remain on; if there is no fault, the airbag light will turn off.

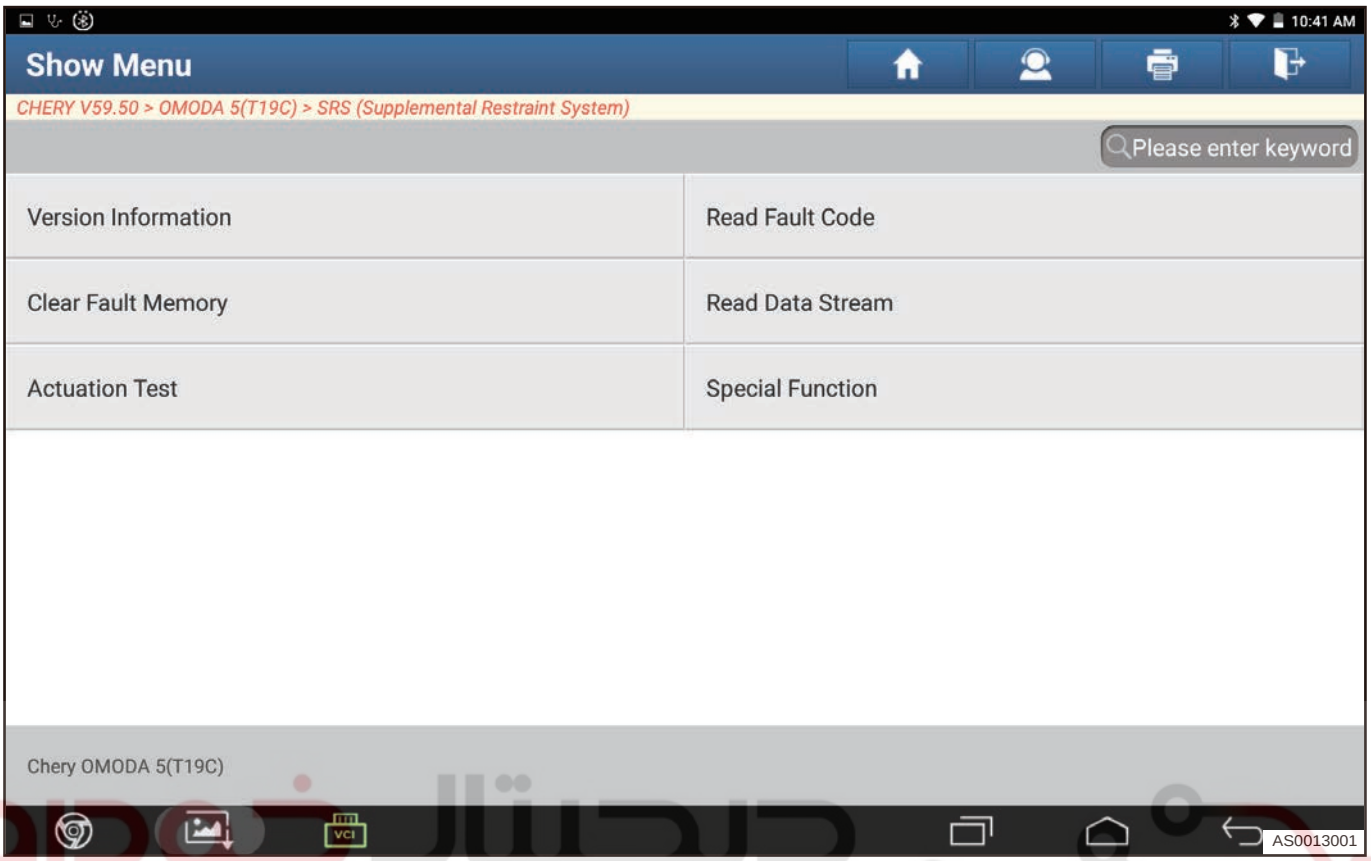
⚠ Caution

- ACU is divided into high configuration and low configuration (179AA is low configuration, 180AA is high configuration). Confirm the vehicle configuration information during installation firstly.
- Handle ACU carefully and it’ s strictly forbidden to tap and crash it fiercely.
- There should be no other objects between ACU installation plane and ACU module, and ACU must be installed directly on body panel.
- Make sure that the ignition key cylinder is in OFF state during installation and removal of ACU, and never install or remove it with power on.
- Reconfirm the installation direction of ACU after installation and make sure that label arrow direction is facing vehicle head. If fitted reversely, airbag controller assembly will not operate normally.
- ACU is not configured or during in configuration (when airbag light is flashing), ACU does not have the function of deployment, vehicle can not operate normally.

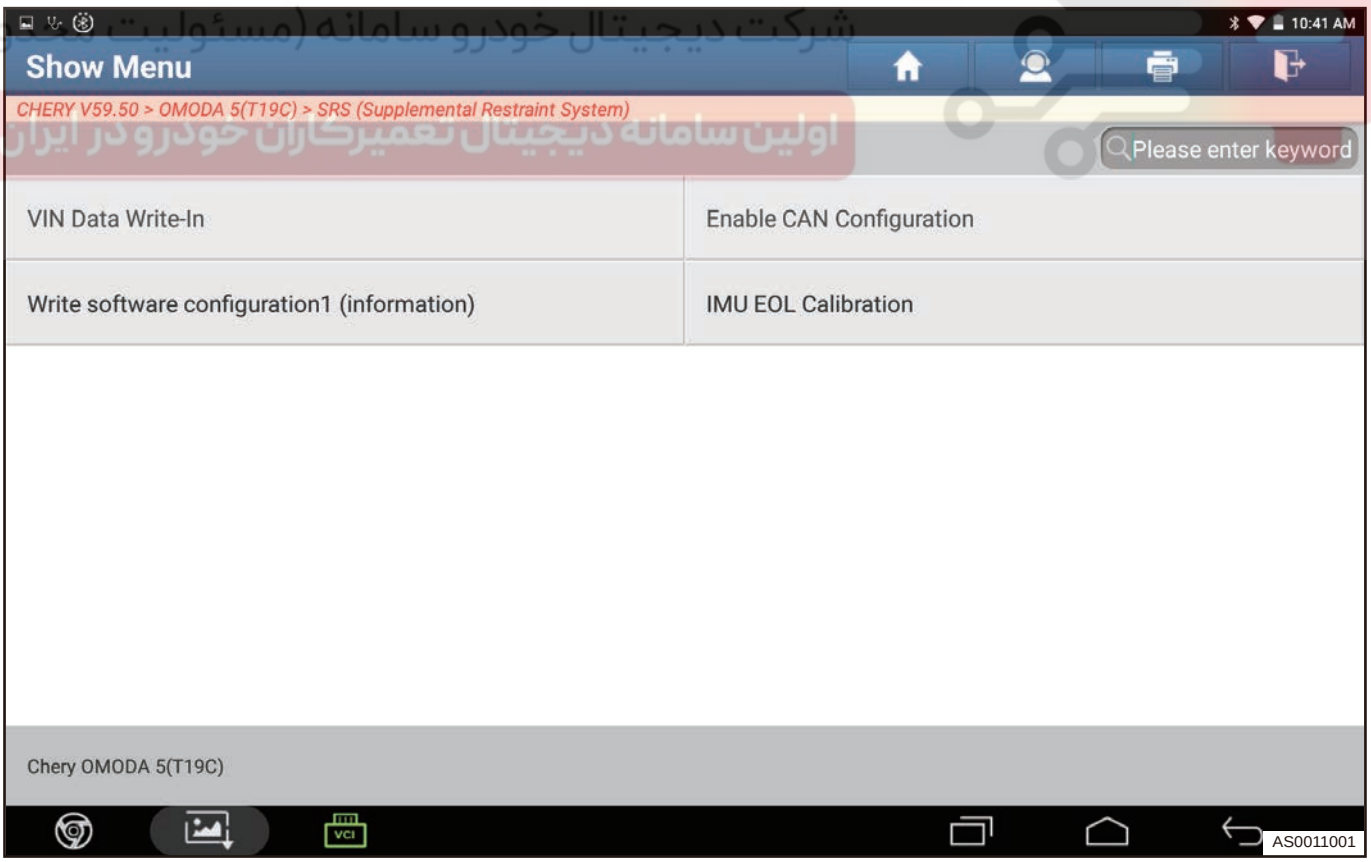
IMU (Inertial Sensor) Calibration

1. Connect diagnostic tester, turn ENGINE START STOP switch to ON.
2. Select the model.
3. Proceed to next interface and click “SRS (Supplemental Restrain System)” to select.

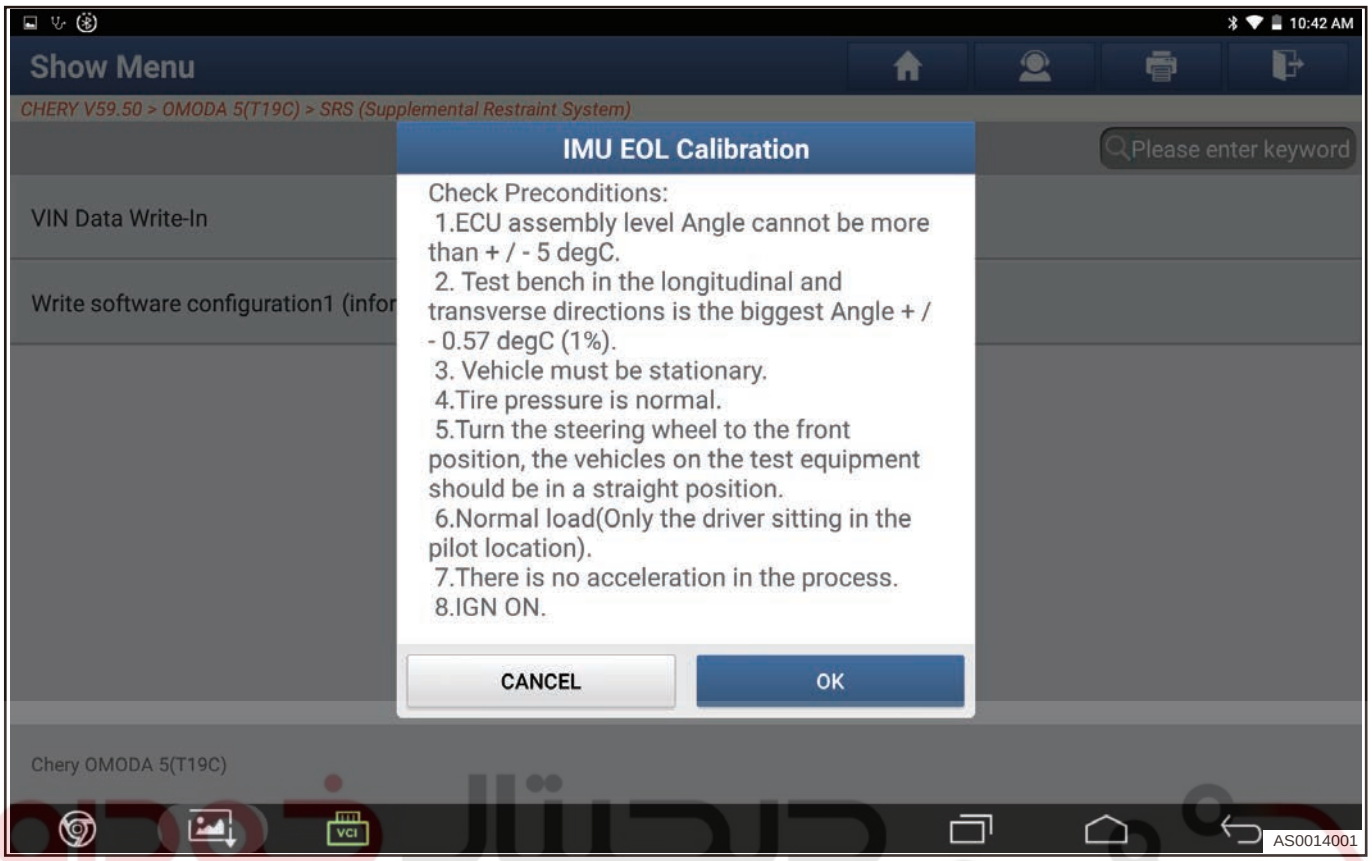
4. Enter next screen and click “Special Function”.



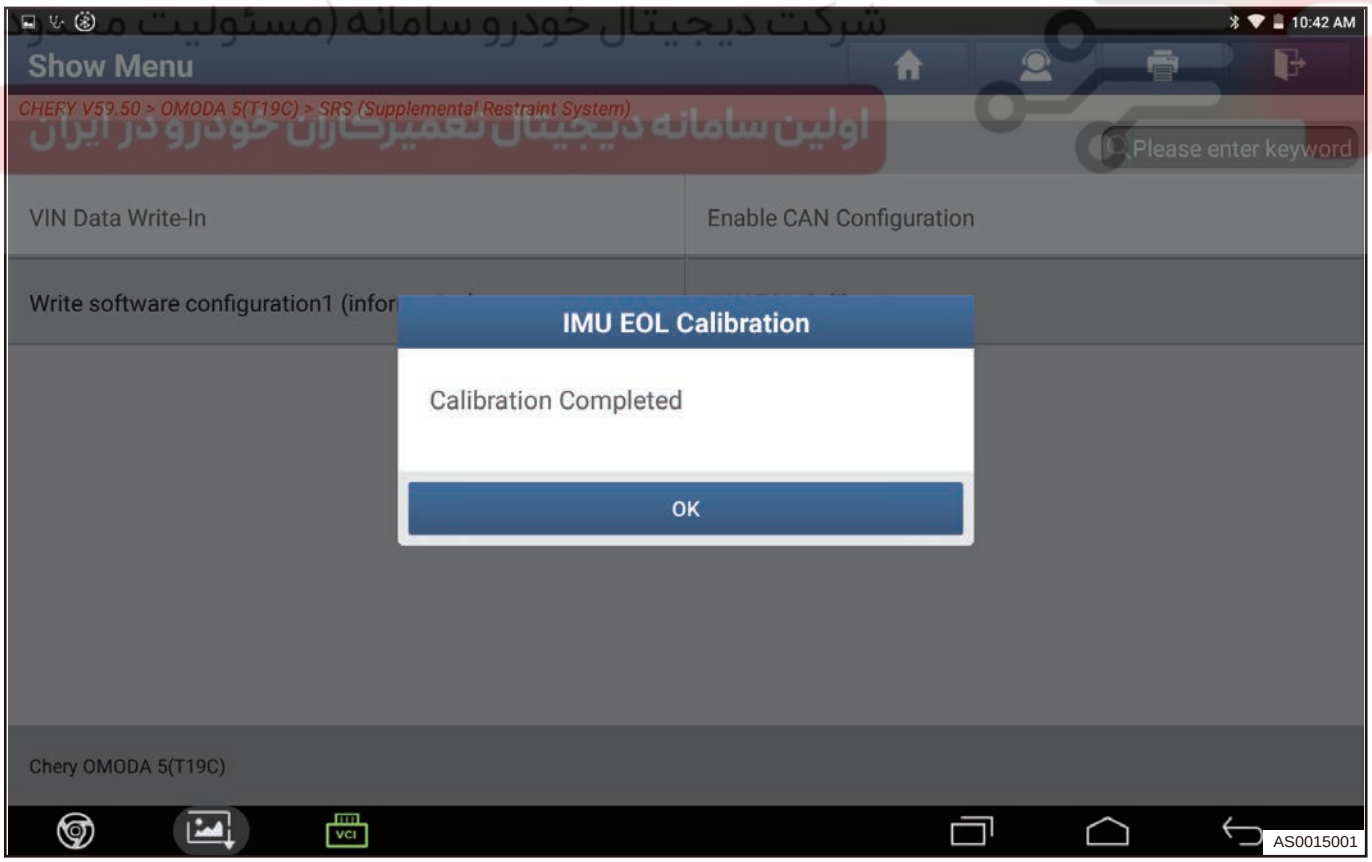
5. Select “IMU EOL Calibration”.



6. Sensor calibration conditions.



7. Diagnostic tester will prompt whether calibration is success or not.



⚠ Caution
• Replace airbag module and recalibrate the inertial sensor.

Diagnosis & Test

Diagnosis Contents

Problem Symptoms Table

Hint:
Use symptoms table below to help determine cause of problem. Check each suspected area in sequence. Repair, replace or adjust faulty components as necessary.

Symptom	Suspected Area
Airbag system indicator remains on	Battery voltage is too low or too high
	Airbag module internal fault
	Instrument cluster airbag indicator fault
	Poor contact in instrument cluster connector
	Airbag module power supply fuse open or poor contact
	Poor contact in airbag module connector
	Airbag circuit fault
Airbag assembly (resistance is too high or too low)	Airbag itself fault
	Connection fault between airbag and airbag module
	Airbag module fault

DTC Confirmation Procedure

Confirm that battery voltage is normal before performing following procedures.

- Turn ENGINE START STOP switch to OFF.
- Connect the diagnostic tester (the latest software) to Data Link Connector (DLC).
- Turn ENGINE START STOP switch to ON.
- Use diagnostic tester to record and clear DTCs stored in supplemental restraint system.
- Turn the ENGINE START STOP switch to OFF and wait for several seconds.
- Turn ENGINE START STOP switch to “ON”, and then select read DTC.
- If DTC is detected, it indicates current malfunction.
- If no DTC is detected, malfunction indicated by the DTC is intermittent.

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.
- Monitor diagnostic tester (the latest software) data that is related to this circuit.
- Wiggle related wire harnesses and connectors and observe if signal is interrupt in related circuit.
- If possible, try to duplicate the conditions under which DTC was set.

- Look for data that has changed or DTC to reset during wiggling test.
- Look for broken, bent, protruded or corroded terminals.
- Inspect airbag components 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 operates. Circuits are very sensitive to proper grounding. A loose or corroded ground can seriously 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 contact is in good condition.
4. Reinstall ground bolt or nut securely.
5. Check if any additional accessories interfere with ground circuit.
6. If several wire harnesses are crimped into one ground terminal, check for proper crimp condition. Make sure that all wire harnesses are clean and securely fastened while providing a proper ground path.

Preparations before Dealing with Airbag System Wire Harness Malfunction

1. Read and record the system DTC.
2. Turn ENGINE START STOP switch to OFF, disconnect the negative battery cable for at least 1 minute so that the airbag controller has enough time to discharge.
3. Prevent electric static discharge, such as static-proof wrist strap.
4. To prevent the ignition element from igniting accidentally during wire harness measurement, it is necessary to disengage all elements connected to wire harness, such as airbag, module, sensor etc. before measuring.

Airbag System Malfunction Repair Completion Inspection

1. Turn ENGINE START STOP switch to OFF and disconnect the negative battery cable (if is the connected);
2. Connect each wire harness connector of airbag system;
3. Connect negative battery cable;
4. Start the vehicle, operate the electrical system, turn on the electrical equipment as much as possible (-blower, rear defroster, headlight, audio, etc.). If all the following requirements are met, the airbag system is normal, otherwise it should be checked and repaired again:
   a. ENGINE START STOP switch is ON, system performs self-check, airbag warning light comes on. Warning light goes off when self-check is completed.
   b. Connect the diagnostic tester, read the DTC and observe the datastream. Use the simulation method if necessary. Test the vehicle in the malfunction conditions described by customer, check if the malfunction is no longer duplicate and no other DTCs are produced.
   c. If equipped with front passenger detection device, the front passenger seat belt warning light should operate normally; (Check method: A person sits on the front passenger seat and does not wear the seat belt, the light comes on and goes off after the seat belt is fastened.)
   d. Clear history DTC (if exists)

Disposal of Airbag

Airbag deploys (in vehicle).

1. It is necessary to deploy the airbag before disposing. If the vehicle is scrapped and disassembled, the airbag may deploy in vehicle.
   a. Preventive procedure of airbag deployment

⚠ Caution

To prevent injury when deploying the airbag in vehicle, please refer to following prevention methods:

- Remove all movable objects or loose parts within airbag deployment range before the airbag is deployed.
- The airbag is deployed only in the reserved airbag deployment area with door closed and side window opened.
- The airbag is deployed only in the reserved airbag deployment area (site), the technicians must stand at least 10 meters in front of the vehicle.
- Do not load voltage before all preparations have been completed.
- Cool down the airbag at least 30 minutes before handling the deployed airbag.
- Please wear gloves and safety glasses during disposal process.
- If airbag deployment is failed, wait at least 5 minutes after disconnecting the voltage, and then you can approach the vehicle.

   b. Prevention methods of deployment procedure
      i. Inside deployment prevention methods
         - Disconnect the negative and positive battery cables and move the battery 10 meters away from the vehicle.
         - Prepare two additional wire harnesses at least 10 meters long for each one and special connector for connecting the spiral cable (clock spring). Peel off the 13 mm insulation coat at the end of wire harness. Connect the connector at one end and another end to twist as shown in illustration.
         - Place the twisted end next to the battery for airbag deployment, but do not connect it to battery at this time.
         - Remove driver side lower instrument panel from steering column. When connecting the lower part of steering column to SRS wire harness connector of spiral cable, connect the connector in figure 10.
         - Clean the site.
         - Disengage the twisted end of the wire harness next to the battery for airbag deployment.
         - One wire harness contacts with negative battery and another one contacts with positive battery, the airbag will deploy at this time.
         - Deploy the passenger side airbag module using the same procedure.
         - Handle the deployed airbag with correct prevention methods. Refer to “Handling Procedure for Deployed Airbag” in this manual.
      ii. Outside deployment prevention methods
         - Install the airbag set to the tire with rim with airbag front surface faced up, and the space for wire and connector is reserved to prevent the deployment from being destroyed.
         - Prepare two additional wire harnesses at least 10 meters long for each one and special connector for connecting airbag set. Peel off the 13 mm insulation coat at the end of wire harness. Connect the connector at one end as shown in illustration.
         - Place the twisted end next to the battery for airbag deployment, but do not connect it to battery at this time.
         - Stack 4 old tires without rims on the wheel installed with airbag set, and secure all the tires in 4 different positions with rope.
         - Clean the site.
         - Disengage the twisted end of the wire harness next to the battery for airbag deployment.

- One wire harness contacts with negative battery and another one contacts with positive battery, the airbag will deploy at this time.
- Deploy the passenger side airbag module using the same procedure.
- Handle the deployed airbag with correct prevention methods. Refer to “Handling Procedure for Deployed Airbag Set” in this manual.

Handling procedure for deployed airbag set

2. Place the deployed airbag in a solid plastic bag.
3. Be sure to seal the plastic bag tightly.
4. Wash both hands carefully after handling the deployed airbag.
5. Although above protection measures are taken, if the irritant substance attaches to the eyes or skin, flush it with a large amount of water immediately.

⚠ Caution

- There may be powder particles on airbag surface, which is primarily composed of chemical reaction product (used to lubricate bag when inflating).
- There may be substance which can irritate eyes or skin attached to the deployed airbag, so please wear gloves and safety glasses during disposal process.
- After the airbag deploys, the temperature on airbag module metal surface is very high. To avoid any injury or fire, please keep the deployed airbag module far away from any combustible materials,
- Do not pour water or oil on the airbag after the airbag deploys and handle it after cooling for 30 minutes.

Diagnosis Procedure

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

1	**Vehicle brought to workshop**

Next

2	**Check battery voltage**

Check if battery voltage is normal.
OK
Standard voltage: Not less than 12V.
Result

Result	Go to
OK	A
NG	B

B → **Replace battery**

A

3	**Check ACU warning light**

Next

4	Check for DTCs (current DTC and history DTC)

Result

Result	Go to
DTC occurs	A
No DTC	B

B → **Perform repair according to problem symptoms table**

A

5	Read DTCs (current DTC and history DTC)

Result

Result	Go to
Current DTC	A
History DTC	B

B → **Troubleshoot according to Intermittent DTC malfunction procedures**

A

6	Repair according to Diagnostic Trouble Code (DTC) Chart

Next

7	Adjust, repair or replace

Next

8	Conduct test and confirm malfunction has been repaired

Next → **End**

Diagnostic Trouble Code (DTC) Chart

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
B1-250-16	Power Supply Circuit Voltage Below Threshold	Circuit voltage below threshold;	External	• When voltage is less than 7.2 V, the malfunction is detected; • When voltage is less than 8.5 V, the malfunction may is detected;	When voltage is 9 V, the malfunction disappears When voltage is 7.7 V, the malfunction may disappear	• Excessive low vehicle power supply voltage	The vehicle power supply voltage control is within normal range	Warning light comes on
B1-250-17	Power Supply Circuit Voltage Above Threshold	Circuit voltage above threshold;	External	• When voltage is 19.5 V, the malfunction is detected; • When voltage is 16.5 V, the malfunction may is detected;	When voltage is less than 16 V, the malfunction disappears When voltage is less than 19 V, the malfunction may disappear	• Excessive high vehicle power supply voltage	The vehicle power supply voltage control is within normal range	Warning light comes on
B0-001-11	Driver Frontal Airbag Deployment Control Circuit Short To Ground	Circuit short to ground	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of	• Driver front airbag initiation circuit is short to ground, and short-circuit current is detected by controller (pin 4 and 5)	Protect the wire harness integrity	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
					driver front airbag ignition circuit and ground.			
B0-001-12	Driver Frontal Airbag Deployment Circuit Short To Battery	Circuit short to power supply	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction can be stored as history DTC, troubleshoot driver front airbag ignition circuit;	• Driver front airbag initiation circuit is short to power supply, short-circuit current is detected by controller	Connect the wire harness firmly or protect the wire harness integrity	Warning light comes on
B0-001-1A	Driver Frontal Airbag Deployment Control Circuit Resistance Below Threshold	Circuit resistance below threshold	External	• When airbag is less than 1.4 Ω, the malfunction is detected; • When airbag resistance value is 1.4~1.7 Ω, the malfunction may be detected;	• When airbag resistance value is more than 1.4 Ω, the malfunction may disappear; • When airbag resistance value is more than 1.7 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit;	• Driver frontal airbag initiation circuit resistance is below set threshold	Correctly define resistance range/ system operation	Warning light comes on
B0-001-1B	Driver Frontal Airbag	Circuit resistance above threshold	External	• When airbag resistance value is more than	• When airbag resistance value is less than 4.4 Ω, the	• Driver frontal airbag initiation circuit	Correctly define resistance range/ system operation	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Deployment Control Circuit Resistance Above Threshold			4.4 Ω, the malfunction is detected; • When airbag resistance value is 3.8~4.4 Ω, the malfunction may be detected;	malfunction may disappear; • When airbag resistance value is less than 3.8 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit;	resistance is above set threshold		
B0-010-11	Passenger Frontal Airbag Deployment Control	Circuit short to ground	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver front airbag ignition circuit and ground.	• Front passenger front airbag initiation circuit is short to ground, short-circuit current is detected by controller	Protect the wire harness integrity	Warning light comes on
B0-010-12	Passenger Frontal Airbag Depl-	Circuit short to power supply	External	• When leakage is less than 1 kΩ, the malfunction is detected;	• When leakage resistance value is more than 1 kΩ, the malfunction	• Front passenger front airbag initiation circuit is short to	Connect the wire harness firmly or protect the wire harness integrity	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	oyment Control			• When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot driver knee airbag ignition circuit;	power supply, short-circuit current is detected by controller		
B0-010-1A	Passenger Frontal Airbag Deployment Control	Circuit resistance below threshold	External	• When airbag is less than 1.1 Ω, the malfunction is detected; • When airbag resistance value is 1.1~1.7 Ω, the malfunction may be detected;	• When airbag resistance value is more than 1.4 Ω, the malfunction may disappear; • When airbag resistance value is more than 1.7 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit.	• Front passenger airbag ignition circuit resistance below set threshold	Correctly define resistance range/ system operation	Warning light comes on
B0-010-1B	Passenger Frontal Airbag Deployment Control	Circuit resistance above threshold	External	• When airbag resistance value is more than 5.0 Ω, the malfunction is detected; • When airbag	• When airbag resistance value is less than 4.4 Ω, the malfunction may disappear; • When airbag resistance value is less	• Front passenger frontal initiation circuit resistance above set threshold	Correctly define resistance range/ system operation	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
				resistance value is 3.8~5.0 Ω, the malfunction may be detected;	than 3.8 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit.			
B0-004-11	Driver Knee Airbag Deployment Control Circuit Short To Ground	Circuit short to ground	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver front airbag ignition circuit and ground.	• Airbag ignition circuit short to ground, short-circuit current detected by controller;	Protect the wire harness integrity	Warning light comes on
B0-004-12	Driver Knee Airbag Deployment Control Circuit Short To	Circuit short to power supply	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ,	• Airbag ignition circuit short to power supply, short circuit current detected by controller;	Connect the wire harness firmly or protect the wire harness integrity	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Power Supply			malfunction may be detected;	the malfunction disappear, troubleshoot resistance value of driver knee airbag ignition circuit;			
B0-004-1A	Driver Knee Airbag Deployment Control Circuit Resistance Below Threshold	Circuit resistance below threshold	External	• When airbag is less than 1.4 Ω, the malfunction is detected; • When airbag resistance value is 1.4~1.7 Ω, the malfunction may be detected;	• When airbag resistance value is more than 1.4 Ω, the malfunction may disappear; • When airbag resistance value is more than 1.7 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit.	• Airbag ignition circuit resistance value is below set threshold.	Correctly define resistance range/ system operation	Warning light comes on
B0-004-1B	Driver Knee Airbag Deployment Control Circuit Resistance Above Upper	Circuit resistance above threshold	External	• When airbag resistance value is more than 4.4 Ω, the malfunction is detected; • When airbag resistance value is 3.8~4.4 Ω, the	• When airbag resistance value is less than 4.4 Ω, the malfunction may disappear; • When airbag resistance value is less than 3.8 Ω, the malfunction disappear, test resistance	• Airbag ignition circuit resistance value is more than set threshold	Correctly define resistance range/ system operation	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Threshold			malfunction may be detected;	value of driver front airbag ignition circuit.			
B0-020-11	Left Side Airbag Deployment Control Circuit Short To Ground	Circuit short to ground	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver front airbag ignition circuit and ground.	• Airbag ignition circuit short to ground, short-circuit current detected by controller;	Protect the wire harness integrity	Warning light comes on
B0-020-12	Left Side Airbag Deployment Control Circuit Short To Battery	Circuit short to power supply	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of	• Airbag ignition circuit short to power supply, short circuit current detected by controller	Connect the wire harness firmly or protect the wire harness integrity	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
					driver knee airbag ignition circuit;			
B0-020-1A	Left Side Airbag Deployment Control-Circuit Resistance Below Threshold	Circuit resistance below threshold	External	• When airbag is less than 1.1 Ω, the malfunction is detected; • When airbag resistance value is 1.1~1.7 Ω, the malfunction may be detected;	• When airbag resistance value is more than 1.1 Ω, the malfunction may disappear; • When airbag resistance value is more than 1.7 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit.	• Airbag ignition circuit resistance below set threshold	Correctly define resistance range/ system operation	Warning light comes on
B0-020-1B	Left Side Airbag Deployment Control-Circuit Resistance Above Threshold	Circuit resistance above threshold	External	• When airbag resistance value is more than 5.0 Ω, the malfunction is detected; • When airbag resistance value is 3.8~5.0, the malfunction may be detected;	• When airbag resistance value is less than 5.0, the malfunction may disappear; • When airbag resistance value is less than 3.8 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit;	• Airbag ignition circuit resistance value is more than set threshold	Correctly define resistance range/ system operation	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
B0-028-11	Right Side Airbag Deployment Control Circuit Short To Ground	Circuit short to ground	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver front airbag ignition circuit and ground.	• Airbag ignition circuit short to ground, short-circuit current detected by controller;	Protect the wire harness integrity	Warning light comes on
B0-028-12	Right Side Airbag Deployment Control Circuit Short To Battery	Circuit short to power supply	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver knee airbag ignition circuit;	• Airbag ignition circuit short to power supply, short circuit current detected by controller	Connect the wire harness firmly or protect the wire harness integrity	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
B0-028-1A	Right Side Airbag Deployment Control Circuit Resistance Below Threshold	Circuit resistance below threshold	External	• When airbag is less than 1.1, the malfunction is detected; • When airbag resistance value is 1.11~7 Ω, the malfunction may be detected;	• When airbag resistance value is more than 1.1, the malfunction may disappear; • When airbag resistance value is more than 1.7 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit.	• Airbag ignition circuit resistance below set threshold	Correctly define resistance range/ system operation	Warning light comes on
B0-028-1B	Right Side Airbag Deployment Control Circuit Resistance Above Threshold	Circuit resistance above threshold	External	• When airbag resistance value is more than 5.0, the malfunction is detected; • When airbag resistance value is 3.8~5.0, the malfunction may be detected;	• When airbag resistance value is less than 4.4 Ω, the malfunction may disappear; • When airbag resistance value is less than 3.8 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit;	• Airbag ignition circuit resistance value is more than set threshold	Correctly define resistance range/ system operation	Warning light comes on
B0-021-11	Left Curtain Airbag	Circuit short to ground	External	• When leakage is less than 1 kΩ, the	• When leakage resistance value is more than 1 kΩ,	• Airbag ignition circuit short to ground,	Protect the wire harness integrity	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Deployment Control Circuit Short To Ground			malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver front airbag ignition circuit and ground.	short-circuit current detected by controller;		
B0-021-12	Left Curtain Airbag Deployment Control Circuit Short To Battery	Circuit short to power supply	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver knee airbag ignition circuit;	• Airbag ignition circuit short to power supply, short circuit current detected by controller	Connect the wire harness firmly or protect the wire harness integrity	Warning light comes on
B0-021-1A	Left Curtain Airbag	Circuit resistance below threshold	External	• When airbag is less than 1.4 Ω, the	• When airbag resistance value is more than 1.4 Ω, the malfunction	• Ignition circuit resistance value is below set threshold.	Correctly define resistance range/ system operation	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Deployment Control Circuit Resistance Below Threshold			malfunction is detected; • When airbag resistance value is 1.4~1.7 Ω, the malfunction may be detected;	may disappear; • When airbag resistance value is more than 1.7 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit.			
B0-021-1B	Left Curtain Airbag Deployment Control Circuit Resistance Above Threshold	Circuit resistance above threshold	External	• When airbag is more than 5.0, the malfunction is detected; • When airbag resistance value is 3.8~5.0, the malfunction may be detected;	• When airbag resistance value is less than 4.4 Ω, the malfunction may disappear; • When airbag resistance value is less than 3.8 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit;	• Ignition circuit resistance above set threshold	Correctly define resistance range/ system operation	Warning light comes on
B0-029-11	Right Side Airbag Deployment Control Circuit	Circuit short to ground	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear;	• Airbag ignition circuit short to ground, short-circuit current detected by controller;	Protect the wire harness integrity	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Short To Ground			value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver front airbag ignition circuit and ground.			
B0-029-12	Right Side Airbag Deployment Control-Circuit Short To Battery	Circuit short to power supply	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver knee airbag ignition circuit;	• Airbag ignition circuit short to power supply, short circuit current detected by controller	Connect the wire harness firmly or protect the wire harness integrity	Warning light comes on
B0-029-1A	Right Side Airbag Deployment Control-	Circuit resistance below threshold	External	• When airbag is less than 1.4 Ω, the malfunction is detected; • When airbag resistance	• When airbag resistance value is more than 1.4 Ω, the malfunction may disappear; • When airbag resistance	• Airbag ignition circuit resistance below set threshold	Correctly define resistance range/ system operation	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Circuit Resistance Below Threshold			value is 1.4~1.7 Ω, the malfunction may be detected;	value is more than 1.7 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit.			
B0-029-1B	Right Side Airbag Deployment Control-Circuit Resistance Above Threshold	Circuit resistance above threshold	External	• When airbag is more than 5.0, the malfunction is detected; • When airbag resistance value is 3.8~5.0, the malfunction may be detected;	• When airbag resistance value is less than 4.4 Ω, the malfunction may disappear; • When airbag resistance value is less than 3.8 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit;	• Ignition circuit resistance above set threshold	Correctly define resistance range/ system operation	Warning light comes on
B1-285-11	Front Row Left Seatbelt Retractor Pretensioner Deployment Control-	Circuit short to ground	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the	• Airbag ignition circuit short to ground, short-circuit current detected by controller;	Protect the wire harness integrity	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Circuit Short To Ground			malfunction may be detected;	malfunction disappear, troubleshoot resistance value of driver front airbag ignition circuit and ground.			
B1-285-12	Front Row Left Seatbelt Retractor Pretensioner Deployment Control-Circuit Short To Battery	Circuit short to power supply	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver knee airbag ignition circuit;	• Airbag ignition circuit short to power supply, short circuit current detected by controller	Connect the wire harness firmly or protect the wire harness integrity	Warning light comes on
B1-285-1A	Front Row Left Seatbelt Retractor Pretensioner Deployment Control-	Circuit resistance below threshold	External	• When airbag is less than 1.4 Ω, the malfunction is detected; • When airbag resistance value is 1.4~1.7 Ω, the	• When airbag resistance value is more than 1.4 Ω, the malfunction may disappear; • When airbag resistance value is more than 1.7 Ω, the malfunction disappear, test	• Ignition circuit resistance is less than set threshold	Correctly define resistance range/ system operation	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Circuit Resistance Below Threshold			malfunction may be detected;	resistance value of driver front airbag ignition circuit.			
B1-285-1B	Front Row Left Seatbelt Retractor Pretensioner Deployment Control-Circuit Resistance Above Threshold	Circuit resistance above threshold	External	• When airbag is more than 5.0, the malfunction is detected; • When airbag resistance value is 3.8~5.0, the malfunction may be detected;	• When airbag resistance value is less than 4.4 Ω, the malfunction may disappear; • When airbag resistance value is less than 3.8 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit;	• Ignition circuit resistance above set threshold	Correctly define resistance range/ system operation	Warning light comes on
B1-286-11	Front Row Right Seatbelt Retractor Pretensioner Deployment Control-Circuit Short	Circuit short to ground	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot	• Airbag ignition circuit short to ground, short-circuit current detected by controller;	Protect the wire harness integrity	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	To Ground				resistance value of driver front airbag ignition circuit and ground.			
B1-286-12	Front Row Right Seatbelt Retractor Pretensioner Deployment Control Circuit Short To Battery	Circuit short to power supply	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver knee airbag ignition circuit;	• Airbag ignition circuit short to power supply, short circuit current detected by controller	Connect the wire harness firmly or protect the wire harness integrity	Warning light comes on
B1-286-1A	Front Row Right Seatbelt Retractor Pretensioner Deployment Control Circuit Resi-	Circuit resistance below threshold	External	• When airbag is less than 1.4 Ω, the malfunction is detected; • When airbag resistance value is 1.4~1.7 Ω, the malfunction may be detected;	• When airbag resistance value is more than 1.4 Ω, the malfunction may disappear; • When airbag resistance value is more than 1.7 Ω, the malfunction disappear, test resistance value of driver front	• Ignition circuit resistance is less than set threshold	Correctly define resistance range/ system operation	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	stance Below Threshold				airbag ignition circuit.			
B1-286-1B	Front Row Right Seatbelt Retractor Pretensioner Deployment Control Circuit Resistance Above Threshold	Circuit resistance above threshold	External	• When airbag is more than 5.0, the malfunction is detected; • When airbag resistance value is 3.8~5.0, the malfunction may be detected;	• When airbag resistance value is less than 4.4 Ω, the malfunction may disappear; • When airbag resistance value is less than 3.8 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit;	• Ignition circuit resistance above set threshold	Correctly define resistance range/ system operation	Warning light comes on
B1-204-11	Belt Pretensioner Driver Deployment Control Circuit Short To Ground	Circuit short to ground	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver front	• Airbag ignition circuit short to ground, short-circuit current detected by controller;	Protect the wire harness integrity	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
					airbag ignition circuit and ground.			
B1-204-12	Belt Pretensioner Driver Deployment Control Circuit Short To Battery	Circuit short to power supply	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver knee airbag ignition circuit;	• Airbag ignition circuit short to power supply, short circuit current detected by controller	Connect the wire harness firmly or protect the wire harness integrity	Warning light comes on
B1-204-1A	Belt Pretensioner Driver Deployment Control Circuit Resistance Below Threshold	Circuit resistance below threshold	External	• When airbag is less than 1.4 Ω, the malfunction is detected; • When airbag resistance value is 1.4~1.7 Ω, the malfunction may be detected;	• When airbag resistance value is more than 1.4 Ω, the malfunction may disappear; • When airbag resistance value is more than 1.7 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit.	• Ignition circuit resistance is less than set threshold	Correctly define resistance range/ system operation	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
B1-204-1B	Belt Pretensioner Driver Deployment Control Circuit Resistance Above Threshold	Circuit resistance above threshold	External	• When airbag is more than 5.0, the malfunction is detected; • When airbag resistance value is 3.8~5.0, the malfunction may be detected;	• When airbag resistance value is less than 4.4 Ω, the malfunction may disappear; • When airbag resistance value is less than 3.8 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit;	• Ignition circuit resistance above set threshold	Correctly define resistance range/ system operation	Warning light comes on
B1-205-11	Belt Pretensioner Passenger Deployment Control Circuit Short To Ground	Circuit short to ground	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver front airbag ignition circuit and ground.	• Airbag ignition circuit short to ground, short-circuit current detected by controller;	Protect the wire harness integrity	Warning light comes on
B1-205-12	Belt Prete-	Circuit short to	External	• When leakage is	• When leakage	• Airbag ignition	Connect the wire harness	Warning

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	nsioner Passenger Deployment Control Circuit Short To Battery	power supply		less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver knee airbag ignition circuit;	circuit short to power supply, short circuit current detected by controller	firmly or protect the wire harness integrity	light comes on
B1-205-1A	Belt Pretensioner Passenger Deployment Control Circuit Resistance Below Threshold	Circuit resistance below threshold	External	• When airbag is less than 1.4 Ω, the malfunction is detected; • When airbag resistance value is 1.4~1.7 Ω, the malfunction may be detected;	• When airbag resistance value is more than 1.4 Ω, the malfunction may disappear; • When airbag resistance value is more than 1.7 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit.	• Ignition circuit resistance is less than set threshold	Correctly define resistance range/ system operation	Warning light comes on
B1-205-1B	Belt Pretensioner	Circuit resistance above	External	• When airbag is more than 5.0, the	• When airbag resistance value is less than 4.4 Ω, the	• Ignition circuit resistance above	Correctly define resistance range/	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Passenger Deployment Control Circuit Resistance Above Threshold	threshold		malfunction is detected; • When airbag resistance value is 3.8~5.0, the malfunction may be detected;	malfunction may disappear; • When airbag resistance value is less than 3.8 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit;	set threshold	system operation	
B0-073-11	Second Row Left Seatbelt Pretensioner Deployment Control Circuit Short To Ground	Circuit short to ground	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver front airbag ignition circuit and ground.	• Airbag ignition circuit short to ground, short-circuit current detected by controller;	Protect the wire harness integrity	Warning light comes on
B0-073-12	Second Row Left Seatbelt Pretensioner	Circuit short to power supply	External	• When leakage is less than 1 kΩ, the malfunction is detected;	• When leakage resistance value is more than 1 kΩ, the malfunction	• Airbag ignition circuit short to power supply, short circuit	Connect the wire harness firmly or protect the wire harness integrity	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	nsioner Deployment Control Circuit Short To Battery			• When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver knee airbag ignition circuit;	current detected by controller		
B0-073-1A	Second Row Left Seatbelt Pretensioner Deployment Control Circuit Resistance Below Threshold	Circuit resistance below threshold	External	• When airbag is less than 1.4 Ω, the malfunction is detected; • When airbag resistance value is 1.4~1.7 Ω, the malfunction may be detected;	• When airbag resistance value is more than 1.4 Ω, the malfunction may disappear; • When airbag resistance value is more than 1.7 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit.	• Ignition circuit resistance is less than set threshold	Correctly define resistance range/ system operation	Warning light comes on
B0-073-1B	Second Row Left Seatbelt Pretensioner	Circuit resistance above threshold	External	• When airbag is more than 5.0, the malfunction is detected; • When airbag	• When airbag resistance value is less than 4.4 Ω, the malfunction may disappear;	• Ignition circuit resistance above set threshold	Correctly define resistance range/ system operation	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Deployment Control Circuit Resistance Above Threshold			resistance value is 3.8~5.0, the malfunction may be detected;	• When airbag resistance value is less than 3.8 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit;			
B0-075-11	Second Row Right Seatbelt Pretensioner Deployment Control Circuit Short To Ground	Circuit short to ground	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver front airbag ignition circuit and ground.	• Airbag ignition circuit short to ground, short-circuit current detected by controller;	Protect the wire harness integrity	Warning light comes on
B0-075-12	Second Row Right Seatbelt Pretensioner Depl-	Circuit short to power supply	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear;	• Airbag ignition circuit short to power supply, short circuit current detected	Connect the wire harness firmly or protect the wire harness integrity	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	oyment Control Circuit Short To Battery			(1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver knee airbag ignition circuit;	by controller		
B0-075-1A	Second Row Right Seatbelt Pretensioner Deployment Control Circuit Resistance Below Threshold	Circuit resistance below threshold	External	• When airbag is less than 1.4 Ω, the malfunction is detected; • When airbag resistance value is 1.4~1.7 Ω, the malfunction may be detected;	• When airbag resistance value is more than 1.4 Ω, the malfunction may disappear; • When airbag resistance value is more than 1.7 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit.	• Ignition circuit resistance is less than set threshold	Correctly define resistance range/ system operation	Warning light comes on
B0-075-1B	Second Row Right Seatbelt Pretensioner Deployment	Circuit resistance above threshold	External	• When airbag is more than 5.0, the malfunction is detected; • When airbag resistance value is 3.8~5.0,	• When airbag resistance value is less than 4.4 Ω, the malfunction may disappear; • When airbag resistance value is less than 3.8 Ω,	• Ignition circuit resistance above set threshold	Correctly define resistance range/ system operation	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Control Circuit Resistance Above Threshold			the malfunction may be detected;	the malfunction disappear, test resistance value of driver front airbag ignition circuit;			
B0030-11	Second Row Left Side Airbag Deployment Control Circuit Short To Ground	Circuit short to ground	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver front airbag ignition circuit and ground.	• Airbag ignition circuit short to ground, short-circuit current detected by controller;	Protect the wire harness integrity	Warning light comes on
B0030-12	Second Row Left Side Airbag Deployment Control Circuit	Circuit short to power supply	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ,	• Airbag ignition circuit short to power supply, short circuit current detected by controller	Connect the wire harness firmly or protect the wire harness integrity	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Short To Battery			malfunction may be detected;	the malfunction disappear, troubleshoot resistance value of driver knee airbag ignition circuit;			
B0-030-1A	Second Row Left Side Airbag Deployment Control-Circuit Resistance Below Threshold	Circuit resistance below threshold	External	• When airbag is less than 1.4 Ω, the malfunction is detected; • When airbag resistance value is 1.4~1.7 Ω, the malfunction may be detected;	• When airbag resistance value is more than 1.4 Ω, the malfunction may disappear; • When airbag resistance value is more than 1.7 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit.	• Ignition circuit resistance is less than set threshold	Correctly define resistance range/ system operation	Warning light comes on
B0-030-1B	Second Row Left Side Airbag Deployment Control-Circuit Resistance	Circuit resistance above threshold	External	• When airbag is more than 5.0, the malfunction is detected; • When airbag resistance value is 3.8~5.0, the malfunction may be detected;	• When airbag resistance value is less than 4.4 Ω, the malfunction may disappear; • When airbag resistance value is less than 3.8 Ω, the malfunction disappear, test resistance	• Ignition circuit resistance above set threshold	Correctly define resistance range/ system operation	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Above Threshold				value of driver front airbag ignition circuit;			
B0038-11	Second Row Right Side Seat Side Airbag Deployment Control Circuit Short To Ground	Circuit short to ground	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of driver front airbag ignition circuit and ground.	• Airbag ignition circuit short to ground, short-circuit current detected by controller;	Protect the wire harness integrity	Warning light comes on
B0038-12	Second Row Right Side Seat Side Airbag Deployment Control Circuit Short To Battery	Circuit short to power supply	External	• When leakage is less than 1 kΩ, the malfunction is detected; • When leakage resistance value is (1~10) kΩ, the malfunction may be detected;	• When leakage resistance value is more than 1 kΩ, the malfunction may disappear; • When leakage resistance value is more than 10 kΩ, the malfunction disappear, troubleshoot resistance value of	• Airbag ignition circuit short to power supply, short circuit current detected by controller	Connect the wire harness firmly or protect the wire harness integrity	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
					driver knee airbag ignition circuit;			
B0-038-1A	Second Row Right Side Seat Side Airbag Deployment Control Circuit Resistance Below Threshold	Circuit resistance below threshold	External	• When airbag is less than 1.4 Ω, the malfunction is detected; • When airbag resistance value is 1.4~1.7 Ω, the malfunction may be detected;	• When airbag resistance value is more than 1.4 Ω, the malfunction may disappear; • When airbag resistance value is more than 1.7 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit.	• Ignition circuit resistance is less than set threshold	Correctly define resistance range/ system operation	Warning light comes on
B0-038-1B	Second Row Right Side Seat Side Airbag Deployment Control Circuit Resistance Above Threshold	Circuit resistance above threshold	External	• When airbag is more than 5.0, the malfunction is detected; • When airbag resistance value is 3.8~5.0, the malfunction may be detected;	• When airbag resistance value is less than 4.4 Ω, the malfunction may disappear; • When airbag resistance value is less than 3.8 Ω, the malfunction disappear, test resistance value of driver front airbag ignition circuit;	• Ignition circuit resistance above set threshold	Correctly define resistance range/ system operation	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
B0-0C-7-12	Passenger Presence Detection Switch Circuit Short To Battery	Switch pin is connected to power supply	External	• Switch pin is connected to power supply;	• Move out wire harness overlap part;	• System short circuit appears;	Protect the wire harness integrity	Warning light comes on
B1-233-12	Passenger Buckle Switch Circuit Short To Battery	Switch pin is connected to power supply	External	• Switch pin is connected to power supply;	• Move out wire harness overlap part;	• System short circuit appears;	Protect the wire harness integrity	Warning light comes on
B1-234-12	Second Row Left Buckle Switch Circuit Short To Battery	Switch pin is connected to power supply	External	• Switch pin is connected to power supply;	• Move out wire harness overlap part;	• System short circuit appears;	Protect the wire harness integrity	Warning light comes on
B1-235-12	Second Row Middle Buckle Switch	Switch pin is connected to power supply	External	• Switch pin is connected to power supply;	• Move out wire harness overlap part;	• System short circuit appears;	Protect the wire harness integrity	Warning light comes on

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DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Circuit Short To Battery							
B1-236-12	Second Row Right Buckle Switch-Circuit Short To Battery	Switch pin is connected to power supply	External	• Switch pin is connected to power supply;	• Move out wire harness overlap part;	• System short circuit appears;	Protect the wire harness integrity	Warning light comes on
B0-090-11	Left Front Restraints Sensor-Circuit Short To Ground	Circuit short to ground	External	Sensor pin is connected to ground	Move out wire harness overlap part	System short circuit appears	Protect the wire harness integrity	Warning light comes on
B0-090-12	Left Front Restraints Sensor-Circuit Short To Battery	Circuit short to power supply	External	Sensor pin is connected to power supply	Move out wire harness overlap part	System short circuit appears	Protect the wire harness integrity	Warning light comes on
B0-090-13	Left Front Restraints	Circuit open	External	Sensor is not connected	Connect the sensor	Sensor that needs to be connected is	Check wire harness between	Warning light

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Sensor Circuit Open					not connected	ACU and sensor for community	comes on
B0090-96	Left Front Restraints Sensor Component Internal Failure	Sensor internal failure	External	Sensor has self-check function: Once malfunction is detected, sensor will report this malfunction	Replace sensor	Sensor is damaged	Use qualified sensor	Warning light comes on
B0090-91	Left Front Restraints Sensor Configured Fault	Sensor parameter failure	External	Sensor has self-check function: Once malfunction is detected, sensor will report this malfunction	Replace sensor	/	Use qualified sensor	Warning light comes on
B0090-00	Left Front Restraints Sensor-No Sub Type Information	Communication Error	External	Two identical sensors are connected to one communication interface	Use corrected sensor	Use the identical sensor to connect to the same communication interface	Use correct sensor	Warning light comes on
B0095-11	Right Front Restraints Sensor Circuit Short To	Circuit short to ground	External	Sensor pin is connected to ground	Move out wire harness overlap part	System short circuit appears	Protect the wire harness integrity	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Ground							
B0095-12	Right Front Restraints Sensor-Circuit Short To Battery	Circuit short to power supply	External	Sensor pin is connected to power supply	Move out wire harness overlap part	System short circuit appears	Protect the wire harness integrity	Warning light comes on
B0095-13	Right Front Restraints Sensor-Circuit Open	Circuit open	External	Sensor is not connected	Connect the sensor	Sensor that needs to be connected is not connected	Check wire harness between ACU and sensor for community	Warning light comes on
B0095-96	Right Front Restraints Sensor-Component Internal Failure	Sensor internal failure	External	Sensor has self-check function: Once malfunction is detected, sensor will report this malfunction	Replace sensor	Sensor is damaged	Use qualified sensor	Warning light comes on
B0095-91	Right Front Restraints Sensor Configured Fault	Sensor parameter failure	External	Sensor has self-check function: Once malfunction is detected, sensor will report this malfunction	Replace sensor	/	Use qualified sensor	Warning light comes on
B0095-00	Right Front	Comm-	External	Two identical sensors are connected to	Use correct sensor	Use the identical sensor to	Use correct sensor	Warning light

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Restraints Sensor-No Sub Type Information	unication Error		one communication interface		connect to the same communication interface		comes on
B0091-11	Left Side Restraints Sensor-Circuit Short To Ground	Circuit short to ground	External	Sensor pin is connected to ground	Move out wire harness overlap part	System short circuit appears	Protect the wire harness integrity	Warning light comes on
B0091-12	Left Side Restraints Sensor-Circuit Short To Battery	Circuit short to power supply	External	Sensor pin is connected to power supply	Move out wire harness overlap part	System short circuit appears	Protect the wire harness integrity	Warning light comes on
B0091-13	Left Side Restraints Sensor-Circuit Open	Circuit open	External	Sensor is not connected	Connect the sensor	Sensor that needs to be connected is not connected	Check wire harness between ACU and sensor for community	Warning light comes on
B0091-96	Left Side Restraints Sensor-	Sensor internal failure	External	Sensor has self-check function: Once malfunction is detected, sensor will	Replace sensor	Sensor is damaged	Use qualified sensor	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Component Internal Failure			report this malfunction				
B0-091-95	Left Side Restraints Sensor-Configuration Error	Sensor parameter failure	External	Sensor has self-check function: Once malfunction is detected, sensor will report this malfunction	Replace sensor	/	Use qualified sensor	Warning light comes on
B0-091-00	Left Side Restraints Sensor-No Sub Type Information	Communication error	External	Two identical sensors are connected to one communication interface	Use correct sensor	Use the identical sensor to connect to the same communication interface	Use correct sensor	Warning light comes on
B0-096-11	Right Side Restraints Sensor-Circuit Short To Ground	Circuit short to ground	External	Sensor pin is connected to ground	Move out wire harness overlap part	System short circuit appears	Protect the wire harness integrity	Warning light comes on
B0-096-12	Right Side Restraints Sensor-Circuit Short	Circuit short to power supply	External	Sensor pin is connected to power supply	Move out wire harness overlap part	System short circuit appears	Protect the wire harness integrity	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	To Battery							
B0096-13	Right Side Restraints Sensor-Circuit Open	Circuit open	External	Sensor is not connected	Connect the sensor	Sensor that needs to be connected is not connected	Check wire harness between ACU and sensor for community	Warning light comes on
B0096-96	Right Side Restraints Sensor-Component Internal Failure	Sensor internal failure	External	Sensor has self-check function: Once malfunction is detected, sensor will report this malfunction	Replace sensor	Sensor is damaged	Use qualified sensor	Warning light comes on
B0096-95	Right Side Restraints Sensor - Configuration Error	Sensor parameter failure	External	Sensor has self-check function: Once malfunction is detected, sensor will report this malfunction	Replace sensor	/	Use qualified sensor	Warning light comes on
B0096-00	Right Side Restraints Sensor-No Sub Type Information	Communication error	External	Two identical sensors are connected to one communication interface	Use correct sensor	Use the identical sensor to connect to the same communication interface	Use correct sensor	Warning light comes on

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
B1-251-00	ACU Internal Error-No Sub Type Information	No subtype information	External	CAN active, CAN self diagnosis active	Replace controller	Hardware is damaged	Use the controller according to the specification	Warning light comes on
B1-22-C-00	ACU Has Been Scrapped-No Sub Type Information	Controller has been scrapped	External	NA	NA	ACU has been scrapped	NA	Warning light comes on
B1-216-47	Crash Front	Crash	External	Front crash	Replace controller	Front crash occurs	Prevent live operation of the controller	Warning light comes on
B1-217-47	Crash Side	Crash	External	Crash side	Replace controller	Side collision occurs	Prevent live operation of the controller	Warning light comes on
B1-218-47	Crash Row-Watchdog / Safety µC Failure	Crash	External	Crash side	Replace controller	Side collision occurs	Prevent live operation of the controller	Warning light comes on
B1-27-F-47	Crash Recording Locked	Crash	External	EDR locked	Replace controller	EDR locked	Prevent live operation of the controller	Warning light comes on
B1-215-00	Squib Cross Coupling	No subtype	External	Airbag circuit is coupled	Airbag circuit is not coupled	Wire harnesses in different ignition	Strengthen initiation circuit	Warning light

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Error-No Sub Type Information	information				circuits overlap	wire harness protection	comes on
B1-240-00	ICM Airbag Lamp Failed-No Sub Type Information	No subtype information	External	Airbag indicator signal value error of instrument panel cluster	Repair BCM or instrument cluster	BCM or instrument cluster fault	Use qualified meter and BCM	Warning light comes on
B1-22-D-95	Driver Airbag Unexpected Config-Incorrect Assembly	EOL ignition circuit configuration is wrong and ACU pins are connected with additional initiation circuit	External	PIN4 and PIN5 are empty set originally, but they are connected with external circuit.	Check PIN4 and PIN5 of controller for external connection and measure the resistance between pins.	ACU software configuration or actual vehicle configuration error	Compare with car configuration table (Confirm whether it is ACU software configuration error or actual vehicle configuration error). Airbag does not match with ACU, 1. ACU circuit inadequate configuration error; 2. Vehicle actual excessive configuration error.	Warning light comes on
B1-	Passenger	EOL ignition circuit	External	PIN34 and PIN16 are	Check PIN34 and PIN16 of controller for	ACU software	Compare with car	

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
22-E-95	Airbag Unexpected Config-Incorrect Assembly	configuration is wrong and ACU pins are connected with additional initiation circuit		empty set originally, but they are connected with external circuit.	external connection and measure the resistance between pins.	configuration or actual vehicle configuration error	configuration table (Confirm whether it is ACU software configuration error or actual vehicle configuration error). Airbag does not match with ACU, 1. ACU circuit inadequate configuration error; 2. Vehicle actual excessive configuration error.	
B1-21-F-95	Left Side Airbag Unexpected Config-Incorrect Assembly	EOL ignition circuit configuration is wrong and ACU pins are connected with additional initiation circuit	External	PIN23 and PIN22 are empty set originally, but they are connected with external circuit.	Check PIN23 and PIN22 of controller for external connection and measure the resistance between pins.	ACU software configuration or actual vehicle configuration error	Compare with car configuration table (Confirm whether it is ACU software configuration error or actual vehicle configuration error). Airbag does not match with ACU, 1. ACU circuit inadequate configuration error;	

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
							2. Vehicle actual excessive configuration error.	
B1-220-95	Right Side Airbag Unexpected Config-Incorrect Assembly	EOL ignition circuit configuration is wrong and ACU pins are connected with additional initiation circuit	External	PIN52 and PIN51 are empty set originally, but they are connected with external circuit;	Check PIN52 and PIN51 of controller for external connection and measure the resistance between pins.	ACU software configuration or actual vehicle configuration error	Compare with car configuration table (Confirm whether it is ACU software configuration error or actual vehicle configuration error). Airbag does not match with ACU, 1. ACU circuit inadequate configuration error; 2. Vehicle actual excessive configuration error.	
B1-221-95	Left Curtain Unexpected Config-Incorrect Assembly	EOL ignition circuit configuration is wrong and ACU pins are connected with additional	External	PIN20 and PIN21 are empty set originally, but they are connected with external circuit.	Check PIN20 and PIN21 of controller for external connection and measure the resistance between pins.	ACU software configuration or actual vehicle configuration error	Compare with car configuration table (Confirm whether it is ACU software configuration error or actual vehicle configuration error). Airbag does not	

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
		initiation circuit					match with ACU, 1. ACU circuit inadequate configuration error; 2. Vehicle actual excessive configuration error.	
B1-222-95	Right Curtain Unexpected Config-Incorrect Assembly	EOL ignition circuit configuration is wrong and ACU pins are connected with additional initiation circuit	External	PIN53 and PIN54 are empty set originally, but they are connected with external circuit;	Check PIN53 and PIN54 of controller for external connection and measure the resistance between pins.	ACU software configuration or actual vehicle configuration error	Compare with car configuration table (Confirm whether it is ACU software configuration error or actual vehicle configuration error). Airbag does not match with ACU, 1. ACU circuit inadequate configuration error; 2. Vehicle actual excessive configuration error.	
B1-223-95	Front Row Left Seatbelt Retractor	EOL ignition circuit configuration is wrong and	External	PIN19 and PIN1 are empty set originally, but they are connected with external circuit.	Check PIN19 and PIN1 of controller for external connection and measure the resistance between pins.	ACU software configuration or actual vehicle configuration error	Compare with car configuration table (Confirm whether it is ACU software	

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Pretensioner Unexpected Config-Incorrect Assembly	ACU pins are connected with additional initiation circuit					configuration error or actual vehicle configuration error). Airbag does not match with ACU, 1. ACU circuit inadequate configuration error; 2. Vehicle actual excessive configuration error.	
B1-224-95	Front Row Right Seatbelt Retractor Pretensioner Unexpected Config-Incorrect Assembly	EOL ignition circuit configuration is wrong and ACU pins are connected with additional initiation circuit	External	PIN35 and PIN17 are empty set originally, but they are connected with external circuit;	Check PIN35 and PIN17 of controller for external connection and measure the resistance between pins.	ACU software configuration or actual vehicle configuration error	Compare with car configuration table (Confirm whether it is ACU software configuration error or actual vehicle configuration error). Airbag does not match with ACU, 1. ACU circuit inadequate configuration error; 2. Vehicle actual excessive configuration error.	

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
B1-225-95	Belt Pretensioner Driver Unexpected Config-Incorrect Assembly	EOL ignition circuit configuration is wrong and ACU pins are connected with additional initiation circuit	External	PIN49 and PIN50 are empty set originally, but they are connected with external circuit;	Check PIN49 and PIN50 of controller for external connection and measure the resistance between pins.	ACU software configuration or actual vehicle configuration error	Compare with car configuration table (Confirm whether it is ACU software configuration error or actual vehicle configuration error). Airbag does not match with ACU, 1. ACU circuit inadequate configuration error; 2. Vehicle actual excessive configuration error.	
B1-226-95	Belt Pretensioner Pass Unexpected Config-Incorrect Assembly	EOL ignition circuit configuration is wrong and ACU pins are connected with additional initiation circuit	External	PIN47 and PIN48 are empty set originally, but they are connected with external circuit;	Check PIN47 and PIN48 of controller for external connection and measure the resistance between pins.	ACU software configuration or actual vehicle configuration error	Compare with car configuration table (Confirm whether it is ACU software configuration error or actual vehicle configuration error). Airbag does not match with ACU, 1. ACU circuit inadequate	

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
							configuration error; 2. Vehicle actual excessive configuration error.	
B1-227-95	Second Row Left Seatbelt Pretensioner Unexpected Config-Incorrect Assembly	EOL ignition circuit configuration is wrong and ACU pins are connected with additional initiation circuit	External	PIN40 and PIN39 are empty set originally, but they are connected with external circuit;	Check PIN40 and PIN39 of controller for external connection and measure the resistance between pins.	ACU software configuration or actual vehicle configuration error	Compare with car configuration table (Confirm whether it is ACU software configuration error or actual vehicle configuration error). Airbag does not match with ACU, 1. ACU circuit inadequate configuration error; 2. Vehicle actual excessive configuration error.	
B1-229-95	Second Row Right Seatbelt Pretensioner Unexpected Config-	EOL ignition circuit configuration is wrong and ACU pins are connected with	External	PIN41 and PIN42 are empty set originally, but they are connected with external circuit;	Check PIN41 and PIN42 of controller for external connection and measure the resistance between pins.	ACU software configuration or actual vehicle configuration error	Compare with car configuration table (Confirm whether it is ACU software configuration error or actual vehicle configuration error).	

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Incorrect Assembly	additional initiation circuit					Airbag does not match with ACU, 1. ACU circuit inadequate configuration error; 2. Vehicle actual excessive configuration error.	
B0-004-95	Driver Knee Airbag Ignition Circuit Config-Incorrect Assembly	EOL ignition circuit configuration is wrong and ACU pins are connected with additional initiation circuit				ACU software configuration or actual vehicle configuration error	Compare with car configuration table (Confirm whether it is ACU software configuration error or actual vehicle configuration error). Airbag does not match with ACU, 1. ACU circuit inadequate configuration error; 2. Vehicle actual excessive configuration error.	
B0-030-95	Second Row Left Side Seat	EOL ignition circuit configuration is	External	Pins are empty set originally, but they are connected	Check controller for external connection and measure the resistance between pins.	ACU software configuration or actual vehicle	Compare with car configuration table (Confirm whether it	

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
	Side Airbag Unexpected Config-Incorrect Assembly	wrong and ACU pins are connected with additional initiation circuit		with external circuit.		configuration error	is ACU software configuration error or actual vehicle configuration error). Airbag does not match with ACU, 1. ACU circuit inadequate configuration error; 2. Vehicle actual excessive configuration error.	
B0-038-95	Second Row Right Side Seat Side Airbag Unexpected Config-Incorrect Assembly	EOL ignition circuit configuration is wrong and ACU pins are connected with additional initiation circuit	External	Pins are empty set originally, but they are connected with external circuit.	Check controller for external connection and measure the resistance between pins.	ACU software configuration or actual vehicle configuration error	Compare with car configuration table (Confirm whether it is ACU software configuration error or actual vehicle configuration error). Airbag does not match with ACU, 1. ACU circuit inadequate configuration error; 2. Vehicle actual excessive	

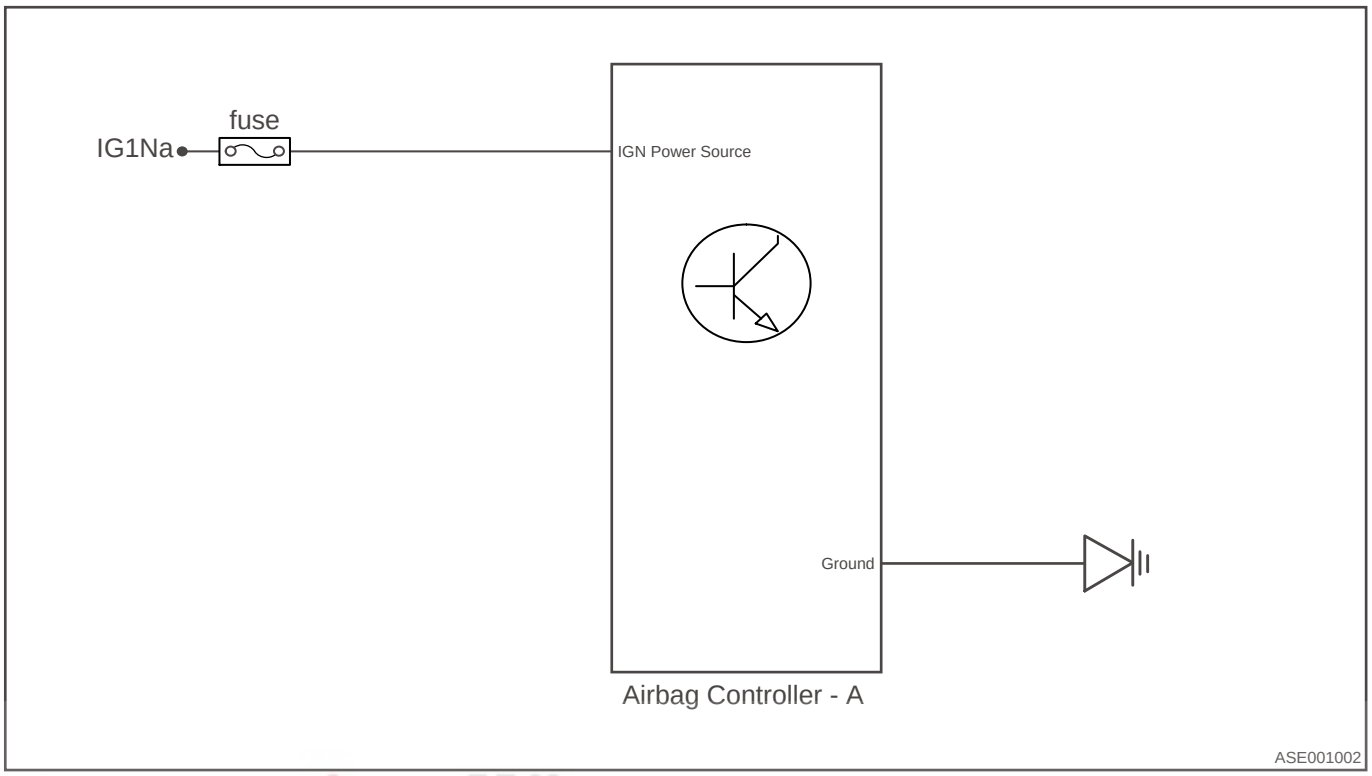
DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
							configuration error.	
B1-284-12	Crash Output Fault-Circuit Short To Battery	PIN10 output malfunction.	External	Move out wire harness overlap part	PIN10 overlaps with power supply	Crash event notification circuit is short to power supply		Warning light comes on
B1-284-11	Crash Output Fault-Circuit Short To Ground	PIN10 output malfunction.	External	Move out wire harness overlap part	PIN10 overlaps with ground	Crash event notification circuit is short to ground		
B1-284-13	Crash Output Fault-Circuit Open	PIN10 output malfunction.	External	PIN10 output malfunction.	Check controller P10;	Crash event notification circuit is open		

DTC	Description	Fault Class Definition	Fault Type	Store Current DTC	Save as History DTC	Possible Causes	Malfunction Protection Measures	Malfunction Light
B1-22-D-95	Driver Airbag Unexpected Config-Incorrect Assembly	Initiation circuit configuration is wrong and controller terminals are connected with additional initiation circuit	External	• Terminals 10 and 11 are empty set originally, but they are connected with external circuit;	/	• The actual connecting condition of terminals 10 and 11 on vehicle doesn’t match with controller configuration	Check if terminals 10 and 11 need to be connected with initiation circuit according to actual item require	Warning light comes on
B1-22-E-95	Passenger Airbag Unexpected Config-Incorrect Assembly	Initiation circuit configuration is wrong and controller terminals are connected with additional initiation circuit	External	• Terminals 13 and 14 are empty set originally, but they are connected with external circuit;	/	• The actual connecting condition of terminals 13 and 14 on vehicle doesn’t match with controller configuration	Check if terminals 13 and 14 need to be connected with initiation circuit according to actual item require	Warning light comes on

DTC Diagnosis Procedure

DTC	B1250-16	Power Supply-Circuit Voltage Below Threshold
DTC	B1250-17	Power Supply-Circuit Voltage Above Threshold

Description
Control Schematic Diagram



DTC Confirmation Procedure

Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to OFF.
- Connect the diagnostic tester (the latest software).
- Start engine and warm it up, and then read DTC again. If DTC is detected, malfunction is current.
- If DTC is not detected, malfunction is intermittent.

Hint:

When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

1	**Check system voltage**

Use circuit diagram as a guide to perform the following inspection procedures:

(a) Start engine, and use voltage band of multimeter to check if battery voltage is normal. (Rated voltage: Not less than 12 V)

Perform the voltage inspection

Multimeter Connection	Detection Condition	Specified Condition
Battery (+) - Battery (-)	ENGINE START STOP switch ON	Not less than 12 V

NG → **Repair or replace battery**

OK

2	Check fuse

Use circuit diagram as a guide to perform the following inspection procedures:

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

NG → **Replace fuse or check the cause for no power**

OK →

3	Check airbag controller connector

(a) Turn ENGINE START STOP switch to OFF.

(b) Check connector for bad contact, bending, distortion, poor contact, etc.

NG → **Repair or replace airbag controller connector.**

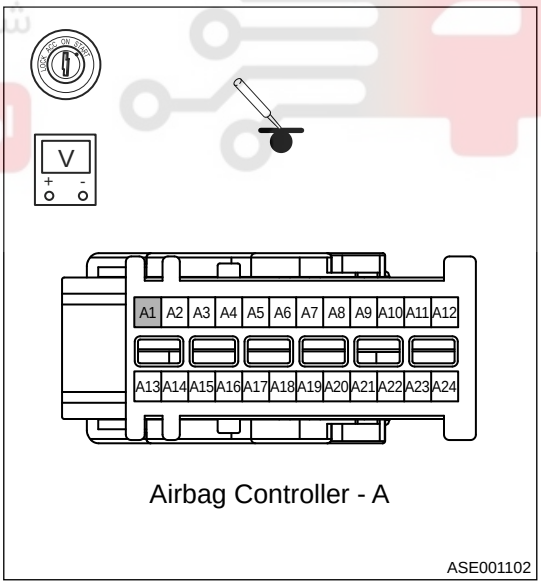
OK →

4	Check airbag controller power supply circuit

(a) Turn ENGINE START STOP switch to ON.

(b) Perform the voltage inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (- power supply terminal) - Body ground	ENGINE START STOP switch ON	12 V



Airbag Controller - A

ASE001102

NG → **Repair the airbag system controller power supply wire harness.**

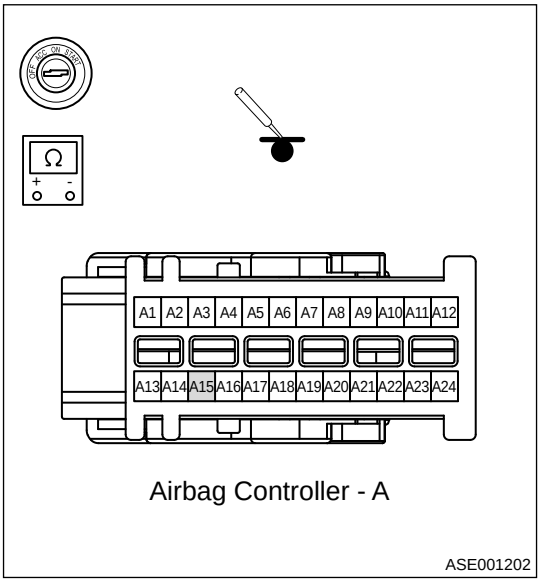
OK →

5	Check airbag controller ground circuit

(a) Turn ENGINE START STOP switch to OFF.

(b) Perform the resistance inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (-ground terminal) - Body ground	ENGINE START STOP switch OFF	⩽ 1 Ω



Airbag Controller - A

ASE001202

NG → **Repair airbag system controller ground wire harness.**

OK →

6	Reconfirm DTCs

(a) Connect diagnostic tester and clear DTCs.

(b) Run the vehicle as specified procedure. The operating way should meet the conditions for corresponding malfunction diagnosis.

(c) Read the fault information and confirm that the fault has been solved.

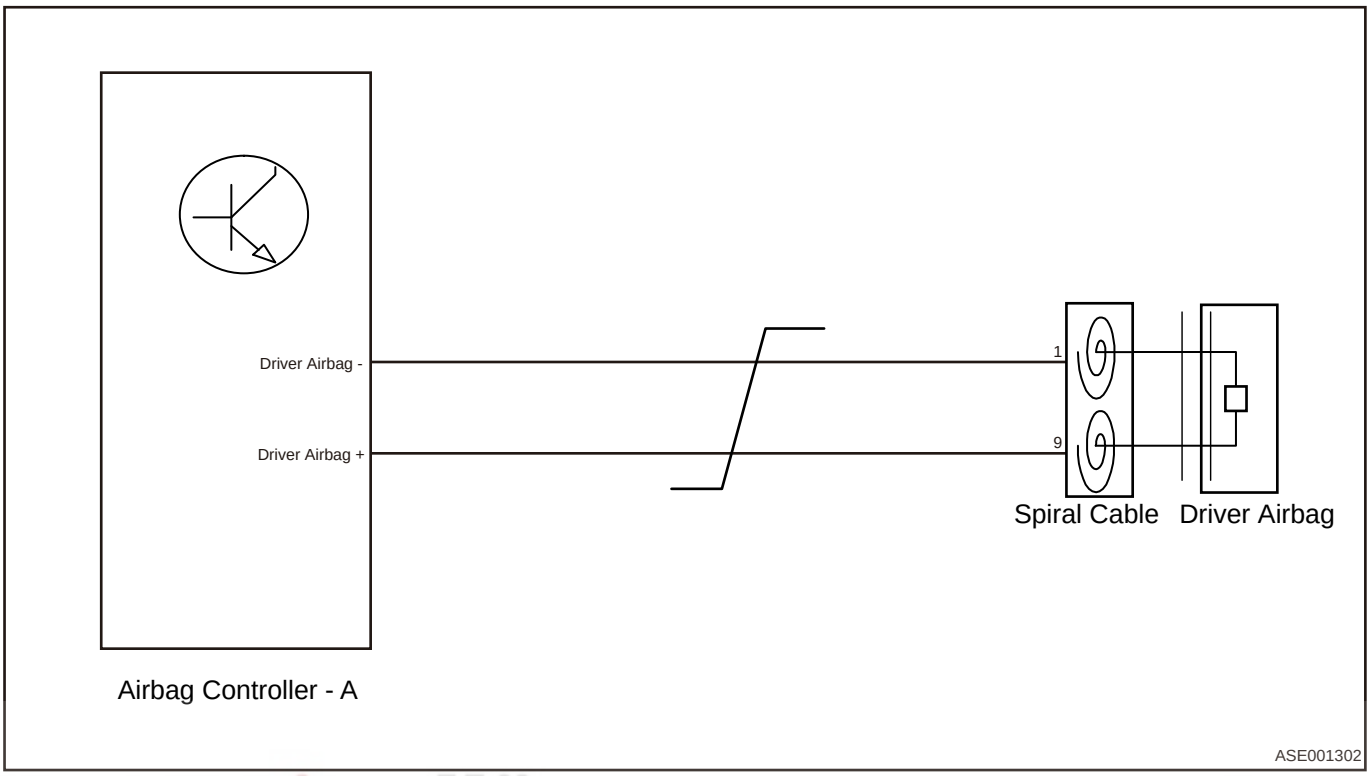
NG → **Replace with a new ECM to check if fault reoccurs**

OK → **Conduct test and confirm malfunction has been repaired.**

DTC	**B0001-11**	**Driver Frontal Airbag Deployment Control-Circuit Short To Ground**
DTC	**B0001-12**	**Driver Frontal Airbag Deployment-Circuit Short To Battery**
DTC	**B0001-1A**	**Driver Frontal Airbag Deployment Control-Circuit Resistance Below Threshold**
DTC	**B0001-1B**	**Driver Frontal Airbag Deployment Control-Circuit Resistance Above Threshold**

Description

Control Schematic Diagram



DTC Confirmation Procedure

Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to OFF.
- Connect the diagnostic tester (the latest software).
- Start engine and warm it up, and then read DTC again. If DTC is detected, malfunction is current.
- If DTC is not detected, malfunction is intermittent.

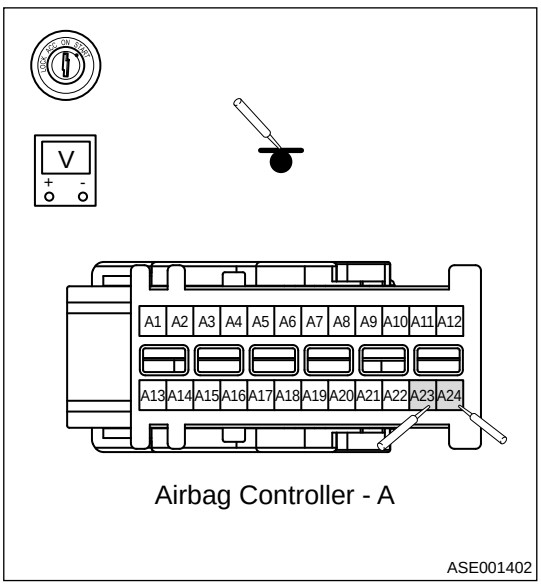
Hint:

When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

1	**Inspect the driver frontal airbag voltage to power supply**

(a) Disconnect the driver frontal airbag connector.
(b) Disconnect the airbag connector.
(c) Turn ENGINE START STOP switch to ON.
(d) Perform the voltage inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (- corresponding driver airbag terminal+) - Body ground	ENGINE START STOP switch ON	0 V
Airbag module (- corresponding driver airbag terminal-) - body ground	ENGINE START STOP switch ON	0 V



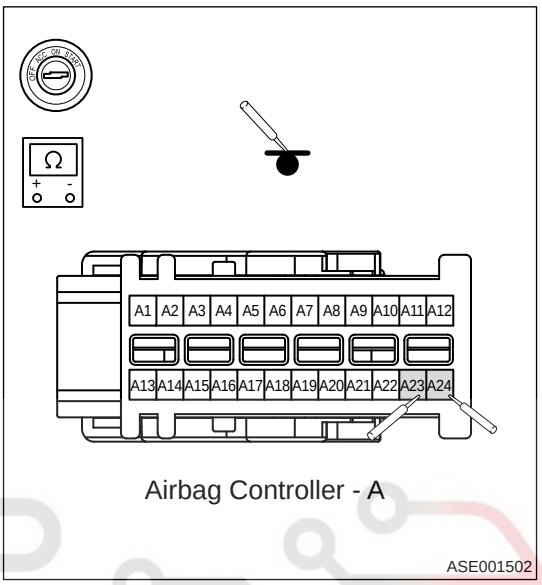
NG → **Repair or replace driver frontal airbag power supply wire harness.**

OK

2	**Inspect the resistance between driver frontal airbag wire harness and ground**

(a) Disconnect the driver frontal airbag connector.
(b) Disconnect the airbag connector.
(c) Turn ENGINE START STOP switch to OFF.
(d) Perform the resistance inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (-corresponding driver airbag terminal+) - Body ground	ENGINE START STOP switch OFF	∞
Airbag module (-corresponding driver airbag terminal-) - body ground	ENGINE START STOP switch OFF	∞



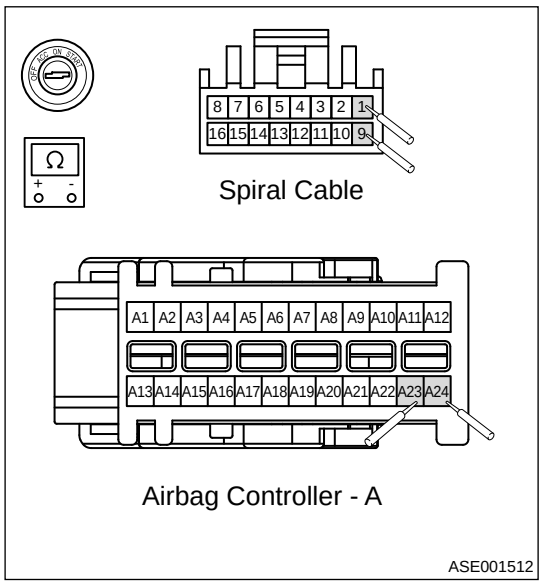
NG → **Repair or replace driver frontal airbag ground wire harness.**

OK

3	**Check circuit between airbag controller and driver frontal airbag**

Use circuit diagram as a guide to perform the following inspection procedures:
(a) Disconnect the driver frontal airbag connector.
(b) Disconnect the airbag connector.
(c) Turn ENGINE START STOP switch to OFF.
(d) Perform the resistance inspection.

Multimeter Connection	Condition	Specified Condition
Airbag Module (-corresponding terminal) - Spiral cable (1)	ENGINE START STOP switch OFF	Less than 1 Ω
Airbag Module (-corresponding terminal) - Spiral cable (9)	ENGINE START STOP switch OFF	Less than 1 Ω



NG → **Repair or replace wire harness between airbag controller and driver frontal airbag.**

OK

4	Check the driver frontal airbag

(a) Substitute one 2.5 Ω resistance for airbag.
(b) Check if DTC exists.

NG → **Repair or replace driver frontal airbag.**

OK

5	Check spiral cable

(a) Check if spiral cable has any damage, stuck or other symptoms.
(b) Check if spiral cable is normal.

NG → **Repair or replace spiral cable.**

OK

6	Reconfirm DTCs

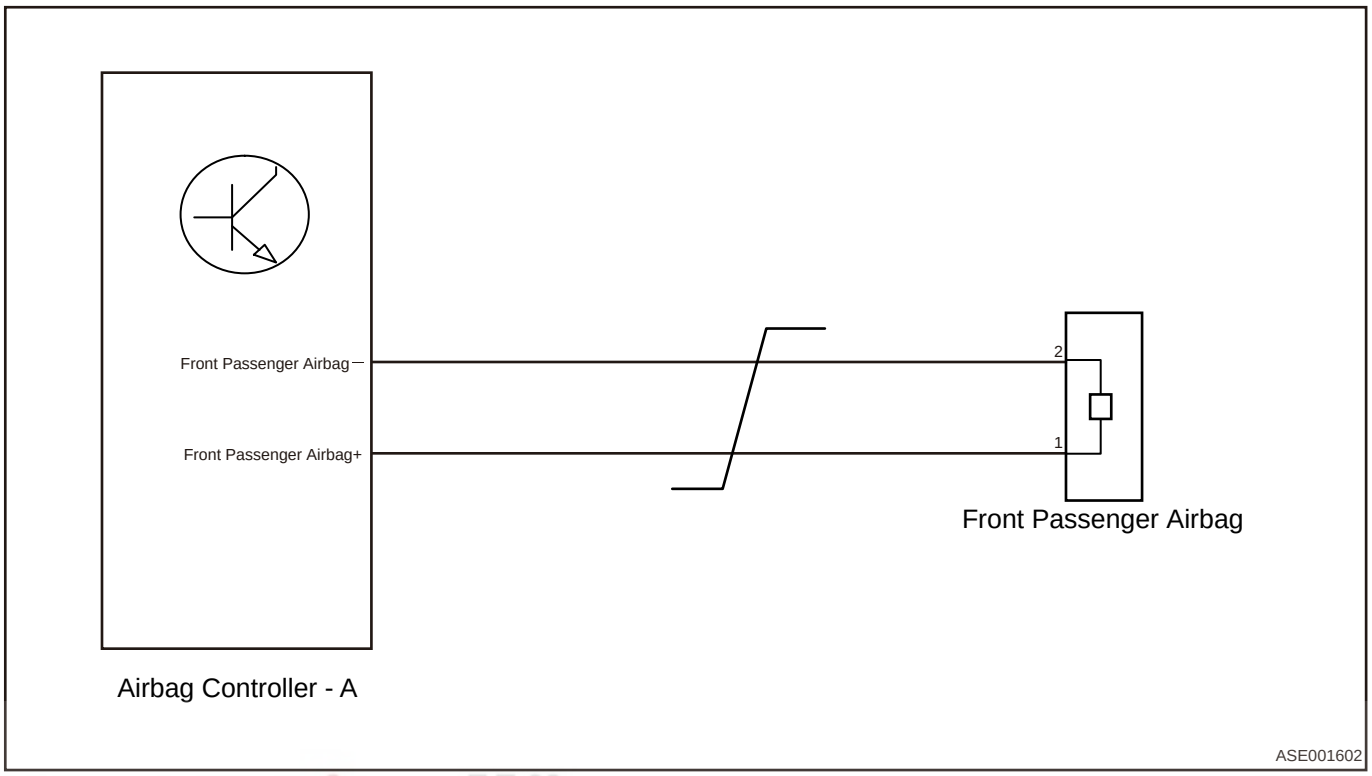
For preparations, refer to "Preparations before dealing with airbag system wire harness malfunction".
Use circuit diagram as a guide to perform the following inspection procedures:
(a) Connect diagnostic tester and clear DTCs.
(b) Run the vehicle as specified procedure. The operating way should meet the conditions for corresponding malfunction diagnosis.
(c) Read the malfunction information and confirm that the malfunction has been solved.

NG → **Replace with a new ECM to check if fault reoccurs**

OK → **Conduct test and confirm malfunction has been repaired.**

DTC	**B0010-11**	**Passenger Frontal Airbag Deployment Control-Circuit Short To Ground**
DTC	**B0010-12**	**Passenger Frontal Airbag Deployment Control-Circuit Short To Battery**
DTC	**B0010-1A**	**Passenger Frontal Airbag Deployment Control-Circuit Resistance Below Threshold**
DTC	**B0010-1B**	**Passenger Frontal Airbag Deployment Control-Circuit Resistance Above Threshold**

Description
Control Schematic Diagram



DTC Confirmation Procedure

Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to OFF.
- Connect the diagnostic tester (the latest software).
- Start engine and warm it up, and then read DTC again. If DTC is detected, malfunction is current.
- If DTC is not detected, malfunction is intermittent.

Hint:

When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

1	**Check front passenger front airbag voltage to power supply**

Use circuit diagram as a guide to perform the following inspection procedures:

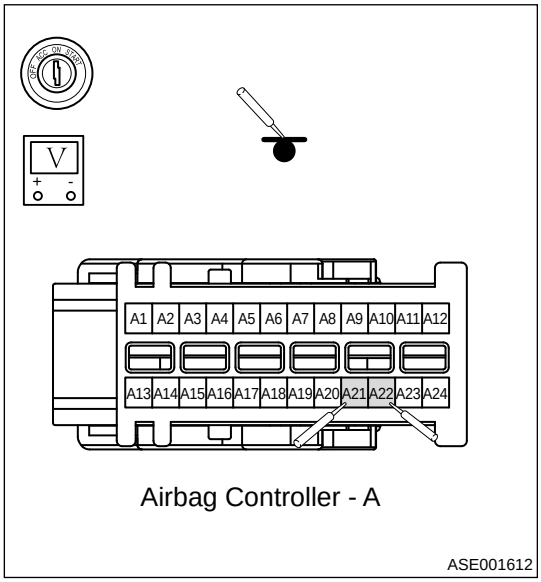
(a) Disconnect the front passenger frontal airbag connector.

(b) Disconnect the airbag connector.

(c) Turn ENGINE START STOP switch to ON.

(d) Perform the voltage inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (-corresponding front passenger airbag+) - Body ground	ENGINE START STOP switch ON	0 V
Airbag module (-corresponding front passenger airbag-) - Body ground	ENGINE START STOP switch ON	0 V



Airbag Controller - A

ASE001612

NG → **Repair or replace wire harness between front passenger front airbag and power supply**

OK →

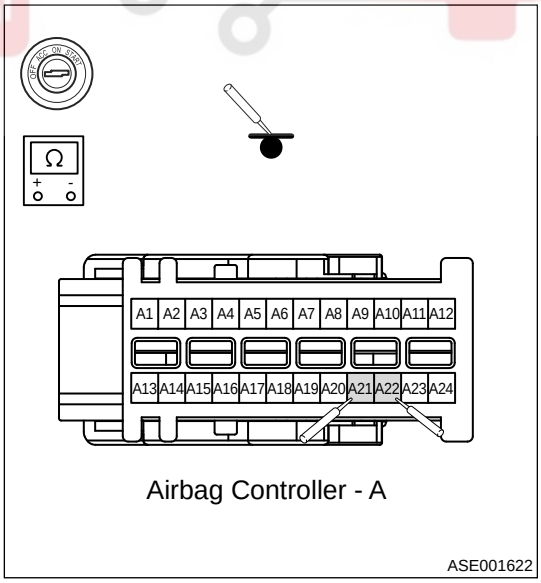
2	Check front passenger front airbag resistance to power supply

Use circuit diagram as a guide to perform the following inspection procedures:

(a) Turn ENGINE START STOP switch to ON.

(b) Perform the resistance inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (-corresponding front passenger airbag+) - Body ground	ENGINE START STOP switch OFF	∞
Airbag module (-corresponding front passenger airbag-) - Body ground	ENGINE START STOP switch OFF	∞



Airbag Controller - A

ASE001622

NG → **Repair or replace wire harness and connectors of front passenger frontal airbag wire harness to ground**

OK

3	Check circuit between airbag controller and front passenger frontal airbag

Use circuit diagram as a guide to perform the following inspection procedures:

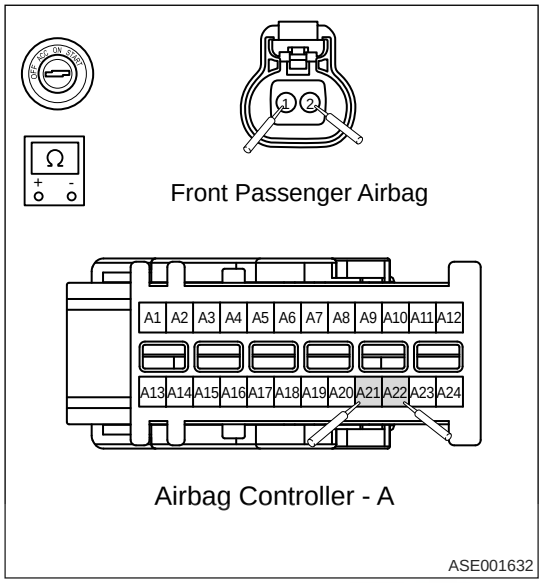
(a) Disconnect the front passenger frontal airbag connector.

(b) Disconnect the airbag connector.

(c) Turn ENGINE START STOP switch to OFF.

(d) Perform the resistance inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (-corresponding terminal) - Front passenger airbag (2)	ENGINE START STOP switch OFF	Less than 1 Ω
Airbag module (-corresponding terminal) - Front passenger airbag (1)	ENGINE START STOP switch OFF	Less than 1 Ω



NG → **Repair or replace wire harness between airbag controller and front passenger frontal airbag.**

OK

4	Reconfirm DTCs

For preparations, refer to “Preparations before dealing with airbag system wire harness malfunction”.
Use circuit diagram as a guide to perform the following inspection procedures:

(a) Connect diagnostic tester and clear DTCs.

(b) Run the vehicle as specified procedure. The operating way should meet the conditions for corresponding malfunction diagnosis.

(c) Read the malfunction information and confirm that the malfunction has been solved.

NG → **Replace with a new ECM to check if fault reoccurs**

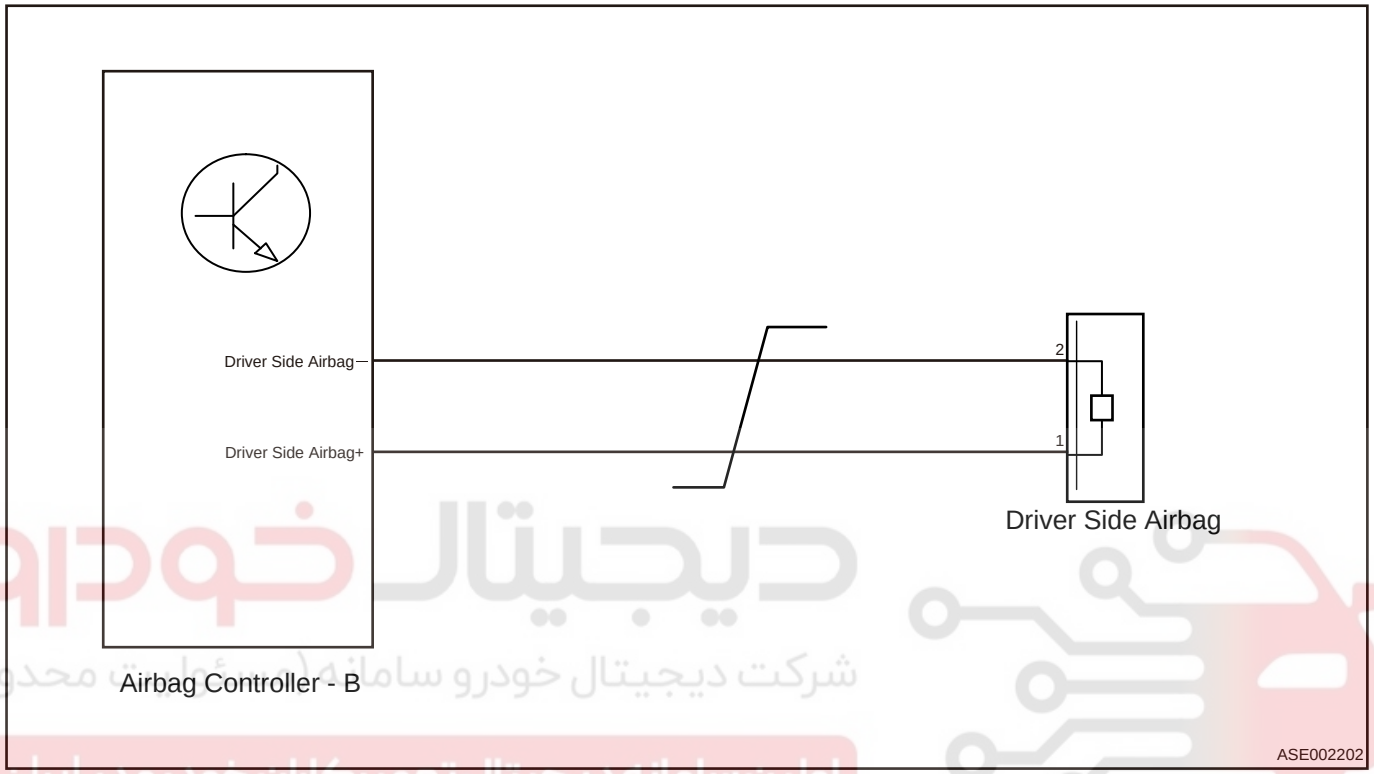
OK → **Conduct test and confirm malfunction has been repaired.**

DTC	B0020-11	Left Side Airbag Deployment Control-Circuit Short To Ground
DTC	B0020-12	Left Side Airbag Deployment Control-Circuit Short To Battery

DTC	**B0020-1A**	**Left Side Airbag Deployment Control-Circuit Resistance Below Threshold**
DTC	**B0020-1B**	**Left Side Airbag Deployment Control-Circuit Resistance Above Threshold**

Description

Control Schematic Diagram



DTC Confirmation Procedure

Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to OFF.
- Connect the diagnostic tester (the latest software).
- Start engine and warm it up, and then read DTC again. If DTC is detected, malfunction is current.
- If DTC is not detected, malfunction is intermittent.

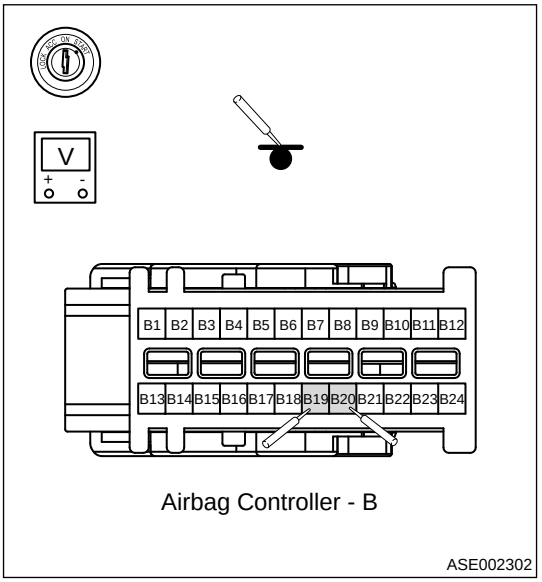
Hint:

When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

1	**Inspect the voltage between driver seat side airbag and power supply**

(a) Disconnect the driver seat side airbag connector.
(b) Remove the airbag module connector.
(c)
(d) Turn ENGINE START STOP switch to ON.
(e) Perform the voltage inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (-corresponding driver seat side+) - Body ground	ENGINE START STOP switch ON	0 V
Airbag module (-corresponding driver seat side-) - Body ground	ENGINE START STOP switch ON	0 V



Airbag Controller - B
ASE002302

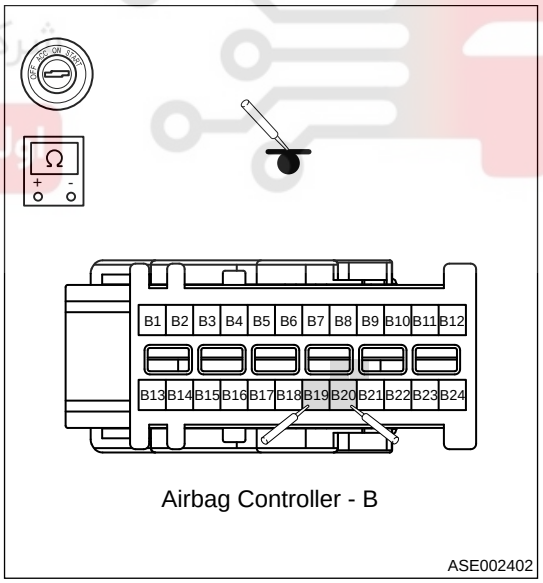
NG → **Repair or replace driver seat side airbag power supply wire harness.**

OK

2	**Inspect the resistance between driver seat side airbag and ground**

(a) Disconnect the driver seat side airbag connector.
(b) Remove the airbag module connector.
(c) Turn ENGINE START STOP switch to OFF.
(d) Perform the resistance inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (-corresponding driver seat side+) - Body ground	ENGINE START STOP switch OFF	∞
Airbag module (-corresponding driver seat side-) - Body ground	ENGINE START STOP switch OFF	∞



Airbag Controller - B
ASE002402

NG → **Repair or replace driver seat side airbag ground wire harness.**

OK

3	**Check circuit between airbag controller and driver seat side airbag**

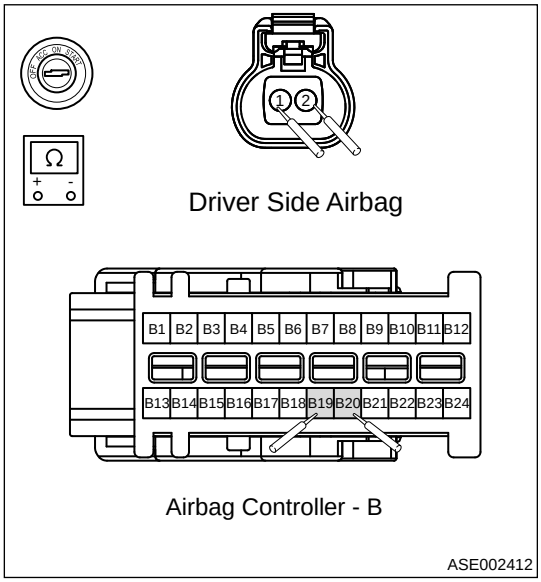
Use circuit diagram as a guide to perform the following inspection procedures:

(a) Disconnect the driver seat side airbag connector.

(b) Disconnect the airbag connector.

(c) Turn ENGINE START STOP switch to OFF.

(d) Perform the resistance inspection.



Multimeter Connection	Condition	Specified Condition
Airbag module (- corresponding terminal) - Driver seat side airbag (2)	ENGINE START STOP switch OFF	Less than 1 Ω
Airbag module (- corresponding terminal) - Driver seat side airbag (1)	ENGINE START STOP switch OFF	Less than 1 Ω

NG → **Repair or replace wire harness between airbag controller and driver seat side airbag.**

OK

4	Check the driver seat side airbag

(a) Substitute one 2.5 Ω resistance for airbag.

(b) Check if DTC exists.

NG → **Repair or replace driver seat side airbag.**

OK

5	Reconfirm DTCs

For preparations, refer to “Preparations before dealing with airbag system wire harness malfunction”.
Use circuit diagram as a guide to perform the following inspection procedures:

(a) Connect diagnostic tester and clear DTCs.

(b) Run the vehicle as specified procedure. The operating way should meet the conditions for corresponding malfunction diagnosis.

(c) Read the malfunction information and confirm that the malfunction has been solved.

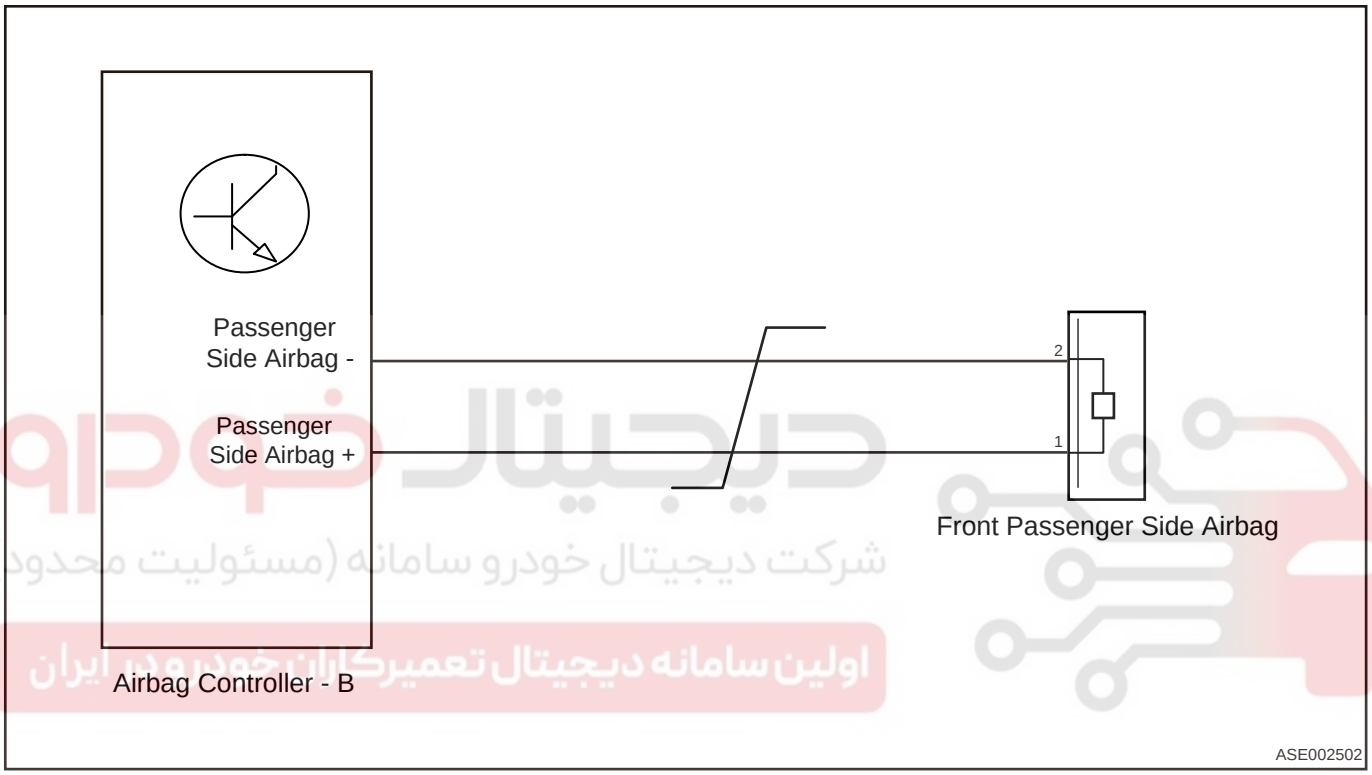
NG → **Replace with a new ECM to check if fault reoccurs**

OK → **Conduct test and confirm malfunction has been repaired.**

DTC	**B0028-11**	**Right Side Airbag Deployment Control-Circuit Short To Ground**
DTC	**B0028-12**	**Right Side Airbag Deployment Control-Circuit Short To Battery**
DTC	**B0028-1A**	**Right Side Airbag Deployment Control-Circuit Resistance Below Threshold**
DTC	**B0028-1B**	**Right Side Airbag Deployment Control-Circuit Resistance Above Threshold**

Description

Control Schematic Diagram



DTC Confirmation Procedure

Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to OFF.
- Connect the diagnostic tester (the latest software).
- Start engine and warm it up, and then read DTC again. If DTC is detected, malfunction is current.
- If DTC is not detected, malfunction is intermittent.

Hint:

When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

1	**Inspect the voltage between front passenger seat side airbag and power supply**

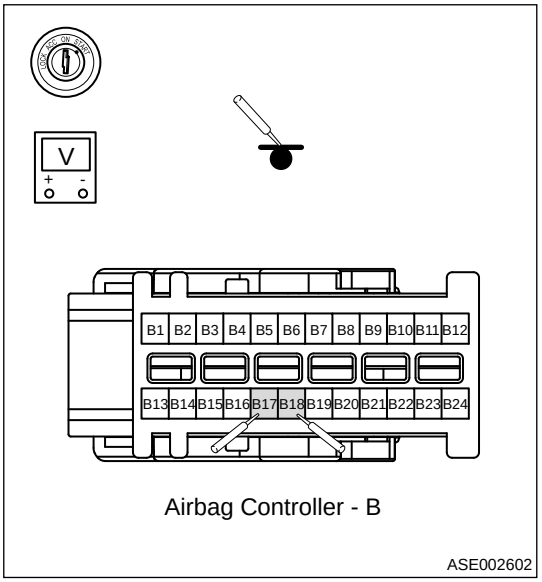
(a) Disconnect the front passenger seat side airbag connector.

(b) Remove the airbag module connector.

(c) Turn ENGINE START STOP switch to ON.

(d) Perform the voltage inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (- front passenger seat side airbag +) - Body ground	ENGINE START STOP switch ON	0 V
Airbag module (- front passenger seat side airbag-) - Body ground	ENGINE START STOP switch ON	0 V



Airbag Controller - B

ASE002602

NG → **Repair or replace front passenger seat side airbag power supply wire harness.**

OK →

2	Inspect the resistance between front passenger seat side airbag and ground

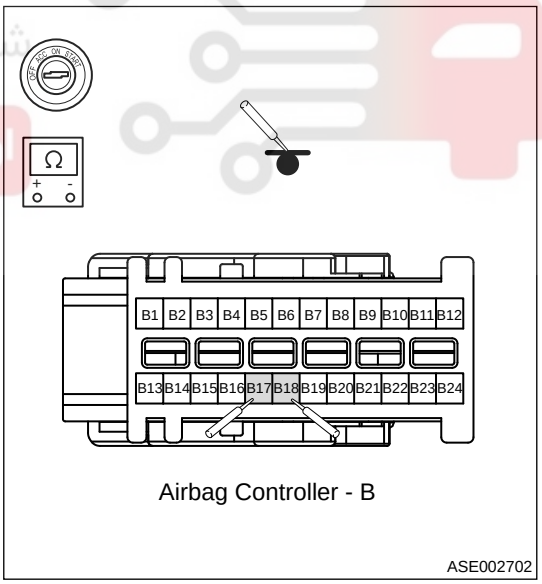
(a) Disconnect the front passenger seat side airbag connector.

(b) Remove the airbag module connector.

(c) Turn ENGINE START STOP switch to OFF.

(d) Perform the resistance inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (- front passenger seat side airbag +) - Body ground	ENGINE START STOP switch OFF	∞
Airbag module (- front passenger seat side airbag-) - Body ground	ENGINE START STOP switch OFF	∞



Airbag Controller - B

ASE002702

NG → **Repair or replace front passenger seat side airbag ground wire harness.**

OK →

3	Check circuit between airbag controller and front passenger seat side airbag

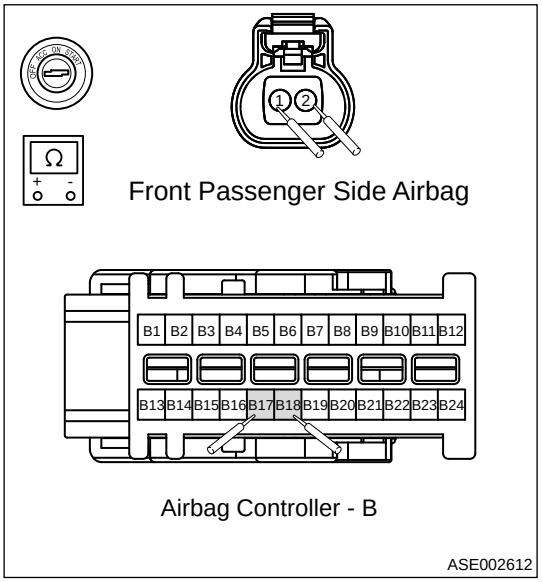
Use circuit diagram as a guide to perform the following inspection procedures:

(a) Disconnect the front passenger seat side airbag connector.

(b) Disconnect the airbag connector.

(c) Turn ENGINE START STOP switch to OFF.

(d) Perform the resistance inspection.



Multimeter Connection	Condition	Specified Condition
Airbag module (- corresponding terminal) - Front passenger seat side airbag (2)	ENGINE START STOP switch OFF	Less than 1 Ω
Airbag module (- corresponding terminal) - Front passenger seat side airbag (1)	ENGINE START STOP switch OFF	Less than 1 Ω

NG → **Repair or replace wire harness between airbag controller and front passenger seat side airbag.**

OK

4	Check the front passenger seat side airbag

(a) Substitute one 2.5 Ω resistance for airbag.

(b) Check if DTC exists.

NG → **Repair or replace front passenger seat side airbag.**

OK

5	Reconfirm DTCs

For preparations, refer to “Preparations before dealing with airbag system wire harness malfunction”.
Use circuit diagram as a guide to perform the following inspection procedures:

(a) Connect diagnostic tester and clear DTCs.

(b) Run the vehicle as specified procedure. The operating way should meet the conditions for corresponding malfunction diagnosis.

(c) Read the malfunction information and confirm that the malfunction has been solved.

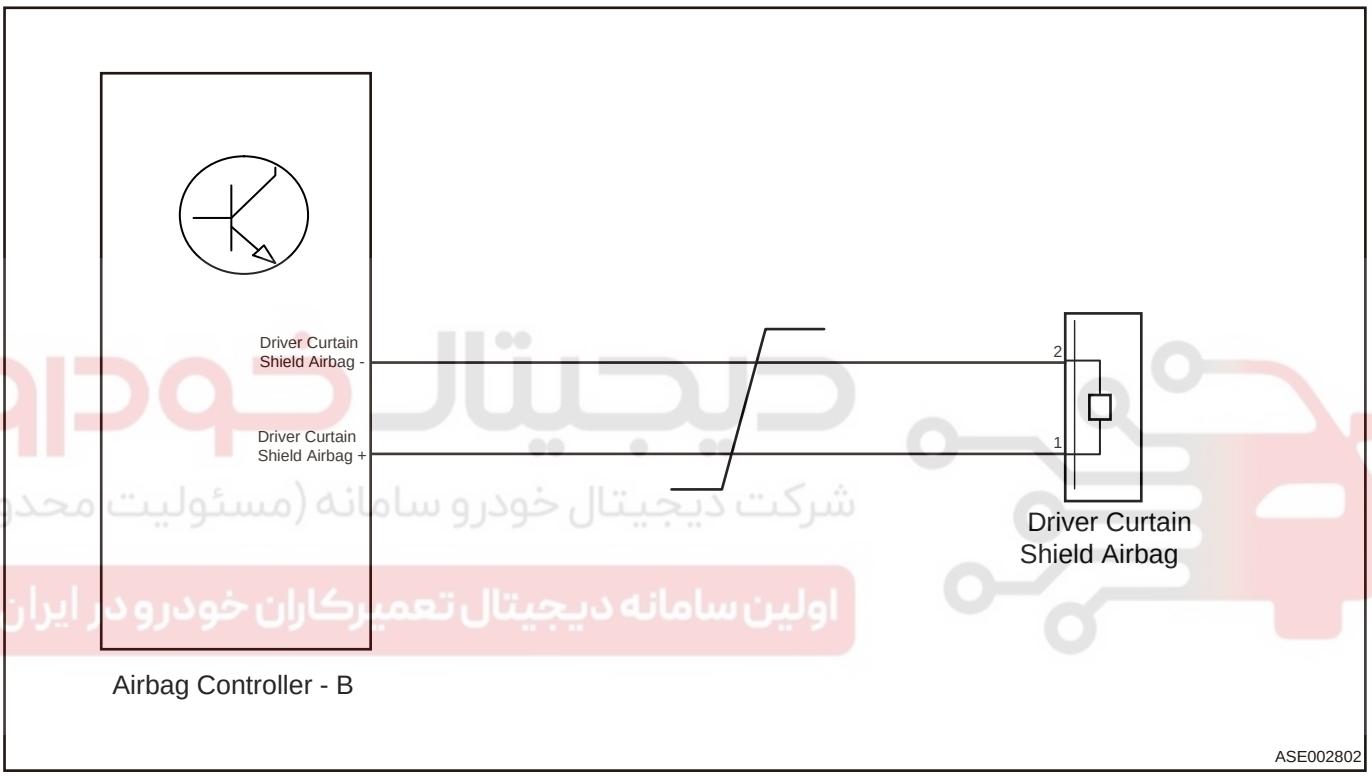
NG → **Replace with a new ECM to check if fault reoccurs**

OK → **Conduct test and confirm malfunction has been repaired.**

DTC	**B0021-11**	**Left Curtain Airbag Deployment Control-Circuit Short To Ground**
DTC	**B0021-12**	**Left Curtain Airbag Deployment Control-Circuit Short To Battery**
DTC	**B0021-1A**	**Left Curtain Airbag Deployment Control-Circuit Resistance Below Threshold**
DTC	**B0021-1B**	**Left Curtain Airbag Deployment Control-Circuit Resistance Above Threshold**

Description

Control Schematic Diagram



DTC Confirmation Procedure

Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to OFF.
- Connect the diagnostic tester (the latest software).
- Start engine and warm it up, and then read DTC again. If DTC is detected, malfunction is current.
- If DTC is not detected, malfunction is intermittent.

Hint:

When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

1	**Inspect the voltage between driver curtain airbag and power supply**

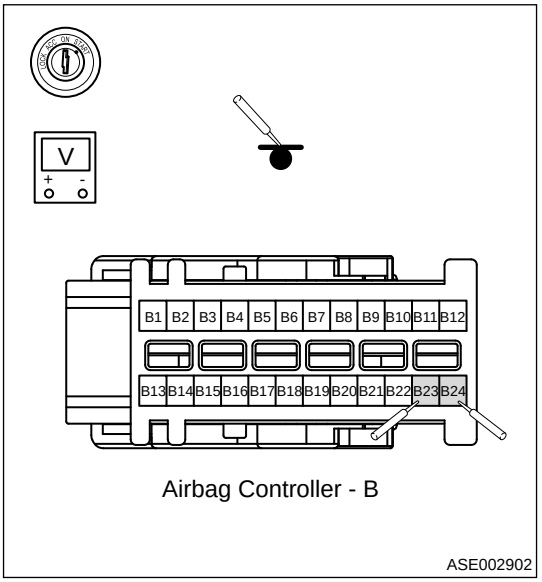
(a) Disconnect the driver curtain airbag connector.

(b) Remove the airbag module connector.

(c) Turn ENGINE START STOP switch to ON.

(d) Perform the voltage inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (-driver curtain airbag+) - Body ground	ENGINE START STOP switch ON	0 V
Airbag module (-driver curtain airbag-) - Body ground	ENGINE START STOP switch ON	0 V



Airbag Controller - B

ASE002902

NG → **Repair or replace driver curtain airbag power supply wire harness.**

OK →

2	**Inspect the resistance between driver curtain airbag and ground**

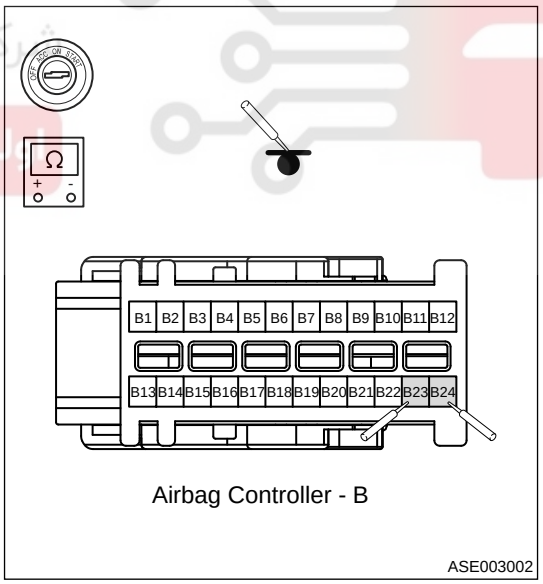
(a) Disconnect the driver curtain airbag connector.

(b) Remove the airbag module connector.

(c) Turn ENGINE START STOP switch to OFF.

(d) Perform the resistance inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (-driver curtain airbag+) - Body ground	ENGINE START STOP switch OFF	∞
Airbag module (-driver curtain airbag-) - Body ground	ENGINE START STOP switch OFF	∞



Airbag Controller - B

ASE003002

NG → **Repair or replace driver curtain airbag ground wire harness.**

OK →

3	**Check circuit between airbag controller and driver curtain airbag**

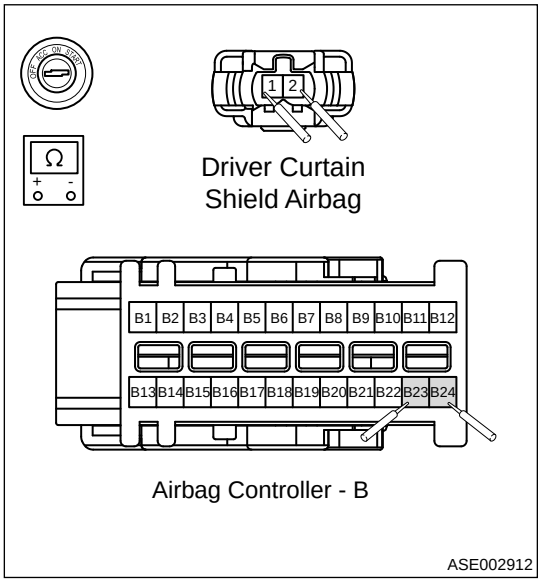
Use circuit diagram as a guide to perform the following inspection procedures:

(a) Disconnect the driver curtain airbag connector.

(b) Disconnect the airbag connector.

(c) Turn ENGINE START STOP switch to OFF.

(d) Perform the resistance inspection.



Multimeter Connection	Condition	Specified Condition
Airbag module (-corresponding terminal) - Driver curtain airbag (2)	ENGINE START STOP switch OFF	Less than 1 Ω
Airbag module (-corresponding terminal) - Driver curtain airbag (1)	ENGINE START STOP switch OFF	Less than 1 Ω

NG → **Repair or replace wire harness between airbag controller and driver curtain airbag.**

OK

4	Inspect the driver curtain airbag

(a) Substitute one 2.5 Ω resistance for airbag.

(b) Check if DTC exists.

NG → **Repair or replace driver frontal airbag.**

OK

5	Reconfirm DTCs

For preparations, refer to “Preparations before dealing with airbag system wire harness malfunction”.
Use circuit diagram as a guide to perform the following inspection procedures:

(a) Connect diagnostic tester and clear DTCs.

(b) Run the vehicle as specified procedure. The operating way should meet the conditions for corresponding malfunction diagnosis.

(c) Read the malfunction information and confirm that the malfunction has been solved.

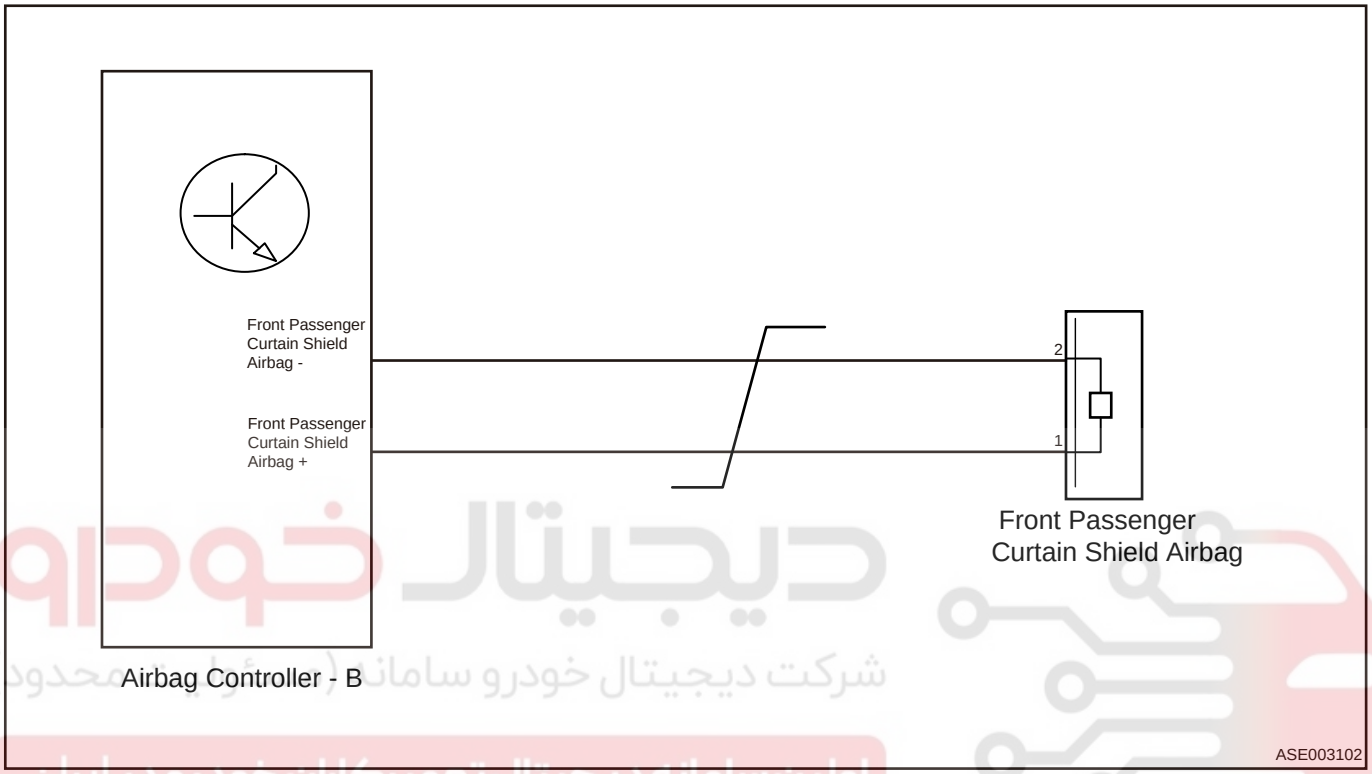
NG → **Replace with a new ECM to check if fault reoccurs**

OK → **Conduct test and confirm malfunction has been repaired.**

DTC	B0029-11	Right Side Airbag Deployment Control-Circuit Short To Ground
DTC	B0029-12	Right Side Airbag Deployment Control-Circuit Short To Battery

DTC	**B0029-1A**	**Right Side Airbag Deployment Control-Circuit Resistance Below Threshold**
DTC	**B0029-1B**	**Right Side Airbag Deployment Control-Circuit Resistance Above Threshold**

Description
Control Schematic Diagram



DTC Confirmation Procedure
Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to OFF.
- Connect the diagnostic tester (the latest software).
- Start engine and warm it up, and then read DTC again. If DTC is detected, malfunction is current.
- If DTC is not detected, malfunction is intermittent.

Hint:
When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

1	**Inspect the voltage between right side curtain shield airbag and power supply**

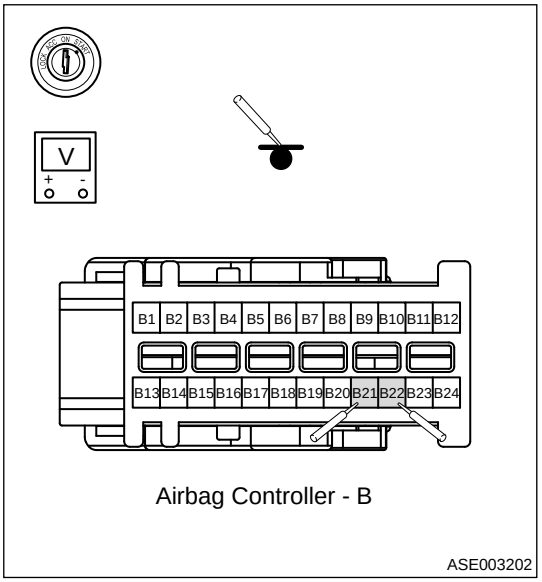
(a) Disconnect the right side curtain shield airbag connector.

(b) Disconnect the airbag module connector.

(c) Turn ENGINE START STOP switch to ON.

(d) Perform the voltage inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (-) - right side curtain shield airbag+) - Body ground	ENGINE START STOP switch ON	0 V
Airbag module (-) - right side curtain shield airbag-) - Body ground	ENGINE START STOP switch ON	0 V



Airbag Controller - B

ASE003202

NG → **Repair or replace right side curtain shield airbag power supply wire harness.**

OK →

2	Inspect the resistance between right side curtain shield airbag and ground

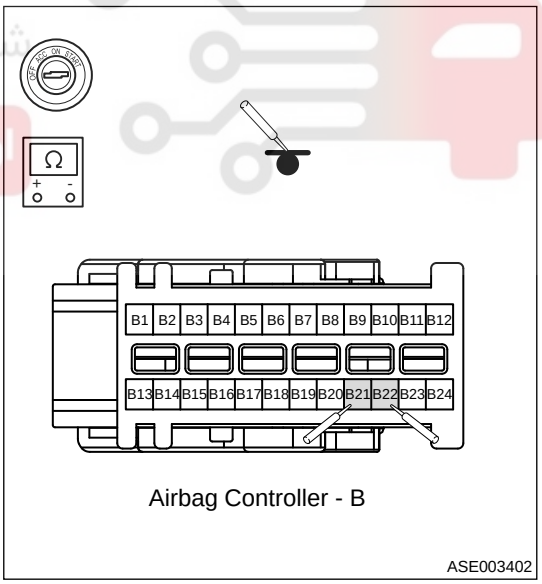
(a) Disconnect the right side curtain shield airbag connector.

(b) Disconnect the airbag module connector.

(c) Turn ENGINE START STOP switch to OFF.

(d) Perform the resistance inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (-) - right side curtain shield airbag+) - Body ground	ENGINE START STOP switch OFF	∞
Airbag module (-) - right side curtain shield airbag-) - Body ground	ENGINE START STOP switch OFF	∞



Airbag Controller - B

ASE003402

NG → **Repair or replace right side curtain shield airbag ground wire harness.**

OK →

3	Check circuit between airbag controller and right side curtain shield airbag

Use circuit diagram as a guide to perform the following inspection procedures:

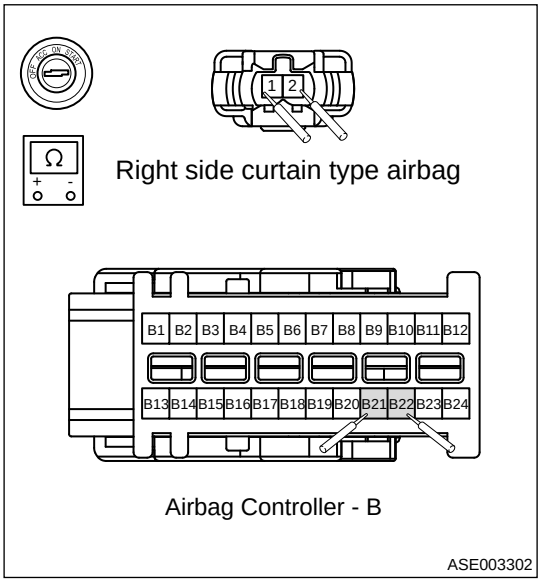
(a) Disconnect the right side curtain shield airbag connector.

(b) Disconnect the airbag module connector.

(c) Turn ENGINE START STOP switch to OFF.

(d) Perform the resistance inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (- corresponding terminal) - Right side curtain shield airbag (2)	ENGINE START STOP switch OFF	Less than 1 Ω
Airbag module (- corresponding terminal) - Right side curtain shield airbag (1)	ENGINE START STOP switch OFF	Less than 1 Ω



NG → **Repair or replace wire harness between airbag controller and right side curtain shield airbag.**

OK →

4	Inspect the right side curtain shield airbag

(a) Substitute one 2.5 Ω resistance for airbag.

(b) Check if DTC exists.

NG → **Repair or replace right side curtain shield airbag.**

OK →

5	Reconfirm DTCs

For preparations, refer to “Preparations before dealing with airbag system wire harness malfunction”.
Use circuit diagram as a guide to perform the following inspection procedures:

(a) Connect diagnostic tester and clear DTCs.

(b) Run the vehicle as specified procedure. The operating way should meet the conditions for corresponding malfunction diagnosis.

(c) Read the malfunction information and confirm that the malfunction has been solved.

NG → **Replace with a new ECM to check if fault reoccurs**

OK → **Conduct test and confirm malfunction has been repaired.**

DTC	B1285-11	Front Row Left Seatbelt Retractor Pretensioner Deployment Control-Circuit Short To Ground
DTC	B1285-12	Front Row Left Seatbelt Retractor Pretensioner Deployment Control-Circuit Short To Battery
DTC	B1285-1A	Front Row Left Seatbelt Retractor Pretensioner Deployment Control-Circuit Resistance Below Threshold
DTC	B1285-1B	Front Row Left Seatbelt Retractor Pretensioner Deployment Control-Circuit Resistance Above Threshold

For repair methods, refer to “Driver Frontal Airbag Malfunction Troubleshooting Procedure” to perform troubleshooting and repair according to Circuit Diagram Manual.

DTC	B1286-11	Front Row Right Seatbelt Retractor Pretensioner Deployment Control-Circuit Short To Ground
DTC	B1286-12	Front Row Right Seatbelt Retractor Pretensioner Deployment Control-Circuit Short To Battery
DTC	B1286-1A	Front Row Right Seatbelt Retractor Pretensioner Deployment Control-Circuit Resistance Below Threshold
DTC	B1286-1B	Front Row Right Seatbelt Retractor Pretensioner Deployment Control-Circuit Resistance Above Threshold

For repair methods, refer to “Driver Frontal Airbag Malfunction Troubleshooting Procedure” to perform troubleshooting and repair according to Circuit Diagram Manual.

DTC	B1204-11	Belt Pretensioner Driver Deployment Control-Circuit Short To Ground
DTC	B1204-12	Belt Pretensioner Driver Deployment Control-Circuit Short To Battery
DTC	B1204-1A	Belt Pretensioner Driver Deployment Control-Circuit Resistance Below Threshold
DTC	B1204-1B	Belt Pretensioner Driver Deployment Control-Circuit Resistance Above Threshold

For repair methods, refer to “Driver Frontal Airbag Malfunction Troubleshooting Procedure” to perform troubleshooting and repair according to Circuit Diagram Manual.

DTC	B1205-11	Belt Pretensioner Passenger Deployment Control-Circuit Short To Ground
DTC	B1205-12	Belt Pretensioner Passenger Deployment Control-Circuit Short To Battery
DTC	B1205-1A	Belt Pretensioner Passenger Deployment Control-Circuit Resistance Below Threshold
DTC	B1205-1B	Belt Pretensioner Passenger Deployment Control-Circuit Resistance Above Threshold

For repair methods, refer to “Driver Frontal Airbag Malfunction Troubleshooting Procedure” to perform troubleshooting and repair according to Circuit Diagram Manual.

DTC	B0073-11	Second Row Left Seatbelt Pretensioner Deployment Control-Circuit Short To Ground
DTC	B0073-12	Second Row Left Seatbelt Pretensioner Deployment Control-Circuit Short To Battery

DTC	**B0073-1A**	**Second Row Left Seatbelt Pretensioner Deployment Control-Circuit Resistance Below Threshold**
DTC	**B0073-1B**	**Second Row Left Seatbelt Pretensioner Deployment Control-Circuit Resistance Above Threshold**

For repair methods, refer to “Driver Frontal Airbag Malfunction Troubleshooting Procedure” to perform troubleshooting and repair according to Circuit Diagram Manual.

DTC	**B0075-11**	**Second Row Right Seatbelt Pretensioner Deployment Control-Circuit Short To Ground**
DTC	**B0075-12**	**Second Row Right Seatbelt Pretensioner Deployment Control-Circuit Short To Battery**
DTC	**B0075-1A**	**Second Row Right Seatbelt Pretensioner Deployment Control-Circuit Resistance Below Threshold**
DTC	**B0075-1B**	**Second Row Right Seatbelt Pretensioner Deployment Control-Circuit Resistance Above Threshold**

For repair methods, refer to “Driver Frontal Airbag Malfunction Troubleshooting Procedure” to perform troubleshooting and repair according to Circuit Diagram Manual.

DTC	**B0030-11**	**Second Row Left Side Airbag Deployment Control-Circuit Short To Ground**
DTC	**B0030-12**	**Second Row Left Side Airbag Deployment Control Circuit Short to Power Supply**
DTC	**B0030-1A**	**Second Row Left Side Airbag Deployment Control-Circuit Resistance Below Threshold**
DTC	**B0030-1B**	**Second Row Left Side Airbag Deployment Control-Circuit Resistance Above Threshold**

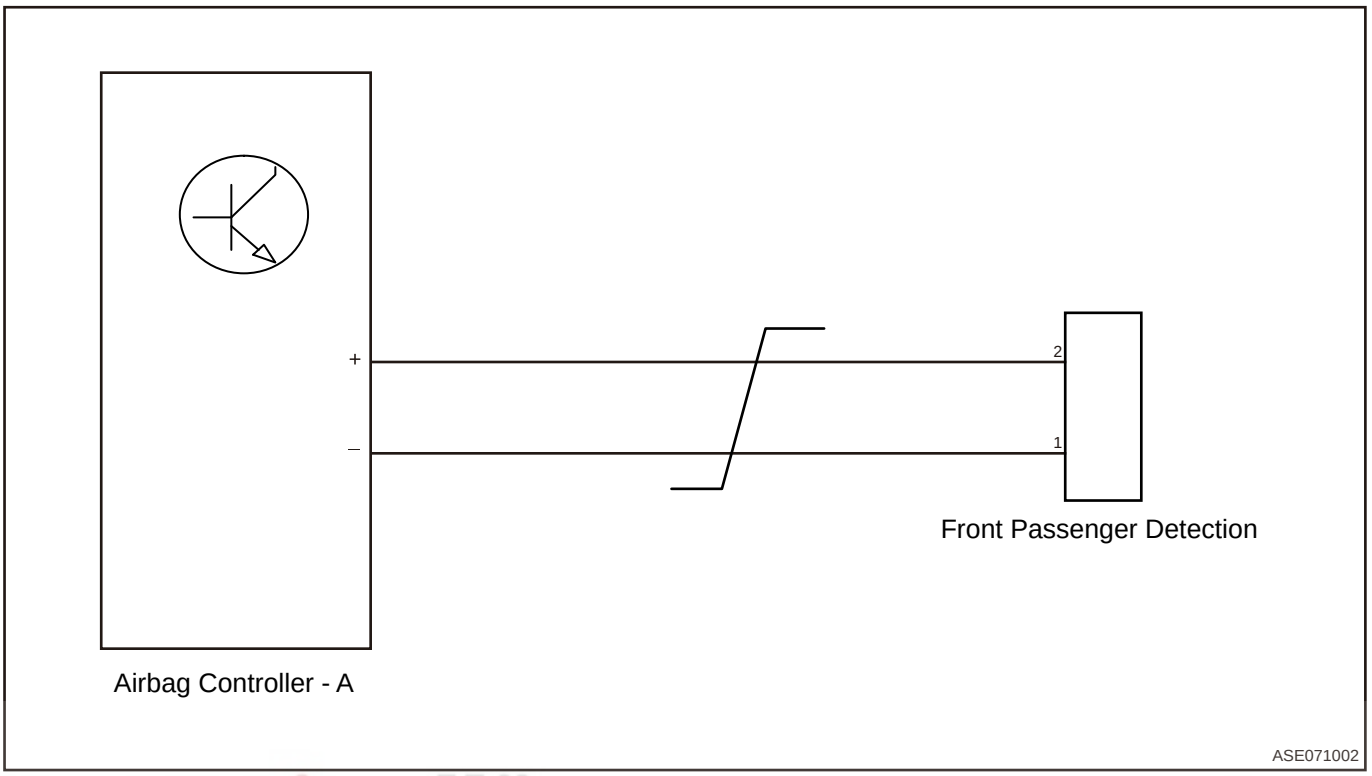
For repair methods, refer to “Driver Frontal Airbag Malfunction Troubleshooting Procedure” to perform troubleshooting and repair according to Circuit Diagram Manual.

DTC	**B0038-11**	**Second Row Right Side Seat Side Airbag Deployment Control-Circuit Short To Ground**
DTC	**B0038-12**	**Second Row Right Side Seat Side Airbag Deployment Control-Circuit Short To Power Supply**
DTC	**B0038-1A**	**Second Row Right Seat Side Airbag Deployment Control-Circuit Resistance Below Threshold**
DTC	**B0038-1B**	**Second Row Right Seat Side Airbag Deployment Control-Circuit Resistance Above Threshold**

For repair methods, refer to “Driver Frontal Airbag Malfunction Troubleshooting Procedure” to perform troubleshooting and repair according to Circuit Diagram Manual.

DTC	**B00C7-12**	**Passenger Presence Detection Switch-Circuit Short To Battery**

Description
Control Schematic Diagram



DTC Confirmation Procedure

Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to OFF.
- Connect the diagnostic tester (the latest software).
- Start engine and warm it up, and then read DTC again. If DTC is detected, malfunction is current.
- If DTC is not detected, malfunction is intermittent.

Hint:

When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

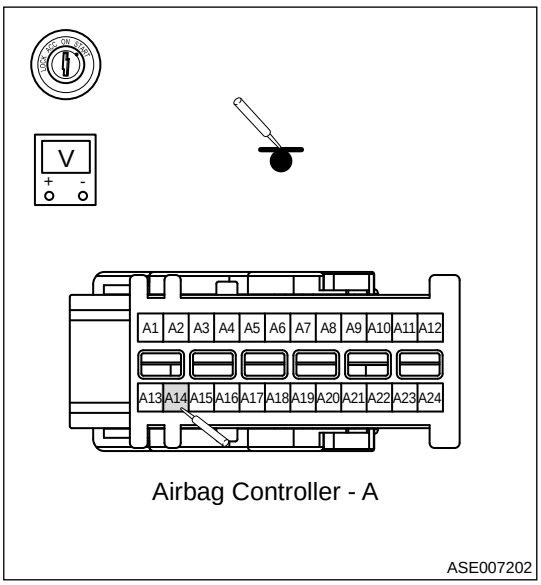
1	**Check voltage between front passenger load detection switch and power supply**

(a) Disconnect the airbag connector.

(b) Turn ENGINE START STOP switch to ON.

(c) Check voltage between connector terminal line and ground.

Multimeter Connection	Condition	Specified Condition
Airbag module (-front passenger load detection+) - Body ground	ENGINE START STOP switch ON	0 V
Airbag module (-front passenger load detection-) - Body ground	ENGINE START STOP switch ON	0 V



NG → **Repair or replace front passenger load detection switch wire harness.**

OK

2	Reconfirm DTCs

For preparations, refer to “Preparations before dealing with airbag system wire harness malfunction”.
Use circuit diagram as a guide to perform the following inspection procedures:

(a) Connect diagnostic tester and clear DTCs.

(b) Run the vehicle as specified procedure. The operating way should meet the conditions for corresponding malfunction diagnosis.

(c) Read the malfunction information and confirm that the malfunction has been solved.

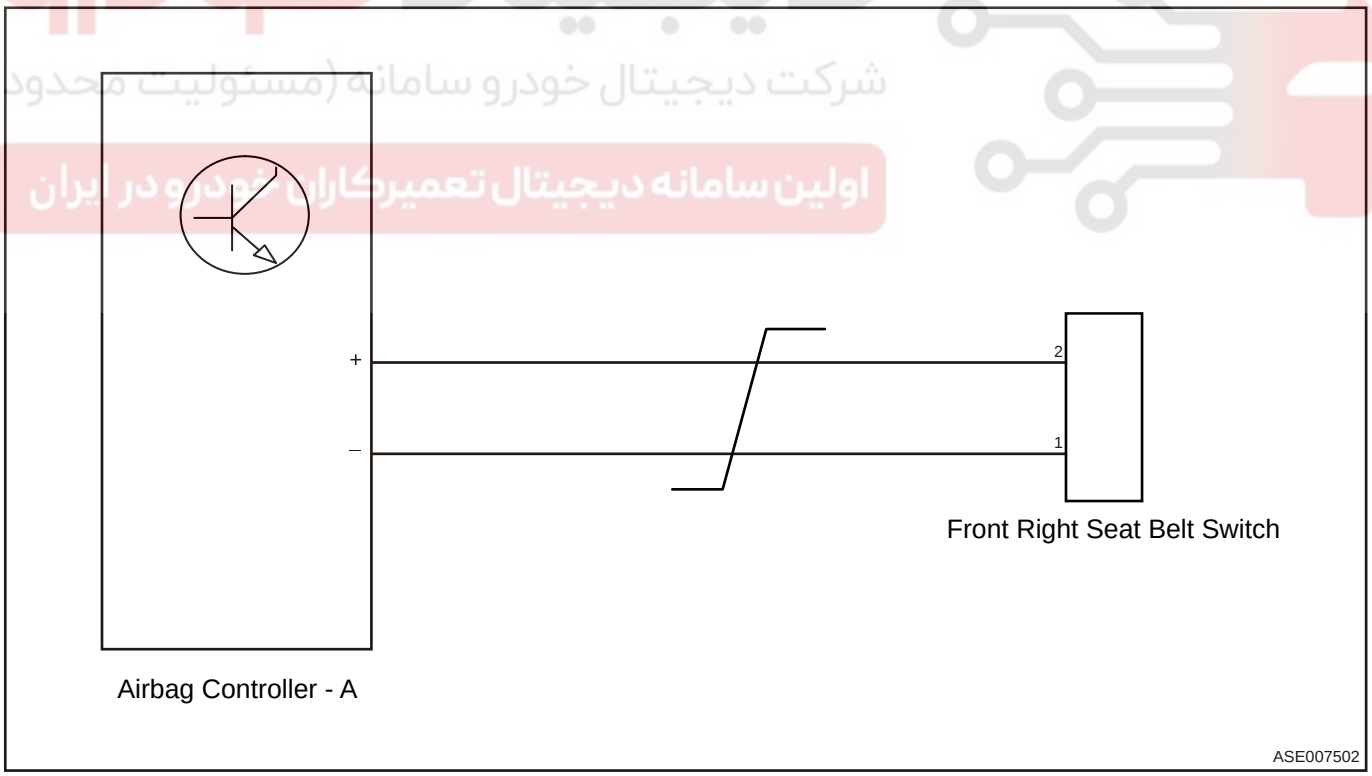
NG → **Replace with a new ECM to check if fault reoccurs**

OK → **Conduct test and confirm malfunction has been repaired.**

DTC	B1233-12	Passenger Buckle Switch-Circuit Short To Battery

Description

Control Schematic Diagram



DTC Confirmation Procedure

Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to OFF.
- Connect the diagnostic tester (the latest software).
- Start engine and warm it up, and then read DTC again. If DTC is detected, malfunction is current.

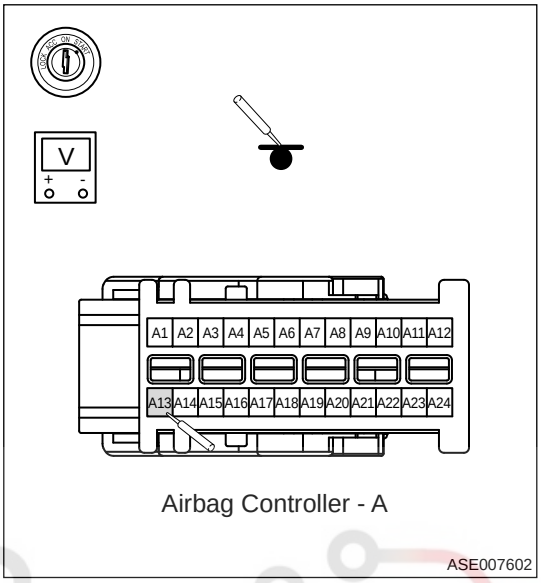
- If DTC is not detected, malfunction is intermittent.

Hint:
When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

1	Check voltage between front passenger seat belt buckle switch and power supply

(a) Disconnect the airbag connector.
(b) Turn ENGINE START STOP switch to ON.
(c) Check voltage between connector terminal line and ground.

Multimeter Connection	Condition	Specified Condition
Airbag module (-front passenger seat belt buckle switch+) - Body ground	ENGINE START STOP switch ON	0 V
Airbag module (-front passenger seat belt buckle switch-) - Body ground	ENGINE START STOP switch ON	0 V



NG → **Repair or replace front passenger seat belt buckle switch wire harness.**

OK →

2	Reconfirm DTCs

For preparations, refer to “Preparations before dealing with airbag system wire harness malfunction”.
Use circuit diagram as a guide to perform the following inspection procedures:
(a) Connect diagnostic tester and clear DTCs.
(b) Run the vehicle as specified procedure. The operating way should meet the conditions for corresponding malfunction diagnosis.
(c) Read the malfunction information and confirm that the malfunction has been solved.

NG → **Replace with a new ECM to check if fault reoccurs**

OK → **Conduct test and confirm malfunction has been repaired.**

DTC	B1234-12	Second Row Left Buckle Switch-Circuit Short To Battery

For diagnostic methods, refer to “Passenger Buckle Switch-Circuit Short To Battery” inspection procedure according to Circuit Diagram Manual.

DTC	B1235-12	Second Row Middle Buckle Switch-Circuit Short To Battery

For diagnostic methods, refer to “Passenger Buckle Switch-Circuit Short To Battery” inspection procedure according to Circuit Diagram Manual.

DTC	B1236-12	Second Row Right Buckle Switch-Circuit Short To Battery

For diagnostic methods, refer to “Passenger Buckle Switch-Circuit Short To Battery” inspection procedure according to Circuit Diagram Manual.

DTC	B0090-11	Left Front Restraints Sensor-Circuit Short To Ground
DTC	B0090-12	Left Front Restraints Sensor-Circuit Short To Battery
DTC	B0090-13	Left Front Restraints Sensor-Circuit Open
DTC	B0090-96	Left Front Restraints Sensor-Component Internal Failure
DTC	B0090-91	Left Front Restraints Sensor Configured Fault
DTC	B0090-00	Left Front Restraints Sensor-No Sub Type Information

For reserve/detection methods, refer to “Left Side Sensor Malfunction Diagnosis Procedure” to perform inspect and repair according to Circuit Diagram Manual.

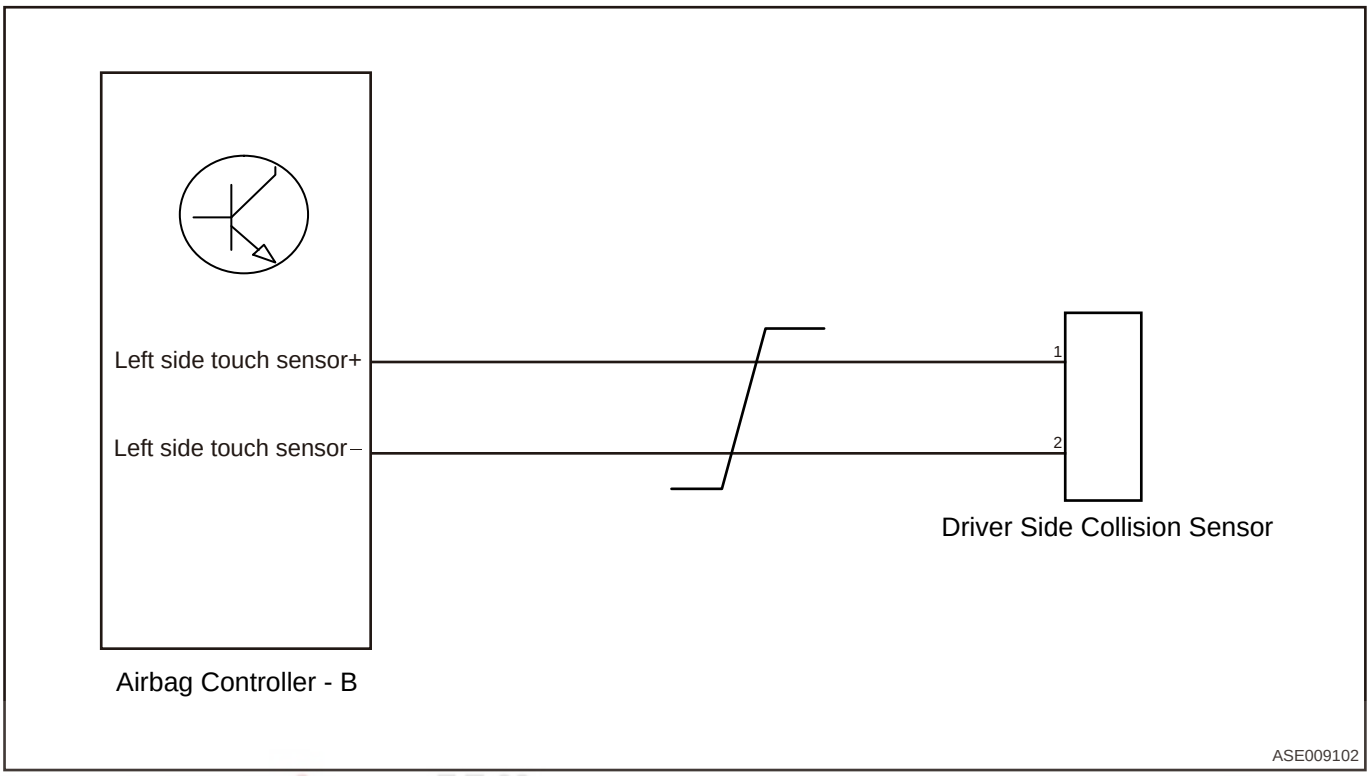
DTC	B0095-11	Right Front Restraints Sensor-Circuit Short To Ground
DTC	B0095-12	Right Front Restraints Sensor-Circuit Short To Battery
DTC	B0095-13	Right Front Restraints Sensor-Circuit Open
DTC	B0095-96	Right Front Restraints Sensor-Component Internal Failure
DTC	B0095-91	Right Front Restraints Sensor Configured Fault
DTC	B0095-00	Right Front Restraints Sensor-No Sub Type Information

For reserve/detection methods, refer to “Left Side Sensor Malfunction Diagnosis Procedure” to perform inspect and repair according to Circuit Diagram Manual.

DTC	B0091-11	Left Side Sensor-Circuit Short To Ground
DTC	B0091-12	Left Side Restraints Sensor-Circuit Short To Battery
DTC	B0091-13	Left Side Restraints Sensor-Circuit Open
DTC	B0091-96	Left Side Restraints Sensor-Component Internal Failure
DTC	B0091-95	Left Side Restraints Sensor- Configuration Error
DTC	B0091-00	Left Side Restraints Sensor-No Sub Type Information

Description

Control Schematic Diagram



DTC Confirmation Procedure

Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to OFF.
- Connect the diagnostic tester (the latest software).
- Start engine and warm it up, and then read DTC again. If DTC is detected, malfunction is current.
- If DTC is not detected, malfunction is intermittent.

Hint:

When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

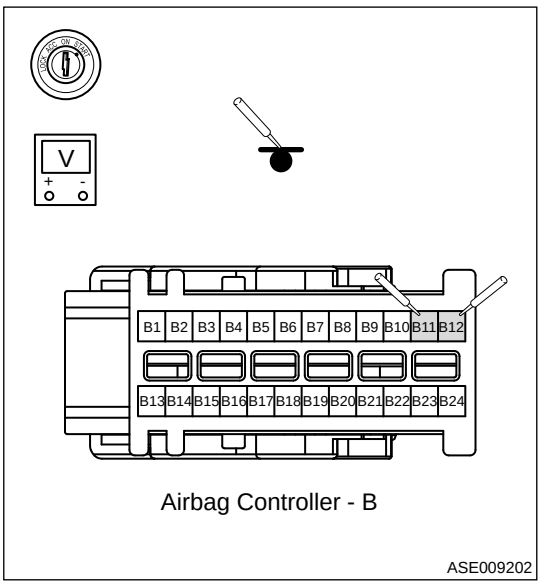
1	**Check voltage between left front restraints sensor and power supply**

(a) Disconnect the airbag connector.

(b) Turn ENGINE START STOP switch to ON.

(c) Check voltage between connector terminal line and ground.

Multimeter Connection	Condition	Specified Condition
Airbag module (- left front restraints sensor +) - Body ground	ENGINE START STOP switch ON	0 V
Airbag module (- left front restraints sensor-) - Body ground	ENGINE START STOP switch ON	0 V



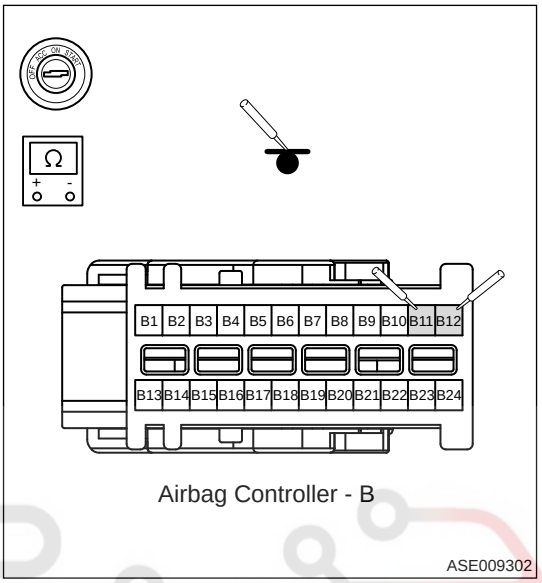
NG → **Repair or replace left front restraints sensor wire harness.**

OK

2	**Check resistance between left front restraints sensor and ground**

(a) Disconnect the left front restraints sensor connector.
(b) Disconnect the airbag connector.
(c) Turn ENGINE START STOP switch to OFF.
(d) Perform the resistance inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (- left front restraints sensor +) - Body ground	ENGINE START STOP switch OFF	∞
Airbag module (- left front restraints sensor-) - Body ground	ENGINE START STOP switch OFF	∞



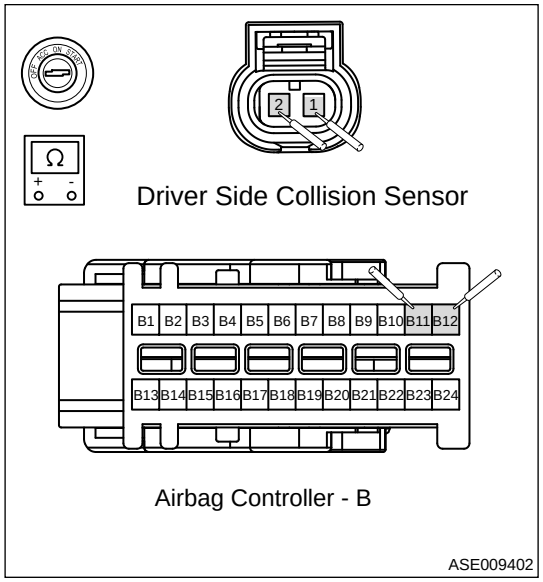
NG → **Repair or replace left front restraints sensor wire harness.**

OK

3	**Check circuit between airbag controller and left front restraints sensor wire harness**

Use circuit diagram as a guide to perform the following inspection procedures:
(a) Disconnect the left front restraints sensor.
(b) Disconnect the airbag connector.
(c) Turn ENGINE START STOP switch to OFF.
(d) Perform the resistance inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (- corresponding terminal) - Left front restraints sensor (2)	ENGINE START STOP switch OFF	Less than 1 Ω
Airbag module (- corresponding terminal) - Left front restraints sensor (1)	ENGINE START STOP switch OFF	Less than 1 Ω



NG → **Repair or replace wire harness between airbag controller and left front restraints sensor.**

OK

4	Check the collision sensor

(a) Replace the collision sensor.
(b) Check if DTC exists.

OK → **Replace the collision sensor.**

NG

5	Reconfirm DTCs

For preparations, refer to “Preparations before dealing with airbag system wire harness malfunction”.
Use circuit diagram as a guide to perform the following inspection procedures:
(a) Connect diagnostic tester and clear DTCs.
(b) Run the vehicle as specified procedure. The operating way should meet the conditions for corresponding malfunction diagnosis.
(c) Read the malfunction information and confirm that the malfunction has been solved.

NG → **Replace with a new ECM to check if fault reoccurs**

OK → **Conduct test and confirm malfunction has been repaired.**

DTC	B0096-11	Right Side Restraints Sensor-Circuit Short To Ground
DTC	B0096-12	Right Side Restraints Sensor-Circuit Short To Battery
DTC	B0096-13	Right Side Restraints Sensor-Circuit Open
DTC	B0096-96	Right Side Restraints Sensor-Component Internal Failure
DTC	B0096-95	Right Side Restraints Sensor - Configuration Error
DTC	B0096-00	Right Side Restraints Sensor-No Sub Type Information

For detection methods, refer to “Left Side Sensor Malfunction Diagnosis Procedure” to perform inspect and repair according to Circuit Diagram Manual.

DTC	B1251-00	ACU Internal Error-No Sub Type Information
DTC	B122C-00	ACU Has Been Scrapped-No Sub Type Information
DTC	B1216-47	Crash Front
DTC	B1217-47	Crash Side-Watchdog / Safety µC Failure
DTC	B1218-47	Crash Row-Watchdog / Safety µC Failure
DTC	B127F-47	Crash Recording Locked

Description

DTC Confirmation Procedure

Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to OFF.
- Connect the diagnostic tester (the latest software).
- Start engine and warm it up, and then read DTC again. If DTC is detected, malfunction is current.
- If DTC is not detected, malfunction is intermittent.

Hint:

When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

1	**Reconfirm DTCs**

For preparations, refer to “Preparations before dealing with airbag system wire harness malfunction”.
Use circuit diagram as a guide to perform the following inspection procedures:

(a) Connect diagnostic tester and clear DTCs.

(b) Run the vehicle as specified procedure. The operating way should meet the conditions for corresponding malfunction diagnosis.

(c) Read the fault information and confirm that the fault has been solved.

NG → **Replace with a new ECM to check if fault reoccurs**

OK → **Conduct test and confirm malfunction has been repaired.**

DTC	B1215-00	Squib Cross Coupling Error-No Sub Type Information

Description

DTC Confirmation Procedure

Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to OFF.
- Connect the diagnostic tester (the latest software).
- Start engine and warm it up, and then read DTC again. If DTC is detected, malfunction is current.
- If DTC is not detected, malfunction is intermittent.

Hint:

When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

1	**Check for DTCs**

(a) Using diagnostic tester, clear DTC and read DTC again.

(b) Check if DTC occurs again.

NG → **Check and repair related failure circuit for coupling error.**

OK →

2	**Reconfirm DTCs**

For preparations, refer to “Preparations before dealing with airbag system wire harness malfunction”.
Use circuit diagram as a guide to perform the following inspection procedures:

(a) Connect diagnostic tester and clear DTCs.

(b) Run the vehicle as specified procedure. The operating way should meet the conditions for corresponding malfunction diagnosis.

(c) Read the fault information and confirm that the fault has been solved.

NG	**Replace with a new ECM to check if fault reoccurs**
OK	**Conduct test and confirm malfunction has been repaired.**

DTC	B1240-00	ICM Airbag Lamp Failed-No Sub Type Information

Description

DTC Confirmation Procedure

Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to OFF.
- Connect the diagnostic tester (the latest software).
- Start engine and warm it up, and then read DTC again. If DTC is detected, malfunction is current.
- If DTC is not detected, malfunction is intermittent.

Hint:

When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

1	Check for DTCs

(a) Using diagnostic tester, clear DTC and read DTC again.

(b) Check if DTC occurs again.

NG	**Replace BCM or instrument cluster module.**

OK

2	Reconfirm DTCs

For preparations, refer to “Preparations before dealing with airbag system wire harness malfunction”.
Use circuit diagram as a guide to perform the following inspection procedures:

(a) Connect diagnostic tester and clear DTCs.

(b) Run the vehicle as specified procedure. The operating way should meet the conditions for corresponding malfunction diagnosis.

(c) Read the fault information and confirm that the fault has been solved.

NG	**Replace with a new ECM to check if fault reoccurs**
OK	**Conduct test and confirm malfunction has been repaired.**

DTC	B122D-95	Driver Airbag Unexpected Config-Incorrect Assembly
DTC	B122E-95	Passenger Airbag Unexpected Config-Incorrect Assembly
DTC	B122F-95	Left Side Airbag Unexpected Config-Incorrect Assembly
DTC	B1220-95	Right Side Airbag Unexpected Config-Incorrect Assembly
DTC	B1221-95	Left Curtain Unexpected Config-Incorrect Assembly
DTC	B1222-95	Right Curtain Unexpected Config-Incorrect Assembly
DTC	B1223-95	Front Row Left Seatbelt Retractor Pretensioner Unexpected Config-Incorrect Assembly
DTC	B1224-95	Front Row Right Seatbelt Retractor Pretensioner Unexpected Config-Incorrect Assembly
DTC	B1225-95	Belt Pretensioner Driver Unexpected Config-Incorrect Assembly
DTC	B1226-95	Belt Pretensioner Pass Unexpected Config-Incorrect Assembly
DTC	B1227-95	Second Row Left Seatbelt Pretensioner Unexpected Config-Incorrect Assembly
DTC	B1229-95	Second Row Right Seatbelt Pretensioner Unexpected Config-Incorrect Assembly
DTC	B0004-95	Driver Knee Airbag Ignition Circuit Config-Incorrect Assembly
DTC	B0030-95	Second Row Left Side Seat Side Airbag Unexpected Config-Incorrect Assembly
DTC	B0038-95	Second Row Right Side Seat Side Airbag Unexpected Config-Incorrect Assembly

Description

DTC Confirmation Procedure

Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to OFF.
- Connect the diagnostic tester (the latest software).
- Start engine and warm it up, and then read DTC again. If DTC is detected, malfunction is current.
- If DTC is not detected, malfunction is intermittent.

Hint:

When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

1	**Check for DTCs**

(a) Using diagnostic tester, clear DTC and read DTC again.

(b) Check if DTC occurs again.

NG → **Compare with configuration table to confirm if actual vehicle has corresponding malfunction configuration.**

OK

2	Rewrite the correct configuration code with diagnostic tester

(a) Using diagnostic tester, clear DTC and read DTC again.

(b) Rewrite the correct configuration code with diagnostic tester.

NG → **Confirm if configuration code is met with actual vehicle configuration, if not, please get the correct configuration code.**

OK

3	Reconfirm DTCs

For preparations, refer to “Preparations before dealing with airbag system wire harness malfunction”.
Use circuit diagram as a guide to perform the following inspection procedures:

(a) Connect diagnostic tester and clear DTCs.

(b) Run the vehicle as specified procedure. The operating way should meet the conditions for corresponding malfunction diagnosis.

(c) Read the malfunction information and confirm that the malfunction has been solved.

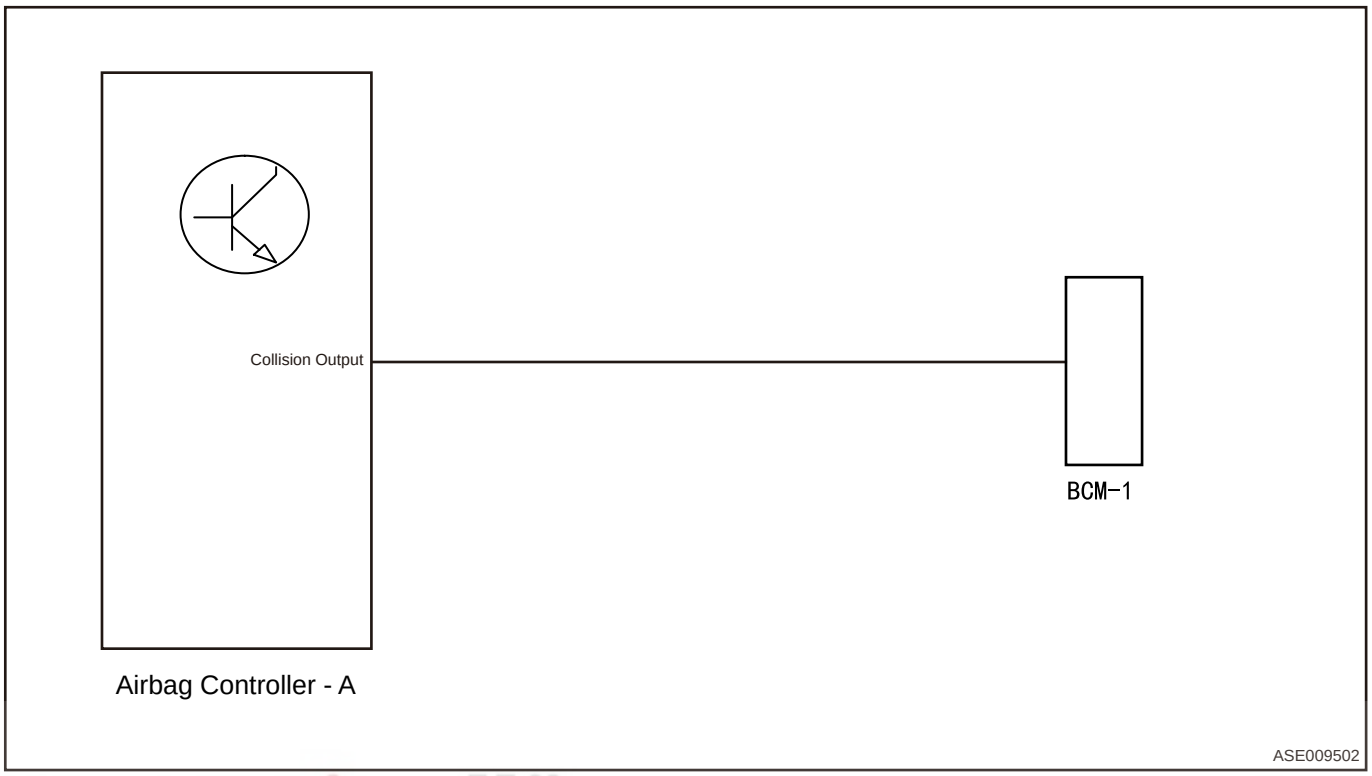
NG → **Replace with a new ECM to check if fault reoccurs**

OK → **Conduct test and confirm malfunction has been repaired.**

DTC	**B1284-12**	**Crash Output Fault-Circuit Short To Power Supply**
DTC	**B1284-11**	**Crash Output Fault-Circuit Short To Ground**
DTC	**B1284-13**	**Crash Output Fault-Circuit Open**

Description

Control Schematic Diagram



DTC Confirmation Procedure

Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to OFF.
- Connect the diagnostic tester (the latest software).
- Start engine and warm it up, and then read DTC again. If DTC is detected, malfunction is current.
- If DTC is not detected, malfunction is intermittent.

Hint:

When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

1	**Check for DTCs**

(a) Using diagnostic tester, clear DTC and read DTC again.

(b) Check if DTC occurs again.

NG → **Check and repair circuit between airbag module and BCM according to diagram manual.**

OK

2	**Reconfirm DTCs**

For preparations, refer to “Preparations before dealing with airbag system wire harness malfunction”.

Use circuit diagram as a guide to perform the following inspection procedures:

(a) Connect diagnostic tester and clear DTCs.

(b) Run the vehicle as specified procedure. The operating way should meet the conditions for corresponding malfunction diagnosis.

(c) Read the fault information and confirm that the fault has been solved.

NG	**Replace with a new ECM to check if fault reoccurs**
OK	**Conduct test and confirm malfunction has been repaired.**

DTC	B122D-95	Driver Airbag Unexpected Config-Incorrect Assembly

Description

DTC Confirmation Procedure

Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to OFF.
- Connect the diagnostic tester (the latest software).
- Start engine and warm it up, and then read DTC again. If DTC is detected, malfunction is current.
- If DTC is not detected, malfunction is intermittent.

Hint:

When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

1	**Confirm if airbag controller are applicable to this model.**

Use circuit diagram as a guide to perform the following inspection procedures:

(a) Confirm that the airbag controller configuration.

(b) Correct the controller spare part number.

NG	**Replace or repair the airbag controller.**

OK

2	**Reconfirm DTCs**

For preparations, refer to “Preparations before dealing with airbag system wire harness malfunction”.

Use circuit diagram as a guide to perform the following inspection procedures:

(a) Connect diagnostic tester and clear DTCs.

(b) Run the vehicle as specified procedure. The operating way should meet the conditions for corresponding malfunction diagnosis.

(c) Read the fault information and confirm that the fault has been solved.

NG	**Replace with a new ECM to check if fault reoccurs**
OK	**Conduct test and confirm malfunction has been repaired.**

DTC	B122E-95	Passenger Airbag Unexpected Config-Incorrect Assembly

Description

DTC Confirmation Procedure

Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to OFF.

- Connect the diagnostic tester (the latest software).
- Start engine and warm it up, and then read DTC again. If DTC is detected, malfunction is current.
- If DTC is not detected, malfunction is intermittent.

Hint:
When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

1	**Confirm if airbag controller are applicable to this model.**

Use circuit diagram as a guide to perform the following inspection procedures:
(a) Confirm that the airbag controller configuration.
(b) Correct the controller spare part number.

NG → **Replace or repair the airbag controller.**

OK

2	**Reconfirm DTCs**

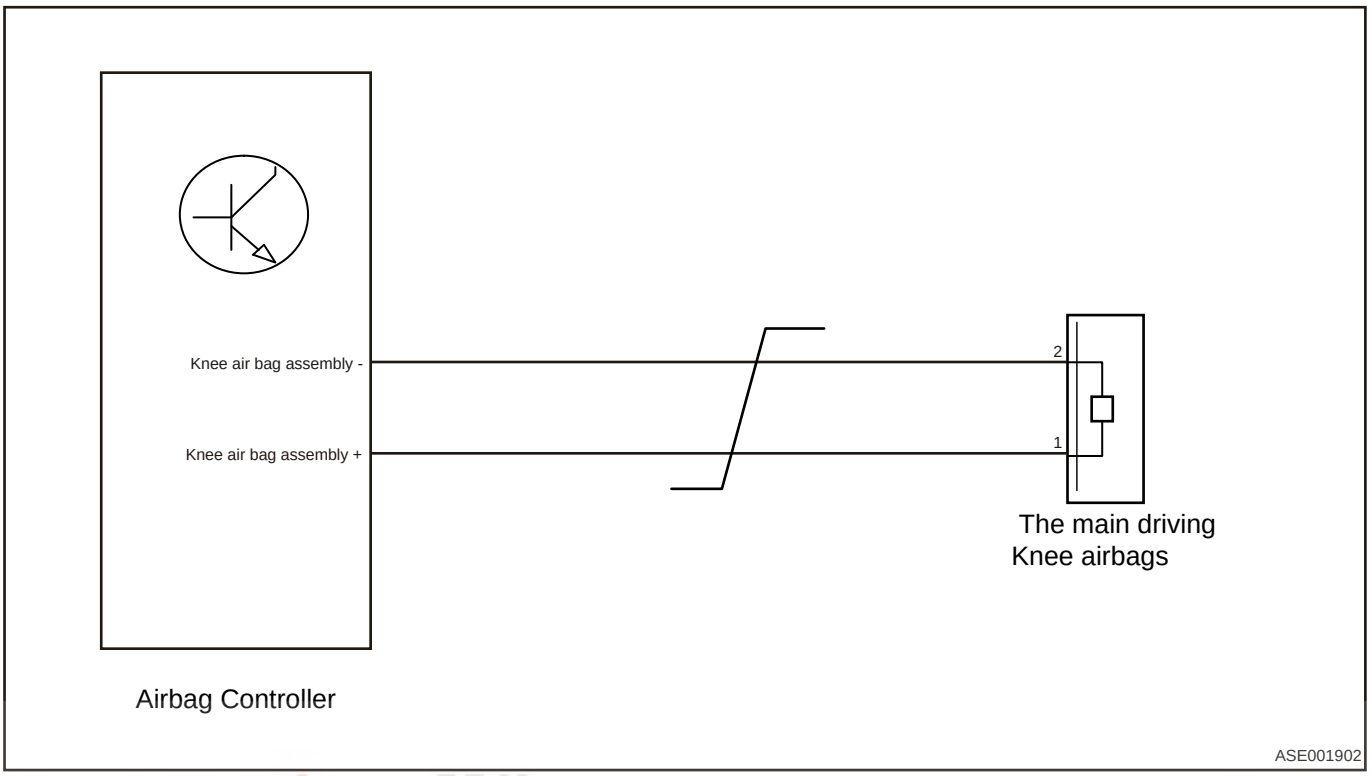
For preparations, refer to “Preparations before dealing with airbag system wire harness malfunction”.
Use circuit diagram as a guide to perform the following inspection procedures:
(a) Connect diagnostic tester and clear DTCs.
(b) Run the vehicle as specified procedure. The operating way should meet the conditions for corresponding malfunction diagnosis.
(c) Read the fault information and confirm that the fault has been solved.

NG → **Replace with a new ECM to check if fault reoccurs**

OK → **Conduct test and confirm malfunction has been repaired.**

DTC	**B0004-11**	**Driver Knee Airbag Deployment Control-Circuit Short To Ground**
DTC	**B0004-12**	**Driver Knee Airbag Deployment Control-Circuit Short To Power Supply**
DTC	**B0004-1A**	**Driver Knee Airbag Deployment Control-Circuit Resistance Below Threshold**
DTC	**B0004-1B**	**Driver Knee Airbag Deployment Control-Circuit Resistance Above Threshold**

Description
Control Schematic Diagram



DTC Confirmation Procedure

Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to OFF.
- Connect the diagnostic tester (the latest software).
- Start engine and warm it up, and then read DTC again. If DTC is detected, malfunction is current.
- If DTC is not detected, malfunction is intermittent.

Hint:

When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

1	**Inspect the voltage between driver knee airbag and power supply**

Use circuit diagram as a guide to perform the following inspection procedures:

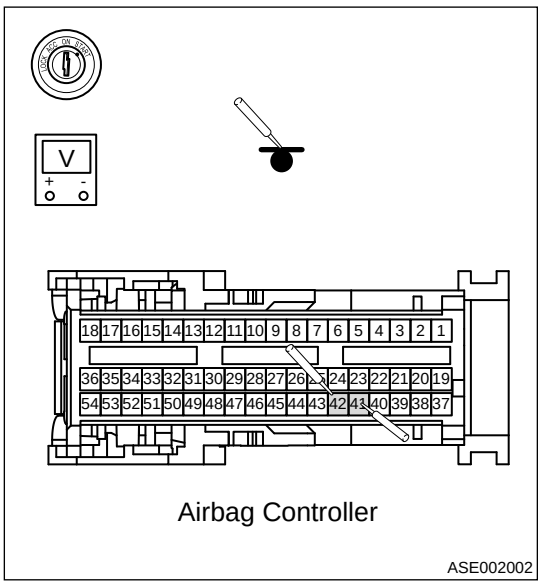
(a) Disconnect the driver knee airbag connector.

(b) Disconnect the airbag connector.

(c) Turn ENGINE START STOP switch to ON.

(d) Perform the voltage inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (-knee airbag+) - Body ground	ENGINE START STOP switch ON	0 V
Airbag module (-knee airbag-) - Body ground	ENGINE START STOP switch ON	0 V



NG → **Repair or replace driver knee airbag power supply wire harness.**

OK →

2	**Inspect the resistance between driver knee airbag and ground**

Use circuit diagram as a guide to perform the following inspection procedures:

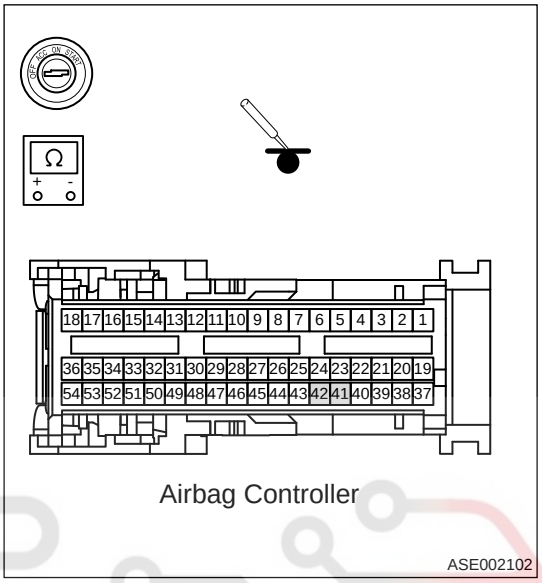
(a) Disconnect the driver knee airbag connector.

(b) Disconnect the airbag connector.

(c) Turn ENGINE START STOP switch to OFF.

(d) Perform the resistance inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (-knee airbag+) - Body ground	ENGINE START STOP switch OFF	∞
Airbag module (-knee airbag-) - Body ground	ENGINE START STOP switch OFF	∞



NG → **Repair or replace driver knee airbag ground wire harness.**

OK →

3	**Check circuit between airbag controller and driver knee airbag**

Use circuit diagram as a guide to perform the following inspection procedures:

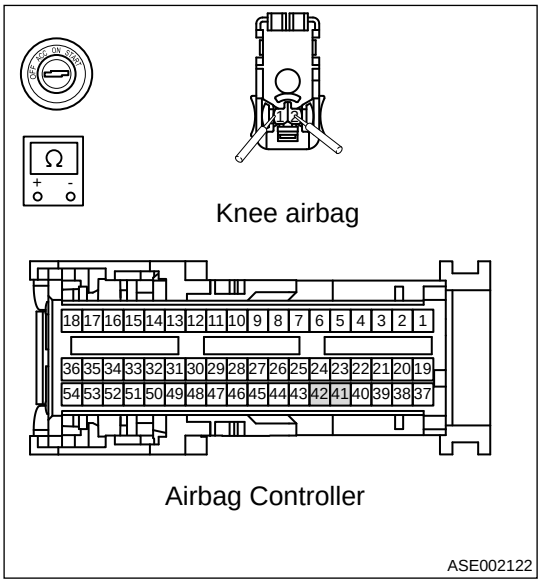
(a) Disconnect the driver knee airbag connector.

(b) Disconnect the airbag connector.

(c) Turn ENGINE START STOP switch to OFF.

(d) Perform the resistance inspection.

Multimeter Connection	Condition	Specified Condition
Airbag module (-corresponding terminal) - Driver knee airbag (2)	ENGINE START STOP switch OFF	Less than 1 Ω
Airbag module (-corresponding terminal) - Driver knee airbag (1)	ENGINE START STOP switch OFF	Less than 1 Ω



NG → **Repair or replace wire harness between airbag controller and front passenger frontal airbag.**

OK

4	Inspect the driver knee airbag

(a) Substitute one 2.5 Ω resistance for airbag.
(b) Check if DTC exists.

NG → **Repair or replace driver knee airbag.**

OK

5	Reconfirm DTCs

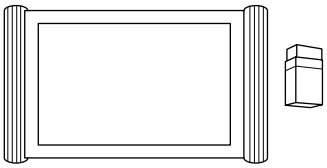
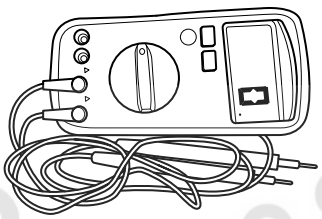
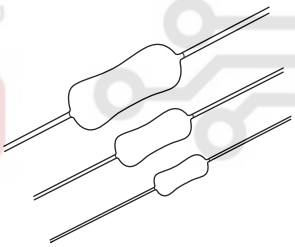
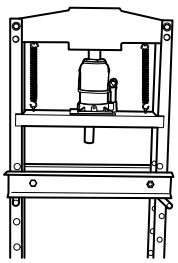
For preparations, refer to “Preparations before dealing with airbag system wire harness malfunction”.
Use circuit diagram as a guide to perform the following inspection procedures:
(a) Connect diagnostic tester and clear DTCs.
(b) Run the vehicle as specified procedure. The operating way should meet the conditions for corresponding malfunction diagnosis.
(c) Read the malfunction information and confirm that the malfunction has been solved.

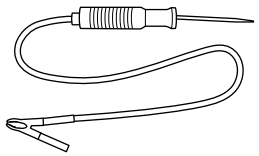
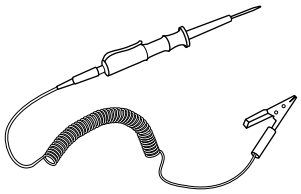
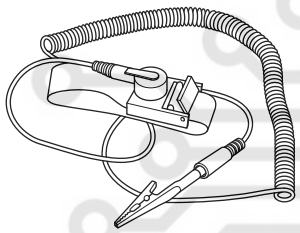
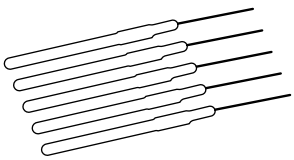
NG → **Replace with a new ECM to check if fault reoccurs**

OK → **Conduct test and confirm malfunction has been repaired.**

On-vehicle Service

Tools

Tool Name	Tool Drawing
Diagnostic Tester	 S00001
Digital Multimeter	 S00002
Resistor (2 Ω)	 S00070
Interior & Exterior Remover	 S00020

Tool Name	Tool Drawing
Bulb Test Light	 S00071
Diode Test Light	 S00072
Static-proof Wrist Strap	 S00073
Wire Harness Terminal Service Tool	 S00074

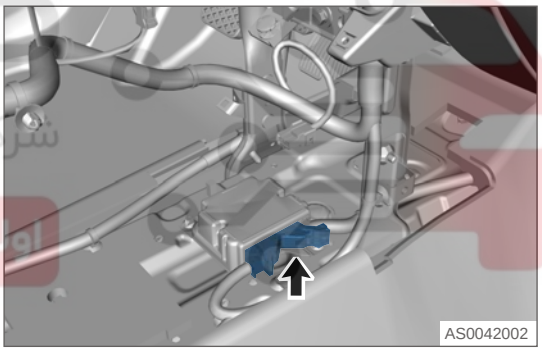
Replacement of Airbag System Controller (ACU)

Removal

⚠ Warning

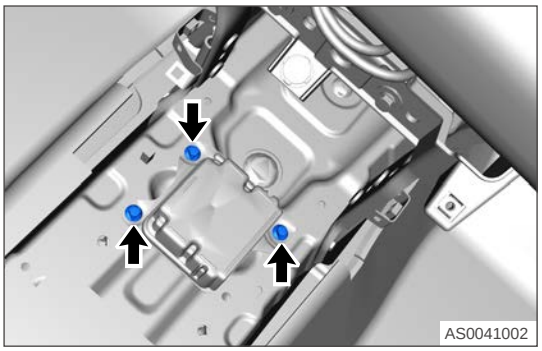
- Be sure to follow correct procedures to remove and install airbag system controller.
- Inspect and confirm that part number in airbag control module label matches with configuration card part number in vehicle; parts surface should be free of chips and labels and bar codes should be intact and clear before assembly; Peel off one bar code after inspection and attach it to record card in vehicle;
- Handle airbag control module carefully and it’ s strictly forbidden to tap and crash it fiercely.
- There should be no other objects between airbag control module installation plane and ACU module, and ACU must be installed directly on body panel.
- Make sure that the ENGINE START STOP Switch in OFF state during installation and removal of ACU, and never install or remove it with power on.
- Reconfirm the installation direction of ACU after installation and make sure that label arrow direction is facing vehicle head. If fitted reversely, airbag controller assembly will not operate normally.

1. Turn off all electrical equipment and ENGINE START STOP switch.
2. Wait at least 90 seconds after disconnecting the negative battery cable to disable supplementary restraint system.
3. Remove the auxiliary fascia console assembly. (See page).
4. Press lower limit clamp to separate it from wire harness connector and remove airbag controller assembly.



5. Remove 3 fixing bolts (10# socket wrench) from airbag controller.

   Torque: 9 ± 1 N·m



Inspection

1. Check whether pins of airbag system controller are exposed and bent before assembly.
2. Check whether there are cracks, burrs and other phenomena on airbag system controller.

Installation

⚠ Caution
• Before installing tightening bolts, always make sure that airbag wire harness is not held down or stuck. Adjust if necessary and install it in place. • Make sure to tighten fixing bolts to specified torque during installation. • Always keep vehicle power off during installation. It is forbidden to install the airbag controller assembly with vehicle power on. • Check SRS warning light after installation, and make sure that supplemental restraint system operates normally.

1. Installation is in the reverse order of removal.

AIRBAG

Warnings and Precautions

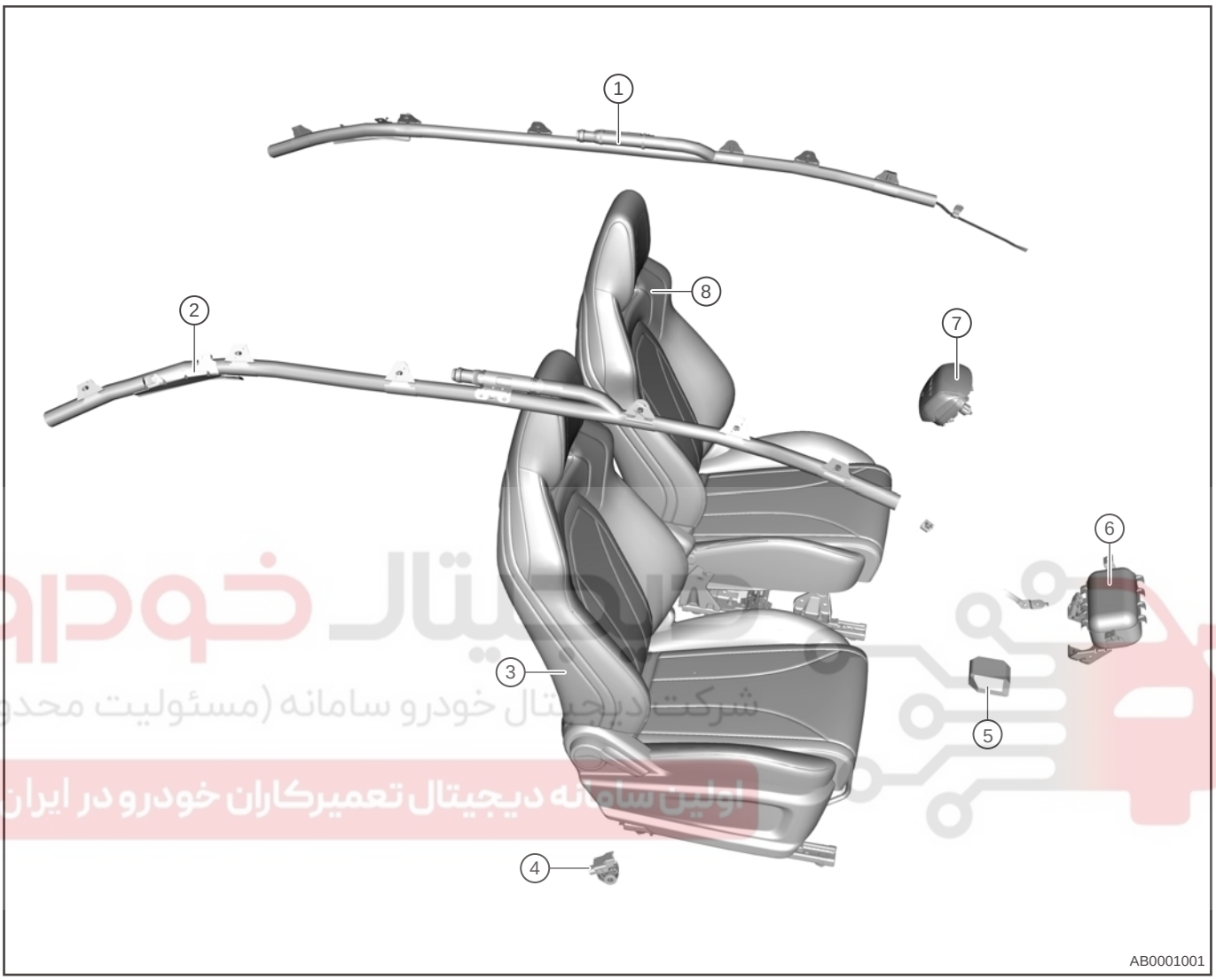
Warnings

In order to avoid possible property loss, personal injury or death, always follow the instructions below before repair:

1. Wire harness assembly: Arrange the wire harness without any torsion and wrinkles, etc. Never make it with metal or non-metal sharp edge. It should be connected with ACU (Airbag Module), SIS and each airbag module firmly without any looseness.
2. System power-on detection:
   a. After powering-on, ACU sends airbag indicator light on signal via CAN, the lighting time should last for 3 seconds (When the controller has an Squib fault or undervoltage/overvoltage error, initialization time of malfunction indicator is extended to a maximum of 10 seconds). After self-check is completed, ACU sends airbag indicator off signal via CAN, the warning light goes off for (1 ±0.1) seconds, and then it will enter normal operation state;
   b. After completion of (remains on for 3 seconds) and (goes off for 1±0.1 seconds) states, if there is no DTC in system that requires the indicator light to be turned on, the indicator light will go off. If the indicator light remains on, it indicates that there is a malfunction in ACU, it is necessary to clear the fault with a diagnostic tester. Check corresponding components and wire harness connection according to the fault display of diagnostic tester. If the malfunction is still not eliminated, you must complete the corresponding adjustment operation under the guidance of the quality department, design department and suppliers until the indicator goes off.
   c. Diagnosis of airbag system should be completed at the follow-up station of four-wheel alignment. It is required to perform diagnosis when the vehicle is powered-on and airbag modules, etc. are fully fastened.
3. The installation and repairing of all airbag parts must be performed with power off, and it’s strictly forbidden to install, remove and rework on production line with power on. If the replacement or repairing of airbag parts is involved, you must cut off power supply. Because within 30 seconds of vehicle stalling or fuse removed (refer to Technology Instruction for Wire Harness System Assembly and Adjustment), sufficient power to deploy airbag is still remained inside airbag controller, so perform the repairing operation after 30 seconds of airbag controller and battery cut off.
4. Be sure to clear all DTCs from ACU after vehicle assembly is complete.
5. Store the airbag in a place with enough spare space to prevent accidental airbag deployment. If there is no airbag deployment space, accidental airbag deployment may injure human body or damage the vehicle.
6. In order to avoid DTC, never energize airbag system before connecting all airbag system components and performing diagnostic inspection.
7. If airbag and ACU had fallen down from a position higher than 1 m, please do not reuse it and insulate it.
8. Handle airbag and ACU carefully, and never tap or strike it fiercely.
9. Assembly, detection and removal of airbag system must meet relevant requirements and specifications, and never perform operation casually.

System Overview

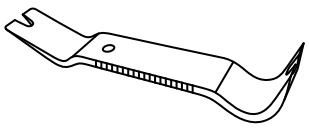
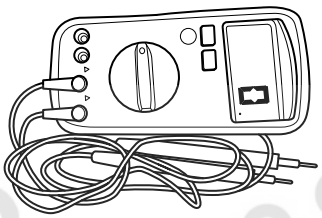
System Components Diagram



1	Left Curtain Shield Airbag Assembly	5	Airbag Controller Assembly
2	Right Curtain Shield Airbag Assembly	6	Front Passenger Airbag Assembly
3	Front Passenger Side Seat Airbag Assembly	7	Driver Airbag Assembly
4	Right Side Collision Sensor	8	Driver Side Seat Airbag Assembly

On-vehicle Service

Tools

Tool Name	Tool Drawing
Interior Crow Plate	 S00020
Digital Multimeter	 S00002

Driver Airbag Assembly (DAB)

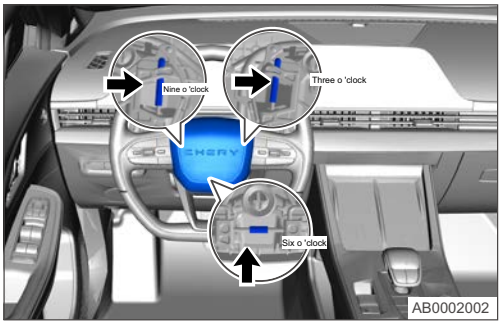
Removal

⚠ Warning

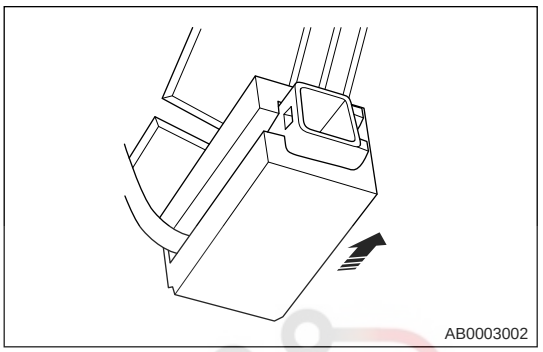
- Wait at least 90 seconds after disconnecting the negative battery cable to disable supplementary restraint system.
- DO NOT damage the airbag wire harness when handling airbag assembly wire harness connector.
- DO NOT pull the airbag wire harness when removing driver airbag assembly.
- DAB installation and repairing must be performed with power off, and it’ s strictly forbidden to install, remove and rework DAB on any production line with power on. DAB replacement and repairing must be performed with power off. Within 30s of vehicle stalling or fused removed (refer to Technology Instruction for Wire Harness System Assembly), sufficient power to deploy airbag is still remained inside airbag controller, so it’ s necessary to perform repairing after 30s since the power of airbag controller is cut off.
- In order to avoid DTC, never energize airbag system before connecting all airbag system components (including DAB) and performing diagnostic inspection;
- Keep space in area for storing DAB to prevent accidental deployment of DAB. If there is no deployment space, accidental deployment of DAB may injure human body or damage the vehicle.
- If DAB falls down from a position higher than 1 m, please do not reuse it and insulate it.
- Handle DAB carefully, and never tap or strike it fiercely.
- Assembly, detection and removal of DAB must meet relevant requirements and specifications, and never perform operation casually.

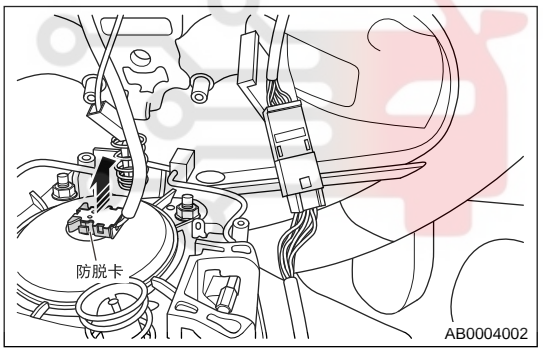
1. Turn off all electrical equipment and ENGINE START STOP switch.
2. Disconnect the negative battery cable.

3. Remove the driver airbag assembly.
   a. Position the front wheels straight ahead.
   b. Using a slotted screwdriver, remove DAB in sequence through 3 removal holes in locations of 3 o’ clock, 9 o’ clock and 6 o’ clock on steering wheel. Insert the screwdriver into removal hole of 3 o’ clock position on steering wheel in removal direction and push it further lightly when reaching to snap spring until a “click” sound is heard, which means that the clip is detached, and the corresponding side of airbag will be bounced up. Then perform removal in 9 o’ clock direction with the same method as above. Finally perform removal in 6 o’ clock direction, and then take up the whole DAB module from steering wheel lightly with both hands.

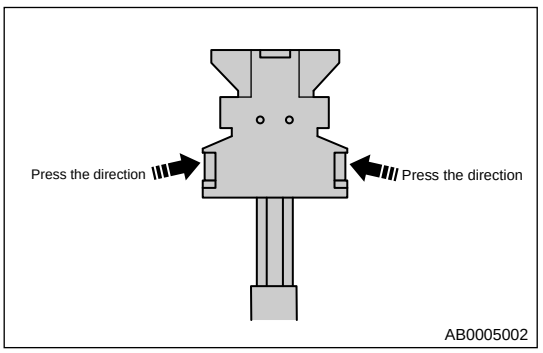


   c. Removal of multi-function switch wire harness connector: Remove switch wire harness connector in direction as indicated in illustration.

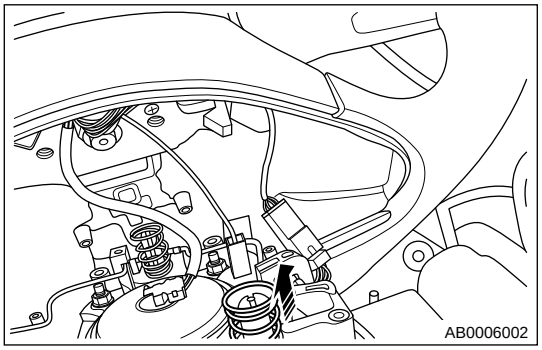




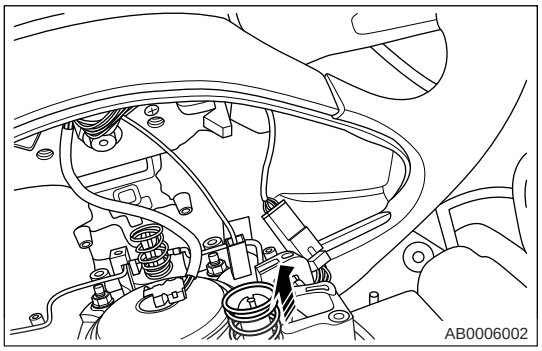
   d. Removal of clock spring DAB connector: While taking up DAB with one hand, use 2 fingers of the other hand to press and hold lock clips of both sides in “pressing direction” as indicated in illustration and then remove DAB connector in removal direction.



e. Removal of horn connector: Remove horn connector in direction as indicated in illustration.



f. Removal of steering wheel heating connector.



Inspection

1. Before assembly, confirm that label part number in driver airbag assembly and configuration card part number in vehicle matches;
2. Then check driver airbag assembly cover plate surface for trimming, residual, air vent, scratches, galling etc.; it’s also forbidden for defects such as inclusion and dents etc. Peel off a bar code after inspection and attach it to record card in vehicle.

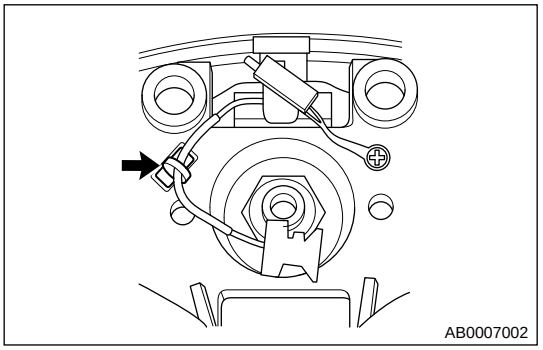
Installation

⚠ Caution

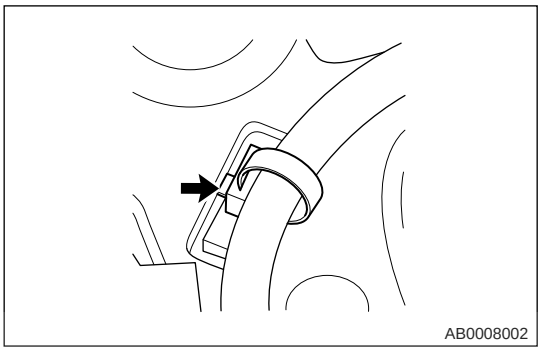
- Confirm that label part number in DAB and configuration card part number in vehicle matches before assembly.
- Then check DAB cover plate surface for trimming, residual, air vent, scratches, galling etc.; it’s also forbidden for defects such as inclusion and dents etc. Peel off a bar code after inspection and attach it to record card in vehicle.
- Install the DAB after completing the steering wheel;
- Make sure that the ignition key cylinder is in OFF state during installation and never install it with power on;
- Make sure that all connectors are securely connected and the wire harness is fixed in the set slot before pressing DAB into steering wheel;
- After installing the DAB, airbag light is normal after the power is turned on, ensure that the horn pressing function is normal;
- Press periphery and center part of DAB cover with palms to make sure that the pressing operation is smooth without sluggish.

1. Pass airbag connector on clock spring side through the ribbon hole and zip up the ribbon and cut out the unnecessary ribbon tail part with a scissor. Connect airbag connector on clock spring to generator in DAB in pressing direction as indicated in illustration until a “click” sound is heard. The connector plane and generator port fitted flatly indicates that the connector is installed in place.

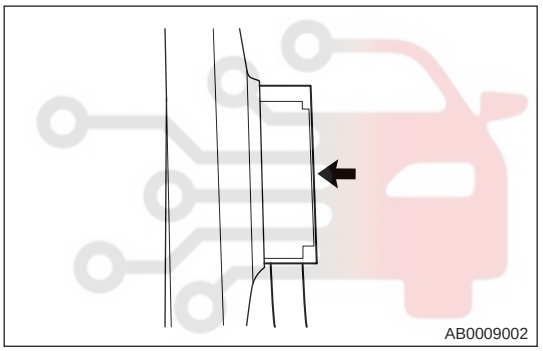
a. Install the airbag connector and ribbon on clock spring side.



b. Tighten the ribbon firmly and cut out the unnecessary part.

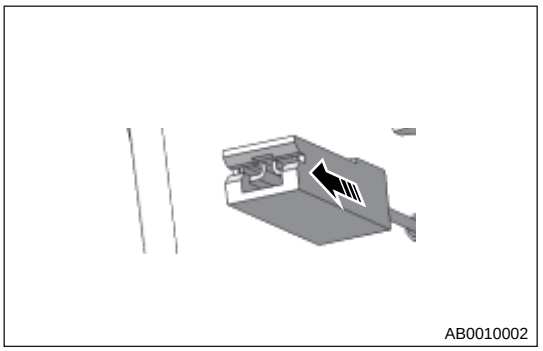


c. Press the airbag connector on clock spring side to the connector on generator in direction of arrow to flatten them.



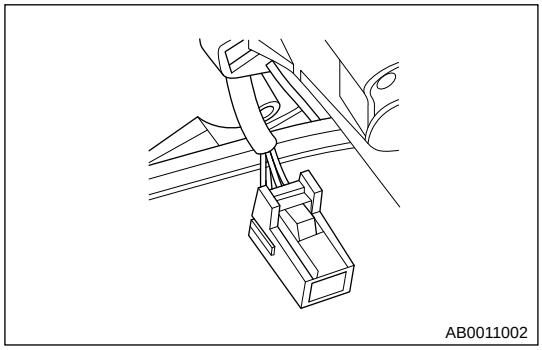
2. Connect horn connector on clock spring to horn metal plate on DAB side in direction as required.

a. Insert the horn connector into horn metal plate on DAB side in direction of arrow.



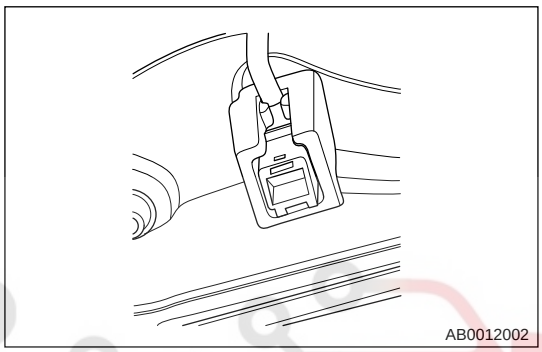
3. Connect DAB multi-function switch connector to the corresponding port on steering wheel until a “click” sound is heard, which means that the connector is connected in place. Then press the oppositely connected connector to the bottom of steering wheel fixing hole for fixing.

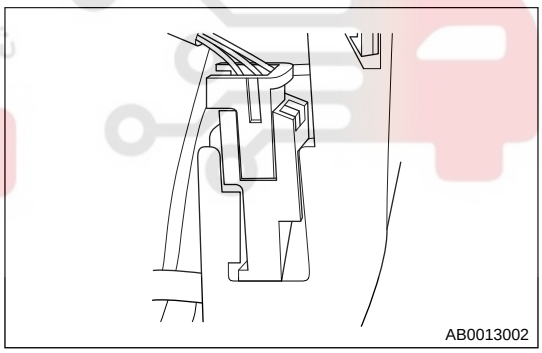
a. Insert the horn connector into horn metal plate on DAB side in direction of arrow.



4. Place DAB on steering wheel and toggle horn wire harness to the center of steering wheel in direction as indicated in illustration. After confirming that locating pillar aligns with steering wheel, press center part of airbag trim cover with palms of both hands until a “click” sound is heard, which means that the airbag and steering wheel have been fixed and installation is completed.

a. Insert the horn connector into horn metal plate on DAB side in direction of arrow.





Front Passenger Airbag Assembly

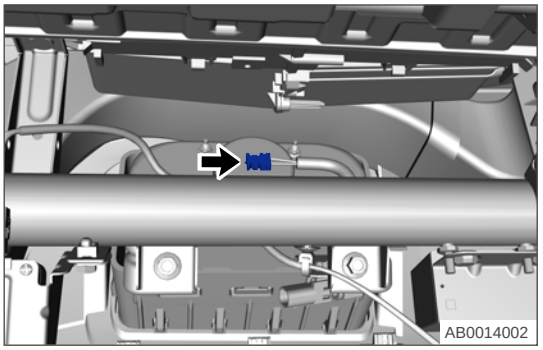
Removal

⚠ Caution

- Handle airbag assembly and airbag control module assembly carefully, and never tap or strike them fiercely.
- Removal, inspection and installation of airbag system must meet relevant requirements and specifications, and never perform operation casually.
- Removed airbag should be kept properly with face up. Store the airbag in a place with enough spare space to prevent accidental airbag deployment.
- Wait at least 90 seconds after disconnecting the negative battery cable to disable supplementary restraint system.

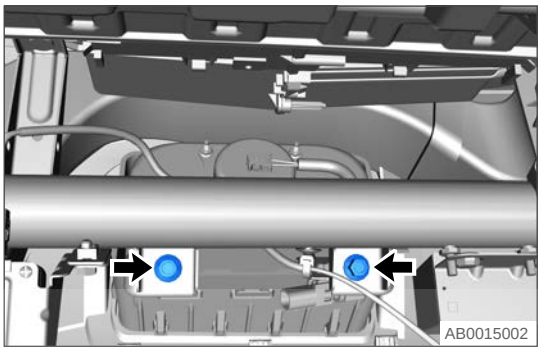
1. Turn off all electrical equipment and the ignition switch.
2. Disconnect the negative battery cable.

3. Remove the glove box assembly.
   a. Remove the front passenger airbag assembly wire harness connector assembly (arrow).



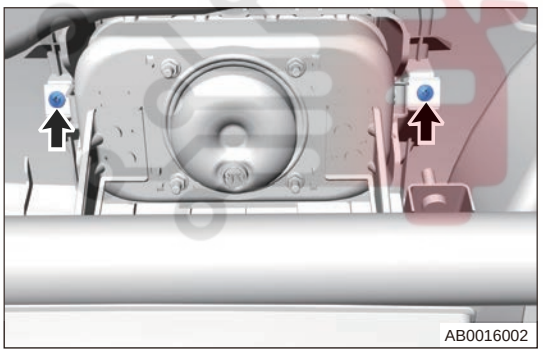
   b. Remove 2 coupling bolts (arrow) between front passenger airbag assembly and instrument panel crossmember assembly.

      Tightening torque: 23 ± 2 N · m

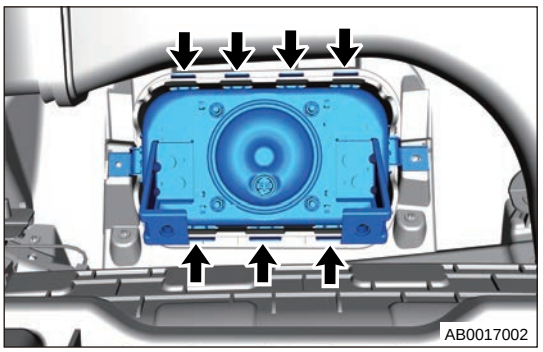


4. Remove the instrument panel upper body assembly.
5. Remove the front passenger airbag assembly.
   a. Remove 2 fixing screws (arrow) between front passenger airbag and instrument panel.

      Tightening torque: 2.5 ± 0.5 N · m



   b. Using a flat tip screwdriver wrapped with protective tape, slightly pry fixing claws (arrow) around front passenger airbag assembly mounting bracket to separate it from instrument panel body assembly.



   c. Remove the front passenger airbag assembly.

Inspection

1. Confirm that part number in front passenger airbag assembly label and part number in vehicle configuration card matches before assembly;
2. Then check front passenger airbag assembly cover plate surface for trimming, residual, air vent, scratches, galling etc.; it’ s also forbidden for defects such as inclusion and dents etc. Peel off a bar code after inspection and attach it to record card in vehicle.

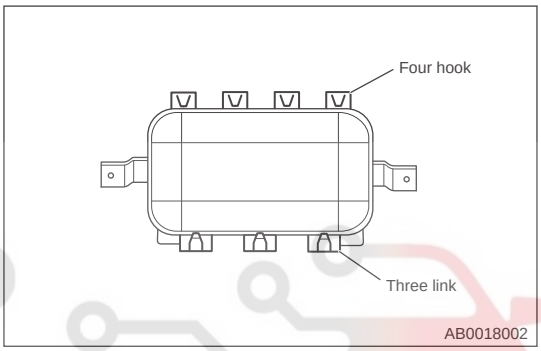
Installation

⚠ Caution

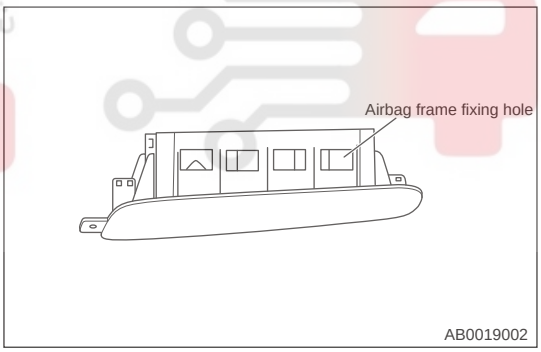
- Before installing tightening bolts, always make sure that airbag wire harness is not held down or stuck. Adjust if necessary and install it in place.
- Make sure to tighten fixing bolts to specified torque during installation.
- When installing front passenger airbag assembly, first slide the hook on one side into locating hole in airbag box, and then press in hook on the other side firmly, making sure that hooks on both sides enter the corresponding locating holes correctly.
- Always keep vehicle power off during installation. It is forbidden to install the front passenger airbag assembly with vehicle power on.
- Check ACU warning light after installation, and make sure that supplemental restraint system operates normally.

1. Detailed description and technology requirements during assembly

   a. Inspect and confirm that parts surface should be free of chips and damages and labels and bar codes should be intact and clear before assembly; Peel off one bar code after inspection and attach it to record card in vehicle;

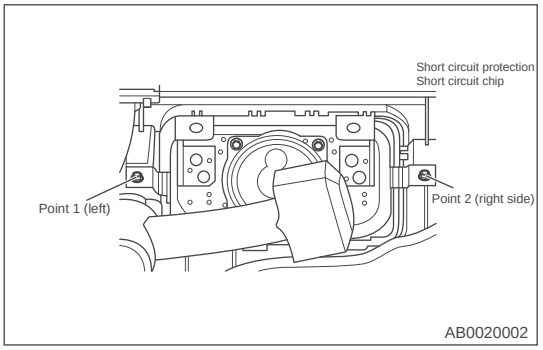


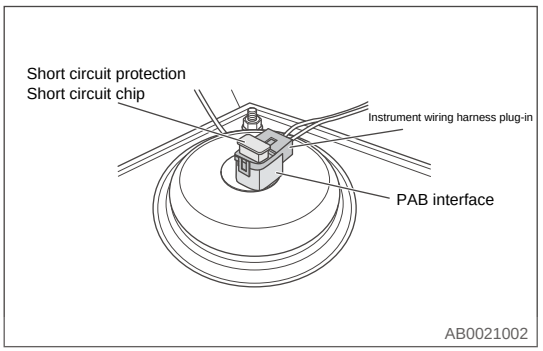
   b. PAB should be installed firstly to instrument panel upper body. Place PAB entirely into airbag bracket on back side of instrument panel upper body. First hang 3 hooks into fixing holes in airbag frame, then press 4 hooks on the other side firmly into bracket holes and make sure that hooks on both sides have been put into the corresponding fixing holes.



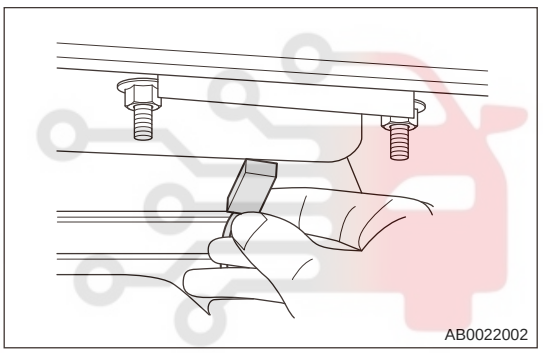
c. Using 2 cross-recessed button head self-tapping screws, tighten front passenger airbag assembly to instrument panel airbag frame. First tighten point 2 on right side, then tighten point 1 on left side and finally tighten fixing bolts with installing tools according to set torque value.

Tightening torque: 2.5 ± 0.5 N·m



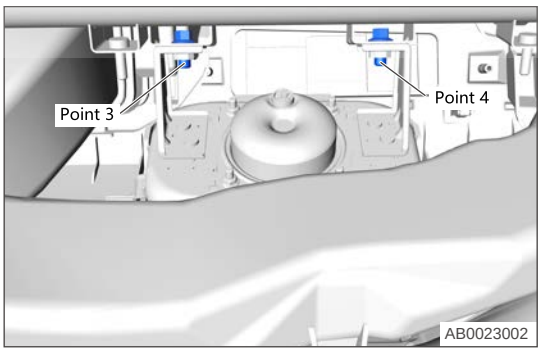


d. After putting instrument panel body into packing machine, insert instrument cluster wire harness connector into PAB generator port while keeping the connector fitting flatly with the generator. And press down short-circuit plate to keep its upper surface be flush with connector surface on wire harness end, which indicates that it is installed in place. PAB port has failure-proof function and it’ s forbidden to connect forcibly;



e. After installing instrument panel body, pre-tighten 2 bolts of PAB to CCB bracket in glove box port. Tighten point 3 on left side, then tighten point 4 on right side and finally tightens bolts with installing tools according to set torque value.

Tightening torque: 23 ± 2 N·m



Removal and Installation of Side Curtain Shield Airbag (CAB)

Removal

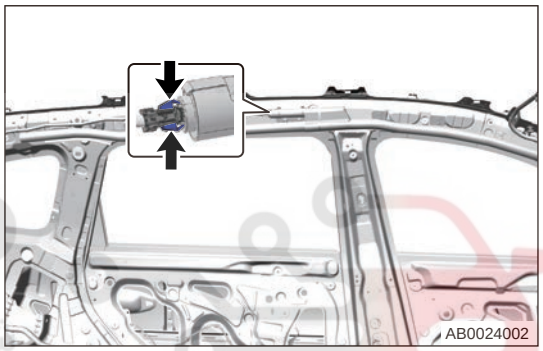
Hint:

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

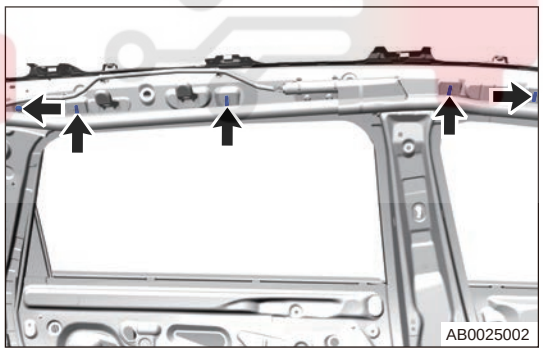
⚠ Caution

- Be sure to wear safety equipment to prevent accidents, when removing.
- Handle side curtain shield airbag assembly carefully, and never tap or strike it fiercely.
- Removal, inspection and installation of side curtain shield airbag must meet relevant requirements and specifications, and never perform operation casually.
- Removed side curtain shield airbag should be kept properly with face up. Store the side curtain shield airbag in a place with enough spare space to prevent accidental airbag deployment.

1. Turn off all electrical equipment and the ignition switch.
2. Wait at least 90 seconds after disconnecting the negative battery cable to disable supplementary restraint system.
3. Remove protector and roof.
4. Remove the seat belt retractor.
5. Remove the right curtain shield airbag.
   a. Unplug the curtain shield airbag connector (arrow).

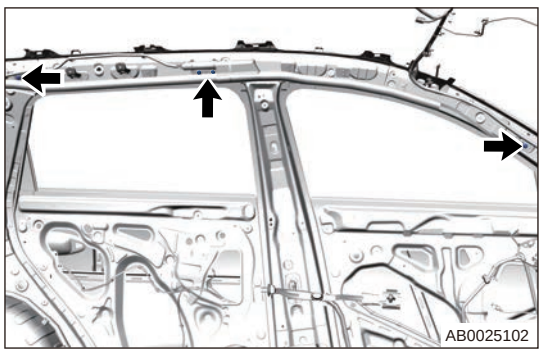


   b. Use needle nose pliers to remove the airbag clips (-arrow) that fix CAB in turn.



   c. Remove 4 fixing bolts (arrow) from metal end plate of A-pillar airbag strap.

      Tightening torque: 10 ± 1 N · m

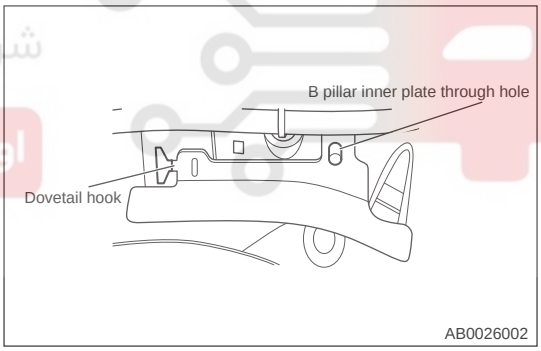


Installation

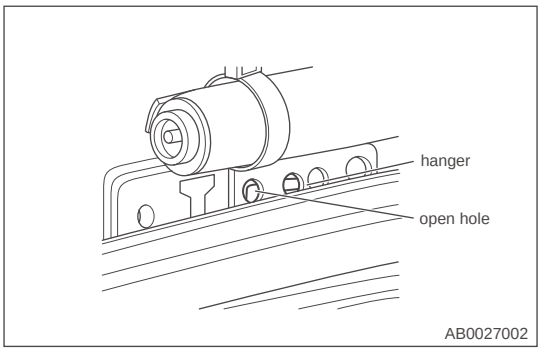
Hint:

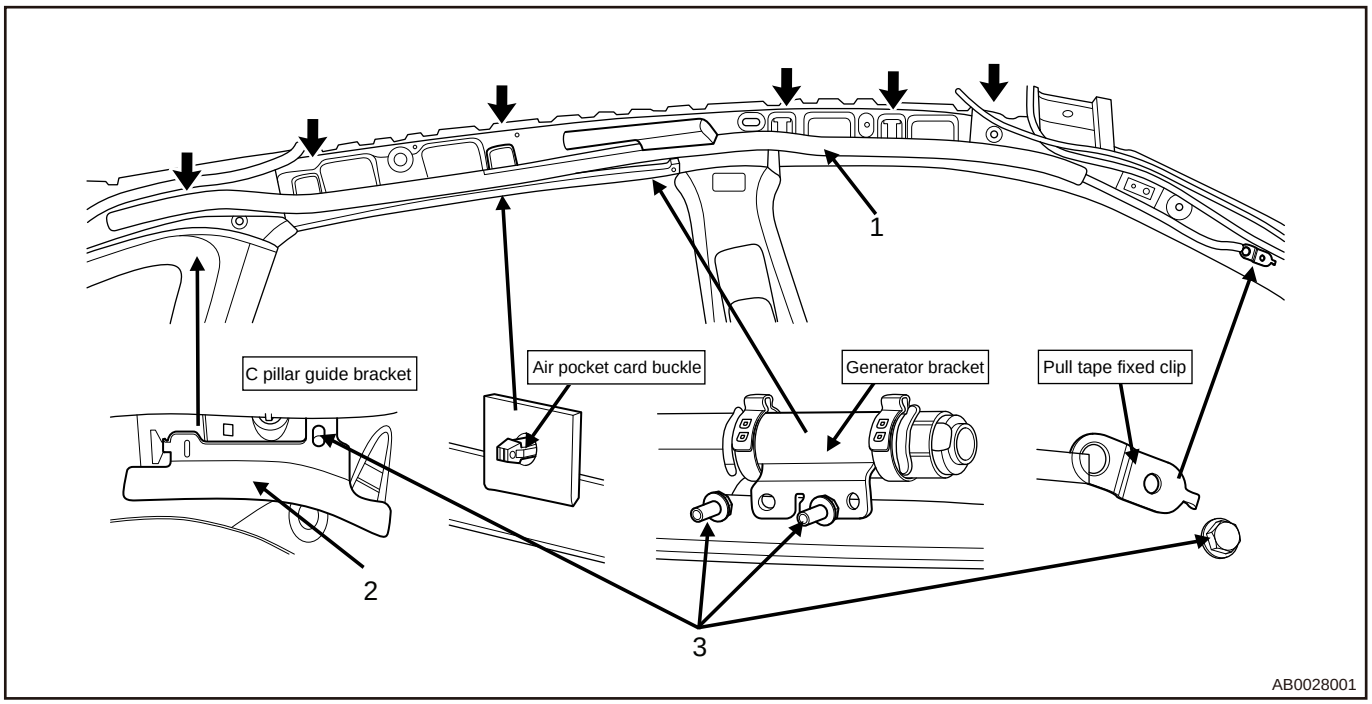
- It is essential to check if protecting bag stitching of air bag is in lower part of air bag during assembly.
- Air bag on each armrest installation bracket should be in lower part of armrest bracket. If air bag covers armrest installation bracket, it's necessary to adjust air bag to lower part of the bracket with hands.
- Always keep vehicle power off during installation. It is forbidden to install the airbag controller assembly with vehicle power on.
- Always keep vehicle power off during installation. It is forbidden to install the airbag controller assembly with vehicle power on.
- Air bag on C pillar guide bracket should be in upper part of guide bracket. After assembling air bag clip, it's necessary to adjust air bag to upper part of C pillar guide bracket with hands.
- During assembly, insert locating pin of the sensor into waist-shaped locating hole.
- Check that airbag components surface should be free of damages before assembly and labels and bar codes should be intact and clear; it's also necessary to check that CAB installation area on vehicle body should be free of rags, sharp corners, welding spatters etc.
- Be sure to follow correct procedures to remove and install side curtain shield airbag.
- Check that airbag components surface should be free of damages before assembly and labels and bar codes should be intact and clear; it's also necessary to check that CAB installation area on vehicle body should be free of rags, sharp corners, welding spatters etc.; peel off one bar code after the checking and attach it to record card in vehicle.

- Temporary install C pillar guide bracket to vehicle body with hooks (hang swallow tail hook into vehicle body swallow tail groove and then hang the hook beside bolt hole into vehicle body hole) and then tighten it to vehicle body with bolt through bolt hole.



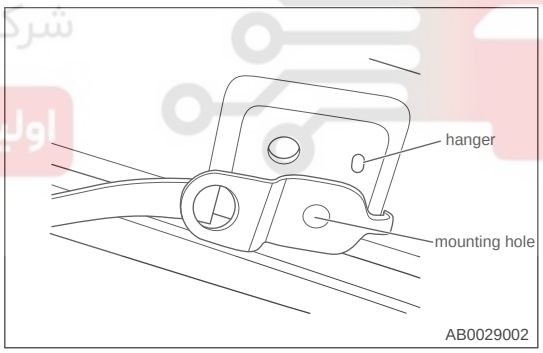
- Hang the hook on CAB generator bracket into vehicle body swallow tail groove and then press clip into the corresponding installation hole in vehicle body; lightly hold the air bag with one hand and use tools to pre-tighten round hole and then waist-shaped hole on CAB generator bracket with the other hand and finally tighten the bolt to vehicle body according to torque requirements.

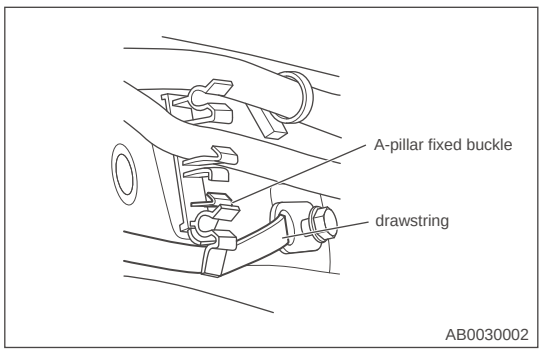




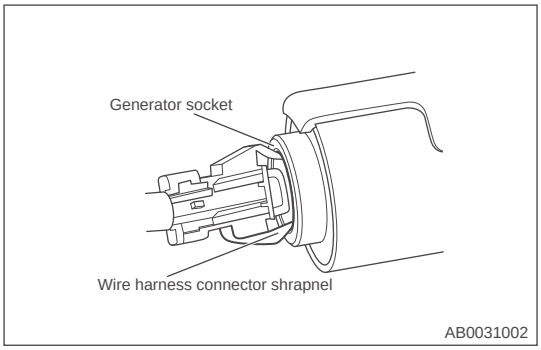
- Press 6 air bag clips (equipped with the generator) on front and rear part of generator into the corresponding installation holes in vehicle body in sequence; protecting bag stitching of air bag must be in lower part of air bag during assembly, the last 6# clip hole in vehicle body is on C pillar metal, it's necessary to perform the installation strictly as indicated in illustration and it's forbidden to clip into peripheral hole forcibly; Check if all clips are firmly secured by pulling lightly. (See illustration above)

- First hang the hook on strip fixing end plate into hook hole in vehicle body and now strip should operate normally and then tighten the bolt to vehicle body; then clip strip into A pillar fixing clip.

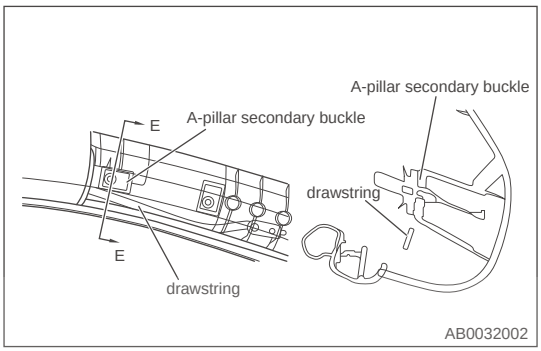




- Insert the connector on wire harness end into generator end and make sure that the connector is assembled into place. Insert wire harness end connector directly into generator end and a "click" sound indicates that it is installed in place; the port has failure-proof function and do not insert it forcibly.



- When assembling A pillar protector, perform fine adjustment of strip with hand. After controlling strip under A pillar secondary clip, fix A pillar protector according to assembly instruction manual of pillar protector system.

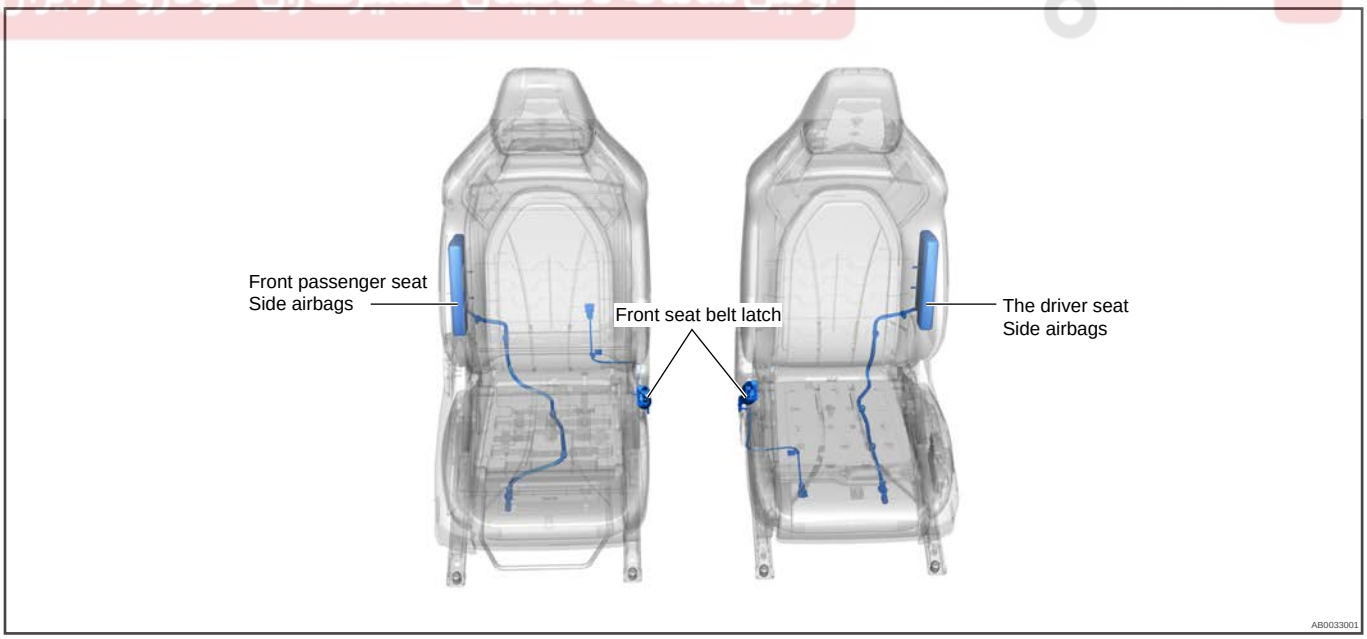


1. Installation is in the reverse order of removal.

Front Seat Side Airbag

Description

Installation positions of front passenger side airbag, front passenger seat belt buckle and front passenger detection device.



⚠ Caution

- Airbag resistance on seat: 2.0 + 0.5 / -0.3Ω, it’ s strictly forbidden to measure resistance with multimeter.
- Front passenger side airbag is non-removable and must be removed together with seat assembly.
- Passenger loading status: When detected external resistance is lower than 100 Ω, it’ s judged that there is passenger. When resistance is higher than 400 Ω, it’ s judged that there is no passenger.

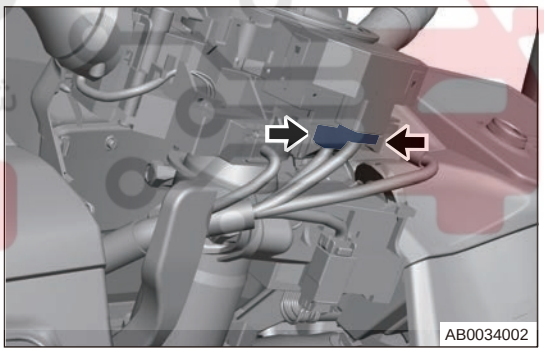
Spiral Cable

Removal

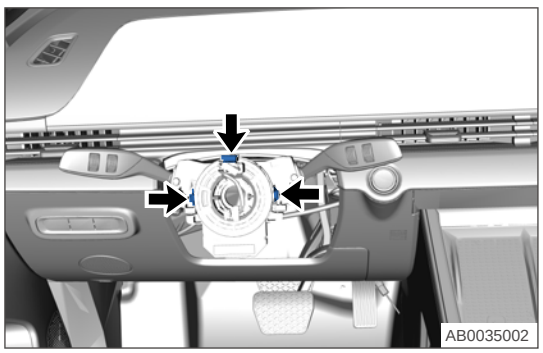
Hint:

- Wait at least 90 seconds after disconnecting the negative battery cable to disable supplementary restraint system.

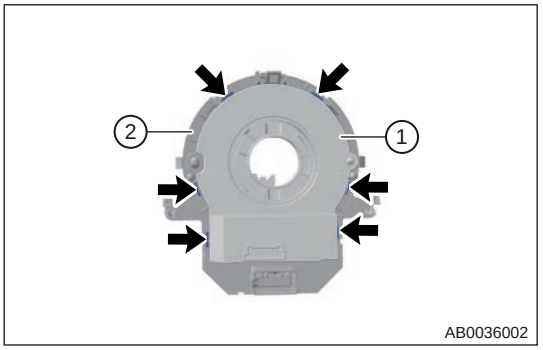
1. Turn off all electrical equipment and the ignition switch.
2. Disconnect the negative battery cable.
3. Position the front wheels straight ahead.
4. Remove the steering wheel assembly.
5. Remove the combination switch cover assembly.
6. Remove the spiral cable.
   a. Disconnect the spiral cable wire harness connector (- arrow) and angle sensor connector (arrow).



   b. Detach the fixing claws (arrow) between spiral cable and combination switch assembly.



c. Detach the angle sensor fixing claws and separate the angle sensor (1) and spiral cable (2).



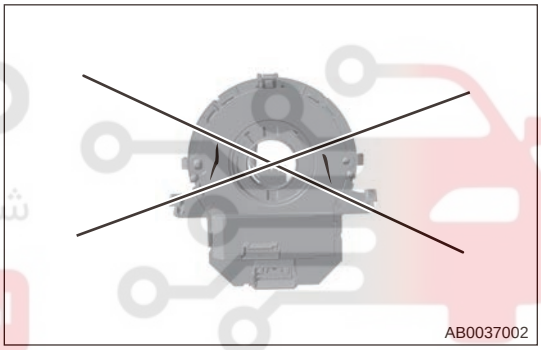
Inspection

Hint:

- An activation prevention mechanism is built in airbag system connector. When connector is disconnected, this mechanism cuts off circuit by bringing short spring plate into contact with terminals, thus insulating the circuit from external power sources to prevent accidental airbag activation.
- To release activation prevention mechanism, insert a piece of paper with the same thickness as male terminal between terminals and short spring plate to disconnect the connection.

1. Check the spiral cable.

a. Check that there are no scratches or cracks on connectors, or no cracks, dents or chipping on the cable.



b. If there are scratches, cracks, dents or cuts on connectors or spiral cable, replace the spiral cable with a new one.

2. Remove spiral cable and measure pin 1 and pin 2

Use circuit diagram as a guide to perform the following inspection procedures:

a. Turn ENGINE START STOP switch to “OFF”, disconnect the negative battery cable and wait for at least 90 seconds.

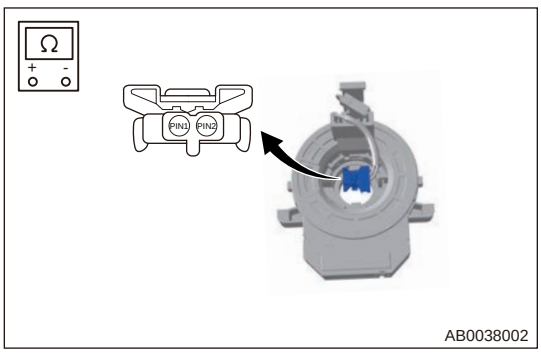
b. Remove the single piece of spiral cable.

c. Using ohm band of multimeter, measure resistance between 2 pins of spiral cable.

Specified Condition

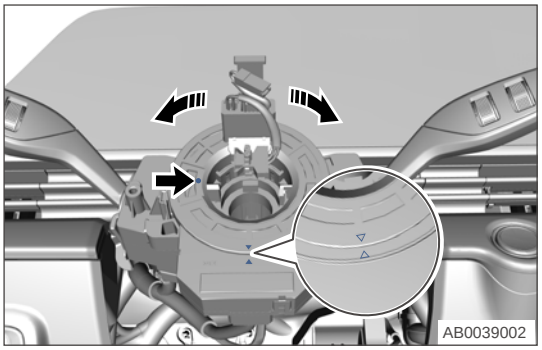
Multimeter Connection	Condition	Specified Condition
PIN1 - PIN2	ENGINE START STOP switch “OFF”	⩽ 1 Ω

If result is not as specified, replace spiral cable assembly.



Installation

Hint:
Always install spiral cable correctly according to matchmarks on spiral cable and steering column (fully turn spiral cable in a direction slowly, then turn it in the opposite direction until yellow ball appears in transparent neutral window and arrow marks align with each other), otherwise the spiral cable may be damaged.



⚠ Caution

- Always install spiral cable correctly according to specified operating instructions.
- DO NOT rotate the spiral cable over specified turns to prevent it from breaking.
- Be sure to install fixing claws in place when installing spiral cable.
- Check that horn operates normally after installation.
- Check ACU warning light after installation, and make sure that supplemental restraint system operates normally.

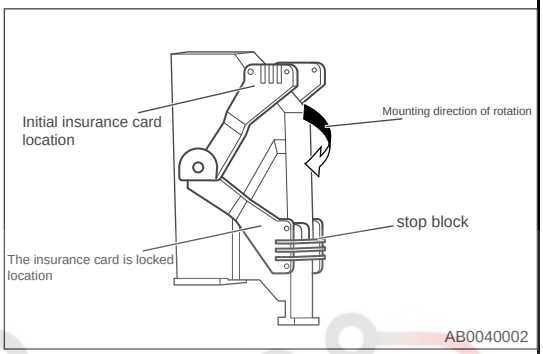
1. Installation is in the reverse order of removal.

Airbag System Controller

Removal

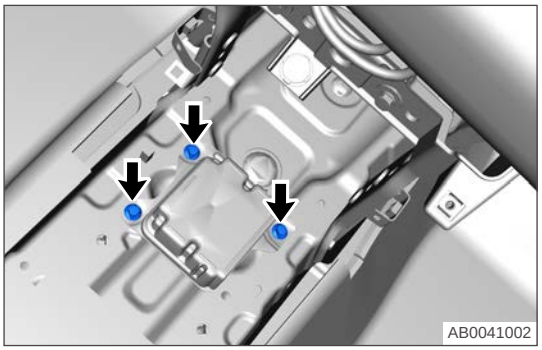
⚠ Caution

- Be sure to follow correct procedures to remove and install airbag system controller.
- Inspect and confirm that part number in ACU label matches with configuration card part number in vehicle; parts surface should be free of chips and labels and bar codes should be intact and clear before assembly; Peel off one bar code after inspection and attach it to record card in vehicle;
- Place ACU module on passage bottom panel in body with arrow direction in label facing vehicle head while aligning 3 installation holes of ACU with vehicle body projection welding nut hole. Pre-tighten the bolts and tighten 3 bolts to specified torque with a tool;
- Insert wire harness connector into ACU port: Rotate fuse clip from initial position to final lock position following installation rotation direction and make sure that fuse clip goes over stop block. Generally a “click” sound will be heard, which indicates that fuse clip has been clamped into place. Make sure that fuse clip is in initial position before installation. ACU port has failure-proof function, which causes impossible inserting with incorrect configuration, so never assemble it forcibly.

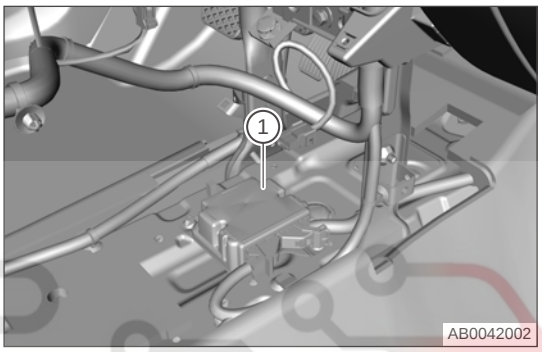


- Peel off the entire bar code and attach it to record card in vehicle for relevant information tracing.
- ACU ignition circuits are divided into 2 circuits and 4 circuits separately and first confirm the vehicle configuration information during installation.
- Handle ACU carefully and it’s strictly forbidden to tap and crash it fiercely.
- There should be no other objects between ACU installation plane and ACU and ACU must be installed directly on body panel.
- When installing and tightening bolts of ACU, make sure that start button is in OFF and it’s forbidden to install it with power on.
- Reconfirm the installation direction of airbag controller assembly after installation and make sure that label arrow direction is facing vehicle head. If fitted reversely, airbag controller assembly will not operate normally.

1. Turn off all electrical equipment and ENGINE START STOP switch.
2. Disconnect the negative battery cable and wait for 90 seconds.
3. Remove the auxiliary fascia console assembly.
4. Remove the airbag controller assembly.
   a. Remove 3 fixing bolts (arrow) from airbag controller.
      Tightening torque: 9 ± 1 N · m



   b. Press lower limit clamp to separate it from wire harness connector and remove airbag controller assembly (1).



Installation

Hint:

- Before installing tightening bolts, always make sure that airbag wire harness is not held down or stuck. Adjust if necessary and install it in place.
- Make sure to tighten fixing bolts to specified torque during installation.
- Always keep vehicle power off during installation. It is forbidden to install the airbag controller assembly with vehicle power on.
- Check ACU warning light after installation, and make sure that supplemental restraint system operates normally.

1. Installation is in the reverse order of removal.

Removal and Installation of Side Collision Sensor

Removal

Hint:

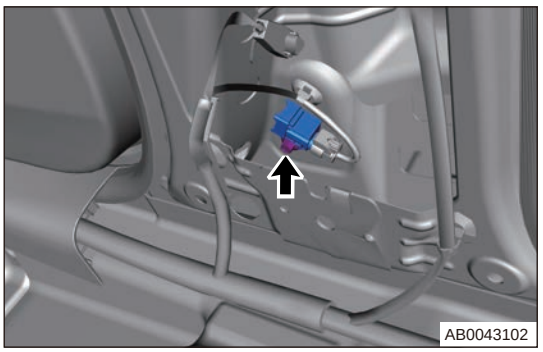
- Use same procedures for right and left sides.
- Procedures listed below are for left side.

⚠ Caution
• Be sure to wear necessary safety equipment to prevent accidents, when removing rear right seat belt buckle assembly. • Try to prevent interior from being scratched, when removing rear right seat belt buckle assembly.

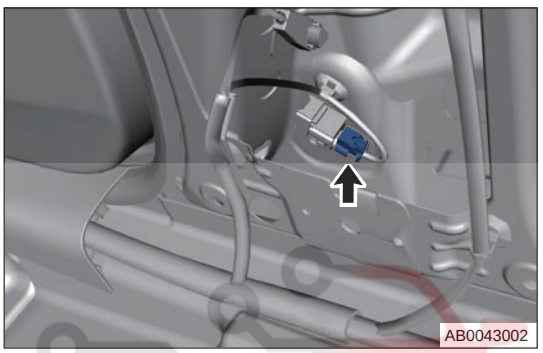
1. Turn off all electrical equipment and the ignition switch.
2. Disconnect the negative battery cable and wait for 90 seconds.

3. Remove front right doorsill pressure plate, rear right doorsill pressure plate and right B-pillar lower protector.
4. Remove the seat belt retractor.
5. Remove the side collision sensor.
   a. Loosen and remove fixing bolts (arrow).

   Tightening torque: 9 ± 1 N·m



   b. Unplug connector (arrow) and remove sensor assembly.

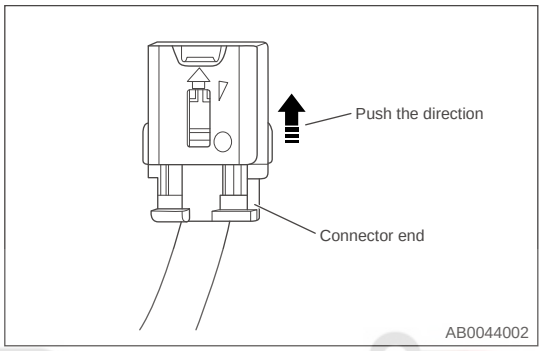


Installation

Hint:

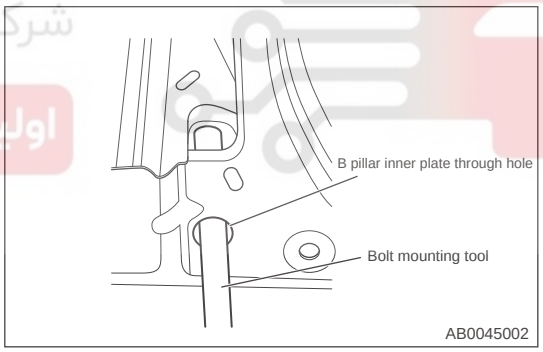
- Before installing tightening bolts, always make sure that airbag wire harness is not held down or stuck. Adjust if necessary and install it in place.
- Make sure to tighten fixing bolts to specified torque during installation.
- Always keep vehicle power off during installation. It is forbidden to install the airbag controller assembly with vehicle power on.
- Check ACU warning light after installation, and make sure that supplemental restraint system operates normally.
- During assembly, insert locating pin of the sensor into waist-shaped locating hole.
- Be sure to follow correct procedures to remove and install side collision sensor.

- Insert wire harness connector into side collision sensor port and generally a “click” sound will be heard after pushing into connector end to lock, which indicates that it is clamped into place; connector port has failure-proof function. If it cannot be inserted, adjust and insert it again and do not insert it forcibly.



- Install SIS waist-shaped pin into waist-shaped hole of B pillar reinforcing plate and bolt installation hole of SIS and bolt installation hole on B pillar reinforcing plate are aligned basically.

- Pass bolt installation tool through B pillar inner plate through hole and tighten SIS to B pillar reinforcing plate metal sheet according to torque requirements with bolt.



1. Installation is in the reverse order of removal.

SEAT BELT

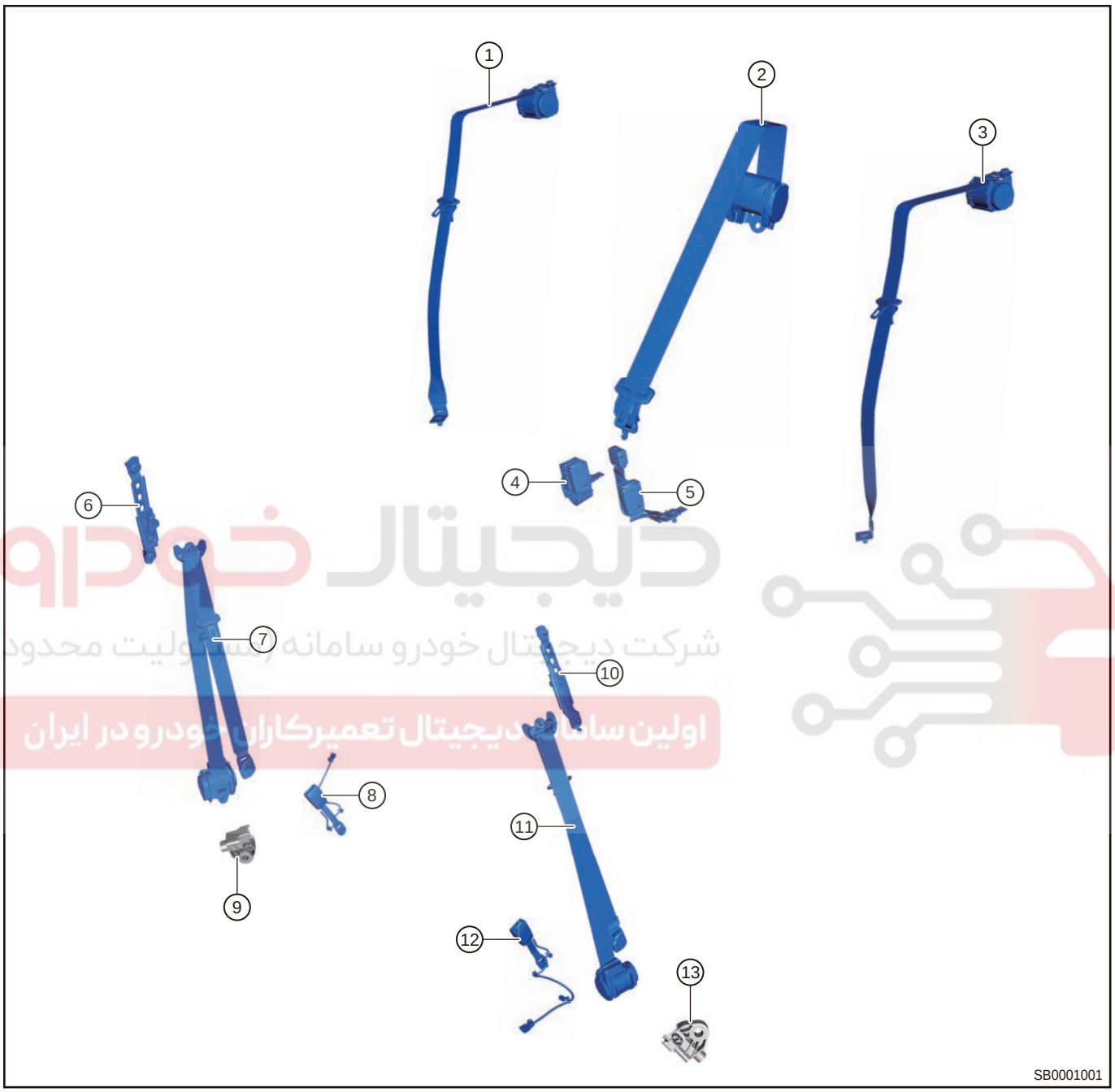
Warnings and Precautions

Precautions

1. Be sure to perform assembly of vehicle in accordance with BOM strictly. It is not allowed to replace the parts assembly without permission;
2. During assembly of vehicle, tighten parts with specified torque in list strictly;
3. It is not allowed to replace the components of parts assembly without permission, such as bolt, washer etc;
4. If the parts assembly is accidentally dropped during handling and installation, please check the plastic parts of parts assembly (such as retractor) for cracks. If there is crack, insulate and dispose it after packaging and marking to prevent accidental injury;
5. It is necessary to check whether the seat belt is in good condition before installing it; Pull the webbing and lock the buckle after assembling to ensure that the webbing can be extended and retracted smoothly, the buckle can be locked and unlocked normally. Make sure that there are no objects (such as tools, etc) can scratch the webbing during assembly of seat belt;
6. During overturn inspection of rear seat, never insert locking tab of rear center seat belt into big buckle;
7. Never check the retracted function of the rear center seat belt when small buckle (rear seat small buckle lock assembly) is unlocked.

System Overview

System Components Diagram

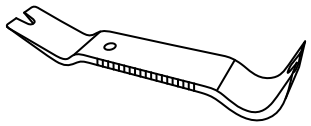


1	Rear Right Seat Belt Assembly	8	Front Right Seat Belt Buckle
2	Rear Center Seat Belt Assembly	9	Right Side Collision Sensor
3	Rear Left Seat Belt Assembly	10	Left Height Adjuster Assembly
4	Double Buckle Lock Assembly	11	Front Left Seat Belt Assembly
5	Rear Left Seat Belt Buckle	12	Front Left Seat Belt Buckle

6	Right Height Adjuster Assembly	13	Left Side Collision Sensor
7	Front Right Seat Belt Assembly		

On-vehicle Service

Tools

Tool Name	Tool Drawing
Interior Crow Plate	 RCH002506

Replacement of Front Left Seat Belt Assembly

Removal

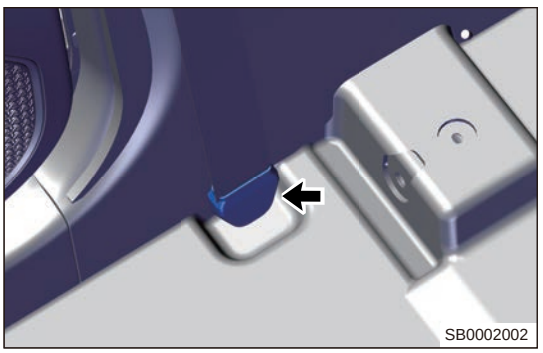
Hint:

- 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 seat belt assembly.
- Appropriate force should be applied when removing front seat belt assembly. Be careful not to operate roughly.
- DO NOT scratch interior when removing front seat belt assembly.

1. Turn off all electrical equipment and ENGINE START STOP switch.
2. Disconnect the negative battery cable.
3. Remove the front doorsill pressure plate assembly.
4. Remove the front left door opening weatherstrip.
5. Remove the left doorsill pressure plate assembly.
6. Remove the rear left door opening weatherstrip.
7. Remove the front left seat belt assembly.
   a. Using special tool, pry off left B-pillar protector seat belt lower bolt cover (arrow).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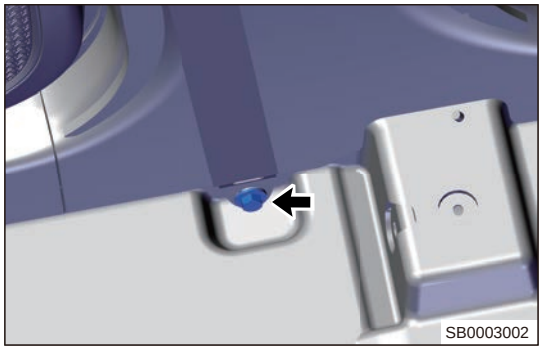
b. Remove the front seat belt assembly lower fixing bolt (arrow).

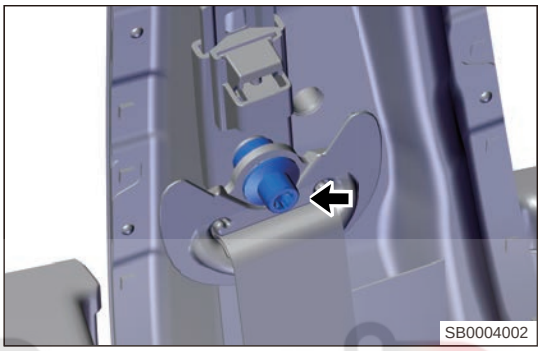


c. Remove the left B-pillar lower protector.

d. Remove the left B-pillar upper protector.

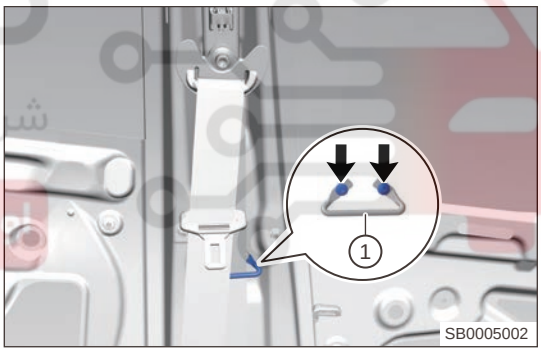
e. Remover 1 fixing bolt (arrow) from upper part of front seat belt assembly.

Tightening torque: 50 ± 5N·m



f. Remove 2 fixing screws (arrow) from fork bracket.

Tightening torque: 2.5 ± 0.5N·m

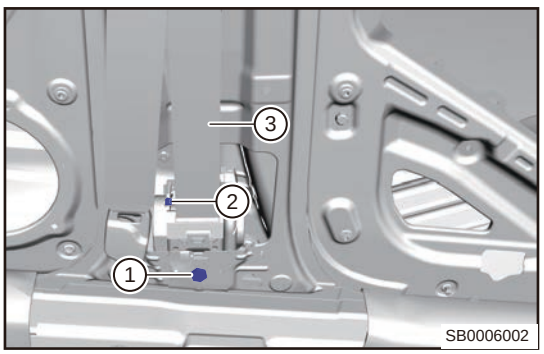


g. Remove fixing bolt (1) from tensioner assembly.

Tightening torque: 50 ± 5N·m

h. Remove fixing bolt (2) from tensioner assembly.

i. Remove the front left seat belt assembly (3).



Installation

⚠ Caution

- If the connector wire harness is too long or interferes with the webbing, it is necessary to insert the wire harness into B-pillar to increase the gap between wire harness and webbing.

Warning

- When connecting gas generator connector, if the pin inside of gas generator is deflective, please pack it properly and dispose it.

1. Installation is in the reverse order of removal.

Rear Seat Belt Assembly

Removal

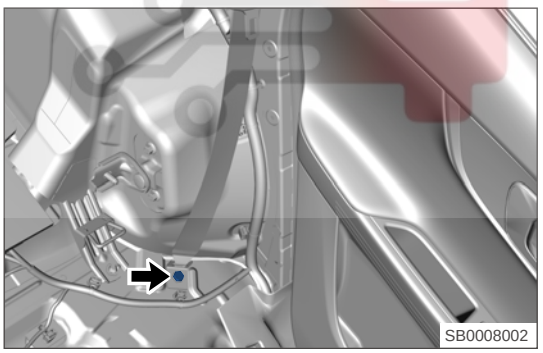
Hint:

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

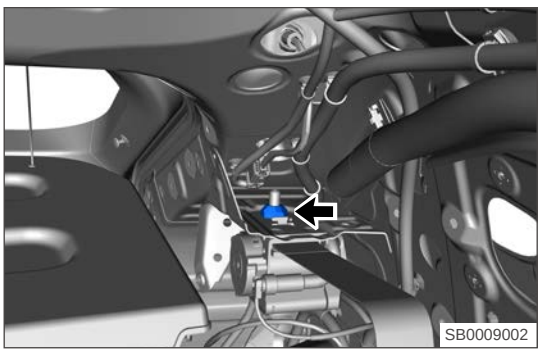
Caution

- Be sure to wear safety equipment to prevent accidents, when removing rear seat belt assembly.
- Appropriate force should be applied, when removing the rear seat belt assembly. Be careful not to operate roughly.
- Try to prevent interior from being scratched, when removing rear seat belt assembly.

1. Turn off all electrical equipment and the ignition switch.
2. Disconnect the negative battery cable.
3. Remove the rear seat belt assembly.
   a. Remove the rear seat belt lower end plate protective cover
   b. Remove the rear seat belt lower fixing bolt (arrow).



   c. Remove the C-pillar upper and lower protector assembly.
   d. Remove 1 fixing bolt (arrow) from retractor assembly and remove T-type hook of retractor assembly from mounting board.



   e. Remove the rear left seat belt assembly.

Installation

⚠ Caution

- Keep seat belt assembly clean without oil attached and check seat belt assembly for damage, when installing rear seat belt assembly.
- Be sure to tighten all fixing bolts and fixing screws according to specified torque, when installing rear seat belt assembly.
- Be sure to perform assembly of vehicle in accordance with BOM strictly. It is not allowed to replace the parts assembly without permission.
- During assembly of vehicle, tighten parts with specified torque in list strictly.
- It is not allowed to replace the components of parts assembly without permission, such as bolt, washer etc.
- If the parts assembly is accidentally dropped during handling and installation, please check the plastic parts of parts assembly (such as retractor) for cracks. If there is crack, insulate and dispose it after packaging and marking to prevent accidental injury.
- It is necessary to check whether the seat belt is in good condition before installing it; Pull the webbing and lock the buckle after assembling to ensure that the webbing can be extended and retracted smoothly, the buckle can be locked and unlocked normally. Make sure that there are no objects (such as tools, etc.) can scratch the webbing during assembly of seat belt.

1. Install the rear seat belt assembly.
   a. Install the rear seat belt upper end plate bolt (arrow).
      Tightening torque: 50 ± 5N·m
   b. Insert the seat belt pretensioner connector of interior wire harness into the gas generator connector of retractor and press the lock button, ensure that the connector is connected properly and clamped in place (connecting angle is 45).
   c. Install the T-type hook of retractor to the retractor mounting board slot of C-pillar sheet metal, then install and tighten the retractor fixing bolt.
      Tightening torque: 50 ± 5N·m
   d. Install C-pillar lower protector assembly, and pass the locking tab and webbing through the hole of C-pillar lower protector.

e. Install and tighten 1 fixing bolt of rear left seat belt assembly lower end plate.

Tightening torque: 50 ± 5N·m

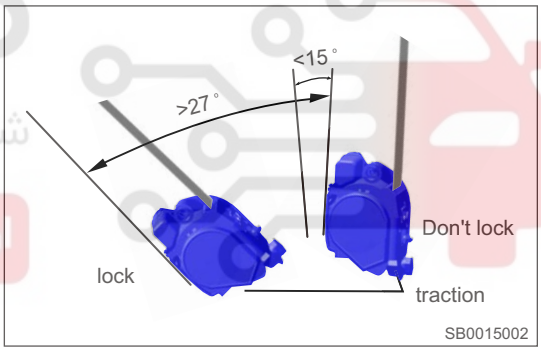
Hint:

- The webbing between lower end plate and retractor should be smooth without any breakage and twist.
- If the rear left seat belt assembly is limiting type belt with pretensioner, the resistance value is 2.15 ± 0.35 Ω, it' s strictly forbidden to measure resistance with multimeter.
- If the webbings on both sides of rear seat cannot be pulled out, it is necessary to make a preliminary judgment on the seat belt. If the seat belt is locked due to the sensitivity function of seat belt.
- Judgment method: Slowly contract the webbing for 10-15 mm, and then pull out it slowly. If the seat belt can be pulled out normally and there are no other problems, the seat belt is normal. If the webbing can not be pulled out, further testing of seat belt is required.

Inspection

Hint:

- DO NOT disassemble the rear seat belt retractor.
- The retractor should be extended and retracted freely within 15° to each side. When the angle is more than 15° or less than 27°, either locking or unlocking is OK, but when the angle is more than 27°, it must be locked.
- If result is not as specified, replace rear seat belt assembly.



Rear Center Seat Belt Assembly

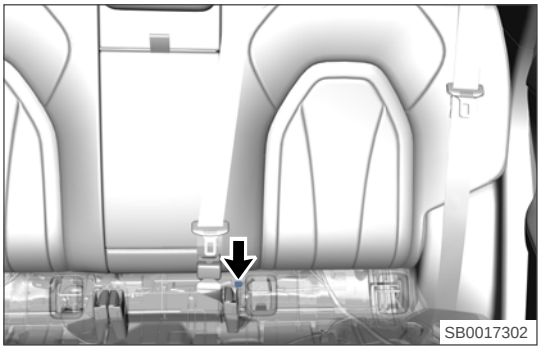
Removal

⚠ Caution

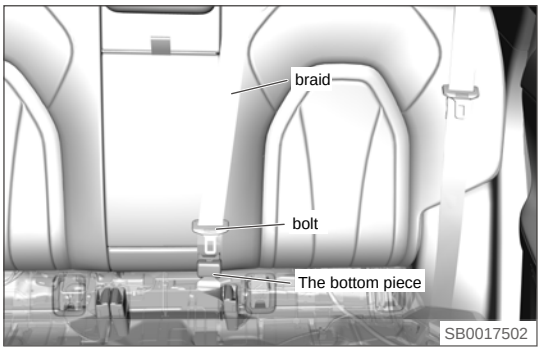
- Be sure to wear safety equipment to prevent accidents, when removing rear seat belt assembly.
- Appropriate force should be applied, when removing the rear seat belt assembly. Be careful not to operate roughly.
- Try to prevent interior from being scratched, when removing rear seat belt assembly.

1. Turn off all electrical equipment and the ignition switch.
2. Disconnect the negative battery cable.
3. Remove the rear seat.
4. Remove the center seat belt assembly.

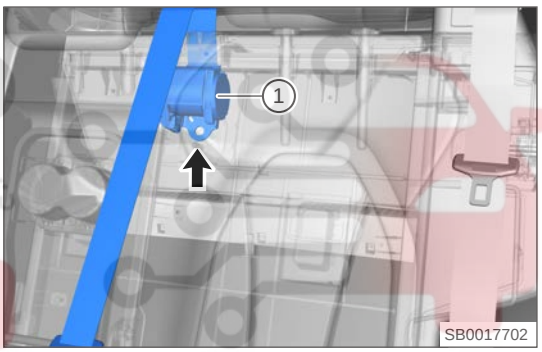
a. Remove the center seat belt installation bolt (arrow).



b. Insert the webbing, locking tab and lower end plate of the center seat belt assembly.



c. Remove bolt (arrow) between retractor and seat frame, and take retractor (1) out of limit hook of seat frame and move it away.



Installation

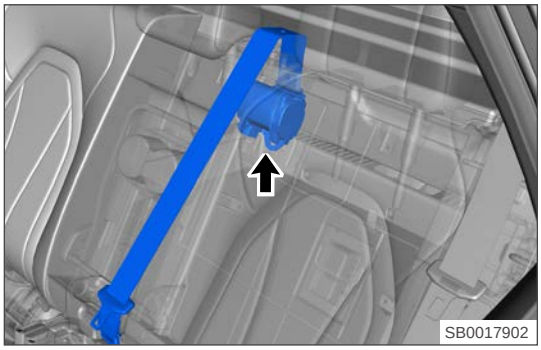
⚠ Caution

- Pass the webbing, locking tab and lower end plate through the seat frame hole and prevent scratches.
- The above assembling operation should be carried out in seat factory. The bar code on second row center seat belt assembly should be peeled off after installing the second row left seat and attach it to the corresponding position on vehicle.
- The seat factory should test the above installation torque by a ratio of 100%.

1. Install the second row center seat belt assembly.

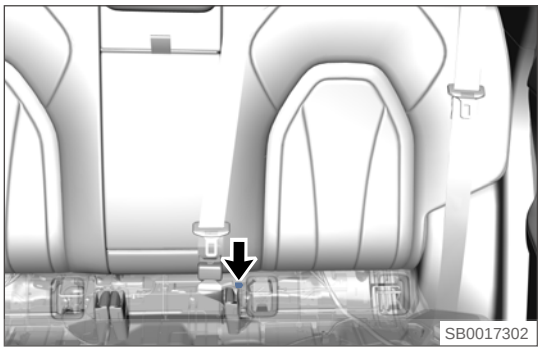
a. First take out the second row center seat belt assembly that is in good condition, hook the retractor mounting hole onto the seat frame mounting bolt, and align the retractor limit hook with seat frame limit hook, then pre-tighten the mounting nut (arrow) and tighten it (supplied by the seat supplier).

Tightening torque: 50 ± 5 N·m



b. After above procedures are completed, pass the webbing, locking tab and lower end plate of second row center seat belt assembly through the seat hole. Tighten the mounting bolt (arrow) of lower end plate 1 to the bolt frame after passing through the webbing.

Tightening torque: 50 ± 5 N·m



2. Connect the negative battery cable.

Inspection

Hint:

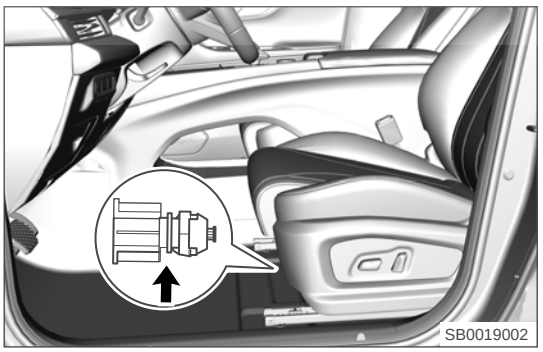
- DO NOT disassemble the rear seat belt retractor.
- Center seat belt is adaptive type and the angle is 45° backward and 35° forward, which is not locked.

Front Seat Belt Buckle Assembly

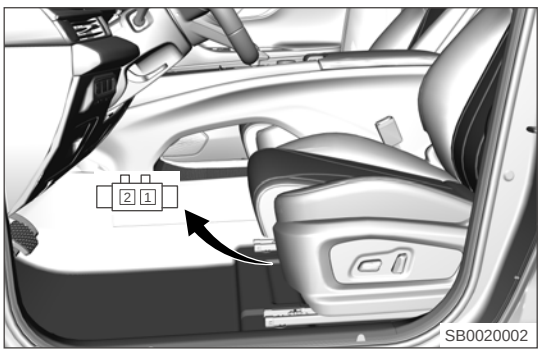
On-vehicle Inspection

1. Inspect the front seat belt buckle assembly.

c. Disconnect the front seat belt buckle connector (arrow).



d. Using a digital multimeter, measure resistance between terminals 1 and 2 of front seat belt buckle assembly connector.
Under normal condition, the measured resistance should be ∞ Ω (no continuity) when front seat belt assembly is fastened; The measured resistance should be less than 1 Ω (continuity) when front seat belt assembly is unfastened.
If result is not as specified, replace front seat belt buckle assembly.



Removal

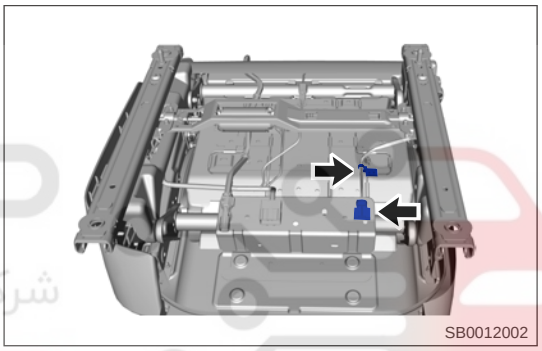
Hint:

- Use same procedures for front passenger seat belt buckle assembly and driver seat belt buckle assembly.
- Procedures listed below are for driver seat belt buckle assembly.

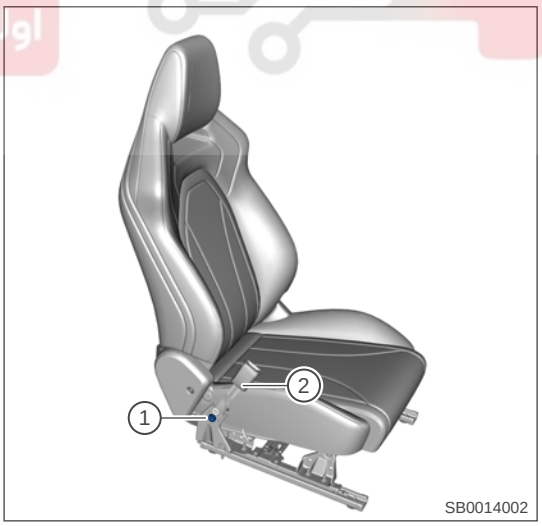
⚠ Caution

- Be sure to wear safety equipment to prevent accidents, when removing front seat belt buckle assembly.
- Try to prevent interior from being scratched, when removing front seat belt buckle assembly.
- Try to prevent wire harness and connector from being damaged, when removing front seat belt buckle assembly.

1. Turn off all electrical equipment and the ignition switch.
2. Disconnect the negative battery cable.
3. Remove the front seat assembly.
4. Remove the driver seat belt buckle assembly.
   a. Disengage the seat belt buckle wire harness connector (arrow) from bottom part of seat.
   b. Disengage the seat belt wire harness clips (arrow) from bottom part of seat.


SB0012002

   c. Remove fixing bolt (1) from seat belt buckle, and remove driver seat belt buckle assembly (2).
      Tightening torque: 50 ± 5N·m



SB0014002

Installation

⚠ Warning

1. Be sure to tighten all fixing bolts according to specified torque, when installing front seat belt buckle assembly.
2. Install connectors in place, when installing front seat belt buckle assembly.

1. Installation is in the reverse order of removal.

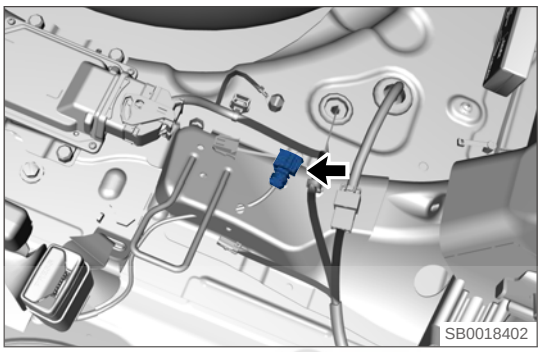
Rear Left Seat Belt Buckle Assembly

Removal

Hint:

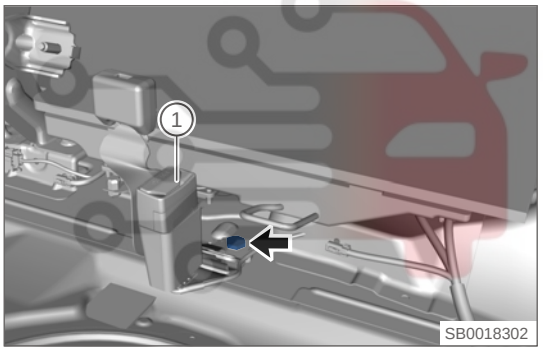
- Be sure to wear safety equipment to prevent accidents, when removing rear left seat belt buckle assembly.
- Try to prevent interior from being scratched, when removing rear left seat belt buckle assembly.

1. Turn off all electrical equipment and the ignition switch.
2. Disconnect the negative battery cable.
3. Remove the rear left seat belt buckle assembly.
   a. Remove connector (arrow) of rear left seat belt buckle assembly on the seat.



   b. Remove mounting bolt (arrow) and rear left seat belt buckle assembly (1).

   Tightening torque: 50 ± 5N·m



Installation

Hint:

- Be sure to tighten the fixing nut to specified torque when installing rear left seat belt buckle assembly.
- The assembly should be carried out in the seat factory and supplied with the seat assembly.
- The seat factory should test the above installation torque by a ratio of 100%.

1. Installation is in the reverse order of removal.

Rear Double-lock Buckle Assembly

Removal

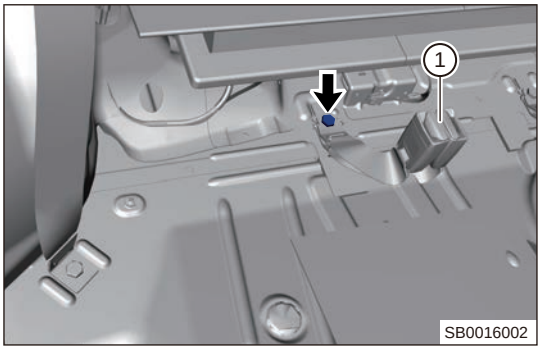
Hint:

- Be sure to wear safety equipment to prevent accidents, when removing rear seat belt buckle assembly.
- Try to prevent interior from being scratched, when removing rear seat belt buckle assembly.

1. Turn off all electrical equipment and the ignition switch.
2. Disconnect the negative battery cable.
3. Remove the rear seat belt buckle assembly.

a. Remove mounting bolt (arrow) and rear seat belt buckle assembly (1).

Tightening torque: 50 ± 5N·m



Installation

Hint:

- Be sure to tighten the fixing nut to specified torque when installing rear left seat belt buckle assembly.
- The assembly should be carried out in the seat factory and supplied with the seat assembly.
- The seat factory should test the above installation torque by a ratio of 100%.

1. Installation is in the reverse order of removal.

Height Adjuster Assembly

Removal

Hint:

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

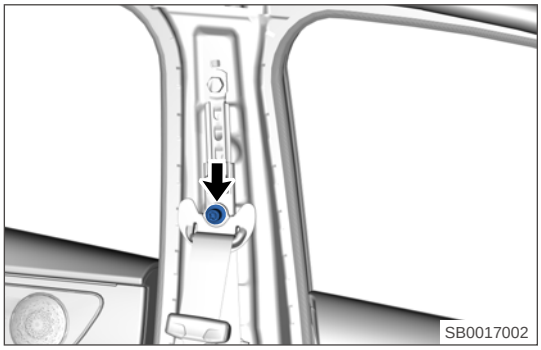
⚠ Caution

- Be sure to wear safety equipment to prevent accidents, when removing height adjuster assembly.
- Appropriate force should be applied, when removing the height adjuster assembly. Be careful not to operate roughly.
- Try to prevent interior from being scratched, when removing height adjuster assembly.
- Take the height adjuster assembly that is in good condition, first align the mounting bolts of height adjuster assembly with the upper and lower mounting nuts at fixing points of height adjuster for body B-pillar respectively and pre-tighten them. After that, the limit hook of height adjuster assembly should be engaged with the body limit hook; Finally tighten the mounting bolts.
- It is necessary to press the unlock button all the time when the height adjuster assembly of T18 seat belt is adjusted up and down. DO NOT push up directly or forcefully or quickly downward to unlock. Adjust the height adjuster to highest position after assembling.

1. Turn off all electrical equipment and the ignition switch.
2. Disconnect the negative battery cable.
3. Remove the left B-pillar lower protector assembly.
4. Remove the left B-pillar upper protector assembly.
5. Remove the height adjuster assembly.

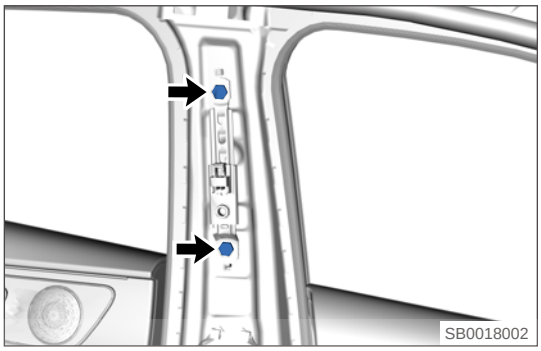
a. Remove the front seat belt assembly upper fixing bolt (arrow).

Tightening torque: 50 ± 5N·m



b. Remove 2 fixing bolts (arrow) from height adjuster assembly.

Tightening torque: 50 ± 5N·m



c. Remove height adjuster assembly from dowel pin.

Installation

Hint:

- Be sure to tighten the fixing bolts to specified torque when installing height adjuster assembly.

1. Installation is in the reverse order of removal.

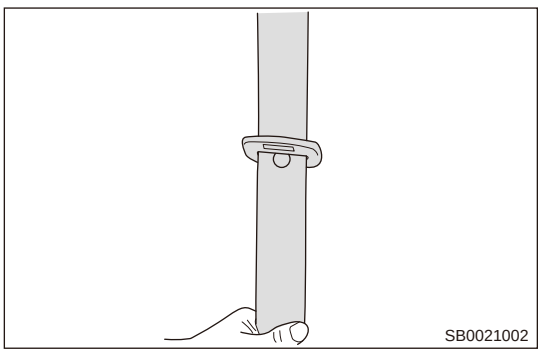
Locking Tab Reversing

Operation Method

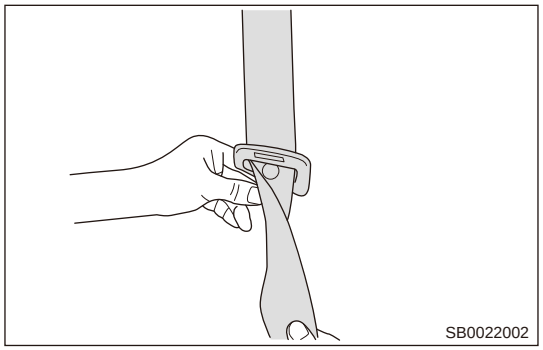
Hint:

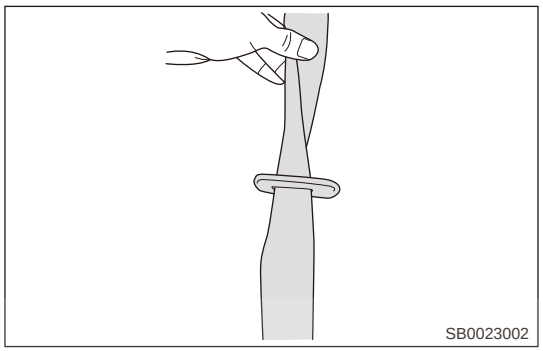
- When the seat belt is recycled, safety webbing contacts with the seat side shoulder, which may cause the safety webbing to be reversed by 180 degrees with the locking tab. When pulling the locking tab (-inside opening clearance is larger than the thickness of webbing) at the next time of usage, the locking tab may be reversed occasionally. In this case, recover it according to the instructions (without removing seat belt), and the webbing is not damaged and without replacing.

1. Figure after the locking tab is reversed.



2. Fold the webbing in any direction and pull it downward forcefully to make the reversed webbing be pulled into the locking tab.





3. Complete the lock tab reversing.