

## 13. Windshield Glass

### A: REMOVAL

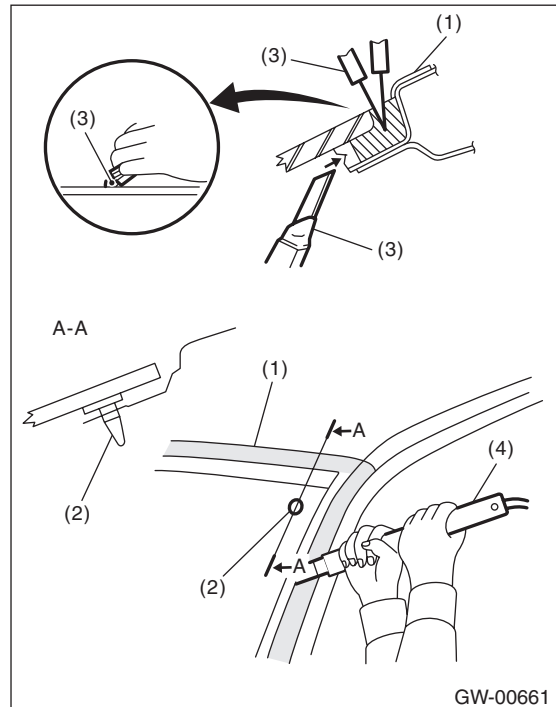
#### 1. WHEN USING WINDSHIELD GLASS KNIFE

##### CAUTION:

**Apply protective tape, etc, and be careful that the inner and outer components of the vehicle are not damaged.**

- 1) Disconnect the ground cable from battery. (Models with wiper deicer)
- 2) Remove the front pillar upper trim. <Ref. to EI-57, REMOVAL, Upper Inner Trim.>
- 3) Disconnect the wiper deicer connector. (Models with wiper deicer)
- 4) Remove the cowl panel. <Ref. to EI-38, REMOVAL, Cowl Panel.>
- 5) Remove the glass molding.
- 6) Tape the body side of the circumference of windshield glass for protection.
- 7) Apply sufficient amount of soapy water to the adhesive part.
- 8) Make a slit using a cutter knife to make it easier to insert the windshield glass knife.
- 9) Insert the windshield glass knife into adhesive part.

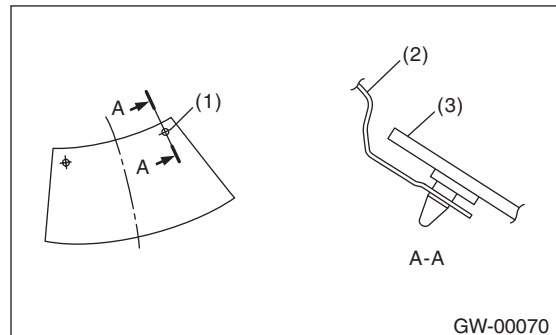
10) While holding the knife edge and windshield glass edge at a right angle, move the windshield glass knife in parallel to the windshield glass edge along the surface and edge of windshield glass to cut the adhesive part.



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

##### NOTE:

- Do not twist the windshield glass knife.
- Cutting of adhesive part shall be started with wider gap between windshield glass and body.
- The locating pins are bonded to the corners of glass. Use piano wire to disconnect the pins.



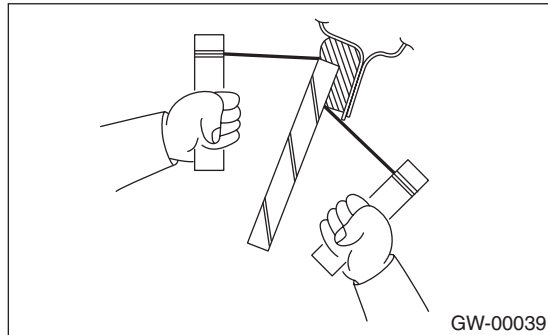
- (1) Locating pin
- (2) Body panel
- (3) Windshield glass

## 2. WHEN USING PIANO WIRE

### CAUTION:

- Do not tightly pull the piano wire against the windshield glass edge.
- Apply protective tape, etc, and be careful that the inner and outer components are not damaged.
- Do not cross piano wires. Otherwise they may be cut.

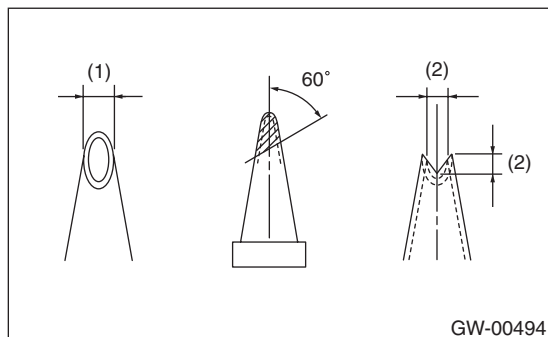
- 1) Disconnect the ground cable from battery. (Models with wiper deicer)
- 2) Remove the front pillar upper trim. <Ref. to EI-57, REMOVAL, Upper Inner Trim.>
- 3) Disconnect the wiper deicer connector. (Models with wiper deicer)
- 4) Remove the cowl panel. <Ref. to EI-38, REMOVAL, Cowl Panel.>
- 5) Remove the glass molding.
- 6) Tape the body side of the circumference of windshield glass for protection.
- 7) Make a hole in the adhesive part using drill or cutter knife.
- 8) Pass the piano wire through the hole, and attach both the wire ends securely to pieces of wood.



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

## B: INSTALLATION

- 1) Fabricate the cartridge nozzle tip as shown and set the sealant gun with the adhesive.

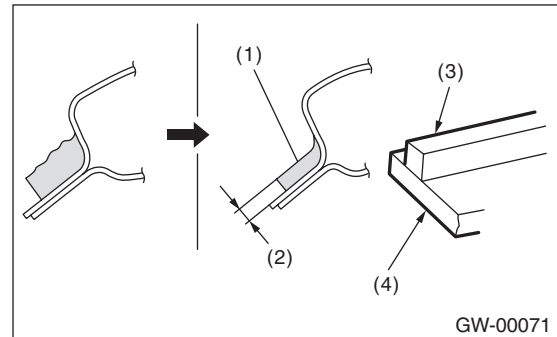


- (1) 10 mm (0.39 in)
- (2) 8 mm (0.31 in)

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

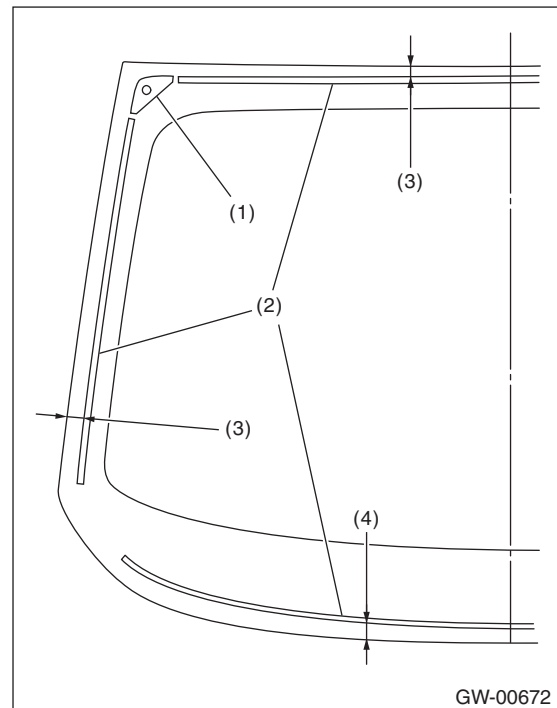
### CAUTION:

Be careful not to damage the body and paint surface.



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

- 4) Clean the body with alcohol or white gasoline to eliminate cutting powder, dust and dirt completely from body.
- 5) Install the dam rubber.

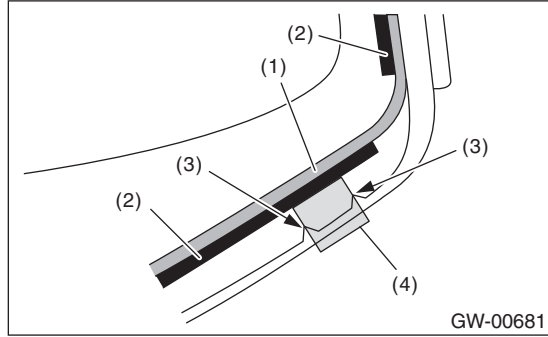


- (1) Locating pin
- (2) Dam rubber
- (3) 11 mm (0.43 in)
- (4) 14.5 mm (0.57 in)

# Windshield Glass

## GLASS/WINDOWS/MIRRORS

6) Attach the seal to the glass. (driver's side only)



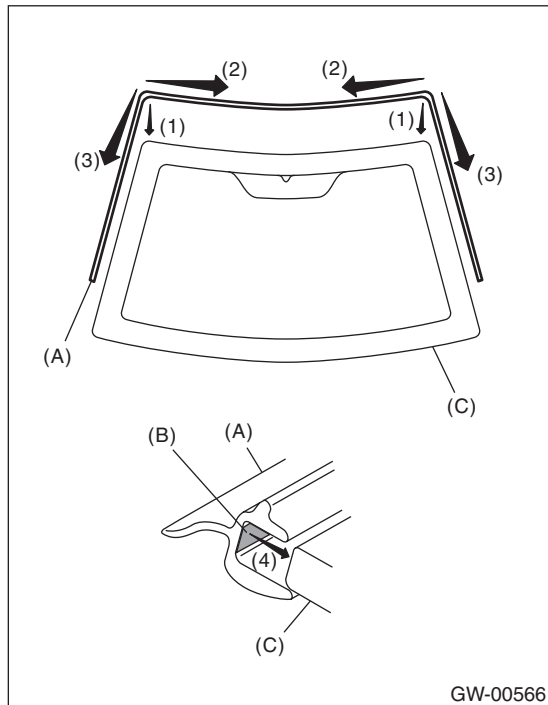
- (1) Adhesive
- (2) Dam rubber
- (3) Ceramic print cutout portion
- (4) Seal

### NOTE:

Attach the seal between the ceramic print cutout portions (3) located at the lower edge of the glass (driver's seat side).

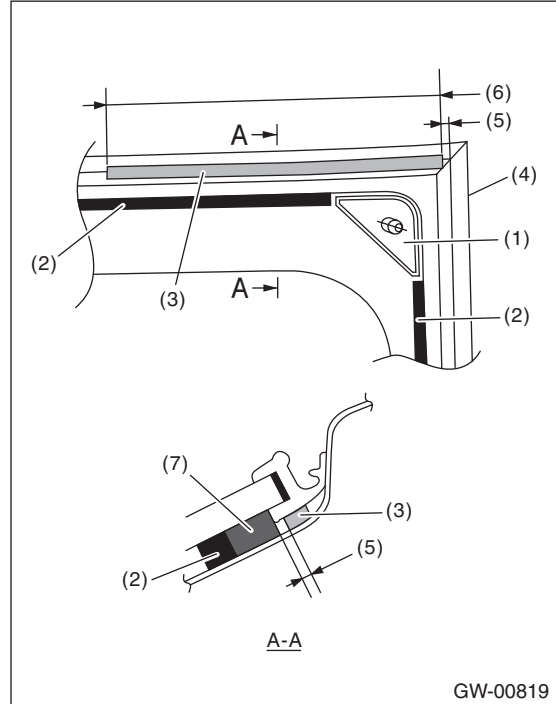
Attach the seal and dam rubber so that there are no gap by pressing on them.

7) Install the molding to the glass.



- (1) Align the molding (A) with both ends of the upper edge of the windshield glass (C).
- (2) Install the molding from both corners of the upper edge toward the center.
- (3) Install the molding from both corners of the upper edge toward the lower side.
- (4) Apply the double-sided tapes (B) of the molding uniformly on both sides of the glass.

8) Apply the seal to the molding.



- (1) Locating pin
- (2) Dam rubber
- (3) Seal
- (4) Molding
- (5) 3 mm (0.12 in)
- (6) 165 mm (6.50 in)
- (7) Adhesive

### NOTE:

Apply so that the sticker does not overlap out to the adhesive side (5).

9) Apply the primer to the adhesive surface of glass side and body side using sponge.

### Glass primer:

**Dow Automotive's  
ESSEX U-401, U-402**

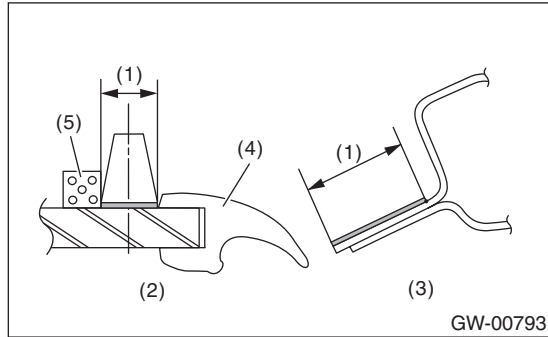
### Painted surface primer:

**Dow Automotive's  
ESSEX U-413**

### 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.

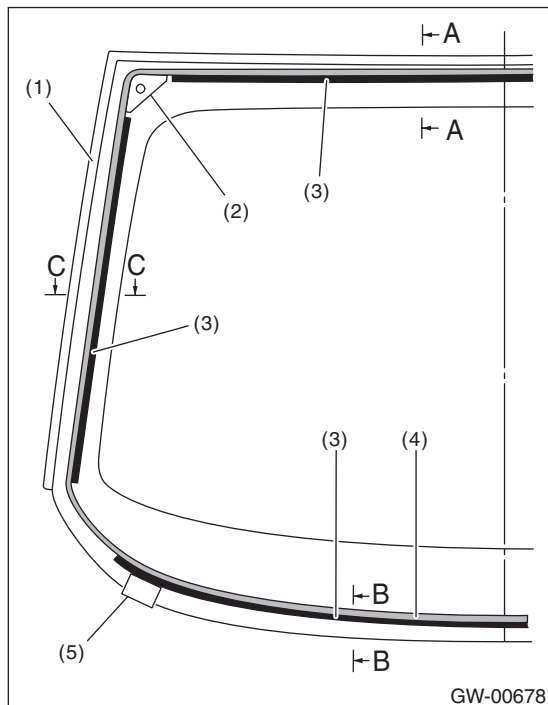


- (1) Application of primer
- (2) Glass side
- (3) Body side
- (4) Molding
- (5) Dam rubber

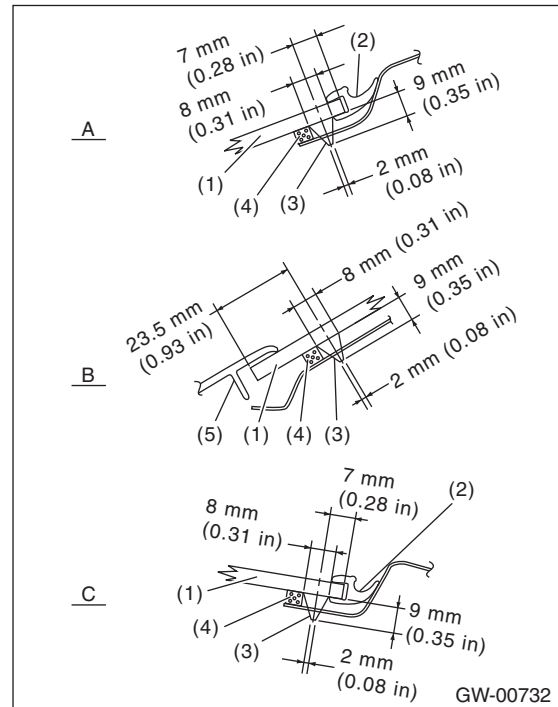
10) Apply adhesive to the glass end surface as shown.

### Adhesive:

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



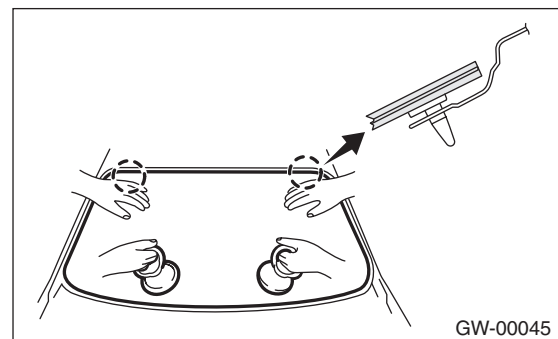
- (1) Molding
- (2) Locating pin
- (3) Dam rubber
- (4) Adhesive
- (5) Seal (driver's side only)



- A Upper end
- B Lower end
- C Side end

- (1) Glass
- (2) Molding
- (3) Adhesive
- (4) Dam rubber
- (5) Cowl panel

11) Fit the locating pins to vehicle body using suction rubber cup to install the windshield glass.



- 12) Lightly press the windshield glass for tight fit.
- 13) Make flush the adhesive surface juttred out using spatula.
- 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.

# Windshield Glass

## GLASS/WINDOWS/MIRRORS

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- 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-38, INSTALLATION, Cowl Panel.>

17) Connect the wiper deicer connector. (Models with wiper deicer)

18) Install the front pillar upper trim. <Ref. to EI-57, INSTALLATION, Upper Inner Trim.>