

## PROCEDURE

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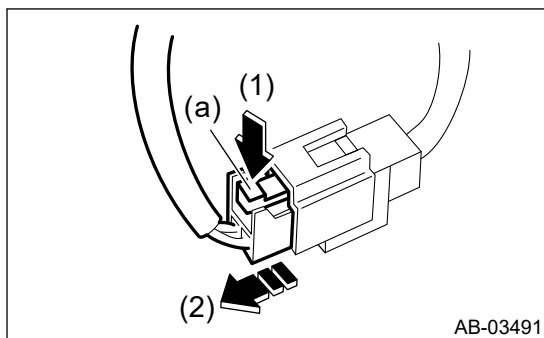
### 1. POWER SUPPLY

**1.** How to disconnect:

**Caution:**

**When pulling the slide lock or disconnecting connector, be sure to hold the connector, not the harness.**

- (1) Push the lock (a).
- (2) While holding down the lock (a), disconnect the connector.

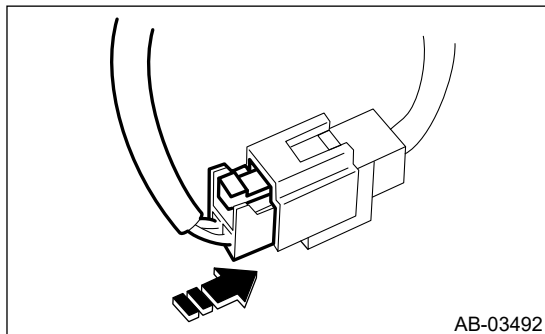


**2.** How to connect:

**Caution:**

**Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.**

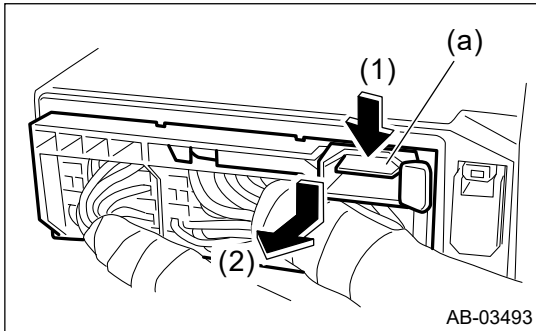
Holding the connector, push it in securely until a clicking sound is heard.



### 2. AIRBAG CONTROL MODULE

**1.** How to disconnect:

- (1) Push the lock lever plate (a).
- (2) While holding down the lock lever plate (a), pull the lever toward you.



2. How to connect:

**Caution:**

**Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.**

Insert the connector and push the lock lever in securely.

### 3. DRIVER'S AIRBAG MODULE (ROLL CONNECTOR)

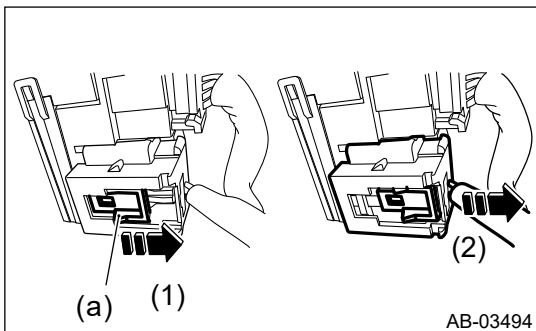
1. How to disconnect:

**Caution:**

**When pulling the slide lock or disconnecting connector, be sure to hold the connector, not the harness.**

(1) Pull the slide lock (a) in the direction of arrow.

(2) With the slide lock pulled, disconnect the connector.

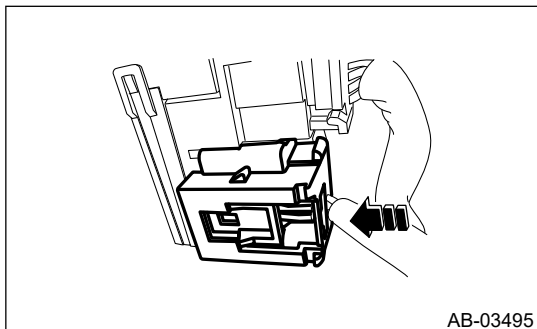


2. How to connect:

**Caution:**

**Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.**

Holding the connector, push it in securely until a clicking sound is heard.



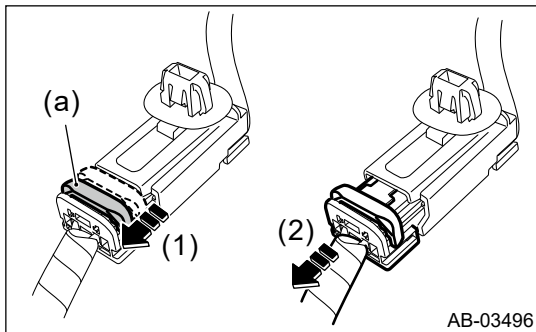
## 4. PASSENGER'S AIRBAG MODULE

### 1. How to disconnect:

#### Caution:

**When pulling the slide lock or disconnecting connector, be sure to hold the connector, not the harness.**

- (1) Pull the slide lock (a) in the direction of arrow.
- (2) With the slide lock pulled, disconnect the connector.

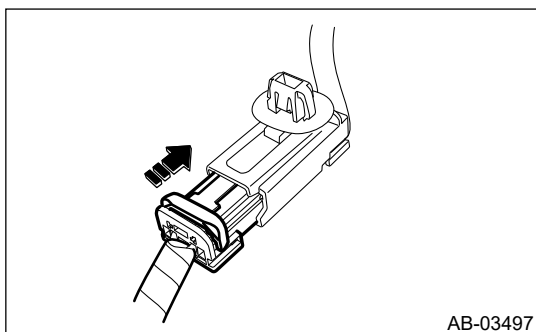


### 2. How to connect:

#### Caution:

**Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.**

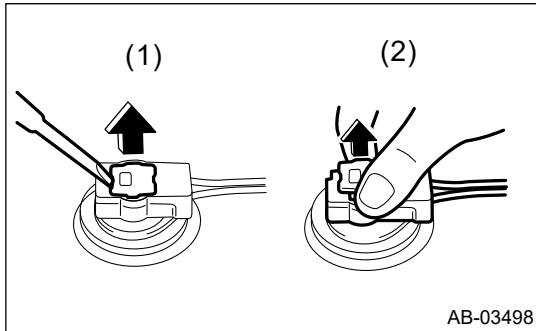
Holding the connector, push it in securely until a clicking sound is heard.



## 5. DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER

### 1. How to disconnect:

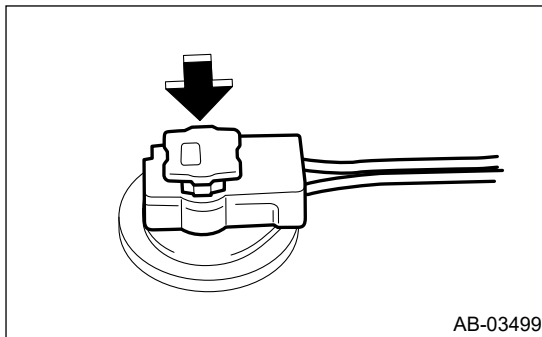
- (1) Using a flat tip screwdriver, pry the push lock upward to unlock.
- (2) Pull the connector to disconnect from the airbag module assembly or the retractor assembly.



**2.** How to connect:

**Caution:**

- **Be sure to insert the connector in until it is locked.**
- **Press in the push lock securely. Then pull it gently to make sure that it is locked.**



Connect the connector in the reverse order of disconnecting. At this time, be sure to insert until a clicking sound is heard.

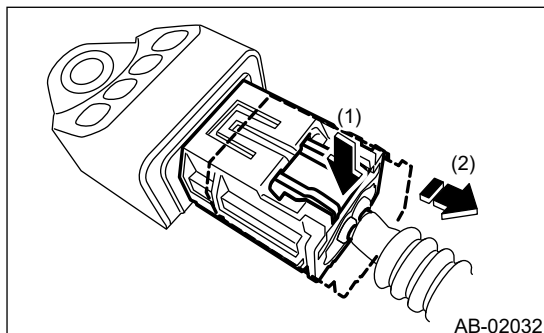
## 6. FRONT SUB SENSOR, FRONT DOOR IMPACT SENSOR AND SATELLITE SAFING SENSOR

**1.** How to disconnect:

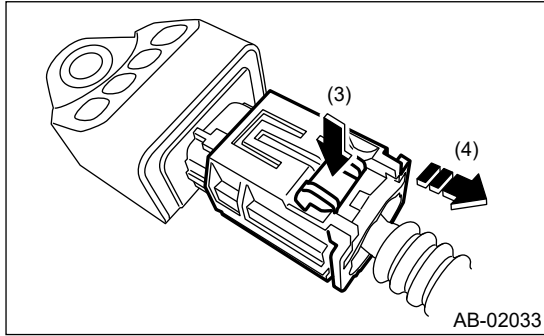
**Caution:**

**When pulling the slide lock or disconnecting connector, be sure to hold the connector, not the harness.**

- (1) Push the lock arm.
- (2) Holding outer part, pull it one step in the direction of arrow.



- (3) Push the lock arm again.
- (4) Holding the outer part, pull it in the direction of arrow to disconnect the connector.

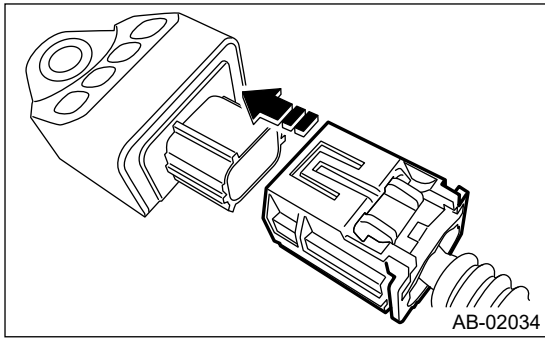


2. How to connect:

**Caution:**

**Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.**

Holding the connector, push it in securely until a clicking sound is heard.



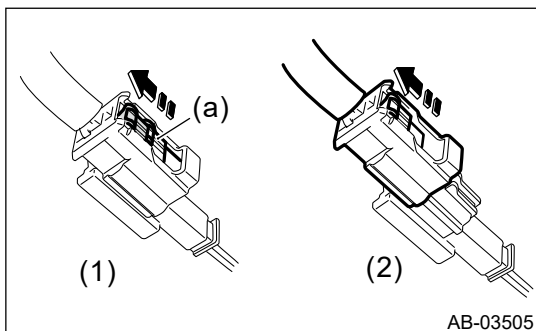
## 7. FRONT DOOR IMPACT SENSOR (BETWEEN AIRBAG REAR HARNESS AND DOOR HARNESS)

1. How to disconnect:

**Caution:**

**When pulling the slide lock or disconnecting connector, be sure to hold the connector, not the harness.**

- (1) Pull the slide lock (a) in the direction of arrow.
- (2) With the slide lock pulled, disconnect the connector.

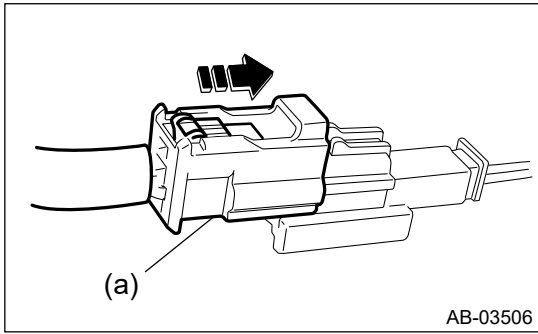


2. How to connect:

**Caution:**

**Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.**

Holding the connector, push it in securely until a clicking sound is heard.



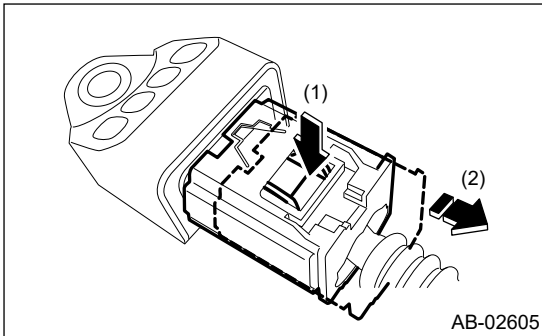
## 8. SIDE AIRBAG SENSOR AND CURTAIN AIRBAG SENSOR

### 1. How to disconnect:

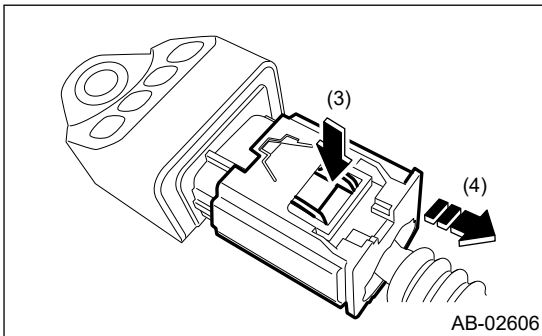
#### Caution:

**When pulling the slide lock or disconnecting connector, be sure to hold the connector, not the harness.**

- (1) Push the lock arm.
- (2) Holding outer part, pull it one step in the direction of arrow.



- (3) Push the lock arm again.
- (4) Holding outer part, pull it in the direction of arrow to disconnect the connector.

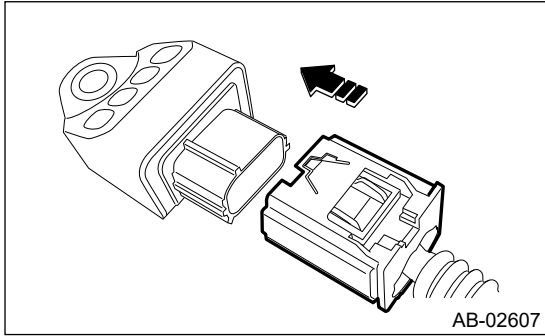


### 2. How to connect:

#### Caution:

**Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.**

Holding the connector, push it in securely until a clicking sound is heard.



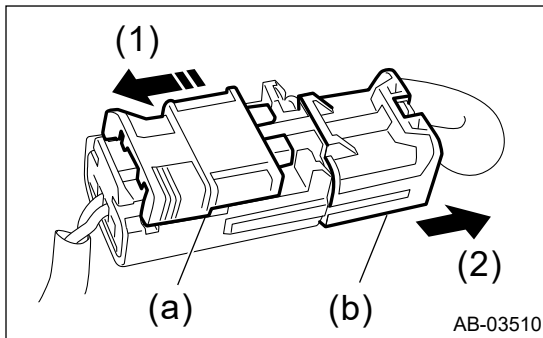
## 9. SIDE AIRBAG MODULE

### 1. How to disconnect:

#### Caution:

**When pulling the slide lock or disconnecting connector, be sure to hold the connector, not the harness.**

- (1) Move the slide lock (a) in the direction of arrow and hold it.
- (2) While holding the slide lock (a), pull the connector (b) in the direction of arrow.

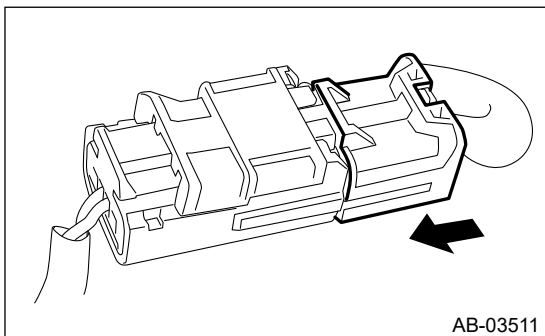


### 2. How to connect:

#### Caution:

**Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.**

Holding the connector, push it in securely until a clicking sound is heard.



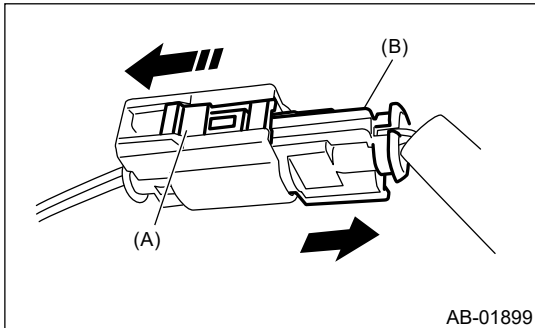
## 10. BUCKLE SWITCH RH

### 1. How to disconnect:

#### Caution:

**When pulling the slide lock or disconnecting connector, be sure to hold the connector, not the harness.**

- (1) Move the slide lock (A) in the direction of arrow and hold it.
- (2) While holding the slide lock (A), pull the connector (B) in the direction of arrow.

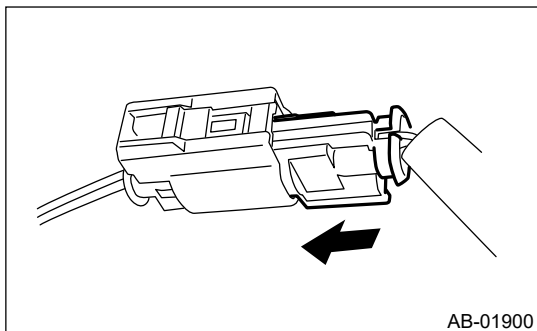


2. How to connect:

**Caution:**

**Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.**

Holding the connector, push it in securely until a clicking sound is heard.



## 11. OCCUPANT DETECTION SYSTEM (BETWEEN AIRBAG REAR HARNESS AND SEAT HARNESS)

Refer to "OCCUPANT DETECTION SYSTEM" section. [Ref. to OCCUPANT DETECTION\(DIAGNOSTICS\)>Airbag Connector>PROCEDURE > OCCUPANT DETECTION SYSTEM \(BETWEEN AIRBAG REAR HARNESS AND SEAT HARNESS\).](#)



## AIRBAG SYSTEM > Airbag Control Module

### INSTALLATION

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#### **Caution:**

**Do not reuse the bolt and nut.**

**Always replace with the specified new bolts and nuts.**


- 1.** Before installation, inspect the following items and replace any faulty part with a new part.
  - Control module is deformed.
  - Control module connector is damaged.
  - Control module mounting bracket is damaged.

- 2.** Install each part in the reverse order of removal.

#### **Tightening torque:**

Airbag control module: 25 N•m (2.55 kgf-m, 18.4 ft-lb)

Console box assembly: 6.5 N•m (0.66 kgf-m, 4.8 ft-lb)

- 3.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### **Note:**


**After connecting the battery sensor terminal, place the select lever in the "P" position.**




## AIRBAG SYSTEM > Airbag Control Module

### REMOVAL

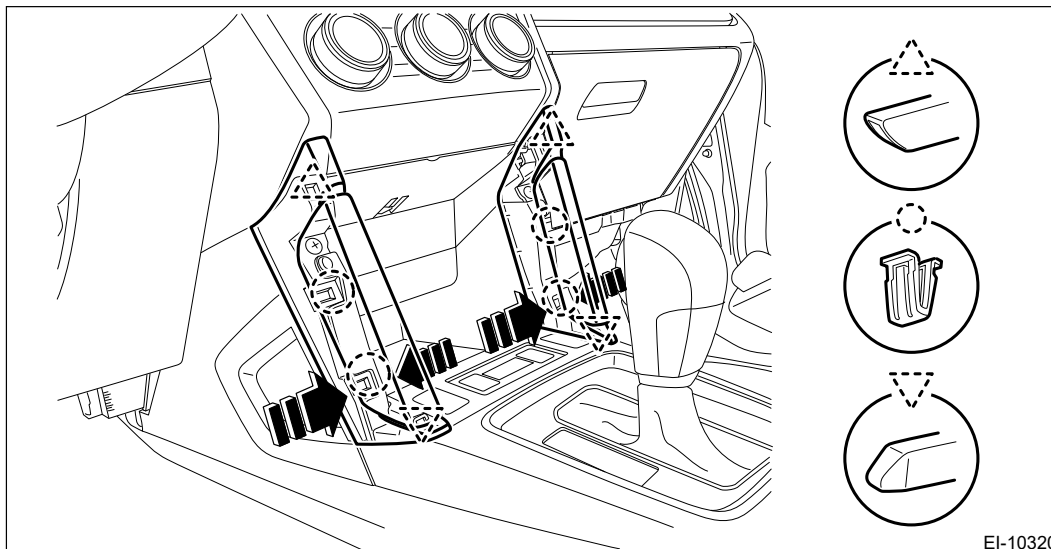
#### Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Do not disassemble the airbag control module.
- If the airbag control module is deformed or if there is any trace of water on the module, replace the airbag control module with a new one.
- Do not drop the airbag control module.
- After removal, keep the airbag control module on a dry, clean surface away from moisture, heat and dust.

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### Note:

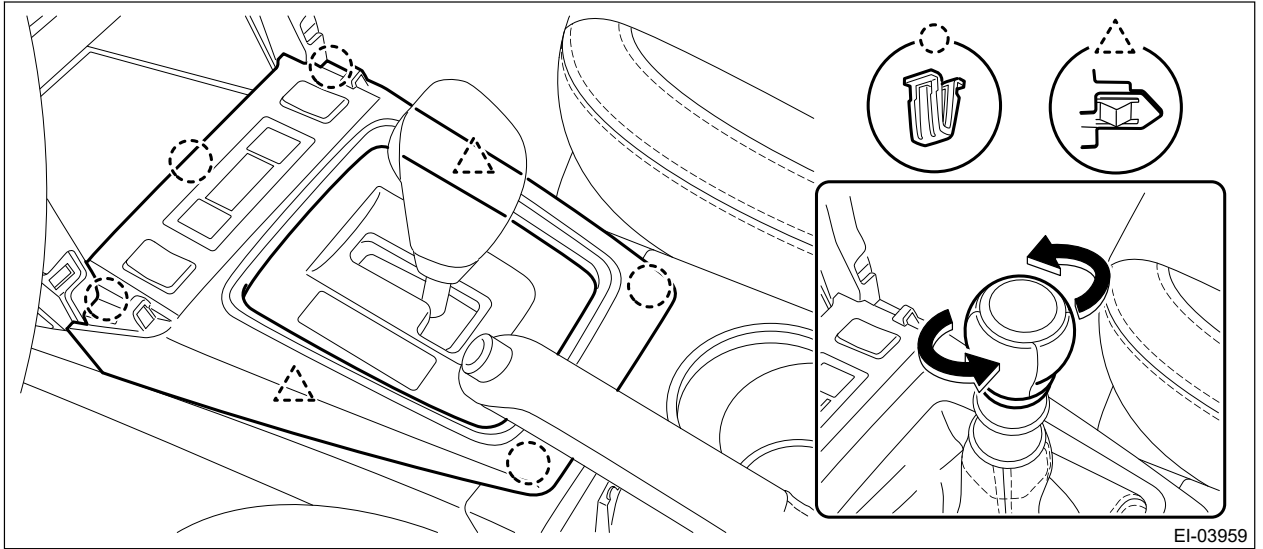
- For model with battery sensor, disconnect the ground terminal from battery sensor.
  - On CVT models, shift the select lever into "N" before disconnecting the battery ground cable.
  - For model with the power seat, move the seat to the front-most position before removing the battery ground terminal.
3. Release the clips, and remove the ornament panel - console.



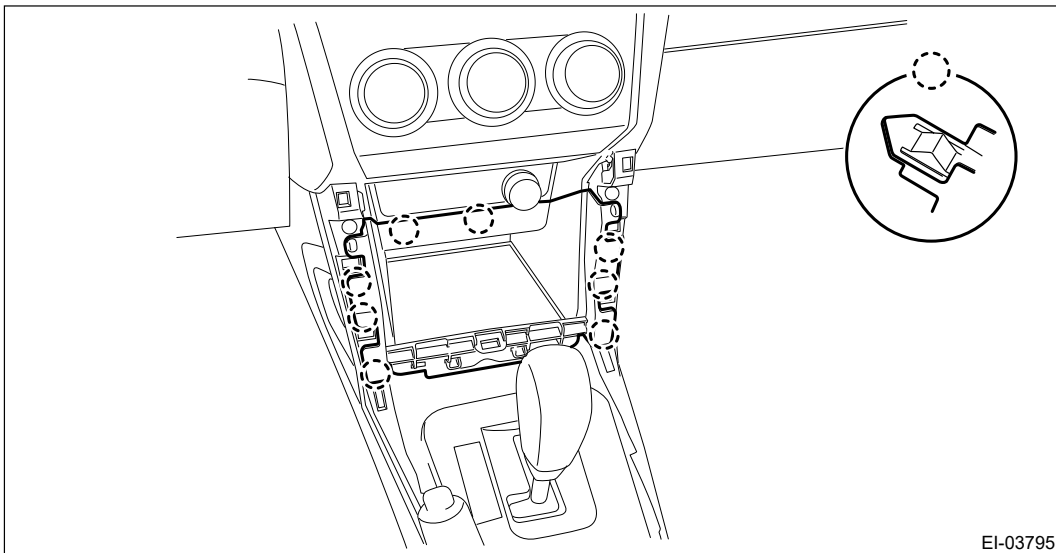
#### Note:

Removal is easier if you grab the arrow sections from right and left and pull them at the same time.

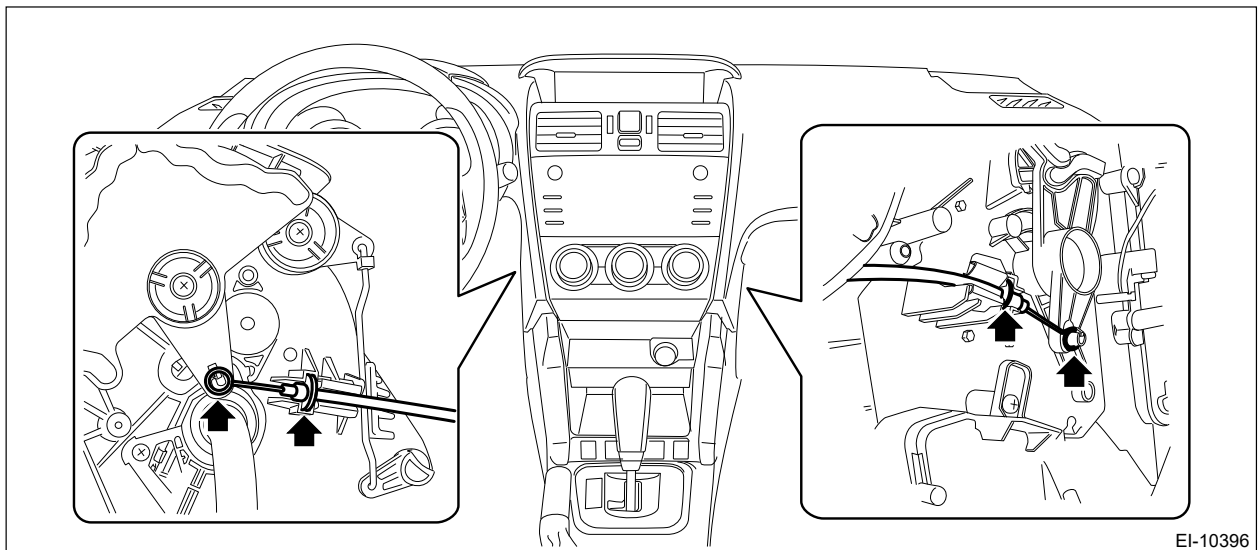
4. Remove the cover - shift lever.
  - (1) Remove the shift knob. (MT model)
  - (2) Release the clips and claws, then pull up the cover - shift lever.






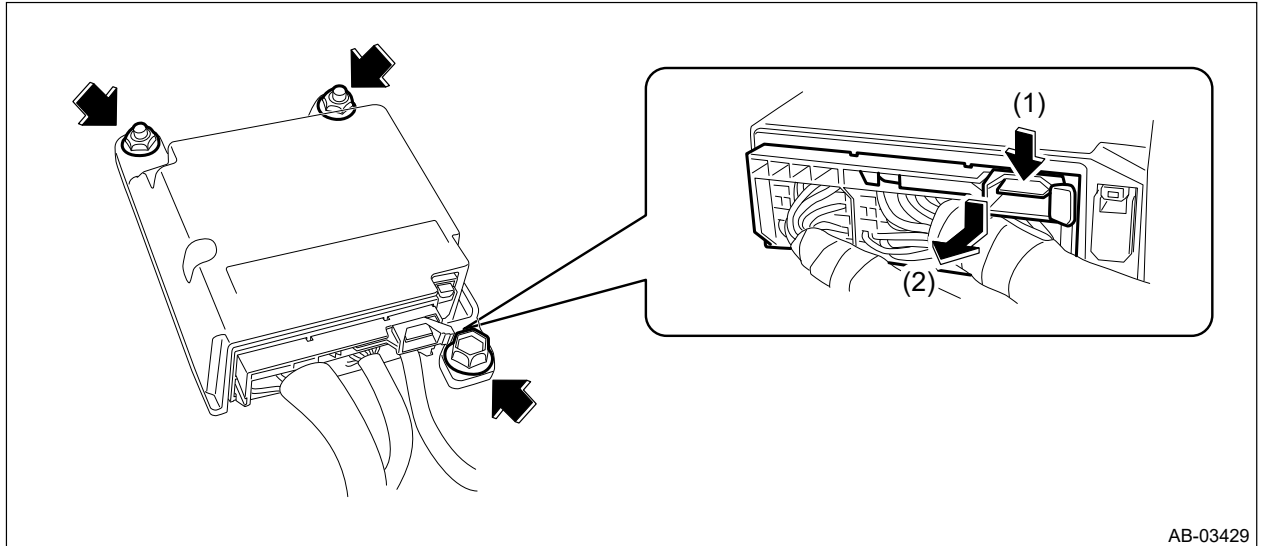
**5.** Release the claws, and remove the tray assembly - CTR LWR.



**6.** On manual A/C models, disconnect the control cables from both sides of the heater & cooling unit.



- 7.** Remove the center grille assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL.](#)
- 8.** Remove the audio assembly or navigation assembly.  [Ref. to ENTERTAINMENT>Audio>REMOVAL.](#)
- 9.** Remove the airbag control module.
  - (1) Disconnect the connector from airbag control module.  [Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > AIRBAG CONTROL MODULE.](#)
  - (2) Remove the bolt and nuts and remove the airbag control module.



AB-03429

## AIRBAG SYSTEM > Airbag Module Disposal (Deployment Processing on Vehicle)

### PROCEDURE

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#### Warning:


Make sure to follow the instructions below. Otherwise, personal injuries may occur.

- Before discarding an airbag module, always perform an operation process to prevent any false activation.
- Wear protective gloves, safety goggles and earplugs during this operation. Wash your hands afterwards.
- Do not touch the airbag module just after activation because it is very hot. Before handling it for disposal, wait for 40 minutes.

#### Caution:

- As a rule, perform an airbag module operation process while it is installed to the vehicle. Do not remove it unless necessary.
- Airbag module operation process should be performed on a flat place in safety area. Do not perform the process outdoors when there is rain or strong wind.
- Activating an airbag module causes a high explosive noise, be sure to warn people in the area, and do not allow anyone within 5 m (16 ft) radius of the disposal site.
- After activating the airbag module, smoke may arise. Therefore, it must be activated in a well-ventilated place with no smoke detector nearby.
- Do not expose the activated airbag module to water.
- Wrap the activated airbag module in a sealed vinyl bag when discarding.
- If it is impossible to perform an airbag module operation process due to some situational reasons, consult SUBARU dealership or one of the authorized workshops.

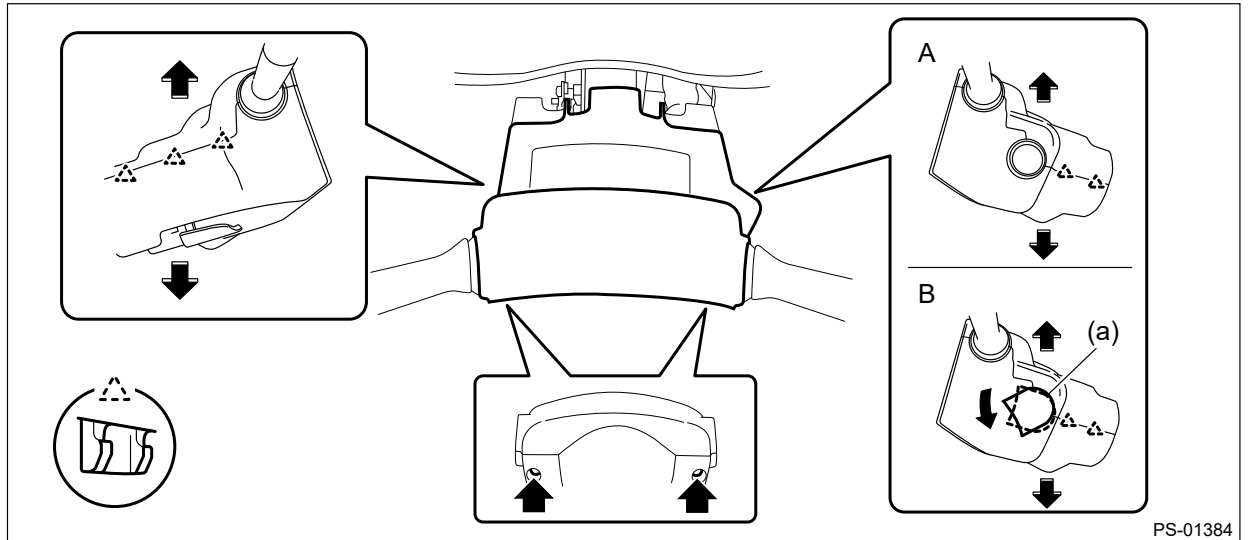
## 1. DRIVER'S AIRBAG MODULE

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref.](#)  
to [NOTE>NOTE > BATTERY.](#)

#### Note:

**For model with battery sensor, disconnect the ground terminal from battery sensor.**

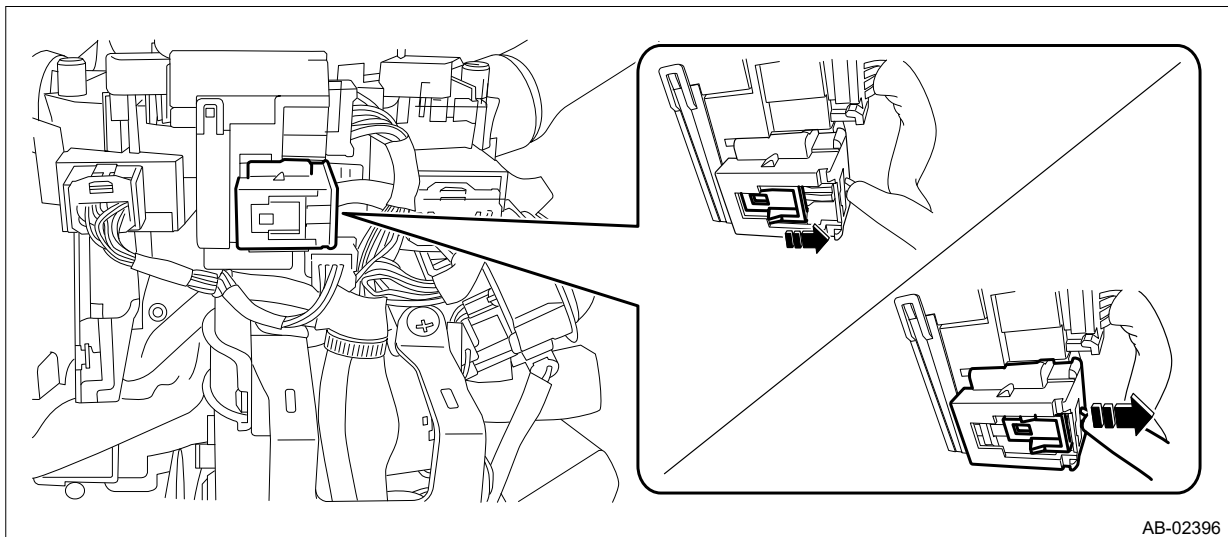
3. Remove the steering column cover.
  - (1) Remove the screws by turning the steering wheel to right and left.
  - (2) Remove the cap - key cylinder (a). (Model with keyless access with push button start)
  - (3) Release the claw, and remove the cover assembly - column UPR and the cover assembly - column LWR.



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- Model without keyless  
 A access with push button start
- Model with keyless access  
 B with push button start

**4.** Disconnect the driver's airbag module connector.

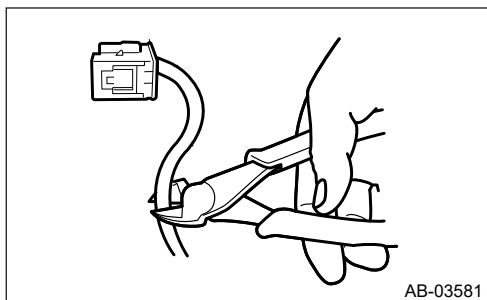


AB-02396

**5.** Cut off the body harness approx. 70 mm (2.76 in) from the edge of the removed body side connector.

**Preparation tool:**

Nippers

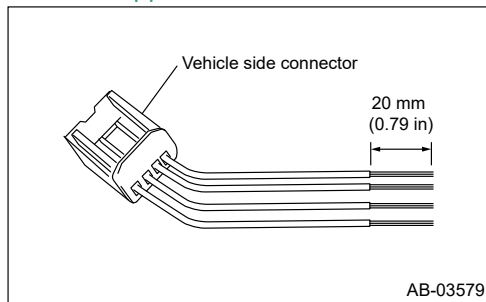


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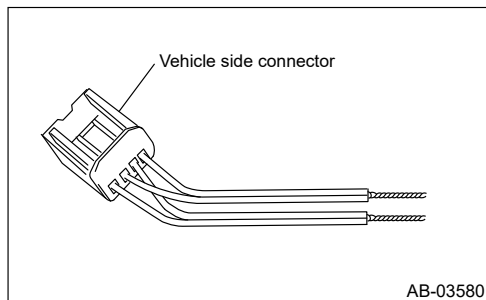
**6.** Peel off the shield (approx. 20 mm (0.79 in)) from the four harnesses of the removed body side connector.

**Preparation tool:**

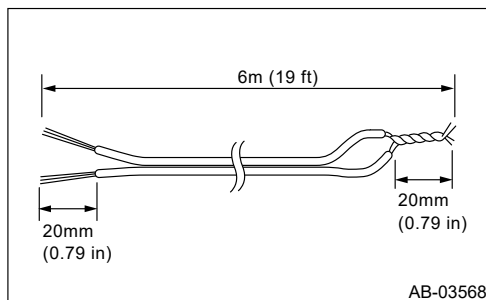
Wire stripper



7. Twist the end of harness as shown in the figure.



8. Prepare two vinyl-shielded parallel wires of 6 m (19 ft) long. Peel off the shield of both ends approx. 20 mm (0.79 in) and twist one end together into shorted condition.
9. The other end, not shorted, will be connected to harnesses of repaired body connector as shown in the figure, and insulated with vinyl tape.

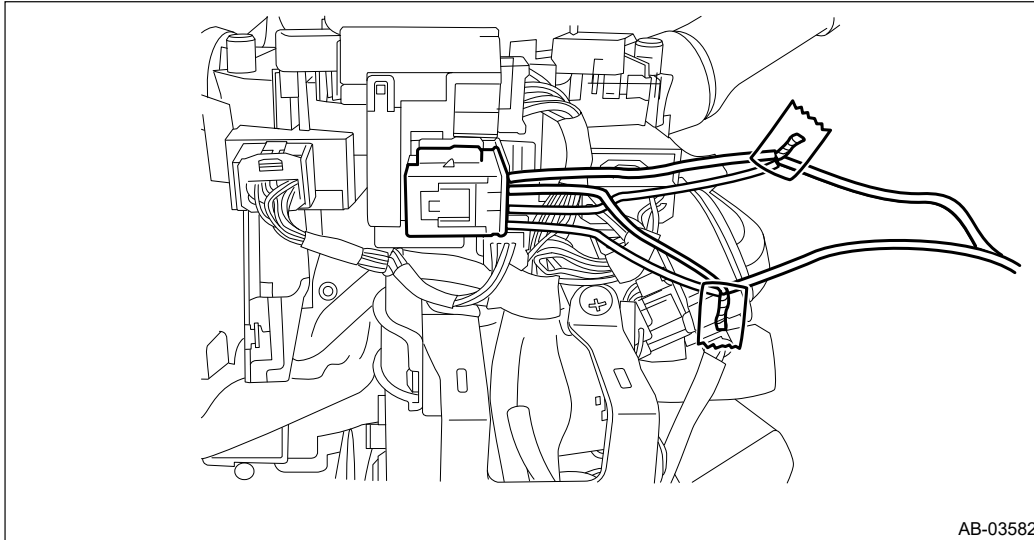


**Note:**

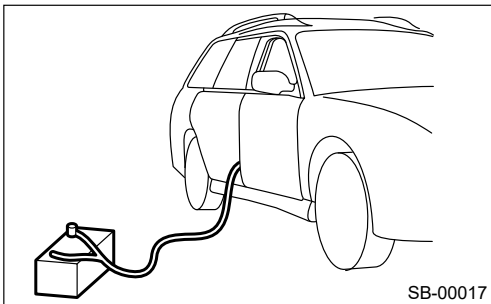
**No concern about polarity.**

10. After completing the connecting work, connect the body side connector to the connector of the airbag connector lower side again.





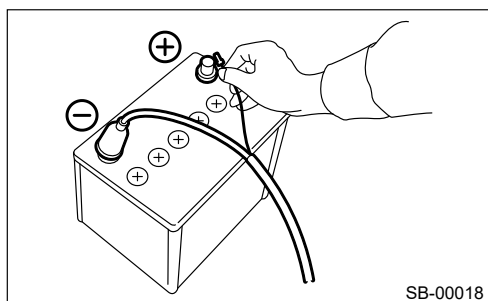
11. Bring the vinyl wire for operation out of the vehicle and make sure there is no person in the vehicle.
12. Extend the wiring of airbag deployment tool to the limit, and close all the windows, sunroof and rear gate completely.



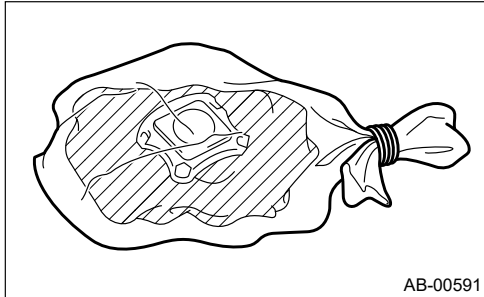
13. Move the battery at least 5 m (16 ft) from the vehicle, and confirm safety in the area.
14. Connect the airbag deployment tool alligator clip to the battery negative (-) terminal.
15. Connect the other cable of airbag deployment tool to the battery positive (+) terminal, and activate the airbag module.

**Caution:**


- After activation, the airbag module will be extremely hot. Let it cool down for at least 40 minutes in an area with no one around.
- Do not expose the activated airbag module to water.



16. Remove the driver's airbag module. [📄 Ref. to AIRBAG SYSTEM>Driver's Airbag Module>REMOVAL.](#)
17. Place the activated airbag module in a sealed vinyl bag, then discard.




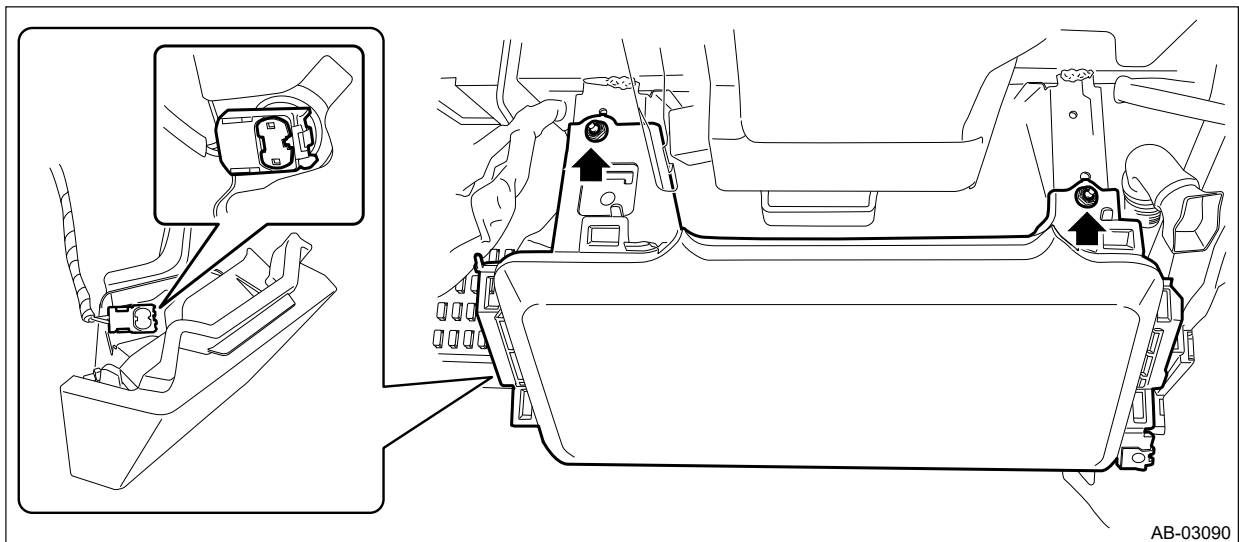
## 2. KNEE AIRBAG MODULE

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

**Note:**

**For model with battery sensor, disconnect the ground terminal from battery sensor.**

3. Remove the cover assembly - instrument panel LWR driver.
4. Remove the nuts to remove the knee airbag module and disconnect the harness connector.  [Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER.](#)



5. Short the terminal to the alligator clip furnished as airbag deployment tool.

**Caution:**

**The airbag deployment tool should be kept shorted on the terminals until just before activation of airbag module.**

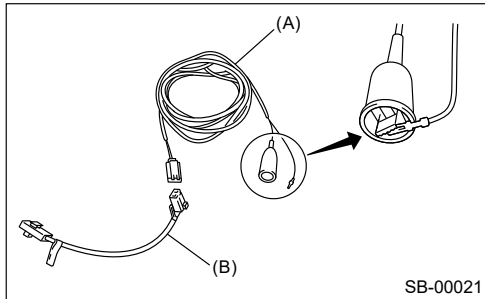
**Preparation tool:**

ST: AIRBAG DEPLOYMENT TOOL (98299PA030)

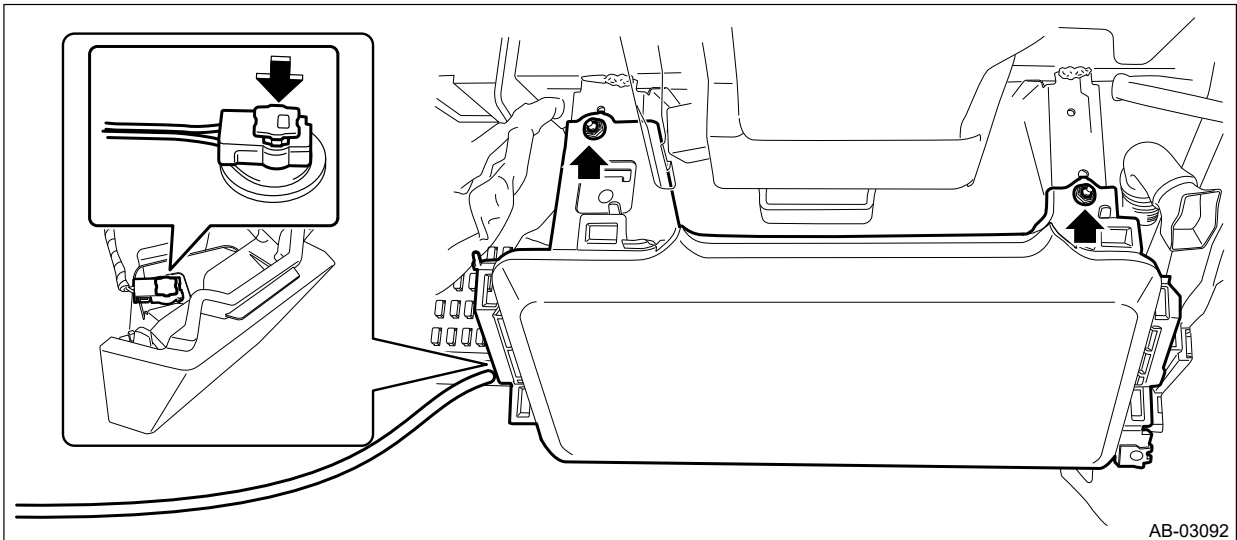
6. Connect the airbag deployment tool (A) and test harness adapter D (B).

**Preparation tool:**

ST: TEST HARNESS ADAPTER D (98299SA010)



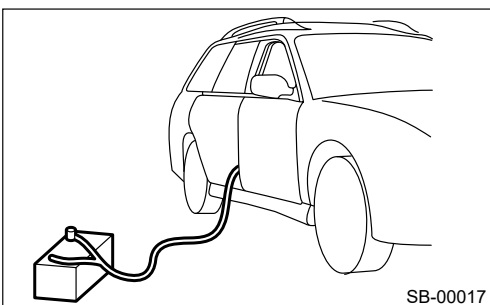
7. Connect the test harness adapter D to the knee airbag module and install the knee airbag module to the vehicle again.



**Tightening torque:**

7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

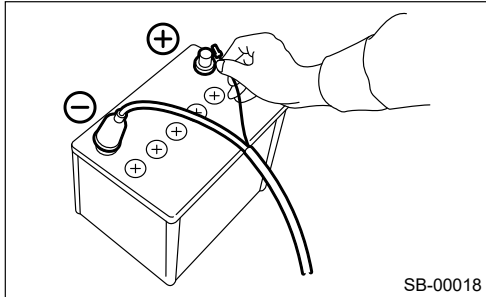
8. Make sure there is no one inside the vehicle.
9. Extend the wiring of airbag deployment tool to the limit, and close all the windows, sunroof and rear gate completely.



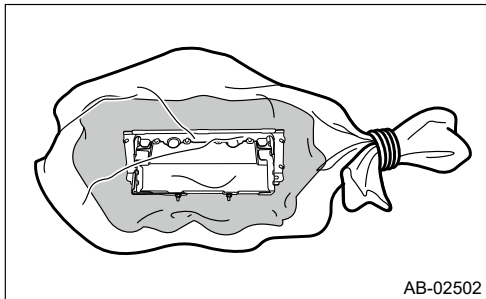
10. Move the battery at least 5 m (16 ft) from the vehicle, and confirm safety in the area.
11. Connect the airbag deployment tool alligator clip to the battery negative (-) terminal.
12. Connect the other cable of airbag deployment tool to the battery positive (+) terminal, and activate the airbag module.

**Caution:**

- After activation, the airbag module will be extremely hot. Let it cool down for at least 40 minutes in an area with no one around.
- Do not expose the activated airbag module to water.




13. Remove the bolts and remove knee airbag module.
14. Place the activated airbag module in a sealed vinyl bag, then discard.



**Note:**


**When necessary, fold the fabric part of airbag into three or four sections, rope and seal in a vinyl bag.**

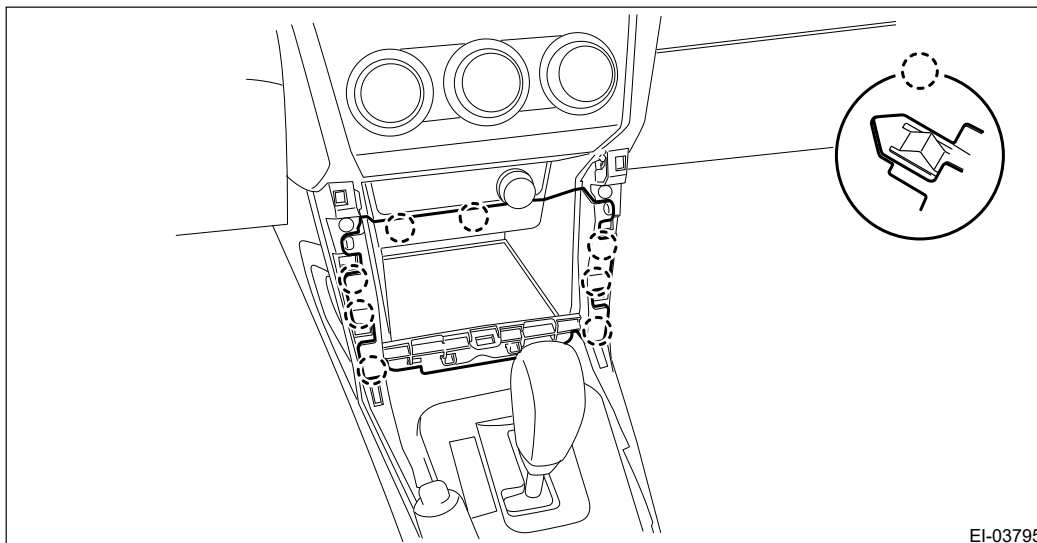
### 3. PASSENGER'S AIRBAG MODULE

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

**Note:**

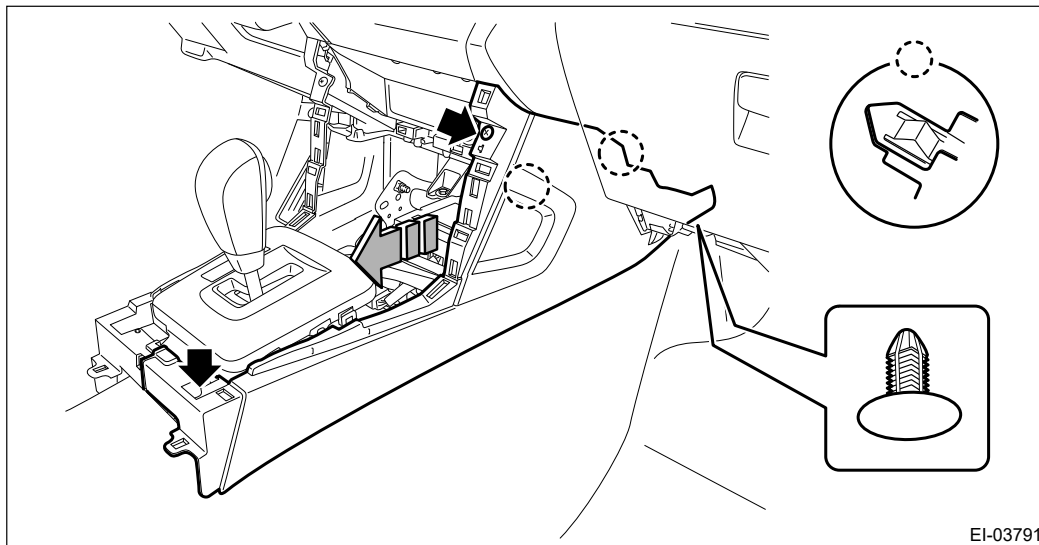
**For model with battery sensor, disconnect the ground terminal from battery sensor.**

3. Remove the boot - hand brake, ornament panel - console, cover - shift lever and console box assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.](#)
4. Release the claws, and remove the tray assembly - CTR LWR.



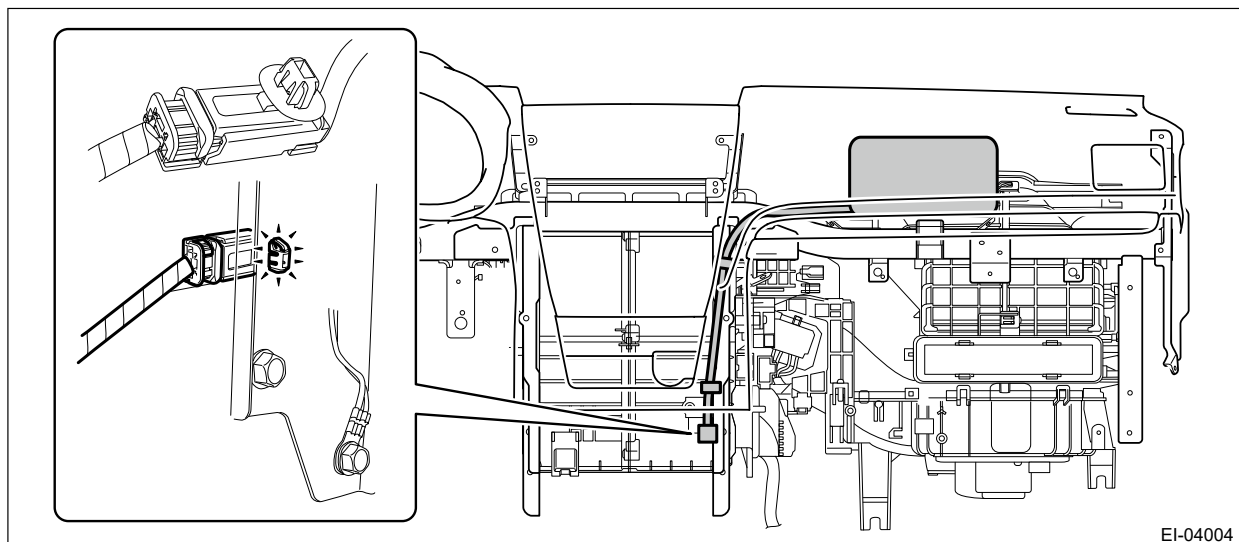
5. Remove the panel center LWR RH.

- (1) Remove the screws and clips.
- (2) Release the claws, and pull the panel center LWR RH to remove.



EI-03791

6. Disconnect the passenger's airbag module connector.



EI-04004

7. Short the terminal to the alligator clip furnished as airbag deployment tool.

**Caution:**

**The airbag deployment tool should be kept shorted on the terminals until just before activation of airbag module.**

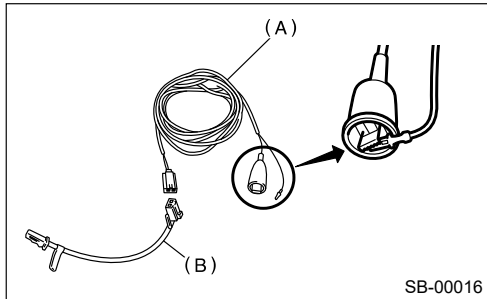
**Preparation tool:**

ST: AIRBAG DEPLOYMENT TOOL (98299PA030)

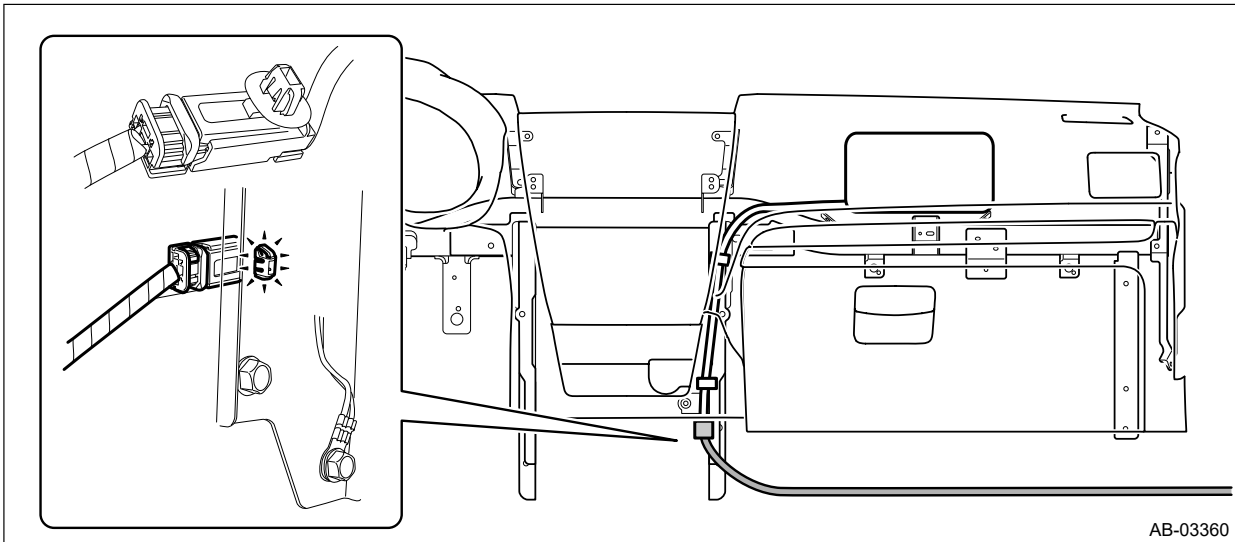
8. Connect airbag deployment tool (A) and test harness adapter AM (B).

**Preparation tool:**

ST: TEST HARNESS ADAPTER AM (98299FJ000)

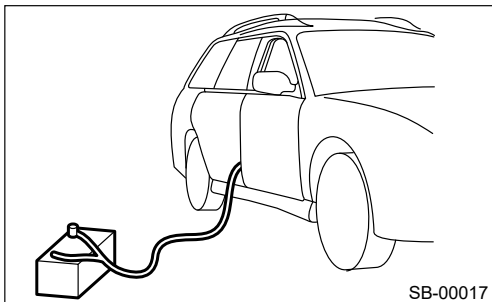


**9.** Connect test harness adapter AM to airbag connector.



**10.** Make sure there is no one inside the vehicle.

**11.** Extend the wiring of airbag deployment tool to the limit, and close all the windows, sunroof and rear gate completely.



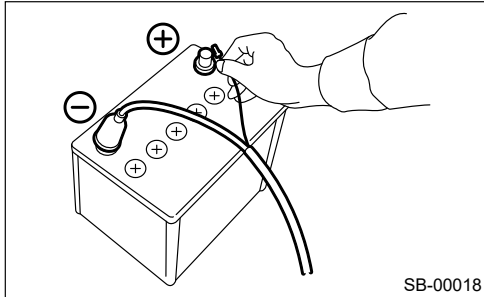
**12.** Move the battery at least 5 m (16 ft) from the vehicle, and confirm safety in the area.


**13.** Connect the airbag deployment tool alligator clip to the battery negative (-) terminal.

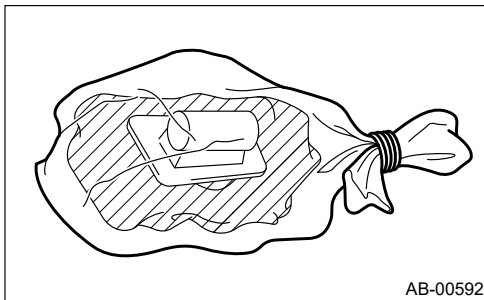
**14.** Connect the other cable of airbag deployment tool to the battery positive (+) terminal, and activate the airbag module.

**Caution:**


- **After activation, the airbag module will be extremely hot. Let it cool down for at least 40 minutes in an area with no one around.**
- **Do not expose the activated airbag module to water.**



15. Remove the passenger's airbag module.  [Ref. to AIRBAG SYSTEM>Passenger's Airbag Module>REMOVAL.](#)
16. Place the activated airbag module in a sealed vinyl bag, then discard.




#### 4. SIDE AIRBAG MODULE

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

**Note:**

**For model with battery sensor, disconnect the ground terminal from battery sensor.**

3. Disconnect the side airbag module connector under the front seat cushion.  [Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > SIDE AIRBAG MODULE.](#)
4. Adjust both the front seat and front seat backrest to the center positions.
5. Short the terminal to the alligator clip furnished as airbag deployment tool.

**Caution:**

**The airbag deployment tool should be kept shorted on the terminals until just before activation of airbag module.**

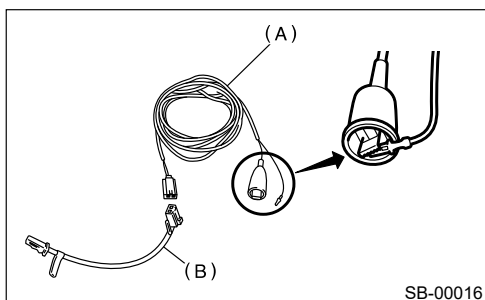
**Preparation tool:**

ST: AIRBAG DEPLOYMENT TOOL (98299PA030)

6. Connect the airbag deployment tool (A) and test harness adapter K (B).

**Preparation tool:**

ST: TEST HARNESS ADAPTER K (98299FG010)

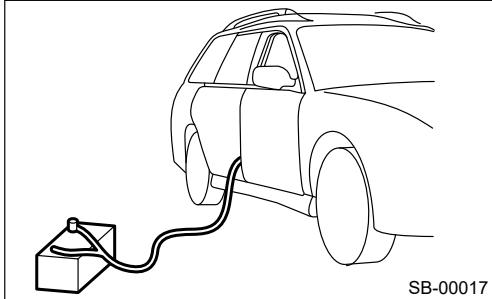


7. Connect the test harness adapter K to side airbag module connector (yellow).

**Caution:**

**Do not place any object on front seat.**

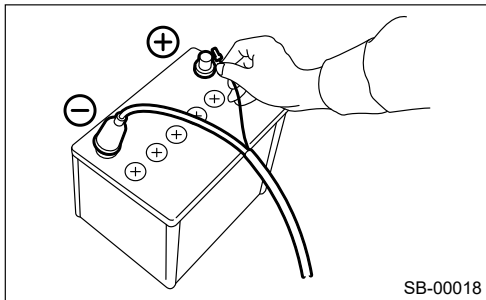
8. Make sure there is no one inside the vehicle.
9. Extend the wiring of the airbag deployment tool to its limit, and completely close all windows and rear gate.




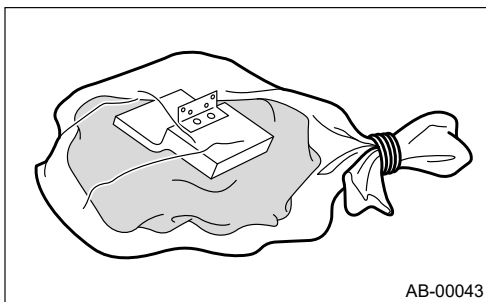
10. Move the battery at least 5 m (16 ft) from the vehicle, and confirm safety in the area.
11. Connect the airbag deployment tool alligator clip to the battery negative (-) terminal.
12. Connect the other cable of airbag deployment tool to the battery positive (+) terminal, and activate the airbag module.

**Caution:**


- **After activation, the airbag module will be extremely hot. Let it cool down for at least 40 minutes in an area with no one around.**
- **Do not expose the activated airbag module to water.**



13. Remove the side airbag module.  [Ref. to AIRBAG SYSTEM>Side Airbag Module>REMOVAL.](#)
14. Place the activated airbag module in a sealed vinyl bag, then discard.



## 5. CURTAIN AIRBAG MODULE

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

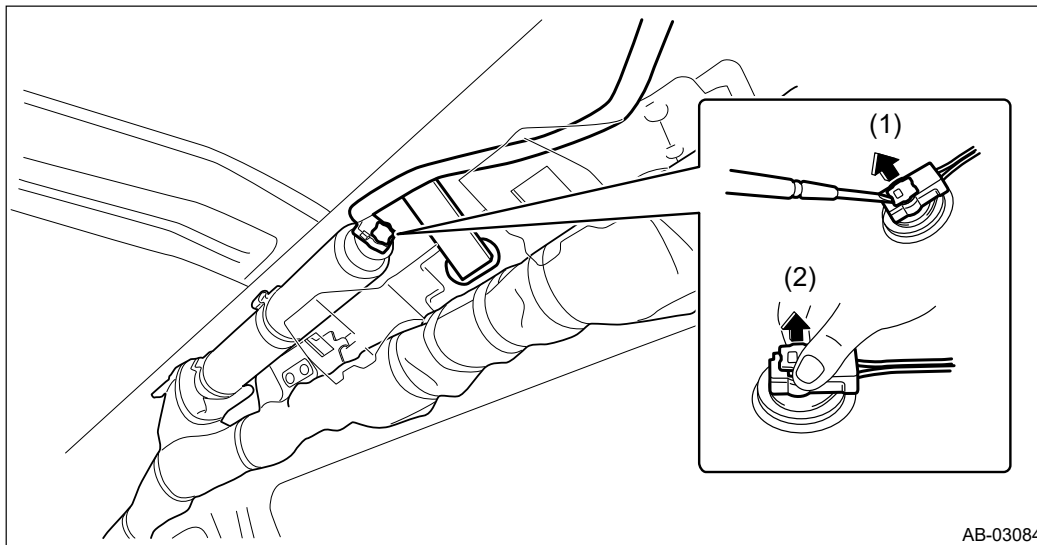
**Note:**

**For model with battery sensor, disconnect the ground terminal from battery sensor.**

3. Remove the roof trim.  [Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.](#)



4. Disconnect the curtain airbag harness.  [Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE.](#)



5. Short the terminal to the alligator clip furnished as airbag deployment tool.

**Caution:**

**The airbag deployment tool should be kept shorted on the terminals until just before activation of airbag module.**

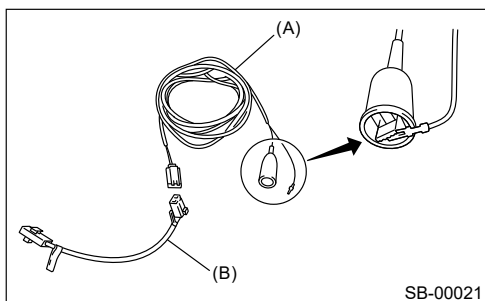
**Preparation tool:**

ST: AIRBAG DEPLOYMENT TOOL (98299PA030)

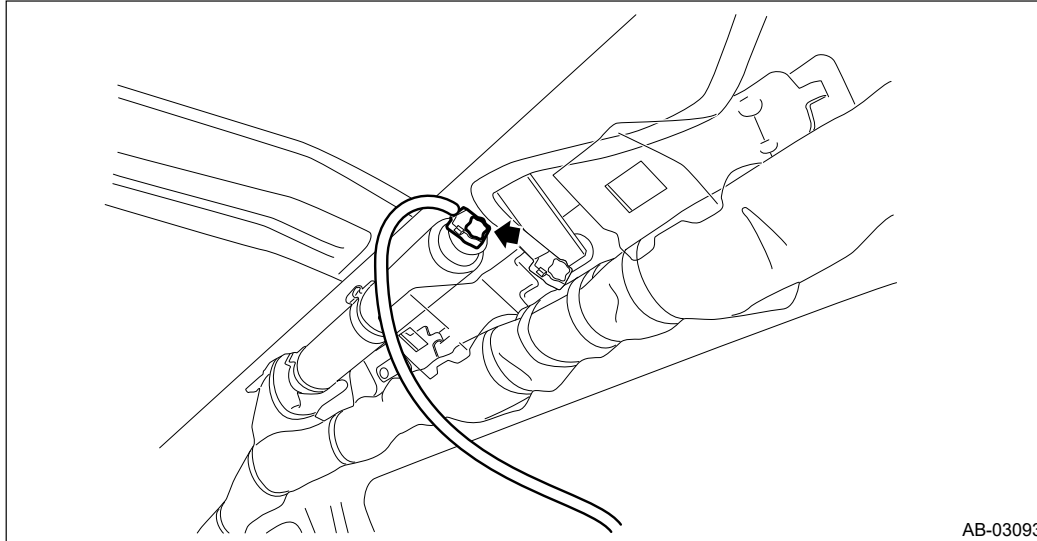
6. Connect the airbag deployment tool (A) and test harness adapter D (B).

**Preparation tool:**

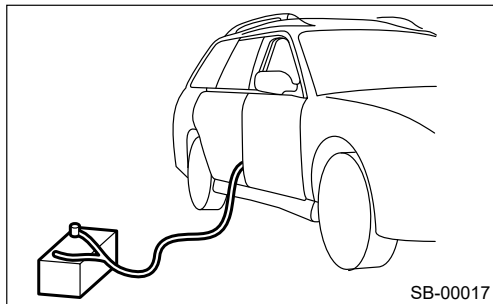
ST: TEST HARNESS ADAPTER D (98299SA010)



7. Connect the test harness adapter D to the curtain airbag module.



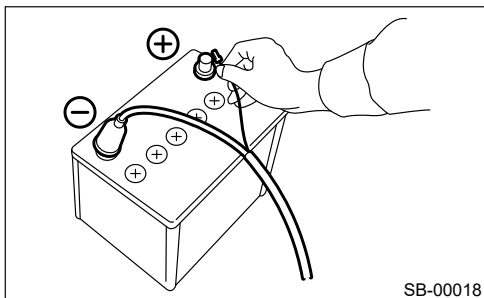
8. Make sure there is no one inside the vehicle.
9. Extend the wiring of airbag deployment tool to the limit, and close all the windows, sunroof and rear gate completely.



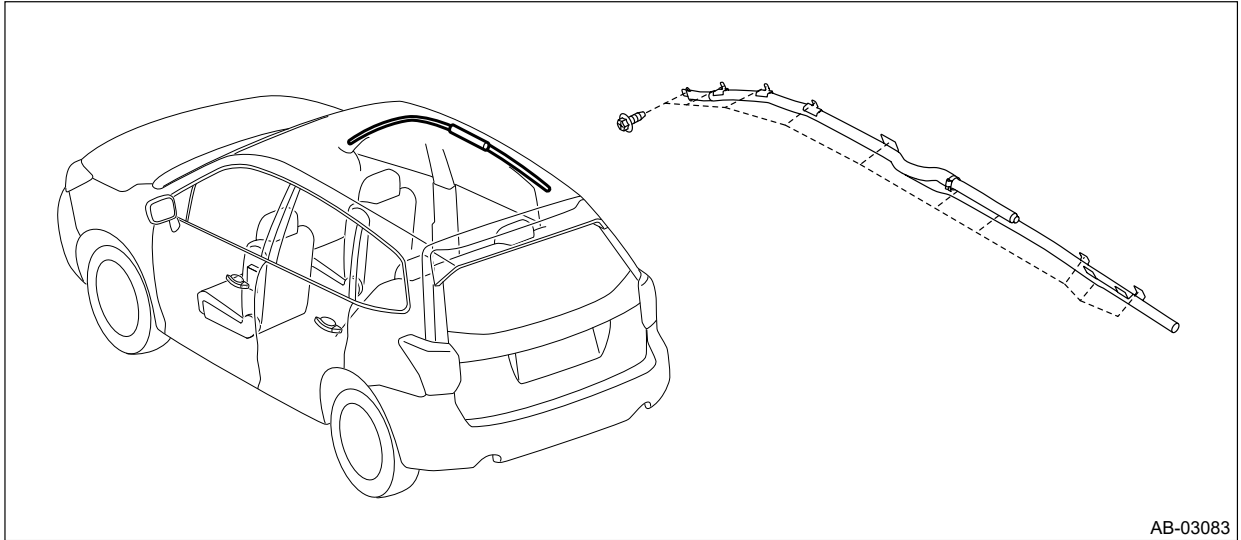
10. Move the battery at least 5 m (16 ft) from the vehicle, and confirm safety in the area.
11. Connect the airbag deployment tool alligator clip to the battery negative (-) terminal.
12. Connect the other cable of airbag deployment tool to the battery positive (+) terminal, and activate the airbag module.

**Caution:**

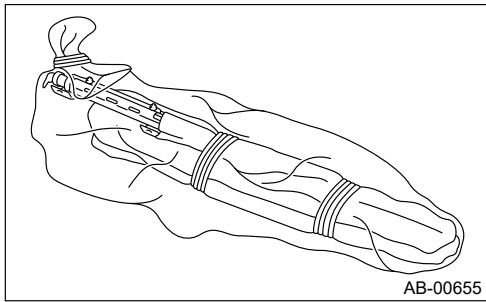
- After activation, the airbag module will be extremely hot. Let it cool down for at least 40 minutes in an area with no one around.
- Do not expose the activated airbag module to water.



13. Remove the bolts and clips, and remove the curtain airbag module.



**14.** Place the activated airbag module in a sealed vinyl bag, then discard.



**Note:**



**When necessary, fold the fabric part of airbag into three or four sections, rope and seal in a vinyl bag.**

## AIRBAG SYSTEM > Curtain Airbag Module

### INSTALLATION

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#### Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- When installing the curtain airbag module, install a specified part at specified place.
- Be careful not to damage the curtain airbag module during installation.
- Never open the curtain airbag module before activation. Never reuse the deployed curtain airbag module.
- Make sure that there are no foreign matter on airbag module.
- Before installing the trim panel - front pillar UPR, check the condition of protective non-woven fabric (white) of the curtain airbag. If it is damaged (airbag module cloth is exposed), replace the curtain airbag module assembly with a new part.
- Check that there is no damage to the tether clip on the upper part of the trim panel - front pillar UPR. If the tether clip is damaged, always replace it with a new tether clip.
- Do not reuse the tether clip removed from the upper part of the trim panel - front pillar UPR. Always replace with a new part.
- For installation of the stereo camera cover, refer to "INSTALLATION", "Stereo Camera Cover" in the "EyeSight" section and observe the precautions for installation.  [Ref. to EyeSight>Stereo Camera>INSTALLATION.](#)
- Do not reuse the clips in the upper section of the trim panel - center pillar UPR. Always replace with a new part.

1. Before installation, inspect the following items and replace any faulty part with a new one.
  - Airbag cover is scratched or torn.
  - Harness and/or connector is cracked, deformed or open.
  - Harness wire is exposed.
  - Mounting bracket and securing clip are cracked or deformed.

2. Install the curtain airbag module.

#### Caution:

- Be sure to insert the connector in until it is locked.
- Press in the push lock securely. Then pull it gently to make sure that it is locked.

#### Tightening torque:

7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

3. Install the remaining parts in the reverse order of removal.

#### Note:

For installation of the trim panel - front pillar UPR, refer to "Upper Inner Trim".

 [Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>INSTALLATION.](#)

4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


#### Note:


**After connecting the battery sensor terminal, place the select lever in the "P" position.**

## AIRBAG SYSTEM > Curtain Airbag Module

### REMOVAL

#### Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)


#### Note:

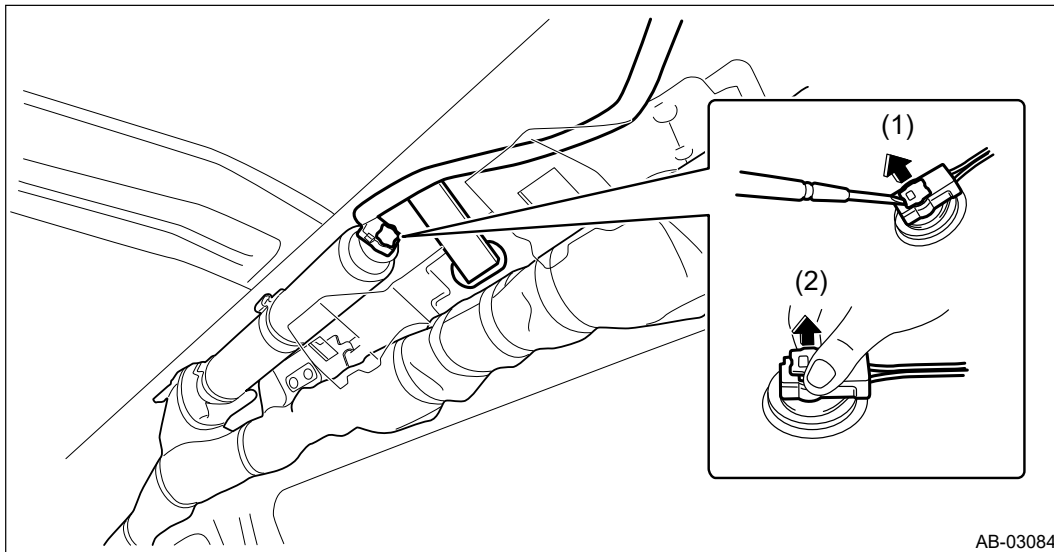
For model with battery sensor, disconnect the ground terminal from battery sensor.

3. Remove the trim panel - roof assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.](#)
4. Remove the curtain airbag module.

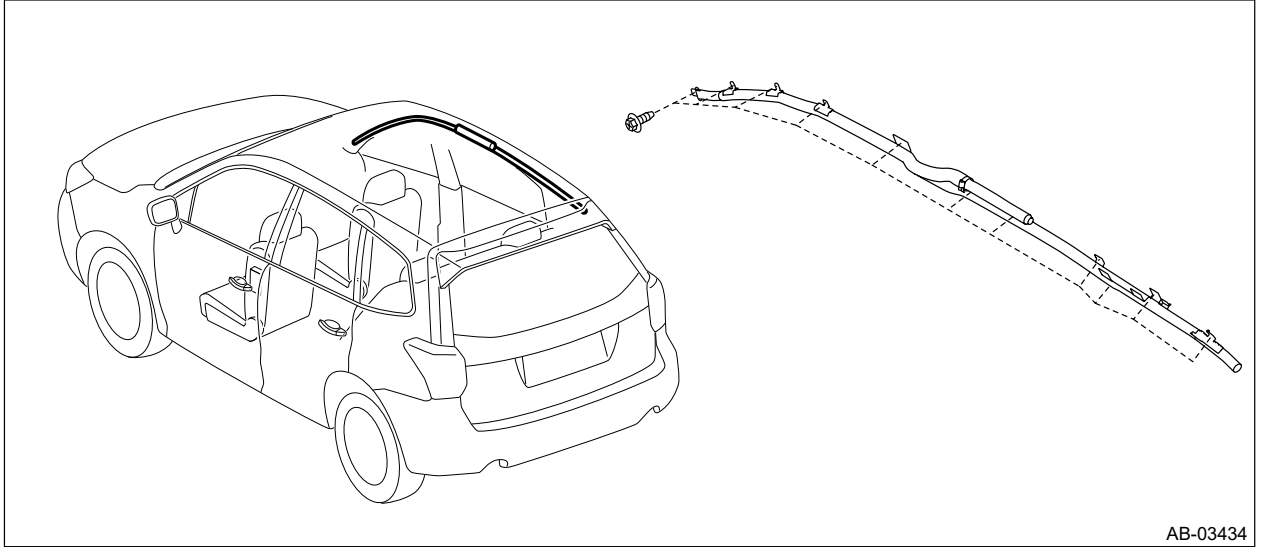
#### Caution:

- Be careful not to damage the curtain airbag module during removal.
- Never open the curtain airbag module before activation. Never reuse the deployed curtain airbag module.
- Remove the modules in order starting from the vehicle front.

- (1) Disconnect the curtain airbag module connector.  [Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER.](#)



- (2) Remove the bolt, and remove the curtain airbag module.



AB-03434

## AIRBAG SYSTEM > Curtain Airbag Sensor

### INSTALLATION

---

#### Caution:

- **Do not reuse the bolt and nut.**  
**Always replace with the specified new bolts and nuts.**
- **When installing the sensor, insert the set pin on the backside of the sensor into the hole on the body side securely.**

1. Before installation, inspect the following items and replace any faulty part with a new one.
  - Curtain airbag sensor or connector is damaged.
  - Curtain airbag module has been activated.

2. Install the curtain airbag sensor.


#### Tightening torque:

7.5 N•m (0.76 kgf-m, 5.5 ft-lb)

3. Install the remaining parts in the reverse order of removal.

#### Tightening torque:

Rear seat backrest assembly:  [Ref. to SEATS>General Description>COMPONENT > REAR SEAT.](#)

4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)








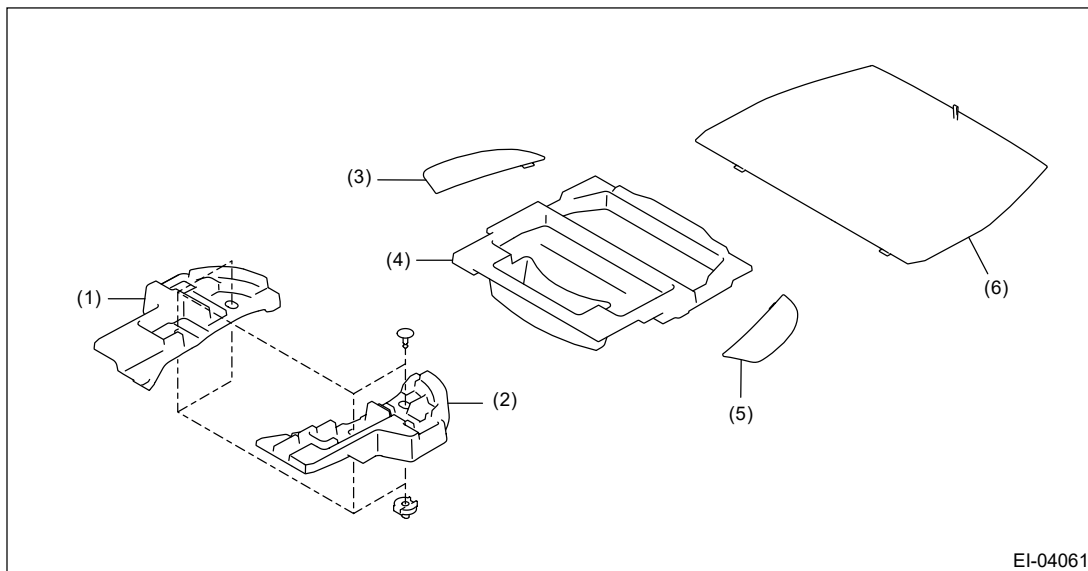
## AIRBAG SYSTEM > Curtain Airbag Sensor

### REMOVAL

#### Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)
3. Remove the rear seat cushion assembly.  [Ref. to SEATS>Rear Seat>REMOVAL.](#)
4. Remove the mat - rear floor, spacer - rear floor, and cover - trunk.



(1) Spacer - rear floor side RH

(3) Mat - rear floor RH

(5) Mat - rear floor LH

(2) Spacer - rear floor side LH

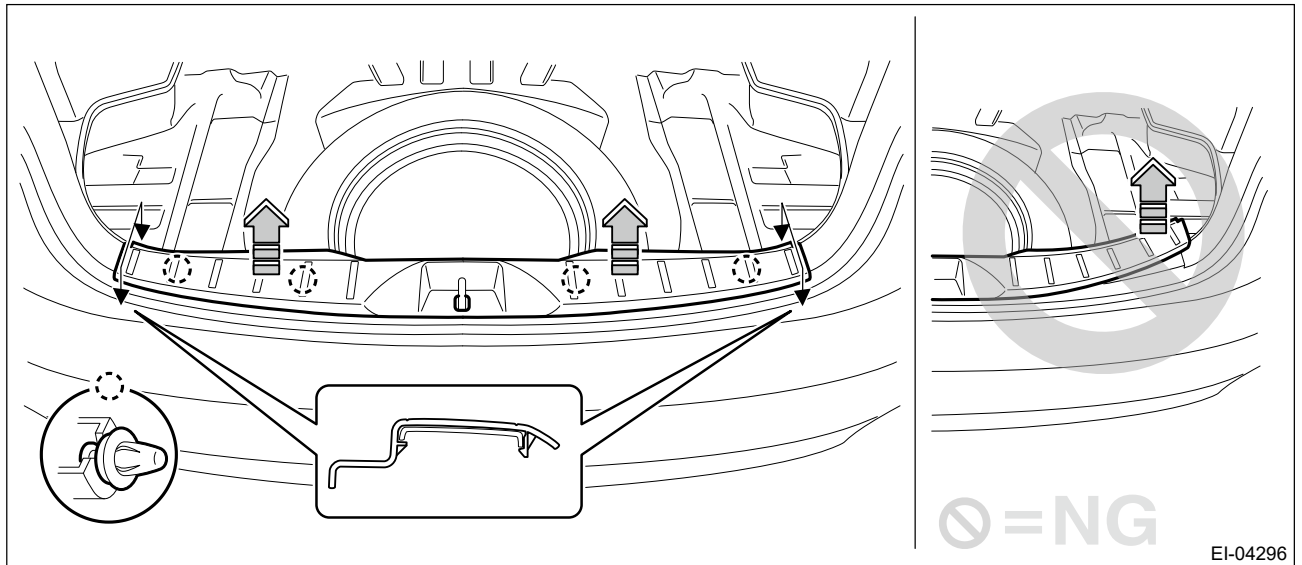
(4) Cover - trunk

(6) Mat - rear floor CTR



5. Remove the clips, and remove the trim panel - rear skirt.

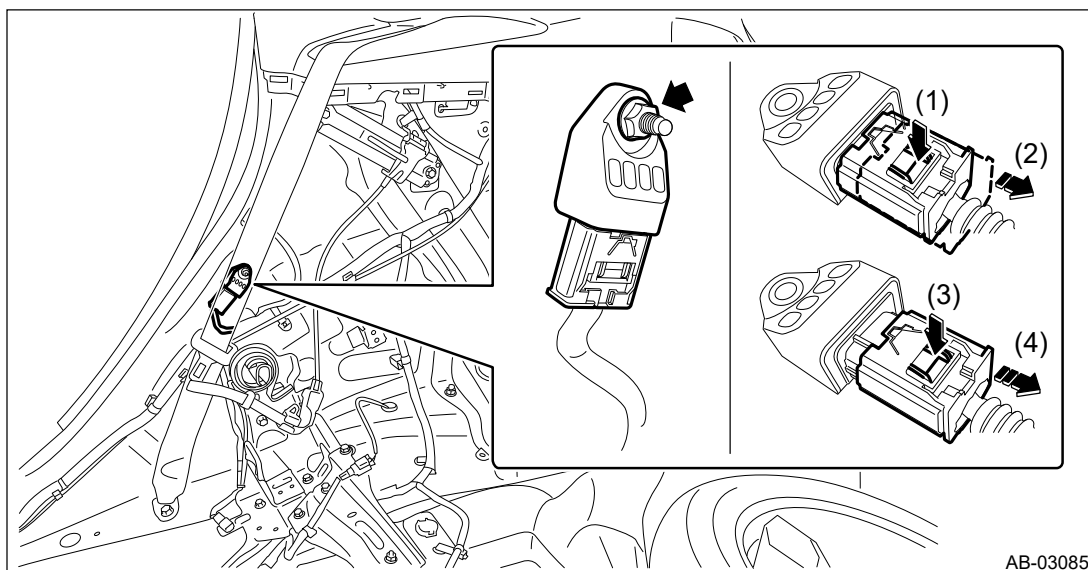
#### Caution:

**Do not lift the trim panel - rear skirt from the edge. Doing so may damage the part.**



EI-04296

6. Remove the cover side sill - rear INN on the left and right sides and the trim panel - rear apron. (On the side where the curtain airbag sensor is removed)  [Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.](#)
7. Remove the nuts and then remove the curtain airbag sensor.  [Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > SIDE AIRBAG SENSOR AND CURTAIN AIRBAG SENSOR.](#)




AB-03085

## AIRBAG SYSTEM > Driver's Airbag Module

### INSTALLATION

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#### Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in the "AIRBAG SYSTEM" section.  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)**
- **Do not allow harness and connectors to interfere or get tangled up with other parts.**

1. Before installation, inspect the following items and replace any faulty part with a new one.
  - Airbag module is cracked or deformed.
  - Harness and/or connector is cracked, deformed or open.
  - Harness wire is exposed.
  - The steering wheel is in the way, making it difficult to install the airbag module.
  - The clearance between the driver's airbag module and steering wheel is not constant.

2. Install the driver's airbag module.

#### Caution:

- **Make sure that the snap pin is securely placed inside the guide before installing the airbag module.**
- **Be sure to insert the connector in until it is locked.**
- **Press in the push lock of the direct type connector securely. Then pull it gently to make sure that it is locked.**
- **After the airbag module is installed, make sure that the airbag module locks (three positions) are securely locked.**

- (1) Connect the airbag connector to the airbag module securely.
- (2) Connect the horn harness.
- (3) Press in the locks (three positions) to install the airbag module.

3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)




## AIRBAG SYSTEM > Driver's Airbag Module

### REMOVAL

#### Caution:

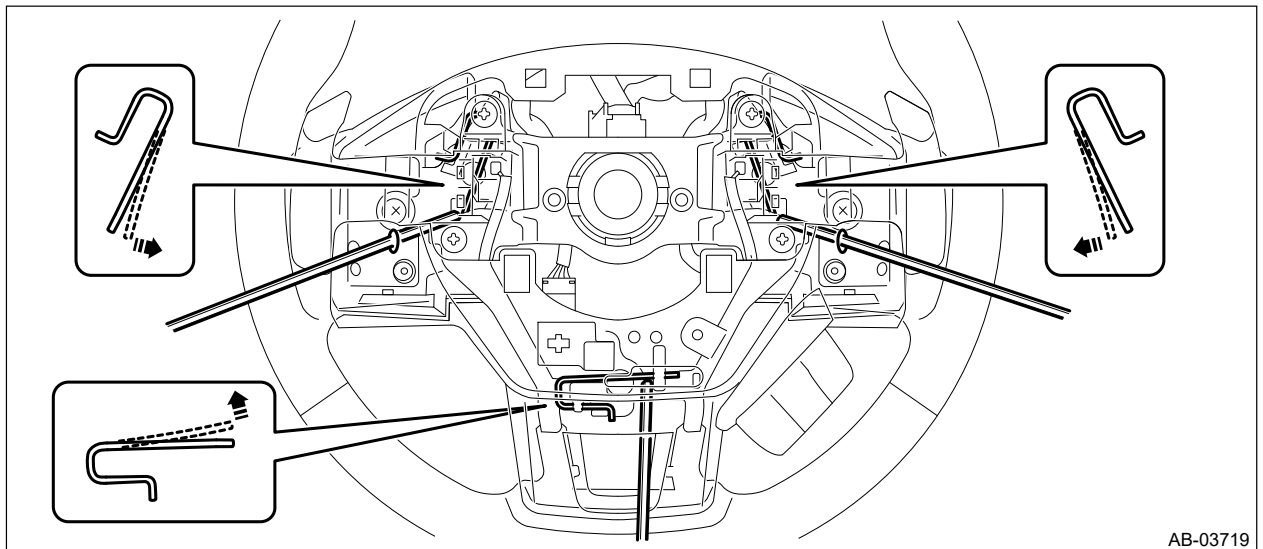
Before handling the airbag system components, refer to "CAUTION" of "General Description" in the "AIRBAG SYSTEM" section.  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Position the front wheels straight ahead.
2. Turn the ignition switch to OFF.
3. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)


#### Note:

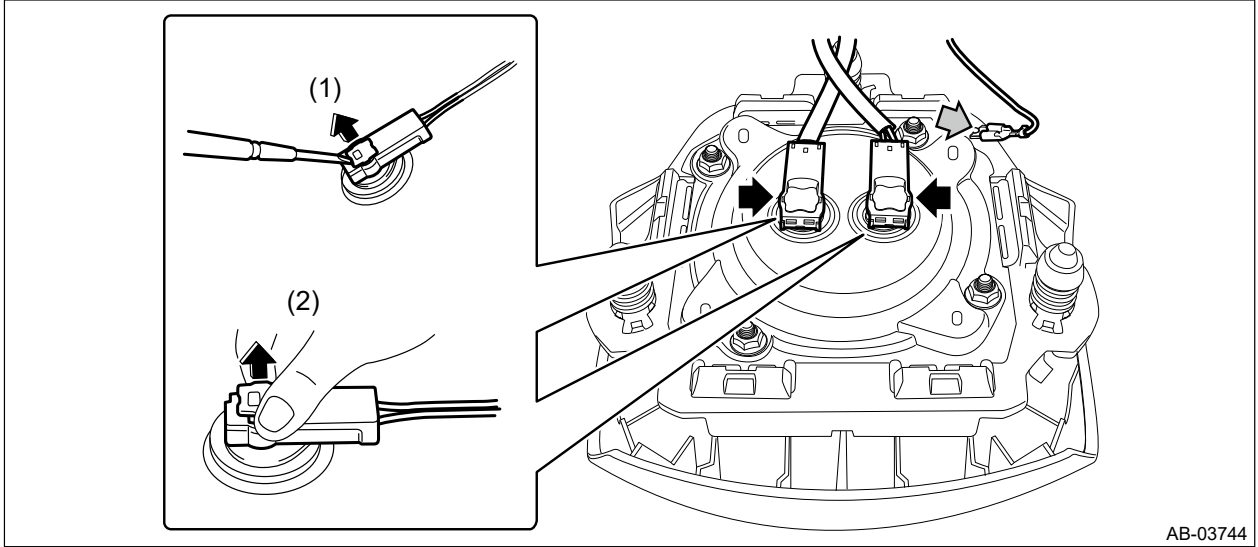
For model with battery sensor, disconnect the ground terminal from battery sensor.

4. Remove the driver's airbag module.
  - (1) Using a hexagon wrench etc. wrapped by protective tape, insert the snap pins and release the locks (three locations).



AB-03719

- (2) Disconnect the horn harness and airbag connector, and remove the driver's airbag module.  [Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER.](#)



AB-03744

## AIRBAG SYSTEM > Front Door Impact Sensor

### INSTALLATION

---

**Caution:**

**Do not reuse the bolt and nut.**


**Always replace with the specified new bolts and nuts.**

1. Before installation, inspect the following items and replace any faulty part with a new part.
  - The front door impact sensor or connector is damaged.
  - Inner panel area of the panel assembly - front door is deformed.
  - Side airbag module has been activated.

2. Install the front door impact sensor.

**Tightening torque:**

7.5 N•m (0.76 kgf-m, 5.5 ft-lb)

3. Install each part in the reverse order of removal.
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)







## AIRBAG SYSTEM > Front Door Impact Sensor

### REMOVAL



#### Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Operate the power window switch to close the front door glass.
2. Turn the ignition switch to OFF.
3. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)


#### Note:

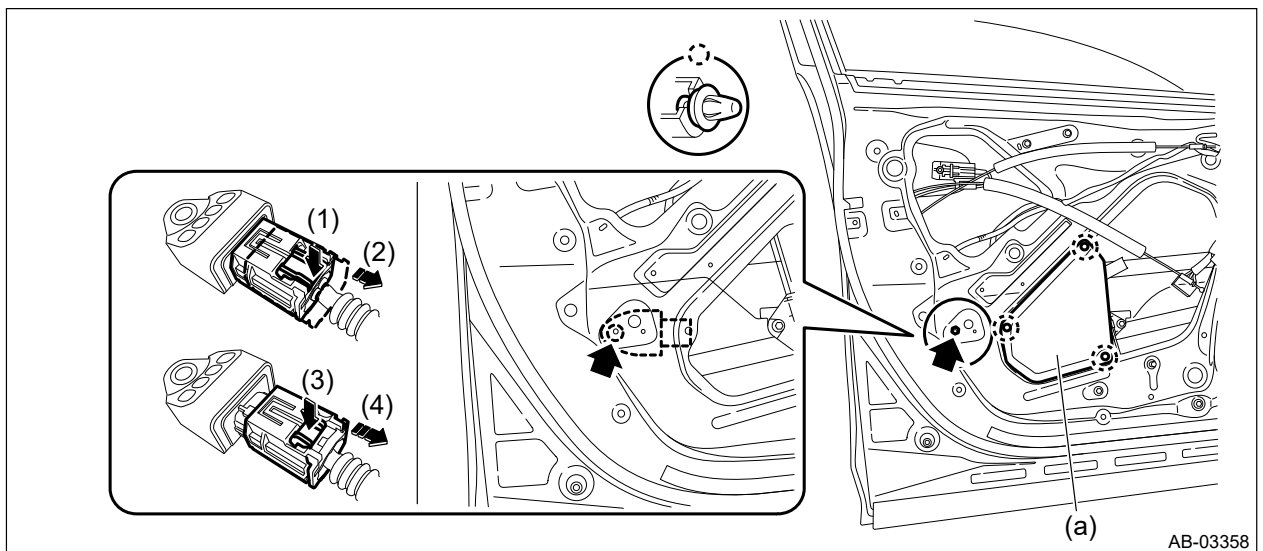
For model with battery sensor, disconnect the ground terminal from battery sensor.

4. Remove the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.](#)
5. Remove the sealing cover - front door.  [Ref. to EXTERIOR BODY PANELS>Front Sealing Cover>REMOVAL.](#)
6. Remove the front door impact sensor.
  - (1) Remove the front door inner pad (a).

#### Caution:

If the clip is damaged, replace it with a new part because the panel assembly - front door may be deformed.

- (2) Remove the nuts and then remove the front door impact sensor.
- (3) Disconnect the airbag connector and remove the front door impact sensor.  [Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > FRONT SUB SENSOR, FRONT DOOR IMPACT SENSOR AND SATELLITE SAFING SENSOR.](#)





## AIRBAG SYSTEM > Front Sub Sensor

### INSTALLATION

---

#### Caution:



- **If the airbag has been activated, replace the front sub sensor with a new part.**
- **Do not reuse the bolt and nut.**  
**Always replace with the specified new bolts and nuts.**
- **When installing the sensor, insert the set pin on the backside of the sensor into the hole on the body side securely.**

1. Before installation, inspect the following items and replace any faulty part with a new part.
  - Front sub sensor damage
  - Connector damage
2. Install each part in the reverse order of removal.

#### Tightening torque:

Front sub sensor: 13 N•m (1.33 kgf-m, 9.6 ft-lb)

Bumper beam COMPL - front: 32 N•m (3.36 kgf-m, 24.3 ft-lb)

3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
4. Adjust the fog light beam.  [Ref. to LIGHTING SYSTEM>Front Fog Light Assembly>ADJUSTMENT > FOG LIGHT AIMING.](#)




## AIRBAG SYSTEM > Front Sub Sensor

### REMOVAL


#### Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)


#### Note:

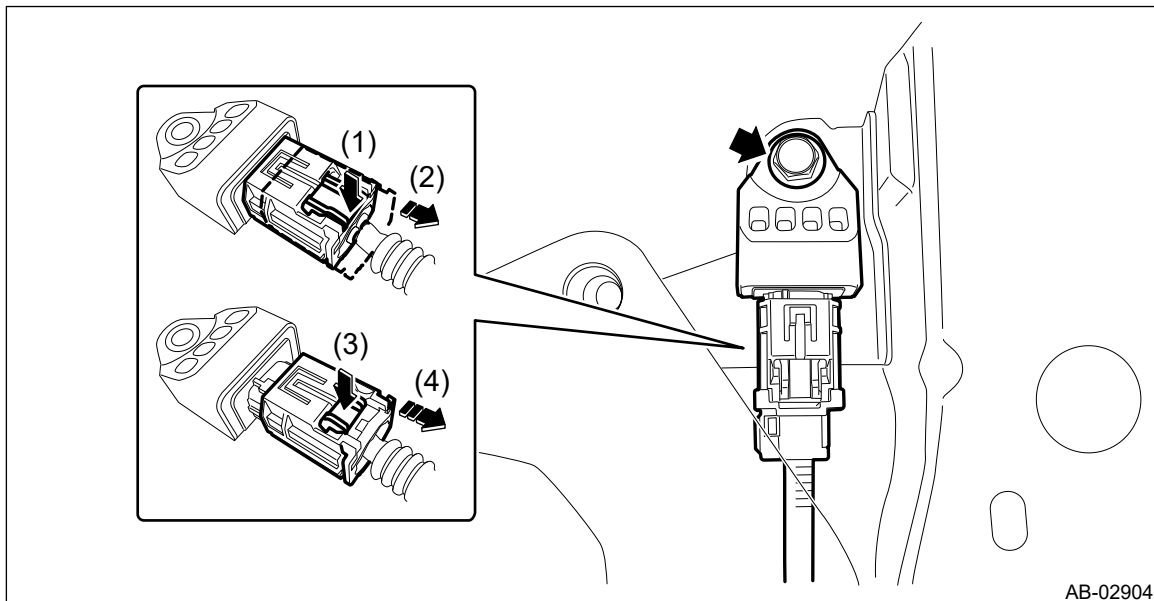
For model with battery sensor, disconnect the ground terminal from battery sensor.

3. Remove the bumper face - front.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL.](#)

#### Note:

When removing the front sub sensor, remove the bumper beam COMPL - front as necessary.

4. Remove the bolt, and then detach the front sub sensor.  [Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > FRONT SUB SENSOR, FRONT DOOR IMPACT SENSOR AND SATELLITE SAFING SENSOR.](#)




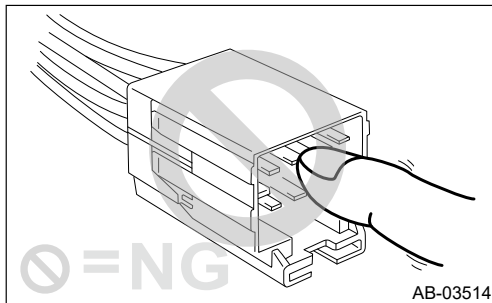


## AIRBAG SYSTEM > General Description

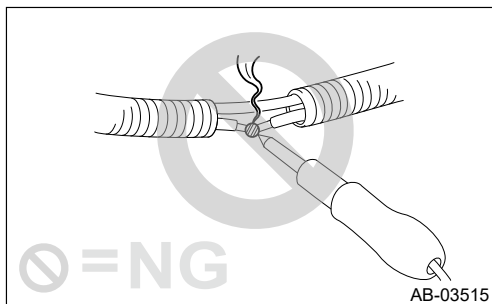
### CAUTION

#### 1. BEFORE STARTING ALL WORKS

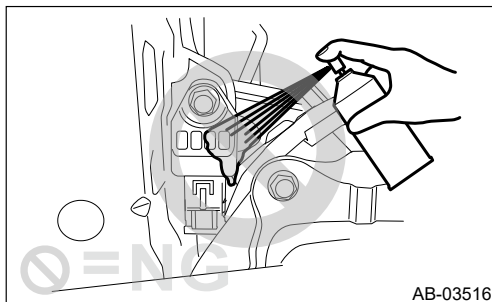
- Before performing vehicle maintenance, turn the ignition switch to OFF and disconnect the negative terminal from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)
  - For model with battery sensor, disconnect the ground terminal from battery sensor.
- The airbag system (including pretensioner) is fitted with a backup power supply. After disconnecting the battery ground cable, the airbag may operate if you do not wait for 60 seconds or more before starting the service of airbag system.
- If the airbag warning light illuminates, check or repair the vehicle immediately to prevent it from airbag system malfunction.
- Do not allow water or oil to come in contact with the connector terminals. Also, do not touch the connector terminals directly.



- If damage, open circuit or rust is found on airbag system wiring harness, do not repair the harness. Always replace the faulty harness with a new genuine part.



- When painting or performing sheet metal work on the vehicle, remove the following parts. Performing the work without removing the parts may cause secondary malfunction.



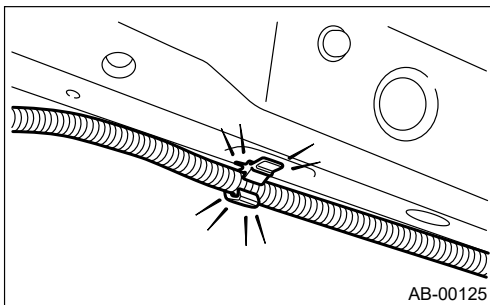
- Front part of the vehicle including the front wheel apron, front fender and radiator panel side
  - Front sub sensor of airbag system
  - Wiring harness



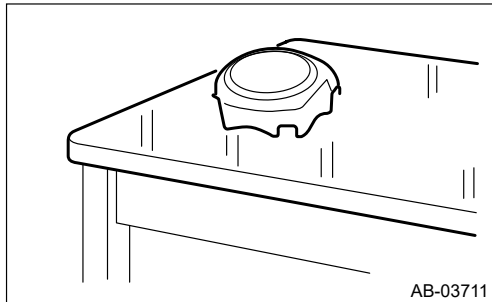
- Side or its vicinity of the vehicle including the side sill, center pillar and front and rear doors
  - Side airbag sensor
  - Curtain airbag sensor
  - Front door impact sensor
  - Satellite safing sensor
  - Wiring harness
- When attaching the steering wheel and steering roll connector, be sure to adjust the steering roll connector.

## 2. BEFORE STARTING PARTS REPLACEMENT

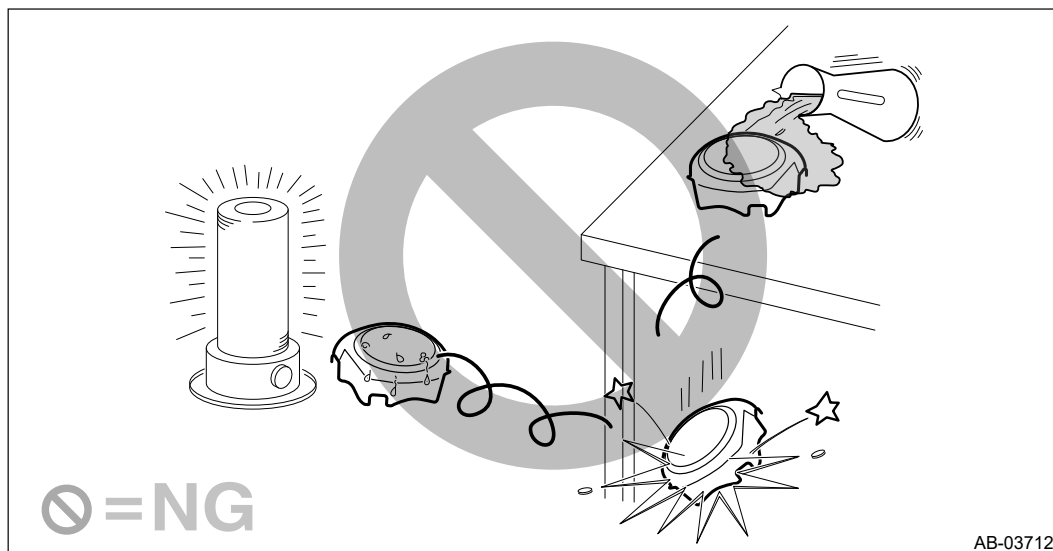
- If the following parts are deformed or damaged, replace with new parts.
  - Airbag sensors and brackets
  - Airbag modules and brackets
  - Airbag control modules and brackets
  - Pretensioners and brackets
  - Harnesses
  - Cover - satellite safing
- Install the wiring harness securely with the specified clips to avoid interference or tangled with other parts.



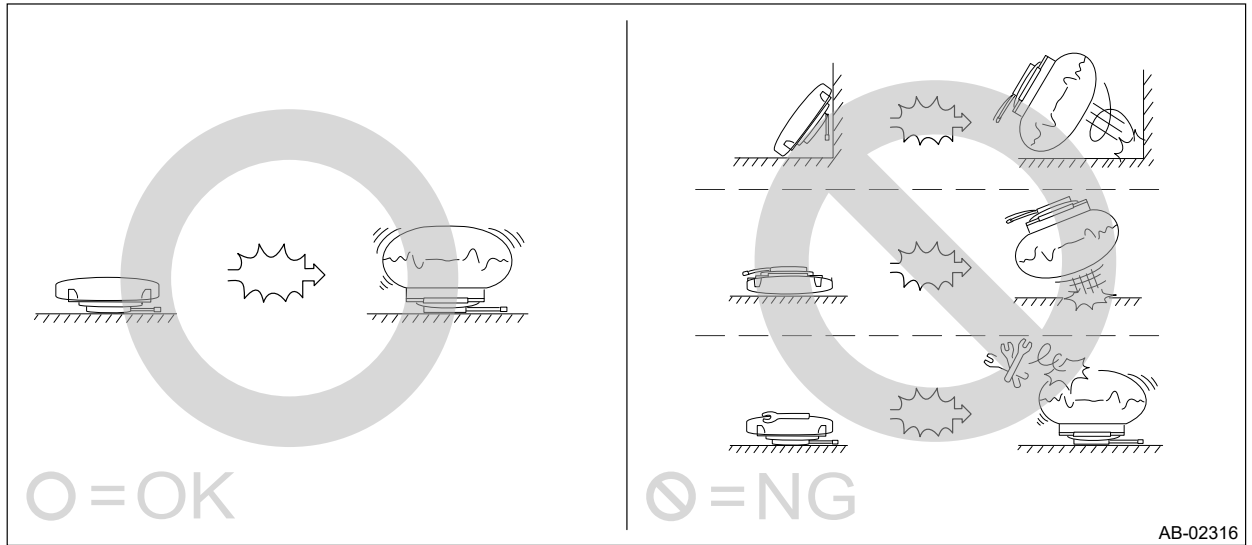
- Do not use the airbag or pretensioner parts from other vehicles. Always replace the defective parts with new parts.
- Never reuse any activated airbag module and pretensioner.
- Do not discard undeployed airbag or pretensioner. For the disposal procedures, refer to "Airbag Module Disposal".
- Do not reuse the bolts and nuts when the following parts are removed. Always replace with the specified new bolts and nuts.
  - Airbag control module
  - Front door impact sensor
  - Front sub sensor
  - Side airbag sensor
  - Curtain airbag sensor
  - Satellite safing sensor
- When attaching the steering wheel and steering roll connector, be sure to adjust the steering roll connector.
- After removing each parts of the airbag system, keep them with the pad side facing upward on a dry, clean and flat surface away from heat, light sources, moisture and dust.



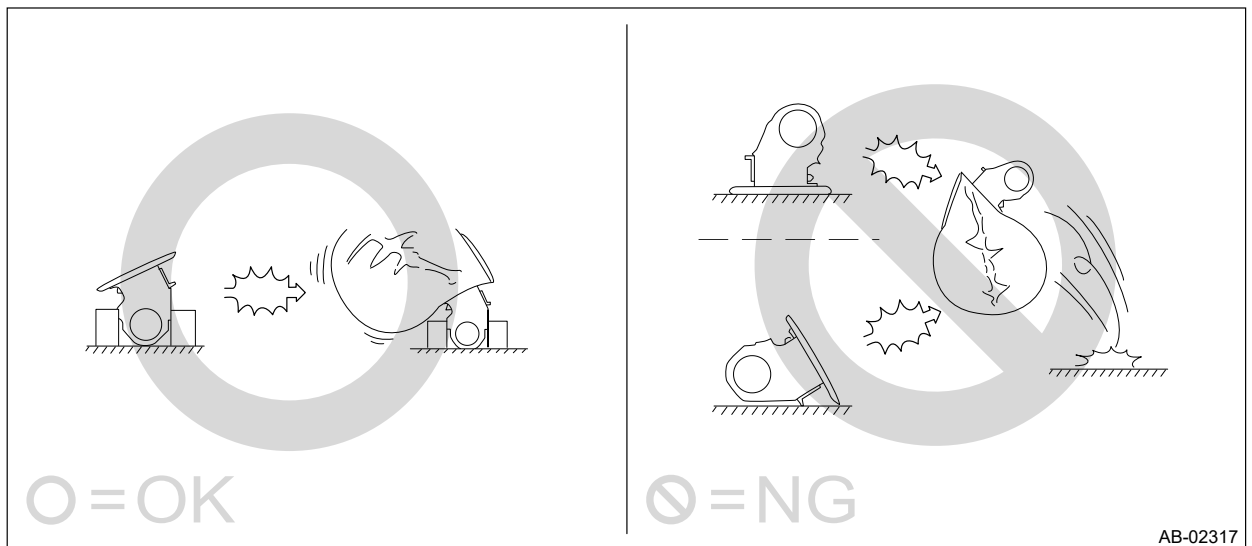
- Observe the following; the airbag system component or the internal parts of seat belt pretensioner may be damaged or the reliability may be greatly lowered.
  - Do not drop or otherwise apply impact.
  - Do not store it under high temperature environment at 85°C (185°F) or more, or do not near it to open flames.
  - Do not allow water, oil or grease to come in contact. If contact happens, wipe off immediately with a dry cloth.



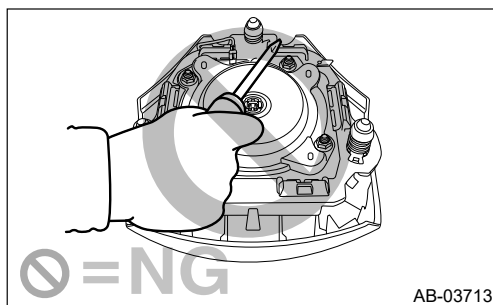
- When storing a removed airbag module, observe the following items. If the pad of the airbag module is in contact with other objects, it may cause a serious accident if the airbag accidentally operates.
  - Do not place the airbag module with the pad side facing downward.
  - Do not place any objects on the airbag module.
  - Do not pile up the airbag module.
- Driver's airbag module



- Passenger's airbag module and side airbag module



- Do not disassemble the airbag modules and pretensioners.

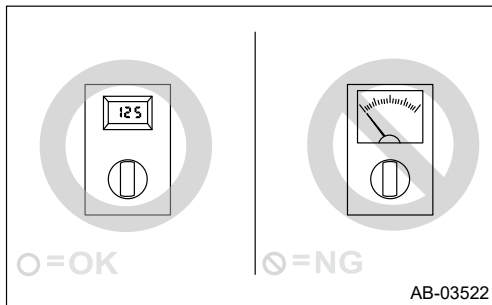


- The removed front seat with airbag module must be kept at least 200 mm (8 in) away from walls and other objects.

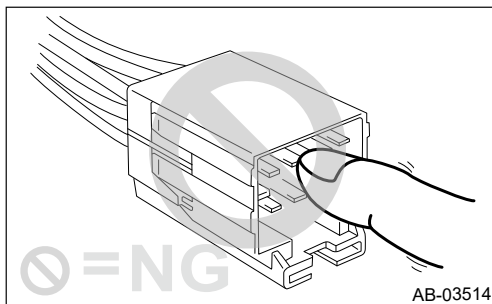
### 3. BEFORE STARTING TROUBLESHOOTING

- Even if any part must be replaced as the result of troubleshooting, do not use an airbag part or pretensioner part from other vehicles. Always replace the defective parts with new parts.

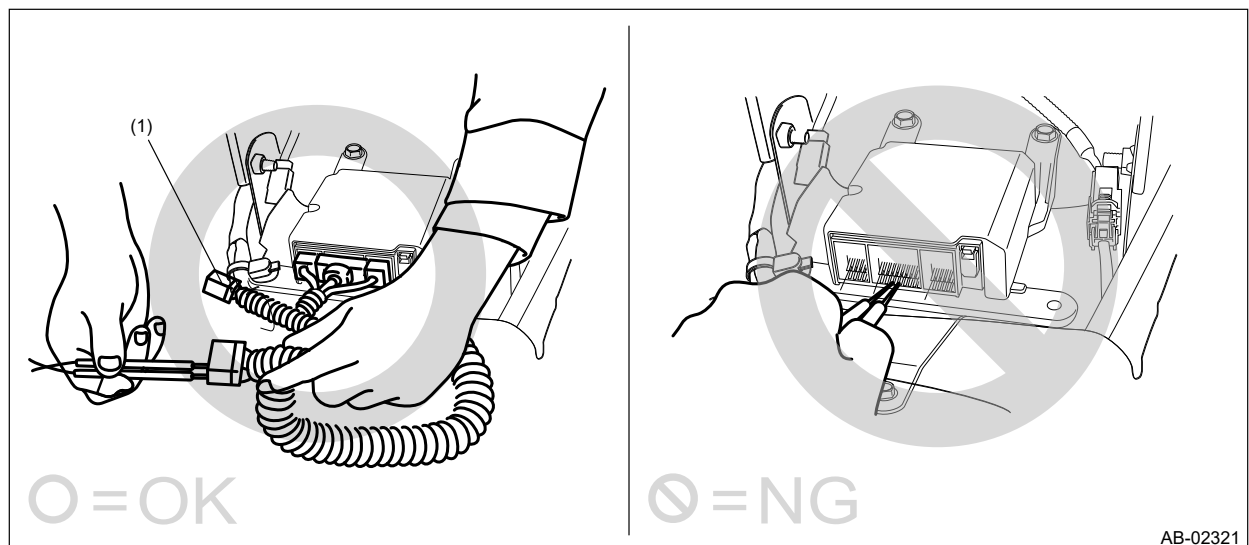
- When checking the airbag system, be sure to use a digital circuit tester. Use of an analog circuit tester may cause the airbag to activate erroneously due to a minimal current inside tester.



- Do not allow water or oil to come in contact with the connector terminals. Also, do not touch the connector terminals directly.



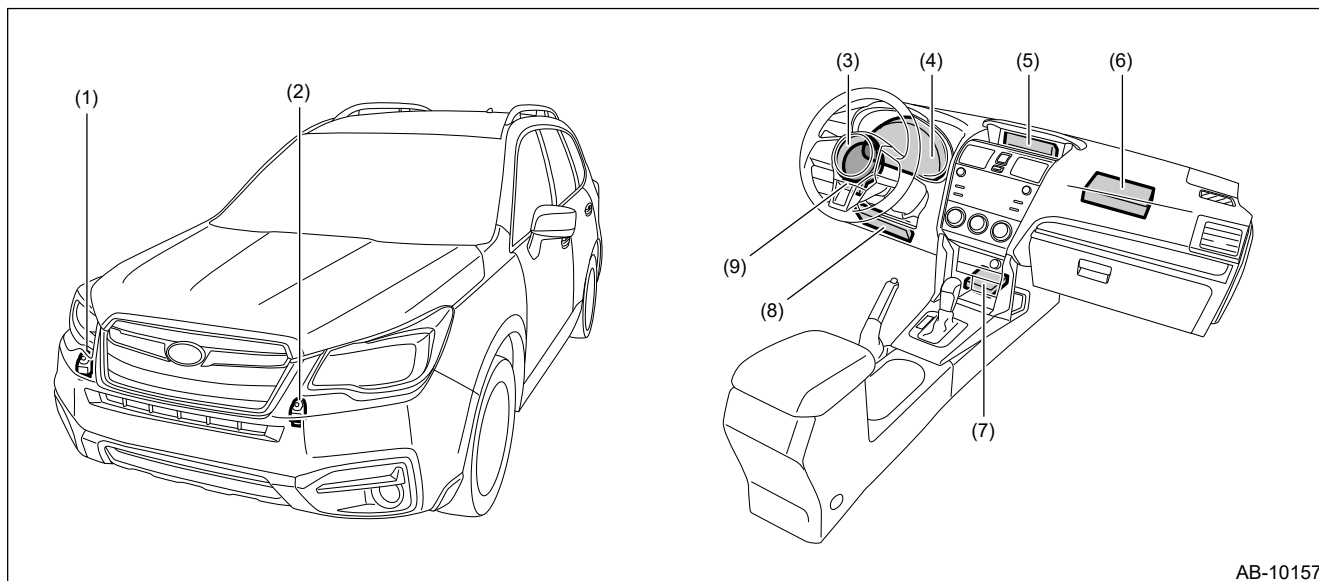
- When checking, use a test harness (1). Damage to connector terminal causes malfunction. Do not directly put the tester probe on airbag connector terminal.



- Do not check the continuity of the airbag modules and pretensioners.

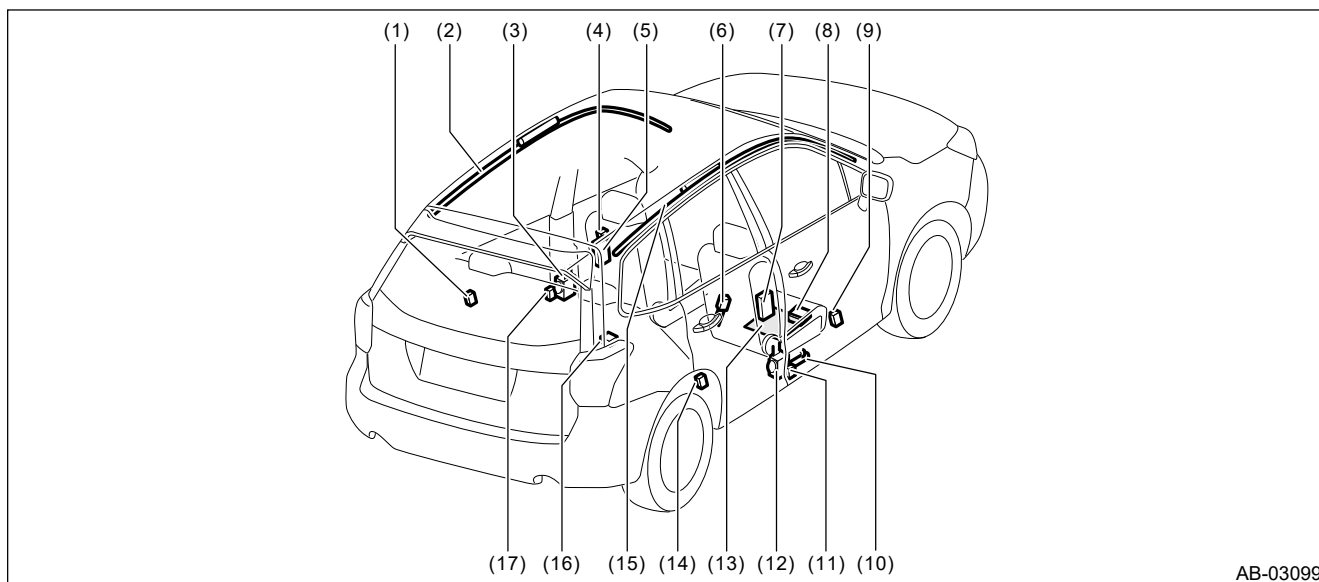
## AIRBAG SYSTEM > General Description

### COMPONENT



AB-10157

- |                            |                                                 |                              |
|----------------------------|-------------------------------------------------|------------------------------|
| (1) Front sub sensor RH    | (4) Airbag warning light (in combination meter) | (7) Airbag control module    |
| (2) Front sub sensor LH    | (5) Airbag ON/OFF indicator light               | (8) Knee airbag module (MFD) |
| (3) Driver's airbag module | (6) Passenger's airbag module                   | (9) Steering roll connector  |



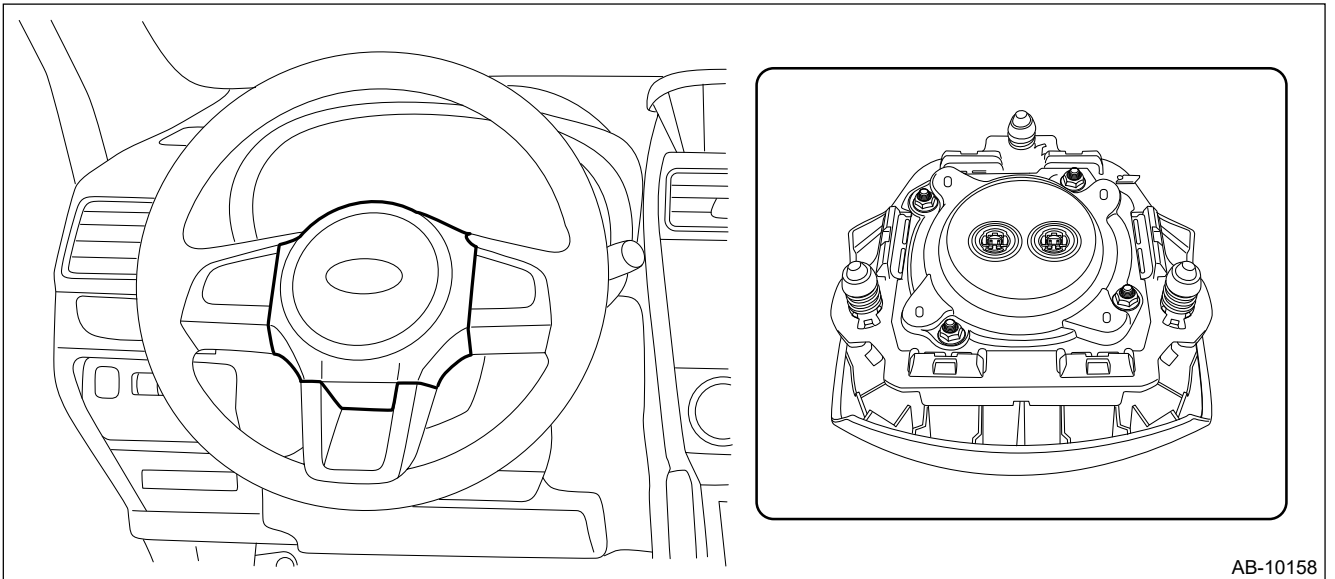
AB-03099

- |                                 |                                       |                                |
|---------------------------------|---------------------------------------|--------------------------------|
| (1) Curtain airbag sensor LH    | (7) Side airbag module RH             | (13) Occupant detection sensor |
| (2) Curtain airbag module LH    | (8) Occupant detection control module | (14) Curtain airbag sensor RH  |
| (3) Seat belt pretensioner LH   | (9) Front door impact sensor RH       | (15) Curtain airbag module RH  |
| (4) Front door impact sensor LH | (10) Lap seat belt pretensioner RH    | (16) Satellite safing sensor   |
| (5) Side airbag module LH       | (11) Side airbag sensor RH            | (17) Side airbag sensor LH     |

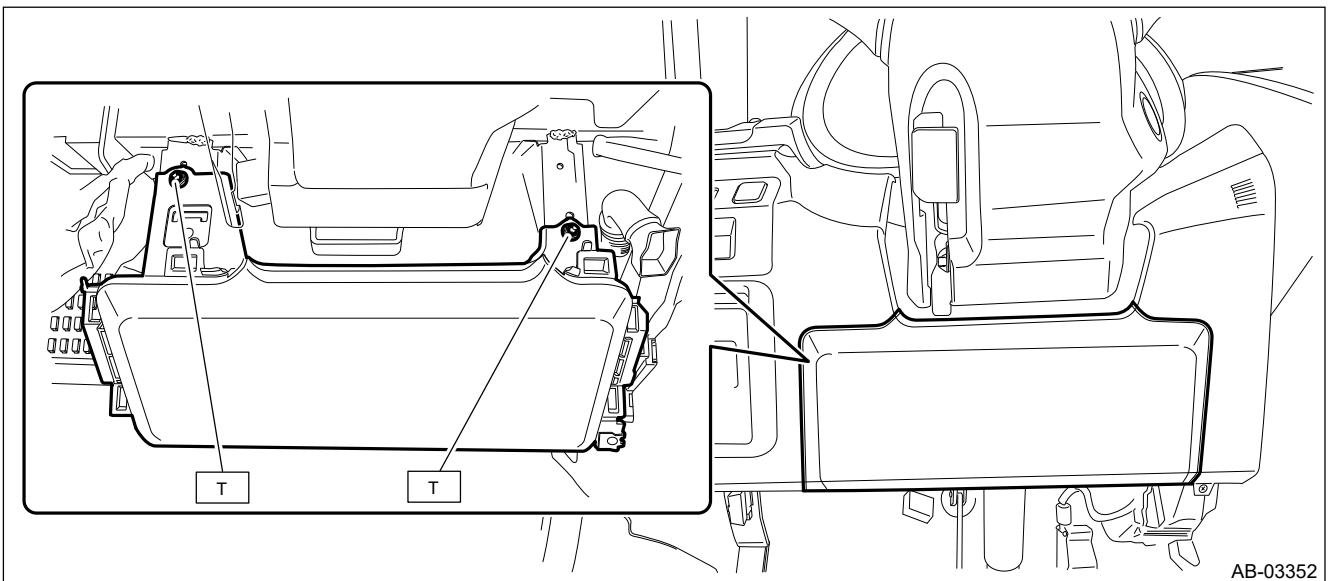
(6) Buckle switch RH

(12) Seat belt pretensioner RH

## 1. DRIVER'S AIRBAG MODULE



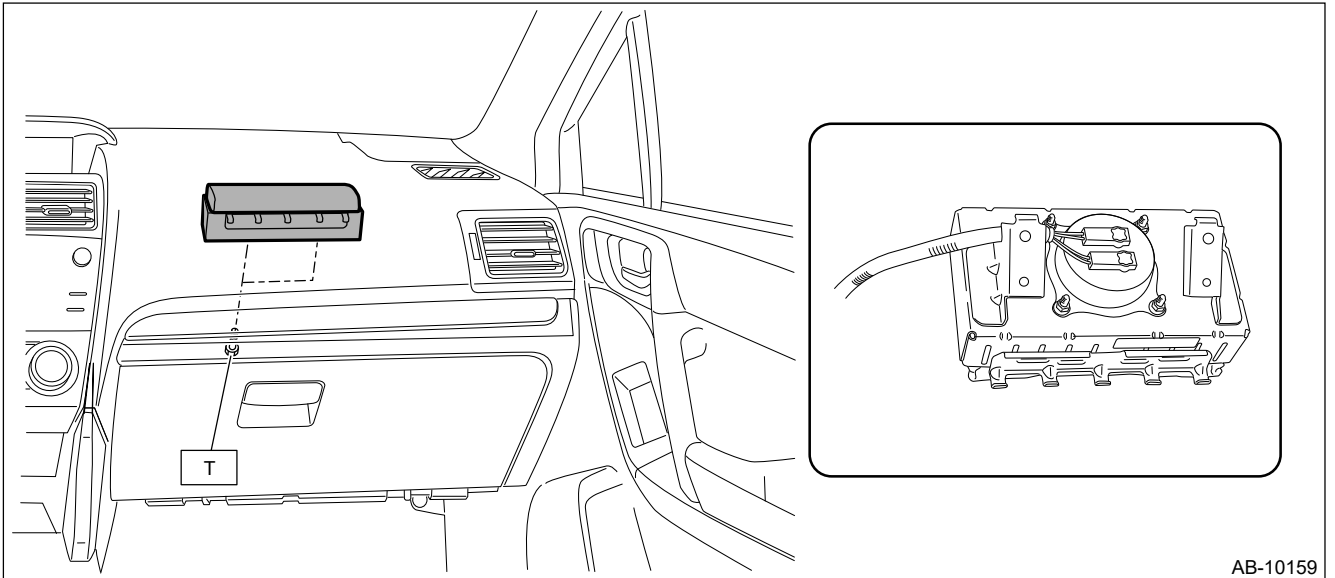
## 2. KNEE AIRBAG MODULE



**Tightening torque: N·m (kgf-m, ft-lb)**

**T: 7.5 (0.76, 5.5)**

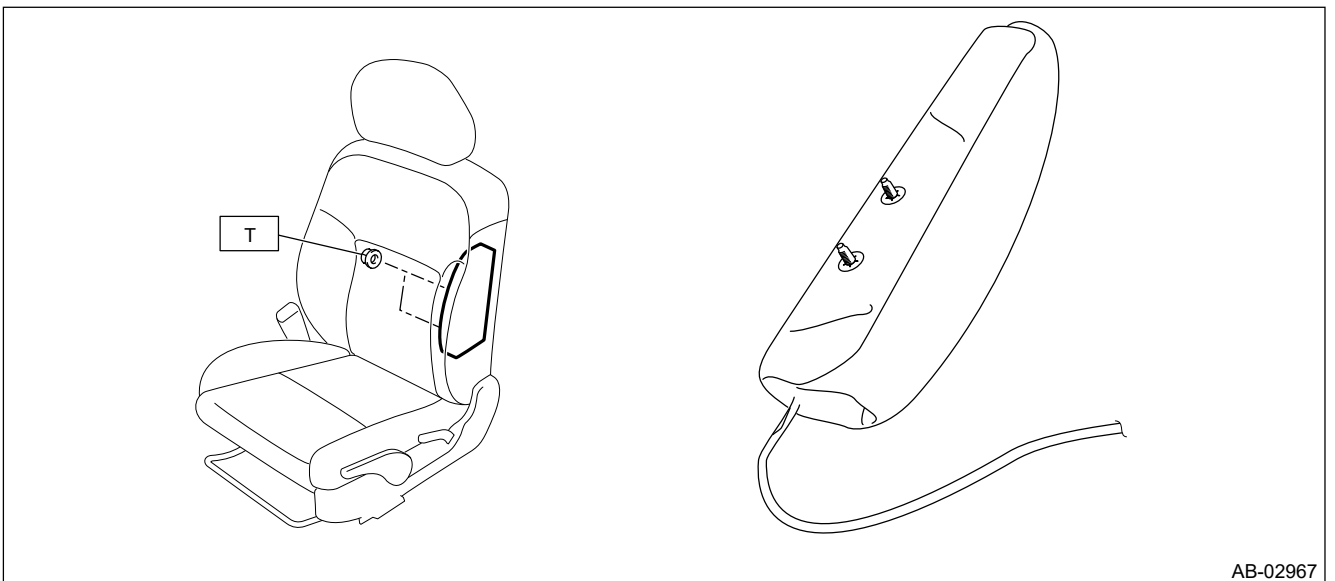
## 3. PASSENGER'S AIRBAG MODULE



**Tightening torque: N·m (kgf·m, ft·lb)**

**T: 7.5 (0.76, 5.5)**

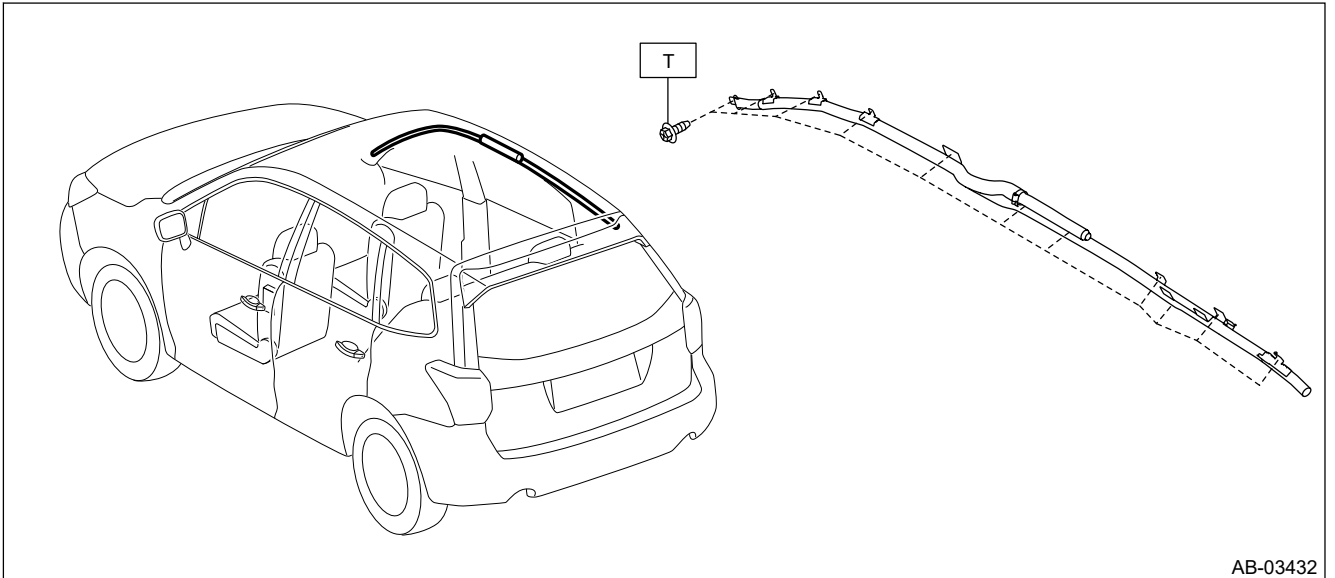
#### 4. SIDE AIRBAG MODULE



**Tightening torque: N·m (kgf·m, ft·lb)**

**T: 6 (0.61, 4.4)**

#### 5. CURTAIN AIRBAG MODULE



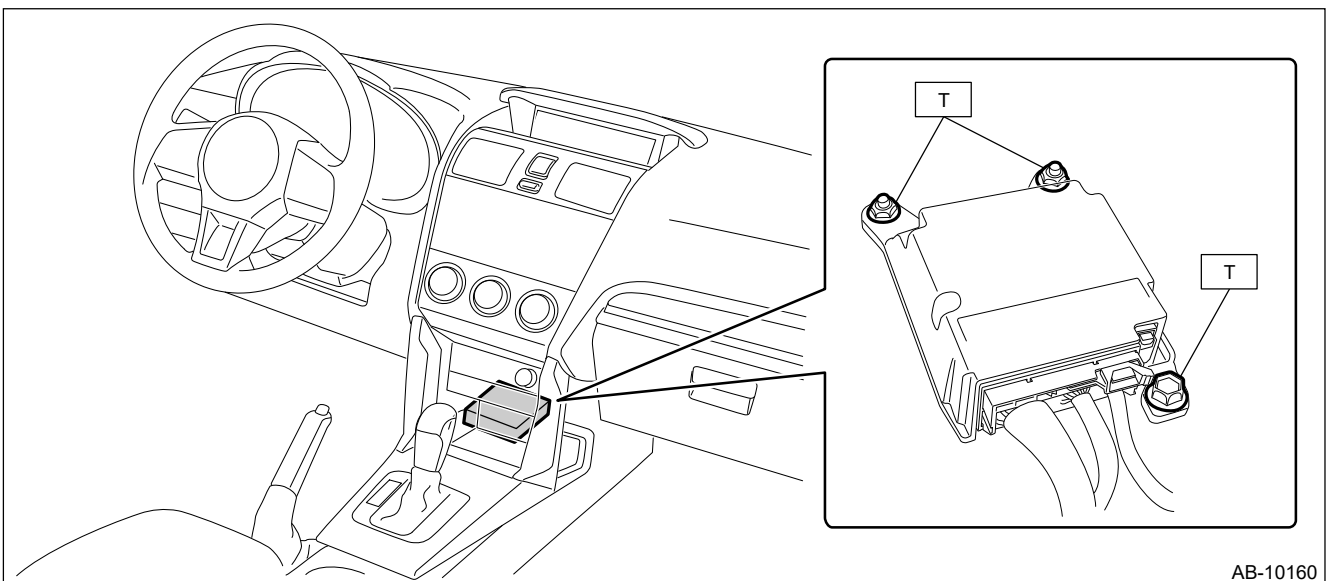
**Tightening torque: N·m (kgf-m, ft-lb)**

**T: 7.5 (0.76, 5.5)**

## 6. AIRBAG CONTROL MODULE

**Caution:**

**Do not reuse mounting bolts and nuts.**



**Tightening torque: N·m (kgf-m, ft-lb)**

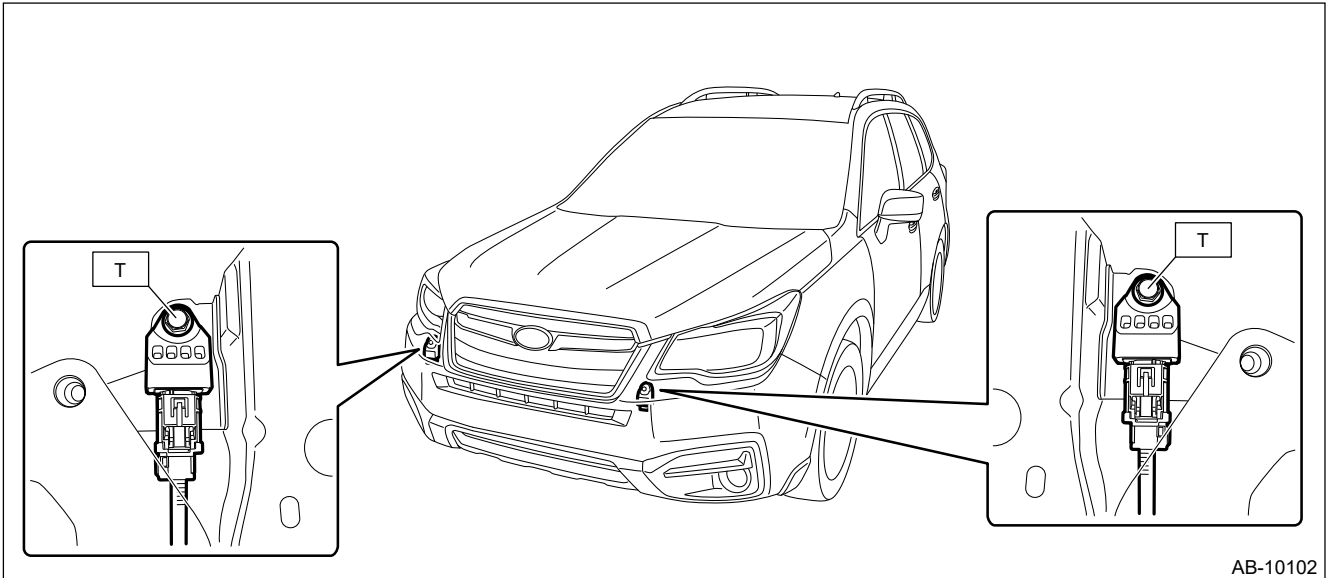
**T: 25 (2.55, 18.4)**

## 7. FRONT SUB SENSOR

**Caution:**

**Do not reuse mounting bolts and nuts.**





AB-10102

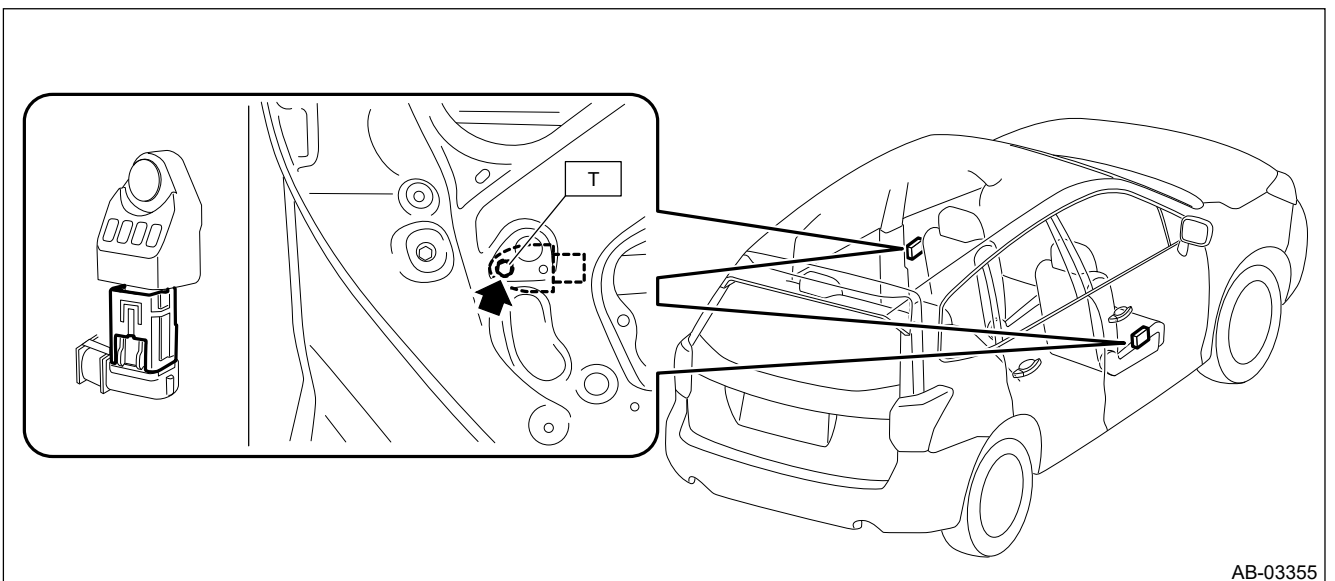
**Tightening torque: N·m (kgf-m, ft-lb)**

**T: 13 (1.33, 9.6)**

## 8. FRONT DOOR IMPACT SENSOR

**Caution:**

**Do not reuse mounting bolts and nuts.**



AB-03355

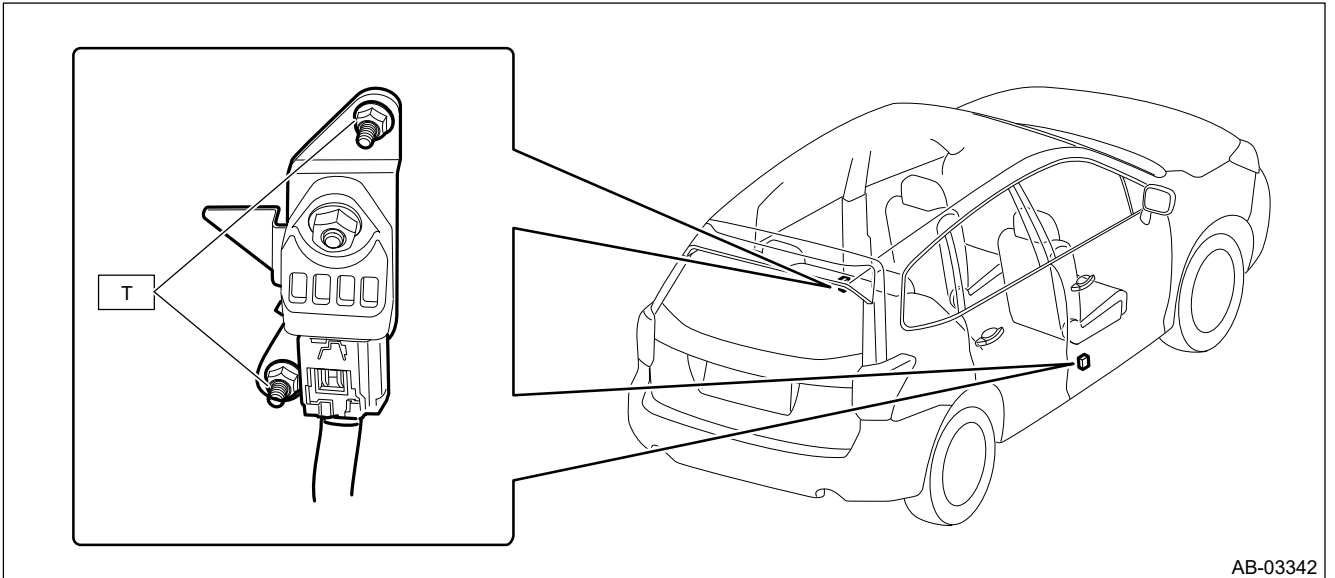
**Tightening torque: N·m (kgf-m, ft-lb)**

**T: 7.5 (0.76, 5.5)**

## 9. SIDE AIRBAG SENSOR

**Caution:**

**Do not reuse mounting bolts and nuts.**



AB-03342

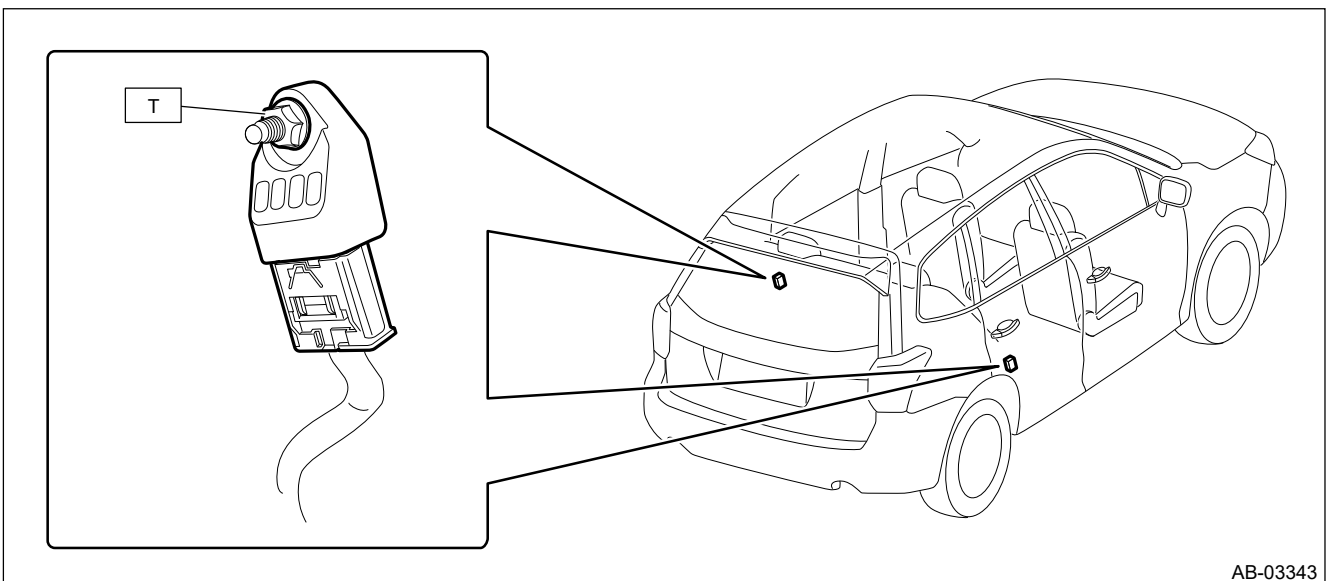
**Tightening torque: N·m (kgf-m, ft-lb)**

**T: 7.5 (0.76, 5.5)**

## 10. CURTAIN AIRBAG SENSOR

**Caution:**

**Do not reuse mounting bolts and nuts.**



AB-03343

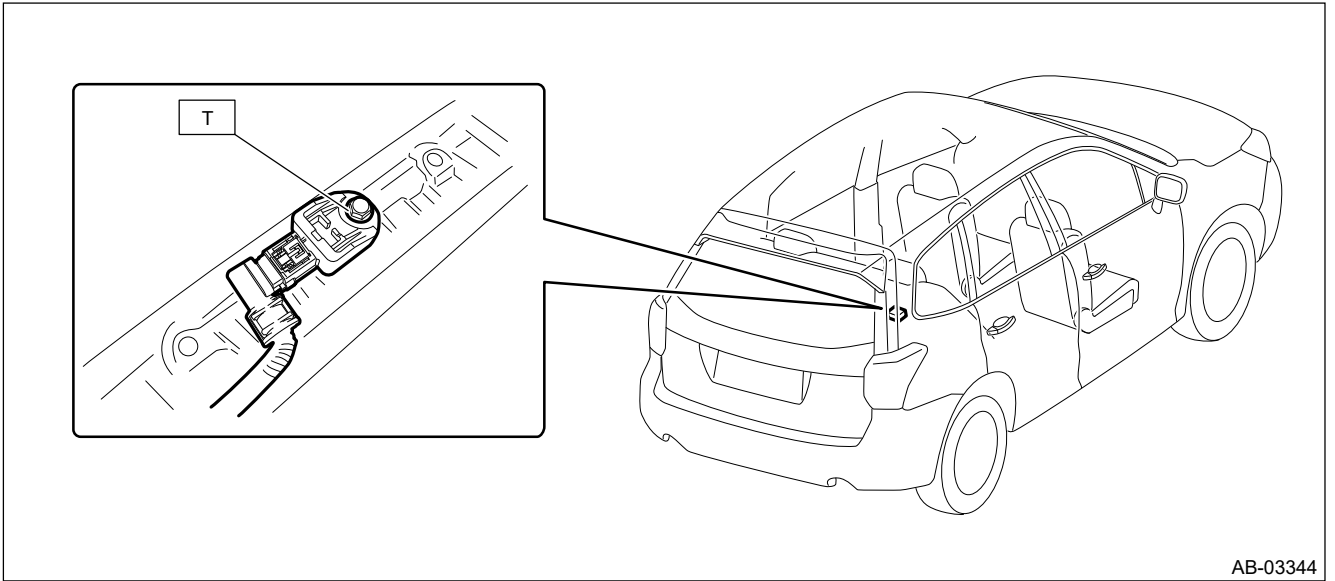
**Tightening torque: N·m (kgf-m, ft-lb)**

**T: 7.5 (0.76, 5.5)**

## 11. SATELLITE SAFING SENSOR

**Caution:**

**Do not reuse mounting bolts and nuts.**

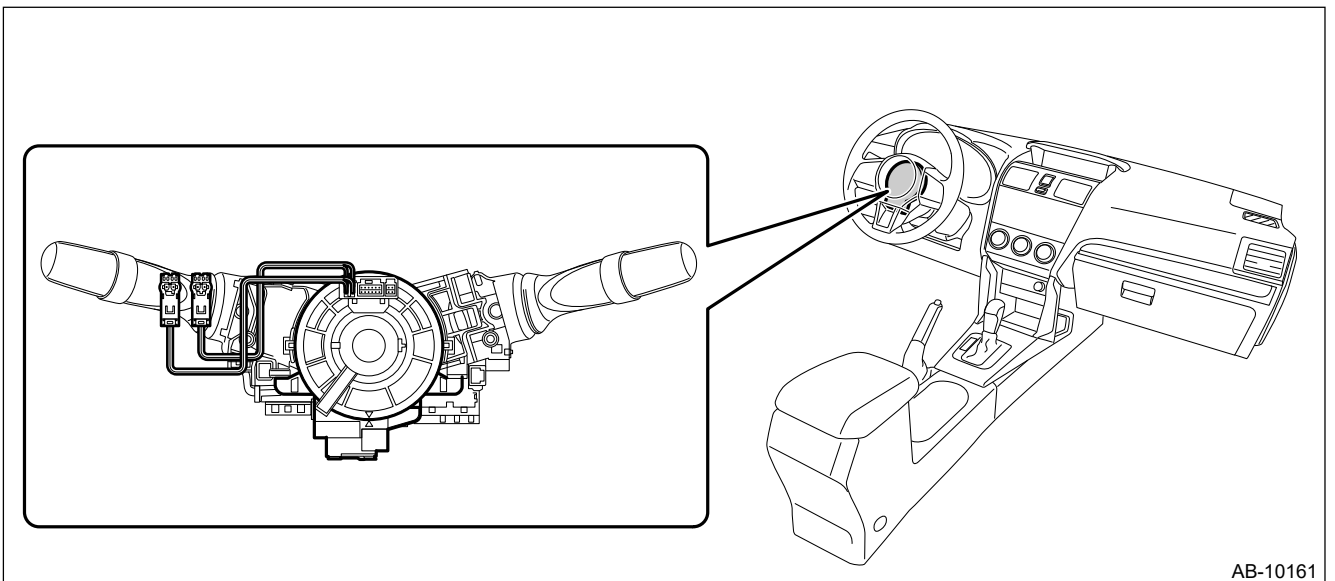


AB-03344

**Tightening torque: N·m (kgf-m,  
ft-lb)**

**T: 7.5 (0.76, 5.5)**

## 12. STEERING ROLL CONNECTOR



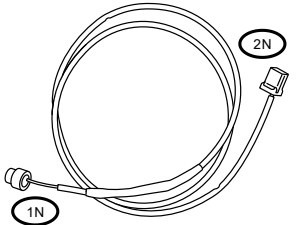
AB-10161

## AIRBAG SYSTEM > General Description

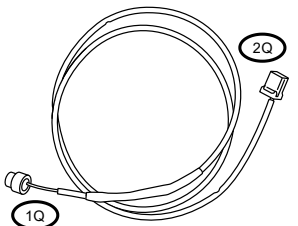
### PREPARATION TOOL

#### 1. SPECIAL TOOL

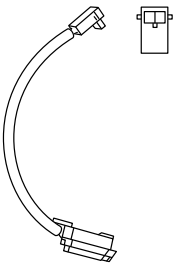
- TEST HARNESS N

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST98299SA000</p>	98299SA000	TEST HARNESS N	Used for unit inspection of steering roll connector.

- TEST HARNESS Q

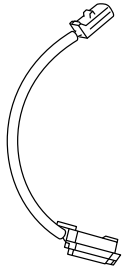
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST98299SA040</p>	98299SA040	TEST HARNESS Q	Used for unit inspection of steering roll connector.

- TEST HARNESS ADAPTER D

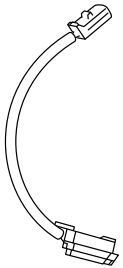
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST98299SA010</p>	98299SA010	TEST HARNESS ADAPTER D	<ul style="list-style-type: none"> <li>• Used for operation process of knee airbag module.</li> <li>• Used for operation process of curtain airbag module.</li> <li>• Used together with AIRBAG DEPLOYMENT TOOL. (98299PA030)</li> </ul>

- TEST HARNESS ADAPTER AM


ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
	98299FJ000	TEST HARNESS ADAPTER AM	<ul style="list-style-type: none"> <li>• Used for operation process of passenger's airbag module.</li> <li>• Used together with AIRBAG DEPLOYMENT TOOL.</li> </ul>

 <p>ST98299FJ000</p>			(98299PA030)
-------------------------------------------------------------------------------------------------------	--	--	--------------

• TEST HARNESS ADAPTER K

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST98299FG010</p>	98299FG010	TEST HARNESS ADAPTER K	<ul style="list-style-type: none"> <li>• Used for operation process of side airbag module.</li> <li>• Used together with AIRBAG DEPLOYMENT TOOL. (98299PA030)</li> </ul>

• AIRBAG DEPLOYMENT TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST98299PA030</p>	98299PA030	AIRBAG DEPLOYMENT TOOL	<ul style="list-style-type: none"> <li>• Used for operation process of airbag module.</li> <li>• Used together with each test harness adapter.</li> </ul>

**2. GENERAL TOOL**

TOOL NAME	REMARKS
Steering wheel puller	Used for removing and installing the steering wheel.
TORX® T40	Used for removing and installing the beam COMPL - steering.
Circuit tester	Used for measuring resistance, voltage and current.

## AIRBAG SYSTEM > Inspection Locations after a Collision

### INSPECTION

---

If the vehicle is involved in a collision, even if it is a slight collision, be sure to check the following systems.

#### 1. DRIVER'S AIRBAG MODULE ASSEMBLY

##### 1. Frontal collision (driver's airbag module assembly activated)

1. Replace the following parts with new ones.

- Airbag control module
- Driver's airbag module
- Knee airbag module
- Passenger's airbag module (if deployed)
- Side airbag module (right and left / if deployed)
- Curtain airbag module (right and left / if deployed)
- Seat belt pretensioner (right and left)
- Lap seat belt pretensioner (passenger's side only)
- Front sub sensor (right and left)
- Instrument panel assembly (because it is integrated with passenger's airbag module) (if passenger's airbag module is deployed)
- Steering wheel
- Column assembly - steering
- Roll connector
- Pad assembly - front seat backrest (if the side airbag is deployed)
- Frame assembly - front seat cushion (if the side airbag is deployed)
- Frame assembly - front seat backrest (if the side airbag is deployed)
- Cover COMPL - front backrest (if the side airbag is deployed)
- Trim panel - roof assembly (if the curtain airbag is deployed)
- Trim panel of each pillar (if the curtain airbag is deployed)

2. Visually inspect the following items and replace any damaged part with a new one.

- Universal joint assembly - steering:
- Steering gearbox
- Beam COMPL - steering
- Harnesses and connectors on body side that are linked to the replaced parts

##### 2. Frontal collision (driver's airbag module not activated)

Visually inspect the following items and replace any damaged or cracked part with a new one. Specially inspect the damage of airbag module body, mounting bracket and harness connector.

- Driver's airbag module
- Knee airbag module
- Passenger's airbag module
- Seat belt pretensioner (right and left)
- Lap seat belt pretensioner (passenger's side only)
- Front sub sensor (right and left)
- Instrument panel assembly (because it is integrated with passenger's airbag module)

### 3. No frontal collision

Visually inspect the airbag modules for damage or contamination and replace any faulty part with a new one.

## 2. KNEE AIRBAG MODULE

### 1. Frontal collision (knee airbag module activated)

#### 1. Replace the following parts with new ones.

- Airbag control module
- Driver's airbag module
- Knee airbag module
- Passenger's airbag module (if deployed)
- Side airbag module (right and left / if deployed)
- Curtain airbag module (right and left / if deployed)
- Seat belt pretensioner (right and left)
- Lap seat belt pretensioner (passenger's side only)
- Front sub sensor (right and left)
- Instrument panel assembly (because it is integrated with passenger's airbag module) (if passenger's airbag module is deployed)
- Steering wheel
- Column assembly - steering
- Roll connector
- Pad assembly - front seat backrest (if the side airbag is deployed)
- Frame assembly - front seat cushion (if the side airbag is deployed)
- Frame assembly - front seat backrest (if the side airbag is deployed)
- Cover COMPL - front backrest (if the side airbag is deployed)
- Trim panel - roof assembly (if the curtain airbag is deployed)
- Trim panel of each pillar (if the curtain airbag is deployed)

#### 2. Visually inspect the following items and replace any damaged part with a new one.

- Universal joint assembly - steering:
- Steering gearbox
- Beam COMPL - steering
- Harnesses and connectors on body side that are linked to the replaced parts

### 2. Frontal collision (knee airbag module not activated)

Visually inspect the following items and replace any damaged or cracked part with a new one. Specially inspect the damage of airbag module body, mounting bracket and harness connector.

- Driver's airbag module
- Knee airbag module
- Passenger's airbag module
- Seat belt pretensioner (right and left)
- Lap seat belt pretensioner (passenger's side only)
- Front sub sensor (right and left)
- Instrument panel assembly (because it is integrated with passenger's airbag module)

### 3. No frontal collision

Visually inspect the airbag modules for damage or contamination and replace any faulty part with a new one.

### **3. PASSENGER'S AIRBAG MODULE**

#### **1.** Frontal collision (passenger's airbag module activated)

1. Replace the following parts with new ones.

- Airbag control module
- Driver's airbag module
- Knee airbag module
- Passenger's airbag module
- Seat belt pretensioner (right and left)
- Lap seat belt pretensioner (passenger's side only)
- Side airbag module (right and left / if deployed)
- Curtain airbag module (right and left / if deployed)
- Front sub sensor (right and left)
- Steering wheel
- Column assembly - steering
- Instrument panel assembly (because it is integrated with passenger's airbag module)
- Roll connector
- Pad assembly - front seat backrest (if the side airbag is deployed)
- Frame assembly - front seat cushion (if the side airbag is deployed)
- Frame assembly - front seat backrest (if the side airbag is deployed)
- Cover COMPL - front backrest (if the side airbag is deployed)
- Trim panel - roof assembly (if the curtain airbag is deployed)
- Trim panel of each pillar (if the curtain airbag is deployed)

2. Visually inspect the following items and replace any damaged part with a new one.

- Beam COMPL - steering
- Harnesses and connectors on body side that are linked to the replaced parts

#### **2.** Frontal collision (passenger's airbag module not activated)

Visually inspect the following items and replace any damaged or cracked part with a new one. Specially inspect the damage of airbag module body, mounting bracket and harness connector.

- Driver's airbag module
- Knee airbag module
- Passenger's airbag module
- Seat belt pretensioner (right and left)
- Lap seat belt pretensioner (passenger's side only)
- Front sub sensor (right and left)
- Instrument panel assembly (because it is integrated with passenger's airbag module)

#### **3.** No frontal collision

Visually inspect the airbag modules for damage or contamination and replace any faulty part with a new one.

### **4. SIDE AIRBAG MODULE**

#### **1.** Side impact (side airbag module activated)



1. Replace the following parts with new ones.

- Airbag control module
- Satellite safing sensor
- Cover - satellite safing
- Front door impact sensor (collision side)
- Seat belt pretensioner (collision side / if deployed)
- Side airbag module (operating side)
- Side airbag sensor (collision side)
- Curtain airbag module (operating side)
- Curtain airbag sensor (collision side)
- Pad assembly - front seat backrest (collision side)
- Frame assembly - front backrest (collision side)
- Cover COMPL - front backrest (collision side)
- Frame assembly - front seat cushion (collision side)
- Trim panel - roof assembly
- Trim panel for each pillar

2. Visually inspect the following items and replace any damaged part with a new one.

- Headrest assembly
- Bushing - lock headrest
- Slide rail assembly - OUT
- Slide rail assembly - INN
- Cover - hinge front seat
- Knob - lifter
- Lever - reclining
- Harnesses and connectors on body side that are linked to the replaced parts

**2.** Side impact (side airbag module not activated)

Visually inspect the following items and replace any damaged or cracked part with a new one. Specially inspect the damage of airbag module body, mounting bracket and harness connector.

- Pad assembly - front seat backrest
- Frame assembly - front backrest
- Cover COMPL - front backrest
- Satellite safing sensor
- Cover - satellite safing
- Front door impact sensor
- Side airbag module
- Side airbag sensor
- Curtain airbag module
- Curtain airbag sensor

**3.** No side impact

Visually inspect the airbag modules for contamination and replace any faulty part with a new one.

## **5. CURTAIN AIRBAG MODULE**

**1.** Side impact or roll over (curtain airbag module activated)

1. Replace the following parts with new ones.

- Airbag control module
- Satellite safing sensor
- Cover - satellite safing
- Side airbag module (operating side)
- Side airbag sensor (collision side)
- Curtain airbag module (operating side)
- Curtain airbag sensor (collision side)
- Seat belt pretensioner (operating side)
- Front door impact sensor (collision side)
- Pad assembly - front seat backrest (collision side)
- Frame assembly - front backrest (collision side)
- Cover COMPL - front backrest (collision side)
- Frame assembly - front seat cushion (collision side)
- Trim panel - roof assembly
- Trim panel for each pillar
- Airbag bracket (model with sunroof) (collision side)

2. Visually inspect the following items and replace any damaged part with a new one.

- Assist rail - front and rear
- Bracket - assist rail front and rear
- Harnesses and connectors on body side that are linked to the replaced parts

**2.** Side impact (curtain airbag module not activated)

Visually inspect the following items and replace any damaged or cracked part with a new one. Specially inspect the damage of airbag module body, mounting bracket and harness connector.

- Trim panel - roof assembly
- Trim panel for each pillar
- Curtain airbag module
- Satellite safing sensor
- Cover - satellite safing
- Front door impact sensor
- Side airbag sensor
- Curtain airbag sensor

**3.** No side impact or roll over

Visually inspect the airbag modules for damage or contamination and replace any faulty part with a new one.

## **6. AIRBAG CONTROL MODULE**

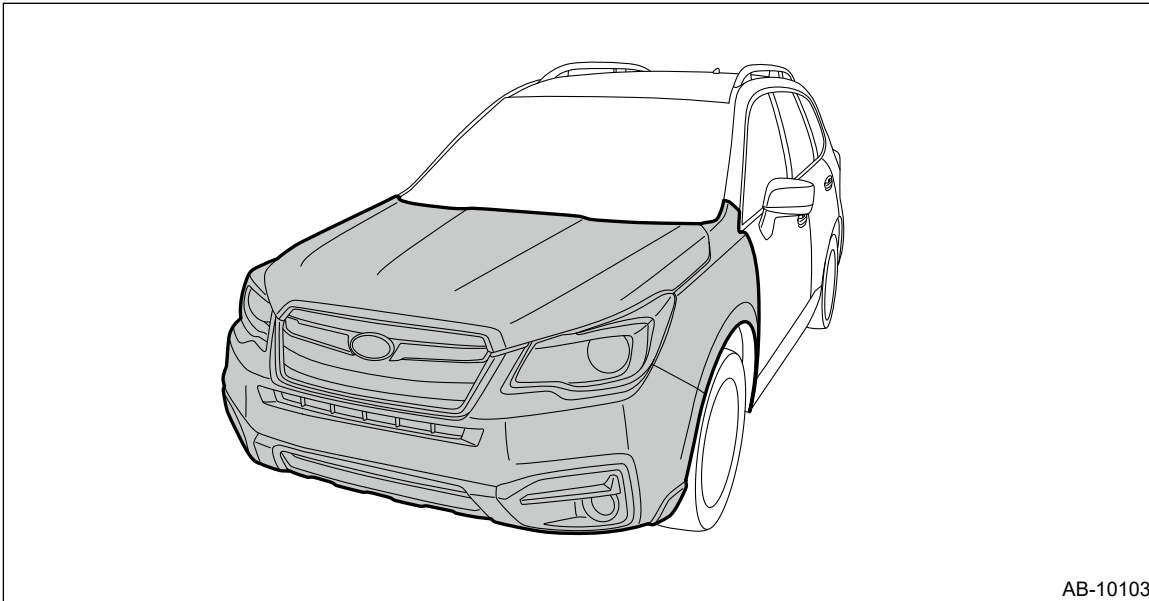
Check for the following, and replace the damaged parts with new parts.

- Control module is cracked or deformed.
- Mounting bracket is cracked or deformed.
- Connector is scratched, cracked or deformed.
- Driver's airbag module has been activated.
- Knee airbag module has been activated.
- Passenger's airbag module has been activated.

- Side airbag module has been activated.
- Curtain airbag module has been activated.
- Seat belt pretensioner has been activated.
- Lap seat belt pretensioner has been activated.

## **7. FRONT SUB SENSOR**

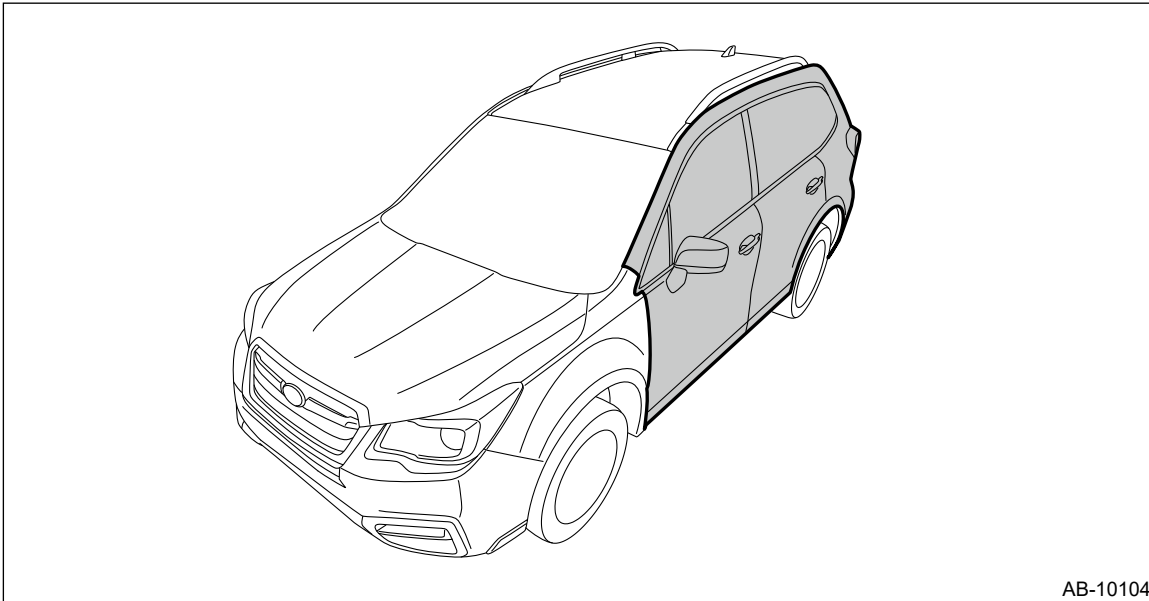
If the section of vehicle as shown in the figure is damaged, check the following items and replace the damaged parts with new parts.



- Front sub sensor is cracked or deformed.
- Connector is scratched, cracked or deformed.
- Driver's airbag module, knee airbag module or passenger's airbag module has been activated.

## **8. FRONT DOOR IMPACT SENSOR, SATELLITE SAFING SENSOR, SIDE AIRBAG SENSOR AND CURTAIN AIRBAG SENSOR**

If the section of vehicle as shown in the figure is damaged, check the following items and replace the damaged parts with new parts.



- Sensor is cracked or deformed.
- Mounting bracket is cracked or deformed.
- Connector is scratched, cracked or deformed.
- Side airbag module or curtain airbag module has been activated. (Operating side)

## 9. ROLL CONNECTOR

Check for the following, and replace the damaged parts such as cracks, deformation, etc. with new parts.

- Combination switch
- Steering roll connector

## 10. CHECK STEERING SYSTEM

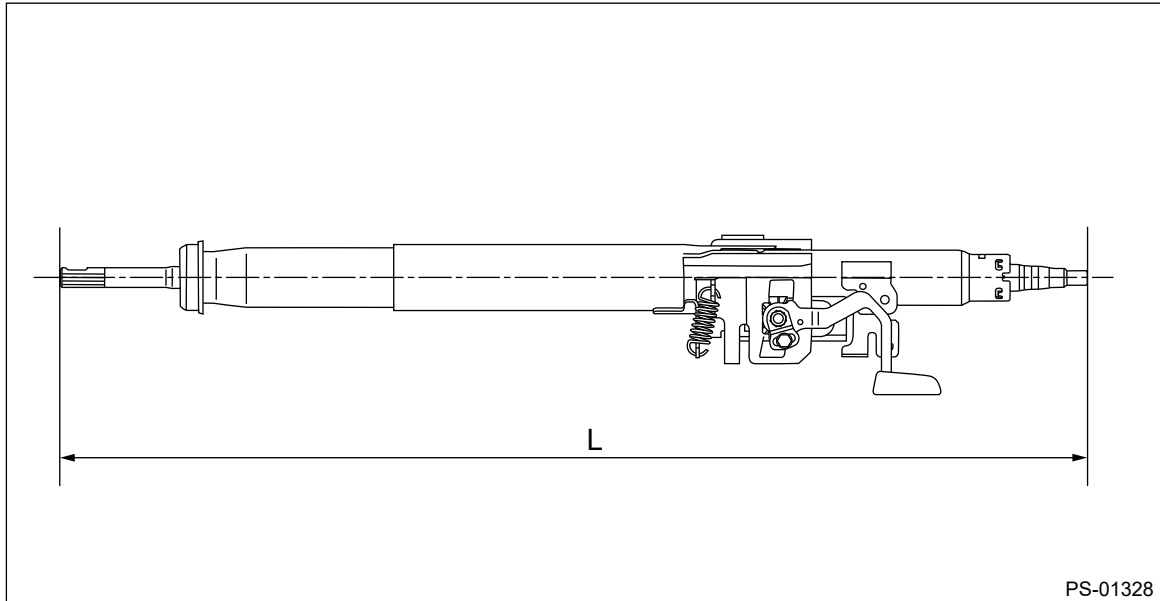
Check the following items, and if there is anything out of standard value, it is considered to be damaged. If so, replace it with a new part.

- Steering wheel
- Column assembly - steering
- Universal joint assembly - steering
- Steering gearbox
- Deflection of front and rear, upward and downward directions, and mounting condition to vehicle body of the column assembly - steering. (After a collision, absorbing part of the column assembly - steering may have been operated.)
  - Measure the whole length of the column assembly - steering.

**Standard: Overall length L**

**Tilt and telescopic column (measure while minimized)**

$819.7^{+1.5}_{-1.5}$  mm ( $32.27^{+0.059}_{-0.059}$  in)



- Mounting conditions and deflection of front and rear, upward and downward directions of the steering wheel and column assembly - steering.
  - Check the steering wheel deflection in axial and vertical directions.

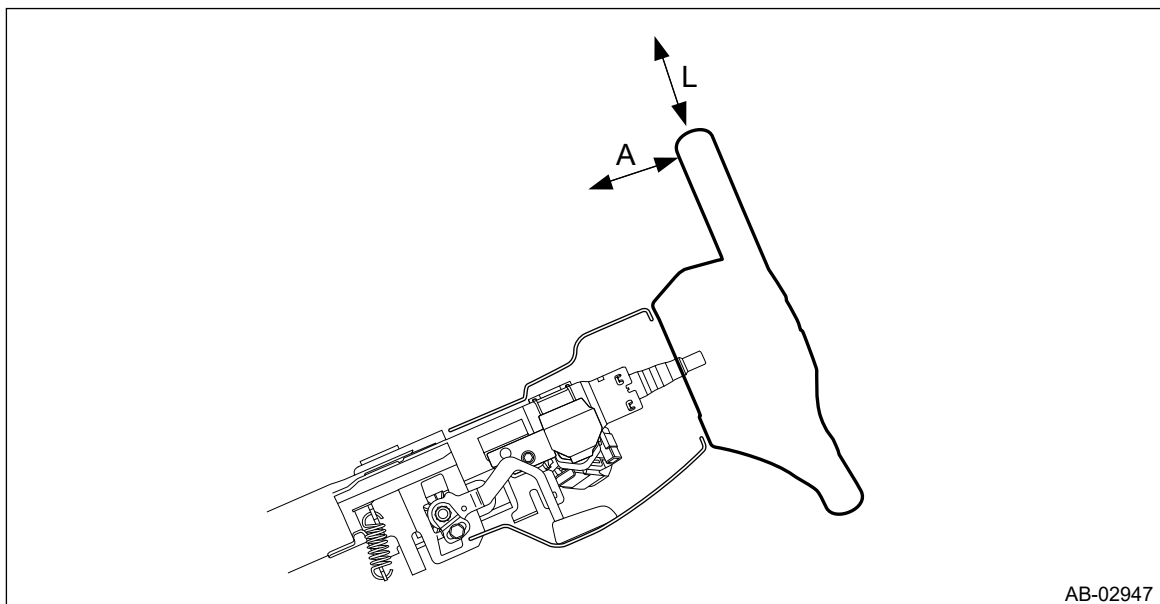
**Specification:**

**Axial deflection A (deflection of steering wheel)**

Less than 6 mm (0.24 in)

**Vertical deflection L (runout of steering wheel)**

Less than 17 mm (0.68 in)



- Check for deflection and the swing load of the universal joint assembly - steering. [📄 Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Universal Joint>INSPECTION.](#)
- Check the following items for the steering gearbox. [📄 Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Electric Power Steering Gearbox>INSPECTION.](#)
  - Rack sliding resistance and deflection
  - Input shaft play

- Rotational resistance of gearbox

## 11. PASSENGER'S SEAT

### Caution:

**If any of the following applies, replace the pad assembly - front seat cushion & frame assembly - front cushion as a unit. Do not disassemble.**

- **The frame assembly - front cushion or the pad assembly - front seat cushion is cracked or deformed.**
- **Scratches, cracks, or deformation found on the occupant detection system sensor mat or occupant detection control module, or attachment brackets of the control module.**
- **Harness and/or connector is cracked, deformed or open. Harness wire is exposed.**

Check for the following, and replace the damaged parts with new parts.

- Body or bracket of the seat belt inner - front is scratched, cracked or deformed.
- Frame assembly - front backrest is cracked or deformed.
- Headrest assembly for deformation or play
- If the cover - front cushion and the cover COMPL - front backrest is damaged or frayed, replace the cover with a new part.
- If the cover - front cushion and the seat heater are replaced, replace the cover hang wire with a new part.

## 12. INSPECTION OF OTHER PARTS

Check for the following parts, and replace the damaged parts with new parts.


- 1.** Steering wheel and column assembly - steering  
Check the column assembly - steering for mounting conditions, and deflection of front and rear direction with tilt lever released. (After a collision, absorbing part of the column assembly - steering may have been operated.)
- 2.** Check the direct type connector of driver's airbag module, knee airbag module, curtain airbag module, and pretensioner for damage, and also check each harness for pinching and connector damage. Replace the main harness as an assembly if damage is found.
- 3.** Check the seat cushion, backrest, slide rail and headrest for installation condition and looseness.
- 4.** If any break or fray is found in the cover COMPL - front backrest of the driver's seat or passenger's seat, the side airbag system may not operate normally. In this case, replace the cover COMPL - front backrest with a new part.
- 5.** For the passenger's seat, replace the frame assembly - front cushion with a new part if the frame assembly - front cushion is deformed or cracked.
- 6.** If there are tears or loosening in the seat cover - front cushion on the passenger's side, it may interfere with the proper operation of the occupant detection system. Replace the cover - front cushion with a new part.
- 7.** When the passenger seat cushion cover has been removed or replaced, make sure that the occupant detection system operates normally.
- 8.** Use the Subaru Select Monitor to check whether the passenger's seat belt buckle switch is operating normally.

## AIRBAG SYSTEM > Knee Airbag Module

### INSTALLATION

---

#### Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".**  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- **Do not allow harness and connectors to interfere or get tangled up with other parts.**

1. Before installation, inspect the following items and replace any faulty part with a new one.
  - Airbag module is cracked or deformed.
  - Knee airbag module bracket is cracked or deformed.
  - Harness and/or connector is cracked, deformed or open.
  - Harness wire is exposed.
  - Depending on the condition of the beam COMPL - steering, installation of the knee airbag module is difficult.


2. Install the knee airbag module.

#### Caution:

- **Be sure to insert the connector in until it is locked.**
- **Press in the push lock of the direct type connector securely. Then pull it gently to make sure that it is locked.**

#### Tightening torque:

7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)







## AIRBAG SYSTEM > Knee Airbag Module

### REMOVAL



#### Caution:

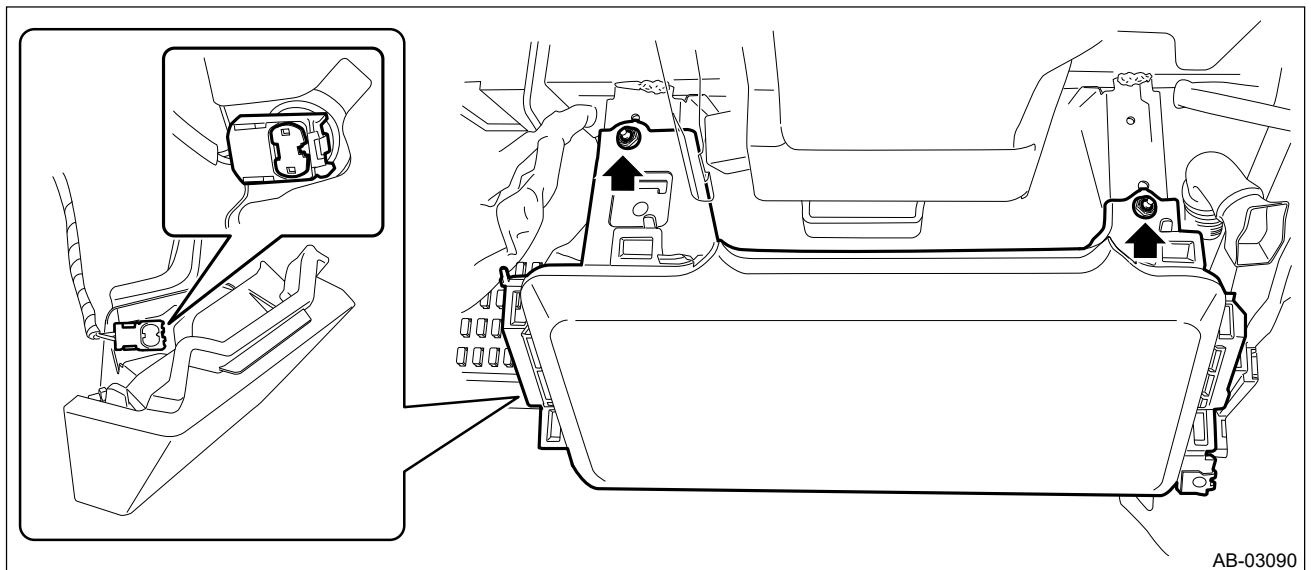
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Do not allow harness and connectors to interfere or get tangled up with other parts.

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### Caution:

**For model with battery sensor, disconnect the ground terminal from battery sensor.**

3. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
4. Remove the nuts to remove the knee airbag module and disconnect the harness connector.  [Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER.](#)




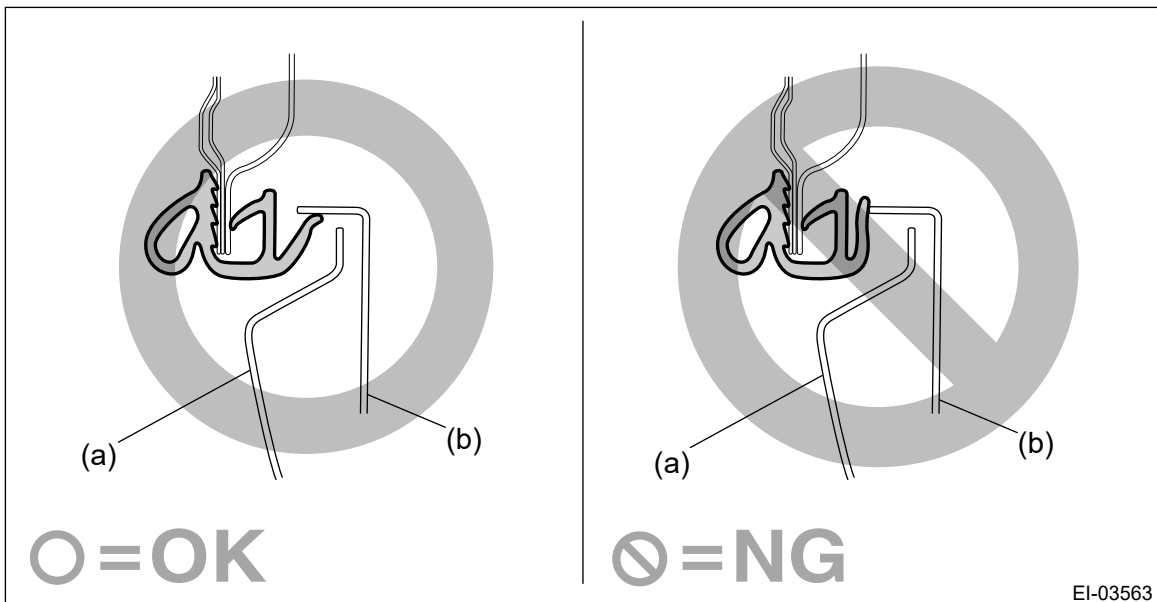


## AIRBAG SYSTEM > Passenger's Airbag Module

### INSTALLATION

#### Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Do not allow harness and connectors to interfere or get tangled up with other parts.
- After installing the panel center assembly, check that the air vent grille of the panel center assembly is inserted correctly into the air vent duct.
- When installing the cover - instrument panel side (a), make sure that the body side weather strip - flange front does not come inside the panel COMPL instrument (b).





- When reusing the tether clip on the upper part of the trim panel - front pillar UPR, check that there is no damage to the tether clip. If the tether clip is damaged, always replace it with a new tether clip. If the tether clip is damaged, its holding force is reduced and the trim panel - front pillar UPR may come off.
- Do not reuse the tether clip removed from the upper part of the trim panel - front pillar UPR. Always replace with a new part.
- Do not reuse the clips in the upper section of the trim panel - center pillar UPR. Always replace with a new part.


1. Before installation, inspect the following items and replace any faulty part with a new one.
  - Passenger's airbag lid (instrument panel surface) is cracked or deformed.
  - Airbag module is cracked or deformed.
  - Harness and/or connector is cracked, deformed or open.
  - Harness wire is exposed.
  - Mounting bracket is cracked or deformed.

2. Install each part in the reverse order of removal.

**Note:**

Refer to the installation procedure of the "Instrument Panel Assembly".  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>INSTALLATION.](#)

- Refer to the installation procedure of the column assembly - steering.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Column>INSTALLATION.](#)
- Refer to the installation procedure of the universal joint assembly - steering.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Universal Joint>INSTALLATION.](#)
- Always install the universal joint assembly - steering after installing the steering column to avoid damage to the universal joint assembly - steering.
- Be sure to follow the tightening order and tightening torque of the universal joint assembly - steering to avoid the steering effort from becoming heavy. After confirming that the steering column position is in the neutral position, tighten the universal joint assembly - steering.
- Always place the tilt lever to the lock position after the steering column is adjusted.


3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## AIRBAG SYSTEM > Passenger's Airbag Module


### REMOVAL

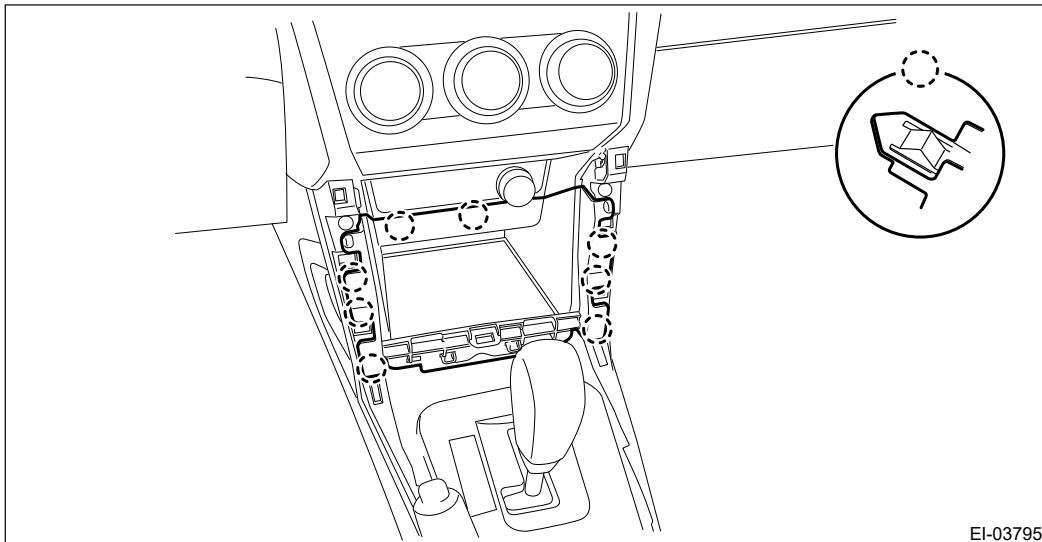
#### Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

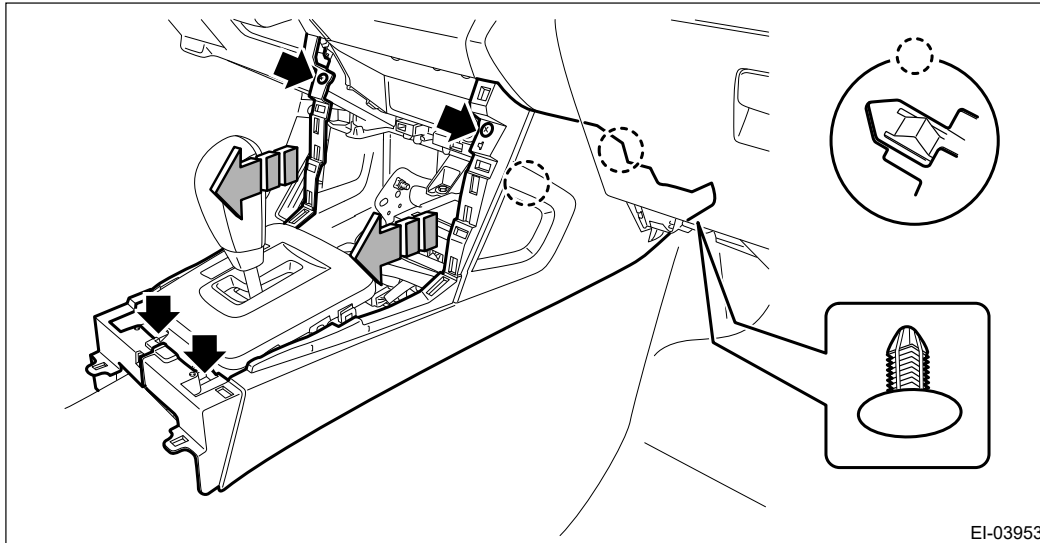
1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### Note:


- For model with battery sensor, disconnect the ground terminal from battery sensor.
  - On CVT models, shift the select lever into "N" before disconnecting the battery ground cable.
  - For models with power seat, remove the console box before removing the battery ground terminal.
3. Remove the boot - hand brake, ornament panel - console, cover - shift lever and console box assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.](#)
  4. Release the claws, and remove the tray assembly - CTR LWR.

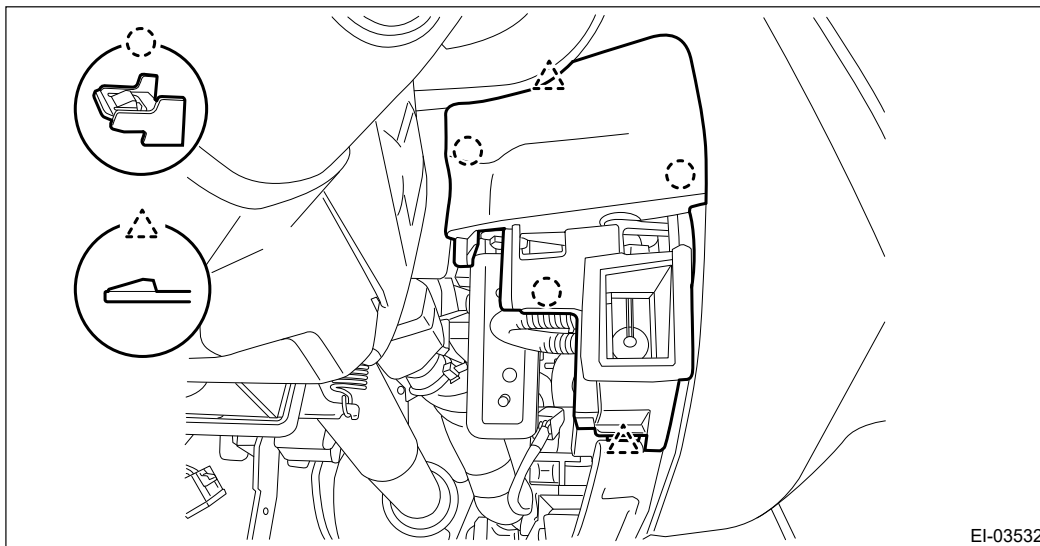


5. Remove the left and right panel center LWR.
  - (1) Remove the screws and clips.
  - (2) Release the claws, and then pull the panel center LWR to remove.



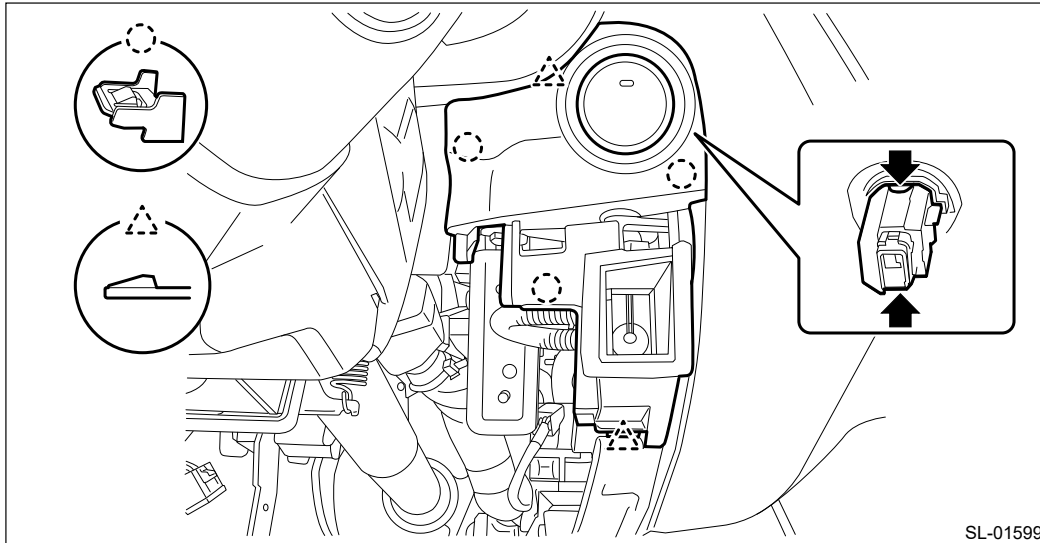
EI-03953


6. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
7. Remove the cover switch - starter. (Models without the keyless access with push button start)
  - (1) Release the claws and remove the cover switch - starter.
  - (2) Disconnect the connector and aspirator hose.

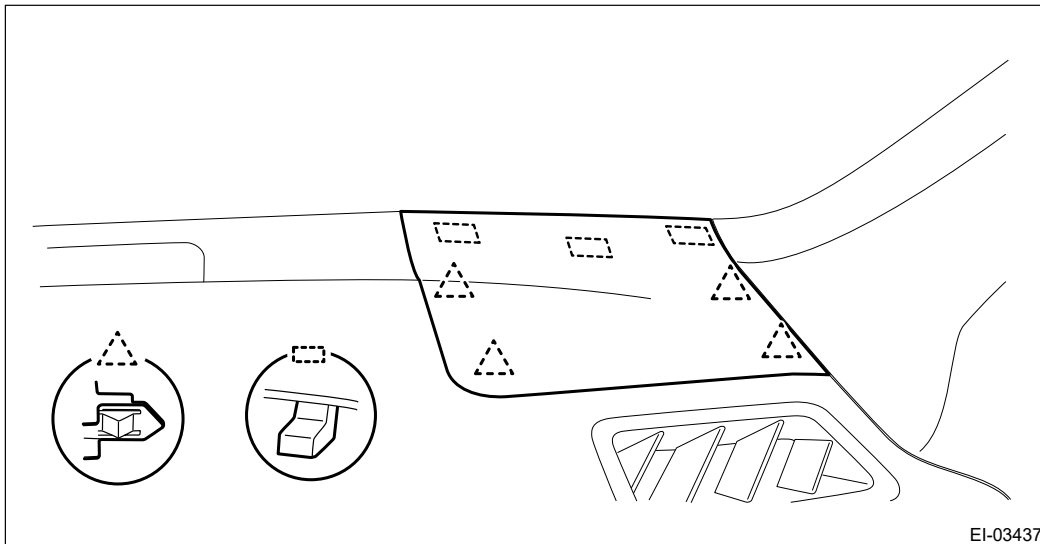


EI-03532

8. Remove the panel - switch. (Model with keyless access with push button start)
  - (1) Release the claws of the push button ignition switch, and disconnect the connector.
  - (2) Release the claws, and then remove the panel - switch.
  - (3) Disconnect the connector and aspirator hose.





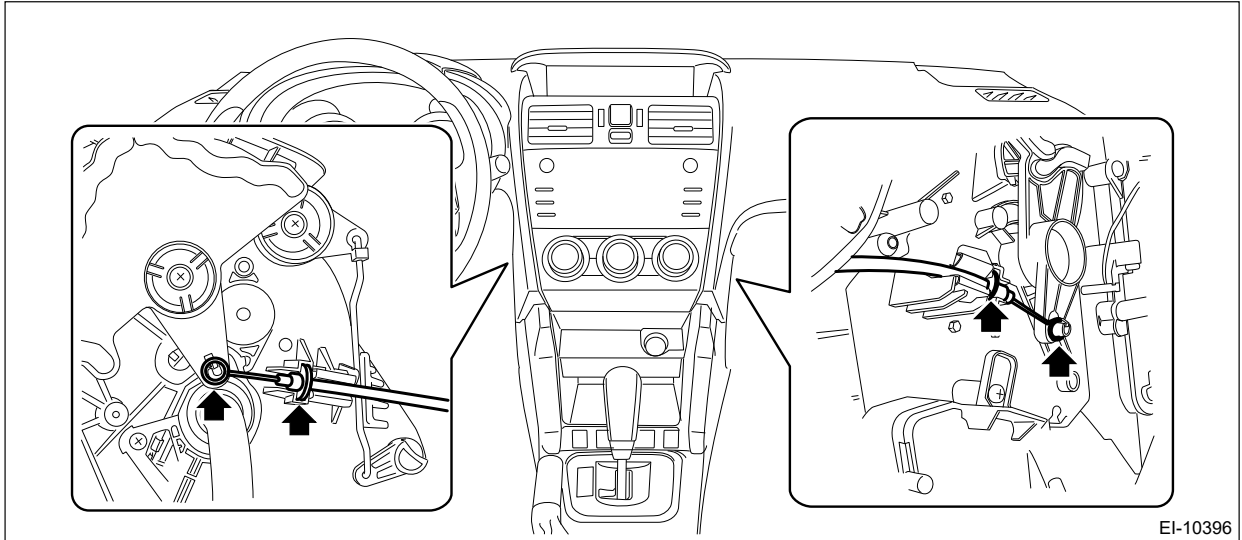
- 9.** Remove the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
- 10.** Release the clips and claws, then detach the left and right grille speaker side.



**Note:**

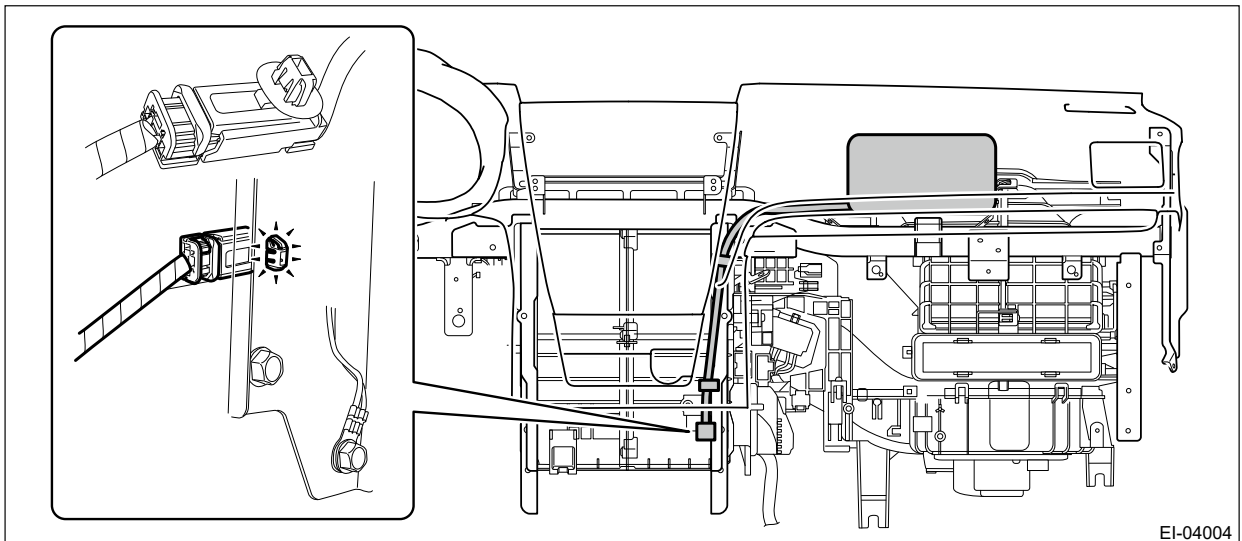
**Remove the grille speaker side by using a plastic remover.**

- 11.** Remove the trim panel - front pillar UPR on the left and right sides.  [Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>REMOVAL.](#)
- 12.** Remove the glove box assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
- 13.** On manual A/C models, disconnect the control cables from both sides of the heater & cooling unit.



EI-10396

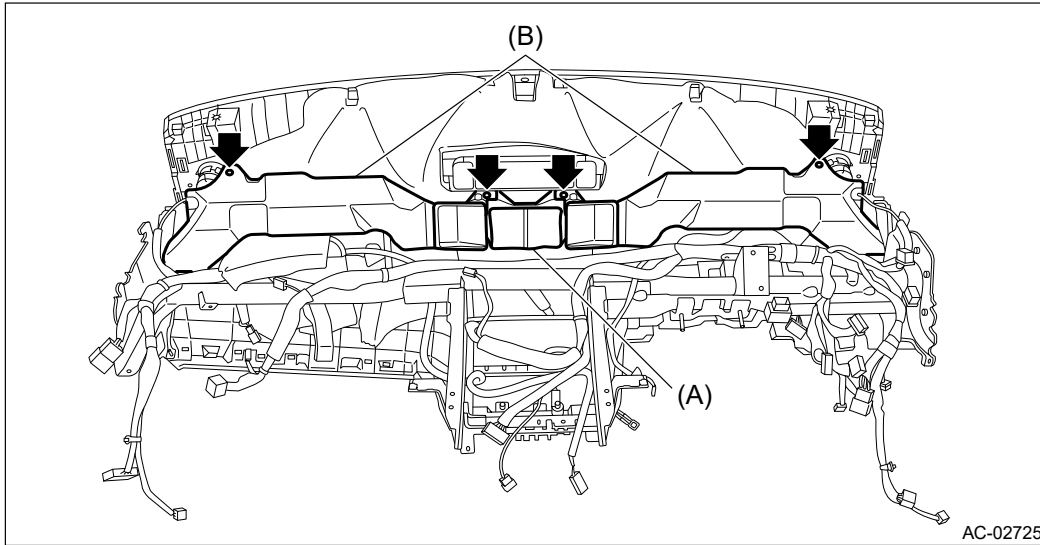
- 14.** Remove the center grille assembly. [🔧 Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL.](#)
- 15.** Remove the audio assembly or navigation assembly. [🔧 Ref. to ENTERTAINMENT>Audio>REMOVAL.](#)
- 16.** Remove the multi-function display assembly. [🔧 Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display \(MFD\)>REMOVAL.](#)
- 17.** Remove the combination meter assembly. [🔧 Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>REMOVAL.](#)
- 18.** Disconnect the passenger's airbag module connector. [🔧 Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > PASSENGER'S AIRBAG MODULE.](#)



EI-04004

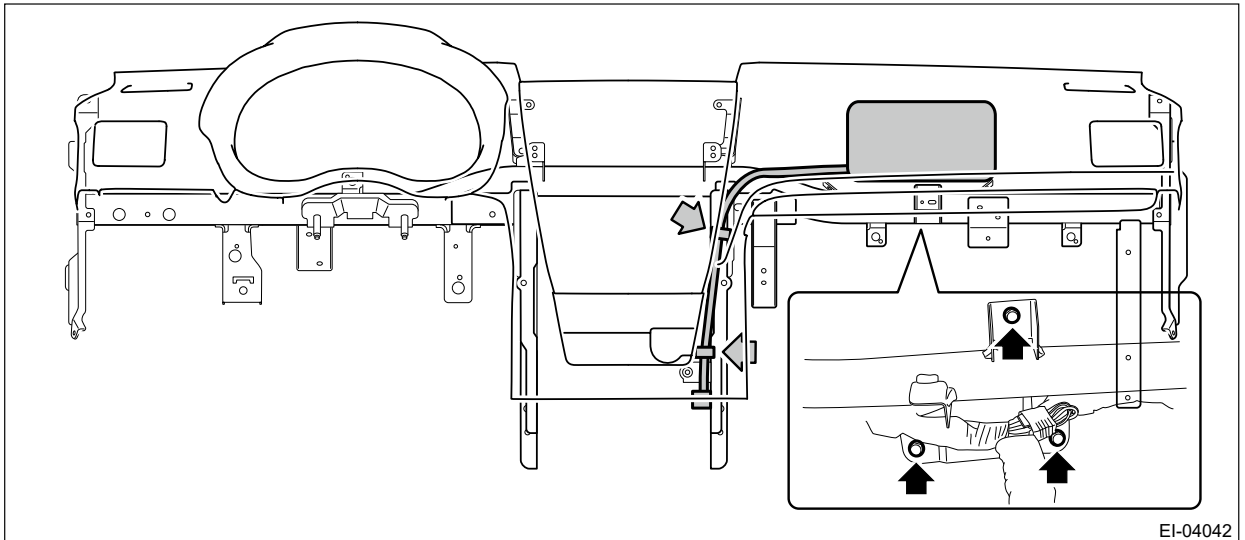
- 19.** Remove the universal joint assembly - steering. [🔧 Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Universal Joint>REMOVAL.](#)
- 20.** Remove the column assembly - steering. [🔧 Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Column>REMOVAL.](#)
- 21.** Remove the cover side sill - front INN and cover side sill - front on the RH and LH side. [🔧 Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.](#)
- 22.** Remove the instrument panel assembly and the beam COMPL - steering as a unit. [🔧 Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>REMOVAL.](#)
- 23.** Remove the screws and remove the front (A) and side vent duct LH/RH (B).





**24.** Separate the panel COMPL - instrument and the beam COMPL - steering.

- (1) Remove the clamps and bolts of the passenger's airbag module harness.

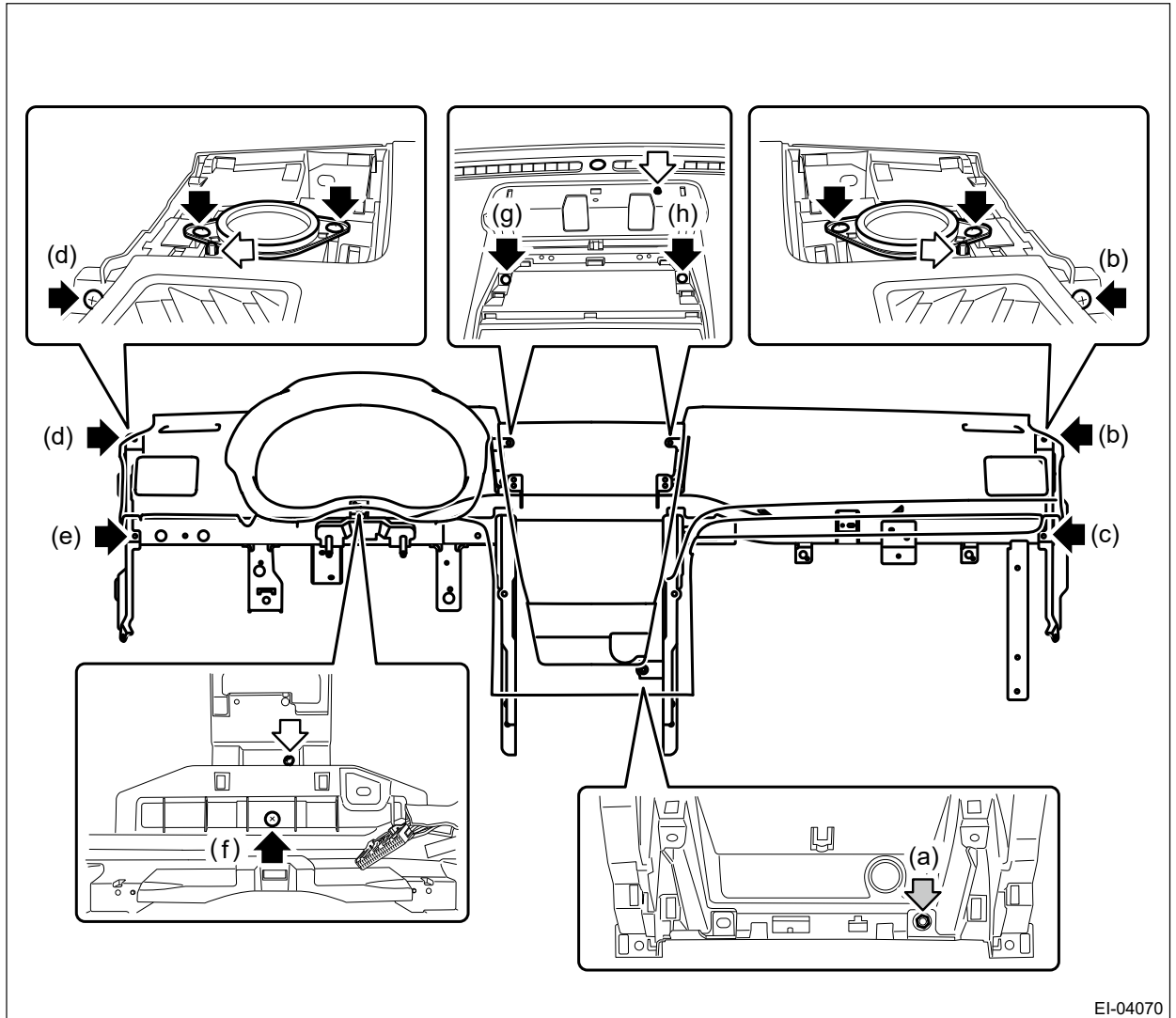


- (2) Disconnect the connectors of the left and right speakers and the sunload sensor.

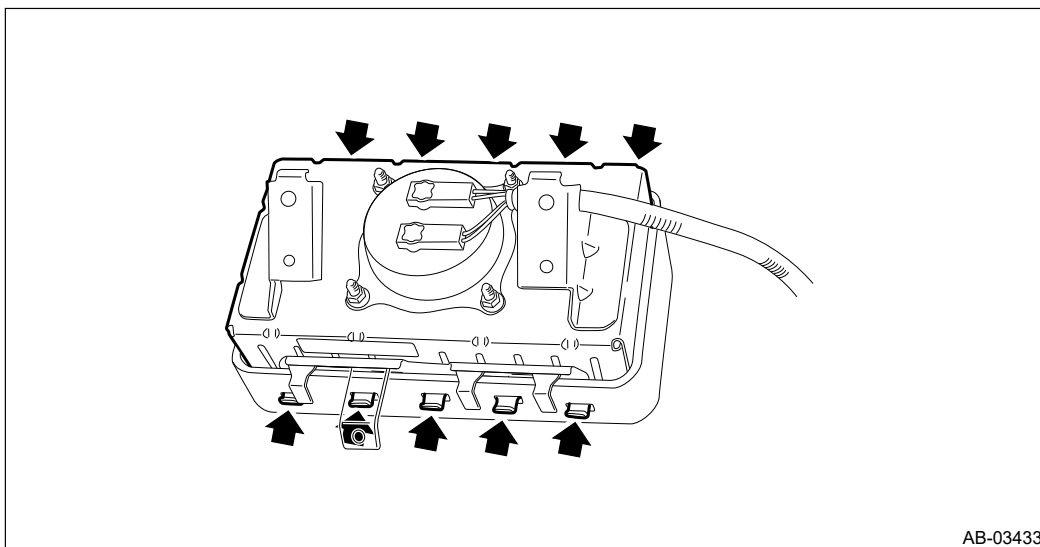
**Note:**


**Detach the harness clamp together.**

- (3) Disconnect the front accessory socket connector.  
 (4) Remove the nut (a) and screws (b), (c), (d), (e), (f), (g) and (h).  
 (5) While being careful with the harness, separate the panel COMPL - instrument and the beam COMPL - steering.



**25.** Remove the claws, and remove the passenger's airbag module.



**26.** For handling of the removed airbag module, refer to "CAUTION".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

## ADJUSTMENT

### Caution:

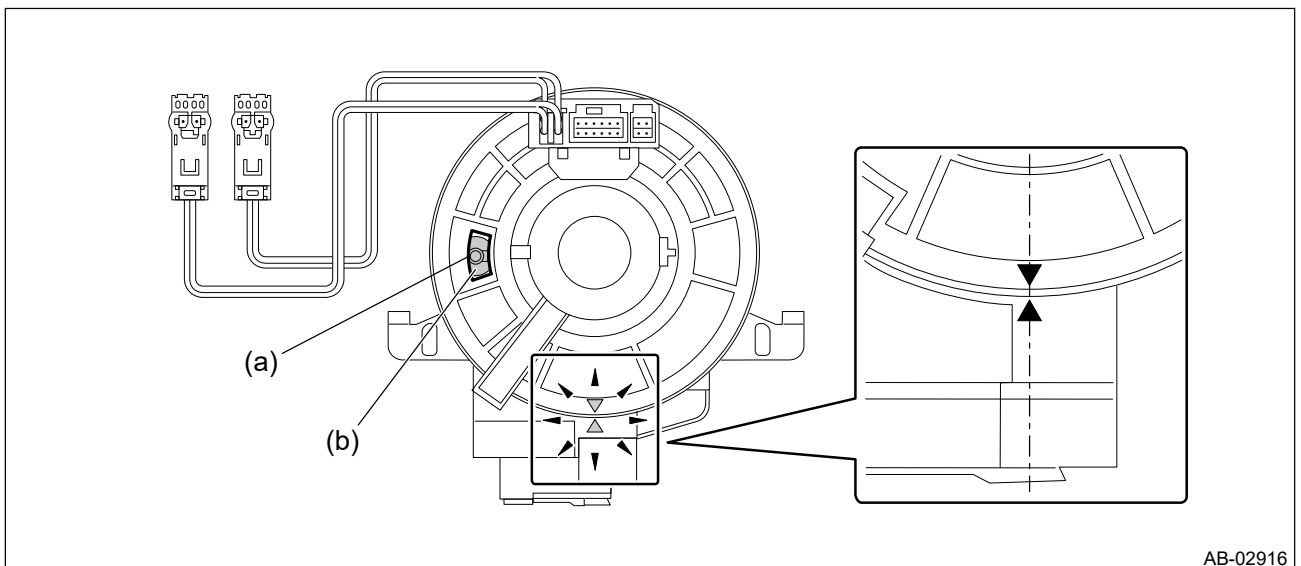
- Do not rotate the roll connector to more than the specified number of turns. Otherwise, the roll connector internal wire may be broken.
- When determining the end stop, rotate the connector slowly without applying excessive force. Applying excessive force at the end stop may break the internal wire.

### 1. TYPE A

1. Check that front wheels are positioned in straight ahead direction.
2. Rotate the roll connector counterclockwise until it stops.
3. Rotate the roll connector clockwise approx. 2.5 turns until "▲" marks are aligned.

#### Note:

When the roll connector comes to the center position, the orange roller (b) can be seen from the sight glass (a).



AB-02916

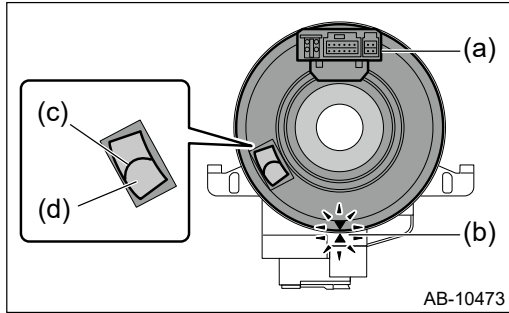
### 2. TYPE B

1. Check that front wheels are positioned in straight ahead direction.
2. Rotate the roll connector counterclockwise until it stops.
3. Rotate the roll connector clockwise approx. 2.5 turns until "▲" marks are aligned.

#### Note:

Check the following items to make sure that the roll connector is at the neutral position.

- The connector (a) is at the uppermost position.
- The alignment mark (b) is aligned.
- The top (c) of the flat cable U-turn section can be seen from the sight glass (d).



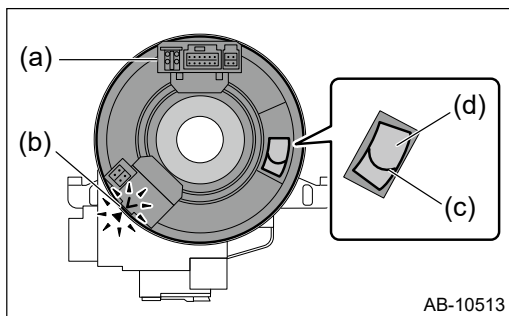
### 3. TYPE C

1. Check that front wheels are positioned in straight ahead direction.
2. Rotate the roll connector counterclockwise until it stops.
3. Rotate the roll connector clockwise approx. 2.5 turns until "▲" marks are aligned.

**Note:**

**Check the following items to make sure that the roll connector is at the neutral position.**

- **The connector (a) is at the uppermost position.**
- **The alignment mark (b) is aligned.**
- **The top (c) of the flat cable U-turn section can be seen from the sight glass (d).**



**INSPECTION**

**1. VISUAL INSPECTION**


Check for the following, and replace the damaged parts with new parts.

- Combination switch is cracked or deformed.
- Roll connector is cracked or deformed.

**2. UNIT INSPECTION OF ROLL CONNECTOR**

**Caution:**

- **Do not rotate the roll connector to more than the specified number of turns. Otherwise, the roll connector internal wire may be broken.**
- **When determining the end stop, rotate the connector slowly without applying excessive force. Applying excessive force at the end stop may break the internal wire.**

1. Adjust the roll connector.  [Ref. to AIRBAG SYSTEM>Roll Connector>ADJUSTMENT.](#)
2. Set the roll connector to the central position.
3. Connect the test harness to the connector E and connector F.

**Preparation tool:**

Test harness N (98299SA000)

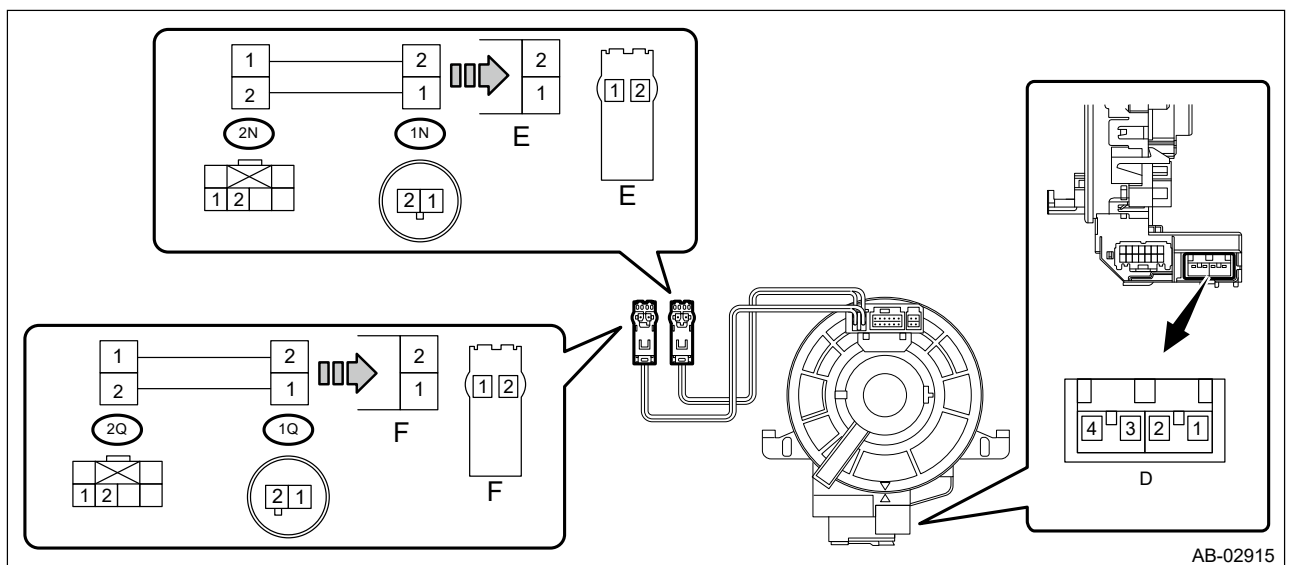
Test harness Q (98299SA040)

- Connector E - Test harness N (1N)
- Connector F - Test harness Q (1Q)

4. With the following conditions, check the resistance between the test harness connector terminals.
  - Perform the check with the roll connector centered (front wheels direct straightforward).
  - Rotate the roll connector counterclockwise from the center (front wheels direct straightforward) to an end stop. Then, perform the check while rotating it clockwise to approximately 4.5 turns.

**Preparation tool:**

Circuit tester



Terminal No.	Inspection conditions	Standard
(2N) No. 1 — (2N) No. 2	Always	Less than 1 Ω

(2Q) No. 1 – (2Q) No. 2	Always	Less than 1 $\Omega$
-------------------------	--------	----------------------

**Note:**

**The connector D is designed to short the terminals D1/D2 and D3/D4 when disconnected.**

- 5.** Replace the roll connector with a new part if the inspection result is not within the standard value.

## AIRBAG SYSTEM > Roll Connector

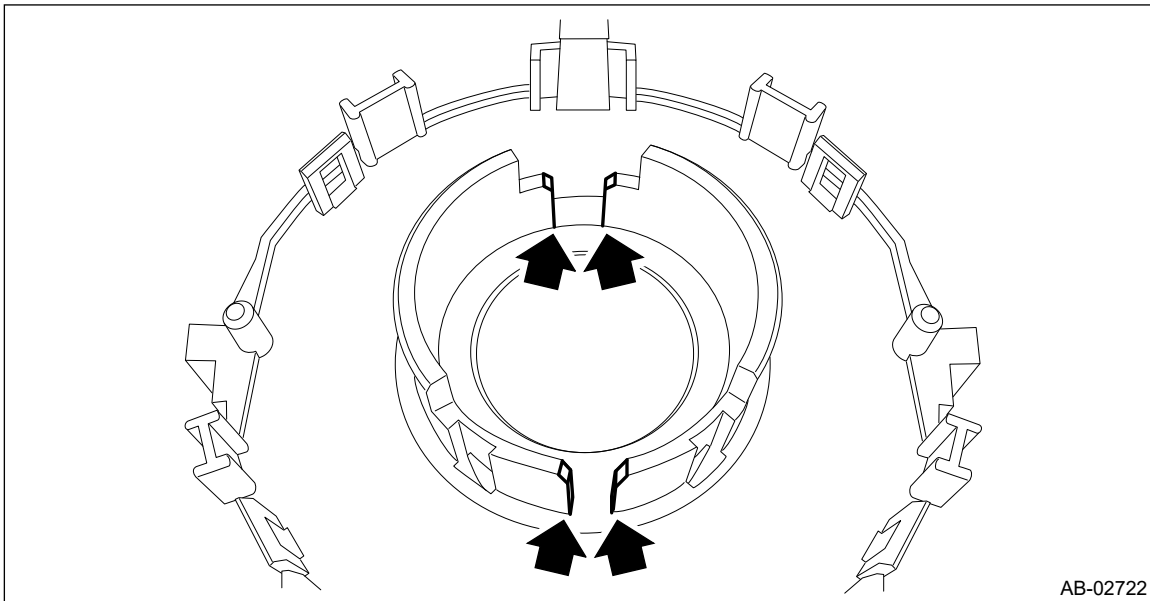
### INSTALLATION

#### Caution:

If the steering wheel and steering angle sensor are removed, perform "VSC(VDC) Centering Mode" of the VDC.

- Align the center position of the steering roll connector.
- Perform the neutral position setting of the steering angle sensor.

1. Before attaching a new roll connector, apply a thin coat of grease contained in the connector onto the areas shown by the arrows.




2. Install each part in the reverse order of removal.
3. Be sure to adjust the direction of roll connector with steering. [🔗 Ref. to AIRBAG SYSTEM>Roll Connector>ADJUSTMENT.](#)
4. Install the steering wheel. [🔗 Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Wheel>INSTALLATION.](#)
5. Install the driver's airbag module. [🔗 Ref. to AIRBAG SYSTEM>Driver's Airbag Module>INSTALLATION.](#)
6. Connect the battery ground terminal. [🔗 Ref. to NOTE>NOTE > BATTERY.](#)
7. Perform the neutral position setting of the steering angle sensor. [🔗 Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCM&H/U\)>ADJUSTMENT > VDC SENSOR MIDPOINT SETTING MODE.](#)








## AIRBAG SYSTEM > Roll Connector

### REMOVAL

1. Position the front wheels straight ahead. (After moving a vehicle 5 m (16 ft) or more with front wheels positioned straight ahead, make sure that the vehicle moves straight ahead.)
2. Turn the ignition switch to OFF.
3. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### Note:

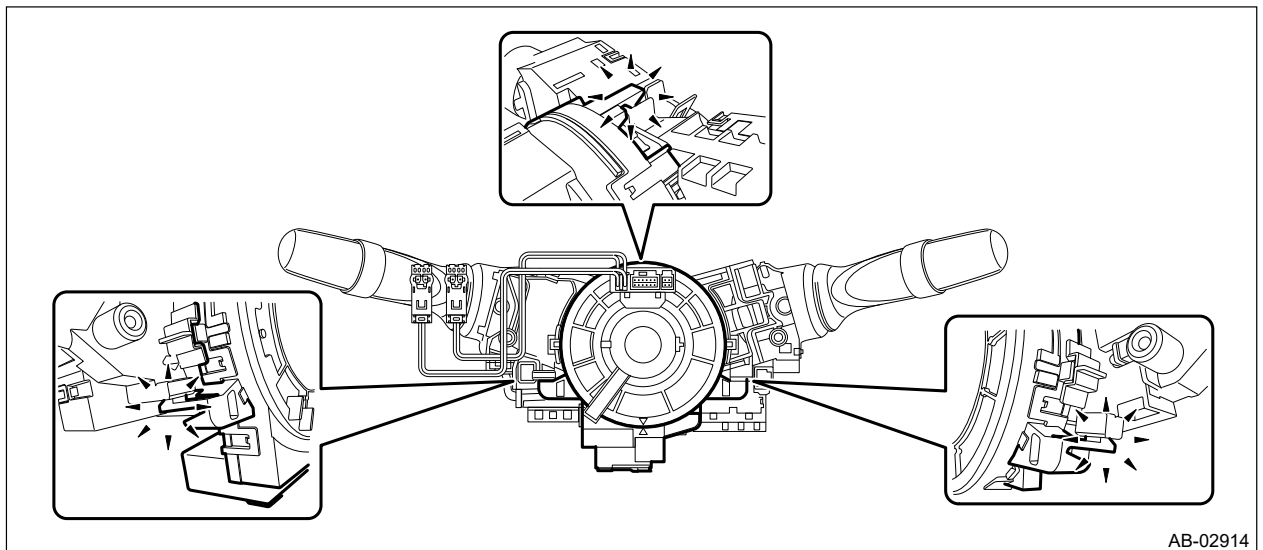
**For model with battery sensor, disconnect the ground terminal from battery sensor.**

4. Remove the driver's airbag module.  [Ref. to AIRBAG SYSTEM>Driver's Airbag Module>REMOVAL.](#)
5. Remove the steering wheel.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Wheel>REMOVAL.](#)
6. Remove the cover assembly - column.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Column>REMOVAL.](#)
7. Remove the roll connector.

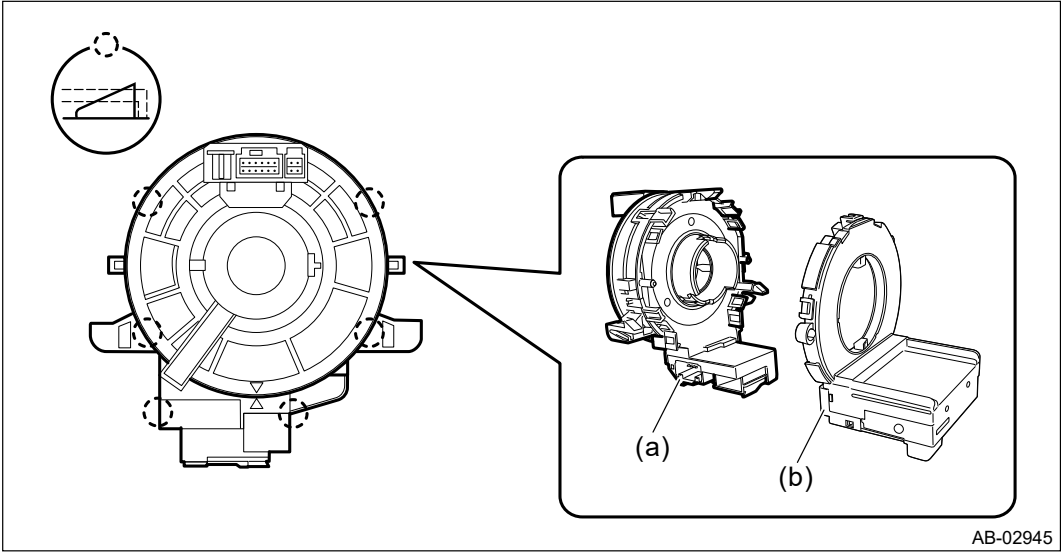
#### Caution:

**Make sure that the roll connector is not turned from the original position.**

- (1) Disconnect the connector under the roll connector.
- (2) Release the claws and remove the roll connector.



- (3) Release the claws and separate the roll connector (a) and steering angle sensor (b).



AB-02945

## AIRBAG SYSTEM > Satellite Safing Sensor

### INSTALLATION

---

#### Caution:


- **Do not reuse the bolt and nut.**  
**Always replace with the specified new bolts and nuts.**
- **When installing the cover - satellite safing, push the cover securely until it contacts the floor panel.**
- **If the cover - satellite safing is too loose at its mounting portion to remove easily, replace with a new cover - satellite safing.**
- **After installing the cover - satellite safing, make sure that the sensor harness does not get caught.**

1. Before installation, inspect the following items and replace any faulty part with a new one.
  - The satellite safing sensor connector is damaged.
  - The cover - satellite safing is damaged.
  - Side airbag or curtain airbag has been activated.

2. Install the satellite safing sensor.

#### Tightening torque:

7.5 N•m (0.76 kgf-m, 5.5 ft-lb)

3. Install the remaining parts in the reverse order of removal.
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)




## AIRBAG SYSTEM > Satellite Safing Sensor

### REMOVAL



#### Caution:

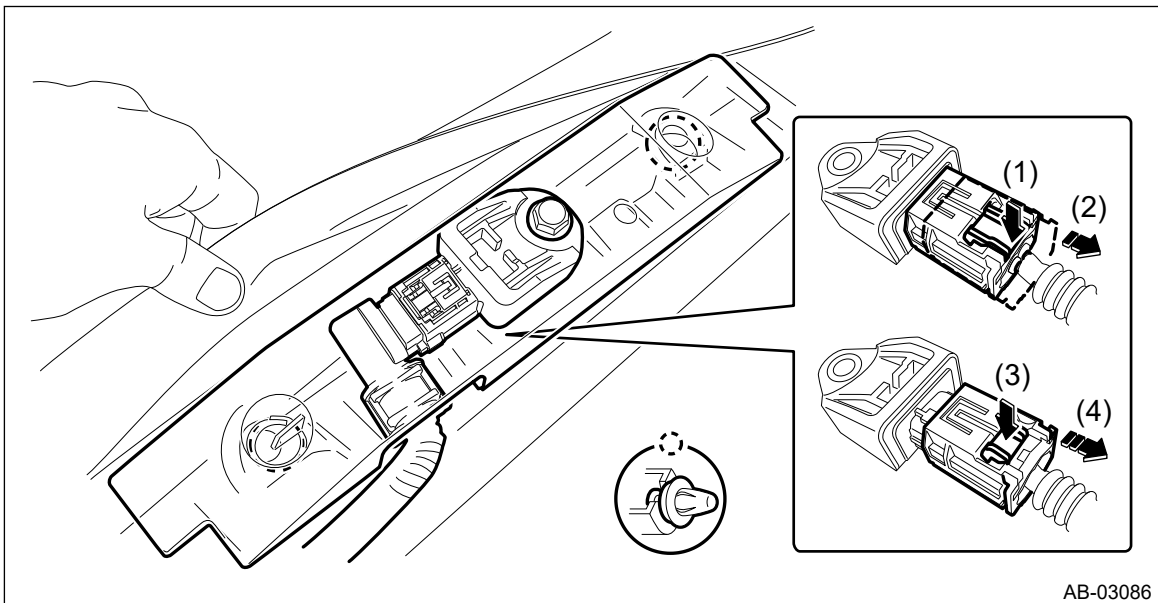
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".**  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### Note:

**For model with battery sensor, disconnect the ground terminal from battery sensor.**

3. Remove the rear seat cushion assembly.  [Ref. to SEATS>Rear Seat>REMOVAL.](#)
4. Remove the satellite safing sensor.
  - (1) Remove the clip, and remove the cover - satellite safing.
  - (2) Remove the bolts and then remove the satellite safing sensor.  [Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > FRONT SUB SENSOR, FRONT DOOR IMPACT SENSOR AND SATELLITE SAFING SENSOR.](#)




AB-03086

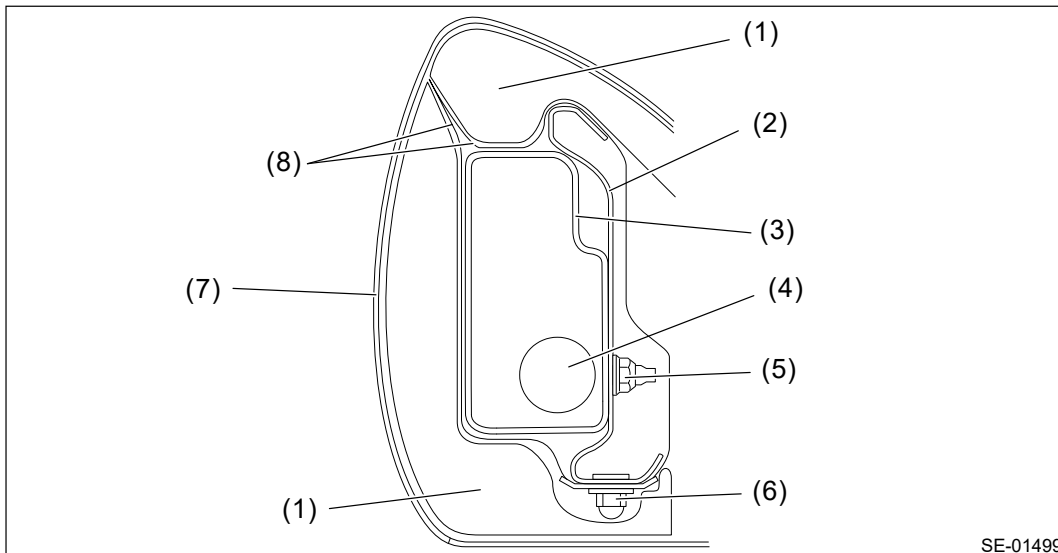


## AIRBAG SYSTEM > Side Airbag Module

### INSTALLATION

#### Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Make sure that the side airbag module is installed as shown in the figure.



- |                                         |                                 |                                  |
|-----------------------------------------|---------------------------------|----------------------------------|
| (1) Pad ASSY - front seat backrest      | (4) Side airbag module inflator | (7) Cover COMPL - front backrest |
| (2) Frame ASSY - front backrest         | (5) Nut                         | (8) Side airbag guide cloth      |
| (3) Side airbag module protective cover | (6) Hexagon cap nut             |                                  |




- Be careful not to stain or damage the cover COMPL - front backrest during assembly.
- Do not reuse hog rings.
- Secure the hog ring using hog ring pliers.
- Install the hog rings to the specified points securely and make sure that there is no wrinkle or twisting on the cover COMPL - front backrest.

1. Before installation, inspect the following items and replace any faulty part with a new one.
  - Make sure that there is no foreign matter on side airbag module.
  - Front seat, airbag module and mounting bracket are damaged or deformed.
  - Harness and/or connector is cracked, deformed or open.
  - Harness wire is exposed.

2. Install the side airbag module to the frame assembly - front backrest.

#### Tightening torque:

Side airbag module: 6 N·m (0.61 kgf-m, 4.4 ft-lb)

3. Assemble the front seat.  [Ref. to SEATS>Front Seat>ASSEMBLY.](#)
4. Install the front seat assembly to the body.  [Ref. to SEATS>Front Seat>INSTALLATION.](#)
5. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)






## AIRBAG SYSTEM > Side Airbag Module


### REMOVAL

#### Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)


#### Note:

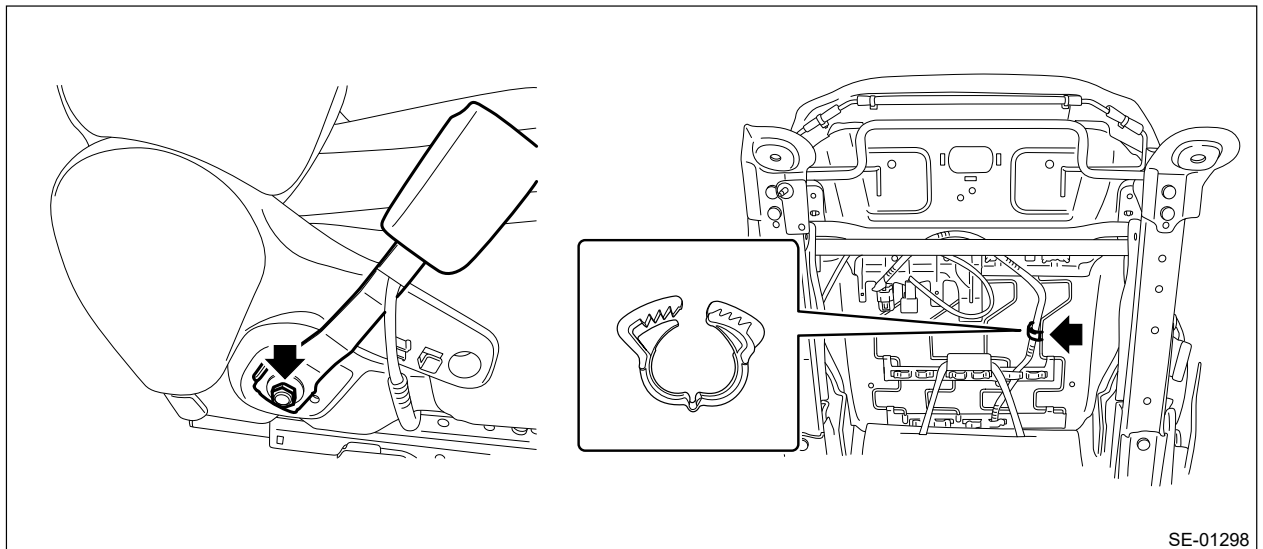
Remove the passenger's side by referring to driver's side.


1. Remove the headrest assembly.
2. Turn the ignition switch to OFF.
3. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### Note:

- For model with battery sensor, disconnect the ground terminal from battery sensor.
- For the seat with lifter, set the height to the middle position.
- For the power seat, remove the slide rail installing bolt before removing the battery ground.

4. Remove the front seats.  [Ref. to SEATS>Front Seat>REMOVAL.](#)
5. Remove the seat belt inner - front.
  - (1) Remove the nut, and remove the seat belt inner - front.
  - (2) Remove the clip for the seat belt inner - front located under the seat cushion assembly.

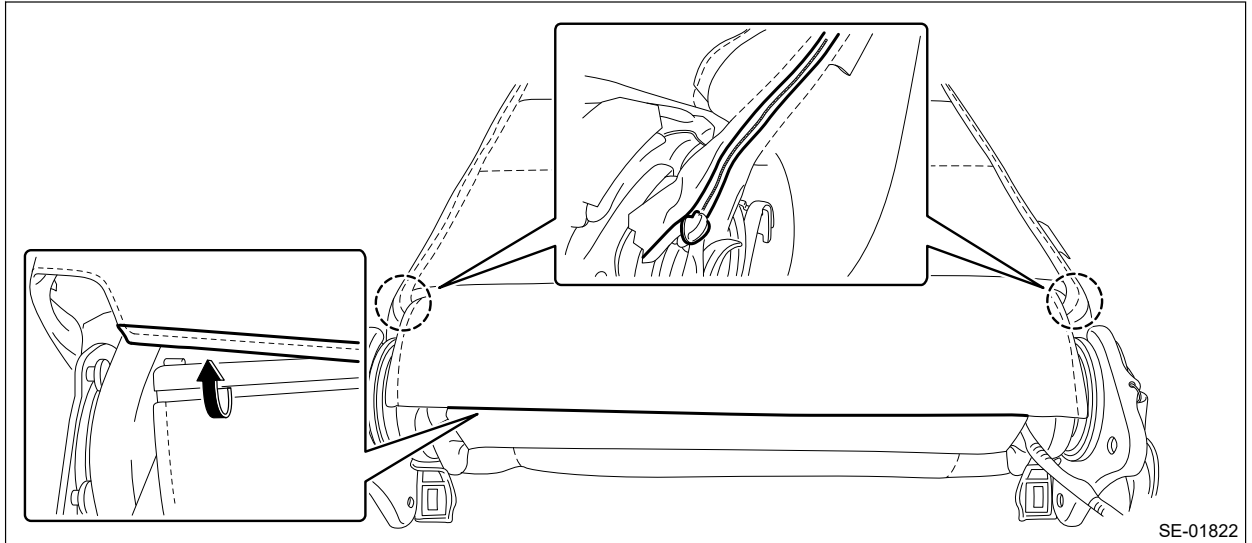


6. Separate the backrest assembly and the seat cushion assembly.  [Ref. to SEATS>Front Seat>DISASSEMBLY.](#)
7. Remove the side airbag module.

#### Caution:

Do not open the protective cover of the side airbag module. If any damage is present in the protective cover or the cloth of side airbag module comes out from the protective cover slit, replace the side airbag module with a new part.

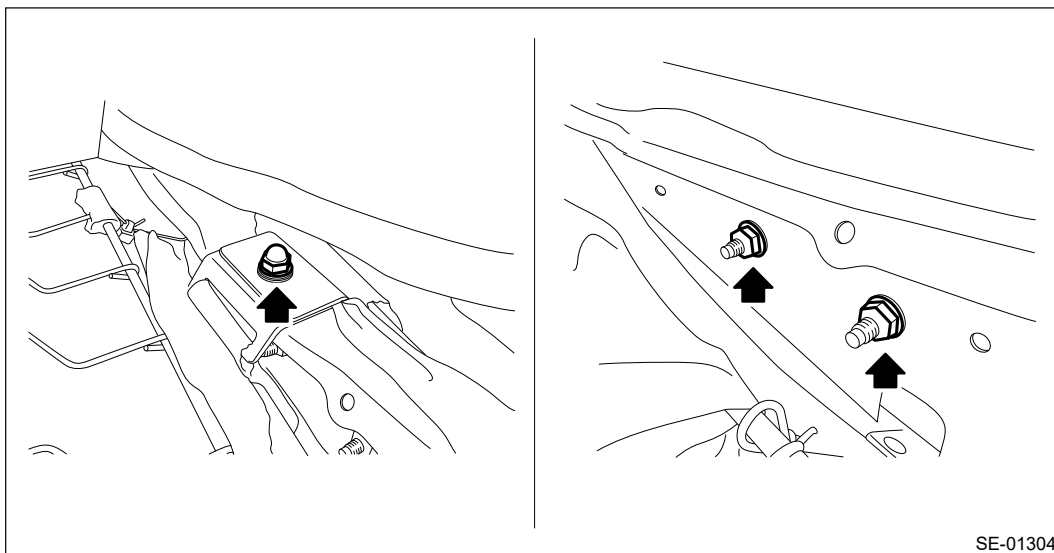
- (1) Remove the plastic fastener at the back side (bottom) of backrest assembly.
- (2) Open the fastener at the rear side of backrest assembly.



**Note:**

**If it is hard to open, use a metal clip, etc.**

- (3) Remove the hexagon cap nut and nuts.
- (4) While taking care not to damage the airbag protective cover, remove the side airbag module.



## AIRBAG SYSTEM > Side Airbag Sensor

### INSTALLATION

#### Caution:

**Do not reuse the bolt and nut.**

**Always replace with the specified new bolts and nuts.**

1. Before installation, inspect the following items and replace any faulty part with a new part.
  - The side airbag sensor, sensor bracket, or connector are damaged.
  - Side airbag module has been activated.


2. Install the side airbag sensor.

#### Tightening torque:

7.5 N•m (0.76 kgf-m, 5.5 ft-lb)

3. Install the seat belt retractor.

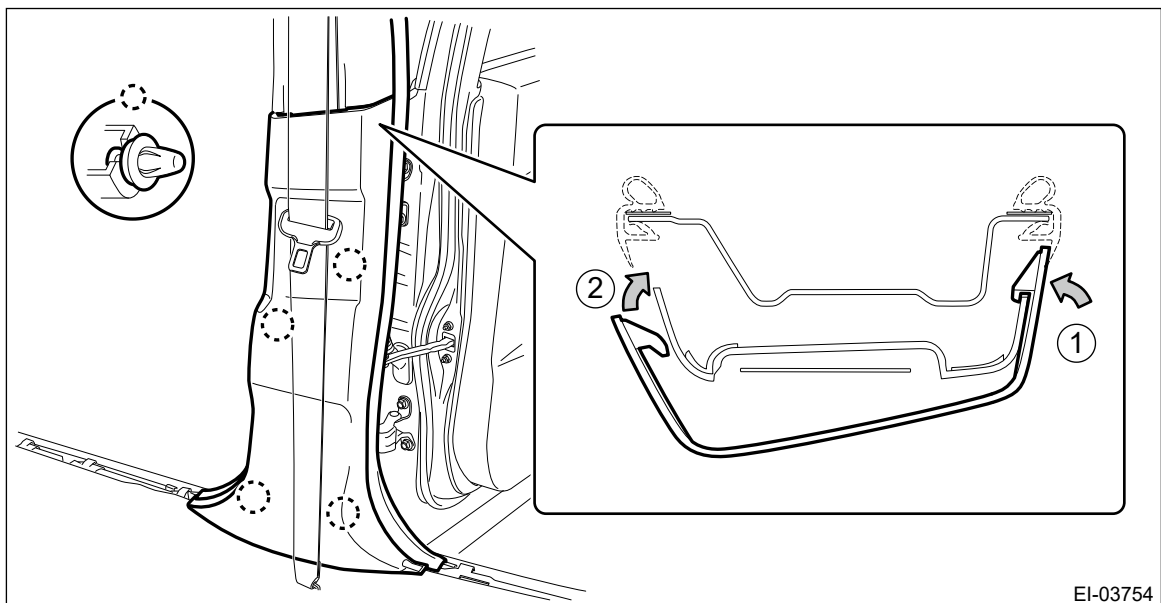
#### Tightening torque:

Refer to "COMPONENT" of "General Description". :  [Ref. to SEAT BELT SYSTEM>General Description>COMPONENT > FRONT SEAT BELT.](#)

4. Install each part in the reverse order of removal.

#### Note:

**Assemble the trim panel - center pillar LWR to the trim panel - center pillar UPR securely.**



EI-03754

5. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)




## AIRBAG SYSTEM > Side Airbag Sensor

### REMOVAL

---


#### Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".**  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- **Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Move the seat all the way forward, from which the side airbag sensor is to be removed.


#### Note:


**This is to remove the seat belt retractor assembly.**

2. Turn the ignition switch to OFF.
3. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)


#### Note:

- **For model with battery sensor, disconnect the ground terminal from battery sensor.**
- **For model with the power seat, move the seat to the front-most position before removing the battery ground terminal.**

4. Remove the cover side sill - front INN, cover side sill - rear INN, and trim panel - center pillar LWR. (On the side where the side airbag sensor is removed)  [Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.](#)

5. Remove the rear seat cushion assembly.  [Ref. to SEATS>Rear Seat>REMOVAL.](#)

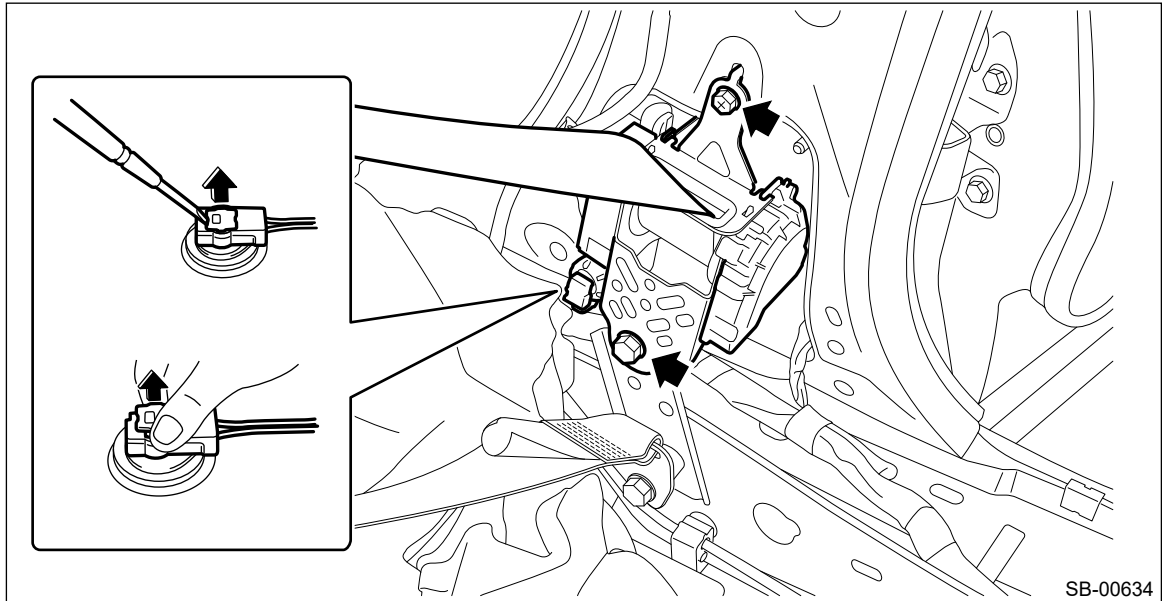
6. Remove the seat belt retractor. (On the side where the side airbag sensor is removed)

- (1) Turn over the floor mat to disconnect the belt tension sensor connector.  [Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER.](#)

#### Note:

**Also disconnect the connector of the passenger's lap seat belt pretensioner.**

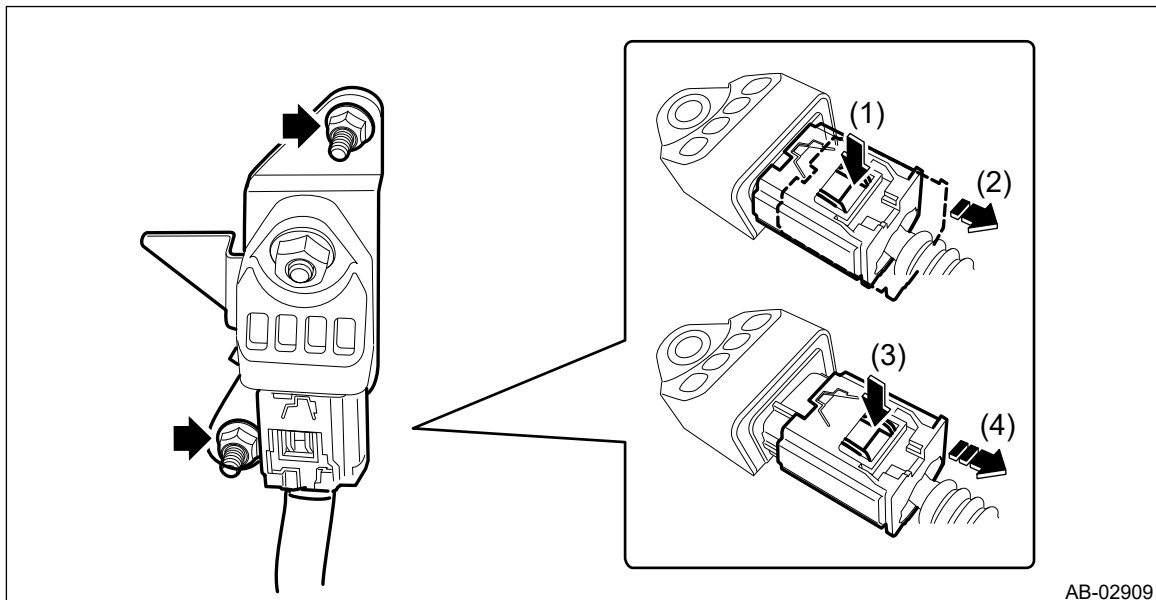
- (2) Remove the bolt to remove the seat belt retractor.



7. Remove the nuts and then remove the side airbag sensor.  Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > SIDE AIRBAG SENSOR AND CURTAIN AIRBAG SENSOR.

**Caution:**

- Do not separate the side airbag sensor and bracket. It causes the airbag system malfunction.
- If the sensor is removed from the bracket, be sure to replace with a new part.



## SEAT BELT SYSTEM > Disposal of Pretensioner

### PROCEDURE

---


#### Warning:

**Make sure to follow the instructions below. Otherwise, personal injuries may occur.**

- **Before discarding a pretensioner, always perform an activation process to prevent any false activation.**
- **Wear protective gloves, safety goggles and earplugs during this operation. Wash your hands afterwards.**
- **Do not touch the pretensioner just after activation because it is very hot. Before handling it for disposal, wait for 40 minutes.**


#### Caution:

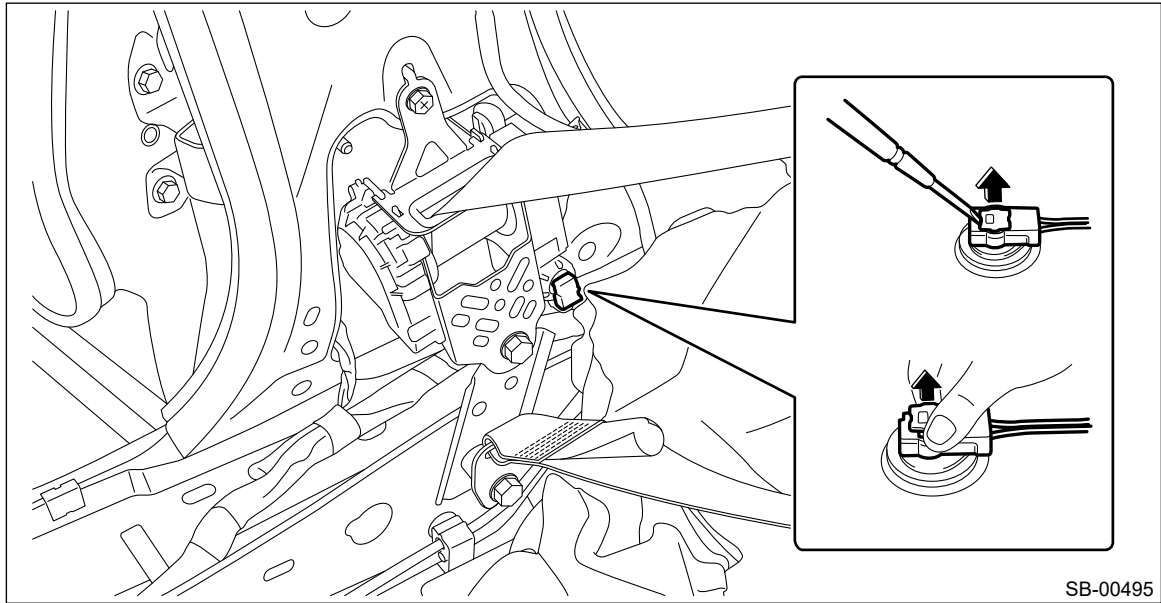
- **Perform a pretensioner operation process in a safe, level place. Do not perform the process outdoors when there is a strong rain or wind.**
- **Do not drop or damage the pretensioner.**
- **A large explosive noise will occur when the pretensioner is deployed. Warn persons in the area, and do not allow anyone to approach a radius of 5 m (16 ft) from the discard location.**
- **After activating the pretensioner, smoke may arise. Therefore, always perform an operation process in a well-ventilated place without any smoke sensor.**
- **Do not expose the activated pretensioner to water.**
- **Wrap the activated pretensioner in a sealed vinyl bag when discarding.**
- **If it is impossible to perform a pretensioner activation process due to some situational reasons, consult SUBARU dealership or one of the authorized workshops.**

1. Fold the backrest all the way forward, and move the front seat all the way forward.
2. Turn the ignition switch to OFF.
3. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### Note:

**For model with battery sensor, disconnect the ground terminal from battery sensor.**

4. Disconnect connector of the pretensioner.  [Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER.](#)



5. Short the alligator clip and terminal of the airbag deployment tool together.

**Caution:**

**Short the airbag deployment tool terminals until just before the pretensioner operation process.**

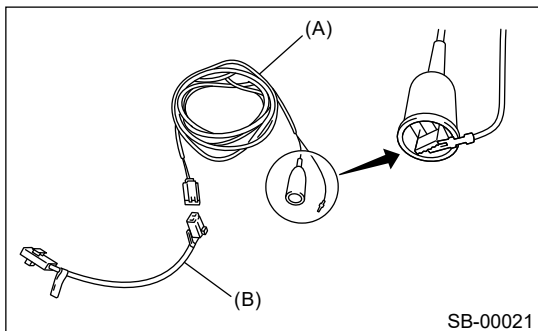
**Preparation tool:**

ST: AIRBAG DEPLOYMENT TOOL (98299PA030)

6. Connect the airbag deployment tool (A) and test harness adapter D (B).

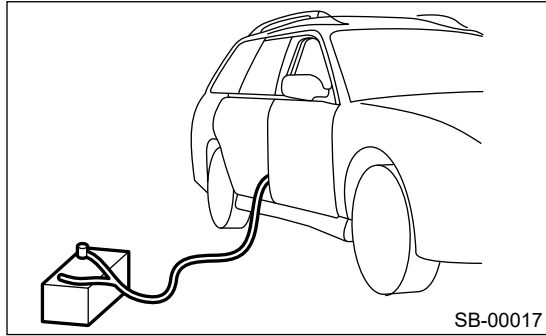
**Preparation tool:**

ST: TEST HARNESS ADAPTER D (98299SA010)



7. Connect the test harness adapter D connector to the pretensioner.
8. Make sure there is no one inside the vehicle.
9. Extend the wiring of the airbag deployment tool to its limit, and completely close all windows and rear gate.

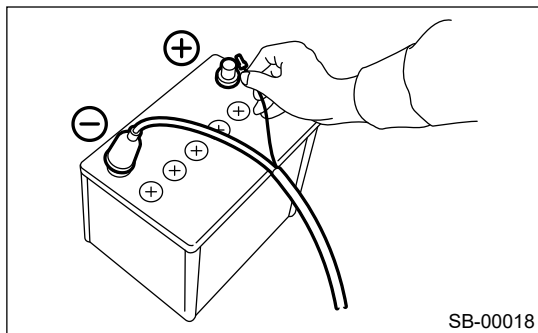




10. Move the battery 5 m (16 ft) or more from the vehicle, and affix nearby.
11. Connect the airbag deployment tool alligator clip to the battery negative (–) terminal.
12. Connect the other cable of airbag deployment tool to the battery positive (+) terminal, and activate the pretensioner.

**Caution:**

- After activation, the pretensioner will be extremely hot. Let it cool down for at least 40 minutes in an area with no one around.
- Do not expose the activated pretensioner to water.



13. Perform operation process of lap seat belt pretensioner from steps 14) to 22) for the passenger's side.
14. Disconnect the connector from the lap seat belt pretensioner.
15. Short the alligator clip and terminal of the airbag deployment tool together.

**Caution:**

**Short the airbag deployment tool terminals until just before the pretensioner operation process.**

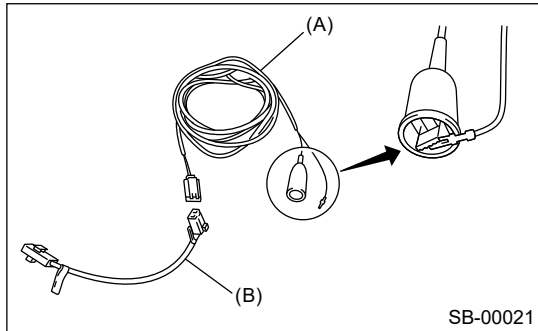
**Preparation tool:**

ST: AIRBAG DEPLOYMENT TOOL (98299PA030)

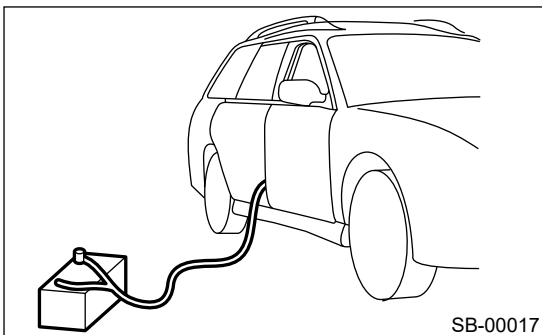
16. Connect the airbag deployment tool (A) and test harness adapter D (B).

**Preparation tool:**

ST: TEST HARNESS ADAPTER D (98299SA010)



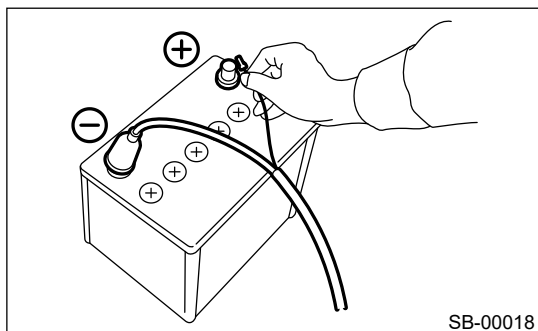
17. Connect the test harness adapter D connector to the lap seat belt pretensioner.
18. Make sure there is no one inside the vehicle.
19. Extend the wiring of airbag deployment tool to the limit, and close all the windows and rear gate completely.



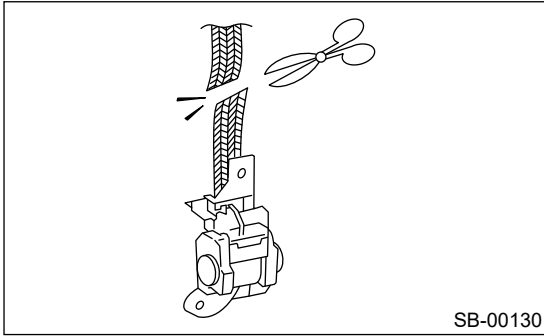
20. Move the battery 5 m (16 ft) or more from the vehicle, and affix nearby.
21. Connect the airbag deployment tool alligator clip to the battery negative (–) terminal.
22. Connect the other cable of airbag deployment tool to the battery positive (+) terminal, and activate the pretensioner.

**Caution:**

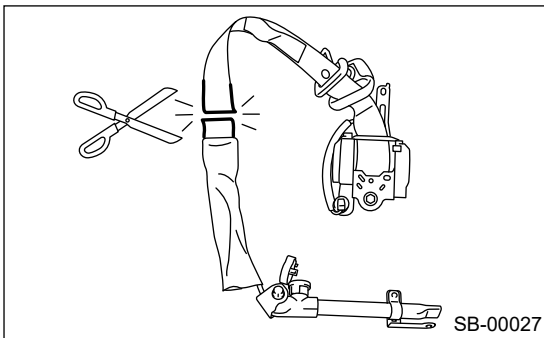
- **After activation, the pretensioner will be extremely hot. Let it cool down for at least 40 minutes in an area with no one around.**
- **Do not expose the activated pretensioner to water.**



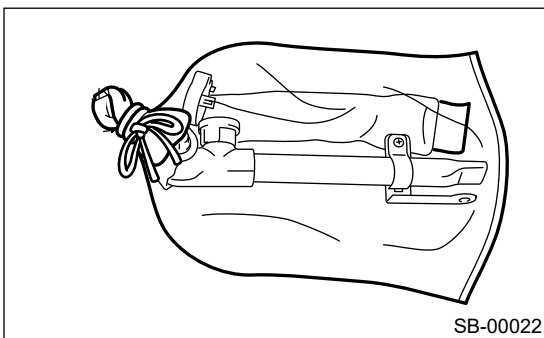
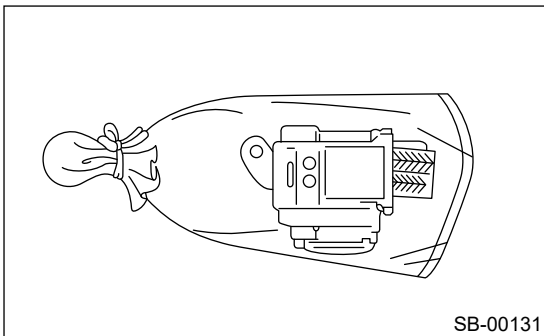
23. Remove the seat belt outer - front. [📺 Ref. to SEAT BELT SYSTEM>Front Seat Belt>REMOVAL.](#)
24. Cut the seat belt at a position as close as possible to the seat belt retractor.



**25.** Cut the seat belt at a position as close as possible to the lap seat belt pretensioner.



**26.** Place the activated pretensioner in a sealed vinyl bag, then discard.



## SEAT BELT SYSTEM > Front Seat Belt

### INSPECTION

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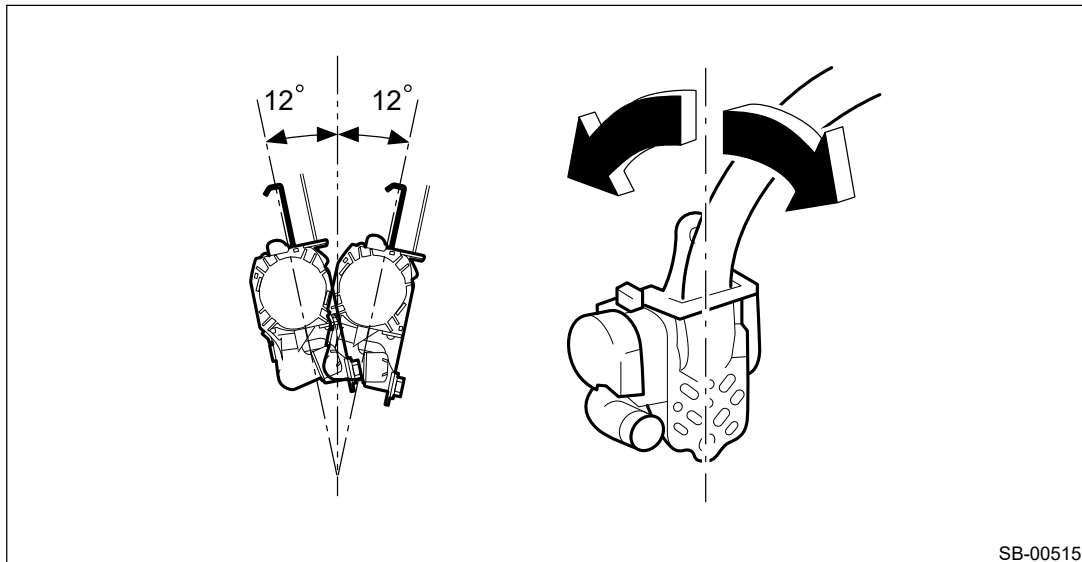
#### 1. VISUAL INSPECTION

Check for the following, and replace with new parts if necessary.

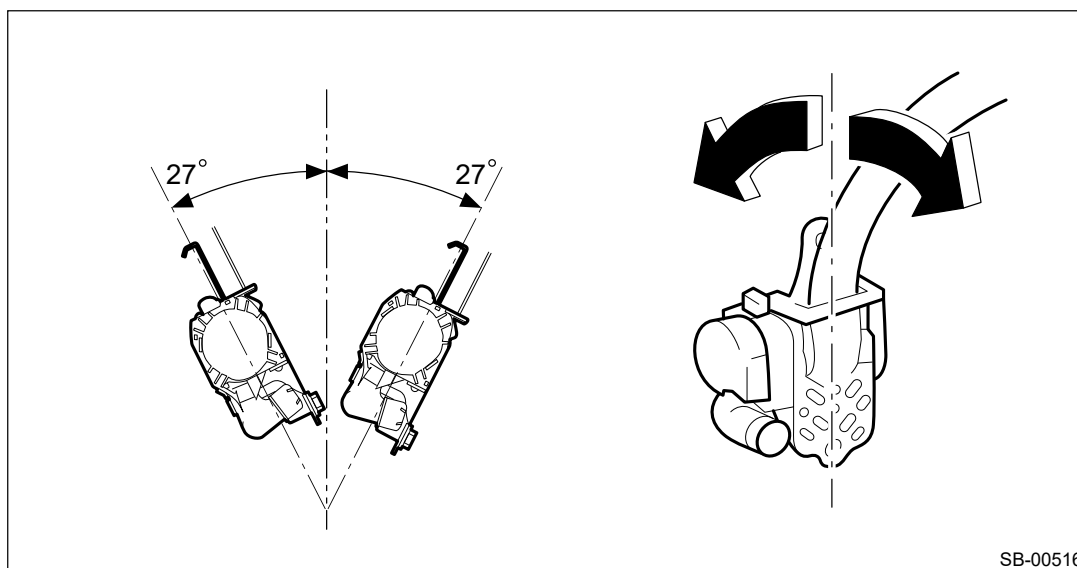
- Pretensioner is cracked or deformed.
- Adjuster assembly - seat belt is cracked or deformed.
- Seat belt is slackened, bent or worn.
- Seat belt is abnormally wound or extended.
- Seat belt inner - front is deformed or damaged.
- Seat belt buckle cannot be engaged properly.

#### 2. ELR LOCK MECHANISM INSPECTION

1. Hold the retractor upright (as installed in the vehicle) and check the ELR lock mechanism.
2. Tilt the retractor from the upright posture and check the following points.
  - It does not lock if the inclination angle is  $12^\circ$  or less.



- It remains locked if the inclination angle is  $27^\circ$  or more.



- 3. If the ELR lock mechanism does not operate properly, replace the seat belt outer - front with a new part.

### 3. SEAT BELT SWITCH INSPECTION

#### Preparation tool:

Circuit tester

- Driver's seat

Check the resistance between the terminals when the seat belt inner - front is in each of the following operation conditions.

Terminal No.	Inspection conditions	Standard	Circuit
2 – 1	Tongue plate inserted	Less than 1 Ω	
2 – 1	Tongue plate detached	10 kΩ or more	

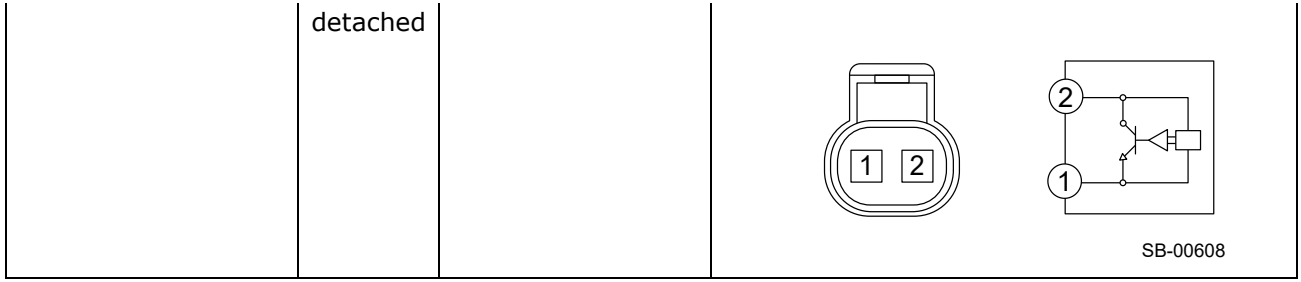
SB-00609

Replace the seat belt inner - front if the inspection result is not within the standard.

- Passenger's seat

Check the current between the terminals when the seat belt inner - front is in each of the following operation conditions.

Terminal No.	Inspection conditions	Standard	Circuit
1 – 2	Tongue plate inserted	12 – 18 mA	
1 – 2	Tongue plate detached	4 – 7 mA	



Replace the seat belt inner - front if the inspection result is not within the standard.


## SEAT BELT SYSTEM > Front Seat Belt

### INSTALLATION

#### 1. SEAT BELT OUTER - FRONT

**Caution:**

- The parts of the driver and passenger sides are not the same. Before installation, make sure that the correct part is used.
- During installation, make sure that the seat belts are not twisted.
- After installation, make sure that the seat belt can be pulled out and retracted smoothly.
- Make sure that the seat belt harness is not caught anywhere. Wrong harness rooting may cause the harness short from pinch.
- Do not reuse the upper clips of the trim panel - center pillar UPR. Once the clip is removed, its holding force is reduced. Be sure to replace it with a new clip.

1. Before installation, perform a unit inspection of retractor.  [Ref. to SEAT BELT SYSTEM>Front Seat Belt>INSPECTION.](#)
2. Install the adjuster assembly - seat belt and the seat belt outer - front.

**Tightening torque:**

Front seat belt:  [Ref. to SEAT BELT SYSTEM>General Description>COMPONENT > FRONT SEAT BELT.](#)

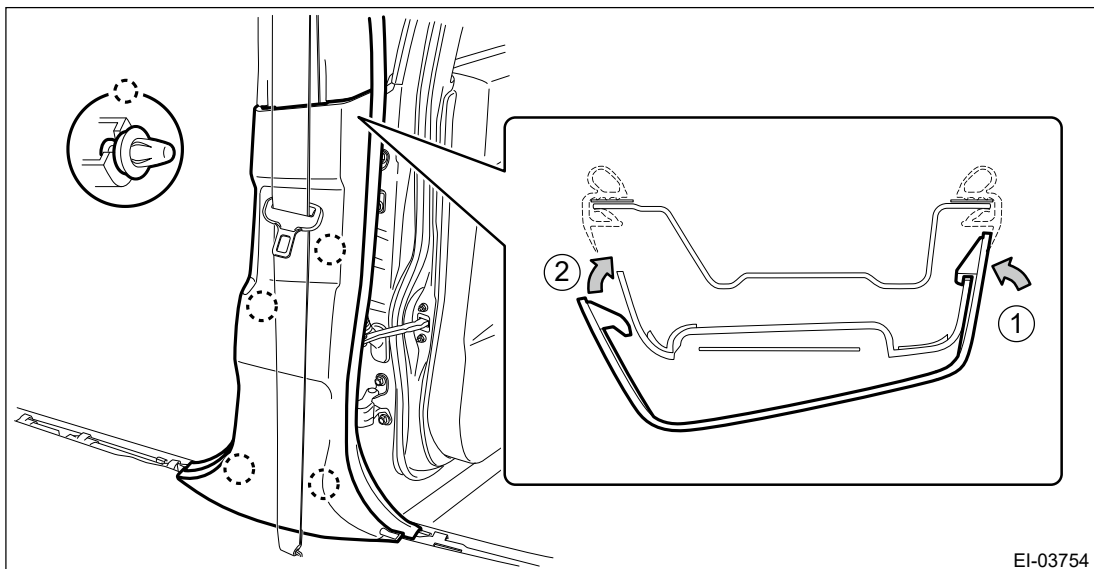
3. Install the remaining parts in the reverse order of removal.

**Tightening torque:**


Trim panel - center pillar UPR: 7.5 N·m (0.76 kgf·m, 5.5 ft·lb)

**Note:**

**Assemble the trim panel - center pillar LWR to the trim panel - center pillar UPR securely.**



EI-03754

4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
5. After installation, check the following points.
  - The seat belt is not twisted.
  - The seat belt can be pulled out and retracted smoothly.

- The adjuster assembly - seat belt can be moved smoothly.
- Check that the airbag warning light lights up for approximately 6 seconds and then turns off when connecting the battery ground cable and turning the ignition switch to ON.


## 2. SEAT BELT INNER - FRONT

### Caution:

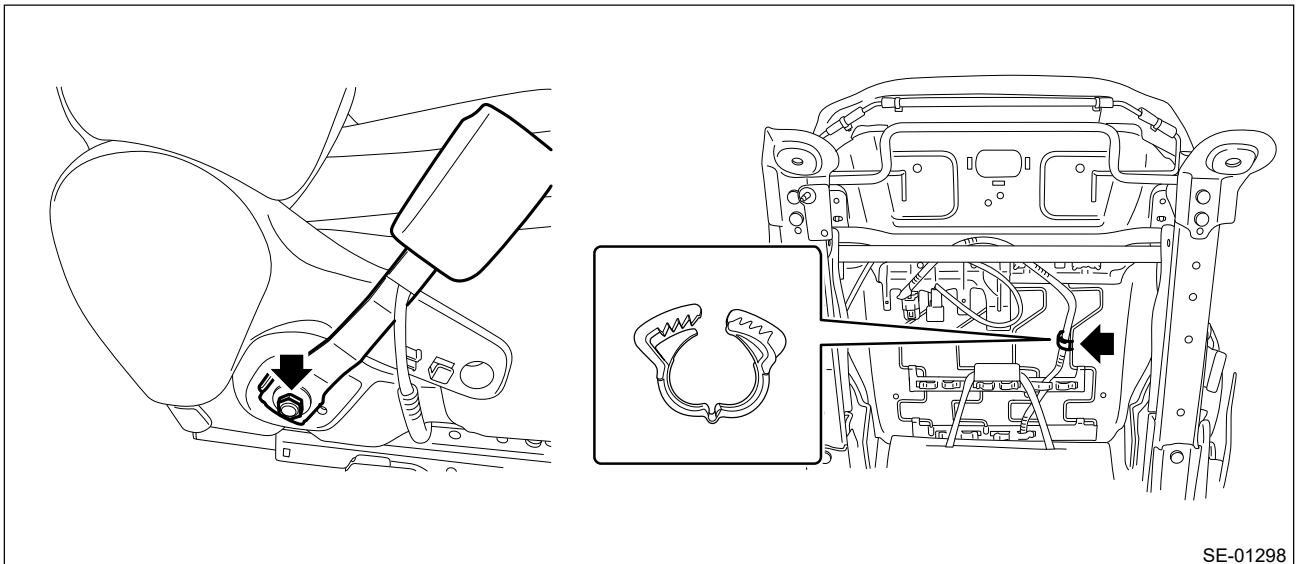
- **Before installation, make sure that the correct part is used.**
- **During installation, make sure that the seat belts are not twisted.**
- **Check that there is no pinching of the seat belt harness. Wrong harness routing may cause the harness short from pinch.**
- **Do not forget the wave washer, when installing front seat inner belt assembly.**



1. Install the seat belt inner - front.

### Tightening torque:

Front seat belt:  [Ref. to SEAT BELT SYSTEM>General Description>COMPONENT > FRONT SEAT BELT.](#)

2. Locate the seat belt harness and retain it with a harness clip.



3. Install the seat assembly to the body.  [Ref. to SEATS>Front Seat>INSTALLATION.](#)
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
5. Check that no harness is caught by sliding the seat back and forth.





## REMOVAL

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### 1. SEAT BELT OUTER - FRONT



**Caution:**

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.
- Do not drop or subject the pretensioner to any impact.
- Since the pretensioner and bracket are integrated as a unit, do not disassemble them.

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

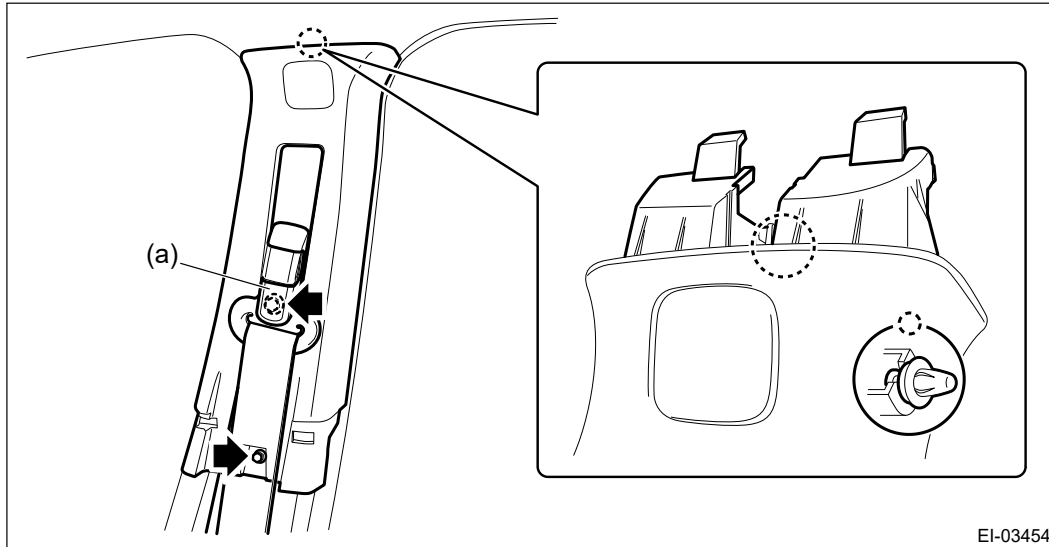
**Note:**

- For model with battery sensor, disconnect the ground terminal from battery sensor.
- For model with the power seat, move the seat to the front-most position before removing the battery ground terminal.


3. Tilt the front seat backrest assembly forward, and move the front seat all the way forward.
4. Remove the rear seat cushion assembly.  [Ref. to SEATS>Rear Seat>REMOVAL.](#)
5. Remove the cover side sill - front INN, cover side sill - rear INN, and trim panel - center pillar LWR. (On the side where seat belt assembly is removed)  [Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.](#)
6. Remove the trim panel - center pillar UPR. (On the side where seat belt assembly is removed)
  - (1) Remove the cover through (a), and remove the seat belt anchor bolt.
  - (2) Remove the bolt on the lower side of the trim panel - center pillar UPR.
  - (3) Remove the clip by pulling the upper part of the trim toward you, and while lowering the entire trim, remove the trim panel - center pillar UPR.

**Caution:**

**Do not reuse the upper clips of the trim panel - center pillar UPR. Once the clip is removed, its holding force is reduced. Be sure to replace it with a new clip.**



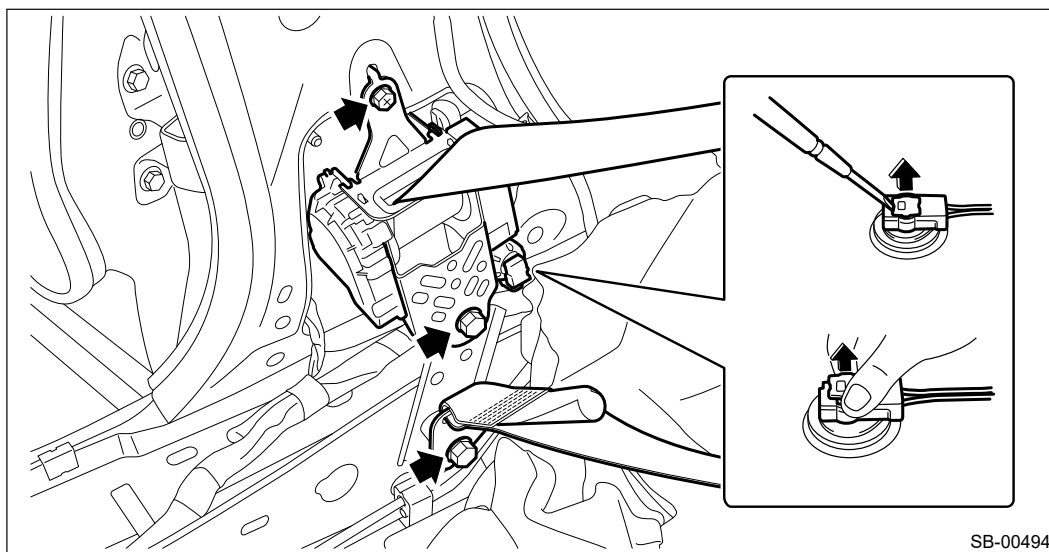
**7.** Remove the seat belt outer - front.

- (1) Turn over the floor mat to disconnect the belt tension sensor connector.  [Ref. to AIRBAG SYSTEM>Airbag\\_Connector>PROCEDURE > DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER.](#)

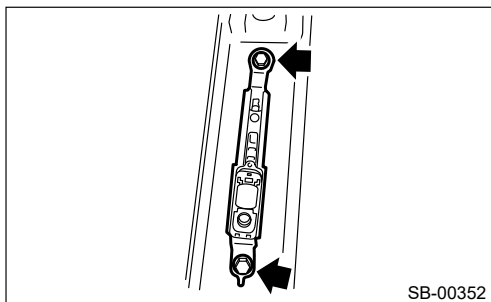
**Note:**

**Also disconnect the connector of the passenger's lap seat belt pretensioner.**

- (2) Remove the bolt to remove the seat belt retractor.  
 (3) Remove the lower anchor bolt, and remove the seat belt outer - front.




**8.** Remove the bolts, and then remove the adjuster assembly - seat belt.



## 2. SEAT BELT INNER - FRONT

### Caution:

Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

### Note:

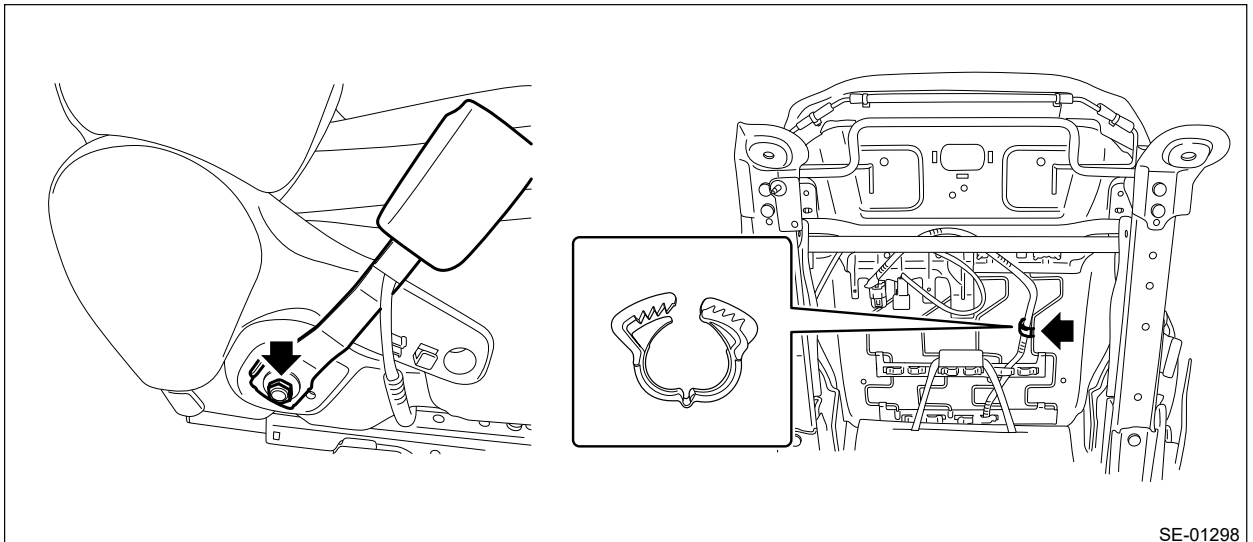
- For model with battery sensor, disconnect the ground terminal from battery sensor.
- For the seat with lifter, lift the seating face before removing the seat.
- For the power seat, remove the slide rail installing bolt before removing the battery ground.

3. Remove the front seats.  [Ref. to SEATS>Front Seat>REMOVAL.](#)

4. Remove the seat belt inner - front.

(1) Remove the nut, and remove the seat belt inner - front.

(2) Remove the clip for the inner seat belt harness located under the seat cushion.



SE-01298

## SEAT BELT SYSTEM > General Description

### CAUTION

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For details of the following precautions for seat belt pretensioner, refer to "AIRBAG SYSTEM" section.

 [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

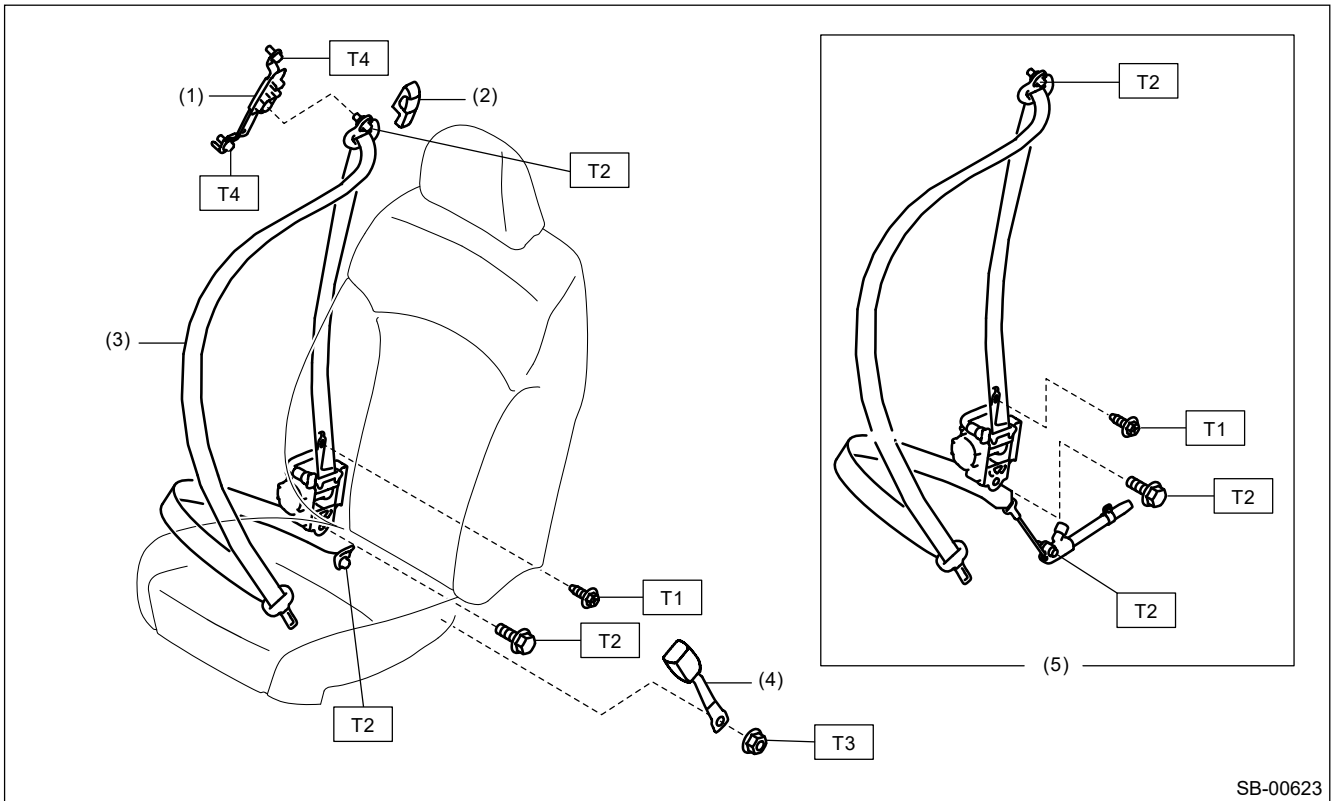
- Before starting the work, turn the ignition switch to OFF, disconnect the battery ground cable and wait for 60 seconds or more.
- The pretensioner system is fitted with a backup power supply. After disconnecting the battery ground cable, the pretensioner may operate if you do not wait for 60 seconds or more before starting pretensioner system servicing.
- Do not drop or apply any impact to the pretensioner.
- Do not allow oil, grease or water to come in contact with the pretensioner.
- Do not expose the pretensioner to high temperature or flame.
- Do not allow current to flow through or voltage to reach the pretensioner. Do not use a circuit tester to check resistance of the pretensioner.
- Do not disassemble or attempt to repair the pretensioner.
- Do not use the airbag or pretensioner parts from other vehicles. Always replace parts with new genuine parts.
- When handling a seat belt with deployed pretensioner, wear gloves and goggles. Wash your hands afterwards.
- Do not reuse a seat belt with deployed pretensioner.
- Before disposal, make sure to perform an operation process to the pretensioners.
- If material from the pretensioner enters the eyes or contacts skin during operation process, wash it away with clean water, and then consult a doctor.



# SEAT BELT SYSTEM > General Description

## COMPONENT

### 1. FRONT SEAT BELT



SB-00623

(1) Adjuster ASSY - seat belt

(4) Seat belt inner - front

**Tightening torque: N·m (kgf·m, ft·lb)**

(2) Cover through

(5) Seat belt outer - front (lap seat belt pretensioner - passenger's side only)

**T1: 7.5 (0.76, 5.5)**

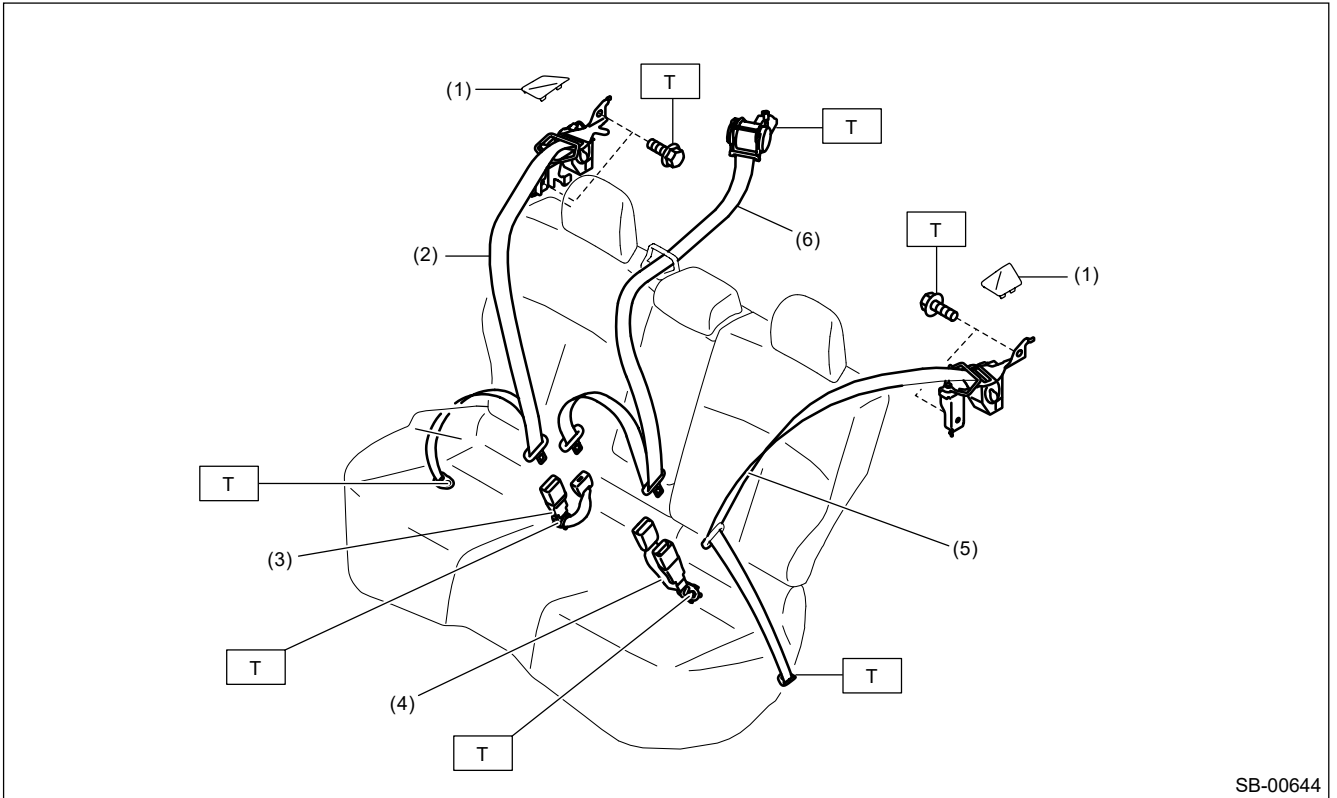
(3) Seat belt outer - front

**T2: 30 (3.06, 22.1)**

**T3: 38 (3.87, 28)**

**T4: 53 (5.4, 39.1)**

### 2. REAR SEAT BELT



SB-00644

(1) Cap - belt

(4) Seat belt - CTR LH

**Tightening torque: N·m (kgf·m, ft·lb)**

(2) Seat belt outer - rear RH

(5) Seat belt outer - rear LH

**T: 30 (3.06, 22.1)**

(3) Seat belt - CTR RH


(6) Seat belt - rear shoulder CTR

SEAT BELT SYSTEM > General Description

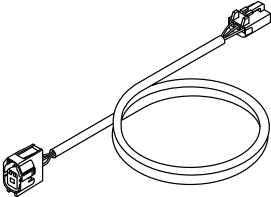
**PREPARATION TOOL**

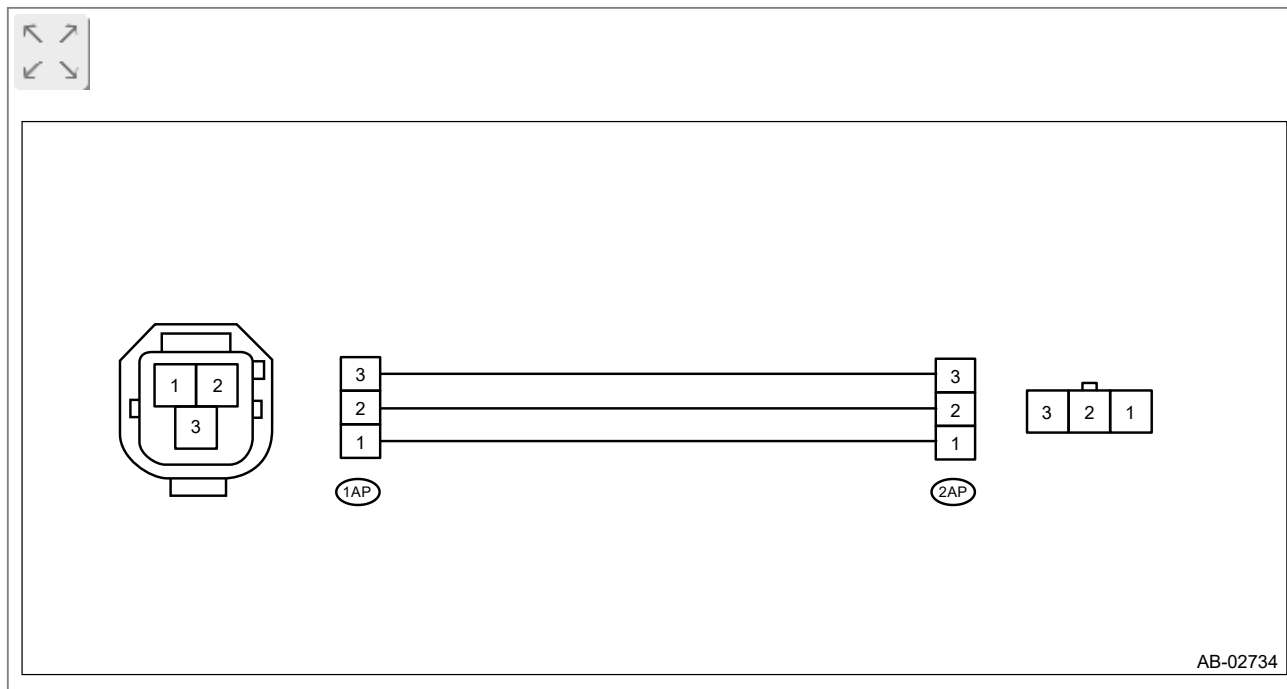
**1. SPECIAL TOOL**

- Subaru Select Monitor

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>STSSM4</p>	- (Newly adopted tool)	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. <b>Note:</b> For detailed operation procedures of Subaru Select Monitor 4, refer to "Application help".

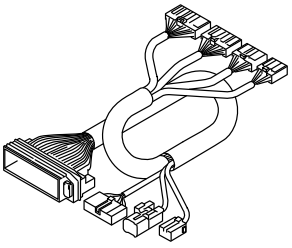
- TEST HARNESS AP

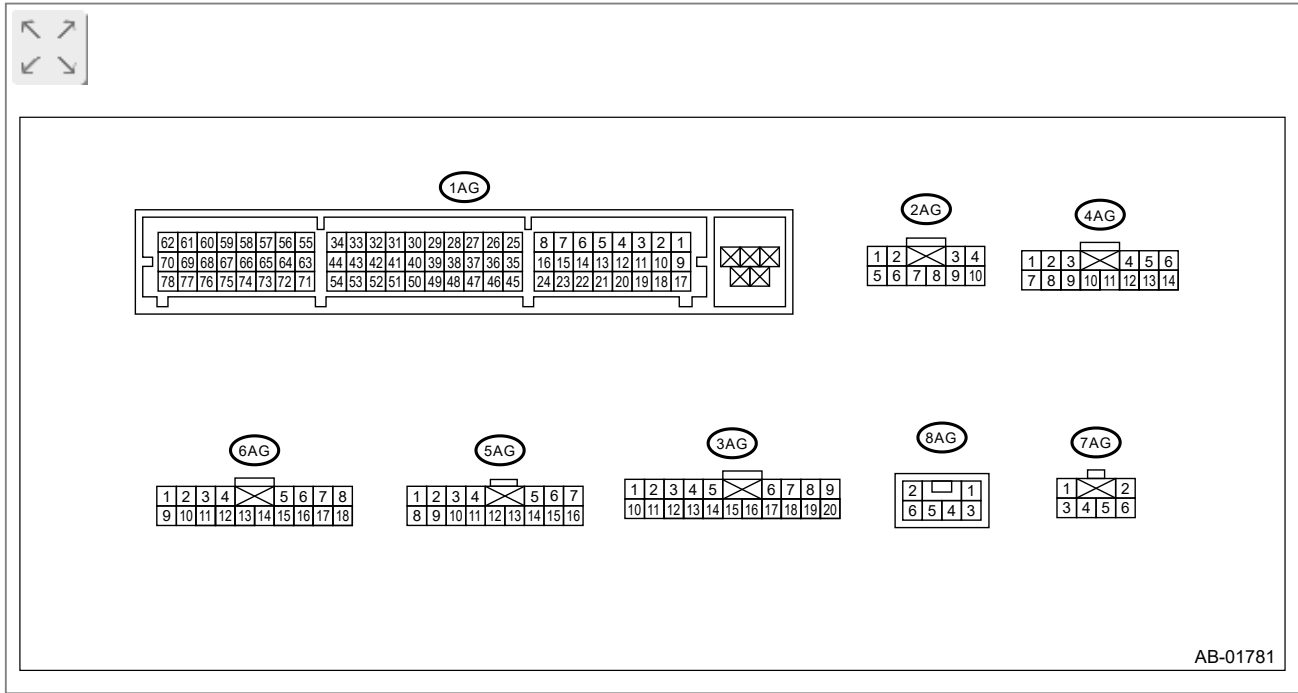
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST98299FJ030</p>	98299FJ030	TEST HARNESS AP	Used for diagnosing occupant detection system.

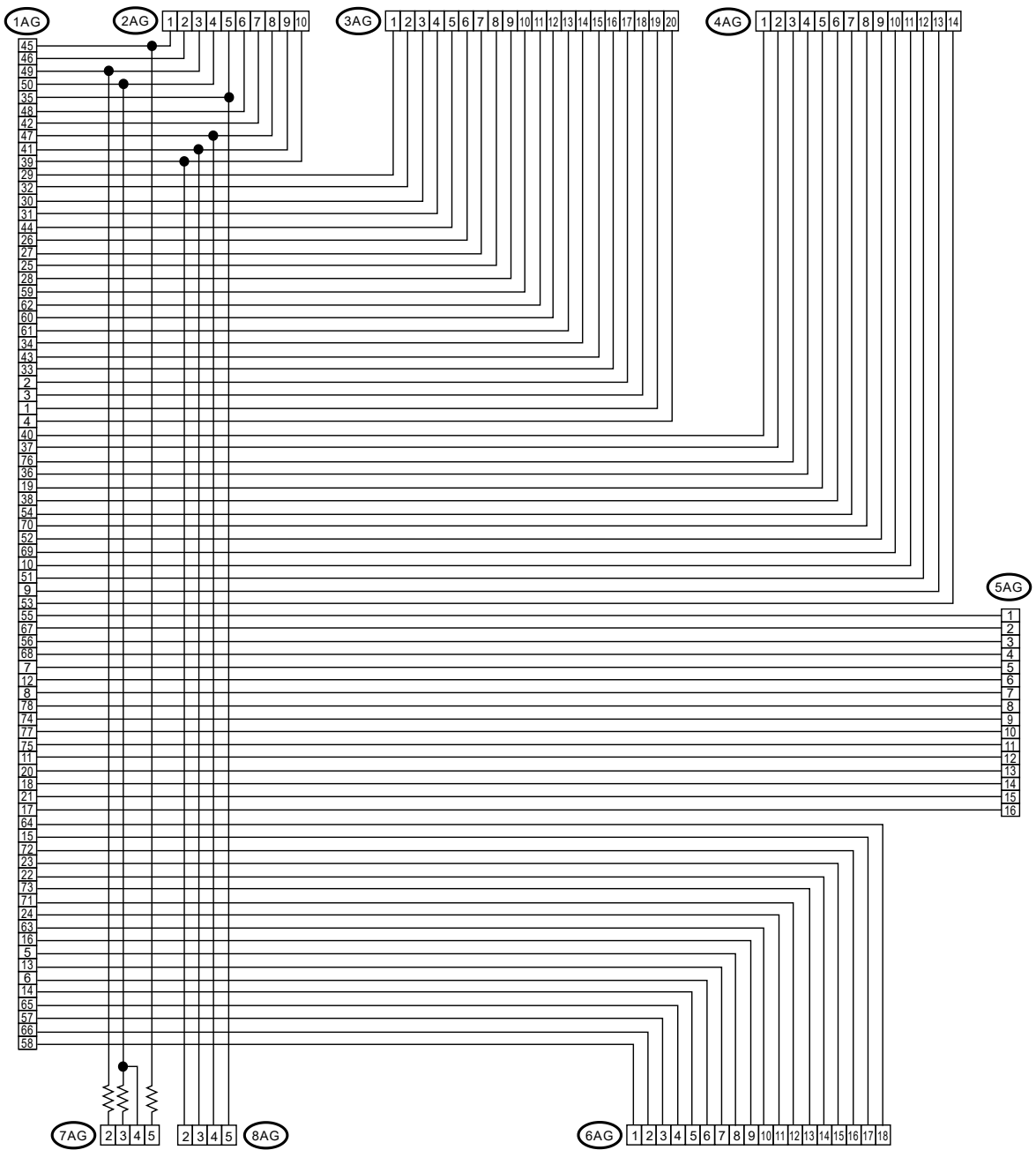




• TEST HARNESS AG

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p data-bbox="384 591 517 613">ST98299AG070</p>	98299AG070	TEST HARNESS AG	Used for diagnosing airbag control module.





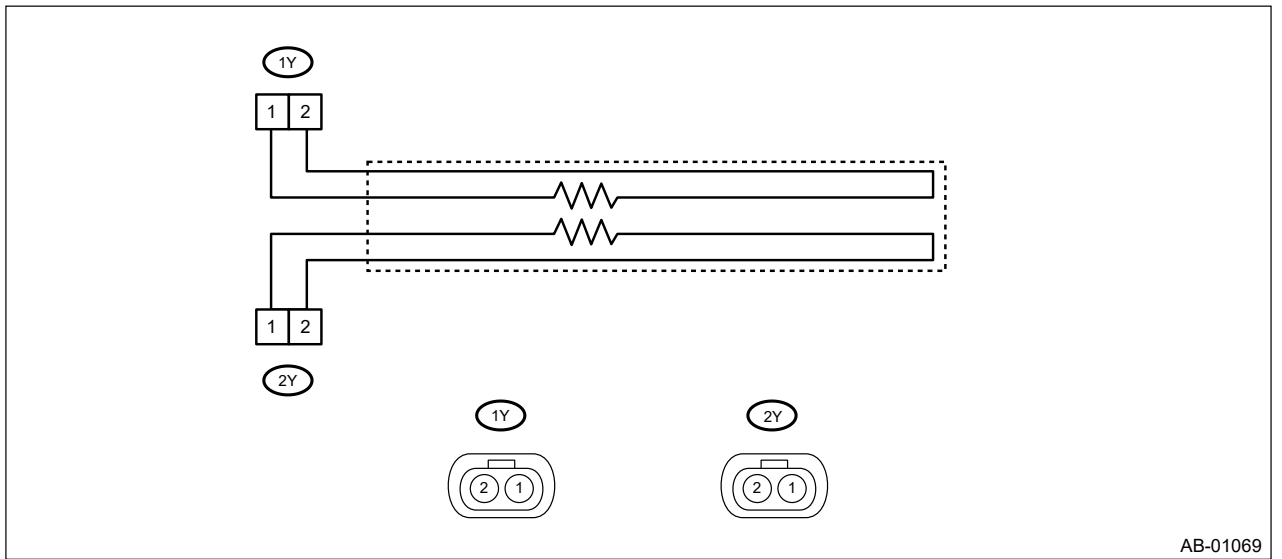
AB-01902

• TEST HARNESS Y

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
	98299AG040	TEST HARNESS Y	Used for troubleshooting seat belt buckle switch.

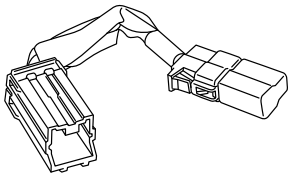
代替画像1

この画像は代替画像です

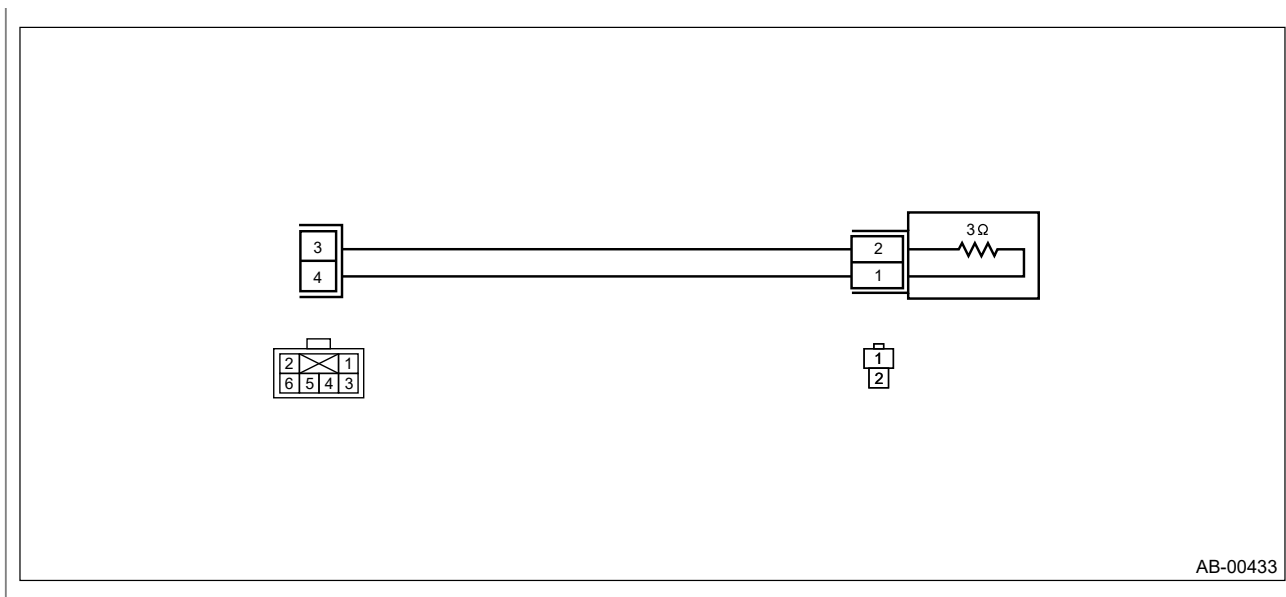


AB-01069

• AIRBAG RESISTOR

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p data-bbox="384 1671 512 1693">ST98299PA040</p>	98299PA040	AIRBAG RESISTOR	Used in replacement of airbag module for which resistance value is same as airbag module.





• TEST HARNESS ADAPTER D

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
<p style="text-align: center;">ST98299SA010</p>	98299SA010	TEST HARNESS ADAPTER D	<ul style="list-style-type: none"> <li>Used for operation process of pretensioner.</li> <li>Used together with AIRBAG DEPLOYMENT TOOL. (98299PA030)</li> </ul>

• AIRBAG DEPLOYMENT TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
<p style="text-align: center;">ST98299PA030</p>	98299PA030	AIRBAG DEPLOYMENT TOOL	<ul style="list-style-type: none"> <li>Used for operation process of pretensioner.</li> <li>Used together with each test harness adapter.</li> </ul>


## 2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.
DST-i	Used together with Subaru Select Monitor 4.

## SEAT BELT SYSTEM > Inspection Locations after a Collision

### INSPECTION

---

Refer to "Inspection Locations after a Collision" of "AIRBAG SYSTEM" section.  [Ref. to AIRBAG SYSTEM>Inspection Locations after a Collision.](#)





## SEAT BELT SYSTEM > Pretensioner Connector

### PROCEDURE

---

For connectors of seat belt pretensioner, lap seat belt pretensioner and buckle switch RH, refer to "Airbag Connector" of "AIRBAG SYSTEM" section or "OCCUPANT DETECTION SYSTEM" section.

- Airbag system:  [Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE.](#)
- Occupant detection system:  [Ref. to OCCUPANT DETECTION\(DIAGNOSTICS\)>Basic Diagnostic Procedure>PROCEDURE.](#)





## SEAT BELT SYSTEM > Rear Seat Belt

### INSPECTION

---

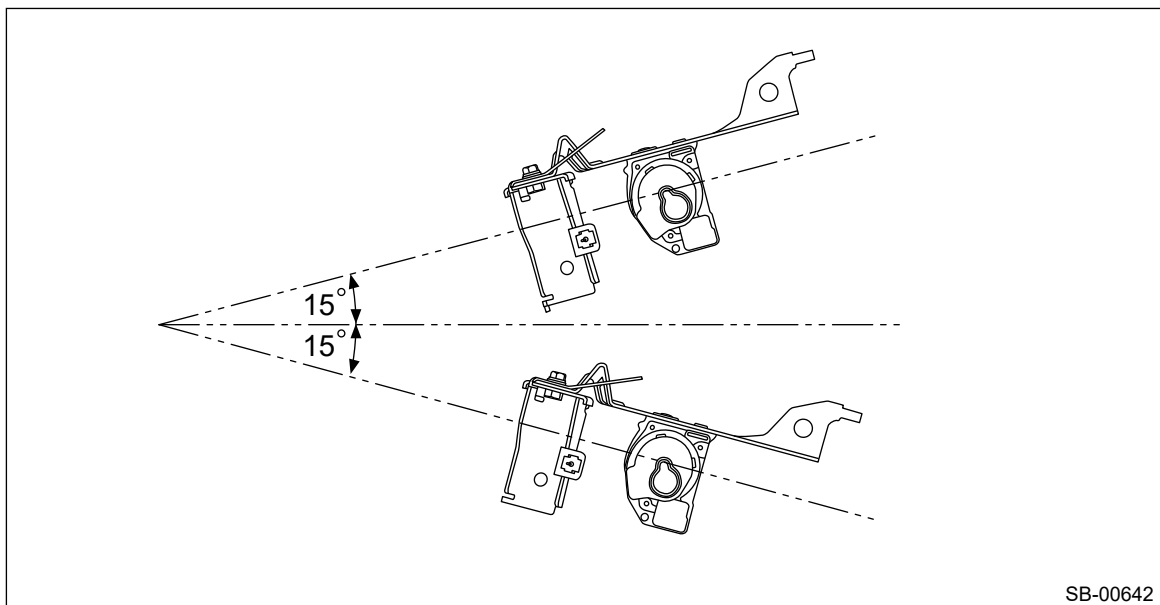
#### 1. VISUAL INSPECTION

Check for the following, and replace with new parts if necessary.

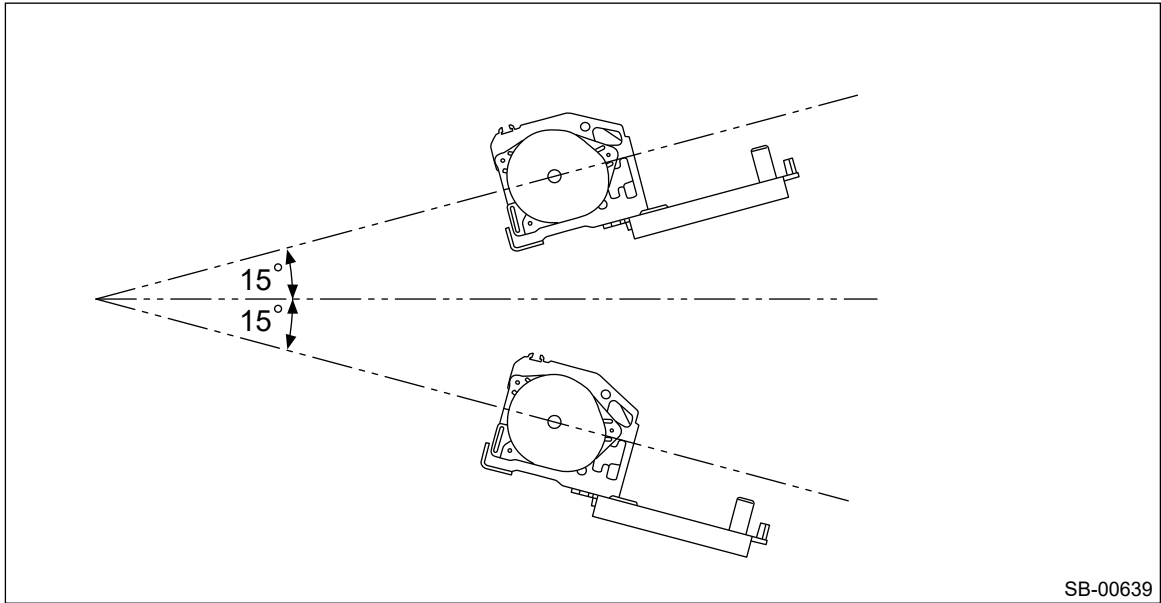
- Seat belt is slackened, bent or worn.
- Seat belt is abnormally wound or extended.
- Seat belt inner - rear is deformed or damaged.
- Seat belt buckle cannot be engaged properly.

#### 2. ELR LOCK MECHANISM INSPECTION

1. Hold the retractor in horizontal position (as installed in the vehicle) and check the ELR lock mechanism.
2. Tilt the retractor from the horizontal position and make sure it does not lock within the tilting angle of 15° or less.
  - Seat belt outer - rear RH & LH



- Seat belt - rear shoulder CTR




3. If the ELR lock mechanism does not operate properly, replace the seat belt outer - rear with a new part.

## SEAT BELT SYSTEM > Rear Seat Belt

### INSTALLATION

---


#### 1. SEAT BELT OUTER - REAR RH & LH


1. Before installation, perform a unit inspection of retractor.  [Ref. to SEAT BELT SYSTEM>Rear Seat Belt>INSPECTION.](#)
2. Install the seat belt outer - rear.

**Caution:**

- **During installation, make sure that the seat belts are not twisted.**
- **After installation, make sure that the seat belts are smoothly extended and wound.**

**Tightening torque:**


Refer to "COMPONENT" of "General Description". :  [Ref. to SEAT BELT SYSTEM>General Description>COMPONENT > REAR SEAT BELT.](#)

3. Install the trim panel - rear quarter trim UPR.
4. Install the remaining parts in the reverse order of removal.
5. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
6. After installation, check the following points.
  - The seat belt is not twisted.
  - The seat belt can be pulled out and retracted smoothly.

#### 2. SEAT BELT - REAR SHOULDER CTR



1. Install the seat belt - rear shoulder CTR.

**Tightening torque:**

Refer to "COMPONENT" of "General Description". :  [Ref. to SEAT BELT SYSTEM>General Description>COMPONENT > REAR SEAT BELT.](#)

2. Install the remaining parts in the reverse order of removal.

**Caution:**


- **For installation of the stereo camera cover, refer to "INSTALLATION", "Stereo Camera Cover" in the "EyeSight" section and observe the precautions for installation.  [Ref. to EyeSight>Stereo Camera>INSTALLATION.](#)**
- **For installation of the rod - power rear gate, refer to "INSTALLATION", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for installation.  [Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Rod>INSTALLATION.](#)**
- **When reusing the tether clip on the upper part of the trim panel - front pillar UPR, check that there is no damage to the tether clip. If the tether clip is damaged, always replace it with a new tether clip. If the tether clip is damaged, its holding force is reduced and the trim panel - front pillar UPR may come off.**
- **Do not reuse the tether clip removed from the upper part of the trim panel - front pillar UPR. Always replace with a new part.**

- Do not reuse the upper clips of the trim panel - center pillar UPR. Once the clip is removed, its holding force is reduced. Be sure to replace it with a new clip.
- Before installing the trim panel - front pillar UPR, check the condition of protective non-woven fabric (white) of the curtain airbag. If it is damaged (airbag module cloth is exposed), replace the curtain airbag module assembly with a new part.

**Note:**

For installation of the trim panel - front pillar UPR, refer to "Upper Inner Trim".


 [Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>INSTALLATION.](#)


3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
4. After installation, check the following points.
  - The seat belt is not twisted.
  - The seat belt can be pulled out and retracted smoothly.

### 3. SEAT BELT - CTR RH AND LH

1. Install the seat belt - CTR RH/LH.

**Tightening torque:**

Refer to "COMPONENT" of "General Description". :  [Ref. to SEAT BELT SYSTEM>General Description>COMPONENT > REAR SEAT BELT.](#)


2. Install the rear seat cushion.
3. Install the remaining parts in the reverse order of removal.
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
5. After installation, check the following points.
  - The seat belt is not twisted.
  - Check that the airbag warning light lights up for approximately 6 seconds and then turns off when connecting the battery ground cable and turning the ignition switch to ON.


SEAT BELT SYSTEM > Rear Seat Belt

REMOVAL

1. SEAT BELT OUTER - REAR RH & LH


Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

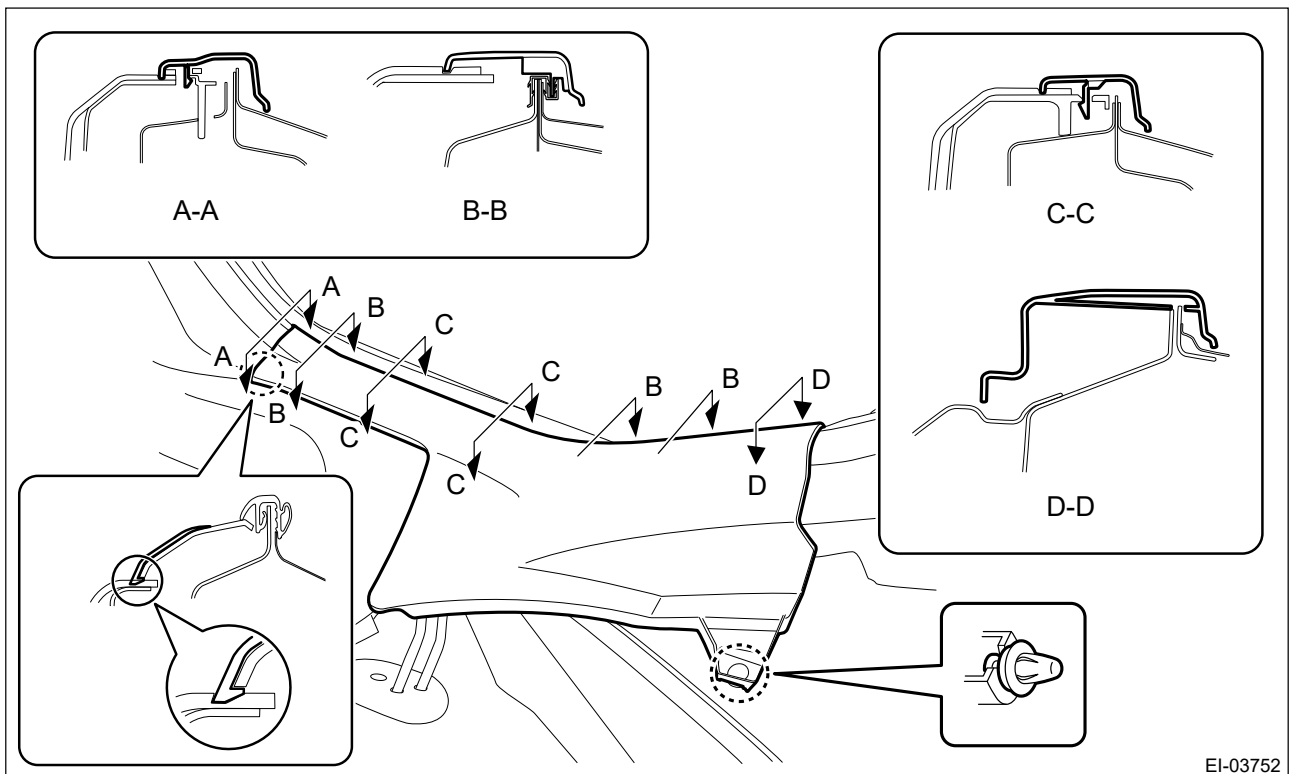
Note:

For model with battery sensor, disconnect the ground terminal from battery sensor.

3. Remove the rear seat cushion assembly.  [Ref. to SEATS>Rear Seat>REMOVAL.](#)
4. Release the clips and claws, and then remove the cover side sill - rear INN.

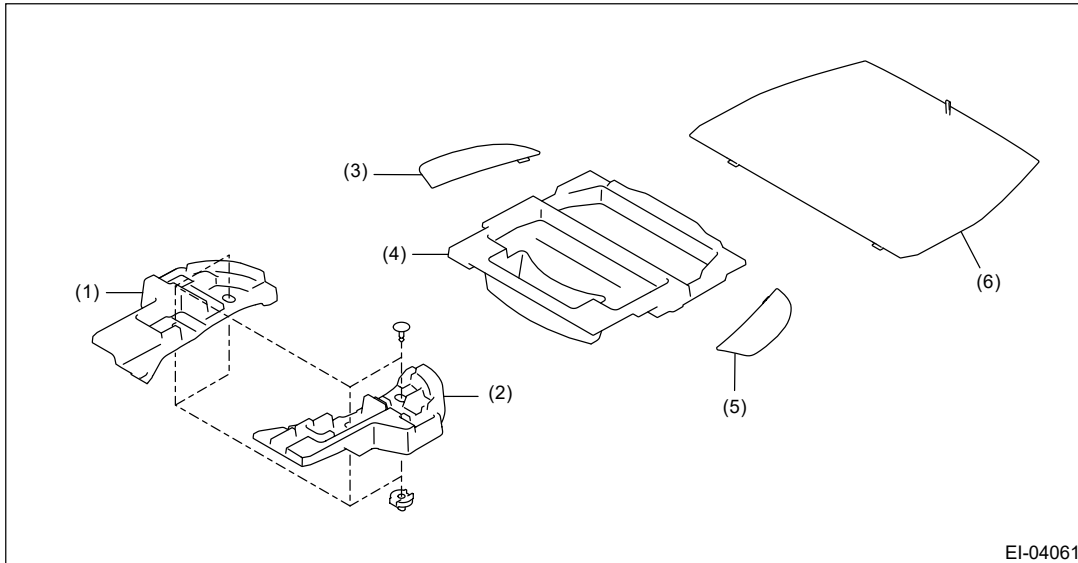
Caution:

Do not pull with excessive force. Doing so may damage the claws of the cover side sill - rear INN.



EI-03752

5. Remove the mat - rear floor, spacer - rear floor, and cover - trunk.



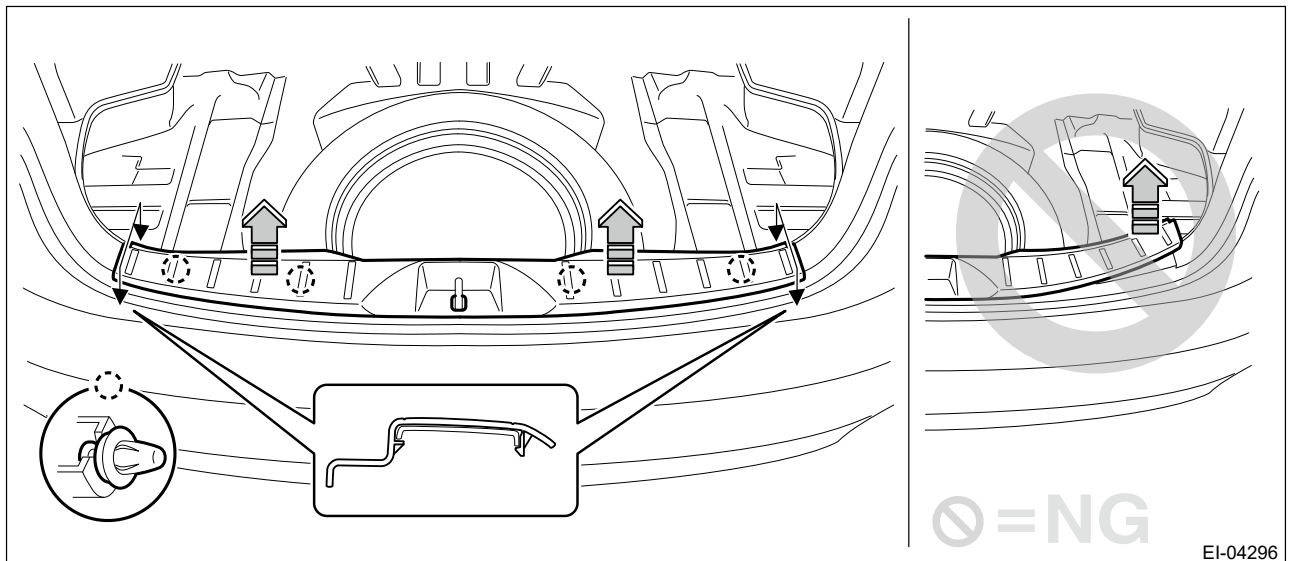
EI-04061

- |                                 |                         |                          |
|---------------------------------|-------------------------|--------------------------|
| (1) Spacer - rear floor side RH | (3) Mat - rear floor RH | (5) Mat - rear floor LH  |
| (2) Spacer - rear floor side LH | (4) Cover - trunk       | (6) Mat - rear floor CTR |

**6.** Remove the clips, and remove the trim panel - rear skirt.

**Caution:**

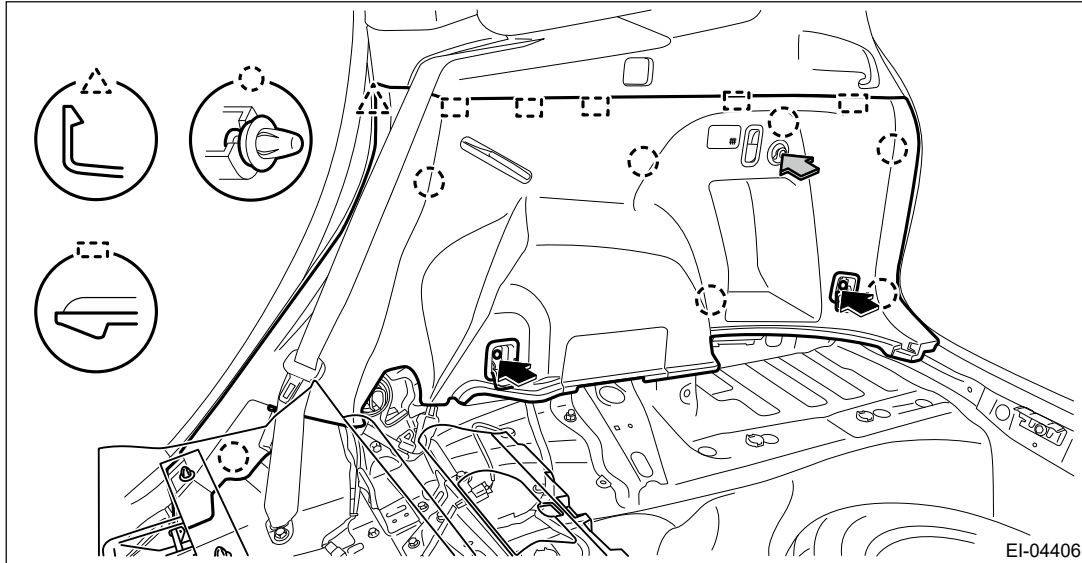
**Do not lift the trim panel - rear skirt from the edge. Doing so may damage the part.**



EI-04296

**7.** Remove the trim panel - rear apron.


- (1) Open the cover, remove the bolts, and remove the hook - luggage. (2 places)
- (2) Remove the screws, and release the clips.
- (3) Disconnect the connectors and remove the trim panel - rear apron.

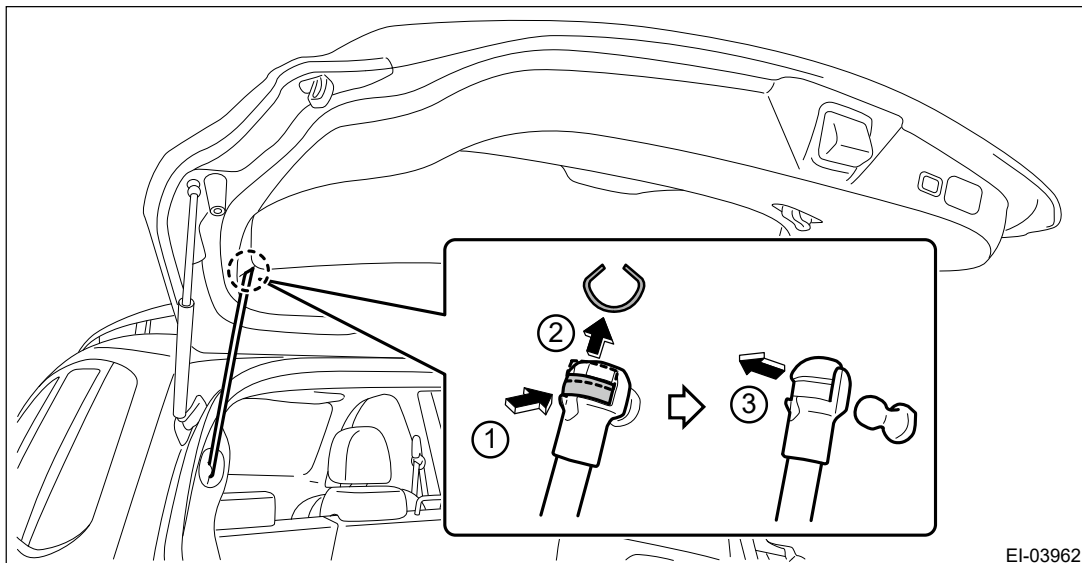


**8.** Remove the trim panel - rear quarter pillar UPR.

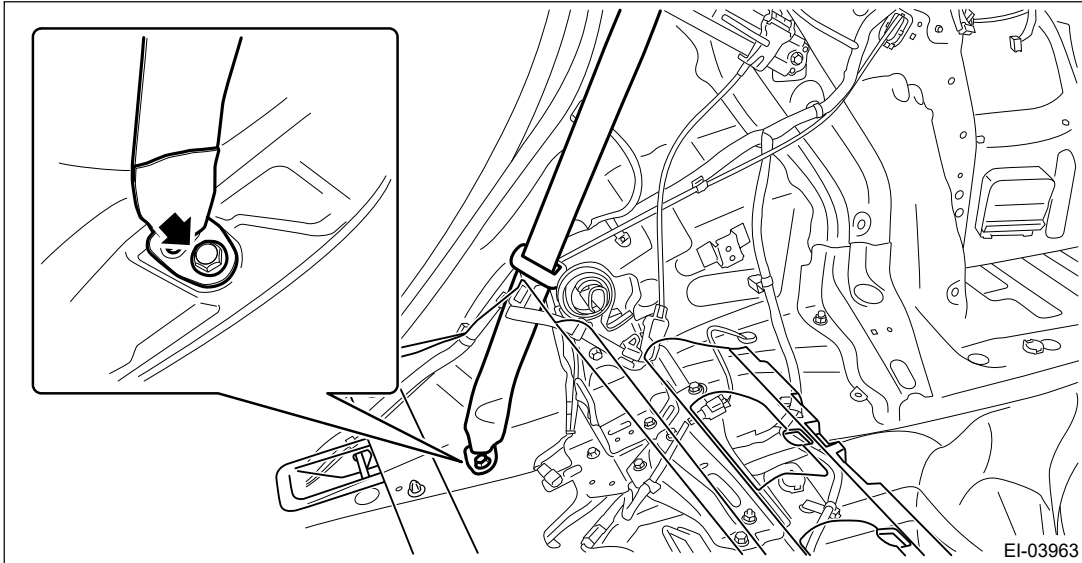
- (1) Disconnect the rod - power rear gate before removing the trim panel - rear quarter pillar UPR LH.  
(Only for models with power rear gate)

**Caution:**

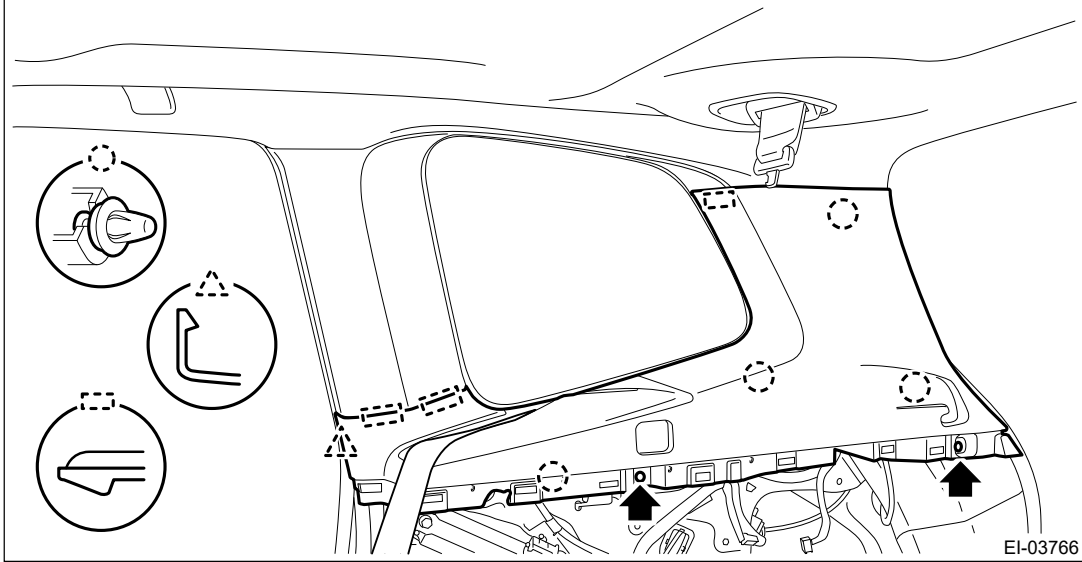
**For the disconnection procedure of the rod - power rear gate, refer to "REMOVAL", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for removal.  Ref. to POWER REAR GATE SYSTEM>Power Rear Gate Rod>REMOVAL.**



- (2) Remove the lower anchor bolts of rear seat belts.

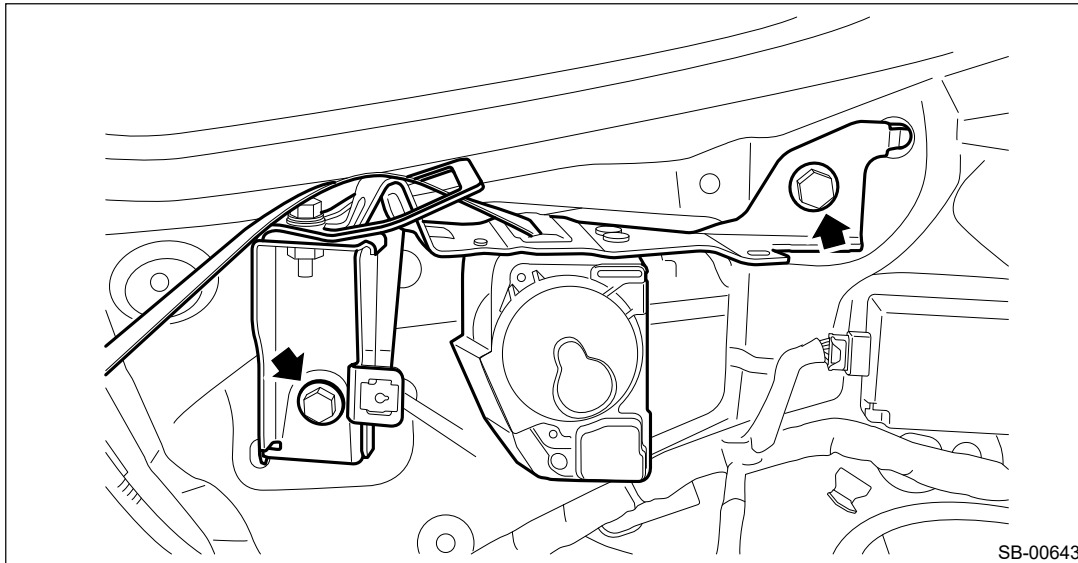


(3) Remove the screws and clips, and remove the trim panel - rear quarter pillar UPR.




9. Remove the bolts, and remove the seat belt outer - rear.






## 2. SEAT BELT - REAR SHOULDER CTR


### Caution:

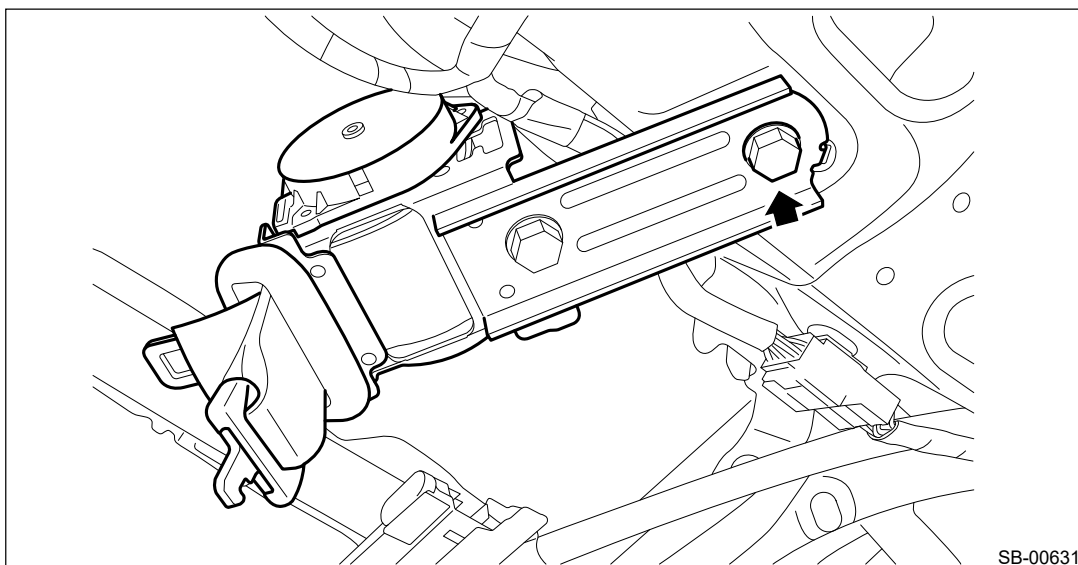
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

### Note:


**For model with battery sensor, disconnect the ground terminal from battery sensor.**


3. Remove the trim panel - roof assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.](#)
4. Remove the bolts, and remove the seat belt - rear shoulder CTR.



### 3. SEAT BELT - CTR RH AND LH


**Caution:**

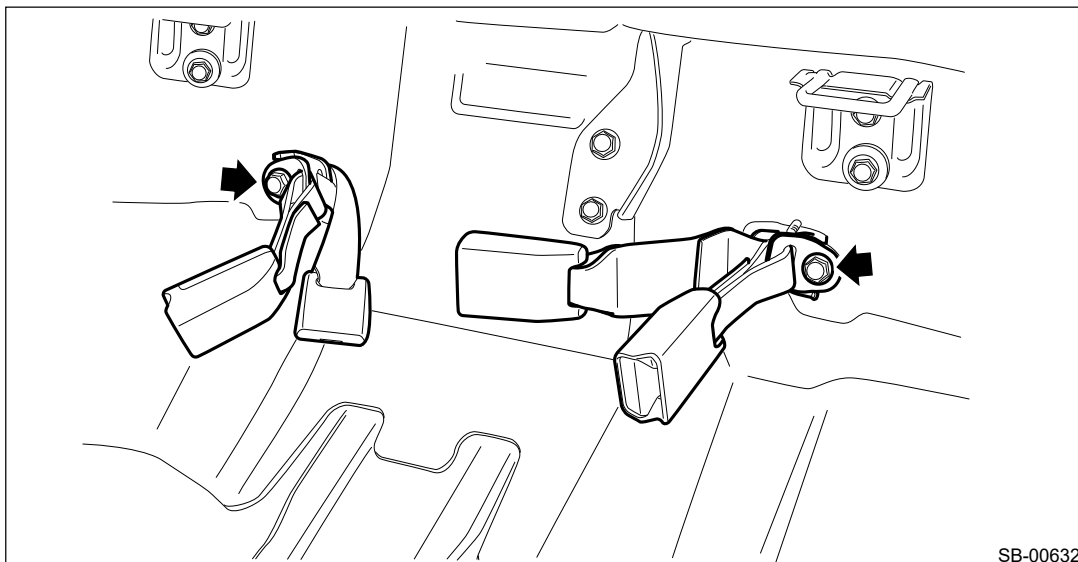
- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.

1. Turn the ignition switch to OFF.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

**Note:**

**For model with battery sensor, disconnect the ground terminal from battery sensor.**


3. Remove the rear seat cushion assembly.  [Ref. to SEATS>Rear Seat>REMOVAL.](#)
4. Remove the bolts, and remove the seat belt - CTR RH and LH.



## SEAT BELT SYSTEM > Seat Belt Warning System

### INSPECTION

#### Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- When inspecting the airbag main harness, disconnect the connectors of the driver's airbag module, passenger's airbag module and knee airbag module for safety reasons.
- When inspecting the airbag rear harness, disconnect the side airbag module connector, curtain airbag module connector and seat belt pretensioner connector for safety reasons.

#### 1. CHECK FUNCTION.




1. Sit on the driver's seat and passenger's seat and disconnect the seat belts of the both.
2. Turn the ignition switch to ON (engine OFF).
3. Check if the driver's seat belt warning light in the combination meter and the passenger's seat belt warning light in the MFD blink, and if the buzzer sounds.

Do the driver's and passenger's warning lights blink?  
Does the buzzer sound?

Yes

 [Go to 2.](#)


No

- For malfunction of the driver's seat belt warning light, go to the next step.  [Go to 4.](#)
- For malfunction of the passenger's seat belt warning light, go to the next step.  [Go to 10.](#)
- If no buzzer sounds, go to the next step.  [Go to 7.](#)

#### 2. CHECK FUNCTION.


1. Wait until the buzzer sound in step 1 stops.
2. Start the engine, and set the vehicle speed at 20 km/h (12 MPH) or more.
3. Check if the driver's seat belt warning light in the combination meter and the passenger's seat belt warning light in the MFD blink, and if the buzzer sounds.

Do the driver's and passenger's warning lights blink?  
Does the buzzer sound?

 Seat belt warning system is normal.

Yes

No


 [Go to 3.](#)

### 3. CHECK COMBINATION METER VEHICLE SPEED INPUT.

1. Using Subaru Select Monitor, select [Data Monitor] and display the data of [Vehicle speed data].


**Note:**

**For detailed operation procedures, refer to “Application help”.**

2. Start the engine and set the vehicle speed at 20 km/h (12 MPH) as in driving condition referring to the speedometer display.
3. Read the reading of the recognized vehicle speed in meter.  [Ref. to COMBINATION METER \(DIAGNOSTICS\)>Data Monitor>OPERATION.](#)

Is the recognized vehicle speed less than 15 km/h (9 MPH)?


Yes

Replace the combination meter.  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>REMOVAL.](#)

No

Perform the diagnosis for LAN system.

### 4. CHECK DRIVER'S SIDE HARNESS.

1. Disconnect the negative terminal from the battery, and wait for 60 seconds or more.  [Ref. to NOTE>NOTE > BATTERY.](#)

**Note:**

**For model with battery sensor, disconnect the ground terminal from battery sensor.**

2. Disconnect the connectors of the combination meter and the seat belt buckle switch LH.
3. Check for short circuit to battery, open circuit and short circuit to ground between the combination meter and the seat belt buckle switch LH.

**Connector & terminal**

(i10) No. 15 — (R108) No. 1:

Is the harness normal?

Yes

 [Go to 5.](#)

No

Repair or replace the harness.

## 5. CHECK DRIVER'S SIDE HARNESS.


Measure the resistance between the seat belt buckle switch LH and chassis ground.

### Connector & terminal

(R108) No. 2 — Chassis ground:

Is the resistance less than 10  $\Omega$ ?

Yes

 [Go to 6.](#)

No

Repair or replace the harness.

## 6. CHECK SEAT BELT BUCKLE SWITCH LH.

Measure the resistance between the connector terminals of the driver's seat belt switch when the driver's seat belt is fastened and detached.

### Connector & terminal

(R108) No. 1 — (R108) No. 2:

Is the resistance when the belt is fastened 1 M $\Omega$  or more, and less than 10 $\Omega$  when the belt is detached?


Yes

 [Go to 7.](#)

No

Replace the seat belt inner - front LH.  [Ref. to SEAT BELT SYSTEM>Front Seat Belt>REMOVAL > SEAT BELT OUTER - FRONT.](#)

## 7. CHECK POWER SUPPLY OF COMBINATION METER.

1. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
2. Disconnect the connector of combination meter.
3. Turn the ignition switch to ON.
4. Measure the voltage between the ignition power supply and the combination meter.

### Connector & terminal

(i10) No. 20 — Chassis ground:

Is the voltage 10 V or more?

Yes

 [Go to 8.](#)

No

Check the harness for open or short between the power supply and the meter.

## 8. CHECK GROUND CIRCUIT OF COMBINATION METER.


1. Turn the ignition switch to OFF.
2. Measure the resistance between the combination meter and the chassis ground.

### Connector & terminal

(i10) No. 38 — Chassis ground:

Is the resistance less than 10  $\Omega$ ?

Yes



 [Go to 9.](#)

No

Repair or replace the harness.

## 9. CHECK COMBINATION METER.

Check if the seat belt warning light illuminates and if the buzzer sounds using the system operation check mode or the self-diagnosis display mode for the combination meter.


- System operation check mode:  [Ref. to COMBINATION METER \(DIAGNOSTICS\)>Active Test.](#)
- Self-diagnosis display mode:  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter System>OPERATION > SELF-DIAGNOSIS DISPLAY MODE.](#)

Does the driver's seat belt warning light illuminate and the buzzer sound?


Yes

Function is normal.  
Temporary poor contact.

No


Replace the combination meter.  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>REMOVAL.](#)

## 10. CHECK DATA MONITOR.

1. Sit in the passenger's seat.
2. Using Subaru Select Monitor, select [Data Monitor] and display the data of [Passenger side seat belt state].
3. Fasten and detach the passenger's side seat belt buckle, and read the data of the seat belt switch.  [Ref. to COMBINATION METER \(DIAGNOSTICS\)>Data Monitor.](#)

Does the seat belt switch display turn ON ↔ OFF according to the operation of the seat belt buckle?

Yes

 [Go to 11.](#)

No

Read the diagnostic trouble code (DTC) and perform the diagnosis according to DTC B1650, B1655 or B16F1.

## 11. CHECK MFD POWER SUPPLY VOLTAGE.


1. Disconnect the MFD connector.
2. Turn the ignition switch to ON.
3. Measure the voltage between the ignition power supply and the MFD.

### Connector & terminal

(i122) No. 3 (+) — Chassis ground (–):

Is the voltage 10 V or more?

Yes

 [Go to 12.](#)

No

Check the harness for open or short between the fuse and MFD.

## 12. CHECK MFD GROUND CIRCUIT.


1. Turn the ignition switch to OFF.
2. Measure the resistance between MFD and chassis ground.

### Connector & terminal

(i122) No. 2 — Chassis ground:

Is the resistance less than 10 Ω?

Yes

 [Go to 13.](#)

No

Repair or replace the harness.

## 13. CHECK HARNESS BETWEEN MFD AND COMBINATION METER.


1. Disconnect the harness of the MFD and the combination meter.
2. Measure the resistance between MFD and combination meter.

### Connector & terminal

(i122) No. 9 — (i10) No. 28:

Is the resistance less than 10  $\Omega$ ?

Yes

 [Go to 14.](#)

No

Repair or replace the harness.

## 14. CHECK COMMUNICATION STATUS BETWEEN MFD AND COMBINATION METER.



1. Remove the MFD, and install a properly operating MFD (new MFD).
2. Connect the connector and then turn the ignition switch to ON.

Is the MFD properly displayed?

Yes

Replace the MFD.

No


Replace the combination meter.  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>REMOVAL.](#)



## SEAT BELT SYSTEM > Seat Belt Warning System

### WIRING DIAGRAM

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Refer to "Seat Belt Warning System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Seat Belt Warning System>WIRING DIAGRAM.](#)

