

# LIGHTING SYSTEM

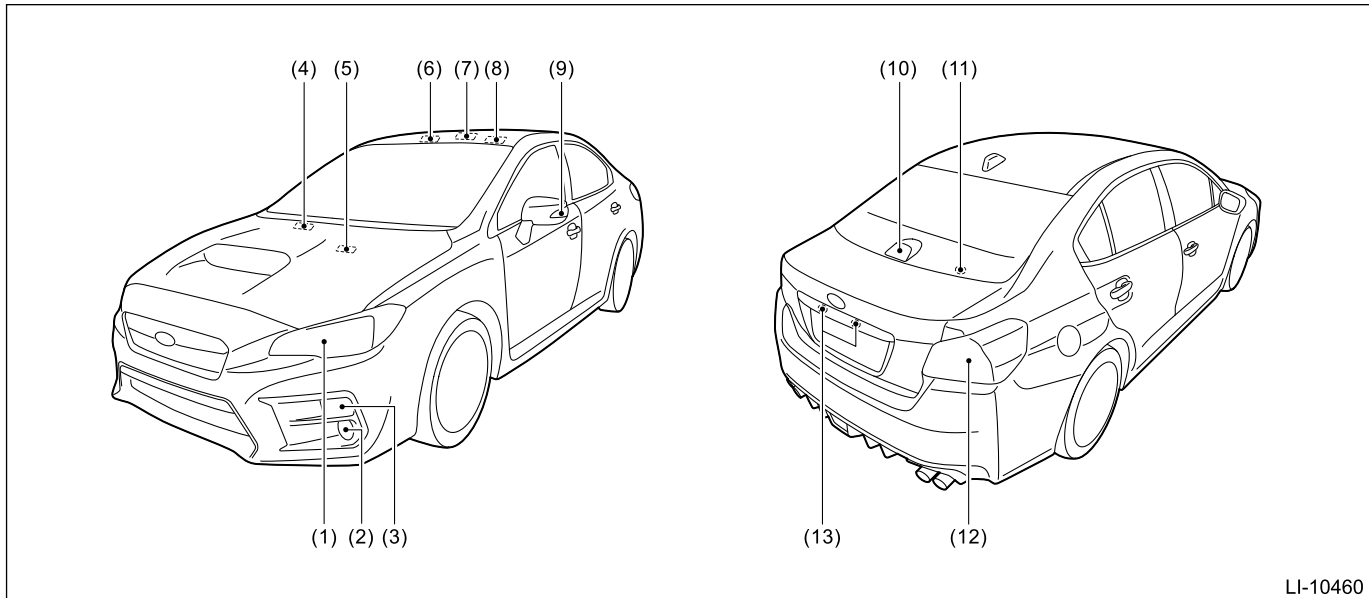
**LI**

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- 37. Vanity Mirror Light
- 38. Ignition Switch Illumination
- 39. Auto Headlight Beam Leveler Control Module
- 40. Rear Height Sensor
- 41. Day Time Running Resistor
- 42. Door Switch

## LIGHTING SYSTEM > General Description

### SPECIFICATION



LI-10460



No.	Description		Capacity and wattage	Type
(1)	Headlight (halogen type)	Low beam	12 V — 55 W	H11
		High beam	12 V — 60 W	HB3
		Parking light	12 V — 5 W	W5W
		Side marker light	12 V — 5 W	W5W
	Headlight (LED type)	Low beam/high beam	12.5 V — 23/28 W (LED)	*
		Front turn signal light	12 V — 21 W	WY21W
		Daytime running light/parking light	12 V — 13.5/1 W (LED)	*
		Side marker light	12 V — 5 W	W5W
(2)	Front fog light	Except for LED type	12 V — 19 W	H16
		LED type	12 V — 5.4 W (LED)	*
(3)	Front turn signal light (halogen type)		12 V — 21 W	WY21W
(4)	Glove box light		12 V (LED)	*
(5)	Pocket light		12 V (LED)	*
(6)	Spot map light		12 V — 8 W	—
(7)	Room light		12 V — 8 W	—
(8)	Vanity mirror light		12 V — 2 W	—
(9)	Side turn signal light		12 V — 1.1 W (LED)	*
(10)	High-mounted stop light		12 V — 0.7 W (LED)	*
(11)	Trunk room light		12 V — 5 W	W5W

No.	Description		Capacity and wattage	Type
(12)	Rear combination light	Tail & stop light	12 V — 0.3/3.5 W (LED)	*
		Back-up light	12 V — 16 W	W16W
		Turn signal light	12 V — 21 W	WY21W
		Side marker light	12 V — 5 W	W5W
(13)	License plate light		12 V — 5 W	W5W

\*: Non-disassembly type

## LIGHTING SYSTEM > General Description


### CAUTION

- Before disconnecting connectors of sensors or units, be sure to disconnect the ground cable from battery. When replacing the audio and MFD parts provided with memory functions, record the memory contents before disconnecting the battery ground cable.
- Be careful of the following items. Failing to do so may cause the airbag system malfunction.
  - Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. When using a tester on these circuits, follow the cautions of "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
  - Be careful not to damage the airbag system wiring harness when servicing the electrical parts around the steering column.
- When removing, installing or replacing the VDCCM&H/U, VDCCM&H/U bracket, steering wheel or steering angle sensor (steering roll connector), 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.](#)
- 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

### PREPARATION TOOL

#### 1. SPECIAL TOOL

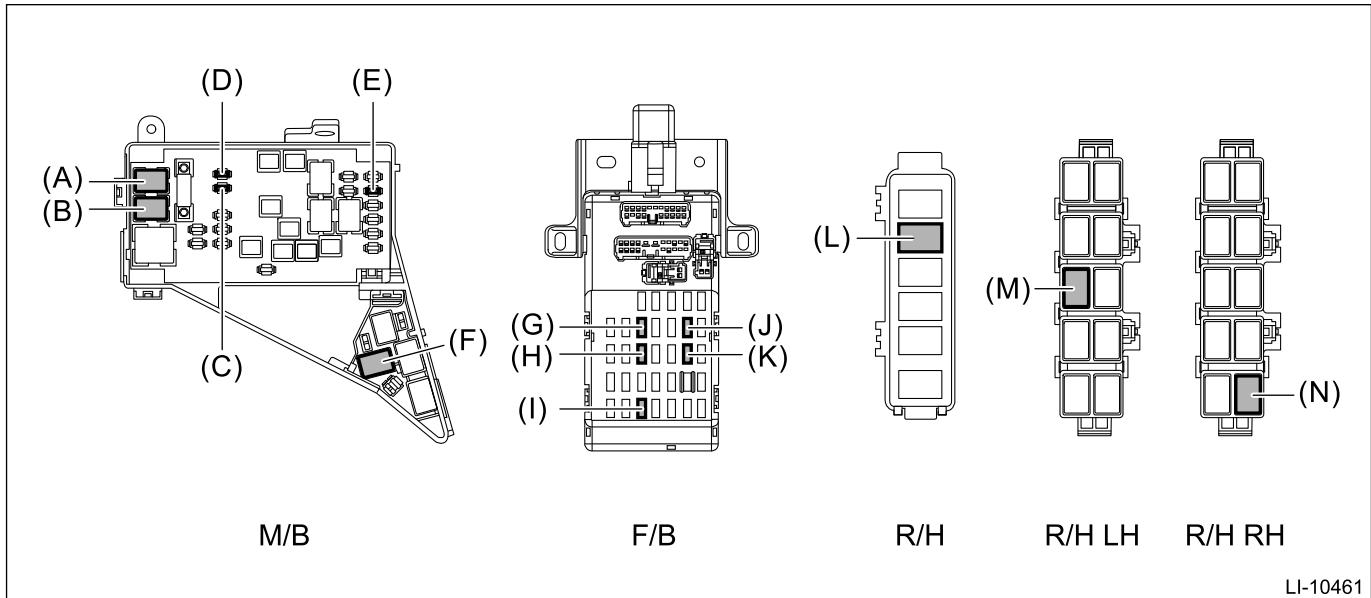
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>STSSM4</p>	—	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. <b>Note:</b> <b>For detailed operation procedures of Subaru Select Monitor 4, refer to "Application help".</b>

## 2. GENERAL TOOL

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

## LIGHTING SYSTEM > Relay and Fuse

### LOCATION



LI-10461

Main fuse box	Headlight relay (HI)	(A)
	Headlight relay (LO)	(B)
	Fuse 30 A (combination light LH/RH)	(C)
	Fuse 15 A (combination light LH/RH, daytime running light relay)	(D)
	Fuse 15 A (tail and illumination relay, daytime running light relay)	(E)
	Daytime running light relay	(F)
Relay & fuse box	Fuse 7.5 A (stop light and brake switch)	(G)
	Fuse 10 A (trunk room light)	(H)
	Fuse 15 A (front fog light relay)	(I)
	Fuse 7.5 A (turn signal & hazard unit)	(J)
	Fuse 10 A (inhibitor switch, back-up light switch, auto headlight beam leveler CU)	(K)
Relay holder*1	Stop light relay	(L)
Relay holder LH*2	Tail & illumination relay	(M)
Relay holder RH*2	Front fog light relay	(N)

\*1: Engine compartment side

\*2: Passenger room side

#### Note:

For other related fuses, refer to the wiring diagram.  Ref. to **WIRING SYSTEM>Power Supply Circuit.**

## LIGHTING SYSTEM > Relay and Fuse

## INSPECTION

### 1. CHECK FUSE

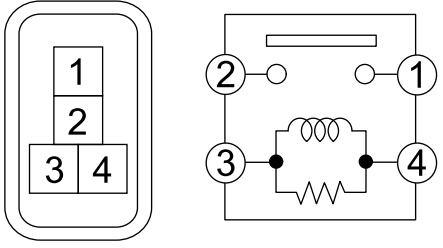
1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

**Note:**

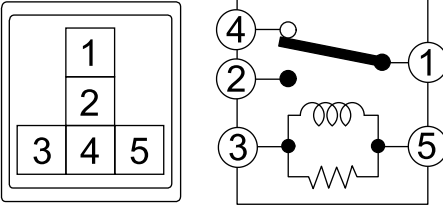
**If the fuse is blown again, check the system wiring harness.**

### 2. CHECK RELAY

1. Measure the resistance between relay terminals.

Terminal No.	Inspection conditions	Standard	Circuit
1 – 2	Always	1 M $\Omega$ or more	
1 – 2	Apply battery voltage between terminals 4 and 3.	Less than 1 $\Omega$	

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Terminal No.	Inspection conditions	Standard	Circuit
1 – 2	Always	1 M $\Omega$ or more	
1 – 4	Always	Less than 1 $\Omega$	
1 – 2	Apply battery voltage between terminals 3 and 5.	Less than 1 $\Omega$	

LI-01274



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

## LIGHTING SYSTEM > Headlight System

### WIRING DIAGRAM

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Refer to "Headlight System" in the wiring diagram.

- Halogen type:  [Ref. to WIRING SYSTEM>Headlight System>WIRING DIAGRAM > HALOGEN MODEL.](#)
- LED type:  [Ref. to WIRING SYSTEM>Headlight System>WIRING DIAGRAM > LED MODEL.](#)

## LIGHTING SYSTEM > Headlight System

### INSPECTION

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#### 1. CHECK HALOGEN HEADLIGHT SYSTEM

##### Trouble symptom:

Headlight does not illuminate.

#### 1. CHECK HEADLIGHT AND TAIL LIGHT ILLUMINATION.

1. Turn the ignition switch to ON.
2. Set the lighting switch to the switch 1 (TAIL/PARKING) and switch 2 (HEAD).

Do the headlight and tail light illuminate?

Yes

The headlight system is normal.

No

 [Go to 2.](#)

#### 2. CHECK BULB.

Check the headlight bulb.

Is the bulb normal?

Yes

 [Go to 3.](#)

No

Replace the headlight bulb.

### 3. CHECK CURRENT DATA.

Display the data of «Lighting I Switch Input» and «Lighting II Switch Input» using Subaru Select Monitor.

**Note:**

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

Does the display switch between «OFF» ↔ «ON» when the lighting switch is moved from OFF position to the switch 1 (TAIL/PARKING) and switch 2 (HEAD) positions?

 [Go to 6.](#)

 [Go to 4.](#)

### 4. 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?

 [Go to 5.](#)



Replace the combination switch (light).  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\).](#)

### 5. 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).

Is harness normal?

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

Repair or replace the harness.



## 6. CHECK CURRENT DATA.

1. Turn the ignition switch to ON.
2. Display the data of «Lighting I Lamp Output» and «Lighting II Lamp Output» using Subaru Select Monitor.

Does the display switch between «OFF» ↔ «ON» when the lighting switch is moved from OFF position to the switch 1 (TAIL/PARKING) and switch 2 (HEAD) positions?

Yes

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

 [Go to 7.](#)



## 7. CHECK HARNESS.

1. Turn the ignition switch to OFF.
2. Check the harness between body integrated unit and headlight and between body integrated unit and tail light.

Is harness normal?

Yes

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Repair or replace the harness.

## 2. CHECK LED HEADLIGHT SYSTEM

### Trouble symptom:

Headlight does not illuminate, or headlight is weak.

## 1. CHECK HEADLIGHT AND TAIL LIGHT ILLUMINATION.

1. Turn the ignition switch to ON.
2. Set the lighting switch to the switch 1 (TAIL/PARKING) and switch 2 (HEAD).

Do the headlight and tail light illuminate?

Yes

The headlight system is normal.

No

 [Go to 2.](#)

## 2. CHECK BULB.

Display the data «LED HEADLAMP(RH) error Signal» and «LED HEADLAMP(LH) error Signal» using Subaru Select Monitor.

### Note:

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

Is «Light On» displayed?

Yes

 [Go to 3.](#)

No

Replace the headlight assembly.  [Ref. to LIGHTING SYSTEM>Headlight Assembly.](#)

## 3. CHECK CONNECTOR CONNECTION.

Check that the headlight connector is connected.


Is the connector connected?

Yes

 [Go to 4.](#)

No

Connect the connector.

When it does not illuminate even though the switch is turned to ON:  [Go to 4.](#)

## 4. CHECK HARNESS.

1. Disconnect the headlight connector.
2. Turn the ignition switch to ON.
3. Measure the voltage between the headlight connector and chassis ground.

### Connector & terminal

#### LH side

(F125) No. 1 (+) — Chassis ground (—):

(F125) No. 3 (+) — Chassis ground (—):

#### RH side

(F126) No. 1 (+) — Chassis ground (—):

(F126) No. 3 (+) — Chassis ground (—):

Is the voltage 10 — 13.5 V?

Yes

 [Go to 5.](#)

No

 [Go to 6.](#)

## 5. CHECK HEADLIGHT.

Apply battery voltage between headlight unit connector terminals.

### Terminals

#### Low beam

No. 3 (+) — No. 4 (—):

#### High beam


No. 1 (+) — No. 2 (—):

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

Yes

 [Go to 6.](#)

No

Replace the headlight assembly.  [Ref. to LIGHTING SYSTEM>Headlight Assembly.](#)  
If «LED HEADLAMP(RH) error Signal» and «LED HEADLAMP(LH) error Signal» indicate no illumination in step 2), check the malfunction signal line. If short circuit to power supply occurs, repair or replace the harness.

## 6. CHECK CURRENT DATA.

1. Turn the ignition switch to ON.
2. Display the data of «Lighting I Lamp Output» and «Lighting II Lamp Output» using Subaru Select Monitor.

Does the display switch between «OFF» ↔ «ON» when the lighting switch is moved from OFF position to the switch 1 (TAIL/PARKING) and switch 2 (HEAD) positions?


Yes

 [Go to 9.](#)

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

Is harness normal?

Yes

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Repair or replace the harness.



## 9. CHECK HARNESS.

1. Turn the ignition switch to OFF.
2. Disconnect the body integrated unit connector and the headlight and tail light connectors.
3. Check the harness between body integrated unit and headlight and between body integrated unit and tail light.

Is harness normal?

Yes

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)



No

Repair or replace the harness.

## 3. AUTO HEADLIGHT SYSTEM CHECK

### Note:

Check the respective headlight systems before checking the auto headlight system.

- **Halogen headlight:**  [Ref. to LIGHTING SYSTEM>Headlight System>INSPECTION > CHECK HALOGEN HEADLIGHT SYSTEM.](#)
- **LED headlight:**  [Ref. to LIGHTING SYSTEM>Headlight System>INSPECTION > CHECK LED HEADLIGHT SYSTEM.](#)

## 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?

Yes

The auto headlight system is normal.

No

 [Go to 2.](#)

## 2. CHECK CURRENT DATA.

1. Using the Subaru Select Monitor, display the data of «Illumination Sensor Output».
2. Measure the voltage when the area around the light control sensor, which was dark, becomes bright.

**Note:**

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

**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 5.](#)

 No

 [Go to 3.](#)

## 3. 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 4.](#)

 No

Replace the light control sensor.

## 4. 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

(B280) No. 19 — (i89) No. 2:



(B280) No. 29 — (i89) No. 1:

(B281) No. 1 — (i89) No. 3:

Is harness normal?

Yes

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Repair or replace the harness.



## 5. CHECK CURRENT DATA.

Using the Subaru Select Monitor, display the data of «Lighting AUTO input».

Does the display switch between «OFF» ↔ «ON» when the lighting switch is moved from OFF position to the AUTO position?

Yes


Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

 [Go to 6.](#)

## 6. 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 7.](#)

No

Replace the combination switch (light).  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\).](#)



## 7. 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).

Is harness normal?

Yes

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Repair or replace the harness.

## 4. CHECK OF WELCOME LIGHTING SYSTEM

### Trouble symptom:

Welcome lighting does not illuminate.

## 1. CHECK BODY INTEGRATED UNIT SETTING.

Display the data of «Welcome Light Off Delay Time(Approaching)» or «Welcome Light Off Delay Time(Exiting)» using the Subaru Select Monitor.

### Note:

For detailed operation procedures, refer to "Application help".

Is it turned to the setting other than «OFF»?

Yes

 [Go to 2.](#)

No

Turn to the setting other than «OFF».

## 2. CHECK BODY INTEGRATED UNIT SETTING.

Display the data of «Illumination Sensor Setting» using Subaru Select Monitor.

Is the setting «ON»?

Yes

 [Go to 3.](#)

No

Turn the setting to «ON».

## 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 and headlight illuminate?

Yes

 [Go to 4.](#)

No

Check the auto headlight system.  [Ref. to LIGHTING SYSTEM>Headlight System>INSPECTION > AUTO HEADLIGHT SYSTEM CHECK.](#)

#### 4. CHECK DOOR LOCK.



Operate the door lock using the keyless transmitter or the access key.

Do the lock and unlock operate properly?

Yes

 [Go to 5.](#)

No

- Check keyless entry system.  [Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION.](#)
- Check the keyless access with push button start system.  [Ref. to KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)


#### 5. CHECK BODY INTEGRATED UNIT.

**1.** Display the data of «IGN voltage» using Subaru Select Monitor.

**2.** Turn the ignition switch to ON.

Is the voltage 10 — 15 V?

Yes

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Repair or replace the harness.

#### 5. CHECK OF WELCOME LIGHTING SYSTEM

##### Trouble symptom:

Welcome lighting does not go off.

## 1. CHECK BODY INTEGRATED UNIT SETTING.

Display the data of «Welcome Light Off Delay Time(Approaching)» or «Welcome Light Off Delay Time(Exiting)» using the Subaru Select Monitor.

### Note:

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

Is the illumination time setting correct?

Yes

 [Go to 2.](#)

No

Set the illumination time.

## 2. CHECK THE LIGHTS.

Set the lighting switch to the switch 1 (TAIL/PARKING) and switch 2 (HEAD).

Do the parking light, tail light and headlight illuminate?

Yes

 [Go to 3.](#)

No

Check the combination switch (light) and each light circuit.

## 3. CHECK BODY INTEGRATED UNIT.

Using the Subaru Select Monitor, display the data of «Driver’s door SW input».

Does the display switch between «OFF» ↔ «ON» when driver’s door is opened/closed?

Yes

 [Go to 4.](#)

No


Check the door switch.  [Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK DOOR SWITCH.](#)

#### 4. CHECK DOOR LOCK.



Operate the door lock using the keyless transmitter or the access key.

Do the lock and unlock operate properly?

Yes

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

- Check keyless entry system.  [Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION.](#)
- Check the keyless access with push button start system.  [Ref. to KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

#### 6. CHECK WIPER INTERLOCK HEADLIGHT SYSTEM

##### Trouble symptom:

The headlights do not go off when the wiper is deactivated, or the headlights do not turn on when the wiper is activated.

#### 1. CHECK HEADLIGHT SYSTEM.



Check the operation of the headlight system.

Is the headlight system normal?

Yes

 [Go to 2.](#)

No

- Check and repair the headlight system.
- Halogen headlight:  [Ref. to LIGHTING SYSTEM>Headlight System>INSPECTION > CHECK HALOGEN HEADLIGHT SYSTEM.](#)
  - LED headlight:  [Ref. to LIGHTING SYSTEM>Headlight System>INSPECTION > CHECK LED HEADLIGHT SYSTEM.](#)

## 2. CHECK BODY INTEGRATED UNIT SETTING.

Display the data of «Illumination Sensor Setting» using Subaru Select Monitor.

**Note:**

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

Is the setting «ON»?

 Yes

 [Go to 3.](#)

 No

Turn the setting to «ON».

## 3. CHECK BODY INTEGRATED UNIT SETTING.

Display the data of «Wiper link Auto Light Setup» using Subaru Select Monitor.

Is the setting «ON»?

 Yes

 [Go to 4.](#)

 No

Turn the setting to «ON».

## 4. CHECK BODY INTEGRATED UNIT.

**1.** Display the data of «IGN voltage» using Subaru Select Monitor.

**2.** Turn the ignition switch to ON.

Is the voltage 10 — 15 V?

 Yes

 [Go to 7.](#)

 No

 [Go to 5.](#)

## 5. CHECK HARNESS.

Measure the voltage between F/B fuse No. 12 and chassis ground.

Is the voltage 10 V or more?

Yes

Repair or replace the harness between the body integrated unit and the ignition switch.

No

 [Go to 6.](#)

## 6. CHECK CONNECTOR.

Check the connector or terminal of the body integrated unit for poor contact.



Is there any fault?

Yes

Repair or replace the connector and harness.

No

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

## 7. CHECK BODY INTEGRATED UNIT.

Using the Subaru Select Monitor, display the data of «Lighting AUTO input».

Does the display switch between «OFF» ↔ «ON» when the lighting switch is moved from OFF position to the AUTO position?

Yes

 [Go to 12.](#)

No

 [Go to 8.](#)

## 8. CHECK BODY INTEGRATED UNIT.

Measure the voltage between the body integrated unit connector and chassis ground.



### Connector & terminal

(B281) No. 16 (+) — Chassis ground (-):

Does the voltage switch between OFF (9 to 16 V) ↔ ON (less than 1 V) when the lighting switch is moved from OFF position to the AUTO position?

Yes

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

 [Go to 9.](#)

## 9. CHECK HARNESS.

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

### Connector & terminal

(B71) No. 19 — (B281) No. 16:

Is the resistance less than 10 Ω?

Yes

 [Go to 10.](#)

No

Repair or replace the harness between the combination switch (light) and the body integrated unit.

## 10. CHECK HARNESS.

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

### Connector & terminal

(B71) No. 12 — Chassis ground:

Is the resistance less than 10 Ω?

Yes

 [Go to 11.](#)

No

Repair or replace the harness between the combination switch (light) and chassis ground.



## 11. CHECK COMBINATION SWITCH (LIGHT).

Check the combination switch (light).  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\)>INSPECTION.](#)

Is the combination switch (light) normal when the combination switch (light) is moved to AUTO position?

Yes

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Replace the combination switch (light).

## 12. CHECK BODY INTEGRATED UNIT.

Using the Subaru Select Monitor, display the data of «Fr wiper input».

Does the display switch between «OFF» ↔ «ON» when the combination switch (wiper) is operated from OFF position to INT/LO/HI?

Yes

 [Go to 17.](#)

No

 [Go to 13.](#)

### 13. CHECK BODY INTEGRATED UNIT.

Measure the voltage between the body integrated unit connector and chassis ground.



#### Connector & terminal

(B280) No. 2 (+) — Chassis ground (-):

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

Yes

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

 [Go to 14.](#)

### 14. CHECK HARNESS.

1. Disconnect the connectors of the front wiper motor and the body integrated unit.
2. Check the harness between the front wiper motor and the body integrated unit.

#### Connector & terminal

(B8) No. 1 — (B280) No. 2:

Is the resistance less than 10 Ω?

Yes

 [Go to 15.](#)

No

Repair or replace the harness between the front wiper motor and the body integrated unit.

## 15. CHECK HARNESS.

Check the harness between the front wiper motor and chassis ground.

### Connector & terminal

(B8) No. 4 — Chassis ground:

Is the resistance less than 10 Ω?

Yes

 [Go to 16.](#)

No

Repair or replace the harness between the front wiper motor and chassis ground.

## 16. CHECK FRONT WIPER MOTOR.

Check the continuity between front wiper motor terminals.



### Connector & terminal

(B8) No. 3 — (B8) No. 5:

Is there continuity?

Yes

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Replace the front wiper motor.  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Motor and Link.](#)

## 17. CHECK BODY INTEGRATED UNIT.

Using the Subaru Select Monitor, display the data of «Front washer switch input».

Does the display switch between «OFF» ↔ «ON» when the front washer switch on the combination switch (wiper) is operated from OFF position?

Yes

Check the connection status of the harness and connector that may have a temporary poor contact.

No

 [Go to 18.](#)

## 18. CHECK BODY INTEGRATED UNIT.

Measure the voltage between the body integrated unit connector and chassis ground.



### Connector & terminal

(B281) No. 32 (+) — Chassis ground (-):

Does the voltage switch between OFF (9 to 16 V) ↔ ON (less than 1 V) when the front washer switch on the combination switch (wiper) is operated?

Yes

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

 [Go to 19.](#)

## 19. CHECK HARNESS.

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

### Connector & terminal

(B558) No. 3 — (B281) No. 32:

Is the resistance less than 10 Ω?

Yes

 [Go to 20.](#)

No

Repair or replace the harness between the combination switch (wiper) and the body integrated unit.

## 20. CHECK HARNESS.

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

### Connector & terminal

(B558) No. 2 — Chassis ground:

Is the resistance less than 10 Ω?

Yes

 [Go to 21.](#)

No

Repair or replace the harness between the combination switch (wiper) and chassis ground.

## 21. CHECK COMBINATION SWITCH (WIPER).

Check the continuity between terminals when the front washer switch on the combination switch (wiper) is pressed.



### Connector & terminal

(B558) No. 3 — (B558) No. 2:


Is there continuity?

Yes

Check the body integrated unit and replace it if defective.

- Inspection:  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
- Replacement:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Replace the combination switch (wiper).  [Ref. to WIPER AND WASHER SYSTEMS>Combination Switch \(Wiper\).](#)

## 7. CHECK LIGHTING SWITCH

Refer to "Combination Switch (Light)".  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\)>INSPECTION.](#)





## 8. CHECK DIMMER & PASSING SWITCH

Refer to "Combination Switch (Light)".  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\)>INSPECTION.](#)

LIGHTING SYSTEM > Headlight System

### NOTE

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

- Headlight assembly:  [Ref. to LIGHTING SYSTEM>Headlight Assembly.](#)
- Headlight bulb:  [Ref. to LIGHTING SYSTEM>Headlight Bulb.](#)
- Combination switch (light):  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\).](#)
- Light control sensor:  [Ref. to LIGHTING SYSTEM>Light Control Sensor.](#)

## LIGHTING SYSTEM > High Beam Assist System

### WIRING DIAGRAM


Refer to "Headlight System" in the wiring diagram.

- Halogen type:  [Ref. to WIRING SYSTEM>Headlight System>WIRING DIAGRAM > HALOGEN MODEL.](#)
- LED type:  [Ref. to WIRING SYSTEM>Headlight System>WIRING DIAGRAM > LED MODEL.](#)

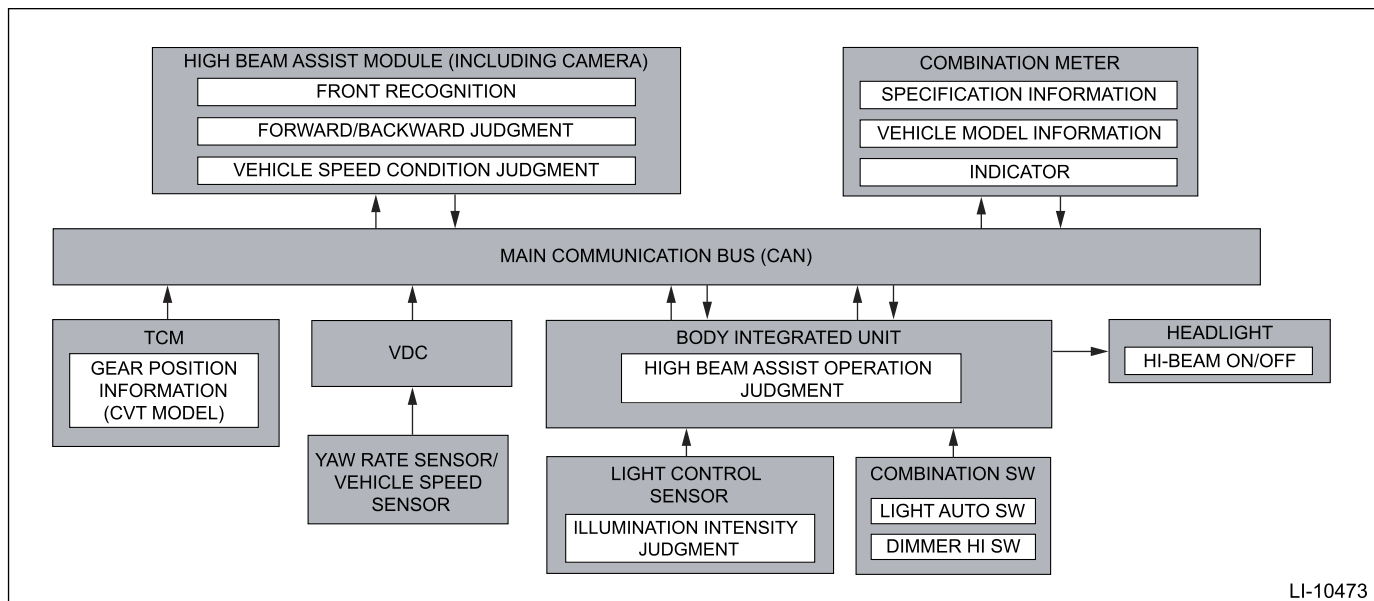
## LIGHTING SYSTEM > High Beam Assist System

### INSPECTION

#### 1. BASIC INSPECTION

For inspection, refer to "Diagnostics with Phenomenon" of "BODY CONTROL SYSTEM (DIAGNOSTICS)" section.  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Diagnostics with Phenomenon.](#)

#### 2. SYSTEM BLOCK DIAGRAM









#### Note:

**In high beam assist system, the headlight is automatically switched between high beam and low beam in the way that the stereo camera of EyeSight system recognizes the conditions ahead of the vehicle.**

## LIGHTING SYSTEM > High Beam Assist System

### NOTE

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



- Headlight assembly:  [Ref. to LIGHTING SYSTEM>Headlight Assembly.](#)
- Headlight bulb:  [Ref. to LIGHTING SYSTEM>Headlight Bulb.](#)
- Combination switch (light):  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\).](#)
- Light control sensor:  [Ref. to LIGHTING SYSTEM>Light Control Sensor.](#)
- Body integrated unit:  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)
- Stereo camera:  [Ref. to EyeSight>Stereo Camera.](#)

## LIGHTING SYSTEM > Day Time Running Light System

### WIRING DIAGRAM

---

Refer to "Headlight System" in the wiring diagram.

- Halogen type:  [Ref. to WIRING SYSTEM>Headlight System>WIRING DIAGRAM > HALOGEN MODEL.](#)
- LED type:  [Ref. to WIRING SYSTEM>Headlight System>WIRING DIAGRAM > LED MODEL.](#)

## LIGHTING SYSTEM > Day Time Running Light System

### INSPECTION

---

#### 1. DAYTIME RUNNING LIGHT MODULE CHECK (HALOGEN HEADLIGHT MODEL)

##### 1. CHECK FUSE.

1. Turn the ignition switch to OFF.
2. Check the fuses of the daytime running light relay and headlight HI.

Is the fuse OK?


Yes

 [Go to 2.](#)

No

Replace the fuse.

##### 2. CHECK RELAY.

Check the headlight HI relay in the main fuse box.  [Ref. to LIGHTING SYSTEM>Relay and Fuse>INSPECTION.](#)

Is the relay OK?

Yes

 [Go to 3.](#)

No

Replace the relay.

### 3. CHECK HEADLIGHT ILLUMINATION.

1. Turn the ignition switch to ON.
2. Turn the lighting switch from OFF position to the switch II (HEAD) position.
3. Turn the dimmer & passing switch to the switch UP position.

Does the headlight (high beam) illuminate?


Yes

 [Go to 4.](#)

No

Check the combination switch (light) and headlight bulb.

### 4. CHECK BODY INTEGRATED UNIT.

Read the DTC of body integrated unit using Subaru Select Monitor.  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Read Diagnostic Trouble Code \(DTC\).](#)

**Note:**

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

Is DTC displayed?

Yes

Perform the diagnosis according to DTC.  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>List of Diagnostic Trouble Code \(DTC\)>LIST.](#)

No

 [Go to 5.](#)

### 5. CHECK BODY INTEGRATED UNIT.

Display the data of «Daytime Running Light(DRL) Setting for North America» using Subaru Select Monitor.

Is the setting «High Beam Dimming System»?

Yes

 [Go to 6.](#)

No

Set the setting to «High Beam Dimming System».

## 6. CHECK CURRENT DATA.

Display the following items using Subaru Select Monitor.

- «Parking Brake Switch Input»
- «EPB Operating status» (model with EPB)
- «Shift position»
- «Lighting II Switch Input»

Is the input signal normal?

 Yes

 [Go to 7.](#)

 No

Check the defective part.

## 7. CHECK CURRENT DATA.

1. Start the engine.
2. Release the parking brake and place the shift position to other than P range.
3. Display the data of «DRL Cancel Output» using Subaru Select Monitor.

Does the display of «DRL Cancel Output» switch «OFF» ↔ «ON» when switching the lighting switch from OFF position to II (HEAD) position?

 Yes

 [Go to 8.](#)

 No

Replace the body integrated unit.

## 8. CHECK DAYTIME RUNNING LIGHT RESISTOR.

1. Turn the ignition switch to OFF.
2. Check the daytime running light resistor.  [Ref. to LIGHTING SYSTEM>Day Time Running Resistor>INSPECTION.](#)

Does the daytime running light resistor normal?

 Yes

 [Go to 9.](#)

 No

Replace the daytime running light resistor.  [Ref. to LIGHTING SYSTEM>Day Time Running Resistor.](#)

## 9. CHECK HARNESS.

1. Disconnect the connectors of body integrated unit, daytime running light relay, daytime running light resistor, and headlight.
2. Check each harness.

Is harness normal?

Yes

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

Repair or replace the harness.

## 2. DAYTIME RUNNING LIGHT MODULE CHECK (LED HEADLIGHT MODEL)

### 1. CHECK FUSE.

1. Turn the ignition switch to OFF.
2. Check the fuse upstream of the daytime running light relay.

Is the fuse OK?


Yes

 [Go to 2.](#)

No

Replace the fuse.

### 2. CHECK RELAY.

Check the daytime running light relay.  [Ref. to LIGHTING SYSTEM>Relay and Fuse>INSPECTION.](#)

Is the relay OK?


Yes

 [Go to 3.](#)

No

Replace the relay.

### 3. CHECK BODY INTEGRATED UNIT.

Read the DTC of body integrated unit using Subaru Select Monitor.  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Read Diagnostic Trouble Code \(DTC\).](#)

**Note:**

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

Is DTC displayed?

Yes

Perform the diagnosis according to DTC.  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>List of Diagnostic Trouble Code \(DTC\)>LIST.](#)

No

 [Go to 4.](#)

### 4. CHECK BODY INTEGRATED UNIT.

Display the data of «Daytime Running Light(DRL) Setting for North America» using Subaru Select Monitor.

Is the setting «Alternate DRL System»?

Yes

 [Go to 5.](#)

No

Set the setting to «Alternate DRL System».

### 5. CHECK CURRENT DATA.

Display the following items using Subaru Select Monitor.

- «Parking Brake Switch Input»
- «EPB Operating status» (model with EPB)
- «Shift position»
- «Lighting II Switch Input»

Is the input signal normal?

Yes

 [Go to 6.](#)

No

Check the defective part.

## 6. CHECK CURRENT DATA.

1. Start the engine.
2. Release the parking brake and place the shift position to other than P range.
3. Display the data of «Daytime Running Light(Alternate System) Output» using Subaru Select Monitor.

Does the display of «Daytime Running Light(Alternate System) Output» switch «OFF» ↔ «ON» when switching the lighting switch from OFF position to II (HEAD) position?

Yes

 [Go to 7.](#)

No

Replace the body integrated unit.

## 7. CHECK DAYTIME RUNNING LIGHT ILLUMINATION.

1. Disconnect the headlight connector (gray).
2. Apply battery voltage on the headlight unit DRL terminal input.

### Terminals

No. 7 (+) — No. 9 (-):

Does the daytime running light illuminate?

Yes

 [Go to 8.](#)

No


Replace the headlight.  [Ref. to LIGHTING SYSTEM>Headlight Assembly.](#)

## 8. CHECK HARNESS.

1. Disconnect the connectors of body integrated unit, daytime running light relay and headlight.
2. Check each harness.

Is harness normal?

Yes

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No





Repair or replace the harness.

## LIGHTING SYSTEM > Day Time Running Light System

### NOTE

---

For operation procedures of each component of the daytime running light system, refer to the respective section.



- Headlight assembly:  [Ref. to LIGHTING SYSTEM>Headlight Assembly.](#)
- Headlight bulb:  [Ref. to LIGHTING SYSTEM>Headlight Bulb.](#)
- Combination switch (light):  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\).](#)
- Daytime running resistor:  [Ref. to LIGHTING SYSTEM>Day Time Running Resistor.](#)

## LIGHTING SYSTEM > Clearance Light and Illumination Light System

### WIRING DIAGRAM

---

Refer to "Clearance Light and Illumination Light System" in the wiring diagram.

- ENGINE TYPE FA:  [Ref. to WIRING SYSTEM>Clearance Light and Illumination Light System>WIRING DIAGRAM > ENGINE TYPE FA.](#)
- ENGINE TYPE EJ:  [Ref. to WIRING SYSTEM>Clearance Light and Illumination Light System>WIRING DIAGRAM > ENGINE TYPE EJ.](#)

## LIGHTING SYSTEM > Clearance Light and Illumination Light System

### INSPECTION

---

#### 1. CHECK LIGHTING SWITCH











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 each component of the clearance light & illumination light system, refer to the respective sections.

- Headlight assembly:  [Ref. to LIGHTING SYSTEM>Headlight Assembly.](#)
- Combination switch (light):  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\).](#)
- Parking light bulb:  [Ref. to LIGHTING SYSTEM>Clearance/Parking Light Bulb.](#)
- Front side marker light bulb:  [Ref. to LIGHTING SYSTEM>Front Side Marker Light Bulb.](#)
- Rear combination light assembly:  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly.](#)
- Tail light/stop light bulb:  [Ref. to LIGHTING SYSTEM>Tail/Stop Light Bulb.](#)
- Rear side marker light bulb:  [Ref. to LIGHTING SYSTEM>Rear Side Marker Light Bulb.](#)
- License plate light:  [Ref. to LIGHTING SYSTEM>License Plate Light.](#)
- LED illumination light:  [Ref. to LIGHTING SYSTEM>LED Illumination Light.](#)
- Ignition switch illumination:  [Ref. to LIGHTING SYSTEM>Ignition Switch Illumination.](#)

## LIGHTING SYSTEM > Front Fog Light System

### WIRING DIAGRAM

---

Refer to "Front Fog Light System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Front Fog Light System>WIRING DIAGRAM.](#)

## LIGHTING SYSTEM > Front Fog Light System

### INSPECTION

---

#### 1. CHECK FRONT FOG LIGHT SWITCH




Refer to "Combination Switch (Light)".  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\)>INSPECTION.](#)

## LIGHTING SYSTEM > Front Fog Light System

### NOTE

---


For operation procedures of each component of the front fog light system, refer to the respective section.

- Combination switch (light):  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\).](#)
- Front fog light assembly:  [Ref. to LIGHTING SYSTEM>Front Fog Light Assembly.](#)
- Front fog light bulb:  [Ref. to LIGHTING SYSTEM>Front Fog Light Bulb.](#)

## LIGHTING SYSTEM > Turn Signal Light and Hazard Light System

### WIRING DIAGRAM

---

Refer to "Turn Signal Light and Hazard Light System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Turn Signal Light and Hazard Light System>WIRING DIAGRAM.](#)

## LIGHTING SYSTEM > Turn Signal Light and Hazard Light System

### INSPECTION

---


#### 1. CHECK TURN SIGNAL SWITCH

Refer to "Combination Switch (Light)".  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\)>INSPECTION.](#)

#### 2. CHECK HAZARD SWITCH

Refer to "Hazard Switch".  [Ref. to LIGHTING SYSTEM>Hazard Switch>INSPECTION.](#)

#### 3. CHECK TURN SIGNAL & HAZARD UNIT

Refer to "Turn Signal Light & Hazard Light Unit".  [Ref. to LIGHTING SYSTEM>Turn Signal Light & Hazard Light Unit>INSPECTION.](#)

#### 4. CHECK OF LANE CHANGE SIGNAL

##### Trouble symptom:

Lane change signal function does not operate.

#### 1. CHECK CUSTOMIZATION.

Display the data of «Lane change signal setting» using Subaru Select Monitor.

##### Note:

**For detailed operation procedures, refer to "Application help".**

Is the setting «ON»?

Yes

 [Go to 2.](#)

No

Change the setting to «ON».

## 2. CHECK CURRENT DATA.

1. Turn the ignition switch to ON.
2. Display the data of «Left turn signal input» and «Right turn signal input» using Subaru Select Monitor.

Does the display switch between «OFF» ↔ «ON» when the combination switch is operated from OFF position?

Yes

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

No

 [Go to 3.](#)

## 3. CHECK HARNESS.

1. Turn the ignition switch to OFF.
2. Disconnect the connectors of the body integrated unit and turn signal & hazard unit.
3. Check the harness between body integrated unit and turn signal & hazard unit.

### Connector & terminal

(i171) No. 18 — (B32) No. 8:

Is the resistance less than 1  $\Omega$ ?

Yes

 [Go to 4.](#)

No

Repair or replace the harness.

#### 4. CHECK HARNESS.

Measure the resistance between the body integrated unit connector and chassis ground.

##### Connector & terminal

(i171) No. 18 — Chassis ground:

##### Note:

**Check with the combination switch in the OFF position.**

Is the resistance 1 MΩ or more?

Yes

 [Go to 5.](#)

No

Repair or replace the harness.

#### 5. CHECK HARNESS.


1. Disconnect the connector of the combination switch.
2. Measure the resistance between the combination switch connector and chassis ground.

##### Connector & terminal

(B71) No. 12 — Chassis ground:

Is the resistance less than 1 Ω?

Yes

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)









No

Repair or replace the harness.

### LIGHTING SYSTEM > Turn Signal Light and Hazard Light System

#### NOTE

For operation procedures of each component of the turn signal and hazard light system, refer to the respective sections.



- Combination switch (light):  [Ref. to LIGHTING SYSTEM>Combination Switch \(Light\).](#)
- Front turn signal light assembly:  [Ref. to LIGHTING SYSTEM>Front Turn Signal Light Assembly.](#)
- Front turn signal light bulb:  [Ref. to LIGHTING SYSTEM>Front Turn Signal Light Bulb.](#)
- 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 Turn Signal Light Bulb.](#)
- Hazard switch:  [Ref. to LIGHTING SYSTEM>Hazard Switch.](#)
- Turn signal & hazard unit:  [Ref. to LIGHTING SYSTEM>Turn Signal Light & Hazard Light Unit.](#)

## LIGHTING SYSTEM > Back-up Light System

### WIRING DIAGRAM

---

Refer to "Back-up Light System" in the wiring diagram.

- ENGINE TYPE FA:  [Ref. to WIRING SYSTEM>Back-up Light System>WIRING DIAGRAM > ENGINE TYPE FA.](#)
- ENGINE TYPE EJ:  [Ref. to WIRING SYSTEM>Back-up Light System>WIRING DIAGRAM > ENGINE TYPE EJ.](#)



## LIGHTING SYSTEM > Back-up Light System

### INSPECTION

---

#### 1. CHECK BACK-UP LIGHT SWITCH (MT MODEL)

Refer to "MANUAL TRANSMISSION AND DIFFERENTIAL" section.

- Except for STI model:  [Ref. to MANUAL TRANSMISSION AND DIFFERENTIAL\(6MT\)\(TY75\)>Switches and Harness>INSPECTION > BACK-UP LIGHT SWITCH.](#)
- STI model:  [Ref. to MANUAL TRANSMISSION AND DIFFERENTIAL\(6MT\)\(TY85\)>Back-up Light Switch>INSPECTION.](#)

#### 2. CHECK INHIBITOR SWITCH (CVT MODEL)



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

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For operation procedures of each component of the back-up light system, refer to the respective section.




- Rear combination light assembly:  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly.](#)
- Back-up light bulb:  [Ref. to LIGHTING SYSTEM>Back-up Light Bulb.](#)

## LIGHTING SYSTEM > Stop Light System

### WIRING DIAGRAM

---

Refer to "Stop Light System" in the wiring diagram.

- ENGINE TYPE FA
  - Model without EyeSight:  [Ref. to WIRING SYSTEM>Stop Light System>WIRING DIAGRAM > ENGINE TYPE FA \(WITHOUT EyeSight\).](#)
  - Model with EyeSight:  [Ref. to WIRING SYSTEM>Stop Light System>WIRING DIAGRAM > ENGINE TYPE FA \(WITH EyeSight\).](#)
- ENGINE TYPE EJ:  [Ref. to WIRING SYSTEM>Stop Light System>WIRING DIAGRAM > ENGINE TYPE EJ.](#)

## LIGHTING SYSTEM > Stop Light System

### INSPECTION

---

#### 1. CHECK STOP LIGHT SWITCH




Refer to "Stop Light Switch" in "BRAKE" section.  [Ref. to BRAKE>Stop Light Switch>INSPECTION.](#)

## LIGHTING SYSTEM > Stop Light System

### NOTE

---


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

- Rear combination light assembly:  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly.](#)
- Tail light/stop light bulb:  [Ref. to LIGHTING SYSTEM>Tail/Stop Light Bulb.](#)
- High-mounted stop light:  [Ref. to LIGHTING SYSTEM>High-mounted Stop Light.](#)

## LIGHTING SYSTEM > Interior Light System

### WIRING DIAGRAM

---

Refer to "Interior Light System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Interior Light System>WIRING DIAGRAM.](#)

## LIGHTING SYSTEM > Interior Light System


### INSPECTION

---

#### 1. CHECK DOOR SWITCH

Refer to "Door Switch".  [Ref. to LIGHTING SYSTEM>Door Switch>INSPECTION.](#)

#### 2. CHECK TRUNK LID LATCH SWITCH






Refer to "Trunk Lid Latch and Actuator Assembly" in "SECURITY AND LOCKS" section.  [Ref. to SECURITY AND LOCKS>Trunk Lid Latch and Actuator Assembly>INSPECTION > ACTUATOR.](#)

## LIGHTING SYSTEM > Interior Light System

### NOTE

---


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

- 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.](#)
- Door switch:  [Ref. to LIGHTING SYSTEM>Door Switch.](#)

## LIGHTING SYSTEM > Auto Headlight Beam Leveler System

### 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

### ELECTRICAL SPECIFICATION

---


#### 1. AUTO HEADLIGHT BEAM LEVELER CM

Refer to "Control Module I/O Signal" of "AUTO HEADLIGHT BEAM LEVELER SYSTEM (DIAGNOSTICS)" section.  [Ref. to AUTO HEADLIGHT BEAM LEVELER SYSTEM \(DIAGNOSTICS\)>Control Module I/O Signal>ELECTRICAL SPECIFICATION.](#)

## LIGHTING SYSTEM > Auto Headlight Beam Leveler System

### INSPECTION

---

Refer to "Basic Diagnostic Procedure" of "AUTO HEADLIGHT BEAM LEVELER SYSTEM (DIAGNOSTICS)" section.  [Ref. to AUTO HEADLIGHT BEAM LEVELER SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

## LIGHTING SYSTEM > Auto Headlight Beam Leveler System

### PROCEDURE

---

When parts related to the auto headlight beam leveler system are removed or replaced, perform the following procedures to initialize or reinitialize.

#### Note:



**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.**
- **Refer to the following chart to determine whether to initialize or reinitialize.**


Initialization	When the auto headlight beam leveler CM was replaced with a new module.
Reinitialization	<ul style="list-style-type: none"><li>• When the auto headlight beam leveler CM was replaced with a part from another vehicle.</li><li>• When suspension parts have been removed or replaced. (Crossmember, front arm, sub frame, lateral link, housing, strut etc.)</li><li>• When the vehicle height sensor has been replaced or removed.</li></ul>

### Caution:


If the indicator does not flash three times or the headlight beam does not operate, it can be assumed that there is an open circuit or faulty wiring in the harness of the auto headlight beam leveler CM, vehicle height sensors or headlight assembly. Perform inspection and repair according to the inspection results, then perform initialization/reinitialization again.

- **Initialization:**  [Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler System>PROCEDURE > INITIALIZATION.](#)
- **Reinitialization:**  [Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler System>PROCEDURE > REINITIALIZATION.](#)

## 1. INITIALIZATION

1. Check that the indicator in the meter is flashing twice repeatedly with the ignition switch ON.
2. Turn the ignition switch to OFF.
3. Bounce the vehicle several times to normalize the suspension.
4. Make certain that someone is seated in the driver's seat.
5. Turn the ignition switch to ON, and, within 1.5 to 20 seconds, turn the headlight switch OFF → ON three times.
6. 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.)
7. Perform beam adjustment for the headlight.  [Ref. to LIGHTING SYSTEM>Headlight Assembly>ADJUSTMENT.](#)



## 2. REINITIALIZATION

1. Bounce the vehicle several times to normalize the suspension.
2. Make certain that someone is seated in the driver's seat.
3. Turn the ignition switch to ON, and, within 1.5 to 10 seconds, turn the headlight switch OFF → ON five or more successive times.
4. Check that the headlight beam drops once, then returns to normal.
5. After confirming 4), turn the ignition switch to OFF (ACC OFF) within 30 seconds.
6. 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.
7. 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.)
8. Perform beam adjustment for the headlight.  [Ref. to LIGHTING SYSTEM>Headlight Assembly>ADJUSTMENT.](#)

## LIGHTING SYSTEM > Auto Headlight Beam Leveler System

### NOTE


For operation procedures of each component of the auto headlight beam leveler system, refer to the respective section.


- Auto headlight beam leveler CM:  [Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler Control Module.](#)
- Vehicle height sensor:  [Ref. to LIGHTING SYSTEM>Rear Height Sensor.](#)

## LIGHTING SYSTEM > Combination Switch (Light)

### REMOVAL



#### Caution:

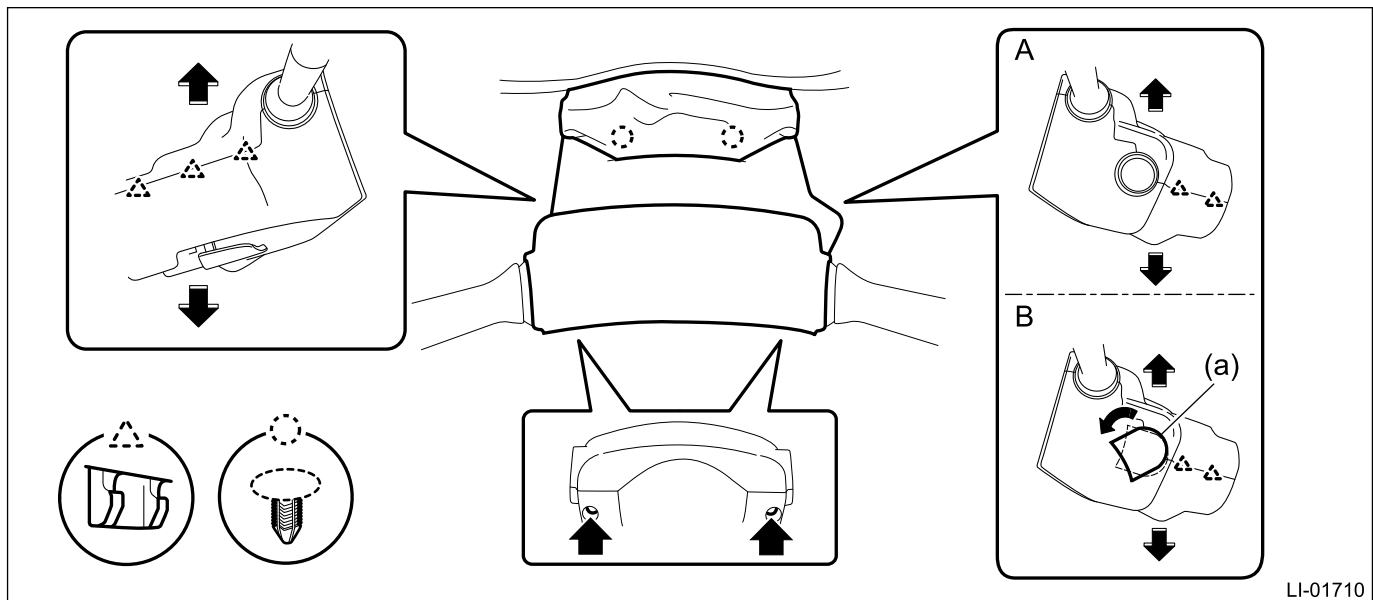
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Set the tire to the straight-ahead position.
2. Disconnect the ground terminal from battery and wait for at least 60 seconds before starting work.  
 [Ref. to NOTE>NOTE > BATTERY.](#)

#### Note:



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

3. Remove the driver's airbag module.  [Ref. to AIRBAG SYSTEM>Driver's Airbag Module>REMOVAL.](#)
4. Remove the steering wheel.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Wheel>REMOVAL.](#)
5. Remove the cover assembly - column.
  - (1) Release the clips, and remove the cover assembly - steering UPR.
  - (2) Remove the screws.
  - (3) Remove the cap - key cylinder (a). (Model with keyless access with push button start)
  - (4) Release the claw, and remove the cover assembly - column UPR and the cover assembly - column LWR.

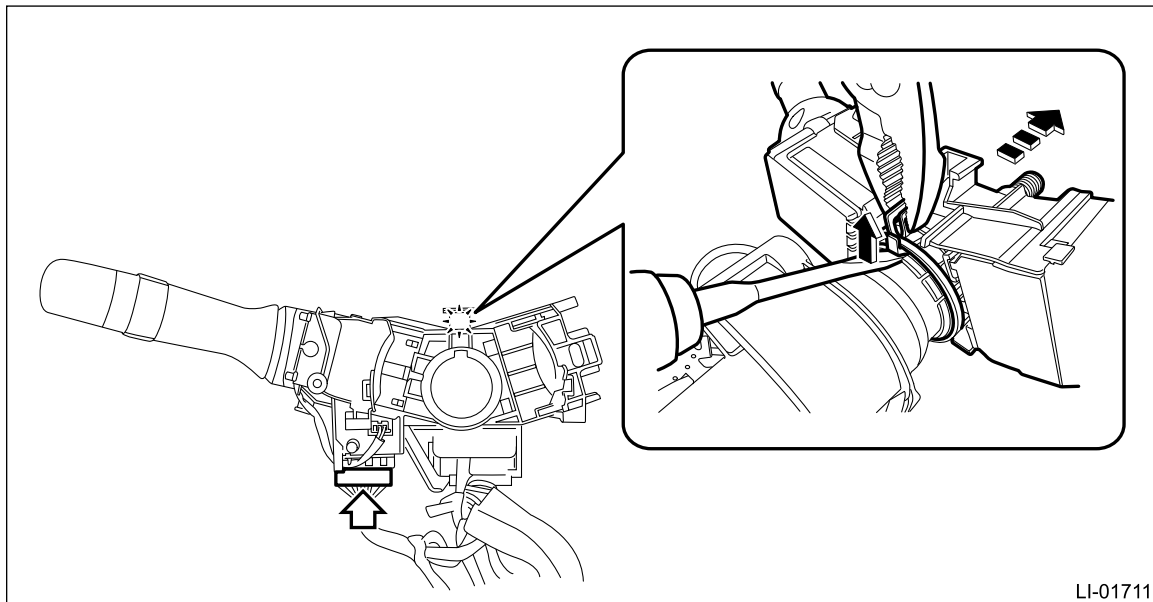


A Model without keyless access  
with push button start

B Model with keyless access  
with push button start

6. Remove the steering roll connector.  [Ref. to AIRBAG SYSTEM>Roll Connector>REMOVAL.](#)
7. Remove the switch assembly - combination wiper select.  [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, and remove the switch assembly - combination turn dimmer.



## LIGHTING SYSTEM > Combination Switch (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.](#)
- 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.
- 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. Install the switch assembly - combination turn dimmer.
  - (1) Using pliers, loosen the clamp.
  - (2) Insert the switch assembly - combination turn dimmer so that the claw is engaged with the cutout of the column assembly - steering while the clamp is loose.
  - (3) Install the clamp, then connect the connector.

#### Note:

If it is replaced with a new part, engage the claw before pulling out the fixing pin of the clamp.



2. Install the switch assembly - combination wiper select.
3. Install the steering roll connector.  [Ref. to AIRBAG SYSTEM>Roll Connector>INSTALLATION.](#)
4. Install the cover assembly - column.
5. Install the steering wheel.

#### Tightening torque:

39 N·m (4 kgf·m, 28.8 ft·lb)

### Clearance:

Between cover assembly - column and steering wheel: 4 – 6 mm (0.16 – 0.24 in)

6. Install the driver's airbag module.  [Ref. to AIRBAG SYSTEM>Driver's Airbag Module>INSTALLATION.](#)
7. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

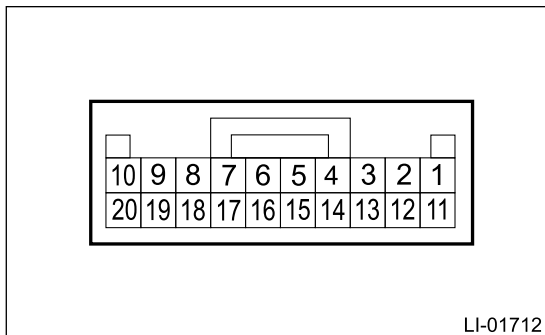
## LIGHTING SYSTEM > Combination Switch (Light)

### INSPECTION

1. Measure the resistance between connector terminals.

#### Preparation tool:

Circuit tester



- Lighting switch

Terminal No.	Inspection conditions	Standard
18 – 12 19 – 12 20 – 12	Switch OFF	1 MΩ or more
19 – 12	Switch AUTO	Less than 1 Ω
18 – 12	Switch 1 (TAIL/PARKING)	Less than 1 Ω
18 – 12 20 – 12	Switch 2 (HEAD)	Less than 1 Ω

- Dimmer & passing switch

Terminal No.	Inspection conditions	Standard
11 – 12 17 – 12	Switch PASS	Less than 1 Ω
11 – 12	Switch UP	Less than 1 Ω

- Turn signal switch

Terminal No.	Inspection conditions	Standard
13 – 12	Switch TURN (RH)	Less than 1 Ω
15 – 12	Switch TURN (LH)	Less than 1 Ω

- Front fog light switch


Terminal No.	Inspection conditions	Standard
4 – 3	Switch OFF	1 MΩ or more

<b>Terminal No.</b>	<b>Inspection conditions</b>	<b>Standard</b>
	Switch ON	Less than 1 $\Omega$

2. Replace the switch assembly - combination turn dimmer if the inspection result is not within the standard value.


## LIGHTING SYSTEM > Light Control Sensor

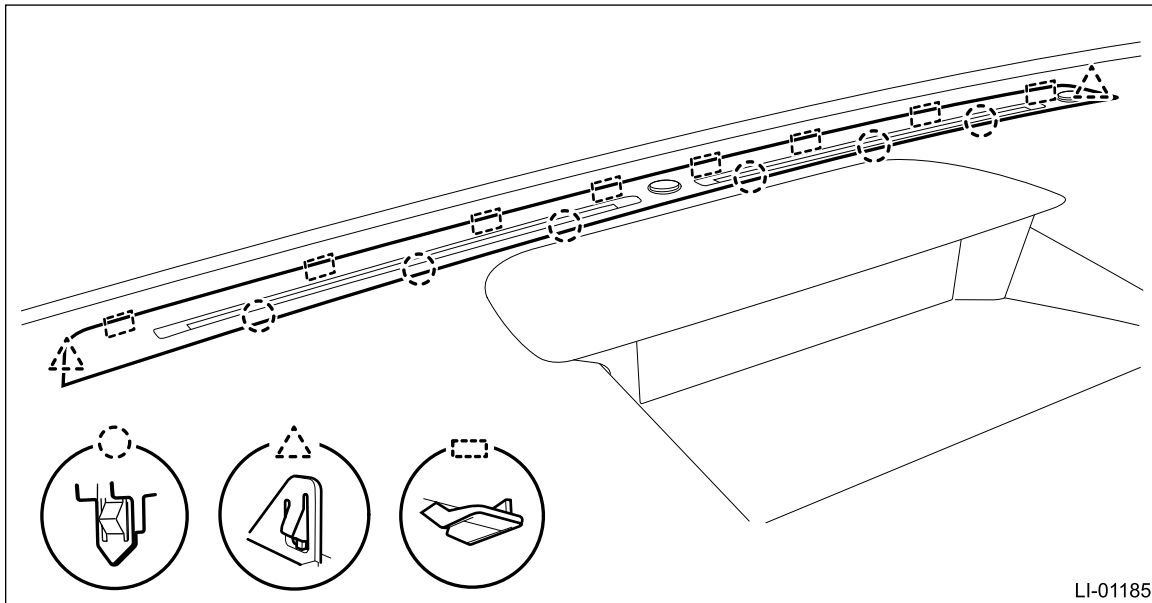
### REMOVAL

1. Disconnect the ground terminal from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

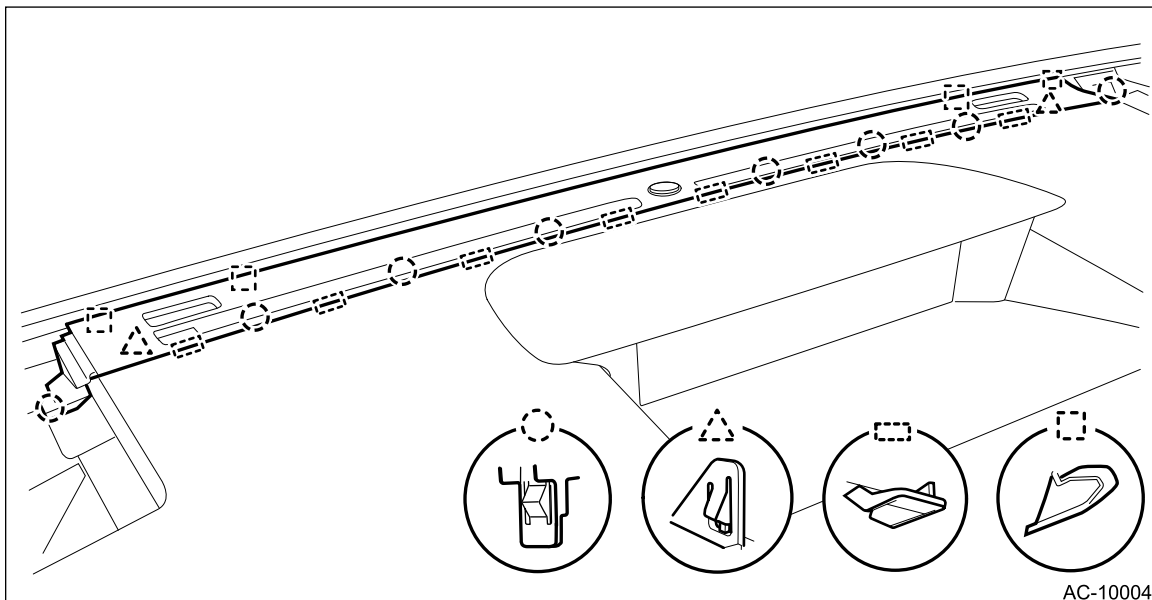
#### Note:

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

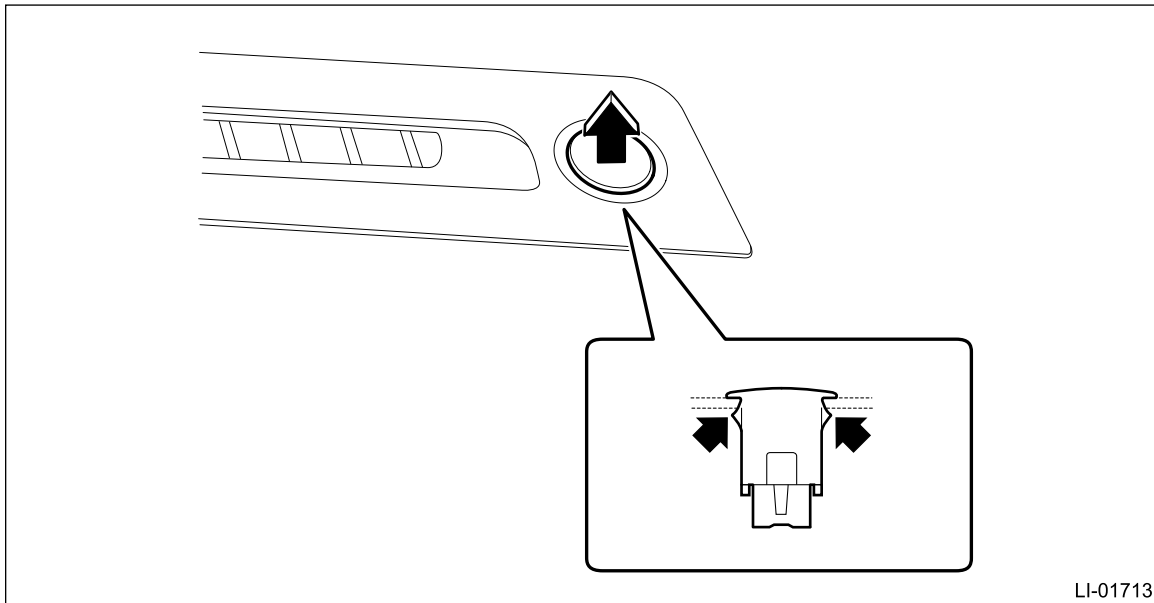
2. Remove the grille speaker side. (Model with EyeSight assist monitor)  [Ref. to ENTERTAINMENT & MONITORING>Front Speaker>REMOVAL > TWEETER.](#)
3. Remove the grille - front defroster.
  - (1) Release the claws.
  - (2) Disconnect the connector and remove the grille - front defroster.
    - Model without EyeSight assist monitor



- Model with EyeSight assist monitor




4. Release the claws, and then remove the sensor - automatic light.



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## LIGHTING SYSTEM > Light Control Sensor

### INSTALLATION

1. Install the sensor - automatic light.
2. Install the grille - front defroster.
3. Install the grille speaker side. (Model with EyeSight assist monitor)
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

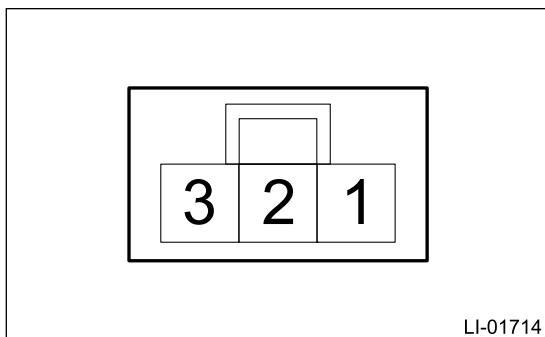
## LIGHTING SYSTEM > Light Control Sensor

### INSPECTION

1. Connect the connector and then turn the ignition switch to ON.
2. Set the lighting switch to AUTO position.
3. Measure the voltage between connector terminals.

#### Preparation tool:

Circuit tester



LI-01714

Terminal No.	Inspection conditions	Standard
2 (+) – 1 (-)	Measure the voltage when the area around the sensor -	Dark condition: Approx. 0.6 V or less

<b>Terminal No.</b>	<b>Inspection conditions</b>	<b>Standard</b>
	automatic light, which was dark, becomes bright.	Bright condition: Approx. 3 V or more

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

## LIGHTING SYSTEM > Headlight Assembly

### REMOVAL





#### Caution:

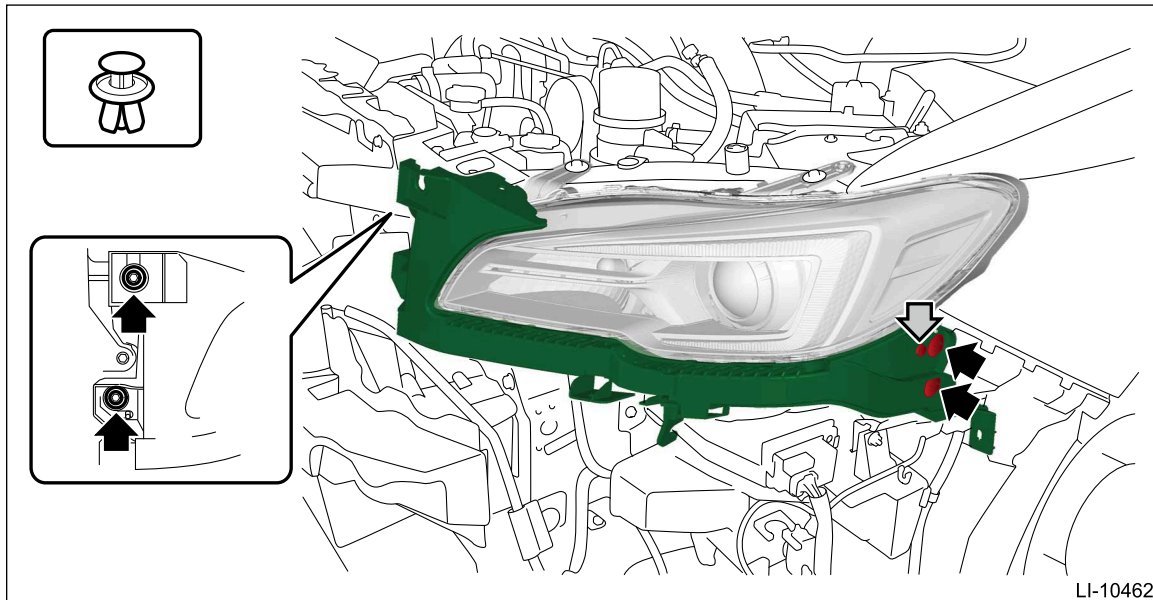
**Do not perform work with wet hands, because there is a possibility of electrical shock.**

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### Note:

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

2. Remove the clips and remove the air intake duct. (When removing the headlight RH)
  - Except for STI model:  [Ref. to INTAKE \(INDUCTION\)\(w/o STI\)>Air Intake Duct>REMOVAL.](#)
  - STI model:  [Ref. to INTAKE \(INDUCTION\)\(STI\)>Air Intake Duct>REMOVAL.](#)
3. Remove the bumper face - front.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL.](#)
4. Remove the keyless buzzer or access buzzer.  [Ref. to SECURITY AND LOCKS>Keyless Buzzer>REMOVAL.](#)
5. Remove the bolts and clips, and remove the bracket - front bumper corner.

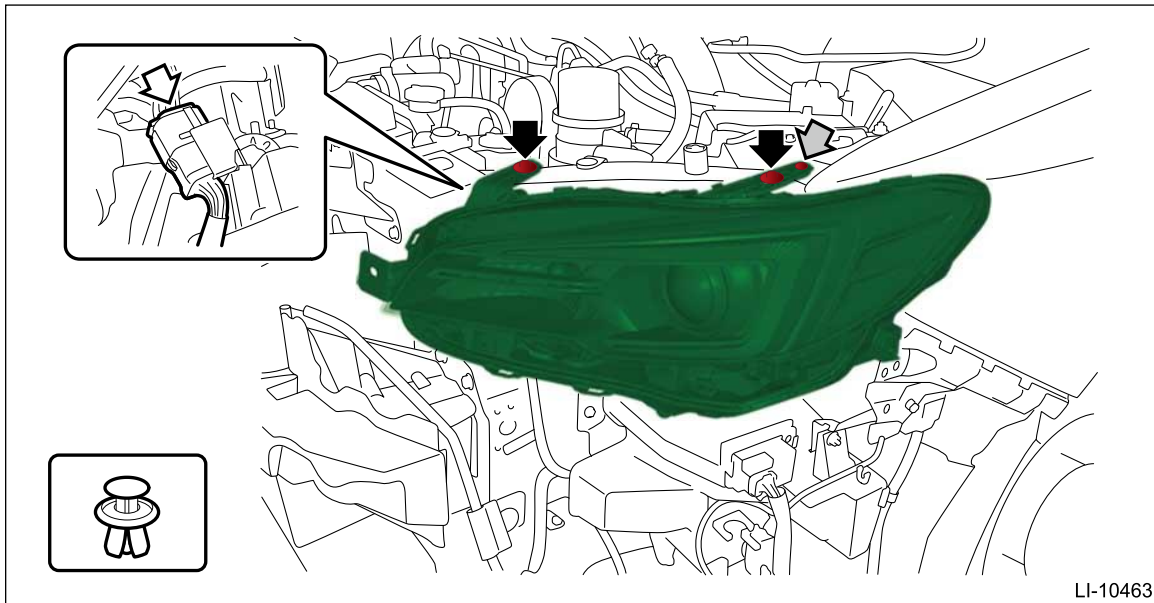


6. Remove the light assembly - head.

#### Caution:

**Be careful not to damage the light assembly - head and the fender front.**

- (1) Disconnect the connector.
- (2) Remove the bolts and clips, and remove the light assembly - head.

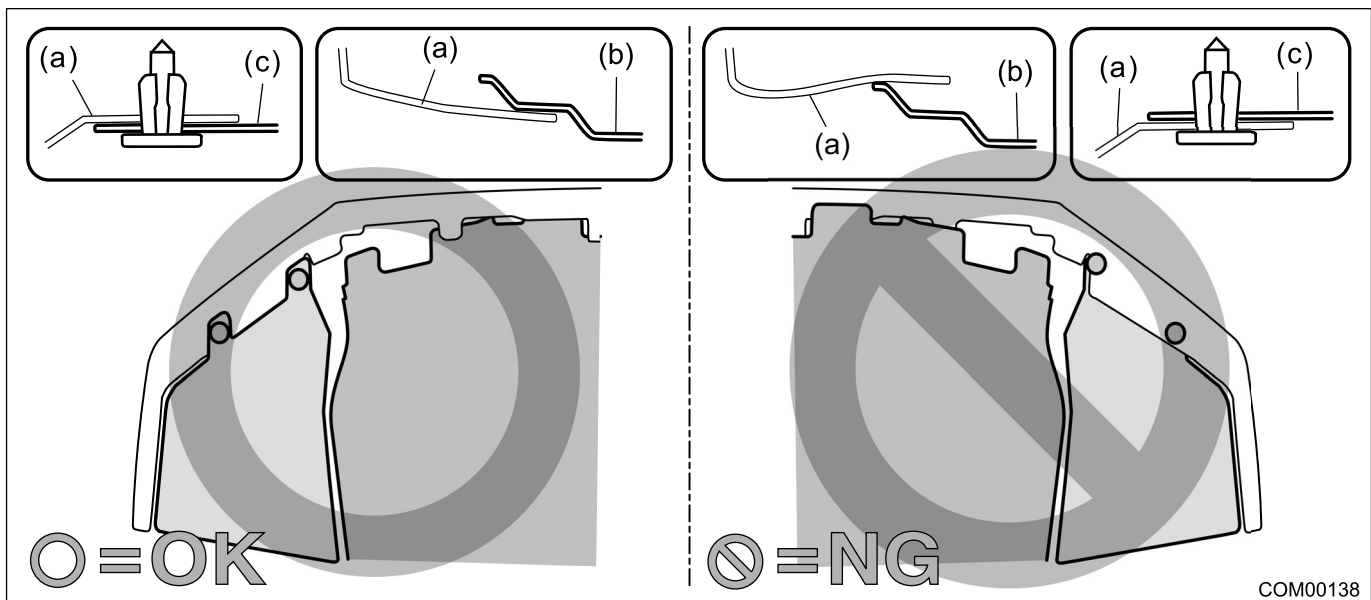


## LIGHTING SYSTEM > Headlight Assembly

### INSTALLATION

#### Caution:

- Install the bumper face - front so that the front end of the under cover (b) comes inside the bumper face - front (a), and the front end of the mud guard (c) comes outside the bumper face - front (a).



- Before installing the bumper face, match the claws on the bracket - front bumper with the engaging position of flange section on the bumper face side. If the engaging position is not correct, the flange section may be broken or the clearance between fender panel and bumper face may not be uniform.






1. Install the light assembly - head.  
Tightening torque:

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

2. Install the bracket - front bumper corner.

**Tightening torque:**

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

3. Install the keyless buzzer or access buzzer.
4. Install the bumper face - front.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>INSTALLATION.](#)
5. Install the air intake duct. (When the headlight RH was removed)
6. Check and adjust the clearance between the hood COMPL - front and the light assembly - head.  [Ref. to EXTERIOR BODY PANELS>Front Hood>ADJUSTMENT.](#)
7. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
8. 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. (Model with fog light)  [Ref. to LIGHTING SYSTEM>Front Fog Light Assembly>ADJUSTMENT > FOG LIGHT AIMING.](#)

## LIGHTING SYSTEM > Headlight Assembly

### DISASSEMBLY

---

**Caution:**

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

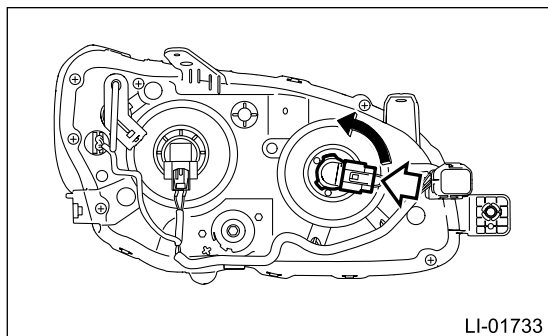
#### 1. HIGH BEAM BULB

• **Halogen type**

1. Disconnect the connector.
2. Rotate in the direction of arrow shown in the figure to remove the high beam bulb.

**Caution:**

**For the high beam bulb on the RH side, rotate in the opposite direction of arrow shown in the figure.**



• **LED type**

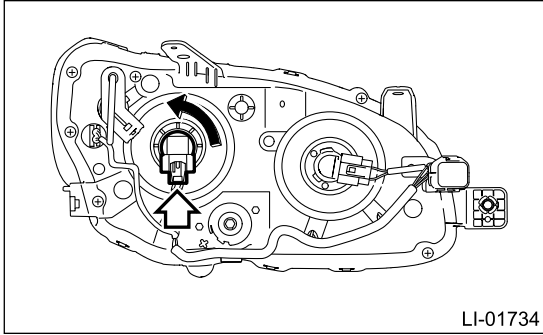
Since it is a non-disassembled part, it cannot be removed. Replace the light assembly - head if faulty.

#### 2. LOW BEAM BULB

• **Halogen type**

1. Disconnect the connector.

2. Rotate in the direction of arrow shown in the figure to remove the low beam bulb.



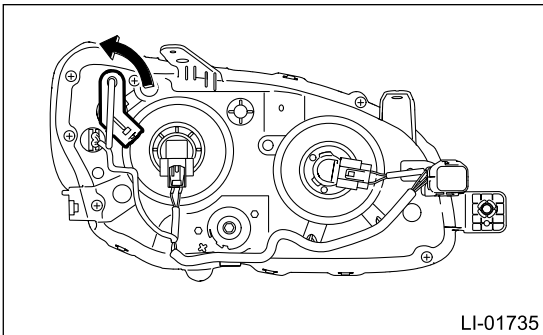
- **LED type**

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

### 3. PARKING LIGHT BULB

- **Halogen type**

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



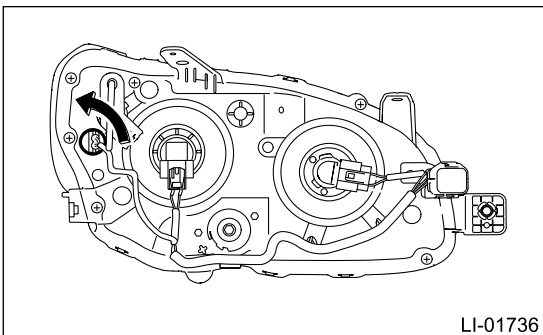
- **LED type**

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

### 4. SIDE MARKER LIGHT BULB

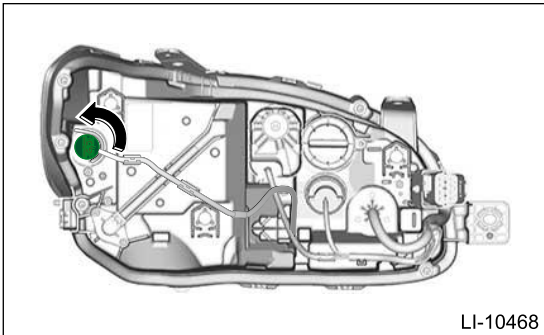
- **Halogen type**

Rotate the bulb socket in the direction of arrow shown in the figure to remove the side marker light bulb.




- **LED type**

Rotate the bulb socket in the direction of arrow shown in the figure to remove the side marker light bulb.



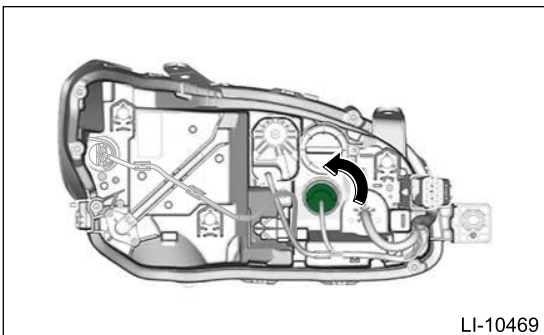
## 5. TURN SIGNAL LIGHT BULB

- **Halogen type**

For detailed procedures of the turn signal light bulb, refer to "DISASSEMBLY" of "FRONT TURN SIGNAL LIGHT ASSEMBLY".  [Ref. to LIGHTING SYSTEM>Front Turn Signal Light Assembly>DISASSEMBLY.](#)

- **LED type**

Rotate the bulb socket in the direction of arrow shown in the figure to remove the turn signal light bulb.



## LIGHTING SYSTEM > Headlight Assembly

### ASSEMBLY

---

**Caution:**

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

## 1. HIGH BEAM BULB

- **Halogen type**

1. Install the high beam bulb.
2. Connect the connector.

- **LED type**

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

## 2. LOW BEAM BULB

- **Halogen type**

1. Install the low beam bulb.
2. Connect the connector.

- **LED type**

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

### 3. PARKING LIGHT BULB

- **Halogen type**

1. Install the parking light bulb.
2. Install the bulb socket.

- **LED type**

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

### 4. SIDE MARKER LIGHT BULB

- **Halogen type**


1. Install the side marker light bulb.
2. Install the bulb socket.

- **LED type**

1. Install the side marker light bulb.
2. Install the bulb socket.

### 5. TURN SIGNAL LIGHT BULB

- **Halogen type**

For detailed procedures of the turn signal light bulb, refer to "ASSEMBLY" of "FRONT TURN SIGNAL LIGHT ASSEMBLY".  [Ref. to LIGHTING SYSTEM>Front Turn Signal Light Assembly>ASSEMBLY.](#)

- **LED type**

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

## LIGHTING SYSTEM > Headlight Assembly

### ADJUSTMENT

---

#### 1. HEADLIGHT BEAM ADJUSTMENT

**Caution:**

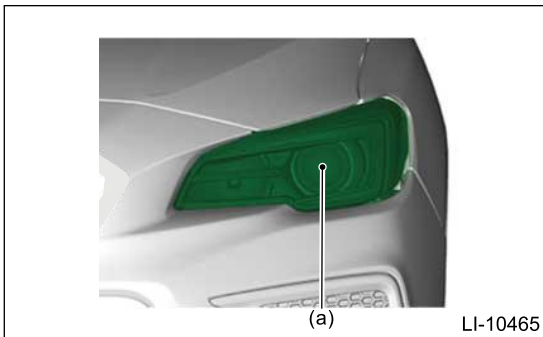
- **Turn off the light before adjusting the headlight beam level. If it is necessary to inspect the beam level, do not keep the light on for two minutes or more.**
- **When blocking the light emitted from the headlight, use a light shield or equivalent. Do not apply the tape on the lens or place the cloth over it. It may raise the temperature in the light and cause deformation/bubble formations of the plastic lens.**

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.

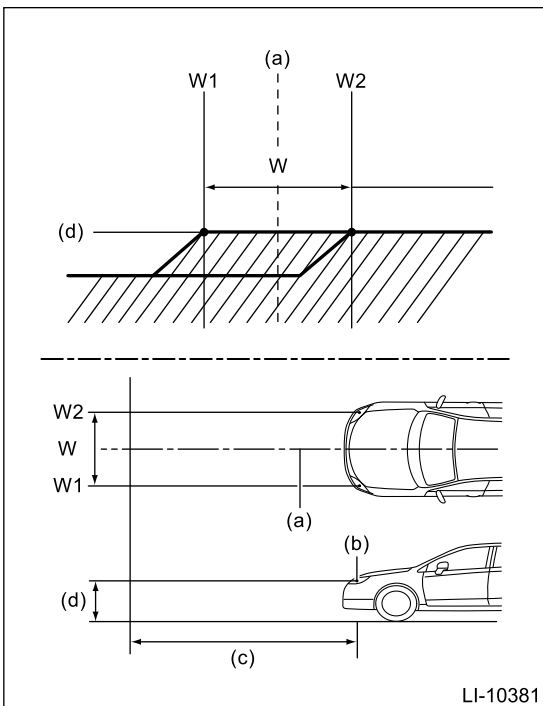
2. Set the headlight beam leveler switch to "0" position. (Model with manual leveler)

3. Bounce the vehicle several times to normalize the suspension.
4. Make certain that someone is seated in the driver's seat.
5. Measure the distance of the light source centers and the height of the light source centers for the low beam.



(a) Center of light source

6. Adjust the headlight beam.
  - (1) Place the vehicle with the front end facing to the measurement panel, open the front hood, and then illuminate the low beam.

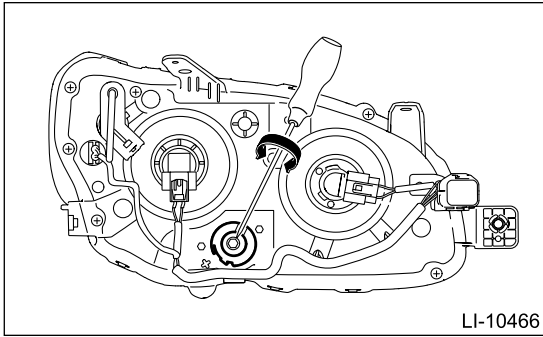


- (a) Vehicle center
- (b) Center of light source
- (c) 3 m (10 ft)
- (d) Height of light source center

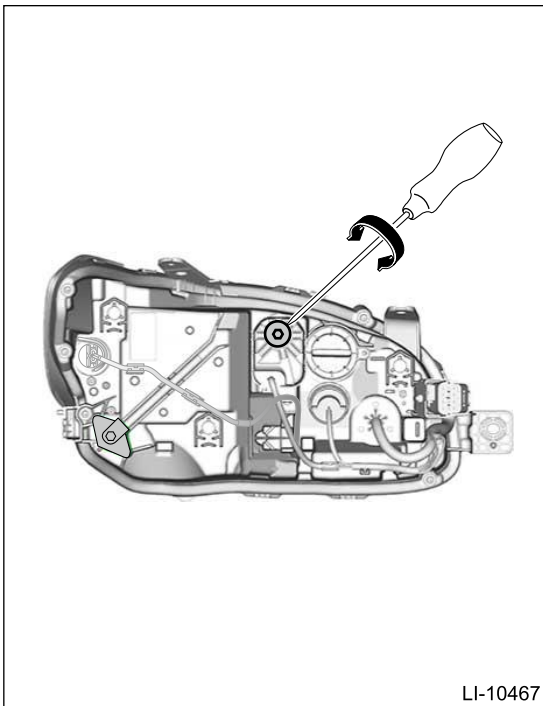
<b>W mm (in)</b>
Halogen type: 1,426 (56.14)
LED type: 1,402 (55.2)

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

- Halogen type



- LED type



## LIGHTING SYSTEM > Headlight Bulb

### REMOVAL

---

#### Note:

Since the LED type headlight bulb is integrated into the headlight assembly, it cannot be removed.

### 1. HIGH BEAM




#### Caution:

- Do not perform work with wet hands, because there is a possibility of electrical shock.
- Do not leave the light assembly - head without the bulb for a long time. Dust, moisture, etc. entering the light may affect its performance.

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### Note:

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

2. Remove the clips and remove the air intake duct. (When removing the high beam bulb RH)
  - Except for STI model:  [Ref. to INTAKE \(INDUCTION\)\(w/o STI\)>Air Intake Duct>REMOVAL.](#)
  - STI model:  [Ref. to INTAKE \(INDUCTION\)\(STI\)>Air Intake Duct>REMOVAL.](#)
3. Disconnect the connector and remove the high beam bulb.  [Ref. to LIGHTING SYSTEM>Headlight Assembly>DISASSEMBLY > HIGH BEAM BULB.](#)

### 2. LOW BEAM

#### Caution:

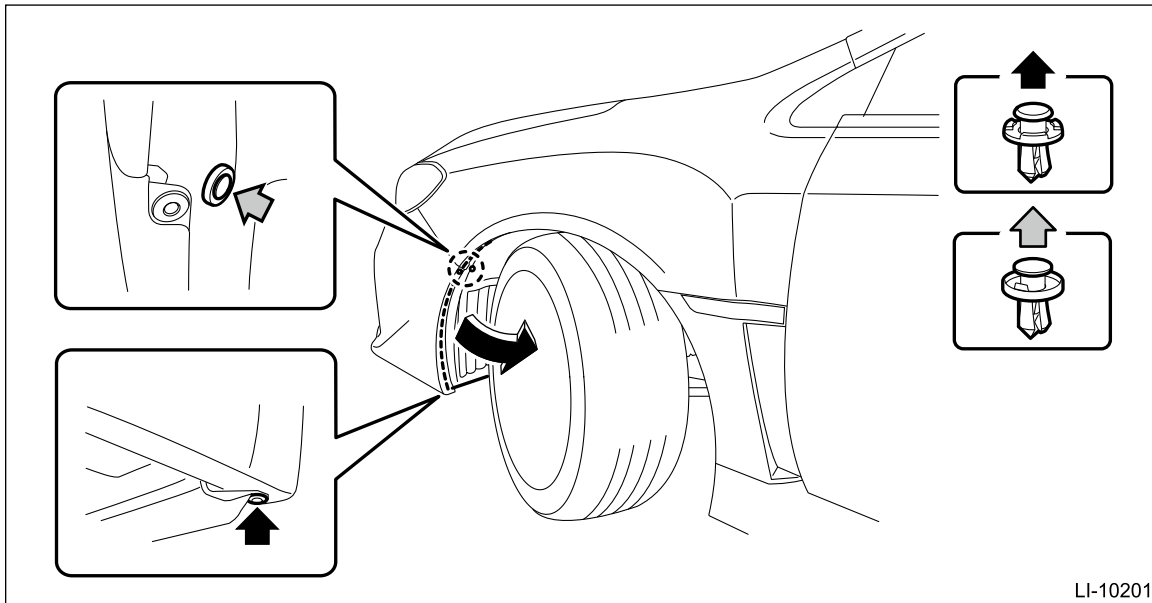
- Do not perform work with wet hands, because there is a possibility of electrical shock.
- Do not leave the light assembly - head without the bulb for a long time. Dust, moisture, etc. entering the light may affect its performance.

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### Note:

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

2. Turn the steering wheel in the opposite direction from the parts to be removed. Then remove the screws and clips, and turn over the mud guard - front.



LI-10201

3. Disconnect the connector and remove the low beam bulb. [🔧 Ref. to LIGHTING SYSTEM>Headlight Assembly>DISASSEMBLY > LOW BEAM BULB.](#)

## LIGHTING SYSTEM > Headlight Bulb

### INSTALLATION

---

#### Note:

Since the LED type headlight bulb is integrated into the headlight assembly, it cannot be removed.

#### 1. HIGH BEAM

1. Install the high beam bulb. [🔧 Ref. to LIGHTING SYSTEM>Headlight Assembly>ASSEMBLY > HIGH BEAM BULB.](#)
2. Install the air intake duct. (When the high beam bulb RH was removed)
3. Connect the battery ground terminal. [🔧 Ref. to NOTE>NOTE > BATTERY.](#)

#### 2. LOW BEAM

1. Install the low beam bulb. [🔧 Ref. to LIGHTING SYSTEM>Headlight Assembly>ASSEMBLY > LOW BEAM BULB.](#)
2. Install the mud guard - front.
3. Connect the battery ground terminal. [🔧 Ref. to NOTE>NOTE > BATTERY.](#)

## LIGHTING SYSTEM > Hazard Switch


### REMOVAL

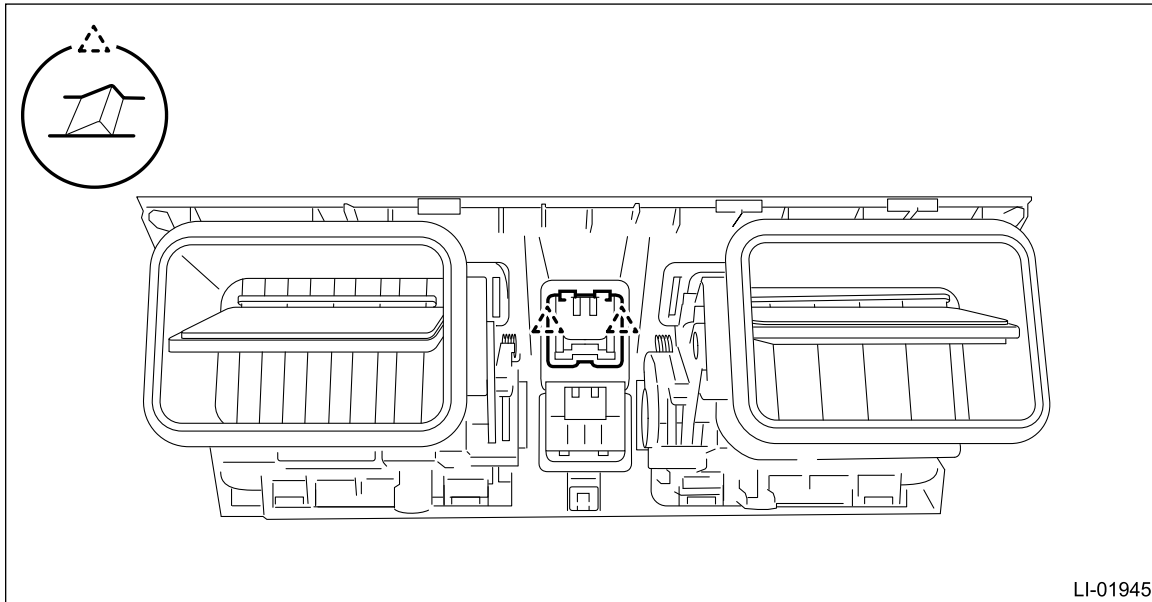
---

1. Disconnect the ground cable from battery.  Ref. to [NOTE>NOTE > BATTERY](#).

#### Note:

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

2. Remove the center grille assembly.  Ref. to [HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL > CENTER GRILLE ASSEMBLY](#).
3. Release the claws, and then remove the switch - hazard.




## LIGHTING SYSTEM > Hazard Switch

### INSTALLATION

---

#### Caution:

**After installing the center grille assembly, check that the air vent grille of the center grille assembly is inserted correctly into the air vent duct.**

1. Install the switch - hazard.
2. Install the center grille assembly.
3. Connect the battery ground terminal.  Ref. to [NOTE>NOTE > BATTERY](#).

## LIGHTING SYSTEM > Hazard Switch

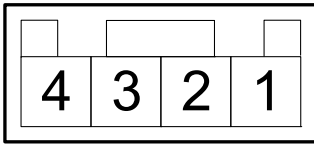
### INSPECTION

---

1. Measure the resistance between connector terminals.

#### Preparation tool:

Circuit tester



LI-01719

Terminal No.	Inspection conditions	Standard
2 – 3	Switch OFF	1 M $\Omega$ or more
	Switch ON	Less than 1 $\Omega$

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


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


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

## LIGHTING SYSTEM > Turn Signal Light & Hazard Light Unit

### REMOVAL



#### Caution:

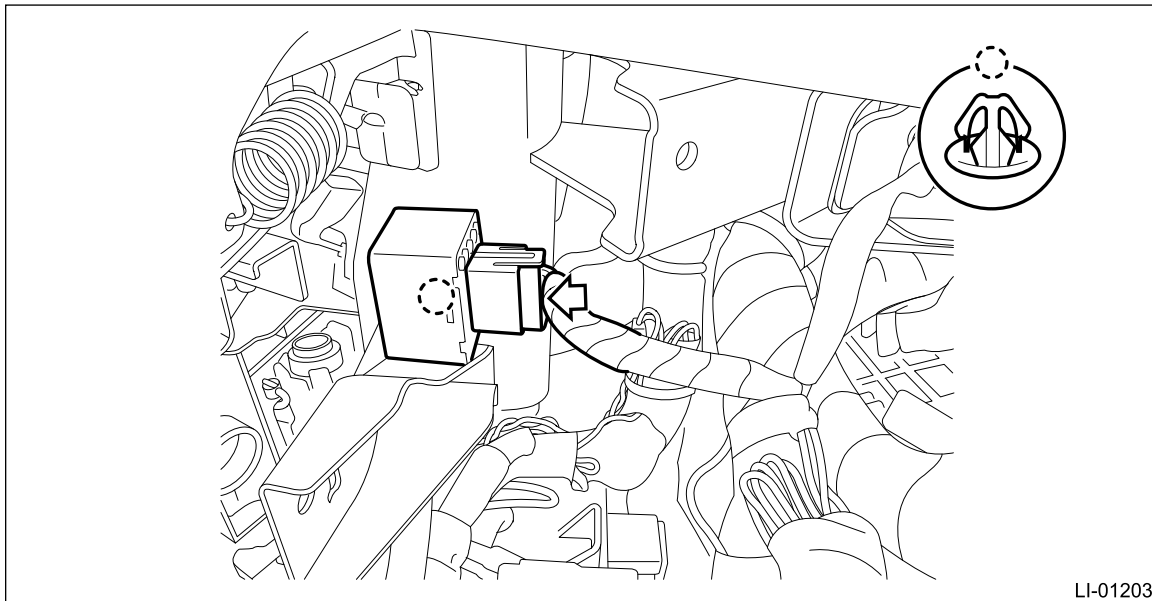
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

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

#### Note:

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

2. Remove the cover assembly - instrument panel 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 turn signal & hazard unit.
  - (1) Disconnect the connector.
  - (2) Release the claws, and then remove the turn signal & hazard unit.



## LIGHTING SYSTEM > Turn Signal Light & Hazard Light 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. Install the turn signal & hazard unit.
2. Install the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>INSTALLATION.](#)

#### Tightening torque:

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

3. Install the cover assembly - instrument panel LWR driver.
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

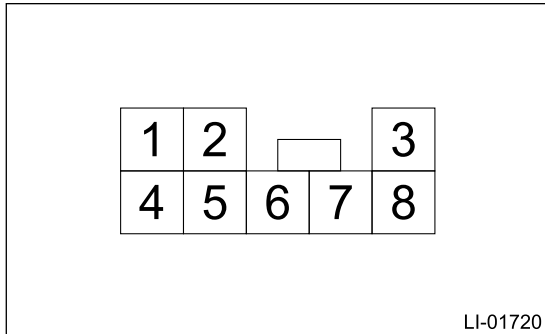
## LIGHTING SYSTEM > Turn Signal Light & Hazard Light Unit

### INSPECTION

1. Measure the voltage between connector terminal and chassis ground.

#### Preparation tool:

Circuit tester



Terminal No.	Inspection conditions	Standard
4 (+) — Chassis ground (-)	Always	10 — 14 V
1 (+) — Chassis ground (-)	IG OFF → ON	Less than 1 V → 10 — 14 V

Repair or replace the harness if the inspection result is not within the standard value.

2. Measure the resistance between connector terminal and chassis ground.

Terminal No.	Inspection conditions	Standard
7 — Chassis ground	Always	Less than 1 Ω

Repair or replace the harness if the inspection result is not within the standard value.

3. Connect the connector.

4. Measure the voltage between connector terminal and chassis ground.

Terminal No.	Input/Output	Inspection conditions	Standard
6 (+) — Chassis ground (-)	Input	Turn signal switch (right) OFF → ON	9 V or more → less than 1 V
5 (+) — Chassis ground (-)	Input	Turn signal switch (left) OFF → ON	9 V or more → less than 1 V
8 (+) — Chassis ground (-)	Input	Hazard switch OFF → ON	9 V or more → less than 1 V
2 (+) — Chassis ground (-)	Output	Turn signal switch (right) OFF → ON	Repeat less than 1 V → less than 1 V ↔ more than 9 V at 60 to 120 times per minute.
3 (+) — Chassis ground (-)	Output	Turn signal switch (left) OFF → ON	Repeat less than 1 V → less than 1 V ↔ more than 9 V at 60 to 120 times per minute.
2 (+) — Chassis ground (-)	Output	Hazard switch OFF → ON	Repeat less than 1 V → less than 1 V ↔ more than 9 V at 60 to 120 times per minute.

<b>Terminal No.</b>	<b>Input/Output</b>	<b>Inspection conditions</b>	<b>Standard</b>
3 (+) — Chassis ground (-)	Output	Hazard switch OFF → ON	Repeat less than 1 V → less than 1 V ↔ more than 9 V at 60 to 120 times per minute.

Replace the turn signal & hazard unit if the inspection result is not within the standard value.

## LIGHTING SYSTEM > Front Turn Signal Light Assembly

### REMOVAL

---

#### Note:

Front turn signal light assembly of the LED headlight is integrated into the headlight assembly. For operation procedures, refer to "Headlight Assembly".  Ref. to [LIGHTING SYSTEM>Headlight Assembly](#).

1. Disconnect the ground cable from battery.  Ref. to [NOTE>NOTE > BATTERY](#).

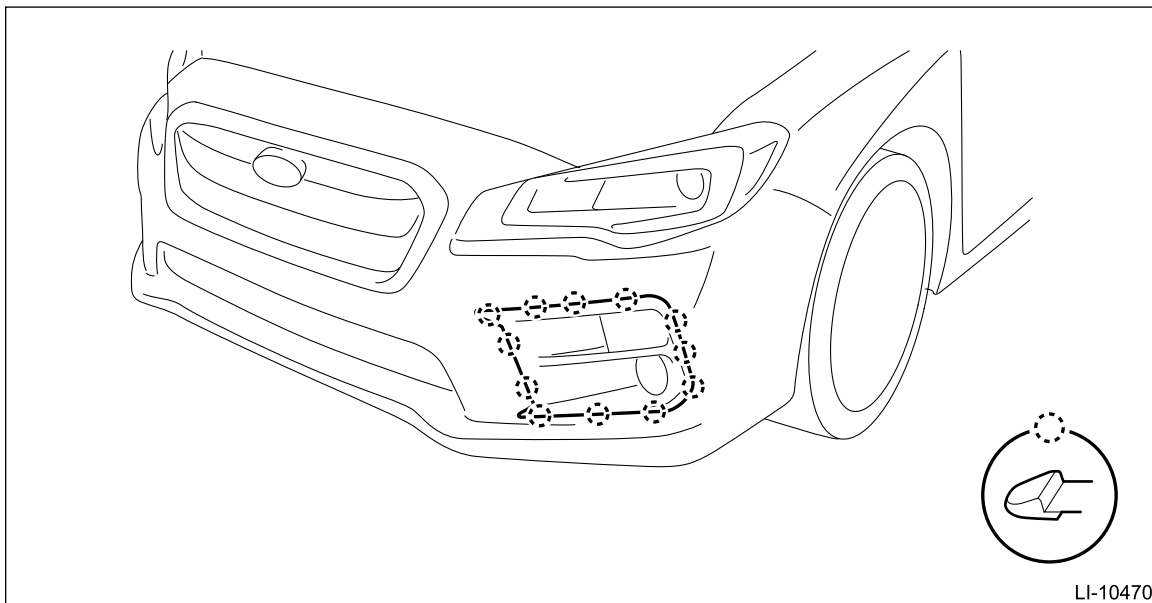
#### Note:

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

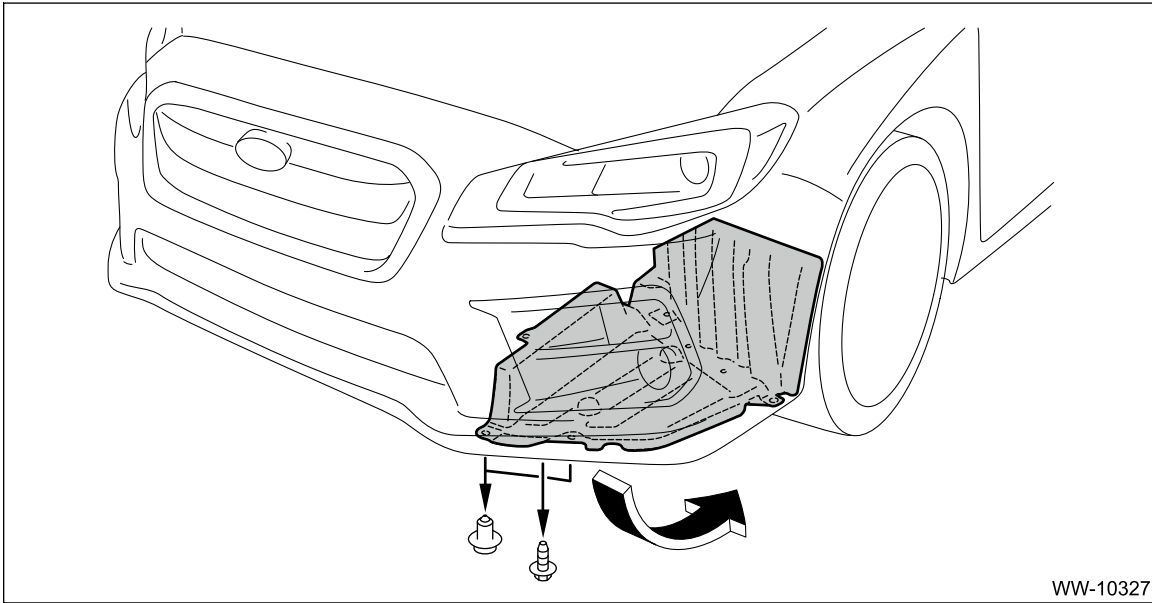
2. Release the claws, and then remove the cover - fog light.

#### Note:

**If it is hard to remove, push the claw from the back.**



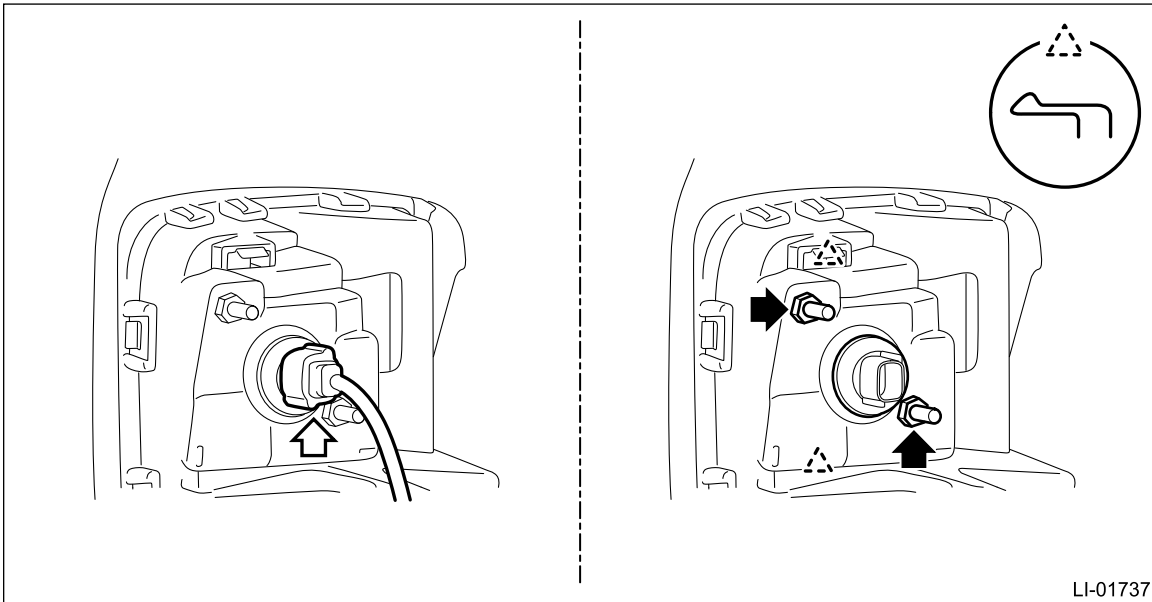
3. Lift up the vehicle.
4. Remove the screw and clips, and turn over the front side of the mud guard - front.



**5.** Remove the turn signal light assembly - front.

(1) Disconnect the connector.

(2) Release the nuts and claws, then remove the turn signal light assembly - front.

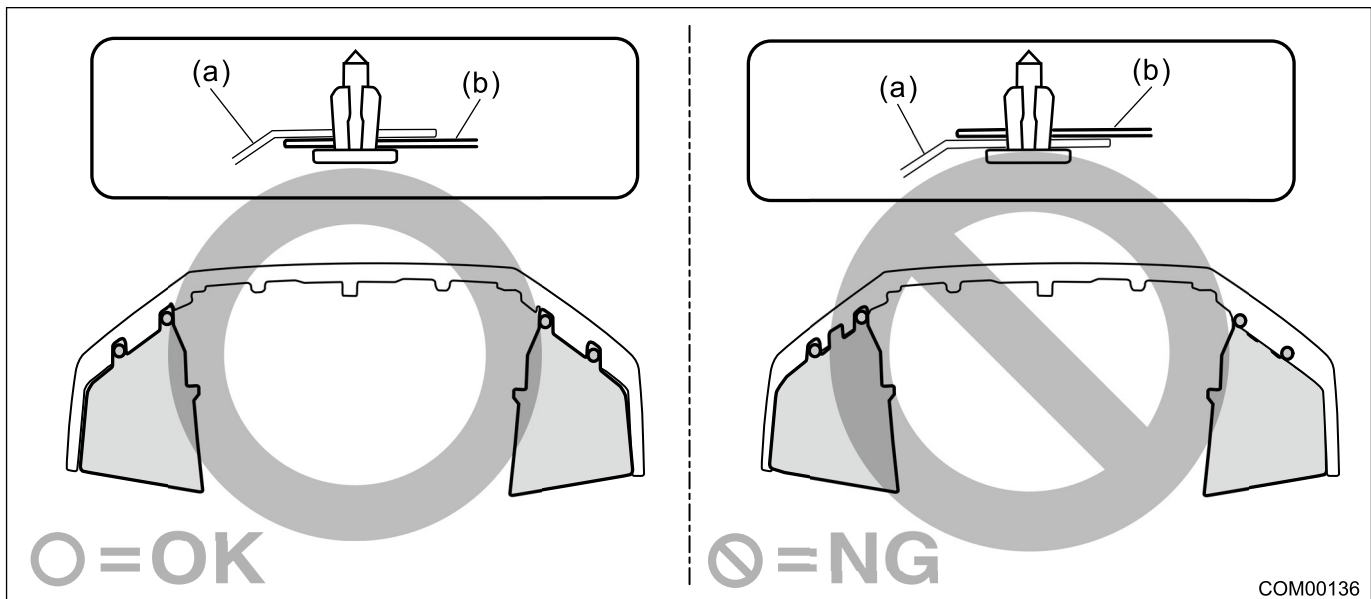


**LIGHTING SYSTEM > Front Turn Signal Light Assembly**

**INSTALLATION**

**Caution:**

**Install the mud guard - front so that the front end of the mud guard (b) comes outside the bumper face - front (a).**




**Note:**

**Front turn signal light assembly of the LED headlight is integrated into the headlight assembly. For operation procedures, refer to "Headlight Assembly".  Ref. to LIGHTING SYSTEM>Headlight Assembly.**

1. Install the turn signal light assembly - front.

**Tightening torque:**

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

2. Install the mud guard - front.
3. Lower the vehicle.
4. Install the cover - fog light.
5. Connect the battery ground terminal.  Ref. to NOTE>NOTE > BATTERY.

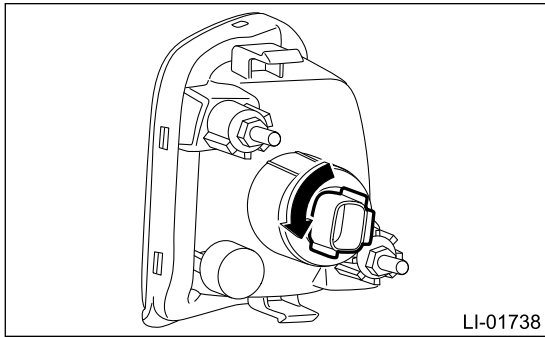
**LIGHTING SYSTEM > Front Turn Signal Light Assembly**

**DISASSEMBLY**

**Caution:**

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

Rotate the bulb socket in the direction of arrow shown in the figure to remove the front turn signal light bulb.



## LIGHTING SYSTEM > Front Turn Signal Light Assembly

### ASSEMBLY

---

**Caution:**

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

- 1.** Install the front turn signal light bulb.
- 2.** Install the bulb socket.

## LIGHTING SYSTEM > Front Turn Signal Light Bulb

### REMOVAL

---

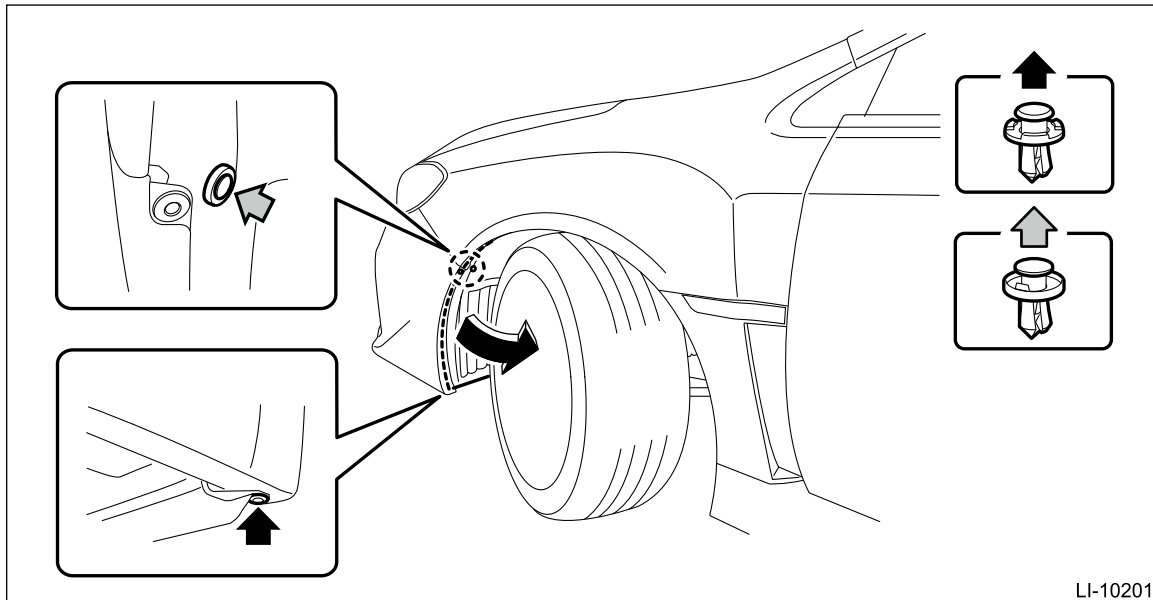
#### 1. HALOGEN HEADLIGHT


1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

**Note:**

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

2. Turn the steering wheel in the opposite direction from the parts to be removed. Then remove the clips and turn over the mud guard - front.






3. Disconnect the connector and remove the front turn signal light bulb.  [Ref. to LIGHTING SYSTEM>Front Turn Signal Light Assembly>DISASSEMBLY.](#)

#### 2. LED HEADLIGHT

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

**Note:**

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


2. Remove the clips and remove the air intake duct. (When removing the front turn signal light bulb RH)
  - Except for STI model:  [Ref. to INTAKE \(INDUCTION\)\(w/o STI\)>Air Intake Duct>REMOVAL.](#)
  - STI model:  [Ref. to INTAKE \(INDUCTION\)\(STI\)>Air Intake Duct>REMOVAL.](#)
3. Remove the front turn signal light bulb.  [Ref. to LIGHTING SYSTEM>Headlight Assembly>DISASSEMBLY > TURN SIGNAL LIGHT BULB.](#)


## LIGHTING SYSTEM > Front Turn Signal Light Bulb

### INSTALLATION



---

#### 1. HALOGEN HEADLIGHT

1. Install the front turn signal light bulb.  [Ref. to LIGHTING SYSTEM>Front Turn Signal Light Assembly>ASSEMBLY.](#)

2. Install the mud guard - front.
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## **2. LED HEADLIGHT**

1. Install the front turn signal light bulb.  [Ref. to LIGHTING SYSTEM>Headlight Assembly>ASSEMBLY > TURN SIGNAL LIGHT BULB.](#)
2. Install the air intake duct.
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## LIGHTING SYSTEM > Clearance/Parking Light Bulb

### REMOVAL

#### Note:

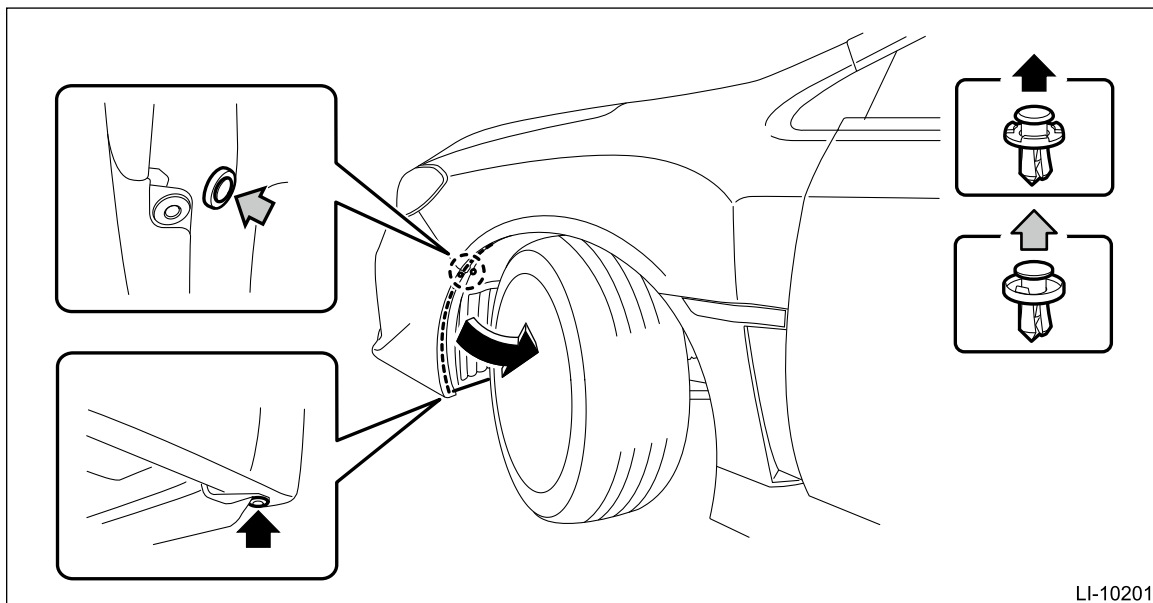
Since the LED type parking light bulb is integrated into the headlight assembly, it cannot be removed.

1. Disconnect the ground cable from battery.  Ref. to [NOTE>NOTE > BATTERY](#).

#### Note:

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

2. Turn the steering wheel in the opposite direction from the parts to be removed. Then remove the clips and turn over the mud guard - front.



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3. Remove the parking light bulb.  Ref. to [LIGHTING SYSTEM>Headlight Assembly>DISASSEMBLY > PARKING LIGHT BULB](#).

## LIGHTING SYSTEM > Clearance/Parking Light Bulb

### INSTALLATION

#### Note:







Since the LED type parking light bulb is integrated into the headlight assembly, it cannot be removed.

1. Install the parking light bulb.  Ref. to [LIGHTING SYSTEM>Headlight Assembly>ASSEMBLY > PARKING LIGHT BULB](#).
2. Install the mud guard - front.
3. Connect the battery ground terminal.  Ref. to [NOTE>NOTE > BATTERY](#).

## LIGHTING SYSTEM > Front Side Marker Light Bulb

### REMOVAL







---

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)  
**Note:**  
**For model with battery sensor, disconnect the ground terminal from battery sensor.**
2. Remove the battery. (When removing the side marker light bulb LH)
  - Except for STI model:  [Ref. to STARTING/CHARGING SYSTEMS\(w/o STI\)>Battery>REMOVAL.](#)
  - STI model:  [Ref. to STARTING/CHARGING SYSTEMS\(STI\)>Battery>REMOVAL.](#)
3. Remove the air cleaner case (front). (When removing the side marker light bulb RH)
  - Except for STI model:  [Ref. to INTAKE \(INDUCTION\)\(w/o STI\)>Air Cleaner Case>REMOVAL.](#)
  - STI model:  [Ref. to INTAKE \(INDUCTION\)\(STI\)>Air Cleaner Case>REMOVAL.](#)
4. Disconnect the connector and remove the front side marker light bulb.  [Ref. to LIGHTING SYSTEM>Headlight Assembly>DISASSEMBLY > SIDE MARKER LIGHT BULB.](#)

## LIGHTING SYSTEM > Front Side Marker Light Bulb

### INSTALLATION

---

1. Install the front side marker light bulb.  [Ref. to LIGHTING SYSTEM>Headlight Assembly>ASSEMBLY > SIDE MARKER LIGHT BULB.](#)
2. Install the air cleaner case (front). (When the side marker light bulb RH is removed)
  - Except for STI model:  [Ref. to INTAKE \(INDUCTION\)\(w/o STI\)>Air Cleaner Case>INSTALLATION.](#)
  - STI model:  [Ref. to INTAKE \(INDUCTION\)\(STI\)>Air Cleaner Case>INSTALLATION.](#)
3. Remove the battery. (When the side marker light bulb LH is removed)
  - Except for STI model:  [Ref. to STARTING/CHARGING SYSTEMS\(w/o STI\)>Battery>INSTALLATION.](#)
  - STI model:  [Ref. to STARTING/CHARGING SYSTEMS\(STI\)>Battery>INSTALLATION.](#)
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## LIGHTING SYSTEM > Front Fog Light Assembly

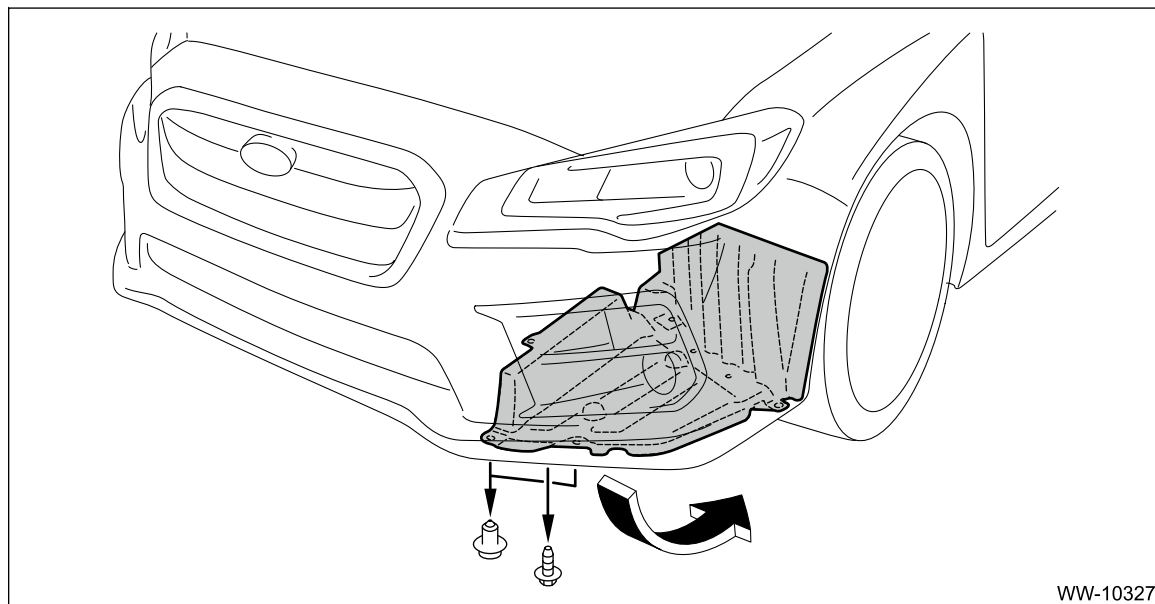
### REMOVAL

1. Disconnect the ground cable from battery.  Ref. to NOTE>NOTE > BATTERY.

**Note:**

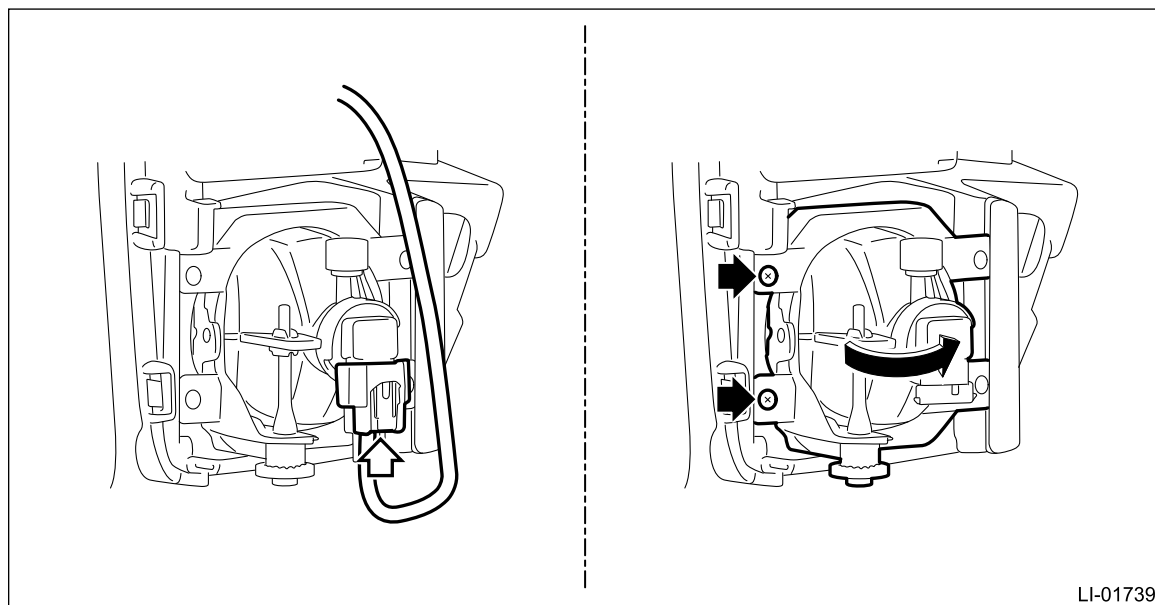
**For model with battery sensor, disconnect the ground terminal from battery sensor.**

2. Lift up the vehicle.
3. Remove the screw and clips, and turn over the mud guard - front.



WW-10327

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



LI-01739

**Note:**

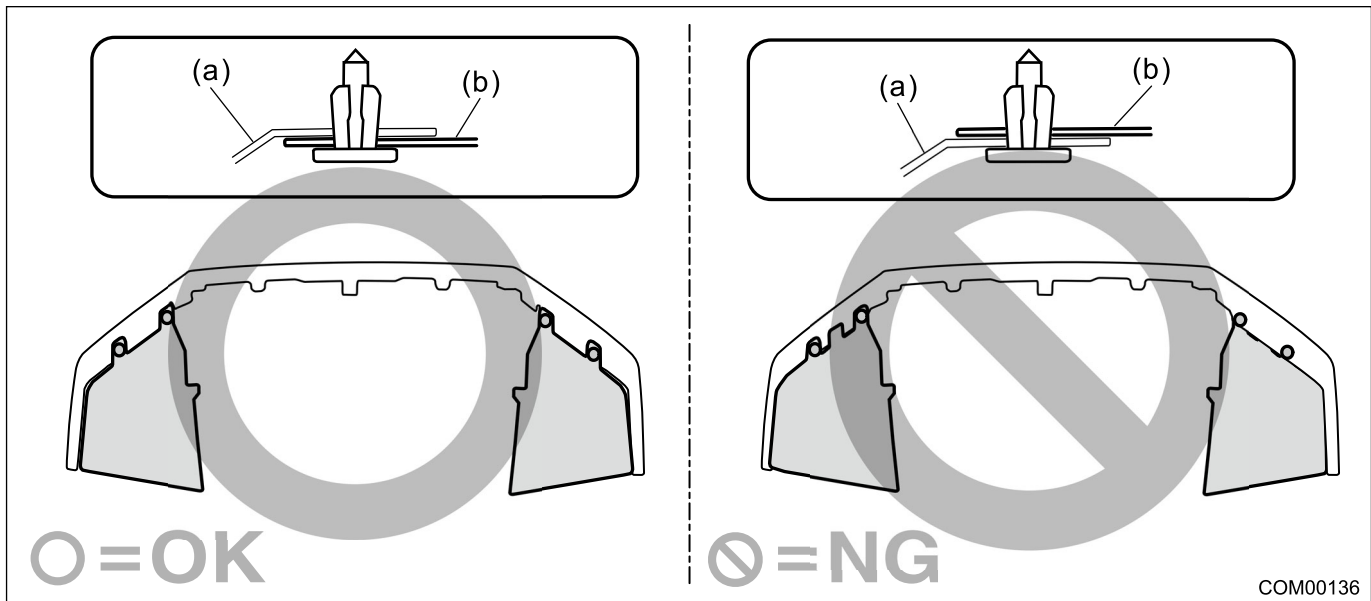
**Remove the LED type in the same procedure.**

## LIGHTING SYSTEM > Front Fog Light Assembly

### INSTALLATION

#### Caution:



Install the mud guard - front so that the front end of the mud guard (b) comes outside the bumper face - front (a).



1. Install the fog light assembly - front.

#### Note:

Install the LED type in the same procedure.

2. Install the mud guard - front.
3. Lower the vehicle.
4. Connect the battery ground terminal.  Ref. to NOTE>NOTE > BATTERY.
5. Adjust the fog light beam.  Ref. to LIGHTING SYSTEM>Front Fog Light Assembly>ADJUSTMENT > FOG LIGHT AIMING.

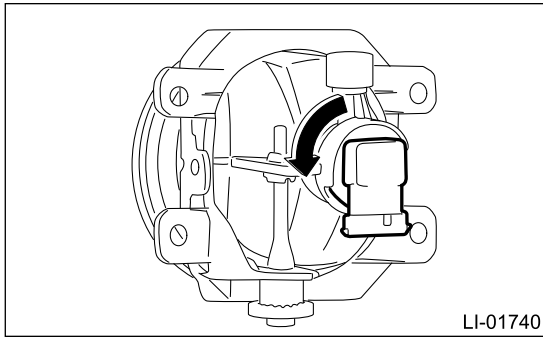
## LIGHTING SYSTEM > Front Fog Light Assembly

### DISASSEMBLY

#### Caution:

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

Rotate in the direction of arrow shown in the figure to remove the front fog light bulb.



**Note:**

**Since the LED type is a non-disassembled part, it cannot be removed. Replace the fog light assembly - front if faulty.**

LIGHTING SYSTEM > Front Fog Light Assembly

**ASSEMBLY**

---

**Caution:**

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

Install the front fog light bulb.

**Note:**

**Since the LED type is a non-disassembled part, it cannot be removed. Replace the fog light assembly - front if faulty.**

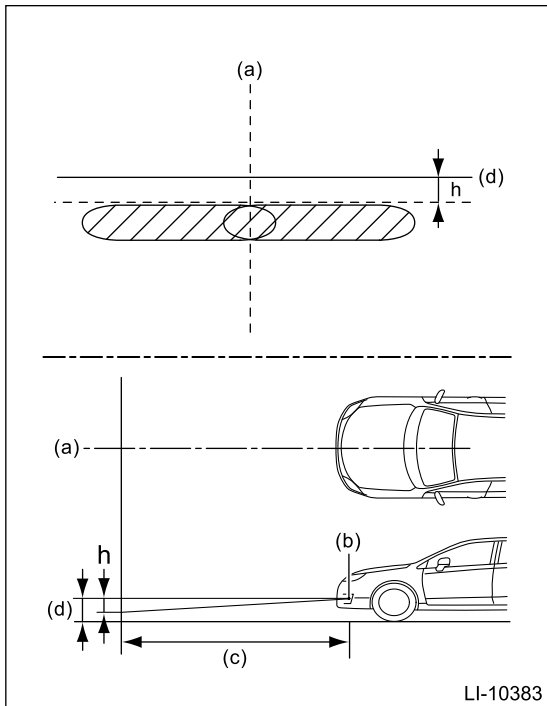
LIGHTING SYSTEM > Front Fog Light Assembly

**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.

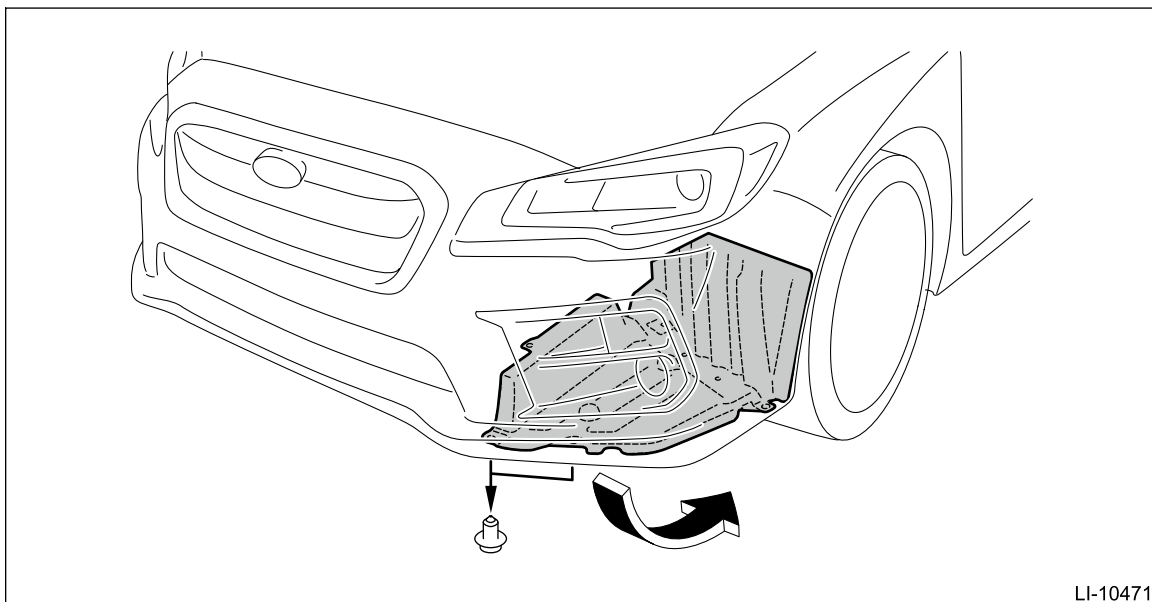


LI-10383

- (a) Vehicle center
- (b) Center of light source
- (c) 3 m (10 ft)
- (d) Height of light source center

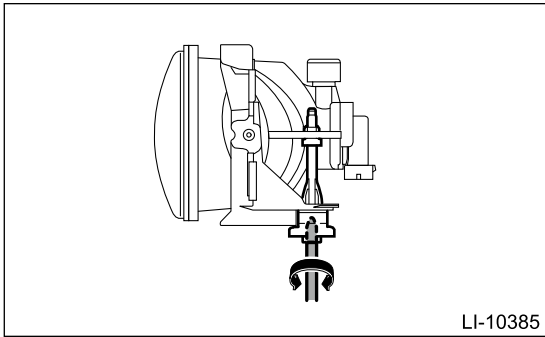
<b>h mm (in) at 3 m (10 ft)</b>
40 (1.58)

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



LI-10471

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



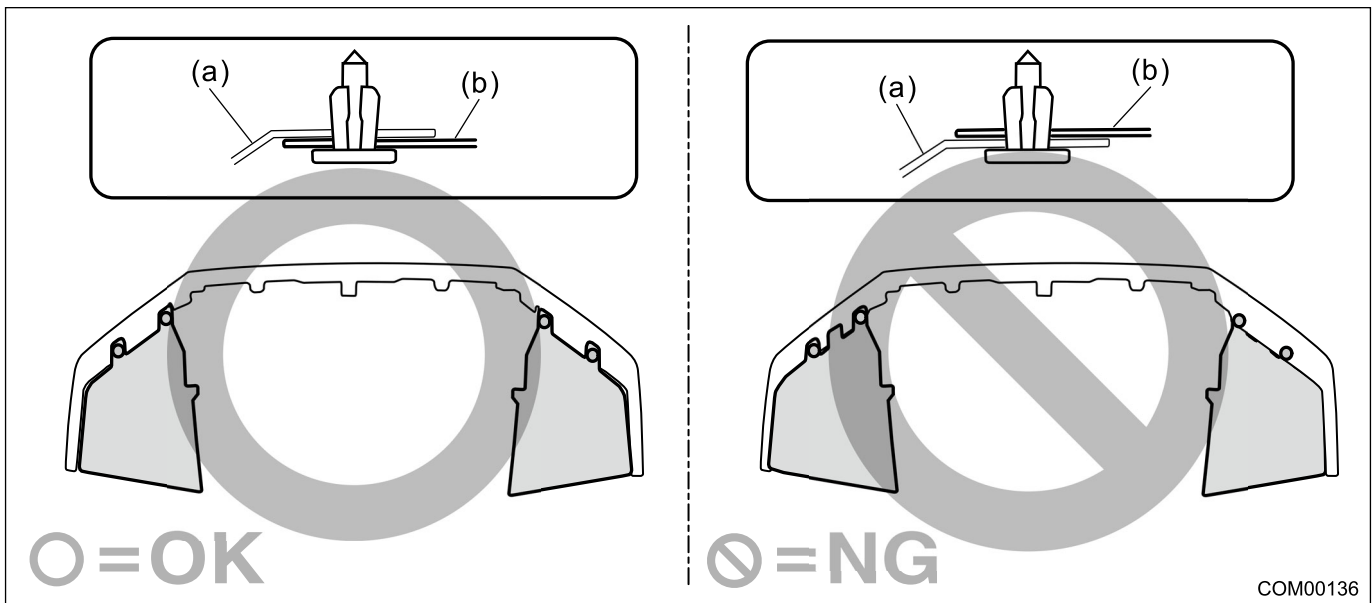
**Note:**

**Adjust the LED type in the same procedure.**

(3) Install the mud guard - front.

**Caution:**

**Install the mud guard - front so that the front end of the mud guard (b) comes outside the bumper face - front (a).**



## LIGHTING SYSTEM > Front Fog Light Bulb

### REMOVAL

---

#### Note:

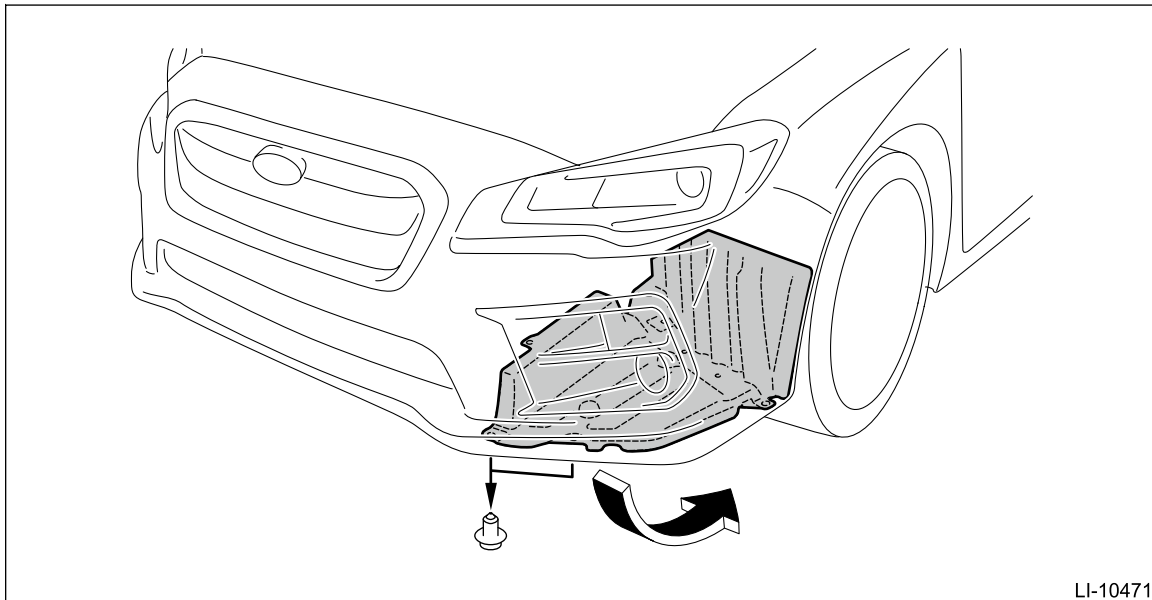
Since the LED type front fog light bulb is integrated into the fog light assembly - front, it cannot be removed.


1. Disconnect the ground cable from battery.  Ref. to [NOTE>NOTE > BATTERY](#).

#### Note:

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

2. Remove the clips, and turn over the mud guard - front.



3. Disconnect the connector and remove the front fog light bulb.  Ref. to [LIGHTING SYSTEM>Front Fog Light Assembly>DISASSEMBLY](#).

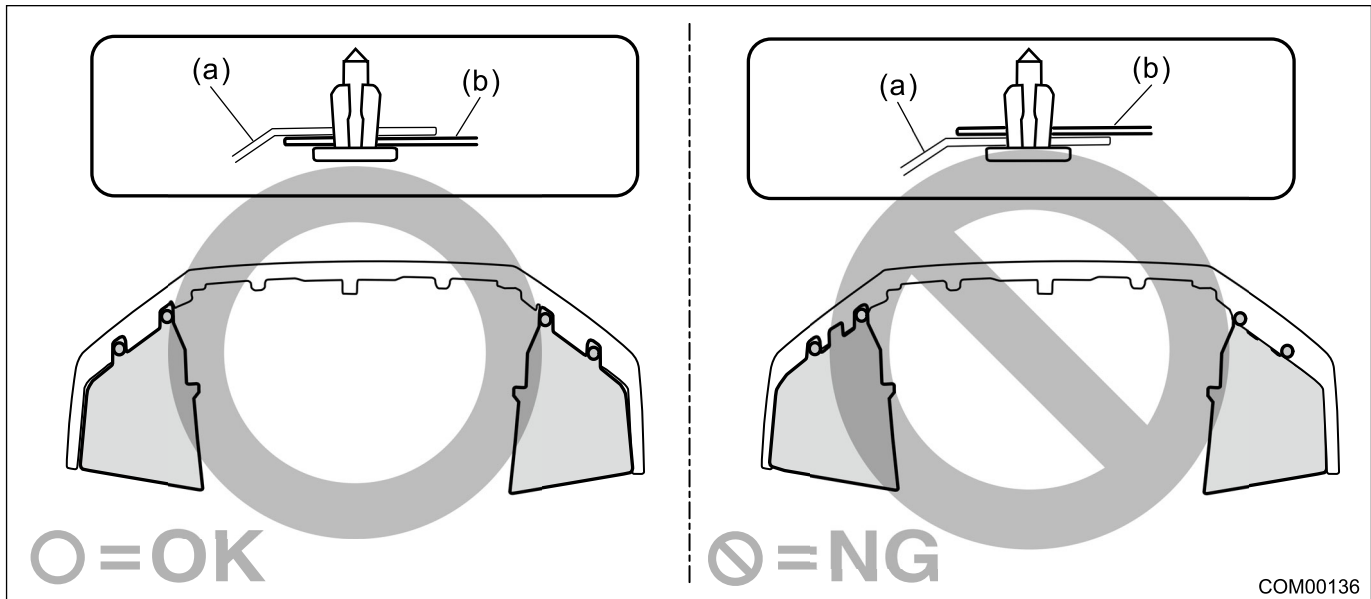
## LIGHTING SYSTEM > Front Fog Light Bulb

### INSTALLATION

---

**Caution:**

- **Install the mud guard - front so that the front end of the mud guard (b) comes outside the bumper face - front (a).**



- **After connecting the connector, make sure that the bulb is locked securely.**

**Note:**

**Since the LED type front fog light bulb is integrated into the fog light assembly - front, it cannot be removed.**

- 1.** Install the front fog light bulb.  [Ref. to LIGHTING SYSTEM>Front Fog Light Assembly>ASSEMBLY.](#)
- 2.** Install the mud guard - front.
- 3.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## LIGHTING SYSTEM > Side Turn Signal Light Assembly


### REMOVAL

---

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### **Note:**



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

2. Remove the side turn signal light assembly.  [Ref. to GLASS/WINDOWS/MIRRORS>Outer Mirror Assembly>DISASSEMBLY.](#)

## LIGHTING SYSTEM > Side Turn Signal Light Assembly

### INSTALLATION

---

1. Install the side turn signal light assembly.  [Ref. to GLASS/WINDOWS/MIRRORS>Outer Mirror Assembly>ASSEMBLY.](#)
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## LIGHTING SYSTEM > Rear Combination Light Assembly

### REMOVAL

---

1. Disconnect the ground cable from battery.  Ref. to [NOTE>NOTE > BATTERY](#).

#### Note:

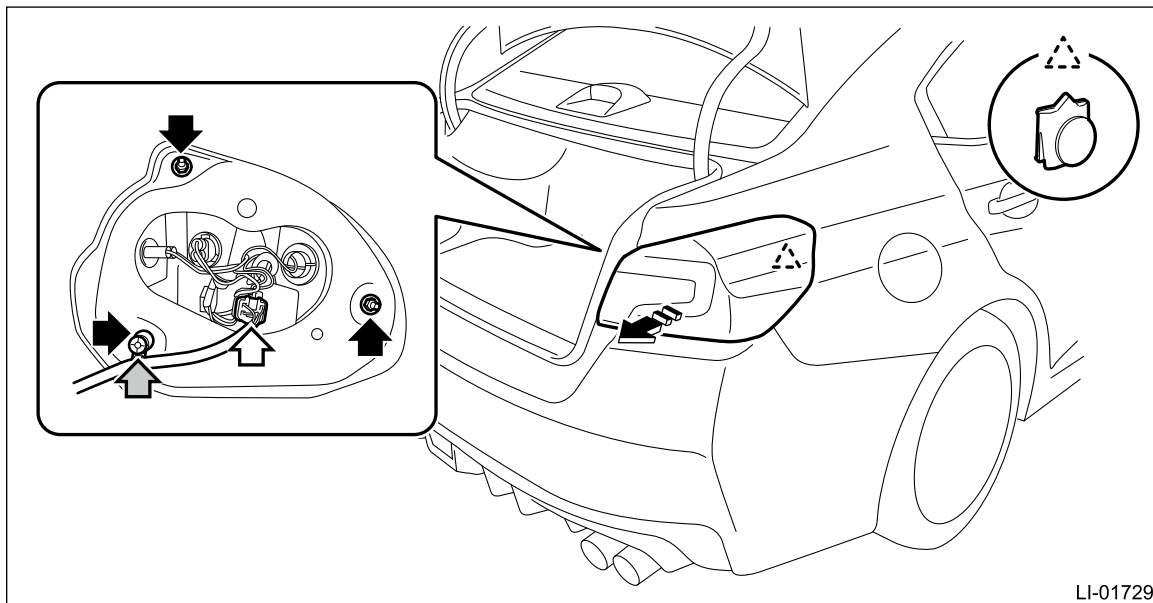
**For model with battery sensor, disconnect the ground terminal from battery sensor.**

2. Remove the trunk room trim.  Ref. to [EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL](#).
3. Remove the light assembly - rear combination.

#### Caution:

**Be careful not to damage the clips.**

- (1) Remove the harness clip and connector.
- (2) Release the nuts and clips, then remove the light assembly - rear combination.



## LIGHTING SYSTEM > Rear Combination Light Assembly

### INSTALLATION

---


1. Install the light assembly - rear combination.

#### Caution:

- **Always replace the gasket - rear combination with a new part. If a gasket is reused, water leakage may occur.**
- **Be careful not to catch the harness in between the parts.**

#### Tightening torque:

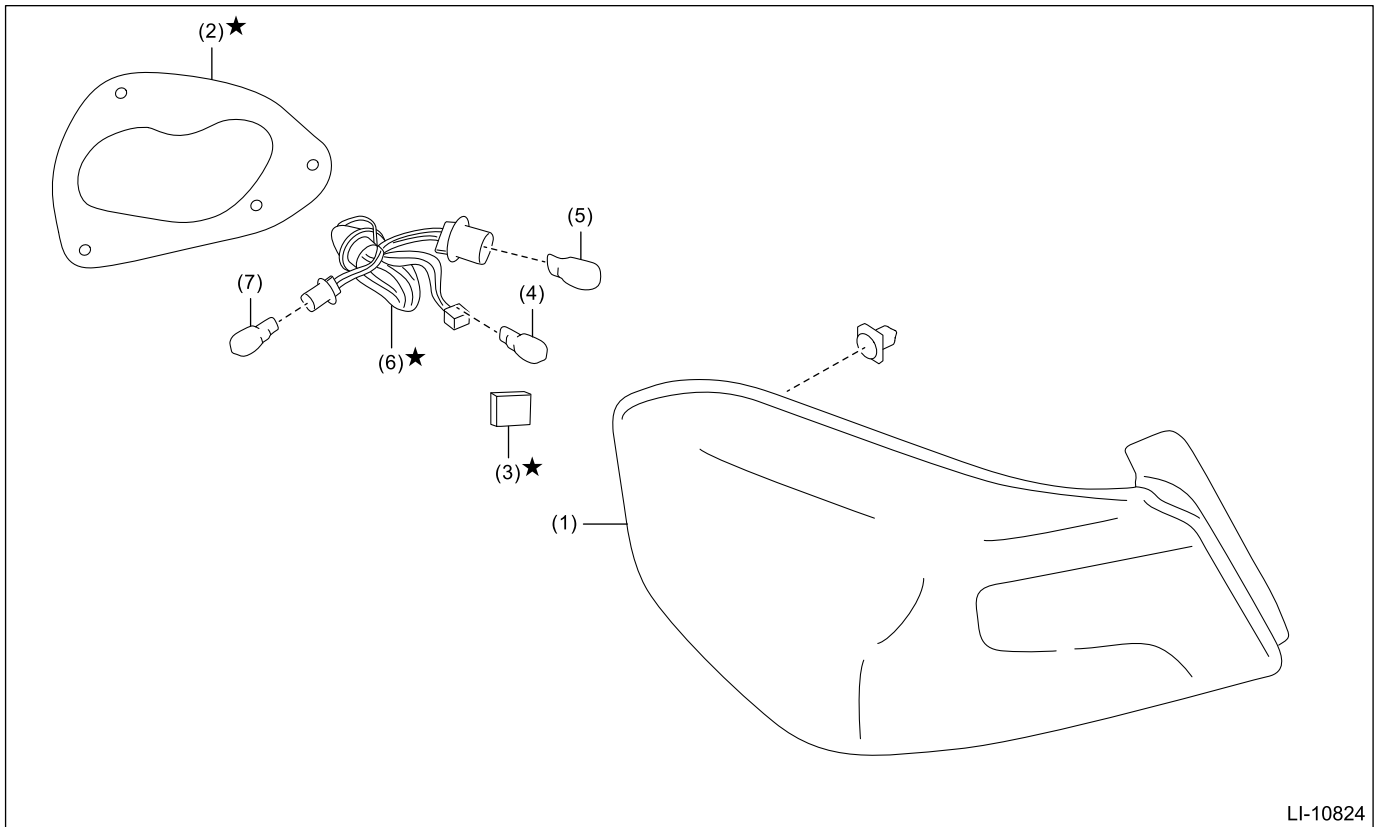
4.5 N·m (0.5 kgf-m, 3.3 ft-lb)

2. Install the trunk room trim.
3. Connect the battery ground terminal.  Ref. to [NOTE>NOTE > BATTERY](#).

## LIGHTING SYSTEM > Rear Combination Light Assembly

### DISASSEMBLY

---



LI-10824

- |                                      |                            |                              |
|--------------------------------------|----------------------------|------------------------------|
| (1) Light ASSY - rear combination    | (4) Back-up light bulb     | (6) Rear combination harness |
| (2) Packing - rear combination       | (5) Turn signal light bulb | (7) Side marker light bulb   |
| (3) Packing - rear combination light |                            |                              |

**Caution:**

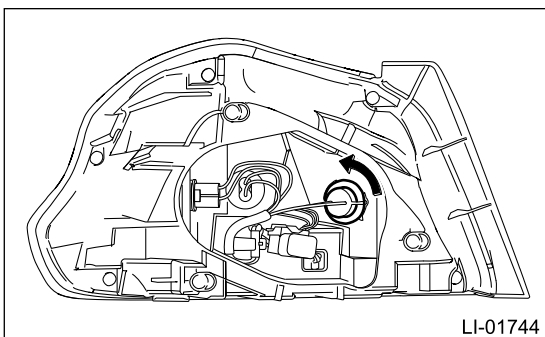
**Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.**

**Note:**

**Since the LED type is a non-disassembled part, it cannot be removed. Replace the light assembly - combination if faulty.**

**1. TURN SIGNAL LIGHT BULB**

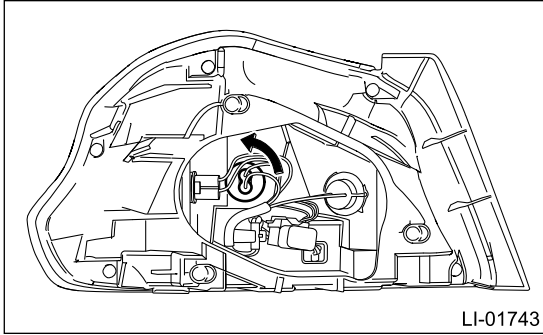
1. Rotate the bulb socket in the direction of arrow shown in the figure to remove the turn signal light bulb.




LI-01744

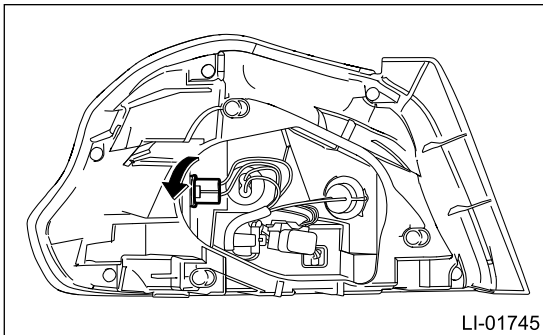
**2. BACK-UP LIGHT BULB**

1. Rotate the bulb socket in the direction of arrow shown in the figure to remove the back-up light bulb.



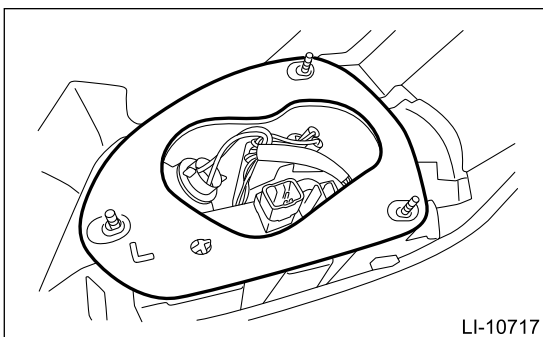
### 3. SIDE MARKER LIGHT BULB

1. Remove the back-up light bulb socket.  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly>DISASSEMBLY > BACK-UP LIGHT BULB.](#)
2. Rotate the bulb socket in the direction of arrow shown in the figure to remove the side marker light bulb.



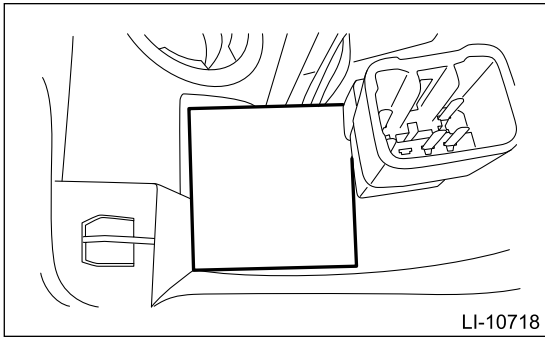
### 4. PACKING - REAR COMBINATION

1. Remove the packing - rear combination.



### 5. PACKING - REAR COMBINATION LIGHT

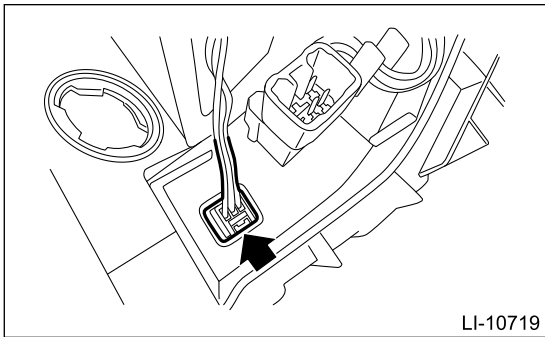
1. Remove the packing - rear combination light.



**Caution:**  
**Be careful not to pull the harness.**

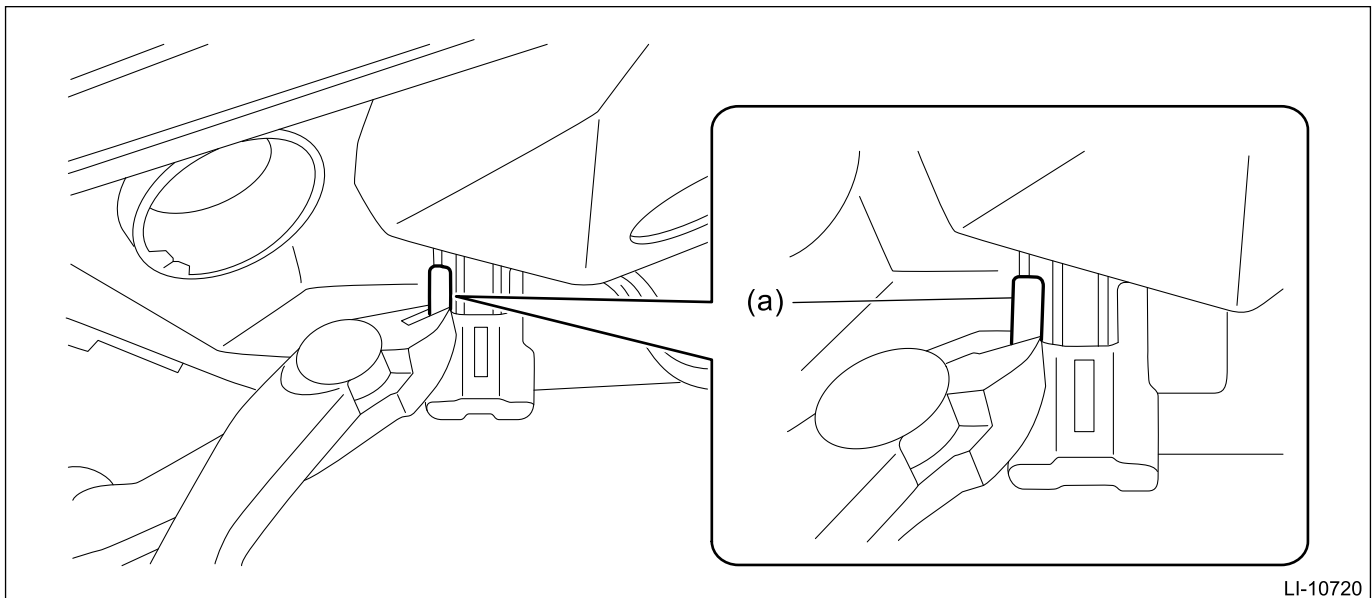
## 6. REAR COMBINATION HARNESS

1. Remove the LED light connector.



2. Disconnect the portion (a) of the rear combination harness connector using a pair of nippers.

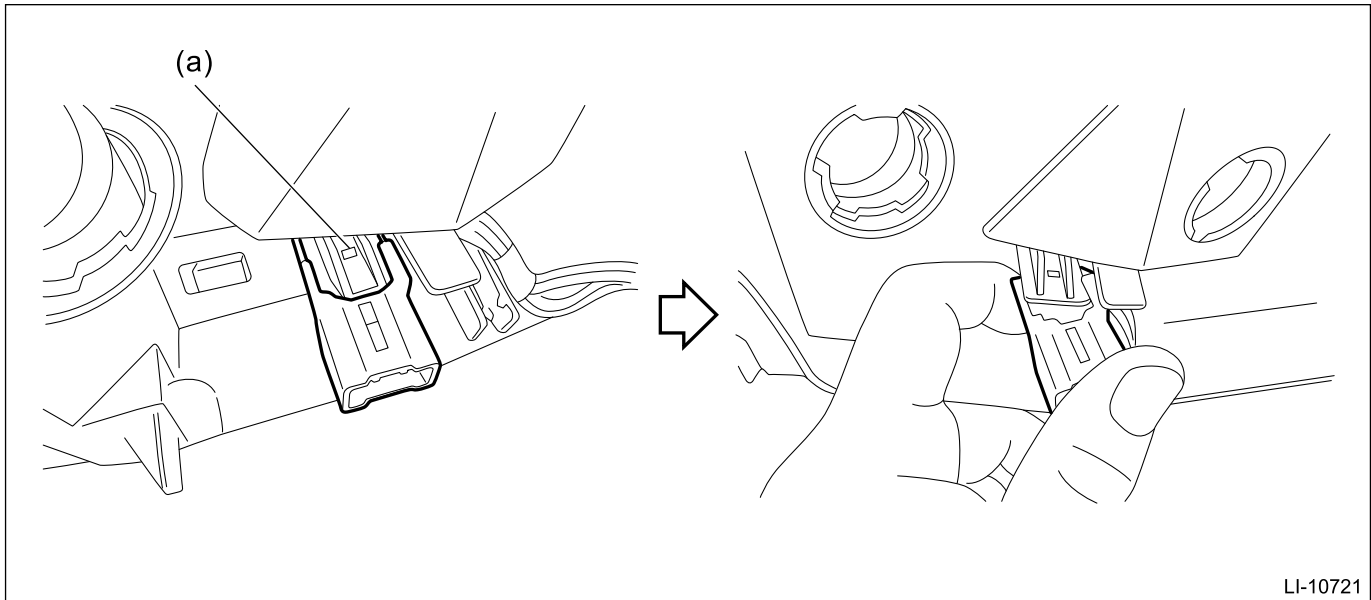
**Caution:**  
**Be careful not to cut the light assembly - rear combination. Replace the light assembly - rear combination if the light assembly - rear combination is damaged.**



3. Remove the connector from the light assembly - rear combination, and then remove the rear combination harness.

**Caution:**

**Be careful not to damage the light assembly - rear combination.**



(a) Connector claw

## LIGHTING SYSTEM > Rear Combination Light Assembly

### ASSEMBLY

**Caution:**

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


#### 1. TURN SIGNAL LIGHT BULB

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

#### 2. BACK-UP LIGHT BULB

1. Install the back-up light bulb.
2. Install the bulb socket.

#### 3. SIDE MARKER LIGHT BULB

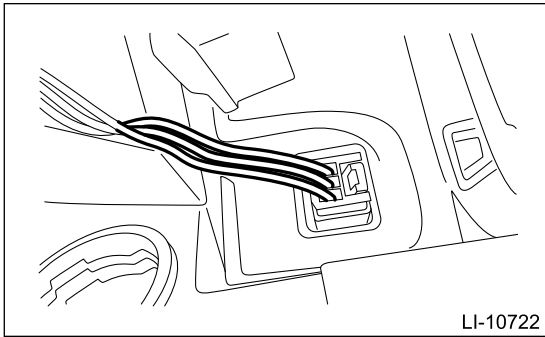
1. Install the side marker light bulb.
2. Install the bulb socket.
3. Install the back-up light bulb socket.  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly>ASSEMBLY > BACK-UP LIGHT BULB.](#)

#### 4. PACKING - REAR COMBINATION

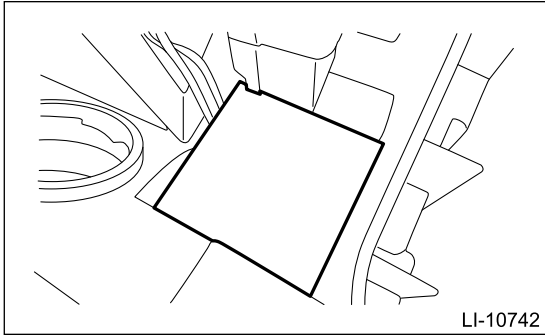
1. Install the packing - rear combination.

#### 5. PACKING - REAR COMBINATION LIGHT

1. Route the harness along the light housing.



2. Install the packing - rear combination light.



**Caution:**

**Attach so that there is no gap between the packing - rear combination light and the light housing.**

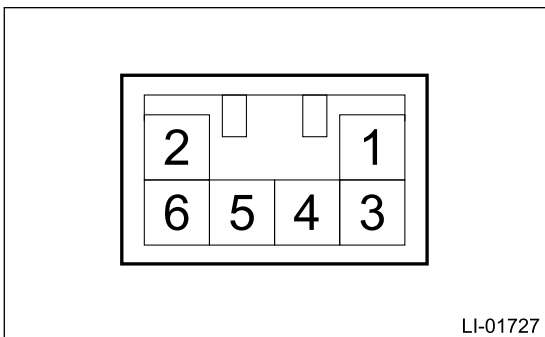
## 6. REAR COMBINATION HARNESS

1. Install the rear combination harness.
2. Install the LED connector.

### LIGHTING SYSTEM > Rear Combination Light Assembly

#### INSPECTION

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



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

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

**Note:**

**Since LED (Light Emitting Diode) is used for the tail & stop light bulb, replace the light assembly - rear combination.**

## LIGHTING SYSTEM > Tail/Stop Light Bulb

### NOTE

---

Since the LED type tail light/stop light bulb is integrated into the light assembly - rear combination, it cannot be removed.

## LIGHTING SYSTEM > Rear Turn Signal Light Bulb



### REMOVAL

---

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### **Note:**

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

2. Remove the trunk room trim.  [Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.](#)
3. Remove the rear turn signal light bulb.  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly>DISASSEMBLY > TURN SIGNAL LIGHT BULB.](#)

## LIGHTING SYSTEM > Rear Turn Signal Light Bulb

### INSTALLATION

---

1. Install the rear turn signal light bulb.  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly>ASSEMBLY > TURN SIGNAL LIGHT BULB.](#)
2. Install the trunk room trim.
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## LIGHTING SYSTEM > Rear Side Marker Light Bulb



### REMOVAL

---

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### **Note:**

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

2. Remove the trunk room trim.  [Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.](#)
3. Remove the rear side marker light bulb.  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly>DISASSEMBLY > SIDE MARKER LIGHT BULB.](#)

## LIGHTING SYSTEM > Rear Side Marker Light Bulb

### INSTALLATION

---

1. Install the rear side marker light bulb.  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly>ASSEMBLY > SIDE MARKER LIGHT BULB.](#)
2. Install the trunk room trim.
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## LIGHTING SYSTEM > Back-up Light Bulb



### REMOVAL

---

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### **Note:**



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

2. Remove the trunk room trim.  [Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.](#)
3. Remove the back-up light bulb.  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly>DISASSEMBLY > BACK-UP LIGHT BULB.](#)

## LIGHTING SYSTEM > Back-up Light Bulb

### INSTALLATION

---

1. Install the back-up light bulb.  [Ref. to LIGHTING SYSTEM>Rear Combination Light Assembly>ASSEMBLY > BACK-UP LIGHT BULB.](#)
2. Install the trunk room trim.
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)



## LIGHTING SYSTEM > License Plate Light

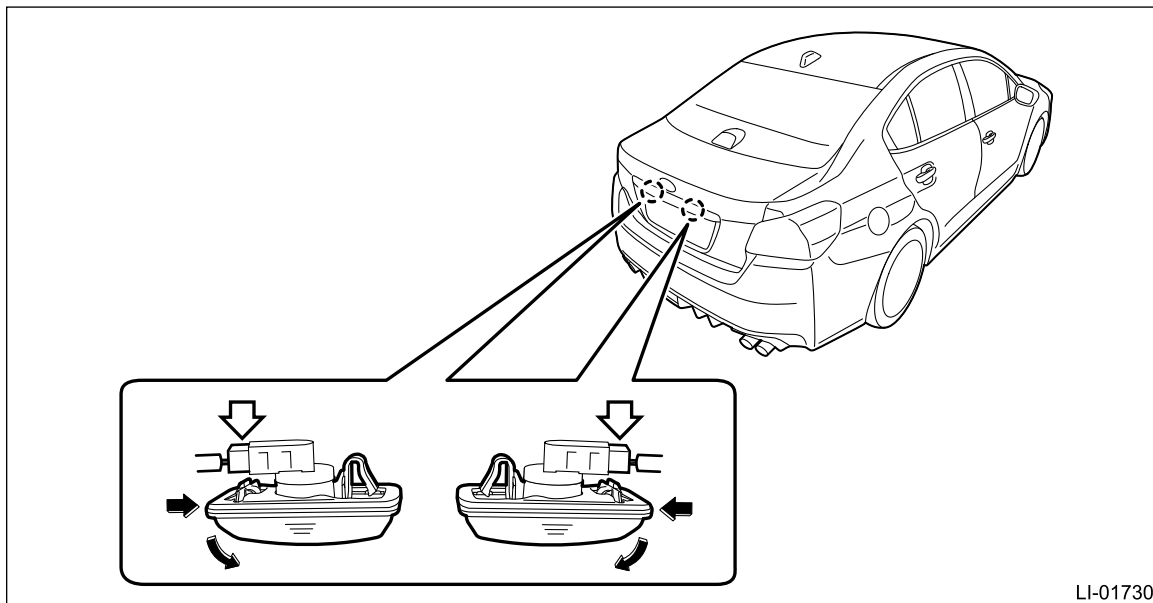
### REMOVAL

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### Note:

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

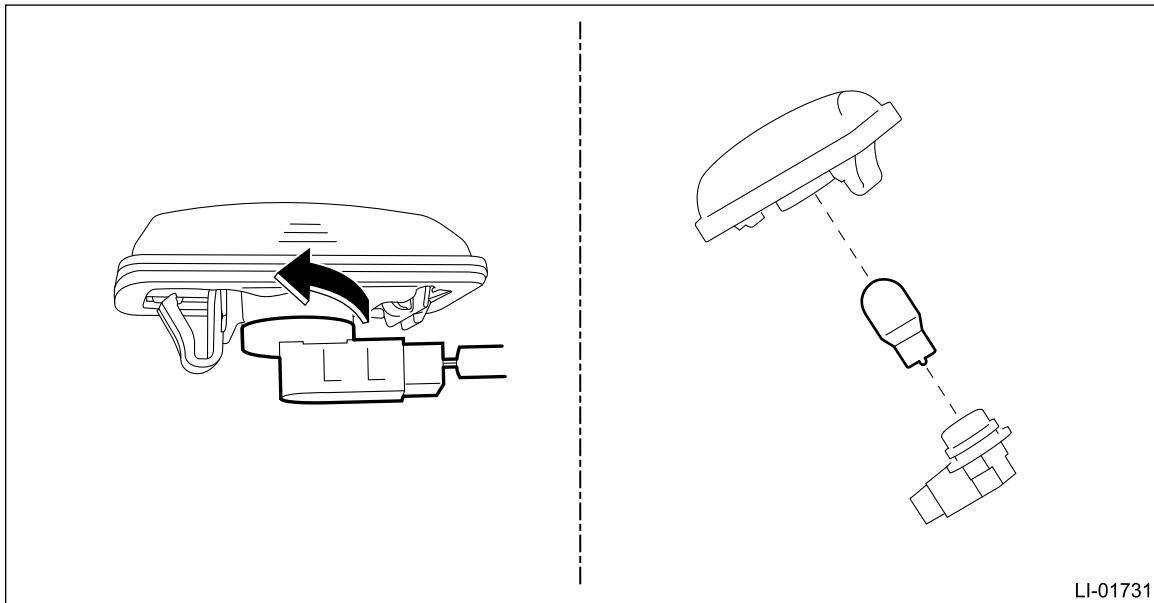
2. Remove the trim panel - trunk lid.  [Ref. to EXTERIOR/INTERIOR TRIM>Trunk Room Trim>REMOVAL.](#)
3. Remove the garnish - trunk.  [Ref. to EXTERIOR/INTERIOR TRIM>Trunk Lid Garnish>REMOVAL.](#)
4. Remove the license plate light.
  - (1) Release the claws and pull out the license plate light.
  - (2) Disconnect the connector, and remove the license plate light.



5. Rotate the bulb socket in the direction of arrow shown in the figure to remove the license plate light bulb.

#### Caution:

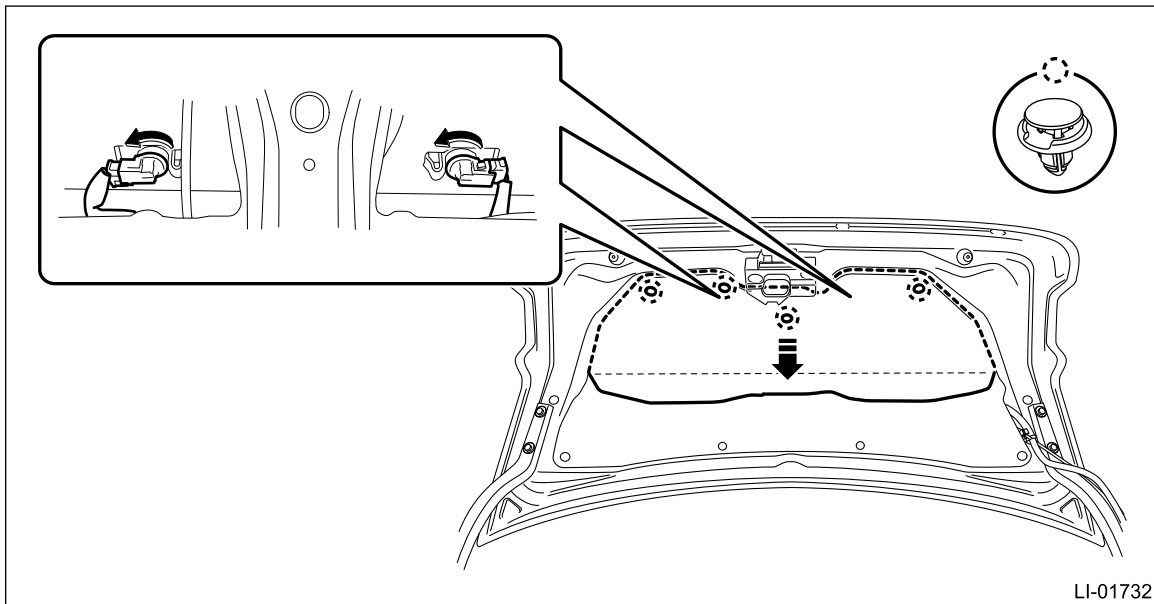
**Use a dry clean cloth so that no grease or water adheres to the glass portion of the bulb.**



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**Note:**

**When removing the bulb only, remove the trim panel - trunk lid halfway, then remove the bulb socket and the bulb.**



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## LIGHTING SYSTEM > License Plate Light

### INSTALLATION

1. Install the license plate light bulb.


**Caution:**

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

2. Install the license plate light.
3. Install the garnish - trunk.  [Ref. to EXTERIOR/INTERIOR TRIM>Trunk Lid Garnish>INSTALLATION.](#)

**Tightening torque:**

4.5 N·m (0.5 kgf·m, 3.3 ft·lb)

4. Install the trim panel - trunk lid.
5. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## LIGHTING SYSTEM > High-mounted Stop Light

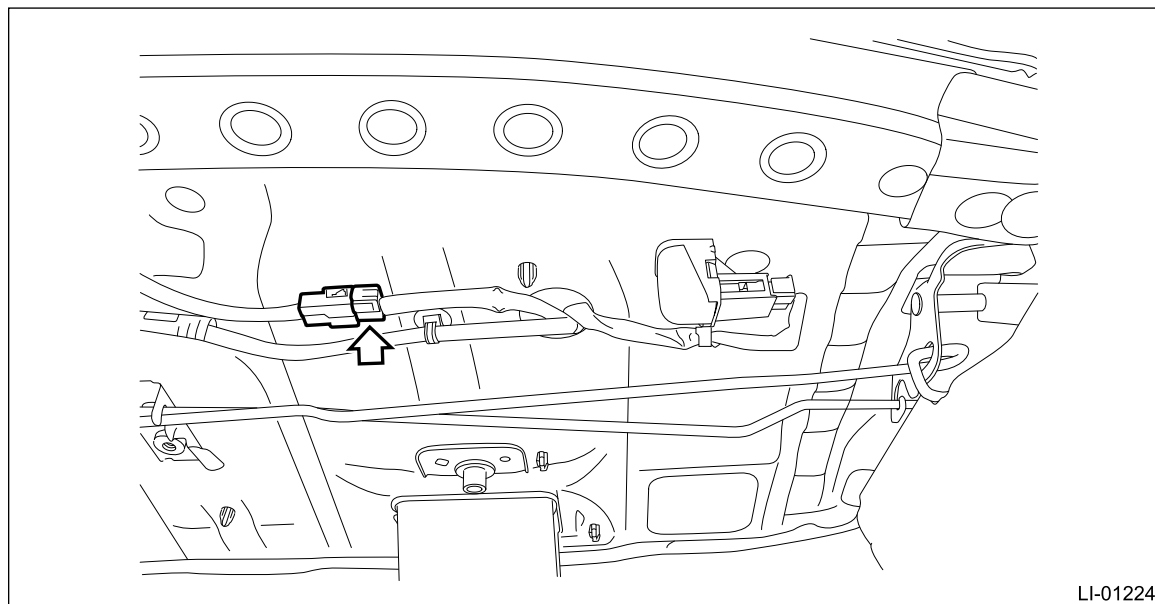
### REMOVAL

1. Disconnect the ground cable from battery.  Ref. to NOTE>NOTE > BATTERY.

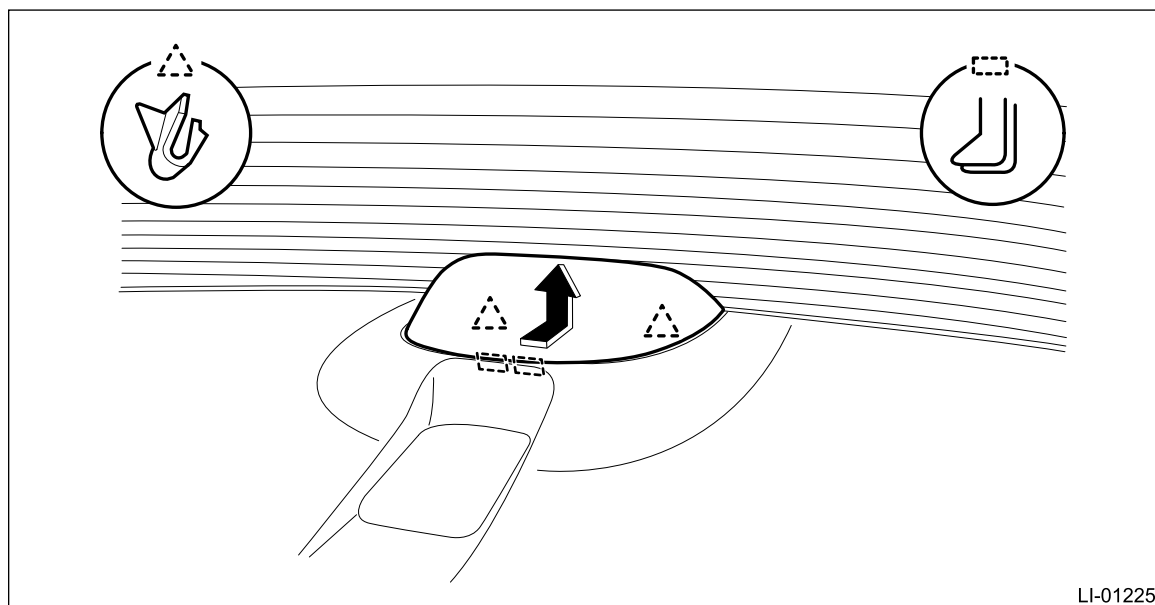
#### Note:

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

2. Remove the light assembly - high-mounted.  
(1) Disconnect the connector.




- (2) Release the claws and hooks, and remove the light assembly - high-mounted.



## LIGHTING SYSTEM > High-mounted Stop Light

### INSTALLATION

1. Install the light assembly - high-mounted.

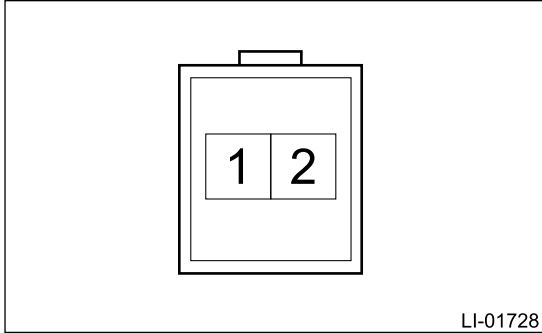
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## LIGHTING SYSTEM > High-mounted Stop Light

### INSPECTION

---

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



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 (Light Emitting Diode) is used for the high-mounted stop light, replace the light assembly - high-mounted.**

## LIGHTING SYSTEM > Spot Map Light

### REMOVAL

---

#### 1. MODELS WITHOUT EyeSight

**Note:**

Do not remove the spot map light if removing the bulb only.

1. Disconnect the ground cable from battery.  Ref. to NOTE>NOTE > BATTERY.

**Note:**

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

2. Remove the light assembly - map.

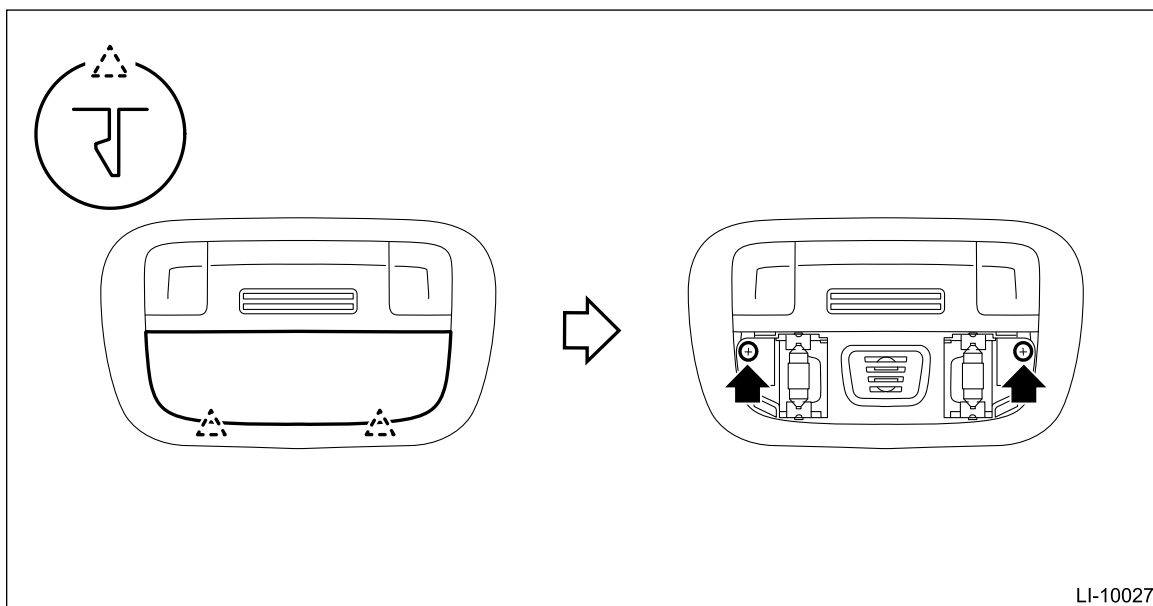
**Caution:**

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.

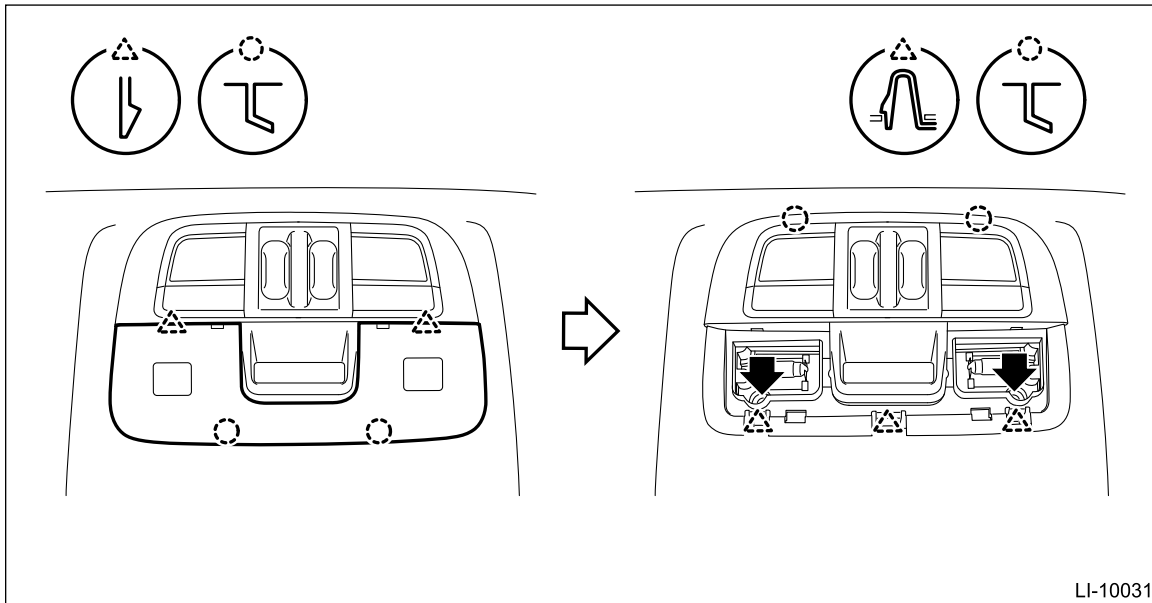
(1) Release the claws and remove the lens.

(2) Remove the screws.

- Model without sunroof



- Model with sunroof




(3) Disconnect the connector and remove the light assembly - map and the map light bulb.

**Caution:**

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

## 2. MODELS WITH EyeSight

**Note:**

- **The spot map light is a single unit with the stereo camera cover. If defective, replace the stereo camera cover.  [Ref. to EyeSight>Stereo Camera.](#)**
- **Do not remove the stereo camera cover if removing the bulb only.**

- 1.** Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

**Note:**

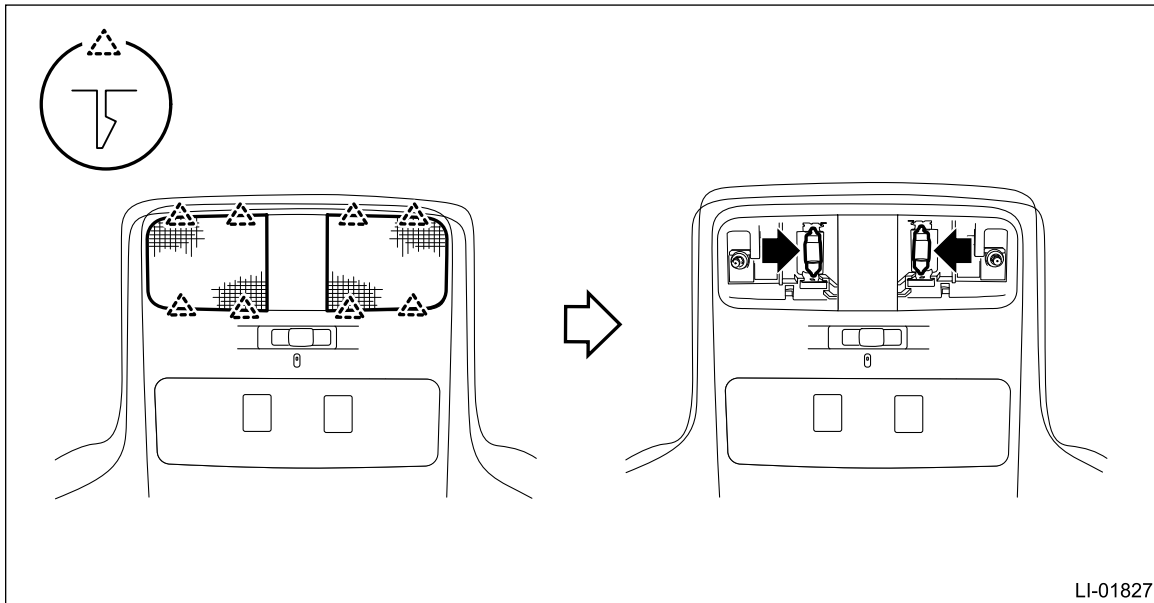
**For model with battery sensor, disconnect the ground terminal from battery sensor.**

- 2.** Remove the map light bulb.

**Caution:**

**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. MODELS WITHOUT EyeSight

1. Install the map light bulb and light assembly - map.

**Caution:**

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

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

#### 2. MODELS WITH EyeSight

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

## LIGHTING SYSTEM > Spot Map Light

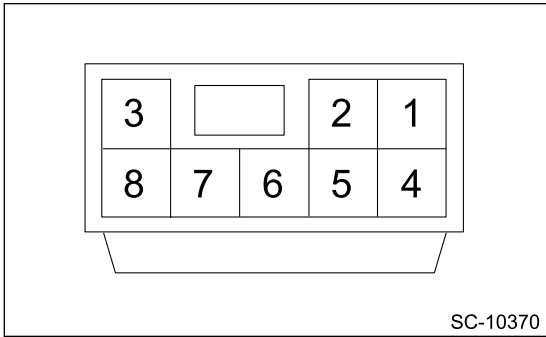
### INSPECTION

1. Measure the resistance between connector terminals.

**Preparation tool:**

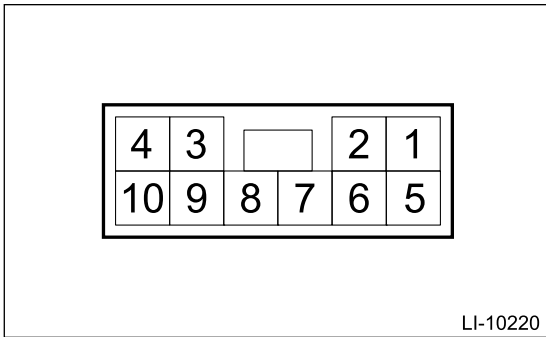
Circuit tester

- Models without EyeSight
  - Model without sunroof



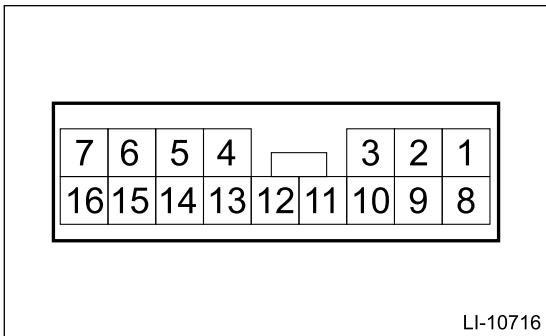
Terminal No.	Inspection conditions	Standard
2 – 3	Switch OFF	1 MΩ or more
	Switch ON	Approx. 18 Ω

- Model with sunroof



Terminal No.	Inspection conditions	Standard
1 – 4	Switch OFF	1 MΩ or more
	Switch ON	Approx. 18 Ω

• Models with EyeSight



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

2. Replace the light assembly - map if the inspection result is not within the standard value.

## LIGHTING SYSTEM > Room Light

### REMOVAL

---

#### Note:

**Do not remove the room light if removing the bulb only.**

1. Disconnect the ground cable from battery.  Ref. to NOTE>NOTE > BATTERY.

#### Note:

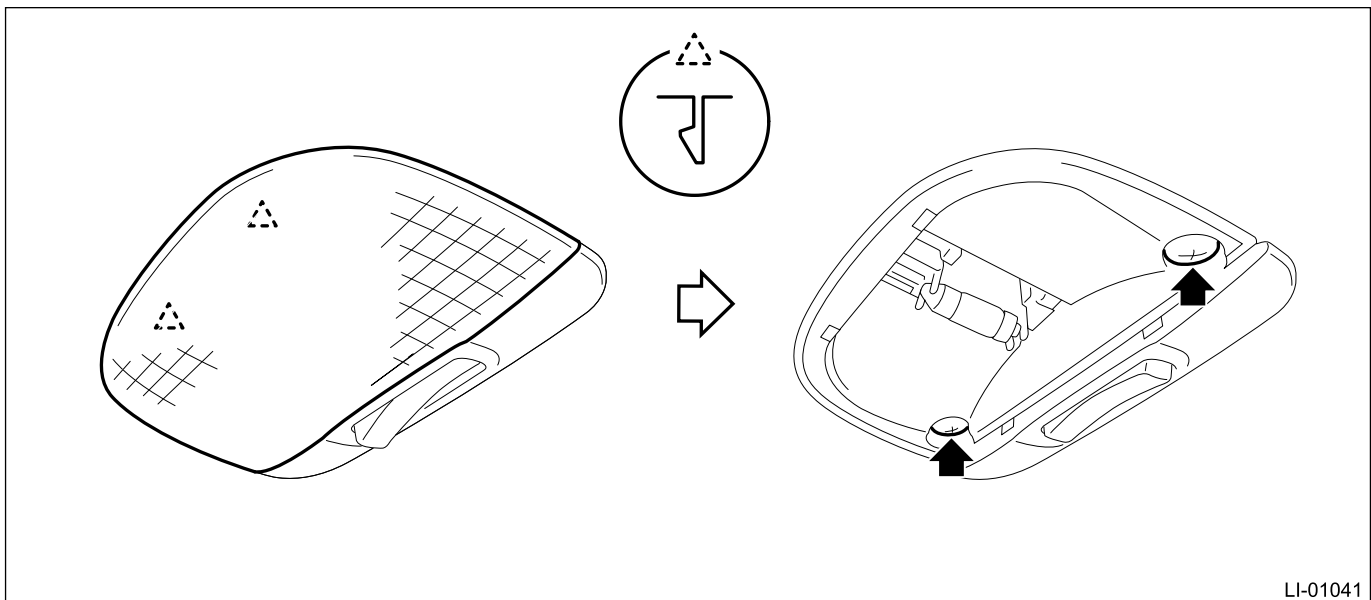
**For model with battery sensor, disconnect the ground terminal from battery sensor.**

2. Remove the light assembly - room.

#### Caution:

**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 screws.



- (3) Disconnect the connector and remove the light assembly - room and the room light bulb.

#### Caution:

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

## LIGHTING SYSTEM > Room Light


### INSTALLATION

---

1. Install the room light bulb and light assembly - room.

#### Caution:

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

2. Install the lens.
3. Connect the battery ground terminal.  Ref. to NOTE>NOTE > BATTERY.

## LIGHTING SYSTEM > Room Light

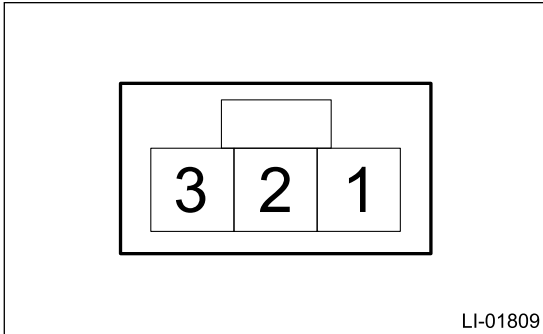
## INSPECTION

---

1. Measure the resistance between connector terminals.

### Preparation tool:

Circuit tester



Terminal No.	Inspection conditions	Standard
1 – 3	Switch OFF	1 M $\Omega$ or more
	Switch ON	Less than 1 $\Omega$
2 – 3	Switch door	Less than 1 $\Omega$

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 - room if faulty is found in the inspection.

## LIGHTING SYSTEM > Trunk Room Light

### REMOVAL

---

#### Note:

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

1. Disconnect the ground cable from battery.  Ref. to NOTE>NOTE > BATTERY.

#### Note:

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

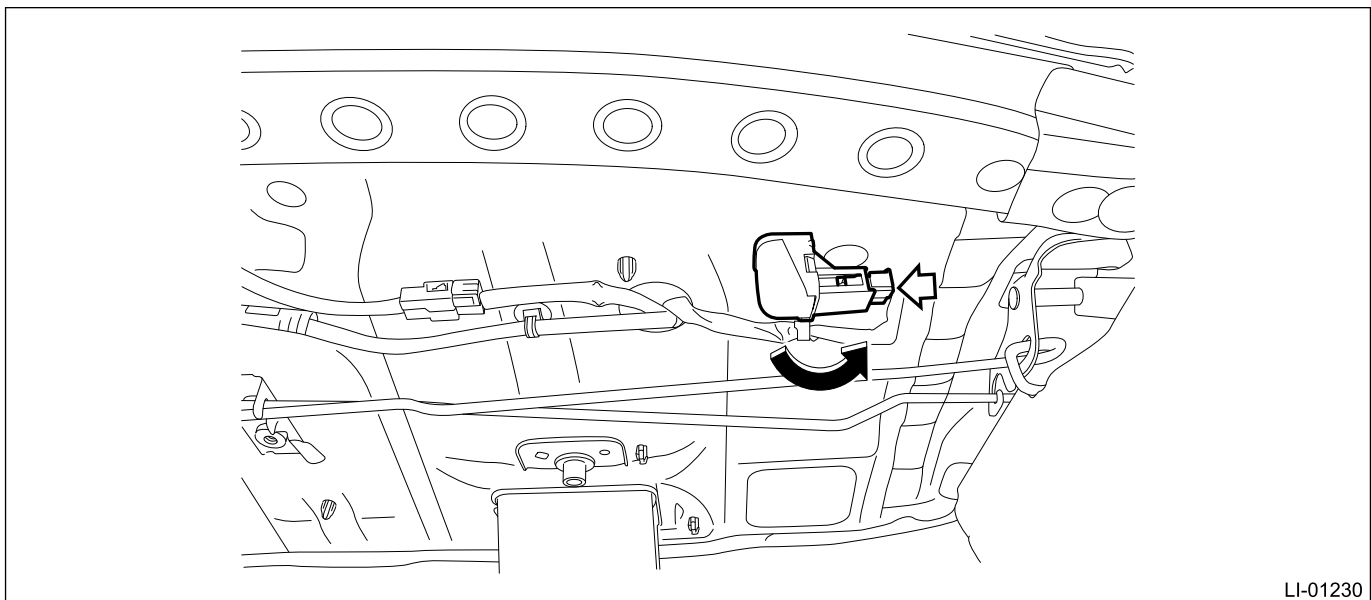
2. Remove the light assembly - trunk room.

#### Caution:

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) Disconnect the connector.

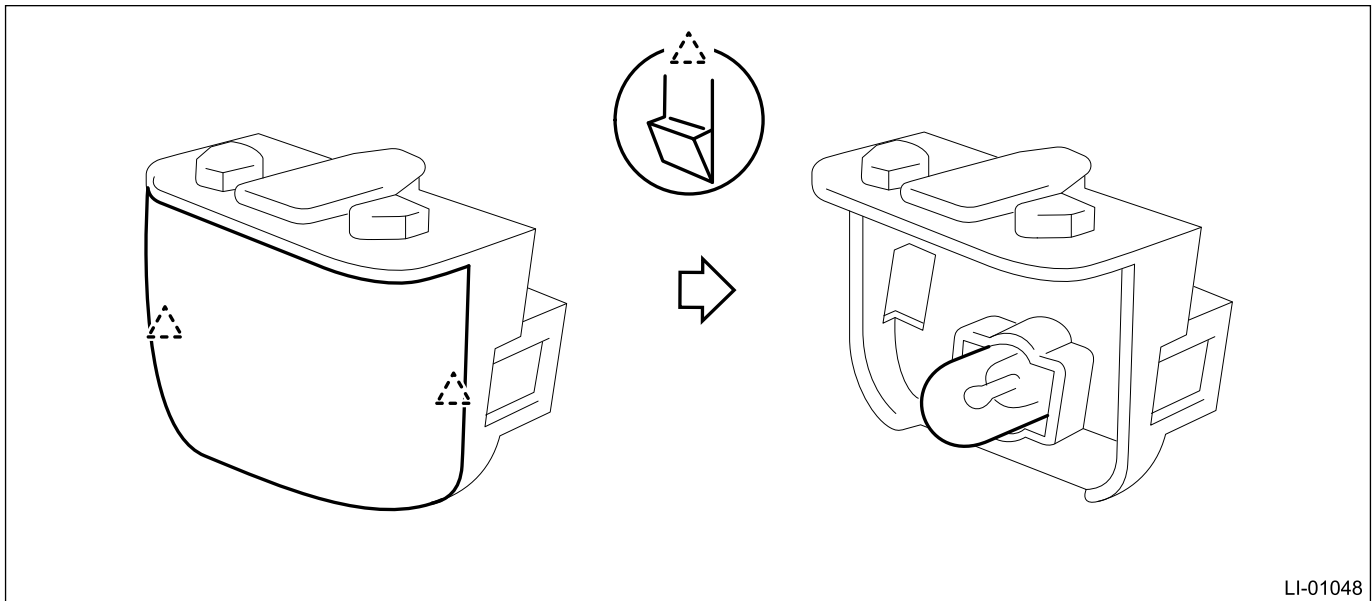
(2) Turn the light assembly - trunk room counterclockwise to 60° and remove the light.



3. Release the claws and remove the lens and trunk room light bulb.

#### Caution:

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



## LIGHTING SYSTEM > Trunk Room Light


### INSTALLATION

---

1. Install the trunk 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. Install the light assembly - trunk room.
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## REMOVAL

### 1. GLOVE BOX LIGHT

1. Disconnect the ground cable from battery.  Ref. to [NOTE>NOTE > BATTERY](#).

**Note:**

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

2. Remove the pocket assembly.  Ref. to [EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL](#).
3. Remove the light - pocket cover.

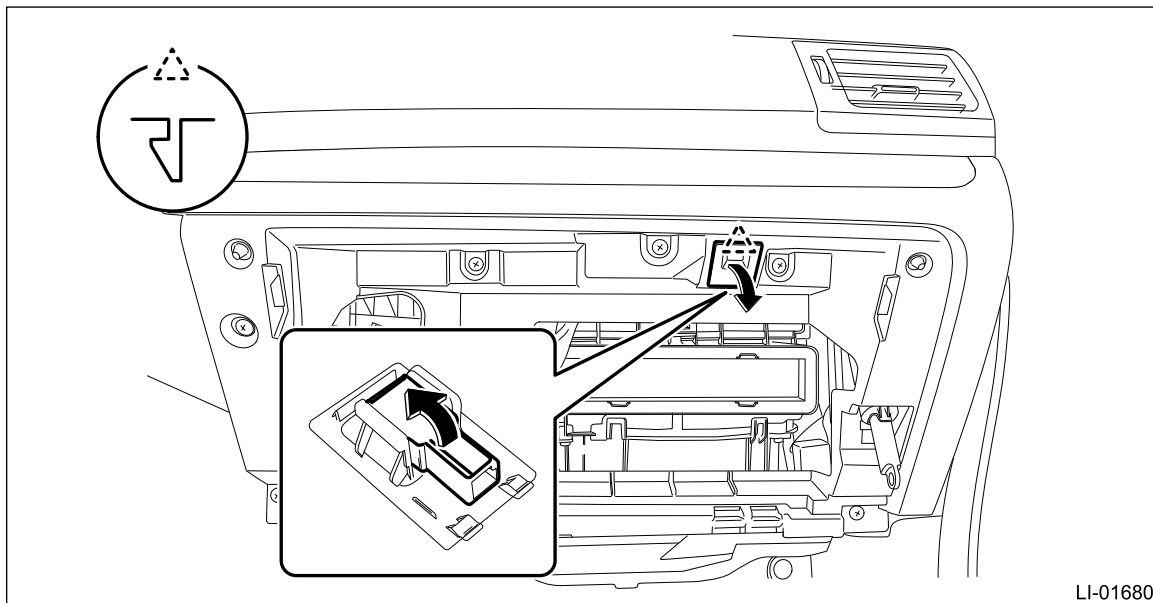
**Caution:**

**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

1. Disconnect the ground cable from battery.  Ref. to [NOTE>NOTE > BATTERY](#).

**Note:**

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

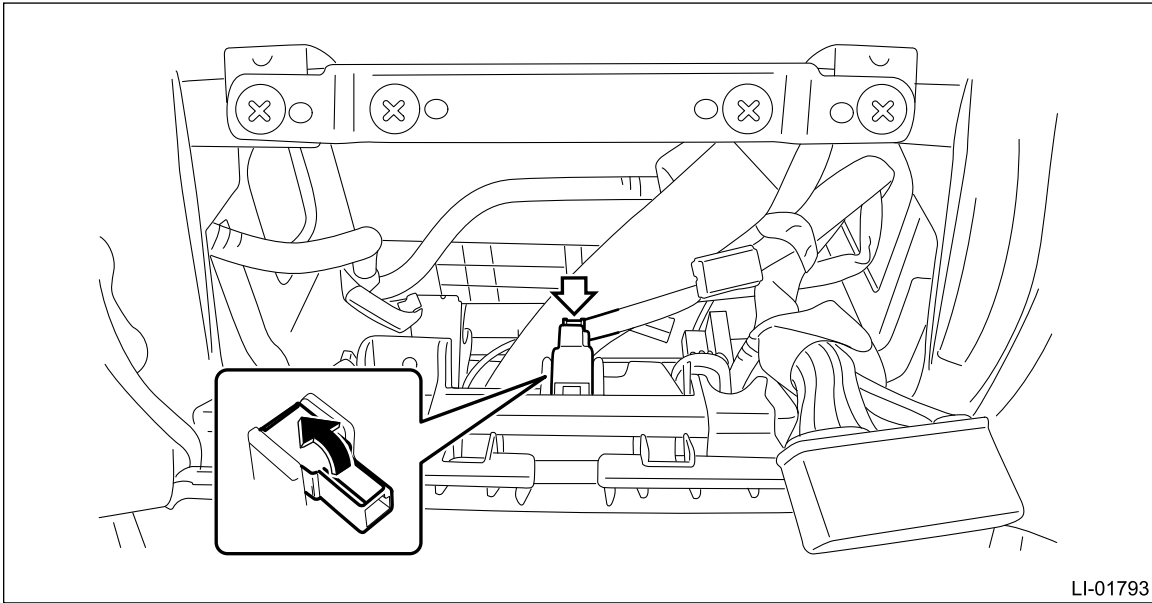
2. Remove the panel center assembly.  Ref. to [EXTERIOR/INTERIOR TRIM>Center Console>REMOVAL](#).
3. Remove the light - pocket.

**Caution:**

**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) Disconnect the connector.

(2) Release the claws, and remove the light - pocket.




## LIGHTING SYSTEM > LED Illumination Light


### INSTALLATION

---

#### 1. GLOVE BOX LIGHT

1. Install the light - pocket.
2. Install the light - pocket cover.
3. Install the pocket assembly.
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### 2. POCKET LIGHT


1. Install the light - pocket.
2. Install the panel center assembly.
3. Connect the battery ground terminal.  [Ref. to NOTE>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 cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

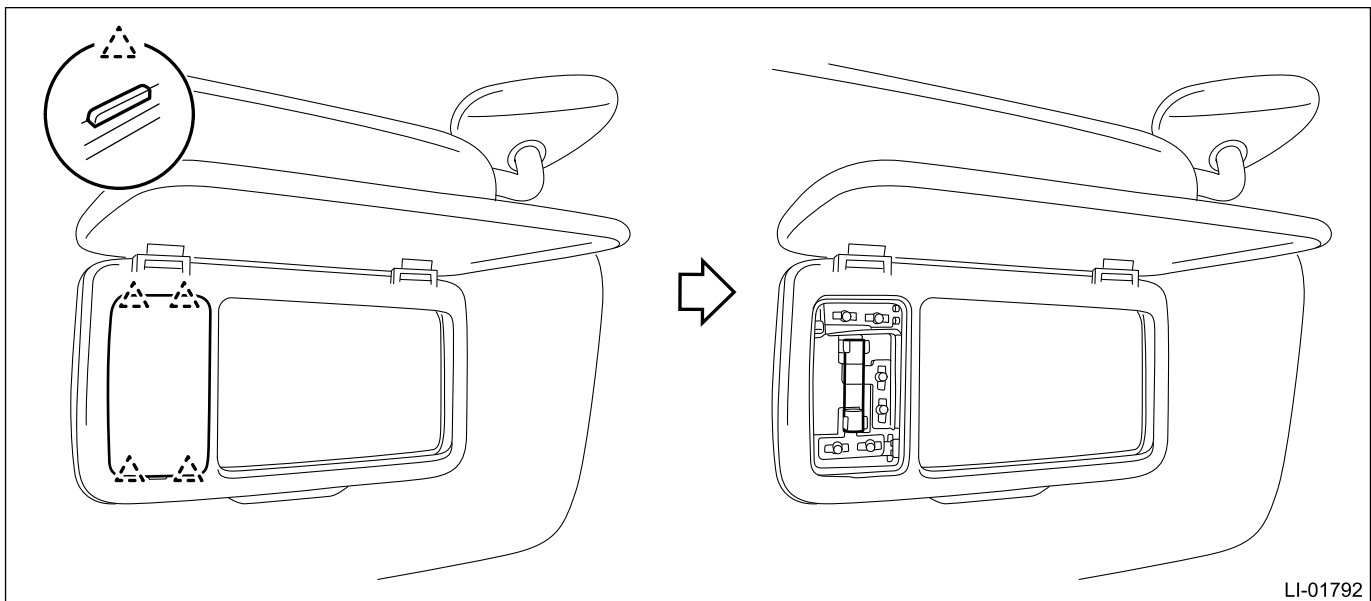
#### Note:

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

2. Remove the sun visor assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Sun Visor>REMOVAL.](#)
3. Release the claws and remove the lens and vanity mirror 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.



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

## LIGHTING SYSTEM > Ignition Switch Illumination

### REMOVAL

#### Note:

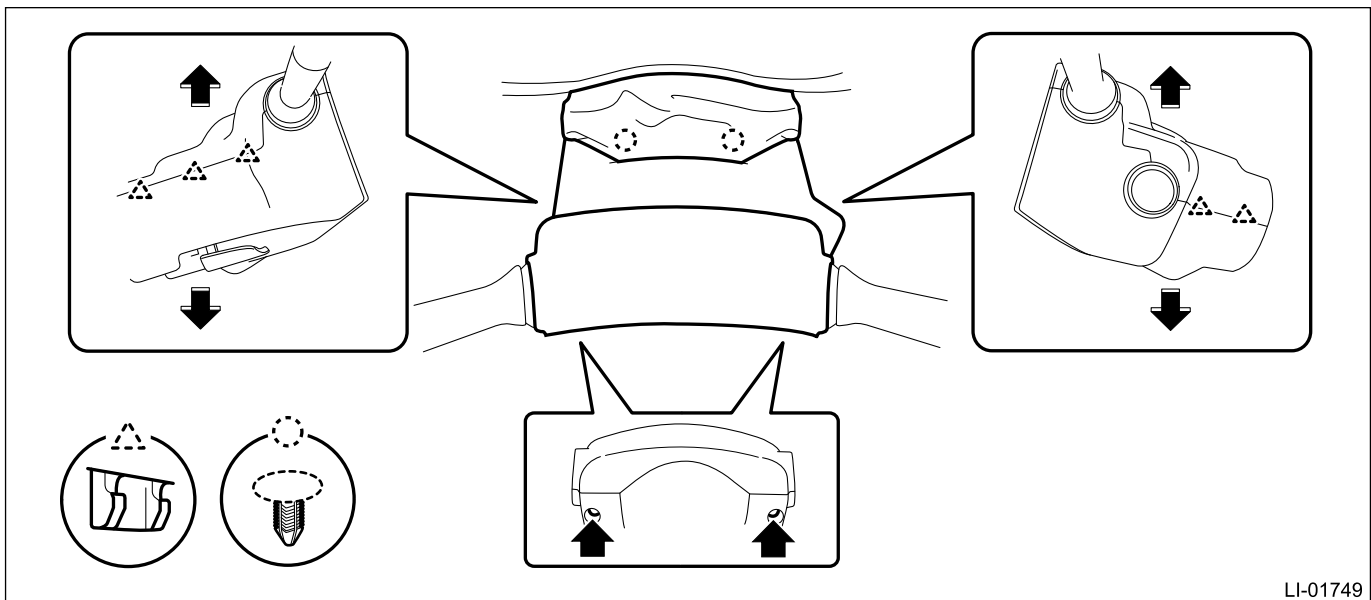
The ignition switch illumination is integrated into the immobilizer antenna assembly.

1. Disconnect the ground cable from battery.  Ref. to NOTE>NOTE > BATTERY.

#### Note:

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

2. Remove the cover assembly - column.
  - (1) Remove the screws by turning the steering wheel to right and left.
  - (2) Release the clips, and remove the cover assembly - steering UPR.
  - (3) Release the claw, and remove the cover assembly - column UPR and the cover assembly - column LWR.

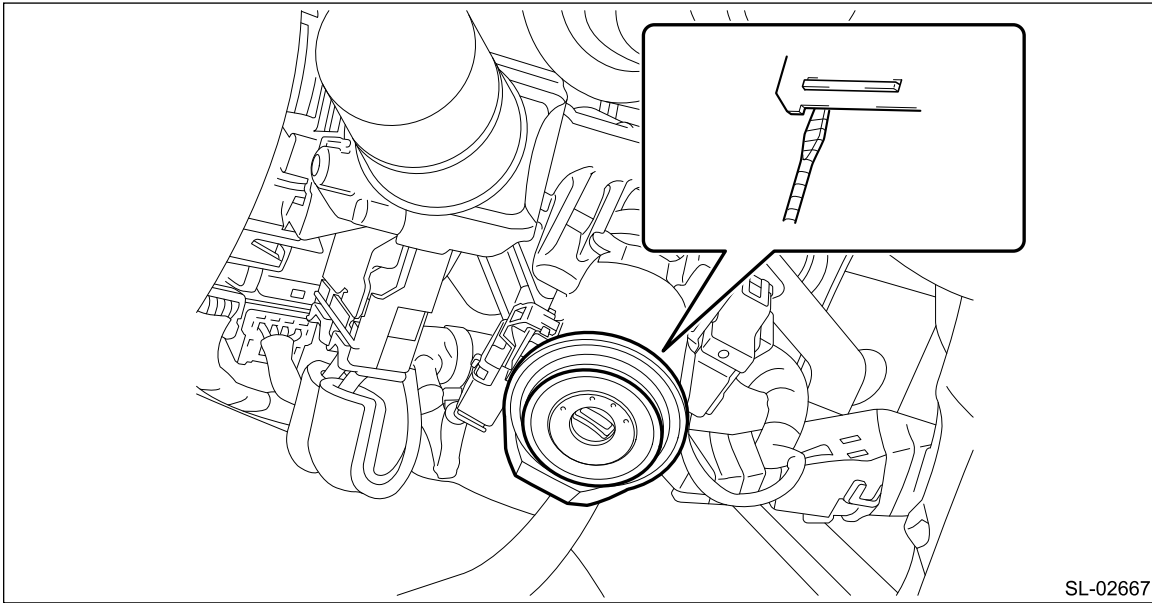


LI-01749

3. Remove the ignition switch illumination.
  - (1) Disconnect the connector.
  - (2) Release the claw using a flat tip screwdriver or similar tool wrapped with a protection tape, and remove the ignition switch illumination.

#### Caution:


**Do not apply excessive force to remove the ignition switch illumination lock. Otherwise they may be broken because those parts are the products made of a plastic.**



SL-02667

## LIGHTING SYSTEM > Ignition Switch Illumination

### INSTALLATION

1. Install the ignition switch illumination.
2. Install the cover assembly - column.
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## LIGHTING SYSTEM > Ignition Switch Illumination

### INSPECTION

#### 1. CHECK THE IGNITION SWITCH ILLUMINATION.

Make sure the ignition switch illumination illuminates when driver's side door is open.

Does the ignition switch illumination illuminate?

Yes

Ignition switch illumination is normal.

No


 [Go to 2.](#)

## 2. CHECK THE IGNITION SWITCH ILLUMINATION.


Make sure the ignition switch illumination blinks when the ignition switch is turned to ON.

Does the ignition switch illumination blink?

Yes

Check the function setting of body integrated unit.  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

No


Check the ignition switch illumination circuit.  [Ref. to SECURITY AND LOCKS>Keyless Entry System>INSPECTION > CHECK IGNITION SWITCH ILLUMINATION.](#)


## LIGHTING SYSTEM > Auto Headlight Beam Leveler Control Module

### REMOVAL

---



#### Caution:

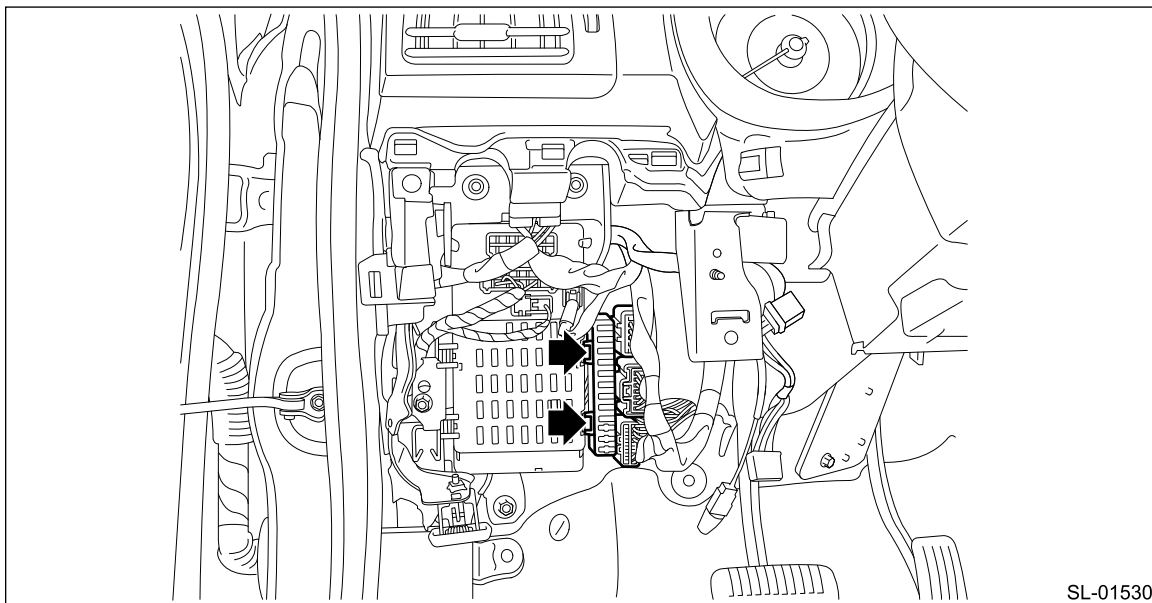
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

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

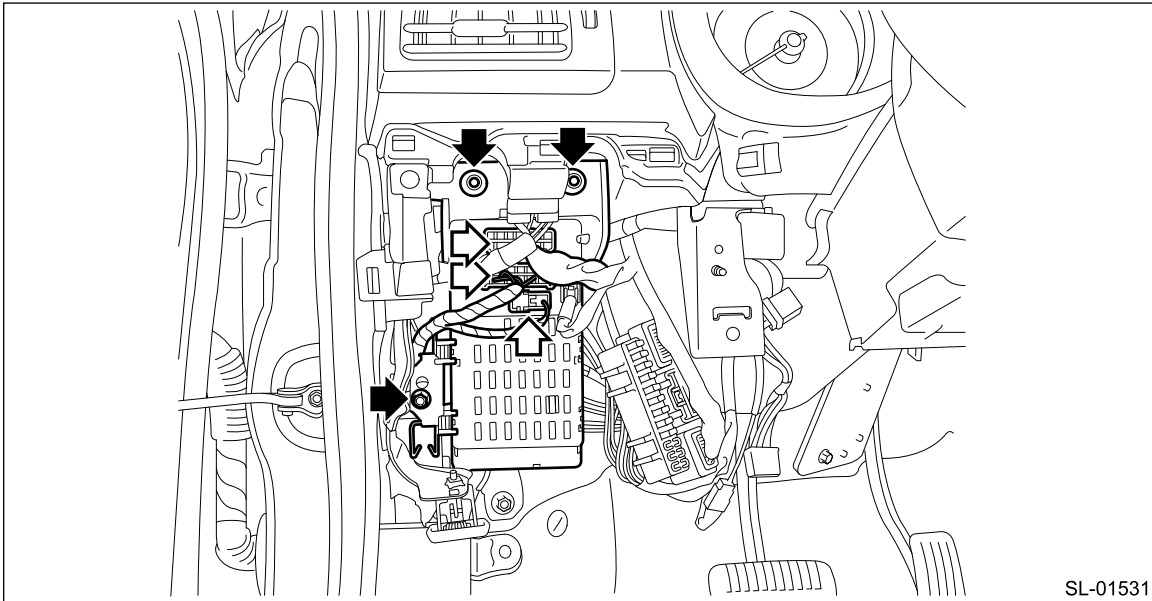
#### Note:

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

2. Remove the cover assembly - instrument panel 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. Release the lock and remove the fuse holder.

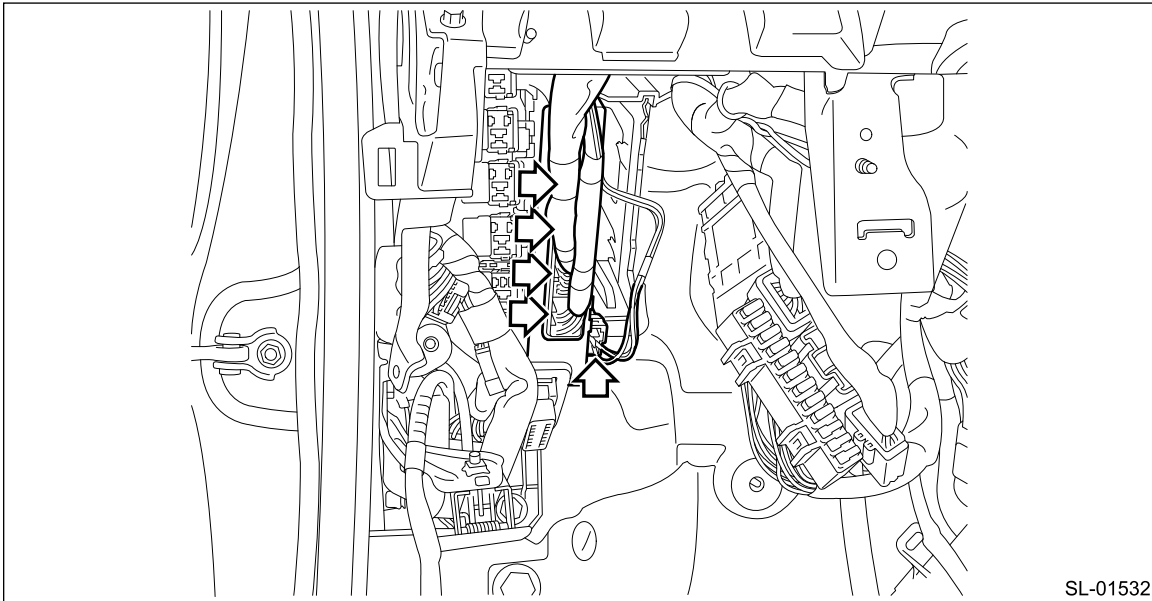


5. Remove the relay & fuse box.
  - (1) Disconnect the connector.
  - (2) Remove the bolts and nuts, and remove the relay & fuse box.



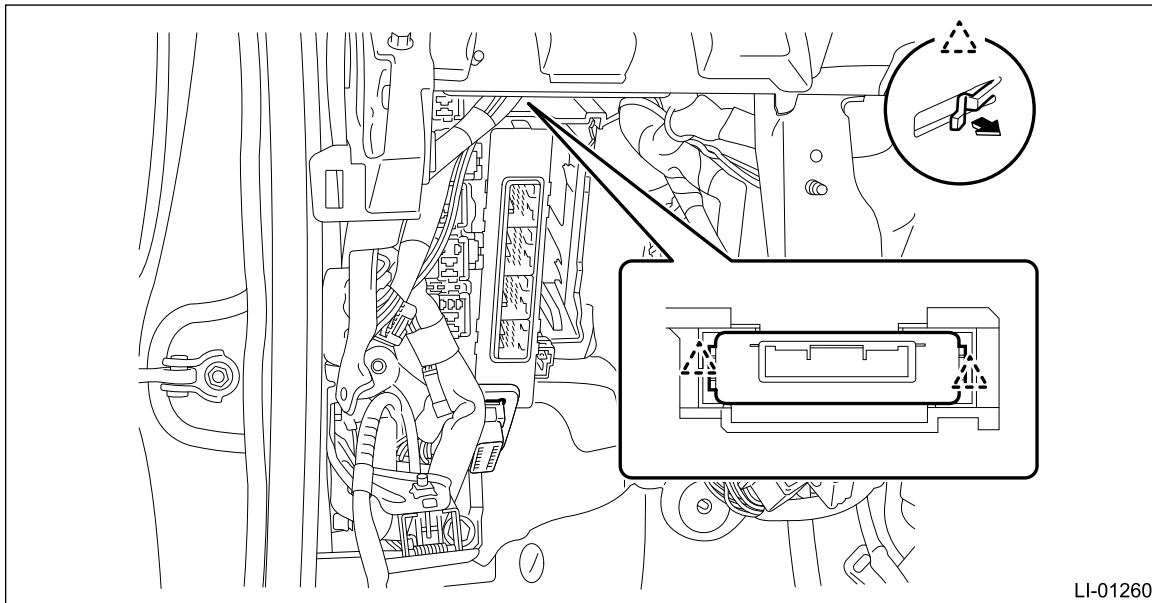
SL-01531

- 6.** Disconnect the connector of body integrated unit.



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- 7.** Remove the auto headlight beam leveler CM.  
(1) Disconnect the connector.  
(2) Release the claws and pull out 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.
2. Install the relay & fuse box.  
**Tightening torque:**  
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
3. Install the fuse holder.
4. Install the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>INSTALLATION.](#)  
**Tightening torque:**  
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
5. Install the cover assembly - instrument panel LWR driver.
6. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
7. Perform initialization and reinitialization of the auto headlight beam leveler system.  [Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler System>PROCEDURE.](#)

## LIGHTING SYSTEM > Rear Height Sensor

### REMOVAL

---

#### Caution:

**Always remove the sensor assembly - headlight beam leveler before removing any parts related to the suspension.**

**Do not apply impact to the sensor assembly - headlight beam leveler or forcibly move the arm. Doing so may cause sensor damage and malfunction.**

1. Disconnect the ground cable from battery.  Ref. to NOTE>NOTE > [BATTERY](#).

#### Note:

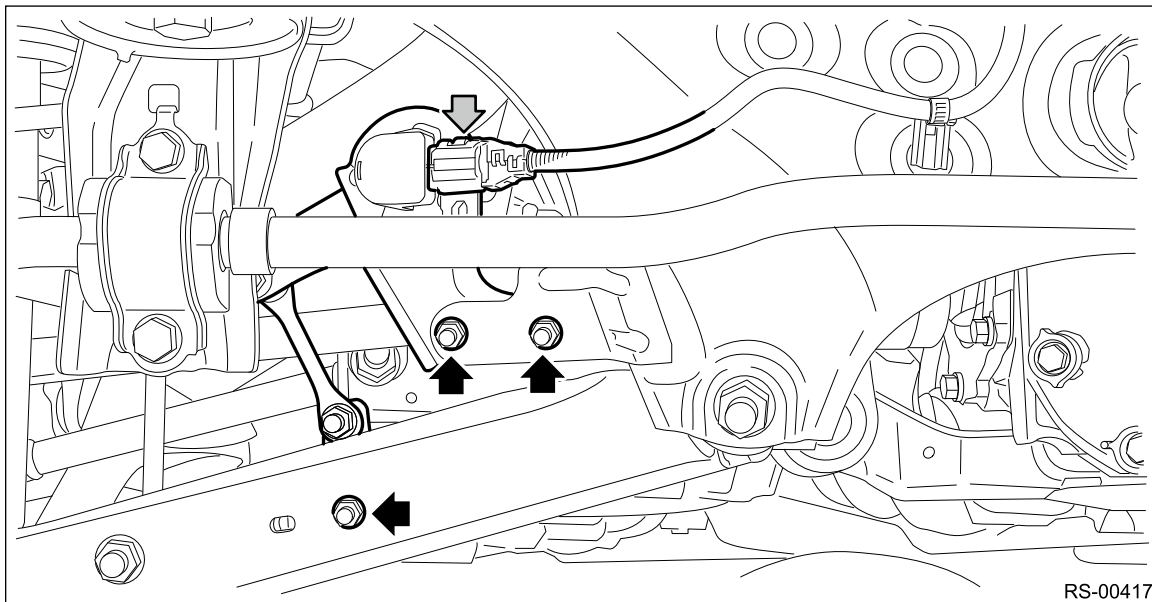
**For model with battery sensor, disconnect the ground terminal from battery sensor.**

2. Lift up the vehicle.
3. Remove the rear wheel on the left side.
4. Remove the sensor assembly - headlight beam leveler.

#### Caution:

**Do not disassemble the sensor and lever.**

- (1) Disconnect the connector.
- (2) Remove the nuts, and remove the sensor assembly - headlight beam leveler.



## LIGHTING SYSTEM > Rear Height Sensor

### INSTALLATION

---

#### Caution:

**Do not apply impact to the sensor assembly - headlight beam leveler or forcibly move the arm. Doing so may cause sensor damage and malfunction.**

1. Install the sensor assembly - headlight beam leveler.



#### Tightening torque:

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)


2. Install the rear wheels.

### Tightening torque:

120 N·m (12.2 kgf-m, 88.5 ft-lb)

3. Lower the vehicle.
4. Connect the battery ground terminal.  Ref. to NOTE>NOTE > BATTERY.
5. Perform reinitialization of the auto headlight beam leveler system.  Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler System>PROCEDURE > REINITIALIZATION.

### Note:

When replacing the rear vehicle height sensor with a new part, perform the initialization.  Ref. to LIGHTING SYSTEM>Auto Headlight Beam Leveler System>PROCEDURE > INITIALIZATION.

## LIGHTING SYSTEM > Rear Height Sensor

### INSPECTION

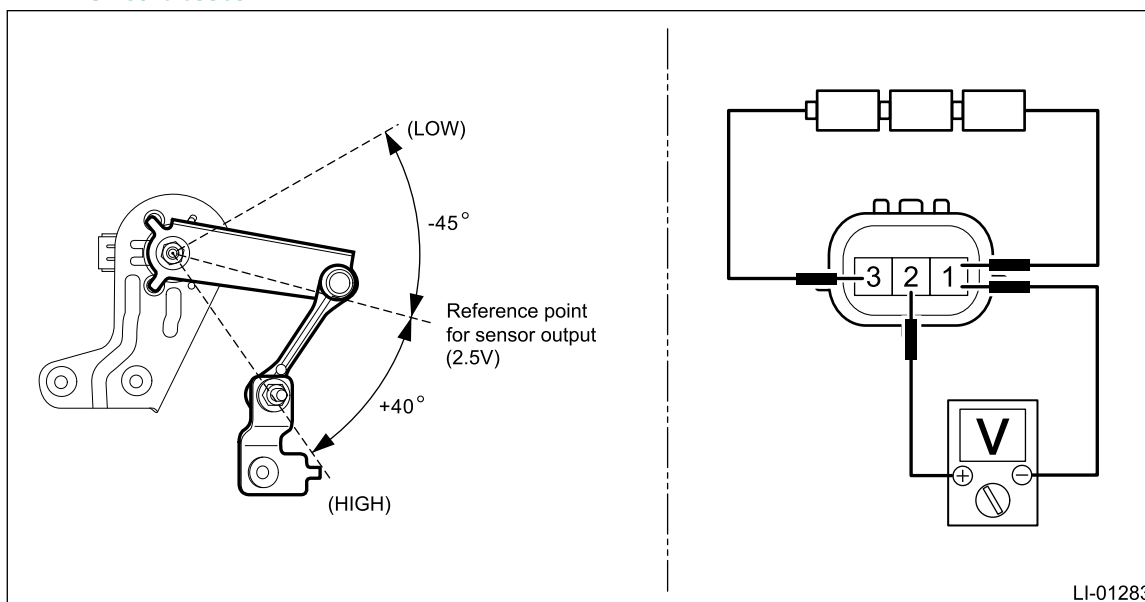
1. Connect three dry cell batteries (1.5 V) in series.

### Note:

- Use new dry-cell batteries.
  - Using a circuit tester, check that the initial voltage of each dry-cell battery is 1.6 V or more. And also check that the voltage of three batteries in series is between 4.8 V and 5.2 V.
  - For power supply, 5 V DC constant voltage power source can also be used.
2. Connect the cell battery positive terminal to the connector terminal No. 3, and the cell battery negative terminal to the connector terminal No. 1.
  3. With voltage applied, measure the voltage between connector terminals when the sensor link is moved slowly up and down.

### Preparation tool:

Circuit tester



LI-01283

Terminal No.	Inspection conditions	Standard
2 (+) - 1 (-)	Move the link within the operation range.	Approx. 0.5 - 4.1 V

**Note:**

**When the link is moved upward from the standard output position, the sensor output varies to the 0.5 V side. When the link is moved downward, the sensor output varies to the 4.1 V side.**

- 4.** Replace the sensor assembly - headlight beam leveler if the inspection result is not within the standard value.

## LIGHTING SYSTEM > Day Time Running Resistor

### REMOVAL

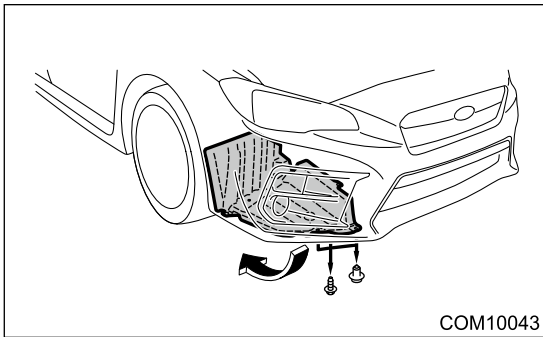
---

1. Disconnect the ground cable from battery.  Ref. to NOTE>NOTE > BATTERY.

**Note:**

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

2. Lift up the vehicle.
3. Remove the screw and clips, and turn over the front side of the mud guard - front.

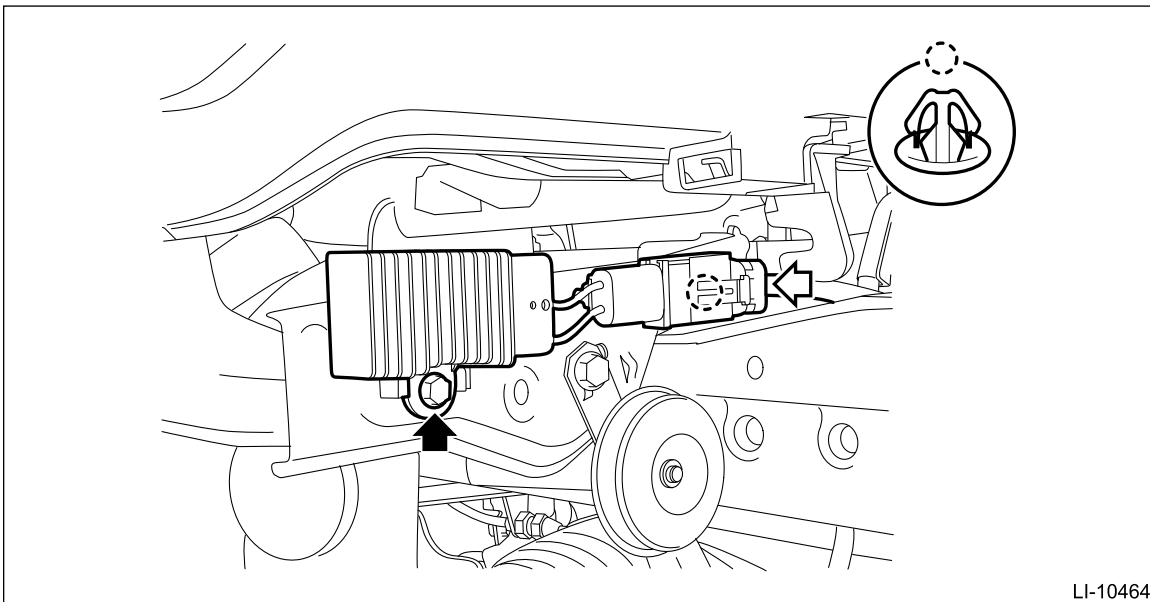


4. Remove the resistor assembly - daytime running light.

**Caution:**

**The resistor may become hot. Be careful not to burn yourself when removing it.**

- (1) Disconnect the connector.
- (2) Remove the bolts, then remove the resistor assembly - daytime running light.



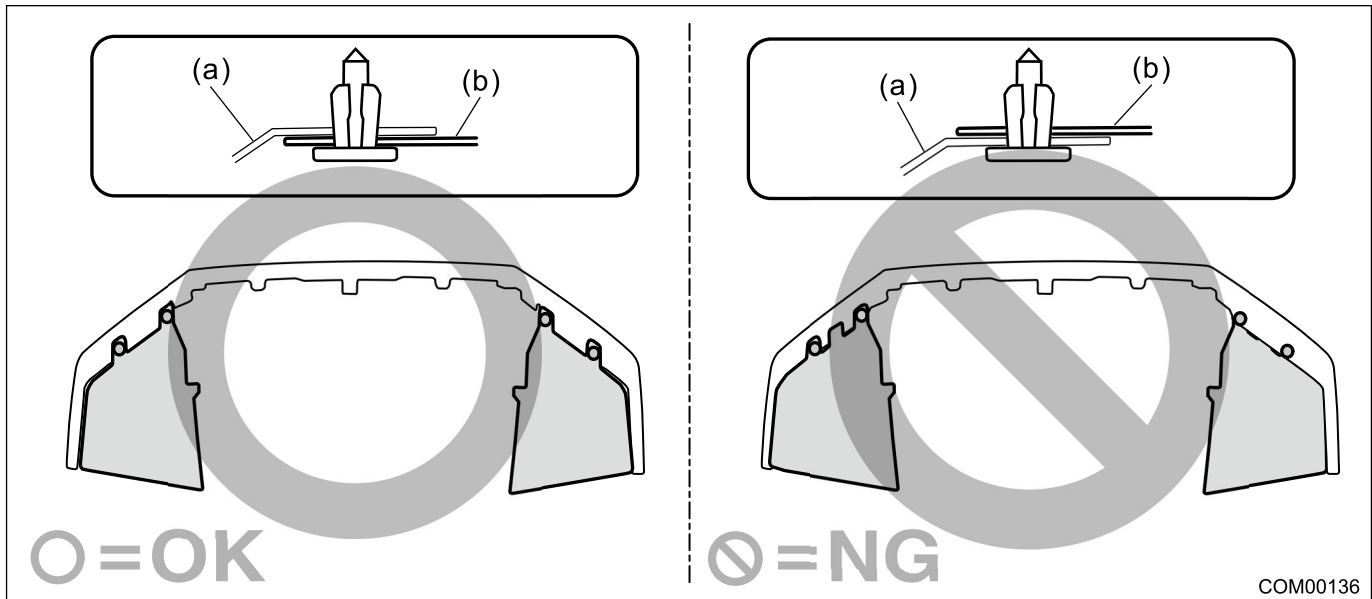
## LIGHTING SYSTEM > Day Time Running Resistor


### INSTALLATION

---

**Caution:**

**Install the mud guard - front so that the front end of the mud guard (b) comes outside the bumper face - front (a).**



1. Install the resistor assembly - daytime running light.  
**Tightening torque:**  
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
2. Install the mud guard - front.
3. Lower the vehicle.
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

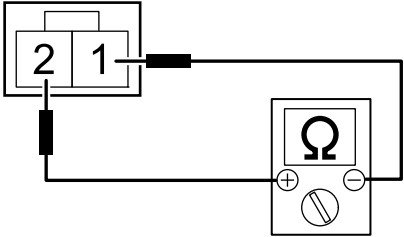
**LIGHTING SYSTEM > Day Time Running Resistor**

**INSPECTION**

1. Measure the resistance between connector terminals.

**Preparation tool:**

Circuit tester

Terminal No.	Inspection conditions	Standard	Connection diagram
1 – 2	Always	$0.83 \pm 0.03 \Omega$	

LI-01253

2. Replace the resistor assembly - daytime running light if the inspection result is not within the standard.

## LIGHTING SYSTEM > Door Switch

### REMOVAL

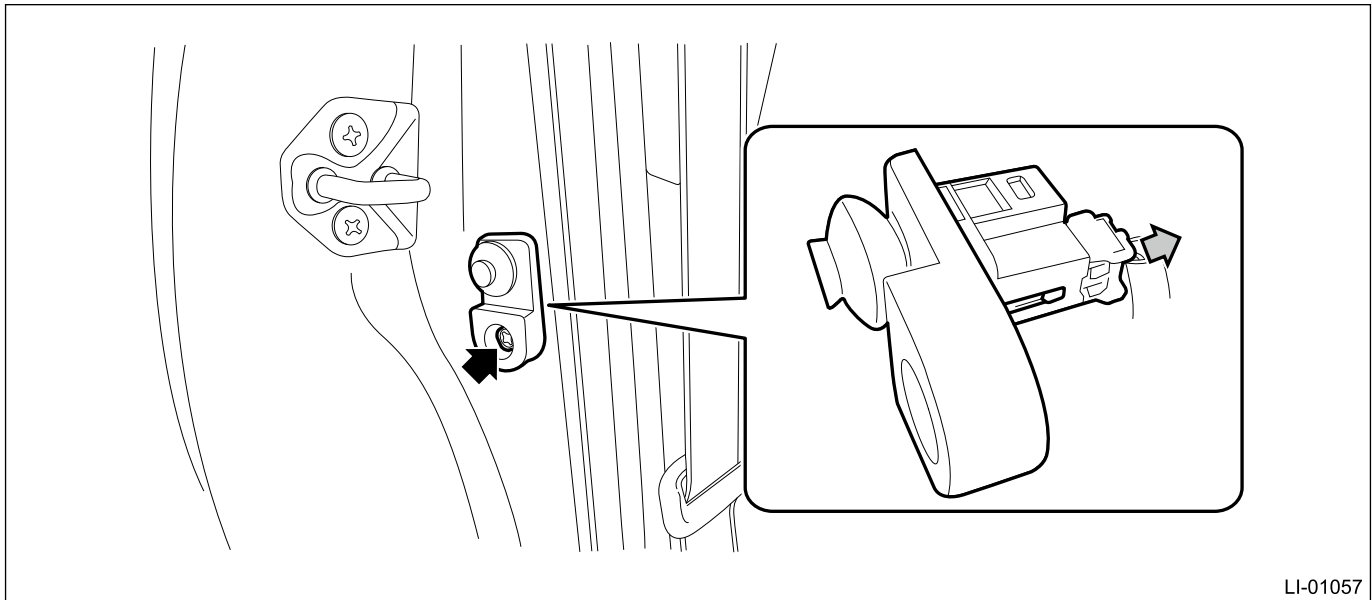
---

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### Note:

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


2. Remove the switch assembly - door.
  - (1) Remove the screws, and pull out the switch assembly - door toward you.
  - (2) Disconnect the connector and remove the switch assembly - door.



## LIGHTING SYSTEM > Door Switch

### INSTALLATION

---

1. Install the switch assembly - door.
2. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## LIGHTING SYSTEM > Door Switch

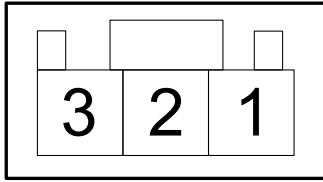
### INSPECTION

---

1. Measure the resistance between connector terminals.

#### Preparation tool:

Circuit tester



LI-01748

<b>Terminal No.</b>	<b>Inspection conditions</b>	<b>Standard</b>
1 – 3	When the switch is not pressed	Less than 1 $\Omega$
	When the switch is pressed	1 M $\Omega$ or more

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

# WIPER AND WASHER SYSTEMS



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

## WIPER AND WASHER SYSTEMS > General Description

### SPECIFICATION

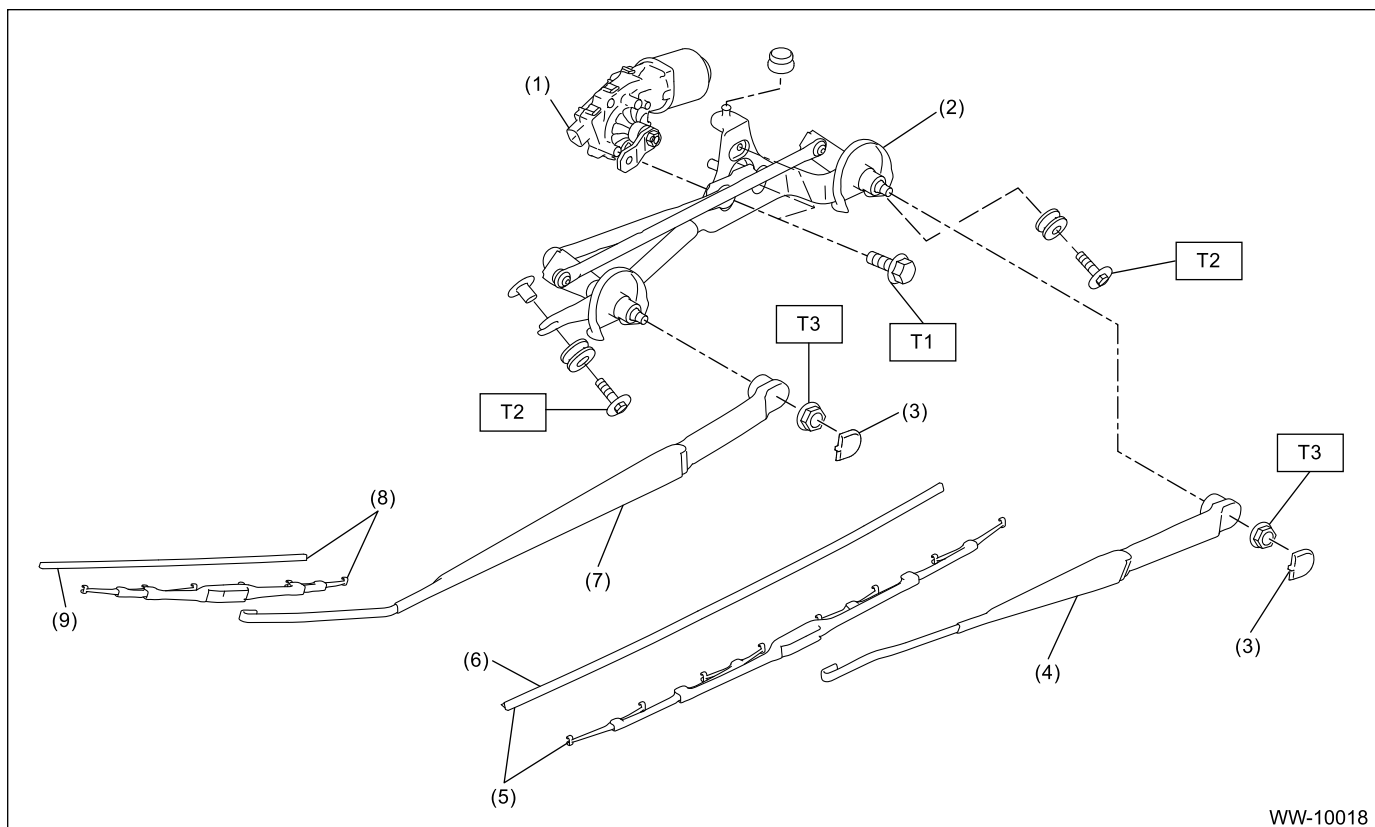
Front wiper motor	Input	12 V — 60 W or less
Front washer motor	Pump type	Centrifugal
	Input	12 V — 60 W or less

## WIPER AND WASHER SYSTEMS > General Description

### COMPONENT

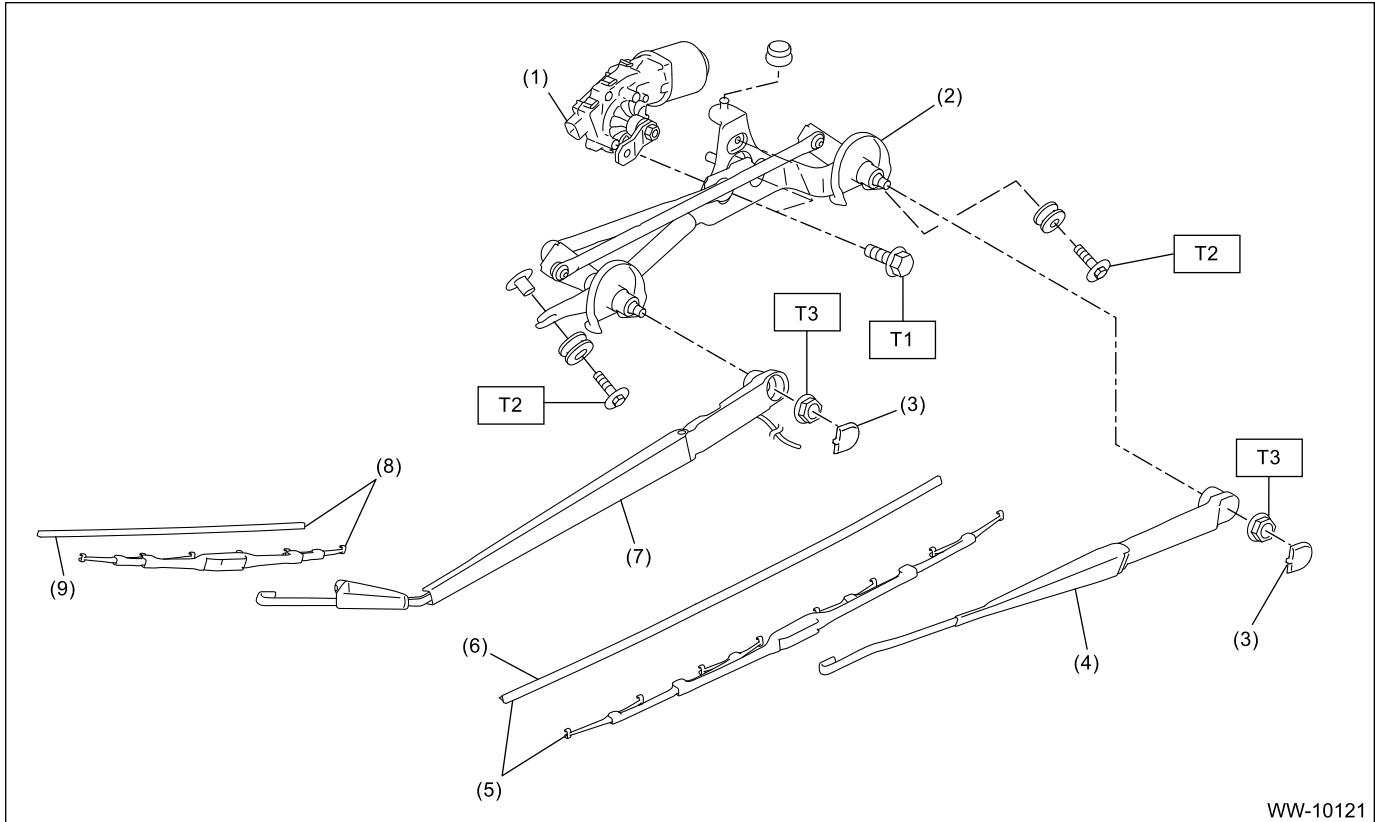
#### 1. FRONT WIPER

- Models without EyeSight



- |  |   |  |
|--|---|--|
| (1) Motor ASSY - windshield wiper        | (6) Rubber ASSY - windshield wiper driver | <b>Tightening torque: N·m (kgf·m, ft·lb)</b> |
| (2) Link ASSY - windshield wiper         | (7) Arm ASSY - windshield wiper assist    |  |
| (3) Cover - windshield wiper arm         | (8) Blade ASSY - windshield wiper assist  | <b>T2: 6 (0.6, 4.4)</b>                      |
| (4) Arm ASSY - windshield wiper driver   | (9) Rubber ASSY - windshield wiper assist | <b>T3: 26 (2.7, 19.2)</b>                    |
| (5) Blade ASSY - windshield wiper driver |   |  |

- Models with EyeSight



- (1) Motor ASSY - windshield wiper
- (2) Link ASSY - windshield wiper
- (3) Cover - windshield wiper arm
- (4) Arm ASSY - windshield wiper driver
- (5) Blade ASSY - windshield wiper driver

- (6) Rubber ASSY - windshield wiper driver
- (7) Arm ASSY - windshield wiper assister
- (8) Blade ASSY - windshield wiper assister
- (9) Rubber ASSY - windshield wiper assister

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

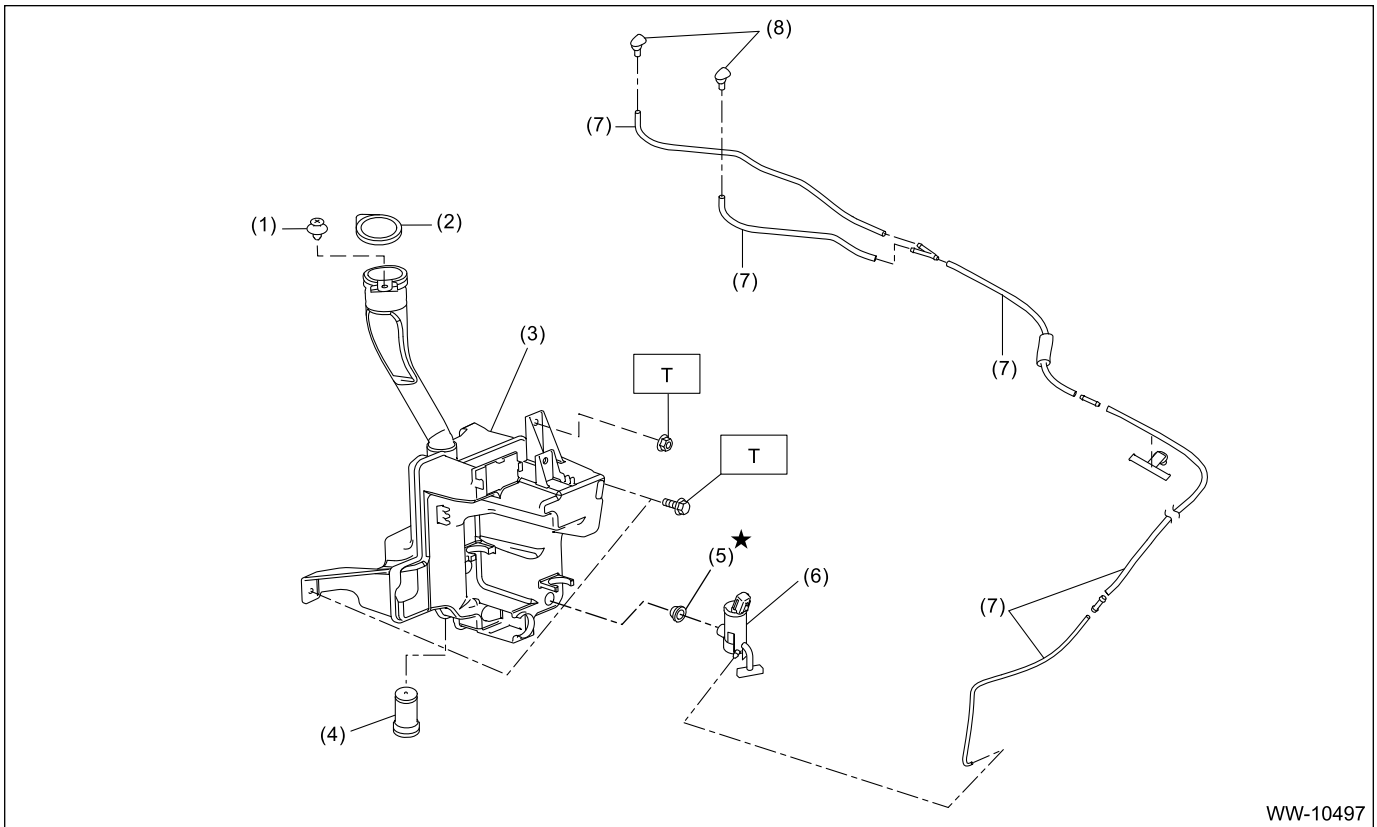
**T1: 5.5 (0.6, 4.1)**

**T2: 6 (0.6, 4.4)**

**T3: 26 (2.7, 19.2)**

## 2. WASHER TANK

- Models without EyeSight



(1) Clip

(2) Holder - windshield washer tank

(3) Tank - washer

(4) Sensor - washer tank

(5) Packing - washer motor

(6) Motor pump ASSY - washer front

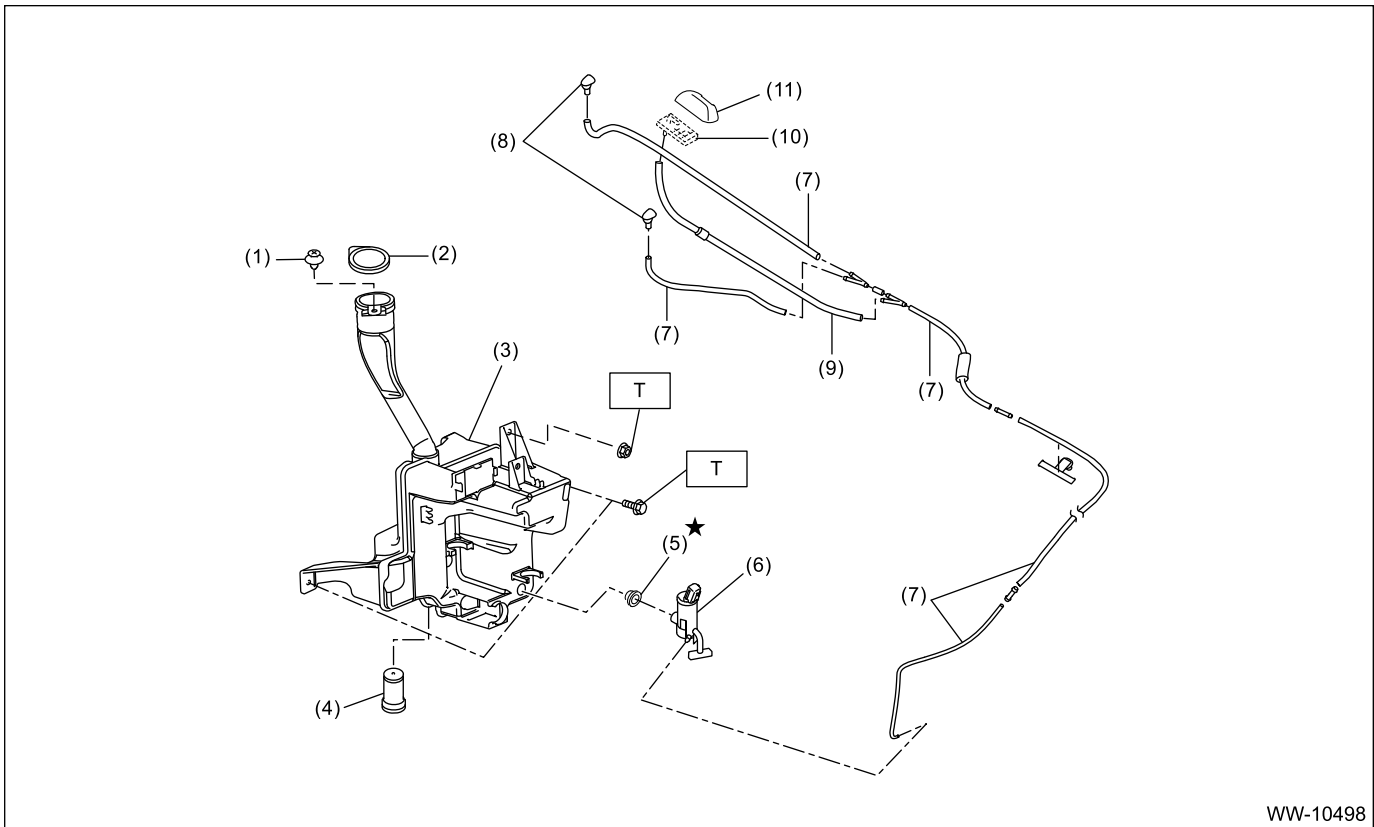
(7) Hose - windshield washer

(8) Nozzle - windshield washer

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

**T: 6 (0.6, 4.4)**

- Models with EyeSight



WW-10498



- |                                     |                                    |                          |
|-------------------------------------|------------------------------------|--------------------------|
| (1) Clip                            | (6) Motor pump ASSY - washer front | (11) Cover - joint front |
| (2) Holder - windshield washer tank | (7) Hose - windshield washer       |                          |
| (3) Tank - washer                   | (8) Nozzle - windshield washer     |                          |
| (4) Sensor - washer tank            | (9) Hose - wiper arm washer        |                          |
| (5) Packing - washer motor          | (10) Joint - washer hose           |                          |

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

**T: 6 (0.6, 4.4)**

## WIPER AND WASHER SYSTEMS > General Description


### CAUTION

- Before performing vehicle maintenance, turn the ignition switch to OFF and disconnect the negative terminal from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)
  - For model with battery sensor, disconnect the ground terminal from battery sensor.
- Be careful of the following items. Failing to do so may cause the airbag system malfunction.
  - Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. When using a tester on these circuits, follow the cautions of "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
  - Be careful not to damage the airbag system wiring harness when servicing the electrical parts around the steering column.
- When connecting the pipe hoses, be careful not to cause bend or blockage.
- If even a small amount of silicon oil or grease enters the tank - washer and the washer fluid passages, an oil film will be formed on the glass and will cause the wiper to chatter and judder. Make sure that no oil comes into contact with the system.

## WIPER AND WASHER SYSTEMS > General Description

### PREPARATION TOOL

#### 1. SPECIAL TOOL

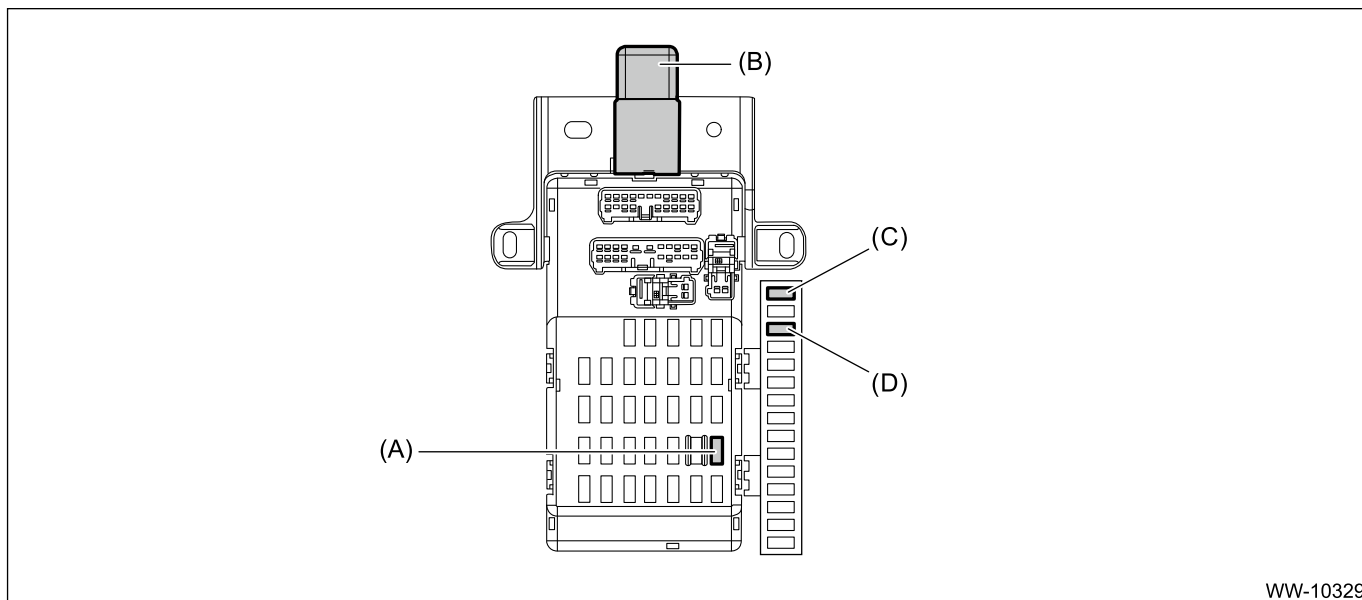
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 STSSM4	—	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. <b>Note:</b> <b>For detailed operation procedures of Subaru Select Monitor 4, refer to "Application help".</b>

#### 2. GENERAL TOOL

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

## WIPER AND WASHER SYSTEMS > Relay and Fuse

### LOCATION



Relay & fuse box	Fuse 7.5 A (wiper)	(A)
Relay holder	Wiper relay	(B)
Fuse holder	Fuse 30 A (front wiper)	(C)
	Fuse 15 A (front washer)	(D)

#### Note:

For other related fuses, refer to the wiring diagram.  [Ref. to WIRING SYSTEM>Power Supply Circuit.](#)

## WIPER AND WASHER SYSTEMS > Relay and Fuse

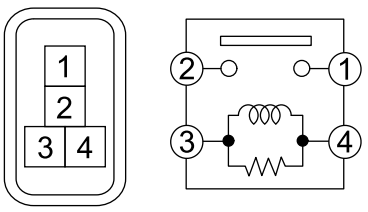
### INSPECTION

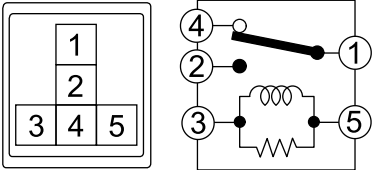
#### 1. CHECK FUSE

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

#### 2. CHECK RELAY

1. Measure the resistance between relay terminals.

Terminal No.	Inspection conditions	Standard	Circuit
1 – 2	Always	1 M $\Omega$ or more	 <p style="text-align: right;">SR-00180</p>
1 – 2	Apply battery voltage between terminals 4 and 3.	Less than 1 $\Omega$	

Terminal No.	Inspection conditions	Standard	Circuit
1 – 2	Always	1 M $\Omega$ or more	 <p style="text-align: right;">SL-01085</p>
1 – 4	Always	Less than 1 $\Omega$	
1 – 2	Apply battery voltage between terminals 3 and 5.	Less than 1 $\Omega$	


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

## WIPER AND WASHER SYSTEMS > Wiper and Washer System

### WIRING DIAGRAM

---

#### 1. WIPER AND WASHER (FRONT)

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

---







Symptoms	Repair order
Wiper and washers do not operate.	<ol style="list-style-type: none"><li>1. Wiper fuse</li><li>2. Combination switch (wiper)</li><li>3. Motor assembly - wiper</li><li>4. Wiring harness</li></ol>
Wipers do not operate in LO or HI.	<ol style="list-style-type: none"><li>1. Combination switch (wiper)</li><li>2. Motor assembly - wiper</li><li>3. Wiring harness</li></ol>
Wipers do not operate in INT.	<ol style="list-style-type: none"><li>1. Combination switch (wiper)</li><li>2. Motor assembly - wiper</li><li>3. Wiring harness</li></ol>
Washer motor does not operate.	<ol style="list-style-type: none"><li>1. Combination switch (wiper)</li><li>2. Motor pump assembly - washer</li><li>3. Wiring harness</li></ol>
Wipers do not operate when washer switch is ON.	<ol style="list-style-type: none"><li>1. Motor assembly - wiper</li><li>2. Wiring harness</li></ol>
Washer fluid spray does not operate properly.	<ol style="list-style-type: none"><li>1. Motor pump assembly - washer</li><li>2. Hose assembly - washer</li><li>3. Nozzle - washer</li></ol>
Wiper chatters or judders during operation.	<ol style="list-style-type: none"><li>1. Oil film and dirt on the glass</li><li>2. Arm assembly - windshield wiper</li><li>3. Motor assembly - wiper</li></ol>

## WIPER AND WASHER SYSTEMS > Wiper and Washer System

### NOTE

---

For procedure of each component of the wiper and washer system, refer to the respective sections.

- 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:  [Ref. to WIPER AND WASHER SYSTEMS>Washer Tank and Motor.](#)
- Front washer nozzle & hose:  [Ref. to WIPER AND WASHER SYSTEMS>Front Washer Nozzle and Hose.](#)

## WIPER AND WASHER SYSTEMS > Combination Switch (Wiper)

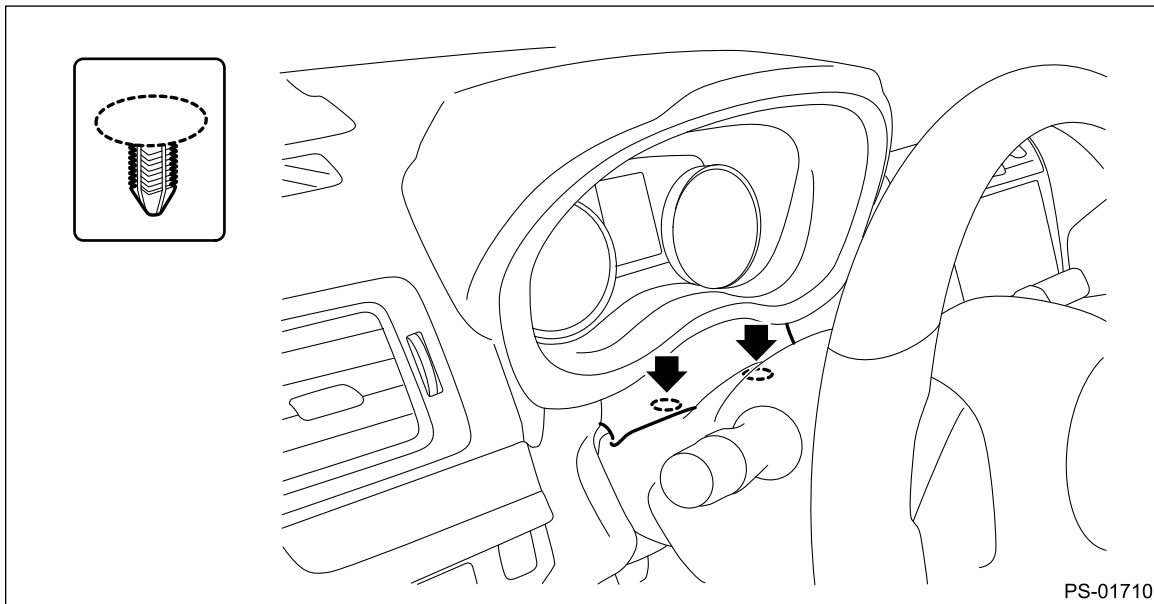
### REMOVAL

1. Disconnect the ground cable from battery.  Ref. to [NOTE>NOTE > BATTERY.](#)

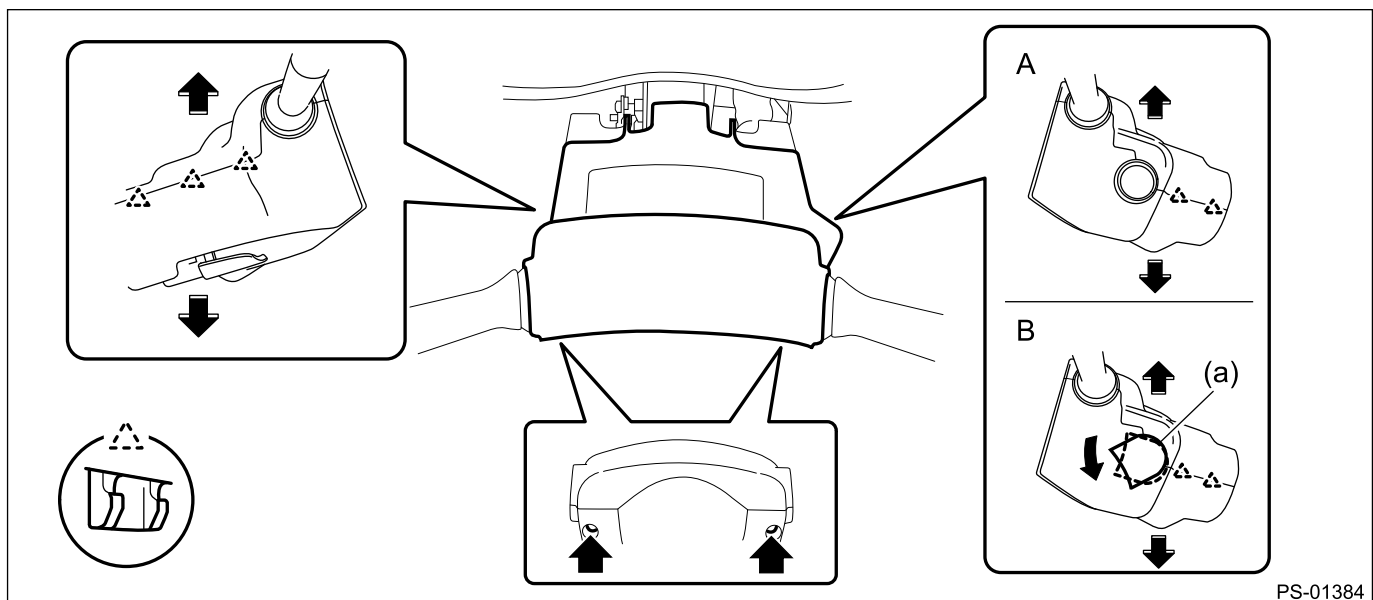
#### Note:

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

2. Remove the cover assembly - column.  
(1) Release the clips, and remove the cover assembly - steering UPR.



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



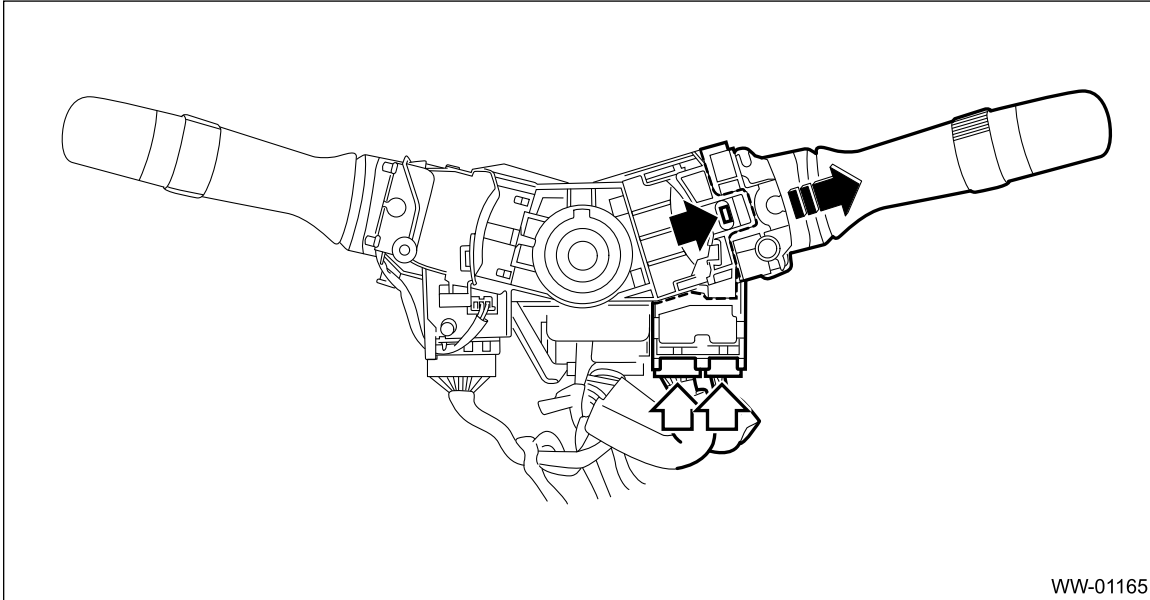
A Model without keyless access  
with push button start

B Model with keyless access  
with push button start

3. Remove the switch assembly - combination wiper select.
  - (1) Disconnect the connector.
  - (2) Release the claws, and pull out the switch assembly - combination wiper select.

**Caution:**

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




WW-01165

## WIPER AND WASHER SYSTEMS > Combination Switch (Wiper)

### INSTALLATION

---

1. Install the switch assembly - combination wiper select.
2. Install the cover assembly - column.
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## WIPER AND WASHER SYSTEMS > Combination Switch (Wiper)

### INSPECTION

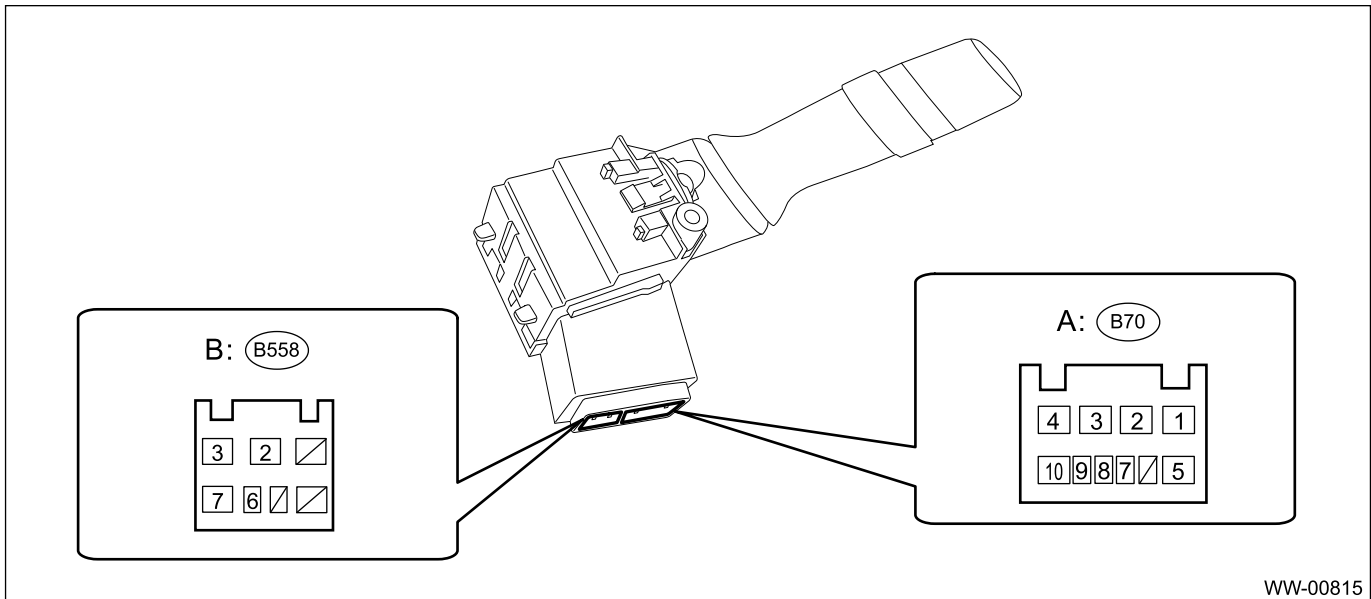
---

#### 1. INSPECTION OF SWITCH UNIT


1. Operate the switches to check the continuity between terminals.

**Preparation tool:**

Circuit tester



Switch position	Terminal No.	Standard
OFF	A2 and A1	1 MΩ or more
MIST	A2 and A3	Less than 1 Ω
LO	A2 and A3	Less than 1 Ω
HI	A2 and A4	Less than 1 Ω
Washer ON	B3 and B2	Less than 1 Ω

2. Replace the switch if the inspection result is not within the standard value.
3. Install the switch assembly - combination wiper select.  [Ref. to WIPER AND WASHER SYSTEMS>Combination Switch \(Wiper\)>INSTALLATION.](#)

## 2. FRONT WIPER

1. Check with Subaru Select Monitor

### Note:

**For detailed operation procedures, refer to "Application help".**

- (1) Check the input signal when the switch assembly - combination wiper select is turned to LO or HI, using the «Data monitor» display.
- (2) Does the input signal change corresponding to the switch operation?
  - **Yes** → Finish the diagnosis.
  - **No** → Check the harness.
2. Check the intermittent operation (inspection of the combination switch (wiper) alone)
  - (1) Turn the ignition switch to ON.
  - (2) Set the combination switch (wiper) to INT.
  - (3) Check the intermittent stationary time when the intermittent control switch is in FAST and SLOW.
 

**Intermittent stationary time**

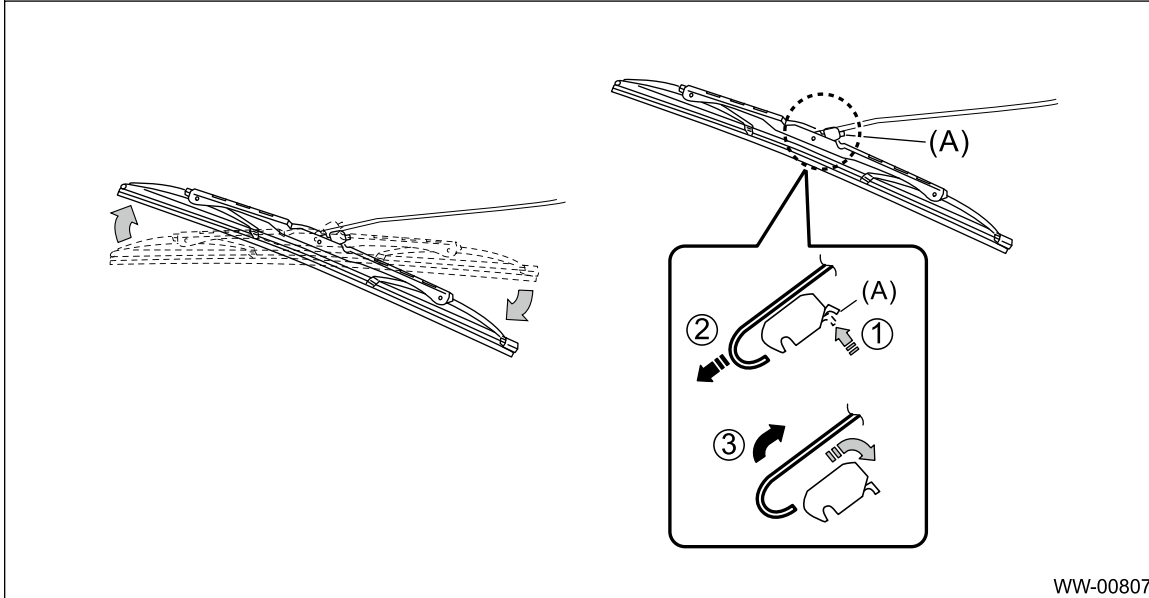
FAST: Approx. 2 seconds

SLOW: Approx. 16 seconds
  - (4) Replace the switch if the inspection result is not within the standard value.

## WIPER AND WASHER SYSTEMS > Wiper Blade

### REMOVAL

While pushing the locking clip (A) up, pull out the blade assembly - windshield wiper in the direction of the arrow, and remove it from the arm assembly - windshield wiper.



## WIPER AND WASHER SYSTEMS > Wiper Blade

### INSTALLATION

Install each part in the reverse order of removal.

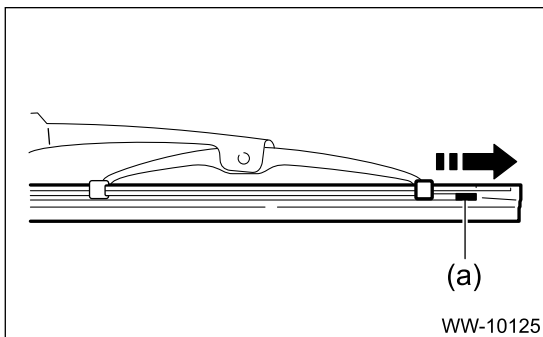
#### **Caution:**

**Make sure the locking clip is secured.**

## WIPER AND WASHER SYSTEMS > Wiper Blade

### DISASSEMBLY

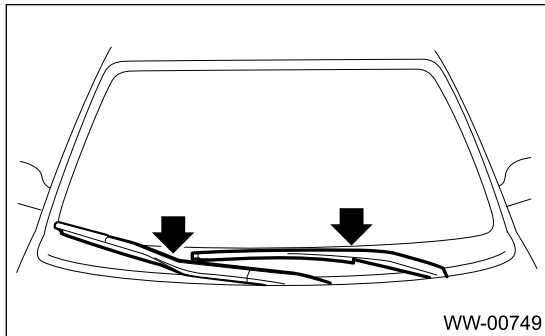
Pull side (a) of the wiper rubber stopper and remove the rubber assembly - windshield wiper.



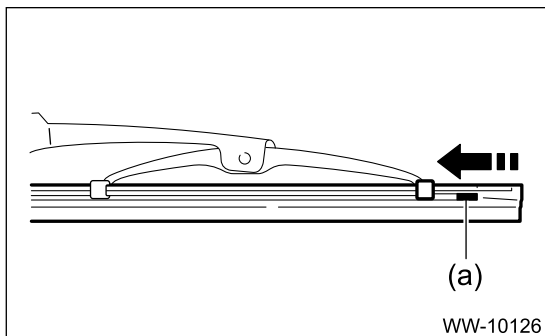
## WIPER AND WASHER SYSTEMS > Wiper Blade

### ASSEMBLY

1. Insert the rubber assembly - windshield wiper onto the blade - windshield wiper so that the stopper is in the position shown in the figure.



2. Make sure the pull stopper (a) of the rubber assembly - windshield wiper is securely fastened to the blade assembly - windshield wiper.



## WIPER AND WASHER SYSTEMS > Wiper Blade

### INSPECTION

---

1. Check and clean the rubber assembly - wiper.

#### Caution:

- Do not use organic solvent-based cleaner when cleaning rubber parts in order to avoid rubber part deterioration.
- Clean rubber parts using a soft cloth or paper towel dampened with windshield washer fluid or mild synthetic detergent.

Replace the rubber assembly - 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 - 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 windshield wiper again. If a chattering sound or insufficient wiping occurs, perform the procedures again.
4. If the rubber assembly windshield wiper has not been replaced in step 1) and the defective cannot be improved, replace the rubber assembly - wiper with a new part.

5. If defective is not improved after performing step 1) to step 4), replace the blade assembly - wiper with a new part.

## WIPER AND WASHER SYSTEMS > Washer Tank and Motor

### REMOVAL


---

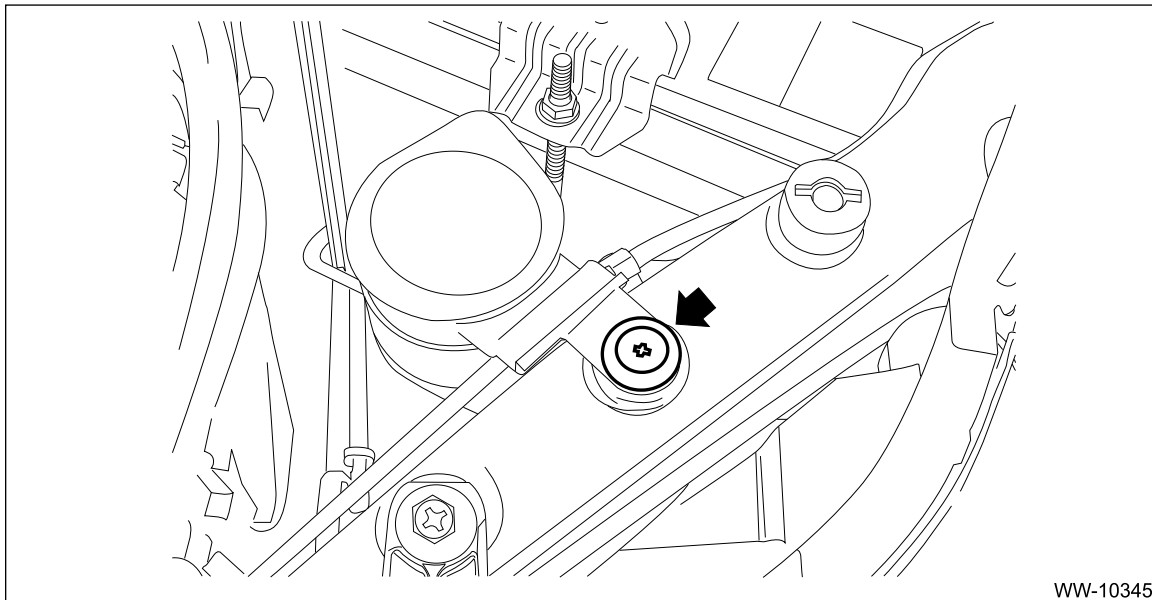
#### 1. WASHER TANK

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

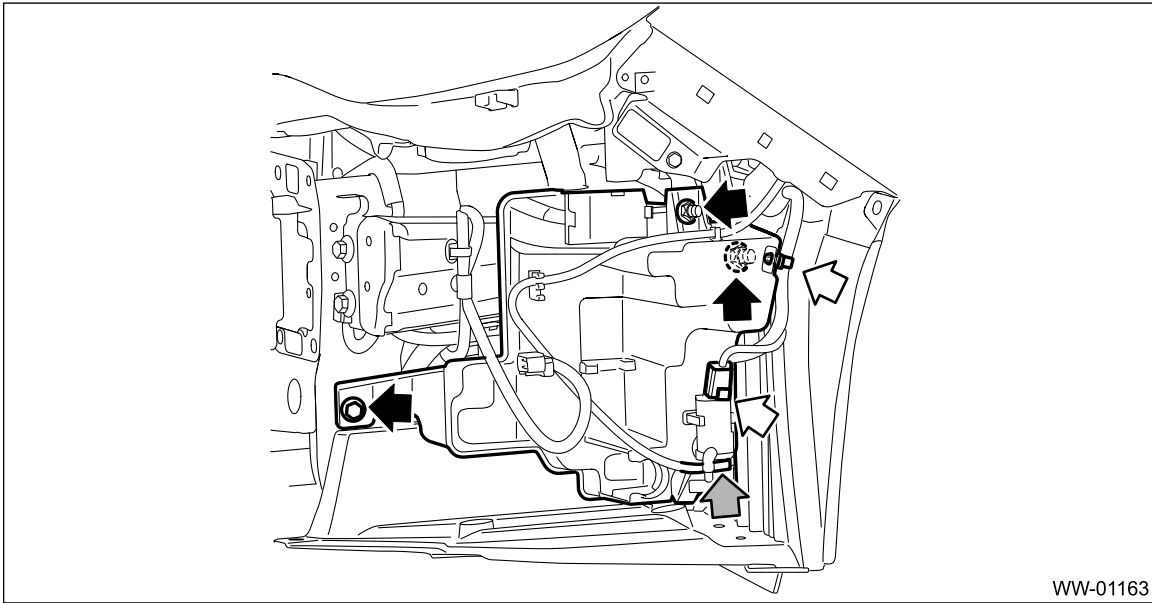
**Note:**

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

2. Remove the bumper face - front.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL.](#)
3. Remove the tank - washer assembly.
  - (1) Remove the clip of the holder - windshield washer tank.



- (2) Disconnect the connector from the motor pump assembly - washer and the sensor - washer tank, and then remove the harness clip.
- (3) Prepare a container before disconnecting the hose - washer, and drain all washer fluid in the tank - washer.
- (4) Remove the bolt and nuts and remove the tank - washer assembly.



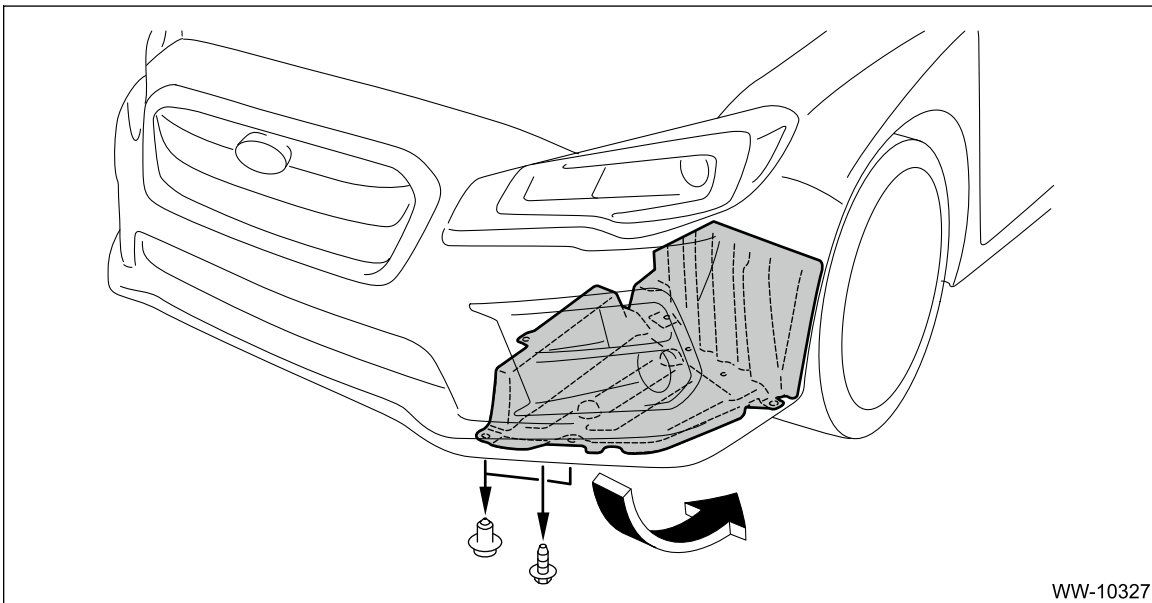
## 2. WASHER MOTOR

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

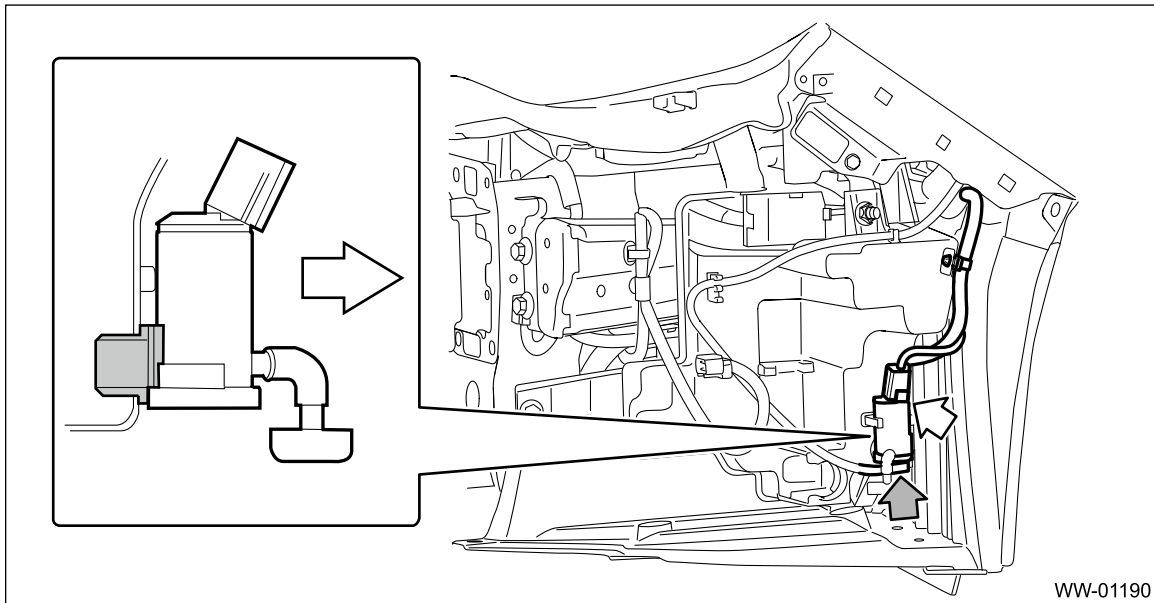
**Note:**

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

2. Remove the clips and screws, and turn over the mud guard - front LH.



3. Disconnect the connector from the motor pump assembly - washer and remove the harness clip.
4. Prepare a container before disconnecting the hose - washer, and drain all washer fluid in the tank - washer.
5. Remove the motor pump assembly - washer.



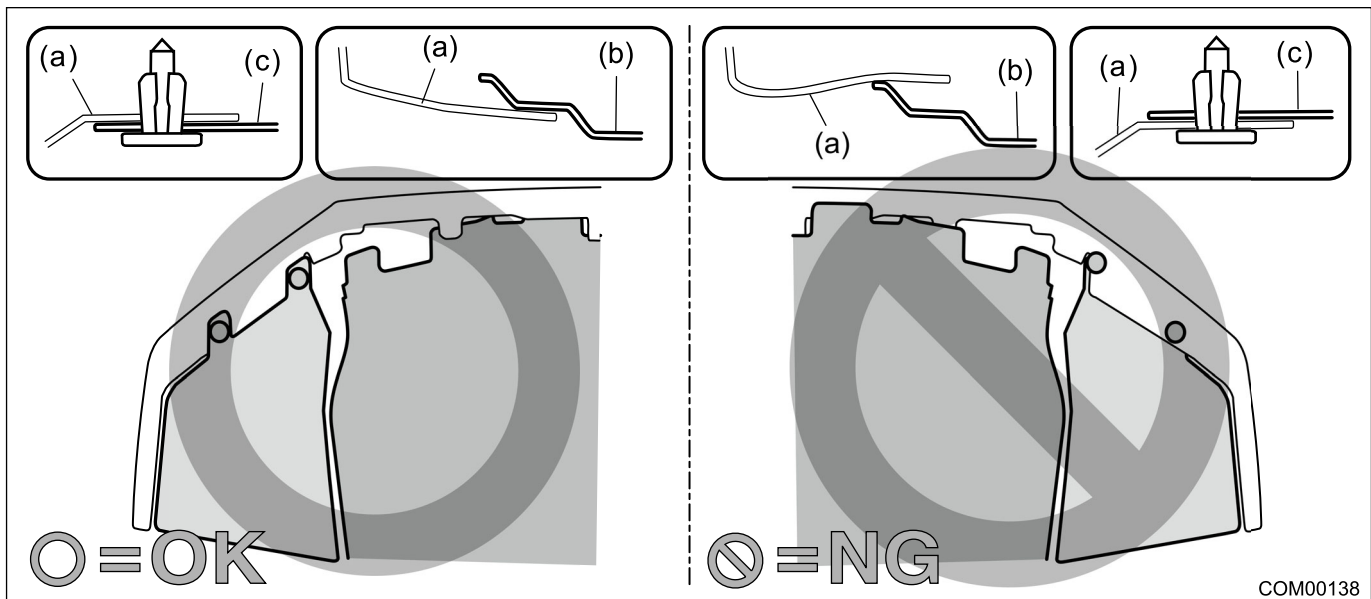
## WIPER AND WASHER SYSTEMS > Washer Tank and Motor

### INSTALLATION

#### 1. WASHER TANK

**Caution:**

- Install so that the front end of the under cover (b) comes inside the bumper face - front (a), and the front end of the mud guard (c) comes outside the bumper face - front (a).






- Before installing the bumper face, match the claws on the bracket - front bumper with the engaging position of flange section on the bumper face side. If the engaging position is not correct, the flange section may be broken or the clearance between fender panel and bumper face may not be uniform.

1. Install the tank - washer assembly.

### Tightening torque:

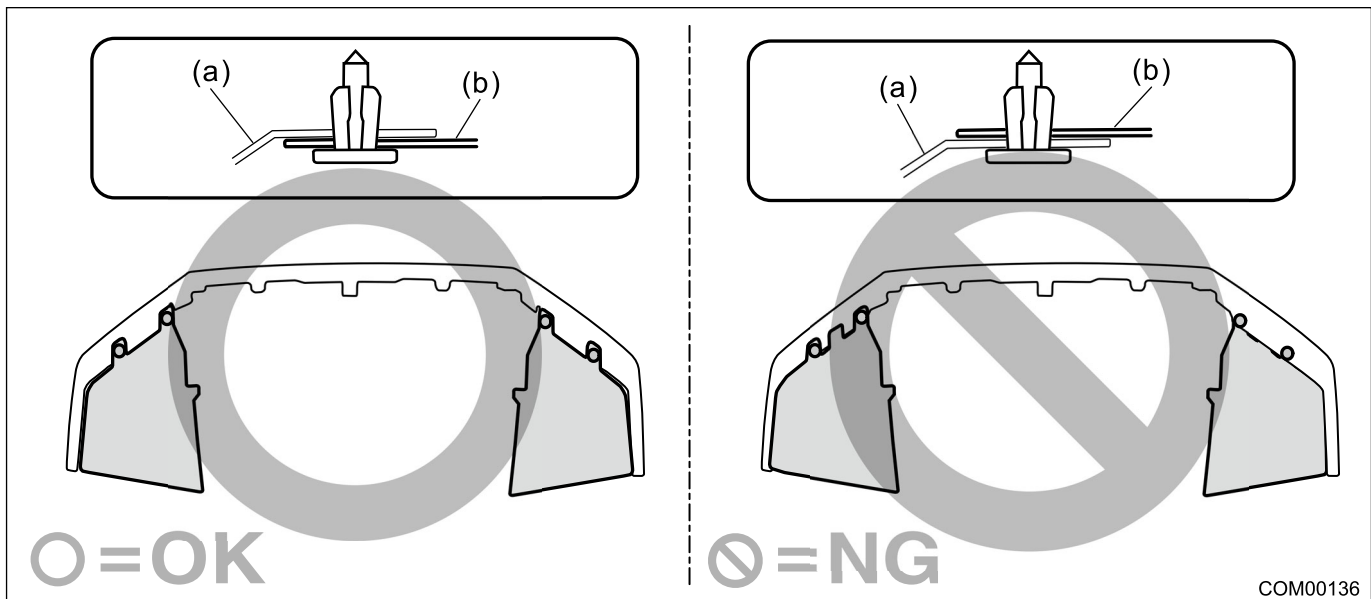
6 N·m (0.6 kgf-m, 4.4 ft-lb)

2. Connect the hose - washer.
3. Connect each connector and install the harness clip.
4. Install the mud guard - front.
5. Install the bumper face - front.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>INSTALLATION.](#)
6. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
7. Add new washer fluid.
8. Adjust the fog light beam. (Model with fog light)  [Ref. to LIGHTING SYSTEM>Front Fog Light Assembly>ADJUSTMENT > FOG LIGHT AIMING.](#)



## 2. WASHER MOTOR

### Caution:

- **Install the mud guard - front so that the front end of the mud guard (b) comes outside the bumper face - front (a).**



- **When the motor pump assembly - washer is removed, do not reuse the packing - washer motor. Always replace with a new part.**

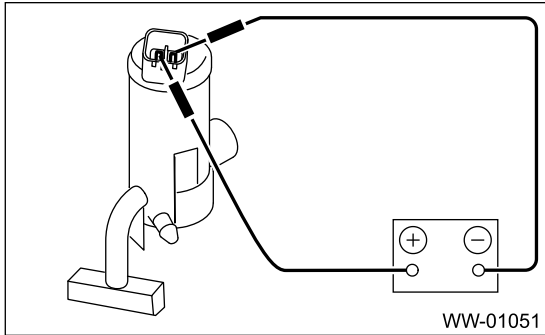
1. Install the motor pump assembly - washer to the tank - washer.
2. Connect the hose - washer.
3. Connect each connector and install the harness clip.
4. Install the mud guard - front LH.
5. Add new washer fluid.
6. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
7. Adjust the fog light beam. (Model with fog light)  [Ref. to LIGHTING SYSTEM>Front Fog Light Assembly>ADJUSTMENT > FOG LIGHT AIMING.](#)

## WIPER AND WASHER SYSTEMS > Washer Tank and Motor

### INSPECTION

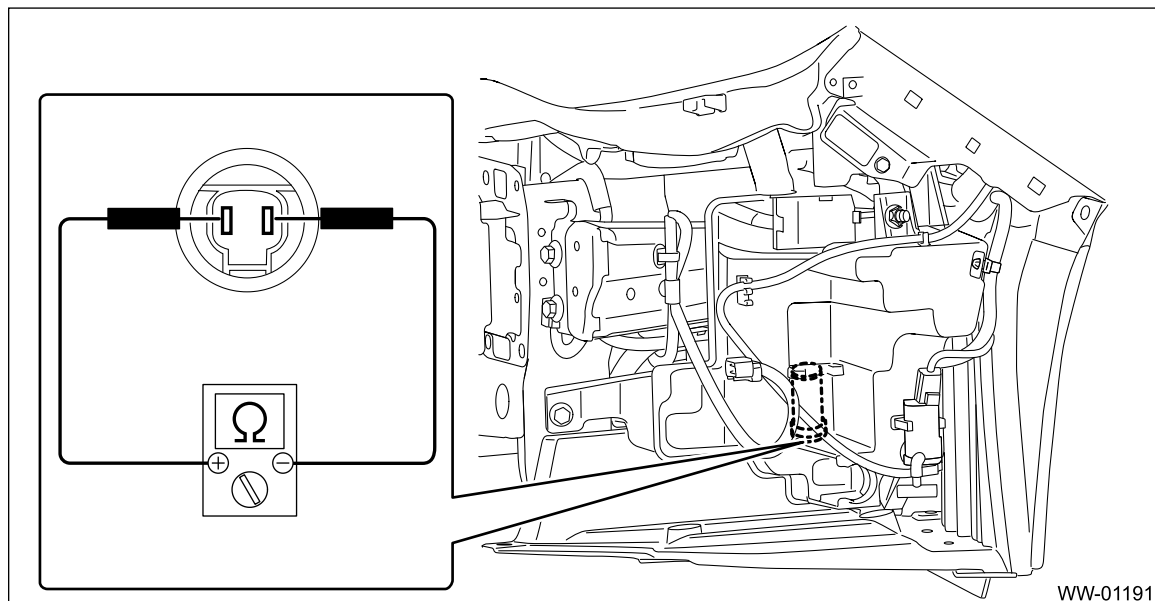
## 1. WASHER PUMP

Apply battery voltage to the connector terminal of the motor pump assembly - washer, and make sure that the motor operates.



## 2. WASHER FLUID LEVEL SENSOR

1. Check the connection status of washer fluid level sensor connector.
2. 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** → **Normal operation.**
  - **no** → **Perform step 3.**
3. Using a tester, measure the voltage of the washer fluid level sensor connector.
  - (1) Is the voltage approx. 8.5 V or more?
    - **yes** → **Perform step 4.**
    - **no** → **Check meter, and replace if necessary.**
4. Does the meter indicator illuminate if you short the washer fluid level sensor connector?
  - **yes** → **Perform step 5.**
  - **no** → **Check harness and meter, and replace if necessary.**
5. Using a tester, measure the resistance of the washer fluid level sensor.
  - (1) Turn over the mud guard.
  - (2) Measure the resistance of the washer fluid level sensor.



<b>Amount of washer fluid in the tank</b>	<b>Standard</b>
No remaining quantity (ON)	Less than 10 $\Omega$
There is remaining quantity (OFF)	1 M $\Omega$ or more

(3) Is the resistance within the standard?

- **yes** → **Normal operation.**
- **no** → **Replace the washer fluid level sensor along with the washer tank.**

## WIPER AND WASHER SYSTEMS > Front Wiper Arm

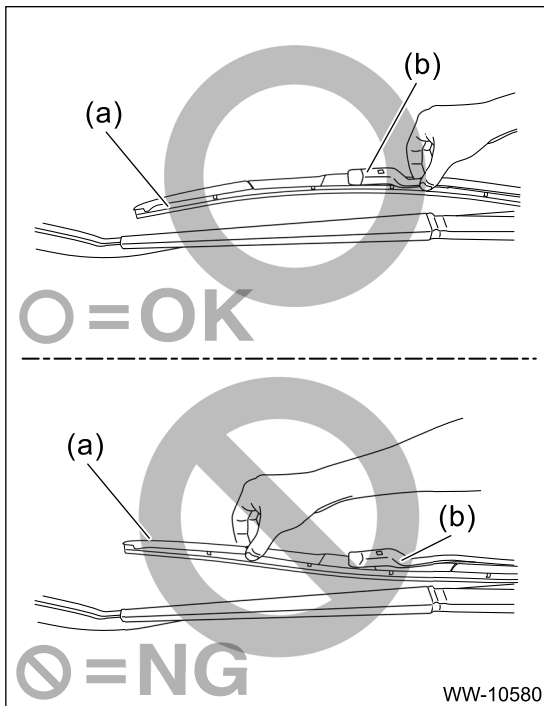
### REMOVAL

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#### 1. MODELS WITHOUT EyeSight

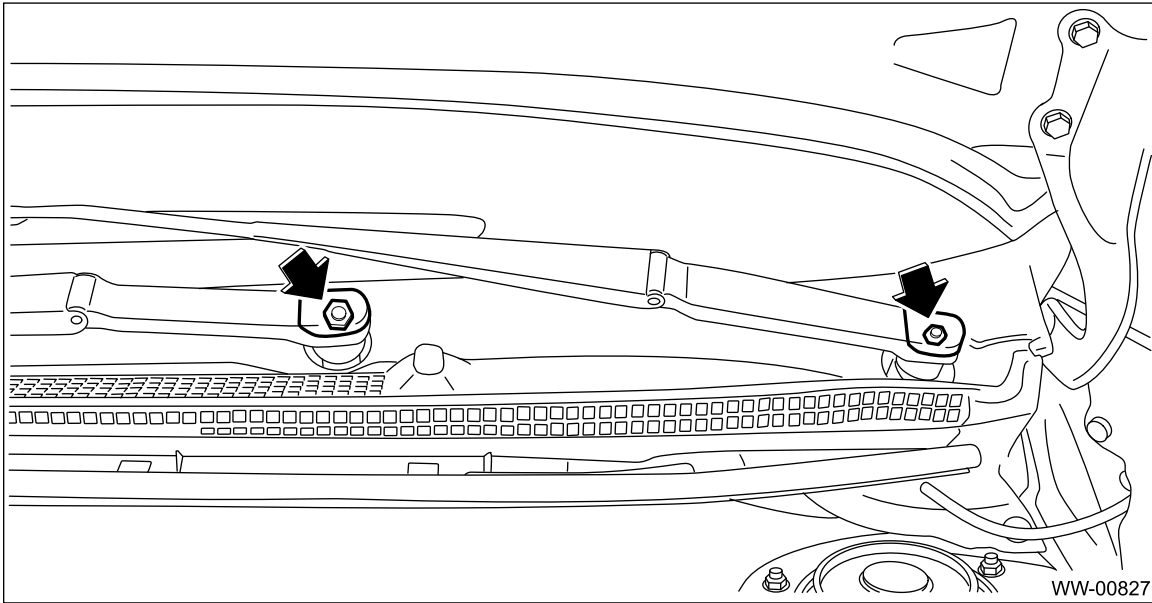
**Note:**

- Since the arm assembly - windshield wiper LH and RH can interfere with each other, remove the driver's side first.
- When raising the arm assembly - windshield wiper, always hold the arm part.



- (a) Blade ASSY - windshield wiper  
(b) Arm ASSY - windshield wiper

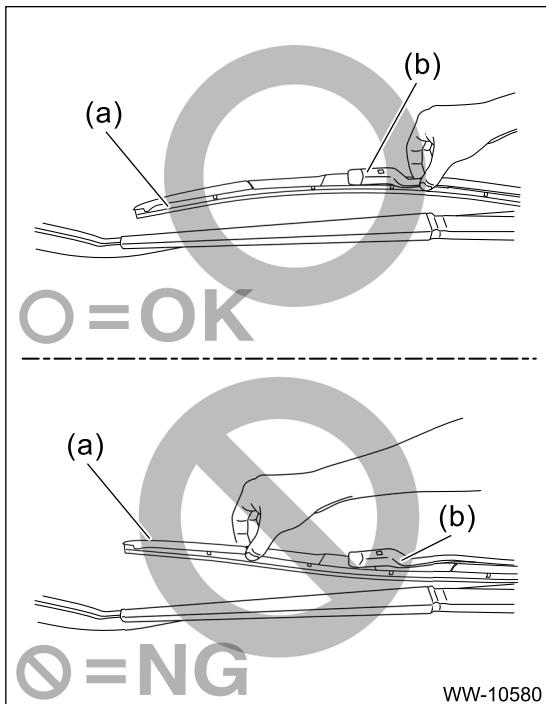
1. Remove the cover - windshield wiper arm.
2. Remove the nuts, and remove the arm assembly - windshield wiper.



## 2. MODELS WITH EyeSight

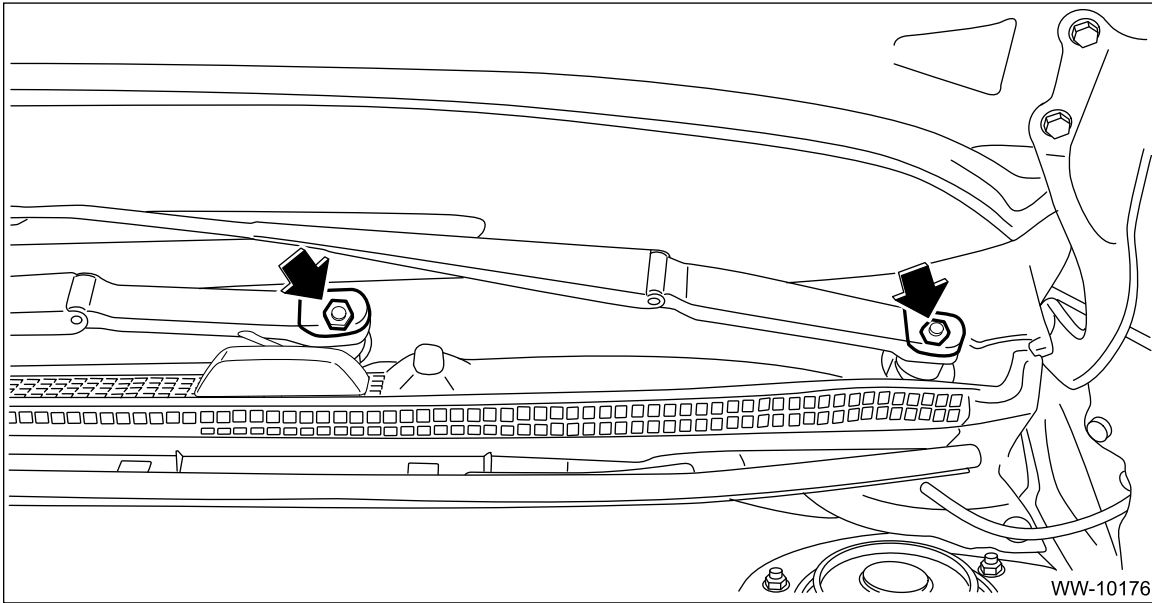
### Note:

- Since the arm assembly - windshield wiper LH and RH can interfere with each other, remove the driver's side first.
- When raising the arm assembly - windshield wiper, always hold the arm part.

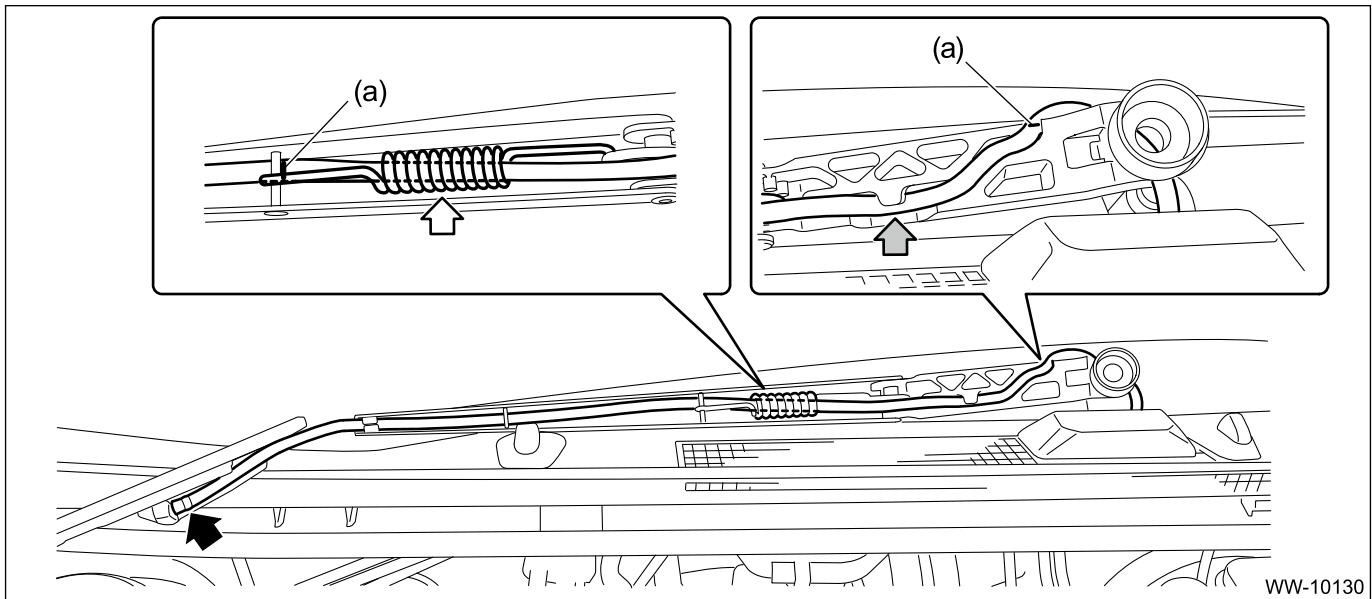


- (a) Blade ASSY - windshield wiper
- (b) Arm ASSY - windshield wiper

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



(2) Add alignment marks (a) on two places, and remove the hose from the arm assembly - windshield wiper assistor.



**3.** When removing the hose from the joint - washer hose, refer to the removal of "Nozzle - wiper arm washer & hose". [Ref. to WIPER AND WASHER SYSTEMS>Front Washer Nozzle and Hose>REMOVAL > NOZZLE - WIPER ARM WASHER & HOSE \(MODEL WITH EyeSight\).](#)

**Caution:**

**Do not remove the nozzle - wiper arm washer from the arm assembly - windshield wiper assistor.**

**If nozzle replacement is required, replace the arm assembly - windshield wiper assistor as a unit.**

WIPER AND WASHER SYSTEMS > Front Wiper Arm

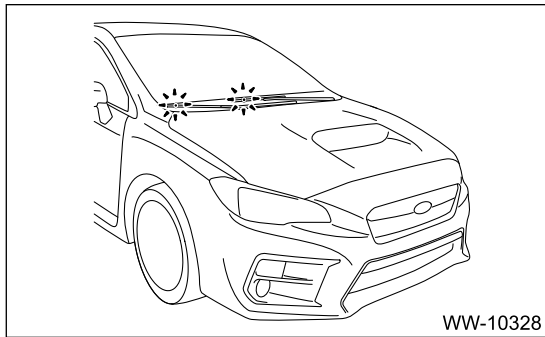
**INSTALLATION**

## 1. MODELS WITHOUT EyeSight

### Note:

Since the arm assembly - windshield wiper LH and RH can interfere with each other, install the passenger's side first.


1. Install the arm assembly - windshield wiper.
  - (1) Assemble the arm assembly - windshield wiper so that the blade assembly - windshield wiper is aligned to the ceramic print point mark of the windshield glass.



- (2) Tighten the arm assembly - windshield wiper to specified torque and install the cap.

### Tightening torque:

26 N·m (2.7 kgf-m, 19.2 ft-lb)

2. Operate the windshield wiper to check that the stop position is aligned with the point mark. If it is not aligned with the point mark, perform the removal and installation of the windshield wiper over again.  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL.](#)


## 2. MODELS WITH EyeSight

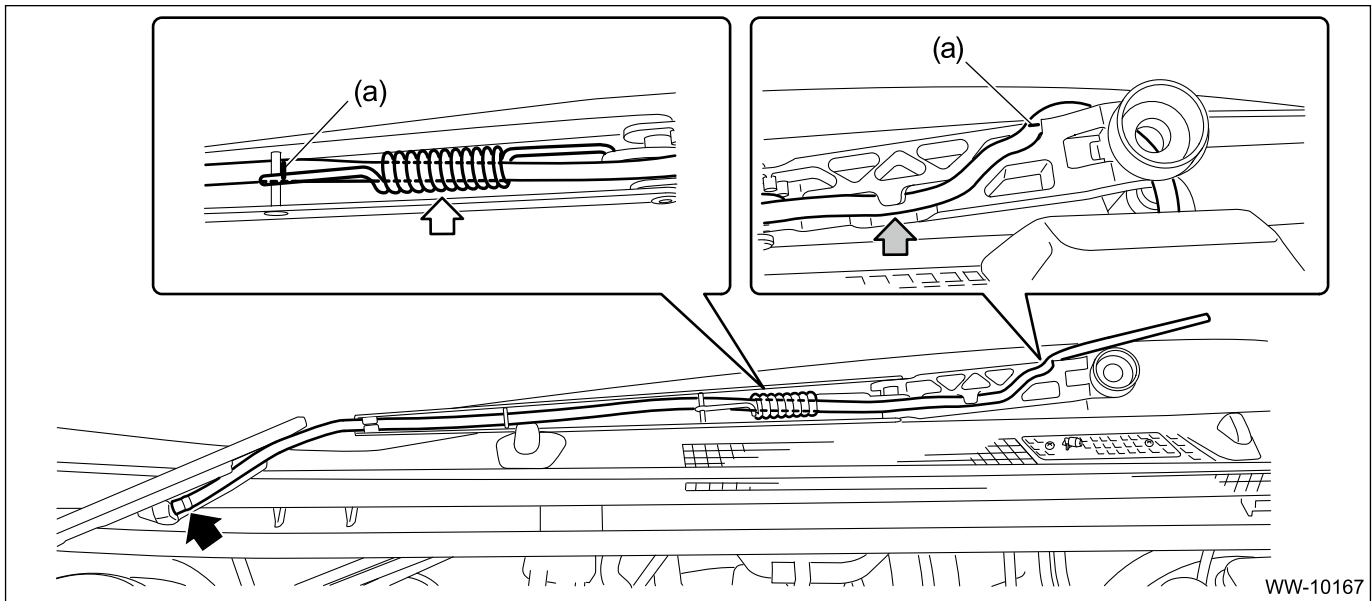
### Caution:

Install firmly so that the hose is not bent, compressed or flattened.

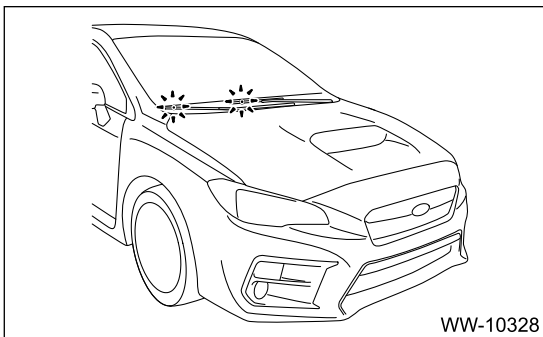
### Note:

Since the arm assembly - windshield wiper LH and RH can interfere with each other, install the passenger's side first.

1. When the hose is removed from the joint - washer hose, refer to "Installation" of "Front washer nozzle & hose".  [Ref. to WIPER AND WASHER SYSTEMS>Front Washer Nozzle and Hose>INSTALLATION.](#)
2. Install the arm assembly - windshield wiper.
  - (1) Align the alignment mark (a), and install the hose to the arm assembly - windshield wiper assistor.




(2) Assemble the arm assembly - windshield wiper so that the blade assembly - windshield wiper is aligned to the ceramic print point mark of the windshield glass.

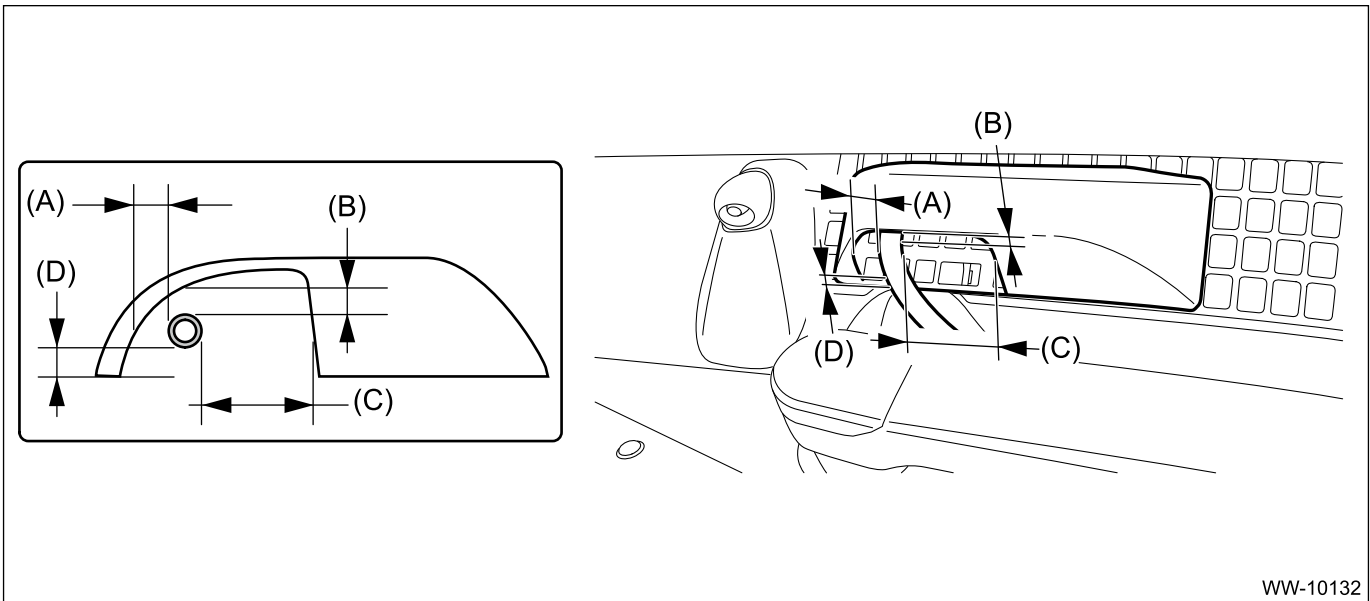


(3) Tighten the arm assembly - windshield wiper to specified torque and install the cap.

**Tightening torque:**

26 N·m (2.7 kgf-m, 19.2 ft-lb)

3. Operate the windshield wiper to check that the stop position is aligned with the point mark. If it is not aligned with the point mark, perform the removal and installation of the windshield wiper over again.  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL.](#)
4. Make sure that there is a gap of 1 mm (0.04 in) or more between the hose and the cover - joint and between the hose and the joint - washer hose during windshield wiper operation.



WW-10132

- (A) Gap between hose and cover - joint outer side
- (B) Gap between hose and cover - joint upper side
- (C) Gap between hose and cover - joint inner side
- (D) Gap between hose and cover - joint lower side



## WIPER AND WASHER SYSTEMS > Front Wiper Motor and Link

### REMOVAL

1. Disconnect the ground cable from battery.  Ref. to NOTE>NOTE > BATTERY.

#### Note:

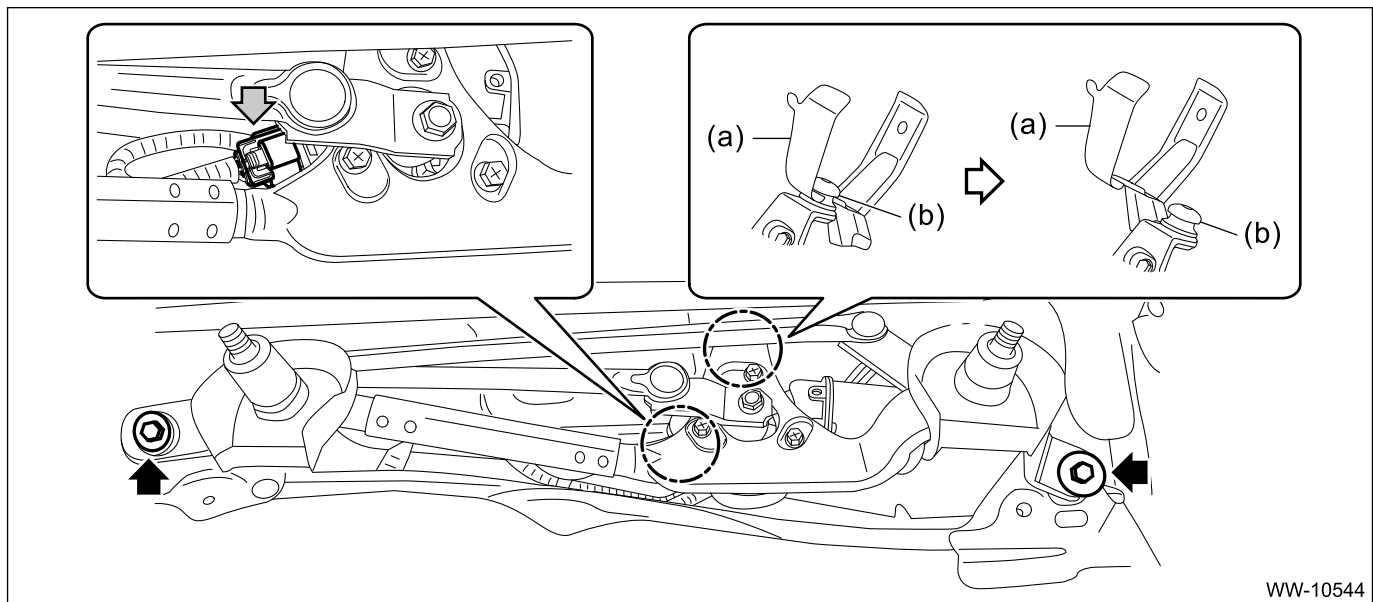
**For model with battery sensor, disconnect the ground terminal from battery sensor.**

2. Remove the arm assembly - windshield wiper.  Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL.
3. Remove the cowl panel - side and the cowl panel assembly.  Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>REMOVAL.

#### Caution:

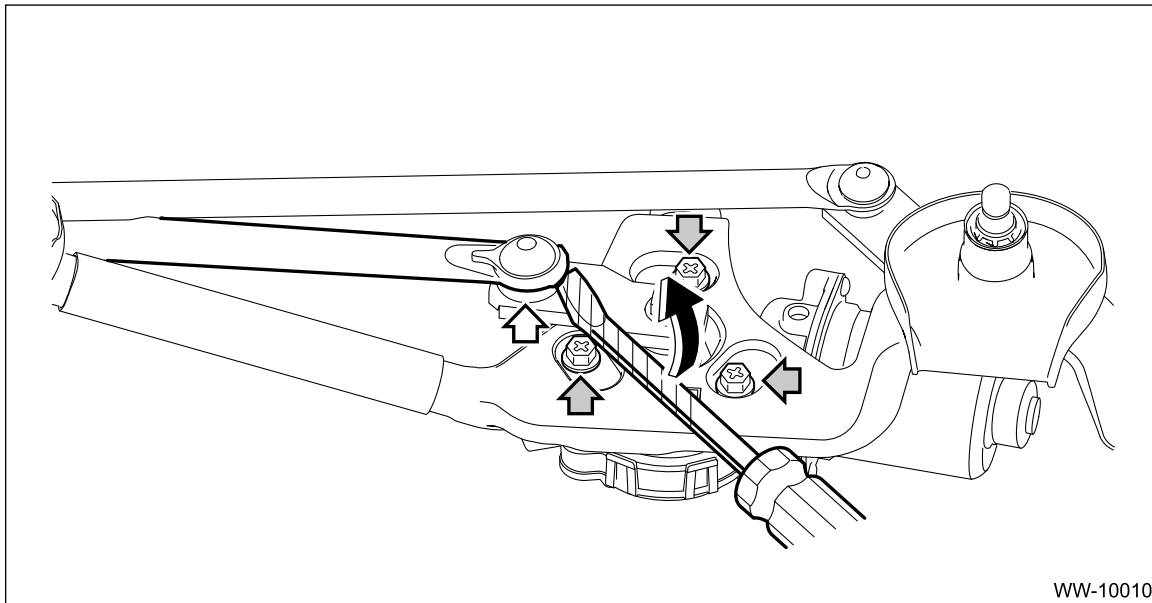
**Before removing the cowl panel, use an air blower and nylon brush to sweep gravel from the lower area of the front side of the glass.**

4. Remove the link assembly - windshield wiper.
  - (1) Disconnect the connector of the motor assembly - windshield wiper.
  - (2) Remove the bolts and harness clips, remove the grommet part of the front wiper link assembly from the body, and then remove the link assembly - windshield wiper.



(a) Body side fitting bracket part    (b) Front wiper link ASSY grommet part

5. Remove the motor assembly - windshield wiper.
  - (1) Using a crowbar wrapped with protective tape, disconnect the link assembly - windshield wiper from the link plate.
  - (2) Remove the bolts, and remove the motor assembly - windshield wiper.




## WIPER AND WASHER SYSTEMS > Front Wiper Motor and Link

### INSTALLATION

#### 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.
- Before installing the windshield glass and cowl panel, make sure there are no gravel in the installing area.

1. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
2. Check that the motor assembly - windshield wiper is at the auto stop position.

#### Caution:

**During motor operation, do not touch the movable part.**

- (1) Connect the harness of front wiper to the motor assembly - windshield wiper.
- (2) Switch the combination switch (wiper) to ON/OFF once.

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

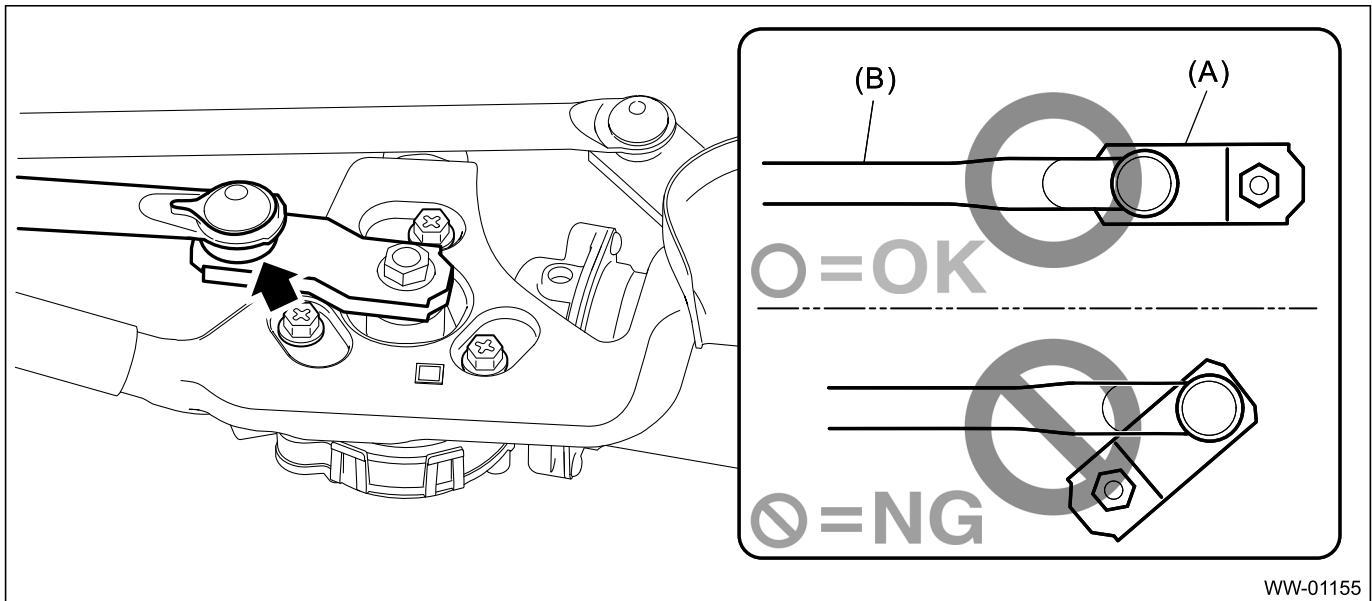
#### Note:

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

4. Install the motor assembly - windshield wiper.
  - (1) Align the link plate position.

#### Caution:

**Install the motor assembly - windshield wiper at the position where the rod (B) and link plate (A) are aligned in a straight line.**



WW-01155

(2) Install the motor assembly - windshield wiper.

**Tightening torque:**

5.5 N·m (0.6 kgf-m, 4.1 ft-lb)

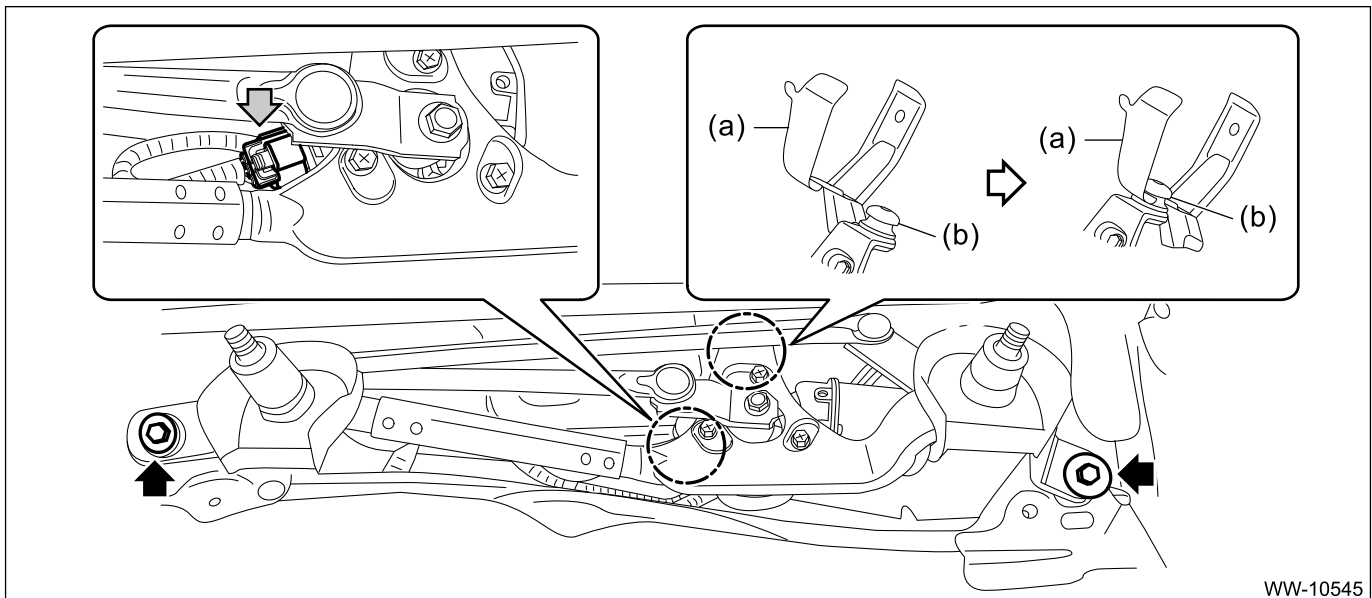
**5.** Install the link assembly - windshield wiper.

(1) Fit the grommet part of the front wiper link assembly into the body, install the bolts and harness clips, and then install the link assembly - windshield wiper.

**Tightening torque:**


6 N·m (0.6 kgf-m, 4.4 ft-lb)




(2) Install the connector of the motor assembly - windshield wiper.

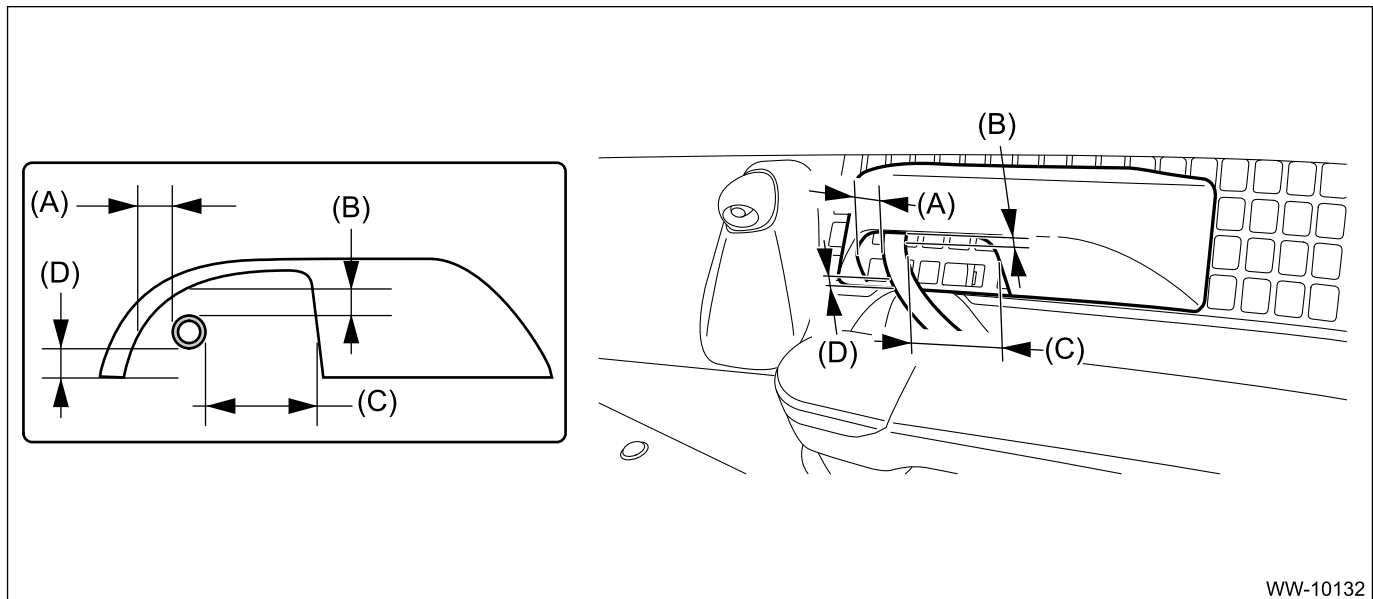


WW-10545

(a) Body side fitting bracket part    (b) Front wiper link ASSY grommet part

**6.** Install the cowl panel - side and the cowl panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>INSTALLATION.](#)

7. Install the arm assembly - windshield wiper.  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>INSTALLATION.](#)
8. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
9. Operate the windshield wiper to check that the stop position is aligned with the point mark.  
If it is not aligned with the point mark, perform the removal and installation of the windshield wiper over again.  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL.](#)
10. Make sure that there is a gap of 1 mm (0.04 in) or more between the hose and the cover - joint and between the hose and the joint - washer hose during windshield wiper operation. (Models with EyeSight)



WW-10132

- (A) Gap between hose and cover - joint outer side      (C) Gap between hose and cover - joint inner side      (D) Gap between hose and cover - joint lower side
- (B) Gap between hose and cover - joint upper side

## WIPER AND WASHER SYSTEMS > Front Wiper Motor and Link

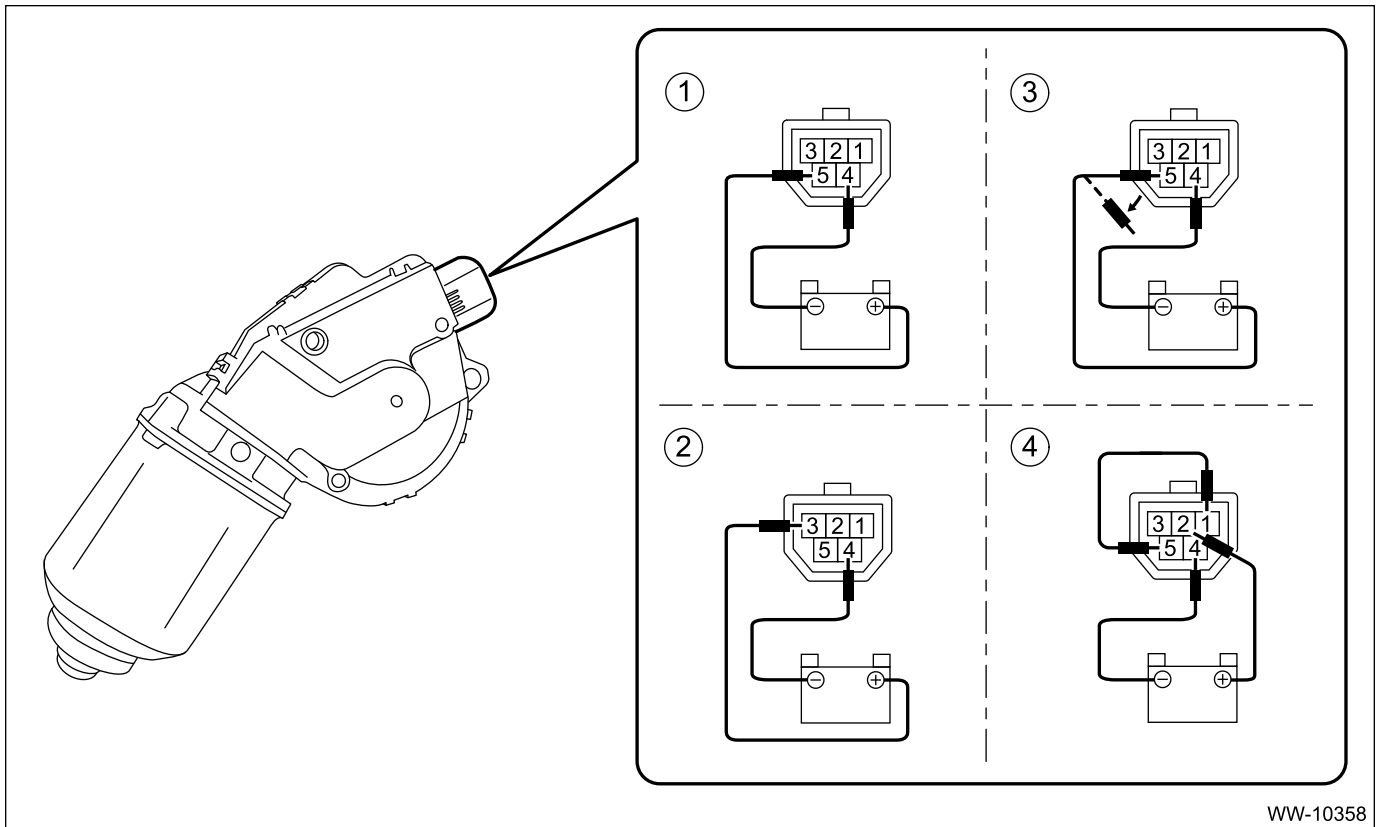
### INSPECTION

1. Check that the following operations perform normally.

**Caution:**

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


- (1) When the battery is connected to the terminal of connectors, confirm that the motor operates at low speed.
- (2) When the battery is connected to the terminal of connectors, confirm that the motor operates at high speed.
- (3) Connect the battery to terminals of the connector, and remove the terminal connection with motor rotating at low speed, and stop the motor assembly - windshield wiper in mid-operation.
- (4) Connect the battery and check that the motor stops at the automatic stop position after the motor operates at low speed again.



WW-10358

**Note:**

**Replace the motor assembly - windshield wiper if the inspection result is not within the standard.**



2. Install the motor assembly - windshield wiper.  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Motor and Link>INSTALLATION.](#)

## WIPER AND WASHER SYSTEMS > Front Washer Nozzle and Hose

### REMOVAL

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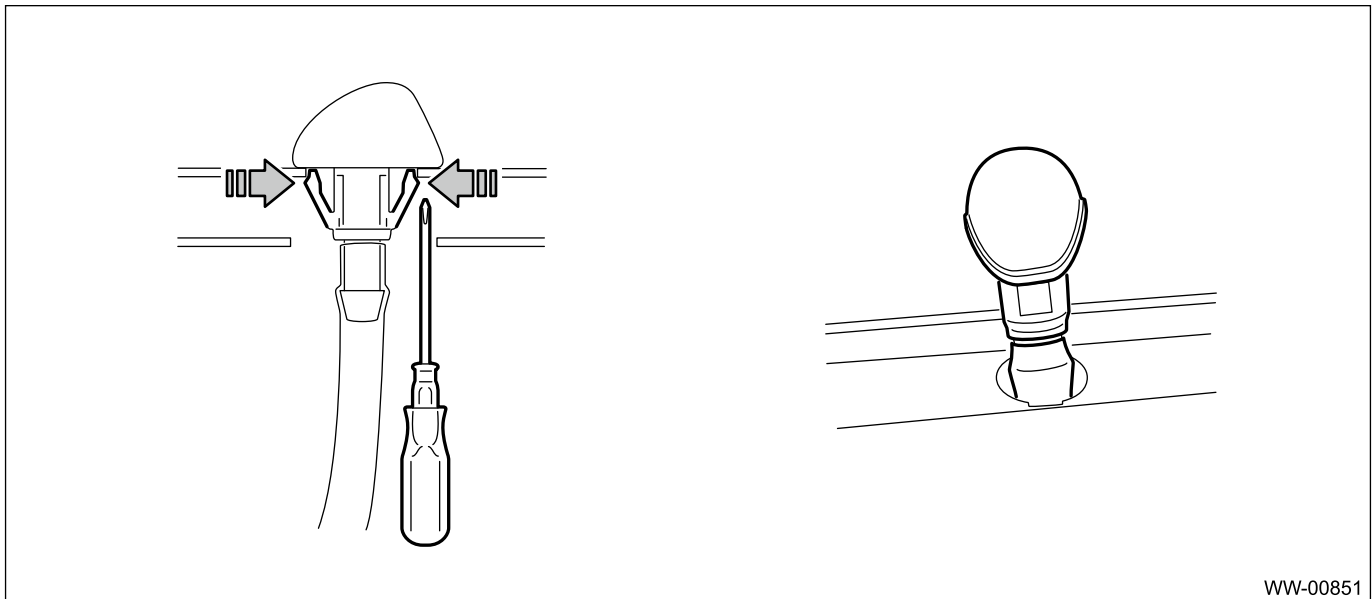
#### 1. NOZZLE - WINDSHIELD WASHER & HOSE

1. Remove the arm assembly - windshield wiper.  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL.](#)
2. Remove the cowl panel - side and the cowl panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>REMOVAL.](#)

#### Caution:

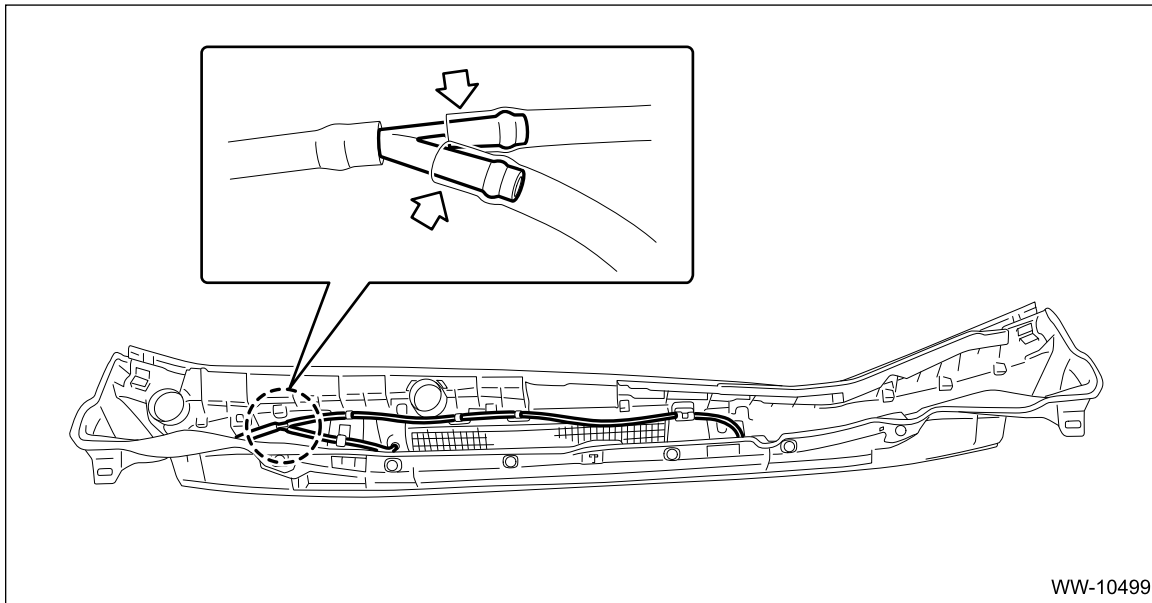
**Before removing the cowl panel, use an air blower and nylon brush to sweep gravel from the lower area of the front side of the glass.**

3. Remove the nozzle - windshield washer.
  - (1) Push the claw using a flat tip screwdriver, etc.
  - (2) When the nozzle - windshield washer lifts up, pull out the nozzle - windshield washer using a clip remover, etc.
  - (3) Disconnect the hose - windshield washer, and remove the nozzle - windshield washer.

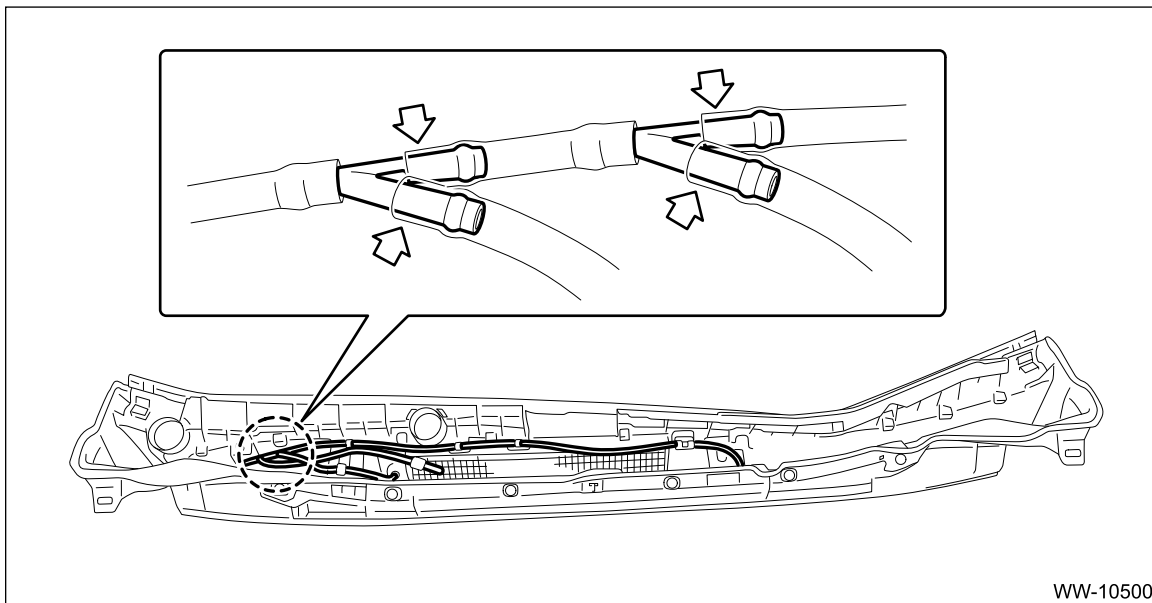


WW-00851

4. Disconnect the hose - windshield washer as necessary.
  - (Models without EyeSight)



- (Models with EyeSight)





## 2. NOZZLE - WIPER ARM WASHER & HOSE (MODEL WITH EyeSight)

### Caution:

**Do not remove the nozzle - wiper arm washer from the arm assembly - windshield wiper assistor.**

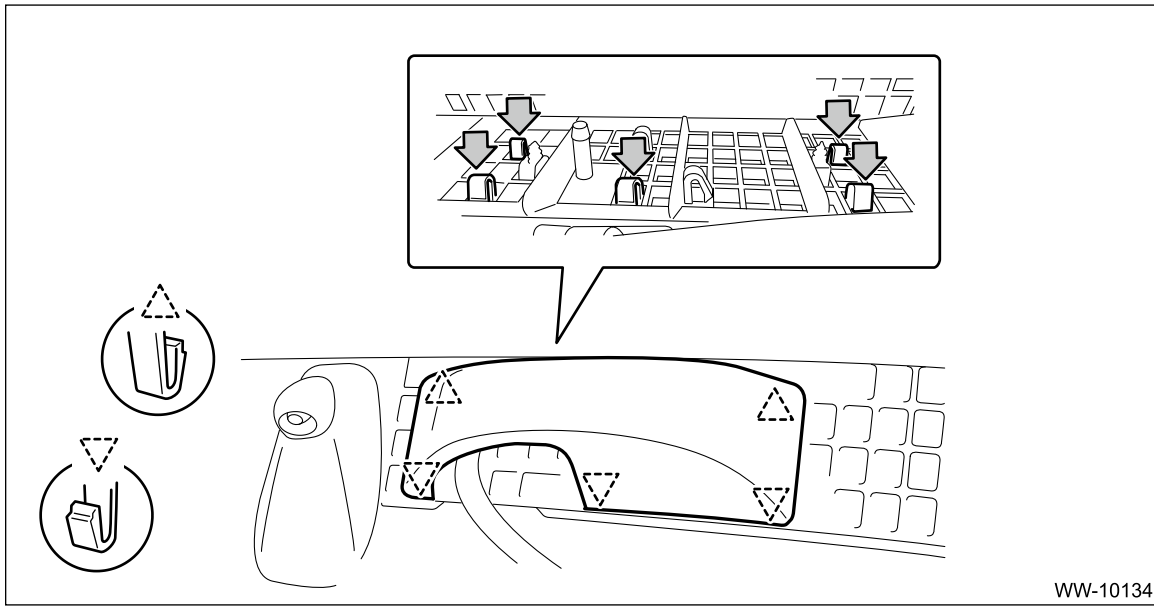
**If nozzle replacement is required, replace the arm assembly - windshield wiper assistor as a unit.**

1. Remove the arm assembly - windshield wiper.  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL.](#)
2. Remove the cowl panel - side and the cowl panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>REMOVAL.](#)

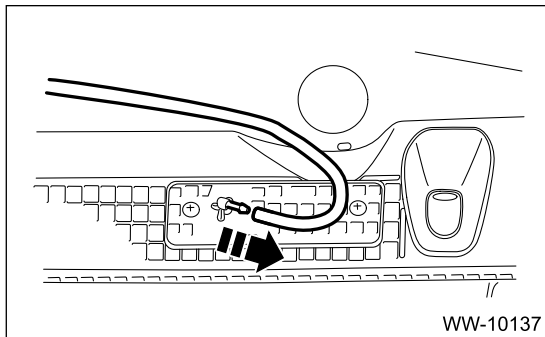
**Caution:**

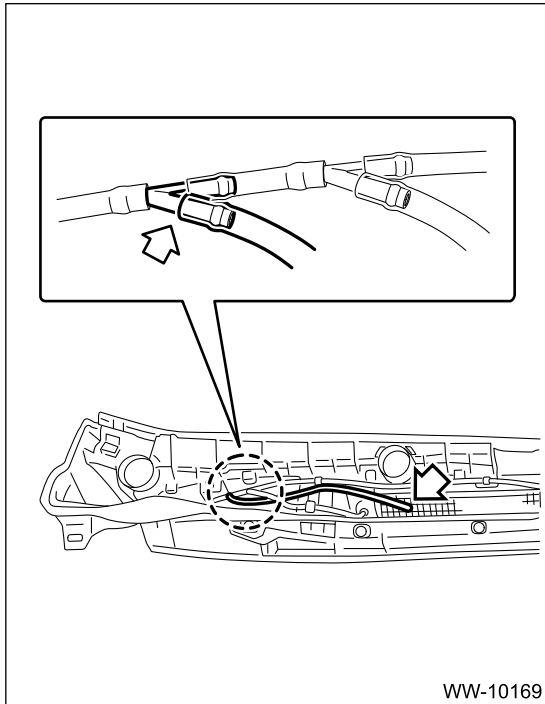
**Before removing the cowl panel, use an air blower and nylon brush to sweep gravel from the lower area of the front side of the glass.**

3. Release the claws, and remove the cover - joint from cowl panel assembly.



4. Remove the hose - wiper arm washer.







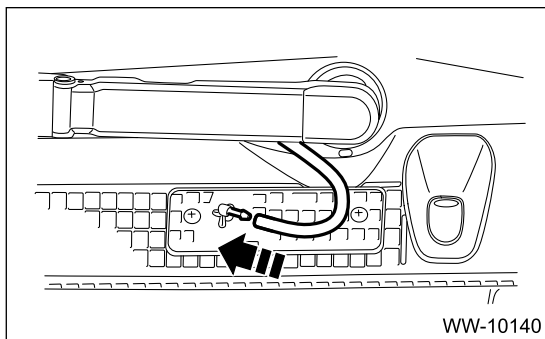
## WIPER AND WASHER SYSTEMS > Front Washer Nozzle and Hose


### INSTALLATION


#### Caution:

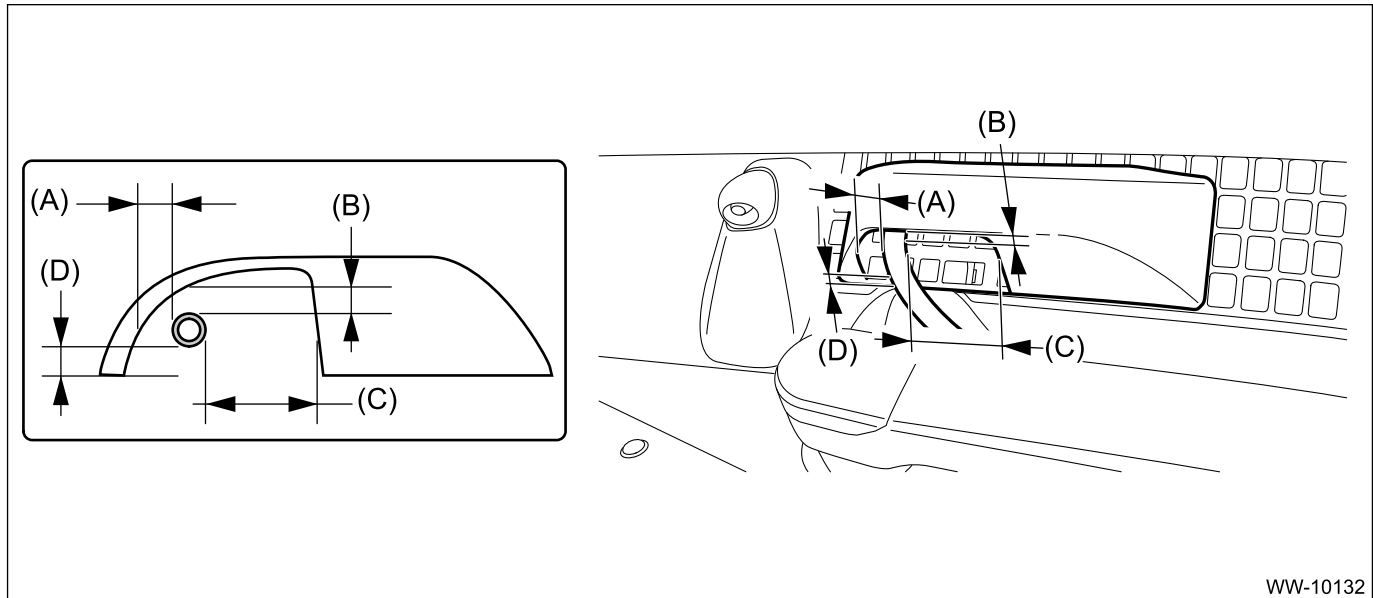
**Before installing the windshield glass and cowl panel, make sure there are no gravel in the installing area.**

1. Install the nozzle - windshield washer.
  - (1) Install the nozzle - windshield washer.
  - (2) Install the hose - windshield washer.
2. Install the cowl panel - side and the cowl panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>INSTALLATION.](#)
3. Install the arm assembly - windshield wiper.  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>INSTALLATION.](#)
4. Install the hose to the joint - washer hose. (Models with EyeSight)



5. Install the cover - joint to the cowl panel assembly. (Models with EyeSight)
6. Adjust the position of the nozzle - windshield washer.  [Ref. to WIPER AND WASHER SYSTEMS>Front Washer Nozzle and Hose>ADJUSTMENT.](#)

7. Operate the windshield wiper to check that the stop position is aligned with the point mark.  
If it is not aligned with the point mark, perform the removal and installation of the windshield wiper over again.  [Ref. to WIPER AND WASHER SYSTEMS>Front Wiper Arm>REMOVAL.](#)
8. Make sure that there is a gap of 1 mm (0.04 in) or more between the hose and the cover - joint and between the hose and the joint - washer hose during windshield wiper operation. (Models with EyeSight)




WW-10132

- (A) Gap between hose and cover - joint outer side  
 (B) Gap between hose and cover - joint upper side  
 (C) Gap between hose and cover - joint inner side  
 (D) Gap between hose and cover - joint lower side

## WIPER AND WASHER SYSTEMS > Front Washer Nozzle and Hose

### INSPECTION

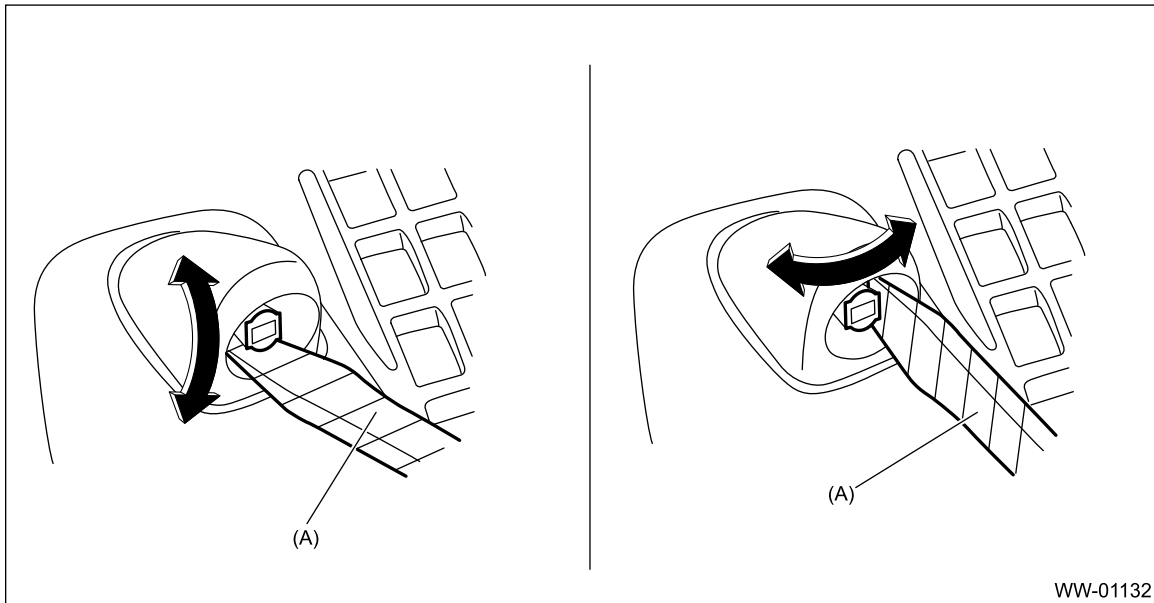
- Make sure the nozzle - windshield washer and the hose - windshield washer are not clogged.
- Make sure the hose - windshield washer is not bent.
- Check the position of the nozzle - windshield washer.  [Ref. to WIPER AND WASHER SYSTEMS>Front Washer Nozzle and Hose>ADJUSTMENT.](#)

## WIPER AND WASHER SYSTEMS > Front Washer Nozzle and Hose

### ADJUSTMENT

#### 1. NOZZLE - WINDSHIELD WASHER

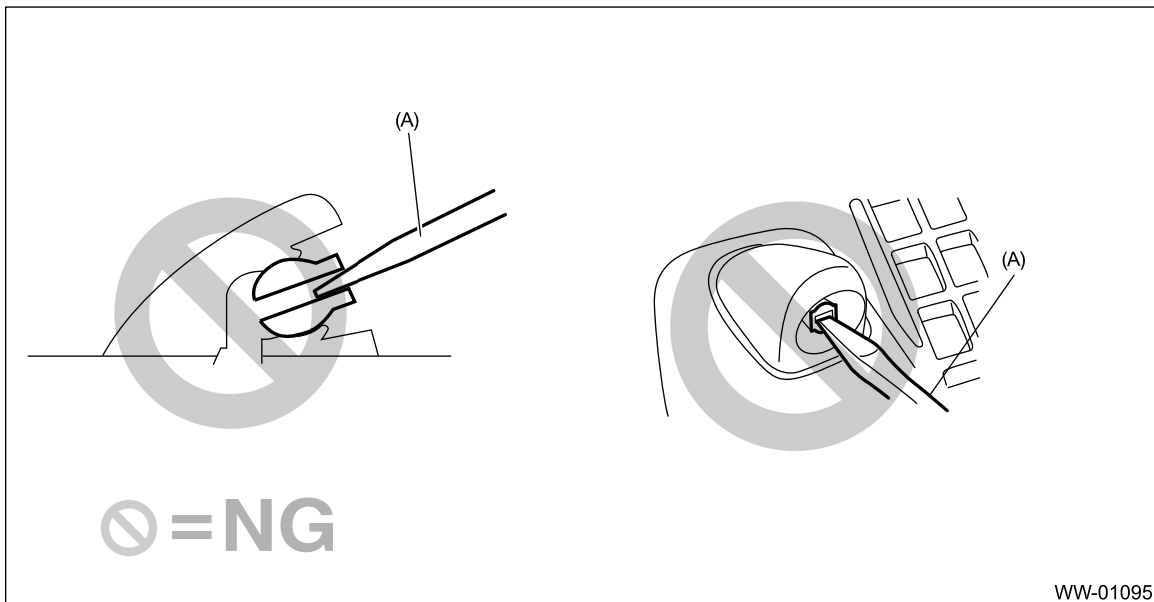
1. Turn the combination switch (wiper) to OFF position.
2. While the vehicle is at a standstill, insert a precision screwdriver (A) or equivalent wrapped with protective tape into the clearance on the upper/lower side or the right/left side of the nozzle - windshield washer to perform necessary adjustment.



WW-01132

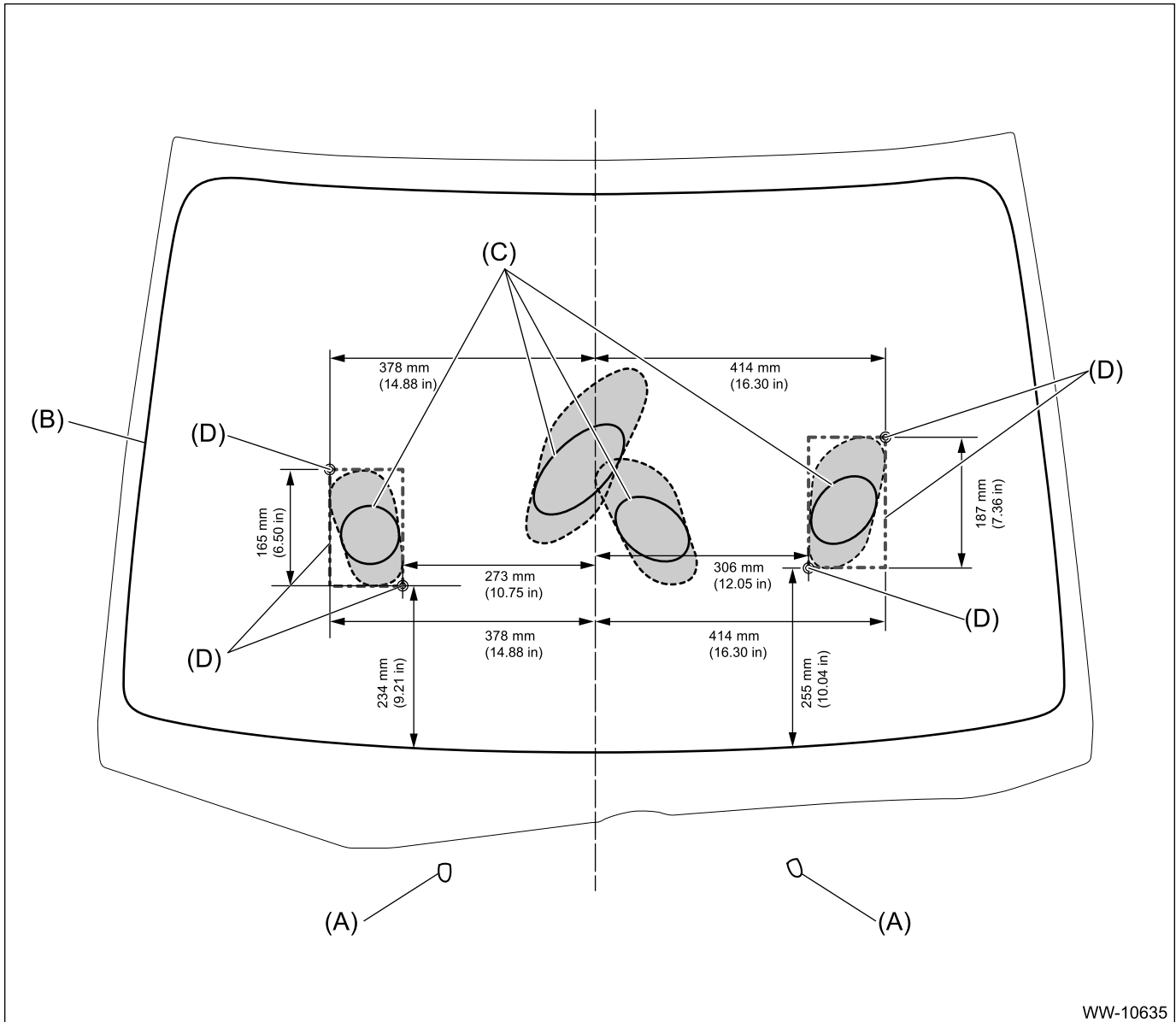
**Caution:**

- The nozzle - windshield washer is made of resin. If precision screwdriver (A) or equivalent is inserted into discharge port for adjustment, the discharge port can be deformed, and washer fluid cannot be sprayed.
- Do not rotate the discharge port of the nozzle - windshield washer, otherwise it may be damaged.



WW-01095

3. Adjust the washer injection position so that it sprays on the area indicated in the figure.
  - (1) Place strings from the outside of the glass through the center of the inner mirror mounting part and the center of the sunload sensor, and fix them on the glass with tape.
  - (2) Mark the area for adjustment shown in the figure from vehicle inside using a water-based pen.
  - (3) Remove the strings and spray the washer.
  - (4) Adjust the nozzle so that the splaying position is within the marked area.
  - (5) After adjustment, clean the inside of the glass properly.



WW-10635

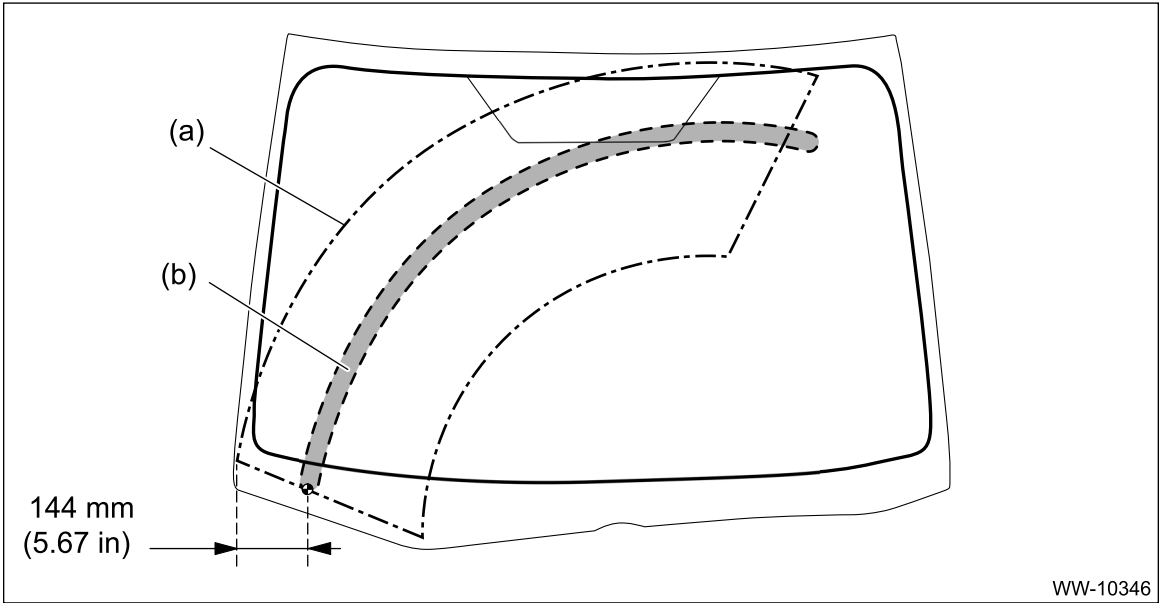
- (A) Nozzle - windshield washer      (B) Ceramic line      (C) Standard range  
 (D) Mark for adjustment

## 2. NOZZLE - WIPER ARM WASHER (MODEL WITH EyeSight)

### Caution:

**Check and adjust the spray position of the nozzle - wiper arm at the position where the wiper arm stops.**

1. Turn the combination switch (wiper) to OFF position.
2. While the vehicle is stopped, check that the washer spray position is as shown in the figure.
3. After inspection, if the spray position is really out of the specified range, replace with a new arm assembly - windshield wiper assistor.



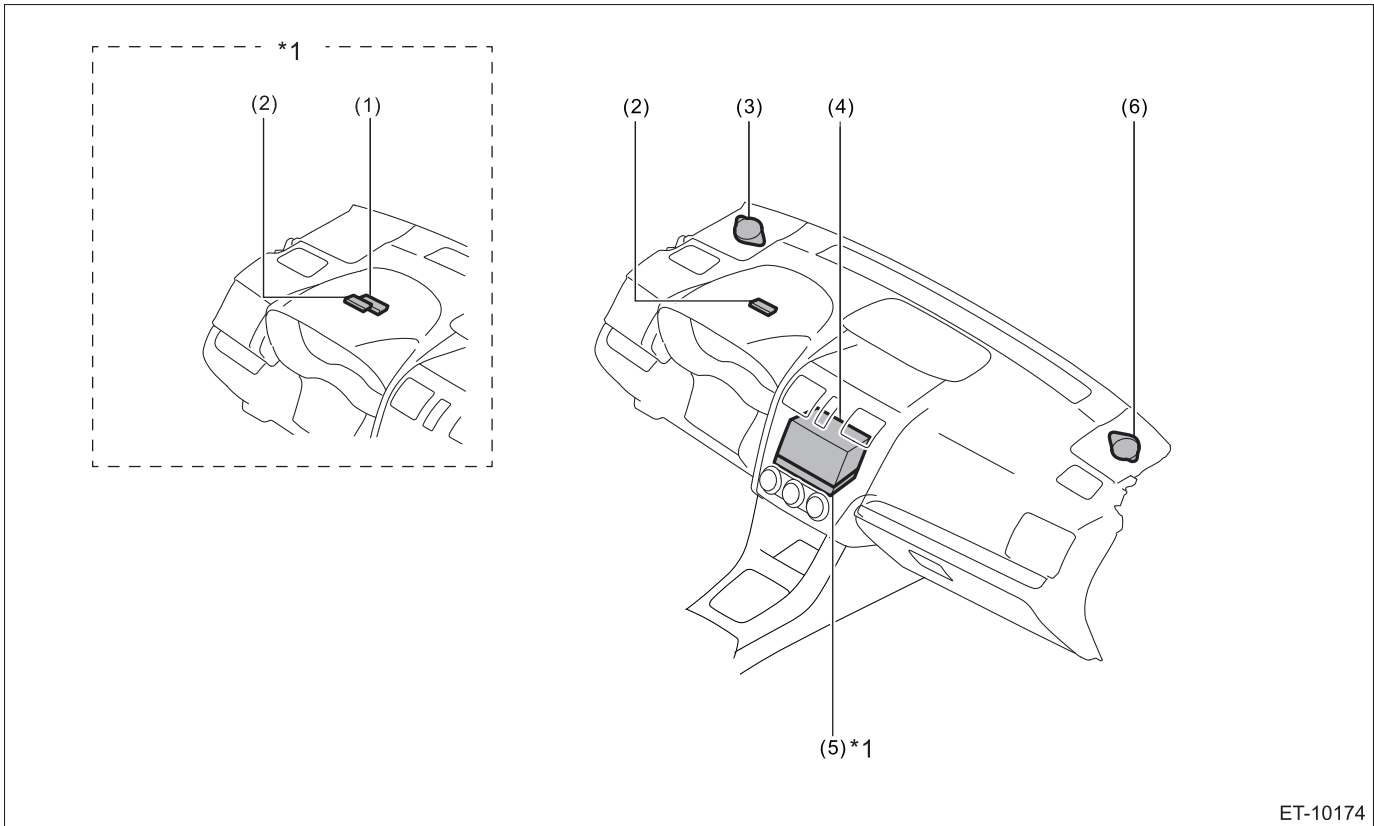
(a) Wiping area of arm ASSY -  
windshield wiper assistor

(b) Spray area

1. General Description
2. Check List for Interview
3. Relay and Fuse
4. Audio System
5. Audio
6. Front Speaker
7. Rear Speaker
8. Antenna
9. Switches and Harness
10. Microphone
11. Woofer
12. Power Amplifier
13. Navigation System
14. Navigation Body
15. GPS Antenna
16. Telematics System
17. Data Communication Module
18. Camera
19. Accessory Power Supply Socket
20. External Connection Terminal
21. Diagnostics with Phenomenon
22. Service Diagnostics Mode

**LOCATION**

**1. AUDIO AND NAVIGATION SYSTEM**



ET-10174

(1) Telematics sub antenna

(2) GPS antenna ASSY

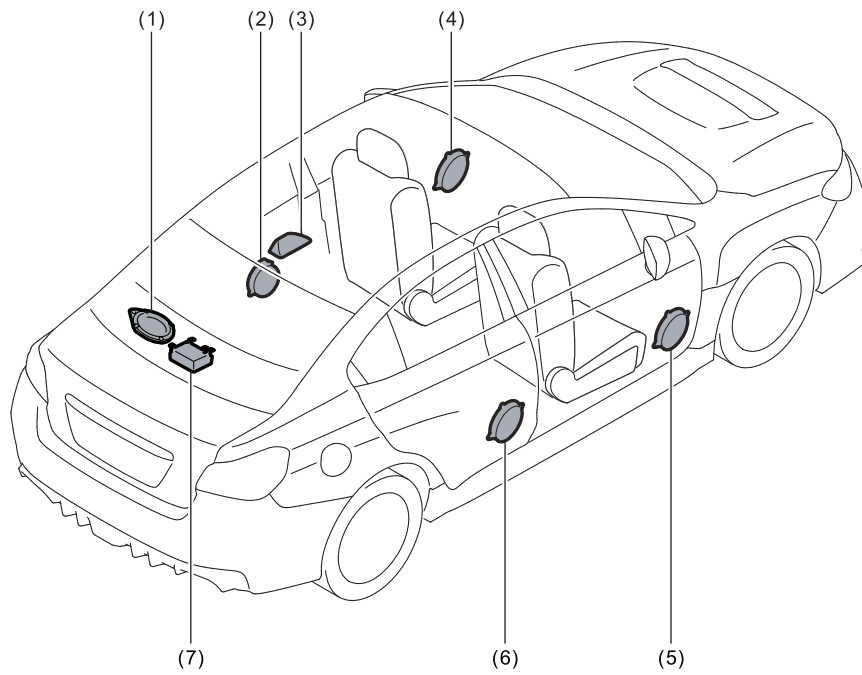
(3) Speaker ASSY - tweeter LH

(4) Audio ASSY or navigation  
ASSY

(5) Data communication module

(6) Speaker ASSY - tweeter RH

\*1: Model with telematics

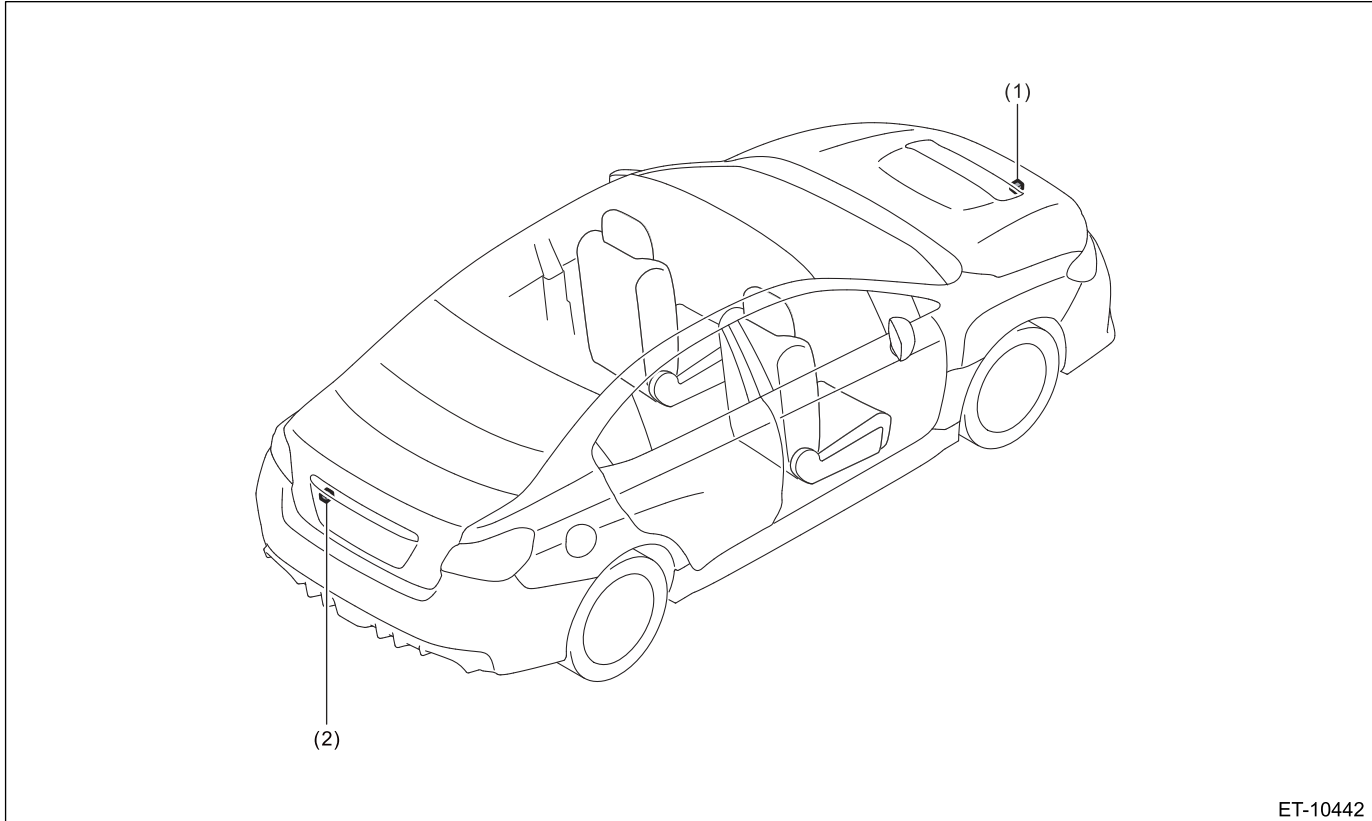


ET-10445

- |   |                             |                            |
|---|-----------------------------|----------------------------|
| (1) Speaker ASSY - woofer                       | (4) Speaker ASSY - front LH | (6) Speaker ASSY - rear RH |
| (2) Speaker ASSY - rear LH                      | (5) Speaker ASSY - front RH | (7) Power amplifier ASSY   |
| (3) Antenna ASSY - roof or telematics antenna*1 |                             |                            |

\*1: Model with telematics


## 2. CAMERA



ET-10442

(1) Front view camera ASSY      (2) Rearview camera ASSY

## 3. TELEMATICS SYSTEM

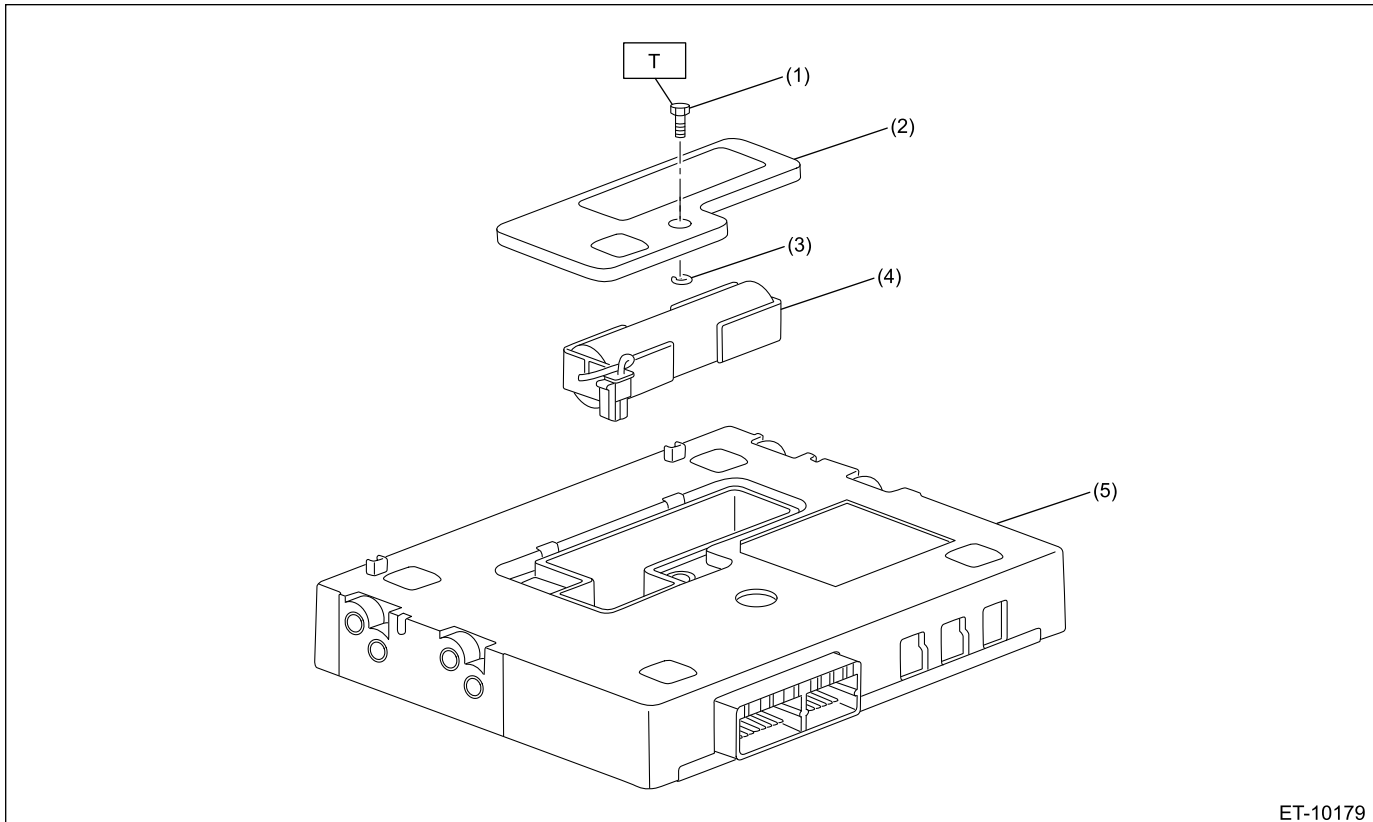
Refer to "LOCATION" of "TELEMATICS SYSTEM (DIAGNOSTICS)" section.  [Ref. to TELEMATICS SYSTEM \(DIAGNOSTICS\)>Electrical Component Location>LOCATION.](#)

ENTERTAINMENT & MONITORING > General Description

**COMPONENT**

---

## 1. DATA COMMUNICATION MODULE



(1) Cap screw

(4) Backup battery

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

(2) Battery cover



(5) Data communication module

**T: 0.3 (0.03, 0.2)**

(3) Circlip

### ENTERTAINMENT & MONITORING > General Description

#### CAUTION


- Before disconnecting connectors of sensors or units, be sure to disconnect the ground cable from battery. When replacing the audio and MFD parts provided with memory functions, record the memory contents before disconnecting the battery ground cable.
- Be careful of the following items. Failing to do so may cause the airbag system malfunction.
  - Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. When using a tester on these circuits, follow the cautions of "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
  - Be careful not to damage the airbag system wiring harness when servicing the electrical parts around the steering column.
- When removing, installing or replacing the VDCCM&H/U, VDCCM&H/U bracket, steering wheel or steering angle sensor (steering roll connector), 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.](#)

### ENTERTAINMENT & MONITORING > General Description

## PREPARATION TOOL

---

### 1. SPECIAL TOOL

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

### 2. GENERAL TOOL

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

## ENTERTAINMENT & MONITORING > Check List for Interview

### CHECK


- Inspect the following items regarding the vehicle's state.
- Print out this page for interviewing customers.

### 1. AUDIO

Check List for Interview		Date of Vehicle Bring-in	
		Year	Month Date
Customer's name		Registration No.	Initial year of registration
			Year Month Date
		Vehicle model	Frame number
Interviewer	Inspector	Engine type	Odometer reading
Customer specified content			
. . . .			
Product information	Part No.	Manufacturer model number	Serial No.
	Software version*1		
	Connected device (example: iPod connected via USB cable)		
SUBARU STARLINK connection ID*1			
SUBARU STARLINK app version			
Mobile phone	Mobile phone carrier (example: AT&T)		
	Mobile phone model (example: Apple iPhone 6)		
	Mobile phone OS version (example: software version information)		
Date when problem occurred	Year	Month	Date



Radio malfunction	<input type="checkbox"/> AM: Station (        Hz) <input type="checkbox"/> FM: Station (        Hz) <input type="checkbox"/> SXM: Station ( channel) (only for North America) <input type="checkbox"/> HD: Station (        channel) (only for North America) <input type="checkbox"/> No Sound <input type="checkbox"/> No / Poor Sound <input type="checkbox"/> Noise / Static <input type="checkbox"/> Sound cuts in / out <input type="checkbox"/> Others
SW color change at operation	<input type="checkbox"/> Present <input type="checkbox"/> None
Audio malfunction	<input type="checkbox"/> Does not sound <input type="checkbox"/> Front ( <input type="checkbox"/> R <input type="checkbox"/> L) <input type="checkbox"/> Rear ( <input type="checkbox"/> R <input type="checkbox"/> L) <input type="checkbox"/> Others (        ) <input type="checkbox"/> Operation related problems <input type="checkbox"/> Cannot adjust volume level <input type="checkbox"/> Cannot use tone control or adjust tone range <input type="checkbox"/> Cannot record <input type="checkbox"/> Sound skipping <input type="checkbox"/> CD <input type="checkbox"/> DVD <input type="checkbox"/> Others (        ) · Specific mode/disc (        )
CD/USB/SD/iPod malfunction	<input type="checkbox"/> Will not accept <input type="checkbox"/> Will not eject (CD) <input type="checkbox"/> Will not play <input type="checkbox"/> Skips / Jump Chapter <input type="checkbox"/> No Sound <input type="checkbox"/> Noise / Static <input type="checkbox"/> Sound cuts in / out <input type="checkbox"/> Shows Error <input type="checkbox"/> Others
Bluetooth Audio related malfunction	<input type="checkbox"/> Will Not Pair <input type="checkbox"/> Will Not Play <input type="checkbox"/> No Sound <input type="checkbox"/> Noise / Static <input type="checkbox"/> Disconnect on its own <input type="checkbox"/> Others
Bluetooth handsfree related malfunction	<input type="checkbox"/> Will Not Pair <input type="checkbox"/> Cannot Hear (Receiver) <input type="checkbox"/> Cannot Hear (Caller) <input type="checkbox"/> Sounds Garbled <input type="checkbox"/> Address Book Will Not Transfer <input type="checkbox"/> Disconnect on its own
SUBARU STARLINK malfunction	<input type="checkbox"/> Bluetooth connection not established <input type="checkbox"/> SUBARU STARLINK app disabled <input type="checkbox"/> SUBARU STARLINK app disabled <input type="checkbox"/> Communication gets out of service <input type="checkbox"/> Pandora disabled <input type="checkbox"/> MirrorLink disabled <input type="checkbox"/> AHA disabled <input type="checkbox"/> USB connection not established <input type="checkbox"/> Others
Check result	Reproductivity <input type="checkbox"/> Reproduced <input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Cannot be reproduced <input type="checkbox"/> Others
	Condition <input type="checkbox"/> Cold <input type="checkbox"/> Warm <input type="checkbox"/> At starting <input type="checkbox"/> Immediately after starting <input type="checkbox"/> During warm-up <input type="checkbox"/> At idling <input type="checkbox"/> When start driving <input type="checkbox"/> While driving <input type="checkbox"/> At acceleration <input type="checkbox"/> At deceleration <input type="checkbox"/> When applying brake

\*1: For confirmation procedure, refer to Audio System.  [Ref. to ENTERTAINMENT & MONITORING>Audio System>OPERATION.](#)


## 2. NAVIGATION

Check List for Interview	Date of Vehicle Bring-			
	in	Year	Month	Date



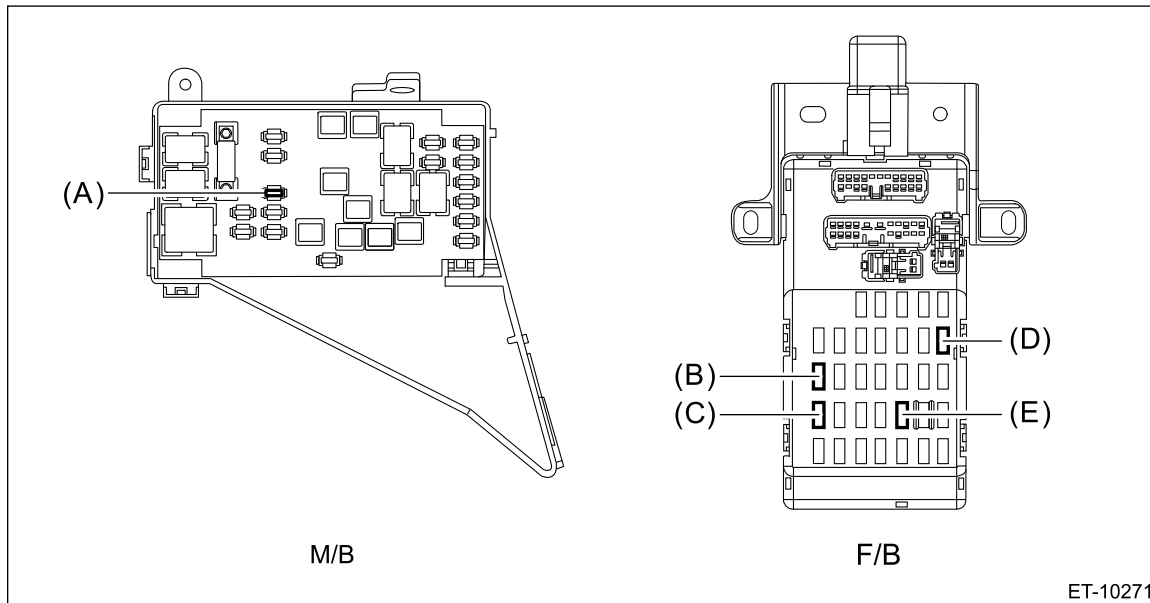
Occurrence condition 1 (In what situations did it occur?)	<input type="checkbox"/> Fast Driving <input type="checkbox"/> Rough Roads <input type="checkbox"/> Parked <input type="checkbox"/> Unknown <input type="checkbox"/> Others
Occurrence condition 2 (In what operations did it occur?)	<input type="checkbox"/> ACC On <input type="checkbox"/> Insert Disc <input type="checkbox"/> Press Specific Button <input type="checkbox"/> Press Specific Mode <input type="checkbox"/> Unknown <input type="checkbox"/> Others
Recovering condition (What helped the status return to normal?)	<input type="checkbox"/> Recover on its own <input type="checkbox"/> ACC Off and On <input type="checkbox"/> Does not recover <input type="checkbox"/> Others
Occurrence location	<input type="checkbox"/> Unknown <input type="checkbox"/> Any Place <input type="checkbox"/> Driving around open areas like in the country <input type="checkbox"/> Driving around hills or mountains <input type="checkbox"/> Driving around cities with large buildings <input type="checkbox"/> Driving around residential areas or no large buildings <input type="checkbox"/> Driving around areas with power
Error message content (error message displayed)	
Display trouble	<input type="checkbox"/> Black screen <input type="checkbox"/> White screen <input type="checkbox"/> Blue screen <input type="checkbox"/> Dim <input type="checkbox"/> Vertical/horizontal noise (lines) <input type="checkbox"/> Poor color tone <input type="checkbox"/> Unclear <input type="checkbox"/> Display corruption <input type="checkbox"/> No picture <input type="checkbox"/> Others
Occurrence conditions (screen display related problems)	<input type="checkbox"/> Navigation <input type="checkbox"/> CD <input type="checkbox"/> Radio <input type="checkbox"/> External devices <input type="checkbox"/> Others ( )
Operating problems	<input type="checkbox"/> Display does not switch <input type="checkbox"/> Display changes unexpectedly <input type="checkbox"/> Response is dull/slow <input type="checkbox"/> Does not respond to key entry <input type="checkbox"/> Does not respond to steering switch entry <input type="checkbox"/> Does not change to night mode screen <input type="checkbox"/> Discs cannot be inserted or ejected <input type="checkbox"/> Others
Display/touch switch malfunction	<input type="checkbox"/> Brightness / Contrast <input type="checkbox"/> Discoloration <input type="checkbox"/> No rear camera <input type="checkbox"/> Partial Display <input type="checkbox"/> Lines in screen <input type="checkbox"/> No Audio Control Screen <input type="checkbox"/> No Navi Map on Screen <input type="checkbox"/> Others
Voice recognition malfunction	<input type="checkbox"/> Voice recognition is not ready <input type="checkbox"/> Not recognize commands <input type="checkbox"/> Others
BEEP on operation entry	<input type="checkbox"/> Present <input type="checkbox"/> None
Radio malfunction	<input type="checkbox"/> AM: Station ( Hz) <input type="checkbox"/> FM: Station ( Hz) <input type="checkbox"/> SXM: Station ( channel) (only for North America) <input type="checkbox"/> HD: Station ( channel) (only for North America) <input type="checkbox"/> No Sound <input type="checkbox"/> No / Poor Sound <input type="checkbox"/> Noise / Static <input type="checkbox"/> Sound cuts in / out <input type="checkbox"/> Others
SW color change at operation	<input type="checkbox"/> Present <input type="checkbox"/> None
Audio malfunction	<input type="checkbox"/> Does not sound <input type="checkbox"/> Front ( <input type="checkbox"/> R <input type="checkbox"/> L) <input type="checkbox"/> Rear ( <input type="checkbox"/> R <input type="checkbox"/> L) <input type="checkbox"/> Others ( ) <input type="checkbox"/> Operation related problems

	<input type="checkbox"/> Cannot adjust volume level <input type="checkbox"/> Cannot use tone control or adjust tone range <input type="checkbox"/> Cannot record <input type="checkbox"/> Sound skipping <input type="checkbox"/> CD <input type="checkbox"/> DVD <input type="checkbox"/> Others ( ) · Specific mode/disc ( )
CD/USB/SD/iPod malfunction	<input type="checkbox"/> Will not accept <input type="checkbox"/> Will not eject (CD) <input type="checkbox"/> Will not play <input type="checkbox"/> Skips / Jump Chapter <input type="checkbox"/> No Sound <input type="checkbox"/> Noise / Static <input type="checkbox"/> Sound cuts in / out <input type="checkbox"/> Shows Error <input type="checkbox"/> Others
Navigation failure	<input type="checkbox"/> Cursor or map rotating <input type="checkbox"/> Wrong location of vehicle <input type="checkbox"/> Cursor hopping during driving <input type="checkbox"/> Map image incomplete <input type="checkbox"/> No GPS marks displayed <input type="checkbox"/> Incorrect time display <input type="checkbox"/> Guide not initiated <input type="checkbox"/> No route search <input type="checkbox"/> Caution remains on navigation screen <input type="checkbox"/> Unexpected return back to opening screen <input type="checkbox"/> No Voice Guidance <input type="checkbox"/> Guidance Volume too Low <input type="checkbox"/> Will Not Read Data <input type="checkbox"/> Will Not Update <input type="checkbox"/> Destination / Route Problem <input type="checkbox"/> Display Does Not Change (Frozen) <input type="checkbox"/> Overall Navi Operation Slow <input type="checkbox"/> No GPS reception <input type="checkbox"/> Others
Bluetooth Audio related malfunction	<input type="checkbox"/> Will Not Pair <input type="checkbox"/> Will Not Play <input type="checkbox"/> No Sound <input type="checkbox"/> Noise / Static <input type="checkbox"/> Disconnect on its own <input type="checkbox"/> Others
Bluetooth handsfree related malfunction	<input type="checkbox"/> Will Not Pair <input type="checkbox"/> Cannot Hear (Receiver) <input type="checkbox"/> Cannot Hear (Caller) <input type="checkbox"/> Sounds Garbled <input type="checkbox"/> Address Book Will Not Transfer <input type="checkbox"/> Disconnect on its own
SUBARU STARLINK malfunction	<input type="checkbox"/> Bluetooth connection not established <input type="checkbox"/> SUBARU STARLINK app disabled <input type="checkbox"/> SUBARU STARLINK app disabled <input type="checkbox"/> Communication gets out of service <input type="checkbox"/> Pandora disabled <input type="checkbox"/> MirrorLink disabled <input type="checkbox"/> AHA disabled <input type="checkbox"/> USB connection not established <input type="checkbox"/> Others
Check result	Reproductivity <input type="checkbox"/> Reproduced <input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Cannot be reproduced <input type="checkbox"/> Others
	Condition <input type="checkbox"/> Cold <input type="checkbox"/> Warm <input type="checkbox"/> At starting <input type="checkbox"/> Immediately after starting <input type="checkbox"/> During warm-up <input type="checkbox"/> At idling <input type="checkbox"/> When start driving <input type="checkbox"/> While driving <input type="checkbox"/> At acceleration <input type="checkbox"/> At deceleration <input type="checkbox"/> When applying brake

\*1: For confirmation procedure, refer to Navigation System.  [Ref. to ENTERTAINMENT & MONITORING>Navigation System>OPERATION.](#)

## ENTERTAINMENT & MONITORING > Relay and Fuse

### LOCATION



Main fuse box	Fuse 25 A (audio amplifier)	(A)
Relay & fuse box	Fuse 20 A (rear accessory power supply socket)	(B)
	Fuse 10 A (front accessory power supply socket)	(C)
	Fuse 15 A (data communication module*1)	(D)
	Fuse 10 A (audio, navigation unit, external connection terminal, audio amplifier, data communication module*1)	(E)

\*1: Model with telematics

#### Note:

For other related fuses, refer to the wiring diagram.  [Ref. to WIRING SYSTEM>Power Supply Circuit.](#)

## ENTERTAINMENT & MONITORING > 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.**

## ENTERTAINMENT & MONITORING > Audio System

### WIRING DIAGRAM

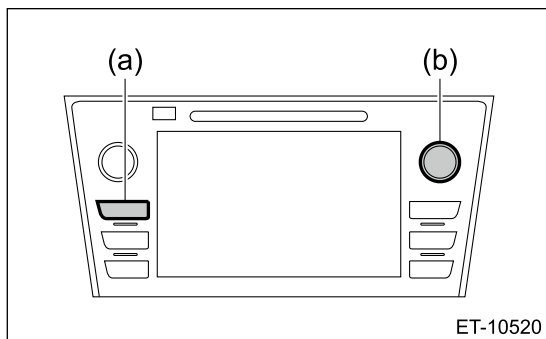
Refer to "Audio System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Audio System>WIRING DIAGRAM.](#)

## ENTERTAINMENT & MONITORING > Audio System

### OPERATION

#### 1. CHECK CONNECTIONS WITH LINE DIAG MODE

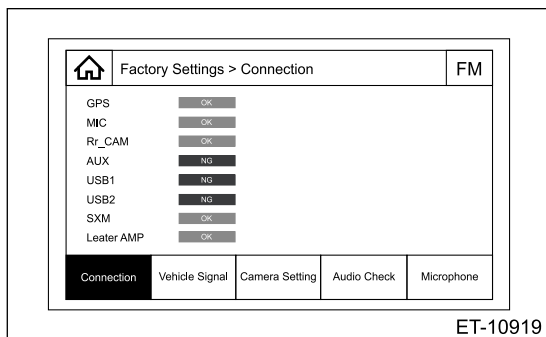
1. Turn the ignition switch to ACC.
2. Press the button (b) twice with the button (a) pressed.



#### Note:

Pressing the button (a) for three seconds or more or turning the ignition switch from the OFF to ACC position can exit the Line Diag mode.

3. {Line Diag} screen is displayed.
4. Check the connection status with the {Connection} in the {Line Diag} screen.

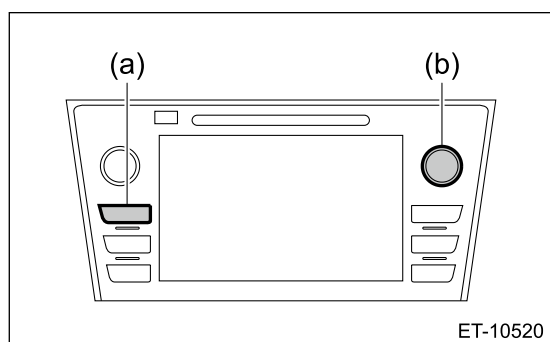


Item	Contents	Inspection
GPS	GPS antenna connection	Confirm that the indication is OK. (With GPS antenna only)
MIC	MIC connection	Confirm that the indication is OK.
Rr_CAM	Rr CAM Video connection	Confirm that the indication is OK.
AUX	AUX connection	Connect the pin jack for check to AUX terminal and check that the indication is OK.
USB1	USB connection	Connect the memory for check to USB terminal and check that the USB is OK.
USB2		

Item	Contents	Inspection
SXM	SXM connection	Confirm that the indication is OK. (With SXM only)
Leather AMP	Amplifier connection	Confirm that the indication is OK. (With AMP only)

## 2. CHECK VEHICLE SIGNALS WITH LINE DIAG MODE

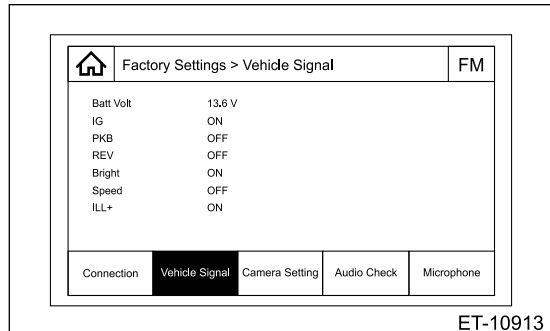
1. Turn the ignition switch to ACC.
2. Press the button (b) twice with the button (a) pressed.



### Note:

Pressing the button (a) for three seconds or more or turning the ignition switch from the OFF to ACC position can exit the Line Diag mode.

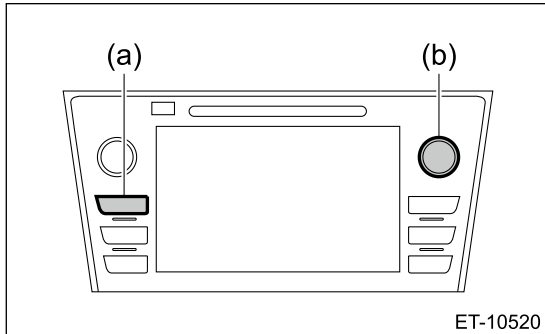
3. {Line Diag} screen is displayed.
4. Check the signal status with the {Vehicle Signal} in the {Line Diag} screen.



Item	Description	Inspection
ILL+	Illumination signal	Turn the lighting switch to ON, and check that the indication turns ON.
Speed	Speed pulse signal	Input the vehicle speed and check that the indication turns OK.
PKB	Parking brake signal	Pull the parking brake lever, and check that the indication turns ON.
REV	Reverse signal	Place the select lever in reverse and check that the indication turns ON.
IG	IGN signal	Confirm that the indication is ON.
Batt Volt	Battery voltage	Check that the battery voltage is displayed.
Bright	Bright signal	Turn the bright switch to ON, and check that the indication turns ON.

### 3. CHECK SPEAKER OUTPUT AND ANTENNA CONNECTION WITH LINE DIAG MODE

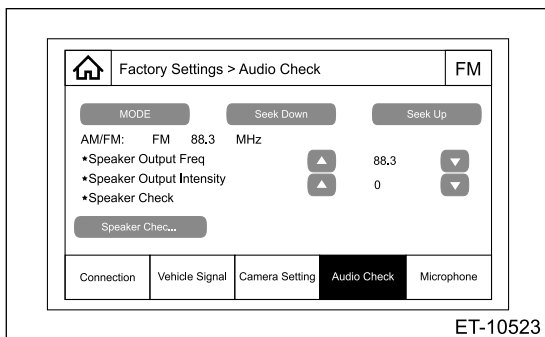
1. Turn the ignition switch to ACC.
2. Press the button (b) twice with the button (a) pressed.



**Note:**

Pressing the button (a) for three seconds or more or turning the ignition switch from the OFF to ACC position can exit the Line Diag mode.

3. {Line Diag} screen is displayed.
4. On {Audio Check} in {Line Diag} screen, check the speaker output check and antenna connection check.



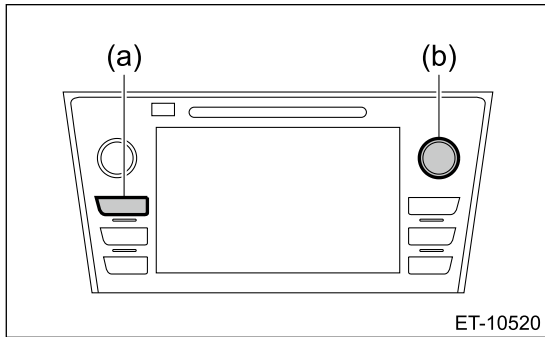
Item	Contents	Inspection
MODE	Radio band switching	Check that the radio band (AM/FM) can be switched.
Seek Up/Down	Seek Up/Down operation	Check that Seek Up/Down adjustment can be performed.
Speaker Check	Speaker check operation	<ul style="list-style-type: none"> <li>• Standard: Front right → tweeter right → tweeter left → front left → rear left → rear right will sound in order for 0.5 seconds each.</li> <li>• Brand: Tweeter left → front left → rear left → sub woofer → sub woofer → rear right → front right → tweeter right will sound in order for 0.5 seconds each.</li> </ul>

**Note:**

- The sound volume of speaker check depends on the speakers.
  - Standard speaker: Sounds by 30 steps.
  - Brand speaker: Sounds by 25 steps.
- Adjust volume level by turning the VOLUME button.

## 4. CHECK MICROPHONE WITH LINE DIAG MODE

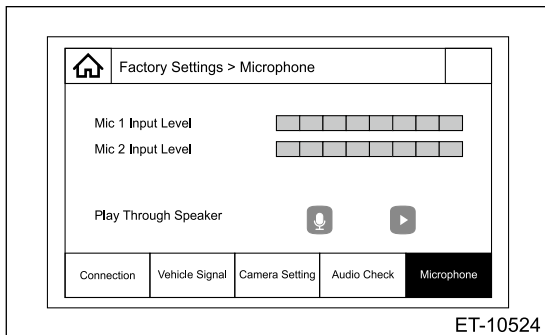
1. Turn the ignition switch to ACC.
2. Press the button (b) twice with the button (a) pressed.



### Note:

Pressing the button (a) for three seconds or more or turning the ignition switch from the OFF to ACC position can exit the Line Diag mode.

3. {Line Diag} screen is displayed.
4. Check the microphone level with the {Microphone} in the {Line Diag} screen.




Check that the microphone input level changes in response to sound and voice.

## ENTERTAINMENT & MONITORING > Audio System

### INSPECTION

#### 1. BASIC INSPECTION

##### Audio

Refer to "BASIC INSPECTION" in "Navigation System".  [Ref. to ENTERTAINMENT & MONITORING>Navigation System>INSPECTION > BASIC INSPECTION.](#)


#### 2. SYSTEM BLOCK DIAGRAM

##### Audio

Refer to "System Block Diagram" in "Navigation System".  [Ref. to ENTERTAINMENT & MONITORING>Navigation System>INSPECTION > SYSTEM BLOCK DIAGRAM.](#)

#### 3. MODULE I/O SIGNAL

##### Audio










Refer to "Control Module I/O Signal" in "Navigation System".  [Ref. to ENTERTAINMENT & MONITORING>Navigation System>INSPECTION > MODULE I/O SIGNAL.](#)

## ENTERTAINMENT & MONITORING > Audio System

### NOTE


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For procedure of each component in the audio system, refer to the respective sections.

- Audio unit:  [Ref. to ENTERTAINMENT & MONITORING>Audio.](#)
- Power amplifier:  [Ref. to ENTERTAINMENT & MONITORING>Power Amplifier.](#)
- Woofer:  [Ref. to ENTERTAINMENT & MONITORING>Woofer.](#)
- Front speaker
  - Tweeter (instrument panel):  [Ref. to ENTERTAINMENT & MONITORING>Front Speaker>REMOVAL > TWEETER.](#)
  - Door speaker:  [Ref. to ENTERTAINMENT & MONITORING>Front Speaker>REMOVAL > DOOR SPEAKER.](#)
- Rear speaker:  [Ref. to ENTERTAINMENT & MONITORING>Rear Speaker.](#)
- Antenna:  [Ref. to ENTERTAINMENT & MONITORING>Antenna.](#)
- Switches and harness:  [Ref. to ENTERTAINMENT & MONITORING>Switches and Harness.](#)
- External connection terminal:  [Ref. to ENTERTAINMENT & MONITORING>External Connection Terminal.](#)

## 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 cable from battery and wait for at least 60 seconds before starting work.   
[Ref. to NOTE>NOTE > BATTERY.](#)

### Note:

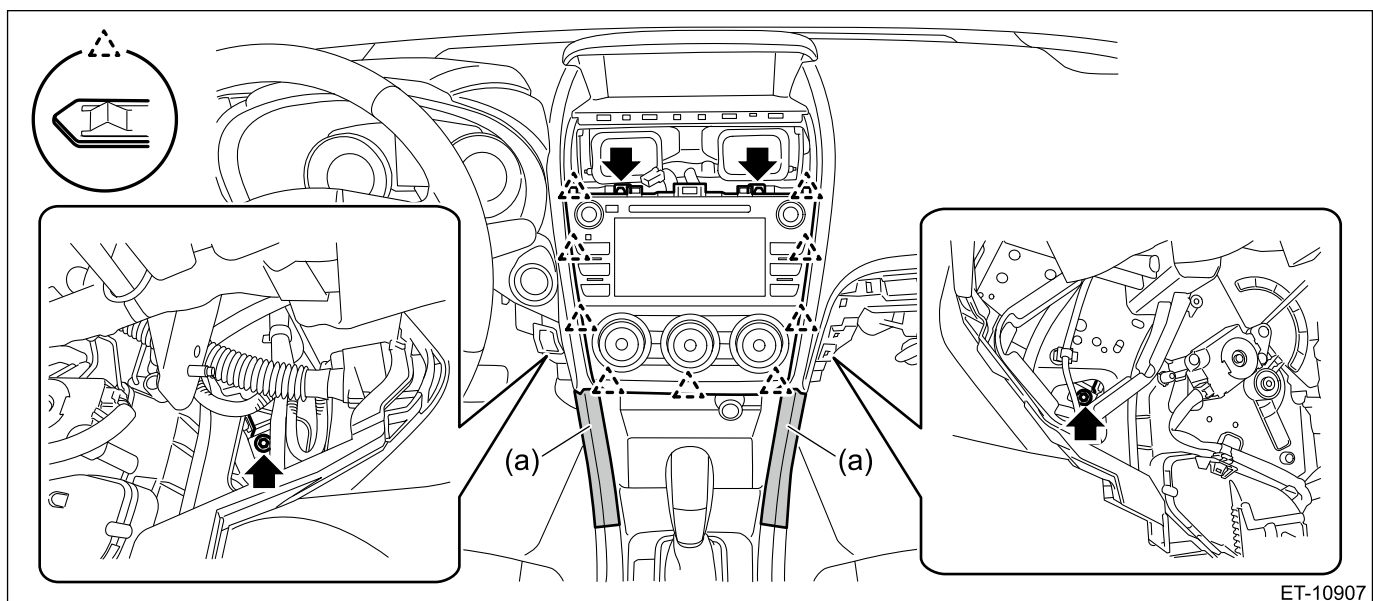
**For model with battery sensor, disconnect the ground terminal from battery sensor.**

2. Remove the cover assembly - instrument panel 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 glove box.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
5. Remove the center grille assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL > CENTER GRILLE ASSEMBLY.](#)
6. Remove the audio assembly.
  - (1) Attach the protective tape (a) to the cover - shift lever.
  - (2) Remove the screws and bolts, release the claws, and partially pull out the audio assembly.

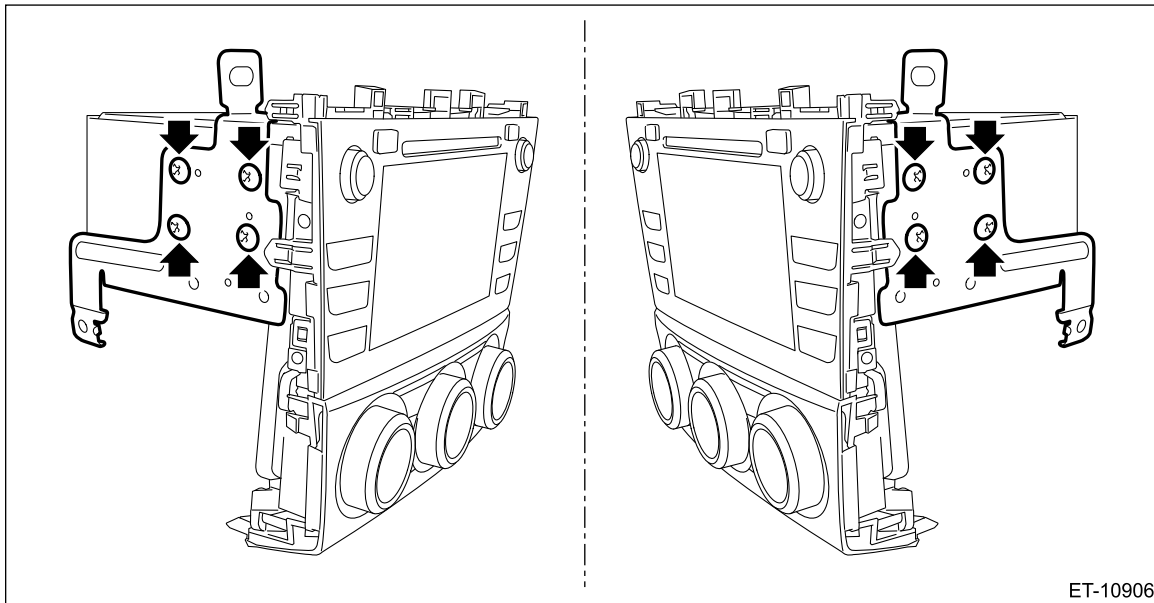
### Note:

- Release the claw by using a clip remover wrapped with protective tape.
- If the antenna cable interferes with the removal operation of the side attachment bolts (for model with telematics), move the antenna cable aside before service as necessary.

- (3) Disconnect the connectors, and remove the audio assembly.



7. Remove the screws, and then remove the audio bracket.




**Note:**

- The model with telematics is equipped with the data communication module under the audio assembly.

ENTERTAINMENT & MONITORING > Audio

**INSTALLATION**



**Caution:**

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- After installing the center grille assembly, check that the air vent grille of the center grille assembly is inserted correctly into the air vent duct.
- Do not allow harness and cables to interfere with or get caught by other parts.

1. Install the audio bracket.
2. Install the audio assembly.

**Tightening torque:**

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

3. Install the center grille assembly.
4. Install the glove box.
5. Install the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>INSTALLATION.](#)
6. Install the cover assembly - instrument panel LWR driver.
7. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## REMOVAL

### 1. TWEETER

1. Disconnect the ground cable from battery.  Ref. to NOTE>NOTE > BATTERY.

**Note:**

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

2. Remove the speaker assembly - tweeter.
  - (1) Affix protective tape (a) to the trim panel - front pillar UPR.
  - (2) Release the clips and claws, then detach the grille speaker side.

**Note:**

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

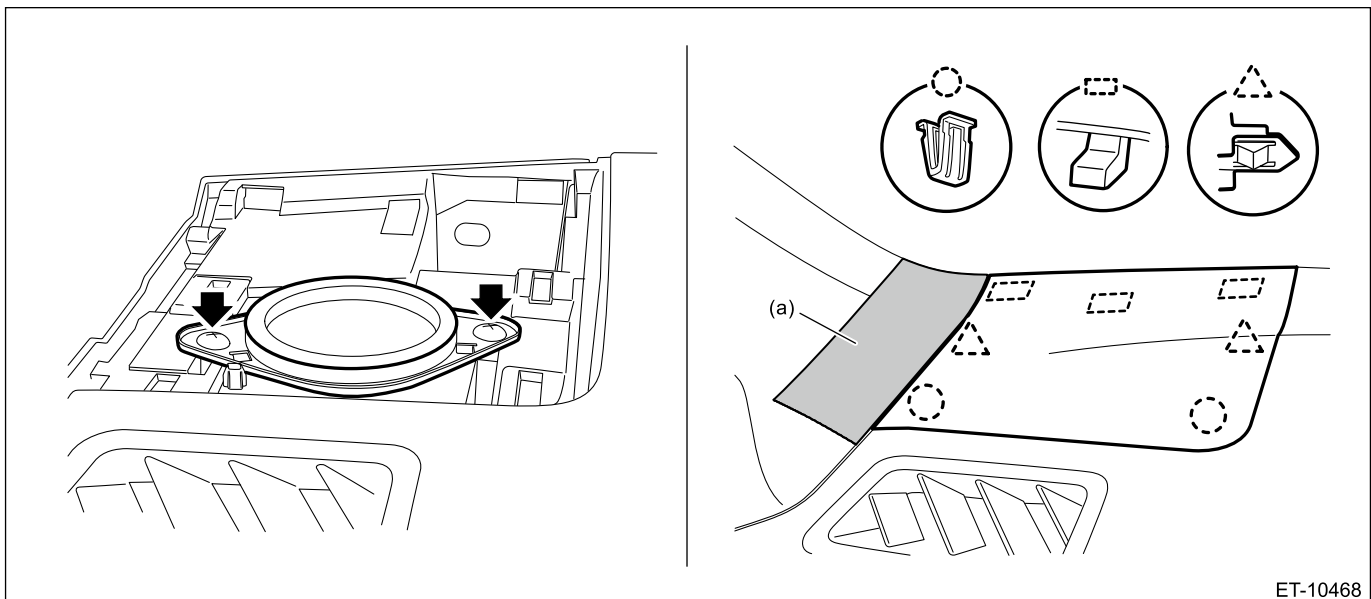
- (3) Remove the screws.

**Preparation tool:**

Stubby screwdriver

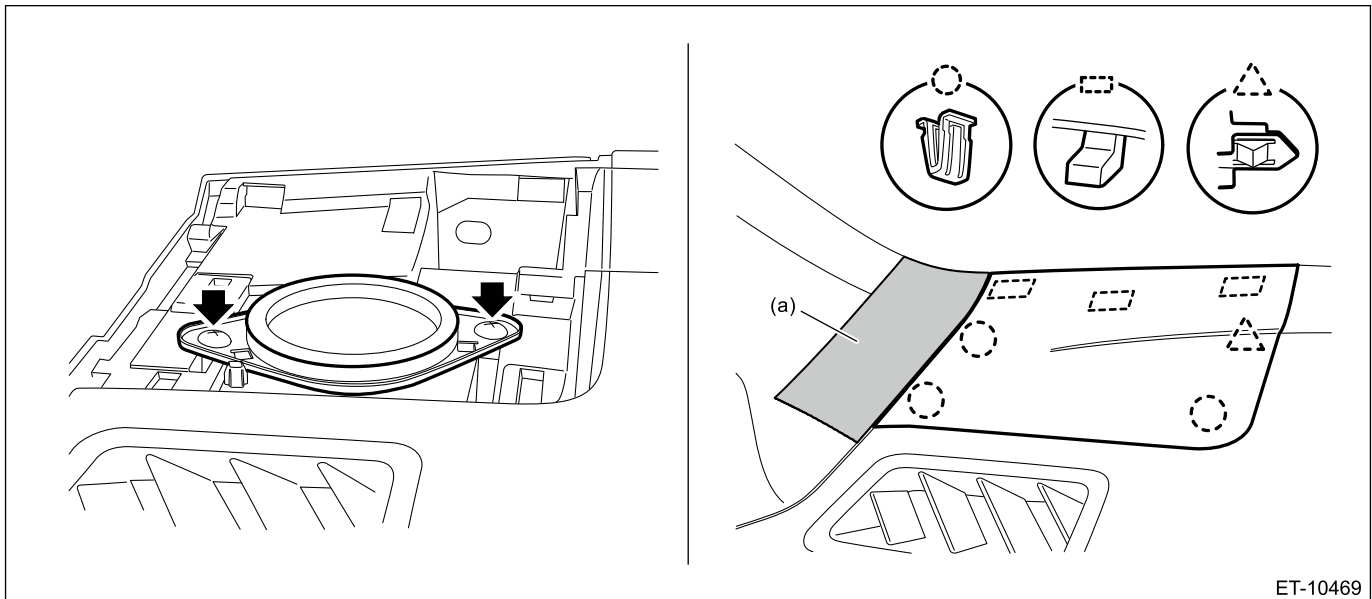
- (4) Disconnect the connector and remove the speaker assembly - tweeter.

- Model without EyeSight assist monitor




ET-10468

- Model with EyeSight assist monitor




ET-10469

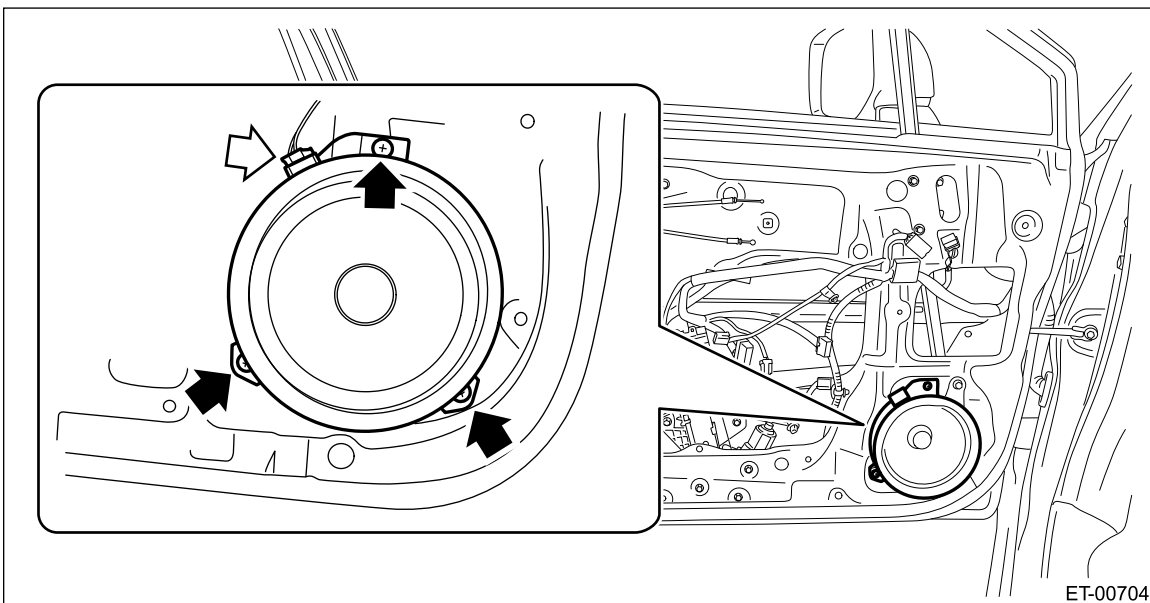
## 2. DOOR SPEAKER

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

### Note:

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

2. Remove the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.](#)
3. Remove the speaker assembly - front.
  - (1) Disconnect the connector.
  - (2) Remove the screws and remove the speaker assembly - front.




ET-00704


ENTERTAINMENT & MONITORING > Front Speaker

**INSTALLATION**

## **1. TWEETER**

- 1.** Install the speaker assembly - tweeter.
- 2.** Install the grille speaker side.
- 3.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## **2. DOOR SPEAKER**

- 1.** Install the speaker assembly - front.
- 2.** Install the trim panel - front door.
- 3.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## ENTERTAINMENT & MONITORING > Rear Speaker


### REMOVAL

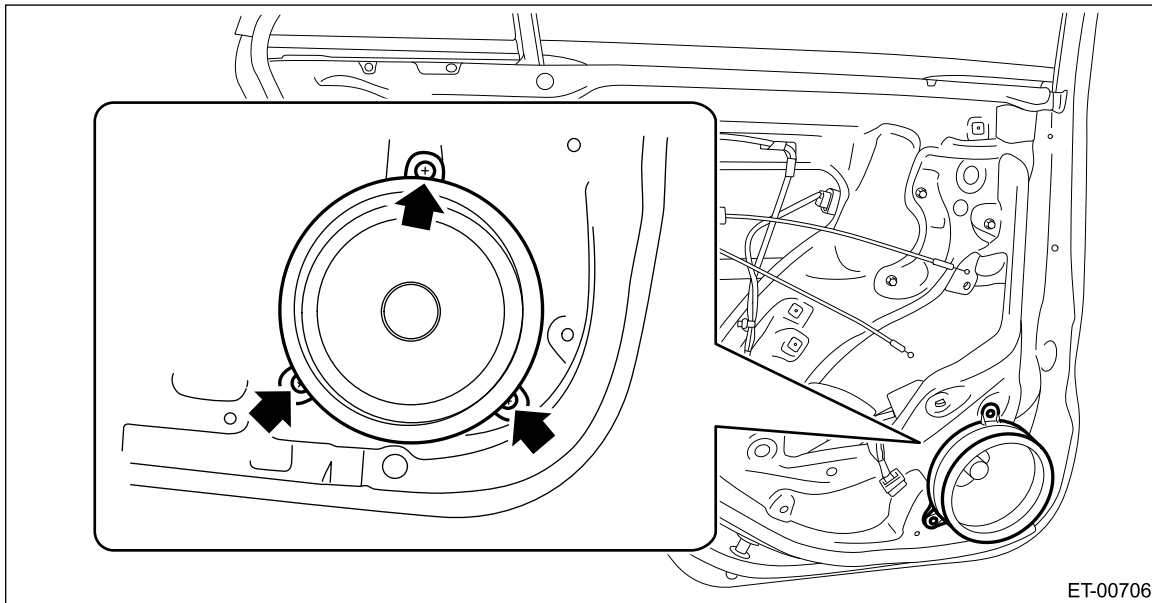
---

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### Note:

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


2. Remove the trim panel - rear door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.](#)
3. Remove the speaker assembly - rear.
  - (1) Remove the screws.
  - (2) Disconnect the connector behind the speaker and remove the speaker assembly - rear.



## ENTERTAINMENT & MONITORING > Rear Speaker


### INSTALLATION

---

1. Install the speaker assembly - rear.
2. Install the trim panel - rear door.
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## REMOVAL

### 1. ROOF ANTENNA/TELEMATICS ANTENNA

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

**Note:**

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

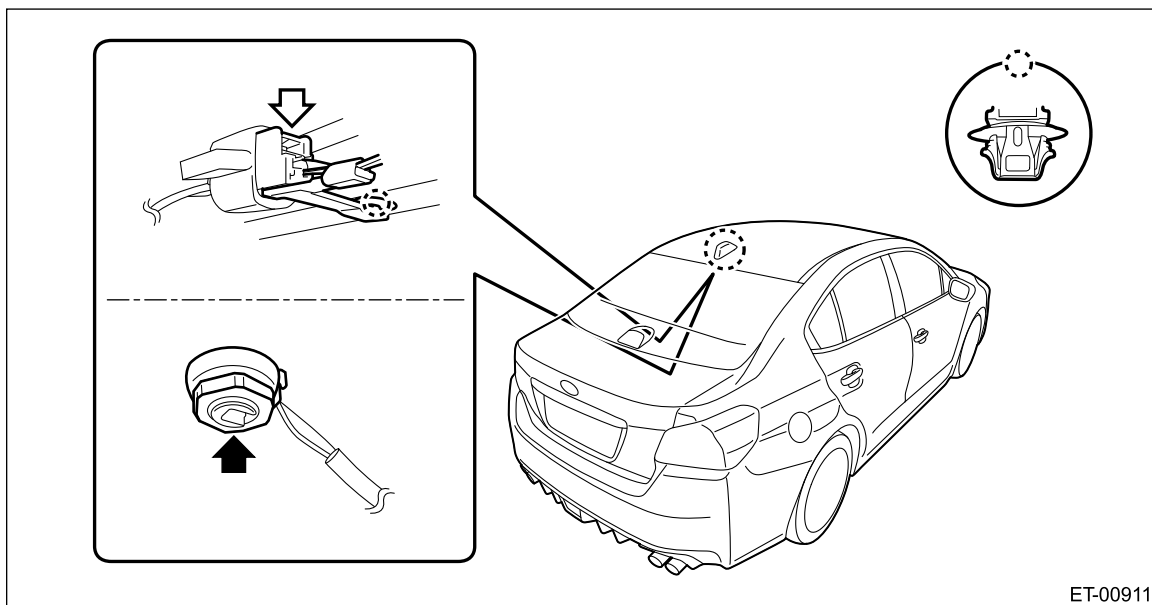
2. Lower the trim panel - roof assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.](#)

**Note:**

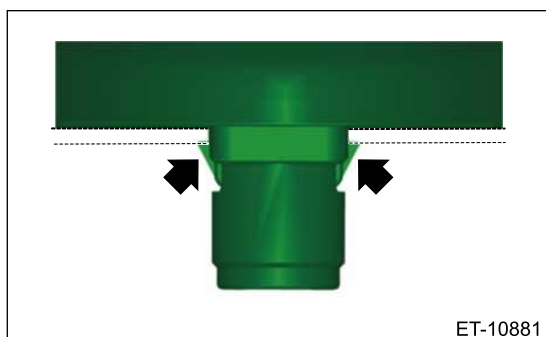
**Procedures for the trim panel - roof assembly is performed inside the vehicle.**

3. Remove the antenna assembly - radio or telematics.

(1) Disconnect the connector, detach the connector clip, and then remove the nut.













(2) While pressing the temporary retaining claw, remove the antenna assembly - radio or telematics.



### 2. ANTENNA FEEDER 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 cable from battery and wait for at least 60 seconds before starting work.   
[Ref. to NOTE>NOTE > BATTERY.](#)  
**Note:**  
**For model with battery sensor, disconnect the ground terminal from battery sensor.**
2. Remove the cover assembly - instrument panel 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 glove box.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
5. Remove the center grille assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL > CENTER GRILLE ASSEMBLY.](#)
6. Remove the audio assembly or navigation assembly.  [Ref. to ENTERTAINMENT & MONITORING>Audio>REMOVAL.](#)
7. Remove the panel center LWR LH.  [Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.](#)
8. Remove the cover side sill - front and the cover side sill - front INN.  [Ref. to EXTERIOR/INTERIOR TRIM>Lower Inner Trim>REMOVAL.](#)
9. Lower the trim panel - roof assembly in the same manner as the removal procedure of the antenna assembly - radio or telematics.  [Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>REMOVAL.](#)
10. Turn over the floor mat, and remove the cord assembly - antenna feeder.

### 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.](#)

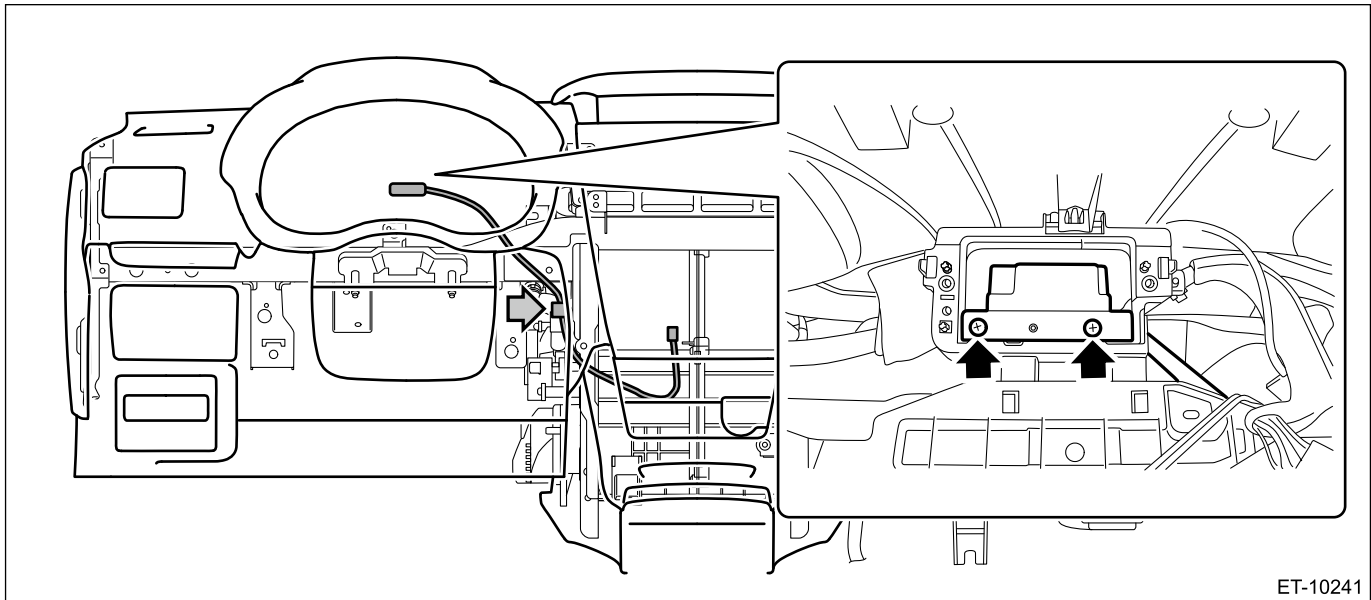
1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.   
[Ref. to NOTE>NOTE > BATTERY.](#)  
**Note:**  
**For model with battery sensor, disconnect the ground terminal from battery sensor.**
2. Remove the cover assembly - instrument panel LWR driver.  [Ref. 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 glove box.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
5. Remove the center grille assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL > CENTER GRILLE ASSEMBLY.](#)
6. Remove the audio assembly or navigation assembly.  [Ref. to ENTERTAINMENT & MONITORING>Audio>REMOVAL.](#)
7. Remove the combination meter assembly.  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>REMOVAL.](#)
8. Remove the GPS antenna.  [Ref. to ENTERTAINMENT & MONITORING>GPS Antenna>REMOVAL.](#)  
**Note:**  
**Remove the antenna only. Do not pull the cord.**
9. Remove the telematics sub antenna.

(1) Tie a string to the telematics sub antenna connector on the data communication module main body side.

#### Note:

**A string makes operation easier during installation.**

- (2) Remove the screw and harness clamp, and pull out the telematics sub antenna from the combination meter side.



- (3) After the telematics sub antenna has been pulled out, remove the string attached to the connector in step (1).

## ENTERTAINMENT & MONITORING > Antenna

### INSTALLATION

#### 1. ROOF ANTENNA/TELEMATICS ANTENNA

1. Install the antenna assembly - radio or telematics.

##### **Tightening torque:**

4.5 N·m (0.5 kgf-m, 3.3 ft-lb)



2. Install the trim panel - roof assembly. [🔗 Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>INSTALLATION.](#)
3. Connect the battery ground terminal. [🔗 Ref. to NOTE>NOTE > BATTERY.](#)

#### 2. ANTENNA FEEDER 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 cord assembly - antenna feeder and the trim panel - roof assembly. [🔗 Ref. to EXTERIOR/INTERIOR TRIM>Roof Trim>INSTALLATION.](#)
2. Install the floor mat.
3. Install the cover side sill - front INN and cover side sill - front.
4. Install the panel center LWR LH. [🔗 Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.](#)
5. Install the audio assembly or navigation assembly. [🔗 Ref. to ENTERTAINMENT & MONITORING>Audio>INSTALLATION.](#)
6. Install the center grille assembly.

7. Install the glove box.
8. Install the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>INSTALLATION.](#)
9. Install the cover assembly - instrument panel LWR driver.
10. Connect the battery ground terminal.  [Ref. to NOTE>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.
2. Install the GPS antenna assembly.
3. Install the combination meter assembly.
4. Install the audio assembly or navigation assembly.  [Ref. to ENTERTAINMENT & MONITORING>Audio>INSTALLATION.](#)
5. Install the center grille assembly.
6. Install the glove box.
7. Install the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>INSTALLATION.](#)
8. Install the cover assembly - instrument panel LWR driver.
9. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)


## REMOVAL

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### 1. SATELLITE SWITCH 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. Set the tire to the straight-ahead position.
2. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.   
[Ref. to NOTE>NOTE > BATTERY.](#)

**Note:**

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


3. Remove the driver's airbag module.  [Ref. to AIRBAG SYSTEM>Driver's Airbag Module>REMOVAL.](#)
4. Remove the steering wheel.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Wheel>REMOVAL.](#)
5. Remove the satellite switch assembly.  [Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Wheel>DISASSEMBLY.](#)

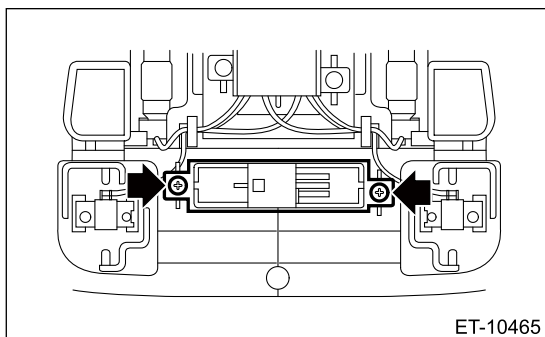
### 2. TELEMATICS BUTTON

1. Disconnect the ground terminal from battery and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)

**Note:**

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

2. Remove the light assembly - map.  [Ref. to LIGHTING SYSTEM>Spot Map Light>REMOVAL.](#)
3. Remove the screw to remove the telematics button.



## INSTALLATION

---

### 1. SATELLITE SWITCH ASSEMBLY

### 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.
  - 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.](#)
  - Securely install the switch. Improper insertion of the pin or claw of the switch may cause improper installation.
1. Install the satellite switch assembly. [🔗 Ref. to POWER ASSISTED SYSTEM \(POWER STEERING\)>Steering Wheel>DISASSEMBLY.](#)
  2. Align the center position of the steering roll connector. [🔗 Ref. to AIRBAG SYSTEM>Roll Connector>ADJUSTMENT.](#)
  3. Install the steering wheel.  
**Tightening torque:**  
39 N·m (4 kgf-m, 28.8 ft-lb)  
**Clearance:**  
Between cover assembly - column and steering wheel: 4 — 6 mm (0.16 — 0.24 in)
  4. Install the driver's airbag module. [🔗 Ref. to AIRBAG SYSTEM>Driver's Airbag Module>INSTALLATION.](#)
  5. Connect the battery ground terminal. [🔗 Ref. to NOTE>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 battery ground terminal. [🔗 Ref. to NOTE>NOTE > BATTERY.](#)

## ENTERTAINMENT & MONITORING > Switches and Harness

### INSPECTION

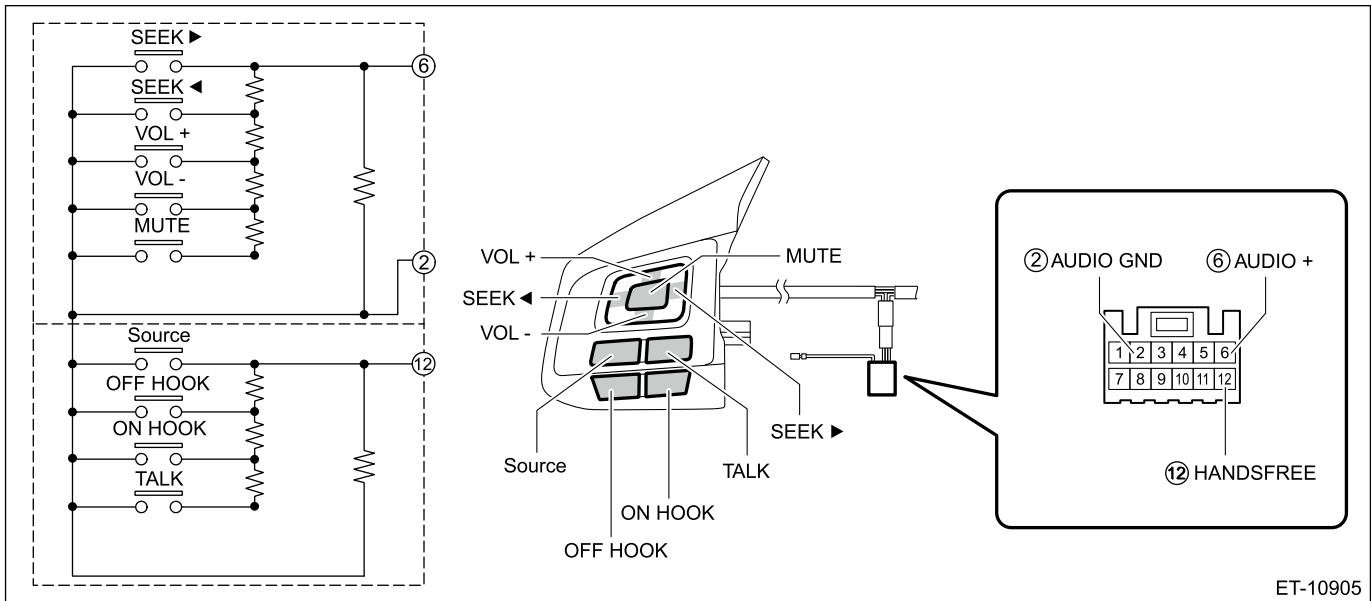
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#### 1. SATELLITE SWITCH ASSEMBLY

1. Measure the resistance between connector terminals.

#### Preparation tool:

Circuit tester



ET-10905

Terminal No.	Inspection conditions		Standard
6 – 2	VOL (+) VOL (-) SEEK (>) SEEK (<) LIST	A circuit is all OFF.	Approx. 100 kΩ
	VOL (+)	ON	Approx. 490 Ω
	VOL (-)	ON	Approx. 1290 Ω
	SEEK (>)	ON	Less than 1 Ω
	SEEK (<)	ON	Approx. 160 Ω
	MUTE	ON	Approx. 2730 Ω
12 – 2	TALK Source ON HOOK OFF HOOK	B circuit is all OFF.	Approx. 100 kΩ
	TALK	ON	Approx. 1290 Ω
	Source	ON	Less than 1 Ω
	ON HOOK	ON	Approx. 490 Ω
	OFF HOOK	ON	Approx. 160 Ω

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

Terminal No.	Inspection conditions	Standard
10 (+) – 11 (-)	Apply battery voltage.	Light ON

3. If it is found to be defective as a result of the measurement, replace the satellite switch assembly.

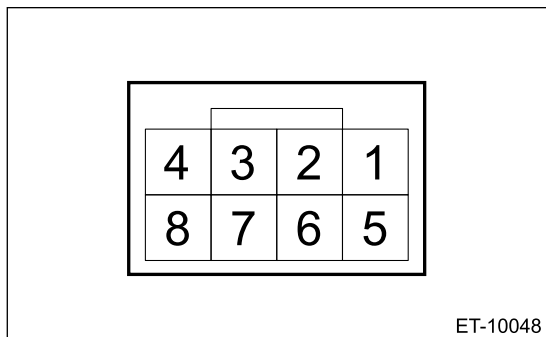
## 2. TELEMATICS BUTTON

**1.** Check the button.

(1) Measure the resistance between connector terminals.

**Preparation tool:**

Circuit tester



- 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.

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.

Terminal No.	Inspection conditions	Specification
4 (+) – 1 (-)	Apply battery voltage.	Green illumination
7 (+) – 1 (-)		Red illumination


**3.** Replace the telematics button if it is found defective.

## ENTERTAINMENT & MONITORING > Microphone

### NOTE





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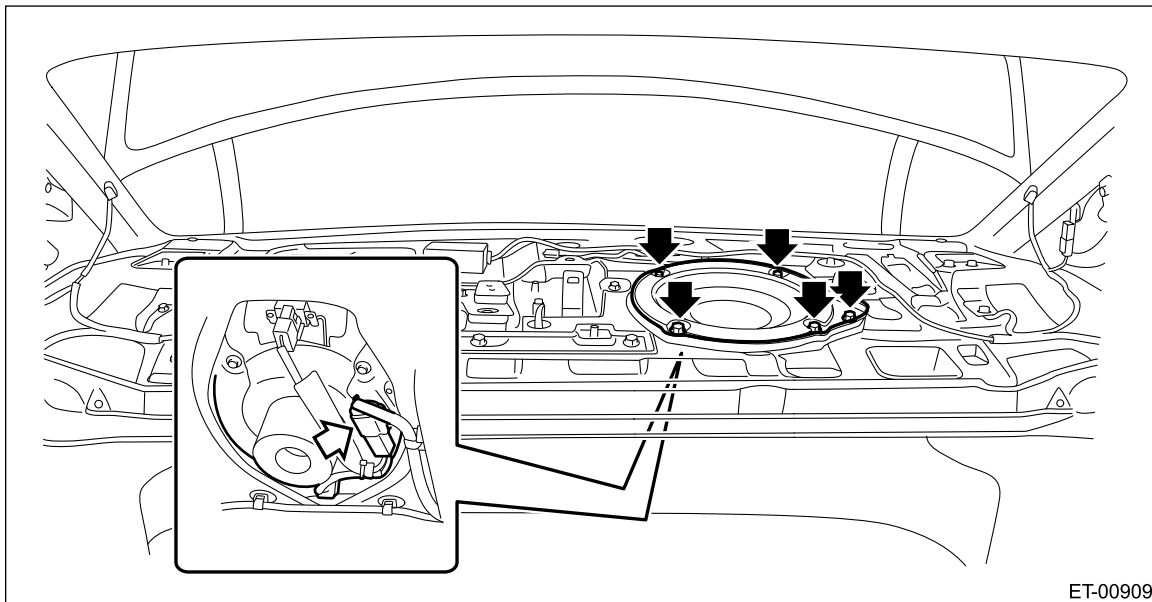
The microphone is integrated in the spot map light or stereo camera cover.

For operation procedures, refer to "LIGHTING SYSTEM" section.  [Ref. to LIGHTING SYSTEM>Spot Map Light.](#)

## ENTERTAINMENT & MONITORING > Woofer



### REMOVAL

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.   
[Ref. to NOTE>NOTE > BATTERY.](#)  
**Note:**  
**For model with battery sensor, disconnect the ground terminal from battery sensor.**
2. Remove the rear seat cushion assembly.  [Ref. to SEATS>Rear Seat>REMOVAL.](#)
3. Remove the trim panel - rear pillar UPR and the trim panel - rear pillar LWR.  [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.
  - (1) Disconnect the connector.
  - (2) Remove the bolts and remove the speaker assembly - woofer.







## ENTERTAINMENT & MONITORING > Woofer

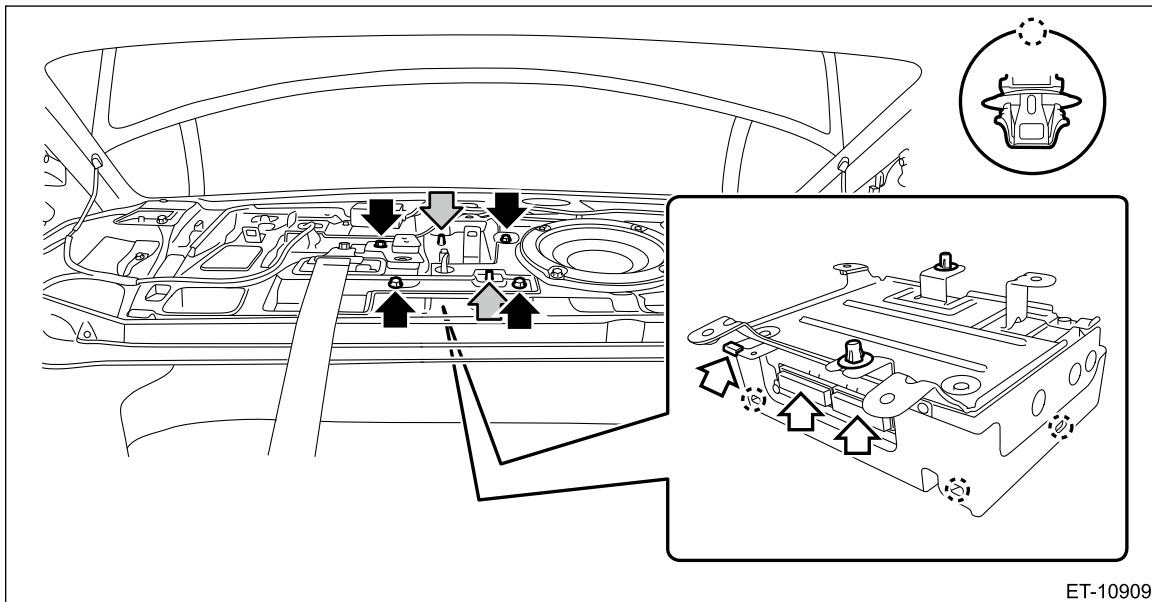
### INSTALLATION

1. Install the speaker assembly - woofer.  
**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 - rear pillar UPR and the trim panel - rear pillar LWR.
4. Install the rear seat cushion assembly.
5. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## ENTERTAINMENT & MONITORING > Power Amplifier



### REMOVAL

1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.   
[Ref. to NOTE>NOTE > BATTERY.](#)  
**Note:**  
**For model with battery sensor, disconnect the ground terminal from battery sensor.**
2. Remove the rear seat cushion assembly.  [Ref. to SEATS>Rear Seat>REMOVAL.](#)
3. Remove the trim panel - rear pillar UPR and the trim panel - rear pillar LWR.  [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 power amplifier assembly.
  - (1) Release the harness clips, and disconnect each connector.
  - (2) Remove the bolts, release the clips, and then remove the power amplifier assembly.



## ENTERTAINMENT & MONITORING > Power Amplifier

### INSTALLATION



1. Install the power amplifier assembly.  
**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 - rear pillar UPR and the trim panel - rear pillar LWR.
4. Install the rear seat cushion assembly.
5. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## ENTERTAINMENT & MONITORING > Navigation System

### WIRING DIAGRAM

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Refer to "Navigation System" in the wiring diagram.

- Model without telematics:  [Ref. to WIRING SYSTEM>Navigation System>WIRING DIAGRAM > WITH AUDIO AMPLIFIER AND WITHOUT TELEMATICS.](#)
- Model with telematics:  [Ref. to WIRING SYSTEM>Navigation System>WIRING DIAGRAM > WITH AUDIO AMPLIFIER AND WITH TELEMATICS.](#)

## ENTERTAINMENT & MONITORING > Navigation System

### OPERATION

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For the operation, refer to "Audio System".  [Ref. to ENTERTAINMENT & MONITORING>Audio System>OPERATION > CHECK CONNECTIONS WITH LINE DIAG MODE.](#)

## ENTERTAINMENT & MONITORING > Navigation System

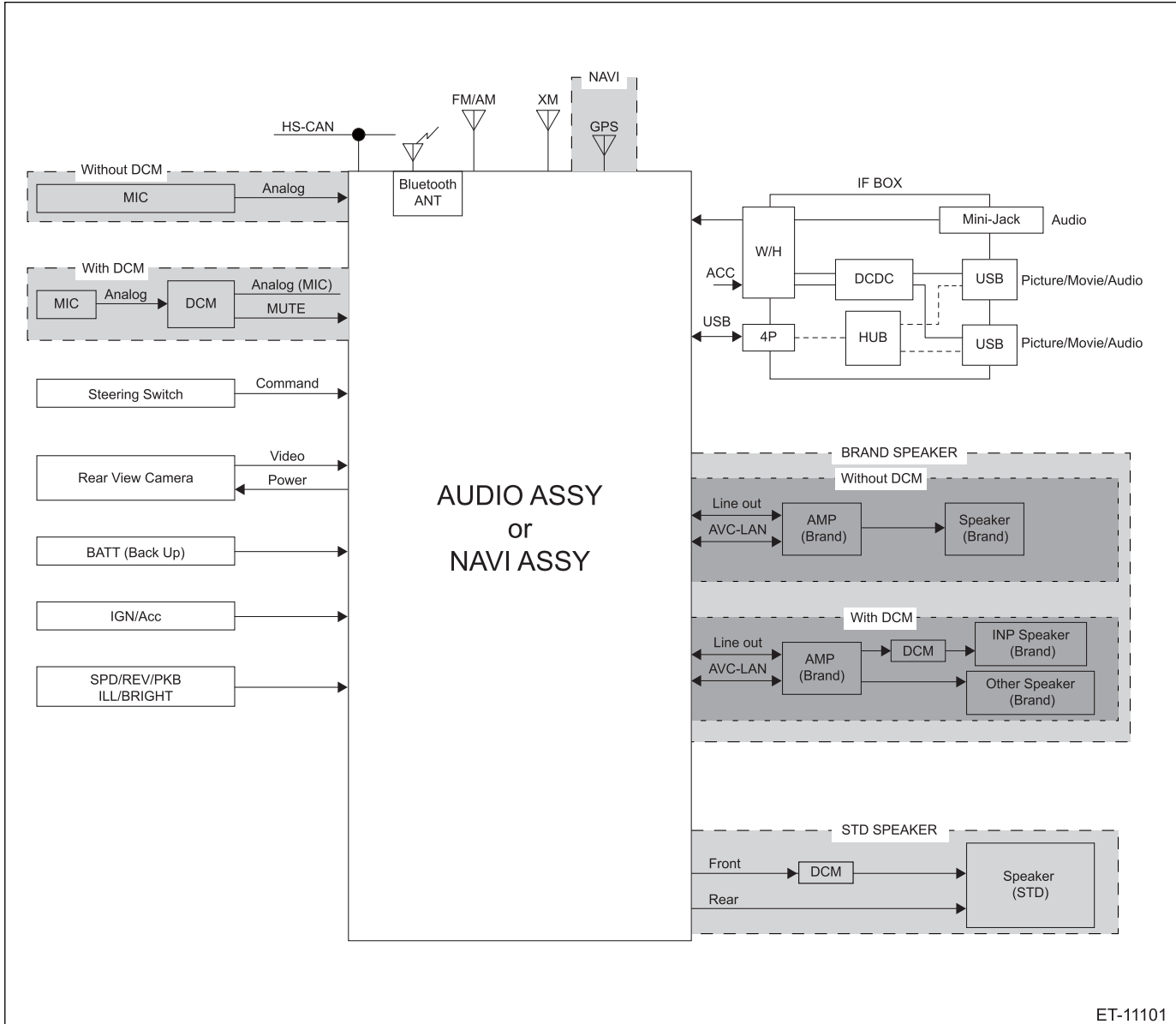
### INSPECTION

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#### 1. BASIC INSPECTION

- 1.** Using the Check List for Interview, ask the customer the condition of how the trouble occurred.  [Ref. to ENTERTAINMENT & MONITORING>Check List for Interview>CHECK > NAVIGATION.](#)
- 2.** Check the battery.
  - Except for STI model:  [Ref. to STARTING/CHARGING SYSTEMS\(w/o STI\)>Battery>INSPECTION.](#)
  - STI model:  [Ref. to STARTING/CHARGING SYSTEMS\(STI\)>Battery>INSPECTION.](#)
- 3.** Check the list of Diagnostics with Phenomenon, and perform diagnosis according to the procedures.  [Ref. to ENTERTAINMENT & MONITORING>Diagnostics with Phenomenon>LIST > NAVIGATION SYSTEM.](#)

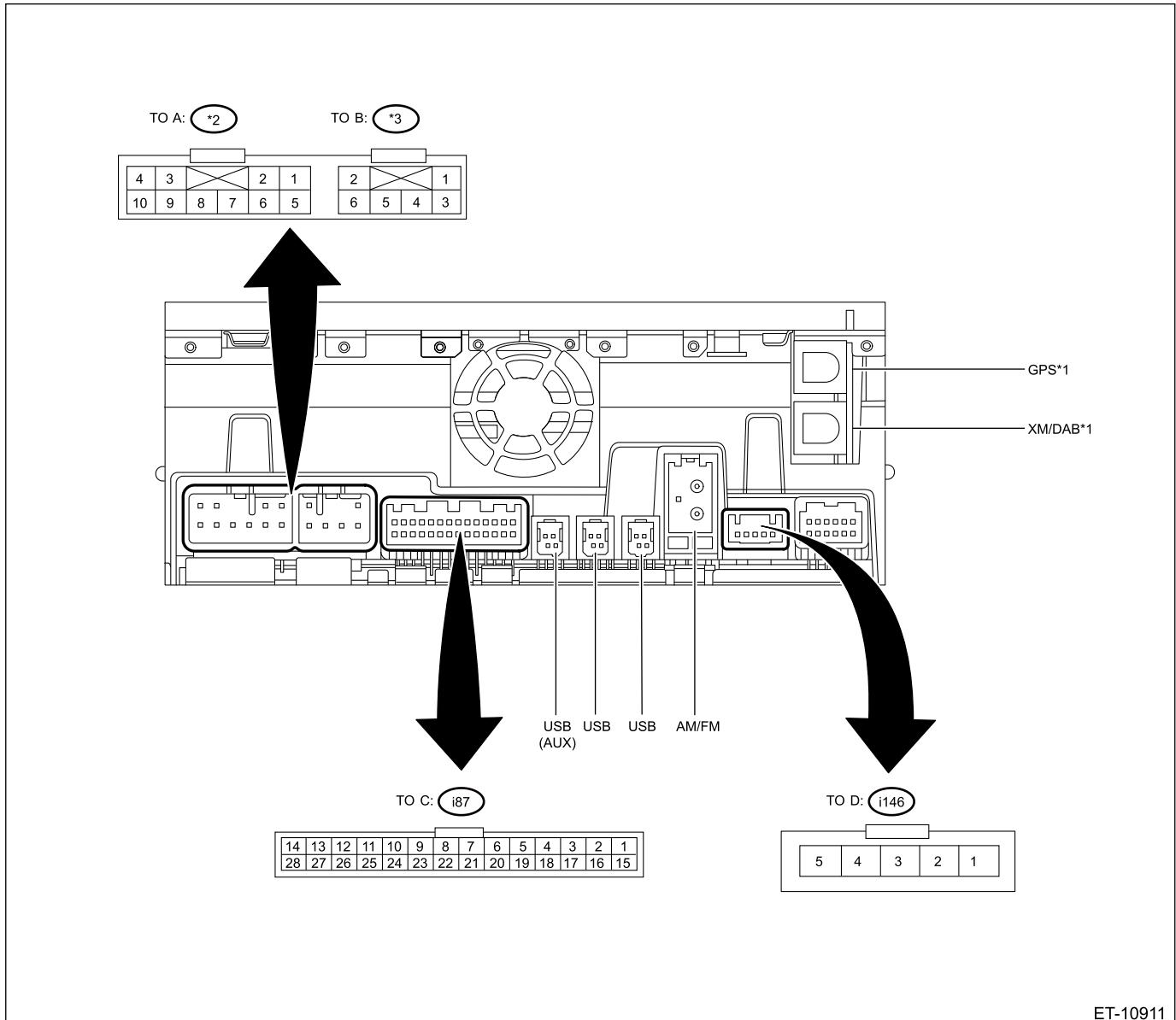
## 2. SYSTEM BLOCK DIAGRAM



ET-11101

## 3. MODULE I/O SIGNAL

## Unit body



ET-10911

- \*1: Only model with navigation system
- \*2: Model without power amplifier: i85  
Model with power amplifier: i35
- \*3: Model without power amplifier: i131  
Model with power amplifier: i36

- Power supply and speaker output terminal
  - Model without power amplifier

Terminal No.	Description	Measuring condition	Measurement value	Note
(i85) No. 1	FR+	—	—	—
(i85) No. 2	FL+	—	—	—
(i85) No. 3 ↔ Chassis ground	ACC	ACC ON	11 — 15 V	—

Terminal No.	Description	Measuring condition	Measurement value	Note
(i85) No. 4 ↔ Chassis ground	+B	Always	11 – 15 V	—
(i85) No. 5	FR-	—	—	—
(i85) No. 6	FL-	—	—	—
(i85) No. 7 ↔ Chassis ground	GND	Always	0 V	—
(i85) No. 8	ANT-ON	—	—	—
(i85) No. 9	NC	—	—	—
(i85) No. 10	ILL+	—	—	—
(i131) No. 1	RR+	—	—	—
(i131) No. 2	RL+	—	—	—
(i131) No. 3	RR-	—	—	—
(i131) No. 4	NC	—	—	—
(i131) No. 5	ILL-	—	—	—
(i131) No. 6	RL-	—	—	—

– Model with power amplifier

Terminal No.	Description	Measuring condition	Measurement value	Note
(i35) No. 1	FR+	—	—	—
(i35) No. 2	FL+	—	—	—
(i35) No. 3 ↔ Chassis ground	ACC	ACC ON	11 – 15 V	—
(i35) No. 4 ↔ Chassis ground	+B	Always	11 – 15 V	—
(i35) No. 5	FR-	—	—	—
(i35) No. 6	FL-	—	—	—
(i35) No. 7 ↔ Chassis ground	GND	Always	0 V	—
(i35) No. 8	ANT-ON	—	—	—
(i35) No. 9	NC	—	—	—
(i35) No. 10	ILL+	—	—	—
(i36) No. 1	NC	—	—	—
(i36) No. 2	INT+	—	—	—
(i36) No. 3	NC	—	—	—
(i36) No. 4	SLD2	—	—	—
(i36) No. 5	ILL-	—	—	—
(i36) No. 6	INT-	—	—	—

- Steering switch and AUX input terminal for microphone etc.

Terminal No.	Description	Measuring condition	Measurement value	Note
(i87) No. 1 ↔ Chassis ground	IGN	IGN ON	11 – 15 V	—
(i87) No. 2	REVERSE	—	—	—
(i87) No. 3	BRIGHT	—	—	—
(i87) No. 4	VCC	—	—	—
(i87) No. 5	MIC+	—	—	—
(i87) No. 6	DET	—	—	—
(i87) No. 7	NC-*1 / AMP CAN+ (for AMP communication)*2	—	—	—
(i87) No. 8	NC-*1 / AMP CAN– (for AMP communication)*2	—	—	—
(i87) No. 9	CAN+	—	—	—
(i87) No. 10	CAN–	—	—	—
(i87) No. 11	AC-UART (+)	—	—	—
(i87) No. 12	AC-UART(-)	—	—	—
(i87) No. 13	MIC2+	—	—	—
(i87) No. 14	MIC2-	—	—	—
(i87) No. 15 ↔ Chassis ground	PKB	At parking ON	1 V or less	—
(i87) No. 16	NC-*1 / MUTE*2	—	—	—
(i87) No. 17 ↔ Chassis ground	SPEED	When the tire is rotating	Pulse signal	—
(i87) No. 18	SGND	—	—	—
(i87) No. 19	MIC–	—	—	—
(i87) No. 20	TEST	—	—	—
(i87) No. 21	STEERING SW1+	—	—	—
(i87) No. 22	STEERING SW2+	—	—	—
(i87) No. 23	STEERING SW GND	—	—	—
(i87) No. 24	DCM MUTE	—	—	—
(i87) No. 25	FRONT ON	—	—	—
(i87) No. 26	R SIG	—	—	—
(i87) No. 27	R/L SIG	—	—	—
(i87) No. 28	L SIG	—	—	—

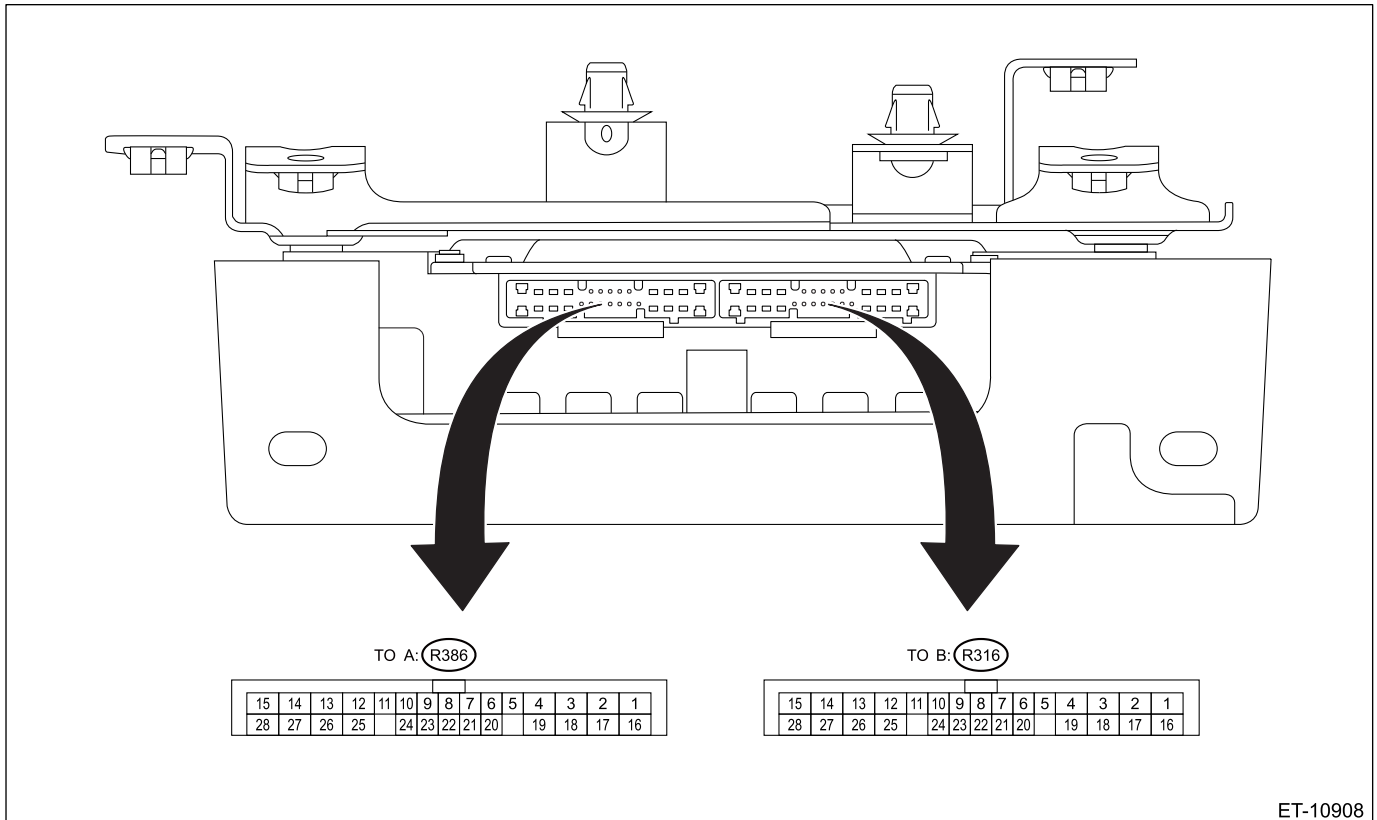
\*1: Model without power amplifier

\*2: Model with power amplifier

- Rearview camera

Terminal No.	Description	Measuring condition	Measurement value	Note
(i146) No. 1 ↔ Chassis ground	GND	Always	0 V	—
(i146) No. 2	6 V+	—	—	—
(i146) No. 3	CA+	—	—	—
(i146) No. 4	CA-	—	—	—
(i146) No. 5	NC	—	—	—

### Power amplifier



Terminal No.	Description	Measuring condition	Measurement value	Note
(R386) No. 1	NC	—	—	—
(R386) No. 2	NC	—	—	—
(R386) No. 3	NC	—	—	—
(R386) No. 4	NC	—	—	—
(R386) No. 5	TX-	—	—	—
(R386) No. 6	TX+	—	—	—
(R386) No. 7	II1+	—	—	—
(R386) No. 8 ↔ Chassis ground	ACC	ACC ON	11 – 15 V	—
(R386) No. 9	NC	—	—	—
(R386) No. 10	NC	—	—	—

<b>Terminal No.</b>	<b>Description</b>	<b>Measuring condition</b>	<b>Measurement value</b>	<b>Note</b>
(R386) No. 11	NC	—	—	—
(R386) No. 12 ↔ Chassis ground	+B	Always	11 — 15 V	—
(R386) No. 13 ↔ Chassis ground	+B	Always	11 — 15 V	—
(R386) No. 14 ↔ Chassis ground	+B	Always	11 — 15 V	—
(R386) No. 15 ↔ Chassis ground	+B	Always	11 — 15 V	—
(R386) No. 16	NC	—	—	—
(R386) No. 17	NC	—	—	—
(R386) No. 18	NC	—	—	—
(R386) No. 19	NC	—	—	—
(R386) No. 20	NC	—	—	—
(R386) No. 21	II1-	—	—	—
(R386) No. 22	NC	—	—	—
(R386) No. 23	NC	—	—	—
(R386) No. 24	NC	—	—	—
(R386) No. 25 ↔ Chassis ground	GND	Always	0 V	—
(R386) No. 26 ↔ Chassis ground	GND	Always	0 V	—
(R386) No. 27 ↔ Chassis ground	GND	Always	0 V	—
(R386) No. 28 ↔ Chassis ground	GND	Always	0 V	—
(R316) No. 1	FR+	—	—	—
(R316) No. 2	TWR+	—	—	—
(R316) No. 3	RR+	—	—	—
(R316) No. 4	WF2+	—	—	—
(R316) No. 5	NC	—	—	—
(R316) No. 6	L+	—	—	—
(R316) No. 7	R+	—	—	—
(R316) No. 8	NC	—	—	—
(R316) No. 9	NC	—	—	—
(R316) No. 10	NC	—	—	—
(R316) No. 11	NC	—	—	—
(R316) No. 12	WF1+	—	—	—
(R316) No. 13	RL+	—	—	—

Terminal No.	Description	Measuring condition	Measurement value	Note
(R316) No. 14	TWL+	—	—	—
(R316) No. 15	FL+	—	—	—
(R316) No. 16	FR-	—	—	—
(R316) No. 17	TWR-	—	—	—
(R316) No. 18	RR-	—	—	—
(R316) No. 19	WF2-	—	—	—
(R316) No. 20	L-	—	—	—
(R316) No. 21	R-	—	—	—
(R316) No. 22	NC	—	—	—
(R316) No. 23	NC	—	—	—
(R316) No. 24	NC	—	—	—
(R316) No. 25	WF1-	—	—	—
(R316) No. 26	RL-	—	—	—
(R316) No. 27	TWL-	—	—	—
(R316) No. 28	FL-	—	—	—

## ENTERTAINMENT & MONITORING > Navigation System

### NOTE


For procedure of each component in the navigation system, refer to the respective section.

- Navigation unit:  [Ref. to ENTERTAINMENT & MONITORING>Navigation Body.](#)
- GPS antenna:  [Ref. to ENTERTAINMENT & MONITORING>GPS Antenna.](#)

## ENTERTAINMENT & MONITORING > Navigation Body

### NOTE


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For the operation procedures for navigation assembly, refer to "Audio" section.  [Ref. to ENTERTAINMENT & MONITORING>Audio.](#)

## ENTERTAINMENT & MONITORING > GPS Antenna

### 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 cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### Note:

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

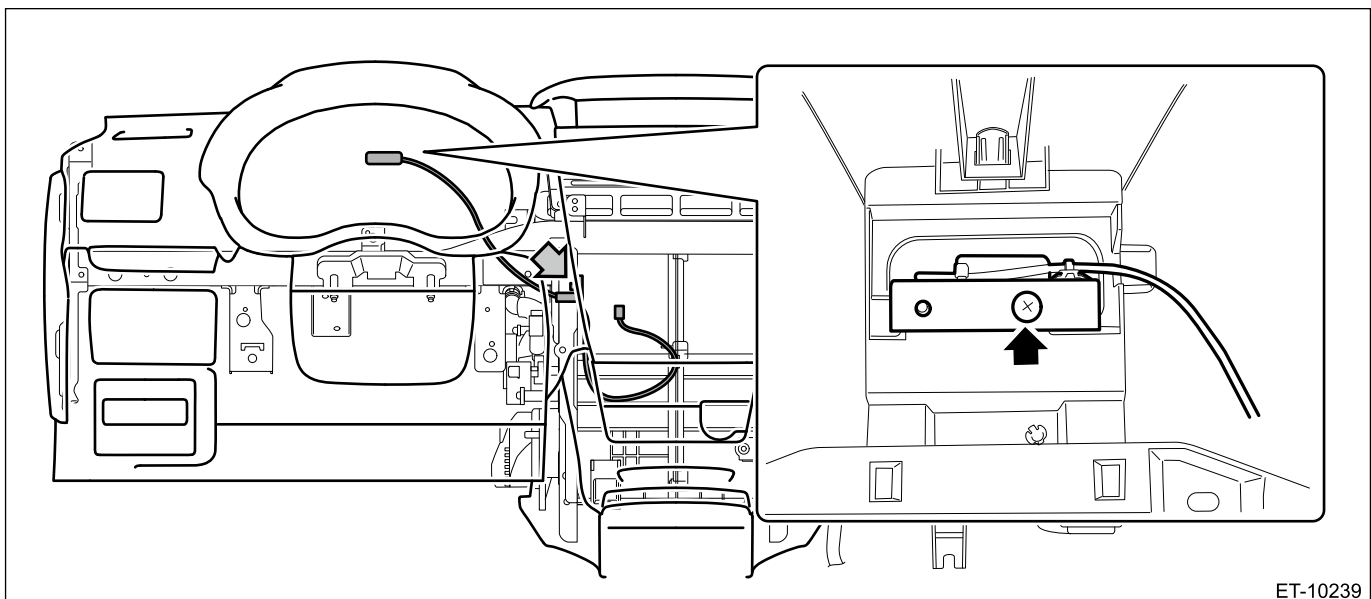
2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>REMOVAL.](#)
4. Remove the glove box.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
5. Remove the center grille assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL > CENTER GRILLE ASSEMBLY.](#)
6. Remove the navigation assembly in the same manner as the removal procedure of the audio assembly.  [Ref. to ENTERTAINMENT & MONITORING>Audio>REMOVAL.](#)
7. Remove the combination meter assembly.  [Ref. to INSTRUMENTATION/DRIVER INFO>Combination Meter>REMOVAL.](#)
8. Remove the GPS antenna assembly.
  - (1) Tie a string to the GPS antenna assembly connector on the navigation unit side.

#### Note:

- A string makes operation easier during installation.
- For the model with telematics, also tie a string to the connector on the data communication module side.

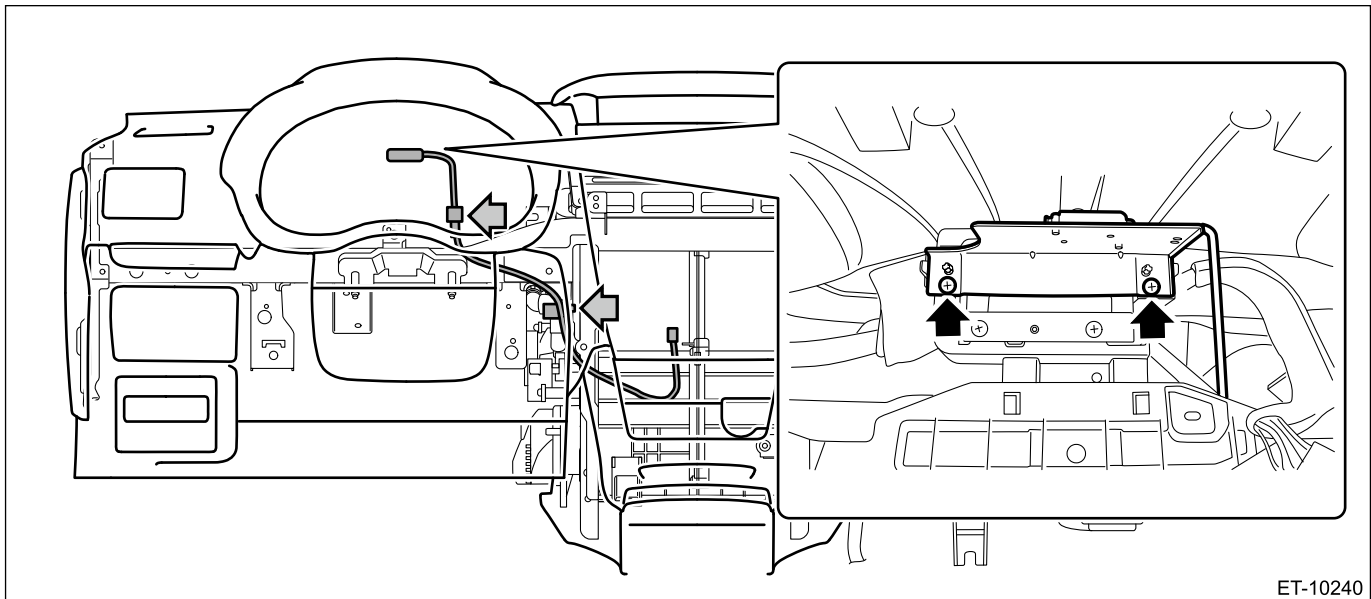
- (2) Remove the screw and harness clamp, and pull out the GPS antenna assembly harness from the combination meter side.

- Model without telematics



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- Model with telematics







(3) When the GPS antenna assembly is pulled out, remove the string attached to the connector in step (1).

## ENTERTAINMENT & MONITORING > GPS Antenna

### 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 GPS antenna assembly.
2. Install the combination meter assembly.
3. Install the navigation assembly.  [Ref. to ENTERTAINMENT & MONITORING>Audio>INSTALLATION.](#)
4. Install the center grille assembly.
5. Install the glove box.
6. Install the knee airbag module.  [Ref. to AIRBAG SYSTEM>Knee Airbag Module>INSTALLATION.](#)
7. Install the cover assembly - instrument panel LWR driver.
8. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## ENTERTAINMENT & MONITORING > Telematics System

### WIRING DIAGRAM

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Refer to "Telematics System" in the wiring diagram.

- Without audio amplifier:  [Ref. to WIRING SYSTEM>Telematics System>WIRING DIAGRAM > WITHOUT AUDIO AMPLIFIER.](#)
- With audio amplifier:  [Ref. to WIRING SYSTEM>Telematics System>WIRING DIAGRAM > WITH AUDIO AMPLIFIER.](#)

## 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 SSM.**

1. Replace the data communication module with a new part.
2. Check the LED of overhead console or stereo camera cover assembly illuminates in green.
3. Press and hold the i-button for 2 seconds or more.

##### Note:

**When the subscription is completed, the telematics system will automatically activate.**

## ENTERTAINMENT & MONITORING > Telematics System

### INSPECTION

---

Refer to "Basic Diagnostic Procedure" in "TELEMATICS SYSTEM (DIAGNOSTICS)".  [Ref. to TELEMATICS SYSTEM \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

## ENTERTAINMENT & MONITORING > Telematics System

### NOTE

---


For procedure of each component in the telematics system, refer to the respective section.


- Data communication module:  [Ref. to ENTERTAINMENT & MONITORING>Data Communication Module.](#)
- Antenna:  [Ref. to ENTERTAINMENT & MONITORING>Antenna.](#)
- GPS antenna:  [Ref. to ENTERTAINMENT & MONITORING>GPS Antenna.](#)
- Switches and harness:  [Ref. to ENTERTAINMENT & MONITORING>Switches and Harness.](#)

## REMOVAL

### 1. DATA COMMUNICATION MODULE






**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 cable from battery and wait for at least 60 seconds before starting work.   
[Ref. to NOTE>NOTE > BATTERY](#).

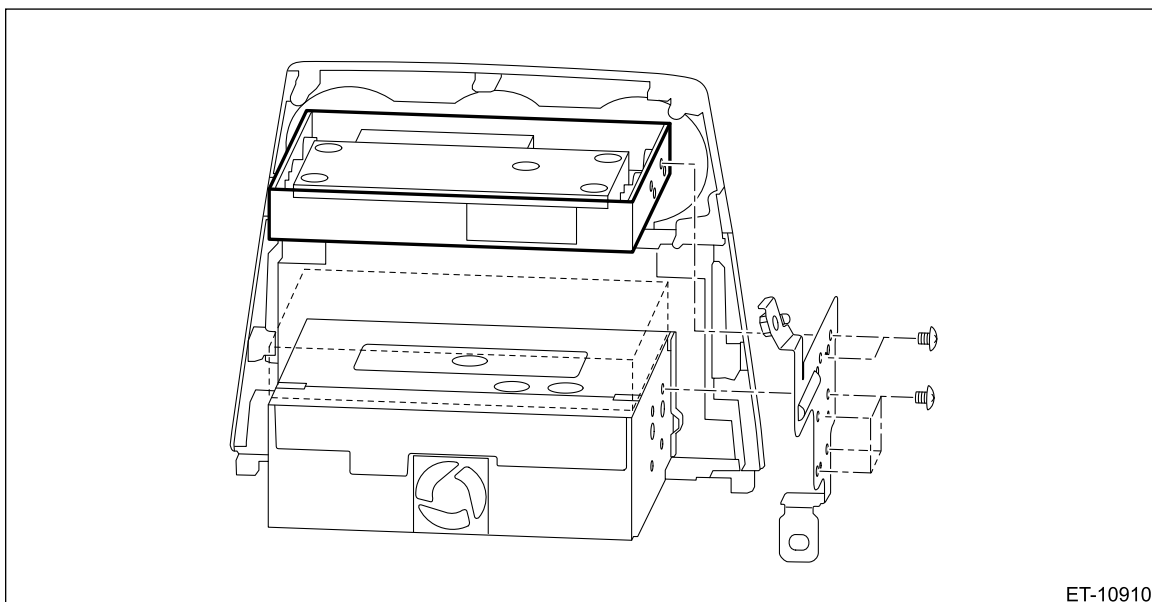
**Note:**

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

2. Remove the cover assembly - instrument panel 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 glove box.  Ref. to [EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL](#).
5. Remove the center grille assembly.  Ref. to [HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL > CENTER GRILLE ASSEMBLY](#).
6. Remove the audio assembly or navigation assembly.  Ref. to [ENTERTAINMENT & MONITORING>Audio>REMOVAL](#).
7. Remove the data communication module.
  - (1) Remove the screws.
  - (2) Remove the audio bracket or navigation bracket, and then remove the data communication module.

**Caution:**

Do not drop or apply any impact to 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

**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 cable from battery and wait for at least 60 seconds before starting work.   
[Ref. to NOTE>NOTE > BATTERY.](#)

**Note:**

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

2. Remove the data communication module.  [Ref. to ENTERTAINMENT & MONITORING>Data Communication Module>REMOVAL > DATA COMMUNICATION MODULE.](#)

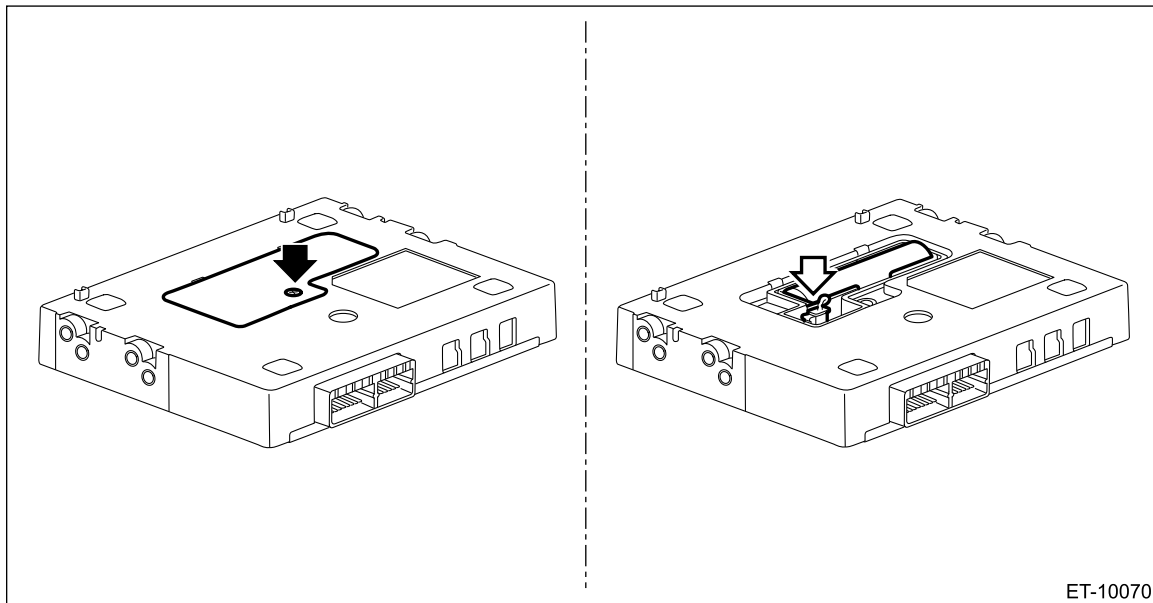
3. Remove the backup battery.

(1) Remove the screws, and then remove the battery cover.

**Preparation tool:**

TORX® T10

(2) Disconnect the connector and remove the backup battery.




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## ENTERTAINMENT & MONITORING > Data Communication Module

### INSTALLATION

#### 1. DATA COMMUNICATION MODULE

**Caution:**

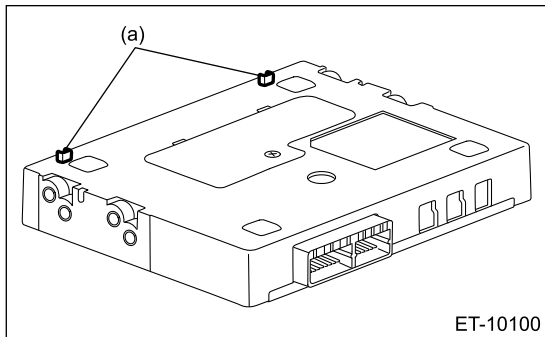
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Install the backup battery.  [Ref. to ENTERTAINMENT & MONITORING>Data Communication Module>INSTALLATION > BACKUP BATTERY.](#)

2. Install the data communication module.

**Note:**

**Align the positioning pin (a) of the data communication module with the positioning hole of the audio assembly or navigation assembly.**



3. Install the audio assembly or navigation assembly. [🔧 Ref. to ENTERTAINMENT & MONITORING>Audio>INSTALLATION.](#)
4. Install the center grille assembly.
5. Install the glove box.
6. Install the knee airbag module. [🔧 Ref. to AIRBAG SYSTEM>Knee Airbag Module>INSTALLATION.](#)
7. Install the cover assembly - instrument panel LWR driver.
8. Connect the battery ground terminal. [🔧 Ref. to NOTE>NOTE > BATTERY.](#)
9. Perform the registration if the data communication module is replaced with a new part. [🔧 Ref. to ENTERTAINMENT & MONITORING>Telematics System>OPERATION.](#)
10. Check the LED lighting condition of the telematics button. [🔧 Ref. to TELEMATICS SYSTEM \(DIAGNOSTICS\)>Check List for Interview>CHECK > LED ILLUMINATION STATUS LIST.](#)

## 2. BACKUP BATTERY

**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 backup battery.
2. Install the battery cover.  
**Tightening torque:**  
0.3 N·m (0.03 kgf-m, 0.2 ft-lb)
3. Install the data communication module. [🔧 Ref. to ENTERTAINMENT & MONITORING>Data Communication Module>INSTALLATION > DATA COMMUNICATION MODULE.](#)
4. Connect the battery ground terminal. [🔧 Ref. to NOTE>NOTE > BATTERY.](#)

## ENTERTAINMENT & MONITORING > Data Communication Module

### INSPECTION

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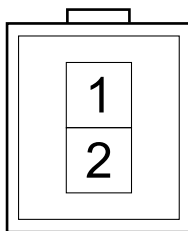
#### 1. BACKUP BATTERY

1. Measure the voltage between connector terminals.

**Preparation tool:**

Circuit tester

SK\*BE



ET-11268

<b>Terminal No.</b>	<b>Standard</b>
1 (+) – 2 (-)	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 wiring diagrams related to the camera, refer to the following items.

- Front:  [Ref. to WIRING SYSTEM>Front View Monitor>WIRING DIAGRAM.](#)
- Rear:  [Ref. to WIRING SYSTEM>Rearview Camera System>WIRING DIAGRAM.](#)

## ENTERTAINMENT & MONITORING > Camera

### REMOVAL

---

#### 1. FRONT

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

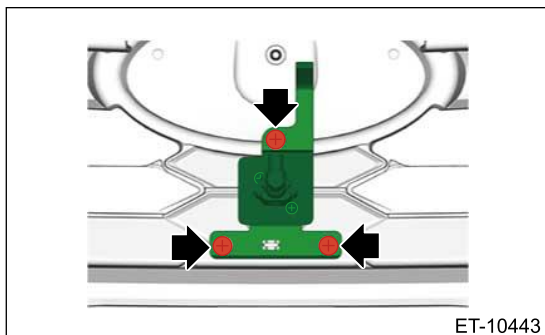
**Note:**

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

2. Remove the bumper face - front.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL.](#)
3. Remove the screws and remove the front view camera.

**Caution:**

**Do not drop or apply any impact to the front view camera because it is a precision equipment.**




#### 2. REAR

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

**Note:**

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

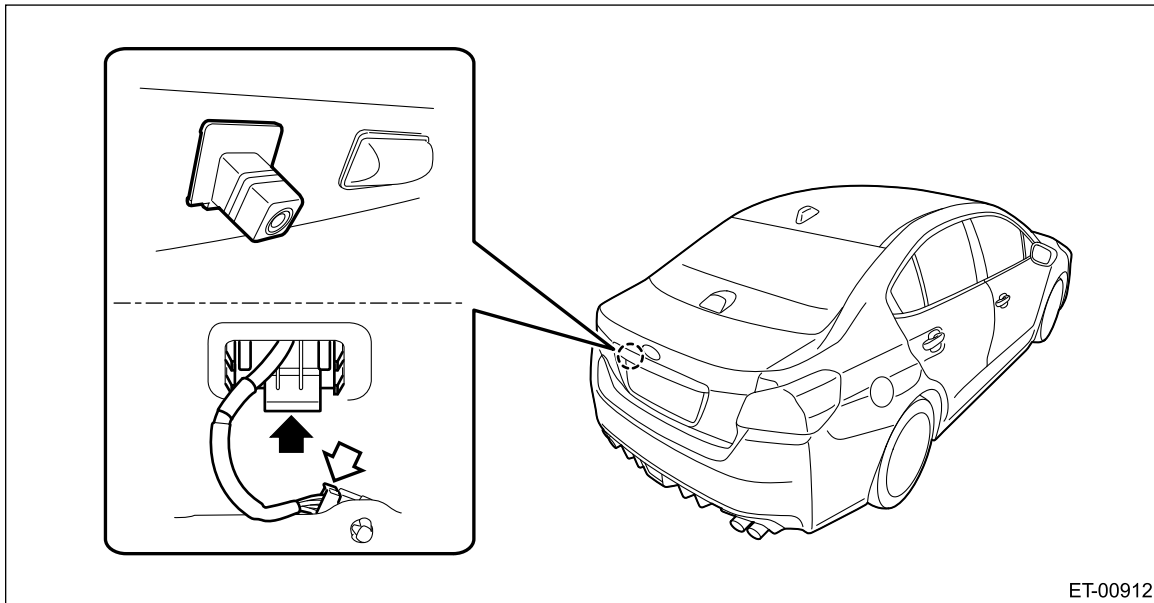
2. Remove the trim panel - trunk lid and garnish - trunk.  [Ref. to EXTERIOR/INTERIOR TRIM>Trunk Lid Garnish>REMOVAL.](#)
3. Remove the rearview camera.

**Caution:**

**Do not drop or apply any impact to the rearview camera because it is a precision equipment.**

(1) Disconnect the connector.

(2) Disconnect the claws and hooks and remove the rear view camera.



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## ENTERTAINMENT & MONITORING > Camera




### INSTALLATION

#### 1. FRONT



1. Install the front view camera.

**Note:**

**Align the positioning holes of camera to the positioning pins of front grille assembly.**

2. Install the bumper face - front.  [Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>INSTALLATION.](#)
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
4. Check the screen display and the guide line position.  [Ref. to ENTERTAINMENT & MONITORING>Camera>INSPECTION > FRONT.](#)

#### 2. REAR



1. Install the rearview camera.
2. Install the garnish - trunk.  
**Tightening torque:**  
4.5 N·m (0.5 kgf-m, 3.3 ft-lb)
3. Install the trim panel - trunk lid.
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
5. Check the screen display and the guide line position.  [Ref. to ENTERTAINMENT & MONITORING>Camera>INSPECTION > REAR.](#)

## ENTERTAINMENT & MONITORING > Camera

### INSPECTION

#### 1. FRONT

1. Park the vehicle at the level place where there are enough area around the vehicle.

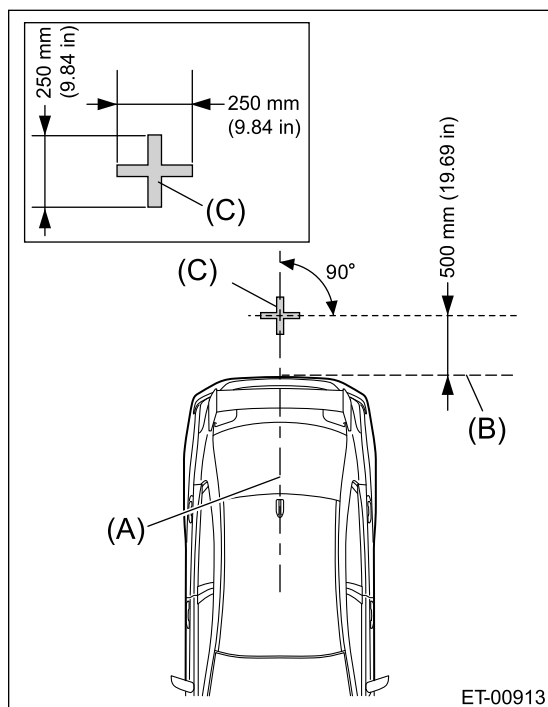
2. Confirm the following before checking the corresponding items.
  - (1) Front view camera image is not displayed. (Camera screen alone is not displayed normally)  
Check the connecting condition of the front view camera using the vehicle condition check in the diagnosis mode.  [Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display\\_\(MFD\)\\_System>OPERATION > DIAGNOSTIC MODE.](#)
  - (2) Guide line cannot be displayed or the position of the guide line is wrong.  
Perform adjustment for display and position of guide line using camera setting in the diagnosis mode.  [Ref. to INSTRUMENTATION/DRIVER INFO>Multi-function Display\\_\(MFD\)\\_System>OPERATION > DIAGNOSTIC MODE.](#)

## 2. REAR


1. Park the vehicle at the level place where there are enough area around the vehicle.
2. Attach the tape as the target point for standard at the floor around the vehicle as shown in the figure below.


### Note:

**Standard tape width is about 30 – 50 mm (1.18 – 1.97 in) and brilliant color shall be used.**



- (A) Vehicle body center line
- (B) Rear edge of bumper
- (C) Target point

3. Confirm the following before checking the corresponding items.
  - (1) Rearview camera image is not displayed. (Camera screen alone is not displayed normally)
    1. Check the reverse signal using Vehicle Signal Check items in Line Diag mode.  [Ref. to ENTERTAINMENT & MONITORING>Audio System>OPERATION > CHECK VEHICLE SIGNALS WITH LINE DIAG MODE.](#)

2. Check the connecting condition of the rearview camera using Connectivity Check items in Line Diag mode.  [Ref. to ENTERTAINMENT & MONITORING>Audio System>OPERATION > CHECK CONNECTIONS WITH LINE DIAG MODE.](#)

(2) Guide line cannot be displayed or the position of the guide line is wrong.




The rearview camera or its installation location on the vehicle may be deformed. Check the rearview camera and its installation location on the vehicle, and repair or replace if necessary.

## ENTERTAINMENT & MONITORING > Accessory Power Supply Socket

### WIRING DIAGRAM

---

Refer to "Accessory Power Supply Socket System" in the wiring diagram.

- Front:  [Ref. to WIRING SYSTEM>Front Accessory Power Supply Socket System>WIRING DIAGRAM.](#)
- Rear
  - ENGINE TYPE FA:  [Ref. to WIRING SYSTEM>Rear Accessory Power Supply Socket System>WIRING DIAGRAM > ENGINE TYPE FA.](#)
  - ENGINE TYPE EJ:  [Ref. to WIRING SYSTEM>Rear Accessory Power Supply Socket System>WIRING DIAGRAM > ENGINE TYPE EJ.](#)


## ENTERTAINMENT & MONITORING > Accessory Power Supply Socket


### REMOVAL

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#### 1. FRONT






##### Caution:

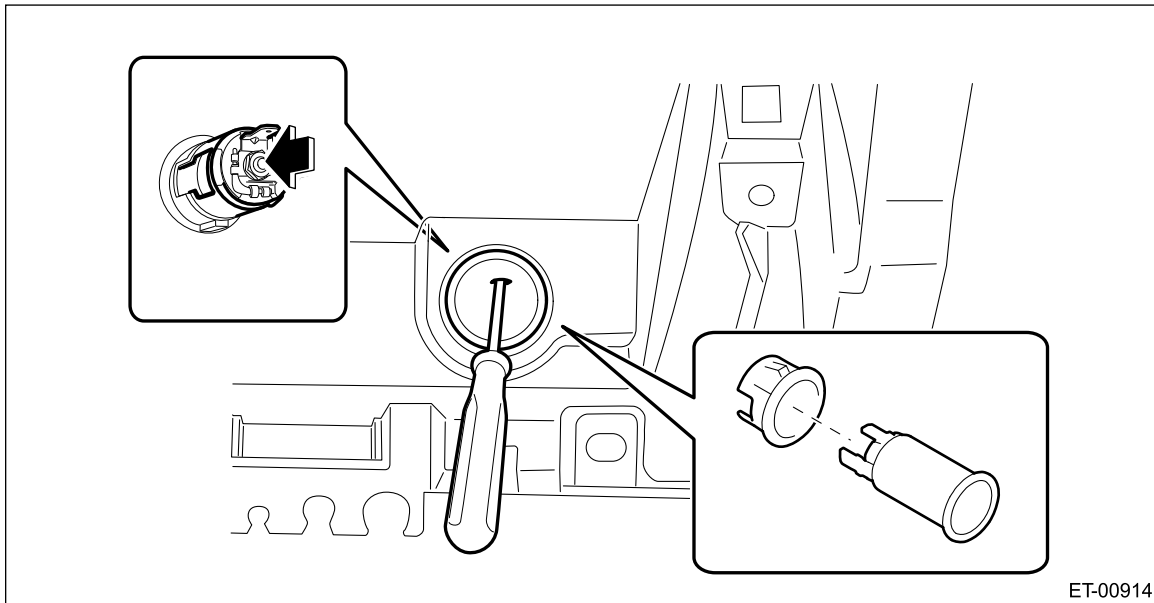
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".**  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

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

##### Note:

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

- 2.** Remove the cover assembly - instrument panel 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 glove box.  [Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL.](#)
- 5.** Remove the center grille assembly.  [Ref. to HVAC SYSTEM \(HEATER, VENTILATOR AND A/C\)>Air Vent Grille>REMOVAL > CENTER GRILLE ASSEMBLY.](#)
- 6.** Remove the audio assembly or navigation assembly.  [Ref. to ENTERTAINMENT & MONITORING>Audio>REMOVAL.](#)
- 7.** Remove the socket assembly.
  - (1) Disconnect the connector.
  - (2) While releasing the claw inside, press it in from the rear to remove the socket assembly.



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(3) Remove the clip - socket.

## 2. REAR

**1.** Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

### Note:

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

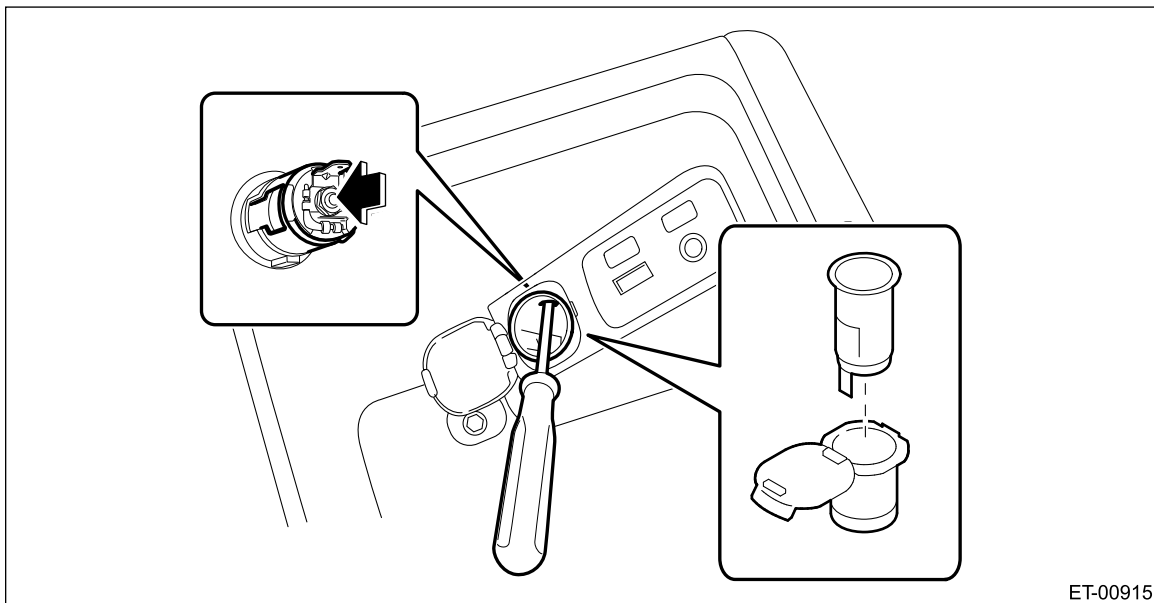
**2.** Remove the console box assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.](#)

**3.** Remove the socket assembly.

(1) Disconnect the connector. (STI model)

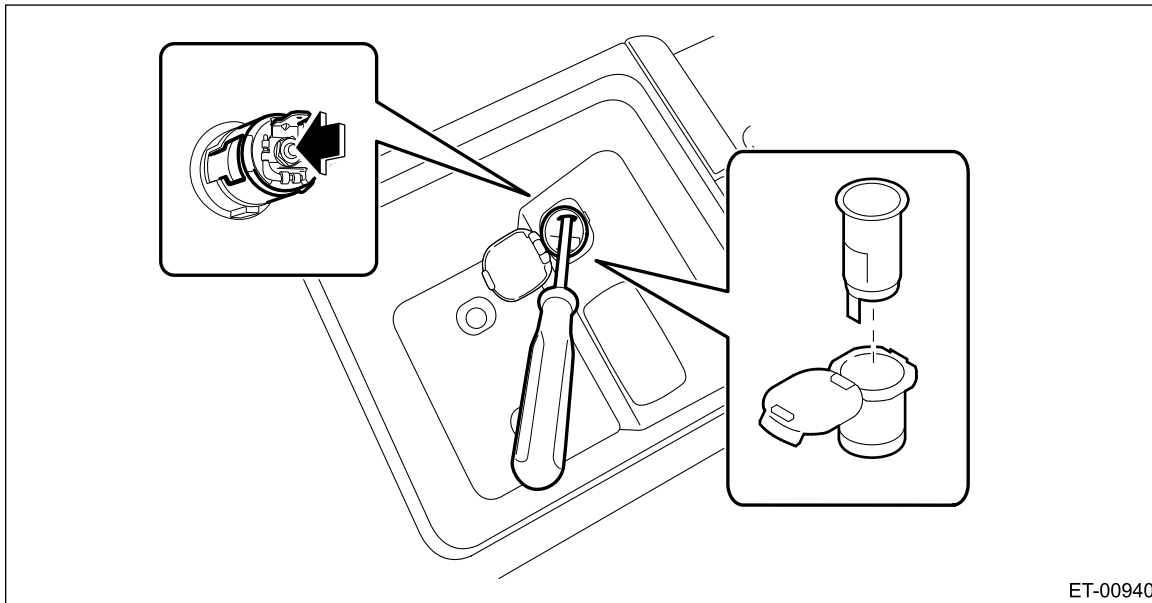
(2) While releasing the claw inside, press it in from the rear to remove the socket assembly.

- Except for STI model



ET-00915

- STI model



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(3) Remove the cap - socket.

## ENTERTAINMENT & MONITORING > Accessory Power Supply Socket

### INSTALLATION

#### 1. FRONT

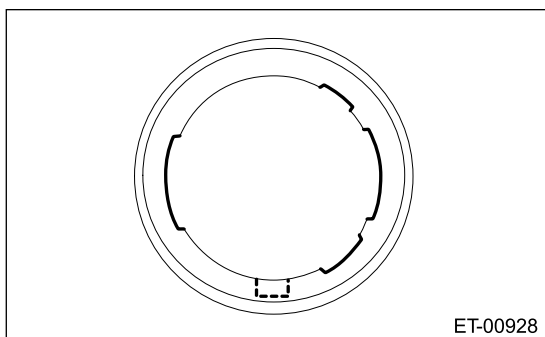
##### Caution:

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




1. Install the clip - socket.
2. Install the socket assembly.

##### Note:

Align the groove of the clip - socket with the claw of the socket assembly.



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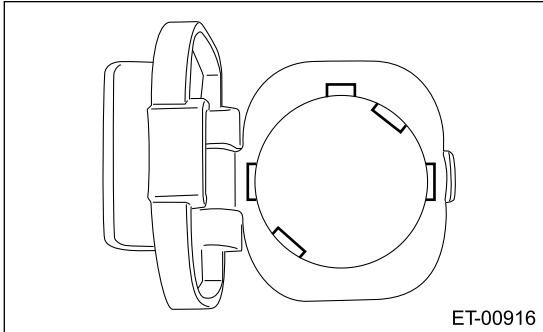
3. Install the audio assembly or navigation assembly.  Ref. to ENTERTAINMENT & MONITORING>Audio>INSTALLATION.
4. Install the center grille assembly.
5. Install the glove box.
6. Install the knee airbag module.  Ref. to AIRBAG SYSTEM>Knee Airbag Module>INSTALLATION.
7. Install the cover assembly - instrument panel LWR driver.
8. Connect the battery ground terminal.  Ref. to NOTE>NOTE > BATTERY.


## 2. REAR

1. Install the cap - socket.
2. Install the socket assembly.

**Note:**

**Align the groove of the cap - socket with the claw of the socket assembly.**



3. Install the console box assembly.
4. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## ENTERTAINMENT & MONITORING > External Connection Terminal


### REMOVAL

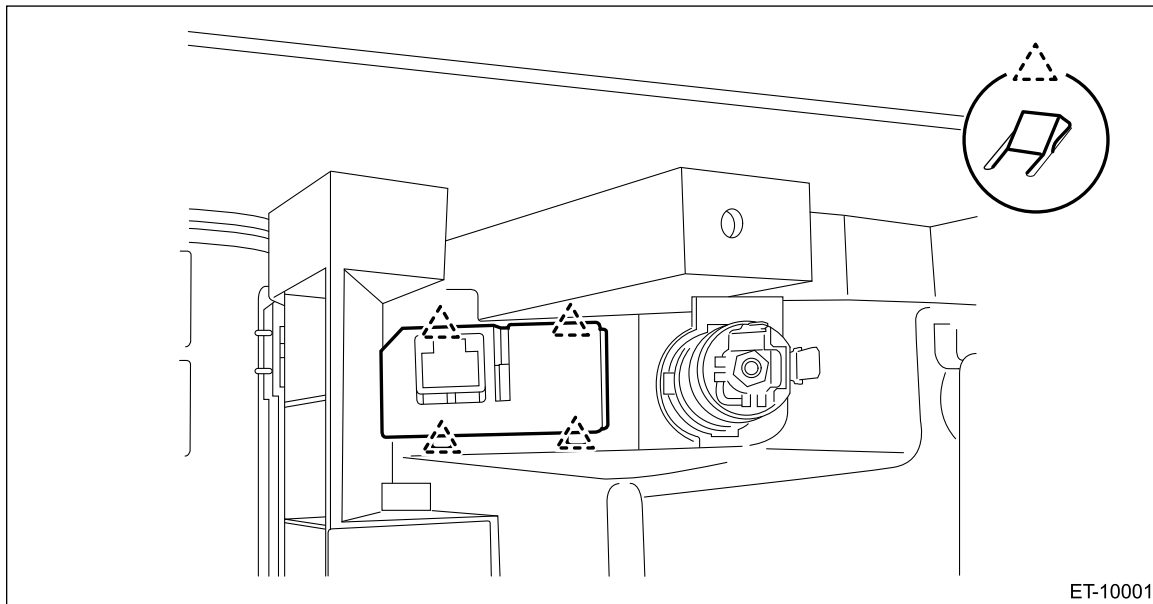
---

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### Note:

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


2. Remove the console box assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.](#)
3. While pressing the claw, press it in from the rear to remove the unit assembly - AUX.



## ENTERTAINMENT & MONITORING > External Connection Terminal

### INSTALLATION

---

1. Install the unit assembly - AUX.
2. Install the console box assembly.
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)



## ENTERTAINMENT & MONITORING > Diagnostics with Phenomenon

### LIST









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#### 1. AUDIO SYSTEM

Symptoms	Reference
Power will not turn ON.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; POWER WILL NOT TURN ON.</a>
The screen freezes and does not accept any operation entry.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; THE SCREEN FREEZES AND DOES NOT ACCEPT ANY OPERATION ENTRY.</a>
The screen is blacked out, or the screen is not displayed.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; THE SCREEN IS BLACKED OUT, OR THE SCREEN IS NOT DISPLAYED.</a>
System is reset.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; SYSTEM IS RESET.</a>
CDs cannot be played back.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; CDS CANNOT BE PLAYED BACK.</a>
Sound does not come out from the speaker.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; SOUND DOES NOT COME OUT FROM THE SPEAKER.</a>
Bluetooth connection cannot be established.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; BLUETOOTH CONNECTION CANNOT BE ESTABLISHED.</a>
Bluetooth does not operate.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; BLUETOOTH DOES NOT OPERATE.</a>
Radio volume is low or interference noise occurs.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; RADIO VOLUME IS LOW OR INTERFERENCE NOISE OCCURS.</a>


Symptoms	Reference
Error message is displayed.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;LIST &gt; ERROR MESSAGE IS DISPLAYED.</a>
SUBARU STARLINK is faulty.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;LIST &gt; CHECK ABNORMALITY OF SUBARU STARLINK.</a>

## 2. NAVIGATION SYSTEM


Symptoms	Reference
Power will not turn ON.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; POWER WILL NOT TURN ON.</a>
The screen freezes and does not accept any operation entry.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; THE SCREEN FREEZES AND DOES NOT ACCEPT ANY OPERATION ENTRY.</a>
The screen is blacked out, or the screen is not displayed.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; THE SCREEN IS BLACKED OUT, OR THE SCREEN IS NOT DISPLAYED.</a>
System is reset.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; SYSTEM IS RESET.</a>
CDs cannot be played back.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; CDS CANNOT BE PLAYED BACK.</a>
Sound does not come out from the speaker.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; SOUND DOES NOT COME OUT FROM THE SPEAKER.</a>
Bluetooth connection cannot be established.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; BLUETOOTH CONNECTION CANNOT BE ESTABLISHED.</a>
Bluetooth does not operate.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with</a>

Symptoms	Reference
	<a href="#">Phenomenon&gt;INSPECTION &gt; BLUETOOTH DOES NOT OPERATE.</a>
Radio volume is low or interference noise occurs.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; RADIO VOLUME IS LOW OR INTERFERENCE NOISE OCCURS.</a>
Wrong location of vehicle, or no GPS reception.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; WRONG LOCATION OF VEHICLE, NO GPS RECEPTION.</a>
Error message is displayed.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;LIST &gt; ERROR MESSAGE IS DISPLAYED.</a>
SUBARU STARLINK is faulty.	 <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;LIST &gt; CHECK ABNORMALITY OF SUBARU STARLINK.</a>

### 3. CHECK ABNORMALITY OF SUBARU STARLINK

Symptoms	Counter-measure
SUBARU STARLINK app was terminated.	Perform the procedures described on "Check connection between smartphone and unit".  <a href="#">Ref. to ENTERTAINMENT &amp; MONITORING&gt;Diagnostics with Phenomenon&gt;INSPECTION &gt; CHECK CONNECTION BETWEEN SMARTPHONE AND UNIT.</a>
Smartphone was powered off while connecting via the SUBARU STARLINK.	
Bluetooth connection stops while connecting via the SUBARU STARLINK.	
Communication gets out of service while connecting via the SUBARU STARLINK.	
Radio wave reception becomes worse while connecting via the SUBARU STARLINK.	

**Note:**

Possible error messages with relation to the above symptoms. When the message below is displayed, perform inspection according to "Inspection when an error message is displayed (SUBARU STARLINK)".  Ref. to ENTERTAINMENT & MONITORING>Diagnostics with Phenomenon>LIST > INSPECTION WHEN AN ERROR MESSAGE IS DISPLAYED (SUBARU STARLINK).

Details of message
Please disconnect mobile device and install the STARLINK application on your mobile device and try again. Bluetooth disconnected, please reconnect and try again. Smartphone data connection is poor, please try to connect again.

**4. INSPECTION WHEN AN ERROR MESSAGE IS DISPLAYED (SUBARU STARLINK)**

No.	Inspection	Possible cause	Action 1	Action 2
1	Check internet connection of smartphone	Check that the Internet sites can be viewed with a web browser of the smartphone. <b>Note:</b> <b>Make sure that the displayed contents are not from previously loaded screen (cache) and that new contents can be reloaded.</b>	When connection to the Internet fails, confirm that connection can be established where the radio wave condition is good, and go to No. 2.	Check that the smartphone can perform communication.
2	Activate SUBARU STARLINK application for the smartphone	Activate the "SUBARU STARLINK" application for the smartphone.	Check that the SUBARU STARLINK application is activated, and go to No. 5.	If the SUBARU STARLINK application is not installed, go to No. 3 and 4.
3	Install the SUBARU STARLINK application (Android)	Search the SUBARU STARLINK on Google Play, and install the application.	After installation, go to No. 2.	When installation cannot be completed, check the setting of the smartphone. (Communication environment, account, etc.)
4	Install the SUBARU STARLINK application (iPhone)	Search the SUBARU STARLINK on APP Store, and install the app.	After installation, go to No. 2.	When installation cannot be completed, check the setting of the smartphone. (Communication environment, account, etc.)

No.	Inspection	Possible cause	Action 1	Action 2
5	Check connection to the SUBARU STARLINK server	Select "SETTING" tab from the SUBARU STARLINK application for the smartphone, and select "Press to check network status".	When "The network connection is good" is displayed, go to No. 8.	For the case other than shown on the left, go to No. 6 or No. 7.
6		When "NETWORK PROBLEMS" is displayed.	Move to a location where the radio wave condition is good, and go to No. 5.	—
7		When "SERVER MAINTENANCE" is displayed.	Wait until the server maintenance completes, and go to No. 5.	—
8	Check the smartphone type	Check the phone type (iPhone or Android).	For iPhone, go to No. 10 or 12.	For Android, go to No. 10.
9	Check Bluetooth connection between smartphone — on-vehicle device	On the on-vehicle device, select [HOME]-[SETTINGS]-Bluetooth tab-"BT devices Connection", and check that Bluetooth setting at the upper right is ON.	When the setting is OFF, switch to ON and go to No. 10.	When the setting is ON, switch to OFF once and to ON again, then go to No. 10.
10		From the Setting app for the smartphone, select Bluetooth and check that it is set to ON. (Note that procedures vary depending on a device.)	When the setting is OFF, switch to ON and go to No. 11.	When the setting is ON, switch to OFF once and to ON again, then go to No. 11.
11		<p>Check that Bluetooth pairing is established between the smartphone and on-vehicle device.</p> <ul style="list-style-type: none"> <li>• The selected smartphone icon is displayed on the on-vehicle device.</li> <li>• The smartphone BT is connected to the on-vehicle device.</li> </ul>	If the connection cannot be confirmed, go to No. 9.	—
12	Check USB connection between smartphone — on-vehicle	Check that the smartphone and on-vehicle device are connected via USB.	After connecting via USB, go to No. 13.	—

No.	Inspection	Possible cause	Action 1	Action 2
	device (with iPhone)			
13	Check the SUBARU STARLINK initial screen	On the on-vehicle device, press down [APPS] – [SUBARU STARLINK], and check that the SUBARU STARLINK initial screen is displayed.	If the activation cannot be confirmed, go to No. 14.	—
14	Delete the SUBARU STARLINK connection information inside the on-vehicle device.	Clear the Browser cache on the on-vehicle device. (Select the tool tab from the SETTING menu, select Browser cache "Delete", and select "OK". Then, press [SETTINGS] from the APPS screen. From SETTING, select the Bluetooth - tab, and select BT Devices Connection. Select the "Trash can" icon of the registered device. Select "OK" on the confirmation pop-up screen.)	For Android, go to No. 15. For iPhone, go to No. 15 or 17.	—
15		Clear the Bluetooth connection information inside the on-vehicle device.	Go to No. 16.	—
16		Turn OFF the power supply of the on-vehicle device, and wait for 30 seconds or more before turning ON the power supply again.	Go to No. 17.	—
17	Delete the SUBARU STARLINK connection information inside the smartphone.	Delete data in the SUBARU STARLINK app. (Click the "SETTING" icon of the "SUBARU STARLINK" application. Then, press [CONFIG] from the APPS list screen. Select "Delete the SUBARU STARLINK application data" to delete the data in the application.	Go to No. 18.	—

No.	Inspection	Possible cause	Action 1	Action 2
		<p>Activate the Setting app for the smartphone.</p> <p>From SETTING, select the Bluetooth - tab, and select BT Devices Connection.</p> <p>Select the Bluetooth setting item.</p> <p>Select the connection information.</p> <p>Select the "Trash can" icon of the registered device.</p> <p>Select "Forget This Device" to delete the connection information.)</p>		
18		Delete the Bluetooth connection information.	Go to No. 19.	—
19		Turn OFF the power of the smartphone, then turn it ON again.	Go to No. 20.	—
20	Re-connect SUBARU STARLINK	Establish connection according to the SUBARU STARLINK connection procedure.	—	—

## 5. ERROR MESSAGE IS DISPLAYED

Mode	Message	Cause	Action
aha	"Information acquisition error. (Information acquisition error.)"	When not able to get the requested information.	Please try again (Refresh etc.) later or reconnect it.
	"Poor wireless reception. (Poor wireless reception.)"	When a communication error has been detected.	Please try again in a better communications environment.
	"Entry not recognized. (Entry not recognized.)"	When an invalid operation has been executed.	Please try again (Refresh etc.) later or reconnect it.
	"The station list cannot be acquired. (The station list cannot be acquired.)"	When not able to get the station information.	Please try again (Refresh etc.) later or reconnect it.
	"The content cannot be acquired. (The content cannot be acquired.)"	<ul style="list-style-type: none"> <li>• When not able to get the content information.</li> <li>• When not able to switch to the Top content when touching.</li> </ul>	<ul style="list-style-type: none"> <li>• Please try again (Refresh etc.) later or reconnect it.</li> <li>• Select the desired station again when the station list appears.</li> </ul>

<b>Mode</b>	<b>Message</b>	<b>Cause</b>	<b>Action</b>
	"Action not available. (Action not available.)"	When content-specific operations such as "fast forward" or "reverse" are not available.	Please try again (Refresh etc.) later or reconnect it.
	"Failed. (Failed.)"	When data transmission failed when touching.	Please try again later.
	"aha communication error - Please check Owner's Manual. (aha communication error - Please check Owner's Manual.)"	<ul style="list-style-type: none"> <li>• When invalid data is received from the aha application or there is no response.</li> <li>• When the connection to the aha application via Bluetooth is not available.</li> <li>• When the data reception from this unit is rejected.</li> </ul>	Please try again (Refresh etc.) later or reconnect it. If it is still not improved, restart the aha application.
	"Please select the type of connection in "aha Settings". (Please select the type of connection in "aha Settings".)"	When aha radio setting is set to (USB) when the Android device is going to be paired via Bluetooth.	When you want to connect to the aha application with the Android device, select (Bluetooth) in the aha radio setting from the setting screen.
Pandora	"No stations have been added to your list. (No stations have been added to your list.)"	When no stations have been registered.	Please register stations.
	"Your ratings information was not saved. (Your ratings information was not saved.)"	When ratings information has not been updated to the Pandora server.	Please try again later.
	"Bookmark not saved. (Bookmark not saved.)"	When bookmark registration information has not been updated to the Pandora server.	Please try again later.
	"Pandora is not available at your current location. (Pandora is not available at your current location.)"	When Pandora is used in an area where it is not available.	Please try again at a different location.
	"The selected Pandora station is no longer available. (The selected Pandora station is no longer available.)"	When the selected station has been deleted, or has expired.	Please select another station.



Mode	Message	Cause	Action
	"Pandora Error. (Pandora Error.)"	When the Pandora server is undergoing maintenance, or another error has occurred.	Please try again later.

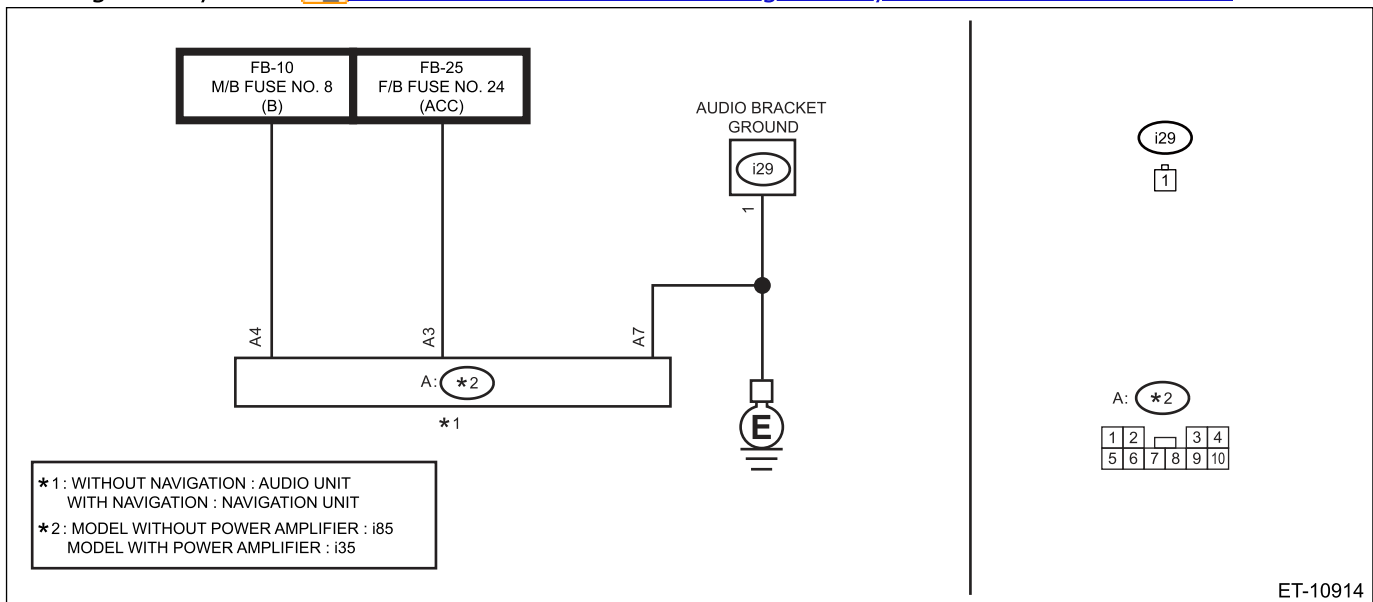
## ENTERTAINMENT & MONITORING > Diagnostics with Phenomenon

### INSPECTION

#### 1. POWER WILL NOT TURN ON

##### Wiring diagram:

- Audio system:  [Ref. to WIRING SYSTEM>Audio System>WIRING DIAGRAM.](#)
- Navigation system:  [Ref. to WIRING SYSTEM>Navigation System>WIRING DIAGRAM.](#)



#### 1. CHECK CONNECTOR CONNECTION.

Check that the connector is connected to the unit.

Is the check result OK?

Yes

 [Go to 2.](#)

No

Connect the connector.

## 2. CHECK CONNECTOR.

Check for poor contact of connectors or terminals.

Is the check result OK?

Yes

 [Go to 3.](#)

No

Repair or replace the harness.

## 3. CHECK POWER SUPPLY VOLTAGE.

1. Disconnect the connector.
2. Turn the ignition switch to ACC.
3. Using a tester, measure the voltage between connector and chassis ground.

### Note:

Turn the electrical parts to OFF.

### Connector & terminal

#### Model without power amplifier

(i85) No. 4 (+) — Chassis ground (—):

(i85) No. 3 (+) — Chassis ground (—):

#### Model with power amplifier

(i35) No. 4 (+) — Chassis ground (—):

(i35) No. 3 (+) — Chassis ground (—):

Is the voltage 12 V or more?

Yes

 [Go to 8.](#)

No

 [Go to 4.](#)

#### 4. CHECK FUSE.

1. Turn the ignition to OFF.
2. Check the fuse No. 8 inside the main fuse box.

Is the fuse OK?

Yes

 [Go to 5.](#)

No

Replace the fuse. If the fuse is blown again, check or replace the short circuit of the power supply harness.

#### 5. CHECK HARNESS (POWER SUPPLY).

Measure the resistance between main fuse box and connector.

##### Connector & terminal

##### Model without power amplifier

M/B fuse No. 8 — (i85) No. 4:

##### Model with power amplifier

M/B fuse No. 8 — (i35) No. 4:

Is the resistance 1  $\Omega$  or less?

Yes

 [Go to 6.](#)

No

Repair or replace the open circuit of harness.

## 6. CHECK HARNESS (GROUND).

Measure the resistance between connector and chassis ground.

### Connector & terminal

#### Model without power amplifier

(i85) No. 7 — Chassis ground:

#### Model with power amplifier

(i35) No. 7 — Chassis ground:

Is the resistance 1  $\Omega$  or less?

Yes


 [Go to 7.](#)

No

Repair or replace the open circuit of harness.

## 7. CHECK BATTERY.

Check the battery.

- Except for STI model:  [Ref. to STARTING/CHARGING SYSTEMS\(w/o STI\)>Battery>INSPECTION.](#)
- STI model:  [Ref. to STARTING/CHARGING SYSTEMS\(STI\)>Battery>INSPECTION.](#)

Is the check result OK?

Yes

 [Go to 8.](#)

No

Charge or replace the battery.

## 8. CHECK OPERATION.


- 1.** Connect all connectors.
- 2.** Turn the ignition switch to ACC and the power supply switch of the unit to ON.

Does the power turn ON?

Yes

Currently no failure is found.

No

Replace the audio or navigation unit.  [Ref. to ENTERTAINMENT & MONITORING>Audio.](#)

## 2. THE SCREEN FREEZES AND DOES NOT ACCEPT ANY OPERATION ENTRY

### 1. CHECK RESTARTING DISPLAY.

Turn the ignition OFF → ACC after waiting for three minutes or more with the display turned off.  
(The doors must be closed)

Is the screen freeze eliminated?

 Yes[!\[\]\(3c7186281763f956a6e3f3083ece27ad\_img.jpg\) Go to 5.](#) No[!\[\]\(017cee6d2588cf8c90e9133bf6f23aef\_img.jpg\) Go to 2.](#)

### 2. REMOVE OTHER MEDIA OR EXTERNAL DEVICES.

Remove the external devices connected to CD/USB. Also, remove the external devices with Bluetooth.

Is the screen freeze eliminated?

 Yes[!\[\]\(bbd5f19dde73215864d32a9f311399a5\_img.jpg\) Go to 3.](#) No[!\[\]\(926d0e0e29664b980252d415377c3f6b\_img.jpg\) Go to 6.](#)

### 3. CHECK OTHER EXTERNAL DEVICE CONNECTION.

When screen freeze is eliminated, connect external devices one by one to identify the device that causes screen freeze.

Is the device that reproduces screen freeze identified?


 Yes[!\[\]\(f44804a14acf5fdb1cd37ccb8f408040\_img.jpg\) Go to 4.](#) No[!\[\]\(07fa7897d82997ade3beed8ad7929ea8\_img.jpg\) Go to 5.](#)

#### 4. CHECK OTHER EXTERNAL DEVICE CONNECTION.

1. Replace the identified device with the one that has the same performance.
2. Turn the ignition switch to ACC.

Does the screen freeze occur?

Yes

Replace the audio or navigation unit.  [Ref. to ENTERTAINMENT & MONITORING>Audio.](#)

No

The external device may be defective.

#### 5. CHECK OPERATION PROCEDURE.

Ask how the user operates when screen freeze occurs, and perform using the same procedure.

Is the check result OK?

Yes

Currently no failure is found.

No

 [Go to 6.](#)

#### 6. CHECK ENVIRONMENTAL CONDITION.


Check if any external devices which emit strong electromagnetic waves and noises, such as a radio antenna, is installed inside the vehicle.

Is the check result OK?

Yes

 [Go to 7.](#)


No

Remove the external device and perform the inspection from step 2 again. If the fault is not fixed:  [Go to 7.](#)

## 7. PERFORM INITIALIZATION PROCEDURE.



Perform the initialization procedure for the unit.

### Caution:


**When the initialization procedure is performed, the data, telephone directory, etc. recorded in the unit body will be deleted. Before initialization, obtain permission from the user.**  [Ref. to ENTERTAINMENT & MONITORING>Service Diagnostics Mode>OPERATION > SERVICE INSPECTION.](#)

Is the screen freeze eliminated?

Yes

 [Go to 5.](#) If the screen freeze occurs again, replace the audio or navigation unit.  
 [Ref. to ENTERTAINMENT & MONITORING>Audio.](#)

No

Replace the audio or navigation unit.  [Ref. to ENTERTAINMENT & MONITORING>Audio.](#)

## 3. THE SCREEN IS BLACKED OUT, OR THE SCREEN IS NOT DISPLAYED

### 1. CHECK RESTARTING DISPLAY.

Turn the ignition OFF → ACC after waiting for three minutes or more with the display turned off.  
(The doors must be closed)

Is the screen properly displayed?

Yes

Currently no failure is found.

No

 [Go to 2.](#)

### 2. CHECK POWER SUPPLY BUTTON.

Check if the screen OFF mode is turned on by pressing the power supply button of the unit body.

Is the screen properly displayed?

Yes

The screen OFF mode might be activated. Currently no failure is found.

No

 [Go to 3.](#)

### 3. CHECK BUTTON ILLUMINATION.


Turn the ignition switch to ACC.

Do the buttons located beside the screen illuminate?

Yes

 [Go to 4.](#)

No

Perform "Power will not turn ON" in Diagnostics with Phenomenon.  [Ref. to ENTERTAINMENT & MONITORING>Diagnostics with Phenomenon>INSPECTION > POWER WILL NOT TURN ON.](#)

### 4. CHECK INDICATION WITH ILLUMINATION ON.

Turn the lighting switch to ON.

Does the screen brightness change?

Yes

 [Go to 7.](#)

No

 [Go to 5.](#)

### 5. CHECK HARNESS.

Check for poor contact of the harnesses, connectors and terminals that are connected to the unit body.

Is the check result OK?

Yes

 [Go to 6.](#)

No

Repair or replace the harness.

## 6. CHECK BODY INTEGRATED UNIT.

Confirm the following items in «Data monitor» of «Body Control» using Subaru Select Monitor.


- «Lighting I Switch Input»

Is the input signal normal?

Yes

 [Go to 7.](#)

No

Replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

## 7. CHECK UNDER OVERLOAD CONDITION.


1. Turn the ignition to OFF.
2. Leave as is for 10 minutes (cooling down), and then turn the ignition to ACC to check the operation.

Is the screen properly displayed?

Yes

 [Go to 8.](#)

No

Replace the audio or navigation unit.  [Ref. to ENTERTAINMENT & MONITORING>Audio.](#)

## 8. OPERATIONAL CHECK.

Obtain the information about the audio device that the user used (SD, Bluetooth, CD, etc.), and connect the same device. Then play the device for 10 minutes or more.

Is the screen properly displayed?

Yes

Currently no failure is found.

No

 [Go to 9.](#)

## 9. CHECK EXTERNAL DEVICE.


1. Replace the external device that might cause trouble with another device. (If trouble occurs while using a CD, replace the CD with another one. If trouble occurs while using an external device that is connected via USB, replace the external device with another device.)
2. Operate for 10 minutes or more.

Is the screen properly displayed?



Yes

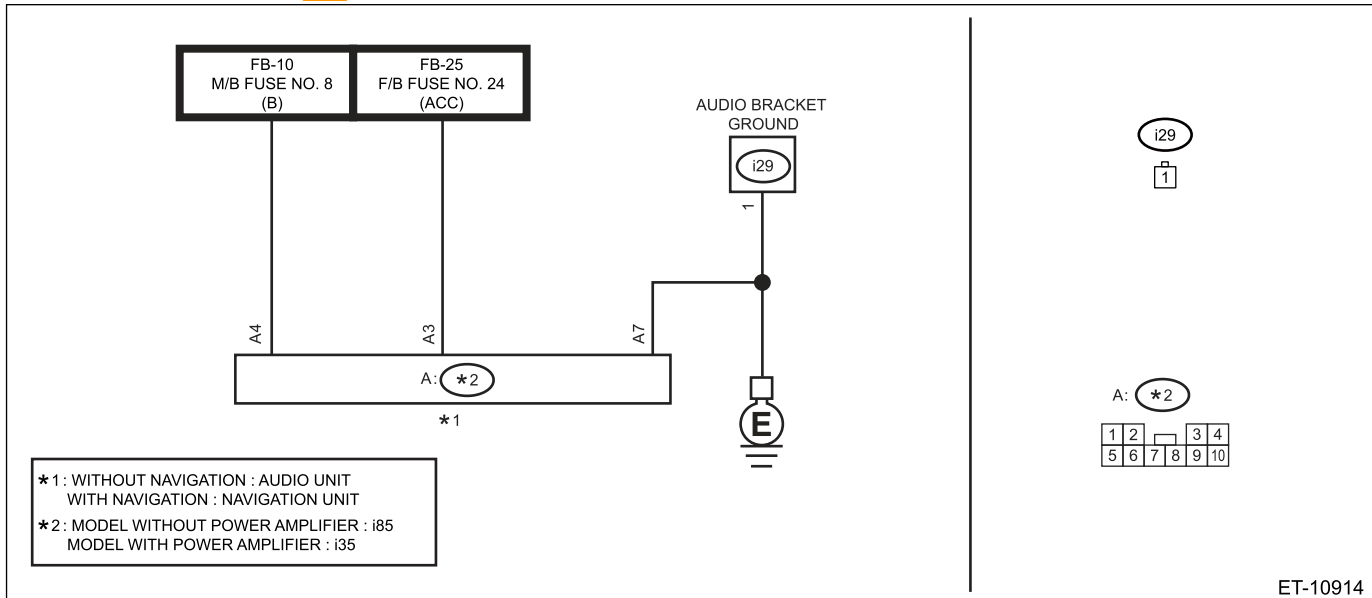
The external device might have trouble, resulting in the overload state.

No

Replace the audio or navigation unit.  [Ref. to ENTERTAINMENT & MONITORING>Audio.](#)

## 4. SYSTEM IS RESET

- Audio system:  [Ref. to WIRING SYSTEM>Audio System>WIRING DIAGRAM.](#)
- Navigation system:  [Ref. to WIRING SYSTEM>Navigation System>WIRING DIAGRAM.](#)



ET-10914

## 1. CHECK ENVIRONMENTAL CONDITION.


Check if any external devices which emit strong electromagnetic waves and noises, such as a radio antenna, is installed inside the vehicle.

Is the check result OK?

Yes

 [Go to 2.](#)

No

Remove the external device to check the operation. If the fault is not fixed:  [Go to 2.](#)

## 2. CHECK CONNECTOR CONNECTION.

Check that the connector is connected to the unit.

Is the check result OK?

Yes

 [Go to 3.](#)

No

Connect the connector.

## 3. CHECK CONNECTOR.

Check for poor contact of connectors or terminals.

Is the check result OK?

Yes

 [Go to 4.](#)

No

Repair or replace the harness.

#### 4. CHECK POWER SUPPLY VOLTAGE.

1. Turn the ignition switch to ACC.
2. Using a tester, measure the voltage between connector and chassis ground.

**Note:**

**Turn the electrical parts to OFF.**

**Connector & terminal**

**Model without power amplifier**

(i85) No. 4 (+) — Chassis ground (—):

(i85) No. 3 (+) — Chassis ground (—):

**Model with power amplifier**

(i35) No. 4 (+) — Chassis ground (—):

(i35) No. 3 (+) — Chassis ground (—):

Is the voltage 12 V or more?

Yes

 [Go to 8.](#)

No

 [Go to 5.](#)

#### 5. CHECK OPEN CIRCUIT IN HARNESS (POWER SUPPLY).

Using the tester, measure the resistance between connector and chassis ground while shaking the harness.

**Connector & terminal**

**Model without power amplifier**

(i85) No. 4 — Chassis ground:

(i85) No. 3 — Chassis ground:

**Model with power amplifier**

(i35) No. 4 — Chassis ground:

(i35) No. 3 — Chassis ground:

Is the resistance 1  $\Omega$  or less?

Yes

 [Go to 6.](#)

No

Repair or replace the open circuit of harness.

## 6. CHECK OPEN CIRCUIT IN HARNESS (GROUND).

Using the tester, measure the resistance between connector and chassis ground while shaking the harness.

### Connector & terminal

#### Model without power amplifier

(i85) No. 7 — Chassis ground:

#### Model with power amplifier

(i35) No. 7 — Chassis ground:

Is the resistance 1  $\Omega$  or less?

Yes



 [Go to 7.](#)

No

Repair or replace the open circuit of harness.

## 7. CHECK BATTERY.

Check the battery.


- Except for STI model:  [Ref. to STARTING/CHARGING SYSTEMS\(w/o STI\)>Battery>INSPECTION.](#)
- STI model:  [Ref. to STARTING/CHARGING SYSTEMS\(STI\)>Battery>INSPECTION.](#)

Is the check result OK?

Yes

 [Go to 8.](#)

No

Replace the audio or navigation unit.  [Ref. to ENTERTAINMENT & MONITORING>Audio.](#)

## 8. CHECK UNIT OPERATION.


1. Connect all connectors.
2. Turn the ignition switch to ACC and the power supply switch of the unit to ON.

Is the reset eliminated?

Yes

Currently no failure is found.

No

Replace the audio or navigation unit.  [Ref. to ENTERTAINMENT & MONITORING>Audio.](#)

## 5. CDS CANNOT BE PLAYED BACK

### 1. CONFIRM CD INSERTION CONDITION.

Check that the CD is inserted properly.

Is the check result OK?

Yes

 [Go to 2.](#)

No

Insert the CD properly.

### 2. CHECK CD.

Check the CD surfaces are free from scratches or dirt.

Is the check result OK?

Yes

 [Go to 3.](#)

No

The CD is defective.

### 3. CHECK CD.

Replace the CD with another one. (Use a playable CD. Refer to owner's manual for details.)

Is the CD played back?

Yes

The CD is defective.

No

 [Go to 4.](#)

### 4. CHECK DEW CONDENSATION IN UNIT.


1. After starting the engine, turn ON the air conditioner and dry inside the vehicle for 10 minutes or more.
2. Check the CD operation.

Is the CD played back?

Yes

Dew condensation occurred inside the unit.

No

Replace the audio or navigation unit.  [Ref. to ENTERTAINMENT & MONITORING>Audio.](#)

### 6. SOUND DOES NOT COME OUT FROM THE SPEAKER

## 1. CHECK THE MODE IN WHICH NO SOUND COME OUT.

Check if sound comes out in each mode such as CD, radio, etc.

Does it have no sound in all modes?


Yes

 [Go to 2.](#)

No

Check each mode in which no sound come out.



For CD:  [Ref. to ENTERTAINMENT & MONITORING>Diagnostics with Phenomenon>INSPECTION > CDS CANNOT BE PLAYED BACK.](#)

For radio:  [Ref. to ENTERTAINMENT & MONITORING>Diagnostics with Phenomenon>INSPECTION > RADIO VOLUME IS LOW OR INTERFERENCE NOISE OCCURS.](#)

For Bluetooth audio:  [Ref. to ENTERTAINMENT & MONITORING>Diagnostics with Phenomenon>INSPECTION > BLUETOOTH CONNECTION CANNOT BE ESTABLISHED.](#)

## 2. CHECK DIAGNOSTIC MODE.

Perform {Audio Check} on the {Line Diag} screen.

- Audio system:  [Ref. to ENTERTAINMENT & MONITORING>Audio System>OPERATION.](#)
- Navigation system:  [Ref. to ENTERTAINMENT & MONITORING>Navigation System>OPERATION.](#)

Does it have no sound in all speakers?

Yes

 [Go to 3.](#)

No

Model with power amplifier: Check the harnesses between the unit and power amplifier and between power amplifier and speaker for open circuit or short circuit. If no fault is found, replace the speaker. Check the harness between the unit and speaker for open circuit or short circuit. If no fault is found, replace the speaker.  
Model without power amplifier: Check the harness between the unit and speaker for open circuit or short circuit. If no fault is found, replace the speaker.

### 3. CHECK MUTE MODE.

Check if the MUTE mode is turned on when the MUTE button is installed.

Is the volume level set to the minimum?


Yes

Since the MUTE mode is on or the volume level is set to the minimum, sound does not come out.

No


 [Go to 4.](#)

### 4. CHECK DTC (MODEL WITH TELEMATICS).

Using the Subaru Select Monitor, read DTC of «Telematics».  [Ref. to TELEMATICS SYSTEM \(DIAGNOSTICS\)>Diagnostic Code\(s\) Display.](#)

Are B2A0E (mute line circuit), B2A05 (left speaker/audio circuit) and B2A06 (right speaker/audio circuit) displayed?

Yes

Perform the diagnosis for the displayed DTCs.  [Ref. to TELEMATICS SYSTEM \(DIAGNOSTICS\)>Inspection Mode.](#)

No


 [Go to 5.](#)

### 5. CHECK CONNECTOR.

Check for poor contact in the connector of the unit and the connector of each speaker. Check for poor contact in the amplifier connector for models with amplifier.

Is the check result OK?

Yes

Replace the audio or navigation unit.  [Ref. to ENTERTAINMENT & MONITORING>Audio.](#)

No

Repair or replace the harness.

## 7. BLUETOOTH CONNECTION CANNOT BE ESTABLISHED

## 1. CHECK BLUETOOTH DEVICE.

Restart the Bluetooth device, and connect again.

Does it start properly?

 Yes

Currently no failure is found.

 No

 [Go to 2.](#)

## 2. CHECK BLUETOOTH DEVICE.

Re-register the Bluetooth device, and connect again.

Is communication successful?

 Yes

Currently no failure is found.

 No

 [Go to 3.](#)

### 3. CHECK BLUETOOTH DEVICE.

1. Connect another Bluetooth device.

**Note:**

**Supported Bluetooth standards: Ver. 3.0 +EDR compatible**

- **Bluetooth Phone Profile**
  - HFP: Ver. 1.6
  - OPP: Ver. 1.1
  - PBAP: Ver. 1.1.1
  - MAP: Ver. 1.0
  - SPP: Ver. 1.1
  - PAN: Ver. 1.0
- **Bluetooth Audio Device Profile**
  - A2DP: Ver. 1.2
  - AVRCP: Ver. 1.4

Is communication successful?

Yes

Bluetooth device which cannot be connected might be faulty.

No


 [Go to 4.](#)

### 4. CHECK ENVIRONMENTAL CONDITION.

Check if any external devices which emit strong electromagnetic waves and noises, such as a radio antenna, is installed inside the vehicle.

Is the check result OK?

Yes

Replace the audio or navigation unit.  [Ref. to ENTERTAINMENT & MONITORING>Audio.](#)

No

Remove the external device and perform the inspection from step 1 again.

### 8. BLUETOOTH DOES NOT OPERATE

## 1. CHECK BLUETOOTH DEVICE.

Restart the Bluetooth device, and connect again.

Does it start properly?

 Yes

Currently no failure is found.

 No

 [Go to 2.](#)

## 2. CHECK BLUETOOTH DEVICE.

Re-register the Bluetooth device, and connect again.

Is communication successful?

 Yes

Currently no failure is found.

 No

 [Go to 3.](#)

### 3. CHECK BLUETOOTH DEVICE.

1. Connect another Bluetooth device.

**Note:**

**Supported Bluetooth standards: Ver. 3.0 +EDR compatible**

- **Bluetooth Phone Profile**
  - HFP: Ver. 1.6
  - OPP: Ver. 1.1
  - PBAP: Ver. 1.1.1
  - MAP: Ver. 1.0
  - SPP: Ver. 1.1
  - PAN: Ver. 1.0
- **Bluetooth Audio Device Profile**
  - A2DP: Ver. 1.2
  - AVRCP: Ver. 1.4

Is communication successful?

Yes

Bluetooth device which cannot be connected might be faulty.

No


 [Go to 4.](#)

### 4. CHECK ENVIRONMENTAL CONDITION.

Check if any external devices which emit strong electromagnetic waves and noises, such as a radio antenna, is installed inside the vehicle.

Is the check result OK?

Yes




Replace the audio or navigation unit.  [Ref. to ENTERTAINMENT & MONITORING>Audio.](#)

No

Remove the external device and perform the inspection from step 1 again.



### 9. RADIO VOLUME IS LOW OR INTERFERENCE NOISE OCCURS

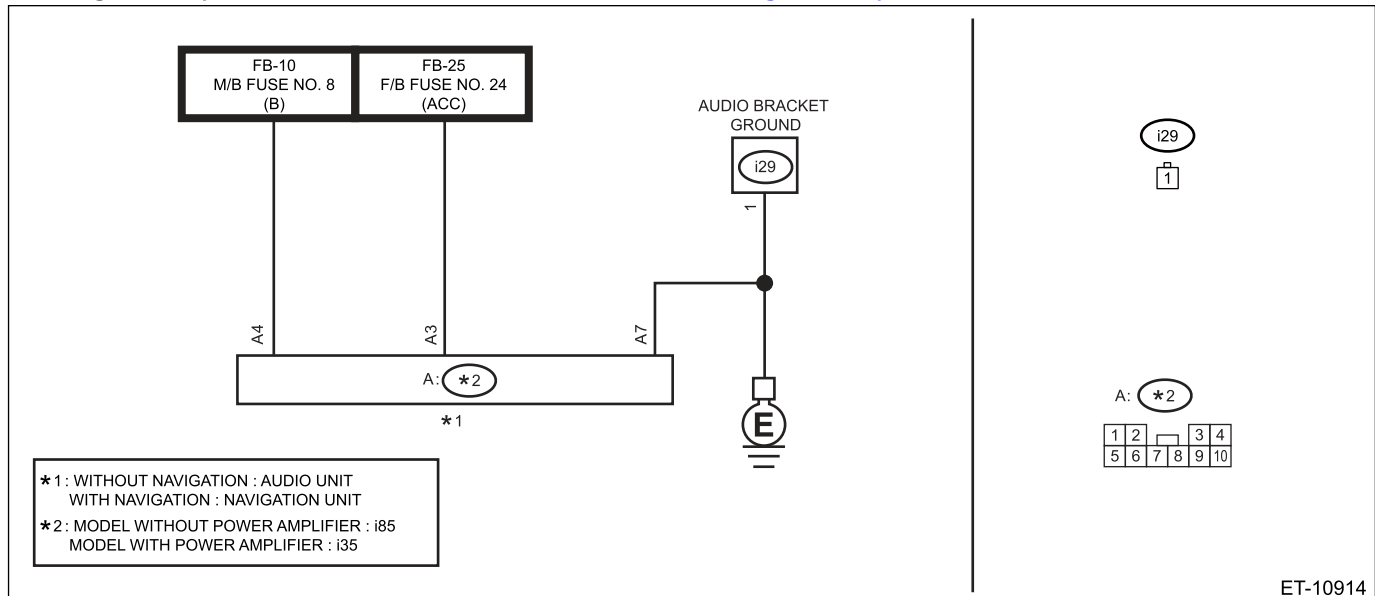
**Caution:**

- If non-genuine electrical parts are installed, they may cause interference noise.
- Refer to the following diagnostic procedure if equipped with the digital radio using the Internet connection.
  - Check SUBARU STARLINK service:  Ref. to [ENTERTAINMENT & MONITORING>Diagnostics with Phenomenon>INSPECTION > CHECK SUBARU STARLINK SERVICE.](#)
  - Bluetooth connection cannot be established:  Ref. to [ENTERTAINMENT & MONITORING>Diagnostics with Phenomenon>INSPECTION > BLUETOOTH CONNECTION CANNOT BE ESTABLISHED.](#)
  - Check connection between smartphone and unit:  Ref. to [ENTERTAINMENT & MONITORING>Diagnostics with Phenomenon>INSPECTION > CHECK CONNECTION BETWEEN SMARTPHONE AND UNIT.](#)

**Note:**

When the volume of Aha and Pandora is low, connect the smartphone to the Internet, and check that Aha and Pandora is audible on the smartphone itself. When it is inaudible, or the volume is too low, there is a problem with the smartphone, Internet connection or service provider. When it is audible with the smartphone without any troubles, there is a problem with connection to the vehicle (USB connection or Bluetooth connection).

- Audio system:  Ref. to [WIRING SYSTEM>Audio System>WIRING DIAGRAM.](#)
- Navigation system:  Ref. to [WIRING SYSTEM>Navigation System>WIRING DIAGRAM.](#)



## 1. CHECK SYMPTOM.

Check in which condition (place) the noise occurs.

Does it occur in any places?

Yes

 [Go to 2.](#)

No

Radio wave reception condition is poor. (In tunnel, buildings, etc.) There is no failure on the vehicle.

## 2. CHECK ANTENNA.

Check for poor contact of connectors or terminals.

Is the check result OK?

Yes

 [Go to 3.](#)

No

Repair or replace the harness.

## 3. CHECK HARNESS.

Check the antenna harness for an open or short circuit, and check the booster.

Is the check result OK?

Yes

 [Go to 4.](#)

No

Repair or replace the harness.

#### 4. CHECK UNIT GROUND CIRCUIT.

Check the unit ground connector (1P on back side).

Is the check result OK?

Yes

 [Go to 5.](#)

No

Repair or replace the ground circuit.

#### 5. CHECK ENVIRONMENTAL CONDITION.


Check if any external devices which emit strong electromagnetic waves and noises, such as a radio antenna, is installed inside the vehicle.

Is the check result OK?

Yes

 [Go to 6.](#)

No

Remove the external device. There is no failure if it returns to normal. If the fault is not fixed:  [Go to 6.](#)

#### 6. CHECK NOISE OCCURRENCE CONDITION.


Stop the engine, and turn the ignition switch to ON to check for noise occurrence.

Does the noise occur while the engine stops?

Yes

Check that the engine ignition system, generator, engine ground circuit and chassis ground circuit are connected securely.

No

Replace the audio or navigation unit.  [Ref. to ENTERTAINMENT & MONITORING>Audio.](#)

### 10. WRONG LOCATION OF VEHICLE, NO GPS RECEPTION

## 1. CHECK SYMPTOM.

Check in which condition (place) the vehicle is located out of position.

Does it occur in any places?

Yes

 [Go to 2.](#)

No

 [Go to 4.](#)

## 2. CHECK EXTERNAL DEVICE INSTALLATION.


Confirm that no external devices are installed near the GPS antenna or unit.

Is the check result OK?


Yes

 [Go to 3.](#)

No

Remove the external device. There is no failure if it returns to normal. If the fault is not fixed:  [Go to 3.](#)

## 3. CHECK DIAGNOSTIC MODE.

Check the GPS item on the {Line Diag} screen.  [Ref. to ENTERTAINMENT & MONITORING>Navigation System>OPERATION.](#)

Is the display OK?

Yes

 [Go to 5.](#)

No

 [Go to 4.](#)

#### 4. CHECK GPS ANTENNA.

Check that the GPS antenna connector is connected.

Is the connector connected?


Yes

Replace the navigation assembly.  [Ref. to ENTERTAINMENT & MONITORING>Navigation Body.](#)

No

Replace the GPS antenna.  [Ref. to ENTERTAINMENT & MONITORING>GPS Antenna.](#)

#### 5. INSPECTION OF VEHICLE SPEED SENSOR.

Read the DTC of «Brake Control System» using the Subaru Select Monitor.  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)\\_\(DIAGNOSTICS\)>Read Diagnostic Trouble Code \(DTC\).](#)

Is DTC displayed?

Yes

Perform the diagnosis for the displayed DTCs.  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)\\_\(DIAGNOSTICS\)>List of Diagnostic Trouble Code \(DTC\)>LIST.](#)

No


 [Go to 6.](#)

#### 6. CHECK VEHICLE SPEED SIGNAL.

Check the vehicle speed pulse using an oscilloscope.

Is the pulse normal?

Yes

Replace the navigation assembly.  [Ref. to ENTERTAINMENT & MONITORING>Navigation Body.](#)

No

 [Go to 7.](#)

## 7. CHECK VEHICLE SPEED PULSE SIGNAL HARNESS.

1. Disconnect the VDC CM connector.
2. Check the vehicle speed pulse with VDC CM connector using an oscilloscope.

Is there any noise while the vehicle stops?

Yes

Replace the VDC CM.  [Ref. to VEHICLE DYNAMICS CONTROL \(VDC\)>VDC Control Module and Hydraulic Control Unit \(VDCCM&H/U\).](#)

No

Repair or replace the harness.

## 11. CHECK CONNECTION BETWEEN SMARTPHONE AND UNIT

### 1. CHECK COMPATIBILITY OF SMARTPHONE.

Check that the customer's smartphone is compatible with the system.

- iPhone: iOS 4.3.5 or later
- Android: Android 4.0 or later

Is it compatible?

Yes

 [Go to 2.](#)

No

The smartphone is not compatible; therefore, it does not work with the system.

### 2. ACTIVATION OF APP.

Check the SUBARU STARLINK app of the smartphone.

Is it installed?

Yes

 [Go to 4.](#)

No

 [Go to 3.](#)

### 3. INSTALLATION OF APP.

Install SUBARU STARLINK app to smartphone.

Is installation successful?

Yes

 [Go to 4.](#)

No

Reboot the smartphone, and install the SUBARU STARLINK.

### 4. ACTIVATION OF APP.

Activate SUBARU STARLINK app.

Is SUBARU STARLINK app activated?

Yes

 [Go to 5.](#)

No

Reinstall the app and activate it. If you still fail to activate it, the smartphone may be defective.

### 5. CHECK BLUETOOTH CONNECTION.


Confirm the Bluetooth connection with the unit.

Is Bluetooth connection established?

Yes

 [Go to 6.](#)

No

Check that the unit can connect with other smartphones. If successful, the smartphone may be defective. If the unit cannot communicate with other smartphones, replace the audio or navigation unit.  [Ref. to ENTERTAINMENT & MONITORING>Audio.](#)

## 6. REBOOT THE SMARTPHONE.

1. Reboot the smartphone.
2. Reinstall the SUBARU STARLINK app.

Is it operating normally?

Yes

The system has returned to a normal condition at this time. Reproduce the failure, and then perform the diagnosis again.

No

 [Go to 7.](#)

## 7. CHECK POWER SUPPLY.

Turn the ignition to OFF → ACC ON.

Is it operating normally?

Yes

The system has returned to a normal condition at this time. Reproduce the failure, and then perform the diagnosis again.

No

 [Go to 8.](#)

## 8. DELETE CACHE INFORMATION OF THE UNIT.

Delete cache information of the unit.

### Note:


1. Select **SUBARU STARLINK** from the **APPS** screen.
2. On the **SUBARU STARLINK** display (including an error message screen), press and hold the right bottom corner of the screen for 30 seconds or more.
3. Lift your finger off the screen. If the message [Select Audio Source] appears when you lift your finger off the screen, the cache information is successfully deleted.

Is it operating normally?

Yes

Cache information temporary stored in the unit was corrupted. Currently, it is normal.

No

Perform the procedures described on "Check SUBARU STARLINK service".  [Ref. to ENTERTAINMENT & MONITORING>Diagnostics with Phenomenon>INSPECTION > CHECK SUBARU STARLINK SERVICE.](#)

## 12. CHECK SUBARU STARLINK SERVICE

### 1. CHECK SMARTPHONE.

Check the smartphone connection.

Can the smartphone connect the Internet?

Yes

 [Go to 4.](#)

No

 [Go to 2.](#)

### 2. CHECK RADIO WAVE CONDITION.

Move to a location where the radio wave condition is good, and confirm the connection.

Can the smartphone connect the Internet?

Yes

 [Go to 4.](#)

No

 [Go to 3.](#)

### 3. CHECK RADIO WAVE CONDITION.

Communication network gets busy at times even in a good radio wave location. In this case, wait for some time and then try again.

Can the smartphone connect the Internet?

Yes

 [Go to 4.](#)

No

The smartphone may be defective.

### 4. CHECK SUBARU STARLINK.


Check service provision status with SUBARU STARLINK.

Is there any problem in the service provision status?

Yes

Try to connect after the problem in service provision is solved.

No

Replace the audio or navigation unit.  [Ref. to ENTERTAINMENT & MONITORING>Audio.](#)

**OPERATION**

**1. PROCEDURE TO SWITCH TO SERVICE DIAGNOSTICS MODE**

1. Turn the ignition switch to ACC.
2. Press "TUNE/SCROLL" knob six times while pressing "HOME" button.

**2. SERVICE INSPECTION**

**Connection**

On Service Menu, click "Connection" to display the following items.

OK: Each connection device is connected properly.

NG: Connection is not established, or connection status (including harness) is faulty.

**Note:**

**Check the external connection terminals (USB 1, USB 2 and AUX) by connecting memory or a pin jack for inspection.**

**Check the connection status of the connector and harness. If there are no problems, the connection device or unit could be faulty.**

**The following shows information to be displayed and its description.**

Item	Item detection method	OK judgment condition	Note
GPS	Direct line	GPS antenna is connected. (NG is displayed when short circuit is detected.)	With navigation only
MIC	Direct line	(i87) No. 6 falls to GND level.	—
Rr_CAM	Direct line	Synchronized signals from the camera are input to (i146) No. 3.	—
AUX	Direct line	(i87) No. 25 falls to GND level.	—
USB 1	Communication	USB device is connected to USB-HUB to obtain USB device information properly. (Should be recognizable as a supported USB device.)	—
USB 2	Communication	USB device is connected to USB-HUB to obtain USB device information properly. (Should be recognizable as a supported USB device.)	—
SXM	Direct line	XM-ANT is connected. (NG is displayed when short circuit is detected.)	It takes approx. 30 seconds to

Item	Item detection method	OK judgment condition	Note
			become recognizable.
Leather AMP	Communication	AMP is connected and normal communication is available.	—

## Function Check

### 1. Panel & Steering Switch Check Mode

Once the screen is displayed, press the push switches to check that the number of pushed switches matches the number shown in pushed SW.

If the number of SW does not match, SW conditions are not properly recognized. Therefore, perform inspection for unrecognized switches.

In addition, turn the rotary switch clockwise or counterclockwise to check that the screen indicates correct status according to the operation. If the screen display does not match the actual operation, the rotary SW may be faulty. Perform inspection for the rotary SW.

#### Note:

The following shows information to be displayed and its description.

Item	Display	Contents
Result	Pressed	Pressing of switch is detected.
Number of switch pushed	1	One pressed switch is detected.
	2	Two pressed switches are detected.
	3	Three pressed switches are detected.
	4	Four pressed switches are detected.
Direction of switch rotation	+ direction	The rotary switch is turned clockwise.
	– direction	The rotary switch is turned counterclockwise.

### 2. Touch Switch Check

Once the screen appears, touch the screen. + (cursor) appears where you touched.

#### Note:

The following shows information to be displayed and its description.

Item	Contents
+ (Cursor)	Appears when the screen is touched. The displayed white-outlined + (cursor) stays on, even when a touching finger is removed, until the screen is switched.

### 3. Microphone Check

With the microphone input level screen displayed, make sound toward the microphone.

Fluctuate the sound volume to check that the microphone input level changes accordingly.

If the input level does not become green or the input level does not change even when the sound volume is fluctuated, the microphone may be faulty.

**Note:**

**The microphone input function is enabled while this screen is displayed.**

- **The sound volume is indicated in eight levels.**  
**The maximum input volume of microphone is equally divided into eight levels from level 0 to level 7.**
- **The microphone input level is sampled every 100 ms, and the result is indicated in eight levels.**  
**Display of the input level is also updated every 100 ms.**  
**The microphone input level gauge is updated even during recording.**

**4. System Sensors Check**

GPS related check: Status of the GPS signal reception can be checked. When there is faulty in reception status, position detection or date indication, re-check the reception status at a location with a fine view and no obstacles around that will interrupt the signal reception. When normal condition is still not obtained, the GPS antenna may be faulty.

- GPS/Reception number: Normal when it is indicated in blue.
- GPS/Status: Normal when OK is indicated.
- GPS/Measurement ratio 3D:
- GPS/Measurement ratio 2D:
- GPS/Date: Normal when current time is indicated. When current date/time is not indicated, click the Date Setting button to set the current date on the displayed date setting screen.
- GPS/Position: Normal when longitude and latitude of the current position are indicated.

SPD check: Status of the vehicle speed sensor signal can be checked.

1. Before starting inspections, check the safety around the vehicle. (Lift up the vehicle as necessary.)
2. When VDC CM detected DTC, clear the DTC.
3. Drive the vehicle at 9 km/h (6 MPH) or more.
4. Check that SPD indicates vehicle speed that is almost equivalent to the figure displayed on the combination meter.
5. Vehicle speed is not displayed. Or, when different vehicle speed is indicated, check if CAN system DTC is stored. If so, perform the diagnosis according to the DTC. When CAN system DTC is not stored, check if the DTC related to the vehicle sensor is stored for the VDC system, and perform inspection according to the procedure. If no fault is found with the CAN system and vehicle speed sensor, and the vehicle speed is displayed on the combination meter, the unit itself may be faulty.

Gyro sensor related check: Status of the Gyro sensor signal can be checked. If fault is found with the Gyro sensor related indications, the main unit could be faulty.

- Gyro sensor/Gyro Voltage: Shake the vehicle to the left and right to check that the voltage changes.
- Gyro/Distance correction study situation: Study situation can be checked.
- Reset: Press and hold the Reset button for three seconds to reset the pulse count of SPD, relative bearing of Gyro sensor, relative angle of inclined angle sensor.

**Note:**

**The following shows information to be displayed and its description.**

<b>Item</b>	<b>Display</b>	<b>Contents</b>
GPS/Reception number	Blue	When notification of "Positioning with collected data is used" is received from

Item	Display	Contents
		the GPS reception device. (Status: In-use)
	Yellow	When notification of "Tracking in progress" is received from the GPS reception device. (Status: Reception in progress)
	Transparent	When notification of "Positioning with collected data is not used" or "Searching in progress" is received from the GPS reception device. (Status: Not used)
GPS/Status	OK (H3D)	When three-dimensional positioning (Hyper 3D positioning) using satellites with less accuracy degradation is used.
	OK (H2D)	When two-dimensional positioning (Hyper 2D positioning) using satellites with less accuracy degradation is used.
	OK (3D)	When three-dimensional positioning is used.
	OK (2D)	When two-dimensional positioning is used.
	NG	When the positioning data is not available.
	error	When a reception error occurred.
	—	For cases other than above.
GPS/Measurement ratio 3D		Displays ratio of three-dimensional positioning satellites.
GPS/Measurement ratio 2D		Displays ratio of two-dimensional positioning satellites.
GPS/Measurement ratio NG		Displays ratio of non-positioning satellites.
GPS/Date	Current date and time	Displays date information obtained from GPS in four digits for year and 24-hour clock for time. Date information is displayed as [Y/M/D].
GPS/Position (latitude)	Current position, latitude information.	Displays latitude information of the current position in "degree", "minute" and "second". When positioning information is not obtained, it appears as 00° 00' 00".
GPS/Position (longitude)	Current position, longitude information.	Displays longitude information of the current position in "degree", "minute"

Item	Display	Contents
		and "second". When positioning information is not obtained, it appears as 00° 00' 00".
SPD/Pulse Count	Pulse count.	Displays SPD signal status in the following format. <ul style="list-style-type: none"> <li>The number of input pulses accumulated since this screen is displayed. (Indicated in four-digit DEC code.)</li> <li>The number returns to 0 after 9999.</li> <li>Reset with ACC OFF/ON.</li> </ul>
SPD/Speed	Speed.	Displays SPD signal status in the following format. <ul style="list-style-type: none"> <li>LSB: Displays in km-per-hour as 1 [km/h].</li> <li>Displays 255 [km/h] for MAX value or more, and 0 [km/h] for MIN value or less.</li> </ul>
Gyro sensor/Gyro Voltage	Voltage value.	Voltage value (unit: V, LSB: 1 mV).
Gyro/Distance correction study situation	Gyro/Distance correction study situation.	
Reset	Reset the following display items to [0]. <ul style="list-style-type: none"> <li>SPD pulse count</li> </ul>	Press and hold the reset button for three seconds or more.

## Vehicle Signal

On Service Menu, click "Vehicle Signal" to display the following items.

- Battery: Status of the battery voltage signal input can be checked.  
Measure the battery voltage using a tester. System is normal when the indicated voltage is almost equivalent to the tester value. When the indicated voltage is different from the tester value, perform inspection for the power supply circuit of main unit.
- Vehicle speed: Status of the vehicle speed signal input can be checked.
  - Before starting inspections, check the safety around the vehicle. (Lift up the vehicle as necessary.)
  - When VDC CM detected DTC, clear the DTC.
  - Drive the vehicle at 9 km/h (6 MPH) or more.
  - Check that SPD indicates vehicle speed that is almost equivalent to the figure displayed on the combination meter.
  - Vehicle speed is not displayed. Or, when different vehicle speed is indicated, check if CAN system DTC is stored. If so, perform the diagnosis according to the DTC. When CAN system DTC is not stored, check if the DTC related to the vehicle sensor is stored for the VDC system, and perform inspection according to the procedure. If no fault is found with the CAN system and vehicle speed sensor, and the vehicle speed is displayed on the combination meter, the unit itself may be faulty.
- IG: Status of the IG signal input can be checked.

Turn the ignition switch to ON, and check that the IG indication appears as ON. If the indication does not appear as ON, check the IG signal line.

- ILL+: Status of the illumination signal input can be checked.
  1. Before starting inspections, turn the ignition switch to ON.
  2. Set the lighting switch to TAIL (small) position.  
Make sure that the bright switch is not turned ON at this time.
  3. Check that ON lights in ILL+ and then the screen becomes dim.  
ON: Normal.  
OFF: Abnormal. Check the signal line and connector. If no faulty is found, the unit itself may be faulty.
- PKB: Status of the parking brake signal input can be checked.
- GPS/Position: Normal when longitude and latitude of the current position are indicated.  
Pull the parking brake switch. Check that ON is displayed in PKB.  
ON: Normal.  
OFF: Abnormal. Check the signal line and connector. If no faulty is found, the unit itself may be faulty.
- Bright: Status of the Bright signal input can be checked.  
Operate the dial-type bright switch next to the wheel steering. System is normal when the signal indicates ON.  
If the signal does not indicate ON, check the bright switch.
- REV: Status of the reverse range signal input can be checked.
  1. Before starting inspections, check the safety around the rear end of the vehicle and then turn the ignition switch to ON.
  2. Pull the parking brake switch and depress the brake pedal, then place the select lever in reverse.
  3. Check that ON is displayed in REV.  
ON: Normal.  
OFF: Abnormal. Check the signal line and connector. If no faulty is found, the unit itself may be faulty.

**Note:**

The following shows information to be displayed and its description.

Item	Display	Contents
Battery voltage	Status of battery voltage	0 [V] – 24.0 [V] (Minimum unit: 0.1 [V])
Vehicle speed	Status of vehicle speed	0 [km/h] – 255 [km/h] (Minimum unit 1 [km/h])
IG	ON	IG power supply ON
	OFF	IG power supply OFF
ILL+	ON	ILL+ signal ON
	OFF	ILL+ signal OFF
PKB	ON	PKB signal ON
	OFF	PKB signal OFF
Bright	ON	Bright with dimmer
	OFF	Bright without dimmer
REV	ON	REV signal ON

Item	Display	Contents
	OFF	REV signal OFF

### System Information

On Service Menu, click "System Information" to display the following items.

- Pandora ID: ID that is required upon using Pandora. When this ID is not indicated, Pandora is not accessible.
- Memory Initialization: This function is used to initialize information stored in the main unit memory.

#### Caution:

**When this function is used, music information and navigation setting information saved in the main unit will be deleted. Therefore, obtain permission from the user before using this function.**

When initializing the memory, perform procedures by following the indicated messages. Also, when clicking the OK button, press and hold it.

### Product Information

On Service Menu, click "Product Information" to display the following items.

- Product Information: Displays the product number of the main unit.
- Connectivity ID: ID that is required upon using the STARLINK functions. When this ID is not indicated, the STARLINK functions are not accessible.
- Pandora ID: ID that is required upon using Pandora. When this ID is not indicated, Pandora is not accessible.

### Diagnostic Recorder

On Service Menu, click "Diagnostic Recorder" to display the following items.

- ON/OFF: Set ON/OFF for the diagnostic recorder function.
- Data download: Output the data of the diagnostic recorder to USB.

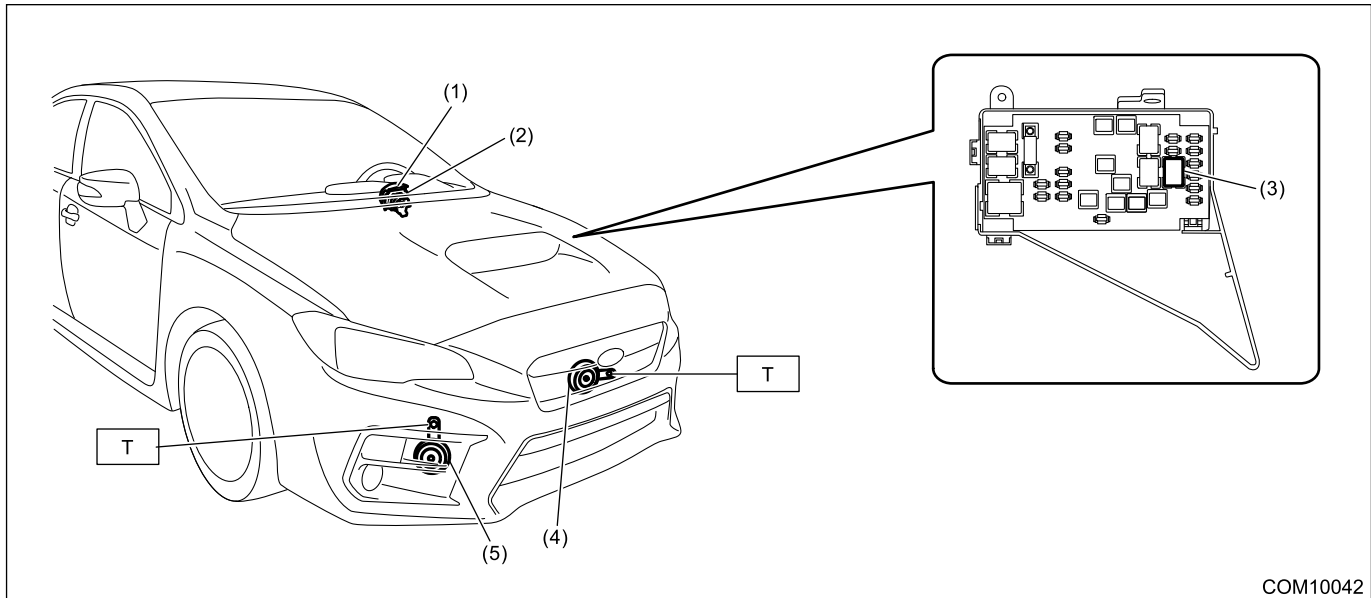
# COMMUNICATION SYSTEM

# COM

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

## COMMUNICATION SYSTEM > General Description

### COMPONENT



COM10042




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

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

**T: 18 (1.8, 13.3)**

## COMMUNICATION SYSTEM > General Description

### CAUTION

- Before performing vehicle maintenance, turn the ignition switch to OFF and disconnect the negative terminal from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)
  - For model with battery sensor, disconnect the ground terminal from battery sensor.
- When replacing the audio and MFD parts provided with memory functions, record the memory contents before disconnecting the battery ground cable.
- Be careful of the following items. Failing to do so may cause the airbag system malfunction.
  - Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. When using a tester on these circuits, follow the cautions of "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
  - Be careful not to damage the airbag system wiring harness when servicing the electrical parts around the steering column.
- When removing, installing or replacing the VDCCM&H/U, VDCCM&H/U bracket, steering wheel or steering angle sensor (steering roll connector), 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.](#)

## COMMUNICATION SYSTEM > General Description

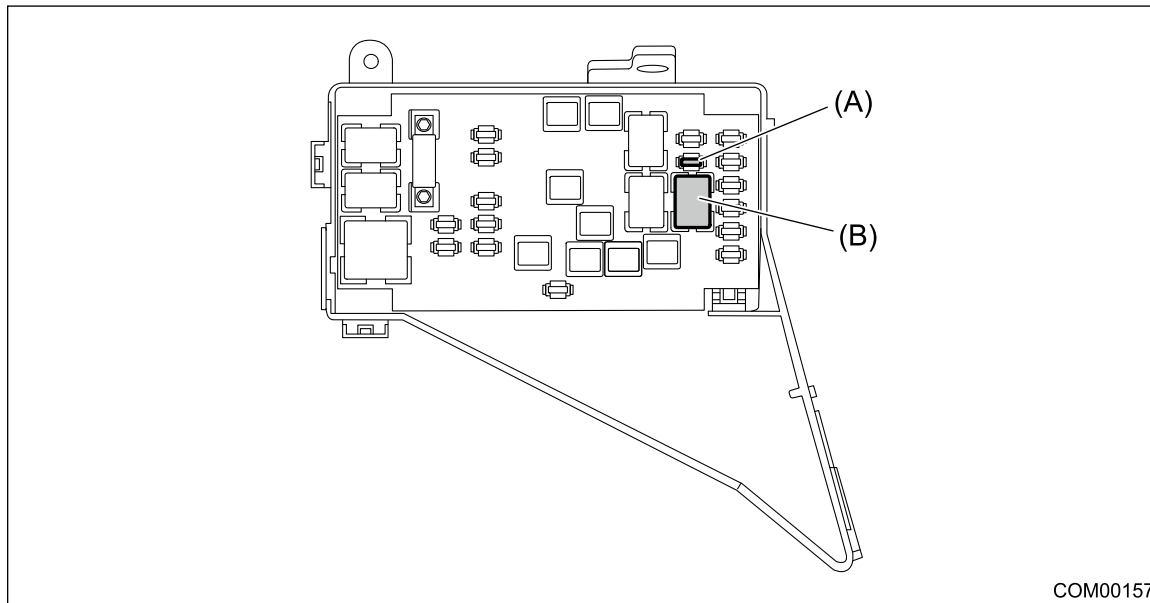
### PREPARATION TOOL

## 1. GENERAL TOOL

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

## COMMUNICATION SYSTEM > Relay and Fuse

### LOCATION



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

#### Note:

For other related fuses, refer to the wiring diagram. Ref. to [WIRING SYSTEM > Power Supply Circuit](#).

## COMMUNICATION SYSTEM > 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. 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	

SR-00180

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

## COMMUNICATION SYSTEM > Horn System

### WIRING DIAGRAM

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

## COMMUNICATION SYSTEM > Horn System

### INSPECTION

---

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

## COMMUNICATION SYSTEM > Horn System

### NOTE

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For procedure of each component in the horn system, refer to the respective section.

- Horn:  [Ref. to COMMUNICATION SYSTEM>Horn.](#)
- Horn switch:  [Ref. to COMMUNICATION SYSTEM>Horn Switch.](#)

## REMOVAL

### 1. HORN ASSY - LO


**Caution:**

**When removing the horn, do not remove the bumper face - front. Bracket connection portion of the bumper face may become damaged.**

1. Disconnect the ground cable from battery.  Ref. to NOTE>NOTE > BATTERY.

**Note:**

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

2. Lift up the vehicle.
3. Remove the under cover - front.  Ref. to EXTERIOR/INTERIOR TRIM>Front Under Cover>REMOVAL.

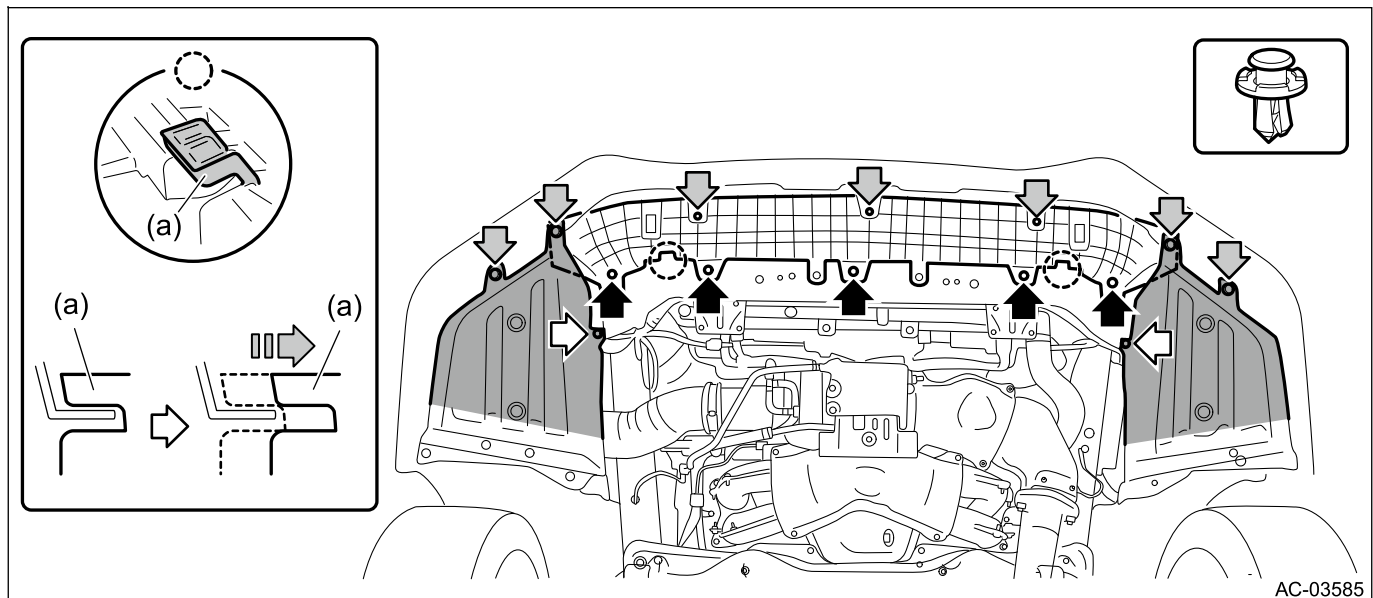
4. Remove the bracket - front center LWR.

(1) Remove the screw and clips, and turn over the mud guard - front.

(2) Remove the bolts and clips, and remove the bracket - front center LWR.

**Note:**

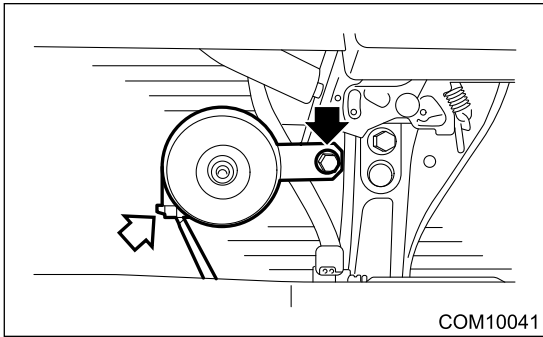
**While entirely pushing the bracket - front center LWR forward, remove the two hooks (a) on the left and right.**



5. Remove the horn assembly - Lo.

(1) Disconnect the connector.

(2) Remove the nut, and remove the horn assembly - Lo.



## 2. HORN ASSY - HI

### Caution:

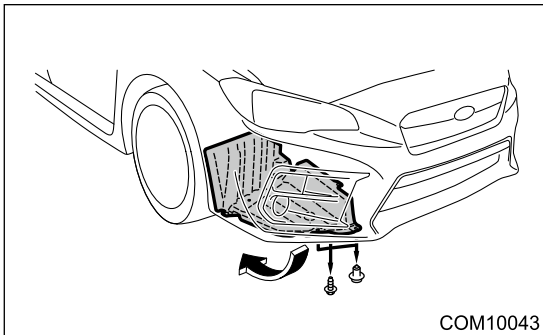
**When removing the horn, do not remove the bumper face - front. Bracket connection portion of the bumper face may become damaged.**

1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

### Note:

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

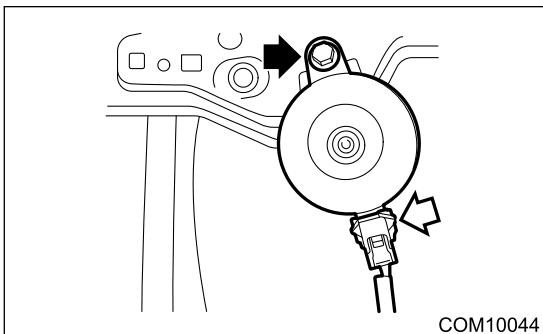
2. Remove the screw and clips, and turn over the mud guard - front on the right side.



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

### Caution:

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



COMMUNICATION SYSTEM > Horn

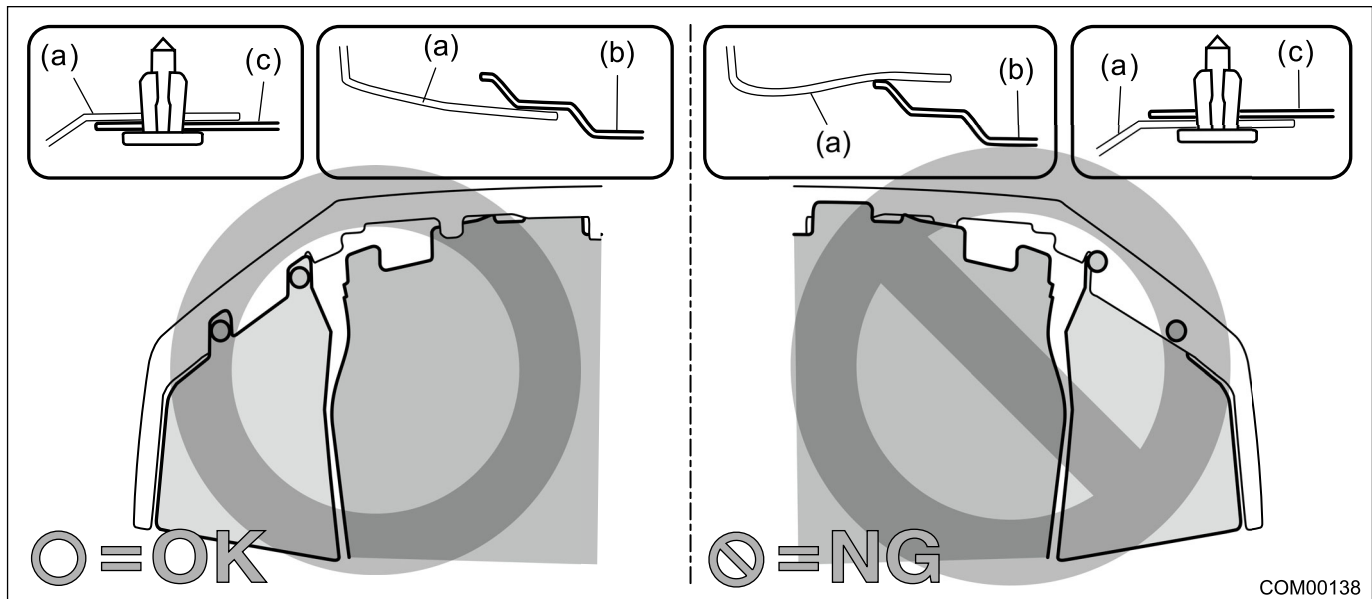
**INSTALLATION**

---

## 1. HORN ASSY - HI

### Caution:

Install so that the front end of the under cover (b) comes inside the bumper face - front (a), and the front end of the mud guard (c) comes outside the bumper face - front (a).



1. Install the horn assembly - Hi.

### Tightening torque:

18 N·m (1.8 kgf-m, 13.3 ft-lb)

2. Install the bracket - front center LWR.

### Tightening torque:

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)


3. Install the mud guard - front.

4. Install the under cover - front.

### Tightening torque:

18 N·m (1.8 kgf-m, 13.3 ft-lb)

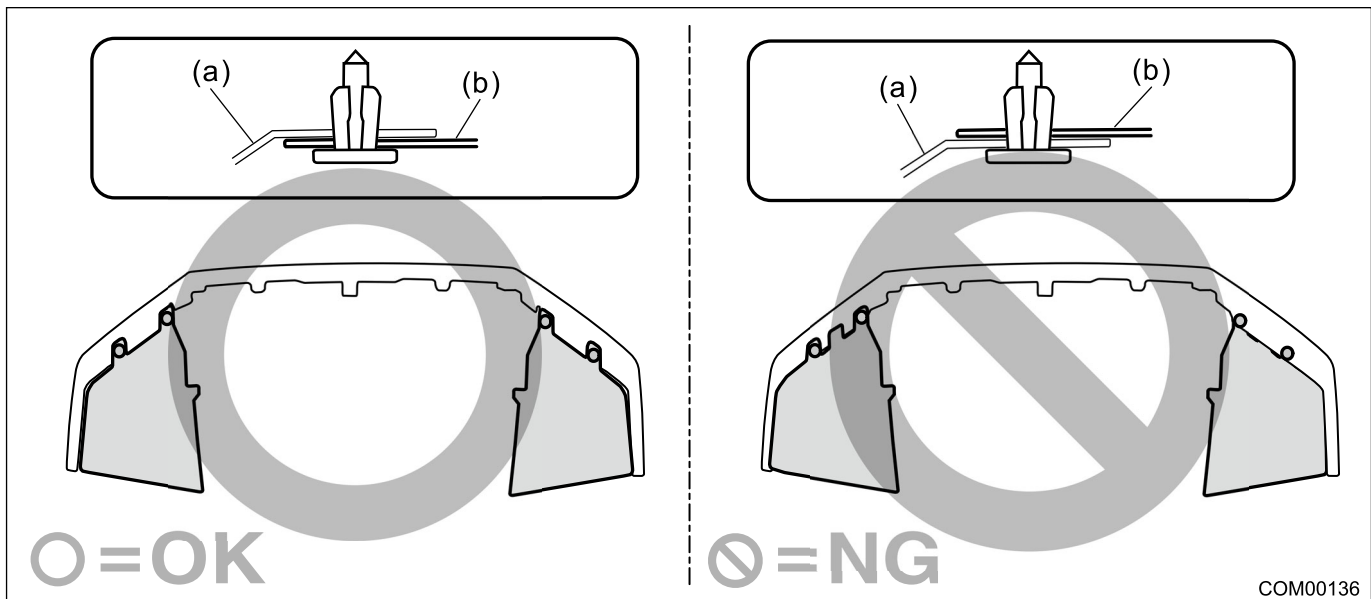
5. Lower the vehicle.

6. Connect the battery ground terminal.  Ref. to NOTE>NOTE > BATTERY.

## 2. HORN ASSY - LO

**Caution:**

**Install the mud guard - front so that the front end of the mud guard (b) comes outside the bumper face - front (a).**



1. Install the horn assembly - Lo.

**Tightening torque:**

18 N·m (1.8 kgf·m, 13.3 ft·lb)

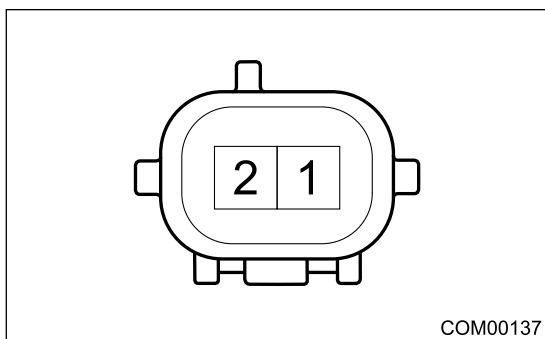
2. Install the mud guard - front.

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

**COMMUNICATION SYSTEM > Horn**

**INSPECTION**

1. Check that the horn assembly sounds when applying the battery voltage to each connector terminal.



Terminal No.	Inspection conditions	Specification
Terminal 1 (+) — Terminal 2 (-)	Connect battery to the terminals	Sounds

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

## COMMUNICATION SYSTEM > Horn Switch

### NOTE

Horn switch is a unit with the driver's airbag module. For operation procedures, refer to "Driver's Airbag Module" in "AIRBAG SYSTEM". [🔗 Ref. to AIRBAG SYSTEM>Driver's Airbag Module.](#)

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

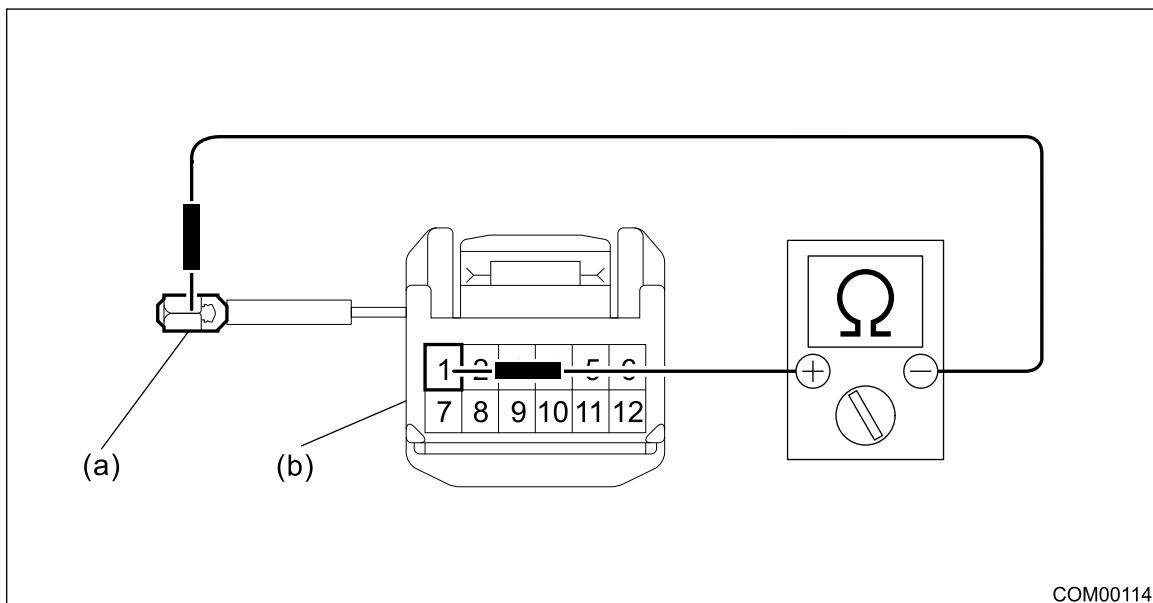
##### Note:

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

3. Remove the driver's airbag module. [🔗 Ref. to AIRBAG SYSTEM>Driver's Airbag Module>REMOVAL.](#)
4. Check that the horn switch connector is connected properly.
5. Measure the resistance between connectors.

##### Preparation tool:

Circuit tester



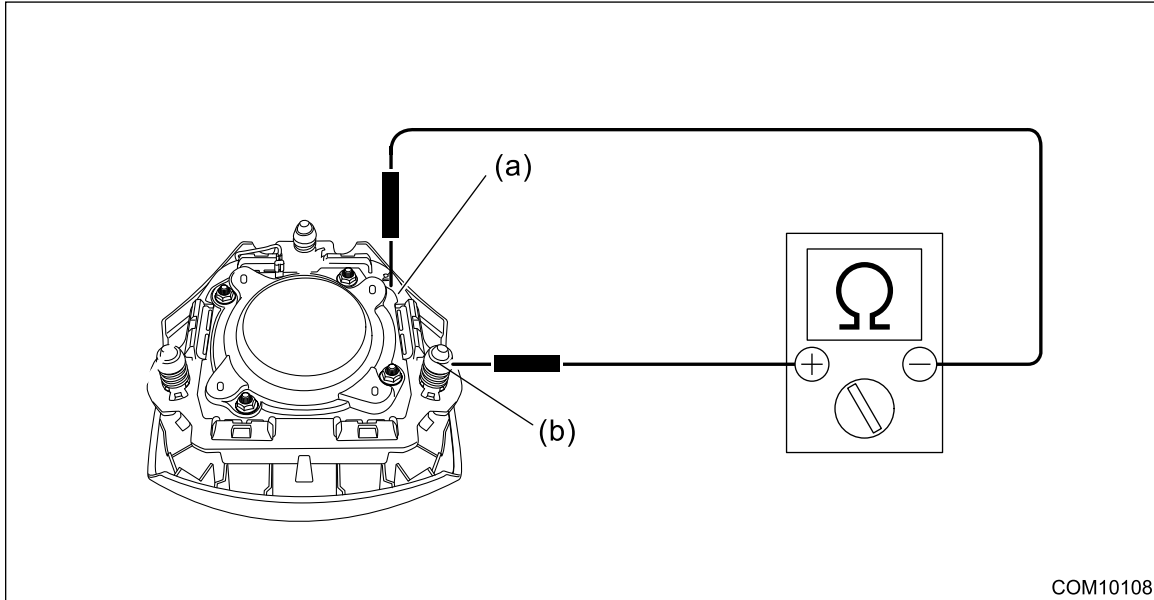
(a) Ground terminal

(b) Horn switch terminal

Terminal No.	Inspection conditions	Standard
Horn switch terminal — ground terminal	Always	Less than 1 $\Omega$

6. If the result of the inspection is not within the standard value, replace the satellite switch assembly.

7. Measure the resistance between horn plate and snap pin hook.



(a) Horn plate

(b) Snap pin hook portion

Terminal No.	Inspection conditions	Standard
Horn plate — Snap pin hook portion	Snap pin hook portion is not pushed in	1 M $\Omega$ or more
Horn plate — Snap pin hook portion	Snap pin hook portion is forcefully pushed in	Less than 1 $\Omega$

8. Replace the driver's airbag module if the inspection result is not within the standard value.

## 2. CHECK ROLL CONNECTOR

### Caution:

- Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)
- If the steering wheel and steering angle sensor (steering roll connector) are removed, be sure to perform the following operations.
  - Align the center position of the steering roll connector.
  - Perform the neutral position setting of the steering angle sensor.

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

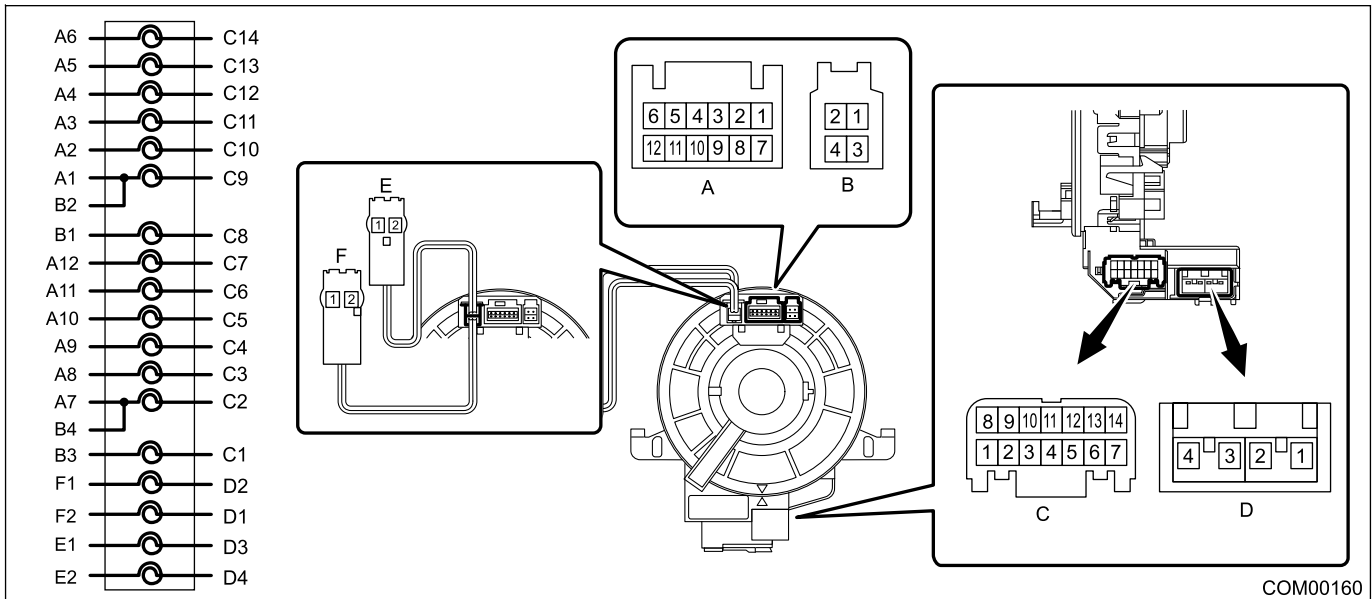
### Note:

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

3. Remove the roll connector. [Ref. to AIRBAG SYSTEM>Roll Connector>REMOVAL.](#)
4. Measure the resistance between connector terminals.

### Preparation tool:

Circuit tester



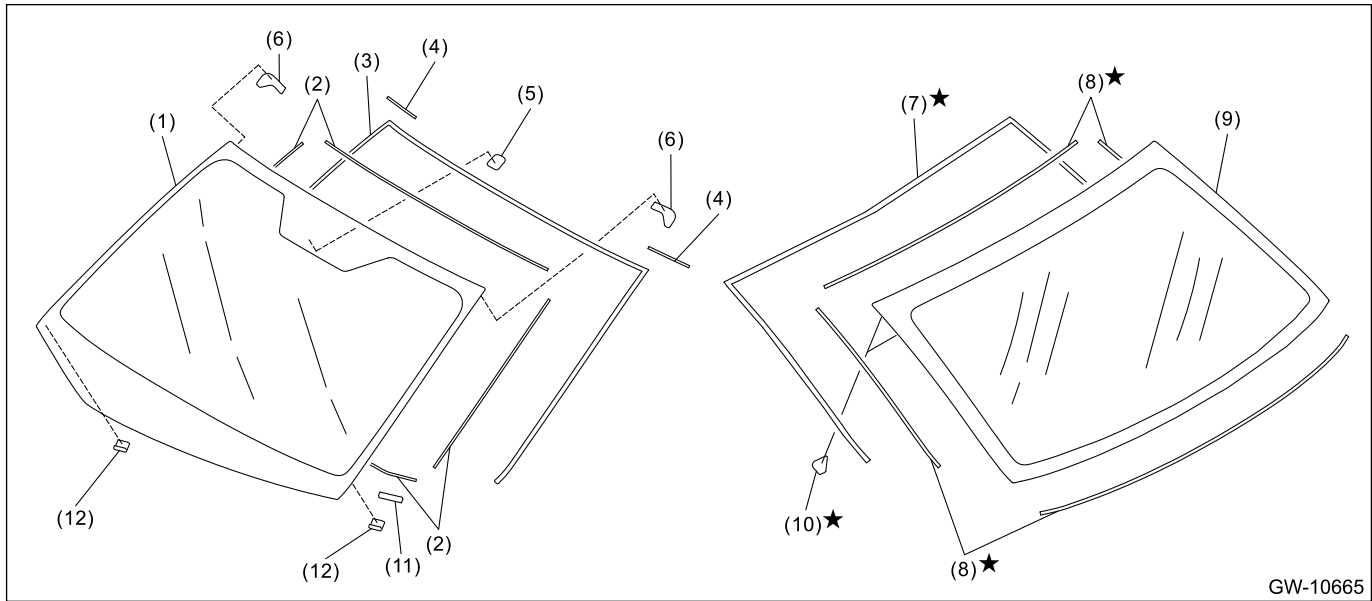
Terminal No.	Inspection conditions	Standard
A1 — C9	Always	Less than 1 Ω

5. Replace the roll connector if the inspection result is not within the standard value.

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

COMPONENT

1. FIXED GLASS



- |                            |                                 |                                 |
|----------------------------|---------------------------------|---------------------------------|
| (1) Glass - front window   | (5) Base - inner mirror         | (9) Glass - rear window         |
| (2) Dam rubber - front     | (6) Locating pin - front window | (10) Locating pin - rear window |
| (3) Molding - front window | (7) Molding - rear window       | (11) Seal - lower VIN           |
| (4) Seal - upper           | (8) Dam rubber - rear           | (12) Seal - lower               |

**Note:**

**Base - inner mirror cannot be removed from the glass - front window.**

## 2. FRONT DOOR GLASS

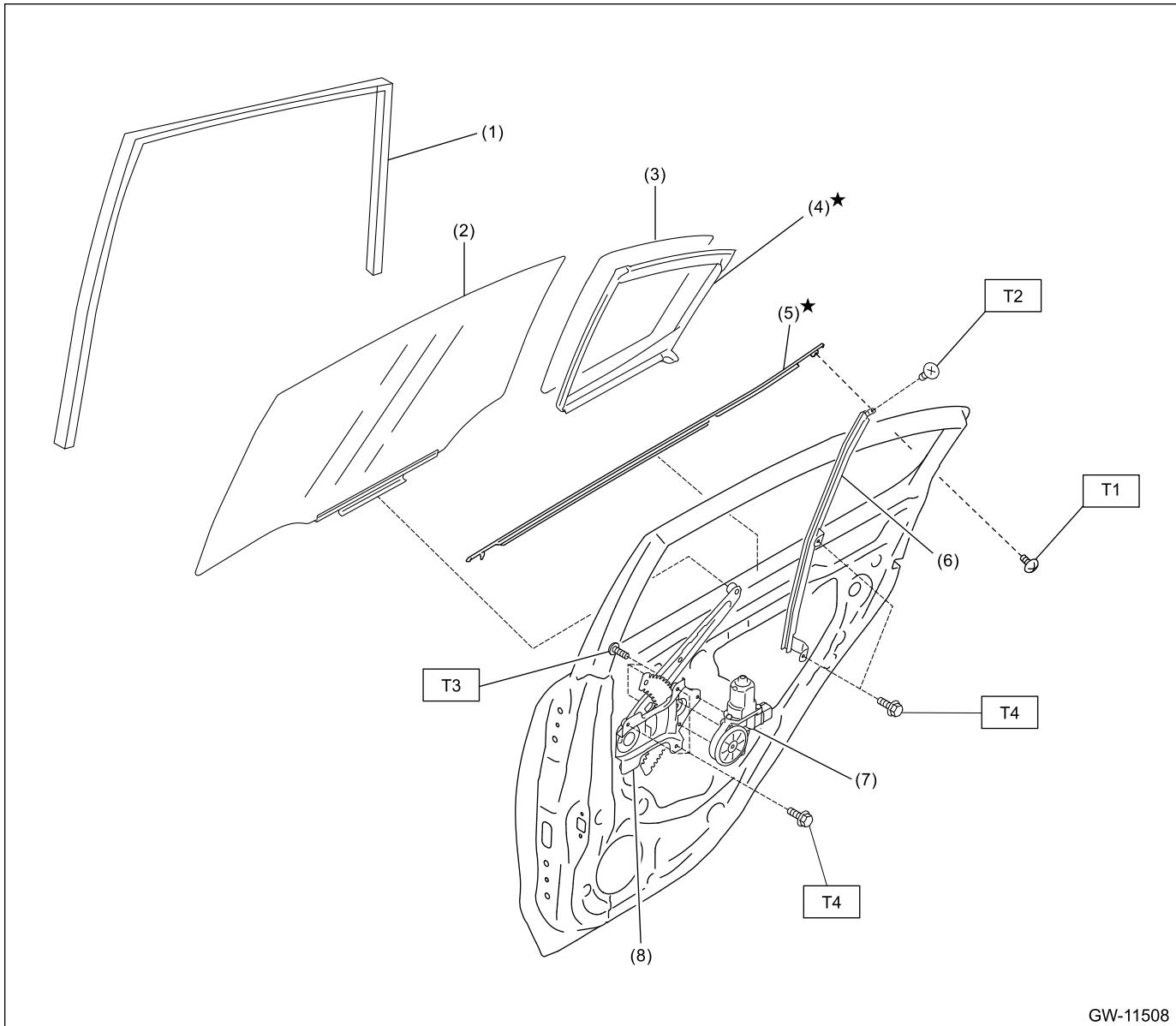
- |                                      |  |
|--------------------------------------|--|
| (1) Running channel - front door     | (5) Regulator & motor ASSY - front       |
| (2) Glass ASSY - front door          | (6) Sash COMPL - partition               |
| (3) Weather strip outer - front door | (7) Weather strip - front door partition |
| (4) Sash COMPL - lower               | (8) Glass - front door partition         |

**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



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- (1) Running channel - rear door
- (2) Glass ASSY - rear door
- (3) Glass - rear door partition
- (4) Weather strip - rear door partition

- (5) Weather strip outer - rear door
- (6) Sash COMPL - rear partition
- (7) Motor - rear
- (8) Regulator - rear

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

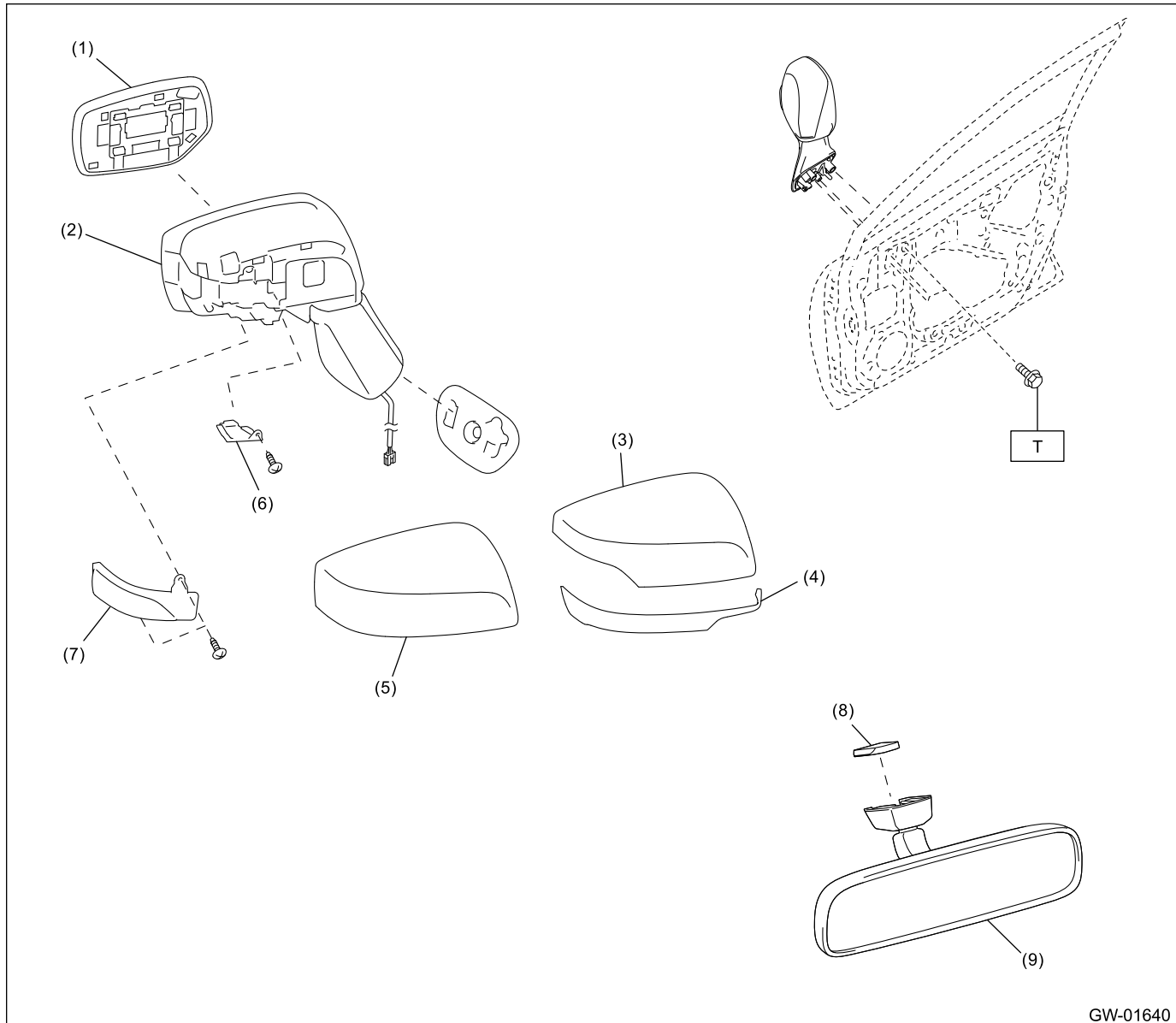
**T1: 2 (0.2, 1.5)**

**T2: 2.2 (0.2, 1.6)**

**T3: 5.9 (0.6, 4.4)**

**T4: 7.5 (0.8, 5.5)**

## 4. MIRROR



GW-01640

- |  |   |  |
|--|---|--|
| (1) Mirror - repair                                    | (5) Cover - cap outer mirror<br>(model without side turn)   | (9) Mirror ASSY - inner rearview                 |
| (2) Mirror unit - door                                 | (6) Cover   |  |
| (3) Cover - cap outer mirror<br>(model with side turn) | (7) Light ASSY - side turn mirror<br>(model with side turn) | <b>Tightening torque: N·m (kgf-m,<br/>ft-lb)</b> |
| (4) Cover - cap outer mirror lower                     | (8) Base - inner mirror                                     | <b>T: 7.5 (0.8, 5.5)</b>                         |

### GLASS/WINDOWS/MIRRORS > General Description

#### CAUTION


- Before disconnecting connectors of sensors or units, be sure to disconnect the ground cable from battery. When replacing the audio and MFD parts provided with memory functions, record the memory contents before disconnecting the battery ground cable.
- Avoid impact and damage to the glass.

## GLASS/WINDOWS/MIRRORS > General Description

### PREPARATION TOOL

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#### 1. SPECIAL TOOL

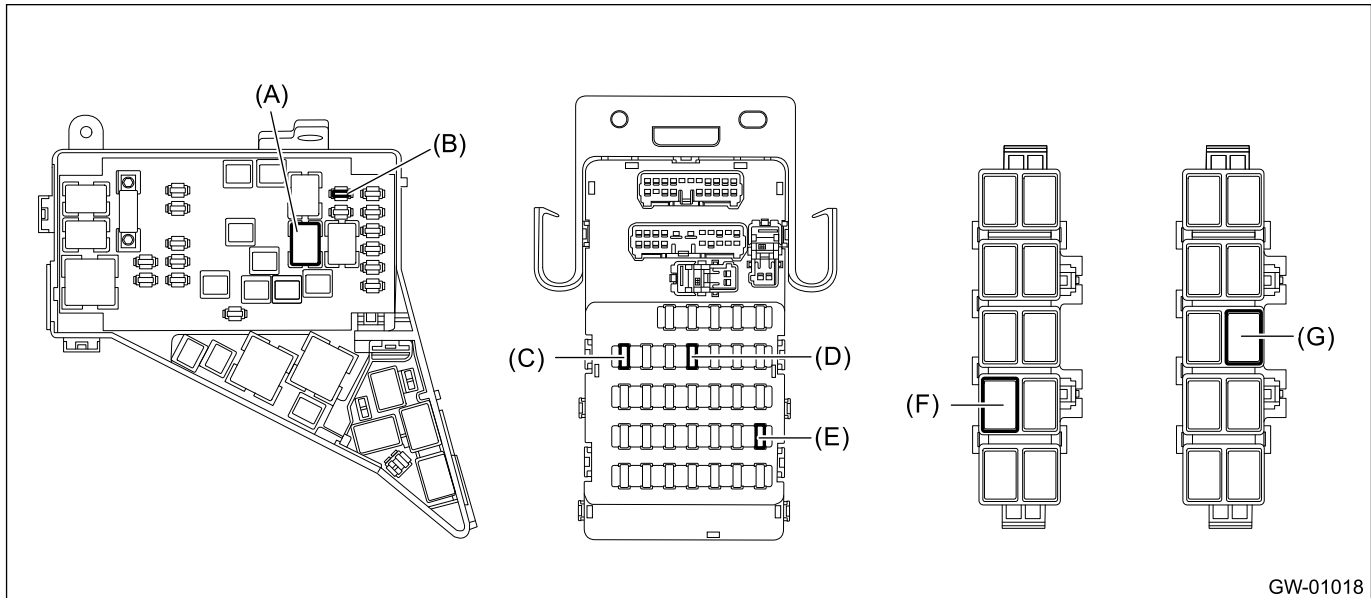
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 STSSM4	—	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system. <b>Note:</b> For detailed operation procedures of Subaru Select Monitor 4, refer to "Application help".

#### 2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.
DST-i	Used together with Subaru Select Monitor 4.
Piano wire	Used for removing the window glass.
Cutter knife	Used for removing the window glass.
Windshield glass knife	Used for removing the window glass.

## GLASS/WINDOWS/MIRRORS > Relay and Fuse

### LOCATION



Main fuse box	Rear defogger relay	(A)
	Fuse 25 A (rear defogger)	(B)
Relay & fuse box	Fuse 7.5 A (remote control mirror)	(C)
	Fuse 7.5 A (wiper deicer)	(D)
	Fuse 7.5 A (power window)	(E)
Relay holder	Power window relay	(F)
	Wiper deicer relay	(G)

#### Note:


For other related fuses, refer to the wiring diagram.  [Ref. to WIRING SYSTEM>Power Supply Circuit.](#)



## GLASS/WINDOWS/MIRRORS > Relay and Fuse

### REMOVAL

#### 1. CIRCUIT BREAKER

##### Caution:

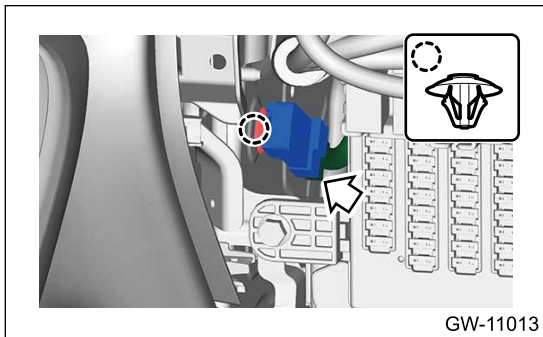
Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".  [Ref. to AIRBAG SYSTEM>General Description>CAUTION.](#)

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work.  [Ref. to NOTE>NOTE > BATTERY.](#)
2. Remove the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL.](#)
3. Remove the circuit breaker.
  - (1) Disconnect the connector.

(2) Release the clips, 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.
2. Install the cover assembly - instrument panel LWR driver.  [Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION.](#)
3. Connect the ground terminal to battery sensor.  [Ref. to NOTE>NOTE > BATTERY.](#)

## GLASS/WINDOWS/MIRRORS > Relay and Fuse

### INSPECTION

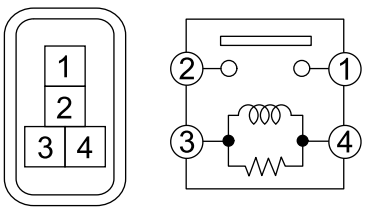
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#### 1. CHECK FUSE

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	

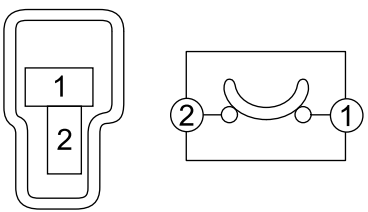
SR-00180

Terminal No.	Inspection conditions	Standard	Circuit
1 – 2	Always	1 MΩ or more	
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.

### 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.

## GLASS/WINDOWS/MIRRORS > Power Window System




### 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. TROUBLE SYMPTOM

Symptoms	Maintenance parts
All power windows do not operate.	<ul style="list-style-type: none"><li>• Check fuse  <a href="#">Ref. to GLASS/WINDOWS/MIRRORS&gt;Relay and Fuse&gt;INSPECTION &gt; CHECK FUSE.</a></li><li>• Check circuit breaker  <a href="#">Ref. to GLASS/WINDOWS/MIRRORS&gt;Relay and Fuse&gt;INSPECTION &gt; CHECK CIRCUIT BREAKER.</a></li><li>• Check switch - power window main  <a href="#">Ref. to GLASS/WINDOWS/MIRRORS&gt;Power Window Control Switch&gt;INSPECTION &gt; MAIN SWITCH.</a></li><li>• Check harness</li><li>• Check ground circuit</li></ul>
Only the driver's side power window does not operate.	<ul style="list-style-type: none"><li>• Check switch - power window main  <a href="#">Ref. to GLASS/WINDOWS/MIRRORS&gt;Power Window Control Switch&gt;INSPECTION &gt; MAIN SWITCH.</a></li><li>• Check motor - front RH  <a href="#">Ref. to GLASS/WINDOWS/MIRRORS&gt;Front Regulator and Motor Assembly&gt;INSPECTION.</a></li><li>• Check harness</li><li>• Check door glass related parts  <a href="#">Ref. to GLASS/WINDOWS/MIRRORS&gt;Power Window System&gt;INSPECTION &gt; CHECK GLASS ASSEMBLY AND RUNNING CHANNEL.</a></li></ul>
Only passenger's side power window or rear power windows do not operate.	<ul style="list-style-type: none"><li>• Check switch - power window sub<ul style="list-style-type: none"><li>– Front:  <a href="#">Ref. to GLASS/WINDOWS/MIRRORS&gt;Power Window Control Switch&gt;INSPECTION &gt; FRONT SUB SWITCH.</a></li><li>– Rear:  <a href="#">Ref. to GLASS/WINDOWS/MIRRORS&gt;Power Window Control Switch&gt;INSPECTION &gt; REAR SUB SWITCH.</a></li></ul></li><li>• Check motor at location of trouble occurrence<ul style="list-style-type: none"><li>– Front:  <a href="#">Ref. to GLASS/WINDOWS/MIRRORS&gt;Front Regulator and Motor Assembly&gt;INSPECTION.</a></li></ul></li></ul>

Symptoms	Maintenance parts
	<ul style="list-style-type: none"> <li>- Rear:  <a href="#">Ref. to GLASS/WINDOWS/MIRRORS&gt;Rear Regulator and Motor Assembly&gt;INSPECTION.</a></li> <li>• Check harness</li> <li>• Check door glass related parts  <a href="#">Ref. to GLASS/WINDOWS/MIRRORS&gt;Power Window System&gt;INSPECTION &gt; CHECK GLASS ASSEMBLY AND RUNNING CHANNEL.</a></li> <li>• Check ground circuit</li> </ul>
Remote operation does not function from the driver's seat.	<p>Perform reset operation A.  <a href="#">Ref. to GLASS/WINDOWS/MIRRORS&gt;Power Window System&gt;OPERATION &gt; RESET OPERATION A.</a></p> <ul style="list-style-type: none"> <li>• When a malfunction is removed <ul style="list-style-type: none"> <li>- Check history of battery discharge and battery removal work. If there is any, initialization was not performed</li> <li>- If there is no history, check connection of each connector and harness</li> </ul> </li> <li>• When the malfunction is continuing <ul style="list-style-type: none"> <li>- Check harness between switch - power window and motor at location of trouble occurrence</li> <li>- When there is no malfunction in harness, check switch - power window main and switch - power window sub</li> </ul> </li> </ul>
Window lock does not operate.	<p>Replace the power window main switch.  <a href="#">Ref. to GLASS/WINDOWS/MIRRORS&gt;Power Window Control Switch.</a></p>
Power window moves approximately 20 mm (0.79 in) only. (Fail-safe continuing state)	<ul style="list-style-type: none"> <li>• Check harness between switch - power window main and switch - power window sub at location of trouble occurrence</li> <li>• When there is no malfunction in harness, check switch - power window and motor</li> </ul>
Particular power window moves approximately 50 mm (1.97 in) only. (Entered fail-safe state in the past, and returned to normal state)	<p>Perform reset operation A.  <a href="#">Ref. to GLASS/WINDOWS/MIRRORS&gt;Power Window System&gt;OPERATION &gt; RESET OPERATION A.</a></p> <ul style="list-style-type: none"> <li>• The fault is fixed now. Therefore, perform the following inspections. <ul style="list-style-type: none"> <li>- Check door glass related parts  <a href="#">Ref. to GLASS/WINDOWS/MIRRORS&gt;Power Window System&gt;INSPECTION &gt; CHECK GLASS ASSEMBLY AND RUNNING CHANNEL.</a></li> <li>- Check harness and connector connection</li> <li>- Switch - power window</li> <li>- Motor</li> </ul> </li> </ul>

Symptoms	Maintenance parts
Particular power window does not close completely. (When AUTO UP is operated, the window fully closes first and then moves in reverse resulting in slight opening.)	Perform reset operation B.  <a href="#">Ref. to GLASS/WINDOWS/MIRRORS&gt;Power Window System&gt;OPERATION &gt; RESET OPERATION B.</a> <ul style="list-style-type: none"> <li>• When a malfunction is removed               <ul style="list-style-type: none"> <li>– Initialization not performed</li> </ul> </li> <li>• When the malfunction is continuing               <ul style="list-style-type: none"> <li>– Check door glass related parts  <a href="#">Ref. to GLASS/WINDOWS/MIRRORS&gt;Power Window System&gt;INSPECTION &gt; CHECK GLASS ASSEMBLY AND RUNNING CHANNEL.</a></li> </ul> </li> </ul>

## 2. CHECK GLASS ASSEMBLY AND RUNNING CHANNEL

### Glass does not go down

1. Using a scraper, remove sticking of the glass assembly and running channel.
2. Check up/down condition and noise of the glass assembly.
3. Clean viscous substance and dirt of the glass assembly.
4. Check the running channel.
  - Clean foreign matter and dirt of the running channel. If severe, replace the running channel.
  - If there is any peeling, wear or damage on the sliding surface, replace the running channel.
  - Check the connection condition of the running channel. If deformed, replace the running channel.
5. Check the glass assembly operation.

#### Note:

**If there is a fault with switch operation, remove the glass assembly from the regulator and motor assembly, and check sliding of the glass assembly and running channel manually.**

6. Perform reset operation A.  [Ref. to GLASS/WINDOWS/MIRRORS>Power Window System>OPERATION > RESET OPERATION A.](#)

### Incorrectly move in the reverse direction

1. Check the glass assembly operation and check the following.
  - Check if the glass reverse operation is occurring at all the locations or at some locations.
  - Check if there is a fault in the up/down condition.
  - If the glass assembly is loose in front and rear directions, perform 4) Check the glass assembly.
2. Check the running channel.
  - Check the installation condition of the running channel, and if there is a fault, install with the proper condition.
  - Clean foreign matter and dirt of the running channel. If severe, replace the running channel.
  - If there is any peeling, wear or damage on the sliding surface, replace the running channel.
3. Check the sash.
  - Clean foreign matter and dirt of the sash corner.
  - Check the sash assembly - partition and the sash roof for a gap, and if there is any, replace the sash assembly - partition.
  - Measure the opening of the sash assembly - partition, and if the opening is small, replace the sash assembly - partition.

**Sash assembly - partition opening:**

12.5 mm (0.49 in) or less

- Check the weather strip outer for deformation, viscous substance and damage. If defective, replace the weather strip outer.
- Check the weather strip - door INN for deformation, viscous substance and damage. If defective, replace the weather strip - door INN.
- Check the connection of the sash assembly lower, and if the gap between the lower bracket is large, adjust the lower bracket. (Front door glass)

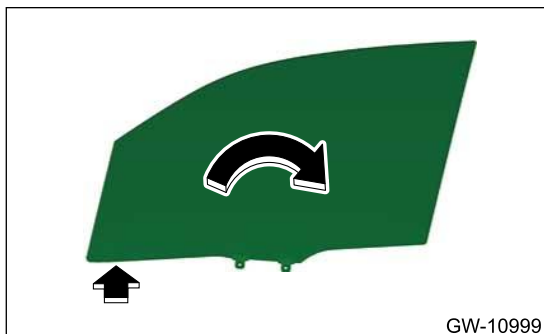
(a) 0.5 mm (0.02 in) or less

(b) Sash ASSY lower

(c) Front door sash

#### 4. Check the glass assembly.

- Check the regulator and motor assembly for looseness at the glass assembly connecting portion, and if there is a fault, replace the regulator and motor assembly.
- Remove the glass assembly from the regulator and motor assembly, and check sliding of the glass assembly and running channel manually.
- If the glass assembly is loose in front and rear directions, install it while tilting to prevent looseness.



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5. Perform reset operation B.  [Ref. to GLASS/WINDOWS/MIRRORS>Power Window System>OPERATION > RESET OPERATION B.](#)

## GLASS/WINDOWS/MIRRORS > Power Window System

### OPERATION

---

#### 1. RESET OPERATION A

Perform the operation when a particular window moves approximately 50 mm (1.97 in) only.

##### Note:

**A reset operation may not be able to be performed because there is internal electric charge in the power window main switch. In that case, leave it for 10 minutes with the power window main switch connector disconnected, and then perform the reset operation again.**

1. Sit in the driver's seat and close the door.
2. Turn the ignition switch to ON.
3. Operate the switch - power window main to open the glass assembly - front door halfway.
4. Operate the switch - power window main in "UP" direction to fully close the glass assembly - front door on the driver's side.
5. While the glass assembly - front door is fully closed, hold down the switch - power window main in "UP" direction for one second.
6. Operate the switch - power window main with "AUTO DOWN" to check whether the window fully opens properly.

##### Note:

**If the window does not fully open properly, repeat steps 1) to 6).**

#### 2. RESET OPERATION B

Perform when a particular window does not close completely.

1. Sit in the driver's seat and close the door.
2. Turn the ignition switch to ON.
3. On the glass assembly - front door of the driver's side, operate the "AUTO UP" function (fully pull up the switch) using the switch - power window main, and perform auto-reverse operations 10 times in a row (after the window fully closes, it slightly opens).
4. Check that the "AUTO UP" function no longer operates.
5. Perform reset operation A.
6. Check that the window operates properly by operating the "AUTO UP" and "AUTO DOWN" switch.

##### Note:




**If the window does not fully open/close properly, repeat steps 1) to 6).**



## GLASS/WINDOWS/MIRRORS > Power Window System

### NOTE

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For procedure of each component in the power window system, refer to the respective section.

- 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

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

**Note:**

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

2. Remove the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.](#)

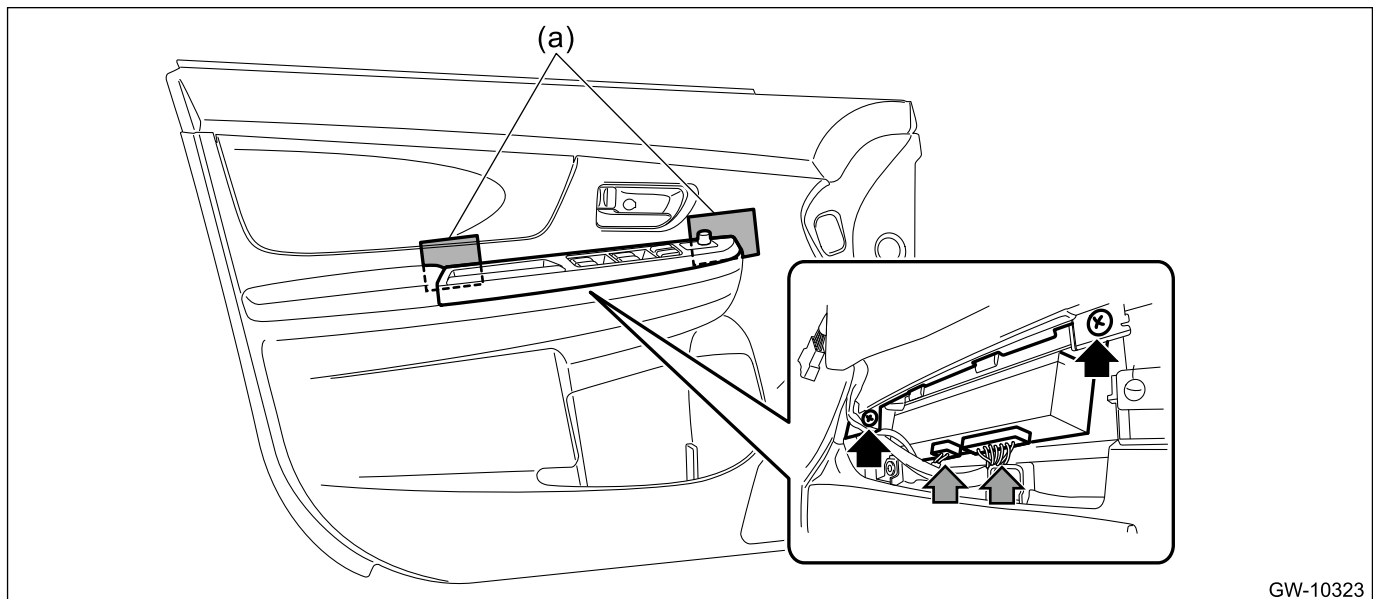
3. Remove the panel - power window main switch.

**Caution:**

**Be careful not to damage the trim panel - front door with the panel - power window main switch.**

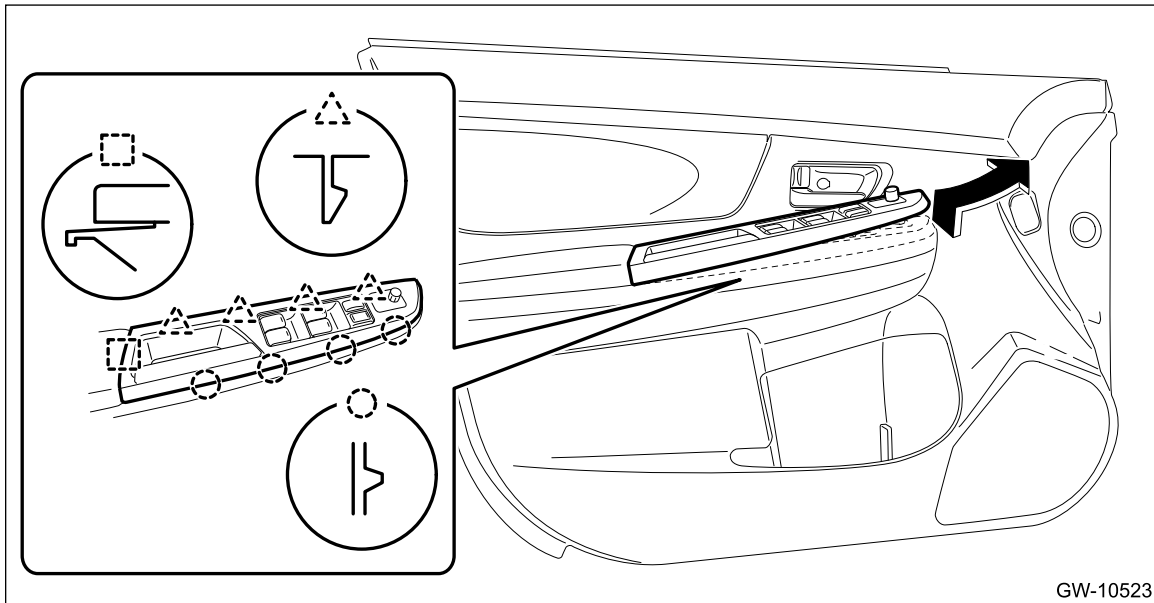
(1) Insert a sheet of protective paper (a) between panel - power window main switch and trim panel - front door.

(2) Remove the screws and disconnect the connector.



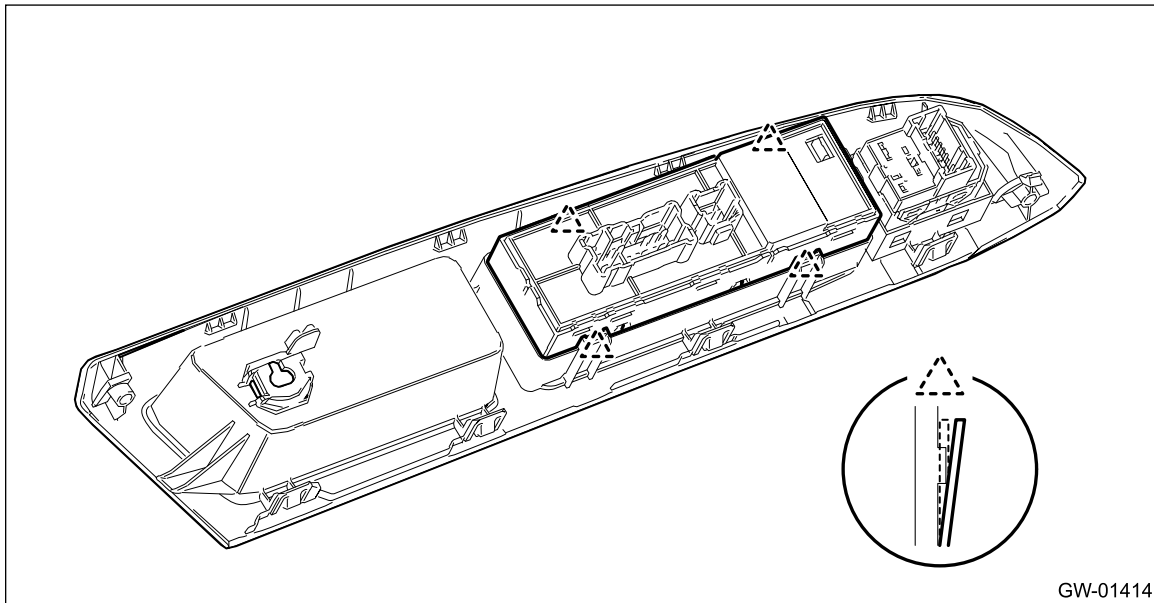
GW-10323

(3) Release the claws, and then remove the panel - power window main switch.



GW-10523


(4) Release the claws, and then remove the switch - power window main.



GW-01414

## 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 cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### Note:

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

- 2.** Remove the trim panel - rear door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.](#)
- 3.** Remove the panel - power window sub switch rear.

**Caution:**

**Be careful not to damage the trim panel - rear door with the panel - power window sub switch rear.**

- (1) Insert a sheet of protective paper (a) between panel - power window sub switch rear and trim panel - rear door.
- (2) Remove the screws and disconnect the connector.

(3) Release the claws, and then remove the panel - power window sub switch rear.

**4.** Release the claws, and then remove the switch - power window sub rear.




## GLASS/WINDOWS/MIRRORS > Power Window Control Switch

### INSTALLATION

---

#### 1. MAIN SWITCH

**Caution:**


- **After installing the switch - power window main, always perform the initial setting. Failure to do so may cause the improper activation of auto-reverse operation for pinching hazard prevention.**
  - **Use protective paper to avoid damage to the trim panel.**
1. Install the panel - power window main switch to the trim panel - front door.
  2. Install the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION.](#)
  3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
  4. Perform initial setting operation (reset operation A).  [Ref. to GLASS/WINDOWS/MIRRORS>Power Window System>OPERATION > RESET OPERATION A.](#)

#### 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.](#)

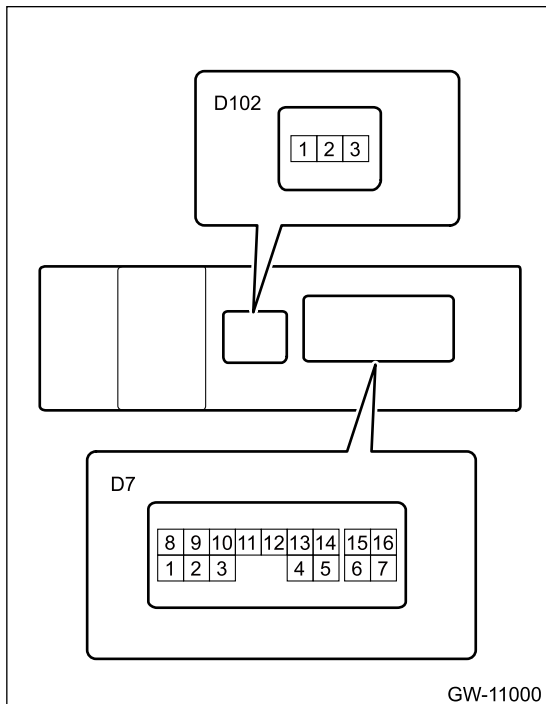
**Switch - power window sub rear**

1. Install the panel - power window sub switch rear to the trim panel - rear door.
2. Install the trim panel - rear door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION.](#)
3. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

**INSPECTION****1. MAIN SWITCH****Caution:**

Since the power window switch is controlled by CPU, do not check continuity for switch alone with the circuit tester. Performing continuity check with circuit tester may damage the power window switch circuit.

1. Turn the ignition switch to ON.
2. Measure the voltage of the switch - power window main.



Terminal No.	Inspection conditions	Standard
(D102) No. 3 (+) — (D7) No. 1 (—)	Ignition switch ON, driver's door glass fully open, master switch OFF → master switch manual UP	Less than 1 V → 11 V — 14 V
(D102) No. 3 (+) — (D7) No. 1 (—)	Ignition switch ON, driver's door glass fully open, master switch OFF → master switch auto UP → door glass fully closed	Less than 1 V → 11 V — 14 V → less than 1 V
(D102) No. 1 (+) — (D7) No. 1 (—)	Ignition switch ON, driver's door glass fully closed, master switch OFF → master switch manual DOWN	Less than 1 V → 11 V — 14 V
(D102) No. 1 (+) — (D7) No. 1 (—)	Ignition switch ON, driver's door glass fully closed, master switch OFF → master switch auto UP → door glass fully open	Less than 1 V → 11 V — 14 V → less than 1 V

Terminal No.	Inspection conditions	Standard
(D102) No. 2 (+) — (D7) No. 1 (-)	Always	11 V — 14 V
(D7) No. 14 (+) — (D7) No. 1 (-)	Ignition switch ON	11 V — 14 V

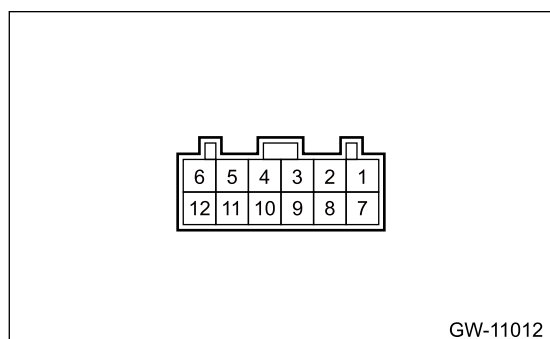
3. If the inspection result is not within the standard, replace the switch - power window main.

## 2. FRONT SUB SWITCH

### Caution:

Since the power window switch is controlled by CPU, do not check continuity for switch alone with the circuit tester. Performing continuity check with circuit tester may damage the power window switch circuit.

1. Turn the ignition switch to ON.
2. Measure the voltage of the switch - power window main.



Terminal No.	Inspection conditions	Standard
(D17) No. 2 (+) — (D17) No. 6 (-)	Ignition switch ON, passenger's door glass fully open, master switch and sub switch OFF → master switch or sub switch manual UP	Less than 1 V → 11 V — 14 V
(D17) No. 2 (+) — (D17) No. 6 (-)	Ignition switch ON, passenger's door glass fully open, master switch and sub switch OFF → master switch or sub switch auto UP → door glass fully closed	Less than 1 V → 11 V — 14 V → less than 1 V
(D17) No. 3 (+) — (D17) No. 6 (-)	Ignition switch ON, passenger's door glass fully closed, master switch and sub switch OFF → master switch or sub switch manual DOWN	Less than 1 V → 11 V — 14 V
(D17) No. 3 (+) — (D17) No. 6 (-)	Ignition switch ON, passenger's door glass fully closed, master switch and sub switch OFF → master switch or sub switch auto DOWN → door glass fully open	Less than 1 V → 11 V — 14 V → less than 1 V

Terminal No.	Inspection conditions	Standard
(D17) No. 5 (+) — (D17) No. 6 (–)	Always	11 V — 14 V
(D17) No. 4 (+) — (D17) No. 6 (–)	Ignition switch ON	11 V — 14 V

3. If the inspection result is not within the standard, replace the switch - power window sub.

### 3. REAR SUB SWITCH

1. Turn the ignition switch to ON.
2. Measure the voltage of the switch - power window main.

- RH side

Terminal No.	Inspection conditions	Standard
(D31) No. 5 (+) — Chassis ground (–)	Ignition switch ON, rear right door glass fully open, master switch and rear right switch OFF → master switch or rear right switch manual UP	Less than 1 V → 11 V — 14 V
(D31) No. 8 (+) — Chassis ground (–)	Ignition switch ON, rear right door glass fully closed, master switch and rear right switch OFF → master switch or rear right switch manual DOWN	Less than 1 V → 11 V — 14 V
(D31) No. 6 (+) — Chassis ground (–)	Ignition switch ON	11 V — 14 V

- LH side

Terminal No.	Inspection conditions	Standard
(D25) No. 5 (+) — Chassis ground (–)	Ignition switch ON, rear left door glass fully open, master switch and rear left switch OFF → master switch or rear left switch manual UP	Less than 1 V → 11 V — 14 V
(D25) No. 8 (+) — Chassis ground (–)	Ignition switch ON, rear left door glass fully closed, master switch and rear left switch OFF → master switch or rear left switch manual DOWN	Less than 1 V → 11 V — 14 V

<b>Terminal No.</b>	<b>Inspection conditions</b>	<b>Standard</b>
(D25) No. 6 (+) — Chassis ground (—)	Ignition switch ON	11 V — 14 V

3. If the inspection result is not within the standard, replace the switch - power window sub.

## GLASS/WINDOWS/MIRRORS > Front Door Glass



### REMOVAL

1. Disconnect the ground terminal from battery and wait for at least 60 seconds before starting work.

 [Ref. to NOTE>NOTE > BATTERY.](#)

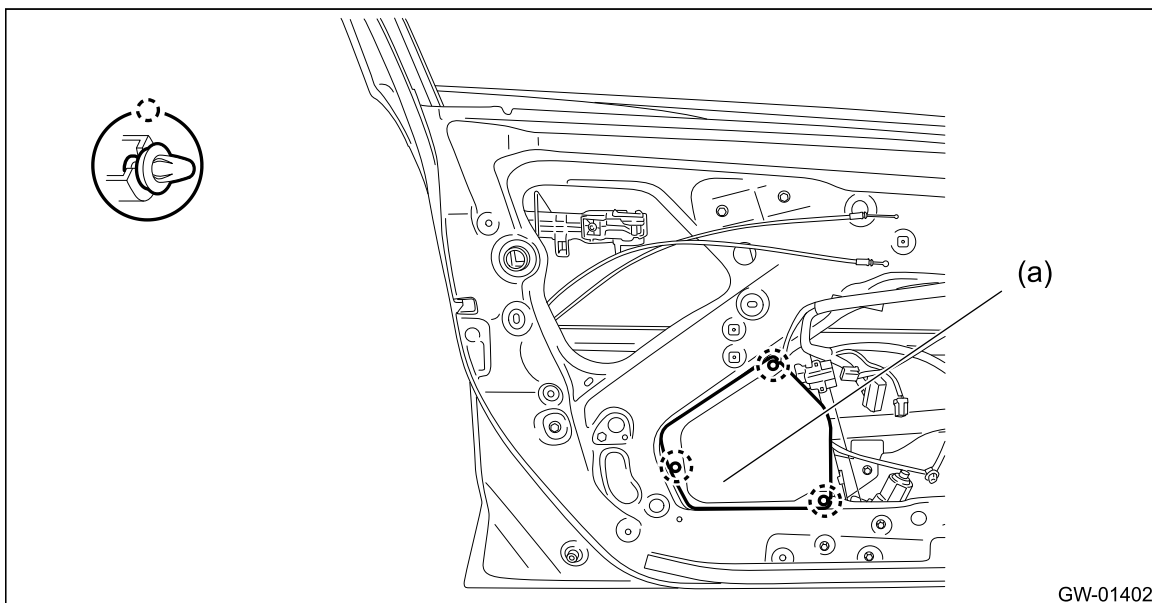
#### Note:

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


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>Front Sealing Cover>REMOVAL.](#)
4. Remove the front door inner pad (a).

#### Caution:

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



GW-01402

5. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
6. Remove the glass assembly - front door.
  - (1) Connect the switch - power window and then turn the ignition switch to ON.
  - (2) Operate the switch - power window to move the glass assembly - front door to the position where the mounting bolts can be seen.
  - (3) Remove the mounting bolts from the glass assembly - front door.

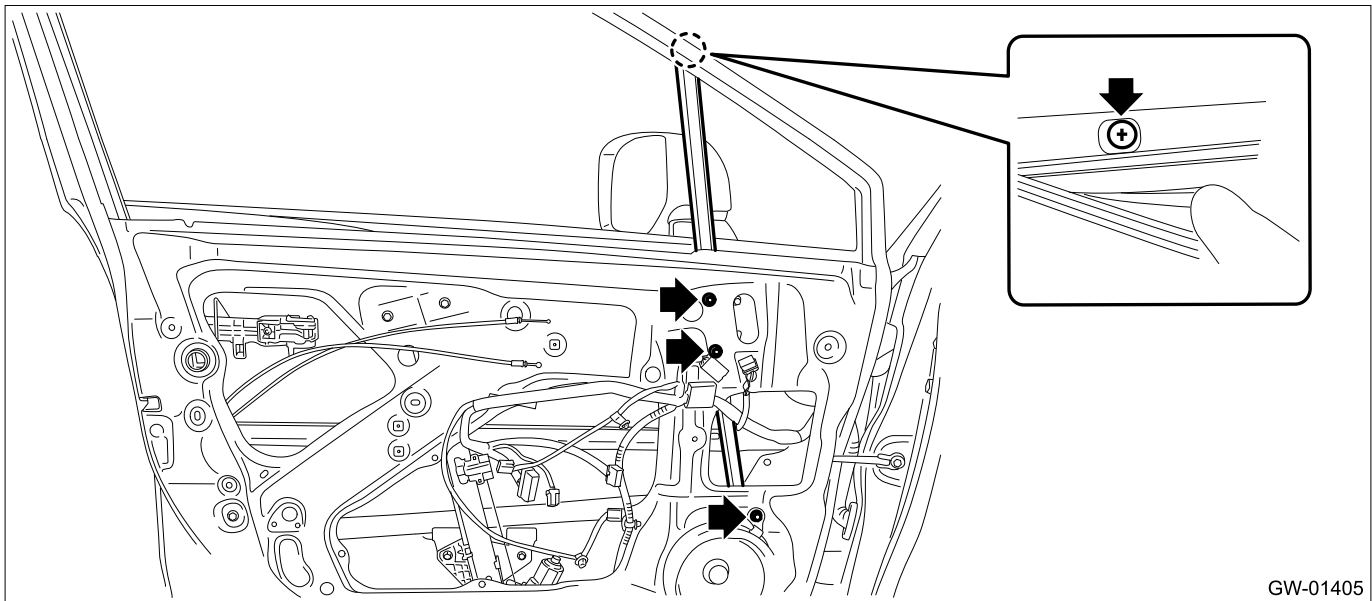
(4) While tilting the glass, remove the glass assembly - front door.

**Caution:**

**Avoid impact and damage to the glass assembly - front door.**

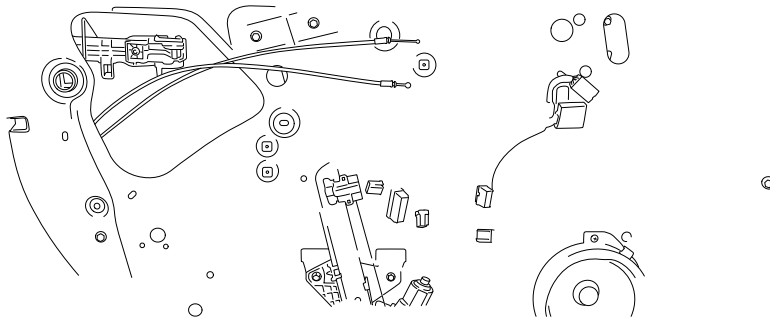
**7.** Remove the glass assembly - front door partition.

(1) Remove the bolts and screws, and then remove the running channel - front door and the sash  
COMPL - partition.



GW-01405

(2) Remove the glass assembly - front door partition.



## GLASS/WINDOWS/MIRRORS > Front Door Glass

### INSTALLATION

1. Install the glass assembly - front door partition.

**Caution:**

**Do not reuse the glass assembly - front door partition. Always replace with a new part.**

2. Install the running channel - front door and the sash COMPL - partition.

**Tightening torque:**

Refer to "Exploded view" of "General Description".

**Caution:**

**Check that the running channel - front door is securely fixed to the panel assembly - front door and to the sash COMPL - partition.**


**Note:**

**Install so that the lip portion is not caught in the panel assembly - front door and the sash  
COMPL - partition.**

- 3.** Install the glass assembly - front door.





**Tightening torque:**

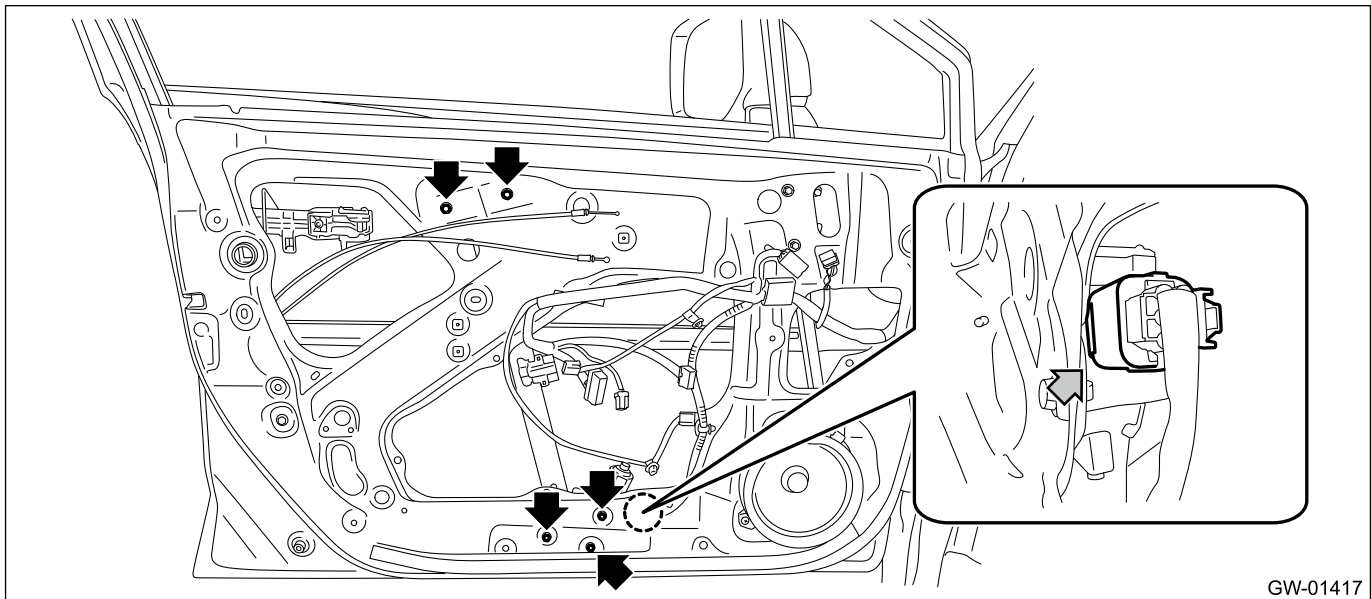
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

- 4.** Install the front door inner pad.
- 5.** Install the sealing cover - front door.
- 6.** Install the trim panel - front door.
- 7.** Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## GLASS/WINDOWS/MIRRORS > Front Regulator and Motor Assembly

### REMOVAL



1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.   
[Ref. to NOTE>NOTE > BATTERY.](#)  
**Note:**  
**For model with battery sensor, disconnect the ground terminal from battery sensor.**
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>Front Sealing Cover>REMOVAL.](#)
4. Remove the glass assembly - front door.   
[Ref. to GLASS/WINDOWS/MIRRORS>Front Door Glass>REMOVAL.](#)
5. Remove the regulator and motor assembly - front.
  - (1) Disconnect the motor - front connector.
  - (2) Remove the bolts, and then remove the regulator and motor assembly - front.



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## GLASS/WINDOWS/MIRRORS > Front Regulator and Motor Assembly

### INSTALLATION

1. Install the regulator and motor assembly - front.  
**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.](#)
3. Install the sealing cover - front door.
4. Install the trim panel - front door.
5. Connect the battery ground terminal.   
[Ref. to NOTE>NOTE > BATTERY.](#)

## GLASS/WINDOWS/MIRRORS > Front Regulator and Motor Assembly

## INSPECTION

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1. Disconnect the connector of the motor - front.
2. Check the motor operation when battery voltage is applied between terminals of the motor - front connector.

- LH side

Terminal No.	Inspection conditions	Specification
4 (+) — 1 (—)	Apply battery voltage between terminals.	Increase
1 (+) — 4 (—)		Decrease

- RH side


Terminal No.	Inspection conditions	Specification
3 (+) — 6 (—)	Apply battery voltage between terminals.	Increase
6 (+) — 3 (—)		Decrease

3. If it does not operate properly as a result of inspection, replace the regulator and motor assembly - front.

## GLASS/WINDOWS/MIRRORS > Remote Control Mirror System

### WIRING DIAGRAM

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Refer to "Remote Control Mirror System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Remote Control Mirror System>WIRING DIAGRAM.](#)

## GLASS/WINDOWS/MIRRORS > Remote Control Mirror System

### INSPECTION

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#### 1. SYMPTOM CHART

Symptoms	Inspection order
All function does not operate.	<ol style="list-style-type: none"><li>1. Check the fuse.</li><li>2. Check the remote control mirror switch.</li><li>3. Check the wiring harness.</li></ol>
One side of the mirror motor does not operate.	<ol style="list-style-type: none"><li>1. Check the remote control mirror switch.</li><li>2. Check the mirror motor.</li><li>3. Check the wiring harness.</li></ol>
Mirror heater does not operate.	<ol style="list-style-type: none"><li>1. Check the rear defogger switch.</li><li>2. Check the rear defogger relay.</li><li>3. Check the mirror heater.</li><li>4. Check the wiring harness.</li><li>5. Check body integrated unit.</li></ol>

#### Note:



**The mirror heater operates with the rear window defogger at the same time. Refer to "INSPECTION" of "Rear Window Defogger System" for details.**  [Ref. to GLASS/WINDOWS/MIRRORS>Rear Window Defogger System>INSPECTION.](#)

## GLASS/WINDOWS/MIRRORS > Remote Control Mirror System

### NOTE


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For procedure of each component in the remote control mirror system, refer to the respective section.

- Outer mirror assembly:  [Ref. to GLASS/WINDOWS/MIRRORS>Outer Mirror Assembly.](#)
- Remote control mirror switch:  [Ref. to GLASS/WINDOWS/MIRRORS>Remote Control Mirror Switch.](#)

## GLASS/WINDOWS/MIRRORS > Outer Mirror Assembly

### REMOVAL

Refer to "DISASSEMBLY" for removal procedures of scalp cap and mirror face.  [Ref. to GLASS/WINDOWS/MIRRORS>Outer Mirror Assembly>DISASSEMBLY.](#)

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

#### Note:

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

2. Remove the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.](#)

3. Turn over the sealing cover - front door.

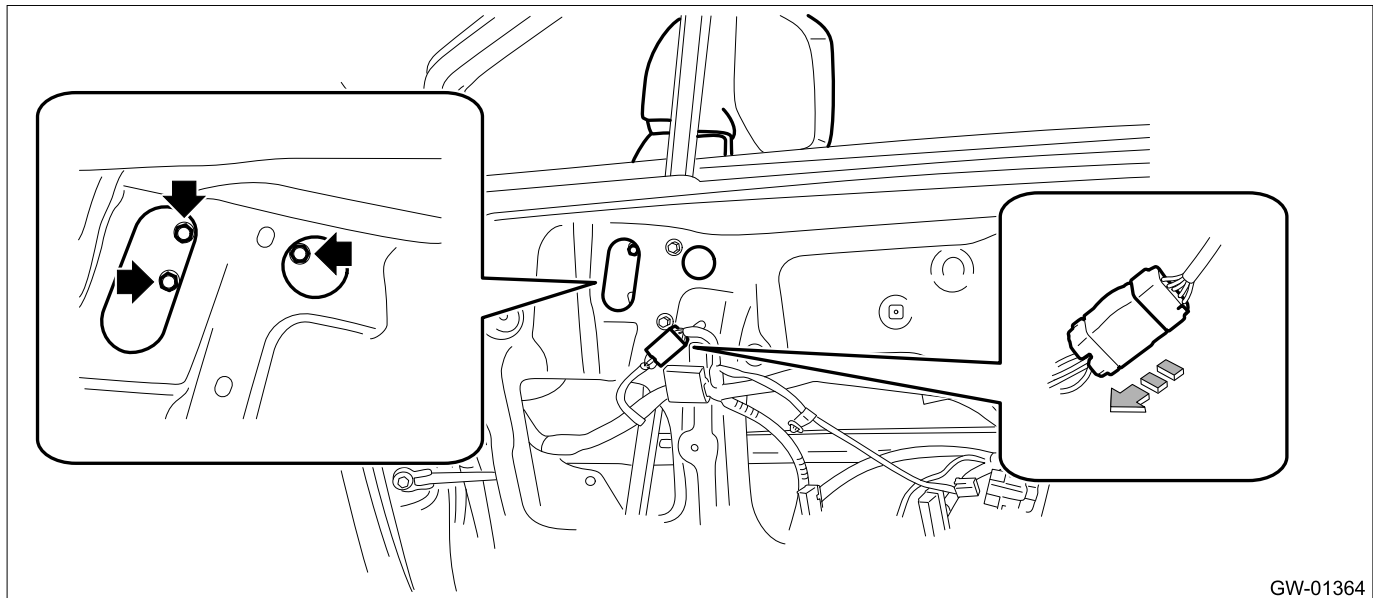
#### Caution:

- **Carefully remove the butyl tape. Excessive force will easily break the sealing cover - front door.**
- **If the sealing cover - front door 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) Remove the connector clip that is installed on the panel assembly - front door, and disconnect the connector.

(2) Carefully remove and turn over the sealing cover - front door within the area where the operation can be performed.

4. Remove the bolts to remove outer mirror assembly.



## GLASS/WINDOWS/MIRRORS > Outer Mirror Assembly

### INSTALLATION



#### Caution:

**Be careful not to catch the harness in between the parts.**

1. Install the outer mirror assembly.

### Tightening torque:

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)


2. Connect the connector and install the connector clip.
3. Install the sealing cover - front door.
4. Install the trim panel - front door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION.](#)
5. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## GLASS/WINDOWS/MIRRORS > Outer Mirror Assembly

### DISASSEMBLY

#### Caution:

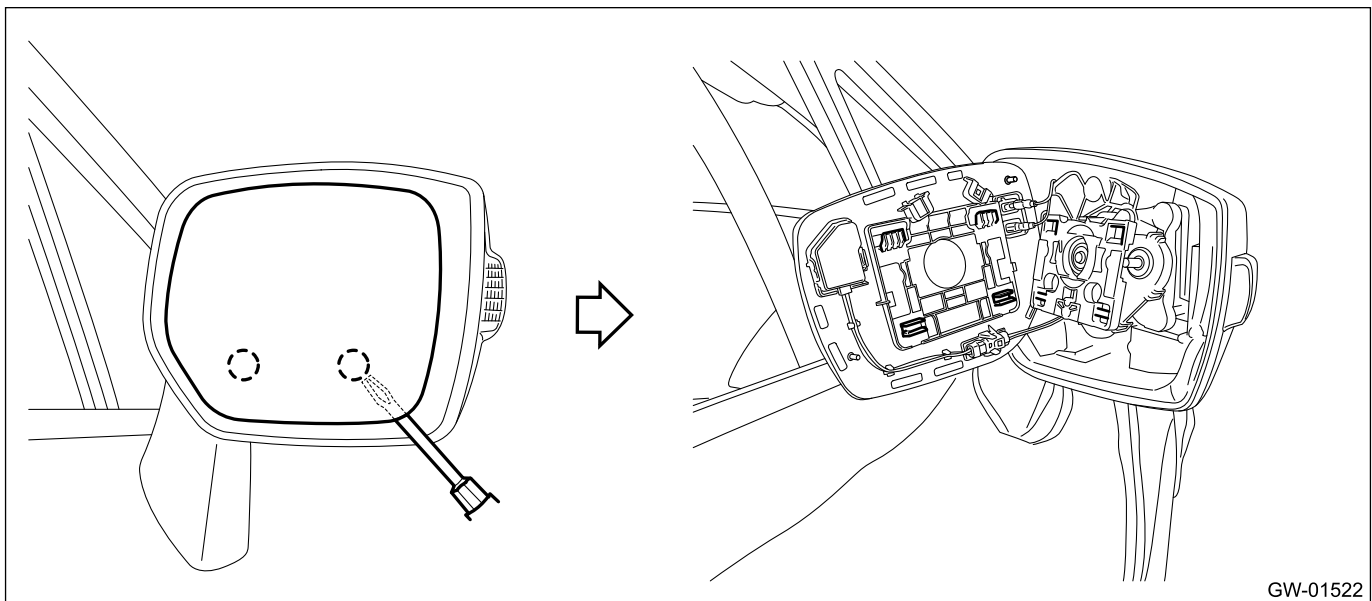
- When removing the mirror - repair, be careful not to damage the back surface of mirror - repair with a flat tip screwdriver.
- When installing the mirror - repair, insert the connector and clip securely.

1. Operate the remote control mirror switch to face the mirror - repair upward.
2. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

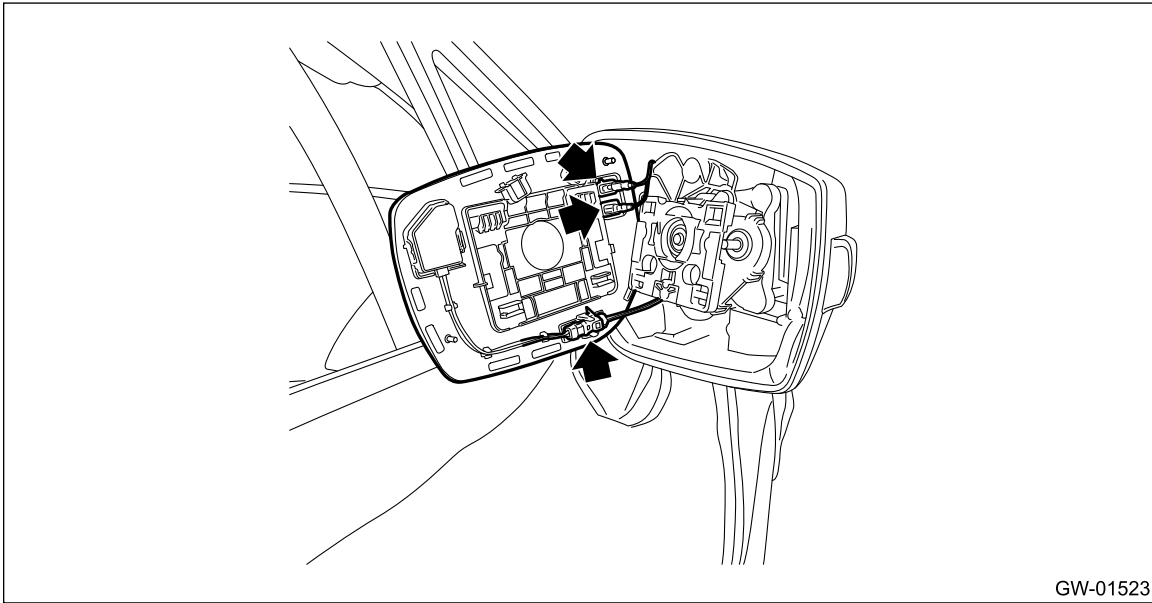
#### Note:

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

3. Remove the mirror - repair.
  - (1) Using a flat tip screwdriver or similar tool, release the engagement shown in the figure, and slide the mirror - repair downward to remove.



- (2) Disconnect connectors. (Model with mirror heater and Blind Spot Detection/Rear Cross Traffic Alert system)

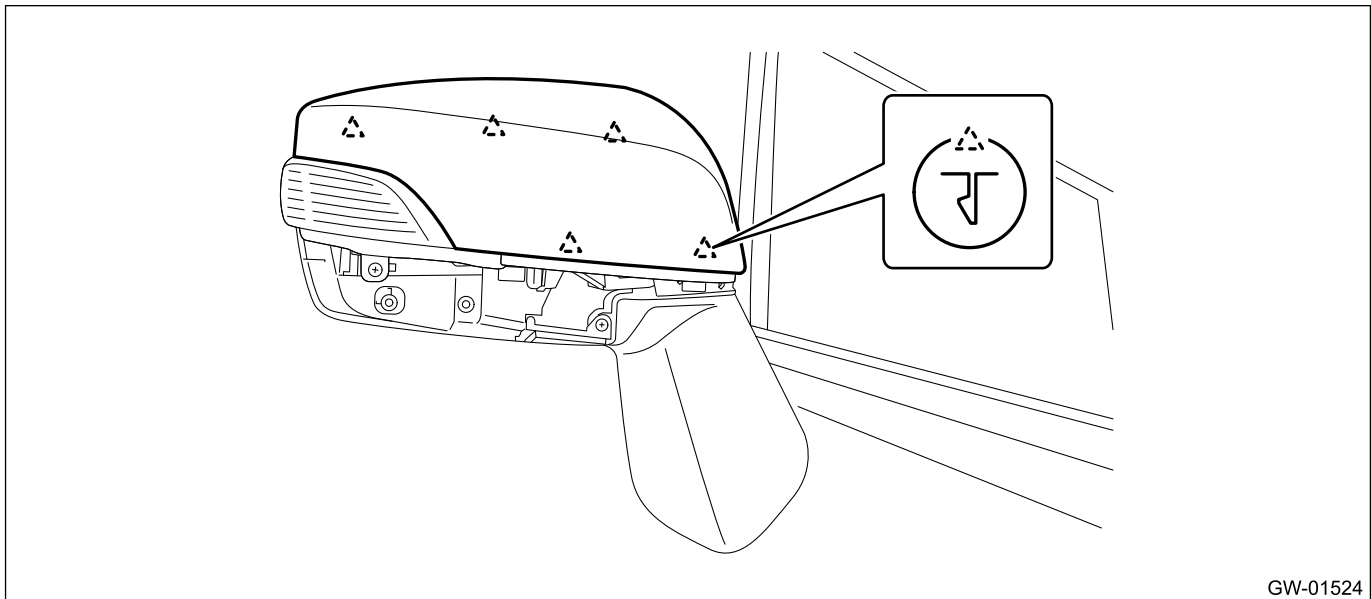


**4.** Release the claws, and then remove the cover - cap outer mirror lower.

**5.** Release the claws, and then remove the cover - cap outer mirror.

**Caution:**

**Be careful not to apply excessive force when removing the cover - cap outer mirror, as the lower hooks may become damaged.**



- 6.** Remove the light assembly - side turn mirror. (Model with side turn signal light)
  - (1) Remove the screws and pull out the light assembly - side turn mirror to the front of the vehicle.
  - (2) Disconnect the connector and remove the light assembly - side turn mirror.

## GLASS/WINDOWS/MIRRORS > Outer Mirror Assembly

### ASSEMBLY

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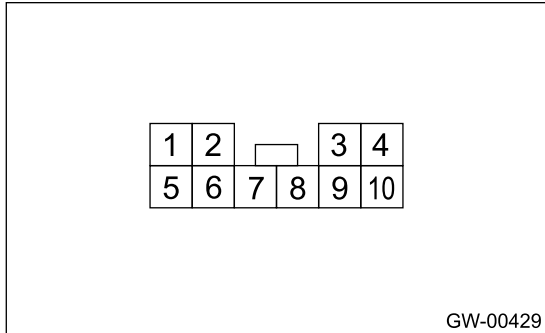
#### **Caution:**

**Be careful not to catch the harness in between the parts.**

- 1.** Install the light assembly - side turn mirror. (Model with side turn signal light)
- 2.** Install the cover - cap outer mirror.
- 3.** Install the cover - cap outer mirror lower.
- 4.** Check that all the claws are securely engaged.
- 5.** Install the mirror - repair.

**INSPECTION****1. CHECK OPERATION**


1. Disconnect the outer mirror connector.
2. Apply battery voltage between the outer mirror connector terminals and check the mirror operation.



Terminal No.	Inspection conditions	Switch position
—	—	OFF
3 (+) — 8 (-)	Apply battery voltage between terminals.	UP
8 (+) — 3 (-)	Apply battery voltage between terminals.	DOWN
7 (+) — 3 (-)	Apply battery voltage between terminals.	LEFT
3 (+) — 7 (-)	Apply battery voltage between terminals.	RIGHT

3. If it does not operate normally, replace the outer mirror assembly.




**2. CHECK OPERATION OF BLIND SPOT DETECTION/REAR CROSS TRAFFIC ALERT INDICATOR**

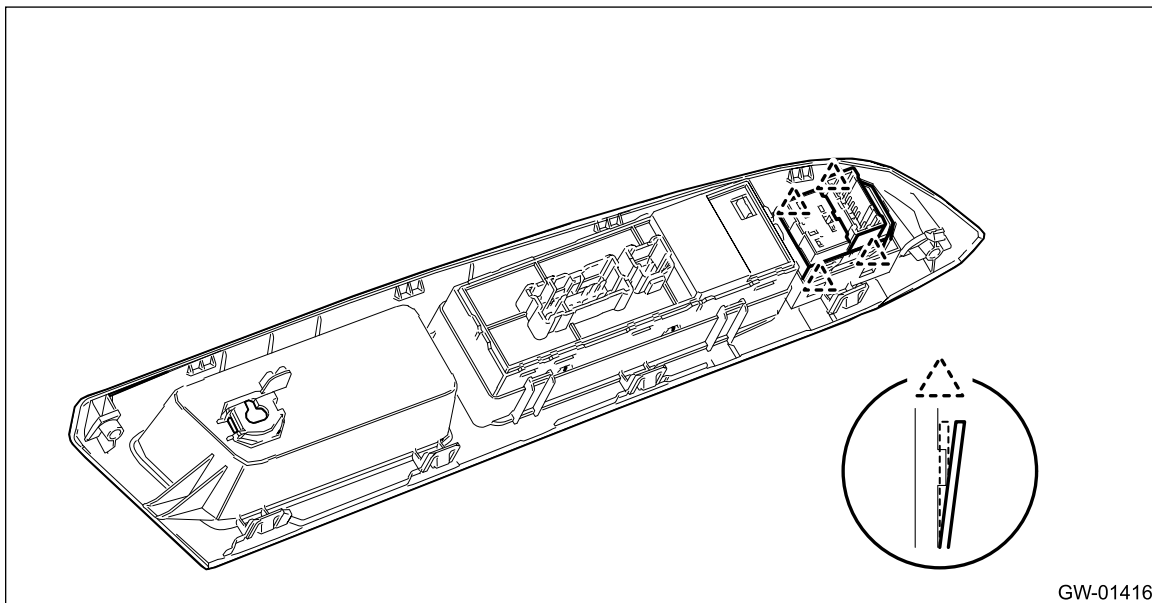
1. Check the Blind Spot Detection/Rear Cross Traffic Alert system.  [Ref. to Blind Spot Detection/Rear Cross Traffic Alert \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)
2. Check the outer mirror assembly.
  - (1) Check that the BSD/RCTA indicator on the mirror surface illuminates normally when the BSD/RCTA OFF switch is turned ON while it is installed to the vehicle.
  - (2) If it does not illuminate normally, replace the mirror - repair.
  - (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

### REMOVAL

---


1. Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.   
[Ref. to NOTE>NOTE > BATTERY.](#)  
**Note:**  
**For model with battery sensor, disconnect the ground terminal from battery sensor.**
2. Remove the trim panel - front door.   
[Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > FRONT DOOR.](#)
3. Remove the panel - power window main switch.   
[Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch>REMOVAL.](#)
4. Release the claws, and then remove the switch - door mirror from the panel - power window main switch.



## GLASS/WINDOWS/MIRRORS > Remote Control Mirror Switch

### INSTALLATION

---

1. Install the switch - door mirror to the panel - power window main switch.
2. Install the panel - power window main switch to the trim panel - front door.
3. Install the trim panel - front door.
4. Connect the battery ground terminal.   
[Ref. to NOTE>NOTE > BATTERY.](#)

## GLASS/WINDOWS/MIRRORS > Remote Control Mirror Switch

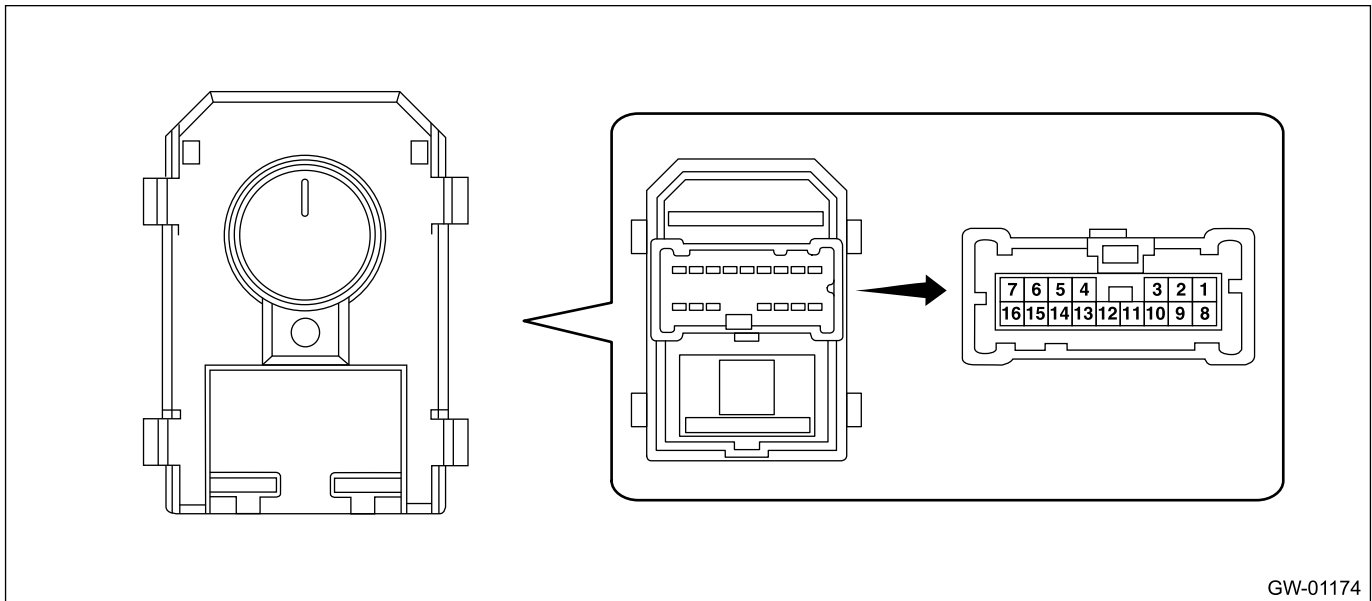
### INSPECTION

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1. Disconnect the connector of the switch - door mirror.
2. Check the resistance between switch - door mirror terminals.

#### Preparation tool:

Circuit tester



- Changeover switch RH

Terminal No.	Inspection conditions	Standard
—	OFF	1 MΩ or more
1 – 12 9 – 7	UP	Less than 1 Ω
1 – 9 12 – 7	DOWN	Less than 1 Ω
1 – 11 12 – 7	LEFT	Less than 1 Ω
1 – 12 11 – 7	RIGHT	Less than 1 Ω

- Changeover switch LH

Terminal No.	Inspection conditions	Standard
—	OFF	1 MΩ or more
1 – 14 8 – 7	UP	Less than 1 Ω
1 – 8 14 – 7	DOWN	Less than 1 Ω
1 – 10 14 – 7	LEFT	Less than 1 Ω
1 – 14 10 – 7	RIGHT	Less than 1 Ω

**3.** If the inspection result is not within the standard, replace the switch - door mirror.

## GLASS/WINDOWS/MIRRORS > Rearview Mirror

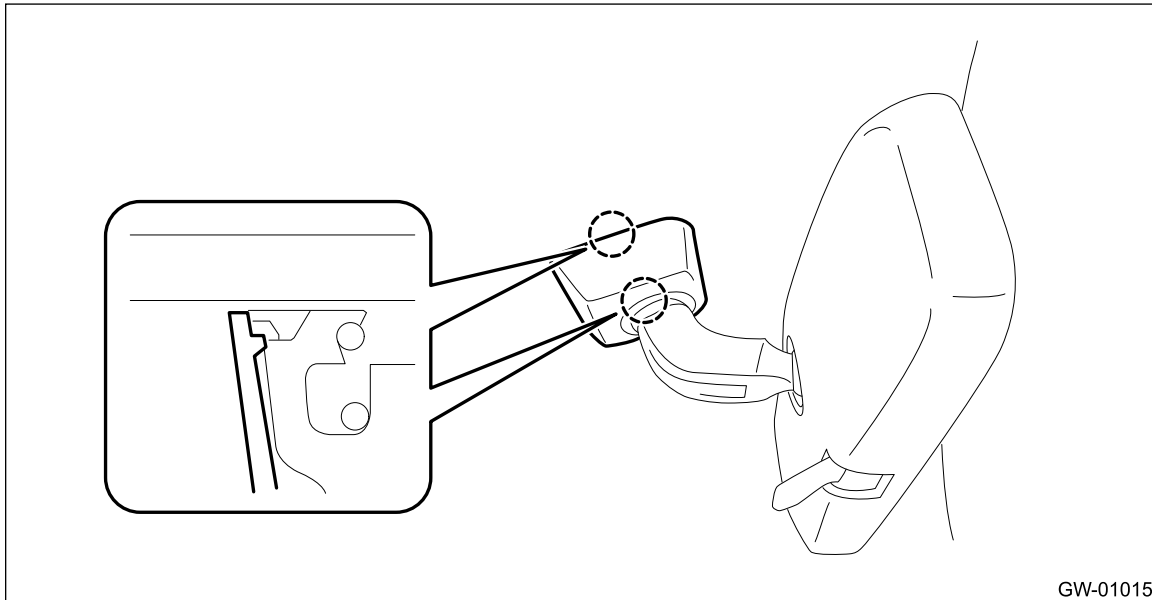
### REMOVAL

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#### Caution:

**Be careful not to damage the mirror surface and the glass - front window.**

1. Release the claws, and then remove the cover.



2. Release the lock lever, and slide the mirror assembly - inner rearview to remove.

3. Replace the glass - front window if the base - inner mirror is damaged.

## GLASS/WINDOWS/MIRRORS > Rearview Mirror

### INSTALLATION

---

1. To install the mirror assembly - inner rearview, slide and push it until the claw engages.

**2.** Install the cover to the mirror assembly - inner rearview.

**GLASS/WINDOWS/MIRRORS > Rearview Mirror**


**INSPECTION**

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Check that the mirror assembly - inner rearview and base - inner mirror for damage.




## GLASS/WINDOWS/MIRRORS > Rear Door Glass

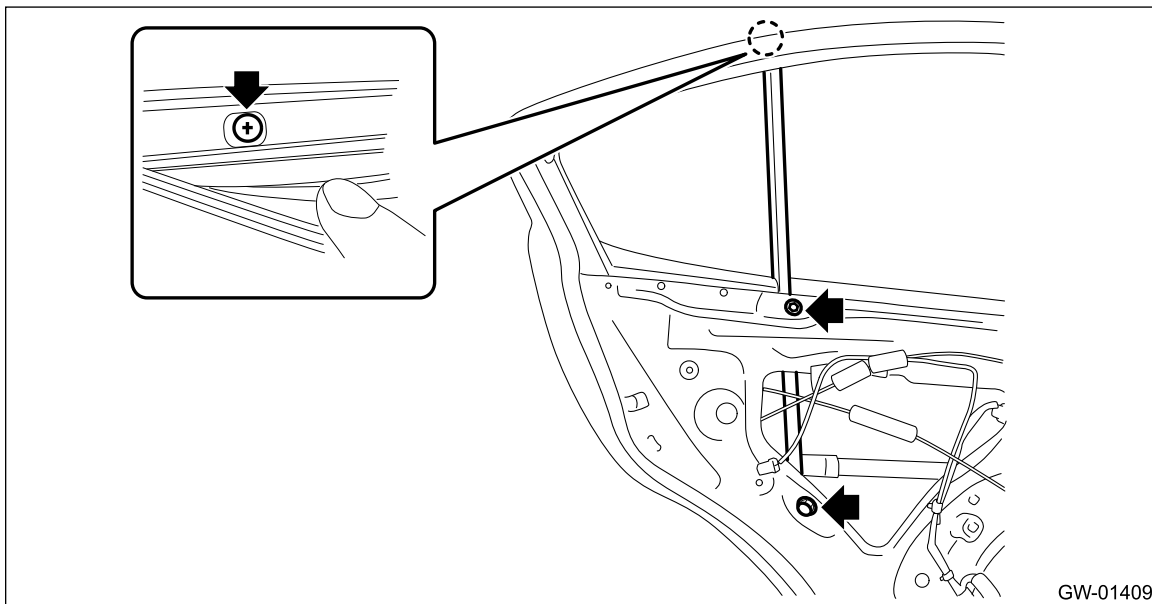
### REMOVAL

1. Disconnect the ground terminal from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

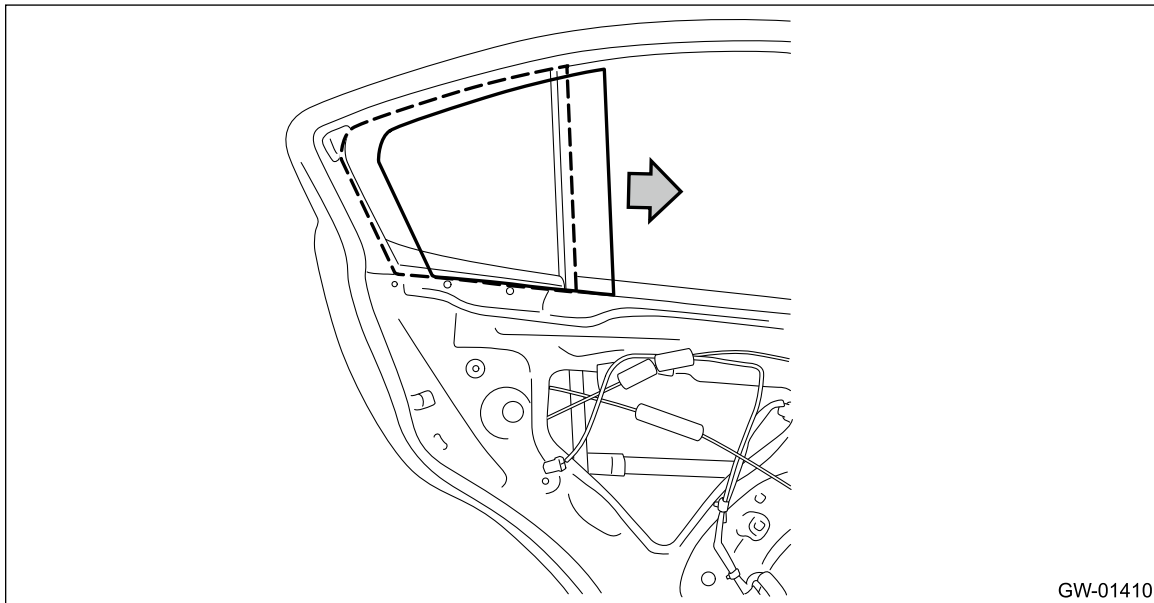
#### Note:

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

2. Remove the trim panel - rear door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.](#)
3. Remove the sealing cover - rear door.  [Ref. to EXTERIOR BODY PANELS>Rear Sealing Cover>REMOVAL.](#)
4. Reconnect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)
5. Remove the glass assembly - rear door.
  - (1) Install the switch - power window and then turn the ignition switch to ON.
  - (2) Operate the switch - power window sub rear to move the glass assembly - rear door to the lowest position.
  - (3) Remove the running channel - rear door.
  - (4) Remove the screws and bolts, and then remove the sash COMPL - rear partition.



- (5) Remove the glass assembly - rear door partition.



(6) While tilting the glass assembly - rear door, remove the guide from the roller of the regulator and motor assembly - rear, then remove the glass assembly - rear door.

**Caution:**

**Avoid impact and damage to the glass assembly - rear door.**

## GLASS/WINDOWS/MIRRORS > Rear Door Glass

### INSTALLATION

---

**1.** Install the glass assembly - rear door.

**Caution:**

- **Do not reuse the glass assembly - rear door partition. Always replace with a new part.**
- **Avoid impact and damage to the glass assembly - rear door.**

**2.** Install the glass assembly - rear door partition and the sash COMPL - rear partition.




**Tightening torque:**

Refer to "Exploded view" of "General Description".

3. Install the running channel - rear door.

**Caution:**

**Check that the running channel - rear door is securely fixed to the panel assembly - rear door and to the sash COMPL - rear partition.**

4. Install the sealing cover - rear door.  [Ref. to EXTERIOR BODY PANELS>Rear Sealing Cover>INSTALLATION.](#)
5. Install the trim panel - rear door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION.](#)
6. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## GLASS/WINDOWS/MIRRORS > Rear Regulator and Motor Assembly



### REMOVAL

---

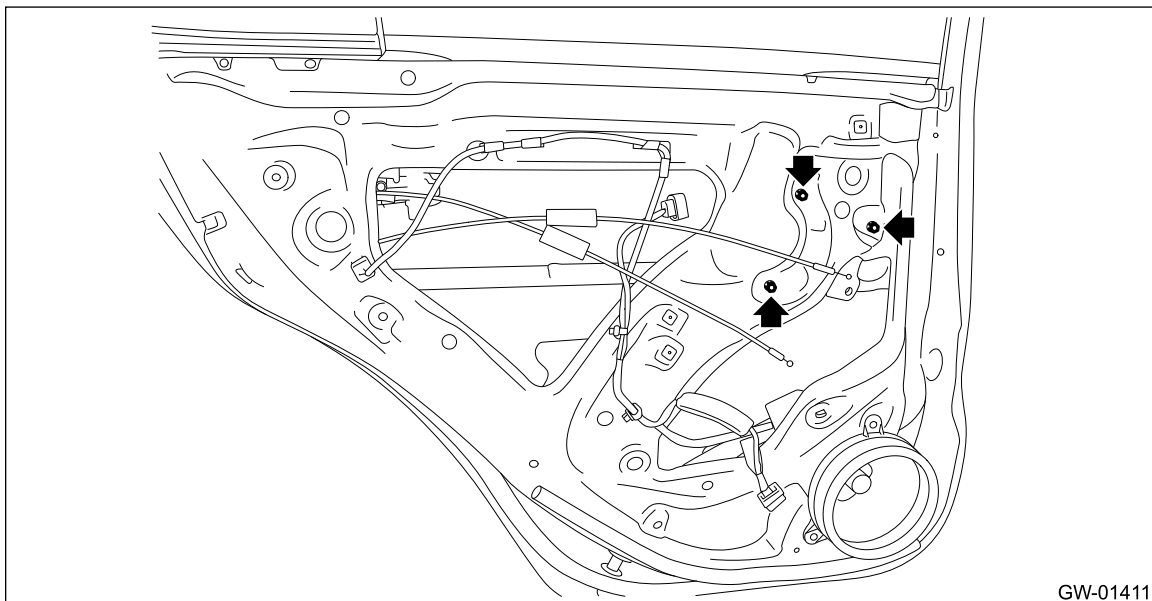
1. Disconnect the ground cable from battery.  [Ref. to NOTE>NOTE > BATTERY.](#)

#### Note:

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

2. Remove the trim panel - rear door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>REMOVAL > REAR DOOR.](#)
3. Remove the sealing cover - rear door.
4. Remove the glass assembly - rear door.  [Ref. to GLASS/WINDOWS/MIRRORS>Rear Door Glass>REMOVAL.](#)
5. Remove the rear regulator and motor assembly.
  - (1) Disconnect the connector of the motor - rear.

- (2) Remove the bolts, and then remove the regulator and motor assembly - rear.



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## GLASS/WINDOWS/MIRRORS > Rear Regulator and Motor Assembly

### INSTALLATION

1. Install the regulator and motor assembly rear.

#### Tightening torque:

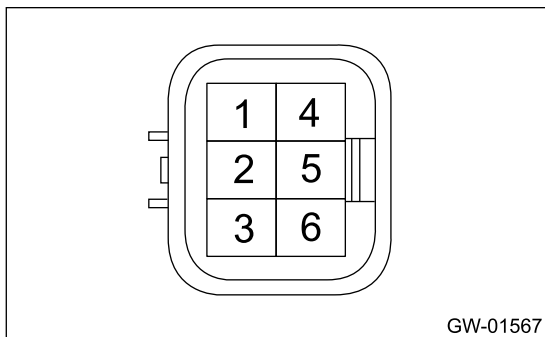
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

2. Install the glass assembly - rear door.  [Ref. to GLASS/WINDOWS/MIRRORS>Rear Door Glass>INSTALLATION.](#)
3. Install the sealing cover - rear door.
4. Install the trim panel - rear door.  [Ref. to EXTERIOR/INTERIOR TRIM>Door Trim>INSTALLATION.](#)
5. Connect the battery ground terminal.  [Ref. to NOTE>NOTE > BATTERY.](#)

## GLASS/WINDOWS/MIRRORS > Rear Regulator and Motor Assembly

### INSPECTION

1. Disconnect the connector of the motor - rear.
2. Check the motor operation when battery voltage is applied between terminals of the motor - rear connector.



- LH side

Terminal No.	Inspection conditions	Specification
4 (+) – 1 (-)	Apply battery voltage between terminals.	Increase
1 (+) – 4 (-)		Decrease

- RH side

Terminal No.	Inspection conditions	Specification
3 (+) – 6 (-)	Apply battery voltage between terminals.	Increase
6 (+) – 3 (-)		Decrease



3. If it does not operate properly as a result of inspection, replace the regulator and motor assembly - rear.

## GLASS/WINDOWS/MIRRORS > Windshield Glass





### REMOVAL

---

#### Caution:

- For model with EyeSight, always remove the glass - front window after the stereo camera is removed.
- For model with EyeSight, always use 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 model with EyeSight, if the windshield glass is installed after removal or replaced, always 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.](#)
- For model with EyeSight, if the damage is found in the glass repair prohibited area, always replace the glass. Damage in the prohibited area can affect the recognition of the stereo camera even if it is repaired, and thereby EyeSight function may not operate properly.

### 1. WHEN USING WINDSHIELD GLASS KNIFE

1. Disconnect the ground cable from battery. (Models with wiper deicer)  [Ref. to NOTE>NOTE > BATTERY.](#)  
**Note:**  
**For model with battery sensor, disconnect the ground terminal from battery sensor.**
2. Remove the trim panel - front pillar UPR.  [Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>REMOVAL.](#)
3. Remove the cowl panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>REMOVAL.](#)
4. Disconnect the wiper deicer connector. (Models with wiper deicer)
5. Remove the stereo camera cover assembly and stereo camera assembly. (Models with EyeSight)  [Ref. to EyeSight>Stereo Camera>REMOVAL.](#)
6. Remove the molding - front window from the glass - front window, and attach protective tape on the body side of the circumference of the glass - front window.

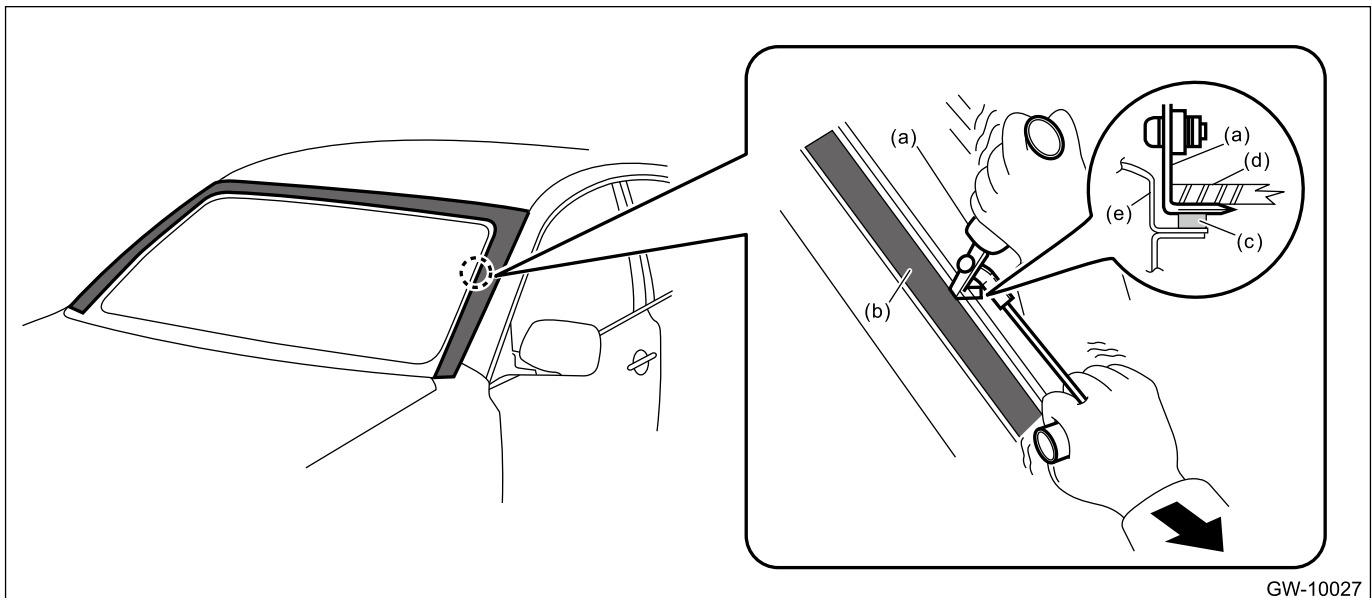
- |                            |                     |              |
|----------------------------|---------------------|--------------|
| (a) Molding - front window | (c) Body panel      | (e) Adhesive |
| (b) Glass - front window   | (d) Protective tape |              |

**7.** Remove the glass - front window.

- (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 - front window at a right angle, move the windshield glass knife parallel to the edge of the glass - front window, and cut the adhesive along the surface and the edge of the glass - front window.

**Caution:**

- **Cutting of adhesive part should be started from an area with wider gap between the glass - front window and the body.**
- **Never twist the windshield glass knife.**



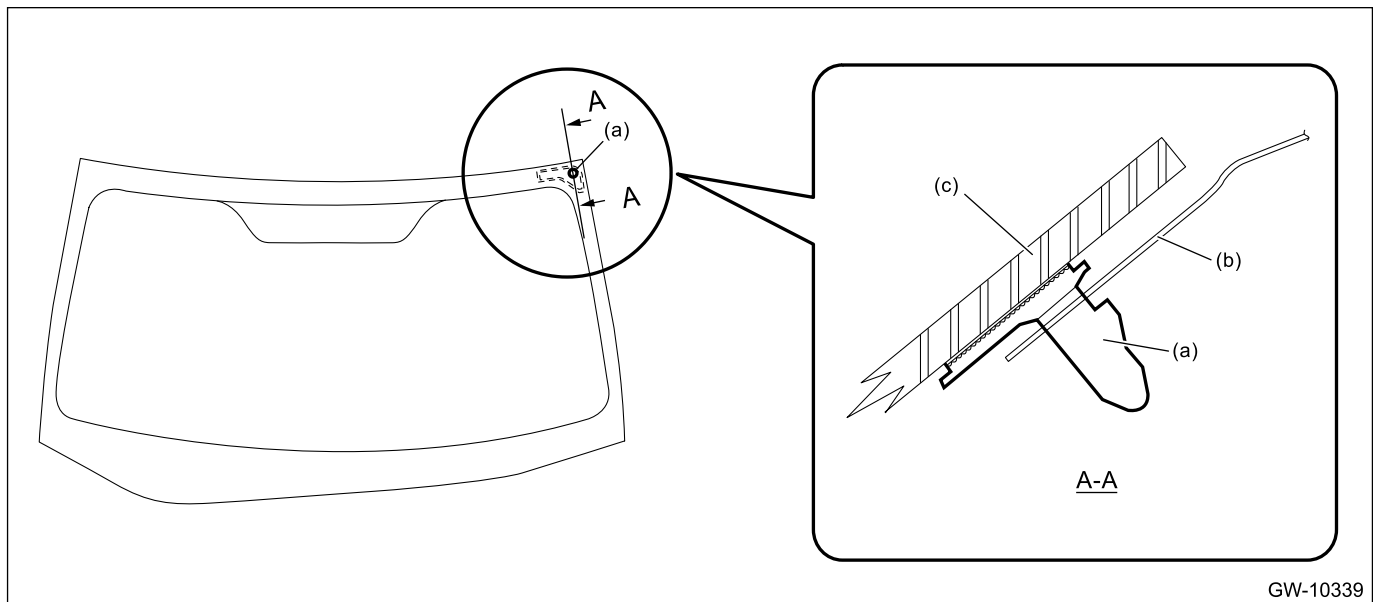
GW-10027

- |                            |                          |                |
|----------------------------|--------------------------|----------------|
| (a) Windshield glass knife | (c) Adhesive             | (e) Body panel |
| (b) Protective tape        | (d) Glass - front window |                |

(3) Disconnect the locating pin - front window, and remove the glass - front window.

**Note:**

**The locating pin - front window are bonded to the corners of the glass - front window.  
Use piano wire to disconnect the pins.**



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(a) Locating pin - front window


(b) Body panel

(c) Glass - front window

## 2. WHEN USING PIANO WIRE

**Caution:**

- Do not tightly pull the piano wire against the glass - front window edge.
- Apply protective tape, etc, and be careful that the inner and outer components of the vehicle are not damaged.
- Do not cross piano wires. Otherwise they may be cut.

**1.** Disconnect the ground terminal from battery. (Models with wiper deicer)  [Ref. to NOTE>NOTE > BATTERY.](#)


**Note:**

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

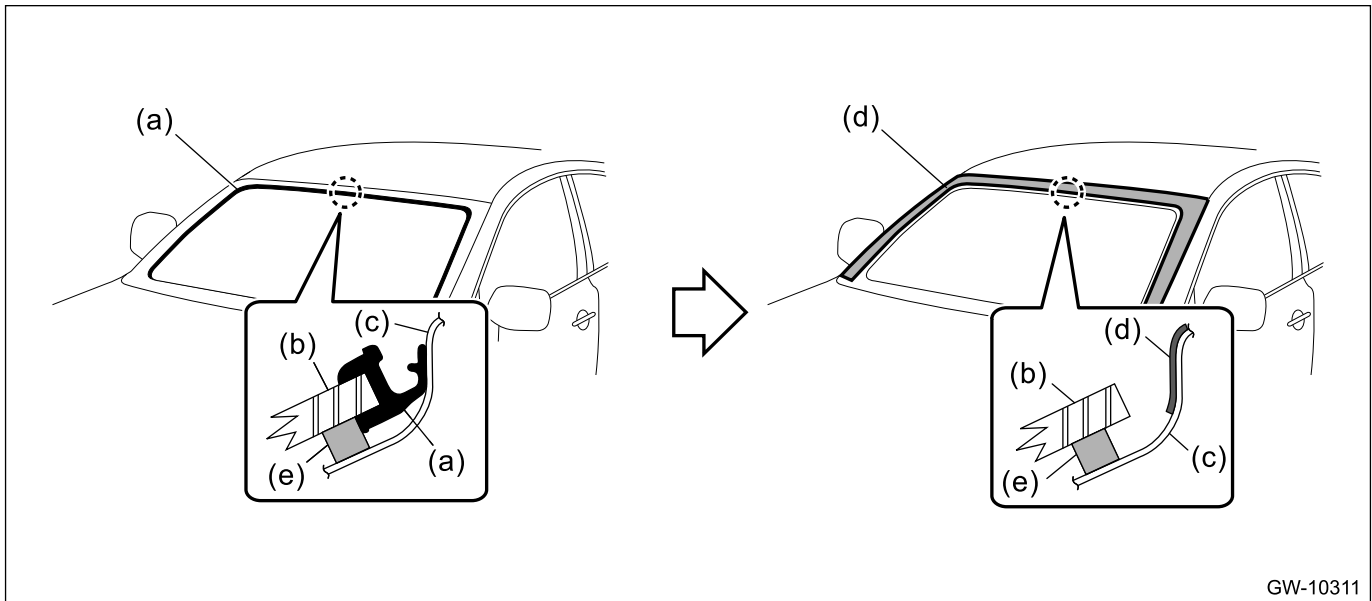
**2.** Remove the trim panel - front pillar UPR.  [Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>REMOVAL.](#)

**3.** Remove the cowl panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>REMOVAL.](#)

**4.** Disconnect the wiper deicer connector. (Models with wiper deicer)

**5.** Remove the stereo camera cover assembly and stereo camera assembly. (Models with EyeSight)  [Ref. to EyeSight>Stereo Camera>REMOVAL.](#)

**6.** Remove the molding - front window from the glass - front window, and attach protective tape on the body side of the circumference of the glass - front window.



- |                            |                     |              |
|----------------------------|---------------------|--------------|
| (a) Molding - front window | (c) Body panel      | (e) Adhesive |
| (b) Glass - front window   | (d) Protective tape |              |

**7.** Remove the glass - front window.

(1) Pass the piano wire through the adhesive part.

(2) Pull the wire ends alternately to cut off the adhesive part and the locating pin - front window.

**Caution:**



**Attach a piece of wood to both piano wire ends.**

- |                          |                |                     |
|--------------------------|----------------|---------------------|
| (a) Piano wire           | (c) Adhesive   | (e) Protective tape |
| (b) Glass - front window | (d) Body panel |                     |

**GLASS/WINDOWS/MIRRORS > Windshield Glass**

**INSTALLATION**

**Caution:**

- For model with EyeSight, always use 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 model with EyeSight, if the windshield glass is installed after removal or replaced, always 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.](#)
- For model with EyeSight, if the damage is found in the glass repair prohibited area, always replace the glass. Damage in the prohibited area can affect the recognition of the stereo camera even if it is repaired, and thereby EyeSight function may not operate properly.

1. Fabricate the cartridge nozzle tip as shown and set the sealant gun with the adhesive.

(a) 10 mm (0.39 in)

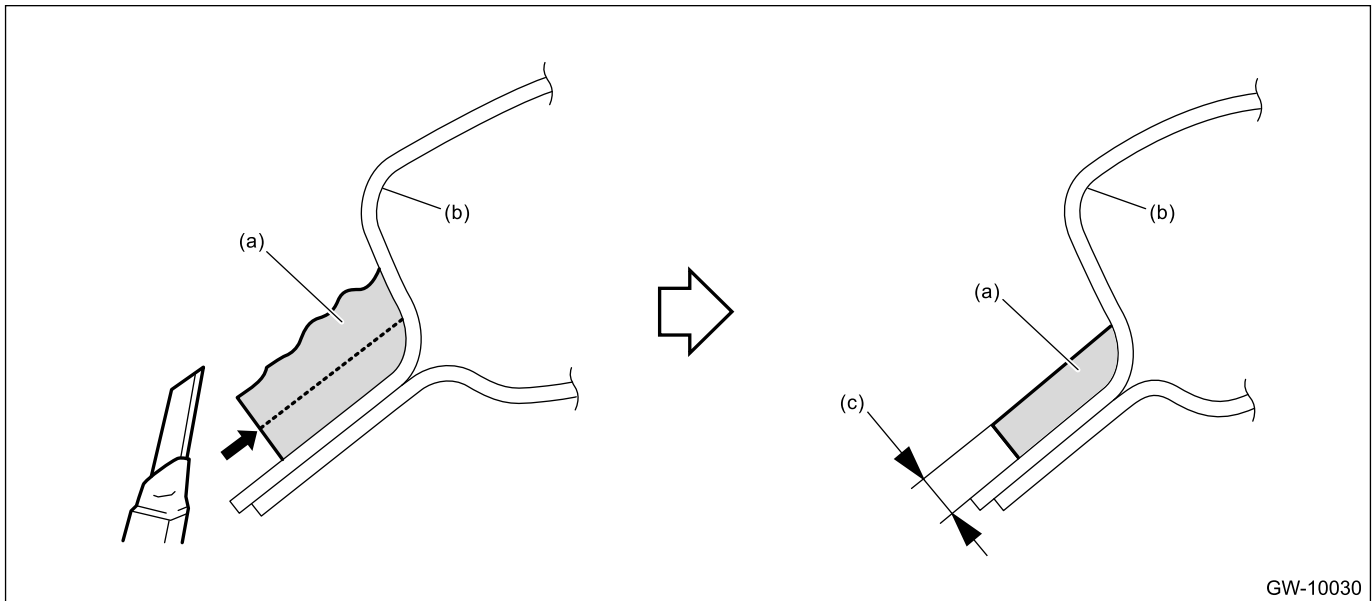
(b) 8 mm (0.31 in)

(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

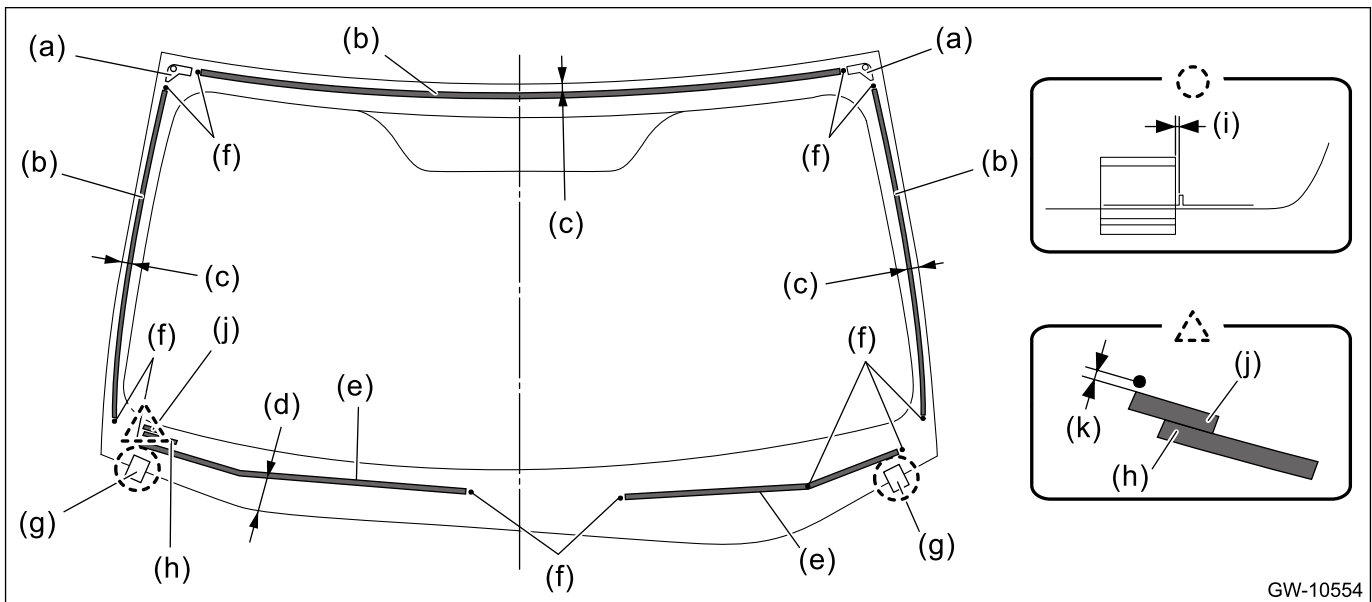
(c) 2 mm (0.08 in)

**3.** Clean the glass - front window and the body with alcohol or appropriate cleaning solvent to completely eliminate cutting powder, dust and dirt.

**4.** Attach the dam rubber - front to the glass - front window.

**Caution:**

- **Attach the driver's side dam rubber - front lower to the constant distance of 14.1 mm (0.56 in) from the glass end.**
- **Attach the passenger's side dam rubber - front lower straight between the dam rubber set marks while aligning with the dam rubber set mark.**



(a) Locating pin - front window

(e) Dam rubber - front lower

(i) 0+5 mm (0+0.2 in)

(b) Dam rubber - front upper

(f) Dam rubber set mark

(j) Seal - lower VIN

(c) 16 mm (0.63 in)

(g) Seal - lower

(k) 1 mm (0.04 in)

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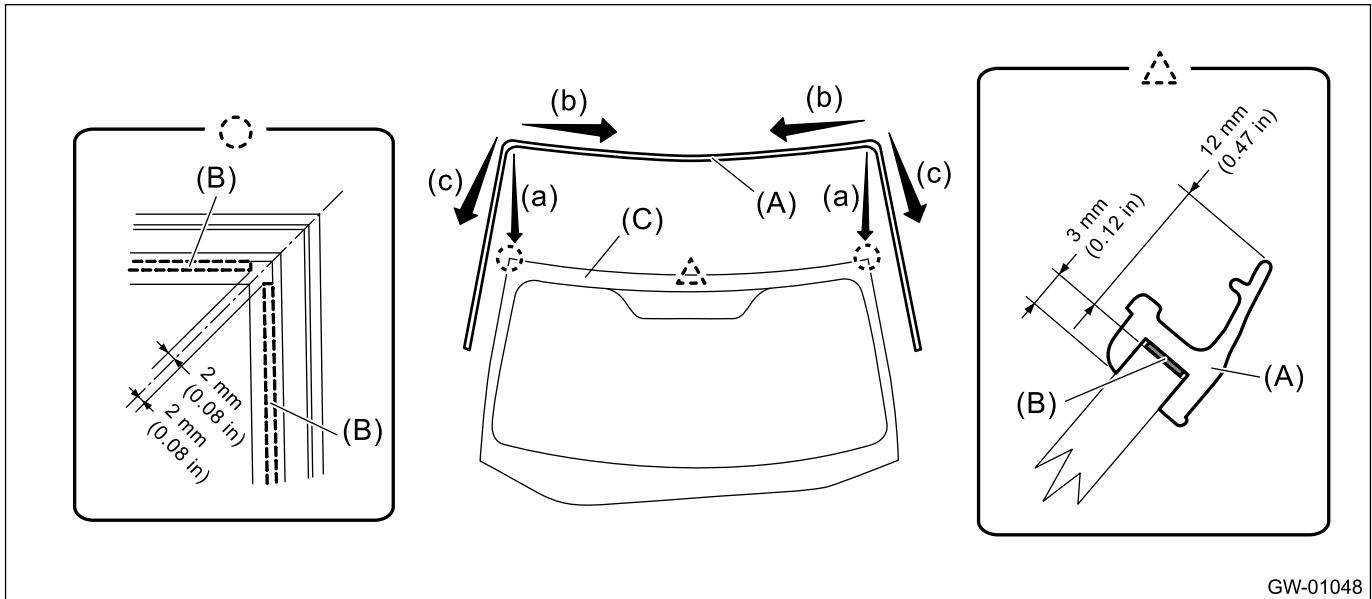
(d) 14.1 mm (0.56 in)

(h) VIN plate confirmation window

5. Attach the molding - front window to the glass - front window.

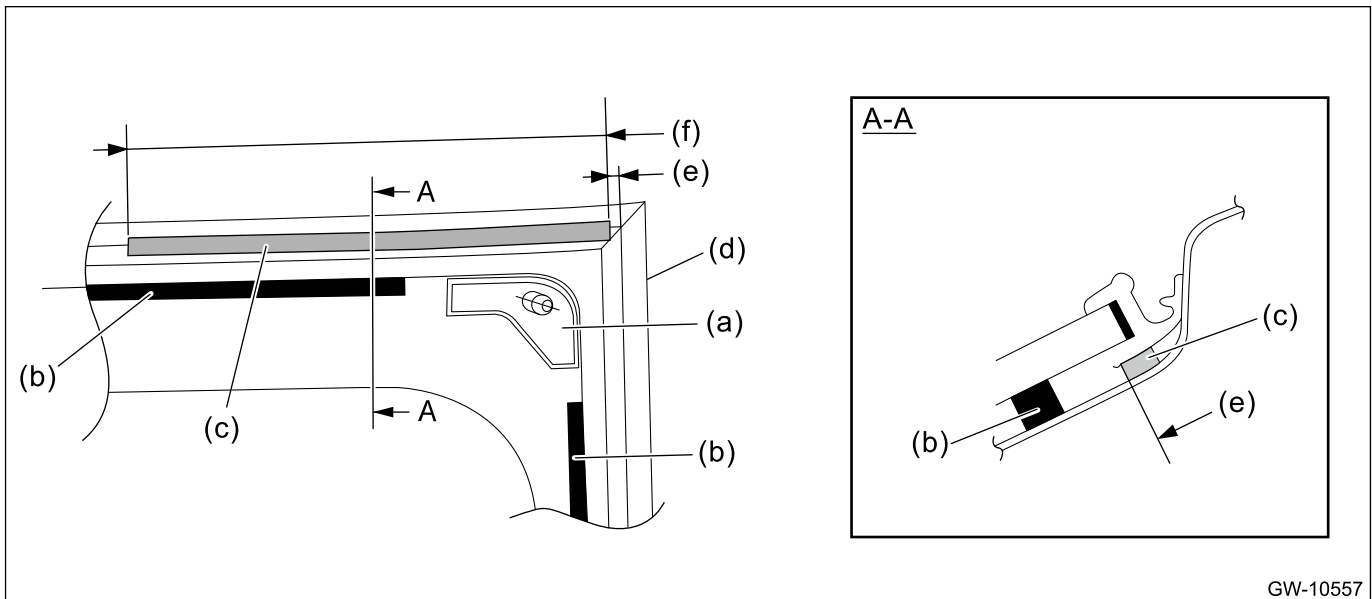
**Caution:**

**Be careful to attach the molding - front window so that the molding has no loose or undulating part.**



- (1) Align the molding - front window (A) to the upper ends (a) of the glass - front window (C).
- (2) Install the molding - front window from both corners of the upper edge toward the center (b).
- (3) Install the molding - front window from both corners of the upper edge toward the lower side (c).
- (4) Firmly apply the double sided tape (B) of the molding - front window evenly to the surface of the glass - front window.

6. Attach the seal - upper to the molding - front window.



(a) Locating pin - front window

(c) Seal - upper

(e) 0+3 mm (0+0.12 in)

(b) Dam rubber - front upper

(d) Molding - front window

(f) 165 mm (6.5 in)

**7.** Install the glass - front window.

(1) Apply the primer to the adhesive surface of glass - front window side and body side using sponge.

**Caution:**

**Do not apply primer to adhesive remaining on the body side.**

**Preparation items:**

Glass primer: Dow Automotive ESSEX U-401, U-402 or equivalent

Painted surface primer: Dow Automotive ESSEX U-413 or equivalent

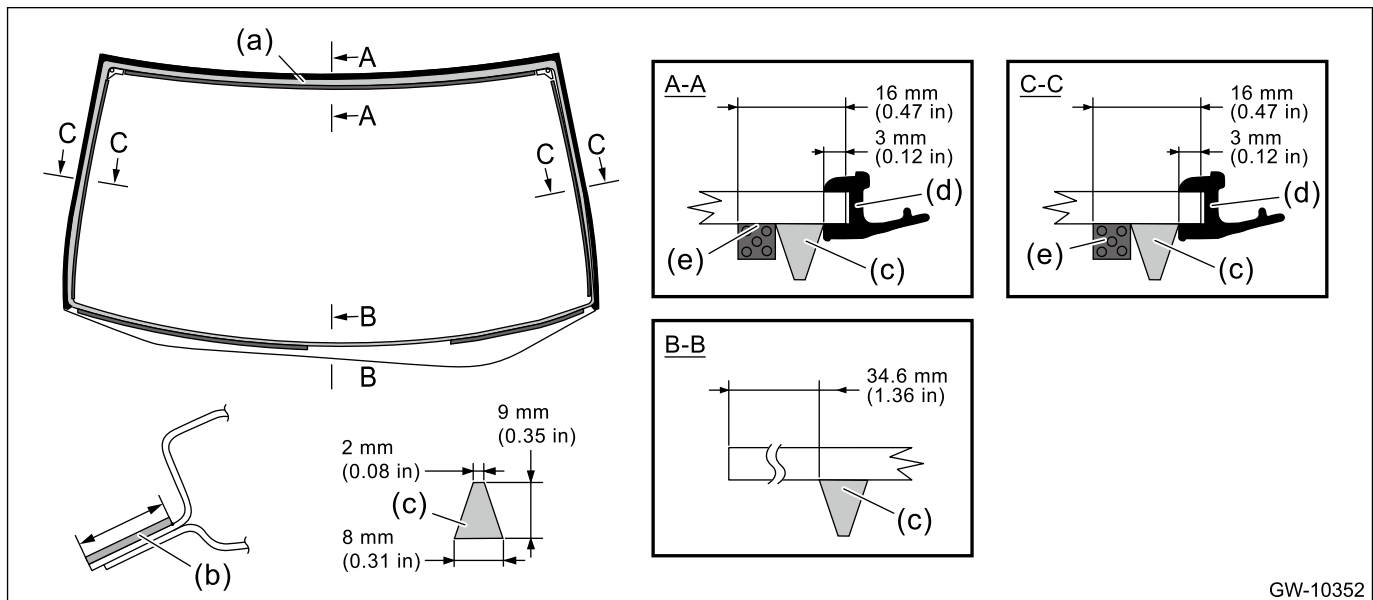
**Note:**

- **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 - front window.**
- **Do not touch the surface coated with primer.**

(2) Apply adhesive to the end back surface of the glass - front window.

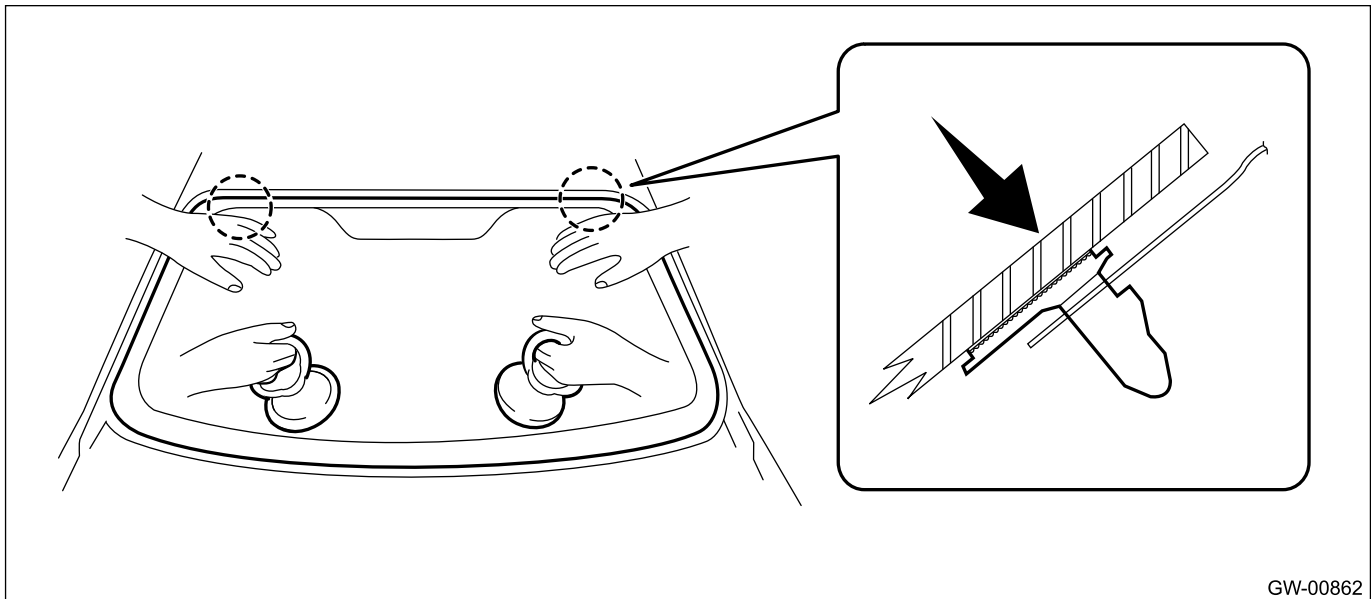
**Preparation items:**

Adhesive: Dow Automotive ESSEX U-400HV or equivalent



- (a) Application of primer (glass side)      (c) Adhesive      (e) Dam rubber - front side)
- (b) Application of primer (body side)      (d) Molding - front window

(3) Fit the locating pins - front window to the vehicle body using suction rubber cups to install the windshield glass.



(4) Lightly press the entire perimeter of the glass - front window for tight fit.

(5) Make flush the adhesive surface juttet out using spatula.


**8.** After completion of all work, allow the vehicle to stand for about 24 hours.

**Note:**


- **When opening/closing the door after the glass - front window was bonded, always lower the glass assembly - door 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.**

**9.** Connect the wiper deicer connector. (Models with wiper deicer)

**10.** Install the cowl panel assembly.  [Ref. to EXTERIOR/INTERIOR TRIM>Cowl Panel>INSTALLATION.](#)

**11.** Install the stereo camera cover assembly and stereo camera assembly. (Models with EyeSight)  [Ref. to EyeSight>Stereo Camera>INSTALLATION.](#)

**12.** Install the trim panel - front pillar UPR.  [Ref. to EXTERIOR/INTERIOR TRIM>Upper Inner Trim>INSTALLATION.](#)

**13.** Connect the battery ground terminal. (Models with wiper deicer)  [Ref. to NOTE>NOTE > BATTERY.](#)

**14.** After curing of adhesive, pour the water on external surface of vehicle to check that there are no water leaks.

**Note:**

**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.**


## GLASS/WINDOWS/MIRRORS > Rear Window Glass

### REMOVAL

1. Disconnect the ground cable from battery.  Ref. to [NOTE>NOTE > BATTERY](#).

#### Note:

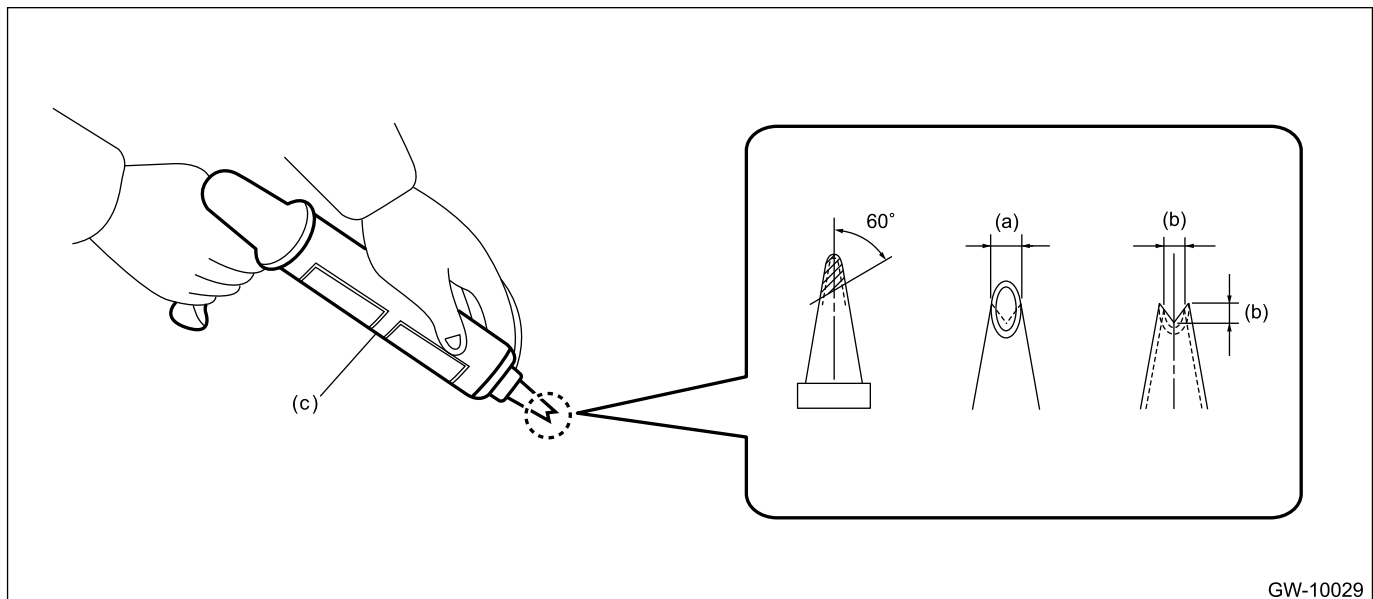
**For model with battery sensor, disconnect the ground terminal from battery sensor.**

2. Disconnect the rear defogger connector.
3. Remove the glass - rear window in the same procedure as for the glass - front window.  Ref. to [GLASS/WINDOWS/MIRRORS>Windshield Glass>REMOVAL](#).

## GLASS/WINDOWS/MIRRORS > Rear Window Glass

### INSTALLATION


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

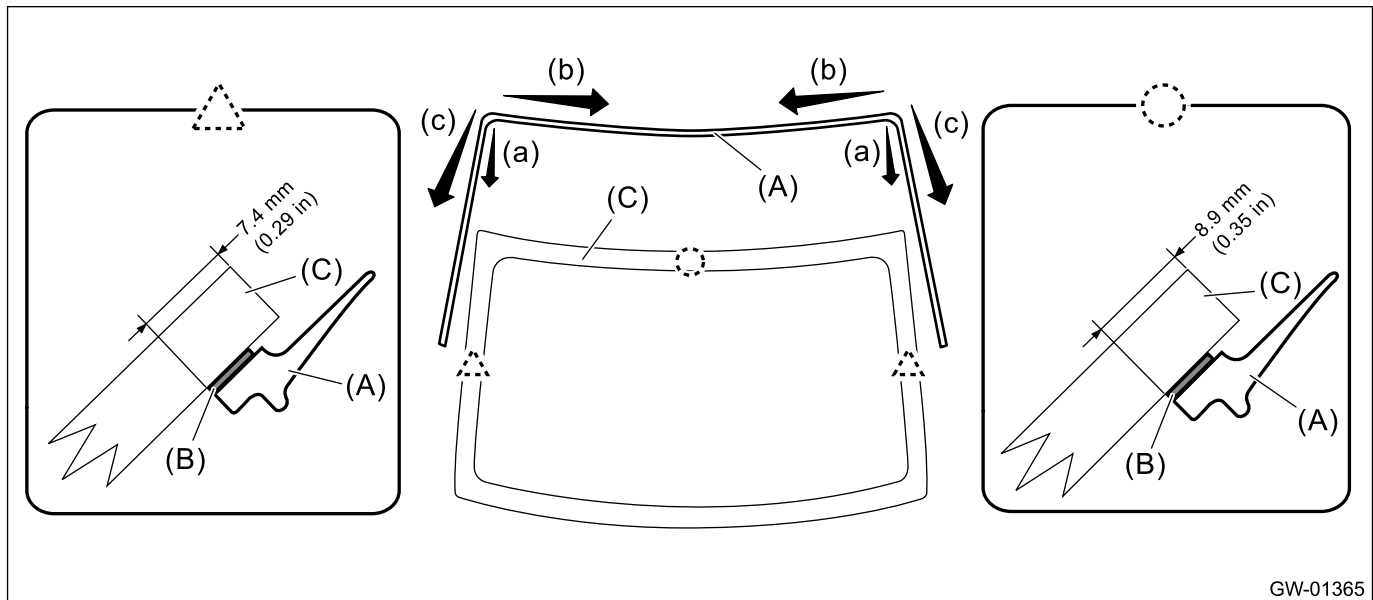
2. Smoothen and clean the adhesive surfaces of the glass - rear window and body using the same procedures as for the glass - front window.  Ref. to [GLASS/WINDOWS/MIRRORS>Windshield Glass>INSTALLATION](#).
3. Attach the dam rubber - rear to the glass - rear window.

- (a) Locating pin - rear window      (c) 21.9 mm (0.86 in)      (d) 10.7 mm (0.42 in)  
 (b) Dam rubber - rear

**4.** Attach the molding - rear window to the glass - rear window.

**Caution:**

**Be careful to attach the molding - rear window so that the molding has no loose or undulating part.**



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- (1) Align the molding - rear window (A) to the upper ends (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.

**5.** Install the glass - rear window in the same procedure as for the glass - front window. [🔗 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) Application of primer (glass side) | (c) Adhesive              | (e) Dam rubber - rear side) |
| (b) Application of primer (body side)  | (d) Molding - rear window |                             |

(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 juttud 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 glass - rear window was bonded, always lower the glass assembly - door 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.

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

**9.** After curing of adhesive, pour the water on external surface of vehicle to check that there are no water leaks.


**Note:**

**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.**

## GLASS/WINDOWS/MIRRORS > Rear Window Defogger System

### WIRING DIAGRAM

---

Refer to "Rear Defogger System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Rear Defogger System>WIRING DIAGRAM.](#)

## GLASS/WINDOWS/MIRRORS > Rear Window Defogger System

### INSPECTION

---

#### 1. SYSTEM INSPECTION

Symptoms	Inspection order
Rear window defogger does not operate.	<ol style="list-style-type: none"><li>1. Check the fuse.</li><li>2. Check the rear defogger relay.</li><li>3. Check the rear window defogger switch.</li><li>4. Check the heat wire.</li><li>5. Check the wiring harness.</li><li>6. Check body integrated unit.</li></ol>

#### Note:

Rear window defogger system can be customized using the Subaru Select Monitor, when the customize setting {Auto A/C Setting} of the body integrated unit is set to {support}.

System name	Initial setting	Customize setting
Rear defogger operation mode	Normal (OFF after 15 min.)	Continuous (Repeat 15 min. operation and 2 min. stop.)

#### 2. CHECK WITH SUBARU SELECT MONITOR

#### Caution:

Before performing inspection, check whether the rear defogger operation mode setting is either in initial setting or customize setting.

1. Check the input signal when the rear window defogger switch is operated using Subaru Select Monitor.

(1) Connect the Subaru Select Monitor.

#### Note:

For detailed operation procedures, refer to "Application help".

(2) Turn the ignition switch to ON.

(3) On «Start» display, select «Diagnosis».

(4) On «Vehicle selection» display, input the target vehicle information and select «Confirmed».

(5) On «Main Menu» display, select «Each System».

(6) On «Select System» display, select «Body Control» and then select «Enter».

(7) On «Select Function» display, select «Data Monitor».

(8) From the data monitor item list, select «Auto A/C Setting».

(9) Check the vehicle equipment and the settings of body integrated unit.

If correct, go to (12).

If not correct, go to (10).

(10) On «Select Function» display, select «Customize».

(11) From the Customize item list, select «Auto A/C Setting» and match the auto A/C ECM setting to the actual vehicle equipment.

(12) From the data monitor item list, select «Rr Defogger output».

(13) Check the displayed data (ON/OFF) by operating the rear window defogger switch.

**2.** Check input of the body integrated unit.

(1) Check the operation with rear window defogger switch ON.

- When customize setting is set as "Continuous", it is normal if the 15-minute operation and 2-minute stop repeats.
- When customize setting is "Normal", it is normal if the operation lasts for 15 minutes and then turns OFF.

Does it operate properly?

If OK, normal

If NG, go to (3)


**3.** Check the body integrated unit.

(1) Read the DTC of body integrated unit using Subaru Select Monitor.

**Note:**


**For detailed operation procedures, refer to "Application help".**

Is DTC displayed?

If displayed,  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Read Diagnostic Trouble Code \(DTC\)>OPERATION.](#)

If not displayed, go to (4)

**4.** Check the fuse and relay.

(1) Check F/B fuse No. 7, F/B fuse No. 12, M/B fuse No. 10 and rear defogger relay.  [Ref. to GLASS/WINDOWS/MIRRORS>Relay and Fuse>INSPECTION.](#)

Is the check result OK?

If OK, go to (5)

If NG, replace the defective fuse or relay.

**5.** Check the harness.

(1) Remove the rear window defogger relay.

(2) Measure the voltage between relay holder and chassis ground.

**Connector & terminal**

(B145) No. 7 (+) — Chassis ground (-):

(B186) No. 8 (+) — Chassis ground (-):

Is the voltage 8.5 — 16.5 V?

If OK, go to (6)

If NG, repair or replace the harness.

**6.** Check the harness.

(1) Remove the rear window defogger relay.

(2) Disconnect the connector of body integrated unit and rear window defogger.

(3) Check the harness between the relay holder and the body integrated unit connector.

(4) Check the harness between the relay holder and the rear window defogger connector.

**Connector & terminal**

**Body integrated unit side**

(B280) No. 26 — (i232) No. 1:

Rear window defogger side:

(i88) No. 20 — (i232) No. 1:

Is harness normal?

If OK, go to (7)

If NG, repair or replace the harness.

**7.** Check the harness.

(1) Check the harness between the rear window defogger connector and the chassis ground.

**Connector & terminal**

(i88) No. 19 (+) — Chassis ground (-):

Is harness normal?

If OK, replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

If NG, repair or replace the harness.

### 3. HEAT WIRE INSPECTION

**Caution:**

**Use a dry soft cloth to wipe off dirt on the glass along the heat wires with care not to damage the heat wires.**

**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

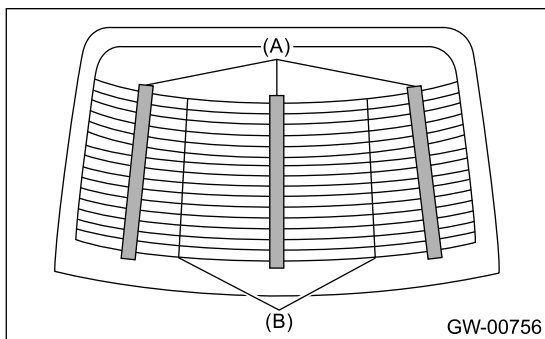
**2.** Turn the ignition switch to ON.

**3.** Turn the defogger switch to ON.

**4.** Push the liquid crystal thermograph sheet from the outside of the glass - rear window.

**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.

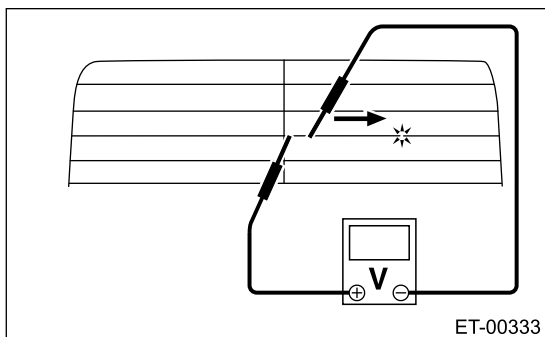
Liquid crystal thermograph sheet	Criteria
Change occurred (red → blue)	Normal
No change (black)	Open


**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.
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. To both ends of the section that has been found to include an open in the step 5), apply the tester positive (+) probe and the negative (-) probe.
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

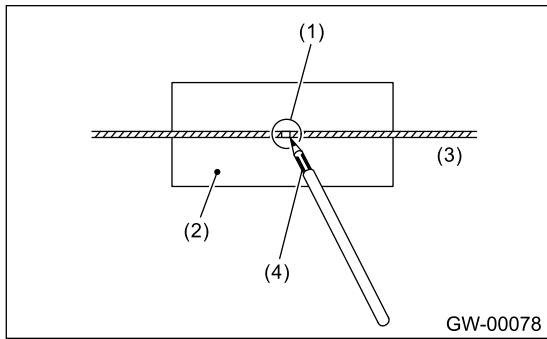
### REPAIR

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1. Clean the broken portion with alcohol or appropriate cleaning solvent.
2. Mask both side of wire with masking tape.
3. Apply the conductive silver composition to the broken portion.

**Preparation items:**

Conductive silver composition: Permatex QUICK GRID




- (1) Broken portion
- (2) Masking tape
- (3) Broken wire
- (4) Conductive silver composition

- 4.** Dry using a dryer after applying the composition.
- 5.** After repair, check the wire.

## GLASS/WINDOWS/MIRRORS > Wiper Deicer System

### WIRING DIAGRAM

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Refer to "Wiper Deicer System" in the wiring diagram.  [Ref. to WIRING SYSTEM>Wiper Deicer System.](#)

## GLASS/WINDOWS/MIRRORS > Wiper Deicer System

### INSPECTION

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#### 1. SYSTEM INSPECTION

##### Note:

- The wiper deicer does not operate when the ambient temperature becomes 5°C (41°F) or more.
- The wiper deicer operates with the rear window defogger at the same time.
- It is possible to perform a forced operation if you keep holding the rear window defogger switch for 3 seconds or more.

Symptoms	Inspection order
Wiper deicer does not operate.	<ol style="list-style-type: none"><li>1. Check the fuse.</li><li>2. Check the wiper deicer relay.</li><li>3. Check the wiper deicer switch.</li><li>4. Check the heat wire.</li><li>5. Check the wiring harness.</li><li>6. Check body integrated unit.</li></ol>

##### Note:

- Wiper deicer system can be customized using the Subaru Select Monitor, when the customize setting {Auto A/C Setting} of the body integrated unit is set to {support}.
- Set the system using the rear defogger operation mode, and setting will be the same as rear defogger system setting.

System name	Initial setting	Customize setting
Rear defogger operation mode	Normal (OFF after 15 min.)	Continuous (continuous operation*)

\*: When one of the following conditions occurs, continuous operation is suspended and turned off after 15 minutes.

- Ambient temperature at 5°C (41°F) or more continues for 10 seconds.
- Malfunction on ambient sensor continues for 10 seconds.
- Vehicle speed less than 15 km/h (9 MPH)
- Malfunction in CAN communication continues for 10 seconds
- Battery voltage remains at 10 V or less for 30 seconds.
- SI-DRIVE [I] mode driving continues for 10 seconds.

#### 2. CHECK WITH SUBARU SELECT MONITOR

**Caution:**

**Before performing the inspection, check the following settings.**

- **Wiper deicer setting → "support". If "no support", set to "support" using customize setting.**
- **Rear defogger operation mode setting → initial setting or customize setting.**

**1.** Check the input signal when the rear window defogger switch is operated using Subaru Select Monitor.

(1) Connect the Subaru Select Monitor to data link connector.

**Note:**

**For detailed operation procedures, refer to "Application help".**

(2) Turn the ignition switch to ON.

(3) On «Start» display, select «Diagnosis».

(4) On «Vehicle selection» display, input the target vehicle information and select «Confirmed».

(5) On «Main Menu» display, select «Each System».

(6) On «Select System» display, select «Body Control» and then select «Enter».

(7) On «Select Function» display, select «Data Monitor».

(8) From the data monitor item list, select «Auto A/C Setting».

(9) Check the vehicle equipment and the settings of body integrated unit.

If correct, go to (12).

If not correct, go to (10).

(10) On «Select Function» display, select «Customize».

(11) From the Customize item list, select «Auto A/C Setting» and match the auto A/C ECM setting to the actual vehicle equipment.

(12) From the data monitor item list, select «Rr Defogger output».

(13) Check the displayed data (ON/OFF) by operating the rear window defogger switch.

**2.** Check input of the body integrated unit.

(1) Check the operation with rear window defogger switch ON.

- When the customize setting is set as "Continuous", the operation continues for two minutes without stopping.
- When customize setting is "Normal", it is normal if the operation lasts for 15 minutes and then stops.

Does it operate properly?

If OK, normal

If NG, go to (3)


**3.** Check the body integrated unit.

(1) Read the DTC of body integrated unit using Subaru Select Monitor.

**Note:**

**For detailed operation procedures, refer to "Application help".**

Is DTC displayed?

If displayed,  [Ref. to BODY CONTROL SYSTEM \(DIAGNOSTICS\)>Read Diagnostic Trouble Code \(DTC\)>OPERATION.](#)

If not displayed, go to (4)

**4.** Check the fuse and relay.

(1) Check F/B fuse No. 4, F/B fuse No. 7, F/B fuse No. 9, F/B fuse No. 12 and the wiper deicer relay.

 [Ref. to GLASS/WINDOWS/MIRRORS>Relay and Fuse>INSPECTION.](#)

Is the check result OK?

If OK, go to (5)

If NG, replace the defective fuse or relay.

**5.** Check the harness.

(1) Remove the wiper deicer relay.

(2) Measure the voltage between relay holder and chassis ground.

**Connector & terminal**

(B220) No. 33 (+) — Chassis ground (–):

(B220) No. 34 (+) — Chassis ground (–):

Is the voltage 8.5 — 16.5 V?

If OK, go to (6)

If NG, repair or replace the harness.

**6.** Check the harness.

(1) Remove the wiper deicer relay.

(2) Disconnect the connector of body integrated unit and wiper deicer.

(3) Check the harness between the relay holder and the body integrated unit connector.

(4) Check the harness between the relay holder and the wiper deicer connector.

**Connector & terminal**

**Body integrated unit side**

(B220) No. 35 — (i171) No. 9:

Wiper deicer side:

(B220) No. 32 — (B177) No. 2:

Is harness normal?

If OK, go to (7)

If NG, repair or replace the harness.

**7.** Check the harness.

(1) Check the harness between the wiper deicer connector and the chassis ground.

**Connector & terminal**

(B177) No. 1 (+) — Chassis ground (–):

Is harness normal?

If OK, replace the body integrated unit.  [Ref. to SECURITY AND LOCKS>Body Integrated Unit.](#)

If NG, repair or replace the harness.

### 3. HEAT WIRE INSPECTION

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

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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***

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## 1. General Description

## BODY STRUCTURE > General Description

### **SPECIFICATION**

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Refer to "IMPREZA Body Repair Manual" for general description of body structure, reference points and reference dimensions.