

# General Description

## LIGHTING SYSTEM

### 1. General Description

#### A: SPECIFICATION

Headlight	Halogen type low beam		12 V — 55 W
	Halogen type high beam		12 V — 60 W
Front turn signal, parking, front side marker light			12 V — 27/8 W
Front fog light	OUTBACK		12 V — 51 W
	Except for OUTBACK		12 V — 55 W
Side turn signal light			12 V — 2.7 W (LED)
Rear combination light	Stop/tail light		12 V — 21/5 W
	Turn signal light		12 V — 21 W
	Wagon	Rear side marker light	12 V — 5 W
Back-up light	Sedan		12 V — 16 W
	Wagon		12 V — 16 W
License plate light			12 V — 5 W
High-mounted stop light	Sedan		12 V — 21 W
	Wagon		12 V — 1.3 W (LED)
Room light			12 V — 8 W
Spot map light			12 V — 8 W
Luggage room light			12 V — 13 W
Trunk room light			12 V — 5 W
Glove box light			12 V — 1.4 W
Door step light			12 V — 3.5 W

#### B: CAUTION

- Before removing or installing parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory will be erased.
- Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
- Adjust parts to the given specifications.
- Connect the connectors securely during reassembly.

#### C: PREPARATION TOOL

##### 1. GENERAL TOOL

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

- After reassembly, make sure functional parts operate smoothly.

#### WARNING:

- **The air bag system wiring harness is routed near electrical parts and switches. All air bag system wiring harnesses and connectors are yellow. Do not use the electrical test equipment on these circuits.**
- **Be careful not to damage the air bag system wiring harness when servicing electrical parts and switches.**

## 2. Headlight and Tail Light System

### A: WIRING DIAGRAM

#### 1. HALOGEN TYPE HEADLIGHT

<Ref. to WI-141, WIRING DIAGRAM, Headlight System.>

#### 2. CLEARANCE LIGHT AND ILLUMINATION LIGHT

<Ref. to WI-147, WIRING DIAGRAM, Clearance Light and Illumination Light System.>

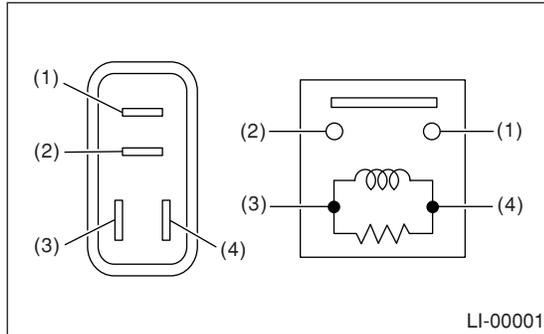
### B: INSPECTION

#### 1. HEADLIGHT SWITCH

<Ref. to LI-9, INSPECTION, Combination Switch (Light).>

#### 2. HEADLIGHT RELAY

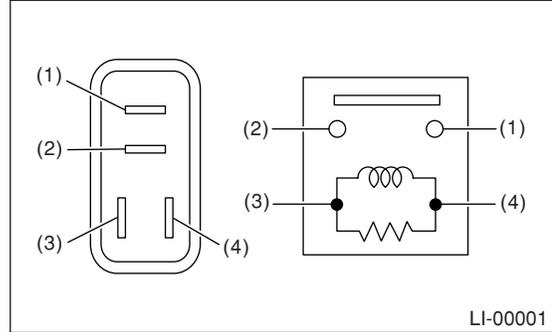
Measure the resistance between headlight relay terminals when connecting terminal No. 4 to battery positive terminal and terminal No. 3 to battery ground terminal.



Current	Terminal No.	Standard
Flow	1 and 2	Less than 1 Ω
No flow		More than 1 MΩ

#### 3. TAIL AND ILLUMINATION RELAY

Measure the resistance between tail and illumination relay terminals when connecting terminal No. 4 to battery positive terminal and terminal No. 3 to battery ground terminal.



Current	Terminal No.	Standard
Flow	1 and 2	Less than 1 Ω
No flow		More than 1 MΩ

## 3. Front Fog Light System

### A: WIRING DIAGRAM

#### 1. FRONT FOG LIGHT

<Ref. to WI-144, WIRING DIAGRAM, Front Fog Light System.>

### B: INSPECTION

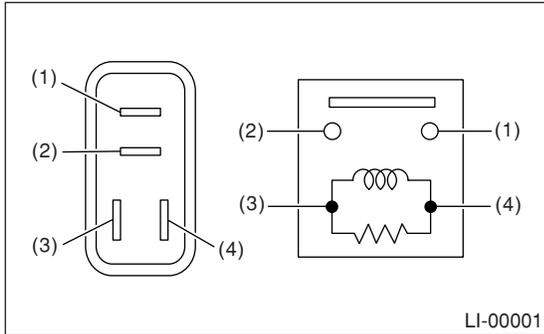
#### 1. FRONT FOG LIGHT SWITCH

Measure the resistance between front fog light switch terminals.

<Ref. to LI-9, INSPECTION, Combination Switch (Light).>

#### 2. FRONT FOG LIGHT RELAY

Measure the resistance between front fog light relay terminals when connecting terminal No. 4 to battery positive terminal and terminal No. 3 to battery ground terminal.



Current	Terminal No.	Standard
Flow	1 and 2	Less than 1 Ω
No flow		More than 1 MΩ

## 4. Turn Signal Light and Hazard Light System

### A: WIRING DIAGRAM

#### 1. TURN SIGNAL LIGHT AND HAZARD LIGHT SYSTEM

<Ref. to WI-151, WIRING DIAGRAM, Turn Signal Light and Hazard Light System.>

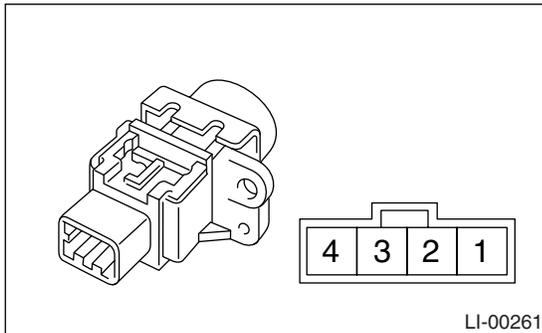
### B: INSPECTION

#### 1. TURN SIGNAL SWITCH

<Ref. to LI-9, INSPECTION, Combination Switch (Light).>

#### 2. HAZARD SWITCH

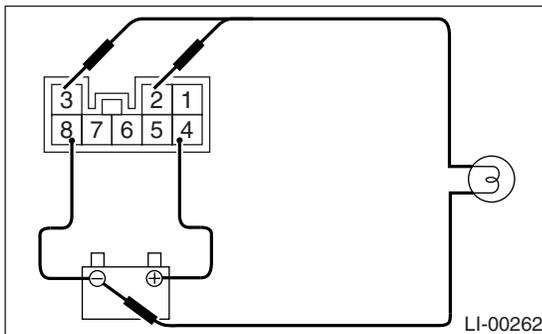
Measure the resistance between hazard switch terminals.



Switch position	Terminal No.	Standard
OFF	2 and 3	More than 1 MΩ
ON		Less than 1 Ω

#### 3. TURN SIGNAL LIGHT AND HAZARD LIGHT MODULE

Connect the battery and turn signal light bulb to the module. The module is properly functioning if it blinks when power is supplied to the circuit.



# Back-up Light System

LIGHTING SYSTEM

## 5. Back-up Light System

### A: WIRING DIAGRAM

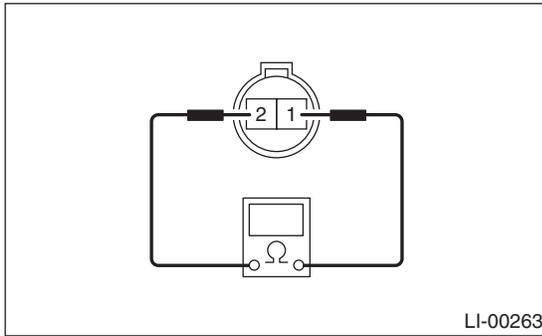
#### 1. BACK-UP LIGHT

<Ref. to WI-145, WIRING DIAGRAM, Back-up Light System.>

### B: INSPECTION

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

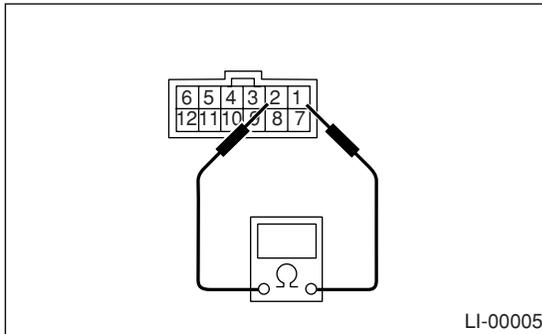
Measure the resistance between back-up light switch terminals.



Switch position	Terminal No.	Standard
When shift lever is set in reverse position	1 and 2	Less than 1 $\Omega$
Other positions		More than 1 M $\Omega$

#### 2. INHIBITOR SWITCH (4AT MODEL)

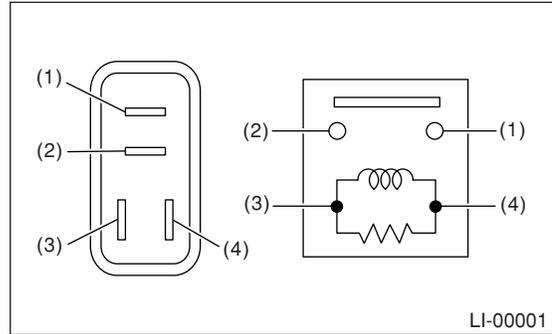
Measure the resistance between inhibitor switch terminals.



Switch position	Terminal No.	Standard
When the selector lever is in "R" range	1 and 2	Less than 1 $\Omega$
Other positions		More than 1 M $\Omega$

#### 3. BACK-UP LIGHT RELAY (5AT MODEL)

Measure the resistance between back-up light relay terminals when connecting terminal No. 4 to battery positive terminal and terminal No. 3 to battery ground terminal.



Current	Terminal No.	Standard
Flow	1 and 2	Less than 1 $\Omega$
No flow		More than 1 M $\Omega$

#### NOTE:

Check other than back-up light relay. <Ref. to 4AT-48, INSPECTION, Inhibitor Switch.>

## 6. Stop Light System

### A: WIRING DIAGRAM

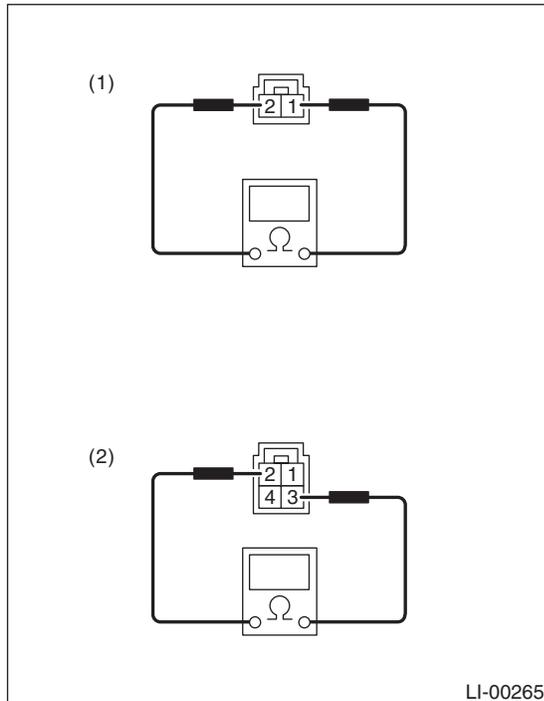
#### 1. STOP LIGHT

<Ref. to WI-146, WIRING DIAGRAM, Stop Light System.>

### B: INSPECTION

#### 1. STOP LIGHT SWITCH

Measure the resistance between stop light switch terminals.



(1) Model without cruise control

(2) Model with cruise control

Switch position	Terminal No.	Standard
When brake pedal is depressed	Model without cruise control: 1 and 2	Less than 1 Ω
When brake pedal is released	Model with cruise control: 2 and 3	More than 1 MΩ

# Room Light System

LIGHTING SYSTEM

## 7. Room Light System

### A: WIRING DIAGRAM

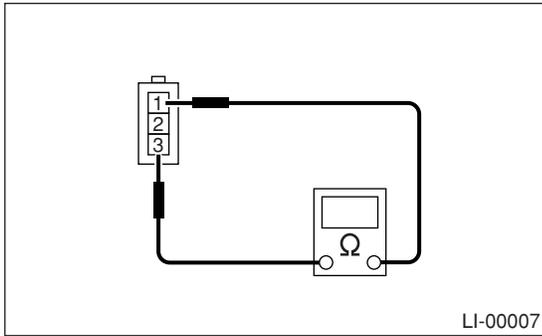
#### 1. ROOM LIGHT

<Ref. to WI-153, WIRING DIAGRAM, Interior Light System.>

### B: INSPECTION

#### 1. DOOR SWITCH

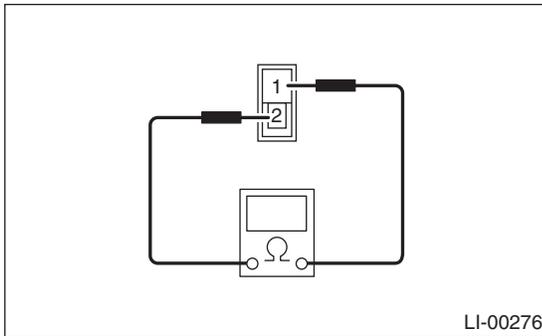
Measure the resistance between door switch terminals.



Switch position	Terminal No.	Standard
When door is opened	1 and 3	Less than 1 $\Omega$
When door is closed		More than 1 M $\Omega$

#### 2. REAR GATE LATCH SWITCH

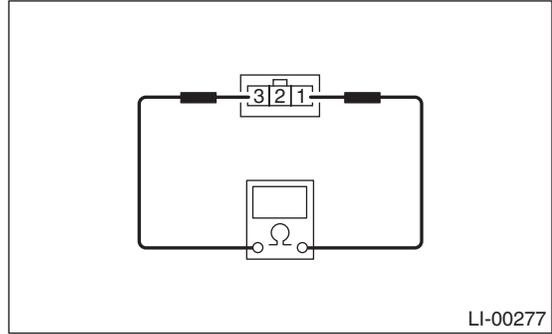
Measure the resistance between rear gate latch switch terminals.



Switch position	Terminal No.	Standard
When rear gate is opened	1 and 2	Less than 1 $\Omega$
When rear gate is closed		More than 1 M $\Omega$

#### 3. TRUNK ROOM LIGHT SWITCH

Measure the resistance between trunk room light switch terminals.

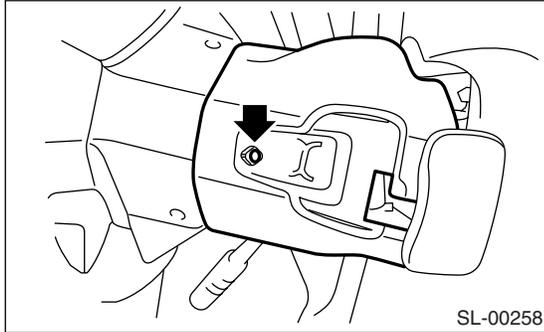


Switch position	Terminal No.	Standard
When trunk lid is opened	1 and 3	Less than 1 $\Omega$
When trunk lid is closed		More than 1 M $\Omega$

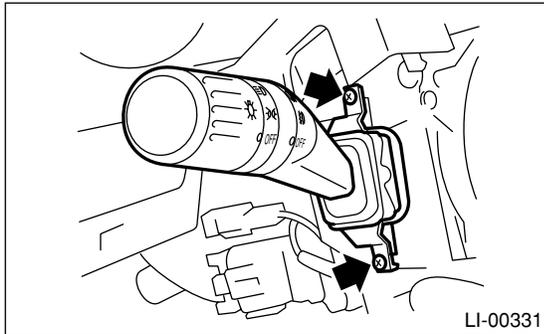
## 8. Combination Switch (Light)

### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the instrument panel lower cover. <Ref. to EI-56, REMOVAL, Instrument Panel Assembly.>
- 3) Remove the screws and remove the steering column cover (upper and lower).



- 4) Disconnect the connector from combination switch.
- 5) Remove the screws which secure switch, then remove the combination switch.

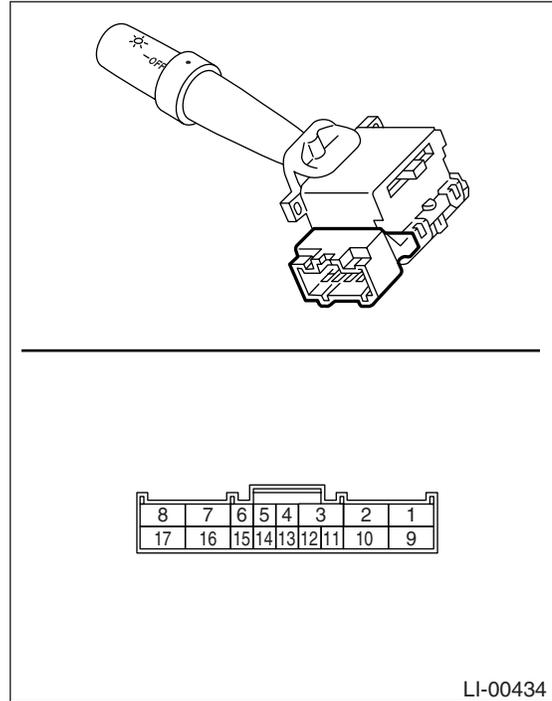


### B: INSTALLATION

Install in the reverse order of removal.

### C: INSPECTION

Measure the resistance between combination switch terminals.



#### 1. LIGHTING SWITCH

Switch position	Terminal No.	Standard
OFF	—	More than 1 MΩ
Tail	14 and 16	Less than 1 Ω
Head	13, 14 and 16	Less than 1 Ω

#### 2. DIMMER & PASSING SWITCH

Switch position	Terminal No.	Standard
Passing	7, 8 and 16	Less than 1 Ω
Low beam	17 and 16	Less than 1 Ω
High beam	7 and 16	Less than 1 Ω

#### 3. TURN SIGNAL SWITCH

Switch position	Terminal No.	Standard
Left	1 and 2	Less than 1 Ω
Neutral	—	More than 1 MΩ
Right	2 and 3	Less than 1 Ω

#### 4. FRONT FOG LIGHT

Switch position	Terminal No.	Standard
OFF	—	More than 1 MΩ
ON	10 and 11	Less than 1 Ω

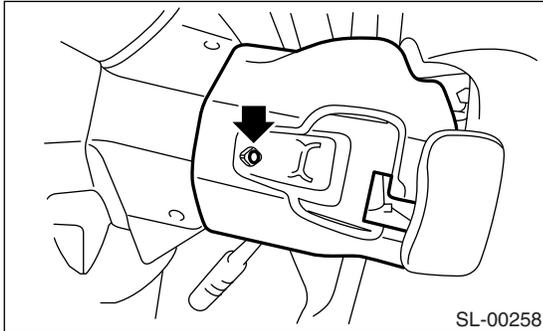
# Combination Base Switch Assembly

LIGHTING SYSTEM

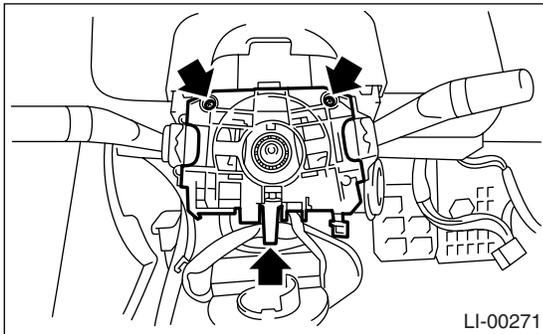
## 9. Combination Base Switch Assembly

### A: REMOVAL

- 1) Remove the driver's airbag module. <Ref. to AB-16, REMOVAL, Driver's Airbag Module.>
- 2) Remove the steering wheel. <Ref. to PS-14, REMOVAL, Steering Wheel.>
- 3) Remove the screws and remove the steering column lower cover.



- 4) Remove the combination switch. <Ref. to LI-9, REMOVAL, Combination Switch (Light).> <Ref. to WW-6, REMOVAL, Combination Switch (Wiper).>
- 5) Remove the four screws and remove the roll connector.
- 6) Remove the three screws.



- 7) Disconnect the connector and remove the combination base switch assembly.

### B: INSTALLATION

- 1) Install in the reverse order of removal.
- 2) Before installing steering wheel, be sure the direction of roll connector is adjusted with steering. <Ref. to AB-25, ADJUSTMENT, Roll Connector.>

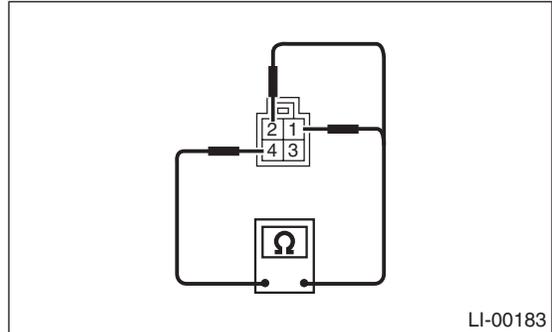
### C: INSPECTION

#### 1. COMBINATION BASE SWITCH ASSEMBLY

Inspect the combination base switch assembly and roll connector for crack or deformation. If any damage is found, replace with a new one.

## 2. PARKING SWITCH

Measure the resistance between parking switch terminals.

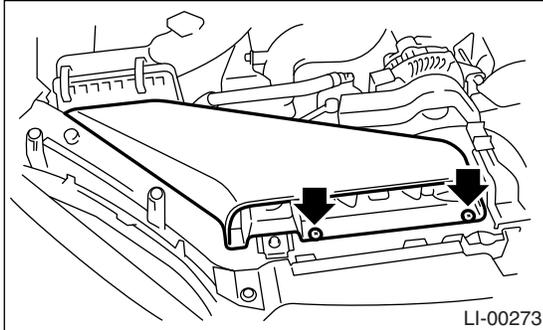


Switch position	Terminal No.	Standard
OFF	2 and 4	Less than 1 $\Omega$
ON	1 and 4	Less than 1 $\Omega$

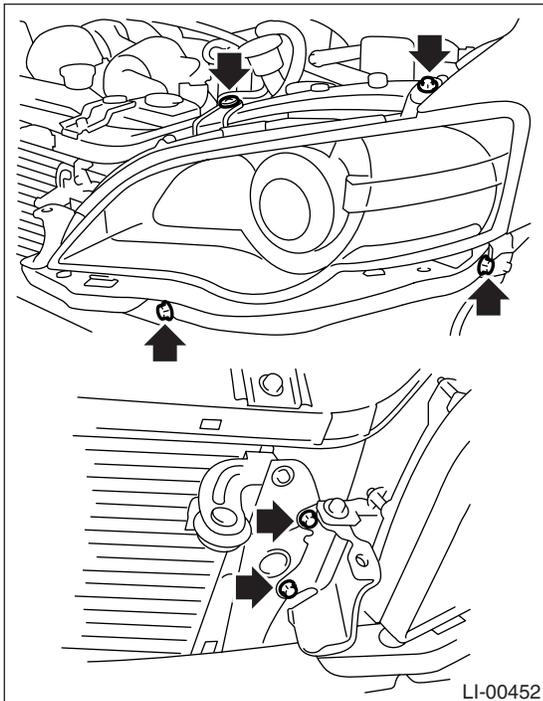
## 10. Headlight Assembly

### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the air intake duct. (When removing the headlight RH)



- 3) Remove the front grille. <Ref. to EI-24, REMOVAL, Front Grille.>
- 4) Remove the front bumper. <Ref. to EI-30, REMOVAL, Front Bumper.>
- 5) Disconnect each harness connector.
- 6) Remove the 5 bolts, disengage the clip, and then detach the headlight assembly.



### B: INSTALLATION

Install in the reverse order of removal.

### C: ADJUSTMENT

#### 1. HEADLIGHT AIMING

##### NOTE:

Aiming of this headlight can be adjusted only in the vertical direction. It cannot be adjusted in the horizontal direction.

##### CAUTION:

Turn off the light before adjusting headlight beam level. If the light is necessary to check aiming, do not turn on for more than two minutes.

##### NOTE:

Before checking the headlight beam level, be sure of the following:

- The area around the headlight has not sustained any accident, damage or other type of deformation.
- Vehicle is parked on a level surface.
- The inflation pressure of tires is correct.
- Vehicle's fuel tank is fully filled.

1) Bounce the vehicle several times to normalize the suspension.

2) Make certain that someone is seated in the driver's seat.

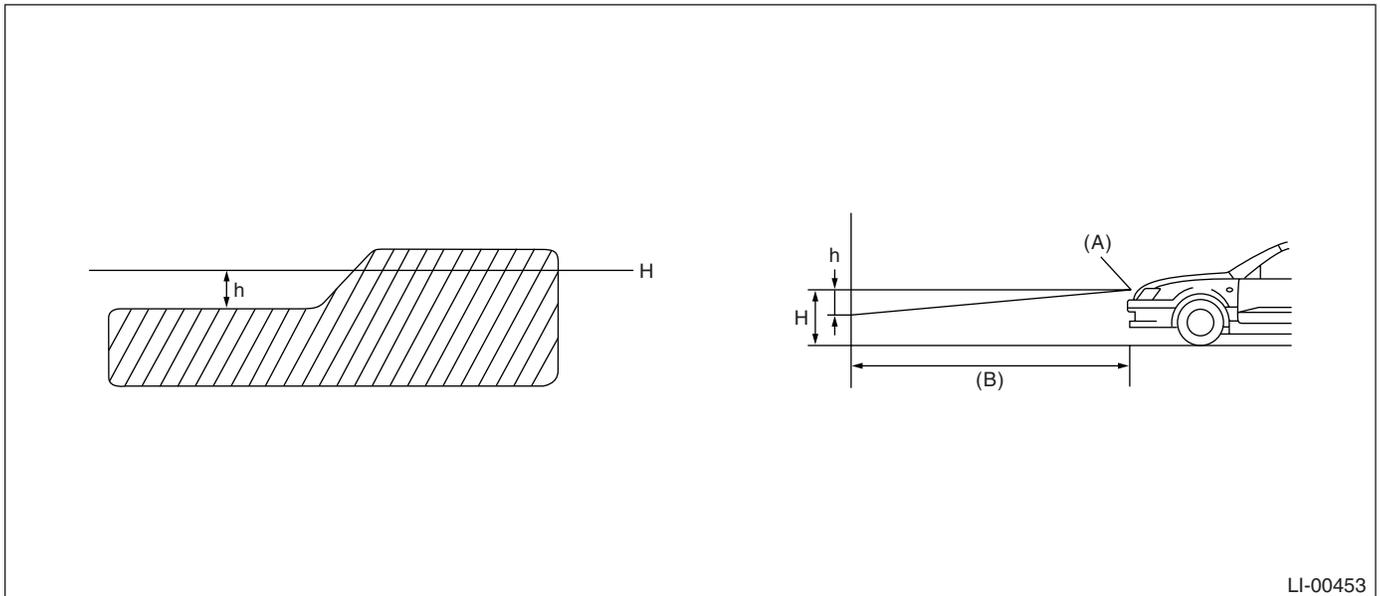
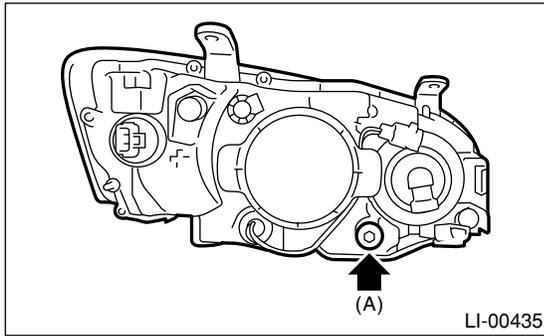
3) Turn the headlights on and then adjust the low beam pattern.

# Headlight Assembly

## LIGHTING SYSTEM

### NOTE:

Adjust the headlight aiming by turning the adjusting screw (A).



(A) Bulb center marking

(B) 3 m (10 ft)

H mm (in)				h mm (in) at 3 m (10 ft)
Sedan		Wagon		
Except for OUTBACK	OUTBACK	Except for OUTBACK	OUTBACK	21 (0.83)
640 (25.20)	707 (27.83)	637 (25.08)	707 (27.83)	

## 11. Headlight Bulb

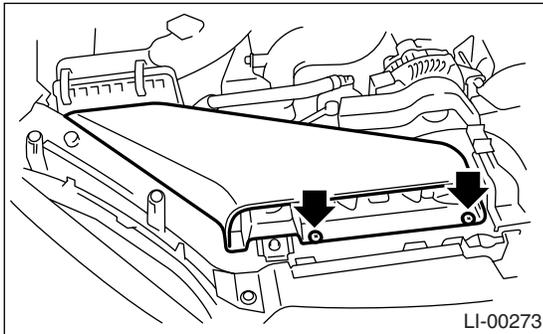
### A: REMOVAL

#### 1. HIGH BEAM AND LOW BEAM

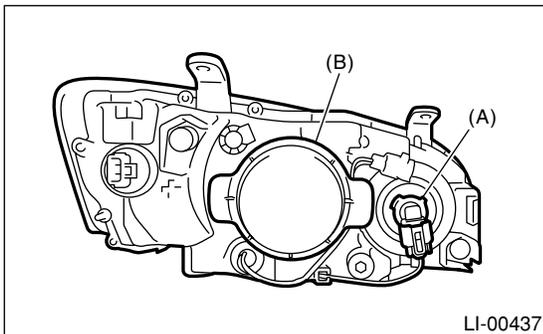
##### CAUTION:

- Because the halogen bulb operates at a high temperature, dirt and oil on the bulb surface reduces the bulb's service life. Hold the flange portion when replacing the bulb. Never touch the glass portion.
- Do not leave the headlight without a bulb for a long time. Dust, moisture, etc. entering the headlight may affect its performance.

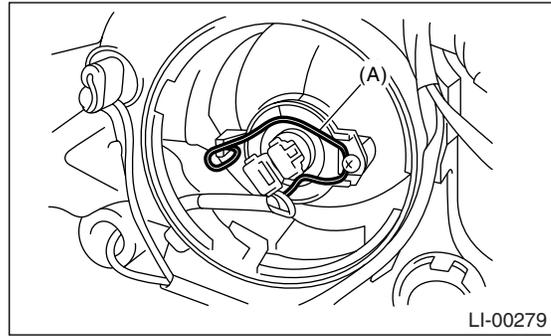
- 1) Disconnect the ground cable from battery.
- 2) Remove the air intake duct. (When removing the headlight bulb RH).



- 3) Remove the battery cover. (When removing the headlight bulb LH).
- 4) Tilt the washer tank filler neck. (When removing the headlight bulb LH).
- 5) Disconnect the harness connector.
- 6) Remove the bulb assembly (A) to remove high beam. To remove the low beam, remove the back cover (B), and then go to Step 7.



- 7) Remove the light bulb retaining spring (A) to remove bulb.



### B: INSTALLATION

Install in the reverse order of removal.

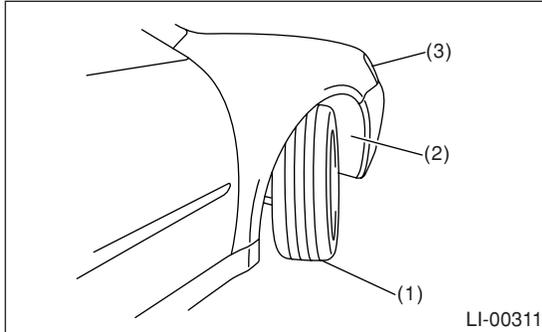
### C: INSPECTION

- 1) Visually check the bulb for blow out.
- 2) Check the bulb specification.  
<Ref. to LI-2, SPECIFICATION, General Description.>
- 3) If NG, replace the bulb with a new one.

## 12. Front Turn Signal Light Bulb

### A: REMOVAL

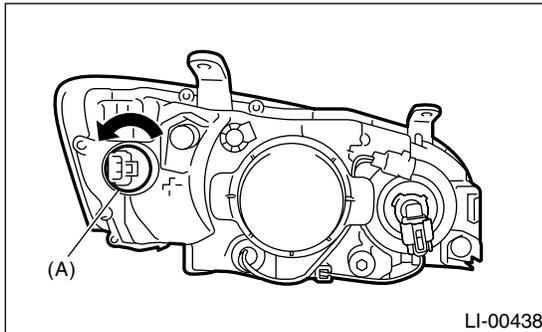
1) When removing the turn signal light bulb, fully turn the steering wheels to opposite direction from desired turn signal light bulb.



- (1) Turn the steering wheel fully.
- (2) Mud guard
- (3) Front turn signal light

2) Turn the mud guard inward.

3) Turn the socket (A) from wheel arch part, and then remove the front turn signal light bulb.



### CAUTION:

**For 5AT model, remove the turn signal light bulb LH from engine compartment with removing battery, because it can not be removed from wheel arch part.**

### B: INSTALLATION

Install in the reverse order of removal.

### C: INSPECTION

- 1) Visually check the bulb for blow out.
- 2) Check the bulb specification.  
<Ref. to LI-2, SPECIFICATION, General Description.>
- 3) If NG, replace the bulb with a new one.

## 13. Parking Light Bulb

### A: SPECIFICATION

The parking light bulb is integrated into front turn signal light bulb as a unit; therefore, refer to "Front Turn Signal Light Bulb" for removal procedure.  
<Ref. to LI-14, REMOVAL, Front Turn Signal Light Bulb.>

### **14.Front Side Marker Light Bulb**

#### **A: SPECIFICATION**

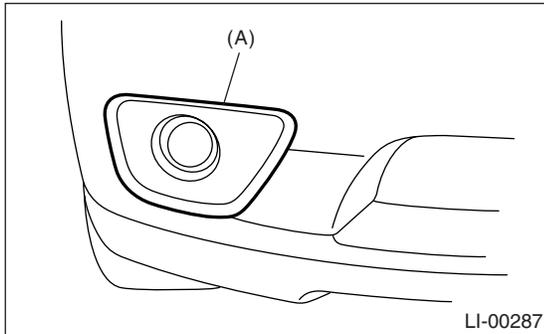
The front marker light bulb is integrated into front turn signal light bulb as a unit; therefore, refer to "Front Turn Signal Light Bulb" for removal procedure. <Ref. to LI-14, REMOVAL, Front Turn Signal Light Bulb.>

## 15. Front Fog Light Assembly

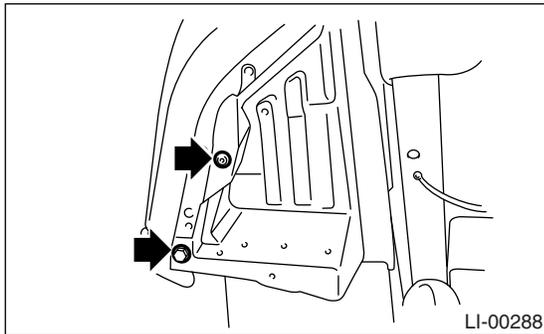
### A: REMOVAL

#### 1. EXCEPT FOR OUTBACK MODEL

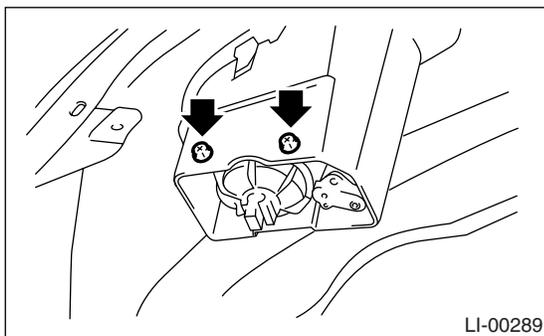
- 1) Disconnect the ground cable from battery.
- 2) Remove the front fog light cover (A).



- 3) Disengage the two clips, and then turn over the lower mud guard.



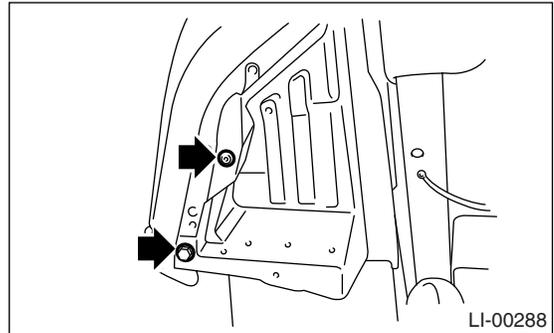
- 4) Disconnect the harness connector.
- 5) Remove the mounting bolts, and then detach the fog light assembly by pulling it.



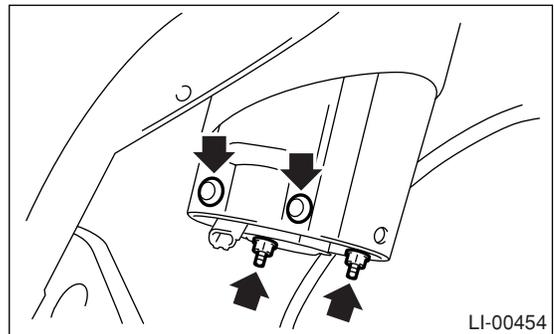
#### 2. OUTBACK MODEL

- 1) Disconnect the ground cable from battery.

- 2) Remove the two clips, and then turn over the lower mud guard.



- 3) Disconnect the harness connector.
- 4) Remove the mounting nuts and clips, and then detach the fog light assembly by pulling it.



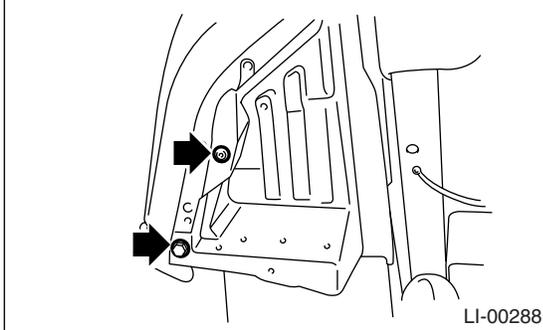
### B: INSTALLATION

Install in the reverse order of removal.

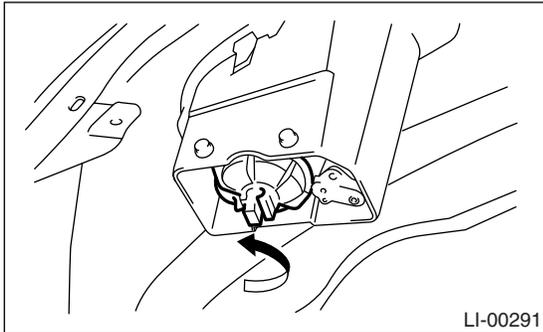
## 16. Front Fog Light Bulb

### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Disengage the two clips, and then turn over the lower mud guard.



- 3) Disconnect the harness connector.
- 4) Remove the back cover.



- 5) Remove the spring retainer then detach the fog light bulb.

### B: INSTALLATION

Install in the reverse order of removal.

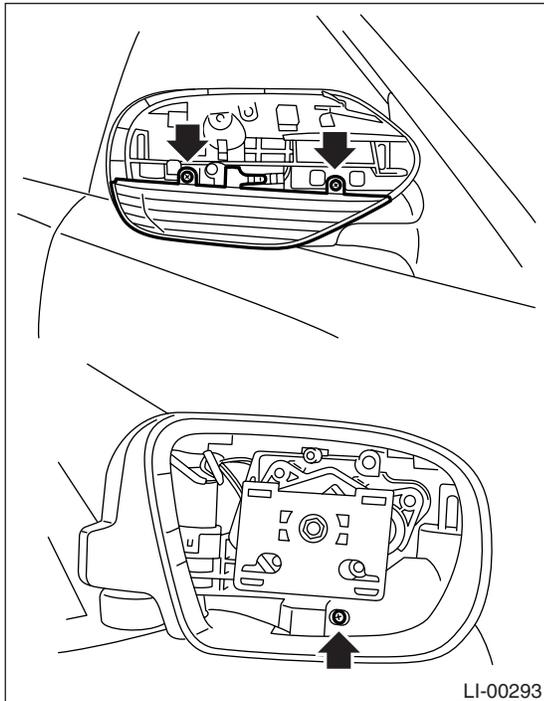
### C: INSPECTION

- 1) Visually check the bulb for blow out.
- 2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
- 3) If NG, replace the bulb with a new one.

## 17.Side Turn Signal Light Assembly

### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the scalp caps. <Ref. to GW-18, REPLACEMENT, Scalp Cap.>
- 3) Remove the mirror. <Ref. to GW-21, REPLACEMENT, Outer Mirror.>
- 4) Disconnect the harness connector, remove the 3 mounting screws and then remove the side turn signal light assembly.



### B: INSTALLATION

Install in the reverse order of removal.

### C: INSPECTION

- 1) Install the side turn signal light assembly and check that it blinks normally.
- 2) If it does not blink normally, replace the side turn signal light assembly with a new one.

#### NOTE:

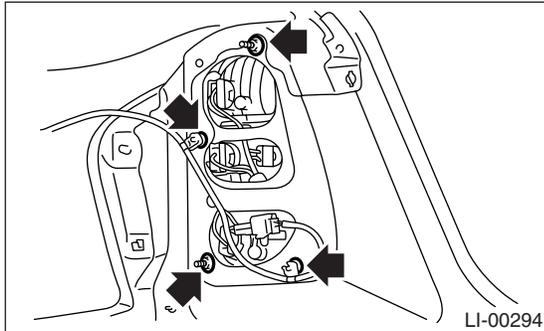
Since LED (Light Emitting Diode) is used for side turn signal light, replace the side turn signal light assembly when the LED is powered off.

## 18. Rear Combination Light Assembly

### A: REMOVAL

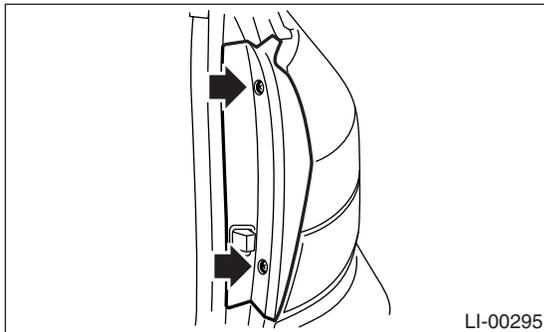
#### 1. SEDAN MODEL

- 1) Disconnect the ground cable from battery.
- 2) Remove the trunk room side trim. <Ref. to EI-70, REMOVAL, Trunk Room Trim.>
- 3) Remove the four nuts, and then detach the rear combination light after disconnecting the connector.

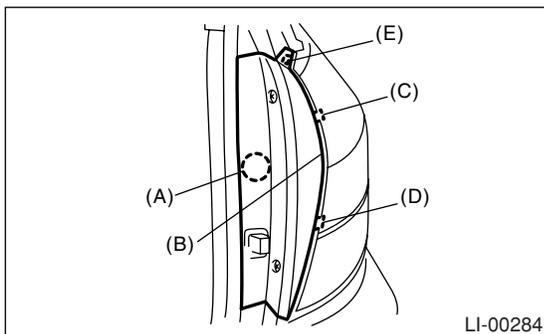


#### 2. WAGON MODEL

- 1) Disconnect the ground cable from battery.
- 2) Remove the clips.



- 3) While pressing the portion (A), insert your finger or flat-tip screwdriver wrapped with tape into the clearance (B) to remove pawls in the order of (C), (D), (E), and remove the rear combination cover.



- 4) Remove the two bolts, and then detach the rear combination light by pulling it to the rear side of vehicle.



- 5) Remove the rear combination light after turning the socket of tail/stop light bulb and rear turn signal light bulb to remove the bulbs.

### B: INSTALLATION

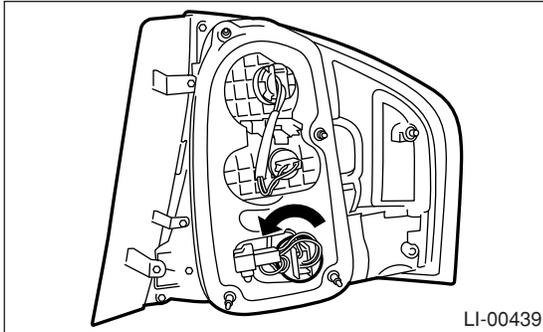
Install in the reverse order of removal.

## 19. Tail/Stop Light Bulb

### A: REMOVAL

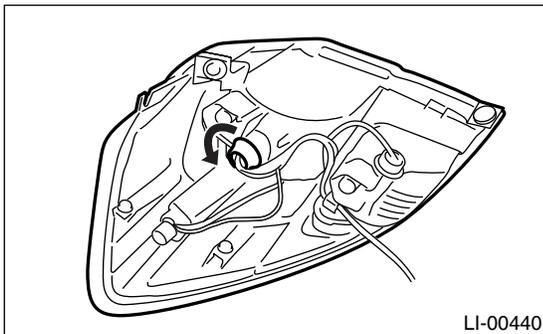
#### 1. SEDAN MODEL

- 1) Remove the trunk side trim cover.
- 2) Turn the socket and remove the bulb.



#### 2. WAGON MODEL

- 1) Remove the rear combination light assembly.  
<Ref. to LI-20, WAGON MODEL, REMOVAL, Rear Combination Light Assembly.>
- 2) Turn the socket and remove the bulb.



### B: INSTALLATION

Install in the reverse order of removal.

### C: INSPECTION

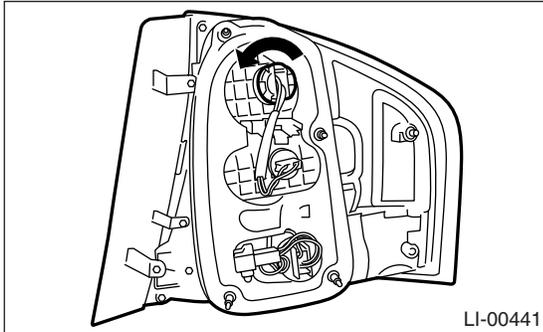
- 1) Visually check the bulb for blow out.
- 2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
- 3) If NG, replace the bulb with a new one.

## 20.Rear Turn Signal Light Bulb

### A: REMOVAL

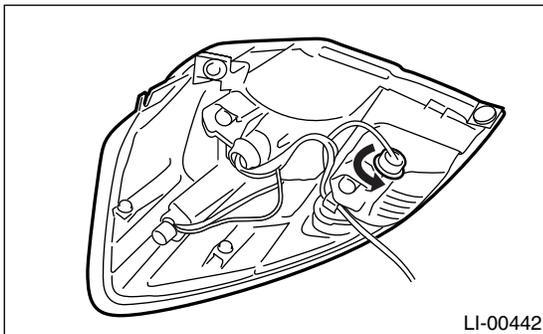
#### 1. SEDAN MODEL

- 1) Remove the trunk side trim cover.
- 2) Turn the socket and remove the bulb.



#### 2. WAGON MODEL

- 1) Remove the rear combination light assembly.  
<Ref. to LI-20, WAGON MODEL, REMOVAL, Rear Combination Light Assembly.>
- 2) Turn the socket and remove the bulb.



### B: INSTALLATION

Install in the reverse order of removal.

### C: INSPECTION

- 1) Visually check the bulb for blow out.
- 2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
- 3) If NG, replace the bulb with a new one.

## 21.Rear Side Marker Light Bulb

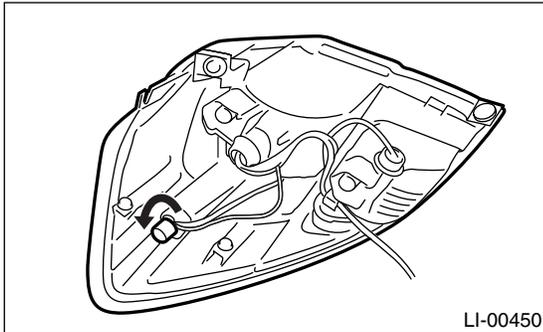
### A: REMOVAL

#### 1. SEDAN MODEL

Bulb is not equipped for sedan model, since it is reflex reflector type.

#### 2. WAGON MODEL

- 1) Remove the rear combination light assembly. <Ref. to LI-20, WAGON MODEL, REMOVAL, Rear Combination Light Assembly.>
- 2) Turn the socket and remove the bulb.



### B: INSTALLATION

Install in the reverse order of removal.

### C: INSPECTION

- 1) Visually check the bulb for blow out.
- 2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
- 3) If NG, replace the bulb with a new one.

## 22. Back-up Light Assembly

### A: REMOVAL

#### 1. SEDAN MODEL

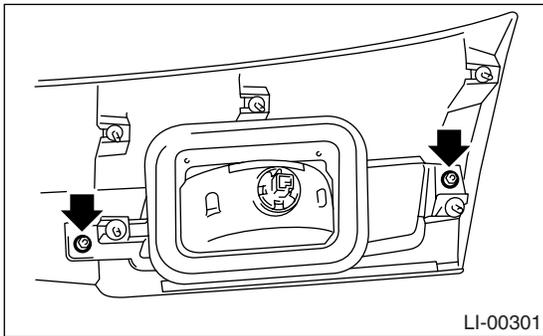
Remove the rear combination light. <Ref. to LI-20, REMOVAL, Rear Combination Light Assembly.>

#### 2. WAGON MODEL

1) Remove the rear gate trim. <Ref. to EI-68, REMOVAL, Rear Gate Trim.>

2) Disconnect the harness connectors and remove the rear gate garnish. <Ref. to EI-75, REMOVAL, Rear Gate Garnish.>

3) Remove the mounting nuts and detach the back-up light assembly.



### B: INSTALLATION

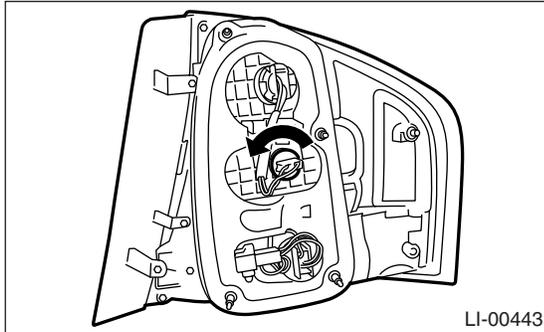
Install in the reverse order of removal.

## 23.Back-up Light Bulb

### A: REMOVAL

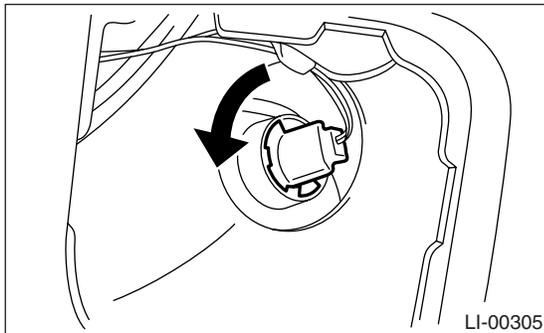
#### 1. SEDAN MODEL

- 1) Remove the trunk side trim cover.
- 2) Turn the socket and remove the bulb.



#### 2. WAGON MODEL

- 1) Remove the bulb inspection cover of rear gate trim.
- 2) Turn the socket and remove the bulb.



### B: INSTALLATION

Install in the reverse order of removal.

### C: INSPECTION

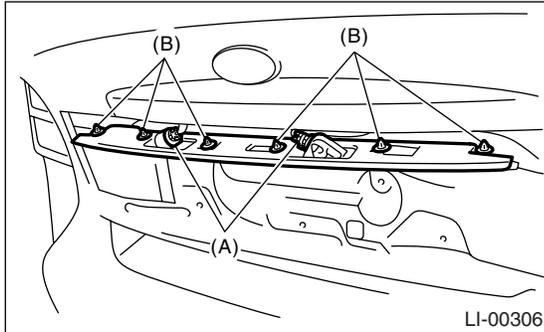
- 1) Visually check the bulb for blow out.
- 2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
- 3) If NG, replace the bulb with a new one.

## 24. License Plate Light Assembly

### A: REMOVAL

#### 1. SEDAN MODEL

- 1) Remove the trunk lid garnish. <Ref. to EI-74, REMOVAL, Trunk Lid Garnish.>
- 2) Remove the trunk lid trim. <Ref. to EI-70, TRUNK LID TRIM, REMOVAL, Trunk Room Trim.>
- 3) Turn and remove the bulb socket (A). Disengage the clip (B) and remove the license plate light assembly.



### B: INSTALLATION

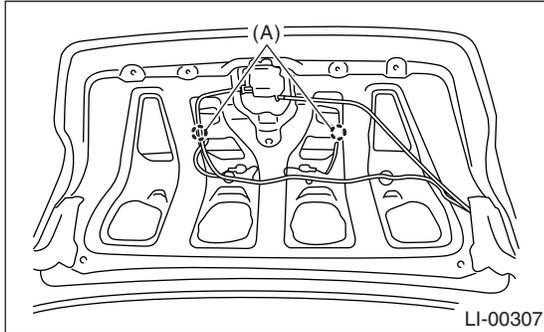
Install in the reverse order of removal.

## 25. License Plate Light

### A: REMOVAL

#### 1. SEDAN MODEL

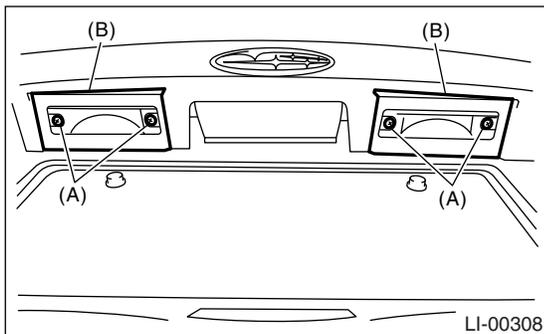
- 1) Remove the trunk lid trim. <Ref. to EI-70, TRUNK LID TRIM, REMOVAL, Trunk Room Trim.>
- 2) Turn and remove the bulb socket (A).



- 3) Remove the bulb.

#### 2. WAGON MODEL

- 1) Remove the license plate light mounting screw (A) and then remove the lens (B).



- 2) Remove the bulb.

### B: INSTALLATION

Install in the reverse order of removal.

### C: INSPECTION

- 1) Visually check the bulb for blow out.
- 2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
- 3) If NG, replace the bulb with a new one.

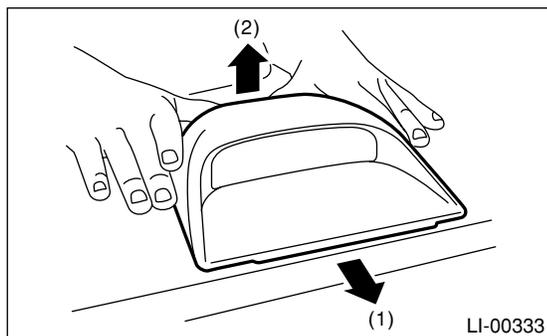
## High-mounted Stop Light

### 26.High-mounted Stop Light

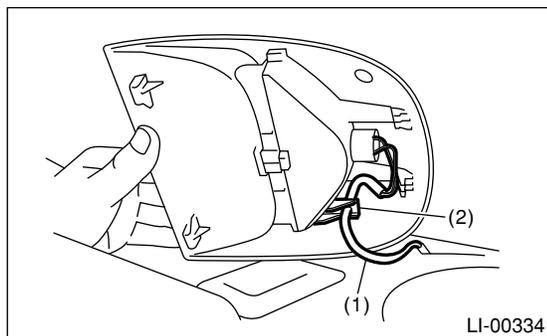
#### A: REMOVAL

##### 1. SEDAN MODEL

- 1) Disconnect the ground cable from battery.
- 2) Push the high-mounted stop light backward of the vehicle (1), raise the rear portion of it (2) and remove the clips to remove it.

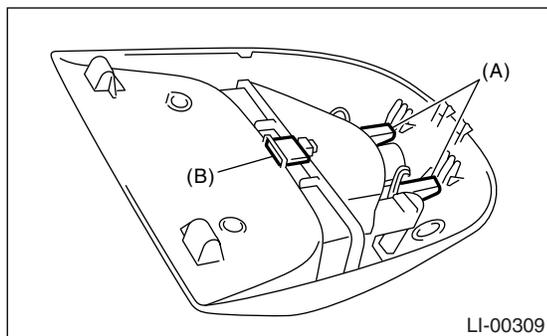


- 3) Remove the harness from clamp.

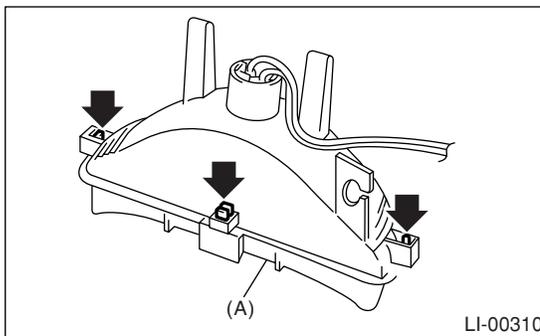


- (1) Harness
- (2) Clamp

- 4) Disengage two claws (A), pull out the high-mounted stop light from the cover and remove the claw (B).



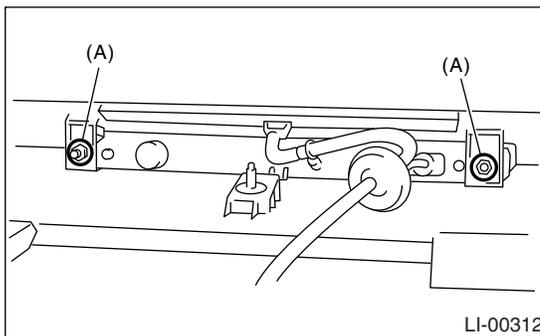
- 5) Disengage three claws and remove the lens (A).



- 6) Remove the bulb.

##### 2. WAGON MODEL

- 1) Disconnect the ground cable from battery.
- 2) Detach the roof spoiler. <Ref. to EI-40, REMOVAL, Roof Spoiler.>
- 3) Remove the nuts (A), then detach the high-mounted stop light.



#### B: INSTALLATION

Install in the reverse order of removal.

#### C: INSPECTION

##### 1. SEDAN MODEL

- 1) Visually check the bulb for blow out.
- 2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
- 3) If NG, replace the bulb with a new one.

##### 2. WAGON MODEL

- 1) Install the high-mounted stop light to test if it illuminates normally.
- 2) If the high-mounted stop light does not illuminate, replace it with a new one.

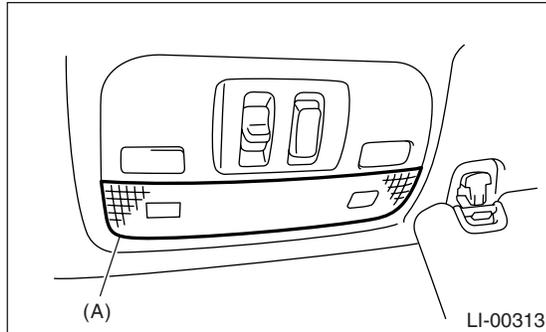
#### NOTE:

Since LED (Light Emitting Diode) is used for the high-mounted stop light of wagon model, replace the high-mounted stop light assembly when the LED is powered off.

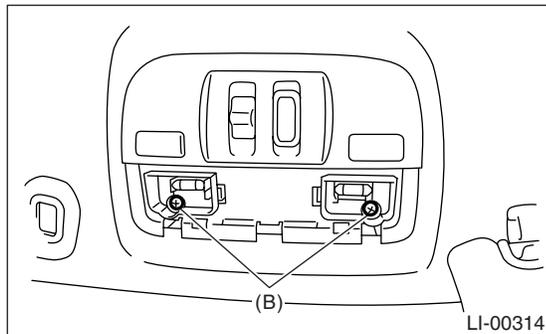
## 27. Spot Map Light

### A: REMOVAL

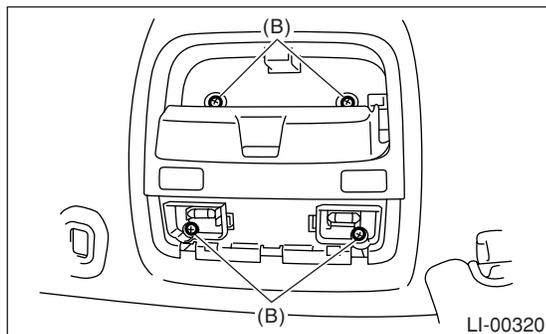
- 1) Disconnect the ground cable from battery.
- 2) Remove the lens (A) and spot map light mounting screws (B).



- Model with sunroof



- Model without sunroof



- 3) Disconnect the harness connectors and remove the spot map light.

### B: INSTALLATION

Install in the reverse order of removal.

### C: INSPECTION

#### 1. SPOT MAP LIGHT BULB

- 1) Visually check the bulb for blow out.
- 2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
- 3) If NG, replace the bulb with a new one.

#### 2. SPOT MAP LIGHT SWITCH

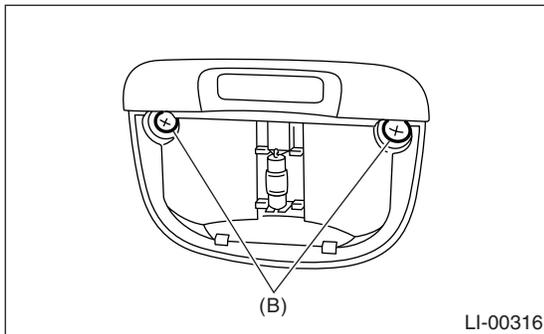
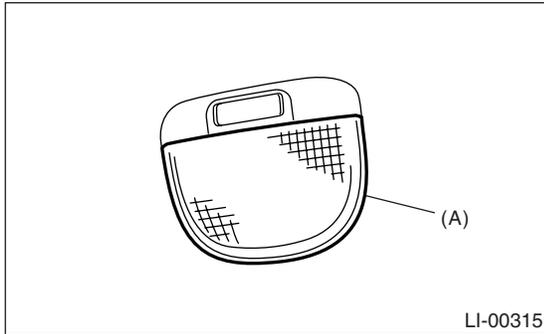
Measure the resistance between spot map light switch terminals.

Switch position	Terminal No.	Standard
OFF	—	More than 1 MΩ
ON	1 and 2	18±5.4 Ω

## 28. Room Light

### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the lens (A) and mounting screws (B).



- 3) Disconnect the harness connector and remove the room light.

### B: INSTALLATION

Install in the reverse order of removal.

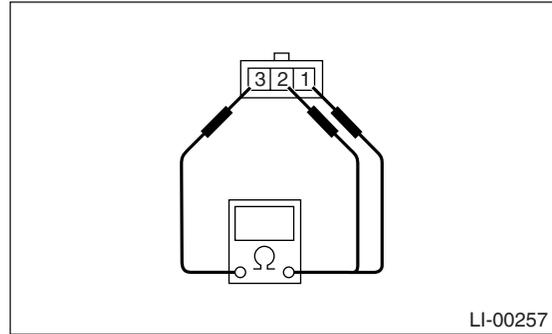
### C: INSPECTION

#### 1. ROOM LIGHT BULB

- 1) Visually check the bulb for blow out.
- 2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
- 3) If NG, replace the bulb with a new one.

#### 2. ROOM LIGHT SWITCH

Measure the resistance between room light switch terminals.

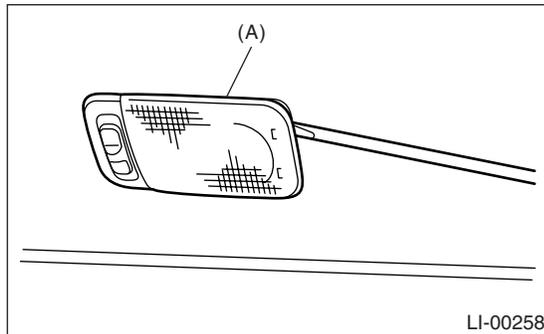


Switch position	Terminal No.	Standard
OFF	—	More than 1 MΩ
ON	1 and 3	1.5±0.5 Ω
DOOR	2 and 3	1.5±0.5 Ω

## 29. Luggage Room Light

### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove luggage room light body (A).



- 3) Disconnect the harness connector and remove the lens.

### B: INSTALLATION

Install in the reverse order of removal.

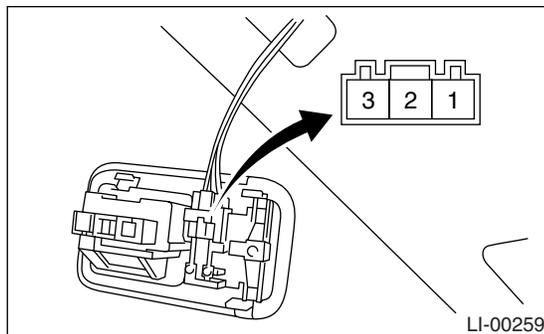
### C: INSPECTION

#### 1. LUGGAGE ROOM LIGHT BULB

- 1) Visually check the bulb for blow out.
- 2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
- 3) If NG, replace the bulb with a new one.

#### 2. LUGGAGE ROOM LIGHT SWITCH

Measure the resistance between luggage room light switch terminals.



Switch position	Terminal No.	Standard
OFF	—	More than 1 MΩ
ON	1 and 2	1.5±0.5 Ω
DOOR	2 and 3	1.5±0.5 Ω

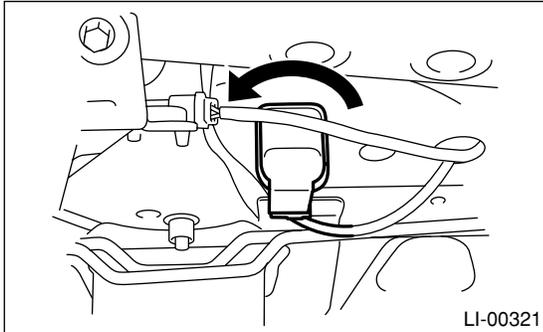
# Trunk Room Light

LIGHTING SYSTEM

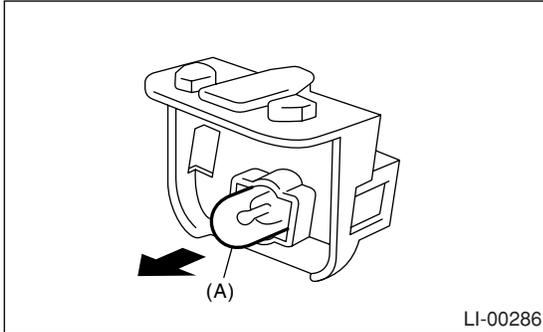
## 30. Trunk Room Light

### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Turn the trunk room light counterclockwise to 60° to remove it and disconnect the harness connector.



- 3) Remove the bulb (A).



### B: INSTALLATION

Install in the reverse order of removal.

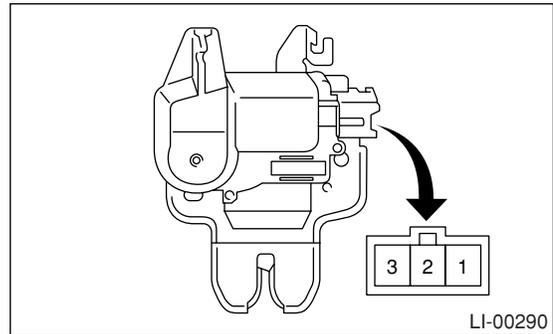
### C: INSPECTION

#### 1. TRUNK ROOM LIGHT BULB

- 1) Visually check the bulb for blow out.
- 2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
- 3) If NG, replace the bulb with a new one.

#### 2. TRUNK LID SWITCH (TRUNK ROOM LIGHT SWITCH)

Measure the resistance between trunk lid switch terminals.

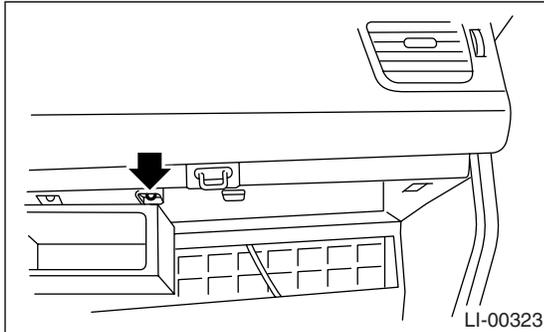


Trunk lid position	Terminal No.	Standard
Close	1 and 3	More than 1 MΩ
Open		1.5±0.5 Ω

## 31. Glove Box Light

### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the glove box. <Ref. to EI-51, REMOVAL, Glove Box.>
- 3) Disconnect the harness connector.
- 4) Remove the glove box light.



### B: INSTALLATION

Install in the reverse order of removal.

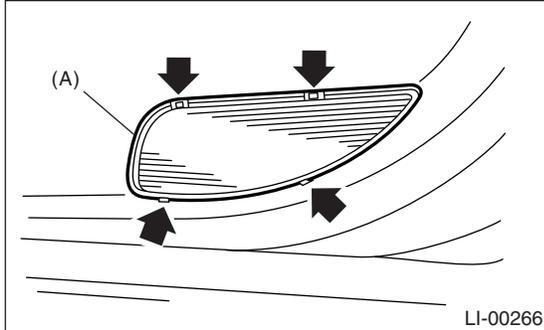
### C: INSPECTION

- 1) Visually check the bulb for blow out.
- 2) Check the bulb specification.  
<Ref. to LI-2, SPECIFICATION, General Description.>
- 3) If NG, replace the bulb with a new one.

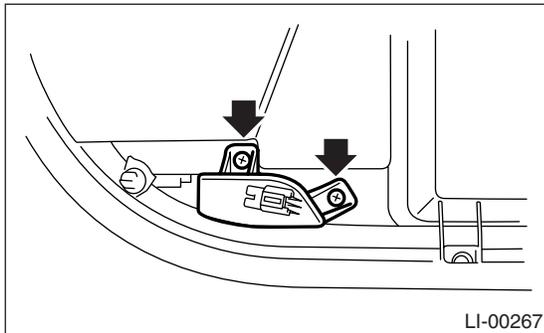
## 32. Door Step Light

### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the lens (A), and then remove the door step light bulb.



- 3) Remove the front door trim. <Ref. to EI-48, REMOVAL, Door Trim.>
- 4) Disconnect the harness connector.
- 5) Remove the mounting screw from rear side of trim and remove the door step light.



### B: INSTALLATION

Install in the reverse order of removal.

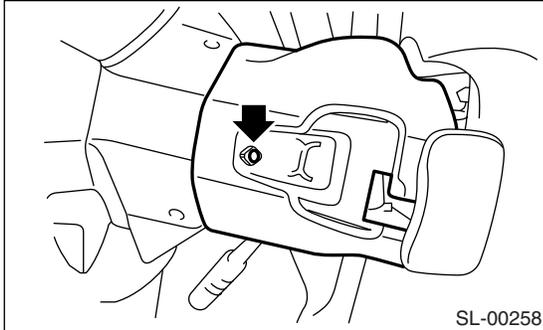
### C: INSPECTION

- 1) Visually check the bulb for blow out.
- 2) Check the bulb specification.  
<Ref. to LI-2, SPECIFICATION, General Description.>
- 3) If NG, replace the bulb with a new one.

## 33. Ignition Switch Illumination

### A: REMOVAL

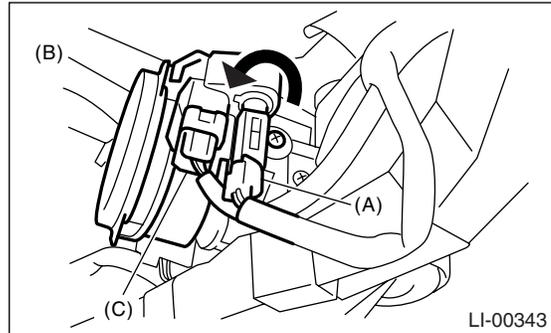
- 1) Disconnect the ground cable from battery.
- 2) Remove the screws and detach the upper column cover and lower column cover.



- 3) Remove the instrument panel lower cover. <Ref. to EI-56, REMOVAL, Instrument Panel Assembly.>
- 4) Disconnect the ignition switch illumination connector (A).

### C: INSPECTION

- 5) Turn the ignition switch illumination connector to left and disconnect it.



- (A) Ignition switch illumination connector
- (B) Ignition switch illumination
- (C) Immobilizer antenna connector

### B: INSTALLATION

Install in the reverse order of removal.

Step	Check	Yes	No
1 <b>CHECK IGNITION SWITCH ILLUMINATION.</b> Make sure the ignition switch illumination illuminates when driver's side door is open.	Does the ignition switch illumination illuminate?	Ignition switch illumination is normal.	Go to step 2.
2 <b>CHECK IGNITION SWITCH ILLUMINATION.</b> Make sure the ignition switch illumination blinks when ignition switch is turned to ON.	Does the ignition switch illumination blink?	Check the function setting of body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Check the ignition switch illumination circuit. <Ref. to SL-20, CHECK IGNITION SWITCH ILLUMINATION, INSPECTION, Keyless Entry System.>



# WIPER AND WASHER SYSTEMS



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6. Front Wiper Arm.....	14
7. Front Wiper Motor and Link.....	15
8. Front Washer Nozzle .....	16
9. Rear Wiper Arm .....	17
10. Rear Wiper Motor.....	18
11. Rear Washer .....	19

# General Description

## WIPER AND WASHER SYSTEMS

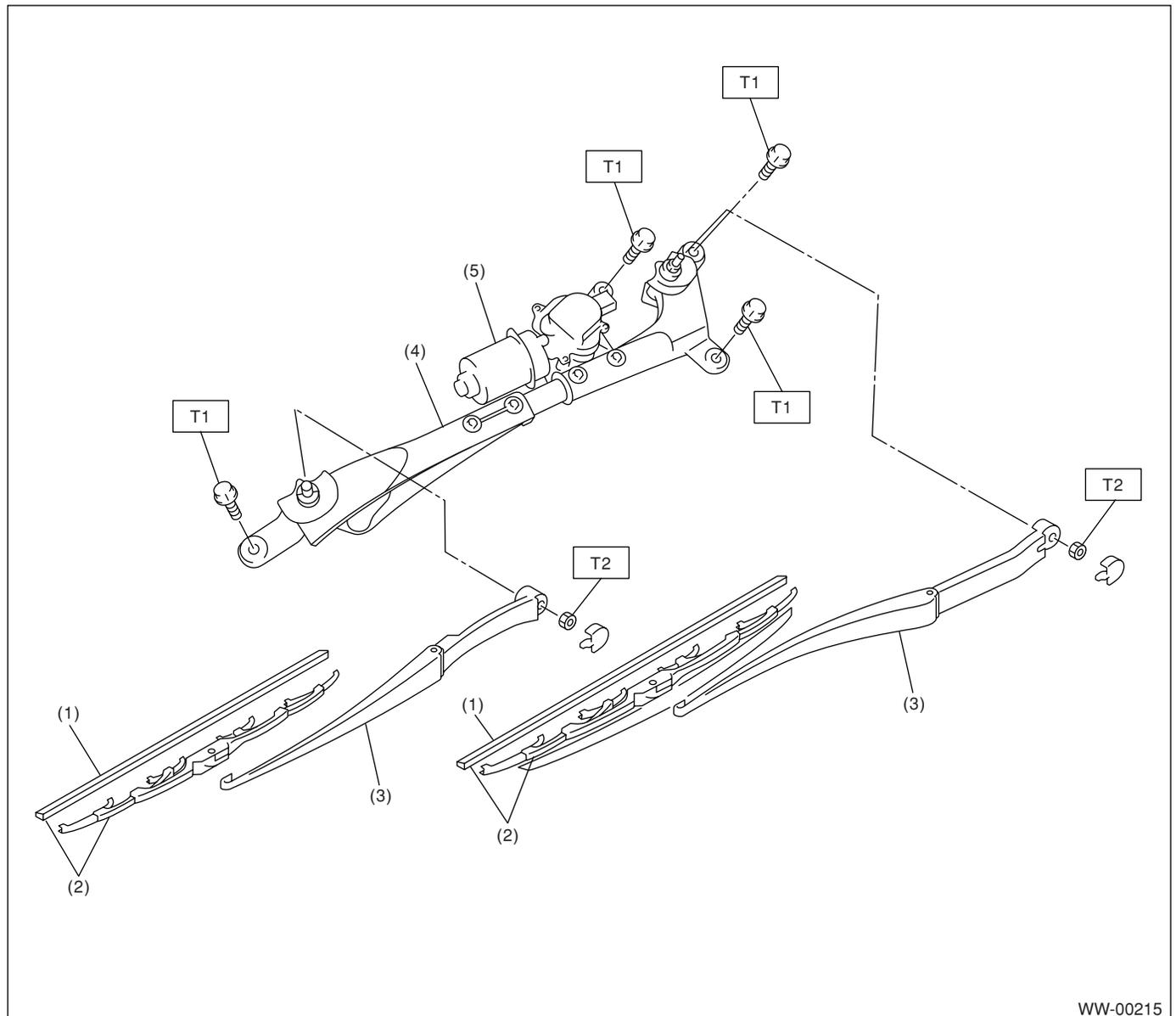
### 1. General Description

#### A: SPECIFICATION

Front wiper motor	Input	12 V — 72 W or less
Rear wiper motor	Input	12 V — 42 W or less
Front washer motor	Pump type	Centrifugal
	Input	12 V — 36 W or less
Rear washer motor	Pump type	Centrifugal
	Input	12 V — 36 W or less

#### B: COMPONENT

##### 1. FRONT WIPER



WW-00215

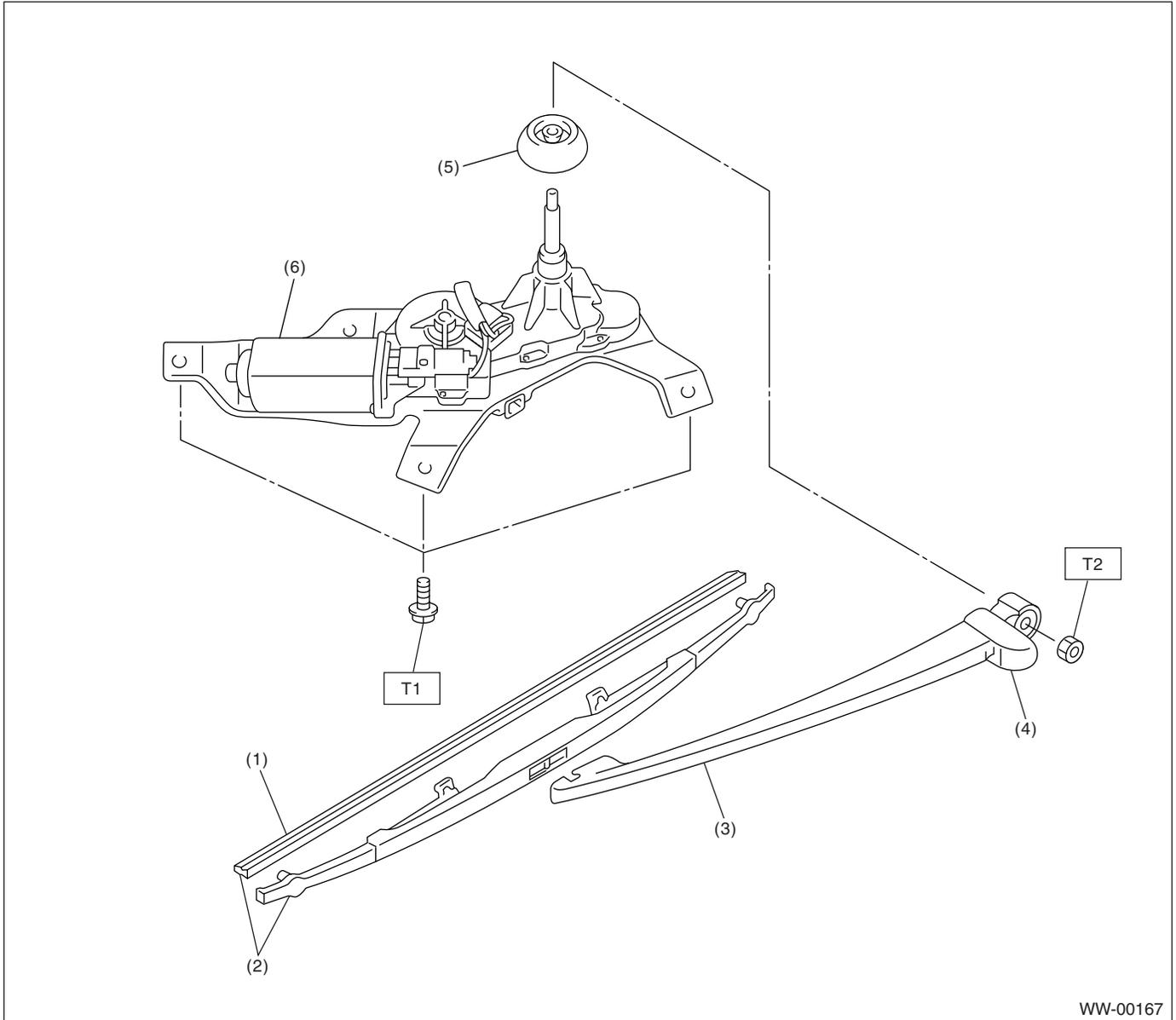
- |                      |                      |
|----------------------|----------------------|
| (1) Wiper rubber     | (4) Wiper link ASSY  |
| (2) Wiper blade ASSY | (5) Wiper motor ASSY |
| (3) Wiper arm        |                      |

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

**T1: 6.0 (0.61, 4.4)**

**T2: 20 (2.0, 14.5)**

## 2. REAR WIPER (WAGON MODEL)



WW-00167

- |                      |                      |
|----------------------|----------------------|
| (1) Wiper rubber     | (4) Wiper arm cover  |
| (2) Wiper blade ASSY | (5) Cap              |
| (3) Wiper arm        | (6) Wiper motor ASSY |

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

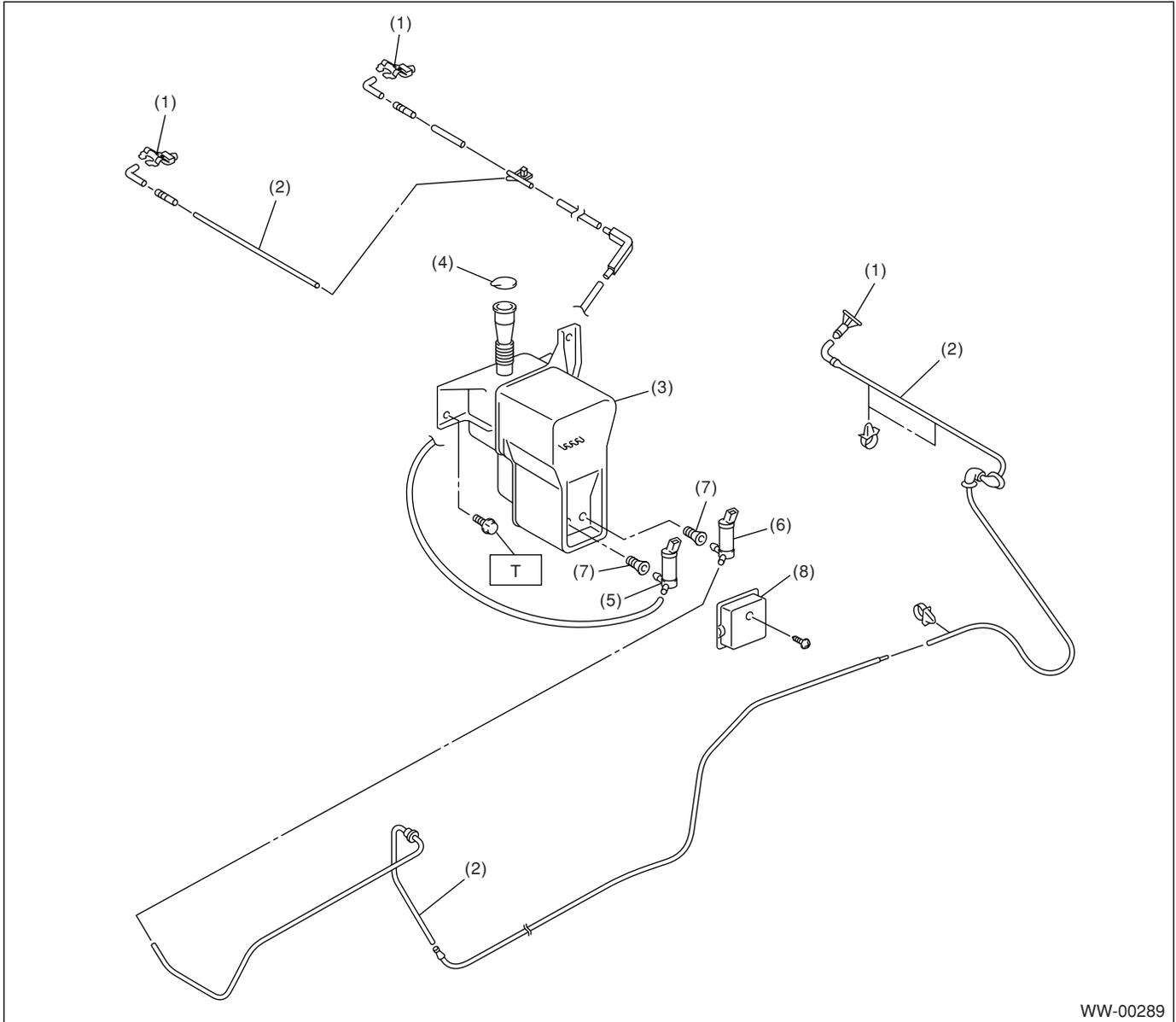
**T1: 7.5 (0.77, 6.0)**

**T2: 8.0 (0.82, 5.9)**

# General Description

## WIPER AND WASHER SYSTEMS

### 3. WASHER TANK



WW-00289

- |                     |                        |
|---------------------|------------------------|
| (1) Washer nozzle   | (5) Front washer motor |
| (2) Washer hose     | (6) Rear washer motor  |
| (3) Washer tank     | (7) Grommet            |
| (4) Washer tank cap | (8) Washer motor cover |

**Tightening torque: N·m (kgf·m, ft·lb)**  
**T: 6.0 (0.61, 4.4)**

### C: CAUTION

- Connect the connectors and hoses securely during reassembly.
- After reassembly, make sure functional parts operate smoothly.
- Be careful that wiring harnesses of airbag system pass near electrical parts and switches.
- Wiring harnesses and connectors of all airbag system are yellow color. Do not use a tester equipment on these circuits.
- Care must be taken when connecting the piping hose so that no bending, jamming, etc. are caused.
- Even if a little oil or grease such as silicon oil gets in the tank and washer passages, an oil film is easily formed on the glass, causing the wiper to chatter and judder, therefore, be careful not to let this happen.

## 2. Wiper and Washer System

### A: WIRING DIAGRAM

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

<Ref. to WI-157, WIRING DIAGRAM, Front Wiper and Washer System.>

#### 2. WIPER AND WASHER (REAR)

<Ref. to WI-158, WIRING DIAGRAM, Rear Wiper and Washer System.>

### B: INSPECTION

Symptom	Repair order
Wiper and washers do not operate.	(1) Wiper fuse (Front: F/B No. 30, Rear: F/B No. 23) (2) Combination switch (3) Wiper motor assembly (4) Wiring harness (5) Body integrated unit (rear wiper only)
Wipers do not operate in LO or HI.	(1) Combination switch (2) Wiper motor assembly (3) Wiring harness
Wipers do not operate in INT.	(1) Combination switch (2) Wiper motor assembly (3) Wiring harness (4) Body integrated unit (rear wiper only)
Washer motor does not operate.	(1) Washer switch (2) Washer motor (3) Wiring harness
Wipers do not operate when washer switch is ON.	(1) Washer motor (2) Wiring harness
Washer fluid spray does not operate properly.	(1) Washer motor (2) Washer hose and nozzle

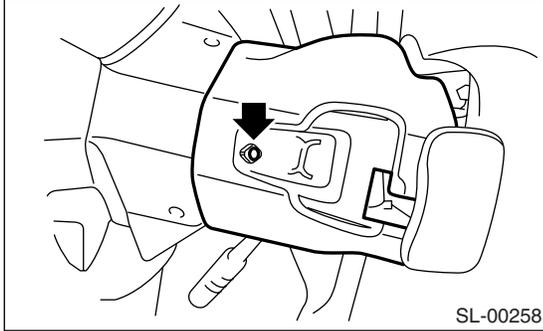
# Combination Switch (Wiper)

## WIPER AND WASHER SYSTEMS

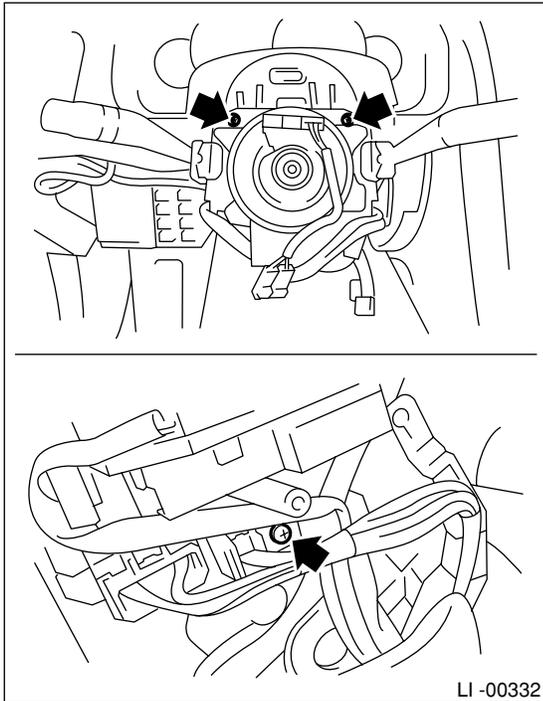
### 3. Combination Switch (Wiper)

#### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the instrument panel lower cover. <Ref. to EI-50, REMOVAL, Instrument Panel Lower Cover.>
- 3) Remove the screw to remove steering column cover (upper and lower).



- 4) Disconnect the connector from combination switch.
- 5) Remove the three screws, and pull out the combination base switch assembly toward you.



- 6) Remove the switch securing screw to remove combination switch.

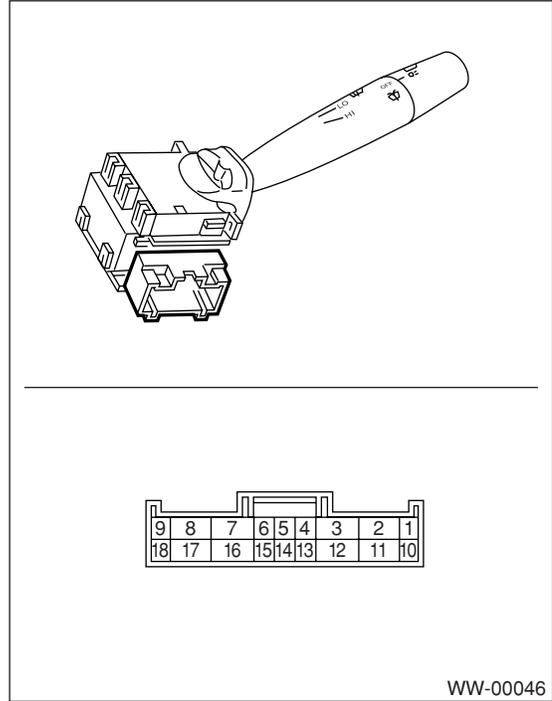
#### B: INSTALLATION

Install in the reverse order of removal.

### C: INSPECTION

#### 1. COMBINATION SWITCH

- 1) Inspect the continuity between each connector terminal.



	Switch position	Terminal No.	Standard
Front	OFF	7 and 16	Less than 1 Ω
	INT	7 and 16	Less than 1 Ω
	LO	7 and 17	Less than 1 Ω
	HI	8 and 17	Less than 1 Ω
	Washer ON	2 and 11	Less than 1 Ω
Rear	Washer ON	2 and 12	Less than 1 Ω
	OFF	—	More than 1 MΩ
	INT	2 and 13	Less than 1 Ω
	ON	2 and 10	Less than 1 Ω
	Washer ON	2 and 12 12 and 10 2 and 10	Less than 1 Ω

- 2) If continuity is not as specified, replace the switch.

## 2. FRONT WIPER

### 1) Check with Subaru Select Monitor

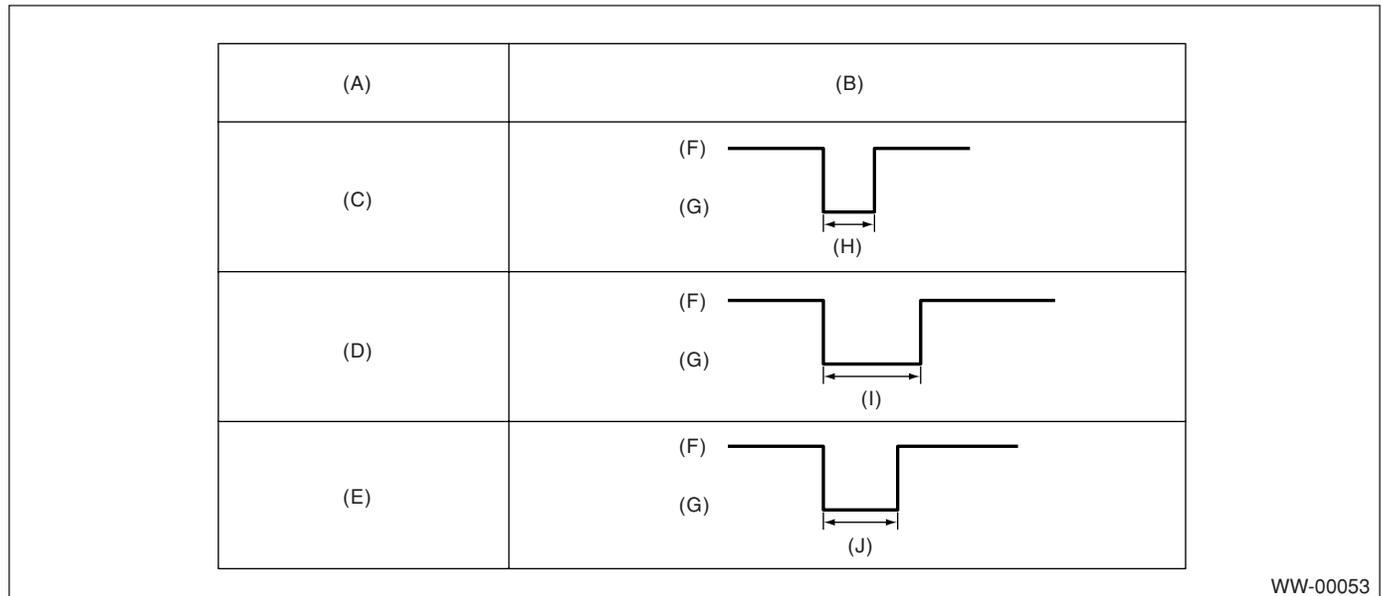
Step	Check	Yes	No
<b>1</b> <b>CHECK INPUT SIGNAL TO BODY INTEGRATED UNIT.</b> When the front wiper switch is operated, check the input signal using Subaru Select Monitor. 1) Connect the Subaru Select Monitor to data link connector. 2) Turn the ignition switch to ON. 3) Select {Body Integrated Unit} from the main menu. 4) Select {Current Data Display & Save}. 5) When the front wiper switch is set to LO or HI, check the input signal.	Is the input signal normal?	End.	Replace the body integrated unit. <Ref. to SL-53, Body Integrated Unit.>

### 2) Intermittent operation inspection

- (1) Turn the wiper switch to INT.
- (2) Adjust the intermittent control switch to MAX.
- (3) Apply the battery voltage to switch terminal No. 16 and 2.
- (4) Measure the voltage between combination switch terminals.

#### Terminals

##### No. 7 — No. 2:



- (A) Switch position
- (B) Voltage
- (C) MIN.
- (D) MAX.

- (E) Non-intermittent type
- (F) 12 V
- (G) 0 V

- (H) Approx. 2 sec.
- (I) 16±6 sec.
- (J) 3±1 sec.

### 3) If operation is not as specified, replace the switch.

## Combination Switch (Wiper)

### WIPER AND WASHER SYSTEMS

### 3. REAR WIPER

#### 1) Check with Subaru Select Monitor

Step	Check	Yes	No
<b>1 CHECK INPUT OF REAR WIPER.</b> Check the input from body integrated unit using Subaru Select Monitor. 1) Connect the Subaru Select Monitor to data link connector. 2) Turn the ignition switch to ON. 3) Select {Body Integrated Unit} from the main menu. 4) Select {Current Data Display & Save}. 5) Check the input of rear wiper switch.	Is the input normal?	Go to step 2.	Check the rear wiper switch. <Ref. to WW-6, INSPECTION, Combination Switch (Wiper).>
<b>2 CHECK OUTPUT OF BODY INTEGRATED UNIT.</b> When the rear wiper switch is operated, check the output using Subaru Select Monitor. 1) Turn the ignition switch to ON. 2) Operate the rear wiper switch to set to each position of ON and INT. 3) At this time, check the output of body integrated unit.	When it is set to ON, is ON output continuously? When it is set to INT, is ON/OFF output repeatedly? (INT OFF time (when vehicle parked): 12 seconds)	Check the rear wiper motor. <Ref. to WW-18, INSPECTION, Rear Wiper Motor.>	Replace the body integrated unit. <Ref. to SL-53, Body Integrated Unit.>

#### 2) Rear wiper motor circuit check

Step	Check	Yes	No
<b>1 CHECK POWER SUPPLY CIRCUIT OF REAR WIPER MOTOR.</b> 1) Disconnect the harness connector of rear wiper motor. 2) Turn the ignition switch to ACC. 3) Measure the voltage between the rear wiper motor harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(D43) No. 1 (+) — Chassis ground (-):</b>	Is the voltage more than 10 V?	Go to step 2.	<ul style="list-style-type: none"> <li>• Check the fuse (No. 23 in fuse &amp; relay box).</li> <li>• Check the fusible link (No. 6 in main fuse box).</li> </ul>
<b>2 CHECK GROUND CIRCUIT OF REAR WIPER MOTOR.</b> 1) Turn the ignition switch to OFF. 2) Measure the resistance between the rear wiper motor harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(D43) No. 3 — Chassis ground:</b>	Is the resistance less than 10 $\Omega$ ?	Go to step 3.	Repair the open circuit of rear wiper motor ground cable.
<b>3 CHECK HARNESS BETWEEN BODY INTEGRATED UNIT AND REAR WIPER MOTOR.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the harness connector of body integrated unit. 3) Disconnect the harness connector of rear wiper motor. 4) Measure the resistance between the harness connector terminals of body integrated unit and rear wiper motor. <b>Connector &amp; terminal</b> <b>(B280) No. 1 — (D43) No. 2:</b> <b>(B280) No. 8 — (D43) No. 4:</b>	Is the resistance less than 10 $\Omega$ ?	Go to step 4.	Repair the open circuit of harness between body integrated unit and rear wiper motor.

# Combination Switch (Wiper)

Step	Check	Yes	No
<b>4</b> <b>CHECK OPERATION OF REAR WIPER MOTOR.</b> 1) Remove the rear wiper motor. 2) Check the rear wiper motor. <Ref. to WW-18, INSPECTION, Rear Wiper Motor.>	Does the rear wiper motor rotate normally?	End.	Replace the rear wiper motor.

**NOTE:**

Rear wiper intermittent time (AT model only)

Select lever position (AT model only)	Vehicle speed (km/h (MPH))	Intermittent stopping time (sec.)
Rev	—	Continuous operation
Except reverse mode	80 — (50 — )	3
	50 — 80 (31 — 50)	6
	20 — 50 (12 — 31)	9
	0 — 20 (0 — 12)	12

## 4. Wiper Blade

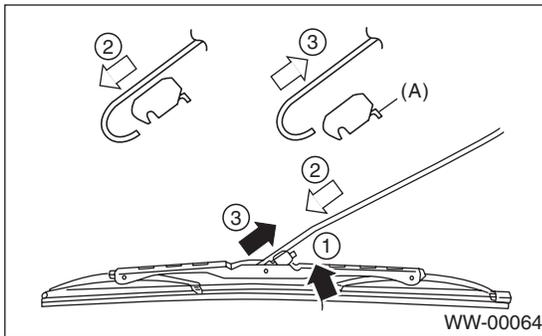
### A: REMOVAL

**CAUTION:**

When replacing wiper blades or etc., be sure to stand up the driver side wiper arm first, then passenger side wiper arm next. Also, when putting the wiper arms back, be sure to start with passenger side first, then driver side next. Doing this in the reverse order may result in damage of passenger side wiper arm by hitting with driver side wiper blade.

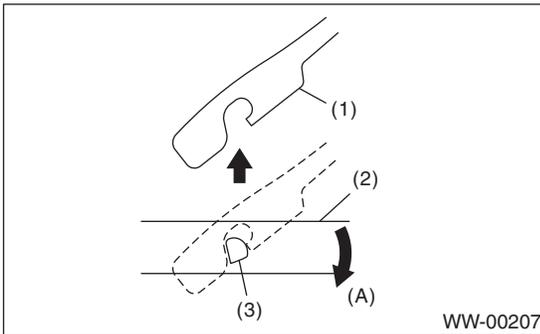
#### 1. FRONT

While pushing the locking clip (A) up, pull out the blade from arm to the arrow direction.



#### 2. REAR

Turn the blade in the direction of arrow (A) and remove it from arm.



- (A) Turn the wiper blade.
- (1) Wiper arm
- (2) Wiper blade
- (3) Installing part of wiper blade

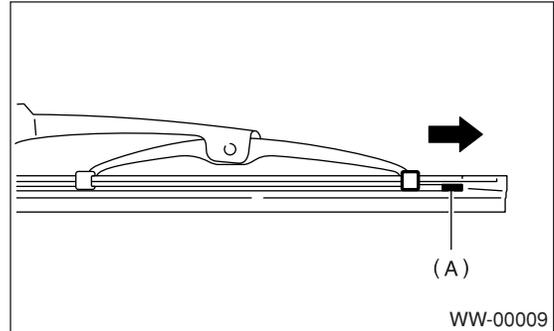
### B: INSTALLATION

- 1) Install in the reverse order of removal.
- 2) Confirm that the clip is locked securely.

### C: DISASSEMBLY

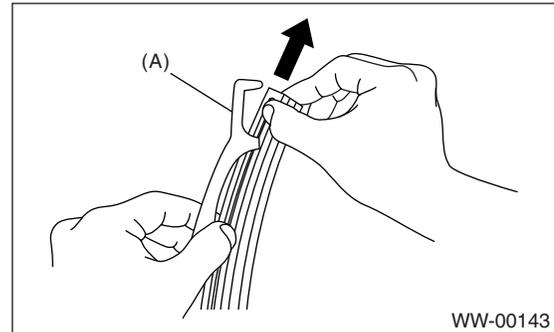
#### 1. METAL TYPE

Pull side (A) of the wiper rubber stopper and remove the rubber from blade assembly.



#### 2. RESIN TYPE

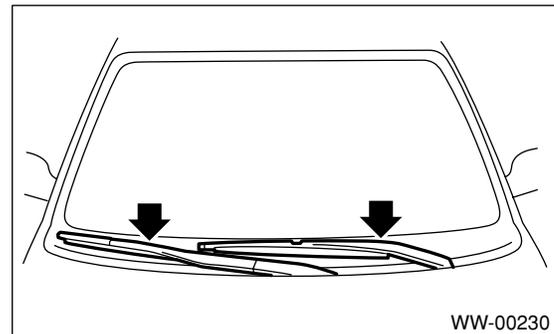
Pull the wiper rubber top slightly from the stopper (A) and pull out fully.



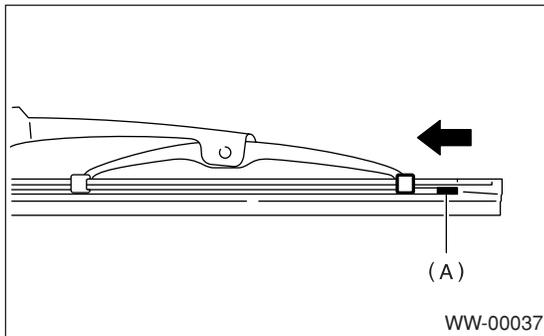
### D: ASSEMBLY

#### 1. METAL TYPE

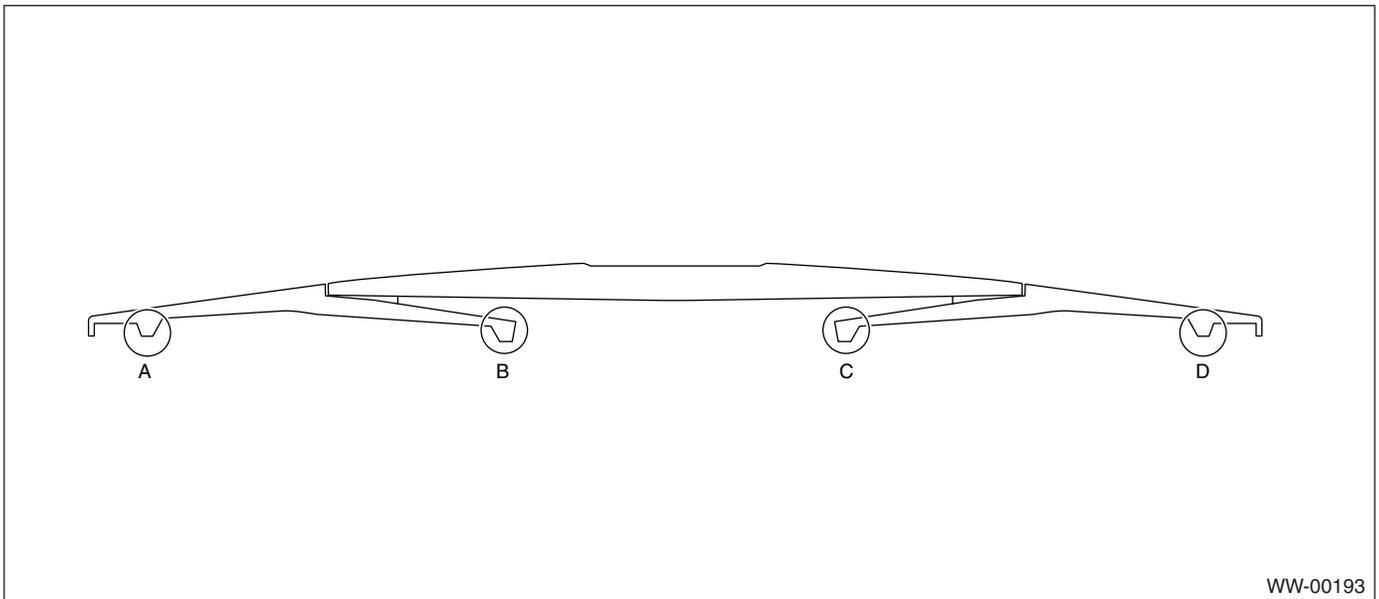
1) Insert the wiper rubber onto blade so that the stopper is in the position shown in the figure.



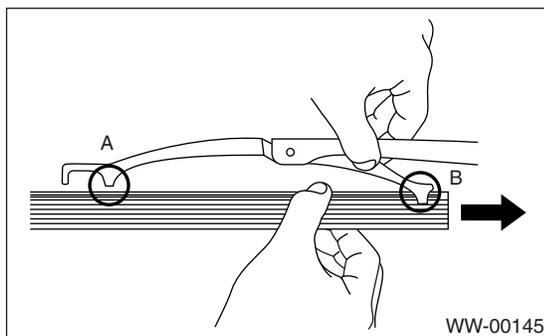
2) Make sure the wiper rubber is securely fastened to the pull stopper (A).



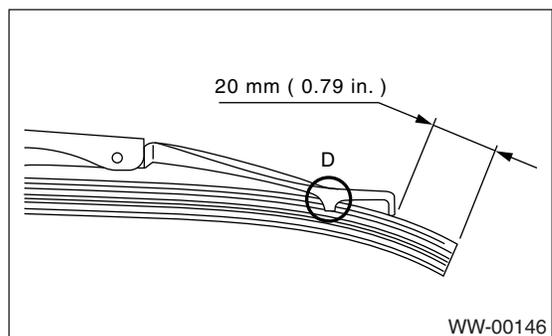
### 2. RESIN TYPE



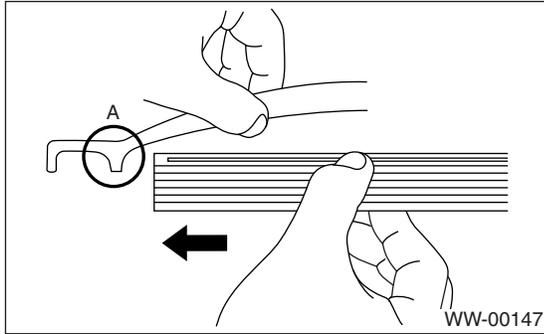
1) Insert the wiper rubber through the claw B.



2) Insert the wiper rubber until its top end protrudes approx. 20 mm (0.79 in) from stopper D.



3) Insert the wiper rubber into the claw A.



### **E: INSPECTION**

1) When the wiper does not perform well, inspect the followings:

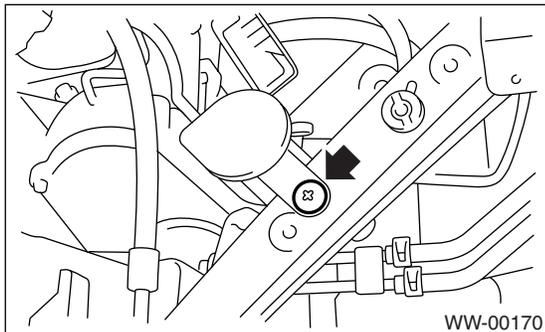
- Make sure the movable part of the wiper blade assembly moves smoothly.
- Make sure the wiper rubber is not deformed or damaged.

2) If damaged, replace with new one.

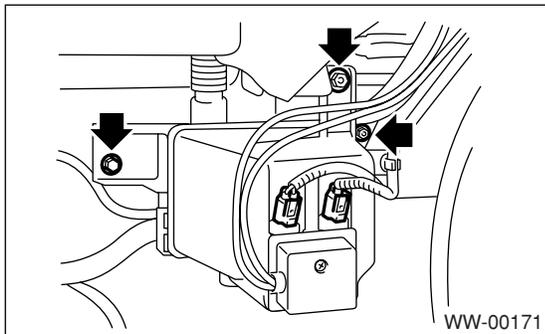
## 5. Washer Tank and Motor

### A: REMOVAL

- 1) Open the hood.
- 2) Disconnect the ground cable from battery.
- 3) Remove the front bumper. <Ref. to EI-30, REMOVAL, Front Bumper.>
- 4) Remove the clip holding washer water supply tap.



- 5) Remove the two bolts and one nut, hose, connector and washer motor cover, and then remove the washer tank.



### B: INSTALLATION

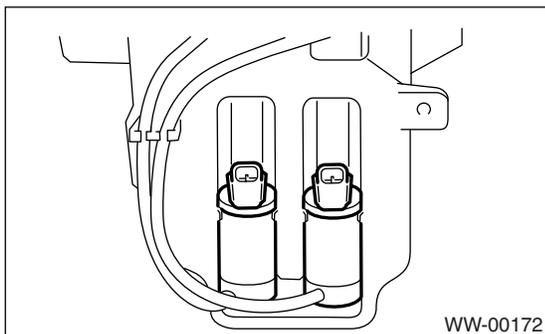
Install in the reverse order of removal.

#### *Tightening torque:*

**6.0 N·m (0.61 kgf·m, 4.4 ft·lb)**

### C: DISASSEMBLY

Pull out the washer motor from tank.

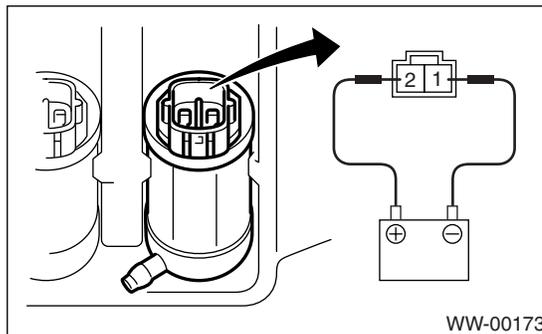


### D: ASSEMBLY

- 1) Assemble in the reverse order of disassembly.
- 2) Confirm that water does not leak from installation area of motor.

### E: INSPECTION

Apply battery voltage to the connector terminal of the washer motor and make sure the motor operates.



# Front Wiper Arm

## WIPER AND WASHER SYSTEMS

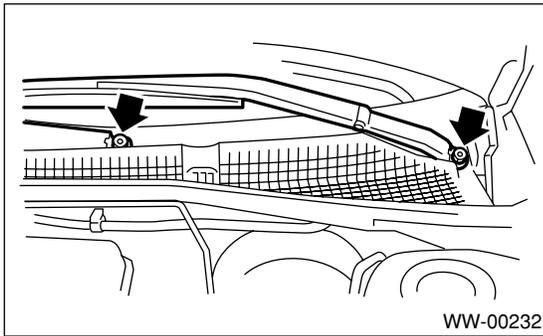
### 6. Front Wiper Arm

#### A: REMOVAL

##### CAUTION:

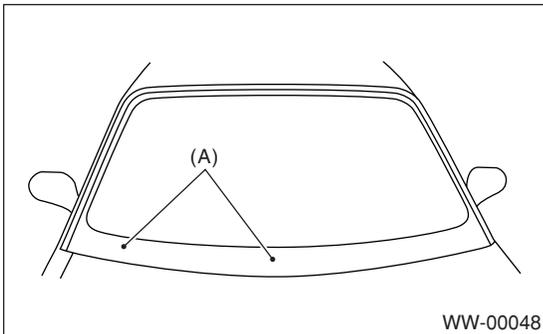
When replacing wiper blades or etc., be sure to stand up the driver side wiper arm first, then passenger side wiper arm next. Also, when putting the wiper arms back, be sure to start with passenger side first, then driver side next. Doing this in the reverse order may result in damage of passenger side wiper arm by hitting with driver side wiper blade.

- 1) Open the hood.
- 2) Remove the cap.
- 3) Remove the nut to remove wiper arm.



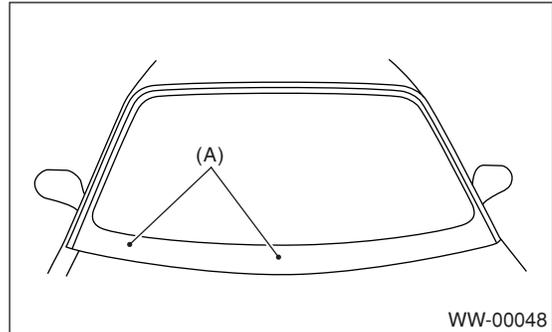
#### B: INSTALLATION

- 1) Install in the reverse order of removal.
- 2) Operate the wiper once.
- 3) Align the wiper blade to ceramic print point mark (A) of front window panel.



#### C: ADJUSTMENT

Operate the wiper once. Align the wiper blade to ceramic print point mark (A) of front window panel.



##### Tightening torque:

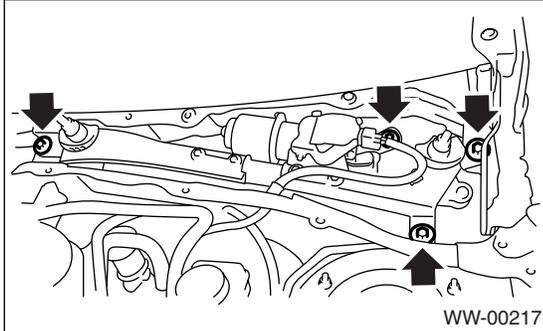
Refer to "COMPONENT" of "General Description".

<Ref. to WW-2, FRONT WIPER, COMPONENT, General Description.>

## 7. Front Wiper Motor and Link

### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the cowl panel. <Ref. to EI-39, REMOVAL, Cowl Panel.>
- 3) Disconnect the connector of wiper motor assembly.
- 4) Remove the bolt to remove wiper assembly.



**NOTE:**

Wiper motor and wiper link can not be disassembled, because those are assembly part.

### B: INSTALLATION

Install in the reverse order of removal.

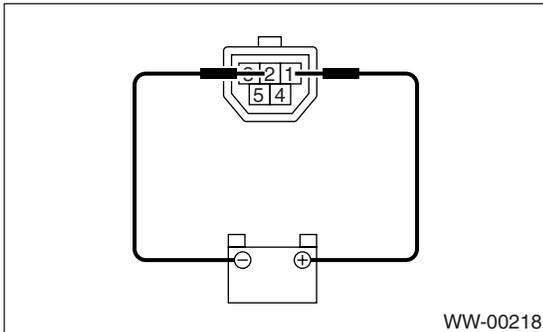
**Tightening torque:**

Refer to "COMPONENT" of "General Description".

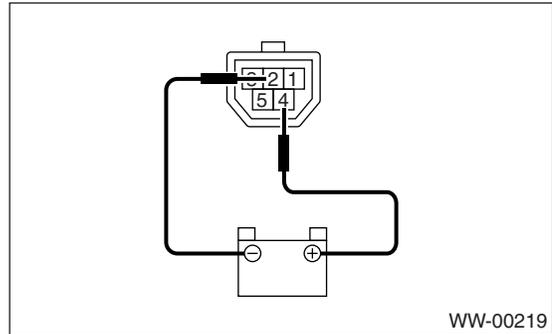
<Ref. to WW-2, FRONT WIPER, COMPONENT, General Description.>

### C: INSPECTION

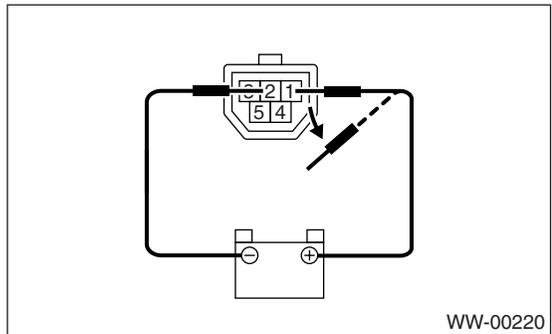
- 1) When the battery is connected to the terminal of connectors, confirm that the wiper motor operates at low speed.



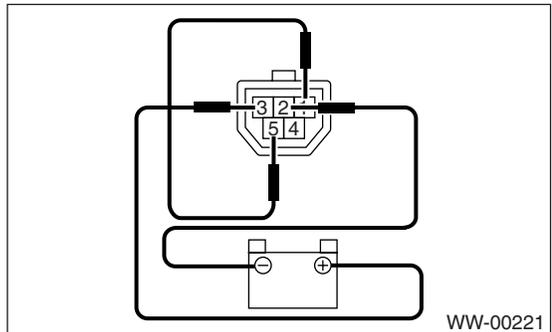
- 2) When the battery is connected to the terminal of connectors, confirm that the wiper motor operates at high speed.



- 3) Connect the battery to terminals of connector, and remove the terminal connection with wiper motor rotated at low speed, and stop the wiper motor through operation.



- 4) Connect the battery and confirm that the wiper motor stops at automatic stop position after the wiper motor operates at low speed again.



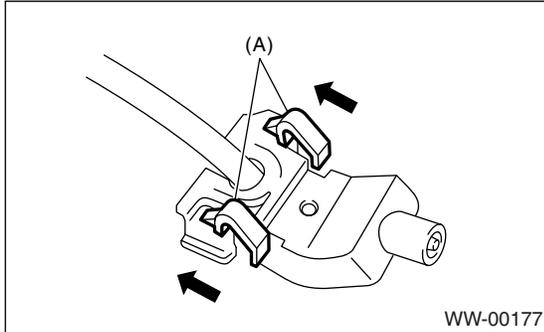
# Front Washer Nozzle

## WIPER AND WASHER SYSTEMS

### 8. Front Washer Nozzle

#### A: REMOVAL

- 1) Remove the front hood insulator. <Ref. to EB-13, FRONT HOOD INSULATOR, REMOVAL, Front Hood.>
- 2) Hold the pawl of washer nozzle (A) toward the arrow direction, and remove the washer nozzle.



- 3) Remove the washer hose from washer nozzle.

#### B: INSTALLATION

- 1) Install in the reverse order of removal.
- 2) Adjust the washer nozzle position. <Ref. to WW-16, ADJUSTMENT, Front Washer Nozzle.>

#### C: INSPECTION

- Make sure the nozzle and hose are not clogged.
- Make sure the hose is not bent.

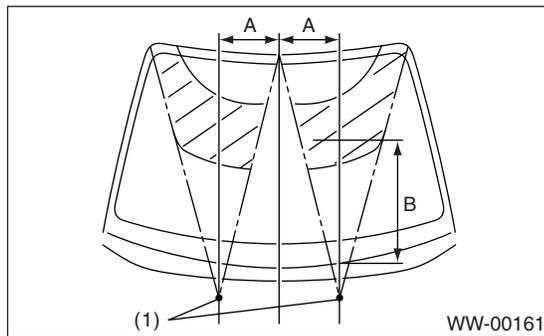
#### D: ADJUSTMENT

- 1) Turn the wiper switch to OFF position.
- 2) While the vehicle is at standstill, adjust the washer injection position as shown in the figure.

#### Injection position:

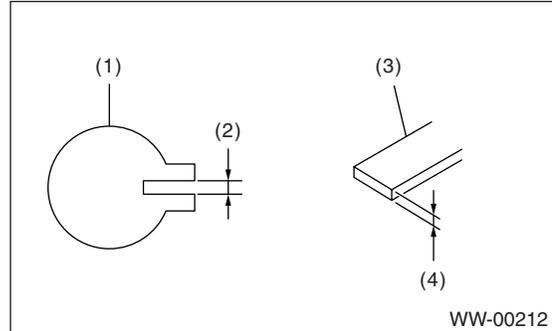
**A: 250 mm (9.84 in)**

**B: 435 mm (17.13 in)**



- (1) Nozzle

Injection angle should be adjusted with 0.5 mm (0.020 in) thickness steel scale. Use maximum thickness of 0.5 mm steel scale, because the injection slit width of washer nozzle is 0.6 mm (0.024 in). Adjusting with a flat tip driver may damage the injection slit and cause the faulty injection.

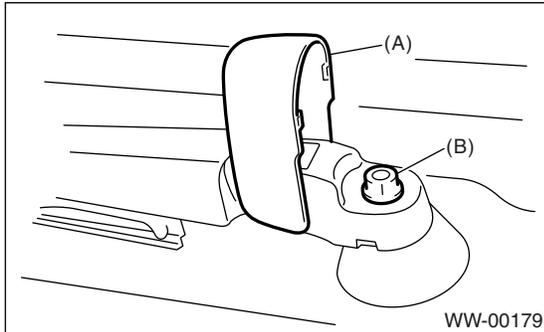


- (1) Inside of washer nozzle injection
- (2) 0.6 mm (0.024 in)
- (3) Steel scale
- (4) Max. 0.5 mm (0.020 in)

## 9. Rear Wiper Arm

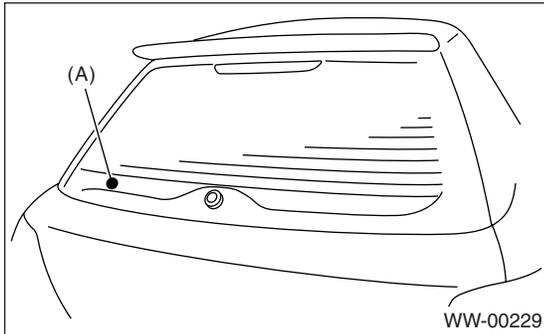
### A: REMOVAL

- 1) Detach the wiper arm cover (A).
- 2) Remove the nut (B) to remove wiper arm.



### B: INSTALLATION

- 1) Install in the reverse order of removal.
- 2) Operate the rear wiper once.
- 3) Align the blade with the marking (A) of glass.



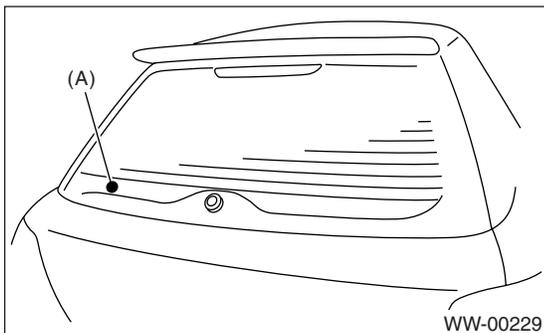
### Tightening torque:

Refer to "COMPONENT" of "General Description".

<Ref. to WW-3, REAR WIPER (WAGON MODEL), COMPONENT, General Description.>

### C: ADJUSTMENT

- 1) Operate the rear wiper once.
- 2) Align the blade with the marking (A) of glass.



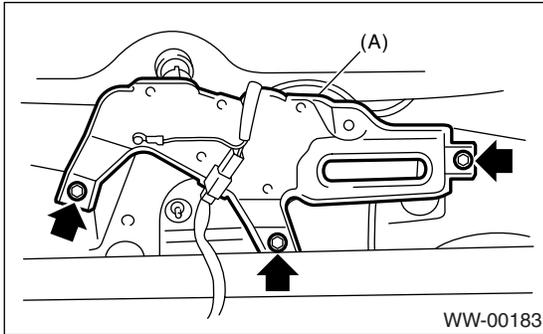
# Rear Wiper Motor

## WIPER AND WASHER SYSTEMS

### 10.Rear Wiper Motor

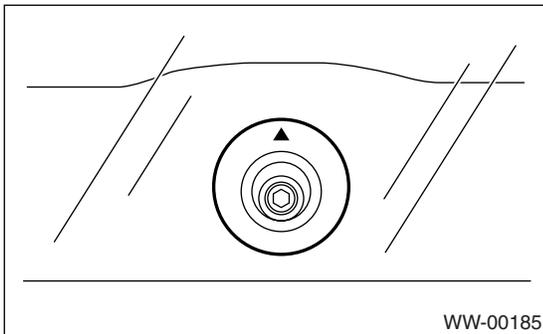
#### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the rear wiper arm. <Ref. to WW-17, REMOVAL, Rear Wiper Arm.>
- 3) Remove the rear gate lower trim. <Ref. to EI-68, REMOVAL, Rear Gate Trim.>
- 4) Disconnect the harness connector of wiper motor assembly.
- 5) Remove the bolts to remove wiper motor assembly (A).



#### B: INSTALLATION

- 1) Install in the reverse order of removal.
- 2) Be sure that the pivot cap with the arrow mark facing up, as shown in the figure.



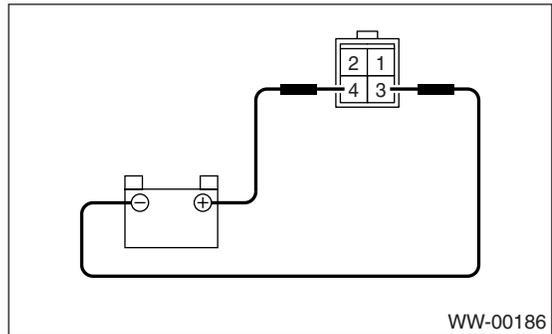
#### Tightening torque:

Refer to "COMPONENT" of "General Description".

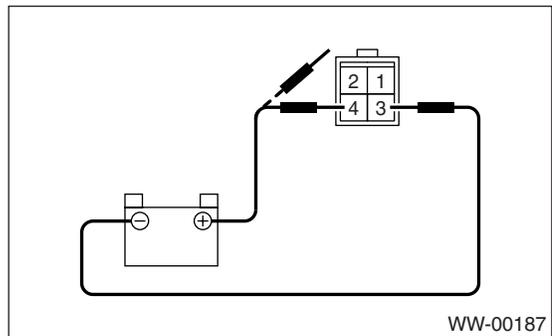
<Ref. to WW-3, REAR WIPER (WAGON MODEL), COMPONENT, General Description.>

#### C: INSPECTION

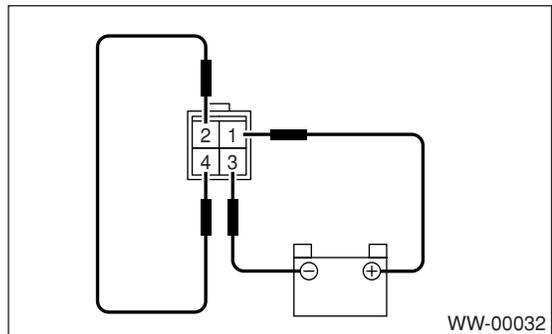
- 1) Connect the battery to wiper motor connector and confirm that wiper motor operates.



- 2) Connect the battery to terminals of connector, and remove the terminal connection with wiper motor rotated, and stop the wiper motor through operation.



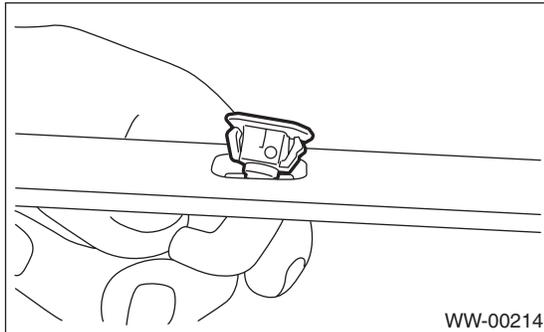
- 3) Connect the battery and confirm that the wiper motor stops at automatic stop position after the wiper motor operates at low speed again.



## 11.Rear Washer

### A: REMOVAL

- 1) Detach the roof spoiler. <Ref. to EI-40, REMOVAL, Roof Spoiler.>
- 2) Remove the washer hose from washer nozzle.
- 3) Push the pawl of nozzle from the reverse side of roof spoiler with a flat tip screwdriver or equivalent, and remove the washer nozzle.



### B: INSTALLATION

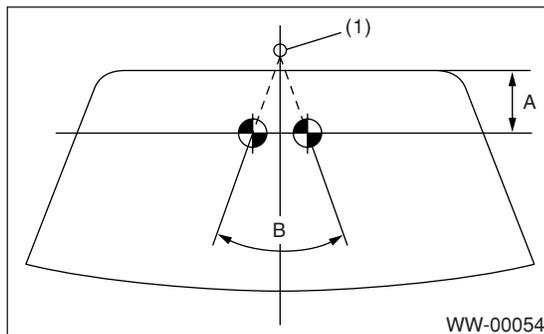
Install in the reverse order of removal.

### C: INSPECTION

- Make sure the nozzle and hose are not clogged.
- Make sure the hose is not bent.
- While the vehicle is at standstill, make sure the washer injection position as shown in the figure.

#### NOTE:

Washer injection position can not be adjusted.



- (1) Nozzle
- (A) 70 mm (2.76 in)
- (B) 70°

# Rear Washer

WIPER AND WASHER SYSTEMS

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# ENTERTAINMENT

# *ET*

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3. Front Accessory Power Supply Socket System .....	4
4. Audio .....	5
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8. Woofer.....	9
9. Antenna.....	10
10. Antenna Amplifier.....	11
11. Noise Suppressor.....	12
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13. Steering Satellite Switch .....	14

## 1. General Description

### A: CAUTION

- Before disassembling or reassembling parts, always disconnect the battery ground cable. When replacing the audio, control unit, and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory will be erased.
- Reassemble the parts in the reverse order of disassembly unless otherwise indicated.
- Adjust parts to the given specifications.
- Connect the connectors securely during reassembly.
- After reassembly, make sure the functional parts operate smoothly.

### B: PREPARATION TOOL

#### 1. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance and voltage.
Conductive silver composition (DUPONT No. 4817 or equivalent)	Used for repairing antenna wire.

## 2. Audio System

### A: WIRING DIAGRAM

<Ref. to WI-160, WIRING DIAGRAM, Audio System.>

### B: INSPECTION

Symptom	Repair order
No power coming in. (No display and no sound from speakers)	(1) Check the fuse and power supply for audio. (2) Check the audio ground. (3) Remove the audio and repair it.
A specific speaker does not operate.	(1) Check the speaker. (2) Check the output circuit between audio and speaker.
Audio generates noise with engine running.	(1) Check the audio ground. (2) Check the generator. (3) Check the ignition coil. (4) Remove the audio and repair it.
AM and FM modes are weak or noisy.	(1) Check the antenna. (2) Check the antenna amplifier. (3) Check the noise suppressor. (4) Check the audio ground. (5) Remove the audio and repair it.

## **3. Front Accessory Power Supply Socket System**

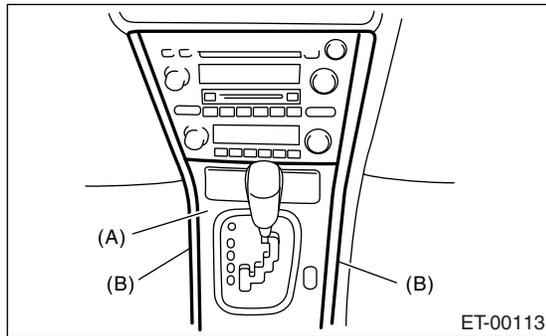
### **A: WIRING DIAGRAM**

<Ref. to WI-162, WIRING DIAGRAM, Front Accessory Power Supply Socket System.>

## 4. Audio

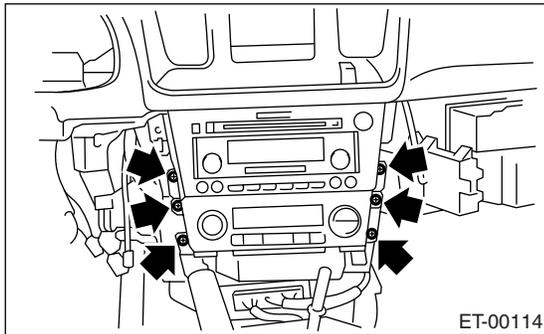
### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the console box. <Ref. to EI-53, REMOVAL, Console Box.>
- 3) Remove the console front panel. <Ref. to EI-54, REMOVAL, Center Console.>
- 4) Remove the console side garnish. <Ref. to EI-54, REMOVAL, Center Console.>



- (A) Console front panel  
(B) Console side garnish

- 5) Remove the screws, and slightly pull the audio out from center console.



- 6) Disconnect the harness connector and antenna feeder cord, and then remove the audio.

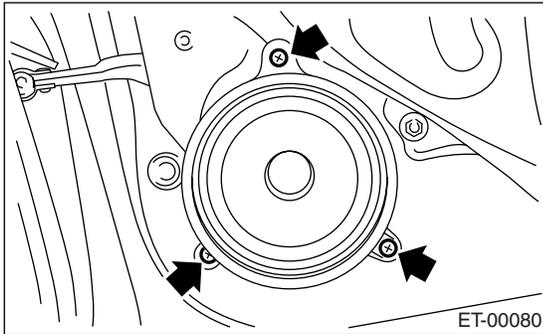
### B: INSTALLATION

Install in the reverse order of removal.

## 5. Front Speaker

### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the front door trim. <Ref. to EI-48, REMOVAL, Door Trim.>
- 3) Remove the front speaker mounting screws.



- 4) Disconnect the harness connector and remove front speaker.

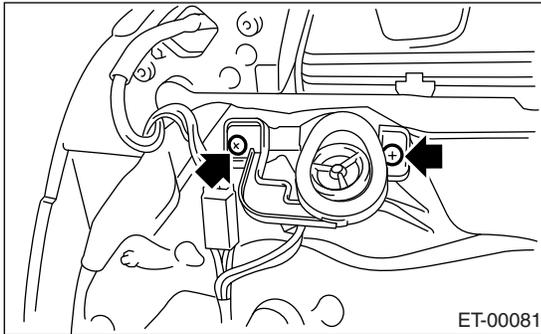
### B: INSTALLATION

Install in the reverse order of removal.

## 6. Tweeter

### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the front door trim. <Ref. to EI-48, REMOVAL, Door Trim.>
- 3) Remove the tweeter mounting screws.



- 4) Disconnect the harness connector and remove tweeter.

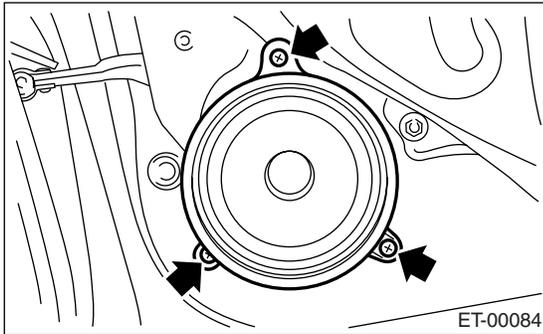
### B: INSTALLATION

Install in the reverse order of removal.

## 7. Rear Speaker

### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the rear door trim. <Ref. to EI-48, REMOVAL, Door Trim.>
- 3) Remove the rear speaker mounting screws.



- 4) Disconnect the harness connector and remove rear speaker.

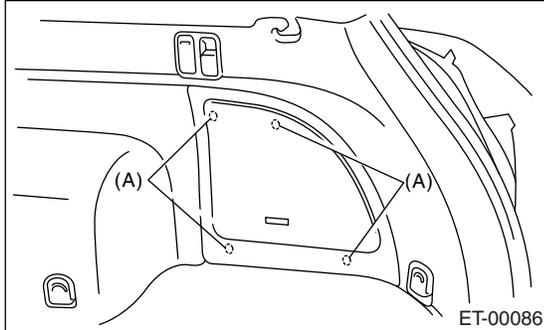
### B: INSTALLATION

Install in the reverse order of removal.

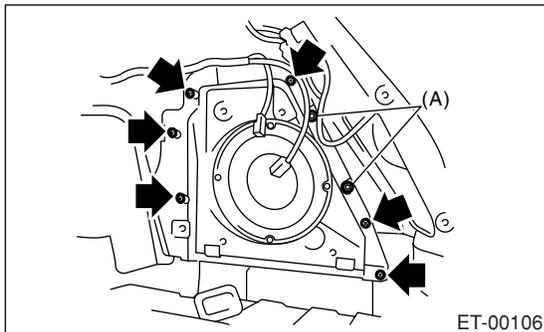
## 8. Woofers

### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the hooks (A) and detach woofer cover.  
<Ref. to EI-62, REMOVAL, Rear Quarter Trim.>



- 3) Remove the quarter lower trim. <Ref. to EI-62, REMOVAL, Rear Quarter Trim.>
- 4) Remove the woofer bracket mounting clips (A) and screws, and then remove the woofer bracket.



- 5) Disconnect the harness connector and detach woofer.

### B: INSTALLATION

Install in the reverse order of removal.

## 9. Antenna

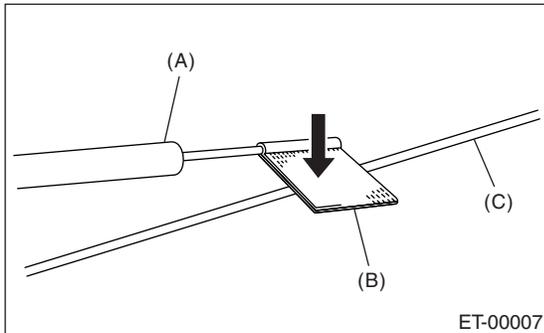
### A: INSPECTION

Measure the resistance between antenna terminal and each antenna wire.

If an antenna wire is OK, resistance will be less than 1  $\Omega$ . If an antenna wire is broken, resistance will be more than 1 M $\Omega$ .

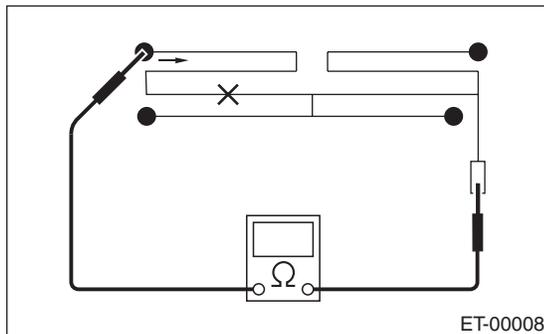
**NOTE:**

When checking the continuity, wind a piece of aluminum foil around the tip of tester probe and press the foil against wire with your finger.



- (A) Tester probe
- (B) Aluminum foil
- (C) Antenna wire

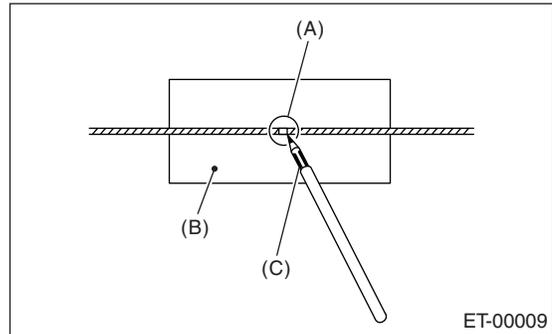
To locate the broken point, move the probe along antenna wire.



### B: REPAIR

- 1) Clean the antenna wire and surrounding area with a cloth dampened by alcohol.
- 2) Paste a thin masking film on the glass along broken wire.

- 3) Apply conductive silver composition (DUPONT No. 4817) on the broken portion with a drawing pen.



- (A) Broken portion
- (B) Masking film
- (C) Conductive silver composition

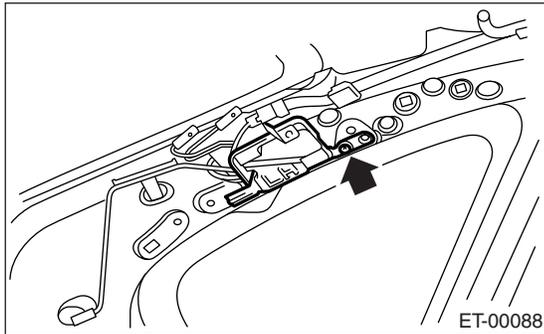
- 4) Dry out the deposited portion.
- 5) After repair has been completed, measure the resistance in repaired wire.

## 10. Antenna Amplifier

### A: REMOVAL

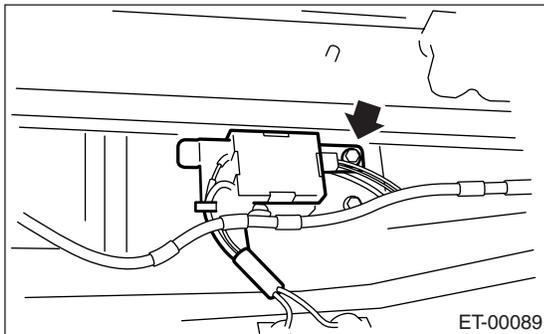
#### 1. SEDAN MODEL

- 1) Disconnect the ground cable from battery.
- 2) Remove the rear quarter trim. <Ref. to EI-62, SEDAN MODEL, REMOVAL, Rear Quarter Trim.>
- 3) Disconnect the harness connectors and terminals.
- 4) Remove the curtain airbag module. <Ref. to AB-20, REMOVAL, Curtain Airbag Module.>
- 5) Remove the screw and detach antenna amplifier.



#### 2. WAGON MODEL

- 1) Disconnect the ground cable from battery.
- 2) Remove the rear gate trim. <Ref. to EI-68, REMOVAL, Rear Gate Trim.>
- 3) Disconnect the harness connectors and terminals.
- 4) Remove the screw and detach antenna amplifier.



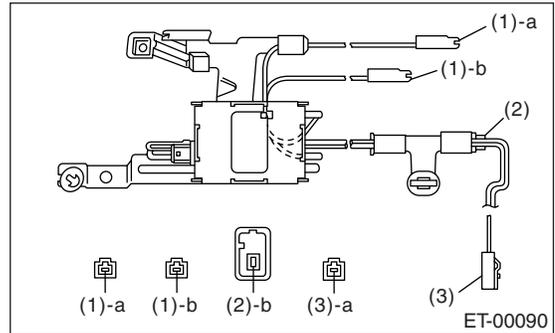
### B: INSTALLATION

Install in the reverse order of removal.

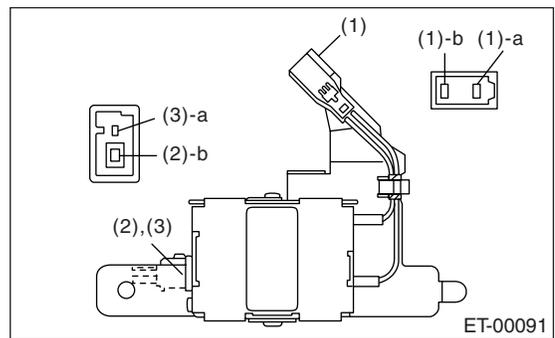
### C: INSPECTION

Measure the resistance of antenna amplifier.

- Sedan model



- Wagon model



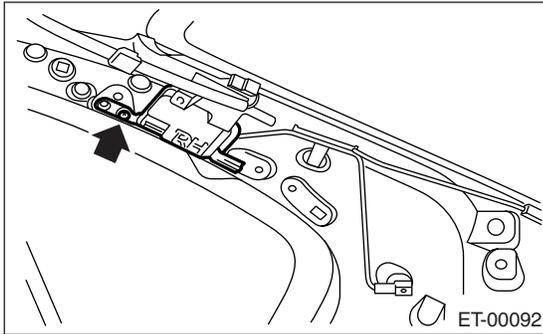
Terminal No.	Standard
(1)-a and Amplifier body	More than 10 kΩ
(1)-b and Amplifier body	More than 10 kΩ
(2)-b and Amplifier body	More than 10 kΩ
(3)-a and Amplifier body	More than 10 kΩ

## 11.Noise Suppressor

### A: REMOVAL

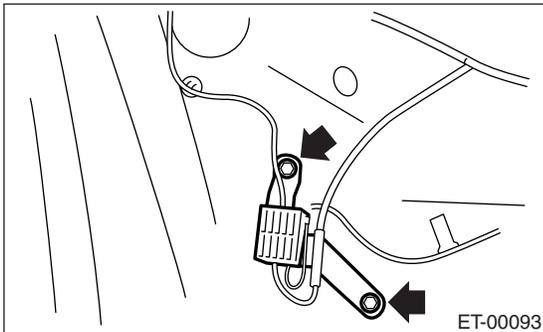
#### 1. SEDAN MODEL

- 1) Disconnect the ground cable from battery.
- 2) Remove the rear quarter trim. <Ref. to EI-62, SEDAN MODEL, REMOVAL, Rear Quarter Trim.>
- 3) Remove the curtain airbag module. <Ref. to AB-20, REMOVAL, Curtain Airbag Module.>
- 4) Disconnect the harness connector from noise suppressor.
- 5) Remove the harness clip.
- 6) Remove the screw and detach noise suppressor.



#### 2. WAGON MODEL

- 1) Disconnect the ground cable from battery.
- 2) Remove the rear gate trim. <Ref. to EI-68, REMOVAL, Rear Gate Trim.>
- 3) Disconnect the harness connector from noise suppressor.
- 4) Remove the screws and detach noise suppressor.



### B: INSTALLATION

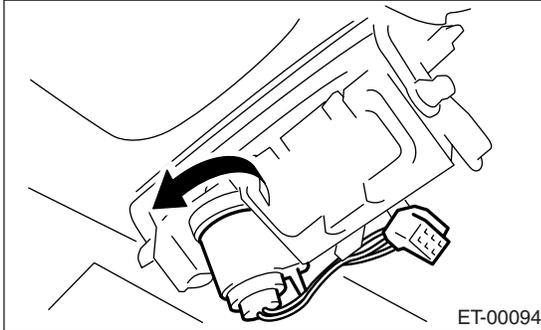
Install in the reverse order of removal.

## 12. Front Accessory Power Supply Socket

### A: REMOVAL

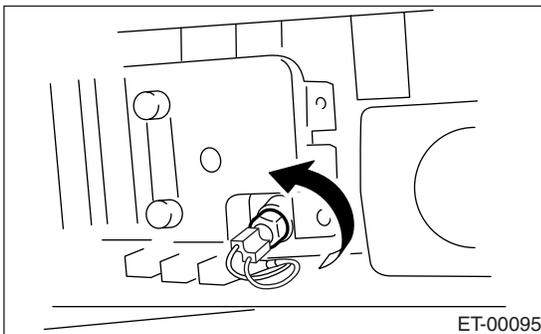
#### 1. FRONT

- 1) Disconnect the ground cable from battery.
- 2) Remove the console front panel. <Ref. to EI-54, REMOVAL, Center Console.>
- 3) Disconnect the harness connector, and remove the accessory power supply socket.



#### 2. REAR

- 1) Disconnect the ground cable from battery.
- 2) Remove the console box. <Ref. to EI-53, REMOVAL, Console Box.>
- 3) Disconnect the harness connector, and remove the accessory power supply socket.



### B: INSTALLATION

Install in the reverse order of removal.

## 13. Steering Satellite Switch

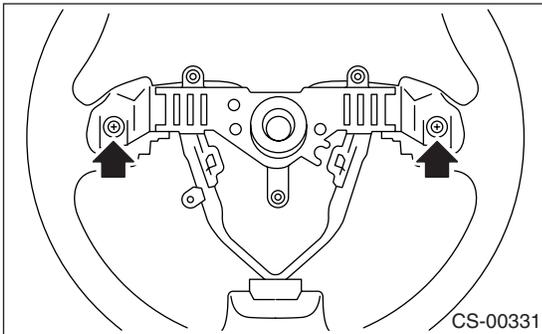
### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Set the tire to the straight-ahead position.
- 3) Remove the airbag module. <Ref. to AB-16, REMOVAL, Driver's Airbag Module.>

#### **WARNING:**

**With the airbag module equipped, always refer to "Airbag System" when performing the airbag module repair service. <Ref. to AB-16, INSPECTION, Driver's Airbag Module.>**

- 4) Remove the steering wheel. <Ref. to PS-14, REMOVAL, Steering Wheel.>
- 5) Remove the cover from steering wheel.
- 6) Remove each one of satellite switch mounting screw from the LH and RH side.

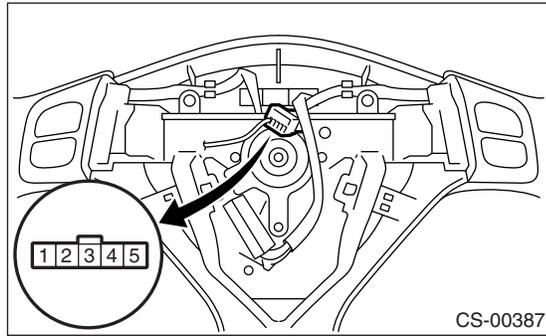


- 7) Remove the satellite switch.

### B: INSTALLATION

Install in the reverse order of removal.

## C: INSPECTION



	Step	Check	Yes	No
1	<b>MUTE SWITCH CONTINUITY CHECK.</b> 1) Press the mute switch. 2) Measure the resistance between satellite switch connector terminals. <b>Terminals</b> <b>No. 1 — No. 2:</b>	Is the resistance approx. 22 $\Omega$ ?	Go to step 2.	Replace the satellite switch.
2	<b>VOLUME SWITCH CONTINUITY CHECK.</b> 1) Press the volume switch. 2) Measure the resistance between satellite switch connector terminals. <b>Terminals</b> <b>No. 1 — No. 2: Volume up</b> <b>No. 1 — No. 2: Volume down</b>	Is the resistance approx. 90 $\Omega$ ? (Volume up) Is the resistance approx. 200 $\Omega$ ? (Volume down)	Go to step 3.	Replace the satellite switch.
3	<b>MODE SWITCH CONTINUITY CHECK.</b> 1) Press the mode switch. 2) Measure the resistance between satellite switch connector terminals. <b>Terminals</b> <b>No. 1 — No. 2:</b>	Is the resistance approx. 360 $\Omega$ ?	Go to step 4.	Replace the satellite switch.
4	<b>SEEK SWITCH CONTINUITY CHECK.</b> 1) Press the seek switch. 2) Measure the resistance between satellite switch connector terminals. <b>Terminals</b> <b>No. 1 — No. 2: Seek up</b> <b>No. 1 — No. 2: Seek down</b>	Is the resistance approx. 690 $\Omega$ ? (Seek up) Is the resistance approx. 1.5 k $\Omega$ ? (Seek down)	Go to step 5.	Replace the satellite switch.
5	<b>CHECK SATELLITE SWITCH INSULATION.</b> 1) Not to operate the satellite switch. 2) Measure the resistance between satellite switch connector terminals. <b>Terminals</b> <b>No. 1 — No. 2:</b>	Is the resistance approx. 4.7 k $\Omega$ ?	Satellite switch is normal.	Replace the satellite switch.

# Steering Satellite Switch

ENTERTAINMENT

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# COMMUNICATION SYSTEM

# COM

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	<b>Page</b>
1. General Description .....	2
2. Horn System .....	3
3. Horn .....	4
4. Horn Switch.....	5

## 1. General Description

### A: CAUTION

- Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing audio, control module, and other parts provided with memory functions, record memory contents before disconnecting the battery ground cable. Otherwise, the memory will be erased.
- Reassemble in reverse order of disassembly, unless otherwise indicated.
- Adjust parts to the given specifications.
- Connect the connectors securely during reassembly.
- After reassembly, make sure functional parts operate smoothly.

### B: PREPARATION TOOL

#### 1. GENERAL TOOLS

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

## 2. Horn System

### A: WIRING DIAGRAM

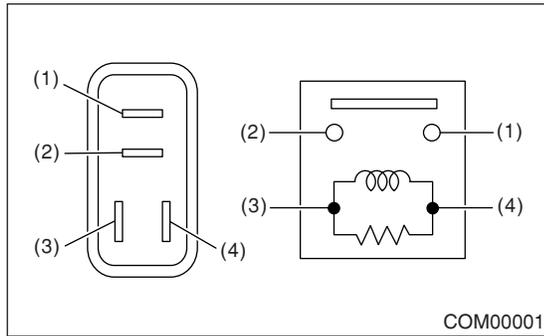
#### 1. HORN

<Ref. to WI-164, WIRING DIAGRAM, Horn System.>

### B: INSPECTION

#### 1. HORN RELAY

Measure the horn relay resistance between terminals (indicated in the table below) when connecting the terminal No. 4 to battery positive terminal and terminal No. 3 to battery ground terminal.

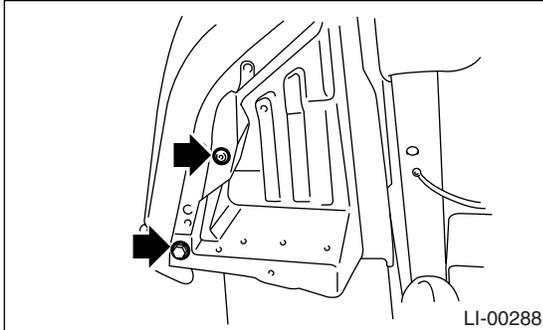


Current	Terminal No.	Standard
Flow	1 and 2	Less than 1 Ω
No Flow		More than 1 MΩ

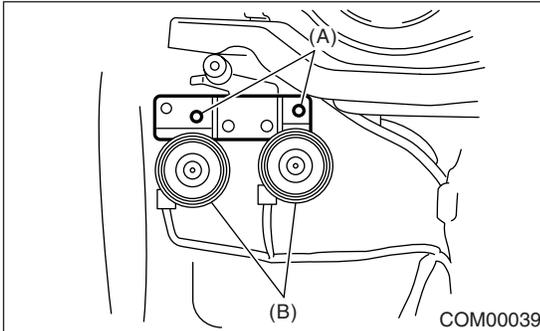
### 3. Horn

#### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the two clips and turn up the lower mud guard RH.



- 3) Remove the horn bracket mounting bolt (A).
- 4) Disconnect the harness connector and remove the horn assembly (B).

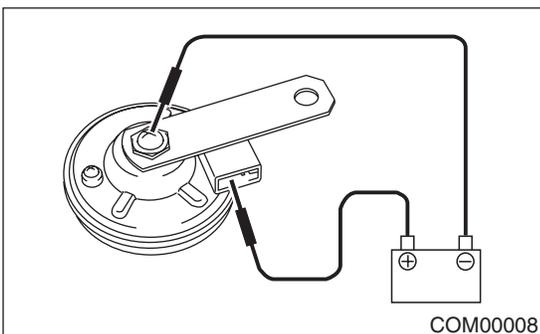


#### B: INSTALLATION

Install in the reverse order of removal.

#### C: INSPECTION

With 12 V direct current supplied between horn terminals, check that the horn sounds properly.



## 4. Horn Switch

### A: REMOVAL

**WARNING:**

Before servicing, be sure to read the notes in AB section for proper handling of driver's airbag module. <Ref. to AB-5, CAUTION, General Description.>

**NOTE:**

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

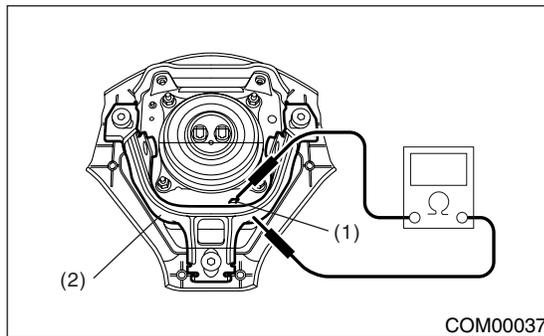
- 1) Disconnect the ground cable from battery.
- 2) Remove the driver's airbag module. <Ref. to AB-16, REMOVAL, Driver's Airbag Module.>

### B: INSTALLATION

Install in the reverse order of removal.

### C: INSPECTION

Measure the resistance between horn switch terminal and airbag module bracket.



- (1) Airbag module bracket
- (2) Horn switch terminal

Switch position	Terminal No.	Resistance
When horn switch is pushed	Horn switch terminal and airbag module bracket	Less than 1 $\Omega$
When horn switch is not pushed		More than 1 M $\Omega$

# Horn Switch

COMMUNICATION SYSTEM

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# GLASS/WINDOWS/MIRRORS

# GW

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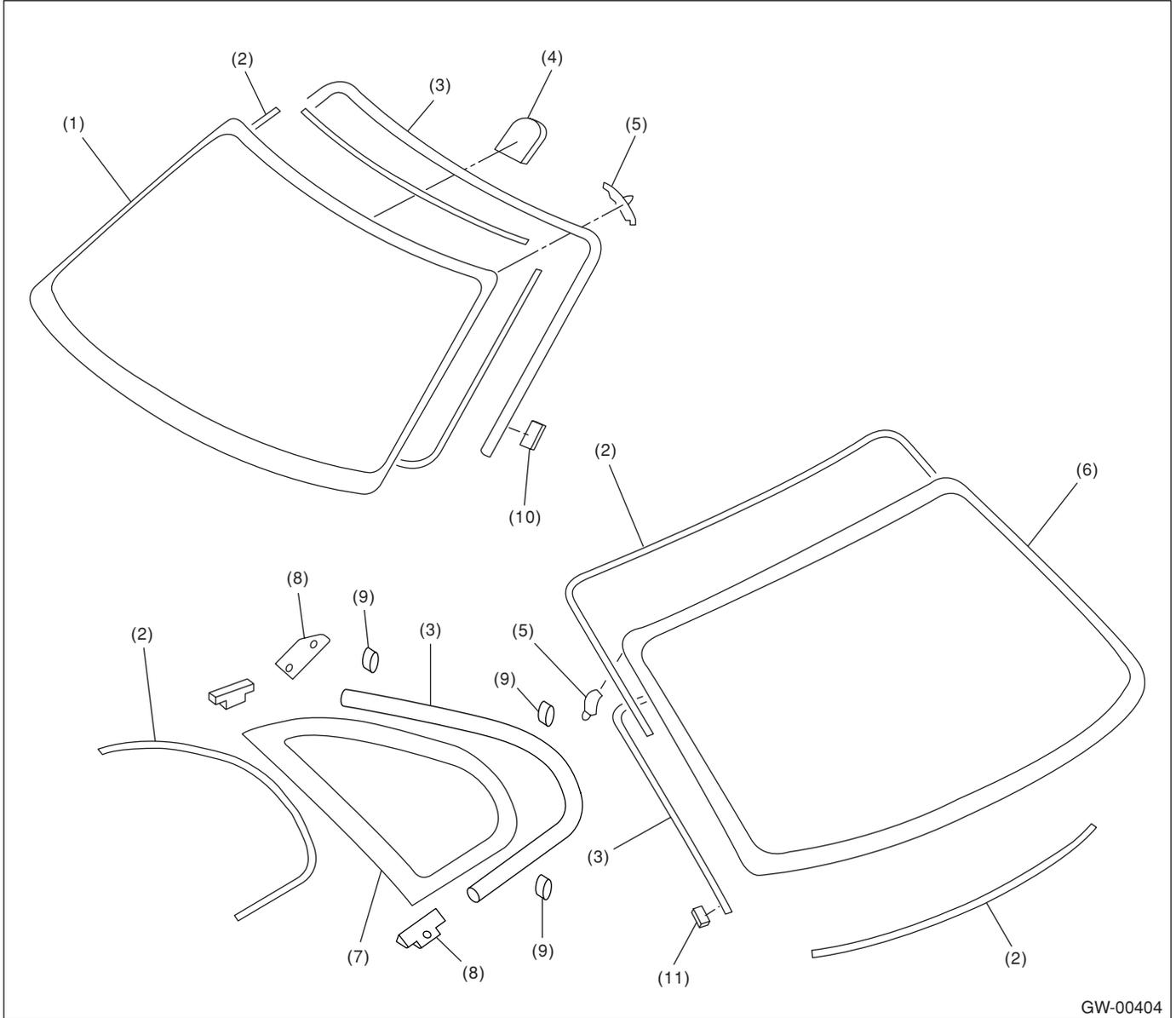
# General Description

GLASS/WINDOWS/MIRRORS

## 1. General Description

### A: COMPONENT

#### 1. FIXED GLASS (SEDAN MODEL)



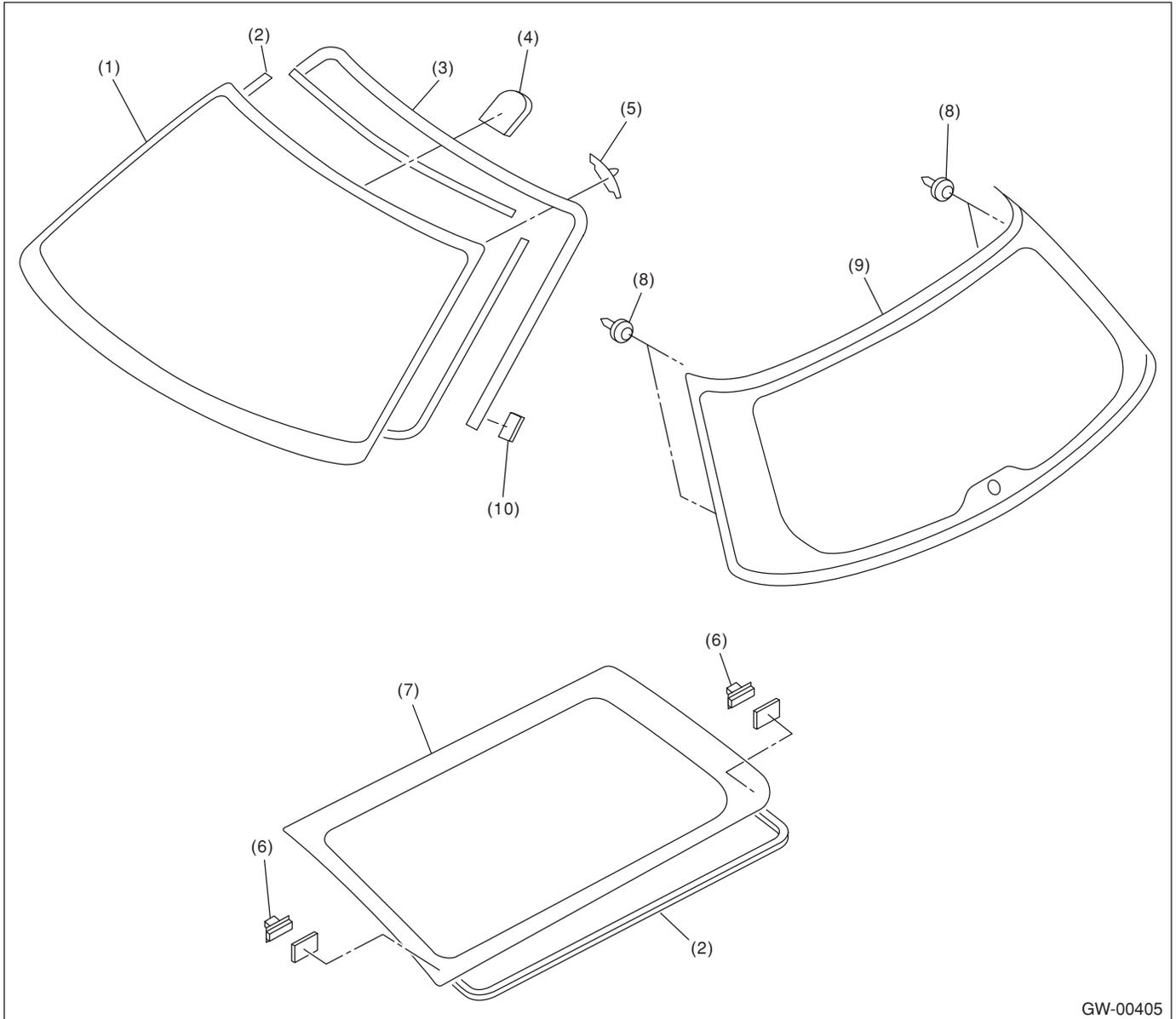
GW-00404

- (1) Windshield glass
- (2) Dam rubber
- (3) Molding
- (4) Rearview mirror mount

- (5) Locating pin
- (6) Rear window glass
- (7) Six light glass
- (8) Bracket

- (9) Clip
- (10) Seal
- (11) Spacer

## 2. FIXED GLASS (WAGON MODEL)



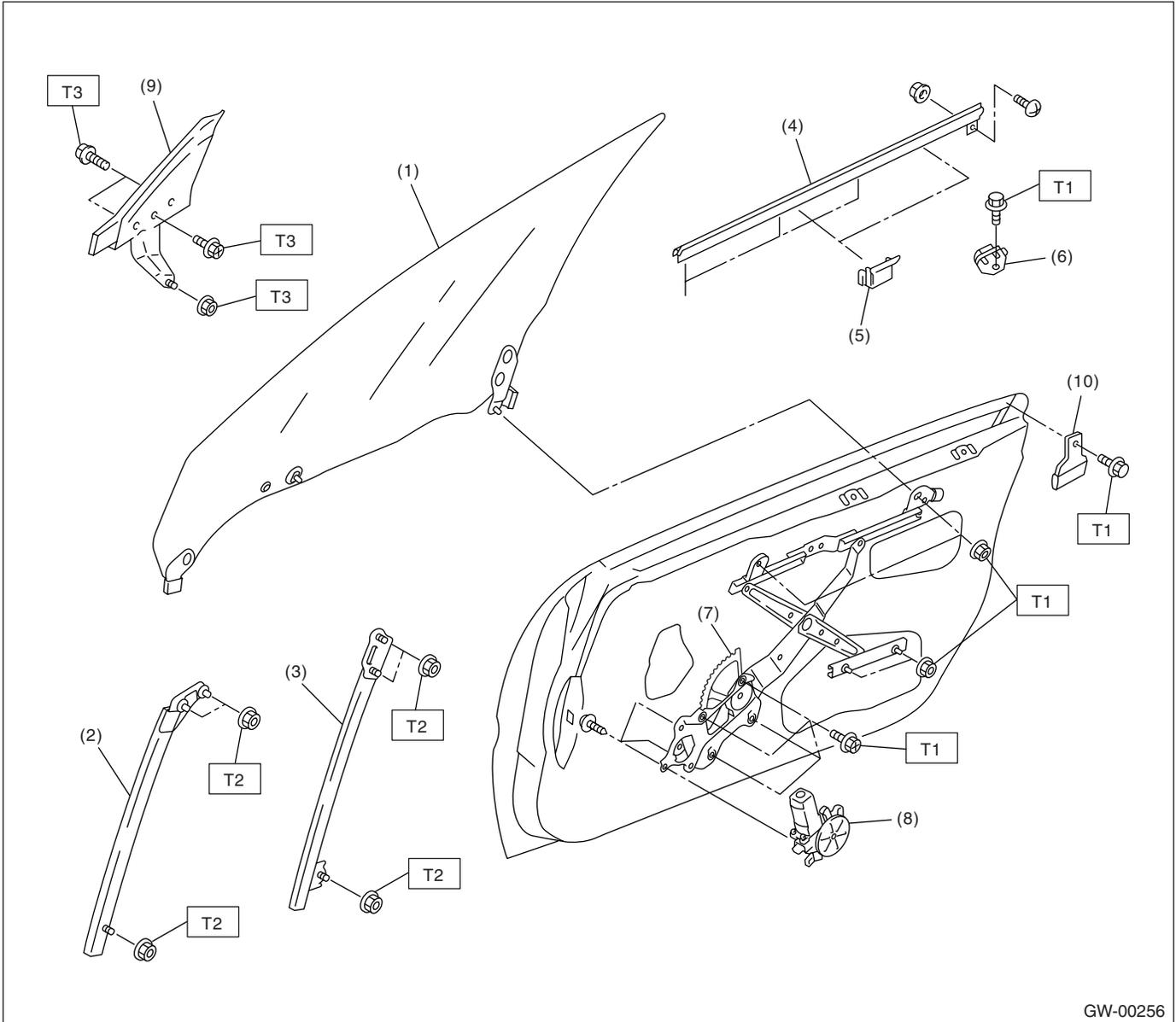
GW-00405

- |                           |                        |                     |
|---------------------------|------------------------|---------------------|
| (1) Windshield glass      | (5) Locating pin       | (9) Rear gate glass |
| (2) Dam rubber            | (6) Fastener           | (10) Seal           |
| (3) Molding               | (7) Rear quarter glass |                     |
| (4) Rearview mirror mount | (8) Locating pin       |                     |

# General Description

GLASS/WINDOWS/MIRRORS

## 3. FRONT DOOR GLASS



- |                        |                        |
|------------------------|------------------------|
| (1) Glass              | (6) Stabilizer (Inner) |
| (2) Door sash (Front)  | (7) Regulator ASSY     |
| (3) Door sash (Rear)   | (8) Motor ASSY         |
| (4) Weather strip      | (9) Mirror gusset      |
| (5) Stabilizer (Outer) | (10) Guide ASSY        |

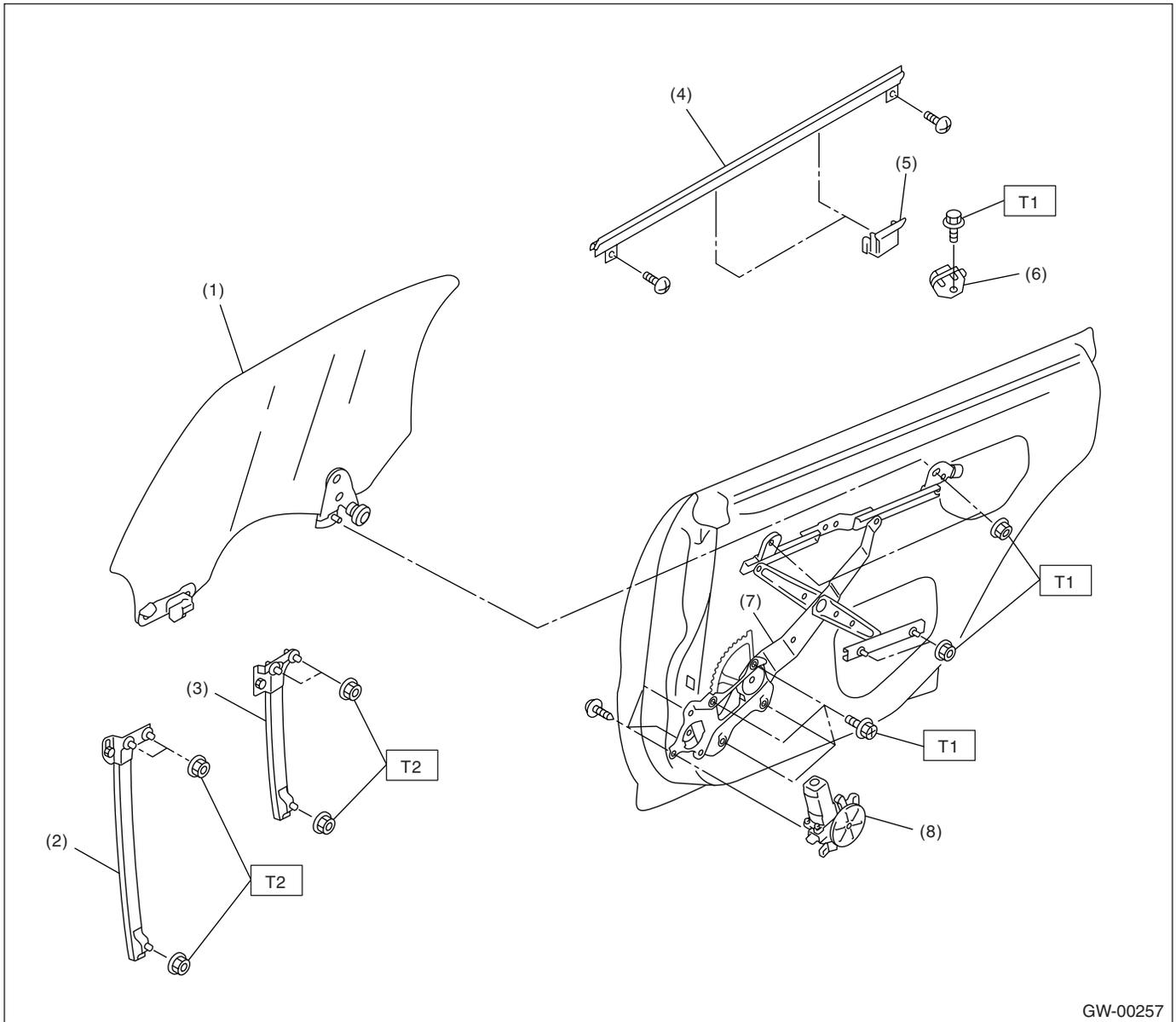
**Tightening torque: N·m (kgf·m, ft·lb)**

**T1: 7.4 (0.75, 5.5)**

**T2: 13.7 (1.4, 10.1)**

**T3: 5.9 (0.60, 4.4)**

## 4. REAR DOOR GLASS



- |                       |                        |
|-----------------------|------------------------|
| (1) Glass             | (5) Stabilizer (Outer) |
| (2) Door sash (Front) | (6) Stabilizer (Inner) |
| (3) Door sash (Rear)  | (7) Regulator ASSY     |
| (4) Weather strip     | (8) Motor ASSY         |

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

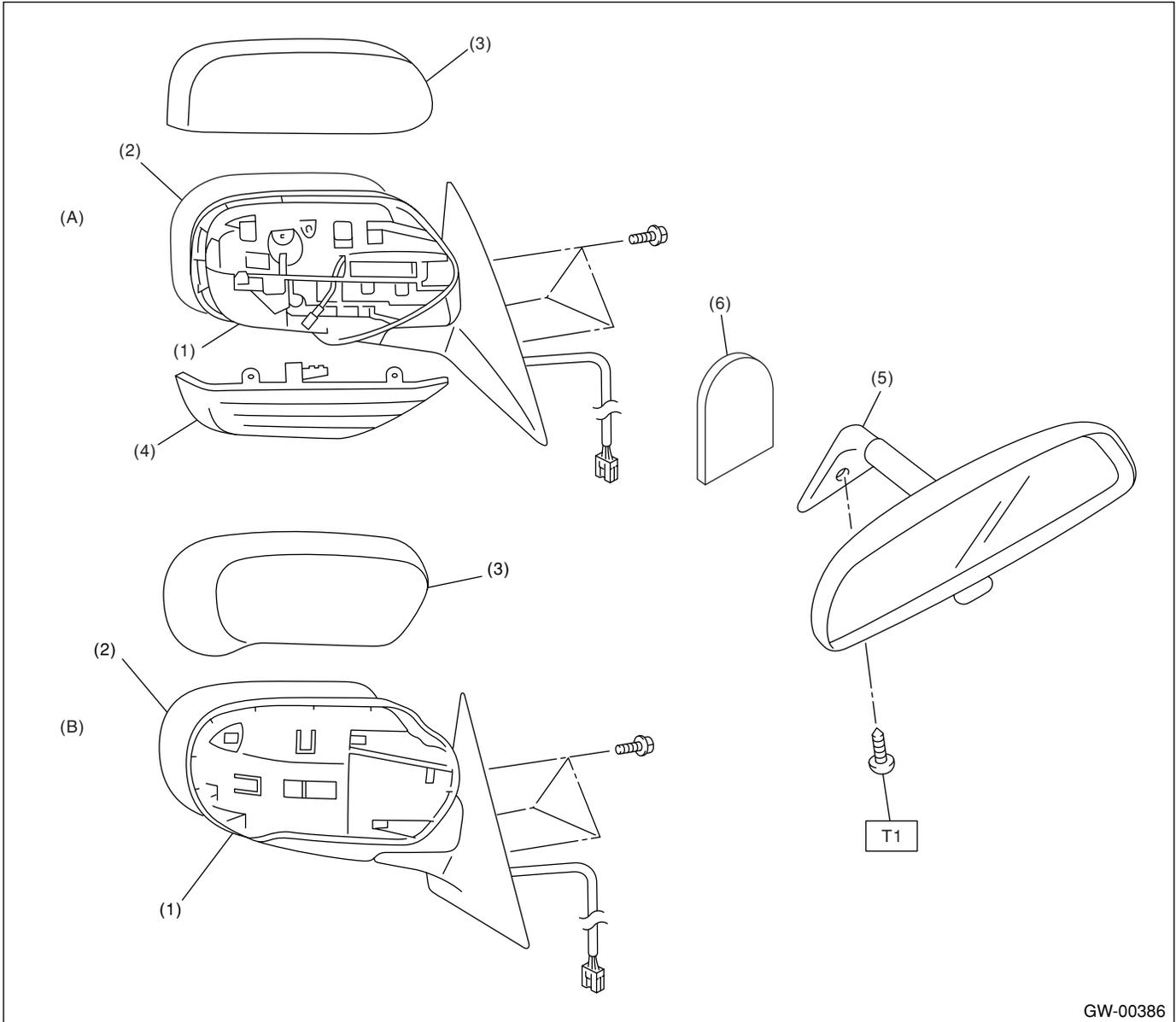
**T1: 7.4 (0.75, 5.5)**

**T2: 13.7 (1.4, 10.1)**

# General Description

GLASS/WINDOWS/MIRRORS

## 5. MIRROR



GW-00386

(A) Model with side turn signal light      (B) Model without side turn signal light

- |                  |                            |
|------------------|----------------------------|
| (1) Outer mirror | (4) Side turn signal light |
| (2) Mirror       | (5) Rearview mirror        |
| (3) Scalp cap    | (6) Mount                  |

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

**T1: 1.9 (0.19, 1)**

### B: CAUTION

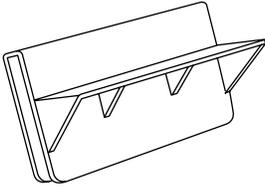
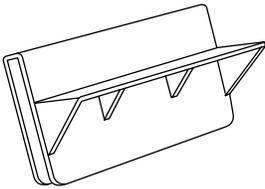
- When electrical connectors are disconnected, always conduct an operational check after connecting them again.
- Avoid impact and damage to the glass.

# General Description

GLASS/WINDOWS/MIRRORS

## C: PREPARATION TOOL

### 1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST61299AE000	61299AE000	SPACER	Used for adjusting the upper end position of front door glass. (Glass thickness: 5 mm (0.197 in))
 ST61299AE010	61299AE010	SPACER	Used for adjusting the upper end position of rear door glass. (Glass thickness: 4 mm (0.157 in))

### 2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for checking voltage and continuity.
Piano wire	Used for removing the window glass.
Windshield glass knife	Used for removing the window glass.

# Power Window System

GLASS/WINDOWS/MIRRORS

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## 2. Power Window System

### A: WIRING DIAGRAM

<Ref. to WI-165, Power Window System.>

### B: INSPECTION

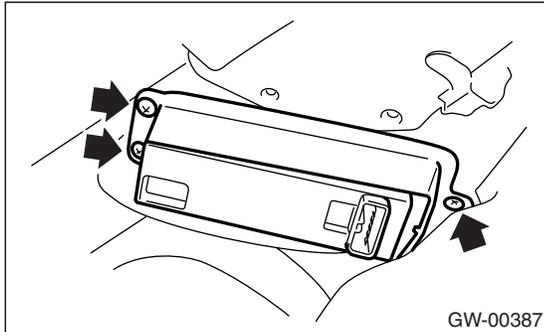
Symptom	Repair order
All power windows do not operate.	(1) Fuse (SBF-4) (2) Power window circuit breaker (3) Power window relay (4) Wiring harness (5) Body integrated unit
One window does not operate.	(1) Power window main switch (2) Power window sub switch (3) Power window motor (4) Wiring harness
"Window Lock" does not operate.	Power window main switch

### 3. Power Window Control Switch

#### A: REMOVAL

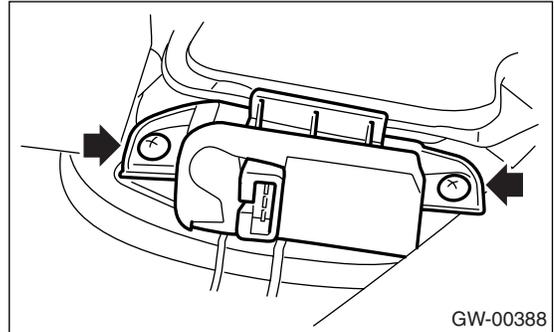
##### 1. MAIN SWITCH

- 1) Disconnect the ground cable from battery.
- 2) Remove the front door trim. <Ref. to EI-48, REMOVAL, Door Trim.>
- 3) Disconnect the harness connector.
- 4) Remove the screws from the reverse side of front door trim to remove the power window main switch.



##### 2. SUB SWITCH

- 1) Disconnect the ground cable from battery.
- 2) Remove the door trim. <Ref. to EI-48, REMOVAL, Door Trim.>
- 3) Disconnect the connector.
- 4) Remove the screws from the reverse side of door trim to remove the power window sub switch.



#### B: INSTALLATION

##### 1. MAIN SWITCH

Install in the reverse order of removal.

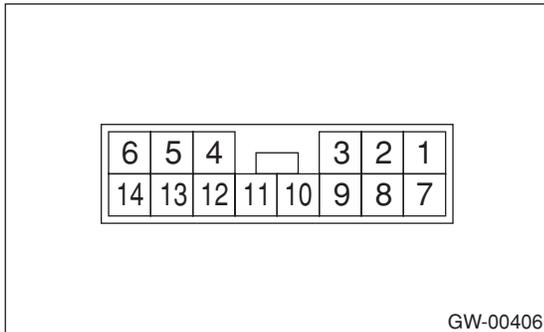
##### 2. SUB SWITCH

Install in the reverse order of removal.

#### C: INSPECTION

##### 1. MAIN SWITCH

Measure switch resistance.



	Switch position	Terminal No.	Standard
Driver's seat	UP	10 and 2, 7 and 1	Less than 1 Ω
	OFF	2 and 7, 1 and 2	Less than 1 Ω
	DOWN	10 and 1, 7 and 2	Less than 1 Ω
	AUTO DOWN	10 and 1, 7 and 2	Less than 1 Ω

	Switch position	Terminal No.	Standard
Passenger's seat	UP	10 and 14, 7 and 11	Less than 1 Ω
	OFF	7 and 14, 7 and 11	Less than 1 Ω
	DOWN	10 and 11, 7 and 14	Less than 1 Ω

# Power Window Control Switch

## GLASS/WINDOWS/MIRRORS

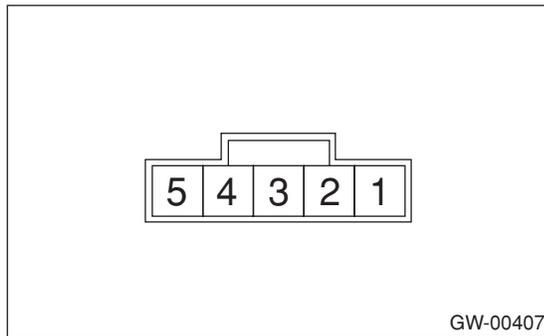
	Switch position	Terminal No.	Standard
Rear seat RH	UP	10 and 13, 7 and 12	Less than 1 $\Omega$
	OFF	7 and 13, 7 and 12	Less than 1 $\Omega$
	DOWN	10 and 12, 7 and 13	Less than 1 $\Omega$

	Switch position	Terminal No.	Standard
Rear seat LH	UP	10 and 8, 7 and 9	Less than 1 $\Omega$
	OFF	7 and 8, 7 and 9	Less than 1 $\Omega$
	DOWN	9 and 10, 7 and 8	Less than 1 $\Omega$

Replace the main switch if faulty.

## 2. SUB SWITCH

Measure switch resistance.



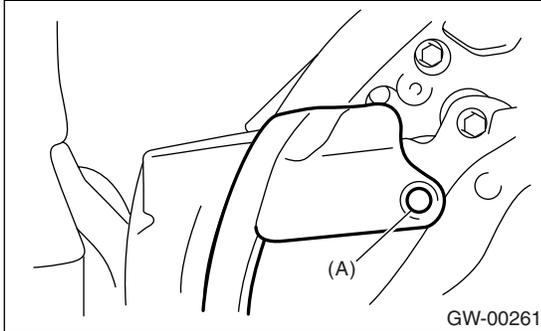
	Switch position	Terminal No.	Standard
Passenger's seat and rear	UP	2 and 3, 4 and 5	Less than 1 $\Omega$
	OFF	1 and 2, 4 and 5	Less than 1 $\Omega$
	DOWN	1 and 2, 3 and 4	Less than 1 $\Omega$

Replace the sub switch if faulty.

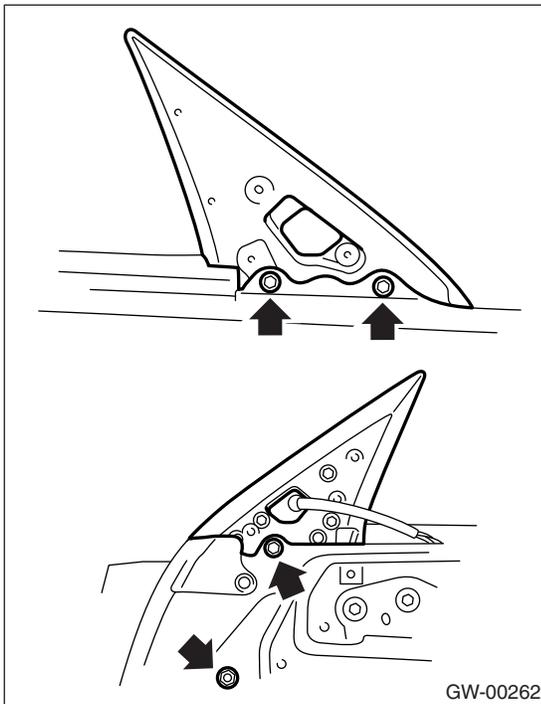
## 4. Front Door Glass

### A: REMOVAL

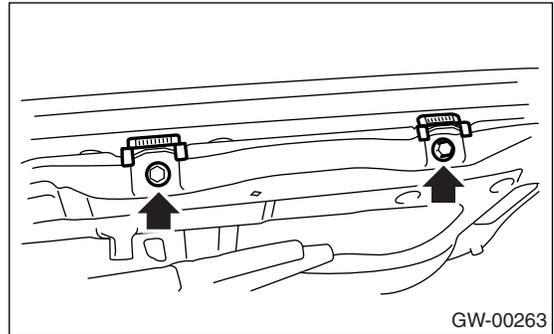
- 1) Remove the front door trim. <Ref. to EI-48, REMOVAL, Door Trim.>
- 2) Remove the sealing cover. <Ref. to EB-20, REMOVAL, Front Sealing Cover.>
- 3) Remove the outer mirror assembly. <Ref. to GW-19, REMOVAL, Outer Mirror Assembly.>
- 4) Remove the clip (A), and remove the front end of weather strip.



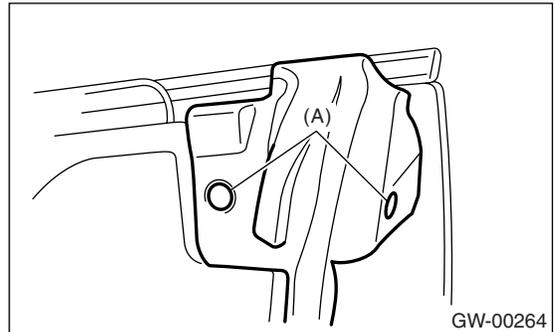
- 5) Remove the gusset.



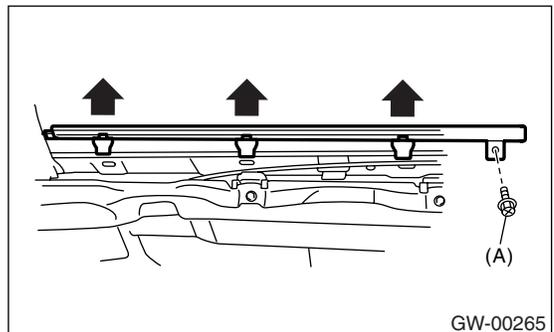
- 6) Remove the stabilizer.



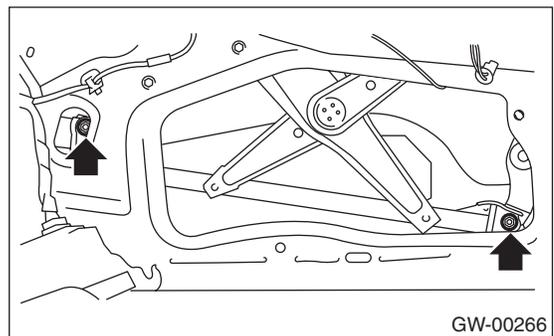
- 7) Remove the clips (A), and remove the rear end of weather strip.



- 8) Remove the screw (A) from the rear end of weather strip outer to remove weather strip outer.



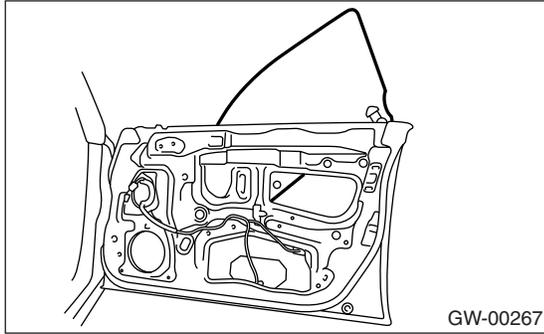
- 9) Remove the screws to remove guide assembly.
- 10) Operate the power window switch to move glass to position shown in the figure, and then remove the two nuts through service holes.



# Front Door Glass

## GLASS/WINDOWS/MIRRORS

11) Remove the door glass.



### CAUTION:

- Since the gear may be disengaged, do not turn regulator in the closing direction after removal of the glass.
- Avoid impact and damage to the glass.

### B: INSTALLATION

1) Install in the reverse order of removal.

### CAUTION:

Make sure that glass stay is placed securely in sash.

2) Adjust the front door glass. <Ref. to GW-12, ADJUSTMENT, Front Door Glass.>

### Tightening torque:

Refer to "COMPONENT" of "General Description". <Ref. to GW-4, FRONT DOOR GLASS, COMPONENT, General Description.>

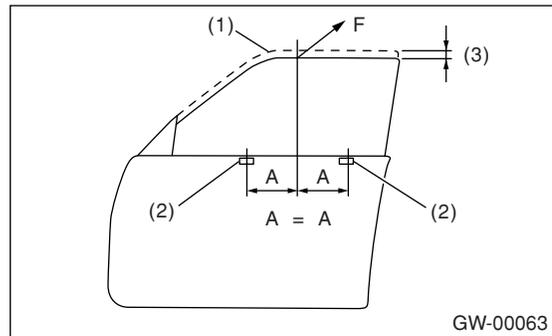
### C: ADJUSTMENT

#### NOTE:

Before adjustment, ensure that all adjusting bolts of stabilizer, upper stopper and sash are loose and door glass is raised so that it is in contact with weather strip.

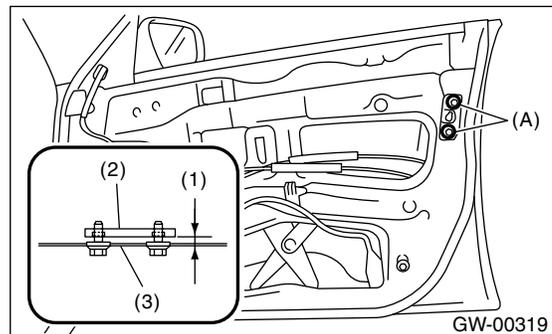
- 1) Temporarily tighten one adjusting bolt on one side of rear sash at the midpoint of slotted hole in the inner panel.
- 2) Temporarily tighten the regulator B-channel in a position at the top of slotted hole.
- 3) Lower the door glass 10 — 15 mm (0.39 — 0.59 in) from fully closed position. While applying outward pressure of  $45.0 \pm 5.0$  N ( $4.5 \pm 0.5$  kgf,  $9.9 \pm 1.1$  lb) (F) to upper edge of glass above midpoint of two outer stabilizers, press the inner stabilizer at pres-

sure of  $25 \pm 5$  N ( $2.5 \pm 0.5$  kgf,  $5.5 \pm 1.1$  lb) to the glass, then secure it.

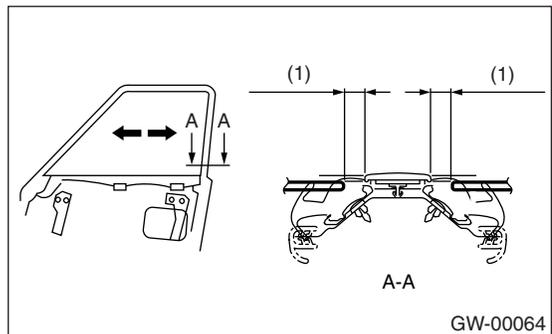


- (1) Fully closed position
- (2) Stabilizer
- (3) 10 — 15 mm (0.39 — 0.59 in)

4) For adjustment of clearance between front glass and center pillar cover, loosen the nuts (A), and move the glass sash back and forward until clearance becomes the value shown.

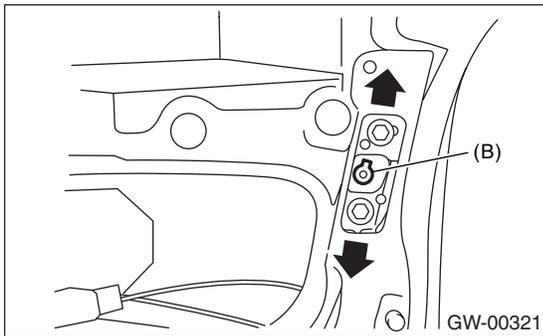
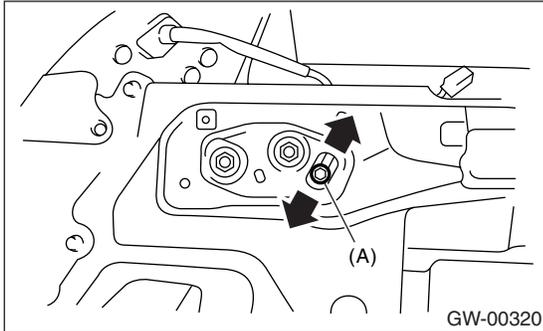


- (1) Adjust a line parallel
- (2) Sash
- (3) Inner panel

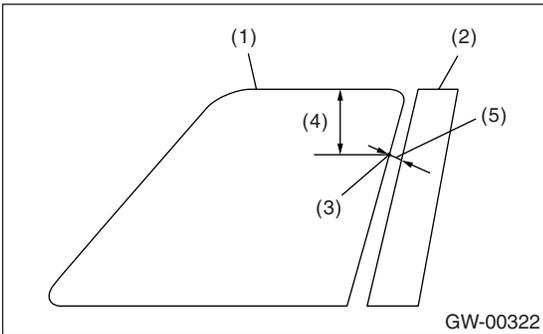


- (1) 11 mm (0.433 in)

5) To adjust the upper end and lower end of center pillar, loosen the stopper bolt (A) or nut (B) securing door sash, move the stopper position until the clearance between center pillar cover is equal.

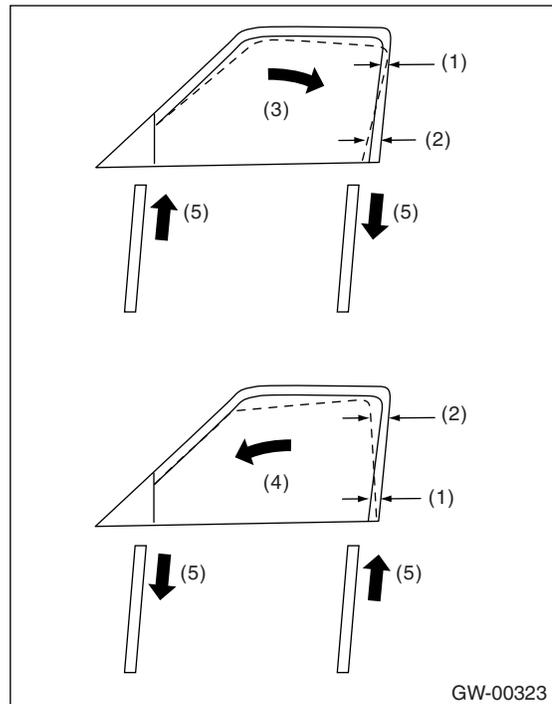


**CAUTION:**  
Perform the measurement of clearance between center pillar at less than 50 mm (1.969 in) from upper end of window glass.



- (1) Glass
- (2) Center pillar cover
- (3) Check point
- (4) 50 mm (1.969 in)
- (5) 11 mm (0.433 in)

6) Adjust so that the upper and lower ends of center pillar are the same size.

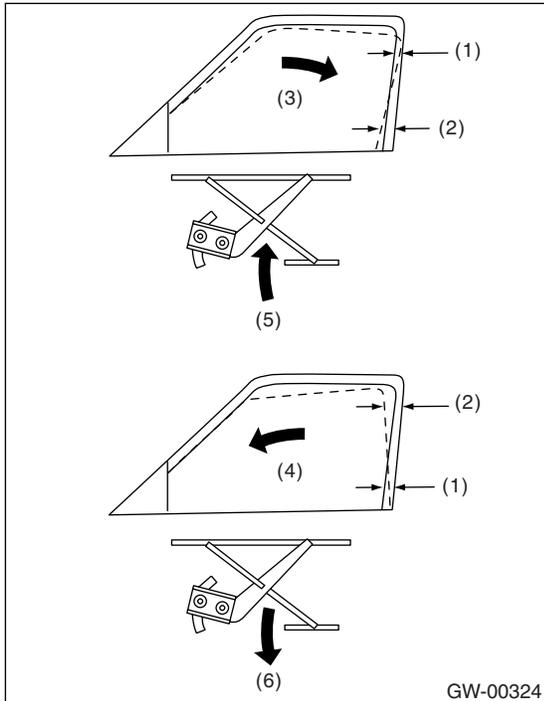


- (1) Narrow
- (2) Wide
- (3) Glass tilts too far rearward
- (4) Glass tilts too far forward
- (5) Stopper adjusting direction

# Front Door Glass

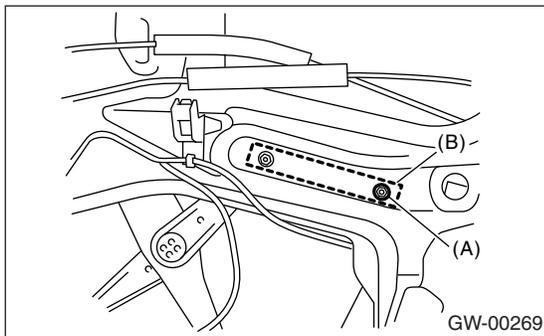
## GLASS/WINDOWS/MIRRORS

7) After adjusting the clearance between center pillar, up and down the glass several times to check glass contact to stopper when glass is fully closed. Adjust it to contact the front and rear stopper simultaneously.



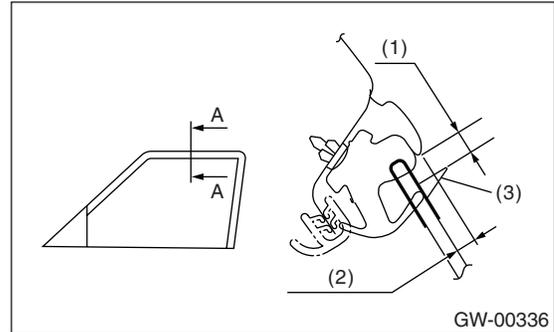
- (1) Narrow
- (2) Wide
- (3) When the stopper of door sash (rear) contacts first
- (4) When the stopper of door sash (front) contacts first
- (5) Raise B channel
- (6) Lower B channel

8) For adjustment of the upper and lower ends of center pillar, loosen the adjusting nut (A) of B-channel (B).



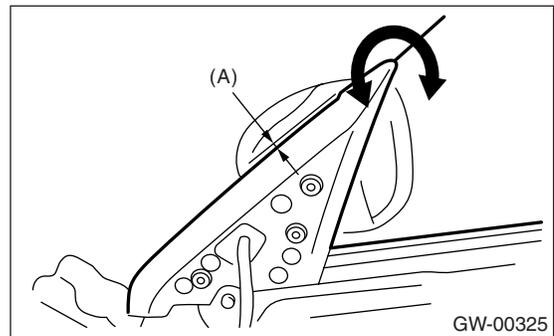
9) For glass stroke adjustment, install the ST to glass, close the door, and raise the glass with regulator until positional relationship between glass and weather strip becomes as shown. And secure the glass so that the upper stopper correctly touches the glass holder.

ST 61299AE000 SPACER (Glass thickness: 5 mm (0.197 in) for front door glass)



- (1) 3.2 — 4.8 mm (0.126 — 0.189 in)
- (2) 3.0 mm (0.118 in): when replacing weather stripe with a new one  
5.5 mm (0.217 in): when re-using weather stripe
- (3) ST

For preventing wind noise, adjust the glass at the position where tip of gusset is raised up a little.



- (A) 0 — 1.5 mm (0 — 0.059 in)

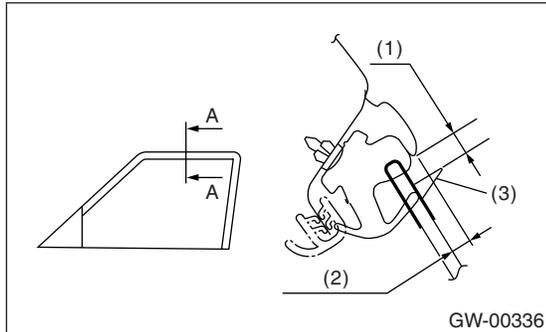
10) After stabilizer adjustment, carry out the glass cohesion adjustment. First, visually ensure the positional relationship between retainer & molding and glass of the roof side, and then begin with rear sash adjustment. Install the ST to glass and adjust two adjusting bolts alternately step by step to obtain dimensions shown below (cross-section A).

### NOTE:

If two nuts are loosened at the same time, the sash moves back and forth. Therefore, when one nut is adjusted, secure the other.

11) Make the same adjustment of two adjusting bolts of rear sash.

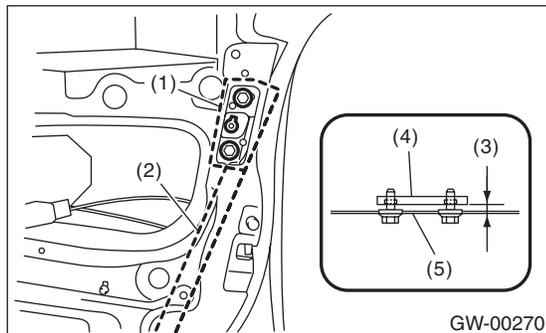
ST 61299AE000 SPACER (Glass thickness: 5 mm (0.197 in) for front door glass)



- (1) 3.2 — 4.8 mm (0.126 — 0.189 in)
- (2) 3.0 mm (0.118 in): when replacing weather stripe with a new one  
5.5 mm (0.217 in): when re-using weather stripe
- (3) ST

**NOTE:**

Do not tilt the sash bracket to inner panel during adjustment. Otherwise smooth regulator operation cannot be achieved.



- (1) Sash bracket
- (2) Rear sash
- (3) Adjust a line parallel
- (4) Sash
- (5) Inner panel

12) Make adjustment of front sash in the same manner as that of rear sash.

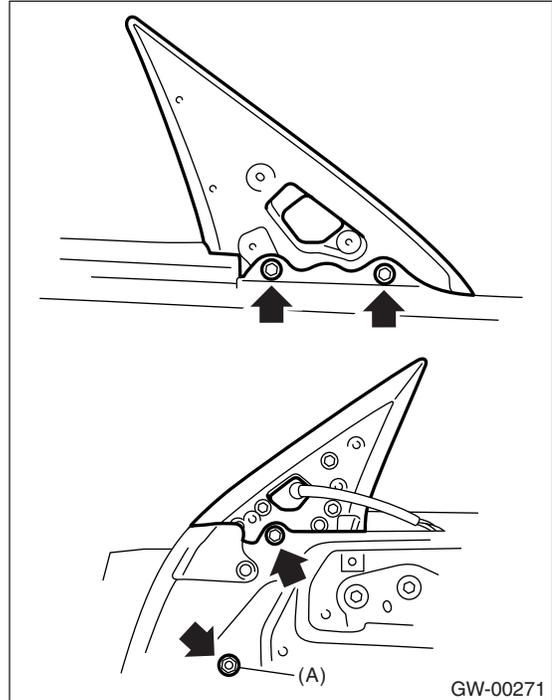
**NOTE:**

Although front and rear sashes must, as a rule, be adjusted in the same manner, in some door installation, the adjustment in a different manner may be required. However, adjustment of one sash to the maximum amount and the other to the minimum amount is not permitted. Such adjustment may result in application of excessive load to regulator.

13) After adjustments, tighten the nuts.

14) After adjustment of the glass, close the door. If there is a gap between outer lip of gusset and glass surface, adjust the gap with adjusting bolt (A) in lower fitting part of gusset to prevent generation of wind noise.

15) During adjustment, loosen the other three clamping bolts.

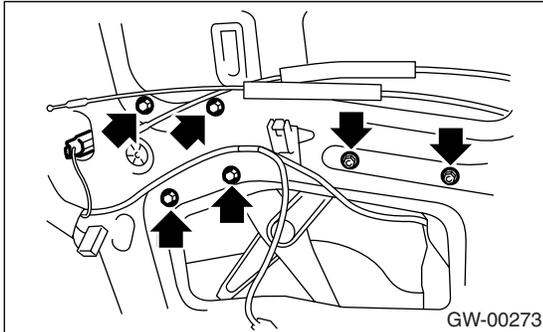


16) After adjustment, tighten the bolts and nuts.

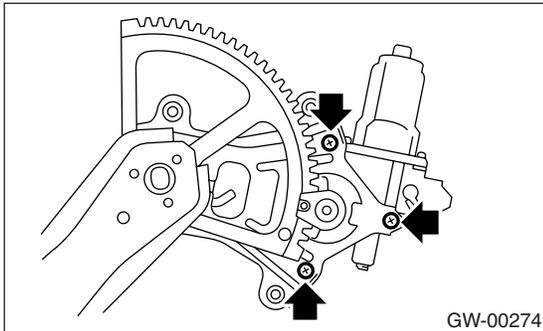
## 5. Front Regulator and Motor Assembly

### A: REMOVAL

- 1) Remove the door glass. <Ref. to GW-11, REMOVAL, Front Door Glass.>
- 2) Disconnect the motor connector.
- 3) Remove the four bolts and two nuts to remove regulator assembly.



- 4) Remove the screws to remove motor assembly.



### NOTE:

When removing the motor assembly, secure the arm correctly, because the regulator arm moves in the force of balancing spring.

### B: INSTALLATION

- 1) Install in the reverse order of removal.
- 2) Adjust the front door glass. <Ref. to GW-12, ADJUSTMENT, Front Door Glass.>

### **Tightening torque:**

*Refer to "COMPONENT" of "General Description". <Ref. to GW-4, FRONT DOOR GLASS, COMPONENT, General Description.>*

### C: INSPECTION

- 1) Make sure that the power window motor rotates properly when the battery voltage is applied to the terminals of motor connector.
- 2) Change polarity of battery connection to terminals to ensure that the motor rotates in reverse direction.

## 6. Remote Control Mirror System

### A: WIRING DIAGRAM

<Ref. to WI-170, Remote Control Mirror System.>

### B: INSPECTION

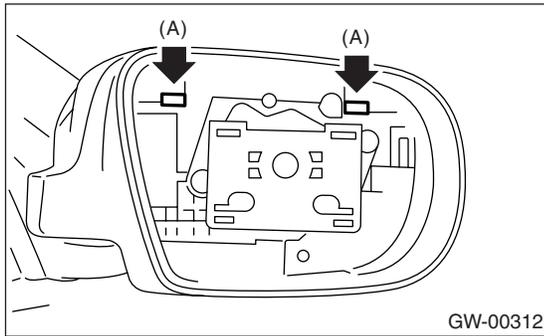
Symptom	Repair order
All function does not operate.	(1) Fuse (F/B No. 6) (2) Mirror switch (3) Wiring harness
One side of the mirror motor does not operate.	(1) Mirror switch (2) Mirror motor (3) Wiring harness
Mirror heater does not operate.	(1) Mirror switch (2) Mirror heater (3) Wiring harness

## 7. Scalp Cap

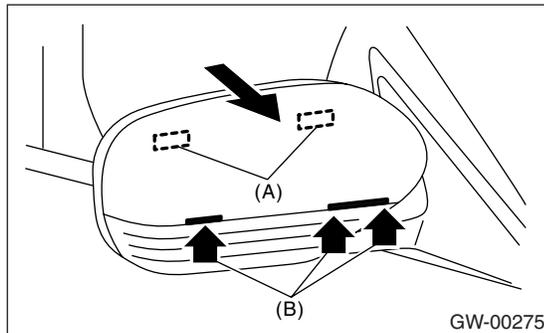
### A: REPLACEMENT

#### 1. MODEL WITH SIDE TURN SIGNAL LIGHT

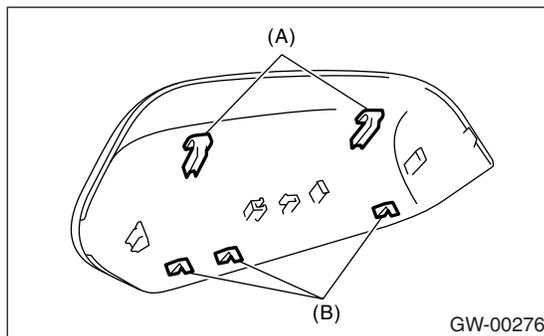
- 1) Remove the mirror. <Ref. to GW-21, REPLACEMENT, Outer Mirror.>
- 2) Press-in the upper side clips (A) from inside of door mirror.



- 3) Pull the scalp cap forward of door mirror, remove the upper side clips (A) and lower side hooks (B), and then remove the scalp cap.



- 4) Insert the lower hooks (B) of scalp cap to door mirror and push the upper clips (A) in.



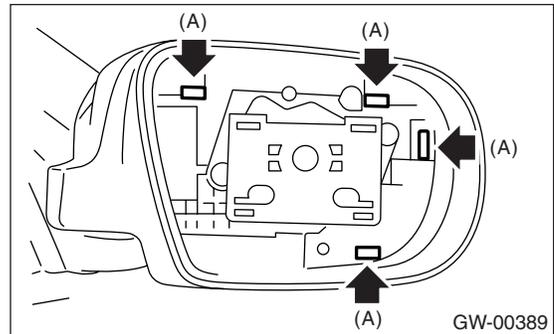
- 5) Install the scalp cap securely.

#### CAUTION:

Do not remove the scalp cap forcibly. The lower hooks may be damaged.

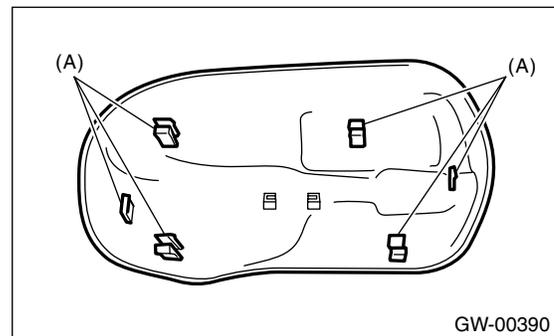
#### 2. MODEL WITHOUT SIDE TURN SIGNAL LIGHT

- 1) Remove the mirror. <Ref. to GW-21, REPLACEMENT, Outer Mirror.>
- 2) Press-in the clips (A) from inside of door mirror.



- 3) Pull the scalp cap frontward of door mirror, and then remove the scalp cap.

- 4) Mate the backside clip (A) of scalp cap with the clip hole of the outer mirror to install, and then push the scalp cap in.

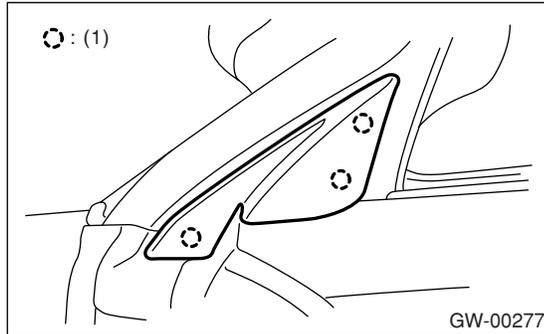


- 5) Install the scalp cap securely.

## 8. Outer Mirror Assembly

### A: REMOVAL

1) Remove the mirror gusset cover.

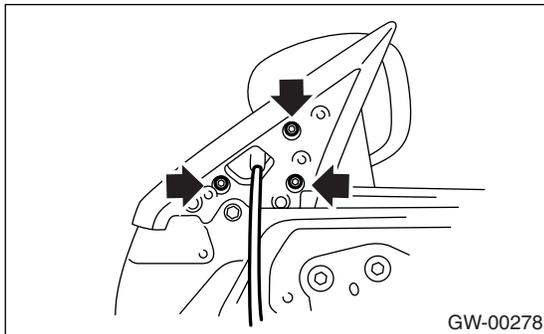


(1) Hook

2) Remove the door trim. <Ref. to EI-48, REMOVAL, Door Trim.>

3) Disconnect the mirror connector.

4) Remove the screws to remove mirror assembly.



### B: INSTALLATION

Install in the reverse order of removal.

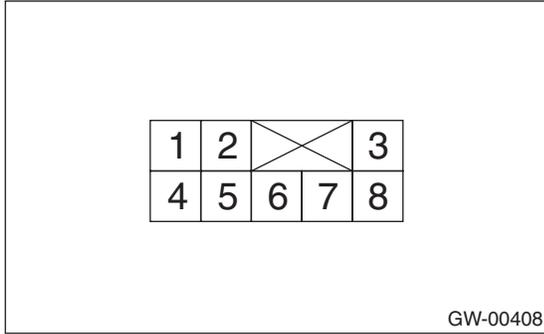
# Outer Mirror Assembly

GLASS/WINDOWS/MIRRORS

## C: INSPECTION

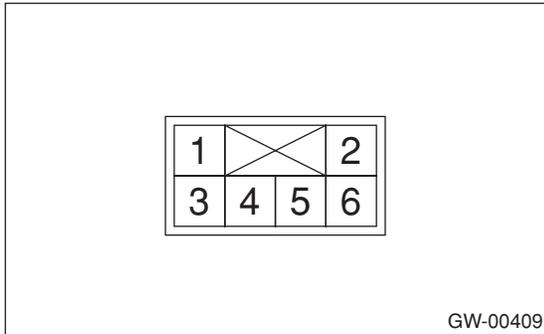
Check that the rearview mirror moves properly when the battery voltage is applied to terminals.

- Model with side turn signal light



Switch position	Terminal No.
OFF	—
UP	6 (+) and 3 (-) or 8 (-)
DOWN	3 (+) or 8 (+) and 6 (-)
LEFT	7 (+) and 3 (-) or 8 (-)
RIGHT	3 (+) or 8 (+) and 7 (-)

- Model without side turn signal light



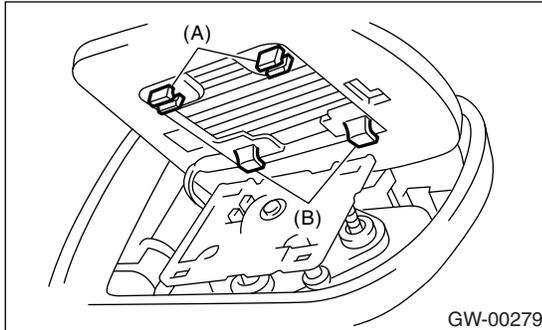
Switch position	Terminal No.
OFF	—
UP	4 (+) and 2 (-) or 6 (-)
DOWN	2 (+) or 6 (+) and 4 (-)
LEFT	5 (+) and 6 (-) or 2 (-)
RIGHT	6 (+) or 2 (+) and 5 (-)

Replace the outer mirror assembly if defective.

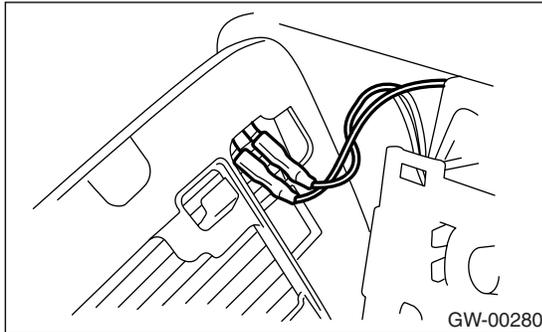
## 9. Outer Mirror

### A: REPLACEMENT

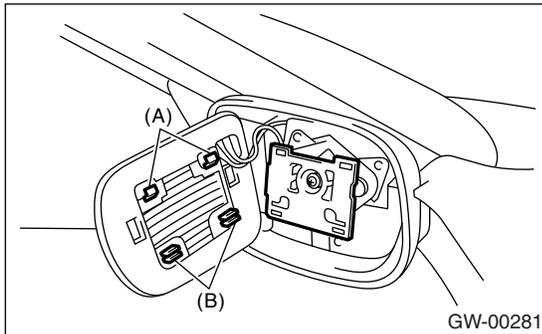
- 1) Face the mirror upward.
- 2) Use a flat tip screwdriver to remove clip (A).
- 3) Lift the lower mirror up to remove hooks (B).



- 4) Disconnect the mirror heater connector from the end of mirror. (Model with mirror heater)



- 5) Catch the hooks (A) and install clips (B).



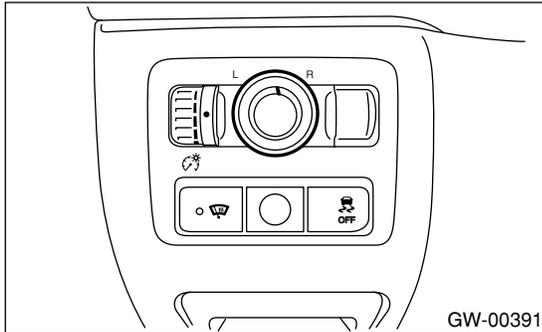
#### CAUTION:

- When removing the mirror, be careful not to damage the back side of mirror with a flat tip screwdriver.
- When installing the mirror, insert the hook and clip securely.

### 10. Remote Control Mirror Switch

#### A: REMOVAL

- 1) Remove the instrument panel lower cover. <Ref. to EI-50, REMOVAL, Instrument Panel Lower Cover.>
- 2) Disconnect the connector.



- 3) Remove the remote control mirror switch from instrument panel lower cover.

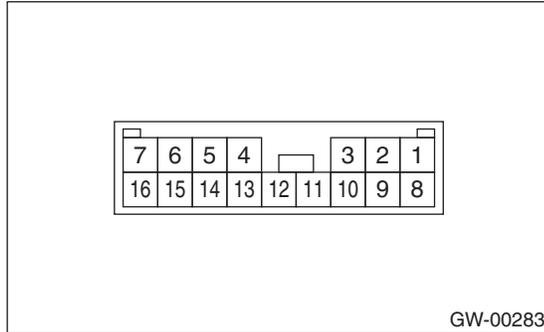
#### B: INSTALLATION

Install in the reverse order of removal.

## C: INSPECTION

### 1. REMOTE CONTROL MIRROR SWITCH

Move the remote control mirror switch to each position and check continuity between terminals.



- Change over switch R

Switch position	Terminal No.	Standard
OFF	—	More than 1 M $\Omega$
UP	10 and 12, 15 and 14	Less than 1 $\Omega$
DOWN	10 and 15, 12 and 14	Less than 1 $\Omega$
LEFT	10 and 11, 15 and 14	Less than 1 $\Omega$
RIGHT	10 and 15, 11 and 14	Less than 1 $\Omega$

- Change over switch L

Switch position	Terminal No.	Standard
OFF	—	More than 1 M $\Omega$
UP	10 and 8, 15 and 14	Less than 1 $\Omega$
DOWN	10 and 15, 8 and 14	Less than 1 $\Omega$
LEFT	10 and 9, 15 and 14	Less than 1 $\Omega$
RIGHT	10 and 15, 9 and 14	Less than 1 $\Omega$

Replace the remote control mirror switch if defective.

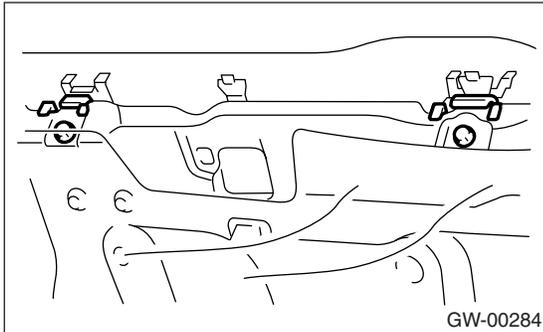
# Rear Door Glass

GLASS/WINDOWS/MIRRORS

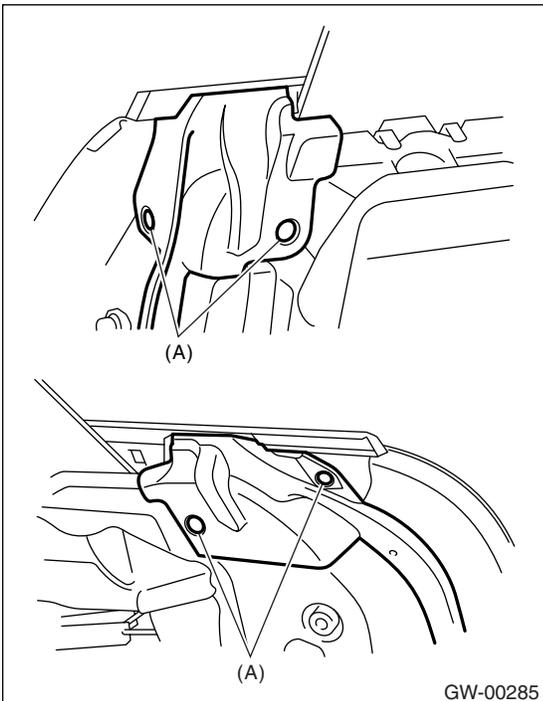
## 11.Rear Door Glass

### A: REMOVAL

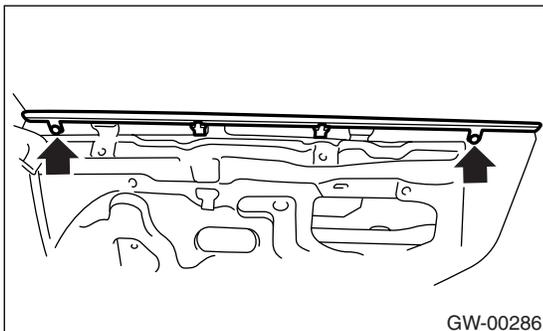
- 1) Remove the rear door trim. <Ref. to EI-48, REMOVAL, Door Trim.>
- 2) Remove the sealing cover. <Ref. to EB-24, REMOVAL, Rear Sealing Cover.>
- 3) Remove the stabilizer.



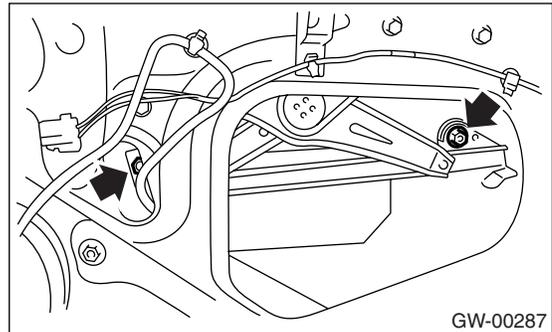
- 4) Remove the clips (A), and remove the front end and rear end of weather strip.



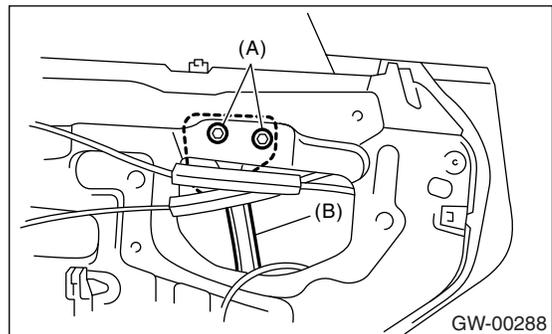
- 5) Loosen the two screws to remove weather strip outer.



- 6) Operate the power window switch to move the glass to position shown in the figure, and then remove the two nuts through service holes.



- 7) Remove the rear sash retaining nuts (A) and move rear sash (B) backward.



- 8) Remove the door glass.

### CAUTION:

- Since the gear may be disengaged, do not turn regulator in the closing direction after removal of the glass.
- Avoid impact and damage to the glass.