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Kevin Wright

krwright@wankel.net

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who, well, didn't do much this time, since Paul Lee provided the thing already scanned and compiled into a PDF! (Thanks!). Go visit his website: <http://www.iluvmyrx7.com/index.htm> Lots of RX-7 goodness there.

There are several ways to get around in the document. I have provided Bookmarks to all the sections, and thumbnails are also provided in the Thumbnails side bar.

I have also included a label for the spine of a binder, for those who wish to print out all the pages and keep a dead-tree edition handy.☺

The original document is © 1979 Toyo Kogyo Co., Ltd., and remains so. This version is provided as a service for owners of first generation Mazda RX-7s who are having a devil of a time locating the factory service manual for a reasonable price.

If you really want to send me money, email me and I'll tell you where to send it, but it's not necessary. Consider this payback for all the good advice and information gleaned from the various RX-7 email lists!

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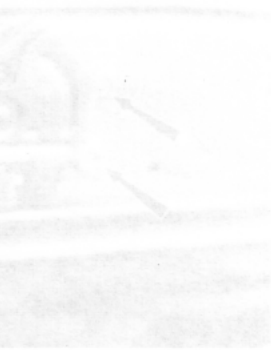
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See <http://www.dfw-rx7.com> for information on the DFW-RX7 email list.

09/16/03

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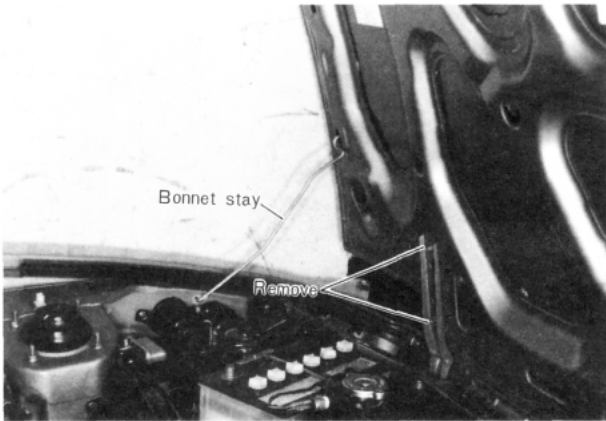


Fig. 14-1

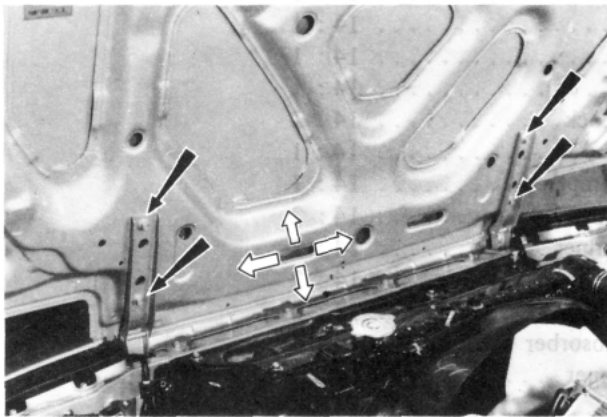


Fig. 14-2

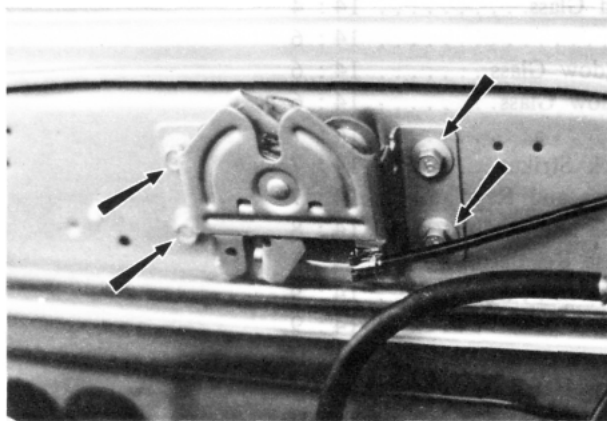


Fig. 14-3

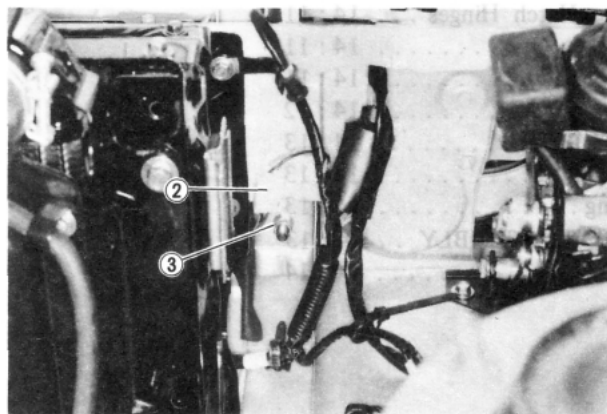


Fig. 14-4

14-A. BONNET

14-A-1. Removing Bonnet

1. Open the bonnet and mark the bonnet hinge locations on the bonnet.
2. Remove the bonnet stay.
3. With an assistant supporting one side of the bonnet, remove the bonnet mounting bolts.
4. Lift the bonnet off the vehicle.

14-A-2. Installing Bonnet

Follow the removal procedures in the reverse order.

14-A-3. Adjusting Bonnet

Make the to-and-fro, side-to-side and up-and-down adjustments by loosening the bonnet mounting bolts.

14-A-4. Adjusting Bonnet Lock

To adjust the bonnet lock, loosen the bonnet lock attaching bolts and move the lock as required to align with a striker.

14-B. FRONT BUMPER

14-B-1. Removing Front Bumper

1. Remove the battery.
2. Disconnect the wire connectors from the front turn signal lights.
3. Remove the nuts attaching the piston rod end of the shock absorber to the body.
Raise the front end of the vehicle and support it with stands.

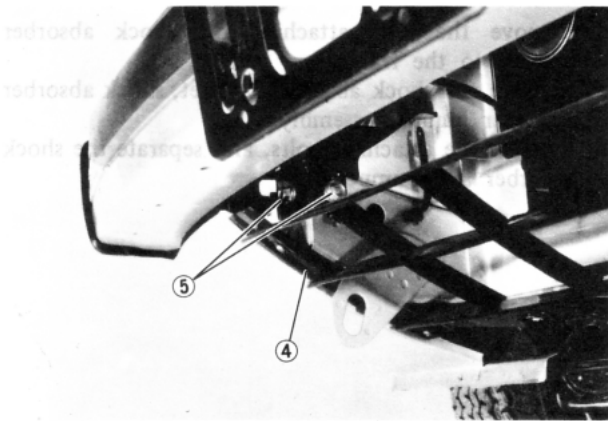


Fig. 14-5

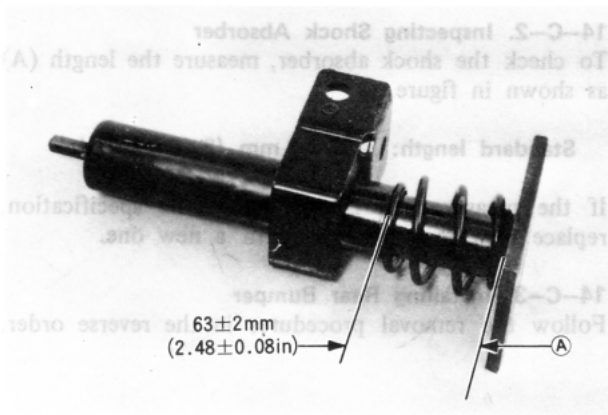


Fig. 14-6

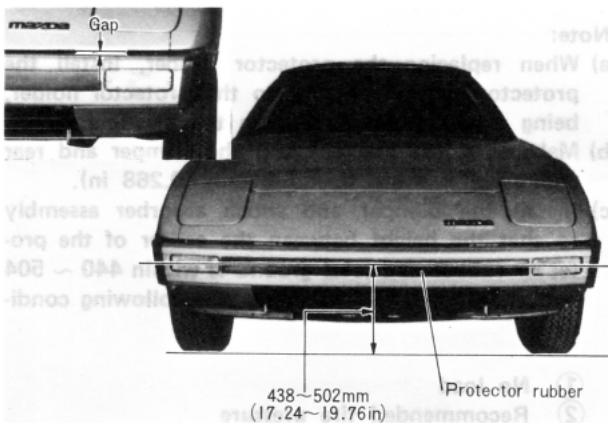


Fig. 14-7

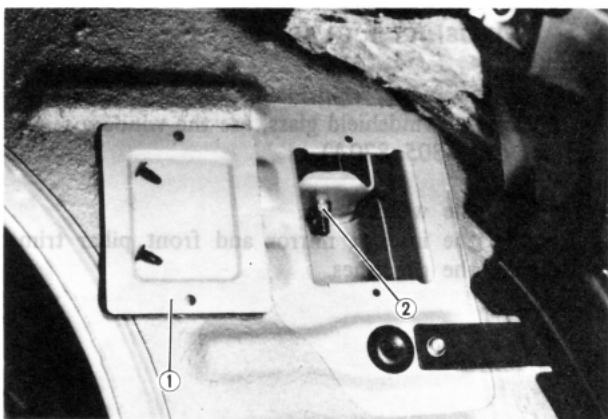


Fig. 14-8

4. Remove the radiator grille.
5. Remove the bolts attaching the shock absorber bracket to the frame.
Then, remove the shock absorber bracket, shock absorber and bumper assembly.
6. Remove the attaching bolts, and separate the shock absorber and bumper.

14-B-2. Inspecting Shock Absorber

To check the shock absorber, measure the length (A) as shown in figure.

Standard length: 63 ± 2 mm (2.48 ± 0.08 in)

If the measurement is not within the specification, replace the shock absorber with a new one.

14-B-3. Installing Front Bumper

Follow the removal procedures in the reverse order.

Note:

- a) When replacing the protector rubber, install the protector rubber properly to the protector holder, being carefully not to broken the plastic fastener.
- b) Make sure the gap between the bumper and front nose is more than 6.9 mm (0.272 in).
- c) Install the bumper and shock absorber assembly so that the height between the center of the protector rubber and level ground is within 438 ~ 502 mm (17.24 ~ 19.76 in) under the following conditions.

- ① No load
- ② Recommended tire pressure
- ③ Fully fuel tank with fuel

14-C. REAR BUMPER

14-C-1. Removing Rear Bumper

1. Open the rear glass hatch and remove the service hole cover.
2. Remove the nuts attaching the piston rod end of the shock absorber to the frame.
3. Raise the rear end of the vehicle and support it with stands.

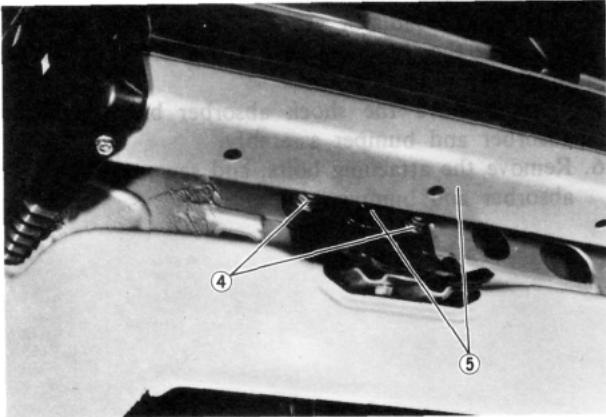


Fig. 14-9

4. Remove the nuts attaching the shock absorber bracket to the frame.
5. Remove the shock absorber bracket, shock absorber and rear bumper assembly.
6. Remove the attaching bolts, and separate the shock absorber and bumper.

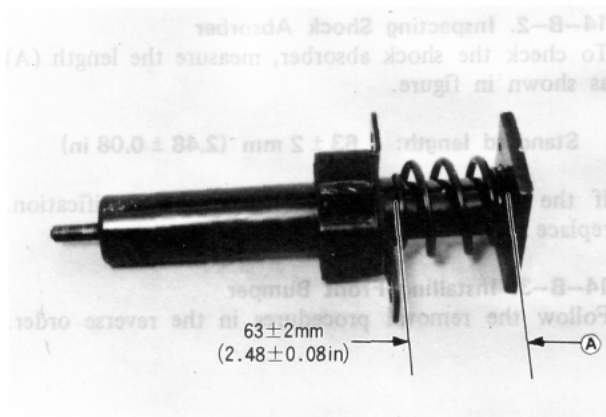


Fig. 14-10

14-C-2. Inspecting Shock Absorber

To check the shock absorber, measure the length (A) as shown in figure.

Standard length: 63 ± 2 mm (2.48 ± 0.08 in)

If the measurement is not within the specification, replace the shock absorber with a new one.

14-C-3. Installing Rear Bumper

Follow the removal procedures in the reverse order.

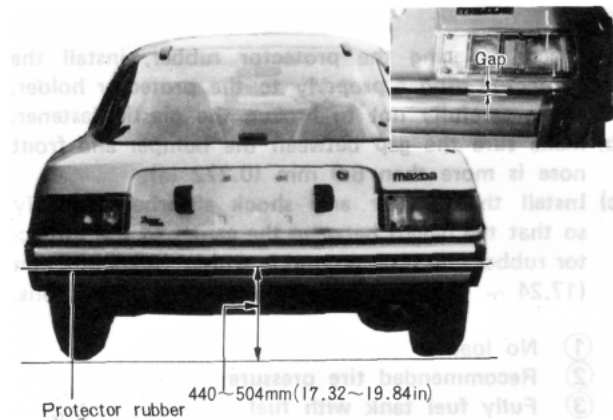


Fig. 14-11

Note:

- a) When replacing the protector rubber, install the protector rubber properly to the protector holder, being carefully not to broken the plastic fastener.
- b) Make sure the gap between the bumper and rear end panel is more than 6.8 mm (0.268 in).
- c) Install the bumper and shock absorber assembly so that the height between the center of the protector rubber and level ground is within 440 ~ 504 mm (17.32 ~ 19.84 in) under the following conditions.

- ① No load
- ② Recommended tire pressure
- ③ Fully fuel tank with fuel

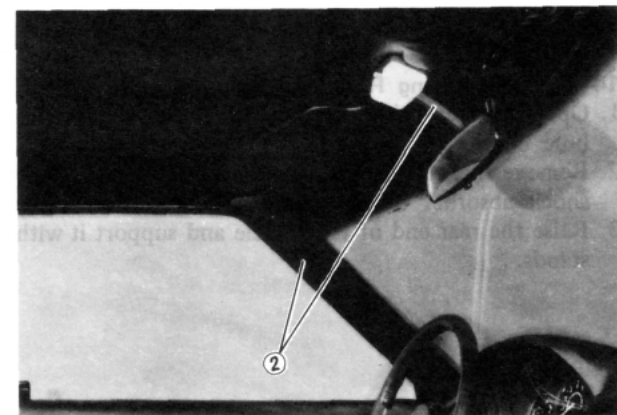


Fig. 14-12

14-D. WINDSHIELD GLASS

14-D-1. Removing Windshield Glass

To replace the windshield glass, use the **window service tool set (49 0305 870A)**.

1. Remove the wiper arms.
2. Remove the interior mirror and front pillar trims.
3. Remove the garnishes.

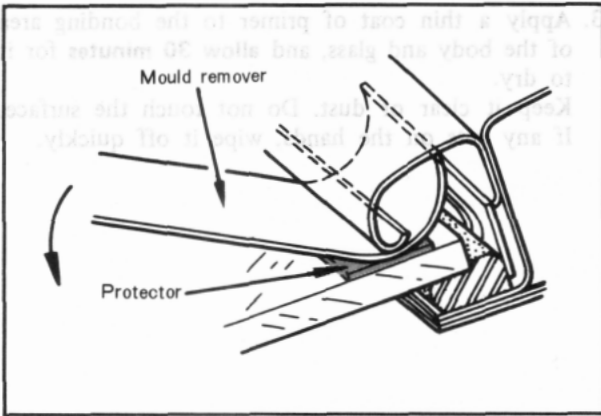


Fig. 14-13

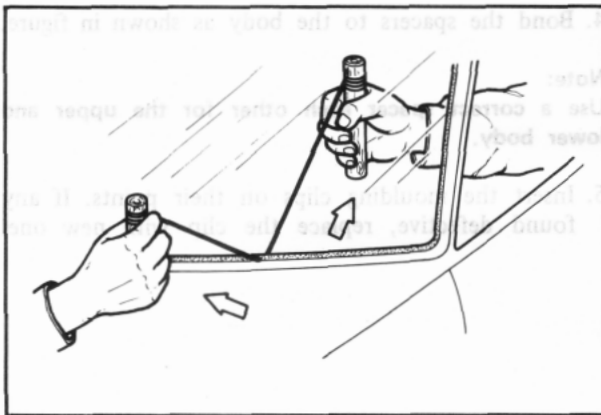


Fig. 14-14

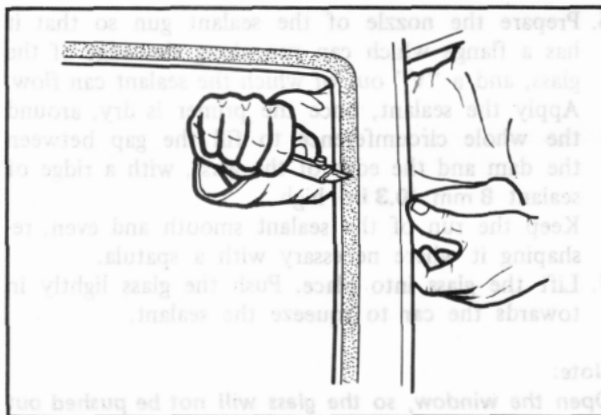


Fig. 14-15

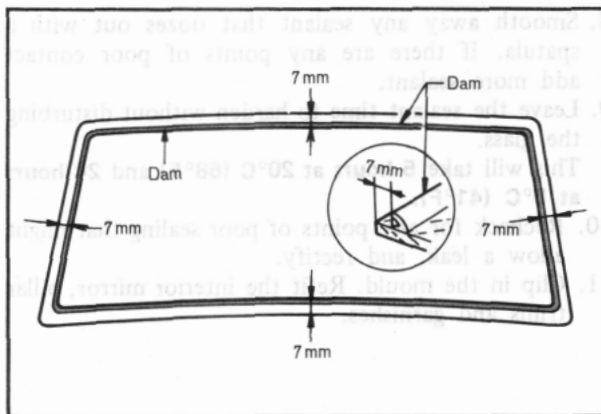


Fig. 14-16

4. Insert the suitable protector and remove the mould using the mould remover as shown in figure.

Note:

Before removing the mould, apply adhesive tape to protect the body from damage.

5. Drill a small hole to the sealant.
6. Pass a piano wire through the hole.
7. Wind the each end of wire round a bars.
8. Pull the wire to and fro, and saw through the sealant round the edge of the glass. Then remove the glass.

Note:

- a) Use a long sawing action to spread the work over the whole length of wire lest it break.
- b) Take care the wire does not rub on the car paint.

14-D-2. Installing Windshield Glass

1. With a sharp knife cut away the old sealant, so that 1 to 2 mm (0.04 to 0.08 in) thickness of sealant remains around the circumference of the frame. If all the sealant has come off in place, apply some primer after degreasing, and allow it 30 minutes to dry. Then put on sealant to **build up the 2 mm (0.08 in) layer.**

2. Bond the new dam to the glass with bonding agent. It should be positioned with its outer edge **7 mm (0.3 in)** from the glass edge, and the lip outermost.

Note:

Securely bond the dam so that it is straight and will not come apart.

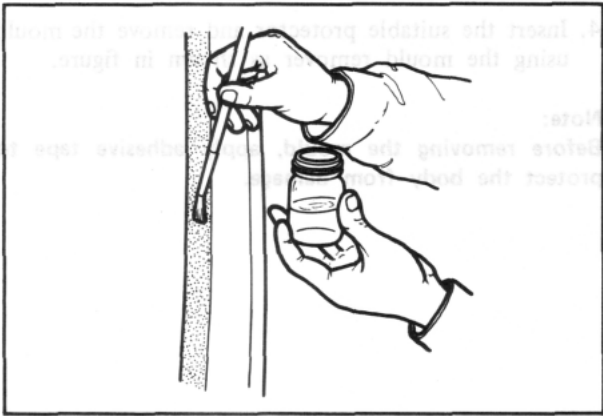


Fig. 14-17

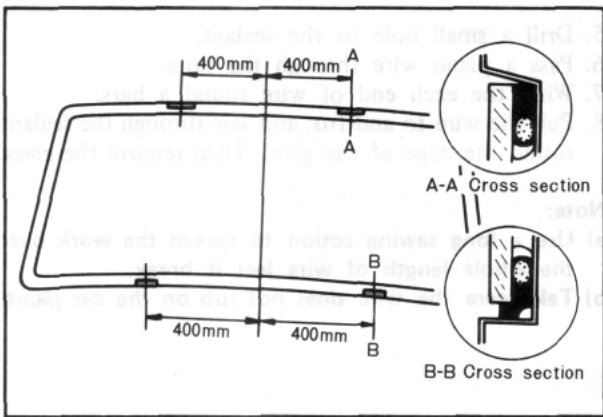


Fig. 14-18

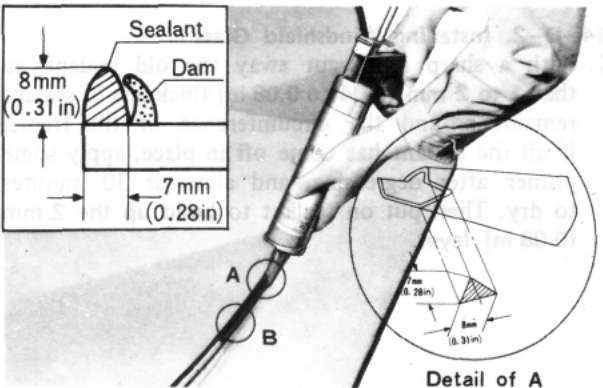


Fig. 14-19

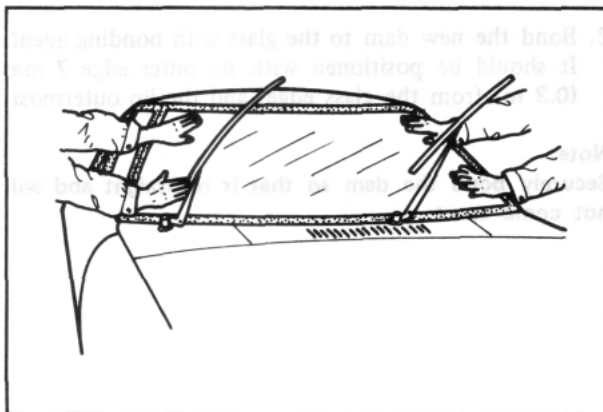


Fig. 14-20

3. Apply a thin coat of primer to the bonding area of the body and glass, and **allow 30 minutes** for it to dry.
Keep it clear of dust. Do not touch the surface. If any gets on the hands, wipe it off quickly.

4. Bond the spacers to the body as shown in figure.

Note:

Use a correct spacer each other for the upper and lower body.

5. Insert the moulding clips on their points. If any found defective, replace the clip with new one.

6. Prepare the nozzle of the sealant gun so that it has a flange which can run along the edge of the glass, and a "V" out of which the sealant can flow. Apply the sealant, once the primer is dry, around the whole circumference to fill the gap between the dam and the edge of the glass, with a ridge of sealant **8 mm (0.3 in)** high.

Keep the run of the sealant smooth and even, reshaping it where necessary with a spatula.

7. Lift the glass into place. Push the glass lightly in towards the car to squeeze the sealant.

Note:

Open the window, so the glass will not be pushed out by air pressure when a door is closed.

8. Smooth away any sealant that oozes out with a spatula. If there are any points of poor contact add more sealant.
9. Leave the sealant time to harden without disturbing the glass.
This will take **5 hours at 20°C (68°F)** and **24 hours at 5°C (41°F)**.
10. Recheck for any points of poor sealing that might allow a leak, and rectify.
11. Clip in the mould. Refit the interior mirror, pillar trims and garnishes.

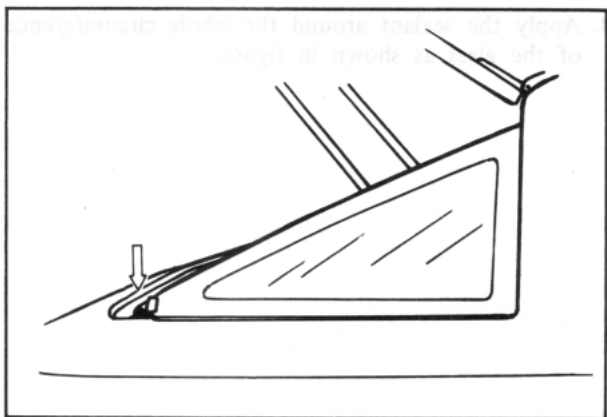


Fig. 14-21

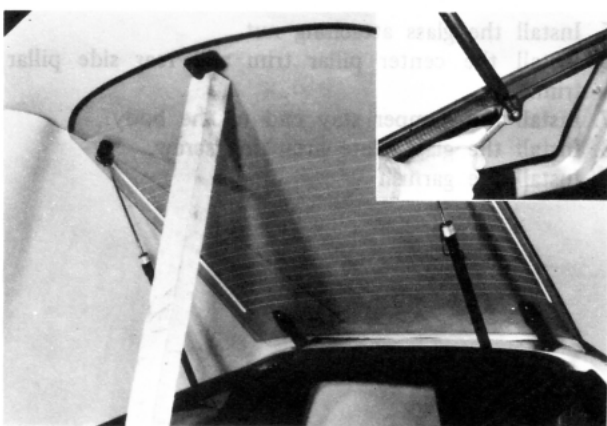


Fig. 14-22

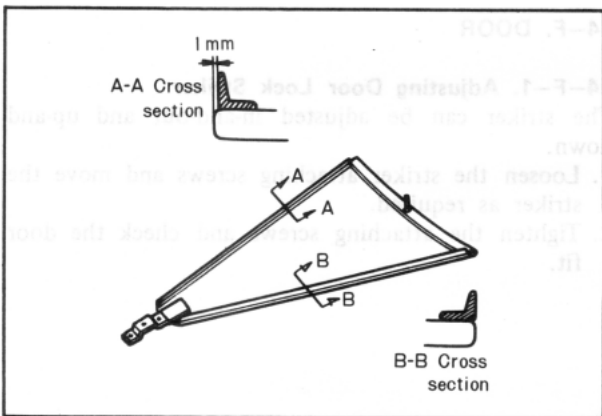


Fig. 14-23

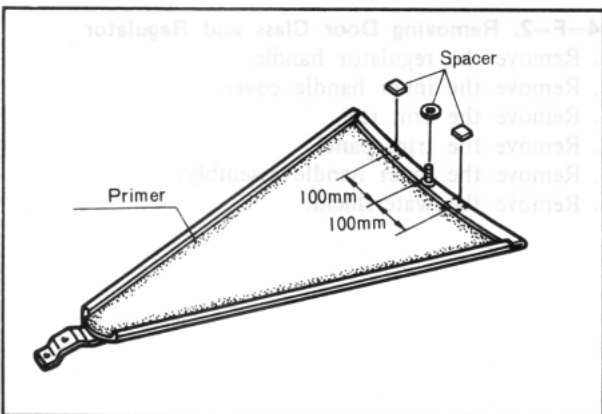


Fig. 14-24

14-E. SIDE WINDOW GLASS

14-E-1. Removing Side Window Glass

1. Remove the garnish and remove the glass plate attaching screw.



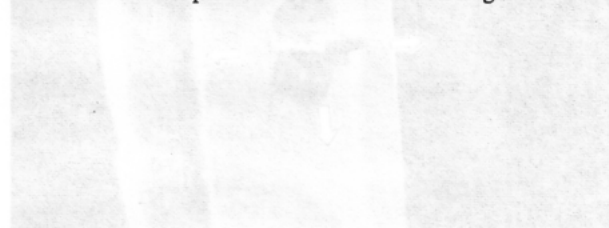
2. Open the rear glass hatch and disconnect the electrical connector from the rear pillar.
3. Remove the rear pillar trims, and remove the glass attaching nut.
4. Disconnect the damper stay end from rear pillar and hold the rear glass hatch.
5. Remove the side glass referring to the Step 5 to 8 in Par. 14-D-1.



14-E-2. Installing Side Window Glass

Install the side window glass referring to the Step 1 to 10 in the Par. 14-D-2, **noting** the following points.

1. Bond the new dam to the glass with bonding agent. It should be positioned as shown in figure.



2. Apply a thin coat of primer to the bonding area of the body and glass as shown in figure.
3. Bond the spacers to the glass as shown in figure.



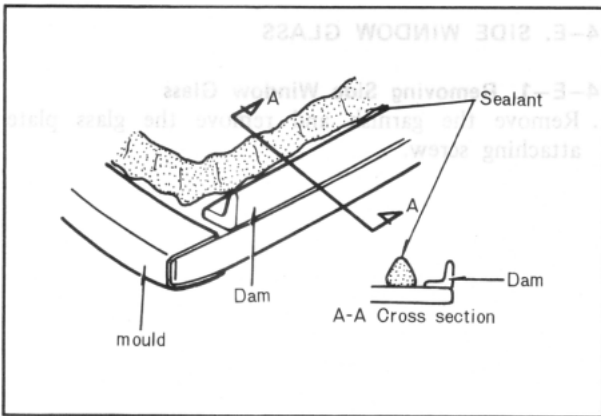


Fig. 14-25

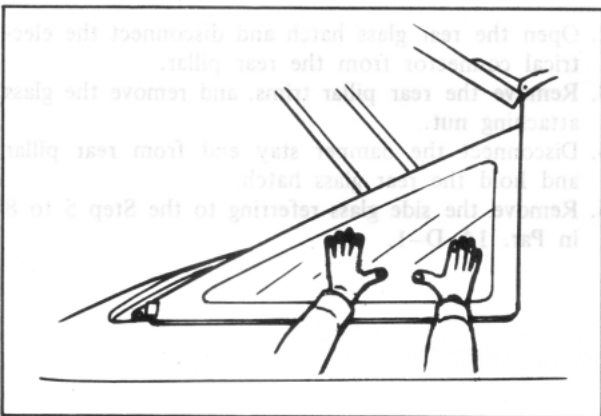


Fig. 14-26

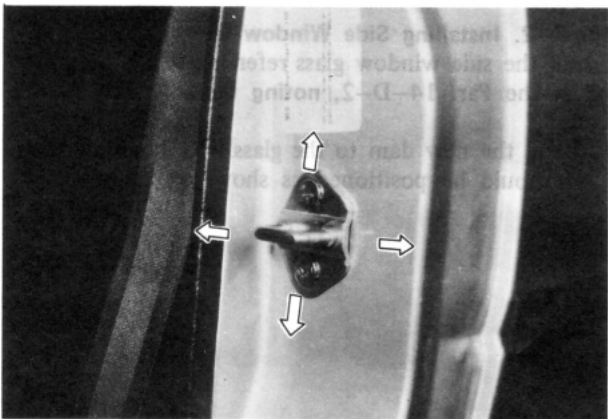


Fig. 14-27

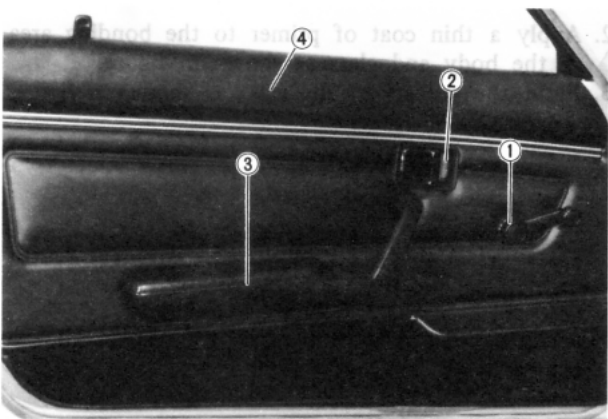


Fig. 14-28

4. Apply the sealant around the whole circumference of the glass as shown in figure.

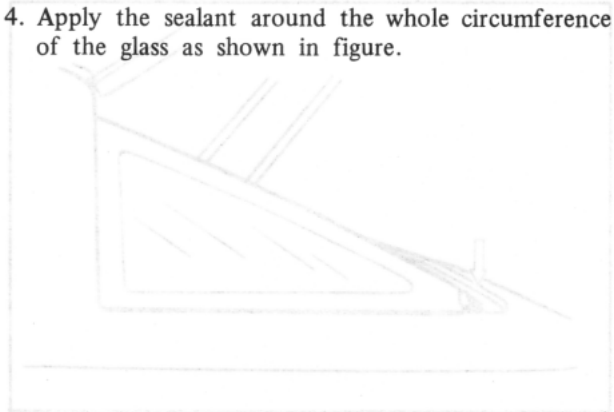


Fig. 14-29

5. Install the glass attaching nut.
6. Install the center pillar trim and rear side pillar trim.
7. Install the damper stay end to the body.
8. Install the glass plate attaching screw.
9. Install the garnish.

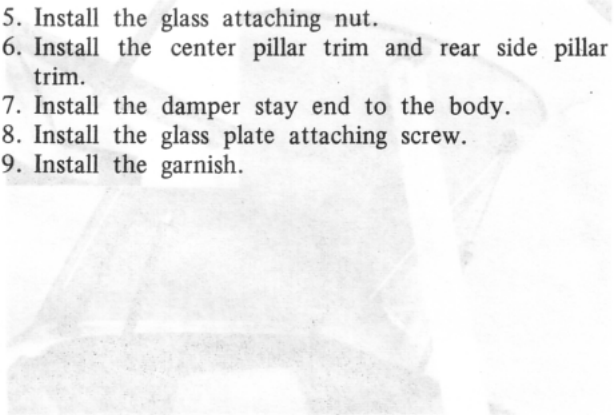


Fig. 14-30

14-F. DOOR

14-F-1. Adjusting Door Lock Striker

The striker can be adjusted in-and-out and up-and-down.

1. Loosen the striker attaching screws and move the striker as required.
2. Tighten the attaching screws and check the door fit.

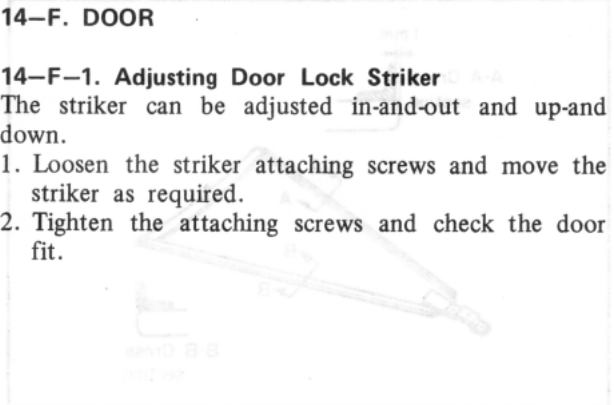


Fig. 14-31

14-F-2. Removing Door Glass and Regulator

1. Remove the regulator handle.
2. Remove the inner handle cover.
3. Remove the arm rest.
4. Remove the trim panel.
5. Remove the inner handle assembly.
6. Remove the watershield.

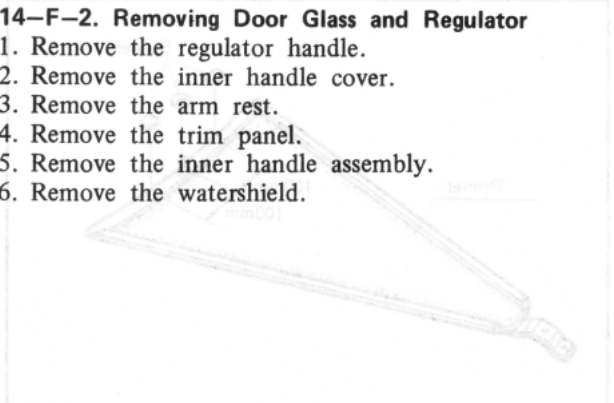


Fig. 14-32

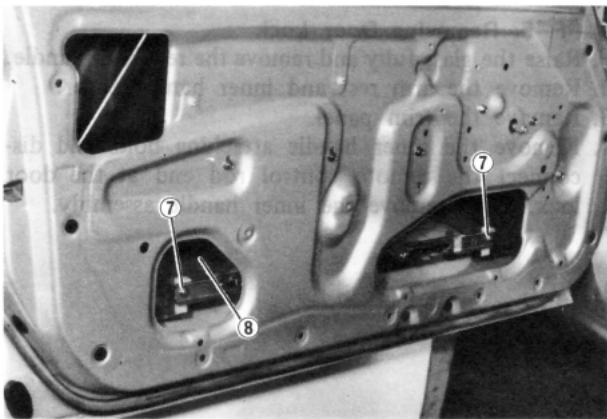


Fig. 14-29

7. Remove the screws attaching the glass and regulator. Then remove the screw grommets.
8. Remove the glass.

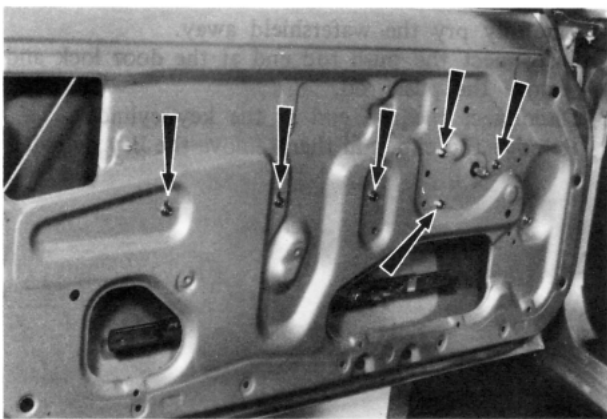


Fig. 14-30

9. Remove the regulator attaching bolts, and take out the regulator assembly through the service hole.

14-F-3. Installing Door Glass and Regulator

Follow the removal procedures in the reverse order. Adjust the regulator if necessary.

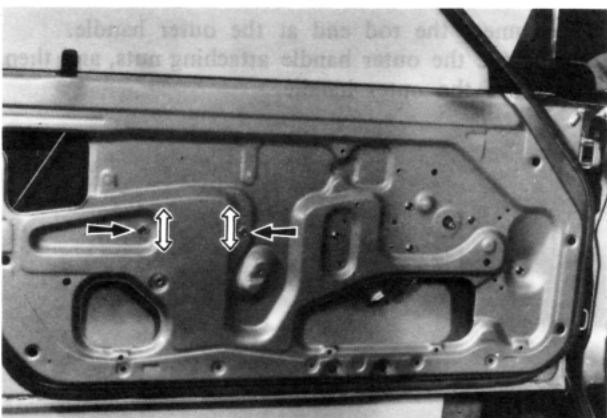
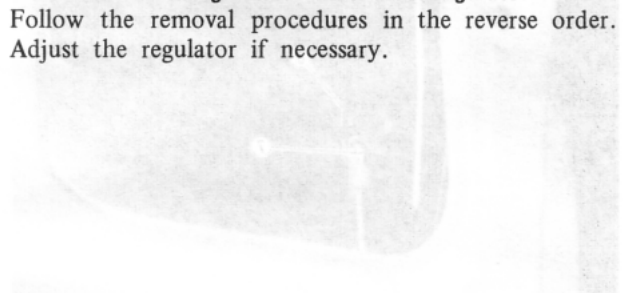


Fig. 14-31

14-F-4. Adjusting Door Glass Regulator

a. Horizontal adjustment

1. Raise the window to full up position.
2. Make the horizontal adjustment of the glass by moving the regulator guide up or down.
3. Make sure that the glass moves smoothly.

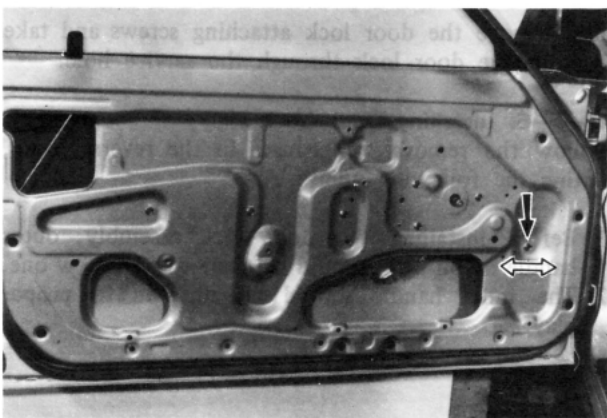
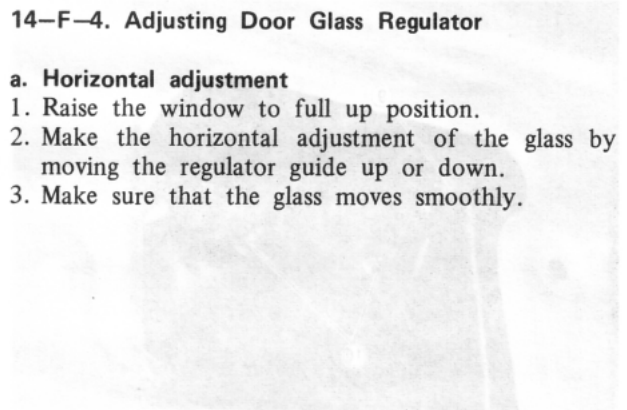


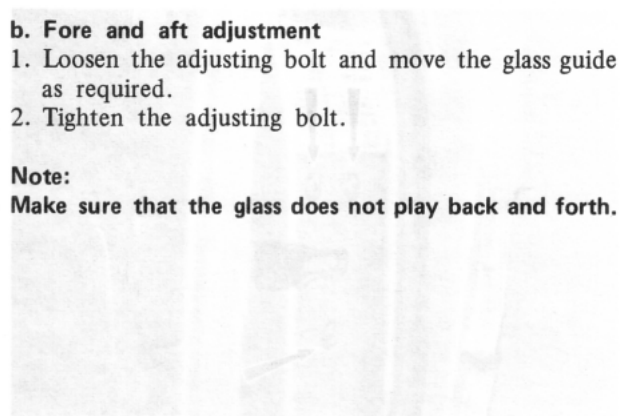
Fig. 14-32

b. Fore and aft adjustment

1. Loosen the adjusting bolt and move the glass guide as required.
2. Tighten the adjusting bolt.

Note:

Make sure that the glass does not play back and forth.



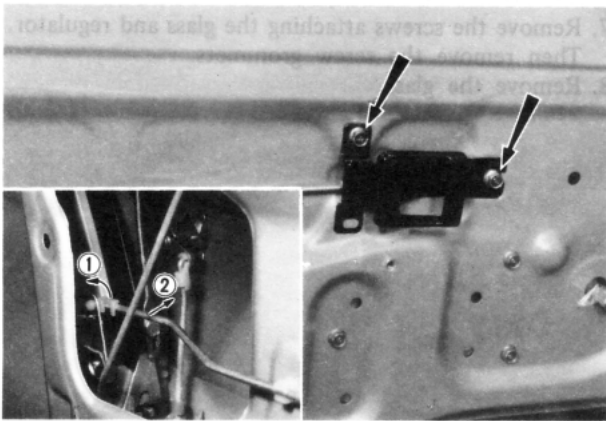


Fig. 14-33

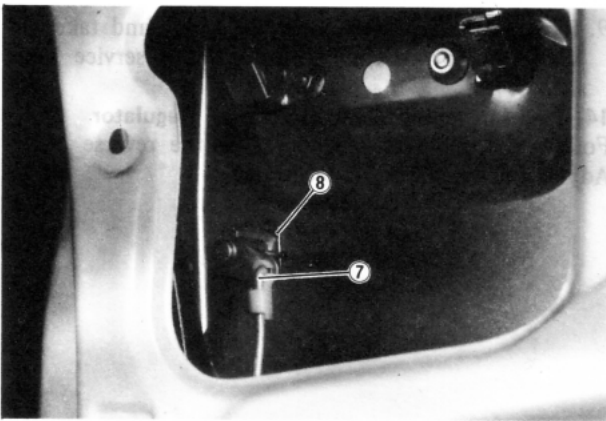


Fig. 14-34

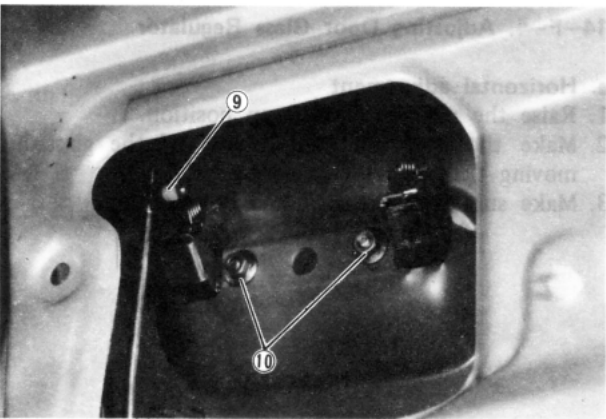


Fig. 14-35

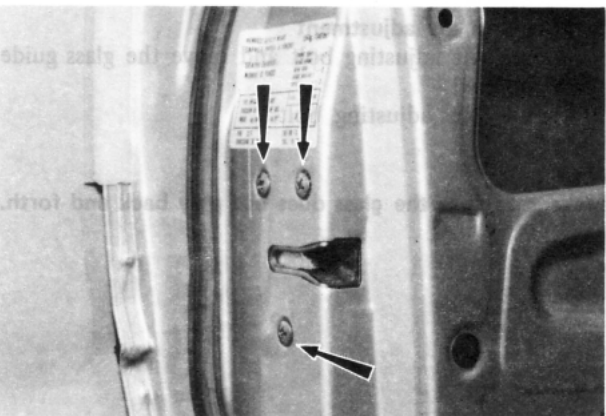


Fig. 14-36

14-F-5. Removing Door Lock

1. Raise the glass fully and remove the regulator handle.
2. Remove the arm rest and inner handle cover.
3. Remove the trim panel.
4. Remove the inner handle attaching bolts and disconnect the remote control rod end at the door lock. Then remove the inner handle assembly.

5. Carefully pry the watershield away.
6. Disconnect the push rod end at the door lock and remove the push rod.
7. Disconnect the rod end at the key cylinder.
8. Remove the clip, and then remove the key cylinder.

9. Disconnect the rod end at the outer handle.
10. Remove the outer handle attaching nuts, and then remove the outer handle.

11. Remove the door lock attaching screws and take out the door lock through the service hole.

14-F-6. Installing Door Lock

Follow the removal procedures in the reverse order, noting the following points.

1. Before installing the door lock assembly, outer handle nylon bush should be changed with new one.
2. The inner handle should be adjusted to proper play.

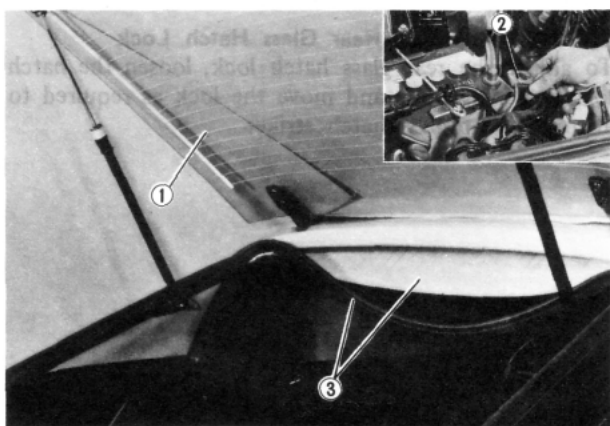


Fig. 14-37

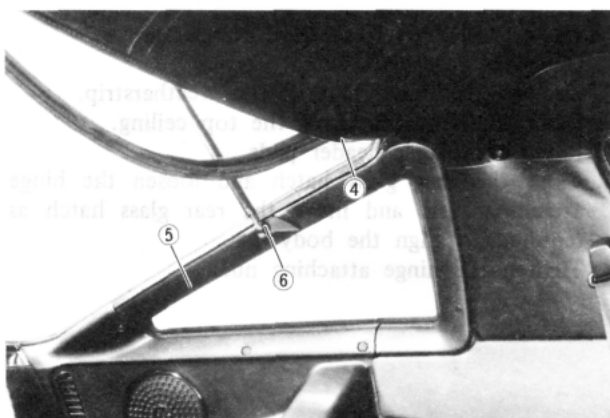


Fig. 14-38

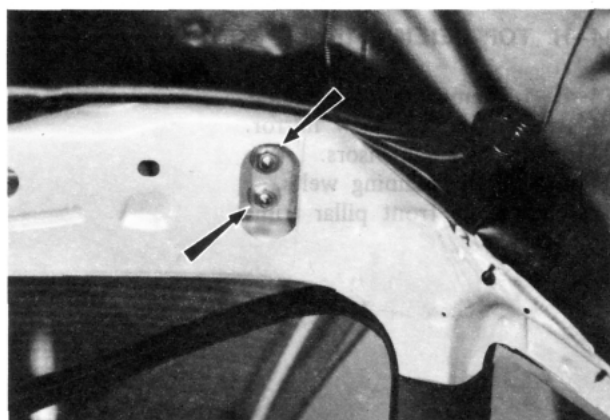


Fig. 14-39

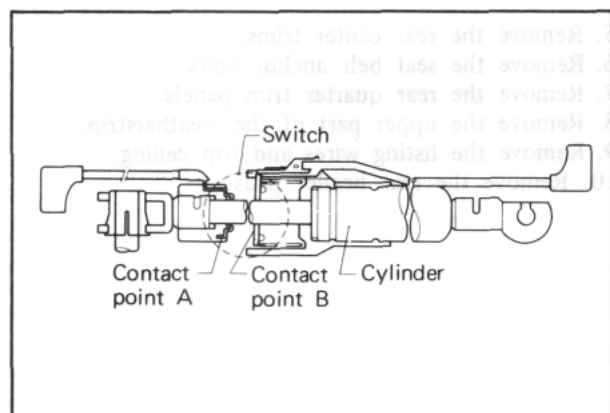


Fig. 14-40

14-G REAR GLASS HATCH

14-G-1. Removing Rear Glass Hatch

1. Open the rear glass hatch.
2. Disconnect the battery negative cable.
3. Remove the weatherstrip and top ceiling at the rear end of the roof.

4. Disconnect the electrical connector for rear defroster from the rear pillar.
5. Remove the rear side pillar trim.
6. Disconnect the damper stay at the body.
7. Close the rear glass hatch.

Note:

Be careful not to damaged the filament on the rear glass hatch during the servicing.

8. Remove the glass hatch hinges attaching nuts.
9. Release the glass hatch lock and remove the glass hatch with the hinge attached.
10. If necessary, remove the damper stays, hinges and glass hatch lock striker from the glass.

Note:

- a) Do not disassemble the damper stay as it is filled with gas and oil.
- b) When the damper stay is replaced, before discarding the old one, drill a 2 or 3 mm (0.079 ~ 0.118 in) hole at the lower end of cylinder and allow the high pressure gas to escape. Take care when venting it out as the drill cuttings and oil might fly out with considerable force.

14-G-2. Installing Rear Glass Hatch

Follow the removal procedures in the reverse order.

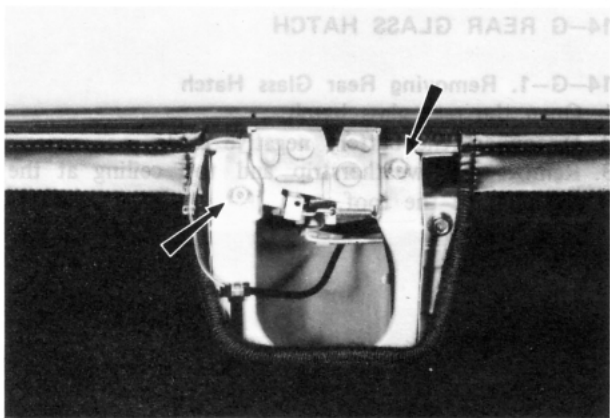


Fig. 14-41

14-G-3. Adjusting Rear Glass Hatch Lock

To adjust the rear glass hatch lock, loosen the hatch lock attaching bolts and move the lock as required to align the rear glass hatch striker.

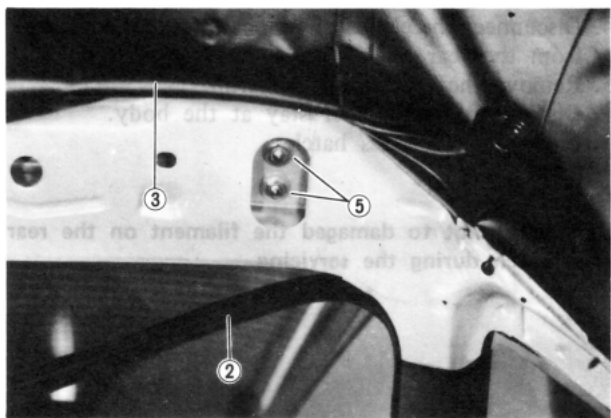


Fig. 14-42

14-G-4. Adjusting Rear Glass Hatch Hinges

1. Open the rear glass hatch.
2. Remove the upper part of the weatherstrip.
3. Remove the rear end of the top ceiling.
4. Remove the rear header pads.
5. Close the rear glass hatch and loosen the hinge attaching nuts and move the rear glass hatch as required to align the body.
6. Tighten the hinge attaching nuts.

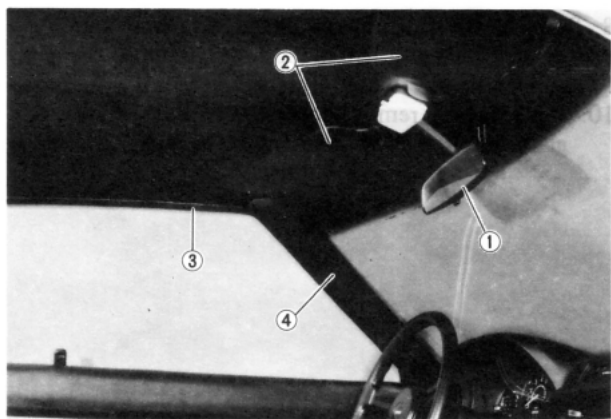


Fig. 14-43

14-H. TOP CEILING (FULL ROOF)

14-H-1. Removing Top Ceiling

1. Remove the rear view mirror.
2. Remove the sun visors.
3. Remove the seaming welts.
4. Remove the front pillar trims.

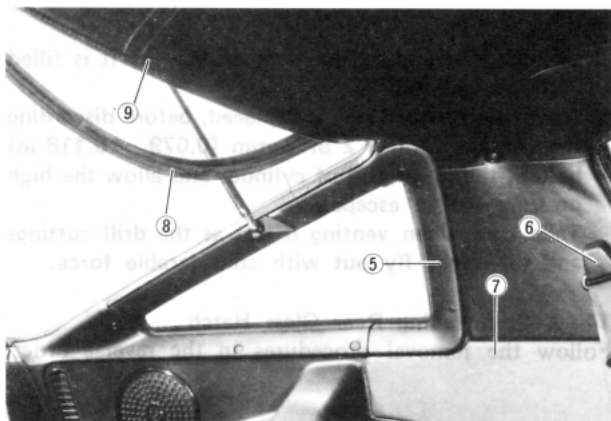


Fig. 14-44

5. Remove the rear center trims.
6. Remove the seat belt anchor bolts.
7. Remove the rear quarter trim panels.
8. Remove the upper part of the weatherstrip.
9. Remove the listing wires and top ceiling.
10. Remove the rear header pads.



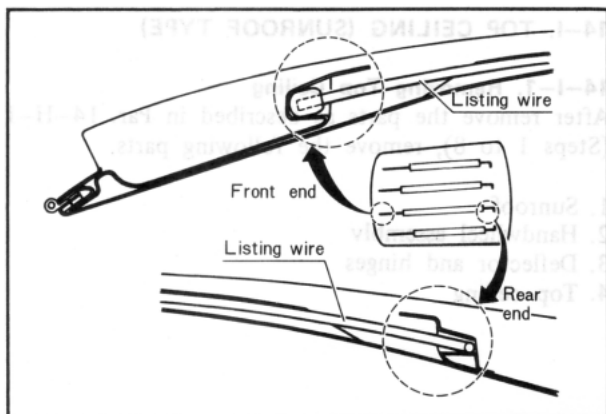


Fig. 14-45

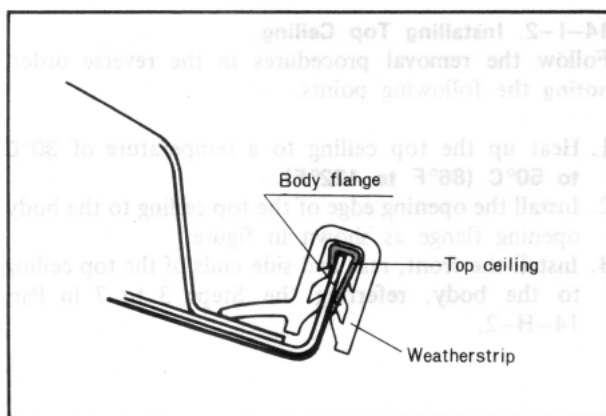


Fig. 14-46

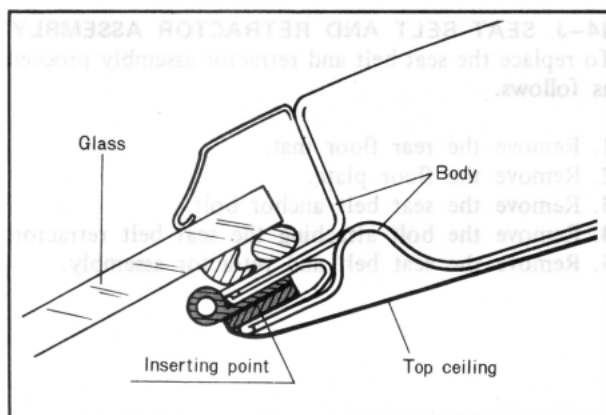


Fig. 14-47

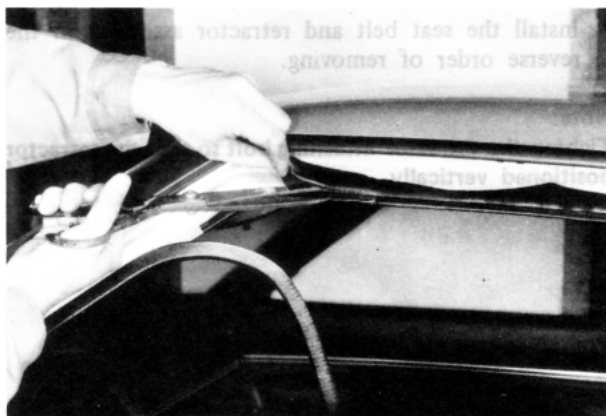


Fig. 14-48

14-H-2. Installing Top Ceiling

Follow the removal procedures in the reverse order, noting the following points.

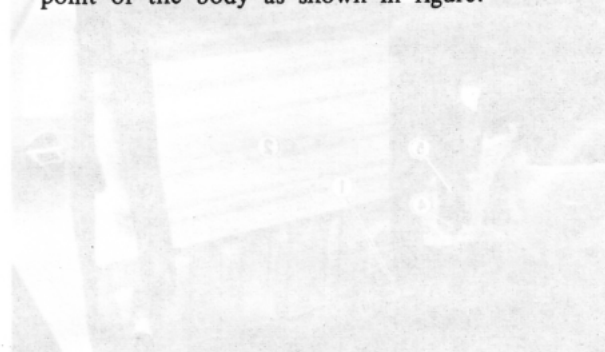
1. Heat up the top ceiling to a temperature of 30°C to 50°C (86°F to 122°F).
2. Insert both ends of the listing wires to their respective position in successive order beginning from the center.



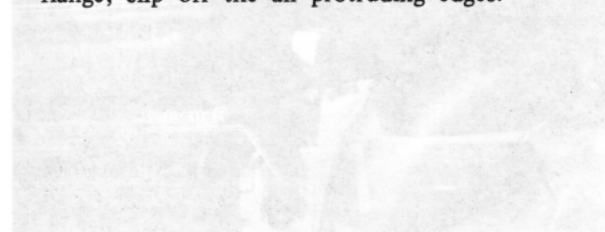
3. Install the rear end of the top ceiling to the body flange as shown in figure.



4. Insert the front end of the top ceiling to the inserting point of the body as shown in figure.



5. Apply double-sided adhesive tape to the outside of the body flange.
6. Pull the top ceiling from both side to avoid any slackening and glue both side onto the body flange.
7. After the top ceiling is properly attached to the body flange, clip off the all protruding edges.



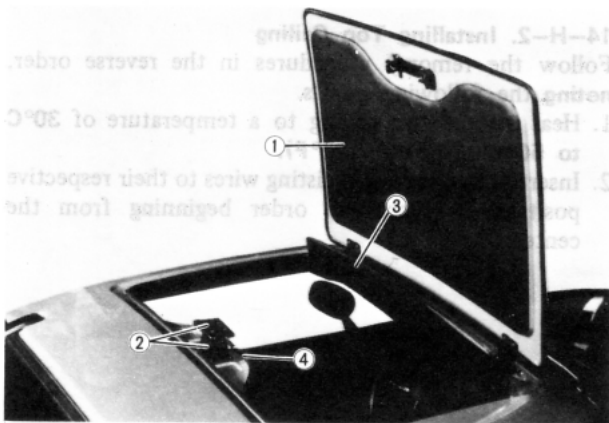


Fig. 14-49

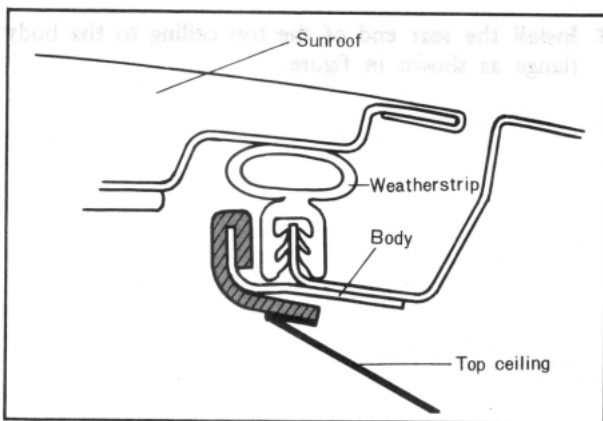


Fig. 14-50

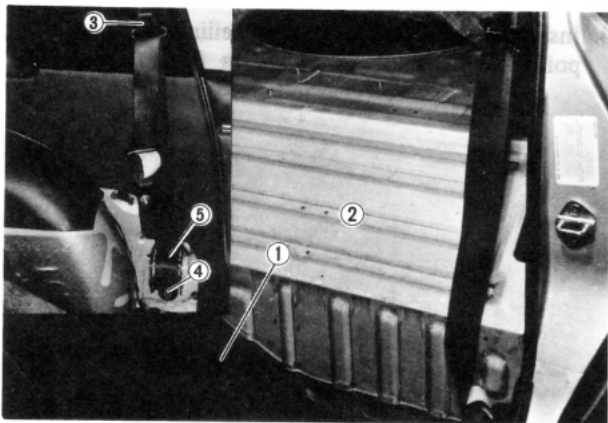


Fig. 14-51



Fig. 14-52

14-I. TOP CEILING (SUNROOF TYPE)

14-I-1. Removing Top Ceiling

After remove the parts as described in Par. 14-H-1 (Steps 1 to 8), remove the following parts.

1. Sunroof
2. Handwheel assembly
3. Deflector and hinges
4. Top ceiling

14-I-2. Installing Top Ceiling

Follow the removal procedures in the reverse order, noting the following points.

1. Heat up the top ceiling to a temperature of **30°C to 50°C (86°F to 122°F)**.
2. Install the opening edge of the top ceiling to the body opening flange as shown in figure.
3. Install the front, rear and side ends of the top ceiling to the body, referring the Steps 3 to 7 in Par. 14-H-2.

14-J. SEAT BELT AND RETRACTOR ASSEMBLY

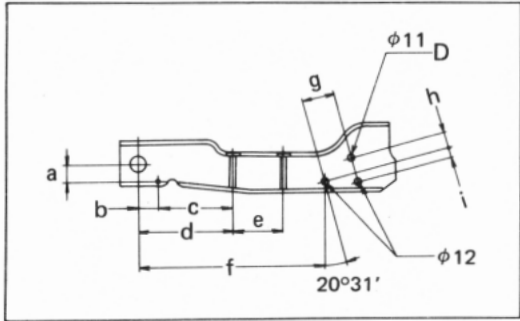
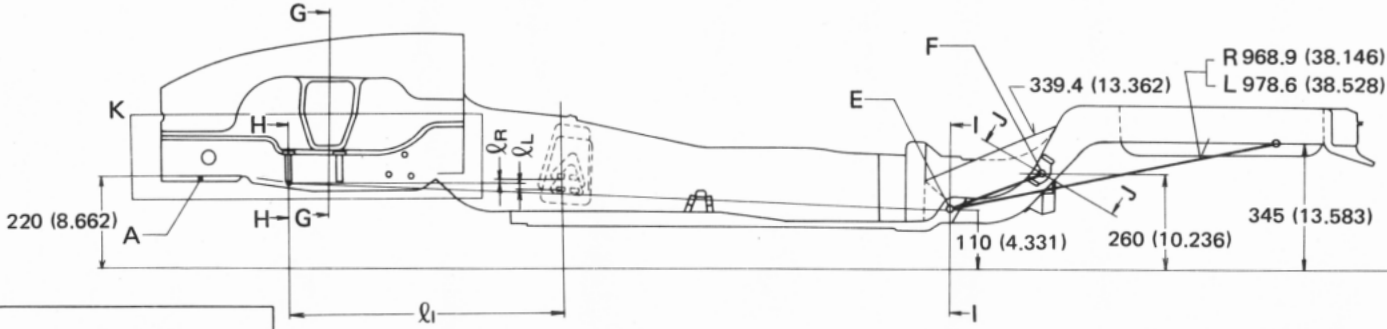
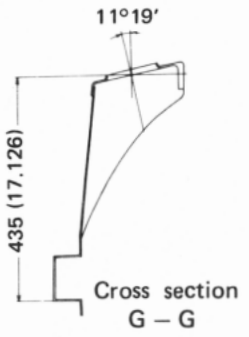
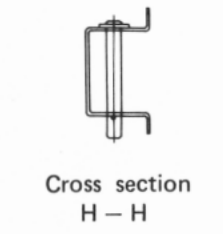
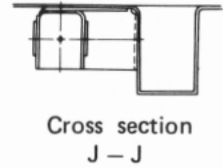
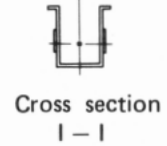
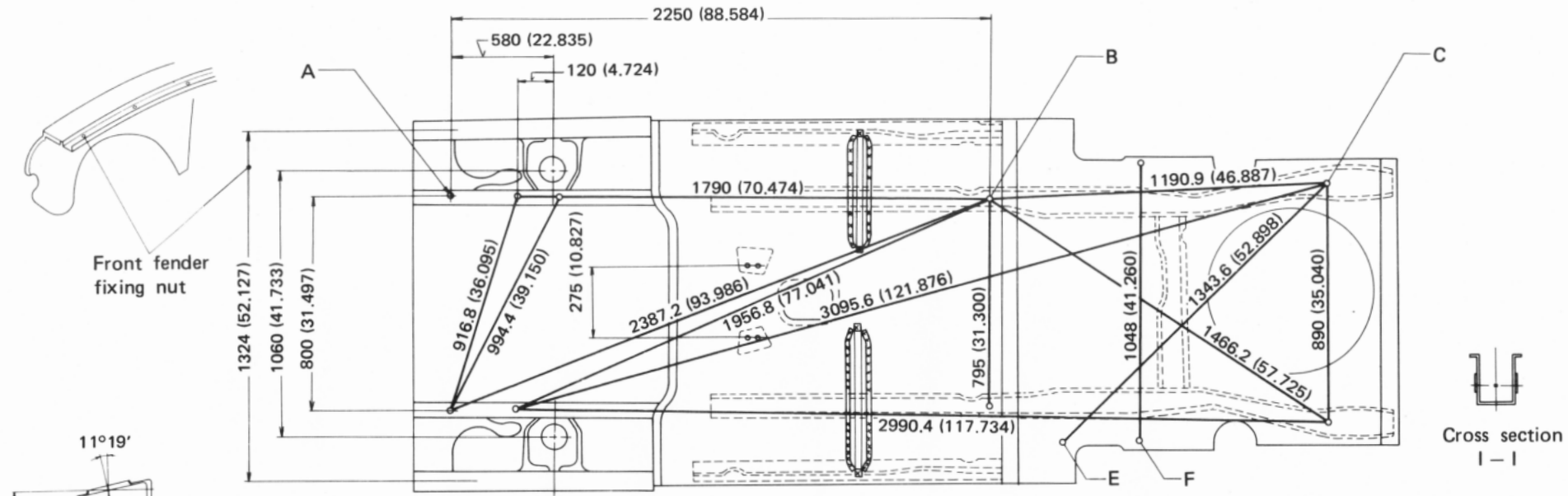
To replace the seat belt and retractor assembly proceed as follows.

1. Remove the rear floor mat.
2. Remove the floor plate.
3. Remove the seat belt anchor bolt.
4. Remove the bolt attaching the seat belt retractor.
5. Remove the seat belt and retractor assembly.

6. Install the seat belt and retractor assembly in the reverse order of removing.

Note:

Tighten the retractor attaching bolt so that the retractor positioned vertically.



- a : 45 (1.772)
 - b : 107 (4.213)
 - c : 283 (11.142)
 - d : 390 (15.355)
 - e : 140 (5.512)
 - f : 680 (26.772)
 - g : 82 (3.228)
 - h : 52 (2.047)
 - i : 33 (1.299)
- A. Front frame basic hole
 - B. Rear frame basic hole
 - C. Rear frame basic hole
 - D. Steering gear box fixing hole
 - E. Lower arm fixing hole
 - F. Upper arm fixing hole

Transmission		l_1	l_R, l_L
Automatic	Right	897.3 (35.327)	$l_R = 10.9 (0.429)$
	Left	910 (35.827)	$l_L = 32.1 (1.264)$
Manual	Right	932.3 (36.705)	$l_R = 8 (0.315)$
	Left	945 (37.205)	$l_L = 35 (1.378)$

Note: All dimensions are shown in mm. (the parenthesized figures are shown in inch.)