LIGHTING SYSTEM

LI

1. General Description
2. Relay and Fuse
3. Headlight System
4. High Beam Assist System
5. Day Time Running Light System
6. Clearance Light and Illumination Light System
7. Front Fog Light System
8. Turn Signal Light and Hazard Light System
9. Back-up Light System
10. Stop Light System
11. Interior Light System
12. Auto Headlight Beam Leveler System
13. Combination Switch (Light)
14. Light Control Sensor
15. Headlight Assembly
16. Clearance/Parking Light Bulb
17. Front Turn Signal Light Bulb
18. Front Side Marker Light Bulb
19. Hazard Switch
20. Front Fog Light Assembly
21. Side Turn Signal Light Assembly
22. Rear Combination Light Assembly
23. License Plate Light
24. License Plate Light Bulb
25. High-mounted Stop Light
26. Spot Map Light
27. Room Light
28. Trunk Room Light
29. LED Illumination Light
30. Vanity Mirror Light
31. Ignition Switch Illumination
32. Auto Headlight Beam Leveler Control Module
33. Reflex Reflector
34. Door Switch

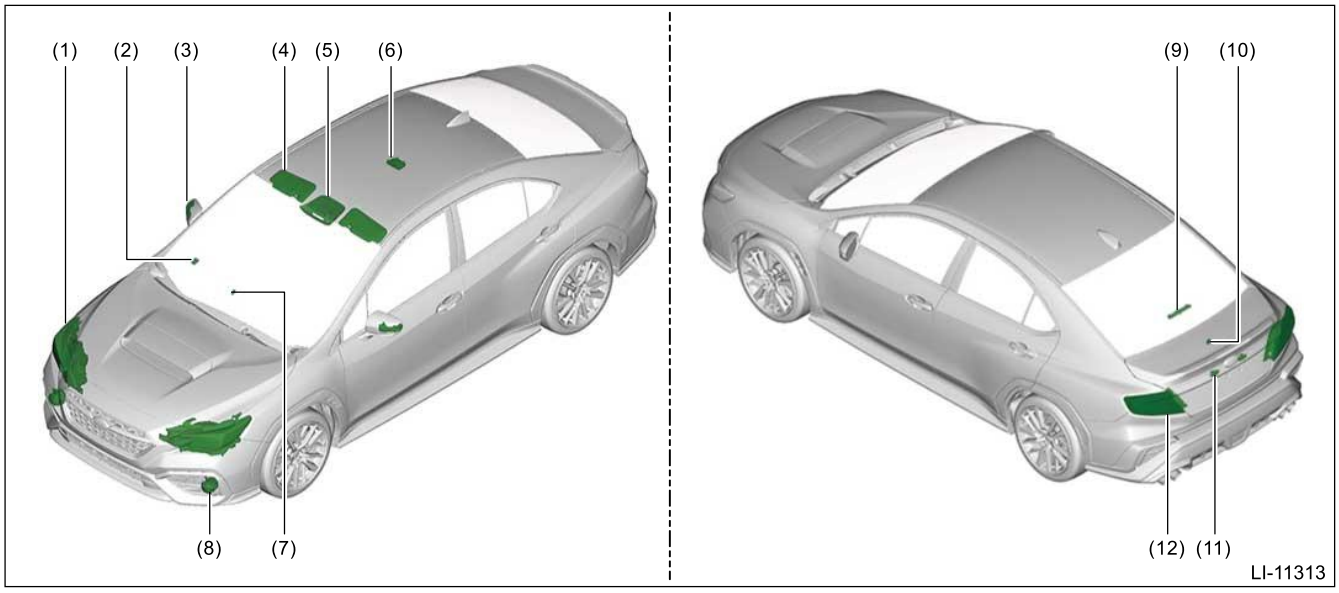
LIGHTING SYSTEM > General Description

CAUTION

- When performing service operation, refer to "Repair Contents" in "General Description". Ref. to REPAIR CONTENTS>Repair Contents.
- When performing work on the sensors or modules, be careful of the following.
  - Before disconnecting electrical connectors, be sure to disconnect the ground terminal from the battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
  - Do not apply any impact. If the parts are accidentally dropped, replace with a new part.
  - Do not expose to high-temperature and humidity.
- When replacing the parts provided with memory functions, record the memory contents before disconnecting the ground terminal from the battery sensor.
- Refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM" section. Ref. to AIRBAG SYSTEM>General Description.
- Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.
- Always replace with a bulb that is the same model and wattage as those of the old one.

LIGHTING SYSTEM > General Description

SPECIFICATION



No.	Description		Capacity and wattage	Type
(1)	Headlight (model without SRH)	Daytime running light / low beam / high beam	12 V — 7/20/25 W (LED)	*
		Parking light / front turn signal light	12 V — 8/28 W	7444NA
		Front side marker lights	12 V — 5 W	W5W
(1)	Headlight (model with SRH)	Low beam / high beam	12 V — 21/26 W (LED)	*
		Front turn signal light	12 V — 6.2 W (LED)	*

No.	Description		Capacity and wattage	Type
		Parking light / accessory light / daytime running light	12 V — 0.4/0.6/4.6 W (LED)	*
		Front side marker lights	12 V — 0.5 W (LED)	*
(2)	Glove box light		12 V (LED)	*
(3)	Side turn signal light		12 V — 0.4 W (LED)	*
(4)	Vanity mirror light		12 V — 2 W	—
(5)	Spot map light		12 V — 8 W	—
(6)	Room light		12 V — 8 W	—
(7)	Pocket light		12 V (LED)	*
(8)	Front fog light		12 V — 5.4 W (LED)	*
(9)	High-mounted stop light		13.5 V — 1.5 W (LED)	*
(10)	Trunk room light		12 V — 3.8 W	SAE#194
(11)	License plate light		12 V — 5 W	W5W
(12)	Rear combination light	Tail light / stop light	12 V — 2.0/3.2 W (LED)	*
		Rear turn signal light	12 V — 21 W	WY21W
		Back-up light	12 V — 2.4 W (LED)	*
		Rear side marker light	12 V — 1.8 W (LED)	*

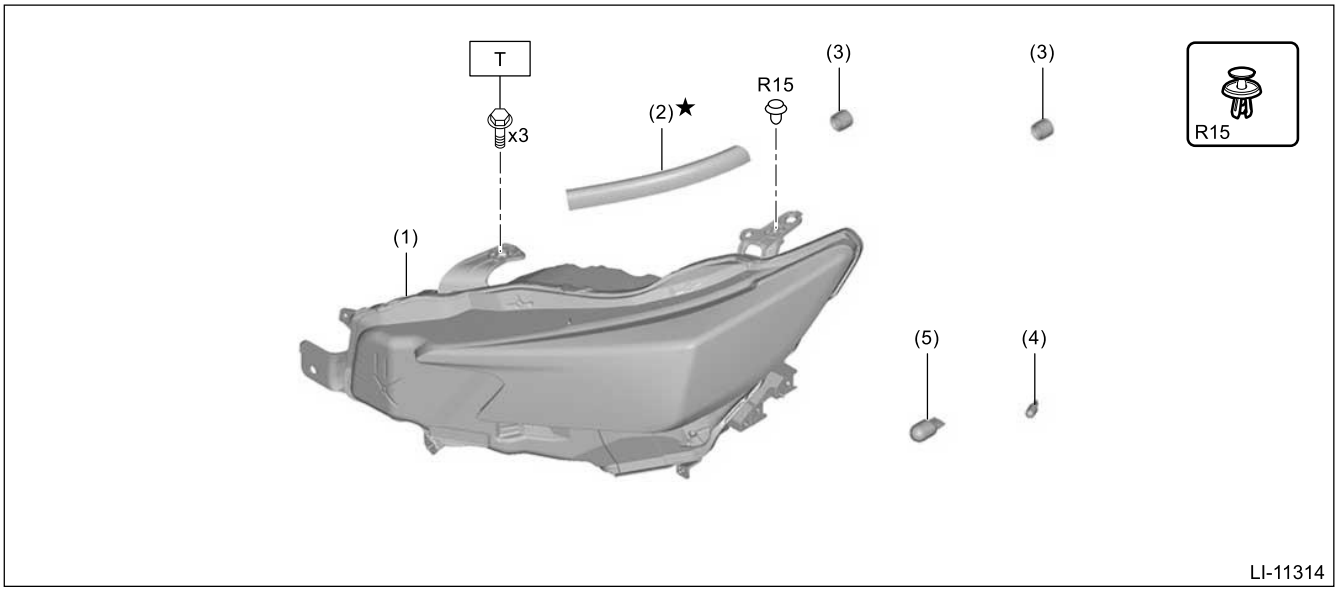
*: Non-disassembly type

LIGHTING SYSTEM > General Description

COMPONENT

1. HEADLIGHT

- **MODEL WITHOUT SRH**

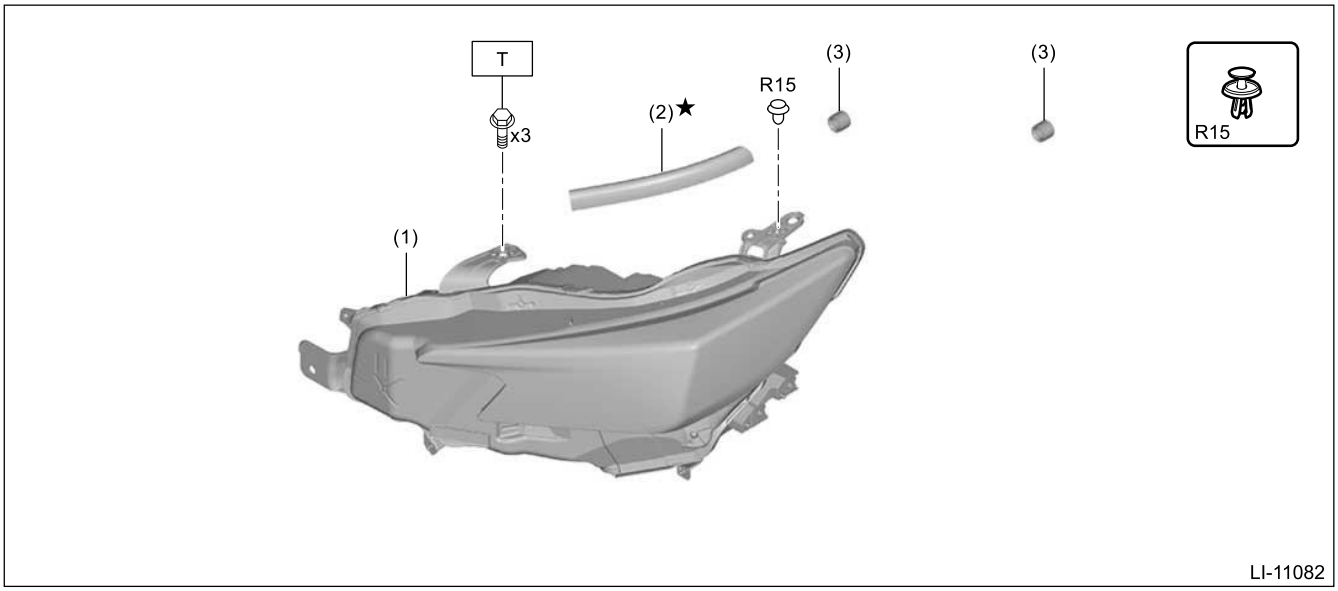


(1) Light ASSY head
(2) Hood seal rubber
(3) Cap
(4) Front side marker light bulb
(5) Parking & front turn signal light bulb

Tightening torque: N·m (kgf-m, ft-lb)

T: 7.5 (0.8, 5.5)

• MODEL WITH SRH

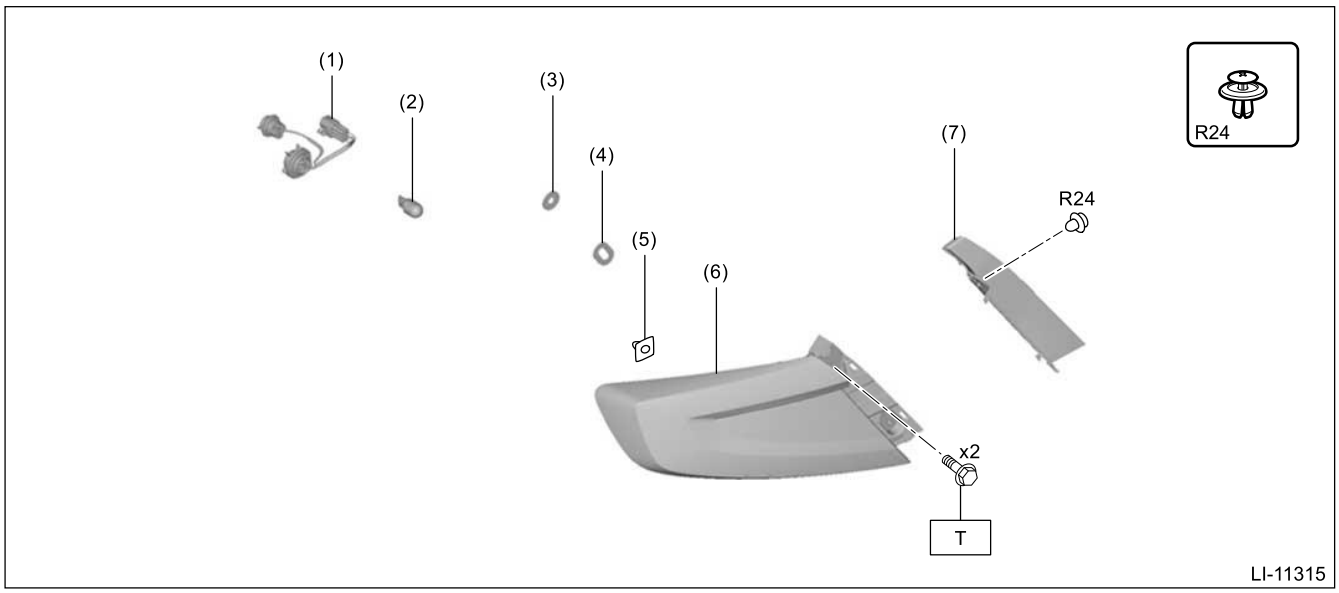


(1) Light ASSY head
(2) Hood seal rubber
(3) Cap

Tightening torque: N·m (kgf-m, ft-lb)

T: 7.5 (0.8, 5.5)

2. REAR COMBINATION LIGHT



(1) Cord ASSY
(2) Turn signal light bulb
(3) Gasket
(4) Gasket
(5) Grommet
(6) Light ASSY rear combination
(7) Cover ASSY rear combination

Tightening torque: N·m (kgf-m, ft-lb)

T: 7.5 (0.8, 5.5)

LIGHTING SYSTEM > General Description

PREPARATION TOOL

1. SUBARU SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
STSSM4	—	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. **Note:** • **For detailed operation procedures, refer to "Help" of application.** • **Used together with interface for Subaru Select Monitor (such as DST-i and DST-010).**

2. OTHER

	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

LOCATION

For the location, refer to "FUSE AND RELAY" in the wiring diagram. Ref. to WIRING SYSTEM>Fuse And Relay>LOCATION.

Note:
For details of relay and fuse, refer to "DC POWER SUPPLY CIRCUIT". Ref. to WIRING SYSTEM>Power Supply Circuit>WIRING DIAGRAM.

INSPECTION

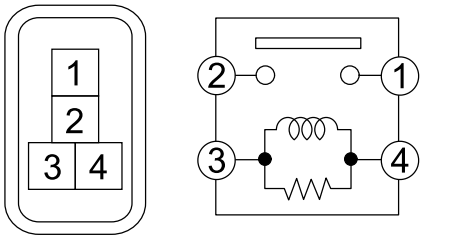
1. CHECK FUSE

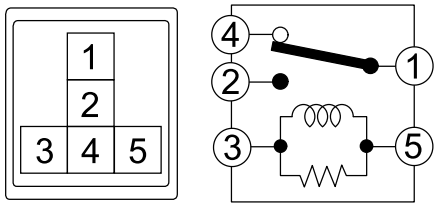
1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

Note:
If the fuse is blown again, check the system wiring harness.

2. CHECK RELAY

1. Measure the resistance between relay terminals.

Terminal No.	Inspection conditions	Standard	Circuit
1 — 2	Always	1 MΩ or more	 LI-01273
1 — 2	Apply battery voltage between terminals 4 and 3.	Less than 1 Ω	

Terminal No.	Inspection conditions	Standard	Circuit
1 — 2	Always	1 MΩ or more	 SL-01566
1 — 4	Always	Less than 1 Ω	
1 — 2	Apply battery voltage between terminals 3 and 5.	Less than 1 Ω	

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

WIRING DIAGRAM

For the wiring diagram, refer to “Headlight System” in the wiring diagram. Ref. to WIRING SYSTEM>Headlight System>WIRING DIAGRAM.

INSPECTION

1. BASIC INSPECTION

For inspection, refer to “Basic Diagnostic Procedure” of “HEADLIGHT / FOGLIGHT (DIAGNOSTICS)” section. Ref. to HEADLIGHT / FOGLIGHT(DIAGNOSTICS)>Basic Diagnostic Procedure.

2. SYSTEM BLOCK DIAGRAM

For system block diagram, refer to “System Block Diagram” in “HEADLIGHT / FOGLIGHT (DIAGNOSTICS)” section. Ref. to HEADLIGHT / FOGLIGHT(DIAGNOSTICS)>General Description>SYSTEM BLOCK DIAGRAM.

3. MODULE I/O SIGNAL

For the specification (electrical component), refer to “Control Module I/O Signal” of “HEADLIGHT / FOGLIGHT (DIAGNOSTICS)” section. Ref. to HEADLIGHT / FOGLIGHT(DIAGNOSTICS)>Control Module I/O Signal.

4. TROUBLE SYMPTOM

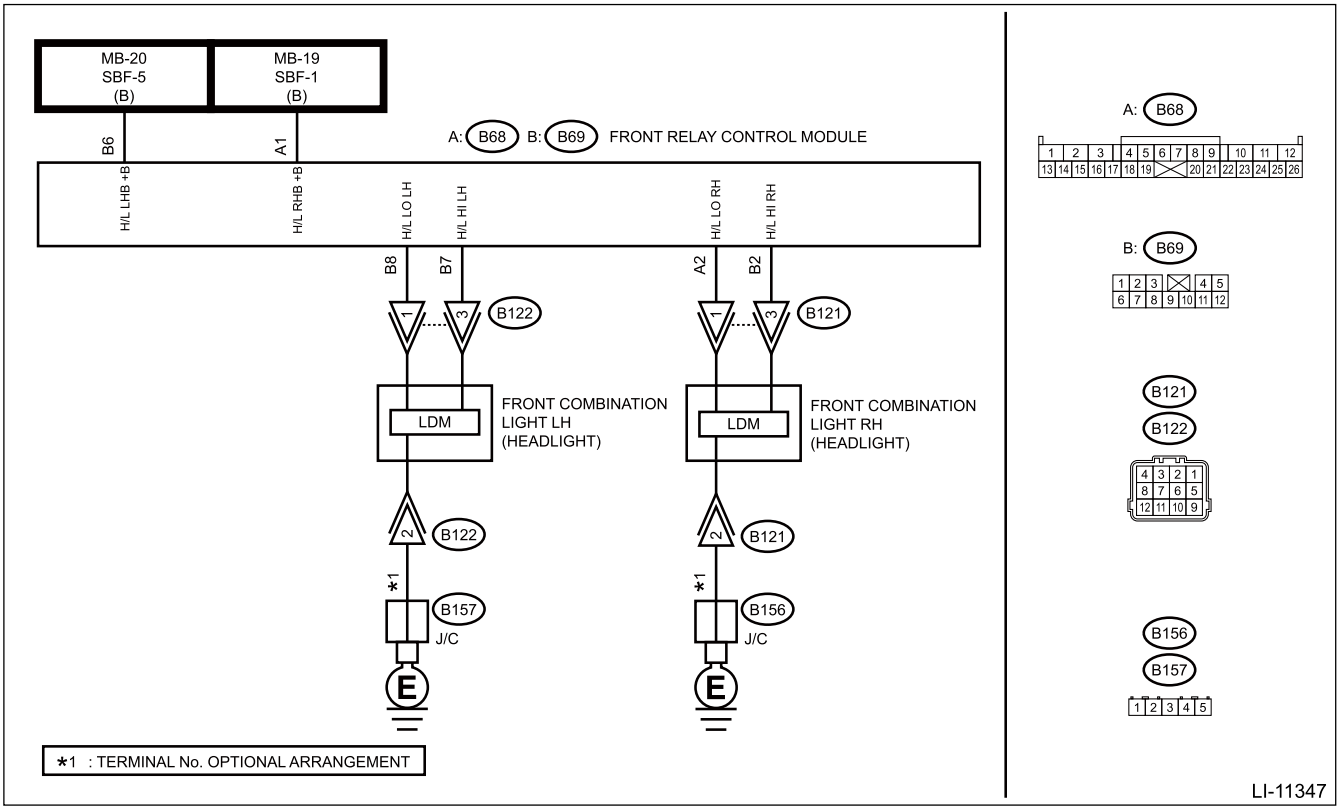
Symptoms	Reference
Headlight does not illuminate, or headlight is weak.	Ref. to LIGHTING SYSTEM>Headlight System>INSPECTION > CHECK HEADLIGHT SYSTEM.
Light does not illuminate though the surrounding is dark, or it remains illuminating though the surrounding becomes brighter. (Everything except auto headlight operates normally.)	Ref. to LIGHTING SYSTEM>Headlight System>INSPECTION > AUTO HEADLIGHT SYSTEM CHECK.
Welcome lighting does not illuminate.	Ref. to LIGHTING SYSTEM>Headlight System>INSPECTION > CHECK OF WELCOME LIGHTING SYSTEM (IF IT DOES NOT ILLUMINATE).
Welcome lighting does not go off.	Ref. to LIGHTING SYSTEM>Headlight System>INSPECTION > CHECK OF WELCOME LIGHTING SYSTEM (IF IT DOES NOT GO OFF) .
The wiper interlocked headlight does not operate.	Ref. to LIGHTING SYSTEM>Headlight System>INSPECTION > CHECK WIPER INTERLOCK HEADLIGHT SYSTEM.

5. CHECK HEADLIGHT SYSTEM

- **MODEL WITHOUT SRH**

Wiring diagram:

Headlight system Ref. to WIRING SYSTEM>Headlight System>WIRING DIAGRAM.



1. CHECK HEADLIGHT ILLUMINATION.

1. Turn the ignition switch to ON.
2. Turn the lighting switch to the switch 2 (HEAD) position and switch UP (HI) position.

Does the headlight (low beam and high beam) come on?

Yes	The headlight system is normal.
No	Go to 2.

2. CHECK DTC.

1. Turn the ignition switch to ON.
2. Turn the lighting switch to the switch 2 (HEAD) position and switch UP (HI) position.
3. Read the DTC of [Front Relay Control Module] using the Subaru Select Monitor. Ref. to COMMON (DIAGNOSTICS)>Diagnostic Trouble Code (DTC).

Are any DTCs displayed?

Yes	Perform the diagnosis for the displayed DTCs. Ref. to FRONT RELAY CONTROL MODULE (DIAGNOSTICS)>Diagnostic Trouble Code (DTC)>LIST.
No	Go to 3.

3. CHECK POWER SUPPLY.

Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Front Relay Control Module]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

- [BATT Voltage (Control)]
- [BATT Voltage (BACKUP)]
- [IGN Voltage]

Is the voltage 9 — 16 V?

Yes	Go to 4.
No	Check the front relay control module and replace it if defective. • Inspection: Ref. to FRONT RELAY CONTROL MODULE (DIAGNOSTICS)>Basic Diagnostic Procedure. • Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Front Relay Control Module.

4. PERFORM ACTIVE TEST.

Using the Subaru Select Monitor, check the following items in the [Active Test] of [Front Relay Control Module]. Ref. to FRONT RELAY CONTROL MODULE (DIAGNOSTICS)>Active Test.

Note:
Check the items where illumination did not occur in step 1.

- [Lighting Low RH Output]
- [Lighting Low LH Output]
- [Lighting High RH Output]
- [Lighting High LH Output]

Does the light illuminate?

Yes — Go to 9.

No — Go to 5.

5. CHECK HEADLIGHT POWER SUPPLY CIRCUIT.

1. Turn the ignition switch to OFF.
2. Disconnect the front relay control module connector.
3. Measure the voltage between front relay control module connector and chassis ground.
   Connector & terminal
   Headlight RH
   (B68) No. 1 (+) — Chassis ground (−):
   Headlight LH
   (B69) No. 6 (+) — Chassis ground (−):

Is the voltage 9 — 16 V?

Yes — Go to 6.

No — Check the harness of the fuse, connector and power supply circuit. If there are no problems, replace the front relay control module. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Front Relay Control Module.

6. CHECK HARNESS.

1. Disconnect the connector of the light which did not illuminate.
2. Check the harness between the front relay control module and the headlight.

Connector & terminal

Headlight RH (low beam)

(B68) No. 2 — (B121) No. 1:

Headlight RH (high beam)

(B69) No. 2 — (B121) No. 3:

Headlight LH (low beam)

(B69) No. 8 — (B122) No. 1:

Headlight LH (high beam)

(B69) No. 7 — (B122) No. 3:

Is harness normal?

Yes	Go to 7.
No	Repair or replace the defective part.

7. CHECK HEADLIGHT.

Apply battery voltage between headlight unit connector terminals.

Caution:

- **Make sure that the high beam illuminates because the high beam shares the same lighting body with the low beam and they are alternatively lit by switching.**
- **When applying battery voltage, do not mix up the positive (+) side and the negative (−) side. Incorrect polarity connection may cause internal LED damage.**

Connector & terminal

•If the low beam does not illuminate

Headlight RH

(B121) No. 1 (+) — (B121) No. 2 (−):

Headlight LH

(B122) No. 1 (+) — (B122) No. 2 (−):

•If the high beam does not illuminate

Headlight RH

(B121) No. 3 — (B121) No. 2 (−):

Headlight LH

(B122) No. 3 — (B122) No. 2 (−):

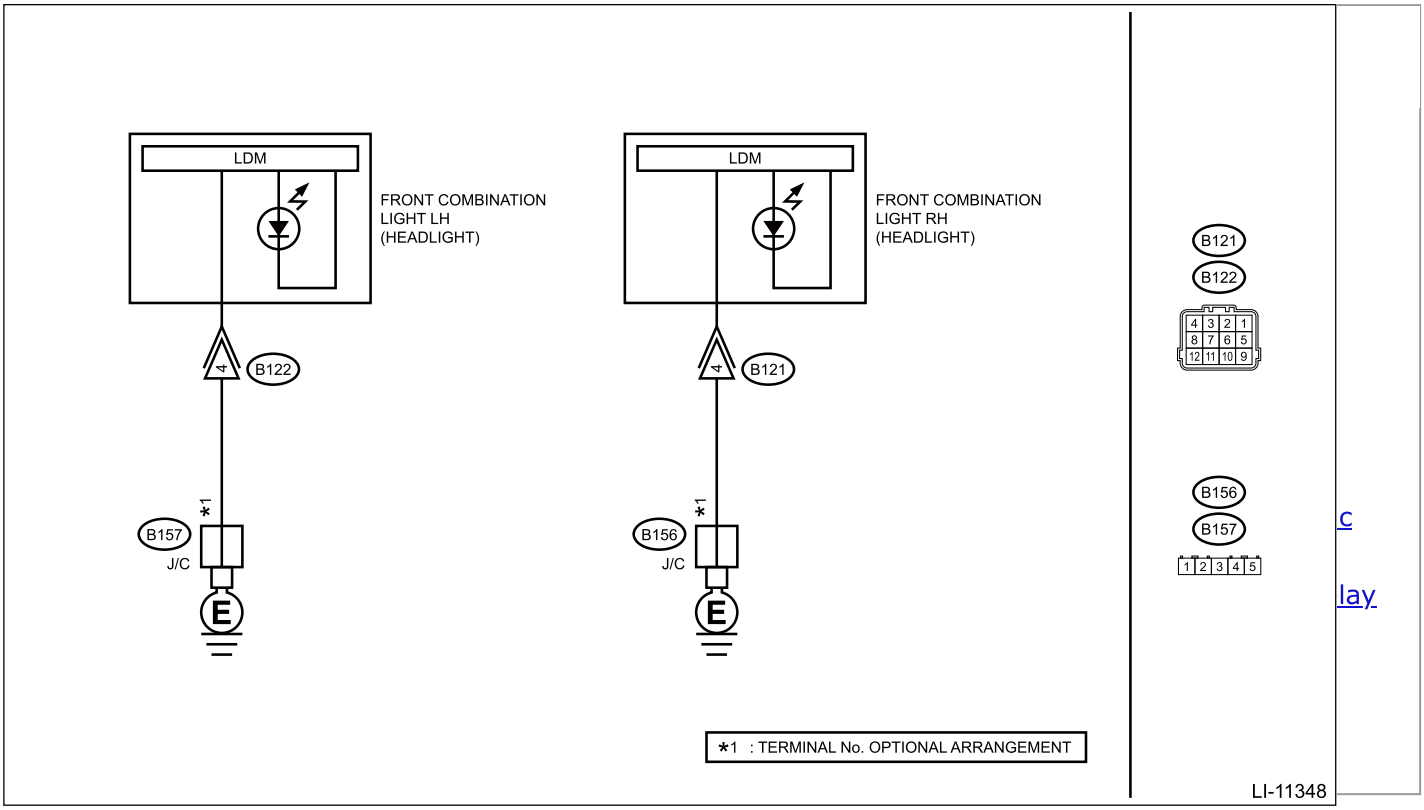
Does the headlight (low beam and high beam) come on at normal brightness?

Yes	Go to 8.
No	Replace the headlight assembly. Ref. to LIGHTING SYSTEM>Headlight Assembly.

- **MODEL WITH SRH**

Wiring diagram:

Headlight system Ref. to WIRING SYSTEM>Headlight System>WIRING DIAGRAM.



9. CHECK CURRENT DATA.
1. CHECK HEADLIGHT ILLUMINATION.

1. Turn the ignition switch to ON.
2. Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.
   - [Lighting II Switch Input]
   - [Dimmer HI Switch Input]
3. Turn the lighting switch to the switch 1 (TAIL) position.
4. Turn the lighting switch to the switch 2 (HEAD) position.
5. Turn the dimmer & passing switch to the switch UP position.

Does the display change between [OFF] <--> [ON] when the lighting switch is moved to the switch 2 (HEAD) and switch UP (HI) positions?

Yes	The headlight system is normal. Go to 10.
No	Go to 2. Check the combination switch or harness for open circuit.

2. CHECK CURRENT DATA.

1. Turn the ignition switch to ON.and wait for at least 10 seconds.
2. Read the DTC of [Body Control], using the Subaru Select Monitor. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.
   - [Lighting Low Request]
   - [Lighting High Request]

Is DTC displayed?

Yes	Perform the diagnosis when the displayed DTC is detected. Ref. to BODY CONTROL(DIAGNOSTICS)>Diagnostic Trouble Code (DTC)>LIST.
No	Go to 3.

3. CHECK POWER SUPPLY.

Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

- [BATT voltage (control)]
- [BATT voltage (BACKUP)]
- [IGN voltage]

Is the voltage 9 — 16 V?

Yes	Go to 4.
No	Check the body integrated unit and replace it if defective. • Inspection: Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure. • Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

4. CHECK CURRENT DATA.

1. Turn the ignition switch to ON.
2. Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.
   - [Lighting II Switch Input]
   - [Dimmer Hi Switch Input]

Does the display change between [OFF] ←→ [ON] when the lighting switch is moved to the switch 2 (HEAD) and switch UP (HI) positions?

Yes	Go to 5.
No	Check the combination switch or harness for open circuit.

6. AUTO HEADLIGHT SYSTEM CHECK

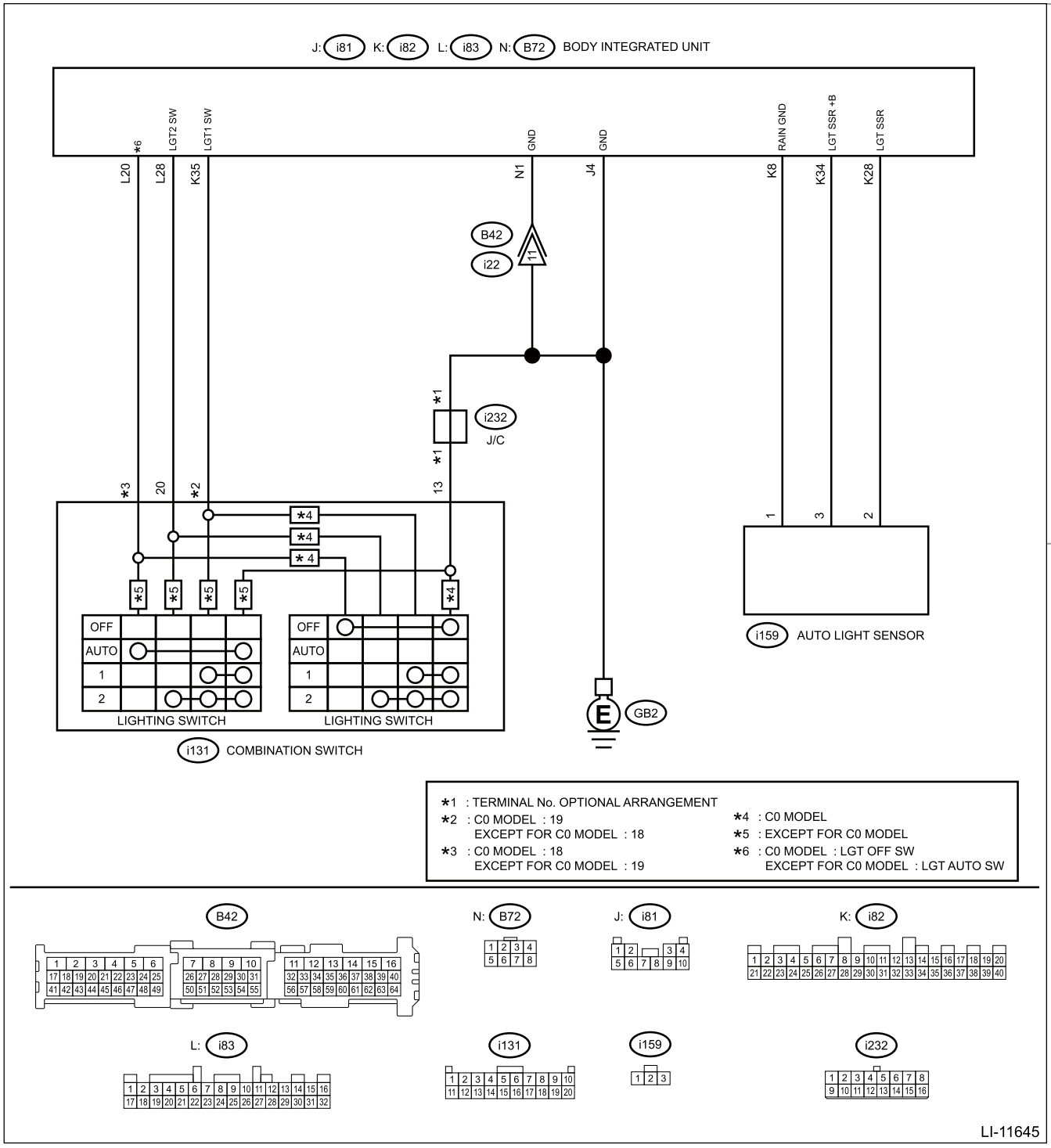
Wiring diagram:
Headlight system Ref. to WIRING SYSTEM>Headlight System>WIRING DIAGRAM.

5. CHECK CURRENT DATA.

1. Turn the ignition switch to ON.
2. Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.
   - [Lighting II Lamp Output]
   - [Lighting Hi Lamp Output]

Does the display change to [ON] when turning the lighting switch to the switch 2 (HEAD) position and switch UP (HI) position?

Yes	Go to 6.
No	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.


J: i81 K: i82 L: i83 N: B72 BODY INTEGRATED UNIT
*6
LGT2 SW
LGT1 SW
GND
GND
RAIN GND
LGT SSR +B
LGT SSR
L20
L28
K35
N1
J4
K8
K34
K28
B42
i22
11
*1
i232
J/C
13
*3
20
*2
*4
*4
*4
*5
*5
*5
*5
*4
OFF
AUTO
1
2
LIGHTING SWITCH
OFF
AUTO
1
2
LIGHTING SWITCH
i131 COMBINATION SWITCH
1
3
2
i159 AUTO LIGHT SENSOR
E
GB2
*1 : TERMINAL No. OPTIONAL ARRANGEMENT
*2 : C0 MODEL : 19
EXCEPT FOR C0 MODEL : 18
*3 : C0 MODEL : 18
EXCEPT FOR C0 MODEL : 19
*4 : C0 MODEL
*5 : EXCEPT FOR C0 MODEL
*6 : C0 MODEL : LGT OFF SW
EXCEPT FOR C0 MODEL : LGT AUTO SW
B42
N: B72
J: i81
K: i82
L: i83
i131
i159
i232
LI-11645

1. CHECK HEADLIGHT AND TAIL LIGHT ILLUMINATION.

1. Turn the ignition switch to ON.
2. Make the light control sensor vicinity dark.
3. Set the lighting switch to AUTO position.
4. Make the light control sensor vicinity bright.
5. Turn the lighting switch to the OFF position and turn to the AUTO position again.

Do the parking light, headlight and tail light illuminate by way of step 3 and go off by step 5?

Yes	The auto headlight system is normal.
No	Go to 2.

2. CHECK BODY INTEGRATED UNIT SETTING.

Using Subaru Select Monitor, display data of [Illumination Sensor Setting] in [Customize] of [Body Control]. Ref. to BODY CONTROL(DIAGNOSTICS)>Customize.

Is the setting in the [Support]?

Yes	Go to 3.
No	Turn the setting to [Support].

3. CHECK CURRENT DATA.

1. Using Subaru Select Monitor, display data of [Illumination Sensor Output] in [Data Monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.
2. Measure the voltage when the area around the light control sensor, which was dark, becomes bright.
   Illumination sensor output
   Dark condition: Approx. 0.6 V or less
   Bright condition: Approx. 3 V or more

Is the voltage output according to the brightness?

Yes	Go to 6.
No	Go to 4.

4. CHECK LIGHT CONTROL SENSOR.

Check the light control sensor. Ref. to LIGHTING SYSTEM>Light Control Sensor>INSPECTION.

Is the light control sensor normal?

Yes	Go to 5.
No	Replace the light control sensor. Ref. to LIGHTING SYSTEM>Light Control Sensor.

5. CHECK HARNESS.

1. Disconnect the connectors from body integrated unit and light control sensor.
2. Check the harness between body integrated unit and light control sensor.

Connector & terminal

(i82) No. 8 — (i159) No. 1:
(i82) No. 28 — (i159) No. 2:
(i82) No. 34 — (i159) No. 3:

Is harness normal?

Yes	Check the body integrated unit and replace it if defective. • Inspection: Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure. • Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
No	Repair or replace the defective part.

6. CHECK CURRENT DATA.

1. Set the lighting switch to AUTO position.
2. Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.
   - Other than for C0
   - [Lighting AUTO input]
   - For C0
   - [Lighting I Switch Input]
   - [Lighting II Switch Input]
   - [Lighting OFF Switch Input]

- Is [Lighting AUTO input] set to [ON]? (Except for C0)
- Are [Lighting I Switch Input], [Lighting II Switch Input] and [Lighting OFF Switch Input] set to [OFF]? (For C0)

Yes	Check the body integrated unit and replace it if defective. • Inspection: Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure. • Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
No	Go to 7.

7. CHECK COMBINATION SWITCH (LIGHT).

1. Turn the ignition switch to OFF.
2. Check the combination switch (light). Ref. to LIGHTING SYSTEM>Combination Switch (Light)>INSPECTION.

Is the combination switch (light) normal?

Yes	Go to 8.
No	Replace the combination switch (light). Ref. to LIGHTING SYSTEM>Combination Switch (Light).

8. CHECK HARNESS.

1. Disconnect the connectors of body integrated unit and combination switch (light).
2. Check the harness between body integrated unit and combination switch (light).

Connector & terminal

Other than for C0

(i82) No. 35 — (i131) No. 18:
(i83) No. 20 — (i131) No. 19:
(i83) No. 28 — (i131) No. 20:

For C0

(i82) No. 35 — (i131) No. 19:
(i83) No. 20 — (i131) No. 18:
(i83) No. 28 — (i131) No. 20:

Is harness normal?

Yes	Go to 9.
No	Repair or replace the defective part.

9. CHECK HARNESS.

Check the harness between the combination switch (light) connector and the chassis ground.

Connector & terminal

(i131) No. 13 — Chassis ground:

Is the resistance less than 10 Ω?

Yes	Check the body integrated unit and replace it if defective. • Inspection: Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure. • Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
No	Repair or replace the defective part.

7. CHECK OF WELCOME LIGHTING SYSTEM (IF IT DOES NOT ILLUMINATE)

1. CHECK BODY INTEGRATED UNIT SETTING.

1. Turn the ignition switch to ON.
2. Using Subaru Select Monitor, display the data of [Welcome Light Off Delay Time(Approaching)] or [Welcome Light Off Delay Time(Exiting)] in [Customize] of [Body Control]. Ref. to BODY CONTROL(DIAGNOSTICS)>Customize.

Is the setting other than [OFF]?

Yes	Go to 2.
No	Turn the setting to other than [OFF].

2. CHECK BODY INTEGRATED UNIT SETTING.

Using Subaru Select Monitor, display data of [Illumination Sensor Setting] in [Customize] of [Body Control]. Ref. to BODY CONTROL(DIAGNOSTICS)>Customize.

Is the setting in the [Exist]?

Yes	Go to 3.
No	Turn the setting to [Support].

3. CHECK AUTO HEADLIGHT.

1. Set the lighting switch to AUTO position.
2. Make the light control sensor vicinity dark.
3. Turn the ignition switch to ON.

Do the parking light, tail light and headlight illuminate?

Yes	Go to 4.
No	Check the auto headlight system. Ref. to LIGHTING SYSTEM>Headlight System>INSPECTION > BASIC INSPECTION.

4. CHECK DOOR LOCK.

Operate the door lock using the access key.

Do the lock and unlock operate properly?

Yes	Go to 5.
No	Check the keyless access with push button start system. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Basic Diagnostic Procedure.

5. CHECK BODY INTEGRATED UNIT.

1. Turn the ignition switch to ON.
2. Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.
   - [IGN voltage]
   - [BATT voltage (BACKUP)]

Is the voltage 10 — 15 V?

Yes	Check the body integrated unit and replace it if defective. • Inspection: Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure. • Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
No	Repair or replace the defective part.

8. CHECK OF WELCOME LIGHTING SYSTEM (IF IT DOES NOT GO OFF)

1. CHECK BODY INTEGRATED UNIT SETTING.

1. Turn the ignition switch to ON.
2. Using Subaru Select Monitor, display the data of [Welcome Light Off Delay Time(Approaching)] or [Welcome Light Off Delay Time(Exiting)] in [Customize] of [Body Control]. Ref. to BODY CONTROL(DIAGNOSTICS)>Customize.

Is the illumination time setting correct?

Yes	Go to 2.
No	Set the illumination time.

2. CHECK THE LIGHTS.

Check if the lights illuminate or go out.

- Does the headlight illuminate when the lighting switch is moved to the switch 2 (HEAD) position?
- Do the parking light, tail light, and headlight go out when the lighting switch is moved to the switch OFF position?

Yes	Go to 3.
No	Check the combination switch (light) and each light circuit.

3. CHECK BODY INTEGRATED UNIT.

1. Turn the ignition switch to ON.
2. Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.
   - [IGN voltage]
   - [BATT voltage (BACKUP)]

Is the voltage 10 — 15 V?

Yes	Go to 4.
No	Repair or replace the defective part.

4. CHECK BODY INTEGRATED UNIT.

Using Subaru Select Monitor, display [Driver's door SW input] in [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display switch between [OFF] ←→ [ON] when driver's door is opened/closed?

Yes	Go to 5.
No	Check the door switch. Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR SWITCH.

5. CHECK DOOR LOCK.

Operate the door lock using the access key.

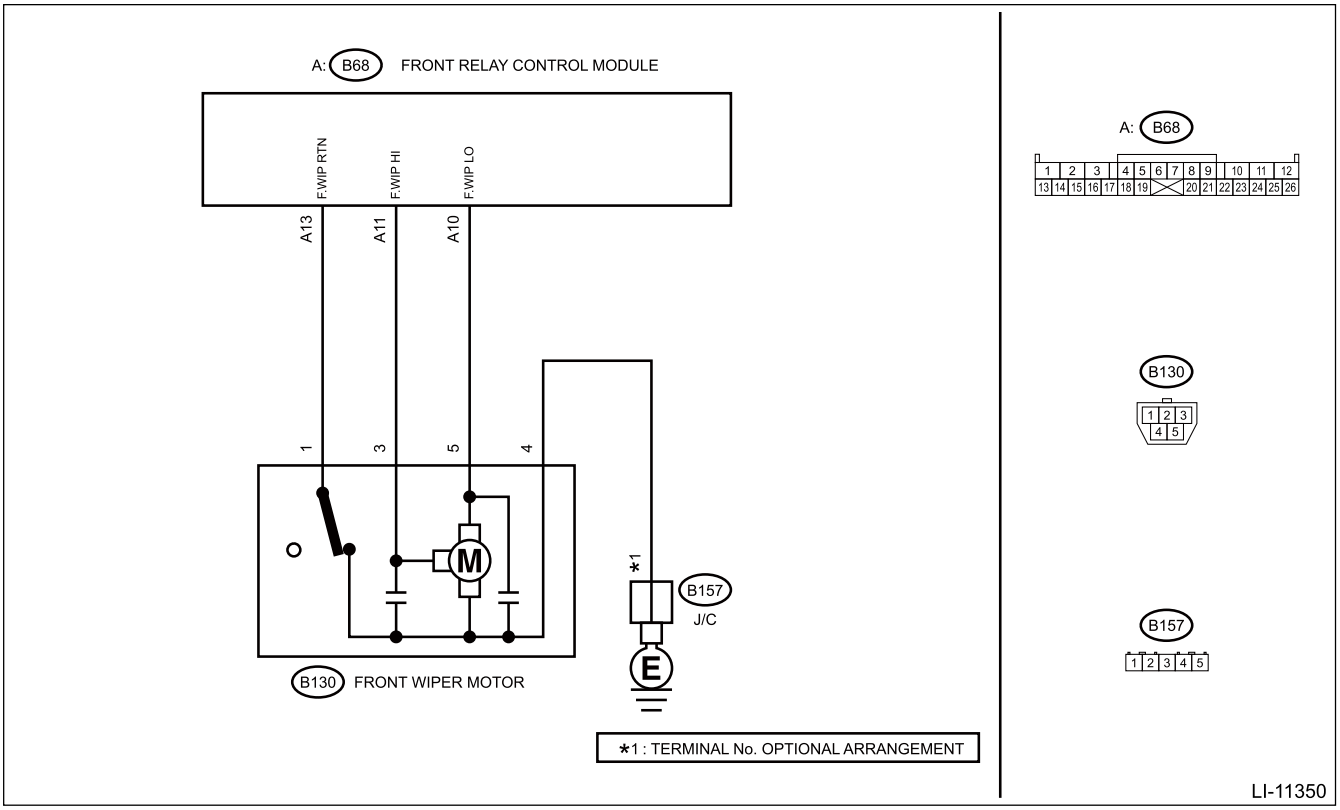
Do the lock and unlock operate properly?

Yes	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
No	Check the keyless access with push button start system. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Basic Diagnostic Procedure.

9. CHECK WIPER INTERLOCK HEADLIGHT SYSTEM

Wiring diagram:

Front wiper and washer system Ref. to WIRING SYSTEM>Front Wiper and Washer System>WIRING DIAGRAM.



1. AUTO HEADLIGHT SYSTEM CHECK.

1. Turn the ignition switch to ON.
2. Check the operation of auto headlight system.

Is the system normal?

Yes	Go to 2.
No	Check and repair the auto headlight system. Ref. to LIGHTING SYSTEM>Headlight System>INSPECTION > CHECK HEADLIGHT SYSTEM.

2. CHECK LIGHT CONTROL SENSOR.

Using Subaru Select Monitor, display data of [Wiper Link Auto Light Setup] in [Customize] of [Body Control]. Ref. to BODY CONTROL(DIAGNOSTICS)>Customize.

Is the setting [ON]?

Yes	Go to 3.
No	Turn the setting to [ON].

3. CHECK DIAGNOSTIC TROUBLE CODE (DTC).

1. Turn the ignition switch to ON and wait for at least 10 seconds.
2. Read DTCs of the following items using the Subaru Select Monitor. Ref. to LAN SYSTEM (DIAGNOSTICS)>Diagnostic Trouble Code (DTC).
   - [Body Control]
   - [Front Relay Control Module]

Is DTC displayed?

Yes	Perform the diagnosis for the displayed DTCs. • [Body Control]: Ref. to BODY CONTROL(DIAGNOSTICS)>Diagnostic Trouble Code (DTC)>LIST. • [Front Relay Control Module]: Ref. to FRONT RELAY CONTROL MODULE (DIAGNOSTICS)>Diagnostic Trouble Code (DTC)>LIST.
No	Go to 4.

4. CHECK FRONT RELAY CONTROL MODULE.

Using Subaru Select Monitor, display data of [F Wiper(RTN) Input] in [Data Monitor] of [Front Relay Control Module]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display switch between [OFF] ←→ [ON] when the combination switch (wiper) is operated OFF ←→ INT/LO/HI?

Yes	Go to 5.
No	Go to 6.

5. CHECK BODY INTEGRATED UNIT.

Using Subaru Select Monitor, display data of [Fr wiper input] in [Data Monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display switch between [OFF] ←→ [ON] when the combination switch (wiper) is operated OFF ←→ INT/LO/HI?

Yes

Check the light control sensor, and then repair or replace it if defective. Ref. to LIGHTING SYSTEM>Light Control Sensor.

No

Check the body integrated unit and replace it if defective.

- Inspection: Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure.
- Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

6. CHECK FRONT RELAY CONTROL MODULE.

Measure the voltage between front relay control module connector and chassis ground.

Connector & terminal

(B68) No. 13 (+) — Chassis ground (−):

Does the voltage switch between OFF (less than 1 V) ←→ ON (9 — 16 V) when the combination switch (wiper) is operated OFF ←→ INT/LO/HI?

Yes

Check the front relay control module and replace it if defective.

- Inspection: Ref. to FRONT RELAY CONTROL MODULE (DIAGNOSTICS)>Basic Diagnostic Procedure.
- Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Front Relay Control Module.

No

Go to 7.

7. CHECK HARNESS.

1. Turn the ignition switch to OFF.
2. Disconnect the connectors of front wiper motor and front relay control module.
3. Check the harness between the front wiper motor and the front relay control module.
   Connector & terminal
   (B130) No. 1 — (B68) No. 13:

Is the resistance less than 10 Ω?

Yes — Go to 8.

No — Repair or replace the defective part.

8. CHECK HARNESS.

Check the harness between the front wiper motor connector and the chassis ground.
Connector & terminal
(B130) No. 4 — Chassis ground:

Is the resistance less than 10 Ω?

Yes — Go to 9.

No — Repair or replace the defective part.

9. CHECK FRONT WIPER MOTOR.

Check the continuity between front wiper motor terminals.

Connector & terminal

(B130) No. 1 — (B130) No. 5:

Is there continuity?

Yes	Check the front relay control module and replace it if defective. • Inspection: Ref. to FRONT RELAY CONTROL MODULE (DIAGNOSTICS)>Basic Diagnostic Procedure. • Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Front Relay Control Module.
No	Replace the front wiper motor. Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Motor and Link.

10. CHECK STEERING RESPONSIVE HEADLIGHT SYSTEM

For inspection procedures in the steering responsive headlight system, refer to "Basic Diagnostic Procedure" of "HEADLIGHT / FOGLIGHT (DIAGNOSTICS)" section. Ref. to HEADLIGHT / FOGLIGHT(DIAGNOSTICS)>Basic Diagnostic Procedure.

11. CHECK LIGHTING SWITCH

For the lighting switch inspection, refer to "Combination Switch (Light)". Ref. to LIGHTING SYSTEM>Combination Switch (Light)>INSPECTION.

12. CHECK DIMMER & PASSING SWITCH

For the dimmer & passing switch inspection, refer to "Combination Switch (Light)". Ref. to LIGHTING SYSTEM>Combination Switch (Light)>INSPECTION.

LIGHTING SYSTEM > Headlight System

NOTE

For operation procedures of components of the headlight system, refer to the following sections.

- Headlight assembly: Ref. to LIGHTING SYSTEM>Headlight Assembly.
- Combination switch (light): Ref. to LIGHTING SYSTEM>Combination Switch (Light).
- Body integrated unit: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
- Front relay control module: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Front Relay Control Module.
- Light control sensor: Ref. to LIGHTING SYSTEM>Light Control Sensor.

LIGHTING SYSTEM > High Beam Assist System

WIRING DIAGRAM

For the wiring diagram, refer to “Headlight System” in the wiring diagram. Ref. to WIRING SYSTEM>Headlight System>WIRING DIAGRAM.

LIGHTING SYSTEM > High Beam Assist System

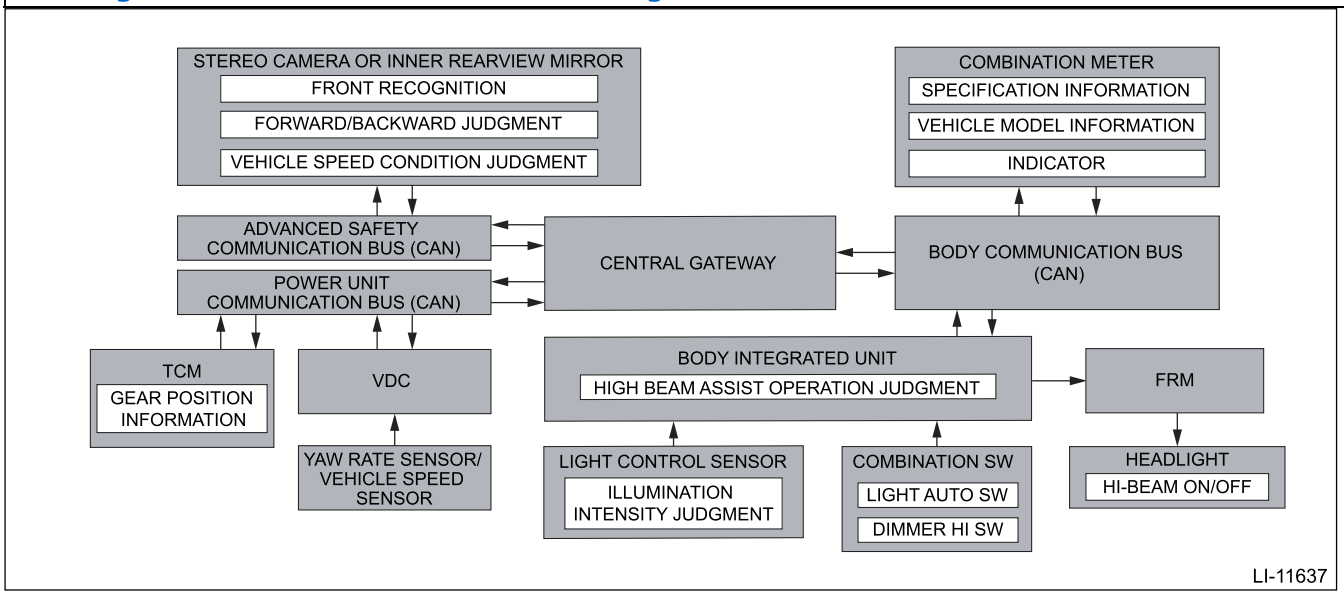
INSPECTION

1. BASIC INSPECTION

For inspection, refer to the “BODY CONTROL (DIAGNOSTICS)” section. Ref. to BODY CONTROL(DIAGNOSTICS)>Diagnostics with Phenomenon.

2. SYSTEM BLOCK DIAGRAM

Note:
The high beam assist system uses the stereo cameras of the EyeSight system or the inner rearview mirror to recognize the conditions in front of the vehicle, and automatically switches the high beam and low beam of the headlight.



LIGHTING SYSTEM > High Beam Assist System

NOTE

For operation procedures of components in the high beam assist system, refer to the following sections.

- Headlight assembly: Ref. to LIGHTING SYSTEM>Headlight Assembly.
- Combination switch (light): Ref. to LIGHTING SYSTEM>Combination Switch (Light).
- Body integrated unit: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
- Stereo camera: Ref. to EyeSight>Stereo Camera.
- Light control sensor: Ref. to LIGHTING SYSTEM>Light Control Sensor.
- Inner rearview mirror: Ref. to GLASS/WINDOWS/MIRRORS>Rearview Mirror.

WIRING DIAGRAM

For the wiring diagram, refer to "Daytime Running Light System" in the wiring diagram. Ref. to WIRING SYSTEM>Daytime Running Light System>WIRING DIAGRAM.

INSPECTION

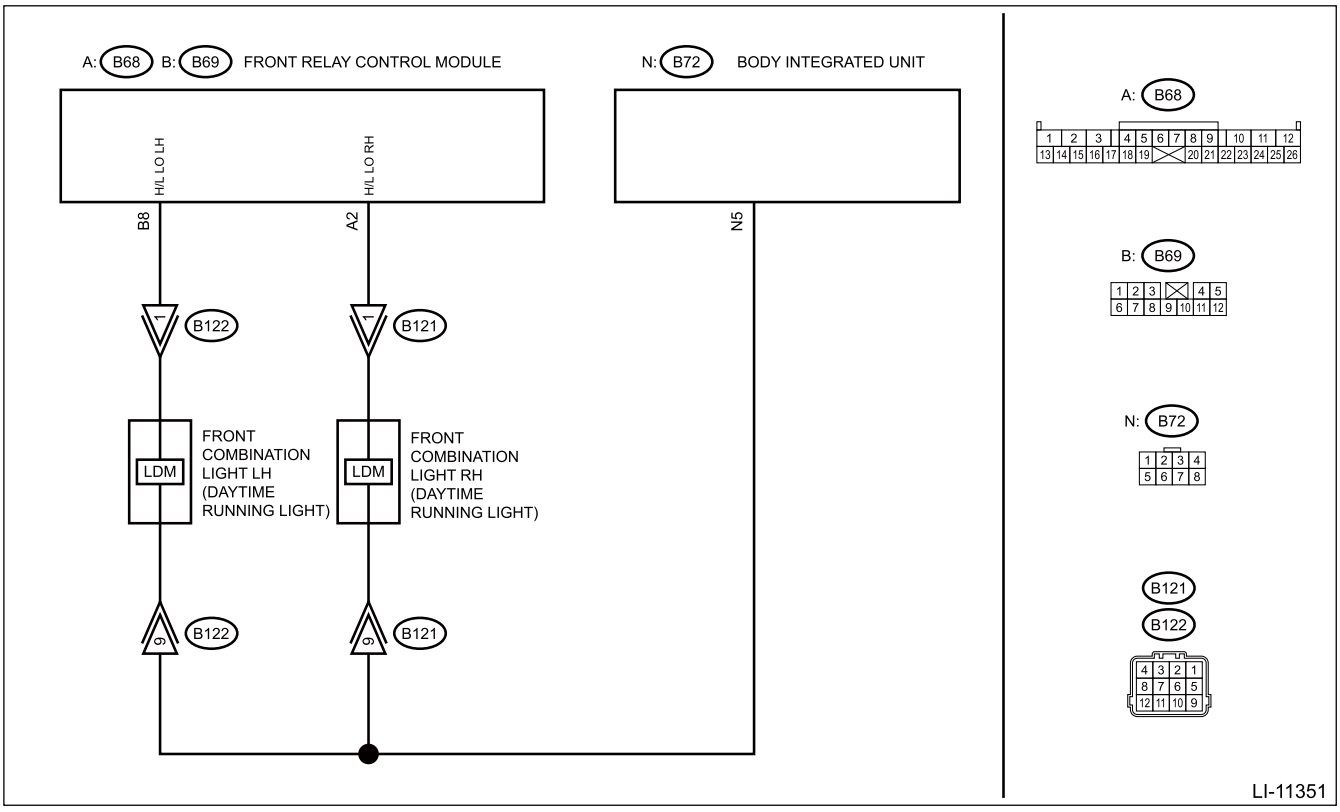
1. TROUBLE SYMPTOM

Daytime running light does not illuminate.

Wiring diagram:

Daytime running light system Ref. to WIRING SYSTEM>Daytime Running Light System>WIRING DIAGRAM.

- **MODEL WITHOUT SRH**



Note:

Operate the appropriate switch according to the inspection condition.

1. CHECK DTC.

1. Turn the ignition switch to ON.
2. Read DTCs of the following items using the Subaru Select Monitor. Ref. to LAN SYSTEM (DIAGNOSTICS)>Diagnostic Trouble Code (DTC).
   - [Body Control]
   - [Front Relay Control Module]

Is DTC displayed?

Yes

Perform the diagnosis for the displayed DTCs.
- [Body Control]: Ref. to BODY CONTROL(DIAGNOSTICS)>Diagnostic Trouble Code (DTC)>LIST.
- [Front Relay Control Module]: Ref. to FRONT RELAY CONTROL MODULE (DIAGNOSTICS)>Diagnostic Trouble Code (DTC)>LIST.

No

Go to 2.

2. CHECK DATA MONITOR.

Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.
- [IGN voltage]
- [Shift Position]
- [EPB operating status]
- [P SW]
- [Lighting II Switch Input]

Is the input signal normal?

Yes

Go to 3.

No

Check the defective part.

3. CHECK DAYTIME RUNNING LIGHT.

1. Start the engine.
2. Turn the lighting switch to the OFF position.
3. Release the parking brake.

Does the daytime running light illuminate/go off when the parking brake is operated [ON] ←→ [OFF]?

Yes	Check the headlight assembly and replace it if defective.
No	Go to 4.

4. CHECK HARNESS.

1. Turn the ignition switch to OFF.
2. Disconnect the front relay control module and headlight connector.
3. Check the harness between the front relay control module and the headlight.

Connector & terminal

Headlight RH

(B68) No. 2 (+) — (B121) No. 1 (−):

Headlight LH

(B69) No. 8 (+) — (B122) No. 1 (−):

Is harness normal?

Yes	Go to 5.
No	Repair or replace the defective part.

5. CHECK HARNESS.

1. Disconnect the body integrated unit and headlight connector.
2. Check the harness between the body integrated unit and headlight.

Connector & terminal

Headlight RH

(B121) No. 9 (+) — (B72) No. 5 (−):

Headlight LH

(B122) No. 9 (+) — (B72) No. 5 (−):

- **MODEL WITH SRH**

Is harness normal?

Yes	Go to 6.
No	Repair or replace the defective part.

1. CHECK DTC.

1. Turn the ignition switch to ON.
2. Read DTCs of the following items using the Subaru Select Monitor. Ref. to LAN SYSTEM (DIAGNOSTICS)>Diagnostic Trouble Code (DTC).
   - [Body Control]
   - [Front Relay Control Module]

Is DTC displayed?

Yes	Perform the diagnosis for the displayed DTCs. • [Body Control]: Ref. to BODY CONTROL(DIAGNOSTICS)>Diagnostic Trouble Code (DTC)>LIST. • [Front Relay Control Module]: Ref. to FRONT RELAY CONTROL MODULE (DIAGNOSTICS)>Diagnostic Trouble Code (DTC)>LIST.
No	Go to 2.

6. CHECK DAYTIME RUNNING LIGHT ILLUMINATION.

1. Disconnect the headlight connector.
2. Apply battery voltage to the DRL terminal input of the headlight unit.

Caution:

When applying battery voltage, do not mix up the positive (+) side and the negative (−) side. Incorrect polarity connection may cause internal circuit damage.

Connector & terminal

Headlight RH

(B121) No. 1 (+) — (B122) No. 9 (−):

Headlight LH

(B122) No. 1 (+) — (B122) No. 9 (−):

Does the daytime running light illuminate?

Yes	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
No	Replace the headlight. Ref. to LIGHTING SYSTEM>Headlight Assembly.

2. CHECK DATA MONITOR.

Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

- [IGN voltage]
- [Shift Position]
- [EPB operating status]
- [P SW]
- [Lighting II Switch Input]

Is the input signal normal?

Yes	Go to 3.
No	Check the defective part.

3. CHECK DATA MONITOR.

1. Start the engine.
2. Release the parking brake.
3. Using Subaru Select Monitor, display [Daytime Running Light(Alternate System) Output] in [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display of [Daytime Running Light(Alternate System) Output] switch between [OFF] ←→ [ON] when the lighting switch is switched from the OFF position to the 2 (HEAD) position?

Yes	Check the headlight assembly and replace it if defective.
No	Check the body integrated unit and replace it if defective. • Inspection: Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure. • Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

NOTE

For operation procedures of components of the daytime running light system, refer to the following sections.

- Headlight assembly: Ref. to LIGHTING SYSTEM>Headlight Assembly.
- Combination switch (light): Ref. to LIGHTING SYSTEM>Combination Switch (Light).
- Body integrated unit: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
- Front relay control module: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Front Relay Control Module.

WIRING DIAGRAM

For the wiring diagram, refer to “Clearance Light and Illumination Light System” in the wiring diagram. Ref. to WIRING SYSTEM>Clearance Light and Illumination Light System>WIRING DIAGRAM.

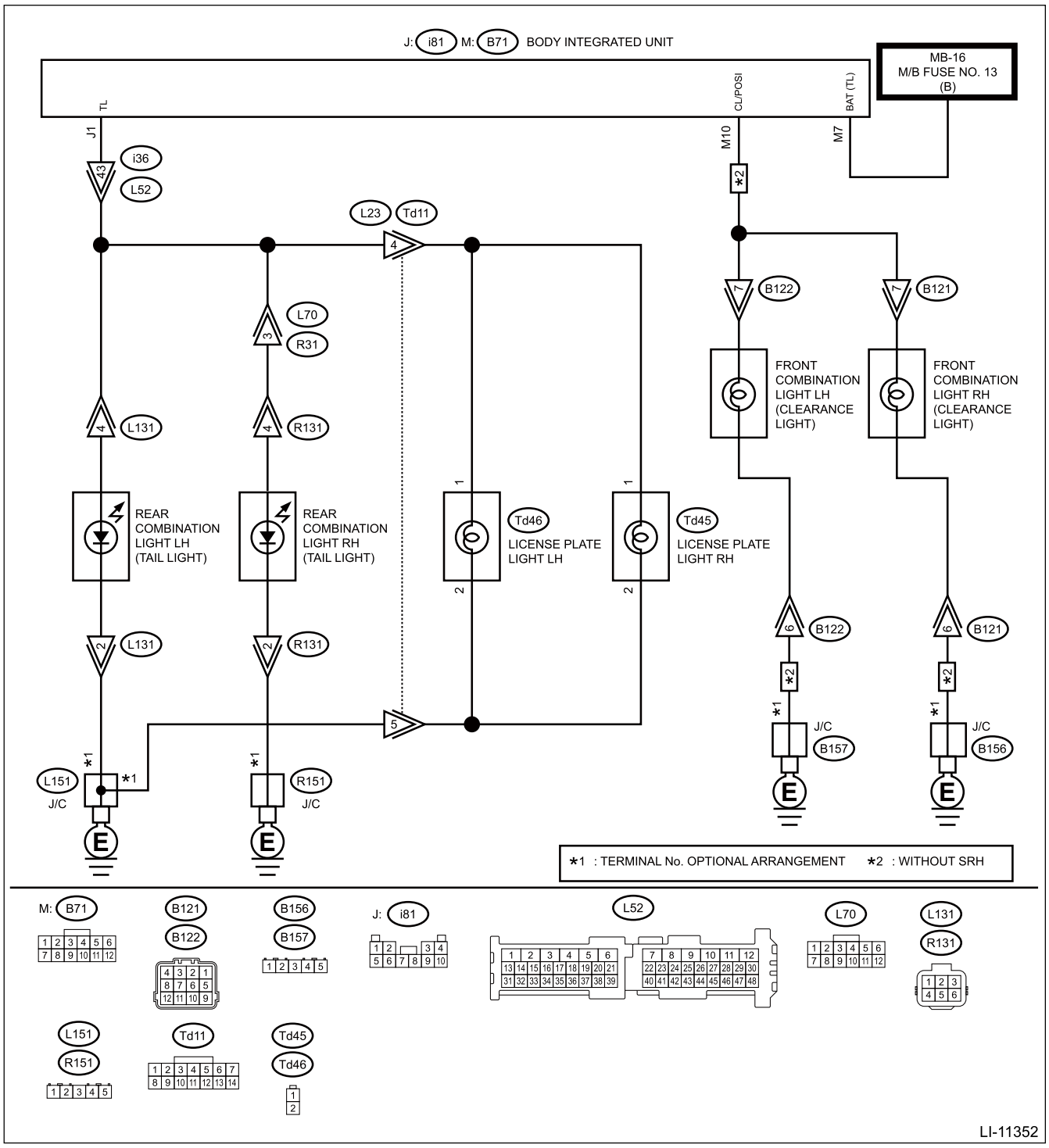
INSPECTION

1. TROUBLE SYMPTOM

Parking light and tail light do not illuminate or lights are weak

Wiring diagram:

Clearance light and illumination light system Ref. to WIRING SYSTEM>Clearance Light and Illumination Light System>WIRING DIAGRAM.



Note:

Perform unit inspection of the combination switch (light) and illumination light to check that there are no problems.

1. CHECK ILLUMINATION LIGHT SYSTEM.

1. Turn the ignition switch to ON.
2. Turn the lighting switch to the switch 1 (TAIL) position.

Does the illumination light come on?

Yes	Illumination light is normal.
No	Go to 2.

2. CHECK BODY INTEGRATED UNIT.

Read the DTC of [Body Control] using the Subaru Select Monitor. Ref. to COMMON (DIAGNOSTICS)>Diagnostic Trouble Code (DTC).

Is DTC displayed?

Yes	Perform the diagnosis for the displayed DTCs. Ref. to BODY CONTROL(DIAGNOSTICS)>Diagnostic Trouble Code (DTC)>LIST.
No	Go to 3.

3. CHECK POWER SUPPLY.

Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

- [BATT voltage (control)]
- [BATT voltage (BACKUP)]
- [IGN voltage]

Is the voltage 9 — 16 V?

Yes	Go to 4.
No	Check the body integrated unit and replace it if defective. • Inspection: Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure. • Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

4. CHECK CLEARANCE LIGHT POWER SUPPLY CIRCUIT.

1. Turn the ignition switch to OFF.
2. Disconnect the connector of body integrated unit.
3. Measure the voltage between the body integrated unit connector and chassis ground.
   Terminals
   (B71) No. 7 (+) — Chassis ground (−):

Is the voltage 9 — 16 V?

Yes — Go to 5.

No — Check the body integrated unit and replace it if defective.
- Inspection: Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure.
- Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

5. CHECK HARNESS.

1. Disconnect the connector of the light which did not illuminate.
2. Check the harness between body integrated unit and each light.
   Connector & terminal
   Headlight RH (model without SRH)
   (B71) No. 10 — (B121) No. 7:
   Headlight LH (model without SRH)
   (B71) No. 10 — (B122) No. 7:
   Rear combination light RH
   (i81) No. 1 — (R131) No. 4:
   Rear combination light LH
   (i81) No. 1 — (L131) No. 4:
   License plate light RH
   (i81) No. 1 — (Td45) No. 1:
   License plate light LH
   (i81) No. 1 — (Td46) No. 1:

Is harness normal?

Yes — Go to 6.

No — Repair or replace the defective part.

6. CHECK THE LIGHTS.

Apply battery voltage between light connector terminals.

Caution:

When applying battery voltage, do not mix up the positive (+) side and the negative (−) side. Incorrect polarity connection may cause internal LED damage.

Connector & terminal

Headlight RH (model without SRH)

(B121) No. 7 (+) — (B121) No. 6 (−):

Headlight LH (model without SRH)

(B121) No. 7 (+) — (B122) No. 6 (−):

Rear combination light RH

(R131) No. 4 (+) — (R131) No. 2 (−):

Rear combination light LH

(L131) No. 4 (+) — (L131) No. 2 (−):

License plate light RH

(Td45) No. 1 (+) — (Td45) No. 2 (−):

License plate light LH

(Td46) No. 1 (+) — (Td46) No. 2 (−):

Does it illuminate?

Yes	Go to 7.
No	Repair or replace the defective part.

7. CHECK HARNESS.

Check the harness between each light connector and the chassis ground.

Connector & terminal

Rear combination light RH

(R131) No. 2 — Chassis ground:

Rear combination light LH

(L131) No. 2 — Chassis ground:

License plate light RH

(Td45) No. 2 — Chassis ground:

License plate light LH

(Td46) No. 2 — Chassis ground:

Is the resistance less than 10 Ω?

Yes

Check the body integrated unit and replace it if defective.

- Inspection: Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure.
- Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

No

Repair or replace the defective part.

2. CHECK LIGHTING SWITCH

For the lighting switch inspection, refer to “Combination Switch (Light)”. Ref. to LIGHTING SYSTEM>Combination Switch (Light)>INSPECTION.

LIGHTING SYSTEM > Clearance Light and Illumination Light System

NOTE

For operation procedures of components of the clearance light and illumination light system, refer to the following sections.

- Headlight assembly: Ref. to LIGHTING SYSTEM>Headlight Assembly.
- Combination switch (light): Ref. to LIGHTING SYSTEM>Combination Switch (Light).
- Rear combination light assembly: Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly.
- License plate light: Ref. to LIGHTING SYSTEM>License Plate Light.
- LED illumination light: Ref. to LIGHTING SYSTEM>LED Illumination Light.

WIRING DIAGRAM

For the wiring diagram, refer to “Front Fog Light System” in the wiring diagram. Ref. to WIRING SYSTEM>Front Fog Light System>WIRING DIAGRAM.

INSPECTION

1. TROUBLE SYMPTOM

Fog light does not illuminate.

Note:
Operate the appropriate switch according to the inspection condition.

1. CHECK DTC.

1. Turn the ignition switch to ON.
2. Turn the lighting switch to the switch 2 (HEAD) position.
3. Turn the front fog light switch of the lighting switch to ON.
4. Read DTCs of the following items using the Subaru Select Monitor. Ref. to LAN SYSTEM (DIAGNOSTICS)>Diagnostic Trouble Code (DTC).
   - [Body Control]
   - [Front Relay Control Module]

Is DTC displayed?

Yes

Perform the diagnosis for the displayed DTCs.
- [Body Control]: Ref. to BODY CONTROL(DIAGNOSTICS)>Diagnostic Trouble Code (DTC)>LIST.
- [Front Relay Control Module]: Ref. to FRONT RELAY CONTROL MODULE (DIAGNOSTICS)>Diagnostic Trouble Code (DTC)>LIST.

No

Go to 2.

2. CHECK POWER SUPPLY.

Display data of the following items using Subaru Select Monitor. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

- [Body Control]
  - [BATT voltage (control)]
  - [BATT voltage (BACKUP)]
  - [IGN voltage]
- [Front Relay Control Module]
  - [BATT Voltage (Control)]
  - [BATT Voltage (BACKUP)]
  - [IGN Voltage]

Is the voltage 9 — 16 V?

Yes — Go to 3.

No — Check the body integrated unit and replace it if defective.

- Inspection: Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure.
- Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

Check the front relay control module and replace it if defective.

- Inspection: Ref. to FRONT RELAY CONTROL MODULE (DIAGNOSTICS)>Basic Diagnostic Procedure.
- Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Front Relay Control Module.

3. PERFORM ACTIVE TEST.

Using the Subaru Select Monitor, select [F Fog Light Output] in [Active Test] of [Front Relay Control Module] to turn on the front fog light. Ref. to FRONT RELAY CONTROL MODULE (DIAGNOSTICS)>Active Test.

Does it illuminate?

Yes — Go to 4.

No — Check the harness of the relay and output circuit. If there are no problems, replace the front relay control module. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Front Relay Control Module.

4. CHECK CURRENT DATA.

1. Turn the ignition switch to ON.
2. Using Subaru Select Monitor, display [Front Fog Light SW input] in [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display change from [OFF] ←→ [ON] when the front fog light switch of the lighting switch is operated?

Yes	Go to 5.
No	Check the harnesses of the combination switch, connector and input circuit. If there are no problems, replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

5. CHECK CURRENT DATA.

1. Turn the ignition switch to ON.
2. Using Subaru Select Monitor, display [F Fog Light Request] in [Data monitor] of [Front Relay Control Module]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display change from [OFF] ←→ [ON] when the front fog light switch of the lighting switch is operated?

Yes	Replace the front relay control module. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Front Relay Control Module.
No	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

2. CHECK FRONT FOG LIGHT SWITCH

For the front fog light switch inspection, refer to "Combination Switch (Light)". Ref. to LIGHTING SYSTEM>Combination Switch (Light)>INSPECTION.

LIGHTING SYSTEM > Front Fog Light System

NOTE

For operation procedures of components of the front fog light system, refer to the following sections.

- Combination switch (light): Ref. to LIGHTING SYSTEM>Combination Switch (Light).
- Front fog light assembly: Ref. to LIGHTING SYSTEM>Front Fog Light Assembly.
- Body integrated unit: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
- Front relay control module: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Front Relay Control Module.

WIRING DIAGRAM

For the wiring diagram, refer to “Turn Signal and Hazard Light System” in the wiring diagram. Ref. to WIRING SYSTEM>Turn Signal Light and Hazard Light System>WIRING DIAGRAM.

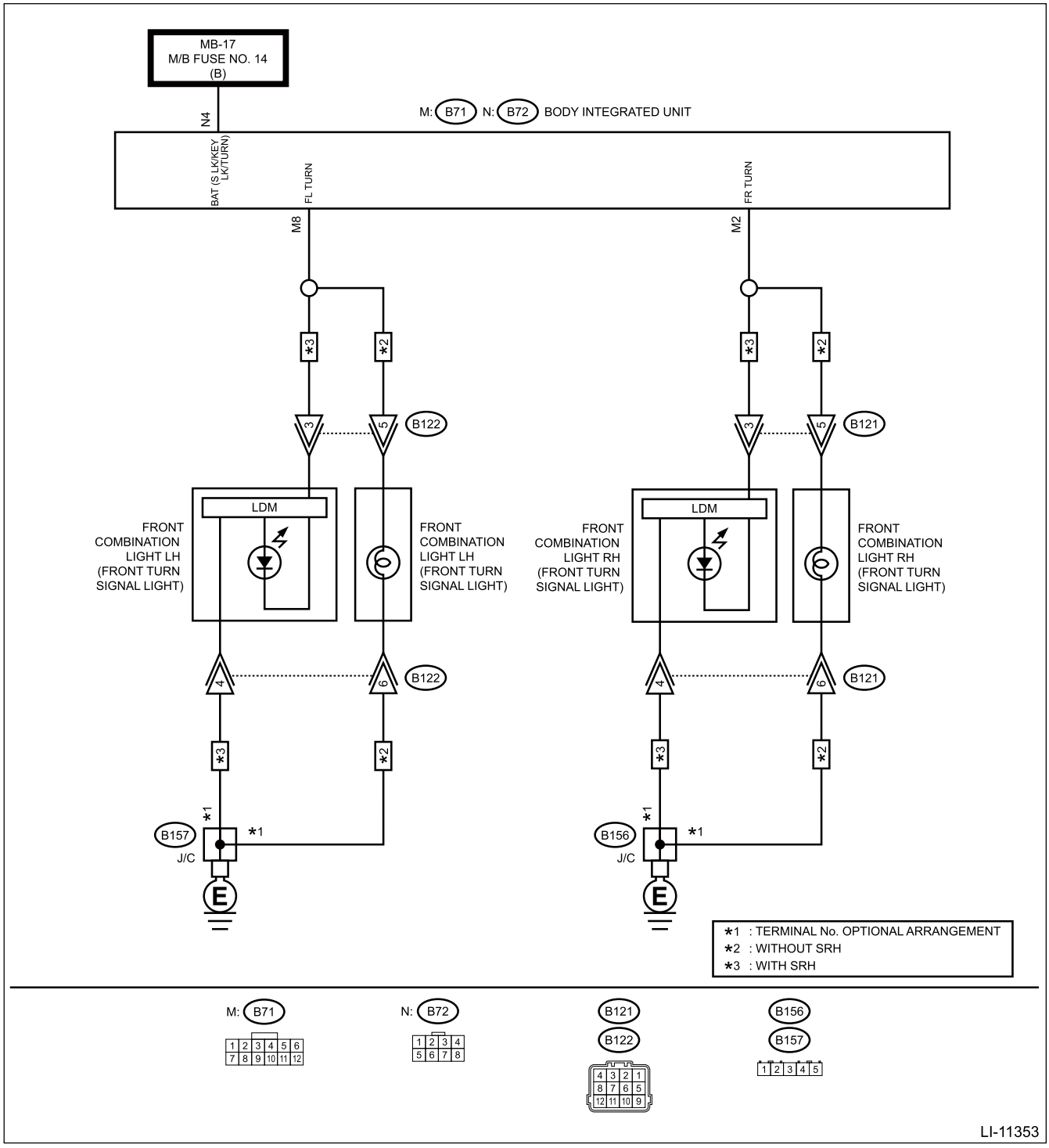
INSPECTION

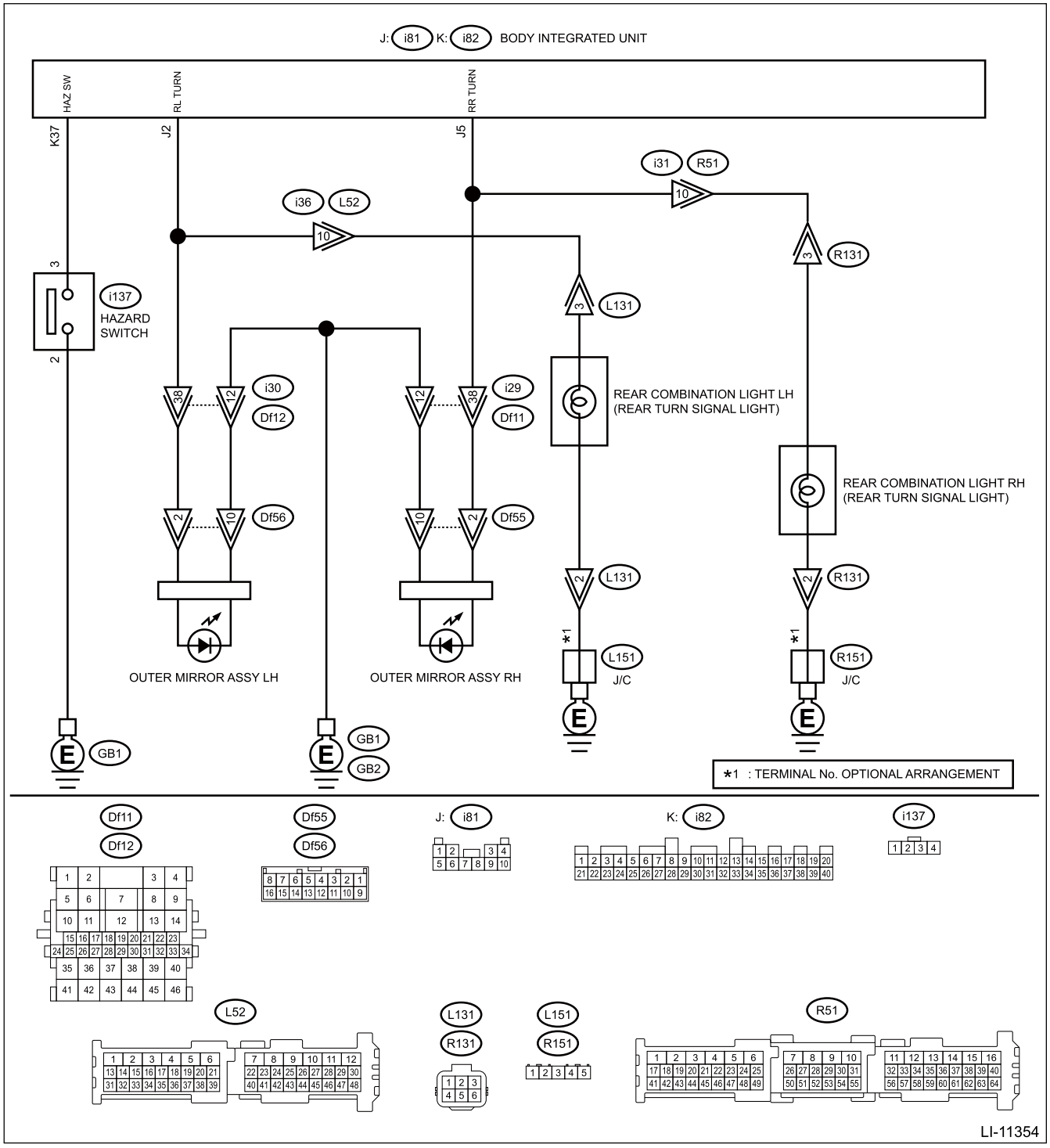
1. TROUBLE SYMPTOM

Symptoms	Reference
The hazard light does not operate.	Ref. to LIGHTING SYSTEM>Turn Signal Light and Hazard Light System>INSPECTION > CHECK HAZARD LIGHT OPERATION.
The turn signal light does not operate.	Ref. to LIGHTING SYSTEM>Turn Signal Light and Hazard Light System>INSPECTION > CHECK TURN SIGNAL LIGHT SYSTEM.
The lane change signal function of the turn signal indicator does not operate.	Ref. to LIGHTING SYSTEM>Turn Signal Light and Hazard Light System>INSPECTION > CHECK LANE CHANGE SIGNAL FUNCTION.

2. CHECK HAZARD LIGHT OPERATION

Wiring diagram:
Turn signal and hazard light system Ref. to WIRING SYSTEM>Turn Signal Light and Hazard Light System>WIRING DIAGRAM.


MB-17
M/B FUSE NO. 14
(B)
N4
M: B71 N: B72 BODY INTEGRATED UNIT
BAT (S LK/KEY LK/TURN)
FL TURN
FR TURN
M8
M2
*3
*2
3
5
B122
B121
LDM
FRONT COMBINATION LIGHT LH (FRONT TURN SIGNAL LIGHT)
FRONT COMBINATION LIGHT RH (FRONT TURN SIGNAL LIGHT)
4
6
*1
B157
B156
J/C
E
*1 : TERMINAL No. OPTIONAL ARRANGEMENT
*2 : WITHOUT SRH
*3 : WITH SRH
M: B71
N: B72
B121
B122
B156
B157
LI-11353



Note:

Operate the appropriate switch according to the inspection condition.

1. CHECK HAZARD LIGHT OPERATION.

1. Turn the hazard switch to ON.
2. Check that the hazard light operates properly.

Does the hazard light blink?

Yes	The hazard light system is normal.
No	Go to 2.

2. CHECK BULB.

Check the hazard (turn signal) light bulb.

Is the bulb normal?

Yes	Go to 3.
No	Replace the hazard (turn signal) light bulb.

3. CHECK DTC.

1. Turn the ignition switch to ON and wait for at least 10 seconds.
2. Read the DTC of [Body Control] using the Subaru Select Monitor. Ref. to COMMON (DIAGNOSTICS)>Diagnostic Trouble Code (DTC).

Is DTC displayed?

Yes	Perform the diagnosis for the displayed DTCs. Ref. to BODY CONTROL(DIAGNOSTICS)>Diagnostic Trouble Code (DTC)>LIST.
No	Go to 4.

4. CHECK CURRENT DATA.

Using Subaru Select Monitor, display [Hazard switch Input] in [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display change as [OFF] ←→ [ON], when the hazard switch is turned from OFF to ON?

Yes — Go to 8.

No — Go to 5.

5. CHECK HAZARD SWITCH.

1. Turn the ignition switch to OFF.
2. Check the hazard switch. Ref. to LIGHTING SYSTEM>Hazard Switch>INSPECTION.

Is the hazard switch normal?

Yes — Go to 6.

No — Replace the hazard switch. Ref. to LIGHTING SYSTEM>Hazard Switch.

6. CHECK HARNESS.

1. Disconnect the connectors of body integrated unit and hazard switch.
2. Check the harness between body integrated unit and hazard switch.
   Connector & terminal
   (i82) No. 37 — (i137) No. 3:

Is harness normal?

Yes — Go to 7.

No — Repair or replace the defective part.

7. CHECK HARNESS.

Check the harness between the hazard switch connector and the chassis ground.

Connector & terminal

(i137) No. 2 — Chassis ground:

Is the resistance less than 10 Ω?

Yes

Check the body integrated unit and replace it if defective.

- Inspection: Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure.
- Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

No

Repair or replace the defective part.

8. CHECK CURRENT DATA.

Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Body Control].
Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

- [Left turn signal output]
- [Right turn signal output]

Does the display change as [OFF] ←→ [ON], when the hazard switch is turned from OFF to ON?

Yes

Go to 9.

No

Check the body integrated unit and replace it if defective.

- Inspection: Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure.
- Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

9. CHECK POWER SUPPLY.

1. Turn the ignition switch to OFF.
2. Disconnect the connector of body integrated unit.
3. Measure the voltage between the body integrated unit connector and chassis ground.
   Connector & terminal
   (B72) No. 4 (+) — Chassis ground (−):

Is the voltage 9 — 16 V?

Yes	Go to 10.
No	Check the power supply circuit. Ref. to BODY CONTROL(DIAGNOSTICS)>General Description>INSPECTION.

10. CHECK HARNESS.

1. Disconnect the connectors of body integrated unit and each turn signal light.
2. Check the harness between body integrated unit and each turn signal light.
   Connector & terminal
   Front turn signal light RH (model without SRH)
   (B71) No. 2 — (B121) No. 5:
   Front turn signal light LH (model without SRH)
   (B71) No. 8 — (B122) No. 5:
   Front turn signal light RH (model with SRH)
   (B71) No. 2 — (B121) No. 3:
   Front turn signal light LH (model with SRH)
   (B71) No. 8 — (B122) No. 3:
   Side turn signal light RH
   (i81) No. 5 — (Df55) No. 2:
   Side turn signal light LH
   (i81) No. 2 — (Df56) No. 2:
   Rear turn signal light RH
   (i81) No. 5 — (R131) No. 3:
   Rear turn signal light LH
   (i81) No. 2 — (L131) No. 3:

Is harness normal?

Yes	Go to 11.
No	Repair or replace the defective part.

11. CHECK HARNESS.

Check the harness between each turn light connector and the chassis ground.

Connector & terminal

Front turn signal light RH (model without SRH)

(B121) No. 6 — Chassis ground:

Front turn signal light LH (model without SRH)

(B122) No. 6 — Chassis ground:

Front turn signal light RH (model with SRH)

(B121) No. 4 — Chassis ground:

Front turn signal light LH (model with SRH)

(B122) No. 4 — Chassis ground:

Side turn signal light RH

(Df55) No. 10 — Chassis ground:

Side turn signal light LH

(Df56) No. 10 — Chassis ground:

Rear turn signal light RH

(R131) No. 2 — Chassis ground:

Rear turn signal light LH

(L131) No. 2 — Chassis ground:

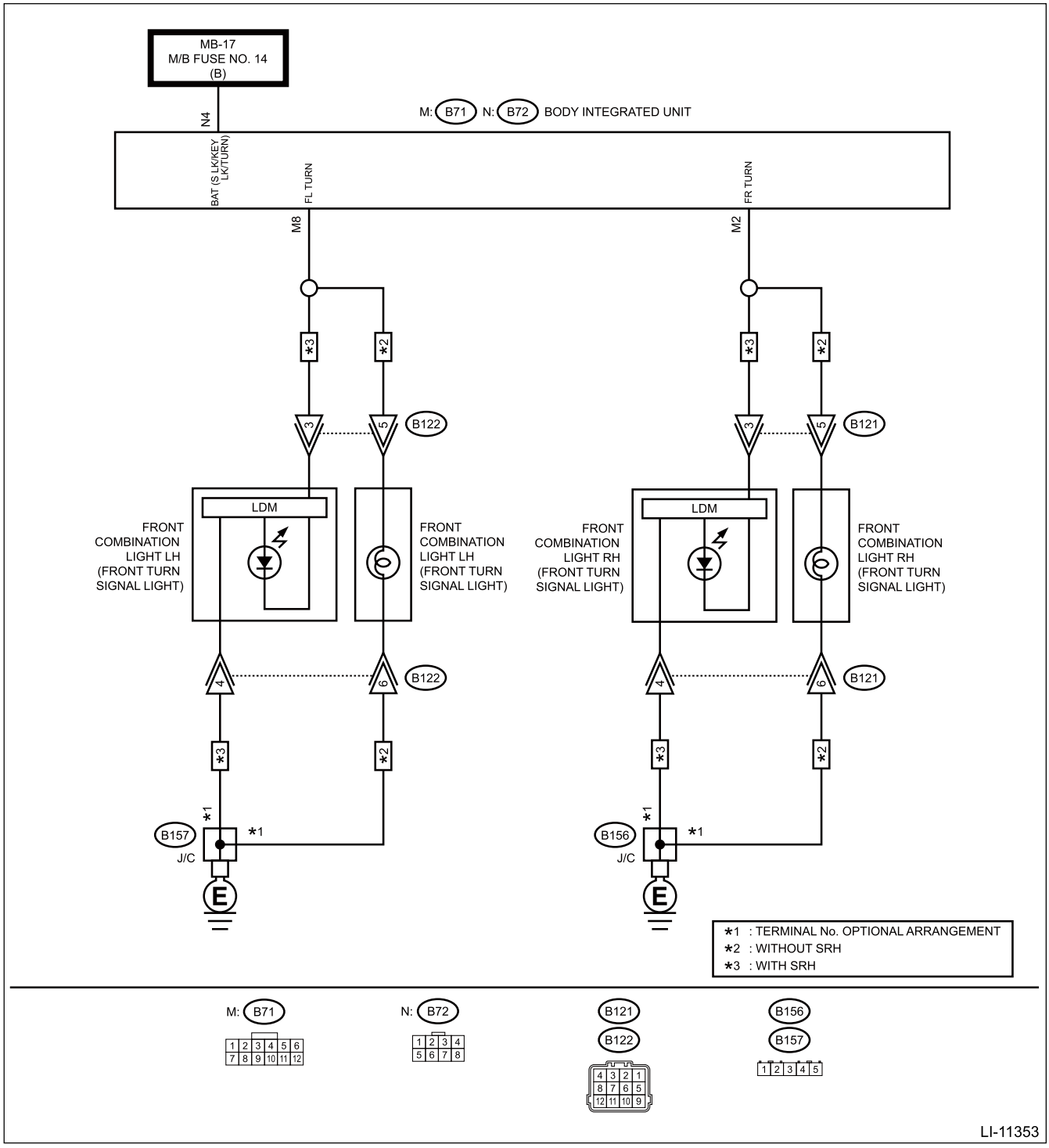
Is the resistance less than 10 Ω?

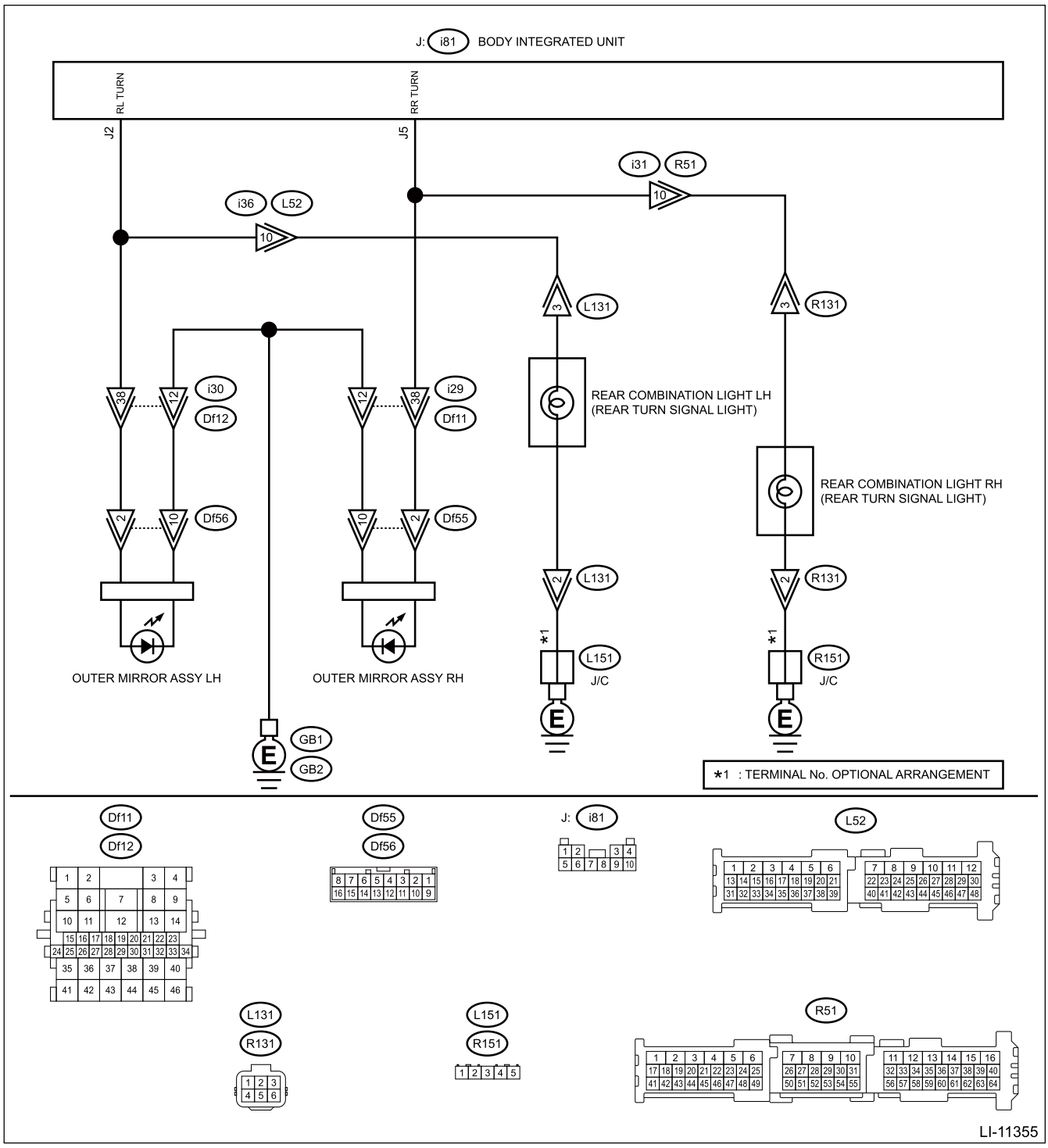
Yes	Check the body integrated unit and replace it if defective. • Inspection: Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure. • Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
No	Repair or replace the defective part.

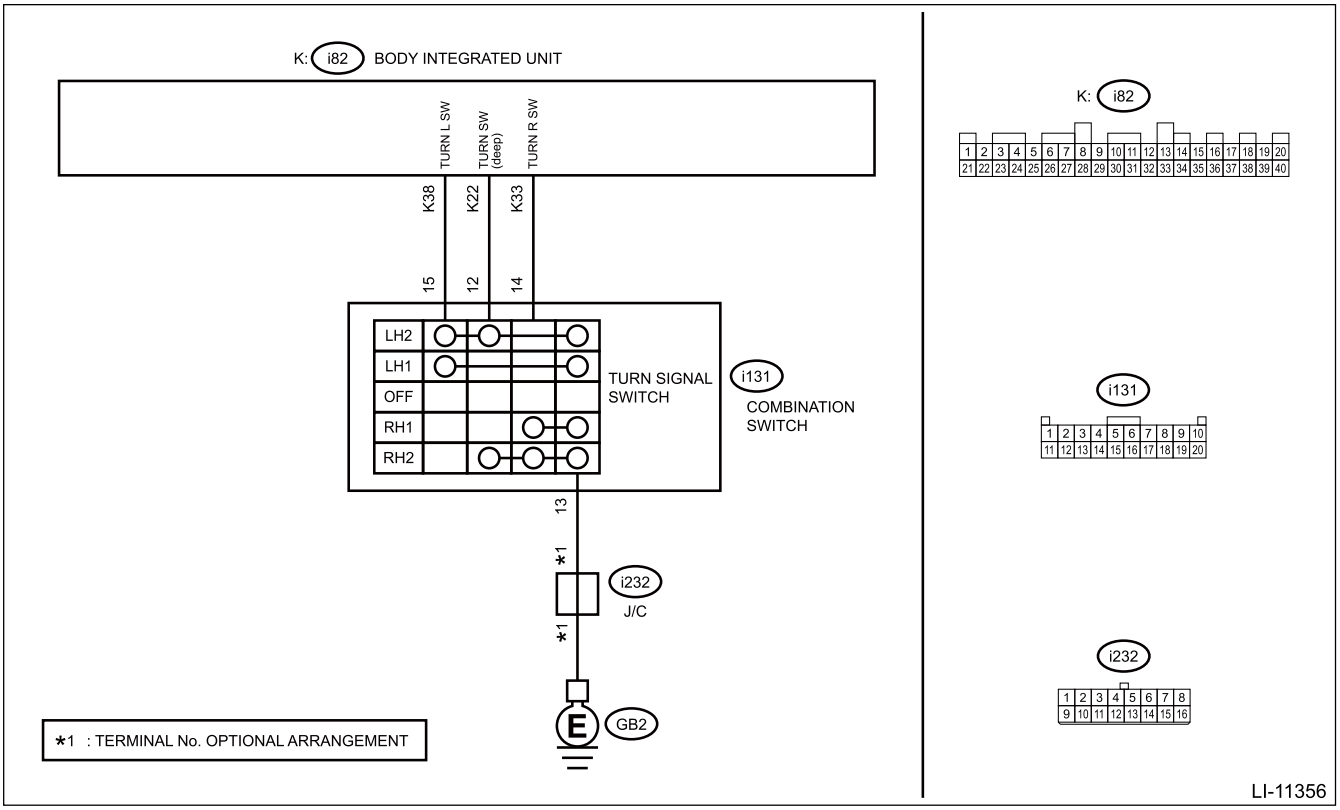
3. CHECK TURN SIGNAL LIGHT SYSTEM

Wiring diagram:

Turn signal and hazard light system Ref. to WIRING SYSTEM>Turn Signal Light and Hazard Light System>WIRING DIAGRAM.


MB-17
M/B FUSE NO. 14
(B)
N4
M: B71 N: B72 BODY INTEGRATED UNIT
BAT (S LK/KEY LK/TURN)
FL TURN
FR TURN
M8
M2
*3
*2
3
5
B122
B121
LDM
FRONT COMBINATION LIGHT LH (FRONT TURN SIGNAL LIGHT)
FRONT COMBINATION LIGHT RH (FRONT TURN SIGNAL LIGHT)
4
6
*1
B157
B156
J/C
E
*1 : TERMINAL No. OPTIONAL ARRANGEMENT
*2 : WITHOUT SRH
*3 : WITH SRH
M: B71
N: B72
B121
B122
B156
B157
LI-11353


J: i81 BODY INTEGRATED UNIT
RL TURN
RR TURN
J2
J5
i31
R51
i36
L52
L131
R131
i30
Df12
i29
Df11
Df56
Df55
REAR COMBINATION LIGHT LH
(REAR TURN SIGNAL LIGHT)
REAR COMBINATION LIGHT RH
(REAR TURN SIGNAL LIGHT)
OUTER MIRROR ASSY LH
OUTER MIRROR ASSY RH
L151
R151
J/C
GB1
GB2
*1 : TERMINAL No. OPTIONAL ARRANGEMENT
Df11
Df12
Df55
Df56
J: i81
L52
L131
R131
L151
R151
R51
LI-11355



Note:

Operate the appropriate switch according to the inspection condition.

1. CHECK TURN SIGNAL LIGHT OPERATION.

1. Turn the ignition switch to ON.
2. Turn the turn signal light switch LH and RH to ON.

Does the turn signal light blink?

Yes	The turn signal light system is normal.
No	Go to 2.

2. CHECK BULB.

Check the hazard (turn signal) light bulb.

Is the bulb normal?

Yes	Go to 3.
No	Replace the hazard (turn signal) light bulb.

3. CHECK POWER SUPPLY.

Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

- [BATT voltage (control)]
- [BATT voltage (BACKUP)]
- [IGN voltage]

Is the voltage 9 — 16 V?

Yes	Go to 4.
No	Check the body integrated unit and replace it if defective. • Inspection: Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure. • Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

4. CHECK DTC.

1. Turn the ignition switch to ON and wait for at least 10 seconds.
2. Read the DTC of [Body Control] using the Subaru Select Monitor. Ref. to COMMON (DIAGNOSTICS)>Diagnostic Trouble Code (DTC).

Is DTC displayed?

Yes	Perform the diagnosis for the displayed DTCs. Ref. to BODY CONTROL(DIAGNOSTICS)>Diagnostic Trouble Code (DTC)>LIST.
No	Go to 5.

5. CHECK CURRENT DATA.

Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Body Control].
Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

- [Left turn signal input]
- [Right turn signal input]
- [Turn Signal Deep Push Input]

Does the display change as [OFF] ←→ [ON], when the turn signal switch is turned from OFF to ON?

Yes	Go to 6.
No	Go to 7.

6. CHECK HARNESS.

1. Disconnect the connectors of body integrated unit and each turn signal light.
2. Check the harness between body integrated unit and each turn signal light.

Connector & terminal

Front turn signal light RH (model without SRH)
(B71) No. 2 — (B121) No. 5:

Front turn signal light LH (model without SRH)
(B71) No. 8 — (B122) No. 5:

Front turn signal light RH (model with SRH)
(B71) No. 2 — (B121) No. 3:

Front turn signal light LH (model with SRH)
(B71) No. 8 — (B122) No. 3:

Side turn signal light RH
(i81) No. 5 — (Df55) No. 2:

Side turn signal light LH
(i81) No. 2 — (Df56) No. 2:

Rear turn signal light RH
(i81) No. 5 — (R131) No. 3:

Rear turn signal light LH
(i81) No. 2 — (L131) No. 3:

Is harness normal?

Yes	Go to 7.
No	Repair or replace the defective part.

7. CHECK TURN SIGNAL SWITCH.

Check the turn signal switch. Ref. to LIGHTING SYSTEM>Combination Switch (Light)>INSPECTION.

Is the turn signal switch OK?

Yes	Go to 8.
No	Replace the combination switch (light). Ref. to LIGHTING SYSTEM>Combination Switch (Light).

8. CHECK HARNESS.

1. Turn the ignition switch to OFF.
2. Disconnect the connectors of body integrated unit and combination switch (light).
3. Check the harness between body integrated unit and combination switch (light).

Connector & terminal

(i82) No. 33 — (i131) No. 14:
(i82) No. 38 — (i131) No. 15:
(i82) No. 22 — (i131) No. 12:

Is harness normal?

Yes	Go to 9.
No	Repair or replace the defective part.

9. CHECK HARNESS.

Check the harness between the combination switch (light) connector and the chassis ground.

Connector & terminal

(i131) No. 13 — Chassis ground:

Is the resistance less than 10 Ω?

Yes

Check the body integrated unit and replace it if defective.

- Inspection: Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure.
- Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

No

Repair or replace the defective part.

4. CHECK LANE CHANGE SIGNAL FUNCTION

Note:

Operate the appropriate switch according to the inspection condition.

1. CHECK HAZARD LIGHT SYSTEM.

Check the hazard light system. Ref. to LIGHTING SYSTEM>Turn Signal Light and Hazard Light System>INSPECTION > CHECK HAZARD LIGHT OPERATION.

Is the hazard light system normal?

Yes

Go to 2.

No

Repair the hazard light system.

2. CHECK TURN SIGNAL LIGHT SYSTEM.

Check the turn signal light system. Ref. to LIGHTING SYSTEM>Turn Signal Light and Hazard Light System>INSPECTION > CHECK TURN SIGNAL LIGHT SYSTEM.

Is the turn signal light system normal?

Yes

Go to 3.

No

Repair the turn signal light system.

3. CHECK BODY INTEGRATED UNIT SETTING.

Using Subaru Select Monitor, display data of [Lane change signal setting] in [Customize] of [Body Control]. Ref. to BODY CONTROL(DIAGNOSTICS)>Customize.

Is the setting in the [Support]?

Yes

Check the body integrated unit and replace it if defective.

- Inspection: Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure.
- Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

No

Turn the setting to [Support].

5. CHECK TURN SIGNAL SWITCH

For the turn signal switch inspection, refer to "Combination Switch (Light)". Ref. to LIGHTING SYSTEM>Combination Switch (Light)>INSPECTION.

6. CHECK HAZARD SWITCH

For the hazard switch inspection, refer to "Hazard Switch". Ref. to LIGHTING SYSTEM>Hazard Switch>INSPECTION.

LIGHTING SYSTEM > Turn Signal Light and Hazard Light System

NOTE

For operation procedures of components of the turn signal and hazard light system, refer to the following sections.

- Headlight assembly: Ref. to LIGHTING SYSTEM>Headlight Assembly.
- Front turn signal light bulb: Ref. to LIGHTING SYSTEM>Front Turn Signal Light Bulb.
- Combination switch (light): Ref. to LIGHTING SYSTEM>Combination Switch (Light).
- Side turn signal light assembly: Ref. to LIGHTING SYSTEM>Side Turn Signal Light Assembly.
- Rear combination light assembly: Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly.
- Rear turn signal light bulb: Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly>DISASSEMBLY.
- Hazard switch: Ref. to LIGHTING SYSTEM>Hazard Switch.

LIGHTING SYSTEM > Back-up Light System

WIRING DIAGRAM

For the wiring diagram, refer to “Back-up Light System” in the wiring diagram. Ref. to WIRING SYSTEM>Back-up Light System>WIRING DIAGRAM.

LIGHTING SYSTEM > Back-up Light System

INSPECTION

1. CHECK BACK-UP LIGHT SWITCH (MT model)

For the back-up light switch inspection, refer to “Back-up Light Switch” in the “MANUAL TRANSMISSION & DIFFERENTIAL” section. Ref. to MANUAL TRANSMISSION AND DIFFERENTIAL(TY75)>Switches and Harness>INSPECTION > BACK-UP LIGHT SWITCH.

2. CHECK INHIBITOR SWITCH (CVT MODEL)

For the inhibitor switch inspection, refer to “Inhibitor Switch” in “CONTINUOUSLY VARIABLE TRANSMISSION” section. Ref. to CONTINUOUSLY VARIABLE TRANSMISSION(TR690)>Inhibitor Switch>INSPECTION.

LIGHTING SYSTEM > Back-up Light System

NOTE

For operation procedures of components of the back-up light system, refer to “Rear Combination Light Assembly”. Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly.

LIGHTING SYSTEM > Stop Light System

WIRING DIAGRAM

For the wiring diagram, refer to “Stop Light System” in the wiring diagram. Ref. to WIRING SYSTEM>Stop Light System>WIRING DIAGRAM.

LIGHTING SYSTEM > Stop Light System

INSPECTION

1. CHECK STOP LIGHT SWITCH

For the stop light switch inspection, refer to “Stop Light Switch” in the “BRAKE” section. Ref. to BRAKE>Stop Light Switch>INSPECTION.

2. STOP LIGHT CHECK

For the stop light inspection, refer to the following sections.

- Rear combination light assembly: Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly>INSPECTION.
- High-mounted stop light: Ref. to LIGHTING SYSTEM>High-mounted Stop Light>INSPECTION.

LIGHTING SYSTEM > Stop Light System

NOTE

For operation procedures of components of the stop light system, refer to the following sections.

- Rear combination light assembly: Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly.
- High-mounted stop light: Ref. to LIGHTING SYSTEM>High-mounted Stop Light.
- Stop light switch: Ref. to BRAKE>Stop Light Switch.

WIRING DIAGRAM

For the wiring diagram, refer to “Interior Light System” in the wiring diagram. Ref. to WIRING SYSTEM>Interior Light System>WIRING DIAGRAM.

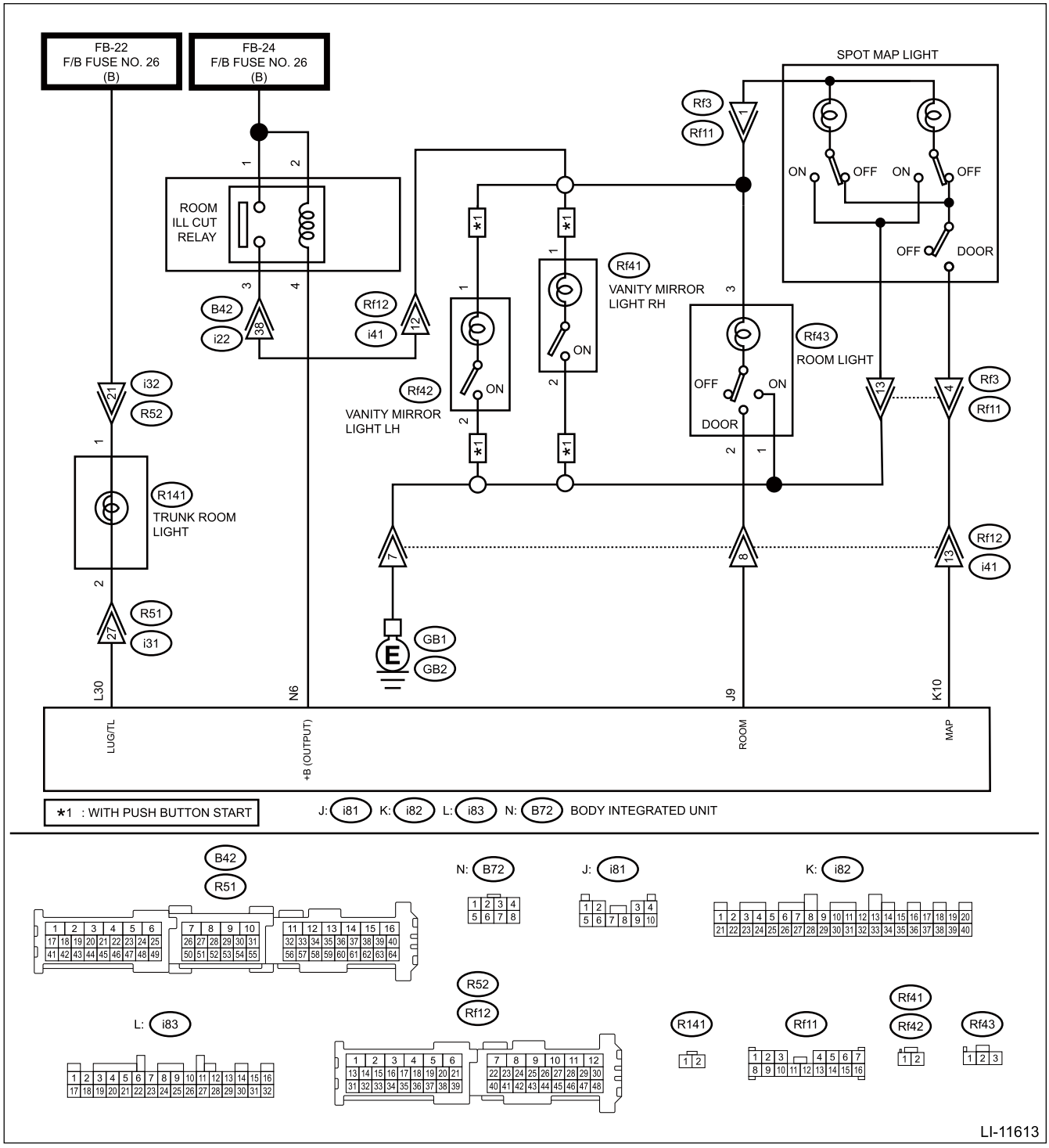
INSPECTION

1. TROUBLE SYMPTOM

Spot map light, room light, trunk room light, or vanity mirror light does not illuminate.

Wiring diagram:

Interior light system Ref. to WIRING SYSTEM>Interior Light System>WIRING DIAGRAM.



Note:

Operate the appropriate switch according to the inspection condition.

1. CHECK INTERIOR LIGHT ILLUMINATION.

Note:
Perform the check from step 2 since there is no ON position for the trunk room light.

1. Turn the interior light switch to ON.
2. Open and close any door.
3. Check that the interior light operates properly. When checking the vanity mirror light, open the vanity mirror cover.

Does the interior light illuminate?

Yes	Go to 8.
No	Go to 2.

2. CHECK THE LIGHTS.

1. Disconnect the connector of the light which did not illuminate.
2. Check between the connector terminals of the light (ON position).
   Connector & terminal
   Spot map light
   (Rf3) No. 1 — (Rf3) No. 13:
   Room light
   (Rf43) No. 3 — (Rf43) No. 1:
   Vanity mirror light LH
   (Rf42) No. 1 — (Rf42) No. 2:
   Vanity mirror light RH
   (Rf41) No. 1 — (Rf41) No. 2:
3. Check between the connector terminals of light (door position).
   Connector & terminal
   Spot map light
   (Rf3) No. 1 — (Rf3) No. 4:
   Room light
   (Rf43) No. 3 — (Rf43) No. 2:
4. Check between the connector terminals of trunk room light.
   Connector & terminal
   (R141) No. 1 — (R141) No. 2:

- Is the resistance less than 1 Ω? (Except for spot map light)
- Is the resistance approximately 18 Ω? (Spot map light)

Yes

Spot map light, room light and vanity mirror light:
Go to 3.
Trunk room light:
Go to 8.

No

Repair or replace the light.

3. CHECK FUSE AND RELAY.

Check the F/B fuse No. 26 and the room light cut relay. Ref. to LIGHTING SYSTEM>Relay and Fuse>INSPECTION.

Are the fuse and relay normal?

Yes

Go to 4.

No

Replace the fuse or relay.

4. CHECK CONNECTOR.

Check the connecting condition of connector.

Is the connector firmly installed?

Yes — Go to 5.

No — Repair or replace the defective part.

5. CHECK HARNESS.

1. Disconnect the connector of the light which did not illuminate.
2. Check the harnesses between light (ON position) connector and chassis ground.

Connector & terminal

Spot map light

(Rf11) No. 13 — Chassis ground:

Room light

(Rf43) No. 1 — Chassis ground:

Vanity mirror light LH

(Rf42) No. 2 — Chassis ground:

Vanity mirror light RH

(Rf41) No. 2 — Chassis ground:

Is the resistance less than 10 Ω?

Yes — Go to 6.

No — Repair or replace the defective part.

6. CHECK HARNESS.

Check the harness between the room light cut relay, the light, and the body integrated unit.

Connector & terminal

Spot map light

Room light cut relay No. 3 — (Rf11) No. 1:

Room light

Room light cut relay No. 3 — (Rf43) No. 3:

Vanity mirror light LH

Room light cut relay No. 3 — (Rf42) No. 1:

Vanity mirror light RH

Room light cut relay No. 3 — (Rf41) No. 1:

Body integrated unit

Room light cut relay No. 4 — (B72) No. 6:

Is harness normal?

Yes	Go to 7.
No	Repair or replace the defective part.

7. CHECK HARNESS.

Check the harness between the F/B fuse No. 26 (downstream side) and the room light cut relay.

Connector & terminal

Contact side of the room light cut relay

F/B fuse No. 26 (downstream side) — Room light cut relay No. 1:

Coil side of the room light cut relay

F/B fuse No. 26 (downstream side) — Room light cut relay No. 2:

Is harness normal?

Yes	The interior light system is normal.
No	Repair or replace the defective part.

8. CHECK OPERATION.

1. Turn the interior light switch to the DOOR position.

Note:
The trunk room light is not provided with a switch.

2. Open a door or trunk lid.
   - Check the spot map light or interior light: Open any door.
   - Check the trunk room light: Open the trunk lid.

Does the interior light illuminate?

Yes	The interior light system is normal.
No	Go to 9.

9. CHECK CURRENT DATA.

Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Body Control].
Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

- [Room lamp output]
- [Map lamp output]
- [Luggage/Trunk lamp output]
- [Driver's door SW input]
- [P-door SW input]
- [Rear right door SW input]
- [Rear left door SW input]
- [R Gate SW input]

Does the display switch between [OFF] ⟷ [ON] when a door or trunk lid is opened/closed?
Is [ON] displayed for [Room lamp output], [Map lamp output], and [Luggage/Trunk lamp output]?

Yes	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
No	Go to 10.

10. CHECK HARNESS.

Check the harness between the light connector, the room light cut relay, and the body integrated unit.

Connector & terminal

Spot map light

(Rf11) No. 4 — (i82) No. 10:

Room light

(Rf43) No. 2 — (i81) No. 9:

Trunk room light

(R141) No. 2 — (i83) No. 30:

Vanity mirror light LH

Room light cut relay No. 3 — (Rf42) No. 1:

Vanity mirror light RH

Room light cut relay No. 3 — (Rf41) No. 1:

Body integrated unit

Room light cut relay No. 4 — (B72) No. 6:

Is harness normal?

Yes	The interior light system is normal. (Except for trunk room light) For trunk room light, check the harness. Go to 11.
No	Check the door switch and harness.

11. CHECK HARNESS.

Check the harness between the F/B fuse No. 26 (downstream side) and the trunk room light.

Connector & terminal

Trunk room light

F/B fuse No. 26 (downstream side) — (R141) No. 1:

Is harness normal?

Yes	The interior light system is normal.
No	Check the door switch and harness.

2. CHECK DOOR SWITCH

For the door switch inspection, refer to “Door Switch”. Ref. to LIGHTING SYSTEM>Door Switch>INSPECTION.

3. CHECK TRUNK LID LATCH SWITCH

For the inspection of the trunk lid latch switch, refer to “Trunk Lid Latch and Actuator Assembly” in the “SECURITY AND LOCKS” section. Ref. to SECURITY AND LOCKS>Trunk Lid Latch and Actuator Assembly>INSPECTION.

LIGHTING SYSTEM > Interior Light System

NOTE

For operation procedures of components of the interior light system, refer to the following sections.

- Spot map light: Ref. to LIGHTING SYSTEM>Spot Map Light.
- Room light: Ref. to LIGHTING SYSTEM>Room Light.
- Trunk room light: Ref. to LIGHTING SYSTEM>Trunk Room Light.
- LED illumination light: Ref. to LIGHTING SYSTEM>LED Illumination Light.
- Vanity mirror light: Ref. to LIGHTING SYSTEM>Vanity Mirror Light.
- Door switch: Ref. to LIGHTING SYSTEM>Door Switch.
- Trunk lid: Ref. to EXTERIOR BODY PANELS>Trunk Lid.

LIGHTING SYSTEM > Auto Headlight Beam Leveler System

WIRING DIAGRAM

For the wiring diagram, refer to “Headlight Beam Leveler System” in the wiring diagram. Ref. to WIRING SYSTEM>Headlight Beam Leveler System>WIRING DIAGRAM.

LIGHTING SYSTEM > Auto Headlight Beam Leveler System

INSPECTION

1. BASIC INSPECTION

For basic inspection, refer to “Basic Diagnostic Procedure” in “HEADLIGHT / FOGLIGHT (DIAGNOSTICS)”.
Ref. to HEADLIGHT / FOGLIGHT(DIAGNOSTICS)>Basic Diagnostic Procedure.

2. SYSTEM BLOCK DIAGRAM

For system block diagram, refer to “System Block Diagram” in “HEADLIGHT / FOGLIGHT (DIAGNOSTICS)”.
Ref. to HEADLIGHT / FOGLIGHT(DIAGNOSTICS)>General Description>SYSTEM BLOCK DIAGRAM.

3. MODULE I/O SIGNAL

For the specification (electrical component), refer to “Control Module I/O Signal” in “HEADLIGHT / FOGLIGHT (DIAGNOSTICS)”. Ref. to HEADLIGHT / FOGLIGHT(DIAGNOSTICS)>Control Module I/O Signal>ELECTRICAL SPECIFICATION.

PROCEDURE

Caution:

If any of the following conditions is met, the headlight beam may deviate. Perform reinitialization or fuse resetting before adjusting the beam level using the aiming screw.

- **Difference has occurred to the angle of road surface between when the ignition switch is turned to OFF and when the ignition switch is turned to ON.**
- **Difference has occurred to the angle of road surface when the ignition switch is ON and the vehicle speed is 0 km/h (0 MPH).**

Note:

If the indicator does not flash 3 times or the headlight beam does not operate even if initialization or reinitialization is performed, it can be assumed that there is an open circuit or faulty wiring in the harness of the auto headlight beam leveler CM, or headlight assembly. Perform inspection and repairs according to the inspection results. Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler System>INSPECTION.

Before performing initialization or reinitialization, check the following:

- The vehicle is parked on a level surface.
- The inflation pressure of tires is correct.
- The vehicle does not have load.
- Vehicle's fuel tank is fully filled.

Perform each work in the following cases.

Operation	Condition	Reference
Initialization	When the auto headlight beam leveler CM was replaced with a new module.	Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler System>PROCEDURE > INITIALIZATION.
Reinitialization	• When the auto headlight beam leveler CM has been removed and installed. • When rectifying beam level deviation and before adjusting the beam level using the aiming screw.	Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler System>PROCEDURE > REINITIALIZATION.
Fuse reset	When rectifying beam level deviation and before adjusting the beam level using the aiming screw.	Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler System>PROCEDURE > FUSE RESET.

1. INITIALIZATION

1. Install the delivery mode fuse. Ref. to PRE-DELIVERY INSPECTION>PRE-DELIVERY INSPECTION (PDI) PROCEDURE > DELIVERY MODE.
2. Turn the ignition switch to ON and check that the indicator in the meter is flashing twice repeatedly.
3. Turn the ignition switch to OFF.
4. Bounce the vehicle several times to normalize the suspension.
5. Make certain that someone is seated in the driver's seat.

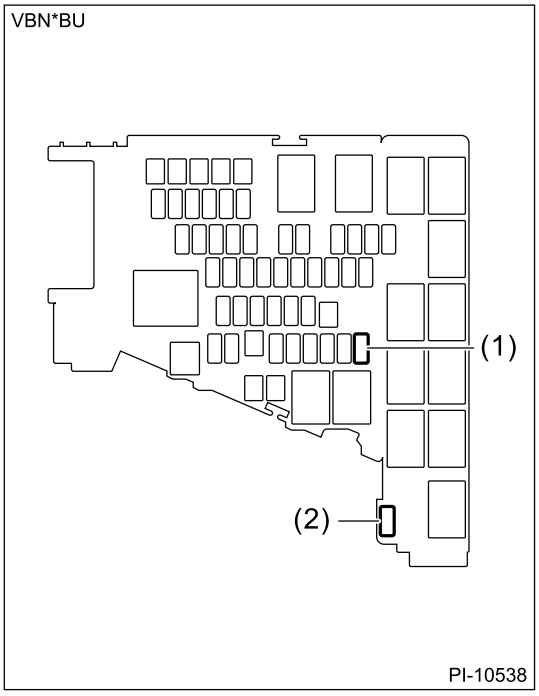
6. Turn the ignition switch to ON, and within 1.5 to 20 seconds, turn the headlight switch OFF → ON three times.
7. Make sure that the indicator in the meter flashes three times and then turns OFF, indicating that initialization has been successfully completed. (At this time, the headlight beam drops once, and then returns to the original position.)
8. Remove the delivery mode fuse.
9. Perform beam adjustment for the headlight. Ref. to LIGHTING SYSTEM>Headlight Assembly>ADJUSTMENT.

2. REINITIALIZATION

1. Install the delivery mode fuse. Ref. to PRE-DELIVERY INSPECTION>PRE-DELIVERY INSPECTION (PDI) PROCEDURE > DELIVERY MODE.
2. Bounce the vehicle several times to normalize the suspension.
3. Make certain that someone is seated in the driver's seat.
4. Turn the ignition switch to ON, and within 1.5 to 10 seconds, turn the headlight switch OFF → ON five or more successive times.
5. Check that the headlight beam drops once, then returns to normal.
6. After confirming step 5., turn the ignition switch to OFF (ACC OFF) within 30 seconds.
7. Turn the ignition switch to ON again, and within 1.5 to 10 seconds, turn the headlight switch OFF → ON five or more successive times.
8. Make sure that the indicator in the meter flashes three times and then turns OFF, indicating that reinitialization has been successfully completed. (At this time, the headlight beam drops once, and then returns to the original position.)
9. Remove the delivery mode fuse.
10. Perform beam adjustment for the headlight. Ref. to LIGHTING SYSTEM>Headlight Assembly>ADJUSTMENT.

3. FUSE RESET

1. Park the vehicle on a level ground.
2. Turn the ignition switch to OFF and remove the delivery mode fuse from the position (1).
3. Install the delivery mode fuse in the position (2) and then turn the ignition switch to ON.
4. Turn the ignition switch to OFF, install the delivery mode fuse in the position (1), and start the engine.



(1) Delivery mode fuse inlet

(2) Delivery mode fuse holder

LIGHTING SYSTEM > Auto Headlight Beam Leveler System

NOTE

For operation procedures of components of the auto headlight beam leveler system, refer to the sections below.

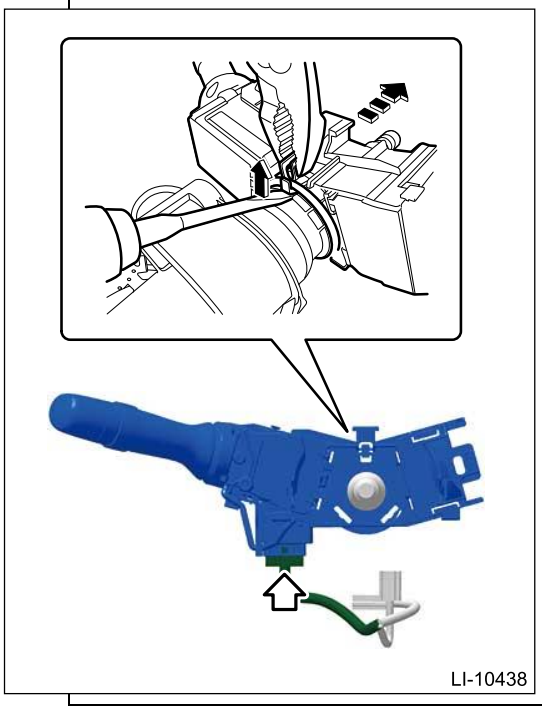
- Headlight assembly: Ref. to LIGHTING SYSTEM>Headlight Assembly.
- Auto headlight beam leveler CM: Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler Control Module.

REMOVAL

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Set the steering wheel to the straight-ahead position.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the driver's airbag module. Ref. to AIRBAG SYSTEM>Driver's Airbag Module>REMOVAL.
4. Remove the steering wheel assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Wheel>REMOVAL.
5. Remove the column cover assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Column>REMOVAL.
6. Remove the steering roll connector. Ref. to AIRBAG SYSTEM>Roll Connector>REMOVAL.
7. Remove the switch assembly combination wiper. Ref. to WIPER AND WASHER SYSTEMS>Combination Switch (Wiper)>REMOVAL.
8. Remove the switch assembly combination turn dimmer.
   (1) Disconnect the connector.
   (2) Using pliers, loosen the clamp.
   (3) With the clamp loosened, release the claw using a flat tip screwdriver wrapped with protective tape, and remove the switch assembly combination turn dimmer.

Caution:
Do not pry off forcibly. Otherwise, the claws may be damaged.



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.**
- **If the steering wheel has been removed, make sure that the steering roll connector is not turned from the original position.**

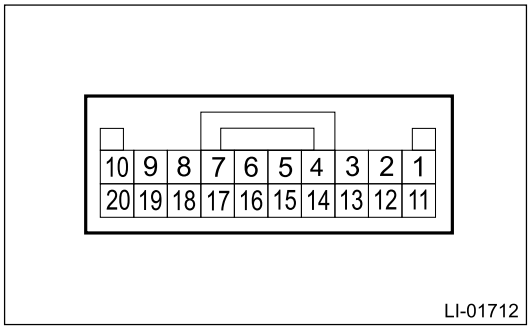
1. Install the switch assembly combination turn dimmer.
   (1) Using pliers, loosen the clamp.
   (2) With the clamp loosened, insert so that the cutout of the column assembly steering and the claw of the switch assembly combination turn dimmer are aligned, and then engage them.
   (3) Install the clamp, and connect the connector.

   Note:
   When replacing with a new part, engage the claw first, and then pull out the securing pin of the clamp.
2. Install the switch assembly combination wiper. Ref. to WIPER AND WASHER SYSTEMS>Combination Switch (Wiper)>INSTALLATION.
3. Align the center position of the steering roll connector. Ref. to AIRBAG SYSTEM>Roll Connector>ADJUSTMENT.
4. Install the steering roll connector. Ref. to AIRBAG SYSTEM>Roll Connector>INSTALLATION.
5. Install the column cover assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Column>INSTALLATION.
6. Install the steering wheel assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Wheel>INSTALLATION.
7. Install the driver's airbag module. Ref. to AIRBAG SYSTEM>Driver's Airbag Module>INSTALLATION.
8. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
9. Perform "VDC sensor midpoint setting mode". Ref. to VEHICLE DYNAMICS CONTROL (VDC)>VDC Control Module and Hydraulic Control Unit (VDCCM&H/U)>ADJUSTMENT > VDC SENSOR MIDPOINT SETTING MODE.

LIGHTING SYSTEM > Combination Switch (Light)

INSPECTION

Measure the resistance between connector terminals. If it is not within the standard value, replace the switch assembly combination turn dimmer.



1. LIGHTING SWITCH

- Other than for C0

Terminal No.	Inspection conditions	Standard
18 — 13 19 — 13 20 — 13	Switch OFF	1 MΩ or more
19 — 13	Switch AUTO	Less than 1 Ω
18 — 13	Switch 1 (TAIL)	Less than 1 Ω
18 — 13 20 — 13	Switch 2 (HEAD)	Less than 1 Ω

- For C0

Terminal No.	Inspection conditions	Standard
18 — 13	Switch OFF	Less than 1 Ω
18 — 13 19 — 13 20 — 13	Switch AUTO	1 MΩ or more
19 — 13	Switch 1 (TAIL)	Less than 1 Ω
19 — 13 20 — 13	Switch 2 (HEAD)	Less than 1 Ω

2. DIMMER & PASSING SWITCH

Terminal No.	Inspection conditions	Standard
17 — 13	Switch PASS	Less than 1 Ω
16 — 13	Switch UP	Less than 1 Ω

3. TURN SIGNAL SWITCH

Terminal No.	Inspection conditions	Standard
14 — 13	Switch TURN RH1	Less than 1 Ω
12 — 13 14 — 13	Switch TURN RH2	Less than 1 Ω
15 — 13	Switch TURN LH1	Less than 1 Ω
12 — 13 15 — 13	Switch TURN LH2	Less than 1 Ω

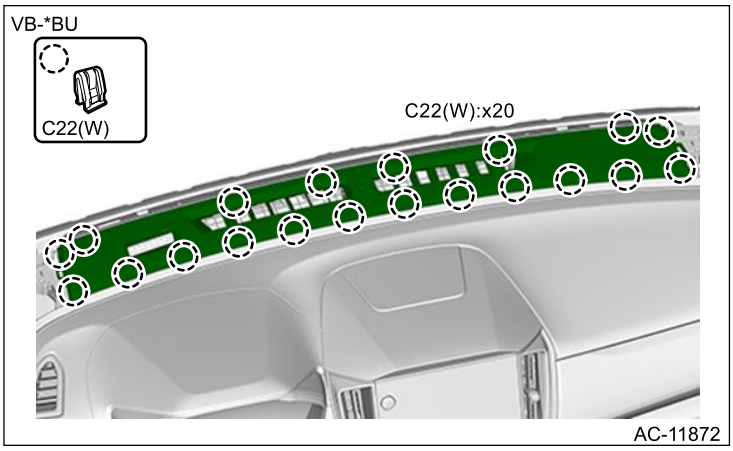
4. FRONT FOG LIGHT SWITCH

Terminal No.	Inspection conditions	Standard
4 — 3	Switch OFF	1 MΩ or more
	Switch ON	Less than 1 Ω

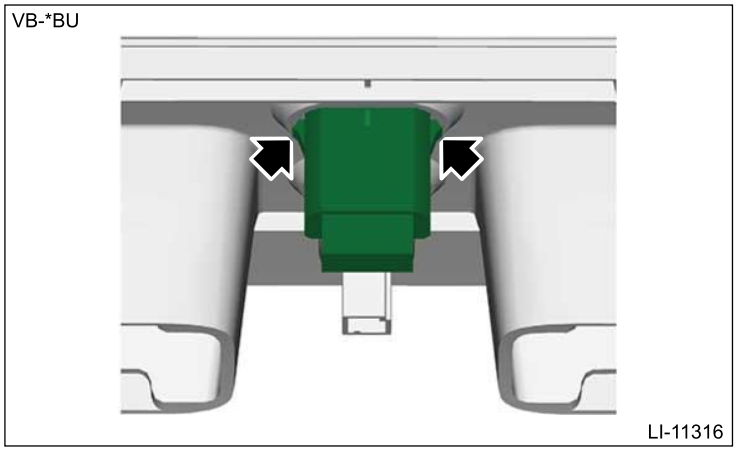
LIGHTING SYSTEM > Light Control Sensor

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the grille speaker side. Ref. to ENTERTAINMENT & MONITORING>Front Speaker>REMOVAL > TWEETER.
3. Remove the grille front defroster.
   (1) Release the clips.



   (2) Disconnect the connector and remove the grille front defroster.
4. Disconnect the claws and then remove the auto light sensor.



LIGHTING SYSTEM > Light Control Sensor

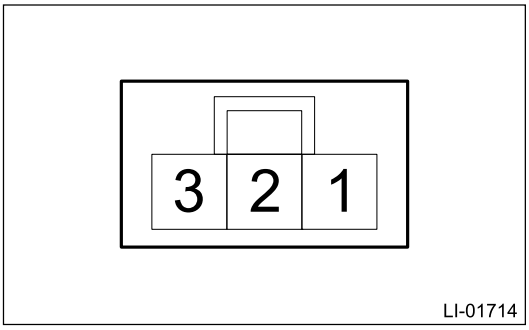
INSTALLATION

1. Install the auto light sensor.
2. Connect the connector, and install the grille front defroster.
3. Install the grille speaker side. Ref. to ENTERTAINMENT & MONITORING>Front Speaker>INSTALLATION > TWEETER.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

LIGHTING SYSTEM > Light Control Sensor

INSPECTION

1. Connect the connector.
2. Turn the ignition switch to ON, and set the lighting switch to the AUTO position.
3. Measure the voltage between connector terminals.



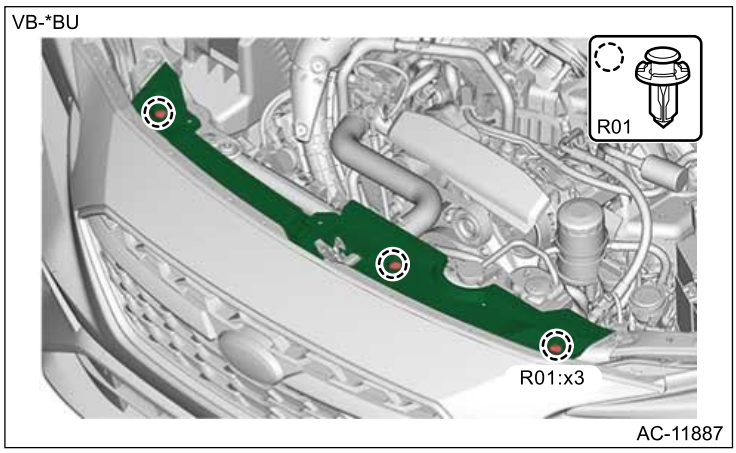
Terminal No.	Inspection conditions	Standard
2 (+) — 1 (−)	Measure the voltage when the area around the auto light sensor, which was dark, becomes bright.	Dark condition: Approx. 0.6 V or less
		Bright condition: Approx. 3 V or more

4. Replace the auto light sensor if the inspection result is not within the standard value.

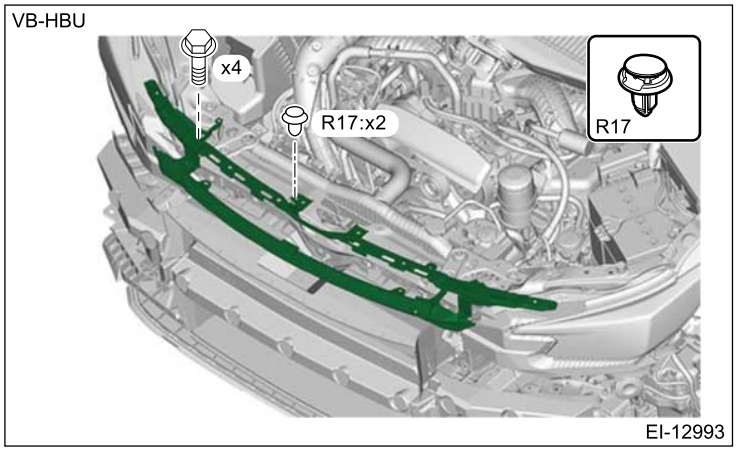
REMOVAL

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 perform work with wet hands, because there is a possibility of electrical shock.**

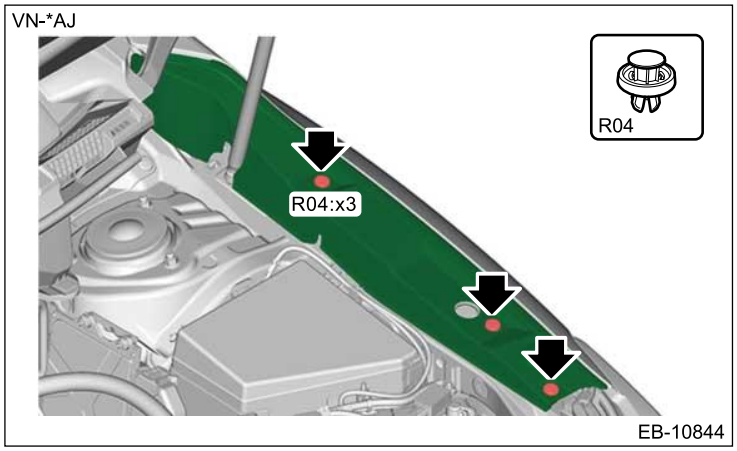
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the air intake duct. Ref. to INTAKE (INDUCTION)(H4DOTC)>Air Intake Duct>REMOVAL.
3. Remove the clips, and remove the cover UPR front.



4. Remove the bumper face front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL.
5. Remove the bolts and clips, and remove the energy absorber plate UPR.

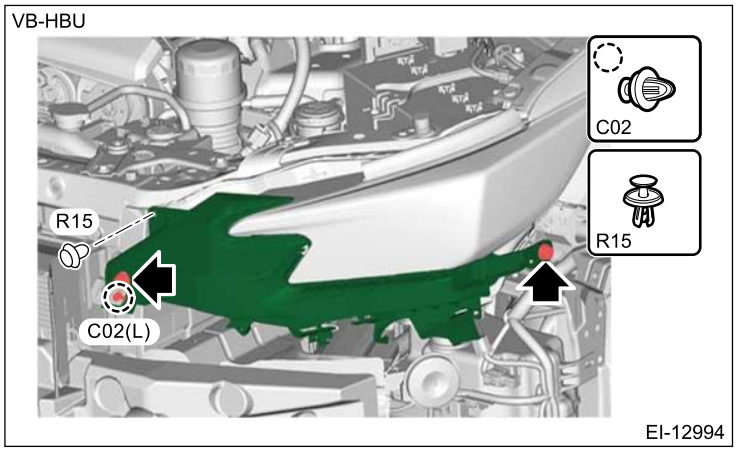


6. Remove the clip, and remove the cover fender UPR.



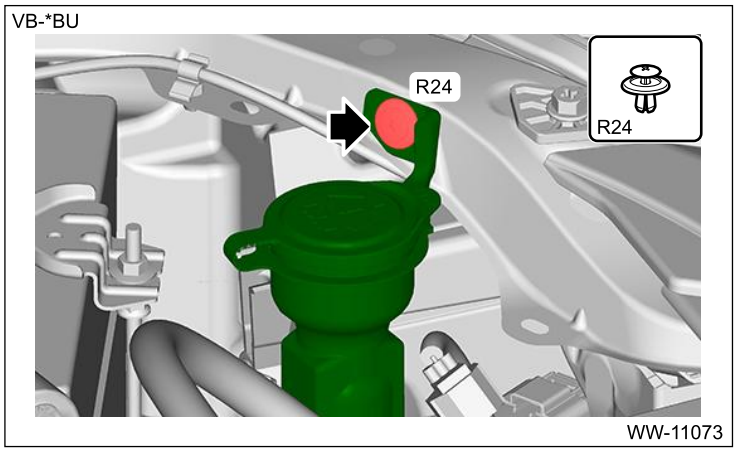
7. Remove the access buzzer. (When the light assembly head on the left side is removed) Ref. to SECURITY AND LOCKS>Access Buzzer>REMOVAL.

8. Remove the bolts and clips, and remove the bracket corner front.



9. Remove the clip of the washer tank hose. (When the light assembly head on the left side is removed)

Note:
In order to make it easier to access the light assembly head connector, place the washer tank hose aside so that it does not interfere with work.

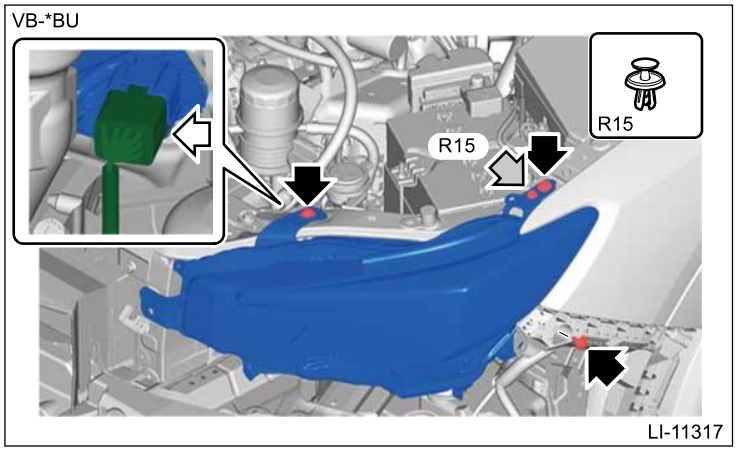


10. Remove the light assembly head.

Caution:
Be careful not to damage the headlight assembly and the fender COMPL front.

(1) Disconnect the connector.

(2) Remove the bolts and clips, and remove the light assembly head.



LIGHTING SYSTEM > Headlight Assembly

INSTALLATION

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Before installing the headlight assembly, check the condition of seal rubber and cap. If any damage is found, replace the seal rubber and cap with new parts. Ref. to LIGHTING SYSTEM>Headlight Assembly>REPLACEMENT.**

1. Install the light assembly head, and then connect the connector.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
2. Install the bracket corner front.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
3. Install the washer tank hose. (When the light assembly head on the left side is removed)
4. Install the access buzzer. (When the light assembly head on the left side is removed) Ref. to SECURITY AND LOCKS>Access Buzzer>INSTALLATION.
5. Install the cover fender UPR.
6. Install the energy absorber plate UPR.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
7. Install the bumper face front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>INSTALLATION.
8. Install the cover UPR front.
9. Install the air intake duct. Ref. to INTAKE (INDUCTION)(H4DOTC)>Air Intake Duct>INSTALLATION.
10. Check and adjust the clearance between the hood COMPL front and the light assembly head. Ref. to EXTERIOR BODY PANELS>Front Hood>ADJUSTMENT.
11. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
12. Adjust the headlight beam and fog light beam.
    - Adjust the headlight beam. Ref. to LIGHTING SYSTEM>Headlight Assembly>ADJUSTMENT > HEADLIGHT BEAM ADJUSTMENT.
    - Adjust the fog light beam. Ref. to LIGHTING SYSTEM>Front Fog Light Assembly>ADJUSTMENT > FOG LIGHT AIMING.

REPLACEMENT

1. SEAL RUBBER

1. Remove the hood seal rubber while pulling the rubber. Be careful not to tear the rubber.

Caution:
- **Be careful not to damage the surface of headlight assembly during operation.**
- **Do not reuse hood seal rubber.**

2. Remove the double-sided tape remaining on the headlight assembly side, then clean the adhesive surface.

Caution:
Do not use any solvents that may damage the headlight assembly lenses.

Note:
If even a slight amount of double-sided tape remains on the adhesive surface, it may lead to improper adhesion.

3. Degrease the mounting surface of the hood seal rubber.
4. Attach the hood seal rubber.

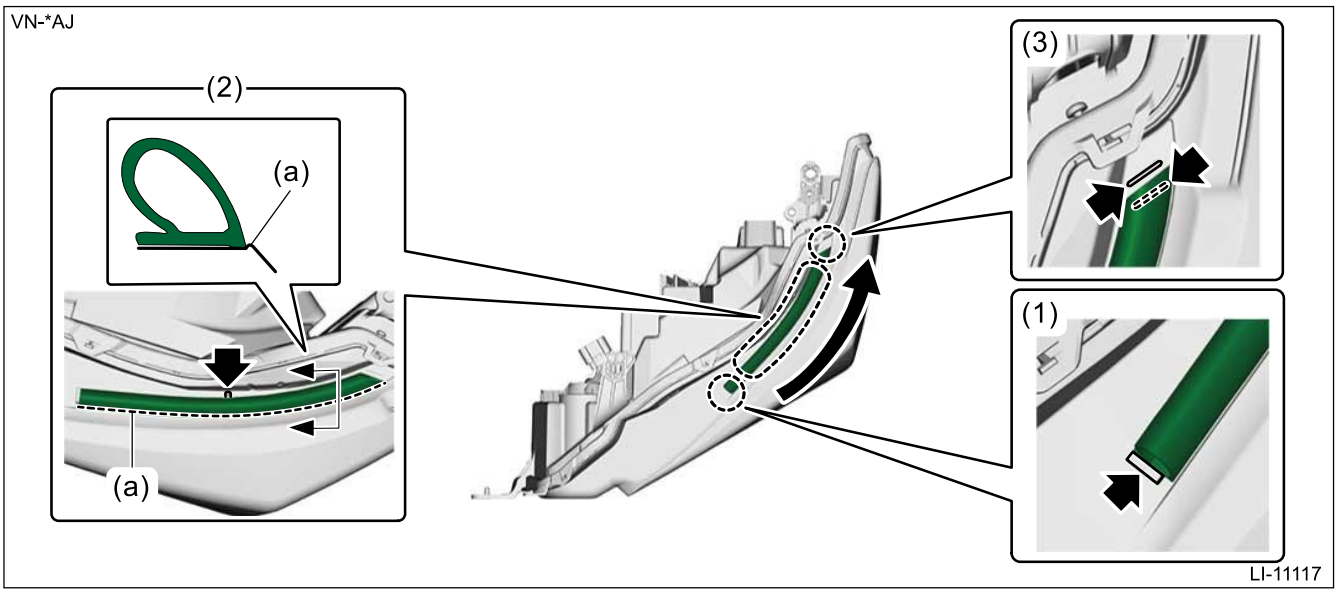
Note:
Attach the hood seal rubber so that the double-sided tape does not detach from the headlight assembly.

(1) Make the hood seal rubber come into contact with the ribs.

(2) When attaching the hood seal rubber, make sure that the ribs fit in the cutout portions.

Note:
- **Attach it in the arrow direction.**
- **Make sure that the hood seal rubber does not ride on the corner (a) of the attaching surface.**

(3) Attach the hood seal rubber so that it comes in between the two ribs.



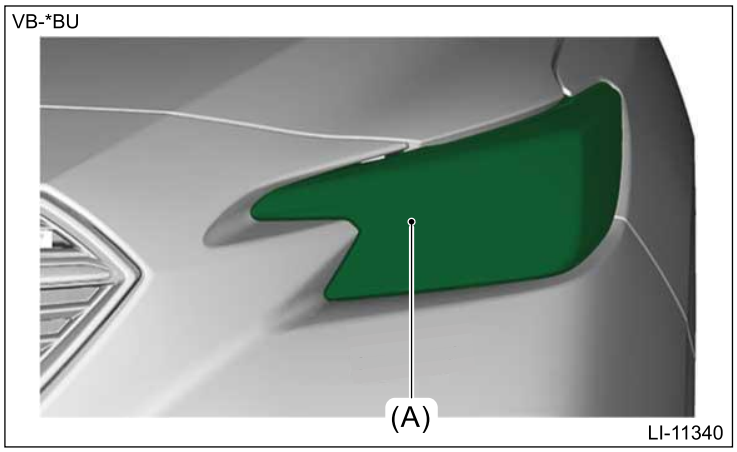
ADJUSTMENT

1. HEADLIGHT BEAM ADJUSTMENT

Caution:

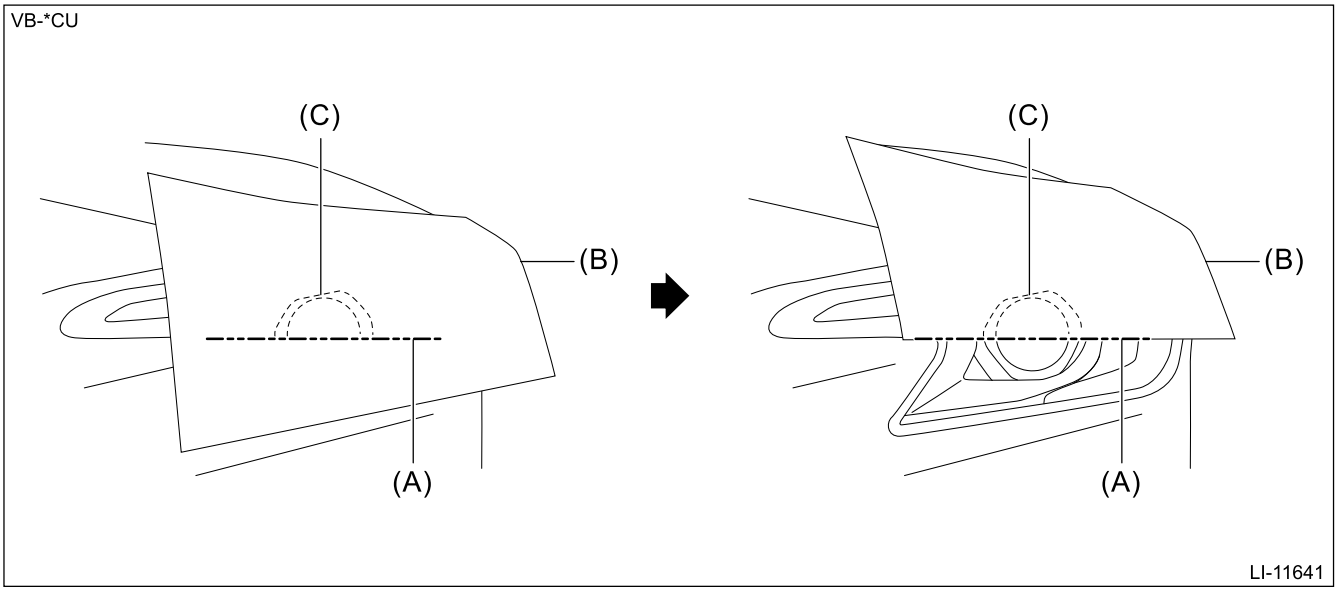
- **Turn off the light before adjusting the headlight beam level. If it is necessary to inspect the beam level, do not keep the light on for two minutes or more.**
- **When blocking the light emitted from the headlight, use a light shield or equivalent. Do not apply the tape on the lens or place the cloth over it. It may raise the temperature in the light and cause deformation/bubble formations of the plastic lens.**
- **If any of the following conditions is met, the headlight beam may deviate. Perform reinitialization or fuse resetting before adjusting the beam level using the aiming screw.** **Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler System>PROCEDURE.**
  - **– Difference has occurred to the angle of road surface between when the ignition switch is turned to OFF and when the ignition switch is turned to ON.**
  - **– Difference has occurred to the angle of road surface when the ignition switch is ON and the vehicle speed is 0 km/h (0 MPH).**

1. Before checking the headlight beam level, be sure of the following:
   - Check the area around the headlight for any scratches, damage or other type of deformation.
   - The vehicle is parked on a level surface.
   - The inflation pressure of tires is correct.
   - The vehicle does not have load.
   - Vehicle's fuel tank is fully filled.
2. Bounce the vehicle several times to normalize the suspension.
3. Make certain that someone is seated in the driver's seat.
4. Measure the distance of the light source centers and the height of the light source centers for the low beam.

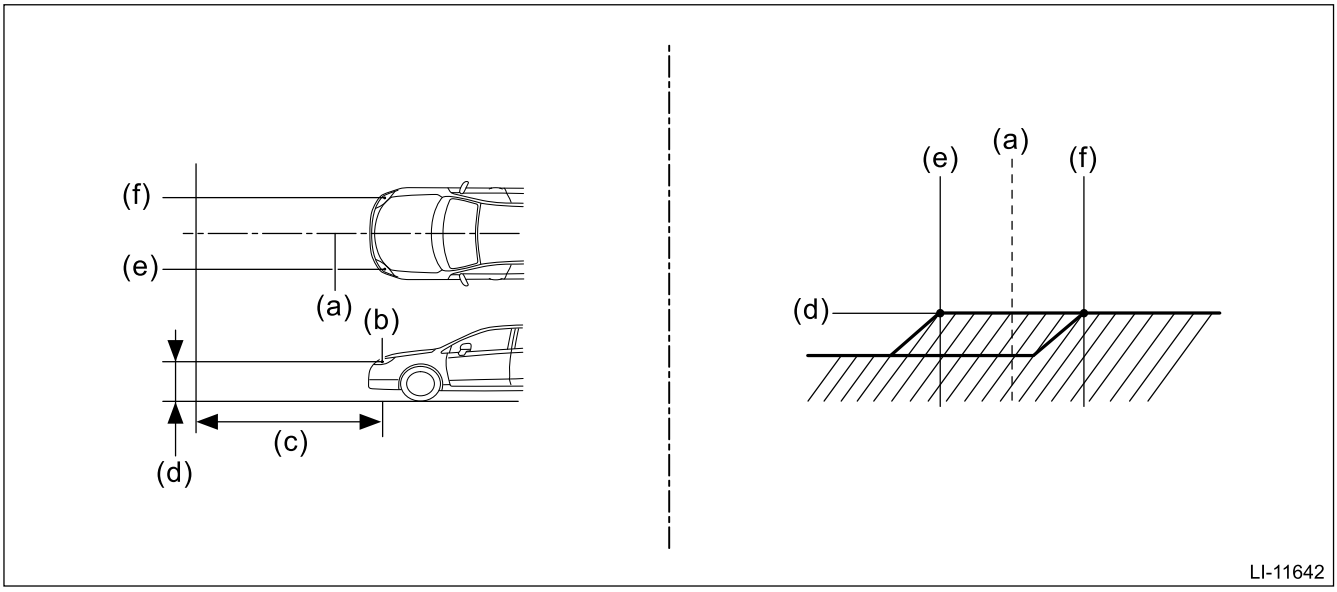


(A) Lens center mark

5. Adjust the headlight beam.
   (1) Position the vehicle with its front end facing the measuring panel from a distance of 3 m (10 ft).
   (2) Turn on the low beam headlights, and mark the cut line.
      1. Use a sheet of unruled white paper (B), and highlight the projector shadow (C).
      2. Align the bottom edge of the white paper sheet with the cut line (A) on the projector side.

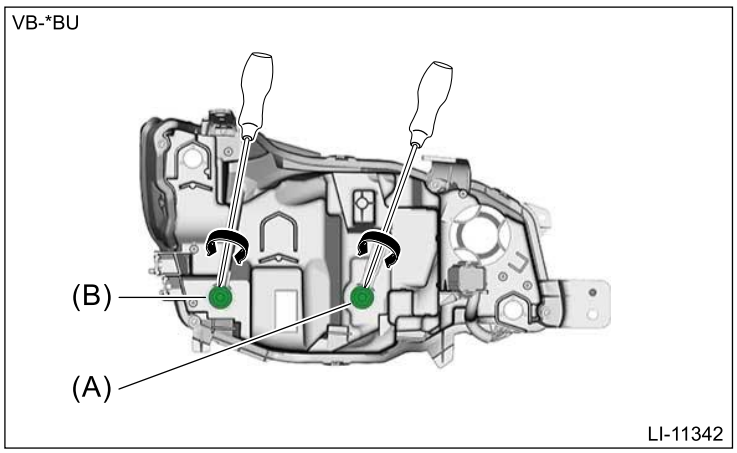


(3) Check the beam level.



(a) Vehicle center
(b) Lens center mark
(c) 3 m (10 ft)
(d) Lens center mark height
(e) Lens center of the headlight LH
(f) Lens center of the headlight RH

(4) Adjust the beam level by turning the aiming screws (A) and (B) in the same direction and by the same number of rotations.


VB-*BU
(B)
(A)
LI-11342

LIGHTING SYSTEM > Clearance/Parking Light Bulb

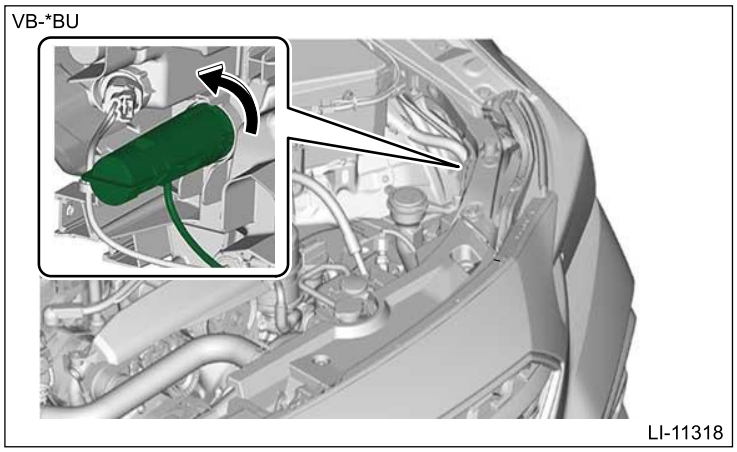
REMOVAL

Caution:
- **Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.**
- **Do not leave the light assembly head without the bulb for a long time. Dust, moisture, etc. entering the light may affect its performance.**

Note:
The illustration shows the LH side.

1. HALOGEN TYPE

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the battery. (When removing the LH side bulb) Ref. to STARTING/CHARGING SYSTEMS(H4DOTC)>Battery>REMOVAL.
3. Remove the air intake duct. (When removing the RH side bulb) Ref. to INTAKE (INDUCTION)(H4DOTC)>Air Intake Duct>REMOVAL.
4. Remove the air cleaner case. (When removing the RH side bulb) Ref. to INTAKE (INDUCTION)(H4DOTC)>Air Cleaner Case>REMOVAL.
5. Rotate in the direction of arrow shown in the figure to remove the bulb socket.



6. Remove the parking light bulb.

2. LED TYPE

Since it is a non-disassembled part, it cannot be removed. Replace the light assembly head if faulty.

LIGHTING SYSTEM > Clearance/Parking Light Bulb

INSTALLATION

Caution:
Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.

1. HALOGEN TYPE

1. Install the parking light bulb.
2. Install the air cleaner case. (When the RH side bulb has been removed) Ref. to INTAKE (INDUCTION)(H4DOTC)>Air Cleaner Case>INSTALLATION.

3. Install the air intake duct. (When the RH side bulb has been removed) Ref. to INTAKE (INDUCTION) (H4DOTC)>Air Intake Duct>INSTALLATION.
4. Install the battery. (When the LH side bulb has been removed) Ref. to STARTING/CHARGING SYSTEMS(H4DOTC)>Battery>INSTALLATION.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. LED TYPE

Since it is a non-disassembled part, it cannot be removed. Replace the light assembly head if faulty.

NOTE

1. HALOGEN TYPE

The front turn signal light bulb is integrated with the parking light.
Replace the parking light bulb if faulty. Ref. to LIGHTING SYSTEM>Clearance/Parking Light Bulb.

2. LED TYPE

Since it is a non-disassembled part, it cannot be removed. Replace the light assembly head if faulty.

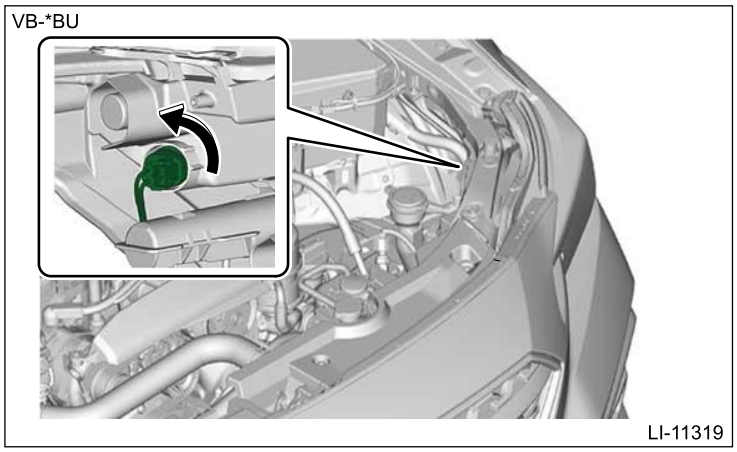
REMOVAL

Caution:
- **Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.**
- **Do not leave the light assembly head without the bulb for a long time. Dust, moisture, etc. entering the light may affect its performance.**

Note:
The illustration shows the LH side.

1. HALOGEN TYPE

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the battery. (When removing the LH side bulb) Ref. to STARTING/CHARGING SYSTEMS(H4DOTC)>Battery>REMOVAL.
3. Remove the air intake duct. (When removing the RH side bulb) Ref. to INTAKE (INDUCTION)(H4DOTC)>Air Intake Duct>REMOVAL.
4. Remove the air cleaner case. (When removing the RH side bulb) Ref. to INTAKE (INDUCTION)(H4DOTC)>Air Cleaner Case>REMOVAL.
5. Rotate in the direction of arrow shown in the figure to remove the bulb socket.



6. Remove the front side marker light bulb.

2. LED TYPE

Since it is a non-disassembled part, it cannot be removed. Replace the light assembly head if faulty.

INSTALLATION

Caution:
Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.

1. HALOGEN TYPE

1. Install the front side marker light bulb.
2. Install the air cleaner case. (When the RH side bulb has been removed) Ref. to INTAKE (INDUCTION)(H4DOTC)>Air Cleaner Case>INSTALLATION.

3. Install the air intake duct. (When the RH side bulb has been removed) Ref. to INTAKE (INDUCTION) (H4DOTC)>Air Intake Duct>INSTALLATION.
4. Install the battery. (When the LH side bulb has been removed) Ref. to STARTING/CHARGING SYSTEMS(H4DOTC)>Battery>INSTALLATION.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

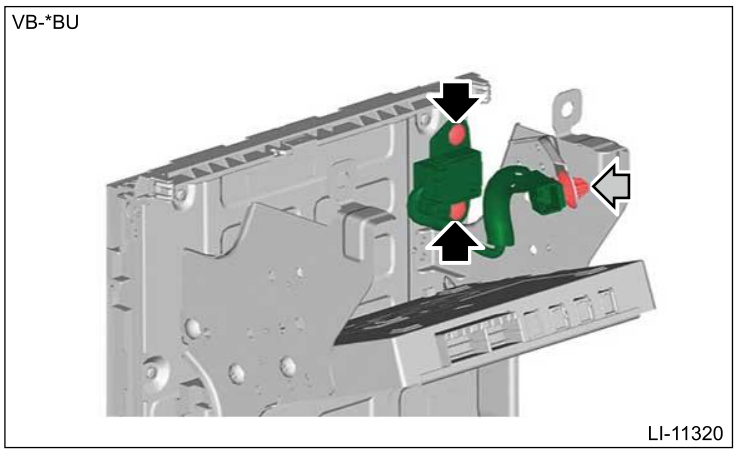
2. LED TYPE

Since it is a non-disassembled part, it cannot be removed. Replace the light assembly head if faulty.

LIGHTING SYSTEM > Hazard Switch

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the ornament panel mid passenger and panel assembly center. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>REMOVAL.
3. Remove the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>REMOVAL.
4. Remove the screws and harness clip and remove the switch hazard.



LIGHTING SYSTEM > Hazard Switch

INSTALLATION

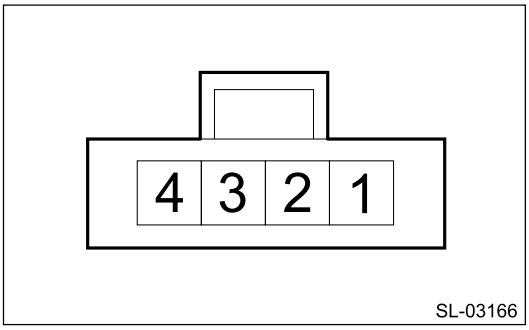
Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the switch hazard.
2. Install the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>INSTALLATION.
3. Install the panel assembly center and the ornament panel mid passenger. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>INSTALLATION.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

LIGHTING SYSTEM > Hazard Switch

INSPECTION

1. Measure the resistance between connector terminals.



Terminal No.	Inspection conditions	Standard
3 — 2	Switch OFF	1 MΩ or more
	Switch ON	Less than 1 Ω

2. Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.

Caution:
When applying battery voltage, do not mix up the positive (+) side and the negative (−) side.
Incorrect polarity connection may cause LED damage inside the switch.

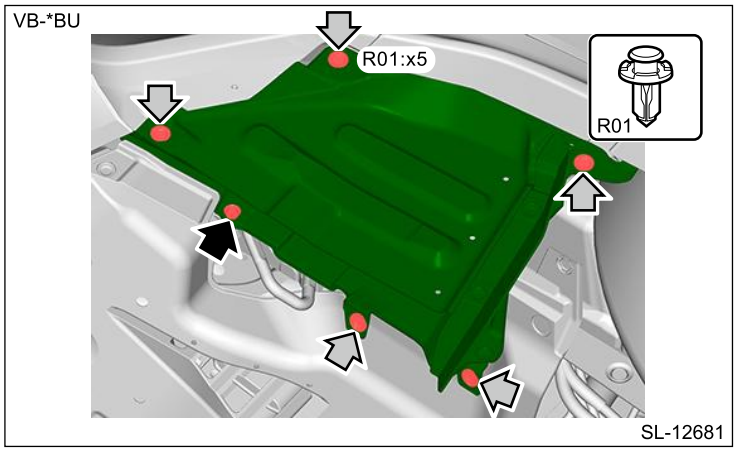
Terminal No.	Inspection conditions	Specification
4 (+) — 1 (−)	Apply battery voltage.	Light ON

3. Replace the switch hazard if it is found defective.

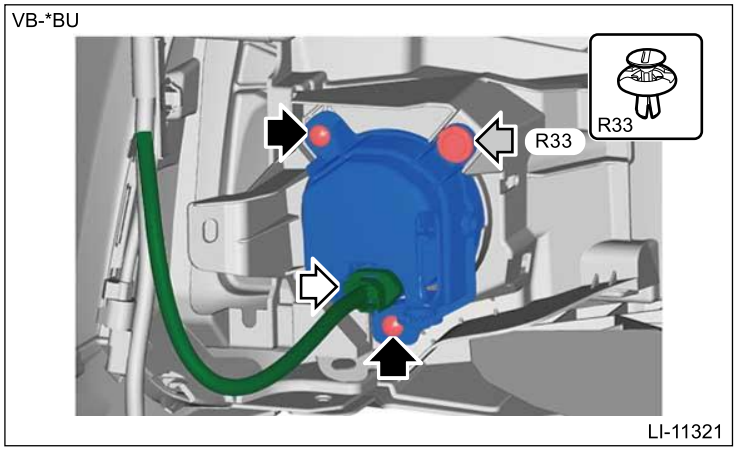
LIGHTING SYSTEM > Front Fog Light Assembly

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Lift up the vehicle.
3. Remove the screw and clips, and turn over the mud guard front.



4. Remove the fog light assembly front.
   (1) Disconnect the connector.
   (2) Remove the screws and clips, and remove the fog light assembly front.



LIGHTING SYSTEM > Front Fog Light Assembly

INSTALLATION

1. Install the fog light assembly front.
   Tightening torque:
   2 N·m (0.2 kgf-m, 1.5 ft-lb)
2. Lower the vehicle.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
4. Adjust the fog light beam. Ref. to LIGHTING SYSTEM>Front Fog Light Assembly>ADJUSTMENT > FOG LIGHT AIMING.

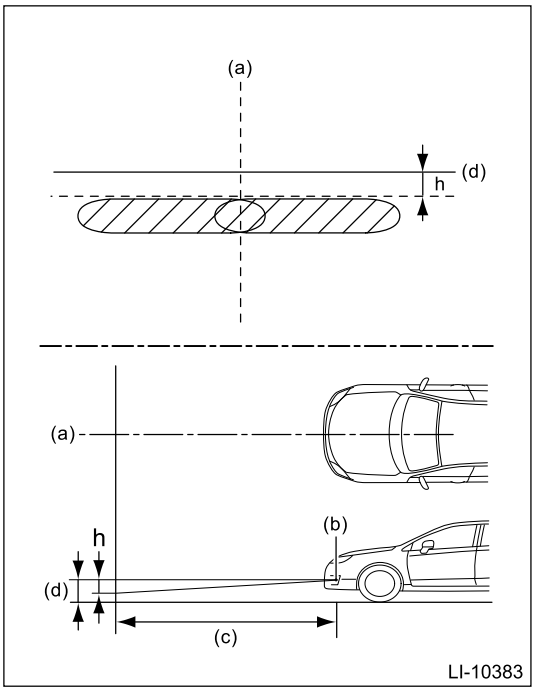
5. Install the mud guard front. Ref. to EXTERIOR/INTERIOR TRIM>Mud Guard>INSTALLATION.

LIGHTING SYSTEM > Front Fog Light Assembly

ADJUSTMENT

1. FOG LIGHT AIMING

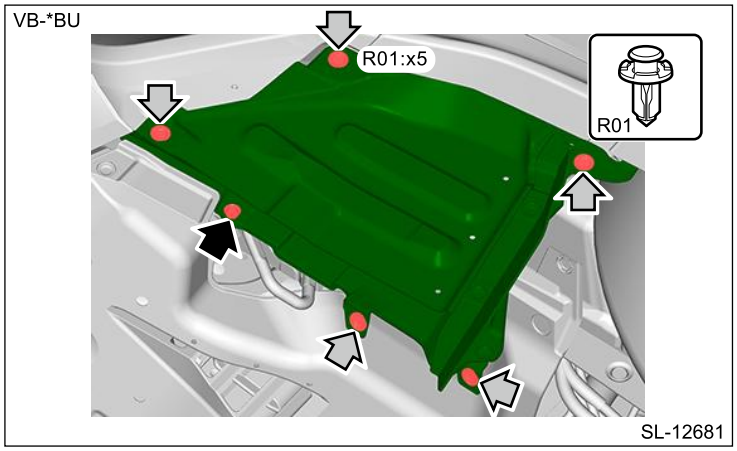
1. Before checking the fog light beam level, be sure of the following:
   - Check the area around the fog light for any scratches, damage or other type of deformation.
   - The vehicle is parked on a level surface.
   - The inflation pressure of tires is correct.
   - The vehicle does not have load.
   - Vehicle's fuel tank is fully filled.
2. Bounce the vehicle several times to normalize the suspension.
3. Make certain that someone is seated in the driver's seat.
4. Place the vehicle with the front end facing to the measurement panel.



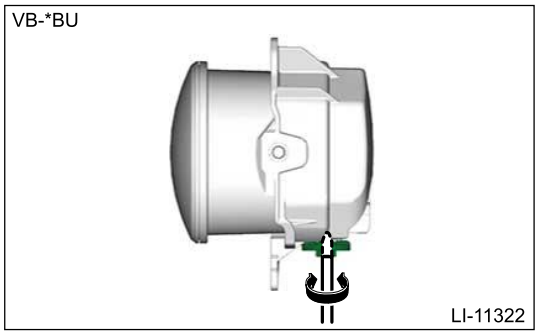
(a) Vehicle center
(b) Bulb center marking
(c) 3 m (10 ft)
(d) Height of fog light center

h mm (in) at 3 m (10 ft)
45 (1.77)

5. Adjust the fog light beam.
   (1) Remove the screw and clips, and turn over the mud guard front.



(2) Adjust the beam level by turning the aiming screw.



(3) Install the mud guard front. Ref. to EXTERIOR/INTERIOR TRIM>Mud Guard>INSTALLATION.

LIGHTING SYSTEM > Front Fog Light Assembly

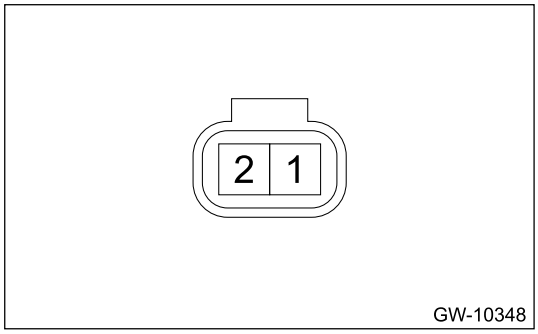
INSPECTION

1. Apply battery voltage between the connector terminals to check the lighting condition of the light.

Caution:

When applying battery voltage, do not mix up the positive (+) side and the negative (−) side.

Incorrect polarity connection may cause internal LED damage.



Terminal No.	Inspection conditions	Specification
2 (+) — 1 (−)	Apply battery voltage.	Light ON

2. Replace the fog light assembly front if faulty is found in the inspection.

Note:

Since LED is used for the light, replace the fog light assembly front if the light does not illuminate.

LIGHTING SYSTEM > Side Turn Signal Light Assembly

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the light assembly side turn mirror. Ref. to GLASS/WINDOWS/MIRRORS>Outer Mirror Assembly>DISASSEMBLY.

LIGHTING SYSTEM > Side Turn Signal Light Assembly

INSTALLATION

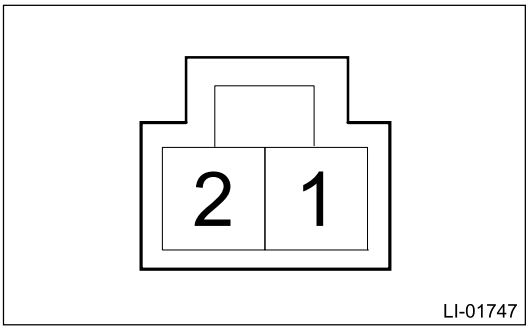
1. Install the light assembly side turn mirror. Ref. to GLASS/WINDOWS/MIRRORS>Outer Mirror Assembly>ASSEMBLY.
2. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

LIGHTING SYSTEM > Side Turn Signal Light Assembly

INSPECTION

1. Apply battery voltage between the connector terminals to check the lighting condition of the light.

Caution:
When applying battery voltage, do not mix up the positive (+) side and the negative (−) side.
Incorrect polarity connection may cause internal LED damage.



Terminal No.	Inspection conditions	Specification
1 (+) — 2 (−)	Apply battery voltage.	Light ON

2. Replace the light assembly side turn mirror if faulty is found in the inspection.

Note:
Since LED is used for the light, replace the light assembly side turn mirror if the light does not illuminate.

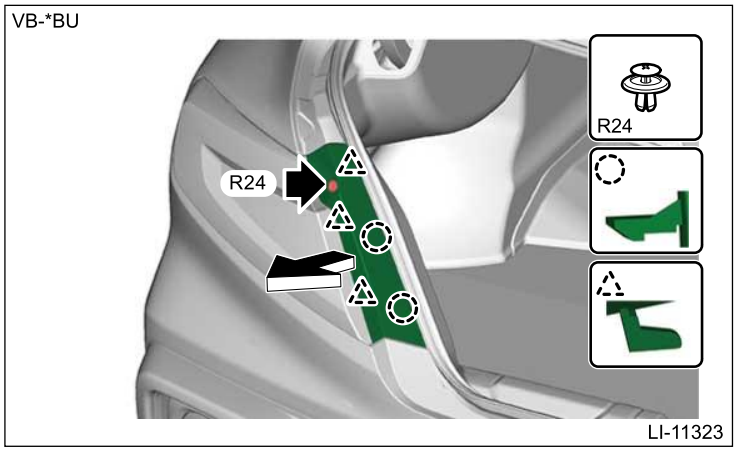
LIGHTING SYSTEM > Rear Combination Light Assembly

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Release the clips and claws, and then remove the cover assembly rear combination light.

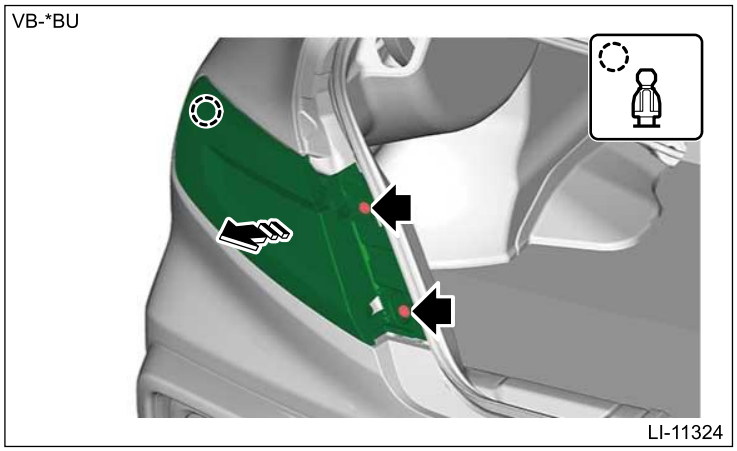
Caution:
Do not remove the cover forcibly if the cover is not unhooked. Doing so may result in damage of the cover claw or the light assembly rear combination.

Note:
When using a flat tip screwdriver, use an appropriate sized tool for the insertion opening, apply protective tape or cloth around the tool, and be careful not to cause damage.



3. Remove the light assembly rear combination.
   (1) Release the bolts and clips, then pull out the light assembly rear combination toward the rear of the vehicle at an angle as shown in the figure.

Caution:
Be careful not to damage the clips.



   (2) Disconnect the connector and remove the light assembly rear combination.

LIGHTING SYSTEM > Rear Combination Light Assembly

INSTALLATION

1. Connect the connector, and install the light assembly rear combination.

Caution:

- **Be careful not to catch the harness in between the parts.**
- **Make sure that gaskets are attached on the combination light assembly. If a gasket is not attached, water leakage may occur.**

Tightening torque:

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

2. Install the cover assembly rear combination light.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

LIGHTING SYSTEM > Rear Combination Light Assembly

DISASSEMBLY

1. TAIL LIGHT BULB

Since it is a non-disassembled part, it cannot be removed. Replace the light assembly rear combination if defective.

2. STOP LIGHT BULB

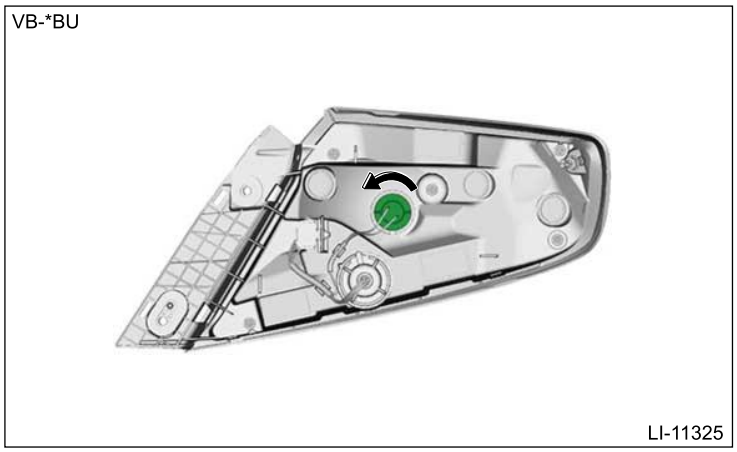
Since it is a non-disassembled part, it cannot be removed. Replace the light assembly rear combination if defective.

3. TURN SIGNAL LIGHT BULB

Caution:

- **Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.**
- **Do not leave the light assembly rear combination without the bulb for a long time. Dust, moisture, etc. entering the light may affect its performance.**

1. Rotate in the direction of arrow shown in the figure to remove the bulb socket.



2. Remove the turn signal light bulb.

4. BACK-UP LIGHT BULB

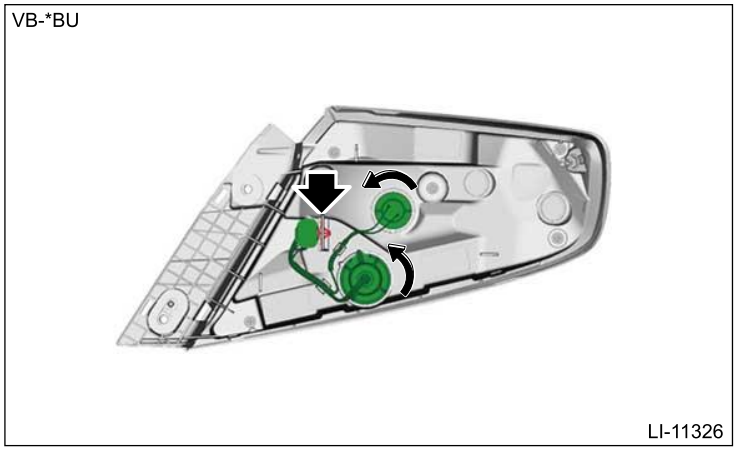
Since it is a non-disassembled part, it cannot be removed. Replace the light assembly rear combination if defective.

5. REAR SIDE MARKER LIGHT BULB

Since it is a non-disassembled part, it cannot be removed. Replace the light assembly rear combination if defective.

6. CORD ASSEMBLY

1. Remove the connector clip.
2. Turn the cover in the arrow direction to remove it and disconnect the internal connector.
3. Remove the bulb socket and remove the cord assembly.



LIGHTING SYSTEM > Rear Combination Light Assembly

ASSEMBLY

1. TAIL LIGHT

Since it is a non-disassembled part, it cannot be removed. Replace the light assembly rear combination if defective.

2. STOP LIGHT BULB

Since it is a non-disassembled part, it cannot be removed. Replace the light assembly rear combination if defective.

3. TURN SIGNAL LIGHT BULB

Caution:
Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.

1. Install the turn signal light bulb.
2. Install the bulb socket.

4. BACK-UP LIGHT BULB

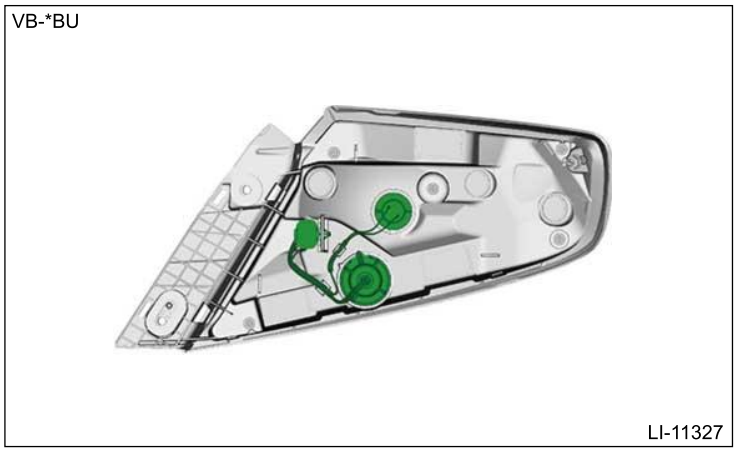
Since it is a non-disassembled part, it cannot be removed. Replace the light assembly rear combination if defective.

5. REAR SIDE MARKER LIGHT BULB

Since it is a non-disassembled part, it cannot be removed. Replace the light assembly rear combination if defective.

6. CORD ASSEMBLY

1. Install the cord assembly as shown in the figure.

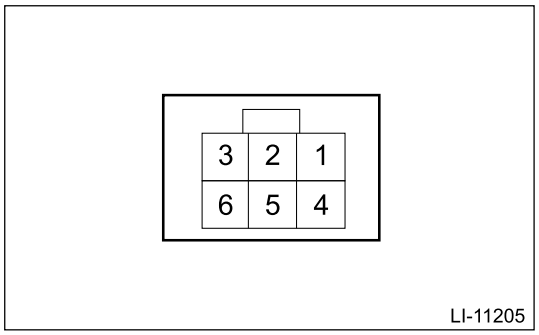


LIGHTING SYSTEM > Rear Combination Light Assembly

INSPECTION

1. Apply battery voltage between the connector terminals to check the lighting condition of the light.

Caution:
When applying battery voltage, do not mix up the positive (+) side and the negative (−) side.
Incorrect polarity connection may cause internal LED damage.



Terminal No.	Inspection conditions	Specification
6 (+) — 2 (−)	Apply battery voltage.	Stop light on
4 (+) — 2 (−)		Tail lights and rear side marker lights on
3 (+) — 2 (−)		Turn signal light on
1 (+) — 2 (−)		Back-up light on

2. Carry out the following procedure if you find any defects.
   - Turn signal light: Check the harness and bulb.
   - Since LED is used for the following lights, replace the combination light assembly if the light does not illuminate.
     - Stop light
     - Tail light
     - Rear side marker light

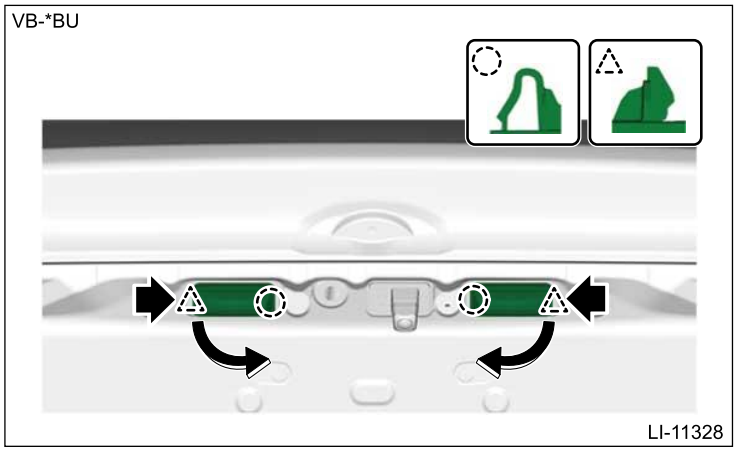
– Back-up light

REMOVAL

Caution:
- **Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.**
- **Do not leave the license plate light assembly without the bulb for a long time. Dust, moisture, etc. entering the light may affect its performance.**

Note:
Do not remove the license plate light assembly when removing the bulb only.

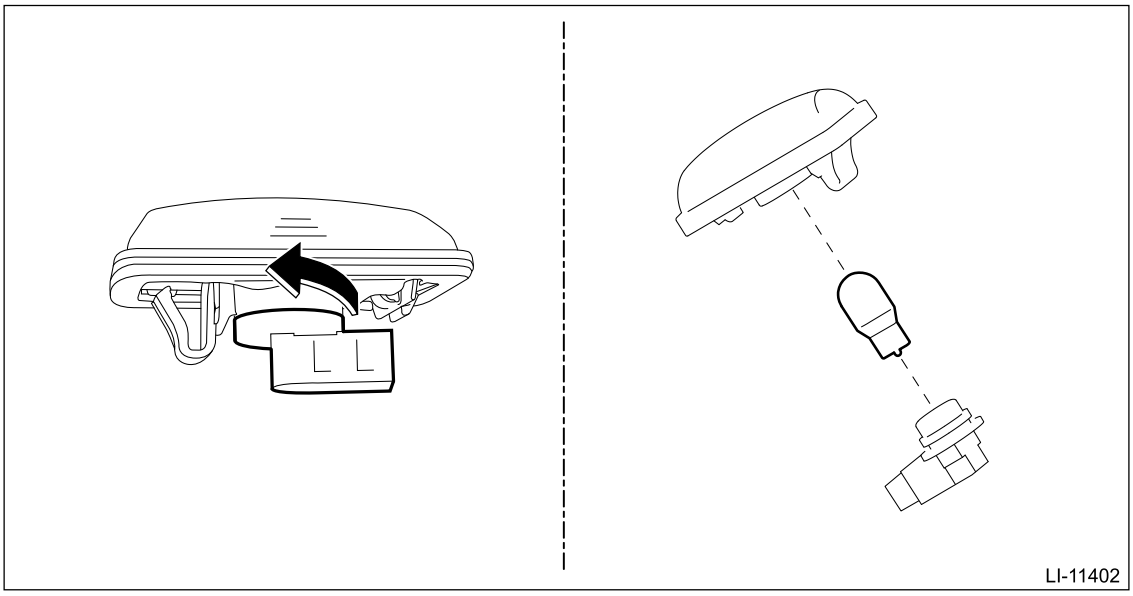
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel trunk lid. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.
3. Remove the garnish assembly trunk. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Lid Garnish>REMOVAL.
4. Remove the license plate light assembly.
   (1) Release the claws and pull out the license plate light assembly.
   (2) Disconnect the connector, and remove the license plate light assembly.



5. Remove the license plate light bulb.

Note:
Perform this procedure only when required.

(1) Rotate in the direction of arrow shown in the figure to remove the bulb socket.
(2) Remove the license plate light bulb.



LIGHTING SYSTEM > License Plate Light

INSTALLATION

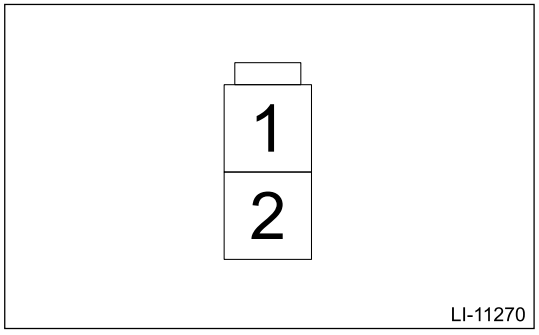
Caution:
Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.

1. Install the license plate light bulb.
2. Connect the connector, and install the license plate light assembly.
3. Install the garnish assembly trunk. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Lid Garnish>INSTALLATION.
4. Install the trim panel trunk lid. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>INSTALLATION.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

LIGHTING SYSTEM > License Plate Light

INSPECTION

1. Apply battery voltage between the connector terminals to check the lighting condition of the light.



Terminal No.	Inspection conditions	Specification
1 (+) — 2 (−)	Apply battery voltage.	Light ON

2. Replace the harness and bulb if it is found defective.

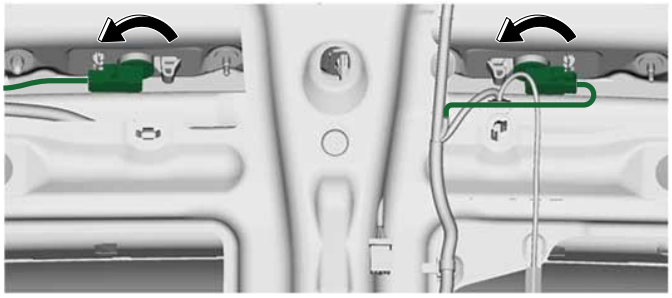
LIGHTING SYSTEM > License Plate Light Bulb

REMOVAL

Caution:
- **Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.**
- **Do not leave the license plate light without the bulb for a long time. Dust, moisture, etc. entering the light may affect its performance.**

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel trunk lid. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.
3. Remove the license plate light bulb.
   (1) Rotate in the direction of arrow shown in the figure to remove the bulb socket.

VB-*BU



LI-11329

   (2) Remove the license plate light bulb.

LIGHTING SYSTEM > License Plate Light Bulb

INSTALLATION

Caution:
Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.

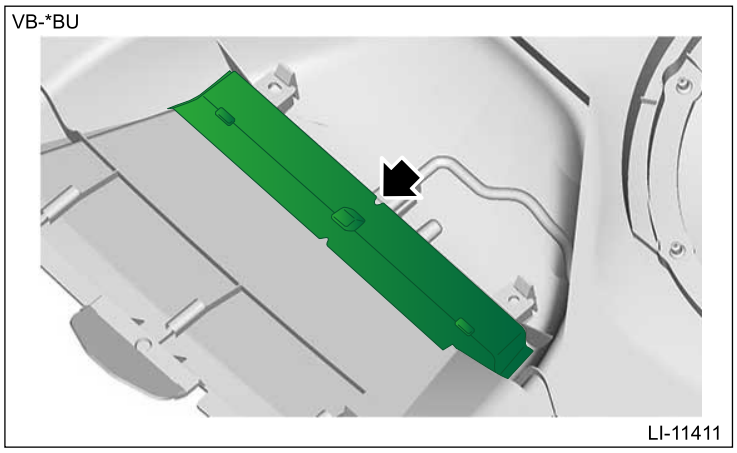
1. Install the license plate light bulb.
2. Install the bulb socket.
3. Install the trim panel trunk lid. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>INSTALLATION.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

REMOVAL

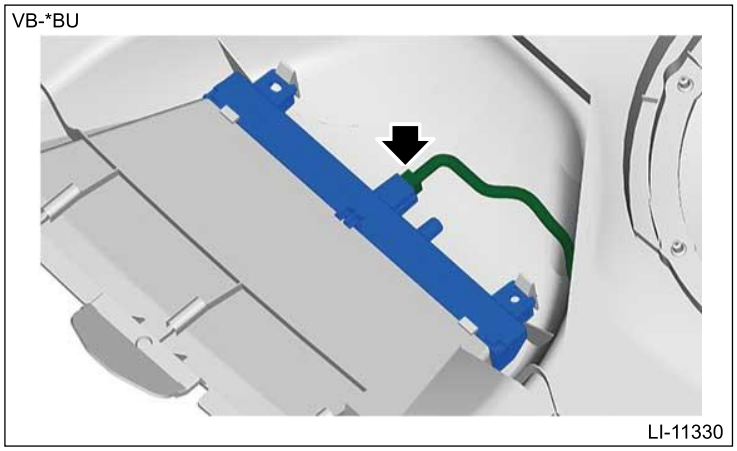
Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the rear seat cushion assembly and the backrest assembly. Ref. to SEATS>Rear Seat>REMOVAL.
3. Remove the trim panel assembly C pillar LWR and the trim panel assembly C pillar. Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.
4. Remove the trim panel assembly rear shelf. Ref. to EXTERIOR/INTERIOR TRIM>Rear Shelf Trim>REMOVAL.
5. Remove the cover tape.



6. Remove the light assembly high-mounted.
   (1) Release the claws.
   (2) Disconnect the connector and remove the light assembly high-mounted.



LIGHTING SYSTEM > High-mounted Stop Light

INSTALLATION

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Connect the connector, and install the light assembly high-mounted.
2. Apply a new cover tape.
3. Install the trim panel assembly rear shelf. Ref. to EXTERIOR/INTERIOR TRIM>Rear Shelf Trim>INSTALLATION.
4. Install the trim panel assembly C pillar and the trim panel assembly C pillar LWR. Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>INSTALLATION.
5. Install the backrest assembly and rear seat cushion assembly. Ref. to SEATS>Rear Seat>INSTALLATION.
6. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

LIGHTING SYSTEM > High-mounted Stop Light

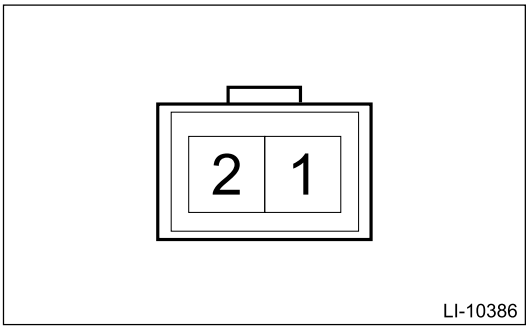
INSPECTION

1. Apply battery voltage between the connector terminals to check the lighting condition of the light.

Caution:

When applying battery voltage, do not mix up the positive (+) side and the negative (−) side.

Incorrect polarity connection may cause internal LED damage.



Terminal No.	Inspection conditions	Specification
1 (+) — 2 (−)	Apply battery voltage.	Light ON

2. Replace the light assembly high-mounted if faulty is found in the inspection.

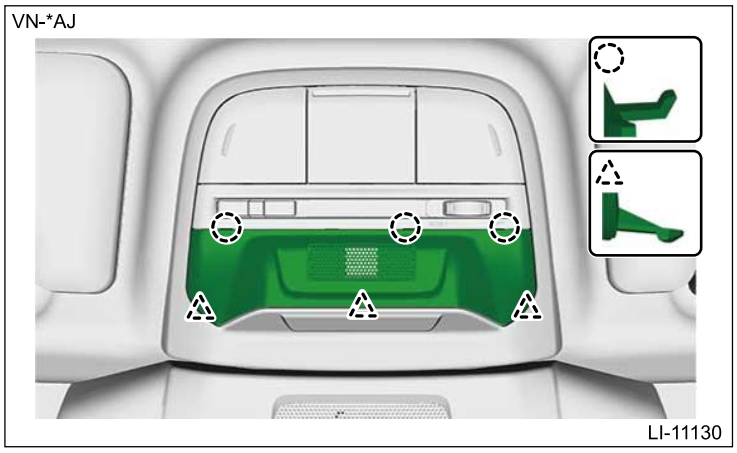
Note:

Since LED is used for the high-mounted stop light, replace the light assembly high-mounted if the light does not illuminate.

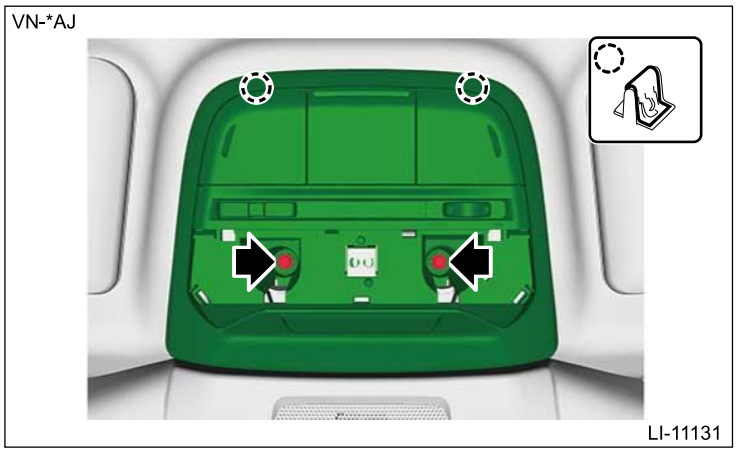
REMOVAL

Note:
Do not remove the light assembly map if removing the bulb only.

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Release the claws, and then remove the cover assembly map light.



3. Remove the light assembly map.
   (1) Remove the screws and clips.

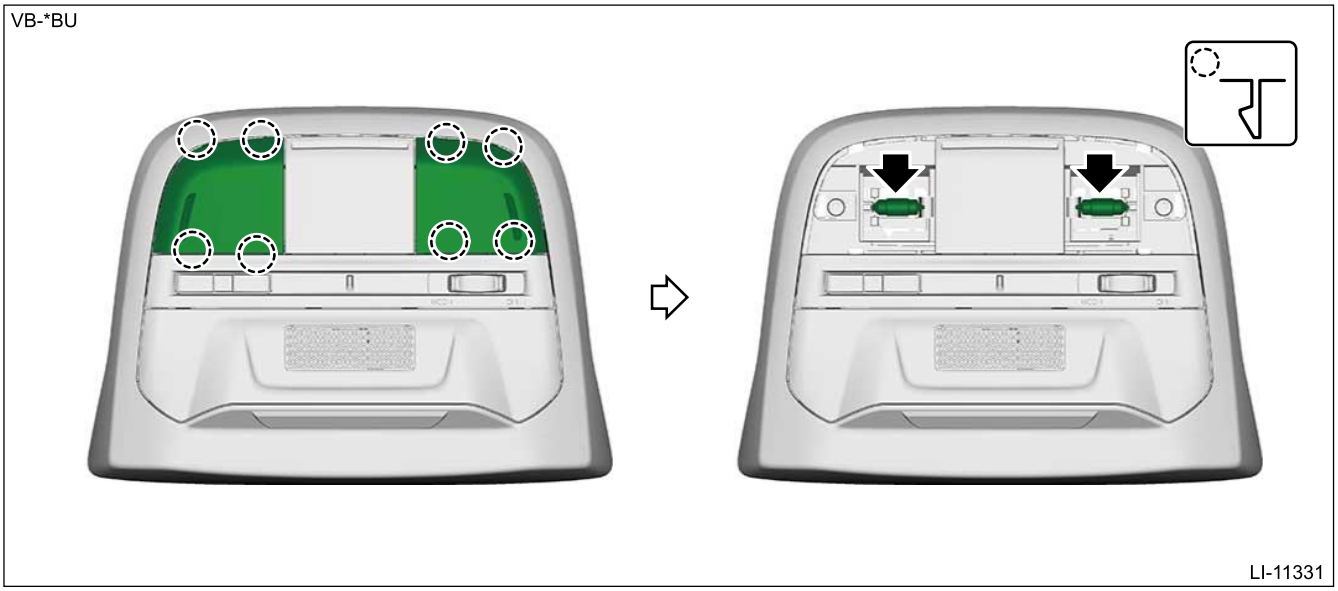


   (2) Disconnect the connector, and remove the light assembly map.
4. Remove the map light bulb.

Caution:
Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.

Note:
- **Perform this procedure only when required.**
- **When using a flat tip screwdriver, use an appropriate sized tool for the insertion opening, apply protective tape or cloth around the tool, and be careful not to cause damage.**

   (1) Release the claws and remove the lens.
   (2) Remove the map light bulb.



LIGHTING SYSTEM > Spot Map Light

INSTALLATION

1. Install the map light bulb and lens.

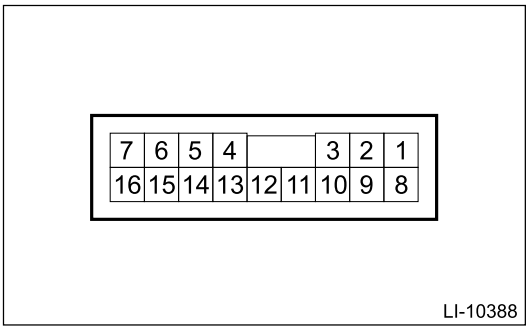
Caution:
Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.

2. Connect the connector, and install the light assembly map.
3. Install the cover assembly map light.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

LIGHTING SYSTEM > Spot Map Light

INSPECTION

1. Measure the resistance between connector terminals.



- Light switch

Terminal No.	Inspection conditions	Standard
1 — 13	Switch OFF	1 MΩ or more
	Switch ON	Approx. 18 Ω

- Door switch

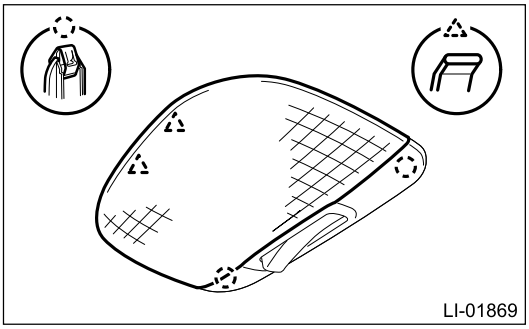
Terminal No.	Inspection conditions	Specification
1 — 4	Switch door	Continuity exists

2. Replace the harness and bulb if it is found defective.

REMOVAL

Note:
Do not remove the light assembly roof when removing the bulb only.

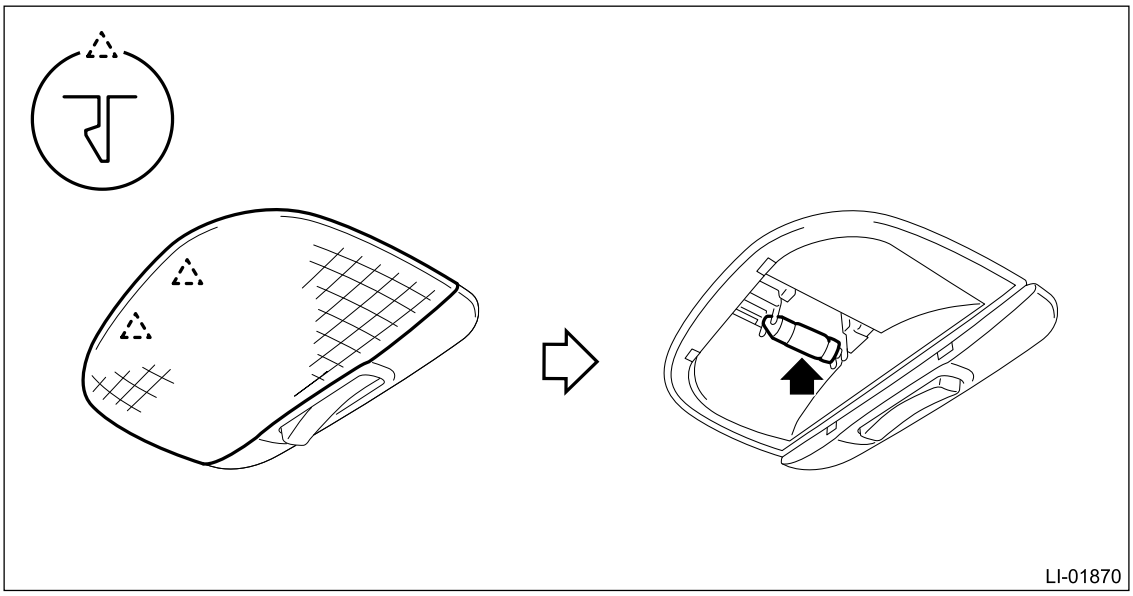
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the light assembly roof.
   (1) Remove the clips, and then remove the hook.



   (2) Disconnect the connector and remove the light assembly roof.
3. Release the claws and remove the lens and room light bulb.

Caution:
- **Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.**
- **When using a flat tip screwdriver, use an appropriate sized tool for the insertion opening, apply protective tape or cloth around the tool, and be careful not to cause damage.**

Note:
Perform this procedure only when required.



INSTALLATION

1. Install the room light bulb and lens.

Caution:
Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.

2. Connect the connector, and install the light assembly roof.

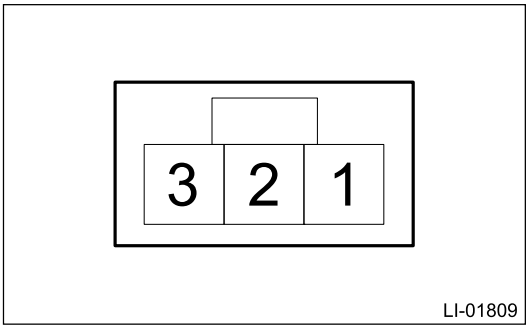
Note:
Hang the hook first, and then insert the clip.

3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

LIGHTING SYSTEM > Room Light

INSPECTION

1. Measure the resistance between connector terminals.



Terminal No.	Inspection conditions	Standard
1 — 3	Switch OFF	1 MΩ or more
	Switch ON	Less than 1 Ω
2 — 3	Switch door	Less than 1 Ω

2. Apply battery voltage between the connector terminals to check the lighting condition of the light.

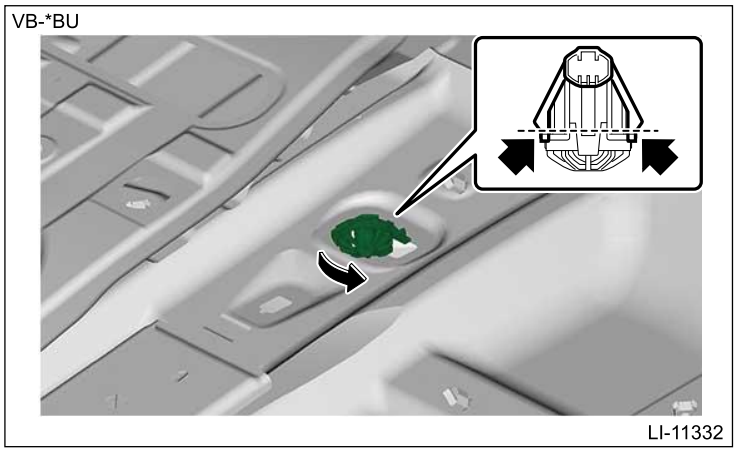
Terminal No.	Inspection conditions	Specification
3 (+) — 1 (−) 3 (+) — 2 (−)	Switch OFF	Light OFF
	Switch ON	Light ON
	Switch door	Light ON

3. Replace the light assembly roof if faulty is found in the inspection.

REMOVAL

Note:
Do not remove the light assembly trunk room if removing the bulb only.

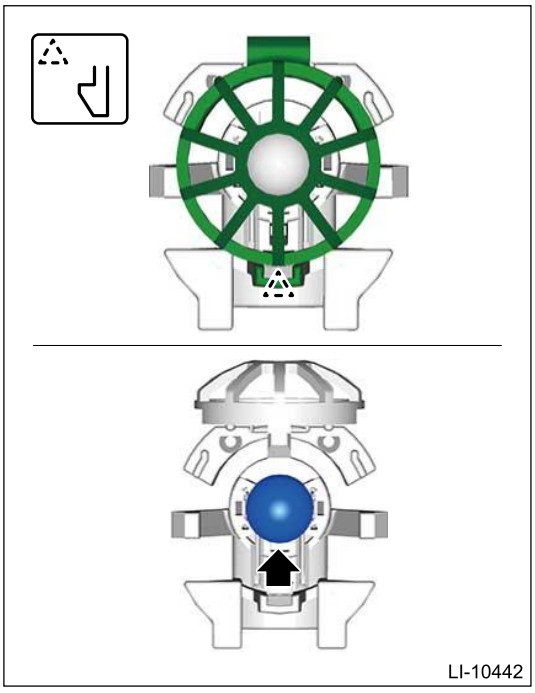
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the light assembly trunk room.
   (1) Release the claws.
   (2) Disconnect the connector and remove the light assembly trunk room.



3. Release the claws to open the bulb cover, then remove the bulb.

Caution:
Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.

Note:
- **Perform this procedure only when required.**
- **When using a flat tip screwdriver, use an appropriate sized tool for the insertion opening, apply protective tape or cloth around the tool, and be careful not to cause damage.**



INSTALLATION

1. Install the bulb and bulb cover.

   Caution:

   Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.

2. Connect the connector, and install the light assembly trunk room.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

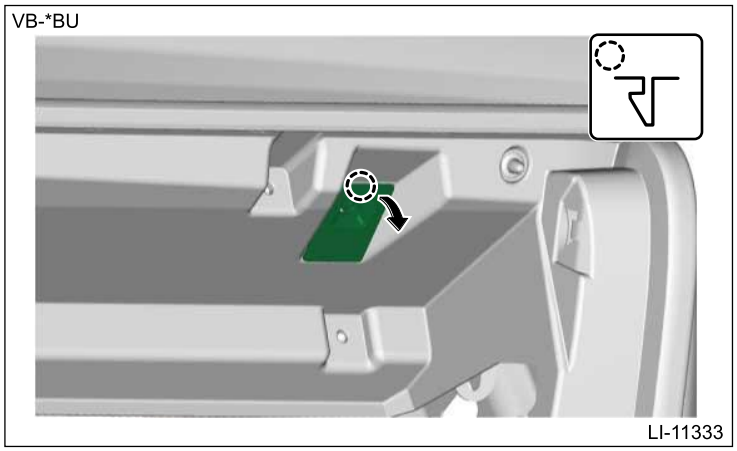
REMOVAL

1. GLOVE BOX LIGHT

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the pocket COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL > GLOVE BOX LID.
3. Remove the light pocket cover.

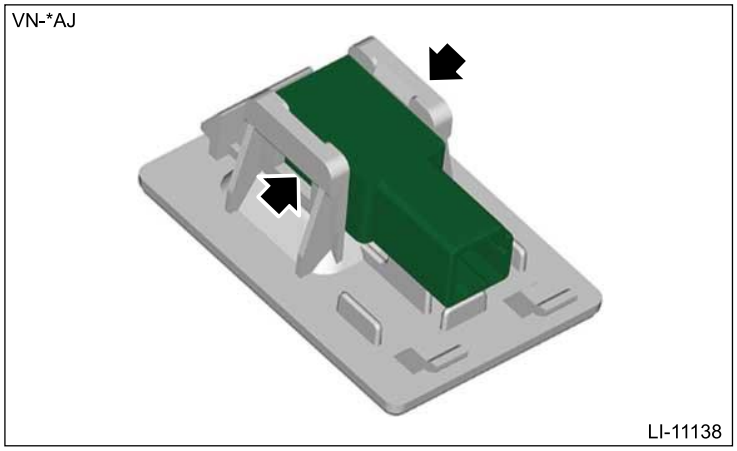
Note:
When using a flat tip screwdriver, use an appropriate sized tool for the insertion opening, apply protective tape or cloth around the tool, and be careful not to cause damage.

(1) Release the claws.



(2) Disconnect the connector, and remove the light pocket cover.

4. Release the claws, and remove the light pocket.



2. POCKET LIGHT

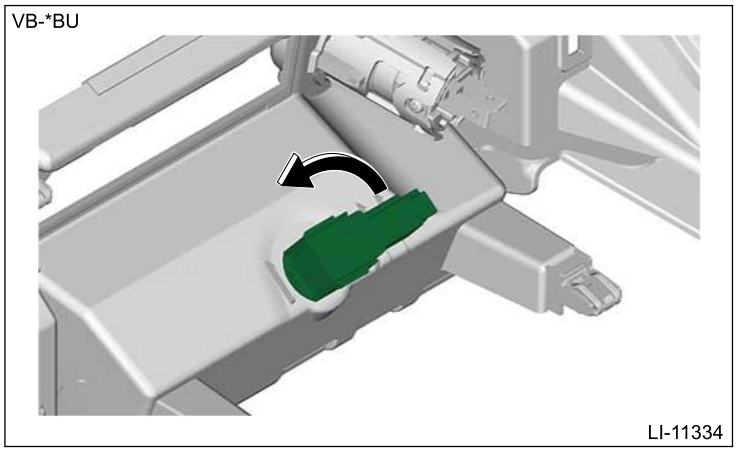
Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. Remove the ornament panel mid passenger and panel assembly center. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>REMOVAL.
3. Remove the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.
4. Remove the panel starter switch. (Model with push button ignition starter) Ref. to SECURITY AND LOCKS>Push Button Ignition Switch>REMOVAL.

Note:
For the models without push button ignition starter, remove the cover starter switch.

5. Remove the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box.
6. Remove the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>REMOVAL.
7. Remove the tray center UPR and the AUX unit assembly. Ref. to ENTERTAINMENT & MONITORING>External Connection Terminal>REMOVAL > FRONT.
8. Rotate in the direction of arrow shown in the figure to remove the light pocket.



LIGHTING SYSTEM > LED Illumination Light

INSTALLATION

1. GLOVE BOX LIGHT

1. Install the light pocket.
2. Connect the connector and install the light pocket cover.
3. Install the pocket COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>INSTALLATION > GLOVE BOX LID.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. POCKET LIGHT

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the light pocket.
2. Install the AUX unit assembly and the tray center UPR. Ref. to ENTERTAINMENT & MONITORING>External Connection Terminal>INSTALLATION > FRONT.
3. Install the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>INSTALLATION.
4. Install the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.

5. Install the panel starter switch. (Model with push button ignition starter) Ref. to SECURITY AND LOCKS>Push Button Ignition Switch>INSTALLATION.

Note:
For the models without push button ignition starter, install the cover starter switch.

6. Install the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.
7. Install the panel assembly center and the ornament panel mid passenger. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>INSTALLATION.
8. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

LIGHTING SYSTEM > Vanity Mirror Light

REMOVAL

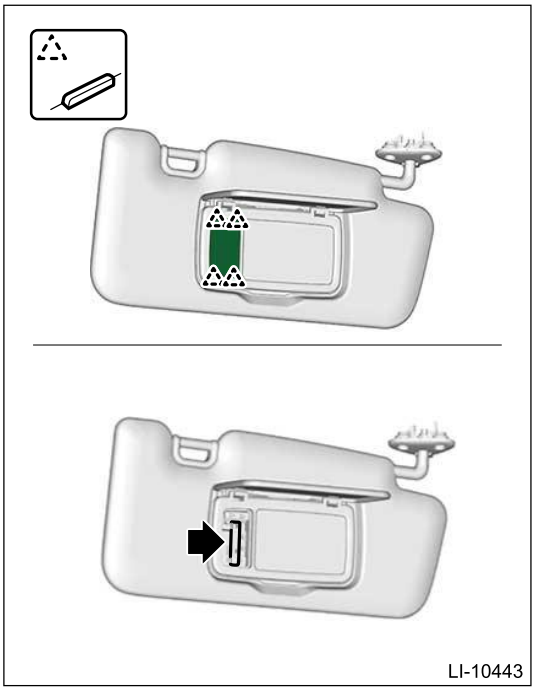
Note:
- **The vanity mirror light is integrated into the sun visor assembly. Replace the sun visor assembly if faulty. Ref. to EXTERIOR/INTERIOR TRIM>Sun Visor>REMOVAL.**
- **Do not remove the sun visor assembly if removing the bulb only.**

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the sun visor assembly. Ref. to EXTERIOR/INTERIOR TRIM>Sun Visor>REMOVAL.
3. Remove the vanity mirror light bulb.

Caution:
Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.

Note:
When using a flat tip screwdriver, use an appropriate sized tool for the insertion opening, apply protective tape or cloth around the tool, and be careful not to cause damage.

(1) Release the claws and remove the lens.



(2) Remove the vanity mirror light bulb.

LIGHTING SYSTEM > Vanity Mirror Light

INSTALLATION

1. Install the vanity mirror light bulb and lens.

Caution:
Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.

2. Install the sun visor assembly. Ref. to EXTERIOR/INTERIOR TRIM>Sun Visor>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

LIGHTING SYSTEM > Ignition Switch Illumination

NOTE

The ignition switch illumination is integrated into the immobilizer antenna assembly.
For the operation procedure of the ignition switch illumination, refer to “Immobilizer Antenna” in the “SECURITY & LOCKS” section. Ref. to SECURITY AND LOCKS>Immobilizer Antenna.

LIGHTING SYSTEM > Ignition Switch Illumination

INSPECTION

1. CHECK IGNITION SWITCH ILLUMINATION.

1. Turn the ignition switch to ON.
2. Check the lighting condition of the ignition switch illumination.

Does the ignition switch illumination blink?

Yes	Check the function setting of body integrated unit. Ref. to BODY CONTROL(DIAGNOSTICS)>Registration Body Integrated Unit.
No	Go to 2.

2. CHECK IGNITION SWITCH ILLUMINATION OPERATION.

1. Turn the ignition switch to OFF.
2. Open and close the driver’s side door.

When door is opened/closed, does the ignition switch illumination switch between ON ←→ OFF?

Yes	Ignition switch illumination is normal.
No	Go to 3.

3. CHECK CURRENT DATA.

Using Subaru Select Monitor, display data of [Driver's door SW input] in [Data Monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display change to [ON] ←→ [OFF], when the door is opened/closed?

Yes	Go to 4.
No	Check the door switch circuit. Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR SWITCH.

4. CHECK CURRENT DATA.

Using Subaru Select Monitor, display data of [key illumination lamp o/p] in [Data Monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display change to [ON] ←→ [OFF], when the door is opened/closed?

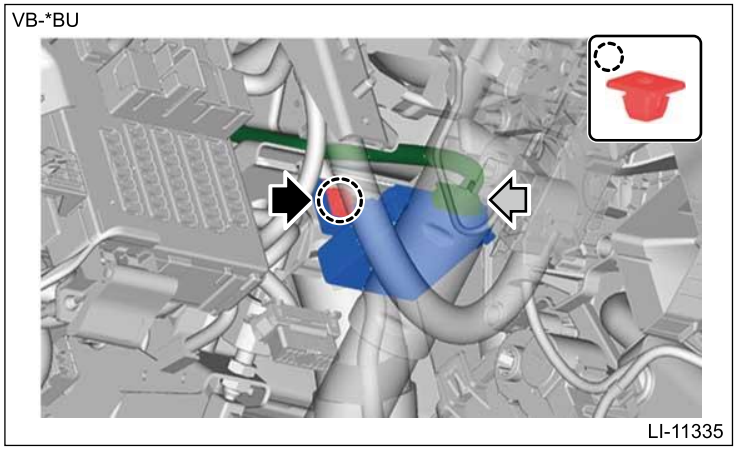
Yes	Check the ignition switch illumination circuit, and repair or replace the harness.
No	Check the body integrated unit and replace it if defective. • Inspection: Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure. • Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

LIGHTING SYSTEM > Auto Headlight Beam Leveler 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.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.
3. Remove the knee airbag module. Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.
4. Remove the duct foot driver. Ref. to AIR CONDITIONER>Air Vent Duct>REMOVAL > FOOT DUCT.
5. Remove the auto headlight beam leveler CM.
   (1) Remove the connectors and screws.
   (2) Remove the clips, and remove the auto headlight beam leveler CM.



LIGHTING SYSTEM > Auto Headlight Beam Leveler Control 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.

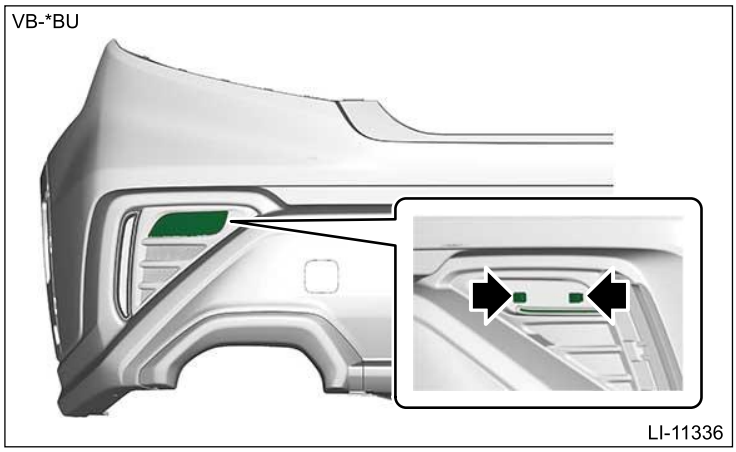
1. Install the auto headlight beam leveler CM, and connect the connector.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
2. Install the duct foot driver. Ref. to AIR CONDITIONER>Air Vent Duct>INSTALLATION > FOOT DUCT.
3. Install the knee airbag module. Ref. to AIRBAG SYSTEM>Knee Airbag Module>INSTALLATION.
4. Install the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
6. Perform auto headlight beam leveler system initialization/reinitialization. Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler System>PROCEDURE.

REMOVAL

1. REAR REFLEX REFLECTOR

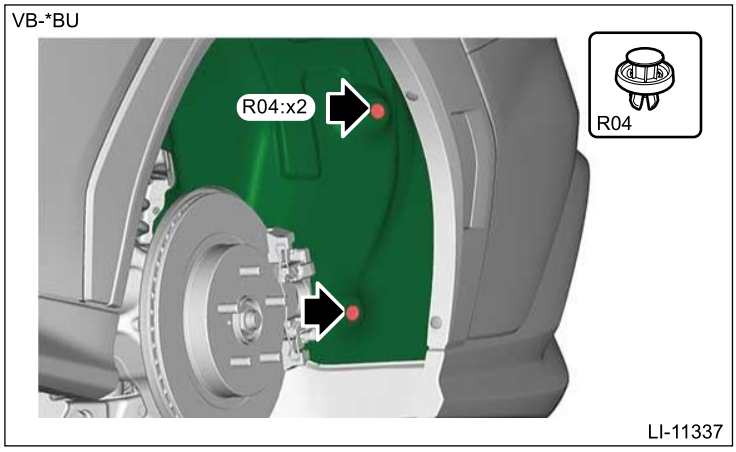
Caution:
The muffler is extremely hot immediately after driving. Be wary of receiving burns from heated parts.

1. Release the claws and then remove the reflex reflector.

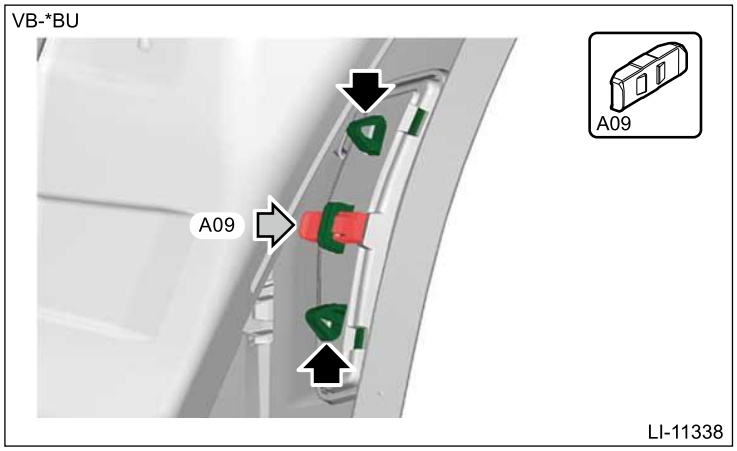


2. REAR SIDE REFLEX REFLECTOR

1. Remove the rear wheels. Ref. to WHEEL AND TIRE SYSTEM>Tire and Wheel>REMOVAL.
2. Remove the clips and turn over the mud guard rear.



3. Release the clip and claw, then remove the rear side reflex reflector.



LIGHTING SYSTEM > Reflex Reflector

INSTALLATION

1. REAR REFLEX REFLECTOR

Caution:
The muffler is extremely hot immediately after driving. Be wary of receiving burns from heated parts.

1. Install the reflex reflector.

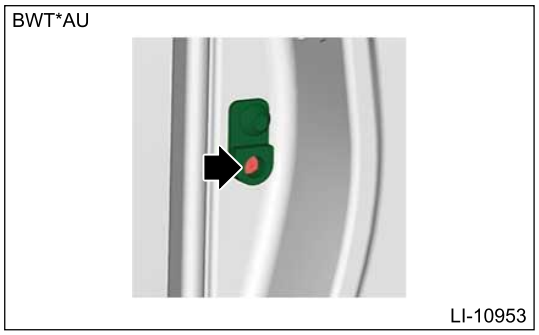
2. REAR SIDE REFLEX REFLECTOR

1. Install the rear side reflex reflector.
2. Install the mud guard rear. Ref. to EXTERIOR/INTERIOR TRIM>Mud Guard>INSTALLATION.
3. Install the rear wheels. Ref. to WHEEL AND TIRE SYSTEM>Tire and Wheel>INSTALLATION.

LIGHTING SYSTEM > Door Switch

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the door switch assembly.
   (1) Remove the bolts, and pull out the door switch assembly toward you.



   (2) Disconnect the connector and remove the door switch assembly.

LIGHTING SYSTEM > Door Switch

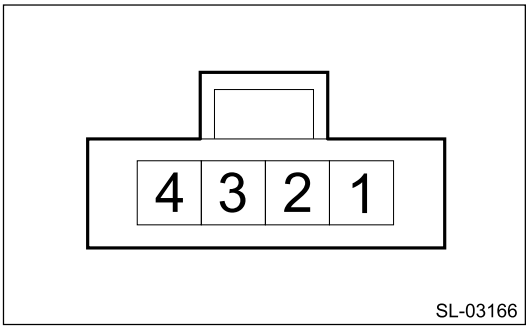
INSTALLATION

1. Connect the connector and install the door switch assembly.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
2. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

LIGHTING SYSTEM > Door Switch

INSPECTION

1. Measure the resistance between connector terminals.



- Front

Terminal No.	Inspection conditions	Standard
2 — 1	When the switch is not pressed	Less than 1 Ω
	When the switch is pressed	1 MΩ or more

- Rear

Terminal No.	Inspection conditions	Standard
2 — 1	When the switch is not pressed	Less than 1 Ω

Terminal No.	Inspection conditions	Standard
	When the switch is pressed	1 MΩ or more

2. Replace the door switch assembly if the inspection result is not within the standard value.

WIPER AND WASHER SYSTEMS

WW

1. General Description
2. Relay and Fuse
3. Wiper and Washer System
4. Combination Switch (Wiper)
5. Washer Tank and Motor
6. Wiper Blade
7. Front Wiper Arm
8. Front Wiper Motor and Link
9. Front Washer

WIPER AND WASHER SYSTEMS > General Description

CAUTION

- When performing service operation, refer to “Repair Contents” in “General Description”. Ref. to REPAIR CONTENTS>Repair Contents.
- When performing work on the sensors or modules, be careful of the following.
  – Before disconnecting connectors, be sure to disconnect the ground terminal from the battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
  – Do not apply any impact. If the parts are accidentally dropped, replace with a new part.
  – Do not expose to high-temperature and humidity.
- When replacing the parts provided with memory functions, record the memory contents before disconnecting the ground terminal from the battery sensor.
- Refer to “CAUTION” of “General Description” in “AIRBAG SYSTEM” section. Ref. to AIRBAG SYSTEM>General Description>CAUTION.
- When connecting the washer hoses, be careful not to cause bend or blockage.
- Do not let oil and grease adhere to the washer tank and washer fluid passage. Even a small amount of adherence will form an oil film on the glass, causing the wiper to chatter and judder.

WIPER AND WASHER SYSTEMS > General Description

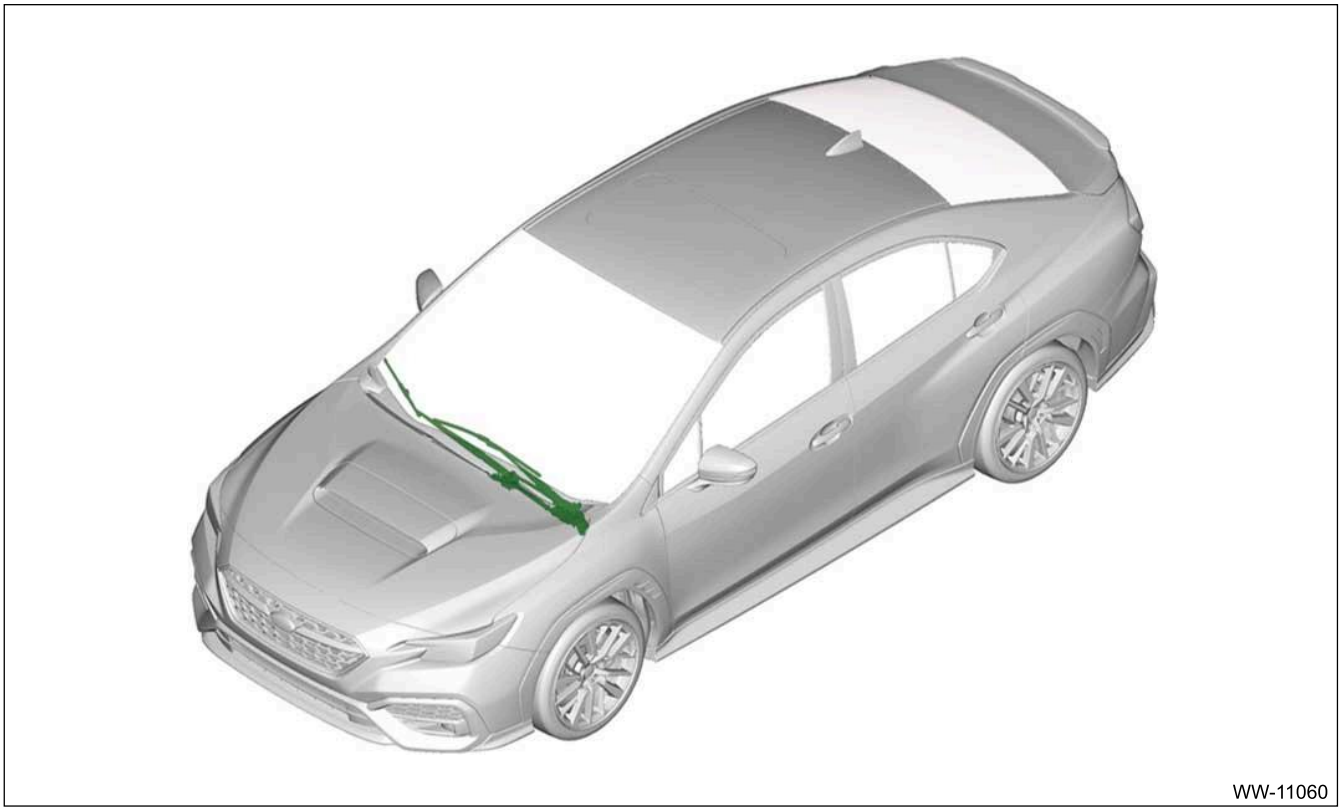
SPECIFICATION

Front wiper motor	Motor type	Magnet type
	Input	12 V — 72 W or less
Front washer motor	Pump type	Centrifugal
	Input	12 V — 72 W or less

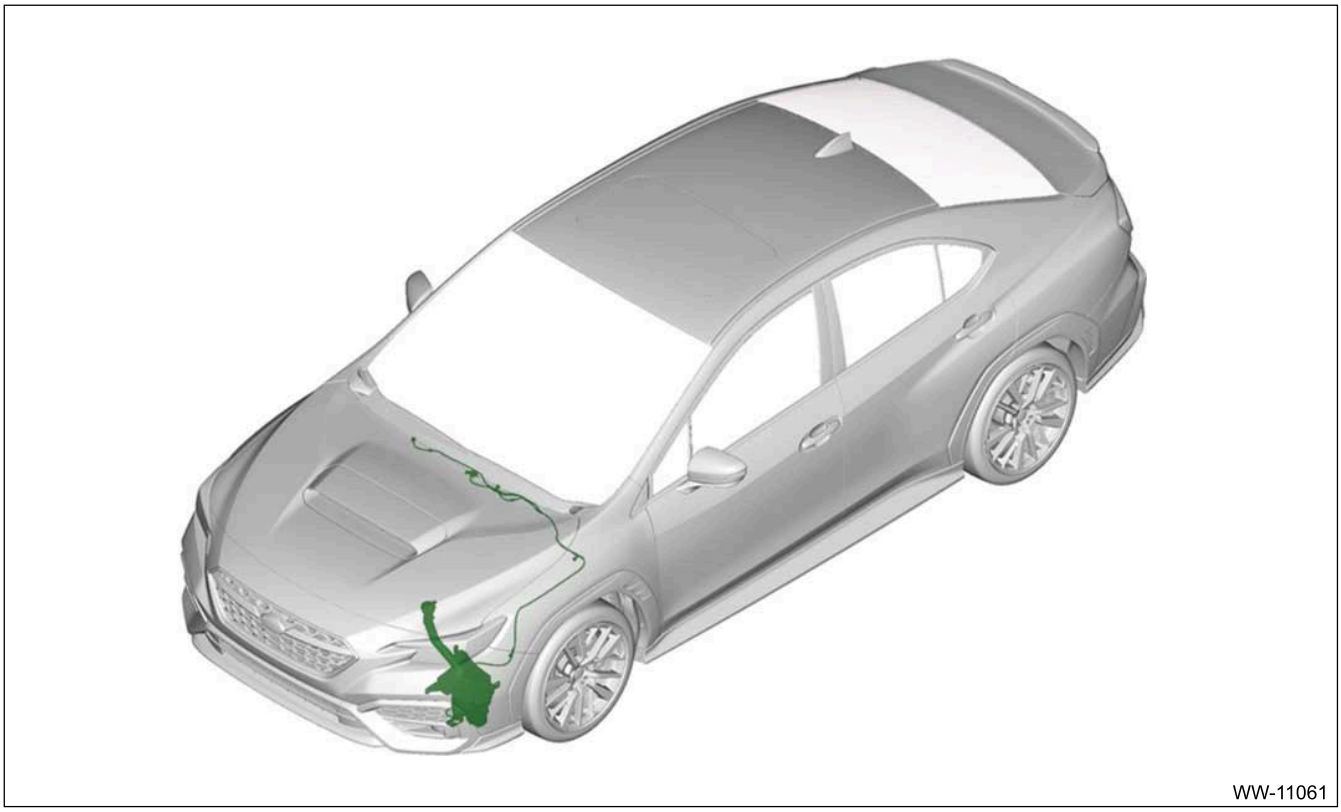
WIPER AND WASHER SYSTEMS > General Description

LOCATION

1. WIPER SYSTEM



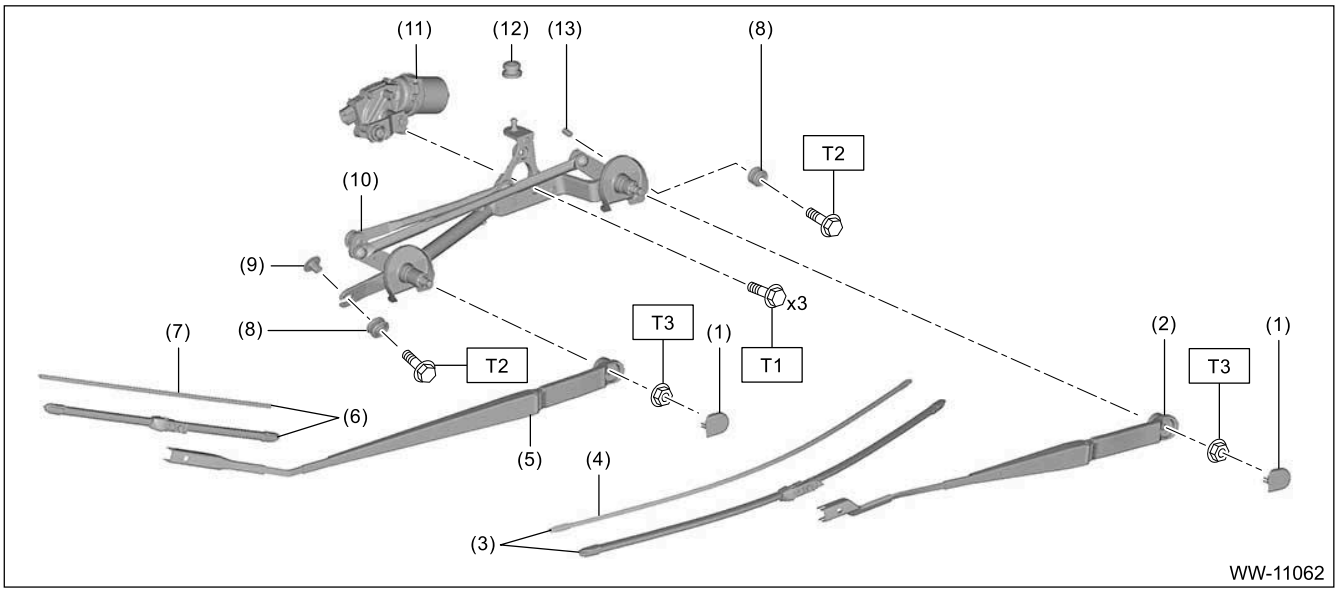
2. WASHER SYSTEM



COMPONENT

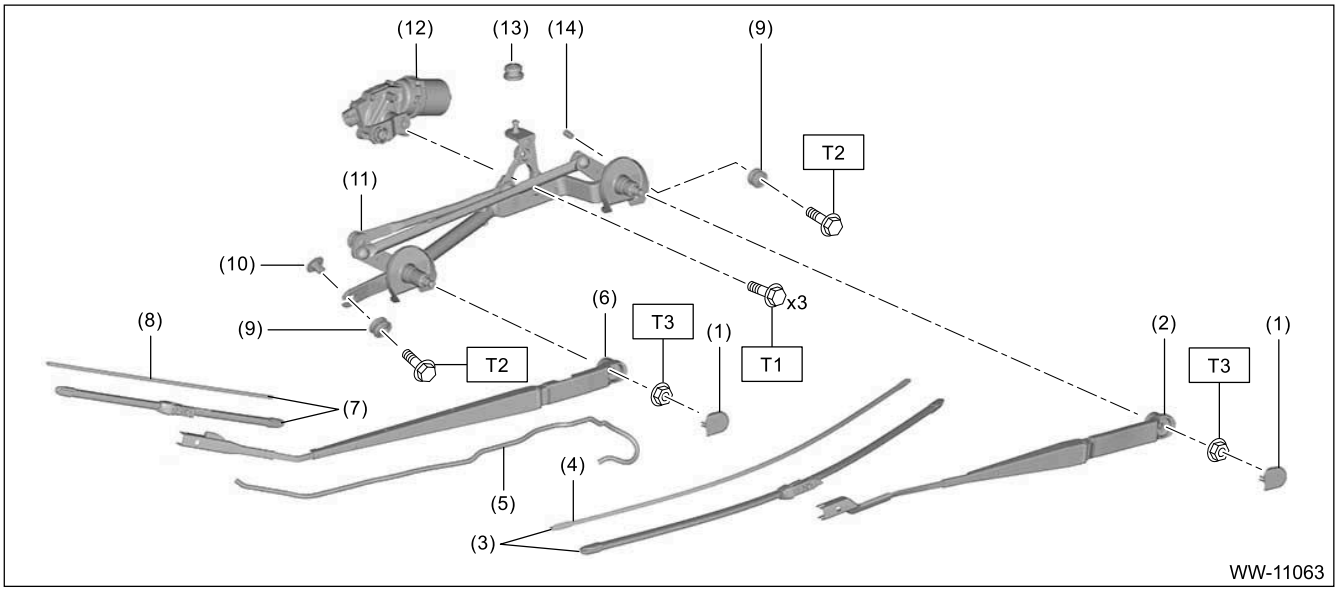
1. FRONT WIPER

- **MODEL WITHOUT WIPER ARM WASHER**



(1)	Cover windshield wiper arm	(7)	Rubber ASSY windshield wiper assistor	(13)	Collar LH
(2)	Arm ASSY windshield wiper driver	(8)	Rubber		
(3)	Blade ASSY windshield wiper driver	(9)	Collar RH	***Tightening torque: N·m (kgf-m, ft-lb)***	
(4)	Rubber ASSY windshield wiper driver	(10)	Link ASSY windshield wiper	***T1: 5.4 (0.6, 4.0)***	
(5)	Arm ASSY windshield wiper assistor	(11)	Motor ASSY windshield wiper	***T2: 6 (0.6, 4.4)***	
(6)	Blade ASSY windshield wiper assistor	(12)	Cushion windshield wiper	***T3: 26 (2.7, 19.2)***	

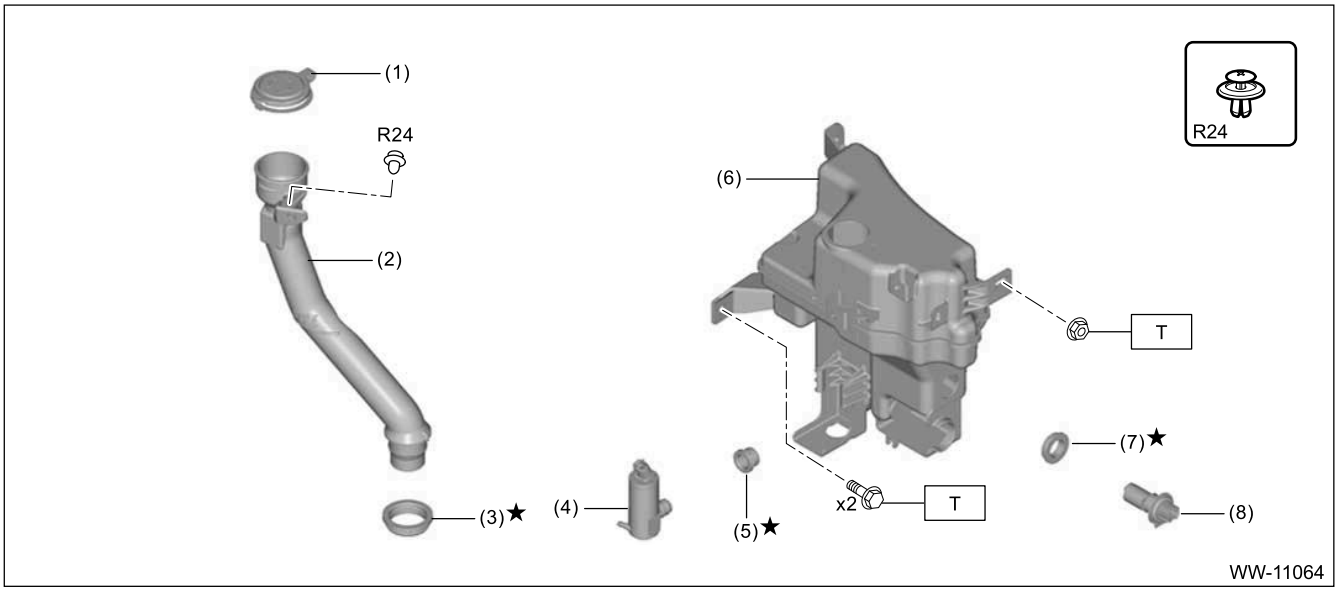
- **MODEL WITH WIPER ARM WASHER**



(1)	Cover windshield wiper arm	(8)	Rubber ASSY windshield wiper assistor	***Tightening torque: N·m (kgf-m, ft-lb)***
(2)	Arm ASSY windshield wiper driver	(9)	Rubber	***T1: 5.4 (0.6, 4.0)***
(3)	Blade ASSY windshield wiper driver	(10)	Collar RH	***T2: 6 (0.6, 4.4)***
(4)	Rubber ASSY windshield wiper driver	(11)	Link ASSY windshield wiper	***T3: 26 (2.7, 19.2)***
(5)	Hose wiper arm washer	(12)	Motor ASSY windshield wiper	
(6)	Arm ASSY windshield wiper assistor	(13)	Cushion windshield wiper	
(7)	Blade ASSY windshield wiper assistor	(14)	Collar LH	

2. WASHER TANK & HOSE

- **WASHER TANK**

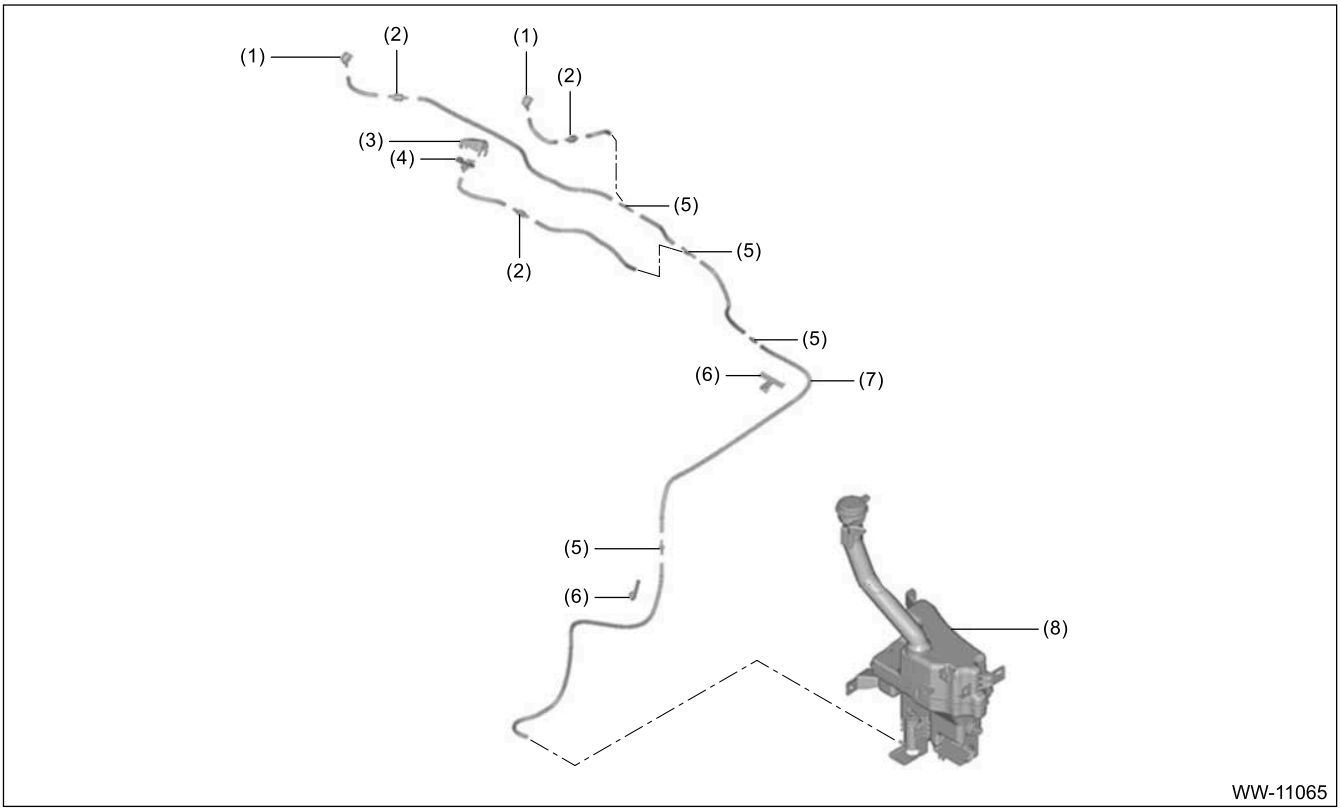


(1) Cap washer tank
(2) Hose inlet
(3) Packing inlet
(4) Motor pump ASSY washer
(5) Packing
(6) Tank washer
(7) Packing
(8) Sensor washer fluid level

Tightening torque: N·m (kgf-m, ft-lb)

T: 6 (0.6, 4.4)

- **FRONT WASHER HOSE**



(1) Nozzle windshield washer
(4) Joint washer hose (model with wiper arm washer)
(7) Hose ASSY windshield washer

(2) Check valve windshield washer
(3) Cover joint (model with wiper arm washer)
(5) Joint
(6) Clip
(8) Washer tank ASSY

WIPER AND WASHER SYSTEMS > General Description

PREPARATION TOOL

1. SUBARU SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
STSSM4	—	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. **Note:** • **For detailed operation procedures, refer to "Help" of application.** • **Used together with interface for Subaru Select Monitor (such as DST-i and DST-010).**

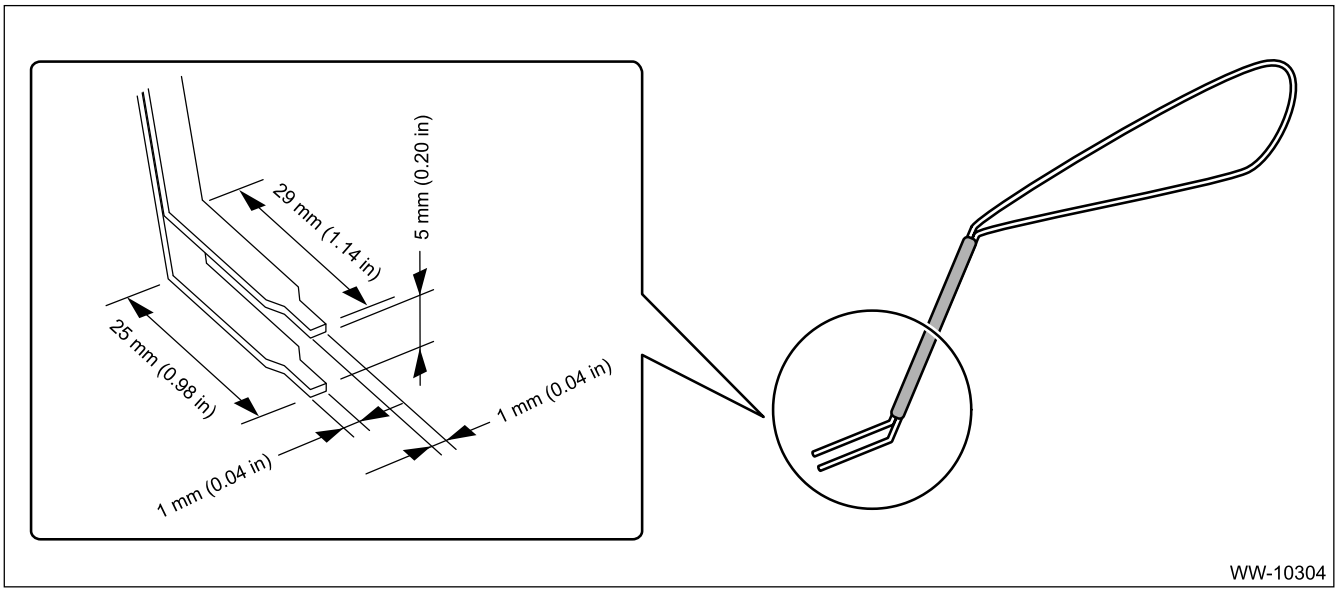
2. OTHER

	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

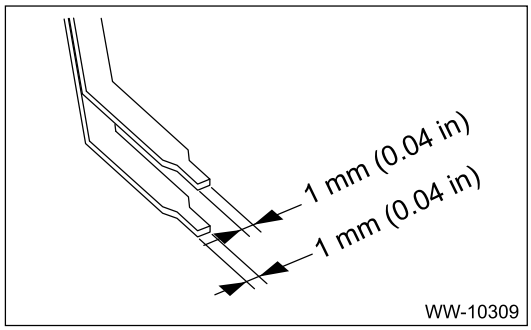
3. HANDMADE TOOL

- **WASHER NOZZLE ADJUSTMENT JIG**

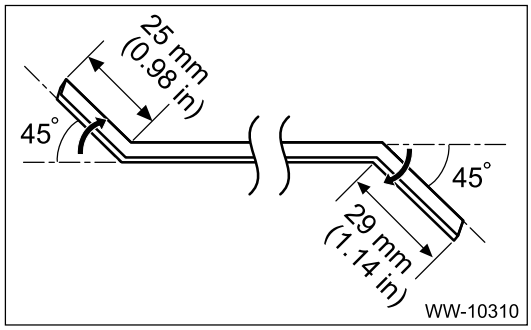
Note:
Refer to the data described below, prepare the materials to make a washer nozzle adjustment tool.



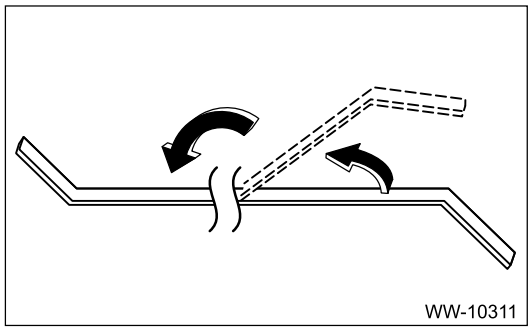
1. Prepare the vertebra of wiper blade which is to be discarded and vinyl tape.
2. Grind the vertebra edge until the width becomes 1 mm (0.04 in).

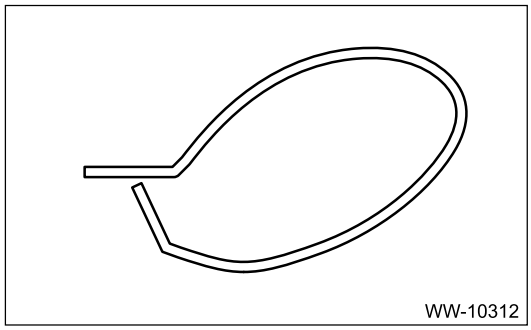


3. Bend the vertebra at the position 25 mm (0.98 in) away from its end by 45°.
4. Bend the vertebra at the position 29 mm (1.14 in) away from the other end by 45°.

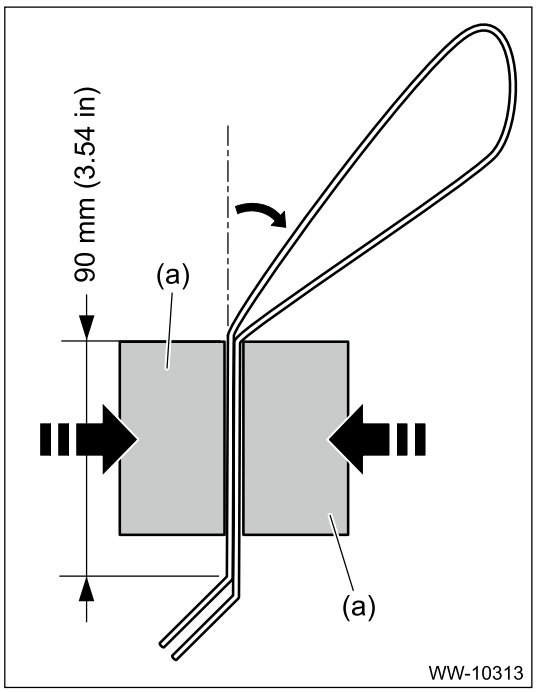


5. Double up the vertebra so that the longer end (29 mm (1.14 in)) comes upward.

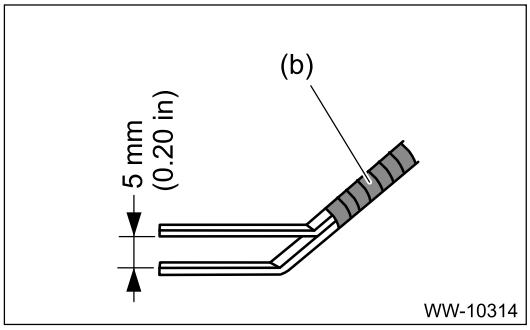




6. Secure the vertebra with a vise (a) so that the tip clearance between upper and lower becomes 5 mm (0.2 in).
7. Bend the vertebra at the position approximately 90 mm (3.54 in) away from the bending point for the longer end.



8. Check that the tip clearance between upper and lower is 5 mm (0.2 in), and secure the vertebra with vinyl tape (b).



LOCATION

For the location, refer to “FUSE AND RELAY” in the wiring diagram. Ref. to WIRING SYSTEM>Fuse And Relay.

Note:

For details of relay and fuse, refer to “DC POWER SUPPLY CIRCUIT”. Ref. to WIRING SYSTEM>Power Supply Circuit.

INSPECTION

1. CHECK FUSE

1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

WIPER AND WASHER SYSTEMS > Wiper and Washer System

WIRING DIAGRAM

For the wiring diagram, refer to "Front Wiper and Washer System" in the wiring diagram. Ref. to WIRING SYSTEM>Front Wiper and Washer System>WIRING DIAGRAM.

WIPER AND WASHER SYSTEMS > Wiper and Washer System

INSPECTION

1. TROUBLE SYMPTOM

Symptoms	Repair order
Wiper and washers do not operate	1. Wiper fuse 2. Combination switch (wiper) 3. Motor assembly wiper 4. Wiring harness
Wipers do not operate in LO or HI	1. Combination switch (wiper) 2. Motor assembly wiper 3. Wiring harness
Wipers do not operate in INT	1. Combination switch (wiper) 2. Motor assembly wiper 3. Wiring harness
Washer motor does not operate	1. Combination switch (wiper) 2. Motor pump assembly washer 3. Wiring harness
Wipers do not operate when washer switch is ON	1. Motor assembly wiper 2. Wiring harness
Washer fluid spray does not operate properly	1. Motor pump assembly washer 2. Hose assembly washer 3. Nozzle washer
Wiper chatters or judders during operation	1. Oil film and dirt on the glass 2. Arm assembly wiper 3. Motor assembly wiper

WIPER AND WASHER SYSTEMS > Wiper and Washer System

NOTE

For procedure of components of the wiper and washer system, refer to the sections below.

- Combination switch (wiper): Ref. to WIPER AND WASHER SYSTEMS>Combination Switch (Wiper).
- Wiper blade: Ref. to WIPER AND WASHER SYSTEMS>Wiper Blade.
- Front wiper arm: Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm.
- Front wiper motor and link: Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Motor and Link.
- Washer tank and motor pump: Ref. to WIPER AND WASHER SYSTEMS>Washer Tank and Motor.
- Front washer: Ref. to WIPER AND WASHER SYSTEMS>Front Washer.
- Front relay control module: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Front Relay Control Module.

- Body integrated unit: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

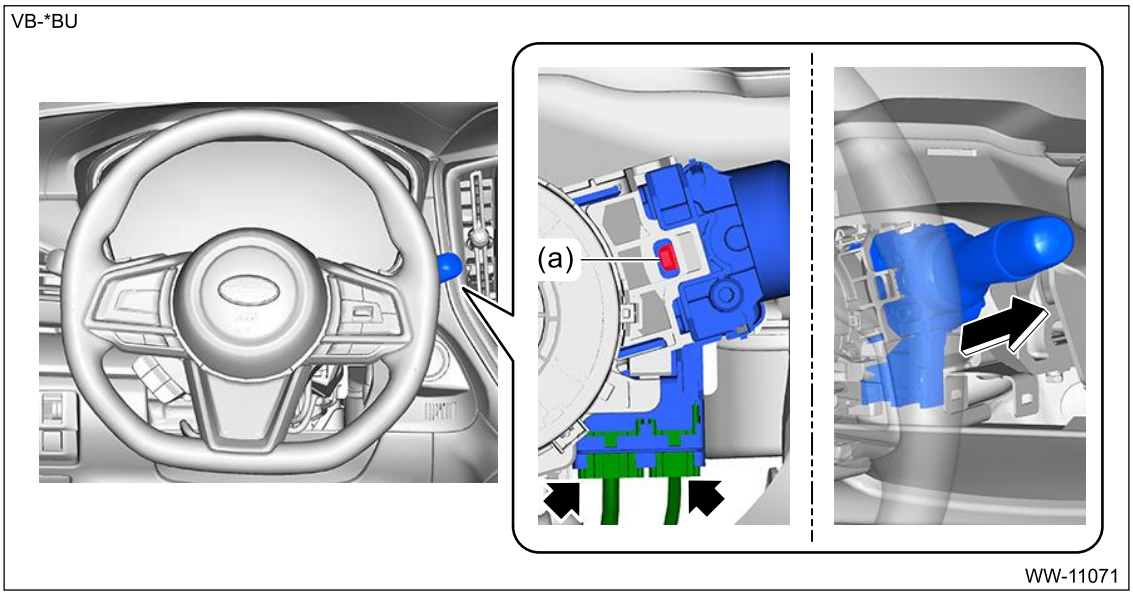
WIPER AND WASHER SYSTEMS > Combination Switch (Wiper)

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. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Turn the steering wheel assembly to right and left, remove the screws, and remove the column cover assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Column>REMOVAL.
3. Remove the switch assembly combination wiper.
   (1) Disconnect connectors.
   (2) Press the claw (a), and remove the switch assembly combination wiper.

   Caution:
   Do not press the claws with excessive force. They may be damaged.



WIPER AND WASHER SYSTEMS > Combination Switch (Wiper)

INSTALLATION

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

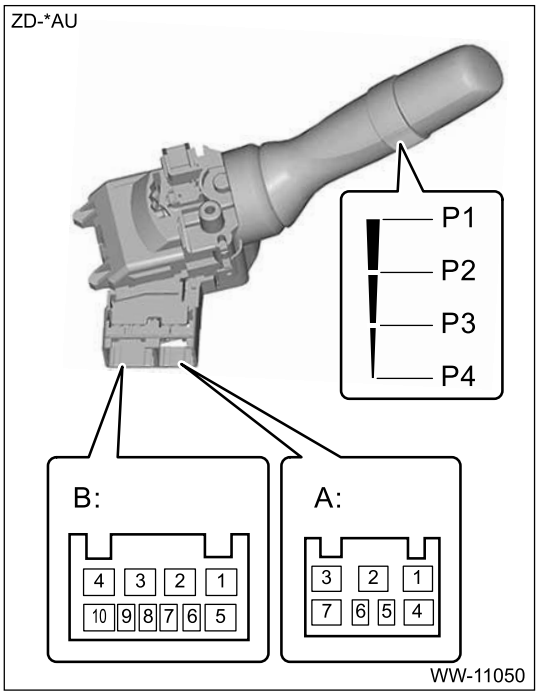
1. Install the switch assembly combination wiper, and connect each connector.
2. Install the column cover assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Column>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

WIPER AND WASHER SYSTEMS > Combination Switch (Wiper)

INSPECTION

1. INSPECTION OF SWITCH UNIT

1. Measure the resistance between connector terminals.



- Front switch

Terminal No.	Inspection conditions	Standard
B2 — B3	MIST	Less than 1 Ω
B2 — B4		Less than 1 MΩ
B1 — B3	OFF	Less than 1 Ω
B1 — B3	INT	Less than 1 Ω
B9 — B10		
B2 — B3	LO	Less than 1 Ω
B2 — B4	HI	Less than 1 Ω

- Washer switch

Terminal No.	Inspection conditions	Standard
A2 — A3	ON	Less than 1 Ω

- INT volume switch

Terminal No.	Inspection conditions	Standard
B7 — B8	P1	Less than 1 Ω
	P2	Approx. 2 kΩ
	P3	Approx. 4 kΩ
	P4	Approx. 6 kΩ

2. Replace the switch assembly combination wiper if the inspection result is not within the standard value.

2. CHECK INTERMITTENT OPERATION OF SWITCH

1. Turn the ignition switch to ON.

2. Operate the combination switch (wiper) to the INT position.
3. Check the stop duration during intermittent operation when intermittent control switch is in FAST and SLOW.

   Intermittent stationary time

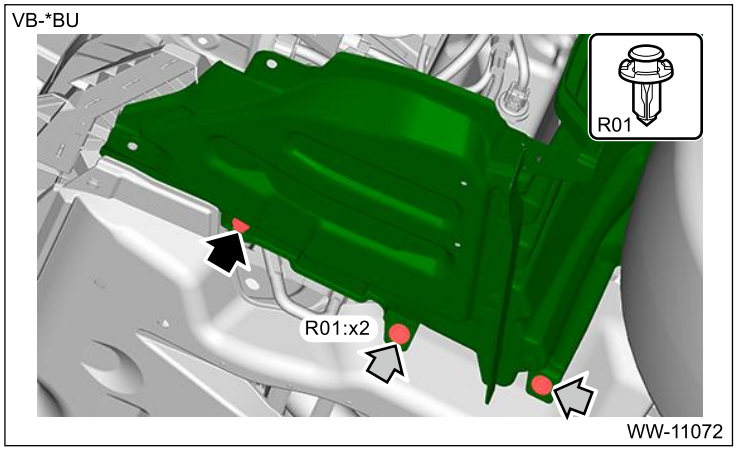
   FAST: Approx. 2 seconds

   SLOW: Approx. 16 seconds
4. Replace the switch assembly combination wiper if the inspection result is not within the standard value.

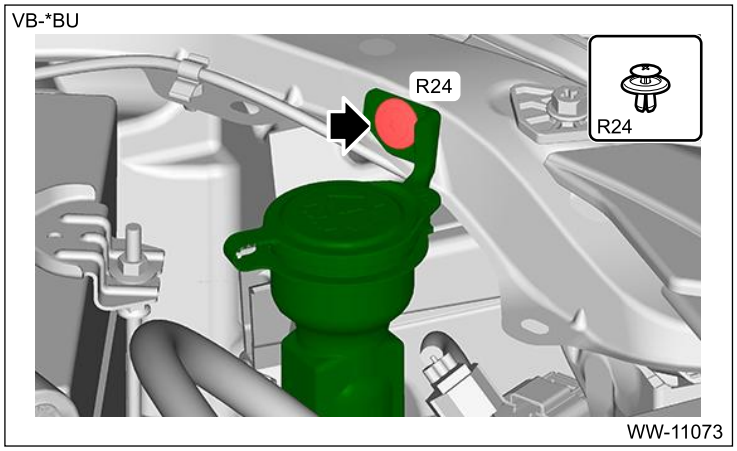
REMOVAL

1. WASHER TANK

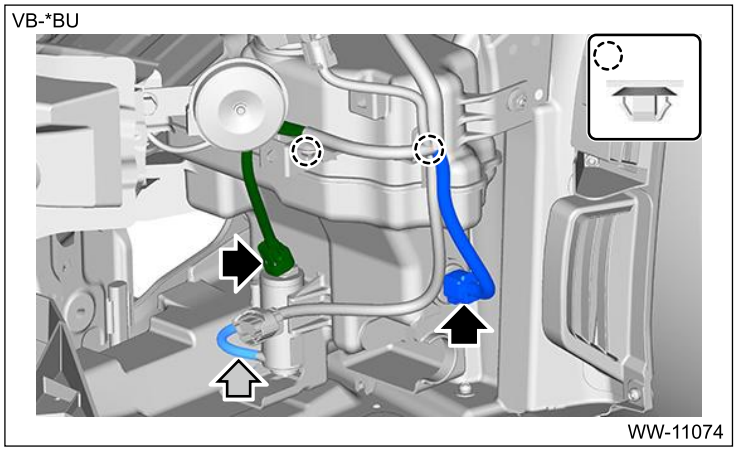
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the bumper face front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL.
3. Remove the screw and clips, and turn over the mud guard front LH.



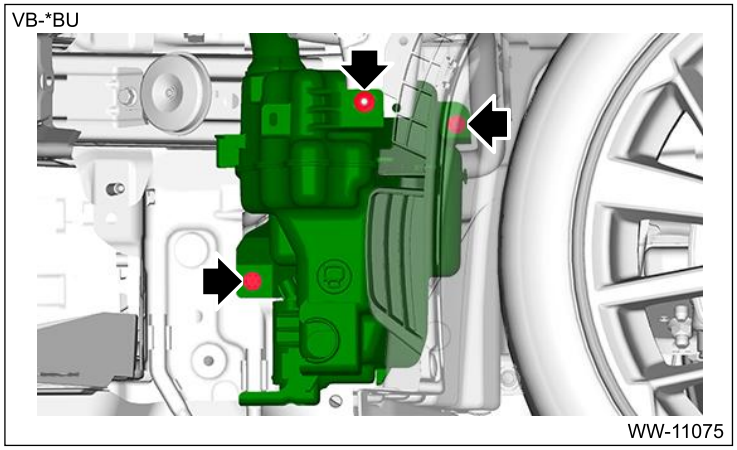
4. Remove the washer tank assembly.
   (1) Remove the clip.



   (2) Disconnect the connector from the motor pump assembly washer and the sensor washer fluid level, and then remove the harness clip.
   (3) Prepare a container before disconnecting the hose assembly windshield washer, and drain all the washer fluid.



(4) Disconnect the hose washer from the tank washer hose clamp.
(5) Remove the bolt and nuts and remove the washer tank assembly.



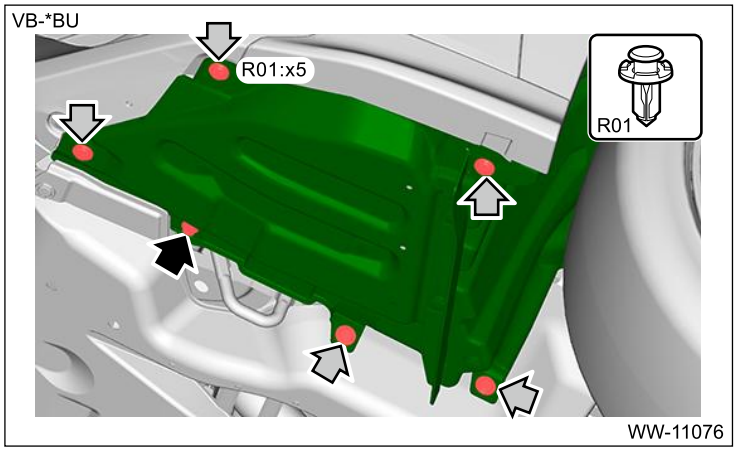
5. Remove the motor pump assembly washer and the sensor washer fluid level.

Note:
Perform this procedure only when required.

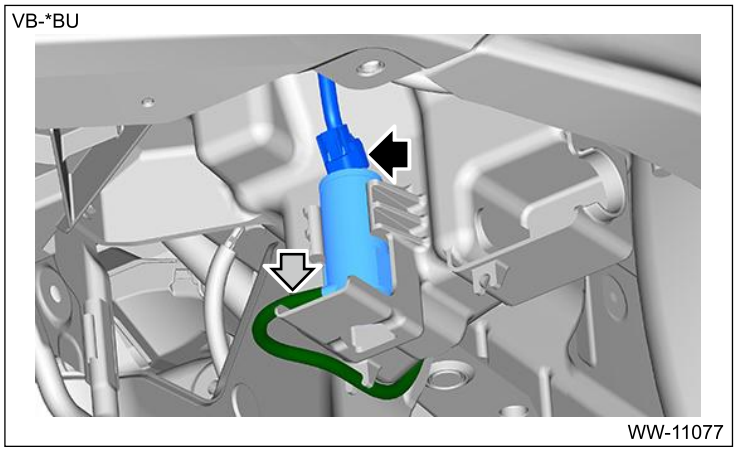
- Motor pump assembly washer: Ref. to WIPER AND WASHER SYSTEMS>Washer Tank and Motor>REMOVAL > WASHER MOTOR PUMP.
- Sensor washer fluid level: Ref. to WIPER AND WASHER SYSTEMS>Washer Tank and Motor>REMOVAL > WASHER FLUID LEVEL SENSOR.

2. WASHER MOTOR PUMP

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the screw and clips, and turn over the mud guard front LH.

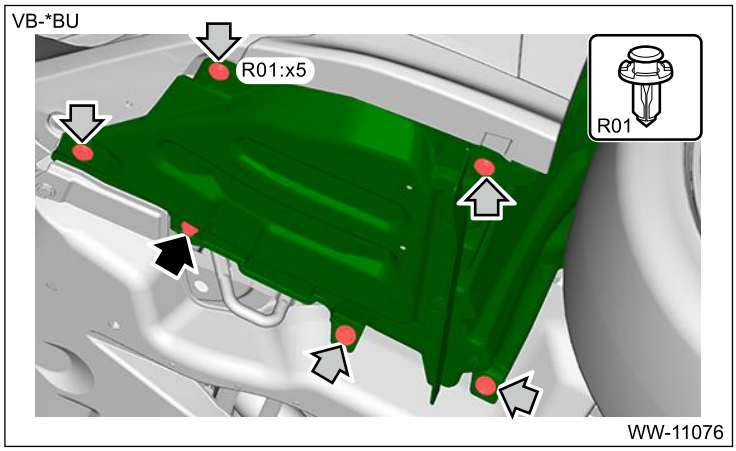


3. Remove the motor pump assembly washer.
   (1) Prepare a container before disconnecting the hose assembly windshield washer, and drain all the washer fluid.
   (2) Disconnect the connector, and remove the motor pump assembly washer.



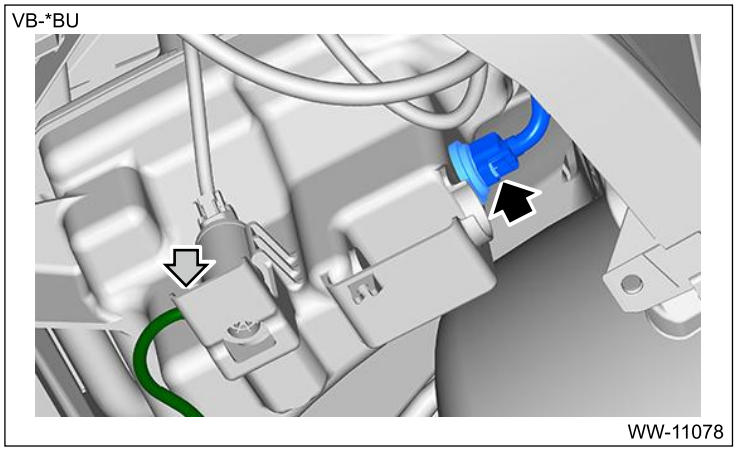
3. WASHER FLUID LEVEL SENSOR

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the screw and clips, and turn over the mud guard front LH.



3. Remove the sensor washer fluid level.
   (1) Prepare a container before disconnecting the hose assembly windshield washer, and drain all the washer fluid.

(2) Disconnect the connector, and remove the sensor washer fluid level with a thick towel or the like.



WIPER AND WASHER SYSTEMS > Washer Tank and Motor

INSTALLATION

1. WASHER TANK

Caution:
When the hose inlet assembly is removed, do not reuse the packing inlet. Align the alignment marks on the hose inlet and the tank washer before installation.

1. Install the motor pump assembly washer and the sensor washer fluid level.
   - Motor pump assembly washer: Ref. to WIPER AND WASHER SYSTEMS>Washer Tank and Motor>INSTALLATION > WASHER MOTOR PUMP.
   - Sensor washer fluid level: Ref. to WIPER AND WASHER SYSTEMS>Washer Tank and Motor>INSTALLATION > WASHER FLUID LEVEL SENSOR.
2. Install the washer tank assembly.
   Tightening torque:
   6 N·m (0.6 kgf-m, 4.4 ft-lb)
3. Connect the hose assembly windshield washer.
4. Connect each connector and install the harness clip.
5. Add new washer fluid.
6. Install the mud guard front LH. Ref. to EXTERIOR/INTERIOR TRIM>Mud Guard>INSTALLATION.
7. Install the bumper face front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>INSTALLATION.
8. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

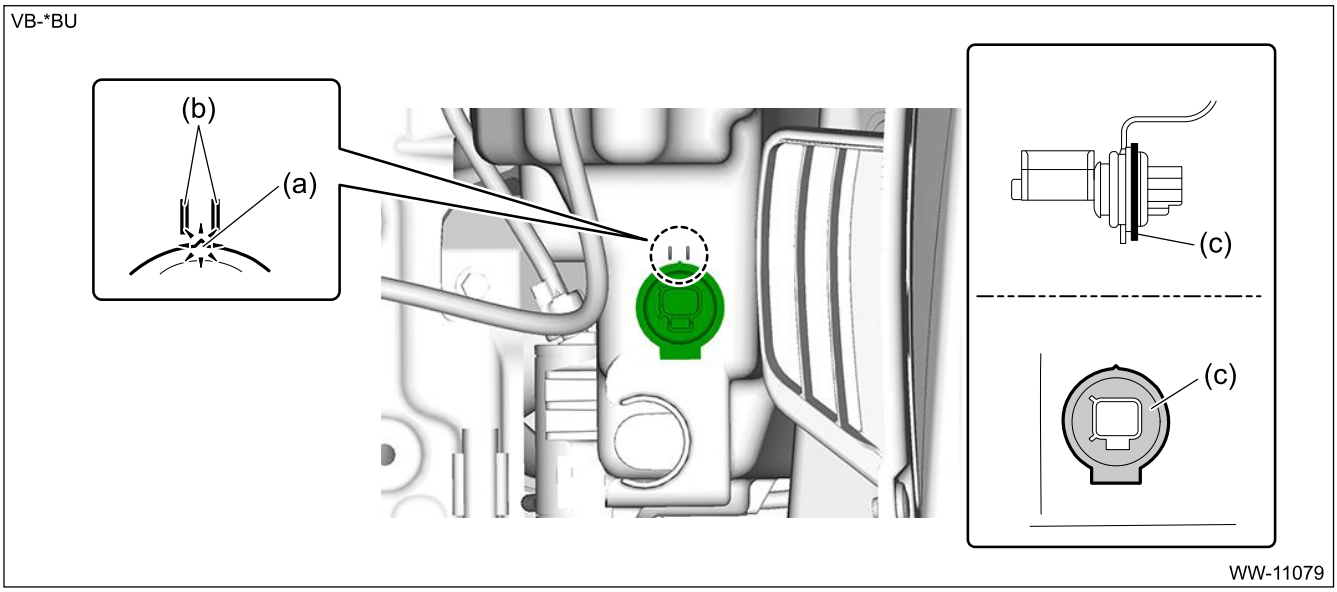
2. WASHER MOTOR PUMP

1. Using new packing, install the motor pump assembly washer.
2. Connect the hose assembly windshield washer.
3. Connect the connector.
4. Add new washer fluid.
5. Install the mud guard front LH. Ref. to EXTERIOR/INTERIOR TRIM>Mud Guard>INSTALLATION.
6. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

3. WASHER FLUID LEVEL SENSOR

1. Install the sensor washer fluid level.
   (1) Using new packing, align the protrusion (a) of the sensor washer fluid level with a center position of double line marks (b) on the tank washer side, and push the flat surface (c) to install.

Caution:
- **Do not hit or apply any impact to the sensor washer fluid level when it is reused, because it has a poor resistance to impact.**
- **When the installation is difficult, apply washer fluid to the packing. Do not use silicone oil.**



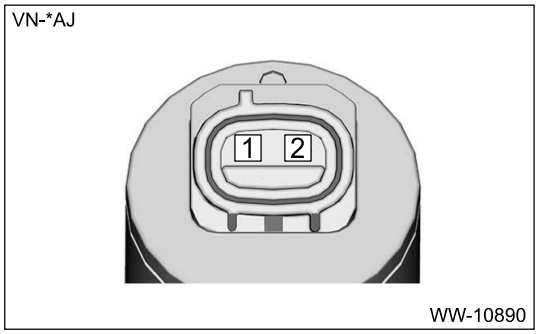
   (2) After installing the sensor washer fluid level, perform the following confirmations.
   - There is no gap between the tank washer and the packing.
   - There is no gap between the packing and the sensor washer fluid level.
   - There is no turn over to the packing and its peripheral area.
2. Connect the hose assembly windshield washer.
3. Connect the connector.
4. Add new washer fluid.
5. Install the mud guard front LH. Ref. to EXTERIOR/INTERIOR TRIM>Mud Guard>INSTALLATION.
6. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

WIPER AND WASHER SYSTEMS > Washer Tank and Motor

INSPECTION

1. WASHER MOTOR PUMP

1. Check the motor operation when battery voltage is applied between the connector terminals.



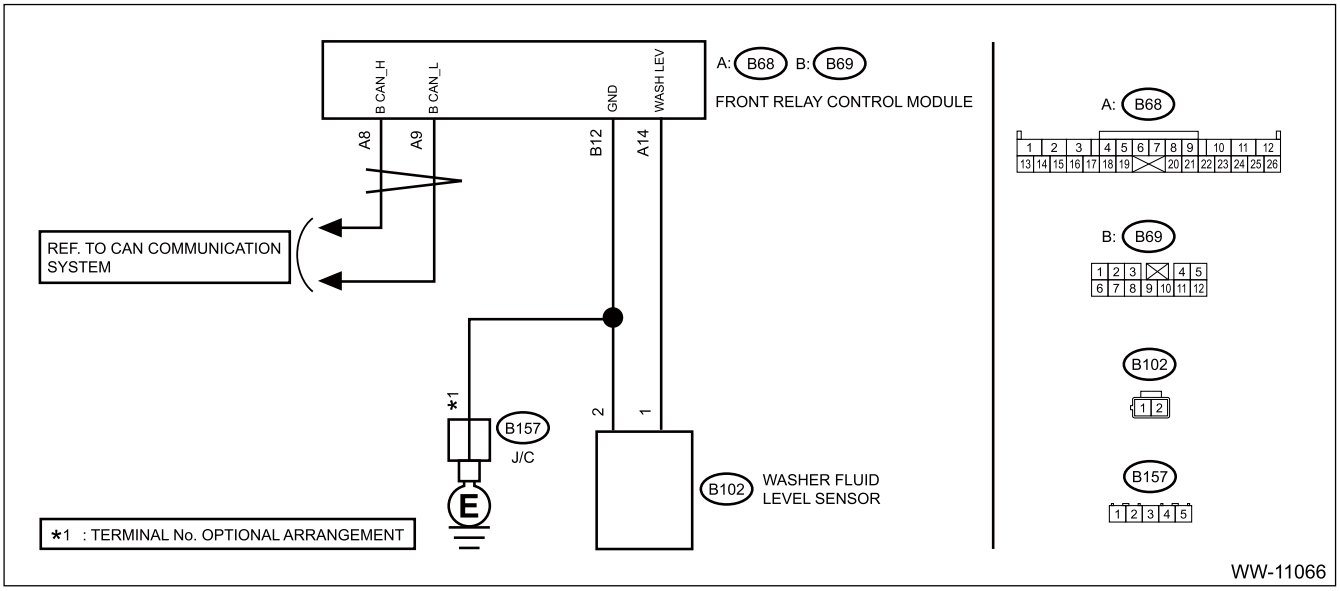
Terminal No.	Inspection conditions	Specification
1 (+) — 2 (−)	Apply battery voltage.	Rotation

2. If it does not operate normally, replace the motor pump assembly washer.

2. WASHER FLUID LEVEL SENSOR

Wiring diagram:

Front wiper and washer system Ref. to WIRING SYSTEM>Front Wiper and Washer System>WIRING DIAGRAM.



1. CHECK CONNECTION STATUS.

1. Turn over the mud guard front LH.
2. Check the connection status of the washer fluid level sensor connector.

Does the low washer fluid warning light illuminate after draining the washer fluid? And does the low washer fluid warning light go off after refilling the washer fluid?

Yes	Washer fluid level sensor is normal.
No	Go to 2.

2. CHECK INPUT VOLTAGE.

1. Disconnect the washer fluid level sensor connector.
2. Measure the voltage between the washer fluid level sensor connector and chassis ground.
   Connector & terminal
   (B102) No. 1 (+) — Chassis ground (−):

Is the voltage approx. 8.5 V or more?

Yes	Go to 3.
No	Check the harness, combination meter, and front relay control module, and repair or replace the defective parts.

3. CHECK WARNING LIGHT.

Short the washer fluid level sensor connector, and check the combination meter display.

Does the low warning light illuminate?

Yes	Go to 4.
No	Check the combination meter and front relay control module, and repair or replace the defective parts.

4. CHECK WASHER FLUID LEVEL SENSOR.

Measure the resistance between the washer fluid level sensor terminals.

Terminals

No. 1 — No. 2:

Is the resistance within the following standard?

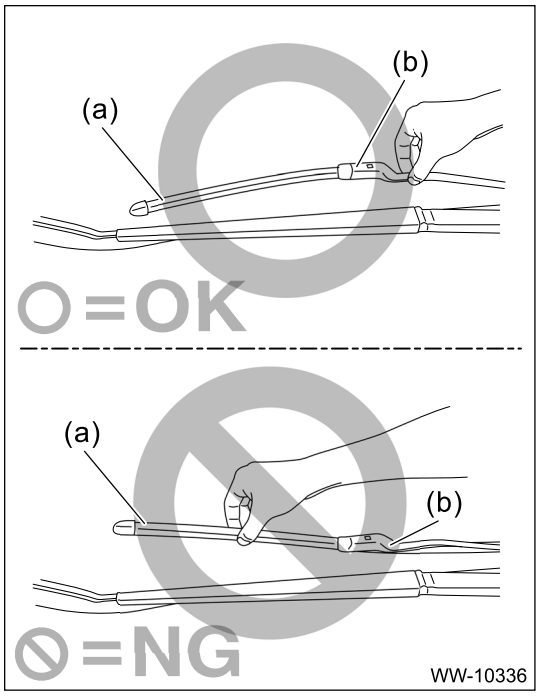
- No remaining amount of washer fluid in the tank (ON): Less than 10 Ω
- There is remaining amount of washer fluid in the tank (OFF): 1 MΩ or more

Yes	Check the connection status of the harness and connector that may have a temporary poor contact.
No	Replace the washer level sensor. Ref. to WIPER AND WASHER SYSTEMS>Washer Tank and Motor>REMOVAL > WASHER FLUID LEVEL SENSOR.

REMOVAL

Caution:

When standing up the arm assembly windshield wiper, make sure to hold the arm portion. Holding the blade portion may cause the blade deformation due to warpage.



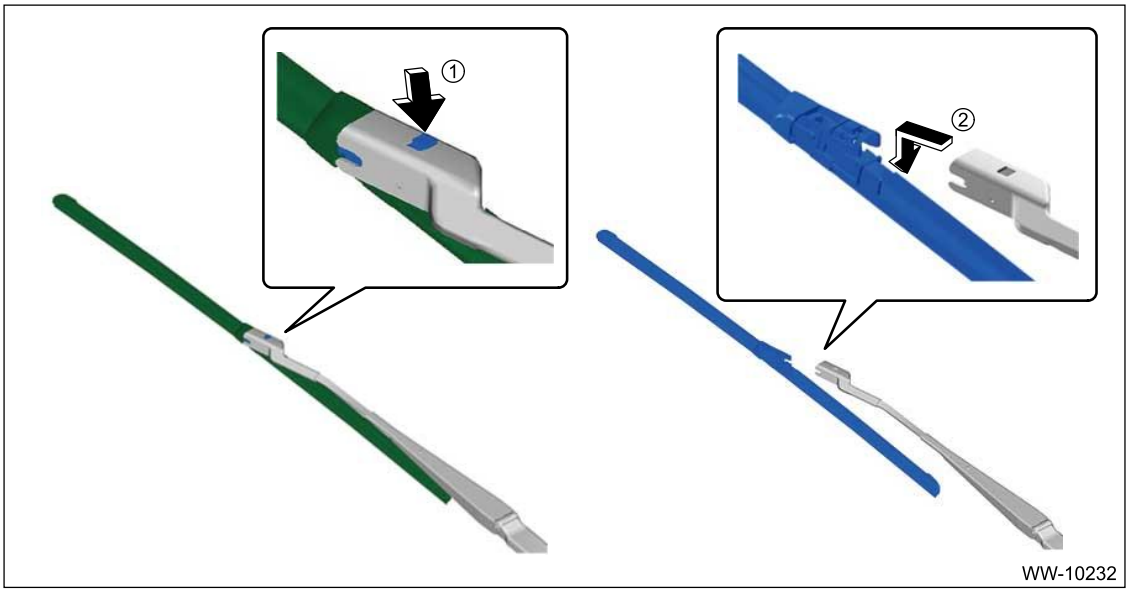
(a) Blade ASSY windshield wiper

(b) Arm ASSY windshield wiper

Note:

When standing up the arm assembly windshield wiper, perform the driver's side first in order not to interfere the arms with each other.

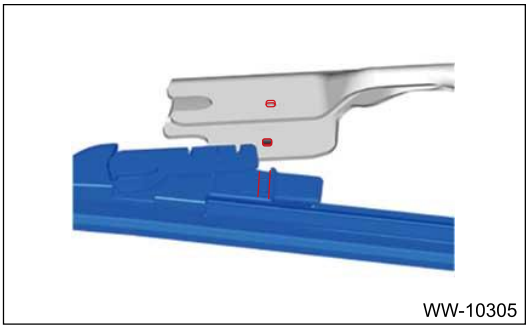
1. Press the lock button ①.
2. Pull the blade assembly windshield wiper in the arrow direction ② to remove the arm assembly windshield wiper.



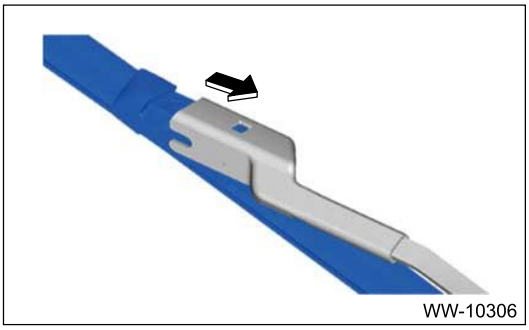
WIPER AND WASHER SYSTEMS > Wiper Blade

INSTALLATION

1. Align the protrusion section of arm inner and the groove on the blade side.



2. Slide until the lock button is locked and install the blade assembly windshield wiper.

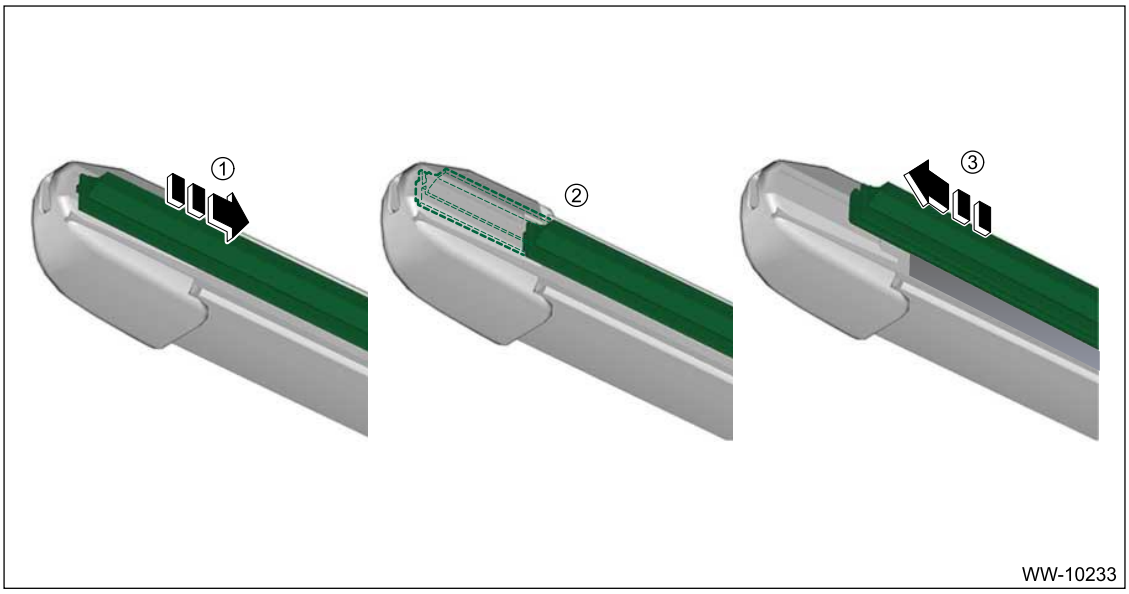


WIPER AND WASHER SYSTEMS > Wiper Blade

DISASSEMBLY

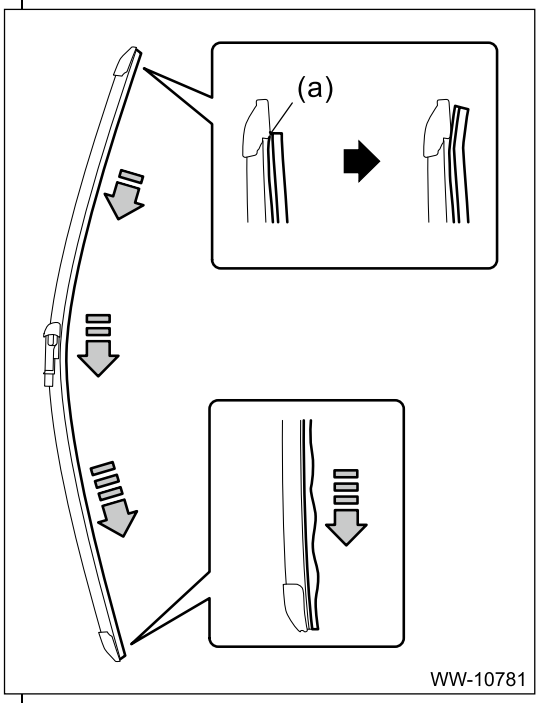
1. Hold the rubber assembly windshield wiper, and pull it in the arrow ① direction to the slit position ② of the blade assembly windshield.

2. Pull out the rubber assembly windshield wiper from the slit of the blade assembly windshield as shown in ③.



Note:

Shorten the entire rubber assembly windshield wiper in the arrow direction at three or four places.



(a) Slit of blade ASSY windshield

WIPER AND WASHER SYSTEMS > Wiper Blade

ASSEMBLY

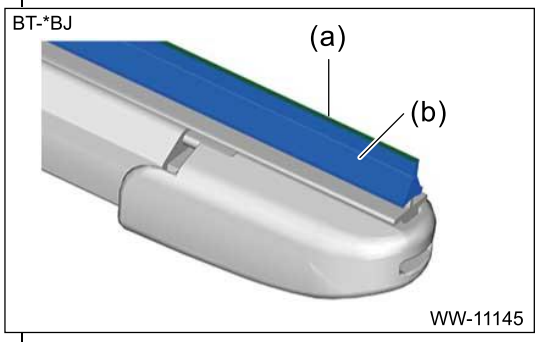
Install the rubber assembly windshield wiper in the reverse order.

INSPECTION

1. Check and clean the rubber assembly windshield wiper.

Caution:

- **Do not use organic solvent-based cleaner when cleaning rubber parts in order to avoid rubber part deterioration.**
- **Do not use the cleaner that includes silicone oil. Failure to do so can cause chattering sound.**
- **Clean rubber edge (a) using a soft cloth or a sponge dampened with washer fluid or mild synthetic detergent that is diluted two times or more. Wiping rubber lip (b) results in peeling of the black coating component, causing wiper chattering.**



- **Check that the rubber is firmly attached after cleaning.**

Replace the rubber assembly windshield wiper if rubber part hardening, deformation or damage is found.

2. Operate the washer system to check if a chattering sound or insufficient wiping occurs.
3. If a chattering sound or insufficient wiping occurs, perform the following procedures.
   (1) Make sure that the blade assembly windshield wiper is not deformed and the movable part moves smoothly.
   (2) Remove oil film and dirt from the glass.

Caution:

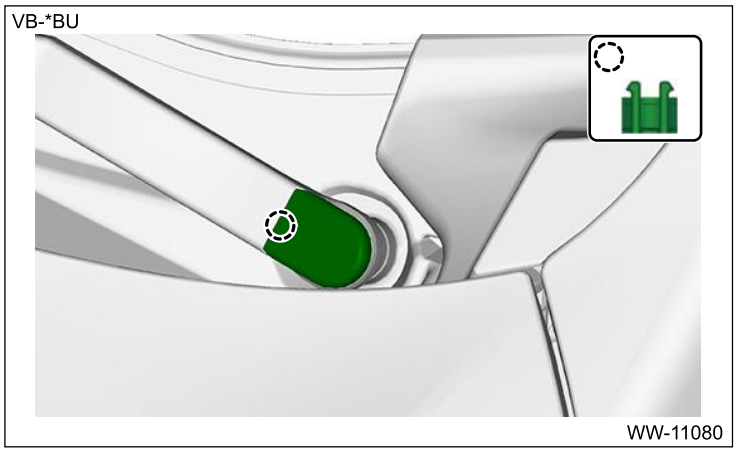
- **When powder-type glass cleaner is used, use after having been dissolved in water sufficiently. If it is used in less water, the glass surface may be damaged.**
- **Clean the glass surface using a soft cloth or sponge with glass cleaner.**

   (3) Operate the wiper again. If a chattering sound or insufficient wiping occurs, perform the procedures again.
4. If defective is not improved after performing step 1 without replacing the rubber assembly windshield wiper, replace the rubber assembly windshield wiper with a new part.
5. If defective is still not improved after operating the washer system again, replace the blade assembly windshield wiper with a new part.

REMOVAL

1. MODEL WITHOUT WASHER NOZZLE

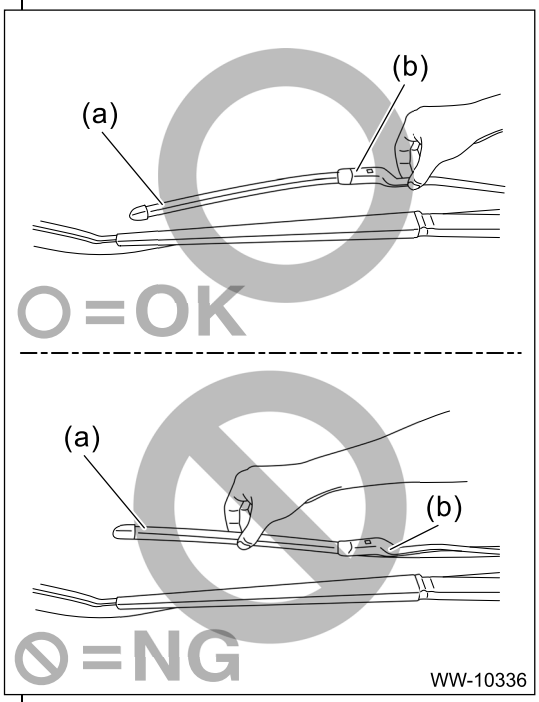
1. Release the claw and remove the cover windshield wiper arm.



2. Remove the nuts, and remove the arm assembly windshield wiper.

Caution:

When standing up the arm assembly windshield wiper, make sure to hold the arm portion. Holding the blade portion may cause the blade deformation.

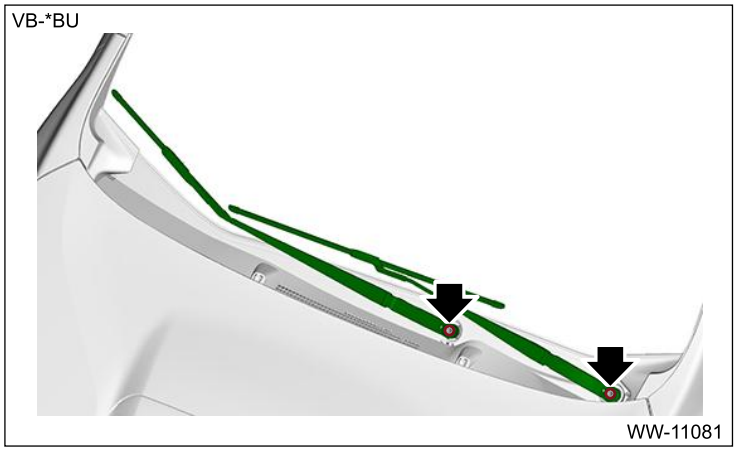


(a) Blade ASSY windshield wiper

(b) Arm ASSY windshield wiper

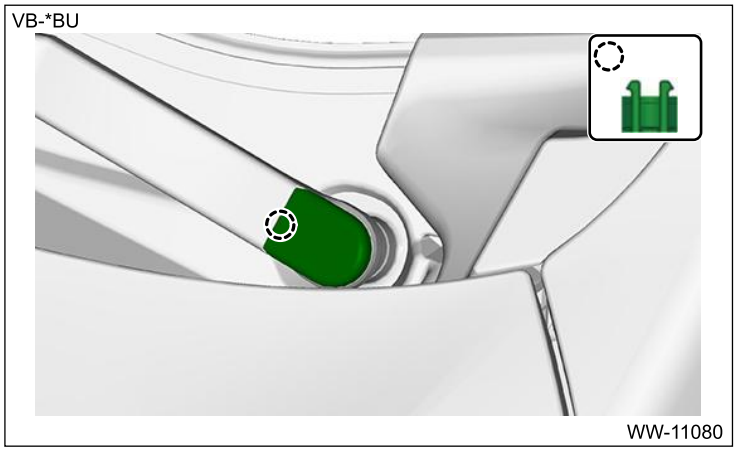
Note:

When standing up the arm assembly windshield wiper, perform the driver's side first in order not to interfere the arms with each other.



2. MODEL WITH WASHER NOZZLE

1. Release the claw and remove the cover windshield wiper arm.

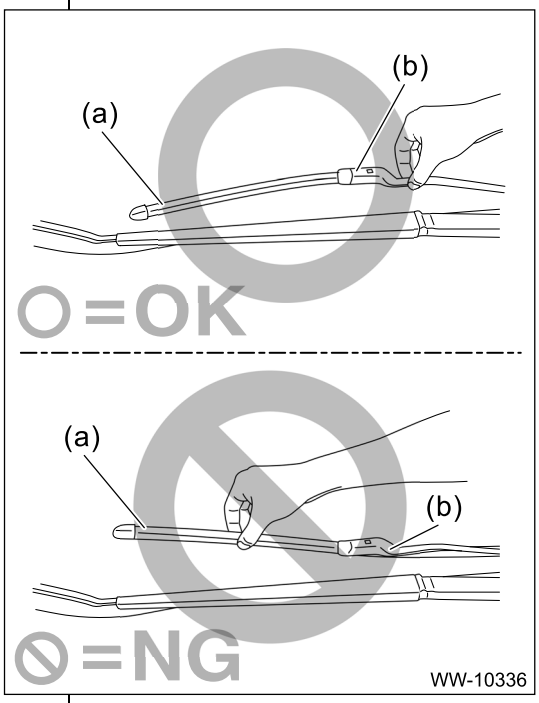


2. Remove the arm assembly windshield wiper.

(1) Remove the nuts, and remove the arm assembly windshield wiper.

Caution:

- **Do not disconnect the hose wiper arm washer from the joint washer hose.**
- **When standing up the arm assembly windshield wiper, make sure to hold the arm portion. Holding the blade portion may cause the blade deformation.**



(a) Blade ASSY windshield wiper

(b) Arm ASSY windshield wiper

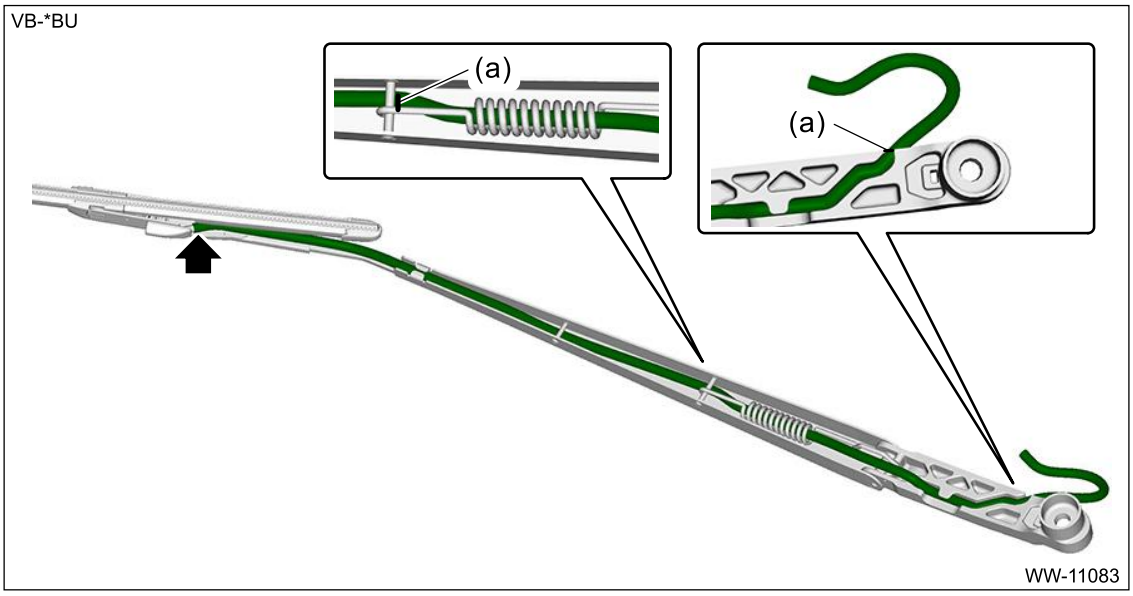
Note:

When standing up the arm assembly windshield wiper, perform the driver's side first in order not to interfere the arms with each other.

(2) Put alignment marks (a) at two places on the arm assembly windshield wiper assistor and disconnect the hose wiper arm washer from the nozzle.

Caution:

Do not remove the nozzle from the arm assembly windshield wiper assistor. If nozzle replacement is required, replace the arm assembly windshield wiper assistor as a unit.



(3) Pull out the hose wiper arm washer from the arm assembly windshield wiper assistor.

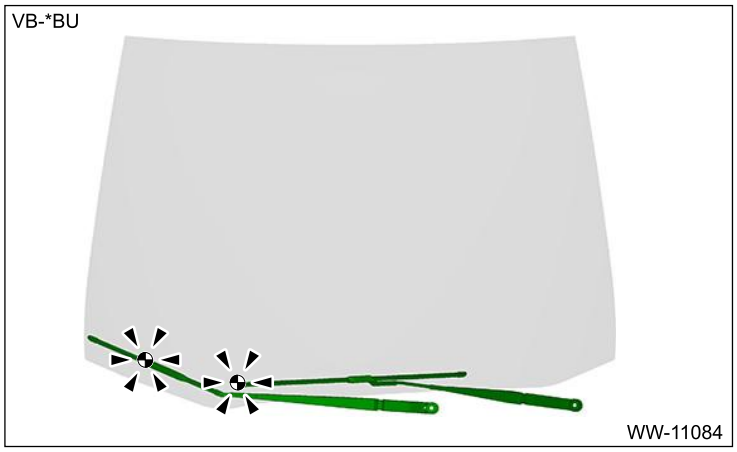
WIPER AND WASHER SYSTEMS > Front Wiper Arm

INSTALLATION

1. MODEL WITHOUT WASHER NOZZLE

Note:
Since the arm assembly windshield wiper on the left and right sides can interfere with each other, install the passenger's side first.

1. Align the blade assembly windshield wiper with the wiper set mark of the windshield glass to install the arm assembly windshield wiper.
   Tightening torque:
   26 N·m (2.7 kgf-m, 19.2 ft-lb)

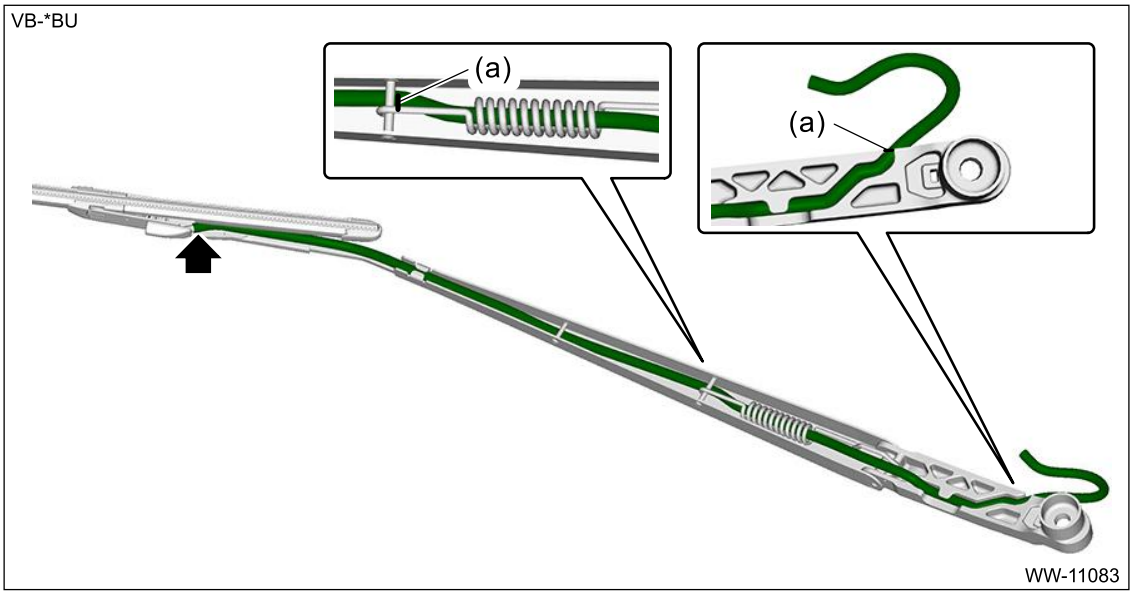


2. Install the cover windshield wiper arm.
3. Operate the windshield wiper once to check that the stop position is aligned with the wiper set mark.

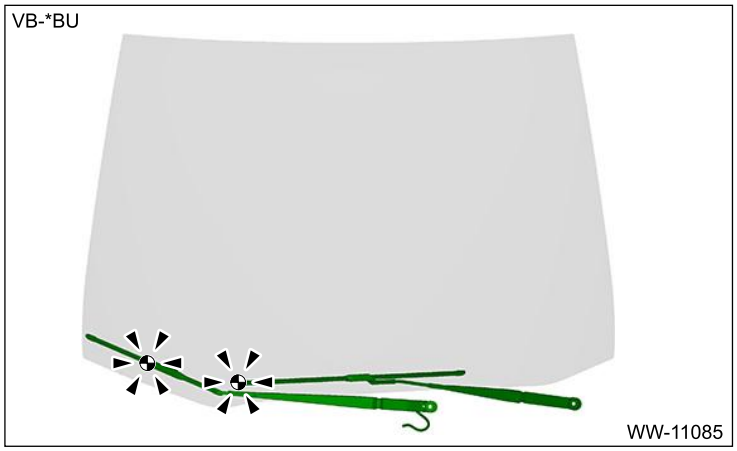
2. MODEL WITH WASHER NOZZLE

Note:
Since the arm assembly windshield wiper on the left and right sides can interfere with each other, install the passenger's side first.

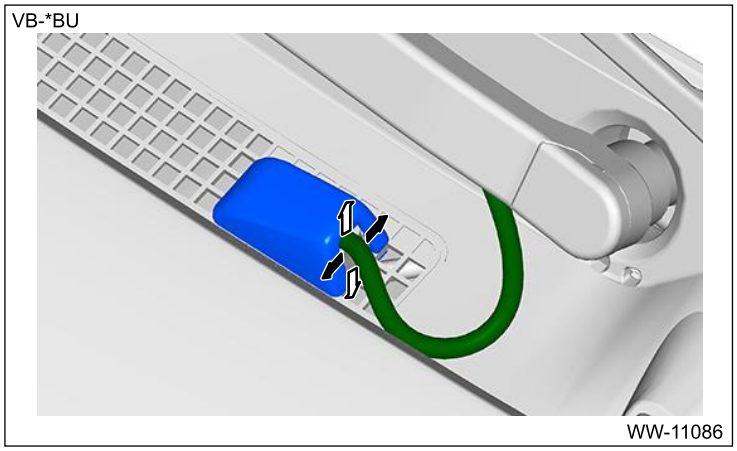
1. When the hose wiper arm washer is removed from the joint washer hose, refer to "INSTALLATION" of "Front Washer". Ref. to WIPER AND WASHER SYSTEMS>Front Washer>INSTALLATION > WIPER ARM WASHER NOZZLE.
2. Install the arm assembly windshield wiper.
   (1) Align the alignment marks (a), and install the hose wiper arm washer to the arm assembly windshield wiper assistor.



   (2) Align the blade assembly windshield wiper with the wiper set mark of the windshield glass to install the arm assembly windshield wiper.
   Tightening torque:
   26 N·m (2.7 kgf-m, 19.2 ft-lb)



3. Install the cover windshield wiper arm.
4. Operate the windshield wiper once to check that the stop position is aligned with the wiper set mark.
5. Make sure that the hose wiper arm washer and the cover joint do not interfere during windshield wiper operation.



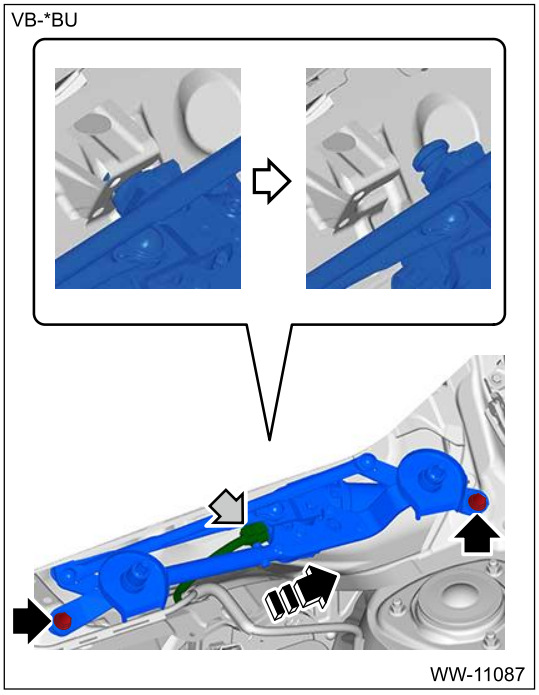
WIPER AND WASHER SYSTEMS > Front Wiper Arm

ADJUSTMENT

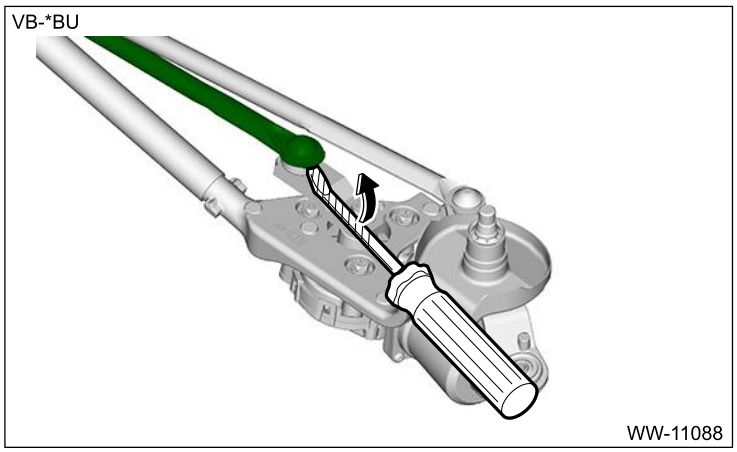
1. Operate the windshield wiper once.
2. If the stop position is not aligning with the wiper set mark, remove the arm assembly windshield wiper, and install by aligning with the wiper set mark. Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm.

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the arm assembly windshield wiper. Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL.
3. Remove the cowl panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>REMOVAL.
4. Remove the link assembly windshield wiper.
   (1) Remove the bolt.
   (2) Slide the link assembly windshield wiper in the arrow direction to release the cushion windshield wiper and the body bracket.
   (3) Disconnect the connector, and remove the link assembly windshield wiper.

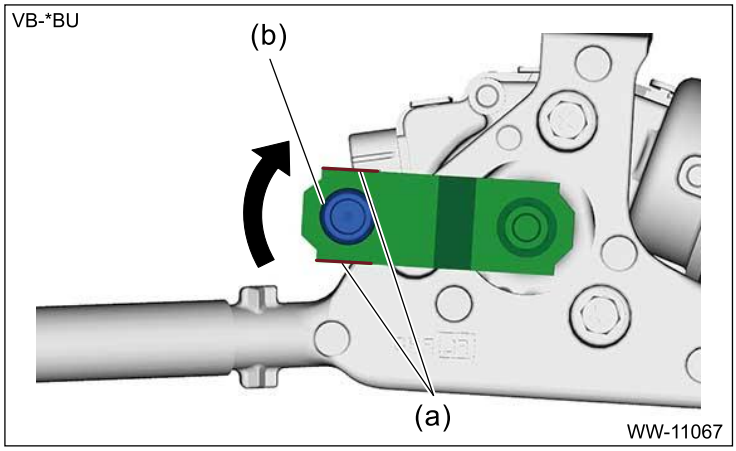


5. Remove the motor assembly windshield wiper.
   (1) Using a crowbar wrapped with protective tape, disconnect the rod of the link assembly windshield wiper from the link plate.

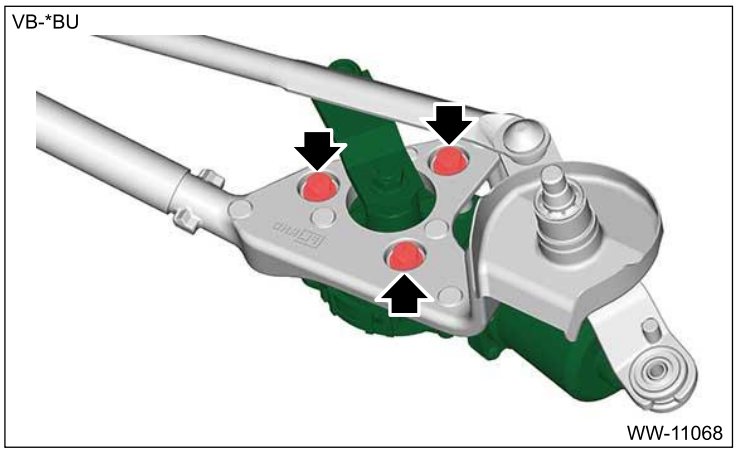


   (2) Using pliers, etc. wrapped with protection tape, pinch the link plate at the tool holding position (a), and turn the link plate clockwise until the installation bolt is seen.

Caution:
When turning the link plate, be careful not to let the tool contact the fixing portion (b) of the link plate.



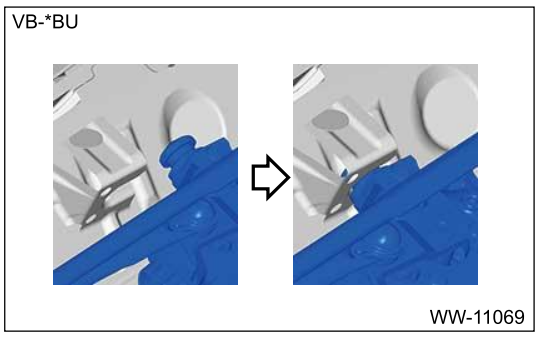
(3) Remove the bolts, and remove the motor assembly windshield wiper.



WIPER AND WASHER SYSTEMS > Front Wiper Motor and Link

INSTALLATION

1. Install the link assembly windshield wiper.
   (1) Check the link plate position of the motor assembly windshield wiper. When the bolts cannot be installed, adjust the position by turning the link plate clockwise using pliers, etc. wrapped with protection tape.
   (2) Install the motor assembly windshield wiper.
   Tightening torque:
   5.4 N·m (0.6 kgf-m, 4.0 ft-lb)
   (3) Install the link assembly windshield wiper rod to the link plate.
   (4) Connect the connector, and engage the cushion windshield wiper with the body bracket to install the link assembly windshield wiper.
   Tightening torque:
   6 N·m (0.6 kgf-m, 4.4 ft-lb)



2. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Operate the front wiper switch of the switch assembly combination wiper once, and stop the motor assembly windshield wiper at the automatic stop position.
4. Install the cowl panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>INSTALLATION.
5. Install the arm assembly windshield wiper. Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>INSTALLATION.

WIPER AND WASHER SYSTEMS > Front Wiper Motor and Link

INSPECTION

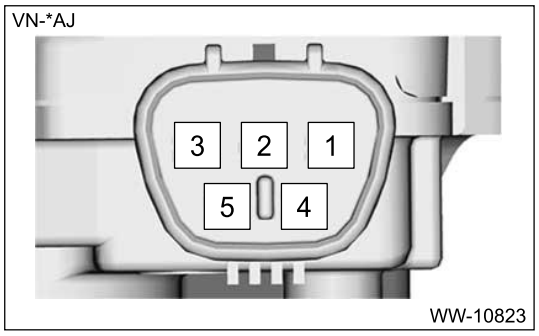
1. CHECK MOTOR OPERATION

1. Turn the front wiper switch of the switch assembly combination wiper to ON.
2. Turn the front wiper switch of the switch assembly combination wiper to OFF, and check that the motor stops at the automatic stop position.
3. Check or replace the front relay control module if it is found defective.
   - Inspection: Ref. to FRONT RELAY CONTROL MODULE (DIAGNOSTICS)>Basic Diagnostic Procedure.
   - Replacement: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Front Relay Control Module.

2. CHECK MOTOR UNIT

1. Check the motor operation when battery voltage is applied between the connector terminals.

Caution:
Fix the motor to prevent the motor from being shorted by moving during operation.



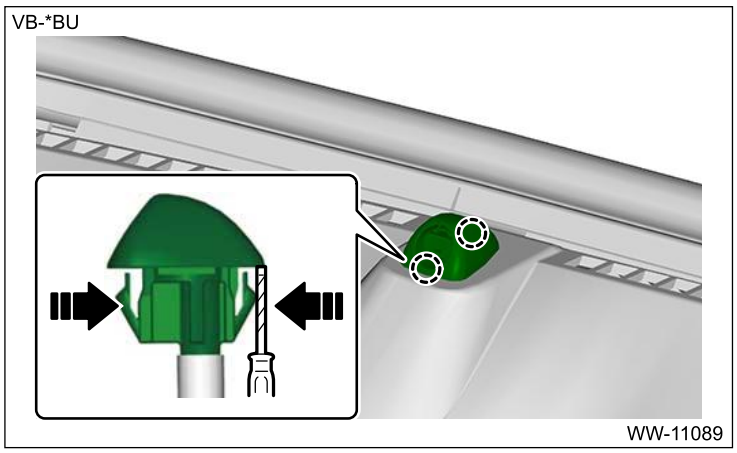
Terminal No.	Inspection conditions	Specification
5 (+) — 4 (−)	Apply battery voltage.	At low speed
3 (+) — 4 (−)		At high speed

2. If it does not operate normally, replace the motor assembly windshield wiper.

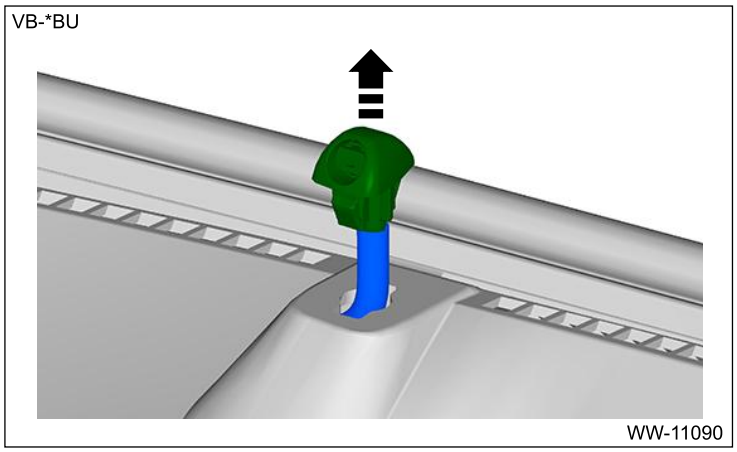
REMOVAL

1. WINDSHIELD WASHER NOZZLE

1. Remove the arm assembly windshield wiper. Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL > MODEL WITHOUT WASHER NOZZLE.
2. Remove the cowl panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>REMOVAL.
3. Remove the nozzle windshield washer.
   (1) Release the claws as shown in the figure, using a flat tip screwdriver or similar tool wrapped with protection tape.

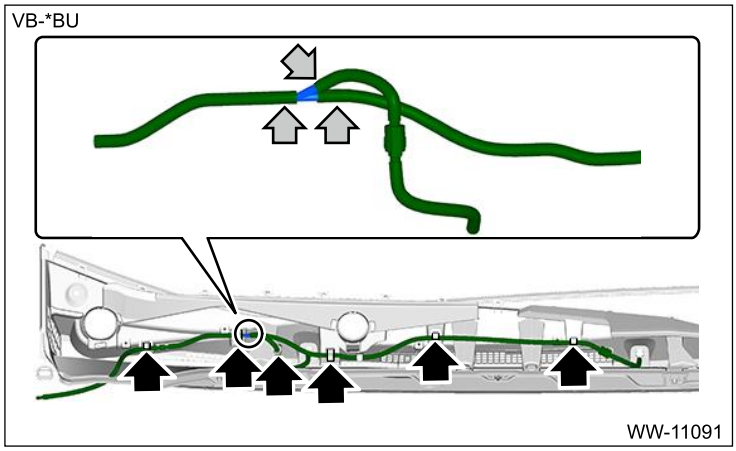


   (2) Pull out the nozzle windshield washer.
   (3) Remove the nozzle windshield washer from the hose assembly windshield washer.



4. Remove the hose assembly windshield washer from the cowl panel assembly clamps, and disconnect it. Ref. to WIPER AND WASHER SYSTEMS>General Description>LOCATION > WASHER SYSTEM.

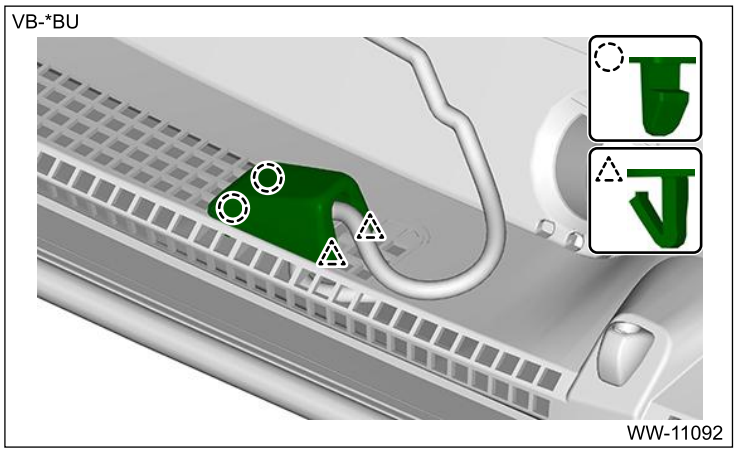
Note:
Perform this procedure only when required.



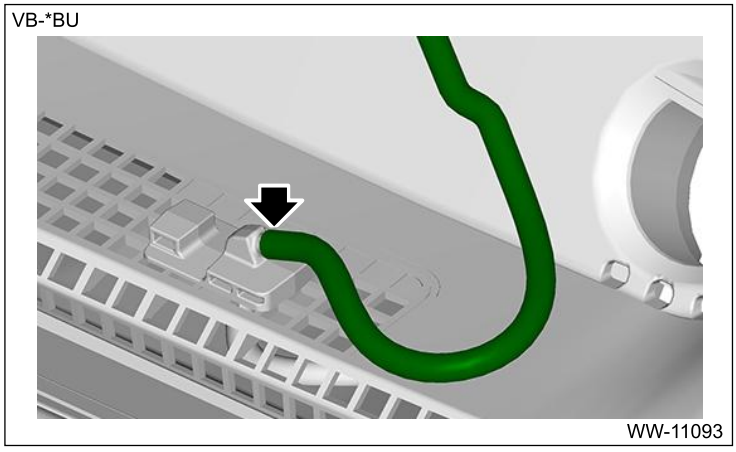
2. WIPER ARM WASHER NOZZLE

Caution:
Do not remove the nozzle from the arm assembly windshield wiper assistor. If nozzle replacement is required, replace the arm assembly windshield wiper assistor as a unit.

1. Remove the arm assembly windshield wiper. Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL > MODEL WITH WASHER NOZZLE.
2. Remove the cowl panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>REMOVAL.
3. Release the claws, and then remove the cover joint.

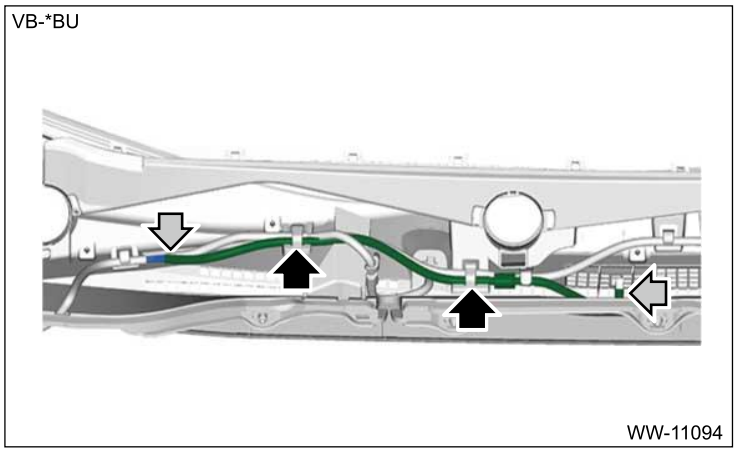


4. Remove the hose wiper arm washer from the joint washer hose.



5. Remove the hose assembly windshield washer from the cowl panel assembly clamps, and disconnect it. Ref. to WIPER AND WASHER SYSTEMS>General Description>LOCATION > WASHER SYSTEM.

Note:
Perform this procedure only when required.



WIPER AND WASHER SYSTEMS > Front Washer

INSTALLATION

1. WINDSHIELD WASHER NOZZLE

1. Install the hose assembly windshield washer. Ref. to WIPER AND WASHER SYSTEMS>General Description>LOCATION > WASHER SYSTEM.
2. Install the nozzle windshield washer.
   (1) Connect the nozzle windshield washer to the hose assembly windshield washer.
   (2) Install the nozzle windshield washer to the cowl panel assembly.
3. Install the cowl panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>INSTALLATION.
4. Install the arm assembly windshield wiper. Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>INSTALLATION > MODEL WITHOUT WASHER NOZZLE.
5. Check the position of the nozzle windshield washer. Ref. to WIPER AND WASHER SYSTEMS>Front Washer>INSPECTION > INSPECTING THE SPRAY POSITION.

2. WIPER ARM WASHER NOZZLE

1. Install the hose assembly windshield washer. Ref. to WIPER AND WASHER SYSTEMS>General Description>LOCATION > WASHER SYSTEM.
2. Install the hose wiper arm washer.
3. Install the cover joint.
4. Install the cowl panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>INSTALLATION.
5. Install the arm assembly windshield wiper. Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>INSTALLATION > MODEL WITH WASHER NOZZLE.
6. Check the position of the nozzle windshield washer. Ref. to WIPER AND WASHER SYSTEMS>Front Washer>INSPECTION > INSPECTING THE SPRAY POSITION.

WIPER AND WASHER SYSTEMS > Front Washer

INSPECTION

1. VISUAL INSPECTION

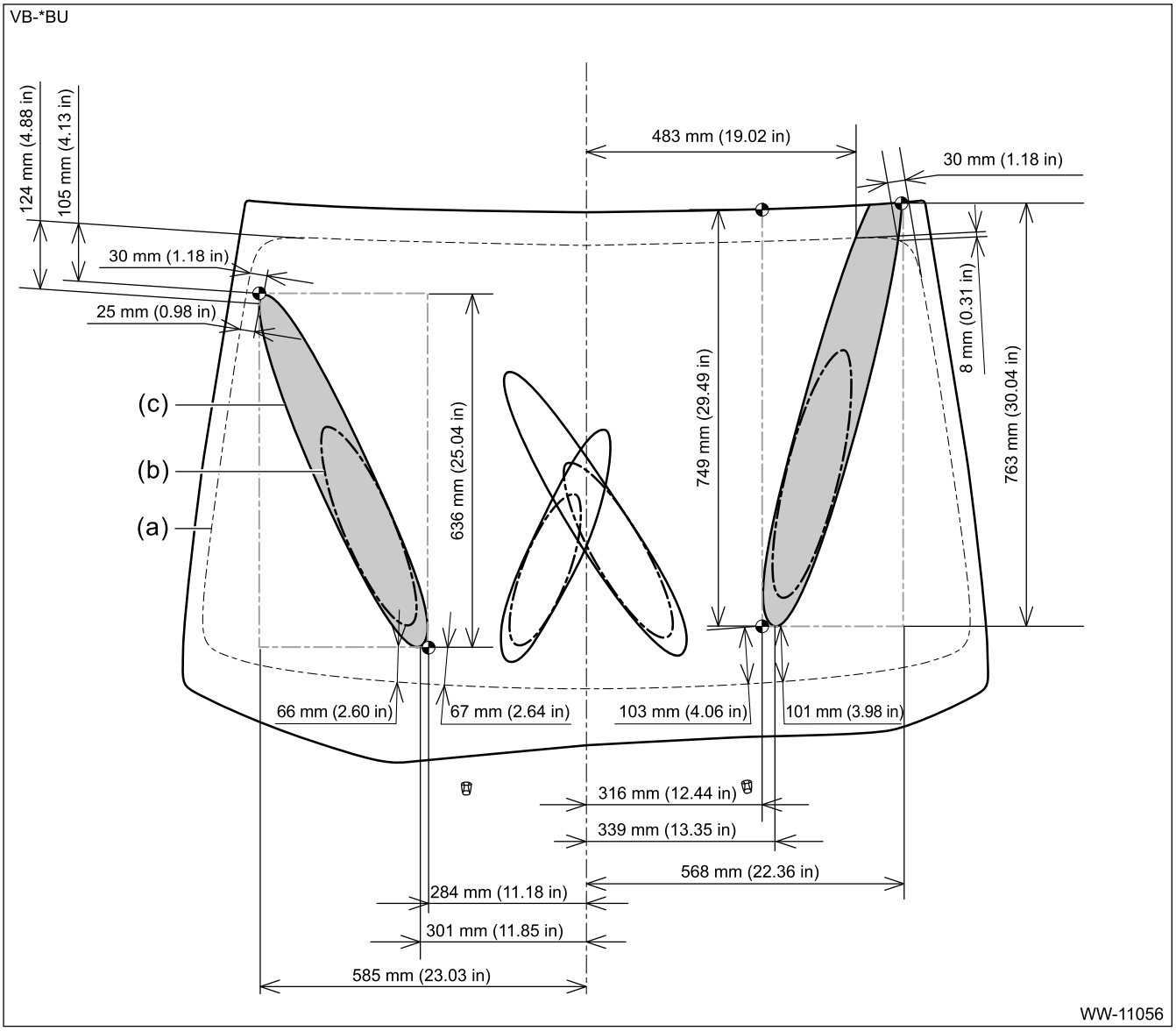
Check for the following items, and if any malfunction is found, replace the corresponding part.

- Make sure the nozzle windshield washer, hose assembly windshield washer and hose wiper arm washer are not clogged.
- Make sure the hose assembly windshield washer and hose wiper arm washer are not bent.

2. INSPECTING THE SPRAY POSITION

- **WINDSHIELD WASHER NOZZLE**

1. Turn the front wiper switch of the switch assembly combination wiper to the OFF position.
2. While the vehicle is running, check that the washer spray position is as shown in the figure.
   (1) Route a piece of string or similar from the outside of the glass so that it passes through the center of the inner mirror mounting portion and the center of the sunload sensor, and then fix it on the glass with adhesive tape.
   (2) Make adjustment marks shown in the figure using a water-based pen.
   (3) Remove the string or similar, then spray washer fluid.

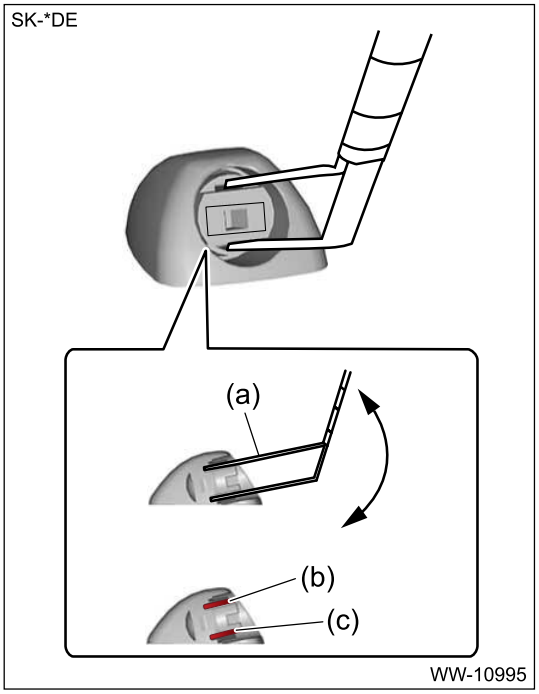


(a) Ceramic line (b) Standard range (c) Spray area

3. After inspection, if the spray position is significantly out of the specified range, adjust the nozzle windshield washer.

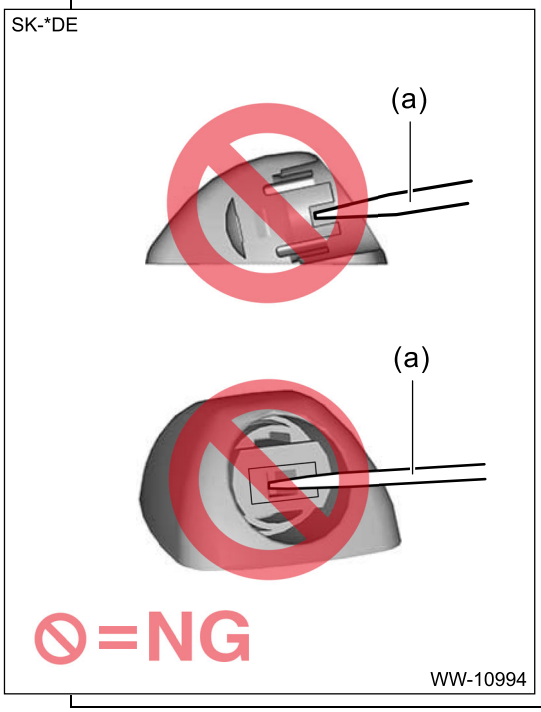
(1) Create the washer nozzle adjustment tool. Ref. to WIPER AND WASHER SYSTEMS>General Description>PREPARATION TOOL > HANDMADE TOOL.

(2) Insert the washer nozzle adjustment tool (a) into the upper side (b) and lower side (c) of the nozzle windshield washer, and adjust the spray position.



Caution:

Washer nozzle is made of resin. Do not insert the precision screwdriver (a) or equivalent into the discharge port. If it is inserted, the discharge port can be deformed, and washer fluid cannot be sprayed.



(3) When the spray position cannot be adjusted, replace the nozzle windshield washer.

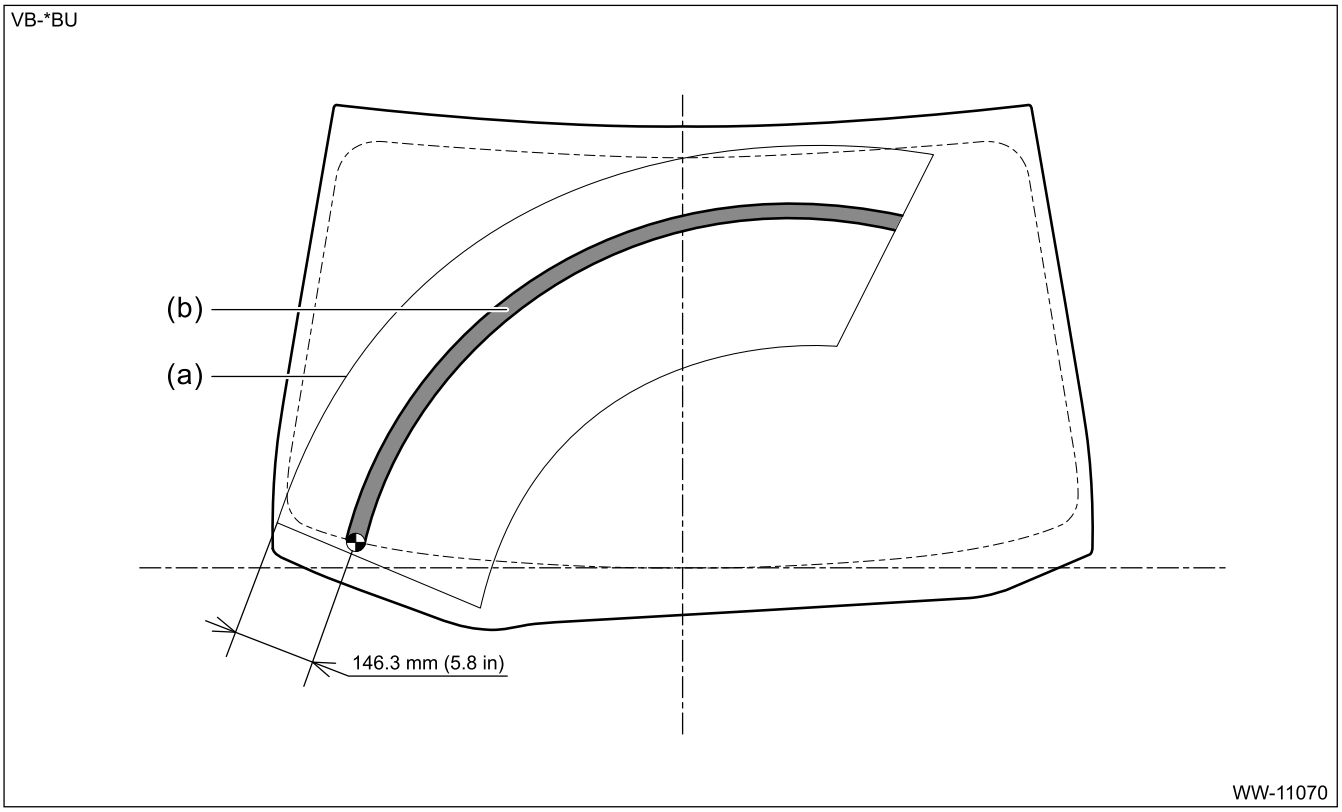
4. When adjustment is completed, thoroughly clean the glass.

- **WIPER ARM WASHER NOZZLE**

1. Turn the front wiper switch of the switch assembly combination wiper to the OFF position.
2. While the vehicle is running, check that the washer spray position is as shown in the figure.

Caution:

Check the spray position of the washer nozzle at the position where the wiper arm stops.



(a) Wiping area of arm ASSY windshield wiper assistor

(b) Spray area

3. After inspection, if the spray position is really out of the specified range, replace the arm assembly windshield wiper assistor.
4. Thoroughly clean the glass.

HORN

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

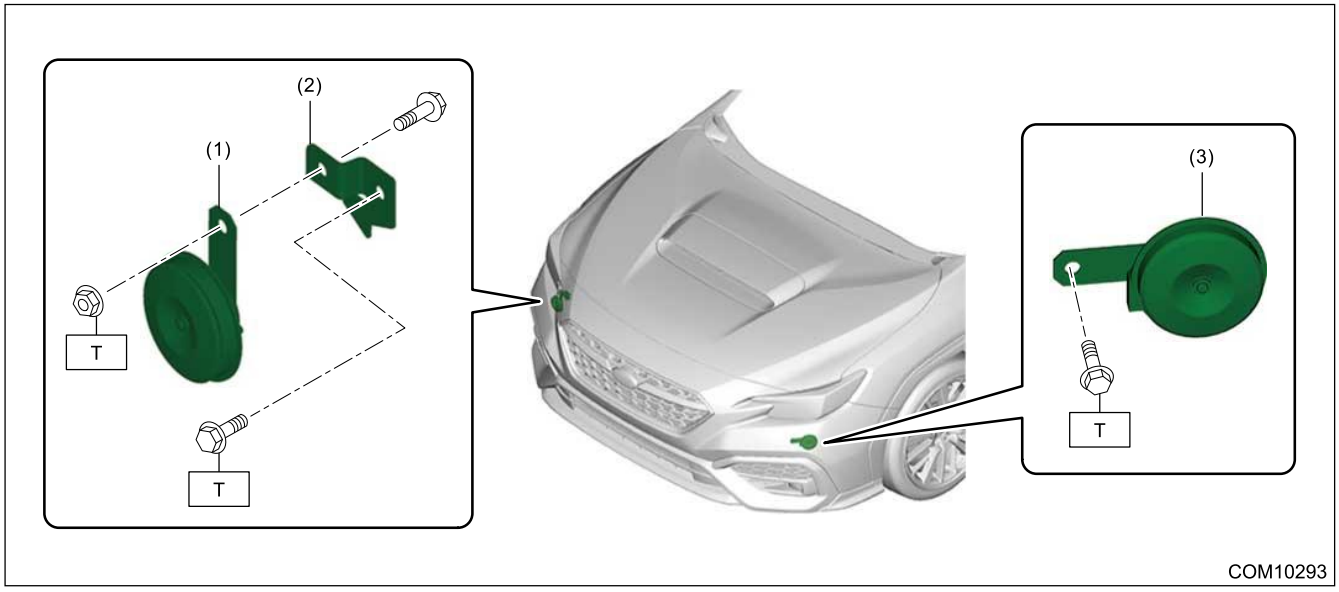
HORN > General Description

CAUTION

- When performing service operation, refer to “Repair Contents” in “General Description”. Ref. to REPAIR CONTENTS>Repair Contents.
- When performing work on the sensors or modules, be careful of the following.
  – Before disconnecting electrical connectors, be sure to disconnect the ground terminal from the battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
  – Do not apply any impact. If the parts are accidentally dropped, replace with a new part.
  – Do not expose to high-temperature and humidity.
- Refer to “CAUTION” of “General Description” in “AIRBAG SYSTEM” section. Ref. to AIRBAG SYSTEM>General Description.

HORN > General Description

COMPONENT



(1) Horn ASSY Lo
(2) Horn bracket
(3) Horn ASSY Hi

Tightening torque: N·m (kgf-m, ft-lb)
T: 18 (1.8, 13.3)

HORN > General Description

PREPARATION TOOL

1. SUBARU SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
STSSM4	—	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. **Note:** • **For detailed operation procedures, refer to "Help" of application.** • **Used together with interface for Subaru Select Monitor (such as DST-i and DST-010).**

2. OTHER

	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

HORN > Relay and Fuse

LOCATION

For the location, refer to “FUSE AND RELAY” in the wiring diagram. Ref. to WIRING SYSTEM>Fuse And Relay.

Note:
For details of relay and fuse, refer to “DC POWER SUPPLY CIRCUIT”. Ref. to WIRING SYSTEM>Power Supply Circuit.

HORN > Relay and Fuse

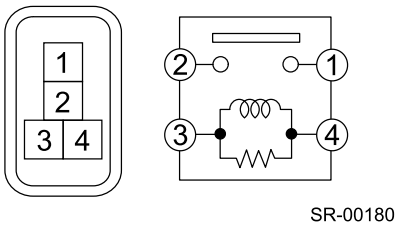
INSPECTION

1. CHECK FUSE

1. Remove the fuse and inspect 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	Standard	Circuit
1 — 2	Always	1 MΩ or more	 SR-00180
1 — 2	Apply battery voltage between terminals 4 and 3.	Less than 1 Ω	

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

HORN > Horn System

WIRING DIAGRAM

For the wiring diagram, refer to “Horn System” in the wiring diagram. Ref. to WIRING SYSTEM>Horn System>WIRING DIAGRAM.

HORN > Horn System

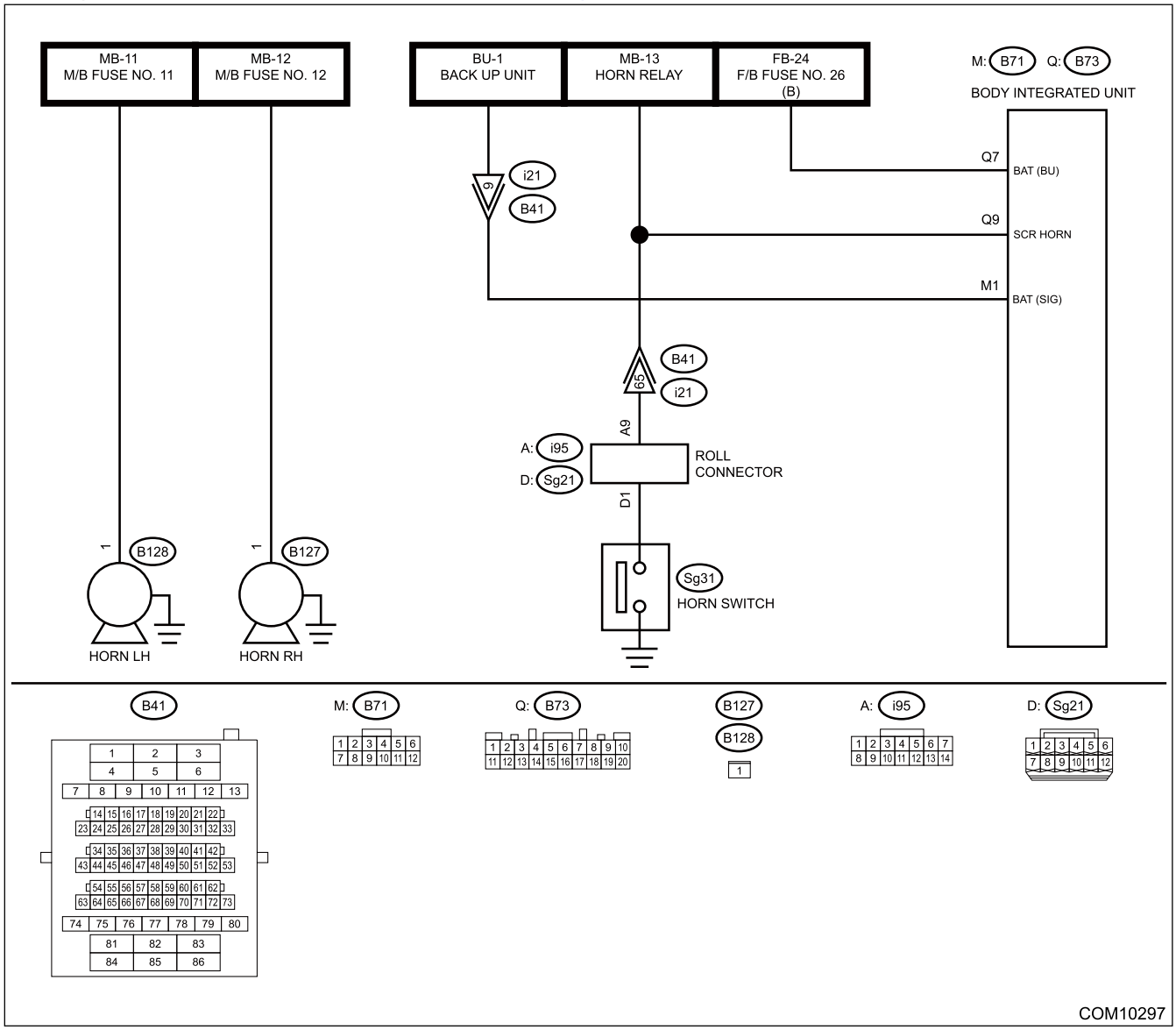
INSPECTION

1. TROUBLE SYMPTOM

Horn does not sound

Wiring diagram:

Horn system Ref. to WIRING SYSTEM>Horn System>WIRING DIAGRAM.



1. CHECK FUSE.

Check the horn fuse inside the fuse box. Ref. to HORN>Relay and Fuse>INSPECTION > CHECK FUSE.

Is the fuse blown out?

Yes	Replace the appropriate fuse.
No	Go to 2.

2. CHECK HORN RELAY.

Check the relay inside the fuse box. Ref. to HORN>Relay and Fuse>INSPECTION > CHECK RELAY.

Is the relay OK?

Yes	Go to 3.
No	Replace the horn relay.

3. CHECK STEERING ROLL CONNECTOR.

Check the steering roll connector. Ref. to AIRBAG SYSTEM>Roll Connector>INSPECTION>UNIT INSPECTION>STEERING ROLL CONNECTOR CIRCUIT (EXCEPT FOR AIRBAG CIRCUIT).

Is the steering roll connector OK?

Yes	Go to 4.
No	Replace the steering roll connector. Ref. to AIRBAG SYSTEM>Roll Connector.

4. CHECK HORN SWITCH.

Check the horn switch. Ref. to HORN>Horn Switch>INSPECTION > CHECK HORN SWITCH.

Is the horn switch normal?

Yes	Go to 5.
No	Replace the satellite switch assembly or the driver's airbag module. • Satellite switch assembly: Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Wheel. • Driver's airbag module: Ref. to AIRBAG SYSTEM>Driver's Airbag Module.

5. CHECK HORN.

1. Turn the ignition switch to ON.
2. Using the Subaru Select Monitor, perform [Active Test] in [Body Control], and check the horn sound. Ref. to BODY CONTROL(DIAGNOSTICS)>Active Test.

Does the horn operate properly?

Yes	Go to 6.
No	Go to 7.

6. CHECK HORN.

1. Turn the ignition switch to OFF.
2. Check the horn assembly. Ref. to HORN>Horn>INSPECTION.

Is the horn normal?

Yes	Check the harness and body integrated unit.
No	Replace the horn assembly. Ref. to HORN>Horn.

7. CHECK HARNESS.

1. Remove the steering roll connector. Ref. to AIRBAG SYSTEM>Roll Connector>REMOVAL.
2. Measure the resistance between the horn relay and steering roll connector.
   Connector & terminal
   (B128) No. 1 — Fuse No. 11:
   (B127) No. 1 — Fuse No. 12:

Is the resistance less than 10 Ω?

Yes	Check body integrated unit. Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure.
No	Repair or replace the defective part.

HORN > Horn System

NOTE

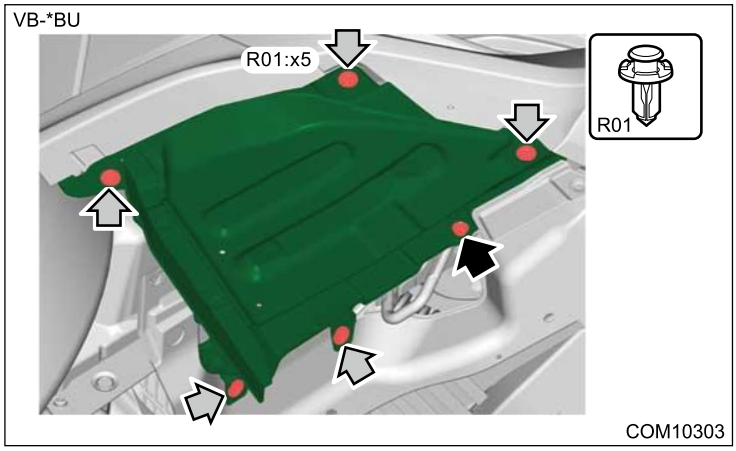
For operation procedures of components of the horn system, refer to the following sections.

- Horn assembly: Ref. to HORN>Horn.
- Horn switch: Ref. to HORN>Horn Switch.

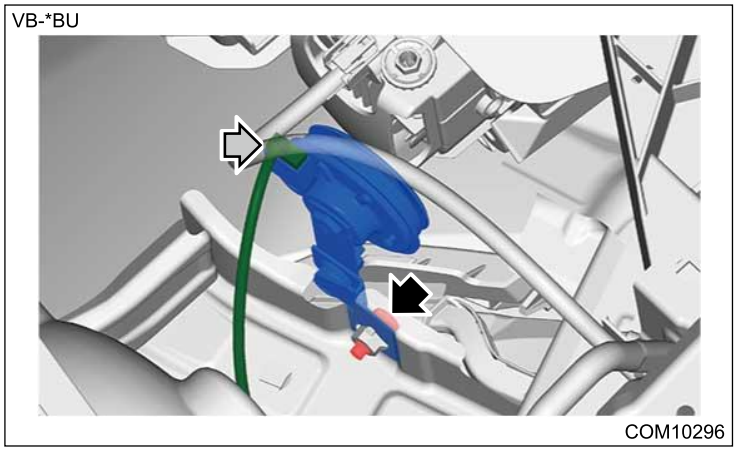
REMOVAL

1. HORN ASSEMBLY LO

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Lift up the vehicle.
3. Remove the screw and clips, and turn over the mud guard front RH.

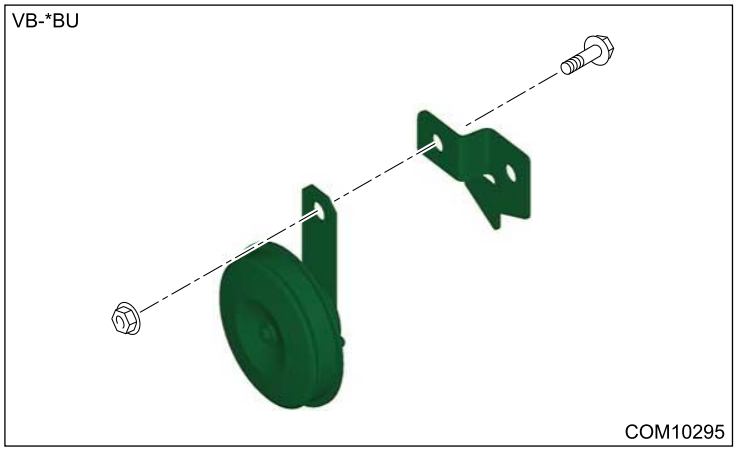


4. Remove the horn sub assembly Lo.
   (1) Disconnect the connector.
   (2) Remove the bolt, and remove the horn sub assembly Lo.



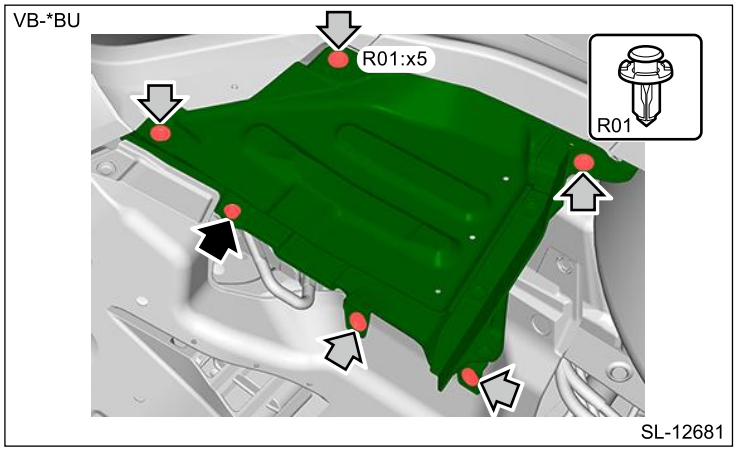
5. Remove the bolt and nut, and then remove the horn assembly Lo from the horn bracket.

Note:
Perform this procedure only when required.

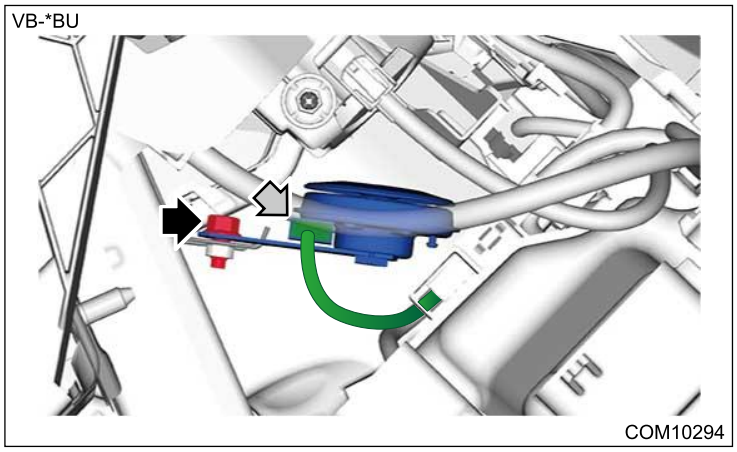


2. HORN ASSEMBLY HI

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Lift up the vehicle.
3. Remove the screw and clips, and turn over the mud guard front LH.



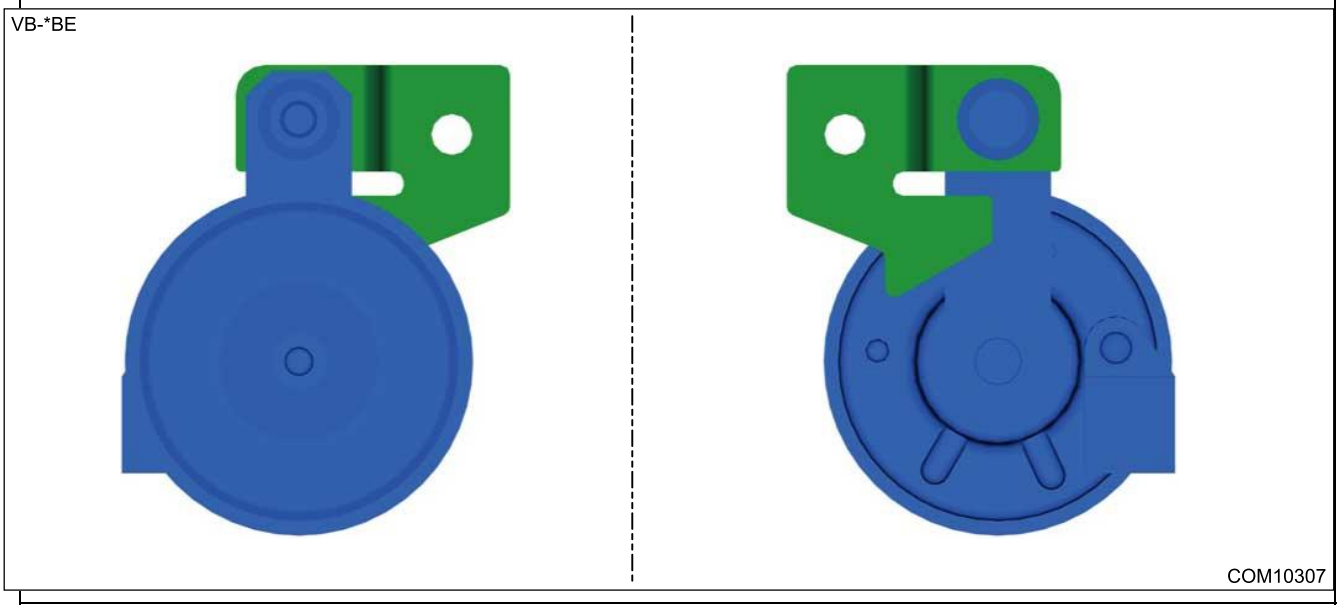
4. Remove the horn assembly Hi.
   (1) Disconnect the connector.
   (2) Remove the bolt, and remove the horn assembly Hi.



INSTALLATION

1. Install the horn assembly Lo to the horn bracket. (Horn assembly Lo)

Note:
Install the horn assembly Lo and the horn bracket as shown in the figure.



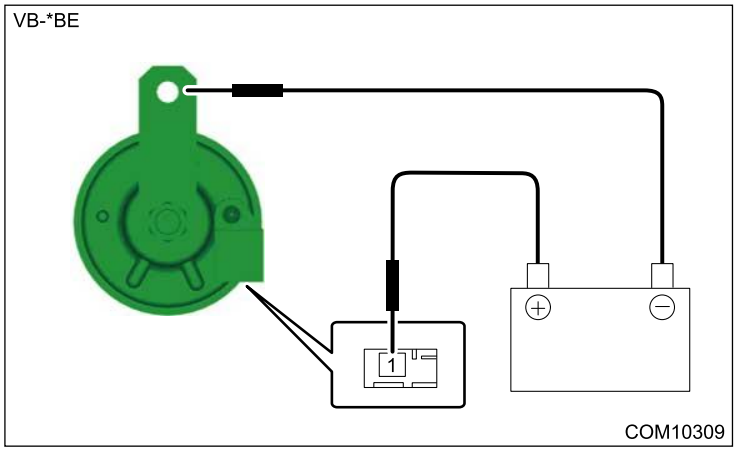
Tightening torque:
18 N·m (1.8 kgf-m, 13.3 ft-lb)

2. Install the horn assembly, and connect the connector.
Tightening torque:
18 N·m (1.8 kgf-m, 13.3 ft-lb)
3. Install the mud guard front. Ref. to EXTERIOR/INTERIOR TRIM>Mud Guard>INSTALLATION.
4. Lower the vehicle.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

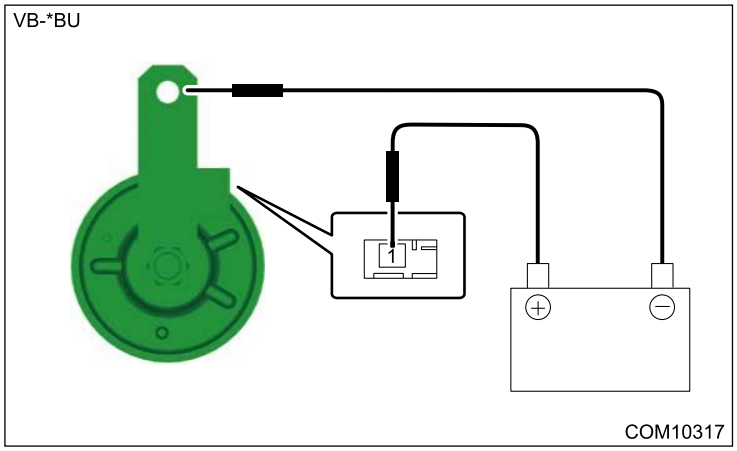
HORN > Horn

INSPECTION

1. Check the horn sounds when applying the battery voltage to the horn assembly.
   - Horn assembly Lo side



   - Horn assembly Hi side



Terminal No.	Inspection conditions	Specification
1 (+) — Horn case (−)	Apply battery voltage.	Sounds

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

HORN > Horn Switch

NOTE

Horn switch is a unit with the driver's airbag module.
For the horn switch operation procedure, refer to "Driver's Airbag Module" in the "AIRBAG SYSTEM" section.
Ref. to AIRBAG SYSTEM>Driver's Airbag Module.

HORN > Horn Switch

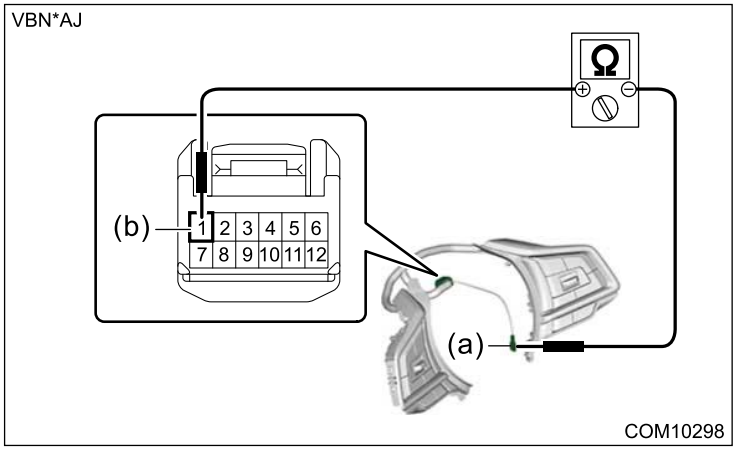
INSPECTION

1. CHECK HORN SWITCH

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". **Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. CHECK HORN SWITCH TERMINAL.

1. Turn the ignition switch to OFF.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the driver's airbag module. Ref. to AIRBAG SYSTEM>Driver's Airbag Module>REMOVAL.
4. Check the connecting condition of horn switch connector.
5. Measure the resistance between connectors.



(a) Ground terminal

(b) Horn switch terminal

Terminals	Standard
Horn switch terminal — ground terminal	Less than 1 Ω

Is the measured value within the standard value?

Yes — Go to 2.

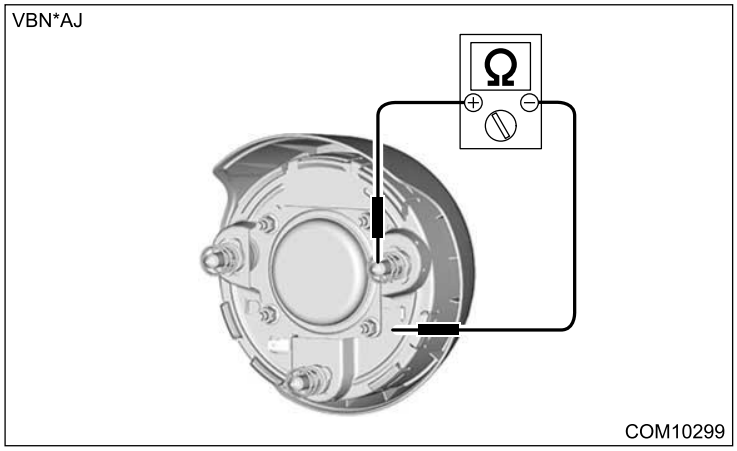
No — It is possible that there is an open circuit between horn switch terminal and ground terminal. Replace the satellite switch assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Wheel.

2. CHECK DRIVER'S AIRBAG MODULE.

Measure the resistance between horn plate and snap pin hook.

Caution:

Measure the resistance while lifting the snap pin hook so that it does not come in contact with the horn plate.



Terminals	Standard
Horn plate — Snap pin hook	1 MΩ or more

Is the measured value within the standard value?

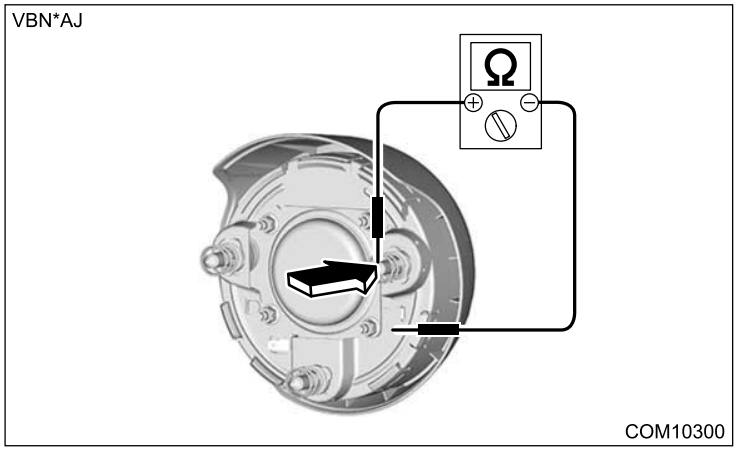
Yes — Go to 3.

No — Replace the driver's airbag module. Ref. to AIRBAG SYSTEM>Driver's Airbag Module.

3. CHECK DRIVER'S AIRBAG MODULE.

Measure the resistance between horn plate and snap pin hook with the snap pin hook in contact with the horn plate.

Caution:
Measure at all three positions of the snap pin hook.



Terminals	Standard
Horn plate — Snap pin hook	Less than 1 Ω

Is the measured value within the standard value?

Yes	Driver's airbag module is normal.
No	Replace the driver's airbag module. Ref. to AIRBAG SYSTEM>Driver's Airbag Module.

ENTERTAINMENT & MONITORING

ETM

1. General Description
2. Relay and Fuse
3. Cockpit Display System
4. Cockpit Display
5. Front Speaker
6. Rear Speaker
7. Woofer
8. Power Amplifier
9. Antenna
10. Switches and Harness
11. Microphone
12. Telematics System
13. Data Communication Module
14. Camera
15. Accessory Power Supply Socket
16. External Connection Terminal
17. Diagnostics with Phenomenon
18. Dealership Mode

CAUTION

- When performing service operation, refer to “Repair Contents” in “General Description”. Ref. to REPAIR CONTENTS>Repair Contents.
- When performing work on the sensors or modules, be careful of the following.
  - Before disconnecting connectors, be sure to disconnect the ground terminal from the battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
  - Do not apply any impact. If the parts are accidentally dropped, replace with a new part.
  - Do not expose to high-temperature and humidity.
- When replacing the parts provided with memory functions, record the memory contents before disconnecting the ground terminal from the battery sensor.
- Refer to “CAUTION” of “General Description” in “AIRBAG SYSTEM” section. Ref. to AIRBAG SYSTEM>General Description>CAUTION.
- If any immobilizer related part has been replaced, make sure to register the immobilizer.

LOCATION

1. COCKPIT DISPLAY SYSTEM

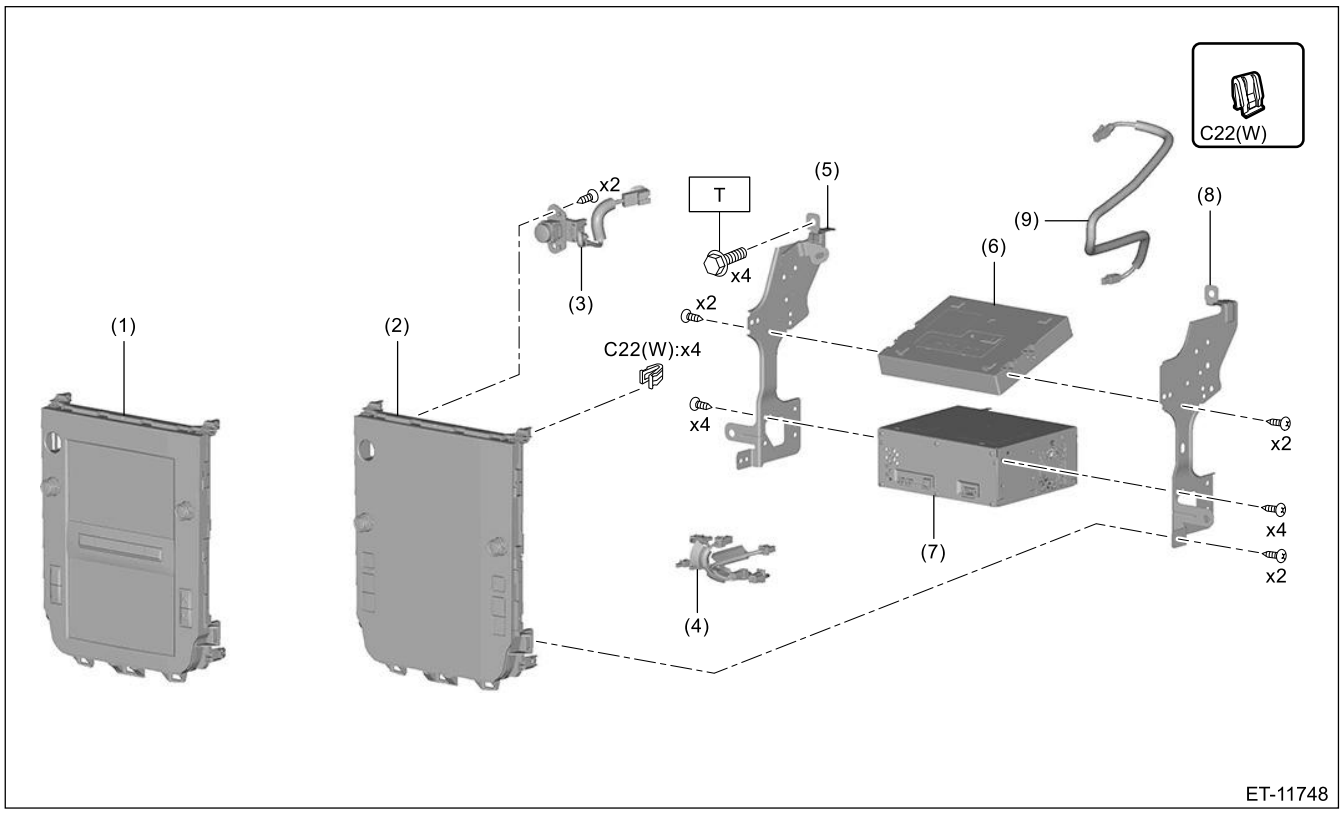
For location, refer to “Electrical Component Location” in the “COCKPIT CONTROL (DIAGNOSTICS)” section. Ref. to COCKPIT CONTROL (DIAGNOSTICS)>Electrical Component Location.

2. TELEMATICS SYSTEM

For locations, refer to “Electrical Component Location” of “TELEMATICS (DIAGNOSTICS)” section. Ref. to TELEMATICS SYSTEM (DIAGNOSTICS)>Electrical Component Location.

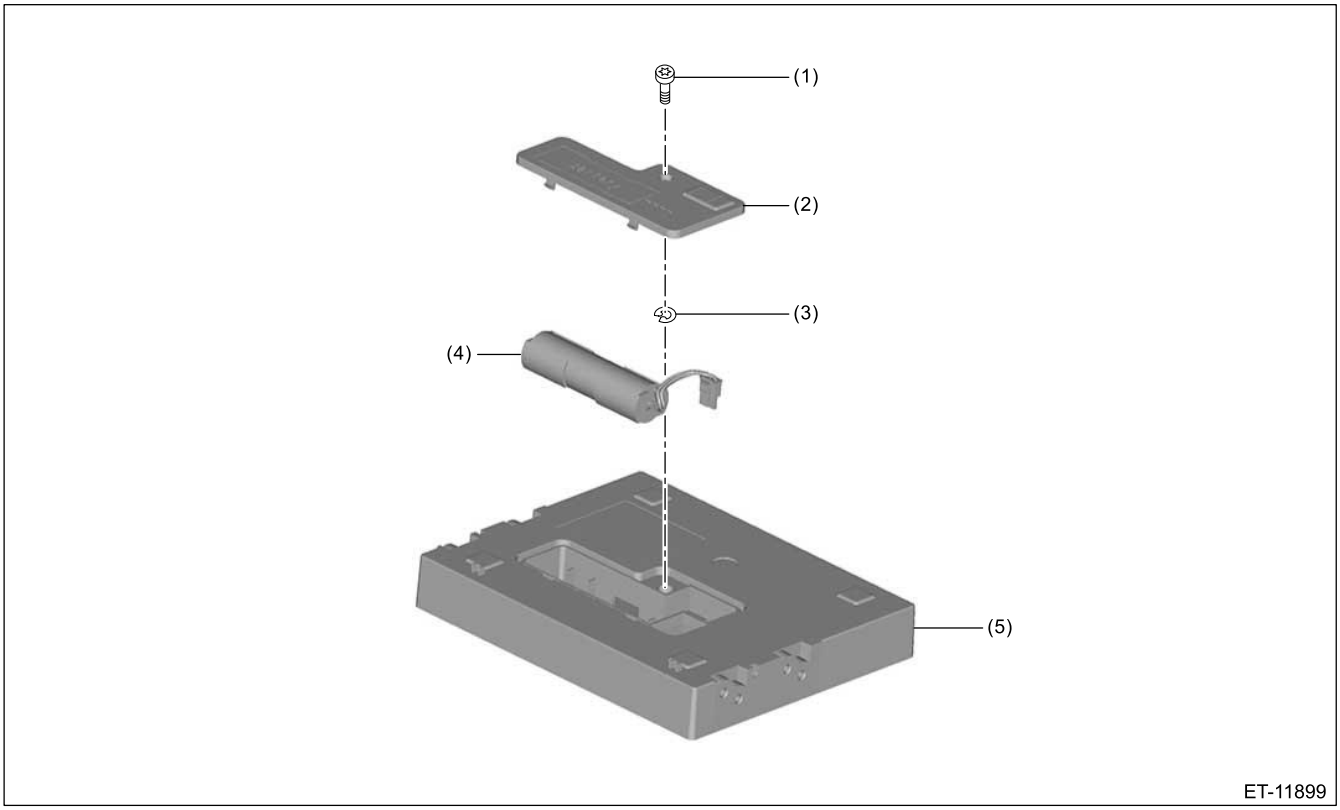
COMPONENT

1. CENTER INFORMATION DISPLAY ASSEMBLY



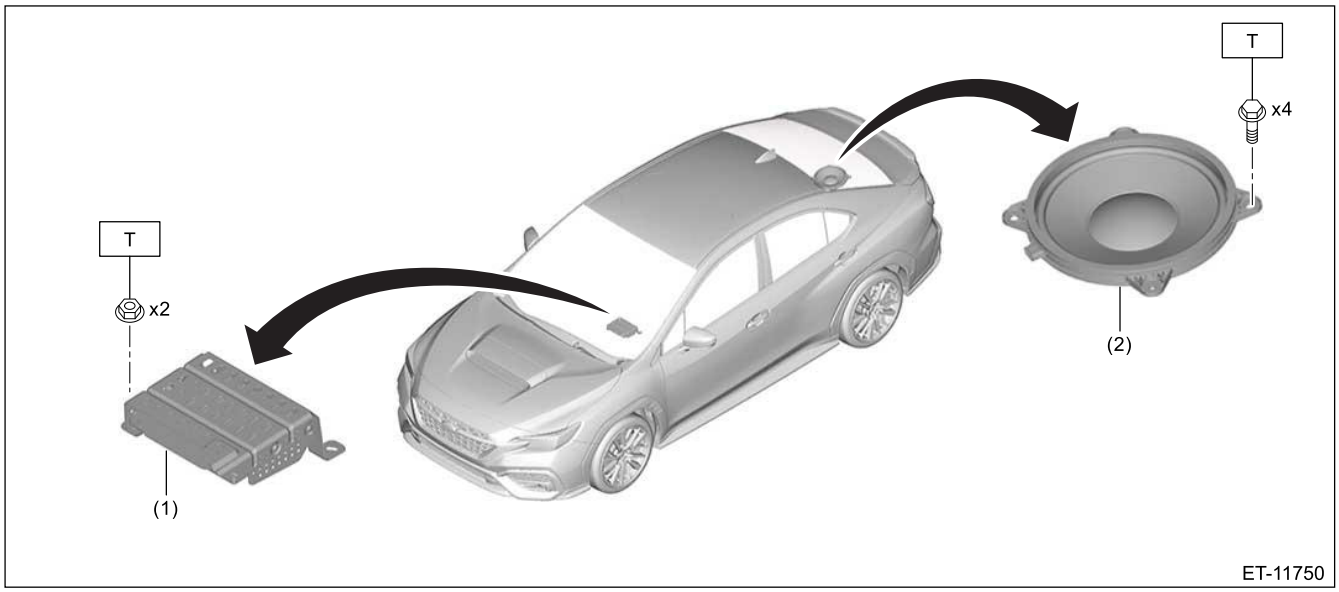
(1) Center information display (model with dual 7.0-inch display)	(5) Unit bracket LH	(9) Cable CCM
(2) Center information display (model with 11.6-inch display)	(6) Data communication module	
(3) Switch hazard	(7) Cockpit control module	***Tightening torque: N·m (kgf-m, ft-lb)***
(4) Cord ASSY CCM	(8) Unit bracket RH	***T: 7.5 (0.8, 5.5)***

2. DATA COMMUNICATION MODULE



(1) Cap screw
(2) Battery cover
(3) Circlip
(4) Backup battery
(5) Data communication module

3. POWER AMPLIFIER & WOOFER

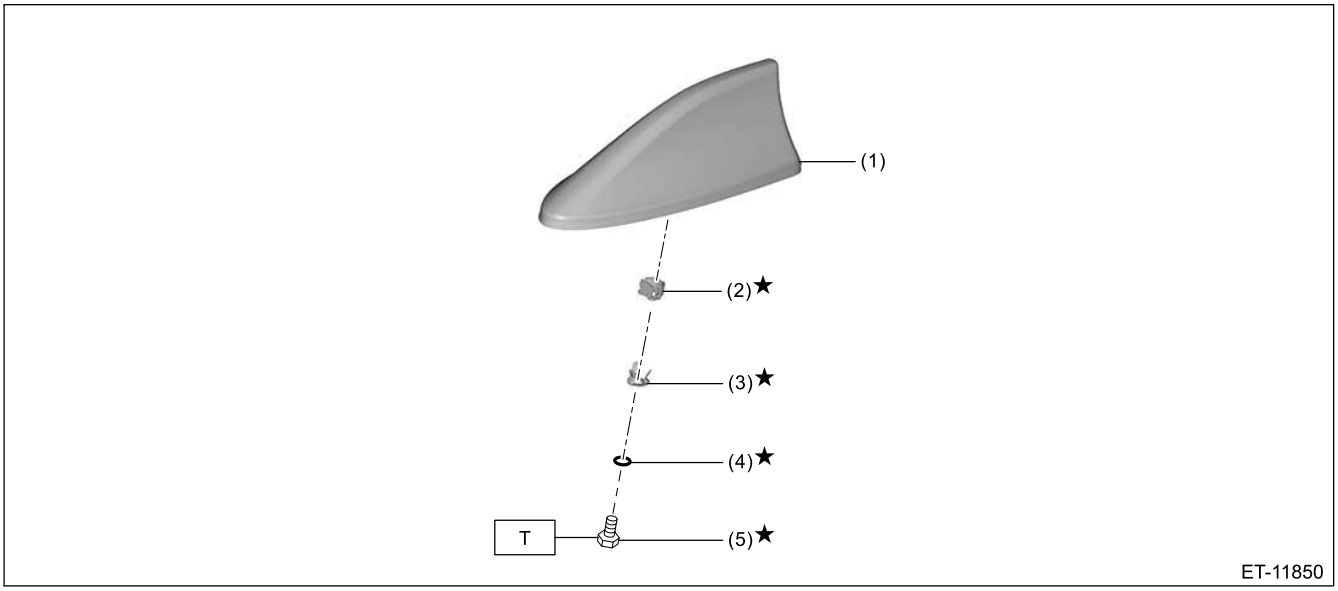


(1) Power amplifier ASSY
(2) Speaker ASSY woofer

Tightening torque: N·m (kgf-m, ft-lb)

T: 7.5 (0.8, 5.5)

4. ROOF ANTENNA



(1) Antenna ASSY roof
(2) Clip
(3) Spring
(4) Washer
(5) Bolt

Tightening torque: N·m (kgf-m, ft-lb)

T: 4.5 ±1 (0.5±0.1, 3.3±0.7)

ENTERTAINMENT & MONITORING > General Description

PREPARATION TOOL

1. SUBARU SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
STSSM4	—	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. **Note:** • **For detailed operation procedures, refer to "Help" of application.** • **Used together with interface for Subaru Select Monitor (such as DST-i and DST-010).**

2. OTHER

	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.
TORX® T10	Used for removing and installing the backup battery.

LOCATION

For the location, refer to “FUSE AND RELAY” in the wiring diagram. Ref. to WIRING SYSTEM>Fuse And Relay>LOCATION.

Note:
For details of relay and fuse, refer to “DC POWER SUPPLY CIRCUIT”. Ref. to WIRING SYSTEM>Power Supply Circuit>WIRING DIAGRAM.

INSPECTION

1. CHECK FUSE

1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

Note:
If the fuse is blown again, check the system wiring harness.

ENTERTAINMENT & MONITORING > Cockpit Display System

WIRING DIAGRAM

For the wiring diagram, refer to "Audio and Navigation System" in the wiring diagram. Ref. to WIRING SYSTEM>Audio and Navigation System>WIRING DIAGRAM.

ENTERTAINMENT & MONITORING > Cockpit Display System

INSPECTION

1. BASIC INSPECTION

For the basic inspection, refer to "Basic Diagnostic Procedure" of "COCKPIT CONTROL (DIAGNOSTICS)". Ref. to COCKPIT CONTROL (DIAGNOSTICS)>Basic Diagnostic Procedure.

2. SYSTEM BLOCK DIAGRAM

For system block diagram, refer to "System Block Diagram" in "COCKPIT CONTROL (DIAGNOSTICS)". Ref. to COCKPIT CONTROL (DIAGNOSTICS)>General Description>SYSTEM BLOCK DIAGRAM.

3. MODULE I/O SIGNAL

For the electrical specification, refer to "Control Module I/O Signal" of "COCKPIT CONTROL (DIAGNOSTICS)". Ref. to COCKPIT CONTROL (DIAGNOSTICS)>Control Module I/O Signal>ELECTRICAL SPECIFICATION.

ENTERTAINMENT & MONITORING > Cockpit Display System

NOTE

For operation procedures of components of the cockpit display system, refer to the following sections.

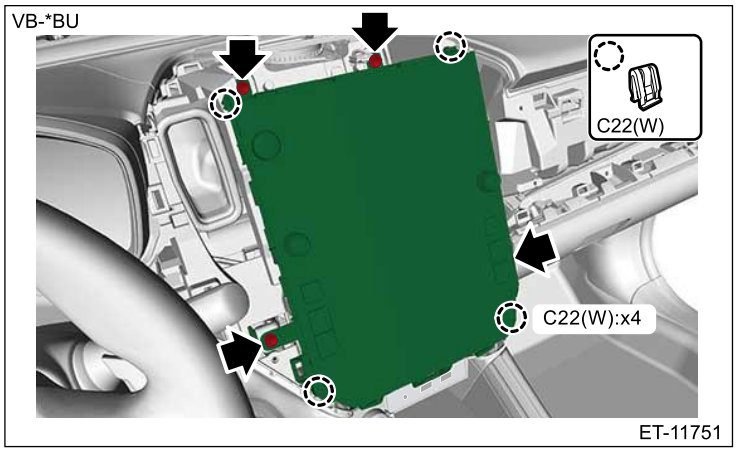
Note:
For the CAN communication system, refer to the LAN system. Ref. to LAN SYSTEM (DIAGNOSTICS)>Electrical Component Location.

- Cockpit display: Ref. to ENTERTAINMENT & MONITORING>Cockpit Display.
- Front speaker: Ref. to ENTERTAINMENT & MONITORING>Front Speaker.
- Rear speaker: Ref. to ENTERTAINMENT & MONITORING>Rear Speaker.
- Woofer: Ref. to ENTERTAINMENT & MONITORING>Woofer.
- Power amplifier: Ref. to ENTERTAINMENT & MONITORING>Power Amplifier.
- Antenna: Ref. to ENTERTAINMENT & MONITORING>Antenna.
- Audio steering switch: Ref. to ENTERTAINMENT & MONITORING>Switches and Harness.
- External connection terminal: Ref. to ENTERTAINMENT & MONITORING>External Connection Terminal.
- Microphone: Ref. to ENTERTAINMENT & MONITORING>Microphone.

ENTERTAINMENT & MONITORING > Cockpit Display

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the ornament panel mid passenger and panel assembly center. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>REMOVAL.
3. Remove the center information display assembly.
   (1) Remove the bolt and release the clip.



   (2) Disconnect the connectors, and then remove the center information display assembly.
4. Remove the data communication module. (Model with telematics) Ref. to ENTERTAINMENT & MONITORING>Data Communication Module>REMOVAL > DATA COMMUNICATION MODULE.
5. Remove the cockpit control module. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>DISASSEMBLY.

ENTERTAINMENT & MONITORING > Cockpit Display

INSTALLATION

1. Install the cockpit control module. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>ASSEMBLY.
2. Install the data communication module. (Model with telematics) Ref. to ENTERTAINMENT & MONITORING>Data Communication Module>INSTALLATION > DATA COMMUNICATION MODULE.
3. Connect each connector, and install the center information display assembly.

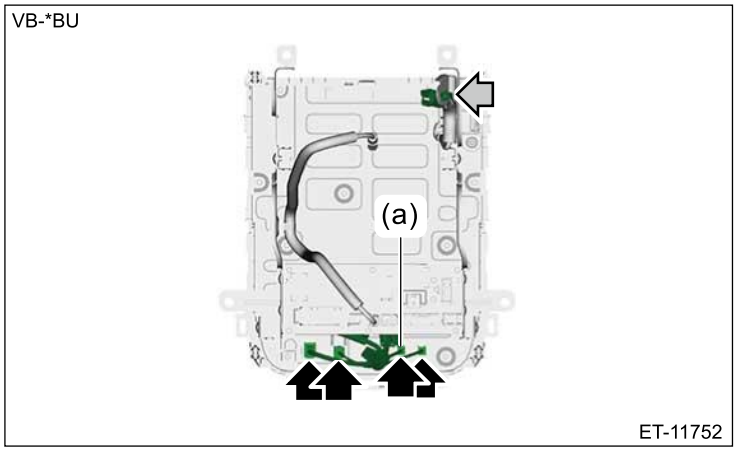
   Caution:
   Do not allow the harnesses and cords to interfere with or get caught by other parts.

   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
4. Install the panel assembly center and the ornament panel mid passenger. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>INSTALLATION.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

ENTERTAINMENT & MONITORING > Cockpit Display

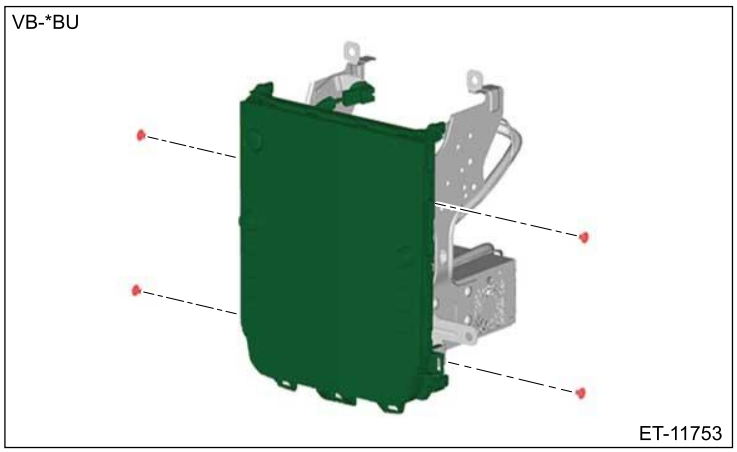
DISASSEMBLY

1. Remove the center information display.
   (1) Remove the connector clips, and disconnect each connector.

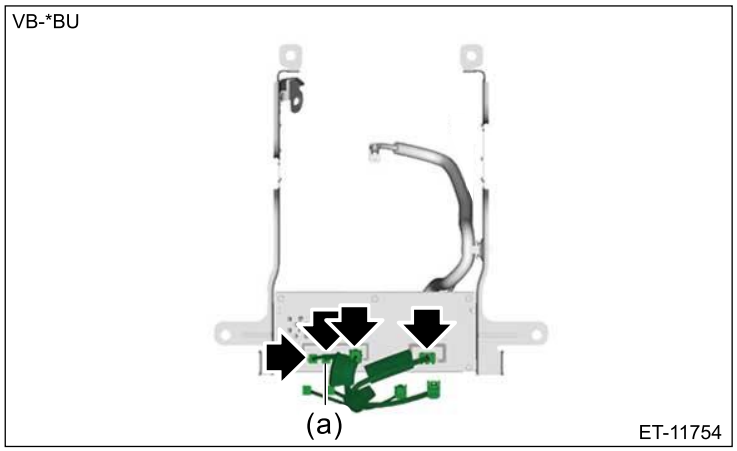


(a) Model with 11.6-inch display

(2) Remove the screws and remove the center information display.

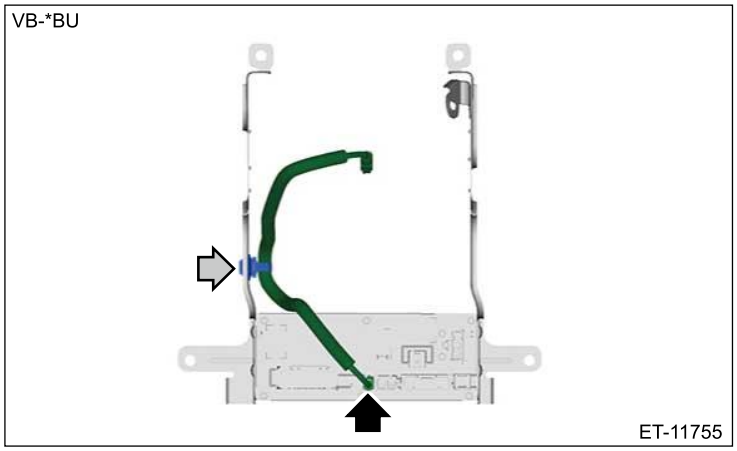


2. Remove the switch hazard. Ref. to LIGHTING SYSTEM>Hazard Switch>REMOVAL.
3. Disconnect the connectors, and remove the cord assembly CCM.

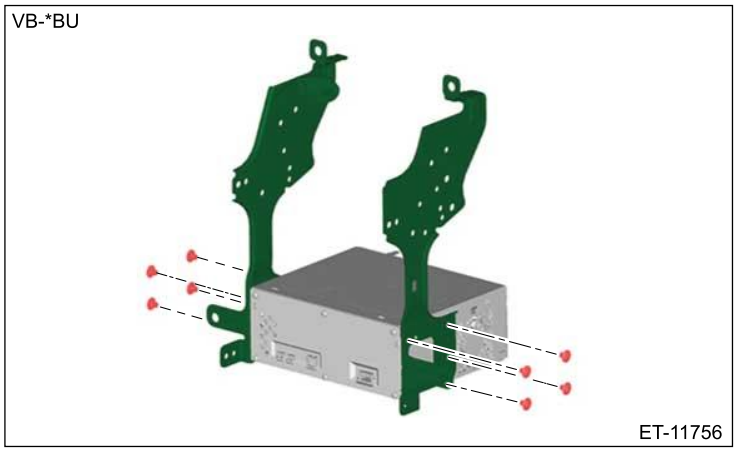


(a) Model with 11.6-inch display

4. Remove the connector and cable clip and remove the cable CCM.



5. Remove the screws and remove the unit bracket from the cockpit control module.



ENTERTAINMENT & MONITORING > Cockpit Display

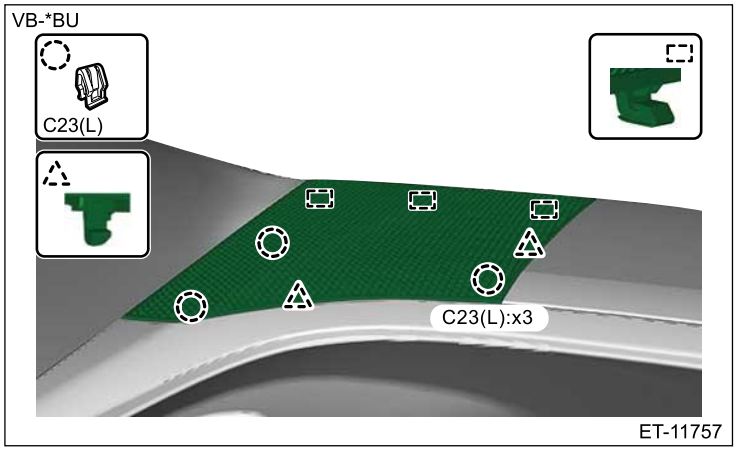
ASSEMBLY

1. Install the unit bracket to the cockpit control module.
2. Connect the connector, and install the cable CCM.
3. Connect each connector, and install the cord assembly CCM.
4. Install the switch hazard. Ref. to LIGHTING SYSTEM>Hazard Switch>INSTALLATION.
5. Install the center information display and connect each connector.

REMOVAL

1. TWEETER

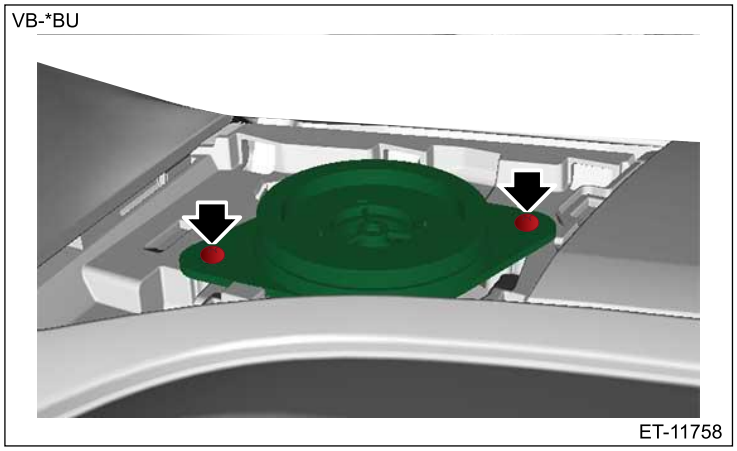
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Release the clips and claws, then detach the grille speaker side.



3. Remove the speaker assembly tweeter.

Caution:
Do not touch the cone.

(1) Remove the screws.



(2) Disconnect the connector and remove the speaker assembly tweeter.

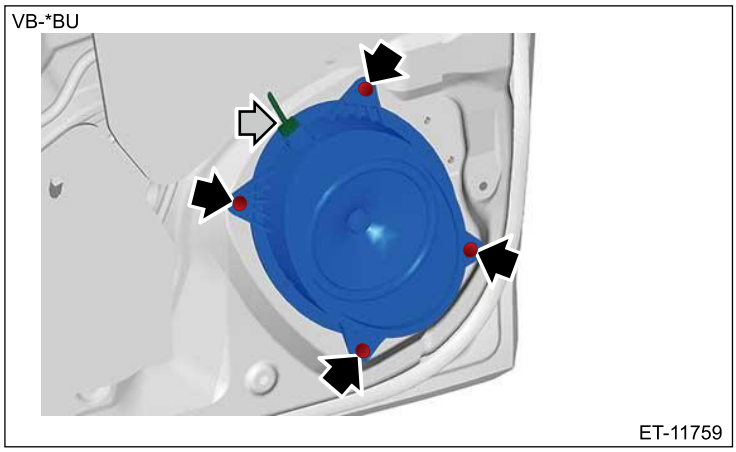
2. DOOR

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.
3. Remove the speaker assembly front.

Caution:
Do not touch the cone.

(1) Disconnect the connector.
(2) Remove the screws and remove the speaker assembly front.



ENTERTAINMENT & MONITORING > Front Speaker

INSTALLATION

1. TWEETER

1. Connect the connector, and install the speaker assembly tweeter.

Caution:
Do not touch the cone.

2. Install the grille speaker side.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. DOOR

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the speaker assembly front, and connect the connector.

Caution:
Do not touch the cone.

Note:
If the threaded portion of grommet is faulty, replace the grommet with a new part.

2. Install the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

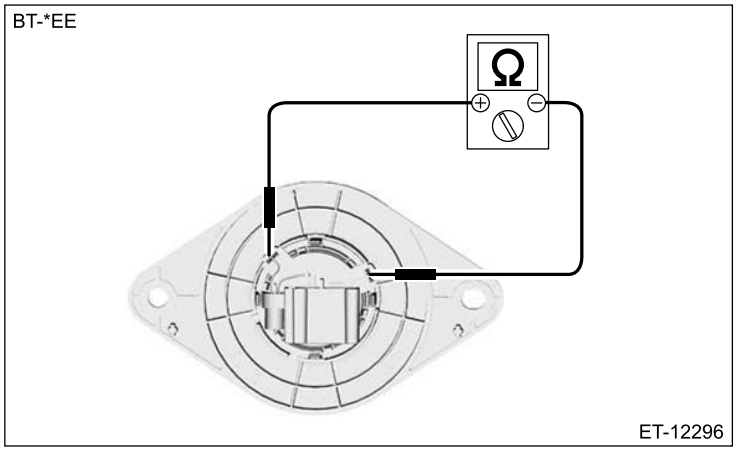
ENTERTAINMENT & MONITORING > Front Speaker

INSPECTION

1. TWEETER

- **MODEL WITHOUT POWER AMPLIFIER**

1. Check that no foreign matter has entered the speaker and that the speaker cone is not torn, deformed, or otherwise damaged.
2. Measure the resistance between the speaker terminals.



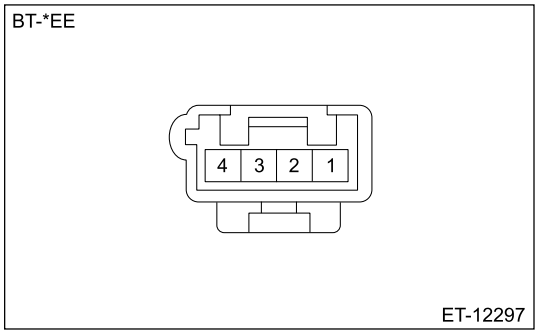
Specification:

3.15 — 3.85 Ω

3. Replace the speaker assembly tweeter if fault is found in the inspection.

- **MODEL WITH POWER AMPLIFIER**

1. Check that no foreign matter has entered the speaker and that the speaker cone is not torn, deformed, or otherwise damaged.
2. Measure the resistance between the speaker terminals.

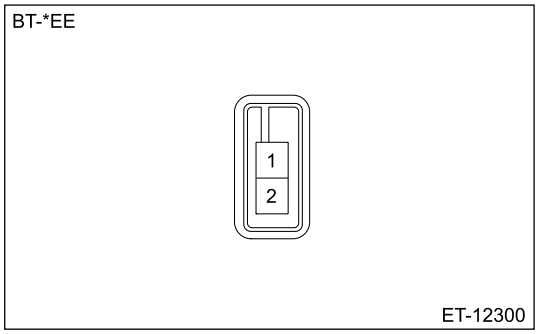


Terminal No.	Inspection conditions	Standard
4 — 3	Always	3.05 — 4.65 Ω

3. Replace the speaker assembly tweeter if fault is found in the inspection.

2. DOOR

1. Check that no foreign matter has entered the speaker and that the speaker cone is not torn, deformed, or otherwise damaged.
2. Measure the resistance between connector terminals.



- Model without power amplifier

Terminal No.	Inspection conditions	Standard
1 — 2	Always	2.97 — 3.63 Ω

- Model with power amplifier

Terminal No.	Inspection conditions	Standard
1 — 2	Always	4.0 — 6.0 Ω

3. Replace the speaker assembly front if fault is found in the inspection.

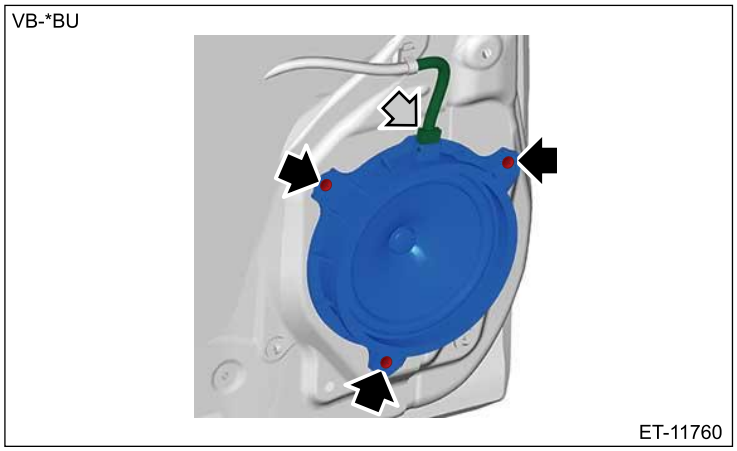
ENTERTAINMENT & MONITORING > Rear Speaker

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.
3. Remove the speaker assembly rear.

Caution:
Do not touch the cone.

(1) Disconnect the connector.
(2) Remove the screws and remove the speaker assembly rear.



ENTERTAINMENT & MONITORING > Rear Speaker

INSTALLATION

1. Install the speaker assembly rear, and connect the connector.

Caution:
Do not touch the cone.

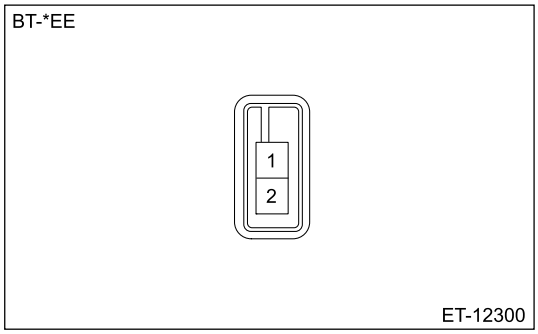
Note:
If the threaded portion of grommet is faulty, replace the grommet with a new part.

2. Install the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

ENTERTAINMENT & MONITORING > Rear Speaker

INSPECTION

1. Check that no foreign matter has entered the speaker and that the speaker cone is not torn, deformed, or otherwise damaged.
2. Measure the resistance between the speaker terminals.



- Model without power amplifier

Terminal No.	Inspection conditions	Standard
1 — 2	Always	2.97 — 3.63 Ω

- Model with power amplifier

Terminal No.	Inspection conditions	Standard
1 — 2	Always	2.6 — 4.4 Ω

3. Replace the speaker assembly rear if fault is found in the inspection.

ENTERTAINMENT & MONITORING > Woofer

REMOVAL

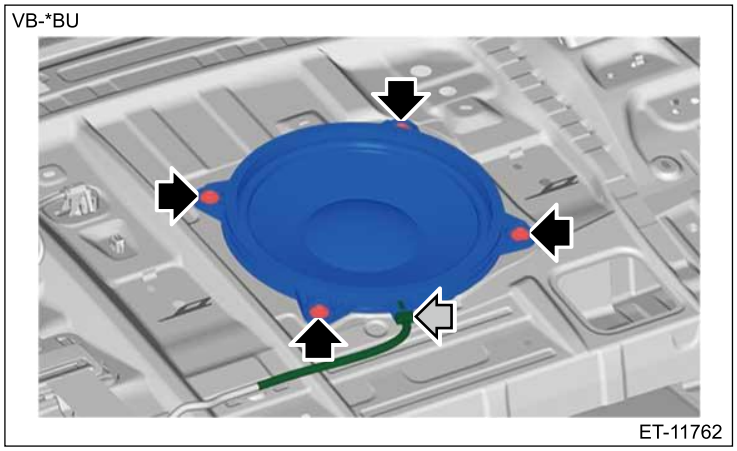
Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the rear seat cushion assembly and the backrest assembly. Ref. to SEATS>Rear Seat>REMOVAL.
3. Remove the trim panel assembly C pillar LWR and the trim panel assembly C pillar. Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.
4. Remove the trim panel assembly rear shelf. Ref. to EXTERIOR/INTERIOR TRIM>Rear Shelf Trim>REMOVAL.
5. Remove the speaker assembly woofer.

   Caution:
   Do not touch the cone.

   (1) Disconnect the connector.
   (2) Remove the bolts and remove the speaker assembly woofer.



ENTERTAINMENT & MONITORING > Woofer

INSTALLATION

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Install the speaker assembly woofer, and connect the connector.

Caution:
Do not touch the cone.

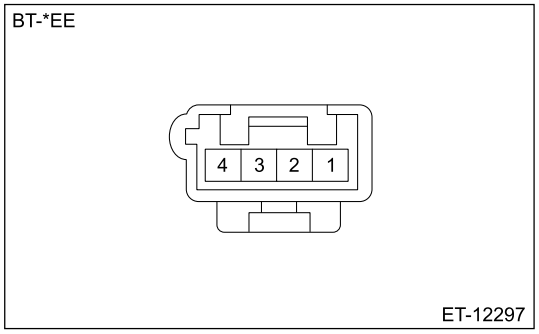
Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

2. Install the trim panel assembly rear shelf. Ref. to EXTERIOR/INTERIOR TRIM>Rear Shelf Trim>INSTALLATION.
3. Install the trim panel assembly C pillar and the trim panel assembly C pillar LWR. Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>INSTALLATION.
4. Install the backrest assembly and rear seat cushion assembly. Ref. to SEATS>Rear Seat>INSTALLATION.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

ENTERTAINMENT & MONITORING > Woofer

INSPECTION

1. Check that no foreign matter has entered the speaker and that the speaker cone is not torn, deformed, or otherwise damaged.
2. Measure the resistance between the speaker terminals.



Terminal No.	Inspection conditions	Standard
4 — 3	Always	3.4 — 5.2 Ω
2 — 1	Always	3.4 — 5.2 Ω

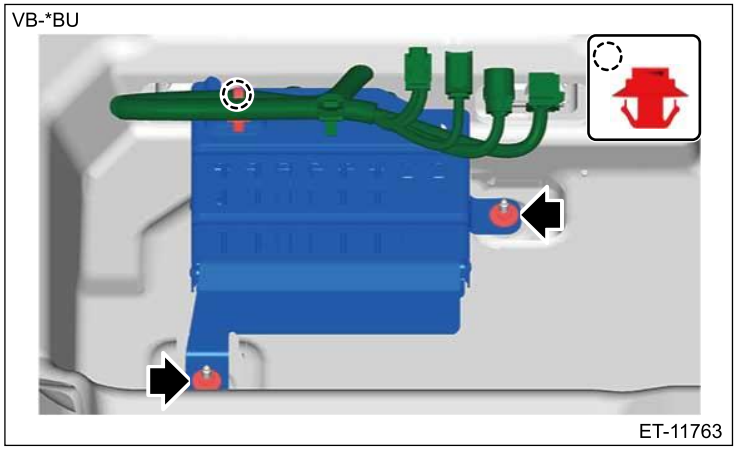
3. Replace the speaker assembly woofer if fault is found in the inspection.

REMOVAL

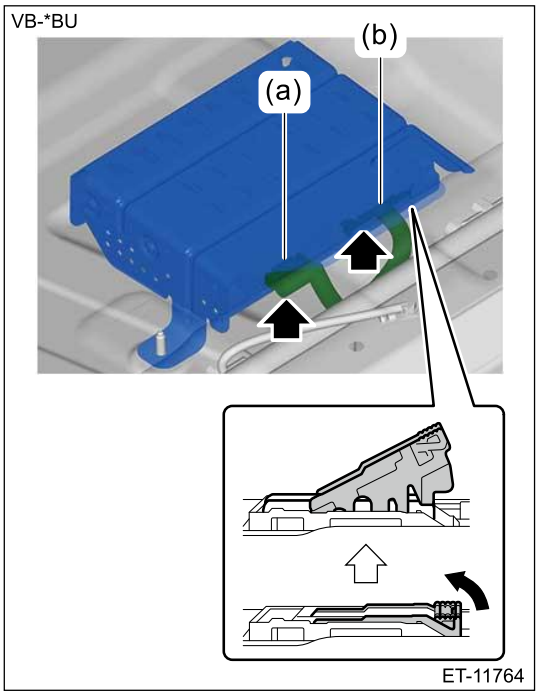
Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

Note:
The power amplifier assembly is installed under the front seat RH. Remove the power amplifier assembly after sliding the front seat RH back and forth as necessary.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the power amplifier assembly.
   (1) Remove the nut and harness clip.



   (2) Disconnect the connector (a).
   (3) Move the lock lever in the arrow direction as shown in the figure and disconnect the connector (b) and remove the power amplifier assembly.



INSTALLATION

Caution:

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

Note:

The power amplifier assembly is installed under the front seat RH. Install the power amplifier assembly after sliding the front seat RH back and forth as necessary.

1. Connect each connector, and install the power amplifier assembly.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
2. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

REMOVAL

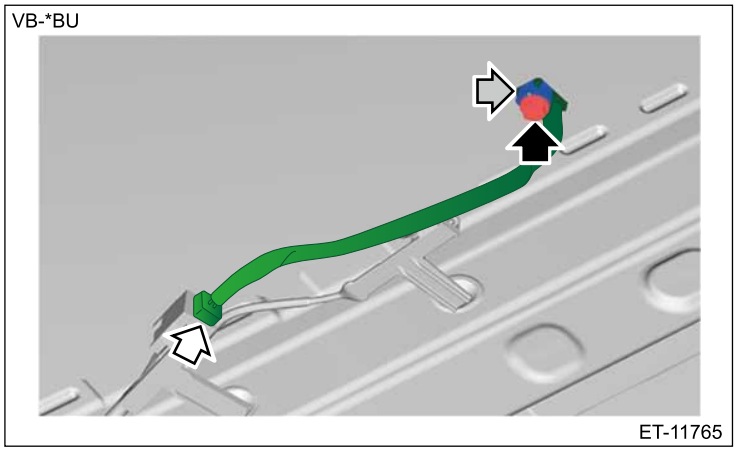
1. ROOF ANTENNA (SXM/TELEMATICS)

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Lower the trim panel roof assembly. Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.

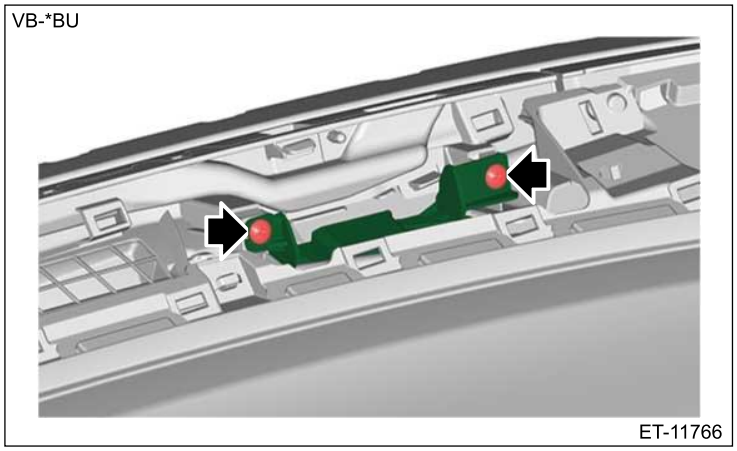
   Note:
   Procedures for the roof trim is performed inside the vehicle.
3. Remove the antenna assembly roof.
   (1) Disconnect the connector.

   Note:
   For models with telematics, disconnect the telematics antenna connector.
   (2) Remove the bolts and washers.
   (3) Remove the spring and clip, and then remove the antenna assembly roof.



2. GPS ANTENNA

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the grille speaker side. Ref. to ENTERTAINMENT & MONITORING>Front Speaker>REMOVAL > TWEETER.
3. Remove the grille front defroster. Ref. to AIR CONDITIONER>Sunload Sensor (Auto A/C Model)>REMOVAL.
4. Remove the GPS antenna assembly.
   (1) Remove the screws.



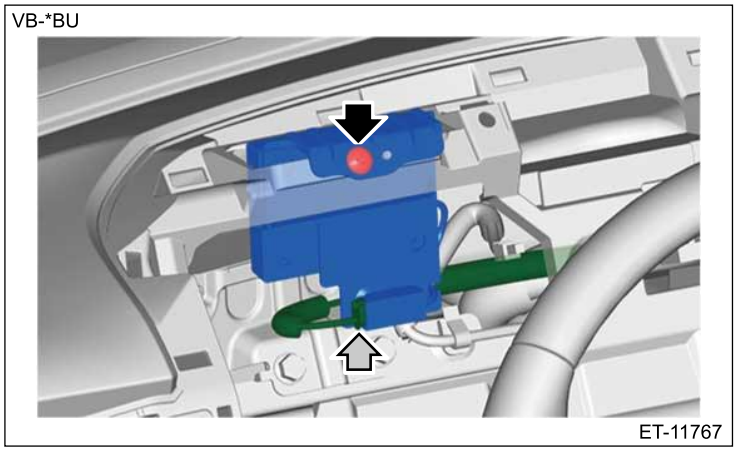
(2) Disconnect the connector and remove the GPS antenna assembly.

3. TELEMATICS SUB ANTENNA

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the cover assembly instrument panel side LH and the ornament panel mid driver. Ref. to AIR CONDITIONER>Air Vent Grille>REMOVAL > SIDE GRILLE.
3. Remove the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.
4. Remove the ornament panel mid passenger and panel assembly center. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>REMOVAL.
5. Remove the panel starter switch. (Model with push button ignition starter) Ref. to SECURITY AND LOCKS>Push Button Ignition Switch>REMOVAL.

   Note:
   For the models without push button ignition starter, remove the cover starter switch.
6. Remove the combination meter assembly. Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>REMOVAL.
7. Remove the telematics sub antenna assembly.
   (1) Disconnect the connector.
   (2) Remove the screws and then remove the telematics sub antenna assembly.

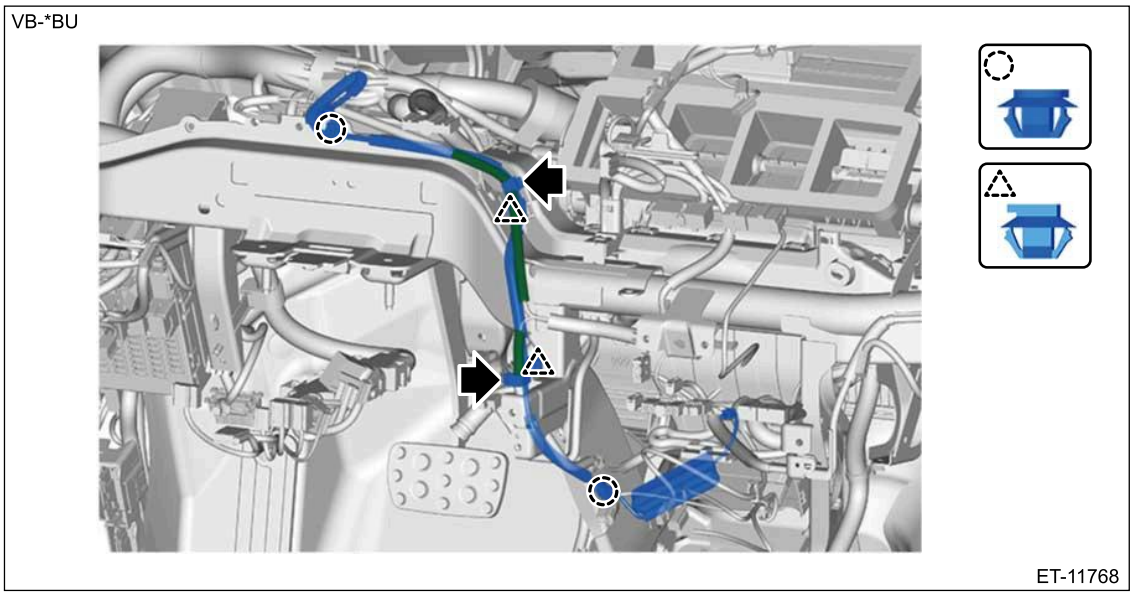


4. FEEDER CORD

- **STEERING BEAM**
  - **Combination meter**

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

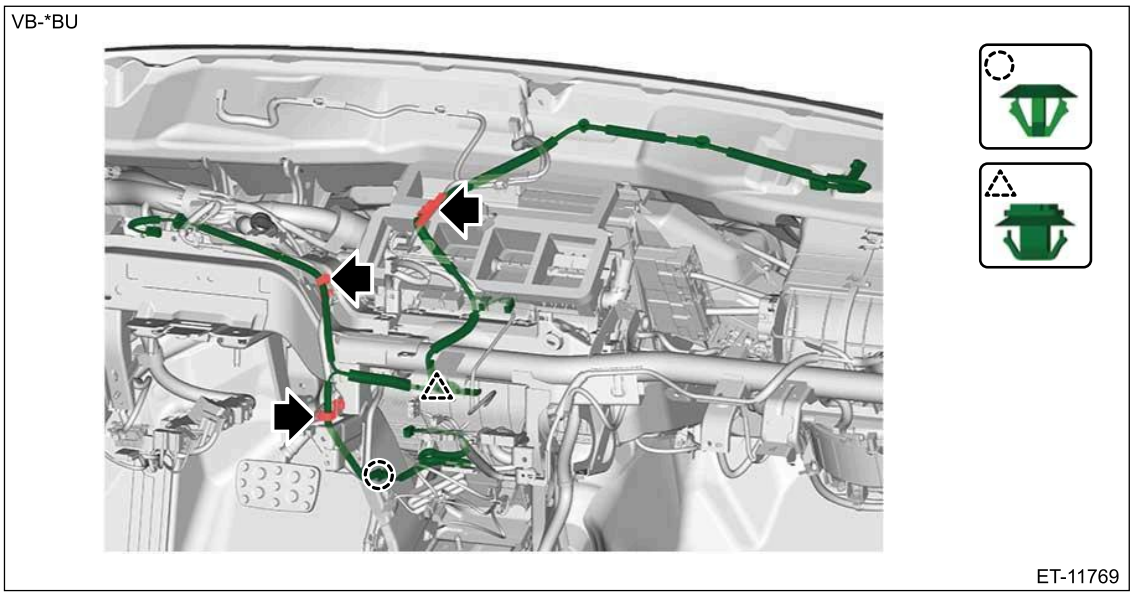
1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the instrument panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>REMOVAL.
3. Disconnect the GPS assembly cord from the cord clamp.
4. Remove the cord clip, and remove the cord assembly meter.



  - **GPS & telematics sub antenna**

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the instrument panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>REMOVAL.
3. Disconnect the GPS assembly cord from the cord clamp of the cord assembly meter and instrument panel harness.
4. Remove the cord clips and remove the GPS assembly cord.

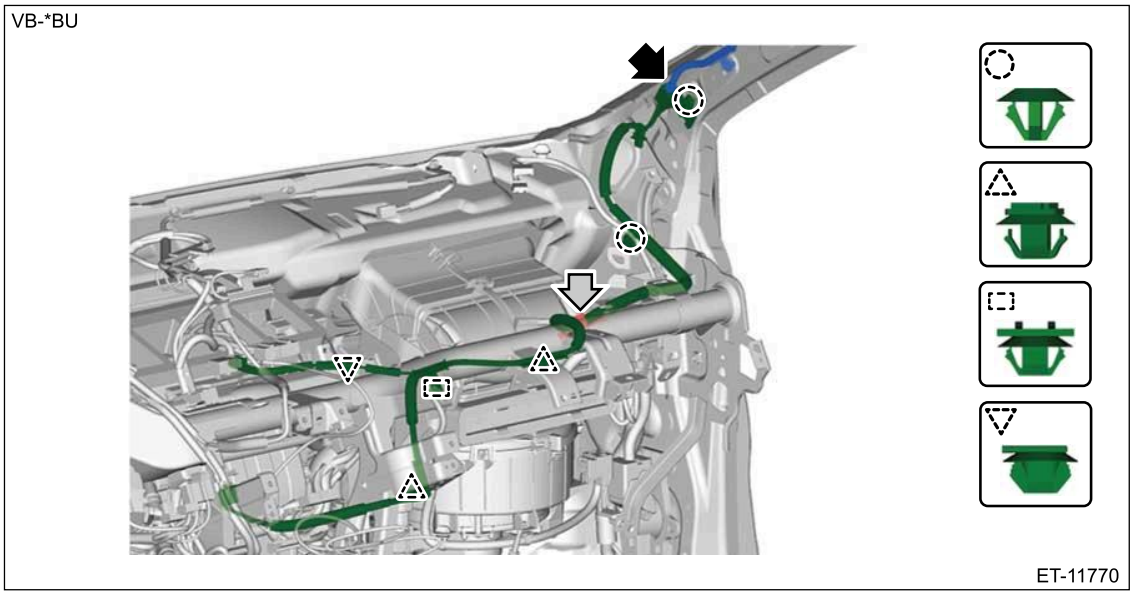


– **Roof antenna**

Caution:

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

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the instrument panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>REMOVAL.
3. Disconnect the feeder assembly cord from the cord clamp of the instrument panel harness.
4. Remove the connectors and cord clips, and then remove the feeder assembly cord.



- **ROOF TRIM**
  For work procedures for the cord assembly antenna and cord assembly roof, refer to "Roof Trim" of the "EXTERIOR/INTERIOR TRIM" section. Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.

ENTERTAINMENT & MONITORING > Antenna

INSTALLATION

1. ROOF ANTENNA (SXM/TELEMATICS)

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Using new clips, springs, washers and bolts, install the antenna assembly roof and connect the connector.
   Tightening torque:
   4.5 ±1 N·m (0.5±0.1 kgf-m, 3.3±0.7 ft-lb)
2. Install the trim panel roof assembly. Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. GPS ANTENNA

1. Connect the connector, and install the GPS antenna assembly.
2. Install the grille front defroster. Ref. to AIR CONDITIONER>Sunload Sensor (Auto A/C Model)>INSTALLATION.
3. Install the grille speaker side. Ref. to ENTERTAINMENT & MONITORING>Front Speaker>INSTALLATION > TWEETER.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

3. TELEMATICS SUB ANTENNA

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the telematics sub antenna assembly and connect the connector.
2. Install the combination meter assembly. Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>INSTALLATION.
3. Install the panel starter switch. (Model with push button ignition starter) Ref. to SECURITY AND LOCKS>Push Button Ignition Switch>INSTALLATION.

   Note:
   For the models without push button ignition starter, install the cover starter switch.
4. Install the panel assembly center and the ornament panel mid passenger. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>INSTALLATION.
5. Install the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.
6. Install the ornament panel mid driver and cover assembly instrument panel side LH. Ref. to AIR CONDITIONER>Air Vent Grille>INSTALLATION > SIDE GRILLE.
7. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

4. FEEDER CORD

- **STEERING BEAM**
  - **Combination meter**

    Caution:
    Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

    1. Install the cord assembly meter.
    2. Install the GPS assembly cord.
    3. Install the instrument panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>INSTALLATION.
    4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
  - **GPS & telematics sub antenna**

    Caution:
    Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

    1. Install the GPS assembly cord.
    2. Install the instrument panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>INSTALLATION.
    3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
  - **Roof antenna**

    Caution:
    Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

    1. Install the feeder assembly cord and connect the connector.

2. Install the instrument panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

- **ROOF TRIM**

  For work procedures for the cord assembly antenna and cord assembly roof, refer to “Roof Trim” of the “EXTERIOR/INTERIOR TRIM” section. Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>INSTALLATION.

REMOVAL

1. AUDIO STEERING SWITCH

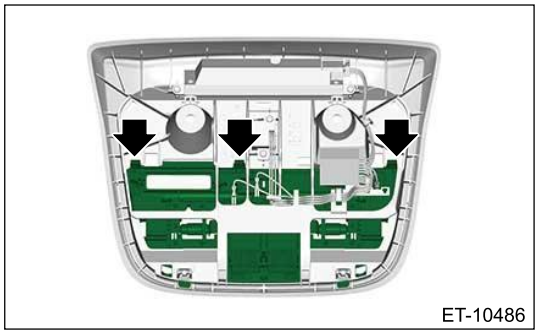
Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Set the steering wheel to the straight-ahead position.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the driver's airbag module. Ref. to AIRBAG SYSTEM>Driver's Airbag Module>REMOVAL.
4. Remove the steering wheel assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Wheel>REMOVAL.
5. Remove the audio steering switch. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Wheel>DISASSEMBLY.

2. TELEMATICS BUTTON

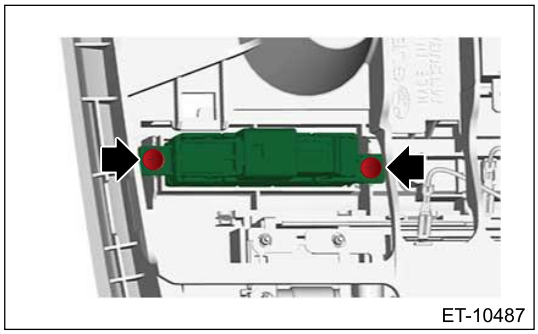
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the light assembly map. Ref. to LIGHTING SYSTEM>Spot Map Light>REMOVAL.
3. Remove the telematics button.
   (1) Release the claws and remove the front side of the frame.

Caution:
Be careful not to pull the harness.


ET-10486

Note:
The frame cannot be removed.

(2) Remove the screws from the frame clearance, and remove the telematics button.


ET-10487

INSTALLATION

1. AUDIO STEERING SWITCH

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the audio steering switch. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Wheel>ASSEMBLY.
2. Align the center position of the steering roll connector. Ref. to AIRBAG SYSTEM>Roll Connector>ADJUSTMENT.
3. Install the steering wheel assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Wheel>INSTALLATION.
4. Install the driver's airbag module. Ref. to AIRBAG SYSTEM>Driver's Airbag Module>INSTALLATION.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

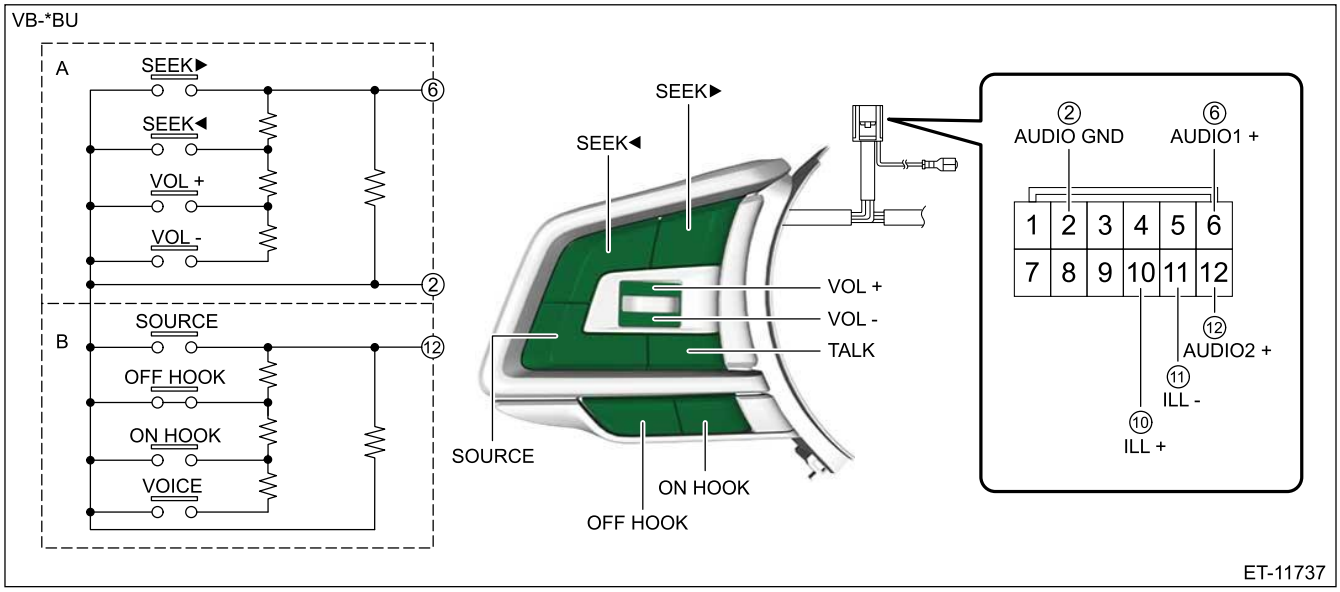
2. TELEMATICS BUTTON

1. Install the telematics button.
2. Install the light assembly map. Ref. to LIGHTING SYSTEM>Spot Map Light>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

INSPECTION

1. AUDIO STEERING SWITCH

1. Measure the resistance between connector terminals.



Terminal No.	Inspection conditions		Standard
6 — 2	SEEK (›) SEEK (‹)	A circuit is all OFF.	Approx. 100 kΩ

Terminal No.	Inspection conditions		Standard
	VOL (+) VOL (−)		
	SEEK (›)	ON	Less than 1 Ω
	SEEK (‹)	ON	Approx. 330 Ω
	VOL (+)	ON	Approx. 1,000 Ω
	VOL (−)	ON	Approx. 3,110 Ω
12 — 2	SOURCE OFF HOOK ON HOOK TALK	B circuit is all OFF.	Approx. 100 kΩ
	SOURCE	ON	Less than 1 Ω
	OFF HOOK	ON	Approx. 330 Ω
	ON HOOK	ON	Approx. 1,000 Ω
	TALK	ON	Approx. 3,110 Ω

2. Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.

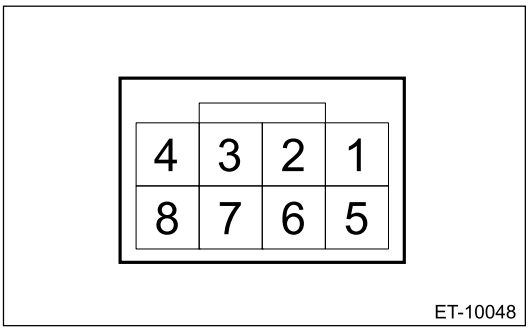
Caution:
When applying battery voltage, do not mix up the positive (+) side and the negative (−) side.
Incorrect polarity connection may cause LED damage inside the switch.

Terminal No.	Inspection conditions	Specification
10 (+) — 11 (−)	Apply battery voltage.	Light On

3. Replace the audio steering switch if it is found defective as a result of the measurement.

2. TELEMATICS BUTTON

1. Check the button.
(1) Measure the resistance between connector terminals.



- SOS button

Terminal No.	Inspection conditions	Standard
6 — 1	OFF	Approx. 1.6 kΩ
	ON	Less than 1 Ω

- i-button

Terminal No.	Inspection conditions	Standard
3 — 1	OFF	Approx. 1.6 kΩ
	ON	Less than 1 Ω

(2) Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.

Caution:
When applying battery voltage, do not mix up the positive (+) side and the negative (−) side.
Incorrect polarity connection may cause LED damage inside the switch.

Terminal No.	Inspection conditions	Specification
8 (+) — 2 (−)	Apply battery voltage.	Light On

2. Check the indicator.

(1) Apply battery voltage between the connector terminals to check the lighting condition of the indicator.

Caution:
When applying battery voltage, do not mix up the positive (+) side and the negative (−) side.
Incorrect polarity connection may cause LED damage inside the switch.

Terminal No.	Inspection conditions	Specification
4 (+) — 1 (−)	Apply battery voltage.	Illuminating in green
7 (+) — 1 (−)		Illuminating in red
4 (+) — 1 (−) and 8 (+) — 2 (−)	Apply battery voltage simultaneously.	Indicator turns on in dimmed condition at one level.
7 (+) — 1 (−) and 8 (+) — 2 (−)		

3. Replace the telematics button if it is found defective.

NOTE

The microphone is integrated into the light assembly map.
For operation procedures for the microphone, refer to “Spot Map Light” in the “LIGHTING SYSTEM” section.
Ref. to LIGHTING SYSTEM>Spot Map Light.

ENTERTAINMENT & MONITORING > Telematics System

WIRING DIAGRAM

For the wiring diagram, refer to "Telematics System" in the wiring diagram. Ref. to WIRING SYSTEM>Telematics System>WIRING DIAGRAM.

ENTERTAINMENT & MONITORING > Telematics System

INSPECTION

1. BASIC INSPECTION

For basic inspection, refer to "Basic Diagnostic Procedure" in "TELEMATICS SYSTEM (DIAGNOSTICS)". Ref. to TELEMATICS SYSTEM (DIAGNOSTICS)>Basic Diagnostic Procedure.

2. SYSTEM BLOCK DIAGRAM

For system block diagram, refer to "System Block Diagram" in "TELEMATICS SYSTEM (DIAGNOSTICS)". Ref. to TELEMATICS SYSTEM (DIAGNOSTICS)>General Description>SYSTEM BLOCK DIAGRAM.

3. MODULE I/O SIGNAL

For the specification (electrical component), refer to "Control Module I/O Signal" in "TELEMATICS SYSTEM (DIAGNOSTICS)". Ref. to TELEMATICS SYSTEM (DIAGNOSTICS)>Control Module I/O Signal>SPECIFICATION.

ENTERTAINMENT & MONITORING > Telematics System

OPERATION

1. REGISTRATION (COMM CHECK)

Caution:
Do not press and hold the i-button for more than two seconds during communication check, or settings will return to factory mode in poor radio wave environment. If the settings has returned to factory mode, perform the communication check again. To check the mode status, see "Subscription Status" in the current data display on Subaru Select Monitor.

1. If Subaru Select Monitor is connected, disconnect it from the data link connector.
2. Replace the data communication module with a new part.
3. Check that the LED of the telematics button illuminates green.
4. Register the immobilizer. For detailed operation procedure, refer to "Type H" described in "REGISTRATION MANUAL FOR IMMOBILIZER".
5. Press and hold the i-button for 2 seconds or more.

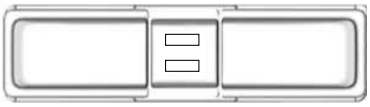
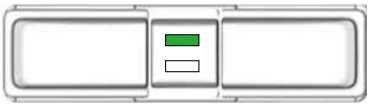
   Note:
   - **When the subscription is completed, the telematics system will automatically activate.**
   - **During Comm Check, LED blinks in green and red alternately.**
6. Using Subaru Select Monitor, select [Subscription Status] in [Data monitor] of [Telematics], and check that [Service status] or [Non-service status] is set. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Caution:
If [Subscription Status] is [Comm Check] or [Factory mode], Comm Check was not completed successfully. Therefore, check radio wave environment and check if DTC is detected or not.
Turn the ignition switch to OFF and check that LED goes off, and then perform Comm Check again.

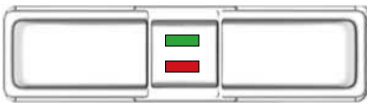
7. Check the link status with the server system.

Caution:
If the server has a malfunction, it may not operate normally.

- At normal condition

LED status	Subscription contents	Contents
VN-*AJ  ET-11474	Without subscription of SUBARU STARLINK	Comm Check and communication establishment completed
VN-*AJ  ET-11475	With subscription of SUBARU STARLINK	

- In malfunction

LED status	Cause	Corrective action
VN-*AJ  ET-11476	Comm Check cannot be performed normally due to poor radio wave environment.	Perform Comm Check again in a location with good radio wave environment. **Note:** **Radio wave reception condition can be checked using Subaru Select Monitor.** 1. Turn the ignition switch from OFF to ON. 2. Press and hold the i-button for 2 seconds or more to set to Factory mode, and press and hold the i-button for 2 seconds

LED status	Cause	Corrective action
		or more again to perform Comm Check.
	Comm Check cannot be performed normally as the server has a malfunction.	Call an authorized workshop and check that the serial number, IMEI number, and chassis number are correct.

ENTERTAINMENT & MONITORING > Telematics System

NOTE

For operation procedures of components in the telematics system, refer to the following sections.

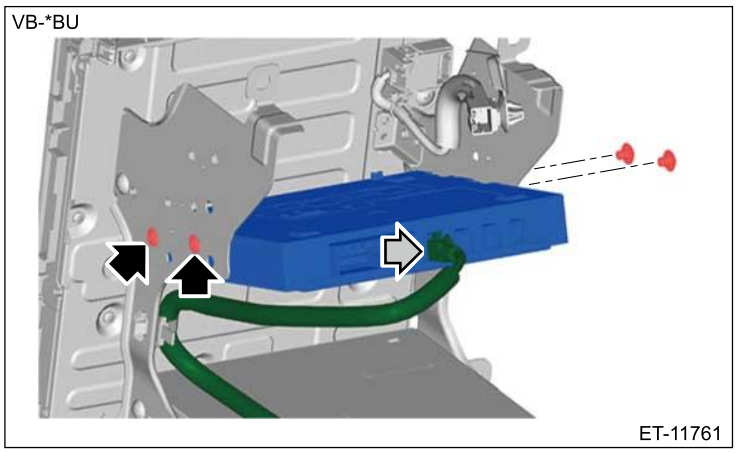
Note:
For the CAN communication system, refer to the LAN system. Ref. to LAN SYSTEM (DIAGNOSTICS)>Electrical Component Location.

- Data communication module: Ref. to ENTERTAINMENT & MONITORING>Data Communication Module.
- Antenna: Ref. to ENTERTAINMENT & MONITORING>Antenna.
- Telematics button: Ref. to ENTERTAINMENT & MONITORING>Switches and Harness.
- Front speaker: Ref. to ENTERTAINMENT & MONITORING>Front Speaker.

REMOVAL

1. DATA COMMUNICATION MODULE

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the ornament panel mid passenger and panel assembly center. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>REMOVAL.
3. Remove the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>REMOVAL.
4. Remove the data communication module.
   (1) Disconnect the cable CCM connector.
   (2) Remove the screws and remove the data communication module.

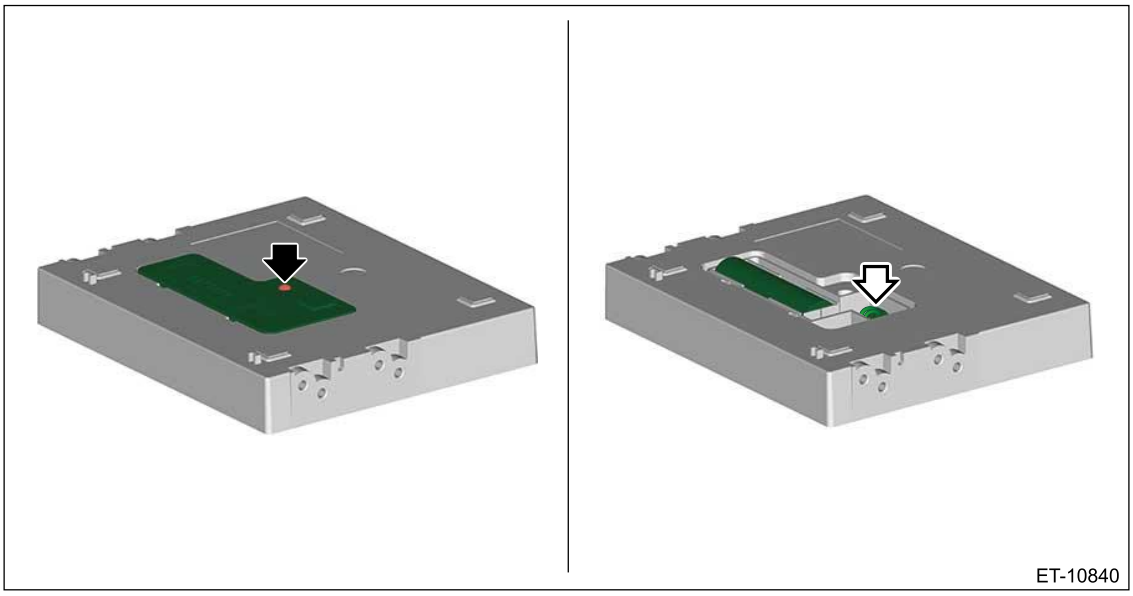


   (3) Remove the backup battery. Ref. to ENTERTAINMENT & MONITORING>Data Communication Module>REMOVAL > BACKUP BATTERY.

Note:
Perform this procedure only when required.

2. BACKUP BATTERY

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the data communication module. Ref. to ENTERTAINMENT & MONITORING>Data Communication Module>REMOVAL > DATA COMMUNICATION MODULE.
3. Remove the backup battery.
   (1) Using TORX® T10, remove the cap screw, and then remove the battery cover.
   (2) Disconnect the connector and remove the backup battery.



ENTERTAINMENT & MONITORING > Data Communication Module

INSTALLATION

1. DATA COMMUNICATION MODULE

1. Install the backup battery. Ref. to ENTERTAINMENT & MONITORING>Data Communication Module>INSTALLATION > BACKUP BATTERY.
2. Install the data communication module and connect the cable CCM connector.

Caution:
Never install a data communication module from another vehicle. It may disable recognition of vehicle information and cause communication error.

3. Install the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>INSTALLATION.
4. Install the panel assembly center and the ornament panel mid passenger. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>INSTALLATION.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
6. Perform the registration if the data communication module is replaced with a new part. Ref. to ENTERTAINMENT & MONITORING>Telematics System>OPERATION.
7. Check the LED illumination status of the telematics button. Ref. to TELEMATICS SYSTEM (DIAGNOSTICS)>Check List for Interview>CHECK > LED ILLUMINATION STATUS LIST.

2. BACKUP BATTERY

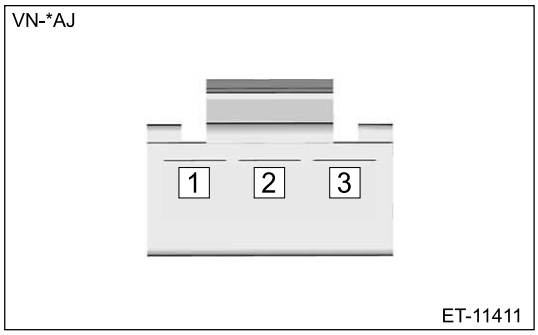
1. Install the backup battery, and connect the connector.
2. Install the battery cover using TORX® T10.
3. Install the data communication module. Ref. to ENTERTAINMENT & MONITORING>Data Communication Module>INSTALLATION > DATA COMMUNICATION MODULE.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

ENTERTAINMENT & MONITORING > Data Communication Module

INSPECTION

1. BACKUP BATTERY

1. Measure the voltage between connector terminals.



Terminal No.	Standard
1 (+) — 3 (−)	2 V or more

2. Replace the backup battery if the inspection result is not within the standard value.

ENTERTAINMENT & MONITORING > Camera

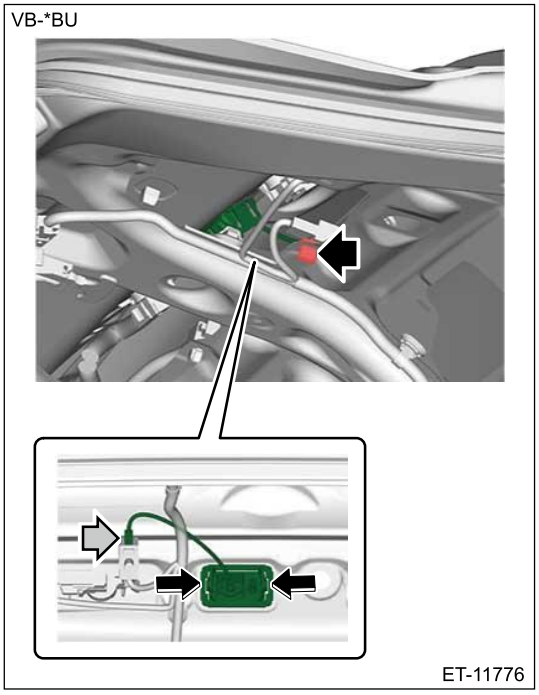
WIRING DIAGRAM

For the wiring diagram, refer to “Rearview Camera System” in the wiring diagram. Ref. to WIRING SYSTEM>Rearview Camera System>WIRING DIAGRAM.

ENTERTAINMENT & MONITORING > Camera

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel trunk lid. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.
3. Remove the garnish assembly trunk. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Lid Garnish>REMOVAL.
4. Remove the rearview camera assembly.
   (1) Remove the connector clip, and disconnect the connector.
   (2) Disconnect the claws and then remove the rearview camera assembly.



ENTERTAINMENT & MONITORING > Camera

INSTALLATION

1. Install the rearview camera assembly and connect the connector.
2. Install the garnish assembly trunk. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Lid Garnish>INSTALLATION.
3. Install the trim panel trunk lid. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>INSTALLATION.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
5. Confirm the display and the guide line position, and adjust them as necessary.
   - Screen display check: Ref. to COCKPIT CONTROL (DIAGNOSTICS)>Customize.

- Guide line position check: The rearview camera or its installation location on the vehicle may be deformed. Check the rearview camera assembly and its installation location on the vehicle, and repair or replace if necessary.

ENTERTAINMENT & MONITORING > Accessory Power Supply Socket

WIRING DIAGRAM

1. FRONT ACCESSORY POWER SUPPLY SOCKET

For the wiring diagram, refer to "Front Accessory Power Supply Socket System" in the wiring diagram. Ref. to WIRING SYSTEM>Front Accessory Power Supply Socket System>WIRING DIAGRAM.

2. REAR ACCESSORY POWER SUPPLY SOCKET

For the wiring diagram, refer to "Rear Accessory Power Supply Socket System" in the wiring diagram. Ref. to WIRING SYSTEM>Rear Accessory Power Supply Socket System>WIRING DIAGRAM.

ENTERTAINMENT & MONITORING > Accessory Power Supply Socket

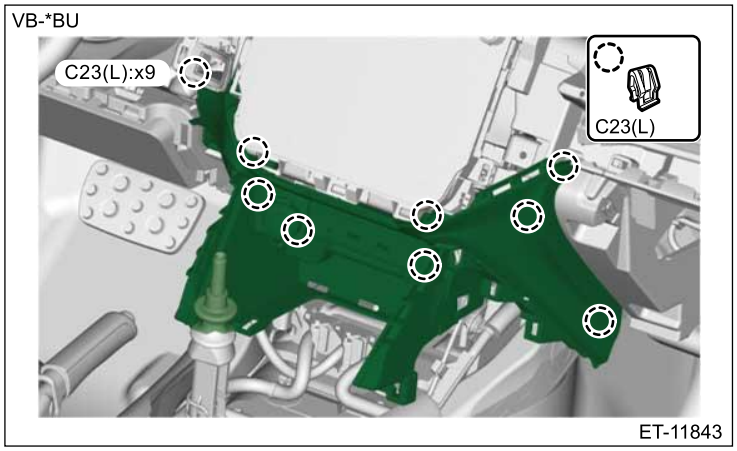
REMOVAL

1. FRONT

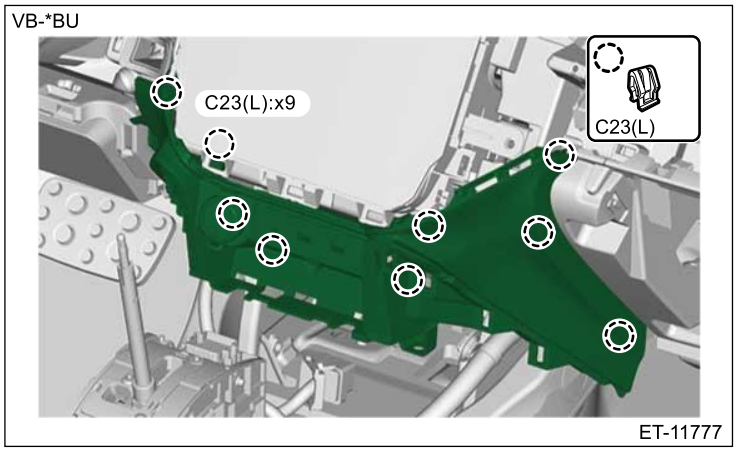
Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the ornament panel mid passenger and panel assembly center. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>REMOVAL.
3. Remove the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.
4. Remove the panel starter switch. (Model with push button ignition starter) Ref. to SECURITY AND LOCKS>Push Button Ignition Switch>REMOVAL.

   Note:
   For the models without push button ignition starter, remove the cover starter switch.
5. Remove the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.
6. Remove the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>REMOVAL.
7. Remove the tray center UPR.
   (1) Release the clips.
   - MT model

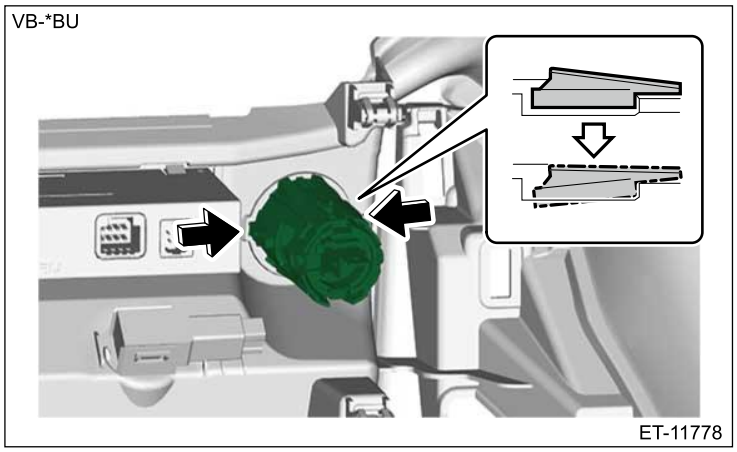


- CVT model



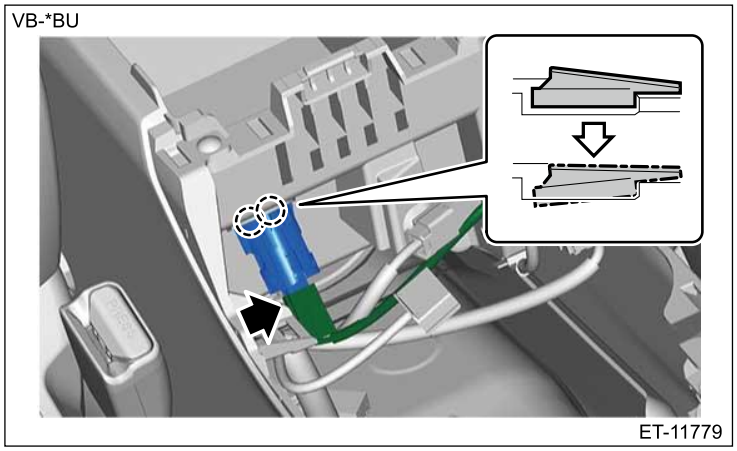
(2) Disconnect each connector and remove the tray center UPR.

8. While releasing the claw, press it in from the rear to remove the socket assembly.



2. REAR

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the cover assembly front. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.
3. Remove the socket assembly.
   (1) Disconnect the connector.
   (2) While releasing the claw, press it in from the rear to remove the socket assembly.



ENTERTAINMENT & MONITORING > Accessory Power Supply Socket

INSTALLATION

1. 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. Align the claw of the socket assembly with the groove of the tray center UPR, and install the socket assembly.
2. Connect each connector and install the tray center UPR.
3. Install the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>INSTALLATION.
4. Install the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.
5. Install the panel starter switch. (Model with push button ignition starter) Ref. to SECURITY AND LOCKS>Push Button Ignition Switch>INSTALLATION.

   Note:
   For the models without push button ignition starter, install the cover starter switch.
6. Install the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.
7. Install the panel assembly center and the ornament panel mid passenger. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>INSTALLATION.
8. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. REAR

1. Install the socket assembly.
   (1) Align the claw of the socket assembly with the groove of the console box assembly.
   (2) Install the socket assembly and connect the connector.
2. Install the cover assembly front. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

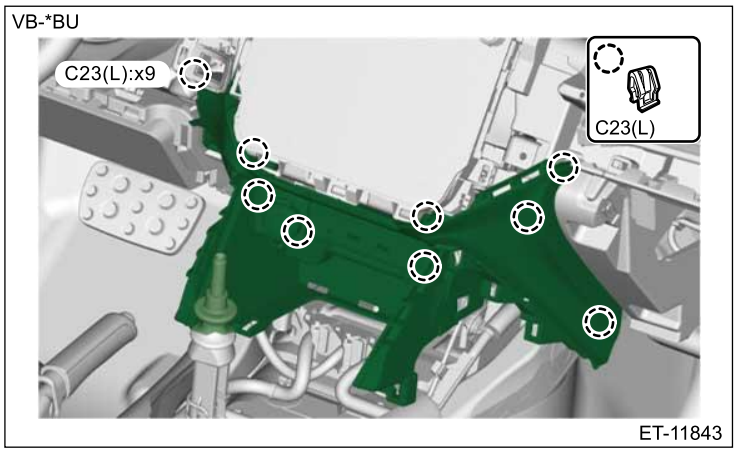
REMOVAL

1. FRONT

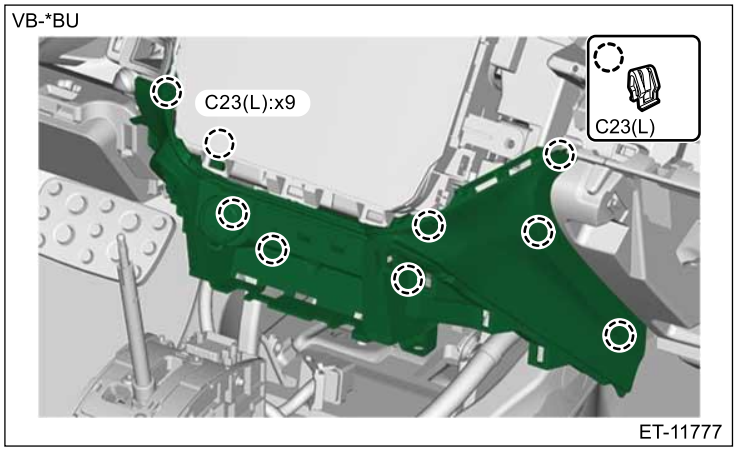
Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the ornament panel mid passenger and panel assembly center. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>REMOVAL.
3. Remove the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.
4. Remove the panel starter switch. (Model with push button ignition starter) Ref. to SECURITY AND LOCKS>Push Button Ignition Switch>REMOVAL.

   Note:
   For the models without push button ignition starter, remove the cover starter switch.
5. Remove the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.
6. Remove the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>REMOVAL.
7. Remove the tray center UPR.
   (1) Release the clips.
   - MT model

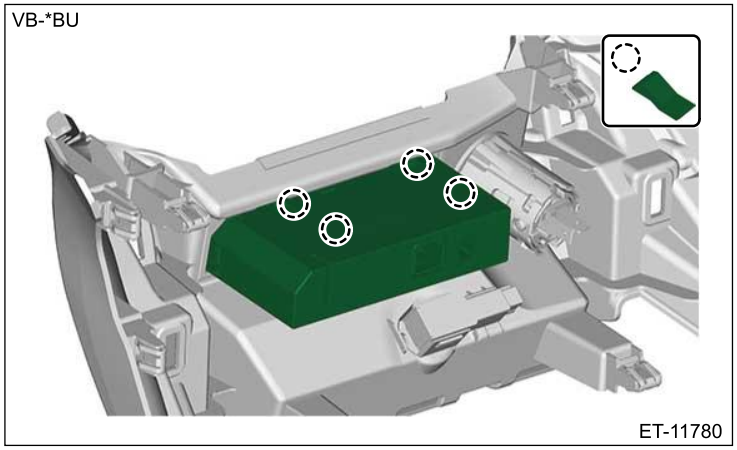


   - CVT model



(2) Disconnect each connector and remove the tray center UPR.

8. While removing the claw, press it in from the rear to remove the AUX unit assembly.



2. REAR

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.
3. Remove the AUX unit assembly power. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>DISASSEMBLY.

ENTERTAINMENT & MONITORING > External Connection Terminal

INSTALLATION

1. 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. Install the AUX unit assembly.
2. Connect each connector and install the tray center UPR.
3. Install the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>INSTALLATION.
4. Install the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.

5. Install the panel starter switch. (Model with push button ignition starter) Ref. to SECURITY AND LOCKS>Push Button Ignition Switch>INSTALLATION.

Note:
For the models without push button ignition starter, install the cover starter switch.

6. Install the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.
7. Install the panel assembly center and the ornament panel mid passenger. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>INSTALLATION.
8. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. REAR

1. Install the AUX unit assembly power. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>ASSEMBLY.
2. Install the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

INSPECTION

For the diagnostics with phenomenon, refer to “Diagnostics with Phenomenon” in the “COCKPIT CONTROL (DIAGNOSTICS)” section. Ref. to COCKPIT CONTROL (DIAGNOSTICS)>Diagnostics with Phenomenon.

ENTERTAINMENT & MONITORING > Dealership Mode

NOTE

For dealership mode, refer to “Dealership Mode” of “COCKPIT CONTROL (DIAGNOSTICS)” section. Ref. to COCKPIT CONTROL (DIAGNOSTICS)>Dealership Mode.

GLASS/WINDOWS/MIRRORS

GW

1. General Description
2. Relay and Fuse
3. Power Window System
4. Power Window Control Switch
5. Front Door Glass
6. Front Regulator and Motor Assembly
7. Remote Control Mirror System
8. Outer Mirror Assembly
9. Remote Control Mirror Switch
10. Rearview Mirror
11. Rear Door Glass
12. Rear Regulator and Motor Assembly
13. Windshield Glass
14. Rear Window Glass
15. Rear Window Defogger System
16. Wiper Deicer System

GLASS/WINDOWS/MIRRORS > General Description

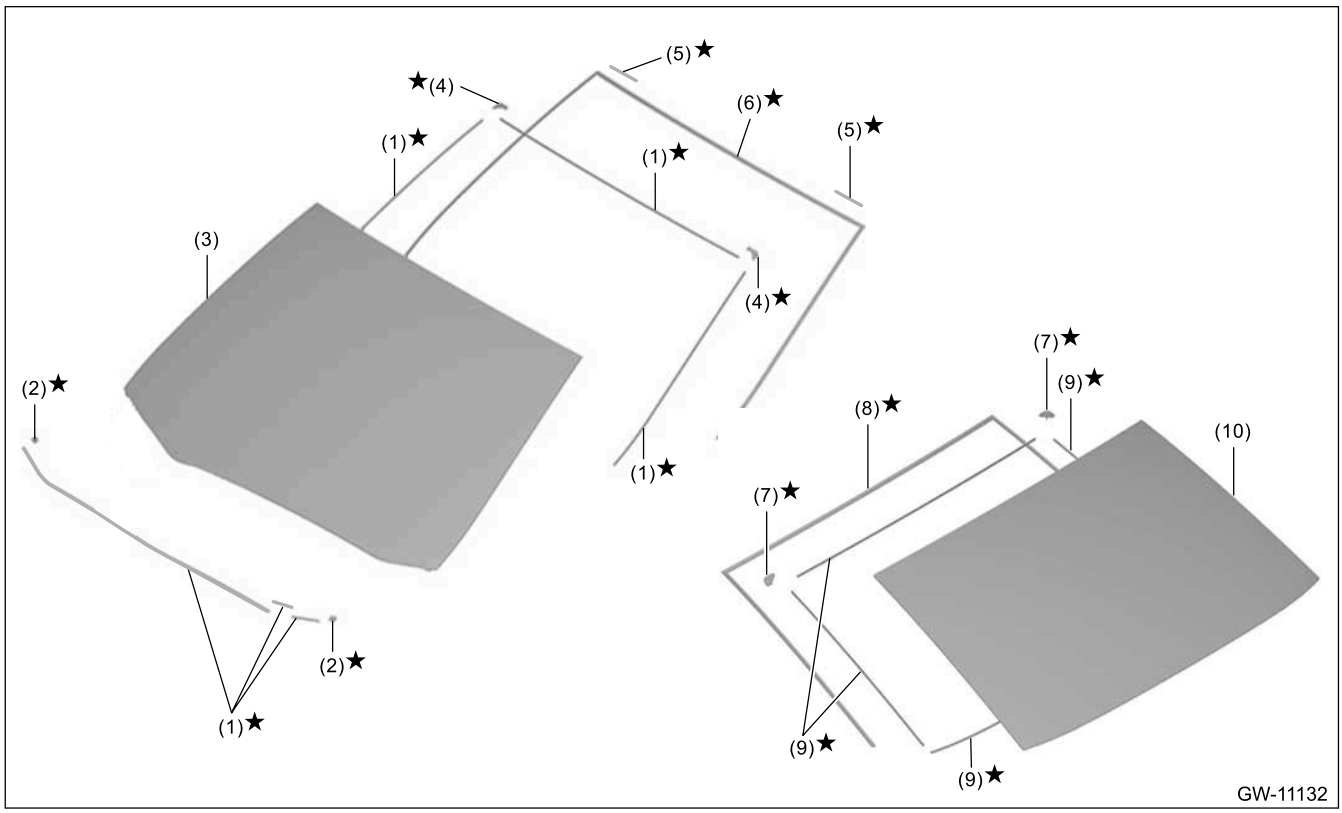
CAUTION

- When performing service operation, refer to “Repair Contents” in “General Description”. Ref. to REPAIR CONTENTS>Repair Contents.
- Refer to “CAUTION” of “General Description” in “AIRBAG SYSTEM” section. Ref. to AIRBAG SYSTEM>General Description>CAUTION.
- When performing work on the sensors or modules, be careful of the following.
  - Before disconnecting electrical connectors, be sure to disconnect the ground terminal from the battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
  - Do not apply any impact. If the parts are accidentally dropped, replace with a new part.
  - Do not expose to high-temperature and humidity.
- When replacing the parts provided with memory functions, record the memory contents before disconnecting the ground terminal from the battery sensor.
- Apply grease onto sliding or revolving surfaces before installation.
- Avoid impact and damage to the glass.

GLASS/WINDOWS/MIRRORS > General Description

COMPONENT

1. FIXED GLASS

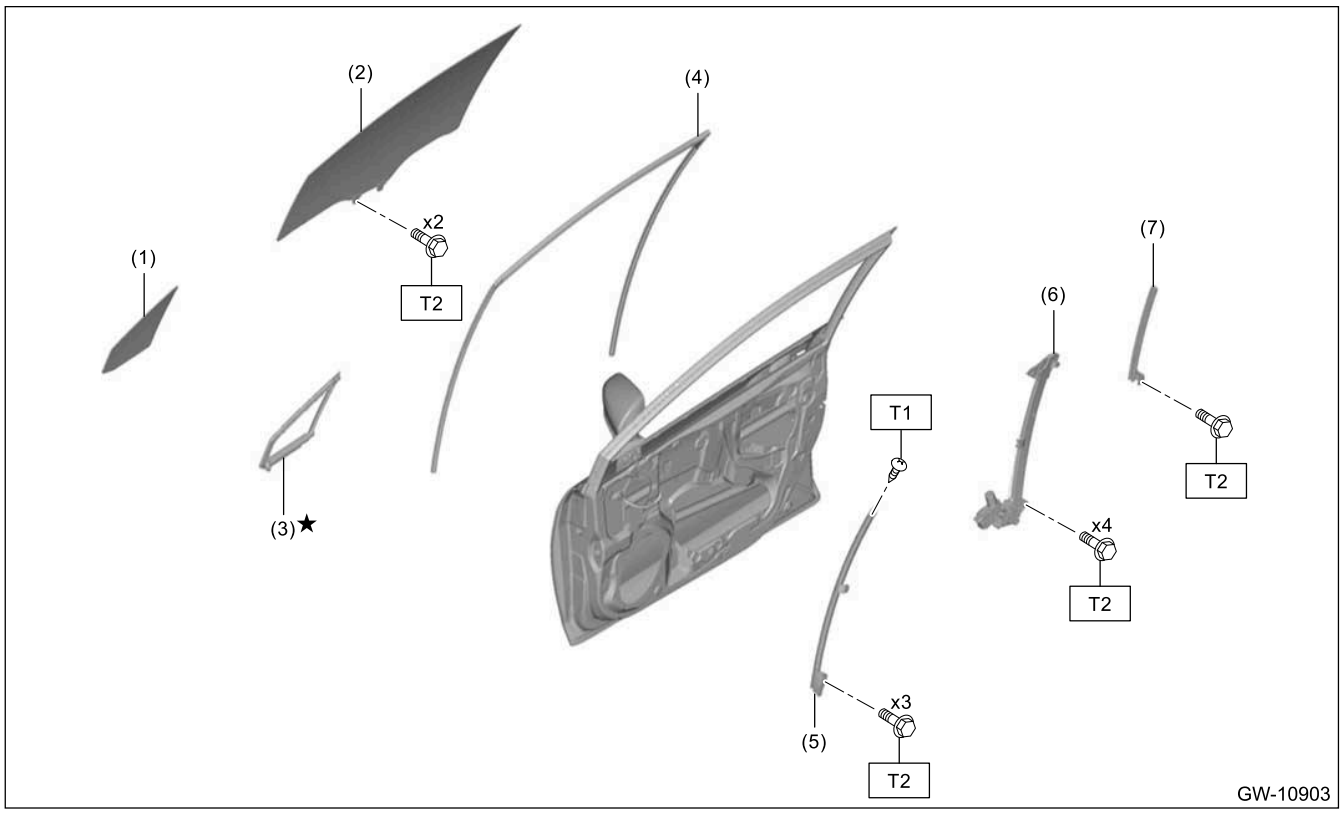


(1) Dam rubber windshield
(2) Seal lower
(3) Glass windshield
(4) Locating pin windshield
(5) Seal upper
(6) Molding windshield
(7) Locating pin rear window
(8) Molding rear window
(9) Dam rubber rear window
(10) Glass rear window

Note:

Inner mirror base cannot be removed from the windshield glass.

2. FRONT DOOR GLASS

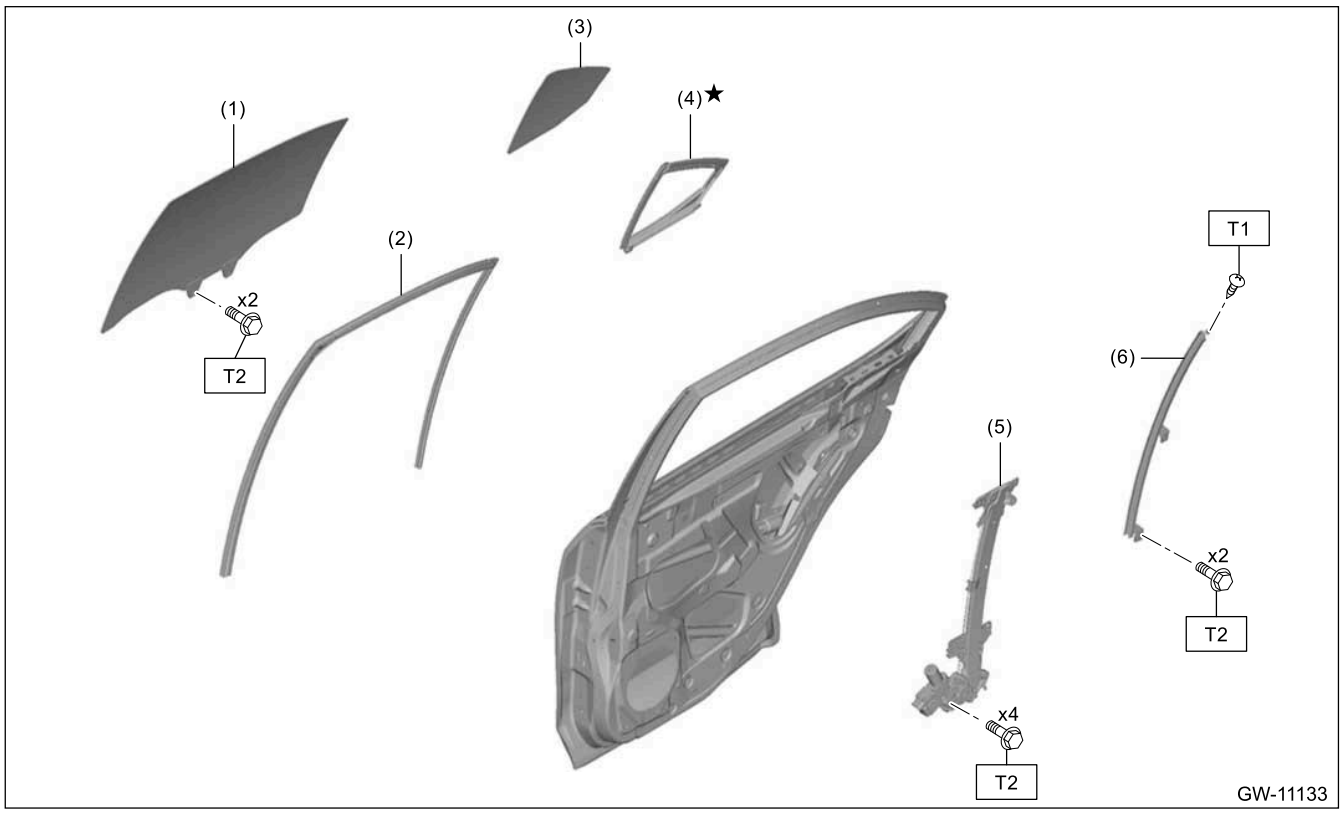


(1) Glass front door partition
(2) Glass ASSY front door
(3) Weather strip front door partition
(4) Running channel front door
(5) Sash ASSY partition
(6) Regulator & motor ASSY front
(7) Sash ASSY front door LWR

Tightening torque: N·m (kgf-m, ft-lb)

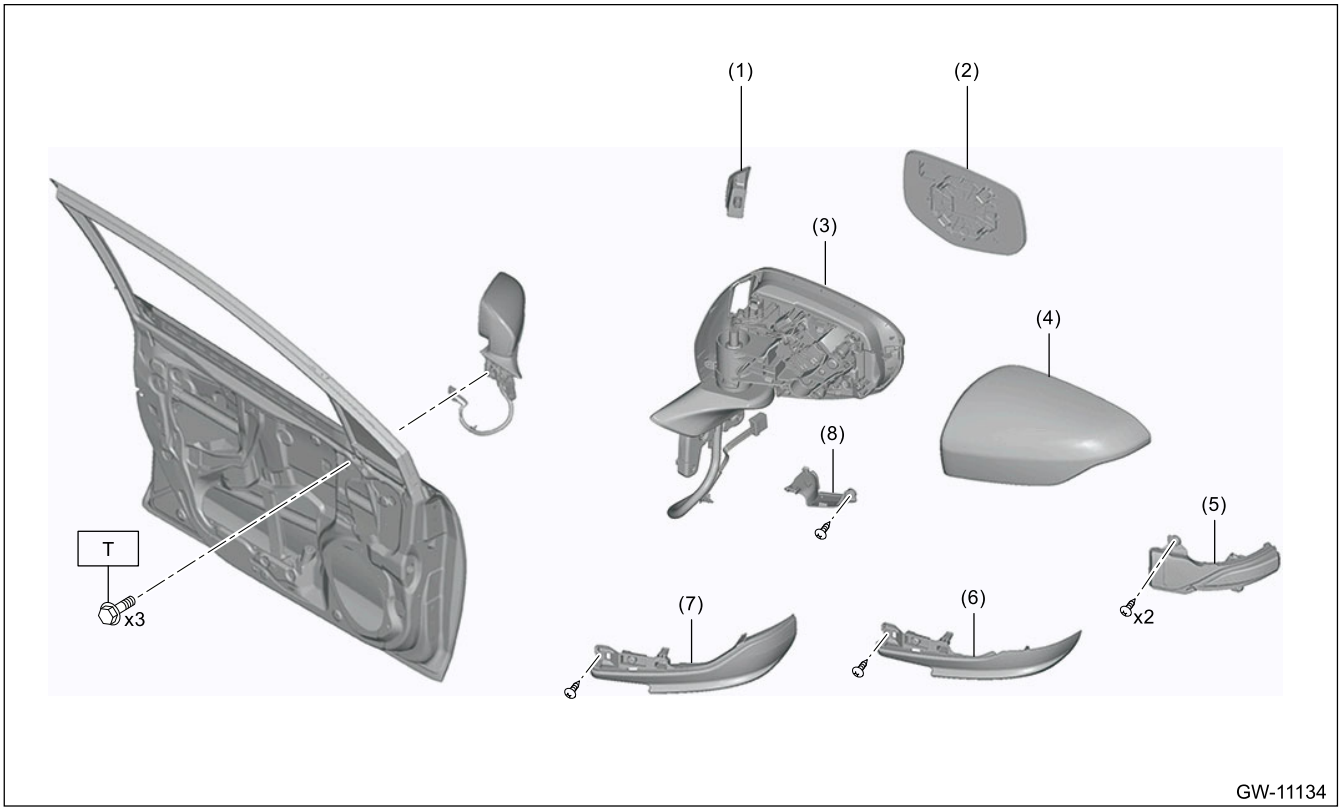
T1: 2.2 (0.2, 1.6)
T2: 7.5 (0.8, 5.5)

3. REAR DOOR GLASS



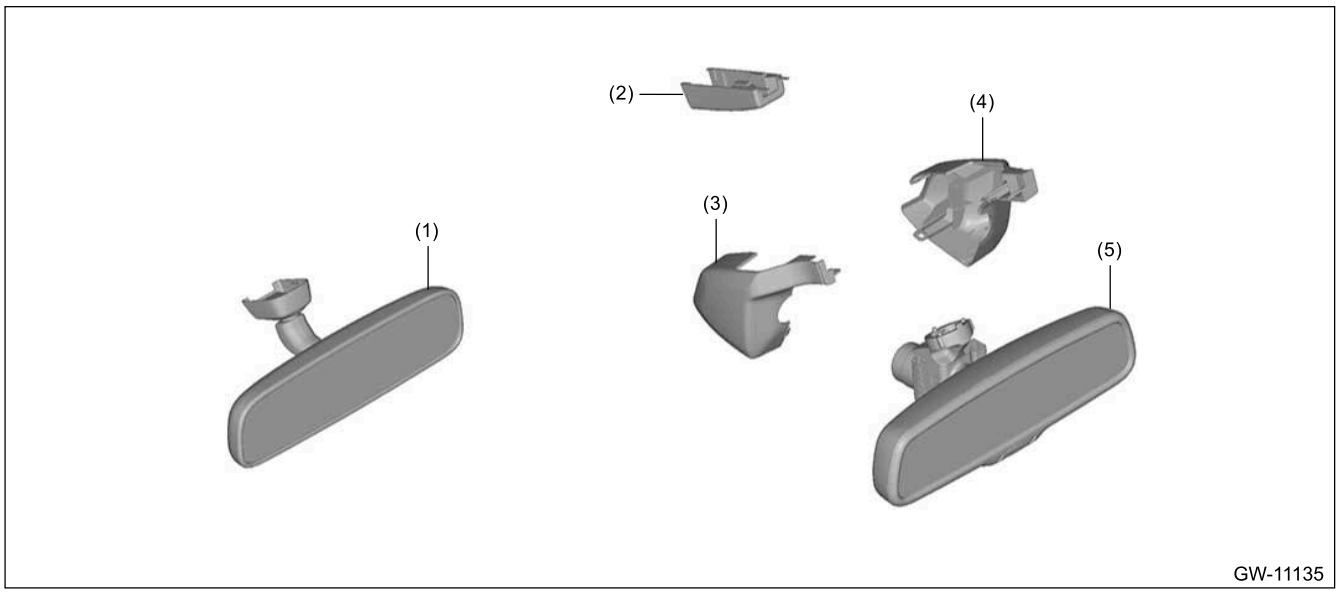
(1)	Glass ASSY rear door	(4)	Weather strip rear door partition	***Tightening torque: N·m (kgf-m, ft-lb)***	
(2)	Running channel rear door	(5)	Regulator & motor ASSY rear	***T1: 2.2 (0.2, 1.6)***	
(3)	Glass rear door partition	(6)	Sash ASSY rear door partition	***T2: 7.5 (0.8, 5.5)***	

4. OUTER MIRROR



(1)	Blind Spot Detection/Rear Cross Traffic Alert system indicator (model with Blind Spot Detection/Rear Cross Traffic Alert system)	(5)	Light ASSY side turn mirror (model with side turn light)	***Tightening torque: N·m (kgf-m, ft-lb)***
(2)	Mirror repair	(6)	Cover cap outer mirror LWR (model with side turn light)	***T: 7.5 (0.8, 5.5)***
(3)	Mirror unit door	(7)	Cover cap outer mirror LWR (model without side turn light)	
(4)	Cover cap outer mirror	(8)	Cover mirror body	

5. REAR VIEW MIRROR



(1) Mirror ASSY inner rearview
(3) Cover mount LH
(5) Mirror ASSY inner rearview HBA
(2) Cover mount CTR
(4) Cover mount RH

GLASS/WINDOWS/MIRRORS > General Description

PREPARATION TOOL

1. SUBARU SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
STSSM4	—	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. **Note:** • **For detailed operation procedures, refer to "Help" of application.** • **Used together with interface for Subaru Select Monitor (such as DST-i and DST-010).**

2. OTHER

	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.
Piano wire	Used for removing the fixed glass.
Cutter knife	Used for removing the fixed glass.
Windshield glass knife	Used for removing the fixed glass.

GLASS/WINDOWS/MIRRORS > Relay and Fuse

LOCATION

For the location, refer to "FUSE AND RELAY" in the wiring diagram. Ref. to WIRING SYSTEM>Fuse And Relay.

Note:
For details of relay and fuse, refer to "DC POWER SUPPLY CIRCUIT". Ref. to WIRING SYSTEM>Power Supply Circuit.

GLASS/WINDOWS/MIRRORS > Relay and Fuse

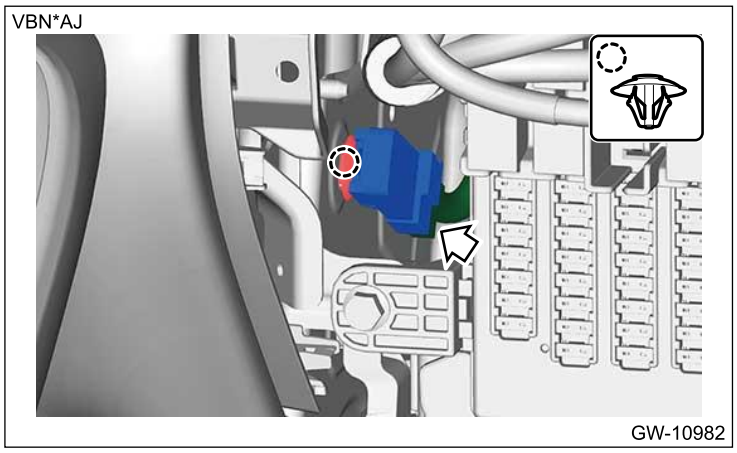
REMOVAL

1. CIRCUIT BREAKER

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.
3. Remove the circuit breaker.
   (1) Disconnect the connector.
   (2) Release the clip, and remove the circuit breaker.

   Caution:
   Be careful not to apply excessive force when pulling the clip, as the clip may become damaged.



GLASS/WINDOWS/MIRRORS > Relay and Fuse

INSTALLATION

1. CIRCUIT BREAKER

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the circuit breaker and connect the connector.
2. Install the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

GLASS/WINDOWS/MIRRORS > Relay and Fuse

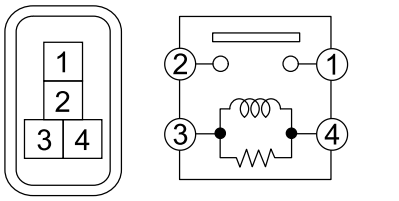
INSPECTION

1. CHECK FUSE

1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

2. CHECK RELAY

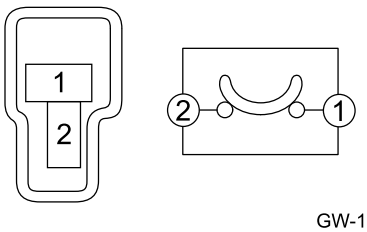
1. Check the resistance between relay terminals.

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

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

3. CHECK CIRCUIT BREAKER

1. Check the continuity between the circuit breaker terminals.

Terminal No.	Inspection conditions	Specification	Circuit
1 — 2	Always	Continuity exists	

2. Replace the circuit breaker if it is found defective.

GLASS/WINDOWS/MIRRORS > Power Window System

WIRING DIAGRAM

For the wiring diagram, refer to "Power Window System" in the wiring diagram. Ref. to WIRING SYSTEM>Power Window System>WIRING DIAGRAM.

GLASS/WINDOWS/MIRRORS > Power Window System

INSPECTION

1. BASIC INSPECTION

For basic inspection, refer to "Basic Diagnostic Procedure" of "POWER WINDOW (DIAGNOSTICS)" section.
Ref. to POWER WINDOW(DIAGNOSTICS) >Basic Diagnostic Procedure.

2. SYSTEM BLOCK DIAGRAM

For system block diagram, refer to "System Block Diagram" in "POWER WINDOW (DIAGNOSTICS)" section.
Ref. to POWER WINDOW(DIAGNOSTICS) >General Description>SYSTEM BLOCK DIAGRAM.

3. MODULE I/O SIGNAL

For the specification (electrical component), refer to "Control Module I/O Signal" of "POWER WINDOW (DIAGNOSTICS)" section. Ref. to POWER WINDOW(DIAGNOSTICS) >Control Module I/O Signal.

GLASS/WINDOWS/MIRRORS > Power Window System

OPERATION

1. INITIAL SETTING

This procedure performs settings of the following data.

- Top dead position
- Bottom dead position
- Sliding resistance value

Note:

- **Always perform the initialization with the vehicle parked. (Initialization cannot be operated during driving)**
- **Perform initialization for one seat at a time.**
- **Do not hit or apply impact or vibration to the glass, since the sliding resistance of door glass is being learned during the initialization.**
- **Do not perform the ignition operation during the initialization.**
- **The initialization is not required for the rear seats if the auto function is unavailable.**

Perform the initialization according to the procedures by items below.

Item	Procedure
When the regulator and motor assembly is replaced with a new part	A
When the motor power supply is lost due to removing and installing of the battery terminals and the regulator & motor assembly connector during the power window operation	A
When the power window system was initialized by the Subaru Select Monitor	A

Item	Procedure
When a power window related part such as glass and running channel was replaced	B
When the phenomenon that the door glass does not close fully (incorrect reverse operation) occurred	B
When the phenomenon that the door glass does not open fully (incorrect stop operation) occurred	B

- **PROCEDURE A**
  1. Turn the ignition switch to ON.
  2. Operate the driver's side, passenger's side, rear right or rear left power window switch and hold the manual down operation, or hold the automatic down operation to fully open the relevant window. Continuously from that point, hold the switch for longer than one second.

     Note:
     - **Wherever the glass is at any position, operate the switch in "DOWN" direction.**
     - **For initialization for other than driver's seat, this can be done with the driver's side power window switch, or power window switch of each seat.**
  3. Operate the driver's side, passenger's side, rear right or rear left power window switch and hold the automatic up operation to fully close the relevant window. Continuously from that point, hold the switch for longer than one second.

     Note:
     - **At this time, do not move the vehicle.**
     - **For initialization for other than driver's seat, this can be done with the driver's side power window switch, or power window switch of each seat.**
  4. Perform the automatic down operation with the driver's side, passenger's side, rear right or rear left power window switch to check whether the window fully opens properly. Also, perform the automatic up operation to check whether the window fully closes properly.

     Note:
     - **If the window does not fully open/close properly, repeat steps 1 to 4.**
     - **For initialization for other than driver's seat, this can be done with the driver's side power window switch, or power window switch of each seat.**
- **PROCEDURE B**
  1. Turn the ignition switch to ON.
  2. Perform the system initialization using the Subaru Select Monitor. Ref. to POWER WINDOW(DIAGNOSTICS) >Work Support>OPERATION > SYSTEM INITIALIZATION.
  3. Operate the driver's side, passenger's side, rear right or rear left power window switch and hold the manual down operation, or hold the automatic down operation to fully open the relevant window. Continuously from that point, hold the switch for longer than one second.

     Note:
     - **Wherever the glass is at any position, operate the switch in "DOWN" direction.**
     - **For initialization for other than driver's seat, this can be done with the driver's side power window switch, or power window switch of each seat.**
  4. Operate the driver's side, passenger's side, rear right or rear left power window switch and hold the automatic up operation to fully close the relevant window. Continuously from that point, hold the switch for longer than one second.

Note:
- **At this time, do not move the vehicle.**
- **For initialization for other than driver's seat, this can be done with the driver's side power window switch, or power window switch of each seat.**

5. Perform the automatic down operation with the driver's side, passenger's side, rear right or rear left power window switch to check whether the window fully opens properly. Also, perform the automatic up operation to check whether the window fully closes properly.

Note:
- **If the window does not fully open/close properly, repeat steps 1 to 4.**
- **For initialization for other than driver's seat, this can be done with the driver's side power window switch, or power window switch of each seat.**

GLASS/WINDOWS/MIRRORS > Power Window System

NOTE

For procedure of the components in the power window system, refer to the sections below.

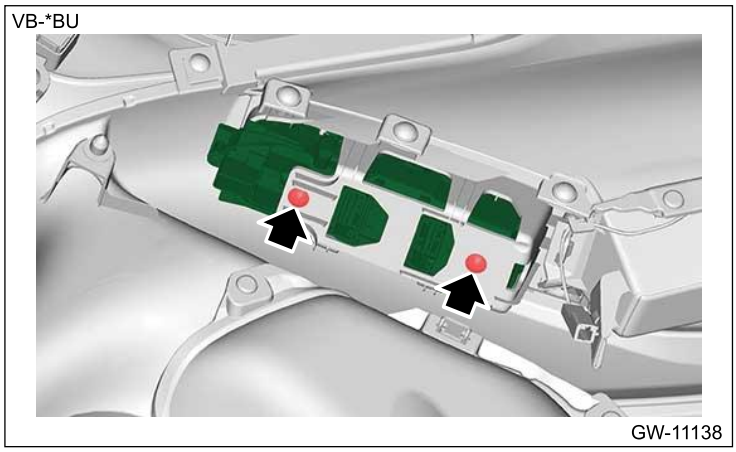
- Power window control switch: Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch.
- Front door glass: Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass.
- Front regulator and motor assembly: Ref. to GLASS/WINDOWS/MIRRORS>Front Regulator and Motor Assembly.
- Rear door glass: Ref. to GLASS/WINDOWS/MIRRORS>Rear Door Glass.
- Rear regulator and motor assembly: Ref. to GLASS/WINDOWS/MIRRORS>Rear Regulator and Motor Assembly.

REMOVAL

1. MAIN SWITCH

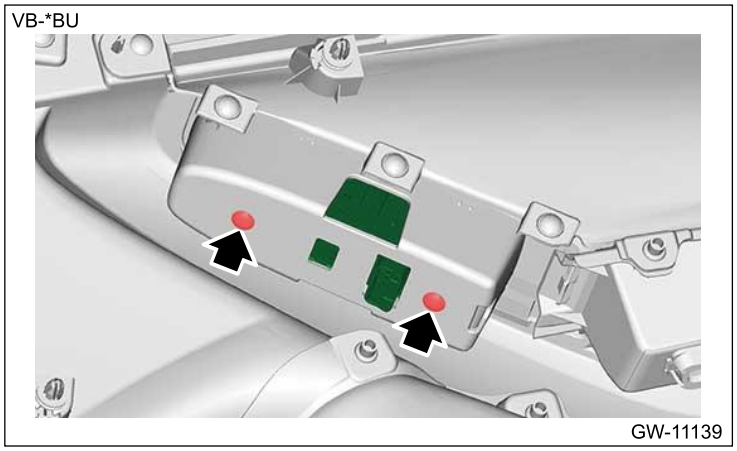
Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.
3. Remove the screws and remove the switch power window main.



2. SUB-SWITCH

- **SWITCH POWER WINDOW SUB FRONT**
  For removal of the switch power window sub front on the passenger's seat, refer to the removal procedure of the switch power window main. Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch>REMOVAL > MAIN SWITCH.
- **SWITCH POWER WINDOW SUB REAR**
  1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
  2. Remove the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.
  3. Remove the screws and remove the switch power window sub rear.



GLASS/WINDOWS/MIRRORS > Power Window Control Switch

INSTALLATION

1. MAIN SWITCH

Caution:
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Use protective paper to avoid damage to the trim panel.**

1. Install the switch power window main to the trim panel front door.
2. Install the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > FRONT DOOR.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
4. Perform the initial setting of the power window system. Ref. to GLASS/WINDOWS/MIRRORS>Power Window System>OPERATION.

2. SUB-SWITCH

Caution:
Use protective paper to avoid damage to the trim panel.

- **SWITCH POWER WINDOW SUB FRONT**
  For installation of the switch power window sub front on the passenger's seat, refer to the installation procedure of the switch power window main. Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch>INSTALLATION > MAIN SWITCH.
- **SWITCH POWER WINDOW SUB REAR**
  1. Install the switch power window sub rear to the trim panel rear door.
  2. Install the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > REAR DOOR.
  3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
  4. Perform the initial setting of the power window system. Ref. to GLASS/WINDOWS/MIRRORS>Power Window System>OPERATION.

GLASS/WINDOWS/MIRRORS > Power Window Control Switch

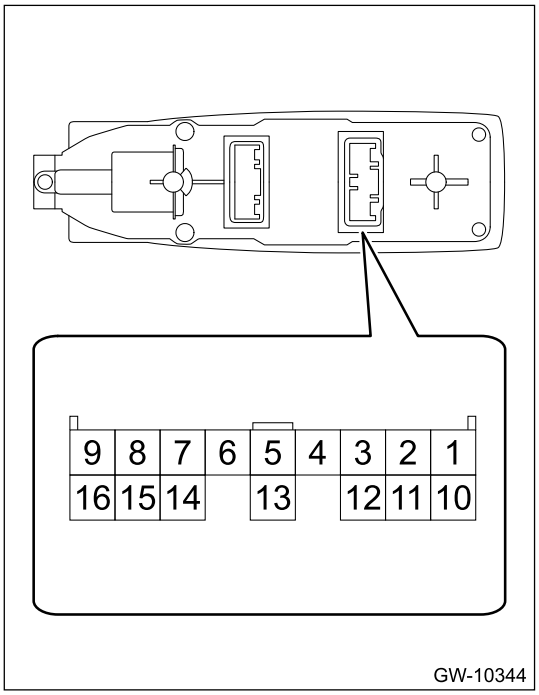
INSPECTION

Caution:
Since the power window switch is controlled by CPU, do not check continuity for switch alone with the circuit tester, except for the specified terminals. Performing continuity check with circuit tester may damage the power window switch circuit.

For power window system inspection, refer to "Basic Diagnostic Procedure" of "POWER WINDOW (DIAGNOSTICS)" section. Ref. to POWER WINDOW(DIAGNOSTICS) >Basic Diagnostic Procedure.

1. MAIN SWITCH

1. Measure the resistance between terminals of the switch power window main.



- Front seats auto specification
  – Driver's seat main

Terminal No.	Inspection conditions	Standard
11 — 12	OFF	Less than 1 Ω
7 — 11 7 — 12		1 MΩ or more
7 — 12	Manual up	Less than 1 Ω
7 — 11 11 — 12		1 MΩ or more
7 — 11	Manual down	Less than 1 Ω
7 — 12 11 — 12		1 MΩ or more

– Rear seat remote right (window lock OFF)

Terminal No.	Inspection conditions	Standard
1 — 7 2 — 7	OFF	Less than 1 Ω

Terminal No.	Inspection conditions	Standard
7 — 16		1 MΩ or more
1 — 16 2 — 7	Manual up	Less than 1 Ω
1 — 2		1 MΩ or more
2 — 16 1 — 7	Manual down	Less than 1 Ω
1 — 2		1 MΩ or more

– Rear seat remote right (window lock ON)

Terminal No.	Inspection conditions	Standard
1 — 2	OFF	Less than 1 Ω
7 — 16		1 MΩ or more
1 — 16	Manual up	Less than 1 Ω
1 — 2 2 — 7		1 MΩ or more
2 — 16	Manual down	Less than 1 Ω
1 — 2 1 — 7		1 MΩ or more

– Rear seat remote left (window lock OFF)

Terminal No.	Inspection conditions	Standard
9 — 7 8 — 7	OFF	Less than 1 Ω
16 — 7		1 MΩ or more
16 — 9 8 — 7	Manual up	Less than 1 Ω
8 — 9		1 MΩ or more
16 — 8 9 — 7	Manual down	Less than 1 Ω
8 — 9		1 MΩ or more

– Rear seat remote left (window lock ON)

Terminal No.	Inspection conditions	Standard
9 — 8	OFF	Less than 1 Ω
16 — 7		1 MΩ or more
16 — 9	Manual up	Less than 1 Ω
8 — 7 9 — 8		1 MΩ or more
16 — 8	Manual down	Less than 1 Ω
9 — 8 9 — 7		1 MΩ or more

- All seats auto specification
  – Driver’s seat main

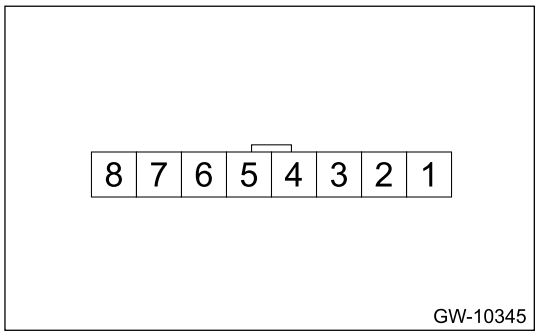
Terminal No.	Inspection conditions	Standard
12 — 11	OFF	Less than 1 Ω
7 — 11 7 — 12		1 MΩ or more
12 — 7	Manual up	Less than 1 Ω
7 — 11 12 — 11		1 MΩ or more
11 — 7	Manual down	Less than 1 Ω
7 — 12 11 — 12		1 MΩ or more

2. If the inspection result is not within the standard, replace the switch power window main.

2. SUB-SWITCH

SWITCH POWER WINDOW SUB FRONT

1. Measure the resistance between terminals of the switch power window sub front.



Terminal No.	Inspection conditions	Standard
6 — 5	OFF	Less than 1 Ω
2 — 1 2 — 5 2 — 6		1 MΩ or more
2 — 6	Manual up	Less than 1 Ω
5 — 6 2 — 5 1 — 2		1 MΩ or more
2 — 6 1 — 2	Auto up	Less than 1 Ω
5 — 6 2 — 5		1 MΩ or more
2 — 5	Manual down	Less than 1 Ω
5 — 6 2 — 6 1 — 2		1 MΩ or more
2 — 5 1 — 2	Auto down	Less than 1 Ω
5 — 6		1 MΩ or more

Terminal No.	Inspection conditions	Standard
2 — 6		

2. Apply battery voltage between the switch power window sub front terminals to check lighting condition of illumination inside the switch.

Caution:
When applying battery voltage, do not mix up the positive (+) side and the negative (−) side.
Incorrect polarity connection may cause LED damage inside the switch.

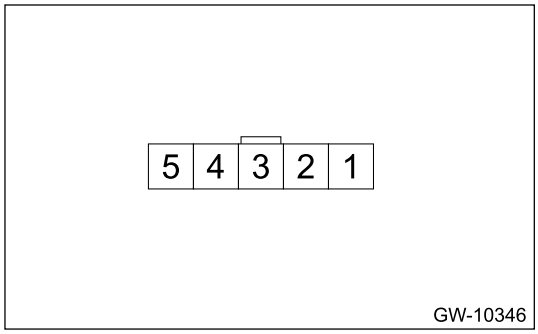
Terminal No.	Inspection conditions	Specification
7 (+) — 2 (−)	Apply battery voltage	Light ON

3. Replace the switch power window sub front if it is found defective from the inspection result.

SWITCH POWER WINDOW SUB REAR

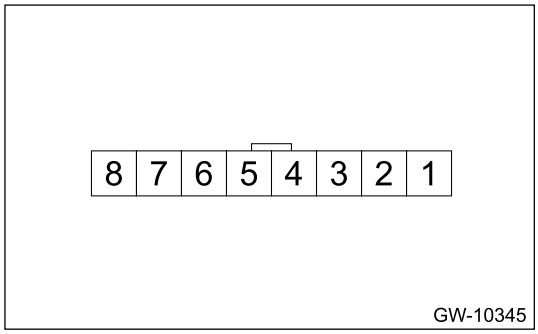
1. Measure the resistance between terminals of the switch power window sub rear.

- Front seats auto specification



Terminal No.	Inspection conditions	Standard
1 — 4 5 — 2	OFF	Less than 1 Ω
2 — 3 3 — 4 1 — 3 3 — 5		1 MΩ or more
3 — 4 5 — 2	Manual up	Less than 1 Ω
1 — 4		1 MΩ or more
1 — 4 3 — 2	Manual down	Less than 1 Ω
5 — 2		1 MΩ or more

- All seats auto specification



Terminal No.	Inspection conditions	Standard
6 — 5	OFF	Less than 1 Ω
2 — 1 2 — 5 2 — 6		1 MΩ or more
2 — 6	Manual up	Less than 1 Ω
5 — 6 2 — 5 1 — 2		1 MΩ or more
2 — 6 1 — 2	Auto up	Less than 1 Ω
5 — 6 2 — 5		1 MΩ or more
2 — 5	Manual down	Less than 1 Ω
5 — 6 2 — 6 1 — 2		1 MΩ or more
2 — 5 1 — 2	Auto down	Less than 1 Ω
5 — 6 2 — 6		1 MΩ or more

2. Apply battery voltage between the switch power window sub rear terminals to check lighting condition of illumination inside the switch. (All seats auto specification)

Caution:

When applying battery voltage, do not mix up the positive (+) side and the negative (−) side.

Incorrect polarity connection may cause LED damage inside the switch.

Terminal No.	Inspection conditions	Specification
7 (+) — 2 (−)	Apply battery voltage	Light ON

3. Replace the switch power window sub rear if it is found defective from the inspection result.

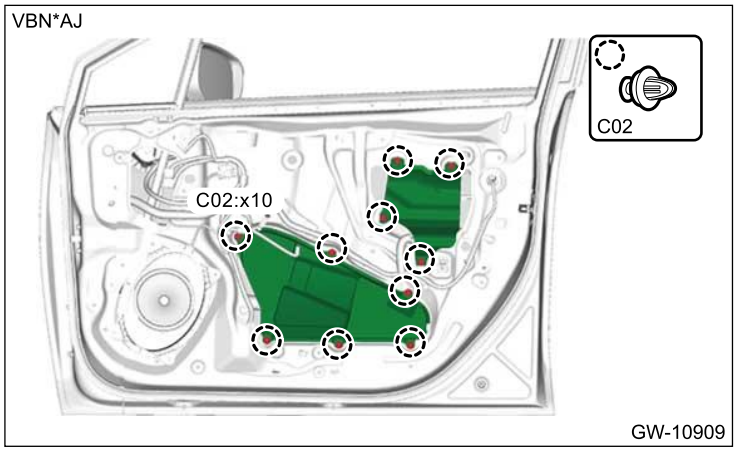
REMOVAL

1. FRONT DOOR GLASS

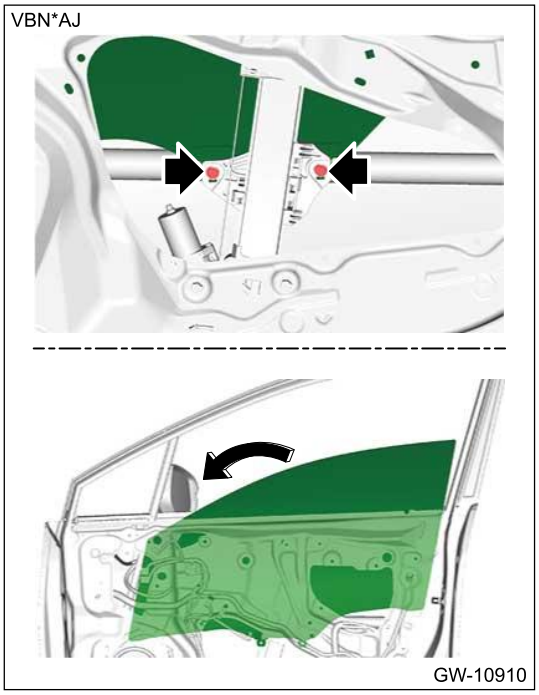
Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Operate the switch power window to move the glass assembly front door to the lowest position.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.
4. Remove the sealing cover door front. Ref. to EXTERIOR BODY PANELS>Sealing Cover>REMOVAL > FRONT SEALING COVER.
5. Release the clips, and remove the plate door and the pad front door inner.

   Caution:
   If it is removed with an excessive force, the door panel assembly may be deformed. Also, if the clip is damaged, replace it with a new clip.



6. Remove the glass assembly front door.
   (1) Remove the mounting bolts from the glass assembly front door.
   (2) While tilting the glass, remove the glass assembly front door.



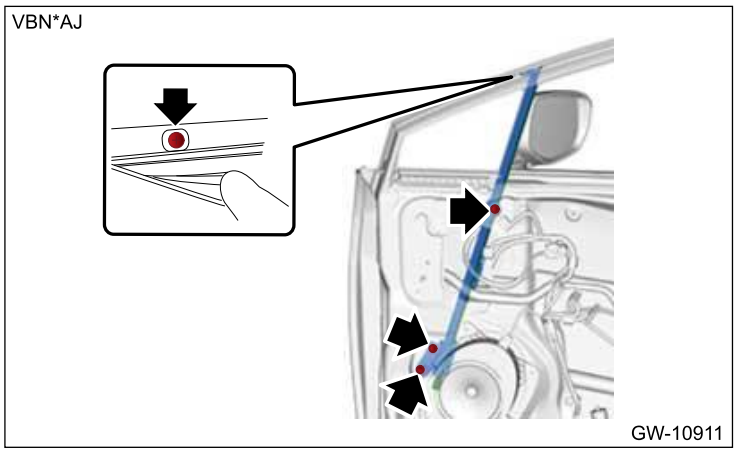
2. FRONT DOOR PARTITION GLASS

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

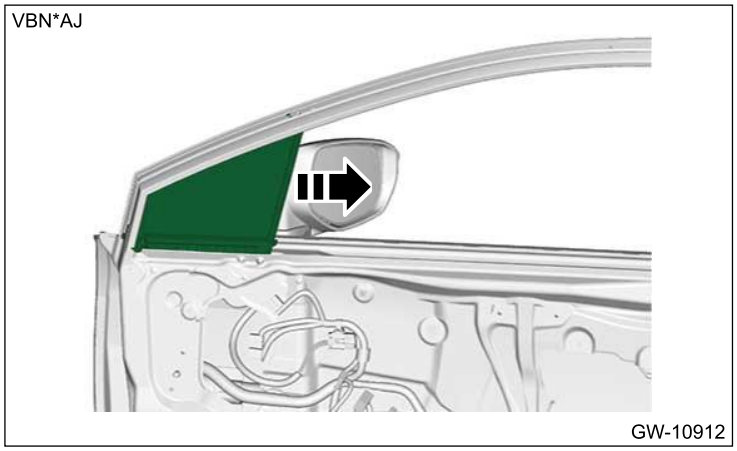
1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the glass assembly front door. Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass>REMOVAL > FRONT DOOR GLASS.
3. Remove the glass front door partition.

Caution:
Do not damage the sash or the sash molding while removing.

(1) Remove the bolts and screws, and then remove the running channel front door and the sash assembly partition.



(2) Remove the glass front door partition.



GLASS/WINDOWS/MIRRORS > Front Door Glass

INSTALLATION

1. FRONT DOOR GLASS

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the glass assembly front door.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
2. Install the plate door and the pad front door inner.
3. Install the sealing cover door front. Ref. to EXTERIOR BODY PANELS>Sealing Cover>INSTALLATION > FRONT SEALING COVER.
4. Install the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > FRONT DOOR.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
6. Perform the initial setting of the power window system. Ref. to GLASS/WINDOWS/MIRRORS>Power Window System>OPERATION.

2. FRONT DOOR PARTITION GLASS

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the glass front door partition.
2. Install the running channel front door and the sash assembly partition.

   Note:
   Check that the running channel is securely fixed to the door panel assembly and to the sash assembly.

   Tightening torque:
   Refer to "COMPONENT" of "General Description" for the tightening torque. Ref. to GLASS/WINDOWS/MIRRORS>General Description>COMPONENT > FRONT DOOR GLASS.

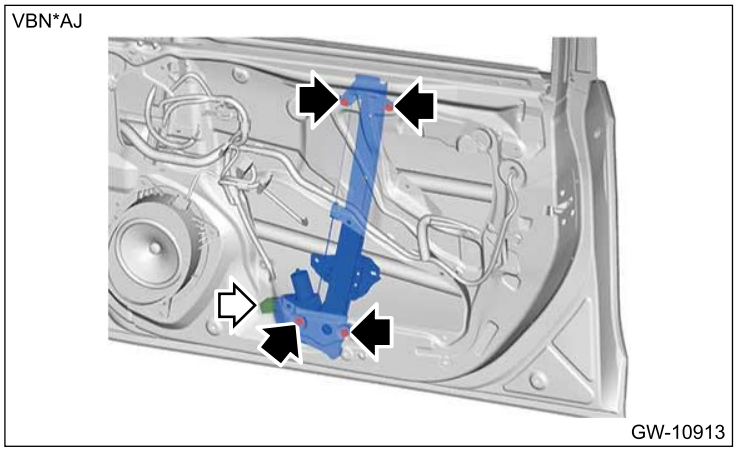
3. Install the glass assembly front door. Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass>INSTALLATION > FRONT DOOR GLASS.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
5. Perform the initial setting of the power window system. Ref. to GLASS/WINDOWS/MIRRORS>Power Window System>OPERATION.

GLASS/WINDOWS/MIRRORS > Front Regulator and Motor Assembly

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 switch power window to move the glass assembly front door to the lowest position.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.
4. Remove the sealing cover door front. Ref. to EXTERIOR BODY PANELS>Sealing Cover>REMOVAL > FRONT SEALING COVER.
5. Remove the glass assembly front door. Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass>REMOVAL > FRONT DOOR GLASS.
6. Remove the regulator & motor assembly front.
   (1) Disconnect the connector.
   (2) Remove the bolts, and then remove the regulator & motor assembly front.



GLASS/WINDOWS/MIRRORS > Front Regulator and Motor Assembly

INSTALLATION

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the regulator & motor assembly front, and connect the connector.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
2. Install the glass assembly front door. Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass>INSTALLATION > FRONT DOOR GLASS.
3. Install the sealing cover door front. Ref. to EXTERIOR BODY PANELS>Sealing Cover>INSTALLATION > FRONT SEALING COVER.

4. Install the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > FRONT DOOR.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
6. Perform the initial setting of the power window system. Ref. to GLASS/WINDOWS/MIRRORS>Power Window System>OPERATION.

GLASS/WINDOWS/MIRRORS > Front Regulator and Motor Assembly

INSPECTION

For inspection of regulator & motor assembly front, refer to “Active Test” of “POWER WINDOW (DIAGNOSTICS)” section. Ref. to POWER WINDOW(DIAGNOSTICS) >Active Test.

WIRING DIAGRAM

For the wiring diagram, refer to “Remote Control Mirror System” in the wiring diagram. Ref. to WIRING SYSTEM>Remote Control Mirror System.

INSPECTION

1. TROUBLE SYMPTOM

Note:
The mirror heater operates with the rear window defogger at the same time. Refer to “INSPECTION” of “Rear Window Defogger System” for inspection. Ref. to GLASS/WINDOWS/MIRRORS>Rear Window Defogger System>INSPECTION.

Symptoms	Inspection order
All functions do not operate.	1. Check the fuse 2. Check the remote control mirror switch 3. Check the wiring harness
One side of the mirror motor does not operate	1. Check the remote control mirror switch 2. Check the mirror motor 3. Check the wiring harness
Mirror heater does not operate	1. Check the rear defogger switch 2. Check the rear defogger relay 3. Check the mirror heater 4. Check the wiring harness 5. Check body integrated unit

NOTE

For procedure of components in the remote control mirror system, refer to the sections below.

- Outer mirror assembly: Ref. to GLASS/WINDOWS/MIRRORS>Outer Mirror Assembly.
- Remote control mirror switch: Ref. to GLASS/WINDOWS/MIRRORS>Remote Control Mirror Switch.

REMOVAL

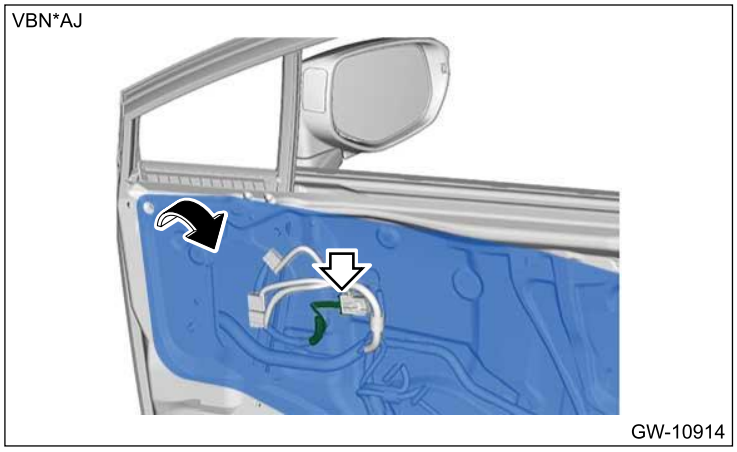
Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

Note:
Refer to "DISASSEMBLY" for removal procedures of outer mirror cover and mirror face. Ref. to GLASS/WINDOWS/MIRRORS>Outer Mirror Assembly>DISASSEMBLY.

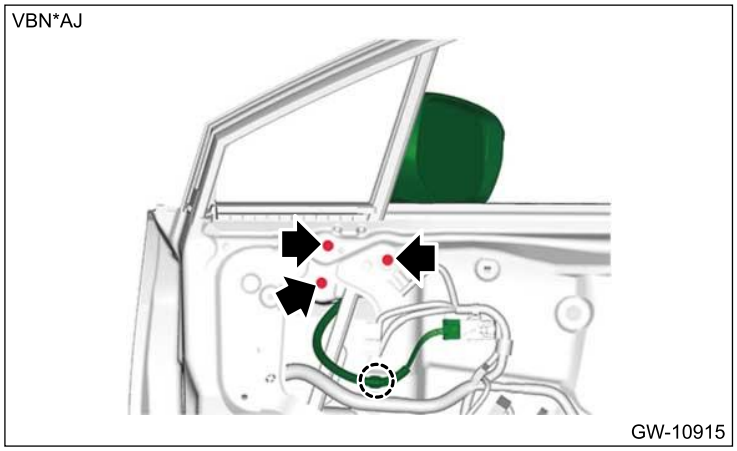
1. Operate the switch power window to move the glass assembly front door to the lowest position.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.
4. Turn over the sealing cover door front.

Caution:
- **Carefully remove the butyl tape. Excessive force will easily break the front sealing cover.**
- **If the front sealing cover gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

(1) Disconnect the outer mirror assembly connector.
(2) Carefully remove and turn over the sealing cover door front within the area where the operation can be performed.



5. Remove the outer mirror assembly.
(1) Remove the harness clip.
(2) Remove the bolts to remove outer mirror assembly.



GLASS/WINDOWS/MIRRORS > Outer Mirror Assembly

INSTALLATION

Caution:
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Be careful not to catch the harness in between the parts.**

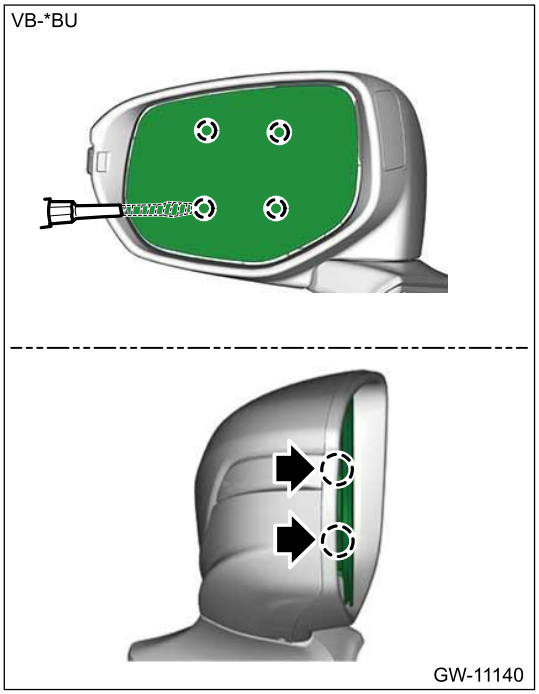
1. Install the outer mirror assembly, and connect the connector.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
2. Install the sealing cover door front. Ref. to EXTERIOR BODY PANELS>Sealing Cover>INSTALLATION > FRONT SEALING COVER.
3. Install the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > FRONT DOOR.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

GLASS/WINDOWS/MIRRORS > Outer Mirror Assembly

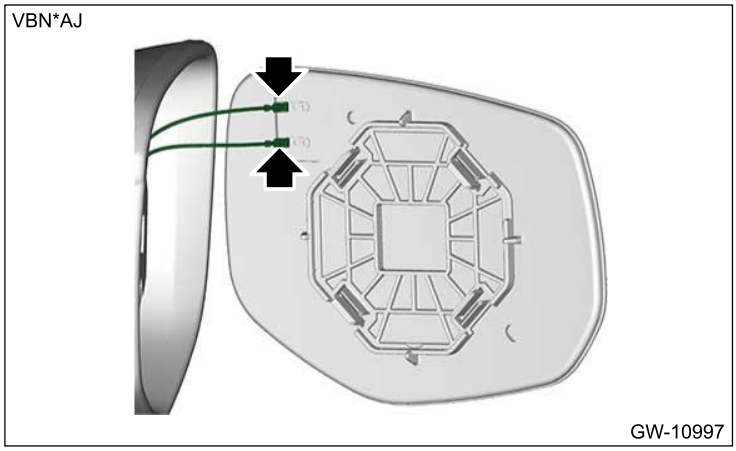
DISASSEMBLY

1. Perform the following procedures to remove the cover mirror body.
   - Store the outer mirror assembly.
   - Lower the glass assembly front door to the lowest position.
2. Operate the remote control mirror switch to face the mirror repair inside.
3. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
4. Remove the mirror repair.
   (1) Insert a flat tip screwdriver or similar tool wrapped with protection tape into the tool insertion opening shown in the figure, release the engagement and take the mirror repair outward to remove.

   Caution:
   When removing the mirror repair, be careful not to damage the back surface of mirror repair with a flat tip screwdriver.



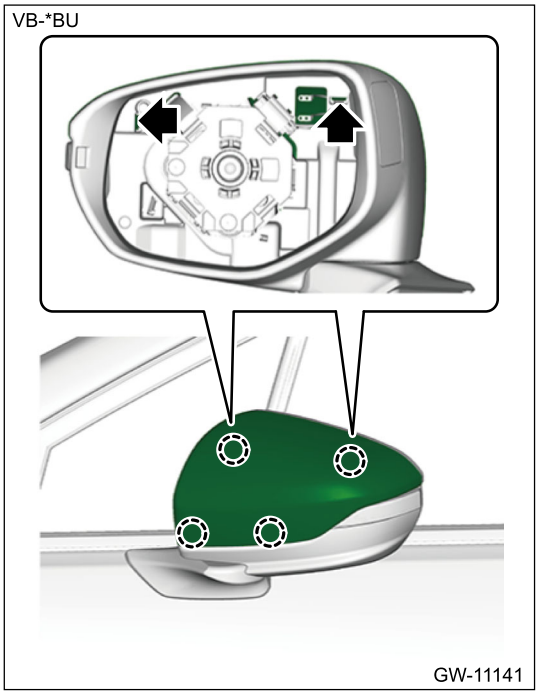
(2) Disconnect the connector. (Model with mirror heater)



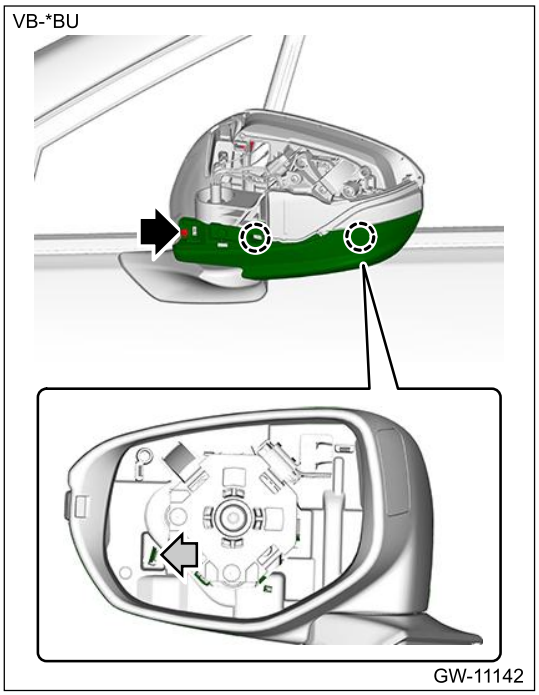
5. Release the claws, and then remove the cover cap outer mirror.

Caution:

Be careful not to apply excessive force when removing the outer mirror cover, as the lower hooks may become damaged.



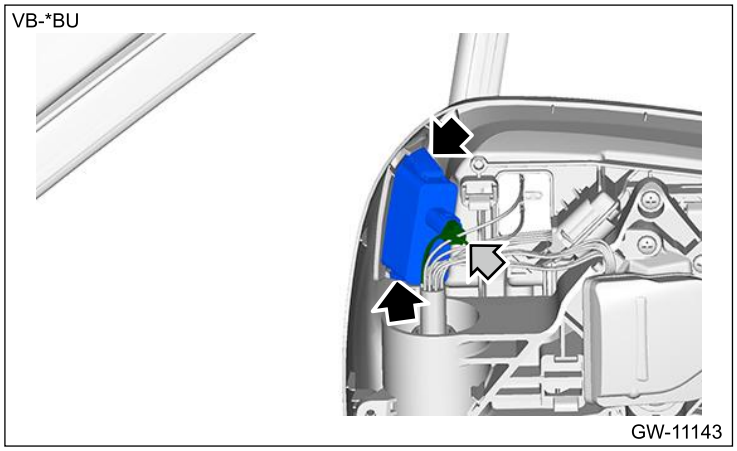
6. Remove the screws and release the claws, and then remove the cover cap outer mirror LWR.



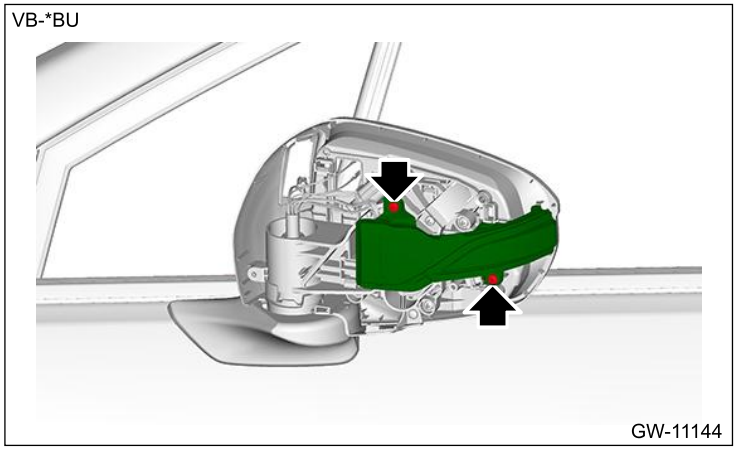
7. Remove the Blind Spot Detection/Rear Cross Traffic Alert system indicator. (Model with Blind Spot Detection/Rear Cross Traffic Alert system)

(1) Disconnect the connector.

(2) Release the claws and then remove the Blind Spot Detection/Rear Cross Traffic Alert system indicator.

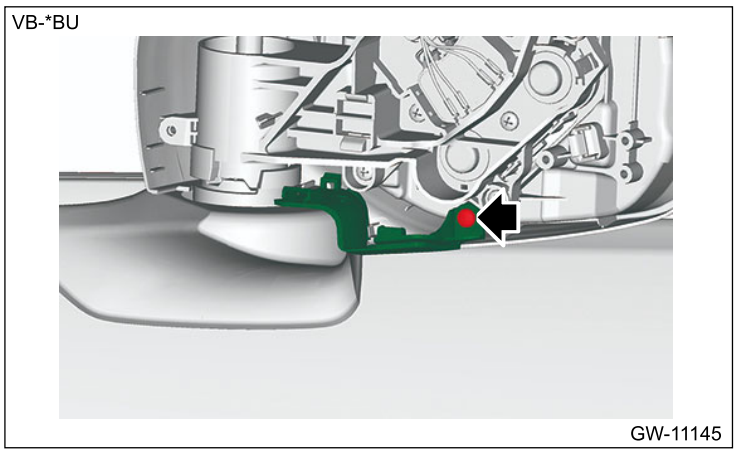


8. Remove the light assembly side turn mirror. (Model with side turn signal light)
(1) Release the screws and claws.



(2) Disconnect the connector and remove the light assembly side turn mirror.

9. Remove the screw and detach the cover mirror body.



GLASS/WINDOWS/MIRRORS > Outer Mirror Assembly

ASSEMBLY

Caution:
Be careful not to catch the harness in between the parts.

1. Install the cover mirror body.
2. Connect the connector, and install the light assembly side turn mirror. (Model with side turn signal light)
3. Install the Blind Spot Detection/Rear Cross Traffic Alert system indicator and connect the connector. (Model with Blind Spot Detection/Rear Cross Traffic Alert system)
4. Install the cover cap outer mirror LWR.
5. Install the cover cap outer mirror.
6. Install the mirror repair.

Note:
Make sure that the connector and clips are inserted securely.

(1) Connect the connector. (Model with mirror heater)
(2) Install the mirror repair.

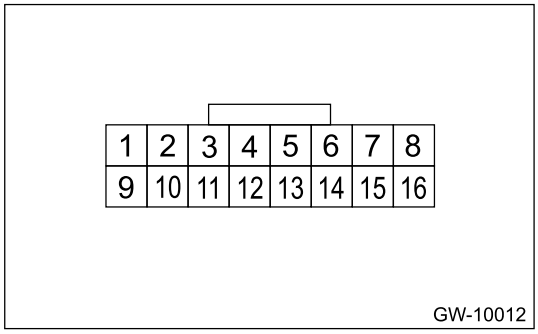
7. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
8. For models with Blind Spot Detection/Rear Cross Traffic Alert system, perform operation check of Blind Spot Detection/Rear Cross Traffic Alert system. Ref. to Blind Spot Detection/Rear Cross Traffic Alert (DIAGNOSTICS)>Basic Diagnostic Procedure.

GLASS/WINDOWS/MIRRORS > Outer Mirror Assembly

INSPECTION

1. CHECK MOTOR OPERATION

1. Apply battery voltage between the outer mirror connector terminals and check the mirror operation.



Terminal No.	Inspection conditions	Operating position
—	—	OFF
13 (+) — 12 (−)	Apply battery voltage between terminals.	UP
12 (+) — 13 (−)	Apply battery voltage between terminals.	DOWN
11 (+) — 13 (−)	Apply battery voltage between terminals.	LEFT
13 (+) — 11 (−)	Apply battery voltage between terminals.	RIGHT

2. CHECK OPERATION OF Blind Spot Detection/Rear Cross Traffic Alert INDICATOR

1. Check the Blind Spot Detection/Rear Cross Traffic Alert system. Ref. to Blind Spot Detection/Rear Cross Traffic Alert (DIAGNOSTICS)>Basic Diagnostic Procedure.
2. Check the outer mirror assembly.
   (1) Check that the Blind Spot Detection/Rear Cross Traffic Alert system indicator of the outer mirror assembly illuminates normally when the BSD/RCTA is turned ON while it is installed to the vehicle.
   (2) If it does not illuminate normally, replace the Blind Spot Detection/Rear Cross Traffic Alert system indicator.
   (3) Check that it illuminates normally again. If it does not illuminate normally, replace the outer mirror assembly.

GLASS/WINDOWS/MIRRORS > Remote Control Mirror Switch

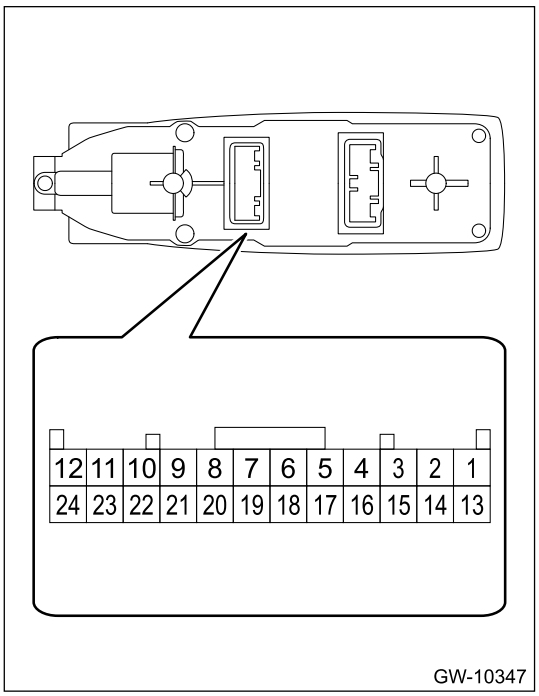
NOTE

The remote control mirror switch is integrated into the power window control switch.
For the operation procedures for the remote control mirror switch, refer to “Power Window Control Switch”.
Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch>REMOVAL > MAIN SWITCH.

GLASS/WINDOWS/MIRRORS > Remote Control Mirror Switch

INSPECTION

1. Check the resistance between switch door mirror terminals.



- Changeover switch RH

Terminal No.	Inspection conditions	Standard
12 — 1 12 — 18	OFF	1 MΩ or more
12 — 18 17 — 1	UP	Less than 1 Ω
12 — 17 18 — 1	DOWN	Less than 1 Ω
12 — 16 18 — 1	LEFT	Less than 1 Ω
12 — 18 16 — 1	RIGHT	Less than 1 Ω

- Changeover switch LH

Terminal No.	Inspection conditions	Standard
12 — 1 12 — 21	OFF	1 MΩ or more

Terminal No.	Inspection conditions	Standard
12 — 20 21 — 1	DOWN	Less than 1 Ω
12 — 21 20 — 1	UP	Less than 1 Ω
12 — 19 21 — 1	LEFT	Less than 1 Ω
12 — 21 19 — 1	RIGHT	Less than 1 Ω

2. Apply battery voltage between the switch door mirror terminals to check lighting condition of illumination inside the switch.

Caution:

When applying battery voltage, do not mix up the positive (+) side and the negative (−) side.

Incorrect polarity connection may cause LED damage inside the switch.

Terminal No.	Inspection conditions	Specification
24 (+) — 13 (−)	Apply battery voltage	Light ON

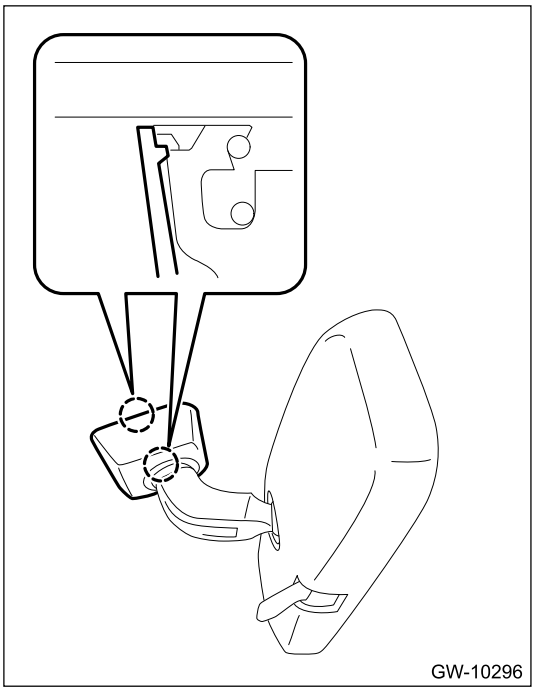
3. Replace the switch power window main if it is found defective from the inspection result.

REMOVAL

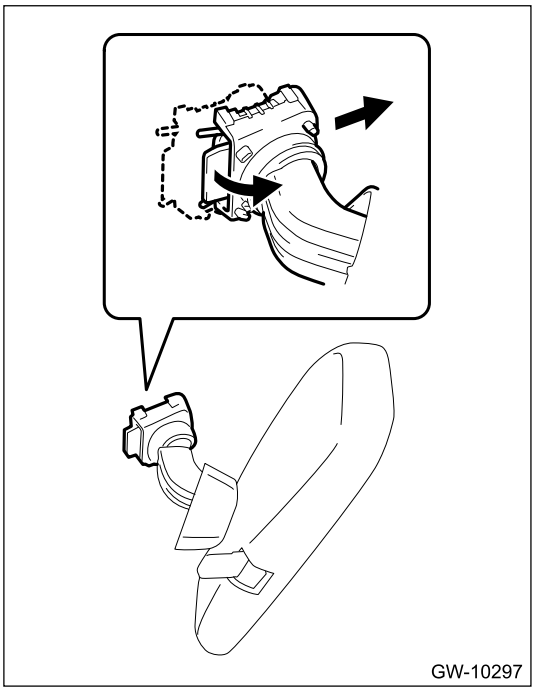
1. ANTI-GLARE MIRROR

Caution:
Be careful not to damage the mirror surface and the glass windshield.

1. Remove the mirror assembly inner rearview.
(1) Release the claws and remove the mount section cover.



(2) Pull the lock lever in the arrow direction, and slide the mirror assembly inner rearview to remove.

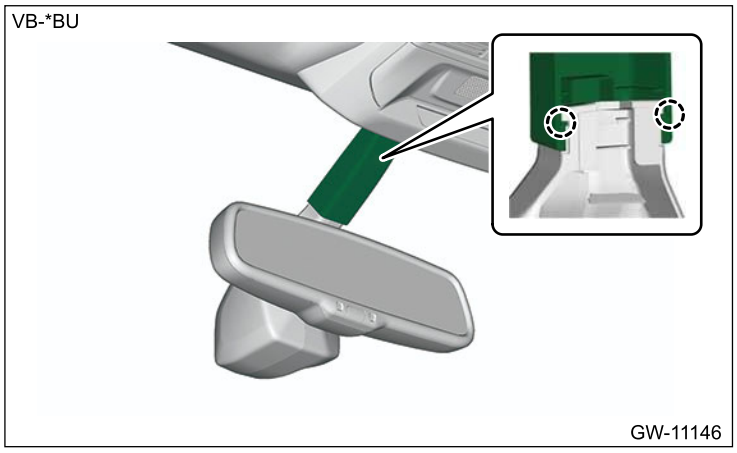


2. Replace the glass windshield if the base inner mirror is damaged.

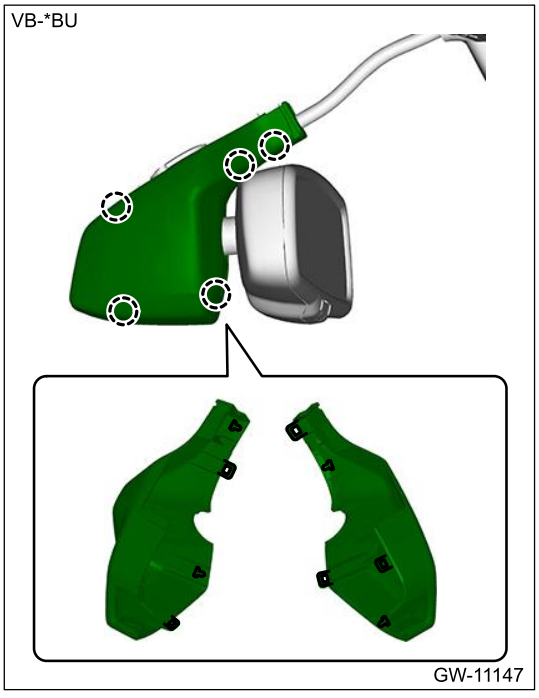
2. AUTOMATIC ANTI-GLARE MIRROR

Caution:
Be careful not to damage the mirror surface and the glass windshield.

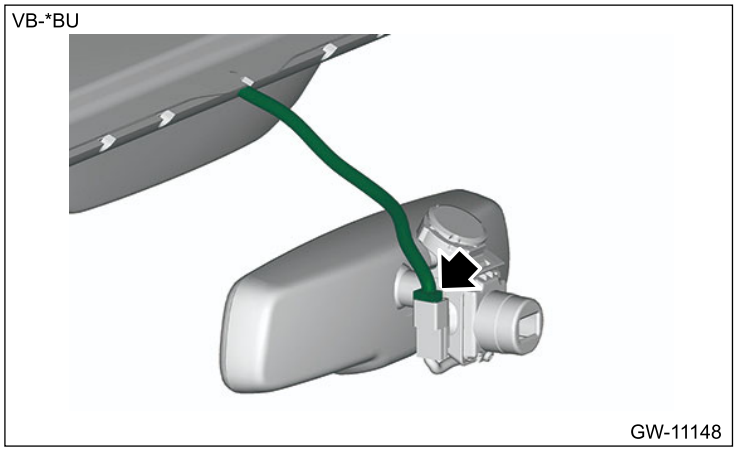
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Release the claws, and remove the cover mount CTR.



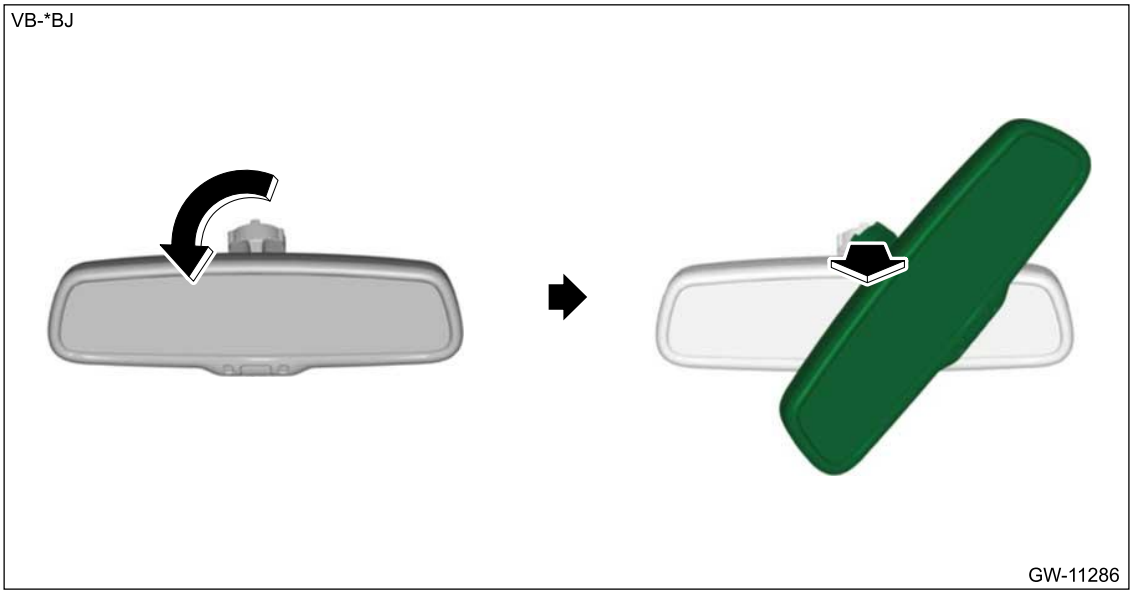
3. Release the claws, and remove the cover mount LH and cover mount RH.



4. Remove the mirror assembly inner rearview HBA.
   (1) Disconnect the connector.



(2) Tilt the mirror surface so that the mirror assembly inner rearview HBA does not come in contact with peripheral parts.
(3) Turn the mirror assembly inner rearview HBA by 60° in the direction of the arrow to remove.



5. Replace the glass windshield if the base inner mirror is damaged.

GLASS/WINDOWS/MIRRORS > Rearview Mirror

INSTALLATION

1. ANTI-GLARE MIRROR

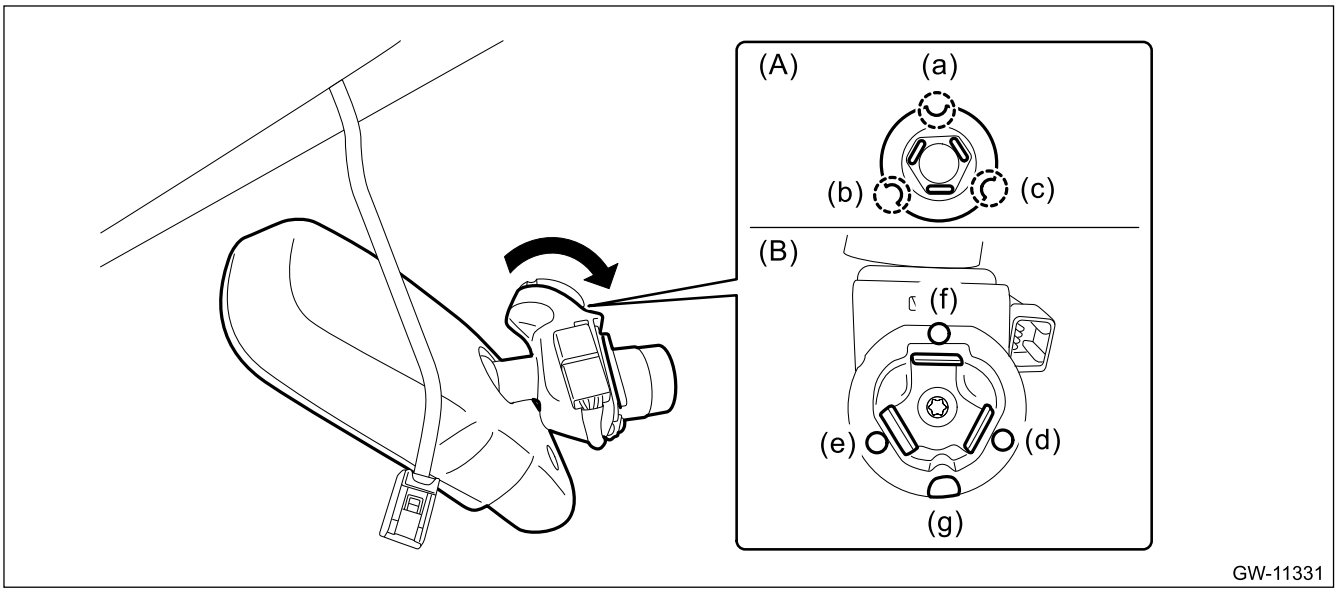
Caution:
Be careful not to damage the mirror surface and the glass windshield.

1. Install the mirror assembly inner rearview.
(1) Slide the mirror assembly inner rearview to install.
(2) Install the mount section cover.

2. AUTOMATIC ANTI-GLARE MIRROR

Caution:
Be careful not to damage the mirror surface and the glass windshield.

1. Install the mirror assembly inner rearview HBA.
   (1) Align the cutouts (A-a), (A-b) and (A-c) of the base inner mirror HBA with the round projections (B-d), (B-e) and (B-f) of the mirror assembly inner rearview HBA.
   (2) Turn the mirror assembly inner HBA to align the square projection (B-g) of the mirror assembly inner rearview HBA with the groove (A-a) of the base inner mirror HBA.



   (3) Connect the connector.
2. Install the cover mount LH and cover mount RH.
3. Install the cover mount CTR.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

GLASS/WINDOWS/MIRRORS > Rearview Mirror

INSPECTION

1. VISUAL INSPECTION

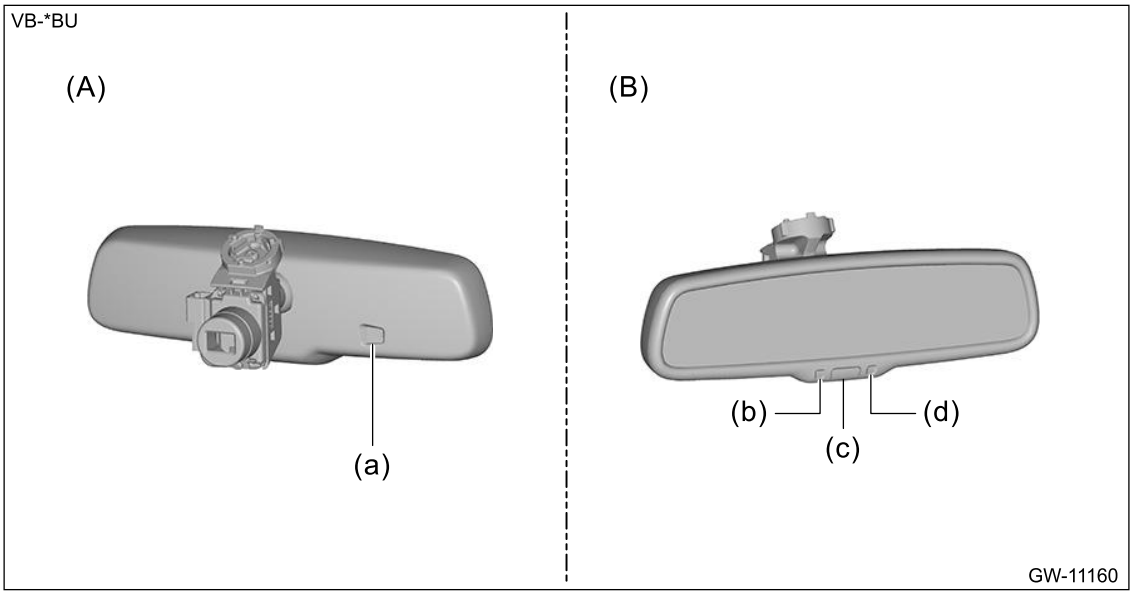
Check that the mirror assembly inner rearview and base inner mirror for damage.

2. CHECK OPERATION (AUTOMATIC ANTI-GLARE MIRROR)

Caution:
- **Perform the inspection indoors.**
- **Depending on the mirror surface direction or surrounding circumstances, mirror surface reflection may not be switched. Therefore, perform the inspection several times by changing the mirror surface direction or surrounding circumstances.**

1. Check mirror assembly inner rearview HBA operation.
   (1) Turn the ignition switch to ON, and check that the indicator light illuminates and the mirror surface is bright.
   (2) Check that the power supply of the mirror assembly inner rearview HBA can be switched ON and OFF.

(3) Cover the front light sensor (a) with hand, and check that the mirror surface will switch from the bright state to the dark state by exposing the rear light sensor (d) to fluorescent light.
(4) Take your hand off the front light sensor (a), and check that the mirror surface will switch from the dark state to the bright state.



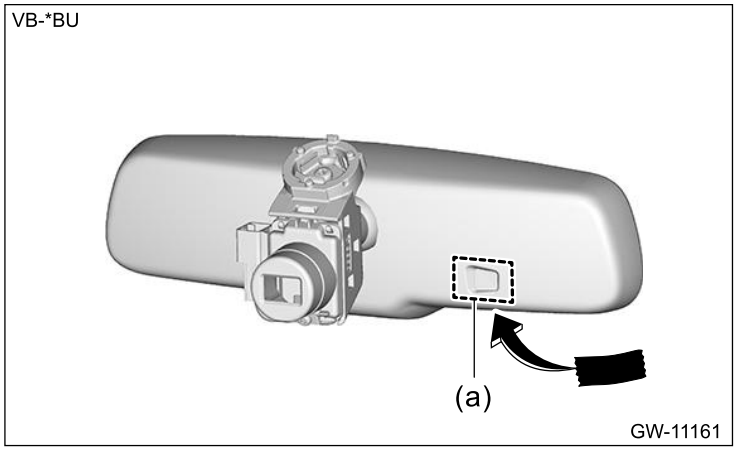
(A) Body reverse side
(B) Mirror surface side
(a) Front light sensor
(b) indicator light
(c) Power supply switch
(d) Rear light sensor

(5) Check the list of "Diagnostics with Phenomenon", and perform diagnosis. Ref. to BODY CONTROL(DIAGNOSTICS)>Diagnostics with Phenomenon>LIST > HIGH BEAM ASSIST SYSTEM.

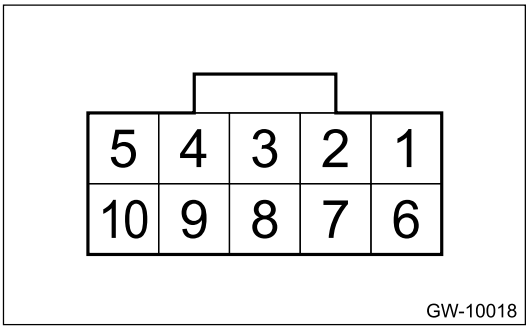
2. Replace the mirror assembly inner rearview HBA if it is found defective.

3. UNIT INSPECTION (AUTOMATIC ANTI-GLARE MIRROR)

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the mirror assembly inner rearview HBA. Ref. to GLASS/WINDOWS/MIRRORS>Rearview Mirror>REMOVAL.
3. Apply black vinyl tape to the front light sensor (a) of the mirror assembly inner rearview HBA removed.



4. Check the operation when battery voltage is applied to the connector terminal.



Terminal No.	Light condition of fluorescent light	Mirror surface condition
8 (+) — 2 (−)	Mirror surface is not exposed to light.	No change
8 (+) — 2 (−)	Mirror surface is exposed to light.	Mirror surface becomes dark.

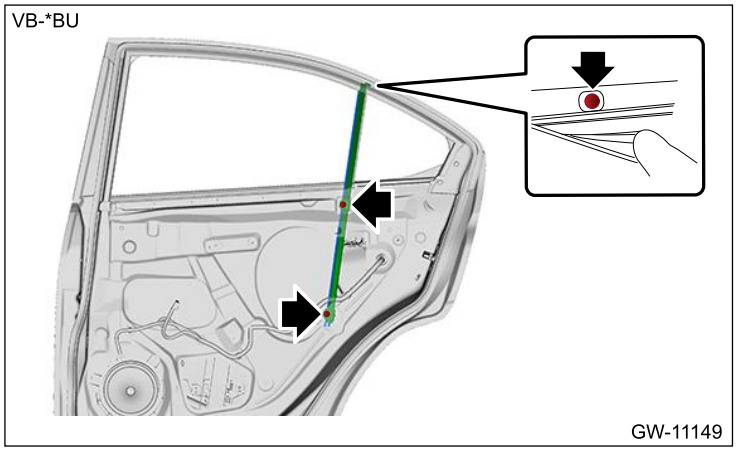
5. Replace the mirror assembly inner rearview HBA if it is found defective.

REMOVAL

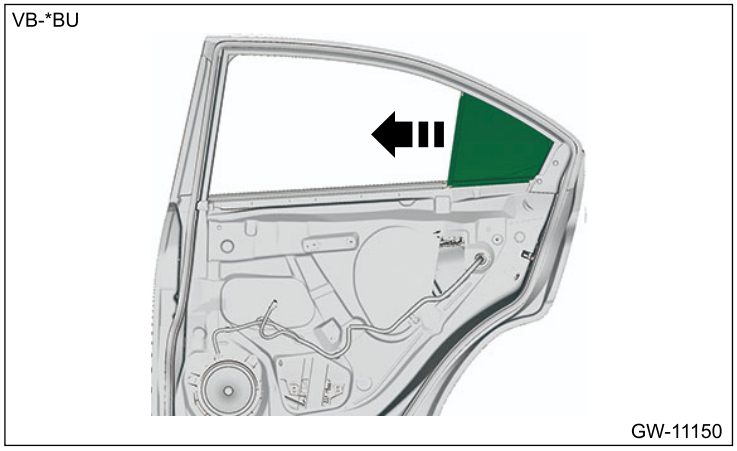
1. Operate the switch power window to move the glass assembly rear door to the lowest position.
2. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.
4. Remove the sealing cover door rear. Ref. to EXTERIOR BODY PANELS>Sealing Cover>REMOVAL > REAR SEALING COVER.
5. Remove the glass assembly rear door.

Caution:
Do not damage the sash or the sash molding while removing.

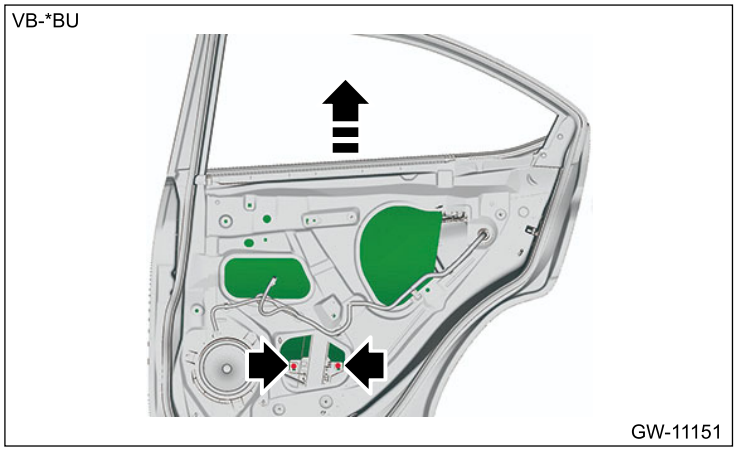
(1) Remove the bolts and screws, and then remove the running channel rear door and the sash assembly rear door partition.



(2) Remove the glass rear door partition.



(3) Remove the bolts, and remove the glass assembly rear door.

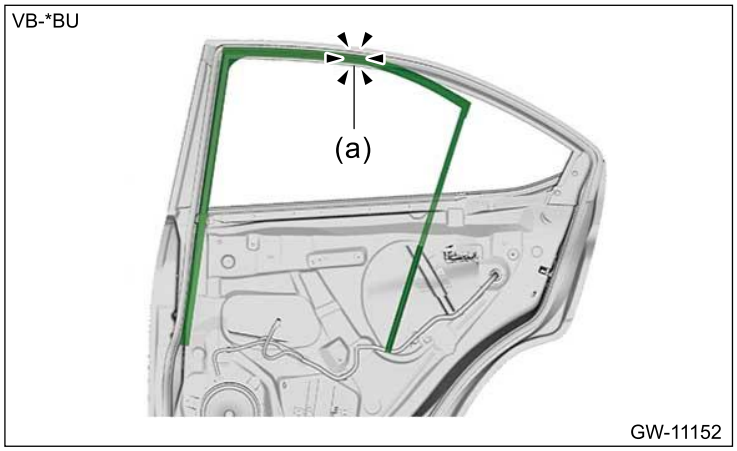


GLASS/WINDOWS/MIRRORS > Rear Door Glass

INSTALLATION

1. Install the running channel rear door up to the roof center position (a) of the panel COMPL door rear.

Caution:
Check that the running channel is securely fixed to the door panel COMPL.



2. Install the glass assembly rear door.

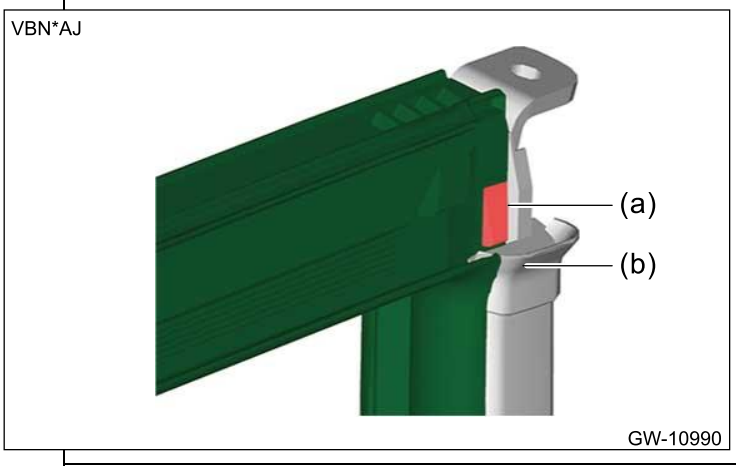
Caution:
Avoid impact and damage to the door glass assembly.

Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

3. Install the glass rear door partition.
4. Install the sash assembly rear door partition.
   (1) Install the running channel rear door to the sash assembly rear door partition.

Caution:

Align the rib (a) of the running channel with the sash assembly upper end (b).



(2) Install the sash assembly rear door partition.

Tightening torque:

Refer to "COMPONENT" of "General Description" for the tightening torque. Ref. to GLASS/WINDOWS/MIRRORS>General Description>COMPONENT > REAR DOOR GLASS.

5. Install the rest of the running channel rear door.

Note:

After installation, check that there is no warpage, gap or scratch.

6. Install the sealing cover door rear. Ref. to EXTERIOR BODY PANELS>Sealing Cover>INSTALLATION > REAR SEALING COVER.

7. Install the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > REAR DOOR.

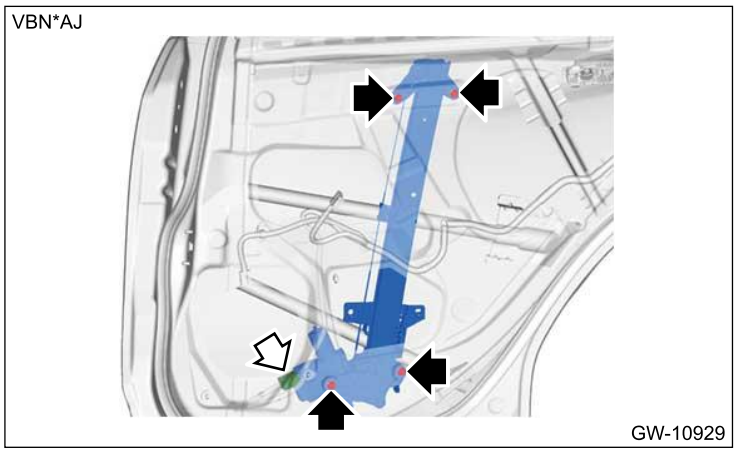
8. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

9. Perform the initial setting of the power window system. Ref. to GLASS/WINDOWS/MIRRORS>Power Window System>OPERATION.

GLASS/WINDOWS/MIRRORS > Rear Regulator and Motor Assembly

REMOVAL

1. Operate the switch power window to move the glass assembly rear door to the lowest position.
2. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.
4. Remove the sealing cover door rear. Ref. to EXTERIOR BODY PANELS>Sealing Cover>REMOVAL > REAR SEALING COVER.
5. Remove the speaker assembly rear. Ref. to ENTERTAINMENT & MONITORING>Rear Speaker>REMOVAL.
6. Remove the glass assembly rear door. Ref. to GLASS/WINDOWS/MIRRORS>Rear Door Glass>REMOVAL.
7. Remove the regulator and motor assembly rear.
   (1) Disconnect the connector.
   (2) Remove the bolts, and then remove the regulator and motor assembly rear.



GLASS/WINDOWS/MIRRORS > Rear Regulator and Motor Assembly

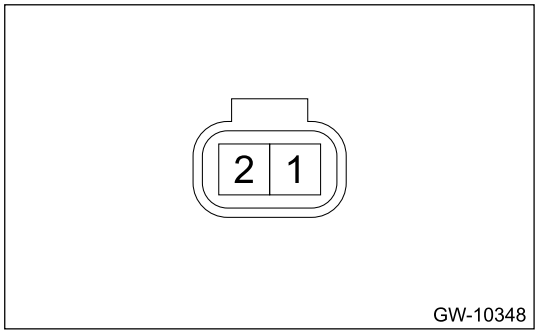
INSTALLATION

1. Install the regulator & motor assembly rear, and connect the connector.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
2. Install the glass assembly rear door. Ref. to GLASS/WINDOWS/MIRRORS>Rear Door Glass>INSTALLATION.
3. Install the speaker assembly rear. Ref. to ENTERTAINMENT & MONITORING>Rear Speaker>INSTALLATION.
4. Install the sealing cover door rear. Ref. to EXTERIOR BODY PANELS>Sealing Cover>INSTALLATION > REAR SEALING COVER.
5. Install the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > REAR DOOR.
6. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
7. Perform the initial setting of the power window system. Ref. to GLASS/WINDOWS/MIRRORS>Power Window System>OPERATION.

INSPECTION

1. FRONT SEATS AUTO SPECIFICATION

1. Check the motor operation when battery voltage is applied between terminals of the regulator & motor assembly rear connector.



- LH side

Terminal No.	Inspection conditions	Specification
2 (+) — 1 (−)	Apply battery voltage between terminals.	Increase
1 (+) — 2 (−)	Apply battery voltage between terminals.	Decrease

- RH side

Terminal No.	Inspection conditions	Specification
2 (+) — 1 (−)	Apply battery voltage between terminals.	Increase
1 (+) — 2 (−)	Apply battery voltage between terminals.	Decrease

2. If the regulator and motor do not operate properly as a result of inspection, replace the regulator and motor assembly rear.

2. ALL SEATS AUTO SPECIFICATION

For inspection of regulator & motor assembly rear, refer to “Active Test” of “POWER WINDOW (DIAGNOSTICS)” section. Ref. to POWER WINDOW(DIAGNOSTICS) >Active Test.

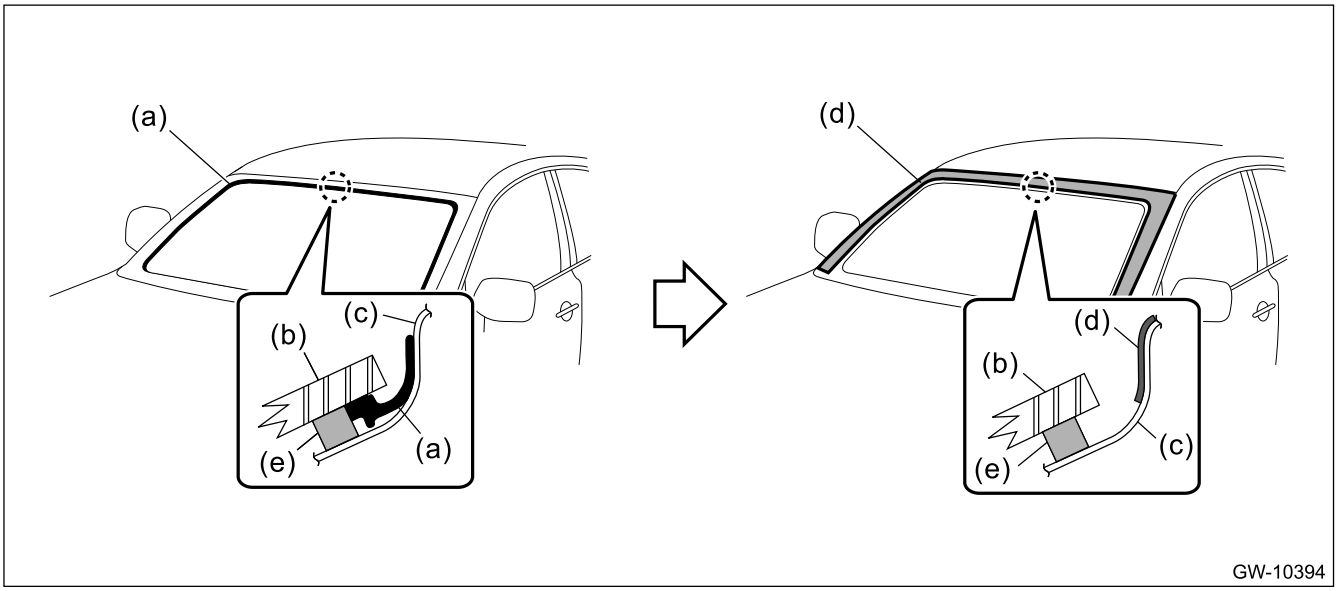
REMOVAL

1. WHEN USING WINDSHIELD GLASS KNIFE

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Use the Subaru genuine windshield glass specially designed for EyeSight. (If the windshield glass other than the glass specially designed for EyeSight is used, the visibility of the camera is blocked or the distortion of the glass prevents the correct measurement of the object, resulting in the EyeSight abnormal operation.)**
- **If the windshield glass is installed after removal or replaced, perform the "Inspection" and "Adjustment and check" of the stereo camera.**
  Inspection: Ref. to EyeSight (DIAGNOSTICS)>General Description>INSPECTION.
  Adjustment and check: Ref. to EyeSight>Camera Adjustment, Inspection.
- **If the damage is found in the glass repair prohibited area, always replace the glass. Damage, dirt, aftermarket part installation or sticker attachment in the prohibited area can affect the recognition of each camera, and thereby the EyeSight and high beam assist functions may not operate properly. Ref. to CAUTION > CHECK WINDSHIELD GLASS INCLUDING PROHIBITED AREA FOR MODEL WITH EyeSight.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel assembly A pillar. Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>REMOVAL > A PILLAR TRIM.
3. Remove the arm assembly windshield wiper. Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL.
4. Remove the cowl panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>REMOVAL.
5. Disconnect the wiper deicer connector. (Models with wiper deicer)
6. Remove the mirror assembly inner rearview. Ref. to GLASS/WINDOWS/MIRRORS>Rearview Mirror>REMOVAL.
7. Remove the light assembly map. (Models with EyeSight) Ref. to LIGHTING SYSTEM>Spot Map Light>REMOVAL.
8. Remove the stereo camera. (Models with EyeSight) Ref. to EyeSight>Stereo Camera>REMOVAL.
9. Remove the lens hood. (Models with EyeSight) Ref. to EyeSight>Lens Hood>REMOVAL.
10. Remove the molding windshield from the glass windshield, and attach protective tape on the body side of the circumference of the glass windshield.



(a) Molding windshield
(b) Glass windshield
(c) Body panel
(d) Protective tape
(e) Adhesive

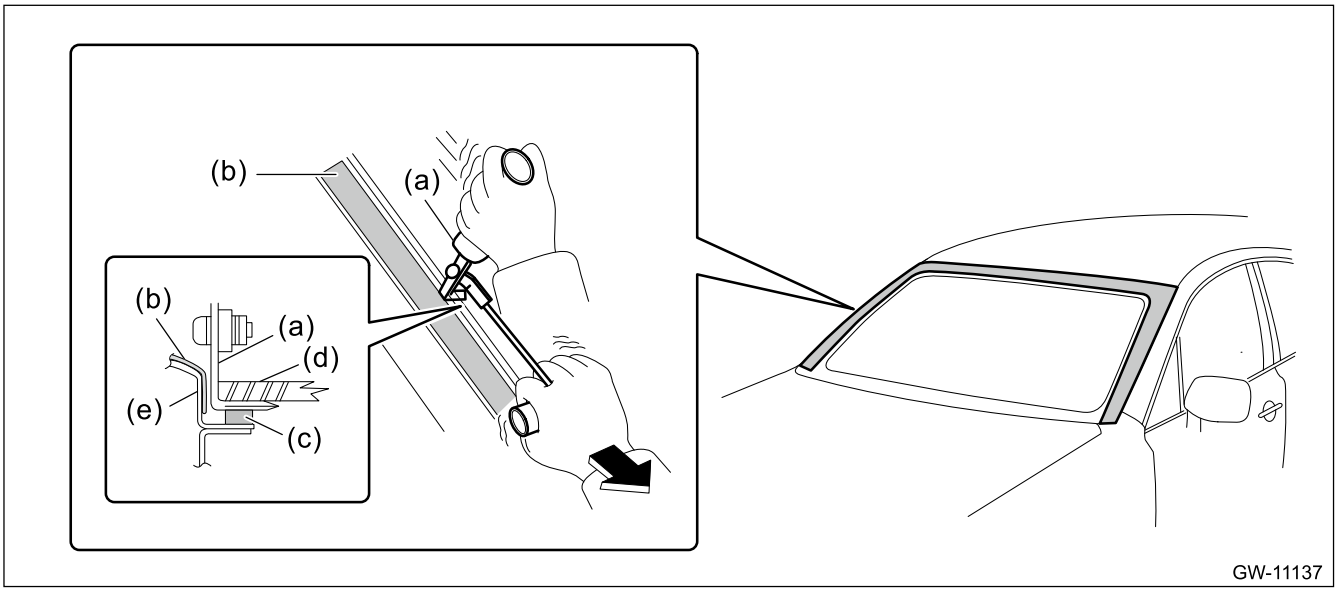
11. Remove the glass windshield.

(1) Apply sufficient amount of soapy water to the adhesive part and insert the windshield glass knife.

(2) While holding the edges of the knife and the glass windshield at a right angle, move the windshield glass knife parallel to the edge of the glass windshield, and cut the adhesive along the surface and the edge of the glass windshield.

Caution:

- **Cutting of adhesive part should be started from an area with wider gap between the windshield glass and the body.**
- **Never twist the windshield glass knife.**

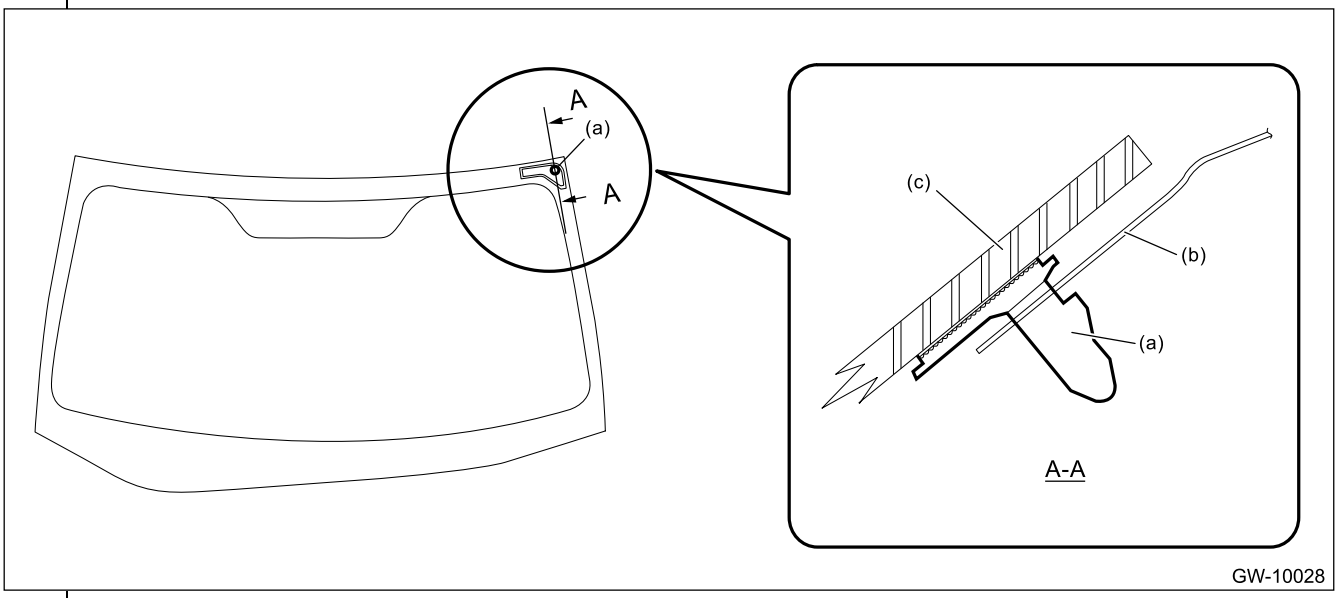


(a) Windshield glass knife
(b) Protective tape
(c) Adhesive
(d) Glass windshield
(e) Body panel

(3) Disconnect the locating pin windshield and remove the glass windshield.

Note:

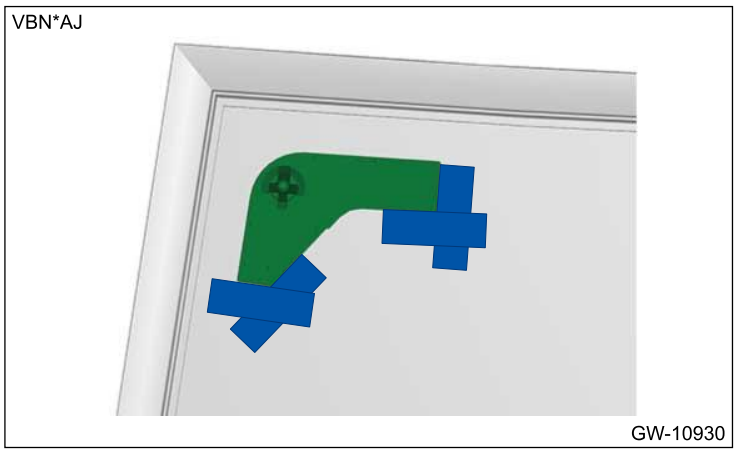
The locating pin windshield is bonded to the corners of glass windshield. Use piano wire to disconnect the pins.



(a) Locating pin windshield (b) Body panel (c) Glass windshield

12. Remove the locating pin windshield. (When reusing the glass)

(1) Attach tape to the locating pin windshield outer surface to identify the installation position.



(2) Using a scraper, etc., remove locating pin windshield (two places).

Note:

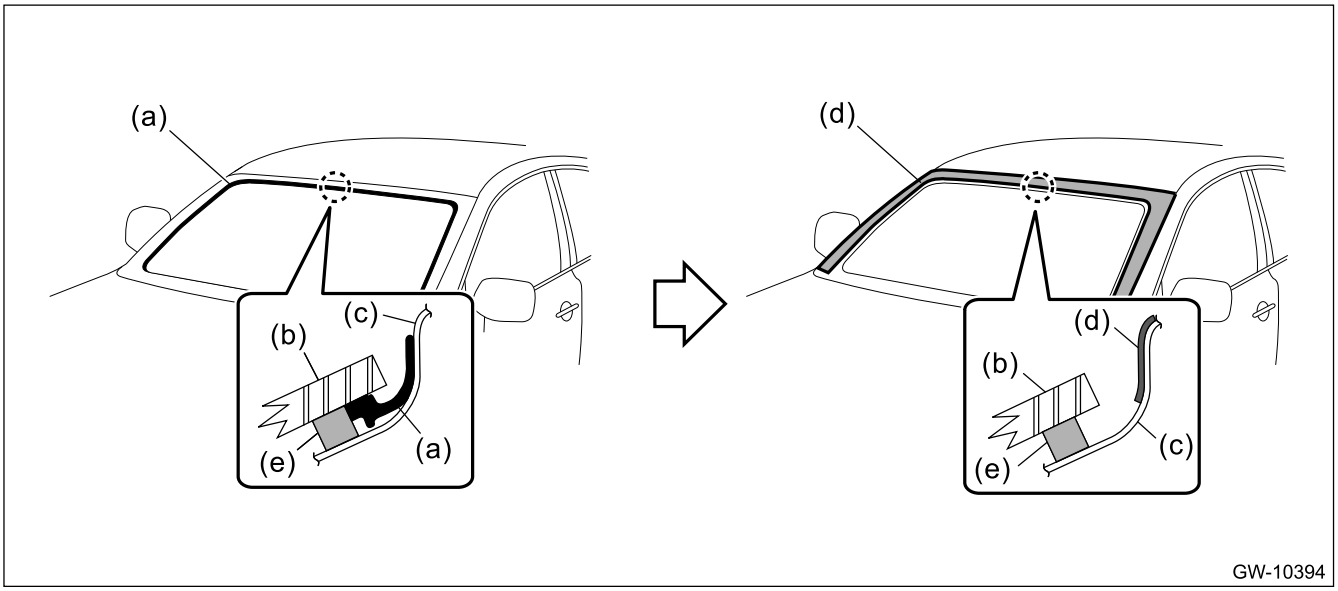
Do not remove the tape because it is used to refer to the installation position.

2. WHEN USING PIANO WIRE

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Use the Subaru genuine windshield glass specially designed for EyeSight. (If the windshield glass other than the glass specially designed for EyeSight is used, the visibility of the camera is blocked or the distortion of the glass prevents the correct measurement of the object, resulting in the EyeSight abnormal operation.)**
- **If the windshield glass is installed after removal or replaced, perform the "Inspection" and "Adjustment and check" of the stereo camera.**
  Inspection: Ref. to EyeSight (DIAGNOSTICS)>General Description>INSPECTION.
  Adjustment and check: Ref. to EyeSight>Camera Adjustment, Inspection.
- **If the damage is found in the glass repair prohibited area, always replace the glass. Damage, dirt, aftermarket part installation or sticker attachment in the prohibited area can affect the recognition of each camera, and thereby the EyeSight and high beam assist functions may not operate properly. Ref. to CAUTION > CHECK WINDSHIELD GLASS INCLUDING PROHIBITED AREA FOR MODEL WITH EyeSight.**
- **Do not tightly pull the piano wire against the windshield glass edge.**
- **Do not cross piano wires. Otherwise they may be cut.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel assembly A pillar. Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>REMOVAL > A PILLAR TRIM.
3. Remove the arm assembly windshield wiper. Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL.
4. Remove the cowl panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>REMOVAL.
5. Disconnect the wiper deicer connector. (Models with wiper deicer)
6. Remove the mirror assembly inner rearview. Ref. to GLASS/WINDOWS/MIRRORS>Rearview Mirror>REMOVAL.
7. Remove the light assembly map. (Models with EyeSight) Ref. to LIGHTING SYSTEM>Spot Map Light>REMOVAL.
8. Remove the stereo camera. (Models with EyeSight) Ref. to EyeSight>Stereo Camera>REMOVAL.
9. Remove the lens hood. (Models with EyeSight) Ref. to EyeSight>Lens Hood>REMOVAL.
10. Remove the molding windshield from the glass windshield, and attach protective tape on the body side of the circumference of the glass windshield.



(a) Molding windshield
(b) Glass windshield
(c) Body panel
(d) Protective tape
(e) Adhesive

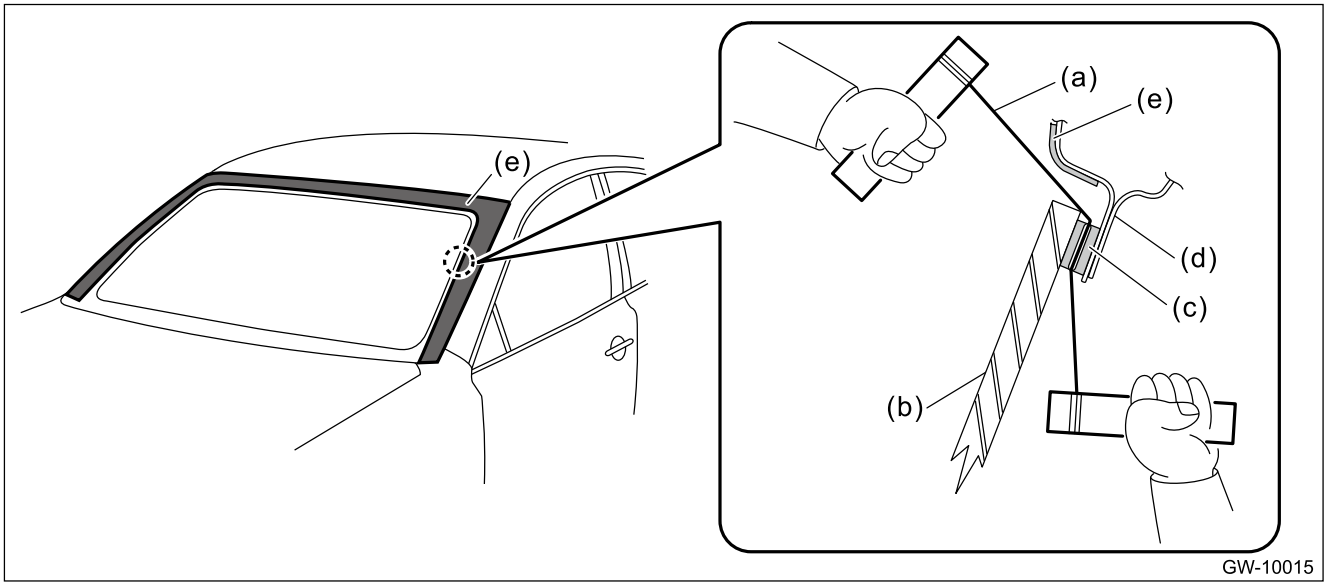
11. Remove the glass windshield.

(1) Pass a piano wire through the adhesive part.

(2) Pull the piano wire ends alternately to cut off the adhesive part and locating pin windshield.

Caution:

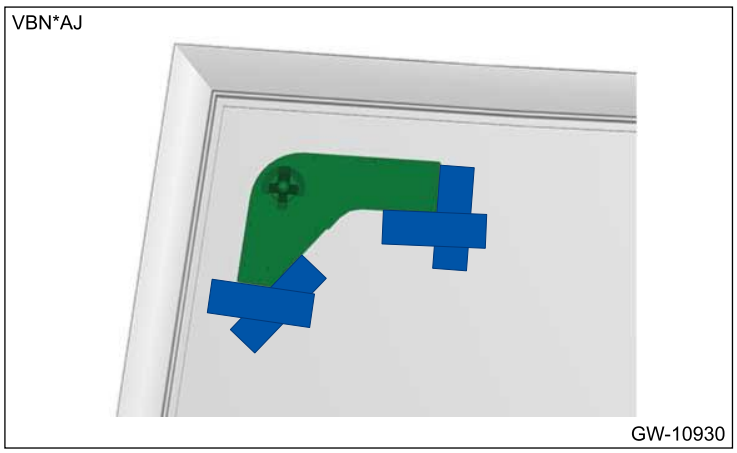
Attach a piece of wood to both piano wire ends.



(a) Piano wire
(b) Glass windshield
(c) Adhesive
(d) Body panel
(e) Protective tape

12. Remove the locating pin windshield. (When reusing the glass)

(1) Attach tape to the locating pin windshield outer surface to identify the installation position.



(2) Using a scraper, etc., remove locating pin windshield (two places).

Note:
Do not remove the tape because it is used to refer to the installation position.

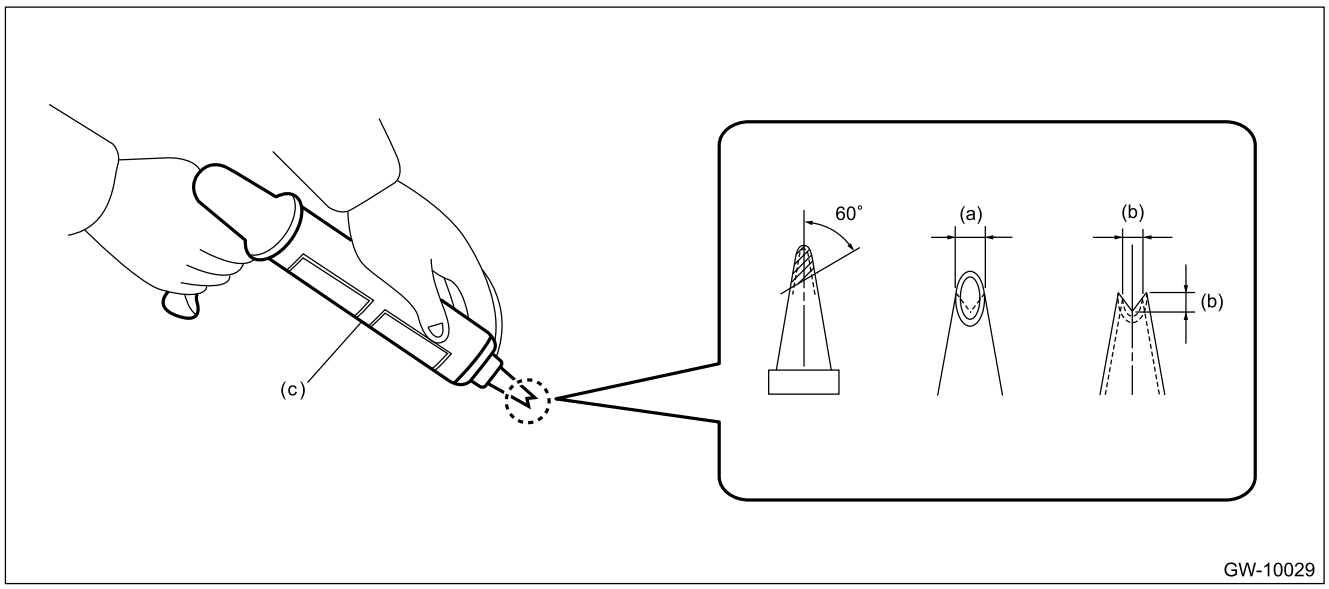
GLASS/WINDOWS/MIRRORS > Windshield Glass

INSTALLATION

Caution:

- **Always use the Subaru genuine windshield glass specially designed for EyeSight. (If the windshield glass other than the glass specially designed for EyeSight is used, the visibility of the camera is blocked or the distortion of the glass prevents the correct measurement of the object, resulting in the EyeSight abnormal operation.)**
- **For installation of the stereo camera, refer to "INSTALLATION", "Stereo Camera" in the "EyeSight" section and observe the precautions for installation. Ref. to EyeSight>Stereo Camera>INSTALLATION.**
- **If the damage is found in the glass repair prohibited area, always replace the glass. Damage, dirt, aftermarket part installation or sticker attachment in the prohibited area can affect the recognition of each camera, and thereby the EyeSight and high beam assist functions may not operate properly. Ref. to CAUTION > CHECK WINDSHIELD GLASS INCLUDING PROHIBITED AREA FOR MODEL WITH EyeSight.**

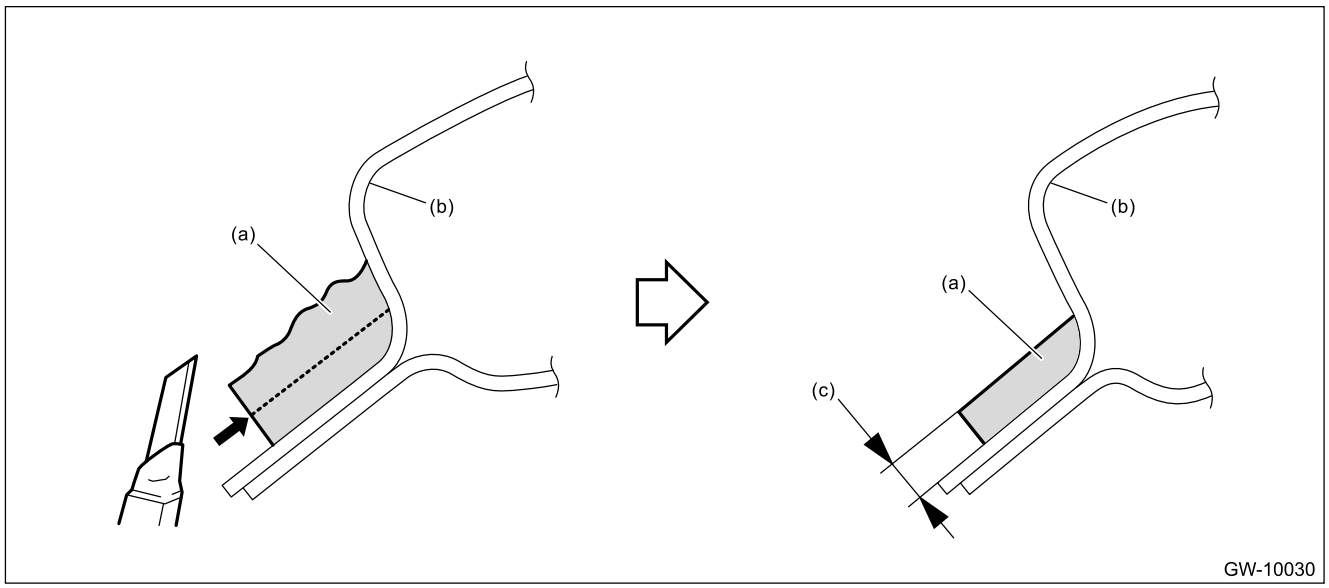
1. Fabricate the cartridge nozzle tip as shown and set the sealant gun with the adhesive.



(a) 10 mm (0.39 in) (b) 8 mm (0.31 in) (c) Sealant gun

2. Remove the adhesive layer on the body using cutter knife to obtain smooth face of 2 mm (0.08 in) thick.

Caution:
- **Be careful not to damage the body and paint surface.**
- **Be sure to keep some amount of old adhesive.**



(a) Adhesive (b) Body panel (c) 2 mm (0.08 in)

3. Clean the glass windshield and body.
(1) Using a scraper, remove adhesive and double-sided tape left on the glass windshield.
(2) Clean the glass windshield and the body with alcohol or appropriate cleaning solvent to completely eliminate cutting powder, dust and dirt.

4. Install a new locating pin windshield. (When reusing the glass)
(1) Using a sponge, apply primer to the locating pin windshield installation position on the glass windshield.

Note:

- **Let primer dry for about one hour before installing the locating pin windshield.**
- **Do not touch the surface coated with primer.**

Preparation items

Glass primer: Dow Automotive ESSEX U-401, U402 or equivalent

(2) Apply adhesive to the locating pin windshield adhesive surface.

Preparation items:

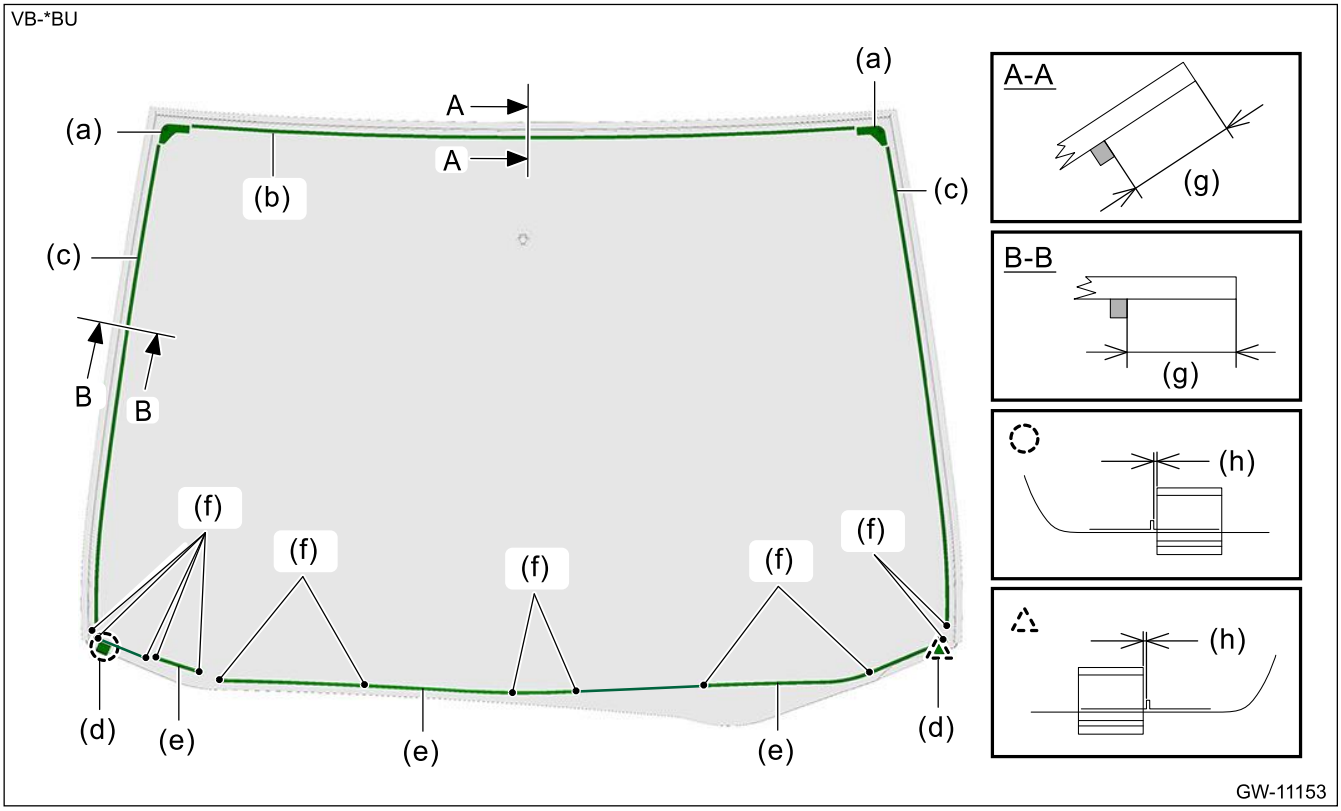
Adhesive: Dow Automotive ESSEX U-400HV or equivalent

(3) Install a new locating pin windshield to the positions marked with tapes (two places), and remove the tapes.

5. Attach a new dam rubber front to the glass windshield.

Note:

Attach the dam rubber straight between the dam rubber set marks while aligning with the dam rubber set mark.



(a)	Locating pin windshield	(d)	Seal lower	(g)	14.8 mm (0.58 in)
(b)	Dam rubber front upper	(e)	Dam rubber front lower	(h)	0+0.5 mm (0+0.02 in)
(c)	Dam rubber front side	(f)	Dam rubber set mark		

6. Install a new molding windshield to the glass windshield.

Caution:

Be careful to attach the windshield molding so that the molding has no loose or undulating part.

(1) Using a sponge, apply primer to the molding installation surface in the glass windshield side.

Note:

- **Let primer dry for about ten minutes before installing the windshield molding.**
- **Do not touch the surface coated with primer.**

Preparation items

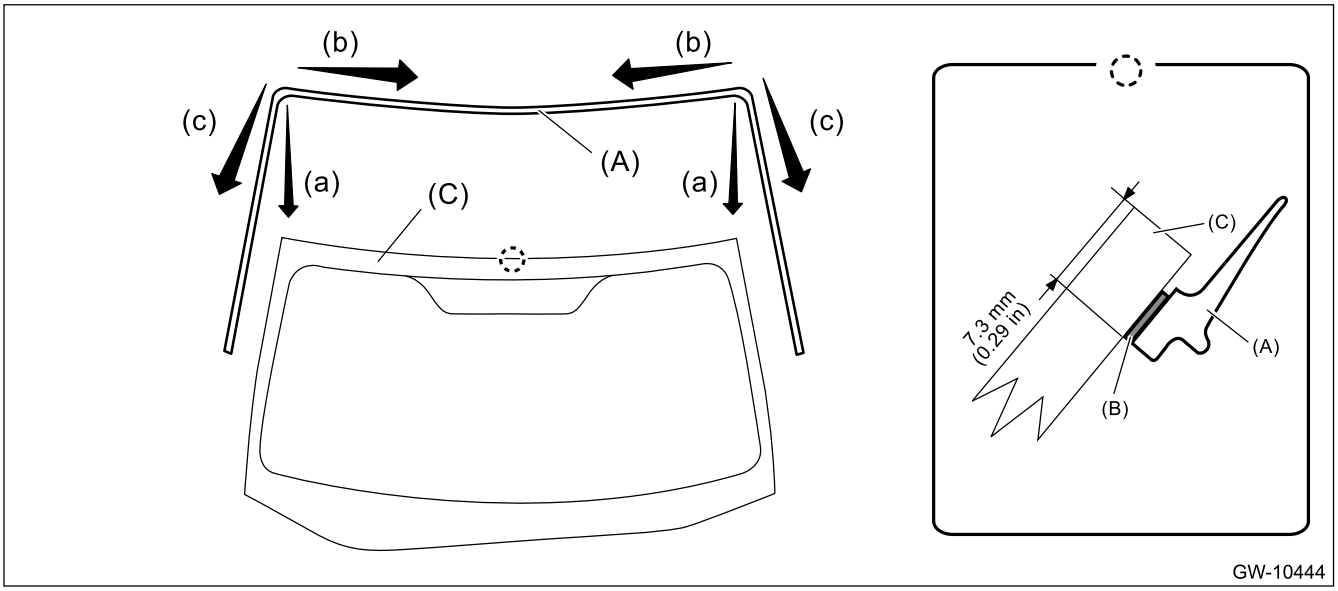
Glass primer: Dow Automotive ESSEX U401, U402 or equivalent

(2) Align the molding windshield (A) with both ends of the upper edge (a) of the glass windshield (C).

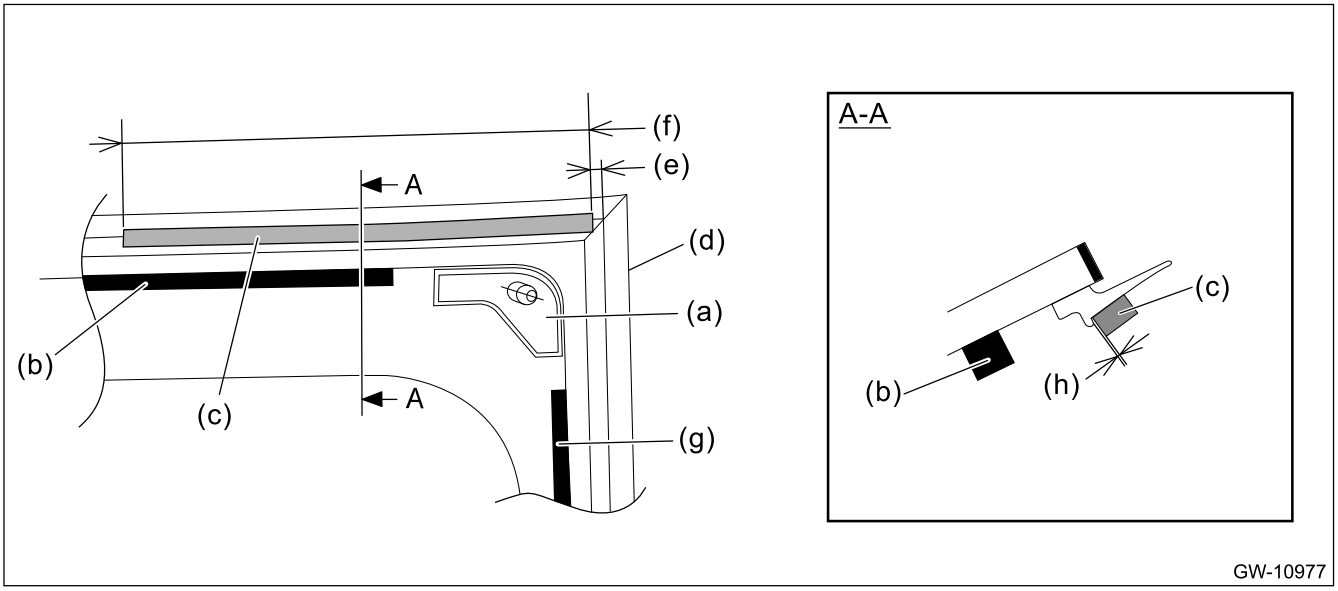
(3) Install the molding windshield from both corners of the upper edge toward the center (b).

(4) Install the molding windshield from both corners of the upper edge toward the lower side (c).

(5) Firmly apply the double sided tape (B) of the molding windshield evenly to the glass windshield surface.



7. Attach the seal upper to the molding windshield.



(a) Locating pin windshield
(b) Dam rubber front upper
(c) Seal upper
(d) Molding windshield
(e) 0+5 mm (0+0.2 in)
(f) 165 mm (6.5 in)
(g) Dam rubber front side
(h) 0+0.5 mm (0+0.02 in)

8. Install the glass windshield.

(1) Using a sponge, apply primer to the adhesive surfaces of glass windshield side and the body side.

Caution:
Do not apply primer to adhesive remaining on the body side.

Note:

- **Primer once attached to the painted surface of the body and internal trim is hard to wipe off. Mask the circumference of such area.**
- **Let primer dry for about ten minutes before installing the glass windshield.**
- **Do not touch the surface coated with primer.**

Preparation items:

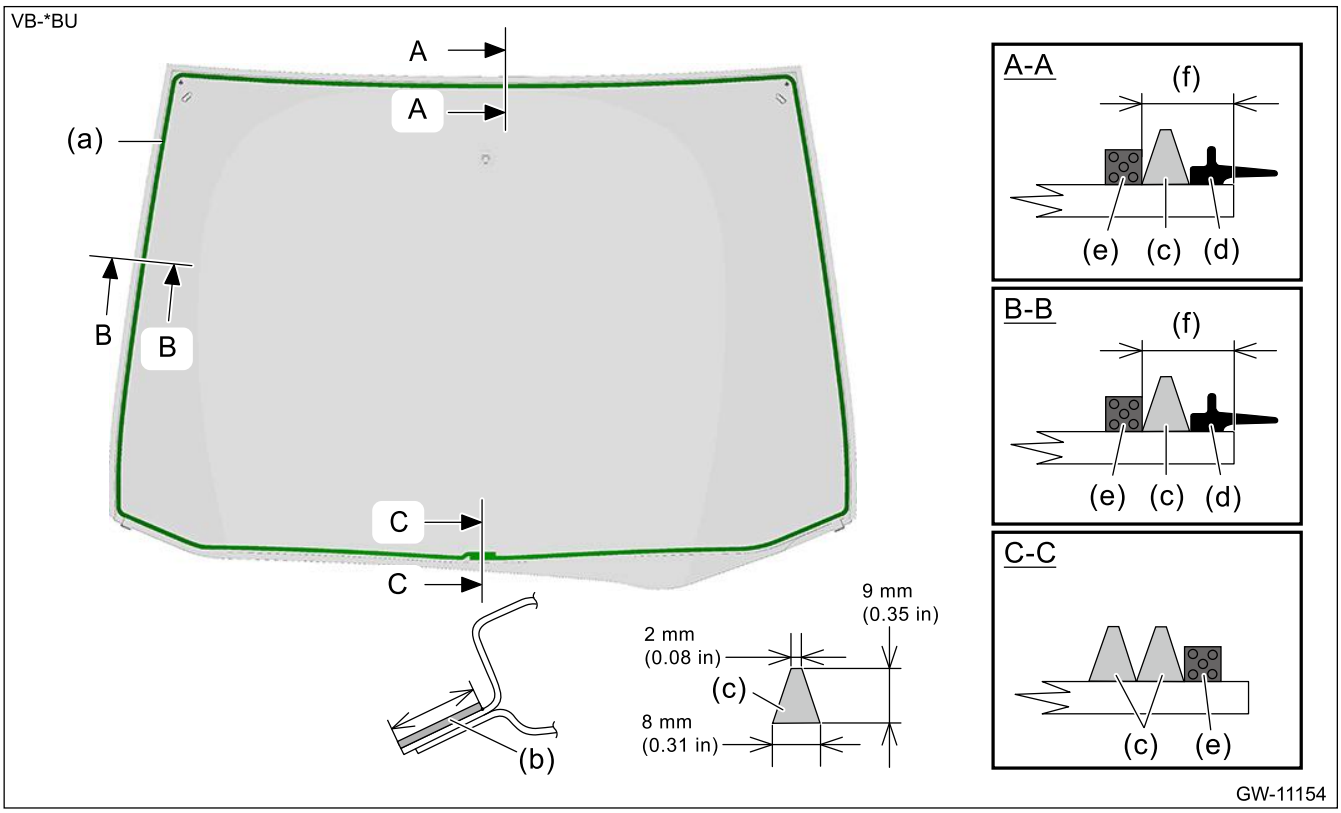
Glass primer: Dow Automotive ESSEX U-401, U-402 or equivalent

Painted surface primer: Dow Automotive ESSEX U-413 or equivalent

(2) Apply adhesive to the glass windshield end back surface along to the dam rubber.

Preparation items:

Adhesive: Dow Automotive ESSEX U-400HV or equivalent



(a) Application of primer (glass side)

(b) Application of primer (body side)

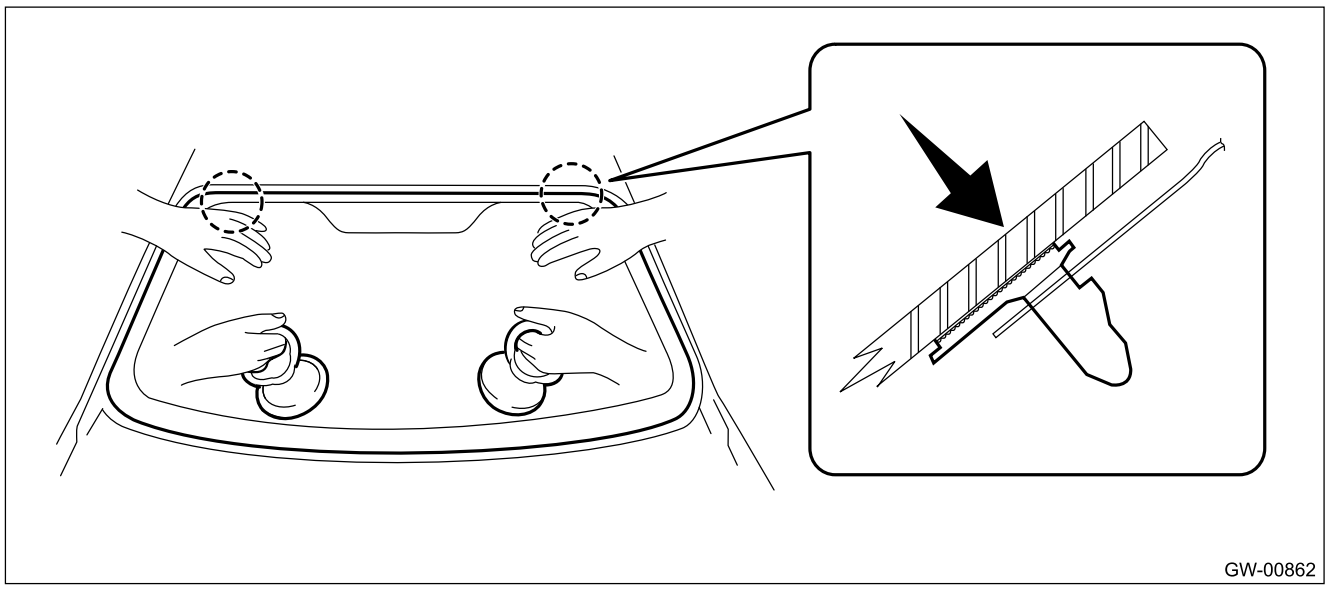
(c) Adhesive

(d) Molding windshield

(e) Dam rubber front

(f) 14.8 mm (0.58 in)

(3) Fit the locating pin windshield to the vehicle body using suction rubber cups, and install the glass windshield.



(4) Lightly press the entire perimeter of the glass windshield for tight fit.

(5) Make flush the adhesive surface jutted out using spatula.

9. After completion of all work, allow the vehicle to stand for about 24 hours.

Note:

- **When opening/closing the door after the windshield glass was bonded, always lower the door glass assembly first, and then open/close it carefully.**
- **Move the vehicle slowly.**
- **For minimum drying time and vehicle standing time before driving after bonding, follow instructions or instruction manual from the adhesive manufacturer.**

10. Install the lens hood. (Models with EyeSight) Ref. to EyeSight>Lens Hood>INSTALLATION.

11. Install the stereo camera. (Models with EyeSight) Ref. to EyeSight>Stereo Camera>INSTALLATION.

12. Install the light assembly map. (Models with EyeSight) Ref. to LIGHTING SYSTEM>Spot Map Light>INSTALLATION.

13. Install the mirror assembly inner rearview. Ref. to GLASS/WINDOWS/MIRRORS>Rearview Mirror>INSTALLATION.

14. Connect the wiper deicer connector. (Models with wiper deicer)

15. Install the cowl panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>INSTALLATION.

16. Install the arm assembly windshield wiper. Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>INSTALLATION.

17. Install the trim panel assembly A pillar. Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>INSTALLATION > A PILLAR TRIM.

18. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

19. After curing of adhesive, pour the water on external surface of vehicle to check that there are no water leaks.

Caution:

When a vehicle is returned to the user, tell him or her that the vehicle should not be subjected to heavy impact for at least three days.

20. Perform the inspection, and adjustment and check of the stereo camera. (Models with EyeSight)

- Inspection: Ref. to EyeSight (DIAGNOSTICS)>General Description>INSPECTION.
- Adjustment and check: Ref. to EyeSight>Camera Adjustment, Inspection.

GLASS/WINDOWS/MIRRORS > Rear Window Glass

REMOVAL

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the rear seat cushion assembly and the backrest assembly. Ref. to SEATS>Rear Seat>REMOVAL.
3. Remove the trim panel assembly C pillar LWR and the trim panel assembly C pillar. Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.
4. Remove the trim panel assembly rear shelf. Ref. to EXTERIOR/INTERIOR TRIM>Rear Shelf Trim>REMOVAL.
5. Disconnect the rear defogger connector and the antenna connector.
6. Remove the glass rear window in the same procedure as for the glass windshield. Ref. to GLASS/WINDOWS/MIRRORS>Windshield Glass>REMOVAL.

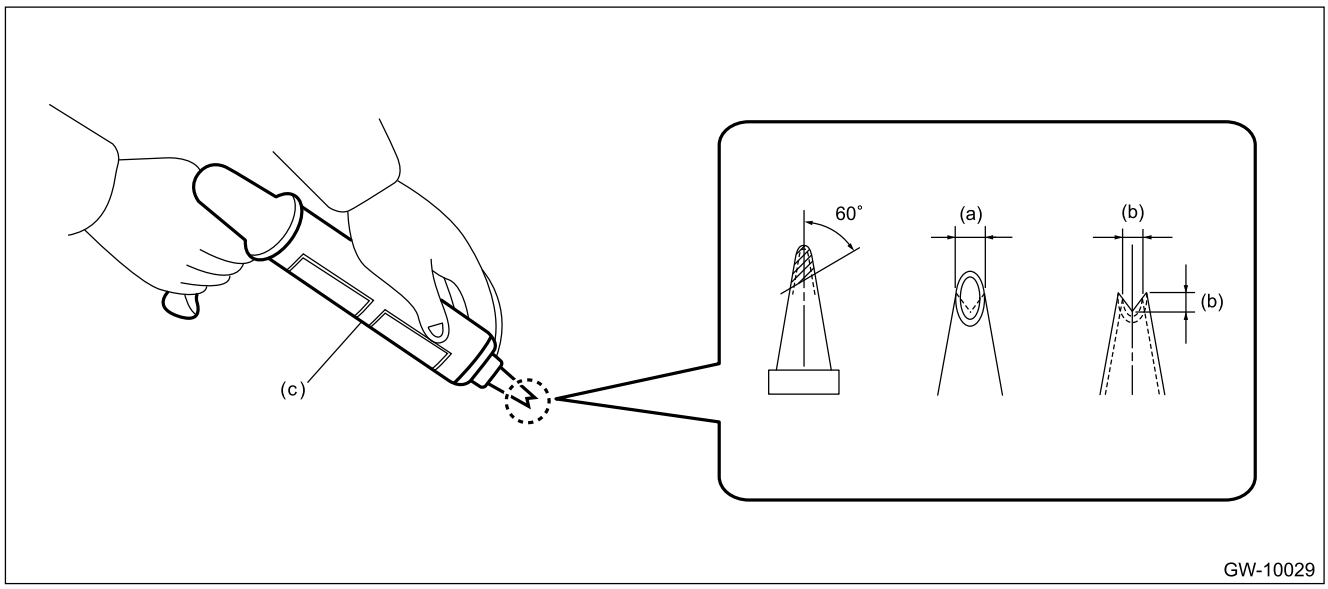
GLASS/WINDOWS/MIRRORS > Rear Window Glass

INSTALLATION

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Fabricate the cartridge nozzle tip as shown and set the sealant gun with the adhesive.



(a) 10 mm (0.39 in) (b) 8 mm (0.31 in) (c) Sealant gun

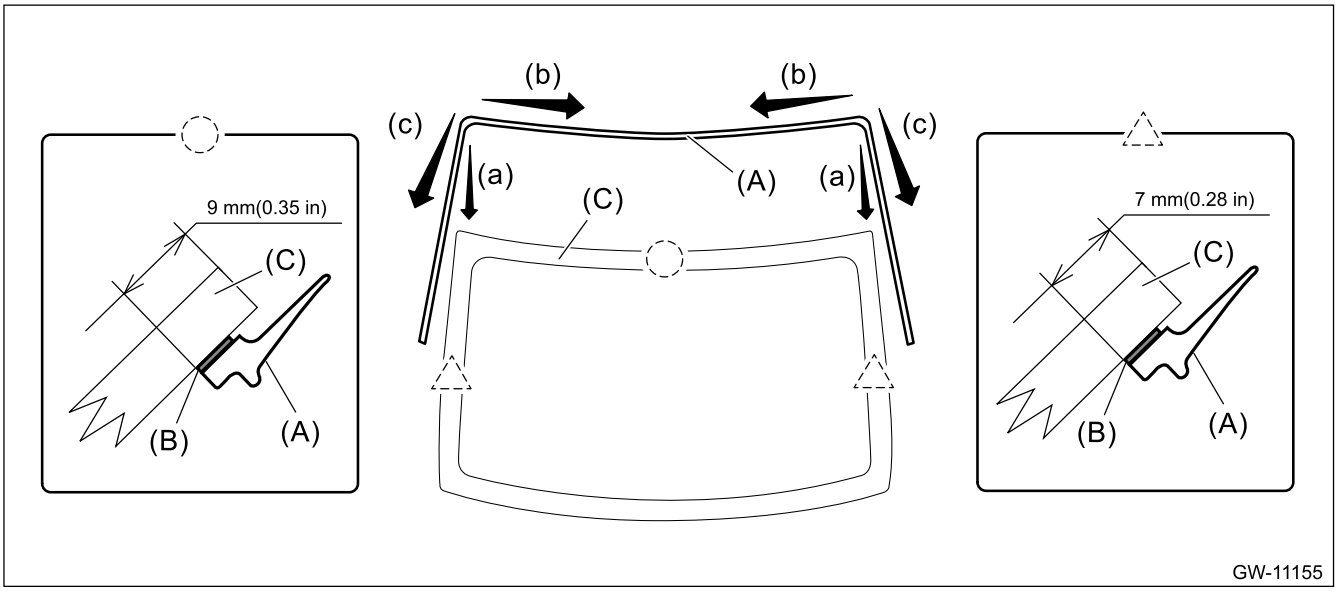
2. Smoothen and clean the adhesive surfaces of the glass rear window side and the body side, with the same procedures as for the glass windshield. Ref. to GLASS/WINDOWS/MIRRORS>Windshield Glass>INSTALLATION.

Caution:
Use a new locating pin rear window.

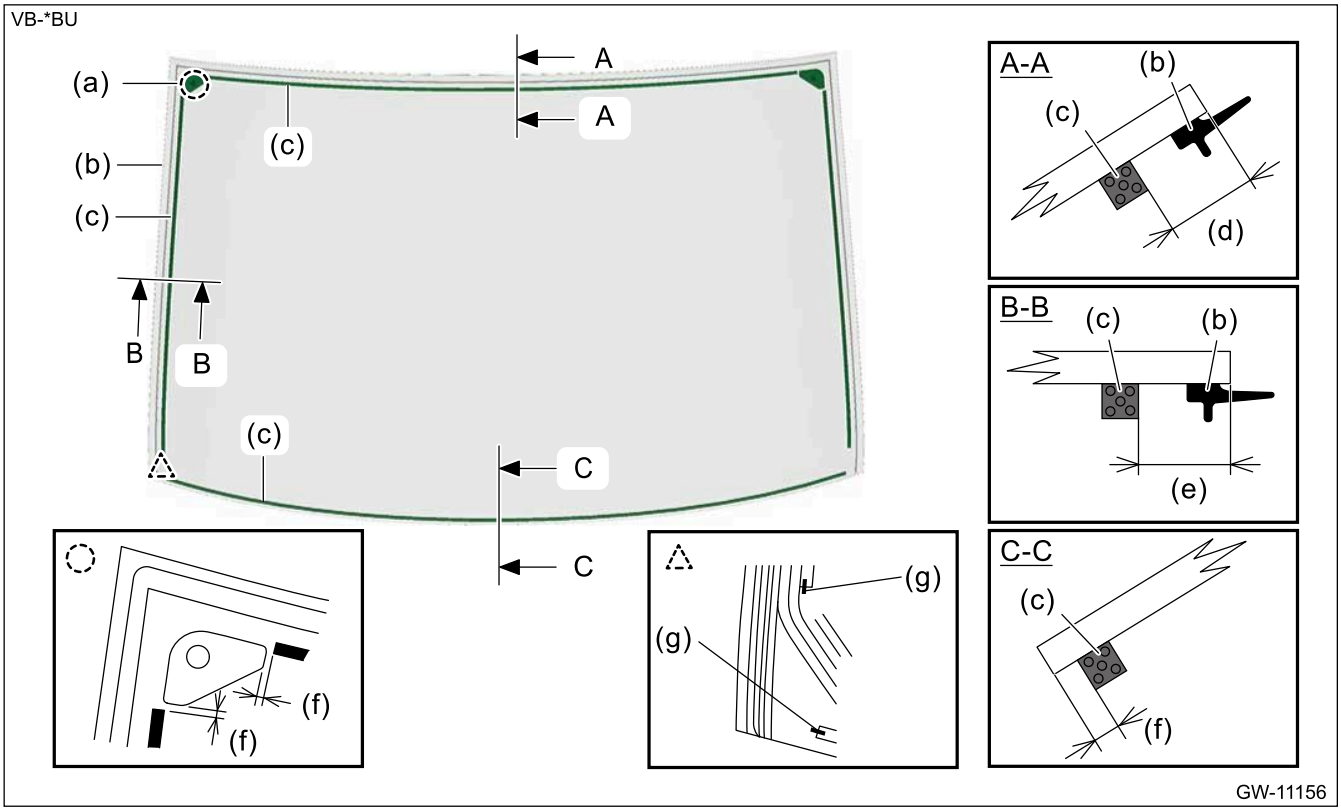
3. Install a new molding rear window to the glass rear window.

Caution:
Be careful to attach the rear window molding so that the molding has no loose or undulating part.

(1) Align the molding rear window (A) with both ends of the upper edge (a) of the glass rear window (C).
(2) Install the molding rear window from both corners of the upper edge toward the center (b).
(3) Install the molding rear window from both corners of the upper edge toward the lower side (c).
(4) Firmly apply the double sided tape (B) of the molding rear window evenly to the surface of the glass rear window.



4. Install a new dam rubber rear to the glass rear window.



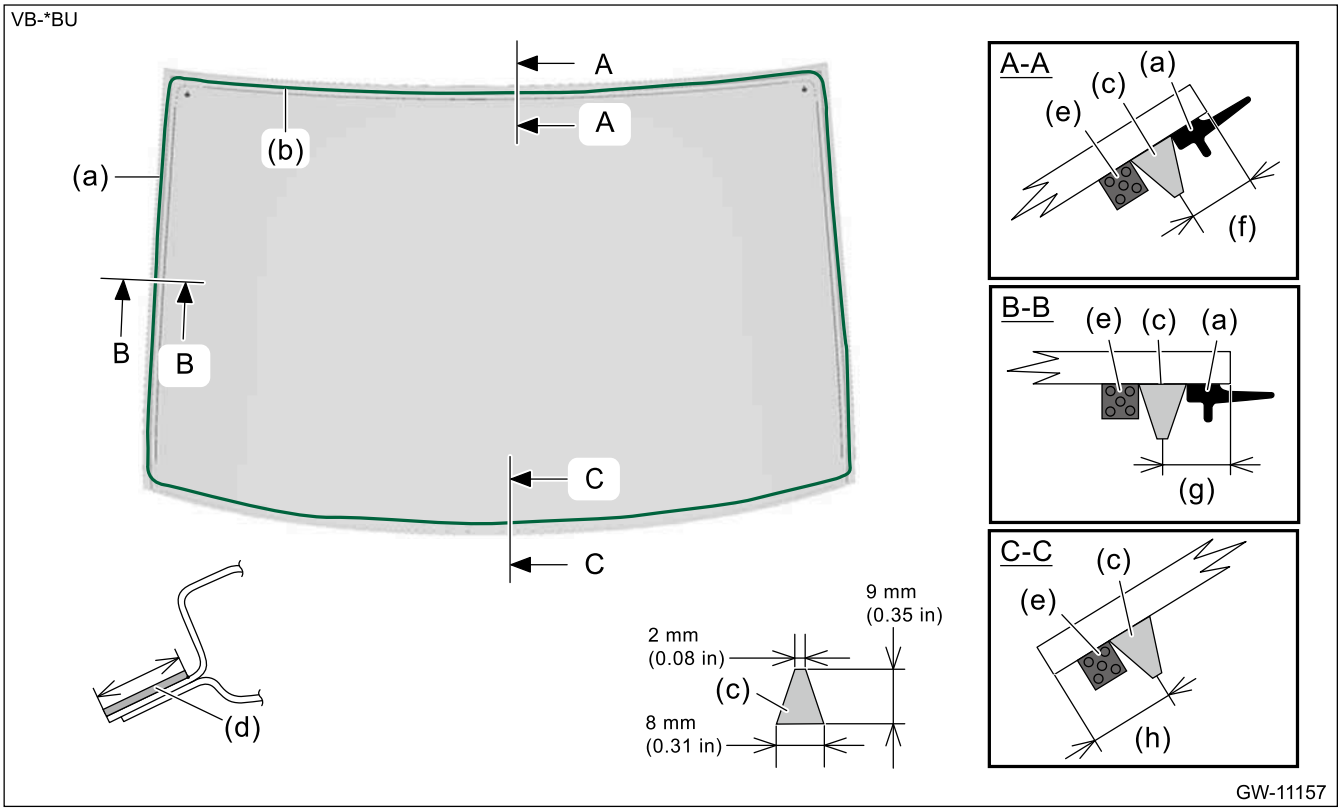
(a) Locating pin rear window
(b) Molding rear window
(c) Dam rubber rear window
(d) 17 mm (0.67 in)
(e) 15 mm (0.59 in)
(f) 3 mm (0.12 in)
(g) Dam rubber set mark

5. Install the glass rear window in the same procedure as for the glass windshield. Ref. to GLASS/WINDOWS/MIRRORS>Windshield Glass>INSTALLATION.

(1) Apply the primer to the adhesive surface of glass rear window side and body side using sponge.

Caution:
Do not apply primer to adhesive remaining on the body side.

(2) Apply adhesive to the end back surface of the glass rear window.



(a)	Molding rear window	(d)	Application of primer (body side)	(g)	11 mm (0.43 in)
(b)	Application of primer (glass side)	(e)	Dam rubber rear window	(h)	12 mm (0.47 in)
(c)	Adhesive	(f)	13 mm (0.51 in)		

(3) Insert the locating pins rear window into the rear panel holes, and install the glass rear window.
(4) Lightly press the entire perimeter of the glass rear window for tight fit.
(5) Make flush the adhesive surface jutted out using spatula.

6. After completion of all work, allow the vehicle to stand for about 24 hours.

Note:
- **When opening/closing the door after the windshield glass was bonded, always lower the door glass assembly first, and then open/close it carefully.**
- **Move the vehicle slowly.**
- **For minimum drying time and vehicle standing time before driving after bonding, follow instructions or instruction manual from the adhesive manufacturer.**

7. Connect the rear defogger connector and the antenna connector.

8. Install the trim panel assembly rear shelf. Ref. to EXTERIOR/INTERIOR TRIM>Rear Shelf Trim>INSTALLATION.

9. Install the trim panel assembly C pillar and the trim panel assembly C pillar LWR. Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>INSTALLATION.

10. Install the backrest assembly and rear seat cushion assembly. Ref. to SEATS>Rear Seat>INSTALLATION.

11. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

12. After curing of adhesive, pour the water on external surface of vehicle to check that there are no water leaks.

Caution:

When a vehicle is returned to the user, tell him or her that the vehicle should not be subjected to heavy impact for at least three days.

WIRING DIAGRAM

For the wiring diagram, refer to “Rear Defogger System” in the wiring diagram. Ref. to WIRING SYSTEM>Rear Defogger System>WIRING DIAGRAM.

INSPECTION

Note:

System name	Initial setting	Customize setting
Rr Defogger op. mode	Normal	Continuous*

***: When one of the following conditions occurs, the continuous operation is suspended and turned to the normal operation.**

- **Battery voltage remains at 10 V or less for 30 seconds.**
- **Body integrated unit custom setting, [Auto A/C Setting], is set to No.**

1. CHECK WITH SUBARU SELECT MONITOR

1. CHECK DTC.

1. Turn the ignition switch to ON.
2. Read DTCs of the following items using the Subaru Select Monitor. Ref. to LAN SYSTEM (DIAGNOSTICS)>Diagnostic Trouble Code (DTC).
   - [Body Control]
   - [Front Relay Control Module]

Is DTC displayed?

Yes	Perform the diagnosis for the displayed DTCs.
No	Go to 2.

2. CHECK POWER SUPPLY CIRCUIT.

Display data of the following items using Subaru Select Monitor. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

- [Front Relay Control Module]
  - [BATT Voltage (Control)]
  - [BATT Voltage (BACKUP)]
  - [IGN Voltage]
- [Body control]
  - [BATT voltage (control)]
  - [BATT voltage (BACKUP)]
  - [IGN voltage]

Is the voltage 9 — 16 V?

Yes	Go to 3.
No	Check the harnesses of the battery, fuse, connector and power supply circuit. If there is no abnormality, replace the front relay control module or the body integrated unit.

3. CHECK BODY INTEGRATED UNIT SETTING.

Using the Subaru Select Monitor, check setting of [Auto A/C Setting]. Ref. to BODY CONTROL(DIAGNOSTICS)>Customize.

Is it set to [Support]?

Yes	Go to 4.
No	Change the customize setting to [Support].

4. CHECK REAR DEFOGGER SYSTEM OPERATION.

Check the rear defogger system operation. Ref. to FRONT RELAY CONTROL MODULE (DIAGNOSTICS)>Active Test.

Does the rear defogger system operate normally?

Yes	Go to 5.
No	Check the harnesses of the heat wire, relay and output circuit. If there is no abnormality, replace the front relay control module.

5. CHECK DATA MONITOR.

Using Subaru Select Monitor, display [Rr Defogger SW] in [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display change between [OFF] ←→ [ON], when the rear defogger switch is operated?

Yes	Go to 8.
No	Go to 6.

6. CHECK INPUT CIRCUIT.

1. Switch to dealership mode. Ref. to COCKPIT CONTROL (DIAGNOSTICS)>Dealership Mode>OPERATION.
2. Select [Function Check]. Ref. to COCKPIT CONTROL (DIAGNOSTICS)>Dealership Mode>OPERATION > SERVICE INSPECTION.
3. Check [Rr DEF] and [Push] are displayed when the rear defogger switch is pressed.
4. Check [Push] is switched to [Release] when the rear defogger switch is released.

Does it operate normally?

Yes	Go to 7.
No	Inspect the rear defogger switch and input circuit.

7. CHECK DTC.

1. Turn the ignition switch to ON.
2. Read the DTC of [Cockpit Control] using the Subaru Select Monitor. Ref. to COMMON (DIAGNOSTICS)>Diagnostic Trouble Code (DTC).

Is DTC displayed?

Yes	Perform the diagnosis for the displayed DTCs. Ref. to COCKPIT CONTROL (DIAGNOSTICS)>Diagnostic Trouble Code (DTC)>LIST.
No	Go to 8.

8. CHECK FRONT RELAY CONTROL MODULE.

Using Subaru Select Monitor, display [Rr Defogger output] in [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display change between [OFF] ←→ [ON], when the rear defogger switch is operated?

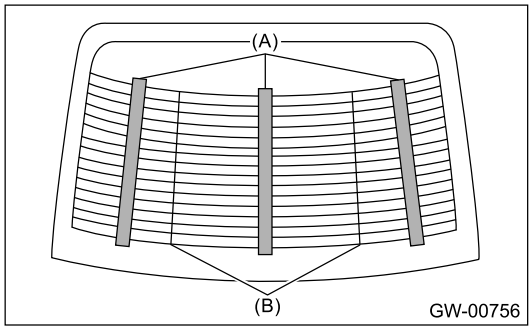
Yes	Replace the front relay control module. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Front Relay Control Module.
No	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

2. HEAT WIRE INSPECTION

Caution:
When wiping off the stain on glass with cloth, use a dry and soft cloth and move it in the direction of the heat wire extension to avoid damage to the heat wire.

1. Prepare the following checking items.
   - Liquid crystal thermograph sheet (approximate size: 300 × 300 mm (11.8 × 11.8 in) and thermal temperature: 35 — 40 °C (95 — 104 °F))
   - Aluminum foil
2. Turn the ignition switch to ON.
3. Turn the defogger switch to ON.
4. Push the liquid crystal thermograph sheet from the outside of the glass.

Note:
Use the liquid crystal thermograph sheet every range it is separated with the separate line.



(A) Liquid crystal thermograph sheet

(B) Separate line

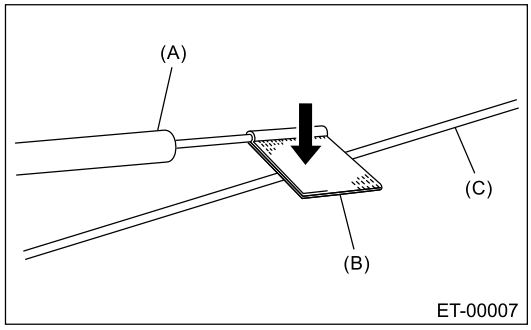
5. Determine the faulty heat wire by checking the color of the liquid crystal thermograph sheet.

Note:

- **Check from the inside of the glass rear window if the liquid crystal thermograph sheet does not change.**
- **The time for the color change may differ depends on the surface temperature of the glass.**

Liquid crystal thermograph sheet	Criteria
Change occurred (red → blue)	Normal
No change (black)	Open

6. Wrap a piece of aluminum foil around the tip of tester probe and press it against the heat wire with your finger.



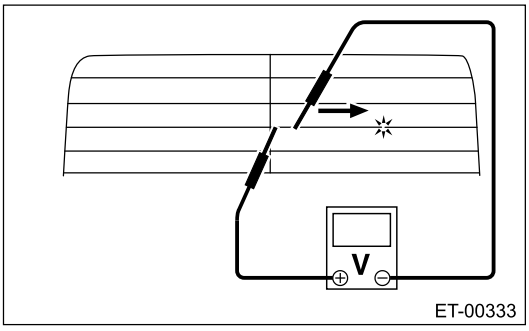
(A) Tester probe

(B) Aluminum foil

(C) Heat wire

7. Fasten the tester probe on the positive (+) side and negative (−) side to end of positive side of the section that has been found to include an open in the step 5.

8. Move the tester probe on the negative (−) side slowly along the heat wire. If voltage changes from zero while moving the tester probe, heat wire is open at the voltage change point.



9. Repair the heat wire that determines the place of the open circuit. Ref. to GLASS/WINDOWS/MIRRORS>Rear Window Defogger System>REPAIR.

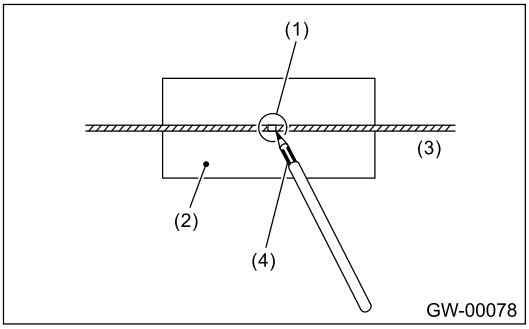
GLASS/WINDOWS/MIRRORS > Rear Window Defogger System

REPAIR

1. Clean the broken portion with alcohol or appropriate cleaning solvent.
2. Mask both side of wire with masking tape.
3. Apply the repairing material to the broken portion.

   Preparation items:

   Repairing material: DUPONT No. 4817 or equivalent



(1) Broken portion
(2) Masking tape
(3) Broken wire
(4) Conductive silver composition

4. After repair, check the wire.

WIRING DIAGRAM

For the wiring diagram, refer to “Wiper Deicer System” in the wiring diagram. Ref. to WIRING SYSTEM>Wiper Deicer System>WIRING DIAGRAM.

INSPECTION

Note:

System name	Initial setting	Customize setting
Rr Defogger op. mode	Normal	Continuous *

***: When one of the following conditions occurs, the continuous operation is suspended and turned to the normal operation.**

- **Ambient temperature at 5°C (41°F) or more continues for 10 seconds.**
- **Ambient temperature sensor malfunction continues for 10 seconds.**
- **Vehicle speed less than 15 km/h (9 MPH)**
- **CAN communication malfunction continues for 10 seconds.**
- **Battery voltage remains at 10 V or less for 30 seconds.**
- **SI-DRIVE [I] mode driving continues for 10 seconds.**

1. CHECK WITH SUBARU SELECT MONITOR

1. CHECK DTC.

1. Turn the ignition switch to ON.
2. Read DTCs of the following items using the Subaru Select Monitor. Ref. to LAN SYSTEM (DIAGNOSTICS)>Diagnostic Trouble Code (DTC).
   - [Body Control]
   - [Front Relay Control Module]

Is DTC displayed?

Yes	Perform the diagnosis for the displayed DTCs.
No	Go to 2.

2. CHECK POWER SUPPLY CIRCUIT.

Display data of the following items using Subaru Select Monitor. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

- [Front Relay Control Module]
  - [BATT Voltage (Control)]
  - [BATT Voltage (BACKUP)]
  - [IGN Voltage]
- [Body control]
  - [BATT voltage (control)]
  - [BATT voltage (BACKUP)]
  - [IGN voltage]

Is the voltage 9 — 16 V?

Yes	Go to 3.
No	Check the harnesses of the battery, fuse, connector and power supply circuit. If there is no abnormality, replace the front relay control module or the body integrated unit.

3. CHECK BODY INTEGRATED UNIT SETTING.

Using the Subaru Select Monitor, check setting of [wiperdeicer]. Ref. to BODY CONTROL(DIAGNOSTICS)>Customize.

Is it set to [Support]?

Yes	Go to 4.
No	Change the customize setting to [Support].

4. CHECK WIPER DEICER SYSTEM OPERATION.

Check the wiper deicer system operation. Ref. to FRONT RELAY CONTROL MODULE (DIAGNOSTICS)>Active Test.

Does the wiper deicer system operate normally?

Yes	Go to 5.
No	Check the harnesses of the heat wire, relay and output circuit. If there is no abnormality, replace the front relay control module.

5. CHECK DATA MONITOR.

Using Subaru Select Monitor, display [Rr Defogger SW] in [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display change between [OFF] ←→ [ON], when the rear defogger switch is operated?

Yes	Go to 8.
No	Go to 6.

6. CHECK INPUT CIRCUIT.

1. Switch to dealership mode. Ref. to COCKPIT CONTROL (DIAGNOSTICS)>Dealership Mode>OPERATION > PROCEDURE TO SWITCH TO DEALERSHIP MODE.
2. Select [Function Check]. Ref. to COCKPIT CONTROL (DIAGNOSTICS)>Dealership Mode>OPERATION > SERVICE INSPECTION.
3. Check [Rr DEF] and [Push] are displayed when the rear defogger switch is pressed.
4. Check [Push] is switched to [Release] when the rear defogger switch is released.

Does it operate normally?

Yes	Go to 7.
No	Inspect the rear defogger switch and input circuit.

7. CHECK DTC.

1. Turn the ignition switch to ON.
2. Read the DTC of [Cockpit Control] using the Subaru Select Monitor. Ref. to COMMON (DIAGNOSTICS)>Diagnostic Trouble Code (DTC).

Is DTC displayed?

Yes	Perform the diagnosis for the displayed DTCs. Ref. to COCKPIT CONTROL (DIAGNOSTICS)>Diagnostic Trouble Code (DTC)>LIST.
No	Go to 8.

8. CHECK FRONT RELAY CONTROL MODULE.

Using Subaru Select Monitor, display [wiper deicer output] in [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display change between [OFF] ←→ [ON], when the rear defogger switch is operated?

Yes	Replace the front relay control module. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Front Relay Control Module.
No	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

2. HEAT WIRE INSPECTION

For inspection of the heat wire, refer to "HEAT WIRE INSPECTION" of "Rear Window Defogger System". Ref. to GLASS/WINDOWS/MIRRORS>Rear Window Defogger System>INSPECTION > HEAT WIRE INSPECTION.

Note:
Heat wire inspection needs removing/installing procedure of instrument panel assembly.

GLASS/WINDOWS/MIRRORS > Wiper Deicer System

REPAIR

For repair of the heat wire, refer to "REPAIR" of "Rear Window Defogger System". Ref. to GLASS/WINDOWS/MIRRORS>Rear Window Defogger System>REPAIR.

Note:
Heat wire repair needs removing/installing procedure of instrument panel assembly.

BODY STRUCTURE

BS

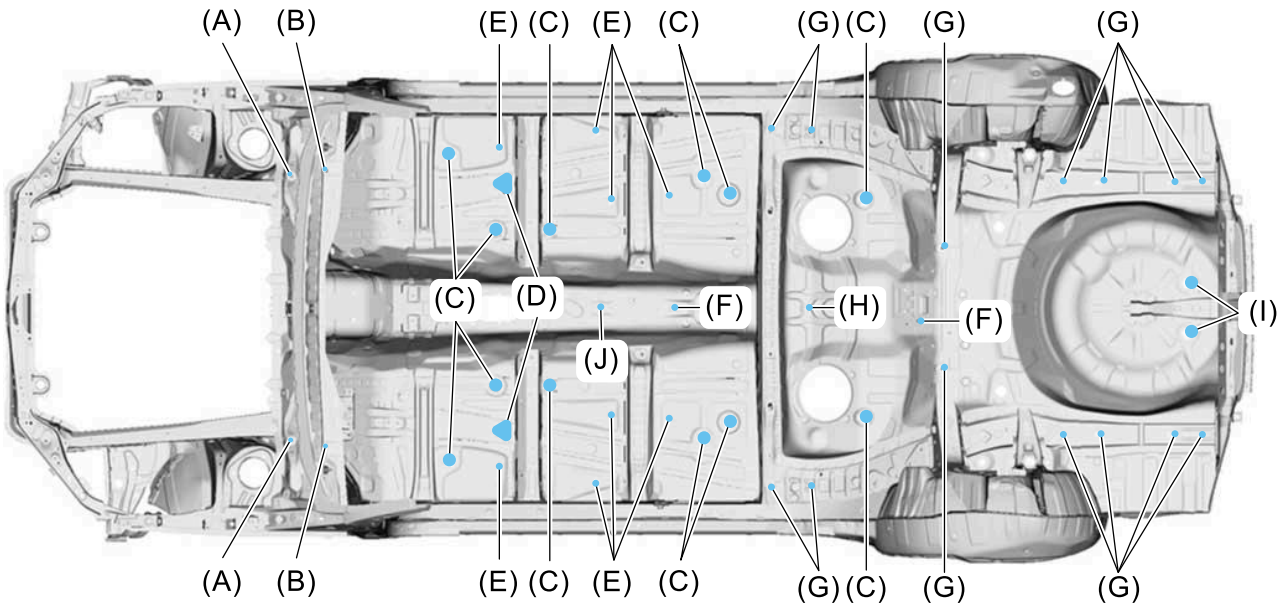
1. General Description
2. Plug / Grommet Sheet

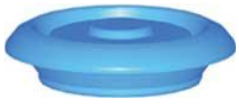
SPECIFICATION

Refer to “Body Repair Manual” for general description of body structure, reference points and reference dimensions.

COMPONENT

1. UPPER SURFACE

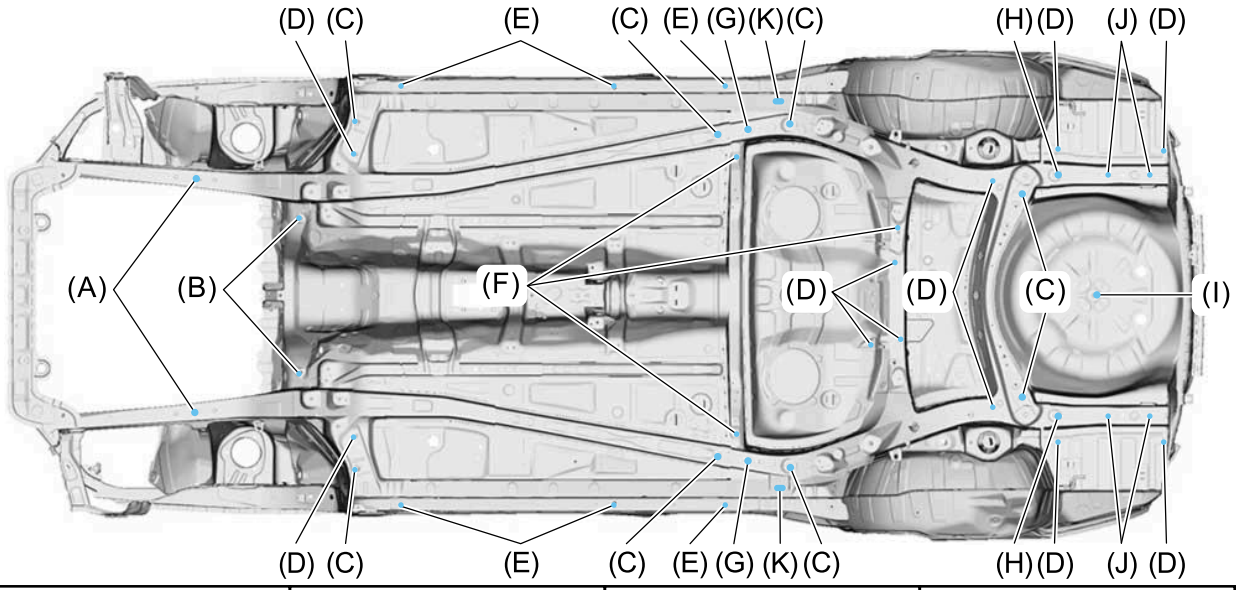


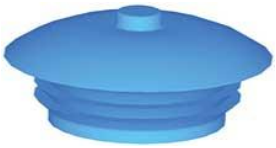
(A)	(B)	(C)	(D)
(E)	**(F)**	**(G)**	**(H)**
(I)	**(J)**		
			

BS-15251

(A) Plug
(B) Grommet sheet
(C) Plug
(D) Plug
(E) Plug
(F) Plug
(G) Grommet sheet
(H) Grommet sheet
(I) Plug
(J) Plug

2. LOWER SURFACE



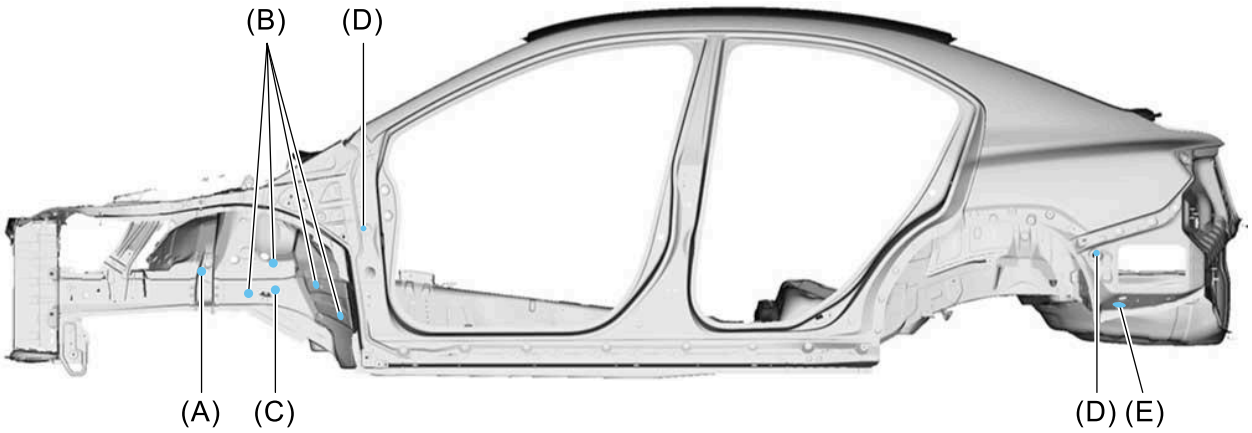
(A)	(B)	(C)	(D)
(E)	(F)	(G)	(H)
			
(I)	(J)	(K)	

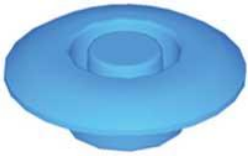
BS-15253

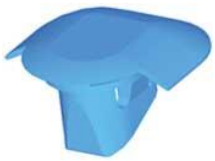
(A) Plug
(B) Plug
(C) Plug
(D) Grommet sheet
(E) Plug
(F) Plug
(G) Plug
(H) Plug
(I) Plug
(J) Plug
(K) Plug

3. SIDE SURFACE

Note:
Illustration indicates the LH side. The structure of RH side is symmetrical.



(A)	(B)	(C)	(D)
			

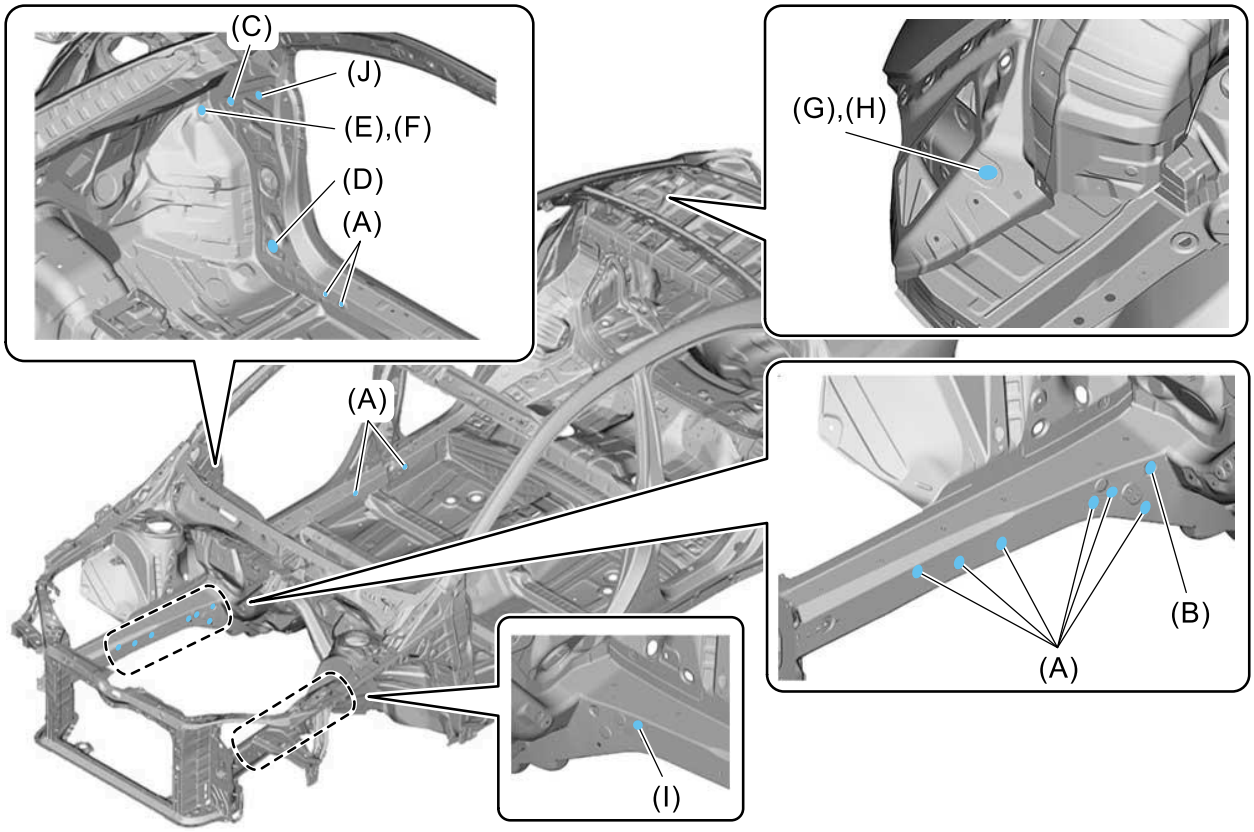
(E)


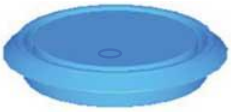
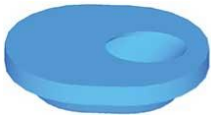
BS-15255

(A) Plug
(B) Grommet sheet
(C) Plug
(D) Plug
(E) Plug

4. OBLIQUE VIEW

Note:
Illustration indicates the RH side. The structure of LH side is symmetrical.



(A), (J)	(B)	(C)	(D)
			
(E)	**(F)**	**(G)**	**(H)**
			
(I)			

BS-15273

(A) Grommet sheet

(B) Plug

(C) Plug

(D) Plug

(E) Plug (model without sunroof)

(F) Plug (model with sunroof)

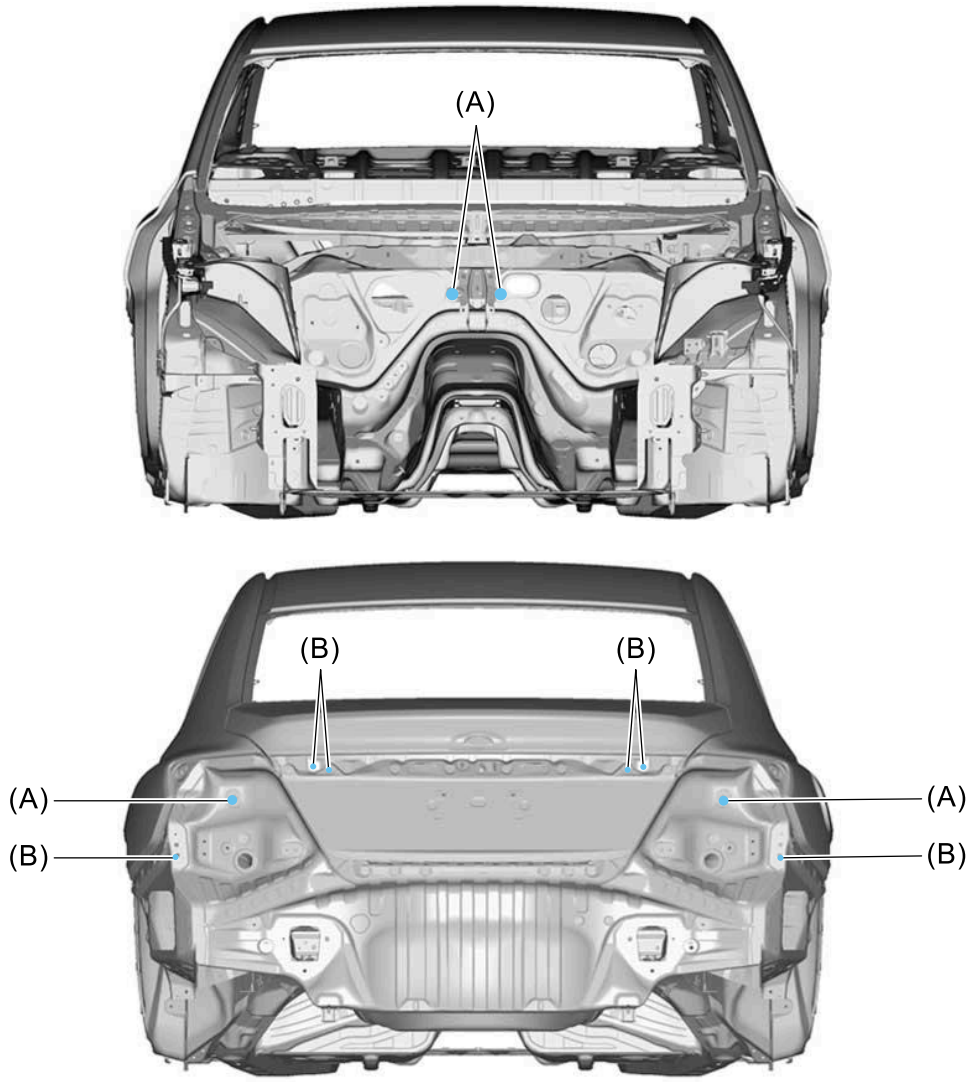
(G) Plug (model without sunroof)

(H) Plug (model with sunroof)

(I) Grommet sheet (without CVTF cooler (air cool)) (left side only)

(J) Grommet sheet (right side only)

5. FRONT SIDE / BACK SIDE



(A)	(B)

BS-15274

(A) Plug

(B) Plug

INSTRUMENTATION/DRIVER INFO

IDI

1. General Description
2. Relay and Fuse
3. Combination Meter System
4. Combination Meter
5. Warning Box
6. Switches and Harness

INSTRUMENTATION/DRIVER INFO > General Description

CAUTION

- When performing service operation, refer to “Repair Contents” in “General Description”. Ref. to REPAIR CONTENTS>Repair Contents.
- When performing work on the sensors or modules, be careful of the following.
  - Before disconnecting electrical connectors, be sure to disconnect the ground terminal from the battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
  - Do not apply any impact. If the parts are accidentally dropped, replace with a new part.
  - Do not expose to high-temperature and humidity.
- When replacing the parts provided with memory functions, record the memory contents before disconnecting the ground terminal from the battery sensor.
- Refer to “CAUTION” of “General Description” in “AIRBAG SYSTEM” section. Ref. to AIRBAG SYSTEM>General Description>CAUTION.
- Use gloves to avoid damage to and get fingerprints on the glass surface. Wipe off using a soft cloth, if the part is contaminated.

INSTRUMENTATION/DRIVER INFO > General Description

SPECIFICATION

1. METER

Item	Operation method	Drive control
Speedometer	Stepping motor type	Combination meter
Tachometer		
Engine coolant temperature gauge		
Fuel gauge		

2. INDICATOR

Note:
Specifications of the indicator vary depending on the grade.

Item	Drive control
ODO indicator	Combination meter
Trip indicator	
Select lever / shift position indicator	
Information (intervention) display	
FUEL meter	
Engine coolant temperature gauge	
Warning and indicator display • ABS warning light • Tire pressure warning light • STEERING warning light • VDC warning light / VDC operation indicator light • VDC OFF indicator light • EPB operation indicator light	

Item	Drive control
• EPB warning light • Brake fluid level warning light • AVH operation indicator light/AVH ON indicator light • Electronically-controlled damper warning light • ADB warning light • ADB operation indicator light (green) • LED low beam • Turn signal indicator light • SRH indicator light • SRH OFF indicator light • Auto leveler indicator light • High beam indicator light • Front fog light indicator light • Lighting indicator light • Driver’s seat belt warning light • Airbag warning light • Fuel level warning light • Engine oil level indicator light • Malfunction indicator light • Oil pressure warning light • AT oil temperature indicator light • AWD indicator light • Charge warning light • Sonar alarm OFF indicator light • Pre-collision brake OFF indicator light • BSD/RCTA indicator light • BSD/RCTA OFF indicator light • RAB indicator light • RAB OFF indicator light • Meter illumination back light • Hood open indicator light • Door open indicator light • Low ambient temperature indicator light • Washer fluid level indicator light • Auto Start Stop operation indicator light (green) • Auto Start Stop warning • Auto Start Stop OFF indicator light (yellow) • Auto Start Stop temporary stop (white) • HILL DESCENT operation indicator light • AES OFF indicator light • ELKA OFF indicator light • Hill start assist operation indicator light • TRACK indicator light	
EyeSight system indicator • Adaptive cruise • Constant speed cruise	

Item	Drive control
• READY • Preceding vehicle • Following distance setting • Set speed • Traffic lane • EyeSight warning • EyeSight temporary stop • OFF • HOLD • Lane keep • Lane departure warning OFF indicator light	
Security indicator light	Body integrated unit

3. WARNING BOX

Display	Display method
Passenger's seat belt warning light	LED
Rear seat belt warning light	

INSTRUMENTATION/DRIVER INFO > General Description

LOCATION

For location, refer to "Electrical Component Location" for "COMBINATION METER (DIAGNOSTICS)" section.
Ref. to COMBINATION METER (DIAGNOSTICS)>Electrical Component Location.

INSTRUMENTATION/DRIVER INFO > General Description

PREPARATION TOOL

1. SUBARU SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 STSSM4	—	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. **Note:** • **For detailed operation procedures, refer to "Help" of application.** • **Used together with interface for Subaru Select Monitor (such as DST-i and DST-010).**

2. OTHER

	Remarks
Circuit tester	Used for measuring resistance, voltage and current.

INSTRUMENTATION/DRIVER INFO > Relay and Fuse

LOCATION

For the location, refer to “FUSE AND RELAY” in the wiring diagram. Ref. to WIRING SYSTEM>Fuse And Relay.

Note:
For details of relay and fuse, refer to “DC POWER SUPPLY CIRCUIT”. Ref. to WIRING SYSTEM>Power Supply Circuit.

INSTRUMENTATION/DRIVER INFO > Relay and Fuse

INSPECTION

1. CHECK FUSE

1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

Note:
If the fuse is blown again, check the system wiring harness.

INSTRUMENTATION/DRIVER INFO > Combination Meter System

WIRING DIAGRAM

For the wiring diagram, refer to “Combination Meter System” in the wiring diagram. Ref. to WIRING SYSTEM>Combination Meter System>WIRING DIAGRAM.

INSTRUMENTATION/DRIVER INFO > Combination Meter System

INSPECTION

1. BASIC INSPECTION

For basic inspection, refer to “Basic Diagnostic Procedure” of “COMBINATION METER (DIAGNOSTICS)” section. Ref. to COMBINATION METER (DIAGNOSTICS)>Basic Diagnostic Procedure.

2. SYSTEM BLOCK DIAGRAM

For system block diagram, refer to “System Block Diagram” in “COMBINATION METER (DIAGNOSTICS)” section. Ref. to COMBINATION METER (DIAGNOSTICS)>General Description>SYSTEM BLOCK DIAGRAM.

3. MODULE I/O SIGNAL

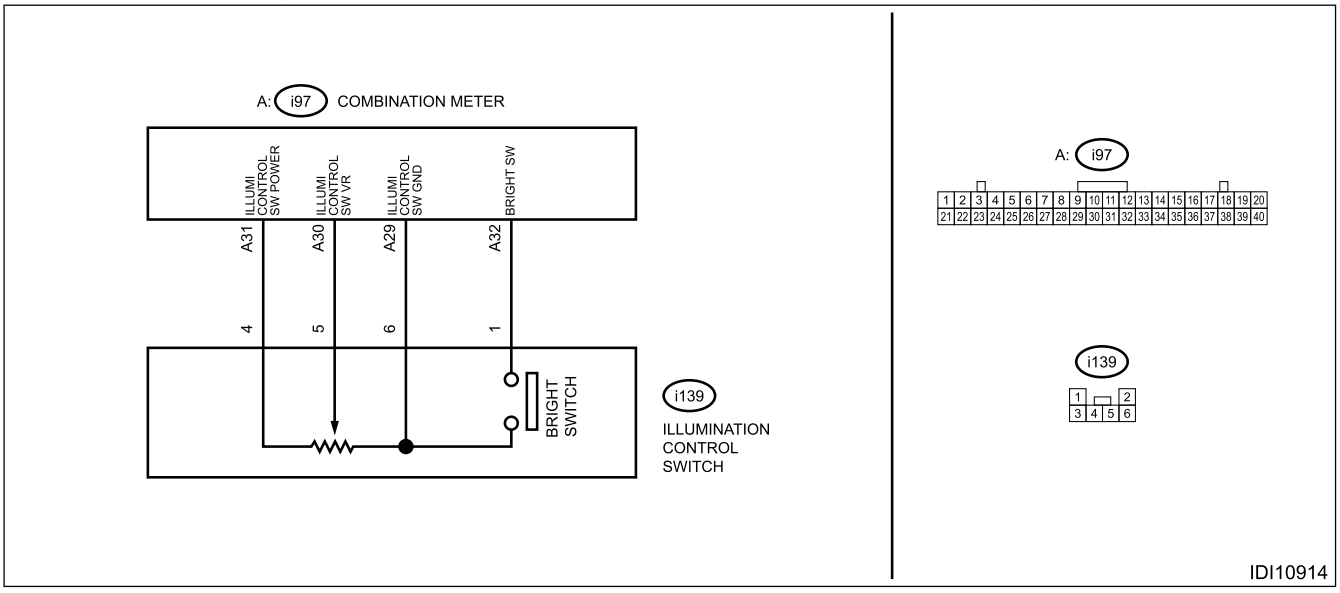
For the specification (electrical component), refer to “Control Module I/O Signal” of “COMBINATION METER (DIAGNOSTICS)” section. Ref. to COMBINATION METER (DIAGNOSTICS)>Control Module I/O Signal.

4. TROUBLE SYMPTOM

Illumination intensity does not change even when the illumination control switch is operated.

Wiring diagram:

Combination meter system Ref. to WIRING SYSTEM>Combination Meter System>WIRING DIAGRAM.



1. CHECK DATA MONITOR.

Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Combination Meter]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

- [Bright switch input state]
- [Illumination control switch input state]

Do the display change as [OFF] ⟷ [ON] and the value range from 0 to 100 when the bright switch and illumination control switch are operated?

Yes — Replace the combination meter assembly. Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.

No — Go to 2.

2. CHECK ILLUMINATION CONTROL SWITCH UNIT.

Check the illumination control switch. Ref. to INSTRUMENTATION/DRIVER INFO>Switches and Harness>INSPECTION > ILLUMINATION CONTROL SWITCH.

Is the switch normal?

Yes — Go to 3.

No — Replace the illumination control switch. Ref. to INSTRUMENTATION/DRIVER INFO>Switches and Harness.

3. CHECK HARNESS.

1. Disconnect the connectors of combination meter assembly and illumination control switch.
2. Measure the resistance between the combination meter assembly and the illumination control switch.

Connector & terminal

(i97) No. 29 — (i139) No. 6:
(i97) No. 30 — (i139) No. 5:
(i97) No. 31 — (i139) No. 4:
(i97) No. 32 — (i139) No. 1:

Is the resistance less than 1 Ω?

Yes	Replace the combination meter assembly. Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.
No	Repair or replace the defective part.

INSTRUMENTATION/DRIVER INFO > Combination Meter System

NOTE

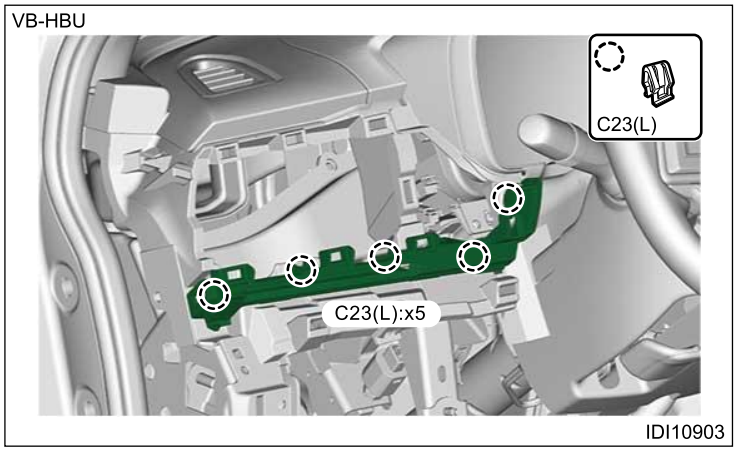
For procedure of components in the combination meter system, refer to the sections below.

- Combination meter assembly: Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.
- Switches and harness: Ref. to INSTRUMENTATION/DRIVER INFO>Switches and Harness.

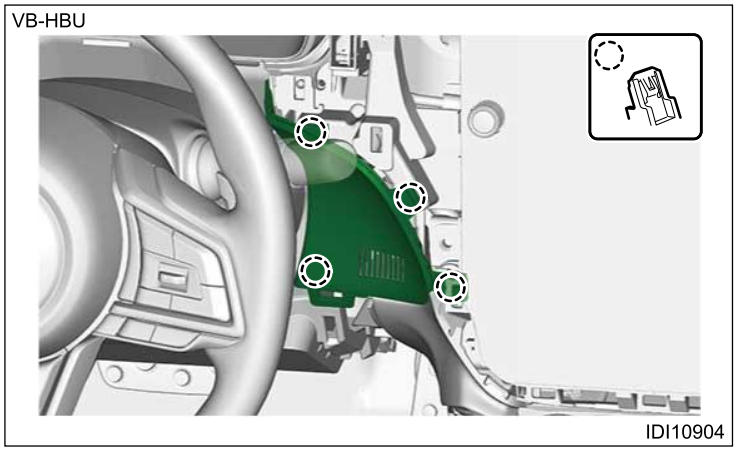
REMOVAL

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. When the combination meter assembly is replaced with a new part, perform the variant work. Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>REPLACEMENT > VARIANT WORK.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Release the lock, tilt the steering column to the lowest end and fully extend the column by the telescopic system.
4. Remove the cover assembly instrument panel side LH and the ornament panel mid driver assembly. Ref. to AIR CONDITIONER>Air Vent Grille>REMOVAL > SIDE GRILLE.
5. Remove the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.
6. Release the clips, and remove the light holder driver.



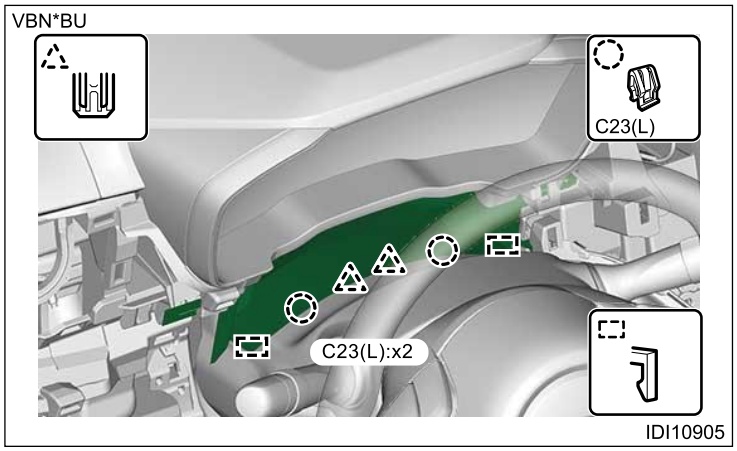
7. Remove the ornament panel mid passenger and panel assembly center. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>REMOVAL.
8. Remove the cover starter switch. (Model without push button ignition starter)



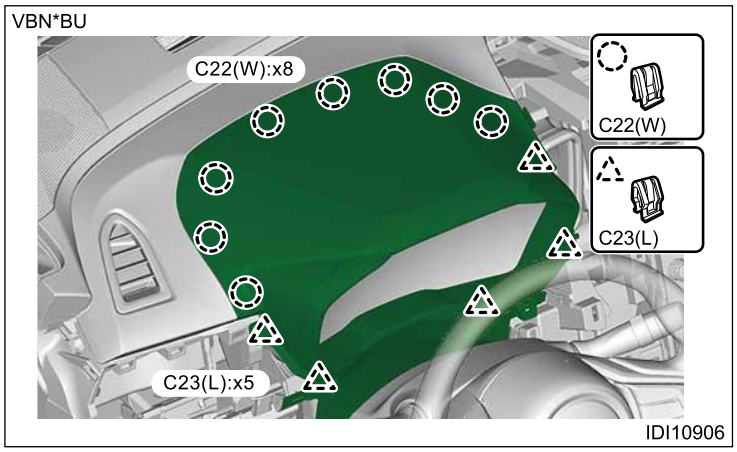
9. Remove the panel starter switch. (Model with push button ignition starter) Ref. to SECURITY AND LOCKS>Push Button Ignition Switch>REMOVAL.

10. Remove the visor assembly.

(1) Release the clips and claws of the cover steering UPR.



(2) Release the clips, and remove the visor assembly.

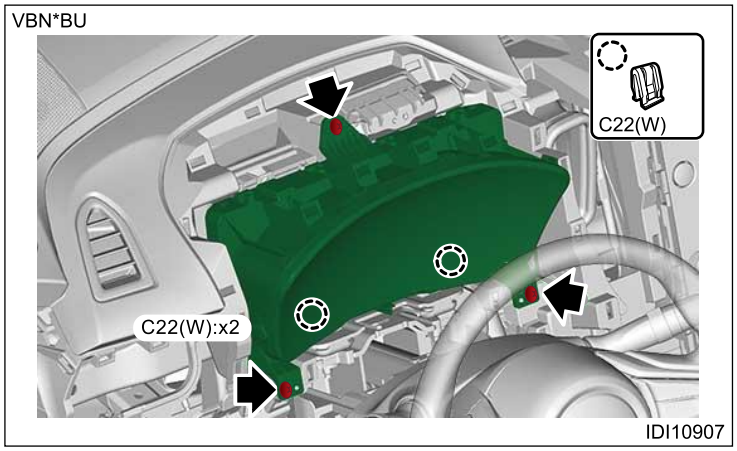


11. Remove the combination meter assembly.

Caution:

Be careful not to damage the meter glass or instrument panel.

(1) Release the screws and clips and pull out the combination meter assembly.



(2) Disconnect the connector and remove the combination meter assembly.

INSTRUMENTATION/DRIVER INFO > Combination Meter

INSTALLATION

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

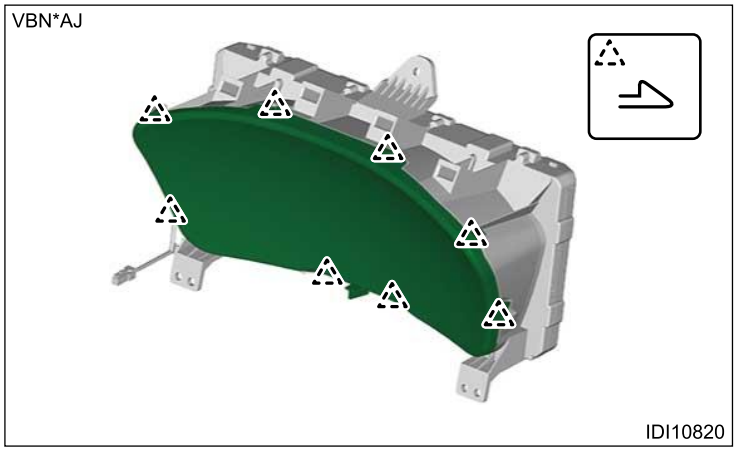
1. Connect the connector and install the combination meter assembly.
2. Install the visor assembly.
3. Install the panel starter switch. (Model with push button ignition starter) Ref. to SECURITY AND LOCKS>Push Button Ignition Switch>INSTALLATION.
4. Install the cover starter switch. (Model without push button ignition starter)
5. Install the panel assembly center and the ornament panel mid passenger. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>INSTALLATION.
6. Install the light holder driver.
7. Install the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.
8. Install the ornament panel mid driver assembly and cover assembly instrument panel side LH. Ref. to AIR CONDITIONER>Air Vent Grille>INSTALLATION > SIDE GRILLE.
9. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
10. When the combination meter assembly was replaced with a new part, perform the variant work. Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>REPLACEMENT > VARIANT WORK.

INSTRUMENTATION/DRIVER INFO > Combination Meter

DISASSEMBLY

Caution:
- **Use gloves to avoid damage and getting fingerprints on the glass surface and meter surfaces.**
- **Be sure not to touch the meter indicator needle.**
- **Because LED components are used for all of warning lights and indicator lights, they are not removable from the combination meter assembly.**

1. Release the claws, and then remove the glass combination meter.



INSTRUMENTATION/DRIVER INFO > Combination Meter

ASSEMBLY

Caution:

- **Use gloves to avoid damage and getting fingerprints on the glass surface and meter surfaces.**
- **Be sure not to touch the meter LCD.**

1. Install the glass combination meter.

REPLACEMENT

1. VARIANT WORK

Perform when replacing with a new combination meter assembly.

- When the combination meter before replacement can communicate with Subaru Select Monitor ([Read Control module setting information] is workable): Perform the operation procedure A.
- When the combination meter before replacement cannot communicate with Subaru Select Monitor ([Read Control module setting information] is not workable): Perform the operation procedure B.

Caution:
When incorrect information is written by [Reading and Writing of the ECU Configuration Information and Odometer Value], [Write ECU setting save data] and [Write ECU setting 12 columns of models], a new combination meter cannot be used because correct information is not displayed. Obtain another new combination meter and write information again.

Item		Contents
[Read Control module setting information]		Read the setting information from the combination meter before replacement, and save it to the Subaru Select Monitor.*1
[Write Control module setting information]	[Write ECU setting save data]	Write the setting information saved by [Read Control module setting information] to the new combination meter.*2
	[Write ECU setting 12 columns of models]	Using applied models and option codes, write the setting information to the new combination meter.*2
[Reading and Writing of the ECU Configuration Information and Odometer Value]		Read the setting information and odometer value from the combination meter before replacement, and write them to the new combination meter.

*1: Odometer value reading and storing are not possible

*2: Odometer value writing is not possible

OPERATION PROCEDURE A

Caution:
- **Use wire (USB cable) to connect to Subaru Select Monitor.**
- **Carry-over of the odometer value is possible only once. If failed, odometer carry-over cannot be performed anymore.**
- **When odometer value reading is performed, the odometer displays "------" and continued use of the combination meter assembly is impossible.**
- **When the power supply of the Subaru Select Monitor is turned OFF during work, the odometer value data is cleared and carry-over becomes impossible. Be careful of the state of power supply connection of Subaru Select Monitor.**

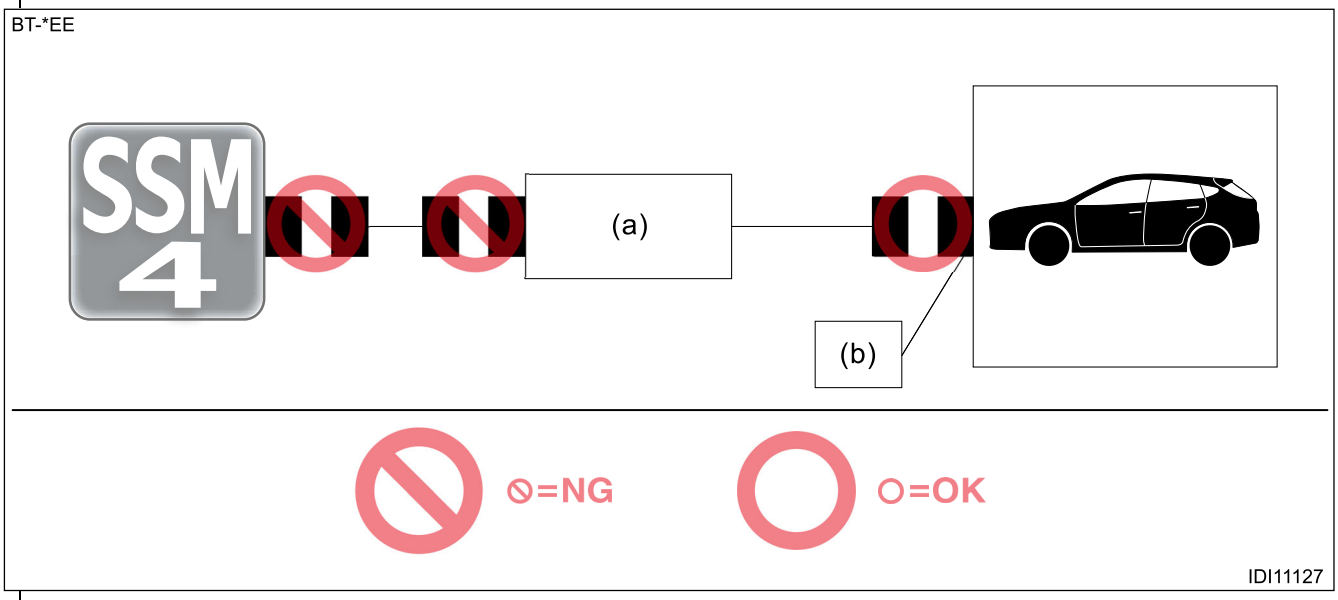
1. Read and store the setting information and odometer value.
(1) Connect the Subaru Select Monitor and then turn the ignition switch to ON.

(2) Select [Reading and Writing of the ECU Configuration Information and Odometer Value] on [Work Support] of Subaru Select Monitor. Ref. to COMMON (DIAGNOSTICS)>Work Support>OPERATION.
(3) Save under a new name according to the display screen.
(4) When [Do you read the Odometer Value? Odometer of the Meter is locked] is displayed, select the [YES] button.
(5) Confirm that [Read the Odometer Value] is displayed, and then turn the ignition switch to OFF.

2. Replace the combination meter assembly with a new part. Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.

Caution:
Do not perform the following. Otherwise, saved odometer values will be cleared.
- **Turn the power supply of Subaru Select Monitor to OFF.**
- **Disconnect the USB cable between Subaru Select Monitor and the interface for Subaru Select Monitor.**

Note:
The data link connector can be removed. If it is interfering with the work, move it outside the vehicle.



(a) Interface for Subaru Select Monitor (b) Data link connector

3. Write the setting information and odometer value.

Note:
When the odometer value writing operation is completed correctly, the odometer value is automatically cleared from the Subaru Select Monitor.

(1) [Did you replace the Meter?] is displayed. Select the [YES] button.
(2) When [Do you write Odometer Value?] is displayed, select the [YES] button.
(3) When [Completed the writing of Odometer Value. Write the ECU Configuration Information] is displayed, select the [OK] button.
(4) Select the file saved with [Reading and Writing of the ECU Configuration Information and Odometer Value], and click the [Execution] button.
(5) When [Write?] is displayed, select the [YES] button.

(6) Confirm that [Write operation was completed.] is displayed, and click the [OK] button.

4. Check if the combination meter assembly operates normally.

OPERATION PROCEDURE B

Note:
With [Write ECU setting 12 columns of models], carry-over of odometer value cannot be performed.

1. Replace the combination meter assembly with a new part. Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.
2. Write the vehicle data.
   (1) Connect the Subaru Select Monitor and then turn the ignition switch to ON.
   (2) Select [Write Control module setting information] on [Work Support] of Subaru Select Monitor. Ref. to COMMON (DIAGNOSTICS)>Work Support.
   (3) From the item list, select [Write ECU setting 12 columns of models]. Enter the applied model (7 digits) and click the [OK] button. Ref. to IDENTIFICATION > IDENTIFICATION NUMBER & LABEL LOCATIONS.
   (4) Enter the option code (4 digits) and click the [OK] button. Ref. to IDENTIFICATION > IDENTIFICATION NUMBER & LABEL LOCATIONS.
   (5) Confirm the vehicle information on [Write ECU setting 12 columns of models] screen, and click the [OK] button.
   (6) When [Write?] is displayed, select the [YES] button.
   (7) Confirm that [Write operation is complete.] is displayed, and click the [OK] button.
3. Check if the combination meter assembly operates normally.

INSTRUMENTATION/DRIVER INFO > Combination Meter

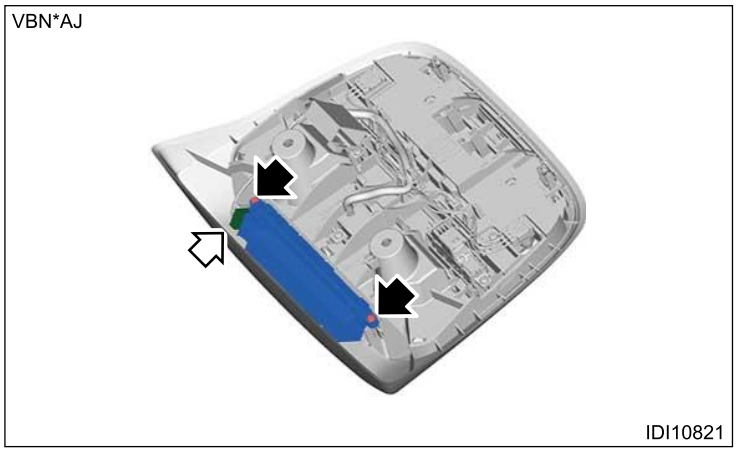
INSPECTION

1. Using the Subaru Select Monitor, perform [Buzzer Check] on [Active Test] of [Combination Meter]. Ref. to COMBINATION METER (DIAGNOSTICS)>Active Test.
2. If no buzzer sounds, replace the combination meter assembly.

INSTRUMENTATION/DRIVER INFO > Warning Box

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the light assembly map. Ref. to LIGHTING SYSTEM>Spot Map Light>REMOVAL.
3. Remove connector and screw, and remove the warning box.



INSTRUMENTATION/DRIVER INFO > Warning Box

INSTALLATION

Caution:
Make sure that each indicator operates normally.

1. Install the warning box and connect the connector.
2. Install the light assembly map. Ref. to LIGHTING SYSTEM>Spot Map Light>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

REMOVAL

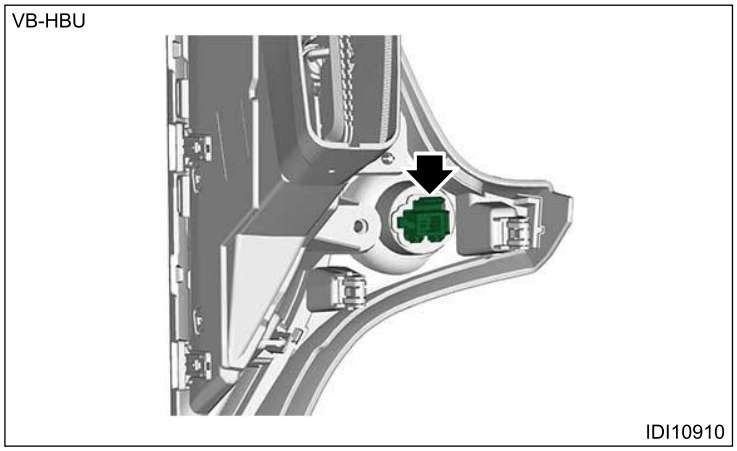
1. MULTI INFORMATION DISPLAY SWITCH

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Set the steering wheel to the straight-ahead position.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the driver's airbag module. Ref. to AIRBAG SYSTEM>Driver's Airbag Module>REMOVAL.
4. Remove the steering wheel assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Wheel>REMOVAL.
5. Remove the switch assembly steering (MID). Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Wheel>DISASSEMBLY.

2. TRIP RESET SWITCH

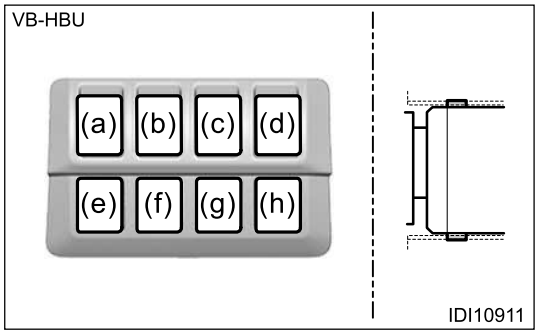
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the cover assembly instrument panel side RH and the panel assembly center. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>REMOVAL.
3. Release the claws, and remove the switch assembly meter.



3. ILLUMINATION CONTROL SWITCH

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

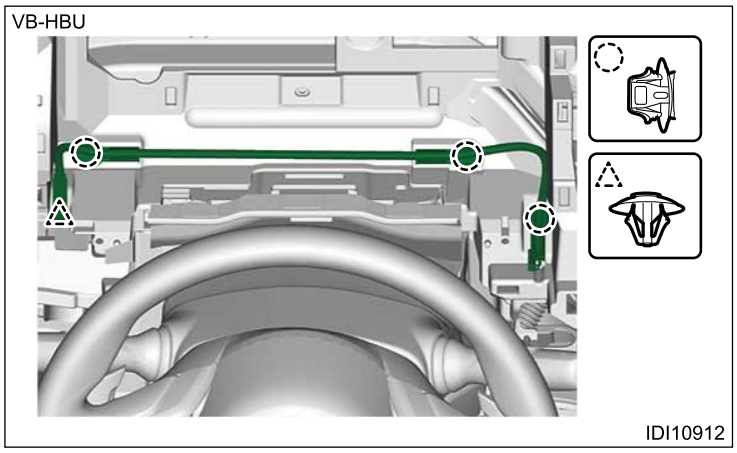
1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.
3. Release the claws and remove the illumination control switch (d).



4. METER CORD

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the combination meter assembly. Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>REMOVAL.
3. Release the clips, and remove the meter cord.



INSTRUMENTATION/DRIVER INFO > Switches and Harness

INSTALLATION

1. MULTI INFORMATION DISPLAY SWITCH

Caution:
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Install the switch assembly steering (MID). Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Wheel>ASSEMBLY.
2. Align the center position of the steering roll connector. Ref. to AIRBAG SYSTEM>Roll Connector>ADJUSTMENT.

3. Install the steering wheel assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Wheel>INSTALLATION.
4. Install the driver's airbag module. Ref. to AIRBAG SYSTEM>Driver's Airbag Module>INSTALLATION.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. TRIP RESET SWITCH

1. Install the switch assembly meter.
2. Install the panel assembly center and cover assembly instrument panel side RH. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

3. ILLUMINATION CONTROL SWITCH

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the illumination control switch.
2. Install the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

4. METER CORD

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

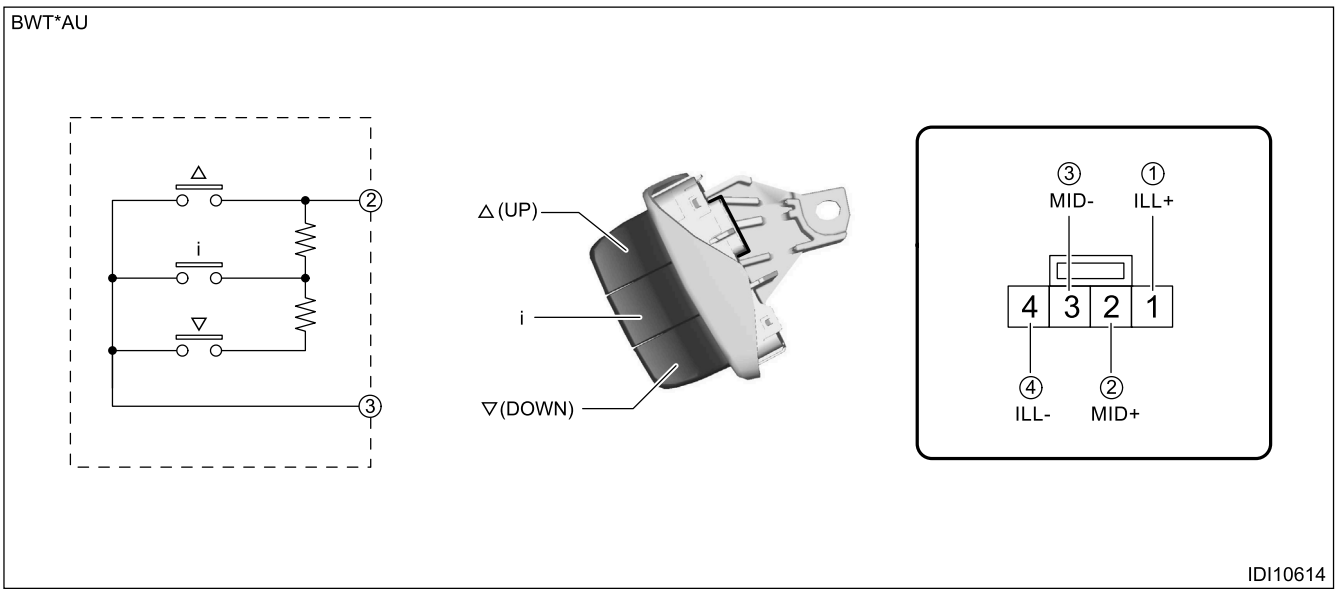
1. Install the meter cord.
2. Install the combination meter assembly. Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

INSTRUMENTATION/DRIVER INFO > Switches and Harness

INSPECTION

1. MULTI INFORMATION DISPLAY SWITCH

1. Measure the resistance between connector terminals.



Terminal No.	Inspection conditions		Standard
3 — 2	△ (UP) i ▽ (DOWN)	All OFF	Approx. 3 MΩ or more
	△ (UP)	ON	Less than 1 Ω
	i	ON	Approx. 1,000 Ω
	▽ (DOWN)	ON	Approx. 3,700 Ω

2. Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.

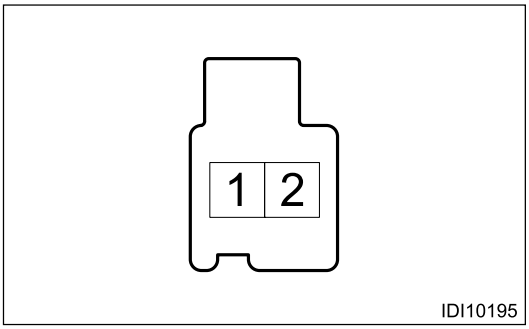
Caution:
When applying battery voltage, do not mix up the positive (+) side and the negative (−) side.
Incorrect polarity connection may cause LED damage inside the switch.

Terminal No.	Inspection conditions	Specification
1 (+) — 4 (−)	Apply battery voltage.	Light ON

3. Replace the switch assembly steering (MID) if it is found defective.

2. TRIP RESET SWITCH

1. Measure the resistance between connector terminals.

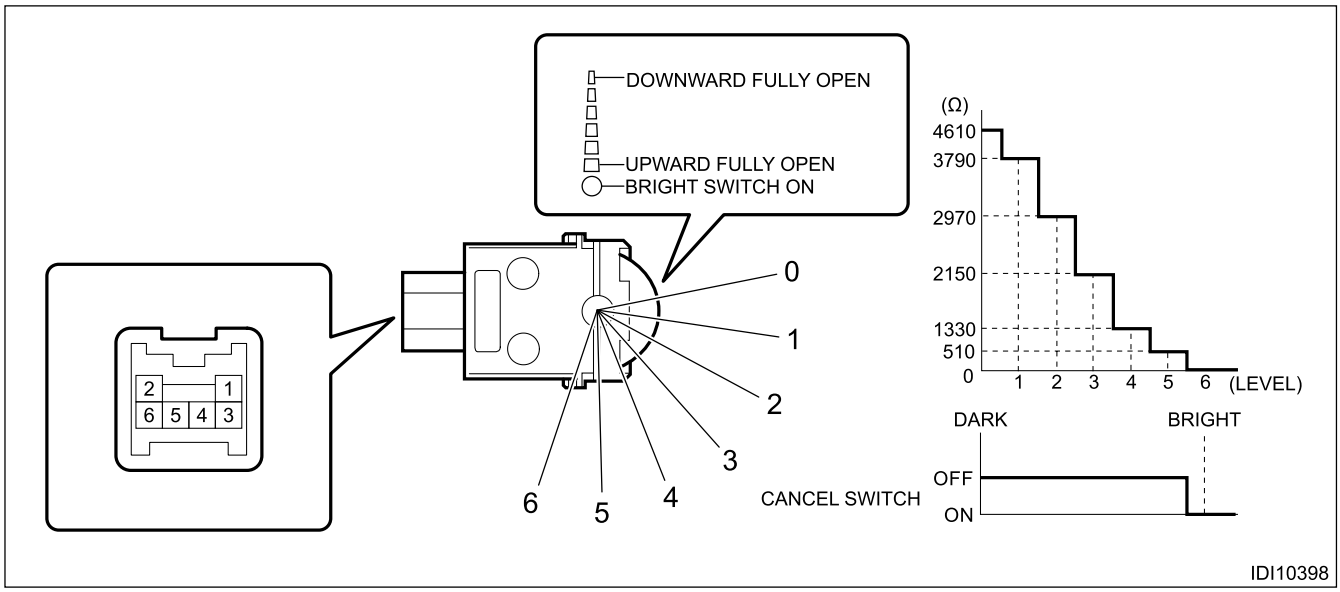


Terminal No.	Inspection conditions	Standard
1 — 2	Switch OFF	1 MΩ or more
	Switch ON	Less than 1 Ω

2. Replace the switch assembly meter if it is found defective.

3. ILLUMINATION CONTROL SWITCH

1. Measure the resistance between connector terminals.



Terminal No.	Inspection conditions	Standard
1 — 6	Bright switch OFF	1 MΩ or more
	Bright switch ON	Less than 1 Ω
4 — 6	Always	Approx. 4,710 Ω
5 — 6	Illumination control switch upward fully open	Approx. 510 Ω
	Illumination control switch downward fully open	Approx. 4,610 Ω

2. Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.

Caution:

When applying battery voltage, do not mix up the positive (+) side and the negative (−) side.

Incorrect polarity connection may cause LED damage inside the switch.

Terminal No.	Inspection conditions	Specification
2 (+) — 3 (−)	Apply battery voltage.	Light ON

3. Replace the illumination control switch if it is found defective.

SEATS

SE

1. General Description
2. Relay and Fuse
3. Front Seat
4. Rear Seat
5. Power Seat System
6. Power Seat
7. Seat Heater System
8. Seat Heater

SEATS > General Description

CAUTION

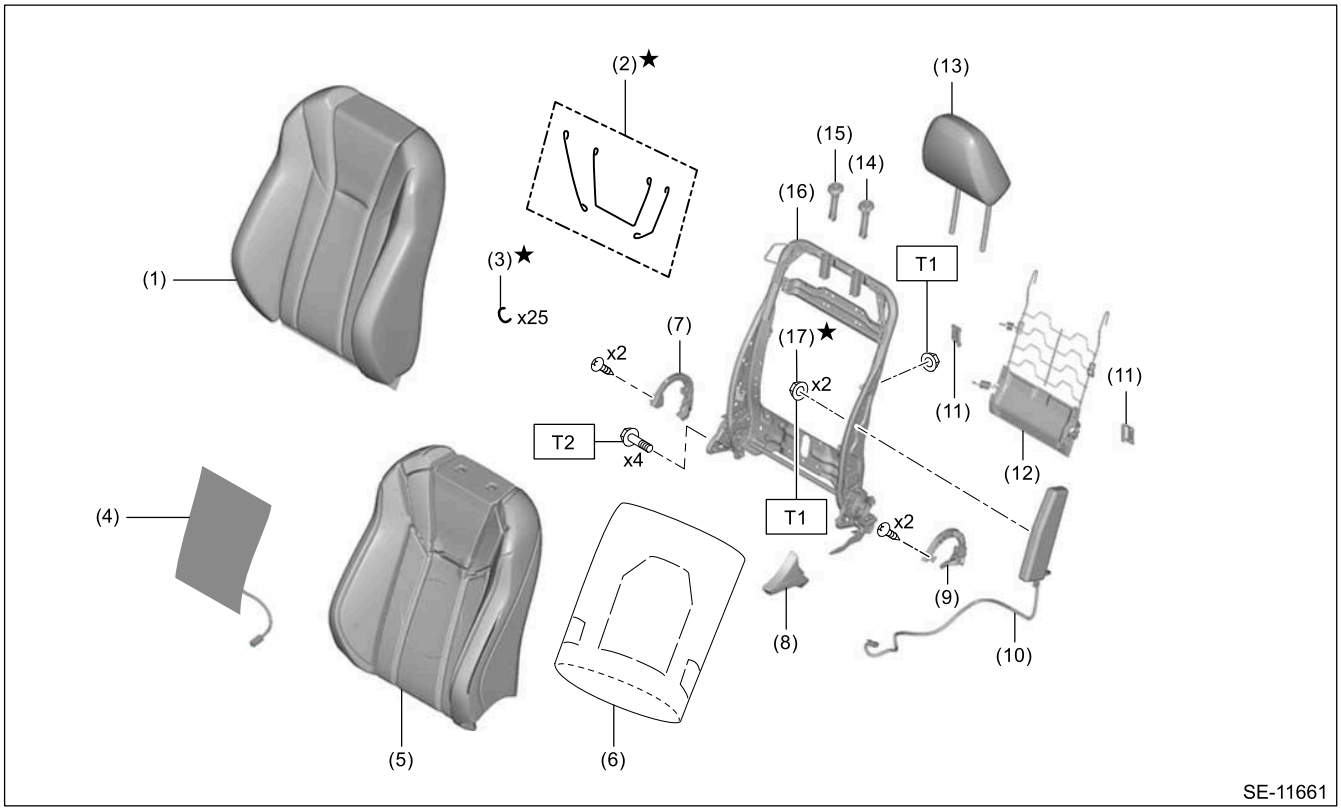
- When performing service operation, refer to “Repair Contents” in “General Description”. Ref. to REPAIR CONTENTS>Repair Contents.
- Refer to “CAUTION” of “General Description” in “AIRBAG SYSTEM” section. Ref. to AIRBAG SYSTEM>General Description>CAUTION.
- When performing work on the sensors or modules, be careful of the following.
  - Before disconnecting electrical connectors, be sure to disconnect the ground terminal from the battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
  - Do not apply any impact. If the parts are accidentally dropped, replace with a new part.
  - Do not expose to high-temperature and humidity.
- When replacing the parts provided with memory functions, record the memory contents before disconnecting the ground terminal from the battery sensor.
- Be careful not to damage the vehicle when taking out the seat from the vehicle.
- Before assembling, make sure how the harnesses such as side airbag harness and front seat belt INN harness are routed in order to avoid misarranging. Assembling with harnesses improperly routed may cause the harness to get caught and short out.
- When disassembling the passenger’s seat, be careful of the following.
  - Do not remove the load sensor from the passenger’s seat cushion frame assembly. It is fixed to the cushion frame assembly.
  - When the cushion frame assembly of the passenger’s seat is replaced, do not touch the load sensor. Failure to do so may electrically impair it.

SEATS > General Description

COMPONENT

1. FRONT SEAT

- **DRIVER’S SEAT**
  - Manual seat

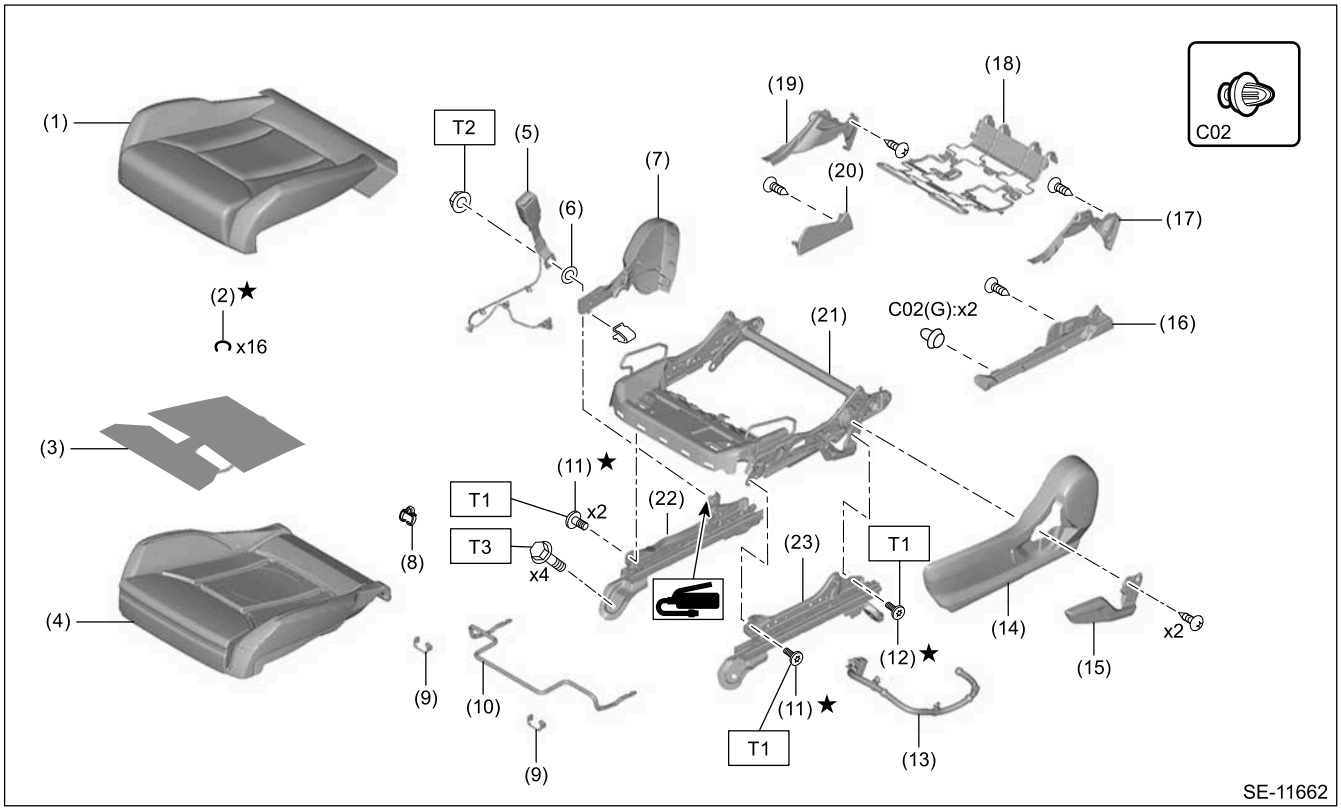


(1) Cover backrest front seat
(2) Wire set backrest front seat
(3) Hog ring
(4) Seat heater unit backrest
(5) Seat pad ASSY backrest
(6) Cover silencer
(7) Hinge base cover inside
(8) Knob hinge reclining
(9) Hinge base cover outside
(10) Side airbag module
(11) Protector spring
(12) Flat mat & hook spring ASSY
(13) Headrest ASSY
(14) Bushing headrest lock
(15) Bushing headrest free
(16) Seat frame ASSY backrest
(17) Self-locking nut

Tightening torque: N·m (kgf-m, ft-lb)

T1: 6 (0.6, 4.4)

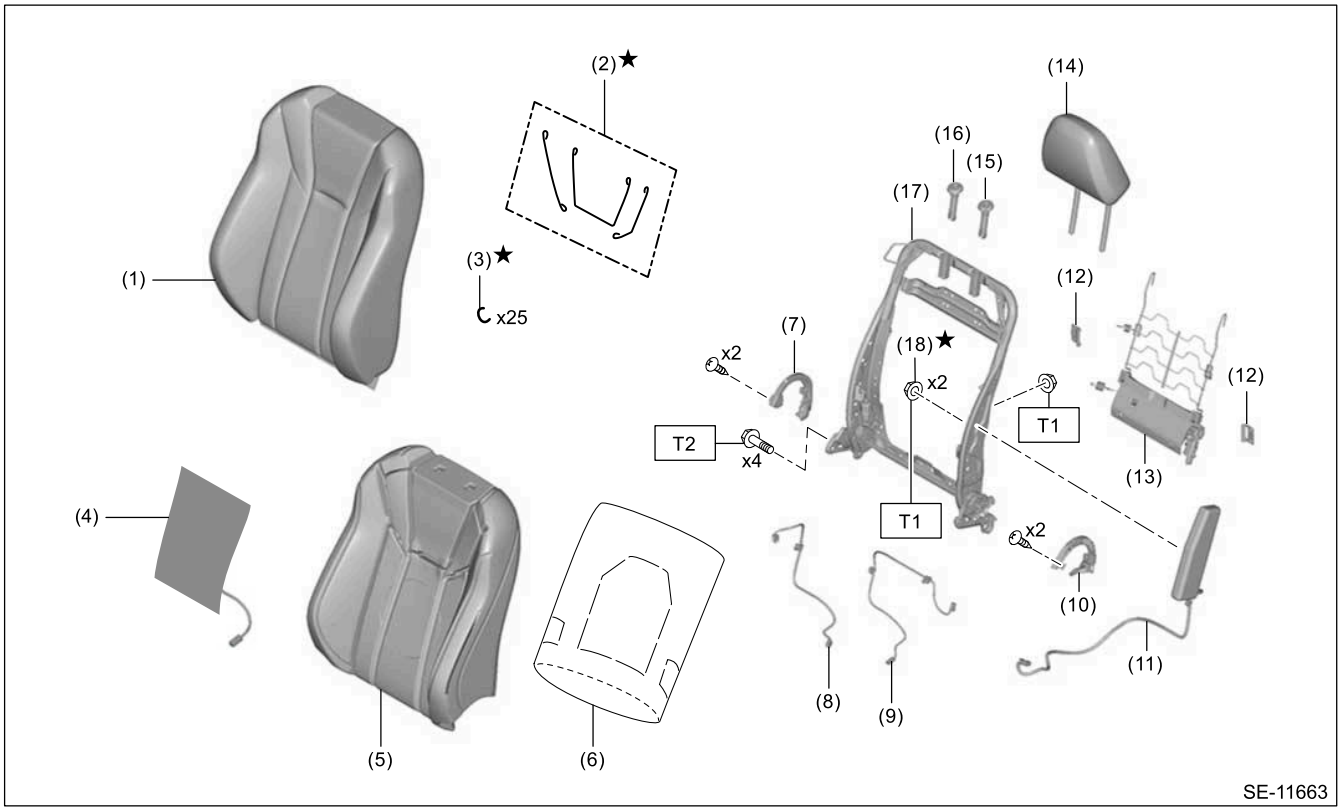
T2: Ref. to SEATS>Front Seat>ASSEMBLY > SEAT COMMON OPERATION PROCEDURE.



(1) Cover cushion front seat	(11) TORX® bolt	(21) Seat frame ASSY cushion
(2) Hog ring	(12) TORX® bolt	(22) Slide rail ASSY INN
(3) Seat heater unit cushion	(13) Harness ASSY cushion	(23) Slide rail ASSY OUT
(4) Seat pad ASSY cushion	(14) Cover hinge outside	
(5) Belt ASSY front INN*	(15) Lever lifter	***Tightening torque: N·m (kgf-m, ft-lb)***
(6) Spring wave washer	(16) Cover riser BRKT INN	***T1: 17.6 (1.8, 13.0)***
(7) Cover hinge inside	(17) Cover INN cushion outside	***T2: 38 (3.9, 28.0)***
(8) Harness clip	(18) Panel front wire	***T3: Ref. to SEATS>Front Seat>INSTALLATION.***
(9) Cap end	(19) Cover INN cushion inside	
(10) Lever towel bar	(20) Cover riser link	

*: Apply grease when replacing the belt assembly front INN. Ref. to SEAT BELT SYSTEM>Front Seat Belt>INSTALLATION > BELT ASSEMBLY FRONT INN.

– Power seat

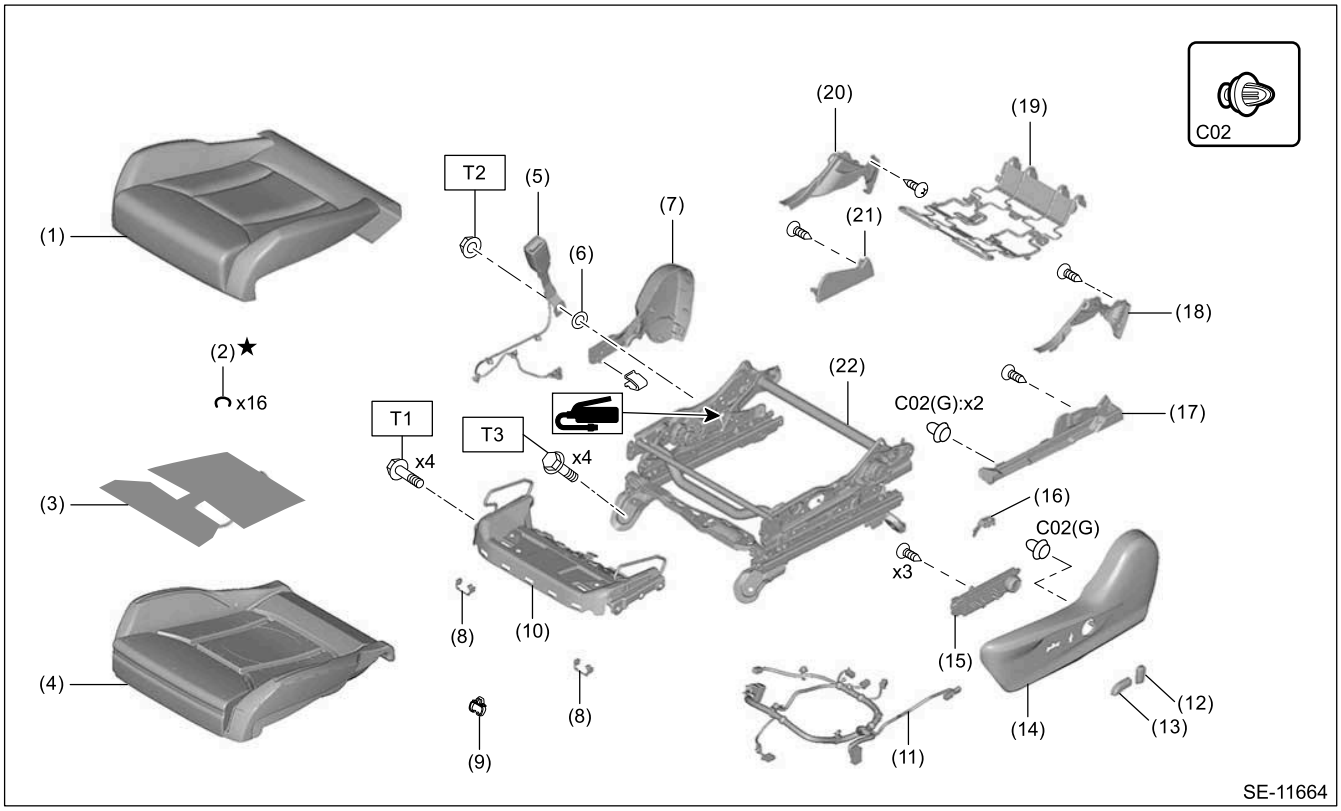


(1) Cover backrest front seat
(2) Wire set backrest front seat
(3) Hog ring
(4) Seat heater unit backrest
(5) Seat pad ASSY backrest
(6) Cover silencer
(7) Hinge base cover inside
(8) Harness ASSY backrest
(9) Harness ASSY backrest
(10) Hinge base cover outside
(11) Side airbag module
(12) Protector spring
(13) Flat mat & hook spring ASSY
(14) Headrest ASSY
(15) Bushing headrest lock
(16) Bushing headrest free
(17) Seat frame ASSY backrest
(18) Self-locking nut

Tightening torque: N·m (kgf-m, ft-lb)

T1: 6 (0.6, 4.4)

T2: Ref. to SEATS>Front Seat>ASSEMBLY > SEAT COMMON OPERATION PROCEDURE.



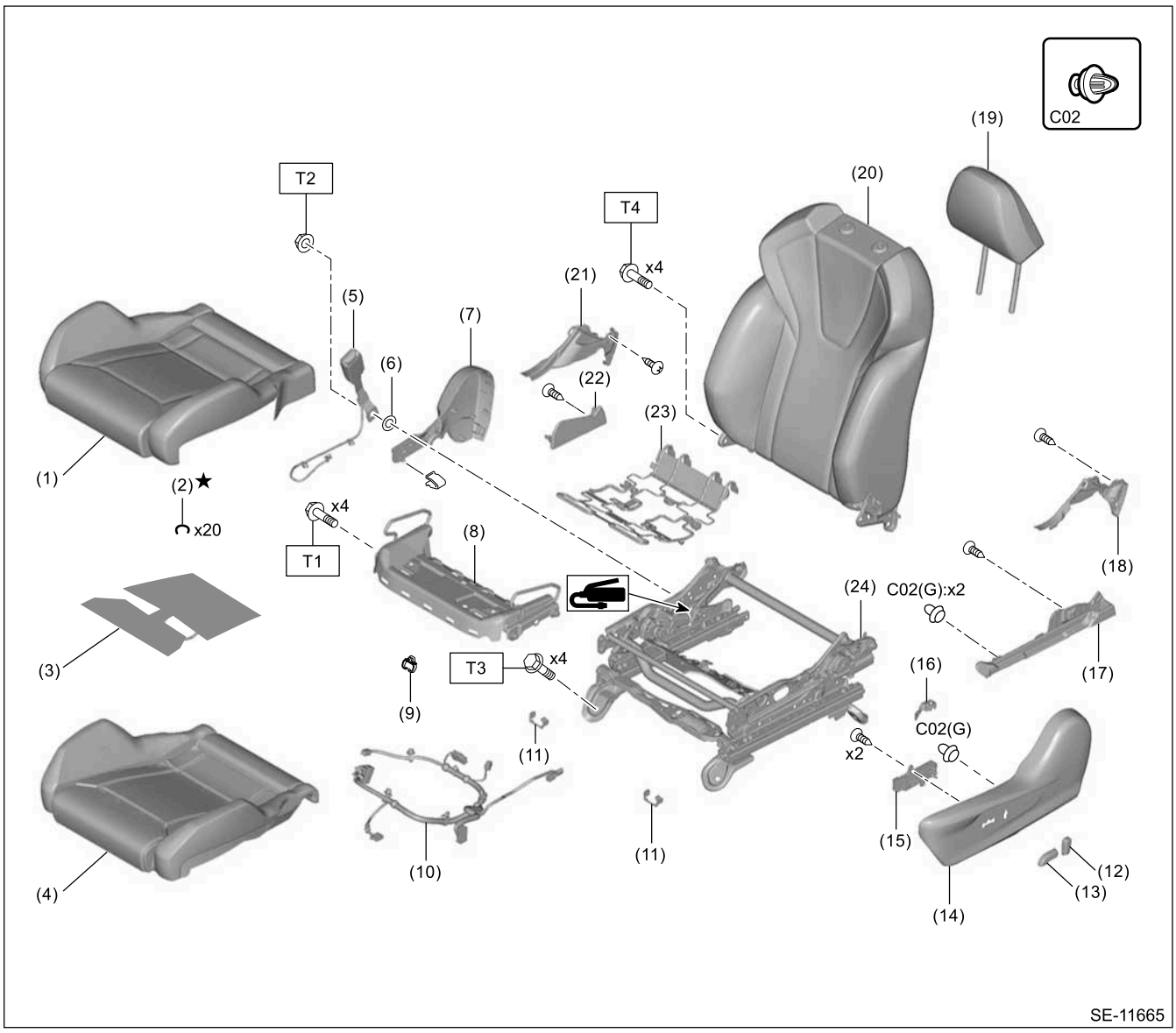
(1) Cover cushion front seat
(2) Hog ring
(3) Seat heater unit cushion
(4) Seat pad ASSY cushion
(5) Belt ASSY front INN*
(6) Spring wave washer
(7) Cover hinge inside
(8) Cap end
(9) Harness clip
(10) Panel ASSY cushion
(11) Harness ASSY cushion
(12) Knob power seat
(13) Knob power seat
(14) Cover hinge outside
(15) Switch ASSY power seat
(16) Cover bracket
(17) Cover riser BRKT INN
(18) Cover INN cushion outside
(19) Panel front wire
(20) Cover INN cushion inside
(21) Cover riser link
(22) Seat frame ASSY cushion

Tightening torque: N·m (kgf-m, ft-lb)

T1: 15 (1.5, 11.1)
T2: 38 (3.9, 28.0)
T3: Ref. to SEATS>Front Seat>INSTALLATION.

*: Apply grease when replacing the belt assembly front INN. Ref. to SEAT BELT SYSTEM>Front Seat Belt>INSTALLATION > BELT ASSEMBLY FRONT INN.

– RECARO® seat



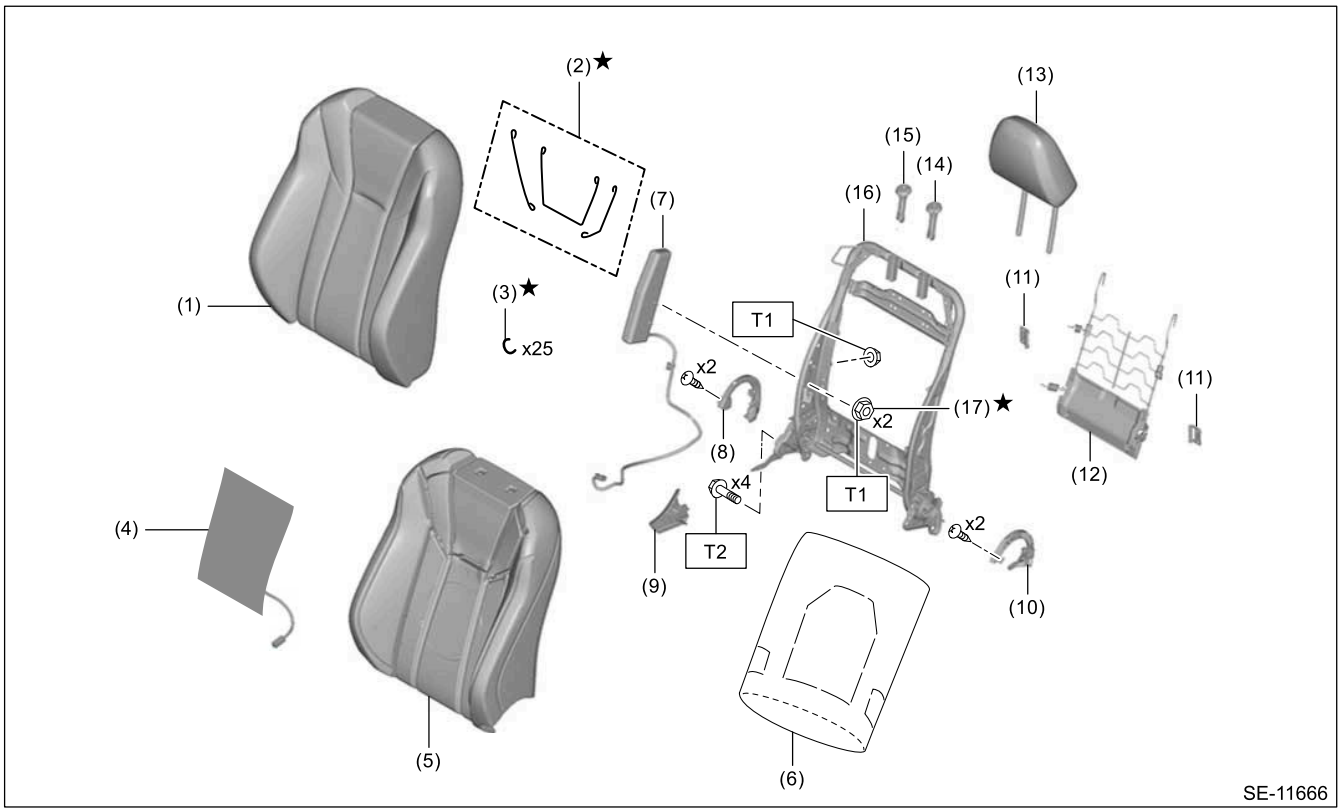
(1) Cushion ASSY front seat
(2) Hog ring
(3) Seat heater unit cushion
(4) Seat pad ASSY cushion
(5) Belt ASSY front INN
(6) Spring wave washer
(7) Cover hinge inside
(8) Panel ASSY cushion
(9) Harness clip
(10) Harness ASSY cushion
(11) Cap end
(12) Knob power seat
(13) Knob power seat
(14) Cover hinge outside
(15) Switch ASSY power seat
(16) Cover bracket
(17) Cover riser BRKT INN
(18) Cover INN cushion outside
(19) Headrest ASSY
(20) Backrest ASSY front seat
(21) Cover INN cushion inside
(22) Cover riser link
(23) Panel front wire
(24) Seat frame ASSY cushion

Tightening torque: N·m (kgf-m, ft-lb)

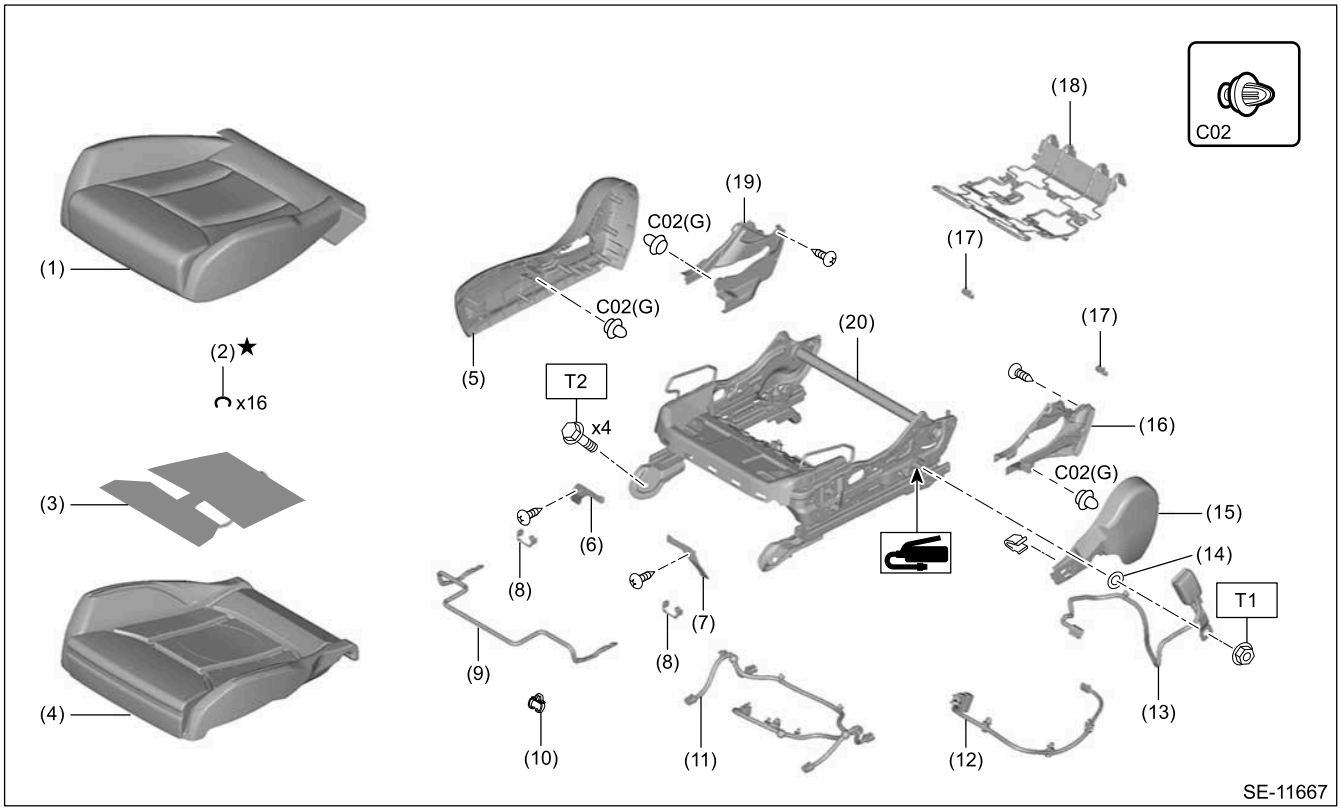
T1: 15 (1.5, 11.1)
T2: 38 (3.9, 28.0)
T3: Ref. to SEATS>Front Seat>INSTALLATION.
T4: Ref. to SEATS>Front Seat>ASSEMBLY > SEAT COMMON OPERATION PROCEDURE.

*: Apply grease when replacing the belt assembly front INN. Ref. to SEAT BELT SYSTEM>Front Seat Belt>INSTALLATION > BELT ASSEMBLY FRONT INN.

- **PASSENGER'S SEAT**
  - Manual seat



(1) Cover backrest front seat	(8) Hinge base cover outside	(15) Bushing headrest free
(2) Wire set backrest front seat	(9) Knob hinge reclining	(16) Seat frame ASSY backrest
(3) Hog ring	(10) Hinge base cover inside	(17) Self-locking nut
(4) Seat heater unit backrest	(11) Protector spring	
(5) Seat pad ASSY backrest	(12) Flat mat & hook spring ASSY	***Tightening torque: N·m (kgf-m, ft-lb)***
(6) Cover silencer	(13) Headrest ASSY	***T1: 6 (0.6, 4.4)***
(7) Side airbag module	(14) Bushing headrest lock	***T2: Ref. to SEATS>Front Seat>ASSEMBLY > SEAT COMMON OPERATION PROCEDURE.***



(1) Cover cushion front seat
(2) Hog ring
(3) Seat heater unit cushion
(4) Seat pad ASSY cushion
(5) Cover hinge outside
(6) Cover edge cushion RH
(7) Cover edge cushion LH
(8) Cap end
(9) Lever towel bar
(10) Harness clip
(11) Harness ASSY cushion
(12) Harness ASSY cushion
(13) Belt ASSY front INN*
(14) Spring wave washer
(15) Cover hinge inside
(16) Cover INN cushion inside
(17) Cap end
(18) Panel front wire
(19) Cover INN cushion outside
(20) Seat frame ASSY cushion

Tightening torque: N·m (kgf-m, ft-lb)

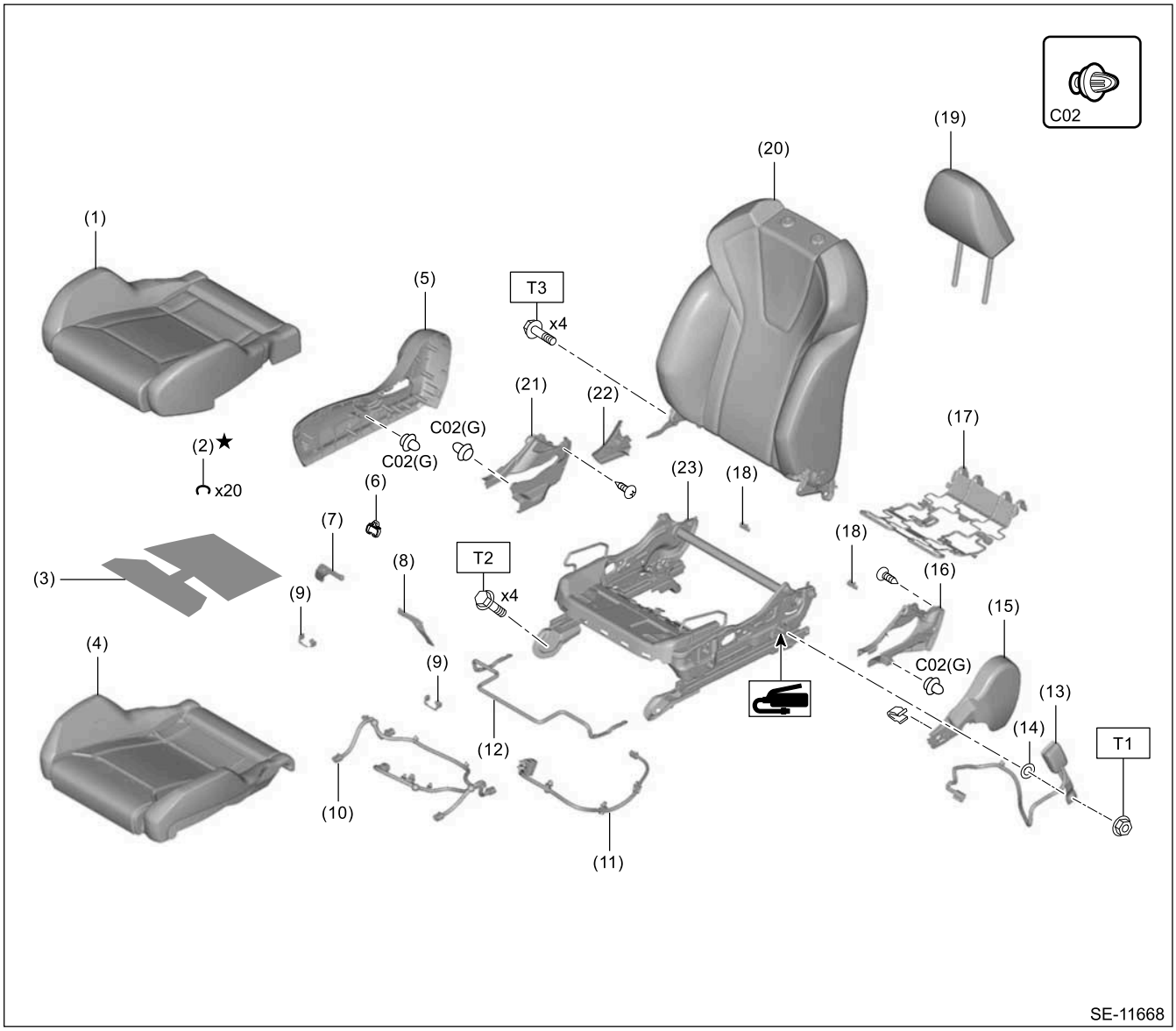
T1: 38 (3.9, 28.0)

T2: Ref. to SEATS>Front Seat>INSTALLATION.

*: Apply grease when replacing the belt assembly front INN. Ref. to SEAT BELT SYSTEM>Front Seat Belt>INSTALLATION > BELT ASSEMBLY FRONT INN.

Note:
The load sensor is integrated into the seat frame assembly cushion.

– RECARO® seat



(1) Cushion ASSY front seat
(2) Hog ring
(3) Seat heater unit cushion
(4) Seat pad ASSY cushion
(5) Hinge base cover outside
(6) Harness clip
(7) Cover edge cushion RH
(8) Cover edge cushion LH
(9) Cap end
(10) Harness ASSY cushion
(11) Harness ASSY cushion
(12) Lever towel bar
(13) Belt ASSY front INN*
(14) Spring wave washer
(15) Hinge base cover inside
(16) Cover INN cushion inside
(17) Panel front wire
(18) Cap end
(19) Headrest ASSY
(20) Backrest ASSY front seat
(21) Cover INN cushion outside
(22) Knob hinge reclining
(23) Seat frame ASSY cushion

Tightening torque: N·m (kgf-m, ft-lb)

T1: 38 (3.9, 28.0)

T2: Ref. to SEATS>Front Seat>INSTALLATION.

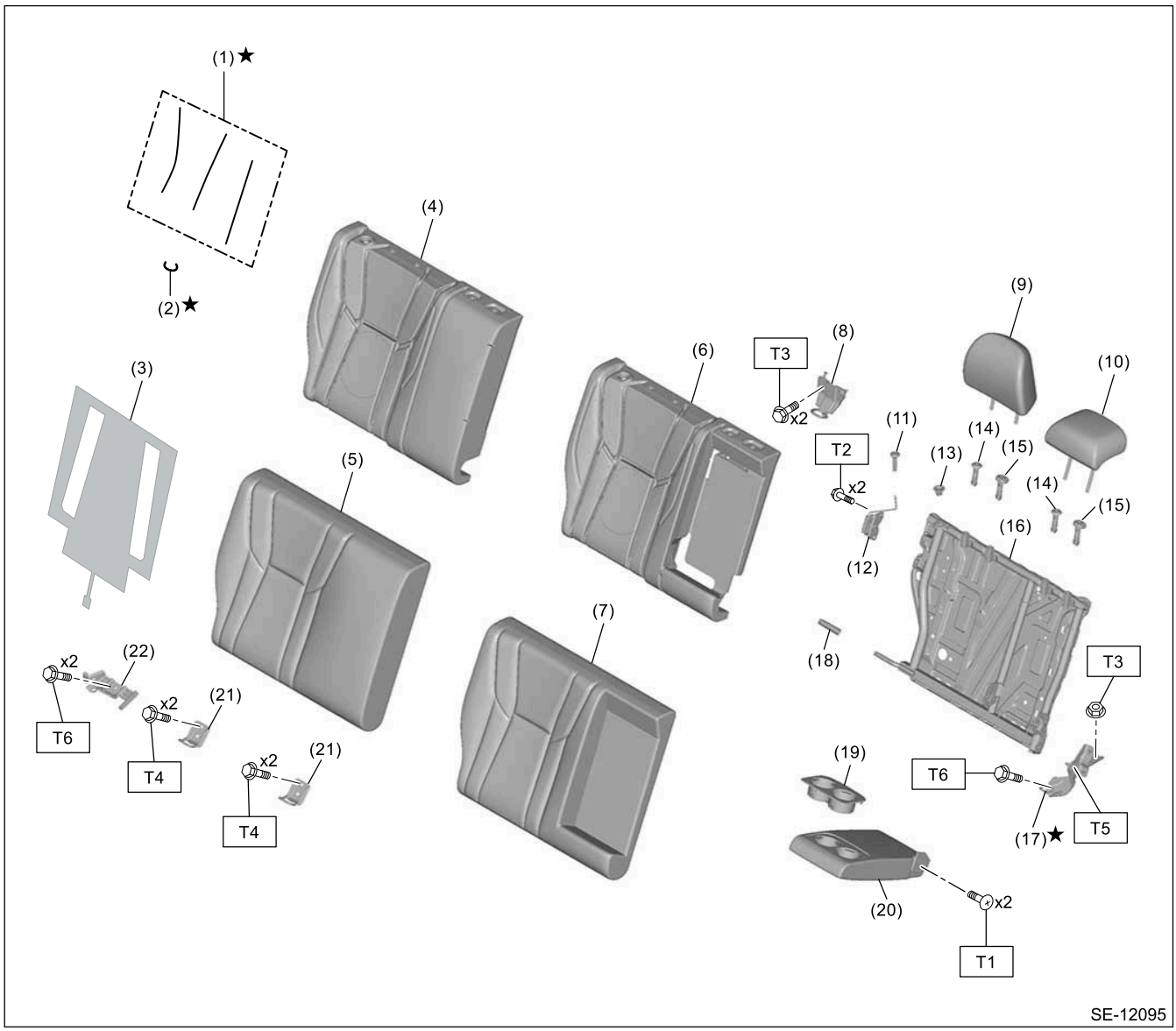
T3: Ref. to SEATS>Front Seat>ASSEMBLY > SEAT COMMON OPERATION PROCEDURE.

*: Apply grease when replacing the belt assembly front INN. Ref. to SEAT BELT SYSTEM>Front Seat Belt>INSTALLATION > BELT ASSEMBLY FRONT INN.

Note:

The load sensor is integrated into the seat frame assembly cushion.

2. REAR SEAT



(1) Wire set backrest rear seat
(2) Hog ring*
(3) Seat heater unit rear backrest (model with rear seat heater)
(4) Cover backrest rear seat RH (model without armrest)
(5) Seat pad ASSY rear backrest RH (model without armrest)
(6) Cover backrest rear seat RH (model with armrest)
(7) Seat pad ASSY rear backrest RH (model with armrest)
(8) Striker backrest RH
(11) Knob rear backrest
(12) Lock ASSY RH
(13) Knob guide
(14) Bushing headrest free
(15) Bushing headrest lock
(16) Frame ASSY rear backrest RH
(17) Hinge ASSY rear seat
(18) Bushing side hinge
(21) Plate anchor LWR
(22) Hook BRKT rear seat cushion RH

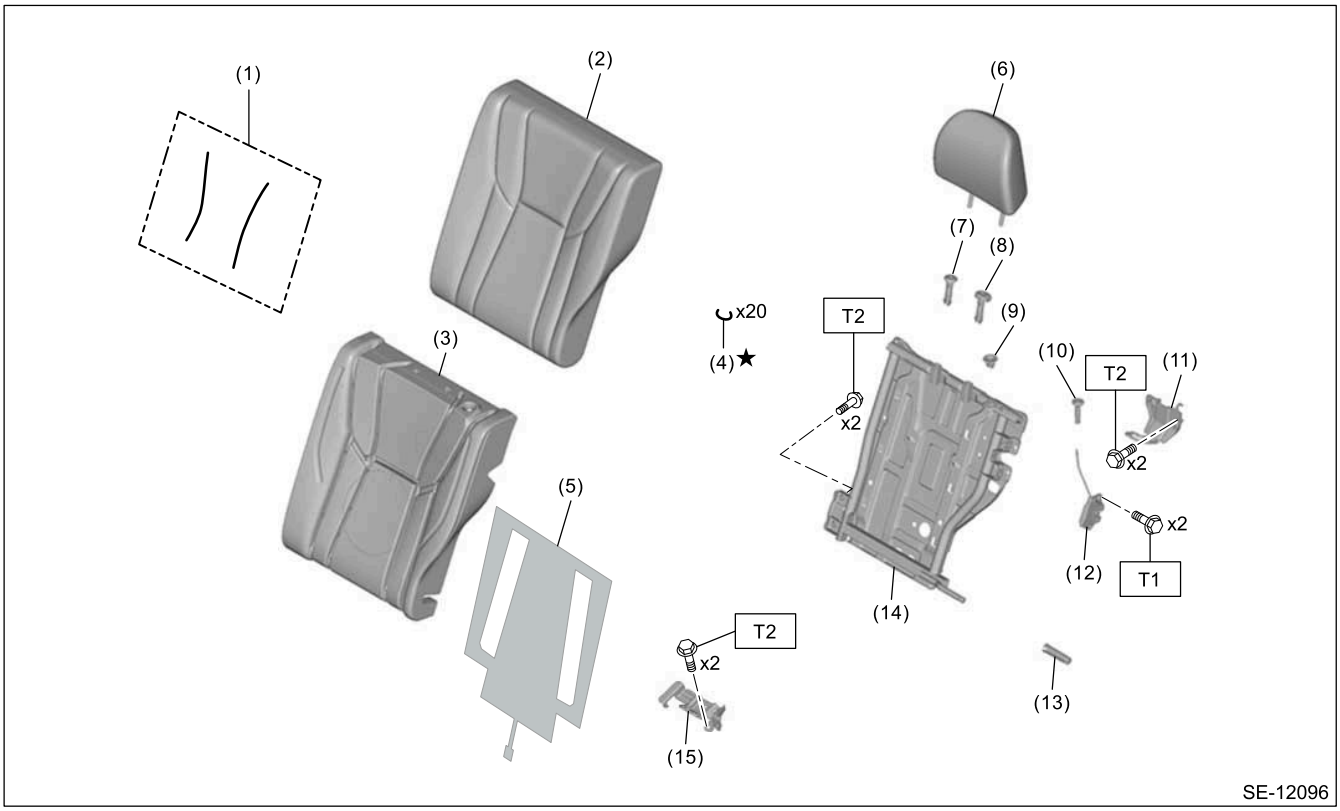
Tightening torque: N·m (kgf-m, ft-lb)

T1: 14.6 (1.5, 10.8)
T3: 18 (1.8, 13.3)
T3: 24.5 (2.5, 18.1)
T4: 25 (2.5, 18.4)

(9) Headrest ASSY rear
(10) Headrest ASSY rear CTR
(19) Cup holder rear seat
(20) Armrest ASSY rear seat

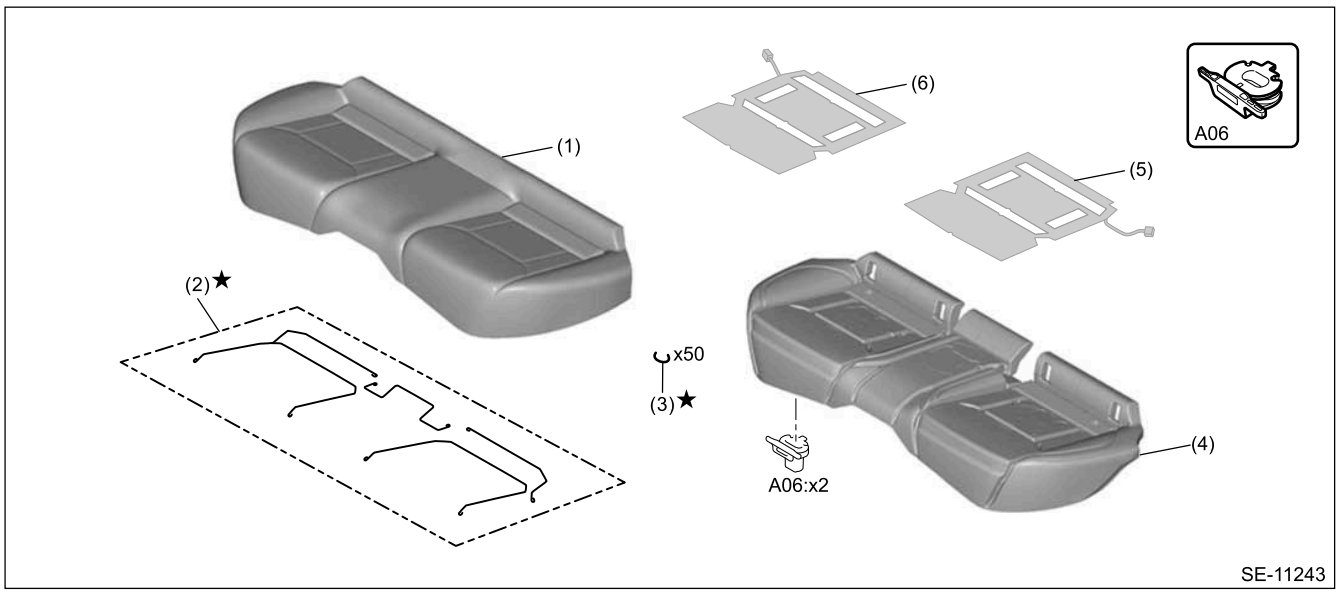
T5: 29 (3.0, 21.4)
T6: 33 (3.4, 24.3)

*: 20 pieces for model without armrest, and 22 pieces for model with armrest



(1) Wire set backrest rear seat
(2) Cover backrest rear seat LH
(3) Seat pad ASSY rear backrest LH
(4) Hog ring
(5) Seat heater unit rear backrest (model with rear seat heater)
(6) Headrest ASSY rear
(7) Bushing headrest free
(8) Bushing headrest lock
(9) Knob guide
(10) Knob rear backrest
(11) Striker backrest LH
(12) Lock ASSY LH
(13) Bushing side hinge
(14) Frame ASSY rear backrest LH
(15) Hook BRKT rear seat cushion LH

Tightening torque: N·m (kgf-m, ft-lb)
T1: 18 (1.8, 13.3)
T2: 33 (3.4, 24.3)



(1) Cover cushion rear seat	(3) Hog ring	(5) Seat heater unit rear cushion LH (model with rear seat heater)
(2) Wire set cushion rear seat	(4) Pad & frame ASSY rear cushion	(6) Seat heater unit rear cushion RH (model with rear seat heater)

Note:
The seating sensor mat is integrated into the pad & frame assembly rear cushion.

SEATS > General Description

PREPARATION TOOL

1. SUBARU SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
STSSM4	—	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. **Note:** • **For detailed operation procedures, refer to "Help" of application.** • **Used together with interface for Subaru Select Monitor (such as DST-i and DST-010).**

2. OTHER

	Remarks
Hog ring pliers	Used for installing the hog ring.

	Remarks
TORX® T40	Used for installing and removing the striker assembly adjuster and the slide rail.
Circuit tester	Used for measuring resistance, voltage and current.

SEATS > Relay and Fuse

LOCATION

For the location, refer to "FUSE AND RELAY" in the wiring diagram. Ref. to WIRING SYSTEM>Fuse And Relay.

Note:
For details of relay and fuse, refer to "DC POWER SUPPLY CIRCUIT". Ref. to WIRING SYSTEM>Power Supply Circuit.

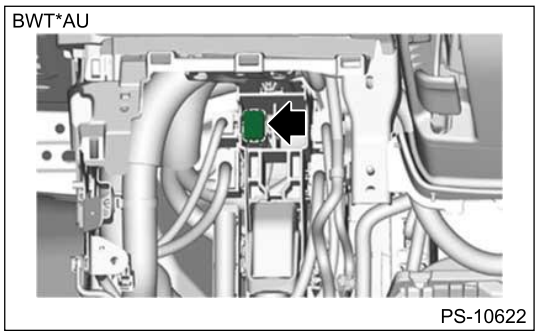
SEATS > Relay and Fuse

REMOVAL

1. ACCESSORY RELAY

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.
3. Remove the knee airbag module. Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.
4. Remove the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit>REMOVAL.
5. Remove the accessory relay.



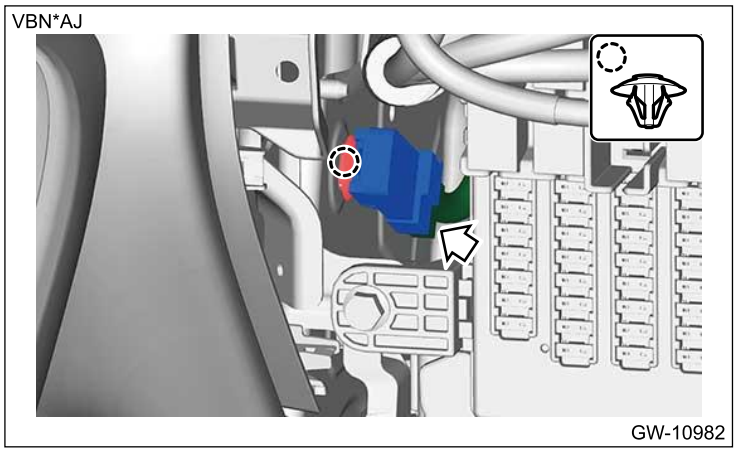
2. CIRCUIT BREAKER

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.
3. Remove the circuit breaker.
   (1) Disconnect the connector.

(2) Release the clip, and remove the circuit breaker.

Caution:
Be careful not to apply excessive force when pulling the clip, as the clip may become damaged.



SEATS > Relay and Fuse

INSTALLATION

1. ACCESSORY RELAY

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the accessory relay.
2. Install the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit>INSTALLATION.
3. Install the knee airbag module. Ref. to AIRBAG SYSTEM>Knee Airbag Module>INSTALLATION.
4. Install the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. CIRCUIT BREAKER

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the circuit breaker and connect the connector.
2. Install the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

SEATS > Relay and Fuse

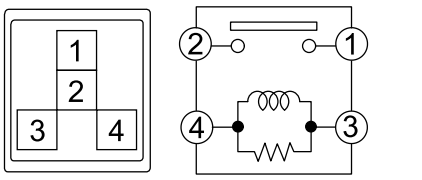
INSPECTION

1. CHECK FUSE

1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

2. CHECK RELAY

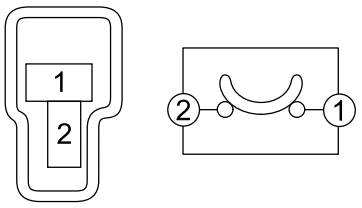
1. Check the resistance between relay terminals.

Terminal No.	Inspection conditions	Standard	Circuit
2 — 1	Always	1 MΩ or more	 SE-10662
2 — 1	Apply battery voltage between terminals 4 and 3.	Less than 1 Ω	

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

3. CHECK CIRCUIT BREAKER

1. Check the continuity between the circuit breaker terminals.

Terminal No.	Inspection conditions	Specification	Circuit
1 — 2	Always	Continuity exists	 GW-10954

2. Replace the circuit breaker if it is found defective.

REMOVAL

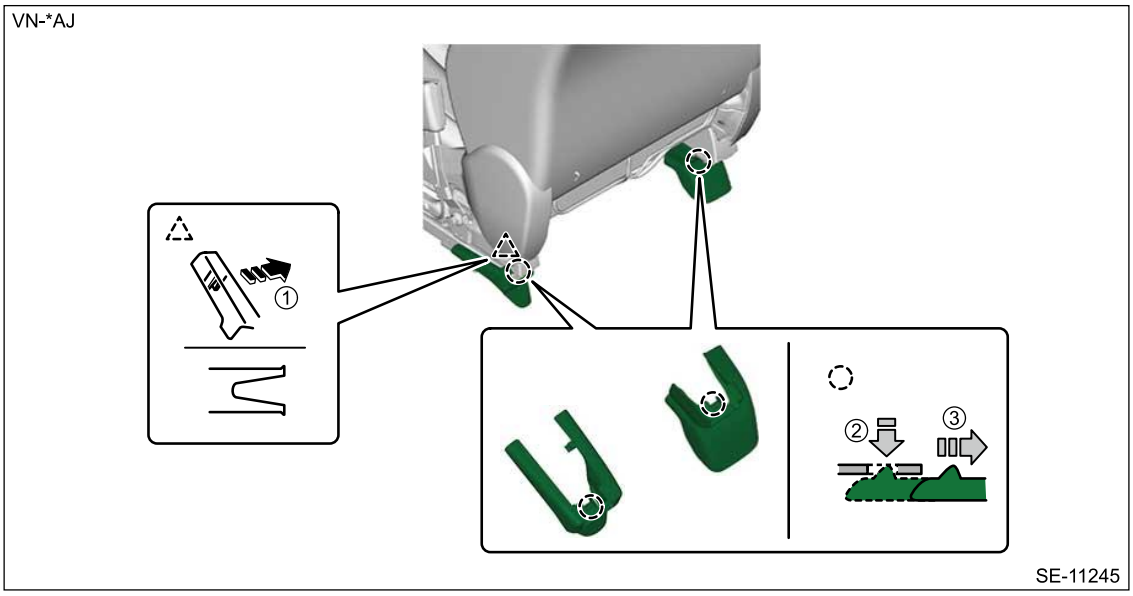
Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Remove the headrest assembly.
2. Remove the slide rail assembly installing bolt.

Caution:
Use a suitable tool for the front seat mounting bolt. As low head bolts are used, the bolts may be damaged.

(1) Tilt the backrest assembly forward and move the front seat to the front most position.
(2) Remove the cover bolt rear, and remove the bolts in order from (1) to (3).

Note:
The illustration shows the RH side.



(3) Move the front seat to the rearmost position, and remove the bolts.

Note:
After the bolts are removed, move the seat to the middle position in order to make it easier to take out of the vehicle.

3. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

Note:
Raise the cushion seating face when the seat is disassembled, for example, to replace the seat surface. (Model with lifter)

4. Disconnect the connector between passenger compartment floor under front seat — seat.
   - Integrated connector
   - Side airbag connector Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > SIDE AIRBAG MODULE.
   - Seat belt connector
   - Load sensor connector (passenger's seat)

5. Take out the front seat from the vehicle.

Caution:
Be careful not to damage the body.

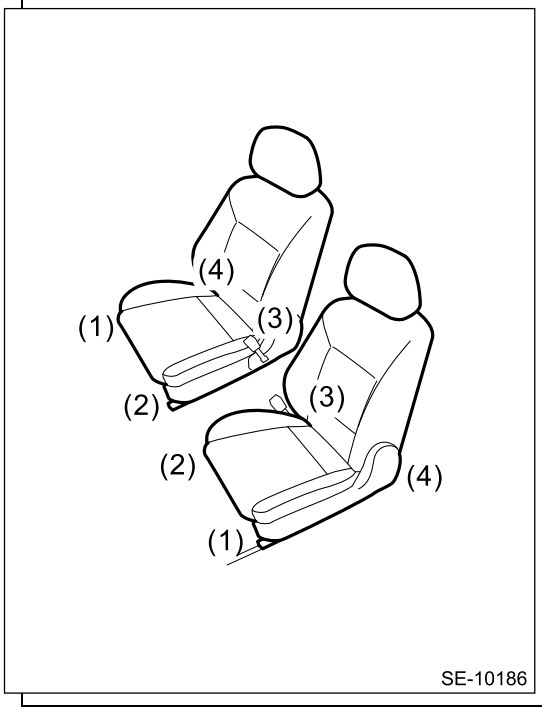
SEATS > Front Seat

INSTALLATION

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Bring the front seat inside the vehicle.
2. Connect the connectors located under the front seat.
3. Install the seat assembly.

Caution:
- **Before installing the bolt cover, check the cover inside. If deformed or damaged, replace the bolt cover with a new one. Incorrect installation of the bolt cover may result in detachment while driving the vehicle.**
- **Tighten the slide rail assembly installing bolts in the order as shown in the figure, in several steps by gradually increasing the torque until they reach the specified torque.**



Tightening torque:
53 N·m (5.4 kgf-m, 39.1 ft-lb)

4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
5. Install the headrest assembly.
6. Regarding the front seat (passenger's seat), perform [Rezeroing] for the occupant detection system. Ref. to AIRBAG SYSTEM>Rezero.
7. Regarding the front seat (passenger's seat), perform "Occupant Detection System Inspection" to check if the occupant detection system operates normally. Ref. to SEAT BELT SYSTEM>Seat Belt Warning System>INSPECTION > CHECK REAR SEAT BELT WARNING BUZZER.

DISASSEMBLY

1. DRIVER'S SEAT

- **MANUAL SEAT**

Caution:

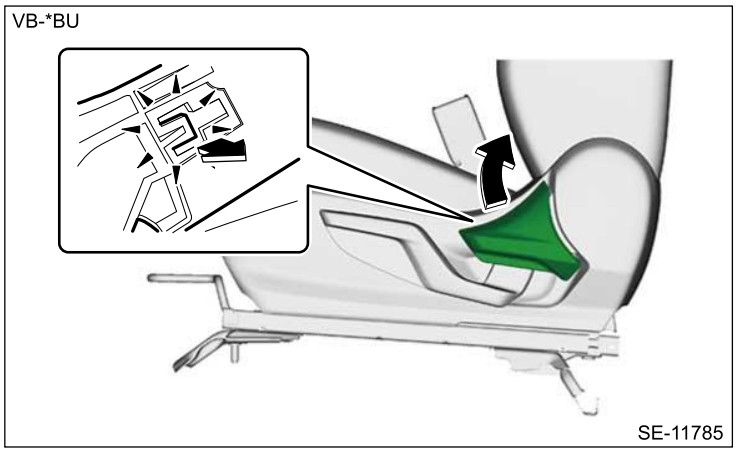
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **When disassembling the passenger's seat, be careful of the following.**
  - **Do not remove the load sensor from the passenger's seat cushion frame assembly. It is fixed to the cushion frame assembly.**
  - **When the cushion frame assembly of the passenger's seat is replaced, do not touch the load sensor. Failure to do so may electrically impair it.**

1. Prior to starting work, check the following precautions. Ref. to SEATS>General Description>CAUTION.
2. Remove the front seat from vehicle. Ref. to SEATS>Front Seat>REMOVAL.

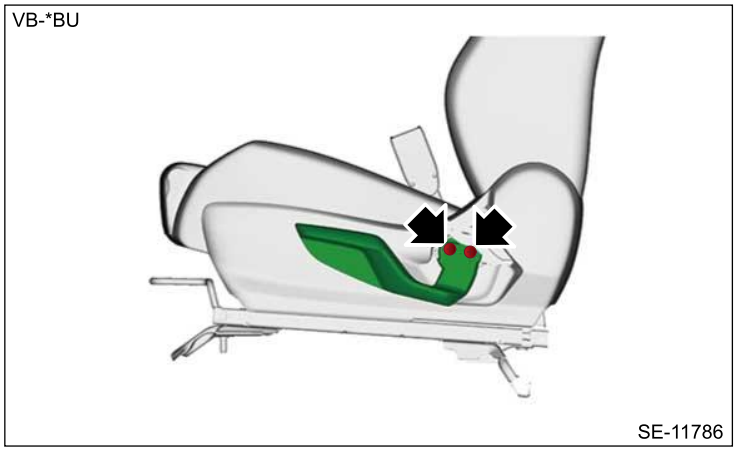
Note:

Before removing the seat, raise the cushion to the middle position.

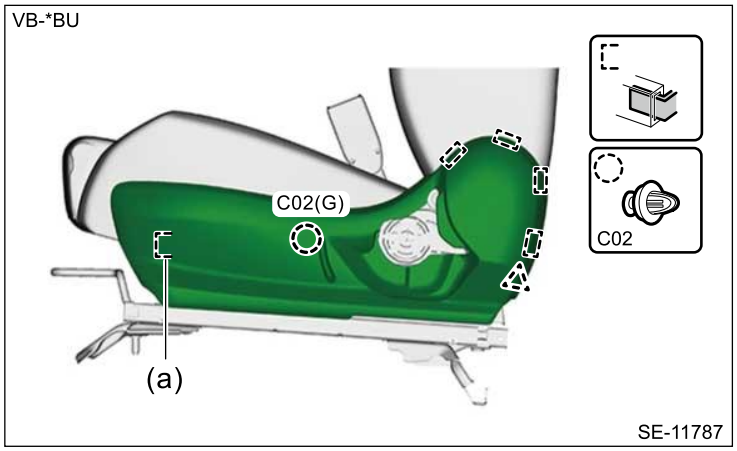
3. For the disassembly procedure of the backrest assembly, refer to the disassembly procedures for the driver's seat (power seat). Ref. to SEATS>Front Seat>DISASSEMBLY>DRIVER'S SEAT>POWER SEAT.
4. Remove the knob hinge reclining.
   (1) Pull up the knob hinge reclining and release the claws on the back.
   (2) Pull out the knob hinge reclining while the claws on the back are released.



5. Remove the screws and remove the knob lifter.

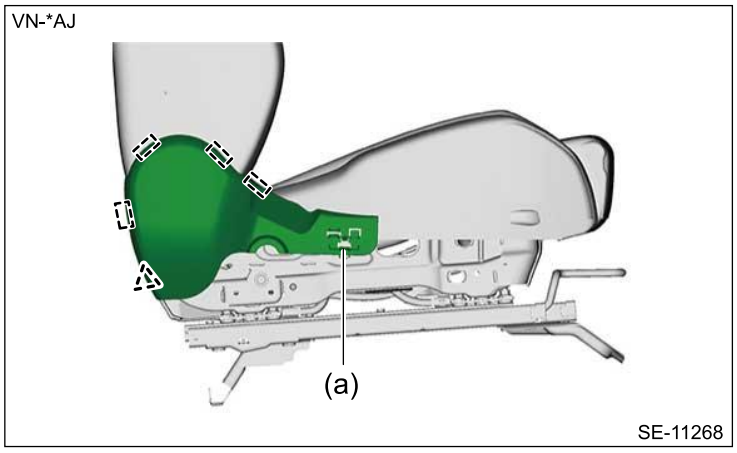


6. Remove the cover hinge outside.
(1) Release it from the hinge base cover outside in the rear side.
(2) Release the clips.
(3) Pull forward to release the claw (a) and remove the cover hinge outside.



7. Remove the belt assembly front INN. Ref. to SEAT BELT SYSTEM>Front Seat Belt>REMOVAL > BELT ASSEMBLY FRONT INN.

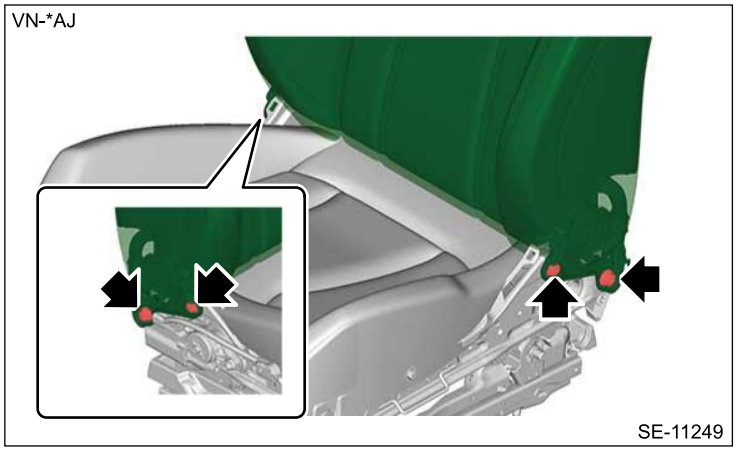
8. Remove the cover hinge inside.
(1) Release it from the hinge base cover inside in the rear side.
(2) Release the metal clip (a) in the front side, and detach the cover hinge inside.



9. Separate the backrest assembly and the seat cushion assembly.
(1) Remove the harness on the back side of the seat cushion assembly.

- Side airbag harness
- Seat heater harness

(2) Remove the bolts from reclining hinge of both sides.



(3) While taking care not to damage the airbag harness, separate the backrest assembly and the seat cushion assembly.

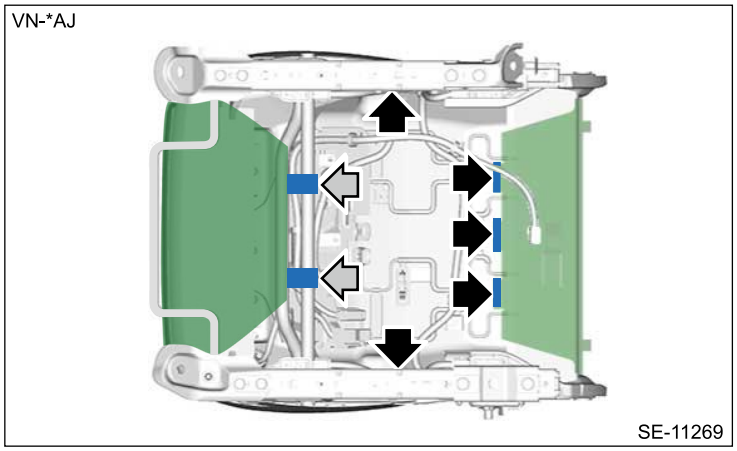
10. Remove the seat pad assembly cushion and the cover cushion front seat.

(1) Disconnect the connector.

(2) Unfasten the J-fastener on the front side.

(3) Unfasten the J-fastener on the right, left and rear side.

(4) Remove the seat pad assembly cushion and the cover cushion front seat from the seat cushion assembly.

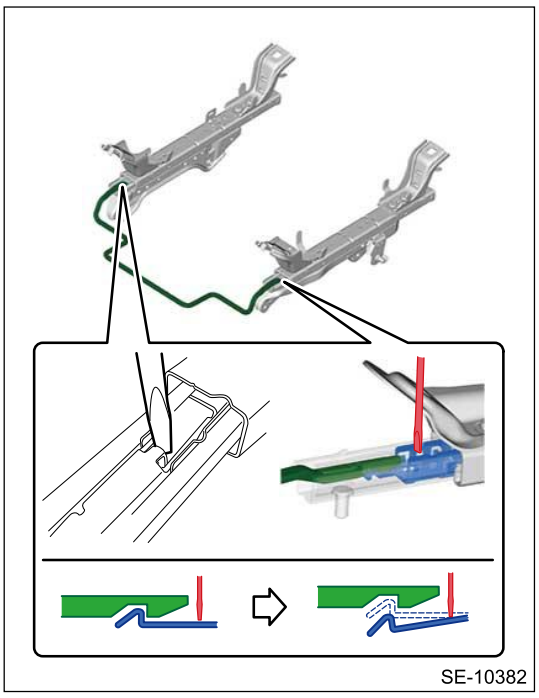


11. Remove the lever towel bar.

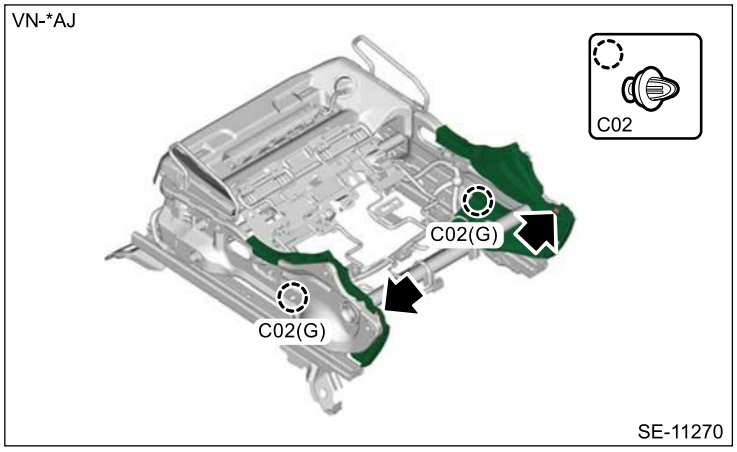
(1) Move the slide rail to the front-most position.

(2) Use a thin flat tip screwdriver to press-in the leaf spring from behind the slide rail.

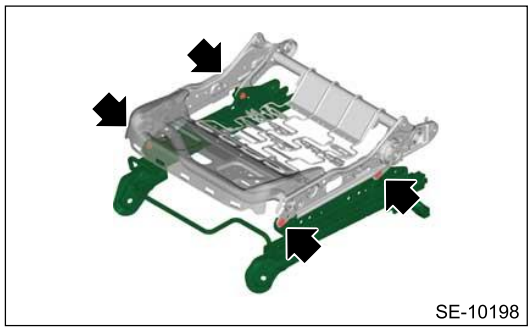
(3) Pull out the lever towel bar.



12. Remove the screws and clips and remove the cover INN cushion outside and the cover INN cushion inside.



13. Using the TORX® T40, remove the bolts, then remove the slide rail.

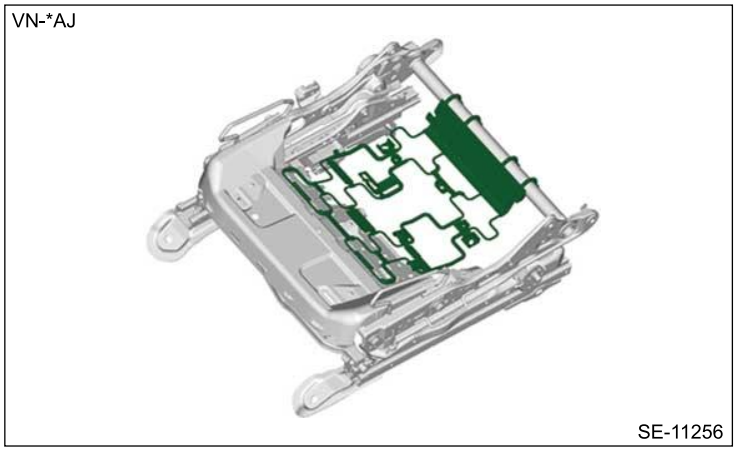


14. Remove the harness assembly seat cushion.

Note:

Routing of the harness varies depending on the specifications. For easier assembly work, it is recommended to take pictures before removing the harness.

15. Remove the panel front wire.



16. Remove the cover cushion front seat.

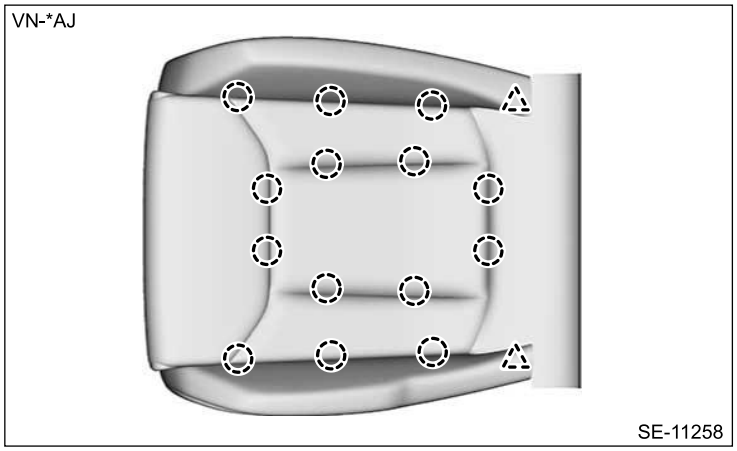
Caution:

- **If the seat heater unit is removed, replace the seat pad assembly with a new part.**
- **If the seat heater unit is reused, remove the polyurethane section and double-sided tape from the reverse side completely. Use new double-sided tape.**

Preparation items:

Double-sided tape: NITTO DENKO 501L or equivalent

(1) Remove the hog ring.



(2) Pull out the seat pad assembly cushion from the cover cushion front seat.

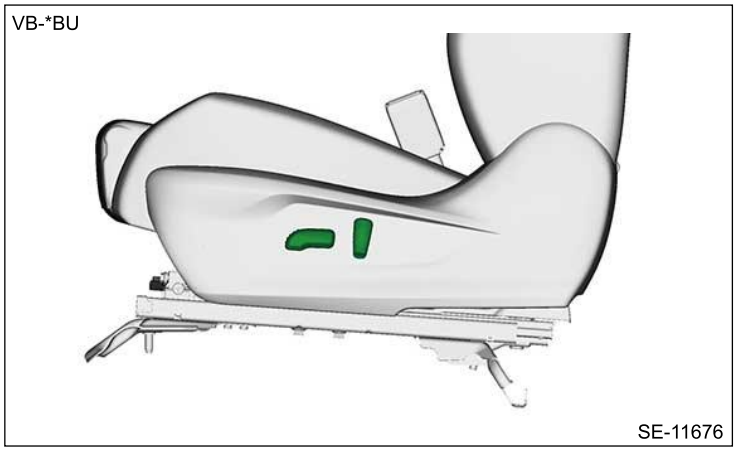
- **POWER SEAT**

Except for RECARO® seat

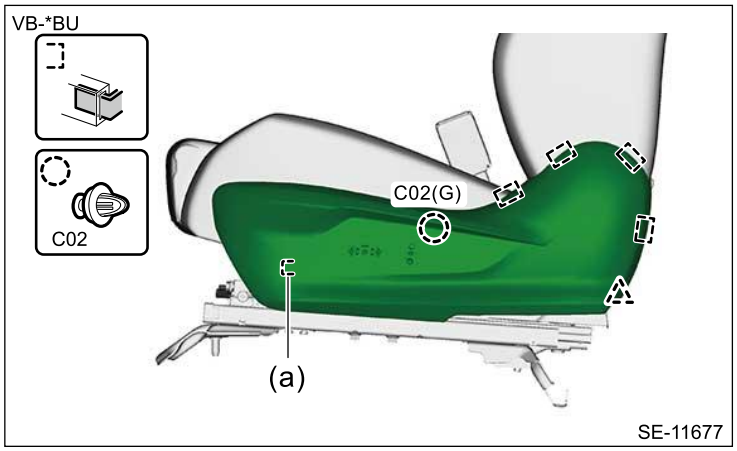
Caution:

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

1. Prior to starting work, check the following precautions. Ref. to SEATS>General Description>CAUTION.
2. Remove the front seat from vehicle. Ref. to SEATS>Front Seat>REMOVAL.
3. Remove the cover hinge outside.
   (1) Remove the knob power seat.

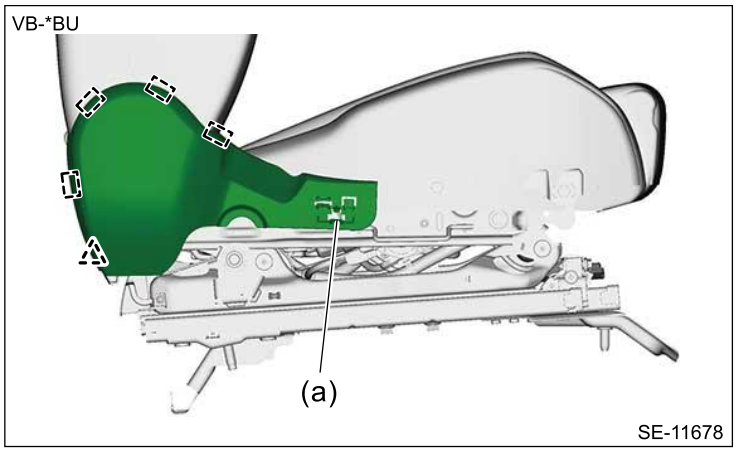


(2) Release it from the hinge base cover outside in the rear side.
(3) Release the clips.
(4) Pull forward to release the claw (a) and remove the cover hinge outside.
(5) Disconnect the switch assembly power seat connector and remove the cover hinge outside.



4. Remove the belt assembly front INN. Ref. to SEAT BELT SYSTEM>Front Seat Belt>REMOVAL > BELT ASSEMBLY FRONT INN.

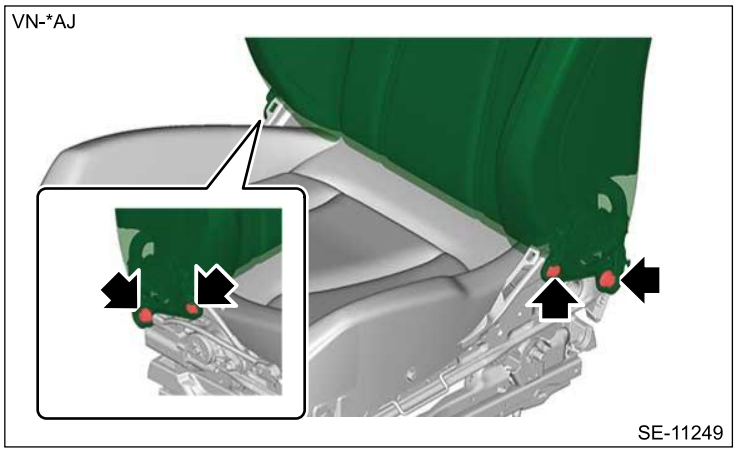
5. Remove the cover hinge inside.
(1) Release it from the hinge base cover inside in the rear side.
(2) Release the metal clip (a) in the front side, and detach the cover hinge inside.



6. Separate the backrest assembly and the seat cushion assembly.
(1) Remove the harness on the back side of the seat cushion assembly.

- Side airbag harness
- Harness assembly backrest
- Seat heater harness on the backrest side

(2) Remove the bolts from reclining hinge of both sides.



(3) While taking care not to damage the airbag harness, separate the backrest assembly and the seat cushion assembly.

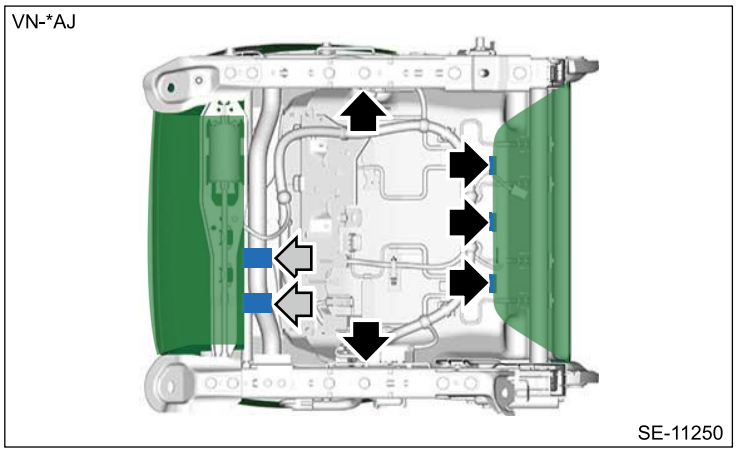
7. Remove the seat pad assembly cushion and the cover cushion front seat.

(1) Disconnect the connector.

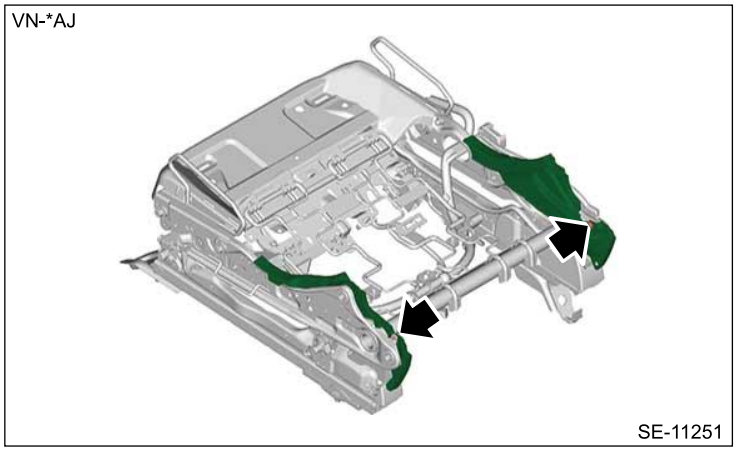
(2) Remove the plastic hook on the front side, and remove the J-fastener.

(3) Unfasten the J-fastener on the right, left and rear side.

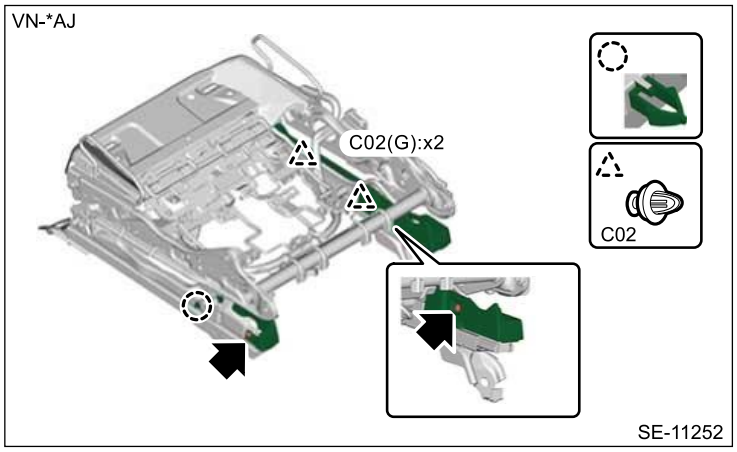
(4) Remove the seat pad assembly cushion and the cover cushion front seat from the seat cushion assembly.



8. Remove the screws and remove the cover INN cushion outside and the cover INN cushion inside.



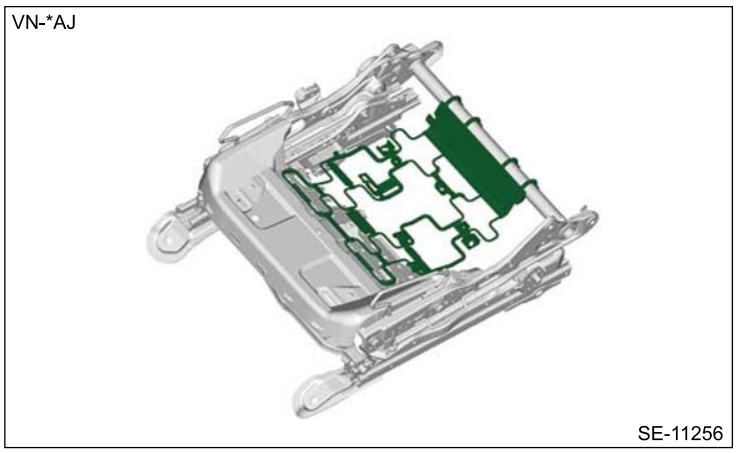
9. Remove the screws and clips and remove the cover riser link and the cover riser BRKT INN.



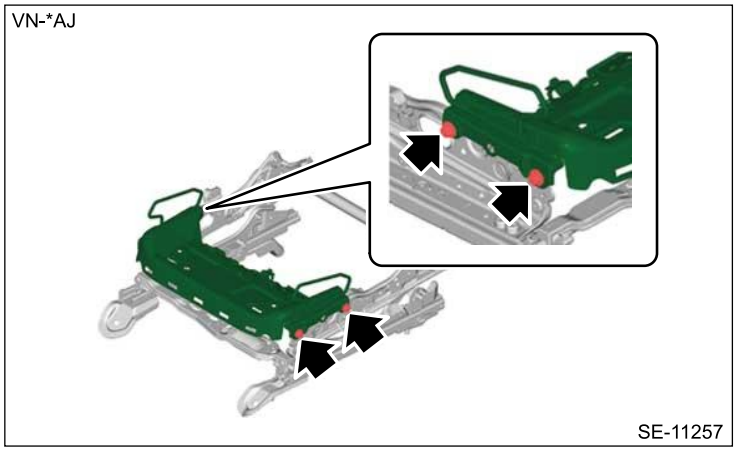
10. Remove the harness assembly seat cushion.

Note:
Routing of the harness varies depending on the specifications. For easier assembly work, it is recommended to take pictures before removing the harness.

11. Remove the panel front wire.



12. Remove the bolts, and remove the panel assembly cushion.



13. Remove the cover cushion front seat.

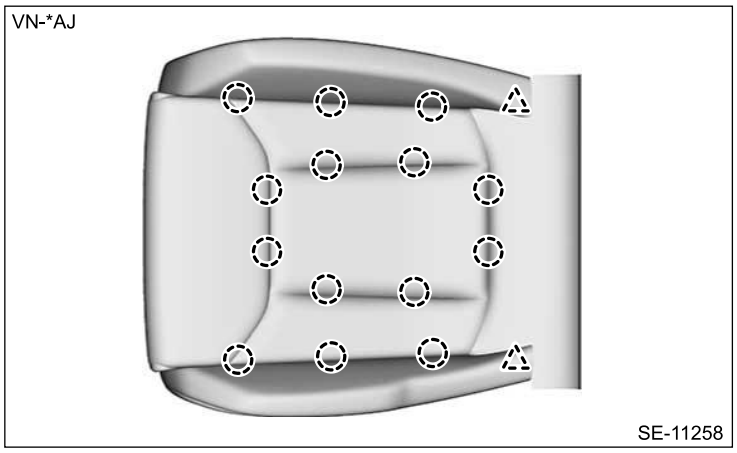
Caution:

- **If the seat heater unit is removed, replace the seat pad assembly with a new part.**
- **If the seat heater unit is reused, remove the polyurethane section and double-sided tape from the reverse side completely. Use new double-sided tape.**

Preparation items:

Double-sided tape: NITTO DENKO 501L or equivalent

(1) Remove the hog ring.

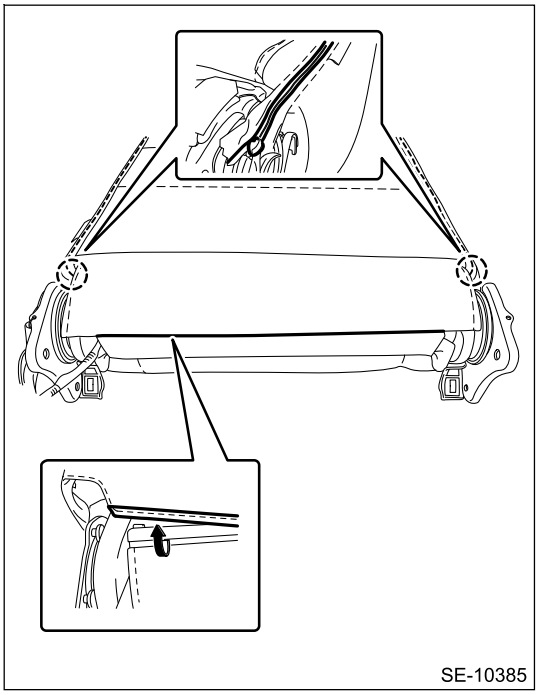


(2) Pull out the seat pad assembly cushion from the cover cushion front seat.

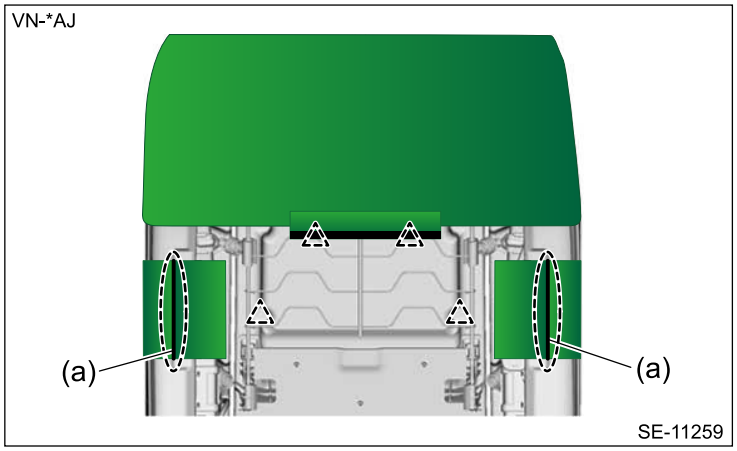
14. Remove the seat pad assembly backrest and the cover backrest front seat.

(1) Remove the plastic fastener at the back side (bottom) of backrest assembly.

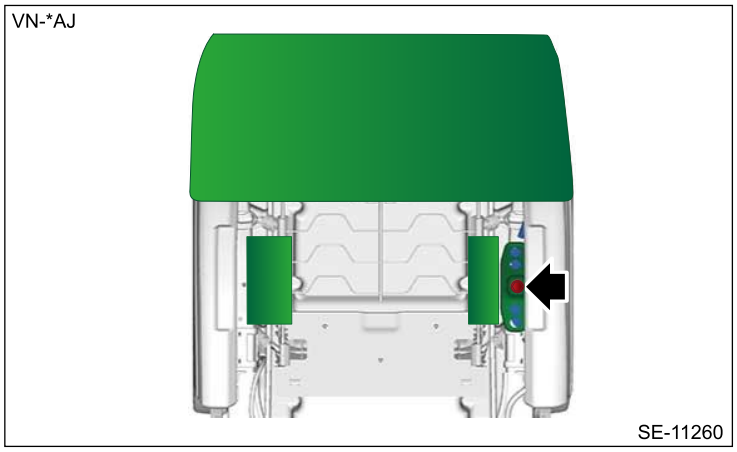
(2) Open the fastener at the rear side of backrest assembly.



(3) Remove the hog rings and the resin fasteners (a) on the left and right.



(4) Remove the hexagon cap nut.



(5) Remove the seat pad assembly backrest and the cover backrest front seat from the seat backrest assembly.

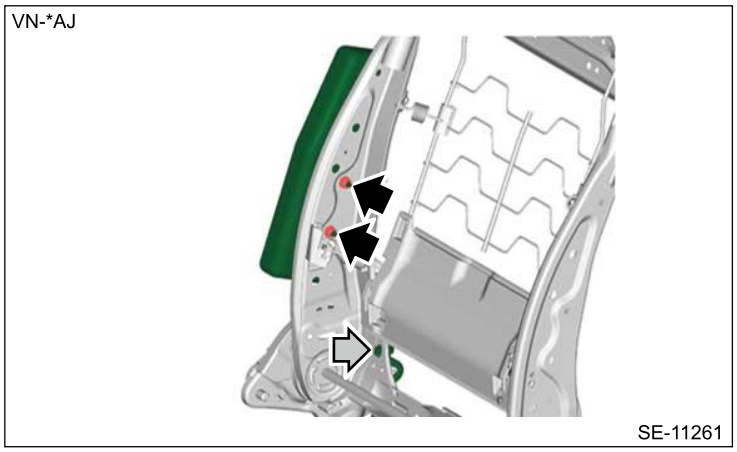
15. Remove the side airbag module.

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 self-locking nut.

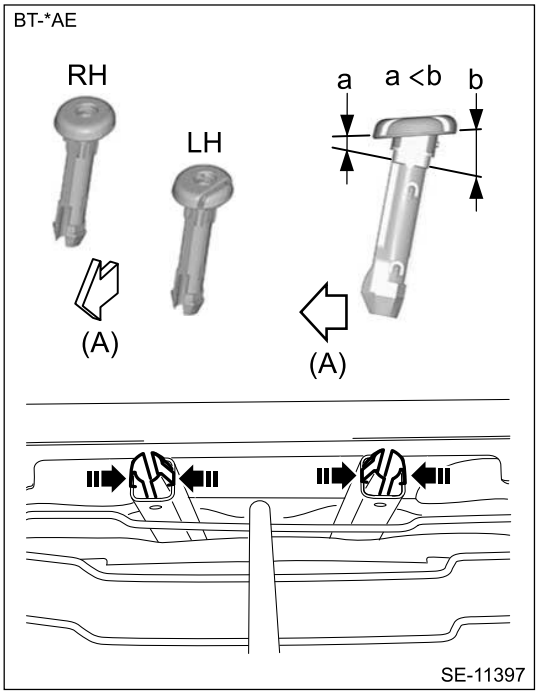
(2) While taking care not to damage the airbag protective cover, remove the side airbag module.



16. Remove the bushing headrest.

Note:

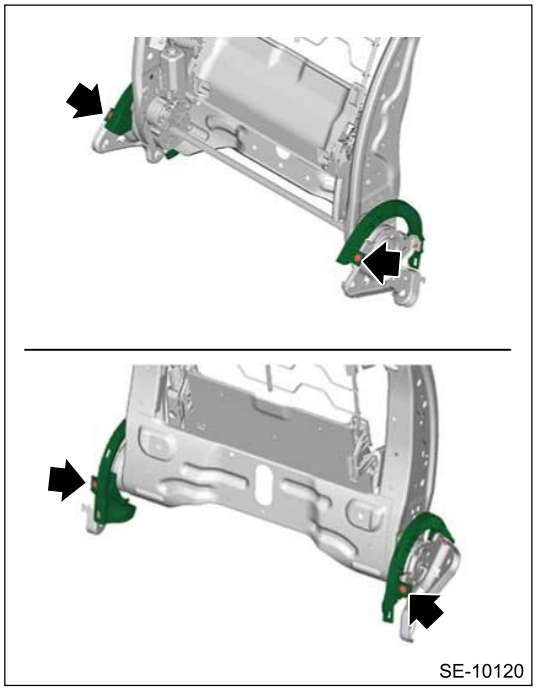
Catch the tip of headrest bushing with pliers and push it from inside seat to outside to remove it.



(A) Front

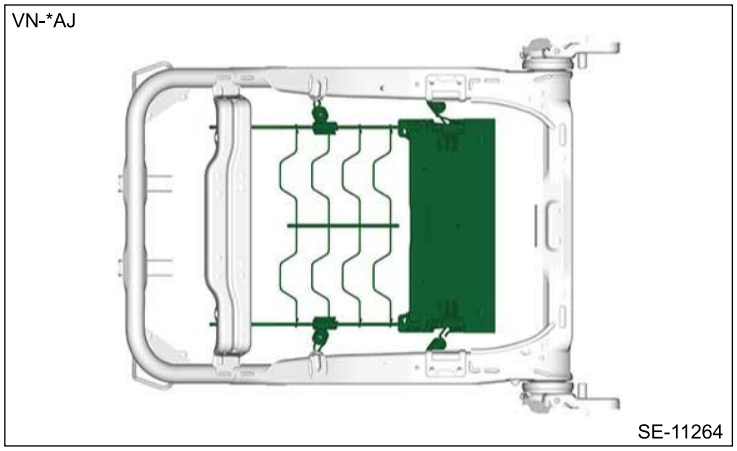
17. Pull out the seat frame assembly backrest.

18. Remove the screws and detach the hinge base cover inside and the hinge base cover outside.



19. Remove the harness assembly backrest.

20. Remove the flat mat & hook spring assembly.



21. Remove the cover backrest front seat.

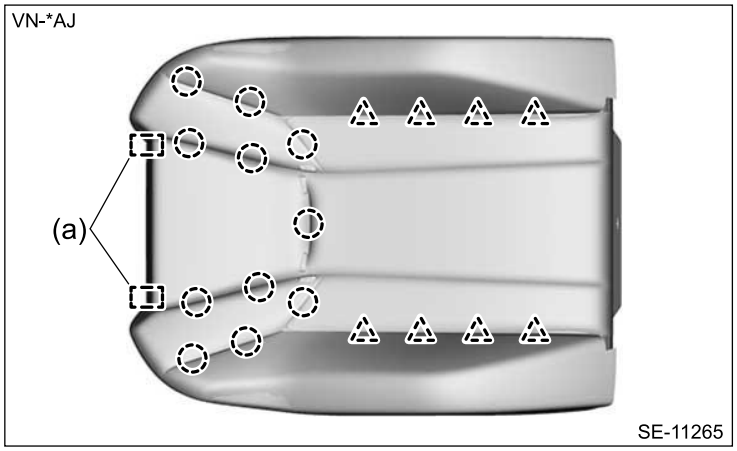
Caution:

- **If the seat heater unit is removed, replace the seat pad assembly with a new part.**
- **If the seat heater unit is reused, remove the polyurethane section and double-sided tape from the reverse side completely. Use new double-sided tape.**

Preparation items:

Double-sided tape: NITTO DENKO 501L or equivalent

(1) Remove the hog ring.



(2) Pull out the seat pad assembly backrest from the cover backrest front seat.

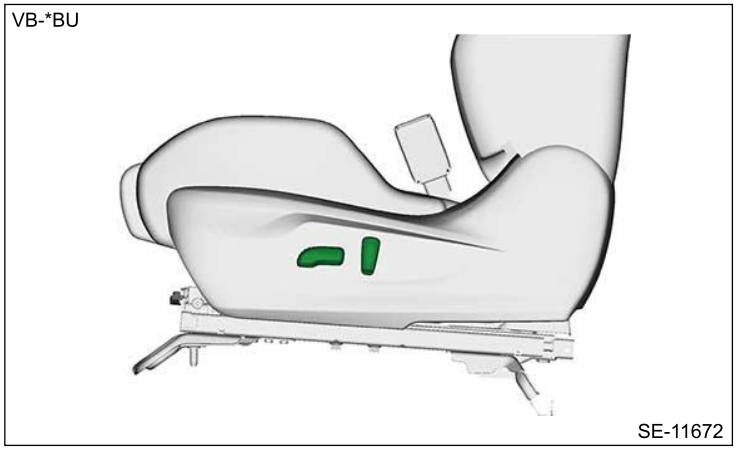
Note:
Pull it out so that the tape (a) of the seat pad assembly backrest does not come off.

- **POWER SEAT**

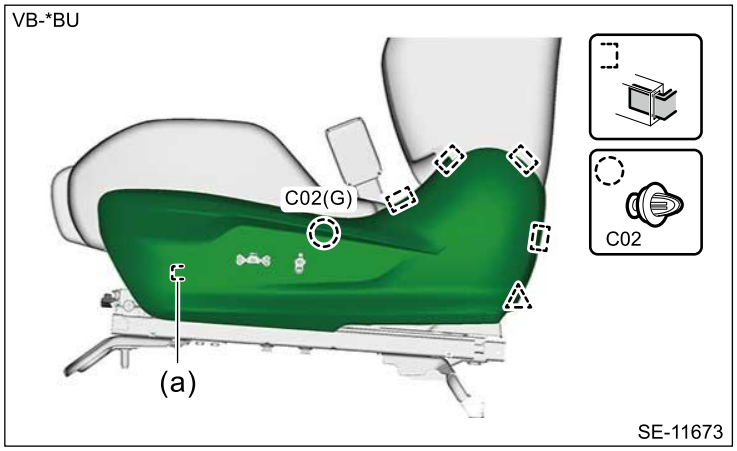
RECARO® seat

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

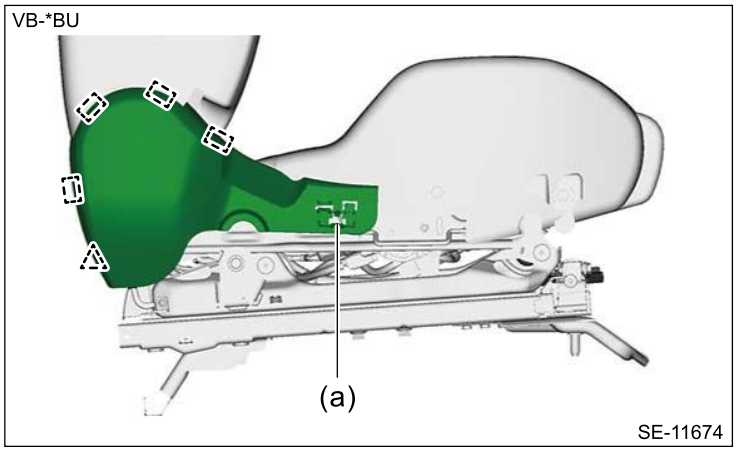
1. Prior to starting work, check the following precautions. Ref. to SEATS>General Description>CAUTION.
2. Remove the front seat from vehicle. Ref. to SEATS>Front Seat>REMOVAL.
3. Remove the cover hinge outside.
   (1) Remove the knob power seat.



(2) Release it from the hinge base cover outside in the rear side.
(3) Release the clips.
(4) Pull forward to release the claw (a) and remove the cover hinge outside.
(5) Disconnect the switch assembly power seat connector and remove the cover hinge outside.

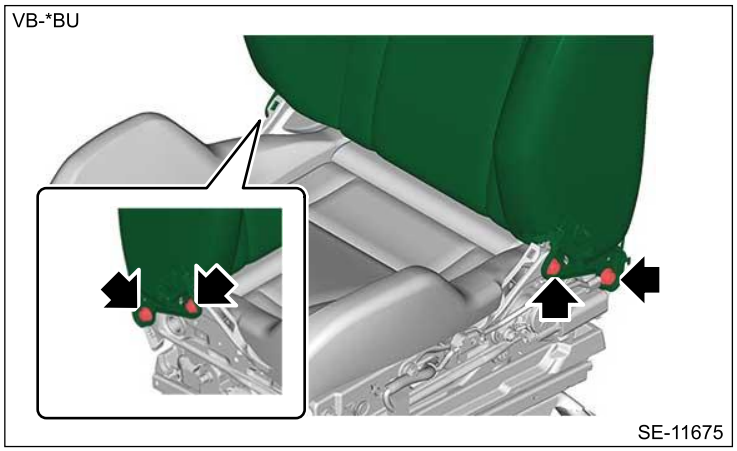


4. Remove the belt assembly front INN. Ref. to SEAT BELT SYSTEM>Front Seat Belt>REMOVAL > BELT ASSEMBLY FRONT INN.
5. Remove the cover hinge inside.
   (1) Release it from the hinge base cover inside in the rear side.
   (2) Release the metal clip (a) in the front side, and detach the cover hinge inside.



6. Separate the backrest assembly and the seat cushion assembly.
   (1) Remove the harness on the back side of the seat cushion assembly.
   - Side airbag harness
   - Harness assembly backrest
   - Seat heater harness on the backrest side

   (2) Remove the bolts from reclining hinge of both sides.



(3) While taking care not to damage the airbag harness, separate the backrest assembly and the seat cushion assembly.

Caution:
Do not disassemble the backrest assembly.

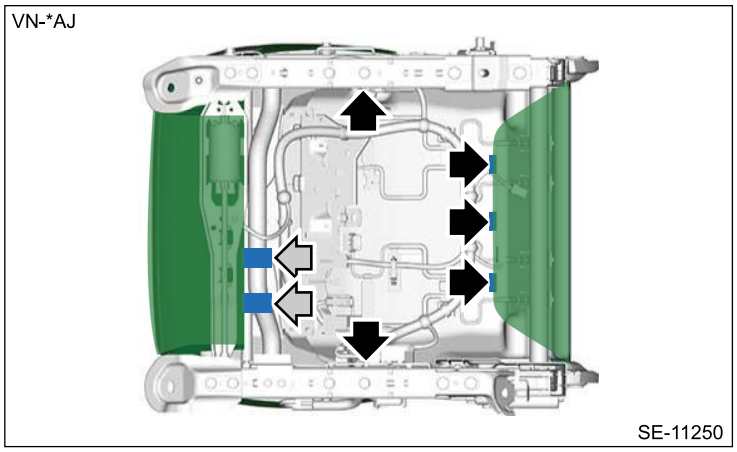
7. Remove the seat pad assembly cushion and the cover cushion front seat.

(1) Disconnect the connector.

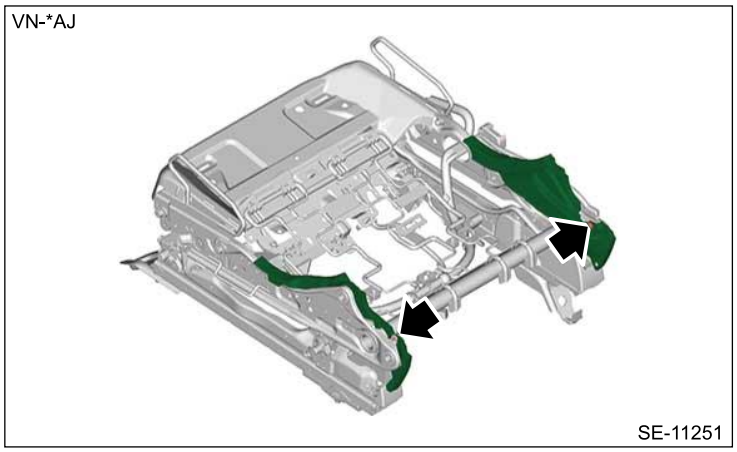
(2) Remove the plastic hook on the front side, and remove the J-fastener.

(3) Unfasten the J-fastener on the right, left and rear side.

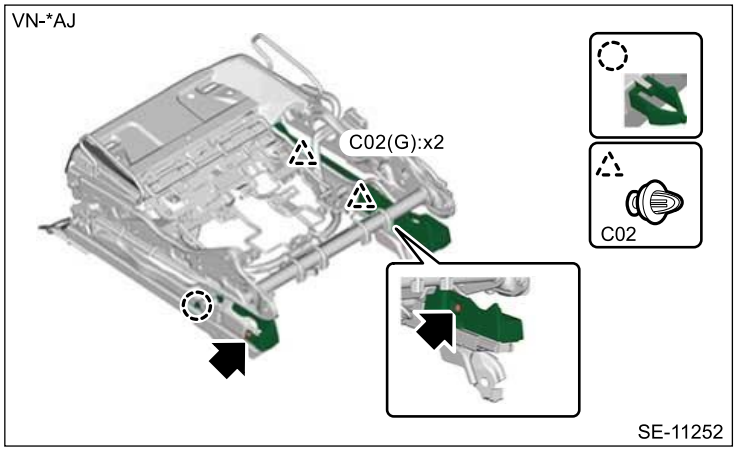
(4) Remove the seat pad assembly cushion and the cover cushion front seat from the seat cushion assembly.



8. Remove the screws and remove the cover INN cushion outside and the cover INN cushion inside.



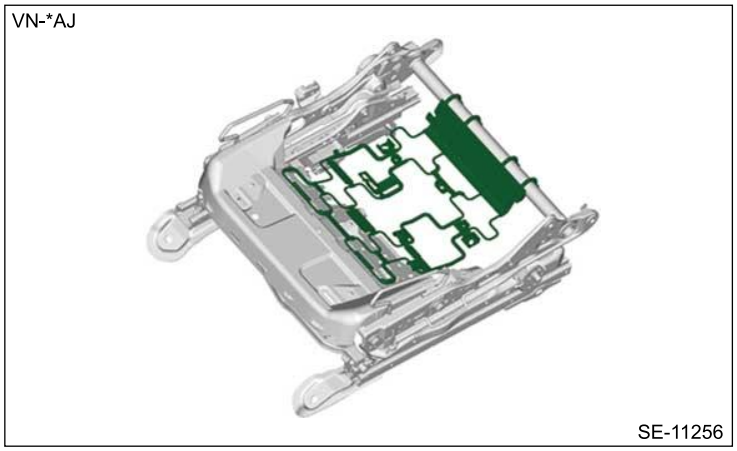
9. Remove the screws and clips and remove the cover riser link and the cover riser BRKT INN.



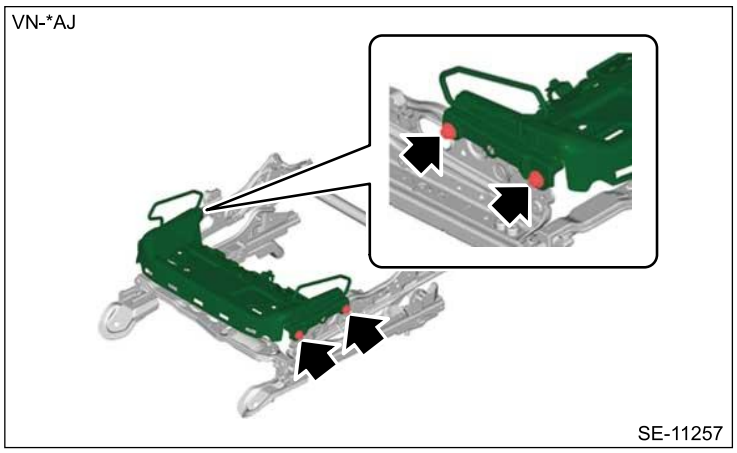
10. Remove the harness assembly seat cushion.

Note:
Routing of the harness varies depending on the specifications. For easier assembly work, it is recommended to take pictures before removing the harness.

11. Remove the panel front wire.



12. Remove the bolts, and remove the panel assembly cushion.



13. Remove the cover cushion front seat.

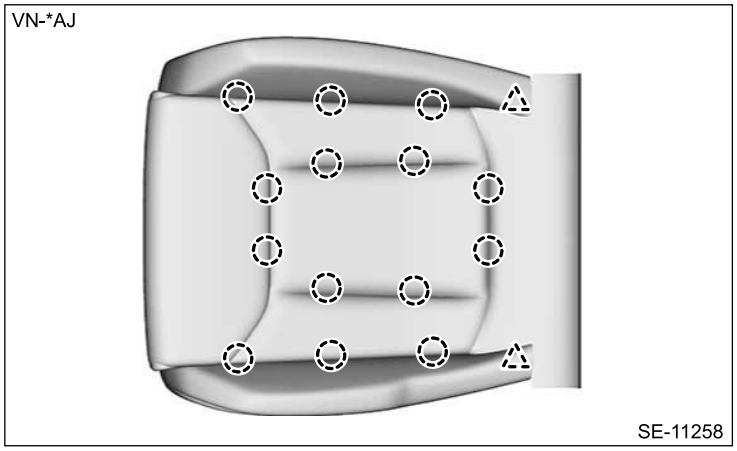
Caution:

- **If the seat heater unit is removed, replace the seat pad assembly with a new part.**
- **If the seat heater unit is reused, remove the polyurethane section and double-sided tape from the reverse side completely. Use new double-sided tape.**

Preparation items:

Double-sided tape: NITTO DENKO 501L or equivalent

(1) Remove the hog ring.



(2) Pull out the seat pad assembly cushion from the cover cushion front seat.

2. PASSENGER'S SEAT

- **MANUAL SEAT**

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **When disassembling the passenger's seat, be careful of the following.**
  - **Do not remove the load sensor from the passenger's seat cushion frame assembly. It is fixed to the cushion frame assembly.**
  - **When the cushion frame assembly of the passenger's seat is replaced, do not touch the load sensor. Failure to do so may electrically impair it.**

1. Prior to starting work, check the following precautions. Ref. to SEATS>General Description>CAUTION.
2. Remove the front seat from vehicle. Ref. to SEATS>Front Seat>REMOVAL.

Note:

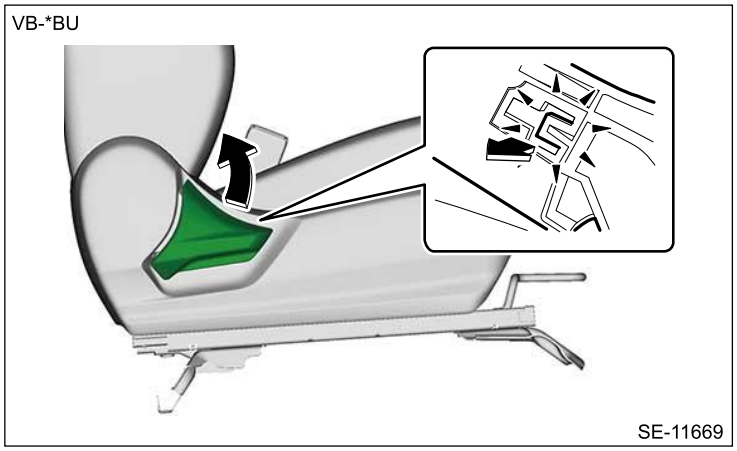
Before removing the seat, raise the cushion to the middle position.

3. For the disassembly procedure of the backrest assembly, refer to the disassembly procedures for the driver's seat (power seat). Ref. to SEATS>Front Seat>DISASSEMBLY>DRIVER'S SEAT>POWER SEAT.

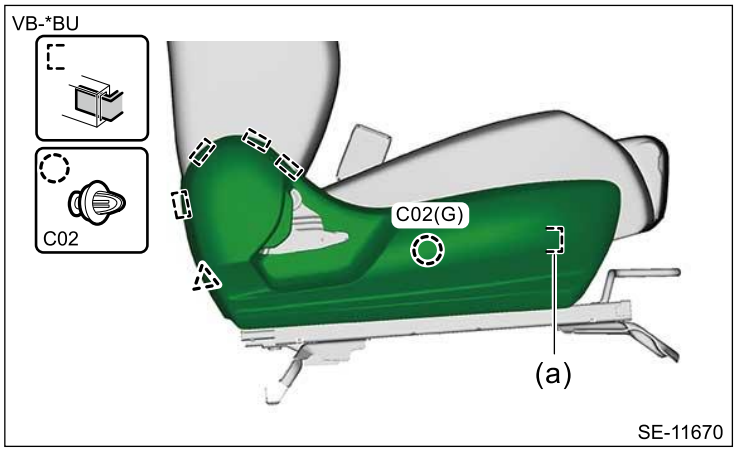
Caution:

Do not disassemble the backrest assembly of RECARO® seat.

4. Remove the knob hinge reclining.
   (1) Pull up the knob hinge reclining and release the claws on the back.
   (2) Pull out the knob hinge reclining while the claws on the back are released.

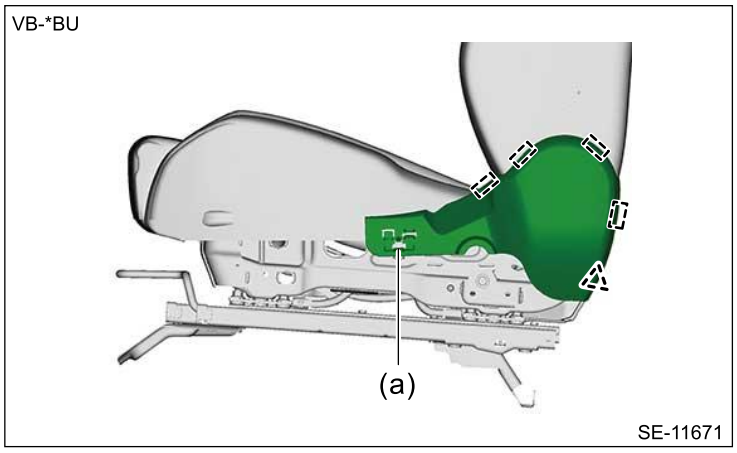


5. Remove the cover hinge outside.
(1) Release it from the hinge base cover outside in the rear side.
(2) Release the clips.
(3) Pull forward to release the claw (a) and remove the cover hinge outside.



6. Remove the belt assembly front INN. Ref. to SEAT BELT SYSTEM>Front Seat Belt>REMOVAL > BELT ASSEMBLY FRONT INN.

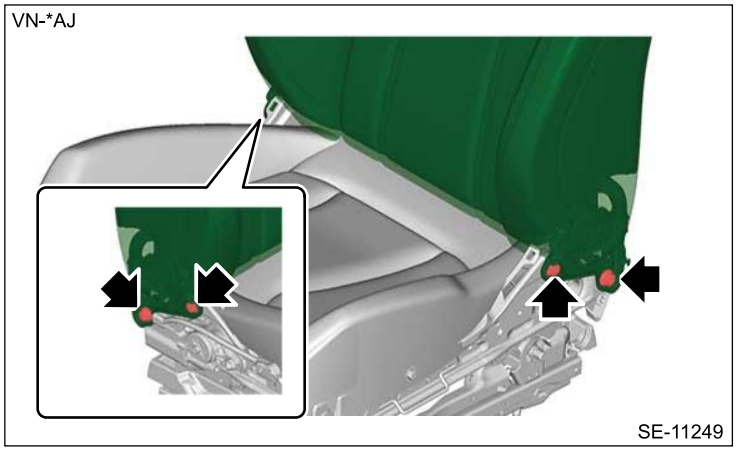
7. Remove the cover hinge inside.
(1) Release it from the hinge base cover inside in the rear side.
(2) Release the metal clip (a) in the front side, and detach the cover hinge inside.



8. Separate the backrest assembly and the seat cushion assembly.
(1) Remove the harness on the back side of the seat cushion assembly.

- Side airbag harness
- Seat heater harness

(2) Remove the bolts from reclining hinge of both sides.



(3) While taking care not to damage the airbag harness, separate the backrest assembly and the seat cushion assembly.

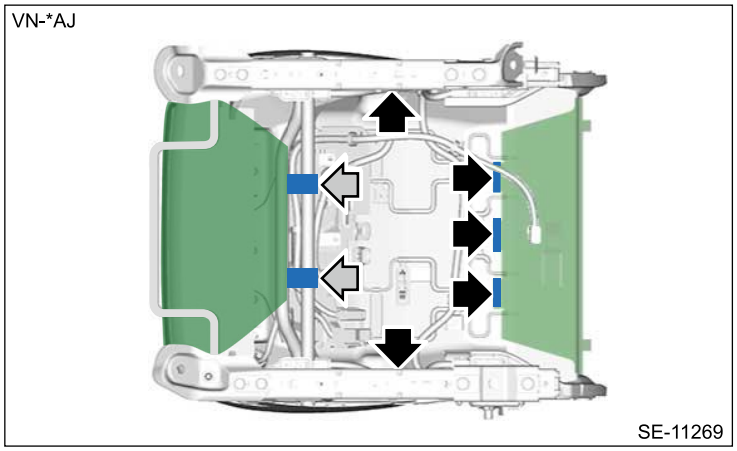
9. Remove the seat pad assembly cushion and the cover cushion front seat.

(1) Disconnect the connector.

(2) Unfasten the J-fastener on the front side.

(3) Unfasten the J-fastener on the right, left and rear side.

(4) Remove the seat pad assembly cushion and the cover cushion front seat from the seat cushion assembly.

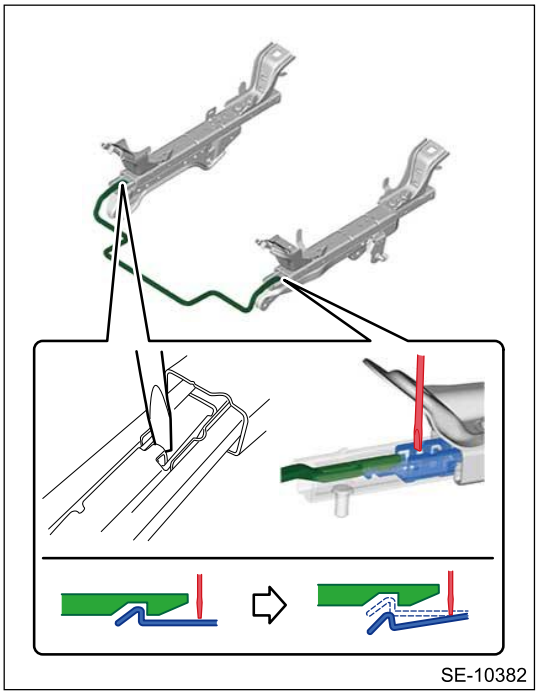


10. Remove the lever towel bar.

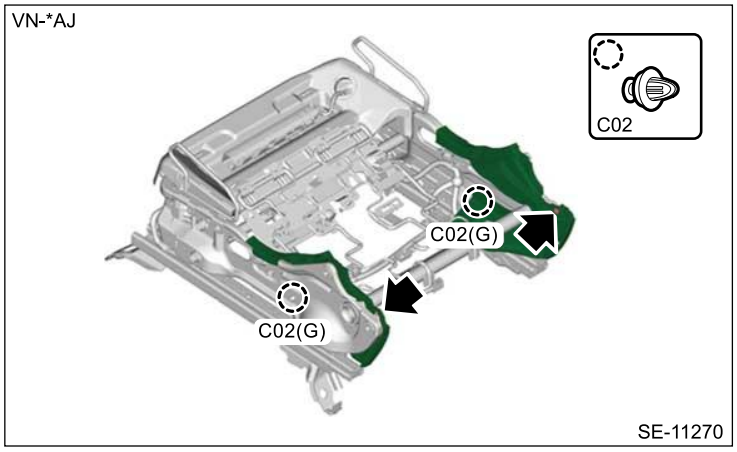
(1) Move the slide rail to the front-most position.

(2) Use a thin flat tip screwdriver to press-in the leaf spring from behind the slide rail.

(3) Pull out the lever towel bar.



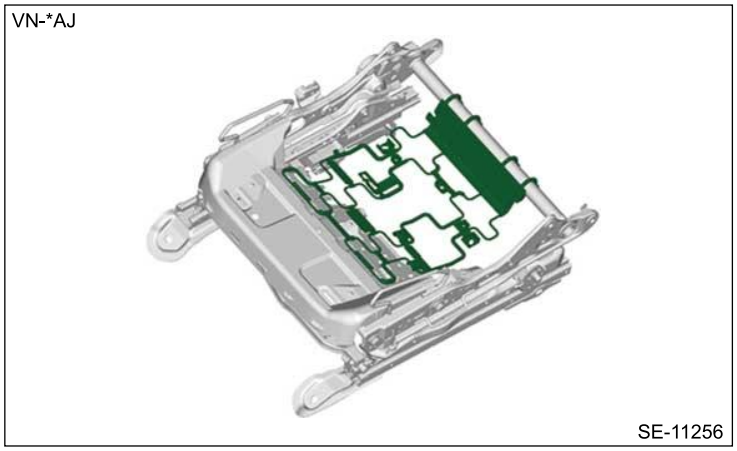
11. Remove the screws and clips and remove the cover INN cushion outside and the cover INN cushion inside.



12. Remove the harness assembly seat cushion.

Note:
Routing of the harness varies depending on the specifications. For easier assembly work, it is recommended to take pictures before removing the harness.

13. Remove the panel front wire.



14. Remove the cover cushion front seat.

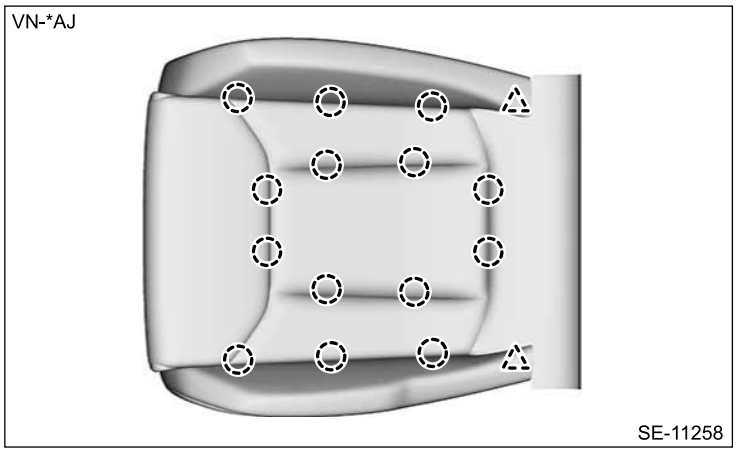
Caution:

- **If the seat heater unit is removed, replace the seat pad assembly with a new part.**
- **If the seat heater unit is reused, remove the polyurethane section and double-sided tape from the reverse side completely. Use new double-sided tape.**

Preparation items:

Double-sided tape: NITTO DENKO 501L or equivalent

(1) Remove the hog ring.



(2) Pull out the seat pad assembly cushion from the cover cushion front seat.

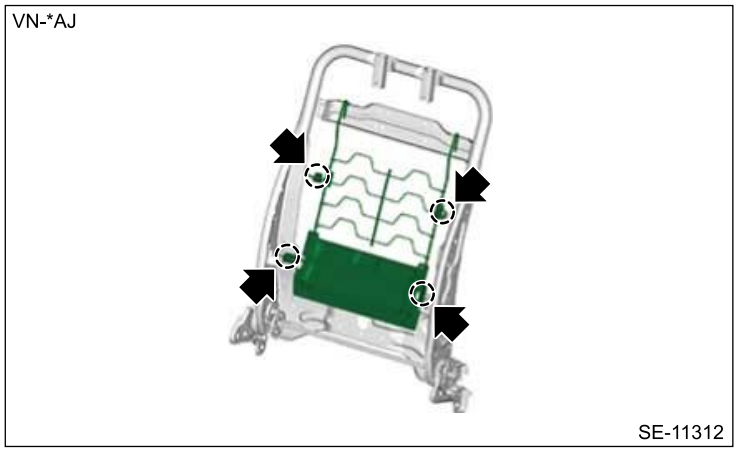
SEATS > Front Seat

ASSEMBLY

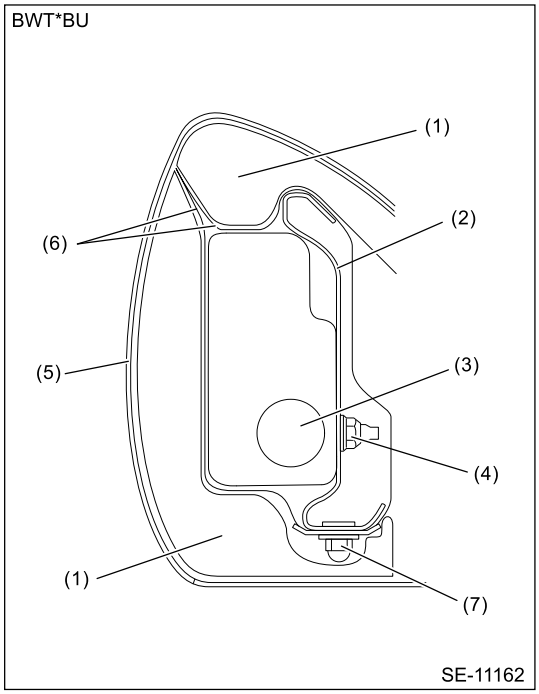
1. SEAT COMMON OPERATION PROCEDURE

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 confuse the harness routing of the side airbag harness and the front seat belt INN harness, etc. Assembling with harnesses improperly routed may cause the harness to get caught and short out.**
- **If the hook spring of the backrest frame assembly is deformed or comes off due to the deformation, replace the flat mat & hook spring assembly with a new part. (Except for RECARO® seat)**



- **Make sure that the side airbag module is installed as shown in the figure.**

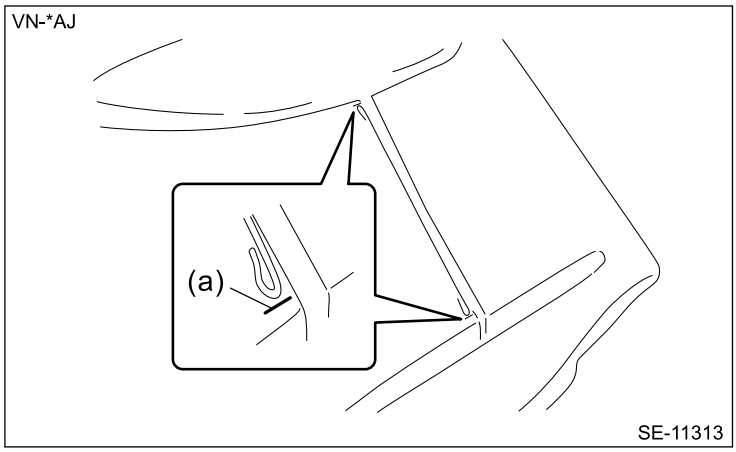


(1) Seat pad ASSY backrest
(2) Seat frame ASSY backrest
(3) Side airbag module inflator
(4) Self-locking nut
(5) Cover backrest front seat
(6) Side airbag guide cloth
(7) Hexagon cap nut

- **If the front seat cover is not installed securely, the side airbag may not be activated properly, therefore keep strictly to the following procedures.**

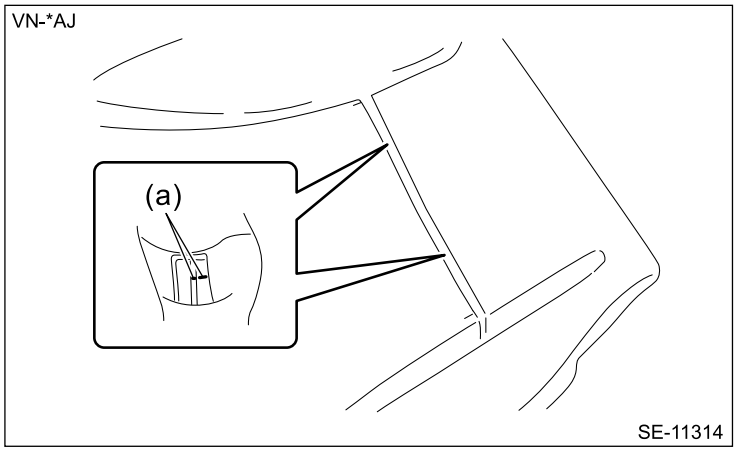
– Do not reuse the mounting nuts of the airbag module. Always replace with a new specified nut.
– Be careful not to stain or damage the front seat cover during assembly.
– Do not reuse the hog ring and hang wire.
– Secure the hog ring using hog ring pliers.
– Install the hog rings to the specified points securely and make sure that there is no wrinkle or twisting on the front seat cover.

1. Make sure that there is no foreign matter on side airbag module.
2. Assemble the seat cover.
   (1) Adjust so that the left and right clearances between wire and seat pad become equal, and mark the seat pad.



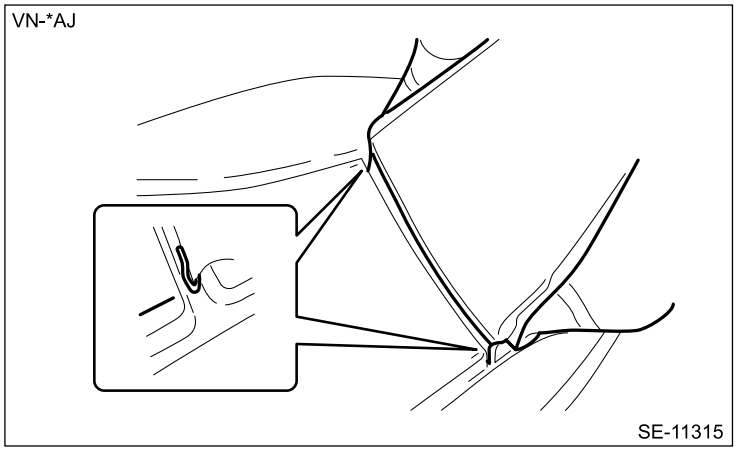
(a) Marking

   (2) Mark the center of the wire on the pad side to which the hog ring is attached.

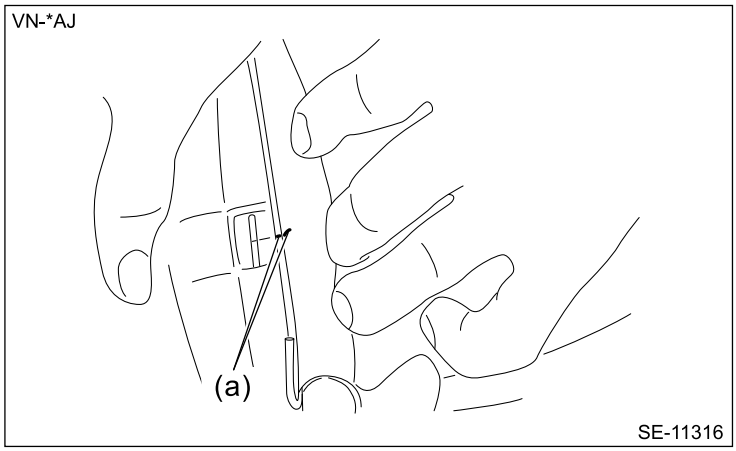


(a) Marking

   (3) Insert the wire into the seat cover, and align the wire with the position marked in step (1).



(4) Mark the wire on the seat cover side according to the markings on the seat pad.

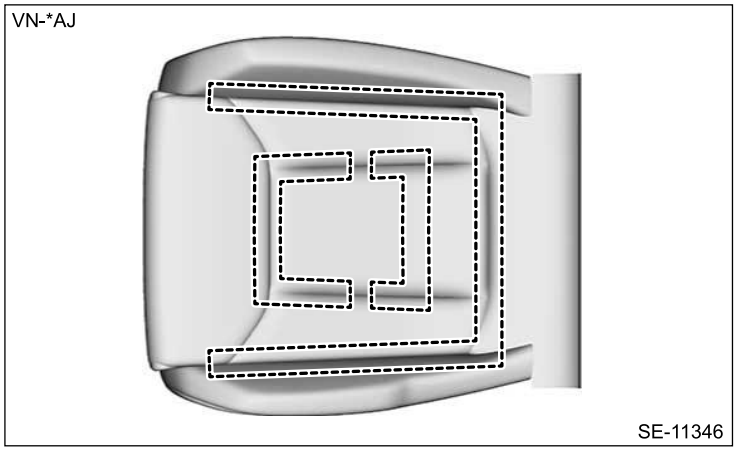


(a) Marking

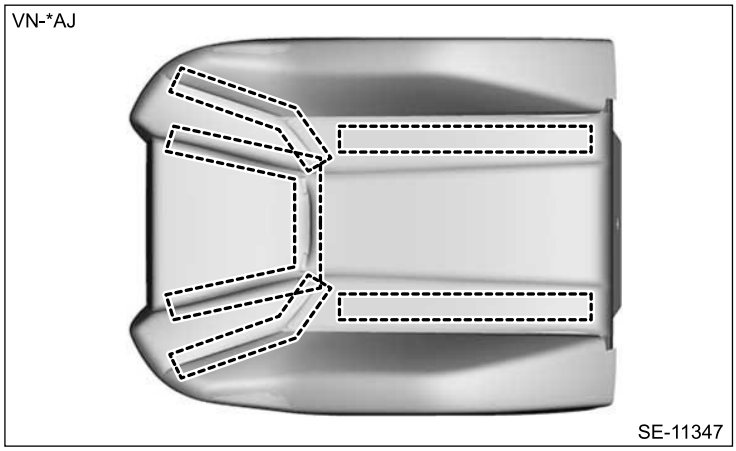
(5) Perform steps (1) — (4) for all sections to which the hog rings are attached.

(6) Secure the hang wire with new hog rings.

- Cushion cover surface side

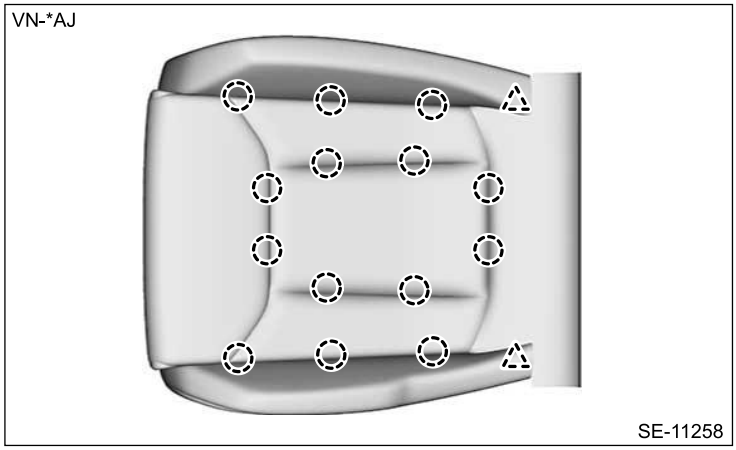


- Backrest cover surface side

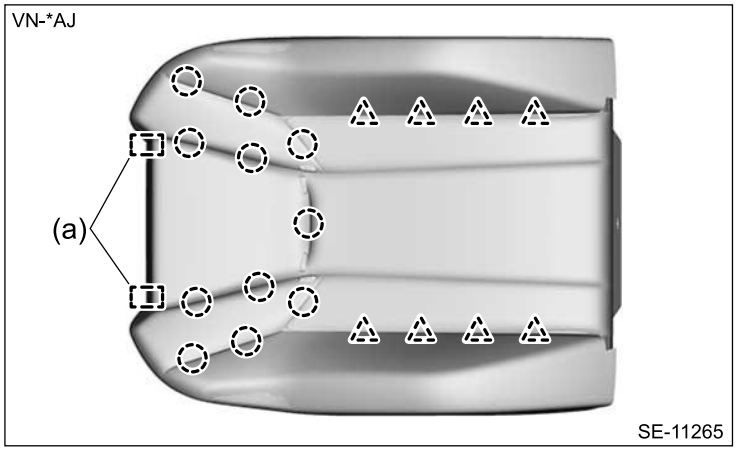


(7) Make sure that all hog rings, plastic fasteners and tape are attached securely.

- Cushion cover

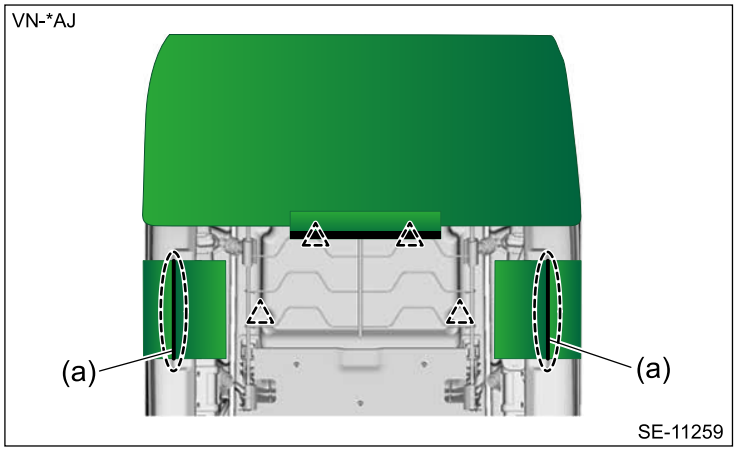


- Backrest cover surface side



(a) Tape

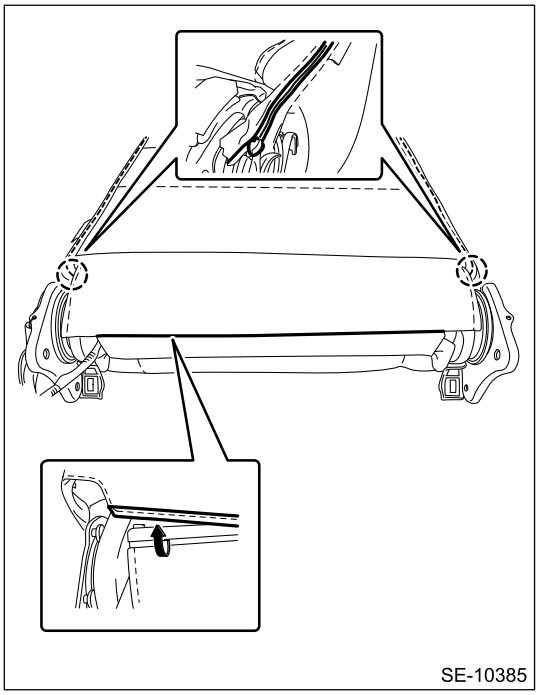
- Backrest cover back side



(a) Plastic fastener

(8) Tighten the fastener at the back side of backrest assembly.

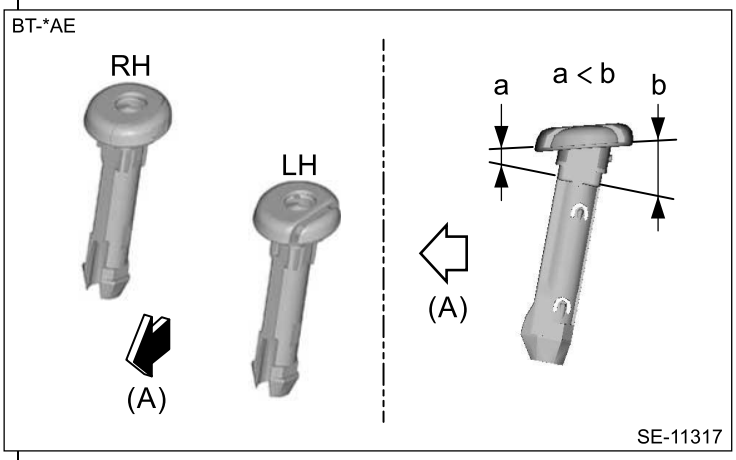
(9) Fasten the plastic fastener at the back side (bottom) of backrest assembly.



3. Assemble remaining parts in the reverse order of disassemble.

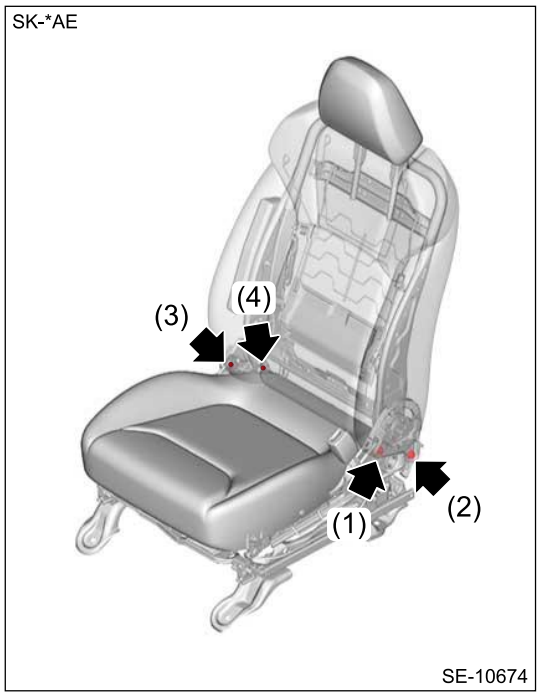
Note:

- **Check the shape and front/rear directions before assembling the headrest bushing.**



(A) Front

- **Install the backrest assembly and seat cushion assembly in the following procedure.**
  1. **Temporarily tighten the four reclining hinge bolts.**
  2. **Tighten the reclining hinge bolts in order from (1) — (4) two or three times, until they reach the specified torque.**



Tightening torque:

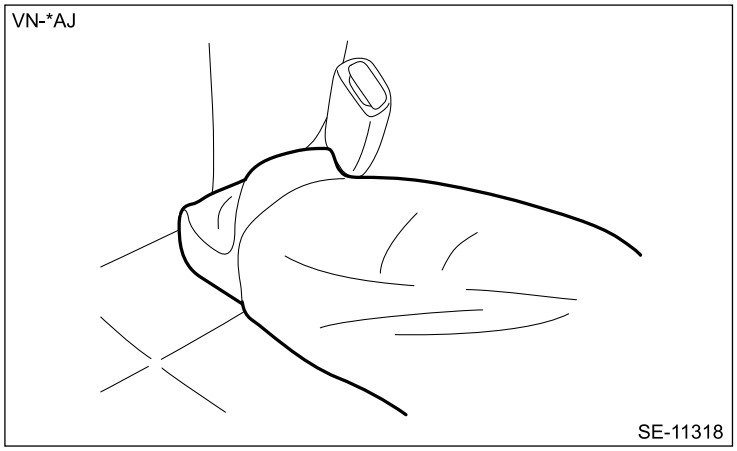
52 N·m (5.3 kgf-m, 38.4 ft-lb)

- **When installing the front seat belt INN, follow the procedures described in the SEAT BELT section. Ref. to SEAT BELT SYSTEM>Front Seat Belt>INSTALLATION.**

Tightening torque:

Refer to "COMPONENT" of "General Description" for the tightening torque. Ref. to SEATS>General Description>COMPONENT > FRONT SEAT.

4. If any wrinkles are found after the assembly of the seat cover, finish the seat cover with iron.
(1) Place the wet towel on wrinkles.



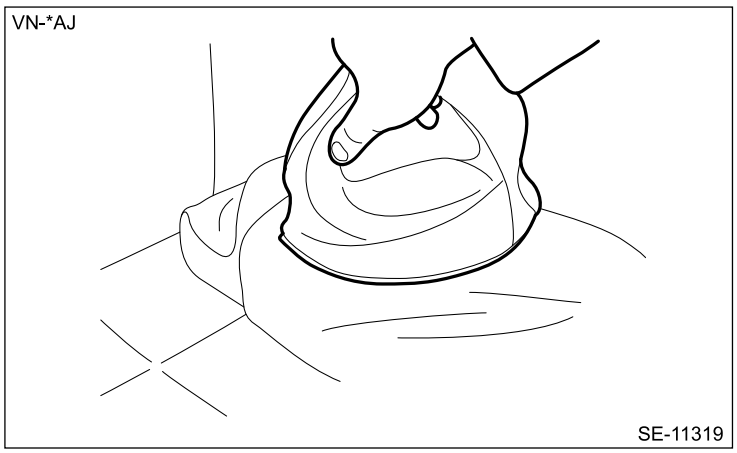
(2) Touch up with warm iron.

Caution:

Keep moving the iron, otherwise the seat cover surface can be damaged.

Note:

This method is available for genuine leather, synthetic leather, cloth, etc.

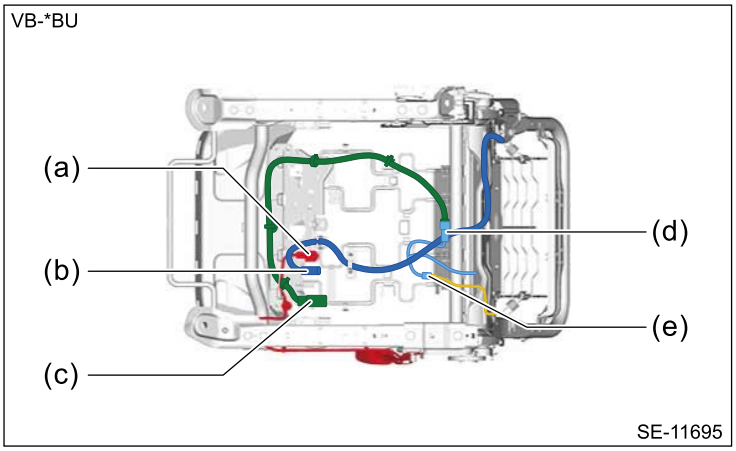


5. Install connectors located under the front seat. Ref. to SEATS>Front Seat>ASSEMBLY > CONNECTOR & HARNESS.
6. Install the seat assembly. Ref. to SEATS>Front Seat>INSTALLATION.

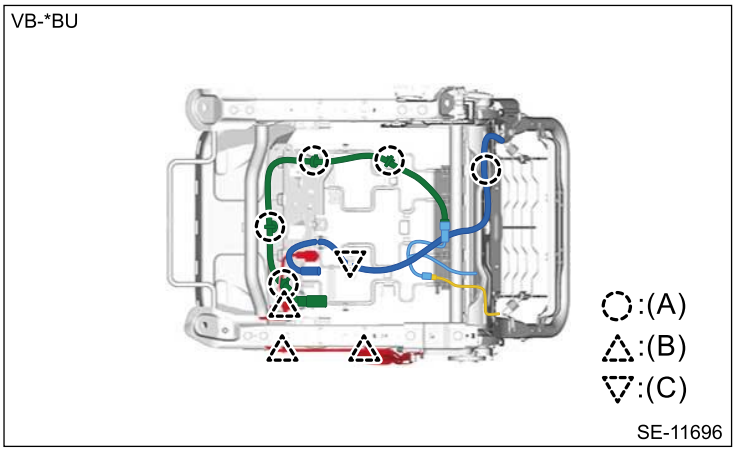
2. CONNECTOR & HARNESS

Route the harness by referring to the following.

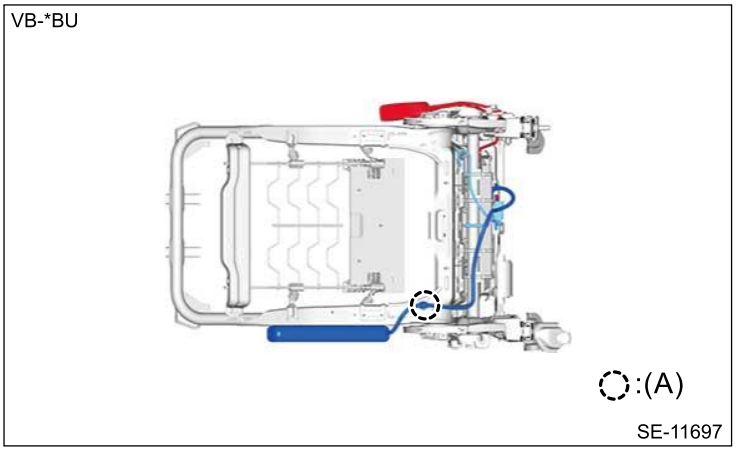
- Driver’s seat
  - – Manual seat model



(a) Seat belt connector
(b) Side airbag connector
(c) Integrated connector
(d) Cushion heater connector
(e) Backrest heater connector

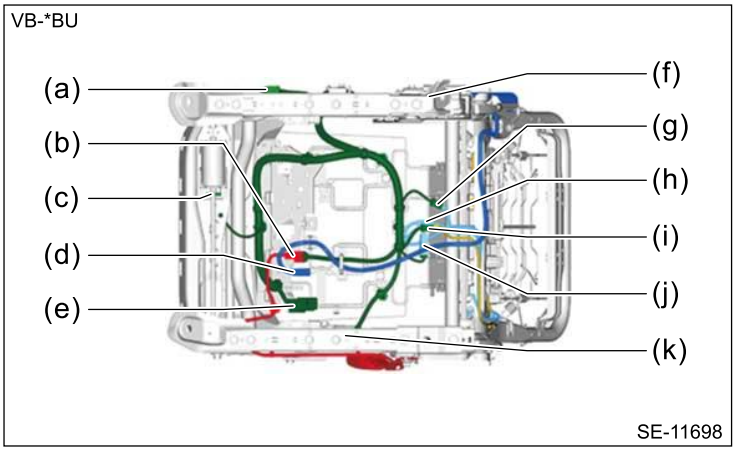


(A) Harness clamp
(B) Harness clamp
(C) Harness holder (panel front wire)

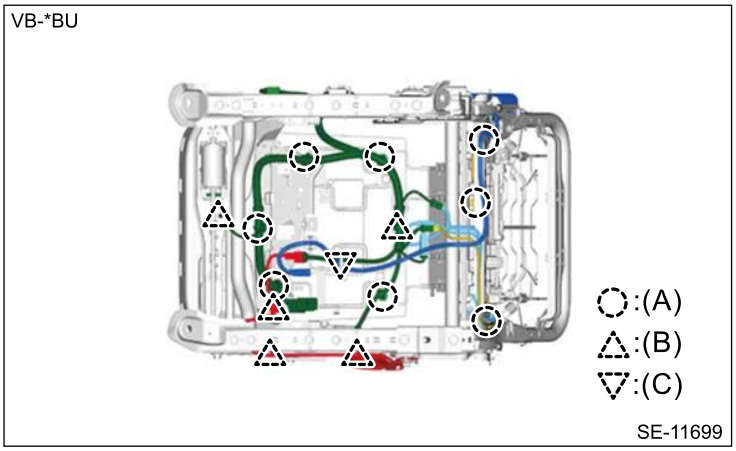


(A) Harness clamp

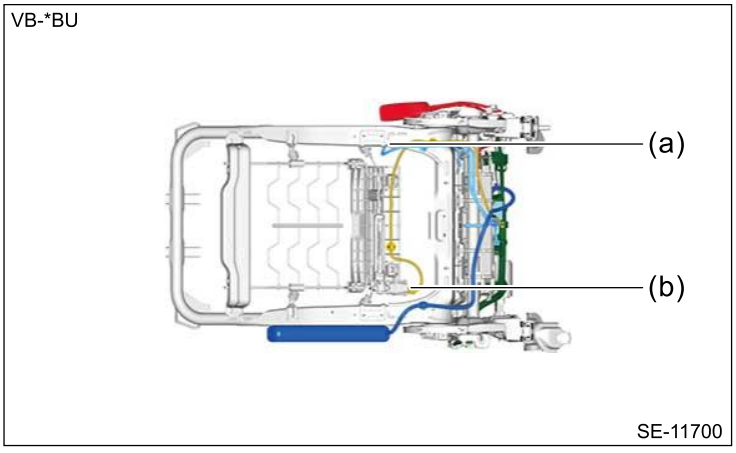
– Model with power seat (except for RECARO® seat)



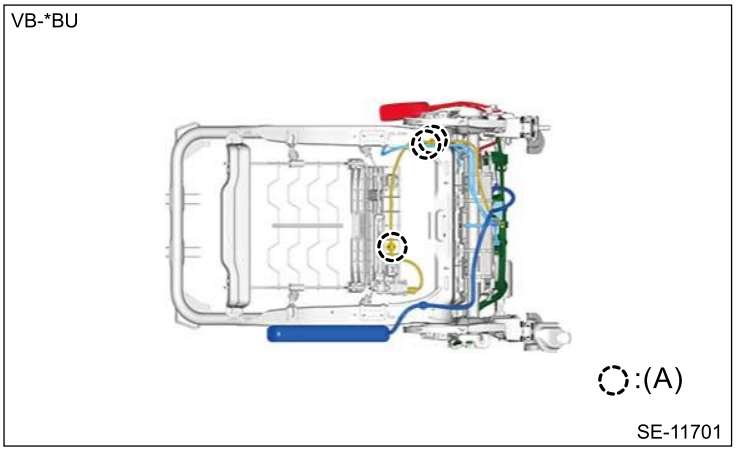
(a) Power seat switch connector
(b) Seat belt connector
(c) Slide motor connector
(d) Side airbag connector
(e) Integrated connector
(f) Lifter motor connector
(g) Reclining harness connector
(h) Backrest heater connector
(i) Lumbar harness connector
(j) Cushion heater connector
(k) Tilt motor connector



(A) Harness clamp
(B) Harness clamp
(C) Harness holder (panel front wire)

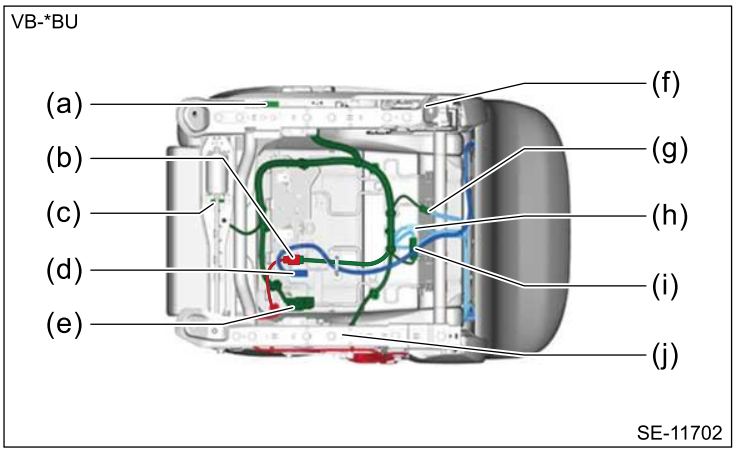


(a) Reclining motor connector
(b) Lumbar motor connector

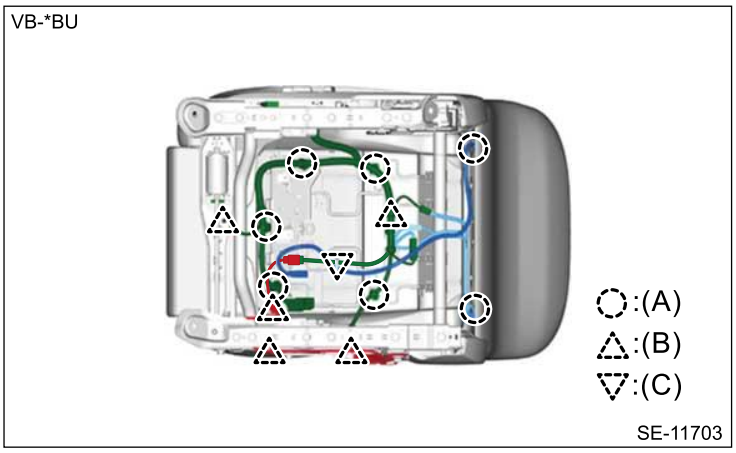


(A) Harness clamp

– Model with power seat (RECARO® seat)



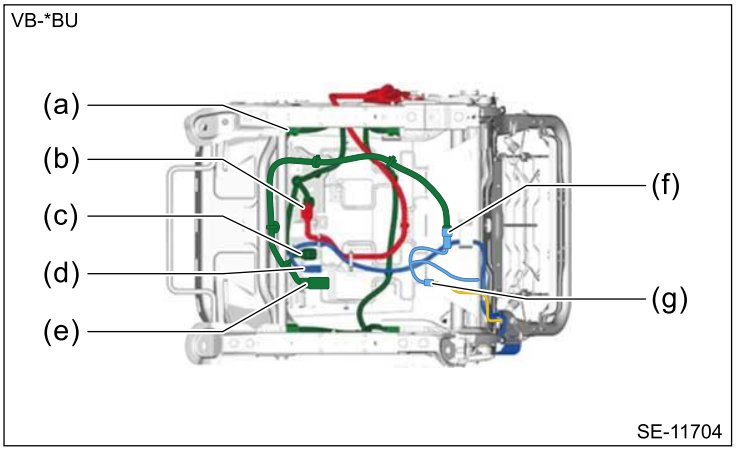
(a) Power seat switch connector
(b) Seat belt connector
(c) Slide motor connector
(d) Side airbag connector
(e) Integrated connector
(f) Lifter motor connector
(g) Reclining harness connector
(h) Backrest heater connector
(i) Cushion heater connector
(j) Tilt motor connector



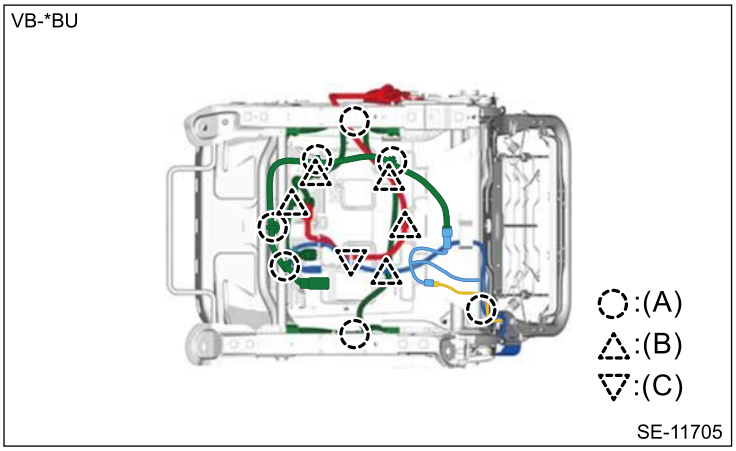
(A) Harness clamp
(B) Harness clamp
(C) Harness holder (panel front wire)

- Passenger’s seat

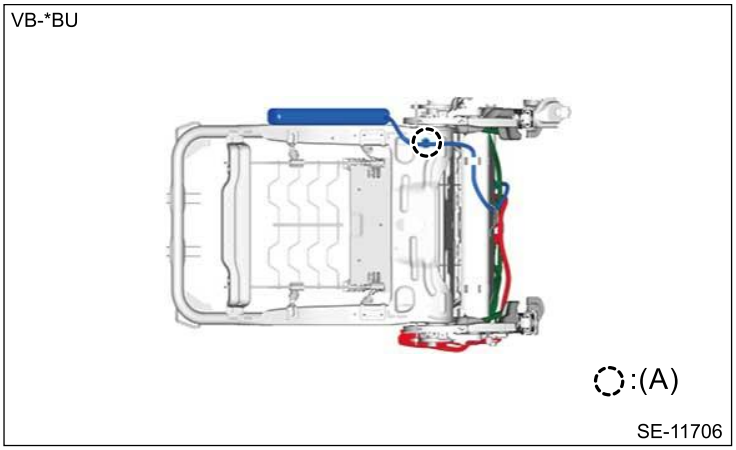
– Manual seat model (except for RECARO® seat)



(a) Load sensor
(b) Seat belt connector
(c) Load sensor connector
(d) Side airbag connector
(e) Integrated connector
(f) Cushion heater connector
(g) Backrest heater connector

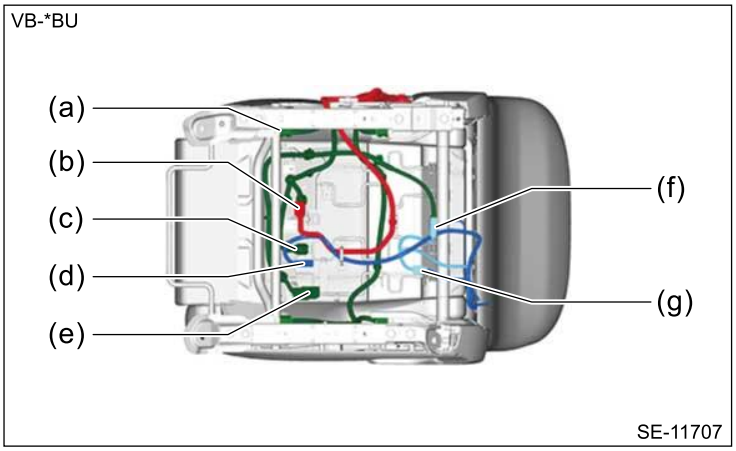


(A) Harness clamp
(B) Harness clamp
(C) Harness holder (panel front wire)

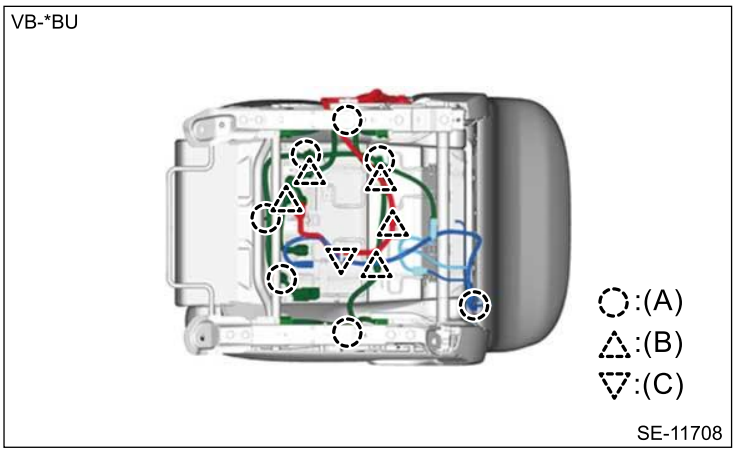


(A) Harness clamp

– Manual seat model (except for RECARO® seat)



(a) Load sensor
(b) Seat belt connector
(c) Load sensor connector
(d) Side airbag connector
(e) Integrated connector
(f) Cushion heater connector
(g) Backrest heater connector



(A) Harness clamp
(B) Harness clamp
(C) Harness holder (panel front wire)

SEATS > Front Seat

INSPECTION

1. SEAT COVER

Check that there is no tear or fray on the cover front seat backrest and the cover front seat cushion.

Note:
If the door side of the front seat backrest cover is torn or frayed, the side airbag may not be deployed properly. In this case, replace the front seat backrest cover with a new part.

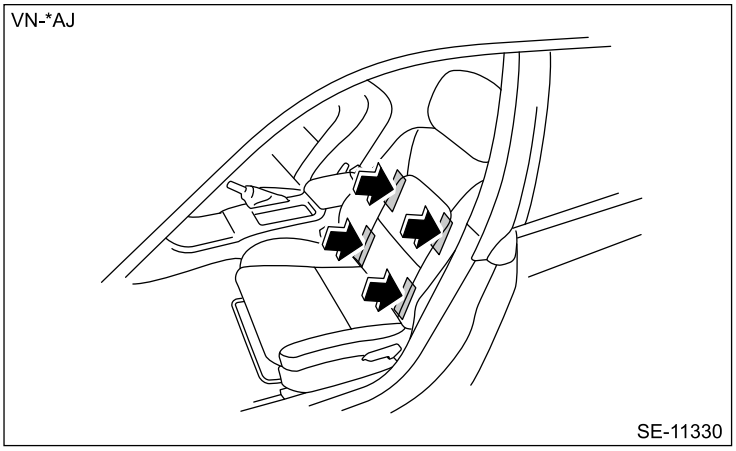
2. CHECK PASSENGER'S SEAT BELT WARNING LIGHT

For inspection of the passenger's seat belt warning light, refer to "Seat Belt Warning System" in the "SEAT BELT SYSTEM" section. Ref. to SEAT BELT SYSTEM>Seat Belt Warning System>INSPECTION.

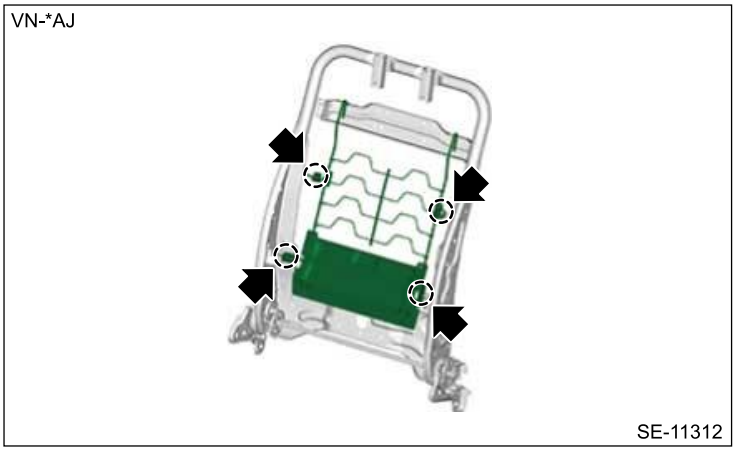
3. HOOK SPRING

Check the flat mat hook spring by applying weight to the backrest assembly. (Except for RECARO® seat model)

Note:
If the appropriate stiffness is not obtained by applying weight to the backrest assembly, the hook spring may be disengaged.



If it is due to the deformation of the hook spring, replace the flat mat & hook spring assembly with a new part.



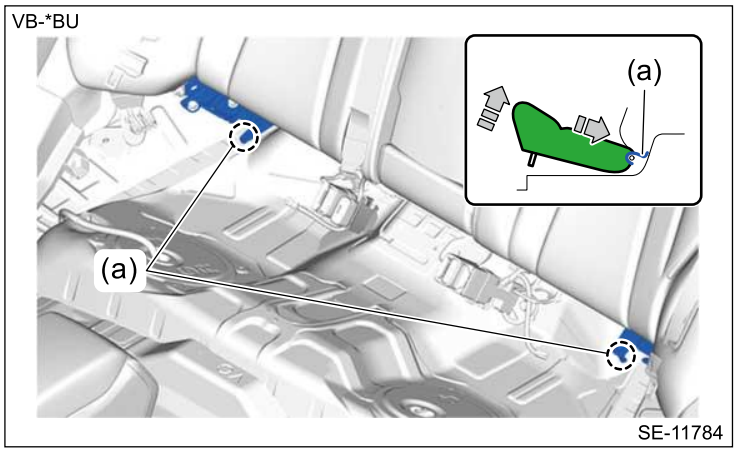
REMOVAL

Caution:

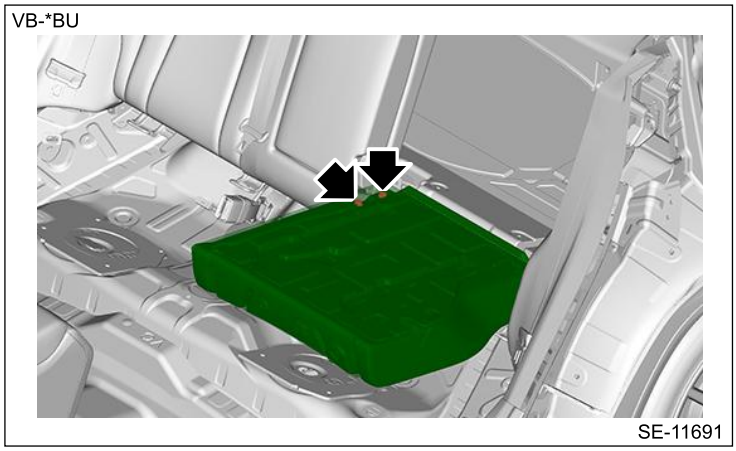
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the rear seat cushion assembly.
   (1) While pushing the corners of the rear seat cushion from above, pull the knob of the hook seat cushion rear towards yourself.
   (2) While pulling the knob towards yourself, disconnect the hooks by lifting up the rear seat cushion.

   (3) Remove the hook (a) by pushing it back while lifting the front side of the rear seat cushion.



   (4) Disconnect the connector and remove the rear seat cushion.
3. Remove the mat trunk, spacer center and spacer rear floor side.
4. Remove the backrest assembly LH.
   (1) Tilt the backrest assembly LH forward.
   (2) Disconnect the connector, and remove the connector clip.
   (3) Turn over the cover rear seat backrest LH to remove the bolts.



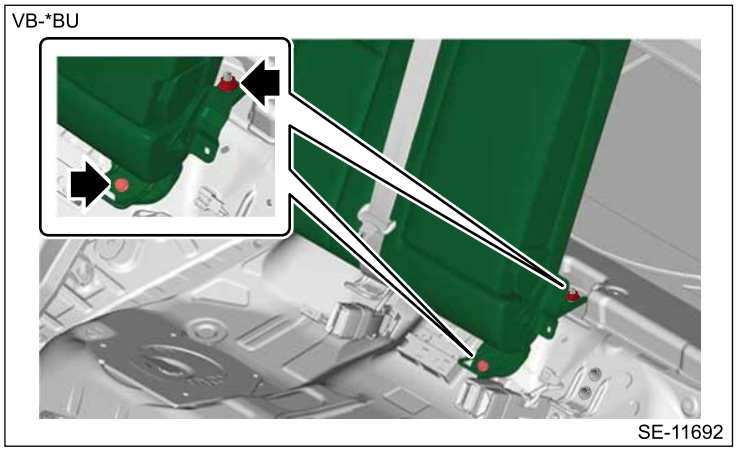
(4) Remove the backrest assembly LH.

5. Remove the backrest assembly RH.

(1) Disconnect the connector, and remove the connector clip.

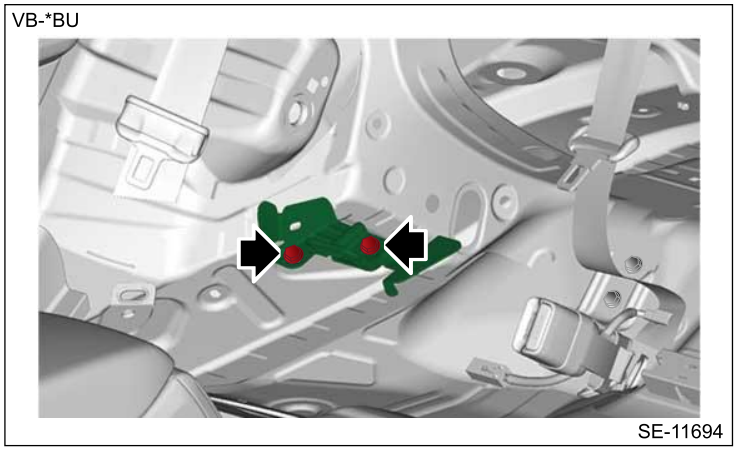
(2) Remove the bolt and nut.

(3) Tilt the backrest assembly RH forward, and remove the backrest assembly RH.



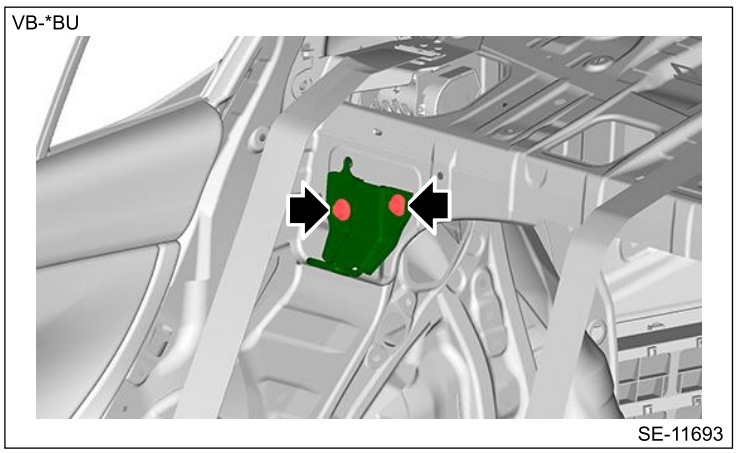
6. Remove the trim panel assembly C pillar LWR and the trim panel assembly C pillar. Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.

7. Remove the bolts, and remove the hook BRKT rear seat cushion.



8. Remove the trim panel assembly rear shelf. Ref. to EXTERIOR/INTERIOR TRIM>Rear Shelf Trim>REMOVAL.

9. Remove the bolts, and then remove the striker backrest.



INSTALLATION

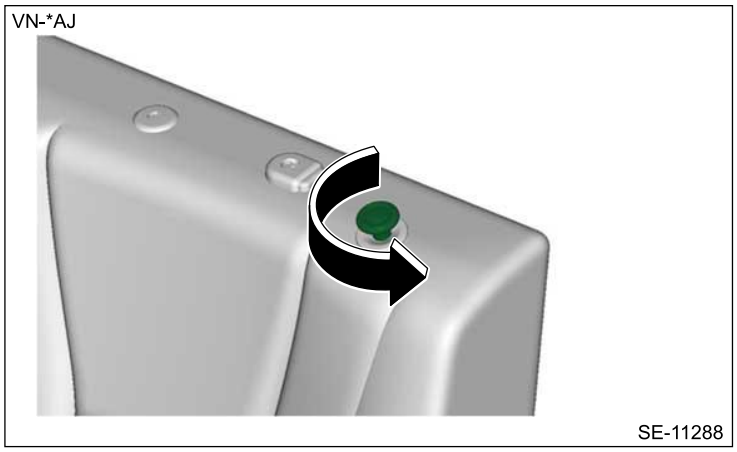
Caution:
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Install the striker backrest.
   Tightening torque:
   33 N·m (3.4 kgf-m, 24.3 ft-lb)
2. Install the trim panel assembly rear shelf. Ref. to EXTERIOR/INTERIOR TRIM>Rear Shelf Trim>INSTALLATION.
3. Install the hook BRKT rear seat cushion.
   Tightening torque:
   33 N·m (3.4 kgf-m, 24.3 ft-lb)
4. Install the trim panel assembly C pillar and the trim panel assembly C pillar LWR. Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>INSTALLATION.
5. Install the backrest assembly RH and LH.
   Note:
   - **After installing the backrest assembly, make sure that each seat belt operates normally.**
   - **Make sure that they are properly secured on each hook on the vehicle side.**

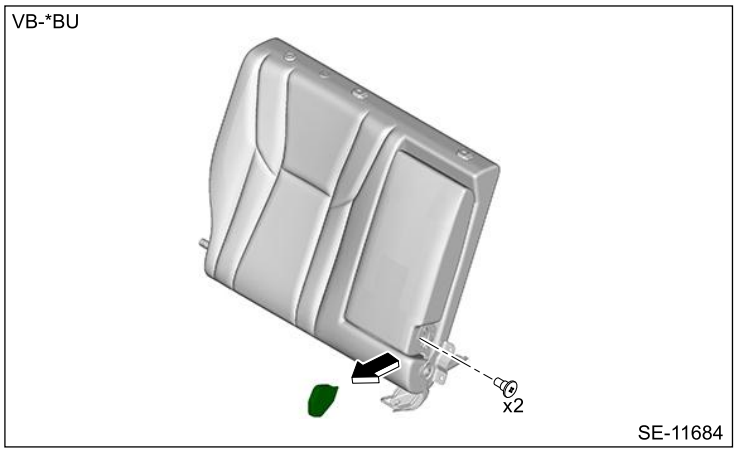
   Tightening torque:
   Refer to "COMPONENT" of "General Description" for the tightening torque. Ref. to SEATS>General Description>COMPONENT > REAR SEAT.
6. Install the spacer rear floor side, spacer center and mat trunk.
7. Install the rear seat cushion assembly.
   Caution:
   Check routing of each buckle of the seat belt.
8. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

DISASSEMBLY

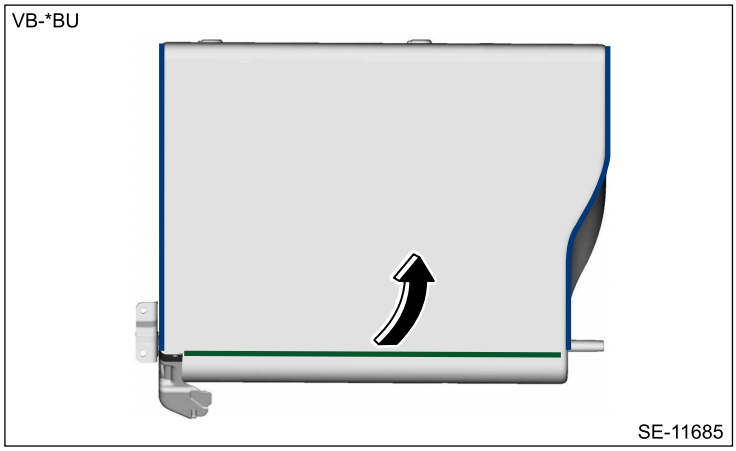
1. Prior to starting work, check the following precautions. Ref. to SEATS>General Description>CAUTION.
2. Remove the rear seat. Ref. to SEATS>Rear Seat>REMOVAL.
3. Remove the headrest assembly.
4. Remove the knob rear backrest.

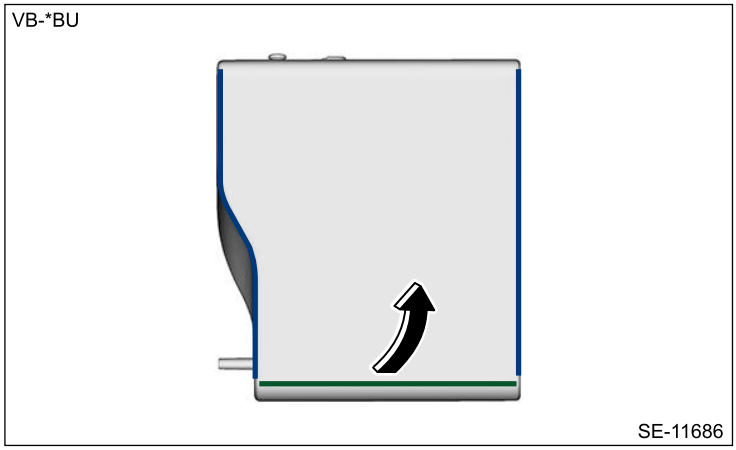


5. Remove the armrest assembly rear seat. (Models with armrest)
   (1) Slide to remove the cover.
   (2) Remove the bolts, and remove the armrest assembly rear seat.

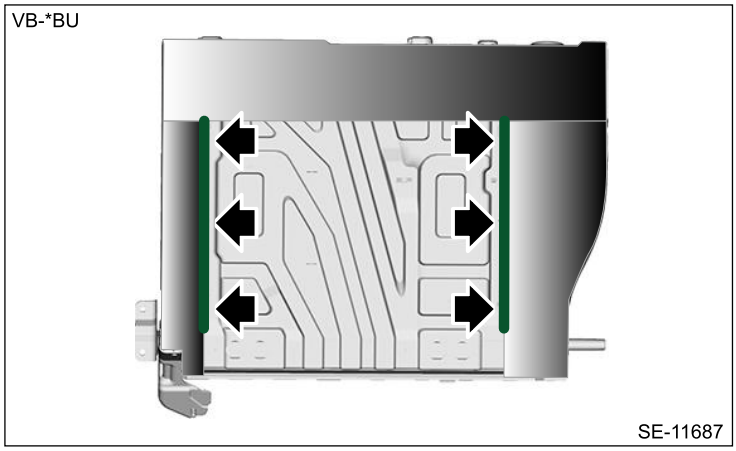


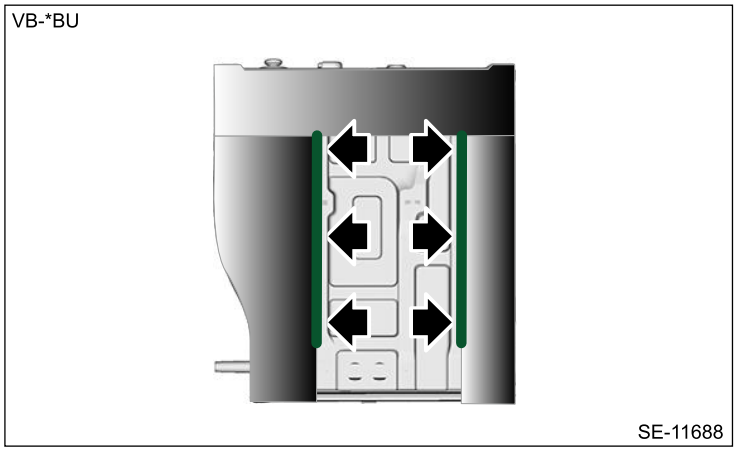
6. Remove the cover backrest rear seat and seat pad assembly rear backrest.
   (1) Detach the plastic fastener at the bottom of backrest assembly, and turn over the cover backrest rear seat.





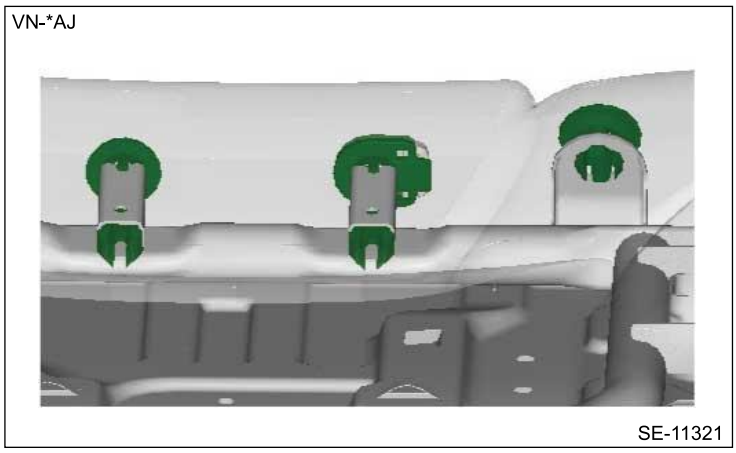
(2) Detach the plastic fasteners on the right and left of the backrest assembly.





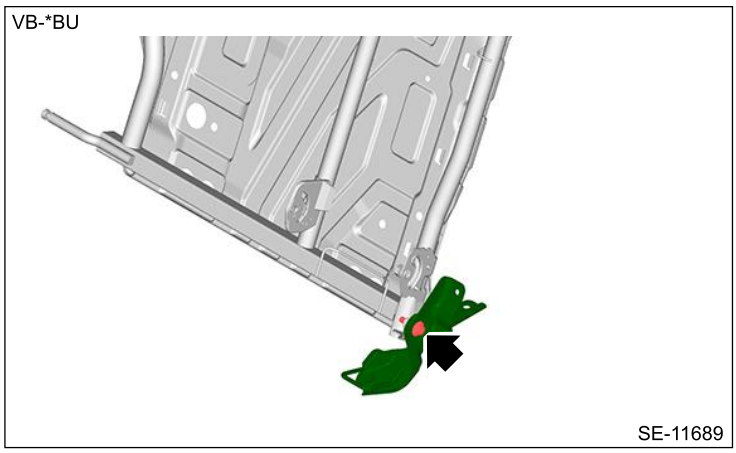
(3) Remove the bushing headrest and knob guide.

Note:
Catch the tip of headrest bushing with pliers and push it from inside seat to outside to remove it.



(4) Remove the cover backrest rear seat and seat pad assembly rear backrest.

7. Remove the bolt and remove the hinge assembly rear seat.

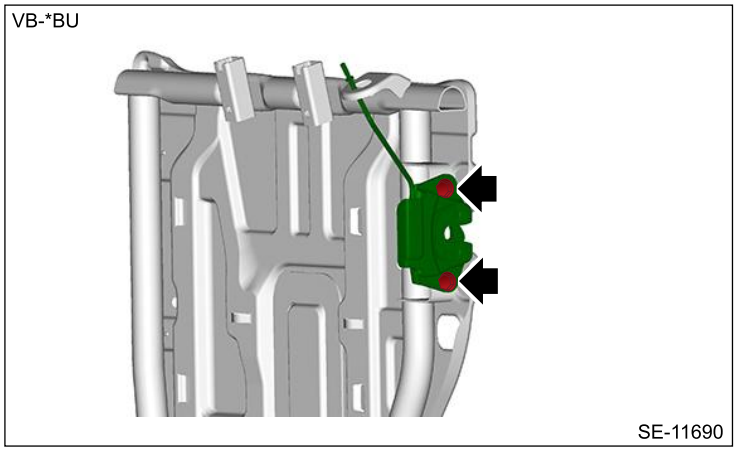


8. Remove the lock assembly.

Caution:
Pay attention to the burrs on the panel edge.

(1) Disconnect the connector.

(2) Remove the bolts, and remove the lock assembly.



9. Remove the hog rings, then remove the cover backrest rear seat.

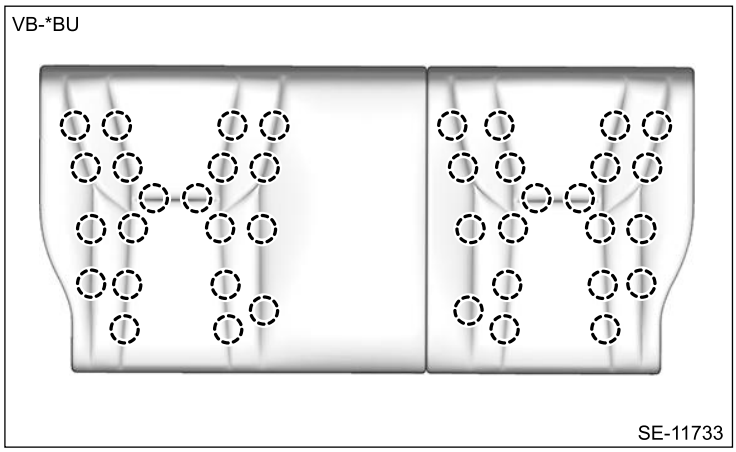
Caution:

- **If the seat heater unit is removed, replace the seat pad assembly with a new part.**
- **If the seat heater unit is reused, remove the polyurethane section and double-sided tape from the reverse side completely. Use new double-sided tape.**

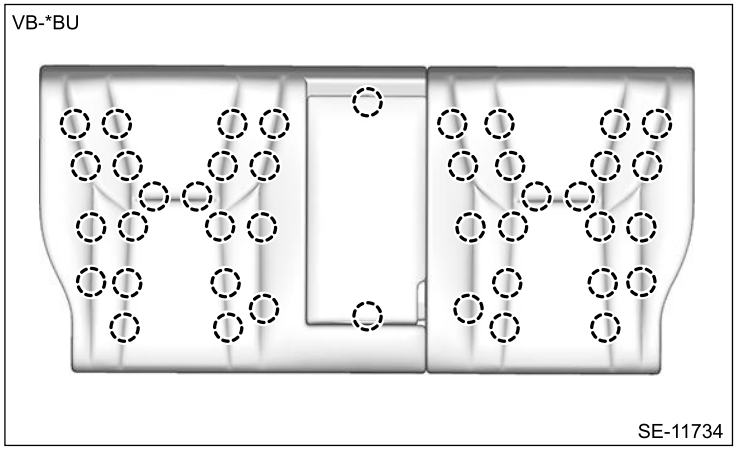
Preparation items:

Double-sided tape: NITTO DENKO 501L or equivalent

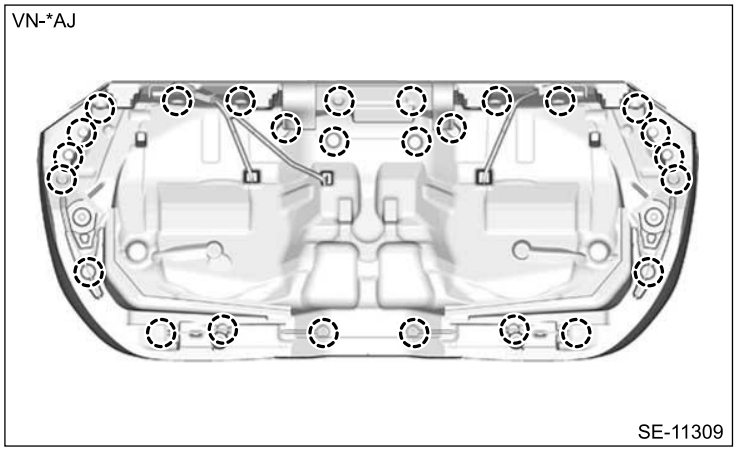
- Model without armrest



- Model with armrest



10. Remove the hog rings on the back side of the rear seat cushion assembly.



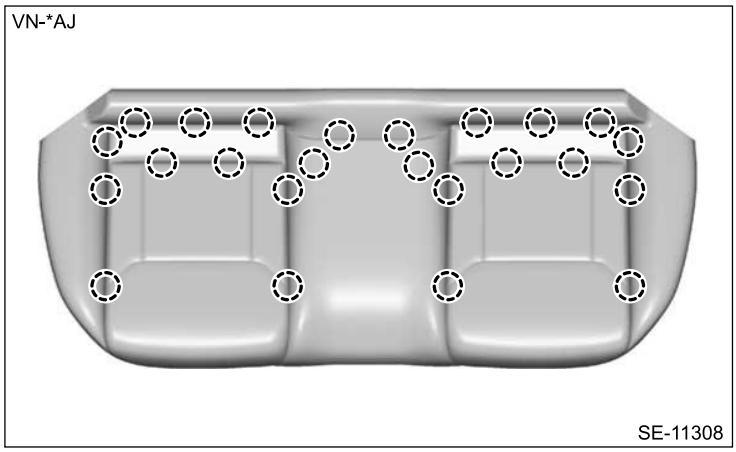
11. Remove the hog rings, then remove the cover cushion rear seat.

Caution:

- **If the seat heater unit is removed, replace the seat pad assembly with a new part.**
- **If the seat heater unit is reused, remove the polyurethane section and double-sided tape from the reverse side completely. Use new double-sided tape.**

  Preparation items:

  Double-sided tape: NITTO DENKO 501L or equivalent
- **If the seating sensor mat is removed, replace the pad & frame assembly rear cushion and the seating sensor mat with new parts. If the seating sensor mat is reused, the detection may not operate properly.**



SEATS > Rear Seat

ASSEMBLY

Caution:

- **If the seating sensor mat is removed, replace the pad & frame assembly rear cushion and the seating sensor mat with new parts. If the seating sensor mat is reused, the detection may not operate properly.**
- **Do not reuse the hog ring and hang wire.**
- **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 rear seat backrest cover and rear seat cushion cover.**

1. Assemble the cover cushion rear seat and the pad & frame assembly rear cushion in the same manner as the front seat. Ref. to SEATS>Front Seat>ASSEMBLY.

Caution:

- **If the seat heater unit is removed, replace the seat pad assembly with a new part.**
- **If the seat heater unit is reused, remove the polyurethane section and double-sided tape from the reverse side completely. Use new double-sided tape.**

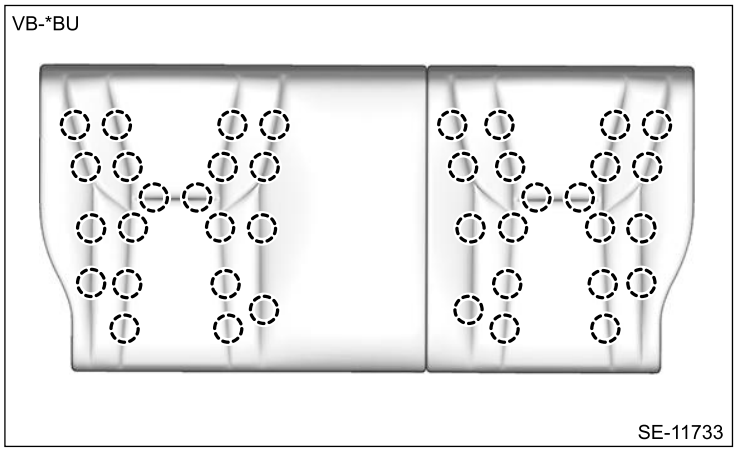
Preparation items:

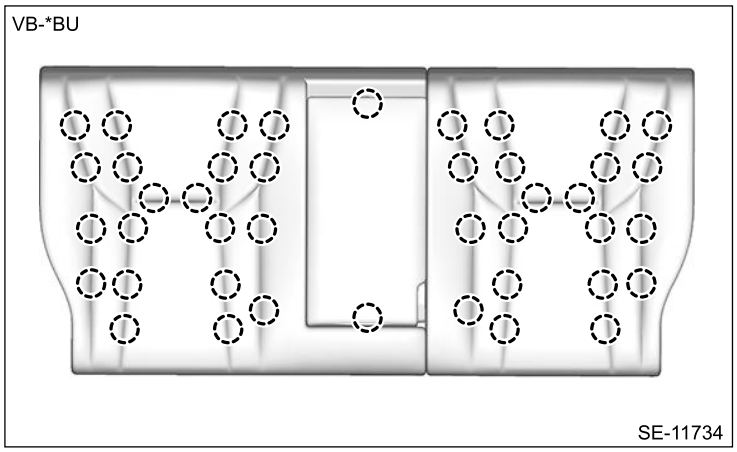
Double-sided tape: NITTO DENKO 501L or equivalent

Note:

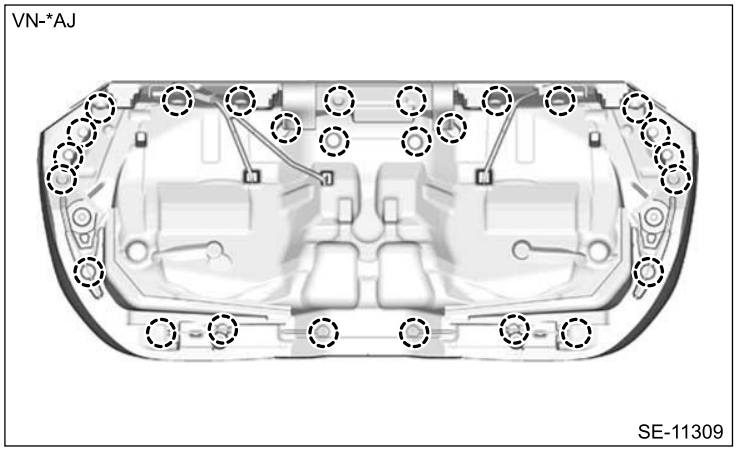
- **Do not contaminate or damage the seat surface and seat pad.**
- **While installing the hog rings, prevent the seat surface from getting wrinkled.**

(1) Install the hog rings, and assemble the cover cushion rear seat and the pad & frame assembly rear cushion.



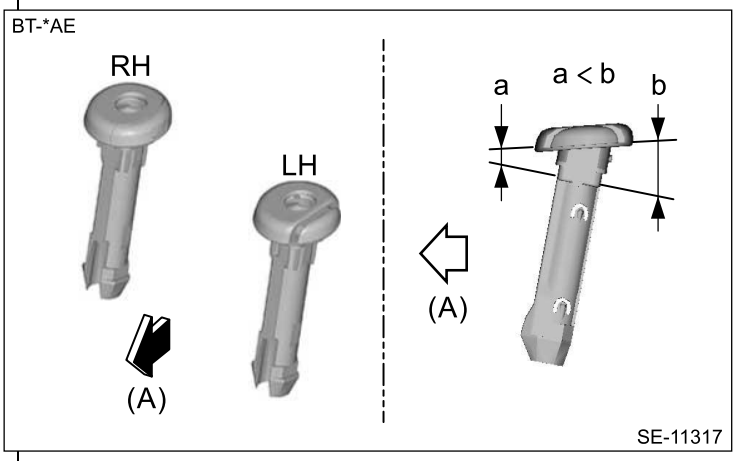


(2) Install the hog rings on the back side of the rear seat cushion assembly.



2. Install the lock assembly.
   Tightening torque:
   18 N·m (1.8 kgf-m, 13.3 ft-lb)
3. Install the hinge assembly rear seat.
   Tightening torque:
   29 N·m (3.0 kgf-m, 21.4 ft-lb)
4. Install the cover backrest rear seat to the frame assembly rear backrest.
5. Install the bushing headrest and the bushing lock headrest.

Note:
Check the shape and front/rear directions before assembling the headrest bushing.



(A) Front

6. Tighten the fastener on backside of the backrest assembly, and install the plastic fastener.
7. Install the armrest assembly rear seat. (Models with armrest)
   Tightening torque:
   14.6 N·m (1.5 kgf-m, 10.8 ft-lb)
8. Install the knob rear backrest.
9. Install the headrest assembly.
10. Check that there is no tear or fray on the seat surface.
11. Install the rear seat. Ref. to SEATS>Rear Seat>INSTALLATION.

SEATS > Rear Seat

INSPECTION

1. SEAT COVER

- Check that there is no tear or fray on the seat surface.
- Check that the folding down mechanism and the reclining mechanism operate normally.

2. CHECK REAR SEAT BELT WARNING LIGHT

For inspection of the rear seat belt warning light, refer to “Seat Belt Warning System” in the “SEAT BELT SYSTEM” section. Ref. to SEAT BELT SYSTEM>Seat Belt Warning System>INSPECTION.

SEATS > Power Seat System

WIRING DIAGRAM

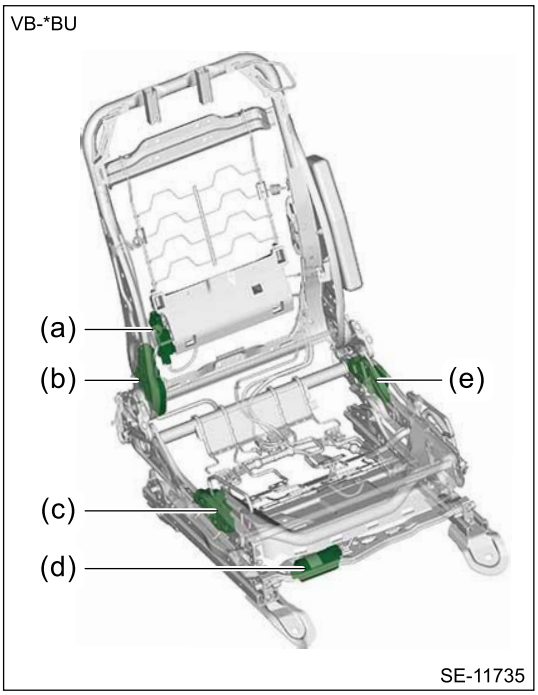
For the wiring diagram, refer to “Power Seat System” in the wiring diagram. Ref. to WIRING SYSTEM>Power Seat System>WIRING DIAGRAM.

SEATS > Power Seat System

INSPECTION

1. NOTE

- **MOTOR LAYOUT**



(a) Lumbar motor
(b) Reclining motor
(c) Tilt motor
(d) Slide motor
(e) Lifter motor

- **HARNESS LAYOUT**
  For the harness layout, refer to “CONNECTOR & HARNESS” in “FRONT SEAT”, “ASSEMBLY”. Ref. to SEATS>Front Seat>ASSEMBLY > CONNECTOR & HARNESS.

2. TROUBLE SYMPTOM

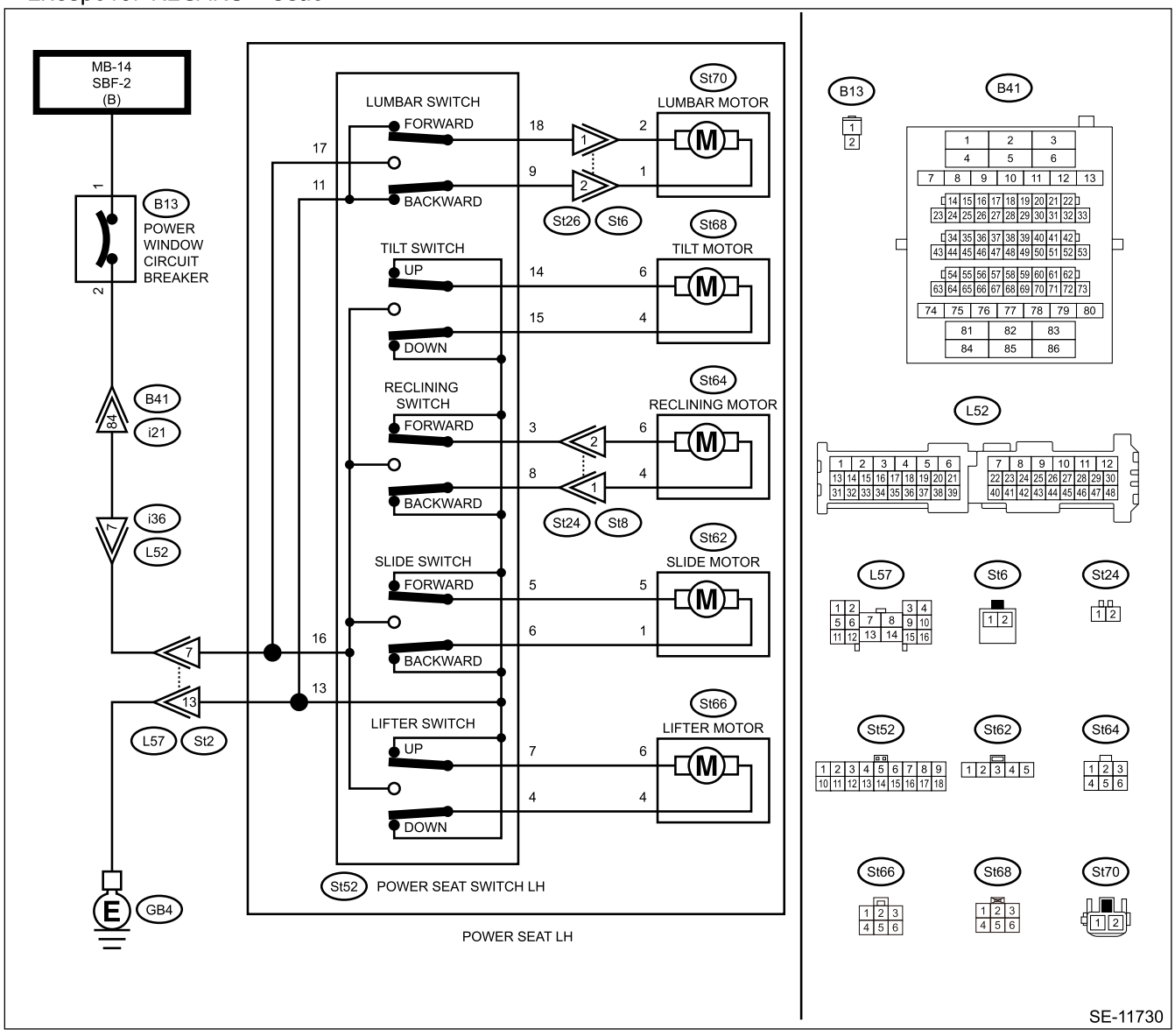
Symptoms	Reference
All functions do not operate.	Ref. to SEATS>Power Seat System>INSPECTION > ALL FUNCTIONS DO NOT OPERATE.
A part of function does not operate.	Ref. to SEATS>Power Seat System>INSPECTION > A PART OF FUNCTION DOES NOT OPERATE.

3. ALL FUNCTIONS DO NOT OPERATE

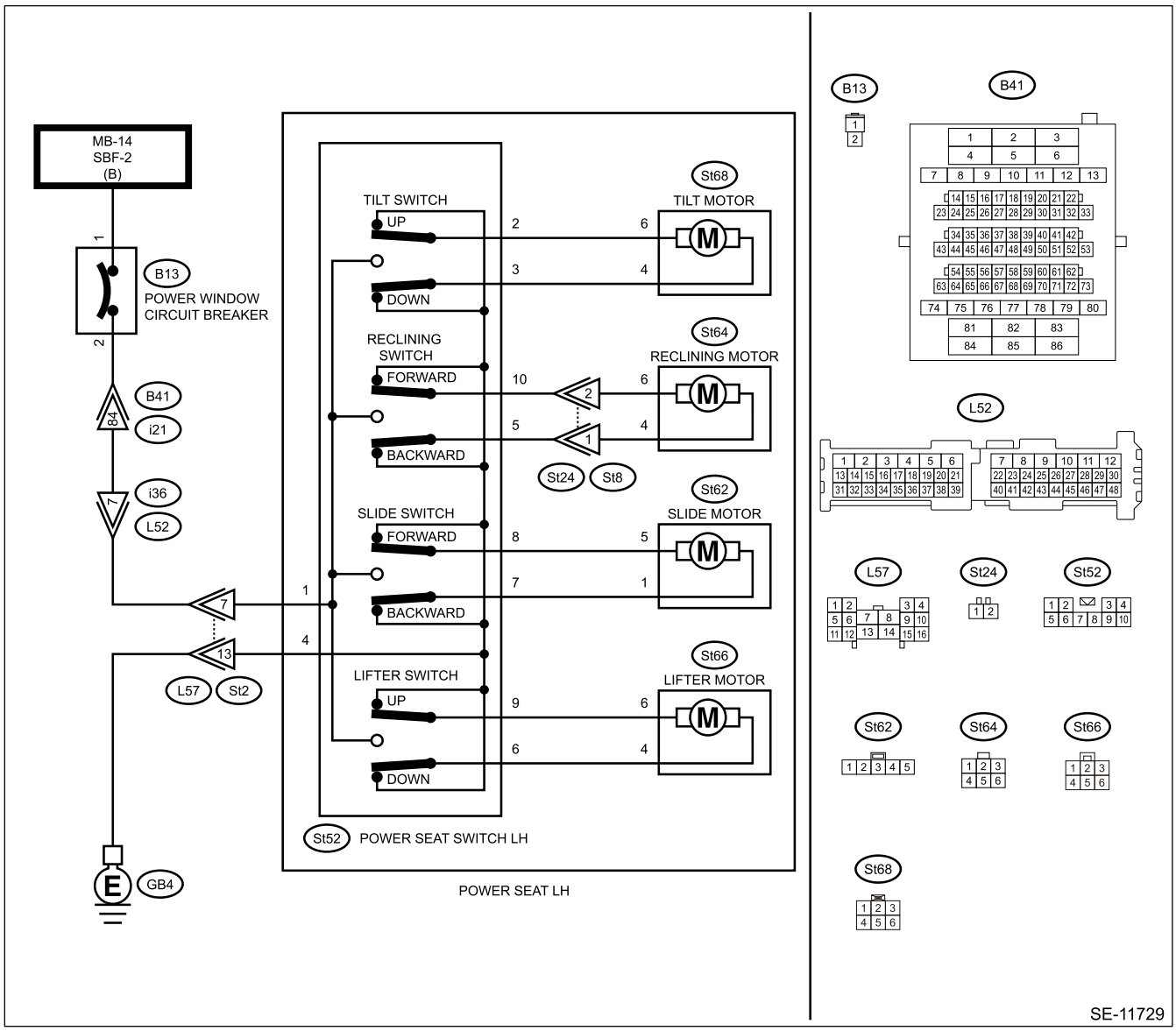
Wiring diagram:

Power seat system Ref. to WIRING SYSTEM>Power Seat System>WIRING DIAGRAM.

- Except for RECARO® seat



- RECARO® seat



1. CHECK SEAT FUNCTIONS.

Operate each power seat switch and check that each power seat function operates normally.

Does all function fail to operate?

Yes	Go to 2.
No	Check the motor which does not operate. Ref. to SEATS>Power Seat System>INSPECTION > A PART OF FUNCTION DOES NOT OPERATE.

2. CHECK FUSE.

1. Turn the ignition switch to OFF.
2. Check the power seat fuse inside the fuse box. Ref. to SEATS>Relay and Fuse>INSPECTION > CHECK FUSE.

Is the fuse blown out?

Yes	Replace the appropriate fuse.
No	Go to 3.

3. CHECK CIRCUIT BREAKER.

1. Remove the circuit breaker. Ref. to SEATS>Relay and Fuse>REMOVAL > CIRCUIT BREAKER.
2. Check the circuit breaker. Ref. to SEATS>Relay and Fuse>INSPECTION > CHECK CIRCUIT BREAKER.

Is the circuit breaker normal?

Yes	Go to 4.
No	Replace the circuit breaker.

4. CHECK POWER SUPPLY CIRCUIT.

1. Disconnect the power seat switch connector.
2. Measure the voltage between harness connector and chassis ground.

Connector & terminal

Except for RECARO® seat

(St52) No. 16 (+) — Chassis ground (−):

(St52) No. 17 (+) — Chassis ground (−):

RECARO® seat

(St52) No. 1 (+) — Chassis ground (−):

Is the voltage 10 V or more?

Yes	Go to 5.
No	Check body harness.

5. CHECK GROUND CIRCUIT.

Measure the resistance between power seat switch harness connector and chassis ground.

Connector & terminal

Except for RECARO® seat

(St52) No. 11 — Chassis ground:

(St52) No. 13 — Chassis ground:

RECARO® seat

(St52) No. 4 — Chassis ground:

Is the resistance less than 10 Ω?

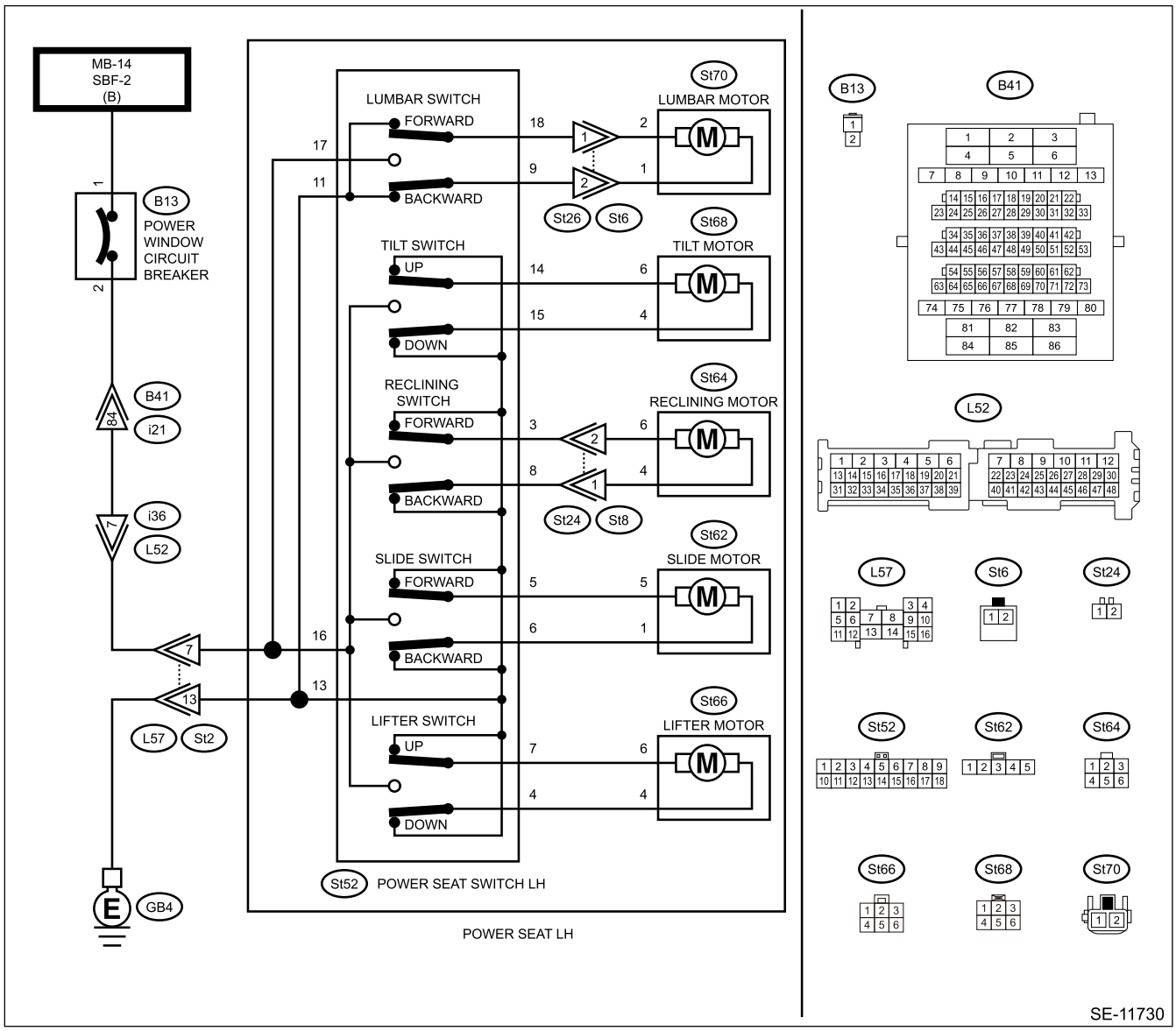
Yes	Replace the power seat switch assembly. Ref. to SEATS>Power Seat.
No	Check body harness.

4. A PART OF FUNCTION DOES NOT OPERATE

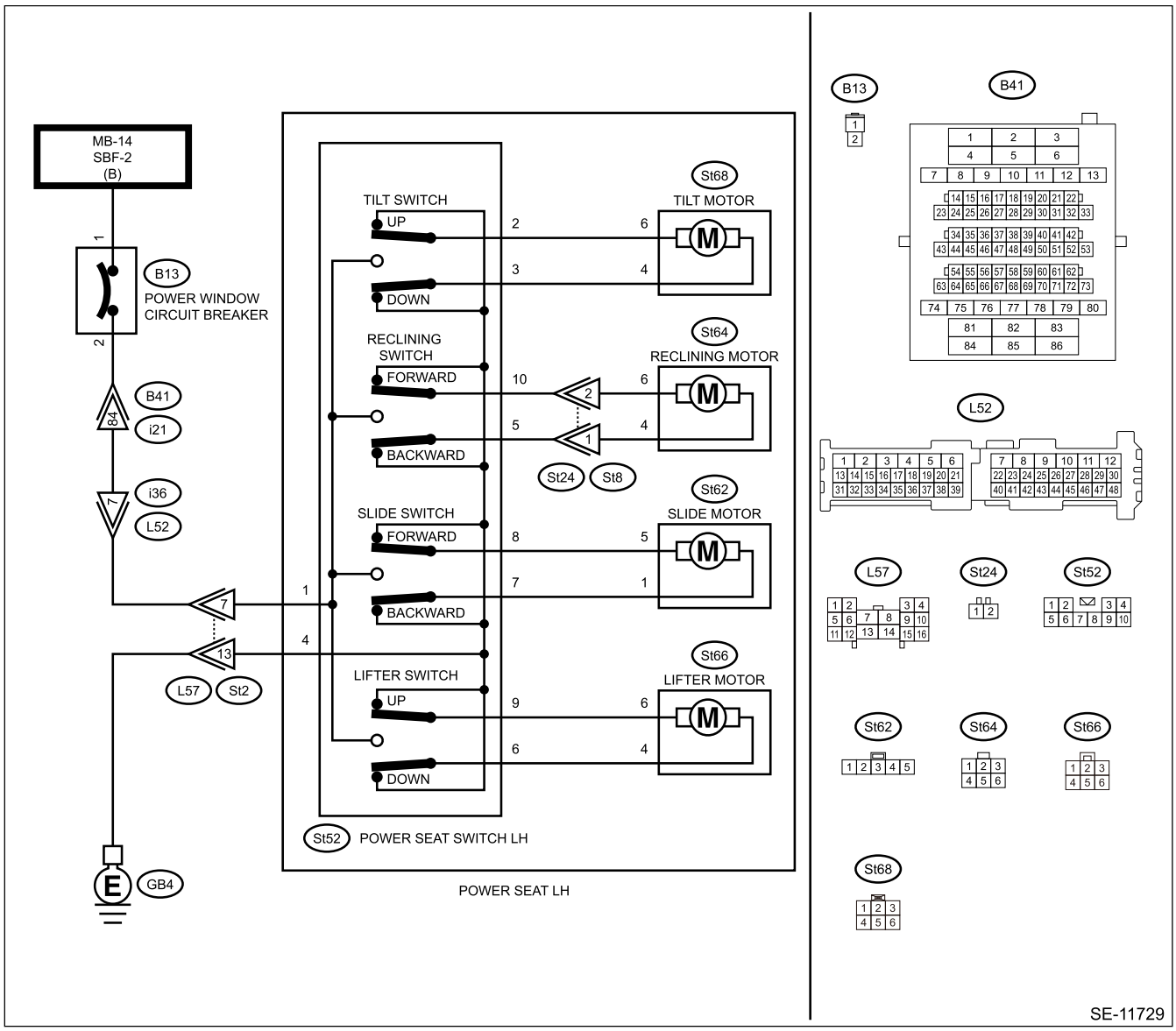
Wiring diagram:

Power seat system Ref. to WIRING SYSTEM>Power Seat System>WIRING DIAGRAM.

- Except for RECARO® seat


MB-14
SBF-2
(B)
B13
POWER
WINDOW
CIRCUIT
BREAKER
B41
i21
B4
i36
L52
L57
St2
GB4
LUMBAR SWITCH
FORWARD
BACKWARD
TILT SWITCH
UP
DOWN
RECLINING
SWITCH
FORWARD
BACKWARD
SLIDE SWITCH
FORWARD
BACKWARD
LIFTER SWITCH
UP
DOWN
St70
LUMBAR MOTOR
St68
TILT MOTOR
St64
RECLINING MOTOR
St62
SLIDE MOTOR
St66
LIFTER MOTOR
St26
St6
St24
St8
St52
POWER SEAT SWITCH LH
POWER SEAT LH
B13
B41
L52
L57
St6
St24
St52
St62
St64
St66
St68
St70
SE-11730

- RECARO® seat



- **SLIDE OPERATION FAILURE**

1. CHECK SWITCH.

1. Turn the ignition switch to OFF.
2. Disconnect the power seat switch connector.
3. Measure the resistance between connector terminals when moving the switch to slide forward and slide backward. Ref. to SEATS>Power Seat>INSPECTION > POWER SEAT SWITCH.

Is the inspection result normal?

Yes	Go to 2.
No	Replace the power seat switch assembly. Ref. to SEATS>Power Seat.

2. CHECK HARNESS.

1. Disconnect the slide motor connector.
2. Measure the resistance between power seat switch connector and slide motor connector.

Connector & terminal

Except for RECARO® seat

(St52) No. 5 — (St62) No. 5:

(St52) No. 6 — (St62) No. 1:

RECARO® seat

(St52) No. 8 — (St62) No. 5:

(St52) No. 7 — (St62) No. 1:

Is the resistance less than 10 Ω?

Yes	Go to 3.
No	Check power seat harness.

3. CHECK SLIDE MOTOR.

1. Connect the power seat switch connector and slide motor connector.
2. Apply battery voltage to the slide motor and check the motor rotation.

Connector & terminal

(St62) No. 5 (+) — (St62) No. 1 (−):

(St62) No. 1 (+) — (St62) No. 5 (−):

Does the motor rotate normally?

Yes	Check for temporary poor contact or mechanical trouble in slide rail.
No	Slide motor problem. Replace the seat cushion frame assembly.

- **MALFUNCTION OF RECLINING OPERATION**

1. CHECK SWITCH.

1. Turn the ignition switch to OFF.
2. Disconnect the power seat switch connector.
3. Measure the resistance between connector terminals when moving the switch to reclining forward and reclining backward. Ref. to SEATS>Power Seat>INSPECTION > POWER SEAT SWITCH.

Is the inspection result normal?

Yes	Go to 2.
No	Replace the power seat switch assembly. Ref. to SEATS>Power Seat.

2. CHECK HARNESS.

1. Disconnect the reclining motor connector.
2. Measure the resistance between power seat switch connector and reclining motor connector.

Connector & terminal

Except for RECARO® seat

(St52) No. 3 — (St64) No. 6:
(St52) No. 8 — (St64) No. 4:

RECARO® seat

(St52) No. 10 — (St64) No. 6:
(St52) No. 5 — (St64) No. 4:

Is the resistance less than 10 Ω?

Yes	Go to 3.
No	Check power seat harness.

- **MALFUNCTION OF LIFTER OPERATION**

3. CHECK RECLINING MOTOR.

1. Turn the ignition switch to OFF.
2. Disconnect the power seat switch connector.
3. Measure the resistance between connector terminals when moving the switch to lifter up and lifter down.

Connector & terminal

(St64) No. 4 (+) — (St64) No. 6 (−):

Ref. to SEATS>Power Seat>INSPECTION > POWER SEAT SWITCH.

Is the inspection result normal?

Does the motor rotate normally?

Yes	Go to 2.
	Check for temporary poor contact or mechanical trouble in reclining hinge.
No	Replace the power seat switch assembly. Ref. to SEATS>Power Seat.
	Reclining motor problem. Replace the backrest frame assembly.

2. CHECK HARNESS.

1. Disconnect the lifter motor connector.
2. Measure the resistance between power seat switch connector and lifter motor connector.

Connector & terminal

Except for RECARO® seat

(St52) No. 7 — (St66) No. 6:

(St52) No. 4 — (St66) No. 4:

RECARO® seat

(St52) No. 9 — (St66) No. 6:

(St52) No. 6 — (St66) No. 4:

Is the resistance less than 10 Ω?

Yes	Go to 3.
No	Check power seat harness.

3. CHECK LIFTER MOTOR.

1. Connect the power seat switch connector and lifter motor connector.
2. Apply battery voltage to the lifter motor and check the motor rotation.

Connector & terminal

(St66) No. 6 (+) — (St66) No. 4 (−):

(St66) No. 4 (+) — (St66) No. 6 (−):

Does the motor rotate normally?

Yes: Check for temporary poor contact or mechanical trouble in lifter mechanism.

No: Lifter motor problem. Replace the seat cushion frame assembly.

- **MALFUNCTION OF TILT OPERATION**

1. CHECK SWITCH.

1. Turn the ignition switch to OFF.
2. Disconnect the power seat switch connector.
3. Measure the resistance between connector terminals when moving the switch to tilt up and tilt down. Ref. to SEATS>Power Seat>INSPECTION > POWER SEAT SWITCH.

Is the inspection result normal?

Yes	Go to 2.
No	Replace the power seat switch assembly. Ref. to SEATS>Power Seat.

2. CHECK HARNESS.

1. Disconnect the tilt motor connector.
2. Measure the resistance between power seat switch connector and tilt motor connector.

Connector & terminal

Except for RECARO® seat

(St52) No. 14 — (St68) No. 6:

(St52) No. 15 — (St68) No. 4:

RECARO® seat

(St52) No. 2 — (St68) No. 6:

(St52) No. 3 — (St68) No. 4:

Is the resistance less than 10 Ω?

Yes	Go to 3.
No	Check power seat harness.

3. CHECK TILT MOTOR.

1. Connect the power seat switch connector and tilt motor connector.
2. Apply battery voltage to the tilt motor and check the motor rotation.
   Connector & terminal
   (St68) No. 6 (+) — (St68) No. 4 (−):
   (St68) No. 4 (+) — (St68) No. 6 (−):

Does the motor rotate normally?

- **MALFUNCTION OF LUMBAR OPERATION**

Yes — Check for temporary poor contact or mechanical trouble in tilt mechanism.

1. CHECK SWITCH.

No — Tilt motor problem. Replace the seat cushion frame assembly.

1. Turn the ignition switch to OFF.
2. Disconnect the power seat switch connector.
3. Measure the resistance between connector terminals when moving the switch to lumbar forward and lumbar backward. Ref. to SEATS>Power Seat>INSPECTION > POWER SEAT SWITCH.

Is the inspection result normal?

Yes — Go to 2.

No — Replace the power seat switch assembly. Ref. to SEATS>Power Seat.

2. CHECK HARNESS.

1. Disconnect the lumbar motor connector.
2. Measure the resistance between power seat switch connector and lumbar motor connector.
   Connector & terminal
   (St52) No. 18 — (St70) No. 2:
   (St52) No. 9 — (St68) No. 1:

Is the resistance less than 10 Ω?

Yes — Go to 3.

No — Check power seat harness.

3. CHECK LUMBAR MOTOR.

1. Connect the power seat switch connector and lumbar motor connector.
2. Apply battery voltage to the lumbar motor and check the motor rotation.
   Connector & terminal
   (St70) No. 2 (+) — (St70) No. 1 (−):
   (St70) No. 1 (+) — (St70) No. 2 (−):

Does the motor rotate normally?

Yes	Check for temporary poor contact or mechanical trouble (flat mat & hook spring assembly) in lumbar support mechanism.
No	Lumbar motor problem. Replace the flat mat & hook spring assembly.

NOTE

For procedure of the components in the power seat system, refer to the sections below.

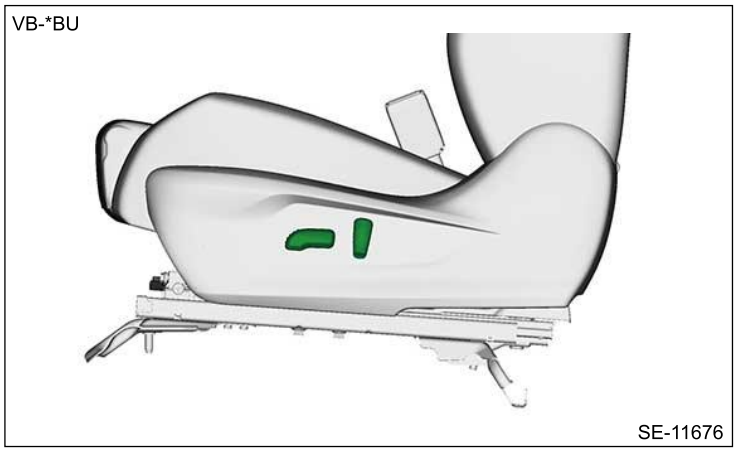
- Power seat: Ref. to SEATS>Front Seat.
- Power seat switch: Ref. to SEATS>Power Seat.

REMOVAL

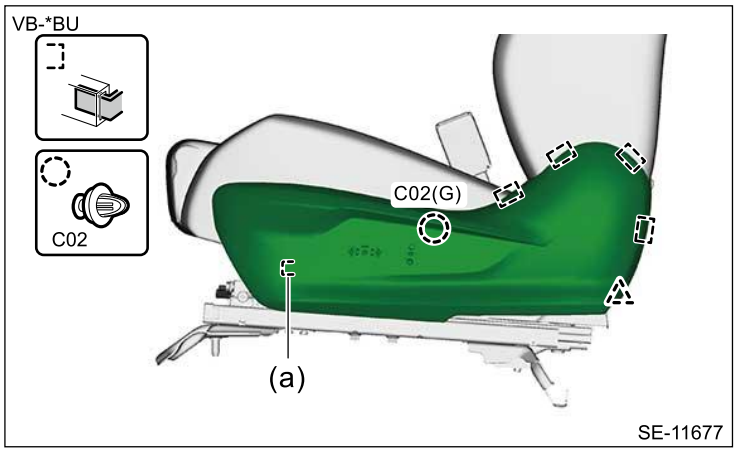
1. POWER SEAT SWITCH

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

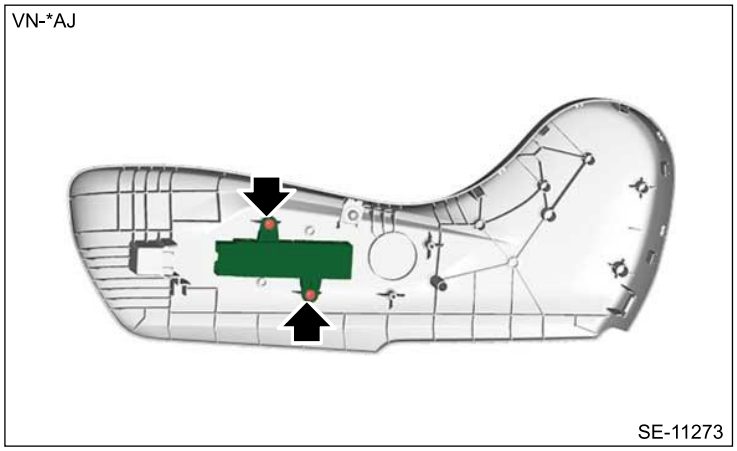
1. Prior to starting work, check the following precautions. Ref. to SEATS>General Description>CAUTION.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the front seat from vehicle. Ref. to SEATS>Front Seat>REMOVAL.
4. Remove the cover hinge outside.
   (1) Remove the knob power seat.



   (2) Release it from the hinge base cover outside in the rear side.
   (3) Release the clips.
   (4) Pull forward to release the claw (a) and remove the cover hinge outside.
   (5) Remove the screws to remove the switch assembly power seat.
   (6) Disconnect the switch assembly power seat connector and remove the cover hinge outside.



   (7) Remove the screws to remove the switch assembly power seat.



SEATS > Power Seat

INSTALLATION

1. POWER SEAT SWITCH

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

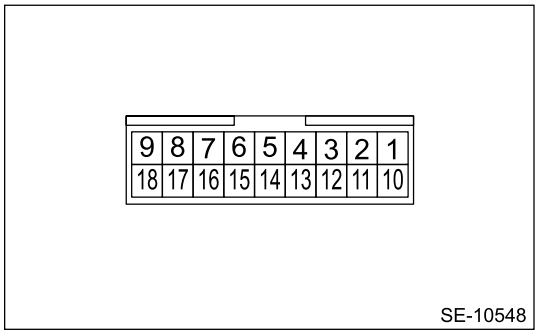
1. Install the power seat switch assembly.
2. Install the cover hinge outside.
3. Install the seat assembly. Ref. to SEATS>Front Seat>INSTALLATION.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

SEATS > Power Seat

INSPECTION

1. POWER SEAT SWITCH

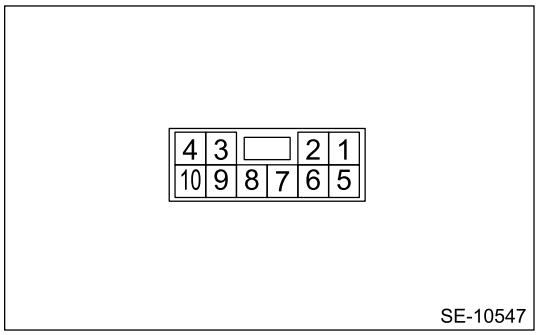
- **DRIVER'S SEAT**
  1. Measure resistance between terminals while operating each switch.
     - Except for RECARO® seat model



Switch position	Terminal No.	Standard
Slide forward	16 — 5	Less than 10 Ω
Slide rearward	16 — 6	Less than 10 Ω

Switch position	Terminal No.	Standard
Lifter up	16 — 7	Less than 10 Ω
Lifter down	16 — 4	Less than 10 Ω
Reclining forward	16 — 3	Less than 10 Ω
Reclining rearward	16 — 8	Less than 10 Ω
Tilt up	16 — 14	Less than 10 Ω
Tilt down	16 — 15	Less than 10 Ω
Lumbar forward	17 — 18 11 — 9	Less than 10 Ω
Lumbar backward	17 — 9 11 — 18	Less than 10 Ω

- RECARO® seat model



Switch position	Terminal No.	Standard
Slide forward	1 — 8 4 — 7	Less than 10 Ω
Slide rearward	1 — 7 4 — 8	Less than 10 Ω
Lifter up	1 — 9 4 — 6	Less than 10 Ω
Lifter down	1 — 6 4 — 9	Less than 10 Ω
Reclining forward	1 — 10 4 — 5	Less than 10 Ω
Reclining rearward	1 — 5 4 — 10	Less than 10 Ω
Tilt up	1 — 2 4 — 3	Less than 10 Ω
Tilt down	1 — 3 4 — 2	Less than 10 Ω

Replace the power seat switch if the inspection result is not within the standard value.

WIRING DIAGRAM

For the wiring diagram, refer to “Seat Heater System” in the wiring diagram. Ref. to WIRING SYSTEM>Seat Heater System>WIRING DIAGRAM.

INSPECTION

1. TROUBLE SYMPTOM

Symptoms	Reference
Front seat heater does not operate	Ref. to SEATS>Seat Heater System>INSPECTION > FRONT SEAT HEATER DOES NOT OPERATE.
Rear seat heater does not operate	Ref. to SEATS>Seat Heater System>INSPECTION > REAR SEAT HEATER DOES NOT OPERATE.
Rear seat heater indicator does not illuminate	Ref. to SEATS>Seat Heater System>INSPECTION > REAR SEAT HEATER INDICATOR DOES NOT ILLUMINATE.
Illumination of rear seat heater does not illuminate	Ref. to SEATS>Seat Heater System>INSPECTION > ILLUMINATION OF REAR SEAT HEATER DOES NOT ILLUMINATE.

2. FRONT SEAT HEATER DOES NOT OPERATE

1. CHECK DTC.

1. Turn the ignition switch to ON.
2. Read DTCs of the following items using the Subaru Select Monitor. Ref. to LAN SYSTEM (DIAGNOSTICS)>Diagnostic Trouble Code (DTC).
   - [Air Conditioner]
   - [Cockpit Control]

Is DTC displayed?

Yes	Perform the diagnosis for the displayed DTCs.
No	Go to 2.

2. CHECK CENTER INFORMATION DISPLAY.

Select the seat heater switch, and check if the display for seat heater operation mode changes.

Does the display change?

Yes	Go to 3.
No	Perform the inspection according to the [Cockpit Control] diagnosis. Ref. to COCKPIT CONTROL (DIAGNOSTICS)>Basic Diagnostic Procedure>PROCEDURE.

3. CHECK CAN COMMUNICATION LINE.

Inspect LAN system. Ref. to LAN SYSTEM (DIAGNOSTICS)>Basic Diagnostic Procedure>PROCEDURE.

Is the check result OK?

Yes	Go to 4.
No	Perform the inspection according to the diagnosis for LAN system. Ref. to LAN SYSTEM (DIAGNOSTICS)>Basic Diagnostic Procedure>PROCEDURE.

4. CHECK OPERATION MODE.

Using the Subaru Select Monitor, check the following items in the [Data Monitor] of [Air Conditioner]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor>OPERATION.

- [Seat Heater operation steps(Driver's)]
- [Seat Heater operation steps(Passenger's)]

Does the display change corresponding to the seat heater switch operation?

Yes	Go to 5.
No	Replace the air conditioner CM. Ref. to AIR CONDITIONER>Control Unit.

5. CHECK CONNECTOR.

1. Turn the ignition switch to OFF.
2. Check the status (terminal bends, connection status, etc.) of the accessory relay connector (i12), air conditioner CM connectors (i107) (i108), seat connectors (L57) (R57), and seat heater connectors (St27) (St28).

Is the check result OK?

Yes	Go to 6.
No	Repair the connector.

6. IDENTIFY SEATS WITH THE SEAT HEATER NOT FUNCTIONING.

1. Turn the ignition switch to ON.
2. Operate the driver's side and passenger's side seat heaters.
3. After a predetermined period of time, check if the seat heater is operating.

Is the side which is not functioning either one of the driver's side or passenger's side only?

Yes	Go to 11.
No	Go to 7.

7. CHECK FUSE.

1. Turn the ignition switch to OFF.
2. Check the fuse inside the fuse box. Ref. to SEATS>Relay and Fuse>INSPECTION > CHECK FUSE.

Is the fuse blown out?

Yes	Replace the appropriate fuse. If the replaced fuse blows out easily, check the harness between the accessory relay and fuse.
No	Go to 8.

8. CHECK ACCESSORY RELAY POWER SUPPLY CIRCUIT.

1. Turn the ignition switch to ON.
2. Measure the voltage between terminals.
   Connector & terminal
   (i12) No. 3 (+) — Chassis ground (−):
   (i12) No. 1 (+) — Chassis ground (−):

Is the voltage 10 V or more?

Yes	Go to 9.
No	Repair the harness between the accessory relay and fuse.

9. CHECK ACCESSORY RELAY POWER SUPPLY CIRCUIT.

1. Turn the ignition switch to OFF.
2. Measure the resistance between the terminals.
   Connector & terminal
   (i12) No. 2 — Chassis ground:

Is the resistance less than 10 Ω?

Yes	Go to 10.
No	Repair the harness between the accessory relay and fuse.

10. CHECK RELAY.

Check the accessory relay. Ref. to SEATS>Relay and Fuse>INSPECTION > CHECK RELAY.

Is the relay OK?

Yes	Go to 11.
No	Replace the accessory relay.

11. CHECK HARNESS.

1. Disconnect the air conditioner CM connector.
2. Disconnect the seat heater connectors of the driver's and passenger's seats.
3. Measure the resistance between the terminals.

Connector & terminal

Driver's side

(St28) No. 1 — (i12) No. 4:
(St28) No. 2 — (i108) No. 1:
(i108) No. 3 — Chassis ground:

Passenger's side

(St27) No. 1 — (i12) No. 4:
(St27) No. 2 — (i108) No. 6:
(i108) No. 2 — Chassis ground:

Is the resistance less than 10 Ω?

Yes	Go to 12.
No	Repair or replace the harness.

12. CHECK THE SEAT HEATER UNIT.

1. Disconnect the seat heater unit connector.
2. Check the continuity between terminals. Ref. to SEATS>Seat Heater>INSPECTION > FRONT SEAT HEATER UNIT.

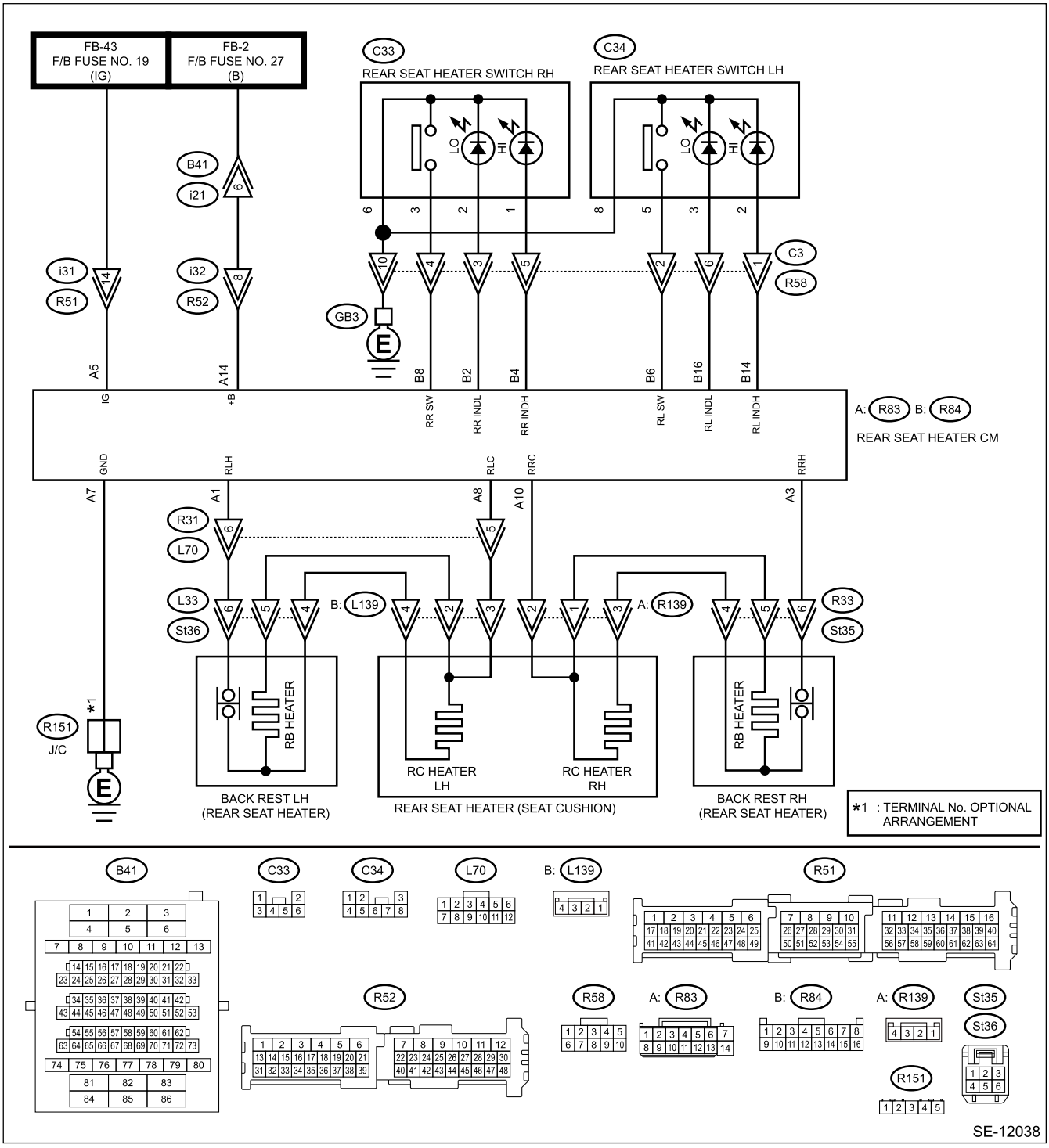
Is there continuity between the terminals?

Yes	Temporary improper operation.
No	If no continuity exists, replace the seat heater unit with a new part. Ref. to SEATS>Seat Heater.

3. REAR SEAT HEATER DOES NOT OPERATE

Wiring diagram:

Seat heater system Ref. to WIRING SYSTEM>Seat Heater System>WIRING DIAGRAM.


FB-43
F/B FUSE NO. 19
(IG)
FB-2
F/B FUSE NO. 27
(B)
C33
REAR SEAT HEATER SWITCH RH
C34
REAR SEAT HEATER SWITCH LH
LO
HI
B41
i21
i31
R51
i32
R52
C3
R58
GB3
A5
IG
A14
+B
B8
RR SW
B2
RR INDL
B4
RR INDH
B6
RL SW
B16
RL INDL
B14
RL INDH
A: R83 B: R84
REAR SEAT HEATER CM
GND
RLH
RLC
RRC
RRH
A7
A1
A8
A10
A3
R31
L70
L33
St36
B: L139
A: R139
R33
St35
R151
*1
J/C
RB HEATER
RC HEATER
LH
RC HEATER
RH
BACK REST LH
(REAR SEAT HEATER)
REAR SEAT HEATER (SEAT CUSHION)
BACK REST RH
(REAR SEAT HEATER)
*1 : TERMINAL No. OPTIONAL
ARRANGEMENT
B41
C33
C34
L70
B: L139
R51
R52
R58
A: R83
B: R84
A: R139
St35
St36
R151
SE-12038

1. CHECK FUSE.

1. Turn the ignition switch to OFF.
2. Check the fuse inside the fuse box. Ref. to SEATS>Relay and Fuse>INSPECTION > CHECK FUSE.

Is the fuse blown out?

Yes	Replace the appropriate fuse.
No	Go to 2.

2. CHECK SEAT HEATER SWITCH.

1. Remove the seat heater switch. Ref. to SEATS>Seat Heater>REMOVAL > REAR SEAT HEATER SWITCH.
2. Check the continuity between the terminals when pressing the seat heater switch. Ref. to SEATS>Seat Heater>INSPECTION > SEAT HEATER SWITCH.

Is the resistance less than 10 Ω?

Yes	Go to 3.
No	Replace the seat heater switch. Ref. to SEATS>Seat Heater.

3. CHECK POWER SUPPLY CIRCUIT.

1. Disconnect the harness connector of the rear seat heater CM.
2. Turn the ignition switch to ON.
3. Measure the voltage between harness connector terminal and chassis ground.
   Connector & terminal
   (R83) No. 14 (+) — Chassis ground (−):
   (R83) No. 5 (+) — Chassis ground (−):

Is the voltage 10 V or more?

Yes	Go to 4.
No	Repair or replace the defective part.

4. CHECK GROUND CIRCUIT.

1. Turn the ignition switch to OFF.
2. Measure the resistance between harness connector terminal and chassis ground.
   Connector & terminal
   (R83) No. 7 — Chassis ground:

Is the resistance less than 10 Ω?

Yes	Go to 5.
No	Repair or replace the defective part.

5. CHECK HARNESS.

Measure the resistance between rear seat heater CM and seat heater switch harness connector terminal.

Connector & terminal

LH side

(R84) No. 6 — (R58) No. 2:
(C3) No. 2 — (C34) No. 5:
(C34) No. 8 — Chassis ground:

RH side

(R84) No. 8 — (R58) No. 4:
(C3) No. 4 — (C33) No. 3:
(C33) No. 6 — Chassis ground:

Is the resistance less than 10 Ω?

Yes	Go to 6.
No	Repair or replace the defective part.

6. CHECK THE SEAT HEATER UNIT.

1. Remove the seat heater unit. Ref. to SEATS>Seat Heater>REMOVAL>SEAT HEATER UNIT>REAR SEAT.
2. Check the seat heater unit. Ref. to SEATS>Seat Heater>INSPECTION > REAR SEAT HEATER UNIT.

Is the seat heater unit normal?

Yes	Go to 7.
No	Replace the seat heater unit. Ref. to SEATS>Seat Heater.

7. CHECK HARNESS.

Measure the resistance between rear seat heater CM and seat heater unit harness connector terminal.

Connector & terminal

LH side

(R83) No. 1 — (L33) No. 6:
(R83) No. 8 — (L139) No. 3:
(L33) No. 5 — (L139) No. 2:
(L33) No. 4 — (L139) No. 4:

RH side

(R83) No. 3 — (R33) No. 6:
(R83) No. 10 — (R139) No. 2:
(R33) No. 5 — (R139) No. 1:
(R33) No. 4 — (R139) No. 3:

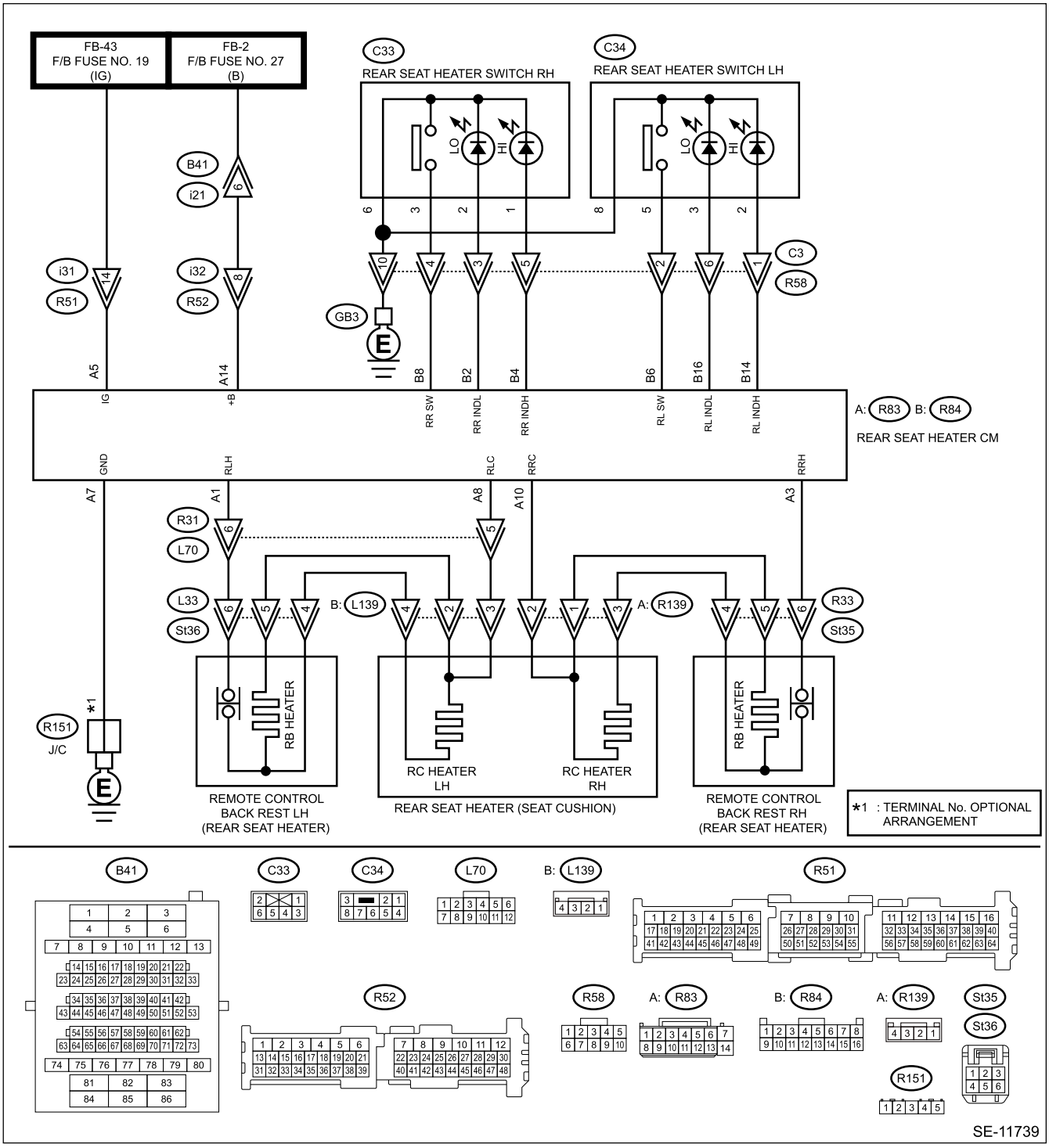
Is the resistance less than 10 Ω?

Yes	Replace the rear seat heater CM. Ref. to SEATS>Seat Heater.
No	Repair or replace the defective part.

4. REAR SEAT HEATER INDICATOR DOES NOT ILLUMINATE

Wiring diagram:

Seat heater system Ref. to WIRING SYSTEM>Seat Heater System>WIRING DIAGRAM.


FB-43
F/B FUSE NO. 19
(IG)
FB-2
F/B FUSE NO. 27
(B)
C33
REAR SEAT HEATER SWITCH RH
C34
REAR SEAT HEATER SWITCH LH
LO
HI
B41
i21
i31
R51
i32
R52
C3
R58
GB3
A5
IG
A14
+B
B8
RR SW
B2
RR INDL
B4
RR INDH
B6
RL SW
B16
RL INDL
B14
RL INDH
A: R83 B: R84
REAR SEAT HEATER CM
GND
RLH
RLC
RRC
RRH
A7
A1
A8
A10
A3
R31
L70
L33
St36
B: L139
A: R139
R33
St35
RB HEATER
RC HEATER
LH
RC HEATER
RH
R151
*1
J/C
REMOTE CONTROL
BACK REST LH
(REAR SEAT HEATER)
REAR SEAT HEATER (SEAT CUSHION)
REMOTE CONTROL
BACK REST RH
(REAR SEAT HEATER)
*1 : TERMINAL No. OPTIONAL
ARRANGEMENT

B41
C33
C34
L70
B: L139
R51
R52
R58
A: R83
B: R84
A: R139
St35
St36
R151

SE-11739

1. CHECK SEAT HEATER SWITCH UNIT (INDICATOR).

1. Turn the ignition switch to OFF.
2. Remove the seat heater switch. Ref. to SEATS>Seat Heater>REMOVAL > REAR SEAT HEATER SWITCH.
3. Apply battery voltage between seat heater switch terminals, and perform the inspection.
4. Operate the LH side and RH side switches to HI and LO. Ref. to SEATS>Seat Heater>INSPECTION > SEAT HEATER SWITCH.

Does the indicator illuminate when the switch is operated to HI/LO?

Yes	Go to 2.
No	Replace the seat heater switch. Ref. to SEATS>Seat Heater.

2. CHECK HARNESS.

Measure the resistance between rear seat heater CM and seat heater switch harness connector terminal.

Connector & terminal

LH side

(R84) No. 14 — (R58) No. 1:
(R84) No. 16 — (R58) No. 6:
(C3) No. 1 — (C34) No. 2:
(C3) No. 6 — (C34) No. 3:
(C34) No. 8 — Chassis ground:

RH side

(R84) No. 4 — (R58) No. 5:
(R84) No. 2 — (R58) No. 3:
(C3) No. 5 — (C33) No. 1:
(C3) No. 3 — (C33) No. 2:
(C33) No. 6 — Chassis ground:

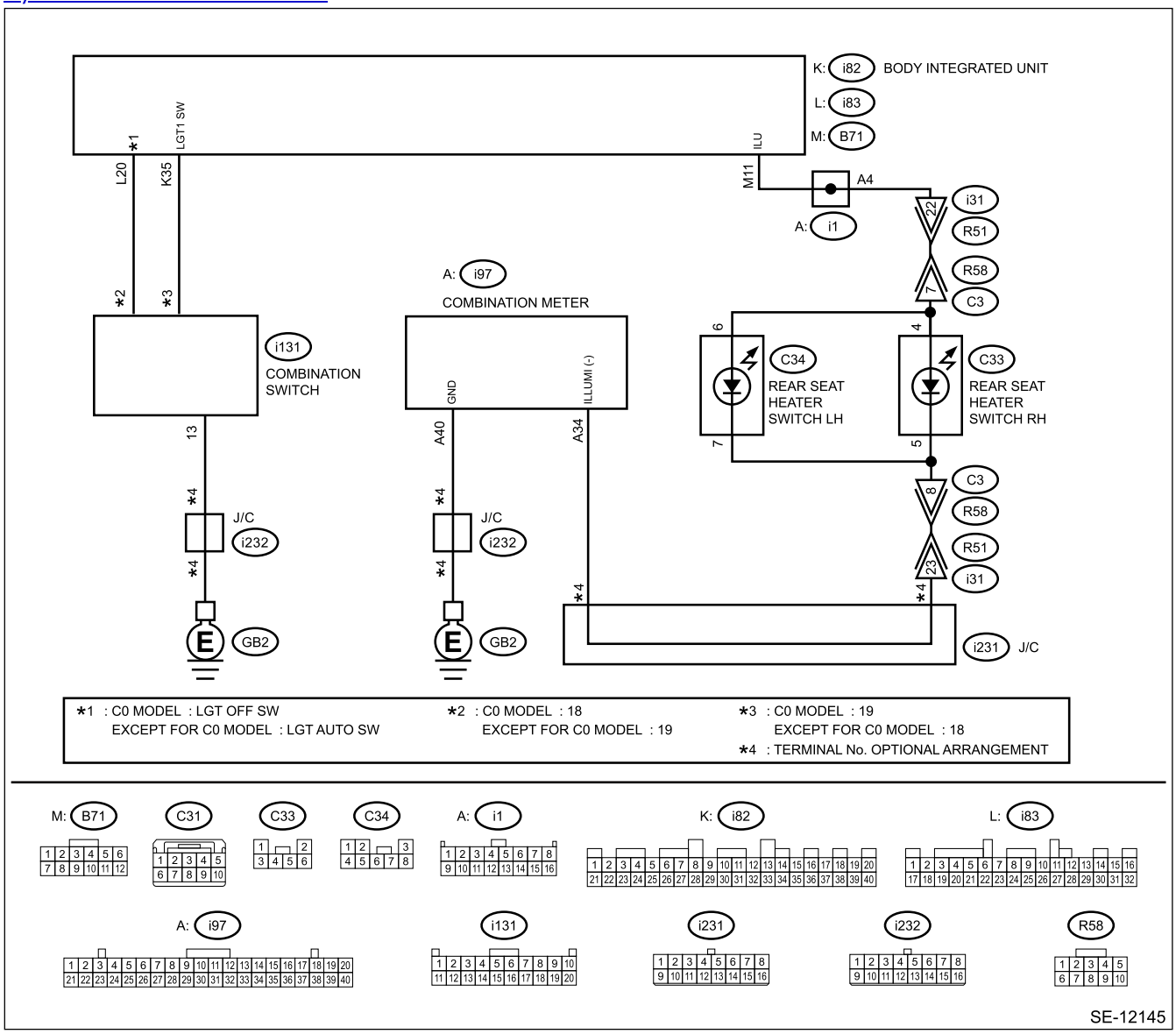
Is the resistance less than 10 Ω?

Yes	Replace the rear seat heater CM. Ref. to SEATS>Seat Heater.
No	Repair or replace the defective part.

5. ILLUMINATION OF REAR SEAT HEATER DOES NOT ILLUMINATE

Wiring diagram:

Clearance and illumination light system Ref. to WIRING SYSTEM>Clearance Light and Illumination Light System>WIRING DIAGRAM.



1. CHECK ADAPTER HARNESS.

1. Turn the ignition switch to OFF.
2. Remove the seat heater switch. Ref. to SEATS>Seat Heater>INSTALLATION > REAR SEAT HEATER SWITCH.
3. Check the continuity between the adapter harness connectors.
   Connector & terminal
   LH side
   (C3) No. 7 — (C34) No. 6:
   (C3) No. 8 — (C34) No. 7:
   RH side
   (C3) No. 7 — (C33) No. 4:
   (C3) No. 8 — (C33) No. 5:

Is there continuity between the terminals?

Yes	Go to 2.
No	Replace the adapter harness.

2. CHECK SEAT HEATER SWITCH UNIT.

Apply battery voltage between seat heater switch terminals, and perform the inspection. Ref. to SEATS>Seat Heater>INSPECTION > SEAT HEATER SWITCH.

Do the illuminations come on?

Yes	Go to 3.
No	Replace the seat heater switch. Ref. to SEATS>Seat Heater>REMOVAL > REAR SEAT HEATER SWITCH.

3. CHECK POWER SUPPLY CIRCUIT.

1. Turn the ignition switch to ON.
2. Turn the lighting switch to the switch 2 (HEAD) position.
3. Measure the voltage between connector terminal and chassis ground.
   Connector & terminal
   (R58) No. 7 (+) — Chassis ground (−):

Is the voltage 10 V or more?

Yes	Go to 8.
No	Go to 4.

4. CHECK HARNESS.

1. Turn the ignition switch to OFF.
2. Disconnect the connector of body integrated unit.
3. Measure the resistance between terminals of the seat heater switch and the body integrated unit.
   Connector & terminal
   (R58) No. 7 — (B71) No. 11:

Is the resistance less than 10 Ω?

Yes	Go to 5.
No	Repair or replace the defective part.

5. CHECK INPUT OF BODY INTEGRATED UNIT.

1. Turn the ignition switch to ON.
2. Using Subaru Select Monitor, display [Lighting I Switch Input] in [Data Monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor>OPERATION.
3. Turn the lighting switch to the I position.

Does the indication change between [OFF] ←→ [ON] according to the switch operation?

Yes	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
No	Go to 6.

6. CHECK LIGHTING SWITCH.

1. Turn the ignition switch to OFF.
2. Check the lighting switch. Ref. to LIGHTING SYSTEM>Combination Switch (Light)>INSPECTION > LIGHTING SWITCH.

Is the lighting switch OK?

Yes	Go to 7.
No	Replace the lighting switch. Ref. to LIGHTING SYSTEM>Combination Switch (Light).

7. CHECK HARNESS.

1. Disconnect the connectors of body integrated unit and combination switch (light).
2. Measure the resistance between terminals of the body integrated unit and the combination switch (light).
   Connector & terminal
   Other than for C0
   (i83) No. 20 — (i131) No. 19:
   (i82) No. 35 — (i131) No. 18:
   For C0
   (i83) No. 20 — (i131) No. 18:
   (i82) No. 35 — (i131) No. 19:

Is the resistance less than 10 Ω?

Yes	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
No	Repair or replace the defective part.

8. CHECK HARNESS.

1. Turn the ignition switch to OFF.
2. Disconnect the connector of combination meter.
3. Measure the resistance between terminals of the seat heater switch and the combination meter.
   Connector & terminal
   (R58) No. 8 — (i97) No. 34:

Is the resistance less than 10 Ω?

Yes	Go to 9.
No	Repair or replace the defective part.

9. CHECK HARNESS.

Measure the resistance between the combination meter and the chassis ground.

Connector & terminal

(i97) No. 40 — Chassis ground:

Is the resistance less than 10 Ω?

Yes	Replace the combination meter. Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.
No	Repair or replace the defective part.

SEATS > Seat Heater System

NOTE

For operation procedures of components of the seat heater system, refer to the following sections.

- Seat heater unit: Ref. to SEATS>Seat Heater.
- Rear seat heater switch: Ref. to EXTERIOR/INTERIOR TRIM>Console Box.
- Rear seat heater CM: Ref. to SEATS>Seat Heater.
- Air conditioner CM: Ref. to AIR CONDITIONER>Control Unit.

REMOVAL

1. SEAT HEATER UNIT

- **FRONT SEAT**

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **The load sensor of the occupant detection system is fixed to the cushion frame assembly. Do not remove the load sensor from the cushion frame assembly.**
- **When the cushion frame assembly of the passenger's seat is replaced, the seat harness and load sensor are assembled. When replacing the cushion frame assembly, do not touch the load sensor to avoid electrical damage.**

1. Prior to starting work, check the following precautions. Ref. to SEATS>General Description>CAUTION.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the front seats. Ref. to SEATS>Front Seat>REMOVAL.
4. Remove the front seat surface. Ref. to SEATS>Front Seat>DISASSEMBLY.
5. Remove the seat heater unit.

Caution:

- **If the seat heater unit is removed, replace the seat pad assembly with a new part.**
- **If the seat heater unit is reused, remove the polyurethane section and double-sided tape from the reverse side completely. Use new double-sided tape.**

Preparation items:

Double-sided tape: NITTO DENKO 501L or equivalent

- **REAR SEAT**

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Prior to starting work, check the following precautions. Ref. to SEATS>General Description>CAUTION.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the rear seat. Ref. to SEATS>Rear Seat>REMOVAL.
4. Remove the rear seat surface. Ref. to SEATS>Rear Seat>DISASSEMBLY.

5. Remove the seat heater unit.

Caution:

- **If the seat heater unit is removed, replace the seat pad assembly with a new part.**
- **If the seat heater unit is reused, remove the polyurethane section and double-sided tape from the reverse side completely. Use new double-sided tape.**

Preparation items:

Double-sided tape: NITTO DENKO 501L or equivalent

2. REAR SEAT HEATER SWITCH

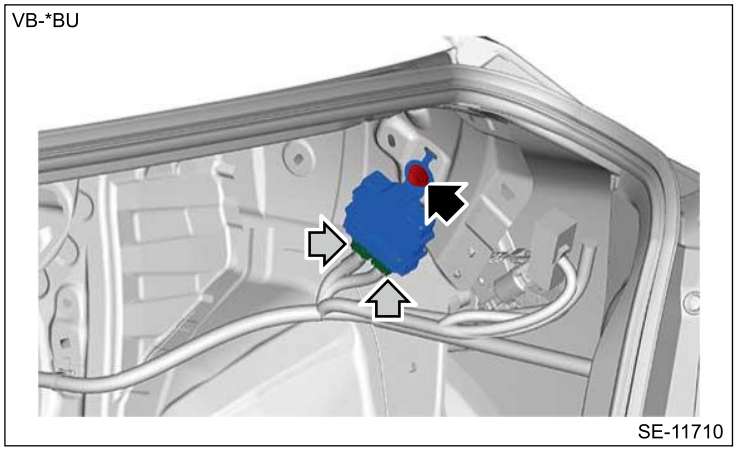
For the operation procedures of the rear seat heater switch, refer to "DISASSEMBLY" of "Console Box" of "EXTERIOR/INTERIOR TRIM" section. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>DISASSEMBLY.

3. REAR SEAT HEATER CM

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trunk trim panel side RH. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.
3. Remove the rear seat heater CM.
   (1) Disconnect the connector.
   (2) Remove the bolt and the rear seat heater CM.



SEATS > Seat Heater

INSTALLATION

1. SEAT HEATER UNIT

- **FRONT SEAT**

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the seat heater unit in a new seat pad assembly.

   Caution:
   If the seat heater unit is reused, remove the polyurethane section and double-sided tape from the reverse side completely. Use new double-sided tape.

   Preparation items:
   Double-sided tape: NITTO DENKO 501L or equivalent
2. Install the front seat surface. Ref. to SEATS>Front Seat>ASSEMBLY.
3. Install the front seat. Ref. to SEATS>Front Seat>INSTALLATION.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
5. Regarding the front seat (passenger's seat), perform [Rezeroing] for the occupant detection system. Ref. to AIRBAG SYSTEM>Rezero.
6. Regarding the front seat (passenger's seat), perform "Occupant Detection System Inspection" to check if the occupant detection system operates normally. Ref. to PRE-DELIVERY INSPECTION>PRE-DELIVERY INSPECTION (PDI) PROCEDURE > SEAT.

- **REAR SEAT**

Caution:
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Install the seat heater unit in a new seat pad assembly.

   Caution:
   If the seat heater unit is reused, remove the polyurethane section and double-sided tape from the reverse side completely. Use new double-sided tape.

   Preparation items:
   Double-sided tape: NITTO DENKO 501L or equivalent
2. Install the rear seat surface. Ref. to SEATS>Rear Seat>ASSEMBLY.
3. Install the rear seat. Ref. to SEATS>Rear Seat>INSTALLATION.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. REAR SEAT HEATER SWITCH

For the operation procedures of the rear seat heater switch, refer to "ASSEMBLY" of "Console Box" of "EXTERIOR/INTERIOR TRIM" section. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>ASSEMBLY.

3. REAR SEAT HEATER CM

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Install the rear seat heater CM.
   Tightening torque:
   13 N·m (1.3 kgf-m, 9.6 ft-lb)
2. Install the trunk trim panel side RH. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

SEATS > Seat Heater

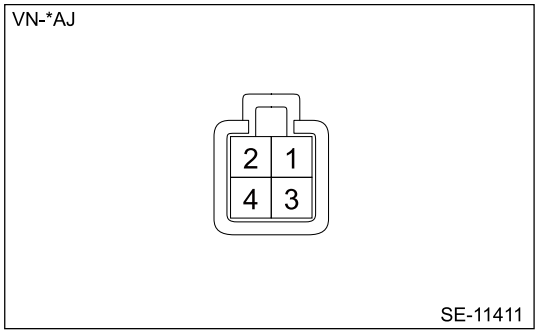
INSPECTION

1. FRONT SEAT HEATER UNIT

1. Check the continuity between the connector terminals.

Note:
Perform measurement with the seat cushion and the backrest heater connector connected.

- Seat cushion



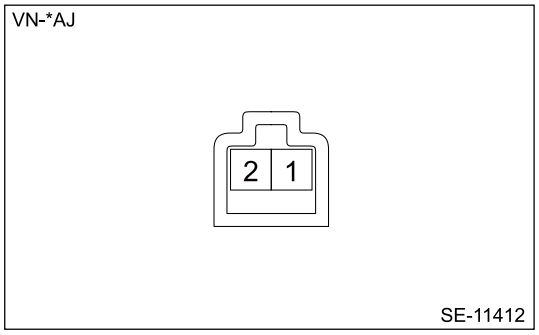
– Except for RECARO® seat

Terminal No.	Inspection conditions	Standard
1 — 2	Heater temperature 20°C (68°F)	Approx. 5.21 Ω

– RECARO® seat

Terminal No.	Inspection conditions	Standard
1 — 2	Heater temperature 20°C (68°F)	Approx. 4.93 Ω

- Backrest



– Except for RECARO® seat

Terminal No.	Inspection conditions	Standard
1 — 2	Heater temperature 20°C (68°F)	Approx. 4.65 Ω

– RECARO® seat

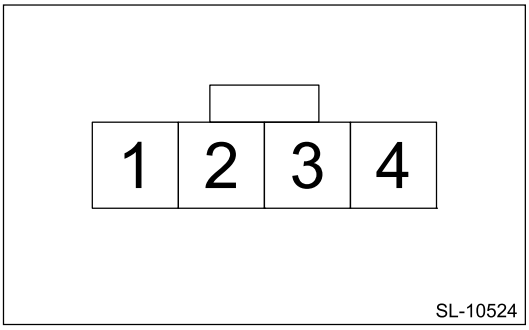
Terminal No.	Inspection conditions	Standard
1 — 2	Heater temperature 20°C (68°F)	Approx. 4.94 Ω

2. If no continuity exists, replace the seat heater unit with a new part.

2. REAR SEAT HEATER UNIT

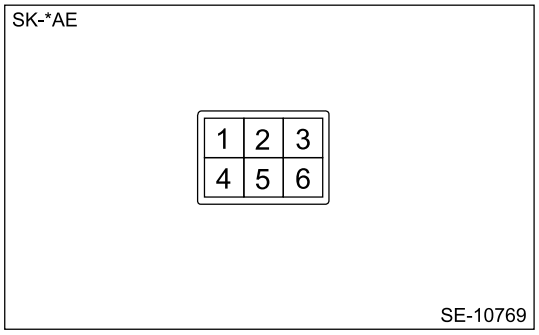
1. Check the continuity between the connector terminals.

- Seat cushion



Terminal No.	Part	Inspection conditions	Standard
3 — 4	LH side	Heater temperature 20°C (68°F)	Approx. 4.44 Ω
2 — 3	RH side		

- Backrest



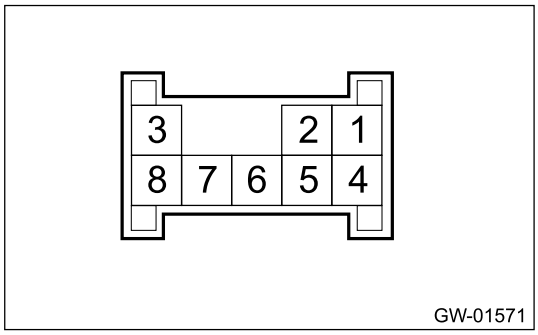
Terminal No.	Inspection conditions	Standard
5 — 6	Heater temperature 20°C (68°F)	Approx. 7.37 Ω

2. If no continuity exists, replace the seat heater unit rear with a new part.

3. SEAT HEATER SWITCH

1. Check the continuity between the connector terminals.

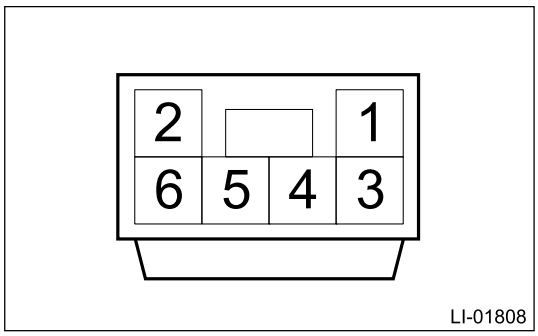
- LH side switch



Note:
When checking the LH side switch, turn the RH side switch to OFF.

Terminal No.	Inspection conditions	Standard
5 — 8	Switch ON	Less than 10 Ω

- RH side switch



Terminal No.	Inspection conditions	Standard
3 — 6	Switch ON	Less than 10 Ω

2. Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.

Caution:
When applying battery voltage, do not mix up the positive (+) side and the negative (−) side.
Incorrect polarity connection may cause LED damage inside the switch.

Note:
Operate the switch to HI and LO for the indicator.

- Indicator
  – LH side switch

Terminal No.	Inspection conditions	Specification
2 (+) — 8 (−)	Switch HI	Light ON
3 (+) — 8 (−)	Switch LO	Light ON

– RH side switch

Terminal No.	Inspection conditions	Specification
1 (+) — 6 (−)	Switch HI	Light ON
2 (+) — 6 (−)	Switch LO	Light ON

- Illumination

  – LH side switch

Terminal No.	Inspection conditions	Specification
6 (+) — 7 (−)	Apply battery voltage.	Light ON

– RH side switch

Terminal No.	Inspection conditions	Specification
4 (+) — 5 (−)	Apply battery voltage.	Light ON

3. Replace the seat heater switch if it is found defective.

SECURITY AND LOCKS

SL

1. General Description
2. Relay and Fuse
3. Door Lock Control System
4. Keyless Entry System
5. Keyless Access With Push Button Start System
6. Security System
7. Door Inner Remote
8. Door Outer Handle
9. Door Latch & Door Lock Actuator Assembly
10. Trunk Opener Switch
11. Trunk Lid Latch and Actuator Assembly
12. Front Hood Lock Assembly
13. Fuel Lid
14. Ignition Key Lock
15. Key Lock Cylinders
16. Keyless Entry Control Module
17. Keyless Transmitter
18. Access Key
19. Immobilizer Control Module
20. Immobilizer Antenna
21. Keyless Access Indoor Antenna
22. Keyless Access Outdoor Antenna
23. Trunk Opener Button
24. Keyless Access CM
25. ID Code Box
26. Steering Lock CM
27. Push Button Ignition Switch
28. Access Buzzer
29. Backup Unit
30. Function Setting (Customize)
31. Diagnostics with Phenomenon

SECURITY AND LOCKS > General Description

CAUTION

- When performing service operation, refer to “Repair Contents” in “General Description”. Ref. to REPAIR CONTENTS>Repair Contents.
- Refer to “CAUTION” of “General Description” in “AIRBAG SYSTEM” section. Ref. to AIRBAG SYSTEM>General Description>CAUTION.
- When performing work on the sensors or modules, be careful of the following.
  - Before disconnecting electrical connectors, be sure to disconnect the ground terminal from the battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
  - Do not apply any impact. If the parts are accidentally dropped, replace with a new part.
  - Do not expose to high-temperature and humidity.
- When replacing the parts provided with memory functions, record the memory contents before disconnecting the ground terminal from the battery sensor.
- Apply grease onto sliding or revolving surfaces before installation.
- If any immobilizer related part has been replaced, make sure to register the immobilizer.

SECURITY AND LOCKS > General Description

LOCATION

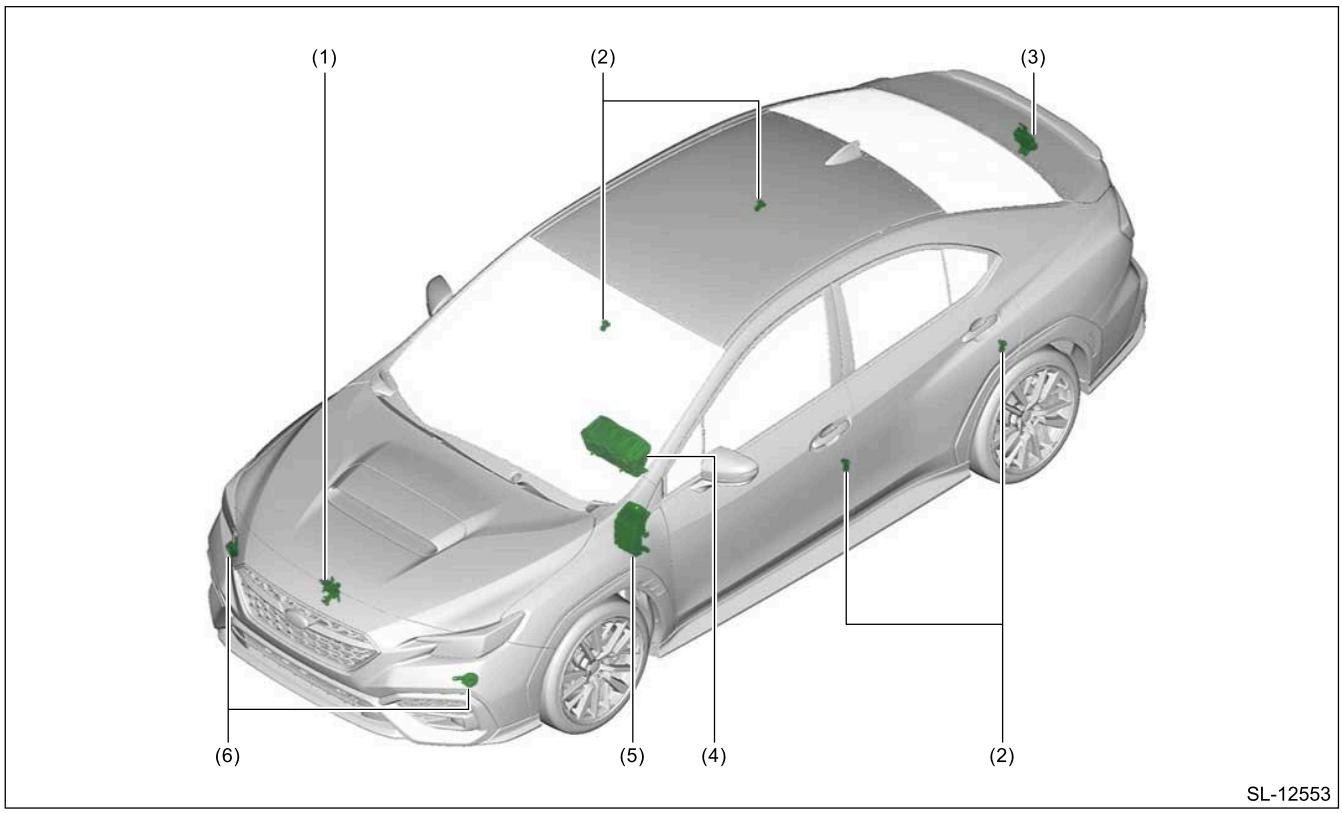
1. KEYLESS ENTRY SYSTEM

For location, refer to “Electrical Component Location” for “KEYLESS ENTRY (DIAGNOSTICS)” section. Ref. to KEYLESS ENTRY(DIAGNOSTICS) >Electrical Component Location.

2. KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM

Refer to “Electrical Component Location” for “KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)” section. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Electrical Component Location.

3. SECURITY SYSTEM



(1) Hood switch
(2) Door switch
(3) Trunk lid latch switch
(4) Security indicator light (in combination meter)
(5) Body integrated unit
(6) Horn

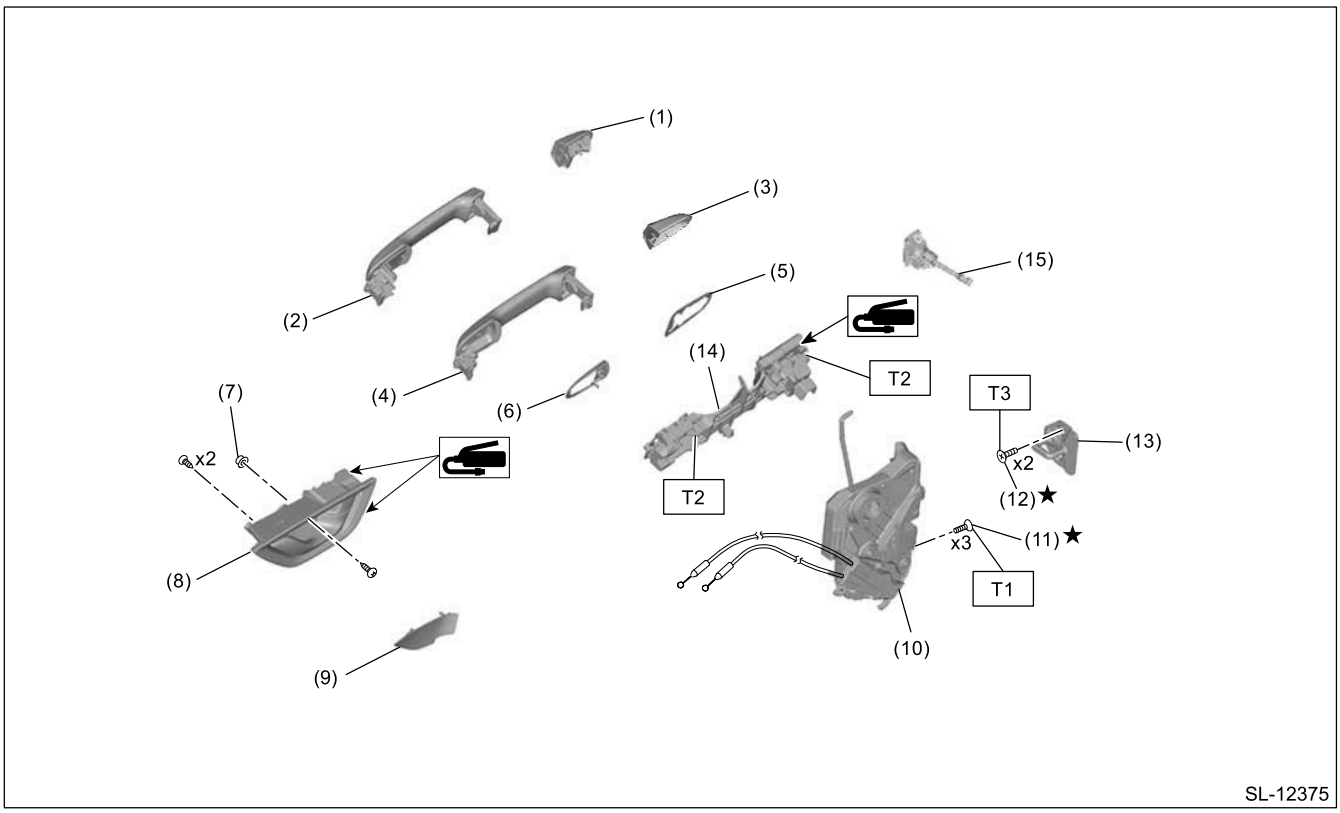
Note:
For the location of hazard lights, refer to "General Description" in "LIGHTING SYSTEM" section.
Ref. to LIGHTING SYSTEM>General Description>SPECIFICATION.

SECURITY AND LOCKS > General Description

COMPONENT

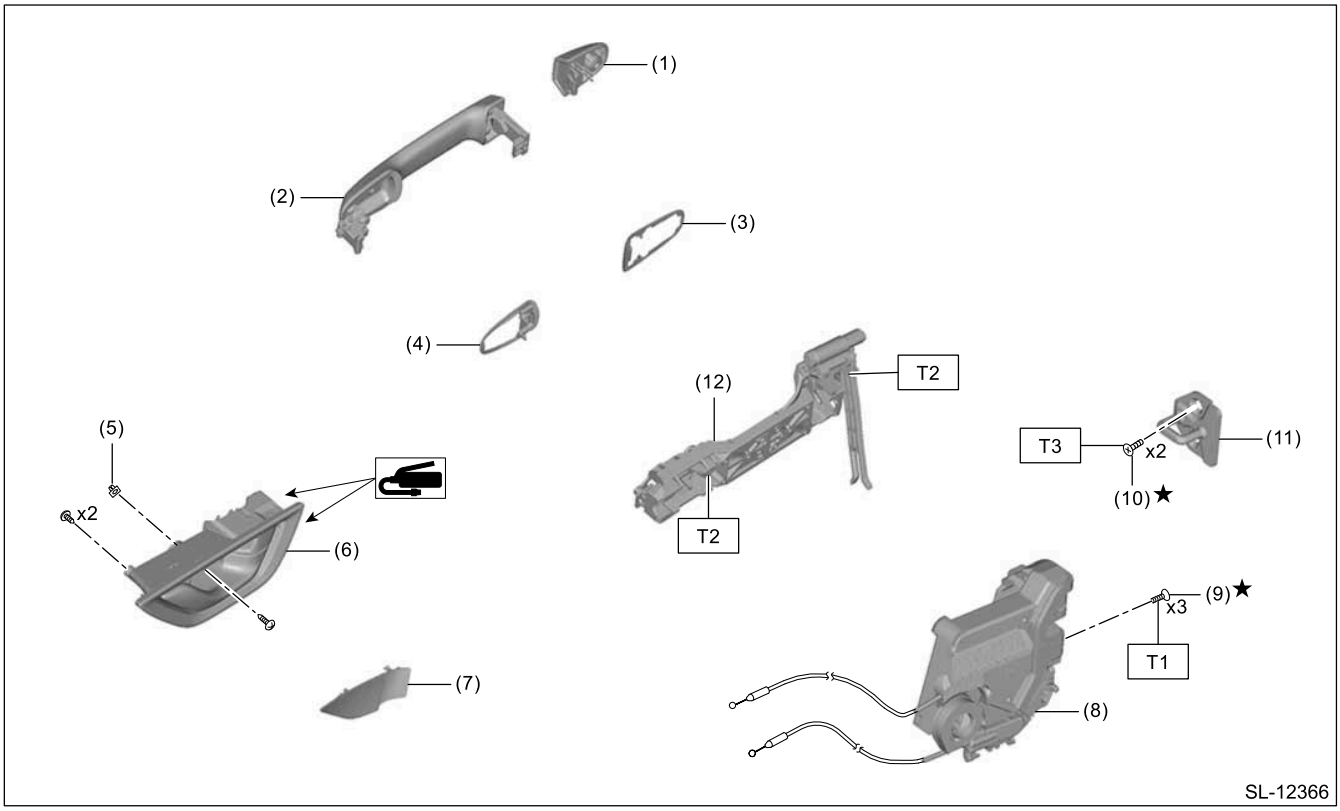
1. DOOR LOCK ASSEMBLY

- **FRONT**



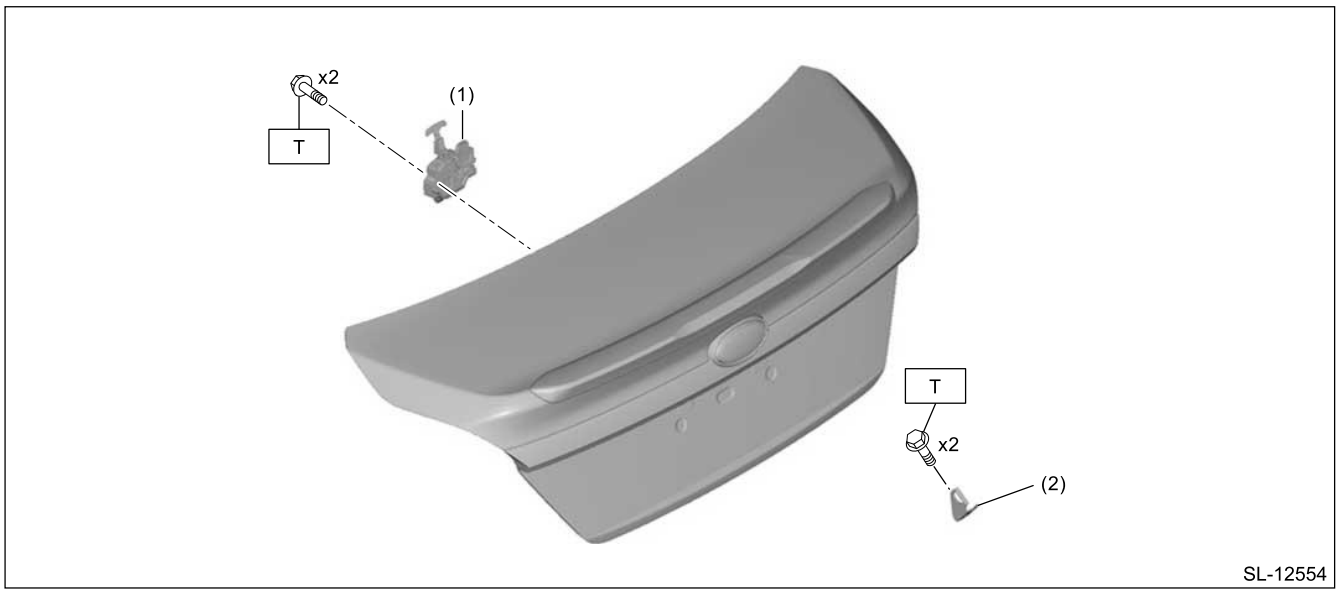
(1)	Cover handle front outer (passenger's side)	(9)	Cap remote	***Tightening torque: N·m (kgf-m, ft-lb)***
(2)	Handle front door outer (model with keyless access with push button start)	(10)	Latch & actuator ASSY front	***T1: 6.5 (0.7, 4.8)***
(3)	Cover handle front outer (driver's side)	(11)	TORX® bolt	***T2: 7.5 (0.8, 5.5)***
(4)	Handle front door outer (model without keyless access with push button start)	(12)	Screw	***T3: 18 (1.8, 13.3)***
(5)	Spacer door handle outer B	(13)	Striker door	
(6)	Spacer door handle outer A	(14)	Frame ASSY front door outer	
(7)	Grommet screw	(15)	Key cylinder (driver's side)	
(8)	Remote ASSY door			

- **REAR**



(1)	Cover handle rear outer	(7)	Cap remote	***Tightening torque: N·m (kgf-m, ft-lb)***
(2)	Handle rear door outer	(8)	Latch & actuator ASSY rear	***T1: 6.5 (0.7, 4.8)***
(3)	Spacer door handle outer B	(9)	TORX® bolt	***T2: 7.5 (0.8, 5.5)***
(4)	Spacer door handle outer A	(10)	Screw	***T3: 18 (1.8, 13.3)***
(5)	Grommet screw	(11)	Striker door	
(6)	Remote ASSY door	(12)	Frame ASSY rear door outer	

2. TRUNK LID LOCK

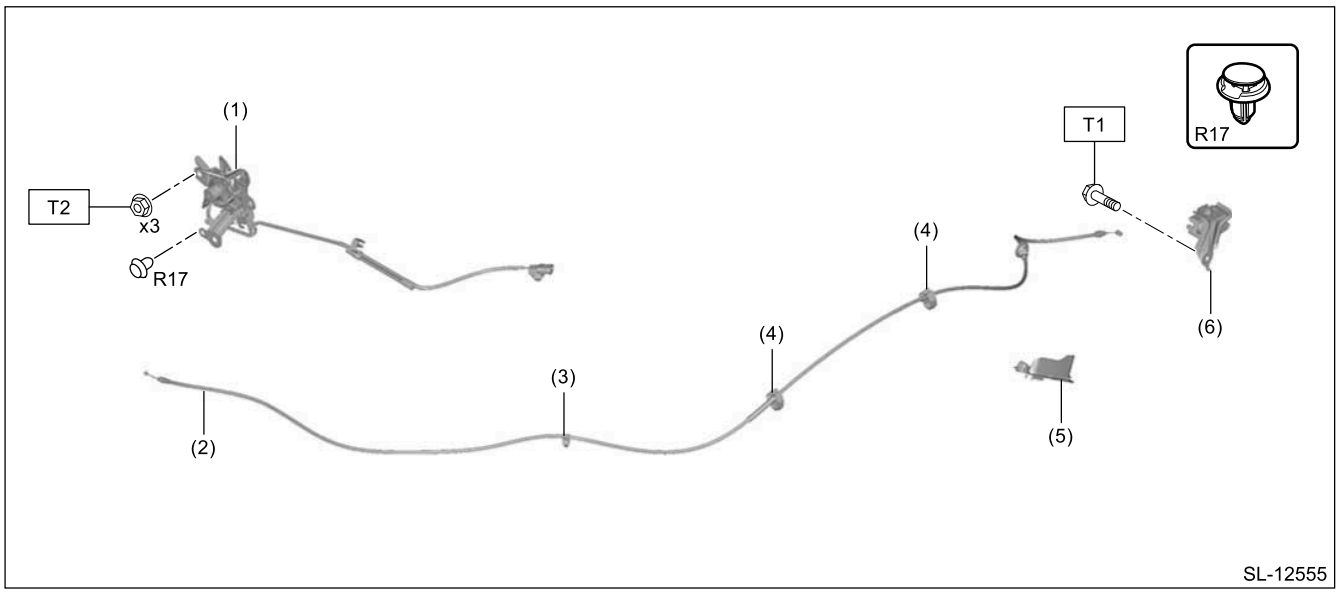


(1) Lock ASSY trunk lid
(2) Striker trunk lid

Tightening torque: N·m (kgf-m, ft-lb)

T: 7.5 (0.8, 5.5)

3. FRONT HOOD LOCK



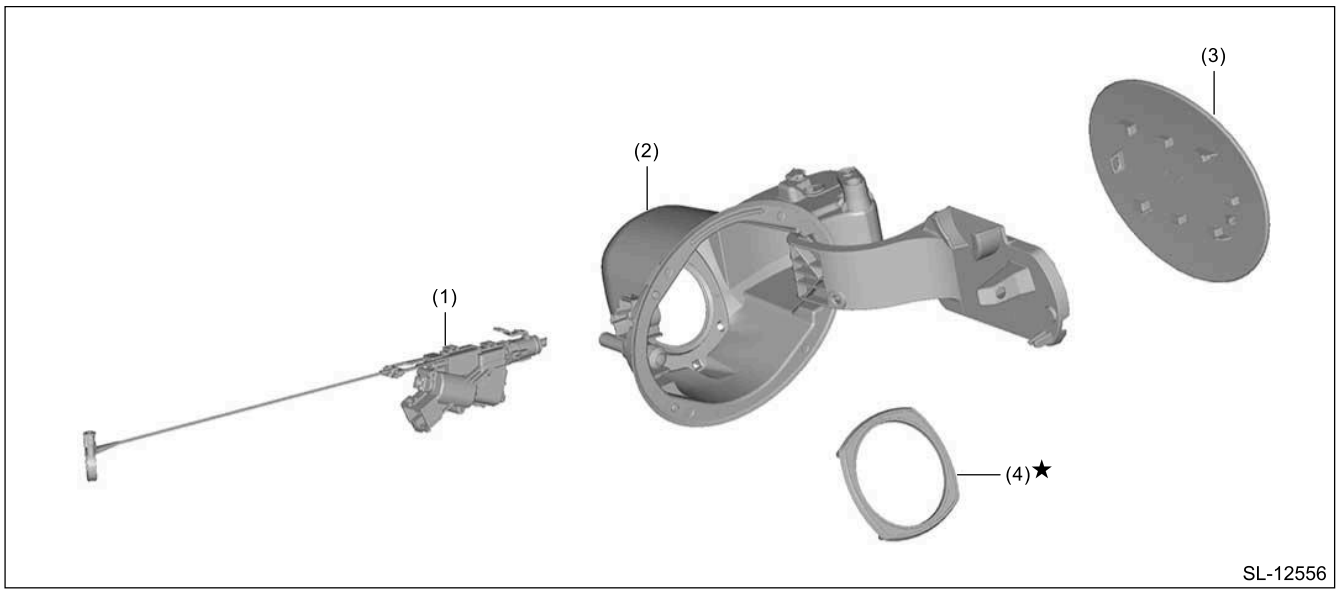
(1) Lock ASSY front hood
(2) Cable ASSY front hood
(3) Clip
(4) Clip
(5) Protector cable
(6) Opener handle

Tightening torque: N·m (kgf-m, ft-lb)

T1: 7.5 (0.8, 5.5)

T2: 33 (3.4, 24.3)

4. FUEL LID



(1) Lock ASSY fuel
(2) Saucer COMPL
(3) Flap outer
(4) Ring clip

5. BACKUP UNIT

For components of the backup unit, refer to "Instrument Panel" of the "EXTERIOR/INTERIOR TRIM" section.
Ref. to EXTERIOR/INTERIOR TRIM>General Description>COMPONENT > INSTRUMENT PANEL.

6. STEERING LOCK

For the components of the ignition key lock and the steering lock CM, refer to "Steering Wheel & Column" in the "POWER ASSISTED SYSTEM (POWER STEERING)" section. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>General Description>COMPONENT > STEERING WHEEL AND COLUMN.

SECURITY AND LOCKS > General Description

PREPARATION TOOL

1. SUBARU SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
STSSM4	—	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. **Note:** • **For detailed operation procedures, refer to "Help" of application.** • **Used together with interface for Subaru Select Monitor (such as DST-i and DST-010).**

2. OTHER

	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.
Drill	Used for replacing ignition key lock and steering lock CM.
Reverse tap	Used for replacing ignition key lock and steering lock CM.
TORX® T30	Used for removing and installing the latch & actuator assembly, door outer handle cover and frame assembly.

SECURITY AND LOCKS > Relay and Fuse

LOCATION

For the location, refer to "FUSE AND RELAY" in the wiring diagram. Ref. to WIRING SYSTEM>Fuse And Relay>LOCATION.

Note:
For details of relay and fuse, refer to "DC POWER SUPPLY CIRCUIT". Ref. to WIRING SYSTEM>Power Supply Circuit>WIRING DIAGRAM.

SECURITY AND LOCKS > Relay and Fuse

INSPECTION

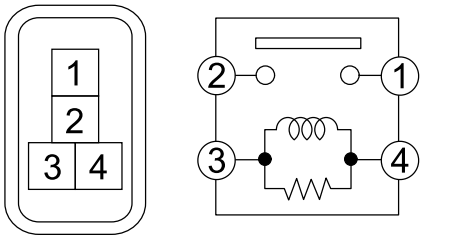
1. CHECK FUSE

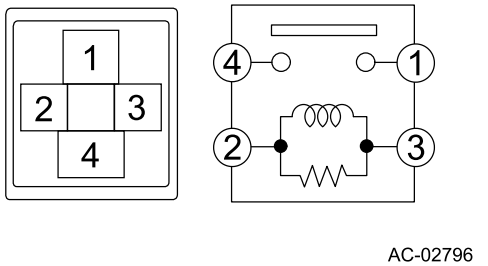
1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

Note:
If the fuse is blown again, check the system wiring harness.

2. CHECK RELAY

1. Measure the resistance between relay terminals.

Terminal No.	Inspection conditions	Standard	Circuit
1 — 2	Always	1 MΩ or more	 LI-01273
1 — 2	Apply battery voltage between terminals 4 and 3.	Less than 1 Ω	

Terminal No.	Inspection conditions	Standard	Circuit
1 — 4	Always	1 MΩ or more	 AC-02796
1 — 4	Apply battery voltage between terminals 2 and 3.	Less than 1 Ω	

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

WIRING DIAGRAM

For the wiring diagram, refer to “Door Lock Control System” in the wiring diagram. Ref. to WIRING SYSTEM>Door Lock Control System>WIRING DIAGRAM.

INSPECTION

1. BASIC INSPECTION

For the basic inspection, refer to “Basic Diagnostic Procedure” of “BODY CONTROL (DIAGNOSTICS)” section. Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure.

2. SYSTEM BLOCK DIAGRAM

For system block diagram, refer to “System Block Diagram” in “BODY CONTROL (DIAGNOSTICS)”. Ref. to BODY CONTROL(DIAGNOSTICS)>General Description>SYSTEM BLOCK DIAGRAM.

3. MODULE I/O SIGNAL

For the specification (electrical component), refer to “Control Module I/O Signal” of “BODY CONTROL (DIAGNOSTICS)” section. Ref. to BODY CONTROL(DIAGNOSTICS)>Control Module I/O Signal>ELECTRICAL SPECIFICATION.

4. SYMPTOM CHART

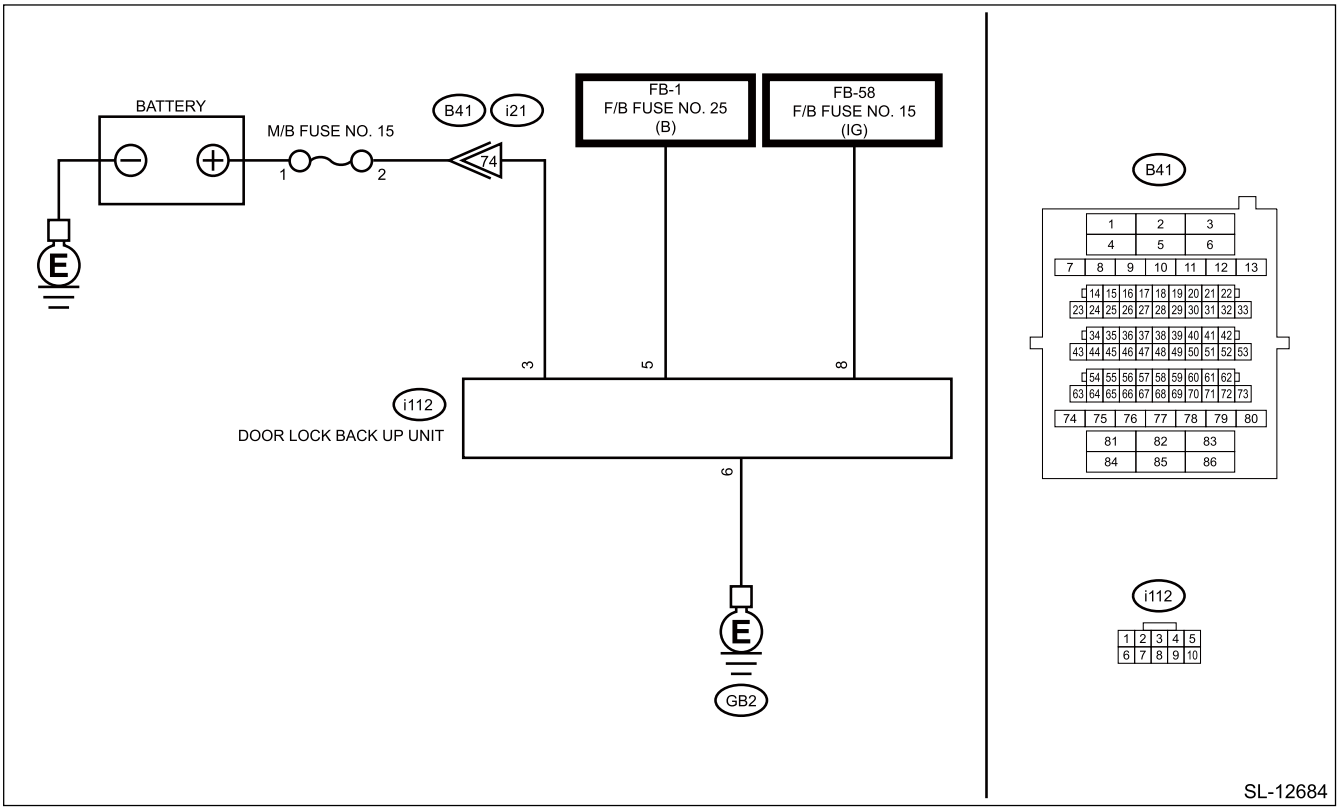
Symptoms	Repair order	Reference
The door lock control system does not operate	1. Check the power supply and ground circuit for the backup unit (model with auto door lock)	Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK POWER SUPPLY AND GROUND CIRCUIT OF BACKUP UNIT.
	2. Check the power supply and ground circuit for body integrated unit	Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK BODY INTEGRATED UNIT POWER SUPPLY AND GROUND CIRCUIT.
	3. Check the door lock switch and the circuit	Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR LOCK SWITCH.
	4. Check the door switch and the circuit	Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR SWITCH.

Symptoms	Repair order	Reference
	5. Check the trunk opener switch and the circuit	Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK TRUNK OPENER SWITCH CIRCUIT.
	6. Check the door lock actuator and the circuit	Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR LOCK ACTUATOR AND CIRCUIT.
A specific door lock actuator does not operate	Check the door lock actuator and circuit	Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR LOCK ACTUATOR AND CIRCUIT.

5. CHECK POWER SUPPLY AND GROUND CIRCUIT OF BACKUP UNIT

Wiring diagram:

DC power supply circuit Ref. to WIRING SYSTEM>Power Supply Circuit>WIRING DIAGRAM.



1. CHECK FUSE.

1. Turn the ignition switch to OFF.
2. Check the fuse on the upstream of the backup unit. Ref. to SECURITY AND LOCKS>Relay and Fuse>INSPECTION.

Is the check result OK?

Yes	Go to 2.
No	Replace the defective fuse.

2. CHECK POWER SUPPLY.

1. Disconnect the backup unit connector.
2. Turn the ignition switch to ON.
3. Measure the voltage between backup unit connector and chassis ground.

Connector & terminal

(i112) No. 3 (+) — Chassis ground (−):
(i112) No. 5 (+) — Chassis ground (−):
(i112) No. 8 (+) — Chassis ground (−):

Is the voltage 9 V or more?

Yes	Go to 3.
No	Check the harness for open or short circuit between the backup unit and the fuse.

3. CHECK GROUND CIRCUIT.

Measure the resistance between backup unit connector and chassis ground.

Connector & terminal

(i112) No. 6 — Chassis ground:

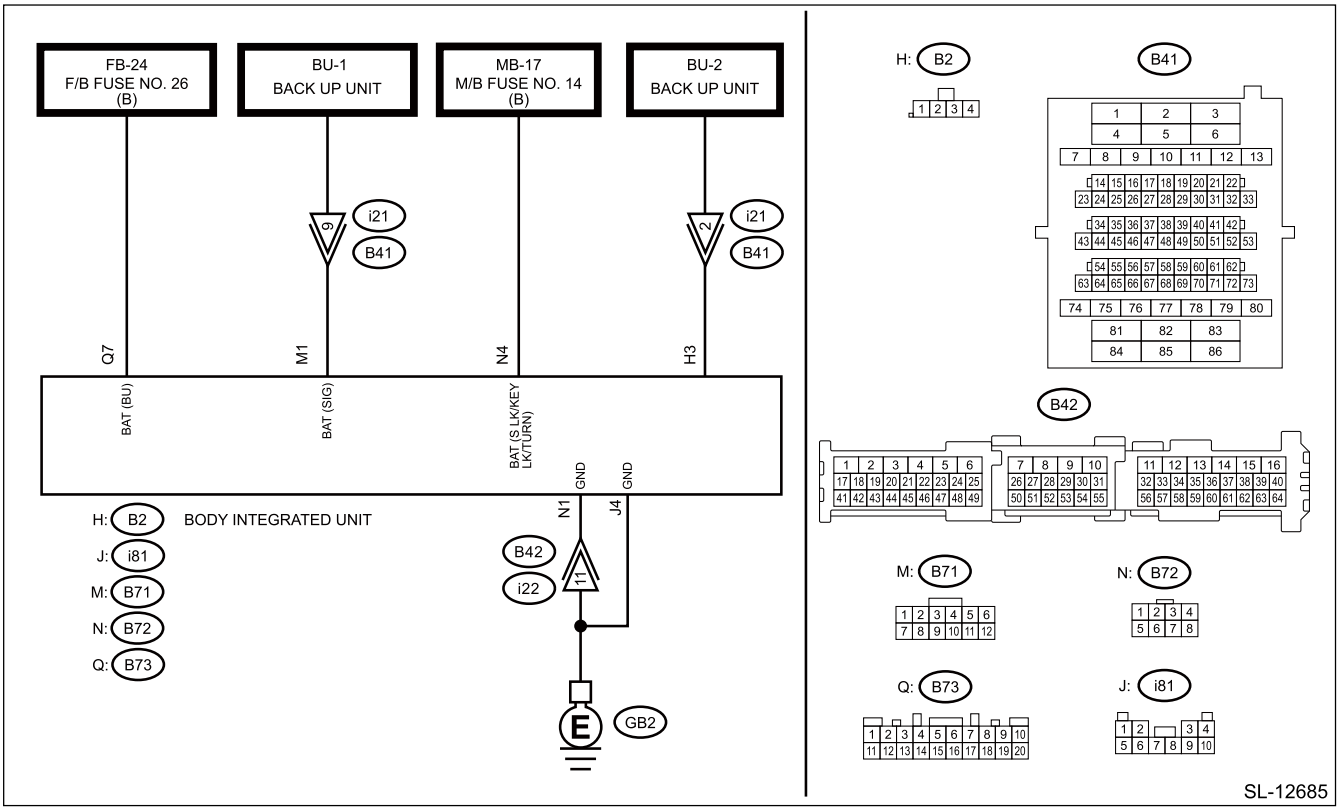
Is the resistance less than 10 Ω?

Yes	The power supply and ground circuit are OK.
No	Repair or replace the defective part.

6. CHECK BODY INTEGRATED UNIT POWER SUPPLY AND GROUND CIRCUIT

Wiring diagram:

Door lock control system Ref. to WIRING SYSTEM>Door Lock Control System>WIRING DIAGRAM.



1. CHECK FUSE.

1. Turn the ignition switch to OFF.
2. Check the fuse on the upstream of the body integrated unit. Ref. to SECURITY AND LOCKS>Relay and Fuse>INSPECTION.

Is the check result OK?

Yes	Go to 2.
No	Replace the defective fuse.

2. CHECK POWER SUPPLY.

1. Disconnect the connector of body integrated unit.
2. Measure the voltage between the body integrated unit connector and chassis ground.

Connector & terminal

(B71) No. 1 (+) — Chassis ground (−):
(B73) No. 7 (+) — Chassis ground (−):
(B72) No. 4 (+) — Chassis ground (−):
(B2) No. 3 (+) — Chassis ground (−):

Is the voltage 9 V or more?

Yes	Go to 3.
No	Check the harness for open or short circuit between body integrated unit and fuse.

3. CHECK GROUND CIRCUIT.

Measure the resistance between the body integrated unit connector and chassis ground.

Connector & terminal

(i81) No. 4 — Chassis ground:
(B72) No. 1 — Chassis ground:

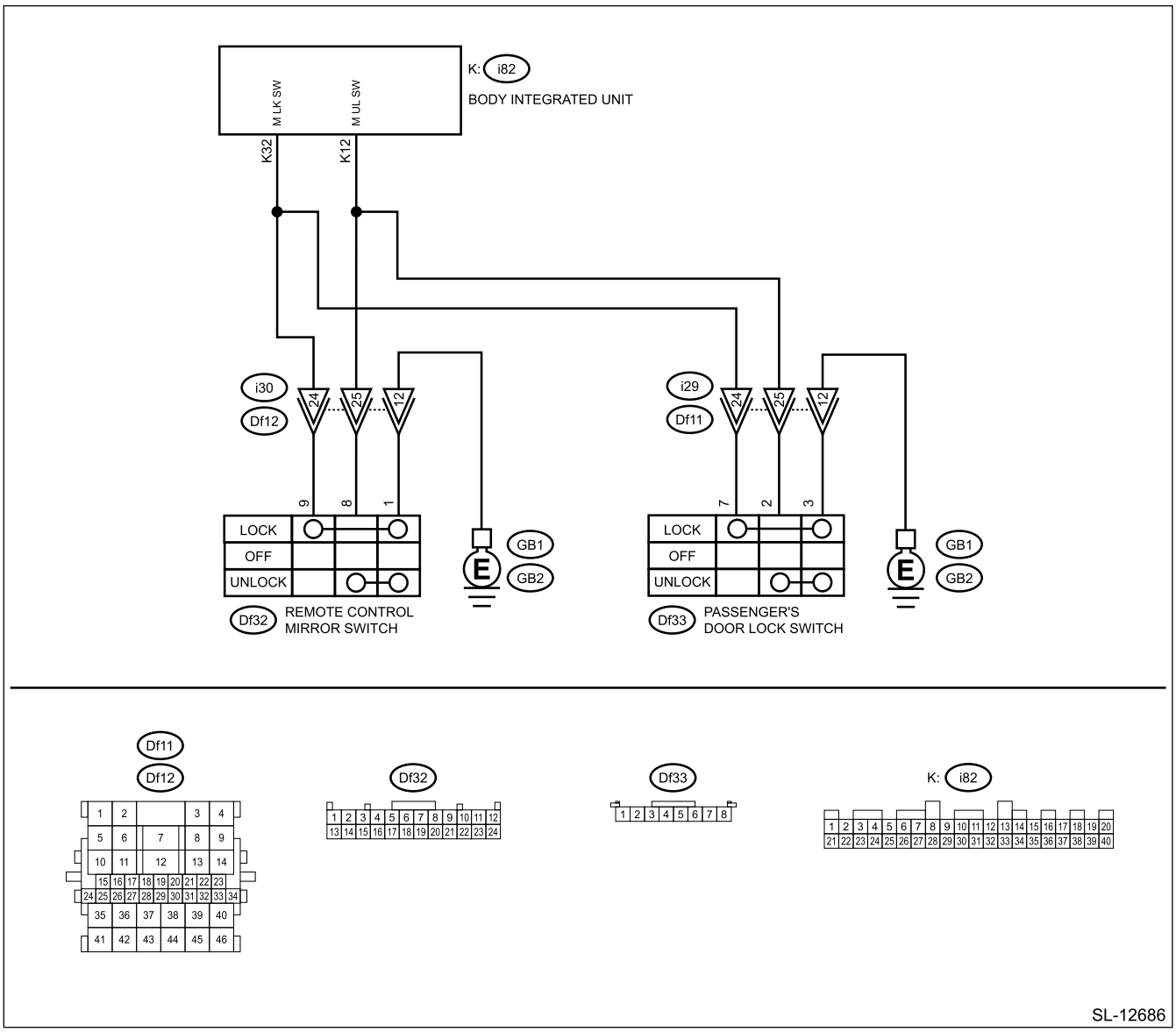
Is the resistance less than 10 Ω?

Yes	The power supply and ground circuit are OK.
No	Repair or replace the defective part.

7. CHECK DOOR LOCK SWITCH

Wiring diagram:

Door lock control system Ref. to WIRING SYSTEM>Door Lock Control System>WIRING DIAGRAM.



1. CHECK DATA MONITOR.

1. Turn the ignition switch to ON.
2. Using Subaru Select Monitor, display [Manual lock SW input] in [Data monitor] of [Body Control].
   Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display change as [OFF] ←→ [ON] when each door lock switch (driver's and passenger's seats) is moved to LOCK?

Yes — Go to 2.

No — Go to 3.

2. CHECK DATA MONITOR.

Using Subaru Select Monitor, display [Manual unlock SW input] in [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display change as [OFF] ←→ [ON] when each door lock switch (driver's and passenger's seats) is moved to UNLOCK?

Yes	The door lock switch is OK.
No	Go to 4.

3. CHECK DOOR LOCK SWITCH.

1. Turn the ignition switch to OFF.
2. Disconnect each door lock switch (driver's and passenger's seats) connector.
3. Check the continuity between terminals when moving each door lock switch (driver's and passenger's seats) in LOCK direction.

Terminals

Driver's side

No. 9 — No. 1:

Passenger's side

No. 7 — No. 3:

Did the indicator change from "No continuity" (1 MΩ or more) to "Continuity exists" (less than 10 Ω)?

Yes	Go to 4.
No	Replace the power window main switch or switch power window sub front. Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch.

4. CHECK DOOR LOCK SWITCH.

Check the continuity between terminals when moving each door lock switch (driver's and passenger's seats) in UNLOCK direction.

Terminals

Driver's side

No. 8 — No. 1:

Passenger's side

No. 2 — No. 3:

Did the indicator change from "No continuity" (1 MΩ or more) to "Continuity exists" (less than 10 Ω)?

Yes	Go to 5.
No	Replace the power window main switch or switch power window sub front. Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch.

5. CHECK HARNESS.

Measure the resistance between each door lock switch (driver's and passenger's seats) connector and chassis ground.

Connector & terminal

Driver's side

(Df32) No. 1 — Chassis ground:

Passenger's side

(Df33) No. 3 — Chassis ground:

Is the resistance less than 10 Ω?

Yes	Go to 6.
No	Repair or replace the defective part.

6. CHECK HARNESS.

Check the harness between body integrated unit and each door lock switch (driver's and passenger's seats).

Connector & terminal

Driver's side

(Df32) No. 9 — (i82) No. 32:

(Df32) No. 8 — (i82) No. 12:

Passenger's side

(Df33) No. 7 — (i82) No. 32:

(Df33) No. 2 — (i82) No. 12:

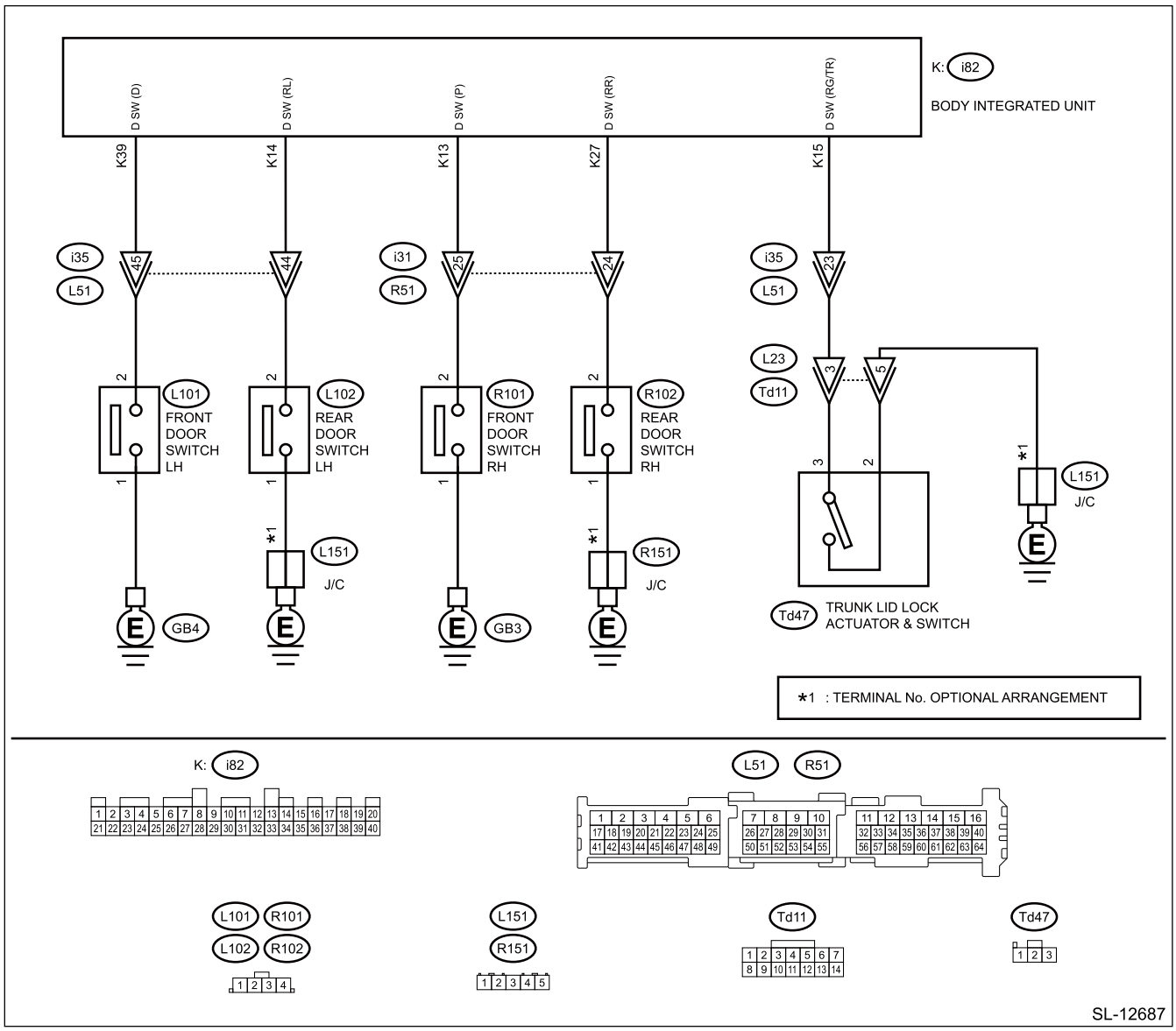
Is harness normal?

Yes	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
No	Repair or replace the defective part.

8. CHECK DOOR SWITCH

Wiring diagram:

Door lock control system Ref. to WIRING SYSTEM>Door Lock Control System>WIRING DIAGRAM.


K: i82
BODY INTEGRATED UNIT
D SW (D)
D SW (RL)
D SW (P)
D SW (RR)
D SW (RG/TR)
K39
K14
K13
K27
K15
i35
L51
i31
R51
L23
Td11
45
44
25
24
23
3
5
2
1
L101
FRONT DOOR SWITCH LH
L102
REAR DOOR SWITCH LH
R101
FRONT DOOR SWITCH RH
R102
REAR DOOR SWITCH RH
*1
L151
J/C
R151
GB4
GB3
Td47
TRUNK LID LOCK ACTUATOR & SWITCH
*1 : TERMINAL No. OPTIONAL ARRANGEMENT
K: i82
L51
R51
L101
R101
L102
R102
L151
R151
Td11
Td47
SL-12687

1. CHECK DATA MONITOR.

1. Turn the ignition switch to ON.
2. Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.
   - [Driver's door SW input]
   - [P-door SW input]
   - [Rear right door SW input]
   - [Rear left door SW input]
   - [R Gate SW input]

Does the display switch between [OFF] ←→ [ON] when each door or trunk lid is opened/closed?

Yes	The door switch or the trunk lid latch switch is normal.
No	Go to 2.

2. CHECK HARNESS.

1. Turn the ignition switch to OFF.
2. Disconnect the connector of body integrated unit.
3. Disconnect the connector of the door switch or the trunk lid latch switch that does not show any change on the display.
4. Check the harness between body integrated unit and defective switch.

Connector & terminal

Front door LH
(i82) No. 39 — (L101) No. 2:

Front door RH
(i82) No. 13 — (R101) No. 2:

Rear door LH
(i82) No. 14 — (L102) No. 2:

Rear door RH
(i82) No. 27 — (R102) No. 2:

Trunk lid
(i82) No. 15 — (Td47) No. 3:

Is harness normal?

Yes	Go to 3.
No	Repair or replace the defective part.

3. CHECK HARNESS.

Measure the resistance between the faulty switch connector and chassis ground.

Connector & terminal

Front door LH

(L101) No. 1 — Chassis ground:

Front door RH

(R101) No. 1 — Chassis ground:

Rear door LH

(L102) No. 1 — Chassis ground:

Rear door RH

(R102) No. 1 — Chassis ground:

Trunk lid

(Td47) No. 2 — Chassis ground:

Is the resistance less than 10 Ω?

Yes	Go to 4.
No	Repair or replace the defective part.

4. CHECK DOOR SWITCH.

Measure the resistance between faulty switch terminals.

Terminals

Front LH door switch

No. 2 — No. 1:

Front RH door switch

No. 2 — No. 1:

Rear LH door switch

No. 2 — No. 1:

Rear RH door switch

No. 2 — No. 1:

Trunk lid

No. 3 — No. 2:

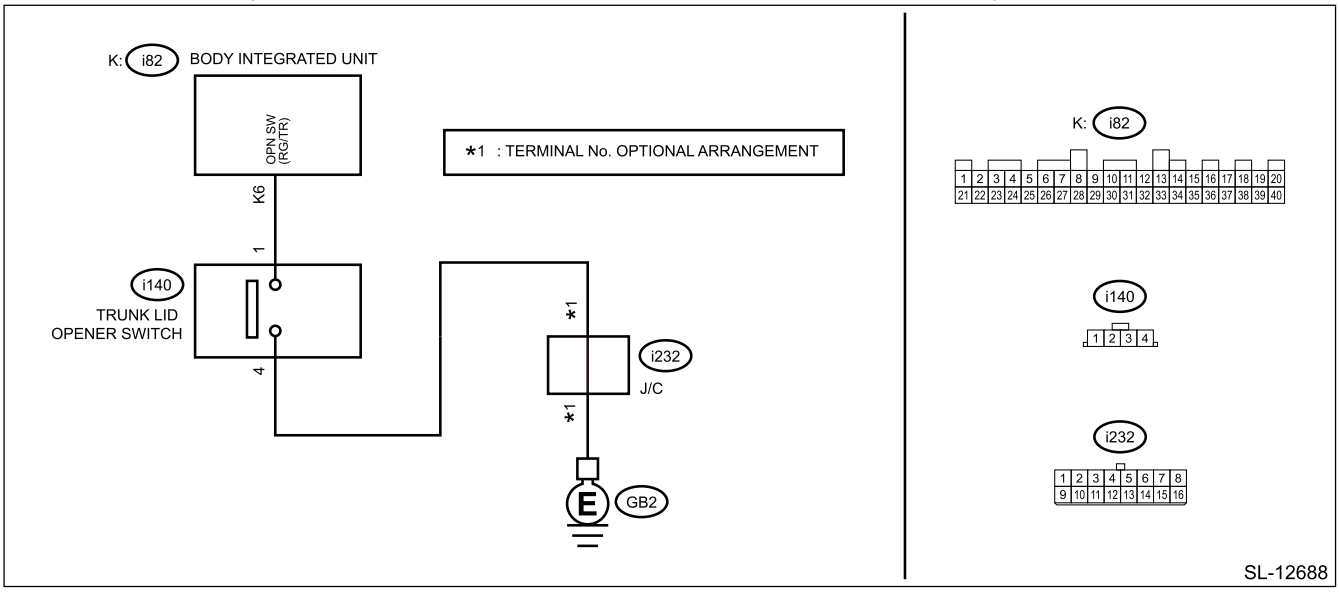
Is the resistance 1 MΩ or more when the door switch is pushed and the trunk lid is closed?

Yes	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
No	Replace the following faulty parts. • Door switches: Ref. to LIGHTING SYSTEM>Door Switch. • Trunk lid latch & actuator assembly: Ref. to SECURITY AND LOCKS>Trunk Lid Latch and Actuator Assembly.

9. CHECK TRUNK OPENER SWITCH CIRCUIT

Wiring diagram:

Door lock control system Ref. to WIRING SYSTEM>Door Lock Control System>WIRING DIAGRAM.



1. CHECK DATA MONITOR.

1. Turn the ignition switch to ON.
2. Using Subaru Select Monitor, display [R Gate Release SW input] in [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display switch between [OFF] ←→ [ON] when the trunk opener switch is operated?

Yes	The trunk opener switch is normal.
No	Go to 2.

2. CHECK HARNESS.

1. Turn the ignition switch to OFF.
2. Disconnect the connectors of body integrated unit and trunk opener switch.
3. Check the harness between body integrated unit and trunk opener switch.

Connector & terminal

(i82) No. 6 — (i140) No. 1:

Is harness normal?

Yes	Go to 3.
No	Repair or replace the defective part.

3. CHECK HARNESS.

Measure the resistance between trunk opener switch connector and chassis ground.

Connector & terminal

(i140) No. 4 — Chassis ground:

Is the resistance less than 10 Ω?

Yes	Go to 4.
No	Repair or replace the defective part.

4. CHECK TRUNK OPENER SWITCH.

Check the trunk opener button. Ref. to SECURITY AND LOCKS>Trunk Opener Switch>INSPECTION.

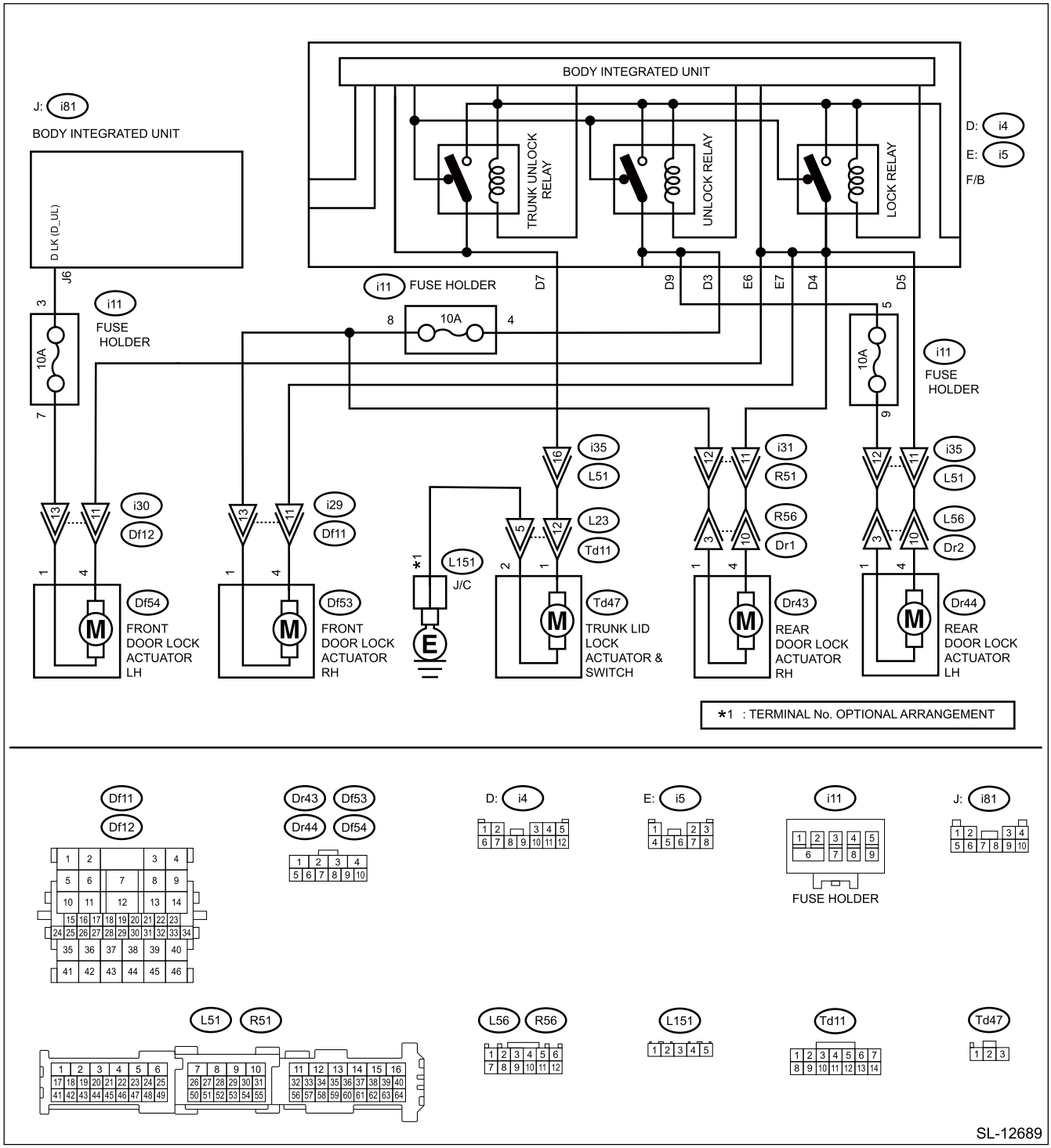
Is the trunk opener switch normal?

Yes	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
No	Replace the trunk opener switch. Ref. to SECURITY AND LOCKS>Trunk Opener Switch.

10. CHECK DOOR LOCK ACTUATOR AND CIRCUIT

Wiring diagram:

Door lock control system Ref. to WIRING SYSTEM>Door Lock Control System>WIRING DIAGRAM.


BODY INTEGRATED UNIT
J: i81
BODY INTEGRATED UNIT
D LK (D_UL)
J6
3
10A
7
i11
FUSE
HOLDER
TRUNK UNLOCK
RELAY
UNLOCK RELAY
LOCK RELAY
D: i4
E: i5
F/B
i11 FUSE HOLDER
8
10A
4
D7
D9
D3
E6
E7
D4
D5
5
10A
9
i11
FUSE
HOLDER
i30
Df12
Df54
FRONT
DOOR LOCK
ACTUATOR
LH
i29
Df11
Df53
FRONT
DOOR LOCK
ACTUATOR
RH
*1
L151
J/C
i35
L51
L23
Td11
Td47
TRUNK LID
LOCK
ACTUATOR &
SWITCH
i31
R51
R56
Dr1
Dr43
REAR
DOOR LOCK
ACTUATOR
RH
i35
L51
L56
Dr2
Dr44
REAR
DOOR LOCK
ACTUATOR
LH
*1 : TERMINAL No. OPTIONAL ARRANGEMENT
Df11
Df12
Dr43
Df53
Dr44
Df54
D: i4
E: i5
i11
FUSE HOLDER
J: i81
L51
R51
L56
R56
L151
Td11
Td47
SL-12689

1. CHECK HARNESS (DOOR LOCK).

1. Turn the ignition switch to OFF.
2. Disconnect the body integrated unit and each door lock actuator connector.
3. Check the harness between body integrated unit and each door lock actuator.

Connector & terminal

Front door LH

(i5) No. 6 — (Df54) No. 4:

Front door RH

(i5) No. 7 — (Df53) No. 4:

Rear door LH

(i4) No. 5 — (Dr44) No. 4:

Rear door RH

(i4) No. 4 — (Dr43) No. 4:

Is harness normal?

Yes	Go to 2.
No	Repair or replace the defective part.

2. CHECK HARNESS (DOOR UNLOCK).

Check the harness between body integrated unit and each door lock actuator.

Connector & terminal

Front door LH

(i81) No. 6 — (Df54) No. 1:

Front door RH

(i4) No. 3 — (Df53) No. 1:

Rear door LH

(i4) No. 9 — (Dr44) No. 1:

Rear door RH

(i4) No. 3 — (Dr43) No. 1:

Is harness normal?

Yes	Go to 3.
No	Repair or replace the defective part.

3. CHECK HARNESS (TRUNK LID UNLOCK).

Check the harness between the body integrated unit and trunk lid lock actuator.

Connector & terminal

(i4) No. 7 — (Td47) No. 1:

Is harness normal?

Yes	Go to 4.
No	Repair or replace the defective part.

4. CHECK HARNESS (TRUNK LID UNLOCK).

Measure the resistance between the trunk lid lock actuator connector and chassis ground.

Connector & terminal

(Td47) No. 2 — Chassis ground:

Is the resistance less than 10 Ω?

Yes	Go to 5.
No	Repair or replace the defective part.

5. CHECK BODY INTEGRATED UNIT OUTPUT SIGNAL.

1. Connect the connector of body integrated unit.
2. Measure the voltage between terminals of the body integrated unit when operating the door lock switch to LOCK direction.

Connector & terminal

Front door LH

(i5) No. 6 (+) — (i81) No. 6 (−):

Front door RH

(i5) No. 7 (+) — (i4) No. 3 (−):

Rear door LH

(i4) No. 5 (+) — (i4) No. 9 (−):

Rear door RH

(i4) No. 4 (+) — (i4) No. 3 (−):

Does the voltage change from less than 1 V → 9 V or more? (During lock output)

Yes	Go to 6.
No	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

6. CHECK BODY INTEGRATED UNIT OUTPUT SIGNAL.

Measure the voltage between terminals of the body integrated unit when operating the door lock switch to UNLOCK direction.

Connector & terminal

Front door LH

(i81) No. 6 (+) — (i5) No. 6 (−):

Front door RH

(i4) No. 3 (+) — (i5) No. 7 (−):

Rear door LH

(i4) No. 9 (+) — (i4) No. 5 (−):

Rear door RH

(i4) No. 3 (+) — (i4) No. 4 (−):

Does the voltage change from less than 1 V → 9 V or more? (During unlock output)

Yes	Go to 7.
No	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

7. CHECK BODY INTEGRATED UNIT OUTPUT SIGNAL.

Measure the voltage between body integrated unit and chassis ground when operating the trunk opener switch.

Connector & terminal

(i4) No. 7 (+) — Chassis ground (−):

Does the voltage change from less than 1 V → 9 V or more? (During unlock output)

Yes	Go to 8.
No	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

8. CHECK DOOR LOCK ACTUATOR.

Check the door lock actuator. Ref. to SECURITY AND LOCKS>Door Latch & Door Lock Actuator Assembly>INSPECTION.

Is the door lock actuator OK?

Yes	Go to 9.
No	Replace the door latch and door lock actuator assembly. Ref. to SECURITY AND LOCKS>Door Latch & Door Lock Actuator Assembly.

9. CHECK TRUNK LID LOCK ACTUATOR.

Check the trunk lid lock actuator. Ref. to SECURITY AND LOCKS>Trunk Lid Latch and Actuator Assembly>INSPECTION.

Is trunk lid lock actuator normal?

Yes	Check the connection status of the harness and connector that may have a temporary poor contact.
No	Replace the trunk lid latch & actuator assembly. Ref. to SECURITY AND LOCKS>Trunk Lid Latch and Actuator Assembly.

SECURITY AND LOCKS > Door Lock Control System

NOTE

For operation procedures of components of the door lock control system, refer to the sections below.

- Door latch and door lock actuator assembly: Ref. to SECURITY AND LOCKS>Door Latch & Door Lock Actuator Assembly.
- Trunk lid latch & actuator assembly: Ref. to SECURITY AND LOCKS>Trunk Lid Latch and Actuator Assembly.
- Power window main switch: Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch.
- Trunk opener switch: Ref. to SECURITY AND LOCKS>Trunk Opener Switch.
- Body integrated unit: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
- Backup unit: Ref. to SECURITY AND LOCKS>Backup Unit.
- Door switch: Ref. to LIGHTING SYSTEM>Door Switch.

SECURITY AND LOCKS > Keyless Entry System

WIRING DIAGRAM

For the wiring diagram, refer to “Keyless Entry System” in the wiring diagram. Ref. to WIRING SYSTEM>Keyless Entry System>WIRING DIAGRAM.

SECURITY AND LOCKS > Keyless Entry System

INSPECTION

1. BASIC INSPECTION

For basic inspection, refer to “Basic Diagnostic Procedure” of “KEYLESS ENTRY (DIAGNOSTICS)” section.
Ref. to KEYLESS ENTRY(DIAGNOSTICS) >Basic Diagnostic Procedure.

2. SYSTEM BLOCK DIAGRAM

For system block diagram, refer to “System Block Diagram” in “KEYLESS ENTRY (DIAGNOSTICS)” section.
Ref. to KEYLESS ENTRY(DIAGNOSTICS) >General Description>SYSTEM BLOCK DIAGRAM.

3. MODULE I/O SIGNAL

For the specification (electrical component), refer to “Control Module I/O Signal” of “KEYLESS ENTRY (DIAGNOSTICS)” section. Ref. to KEYLESS ENTRY(DIAGNOSTICS) >Control Module I/O Signal>ELECTRICAL SPECIFICATION.

SECURITY AND LOCKS > Keyless Entry System

NOTE

For operation procedures of components of the keyless entry system, refer to the following sections.

- Keyless entry control module: Ref. to SECURITY AND LOCKS>Keyless Entry Control Module.
- Keyless transmitter: Ref. to SECURITY AND LOCKS>Keyless Transmitter.

WIRING DIAGRAM

For the wiring diagram, refer to “Keyless Access With Push Button Start System” in WI section. Ref. to WIRING SYSTEM>Keyless Access With Push Button Start System>WIRING DIAGRAM.

INSPECTION

1. BASIC INSPECTION

For basic inspection, refer to “Basic Diagnostic Procedure” of “KEYLESS ACCESS WITH PUSH BUTTON START (DIAGNOSTICS)” section. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Basic Diagnostic Procedure.

2. SYSTEM BLOCK DIAGRAM

For system block diagram, refer to “System Block Diagram” in “KEYLESS ACCESS WITH PUSH BUTTON START (DIAGNOSTICS)” section. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>General Description>SYSTEM BLOCK DIAGRAM.

3. MODULE I/O SIGNAL

For the specification (electrical component), refer to “Control Module I/O Signal” of “KEYLESS ACCESS WITH PUSH BUTTON START (DIAGNOSTICS)” section. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Control Module I/O Signal>ELECTRICAL SPECIFICATION.

4. POWER SUPPLY SWITCHING FUNCTION CHECK

1. Check push button ignition switch function
   (1) Check the power supply switching control function with push button ignition switch operation, brake pedal operation, and select lever position.
   - MT model

Shift lever position	Clutch pedal operation	Push button ignition switch operation
—	Released	Repeat Ignition switch OFF → ACC ON → Ignition switch ON → Ignition switch OFF
	Released	Engine running → Ignition switch OFF
	Depressed	Ignition switch OFF → Engine started
	Depressed	ACC ON → Engine started
	Depressed	Ignition switch ON → Engine started
	Depressed	Engine running → Ignition switch OFF

   - CVT model

Select lever position	Brake pedal operation	Push button ignition switch operation
P	Released	Repeat Ignition switch OFF → ACC ON → Ignition switch ON → Ignition switch OFF
P	Released	Engine running → Ignition switch OFF

Select lever position	Brake pedal operation	Push button ignition switch operation
P	Depressed	Ignition switch OFF → Engine started
P	Depressed	ACC ON → Engine started
P	Depressed	Ignition switch ON → Engine started
P	Depressed	Engine running → Ignition switch OFF
N	Released	Repeat Ignition switch OFF → ACC ON → Ignition switch ON → ACC ON
N	Released	Engine running → ACC ON
N	Depressed	Ignition switch OFF → Engine started
N	Depressed	ACC ON → Engine started
N	Depressed	Ignition switch ON → Engine started
N	Depressed	Engine running → ACC ON
Except for P and N	Released	Repeat Ignition switch OFF → ACC ON → Ignition switch ON → ACC ON
Except for P and N	Released	Engine running → ACC ON
Except for P and N	Depressed	Ignition switch OFF → Ignition switch ON
Except for P and N	Depressed	ACC ON → Ignition switch ON
Except for P and N	Depressed	Engine running → ACC ON

(2) Check the power supply switching functions with other than the push button ignition switch operation.

- With the select lever in “P” position (CVT model) and ACC ON, check that the ACC changes from ON → OFF when the vehicle is left for 20 minutes or more.
- With the select lever in “P” position (CVT model) and the ignition switch ON, check that ignition switch changes from ON → OFF when the vehicle is left for 1 hour or more.

(3) If the inspection result indicates an improper operation, check the push button start system. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Diagnostics with Phenomenon>LIST > POWER SUPPLY SWITCHING SYSTEM.

2. Check power status display

(1) Check the power indicator display of the push button ignition switch.

Note:

***1: Key collation is normal, and the stop light switch (CVT) is ON.**

Indicator display

Push button ignition switch status	Indicator lighting status
Ignition switch OFF (except for condition *1)	Light OFF
ACC ON (except for condition *1)	Orange light
Ignition switch ON (except for condition *1)	Orange light
Engine start standby (*1)	Green light
After engine is started	Light OFF

(2) If the inspection result indicates an improper operation, check the push button start system. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Diagnostics with Phenomenon>LIST > POWER SUPPLY SWITCHING SYSTEM.

Note:

The indicator blinks if any of the following malfunctions are detected.

Detected malfunction	Indicator lighting status
Steering lock stuck	Green blinking
Steering lock CM internal malfunction	Orange blinking
Keyless access CM internal malfunction	Orange blinking
Vehicle speed signal malfunction	Orange blinking

SECURITY AND LOCKS > Keyless Access With Push Button Start System

NOTE

For procedure of components in the keyless access with push button start system, refer to the sections below.

- Access key: Ref. to SECURITY AND LOCKS>Access Key.
- Keyless access interior antenna: Ref. to SECURITY AND LOCKS>Keyless Access Indoor Antenna.
- Keyless access exterior antenna: Ref. to SECURITY AND LOCKS>Keyless Access Outdoor Antenna.
- Keyless access CM: Ref. to SECURITY AND LOCKS>Keyless Access CM.
- ID code box: Ref. to SECURITY AND LOCKS>ID Code Box.
- Steering lock CM: Ref. to SECURITY AND LOCKS>Steering Lock CM.
- Push button ignition switch: Ref. to SECURITY AND LOCKS>Push Button Ignition Switch.
- Access buzzer: Ref. to SECURITY AND LOCKS>Access Buzzer.

WIRING DIAGRAM

For the wiring diagram, refer to "Security System" in the wiring diagram. Ref. to WIRING SYSTEM>Security System>WIRING DIAGRAM.

INSPECTION

1. BASIC INSPECTION

For the basic inspection, refer to "Basic Diagnostic Procedure" of "BODY CONTROL (DIAGNOSTICS)" section. Ref. to BODY CONTROL(DIAGNOSTICS)>Basic Diagnostic Procedure.

2. SYSTEM BLOCK DIAGRAM

For system block diagram, refer to "System Block Diagram" in "BODY CONTROL (DIAGNOSTICS)". Ref. to BODY CONTROL(DIAGNOSTICS)>General Description>SYSTEM BLOCK DIAGRAM.

3. MODULE I/O SIGNAL

For the specification (electrical component), refer to "Control Module I/O Signal" of "BODY CONTROL (DIAGNOSTICS)" section. Ref. to BODY CONTROL(DIAGNOSTICS)>Control Module I/O Signal.

4. BASIC DIAGNOSTIC PROCEDURE

1. CHECK DTC.

1. Turn the ignition switch to ON.
2. Read the DTC of [Body Control] using the Subaru Select Monitor. Ref. to COMMON (DIAGNOSTICS)>Diagnostic Trouble Code (DTC).

Are any DTCs displayed?

Yes	Perform the diagnosis for the displayed DTCs. Ref. to BODY CONTROL(DIAGNOSTICS)>Diagnostic Trouble Code (DTC)>LIST.
No	Go to 2.

2. CHECK DATA MONITOR.

Using the Subaru Select Monitor, display the following items in the [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

- [Driver's door SW input]
- [P-door SW input]
- [Rear right door SW input]
- [Rear left door SW input]
- [R Gate SW input]
- [Hood Switch Close-side]

Does the display switch between [OFF] ⟷ [ON] when each door or the front hood is opened/closed?

Yes — Go to 3.

No — Check the following parts.

- Door switches: Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR SWITCH.
- Trunk lid latch switch: Ref. to SECURITY AND LOCKS>Trunk Lid Latch and Actuator Assembly>INSPECTION.
- Hood switch: Ref. to SECURITY AND LOCKS>Front Hood Lock Assembly>INSPECTION.

3. CHECK SECURITY SYSTEM SETTINGS.

Using Subaru Select Monitor, display [Security Alarm Setup] in [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Is [Security Alarm Setup] set to [ON]?

Yes — Go to 5.

No — Go to 4.

4. CHANGE SETTING OF SECURITY SYSTEM.

Using Subaru Select Monitor, change the [Security Alarm Setup] to [ON]. Ref. to SECURITY AND LOCKS>Security System>INSPECTION > SECURITY SYSTEM ON/OFF SETTING.

Is setting change completed correctly?

Yes	Go to 5.
No	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

5. CHECK KEYLESS SYSTEM OPERATION.

Check the operation of the keyless entry system or keyless access system.

Does the keyless entry system or keyless access system operate normally?

Yes	Go to 6.
No	Check the keyless entry system or keyless access system. • Keyless entry system: Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION. • Keyless access system: Ref. to SECURITY AND LOCKS>Keyless Access With Push Button Start System>INSPECTION.

6. CHECK SECURITY SYSTEM OPERATION.

1. Turn the ignition switch to OFF and close all doors and front hood.
2. Check the status of security indicator light.
3. Press the LOCK button of the keyless transmitter or access key.
4. Check the security indicator light blinking patterns.

Is the security indicator light blinking patterns as follows?

- Before pressing the LOCK button: Blinks once every 3 seconds
- After pressing the LOCK button:
  - When monitoring lag is set to 0 seconds, blinks twice within 0.5 seconds at 2 second intervals.
  - When monitoring lag is set to 30 seconds, blinks once every 0.4 seconds for 30 seconds, then blinks twice within 0.5 seconds at 2 second intervals.

Yes	Go to 7.
No	Check the security indicator light. Ref. to SECURITY AND LOCKS>Security System>INSPECTION > CHECK SECURITY INDICATOR LIGHT CIRCUIT.

7. CHECK SECURITY ALARM OPERATION.

1. Check that the security indicator light blinks twice within 0.5 seconds at 2 second intervals.
2. Operate the driver's door lock switch to the UNLOCK side.
3. Open one of the doors.

Does the security alarm operate, the horn sound and the hazard light blink?

Yes	Go to 8.
No	Check the following parts. • Horn: Ref. to SECURITY AND LOCKS>Security System>INSPECTION > CHECK HORN. • Hazard light: Ref. to SECURITY AND LOCKS>Security System>INSPECTION > CHECK HAZARD LIGHT OPERATION.

8. CHECK DEACTIVATION OF SECURITY ALARM.

Press any button of the transmitter or access key while the security alarm is operating.

Do the horn sound and the blinking of the hazard light stop?

Yes	Go to 9.
No	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.

9. CHECK MANUAL SETTING CHANGE OF SECURITY SYSTEM.

1. Press the UNLOCK button of the keyless transmitter or access key.
2. Change the setting of security system. Ref. to SECURITY AND LOCKS>Security System>INSPECTION > SECURITY SYSTEM ON/OFF SETTING.

Is setting change completed correctly?

Yes	Restore the security system settings to those before the diagnosis and finish the diagnosis.
No	Check the door lock switch circuit. Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR LOCK SWITCH.

5. SECURITY SYSTEM ON/OFF SETTING

Note:
It can be set by [Security Alarm Setup] in unit customizing using Subaru Select Monitor. Ref. to BODY CONTROL(DIAGNOSTICS)>Customize.

1. Close all doors, front hood, and trunk lid, and sit down on the driver's seat. Press the UNLOCK button of the keyless transmitter or access key.
2. Turn the ignition switch to ON.
3. Press the central door unlock switch and open the driver's door simultaneously. (Keep the central door unlock switch pressed down.)
4. When the condition in step 3. continues for 10 seconds, the system switches to a mode reverse to the current mode.

Setting	Horn activation	Meter display
ON → OFF	2 times	[AL_OFF]
OFF → ON	1 time	[AL_ON]

6. CHECK DOOR SWITCH

For inspection of the door switch, refer to the “CHECK DOOR SWITCH” of the “Door Lock Control System”. Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR SWITCH.

7. CHECK SECURITY INDICATOR LIGHT CIRCUIT

For inspection of the security indicator light circuit, refer to “Warning Light Illumination Pattern” of “KEYLESS ACCESS WITH PUSH BUTTON START (DIAGNOSTICS)” section. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Warning Light Illumination Pattern.

8. CHECK HORN

For inspection of the horn, refer to the “Horn System” of “HORN” section. Ref. to HORN>Horn System.

9. CHECK HAZARD LIGHT OPERATION

For operation procedures of the hazard lights, refer to “CHECK HAZARD LIGHT SYSTEM” in “LIGHTING SYSTEM” section. Ref. to LIGHTING SYSTEM>Turn Signal Light and Hazard Light System>INSPECTION > CHECK HAZARD LIGHT OPERATION.

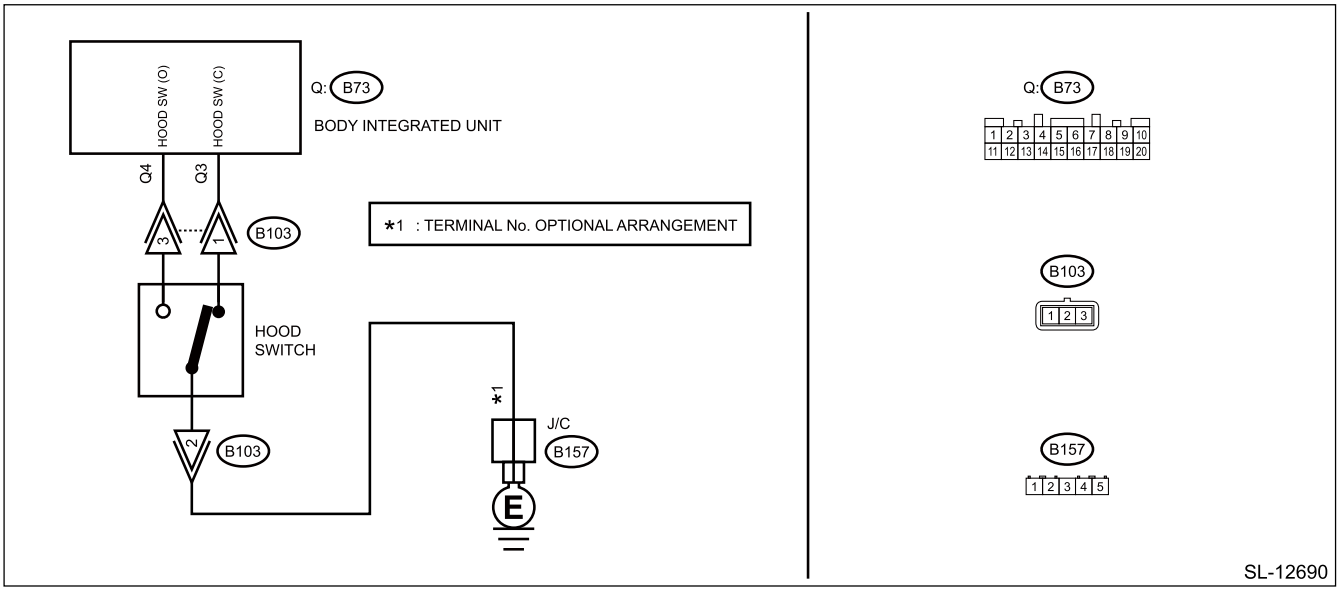
10. CHECK IGNITION SWITCH CIRCUIT

For inspection of the ignition switch circuit, refer to “Basic Diagnostic Procedure” of “KEYLESS ACCESS WITH PUSH BUTTON START (DIAGNOSTICS)” section. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Basic Diagnostic Procedure.

11. CHECK HOOD SWITCH

Wiring diagram:

Security system Ref. to WIRING SYSTEM>Security System>WIRING DIAGRAM.



1. CHECK DATA MONITOR.

1. Turn the ignition switch to ON.
2. Using Subaru Select Monitor, display [Hood Switch Close-side] in [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display switch between [OFF] ←→ [ON] when the front hood is opened ←→ closed?

Yes	The hood switch is OK.
No	Go to 2.

2. CHECK DATA MONITOR.

Using Subaru Select Monitor, display [Hood Switch Open-side] in [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the display switch between [ON] ←→ [OFF] when the front hood is opened ←→ closed?

Yes	The hood switch is OK.
No	Go to 3.

3. CHECK HARNESS.

1. Turn the ignition switch to OFF.
2. Disconnect the connector of body integrated unit.
3. Disconnect the connector of hood switch.
4. Measure the resistance of harness between body integrated unit and hood switch.
   Connector & terminal
   (B73) No. 3 — (B103) No. 1:
   (B73) No. 4 — (B103) No. 3:

Is the resistance less than 10 Ω?

Yes	Go to 4.
No	Repair or replace the defective part.

4. CHECK HARNESS.

Measure the resistance between the hood switch and chassis ground.

Connector & terminal

(B103) No. 2 — Chassis ground (−):

Is the resistance less than 10 Ω?

Yes	Go to 5.
No	Repair or replace the defective part.

5. CHECK HOOD SWITCH.

Check the hood switch. Ref. to SECURITY AND LOCKS>Front Hood Lock Assembly>INSPECTION.

Is the hood switch normal?

Yes	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
No	Replace the lock assembly front hood. Ref. to SECURITY AND LOCKS>Front Hood Lock Assembly.

SECURITY AND LOCKS > Security System

NOTE

For operation procedures of components in the security system, refer to the sections below.

- Horn: Ref. to HORN>Horn.
- Body integrated unit: Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
- Door switch: Ref. to LIGHTING SYSTEM>Door Switch.
- Hood switch: Ref. to SECURITY AND LOCKS>Front Hood Lock Assembly.
- Security indicator light (in combination meter): Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter.
- Trunk lid latch & actuator assembly: Ref. to SECURITY AND LOCKS>Trunk Lid Latch and Actuator Assembly.
- Hazard switch: Ref. to LIGHTING SYSTEM>Hazard Switch.

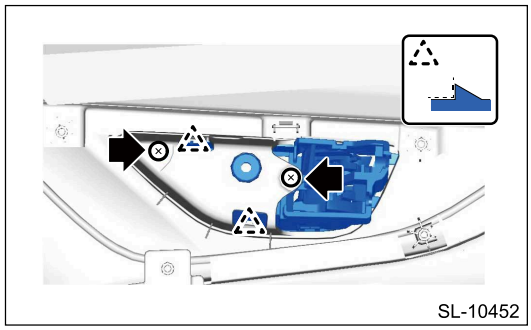
SECURITY AND LOCKS > Door Inner Remote

REMOVAL

1. FRONT

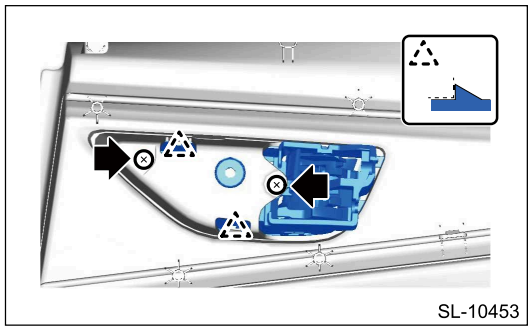
Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.
3. Remove the remote assembly door.
   (1) Remove the screws.
   (2) Release the claws and guides, and remove the remote assembly door.



2. REAR

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.
3. Remove the remote assembly door.
   (1) Remove the screws.
   (2) Release the claws and guides, and remove the remote assembly door.



SECURITY AND LOCKS > Door Inner Remote

INSTALLATION

1. 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. Before installation, check the following items.
   - Cable is free from deformation such as fray.
   - Grease is applied sufficiently to cable joints.
     If grease is insufficient, add it as necessary before assembling the cable.
     Preparation items:
     Grease: Silicone grease G-30M (part No. 004404002) or equivalent
2. Install the remote assembly door.
3. Install the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > FRONT DOOR.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. REAR

1. Before installation, check the following items.
   - Cable is free from deformation such as fray.
   - Grease is applied sufficiently to cable joints.
     If grease is insufficient, add it as necessary before assembling the cable.
     Preparation items:
     Grease: Silicone grease G-30M (part No. 004404002) or equivalent
2. Install the remote assembly door.
3. Install the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > REAR DOOR.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

SECURITY AND LOCKS > Door Inner Remote

INSPECTION

Check if the remote inner handle operates normally.

- If the lever is faulty, replace the remote assembly door.
- If the cable is deformed, replace the latch & actuator assembly.

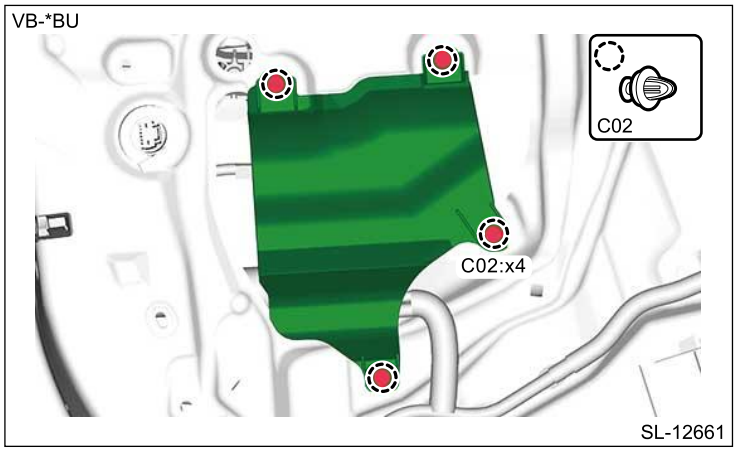
REMOVAL

1. FRONT

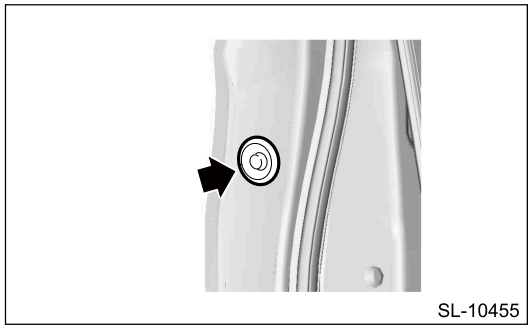
Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Raise the glass assembly front door to the top position.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.
4. Remove the sealing cover front door. Ref. to EXTERIOR BODY PANELS>Sealing Cover>REMOVAL > FRONT SEALING COVER.
5. Release the clips, and remove the plate door.

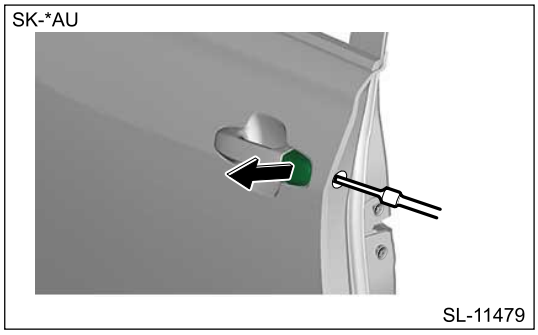
Caution:
If it is removed with an excessive force, the door panel assembly may be deformed. Also, if the clip is damaged, replace it with a new clip.



6. Remove the cover handle front outer.
   (1) Remove the plug at the rear end of the panel assembly front door.



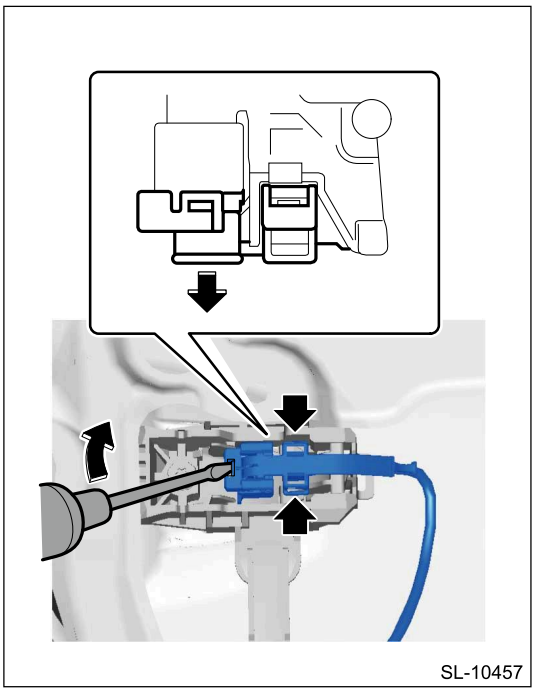
   (2) Using TORX® T30, loosen the bolt and remove the cover handle front outer.



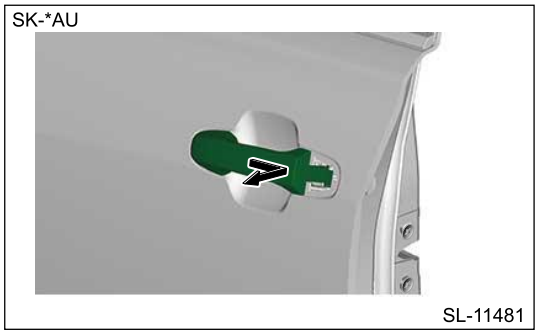
7. Remove the handle front door outer.

Caution:
Do not apply excessive force to remove the outer handle from the door frame assembly.

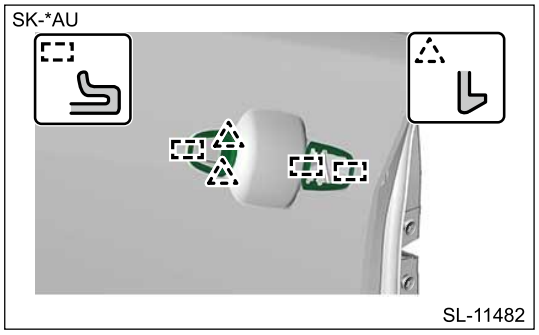
(1) Disconnect the harness clip and exterior antenna (touch sensor) connector using a flat tip screwdriver or similar tool wrapped with protection tape.



(2) Remove the handle front door outer by pulling it toward yourself and to the rear as shown in the figure.

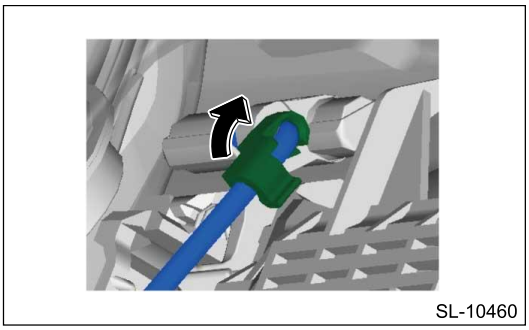


8. Release the claws and hooks, and remove the spacer door handle outer A and B.



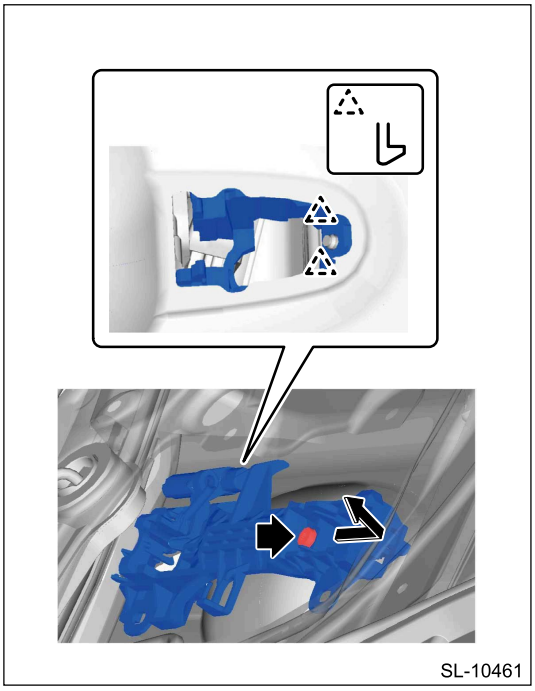
9. Remove the frame assembly front door outer.

(1) Remove the rod clamp and remove the rod.



(2) Using TORX® T30, loosen the bolt.

(3) Release the claws, and remove the frame assembly front door outer as shown in the figure.



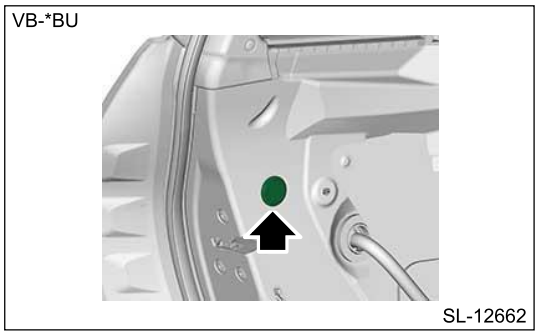
2. REAR

1. Raise the glass assembly rear door to the top position.

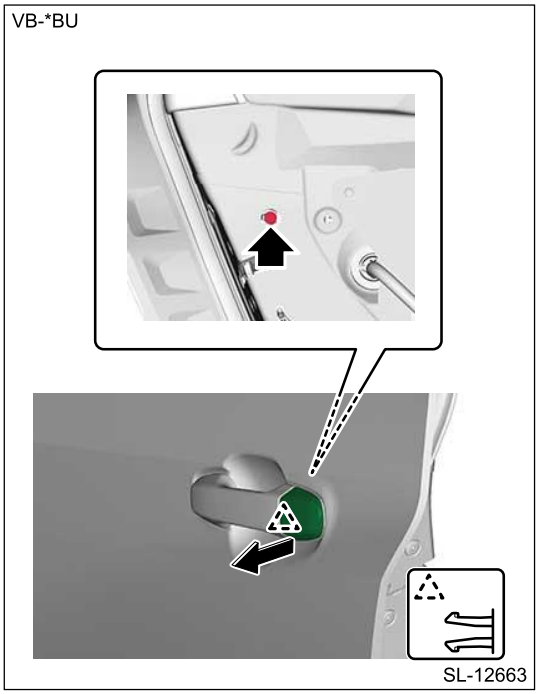
2. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

3. Remove the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.

4. Remove the sealing cover rear door. Ref. to EXTERIOR BODY PANELS>Sealing Cover>REMOVAL > REAR SEALING COVER.
5. Remove the latch and actuator assembly rear. Ref. to SECURITY AND LOCKS>Door Latch & Door Lock Actuator Assembly>REMOVAL > REAR.
6. Remove the cover handle rear outer.
   (1) Remove the plug.



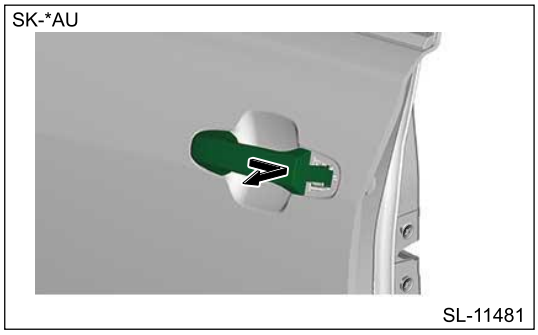
   (2) Using TORX® T30, loosen the bolt.
   (3) Release the claws, and then remove the cover handle rear outer.



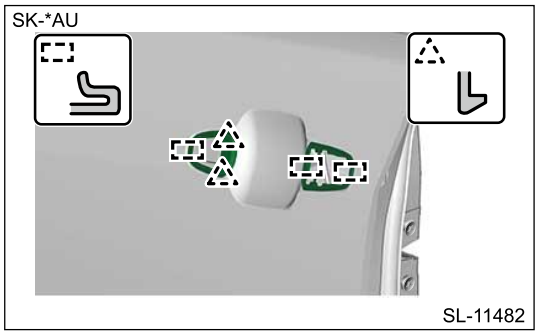
7. Remove the handle rear door outer.

Caution:
Do not apply excessive force to remove the outer handle from the door frame assembly.

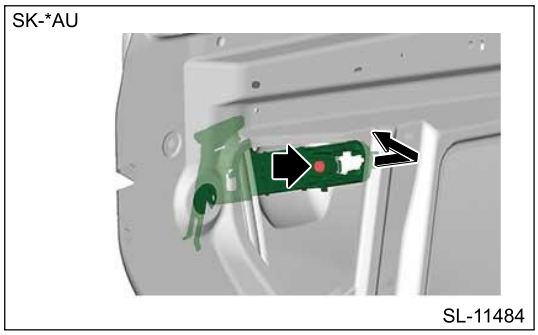
   (1) Remove the handle rear door outer by pulling it toward yourself and to the rear as shown in the figure.



8. Remove the spacer door handle outer.
(1) Release the claws and hooks, and remove the spacer door handle outer A and B.



9. Remove the frame assembly rear door outer.
(1) Using TORX® T30, loosen the bolt.
(2) Release the claws, and remove the frame assembly rear door outer as shown in the figure.



SECURITY AND LOCKS > Door Outer Handle

INSTALLATION

1. 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. Before installation, check the following items.
- Rod is free from deformation.
- Grease is applied sufficiently to rod joints.
  If grease is insufficient, add it as necessary before assembling the rod.

Preparation items:

Grease: Silicone grease G-30M (part No. 004404002) or equivalent

2. Using TORX® T30, tighten the bolt of the frame assembly front door outer.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
3. Install the spacer door handle outer A and B.
4. Install the handle front door outer.
   (1) Insert the handle door outer to the frame assembly front door outer.
   (2) Connect the connector.
5. Using TORX® T30, install the cover handle front outer.

   Note:
   When installing the outer handle cover on the driver's side, make sure that the key cylinder shaft is correctly inserted into the latch & actuator assembly front.

   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
6. Install the plugs.
7. Install the rod to the frame assembly front door outer.
8. Install the plate door.
9. Install the sealing cover front door. Ref. to EXTERIOR BODY PANELS>Sealing Cover>INSTALLATION > FRONT SEALING COVER.
10. Install the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > FRONT DOOR.
11. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. REAR

1. Before installation, check the lever for deformation.
2. Using TORX® T30, install the frame assembly rear door outer.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
3. Install the spacer door handle outer A and B.
4. Install the handle rear door outer.
5. Using TORX® T30, install the cover handle rear outer.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
6. Install the plugs.
7. Install the latch and actuator assembly rear. Ref. to SECURITY AND LOCKS>Door Latch & Door Lock Actuator Assembly>INSTALLATION > REAR.
8. Install the sealing cover rear door. Ref. to EXTERIOR BODY PANELS>Sealing Cover>INSTALLATION > REAR SEALING COVER.
9. Install the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > REAR DOOR.
10. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

SECURITY AND LOCKS > Door Outer Handle

INSPECTION

Check if the outer handle operates normally.

- If the handle joint portion is faulty, replace the handle door outer or the frame assembly door outer.
- If the rod or lever is deformed, replace the latch & actuator assembly.

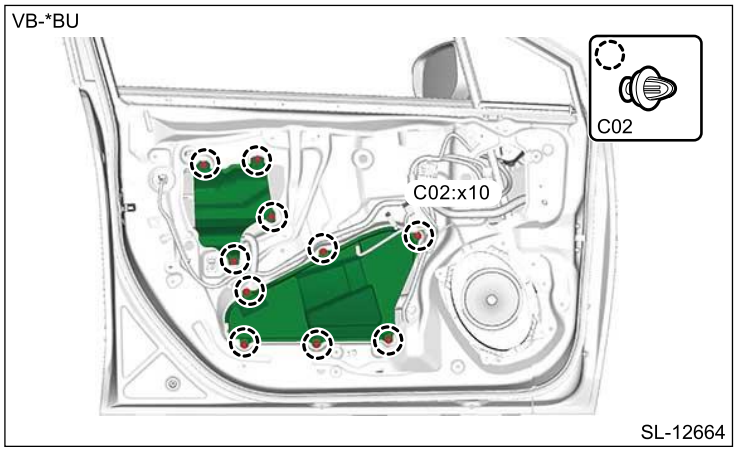
REMOVAL

1. FRONT

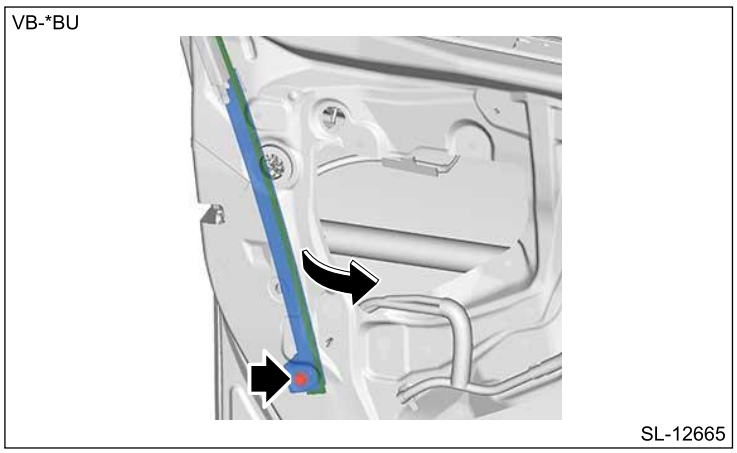
Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Raise the glass assembly front door to the top position.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.
4. Remove the sealing cover front door. Ref. to EXTERIOR BODY PANELS>Sealing Cover>REMOVAL > FRONT SEALING COVER.
5. Release the clips, and remove the plate door and the pad front door inner.

Caution:
If it is removed with an excessive force, the door panel assembly may be deformed. Also, if the clip is damaged, replace it with a new clip.

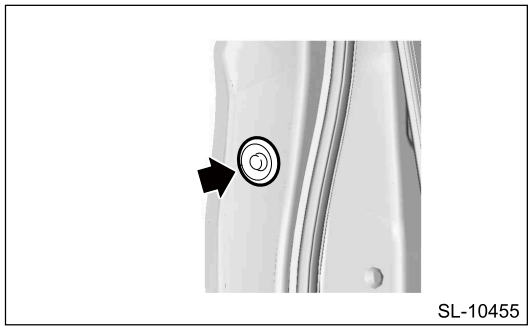


6. Remove the sash assembly front door LWR.
   (1) Remove the lower side of the running channel front door.
   (2) Remove the bolts, and remove the sash assembly front door LWR.

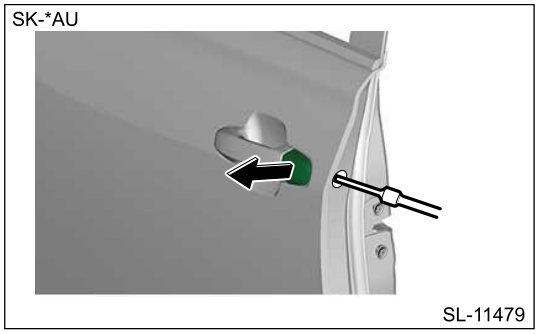


7. Remove the cover handle front outer. (If removing the driver's side latch and actuator assembly front)

(1) Remove the plug at the rear end of the panel assembly front door.

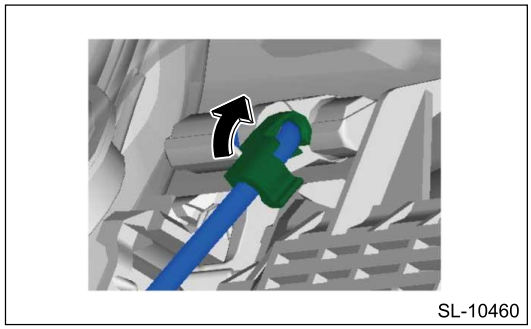


(2) Using TORX® T30, loosen the bolt and remove the cover handle front outer.

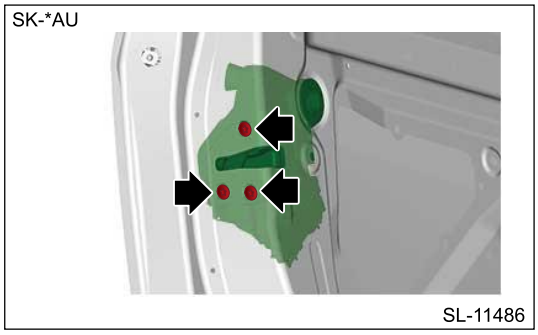


8. Remove the latch and actuator assembly front.

(1) Remove the rod clamp and remove the rod.

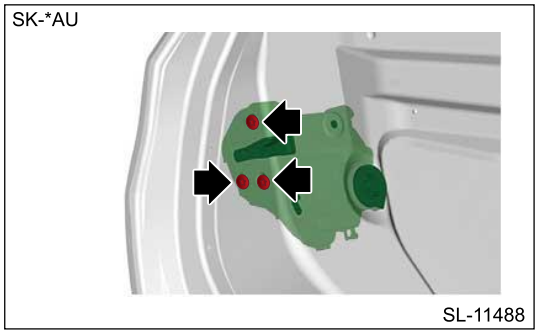


(2) Using TORX® T30, remove the bolts, and remove the latch & actuator assembly front.



2. REAR

1. Raise the glass assembly rear door to the top position.
2. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.
4. Remove the sealing cover rear door. Ref. to EXTERIOR BODY PANELS>Sealing Cover>REMOVAL > REAR SEALING COVER.
5. Using TORX® T30, remove the bolts, and remove the latch and actuator assembly rear.



SECURITY AND LOCKS > Door Latch & Door Lock Actuator Assembly

INSTALLATION

1. 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. Before installation, check the following items.
   - Cable and rod are free from deformation.
   - Grease is applied sufficiently to cable and rod joints.
     If grease is insufficient, add it as necessary before assembling the cable and rod.
     Preparation items:
     Grease: Silicone grease G-30M (part No. 004404002) or equivalent
2. Install the latch and actuator assembly front.
   (1) Using TORX® T30, install new bolts.
   Tightening torque:
   6.5 N·m (0.7 kgf-m, 4.8 ft-lb)

(2) Install the rod.

3. Using TORX® T30, install the cover handle front outer. (If the driver's side latch & actuator assembly front has been removed)

Note:
Make sure that the key cylinder shaft is correctly inserted into the latch & actuator assembly front.

Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

4. Install the plugs. (If the driver's side latch & actuator assembly front has been removed)
5. Install the sash assembly front door LWR.
Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
6. Install the plate door and the pad front door inner.
7. Install the sealing cover front door. Ref. to EXTERIOR BODY PANELS>Sealing Cover>INSTALLATION > FRONT SEALING COVER.
8. Install the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > FRONT DOOR.
9. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. REAR

1. Before installation, check the following items.
   - Cable and lever are free from deformation.
   - Grease is applied sufficiently to cable joints.
   If grease is insufficient, add it as necessary before assembling the cable.
   Preparation items:
   Grease: Silicone grease G-30M (part No. 004404002) or equivalent
2. Using TORX® T30 and new bolts, install the latch and actuator assembly rear.
Tightening torque:
6.5 N·m (0.7 kgf-m, 4.8 ft-lb)
3. Install the sealing cover rear door. Ref. to EXTERIOR BODY PANELS>Sealing Cover>INSTALLATION > REAR SEALING COVER.
4. Install the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > REAR DOOR.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

SECURITY AND LOCKS > Door Latch & Door Lock Actuator Assembly

INSPECTION

1. LATCH

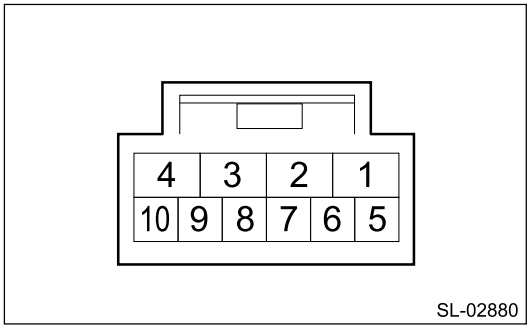
Check if the latch operates normally.
If the latch cannot be locked or the door can be opened or closed with the latch locked, check the cable, rod, or lever for deformation.

- If latch deformation, abnormal wear, or unsmooth operation is observed, replace the latch & actuator assembly.
- If the cable, rod or lever is deformed, replace the latch & actuator assembly.

2. LOCK ACTUATOR

- **FRONT**

1. Check door lock operation
   Check the door lock operation when battery voltage is applied between the connector terminals.



Terminal No.	Inspection conditions	Specification
4 (+) — 1 (−)	Apply battery voltage	LOCK
1 (+) — 4 (−)		UNLOCK

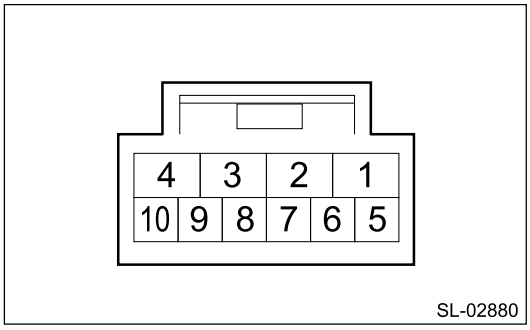
2. Check of position switch (model with keyless access with push button start)
   Measure the resistance between connector terminals.

Terminal No.	Inspection conditions	Standard
8 — 7	LOCK	1 MΩ or more
	UNLOCK	Less than 1 Ω

3. Replace the latch & actuator assembly front if it is found defective.

- **REAR**

1. Check door lock operation
   Check the door lock operation when battery voltage is applied between the connector terminals.



Terminal No.	Inspection conditions	Specification
4 (+) — 1 (−)	Apply battery voltage	LOCK
1 (+) — 4 (−)		UNLOCK

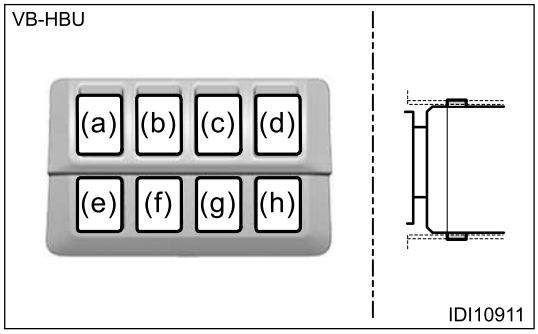
2. If it does not operate properly as a result of inspection, replace the latch & actuator assembly rear.

SECURITY AND LOCKS > Trunk Opener Switch

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. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.
3. Remove the switch trunk opener.
   (1) Release the claws.
   (2) Remove the switch trunk opener (a).



SECURITY AND LOCKS > Trunk Opener Switch

INSTALLATION

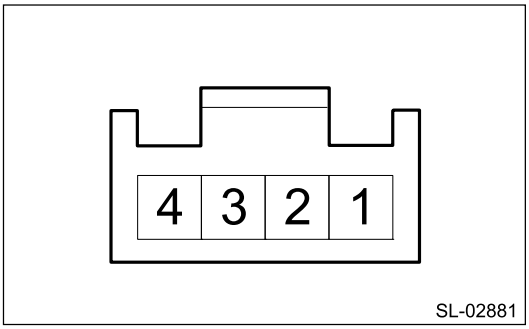
Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the switch trunk opener.
2. Install the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

SECURITY AND LOCKS > Trunk Opener Switch

INSPECTION

1. Measure the resistance between connector terminals.



Terminal No.	Inspection conditions	Standard
1 — 4	Switch OFF	1 MΩ or more
	Switch ON	Less than 1 Ω

2. Apply battery voltage between the connector terminals to check lighting condition of illumination inside the switch.

Caution:
When applying battery voltage, do not mix up the positive (+) side and the negative (−) side.
Incorrect polarity connection may cause LED damage inside the switch.

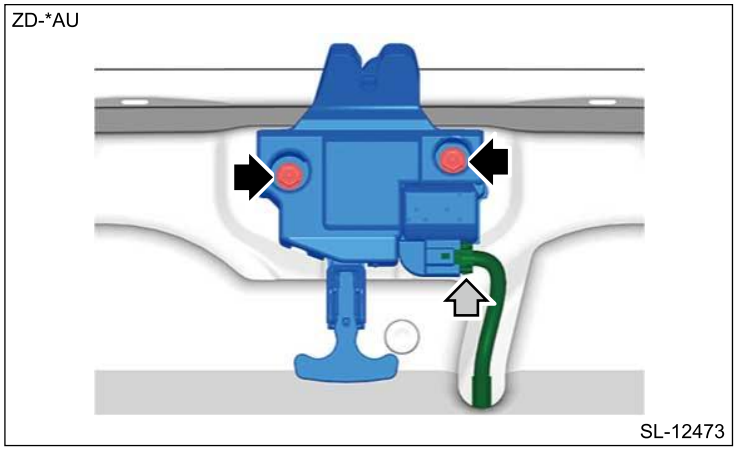
Terminal No.	Inspection conditions	Specification
2 (+) — 3 (−)	Apply battery voltage.	Light ON

3. Replace the switch trunk opener if it is found defective.

SECURITY AND LOCKS > Trunk Lid Latch and Actuator Assembly

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the lock assembly trunk lid.
   (1) Disconnect the connector.
   (2) Remove the bolts, then remove the lock assembly trunk lid.



SECURITY AND LOCKS > Trunk Lid Latch and Actuator Assembly

INSTALLATION

1. Install the lock assembly trunk lid and connect the connector.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
2. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

SECURITY AND LOCKS > Trunk Lid Latch and Actuator Assembly

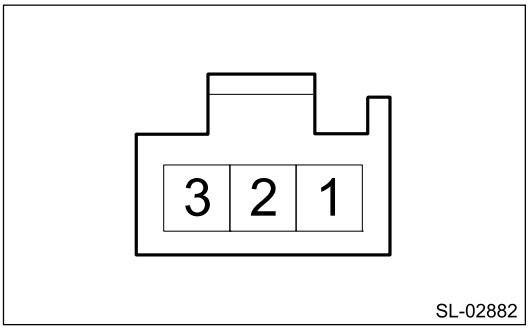
INSPECTION

1. LATCH

Check if the latch operates normally.
If latch deformation, abnormal wear, or unsmooth lock operation is observed, replace the lock assembly trunk lid.

2. ACTUATOR

1. Check door lock operation
   Check the door lock operation when battery voltage is applied between the connector terminals.



Terminal No.	Inspection conditions	Specification
1 (+) — 2 (−)	Connect battery to the terminals	OPEN

2. Check switch

Measure the resistance between connector terminals.

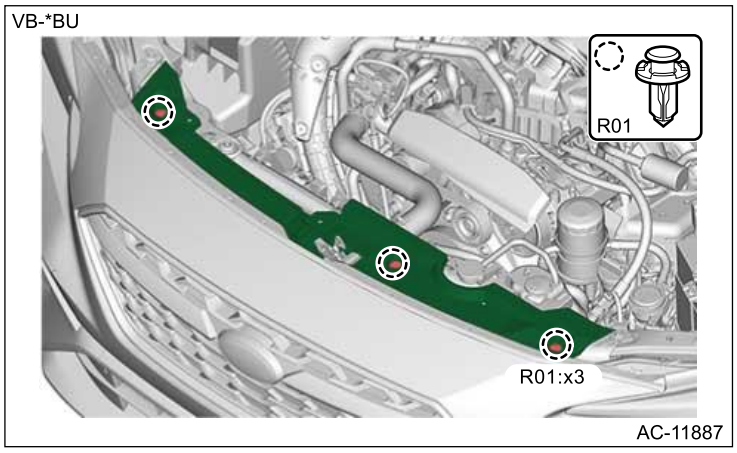
Terminal No.	Inspection conditions	Standard
3 — 2	LOCK	1 MΩ or more
	UNLOCK	Less than 1 Ω

3. Replace the lock assembly trunk lid if it is found defective.

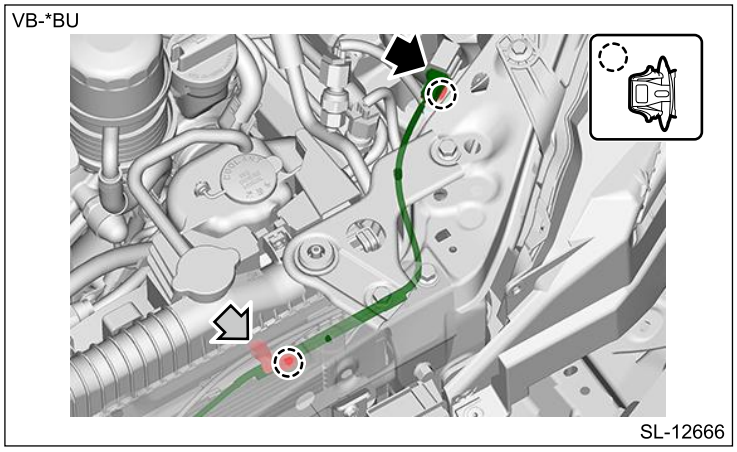
REMOVAL

1. HOOD LOCK ASSEMBLY

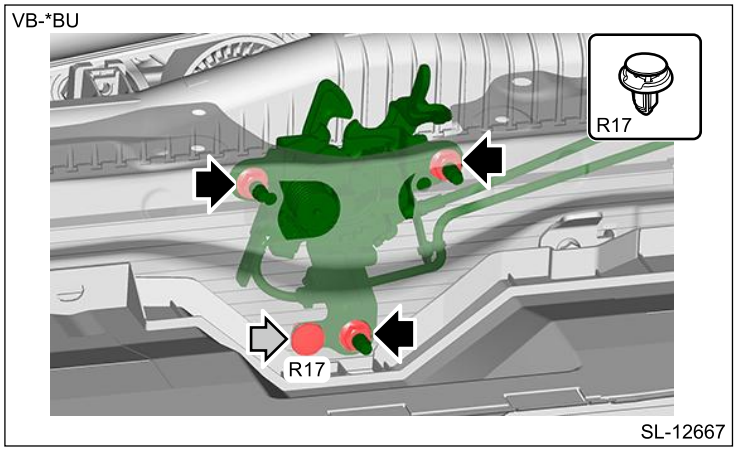
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the air intake duct. Ref. to INTAKE (INDUCTION)(H4DOTC)>Air Intake Duct>REMOVAL.
3. Remove the clips, and remove the cover UPR front.



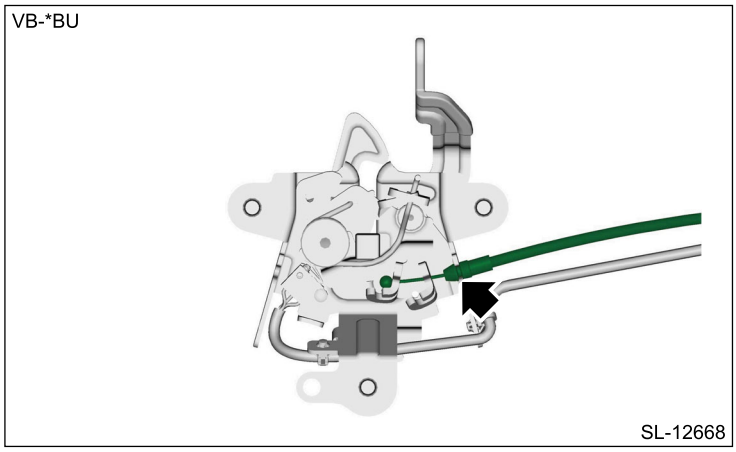
4. Remove the bumper face front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL.
5. Remove the lock assembly front hood.
   (1) Disconnect the connector.
   (2) Remove the connector clip and harness clip.



   (3) Remove the nuts and clips, and remove the lock assembly front hood.



(4) Remove the cable assembly front hood from the guide.

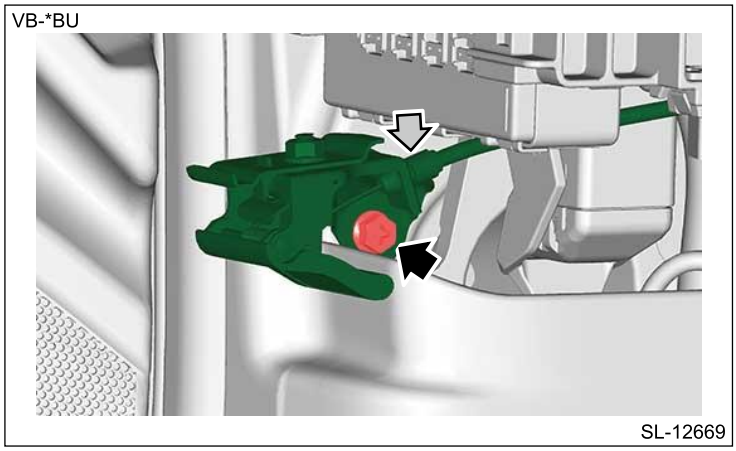


2. HOOD CABLE ASSEMBLY

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

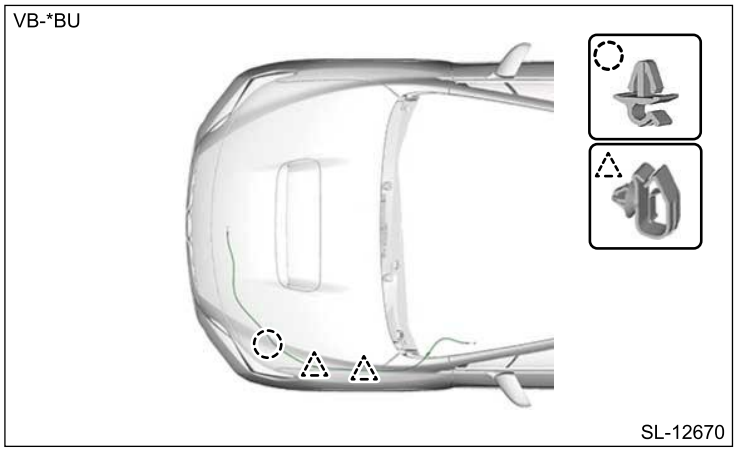
1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the mud guard front LH. Ref. to EXTERIOR/INTERIOR TRIM>Mud Guard>REMOVAL.
3. Remove the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.
4. Remove the lock assembly front hood, and then attach a string to the end of the cable assembly front hood. Ref. to SECURITY AND LOCKS>Front Hood Lock Assembly>REMOVAL > HOOD LOCK ASSEMBLY.

   Note:
   A string makes operation easier during installation.
5. Remove the opener handle.
   (1) Remove the cable assembly front hood.
   (2) Remove the bolt, and remove the opener handle.



6. Remove the cable assembly front hood.

(1) Remove the cable assembly front hood from the clips.



(2) Remove the attached string from the end of the cable assembly front hood.

Note:

Leave the string attached to the body, and use it during installation.

SECURITY AND LOCKS > Front Hood Lock Assembly

INSTALLATION

1. HOOD LOCK ASSEMBLY

1. Before installation, check the following items.

- The cable is free from deformation.
- Grease is applied sufficiently to cable joints.

If grease is insufficient, add it as necessary before assembling the cable.

2. Install the cable assembly front hood.

3. Adjust and install the lock assembly front hood.

Note:

Refer to "ADJUSTMENT" of the lock assembly front hood. Ref. to SECURITY AND LOCKS>Front Hood Lock Assembly>ADJUSTMENT.

(1) Install the lock assembly front hood with nuts and clips.

Tightening torque:

33 N·m (3.4 kgf-m, 24.3 ft-lb)

(2) Install the connectors, connector clips, and harness clips.

4. Install the bumper face front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>INSTALLATION.
5. Install the cover UPR front.
6. Install the air intake duct. Ref. to INTAKE (INDUCTION)(H4DOTC)>Air Intake Duct>INSTALLATION.
7. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
8. Check the clearance and surface level gap between hood COMPL front and bumper face front, and adjust if it is outside the standard value. Ref. to EXTERIOR BODY PANELS>Front Hood>ADJUSTMENT.

2. HOOD CABLE ASSEMBLY

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Check the cable for deformation such as fray before installation.
2. Install the cable assembly front hood.

   Note:
   Tie the string left on the body to the cable assembly front hood and pull it out of the vehicle.
3. Install the opener handle.

   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
4. Install the lock assembly front hood. Ref. to SECURITY AND LOCKS>Front Hood Lock Assembly>INSTALLATION > HOOD LOCK ASSEMBLY.
5. Install the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.
6. Install the mud guard front LH. Ref. to EXTERIOR/INTERIOR TRIM>Mud Guard>INSTALLATION.
7. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

SECURITY AND LOCKS > Front Hood Lock Assembly

ADJUSTMENT

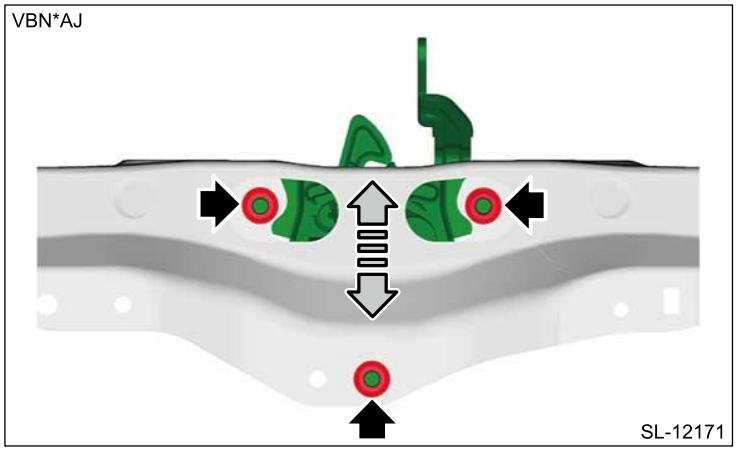
1. HOOD LOCK ASSEMBLY

1. Remove the clips of the lock assembly front hood.

   Note:
   After adjusting the lock assembly front hood, dispose the clips since they are no longer needed.
   The clips cannot be inserted because the clip holes become smaller due to adjustment.
2. Loosen the nut, and adjust the lock assembly front hood while moving it up and down.

   Caution:
   After adjustment, tighten the nut securely.

   Tightening torque:
   33 N·m (3.4 kgf-m, 24.3 ft-lb)



3. Check the clearance and surface level gap between front hood and bumper face. Ref. to EXTERIOR BODY PANELS>Front Hood>ADJUSTMENT.

SECURITY AND LOCKS > Front Hood Lock Assembly

INSPECTION

1. HOOD LOCK ASSEMBLY

- **CHECK OPERATION**

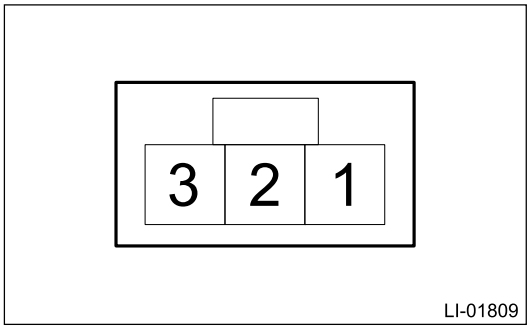
  Check if the lock assembly front hood operates normally.

  If lever deformation, abnormal wear, or unsmooth lock operation is observed, replace the lock assembly front hood.

- **UNIT INSPECTION**

  1. Check hood switch.

     Measure the resistance between connector terminals.

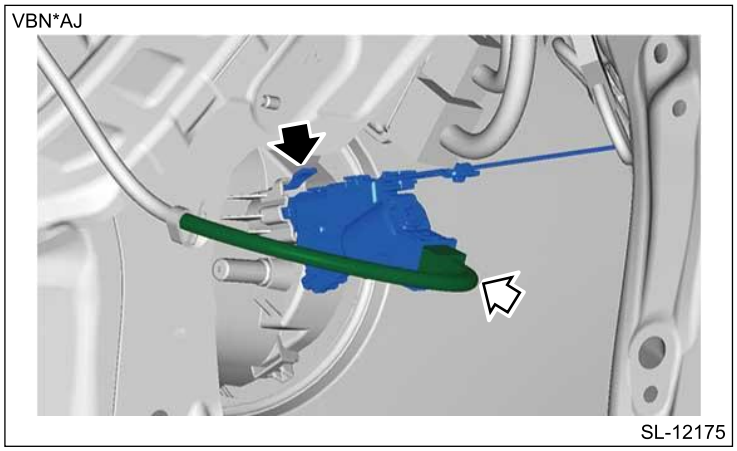


Terminal No.	Inspection conditions	Standard
1 — 2	Open the front hood	1 MΩ or more
3 — 2	Close the front hood	1 MΩ or more

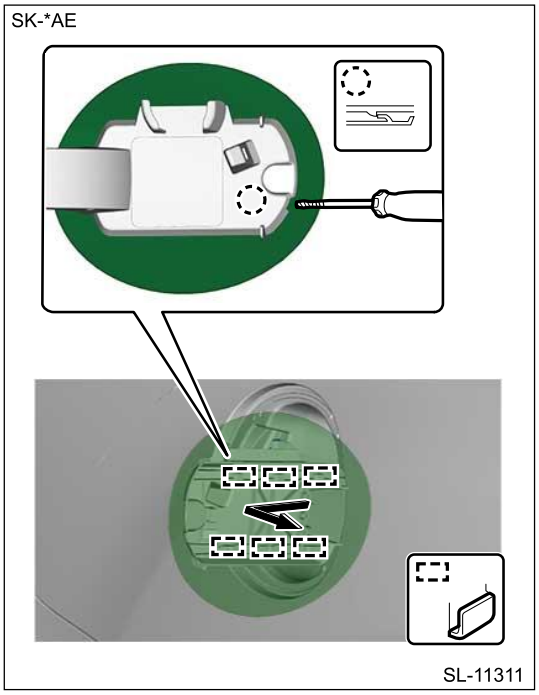
  2. Replace the lock assembly front hood if faulty is found in the inspection.

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trunk trim panel side RH. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.
3. Remove the lock assembly fuel.
   (1) Disconnect the connector.
   (2) Release the claws, and remove the lock assembly fuel.



4. Remove the flap outer.
   (1) Insert a flat tip screwdriver or similar tool wrapped with protection tape or a cloth so that it comes in touch with the claw on the flap outer side.
   (2) Use a flat tip screwdriver or similar tool to lever off the claw toward the flap outer side at the end of the flap outer.
   (3) With the condition of step (2), slide the flap outer toward the vehicle outside to release the claw and guide.

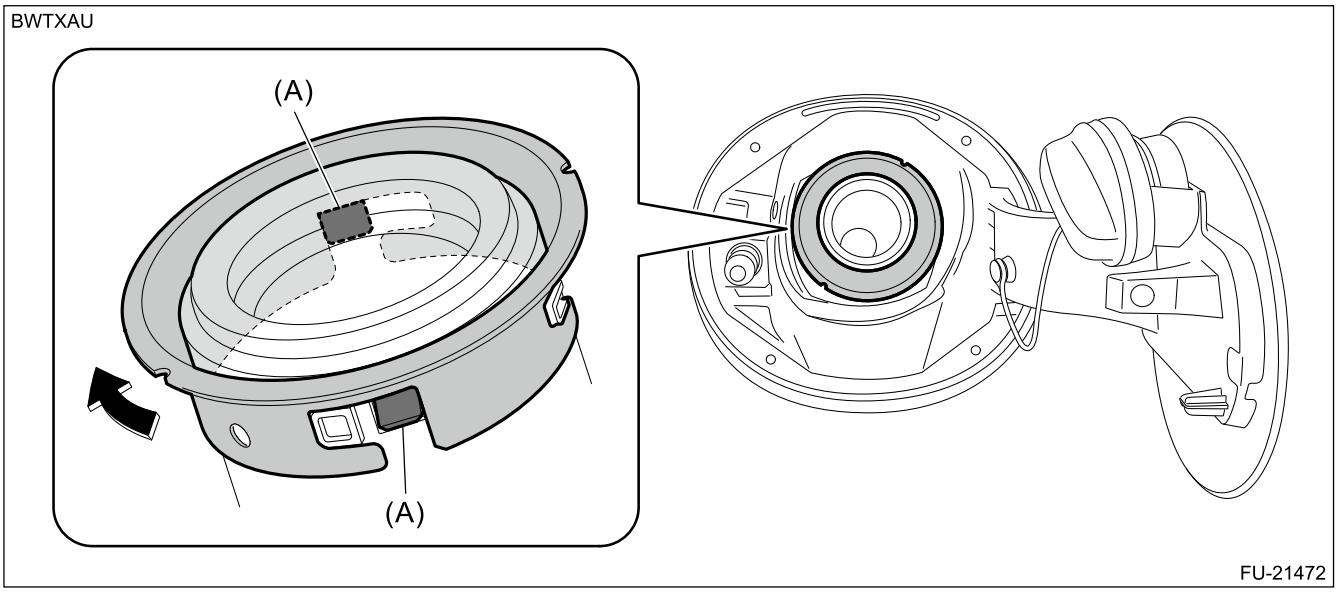


5. Remove the fuel filler cap.

Note:
The clip of the fuel filler cap cannot be reused, therefore, do not remove the clip unless the saucer COMPL is replaced.

6. Remove the fuel filler pipe protector.

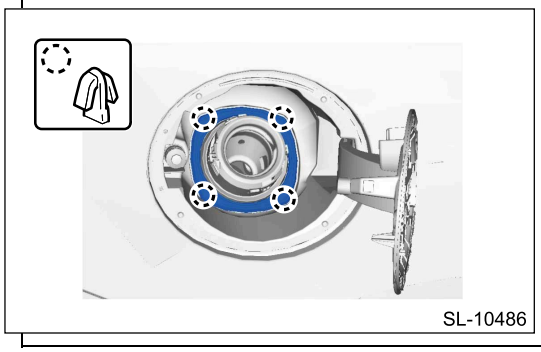
(1) While pressing the claw (A), turn the fuel filler pipe protector in the direction of the arrow to unlock and remove it.



7. Release the claws and then remove the ring clip.

Caution:

Do not reuse the ring clip and replace with a new part, because engagement of the claw weakens.



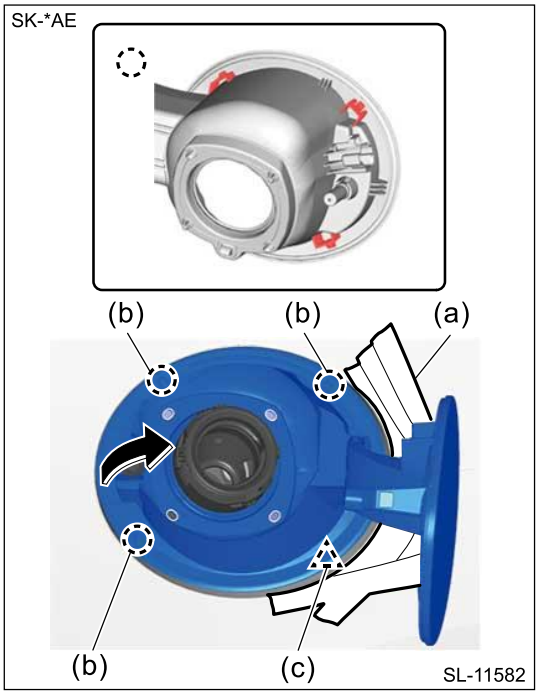
8. Remove the saucer COMPL.

Caution:

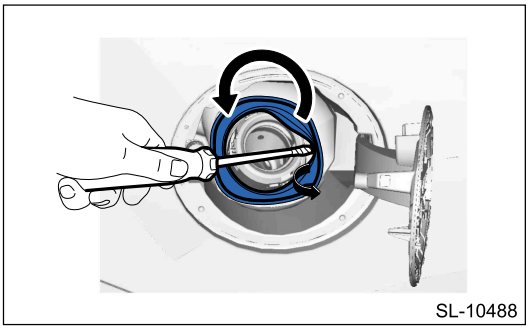
Be careful not to damage by forcibly prying at the rubber portion with a flat tip screwdriver or similar tool.

(1) Attach the protective tape (a) to the panel side outer.

(2) Release the claw (b) from vehicle inside, and pull out the saucer COMPL toward yourself, then release the claw (c).



(3) Remove the rubber portion from the fuel filler pipe using a flat tip screwdriver or similar tool wrapped with protection tape, and pull out the saucer COMPL while tilting it toward vehicle front.



SECURITY AND LOCKS > Fuel Lid

INSTALLATION

1. Install the saucer COMPL.

   Note:
   Securely install the rubber portion of the saucer COMPL to the fuel filler pipe assembly.
2. Install a new ring clip.
3. Install the fuel filler pipe protector.
4. Install the fuel filler cap.
5. Install the flap outer.
6. Install the lock assembly fuel and connect the connector.
7. Install the trunk trim panel side RH. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>INSTALLATION.
8. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

SECURITY AND LOCKS > Fuel Lid

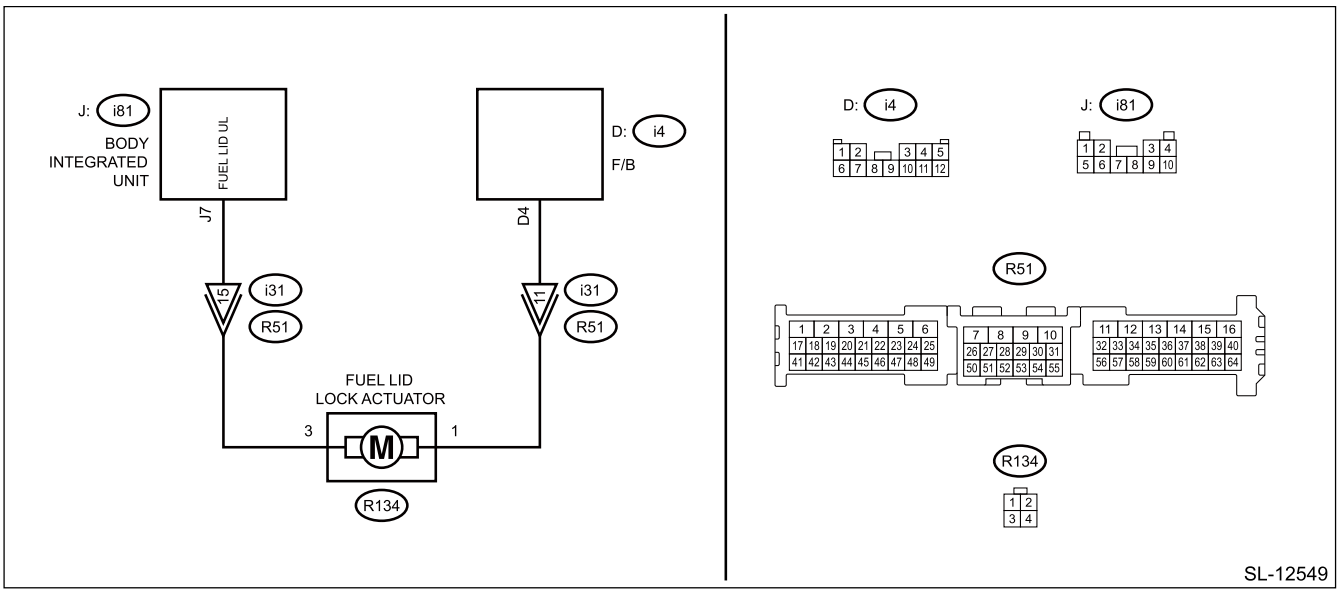
INSPECTION

1. CHECK OPERATION

Check if the fuel flap operate normally.
If the flap is deformed, replace the flap outer.

2. TROUBLE SYMPTOM

Electric fuel lock system does not operate.
Wiring diagram:
Door lock control system Ref. to WIRING SYSTEM>Door Lock Control System>WIRING DIAGRAM.



1. CHECK DOOR LOCK/UNLOCK OPERATION.

1. Turn the ignition switch to OFF.
2. Using the keyless transmitter or access key (touch sensor), check that door lock/unlock is possible.

Does it lock/unlock normally?

Yes	Go to 2.
No	Check the door lock actuator and circuit. Ref. to SECURITY AND LOCKS>Door Lock Control System>INSPECTION > CHECK DOOR LOCK ACTUATOR AND CIRCUIT.

2. CHECK ELECTRIC FUEL UNLOCK OPERATION.

1. Turn the ignition switch to ON.
2. Lock all doors using the door lock switch.
3. Turn the ignition switch to OFF.

Does the electric fuel unlock operate when turning the ignition switch to OFF?

Yes	Electric fuel unlock is normal.
No	Go to 3.

3. CHECK BODY INTEGRATED UNIT.

Using Subaru Select Monitor, display data of [IGN voltage] in [Data monitor] of [Body Control]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.

Does the voltage switch between 0 V (OFF) ←→ 9 V or more (ON) when the ignition switch is operated?

Yes	Go to 4.
No	Check the ignition switch circuit. Ref. to SECURITY AND LOCKS>Security System>INSPECTION > CHECK IGNITION SWITCH CIRCUIT.

4. CHECK HARNESS.

1. Turn the ignition switch to OFF.
2. Disconnect the connector of the body integrated unit and fuel lid lock actuator.
3. Check the harness between the body integrated unit and fuel lid lock actuator.
   Connector & terminal
   (i81) No. 7 — (R134) No. 3:
   (i4) No. 4 — (R134) No. 1:

Is the resistance less than 10 Ω?

Yes	Go to 5.
No	Repair or replace the defective part.

5. CHECK FUEL LID LOCK ACTUATOR.

Apply battery voltage between fuel lid lock actuator connector terminals.

Terminals

Lock

No. 1 (+) — No. 3 (−):

Unlock

No. 3 (+) — No. 1 (−):

Does it operate properly?

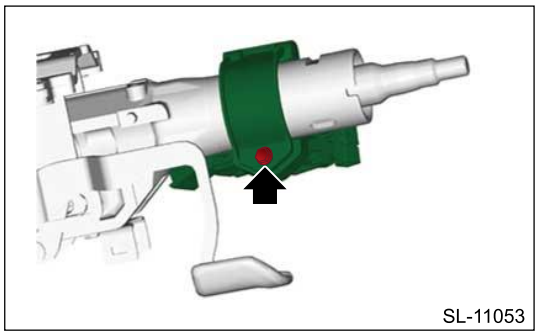
Yes	Replace the body integrated unit. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Body Integrated Unit.
No	Replace the fuel lid lock actuator. Ref. to SECURITY AND LOCKS>Fuel Lid.

REPLACEMENT

Caution:

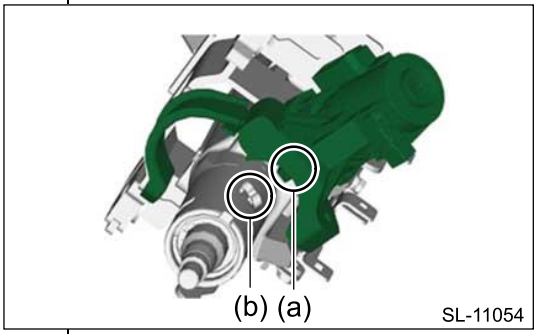
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Do not allow harness and connectors to interfere or get tangled up with other parts.**
- **If the steering wheel and steering angle sensor (steering roll connector) are removed, perform "VSC(VDC) Centering Mode" of the VDC. Ref. to VEHICLE DYNAMICS CONTROL (VDC)>VDC Control Module and Hydraulic Control Unit (VDCCM&H/U)>ADJUSTMENT > VDC SENSOR MIDPOINT SETTING MODE.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the driver's airbag module. Ref. to AIRBAG SYSTEM>Driver's Airbag Module>REMOVAL.
3. Remove the steering wheel assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Wheel>REMOVAL.
4. Remove the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.
5. Remove the knee airbag module. Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.
6. Remove the duct foot driver. Ref. to AIR CONDITIONER>Air Vent Duct>REMOVAL > FOOT DUCT.
7. Remove the column assembly steering. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Column>REMOVAL.
8. Remove the ignition key lock.
   (1) Secure the column assembly steering in a vise.
   (2) Use the reverse tap and drill to remove the set bolt and remove the ignition key lock.



9. Install the ignition key lock.
   (1) Secure the ignition key lock to the column assembly steering.

Note:
When installing the ignition key lock, confirm that the fitting portion of the ignition key lock is properly engaged with the opening portion of the column shaft.



(a) Fitting portion
(b) Opening portion

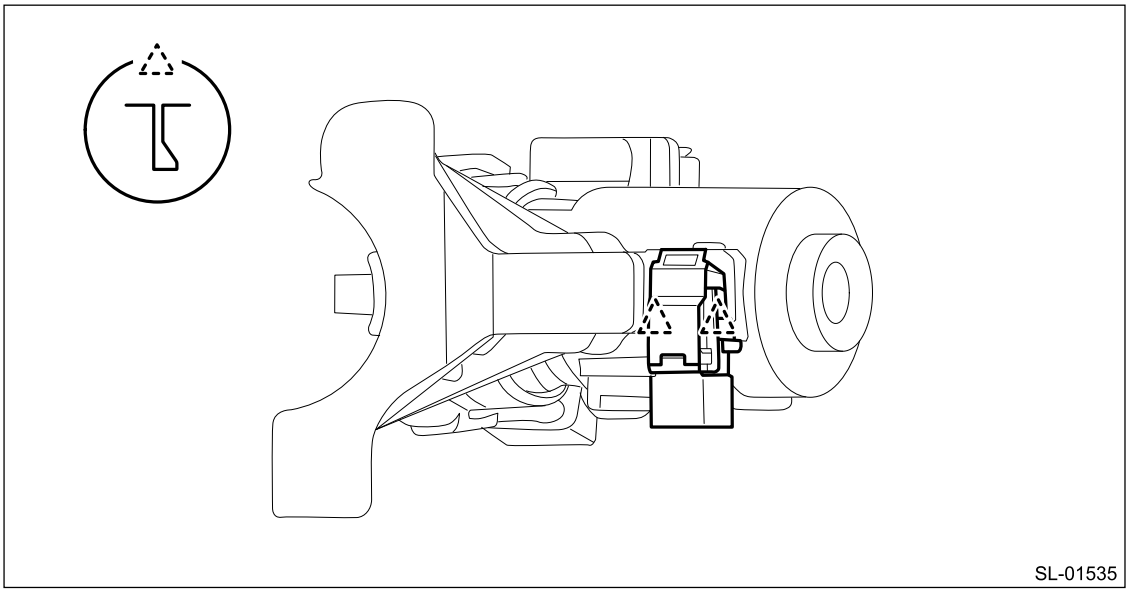
(2) Use new set bolts. Tighten the bolt until the bolt head is broken (bolt head wrenched off).

10. Install the column assembly steering. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Column>INSTALLATION.
11. Install the duct foot driver. Ref. to AIR CONDITIONER>Air Vent Duct>INSTALLATION > FOOT DUCT.
12. Install the knee airbag module. Ref. to AIRBAG SYSTEM>Knee Airbag Module>INSTALLATION.
13. Install the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.
14. Align the center position of the steering roll connector. Ref. to AIRBAG SYSTEM>Roll Connector>ADJUSTMENT.
15. Install the steering wheel assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Wheel>INSTALLATION.
16. Install the driver's airbag module. Ref. to AIRBAG SYSTEM>Driver's Airbag Module>INSTALLATION.
17. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
18. Perform "VDC sensor midpoint setting mode". Ref. to VEHICLE DYNAMICS CONTROL (VDC)>VDC Control Module and Hydraulic Control Unit (VDCCM&H/U)>ADJUSTMENT > VDC SENSOR MIDPOINT SETTING MODE.

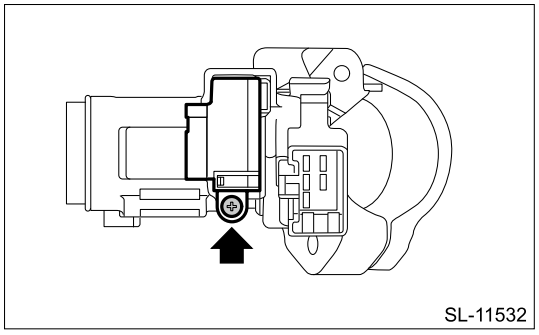
SECURITY AND LOCKS > Ignition Key Lock

DISASSEMBLY

1. Remove the immobilizer antenna assembly. Ref. to SECURITY AND LOCKS>Immobilizer Antenna>REMOVAL.
2. Release the claws, and pull the key warning switch downwards to remove.



3. Remove the screws, and remove the key interlock module.

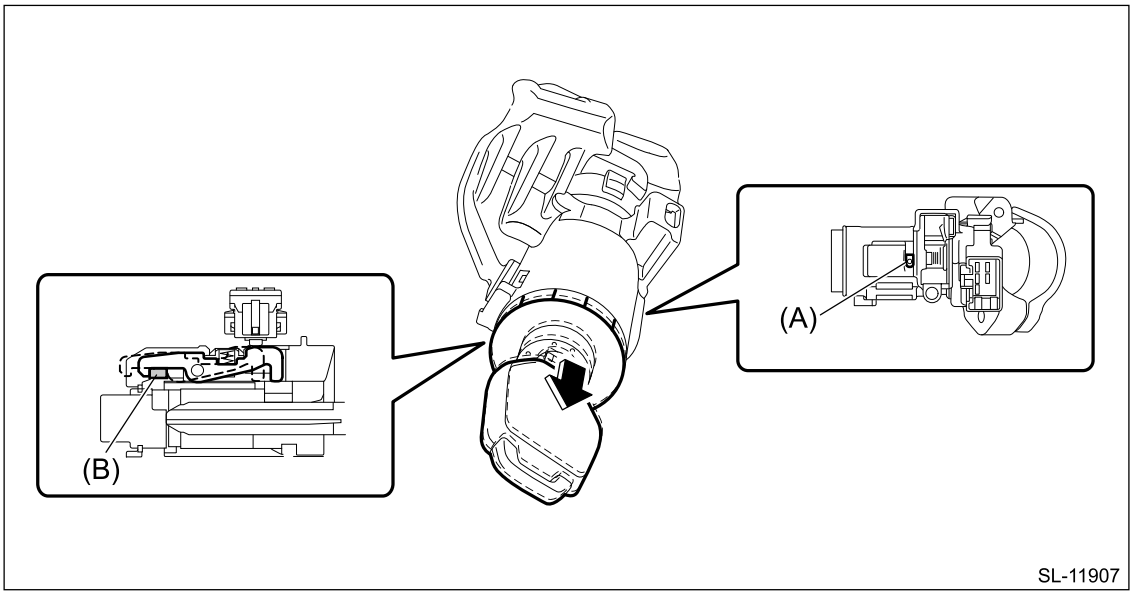


4. Remove the key lock assembly.

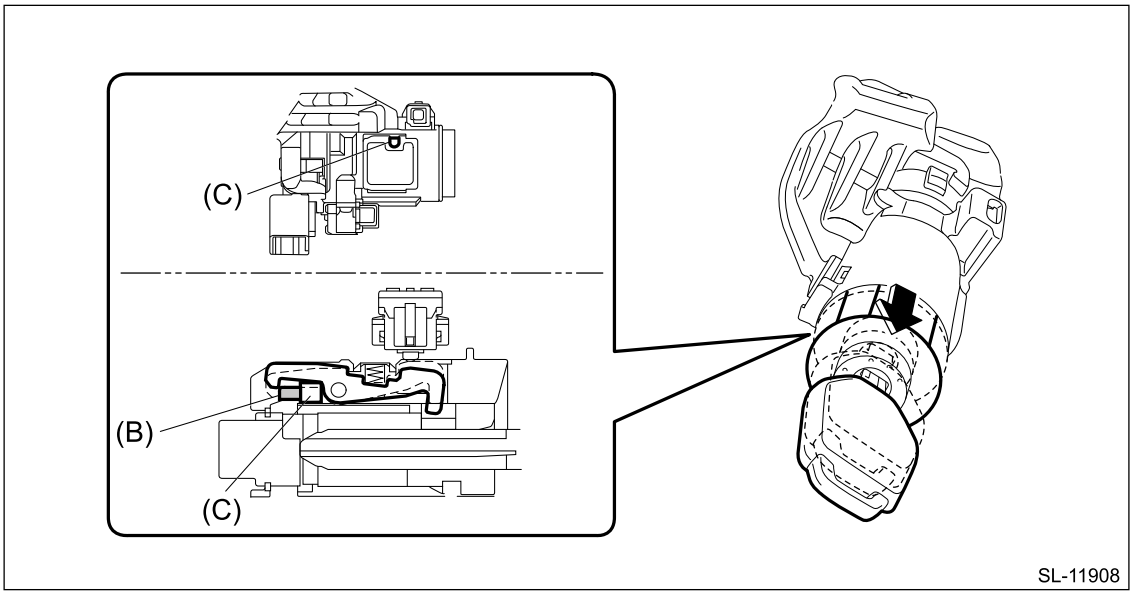
(1) Insert the key into the key lock assembly, and turn the key to the ACC position.

(2) Release the lock by inserting a flat tip screwdriver from the steering lock frame hole (A).

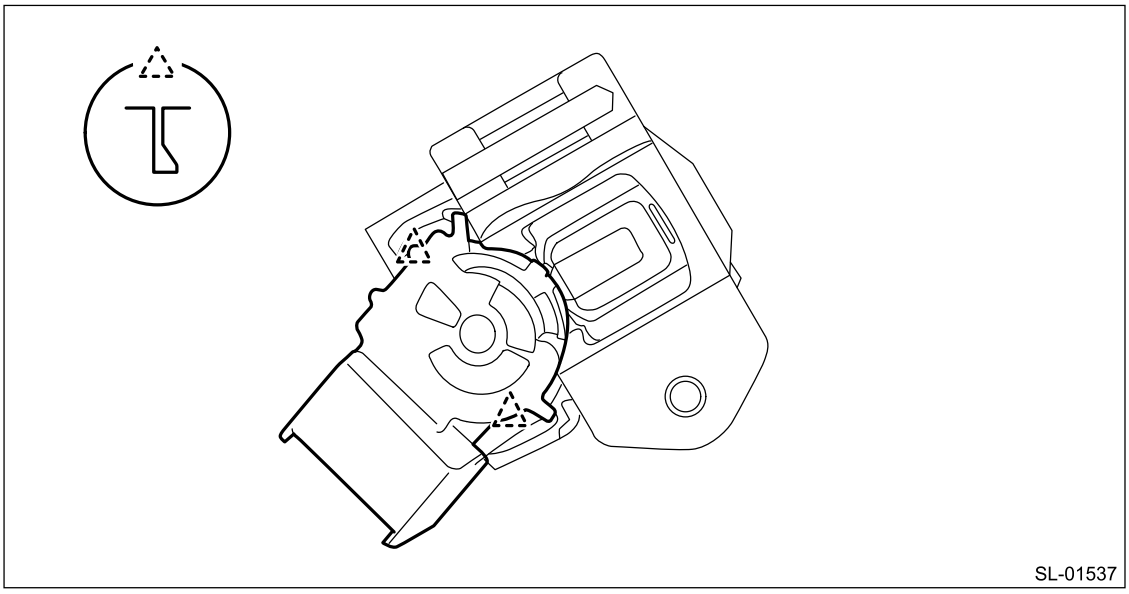
(3) Pull the key lock assembly until the key lock assembly claws touch the steering lock frame stopper (B).



(4) Insert a flat tip screwdriver from the steering lock frame hole (C), and release the claws to pull out the key lock assembly.



5. Release the claws and remove the ignition switch assembly.



SECURITY AND LOCKS > Ignition Key Lock

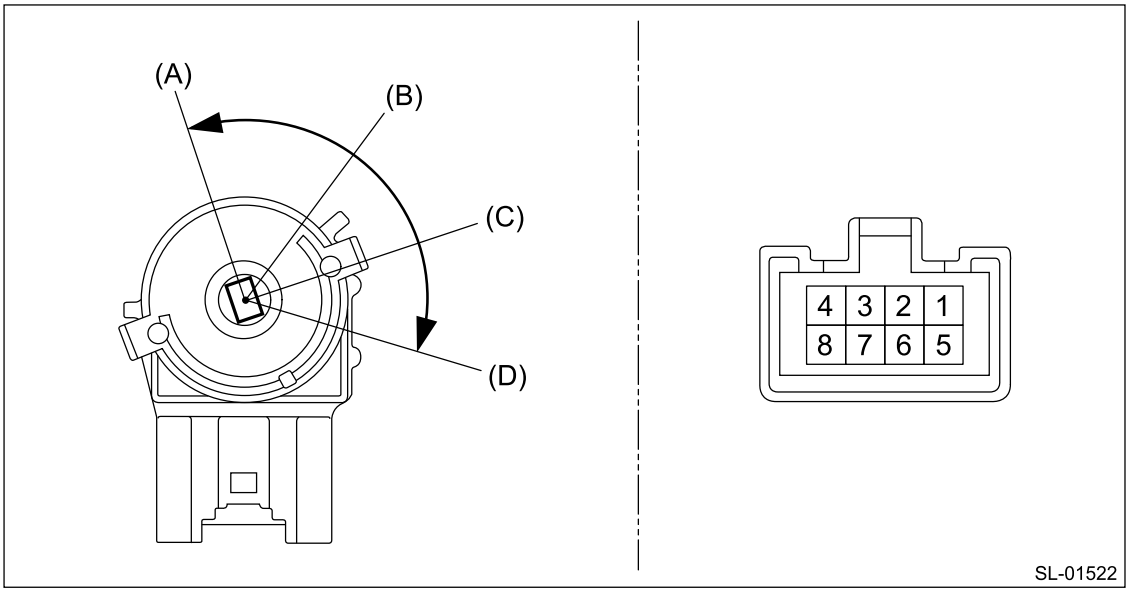
ASSEMBLY

1. Turn the key to the ACC position.
2. Install the ignition switch assembly.
3. Install the key lock assembly.
4. Install the key interlock module.
5. Install the key warning switch.
6. Install the immobilizer antenna assembly. Ref. to SECURITY AND LOCKS>Immobilizer Antenna>INSTALLATION.

SECURITY AND LOCKS > Ignition Key Lock

INSPECTION

1. Measure the resistance between connector terminals.



Terminal No.	Inspection conditions		Standard
Between all terminals	(A)	LOCK	1 MΩ or more
2 — 4	(B)	ACC	Less than 1 Ω
1 — 2 — 4 5 — 6	(C)	ON	Less than 1 Ω
1 — 3 — 4 5 — 6 — 7	(D)	ST	Less than 1 Ω

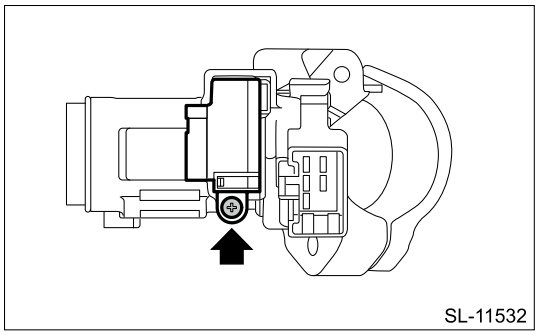
2. Replace the ignition switch assembly if the inspection result is not within the standard.

REPLACEMENT

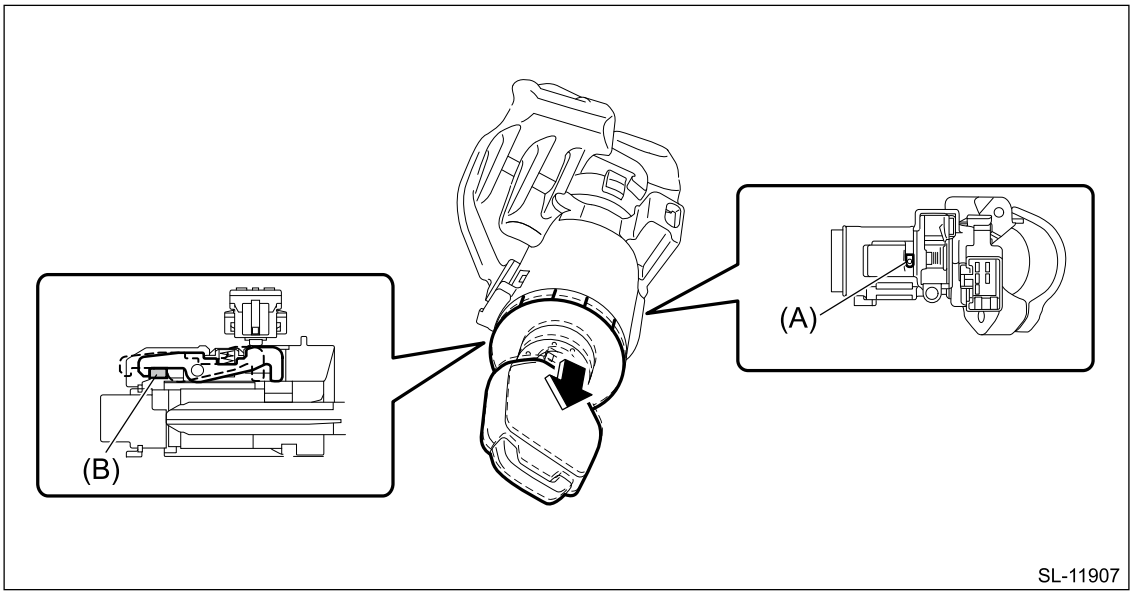
1. STEERING LOCK

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

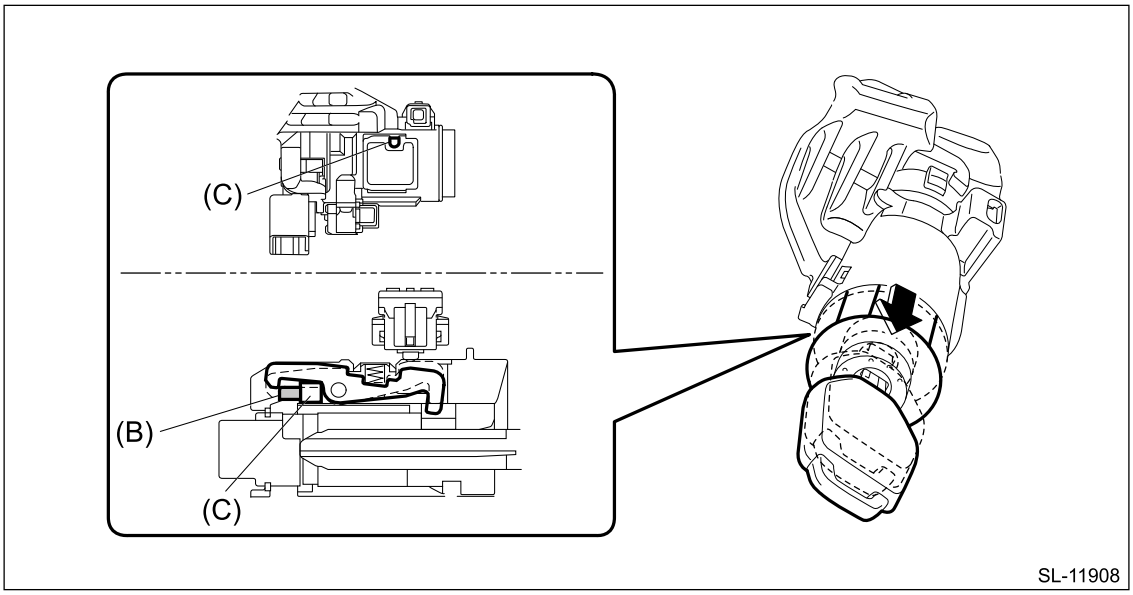
1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the column cover assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Column>REMOVAL.
3. Remove the immobilizer antenna assembly. Ref. to SECURITY AND LOCKS>Immobilizer Antenna>REMOVAL.
4. Remove the screws, and remove the key interlock module.



5. Replace the key lock assembly.
   (1) Insert the key into the key lock assembly, and turn the key to the ACC position.
   (2) Release the lock by inserting a flat tip screwdriver from the steering lock frame hole (A).
   (3) Pull the key lock assembly until the key lock assembly claws touch the steering lock frame stopper (B).



(4) Insert a flat tip screwdriver from the steering lock frame hole (C), and release the claws to pull out the key lock assembly.



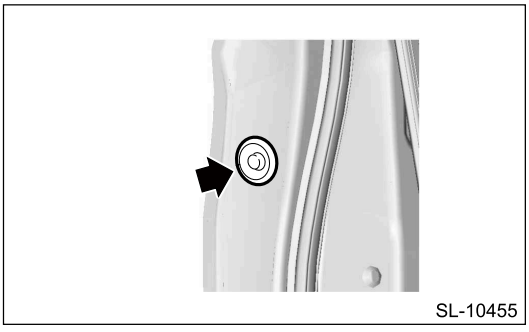
(5) Install the key lock assembly in the reverse order of removal.

6. Install the key interlock module.
7. Install the immobilizer antenna assembly. Ref. to SECURITY AND LOCKS>Immobilizer Antenna>INSTALLATION.
8. Install the column cover assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Column>INSTALLATION.
9. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

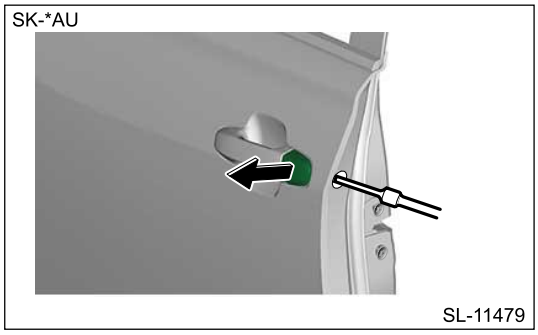
2. FRONT DOOR

1. Raise the glass assembly front door to the top position.
2. Remove the cover handle front outer.

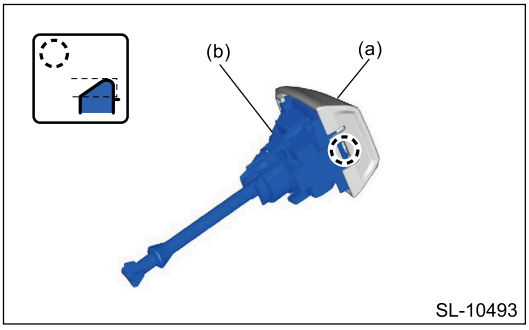
(1) Remove the plug at the rear end of the panel assembly front door.



(2) Using TORX® T30, loosen the bolt and remove the cover handle front outer.



3. Replace the key cylinder.
(1) Release the claws.
(2) Remove the key cylinder (b) from the cover handle front outer (a), and replace the key cylinder.



4. Using TORX® T30, install the cover handle front outer.

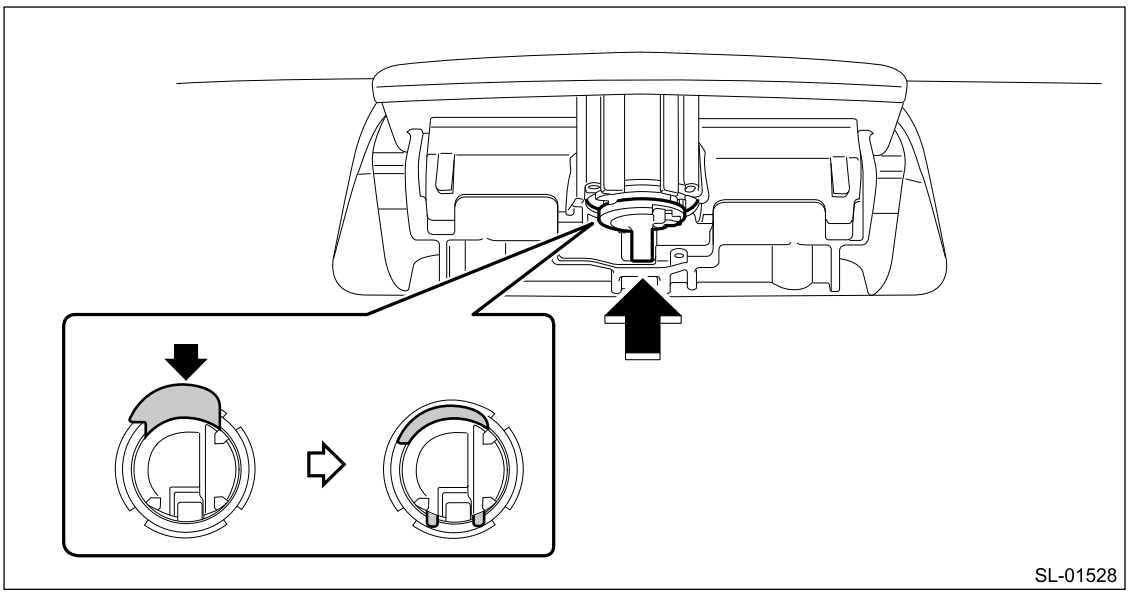
Note:
When installing the outer handle cover on the driver's side, make sure that the key cylinder shaft is correctly inserted into the latch & actuator assembly front.

Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

5. Install the plugs.

3. GLOVE BOX LID

1. Remove the pocket COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.
2. Replace the key cylinder.
(1) Pull up the lock knob.
(2) While pressing in the metal plate, remove the key cylinder from the pocket COMPL to replace the key cylinder.



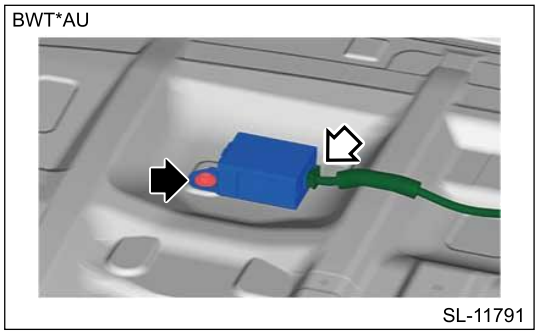
3. Install the pocket COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>INSTALLATION.

SECURITY AND LOCKS > Keyless Entry 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.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the rear seat cushion assembly and the backrest assembly. Ref. to SEATS>Rear Seat>REMOVAL.
3. Remove the trim panel assembly C pillar LWR and the trim panel assembly C pillar. Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.
4. Remove the trim panel assembly rear shelf. Ref. to EXTERIOR/INTERIOR TRIM>Rear Shelf Trim>REMOVAL.
5. Remove the keyless entry control module.
   (1) Disconnect the connector.
   (2) Remove the bolt and then remove the keyless entry control module.



SECURITY AND LOCKS > Keyless Entry Control 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.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Install the keyless entry control module, and connect the connector.
   Tightening torque:
   13 N·m (1.3 kgf-m, 9.6 ft-lb)
2. Install the trim panel assembly rear shelf. Ref. to EXTERIOR/INTERIOR TRIM>Rear Shelf Trim>INSTALLATION.

3. Install the trim panel assembly C pillar and the trim panel assembly C pillar LWR. Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>INSTALLATION.
4. Install the backrest assembly and rear seat cushion assembly. Ref. to SEATS>Rear Seat>INSTALLATION.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
6. When the keyless entry control module is replaced, register the transmitter ID. (Model with TPMS) Ref. to WHEEL AND TIRE SYSTEM>Tire Pressure Monitoring System>OPERATION.

REMOVAL

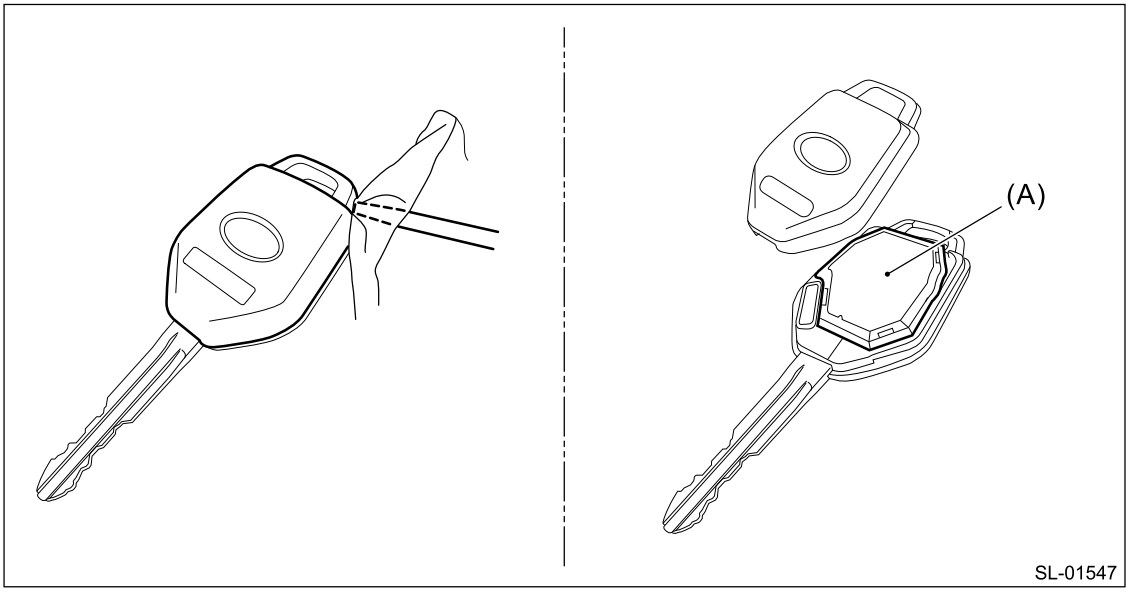
1. KEYLESS TRANSMITTER BATTERY

Caution:
To prevent static electricity damage to the keyless transmitter printed circuit board, touch the steel area of building with hand to discharge static electricity carried on body or clothes before disassembling the keyless transmitter.

1. Take out the transmitter case.
(1) Release the claws, and then remove the keyless transmitter cover.

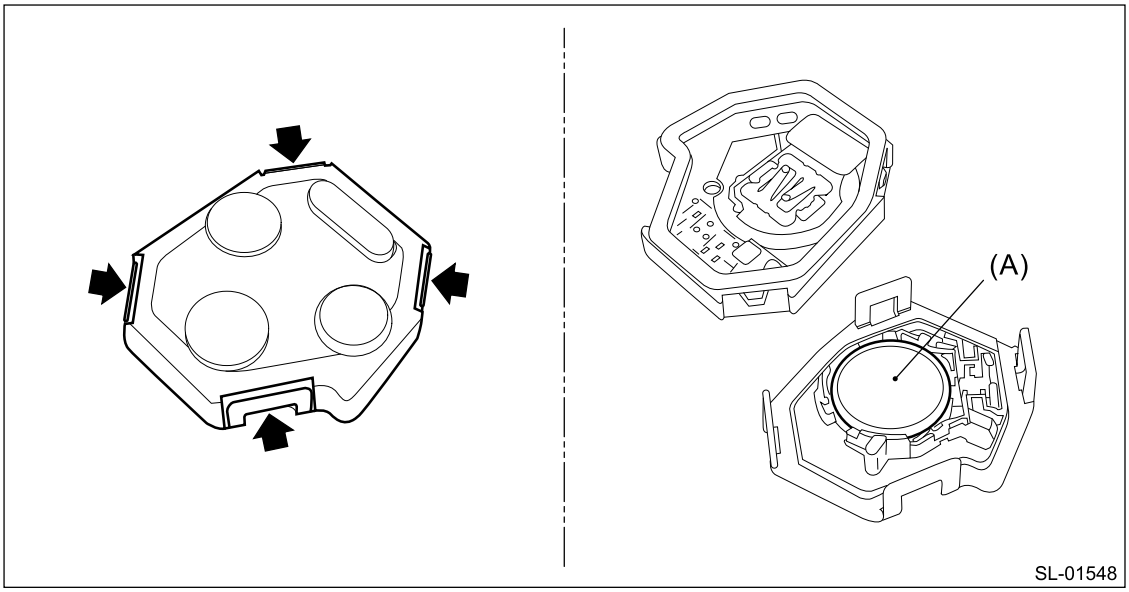
Note:
Use a flat tip screwdriver with protective tape or cloth in order not to damage the components.

(2) Remove the transmitter case (A).



2. Take out the keyless transmitter battery.
(1) Release the claws, and remove the transmitter case.
(2) Take out the keyless transmitter battery (A).

Caution:
When using a flat tip screwdriver, apply insulation tape around a flat tip screwdriver.



SECURITY AND LOCKS > Keyless Transmitter

INSTALLATION

1. KEYLESS TRANSMITTER BATTERY

1. Install the keyless transmitter battery.
2. Install the transmitter case.
3. Install the keyless transmitter cover.

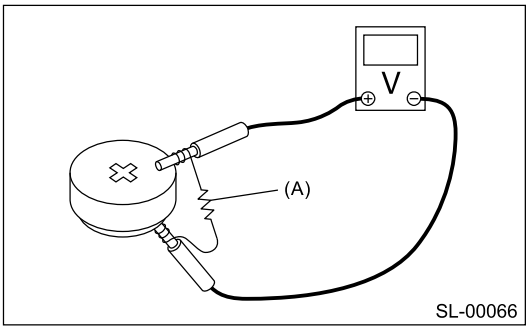
SECURITY AND LOCKS > Keyless Transmitter

INSPECTION

1. KEYLESS TRANSMITTER BATTERY

1. Measure the keyless transmitter battery voltage.

Note:
Complete the measurement within 5 seconds because the keyless transmitter battery discharges during measurement.



Battery terminal	Inspection conditions	Standard
(+) — (−)	Connect resistor (A) 510 Ω	2.5 — 3 V

2. Replace the keyless transmitter battery if the inspection result is not within the standard value. (Use CR1620 or equivalent)

SECURITY AND LOCKS > Keyless Transmitter

REPLACEMENT

1. REGISTRATION OF KEYLESS TRANSMITTER WITH SUBARU SELECT MONITOR

Note:
- **A maximum of four keyless transmitters can be registered for each individual vehicle.**
- **When replacing or adding the keyless transmitter, new registration of transmitter is necessary.**

1. Using the Subaru Select Monitor, select [Keyless ID registration] in [Maintenance support] of [Keyless Entry]. Ref. to KEYLESS ENTRY(DIAGNOSTICS) >Work Support.
2. According to the directions on the screen, press the button of the transmitter to be registered in order of Lock → Unlock. (When registration completed: buzzer sounds once.)

   Note:
   - **Repeat the procedure as many times as the number of transmitters to be registered.**
   - **When attempting to register a key that has already been registered, the buzzer sounds twice.**
3. Press the Exit button to finish the operations.

2. CLEAR TRANSMITTERS WITH SUBARU SELECT MONITOR

1. Using the Subaru Select Monitor, select [Keyless ID erasure] in [Maintenance support] of [Keyless Entry]. Ref. to KEYLESS ENTRY(DIAGNOSTICS) >Work Support.
2. Perform the operation according to the display screen.

   Note:
   All registered transmitters will be cleared.

3. CLEAR THE REGISTRATION OF IMMOBILIZER

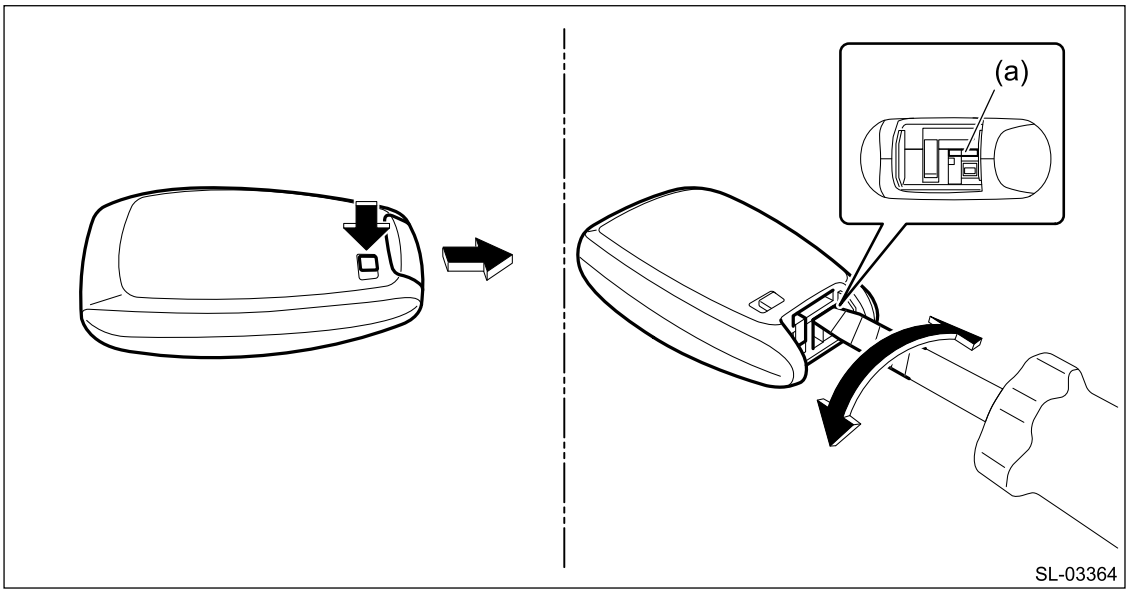
For detailed immobilizer registration clear, refer to “Type G” (except for C0 model) or “Type I” (C0 model) described in “REGISTRATION MANUAL FOR IMMOBILIZER”.

REMOVAL

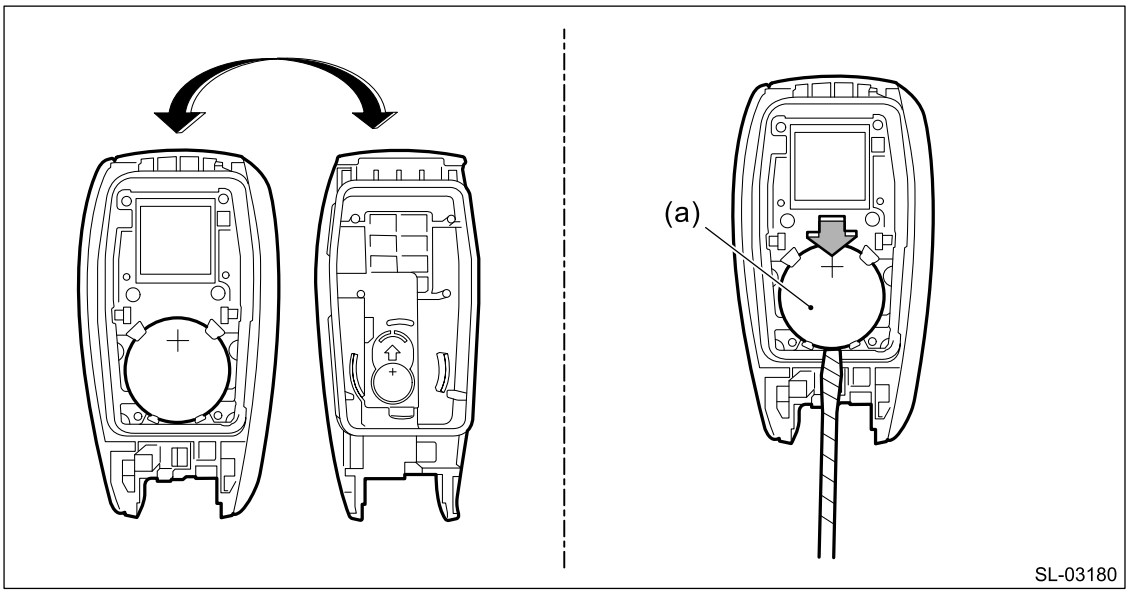
1. ACCESS KEY BATTERY

Caution:
To prevent static electricity damage to the access key printed circuit board, touch the steel area of building with hand to discharge static electricity carried on body or clothes before disassembling the access key.

1. Remove the access key battery.
(1) Push the lock button and remove the mechanical key from the access key.
(2) Insert a flat tip screwdriver end wrapped with insulating tape etc. into the slit (a) of the access key to open the case.



(3) Insert a flat tip screwdriver wrapped with insulating tape, and while holding the upper side of the battery (a), remove the access key battery (a) from the case.



SECURITY AND LOCKS > Access Key

INSTALLATION

1. ACCESS KEY BATTERY

1. Install the access key battery.
2. Install the case.
3. Install the mechanical key.

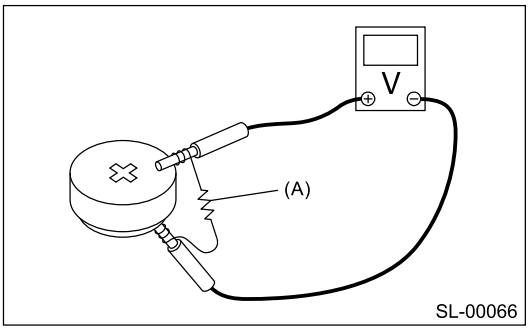
SECURITY AND LOCKS > Access Key

INSPECTION

1. ACCESS KEY BATTERY

1. Measure the access key battery voltage.

Note:
Complete the measurement within 5 seconds because the access key battery discharges during measurement.



Battery terminal	Inspection conditions	Standard
(+) — (−)	Connect resistor (A) 510 Ω	2.5 — 3 V

2. Replace the access key battery if the inspection result is not within the standard value. (Use CR2032 or equivalent)

SECURITY AND LOCKS > Access Key

REPLACEMENT

1. ACCESS KEY REGISTRATION

For detailed access key registration, refer to “Type H” described in “REGISTRATION MANUAL FOR IMMOBILIZER”.

Note:
- **A maximum of seven access keys can be registered for each individual vehicle.**
- **When replacing or adding an access key, new registration of the access key is necessary.**
- **When the access key has been newly added, it is registered to the immobilizer system at the same time.**

NOTE

Caution:
When the control module related to immobilizer has been replaced, be sure to perform the registration of immobilizer system. For detailed operation procedure, refer to "Type I" described in "REGISTRATION MANUAL FOR IMMOBILIZER".

Note:
Equipped on C0 model without keyless access with push button start.

For removal/installation procedures of immobilizer control module, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

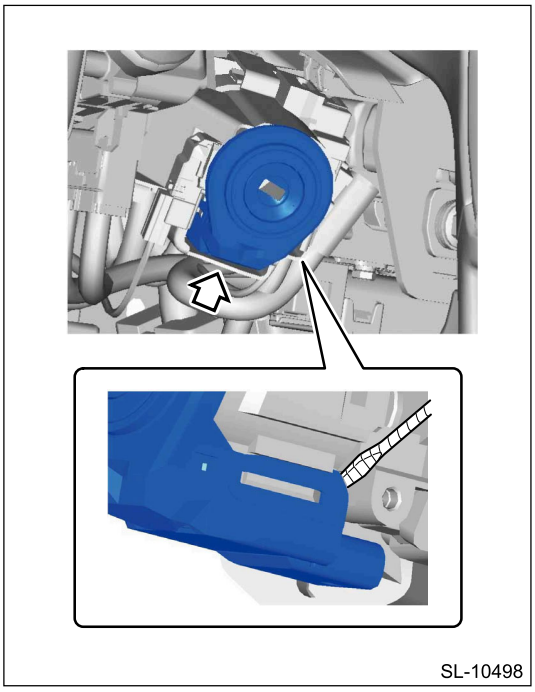
REMOVAL

1. MODEL WITHOUT KEYLESS ACCESS WITH PUSH BUTTON START

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the column cover assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Column>REMOVAL.
3. Remove the immobilizer antenna assembly.
   (1) Disconnect the connector.
   (2) Release the claws using a flat tip screwdriver or similar tool wrapped with protection tape, and remove the immobilizer antenna assembly.

   Caution:
   Do not apply excessive force to disengage the lock of immobilizer antenna assembly. Otherwise they may be broken because those parts are the products made of a plastic.



2. MODEL WITH KEYLESS ACCESS WITH PUSH BUTTON START

Immobilizer antenna is integrated with the push button start switch.
For the operation procedures of the immobilizer antenna, refer to "Push Button Ignition Switch". Ref. to SECURITY AND LOCKS>Push Button Ignition Switch>REMOVAL.

INSTALLATION

1. MODEL WITHOUT KEYLESS ACCESS WITH PUSH BUTTON START

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the immobilizer antenna assembly and connect the connector.
2. Install the column cover assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Column>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. MODEL WITH KEYLESS ACCESS WITH PUSH BUTTON START

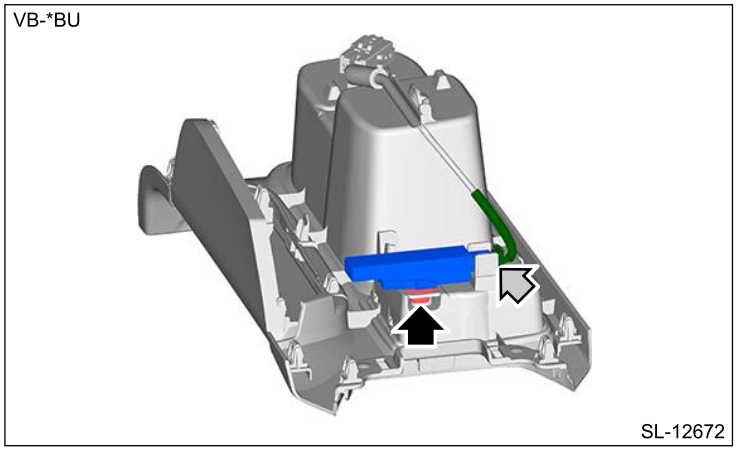
Immobilizer antenna is integrated with the push button ignition switch.
For the operation procedures of the immobilizer antenna, refer to "Push Button Ignition Switch". Ref. to SECURITY AND LOCKS>Push Button Ignition Switch>INSTALLATION.

REMOVAL

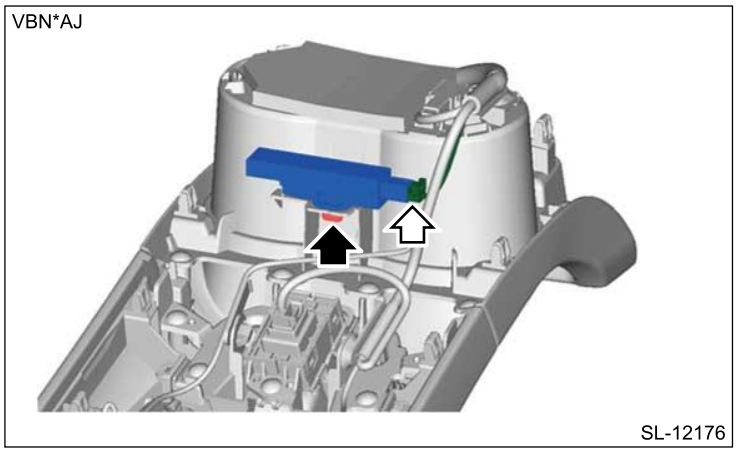
1. FRONT ANTENNA

Note:
Do not detach the antenna except when replacing it. Detaching unnecessarily will lead to insecure attachment of the antenna.

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the cover assembly front. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.
3. Remove the front antenna assembly interior.
   (1) Disconnect the connector.
   (2) Release the clips, and remove the front antenna assembly interior.
   - MT model



   - CVT model



2. CENTER ANTENNA

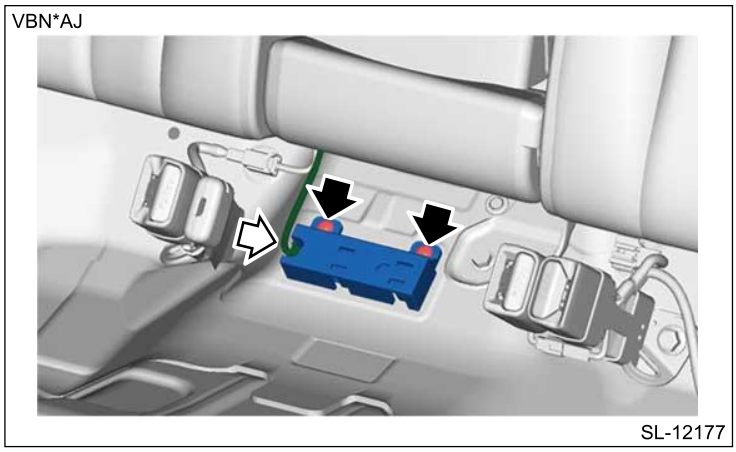
Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **The center antenna assembly is installed near the Side impact sensor (under the rear center seat) of the airbag system. Be careful not to apply strong impact to the Side impact sensor (under the rear center seat) when working with the center antenna assembly removed.**

Note:

Do not detach the antenna except when replacing it. Detaching unnecessarily will lead to insecure attachment of the antenna.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the rear seat cushion assembly. Ref. to SEATS>Rear Seat>REMOVAL.
3. Remove the center antenna assembly interior.
   (1) Disconnect the connector.
   (2) Remove the screw, and remove the center antenna assembly interior.

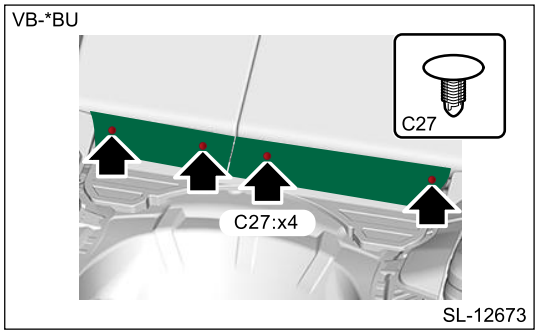


3. REAR ANTENNA

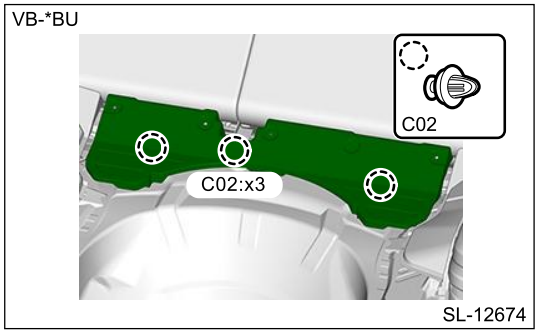
Note:

Do not detach the antenna except when replacing it. Detaching unnecessarily will lead to insecure attachment of the antenna.

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Tilt the backrest assembly forward.
3. Remove the mat trunk and spacer center.
4. Remove the spacer rear floor front.
   (1) Release the clips, and turn over the cover COMPL rear backrest.



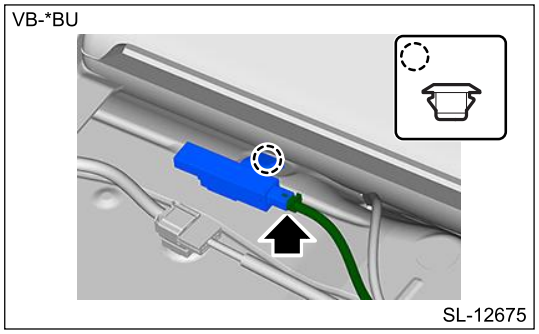
(2) Release the clips, then detach the spacer rear floor front.



5. Remove the rear antenna assembly interior.

(1) Disconnect the connector.

(2) Release the clips, and remove the rear antenna assembly interior.



SECURITY AND LOCKS > Keyless Access Indoor Antenna

INSTALLATION

1. FRONT ANTENNA

1. Install the front antenna assembly interior and connect the connector.

2. Install the cover assembly front. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.

3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. CENTER ANTENNA

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **The center antenna assembly is installed near the Side impact sensor (under the rear center seat) of the airbag system. Be careful not to apply strong impact to the Side impact sensor (under the rear center seat) when working with the center antenna assembly removed.**

1. Install the center antenna assembly interior and connect the connector.
2. Install the rear seat cushion assembly. Ref. to SEATS>Rear Seat>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

3. REAR ANTENNA

1. Install the rear antenna assembly interior and connect the connector.
2. Install the spacer rear floor front and cover COMPL rear backrest.
3. Install the spacer center and mat trunk.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

SECURITY AND LOCKS > Keyless Access Indoor Antenna

INSPECTION

Check the keyless access interior antenna using the Subaru Select Monitor.

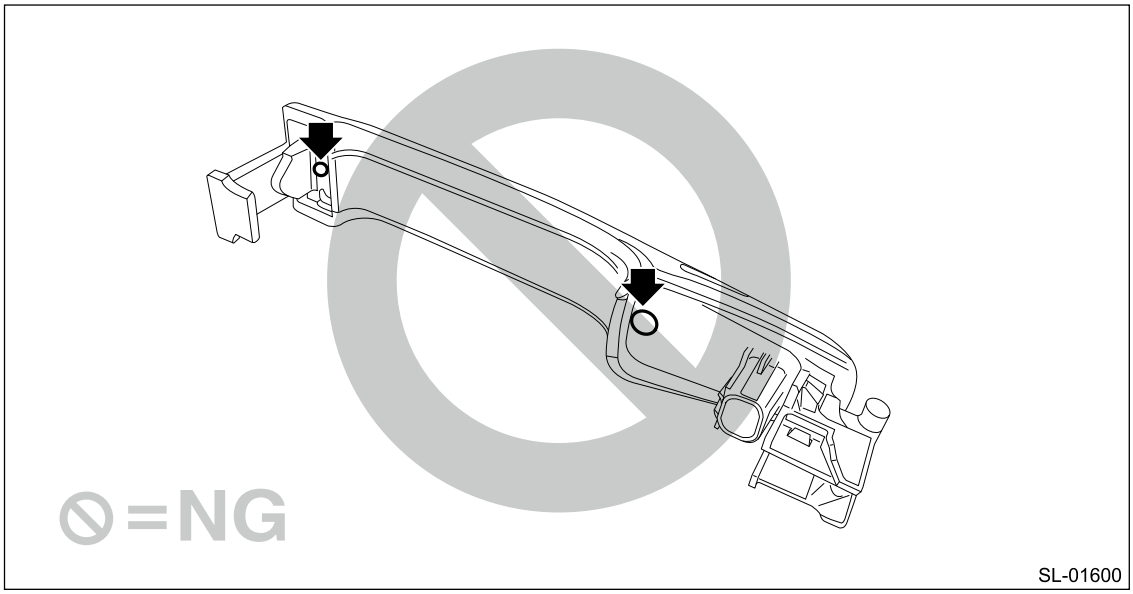
1. Check the setting by performing the keyless access with push button start system check. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>LIST.
2. While carrying the access key, operate the touch sensor of the door handle to check if door lock operates.
3. If the system does not operate normally as the result of inspection, refer to "Diagnostics with Phenomenon" of the "KEYLESS ACCESS WITH PUSH BUTTON START (DIAGNOSTICS)" section. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Diagnostics with Phenomenon>LIST > KEYLESS ACCESS SYSTEM.

REMOVAL

1. FRONT ANTENNA

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 detach the antenna from the outer handle.**
  If replacement is required, replace the handle door outer assembly as a unit.



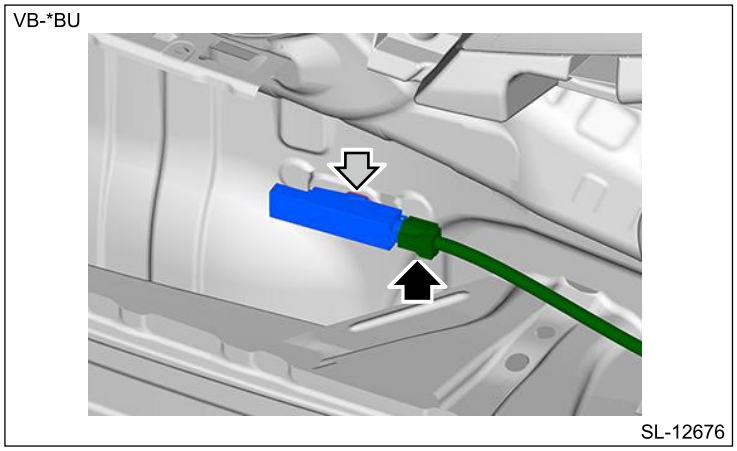
1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.
3. Remove the sealing cover front door. Ref. to EXTERIOR BODY PANELS>Sealing Cover>REMOVAL > FRONT SEALING COVER.
4. Remove the handle front door outer. Ref. to SECURITY AND LOCKS>Door Outer Handle>REMOVAL.

2. REAR ANTENNA

Note:

Do not detach the antenna except when replacing it. Detaching unnecessarily will lead to insecure attachment of the antenna.

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the light assembly rear combination. Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly>REMOVAL.
3. Remove the bumper face rear. Ref. to EXTERIOR/INTERIOR TRIM>Rear Bumper>REMOVAL.
4. Remove the rear antenna assembly exterior.
   (1) Disconnect the connector.
   (2) Release the clips, and remove the rear antenna assembly exterior.



SECURITY AND LOCKS > Keyless Access Outdoor Antenna

INSTALLATION

1. FRONT ANTENNA

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the handle front door outer. Ref. to SECURITY AND LOCKS>Door Outer Handle>INSTALLATION.
2. Install the sealing cover front door. Ref. to EXTERIOR BODY PANELS>Sealing Cover>INSTALLATION.
3. Install the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. REAR ANTENNA

1. Install the rear antenna assembly exterior and connect the connector.
2. Install the bumper face rear. Ref. to EXTERIOR/INTERIOR TRIM>Rear Bumper>INSTALLATION.
3. Install the light assembly rear combination. Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly>INSTALLATION.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

SECURITY AND LOCKS > Keyless Access Outdoor Antenna

INSPECTION

Check the keyless access exterior antenna using the Subaru Select Monitor.

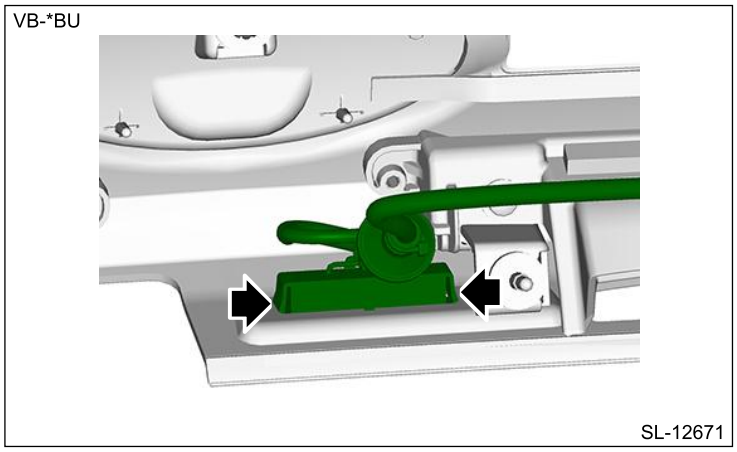
1. Check the setting by performing the keyless access with push button start system check. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>LIST.
2. While bringing the access key, operate the trunk opener button to check if the trunk is opened.
3. If the system does not operate normally as the result of inspection, refer to "Diagnostics with Phenomenon" of the "KEYLESS ACCESS WITH PUSH BUTTON START (DIAGNOSTICS)" section. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Diagnostics with Phenomenon>LIST > KEYLESS ACCESS SYSTEM.

SECURITY AND LOCKS > Trunk Opener Button

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the garnish assembly trunk. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Lid Garnish>REMOVAL.
3. Release the claws and remove the trunk opener button.

Note:
When using a flat tip screwdriver, apply protective tape or cloth so as not to cause damage.



SECURITY AND LOCKS > Trunk Opener Button

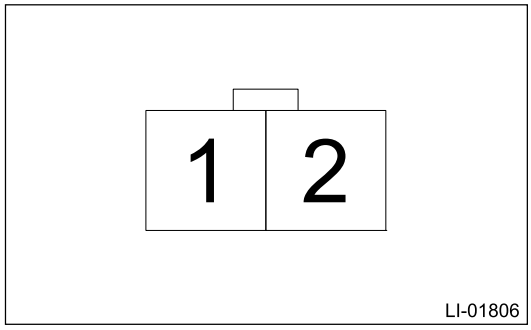
INSTALLATION

1. Install the trunk opener button.
2. Install the garnish assembly trunk. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Lid Garnish>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

SECURITY AND LOCKS > Trunk Opener Button

INSPECTION

1. Measure the resistance between connector terminals.

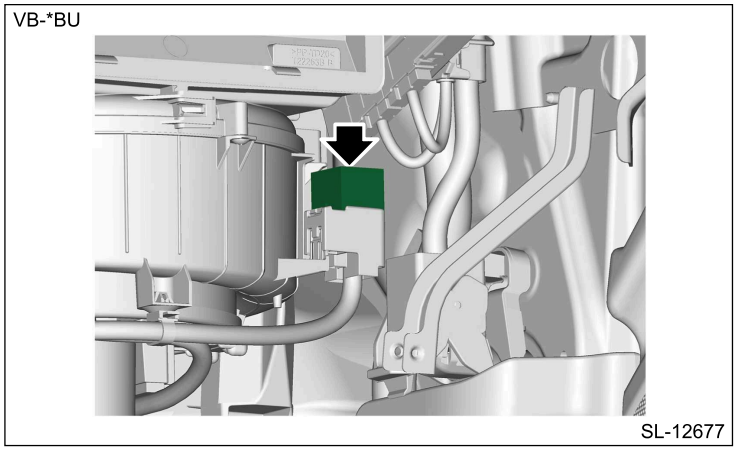


Terminal No.	Inspection conditions	Standard
2 — 1	When the switch is not pressed	1 MΩ or more
	When the switch is pressed	Less than 1 Ω

2. Replace the trunk opener button if the inspection result is not within the standard value.

REMOVAL

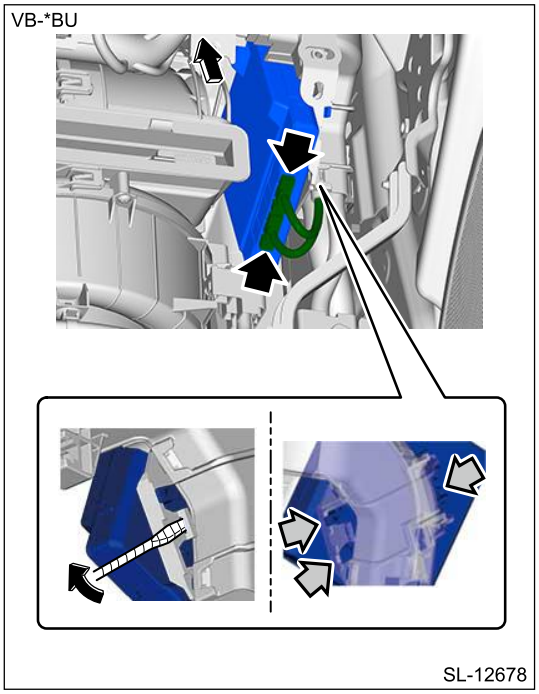
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the pocket COMPL and the panel instrument passenger. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL > BACK PANEL.
3. Remove the blower motor relay.



4. Remove the keyless access CM.

Caution:
Be careful to keep water and other foreign materials away from the keyless access CM terminals.

(1) Disconnect the connector.
(2) Release the claws using a flat tip screwdriver or similar tool wrapped with protection tape.
(3) Release the guides and remove the keyless access CM.



INSTALLATION

Caution:
When the control module related to immobilizer has been replaced, be sure to perform the registration of immobilizer system. For detailed operation procedure, refer to "Type H" described in "REGISTRATION MANUAL FOR IMMOBILIZER".

1. Install the keyless access CM and connect the connector.
2. Install the blower motor relay.
3. Install the panel instrument passenger and pocket COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>INSTALLATION > BACK PANEL.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

NOTE

Caution:
When the control module related to immobilizer has been replaced, be sure to perform the registration of immobilizer system. For detailed operation procedure, refer to "Type H" described in "REGISTRATION MANUAL FOR IMMOBILIZER".

Note:
Equipped on C0 model with keyless access with push button start.

For removal/installation procedures of ID code box, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

SECURITY AND LOCKS > Steering Lock CM

REPLACEMENT

Caution:

- **When the control module related to immobilizer has been replaced, be sure to perform the registration of immobilizer system. For detailed operation procedure, refer to "Type H" described in "REGISTRATION MANUAL FOR IMMOBILIZER".**
- **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.**
- **If the steering wheel and steering angle sensor (steering roll connector) are removed, perform "VSC(VDC) Centering Mode" of the VDC. Ref. to VEHICLE DYNAMICS CONTROL (VDC)>VDC Control Module and Hydraulic Control Unit (VDCCM&H/U)>ADJUSTMENT > VDC SENSOR MIDPOINT SETTING MODE.**

For operation procedures of the steering lock CM, refer to "Ignition Key Lock". Ref. to SECURITY AND LOCKS>Ignition Key Lock.

SECURITY AND LOCKS > Steering Lock CM

INSPECTION

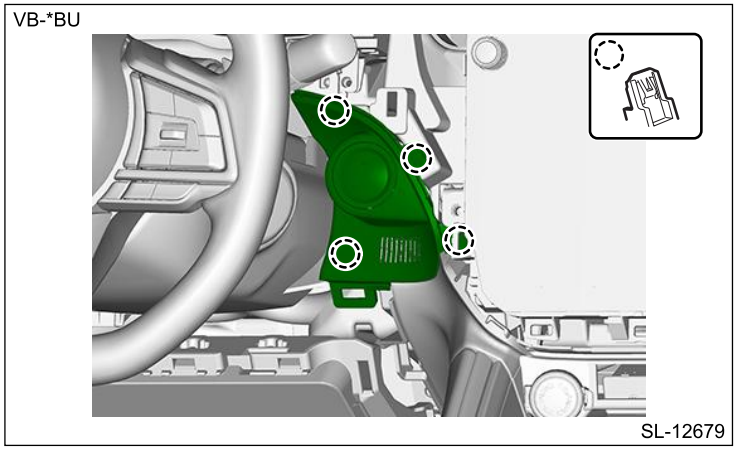
For inspection of the steering lock CM, refer to "Diagnostics with Phenomenon" of "KEYLESS ACCESS WITH PUSH BUTTON START (DIAGNOSTICS)" section. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Diagnostics with Phenomenon>LIST > STEERING LOCK SYSTEM.

SECURITY AND LOCKS > Push Button Ignition Switch

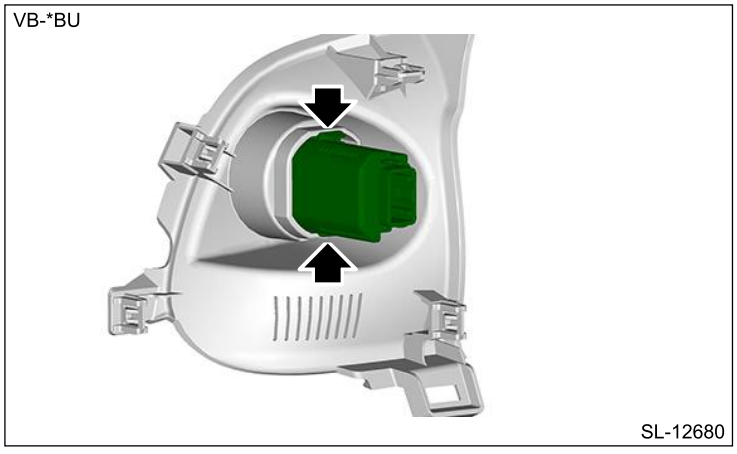
REMOVAL

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the panel assembly center. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>REMOVAL.
3. Remove the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.
4. Remove the panel start switch.
   (1) Release the claws, and pull out the panel start switch.



   (2) Disconnect the connectors and remove the panel start switch.
5. Release the claws, and remove the push button start switch.



SECURITY AND LOCKS > Push Button Ignition Switch

INSTALLATION

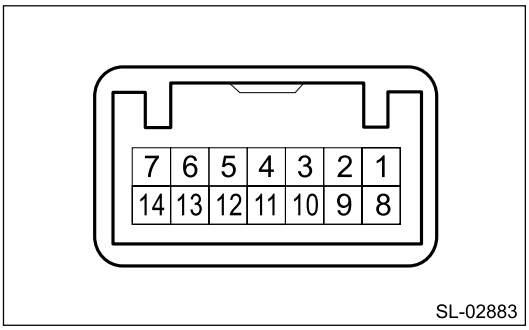
Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the push button start switch.
2. Connect the connector and install the panel start switch.
3. Install the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.
4. Install the panel assembly center. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>INSTALLATION.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

SECURITY AND LOCKS > Push Button Ignition Switch

INSPECTION

1. Check the continuity between the connector terminals.



Terminal No.	Inspection conditions	Specification
4 (COM) — 5 (GND)	Always	Continuity exists
7 (SSW1) — 5 (GND)	Push button ignition switch released → pressed	Continuity exists
2 (SSW2) — 5 (GND)	Push button ignition switch released → pressed	Continuity exists

2. Check the push button start switch operation when battery voltage is applied between the connector terminals.

Caution:
When applying battery voltage, do not mix up the positive (+) side and the negative (−) side.
Incorrect polarity connection may cause LED damage inside the switch.

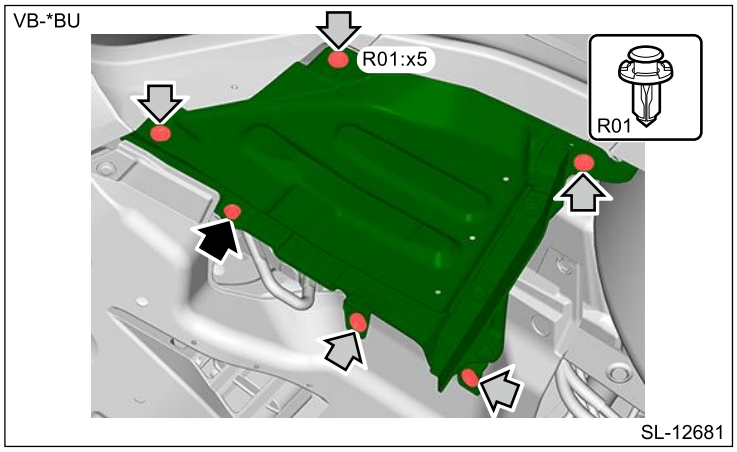
Terminal No.	Inspection conditions	Specification
11 (SWIL) — 5 (GND)	Connect battery to the terminals	Turns off → Switch indicator lights in red
12 (INDS) — 5 (GND)		Turns off → Switch indicator lights in green
13 (INDW) — 5 (GND)		Turns off → Switch indicator lights in orange

3. Replace the push button start switch if it is found defective.

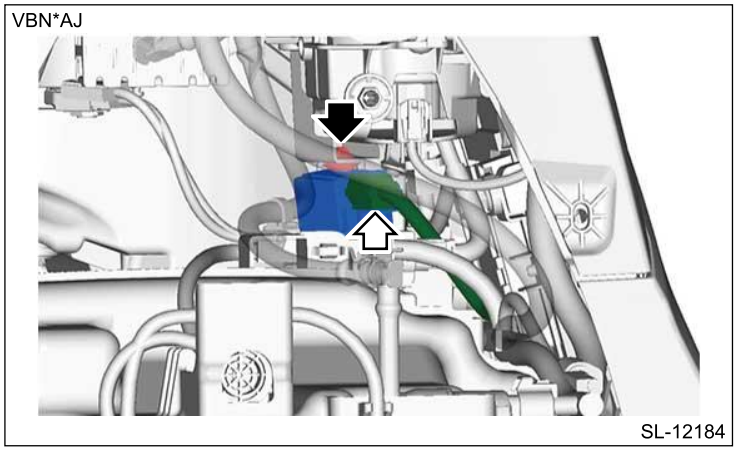
SECURITY AND LOCKS > Access Buzzer

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Lift up the vehicle.
3. Remove the screw and clips, and turn over the mud guard front LH.



4. Remove the access buzzer.
   (1) Disconnect the connector.
   (2) Remove the clip and detach the access buzzer.



SECURITY AND LOCKS > Access Buzzer

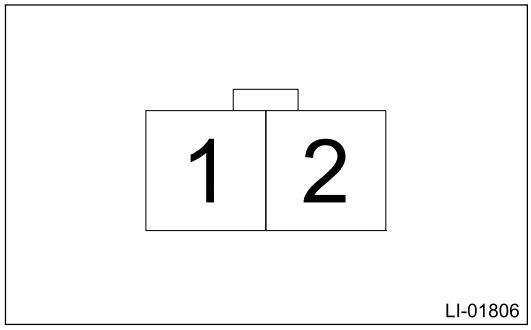
INSTALLATION

1. Install the access buzzer and connect the connector.
2. Install the mud guard front LH. Ref. to EXTERIOR/INTERIOR TRIM>Mud Guard>INSTALLATION.
3. Lower the vehicle.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

SECURITY AND LOCKS > Access Buzzer

INSPECTION

1. Measure the resistance between connector terminals.



Terminal No.	Inspection conditions	Standard
1 — 2	Always	270 — 330 Ω

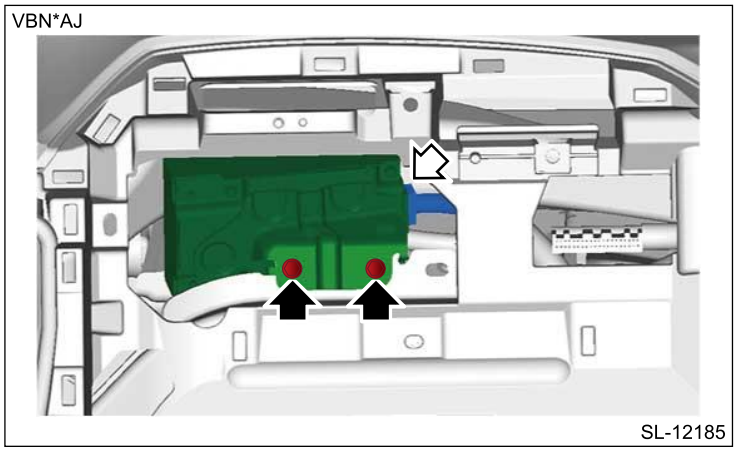
2. Replace the access buzzer if the inspection result is not within the standard value.

SECURITY AND LOCKS > Backup Unit

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. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the panel assembly center. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>REMOVAL.
3. Remove the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.
4. Remove the combination meter assembly. Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>REMOVAL.
5. Remove the telematics sub antenna. Ref. to ENTERTAINMENT & MONITORING>Antenna>REMOVAL > TELEMATICS SUB ANTENNA.
6. Remove the backup unit assembly.
   (1) Remove the bolt.
   (2) Disconnect the connector, and remove the backup unit assembly.



SECURITY AND LOCKS > Backup Unit

INSTALLATION

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Connect the connector, and install the backup unit assembly.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
2. Install the telematics sub antenna. Ref. to ENTERTAINMENT & MONITORING>Antenna>INSTALLATION > TELEMATICS SUB ANTENNA.
3. Install the combination meter assembly. Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>INSTALLATION.

4. Install the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.
5. Install the panel assembly center. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>INSTALLATION.
6. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

OPERATION

Disabling/Activating the keyless access system
The following functions are disabled when the keyless access system functions are disabled:

- LOCK function performed by the operation of touch sensor on the door outer handle
- UNLOCK function by holding the door handle
- Trunk lid open function by trunk opener button operation in the trunk lid lock condition
- Keyless access warning function
- Engine starting control using keyless access collation

PROCEDURE

1. STOPPING KEYLESS ACCESS SYSTEM FUNCTION BY DOOR OPEN/CLOSE PROCEDURE

1. Check that the vehicle status is as follows:
   - Ignition switch OFF
   - One window is completely open
   - Keyless access system is activated (or disabled if re-activating)
2. Sit in the driver's seat with the door closed and press the door lock switch to UNLOCK once.
3. Open the driver's door within five seconds.
4. Within 5 seconds, with the driver's door opened, slowly press the door lock switch to UNLOCK twice.
5. Within 10 seconds after finishing step 4., perform the closing → opening operation of the driver's door twice.
6. Within 10 seconds after finishing step 5., with the driver's door opened, slowly press the door lock switch to UNLOCK twice.
7. Within 10 seconds after finishing step 6., perform the closing → opening operation of the driver's door once.
8. Within five seconds after finishing step 7., close the driver's door.
9. The buzzer sounds for two seconds, and the function stops.

Note:

- **Perform the same procedures to re-activate the keyless access system from the disabled condition.**
- **In step 4. and step 6., press the door lock switch completely. The function may not work properly if the switch is pressed shortly.**

2. STOPPING KEYLESS ACCESS SYSTEM FUNCTION BY USING ACCESS KEY

1. Open the driver's door, and then push the door lock knob forward (LOCK direction).
2. Press the lock button of access key and trunk button simultaneously for five seconds or more.
3. The buzzer sounds for two seconds, and the function stops.

Note:

- **For stopping the keyless access system function by using access key, it is necessary to ask the customer to register the secret code of the secret code keyless entry. (Refer to owner's manual for details.)**
- **Perform the same procedures to re-activate the keyless access system from the disabled condition.**

INSPECTION

1. KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM

For the diagnostics with phenomenon for keyless access with push button start system, refer to “Diagnostics with Phenomenon” of “KEYLESS ACCESS WITH PUSH BUTTON START (DIAGNOSTICS)” section. Ref. to KEYLESS ACCESS WITH PUSH BUTTON START(DIAGNOSTICS)>Diagnostics with Phenomenon.

BODY CONTROL/COMMUNICATION SYSTEM

BCCS

1. General Description
2. Relay and Fuse
3. Body Integrated Unit
4. Central Gateway CM
5. Front Relay Control Module

BODY CONTROL/COMMUNICATION SYSTEM > General Description

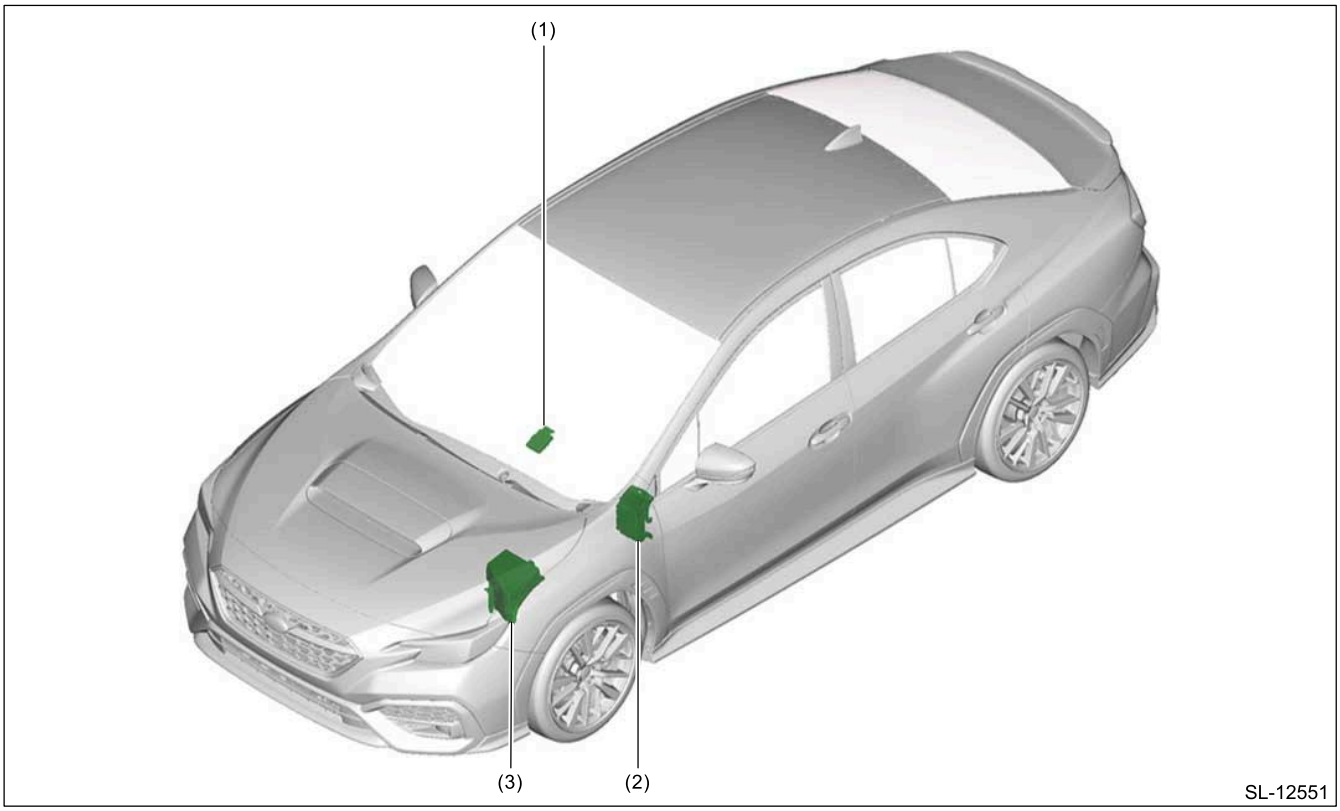
CAUTION

- When performing service operation, refer to “Repair Contents” in “General Description”. Ref. to REPAIR CONTENTS>Repair Contents.
- Refer to “CAUTION” of “General Description” in “AIRBAG SYSTEM” section. Ref. to AIRBAG SYSTEM>General Description>CAUTION.
- When performing work on the sensors or modules, be careful of the following.
  – Before disconnecting electrical connectors, be sure to disconnect the ground terminal from the battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
  – Do not apply any impact. If the parts are accidentally dropped, replace with a new part.
  – Do not expose to high-temperature and humidity.
- When replacing the parts provided with memory functions, record the memory contents before disconnecting the ground terminal from the battery sensor.

BODY CONTROL/COMMUNICATION SYSTEM > General Description

LOCATION

1. BODY CONTROL SYSTEM

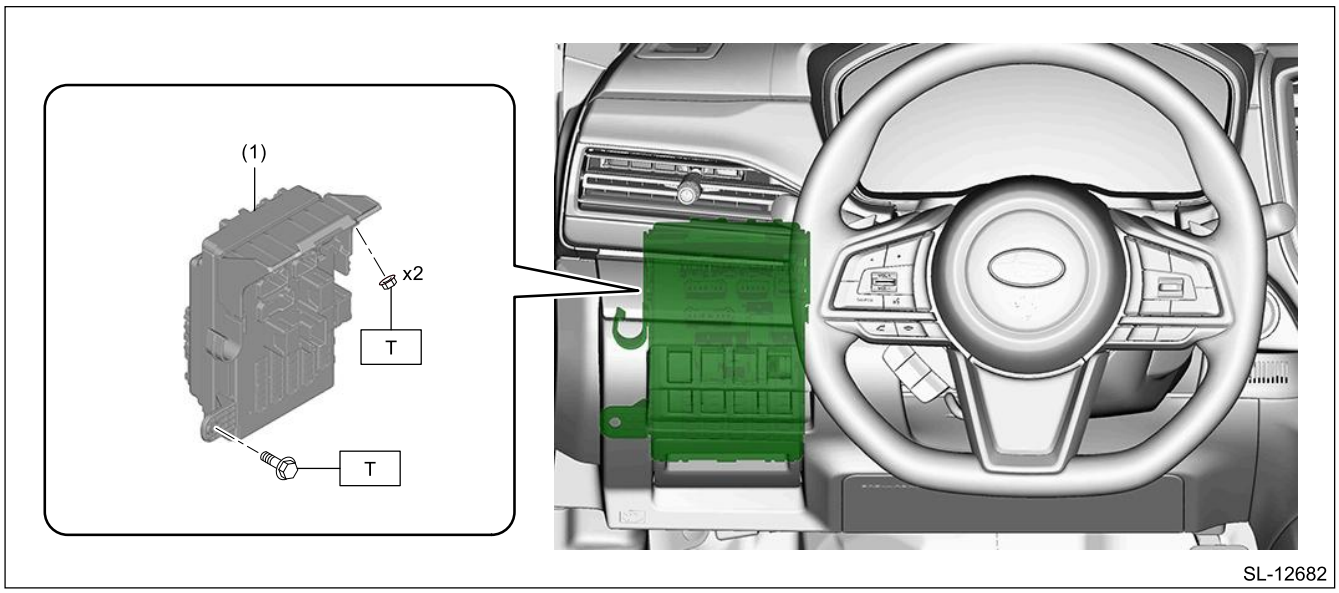


(1) Central gateway CM
(2) Body integrated unit
(3) Front relay control module (in the main fuse box)

BODY CONTROL/COMMUNICATION SYSTEM > General Description

COMPONENT

1. BODY INTEGRATED UNIT

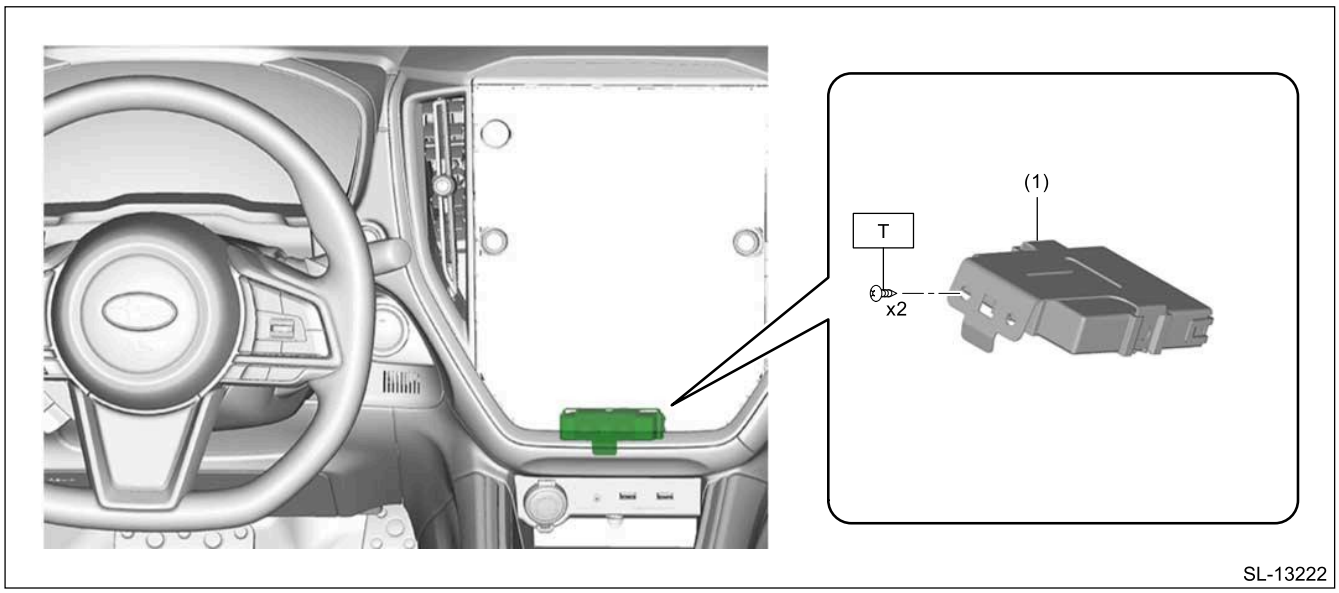


(1) Body integrated unit

Tightening torque: N·m (kgf-m, ft-lb)

T: 7.5 (0.8, 5.5)

2. CENTRAL Gateway CM



(1) Central gateway CM

Tightening torque: N·m (kgf-m, ft-lb)

T: 1.8 (0.2, 1.3)

BODY CONTROL/COMMUNICATION SYSTEM > General Description

PREPARATION TOOL

1. SUBARU SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
STSSM4	—	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. **Note:** • **For detailed operation procedures, refer to "Help" of application.** • **Used together with interface for Subaru Select Monitor (such as DST-i and DST-010).**

LOCATION

For the location, refer to "FUSE AND RELAY" in the wiring diagram. Ref. to WIRING SYSTEM>Fuse And Relay>LOCATION.

Note:
For details of relay and fuse, refer to "DC POWER SUPPLY CIRCUIT". Ref. to WIRING SYSTEM>Power Supply Circuit>WIRING DIAGRAM.

INSPECTION

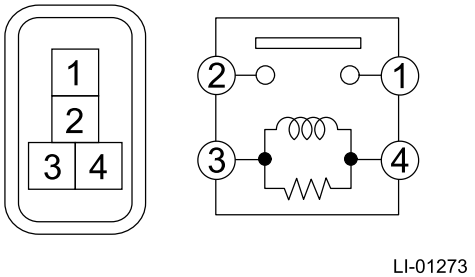
1. CHECK FUSE

1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

Note:
If the fuse is blown again, check the system wiring harness.

2. CHECK RELAY

1. Measure the resistance between relay terminals.

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

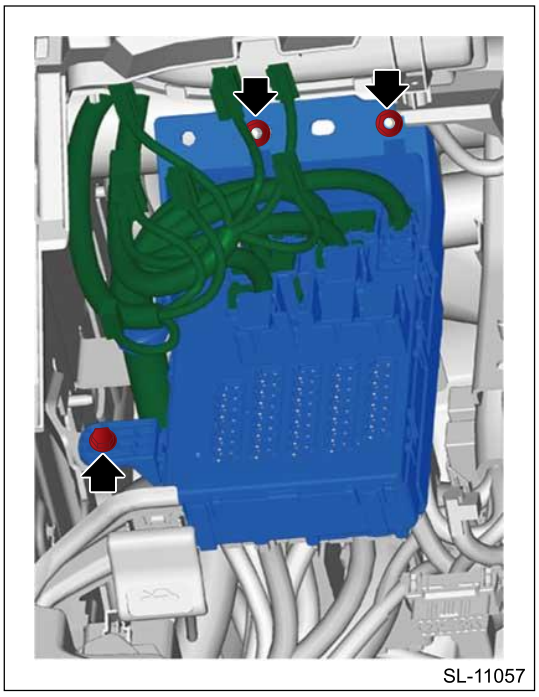
2. Replace the relay if the inspection result is not within the standard value.

REMOVAL

Caution:

- **When the control module related to immobilizer has been replaced, be sure to perform the registration of immobilizer system.**
  For detailed operation procedure, refer to "Type G" described in "REGISTRATION MANUAL FOR IMMOBILIZER". (Except for C0 model (models without keyless access with push button start system))
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. When replacing the body integrated unit, check and record the current settings. Ref. to BODY CONTROL(DIAGNOSTICS)>Registration Body Integrated Unit>OPERATION > CONFIRM CURRENT SETTING.
2. Prepare all immobilizer keys already registered. (Except for C0 model (models without keyless access with push button start system))
3. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
4. Remove the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.
5. Remove the body integrated unit.
   (1) Disconnect connectors.
   (2) Remove the bolts and nuts, and remove the body integrated unit.



INSTALLATION

Caution:

- **When the control module related to immobilizer has been replaced, be sure to perform the registration of immobilizer system.**
  For detailed operation procedure, refer to "Type G" described in "REGISTRATION MANUAL FOR IMMOBILIZER". (Except for C0 model (models without keyless access with push button start system))
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Connect each connector, and install the body integrated unit.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
2. Install the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
4. When the body integrated unit has been replaced, set the current settings as recorded. Ref. to BODY CONTROL(DIAGNOSTICS)>Registration Body Integrated Unit>OPERATION > REGISTRATION BODY INTEGRATED UNIT (FUNCTION SETTING).

BODY CONTROL/COMMUNICATION SYSTEM > Central Gateway CM

REMOVAL

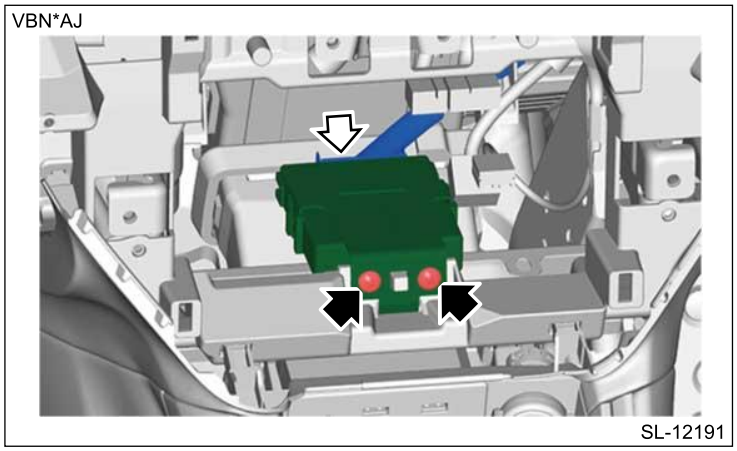
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the panel assembly center. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>REMOVAL.
3. Remove the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>REMOVAL.
4. Remove the central gateway CM.

Caution:

Be careful to keep water and other foreign materials away from the central gateway CM terminals.

(1) Remove the screws and pull out the central gateway CM.

(2) Disconnect the connector and remove the central gateway CM.



BODY CONTROL/COMMUNICATION SYSTEM > Central Gateway CM

INSTALLATION

Caution:

- **When the central gateway CM has been replaced, be sure to perform the module registration.**
- **When the control module related to immobilizer has been replaced, be sure to perform the registration of immobilizer system. (Model without keyless access with push button start)**
  - **Except for C0 model, refer to "Type G" described in "REGISTRATION MANUAL FOR IMMOBILIZER".**
  - **For C0 model, refer to "Type I" described in "REGISTRATION MANUAL FOR IMMOBILIZER".**

1. Connect the connector and install the central gateway CM.

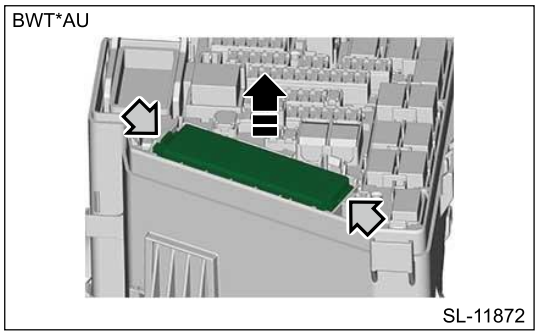
   Tightening torque:

   1.8 N·m (0.2 kgf-m, 1.3 ft-lb)
2. Install the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>INSTALLATION.
3. Install the panel assembly center. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>INSTALLATION.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
5. When the central gateway CM has been replaced, perform the module registration. Ref. to COMMON (DIAGNOSTICS)>Unit Registration>OPERATION.

BODY CONTROL/COMMUNICATION SYSTEM > Front Relay Control Module

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the front relay control module from the main fuse box.
   (1) Release the claws.



   (2) Disconnect the connector and remove the front relay control module.

BODY CONTROL/COMMUNICATION SYSTEM > Front Relay Control Module

INSTALLATION

1. Connect the connector and install the front relay control module.
2. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)

SR

1. General Description
2. Relay and Fuse
3. Sunroof Control System
4. Glass Lid
5. Sunroof Switch
6. Sunroof Motor
7. Sunshade
8. Sunroof Assembly

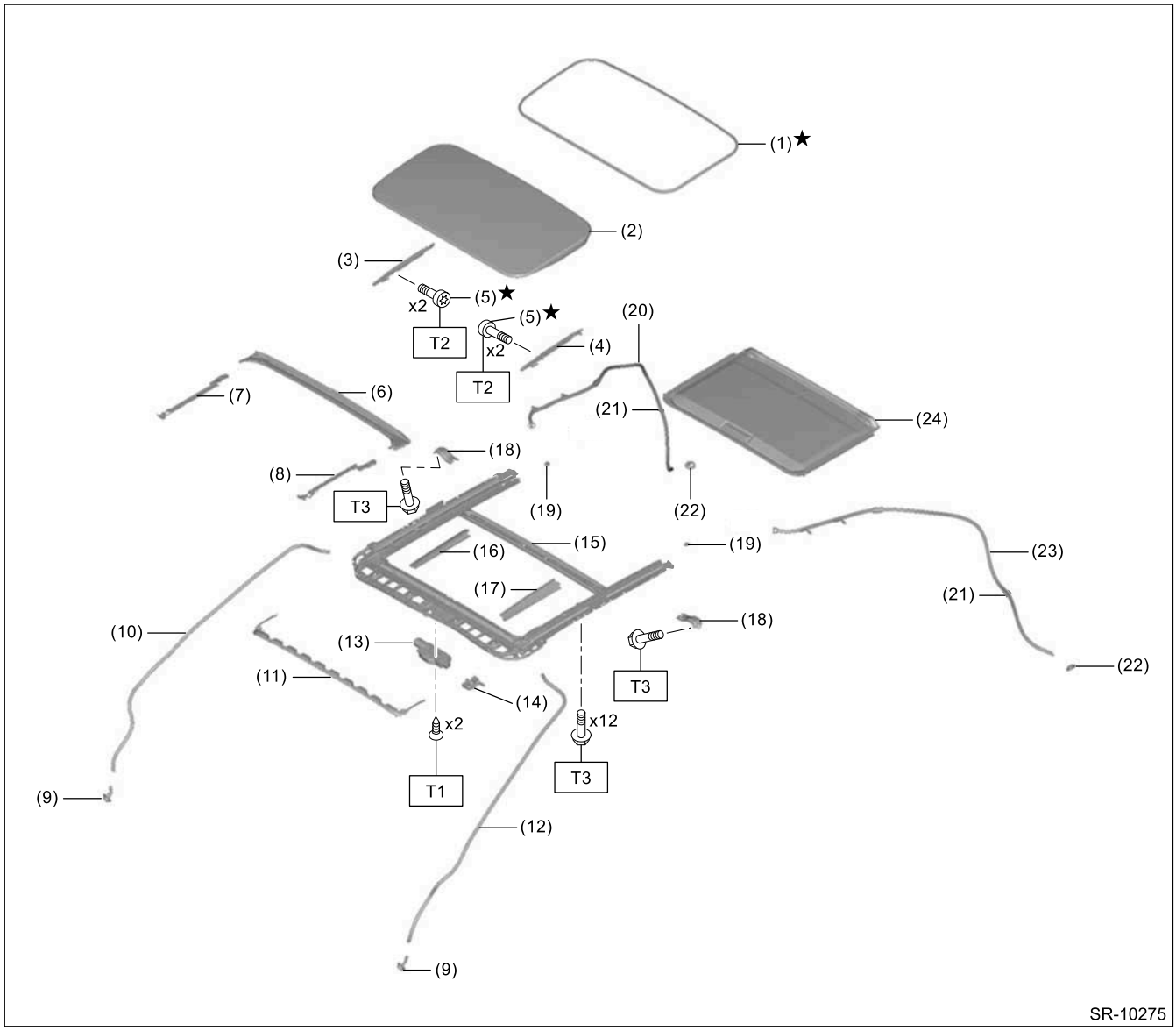
SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > General Description

CAUTION

- When performing service operation, refer to “Repair Contents” in “General Description”. Ref. to REPAIR CONTENTS>Repair Contents.
- Refer to “CAUTION” of “General Description” in “AIRBAG SYSTEM” section. Ref. to AIRBAG SYSTEM>General Description>CAUTION.
- When performing work on the sensors or modules, be careful of the following.
  - Before disconnecting electrical connectors, be sure to disconnect the ground terminal from the battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
  - Do not apply any impact. If the parts are accidentally dropped, replace with a new part.
  - Do not expose to high-temperature and humidity.
- When replacing the parts provided with memory functions, record the memory contents before disconnecting the ground terminal from the battery sensor.
- Apply grease onto sliding or revolving surfaces before installation.

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > General Description

COMPONENT



(1) Weather strip glass sunroof	(11) Deflector	(21) Clip holder
(2) Lid ASSY	(12) Tube drain front LH	(22) Grommet
(3) Cable ASSY RH	(13) Motor ASSY	(23) Tube drain rear LH
(4) Cable ASSY LH	(14) Harness ASSY	(24) Shade ASSY
(5) TORX® screw	(15) Rail ASSY	
(6) Drain plate	(16) Cover lid RH	***Tightening torque: N·m (kgf-m, ft-lb)***
(7) Link drain RH	(17) Cover lid LH	***T1: 3 (0.3, 2.2)***
(8) Link drain LH	(18) Bracket sunroof	***T2: 4.5 (0.5, 3.3)***
(9) Grommet	(19) Stopper rubber	***T3: 6 (0.6, 4.4)***
(10) Tube drain front RH	(20) Tube drain rear RH	

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > General Description

PREPARATION TOOL

1. OTHER

	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.
TORX® T25	Used for removing and installing glass lid.
Hexagon wrench	Used for forcibly driving the motor assembly. Width across flat 4 mm (0.16 in)

LOCATION

For the location, refer to “FUSE AND RELAY” in the wiring diagram. Ref. to WIRING SYSTEM>Fuse And Relay.

Note:

For details of relay and fuse, refer to “DC POWER SUPPLY CIRCUIT”. Ref. to WIRING SYSTEM>Power Supply Circuit>WIRING DIAGRAM.

INSPECTION

1. CHECK FUSE

1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

WIRING DIAGRAM

For the wiring diagram, refer to “Sunroof Control System” in the wiring diagram. Ref. to WIRING SYSTEM>Sunroof Control System>WIRING DIAGRAM.

INSPECTION

Symptoms	Inspection steps
Water leakage	1. Check roof panel and glass lid for improper or poor sealing. 2. Check drain tube for clogging. 3. Check the joints of the rail assembly & cable assembly for improper sealing and for proper installation to the body.
Booming noise, wind noise and other noise	1. Check glass lid and roof panel for improper clearance. 2. Check sunshade and roof trim for improper clearance.
Motor and cable noise	1. Check installing part of motor for looseness. 2. Check gears and bearings for wear. 3. Check cable assembly for wear. 4. Check cable pipe for deformities.
Failure of sunroof (Motor operates properly.)	1. Check guide rail for foreign particles. 2. Check guide rail for improper installation. 3. Check parts for mutual interference. 4. Check cable slider for improper clinching. 5. Check cable assembly for improper installation.
Motor does not rotate or it does not rotate normally.	1. Check fuse for blown out. 2. Check switch for improper function. 3. Check the relay for improper operation. 4. Check motor for incorrect terminal voltage. 5. Check harness for open or short and terminals for poor connections.
Incorrect reverse operation of the lid assembly	Check guide rail for foreign particles.

Note:

Glass lid has auto-reverse function. When the glass lid is pushed in the opening direction with a force of approx. 100 N (10.2 kgf, 22.5 lbf), the glass lid moves in reverse and stops.
If you operate (open or close) the glass lid while driving on rough road, the vibration may be judged as a force and the lid may incorrectly move in the reverse direction.
When the incorrect reverse operation is occurred repeatedly, perform inspection around the sunroof frame. If there are no problems, perform the initialization operation. **Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)>Sunroof Control System>OPERATION > INITIALIZE OPERATION.**

OPERATION

1. INITIALIZE OPERATION

Caution:
During initialization, perform the position learning and the sliding learning. Sliding learning mode cannot be initiated unless the position learning is performed.

Note:
When initialize operation is performed, it is necessary to press the switch repeatedly as it operates for only at the moment when the switch is pressed, even when the switch is held down.

POSITION IS NOT MEMORIZED (AUTOMATIC OPEN/CLOSE CANNOT BE PERFORMED)

«Position learning»

1. Position the lid assembly at the fully tilt up position, and press and hold the tilt up switch for ten seconds.
2. The motion of the glass lid shifts to inching operation until it reaches the mechanical lock position (further tilt up position than the fully tilt up position). After the mechanical lock, it returns to the fully tilt up position and then stops.
3. Release the tilt up switch to finish the position learning.

«Sliding learning»

4. Within six seconds after the position learning is finished, press and hold the tilt up switch again.
5. The lid assembly moves to the full close position, full open position, and the full close position successively, and stops at the full close position.
6. Release the tilt up switch and turn the ignition switch to OFF to finish the initializing.

POSITION IS MEMORIZED (AUTOMATIC OPEN/CLOSE CAN BE PERFORMED)

«Position learning»

1. Position the lid assembly at the fully tilt up position, and press and hold the tilt up switch for ten seconds.
2. The motion of the glass lid shifts to inching operation until it reaches the mechanical lock position (further tilt up position than the fully tilt up position). After the mechanical lock, it returns to the fully tilt up position and then stops.
3. Release the tilt up switch to finish the position learning.

   Note:
   If the glass lid does not shift to inching operation until it reaches to the mechanical lock position in step 2, perform steps 4 — 6.
4. Position the lid assembly at the fully open position, and press and hold the tilt up switch for ten seconds.
5. The motion of the glass lid shifts to inching operation until it reaches the mechanical lock position. After that, it returns to the fully tilt up position and then stops.
6. Release the tilt up switch to finish the position learning.

«Sliding learning»

7. Within six seconds after the position learning is finished, press and hold the tilt up switch again.
8. The lid assembly moves to the full close position, full open position, and the full close position successively, and stops at the full close position.
9. Release the tilt up switch and turn the ignition switch to OFF to finish the initializing.

NOTE

For operation procedures of components of the sunroof control system, refer to the sections below.

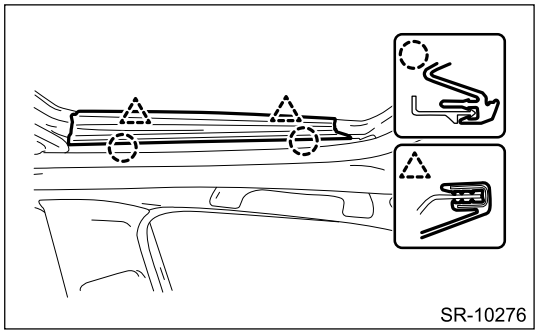
- Glass lid: Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)>Glass Lid.
- Sunroof assembly: Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)>Sunroof Assembly.
- Sunroof motor: Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)>Sunroof Motor.
- Sunroof switch: Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)>Sunroof Switch.
- Sunshade: Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)>Sunshade.

REMOVAL

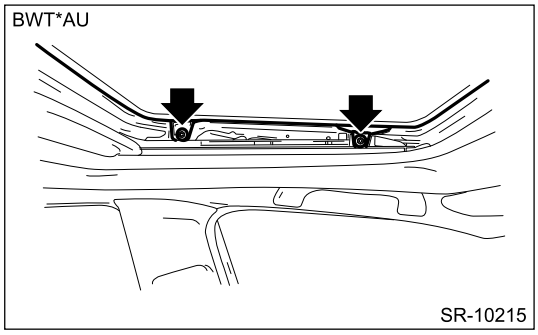
1. GLASS LID

Caution:
Be careful not to damage the glass lid.

1. Completely close the lid assembly, and open the shade assembly.
2. Remove the cover lid.

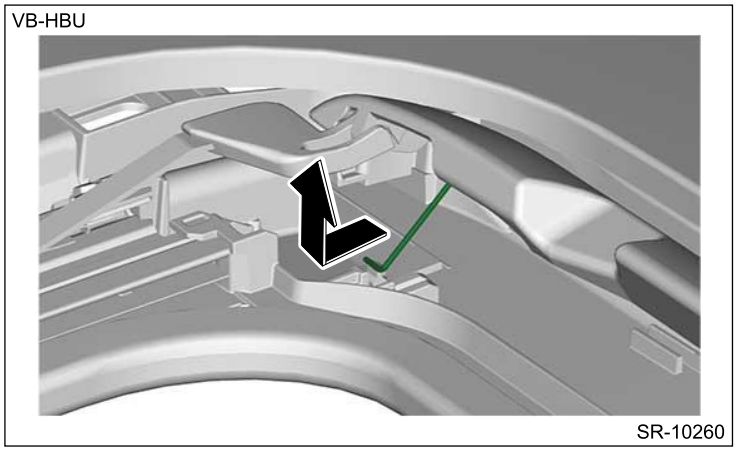


3. Using TORX® T25, remove the screws and remove the lid assembly.

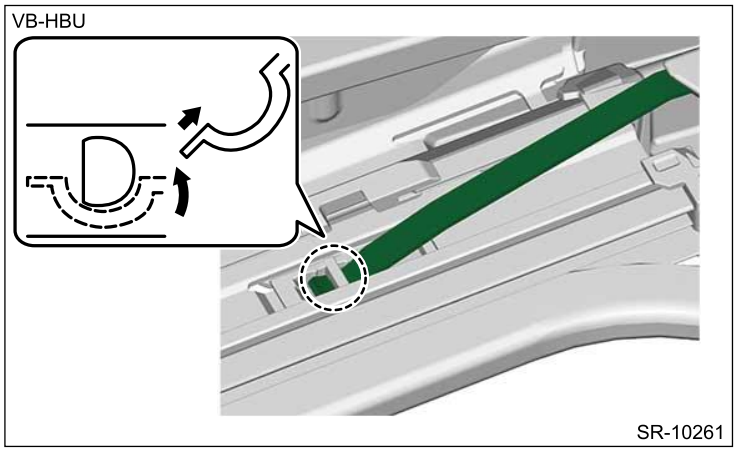


2. DEFLECTOR ASSEMBLY

1. Completely open the lid assembly.
2. Remove the deflector.
   (1) Remove the spring from the rail assembly.



(2) While lifting up the deflector, remove the deflector from the hook on the rail assembly.



SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Glass Lid

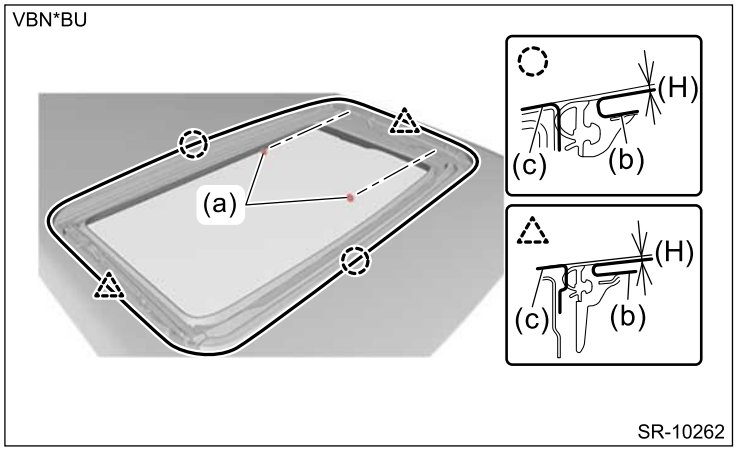
INSTALLATION

1. GLASS LID

1. Using a new TORX® screw, temporarily install the lid assembly.
2. Perform the open/close operation checks for the lid assembly.
3. Tighten the screw to the specified torque using TORX® T25 while adjusting the height of the lid assembly to the standard value.

   Specification:

   Lid assembly to Roof panel (H): 0.7±1 mm (0.03±0.04 in)



(a) TORX® screw

(b) Lid ASSY

(c) Roof panel

Tightening torque:

4.5 N·m (0.5 kgf-m, 3.3 ft-lb)

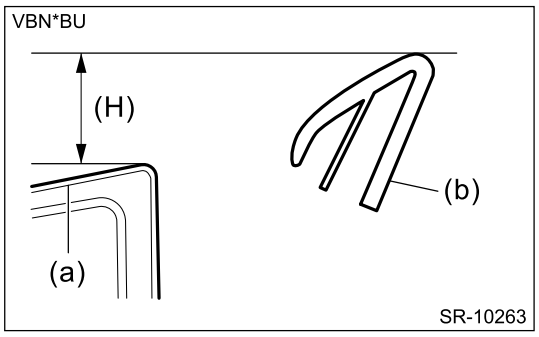
4. Install the cover lid.
5. Perform the initialize operation. Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)>Sunroof Control System>OPERATION > INITIALIZE OPERATION.

2. DEFLECTOR ASSEMBLY

1. Install the deflector.
2. After installation, measure the height from the roof panel when deflector is activated.

Deflector to Roof panel (H):

11 mm (0.4 in)



(a) Roof panel

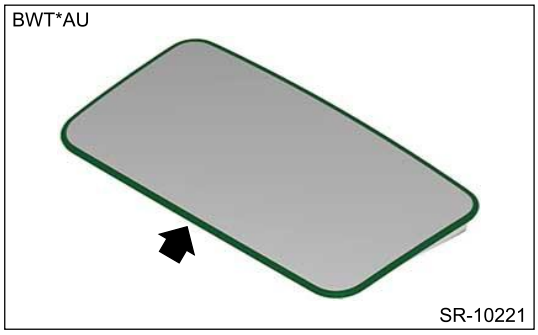
(b) Deflector

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Glass Lid

DISASSEMBLY

1. GLASS LID

1. Remove the weather strip glass sunroof.



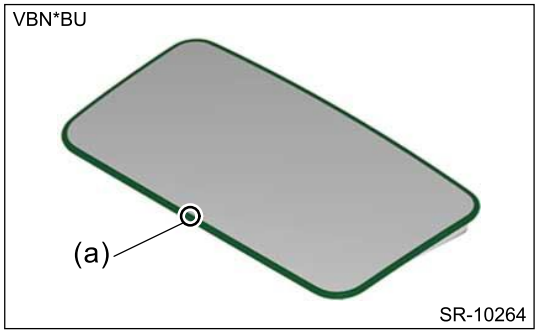
SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Glass Lid

ASSEMBLY

1. GLASS LID

1. Install the weather strip glass sunroof.

Note:
- **Install it so that the positioning mark (a) is located at the front of the vehicle.**
- **Do not press in the weather strip excessively with a hard object.**
- **After installation, check that there is no warpage, gap or scratch.**



SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Glass Lid

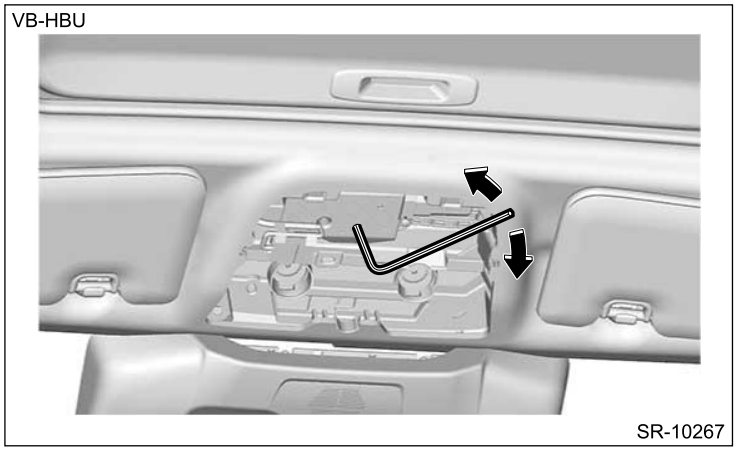
FORCED DRIVE

If the lid assembly does not operate or the motor assembly is not supplied with power, move the lid assembly using the hexagon wrench with width across flat of 4 mm (0.16 in).

Caution:
After a forced operation, make sure to perform an initialize operation. Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)>Sunroof Control System>OPERATION > INITIALIZE OPERATION.

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the light assembly map. Ref. to LIGHTING SYSTEM>Spot Map Light>REMOVAL.
3. Insert the hexagon wrench securely until it touches the motor shaft end.
4. Turn the hexagon wrench to move the lid assembly.
   - Turning right, the lid assembly opens.
   - Turning left, the lid assembly closes.

Caution:
Be careful not to damage the adjacent parts with the rod end when moving the lid assembly with the hexagon wrench.



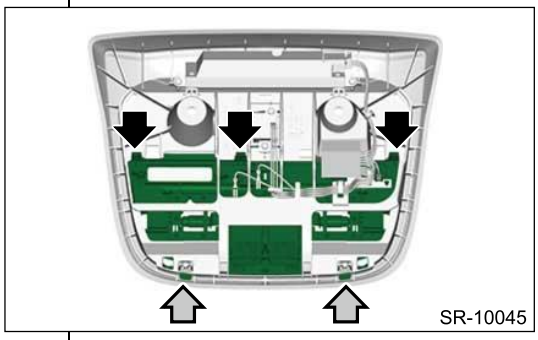
5. Install the light assembly map. Ref. to LIGHTING SYSTEM>Spot Map Light>INSTALLATION.
6. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
7. Perform the initialize operation. Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)>Sunroof Control System>OPERATION > INITIALIZE OPERATION.

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Switch

REMOVAL

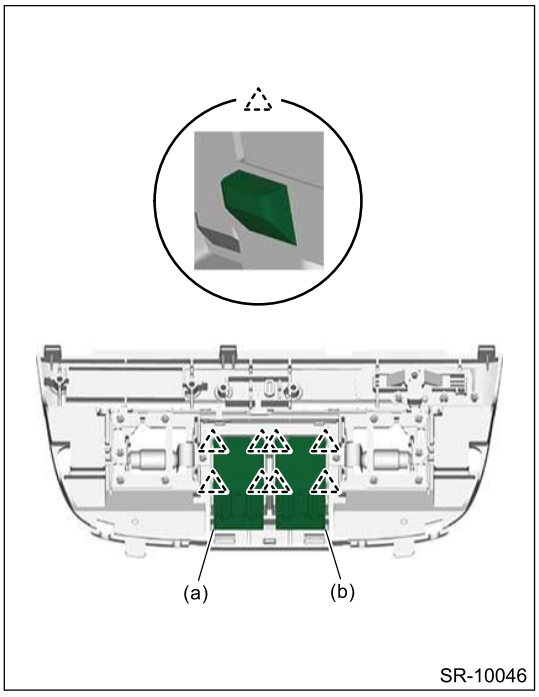
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the light assembly map. Ref. to LIGHTING SYSTEM>Spot Map Light>REMOVAL.
3. Remove the sunroof switch.
   (1) Release the claws and guides, and remove the frame.

Caution:
Be careful not to pull the harness.



Note:
The frame cannot be removed.

   (2) Release the claws, and then remove the sunroof switch.



(a) Sunroof switch (tilt)
(b) Sunroof switch (slide)

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Switch

INSTALLATION

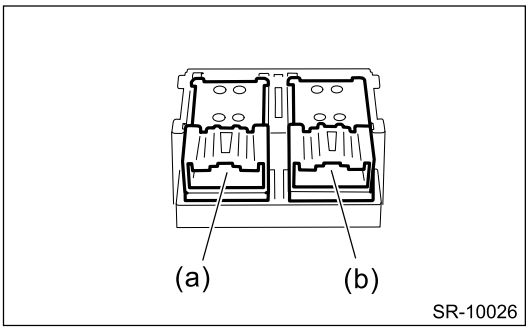
1. Install the sunroof switch.

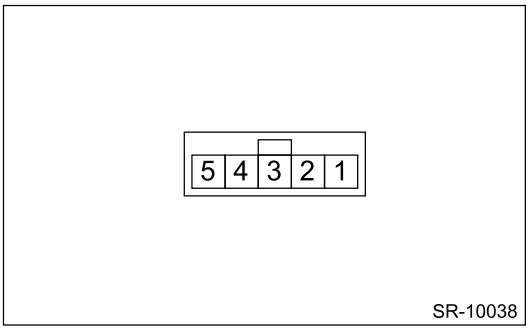
2. Install the light assembly map. Ref. to LIGHTING SYSTEM>Spot Map Light>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Switch

INSPECTION

1. Disconnect the harness connector of sunroof switch.
2. Measure the resistance between connector terminals.





Connector	Terminal No.	Inspection conditions	Standard
(b): Slide switch	1 — 3	OPEN	Less than 1 Ω
	4 — 3	CLOSE	Less than 1 Ω
(a): Tilt switch	4 — 3	Tilt down	Less than 1 Ω
	1 — 3	Tilt up	Less than 1 Ω

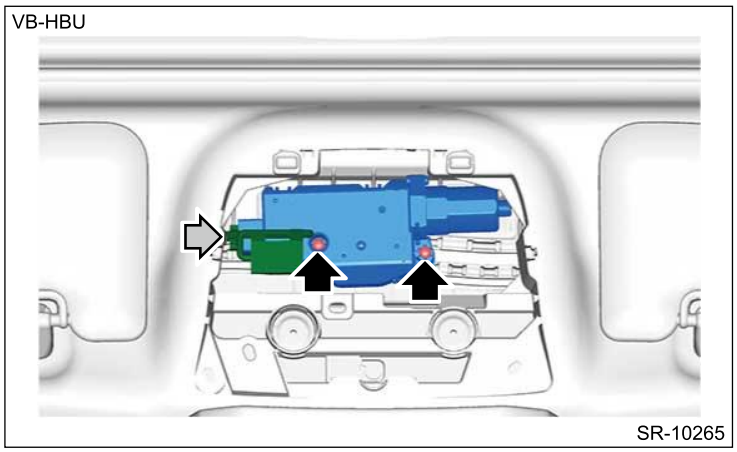
3. Replace the sunroof switch if the inspection result is not within the standard value.

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Motor

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the light assembly map. Ref. to LIGHTING SYSTEM>Spot Map Light>REMOVAL.
3. Remove the motor assembly.
   (1) Disconnect the connector.
   (2) Remove the screws to remove motor assembly.

Caution:
When removing the sunroof motor, secure the cable assembly so that it does not move.



SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Motor

INSTALLATION

Caution:
When installing the sunroof motor, be careful not to move the cable assembly.

1. Install the motor assembly and connect the connector.
   Tightening torque:
   3 N·m (0.3 kgf-m, 2.2 ft-lb)
2. Install the light assembly map. Ref. to LIGHTING SYSTEM>Spot Map Light>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
4. Perform the initialize operation. Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)>Sunroof Control System>OPERATION > INITIALIZE OPERATION.
5. Check the operation of sunroof by following the table below.

Operation	Switch position
(1) Completely close the glass lid.	Close
(2) Tilt up the glass lid to the top position.	Tilt up
(3) Completely close the glass lid.	Tilt down
(4) Completely open the glass lid.	Open
(5) Completely close the glass lid.	Close

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Motor

INSPECTION

Check the auto-reverse mechanism.

Caution:

Do not place objects in the way to check the auto-reverse mechanism.

1. Open the glass lid.
2. Push the glass lid in the opening direction with a force of approx. 100 N (10.2 kgf, 22.5 lbf) during the auto-closing operation, and check whether the window auto-reverse mechanism functions.

Note:

If the auto function is canceled, perform the initialize operation. Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)>Sunroof Control System>OPERATION > INITIALIZE OPERATION.

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunshade

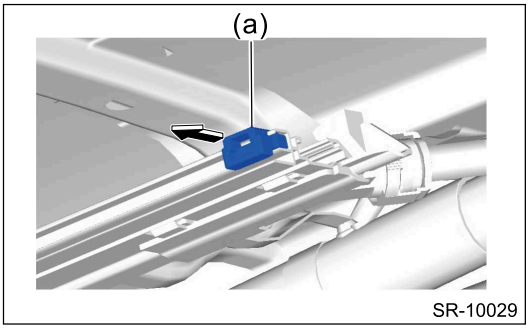
REMOVAL

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

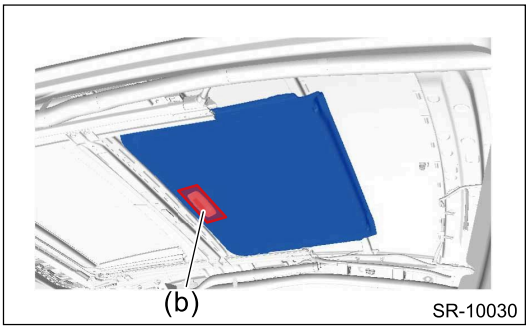
1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel roof assembly. Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.
3. Remove the shade assembly.

Caution:
Be careful not to damage the shade assembly.

(1) Remove the left and right stopper rubbers (a).



(2) Attach protective tape (b) on the handle of shade assembly.
(3) Remove the shade assembly while pulling the center of the brace downward.



SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunshade

INSTALLATION

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the shade assembly.
2. Install the trim panel roof assembly. Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunshade

INSPECTION

1. MOVING LOAD OF SUNSHADE

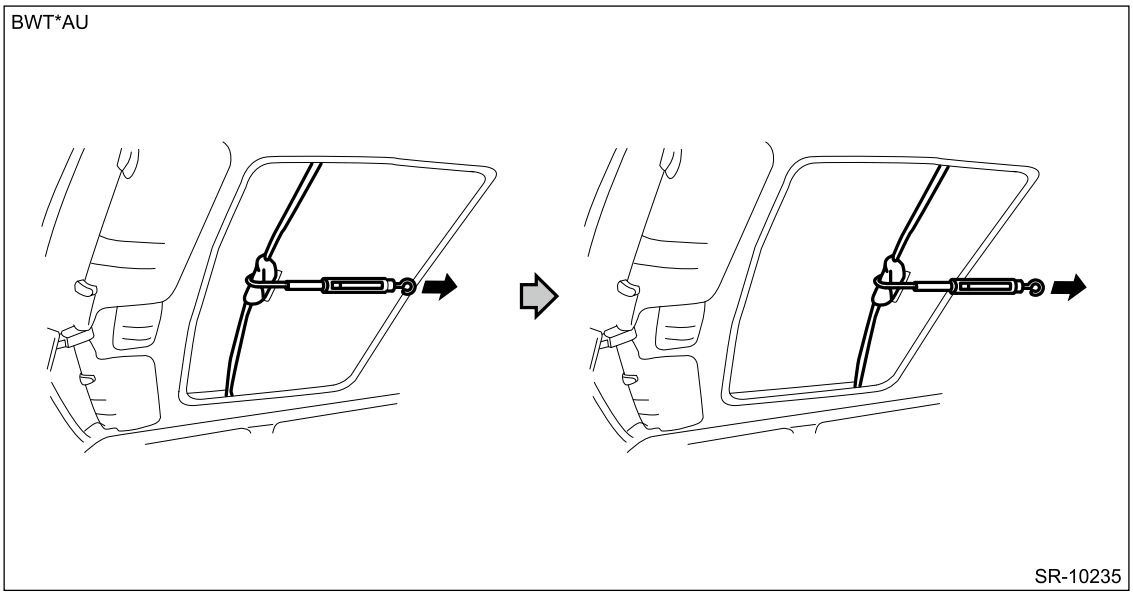
1. Attach a spring scale together with a cloth to the edge of shade assembly.
2. Pull the spring scale to check the moving load of the shade assembly.

Note:

Moving load is larger at the beginning of pulling a spring scale, so take a spring scale reading while shade assembly is sliding smoothly.

Moving load of shade assembly:

9.8 — 25 N (1 — 2.55 kgf, 2.2 — 5.6 lbf)



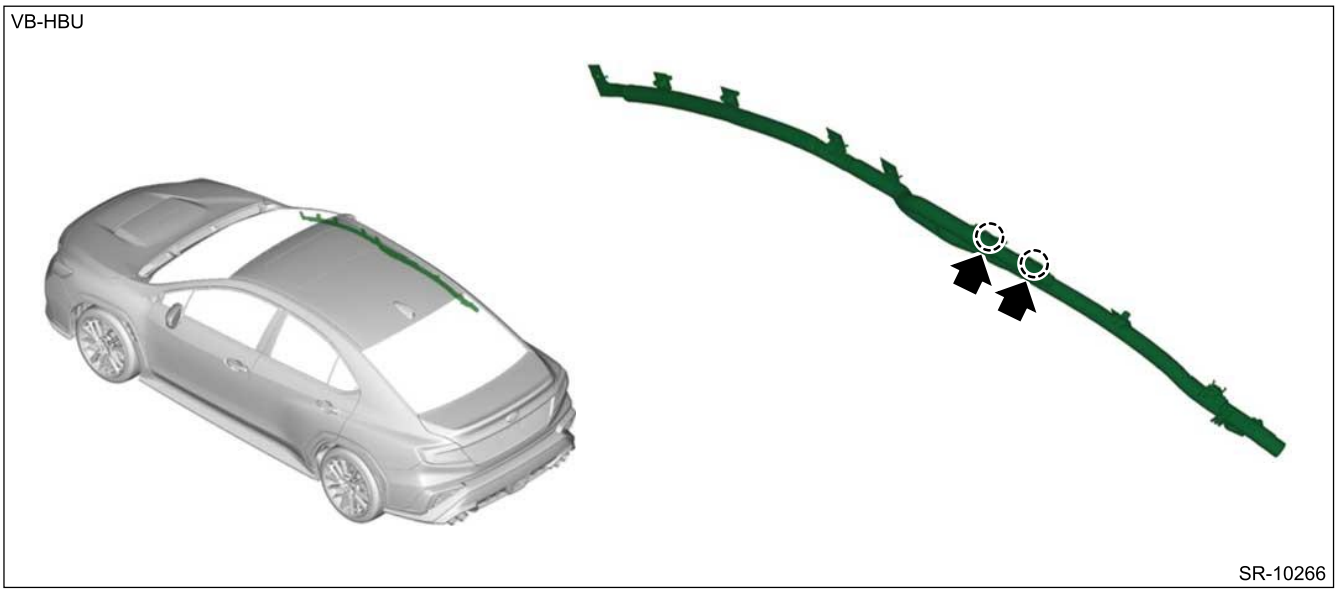
3. If the inspection result exceeds the standard value, check if the installation of shade assembly or rail assembly is sufficient, and replace if necessary.

REMOVAL

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

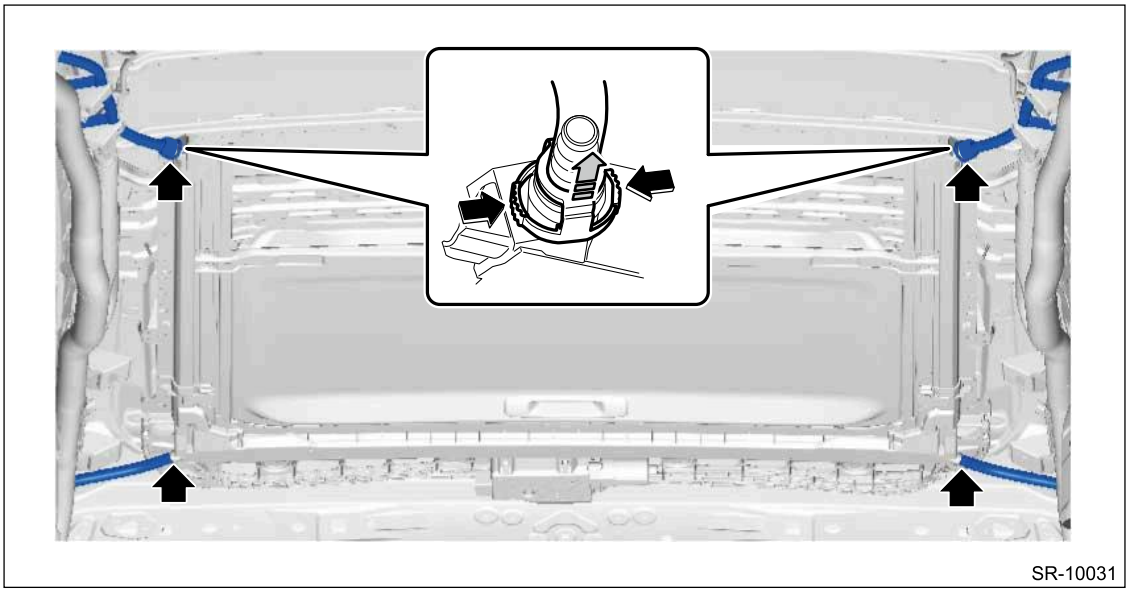
1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the lid assembly. Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)>Glass Lid>REMOVAL.
3. Remove the trim panel roof assembly. Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.
4. Remove the bolt securing the curtain airbag module.

Caution:
- **Do not remove the clips securing the curtain airbag module. If any of the clips are removed, the curtain airbag module may not deploy properly in collision. If the clip is removed, replace it with a new part.**
- **Be careful not to damage the curtain airbag module during removal.**



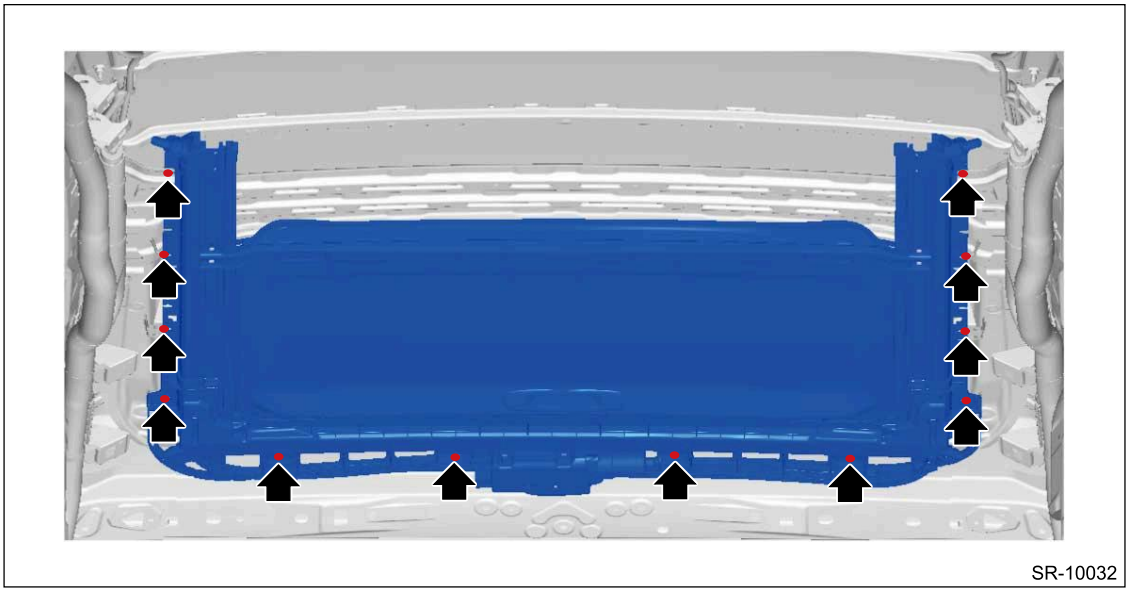
5. Disconnect the connector of the motor assembly.
6. Disconnect the tube drain.

Note:
When removing the drain tube completely, perform the step 8.

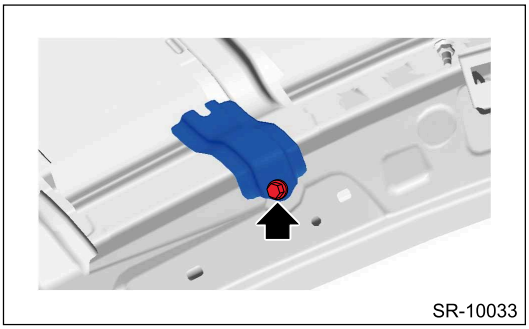


7. Remove the rail assembly.

(1) Remove the bolts, then remove the rail assembly.



(2) Remove the bracket sunroof bolts on the right and left sides.



8. Remove the tube drain.

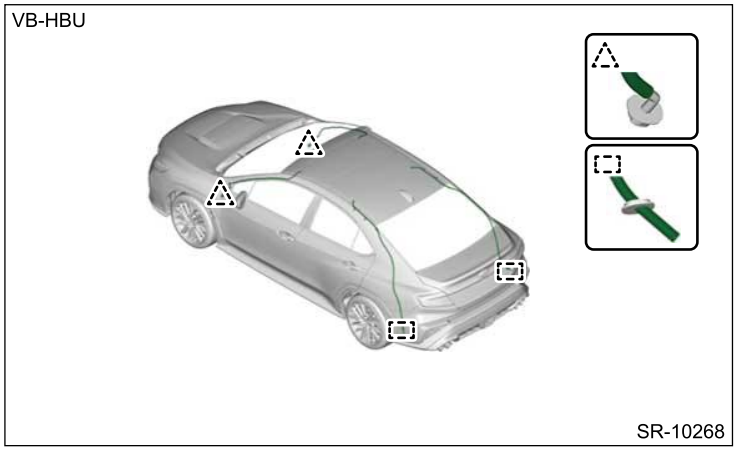
Note:

- **Perform this procedure only when required.**
- **For easy replacement work, attach a string when pulling the drain tube.**

(1) Turn over the insulator toe board and remove the tube drain front.

(2) Remove the mat trunk and the trunk trim panel side. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.

(3) Remove the tube drain rear.



SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Assembly

INSTALLATION

Caution:

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

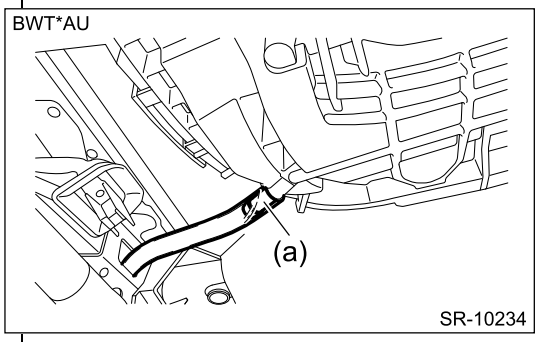
1. Install the tube drains.
2. Install the mat trunk and the trunk trim panel side. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>INSTALLATION.
3. Install the bracket sunroof and the rail assembly.

   Tightening torque:

   6 N·m (0.6 kgf-m, 4.4 ft-lb)
4. Connect the connector of the tube drain and the motor assembly.

Caution:

- **Insert the drain tubes on the front side until they contact all the way to the end (a) of drain pipes.**



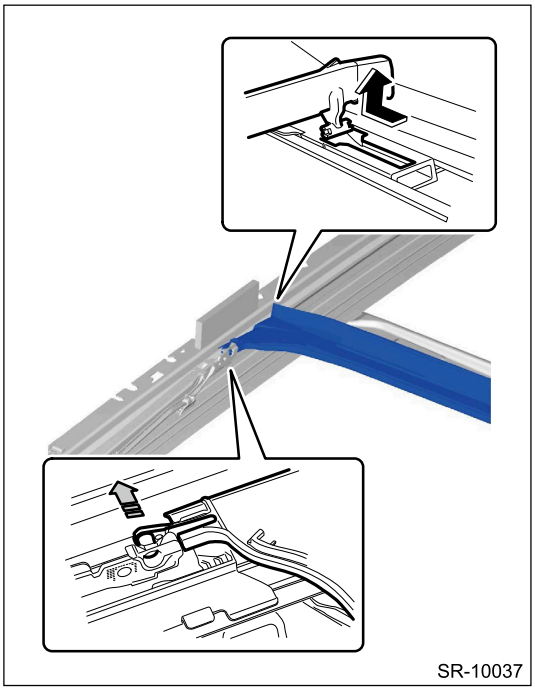
- **For the drain tubes on the rear side, securely insert the resin connector until a clicking sound is heard.**

5. Install the bolt which secures the curtain airbag module.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
6. Install the trim panel roof assembly. Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>INSTALLATION.
7. Install the lid assembly. Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)>Glass Lid>INSTALLATION.
8. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

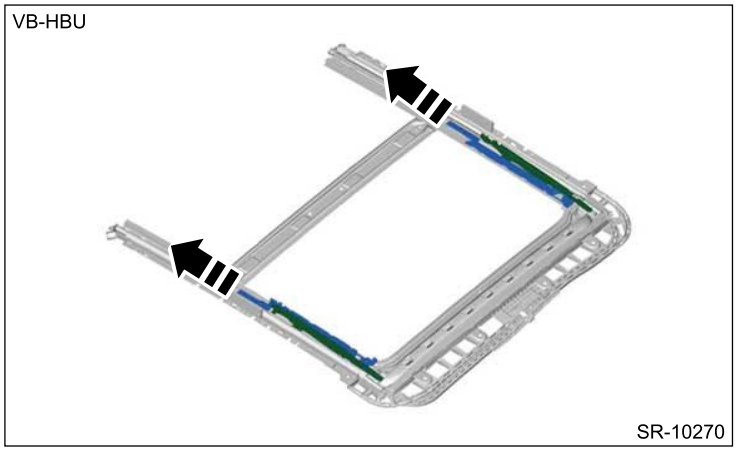
SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Assembly

DISASSEMBLY

1. Remove the motor assembly. Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)>Sunroof Motor>REMOVAL.
2. Remove the shade assembly. Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)>Sunshade>REMOVAL.
3. Remove the drain plate.
   (1) Release the claws on the front side.
   (2) Slide the drain plate and remove it from the rail section.



4. Remove the cable assembly and the link drain.



SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF) > Sunroof Assembly

ASSEMBLY

1. Install the link drain and the cable assembly.
2. Install the drain plate.
3. Install the shade assembly. Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)>Sunshade>INSTALLATION.
4. Install the motor assembly. Ref. to SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)>Sunroof Motor>INSTALLATION.

EXTERIOR/INTERIOR TRIM

1. General Description
2. Front Under Cover
3. Mud Guard
4. Floor Under Protector
5. Fuel Tank Protector
6. Front Grille
7. Front Bumper
8. Rear Bumper
9. Cowl Panel
10. Roof Molding
11. Side Garnish & Side Spoiler
12. Trunk Lid Garnish
13. Rear Spoiler
14. Heat Shield Cover
15. Ornament
16. Door Trim
17. Instrument Panel Lower Cover
18. Glove Box
19. Centor Cluster
20. Center Console
21. Console Box
22. Instrument Panel Assembly
23. Lower Inner Trim
24. Upper Inner Trim
25. Rear Quarter Trim
26. Rear Shelf Trim
27. Trunk Room Trim
28. Sun Visor
29. Assist Grip
30. Roof Trim
31. Floor Mat

EXTERIOR/INTERIOR TRIM > General Description

CAUTION

- When performing service operation, refer to “Repair Contents” in “General Description”. Ref. to REPAIR CONTENTS>Repair Contents.
- When performing work on the sensors or modules, be careful of the following.
  - Before disconnecting electrical connectors, be sure to disconnect the ground terminal from the battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
  - Do not apply any impact. If the parts are accidentally dropped, replace with a new part.
  - Do not expose to high-temperature and humidity.
- When replacing the parts provided with memory functions, record the memory contents before disconnecting the ground terminal from the battery sensor.
- Refer to “CAUTION” of “General Description” in “AIRBAG SYSTEM” section. Ref. to AIRBAG SYSTEM>General Description>CAUTION.

EXTERIOR/INTERIOR TRIM > General Description

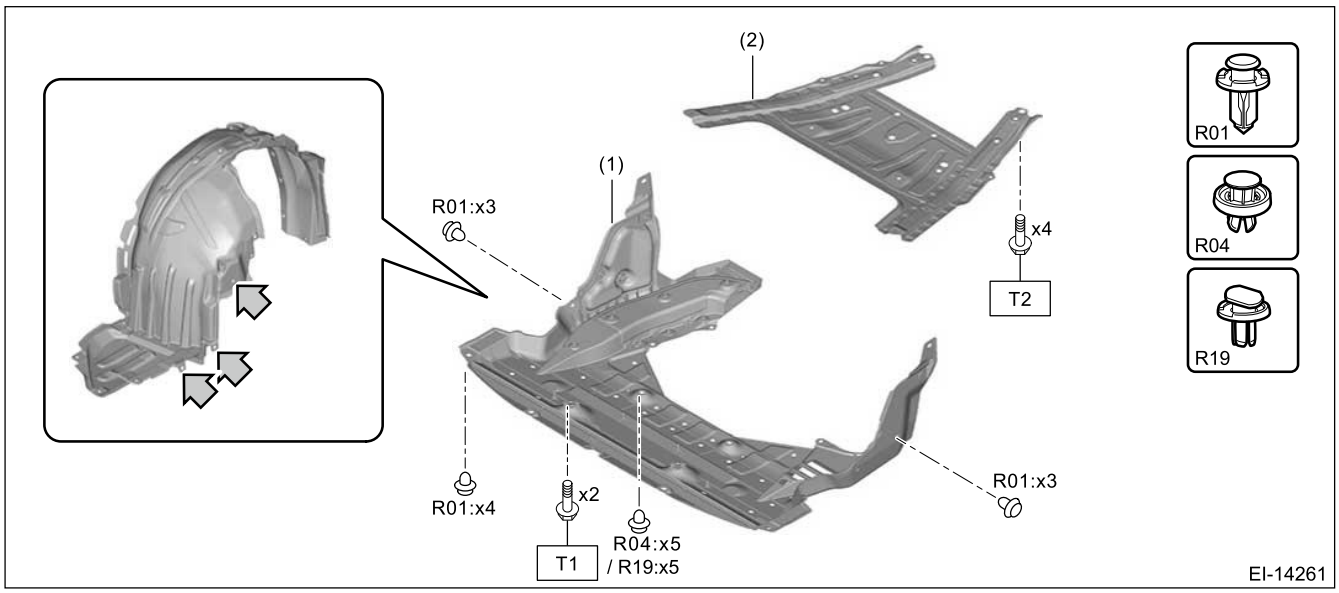
COMPONENT

Note:

- **The alphabet mark beside the clips in the figure indicates the colors of the clips.**
- **The clips with the same shape may have different engaging forces depending on their colors. Always use the specified parts when installing.**
- **Refer to the following for the alphabets of color codes.**

Color code	Color	Color code	Color	Color code	Color
B	Black	R	Red	Br	Brown
G	Green	V	Violet	Gr	Gray
L	Blue	W	White	Lg	Light green
Or	Orange	Y	Yellow	Sb	Light blue
P	Pink	Be	Beige	C	Cyan

1. FRONT UNDER COVER



(1) Under cover front

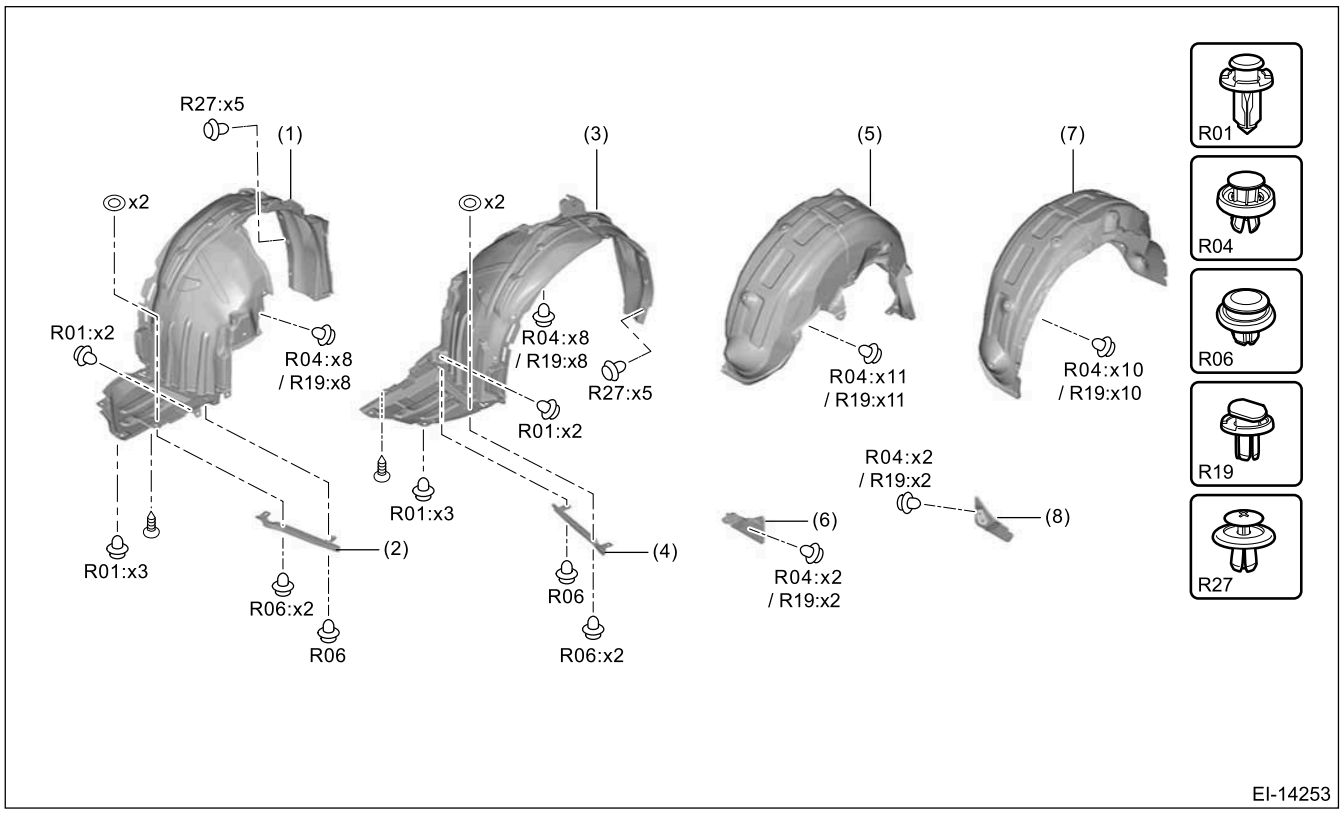
(2) Under guard front

Tightening torque: N·m (kgf-m, ft-lb)

T1: 18 (1.8, 13.3)

T2: 25 (2.5, 18.4)

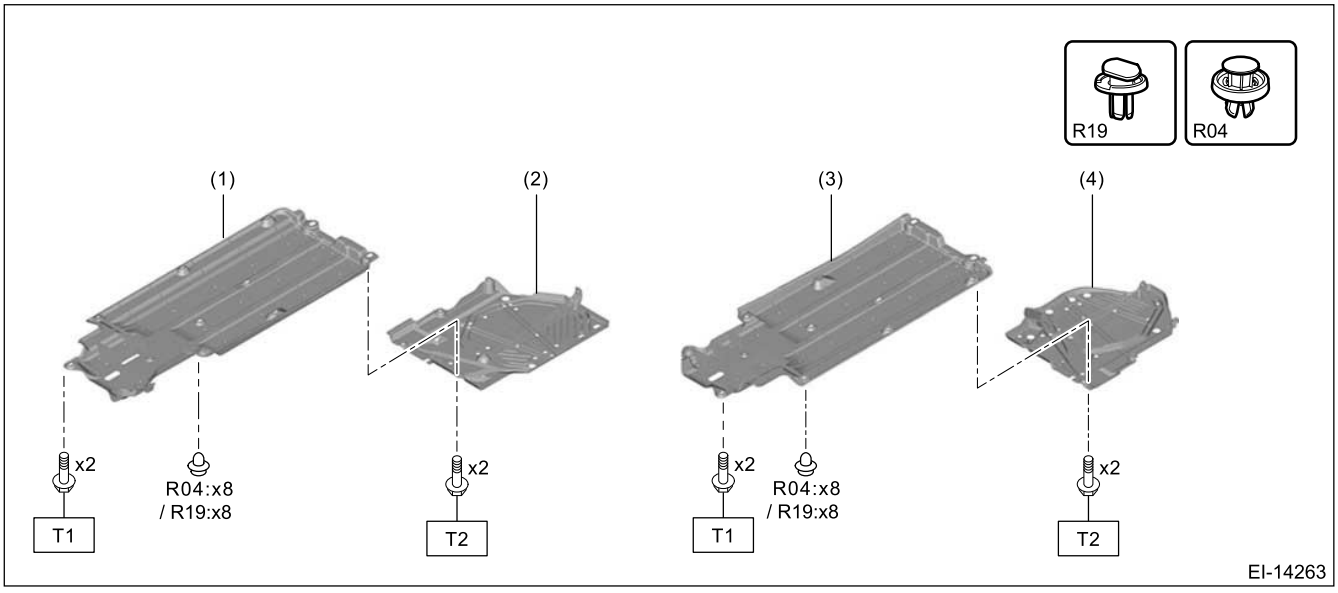
2. MUD GUARD



(1) Mud guard front RH
(2) Plate air flap front RH
(3) Mud guard front LH
(4) Plate air flap front LH
(5) Mud guard rear RH
(6) Plate air flap rear RH
(7) Mud guard rear LH
(8) Plate air flap rear LH

3. FLOOR UNDER PROTECTOR

- **BASE GRADE**

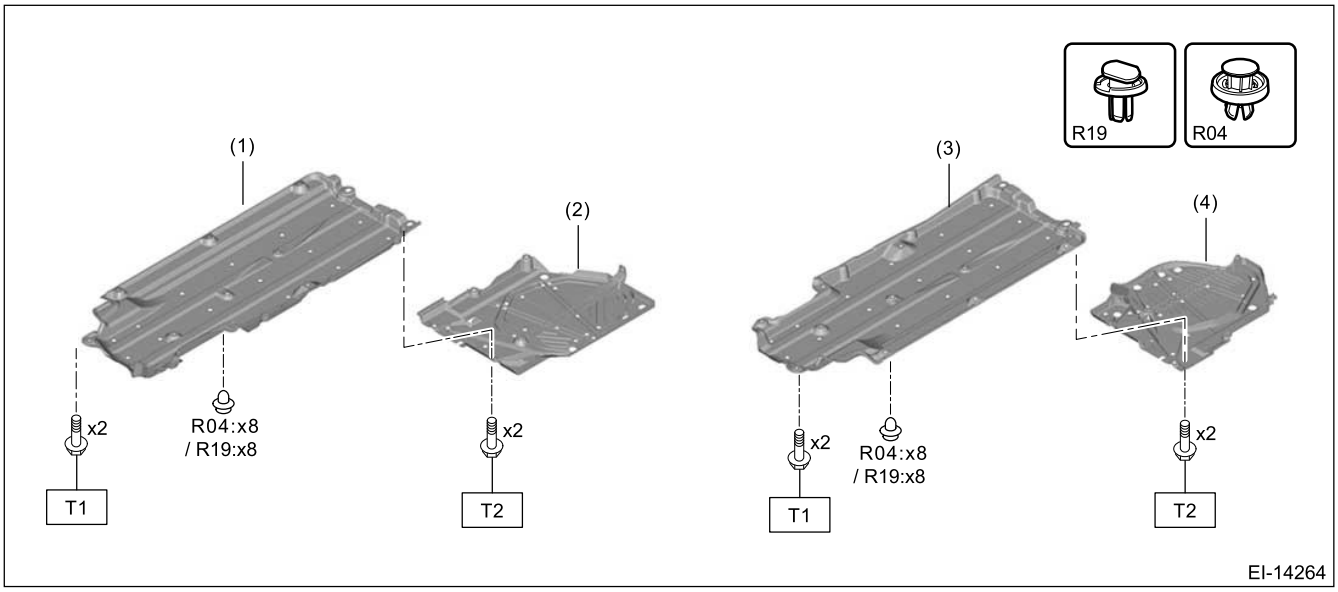


(1) Under cover rear RH
(3) Under cover rear LH

Tightening torque: N·m (kgf-m, ft-lb)

(2) Fuel tank protector RH (4) Fuel tank protector LH ***T1: 7.5 (0.8, 5.5)***
T2: 18 (1.8, 13.3)

- **OTHER THAN BASE GRADE**

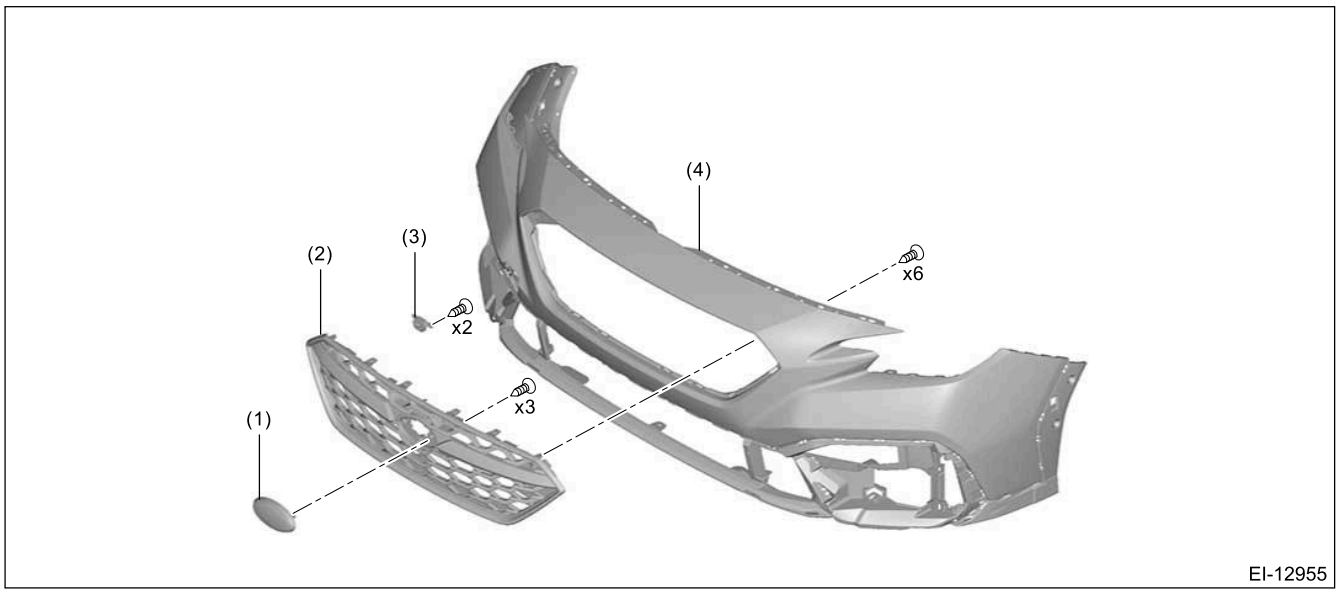


(1) Under cover rear RH (3) Under cover rear LH ***Tightening torque: N·m (kgf-m, ft-lb)***

(2) Fuel tank protector RH (4) Fuel tank protector LH ***T1: 7.5 (0.8, 5.5)***
T2: 18 (1.8, 13.3)

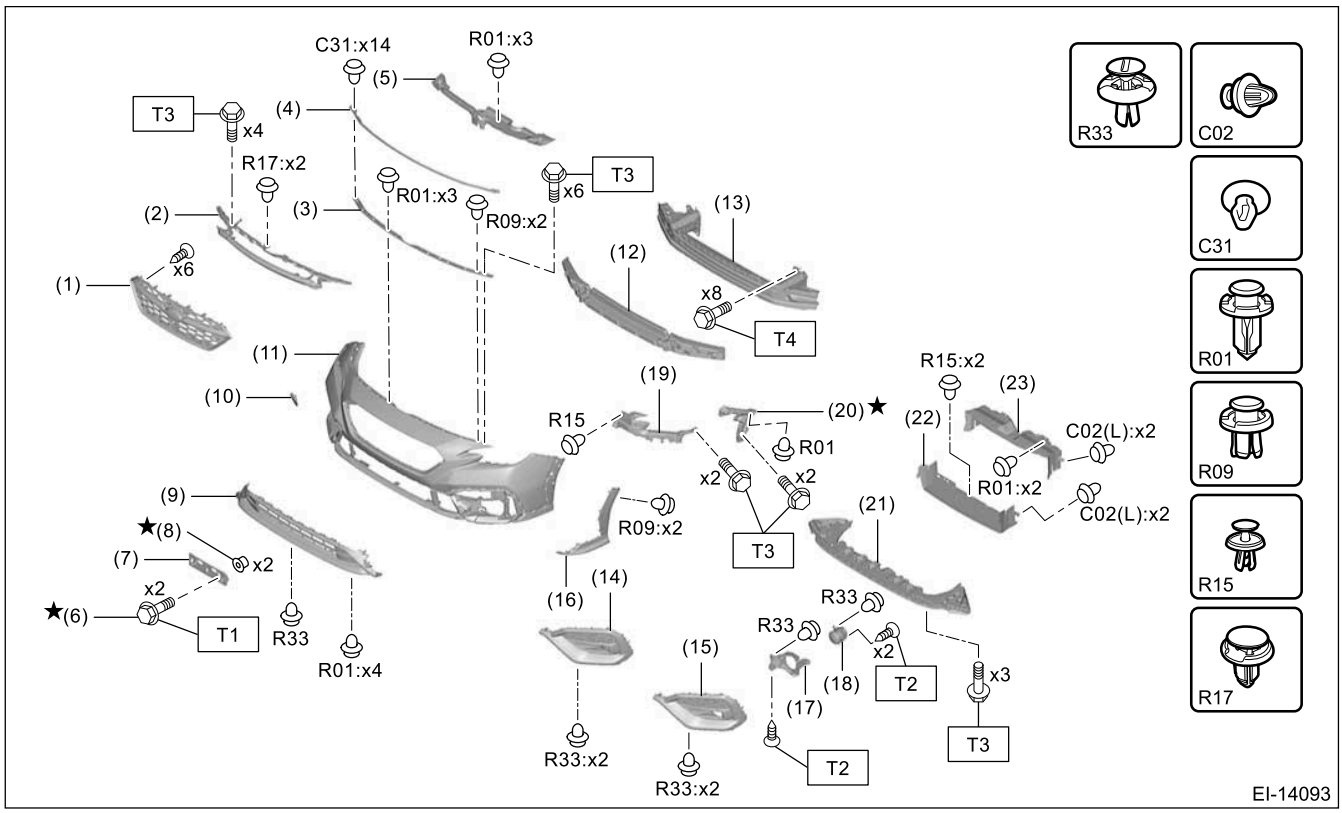
Note:
For the components of the fuel tank protector, refer to "FUEL TANK" of "FUEL INJECTION" section. Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DOTC)>General Description>COMPONENT.

4. FRONT GRILLE



(1) Ornament front
(2) Base front grille
(3) Cover front grille
(4) Bumper face front

5. FRONT BUMPER

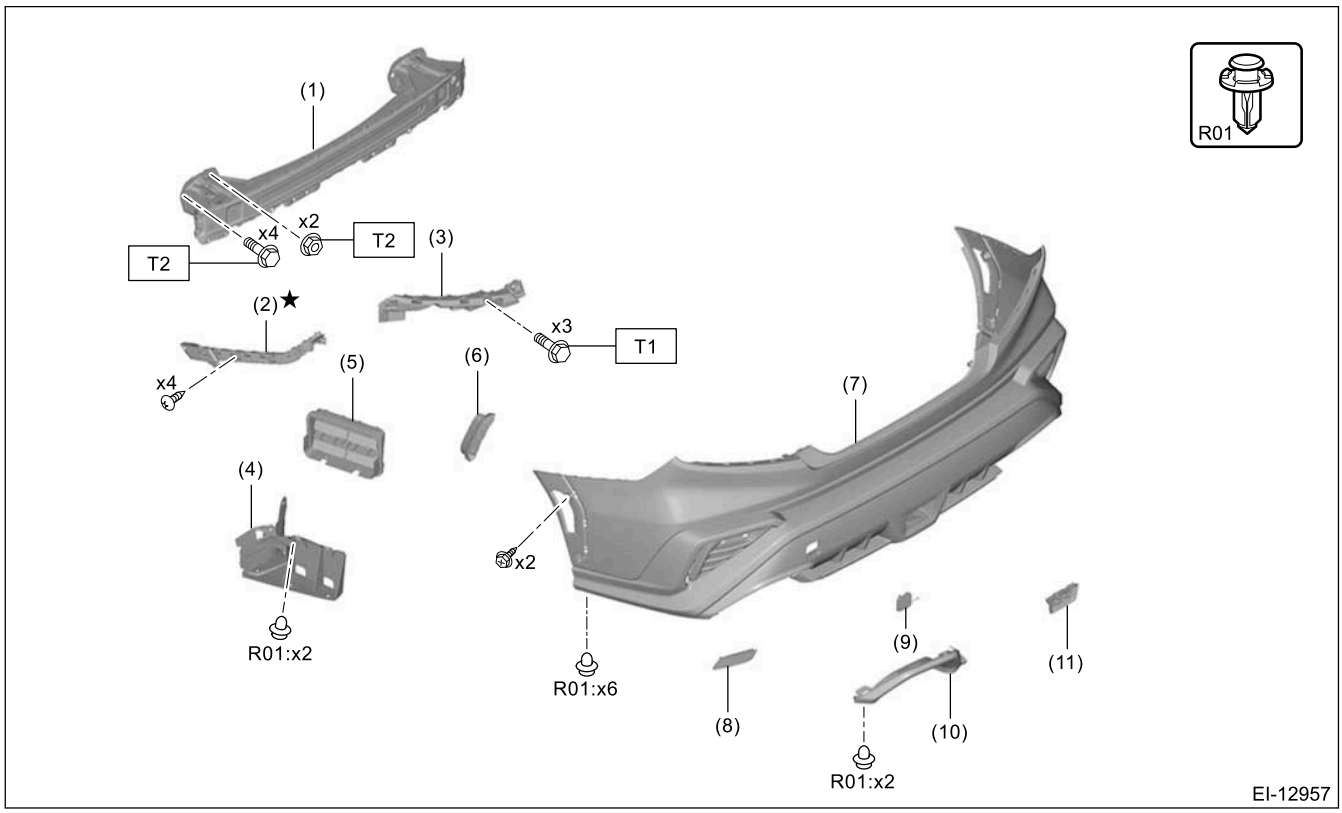


(1) Front grille ASSY
(2) Energy absorber plate UPR
(3) Plate UPR front
(4) Sealing bumper front
(5) Cover UPR front
(6) Bolt
(7) Base license plate
(8) Well nut
(9) Cover intake front
(10) Cover hook front
(11) Bumper face front
(12) Energy absorber foam front
(13) Beam COMPL front
(14) Cover fog front LH (model without fog light)
(15) Cover fog front LH (model with fog light)
(16) Arch garnish front LH
(17) Bracket fog light
(18) Fog light ASSY front LH
(19) Bracket corner front LH
(20) Bracket side front LH
(21) Bracket center front LWR
(22) Air guide LWR
(23) Air guide UPR

Tightening torque: N·m (kgf-m, ft-lb)

T1: 1 (0.1, 0.7)
T2: 2 (0.2, 1.5)
T3: 7.5 (0.8, 5.5)
T4: 32 (3.3, 23.6)

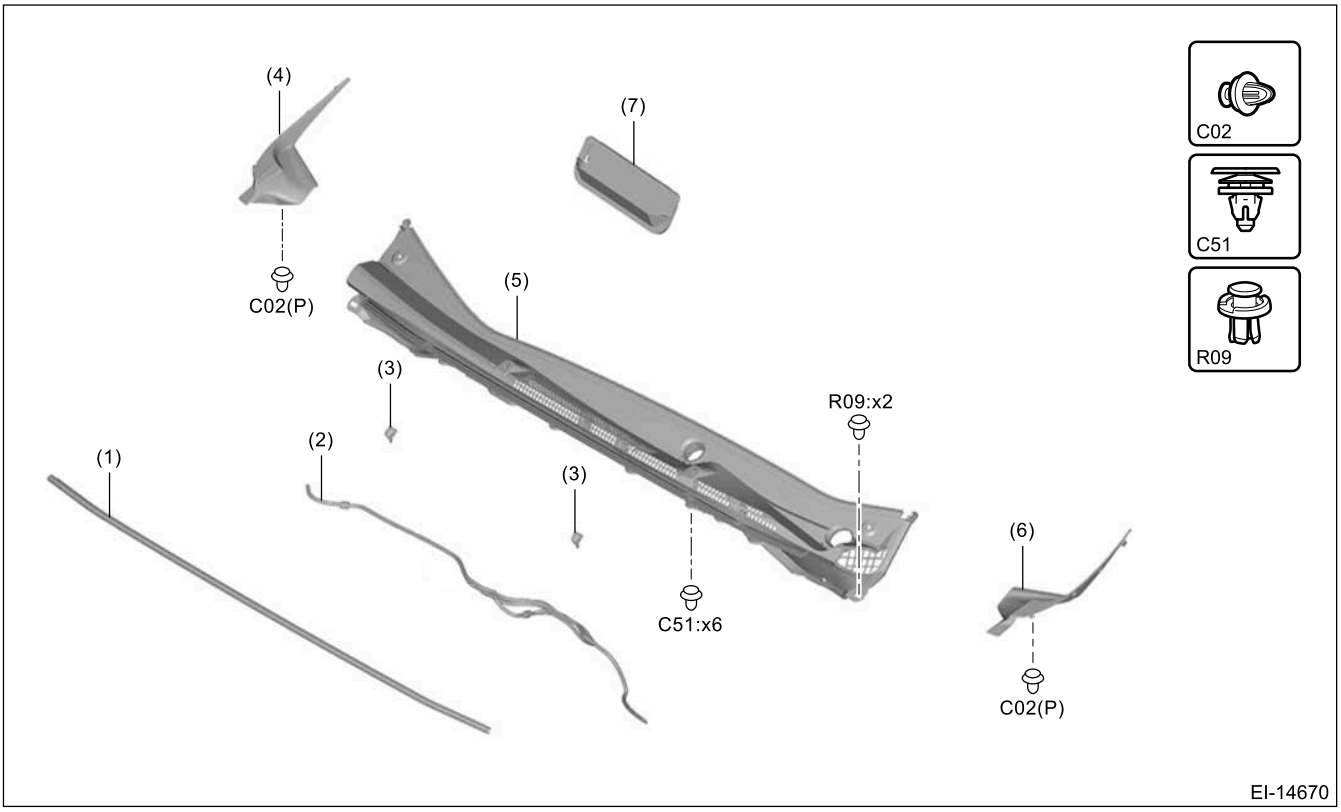
6. REAR BUMPER



(1)	Bumper beam COMPL rear	(7)	Bumper face rear	***Tightening torque: N·m (kgf-m, ft-lb)***	
(2)	Bracket side rear LH	(8)	Reflex reflector LH	***T1: 7.5 (0.8, 5.5)***	
(3)	Bracket corner rear LH	(9)	Cover hook rear	***T2: 70 (7.1, 51.6)***	
(4)	Cover side LWR LH	(10)	Cover muffler LH		
(5)	Grille air ventilation LH	(11)	Cover fog rear		
(6)	Cover duct LH				

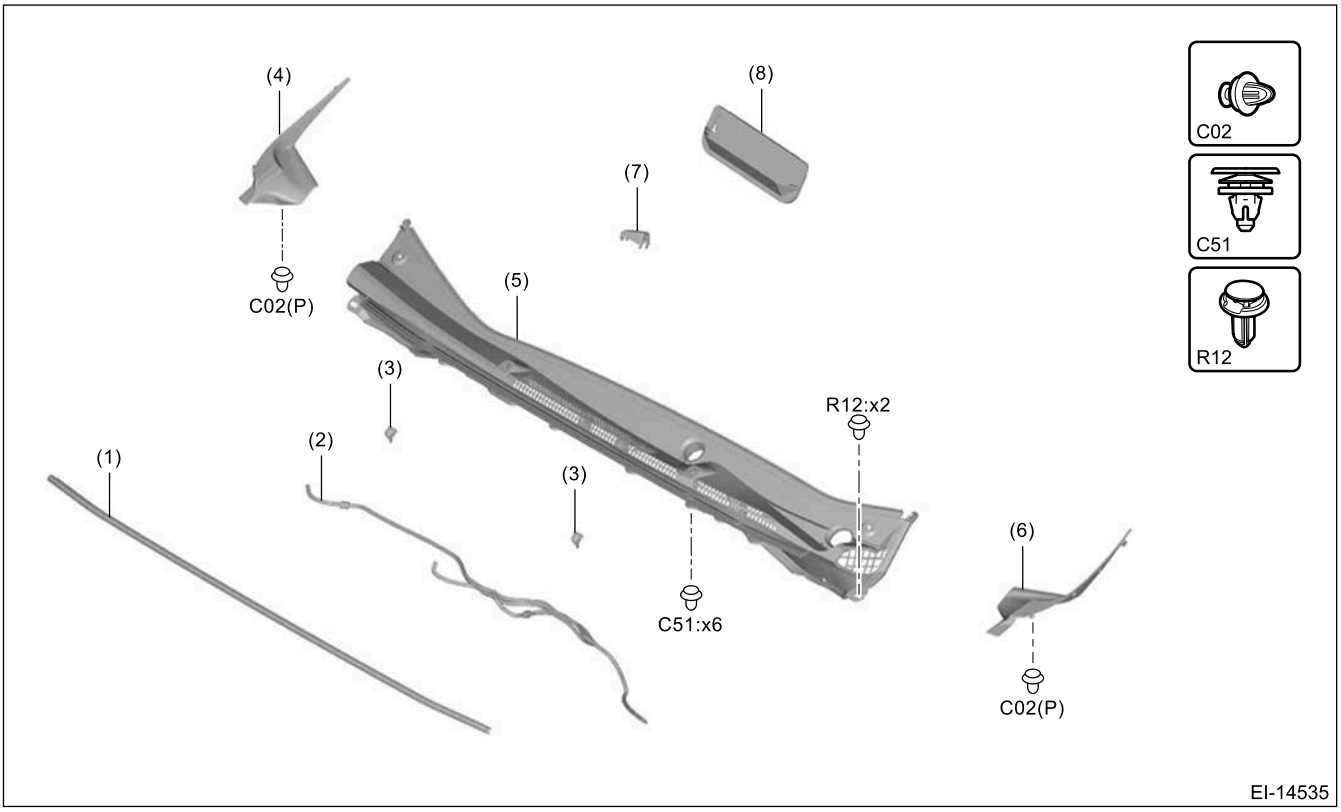
7. COWL PANEL

- **WIPER MODEL WITHOUT NOZZLE**



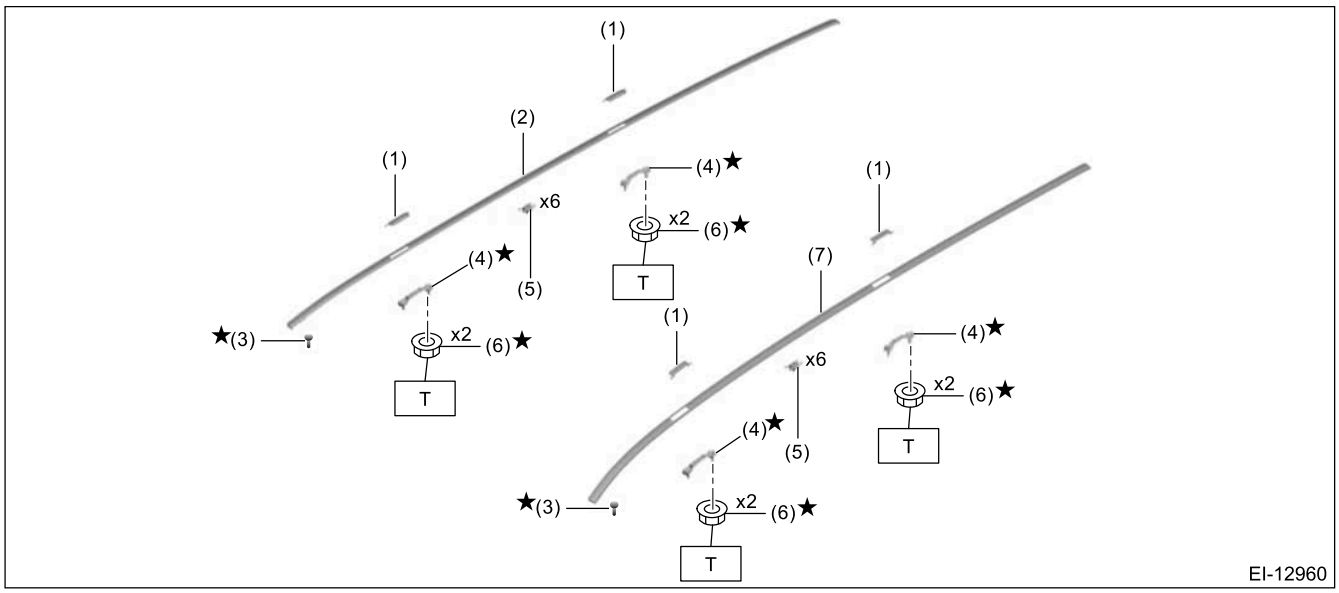
(1) Seal cowl panel
(2) Hose ASSY windshield washer
(3) Nozzle windshield washer
(4) Cowl panel side RH
(5) Cowl panel
(6) Cowl panel side LH
(7) Protector blower

- **WIPER MODEL WITH NOZZLE**



(1) Seal cowl panel
(2) Hose ASSY windshield washer
(3) Nozzle windshield washer
(4) Cowl panel side RH
(5) Cowl panel
(6) Cowl panel side LH
(7) Cover joint
(8) Protector blower

8. ROOF MOLDING



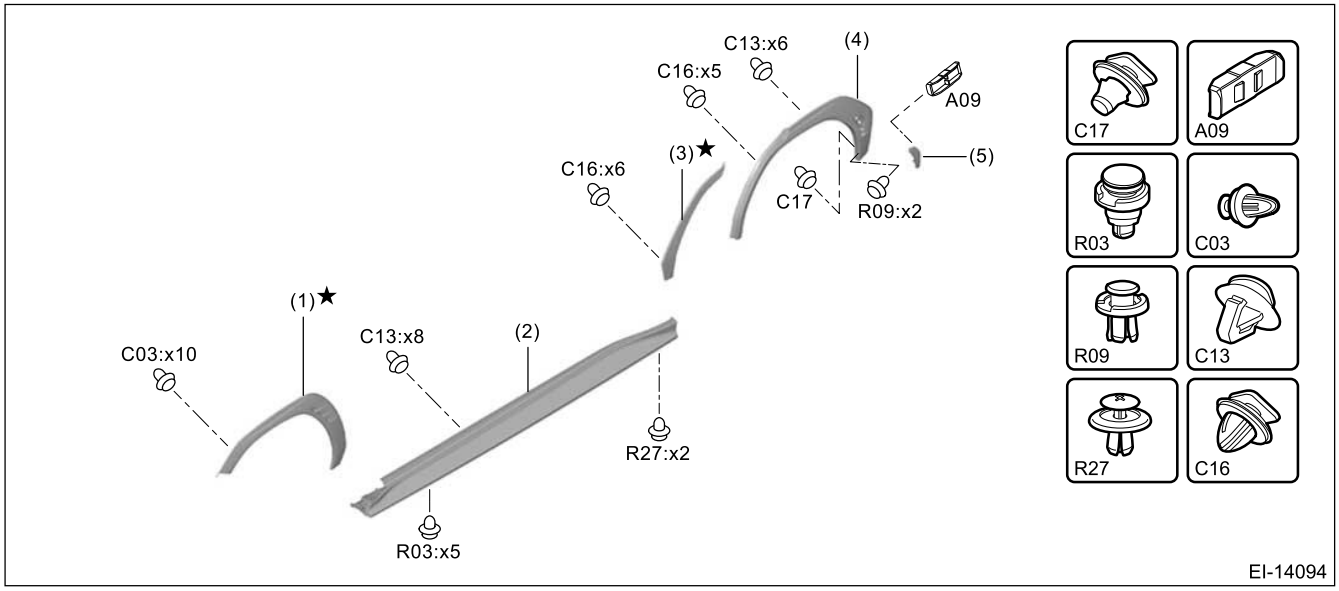
(1) Cap lid
(2) Molding roof RH
(3) Rivet
(4) Carrier BRKT
(5) Fastener
(6) Self-locking nut
(7) Molding roof LH

Tightening torque: N·m (kgf-m, ft-lb)

T: 7.5 (0.8, 5.5)

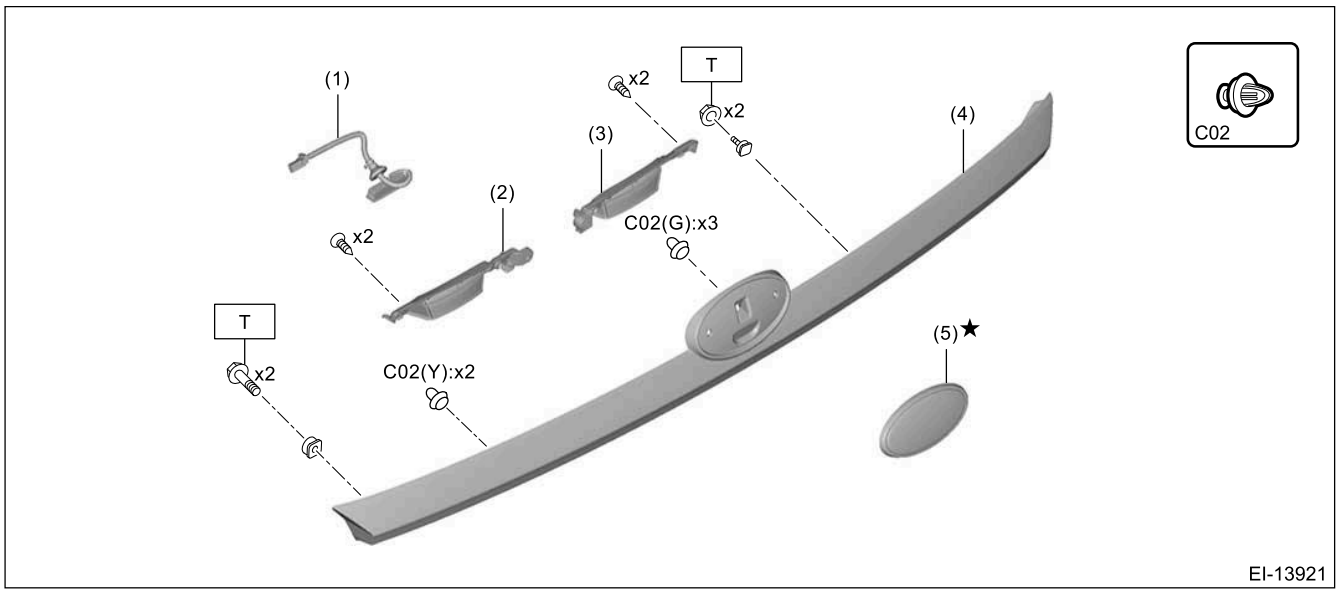
Note:
If the cap lid is damaged, replace the molding roof as a unit.

9. SIDE GARNISH & SIDE SPOILER



(1) Garnish ASSY fender
(2) Spoiler ASSY side sill
(3) Garnish ASSY rear door
(4) Garnish ASSY rear quarter
(5) Rear side reflex reflector

10. TRUNK LID GARNISH

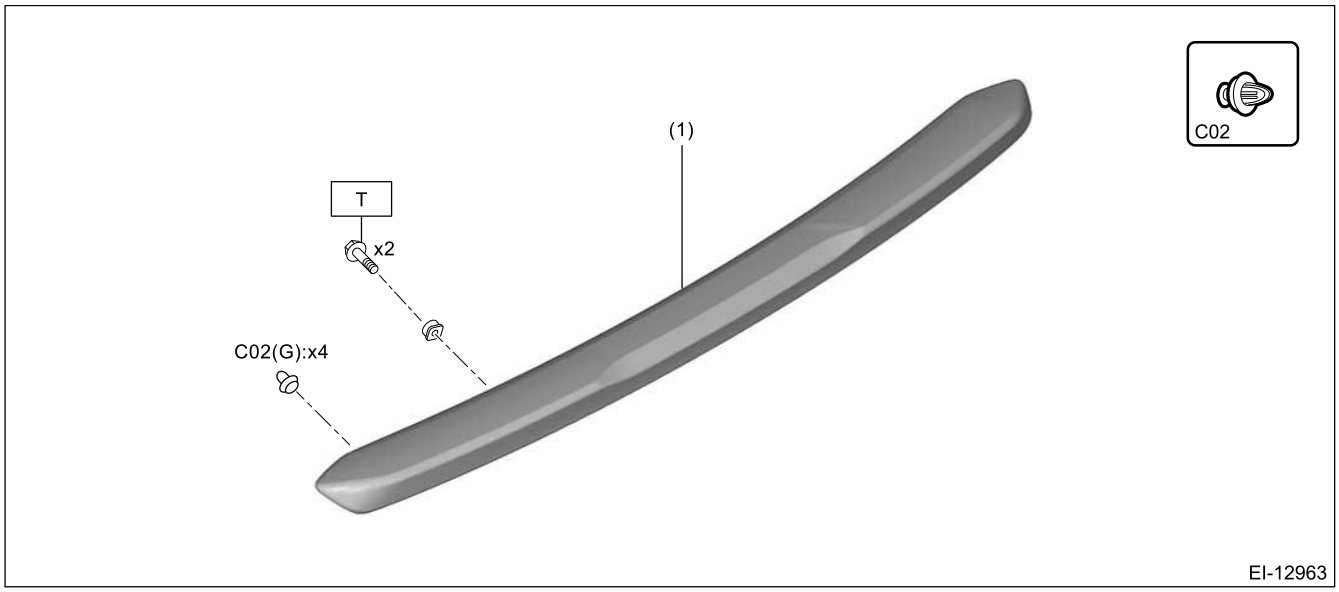


(1) Trunk opener button
(2) Garnish INN cover LH
(3) Garnish INN cover RH
(4) Garnish ASSY trunk
(5) Ornament rear

Tightening torque: N·m (kgf-m, ft-lb)

T: 4.5 (0.5, 3.3)

11. REAR SPOILER

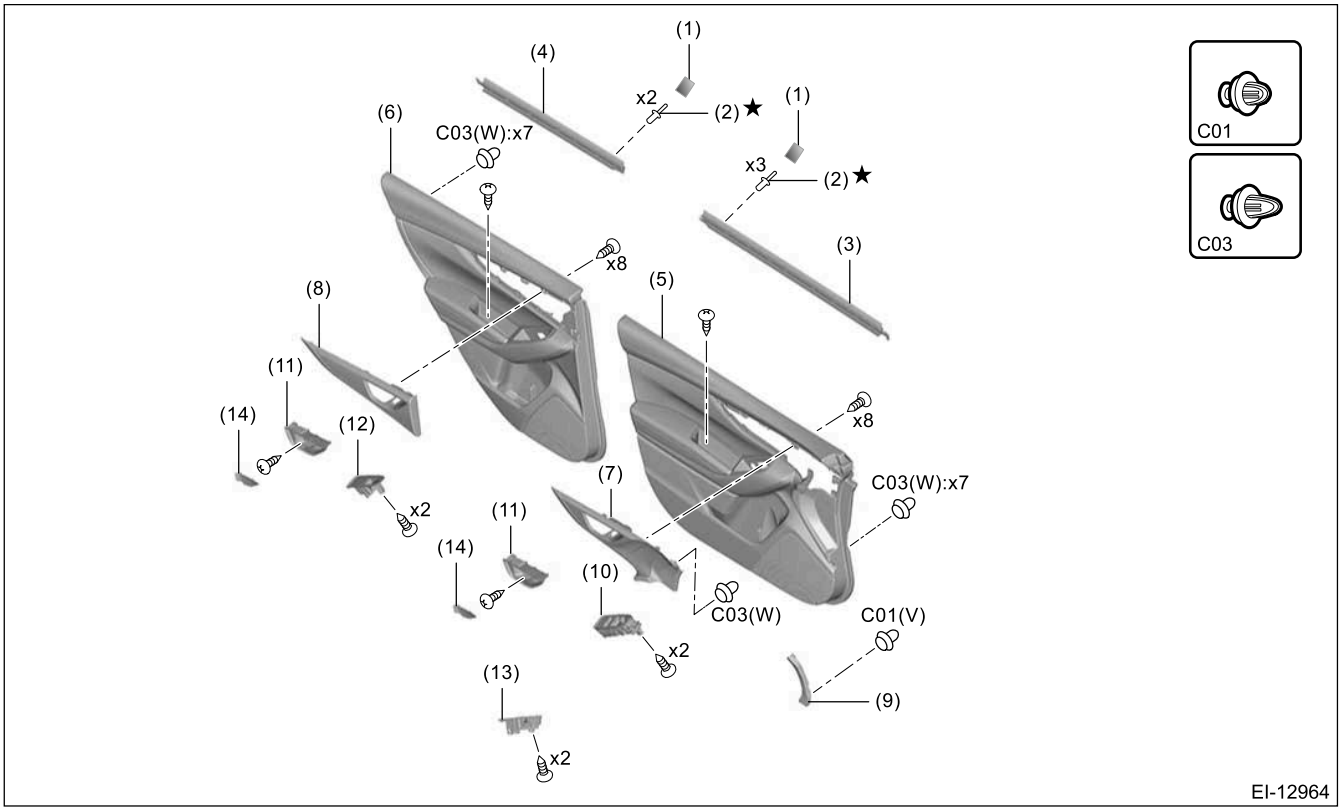


(1) Spoiler ASSY rear

Tightening torque: N·m (kgf-m, ft-lb)

T1: 4.5 (0.5, 3.3)

12. DOOR TRIM



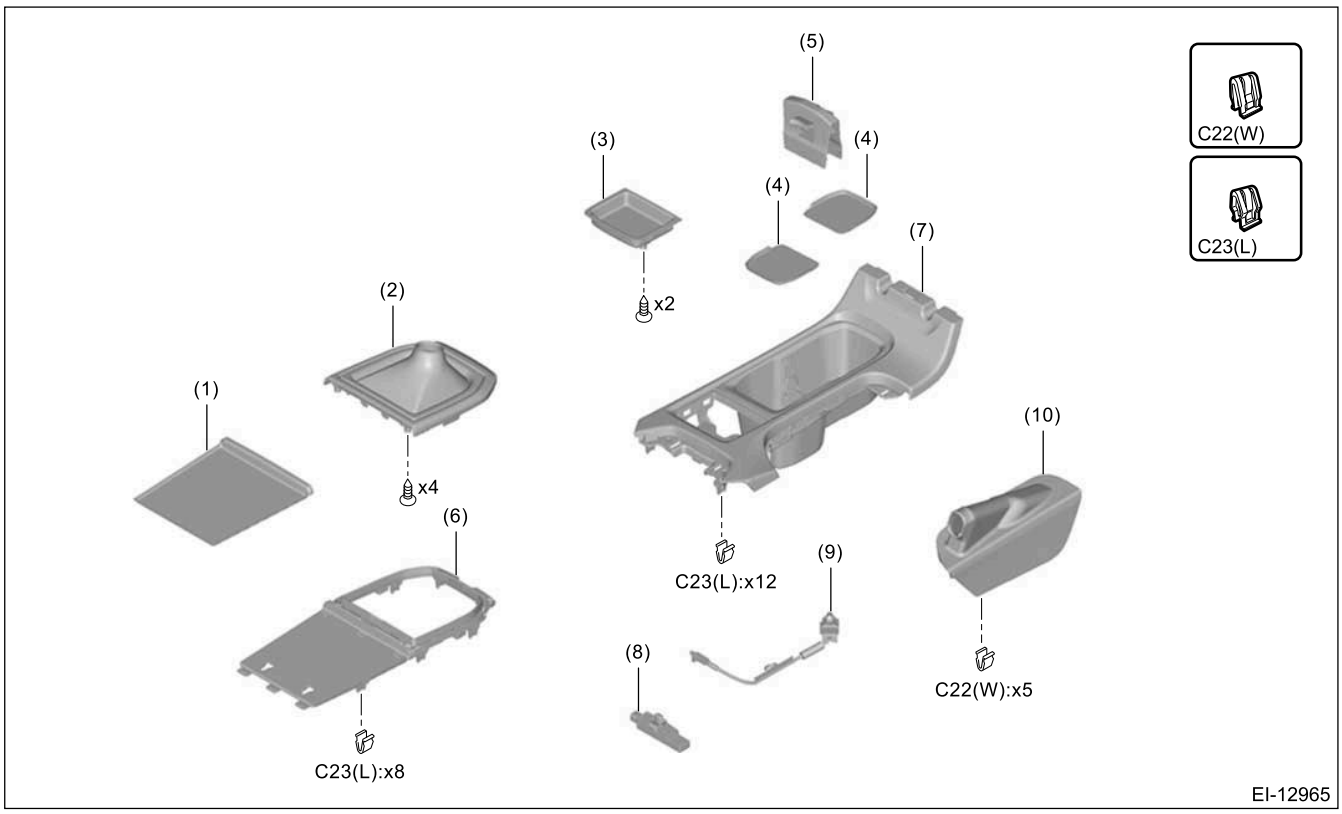
(1)	Unwoven cloth tape	(6)	Trim panel rear door	(11)	Remote ASSY door
(2)	Rivet	(7)	Panel ornament front	(12)	Switch power window sub rear
(3)	Weather strip inner door front	(8)	Panel ornament rear	(13)	Switch power window sub front
(4)	Weather strip inner door rear	(9)	Cover sash inner front	(14)	Cap remote
(5)	Trim panel front door	(10)	Switch power window main		

Note:

For instructions on how to attach the unwoven cloth tape, refer to "Door Trim". Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>ASSEMBLY.

13. CONSOLE BOX

- **CONSOLE FRONT**
  - MT model

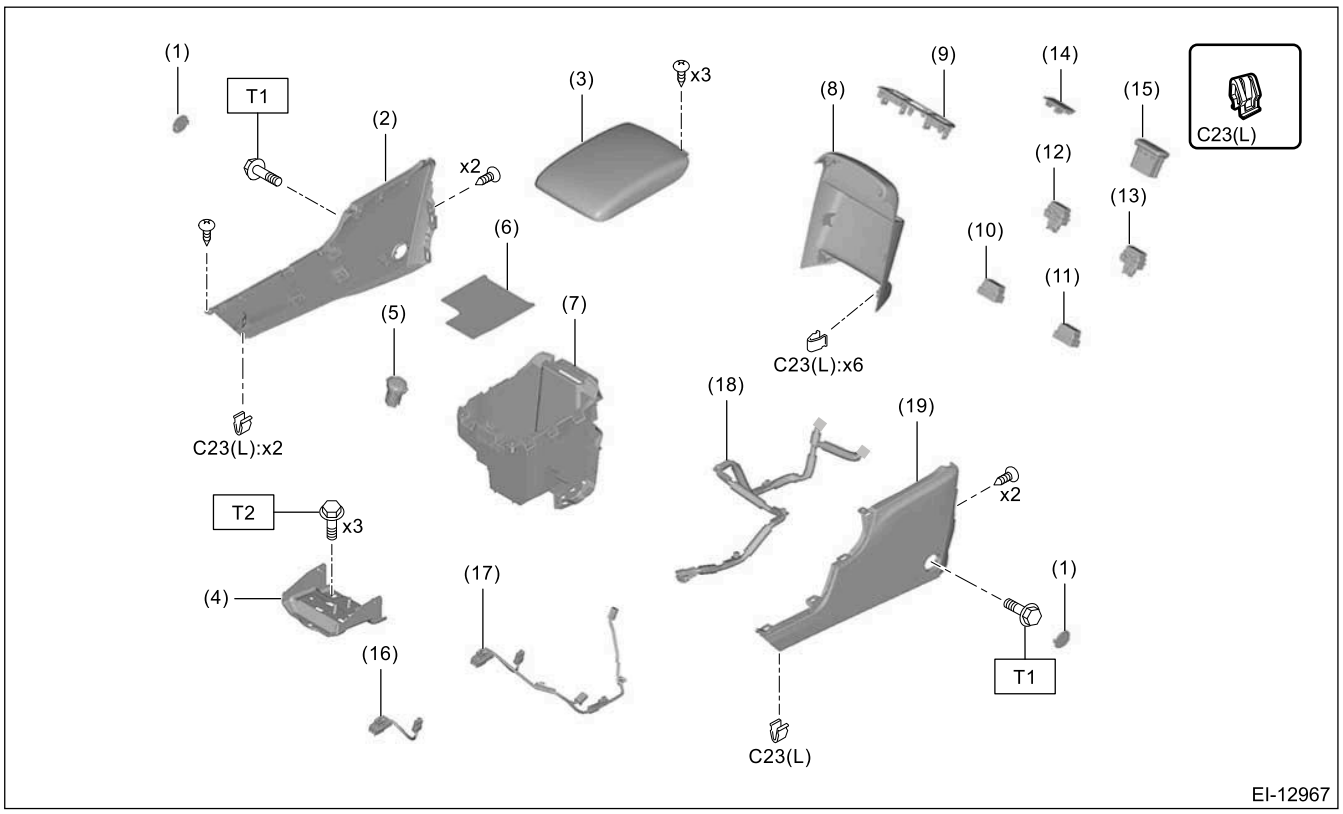


(1) Mat center tray
(2) Shift boot
(3) Tray cover front
(4) Mat cup holder
(5) Cup holder partition
(6) Tray center LWR
(7) Cover ASSY front
(8) Front antenna ASSY interior
(9) Cord ASSY front antenna
(10) Boot ASSY parking brake

– CVT model

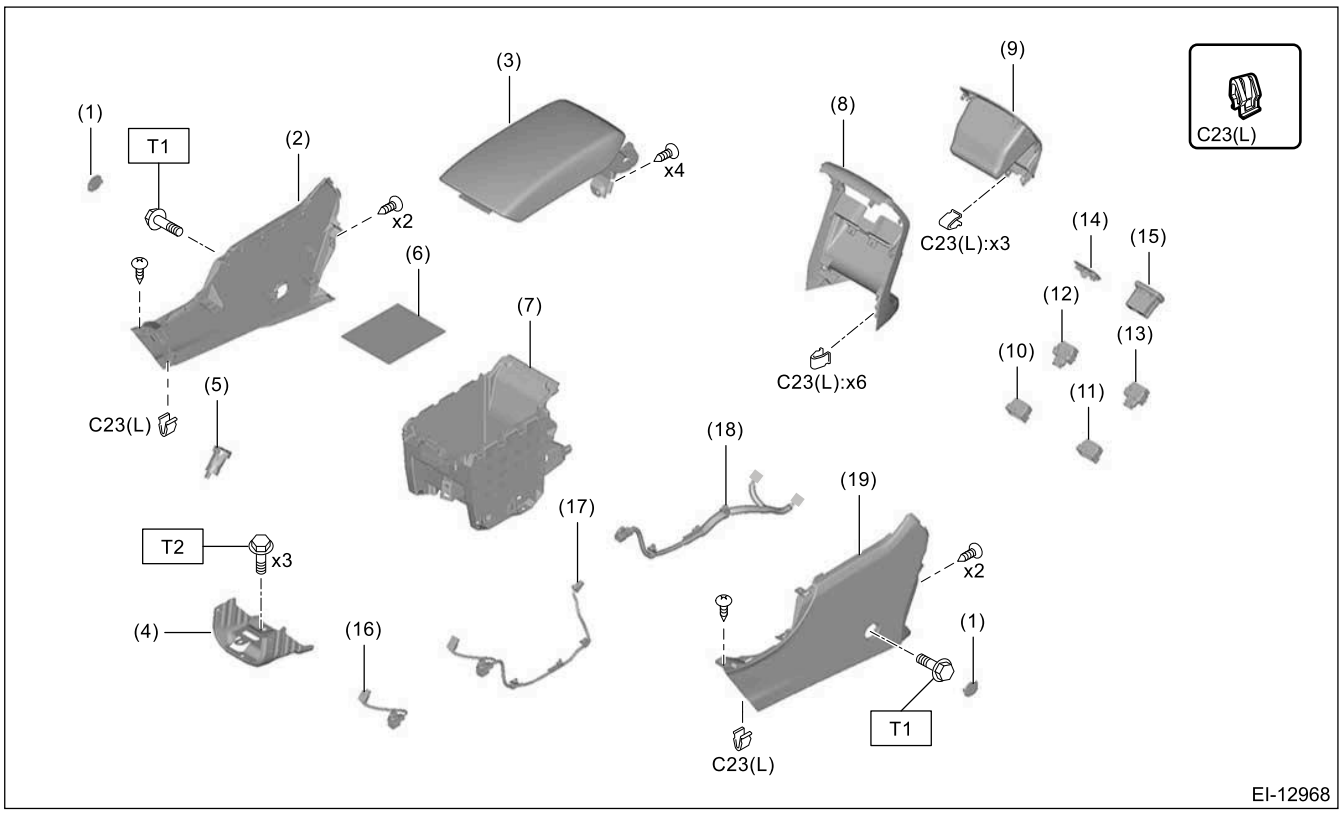
(1) Ornament cover front RH
(2) Cover front panel UPR
(3) Boot
(4) Cover front panel Rr
(5) Mat cover front
(6) Tray center LWR
(7) Mat center tray
(8) Cover front panel LWR
(9) Front antenna ASSY interior
(10) Cap
(11) Indicator
(12) Switch ASSY EPB
(13) Cord ASSY console
(14) Ornament cover front LH
(15) Cup holder
(16) Cup holder partition

- **CONSOLE REAR**
  - MT model



(1)	Cap console	(11)	Cover rear seat heater LH (model without rear seat heater)	***Tightening torque: N·m (kgf-m, ft-lb)***
(2)	Console box LWR RH	(12)	Switch ASSY rear seat heater RH	***T1: 6.5 (0.7, 4.8)***
(3)	Lid ASSY console	(13)	Switch ASSY rear seat heater LH	***T2: 18 (1.8, 13.3)***
(4)	Bracket console COMPL	(14)	Cap AUX unit	
(5)	Socket ASSY	(15)	AUX unit ASSY power	
(6)	Mat pocket console	(16)	Cord ASSY adapter	
(7)	Pocket console	(17)	Cord ASSY power	
(8)	Cover rear console ASSY	(18)	Cord ASSY rear seat heater	
(9)	Panel switch console	(19)	Console box LWR LH	
(10)	Cover rear seat heater RH (model without rear seat heater)			

– CVT model



(1) Cap console

(2) Console box LWR RH

(3) Lid ASSY console

(4) Bracket console COMPL

(5) Socket ASSY

(6) Mat pocket console

(7) Pocket console

(8) Cover rear console ASSY

(9) Panel switch console

(10) Cover rear seat heater RH (model without rear seat heater)

(11) Cover rear seat heater LH (model without rear seat heater)

(12) Switch ASSY rear seat heater RH

(13) Switch ASSY rear seat heater LH

(14) Cap AUX unit

(15) AUX unit ASSY power

(16) Cord ASSY adapter

(17) Cord ASSY power

(18) Cord ASSY rear seat heater

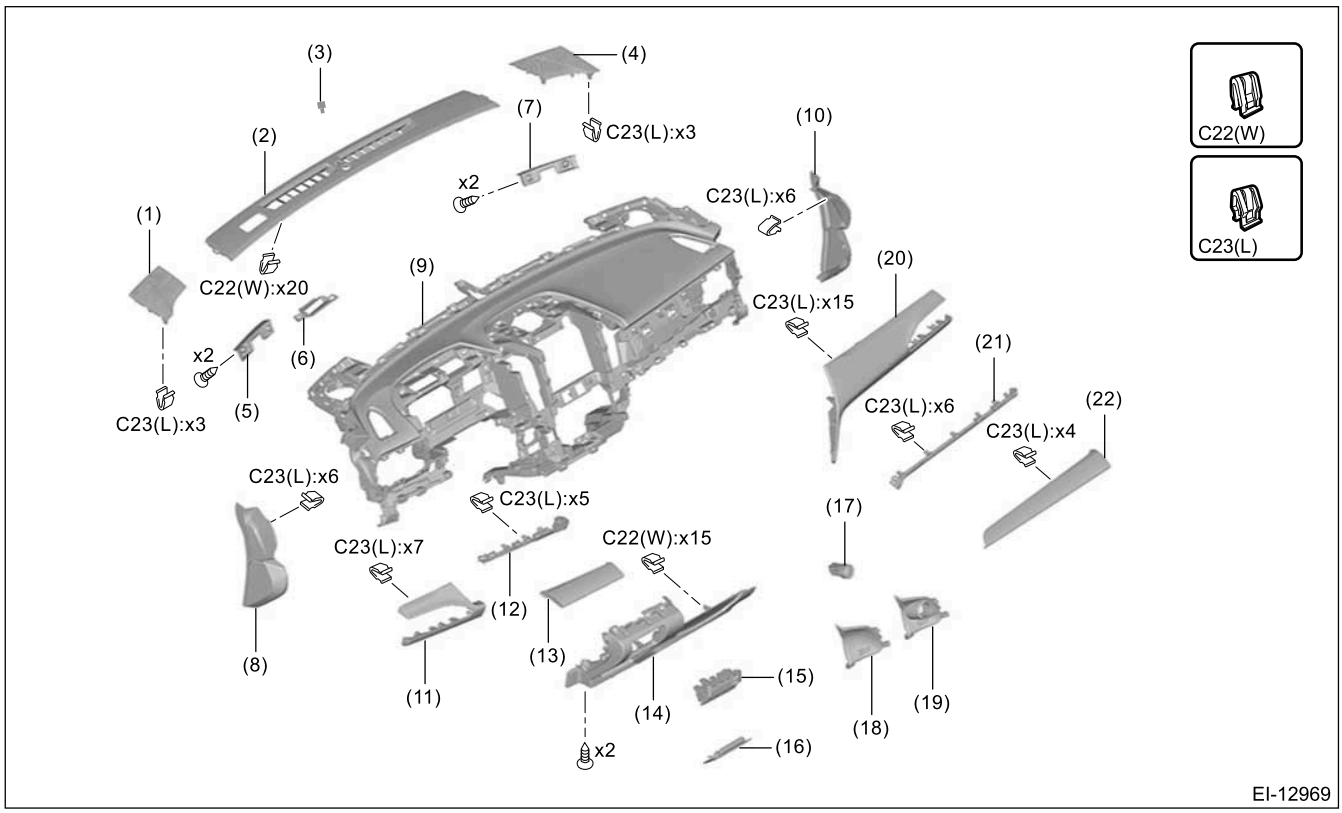
(19) Console box LWR LH

Tightening torque: N·m (kgf-m, ft-lb)

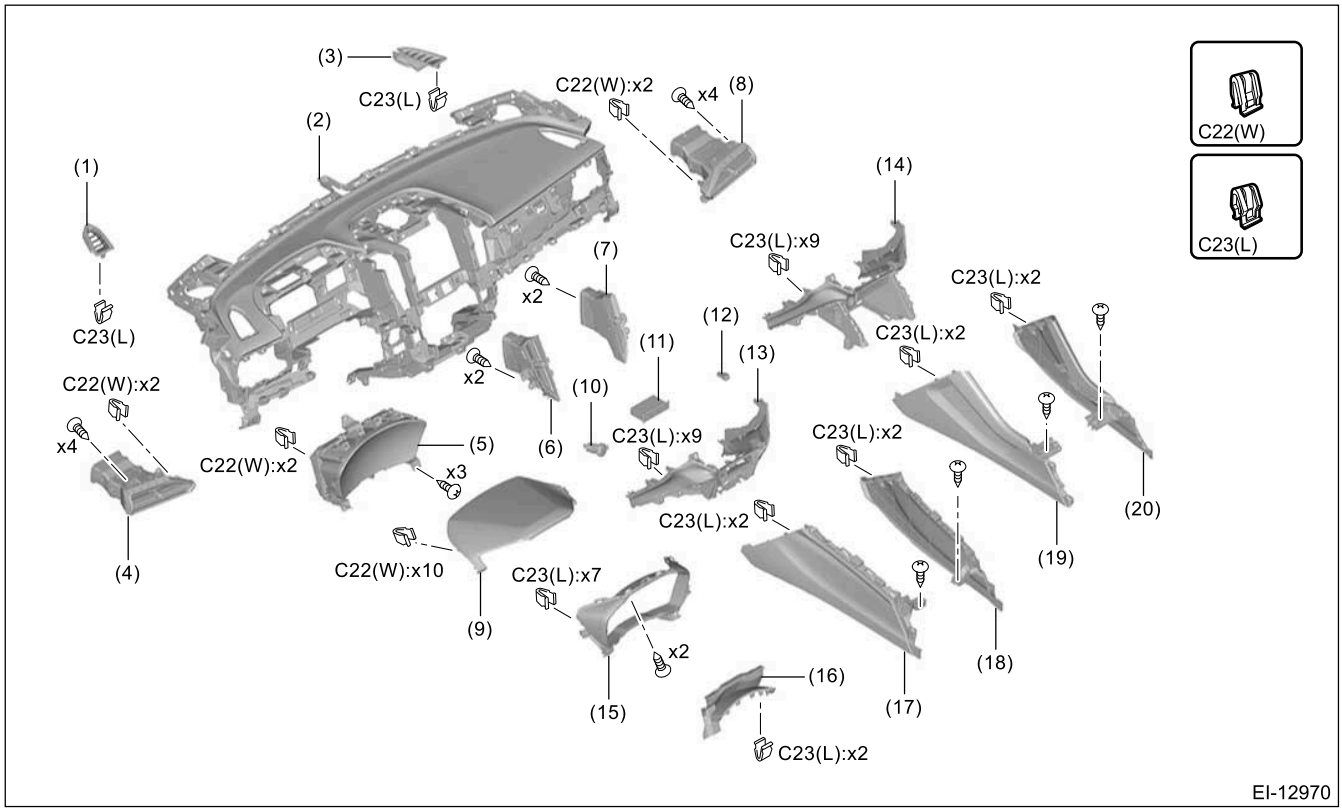
T1: 6.5 (0.7, 4.8)

T2: 18 (1.8, 13.3)

14. INSTRUMENT PANEL



(1) Grille speaker side LH
(2) Grille front defroster
(3) Sunload sensor
(4) Grille speaker side RH
(5) Nozzle front defroster side LH
(6) Cover ASSY EyeSight monitor
(7) Nozzle front defroster side RH
(8) Cover ASSY instrument panel side LH
(9) Panel COMPL instrument
(10) Cover ASSY instrument panel side RH
(11) Ornament panel mid driver
(12) Light holder driver
(13) Ornament panel driver
(14) Cover LWR driver
(15) Switch ASSY instrument panel
(16) Fuse box front lid
(17) Push button start switch
(18) Cover starter switch (model without push button ignition starter)
(19) Panel starter switch (model with push button ignition starter)
(20) Ornament panel mid passenger
(21) Light holder passenger
(22) Ornament ASSY passenger



(1) Grille defroster side LH

(2) Panel COMPL instrument

(3) Grille defroster side RH

(4) Grille ventilation side LH

(5) Combination meter ASSY

(6) Grille ventilation ASSY center LH

(7) Grille ventilation ASSY center RH

(8) Grille ventilation side RH

(9) Visor ASSY UPR

(10) Socket ASSY

(11) AUX unit ASSY

(12) Light pocket

(13) Tray center UPR (CVT model)

(14) Tray center UPR (MT model)

(15) Visor ASSY LWR

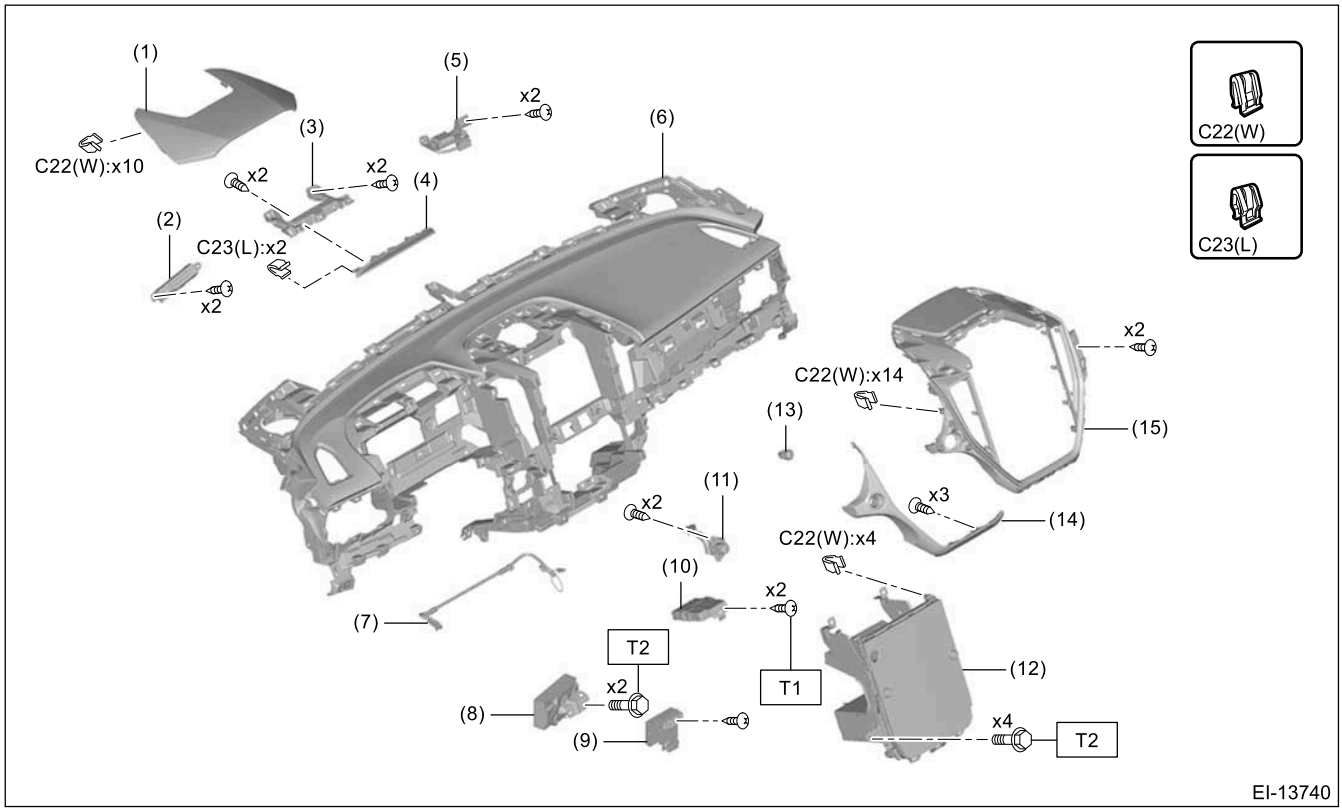
(16) Cover steering UPR

(17) Cover center side LH (CVT model)

(18) Cover center side RH (CVT model)

(19) Cover center side LH (MT model)

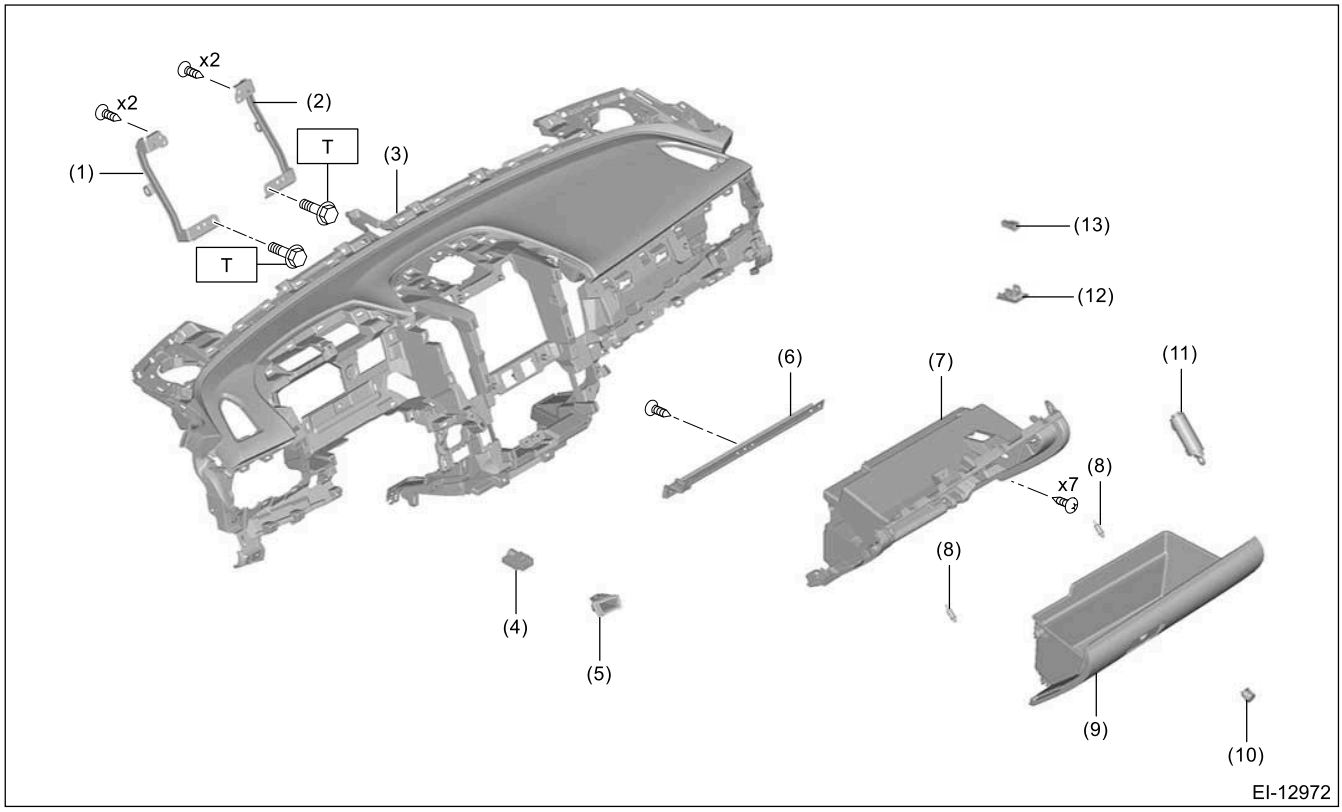
(20) Cover center side RH (MT model)



(1) Panel center UPR	(8) Backup unit ASSY	(15) Panel ASSY center
(2) EyeSight assist monitor	(9) Telematics sub antenna ASSY	
(3) Bracket driver monitor	(10) Central gateway CM	***Tightening torque: N·m (kgf-m, ft-lb)***
(4) Cover ASSY driver monitor	(11) Switch hazard	***T1: 1.8 (0.2, 1.3)***
(5) GPS antenna ASSY	(12) Center information display ASSY	***T2: 7.5 (0.8, 5.5)***
(6) Panel COMPL instrument	(13) Switch ASSY meter	
(7) Meter cord	(14) Panel center LWR	

Note:

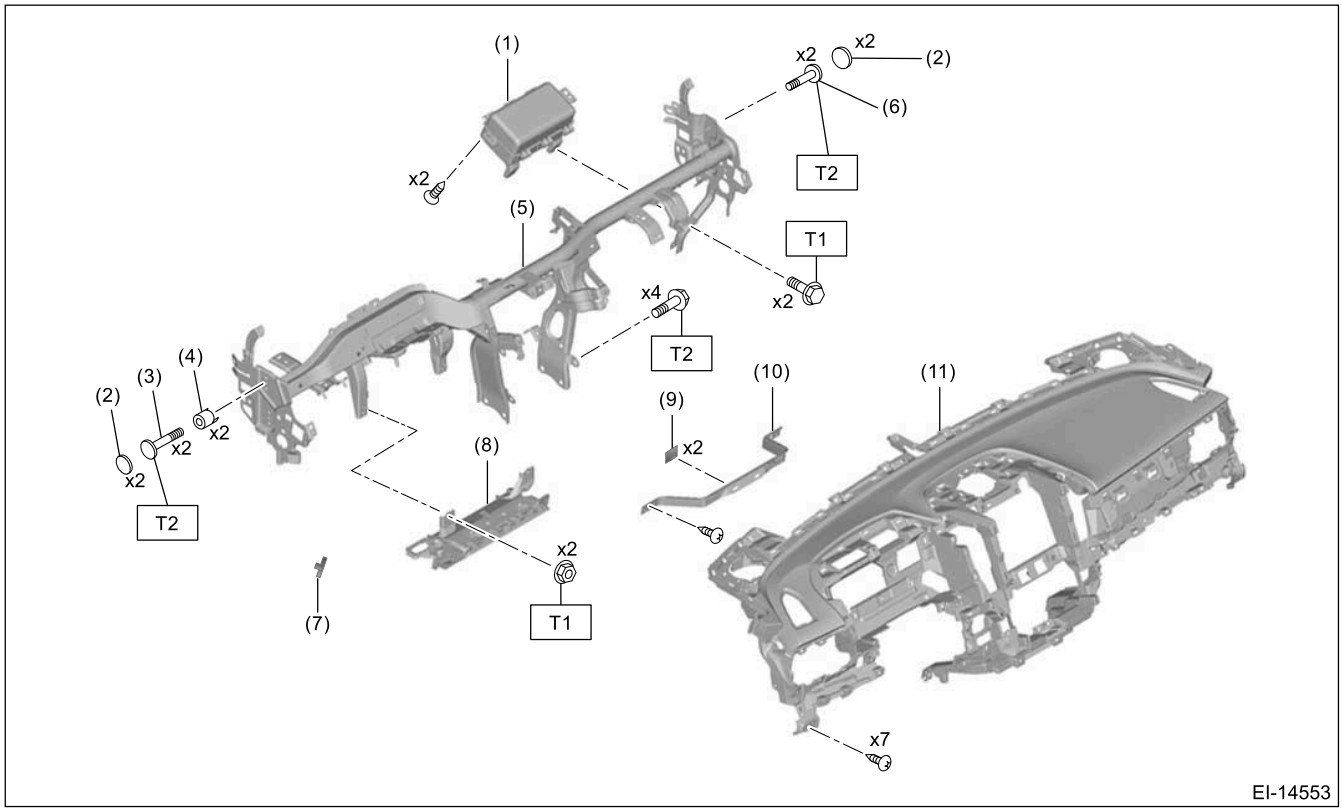
For the components of the center information display assembly, refer to "Center Information Display Assembly" in "ENTERTAINMENT & MONITORING" section. Ref. to ENTERTAINMENT & MONITORING>General Description>COMPONENT > CENTER INFORMATION DISPLAY ASSEMBLY.



(1) Bracket CTR UPR LH
(2) Bracket CTR UPR RH
(3) Panel COMPL instrument
(4) In-vehicle sensor
(5) Case sensor
(6) Reinforcement passenger
(7) Panel instrument passenger
(8) Cushion pocket
(9) Pocket COMPL
(10) Key cylinder
(11) Damper ASSY
(12) Light pocket cover
(13) Light pocket

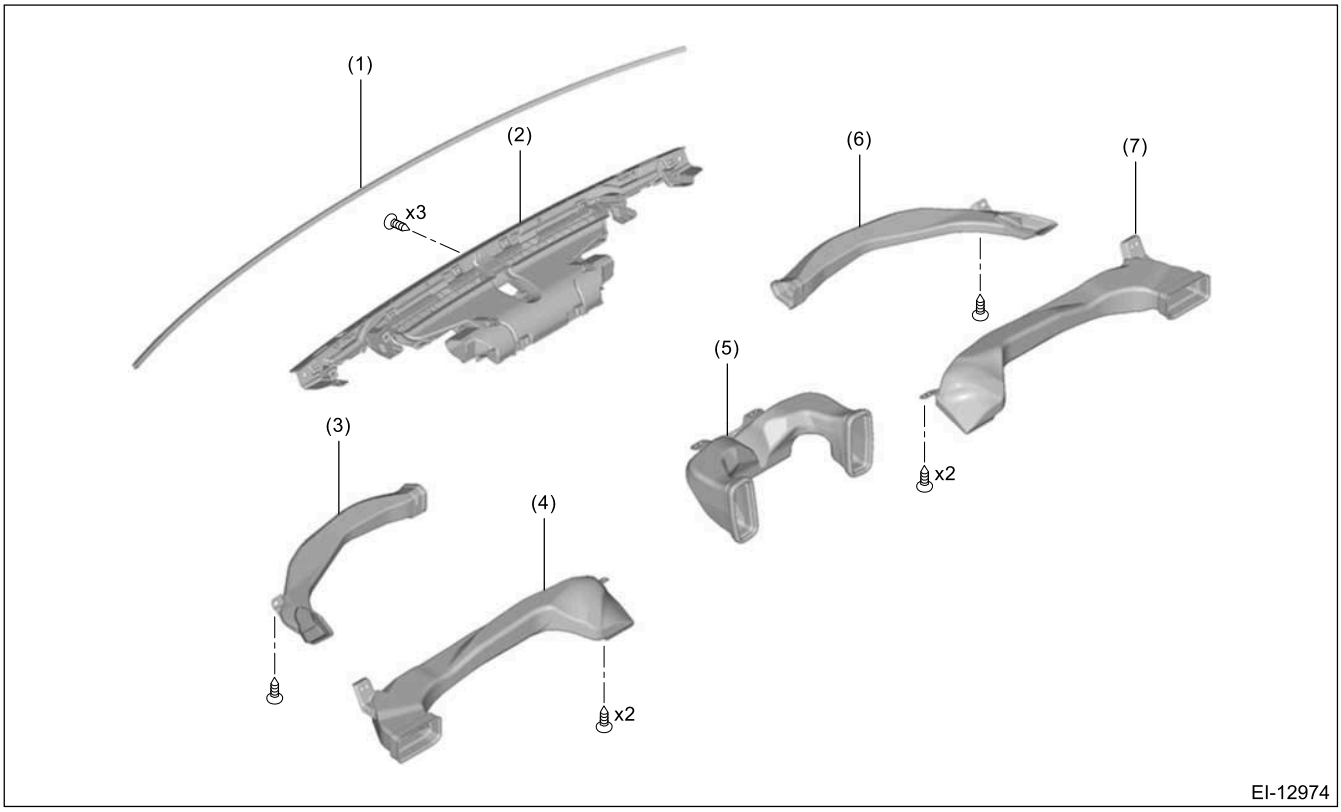
Tightening torque: N·m (kgf-m, ft-lb)

T: 7.5 (0.8, 5.5)



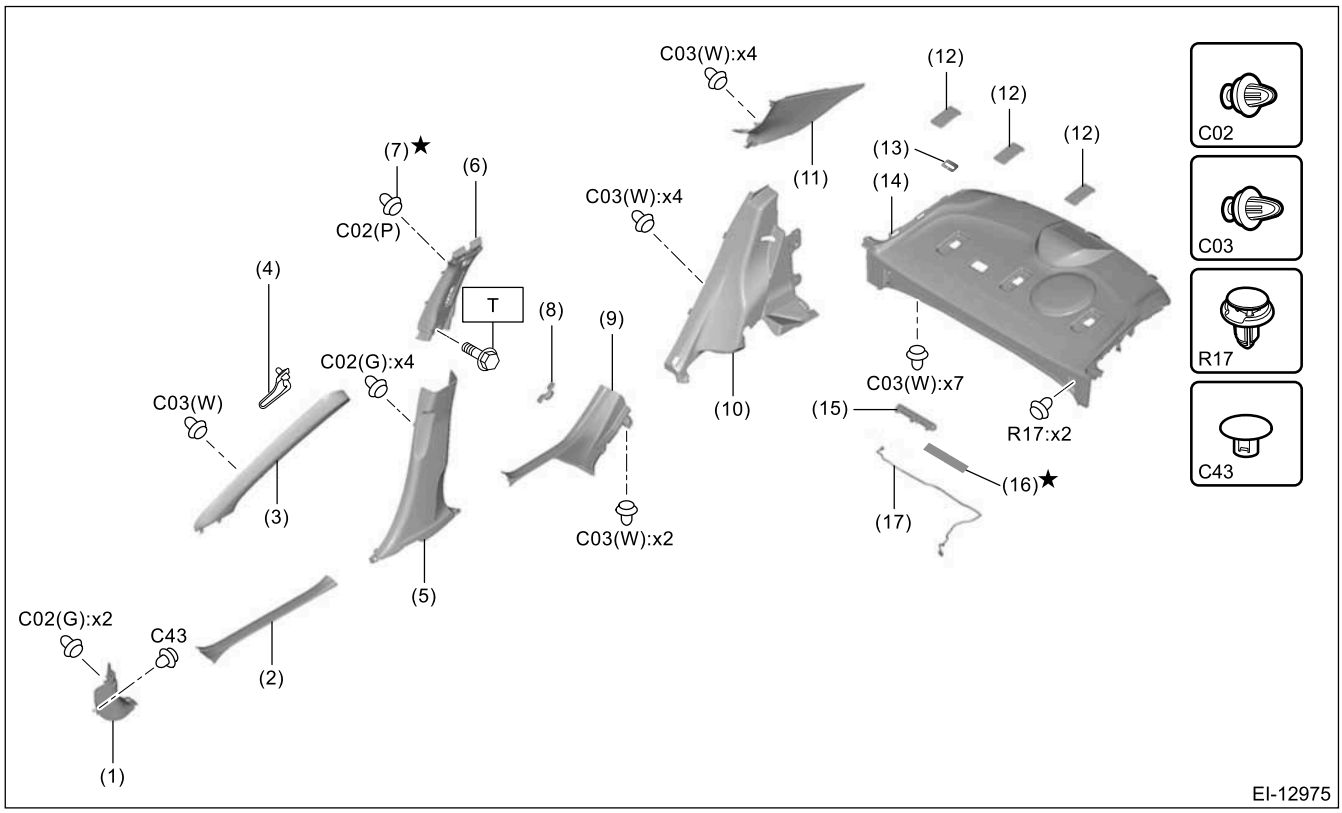
(1) Passenger's airbag module ASSY	(6) TORX® bolt (M8 × 37)	(11) Panel COMPL instrument
(2) Cap bolt	(7) Clamp*	
(3) TORX® bolt (M8 × 57)	(8) Knee airbag module ASSY	***Tightening torque: N·m (kgf-m, ft-lb)***
(4) Adjuster clip space	(9) Cushion	***T1: 7.5 (0.8, 5.5)***
(5) Beam steering COMPL	(10) Reinforcement CTR LWR	***T2: 25 (2.5, 18.4)***

*: Equipment varies depending on the specifications.



(1) Cushion instrument
(2) Nozzle front defroster ASSY
(3) Duct side defroster LH
(4) Duct side ventilation LH
(5) Duct center ventilation front
(6) Duct side defroster RH
(7) Duct side ventilation RH

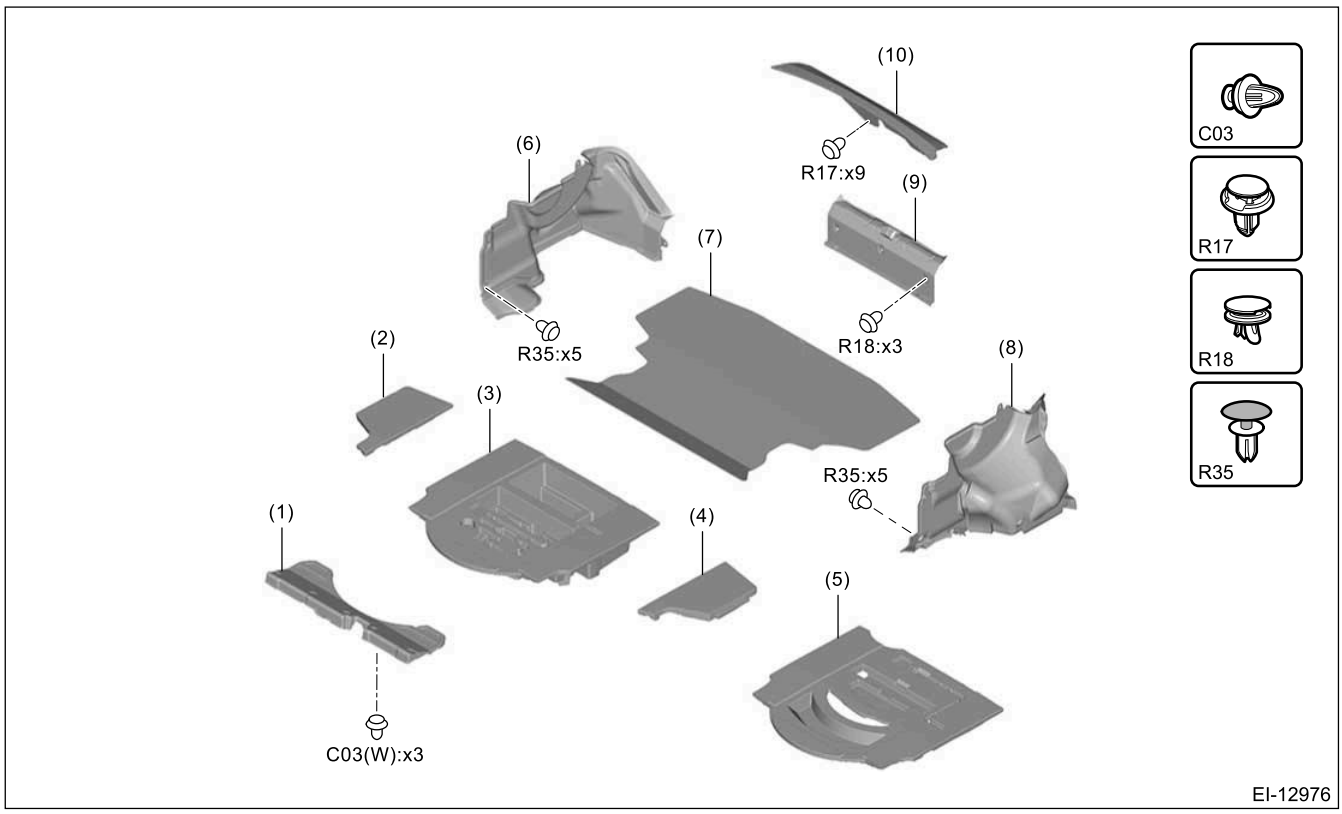
15. INNER TRIM



(1) Cover side sill front Ft
(2) Cover side sill front Rr
(3) Trim panel ASSY A pillar
(4) Tether clip
(5) Trim panel ASSY B pillar LWR
(6) Trim panel ASSY B pillar UPR
(7) Clip
(8) Cover catcher
(9) Cover side sill rear UPR
(10) Trim panel ASSY C pillar LWR
(11) Trim panel ASSY C pillar
(12) Cover tether anchor
(13) Belt cover
(14) Trim panel ASSY rear shelf
(15) Light ASSY high-mounted
(16) Cover tape
(17) Cord ASSY high-mounted

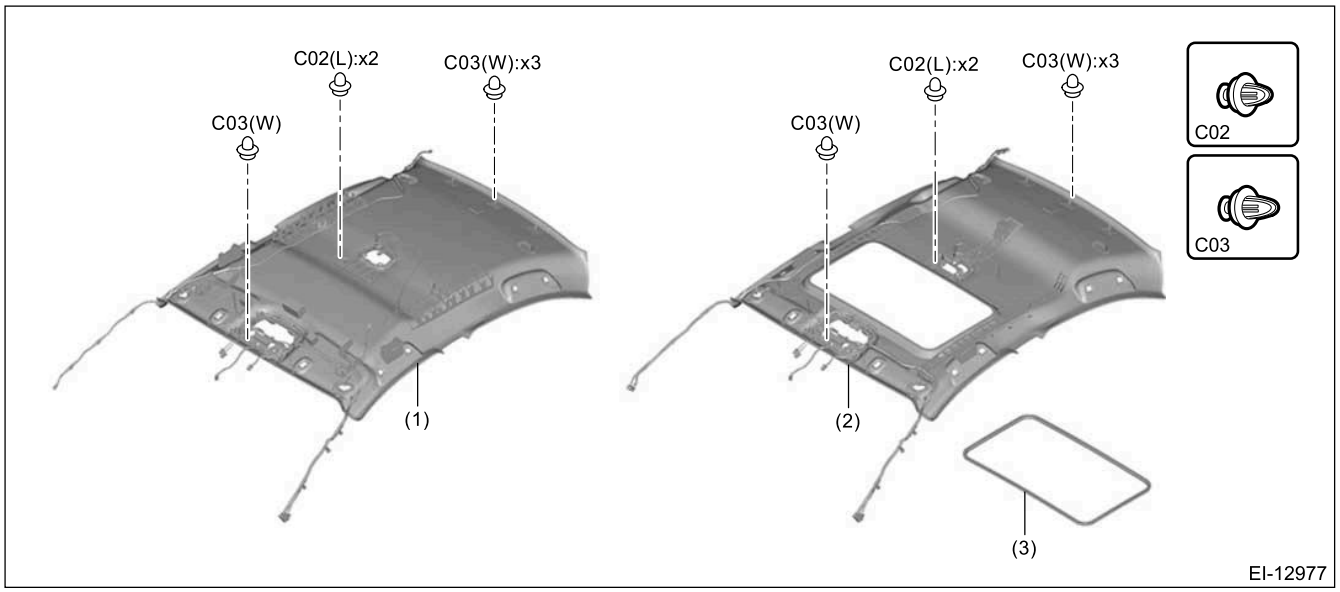
Tightening torque: N·m (kgf-m, ft-lb)

T: 7.5 (0.8, 5.5)



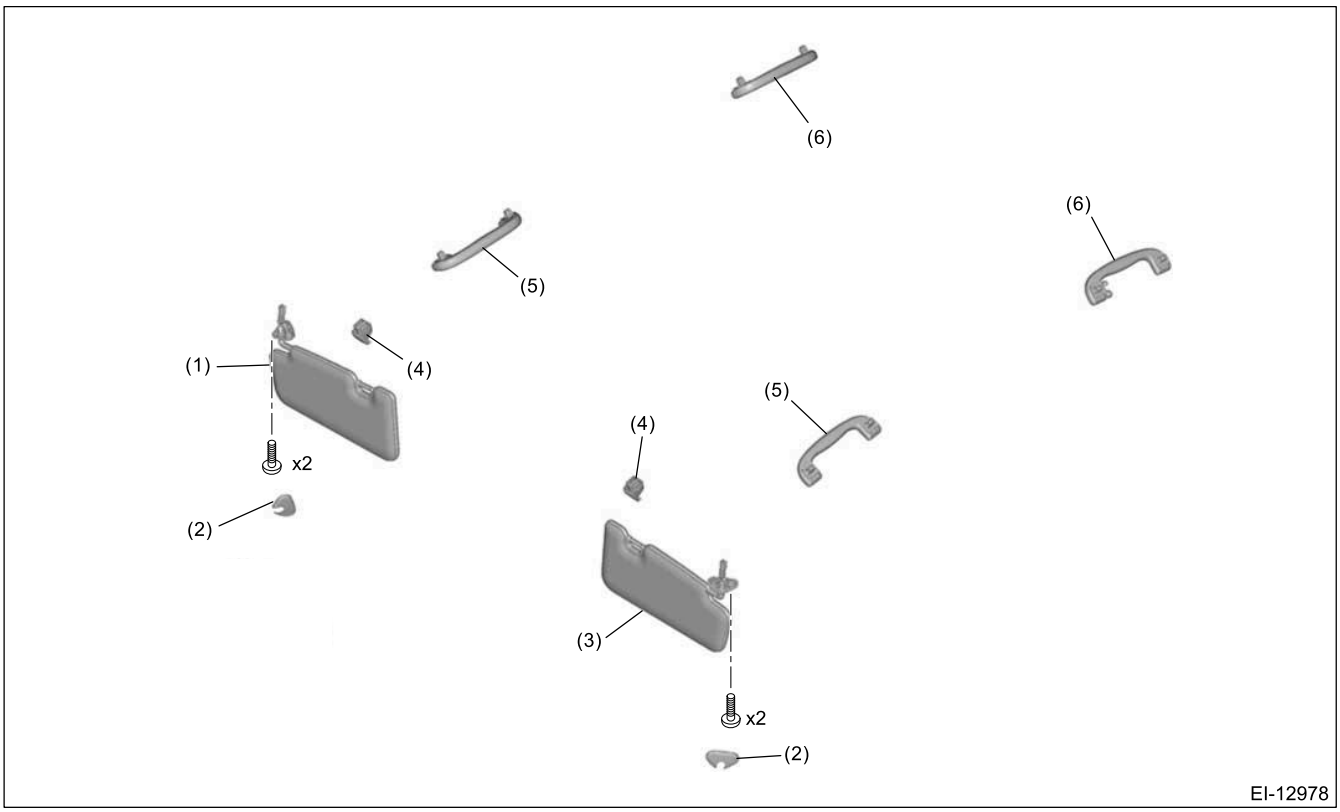
(1) Spacer rear floor front
(2) Spacer rear floor side RH
(3) Spacer center A
(4) Spacer rear floor side LH
(5) Spacer center B
(6) Trunk trim panel side RH
(7) Mat trunk
(8) Trunk trim panel side LH
(9) Trim panel trunk rear
(10) Trim panel trunk lid

16. ROOF TRIM



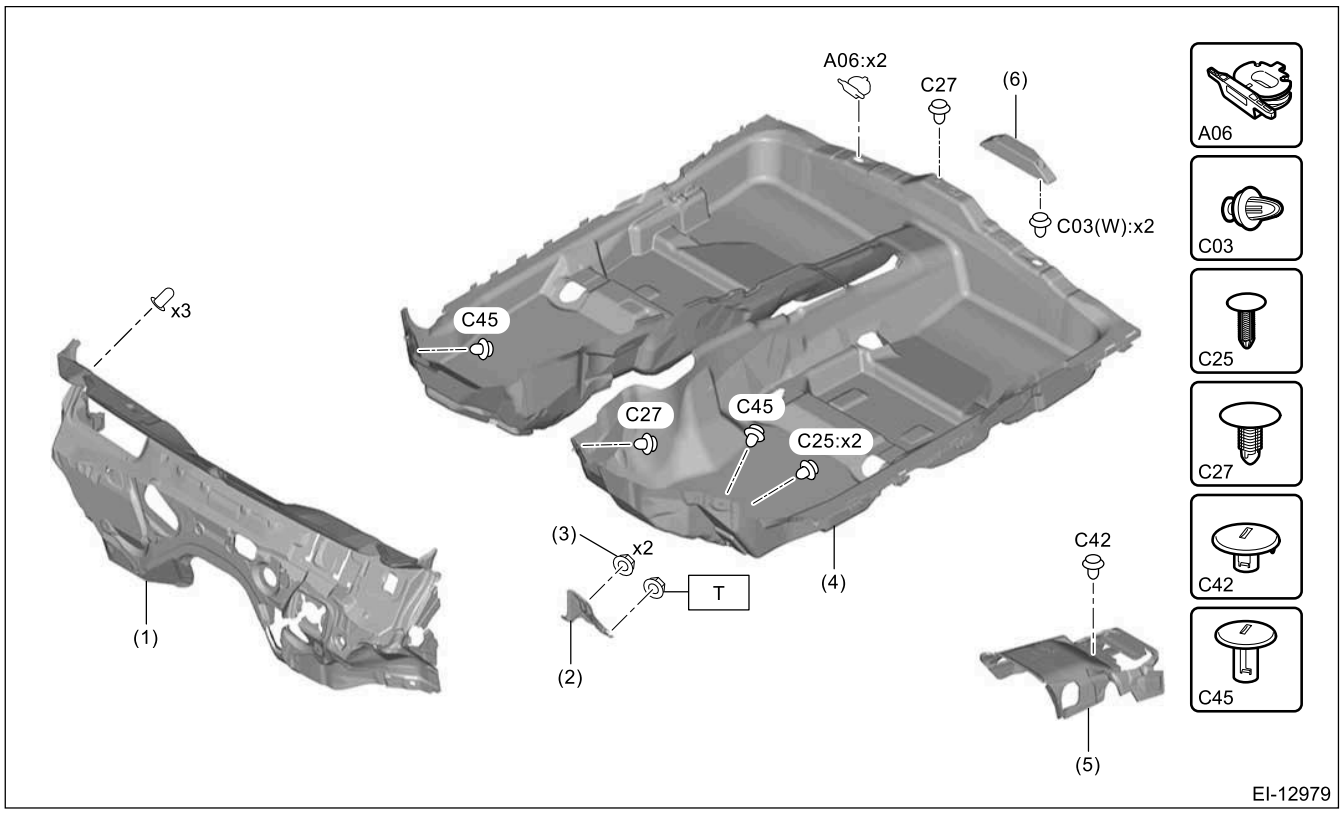
(1) Trim panel roof ASSY (model without sunroof)
(2) Trim panel roof ASSY (model with sunroof)
(3) Garnish sunroof

17. ROOM INNER PARTS



(1) Sun visor ASSY RH
(2) Cap sun visor
(3) Sun visor ASSY LH
(4) Hook sun visor
(5) Assist grip front
(6) Assist grip rear

18. FLOOR MAT



(1) Insulator toe board
(2) Plate footrest
(3) Plastic nut
(4) Floor mat
(5) Insulator tunnel
(6) Plate sensor cover side impact sensor (under rear seat)

Tightening torque: N·m (kgf-m, ft-lb)

T: 7.5 (0.8, 5.5)

EXTERIOR/INTERIOR TRIM > General Description

PREPARATION TOOL

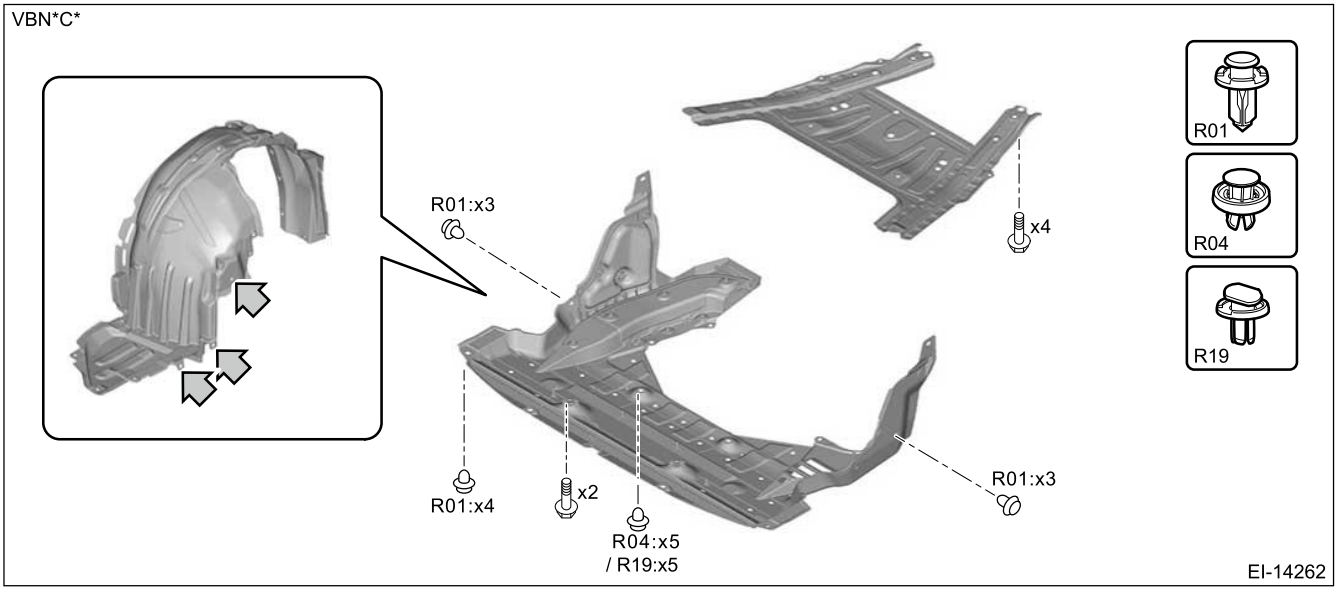
1. OTHER

	REMARKS
TORX® T40	Used for removing and installing the beam steering COMPL.
Hexagon wrench	Used for adjusting the adjuster clip space of the beam steering COMPL. Width across flat 8 mm (0.31 in)
Tape (part No. 86359SC000)	Used for securing the roof cord and antenna cord. **Note:** **This is the SUBARU genuine part.**
Unwoven cloth tape (part No. 94029FG000)	Used for the rivet portion of the weather strip inner door. **Note:** **This is the SUBARU genuine part.**
Hand riveter	Used for the installation of the weather strip inner door.

EXTERIOR/INTERIOR TRIM > Front Under Cover

REMOVAL

1. Lift up the vehicle.
2. Remove the under cover front and the under guard front.
   (1) Remove the bolts and clips, and remove the under cover front.
   (2) Remove the bolts and remove the under guard front.



EXTERIOR/INTERIOR TRIM > Front Under Cover

INSTALLATION

Note:
Install it so that the under cover front end comes outside of the bumper face front.

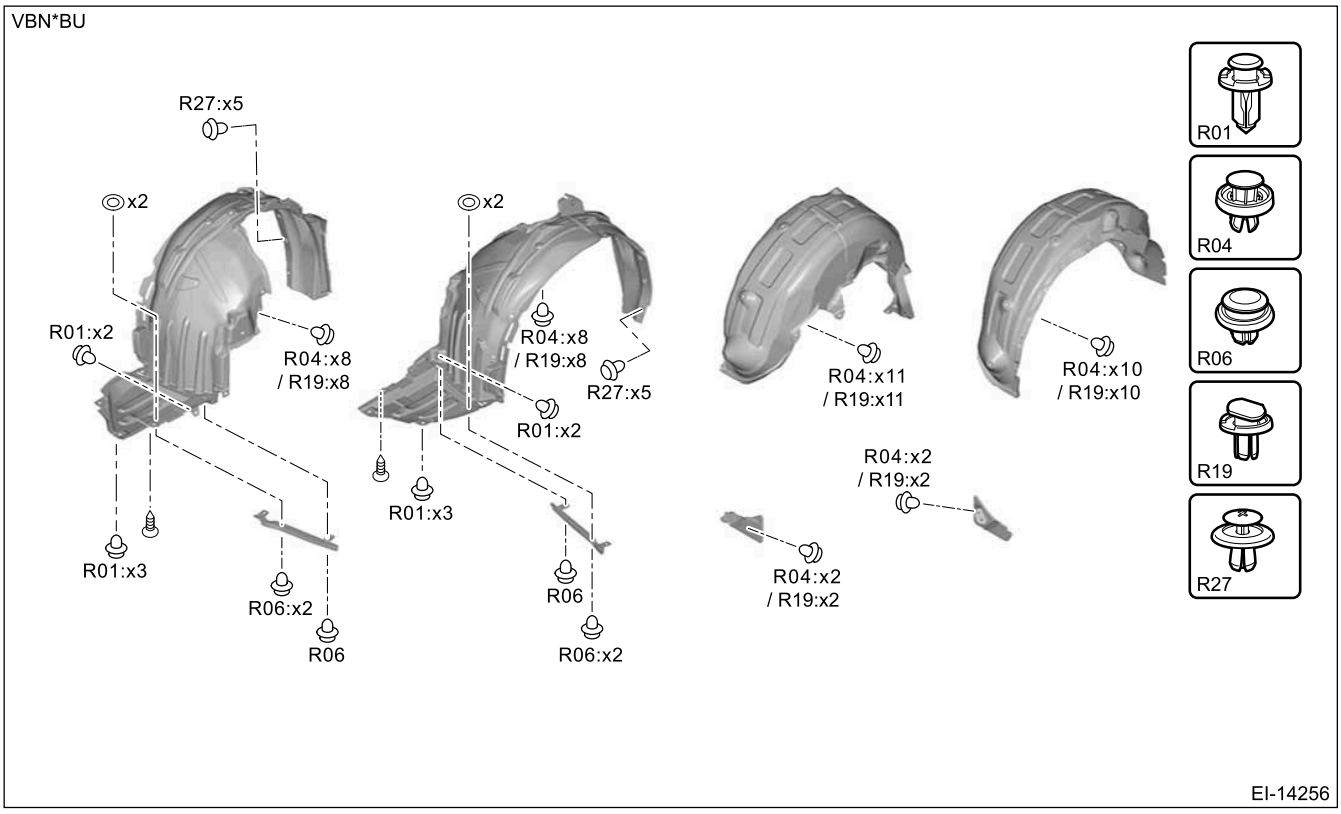
1. Install the under guard front.
   Tightening torque:
   25 N·m (2.5 kgf-m, 18.4 ft-lb)
2. Install the under cover front.
   Tightening torque:
   18 N·m (1.8 kgf-m, 13.3 ft-lb)
3. Lower the vehicle.

EXTERIOR/INTERIOR TRIM > Mud Guard

REMOVAL

1. Lift up the vehicle.
2. Remove the wheels. Ref. to WHEEL AND TIRE SYSTEM>Tire and Wheel>REMOVAL.
3. Remove the under cover front. Ref. to EXTERIOR/INTERIOR TRIM>Front Under Cover>REMOVAL.
4. Remove the spoiler assembly side sill. (When the plate air flap rear is removed) Ref. to EXTERIOR/INTERIOR TRIM>Side Garnish & Side Spoiler>REMOVAL.
5. Remove the screws and clips to remove the mud guard.

Note:
Remove the plate air flap as required.



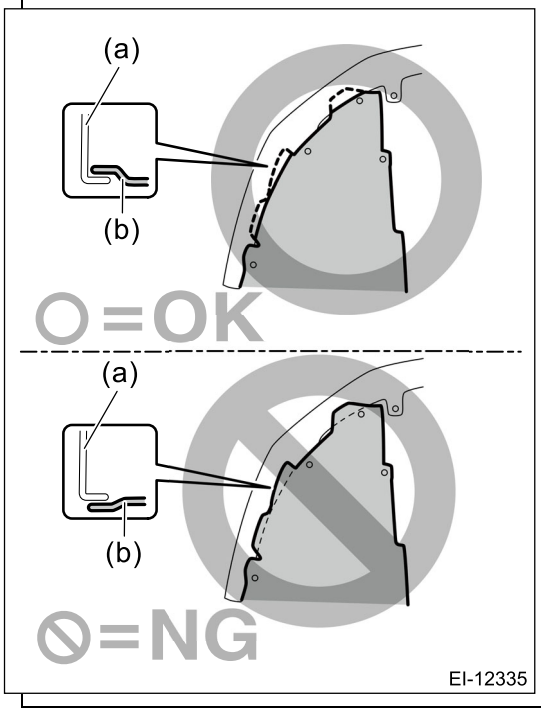
EXTERIOR/INTERIOR TRIM > Mud Guard

INSTALLATION

1. Attach the plate air flap.
2. Install the mud guard.

Note:

Install the mud guard front so that the front end of the mud guard (b), except for the clip fixing point, comes inside the bumper face front (a).



3. Install the spoiler assembly side sill. (When the plate air flap rear is removed) Ref. to EXTERIOR/INTERIOR TRIM>Side Garnish & Side Spoiler>INSTALLATION.
4. Install the under cover front. Ref. to EXTERIOR/INTERIOR TRIM>Front Under Cover>INSTALLATION.
5. Install the wheel. Ref. to WHEEL AND TIRE SYSTEM>Tire and Wheel>INSTALLATION.
6. Lower the vehicle.

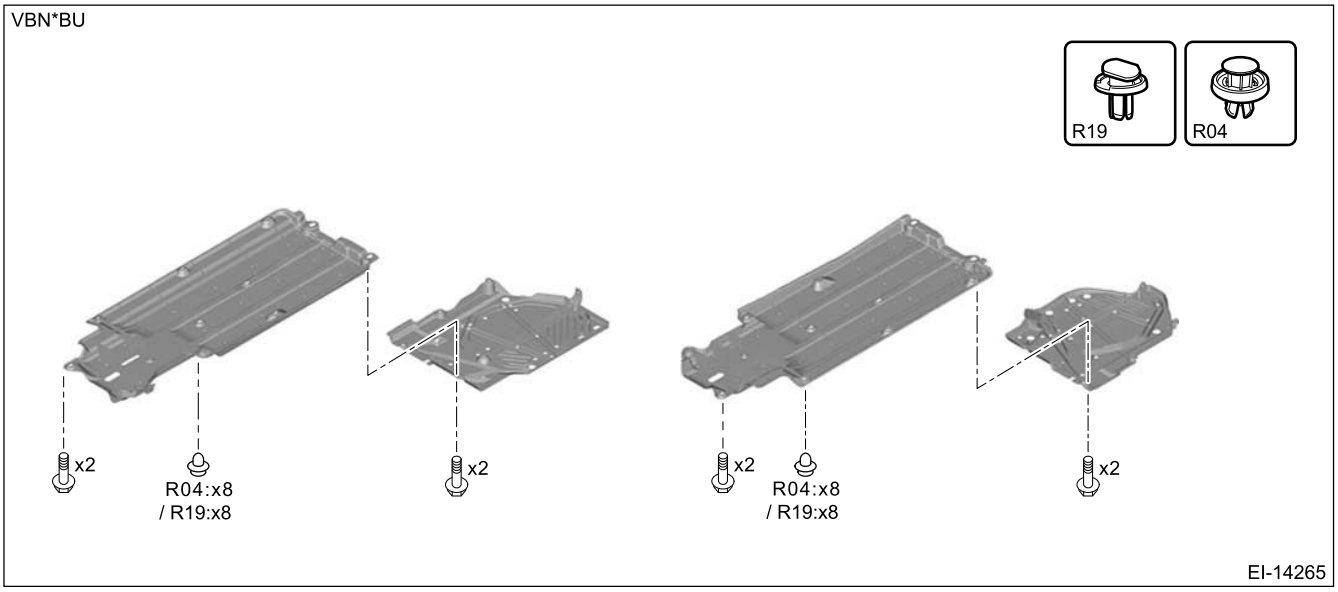
EXTERIOR/INTERIOR TRIM > Floor Under Protector

REMOVAL

1. Lift up the vehicle.

   Note:
   A plate type lift cannot be used.
2. Remove the bolts tightened together with the fuel tank protector.
3. Remove the bolts and clips, and remove the under cover rear.

   Note:
   The illustration shows the base grade.



EXTERIOR/INTERIOR TRIM > Floor Under Protector

INSTALLATION

1. Install the bolts tightened together with the under cover rear and the fuel tank protector.

   Tightening torque:

   Refer to "COMPONENT" of "General Description" for the tightening torque. Ref. to EXTERIOR/INTERIOR TRIM>General Description>COMPONENT > FLOOR UNDER PROTECTOR.
2. Lower the vehicle.

EXTERIOR/INTERIOR TRIM > Fuel Tank Protector

NOTE

For operation procedures of the fuel tank protector, refer to “Fuel Tank Protector” in the “FUEL INJECTION” section. Ref. to FUEL INJECTION (FUEL SYSTEMS)(H4DOTC)>Fuel Tank Protector.

EXTERIOR/INTERIOR TRIM > Front Grille

NOTE

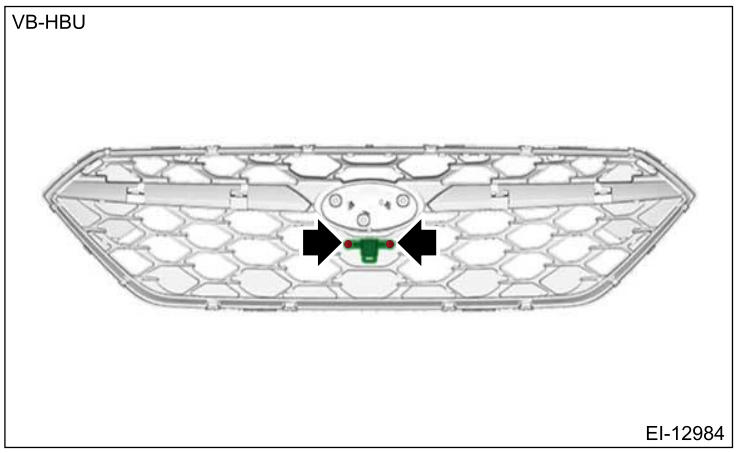
For operation procedures of front grille assembly, refer to “Front Bumper”.

- Removal: Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>DISASSEMBLY.
- Installation: Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>ASSEMBLY.

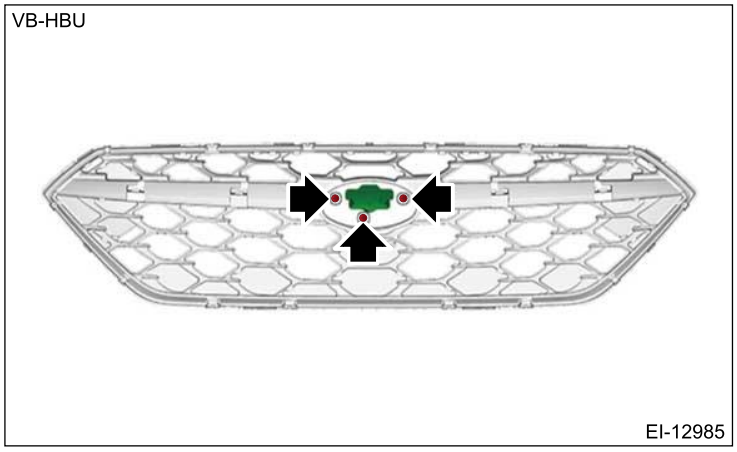
EXTERIOR/INTERIOR TRIM > Front Grille

DISASSEMBLY

1. Remove the screws and remove the cover front grille.



2. Remove the ornament front.
   (1) Remove the screws.
   (2) Release the claws, and then remove the ornament front.



EXTERIOR/INTERIOR TRIM > Front Grille

ASSEMBLY

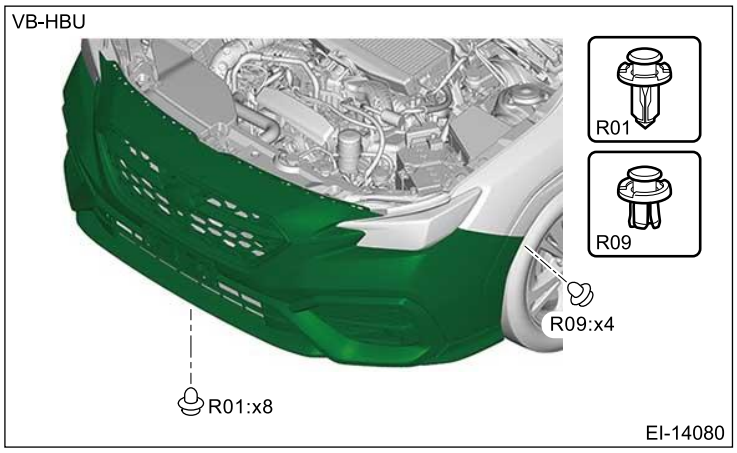
1. Install the ornament front.
2. Install the cover front grille.

REMOVAL

1. BUMPER FACE

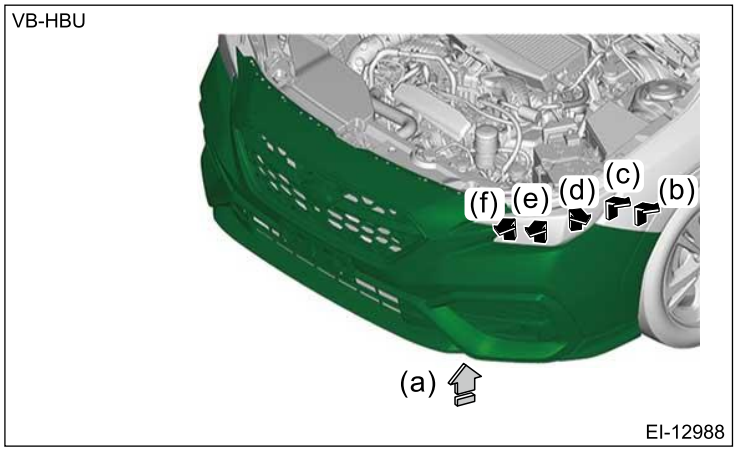
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the bolts and clips, and then remove the plate UPR front and sealing bumper front as a unit.

3. Remove the bumper face front.
   (1) Remove the clip.



   (2) While pushing up the lower side (a) of the bumper face front, release the engagement in the order from (b) to (f).

Caution:
Do not pull forcibly. It may damage the flange section on the bumper face front side when it comes off from the claws of the bumper bracket.



(3) Disconnect the connector of the fog light assembly front.

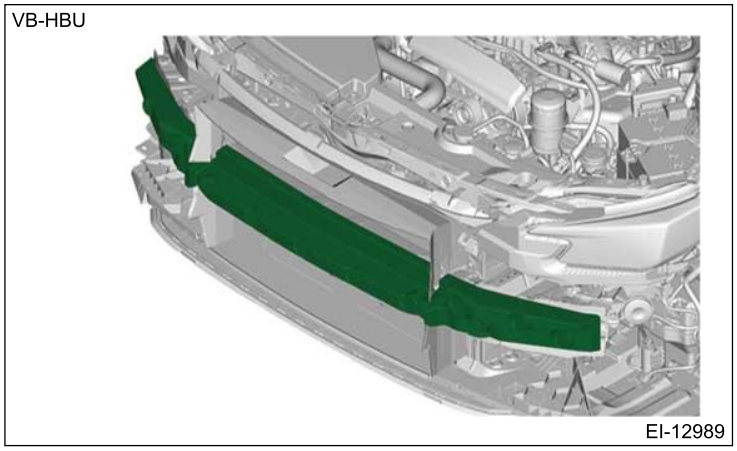
Note:
Perform the same procedures on the opposite side.

(4) Remove the bumper face front.

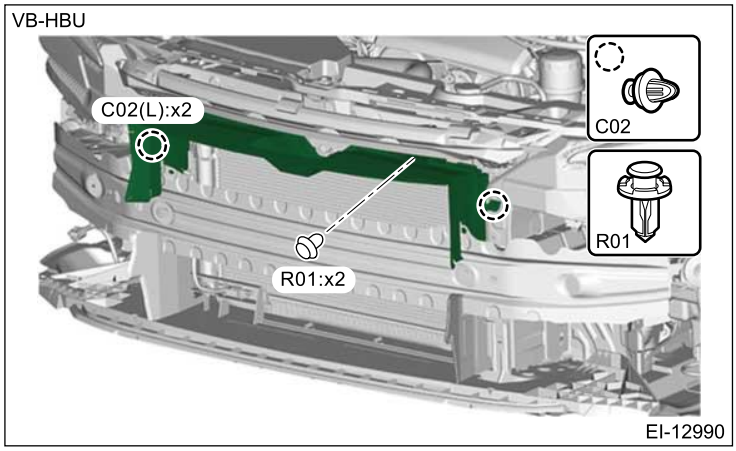
Note:
For convenience and safety, perform the work with 2 people.

2. BUMPER BEAM

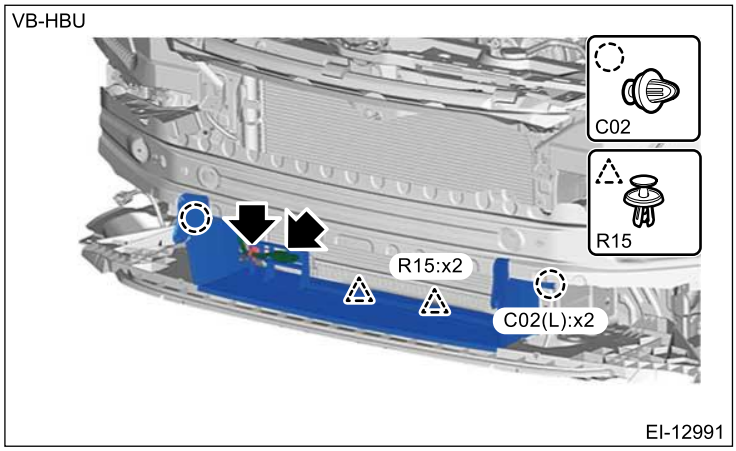
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the bumper face front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL > BUMPER FACE.
3. Remove the energy absorber foam front.



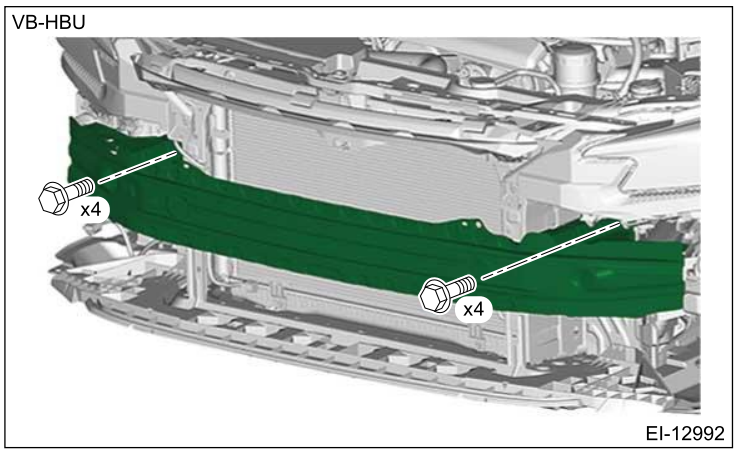
4. Release the clips, and remove the air guide UPR.



5. Remove the air guide LWR.
(1) Release the claws and clips and remove the ambient sensor.
(2) Release the clips, and remove the air guide LWR.

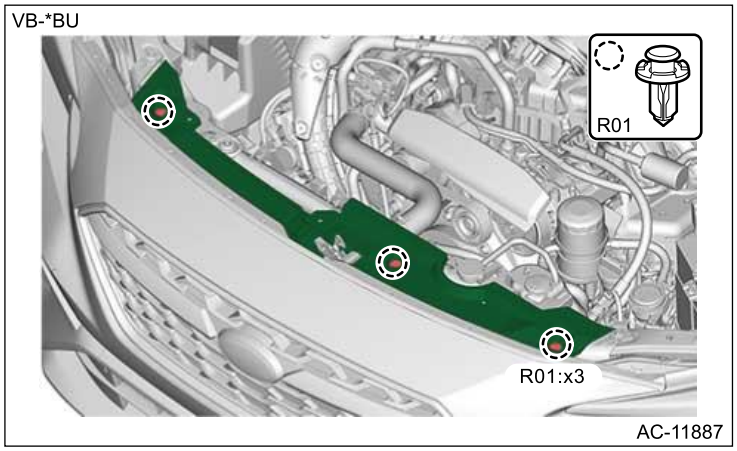


6. Remove the bolts, and remove the beam COMPL front.

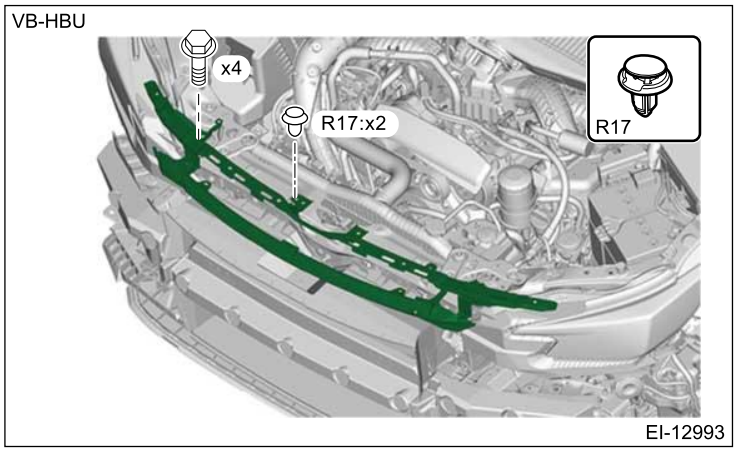


3. BUMPER BRACKET

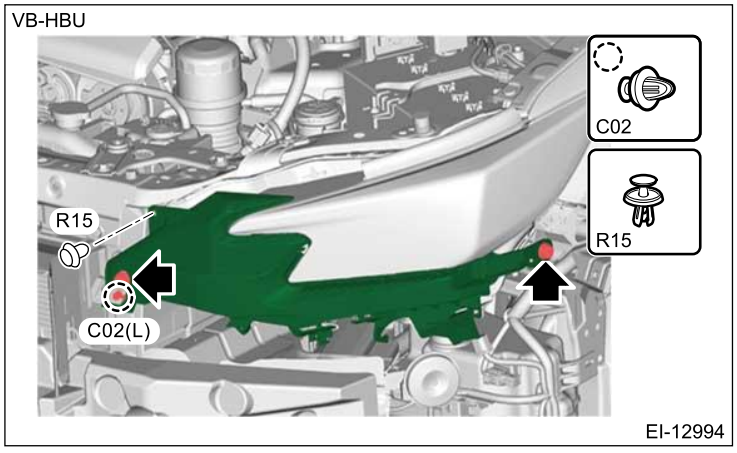
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the air intake duct. Ref. to INTAKE (INDUCTION)(H4DOTC)>Air Intake Duct>REMOVAL.
3. Remove the clips, and remove the cover UPR front.



4. Remove the bumper face front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL > BUMPER FACE.
5. Remove the bolts and clips, and remove the energy absorber plate UPR.

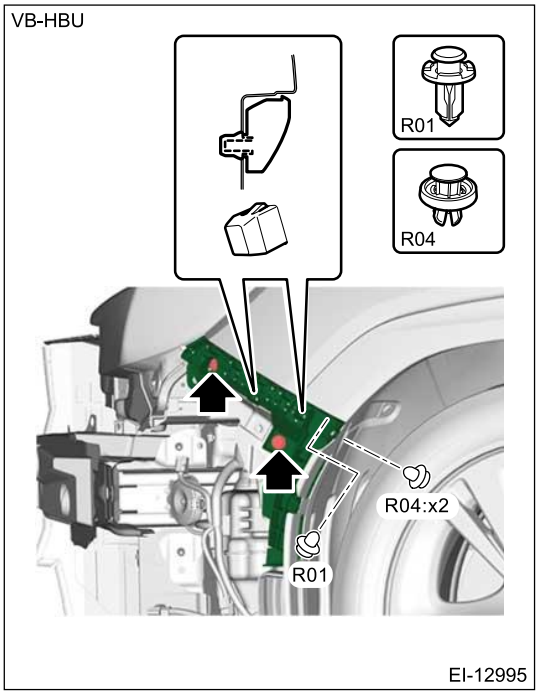


6. Remove the access buzzer. (When removing the bracket corner front LH) Ref. to SECURITY AND LOCKS>Access Buzzer>REMOVAL.
7. Remove the bracket corner front.
   (1) Remove the clips on the air guide UPR.
   (2) Remove the bolts and clips, and remove the bracket corner front.

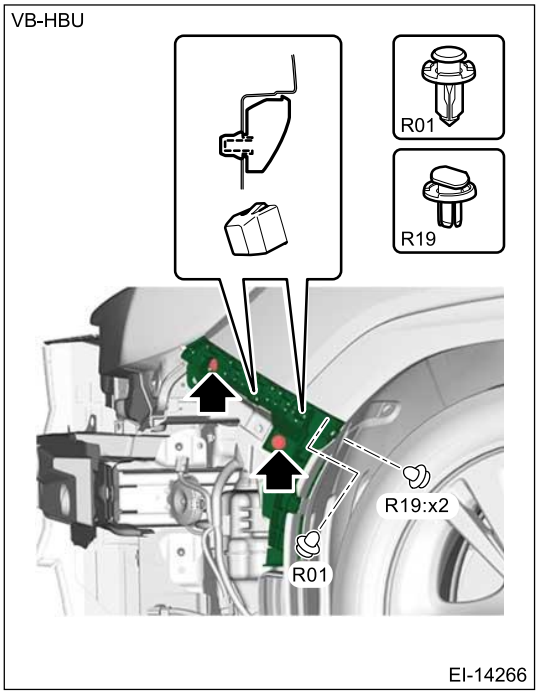


8. Remove the bracket side front.
   (1) Remove the bolt and clip.
   (2) Remove the claws from behind the fender front, and remove the bracket side front.

- Type A



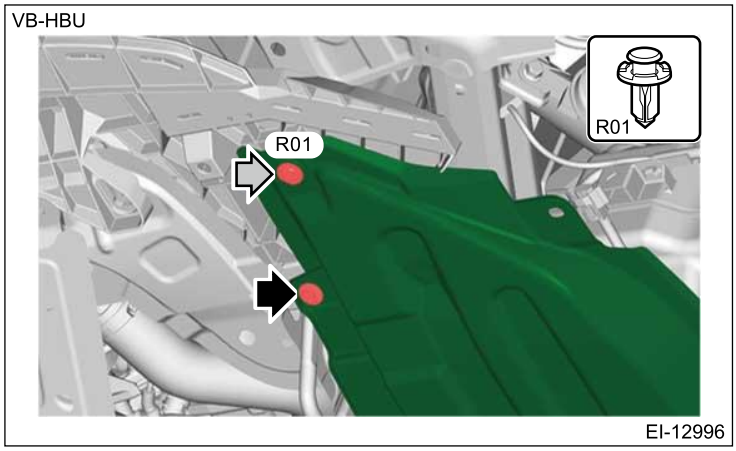
- Type B



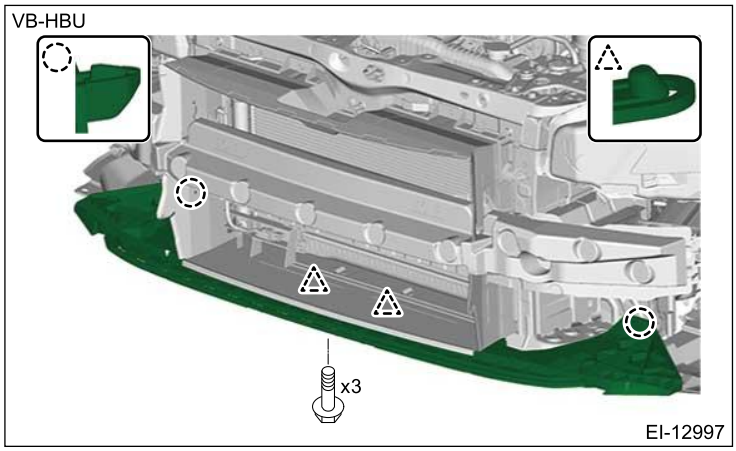
9. Remove the under cover front. Ref. to EXTERIOR/INTERIOR TRIM>Front Under Cover>REMOVAL.

10. Remove the bracket center front LWR.

(1) Remove the screw and clip on the mud guard front.



(2) Remove the bolts and release the claws, and then remove the bracket center front LWR.



EXTERIOR/INTERIOR TRIM > Front Bumper

INSTALLATION

1. BUMPER FACE

Caution:

Before installing the bumper face front, match the claws on the bumper bracket with the engaging position of the flange section on the bumper face front. If the engaging position is not correct, the flange section may be broken or the clearance between the fender panel and bumper face front may not be uniform.

Note:

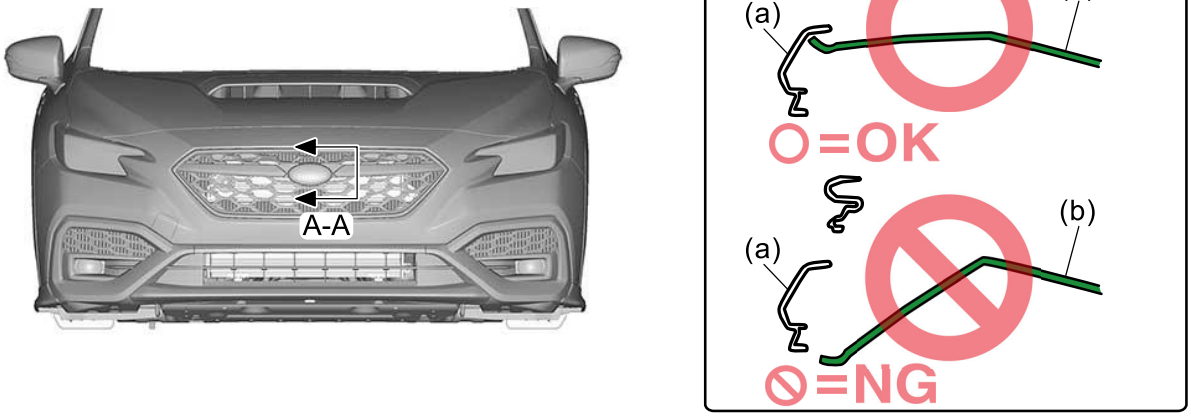
- **Install it so that the under cover front end comes outside of the bumper face front.**
- **Install the mud guard front so that the front end of the mud guard (b), except for the clip fixing point, comes inside the bumper face front (a).**

1. Connect the connector of the fog light assembly front, and then install the bumper face front.

Caution:

- **Install it so that the end of air guide (b) does not stick out of the front grille (a) opening. Failure to do so may cause poor performance of the air conditioner.**

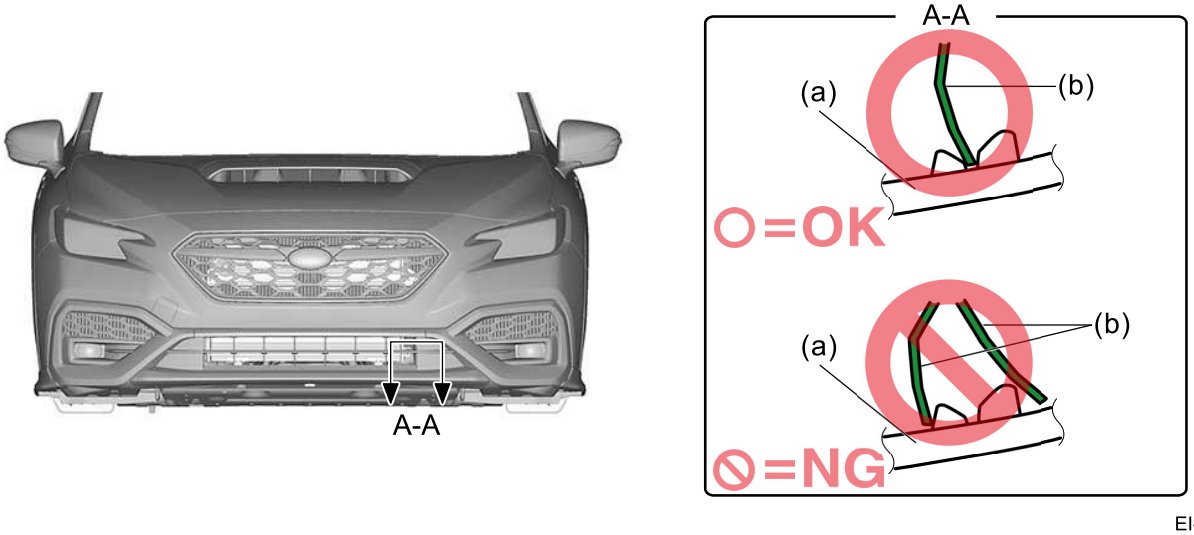
VB-HBU



EI-13242

- **Install it so that the end of air guide (b) does not stick out of the cover intake front opening. Failure to do so may cause poor performance of the air conditioner. Install it so that the air guide fits the bumper face front rib (a).**

VB-HBU



EI-13720

2. Install the plate UPR front and sealing bumper front.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
4. Adjust the fog light beam. (Model with fog light) Ref. to LIGHTING SYSTEM>Front Fog Light Assembly>ADJUSTMENT > FOG LIGHT AIMING.

2. BUMPER BEAM

1. Install the beam COMPL front.
   Tightening torque:

32 N·m (3.3 kgf-m, 23.6 ft-lb)

2. Install the air guide LWR.
3. Install the ambient sensor.
4. Install the air guide UPR.
5. Install the energy absorber foam front.
6. Install the bumper face front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>INSTALLATION > BUMPER FACE.
7. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

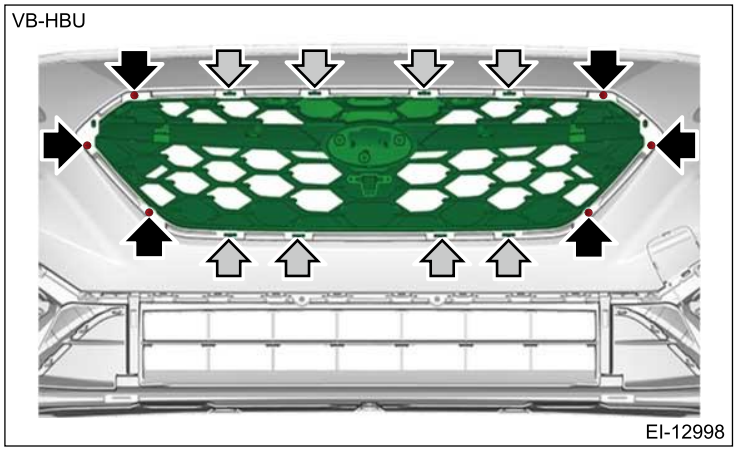
3. BUMPER BRACKET

1. Install the bracket center front LWR.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
2. Install the under cover front. Ref. to EXTERIOR/INTERIOR TRIM>Front Under Cover>INSTALLATION.
3. Install a new bracket side front.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
4. Install the bracket corner front.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
5. Install the access buzzer. (When the bracket corner front LH is removed) Ref. to SECURITY AND LOCKS>Access Buzzer>INSTALLATION.
6. Install the energy absorber plate UPR.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
7. Install the bumper face front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>INSTALLATION > BUMPER FACE.
8. Install the cover UPR front.
9. Install the air intake duct. Ref. to INTAKE (INDUCTION)(H4DOTC)>Air Intake Duct>INSTALLATION.
10. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
11. Adjust the headlight beam. (When the bracket corner front is removed) Ref. to LIGHTING SYSTEM>Headlight Assembly>ADJUSTMENT > HEADLIGHT BEAM ADJUSTMENT.

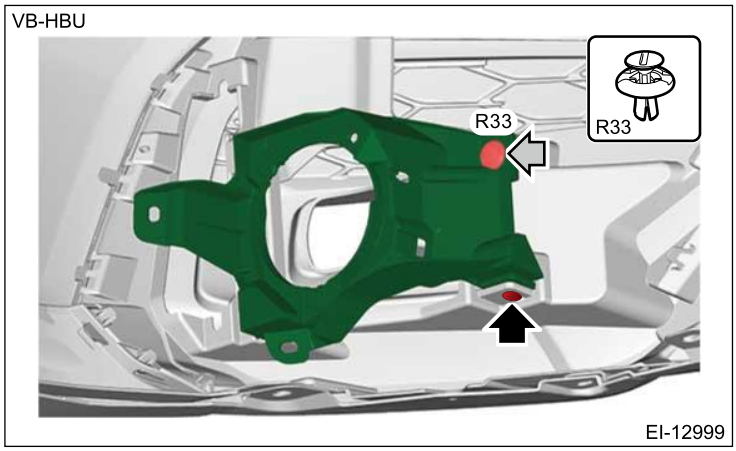
EXTERIOR/INTERIOR TRIM > Front Bumper

DISASSEMBLY

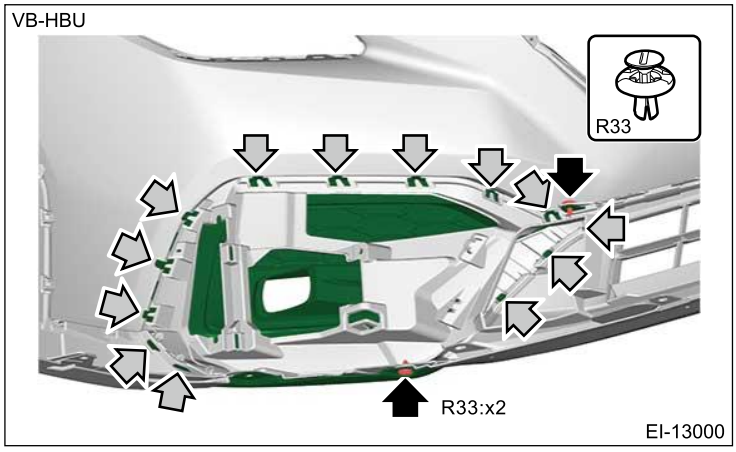
1. Remove the front grille assembly.
   (1) Remove the screws.
   (2) Release the claws, and remove the front grille assembly.



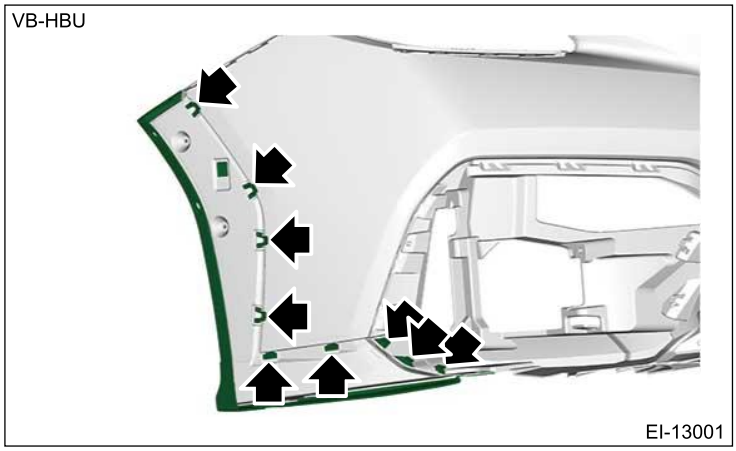
2. Remove the fog light assembly front. Ref. to LIGHTING SYSTEM>Front Fog Light Assembly>REMOVAL.
3. Remove the screws and clips, and remove the bracket fog light.



4. Release the clips and claws, and then remove the cover fog front.



5. Release the claws, then remove the arch garnish front.



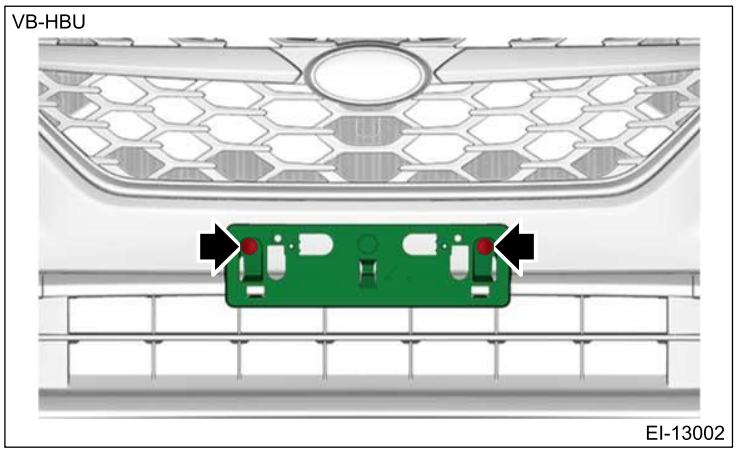
6. Remove the base license plate.

(1) Pinch the well nut on the back side of bumper face using pliers to secure it.

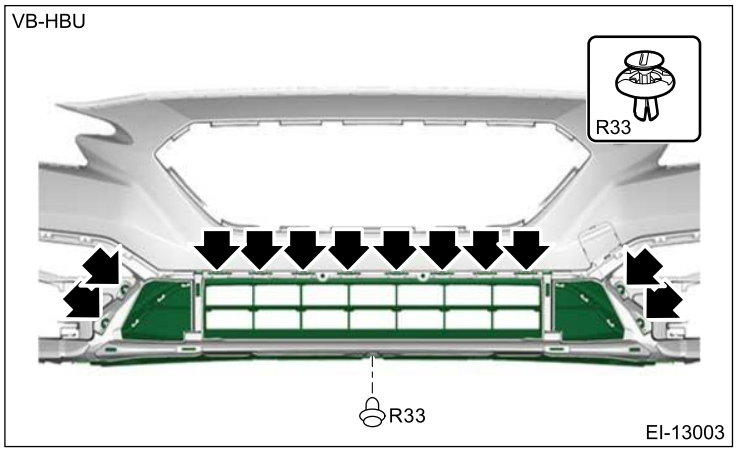
(2) Remove the bolts and remove the base license plate.

Caution:

Secure the well nut firmly during removal. If a well nut slips, the bumper face mounting hole may become deformed.



7. Release the clips and claws, and then remove the cover intake front.



EXTERIOR/INTERIOR TRIM > Front Bumper

ASSEMBLY

1. Install the cover intake front.
2. Using new bolts and well nuts, install the base license plate.

Caution:
Install the base license plate while pushing it against the bumper face. If a well nut slips, the bumper face mounting hole may become deformed.

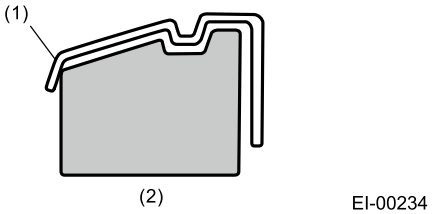
Tightening torque:
1 N·m (0.1 kgf-m, 0.7 ft-lb)

3. Install the arch garnish front.
4. Install the cover fog front.
5. Install the bracket fog light.
6. Install the fog light assembly front. Ref. to LIGHTING SYSTEM>Front Fog Light Assembly>INSTALLATION.
7. Install the front grille assembly.

EXTERIOR/INTERIOR TRIM > Front Bumper

REPAIR

1. COATING METHOD FOR PP BUMPER

Process No.	Process name	Job contents	
1	Bumper installation	Place the bumper on a paint worktable as required. Use the paint worktable conforming to inner shape of bumper if possible.	Cross section of bumper  EI-00234 (1) Bumper (2) Paint worktable
2	Masking	Mask the black base with masking tape. Use masking tape for PP.	
3	Degreasing/cleaning	Clean all parts to be painted with appropriate cleaning solvent, normal alcohol, etc. to remove dirt, oil, grease, etc.	
4	Primer paint	Apply primer to all parts to be painted, using spray gun. Use primer (clear).	
5	Dry	Dry at normal temperature. [10 — 15 min. at 20°C (68°F)] In half-dried condition, PP primer paint is dissolved by solvent, e.g., thinner, etc. Therefore, if dust or dirt must be removed, use ordinary alcohol etc.	
6	Top coat paint (I)	Non-colored	Metallic paint
		Use section (block) paint for top coat. For paint/hardener mixture, observe the specifications recommended by the manufacturers.	Use section (block) paint for top coat. For paint/hardener mixture, observe the specifications recommended by the manufacturers.

Process No.	Process name	Job contents	
		• Viscosity: 10 — 13 sec./20°C (68°F) • Film thickness: 35 — 45 μ • Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kgf/cm^2, 36 — 50 psi)	• Viscosity: 10 — 13 sec./20°C (68°F) • Film thickness: 15 — 20 μ • Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kgf/cm^2, 36 — 50 psi)
7	Dry	Not required.	Dry at normal temperature. [10 min. or more at 20°C (68°F)] In half-dried condition, avoid dust, dirt.
8	Top coat paint (II)	Not required.	Apply a clear coat to parts with top coat paint (I), three times at 5 — 7 minute intervals. For paint/hardener mixture, observe the specifications recommended by the manufacturers. • Viscosity: 14 — 16 sec./20°C (68°F) • Film thickness: 25 — 30 μ • Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kgf/cm^2, 36 — 50 psi)
9	Dry	60°C (140°F), 60 min. or 80°C (176°F), 30 min. If the temperature is higher than 80°C (176°F), PP may be deformed. Keep maximum temperature at 80°C (176°F) or less.	
10	Inspection	Check paint.	
11	Removal of masking	Remove the masking tape applied in procedure 2.	

2. REPAIR INSTRUCTIONS FOR COLORED PP BUMPER

Note:
If grained PP bumper surface is damaged, it cannot normally be restored to its former condition. Damages limited to the shallow scratches that cause only a change in the luster of the base material or coating, can be almost fully restored. Before repairing a damaged area, explain this point to the customer and obtain an understanding about the matter.
Repair methods are outlined below, based on a classification of the extent of damage.

1. Minor damage causing only a change in the luster of the bumper due to a light touch
Almost restorable.

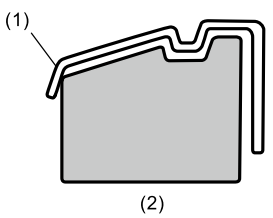
Process No.	Process name	Job contents
1	Cleaning	Clean the area to be repaired using water.
2	Sanding	Grind the repairing area with No. 500 sand paper in a “feathering” motion.

<table>
<tr><th>Process No.</th><th>Process name</th><th colspan="2">Job contents</th></tr>
<tr><td rowspan="3">3</td><td rowspan="3">Finish</td><td>Resin section</td><td>Coated section</td></tr>
<tr><td>Repeatedly apply wax to the affected area using soft cloth (such as flannel).
Recommended wax: Tire wax or equivalent</td><td rowspan="2">Perform either the same procedures as for the resin section or the process in step 18 and subsequent in section “3”, depending on the degree and nature of damage.</td></tr>
<tr><td>Polish the waxed area with clean cloth after 5 — 10 minutes.</td></tr>
</table>

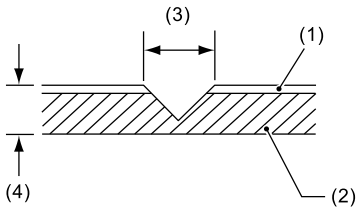
2. Deep damage caused by scratching with fences etc.
A dent cannot be repaired but a whitened or swelled part can be removed.

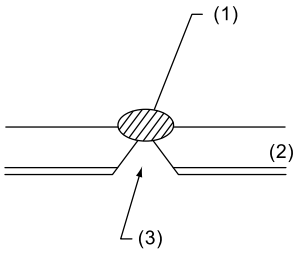
<table>
<tr><th>Process No.</th><th>Process name</th><th colspan="2">Job contents</th></tr>
<tr><td>1</td><td>Cleaning</td><td colspan="2">Clean the damaged area with water.</td></tr>
<tr><td>2</td><td>Removal of damaged area</td><td colspan="2">Cut off protruding area, if any, due to collision, using a putty knife.</td></tr>
<tr><td>3</td><td>Sanding</td><td colspan="2">Grind the repairing area with No. 100 — 500 sand paper.</td></tr>
<tr><td rowspan="2">4</td><td rowspan="2">Finish</td><td>Resin section</td><td>Coated section</td></tr>
<tr><td>Same as step 3 in section “1”.</td><td>Perform the step 12 and subsequent operations in section “3”.</td></tr>
</table>

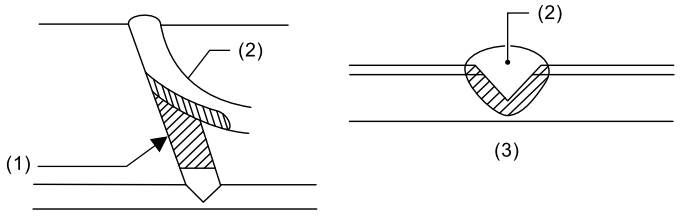
3. Deep damage such as a break or hole that requires filling
Much of the peripheral grained surface must be sacrificed for repair. The degree of restoration is not really worth the expense. (The surface, however, will become almost flush with adjacent areas.)

<table>
<tr><th>Process No.</th><th>Process name</th><th colspan="2">Job contents</th></tr>
<tr><td>1</td><td>Bumper removal</td><td colspan="2">Remove the bumper as required.</td></tr>
<tr><td>2</td><td>Removal of parts</td><td colspan="2">Remove the parts built into bumper as required.</td></tr>
<tr><td>3</td><td>Bumper placement</td><td>Place the bumper on a paint worktable as required.
It is recommended to use the paint worktable conforming to internal shape of bumper.</td><td>Cross section of bumper
 

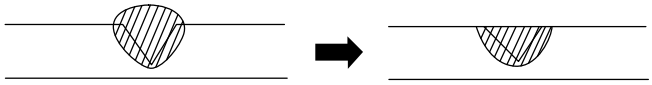
EI-00234
(1) Bumper
(2) Paint worktable</td></tr>
</table>

<table>
<tr><th>Process No.</th><th>Process name</th><th>Job contents</th></tr>
<tr><td>4</td><td>Surface preparation</td><td colspan="2">Remove dust, oil, etc. from areas to be repaired and surrounding areas, using an appropriate solvent (appropriate cleaning solvent or alcohol, etc.).</td></tr>
<tr><td>5</td><td>Cutting</td><td>If the damage is a crack or a hole, cut a guide slit of 20 — 30 mm (0.79 — 1.18 in) in length along the crack or hole up to the bumper base surface. Next, use a knife or grinder to carve a V-shaped groove in the area for repair.</td><td> 

EI-00235
(1) Paint surface
(2) PP base surface
(3) 20 — 30 mm (0.79 — 1.18 in)
(4) 3 mm (0.12 in)</td></tr>
<tr><td>6</td><td>Sanding (I)</td><td colspan="2">Grind the beveled surface with sand paper (No. 40 — 60) to smooth finish.</td></tr>
<tr><td>7</td><td>Cleaning</td><td colspan="2">Clean the sanded surface with the same solvent as used in process No. 4.</td></tr>
<tr><td rowspan="2">8</td><td rowspan="2">Temporary welding</td><td colspan="2">Grind the side opposite to the beveled area with sand paper (No. 40 — 60) and clean using a solvent.
Temporarily spot-weld the side, using PP welding rod and heater gun.</td></tr>
<tr><td colspan="2"> 

EI-00236
(1) Welded point (Use heater gun and PP welding rod)
(2) PP base surface
(3) Beveled section
Note:
• Do not melt welding rod until it flows out. This results in reduced strength.
• Leave the welded spot unattended until it cools completely.</td></tr>
<tr><td rowspan="2">9</td><td rowspan="2">Welding</td><td colspan="2">Using a heater gun and PP welding rod, weld the beveled spot while melting both the rod and damaged area.</td></tr>
<tr><td colspan="2"> 

EI-00237
(1) Melt hatched area</td></tr>
</table>

Process No.	Process name	Job contents
		(2) Welding rod (3) Section **Note:** • **Melt the sections indicated by hatched area.** • **Do not melt the welding rod until it flows out, in order to provide strength.** • **Always keep the heater gun 1 — 2 cm (0.4 — 0.8 in) away from the welding spot.** • **Leave the welded spot unattended until it cools completely.**
10	Sanding (II)	Remove excess part of weld with a putty knife. If a drill or disc wheel is used instead of the knife, operate it with a rotating speed of less than 1,500 r/min and grind the excess part little by little. A higher rpm will cause the PP substrate to melt from the heat.
		 EI-00042
		Sand the welded spot smooth with No. 240 sand paper.
11	Cleaning/degreasing	Completely clean the entire coated area, using solvent similar to that used in process No. 4.
12	Primer coating	Apply a coat of primer for bumpers to the repaired surface and its surrounding areas. Mask these areas, if necessary. **Note:** **Be sure to apply a coat of primer using a spray gun at a pressure of 245 — 343 kPa (2.5 — 3.5 kgf/cm^2, 36 — 50 psi).**
13	Leave unattended	Leave the repaired area unattended at 20°C (68°F) for 10 — 15 minutes until primer is half-dry. **Note:** **If dirt or dust comes in contact with the coated area, wipe it off with a cloth dampened with alcohol. (Do not use thinner since it could melt the coated area.)**
14	Surfacer coating	Apply a coat of surfacer for PP bumpers to the repaired area two or three times at an interval of 3 — 5 minutes. For surfacer/hardener mixture, viscosity and paint thickness, observe the specifications of the surfacers to be used.
15	Dry	Allow the coated surface to dry for 20 minutes at 20°C (68°F) [or 30 minutes at 60°C (140°F)].
16	Sanding (III)	Sand the coated surface and its surrounding areas using No. 400 sand paper and water.

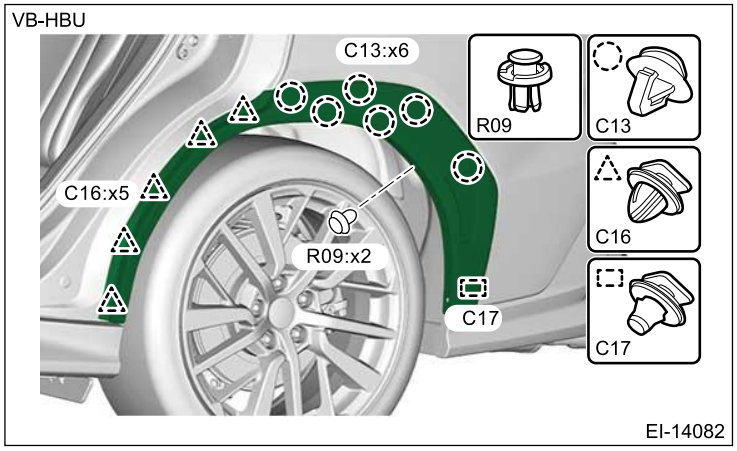
<table>
<tr><th>Process No.</th><th>Process name</th><th colspan="2">Job contents</th></tr>
<tr><td>17</td><td>Cleaning/degreasing</td><td colspan="2">Same as process No. 11.</td></tr>
<tr><td rowspan="2">18</td><td rowspan="2">Top coat (I)</td><td>Non-colored</td><td>Metallic paint</td></tr>
<tr><td>Use a “block” coating method.
For paint/hardener mixture, observe the specifications recommended by the manufacturers.
• Viscosity: 11 — 13 sec./20°C (68°F)
• Coating film thickness: 40 — 50 μ
• Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kgf/cm^2, 36 — 50 psi)</td><td>Use a “block” coating method.
For paint/hardener mixture, observe the specifications recommended by the manufacturers.
• Viscosity: 11 — 13 sec./20°C (68°F)
• Coating film thickness: 20 — 30 μ
• Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kgf/cm^2, 36 — 50 psi)</td></tr>
<tr><td>19</td><td>Leave unattended</td><td>Not required.</td><td>Leave unattended at 20°C (68°F) for at least 10 minutes until the top-coated area is half-dry.
Note:
Be careful to keep dust or dirt from coming in contact with the affected area.</td></tr>
<tr><td>20</td><td>Top coat (II)</td><td>Not required.</td><td>Apply a clear coat three times at an interval of 3 to 5 minutes.
For paint/hardener mixture, observe the specifications recommended by the manufacturers.
• Viscosity: 10 — 13 sec./20°C (68°F)
• Coating film thickness: 20 — 30 μ
• Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kgf/cm^2, 36 — 50 psi)</td></tr>
<tr><td>21</td><td>Dry</td><td colspan="2">Allow the coated surface to dry for two hours at 20°C (68°F) or 30 minutes at 60°C (140°F).
Note:
Do not allow the temperature to exceed 80°C (176°F) since this will deform the PP substrate.</td></tr>
<tr><td>22</td><td>Inspection</td><td colspan="2">Carefully check the condition of the repaired area.</td></tr>
<tr><td>23</td><td>Parts installation</td><td colspan="2">Install parts on the bumper in reverse order of removal.</td></tr>
<tr><td>24</td><td>Bumper installation</td><td colspan="2">Install the bumper.</td></tr>
</table>

REMOVAL

1. BUMPER FACE

Caution:
Check the front and back surfaces of the bumper face rear around the radar sensor, radar sensor and radar bracket for any scratches or other type of deformation. Ref. to Blind Spot Detection/Rear Cross Traffic Alert (DIAGNOSTICS)>General Description>CAUTION.

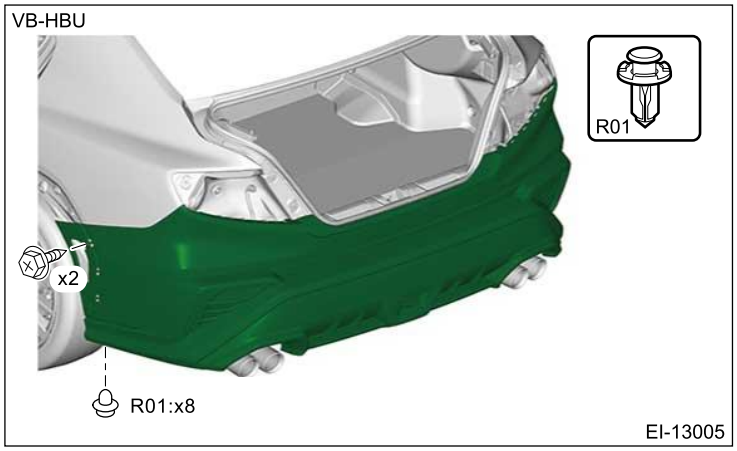
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the light assembly rear combination. Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly>REMOVAL.
3. Release the clips, and remove the garnish assembly rear quarter.



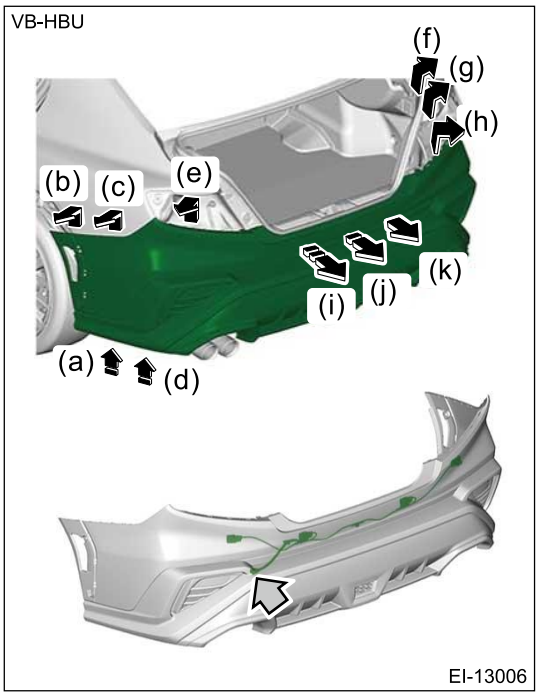
4. Remove the bumper face rear.

Caution:
- **Do not pull with excessive force. The bracket or bumper face rear may be damaged.**
- **For models with Reverse Automatic Braking, the connector of the sonar cable is secured on the bumper beam COMPL rear.**
  Pulling the bumper face rear with excessive force may break the sonar cable.

(1) Remove the screws and clips.

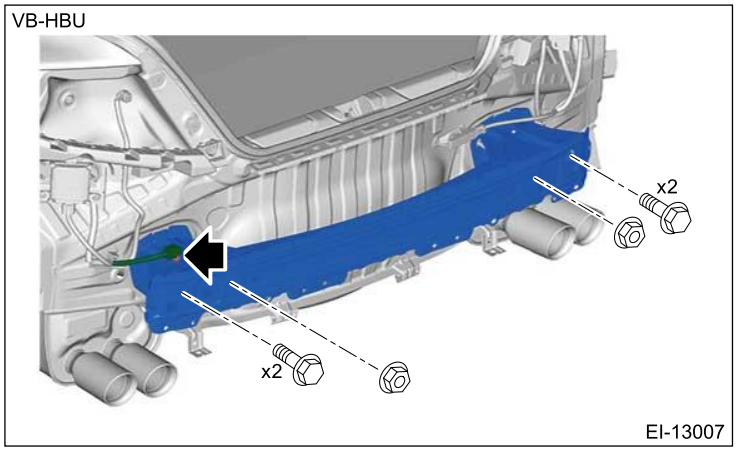


(2) Detach (b) and (c) while pulling up (a) of the bumper face rear.
(3) Detach (e) while pulling up (d) of the bumper face rear.
(4) Perform the same procedures when detaching (f) to (h) on the opposite side.
(5) Detach in order from (i) to (k) by carefully pulling toward you while pulling up the center of bumper face rear.
(6) Disconnect the sonar bumper cable connector, and remove the bumper face rear.



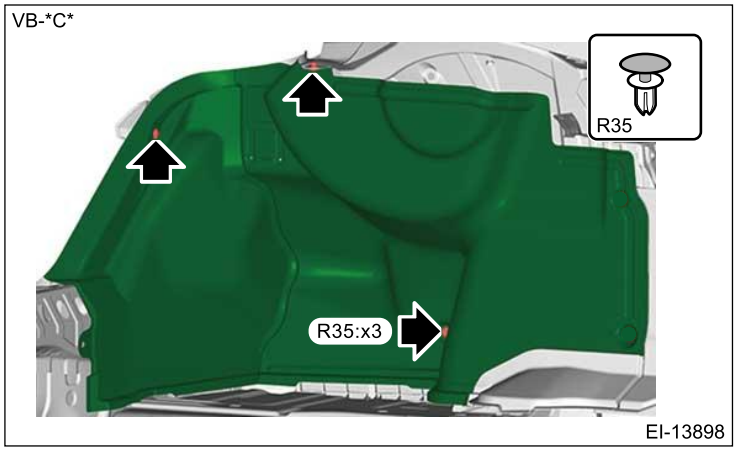
2. BUMPER BEAM

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the bumper face rear. Ref. to EXTERIOR/INTERIOR TRIM>Rear Bumper>REMOVAL > BUMPER FACE.
3. Remove the bumper beam COMPL rear.
   (1) Remove the harness clamp.
   (2) Remove the bolts and nuts, and remove the bumper beam COMPL rear.

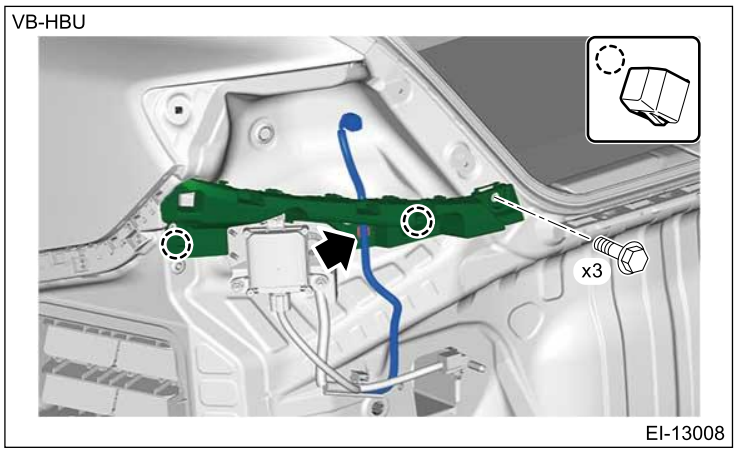


3. BUMPER BRACKET

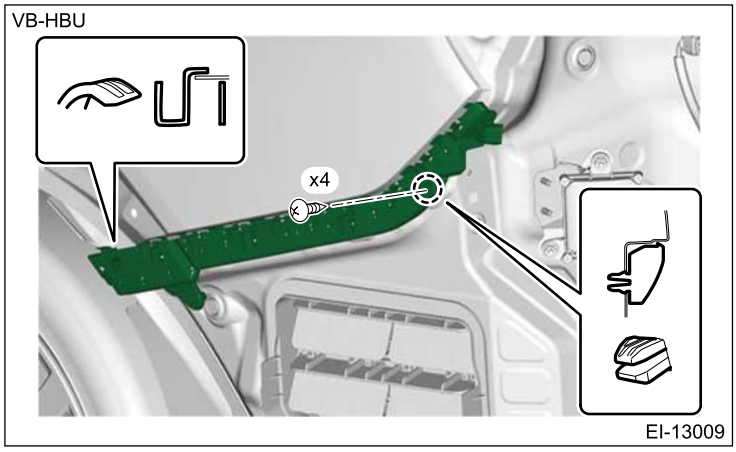
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the bumper face rear. Ref. to EXTERIOR/INTERIOR TRIM>Rear Bumper>REMOVAL > BUMPER FACE.
3. Remove the mat trunk, spacer center and spacer rear floor side.
4. Remove the trim panel trunk rear. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.
5. Remove the clips, and turn over the trunk trim panel side.



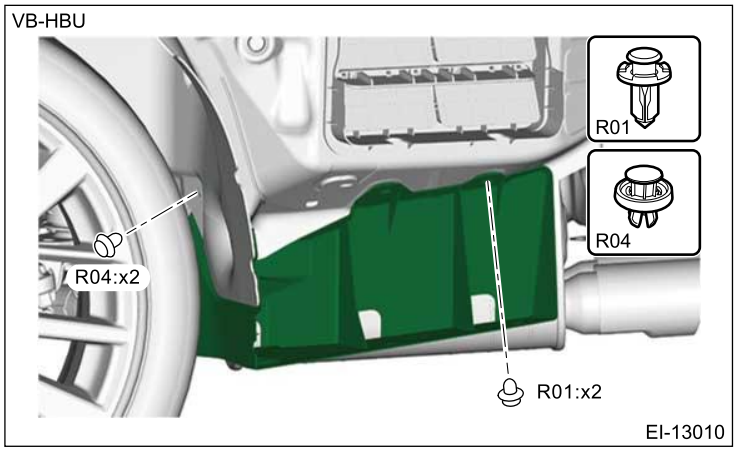
6. Remove the bracket corner rear.
   (1) Remove the bolt and release the claws from the backside.
   (2) Remove the harness clamp, and then remove the bracket corner rear.



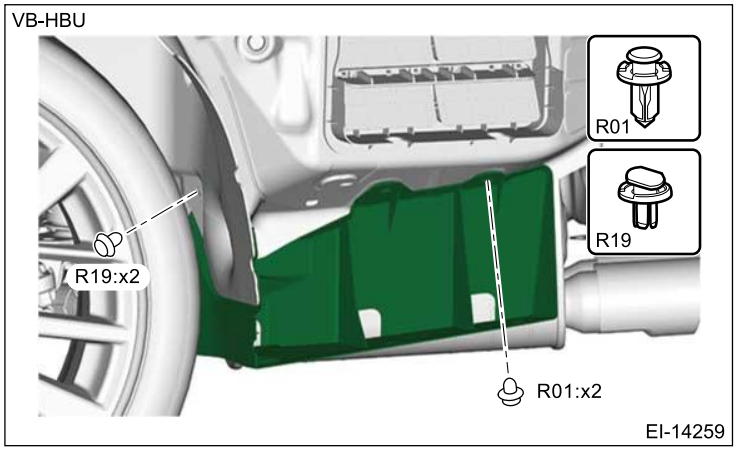
7. Remove the bracket side rear.
   (1) Remove the screws.
   (2) Release the claws from the backside, and then remove the bracket side rear.



8. Remove the clips, and remove the cover side LWR.
   - Type A



   - Type B



EXTERIOR/INTERIOR TRIM > Rear Bumper

INSTALLATION

1. BUMPER FACE

Caution:

- **Before installing the bumper face rear, match the claws on the bumper bracket with the engaging position of flange section on the bumper face rear side. If the engaging position is not correct, the flange section may be broken or the clearance between fender panel and bumper face rear may not be uniform.**
- **Check the front and back surfaces of the bumper face rear around the radar sensor, radar sensor and radar bracket for any scratches or other type of deformation. Ref. to Blind Spot Detection/Rear Cross Traffic Alert (DIAGNOSTICS)>General Description>CAUTION.**

1. Connect the sonar bumper cable connector, and install the bumper face rear.

   Note:
   If the bumper face rear comes off too easily, adjust the hook of the center bracket side.
2. Install the garnish assembly rear quarter.
3. Install the light assembly rear combination. Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly>INSTALLATION.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
5. When the sonar sensor assembly is removed and installed, or replaced, check the height and angle of the sonar sensor assembly. Ref. to REVERSE AUTOMATIC BRAKING>Sensor and Harness>INSPECTION > SONAR SENSOR.

2. BUMPER BEAM

1. Install the bumper beam COMPL rear and install the harness clamp.
   Tightening torque:
   70 N·m (7.1 kgf-m, 51.6 ft-lb)
2. Install the bumper face rear. Ref. to EXTERIOR/INTERIOR TRIM>Rear Bumper>INSTALLATION > BUMPER FACE.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

3. BUMPER BRACKET

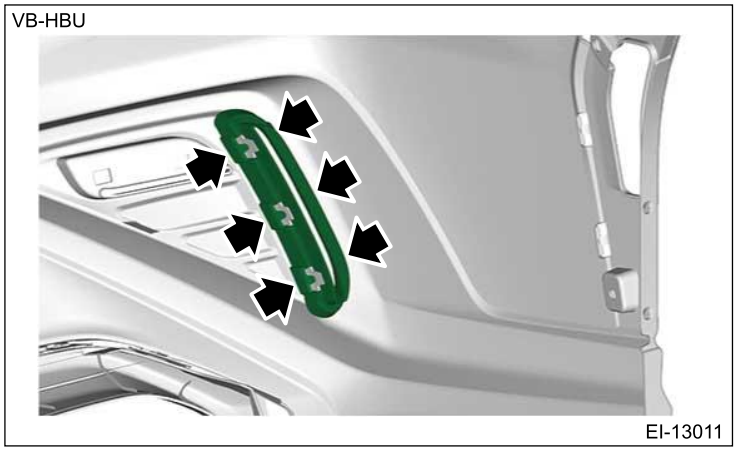
1. Install the cover side LWR.
2. Install a new bracket side rear.
3. Install the bracket corner rear.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
4. Install the trunk trim panel side.
5. Install the trim panel trunk rear. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>INSTALLATION.
6. Install the mat trunk, spacer center and spacer rear floor side.
7. Install the bumper face rear. Ref. to EXTERIOR/INTERIOR TRIM>Rear Bumper>INSTALLATION > BUMPER FACE.
8. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

EXTERIOR/INTERIOR TRIM > Rear Bumper

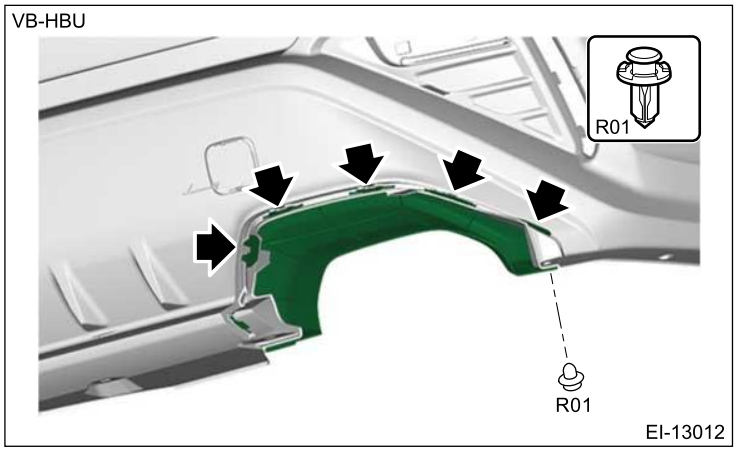
DISASSEMBLY

1. Remove the reflex reflector. Ref. to LIGHTING SYSTEM>Reflex Reflector>REMOVAL.

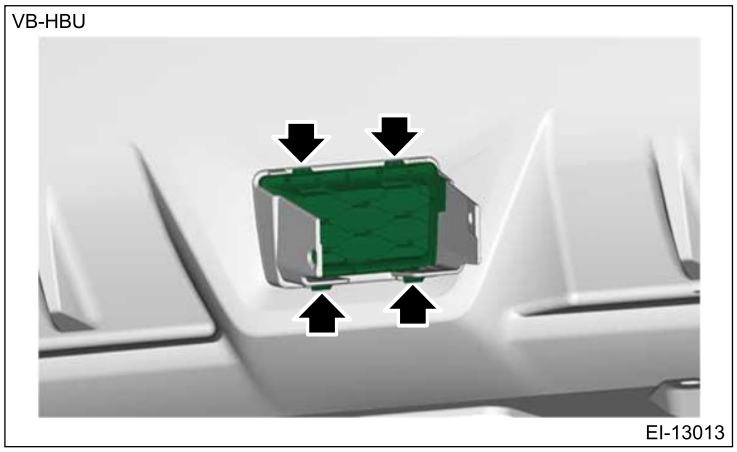
2. Remove the sonar sensor assembly and the sonar bumper cable. Ref. to REVERSE AUTOMATIC BRAKING>Sensor and Harness>REMOVAL.
3. Release the claws, and remove the cover duct.



4. Remove the clips, and remove the cover muffler.



5. Release the claws, and then remove the cover fog rear.



EXTERIOR/INTERIOR TRIM > Rear Bumper

ASSEMBLY

1. Install the cover fog rear.
2. Install the cover muffler.

3. Install the cover duct.
4. Install the sonar bumper cable and the sonar sensor assembly. Ref. to REVERSE AUTOMATIC BRAKING>Sensor and Harness>INSTALLATION.
5. Install the reflex reflector. Ref. to LIGHTING SYSTEM>Reflex Reflector>INSTALLATION.

EXTERIOR/INTERIOR TRIM > Rear Bumper

REPAIR

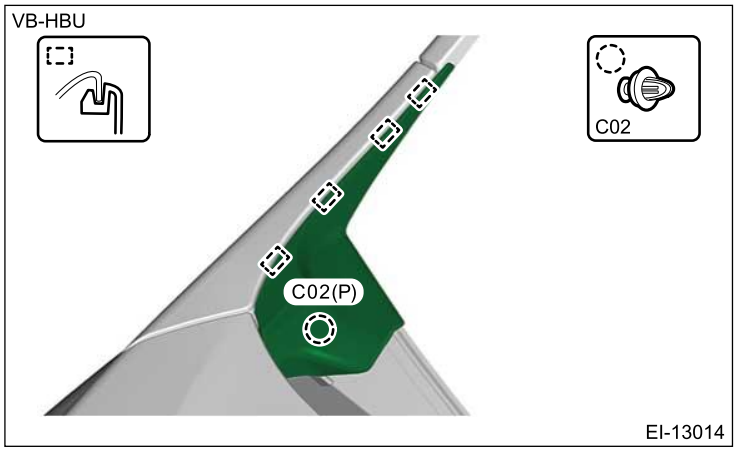
For repair procedures for the rear bumper, refer to "Front Bumper". Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REPAIR.

Caution:
The repair prohibited area is determined for the Blind Spot Detection/Rear Cross Traffic Alert system.
For precautions for rear vehicle detection function, refer to "CAUTION" in "Blind Spot Detection/Rear Cross Traffic Alert (DIAGNOSTICS)" section. Ref. to Blind Spot Detection/Rear Cross Traffic Alert (DIAGNOSTICS)>General Description>CAUTION.

REMOVAL

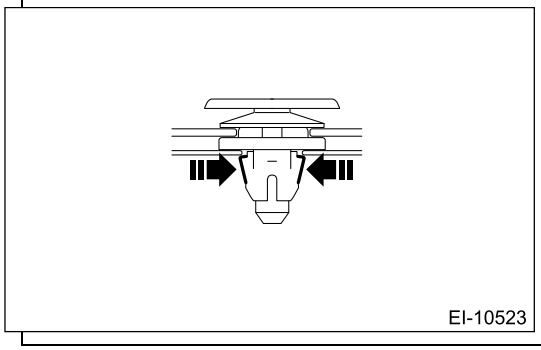
1. Clean the lower area of the front side of the windshield glass.
2. Remove the arm assembly windshield wiper. Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL.
3. Release the clips and claws, and then remove the right and left cowl panel sides.

Caution:
Pulling with excessive force may damage the cowl panel side. If it is difficult to remove, use a plastic remover or equivalent tool.

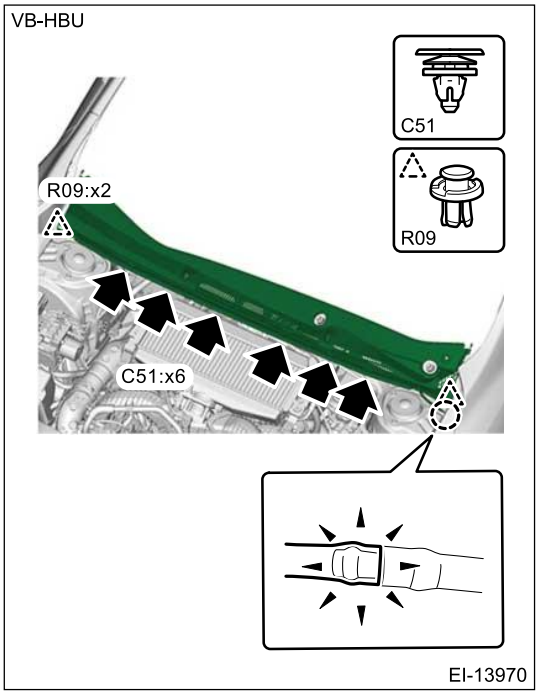


4. Remove the cowl panel assembly.

Caution:
When removing the clip from the cowl panel center, push the claw of the clip from both sides.
- **Be careful not to apply excessive force when pulling the clip, as the clip may become damaged.**
- **If pushing the claw of the clip is difficult, turning the claw position will facilitate the operation.**

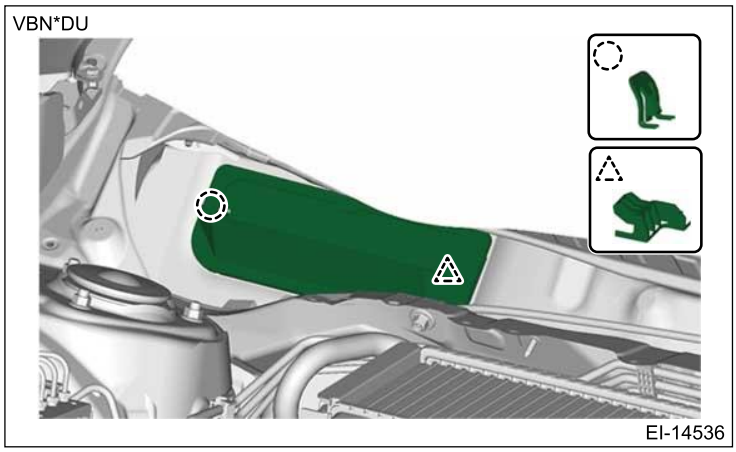


(1) Disconnect the hose assembly windshield washer.
(2) Remove the clip.
(3) Remove the cowl panel assembly by pulling it out towards the front of the vehicle.



5. Release the claws and hooks, and remove the protector blower.

Note:
Perform this procedure only when required.



6. Remove the nozzle windshield washer and the hose assembly windshield washer. Ref. to WIPER AND WASHER SYSTEMS>Front Washer>REMOVAL.

Note:
Perform this procedure only when required.

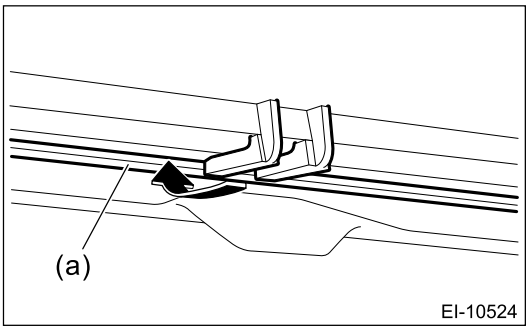
EXTERIOR/INTERIOR TRIM > Cowl Panel

INSTALLATION

1. Install the nozzle windshield washer and the hose assembly windshield washer. Ref. to WIPER AND WASHER SYSTEMS>Front Washer>INSTALLATION.
2. Install the protector blower.
3. Clean the installation area of the windshield glass and cowl panel.
4. Install the cowl panel assembly.

Caution:
If the cowl panel assembly cannot be installed properly, do not hit or set it forcibly. The claws of the cowl panel or the windshield glass may be damaged.

(1) Hook the claw of the cowl panel on the lower end (a) of the windshield glass.



(2) Align the center protrusion of the cowl panel assembly to the cutout portion of the vehicle side, then install the cowl panel assembly.

(3) Attach the clip and connect the hose assembly windshield washer.

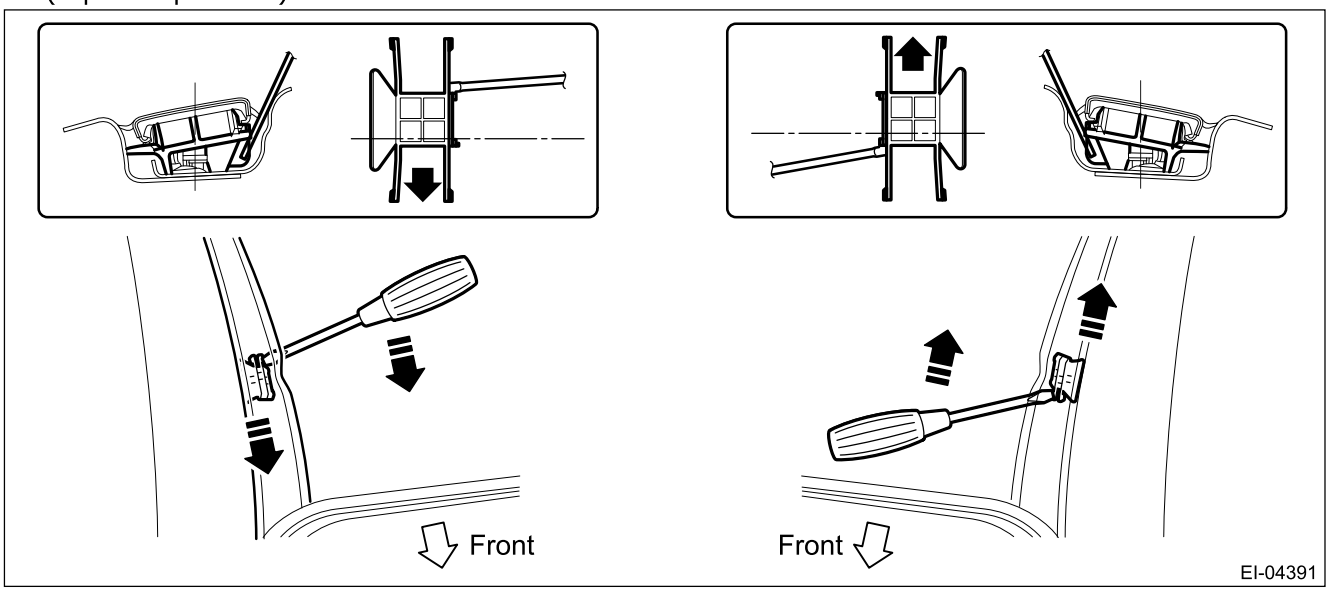
5. Install the cowl panel side.

6. Install the arm assembly windshield wiper. Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>INSTALLATION.

7. If the nozzle windshield washer is removed from the cowl panel assembly, adjust the washer spray positions. Ref. to WIPER AND WASHER SYSTEMS>Front Washer>INSPECTION.

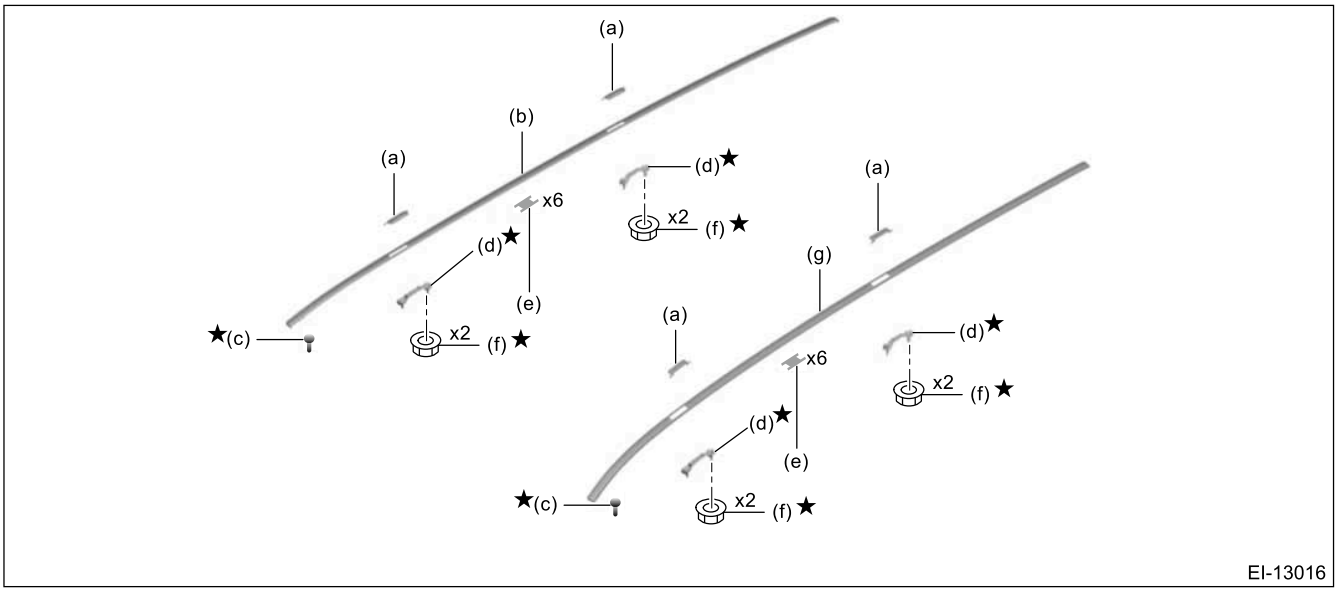
REMOVAL

1. Turn over the front end of the molding roof and release the positioning clip from the body side rivet.
2. Slide the inner fastener in the direction of the arrow using a thin flat tip screwdriver wrapped with a protection tape or a precision screwdriver, then remove the fastener from the stud on the vehicle side. (6 places per side)



Right side: Slide towards the front of the vehicle.
Left side: Slide towards the rear of the vehicle.

Note:
If the cap lid is damaged, replace the molding roof as a unit.



(a) Cap lid
(b) Molding roof RH
(d) Carrier BRKT
(e) Fastener
(g) Molding roof LH

(c) Rivet (f) Self-locking nut

3. Pull up the molding roof, and remove from the vehicle.
4. When removing the carrier BRKT, remove the bolts (2 places) that secure the trim panel roof assembly and the curtain airbag module.

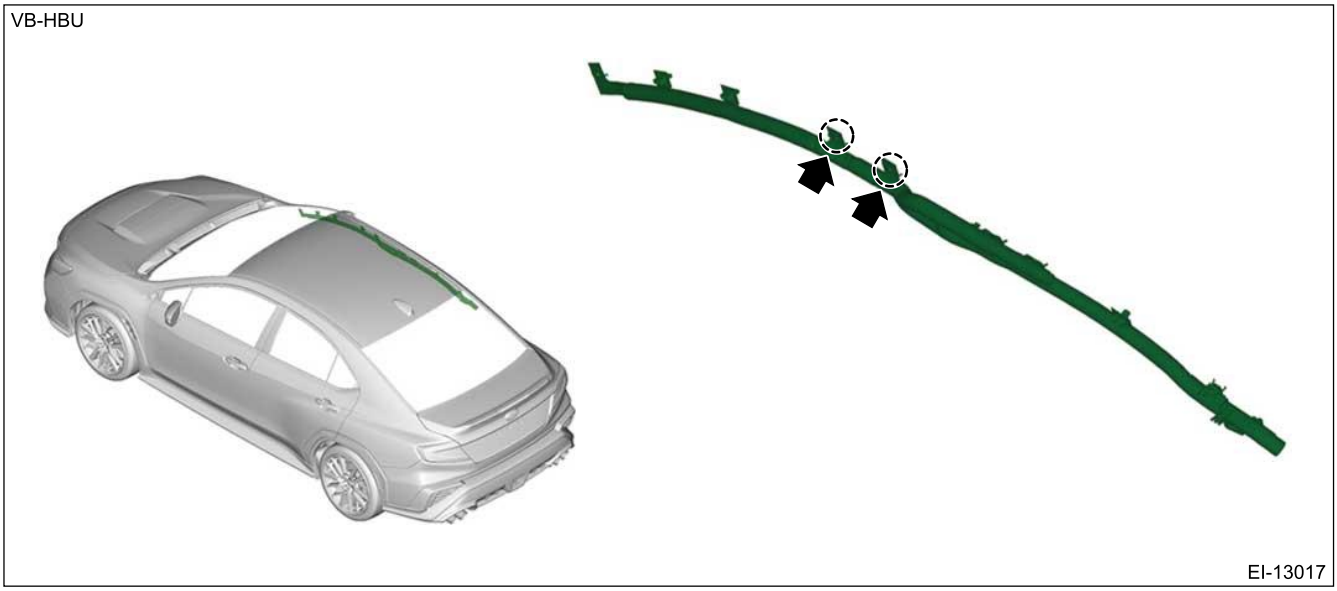
Caution:

- **Do not remove the clips securing the curtain airbag module. If any of the clips are removed, the curtain airbag module may not deploy properly in collision. If the clip is removed, replace it with a new part.**
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Be careful not to damage the curtain airbag module during removal.**

(1) Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

(2) Remove the trim panel roof assembly. Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.

(3) Remove the bolts (2 places) securing the curtain airbag module.



(4) Remove the self-locking nut, and remove the carrier BRKT.

EXTERIOR/INTERIOR TRIM > Roof Molding

INSTALLATION

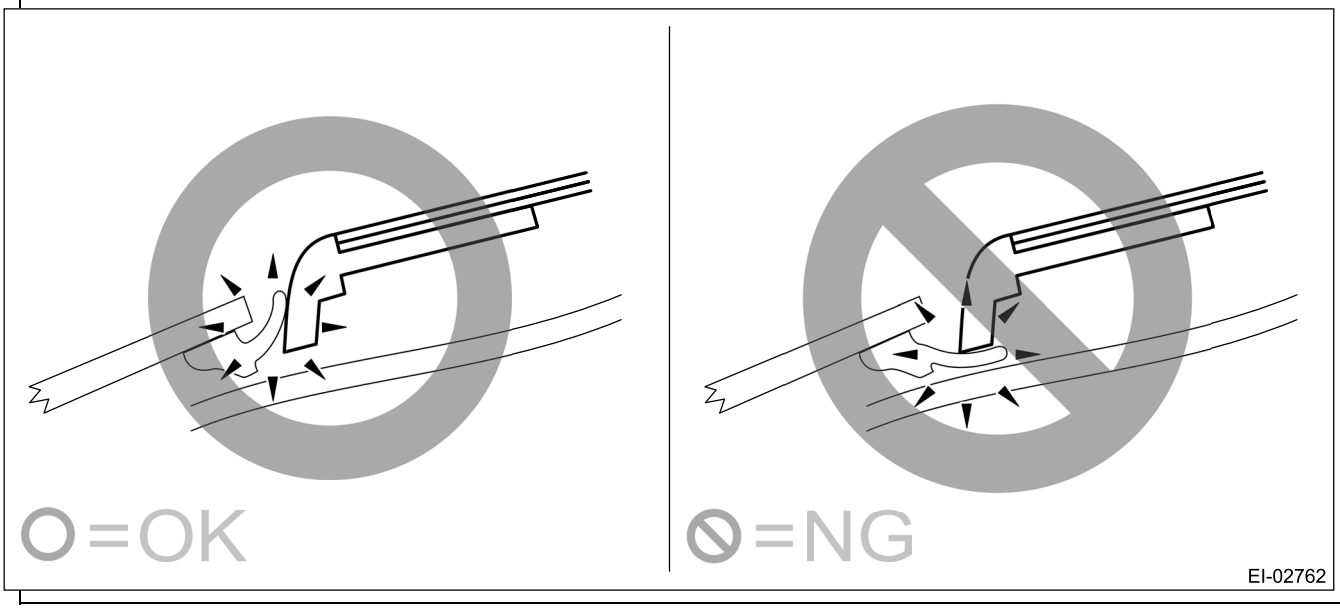
Caution:

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

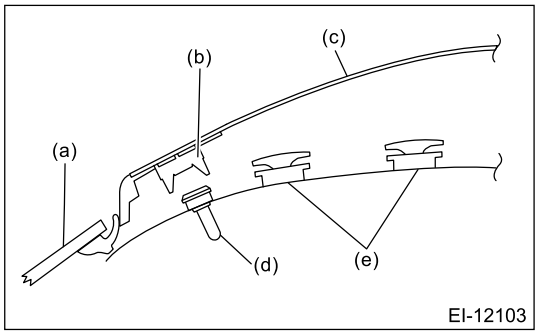
1. Install new self-locking nut and the carrier BRKT.
   Tightening torque:
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
2. Install the curtain airbag module. Ref. to AIRBAG SYSTEM>Curtain Airbag Module>INSTALLATION.
3. Install the trim panel roof assembly. Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>INSTALLATION.
4. Remove the fasteners from the molding roof, and attach to the studs on the vehicle.

Note:

- **Replace the fasteners that were damaged during removal of the molding roof with new parts.**
- **While installing the molding roof, be careful not to catch the glass molding with the tip of the front side and rear side during operation.**



5. Push the front end of the molding roof against the front window, and attach the forward positioning clip onto the rivet on the body.



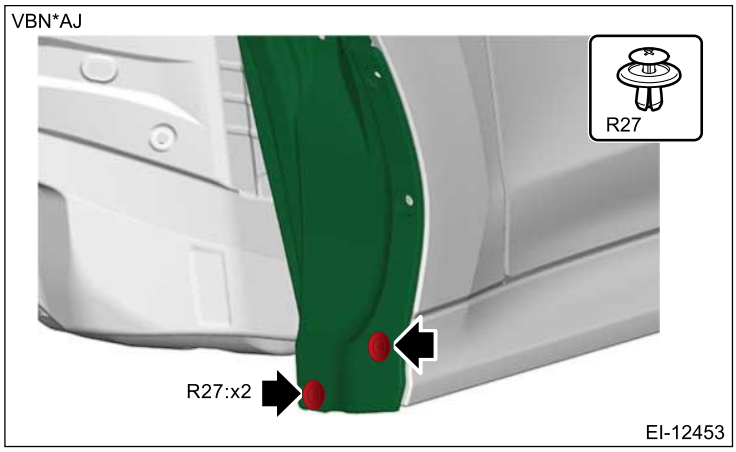
(a) Windshield
(b) Positioning clip
(c) Molding roof
(d) Rivet
(e) Fastener

6. While pushing down the molding roof from above, fit the molding roof and the fastener.

7. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

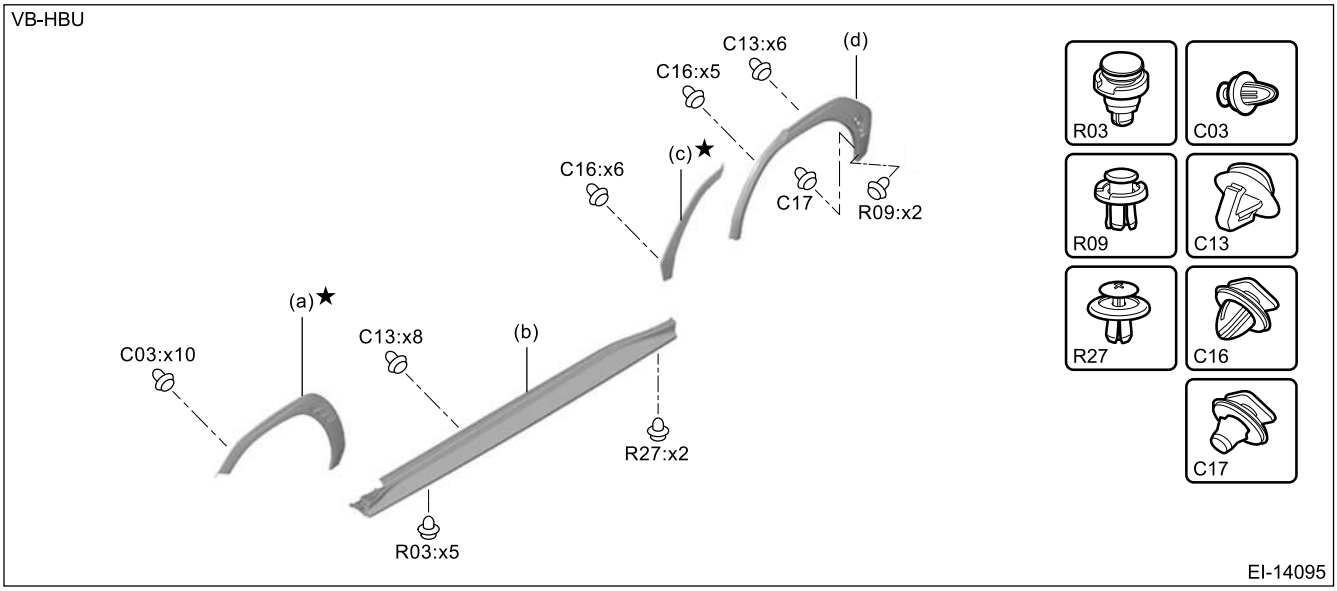
REMOVAL

1. Remove the clips, and turn over the mud guard front.



2. Release the clips, and remove the spoiler assembly side sill and the garnish assembly rear quarter.

Note:
Remove with the door open to prevent door interference.



(a) Garnish ASSY fender
(b) Spoiler ASSY side sill
(c) Garnish ASSY rear door
(d) Garnish ASSY rear quarter

3. Remove the garnish assembly fender and the garnish assembly rear door.
   (1) Attach the protective tape to the periphery of the garnish.
   (2) Heat the garnish section for 3 — 5 minutes to 40°C — 60°C (104°F — 140°F) using a heat light or a drier.

Caution:
Be careful not to burn yourself.

(3) Separate the bonded part of double sided tape with a nylon cord or equivalent.
(4) Release the clips and remove the garnish assembly fender and the garnish assembly rear door.

EXTERIOR/INTERIOR TRIM > Side Garnish & Side Spoiler

INSTALLATION

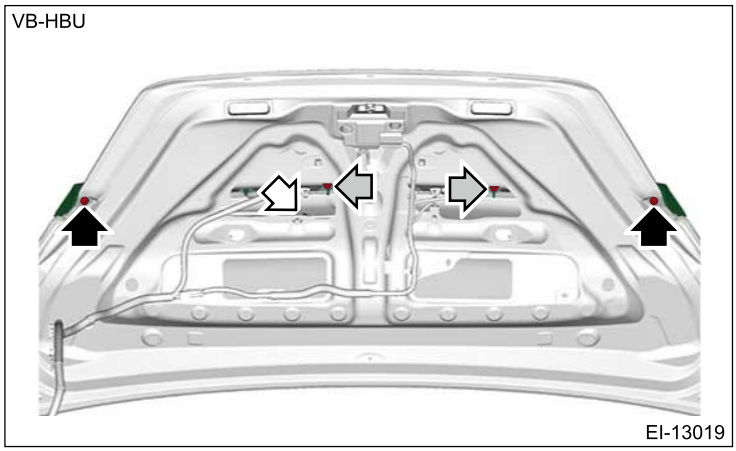
Caution:
- **Make sure that there is a gasket attached on the clip of the garnish assembly and the spoiler assembly. If a gasket is not attached, water leakage may occur.**
- **Do not reuse the following garnish assembly. The double-sided tape is damaged and deformed during removal. If reused, it may lead to improper adhesion.**
  – Garnish assembly fender
  – Garnish assembly rear door

1. Install a new garnish assembly rear door.
   (1) Remove the double-sided tape remaining on the vehicle body, then clean the adhesive surface.
   Note:
   If even a slight amount of double-sided tape remains on the adhesive surface, it may lead to improper adhesion.
   (2) Heat the vehicle body and the garnish assembly rear door for 1 — 3 minutes using a heat light or a drier.
   Caution:
   Be careful not to burn yourself.
   (3) Peel off the backing papers, engage the clips, and adhere the garnish assembly rear door to the vehicle body.
   Note:
   Press-fit the garnish assembly rear door to adhere securely.
2. Install the garnish assembly fender in the same manner as the garnish assembly rear door.
3. Install the garnish assembly rear quarter and the spoiler assembly side sill.
   Caution:
   Do not reuse the spoiler assembly side sill that has been deformed during removal.
   Note:
   Install with the door open to prevent door interference.
4. Install the mud guard front.

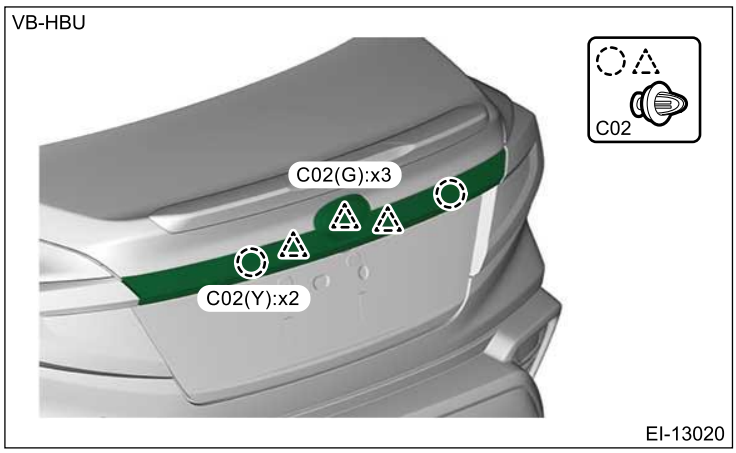
EXTERIOR/INTERIOR TRIM > Trunk Lid Garnish

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel trunk lid. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.
3. Remove the garnish assembly trunk.
   (1) Disconnect the trunk opener button connector.
   (2) Remove the bolts and nuts.



   (3) Release the clips, and remove the garnish assembly trunk.



EXTERIOR/INTERIOR TRIM > Trunk Lid Garnish

INSTALLATION

Caution:
- **Make sure that there is a gasket attached on the clip and bolt of the garnish assembly. If a gasket is not attached, water leakage may occur.**
- **Make sure that the harness grommet is securely installed. If not properly installed, this may cause leaks or noises.**

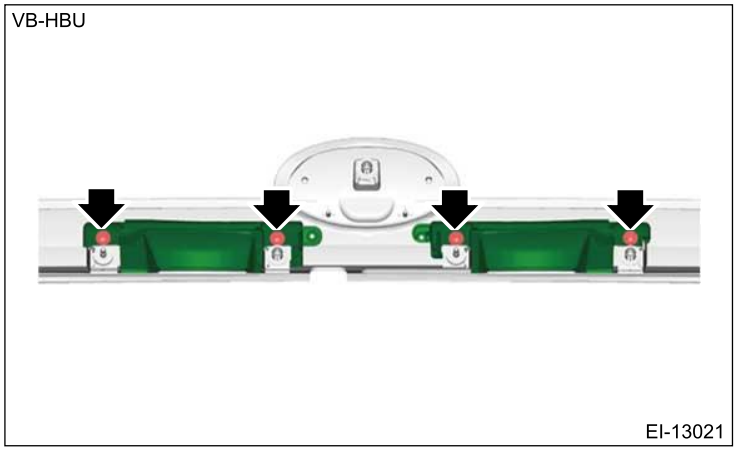
1. Install the garnish assembly trunk.
   Tightening torque:
   4.5 N·m (0.5 kgf-m, 3.3 ft-lb)
2. Connect the trunk opener button connector.

3. Install the trim panel trunk lid. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>INSTALLATION.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

EXTERIOR/INTERIOR TRIM > Trunk Lid Garnish

DISASSEMBLY

1. Remove the trunk opener button. Ref. to SECURITY AND LOCKS>Trunk Opener Button>REMOVAL.
2. Remove the screws, and remove the garnish INN cover.



EXTERIOR/INTERIOR TRIM > Trunk Lid Garnish

ASSEMBLY

1. Install the garnish INN cover.
2. Install the trunk opener button. Ref. to SECURITY AND LOCKS>Trunk Opener Button>INSTALLATION.

EXTERIOR/INTERIOR TRIM > Trunk Lid Garnish

REPLACEMENT

1. Remove the ornament rear slowly.
2. Remove the double-sided tape remaining on the garnish assembly trunk, then clean the adhesive surface.

Caution:
Do not use any solvents that may damage the garnish assembly coating.

Note:
If even a slight amount of double-sided tape remains on the adhesive surface, it may lead to improper adhesion.

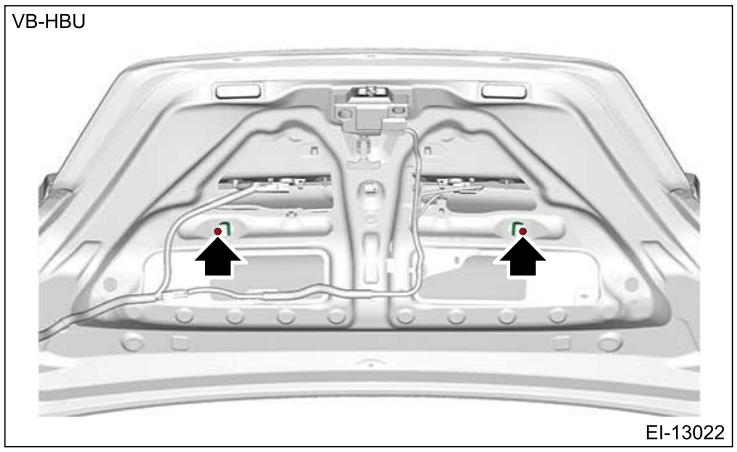
3. Degrease the mounting surface of the ornament rear.
4. Apply primer to the ornament rear mounting surfaces of garnish assembly trunk.
   Preparation items:
   Primer: 3M K-520, K-500 or equivalent
5. Affix a new ornament rear.

Note:
Affix so that there should be no gap between garnish assembly and ornament.

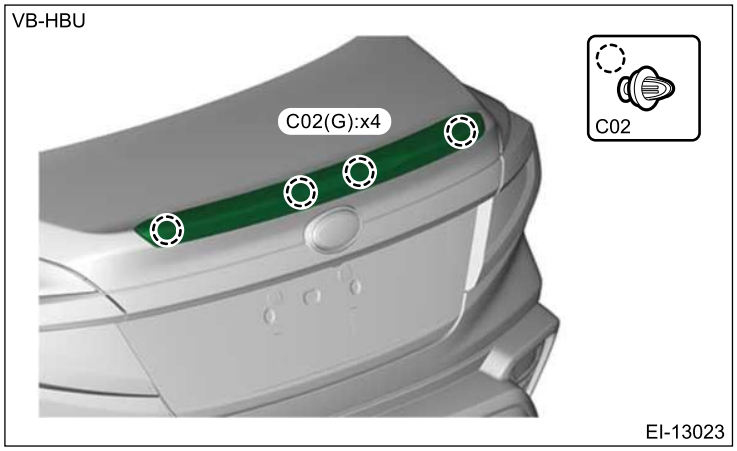
EXTERIOR/INTERIOR TRIM > Rear Spoiler

REMOVAL

1. Remove the trim panel trunk lid. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.
2. Remove the spoiler assembly rear.
   (1) Remove the bolt.



   (2) Release the clips, and remove the spoiler assembly rear.



EXTERIOR/INTERIOR TRIM > Rear Spoiler

INSTALLATION

Caution:
- **Make sure that there is a gasket attached on the clip of the spoiler assembly. If a gasket is not attached, water leakage may occur.**
- **Make sure the bolt is tightened securely because improper installation may cause the water leakage.**

1. Install the spoiler assembly rear.
   Tightening torque:
   4.5 N·m (0.5 kgf-m, 3.3 ft-lb)
2. Install the trim panel trunk lid. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>INSTALLATION.

EXTERIOR/INTERIOR TRIM > Heat Shield Cover

NOTE

Refer to “Muffler” in the “EXHAUST SYSTEM” section for operation procedures of the heat shield cover. Ref. to EXHAUST(H4DOTC)>Muffler.

EXTERIOR/INTERIOR TRIM > Ornament

REMOVAL

1. LETTER MARK

1. Attach the protective tape to the periphery of the letter mark.
2. Heat the letter mark using a heat light or a drier.

   Caution:
   Be careful not to burn yourself.
3. Separate the bonded part of double sided tape with a nylon cord or equivalent.
4. Remove the letter mark.

EXTERIOR/INTERIOR TRIM > Ornament

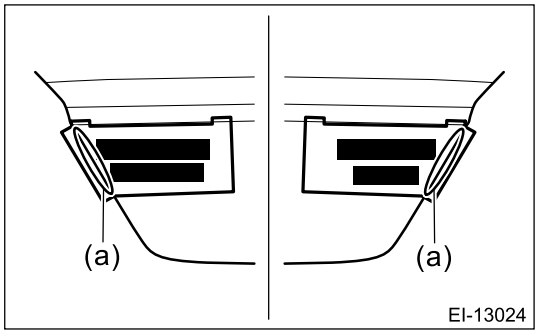
INSTALLATION

1. LETTER MARK

1. Remove the double-sided tape remaining on the vehicle body, then clean the adhesive surface.

   Note:
   If even a slight amount of double-sided tape remains on the adhesive surface, it may lead to improper adhesion.
2. If the temperature of working conditions is less than 20°C (68°F), heat the body to 20 — 30 °C (68 — 86 °F) using a heat light or a drier.

   Caution:
   Be careful not to burn yourself.
3. Apply a new letter mark.
   (1) Align the end of application board with the position below, then adhere the letter mark.



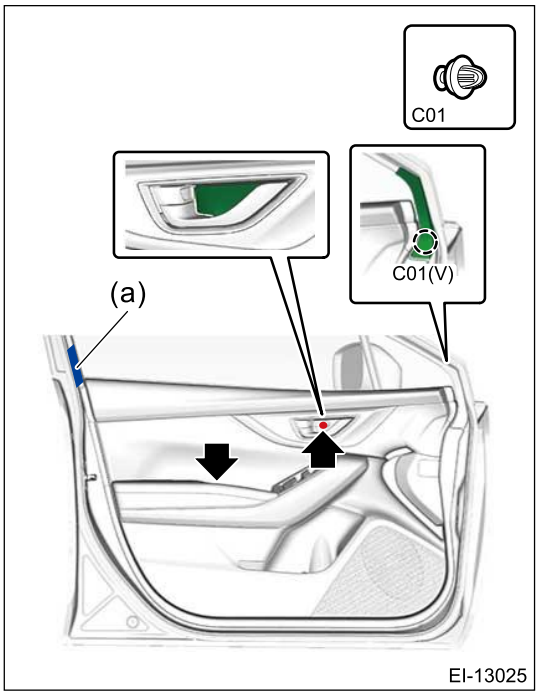
(a) Bend the application board, and fit along the end of the trunk panel.

REMOVAL

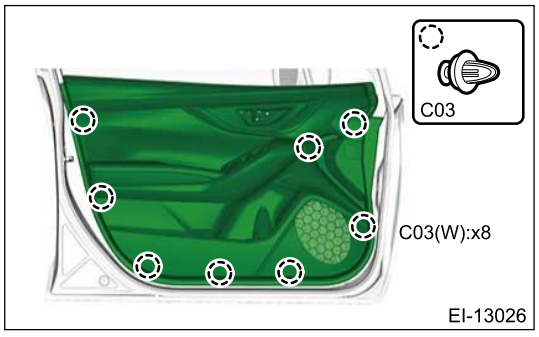
1. FRONT DOOR

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

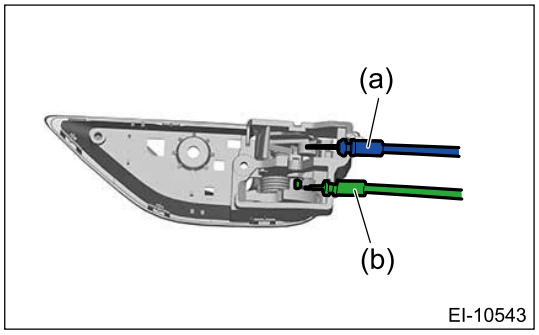
1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel front door.
   (1) Attach the protective tape (a).
   (2) Remove the cap remote and then remove the screws.
   (3) Open the hand cup cover and remove the screw.
   (4) Release the clips, and remove the cover sash inner front.



   (5) Release the clips.



   (6) Remove the trim panel front door while pulling it toward the upper side of the vehicle.
   (7) Remove the cable from the remote assembly door.



(a) Door lock cable

(b) Door open cable

(8) Disconnect each connector, and remove the trim panel front door.

3. Remove each part as required.

- Remote assembly door: Ref. to SECURITY AND LOCKS>Door Inner Remote>REMOVAL > FRONT.
- Switch power window sub front: Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch>REMOVAL > SUB-SWITCH.
- Switch power window main: Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch>REMOVAL > MAIN SWITCH.

2. REAR DOOR

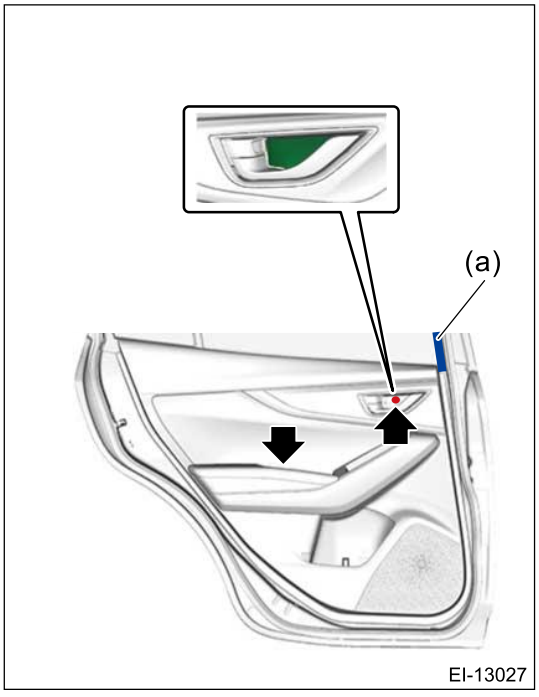
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. Remove the trim panel rear door.

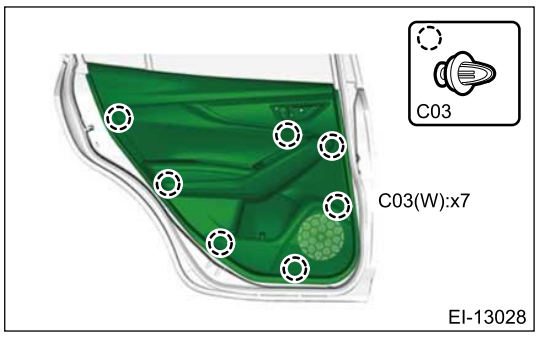
(1) Attach the protective tape (a).

(2) Remove the cap remote and then remove the screws.

(3) Open the hand cup cover and remove the screw.



(4) Release the clips.



(5) Remove the trim panel rear door while pulling it toward the upper side of the vehicle.
(6) Remove the cable from the remote assembly door.

(a) Door lock cable
(b) Door open cable

(7) Disconnect the connector and remove the trim panel rear door from the back side.

3. Remove each part as required.
   - Remote assembly door: Ref. to SECURITY AND LOCKS>Door Inner Remote>REMOVAL > REAR.
   - Switch power window sub rear: Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch>REMOVAL > SUB-SWITCH.

EXTERIOR/INTERIOR TRIM > Door Trim

INSTALLATION

1. FRONT DOOR

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Before installation, check the following items.
   - Make sure that there are no clips of the trim panel front door remaining on the door panel.
   - Make sure that there is a gasket attached on the clip of the trim panel front door. If the gasket is remaining on the door panel, attach it to the clip.
   - Cable is free from deformation such as fray.
   - Grease is applied sufficiently to cable joints. Ref. to SECURITY AND LOCKS>Door Inner Remote>INSTALLATION > FRONT.
   - Make sure that the sealing cover is securely installed. Ref. to EXTERIOR BODY PANELS>Sealing Cover>INSTALLATION.
2. Install the removed parts to the trim panel front door.

3. Install the trim panel front door.
   (1) Connect each connector.
   (2) Install the cable to the remote assembly door.

> **Note:**
> **Attach the door lock cable (a) to the upper side, and attach the door open cable (b) to the lower side.**

(a) Door lock cable
(b) Door open cable

   (3) Insert the upper portion of the trim panel front door into the door panel window shoulder portion and gently press in, then install the clip to the panel.

> **Note:**
> **For an easier procedure, attach the front side first.**

   (4) Install the screws.
   (5) Install the cap remote and the cover sash inner front.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. REAR DOOR

1. Before installation, check the following items.
   - Make sure that there are no clips of the trim panel rear door remaining on the door panel.
   - Make sure that there is a gasket attached on the clip of the trim panel rear door. If the gasket is remaining on the door panel, attach it to the clip.
   - Cable is free from deformation such as fray.
   - Grease is applied sufficiently to cable joints. Ref. to SECURITY AND LOCKS>Door Inner Remote>INSTALLATION > REAR.
   - Make sure that the sealing cover is securely installed. Ref. to EXTERIOR BODY PANELS>Sealing Cover>INSTALLATION.
2. Install the removed parts to the trim panel rear door.
3. Install the trim panel rear door.
   (1) Connect the connector.
   (2) Install the cable to the remote assembly door.

Note:
Attach the door lock cable (a) to the upper side, and attach the door open cable (b) to the lower side.

(a) Door lock cable
(b) Door open cable

(3) Insert the upper portion of the trim panel rear door into the door panel window shoulder portion and gently press in, then install the clip to the panel.

Note:
For an easier procedure, attach the rear side first.

(4) Install the screws.
(5) Install the cap remote.

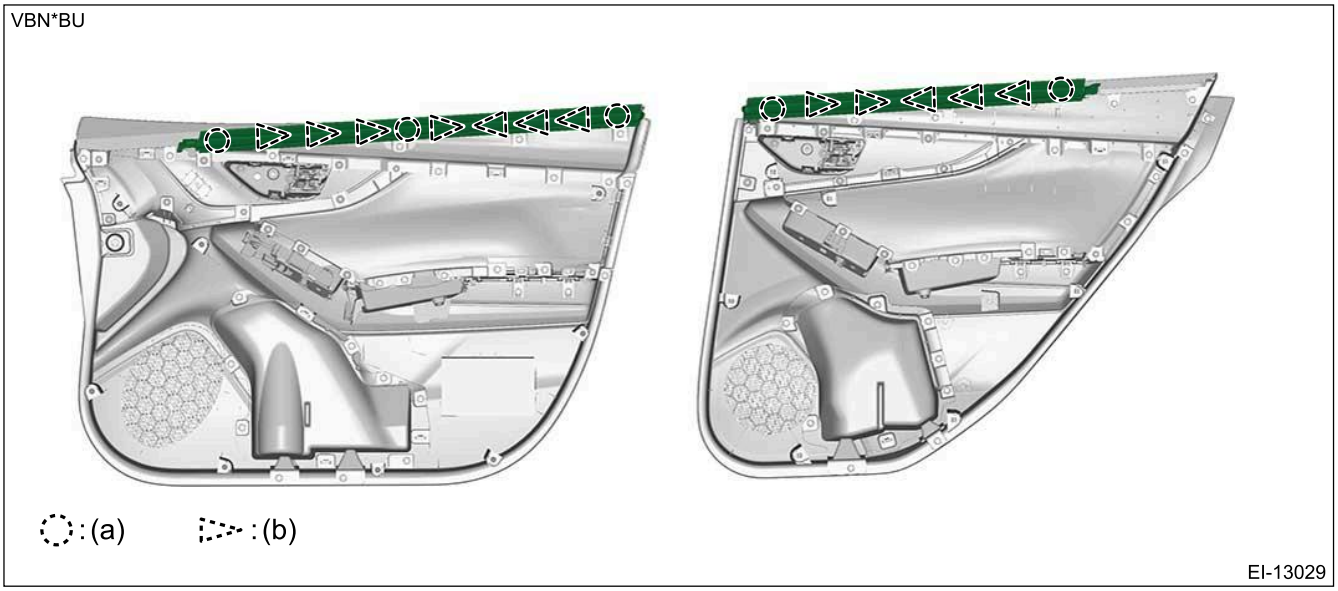
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

EXTERIOR/INTERIOR TRIM > Door Trim

DISASSEMBLY

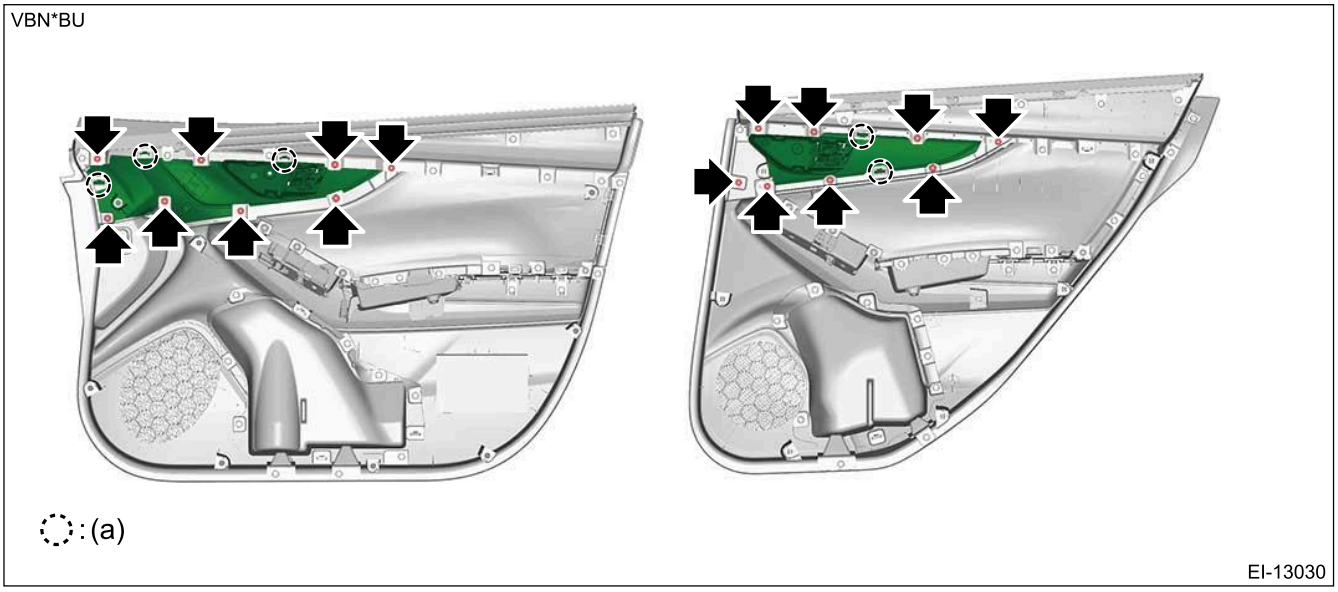
1. Disengage the rivets and claws, and remove the weather strip inner door from the trim panel door.

Note:
Remove the rivets with a rivet cutter or nipper, etc.



(a) Rivet (b) Claw

2. Remove the screws and release the claws, then detach the panel ornament.



(a) Claw

EXTERIOR/INTERIOR TRIM > Door Trim

ASSEMBLY

1. Install the panel ornament.

2. Bend the claws while pushing the weather strip inner door against the trim panel door.

Caution:
Beware of the direction of folding the claws.

3. Use a hand riveter (corresponding to ⌀3.2 mm (0.13 in)) to install the rivets, and apply unwoven cloth tape over the rivet crimped section.

Caution:

- **Set the height of rivet crimped section as 3 mm (0.12 in). If the crimp is not sufficient, press it with pliers, etc. in order to avoid interfering with the trim panel door.**
- **Apply unwoven cloth tape so that the rivet crimped section is covered. If unwoven cloth tape is not applied, a knocking noise may occur when the trim panel door contacts the rivet crimped section.**

Preparation items:

Unwoven cloth tape (part No. 94029FG000)

Note:

Use the unwoven cloth tape by cutting into 15 mm × 15 mm (0.59 in × 0.59 in).

(a) Rivet (b) Direction of folding claws

4. After installing the weather strip inner door, perform the following checks.

- Make sure there are no gaps between the weather strip inner door and the trim panel door.
- Make sure there is no looseness when pulling the weather strip inner door lightly.

REMOVAL

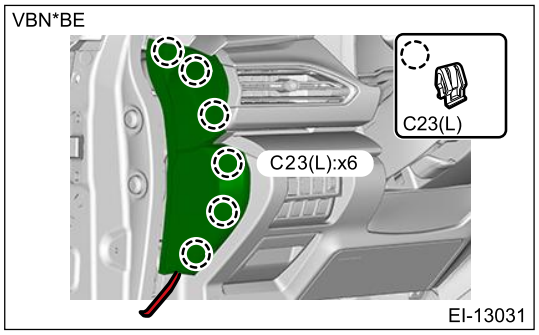
Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Be careful not to damage the airbag system harness when servicing the instrument panel. Damage may cause the system to malfunction.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the clips, and remove the cover assembly instrument panel side LH.

Note:

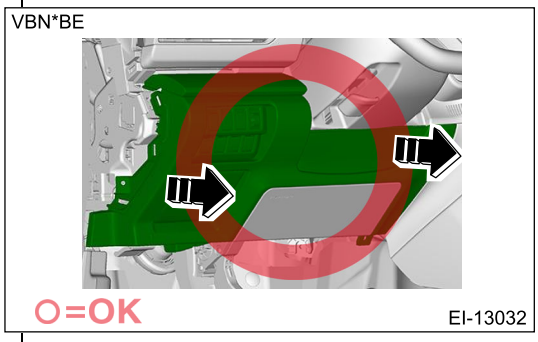
- **Use a plastic remover.**
- **If removing is difficult, remove the weather strip and remove it from the gap using a plastic remover.**



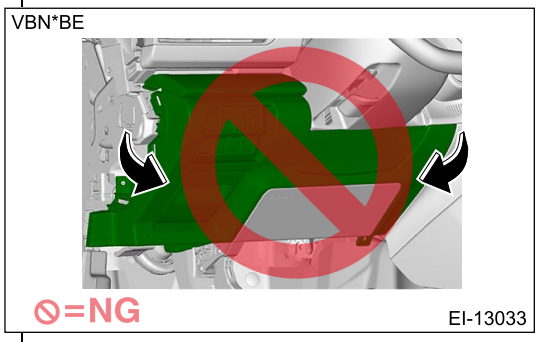
3. Remove the cover LWR driver.

Caution:

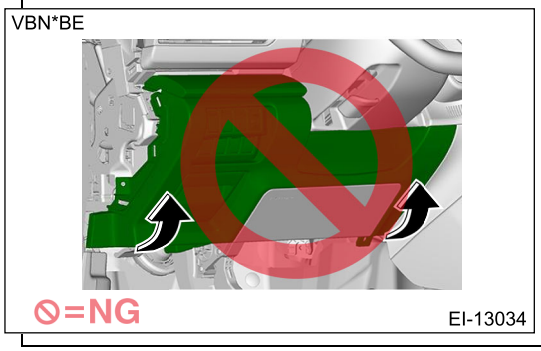
- **When removing the cover LWR driver, be sure to pull it toward you.**



- **If attempting to remove by turning it laterally, the bridging part may be damaged.**

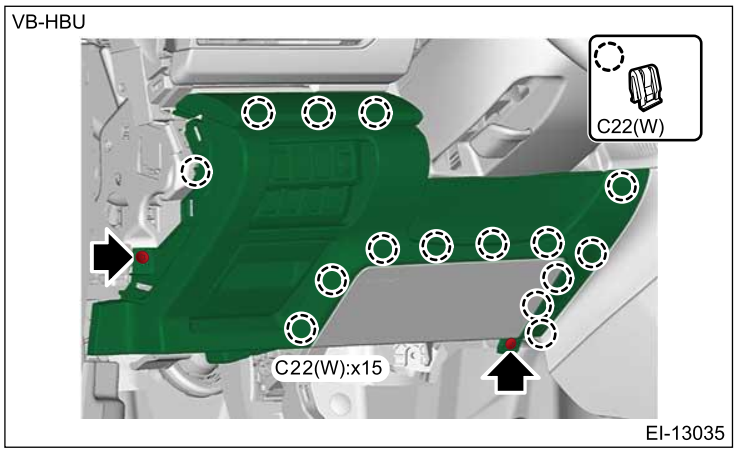


- **If attempting to remove by turning it upward, the claws may be damaged.**



(1) Remove the screws and release the clip.

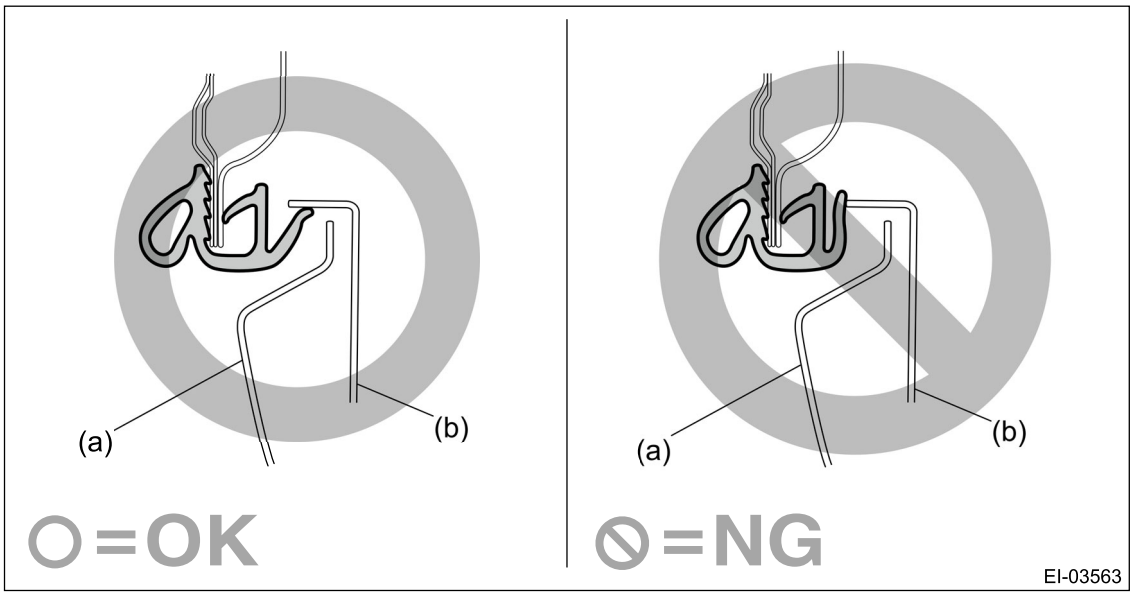
(2) Disconnect each connector and remove the cover LWR driver.



INSTALLATION

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Be careful not to damage the airbag system harness when servicing the instrument panel. Damage may cause the system to malfunction.**
- **When installing the cover assembly instrument panel side (a), make sure that the weather strip does not come inside the panel COMPL instrument (b).**



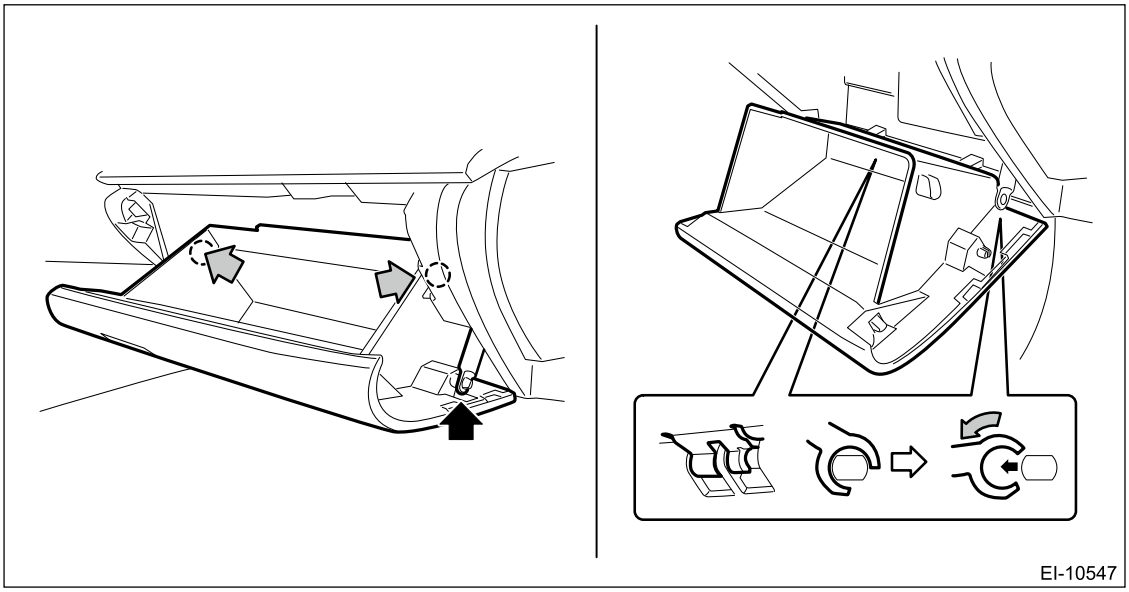
1. Connect each connector, and install the cover LWR driver.
2. Install the cover assembly instrument panel side LH.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

REMOVAL

1. GLOVE BOX LID

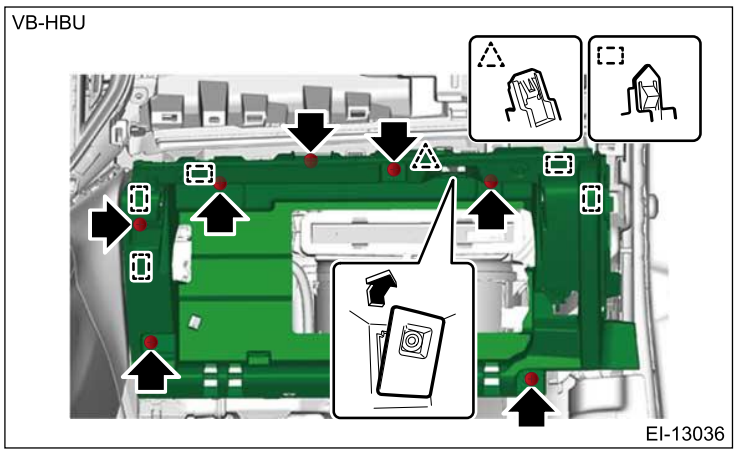
Note:
For the key cylinder replacement procedures, refer to "Glove Box Lid" in the "SECURITY & LOCKS" section. Ref. to SECURITY AND LOCKS>Key Lock Cylinders>REPLACEMENT > GLOVE BOX LID.

1. Remove the pocket COMPL.
   (1) Remove the damper assembly.
   (2) Release the stoppers and remove the pocket COMPL by pulling it toward you.



2. BACK PANEL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the pocket COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL > GLOVE BOX LID.
3. Remove the cover assembly instrument panel side RH and the ornament assembly passenger. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>REMOVAL.
4. Remove the panel instrument passenger.
   (1) Remove the glove box light LED, and disconnect the connector.
   (2) Remove the screws and release the claws, remove the panel instrument passenger.



EXTERIOR/INTERIOR TRIM > Glove Box

INSTALLATION

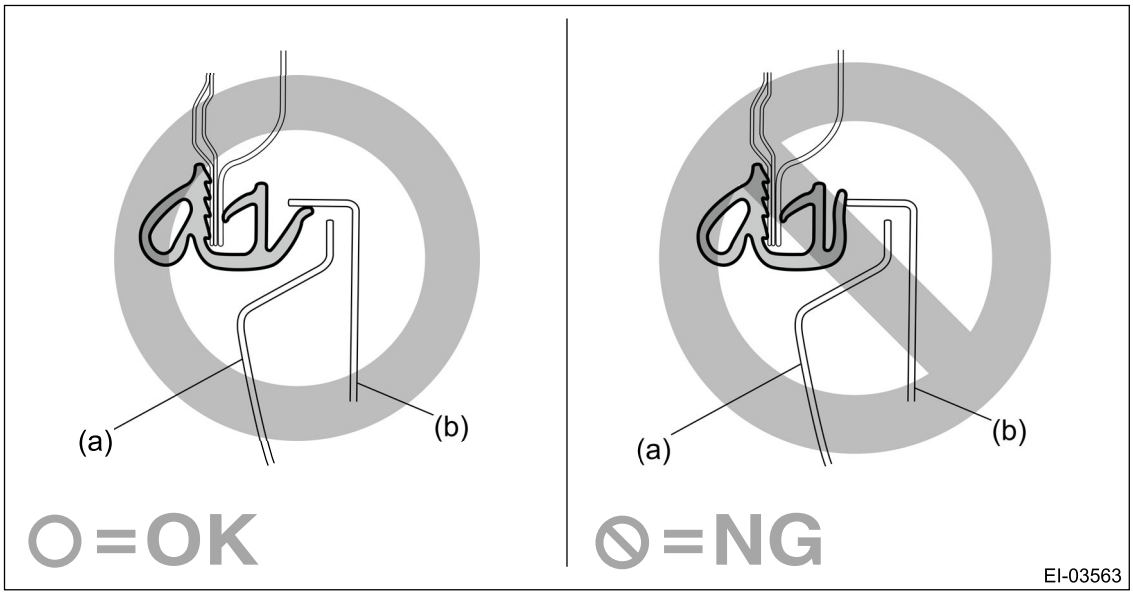
1. GLOVE BOX LID

1. Install the pocket COMPL.

2. BACK PANEL

Caution:

When installing the cover assembly instrument panel side (a), make sure that the weather strip does not come inside the panel COMPL instrument (b).

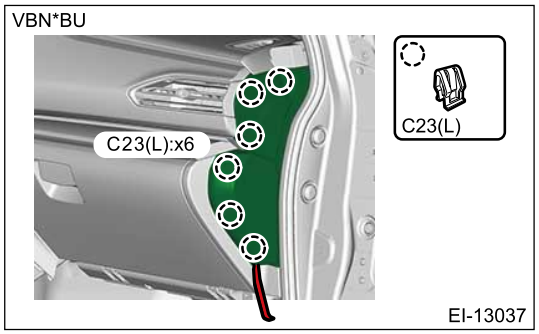


1. Install the panel instrument passenger.
2. Connect the connector, and install the glove box light LED.
3. Install the ornament assembly passenger and cover assembly instrument panel side RH. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>INSTALLATION.
4. Install the pocket COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>INSTALLATION > GLOVE BOX LID.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

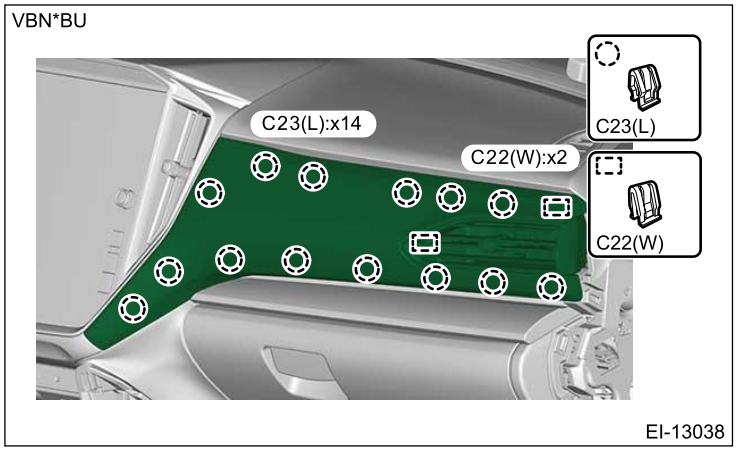
REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the clips, and remove the cover assembly instrument panel side RH.

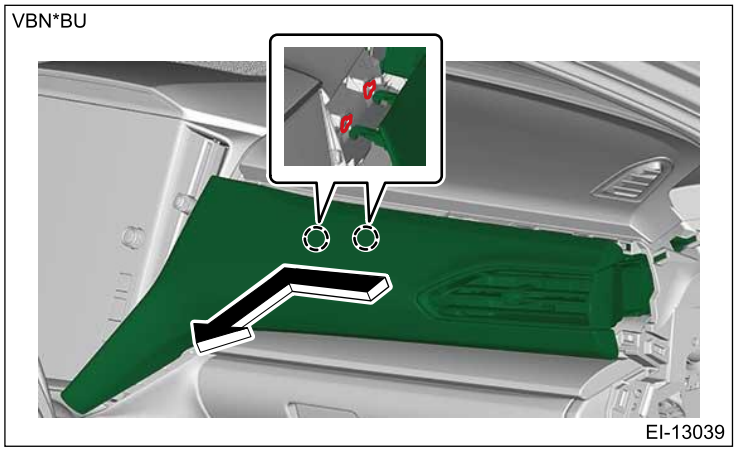
Note:
- **Use a plastic remover.**
- **If removing is difficult, remove the weather strip and remove it from the gap using a plastic remover.**



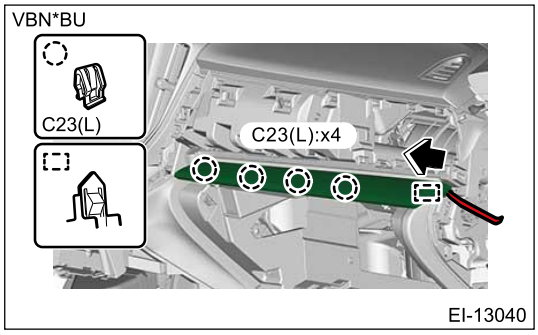
3. Remove the ornament panel mid passenger.
   (1) Pull the ornament panel mid passenger toward you and release the clips.



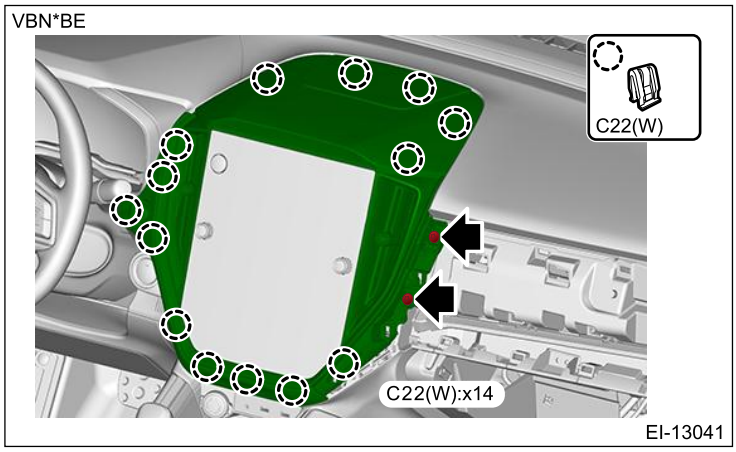
   (2) Move the part in the direction of arrow to release the hook.
   (3) Remove the ornament panel mid passenger.



4. Release the clips and claws, and remove the ornament assembly passenger.



5. Remove the panel assembly center.
(1) Release the screws and clips and pull out the panel assembly center.



(2) Disconnect the connector, and remove the panel assembly center.

6. Remove the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>REMOVAL.

EXTERIOR/INTERIOR TRIM > Centor Cluster

INSTALLATION

Caution:

When installing the cover assembly instrument panel side (a), make sure that the weather strip does not come inside the panel COMPL instrument (b).

1. Install the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>INSTALLATION.
2. Connect the connector, and install the panel assembly center.
3. Install the ornament assembly passenger.
4. Install the ornament panel mid passenger.
5. Install the cover assembly instrument panel side RH.
6. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

EXTERIOR/INTERIOR TRIM > Center Console

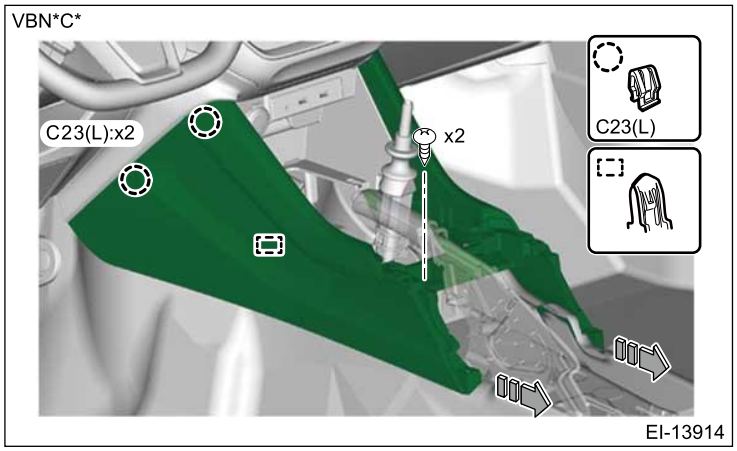
REMOVAL

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

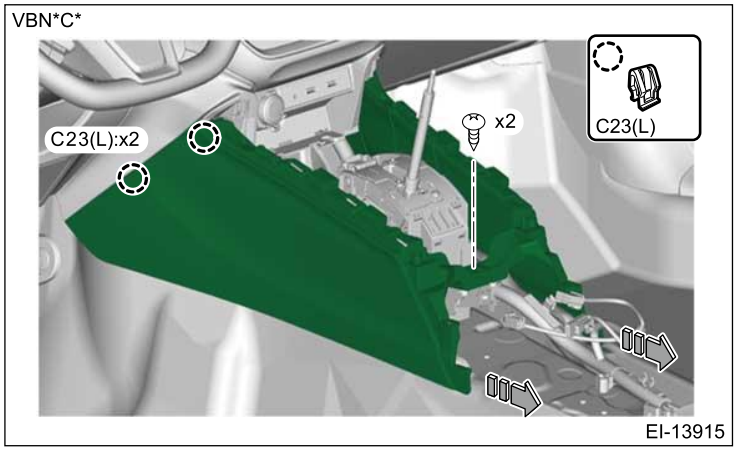
1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.
3. Remove the screws and release the clips, and remove the cover center side.

Note:
Release the clips on the RH side in the same procedure as on the LH side.

- MT model



- CVT model



EXTERIOR/INTERIOR TRIM > Center Console

INSTALLATION

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

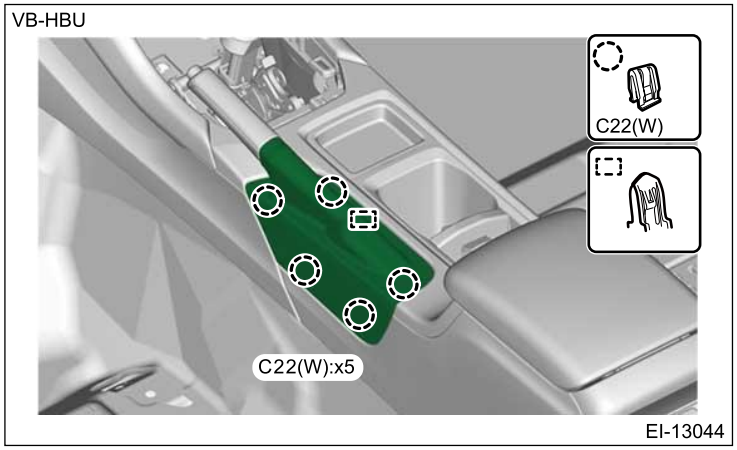
1. Install the cover center side.
2. Install the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

REMOVAL

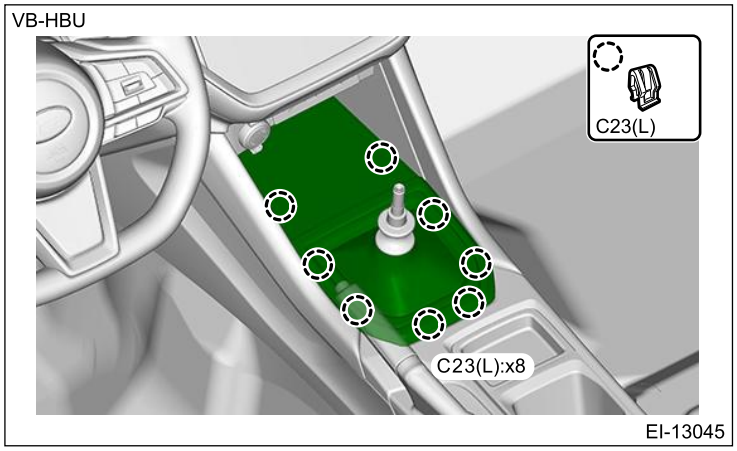
1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

Note:
For models with power seat, move the front seat all the way forward before disconnecting the ground terminal from the battery sensor.

2. Release the clips and claws, and then remove the boot assembly parking brake. (MT model)



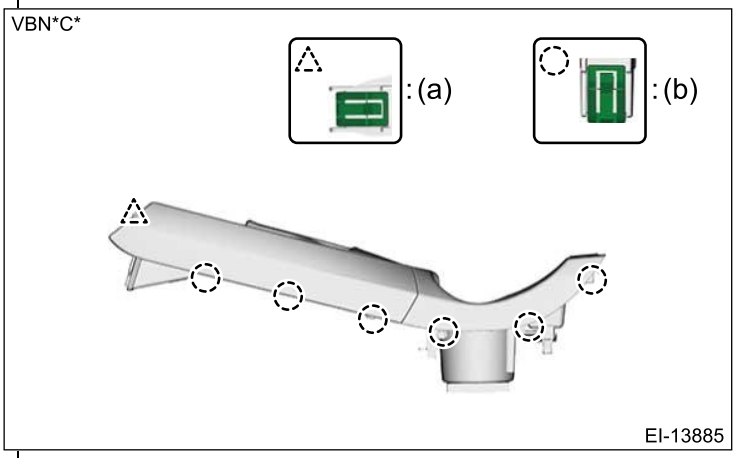
3. Remove the shift knob. (MT model) Ref. to CONTROL SYSTEMS>MT Gear Shift Lever>REMOVAL.
4. Release the clips and remove the tray center LWR and the shift boot. (MT model)



5. Remove the grip. (CVT model) Ref. to CONTROL SYSTEMS>Select Lever>REMOVAL.
6. Remove the cover assembly front.

Caution:

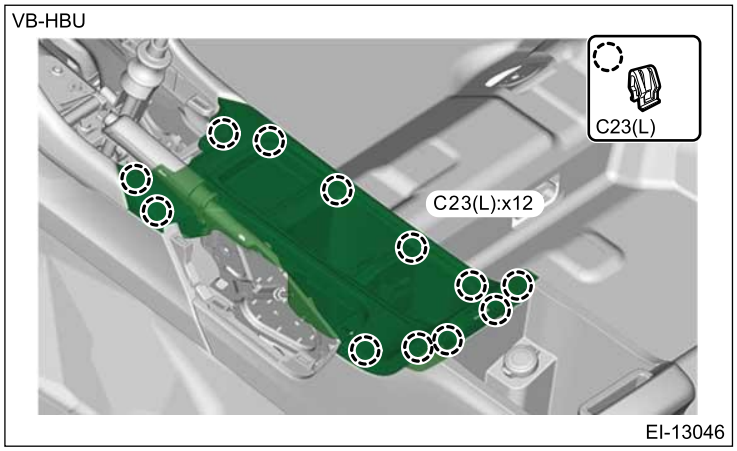
For CVT model, be careful of the clip direction when removing. The cover assembly front may be damaged.



(a) Forward (b) Downward

(1) Release the clips.

- MT model



- CVT model

(2) Disconnect the connector, and remove the cover assembly front.

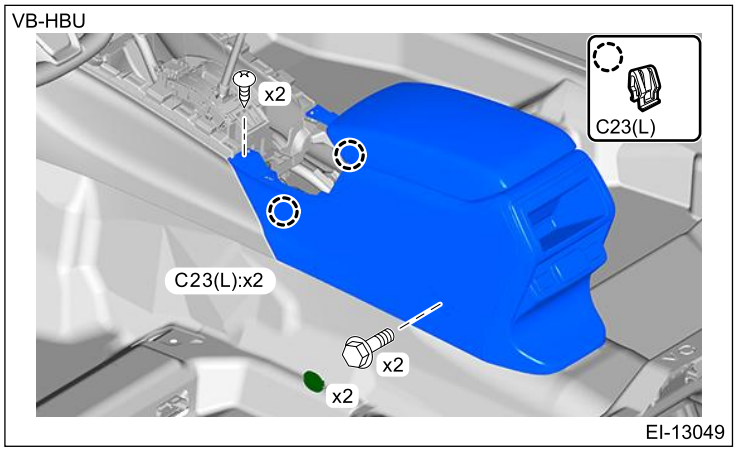
7. Remove the console box assembly.

(1) Remove the cap console and bolts.

(2) Remove the screws and release the clip.
(3) Disconnect the connector, and remove the console box assembly.

- MT model

- CVT model



EXTERIOR/INTERIOR TRIM > Console Box

INSTALLATION

1. Install the console box assembly and connect the connector.
   Tightening torque:
   6.5 N·m (0.7 kgf-m, 4.8 ft-lb)
2. Connect the connector, and install the cover assembly front.
3. Install the grip. (CVT model) Ref. to CONTROL SYSTEMS>Select Lever>INSTALLATION.
4. Install the tray center LWR and the shift boot. (MT model)
5. Install the shift knob. (MT model) Ref. to CONTROL SYSTEMS>MT Gear Shift Lever>INSTALLATION.
6. Install the boot assembly parking brake. (MT model)
7. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

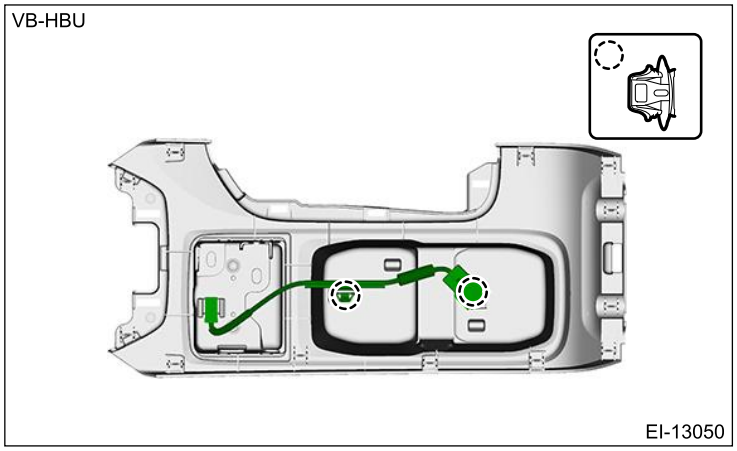
EXTERIOR/INTERIOR TRIM > Console Box

DISASSEMBLY

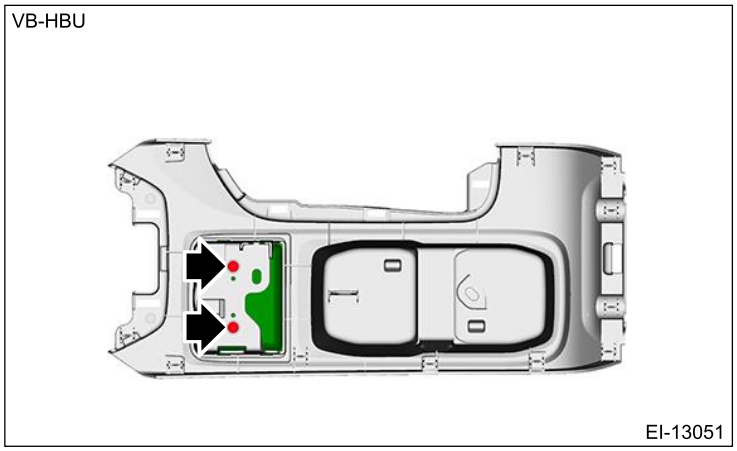
1. MT MODEL

- **CONSOLE FRONT**

1. Remove the front antenna assembly interior. Ref. to SECURITY AND LOCKS>Keyless Access Indoor Antenna>REMOVAL > FRONT ANTENNA.
2. Release the cord clips, and remove the cord assembly front antenna.



3. Remove the screws and remove the tray cover front.

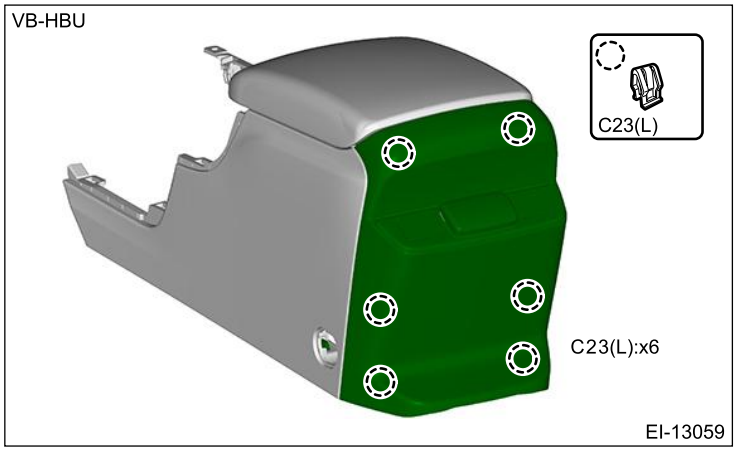


- **CONSOLE REAR**

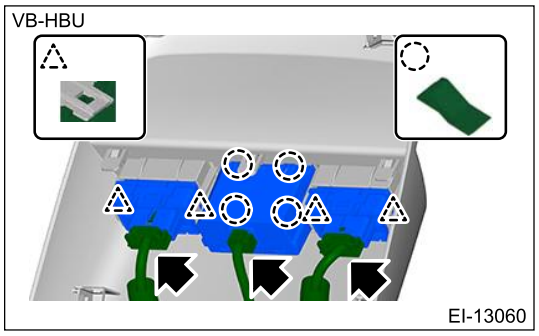
1. Remove the socket assembly. Ref. to ENTERTAINMENT & MONITORING>Accessory Power Supply Socket>REMOVAL > REAR.
2. Remove the cord clips of the cord assembly power and the cord assembly rear seat heater.

Note:
Routing of the cord varies depending on the specifications.

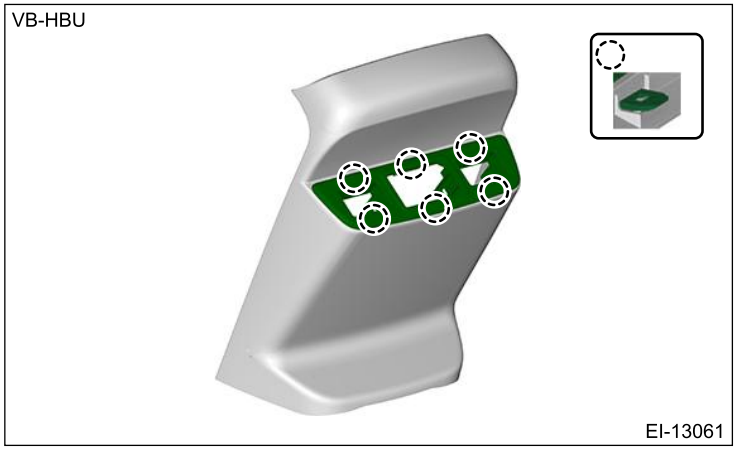
3. Release the clips and remove the cover rear console assembly.



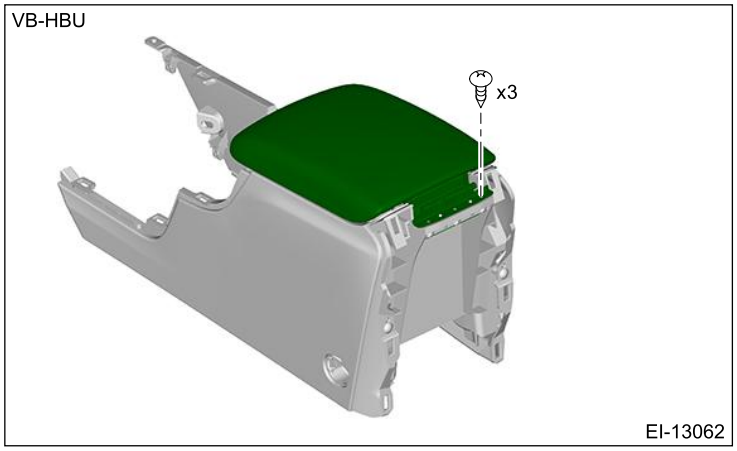
4. Remove the AUX unit assembly power and the switch assembly rear seat heater.
   (1) Disconnect connectors.
   (2) Release the claws and remove the AUX unit assembly power and the switch assembly rear seat heater.



5. Release the clips and claws, and remove the panel switch console.



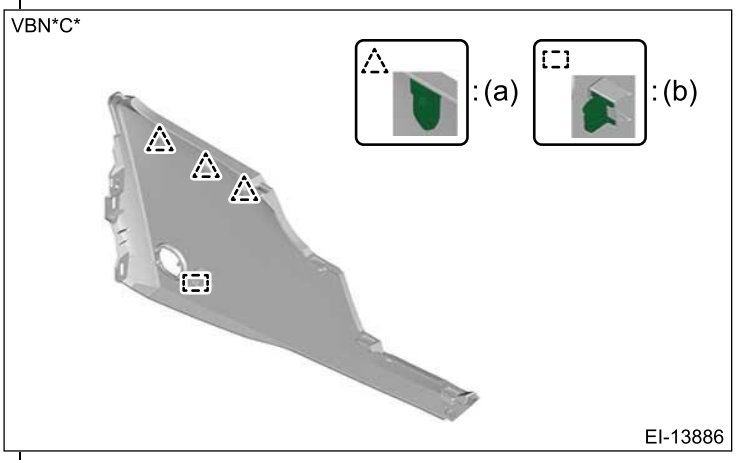
6. Remove the screws and remove the lid assembly console.



7. Remove the screws and release the claws, then remove the console box LWR.

Caution:

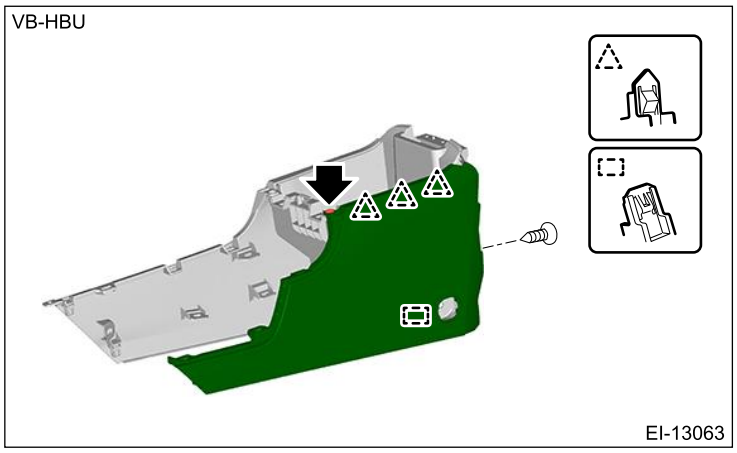
Be careful of the claw direction when removing. Console box LWR may be damaged.



(a) Downward (b) Sideways

Note:

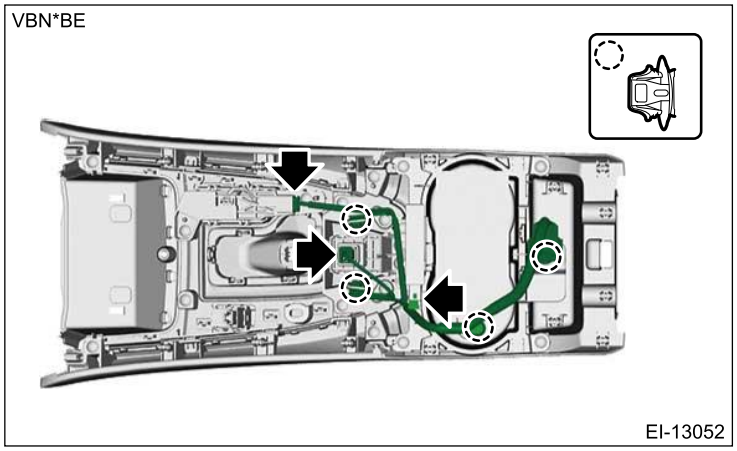
Release the claws and clips on the RH side in the same procedure as on the LH side.



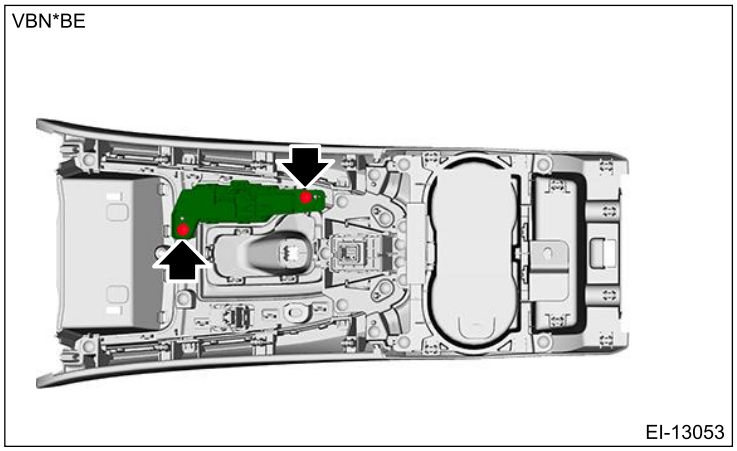
2. CVT MODEL

- **CONSOLE FRONT**

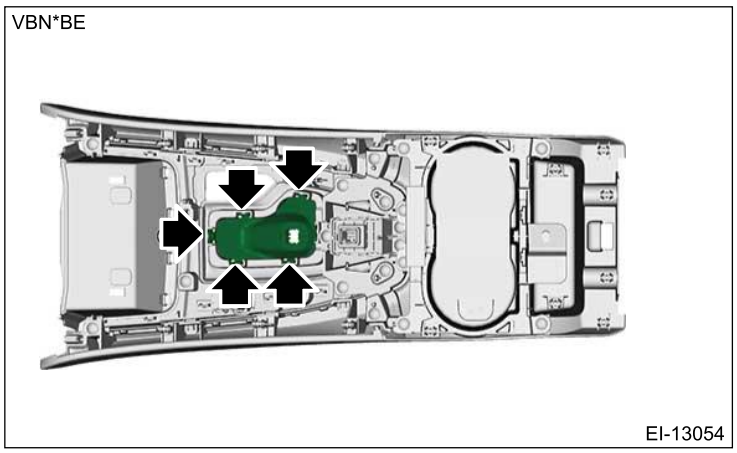
1. Remove the cord assembly console.
   (1) Disconnect connectors.
   (2) Release the cord clips and remove the cord assembly console.



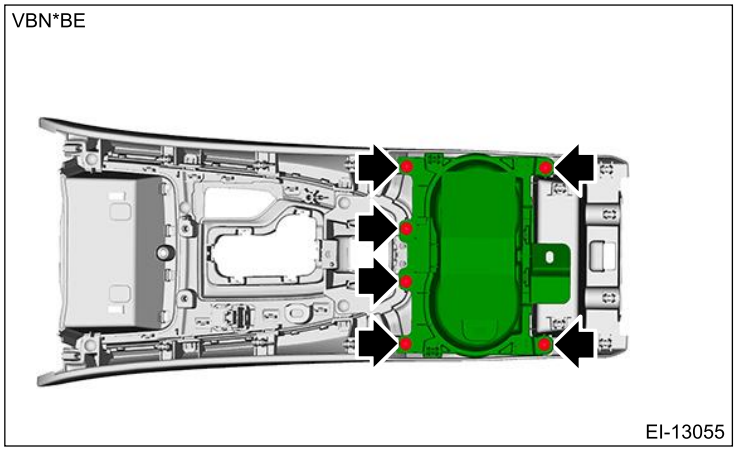
2. Remove the screws and remove the indicator.



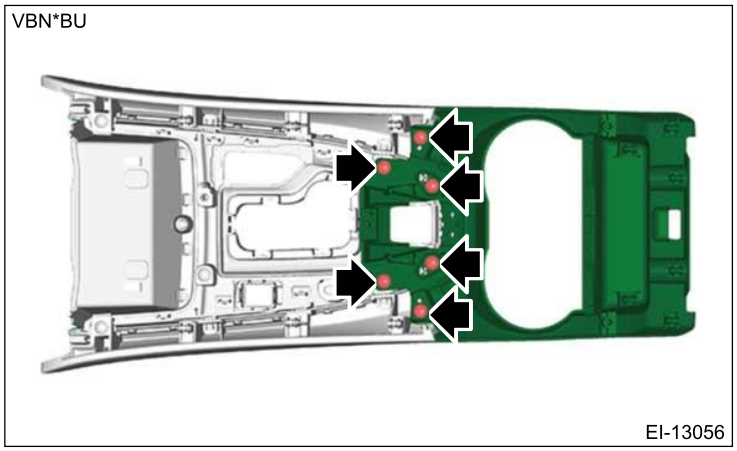
3. Release the claws, and remove the boot.



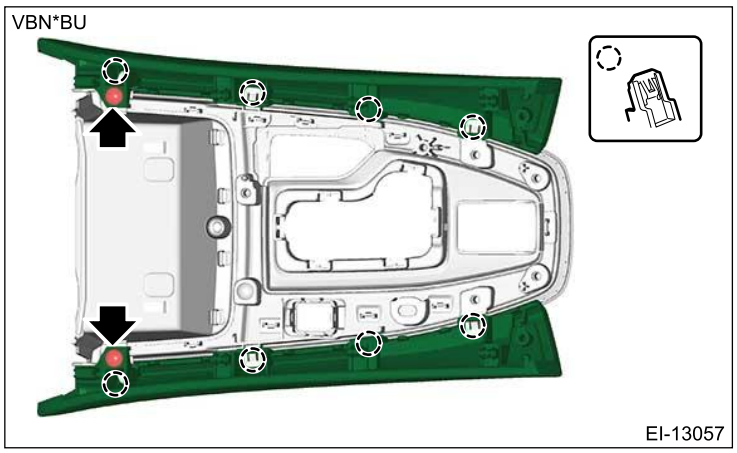
4. Remove the switch assembly EPB. Ref. to PARKING BRAKE>Parking Brake Switch>REMOVAL > ELECTRONIC PARKING BRAKE MODEL.
5. Remove the front antenna assembly interior. Ref. to SECURITY AND LOCKS>Keyless Access Indoor Antenna>REMOVAL > FRONT ANTENNA.
6. Remove the screw and remove the cup holder.



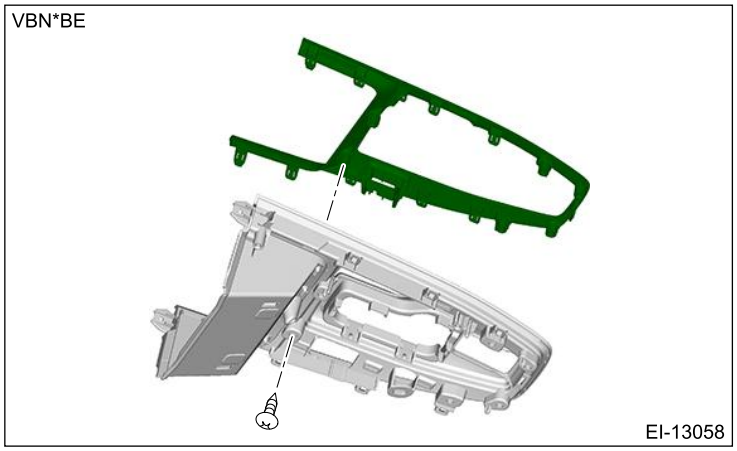
7. Remove the screws and remove the cover front panel Rr.



8. Remove the screws and release the claws, and then remove the ornament cover front.



9. Remove the screws and release the claws, and then remove the cover front panel UPR.

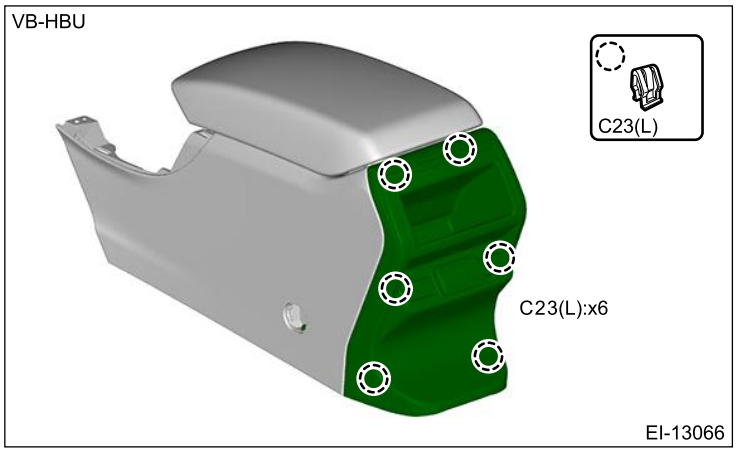


- **CONSOLE REAR**

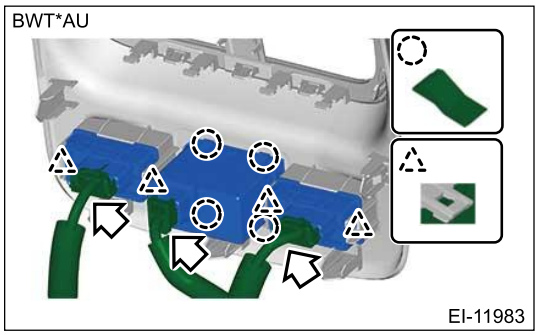
1. Remove the socket assembly. Ref. to ENTERTAINMENT & MONITORING>Accessory Power Supply Socket>REMOVAL > REAR.
2. Remove the cord clips of the cord assembly power and the cord assembly rear seat heater.

Note:
Routing of the cord varies depending on the specifications.

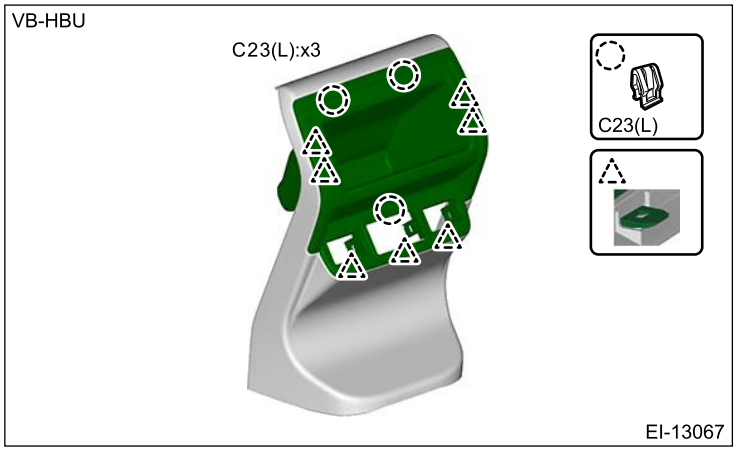
3. Release the clips and remove the cover rear console assembly.



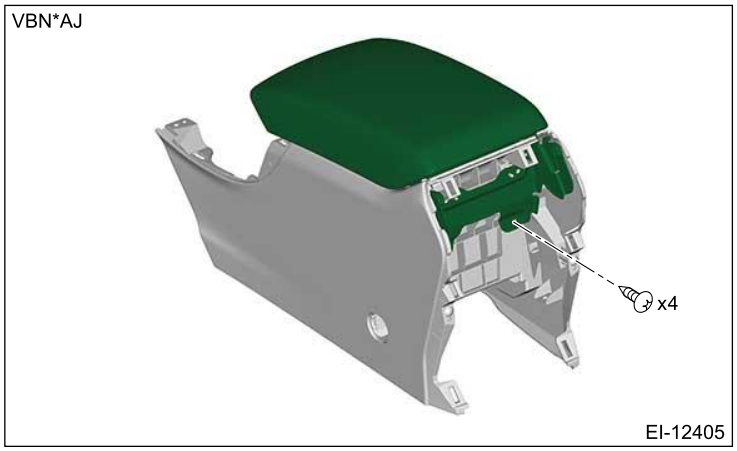
4. Remove the AUX unit assembly power and the switch assembly rear seat heater.
   (1) Disconnect connectors.
   (2) Release the claws and remove the AUX unit assembly power and the switch assembly rear seat heater.



5. Release the clips and claws, and remove the panel switch console.



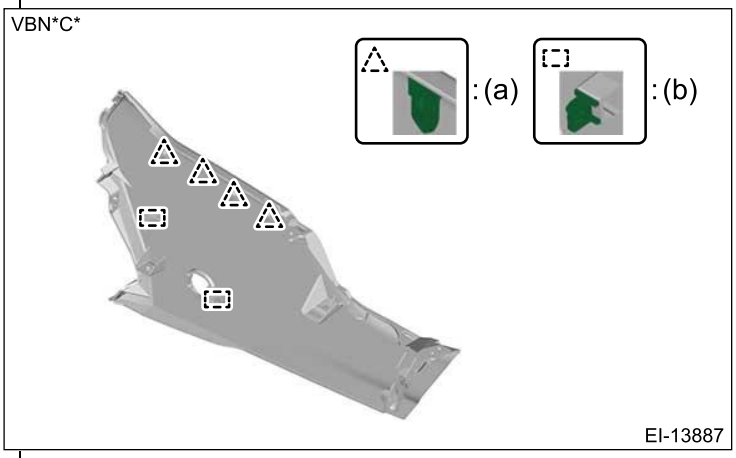
6. Remove the screws and remove the lid assembly console.



7. Remove the screws and release the claws, then remove the console box LWR.

Caution:

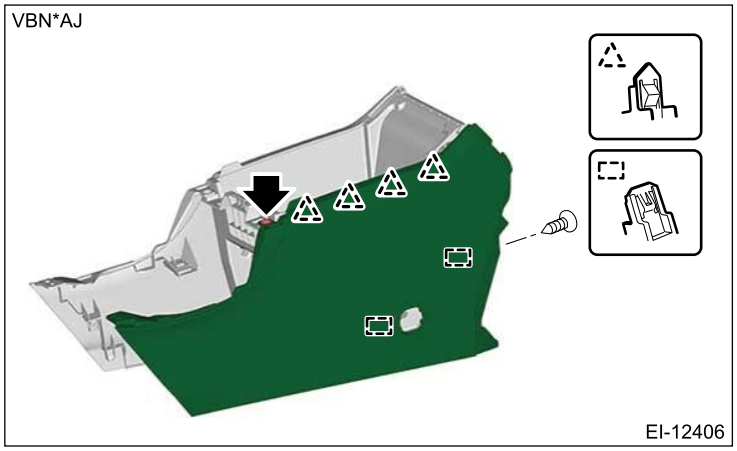
Be careful of the claw direction when removing. Console box LWR may be damaged.



(a) Downward (b) Sideways

Note:

Release the claws and clips on the RH side in the same procedure as on the LH side.



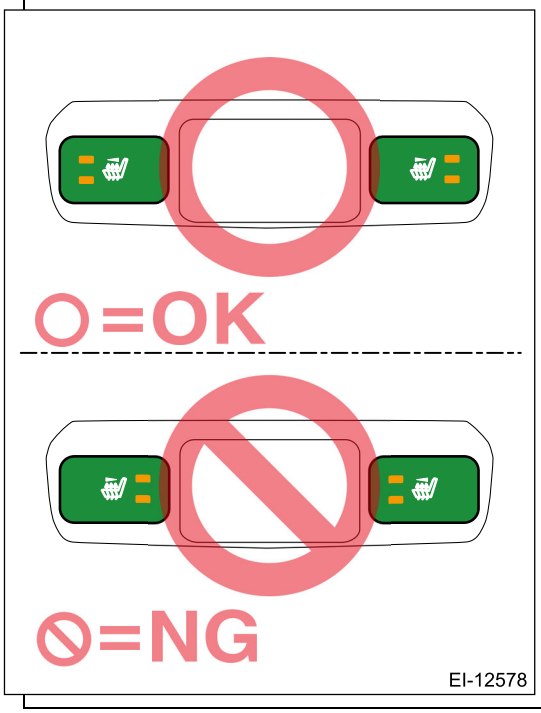
EXTERIOR/INTERIOR TRIM > Console Box

ASSEMBLY

1. MT MODEL

- **CONSOLE FRONT**
  1. Install the tray cover front.
  2. Install the cord assembly front antenna.
  3. Install the front antenna assembly interior. Ref. to SECURITY AND LOCKS>Keyless Access Indoor Antenna>INSTALLATION > FRONT ANTENNA.
- **CONSOLE REAR**
  1. Install the console box LWR.
  2. Install the lid assembly console.
  3. Install the panel switch console to the cover rear console assembly.
  4. Install the AUX unit assembly power and the switch assembly rear seat heater, and connect each connector.

Note:
Install the parts with the switch assembly rear seat heater indicator facing outside.



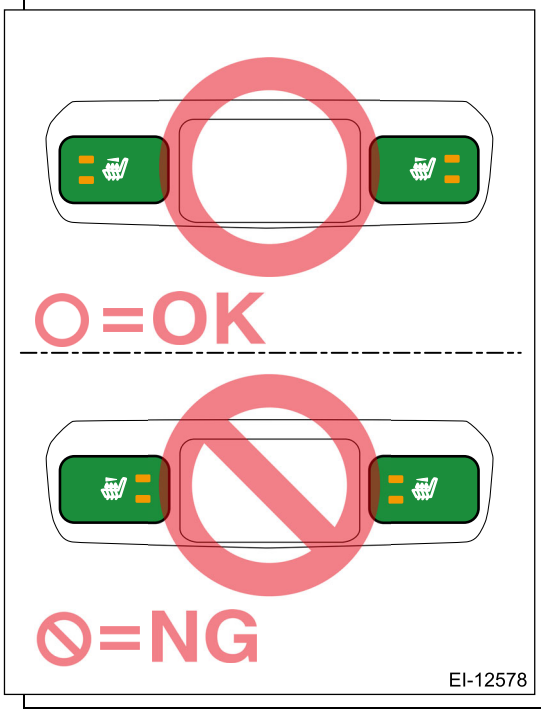
5. Install the cover rear console assembly.
6. Install the cord assembly power and the cord assembly rear seat heater.
7. Install the socket assembly. Ref. to ENTERTAINMENT & MONITORING>Accessory Power Supply Socket>INSTALLATION > REAR.

2. CVT MODEL

- **CONSOLE FRONT**
  1. Install the cover front panel UPR.
  2. Install the ornament cover front.
  3. Install the cover front panel Rr.
  4. Install the cup holder.
  5. Install the front antenna assembly interior. Ref. to SECURITY AND LOCKS>Keyless Access Indoor Antenna>INSTALLATION > FRONT ANTENNA.
  6. Install the switch assembly EPB. Ref. to PARKING BRAKE>Parking Brake Switch>INSTALLATION > ELECTRONIC PARKING BRAKE MODEL.
  7. Install the boot.
  8. Install the indicator.
  9. Install the cord assembly console, and then connect each connector.
- **CONSOLE REAR**
  1. Install the console box LWR.
  2. Install the lid assembly console.
  3. Install the panel switch console to the cover rear console assembly.
  4. Install the AUX unit assembly power and the switch assembly rear seat heater, and connect each connector.

Note:

Install the parts with the switch assembly rear seat heater indicator facing outside.



5. Install the cover rear console assembly.
6. Install the cord assembly power and the cord assembly rear seat heater.
7. Install the socket assembly. Ref. to ENTERTAINMENT & MONITORING>Accessory Power Supply Socket>INSTALLATION > REAR.

REMOVAL

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Be careful not to damage the airbag system harness when servicing the instrument panel. Damage may cause the system to malfunction.**

1. Set the steering wheel to the straight-ahead position.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

   Note:
   For models with power seat, move the front seat all the way forward before disconnecting the ground terminal from the battery sensor.
3. Remove the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.
4. Remove the cover assembly instrument panel side RH and the panel assembly center. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>REMOVAL.
5. Remove the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>REMOVAL.
6. Remove the cover assembly instrument panel side LH and the ornament panel mid driver assembly. Ref. to AIR CONDITIONER>Air Vent Grille>REMOVAL > SIDE GRILLE.
7. Remove the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.
8. Remove the combination meter assembly. Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>REMOVAL.
9. Remove the telematics sub antenna assembly. Ref. to ENTERTAINMENT & MONITORING>Antenna>REMOVAL > TELEMATICS SUB ANTENNA.
10. Remove the backup unit assembly. Ref. to SECURITY AND LOCKS>Backup Unit>REMOVAL.
11. Remove the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>REMOVAL.
12. Remove the tray center UPR. Ref. to ENTERTAINMENT & MONITORING>External Connection Terminal>REMOVAL > FRONT.
13. Remove the knee airbag module assembly. Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.
14. Remove the driver's airbag module. Ref. to AIRBAG SYSTEM>Driver's Airbag Module>REMOVAL.
15. Remove the steering wheel assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Wheel>REMOVAL.
16. Remove the cover side sill front Ft and the cover side sill front Rr. Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.
17. Remove the weather strip body side flange front. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT.
18. Remove the pocket COMPL and the panel instrument passenger. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL > BACK PANEL.
19. Remove the trim panel assembly A pillar. Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>REMOVAL > A PILLAR TRIM.
20. Remove the grille speaker side and the speaker assembly tweeter. Ref. to ENTERTAINMENT & MONITORING>Front Speaker>REMOVAL > TWEETER.

21. Remove the column assembly steering. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Column>REMOVAL.

22. Remove the grille front defroster. Ref. to AIR CONDITIONER>Sunload Sensor (Auto A/C Model)>REMOVAL.

23. Remove the EyeSight assist monitor. Ref. to EyeSight>EyeSight Assist Monitor>REMOVAL.

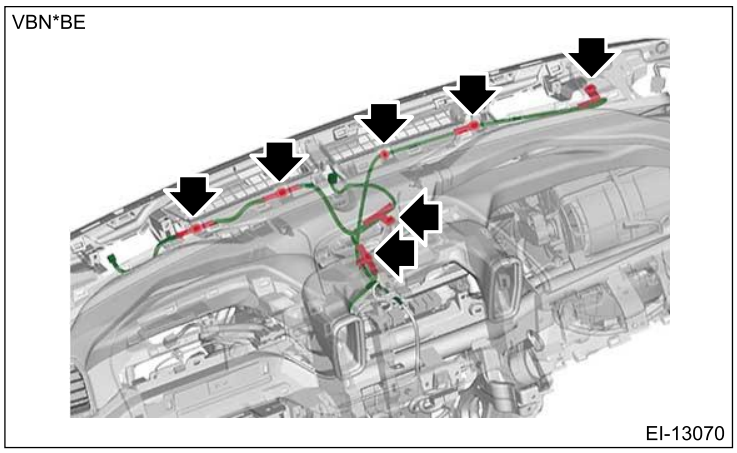
24. Remove the GPS antenna assembly. Ref. to ENTERTAINMENT & MONITORING>Antenna>REMOVAL > GPS ANTENNA.

25. Remove the central gateway CM. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Central Gateway CM>REMOVAL.

26. Remove the instrument panel assembly.

(1) Remove the harness clips and connectors of the GPS antenna assembly, sunload sensor and EyeSight assist monitor.

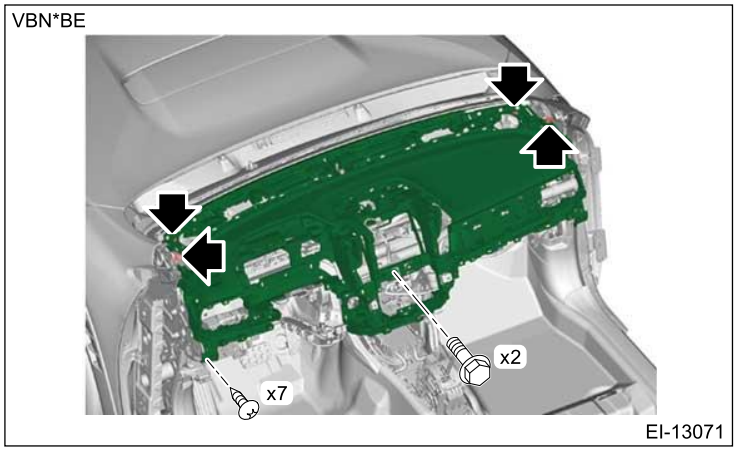
(2) Pull out the removed harness to the audio side.



(3) Remove the harness clips of the speaker assembly tweeter and feeder assembly cord.

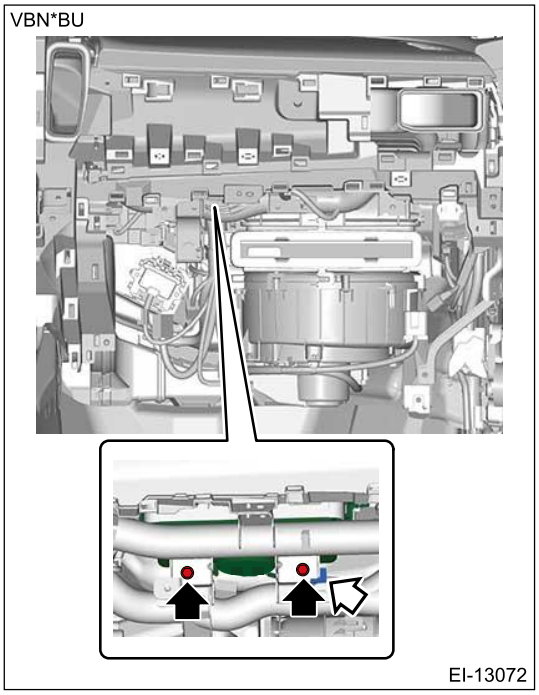
(4) Remove the harness clips of the instrument panel harness.

(5) Remove the bolts and screws.



(6) Remove the bolts of the passenger's airbag module.

(7) Disconnect the passenger's airbag module connector. Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > PASSENGER'S AIRBAG MODULE, REAR SEAT BELT PRETENSIONER, FRONT SEAT BELT PRETENSIONER & ADAPTIVE FORCE LIMITER.



(8) Remove the instrument panel assembly.

27. Remove the duct rear heater front. Ref. to AIR CONDITIONER>Air Vent Duct>REMOVAL > REAR DUCT.

28. Remove the beam steering COMPL.

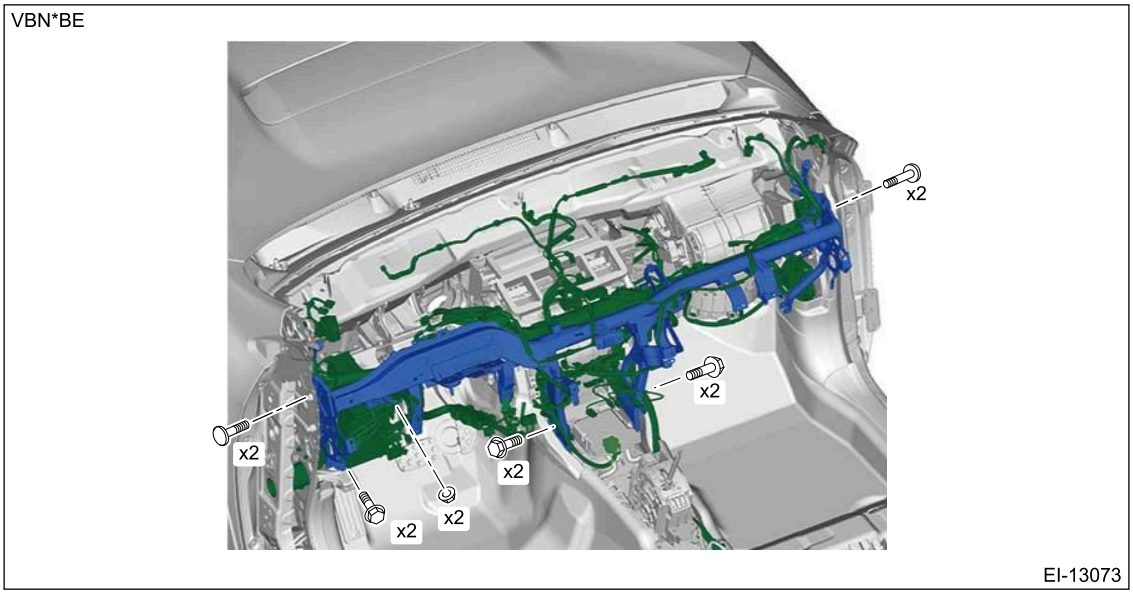
(1) Remove the body integrated unit (fuse & relay box).

(2) Disconnect all harness clips and connectors of the instrument panel harness.

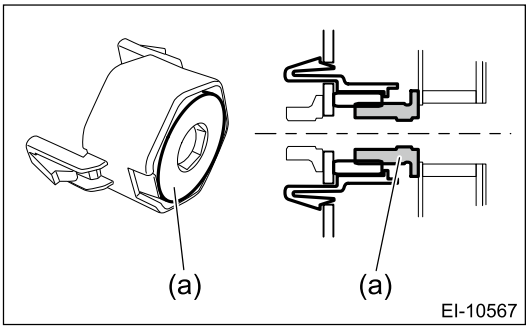
(3) Release all lock points for the ground bolt, heater & cooling unit assembly and the beam steering COMPL.

(4) Remove the cap bolt, and remove the bolts using TORX® T40.

(5) Remove the bolts at the floor center.



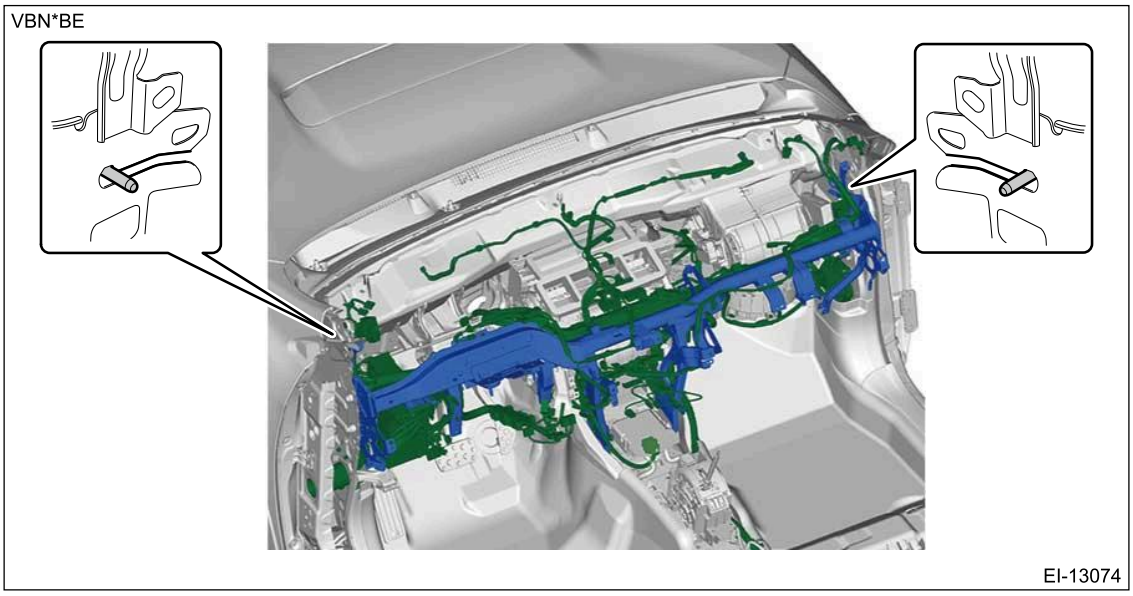
(6) Using the hexagon wrench, loosen the adjuster portion (a) of the adjuster clip space. (LH side of the beam steering COMPL)



(7) Remove the beam steering COMPL and instrument panel harness as a unit by slightly lifting them up to detach the left and right pins and then pulling them toward you.

Note:

- **Check that all lock points for the harness clips, harness connectors and the beam steering COMPL have been released.**
- **The beam steering COMPL is heavy. Work in a team of two persons when removing them from the vehicle, so as not to damage the vehicle interior.**
- **Depending on the specifications, a clamp is installed on the driver's side of the beam steering COMPL. Remove it if the beam steering COMPL is replaced with a new part.**



EXTERIOR/INTERIOR TRIM > Instrument Panel Assembly

INSTALLATION

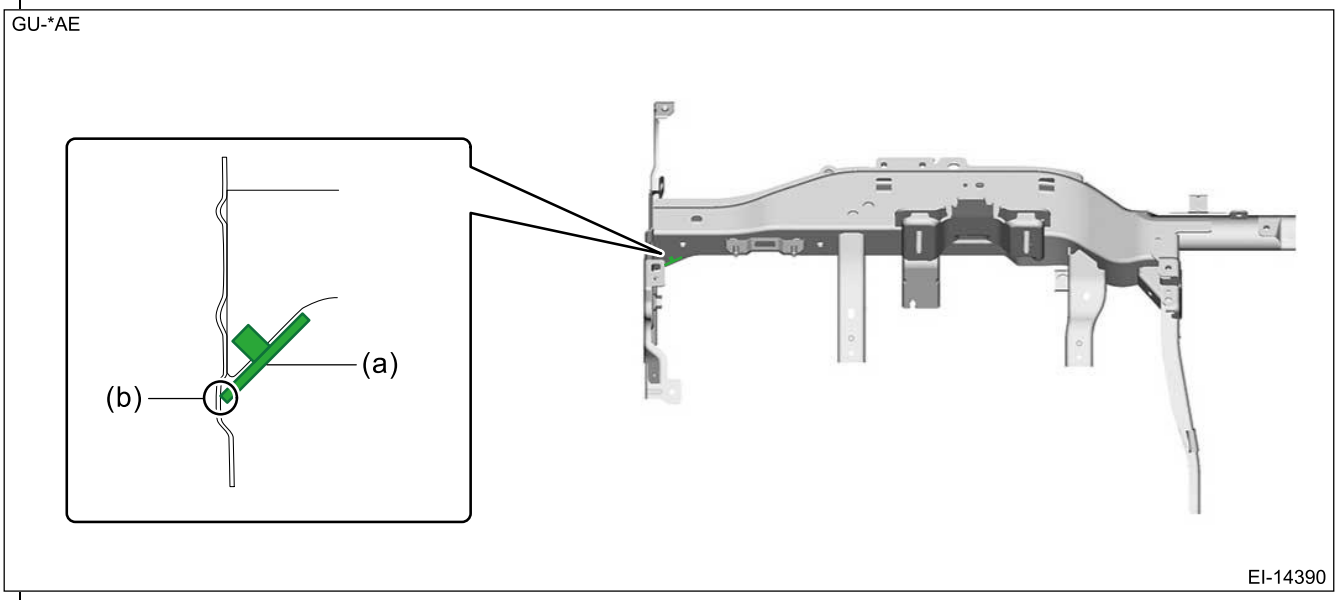
Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Be careful not to damage the airbag system harness when servicing the instrument panel. Damage may cause the system to malfunction.**

1. Install the beam steering COMPL.

Note:

- **The beam steering COMPL is heavy. Work in a team of two persons when placing it inside the vehicle, so as not to damage the vehicle interior.**
- **Depending on the specifications, a clamp is installed on the driver's side of the beam steering COMPL. Install it if the beam steering COMPL was replaced with a new part.**
- **Install the clamp while resting it against the side BRKT.**



(a) Clamp (b) Rest against the side BRKT.

(1) Place the beam steering COMPL on the vehicle, and check that the pins on both sides are inserted securely and the harness is routed properly.
(2) Connect each connector.
(3) Secure the beam steering COMPL to the heater and cooling unit assembly.

Tightening torque:

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

(4) Install the ground bolt and the body integrated unit (fuse & relay box).

Tightening torque:

Ground bolt: 13 N·m (1.3 kgf-m, 9.6 ft-lb)
Body integrated unit (fuse & relay box): 7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

(5) Temporarily tighten the bolts of the beam steering COMPL.
(6) Using the hexagon wrench, tighten the adjuster portion (a) of the adjuster clip space. (LH side of the beam steering COMPL)

Note:

When the TORX® bolt is tightened after setting the adjuster portion (a) of the adjuster clip space to the free position, the adjuster is secured at the position where there is no gap to the body, and then the TORX® bolt is tightened.

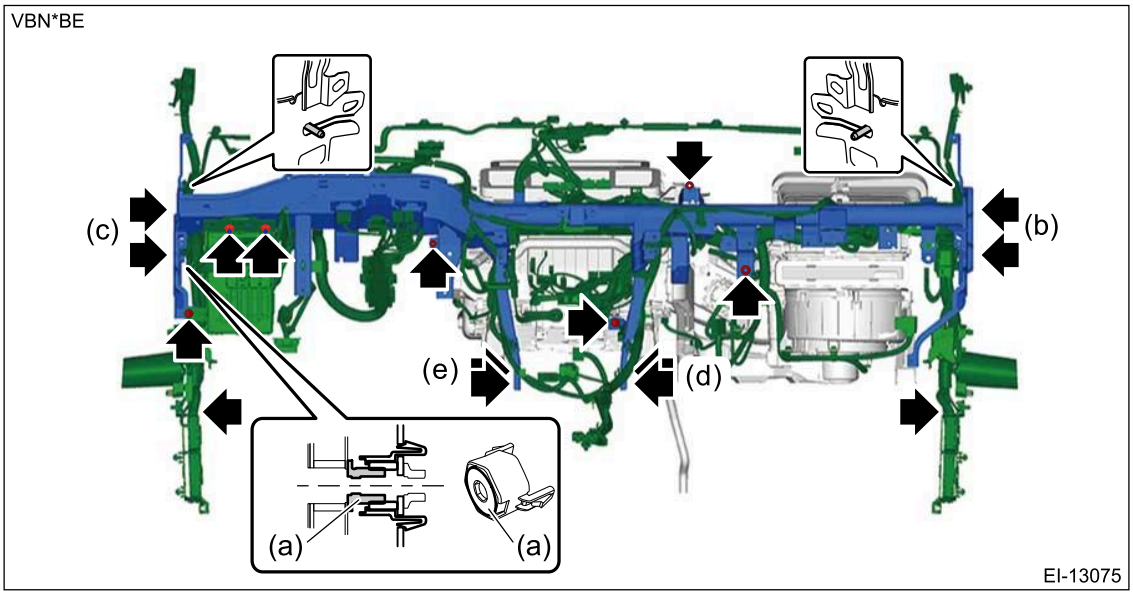
Tightening torque:

Adjuster clip space: 0.8 — 4 N·m (0.08 — 0.4 kgf-m, 0.6 — 3 ft-lb)

(7) Tighten the beam steering COMPL in the order from (b) to (e) to the specified torque.

Tightening torque:

25 N·m (2.5 kgf-m, 18.4 ft-lb)



2. Install the duct rear heater front. Ref. to AIR CONDITIONER>Air Vent Duct>INSTALLATION > REAR DUCT.
3. Install the instrument panel assembly.

Caution:
Be careful not to allow the harness to be caught.

(1) Align the matching pins on the body side (three locations - one in the center and the remaining two on both sides) with the panel COMPL instrument.
(2) Install the bolts of the center information display.
Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
(3) Install the screws, harness clips, and connectors.
(4) Install the passenger's airbag module, and connect the connector. Ref. to AIRBAG SYSTEM>Airbag Connector>PROCEDURE > PASSENGER'S AIRBAG MODULE, REAR SEAT BELT PRETENSIONER, FRONT SEAT BELT PRETENSIONER & ADAPTIVE FORCE LIMITER.
Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

4. Install the central gateway CM. Ref. to BODY CONTROL/COMMUNICATION SYSTEM>Central Gateway CM>INSTALLATION.
5. Install the GPS antenna assembly. Ref. to ENTERTAINMENT & MONITORING>Antenna>INSTALLATION > GPS ANTENNA.
6. Install the EyeSight assist monitor. Ref. to EyeSight>EyeSight Assist Monitor>INSTALLATION.
7. Install the grille front defroster. Ref. to AIR CONDITIONER>Sunload Sensor (Auto A/C Model)>INSTALLATION.
8. Install the column assembly steering. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Column>INSTALLATION.
9. Install the speaker assembly tweeter and the grille speaker side. Ref. to ENTERTAINMENT & MONITORING>Front Speaker>INSTALLATION > TWEETER.
10. Install the trim panel assembly A pillar. Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>INSTALLATION > A PILLAR TRIM.
11. Install the panel instrument passenger and pocket COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>INSTALLATION > BACK PANEL.

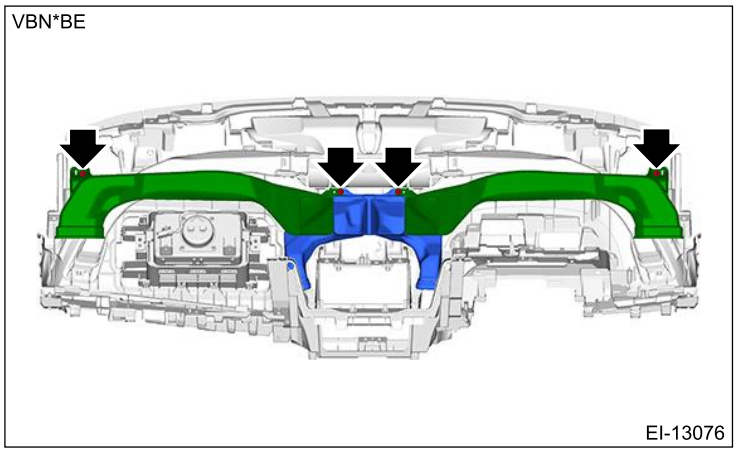
12. Install the weather strip body side flange front. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT.
13. Install the cover side sill front Rr and the cover side sill front Ft. Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>INSTALLATION.
14. Install the steering wheel assembly. Ref. to POWER ASSISTED SYSTEM (POWER STEERING)>Steering Wheel>INSTALLATION.
15. Install the driver's airbag module. Ref. to AIRBAG SYSTEM>Driver's Airbag Module>INSTALLATION.
16. Install the knee airbag module assembly. Ref. to AIRBAG SYSTEM>Knee Airbag Module>INSTALLATION.
17. Install the tray center UPR. Ref. to ENTERTAINMENT & MONITORING>External Connection Terminal>INSTALLATION > FRONT.
18. Install the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>INSTALLATION.
19. Install the backup unit assembly. Ref. to SECURITY AND LOCKS>Backup Unit>INSTALLATION.
20. Install the telematics sub antenna assembly. Ref. to ENTERTAINMENT & MONITORING>Antenna>INSTALLATION > TELEMATICS SUB ANTENNA.
21. Install the combination meter assembly. Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>INSTALLATION.
22. Install the cover LWR driver. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.
23. Install the ornament panel mid driver assembly and cover assembly instrument panel side LH. Ref. to AIR CONDITIONER>Air Vent Grille>INSTALLATION > SIDE GRILLE.
24. Install the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>INSTALLATION.
25. Install the panel assembly center and cover assembly instrument panel side RH panel assembly center. Ref. to EXTERIOR/INTERIOR TRIM>Centor Cluster>INSTALLATION.
26. Install the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.
27. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

EXTERIOR/INTERIOR TRIM > Instrument Panel Assembly

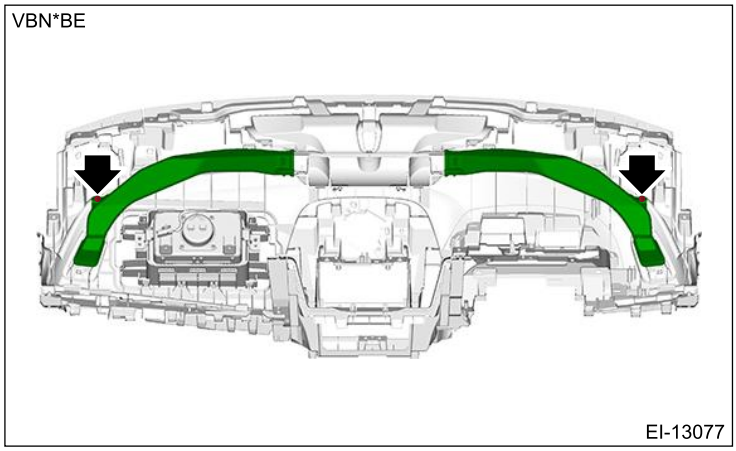
DISASSEMBLY

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Remove the screws, and remove the duct side ventilation and the duct center ventilation front.



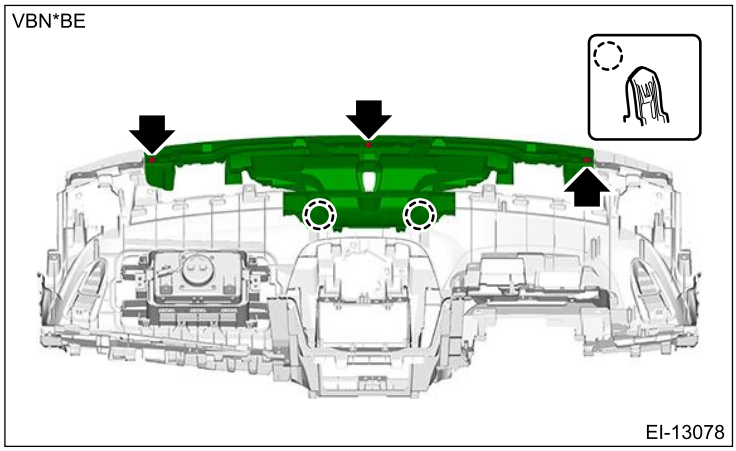
2. Remove the screws and detach the duct side defroster.



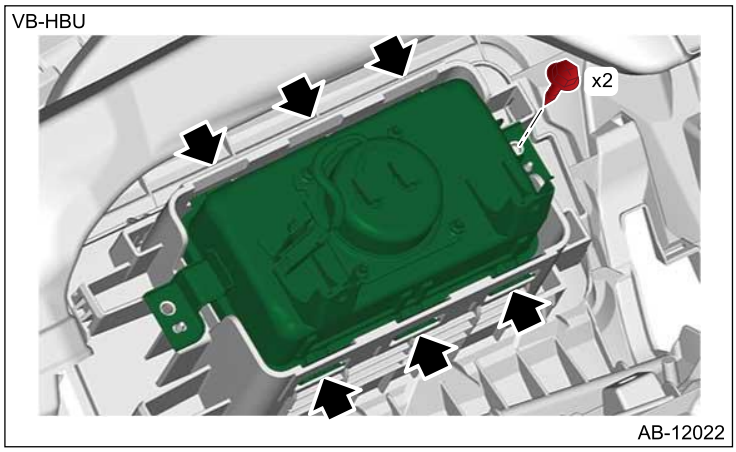
3. Remove the nozzle front defroster assembly.

(1) Remove the cushion instrument.

(2) Remove the screws and release the claws, then detach the nozzle front defroster assembly.



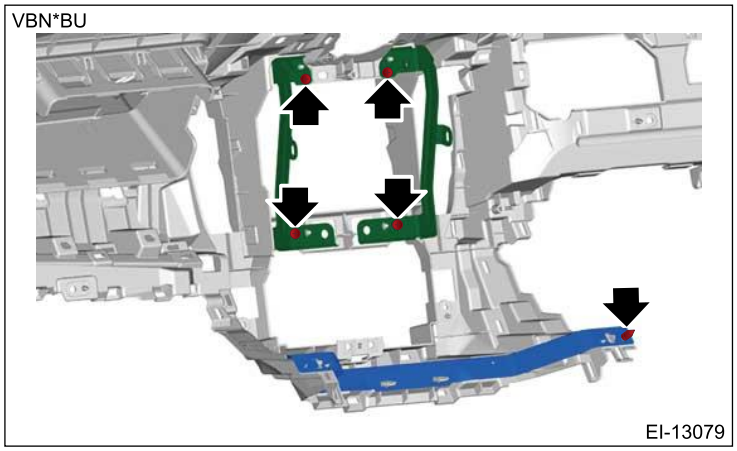
4. Remove the tapping screws and release the claws, and remove the passenger's airbag module.



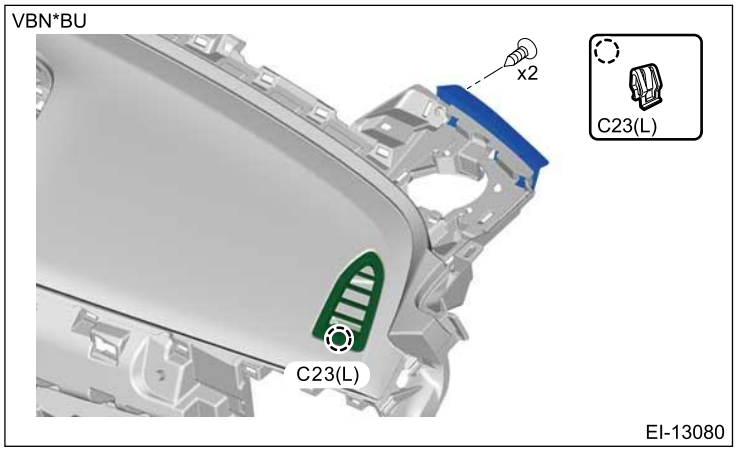
5. Remove the bracket CTR UPR and the reinforcement CTR LWR.

(1) Remove the screws, and then remove the bracket CTR UPR.

(2) Remove the screws, and then remove the reinforcement CTR LWR.



6. Remove the grille defroster side and the nozzle front defroster side.
   (1) Release the clips, and then remove the grille defroster side.
   (2) Remove the screws, and remove the nozzle front defroster side.



EXTERIOR/INTERIOR TRIM > Instrument Panel Assembly

ASSEMBLY

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the grille defroster side and the nozzle front defroster side.
2. Install the bracket CTR UPR and the reinforcement CTR LWR.
3. Install the passenger's airbag module.
4. Install the nozzle front defroster assembly and the cushion instrument.
5. Install the duct side defroster.
6. Install the duct side ventilation and the duct center ventilation front.

REMOVAL

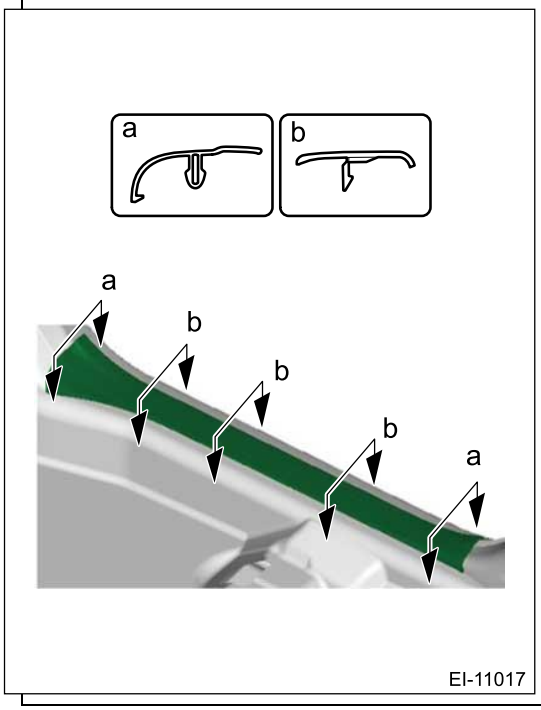
Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

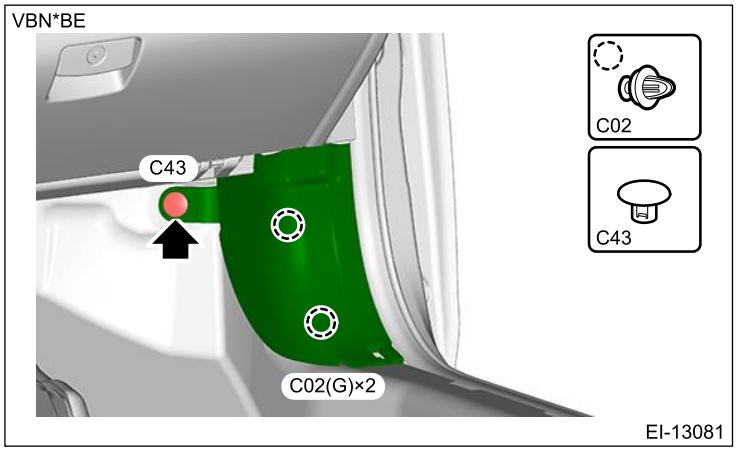
1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Release the claws, and then remove the cover side sill front Rr.

Caution:

Do not pull with excessive force. Claws of the cover side sill front Rr may be damaged.

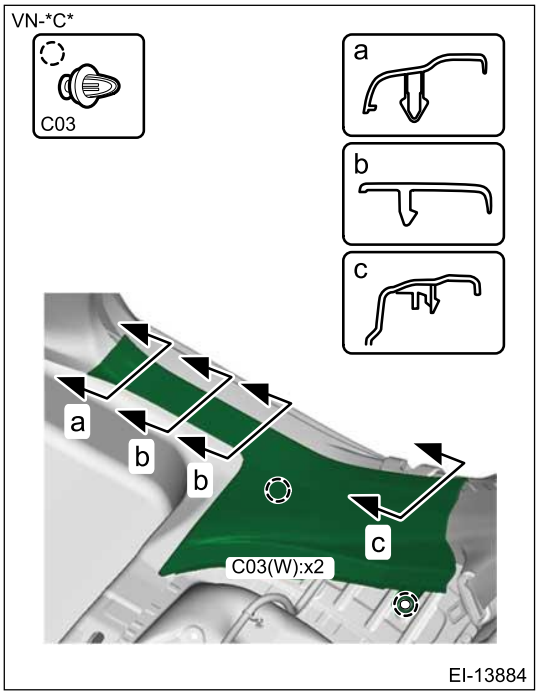


3. Remove the weather strip body side flange front. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT.
4. Remove the clips, and remove the cover side sill front Ft.



5. Remove the rear seat cushion assembly. Ref. to SEATS>Rear Seat>REMOVAL.
6. Release the clips and claws, and then remove the cover side sill rear UPR.

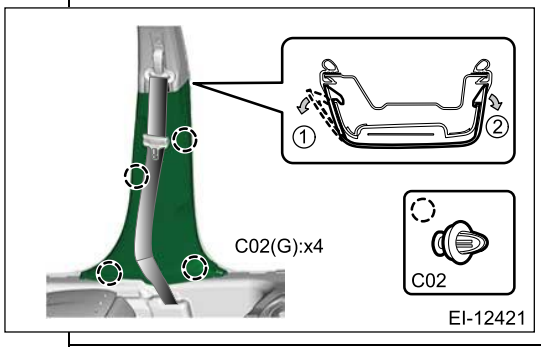
Caution:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill rear UPR.



7. Remove the weather strip body side flange rear. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT.
8. Remove the trim panel assembly B pillar LWR.
   (1) Release the clip by pulling the trim panel assembly B pillar LWR toward you.
   (2) Expand the claws of the trim panel assembly B pillar LWR outward, and remove it from the trim panel assembly B pillar UPR.

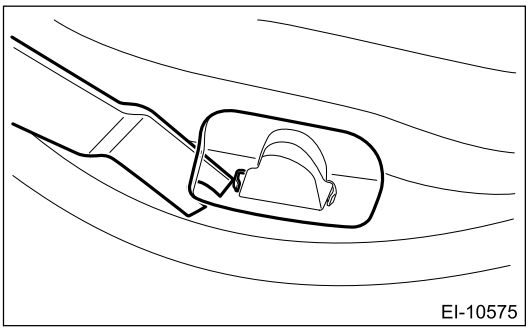
Caution:
Do not expand the trim panel assembly B pillar LWR excessively. Doing so may damage the trim.

Note:
First release the claw located to the front of the vehicle.



9. Disconnect the claws and remove the cover catcher.

Note:
Remove the cover catcher using a plastic remover.



EXTERIOR/INTERIOR TRIM > Lower Inner Trim

INSTALLATION

Caution:
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Install the cover catcher.
2. Install the trim panel assembly B pillar LWR.

Note:
Assemble the trim panel assembly B pillar LWR to the trim panel assembly B pillar UPR securely.

3. Install the weather strip body side flange rear. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT.
4. Install the cover side sill rear UPR.
5. Install the rear seat cushion assembly. Ref. to SEATS>Rear Seat>INSTALLATION.
6. Install the cover side sill front Ft.
7. Install the weather strip body side flange front. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT.
8. Install the cover side sill front Rr.

9. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

REMOVAL

1. A PILLAR TRIM

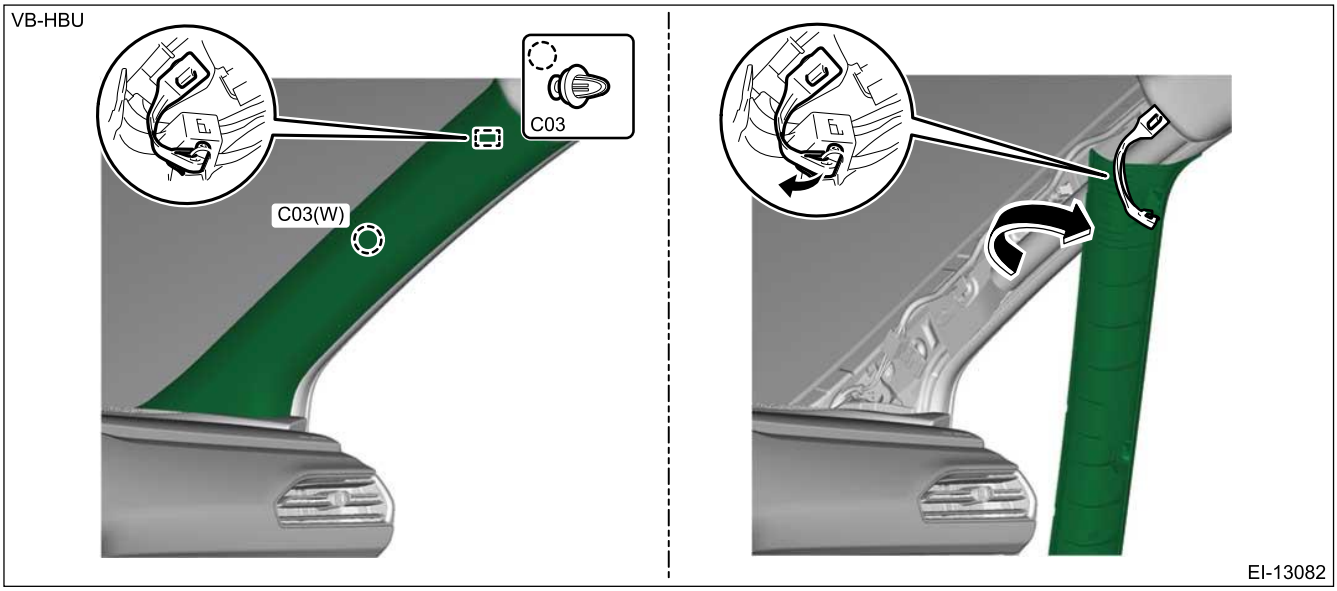
Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **When reusing the tether clip of the trim panel assembly A pillar, 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 assembly A pillar may come off.**
- **Do not reuse the tether clip of the trim panel assembly A pillar when it is removed from the vehicle. Always replace with a new part.**
- **Before installing the trim panel assembly A pillar, check the condition of curtain airbag. If it is damaged, replace the curtain airbag module assembly with a new part.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the weather strip body side flange front. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT.
3. Remove the trim panel assembly A pillar.
   (1) Pull the trim panel assembly A pillar towards the center of the vehicle to release the clips.
   (2) Rotate the trim panel assembly A pillar in the arrow direction.
   (3) Release the hook at the end of the tether clip, and remove the trim panel assembly A pillar.

   Caution:

   - **Do not use any tool when releasing the hook at the end of the trim panel assembly A pillar.**
   - **Be careful not to damage the trim panel assembly A pillar surface and curtain airbag module.**



2. B PILLAR TRIM

Caution:

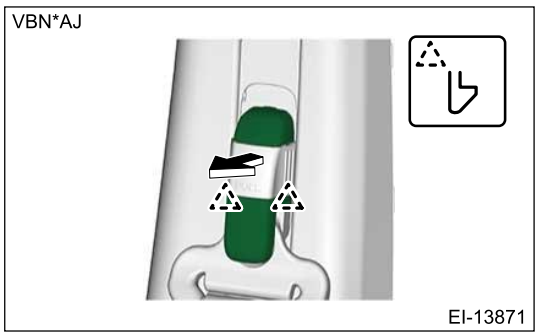
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Do not reuse the clips on the trim panel assembly B pillar UPR. Once the clip is removed, its holding force is reduced. Be sure to replace it with a new clip.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel assembly B pillar LWR. Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.
3. Remove the cover shoulder anchor.

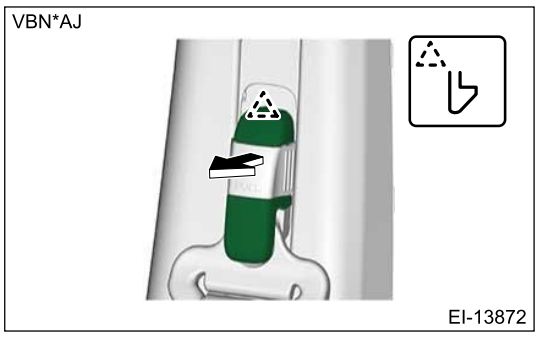
Caution:

If it is hard to remove, use a tool wrapped with a protection tape or cloth and be careful not to cause damage.

(1) Release the lower claws while pulling the knob.

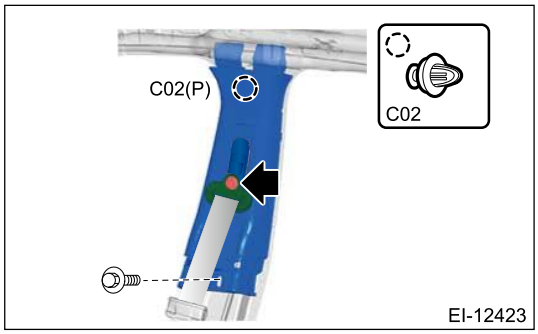


(2) Release the upper claws while pulling the knob.



(3) Remove the cover shoulder anchor while pulling the knob.

4. Remove the trim panel assembly B pillar UPR.
   (1) Remove the anchor bolts of seat belts.
   (2) Remove the bolt on the lower side of the trim panel assembly B pillar UPR.
   (3) Release the clip by pulling the trim toward you, and while lowering the entire trim, remove the trim panel assembly B pillar UPR.



EXTERIOR/INTERIOR TRIM > Upper Inner Trim

INSTALLATION

1. A PILLAR TRIM

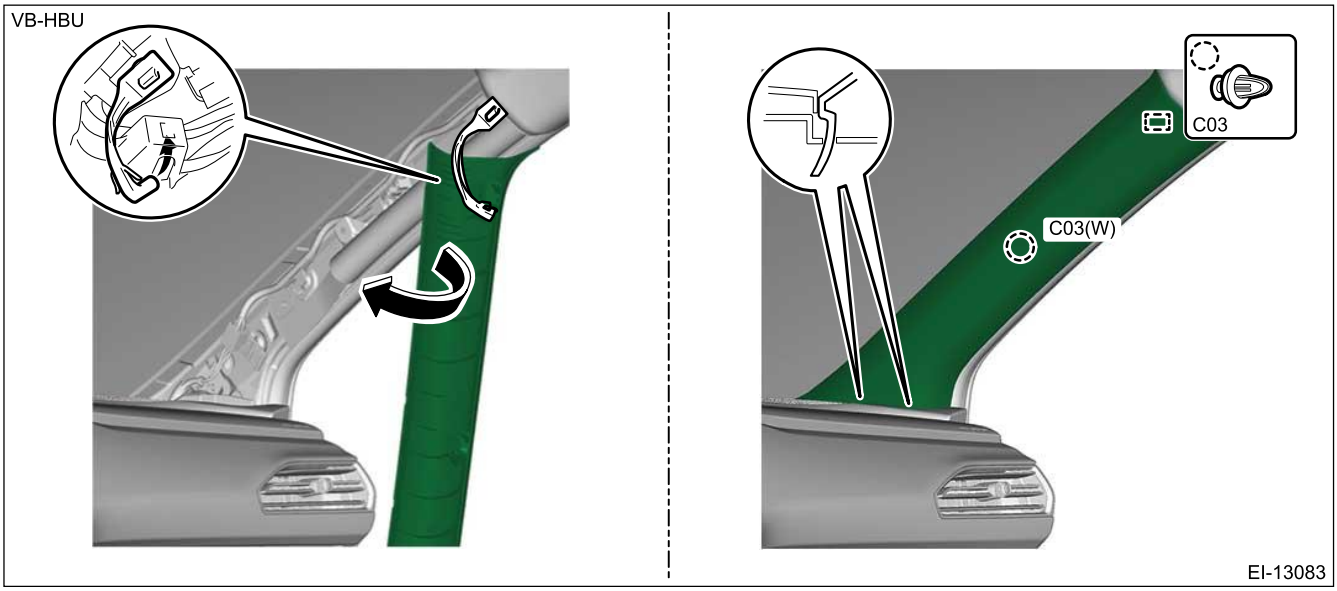
Caution:
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **When reusing the tether clip of the trim panel assembly A pillar, check that there is no damage to the tether clip. If the 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 assembly A pillar may come off.**
- **Do not reuse the tether clip of the trim panel assembly A pillar when it is removed from the vehicle. Always replace with a new part.**
- **Before installing the trim panel assembly A pillar, check the condition of curtain airbag. If it is damaged, replace the curtain airbag module assembly with a new part.**

1. Install the trim panel assembly A pillar.

Caution:
When engaging the trim panel assembly A pillar with the tether clip, do not use any tools. If the tether clip is damaged, always replace it with a new tether clip.

(1) Hook the tip of the tether clip on the trim panel assembly A pillar.

(2) Rotate the trim panel assembly A pillar in the arrow direction as shown in the figure.
(3) Insert the claw at the end of the trim panel assembly A pillar to engage the clip.



2. Install the weather strip body side flange front. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. B PILLAR TRIM

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 reuse the clips on the trim panel assembly B pillar UPR. Once the clip is removed, its holding force is reduced. Be sure to replace it with a new clip.**

1. Install the trim panel assembly B pillar UPR.

Note:
Assemble the trim panel assembly B pillar UPR to the adjuster shoulder anchor completely.

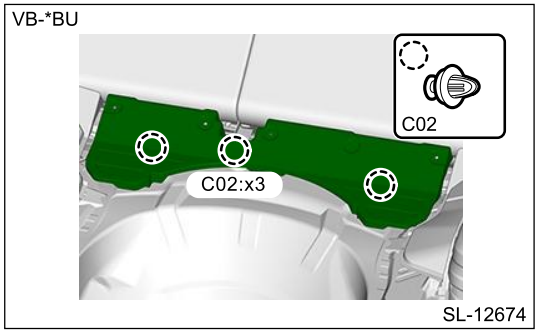
Tightening torque
Trim panel assembly B pillar UPR: 7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
Belt assembly front OUT: 30 N·m (3.1 kgf-m, 22.1 ft-lb)

2. Install the cover shoulder anchor.
3. Install the trim panel assembly B pillar LWR. Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>INSTALLATION.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

REMOVAL

Caution:
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

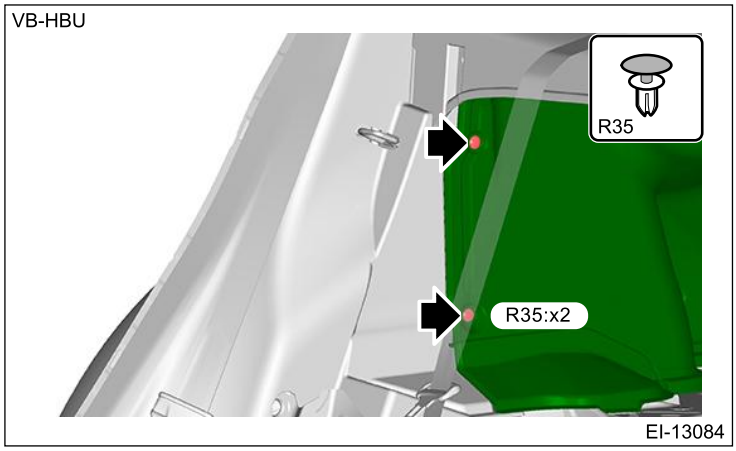
1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the rear seat cushion assembly and the backrest assembly. Ref. to SEATS>Rear Seat>REMOVAL.
3. Remove the mat trunk, spacer center and spacer rear floor side.
4. Release the clips, then detach the spacer rear floor front.



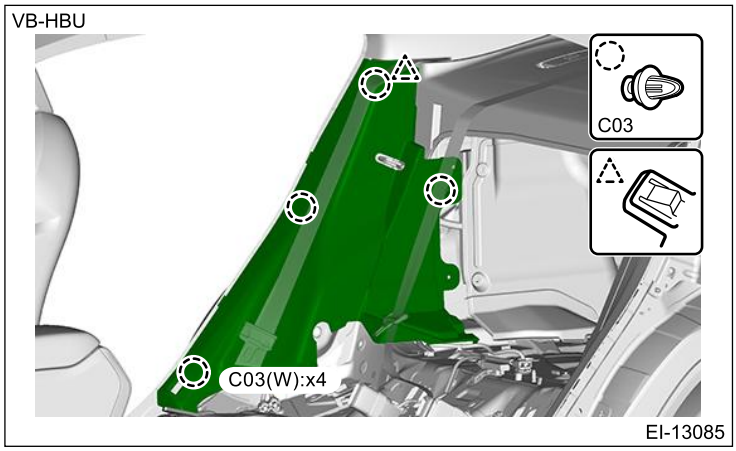
5. Release the clips and claws, and then remove the cover side sill rear UPR.

Caution:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill rear UPR.

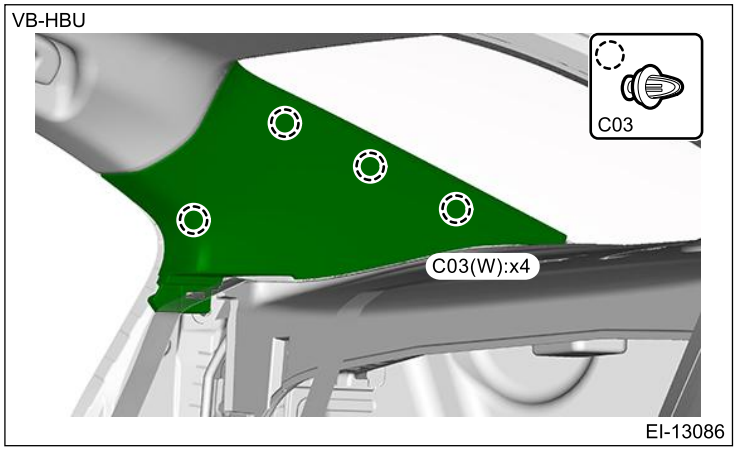
6. Remove the clips, and turn over the trunk trim panel side.



7. Release the clips, and remove the trim panel assembly C pillar LWR.



8. Release the clips, and remove the trim panel assembly C pillar.



EXTERIOR/INTERIOR TRIM > Rear Quarter Trim

INSTALLATION

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Install the trim panel assembly C pillar.
2. Install the trim panel assembly C pillar LWR.
3. Install the trunk trim panel side.
4. Install the cover side sill rear UPR.
5. Install the spacer rear floor front.
6. Install the spacer rear floor side, spacer center and mat trunk.
7. Install the backrest assembly and rear seat cushion assembly. Ref. to SEATS>Rear Seat>INSTALLATION.
8. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

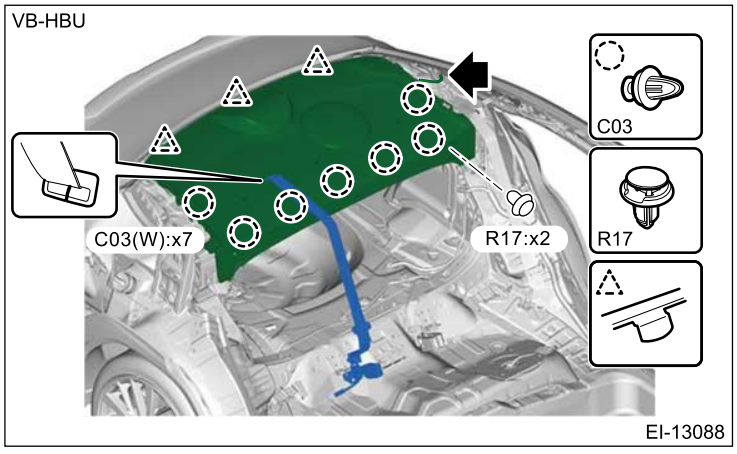
EXTERIOR/INTERIOR TRIM > Rear Shelf Trim

REMOVAL

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the rear seat cushion assembly and the backrest assembly. Ref. to SEATS>Rear Seat>REMOVAL.
3. Remove the trim panel assembly C pillar LWR and the trim panel assembly C pillar. Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.
4. Remove the belt assembly rear OUT CTR lower anchor. Ref. to SEAT BELT SYSTEM>Rear Seat Belt>REMOVAL > BELT ASSEMBLY REAR OUT CTR.
5. Remove the trim panel assembly rear shelf.
   (1) Disconnect the connector of the cord assembly high-mounted.
   (2) Release the clips to float the trim panel assembly rear shelf.
   (3) Remove the belt cover, and guide the anchor of the belt assembly rear OUT CTR to behind the trim panel assembly rear shelf.
   (4) Remove the trim panel assembly rear shelf.



EXTERIOR/INTERIOR TRIM > Rear Shelf Trim

INSTALLATION

Caution:

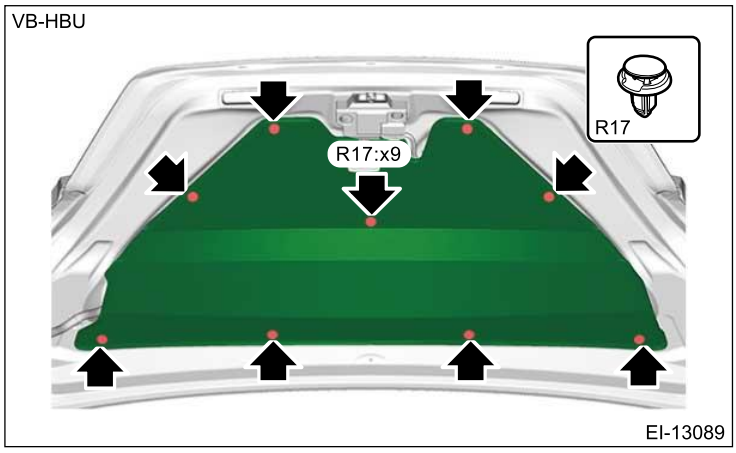
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Install the trim panel assembly rear shelf and connect the connector of the cord assembly high-mounted.
2. Install the belt assembly rear OUT CTR lower anchor. Ref. to SEAT BELT SYSTEM>Rear Seat Belt>INSTALLATION > BELT ASSEMBLY REAR OUT CTR.
3. Install the trim panel assembly C pillar and the trim panel assembly C pillar LWR. Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>INSTALLATION.
4. Install the backrest assembly and rear seat cushion assembly. Ref. to SEATS>Rear Seat>INSTALLATION.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

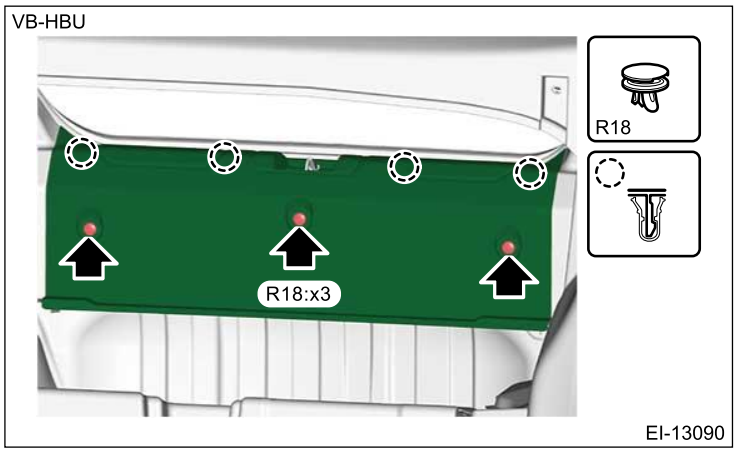
EXTERIOR/INTERIOR TRIM > Trunk Room Trim

REMOVAL

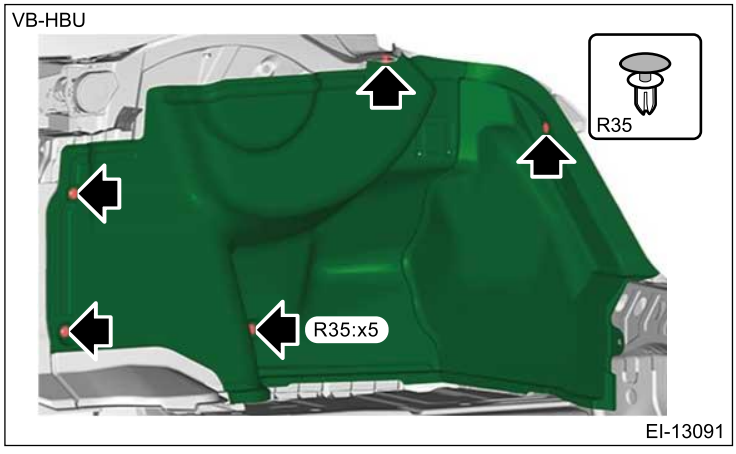
1. Remove the clips, and remove the trim panel trunk lid.



2. Remove the mat trunk, spacer center and spacer rear floor side.
3. Release the clips and claws, and remove the trim panel trunk rear.



4. Release the clips and remove the trunk trim panel side.



EXTERIOR/INTERIOR TRIM > Trunk Room Trim

INSTALLATION

1. Install the trunk trim panel side.
2. Install the trim panel trunk rear.

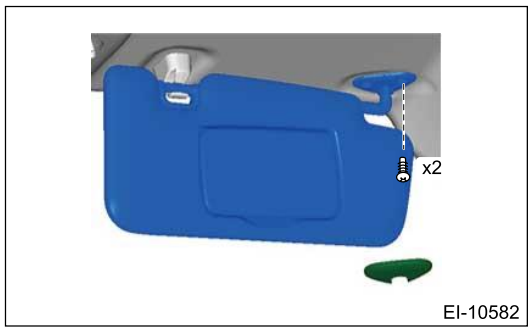
   Caution:

   Be careful not to allow the lip portion of the weather strip to catch.
3. Install the spacer rear floor side, spacer center and mat trunk.
4. Install the trim panel trunk lid.

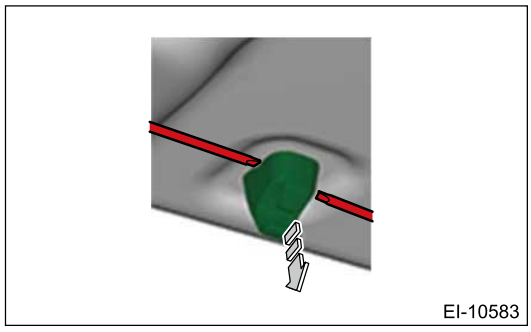
EXTERIOR/INTERIOR TRIM > Sun Visor

REMOVAL

1. Disconnect the ground terminal from battery sensor. (Model with vanity mirror light) Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the sun visor assembly.
   (1) Remove the cap sun visor, and then remove the screws.



   (2) Remove the screws and temporary retention claws, and then remove the sun visor assembly.
   (3) Disconnect the connector. (Model with vanity mirror light)
3. Remove the hook sun visor.
   (1) Push both sides using a flat tip screwdriver, etc. wrapped with protection tape.
   (2) Remove the hook sun visor by pulling it toward you.



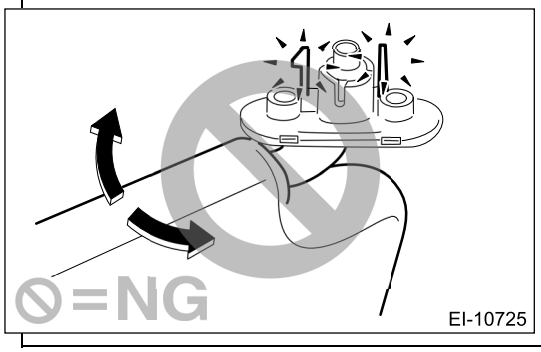
EXTERIOR/INTERIOR TRIM > Sun Visor

INSTALLATION

1. Install the hook sun visor.
2. Connect the connector. (Model with vanity mirror light)
3. Install the sun visor assembly.

Caution:

Do not rotate the sun visor assembly when it is temporarily installed. The claw for temporary installation may be damaged.

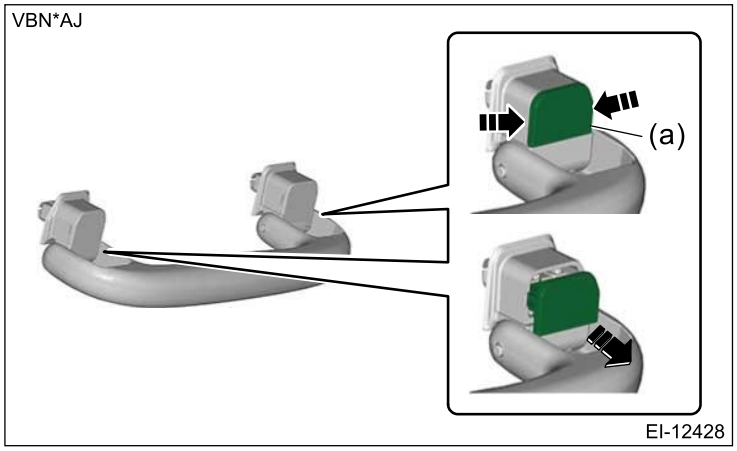


4. Connect the ground terminal to battery sensor. (Model with vanity mirror light) Ref. to REPAIR CONTENTS>NOTE > BATTERY.

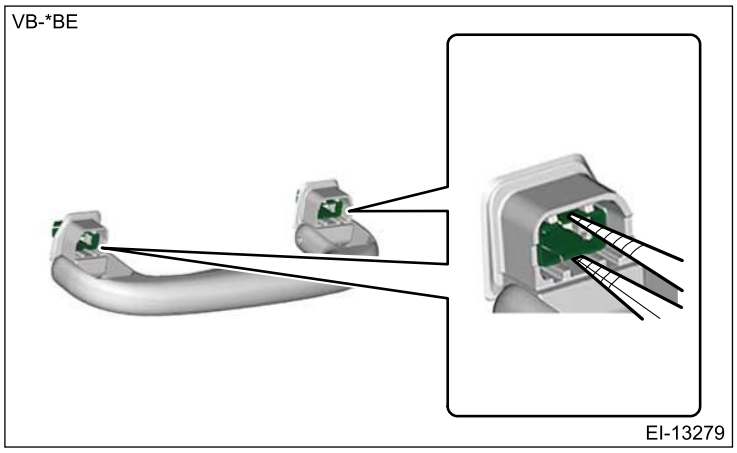
EXTERIOR/INTERIOR TRIM > Assist Grip

REMOVAL

1. Pull both sides of the cap assist grip (a) using a flat tip screwdriver or similar tool wrapped with a protection tape.



2. Pinch and remove the steel clip using long-nose pliers wrapped with protection tape.



3. Pull the assist grip toward yourself (toward the vehicle center) to remove.

EXTERIOR/INTERIOR TRIM > Assist Grip

INSTALLATION

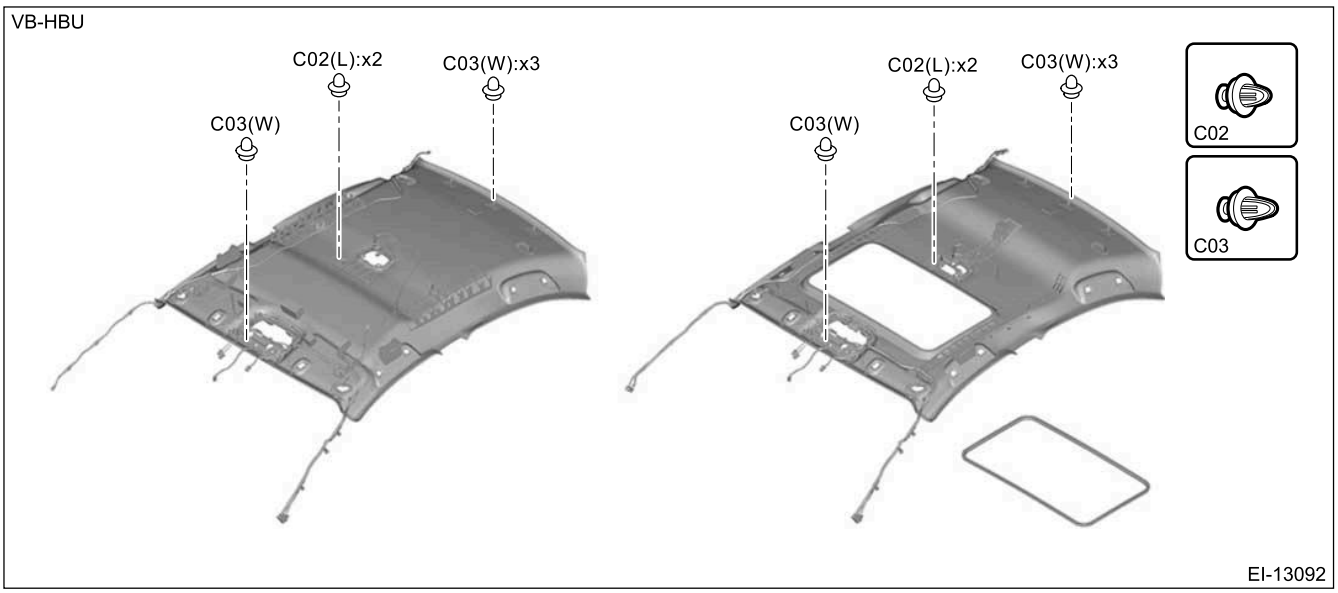
1. Install the assist grip to the vehicle.
2. Install the steel clip to the assist grip.
3. Install the cap assist grip to the assist grip.

Note:
If the steel clip is not inserted to the end, the cap cannot be installed.

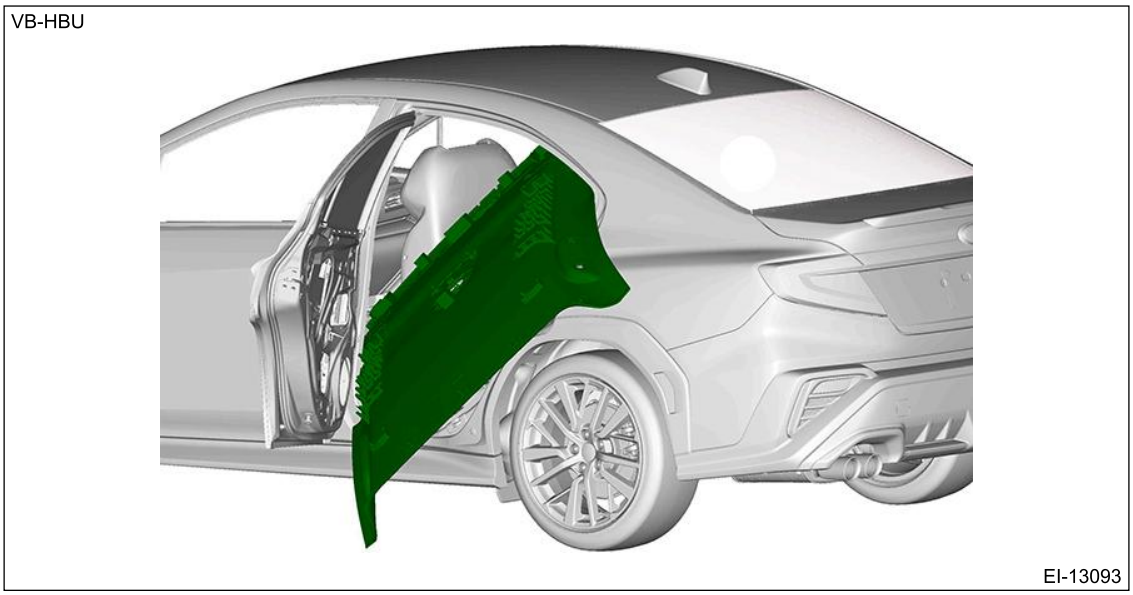
REMOVAL

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Adjust the passenger's seat position.
   (1) Remove the headrest.
   (2) Move the passenger's seat to the front-most position, and move the backrest to the front-most position.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the driver's seat. Ref. to SEATS>Front Seat>REMOVAL.
4. Remove the rear seat cushion assembly and the backrest assembly. Ref. to SEATS>Rear Seat>REMOVAL.
5. Remove the cover side sill front Rr and the trim panel assembly B pillar LWR. Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.
6. Remove the trim panel assembly A pillar and the trim panel assembly B pillar UPR. Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>REMOVAL.
7. Remove the trim panel assembly C pillar LWR and the trim panel assembly C pillar. Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>REMOVAL.
8. Remove the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.
9. Remove the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>REMOVAL.
10. Remove the trim panel rear door LH. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.
11. Remove the light assembly map. Ref. to LIGHTING SYSTEM>Spot Map Light>REMOVAL.
12. Remove the cover EyeSight and disconnect the stereo camera connector. (Models with EyeSight) Ref. to EyeSight>Stereo Camera>REMOVAL.
13. Disconnect the lens hood connector. (Models with EyeSight) Ref. to EyeSight>Lens Hood>REMOVAL.
14. Disconnect the mirror assembly inner rearview HBA connector. (Model with automatic anti-glare mirror) Ref. to GLASS/WINDOWS/MIRRORS>Rearview Mirror>REMOVAL > AUTOMATIC ANTI-GLARE MIRROR.
15. Remove the sun visor assembly and hook sun visor. Ref. to EXTERIOR/INTERIOR TRIM>Sun Visor>REMOVAL.
16. Remove all assist grips. Ref. to EXTERIOR/INTERIOR TRIM>Assist Grip>REMOVAL.
17. Remove the trim panel roof assembly.
    (1) Remove the harness clips of the cord assembly antenna and the cord assembly roof, and disconnect the connectors.
    (2) Remove the garnish sunroof. (Model with sunroof)
    (3) Release the clips.
    (4) Remove the weather strip body side flange from the front/rear and left/right doors, and remove the trim panel roof assembly.



(5) Take out the trim panel roof assembly from the rear door opening on the driver's side to outside.



18. Remove each part as required.

- Light assembly roof
- Cord assembly antenna
- Cord assembly roof

EXTERIOR/INTERIOR TRIM > Roof Trim

INSTALLATION

Caution:

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

1. Install the trim panel roof assembly.

(1) Attach the cord assembly roof, cord assembly antenna and antenna amplifier to the trim panel roof assembly.

Caution:

- **Route each cord carefully. The cord may interfere, thus preventing normal deployment of the curtain airbag when necessary.**
- **Secure the cord so that it comes to the center of the tape.**

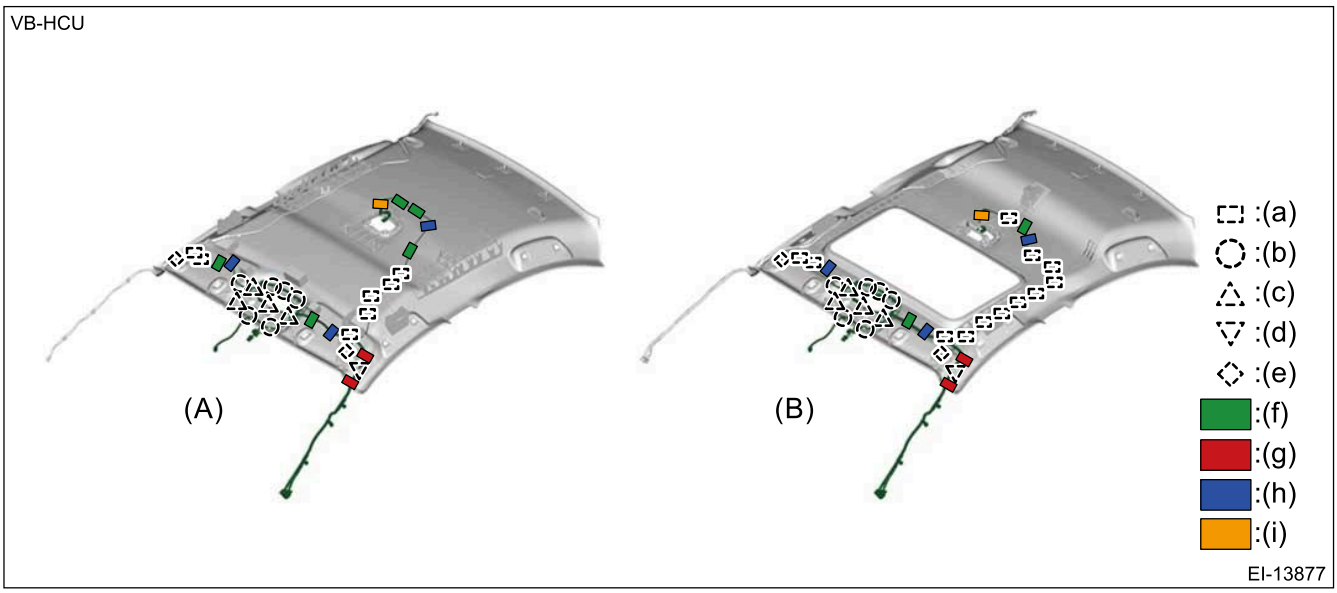
Note:

Use the tape (repair parts) by cutting into 100 mm × 50 mm (3.9 in × 2.0 in).

Preparation items:

Tape (part No. 86359SC000)

- Roof cord



(A) Model without sunroof

(B) Model with sunroof

(a) Secure the cord to the pad clamp.

(b) Secure the cord to the patch clamp.

(c) Secure the cord clamp to the patch hole.

(d) Secure the cord to the clamp.

(e) Align the white tape of the cord with the groove of the spacer, and secure it with the clamp.

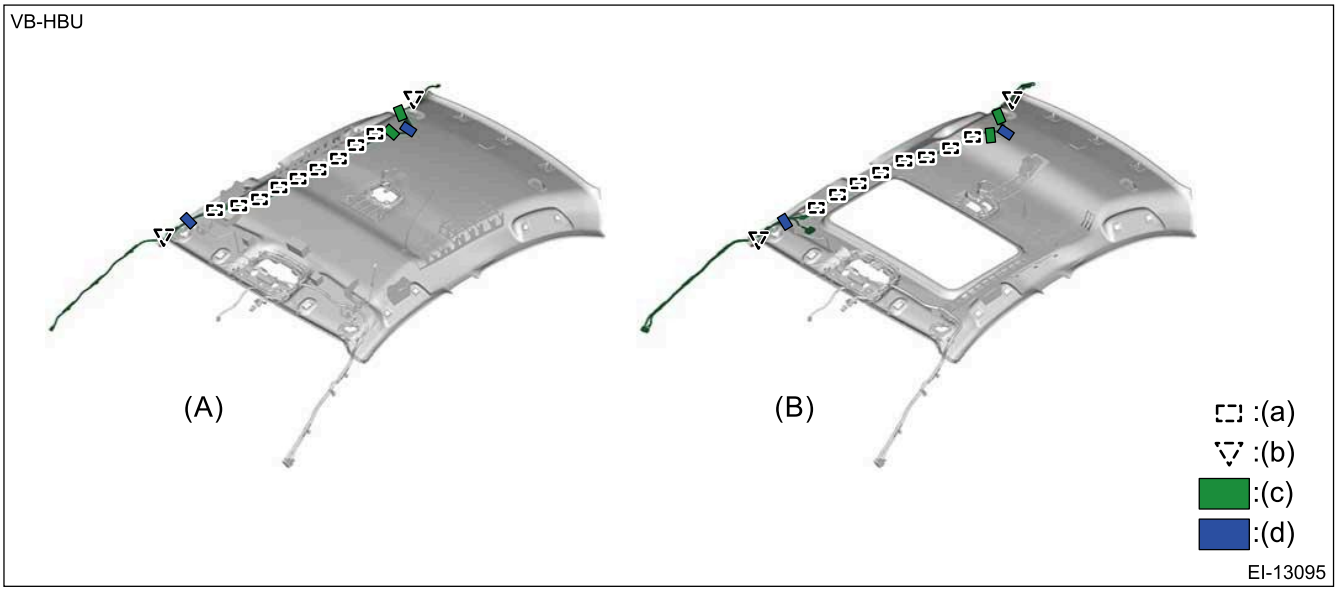
(f) Affix with tape while aligning with the trim mark-off line.

(g) Align the center of the white tape on the cord with the trim end, then secure it using tape according to the mark-off line of the trim.

(h) Pull the cord in the arrow mark direction, and secure it with tape tightly without any sagging.

(i) Align the white tape of the cord with the mark-off line, then secure it using tape.

- Antenna cord



(A) Model without sunroof

(B) Model with sunroof

(a) Secure the cord to the pad clamp.

(b) Secure the white tape between the polyurethane sections with the clamp.

(c) Affix with tape while aligning with the trim mark-off line.

(d) Pull the cord in the arrow mark direction, and secure it with tape tightly without any sagging.

(2) Bring the trim panel roof assembly inside the vehicle.

(3) Secure the trim panel roof assembly with the clips and with the weather strip body side flange.

(4) Install the garnish sunroof. (Model with sunroof)

(5) Attach the harness clamp of the cord assembly antenna and the cord assembly roof, and then connect the connectors.

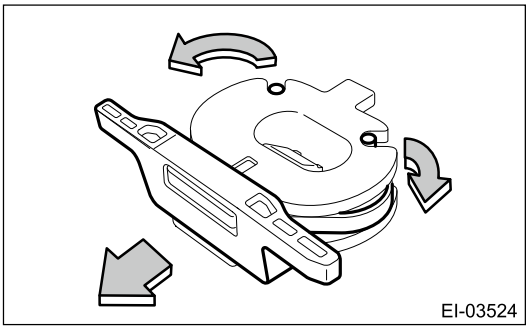
2. Install the assist grip. Ref. to EXTERIOR/INTERIOR TRIM>Assist Grip>INSTALLATION.
3. Install the hook sun visor and sun visor assembly. Ref. to EXTERIOR/INTERIOR TRIM>Sun Visor>INSTALLATION.
4. Connect the mirror assembly inner rearview HBA connector. (Model with automatic anti-glare mirror) Ref. to GLASS/WINDOWS/MIRRORS>Rearview Mirror>INSTALLATION > AUTOMATIC ANTI-GLARE MIRROR.
5. Connect the lens hood connector. (Models with EyeSight) Ref. to EyeSight>Lens Hood>INSTALLATION.
6. Connect the stereo camera connector and install the cover EyeSight. (Models with EyeSight) Ref. to EyeSight>Stereo Camera>INSTALLATION.
7. Install the light assembly map. Ref. to LIGHTING SYSTEM>Spot Map Light>INSTALLATION.
8. Install the trim panel rear door LH. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > REAR DOOR.
9. Install the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>INSTALLATION.
10. Install the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.
11. Install the trim panel assembly C pillar and the trim panel assembly C pillar LWR. Ref. to EXTERIOR/INTERIOR TRIM>Rear Quarter Trim>INSTALLATION.

12. Install the trim panel assembly A pillar and trim panel assembly B pillar UPR. Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>INSTALLATION.
13. Install the trim panel assembly B pillar LWR and cover side sill front Rr. Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>INSTALLATION.
14. Install the backrest assembly and rear seat cushion assembly. Ref. to SEATS>Rear Seat>INSTALLATION.
15. Install the driver's seat. Ref. to SEATS>Front Seat>INSTALLATION.
16. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

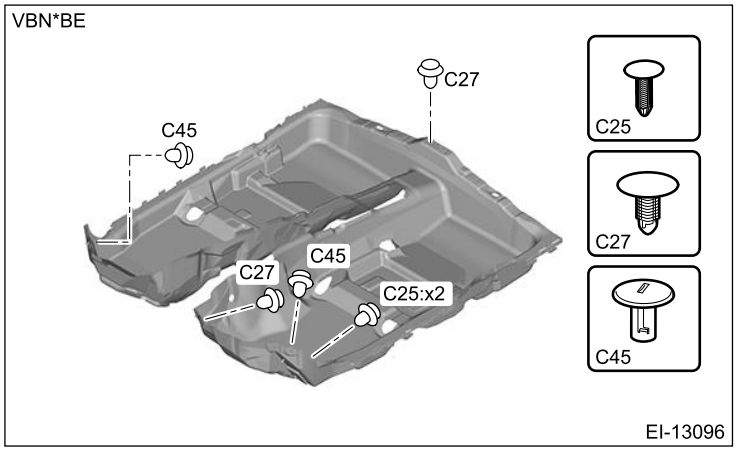
REMOVAL

Caution:
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the rear seat cushion assembly. Ref. to SEATS>Rear Seat>REMOVAL.
3. Remove the cover side sill front Ft and the trim panel assembly B pillar LWR. Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.
4. Remove the front seat assembly. Ref. to SEATS>Front Seat>REMOVAL.
5. Remove the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.
6. Remove the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>REMOVAL.
7. Remove the power amplifier assembly and the extension duct. (Model with power amplifier) Ref. to ENTERTAINMENT & MONITORING>Power Amplifier>REMOVAL.
8. Remove the damper CM. (Electronically-controlled damper model) Ref. to FRONT SUSPENSION>Suspension Control Module>REMOVAL.
9. Remove the accelerator stopper and accelerator plate. Ref. to SPEED CONTROL SYSTEMS(H4DOTC)>Accelerator Pedal>REMOVAL > ACCELERATOR STOPPER.
10. Remove the knobs of the hook seat cushion rear.



11. Take out the floor mat from the vehicle.
    (1) Remove the clips from the floor mat.
    (2) Fold down the floor mat and take it out from the vehicle.

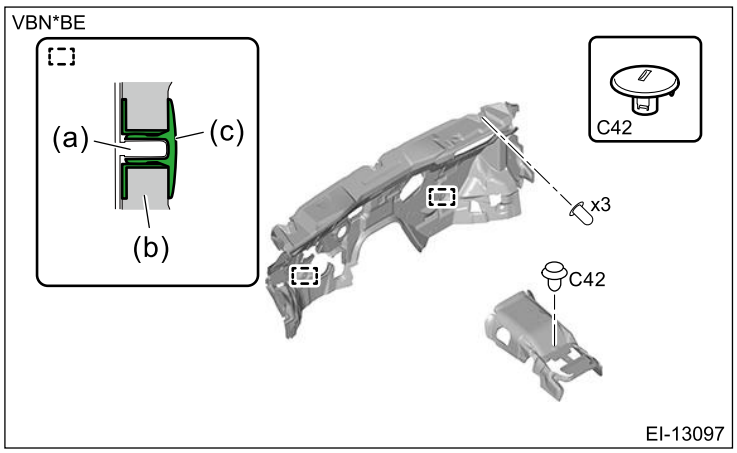


12. Take out the insulator.

(1) Remove the following parts.

- Instrument panel assembly
- Beam steering COMPL
- Heater unit assembly
- Accelerator pedal assembly
- Brake pedal assembly
- Clutch pedal assembly
- Airbag control module
- Bulkhead harness

(2) Remove the clips, and take out the insulator from the vehicle.



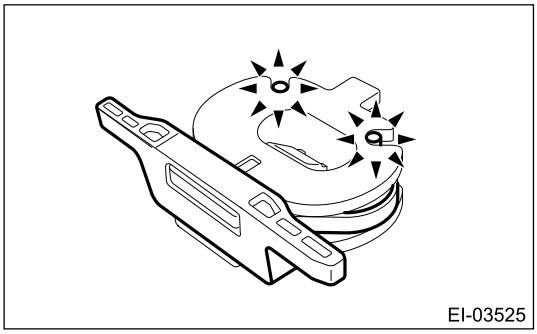
(a) Stud portion of vehicle (b) Insulator toe board (c) ASSY clip

EXTERIOR/INTERIOR TRIM > Floor Mat

INSTALLATION

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Side impact sensor (under the rear center seat) for the airbag system is located under the front center of the rear seat cushion. Be careful not to apply strong impact to the sensor when working with the rear seat cushion removed.**
- **Make sure that the knobs of the hook seat cushion rear are securely installed.**



1. Bring the insulator in the vehicle and secure with clips.
2. Bring the floor mat into the vehicle, and secure with the clips.
3. Install the knobs of the hook seat cushion rear.
4. Install the following parts.
   - Instrument panel assembly
   - Beam steering COMPL
   - Heater unit assembly
   - Accelerator pedal assembly
   - Brake pedal assembly
   - Clutch pedal assembly
   - Airbag control module
   - Bulkhead harness
5. Install the accelerator plate and accelerator stopper. Ref. to SPEED CONTROL SYSTEMS(H4DOTC)>Accelerator Pedal>INSTALLATION > ACCELERATOR STOPPER.
6. Install the damper CM. (Electronically-controlled damper model) Ref. to FRONT SUSPENSION>Suspension Control Module>INSTALLATION.
7. Install the power amplifier assembly and the extension duct. (Model with power amplifier) Ref. to ENTERTAINMENT & MONITORING>Power Amplifier>INSTALLATION.
8. Install the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>INSTALLATION.
9. Install the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.
10. Install the front seat. Ref. to SEATS>Front Seat>INSTALLATION.
11. Install the trim panel assembly B pillar LWR and cover side sill front Ft. Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>INSTALLATION.
12. Install the rear seat cushion assembly. Ref. to SEATS>Rear Seat>INSTALLATION.
13. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
14. Regarding the front seat (passenger's seat), perform [Rezeroing] for the occupant detection system. Ref. to AIRBAG SYSTEM>Rezero.
15. Regarding the front seat (passenger's seat), perform "Occupant Detection System Inspection" to check if the occupant detection system operates normally. Ref. to SEAT BELT SYSTEM>Seat Belt Warning System>INSPECTION.

EXTERIOR BODY PANELS

EB

1. General Description
2. Front Hood
3. Front Fender
4. Front Door
5. Rear Door
6. Sealing Cover
7. Door Sash(Tape/Molding)
8. Trunk Lid
9. Weather Strip

EXTERIOR BODY PANELS > General Description

CAUTION

- When performing service operation, refer to “Repair Contents” in “General Description”. Ref. to REPAIR CONTENTS>Repair Contents.
- When performing any work, always wear work clothes, a work cap and protective shoes. Additionally, wear a helmet, protective goggles, etc. if necessary.
- Use SUBARU genuine grease, the recommended or equivalent. Do not mix grease etc. of different grades or manufacturers.
- When performing work on the sensors or modules, be careful of the following.
  - Before disconnecting electrical connectors, be sure to disconnect the ground terminal from the battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
  - Do not apply any impact. If the parts are accidentally dropped, replace with a new part.
  - Do not expose to high-temperature and humidity.
- When replacing the parts provided with memory functions, record the memory contents before disconnecting the ground terminal from the battery sensor.
- Apply grease onto sliding or revolving surfaces before installation.
- Refer to “CAUTION” of “General Description” in “AIRBAG SYSTEM” section. Ref. to AIRBAG SYSTEM>General Description>CAUTION.
- Exterior body panels are heavy. When removing or installing, do not drop and damage the panels. Do not damage the panel painting surface.

EXTERIOR BODY PANELS > General Description

COMPONENT

1. FRONT HOOD

(1) Grille hood front ASSY
(2) Hood COMPL front
(3) Stopper front hood
(4) Bolt ball stud
(5) Stay ASSY front hood RH
(6) Hinge COMPL front hood RH
(7) Stay ASSY front hood LH
(8) Striker ASSY front hood
(9) Duct hood inner ASSY
(10) Hinge COMPL front hood LH
(11) Cover fender UPR RH
(12) Buffer stopper
(13) Cover fender UPR LH

Tightening torque: N·m (kgf-m, ft-lb)

T1: 4.5 (0.5, 3.3)
T2: 20 (2.0, 14.8)
T3: 25 (2.5, 18.4)
T4: 33 (3.4, 24.0)

2. FRONT FENDER

(1)	Insulator fender rear	(5)	Cover A pillar ASSY	***Tightening torque: N·m (kgf-m, ft-lb)***	
(2)	Insulator fender front	(6)	Bracket fender rear COMPL	***T: 9 (0.9, 6.6)***	
(3)	Fender front	(7)	Cover fender LWR (CVT model)		
(4)	Nutsert	(8)	Garnish ASSY fender		

Note:

- **For the procedures of the cover A pillar assembly, refer to "Door Sash (Tape/Molding)". Ref. to EXTERIOR BODY PANELS>Door Sash(Tape/Molding).**
- **For the components of the garnish assembly fender, refer to "Side Garnish & Side Spoiler" of "EXTERIOR/INTERIOR TRIM" section. Ref. to EXTERIOR/INTERIOR TRIM>General Description>COMPONENT > SIDE GARNISH & SIDE SPOILER.**

3. FRONT DOOR

(1)	Cover B pillar ASSY front	(8)	Bracket door	***Tightening torque: N·m (kgf-m, ft-lb)***
(2)	Panel COMPL door front	(9)	Pad front door inner	***T1: 7.5 (0.8, 5.5)***
(3)	Plug	(10)	Stopper rubber	***T2: 25 (2.5, 18.4)***
(4)	Cover B pillar inner door front	(11)	Cover sash inner front	***T3: 30 (3.1, 22.1)***
(5)	Checker ASSY door front	(12)	Plug	***T4: 33 (3.4, 24.3)***
(6)	Plate door	(13)	Hinge ASSY door front LWR	
(7)	Sealing cover door front	(14)	Hinge ASSY door front UPR	

4. REAR DOOR

(1)	Cover B pillar ASSY rear	(8)	Bracket door	***Tightening torque: N·m (kgf-m, ft-lb)***
(2)	Panel COMPL door rear	(9)	Stopper rubber	***T1: 7.5 (0.8, 5.5)***
(3)	Cover C pillar inner door rear	(10)	Catcher door rear	***T2: 25 (2.5, 18.4)***
(4)	Checker ASSY door rear	(11)	Plug	***T3: 30 (3.1, 22.1)***
(5)	Plug	(12)	Hinge ASSY door rear LWR	***T4: 33 (3.4, 24.3)***
(6)	Cover B pillar inner door rear	(13)	Hinge ASSY door rear UPR	***T5: 38 (3.9, 28.0)***
(7)	Sealing cover door rear			

5. TRUNK LID

(1)	Bracket clip	(8)	Striker trunk	***Tightening torque: N·m (kgf-m, ft-lb)***
(2)	Torsion bar RH	(9)	Stopper trunk LWR LH	***T1: 7.5 (0.8, 5.5)***
(3)	Torsion bar LH	(10)	Lock ASSY trunk	***T2: 14 (1.4, 10.3)***
(4)	Hinge ASSY trunk RH	(11)	Hinge ASSY trunk LH	***T3: 18 (1.8, 13.3)***
(5)	Stopper trunk hinge RH	(12)	Stopper trunk hinge LH	
(6)	Trunk lid COMPL	(13)	Plug	
(7)	Stopper trunk LWR RH			

*1: The shape varies depending on the specifications.

*2: Presence/absence differs depending on the trunk lid COMPL specifications.

6. WEATHER STRIP

(1) Weather strip outer door front (2) Panel COMPL door front (3) Weather strip door front

(1) Weather strip outer door rear (2) Panel COMPL door rear (3) Weather strip door rear

(1) Hood seal rubber LH
(2) Weather strip body side flange front LH
(3) Weather strip body side flange rear LH
(4) Weather strip trunk
(5) Seal cowl panel

EXTERIOR BODY PANELS > General Description

PREPARATION TOOL

1. SUBARU SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
	927780000	REMOVER	• Used for removing and installing the trunk torsion bar. • REMOVER (99099FJ000) can also be used. • REMOVER (99099FL000) can also be used.
	99099FJ000	REMOVER	• Used for removing and installing the trunk torsion bar. • REMOVER (927780000) can also be used. • REMOVER (99099FL000) can also be used.
	99099FL000	REMOVER	• Used for removing and installing the trunk torsion bar. • REMOVER (927780000) can also be used. • REMOVER (99099FJ000) can also be used.

2. OTHER

	REMARKS
Floor jack	Used for supporting door panel.
TORX® T50	Used for removing and installing the catcher door rear.

REMOVAL

Caution:
The hood COMPL front is heavy. When removing and installing it, always work in a team of two or more persons.

1. Open the hood COMPL front.
2. Remove the left and right stay assembly front hoods.
   (1) Gently push a flat tip screwdriver or similar tool against the bolt ball stud, and raise the stop ring.

   Caution:
   Do not remove the stop ring completely. Raise it just enough to be able to remove the stay assembly front hood from the bolt ball stud.

   (2) Pull the stay assembly front hood toward you, and remove it from the bolt ball stud.
3. Remove the nuts from the right and left sides of hood COMPL front side, and remove the hood COMPL front.

INSTALLATION

Caution:
The hood COMPL front is heavy. When removing and installing it, always work in a team of two or more persons.

1. Install the hood COMPL front.
   Tightening torque:
   25 N·m (2.5 kgf-m, 18.4 ft-lb)
2. Install the stay assembly front hood.
3. Adjust the clearance around the hood COMPL front. Ref. to EXTERIOR BODY PANELS>Front Hood>ADJUSTMENT.
4. When the hood COMPL front is replaced, adhere a new emission control label.
   (1) Perform the operation in the following conditions.
   - Adherend (Hood COMPL front) temperature: 7°C (45°F) or more
   - Ambient temperature: 7°C (45°F) or more
   - Label temperature: 25°C (77°F) or more

   Note:
   If the label temperature is less than 25°C (77°F), heat the label to 25 — 30 °C (77 — 86 °F) using a heat light or a drier.

   (2) Adhere a new emission control label (A) to the position shown in the figure.

EXTERIOR BODY PANELS > Front Hood

DISASSEMBLY

Caution:
- **The hood COMPL front is heavy. When removing or installing the hood COMPL front, stay assembly front hood, and hinge COMPL front hood, be sure to work in a team of two or more persons.**
- **Do not damage the piston rods and oil seals of stay assembly front hood.**
- **Never disassemble the stay assembly front hood: They contain gas.**

1. Remove the bolts and clips and remove the duct hood inner assembly.

Caution:

Do not reuse any clips that have been damaged during removal or whose claws have been deformed. Those clips cannot fix the duct hood inner assembly securely. Therefore, always replace with a new part.

2. Release the nuts and clips, then remove the grille hood front assembly.

3. Remove the left and right stopper front hoods.

4. Make alignment marks (a), remove the nuts, and remove the striker assembly front hood from the hood COMPL front.

5. Remove the cowl panel side. Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>REMOVAL.
6. Remove the left and right stay assembly front hoods.
   (1) Gently push a flat tip screwdriver or similar tool against the bolt ball stud, and raise the stop ring.

> **Caution:**
> **Do not remove the stop ring completely. Raise it just enough to be able to remove the stay assembly front hood from the bolt ball stud.**

   (2) Pull the stay assembly front hood toward you, and remove it from the bolt ball stud.
7. Remove the left and right bolt ball studs.

8. Remove the nuts from the right and left sides of hood COMPL front side, and remove the hood COMPL front.

9. Remove the clip, and remove the cover fender UPR on the right and left sides.

10. Remove the fender front. Ref. to EXTERIOR BODY PANELS>Front Fender>REMOVAL.

11. Remove the bolts, and remove the hinge COMPL front hood on the right and left sides from the body.

EXTERIOR BODY PANELS > Front Hood

ASSEMBLY

Caution:

The hood COMPL front is heavy. When removing or installing the hood COMPL front, stay assembly front hood, and hinge COMPL front hood, be sure to work in a team of two or more persons.

1. Install the hinge COMPL front hood.
   Tightening torque:
   25 N·m (2.5 kgf-m, 18.4 ft-lb)
2. Install the fender front. Ref. to EXTERIOR BODY PANELS>Front Fender>INSTALLATION.
3. Install the cover fender UPR.
4. Install the hood COMPL front.
   Tightening torque:
   25 N·m (2.5 kgf-m, 18.4 ft-lb)
5. Install the bolt ball stud.
   Tightening torque:
   20 N·m (2.0 kgf-m, 14.8 ft-lb)
6. Install the stay assembly front hood.
7. Install the cowl panel side. Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>INSTALLATION.
8. Align the alignment marks (a), and install the striker assembly front hood to the hood COMPL front.

Caution:
When installing the striker assembly front hood, make sure that the front and rear sides are positioned in a correct direction.
Note:
It is not necessary to adjust the striker assembly front hood because there is no span of adjustable range.

   Tightening torque:
   33 N·m (3.4 kgf-m, 24.0 ft-lb)

(a) Alignment mark (b) Front side

9. Install the stopper front hood.
10. Install the grille hood front assembly.
    Tightening torque:
    4.5 N·m (0.5 kgf-m, 3.3 ft-lb)
11. Install the duct hood inner assembly.
    Tightening torque:
    4.5 N·m (0.5 kgf-m, 3.3 ft-lb)

EXTERIOR BODY PANELS > Front Hood

ADJUSTMENT

Adjust the dimension between panels around the front hood as follows.

Part		Standard
A	Hood COMPL front to Bumper face front	3.5±1.9 mm (0.14±0.08 in)
B	Hood COMPL front to Bumper face front	4±1.9 mm (0.16±0.08 in)
C	Hood COMPL front to Fender front	3.5±1 mm (0.14±0.04 in)
D	Hood COMPL front to Fender front	3±1 mm (0.12±0.04 in)
E	Hood COMPL front to Fender front	4±1 mm (0.16±0.04 in)
F	Hood COMPL front to Light assembly head	7.3±1.8 mm (0.29±0.07 in)
G	Surface level gap: Hood COMPL front to Fender front	0±1.5 mm (0±0.06 in)

1. Adjust the horizontal position of the hood COMPL front.
(1) Loosen the attaching bolts of the hinge COMPL front hood on the right and left sides.

(2) Adjust the horizontal clearance of the hood COMPL front, and tighten the attaching bolts of the hinge COMPL front hood.

Tightening torque:

25 N·m (2.5 kgf-m, 18.4 ft-lb)

2. Adjust the front end height of the hood COMPL front. Ref. to SECURITY AND LOCKS>Front Hood Lock Assembly>ADJUSTMENT.
3. Rotate the right and left buffer stopper to adjust the height.

REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the bumper face front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL > BUMPER FACE.
3. Remove the clip, and remove the cover fender UPR.

4. Remove the bracket side front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL > BUMPER BRACKET.
5. Remove the light assembly head. Ref. to LIGHTING SYSTEM>Headlight Assembly>REMOVAL.
6. Remove the cowl panel side. Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>REMOVAL.
7. Remove the mud guard front. Ref. to EXTERIOR/INTERIOR TRIM>Mud Guard>REMOVAL.
8. Remove the spoiler assembly side sill. Ref. to EXTERIOR/INTERIOR TRIM>Side Garnish & Side Spoiler>REMOVAL.
9. Remove the garnish assembly fender.

Caution:
Do not reuse the garnish assembly fender.

10. Remove the cover A pillar assembly. Ref. to EXTERIOR BODY PANELS>Door Sash(Tape/Molding)>REMOVAL > COVER A PILLAR ASSEMBLY.
11. Remove the clip, and remove the cover fender LWR. (CVT model)

Note:
Pull out toward mud guard front.

12. Remove the bolts and nuts, and remove the fender front.

EXTERIOR BODY PANELS > Front Fender

INSTALLATION

1. Install the fender front.

Note:
When installing the fender front, make sure that a uniform clearance is created around it.
- **Fender front to Hood COMPL front: Ref. to EXTERIOR BODY PANELS>Front Hood>ADJUSTMENT.**
- **Fender front to Panel COMPL door front: Ref. to EXTERIOR BODY PANELS>Front Door>ADJUSTMENT.**

Tightening torque:
9 N·m (0.9 kgf-m, 6.6 ft-lb)

2. Install the cover fender LWR. (CVT model)

Note:
Open the door, and install it from the compartment side.

3. Install the cover A pillar assembly. Ref. to EXTERIOR BODY PANELS>Door Sash(Tape/Molding)>INSTALLATION > COVER A PILLAR ASSEMBLY.

4. Install the spoiler assembly side sill. Ref. to EXTERIOR/INTERIOR TRIM>Side Garnish & Side Spoiler>INSTALLATION.

5. Install the garnish assembly fender.
6. Install the mud guard front. Ref. to EXTERIOR/INTERIOR TRIM>Mud Guard>INSTALLATION.
7. Install the cowl panel side. Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>INSTALLATION.
8. Install the light assembly head. Ref. to LIGHTING SYSTEM>Headlight Assembly>INSTALLATION.
9. Install the bracket side front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>INSTALLATION.
10. Install the cover fender UPR.
11. Install the bumper face front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>INSTALLATION.
12. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

REMOVAL

1. FRONT DOOR PANEL

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **The panel COMPL door front is heavy. When removing and installing it, always work in a team of two or more persons.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.
3. Remove the sealing cover door front. Ref. to EXTERIOR BODY PANELS>Sealing Cover>REMOVAL > FRONT SEALING COVER.
4. Remove the outer mirror assembly. Ref. to GLASS/WINDOWS/MIRRORS>Outer Mirror Assembly>REMOVAL.
5. Remove the speaker assembly front. Ref. to ENTERTAINMENT & MONITORING>Front Speaker>REMOVAL > DOOR.
6. Remove the side impact sensor (front door). Ref. to AIRBAG SYSTEM>Impact Sensor>REMOVAL > SIDE IMPACT SENSOR (FRONT DOOR) .
7. Remove the plate door, pad front door inner and glass assembly front door. Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass>REMOVAL > FRONT DOOR GLASS.
8. Remove the running channel front door, sash assembly partition and glass front door partition. Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass>REMOVAL > FRONT DOOR PARTITION GLASS.
9. Release the claws, and then remove the cover B pillar inner door front.

   Caution:
   Do not damage the sash while removing.

10. Remove the weather strip outer door front. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT > FRONT DOOR.
11. Remove the cover B pillar assembly front. Ref. to EXTERIOR BODY PANELS>Door Sash(Tape/Molding)>REMOVAL > FRONT DOOR.

12. Remove the regulator & motor assembly front. Ref. to GLASS/WINDOWS/MIRRORS>Front Regulator and Motor Assembly>REMOVAL.
13. Remove the handle front door outer. Ref. to SECURITY AND LOCKS>Door Outer Handle>REMOVAL > FRONT.
14. Remove the latch and actuator assembly front. Ref. to SECURITY AND LOCKS>Door Latch & Door Lock Actuator Assembly>REMOVAL > FRONT.
15. Remove the weather strip door front. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT > FRONT DOOR.
16. Remove the clips, and remove the cover sash inner front.

17. Remove the stopper rubber.

Note:
Perform this procedure only when required.

18. Remove the bolts and nuts, and then detach the checker assembly door front.

19. Disconnect the cord door front connector.
    (1) Remove the cover side sill front Ft. Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.
    (2) Disconnect the cord door front connector from the rear harness.
    (3) Raise the lock lever (a) and disconnect the cord door front connector from body harness.

(4) Push in the claws to remove the grommet, and pull out the cord door front connector.

20. Remove the clips, and remove the cord door front from the panel COMPL door front.

21. Before removing the panel COMPL door front, make the following preparations.

Caution:

Do not lift the panel COMPL door front with a floor jack excessively. The hinge assembly door front may be damaged.

(1) Put a wooden block on a floor jack and place the floor jack under the panel COMPL door front.

(2) Support the panel COMPL door front with the floor jack to protect it from damage.

22. Remove the bolts on the side of the panel COMPL door front of the hinge assembly door front UPR and the hinge assembly door front LWR, and remove the panel COMPL door front.

23. Remove the hinge assembly door front from the vehicle.

2. FRONT DOOR HINGE

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **The panel COMPL door front is heavy. When removing and installing it, always work in a team of two or more persons.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. Disconnect the cord door front connector.

(1) Remove the cover side sill front Ft. Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.

(2) Disconnect the cord door front connector from the rear harness.

(3) Raise the lock lever (a) and disconnect the cord door front connector from body harness.

(4) Push in the claws to remove the grommet, and pull out the cord door front connector.

3. Remove the bolts on the vehicle side to disconnect the checker assembly door front.

4. Before removing the hinge assembly door front, make the following preparations.

Caution:

Do not lift the panel COMPL door front with a floor jack excessively. The hinge assembly door front may be damaged.

(1) Put a wooden block on a floor jack and place the floor jack under the panel COMPL door front.

(2) Support the panel COMPL door front with the floor jack to protect it from damage.

5. Remove the bolts on the side of the panel COMPL door front of the hinge assembly door front UPR or the hinge assembly door front LWR.

Caution:

Do not remove the hinge assembly front door UPR and the hinge assembly front door LWR at the same time.

6. Remove the hinge assembly door front from the vehicle.

EXTERIOR BODY PANELS > Front Door

INSTALLATION

1. FRONT DOOR PANEL

Caution:

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **The panel COMPL door front is heavy. When removing and installing it, always work in a team of two or more persons.**
- **When the panel COMPL door front or the hinge assembly door front is replaced with a new part, apply sealer to the hinge assembly door front contacting surface.**

Preparation items:

Sealer: BAYER SILICONE SEALANT or equivalent

1. Put a wooden block on a floor jack and place the panel COMPL door front on it.

2. Apply grease to the sliding area of hinge assembly door front, and install to vehicle.

   Preparation items:

   Grease: NIPPECO LT-1N or equivalent Ref. to RECOMMENDED MATERIALS>GREASE>DOOR.

   Tightening torque:

   30 N·m (3.1 kgf-m, 22.1 ft-lb)

3. Temporarily install the panel COMPL door front to the hinge assembly door front UPR and the hinge assembly door front LWR after adjusting the height by the floor jack.

   Caution:

   Perform installation while paying attention to the assembly direction of the grommet.

   Note:

   When installing the panel COMPL door front, make sure that a uniform clearance is created around the panel.

4. Adjust the clearance around the panel COMPL door front. Ref. to EXTERIOR BODY PANELS>Front Door>ADJUSTMENT.
5. Tighten the mounting bolts of the panel COMPL door front to the specified torque.

   Tightening torque:

   25 N·m (2.5 kgf-m, 18.4 ft-lb)

6. Install the cord door front.
7. Connect each connector of the cord door front.
8. Tighten the bolts and nuts of the checker assembly door front.

   Caution:

   When fastening the checker assembly door front and the vehicle, hold the arm by hand so that the bracket does not rotate while tightening the bolts.

   Tightening torque:

   Refer to "COMPONENT" of "General Description" for the tightening torque. Ref. to EXTERIOR BODY PANELS>General Description>COMPONENT > FRONT DOOR.

9. Install a new stopper rubber.
10. Install the cover sash inner front.
11. Install the weather strip door front. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT > FRONT DOOR.
12. Install the latch and actuator assembly front. Ref. to SECURITY AND LOCKS>Door Latch & Door Lock Actuator Assembly>INSTALLATION > FRONT.
13. Install the handle front door outer. Ref. to SECURITY AND LOCKS>Door Outer Handle>INSTALLATION > FRONT.
14. Install the regulator & motor assembly front. Ref. to GLASS/WINDOWS/MIRRORS>Front Regulator and Motor Assembly>INSTALLATION.
15. Install the cover B pillar assembly front. Ref. to EXTERIOR BODY PANELS>Door Sash(Tape/Molding)>INSTALLATION > FRONT DOOR.
16. Install the weather strip outer door front. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT > FRONT DOOR.
17. Install a new cover B pillar inner door front.

Caution:
- **Do not damage the sash while installing.**
- **Be careful not to turn over the door sash tape while installing.**

18. Install the running channel front door, sash assembly partition and glass front door partition. Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass>INSTALLATION > FRONT DOOR PARTITION GLASS.
19. Install the plate door, pad front door inner and glass assembly front door. Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass>INSTALLATION > FRONT DOOR GLASS.
20. Install the side impact sensor (front door). Ref. to AIRBAG SYSTEM>Impact Sensor>INSTALLATION > SIDE IMPACT SENSOR (FRONT DOOR) .
21. Install the speaker assembly front. Ref. to ENTERTAINMENT & MONITORING>Front Speaker>INSTALLATION > DOOR.
22. Install the outer mirror assembly. Ref. to GLASS/WINDOWS/MIRRORS>Outer Mirror Assembly>INSTALLATION.
23. Install the sealing cover door front. Ref. to EXTERIOR BODY PANELS>Sealing Cover>INSTALLATION > FRONT SEALING COVER.
24. Install the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION.
25. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. FRONT DOOR HINGE

Caution:
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **The panel COMPL door front is heavy. When removing and installing it, always work in a team of two or more persons.**
- **When the panel COMPL door front or the hinge assembly door front is replaced with a new part, apply sealer to the hinge assembly door front contacting surface.**

Preparation items:

Sealer: BAYER SILICONE SEALANT or equivalent

1. Apply grease to the sliding area of hinge assembly door front, and install to vehicle.

Preparation items:

Grease: NIPPECO LT-1N or equivalent Ref. to RECOMMENDED MATERIALS>GREASE>DOOR.

Tightening torque:

30 N·m (3.1 kgf-m, 22.1 ft-lb)

2. Temporarily install the panel COMPL door front to the hinge assembly door front UPR and the hinge assembly door front LWR after adjusting the height by the floor jack.

Note:

When installing the panel COMPL door front, make sure that a uniform clearance is created around the panel.

3. Adjust the clearance around the panel COMPL door front. Ref. to EXTERIOR BODY PANELS>Front Door>ADJUSTMENT.
4. Tighten the bolts of the panel COMPL door front to the specified torque.

Tightening torque:

25 N·m (2.5 kgf-m, 18.4 ft-lb)

5. Tighten the bolts and nuts of the checker assembly door front.

Caution:

When fastening the checker assembly door front and the vehicle, hold the arm by hand so that the bracket does not rotate while tightening the bolts.

Tightening torque:

Refer to "COMPONENT" of "General Description" for the tightening torque. Ref. to EXTERIOR BODY PANELS>General Description>COMPONENT > FRONT DOOR.

6. Install the cord door front.
7. Connect each connector of the cord door front.
8. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

EXTERIOR BODY PANELS > Front Door

ADJUSTMENT

Adjust the clearance around the panel COMPL door front as follows.

	Part	Standard
A	Fender front to Panel COMPL door front	4.5±0.9 mm (0.18±0.04 in)

B	Panel side outer to Sash COMPL door front	$5^{+1.5\ mm}_{-1\ mm}$ ($0.19^{+0.06\ in}_{-0.04\ in}$)
C	Surface level gap: Panel side outer to Sash COMPL door front	$2.7^{+0.5\ mm}_{-2.5\ mm}$ ($0.11^{+0.02\ in}_{-0.1\ in}$)
D	Cover B pillar assembly front to Cover B pillar assembly rear	5.8 mm (0.23 in)
E	Panel COMPL door front to Panel COMPL door rear	4±1 mm (0.16±0.04 in)
F	Fender front to Panel COMPL door front	4.5 mm (0.18 in)
G	Fender front to Panel COMPL door front	$4.5^{+1.4\ mm}_{-0.4\ mm}$ ($0.18^{+0.06\ in}_{-0.02\ in}$)

1. Adjust the vertical and horizontal positions of the panel COMPL door front.

(1) Turn over the mud guard front. Ref. to EXTERIOR/INTERIOR TRIM>Mud Guard>REMOVAL.

(2) Remove the clip, and remove the cover fender LWR.

Note:

Pull out toward mud guard front.

(3) Loosen the vehicle side bolts of the hinge assembly door front UPR and the hinge assembly door front LWR.

(4) Adjust the vertical and horizontal clearance of the panel COMPL door front.

2. Adjust the surface level gap between the panel COMPL door front and the panel COMPL door rear.

Caution:

Do not use an impact wrench. Welding area on the striker nut plate is easily broken.

(1) Loosen the screws (a).

(2) Lightly tap the striker front door (b) using a plastic hammer to adjust the surface level gap between the rear end of the panel COMPL door front and the front end of the panel COMPL door rear.

(3) Tighten the screws (a).

Tightening torque:

18 N·m (1.8 kgf-m, 13.3 ft-lb)

REMOVAL

1. REAR DOOR PANEL

Caution:
The panel COMPL door rear is heavy. When removing and installing it, always work in a team of two or more persons.

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.
3. Remove the sealing cover door rear. Ref. to EXTERIOR BODY PANELS>Sealing Cover>REMOVAL > REAR SEALING COVER.
4. Remove the speaker assembly rear. Ref. to ENTERTAINMENT & MONITORING>Rear Speaker>REMOVAL.
5. Remove the glass assembly rear door. Ref. to GLASS/WINDOWS/MIRRORS>Rear Door Glass>REMOVAL.
6. Release the claws, and remove the cover B pillar inner door rear and the cover C pillar inner door rear.

   Caution:
   Do not damage the sash while removing.

7. Remove the weather strip outer door rear. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT > REAR DOOR.
8. Remove the cover B pillar assembly rear. Ref. to EXTERIOR BODY PANELS>Door Sash(Tape/Molding)>REMOVAL > REAR DOOR.
9. Remove the regulator and motor assembly rear. Ref. to GLASS/WINDOWS/MIRRORS>Rear Regulator and Motor Assembly>REMOVAL.

10. Remove the latch and actuator assembly rear. Ref. to SECURITY AND LOCKS>Door Latch & Door Lock Actuator Assembly>REMOVAL > REAR.
11. Remove the handle rear door outer. Ref. to SECURITY AND LOCKS>Door Outer Handle>REMOVAL > REAR.
12. Remove the weather strip door rear. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT > REAR DOOR.
13. Using TORX® T50, remove the catcher door rear.

14. Remove the stopper rubber.

Note:
Perform this procedure only when required.

15. Remove the bolts and nuts to remove the checker assembly door rear.

16. Disconnect the cord door rear connector.
    (1) Remove the grommet and pull out the cord door rear connector from inside the center pillar.

    (2) Disconnect the cord door rear connector.

17. Remove the clip, and remove the cord door rear from the panel COMPL door rear.

18. Before removing the panel COMPL door rear, make the following preparations.

Caution:

Do not lift the panel COMPL door rear with a floor jack excessively. The hinge assembly door rear may be damaged.

(1) Put a wooden block on a floor jack and place the floor jack under the panel COMPL door rear.

(2) Support the panel COMPL door rear with the floor jack to protect it from damage.

19. Remove the bolts on the hinge assembly door rear UPR and the hinge assembly door rear LWR, and remove the panel COMPL door rear.

20. Remove the hinge assembly door rear from the vehicle.

2. REAR DOOR HINGE

Caution:
The panel COMPL door rear is heavy. When removing and installing it, always work in a team of two or more persons.

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Disconnect the cord door rear connector.
   (1) Remove the grommet and pull out the cord door rear connector from inside the center pillar.

   (2) Disconnect the cord door rear connector.

3. Remove the bolt on the vehicle side and disconnect the checker assembly door rear.

4. Before removing the hinge assembly door rear, make the following preparations.

Caution:
Do not lift the panel COMPL door rear with a floor jack excessively. The hinge assembly door rear may be damaged.

   (1) Put a wooden block on a floor jack and place the floor jack under the panel COMPL door rear.
   (2) Support the panel COMPL door rear with the floor jack to protect it from damage.

5. Remove the bolts on the panel COMPL door rear side of the hinge assembly door rear UPR or the hinge assembly door rear LWR.

Caution:

Do not remove the hinge assembly door rear UPR and the hinge assembly door rear LWR at the same time.

6. Remove the hinge assembly door rear from the vehicle.

EXTERIOR BODY PANELS > Rear Door

INSTALLATION

1. REAR DOOR PANEL

Caution:

- **The panel COMPL door rear is heavy. When removing and installing it, always work in a team of two or more persons.**
- **When the panel COMPL door rear or the hinge assembly door rear is replaced with a new part, apply sealer to the hinge assembly door rear contacting surface.**

Preparation items:

Sealer: BAYER SILICONE SEALANT or equivalent

1. Put a wooden block on a floor jack and place the panel COMPL door rear on it.

2. Apply grease to the sliding area of hinge assembly door rear, and install to vehicle.

Preparation items:

Grease: NIPPECO LT-1N or equivalent Ref. to RECOMMENDED MATERIALS>GREASE>DOOR.

Tightening torque:

30 N·m (3.1 kgf-m, 22.1 ft-lb)

3. Temporarily install the panel COMPL door rear to the hinge assembly door rear UPR and the hinge assembly door rear LWR after adjusting the height by the floor jack.

Caution:
Perform installation while paying attention to the assembly direction of the grommet.

Note:
When installing, make sure that a uniform clearance is created around the panel COMPL door rear.

4. Adjust the clearance around the panel COMPL door rear. Ref. to EXTERIOR BODY PANELS>Rear Door>ADJUSTMENT.
5. Tighten the mounting bolts of the panel COMPL door rear to the specified torque.
   Tightening torque:
   25 N·m (2.5 kgf-m, 18.4 ft-lb)
6. Install the cord door rear.
7. Connect the cord door rear connector.
8. Tighten the bolts and nuts of the checker assembly door rear.

   Caution:
   When fastening the checker assembly door rear and the vehicle, hold the arm by hand so that the bracket does not rotate while tightening the bolts.

   Tightening torque:
   Refer to "COMPONENT" of "General Description" for the tightening torque. Ref. to EXTERIOR BODY PANELS>General Description>COMPONENT > REAR DOOR.
9. Install a new stopper rubber.
10. Using TORX® T50, install the catcher door rear.
    Tightening torque:
    38 N·m (3.9 kgf-m, 28.0 ft-lb)
11. Install the weather strip door rear. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT > REAR DOOR.
12. Install the handle rear door outer. Ref. to SECURITY AND LOCKS>Door Outer Handle>INSTALLATION > REAR.
13. Install the latch and actuator assembly rear. Ref. to SECURITY AND LOCKS>Door Latch & Door Lock Actuator Assembly>INSTALLATION > REAR.
14. Install the regulator and motor assembly rear. Ref. to GLASS/WINDOWS/MIRRORS>Rear Regulator and Motor Assembly>INSTALLATION.
15. Install the cover B pillar assembly rear. Ref. to EXTERIOR BODY PANELS>Door Sash(Tape/Molding)>INSTALLATION > REAR DOOR.
16. Install the weather strip outer door rear. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT > REAR DOOR.
17. Install a new cover B pillar inner door rear and a new cover C pillar inner door rear.

    Caution:
    - **Do not damage the sash while installing.**
    - **Be careful not to turn over the door sash tape while installing.**
18. Install the glass assembly rear door. Ref. to GLASS/WINDOWS/MIRRORS>Rear Door Glass>INSTALLATION.
19. Install the speaker assembly rear. Ref. to ENTERTAINMENT & MONITORING>Rear Speaker>INSTALLATION.
20. Install the sealing cover door rear. Ref. to EXTERIOR BODY PANELS>Sealing Cover>INSTALLATION > REAR SEALING COVER.
21. Install the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION.
22. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. REAR DOOR HINGE

Caution:

- **The panel COMPL door rear is heavy. When removing and installing it, always work in a team of two or more persons.**
- **When the panel COMPL door rear or the hinge assembly door rear is replaced with a new part, apply sealer to the hinge assembly door rear contacting surface.**

Preparation items:

Sealer: BAYER SILICONE SEALANT or equivalent

1. Apply grease to the sliding area of hinge assembly door rear, and install to vehicle.

   Preparation items:

   Grease: NIPPECO LT-1N or equivalent Ref. to RECOMMENDED MATERIALS>GREASE>DOOR.

   Tightening torque:

   30 N·m (3.1 kgf-m, 22.1 ft-lb)
2. Temporarily install the panel COMPL door rear to the hinge assembly door rear UPR and the hinge assembly door rear LWR after adjusting the height by the floor jack.

   Note:

   When installing, make sure that a uniform clearance is created around the panel COMPL door rear.
3. Adjust the clearance around the panel COMPL door rear. Ref. to EXTERIOR BODY PANELS>Rear Door>ADJUSTMENT.
4. Tighten the bolts of the panel COMPL door rear to the specified torque.

   Tightening torque:

   25 N·m (2.5 kgf-m, 18.4 ft-lb)
5. Tighten the bolts and nuts of the checker assembly door rear.

   Caution:

   When fastening the checker assembly door rear and the vehicle, hold the arm by hand so that the bracket does not rotate while tightening the bolts.

   Tightening torque:

   Refer to "COMPONENT" of "General Description" for the tightening torque. Ref. to EXTERIOR BODY PANELS>General Description>COMPONENT > REAR DOOR.
6. Install the cord door rear.
7. Connect the cord door rear connector.
8. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

EXTERIOR BODY PANELS > Rear Door

ADJUSTMENT

Adjust the clearance around the panel COMPL door rear as follows.

Part		Standard
A	Panel COMPL door front to Panel COMPL door rear	4±1 mm (0.16±0.04 in)
B	Cover B pillar assembly front to Cover B pillar assembly rear	5.8 mm (0.23 in)
C	Panel side outer to Sash COMPL door rear	$5.0^{+1.5\ mm}_{-1\ mm}$ ($0.19^{+0.06\ in}_{-0.04\ in}$)
D	Surface level gap: Panel side outer to Sash COMPL door rear	$3.9^{+0.5\ mm}_{-2.5\ mm}$ ($0.15^{+0.02\ in}_{-0.1\ in}$)
E	Panel COMPL door rear to Panel side outer	3.9±0.9 mm (0.15±0.04 in)

1. Adjust the vertical and horizontal positions of the panel COMPL door rear.

(1) Loosen the vehicle side bolts of the hinge assembly door rear UPR and the hinge assembly door rear LWR.

(2) Adjust the vertical and horizontal clearance of the panel COMPL door rear.

2. Adjust the surface level gap between the panel COMPL door rear and the body.

Caution:

Do not use an impact wrench. Welding area on the striker nut plate is easily broken.

(1) Loosen the screws (a).
(2) Tap the striker rear door (b) using a plastic hammer to adjust the surface level gap between the rear end of the panel COMPL door rear and the rear quarter.
(3) Tighten the screws (a).

Tightening torque:

18 N·m (1.8 kgf-m, 13.3 ft-lb)

REMOVAL

1. FRONT SEALING COVER

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.
3. Remove the sealing cover door front.

Caution:
- **Carefully remove the butyl tape. Excessive force will easily break the cover.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

(1) Remove the screw to remove the bracket door front.

(2) Remove the connectors and clips.
(3) Carefully remove the butyl tape to remove the sealing cover door front.

2. REAR SEALING COVER

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.
3. Remove the sealing cover door rear.

Caution:
- **Carefully remove the butyl tape. Excessive force will easily break the cover.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

(1) Remove the screw to remove the bracket door rear.

(2) Remove the connectors and clips.
(3) Carefully remove the butyl tape to remove the sealing cover door rear.

EXTERIOR BODY PANELS > Sealing Cover

INSTALLATION

1. FRONT SEALING COVER

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the sealing cover door front.
(1) Apply butyl tape as shown in the figure.

Caution:

- **Apply the butyl tape while being careful not to block the water drain hole.**
- **Apply a butyl tape evenly. If the tape is uneven, water leakage and contamination may occur.**

Preparation items:

Butyl tape: 3M Butyl Tape 8626 or equivalent

(A) Water drain hole (B) Butyl tape (C) Application position of butyl tape

(2) Apply the top edge while aligning the reference holes located in the front and rear of the sealing cover door front with the reference projections of the panel COMPL door front.

Caution:

- **If the sealing cover gets broken, replace it with a new part.**
- **When reusing the sealing cover, clean the panel COMPL door front.**
- **For excessively dirty areas, remove the residual butyl tape, re-apply new butyl tape, and then install the sealing cover.**
- **Attach the sealing cover, keeping it from becoming wrinkled.**
- **Do not drill any additional holes into the cylinder cover. If the door inner pressure cannot be maintained, the Side impact sensor (front door) may not function correctly.**
- **When installing the sealing cover, make sure it is aligned properly. Failure to do so may lead to improper door trim installation or water leakage.**
- **Press hard so that the width of the butyl tape after the sealing cover is installed is 2 times or more the width before it was installed.**

(A) Reference projections of panel COMPL door front

(3) Pull the harness out from the slit.

Caution:
Make sure that the slit where the harness passes through does not become folded back. If it is folded back, water leakage may occur.

(4) Apply the remaining part while aligning the bottom of the sealing cover door front with the reference projections located in the bottom of the panel COMPL door front.

(5) Install the connectors and clips.

(6) Install the bracket door front.

(7) Press hard on the entire perimeter of the butyl tape.

2. Check for water leakage.

Note:
Perform only when the lower edge of the sealing cover was peeled off.

(1) Use an oiler or similar means to spray water through the sealing cover slit. (2 places)

Note:
- **Oiler water amount: 0.5 L (0.13 US gal, 0.11 Imp gal) per location**
- **Spray the water so that it contacts the butyl tape at the lower edge of the sealing cover.**
- **Check that the butyl tape is not broken and no water leakage occurs.**

(A) Water spray location (slit) (B) Water leakage check location (C) Oiler or other means

(2) Check that there is no water leakage.

(3) If water leakage occurs, reinstall the sealing cover.

3. Install the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > FRONT DOOR.

4. Check for water leakage.

Note:

Perform only when the lower edge of the sealing cover was peeled off.

(1) Spray water onto the window frame for 1 minute using a hose or other means.

Note:

- **Hose water volume: 10 L (2.6 US gal, 2.2 Imp gal) per minute**
- **Move the hose by 250 mm (9.84 in) per second while spraying.**

(A) Water spray location

(2) Open the door and check that there is no water leakage from the bottom edge of the trim panel front door.

(A) Water leakage check location

(3) If water leakage occurs, reinstall the sealing cover.

5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. REAR SEALING COVER

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Install the sealing cover door rear.

(1) Apply butyl tape as shown in the figure.

Caution:
- **Apply the butyl tape while being careful not to block the water drain hole.**
- **Apply a butyl tape evenly. If the tape is uneven, water leakage and contamination may occur.**

Preparation items:

Butyl tape: 3M Butyl Tape 8626 or equivalent

(A) Marks indicating application position of butyl tape

(B) Water drain hole

(C) Butyl tape

(D) Application position of butyl tape

(2) Apply the top edge while aligning the reference holes located in the front and rear of the sealing cover door rear with the reference projections of the panel COMPL door rear.

Caution:

- **If the sealing cover gets broken, replace it with a new part.**
- **When reusing the sealing cover, clean the panel COMPL door rear.**
- **For excessively dirty areas, remove the residual butyl tape, re-apply new butyl tape, and then install the sealing cover.**
- **Attach the sealing cover, keeping it from becoming wrinkled.**
- **When installing the sealing cover, make sure it is aligned properly. Failure to do so may lead to improper door trim installation or water leakage.**
- **Press hard so that the width of the butyl tape after the sealing cover is installed is 2 times or more the width before it was installed.**

(A) Reference projections of panel

COMPL door rear

(3) Pull the harness out from the slit.

Caution:

Make sure that the slit where the harness passes through does not become folded back. If it is folded back, water leakage may occur.

(4) Apply the remaining parts.

(5) Install the connectors and clips.

(6) Install the bracket door rear.

(7) Press hard on the entire perimeter of the butyl tape.

2. Check for water leakage.

Note:

Perform only when the lower edge of the sealing cover was peeled off.

(1) Use an oiler or similar means to spray water through the sealing cover slit. (2 places)

Note:

- **Oiler water amount: 0.5 L (0.13 US gal, 0.11 Imp gal) per location**
- **Spray the water so that it contacts the butyl tape at the lower edge of the sealing cover.**
- **Check that the butyl tape is not broken and no water leakage occurs.**

(A) Water spray location (slit) (B) Water leakage check location (C) Oiler or other means

(2) Check that there is no water leakage.

(3) If water leakage occurs, reinstall the sealing cover.

3. Install the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > REAR DOOR.

4. Check for water leakage.

Note:

Perform only when the lower edge of the sealing cover was peeled off.

(1) Spray water onto the window frame for 1 minute using a hose or other means.

Note:

- **Hose water volume: 10 L (2.6 US gal, 2.2 Imp gal) per minute**
- **Move the hose by 250 mm (9.84 in) per second while spraying.**

(A) Water spray location

(2) Open the door and check that there is no water leakage from the bottom edge of the trim panel rear door.

(A) Water leakage check location

(3) If water leakage occurs, reinstall the sealing cover.

5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

EXTERIOR BODY PANELS > Sealing Cover

INSPECTION

If the sealing cover gets damaged, replace it with a new part.

REMOVAL

1. FRONT DOOR

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.
3. Remove the sealing cover door front. Ref. to EXTERIOR BODY PANELS>Sealing Cover>REMOVAL > FRONT SEALING COVER.
4. Remove the outer mirror assembly. Ref. to GLASS/WINDOWS/MIRRORS>Outer Mirror Assembly>REMOVAL.
5. Remove the glass assembly front door, running channel front door and the glass front door partition. Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass>REMOVAL.
6. Remove the weather strip outer door front. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT > FRONT DOOR.
7. Release the claws, and detach the cover B pillar assembly front.

8. Peel the tape door sash front from the door sash.

Note:
- **If the tape is difficult to remove, warm the tape with a hairdryer, etc. to make the removal easier. Use a household hairdryer. Do not use industrial dryers.**
- **If tape residue is remaining on the door sash, wipe clean.**

2. REAR DOOR

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.

3. Remove the sealing cover door rear. Ref. to EXTERIOR BODY PANELS>Sealing Cover>REMOVAL > REAR SEALING COVER.
4. Remove the running channel rear door and glass assembly rear door. Ref. to GLASS/WINDOWS/MIRRORS>Rear Door Glass>REMOVAL.
5. Remove the weather strip outer door rear. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT > REAR DOOR.
6. Release the claws, and detach the cover B pillar assembly rear.

(a) Cover B pillar ASSY rear

7. Peel the tape door sash rear from the door sash.

Note:

- **If the tape is difficult to remove, warm the tape with a hairdryer, etc. to make the removal easier. Use a household hairdryer. Do not use industrial dryers.**
- **If tape residue is remaining on the door sash, wipe clean.**

3. COVER A PILLAR ASSEMBLY

1. Remove the clips, and remove the cover A pillar assembly.

INSTALLATION

1. FRONT DOOR

Caution:
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.

Note:
- **When applying tape, use a spatula, etc. to apply evenly, pushing it against the sash to make sure that no air bubbles are formed. If air bubbles are formed, reapply the tape.**
- **If the tape is wrinkled, etc. during application, replace the tape.**
- **Be sure to press the ends of the tape firmly to adhere securely. If the tape comes off at the ends or where folded, the adhesive strength is weakened and the tape may peel off.**

1. Apply a new tape door sash front middle outer.

(1) Align the tape door sash front middle outer with the position (a) shown in the figure, and apply the tape from the rear side of the vehicle towards the front.

(2) Cut the tape along the perforation (a) and fold the upper end area (b).

2. Apply a new tape door sash front Ft outer.

(1) Align the tape door sash front Ft inner with the position (a) shown in the figure, and apply the tape from the top side of the vehicle towards the bottom.

(2) Fold the corner at the door upper end area in the order of (a) — (c).

3. Install a new cover B pillar assembly front.

4. Install a new weather strip outer door front.
5. Install the glass assembly front door, running channel front door and the glass front door partition. Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass>INSTALLATION.
6. Install the outer mirror assembly. Ref. to GLASS/WINDOWS/MIRRORS>Outer Mirror Assembly>INSTALLATION.
7. Install the sealing cover door front. Ref. to EXTERIOR BODY PANELS>Sealing Cover>INSTALLATION > FRONT SEALING COVER.
8. Install the trim panel front door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION.
9. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

2. REAR DOOR

Note:

- **When applying tape, use a spatula, etc. to apply evenly, pushing it against the sash to make sure that no air bubbles are formed. If air bubbles are formed, reapply the tape.**
- **If the tape is wrinkled, etc. during application, replace the tape.**
- **Be sure to press the ends of the tape firmly to adhere securely. If the tape comes off at the ends or where folded, the adhesive strength is weakened and the tape may peel off.**

1. Apply a new tape door sash rear middle outer.
   (1) Align the tape door sash rear middle outer with the position (a) shown in the figure, and apply the tape from the front side of the vehicle towards the rear.

   (2) Cut the tape along the perforation (a) and fold the upper end area (b).

2. Install a new cover B pillar assembly rear.
3. Install a new weather strip outer door rear.
4. Install the running channel rear door and glass assembly rear door. Ref. to GLASS/WINDOWS/MIRRORS>Rear Door Glass>INSTALLATION.
5. Install the sealing cover door rear. Ref. to EXTERIOR BODY PANELS>Sealing Cover>INSTALLATION > REAR SEALING COVER.
6. Install the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION.
7. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

3. COVER A PILLAR ASSEMBLY

1. Install the cover A pillar assembly.

REMOVAL

1. TORSION BAR

- **WHEN USING REMOVER (99099FJ000) OR REMOVER (927780000)**

1. Remove the trunk trim panel side. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.
2. Remove the torsion bar.

Caution:

- **During removal, handle the torsion bar carefully, because it will generate reactive force.**
- **When installing the remover to the torsion bar, leave a slight clearance (a).**

Note:

Make markings on the torsion bar LH and RH each.

Preparation tool:

ST: REMOVER (99099FJ000) or REMOVER (927780000)

(1) Remove the torsion bar RH (a) and the torsion bar LH (b) from the bracket clip.

(2) Remove the bracket clip.

(3) Using the ST, remove the torsion bar RH from the U-shape portion of the hinge link LH.

(4) Using the ST, remove the left end of the torsion bar RH from the hinge bracket LH.

(5) Remove the right end of the torsion bar RH from the hinge bracket RH.

(6) Using the ST, remove the torsion bar LH from the U-shape portion of the hinge link RH.

(7) Using the ST, remove the right end of the torsion bar LH from the hinge bracket RH.

(8) Remove the left end of the torsion bar LH from the hinge bracket LH.

- **WHEN USING REMOVER (99099FL000)**
  1. Remove the trunk trim panel side. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.
  2. Remove the torsion bar.

Caution:

- **During removal, handle the torsion bar carefully, because it will generate reactive force.**
- **When installing the remover to the torsion bar, align the remover groove (a) with the torsion bar.**

Note:

- **Make markings on the torsion bar LH and RH each.**
- **Hook the ST on the torsion bar in the following procedure.**
  1. **Hook the U-shape end of torsion bar on the center plate of ST.**
  2. **Allow the lower surface of ST to touch the torsion bar.**

Preparation tool:

ST: REMOVER (99099FL000)

(1) Remove the torsion bar RH (a) and the torsion bar LH (b) from the bracket clip.

(2) Remove the bracket clip.

(3) Using the ST, remove the torsion bar RH from the U-shape portion of the hinge link LH.

(4) Using the ST, remove the left end of the torsion bar RH from the hinge bracket LH.

(5) Remove the right end of the torsion bar RH from the hinge bracket RH.

(6) Using the ST, remove the torsion bar LH from the U-shape portion of the hinge link RH.

(7) Using the ST, remove the right end of the torsion bar LH from the hinge bracket RH.

(8) Remove the left end of the torsion bar LH from the hinge bracket LH.

2. TRUNK LID PANEL

Caution:
Trunk lid COMPL is heavy. When removing and installing it, always work in a team of two or more persons.

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the trim panel trunk lid. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.
3. Remove the lock assembly trunk lid. Ref. to SECURITY AND LOCKS>Trunk Lid Latch and Actuator Assembly>REMOVAL.
4. Disconnect each connector and harness clamp to remove the cord trunk lid.

5. Remove the license plate light. Ref. to LIGHTING SYSTEM>License Plate Light>REMOVAL.
6. Remove the stopper trunk LWR LH and RH.

7. Remove the bolts of the trunk lid COMPL LH and RH, and remove the trunk lid COMPL.

8. Remove the trim panel assembly rear shelf. Ref. to EXTERIOR/INTERIOR TRIM>Rear Shelf Trim>REMOVAL.
9. Remove the torsion bar. Ref. to EXTERIOR BODY PANELS>Trunk Lid>REMOVAL > TORSION BAR.
10. Remove the hinge assembly trunk LH and RH.

INSTALLATION

1. TORSION BAR

WHEN USING REMOVER (99099FJ000) OR REMOVER (927780000)

1. Install the torsion bar.

Caution:

- **During installation, handle the torsion bar carefully, because it will generate reactive force.**
- **When performing installation, pay close attention to the original marks and shapes of the torsion bar on the RH and LH sides.**
- **Note that the shape of torsion bar varies depending on whether the trunk spoiler is installed or on its size.**
- **When installing the remover to the torsion bar, leave a slight clearance (a).**

Preparation tool:

ST: REMOVER (99099FJ000) or REMOVER (927780000)

(1) Insert the left end of the torsion bar LH into the hole of the hinge bracket LH.

(2) Using the ST, hook the right end of the torsion bar LH on the hinge bracket RH.

(3) Using the ST, install the torsion bar LH on the U-shape portion of the hinge link RH.

(4) Insert the right end of the torsion bar RH into the hole of the hinge bracket RH.

(5) Using the ST, hook the left end of the torsion bar RH on the hinge bracket LH.

(6) Using the ST, install the torsion bar RH on the U-shape portion of the hinge link LH.

(7) Attach the bracket clip.
(8) Install the torsion bar LH (b) and the torsion bar RH (a) to the bracket clip.

2. Install the trunk trim panel side. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>INSTALLATION.

- **WHEN USING REMOVER (99099FL000)**

1. Install the torsion bar.

Caution:

- **During installation, handle the torsion bar carefully, because it will generate reactive force.**
- **When performing installation, pay close attention to the original marks and shapes of the torsion bar on the RH and LH sides.**
- **Note that the shape of torsion bar varies depending on whether the trunk spoiler is installed or on its size.**
- **When installing the remover to the torsion bar, align the remover groove (a) with the torsion bar.**

Note:

Hook the ST on the torsion bar in the following procedure.

1. Hook the U-shape end of torsion bar on the center plate of ST.

2. Allow the lower surface of ST to touch the torsion bar.

Preparation tool:

ST: REMOVER (99099FL000)

(1) Insert the left end of the torsion bar LH into the hole of the hinge bracket LH.

(2) Using the ST, hook the right end of the torsion bar LH on the hinge bracket RH.

(3) Using the ST, install the torsion bar LH on the U-shape portion of the hinge link RH.

(4) Insert the right end of the torsion bar RH into the hole of the hinge bracket RH.

(5) Using the ST, hook the left end of the torsion bar RH on the hinge bracket LH.

(6) Using the ST, install the torsion bar RH on the U-shape portion of the hinge link LH.

(7) Attach the bracket clip.
(8) Install the torsion bar LH (b) and the torsion bar RH (a) to the bracket clip.

2. Install the trunk trim panel side. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>INSTALLATION.

2. TRUNK LID PANEL

Caution:
Trunk lid COMPL is heavy. When removing and installing it, always work in a team of two or more persons.

1. Install the hinge assembly trunk.
   Tightening torque:
   18 N·m (1.8 kgf-m, 13.3 ft-lb)
2. Install the torsion bar. Ref. to EXTERIOR BODY PANELS>Trunk Lid>INSTALLATION > TORSION BAR.
3. Install the trim panel assembly rear shelf. Ref. to EXTERIOR/INTERIOR TRIM>Rear Shelf Trim>INSTALLATION.
4. Install the trunk lid COMPL.

Tightening torque:

14 N·m (1.4 kgf-m, 10.3 ft-lb)

5. Install the stopper trunk LWR
6. Install the license plate light. Ref. to LIGHTING SYSTEM>License Plate Light>INSTALLATION.
7. Install the cord trunk lid.
8. Connect each connector.
9. Install the lock assembly trunk lid. Ref. to SECURITY AND LOCKS>Trunk Lid Latch and Actuator Assembly>INSTALLATION.
10. Apply grease to the joint portion of torsion bar and the sliding area of hinges.

Preparation items:

Grease: NIPPECO LTS-1N18L or equivalent

11. Install the trim panel trunk lid. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>INSTALLATION.
12. Adjust the clearance around the trunk lid COMPL. Ref. to EXTERIOR BODY PANELS>Trunk Lid>ADJUSTMENT.
13. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

EXTERIOR BODY PANELS > Trunk Lid

ADJUSTMENT

Adjust the clearance around the trunk lid COMPL as follows.

Part		Standard
A	Trunk lid COMPL to Panel side outer	4.5±1.3 mm (0.18±0.05 in)
B	Surface level gap: Trunk lid COMPL to Panel side outer	0±1.7 mm (0±0.07 in)
C	Trunk lid COMPL to Light assembly rear combination	5.1±1.9 mm (0.2±0.08 in)
D	Surface level gap: Trunk lid COMPL to Bumper face rear (side end)	$1.2\ ^{+1.7\ \text{mm}}_{-2.5\ \text{mm}}$ ($0.05^{+0.07\ \text{in}}_{-0.1\ \text{in}}$)
E	Trunk lid COMPL to Bumper face rear (side end)	5.1±1.1 mm (0.2±0.04 in)
F	Surface level gap: Trunk lid COMPL to Bumper face rear (lower end)	2±2.7 mm (0.08±0.11 in)

G	Trunk lid COMPL to Bumper face rear (lower end)	6.5±1.6 mm (0.26±0.06 in)

1. Adjust the horizontal position of the trunk lid COMPL.

(1) Loosen the mounting bolts of the hinge assembly trunk LH and RH.

(2) Adjust the horizontal clearance of the trunk lid COMPL.

2. Adjust the surface level gap between the trunk lid COMPL and the body.

(1) Remove the trim panel trunk rear. Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.

(2) Loosen the bolt.

(3) Tap the striker trunk using a plastic hammer to adjust the surface level gap between the trunk lid COMPL and the body.

REPLACEMENT

1. FLANGE

(a) Hood seal rubber
(b) Weather strip body side flange front
(c) Weather strip body side flange rear
(d) Weather strip trunk
(e) Seal cowl panel

1. Replace the hood seal rubber. Ref. to LIGHTING SYSTEM>Headlight Assembly>REPLACEMENT > SEAL RUBBER.
2. Replace the weather strip body side flange front while pulling the rubber. Be careful not to tear the rubber.
   (1) Remove the cover side sill front Rr. Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.
   (2) Remove the weather strip body side flange front.
   (3) Install the weather strip body side flange front.

(4) Install the cover side sill front Rr. Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>INSTALLATION.

3. Replace the weather strip body side flange rear while pulling the rubber. Be careful not to tear the rubber.
   (1) Remove the cover side sill rear UPR. Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.
   (2) Remove the weather strip body side flange rear.
   (3) Install the weather strip body side flange rear.
   (4) Install the cover side sill rear UPR. Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>INSTALLATION.
4. Replace the weather strip trunk while pulling the rubber. Be careful not to tear the rubber.

Caution:
- **When installing the weather strip trunk, be sure to align the position to avoid water leak.**
- **After installing the weather strip trunk, make sure that there is no gap at entire circumference.**

   (1) Remove the weather strip trunk.
   (2) Use the trunk lid COMPL hole (a) as a reference to align the marking on the weather strip trunk with the body center (b).
   (3) Align the joint (c) of the weather strip trunk with the striker trunk (d).
   (4) Install the weather strip trunk.

5. Replace the seal cowl rubber while pulling the rubber. Be careful not to tear the rubber.

2. FRONT DOOR

- **DOOR TRIM**

  For the removal and installation procedures, refer to “REMOVAL” or “INSTALLATION” in “DOOR TRIM”.
  - Removal: Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.
  - Installation: Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > FRONT DOOR.

- **DOOR PANEL (INNER)**

  1. Remove the bolt from the checker assembly door front.

Caution:

Cover the removed door checker with a cloth to prevent scratching.

2. Remove the weather strip after removing the clip. Be careful not to tear the rubber.

Caution:

- **The weather strip may tear if being pulled. Also, the weather strip clip may be damaged if being removed with excessive force.**

- **When fragments of the damaged clip fall in the door panel, be sure to remove them.**

(a) Panel COMPL door front (b) Weather strip door front

3. Install each weather strip.

Caution:
- **Replace the damaged weather strip clip with a new part.**
- **When fragments of the clip fall in the door panel, be sure to remove them.**

4. Install the checker assembly door front.

Caution:
When fastening the checker assembly door front and the vehicle, hold the arm by hand so that the bracket does not rotate while tightening the bolts.

Tightening torque:
33 N·m (3.4 kgf-m, 24.3 ft-lb)

- **DOOR PANEL (OUTER)**

Caution:
Do not reuse the weather strip outer. Always replace with a new part.

1. Fully open the front door glass.
2. Remove the weather strip outer door front.
(1) Apply the protective tape to the area (A) shown in the figure.

(2) Slide a flat tip screwdriver or similar tool wrapped with protection tape through the gap that is on the rear of the front door and between the weather strip outer door front and the front door panel to release the claw.

(3) Remove the weather strip outer door front by pulling it up from the claw release point.

Note:
If it is difficult to remove the weather strip outer door front, move it in the pushing direction or the torsional direction to release it from the tip (a) of the front door panel.

3. Install a new weather strip outer door front.

3. REAR DOOR

- **DOOR TRIM**

  For the removal and installation procedures, refer to “REMOVAL” or “INSTALLATION” in “DOOR TRIM”.

  - Removal: Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.
  - Installation: Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > REAR DOOR.

- **DOOR PANEL (INNER)**

  1. Remove the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.
  2. Remove the bolt from the checker assembly door rear.

Caution:

Cover the removed door checker with a cloth to prevent scratching.

3. Remove the weather strip after removing the clip. Be careful not to tear the rubber.

Caution:

- **The weather strip may tear if being pulled. Also, the weather strip clip may be damaged if being removed with excessive force.**

- **When fragments of the damaged clip fall in the door panel, be sure to remove them.**

(a) Panel COMPL door rear (b) Weather strip door rear

4. Install each weather strip.

Caution:
- **Replace the damaged weather strip clip with a new part.**
- **When fragments of the clip fall in the door panel, be sure to remove them.**

5. Install the checker assembly door rear.

Caution:
When fastening the checker assembly door rear and the vehicle, hold the arm by hand so that the bracket does not rotate while tightening the bolts.

Tightening torque:
33 N·m (3.4 kgf-m, 24.3 ft-lb)

6. Install the trim panel rear door. Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION > REAR DOOR.

Note:
If the gap between the rear end of door trim upper and the weather strip is not even, refit the weather strips.

- **DOOR PANEL (OUTER)**

For operation procedures of the weather strip outer door rear, refer to those for the door panels (outer) of the front doors. Ref. to EXTERIOR BODY PANELS>Weather Strip>REPLACEMENT>FRONT DOOR>DOOR PANEL (OUTER).