

COMMUNICATION SYSTEM

COM

	Page
1. General Description	2
2. Relay and Fuse	3
3. Horn System	4
4. Horn	5
5. Horn Switch	8

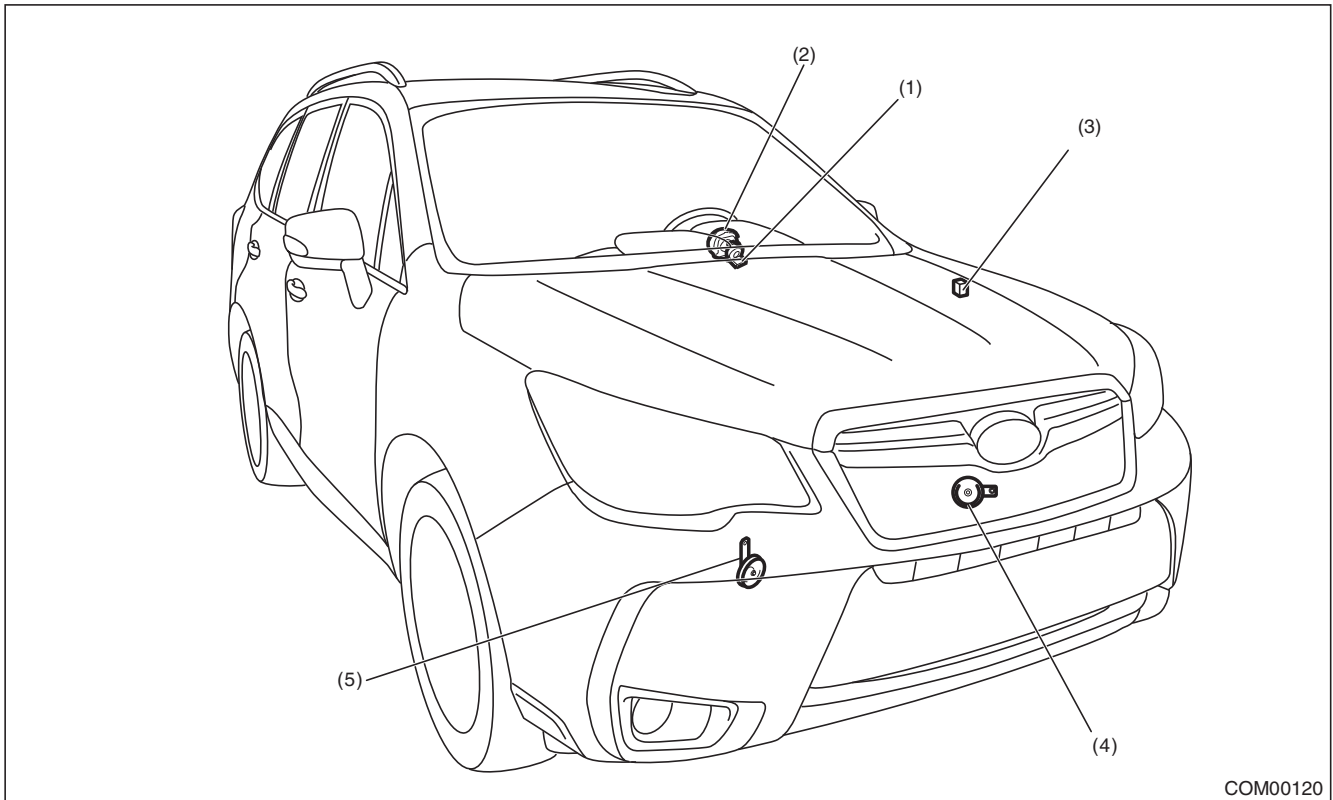


General Description

COMMUNICATION SYSTEM

1. General Description

A: COMPONENT



- | | | |
|---|--------------------|--------------------|
| (1) Horn switch (driver's airbag module ASSY) | (3) Horn relay | (5) Horn ASSY - Hi |
| (2) Roll connector | (4) Horn ASSY - Lo | |

B: CAUTION

- Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
- Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
- Connect the connectors securely during reassembly.
- After reassembly, make sure that the each component operates normally.
- Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. Using a tester above such circuits may cause malfunction of airbag system. Follow the cautions of "AIRBAG SYSTEM" in this case. <Ref. to AB-9, CAUTION, General Description.>
- Be careful not to damage the airbag system wiring harness when servicing electrical parts and switches.

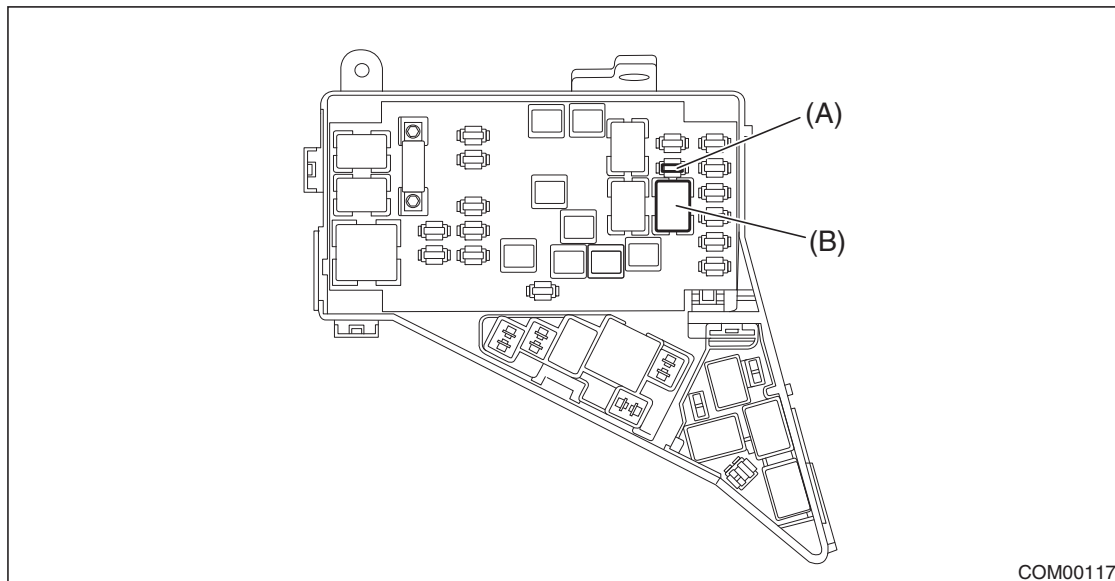
C: PREPARATION TOOL

1. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance and voltage.

2. Relay and Fuse

A: LOCATION



COM00117

Main fuse box	Fuse 15 A (horn assembly - Hi, Lo)	(A)
	Horn relay	(B)

NOTE:

For other related fuses, refer to the wiring diagram. <Ref. to WI-24, Power Supply Circuit.>

B: INSPECTION

1. CHECK FUSE

- 1) Remove the fuse and check visually.
- 2) If the fuse is blown out, replace the fuse.

2. CHECK RELAY

- 1) Check the resistance between relay terminals.

Terminal No.	Inspection conditions	Specification	Circuit
1 — 2	Always	1 MΩ or more	
1 — 2	Apply battery voltage between 4 — 3 terminals.	Less than 1 Ω	

SR-00180

- 2) Replace the relay if the inspection result is not within the standard value.

Horn System

COMMUNICATION SYSTEM

3. Horn System

A: WIRING DIAGRAM

Refer to "Horn System" in the wiring diagram. <Ref. to WI-267, WIRING DIAGRAM, Horn System.>

B: INSPECTION

Symptoms	Inspection steps
Horn does not sound	1. Check the fuse.
	2. Check the horn relay.
	3. Check the role connector.
	4. Check the horn switch.
	5. Check the horn assembly.
	6. Check the harness.

C: NOTE

For operation procedures of each component of the horn system, refer to the respective section.

- Horn ASSY: <Ref. to COM-5, Horn.>
- Horn switch: <Ref. to COM-8, Horn Switch.>



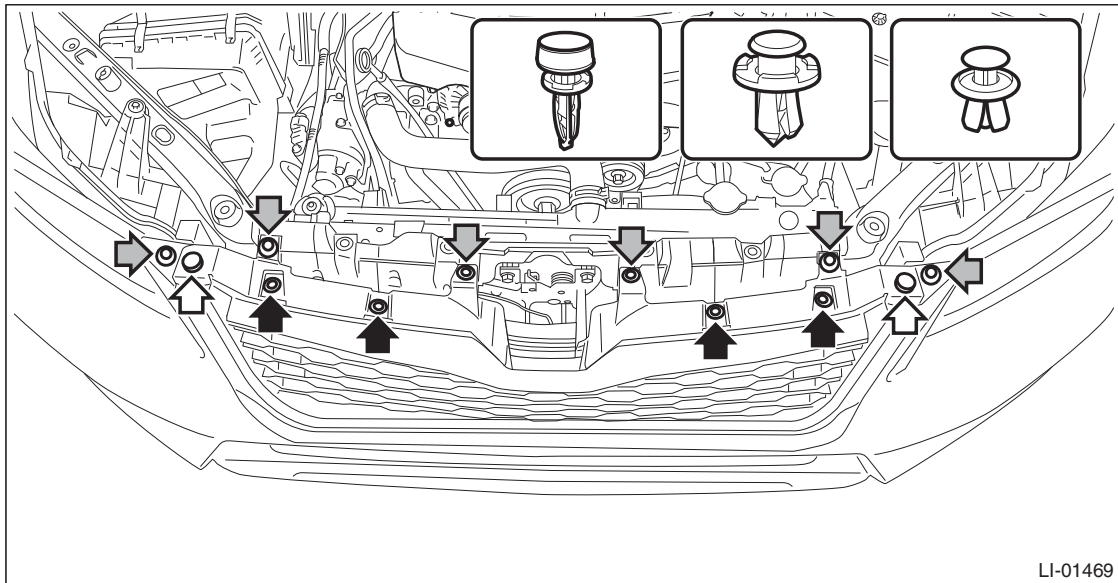
4. Horn

A: REMOVAL

CAUTION:

Do not remove the bumper face - front when removing the horn, in order to prevent damaging the claws of the bracket - front bumper corner and the bracket - front bumper side.

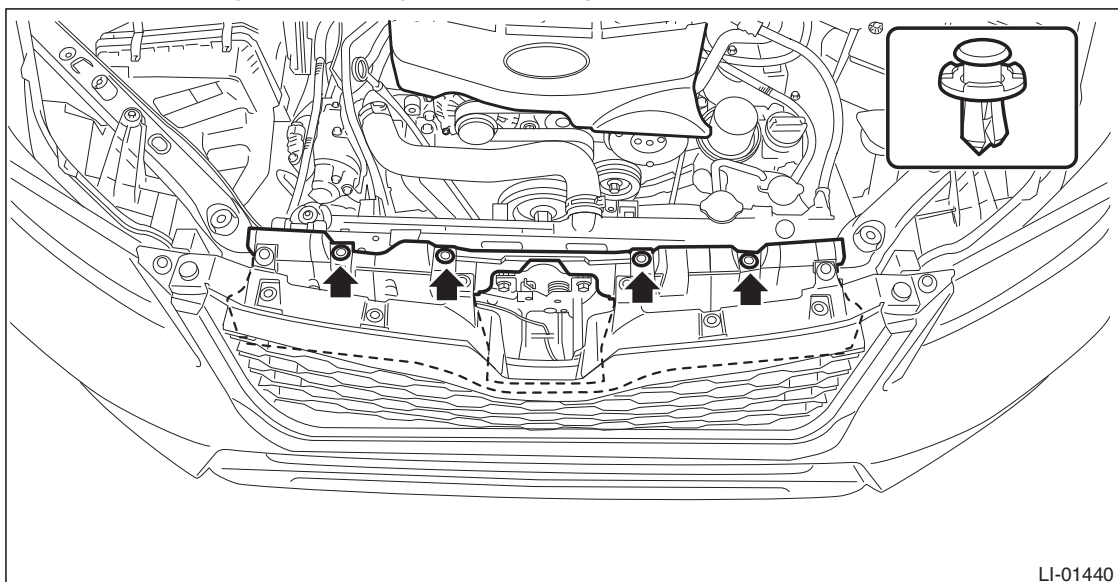
- 1) Disconnect the ground cable from battery.
- 2) Remove the bracket - grille.
 - (1) Remove each bumper clip.



- (2) Remove the clip, and remove the bracket - grille.

CAUTION:

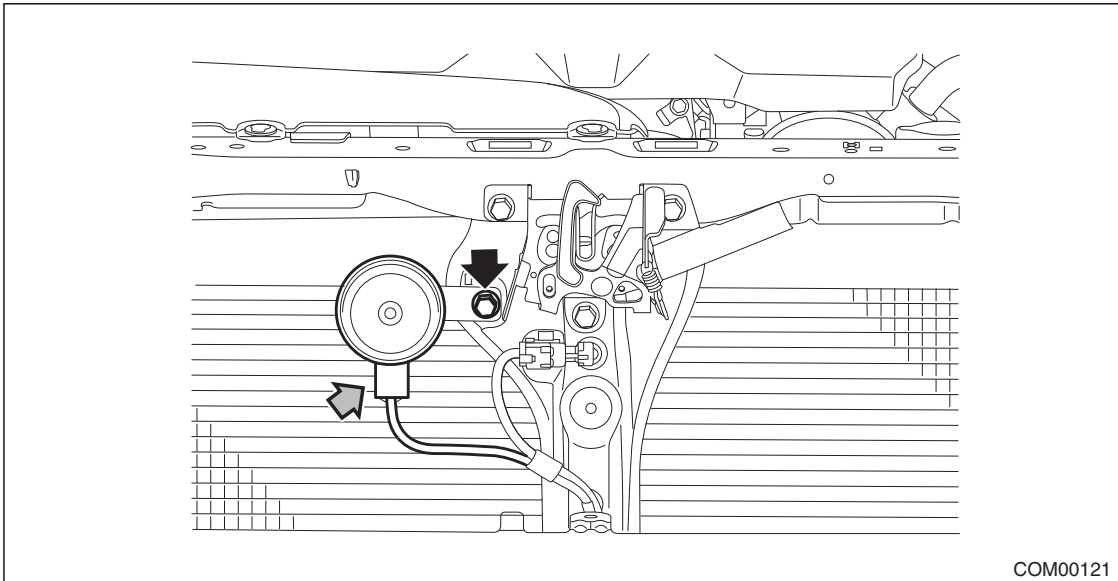
- To prevent damage to the bracket - grille, make sure to remove all clips.
- Be careful not to damage the front grille assembly, etc.



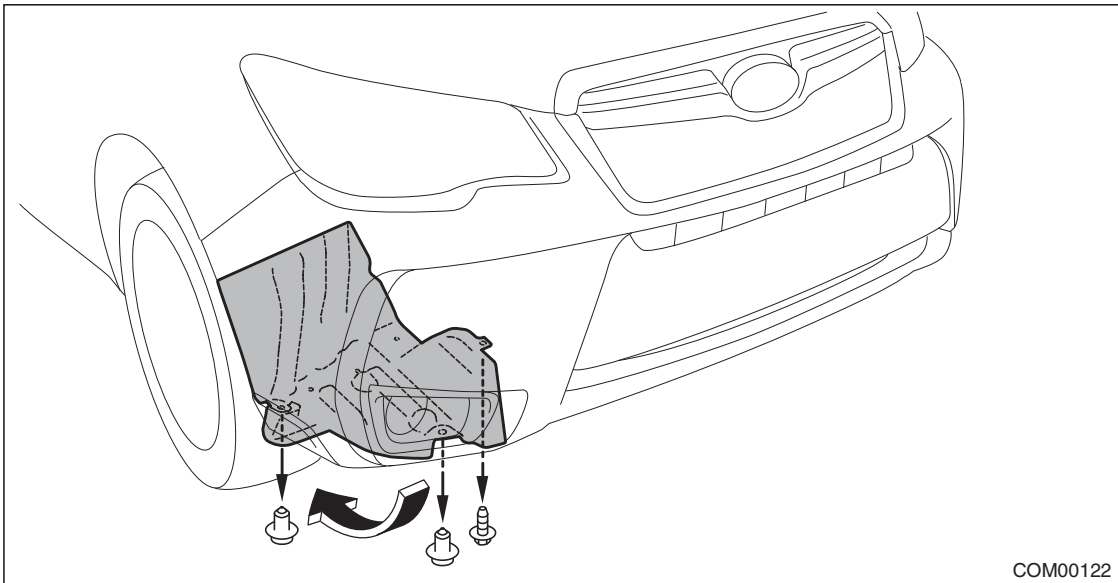
Horn

COMMUNICATION SYSTEM

- 3) Inserting your hand into the gap through the bumper face - front, remove the horn assembly - Lo.
- (1) Disconnect the connector.
 - (2) Remove the horn bracket mounting bolt, and remove the horn assembly - Lo.



- 4) Remove the horn assembly - Hi.
- (1) Remove the bolts and clips, and turn over the mud guard - front RH.



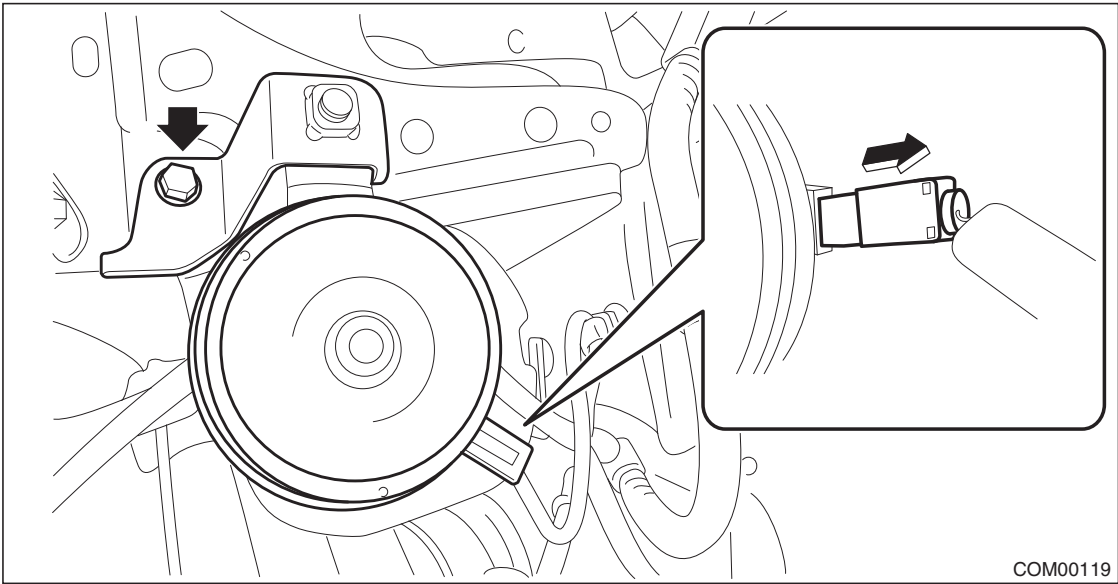
- (2) Disconnect the horn connector.

Horn

COMMUNICATION SYSTEM

(3) Remove the horn bracket mounting bolt, and remove the horn assembly - Hi.

CAUTION:
The resistor may become hot. Be careful not to burn yourself.



B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:

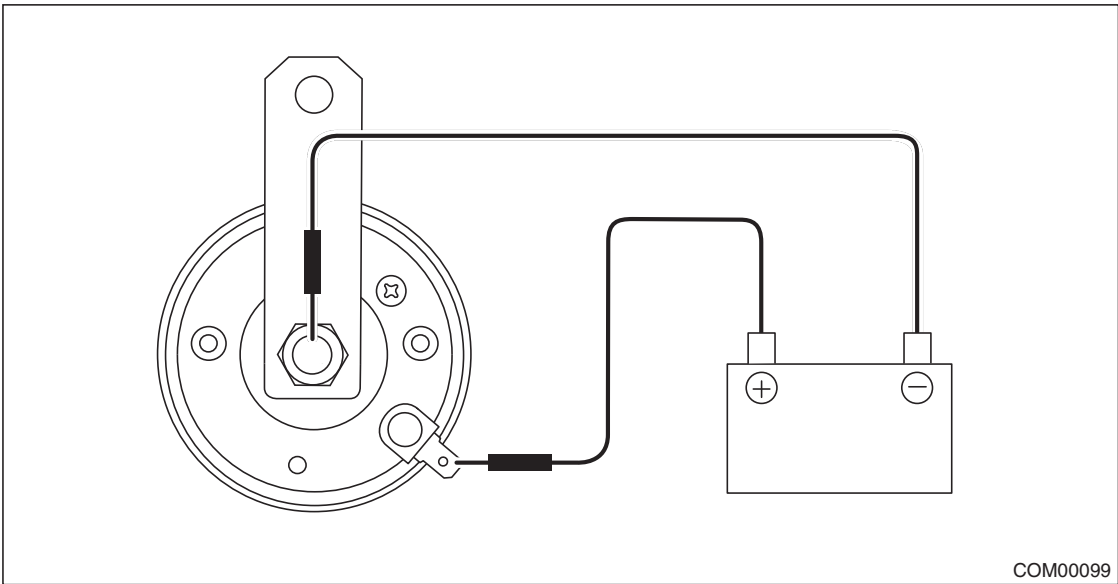
Horn assembly - Hi: 13 N·m (1.33 kgf-m, 9.6 ft-lb)

Horn assembly - Lo: 18 N·m (1.84 kgf-m, 13.3 ft-lb)

C: INSPECTION

1. CHECK HORN ASSEMBLY

- 1) Remove the horn assembly (Hi & Lo). <Ref. to COM-5, REMOVAL, Horn.>
- 2) Check the horn sounds when applying the battery voltage to the horn assembly.



Terminal No.	Inspection conditions	Specification
Horn terminal (+) — Horn case (-)	Connect battery to the terminals	Sounds

3) If it does not operate normally, replace the horn assembly.

Horn Switch

COMMUNICATION SYSTEM

5. Horn Switch

A: REMOVAL

NOTE:

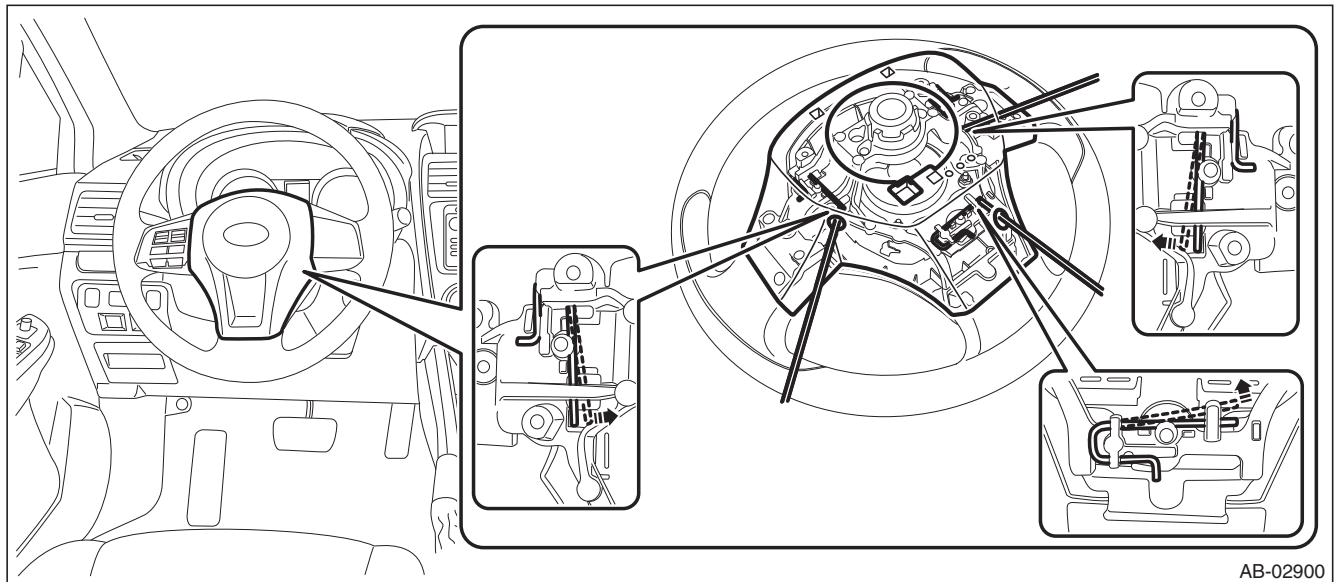
Horn switch is a unit with the driver's airbag module.

- 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.
- 4) Remove the driver's airbag module.

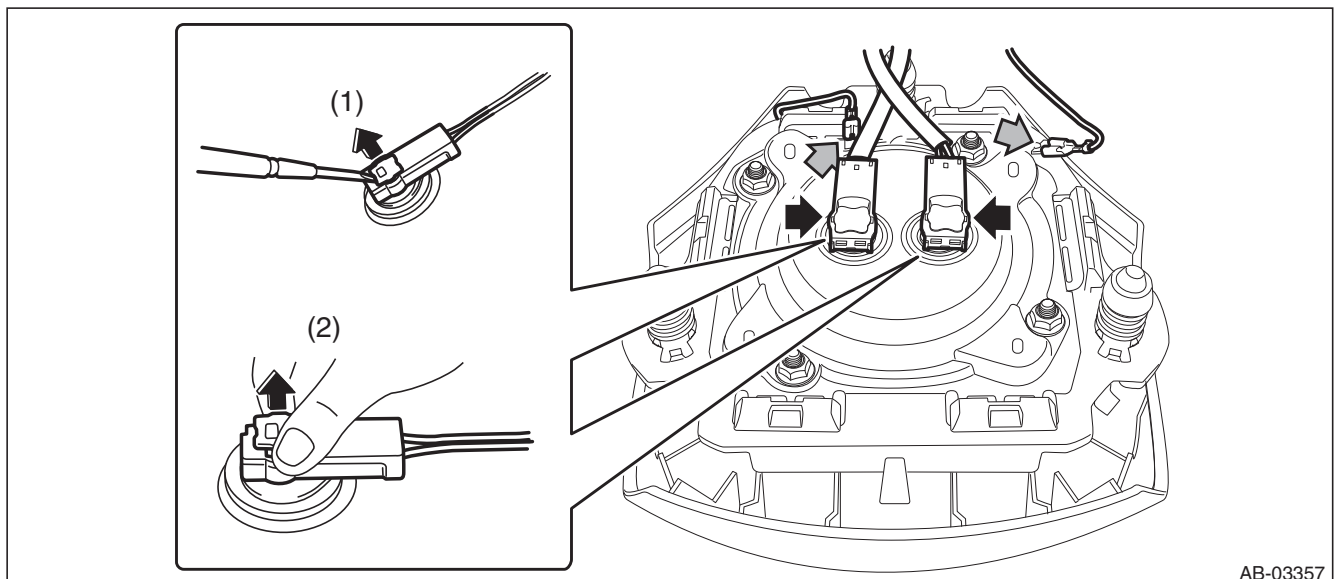
CAUTION:

Before handling the airbag module, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". <Ref. to AB-9, CAUTION, General Description.>

- (1) Using a hexagon wrench etc. wrapped by protective tape, insert the snap pins and release the locks (3 locations).



- (2) Disconnect the horn harness and airbag connector, and remove the driver's airbag module. <Ref. to AB-21, DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER, PROCEDURE, Airbag Connector.>



B: INSTALLATION

CAUTION:

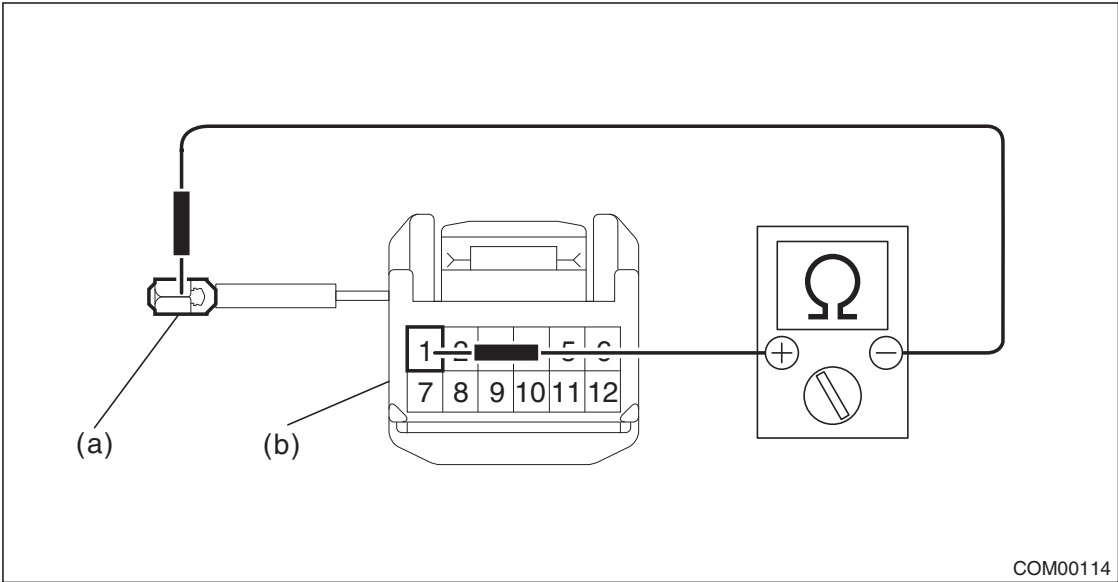
- Before handling the airbag module, refer to “CAUTION” of “General Description” in “AIRBAG SYSTEM”. <Ref. to AB-9, CAUTION, General Description.>
 - Do not allow harness and connectors to interfere or get tangled up with other parts.
- 1) Install the driver’s airbag module. <Ref. to AB-38, INSTALLATION, Driver’s Airbag Module.>
 - 2) Install each part in the reverse order of removal.

C: INSPECTION

1. CHECK HORN SWITCH

- 1) Remove the horn switch. <Ref. to COM-8, REMOVAL, Horn Switch.>
- 2) Check that the connection of the horn switch harness connector is correct.
- 3) Disconnect the horn switch harness connector and check the resistance between the harness connectors.

Preparation tool:
Circuit tester



(a) Ground terminal (b) Horn switch terminal

Terminal No.	Standard
Horn switch terminal — ground terminal	Less than 1 Ω

- 4) Replace the driver’s airbag module if the inspection result is not within the standard value.

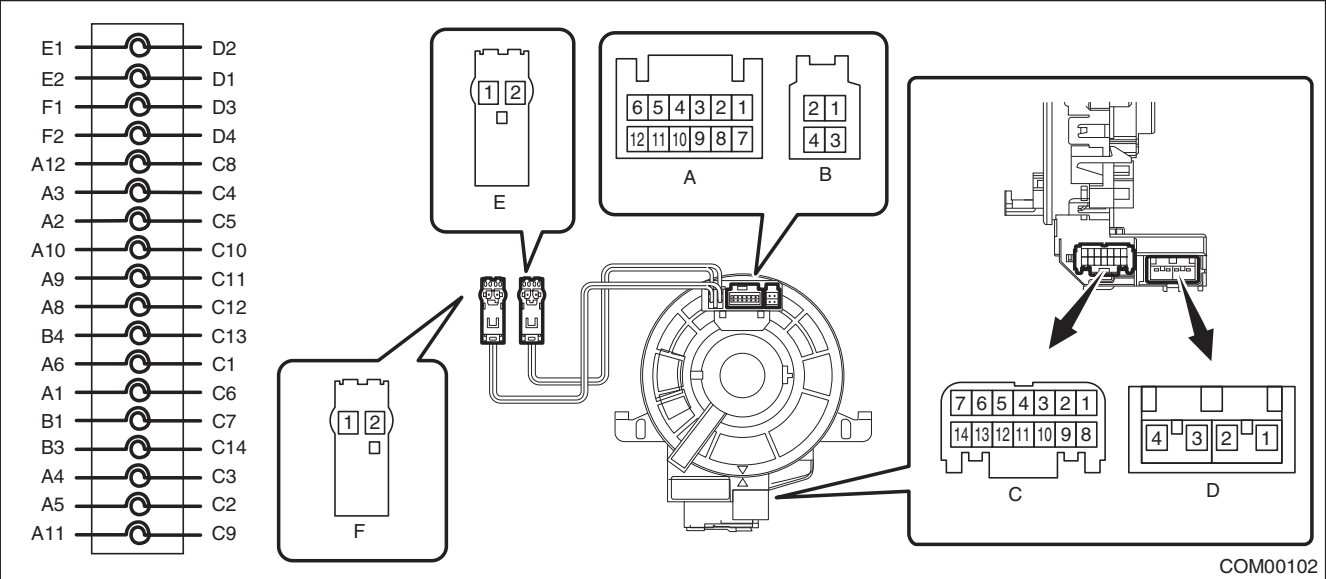
Horn Switch

COMMUNICATION SYSTEM

2. CHECK ROLL CONNECTOR

- 1) Remove the roll connector. <Ref. to AB-98, REMOVAL, Roll Connector.>
- 2) Check the resistance between roll connector terminals.

PREPARATION TOOL:
Circuit tester



Terminal No.	Inspection conditions	Standard
A1 — C6	Always	Less than 1 Ω

- 3) Replace the roll connector if the inspection result is not within the standard.