

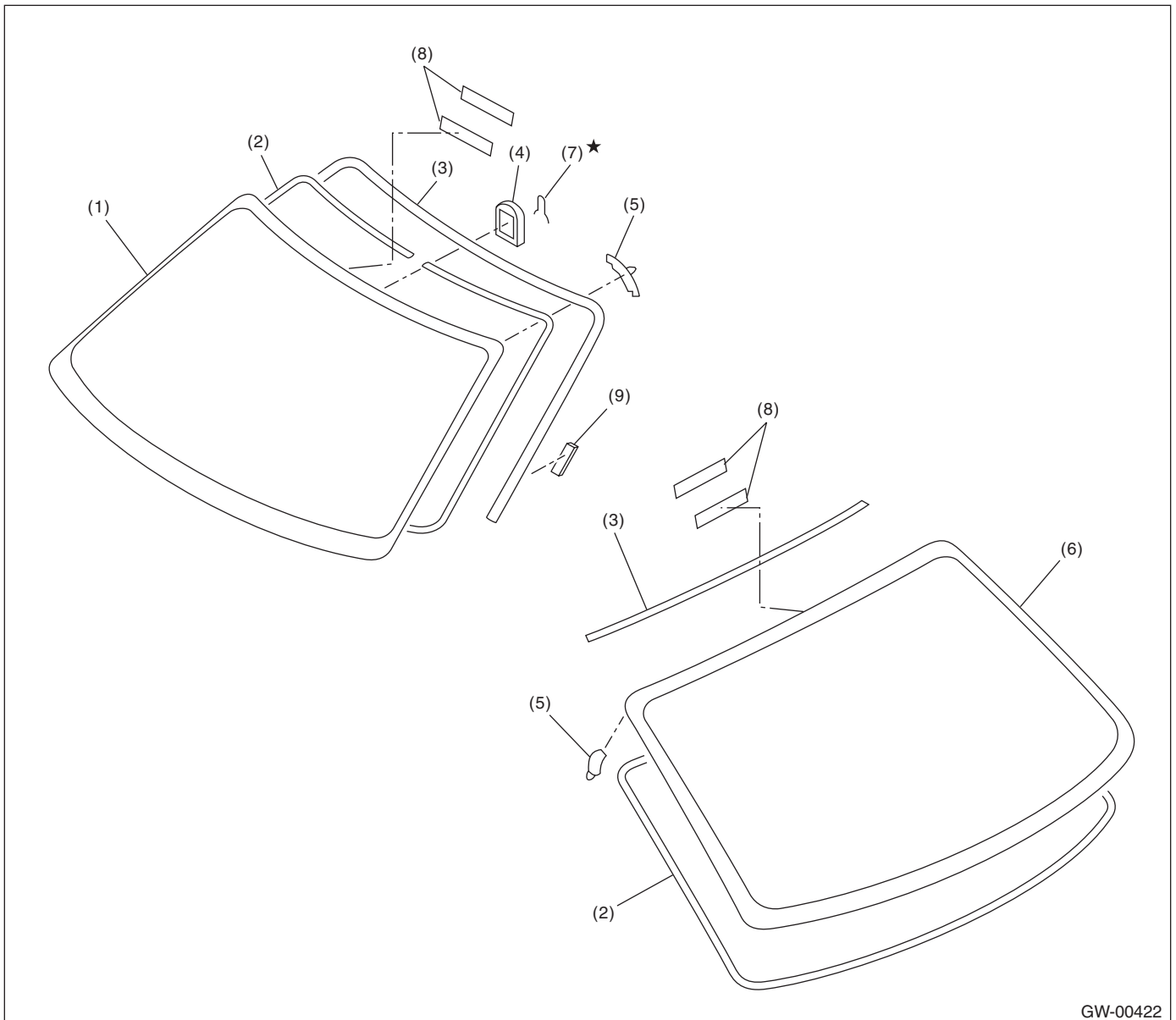
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# **GLASS/WINDOWS/MIRRORS**

# 1. General Description

## A: COMPONENT

### 1. FIXED GLASS (SEDAN MODEL)



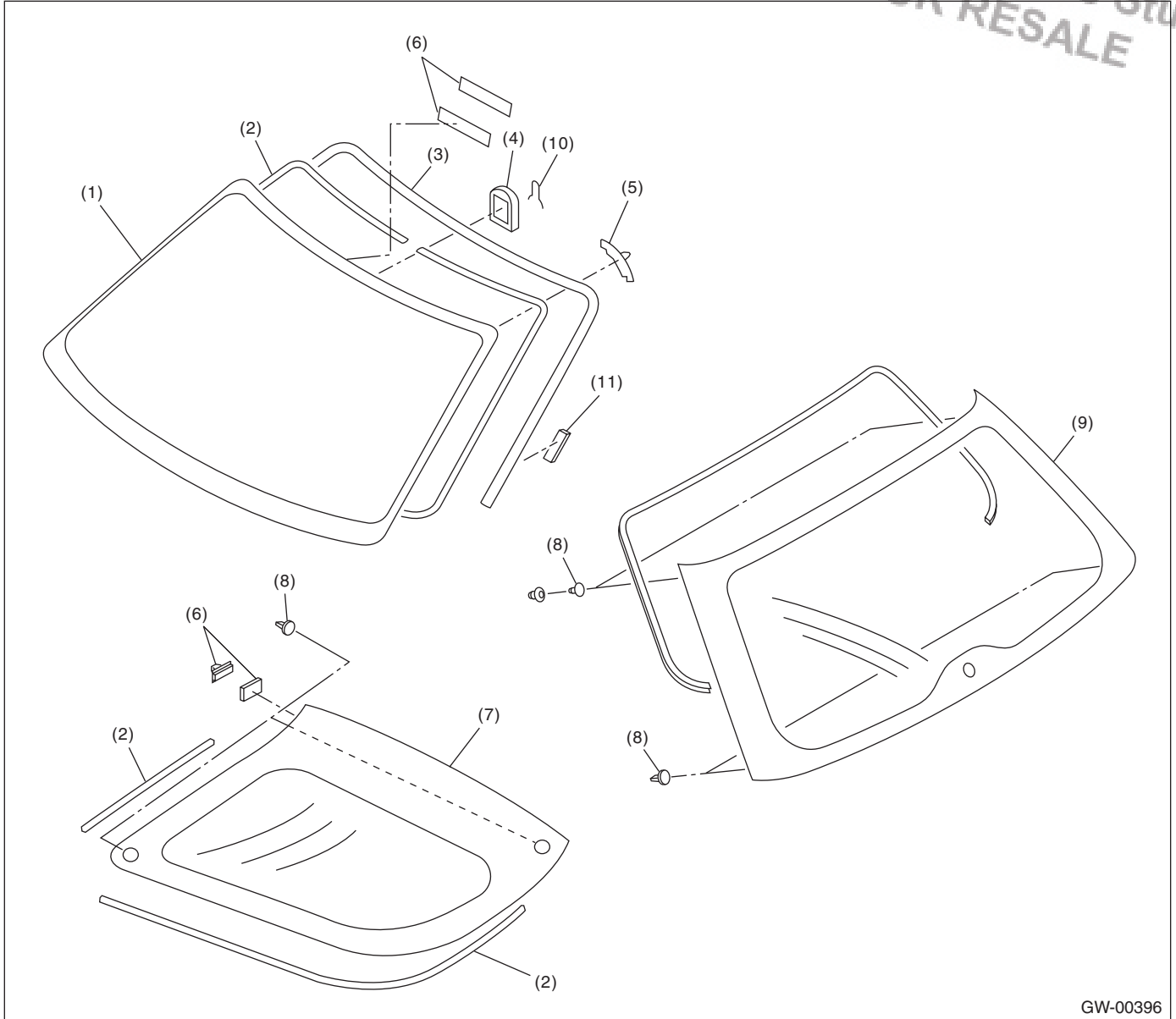
GW-00422

- (1) Windshield glass
- (2) Dam rubber
- (3) Molding

- (4) Rearview mirror mount
- (5) Locating pin
- (6) Rear window glass

- (7) Spring
- (8) Fastener
- (9) Seal

2. FIXED GLASS (WAGON MODEL)



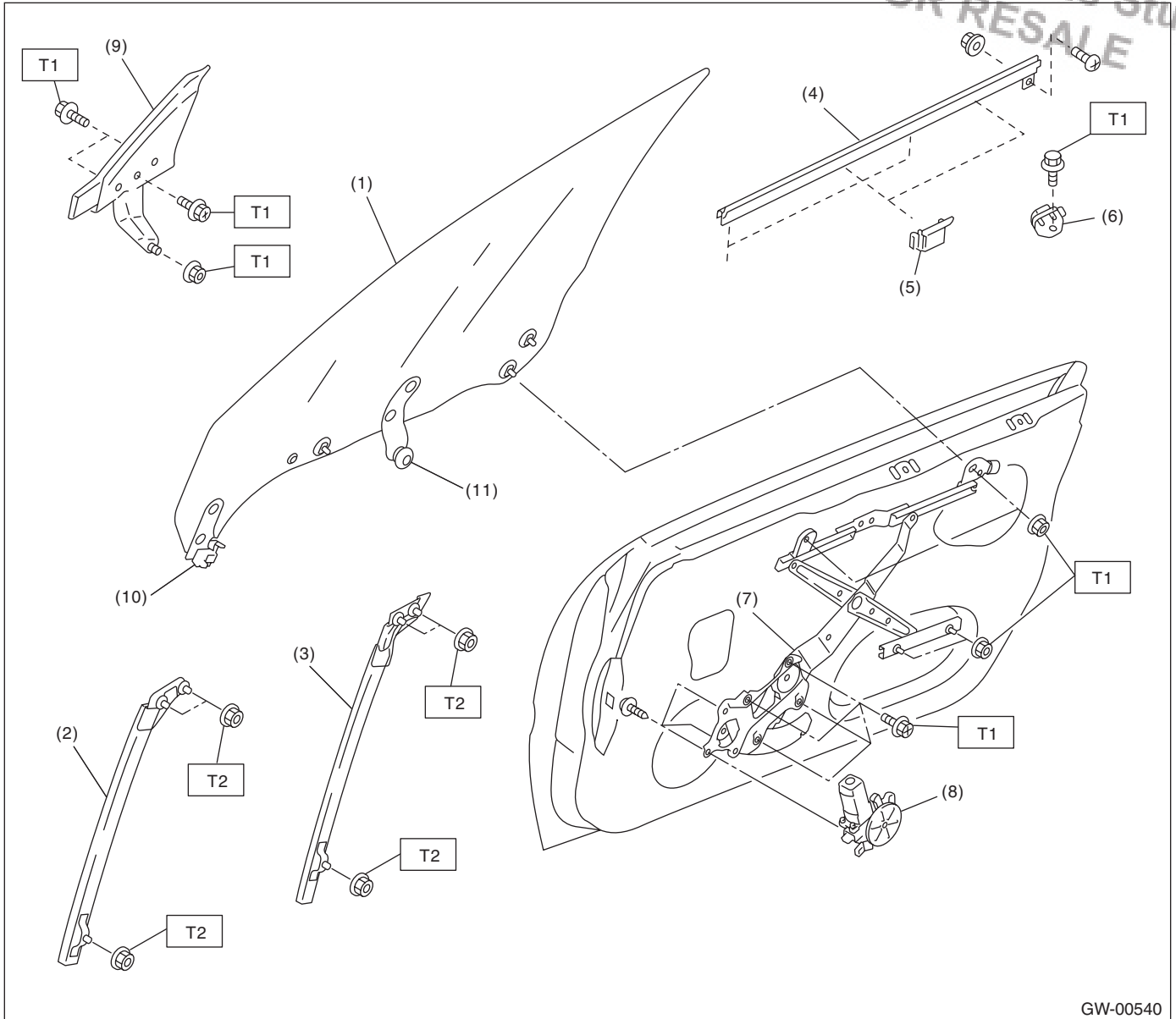
GW-00396

- |                           |                        |                     |
|---------------------------|------------------------|---------------------|
| (1) Windshield glass      | (5) Locating pin       | (9) Rear gate glass |
| (2) Dam rubber            | (6) Fastener           | (10) Spring         |
| (3) Molding               | (7) Rear quarter glass | (11) Seal           |
| (4) Rearview mirror mount | (8) Locating pin       |                     |

# General Description

GLASS/WINDOWS/MIRRORS

## 3. FRONT DOOR GLASS



GW-00540

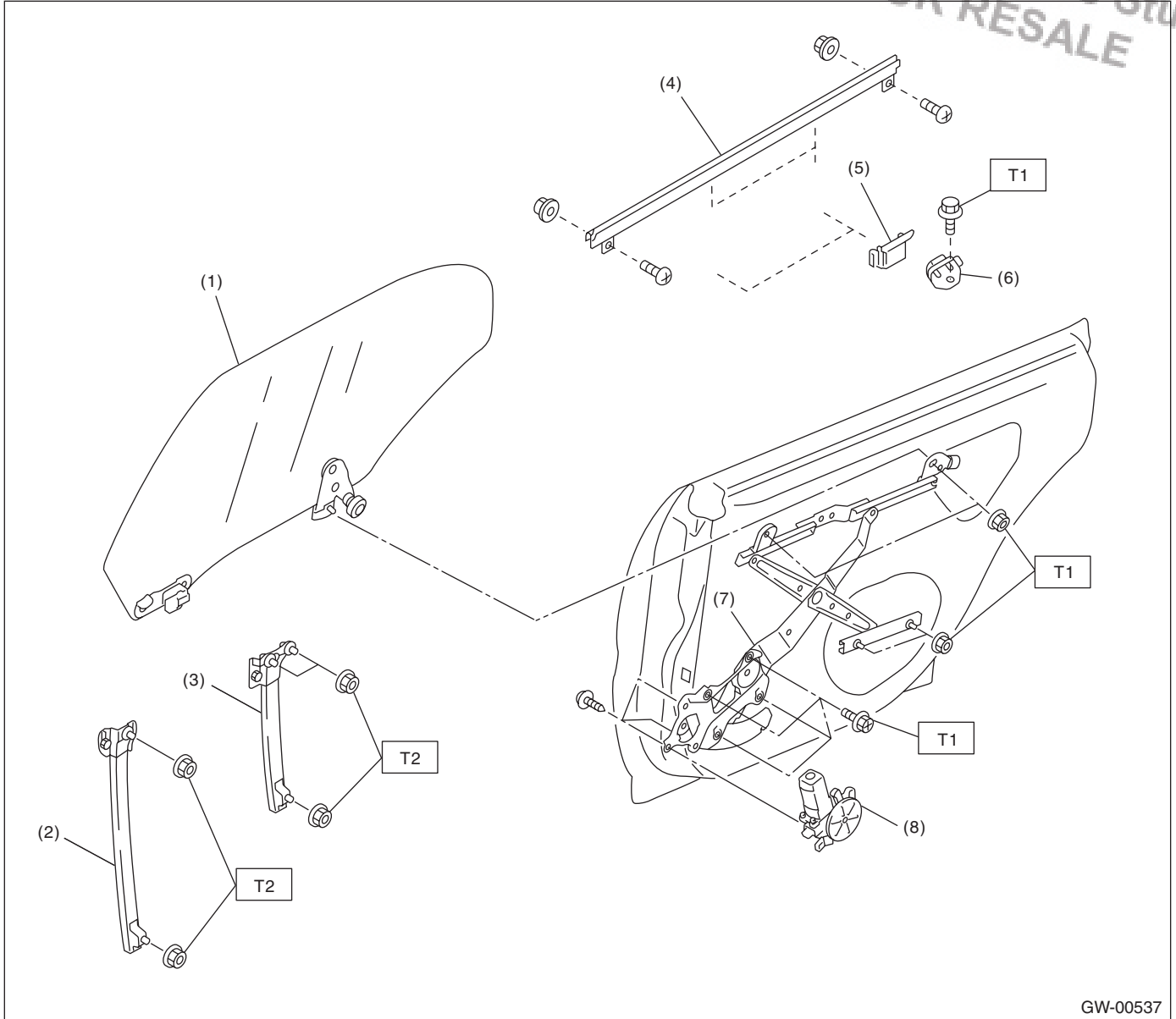
- |                        |                        |             |
|------------------------|------------------------|-------------|
| (1) Glass              | (6) Stabilizer (inner) | (11) Roller |
| (2) Door sash (Front)  | (7) Regulator ASSY     |             |
| (3) Door sash (Rear)   | (8) Motor ASSY         |             |
| (4) Weather strip      | (9) Mirror gusset      |             |
| (5) Stabilizer (outer) | (10) Slider            |             |

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

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

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

4. REAR DOOR GLASS



GW-00537

- |                       |                        |
|-----------------------|------------------------|
| (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)**

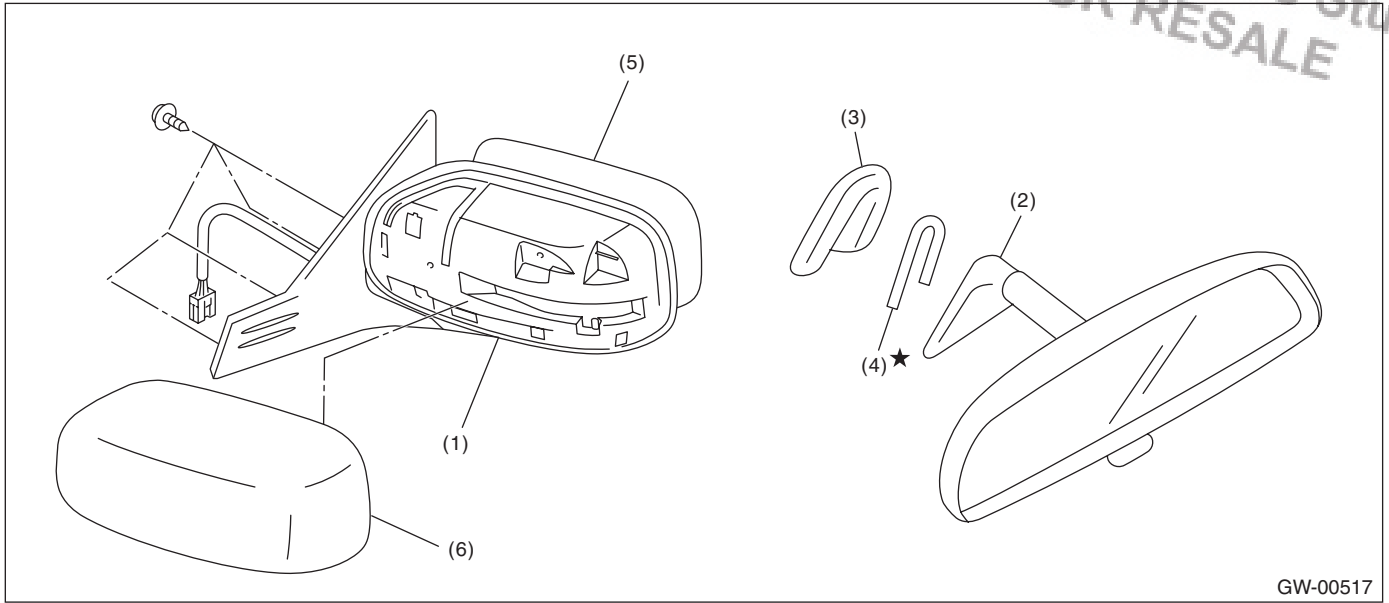
**T1: 7.4 (0.75, 5.5)**

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

# General Description

GLASS/WINDOWS/MIRRORS

## 5. MIRROR



GW-00517

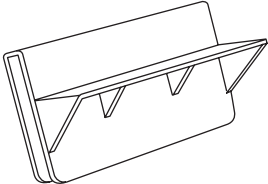
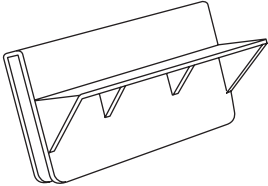
- |                     |            |               |
|---------------------|------------|---------------|
| (1) Outer mirror    | (3) Mount  | (5) Mirror    |
| (2) Rearview mirror | (4) Spring | (6) Scalp cap |

### B: CAUTION

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

### C: PREPARATION TOOL

#### 1. SPECIAL TOOL

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

# General Description

GLASS/WINDOWS/MIRRORS

## 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

## 2. Power Window System

### A: WIRING DIAGRAM

<Ref. to WI-145, Power Window System.>

### B: INSPECTION

Symptom	Repair order
All power windows do not operate.	<ol style="list-style-type: none"><li>1. Fuse (SBF-6)</li><li>2. Power window circuit breaker</li><li>3. Power window relay</li><li>4. Wiring harness</li></ol>
Particular window does not operate.	<ol style="list-style-type: none"><li>1. Power window main switch</li><li>2. Power window sub-switch</li><li>3. Power window motor</li><li>4. Wiring harness</li></ol>
"Window Lock" does not operate.	Power window main switch

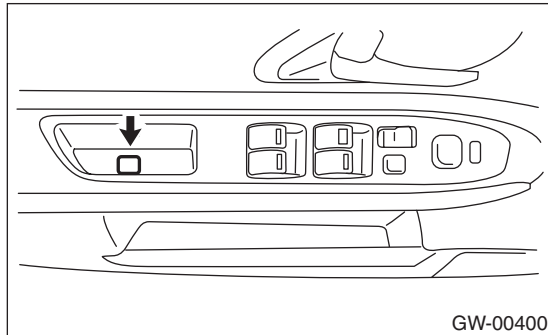


## 3. Power Window Control Switch

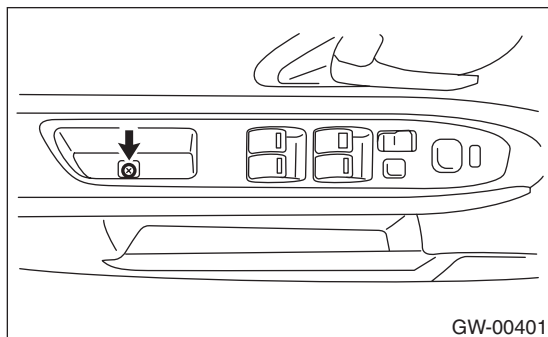
### A: REMOVAL

#### 1. MAIN SWITCH

- 1) Disconnect the ground cable from the battery.
- 2) Remove the screw cover by using a flat tip screwdriver.



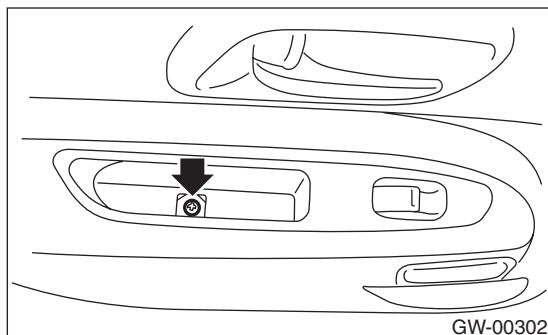
- 3) Loosen the screw to remove power window main switch.



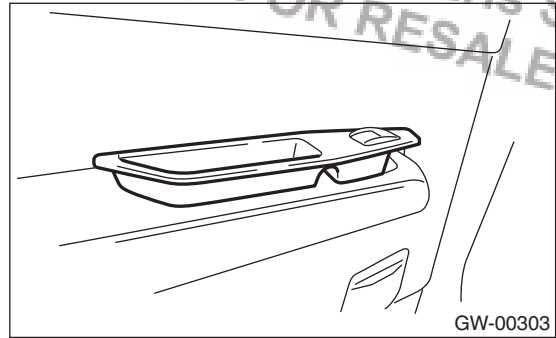
- 4) Disconnect the connector.

#### 2. SUB-SWITCH

- 1) Disconnect the ground cable from the battery.
- 2) Remove the screw securing the switch panel.



- 3) Remove the switch panel.



- 4) Disconnect the connector.

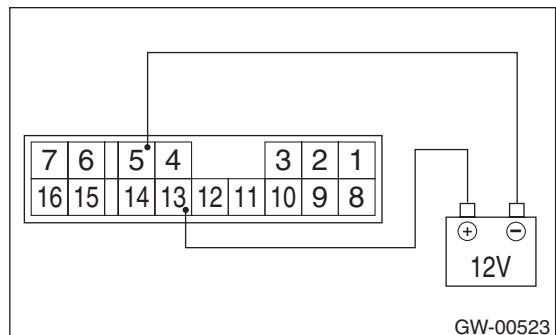
### B: INSTALLATION

Install in the reverse order of removal.

### C: INSPECTION

#### 1. MAIN SWITCH

- 1) Remove the main switch. <Ref. to GW-9, REMOVAL, Power Window Control Switch.>
- 2) UNLOCK the window lock switch.
- 3) Connect the battery and main switch as shown in the figure.



# Power Window Control Switch

GLASS/WINDOWS/MIRRORS

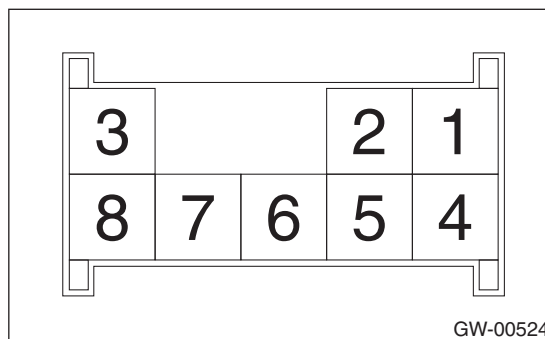
4) Measure the main switch resistance.

	Switch position	Terminal No.	Standard
Driver's side	AUTO UP	13 and 2 1 and 5	Less than 1 Ω
	UP	13 and 2 1 and 5	Less than 1 Ω
	OFF	13 and 2 13 and 1	1 MΩ or more
		5 and 2 5 and 1 2 and 1	Less than 1 Ω
	DOWN	13 and 1 2 and 5	Less than 1 Ω
	AUTO DOWN	13 and 1 2 and 5	Less than 1 Ω
Passenger's seat	UP	13 and 6 5 and 7	Less than 1 Ω
	OFF	13 and 6 13 and 7	1 MΩ or more
		5 and 6 5 and 7 6 and 7	Less than 1 Ω
	DOWN	13 and 7 5 and 6	Less than 1 Ω
Rear LH	UP	13 and 11 5 and 10	Less than 1 Ω
	OFF	13 and 11 13 and 10	1 MΩ or more
		5 and 11 5 and 10 11 and 10	Less than 1 Ω
DOWN	13 and 10 5 and 11	Less than 1 Ω	
Rear RH	UP	13 and 16 5 and 16	Less than 1 Ω
	OFF	13 and 16 13 and 15	1 MΩ or more
		5 and 15 5 and 16 15 and 16	Less than 1 Ω
DOWN	13 and 15 5 and 16	Less than 1 Ω	

5) Replace the main switch if faulty.

## 2. SUB-SWITCH

- 1) Remove the sub-switch. <Ref. to GW-9, REMOVAL, Power Window Control Switch.>
- 2) Measure the switch resistance.



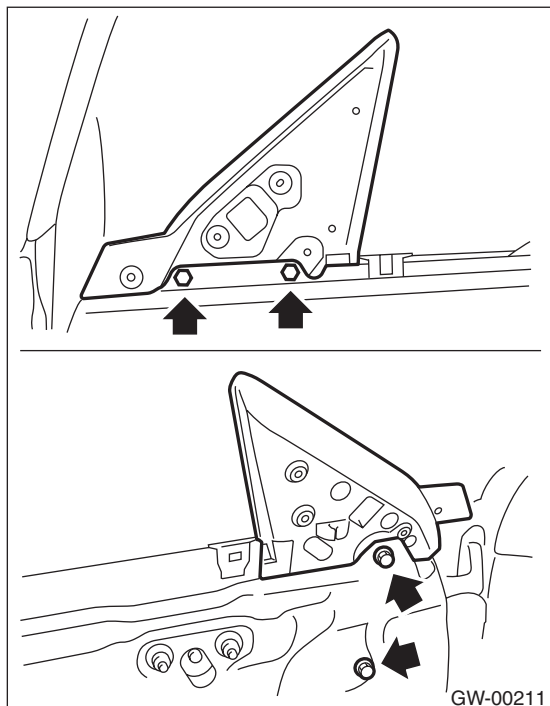
	Switch position	Terminal No.	Standard
Passenger's seat, rear	UP	8 and 5 7 and 4	Less than 1 Ω
	OFF	8 and 5 8 and 7	1 MΩ or more
		5 and 6 7 and 4	Less than 1 Ω
	DOWN	8 and 7 5 and 6	Less than 1 Ω

3) Replace the sub-switch if faulty.

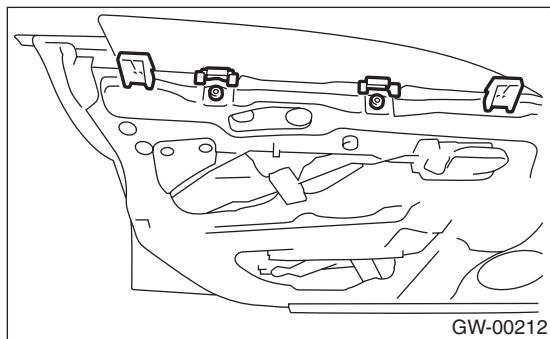
## 4. Front Door Glass

### A: REMOVAL

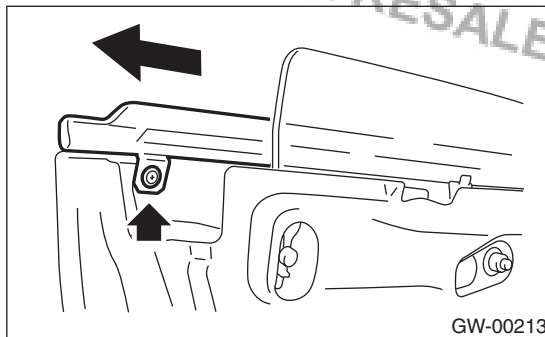
- 1) Remove the front door trim. <Ref. to EI-41, REMOVAL, Front Door Trim.>
- 2) Remove the sealing cover. <Ref. to EB-17, REMOVAL, Front Sealing Cover.>
- 3) Remove the outer mirror assembly. <Ref. to GW-18, REMOVAL, Outer Mirror Assembly.>
- 4) Remove the mirror gusset.



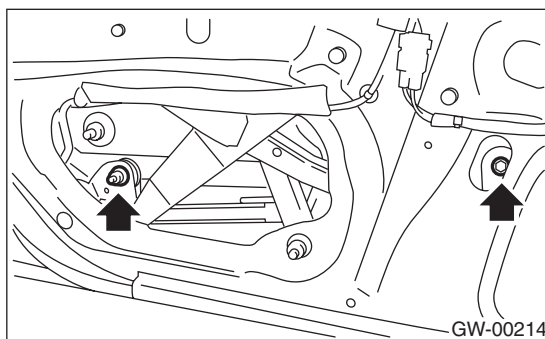
- 5) Remove the stabilizer (inner) and stabilizer (outer).



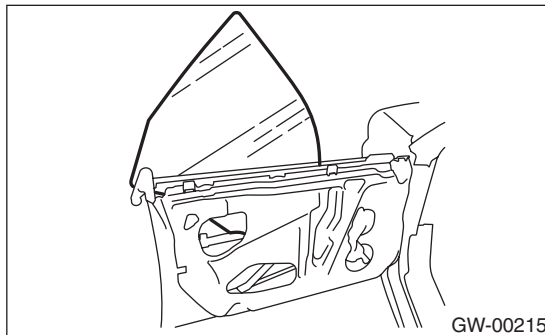
- 6) Remove the screw from the rear end of the weather strip to remove the weather strip.



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



- 8) Remove the door glass.



**CAUTION:**

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

## B: INSTALLATION

1) Install in the reverse order of removal.

### CAUTION:

**Make sure the slider (front) and roller (rear) of glass is placed securely in the front and rear 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

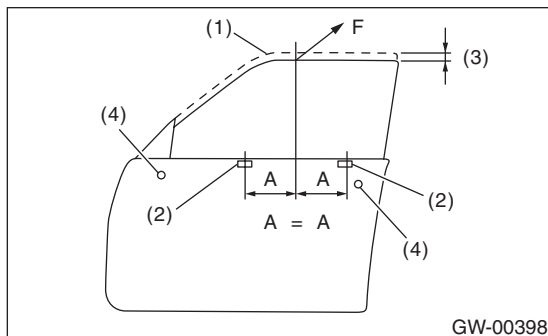
### NOTE:

Before adjustment, ensure that all adjusting nuts of stabilizer (inner), upper stopper and sash are loose and door glass rises until it makes contact with the weather strip.

1) Temporarily tighten the adjusting bolt on one side of the rear sash, at the midpoint of the slotted hole in the inner panel.

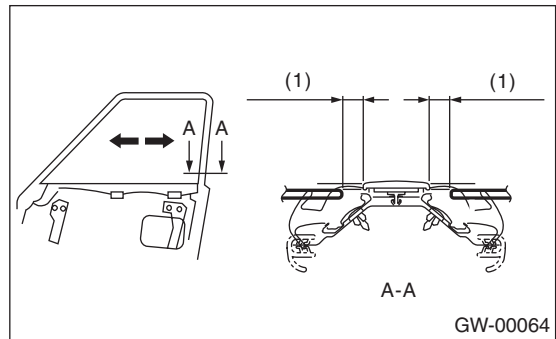
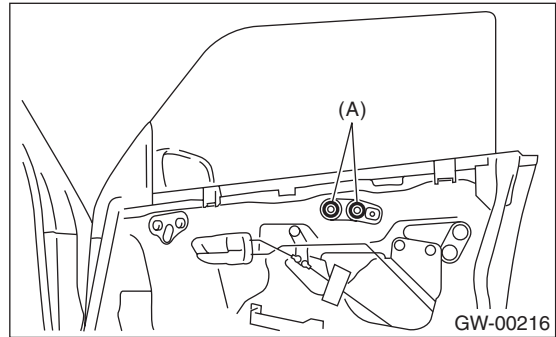
2) Temporarily tighten the regulator B channel at the top position of slotted hole.

3) Lower the door glass 10 — 15 mm (0.39 — 0.59 in) from fully closed position. While applying an outward pressure F of  $45.0 \pm 5.0$  N ( $4.5 \pm 0.5$  kgf,  $9.9 \pm 1.1$  lbf) to the upper edge of the glass above the midpoint of the stabilizers (outer), press the stabilizer (inner) to the glass at a pressure of  $30 \pm 5$  N ( $3.0 \pm 0.5$  kgf,  $6.6 \pm 1.1$  lbf) to secure it.



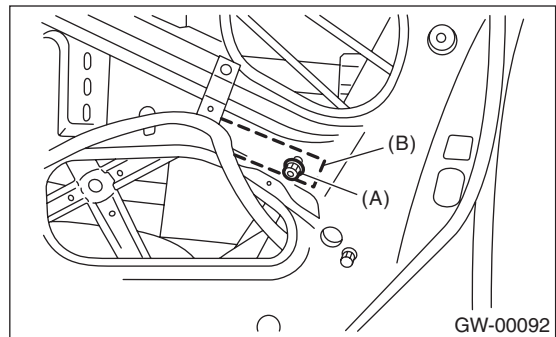
- (1) Fully closed position
- (2) Stabilizer (outer)
- (3) 10 — 15 mm (0.39 — 0.59 in)
- (4) Upper stopper

4) To adjust the clearance between front glass and center pillar cover, loosen nuts (A), and move the glass sash back and forth until the clearance becomes the value shown.

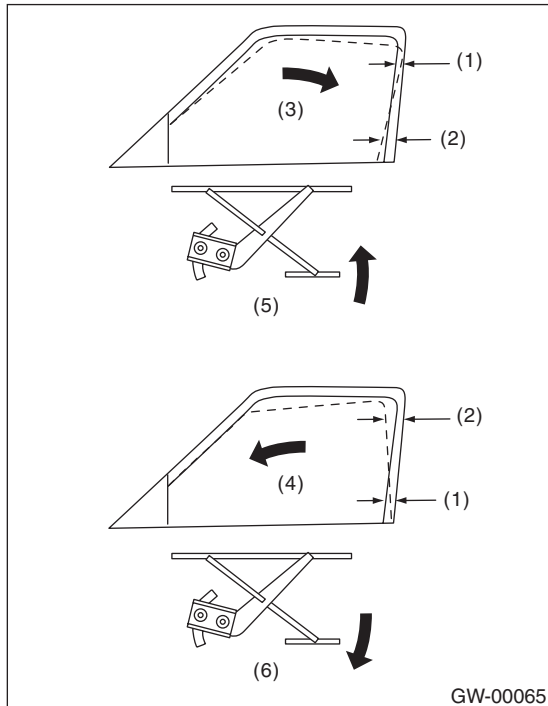


(1) 12 mm (0.472 in)

5) To adjust the upper end and lower end of the center pillar, loosen the adjusting nut (A) of B channel (B).



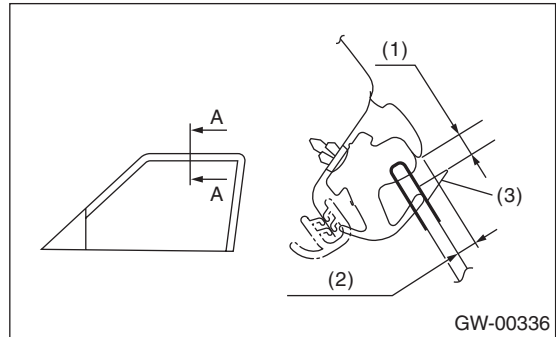
6) Adjust so that the upper and lower ends of the center pillar are the same size.



- (1) Narrow
- (2) Wide
- (3) Glass tilts too far rearward
- (4) Glass tilts too far forward
- (5) Raise B channel
- (6) Lower B channel

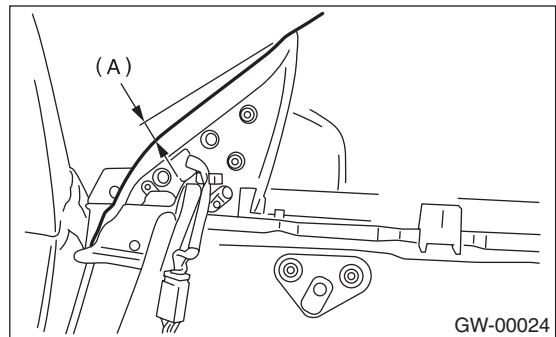
7) For glass stroke adjustment, attach ST to the glass and close the door, and raise the glass until positional relationship between glass and weather strip becomes as shown. And secure the glass so that the upper stopper lightly touches the glass holder.

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



- (1) 2.7 — 4.3 mm (0.106 — 0.169 in)
- (2) 6 mm (0.236 in)
- (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)

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

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

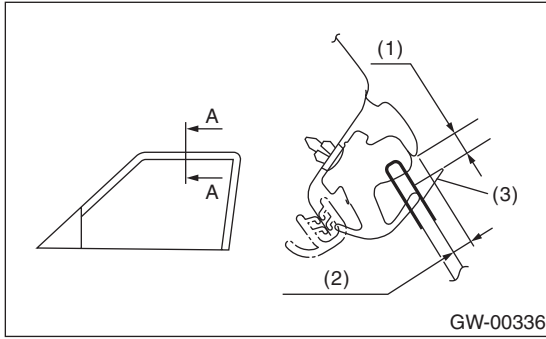
**NOTE:**

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

# Front Door Glass

## GLASS/WINDOWS/MIRRORS

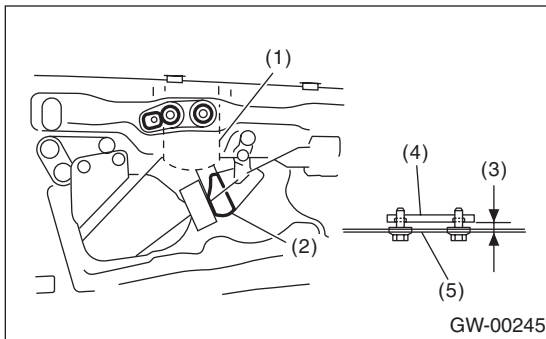
9) Make the same adjustment of two adjusting bolts of rear sash.



- (1) 2.7 — 4.3 mm (0.106 — 0.169 in)
- (2) 6 mm (0.236 in)
- (3) ST

### NOTE:

Do not tilt the sash bracket to inner panel during adjustment. If tilting, the regulator does not operate smoothly.



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

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

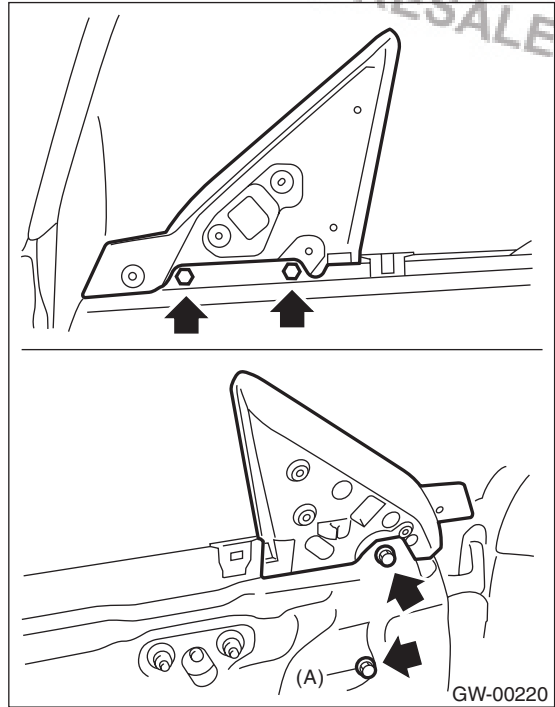
### NOTE:

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 applying excessive load against regulator.

11) After adjustments, tighten the nuts.

12) After adjustment of the glass, close the door. If there is a gap between outer lip of gusset and glass surface, adjust the gap by adjusting bolt (A) at the attachment hardware at the lower side of the gusset to prevent generation of wind noise.

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

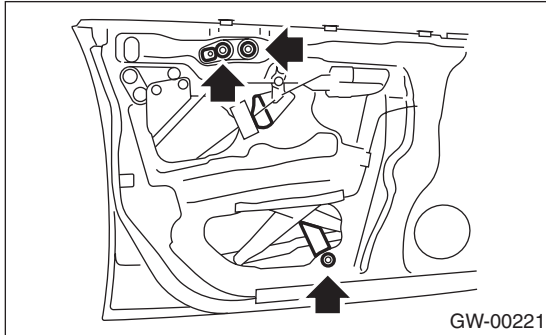


14) After adjustment, tighten the bolts and nuts.

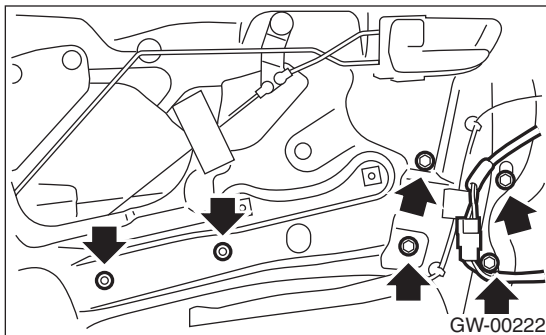
## 5. Front Regulator and Motor Assembly

### A: REMOVAL

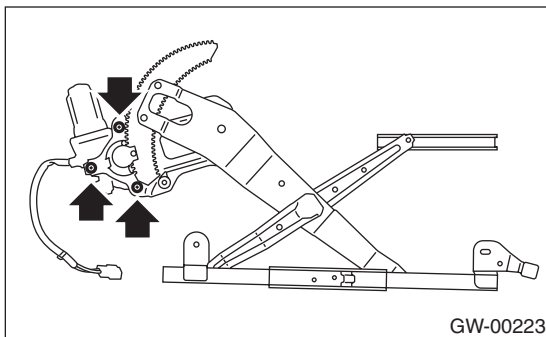
- 1) Remove the door glass. <Ref. to GW-11, REMOVAL, Front Door Glass.>
- 2) Loosen the nuts to remove the rear sash.



- 3) Disconnect the motor connector.
- 4) Loosen the four bolts and two nuts to remove regulator assembly.



- 5) Loosen the screws to remove the motor assembly.



### 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.

# Remote Control Mirror System

GLASS/WINDOWS/MIRRORS

## 6. Remote Control Mirror System

### A: WIRING DIAGRAM

<Ref. to WI-151, Remote Control Mirror System.>

### B: INSPECTION

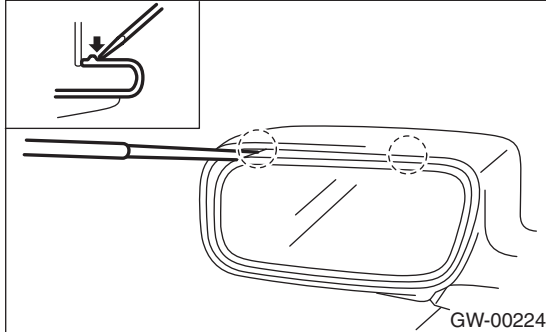
Symptom	Repair order
All function does not operate.	1. Fuse (F/B No. 1) (F/B No. 4) (F/B No. 19) 2. Mirror switch 3. Wiring harness
One side of the mirror motor does not operate.	1. Mirror switch 2. Mirror motor 3. Wiring harness
Mirror heater does not operate.	1. Mirror switch 2. Mirror heater 3. Wiring harness



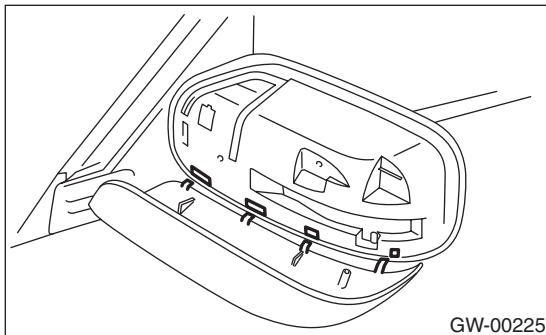
## 7. Scalp Cap

### A: REPLACEMENT

- 1) Face the mirror downward.
- 2) Insert a thin screw driver, push the clip part of scalp cap, and remove the scalp cap.



- 3) Insert the claw at the bottom of scalp cap into outer mirror.



- 4) Install the scalp cap securely.

#### **CAUTION:**

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

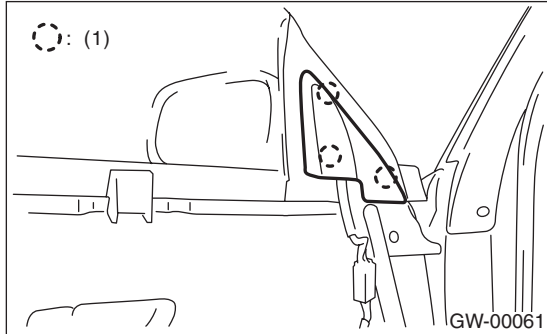
# Outer Mirror Assembly

GLASS/WINDOWS/MIRRORS

## 8. Outer Mirror Assembly

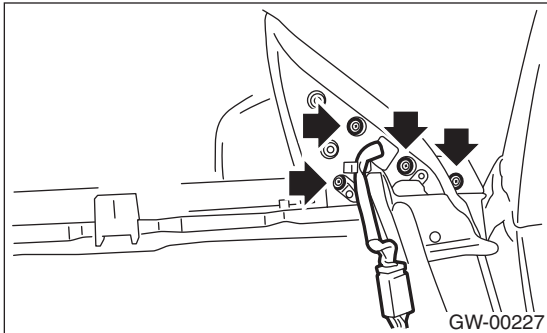
### A: REMOVAL

- 1) Remove the door trim. <Ref. to EI-41, REMOVAL, Front Door Trim.>
- 2) Remove the mirror gusset cover.



(1) Hook

- 3) Disconnect the outer mirror connector.
- 4) Remove the screws to remove outer mirror assembly.



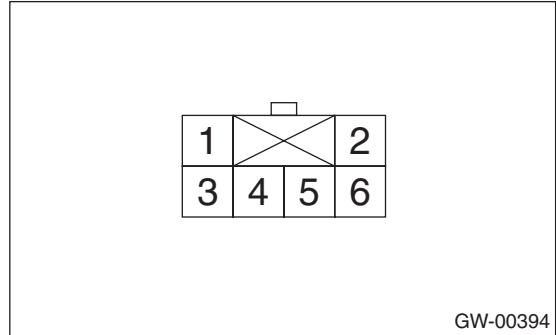
### B: INSTALLATION

Install in the reverse order of removal.

### C: INSPECTION

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

- Model without mirror heater

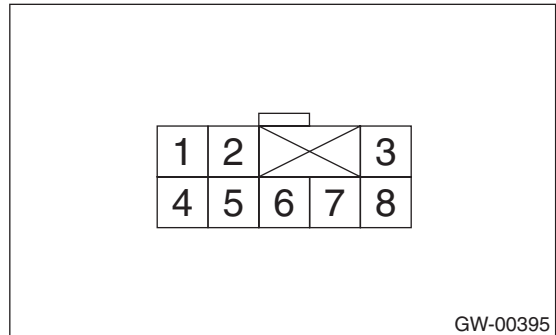


GW-00394

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

Replace the outer mirror if defective.

- Model with mirror heater



GW-00395

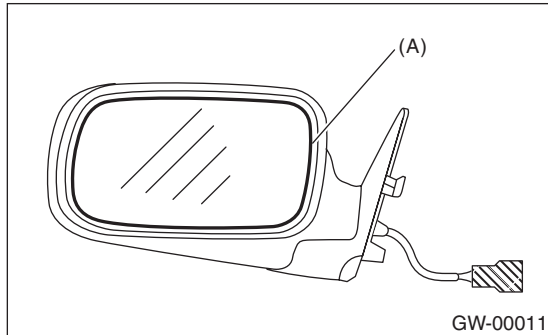
Switch position	Terminal No.
OFF	—
UP	6 (+) and 8 (-)
DOWN	8 (+) and 6 (-)
LEFT	7 (+) and 8 (-)
RIGHT	8 (+) and 7 (-)

Replace the outer mirror if defective.

## 9. Outer Mirror

### A: REPLACEMENT

- 1) Remove the outer mirror assembly. <Ref. to GW-18, REMOVAL, Outer Mirror Assembly.>
- 2) Warm the area around the mirror holder (A) with a hair drier until the edges of the mirror holder become soft. (About 2 or 3 minutes with a 1,000 W drier)
- 3) Use a flat tip screwdriver without sharp edges to lift the mirror out of the mirror holder (A) to remove the mirror.



- 4) Disconnect the mirror heater connector. (Model with mirror heater)
- 5) Warm the area around the mirror holder with a hair drier until the edges of the mirror holder become soft. (About 2 or 3 minutes with a 1,000 W drier)
- 6) Connect the mirror heater connector. (Model with mirror heater)
- 7) Remove the backing of the new double-stick tape, and push the mirror in to install it.

#### NOTE:

If the mirror holder is not warmed sufficiently, the mirror holder edges may be damaged or the mirror cracked.

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## 10. Remote Control Mirror Switch

### A: REMOVAL

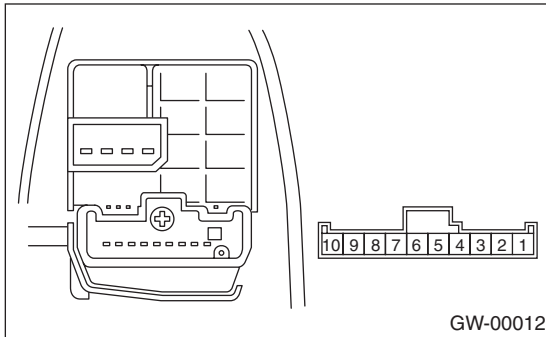
Refer to Power Window Control Switch for removal procedure, because the remote control mirror switch is installed in the power window control switch panel. <Ref. to GW-9, REMOVAL, Power Window Control Switch.>

### B: INSTALLATION

Refer to Power Window Control Switch for installation procedure, because the remote control mirror switch is installed in the power window control switch panel. <Ref. to GW-9, INSTALLATION, Power Window Control Switch.>

### C: INSPECTION

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



- Switch the change over switch to the right side:

Switch position	Terminal No.	Standard
OFF	—	1 MΩ or more
UP	8 and 3, 6 and 7	Less than 1 Ω
DOWN	8 and 6, 3 and 7	Less than 1 Ω
LEFT	8 and 2, 6 and 7	Less than 1 Ω
RIGHT	8 and 6, 2 and 7	Less than 1 Ω

- Switch the change over switch to the left side:

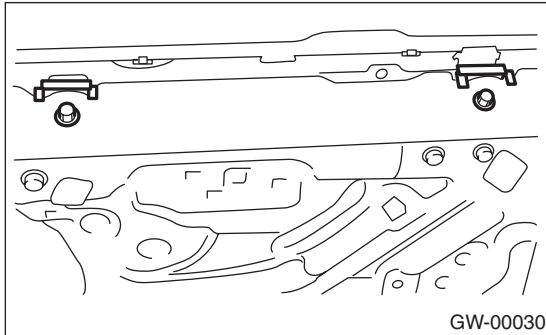
Switch position	Terminal No.	Standard
OFF	—	1 MΩ or more
UP	8 and 4, 6 and 7	Less than 1 Ω
DOWN	8 and 6, 4 and 7	Less than 1 Ω
LEFT	8 and 5, 6 and 7	Less than 1 Ω
RIGHT	8 and 6, 5 and 7	Less than 1 Ω

If NG, replace the switch.

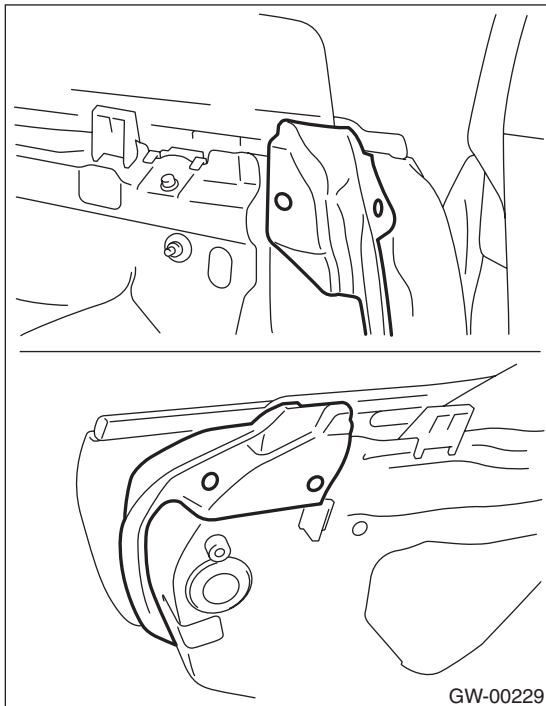
## 11. Rear Door Glass

### A: REMOVAL

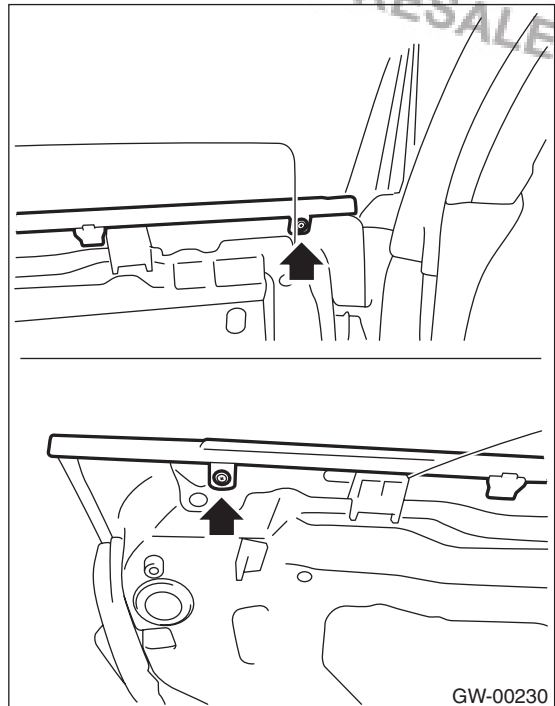
- 1) Remove the rear door trim. <Ref. to EI-42, REMOVAL, Rear Door Trim.>
- 2) Remove the sealing cover. <Ref. to EB-21, REMOVAL, Rear Sealing Cover.>
- 3) Remove the stabilizers.



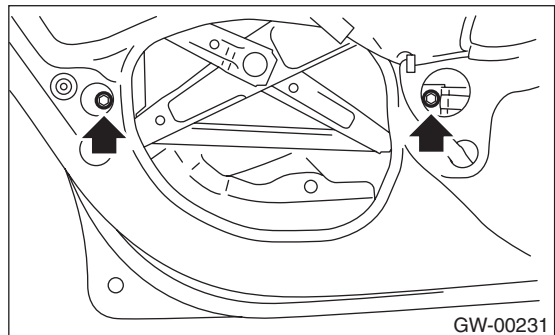
- 4) Remove the front end and rear end of the weather strip.



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



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



- 7) Remove the two rear sash retaining nuts, and move the rear sash rearward.
- 8) Remove the glass.

### CAUTION:

**Avoid impact and damage to the glass.**

### B: INSTALLATION

- 1) Install in the reverse order of removal.

### NOTE:

Make sure the slider (front) and roller (rear) of glass is placed securely in the front and rear sash.

- 2) Adjust the rear door glass. <Ref. to GW-22, ADJUSTMENT, Rear Door Glass.>

### Tightening torque:

Refer to "COMPONENT" of "General Description". <Ref. to GW-5, REAR DOOR GLASS, COMPONENT, General Description.>

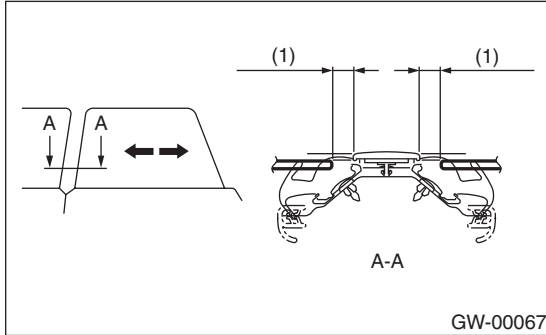
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## C: ADJUSTMENT

**NOTE:**

The rear door glass, as a rule, is adjusted in the same manner as front door glass, although they are different in dimension.

1) Adjust the glass position using the following dimensions as a guide line.



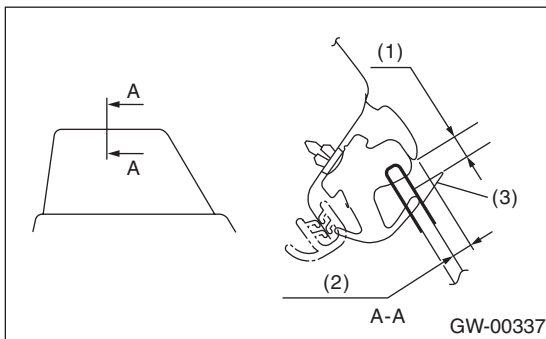
(1) 12 mm (0.472 in)

**NOTE:**

- If dimensions are smaller than the given dimensions, glass may get caught in weather strip during lifting/lowering operation and may not be fully open.
- After adjustment, move the glass up and down to check whether it is caught.

2) Attach the special tool to the glass, and adjust the glass adhesion until the dimensional value becomes as shown below.

ST 61299AE010 SPACER (Glass thickness: 4 mm (0.157 in) for rear door glass)



(1) 3.7 — 5.3 mm (0.146 — 0.209 in)

(2) 6 mm (0.236 in)

(3) ST

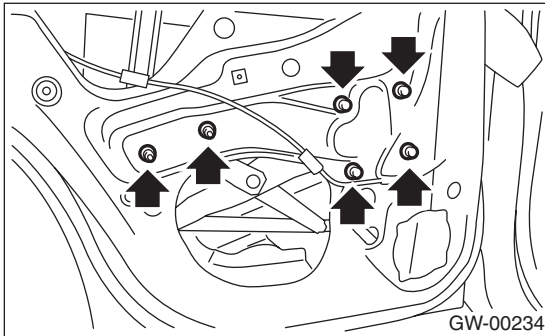
**NOTE:**

- If rear glass adhesion is higher than necessary, glass may get caught in weather strip of center pillar corner, resulting in early wear of weather strip. Be careful when adjusting.
- After adjustment, move the glass up and down to check whether it is caught.

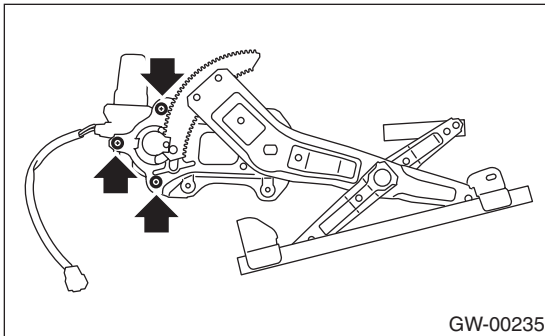
## 12. Rear Regulator and Motor Assembly

### A: REMOVAL

- 1) Remove the rear door glass. <Ref. to GW-21, REMOVAL, Rear Door Glass.>
- 2) Remove the front sash.
- 3) Disconnect the motor connector.
- 4) Remove the four bolts and two nuts to remove regulator assembly.



- 5) Remove the screws to remove motor assembly.



### B: INSTALLATION

- 1) Install in the reverse order of removal.
- 2) Adjust the rear door glass. <Ref. to GW-22, ADJUSTMENT, Rear Door Glass.>

#### **Tightening torque:**

Refer to “COMPONENT” of “General Description”. <Ref. to GW-5, REAR 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.

## 13. Windshield Glass

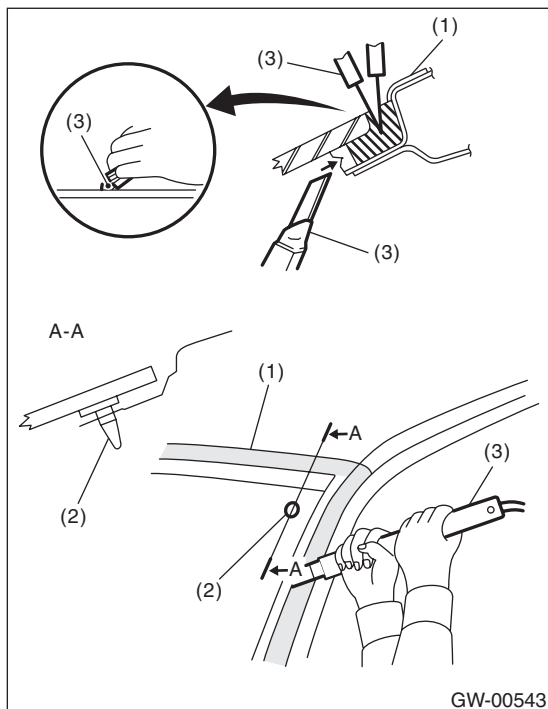
### A: REMOVAL

#### 1. WHEN USING WINDSHIELD GLASS KNIFE

- 1) Disconnect the wiper deicerconnector. (Model with wiper deicer)
- 2) Remove the cowl panel. <Ref. to EI-34, REMOVAL, Cowl Panel.>
- 3) Remove the glass molding.
- 4) Tape the body side of the circumference of windshield glass for protection.
- 5) Apply sufficient amount of soapy water to the adhesive part.
- 6) Make a cut in the adhesive part using a putty knife so that windshield glass knife can be inserted easily.
- 7) Insert the windshield glass knife into the adhesive.
- 8) While holding the knife edge and windshield glass edge at a right angle, move the windshield glass knife in parallel to the windshield glass edge along the surface and edge of windshield glass to cut the adhesive part.

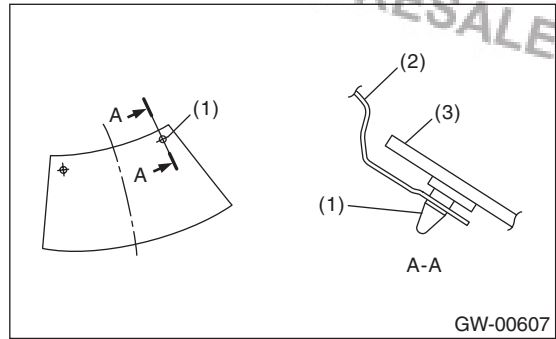
**NOTE:**

- Do not twist the windshield glass knife.
- Cutting of adhesive part shall be started with wider gap between windshield glass and body.



- (1) Tape for protection
- (2) Locating pin
- (3) Windshield glass knife

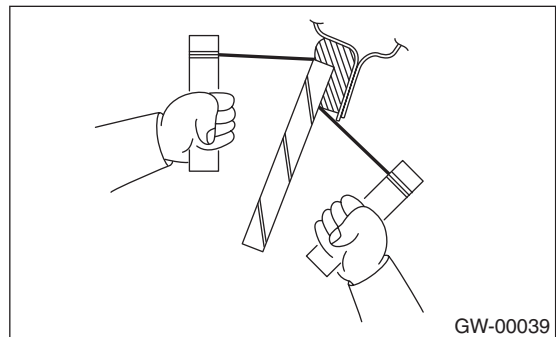
- The locating pins are bonded to the corners of glass. Use piano wire to disconnect the pins.



- (1) Locating pin
- (2) Body panel
- (3) Windshield glass

#### 2. WHEN USING PIANO WIRE

- 1) Disconnect the wiper deicerconnector. (Model with wiper deicer)
- 2) Remove the cowl panel. <Ref. to EI-34, REMOVAL, Cowl Panel.>
- 3) Remove the glass molding.
- 4) Tape the body side of the circumference of windshield glass for protection.
- 5) Make a hole in the adhesive part using drill or knife.
- 6) Pass the piano wire through the hole, and attach both the wire ends securely to pieces of wood.



- 7) Pull the wire ends alternately to cut off the adhesive part.

**CAUTION:**

- Do not tightly pull the piano wire against the windshield glass edge.
- Be careful not to damage interior and exterior parts.
- Do not cross piano wires. Otherwise they may be cut.
- When removal is made with area close to instrument panel, place a protection plate over it. Pay particular attention to the removal.

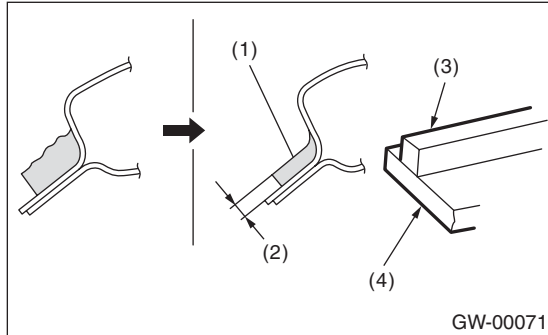


## B: INSTALLATION

- 1) Clean the external circumference of windshield glass with alcohol or white gasoline.
- 2) Remove the adhesive layer on the body using cutter knife to obtain smooth face of 2 mm (0.08 in) thick.

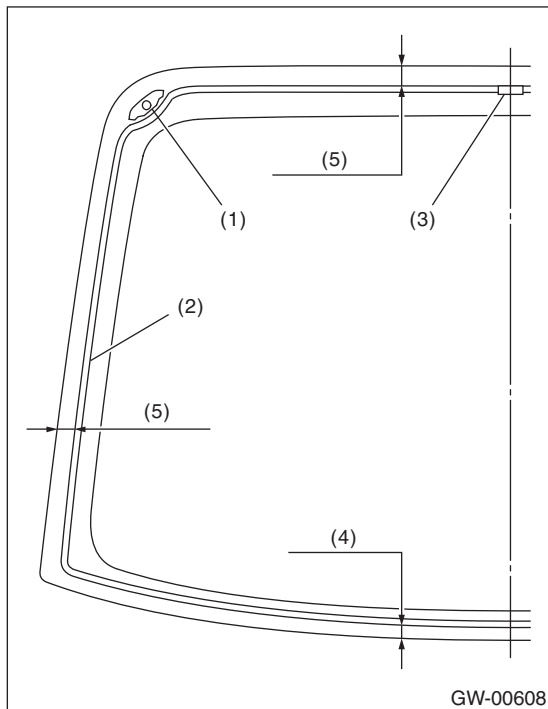
### CAUTION:

Be careful not to damage the body and paint surface.



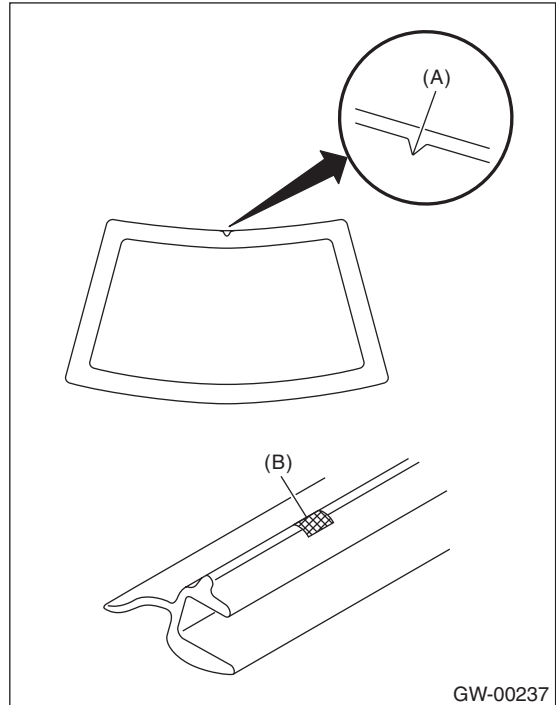
- (1) Adhesive
- (2) 2 mm (0.08 in)
- (3) Dam rubber
- (4) Glass

- 3) Clean the body with alcohol or white gasoline to eliminate cutting powder, dust and dirt completely from body.



- (1) Locating pin
- (2) Dam rubber
- (3) Fastener
- (4) 15 mm (0.591 in)
- (5) 11 mm (0.433 in)

- 4) Install the dam rubber.
- 5) Fit the mark (B) on molding to the notch (A) of glass side, and install the molding to entire perimeter of glass.



- 6) Apply two types of primers to the adhesive layer of glass using sponge.

### Glass primer:

#### Dow Automotive

**ESSEX U-401 (base coating) and U-402 (over coating) or equivalent**

# Windshield Glass

## GLASS/WINDOWS/MIRRORS

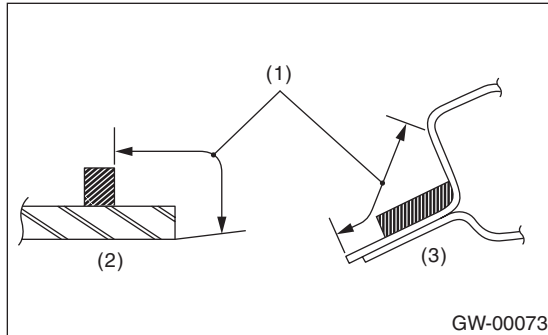
7) Apply the primer to the adhesive layer of body.

### Painted surface primer:

**Dow Automotive  
ESSEX U-413 or equivalent**

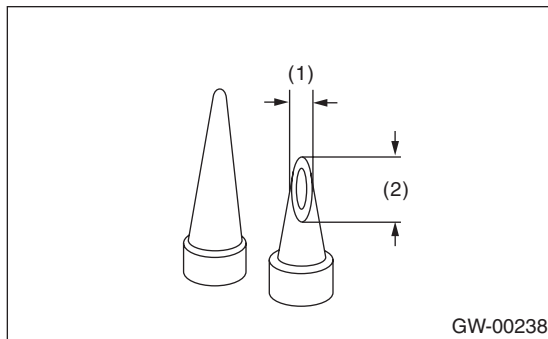
### NOTE:

- Primer once attached to the painted surface of the body and internal trim is hard to wipe off. Mask the circumference of such area.
- Let primer dry for about ten minutes before installing the glass.
- Do not touch the surface coated with primer.



- (1) Application of primer  
(2) Glass side  
(3) Body side

8) Cut off the cartridge nozzle tip as shown and set it in sealant gun.

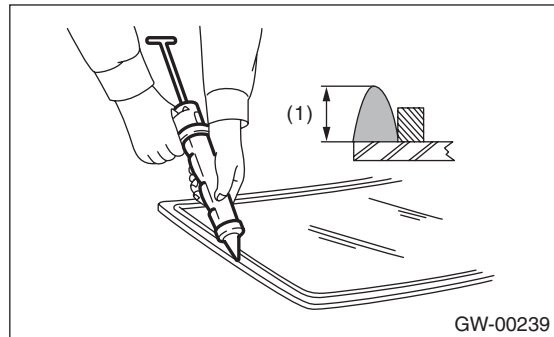


- (1) 10 mm (0.39 in)  
(2) 15 mm (0.59 in)

9) Apply adhesive to the glass end surface as shown.

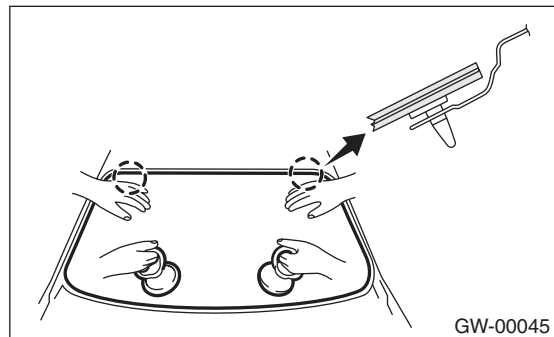
### Adhesive:

**Dow Automotive  
ESSEX U-400HV or equivalent**



- (1) 12 — 15 mm (0.47 — 0.59 in)

10) Fit the locating pins using suction rubber cup and install windshield glass.



- 11) Lightly press the windshield glass for tight fit.  
12) Make flush the adhesive surface juttred out using spatula.  
13) Connect the wiper deicer connector. (Model with wiper deicer)  
14) After completion of all work, allow the vehicle to stand for about 24 hours.

### NOTE:

- When door is opened/closed after glass is bonded, always lower the door glass first, and then open/close it carefully.
- Move the vehicle slowly.
- For minimum drying time and vehicle standing time before driving after bonding, follow instructions or instruction manual from the adhesive manufacturer.

15) After curing of adhesive, pour the water on external surface of vehicle to check that there are no water leaks.

### NOTE:

When a vehicle is returned to the user, tell him or her that the vehicle should not be subjected to heavy impact for at least three days.

16) Install the cowl panel. <Ref. to EI-34, INSTALLATION, Cowl Panel.>

## 14. Rear Gate Glass

### A: REMOVAL

- 1) Remove the rear wiper motor. <Ref. to WW-17, REMOVAL, Rear Wiper Motor.>
- 2) Disconnect the electrical connectors from rear defogger terminal.
- 3) Remove the glass in the same procedure as for windshield glass. <Ref. to GW-24, REMOVAL, Windshield Glass.>

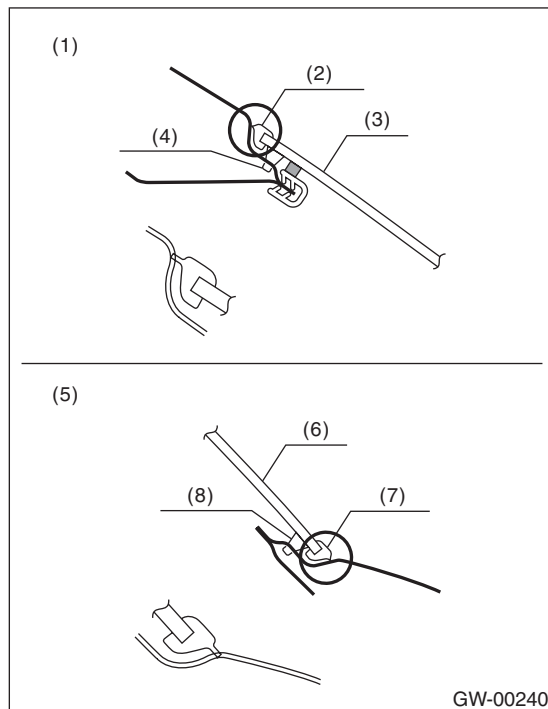
### B: INSTALLATION

- 1) Apply adhesive in the same procedure as for windshield glass. <Ref. to GW-25, INSTALLATION, Windshield Glass.>
- 2) Insert the glass locating pin into rear gate hole, push on the area around the locating pin to secure it, and then push lightly all around the area to seal it.
- 3) About one hour after installation, conduct a leak test.

- 4) After completion of all work, allow the vehicle to stand for about 24 hours.

NOTE:

- When door is opened/closed after glass is bonded, always lower the door glass first, and then open/close it carefully.
  - Move the vehicle slowly.
  - For minimum drying time and vehicle standing time before driving after bonding, follow instructions or instruction manual from the adhesive manufacturer.
  - When a vehicle is returned to the user, tell him or her that the vehicle should not be subjected to heavy impact for at least three days.
- 5) Connect the rear defogger terminals.
  - 6) Install the rear wiper. <Ref. to WW-17, INSTALLATION, Rear Wiper Motor.>



- (1) Upside
- (2) Molding
- (3) Glass
- (4) Adhesive
- (5) Downside
- (6) Glass
- (7) Molding
- (8) Adhesive

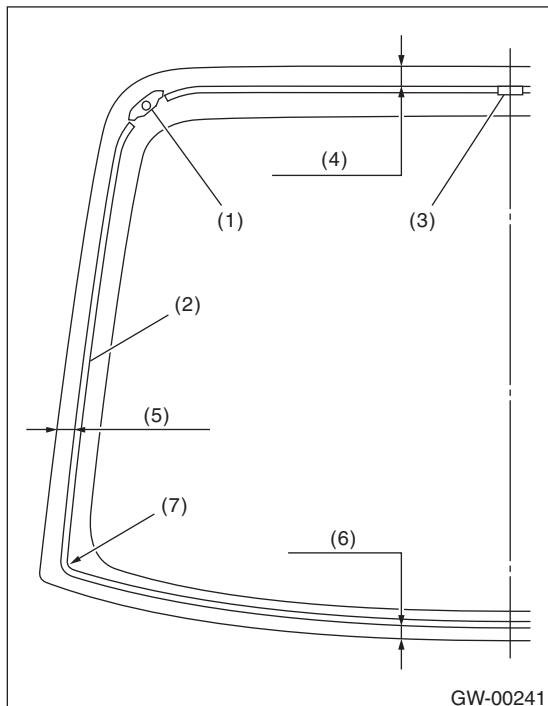
## 15. Rear Window Glass

### A: REMOVAL

- 1) Disconnect the electrical connectors from the rear defogger terminal and the antenna terminal.
- 2) Remove the glass in the same procedure as for windshield glass. <Ref. to GW-24, REMOVAL, Windshield Glass.>

### B: INSTALLATION

- 1) Install the dam rubber.

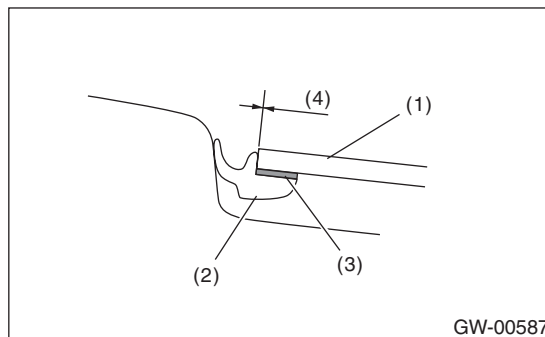


- (1) Locating pin
- (2) Dam rubber
- (3) Fastener
- (4) 16.5 mm (0.65 in)
- (5) 8 mm (0.315 in)
- (6) 22 mm (0.866 in)
- (7) R20

- 2) Attach the molding to the glass.

#### CAUTION:

Press the adhesive surface of double-sided tape evenly and firmly to prevent any floating of the tape.



- (1) Glass
- (2) Molding
- (3) Double-sided tape
- (4) Gap of 0.7 mm (0.03 in) or less

- 3) Install the glass in the same procedure as for windshield glass. <Ref. to GW-25, INSTALLATION, Windshield Glass.>

- 4) Connect the rear defogger terminal and the antenna terminal.

- 5) After completion of all work, allow the vehicle to stand for about 24 hours.

#### NOTE:

- When door is opened/closed after glass is bonded, always lower the door glass first, and then open/close it carefully.
- Move the vehicle slowly.
- For minimum drying time and vehicle standing time before driving after bonding, follow instructions or instruction manual from the adhesive manufacturer.

- 6) After curing of adhesive, pour the water on external surface of vehicle to check that there are no water leaks.

#### NOTE:

When a vehicle is returned to the user, tell him or her that the vehicle should not be subjected to heavy impact for at least three days.

## 16.Rear Window Defogger System

### A: WIRING DIAGRAM

<Ref. to WI-149, Rear Defogger System.>

### B: INSPECTION

Symptom	Repair order
Rear window defogger does not operate.	<ol style="list-style-type: none"><li>1. Fuse (M/B No. 1) (F/B No. 17)</li><li>2. Rear defogger relay</li><li>3. Rear defogger timer</li><li>4. Defogger switch</li><li>5. Rear defogger condenser</li><li>6. Defogger wire</li><li>7. Wiring harness</li></ol>

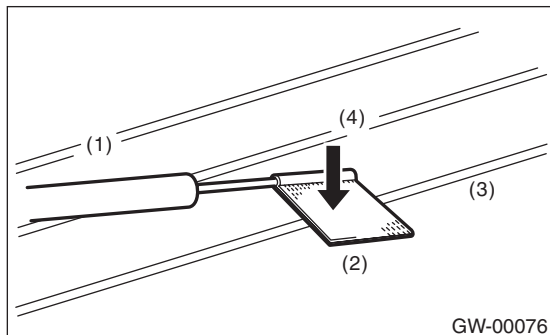
## 17. Rear Window Defogger

### A: INSPECTION

**CAUTION:**

Use a dry and soft cloth when wiping dirt off the glass. Move the cloth along the heat wire to avoid damaging it.

- 1) Turn the ignition switch to ON.
- 2) Turn the defogger switch to ON.
- 3) Wrap the tips of tester probe with aluminum foil to avoid damage to heat wire.

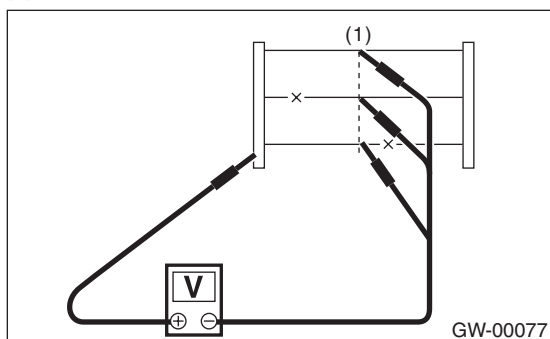


- (1) Tester probe
- (2) Aluminum foil
- (3) Heat wire
- (4) Press

- 4) Measure the voltage at heat wire center with DC voltmeter.

**Standard voltage:**

**Approx. 6 V**



- (1) Center of heat wire

Voltage	Criteria
Approx. 6 V	Normal
Approx. 12 V or 0 V	Open

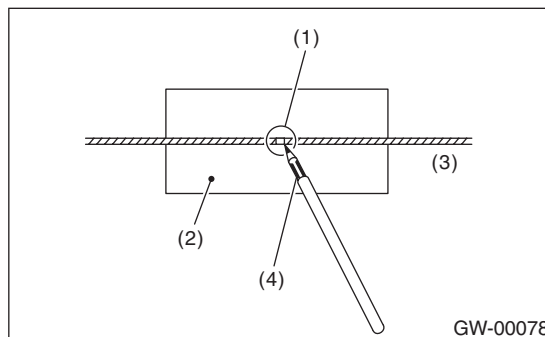
**NOTE:**

- If the measured value is 12 volts, heat wire is open between heat wire center and positive (+) terminal of tester probe.
- If it is 0 V, the circuit is open between heat wire center and ground.

- 5) Connect the tester probe of positive lead of voltmeter to positive terminal of heat wire and move tester probe of negative lead along the heat wire up to the negative terminal end. If voltage changes from zero to several volts during movement of tester probe, heat wire is open at the voltage change point.

### B: REPAIR

- 1) Clean the broken portion with alcohol or white gasoline.
- 2) Mask both side of wire with thin film.
- 3) Apply the conductive silver composition (DUPONT No. 4817) to the broken portion.



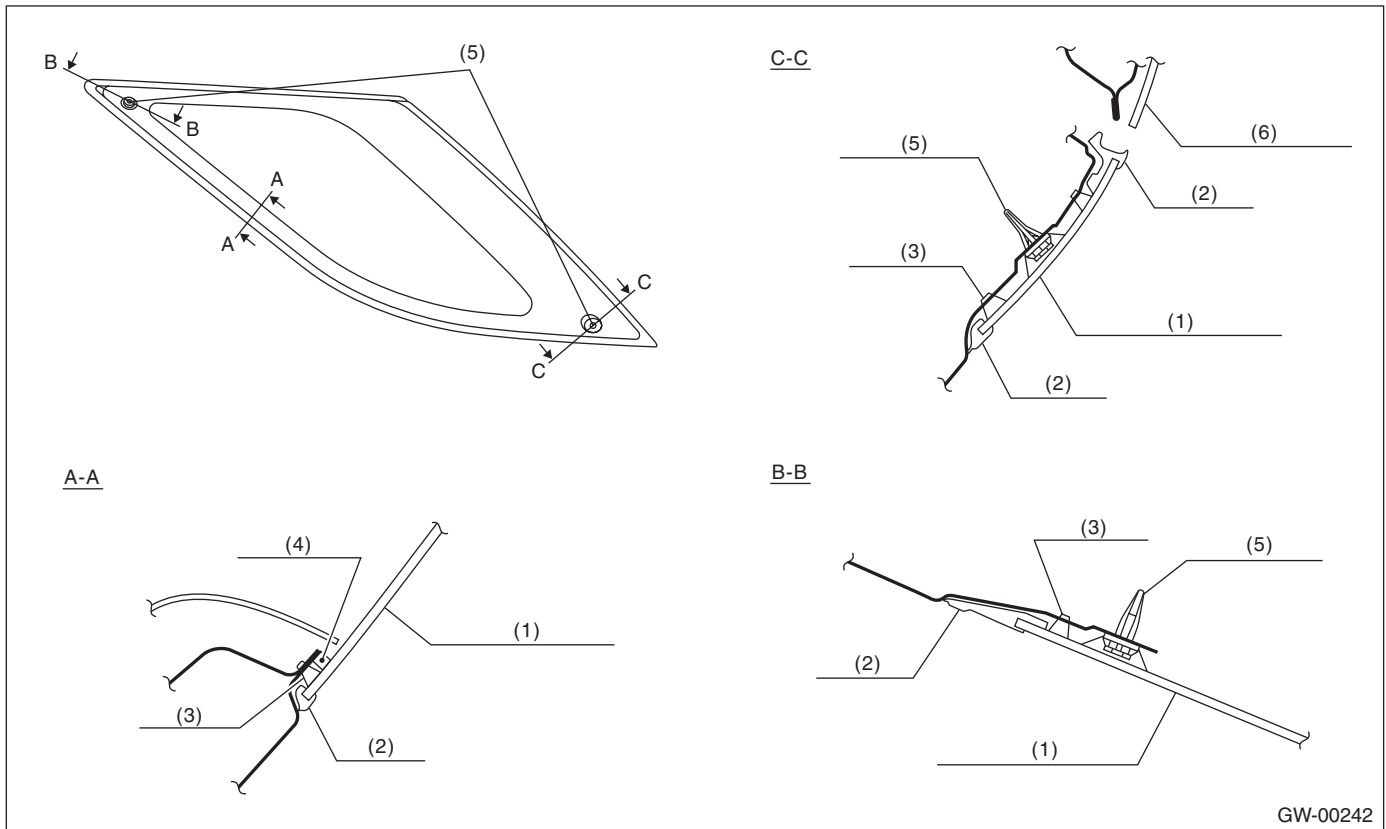
- (1) Broken portion
- (2) Thin film
- (3) Broken wire
- (4) Conductive silver composition (DUPONT No. 4817)

- 4) After repair, check the wire.

# 18.Rear Quarter Glass

## A: REMOVAL

Remove the glass in the same procedure as for windshield glass. <Ref. to GW-24, REMOVAL, Windshield Glass.>

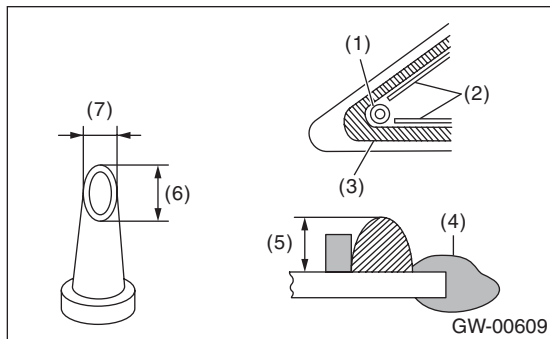


GW-00242

- (1) Rear quarter glass
- (2) Molding
- (3) Adhesive
- (4) Dam rubber
- (5) Locating pin
- (6) Rear gate glass

## B: INSTALLATION

1) Cut off the nozzle tip as shown in the figure.



- (1) Locating pin
- (2) Dam rubber
- (3) Adhesive
- (4) Molding
- (5) 12 — 15 mm (0.47 — 0.59 in)
- (6) 15 mm (0.59 in)
- (7) 10 mm (0.39 in)

2) Install the glass in the same procedure as for windshield glass. <Ref. to GW-25, INSTALLATION, Windshield Glass.>

3) After completion of all work, allow the vehicle to stand for about 24 hours.

### NOTE:

- When door is opened/closed after glass is bonded, always lower the door glass first, and then open/close it carefully.
- Move the vehicle slowly.
- For minimum drying time and vehicle standing time before driving after bonding, follow instructions or instruction manual from the adhesive manufacturer.

4) After curing of adhesive, pour the water on external surface of vehicle to check that there are no water leaks.

### NOTE:

When a vehicle is returned to the user, tell him or her that the vehicle should not be subjected to heavy impact for at least three days.

## 19. Sunroof Glass

### A: REMOVAL

<Ref. to SR-5, REMOVAL, Glass Lid.>

### B: INSTALLATION

<Ref. to SR-5, INSTALLATION, Glass Lid.>

### C: ADJUSTMENT

<Ref. to SR-5, ADJUSTMENT, Glass Lid.>

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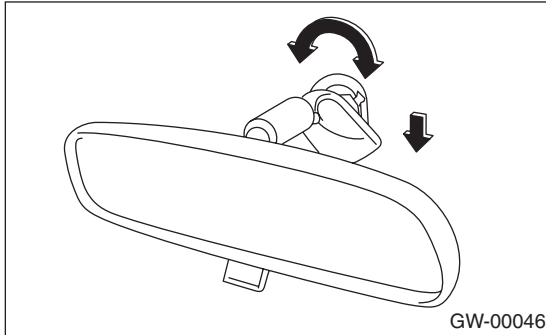
## 20. Rearview Mirror

### A: REMOVAL

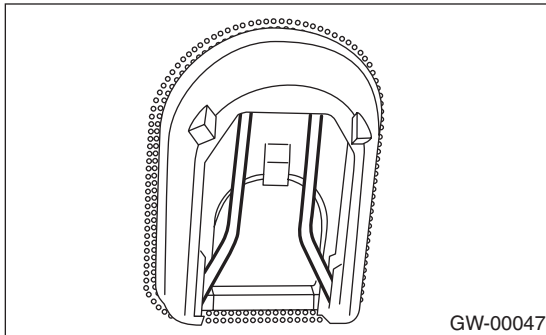
#### NOTE:

Never reuse the spring. Prepare a new spring before removal.

1) Turn the mirror base 90° clockwise or counter-clockwise to remove it.



2) Remove the spring from the mirror base.



#### CAUTION:

**Be careful not to damage the mirror surface.**

3) When the mirror base is damaged, use something like piano wire or a spatula to remove.

#### CAUTION:

**Be careful not to damage the windshield glass.**

### B: INSTALLATION

1) When the mirror base is removed, clean the old adhesive, and align the windshield glass mark to install.

#### Adhesive:

**REPAIR KIT IN MR (Part No. 65029FC000) or equivalent**

2) Make sure the mirror base is securely attached and then install the spring to it.

3) Install in the reverse order of removal.

### C: INSPECTION

Make sure the mirror is not damaged.

Make sure the spring is not damaged.

## 21. Wiper Deicer System

### A: INSPECTION

Refer to "INSPECTION" of "Rear Window Defogger". <Ref. to GW-30, INSPECTION, Rear Window Defogger.>

### B: REPAIR

Refer to "REPAIR" of "Rear Window Defogger". <Ref. to GW-30, REPAIR, Rear Window Defogger.>

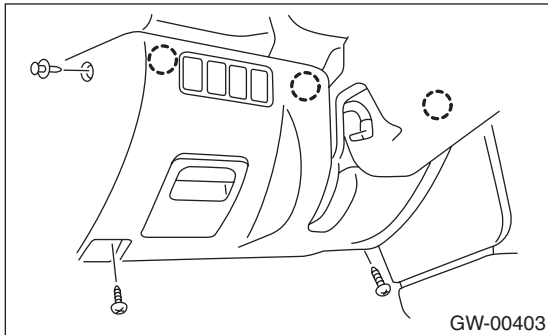
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## 22. Wiper Deicer Switch

### A: REMOVAL

Remove the driver's side lower cover, and then remove the wiper deicer switch.

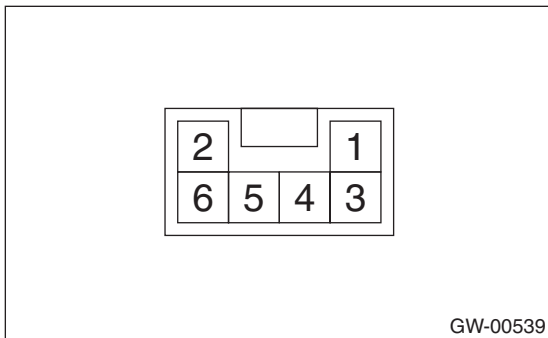


### B: INSTALLATION

Install in the reverse order of removal.

### C: INSPECTION

Move the wiper deicer switch to each position and check continuity between terminals.



Switch position	Terminal No.	Standard
OFF	3 and 5	1 MΩ or more
ON	3 and 5	Less than 1 Ω

If NG, replace the switch.

**Wiper Deicer Switch**

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