

2. Construction

A: GENERAL

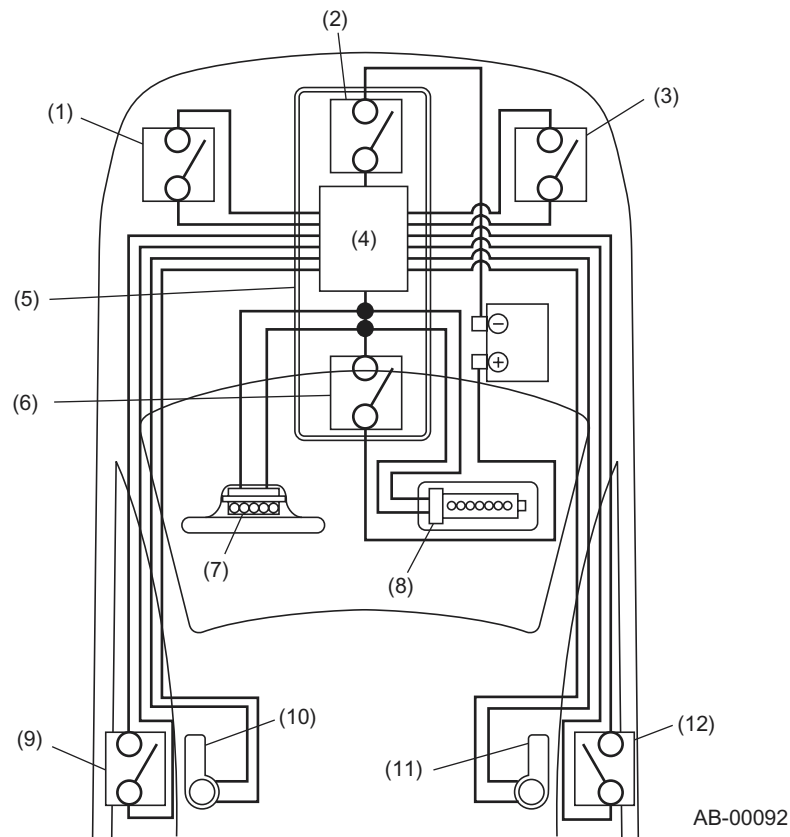
- The airbag system consists of an airbag control module, left and right front sub sensors, an electric sensor and safety sensor built into the control module, driver's and passenger's airbag modules each containing an inflator and airbag, and side airbag sensors and side airbag modules each containing an inflator and airbag (side airbag equipped model).

- **FRONT AIRBAG SYSTEM:**

A frontal impact exceeding the set level causes the electric sensor and one or both front sub sensors to input impact signals to the CPU. The CPU determines whether the airbags should be inflated or not based on these signals.

- **SIDE AIRBAG SYSTEM:**

Input of a shock energy greater than the set level causes the airbag on the corresponding side to inflate.



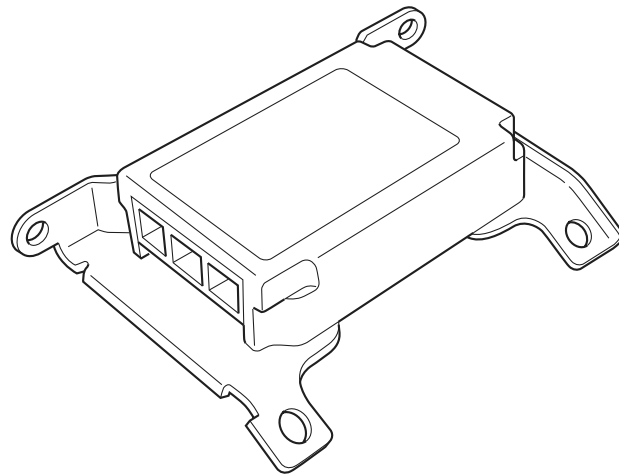
- | | | |
|----------------------------|---------------------------|-------------------------------|
| (1) Front left sub sensor | (5) Airbag control module | (9) Left side airbag sensor |
| (2) Safety sensor | (6) Electric sensor | (10) Left side inflator |
| (3) Front right sub sensor | (7) Inflator (driver) | (11) Right side inflator |
| (4) CPU | (8) Inflator (passenger) | (12) Right side airbag sensor |

CONSTRUCTION

Airbag System

B: AIRBAG CONTROL MODULE

The airbag control module is installed on the front floor tunnel. It detects the vehicles deceleration by receiving electrical signals from its inside electric sensor as well as the front sub sensors and judges whether to inflate the airbags. This control module has a built-in system diagnosis function. If a fault occurs in the system, it lights up the airbag warning light in the combination meter. The fault data is stored in the module. A back-up power supply is provided for possible damage to the battery during an accident, and a boosting circuit is built into the control module in case of a battery voltage drop.



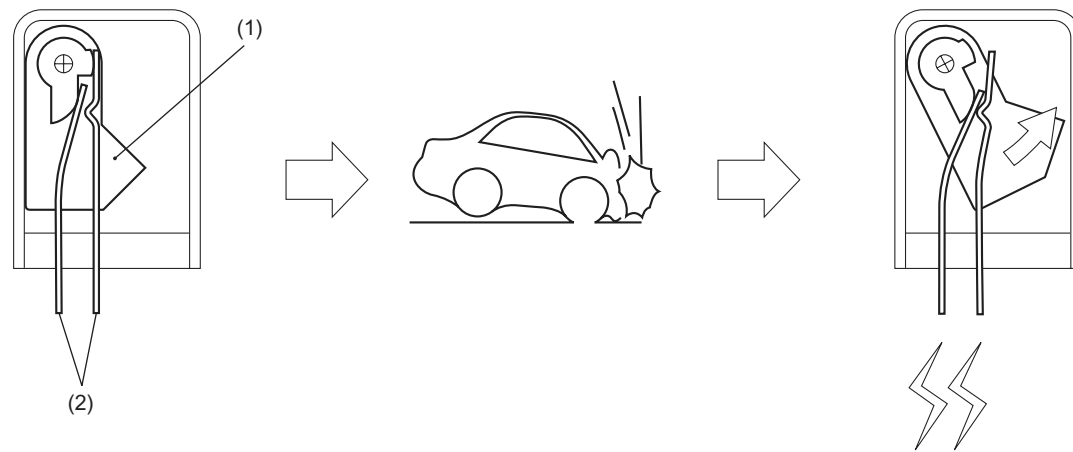
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CONSTRUCTION

Airbag System

C: FRONT SUB SENSOR

One front sub sensor is installed on each side, in front of the front side frame. The front sub sensor is a pendulum type sensor. If the sensor receives a frontal impact exceeding a certain limit, the mass in the sensor rotates forward to turn the switch ON.



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- (1) Mass
- (2) Switch contacts

CONSTRUCTION

Airbag System

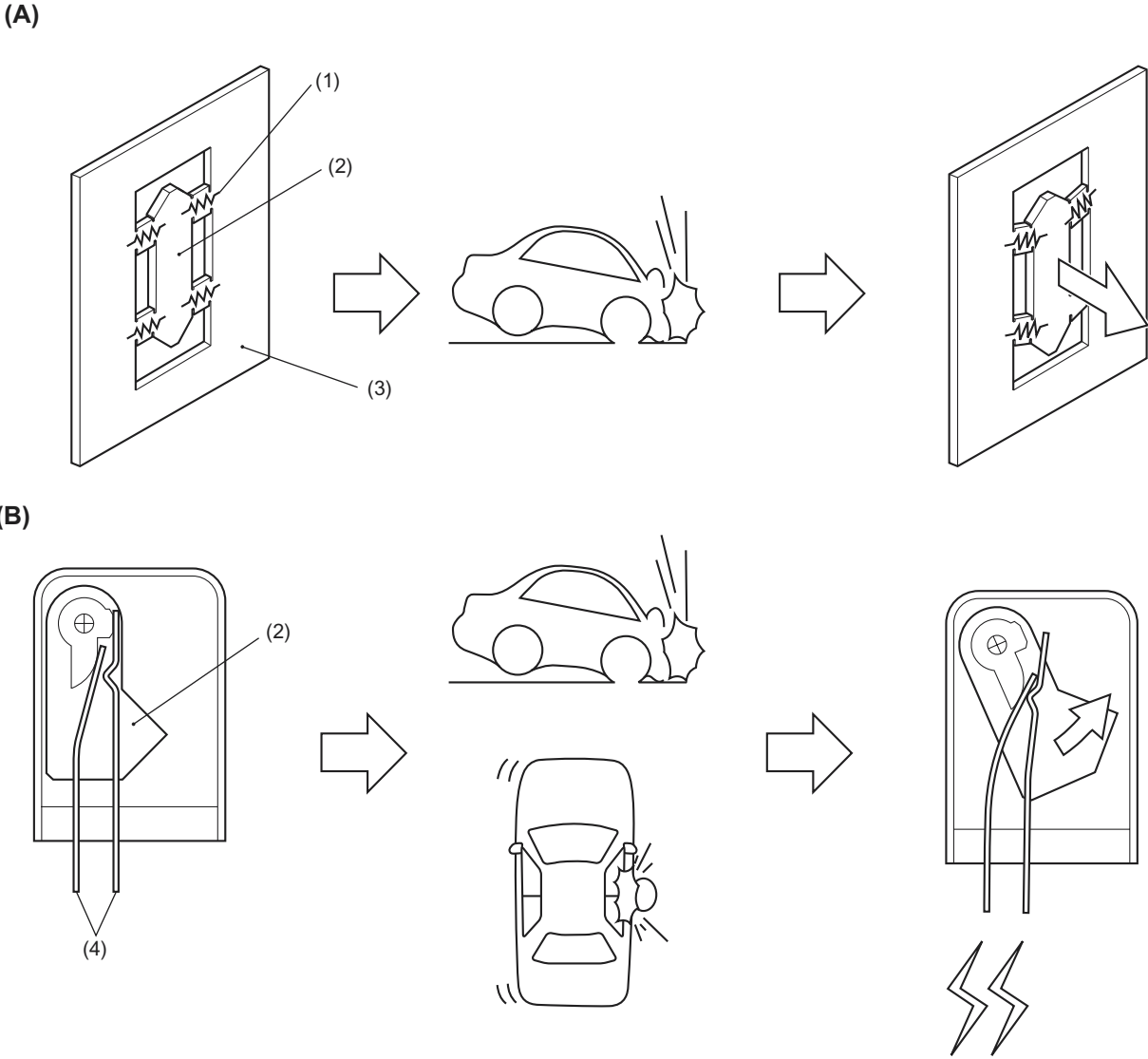
D: AIRBAG SENSOR

The safety sensor and electric sensor are incorporated into the airbag control module and the side airbag sensors.

The safety sensor is also a pendulum type sensor. If the sensor receives a frontal or side impact exceeding a certain limit, the mass in the sensor moves in the direction opposite to the impact direction to turn the switch ON.

The electric sensor consists of a semiconductor type sensor which senses the deceleration caused by collision in terms of change in the electrical resistance of the impact sensing circuit.

CONSTRUCTION



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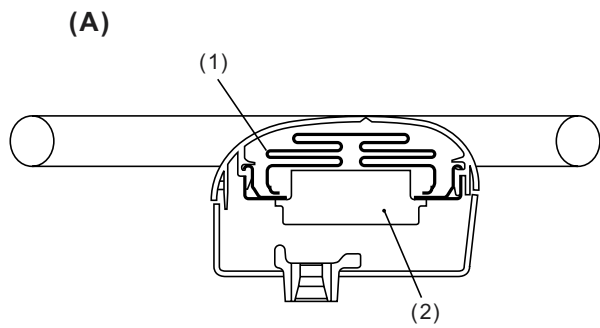
CONSTRUCTION

Airbag System

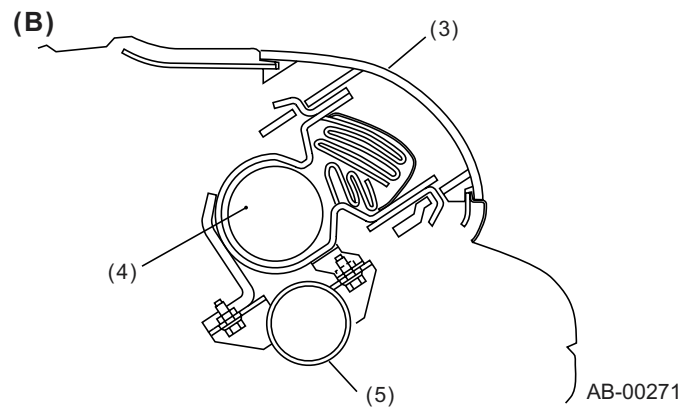
E: AIRBAG MODULE

1. FRONT AIRBAG

The driver's airbag module is located at the center of the steering wheel and the passenger's airbag module is located at upper portion of instrument panel. Each module contains an airbag and an inflator. If a collision occurs, the inflator produces a large volume of gas to inflate the airbag in a very short time.



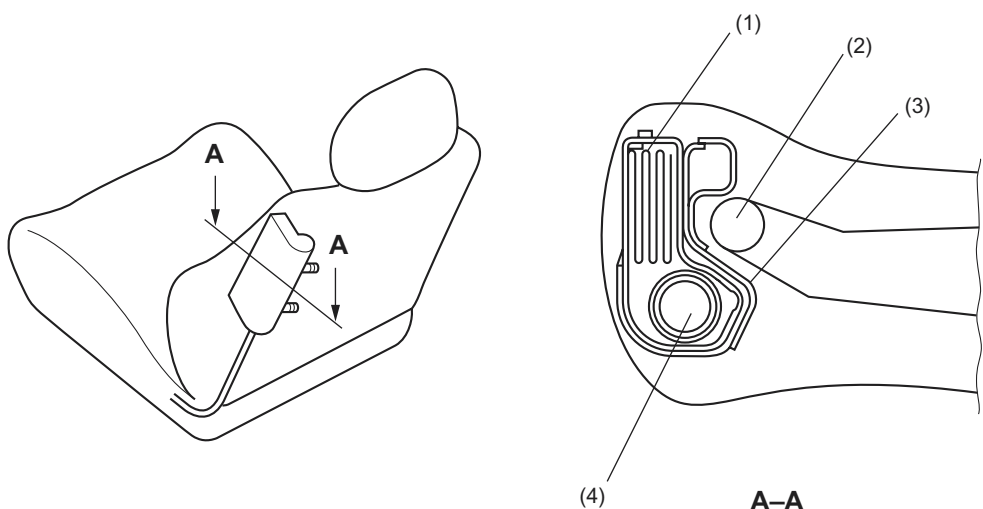
- (A)** Driver's module
(1) Airbag
(2) Inflator (driver)



- (B)** Passenger's module
(3) Airbag module lid
(4) Inflator (passenger)
(5) Steering support beam

2. SIDE AIRBAG

A side airbag module is located at the outer side of each front seat backrest, and it contains an airbag and an inflator. If a side-on collision occurs, the inflator produces a large volume of gas to inflate the airbag in a very short time.



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- (1) Airbag
- (2) Seat frame

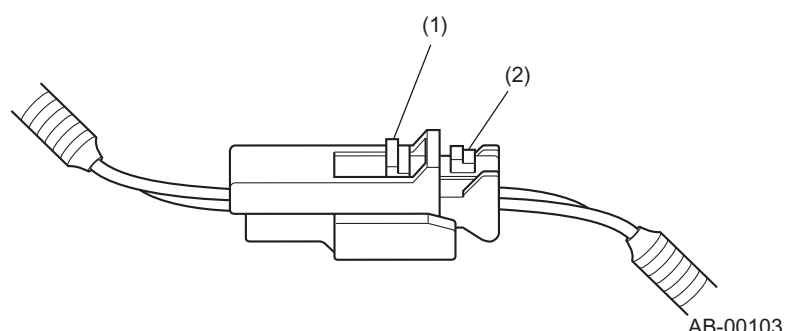
- (3) Bracket
- (4) Inflator

F: AIRBAG CONNECTORS

1. DESCRIPTION

The airbag system uses connectors with a double lock mechanism and an incomplete coupling detection mechanism for enhanced reliability. If coupling is incomplete, the airbag warning light comes on in the combination meter.

2. AIRBAG HARNESS-TO-AIRBAG HARNESS CONNECTOR



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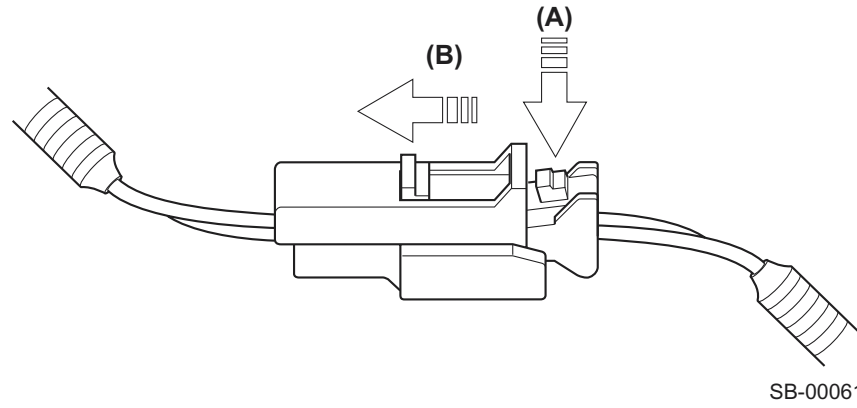
- (1) Slide lock
- (2) Lock arm

CONSTRUCTION

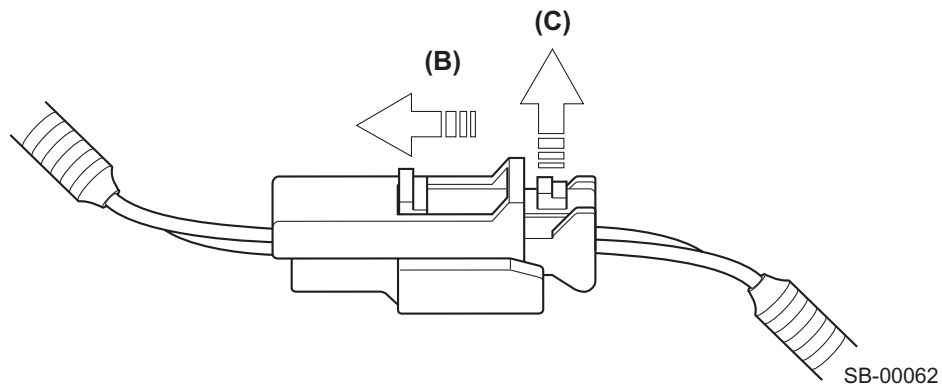
Airbag System

Disconnection:

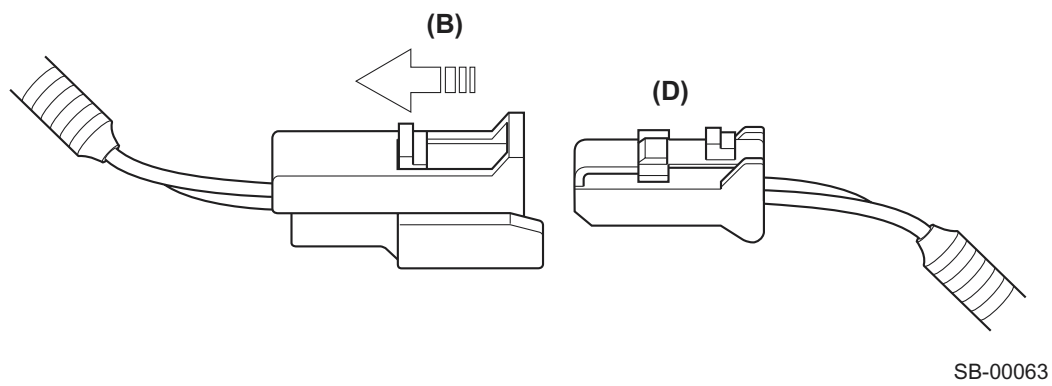
1)



2)



3)



- (A) Step 1: Push.
- (B) Step 2: Slide and hold.
- (C) Step 3: Release.
- (D) Step 4: Disconnect.

Connection:

Insert the male side connector half into the other connector half until a “click” is heard.

CONSTRUCTION

Airbag System

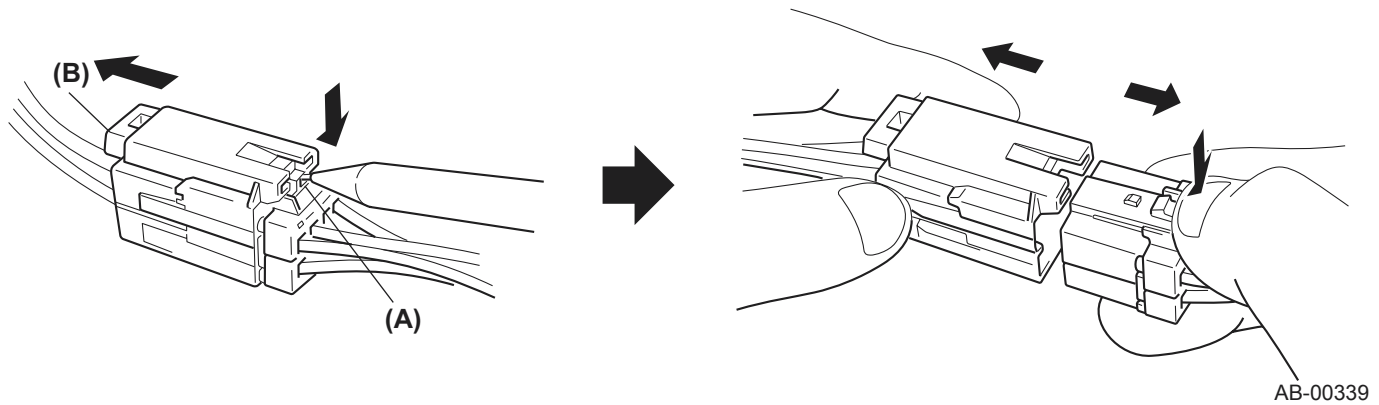
3. AIRBAG HARNESS-TO-BODY HARNESS CONNECTOR

Disconnection:

Press the lever (A) to let the green lever (B) pop out. This unlocks the double lock mechanism. Then separate the connector halves by pulling them apart while pressing the lever (A).

Connection:

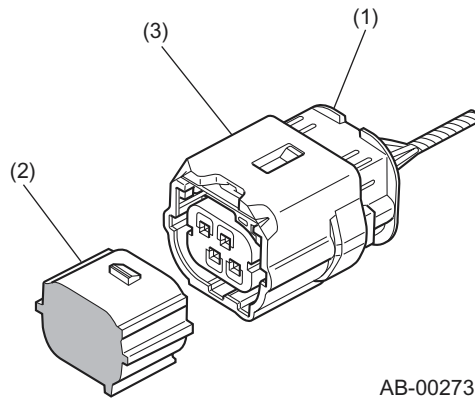
Insert the male side connector half into the other until a "click" is heard, then push in the green lever (B) until a "click" is heard. This engages the double lock mechanism.



CONSTRUCTION

Airbag System

4. FRONT SUB SENSOR AND SIDE AIRBAG SENSOR CONNECTORS



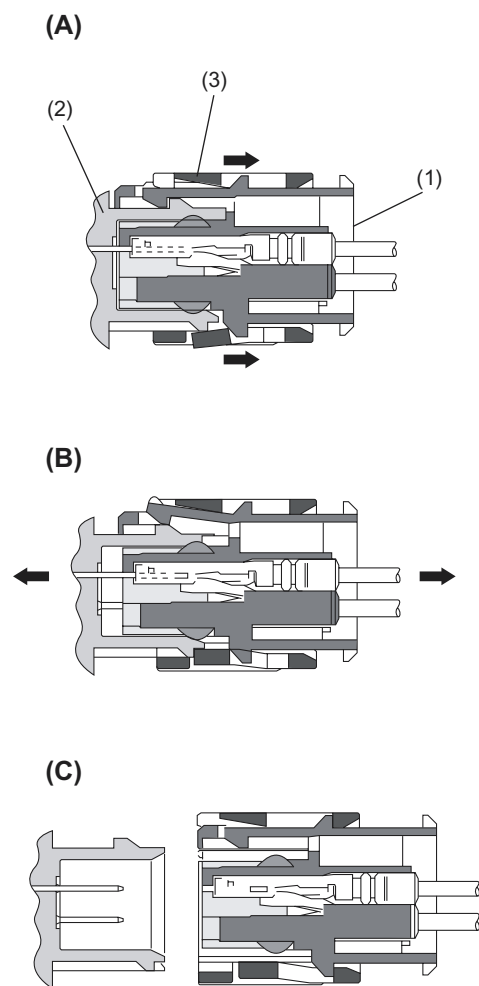
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- (1) Housing A
- (2) Housing B
- (3) Outer cover

CONSTRUCTION

Airbag System

Disconnection:



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- | | |
|--|-----------------|
| (A) Step 1: Pull housing A in the direction of the arrow while pulling down the outer cover. | (1) Housing A |
| (B) Step2: Release lock of connector. | (2) Housing B |
| (C) Step 3: Separate housing A and housing B. | (3) Outer cover |

Connection:

Insert housing B into housing A until a “click” is heard.

CONSTRUCTION

Airbag System

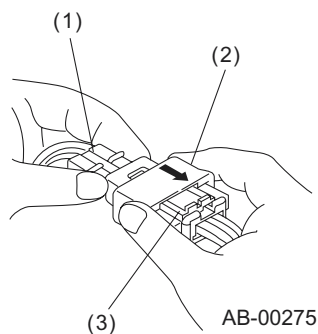
5. PASSENGER'S AIRBAG MODULE CONNECTOR

Disconnection:

Hold pin insulator with one hand and the cover insulator with the other hand. Pull the cover insulator in the direction of the arrow in the drawing.

NOTE:

Do not hold the cover insulator.



- (1) Pin insulator
- (2) Cover insulator
- (3) Socket insulator

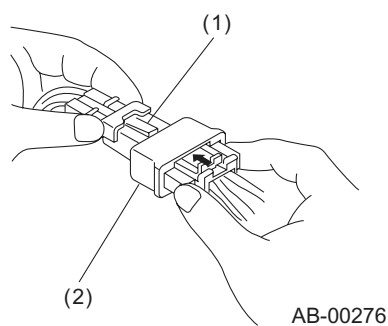
Connection:

Step 1: Insert the socket insulator into the pin insulator such that the pin insulator's claw is pressed against the cover insulator.

NOTE:

Do not hold the cover insulator.

Step 2: Push the socket insulator forcibly toward the pin insulator. The cover insulator will move riding over the claw to complete engagement of the connector.



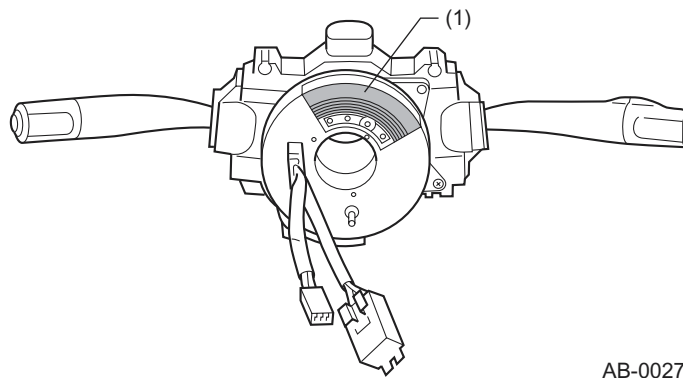
- (1) Claw
- (2) Cover insulator

CONSTRUCTION

Airbag System

G: STEERING ROLL CONNECTOR

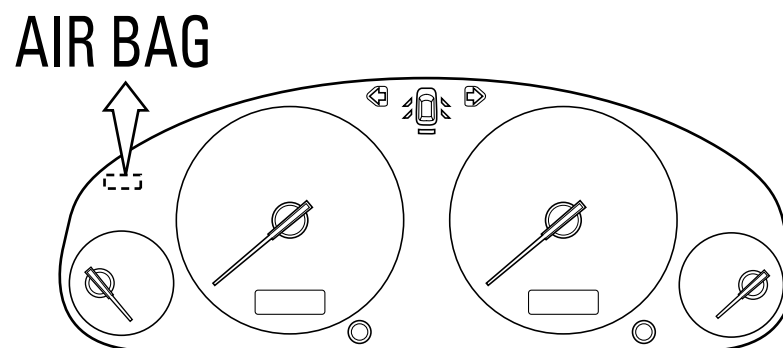
The steering roll connector is located between the steering column and steering wheel. The connector contains a spirally wound flat cable. The cable can follow rotational movements of the steering wheel and ensures connection between the airbag module in the steering wheel and the airbag harness through which electrical signals are transmitted from the airbag control module.



(1) Flat cable

H: AIRBAG WARNING LIGHT

The airbag warning light is located inside the combination meter. It illuminates if a poor connection in the airbag circuit occurs, or if the airbag control module detects an abnormal condition. When the airbag system is normal, this light comes on when the ignition switch is turned ON and then goes out about 7 seconds later.



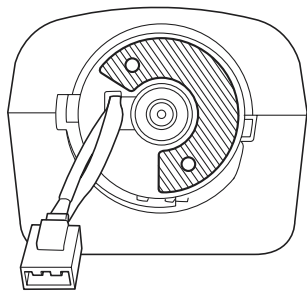
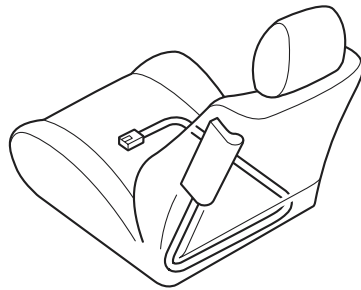
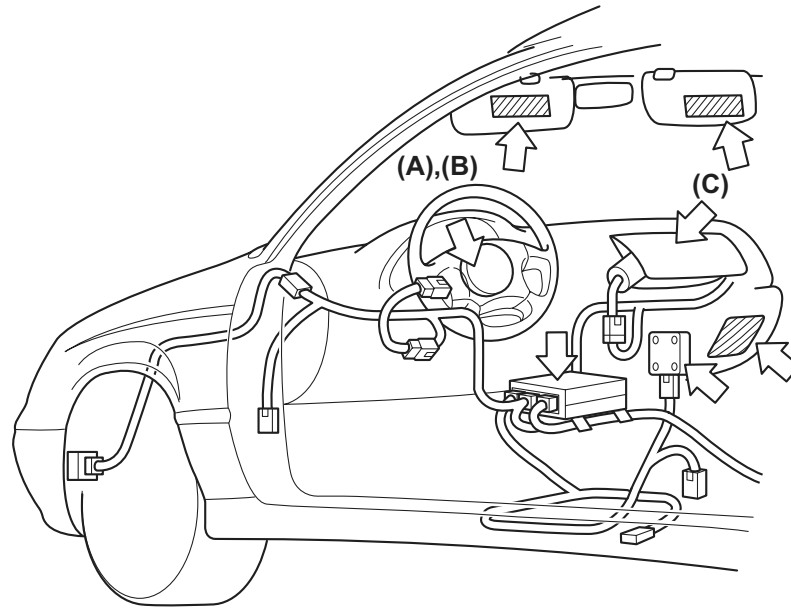
I: WIRE HARNESS

The wire harness of the airbag is entirely covered with a yellow protective tube, and can easily be distinguished from the other systems' harnesses.

CONSTRUCTION

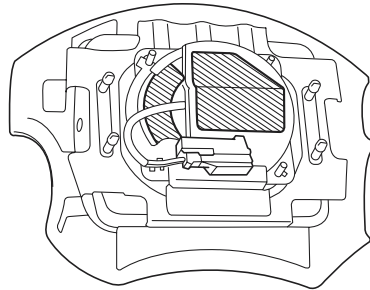
Airbag System

J: LOCATIONS OF WARNING AND CAUTION LABELS



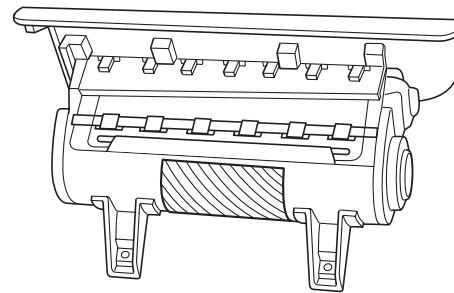
(A)

(A) View A



(B)

(B) View B



(C)

(C) View C

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