

SUBARU

SVX

1992

Precaution for Supplemental Restraint System "Airbag"

The Supplemental Restraint System "Airbag" helps to reduce the risk or severity of injury to the driver in a frontal collision.

The Supplemental Restraint System consists of an airbag module (located in the center of the steering wheel), sensors, a control unit, warning light, wiring harness and spiral cable.

Information necessary to service the safety is included in the "5-5. SUPPLEMENTAL RESTRAINT SYSTEM" of this Service Manual.

WARNING:

- To avoid rendering the Airbag system inoperative, which could lead to personal injury or death in the event of a severe frontal collision, all maintenance must be performed by an authorized SUBARU dealer.
- Improper maintenance, including incorrect removal and installation of the Airbag system, can lead to personal injury caused by unintentional activation of the Airbag system.
- All Airbag system electrical wiring harnesses and connectors are covered with yellow outer insulation. Do not use electrical test equipment on any circuit related to the Supplemental Restraint System "Airbag".



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M MECHANISM AND FUNCTION

1. Body Construction

The vehicle body is of monocoque construction with high rigidity.

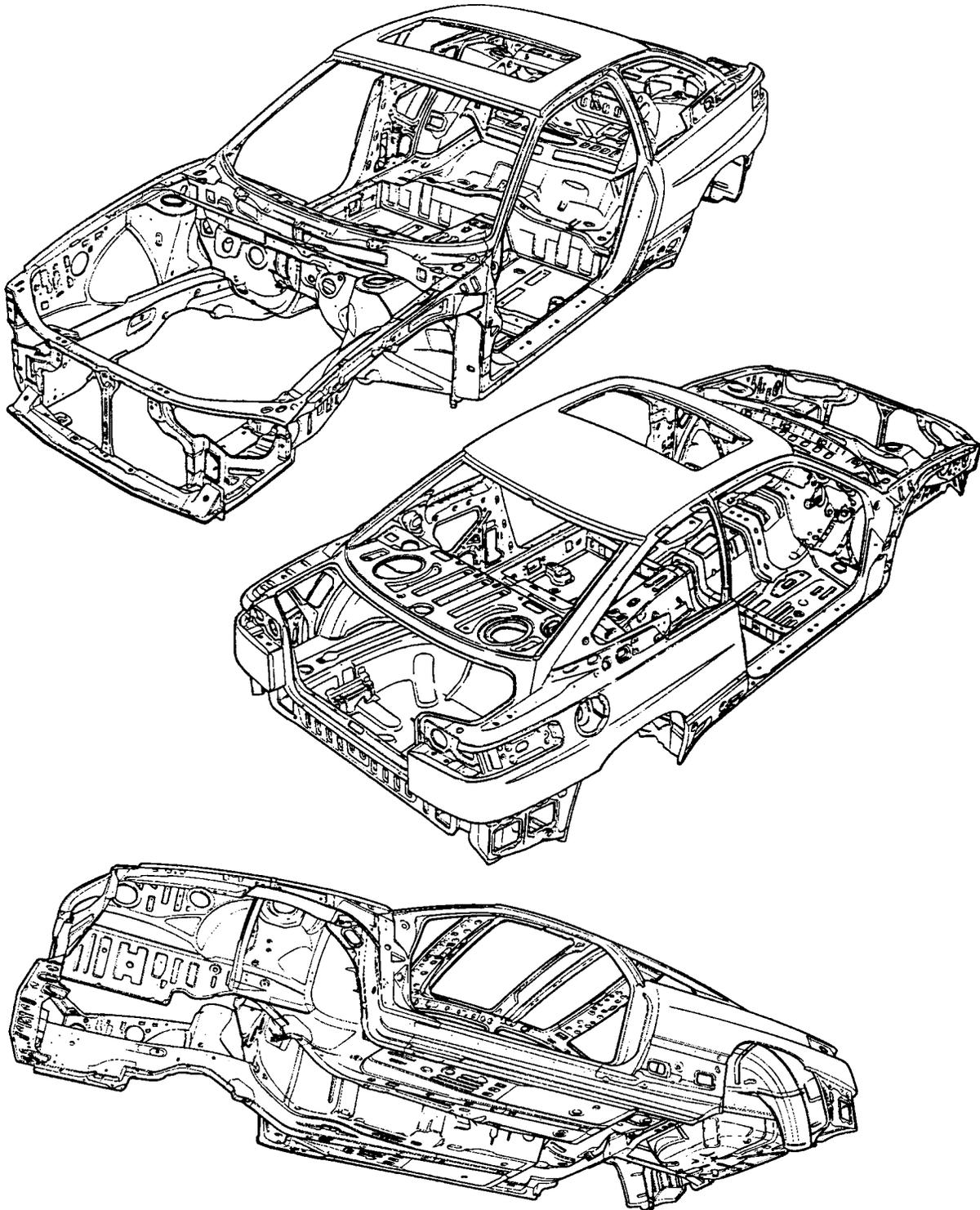


Fig. 1

C5-495

2. Cross-sectional Structure of Body

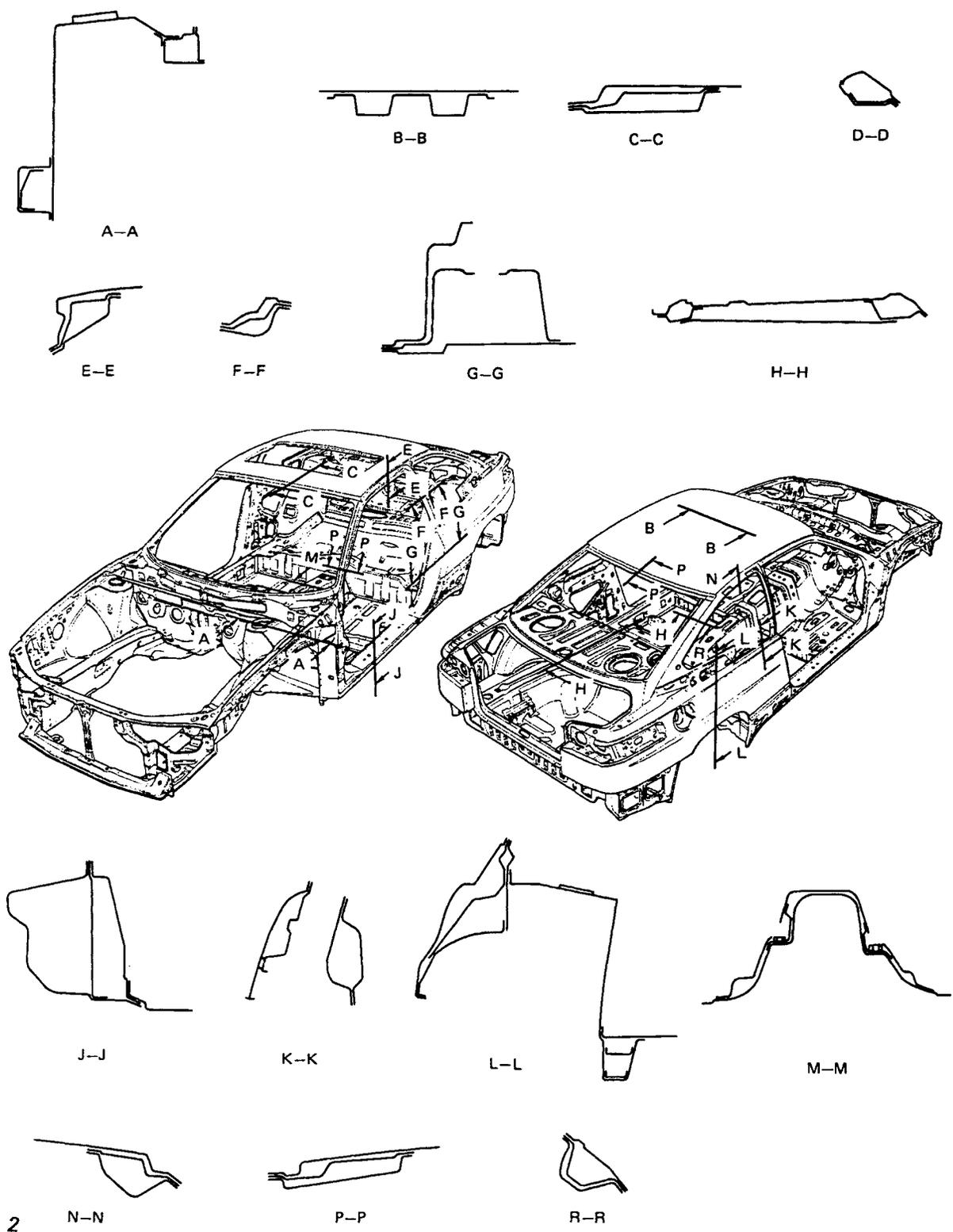


Fig. 2

C5-496

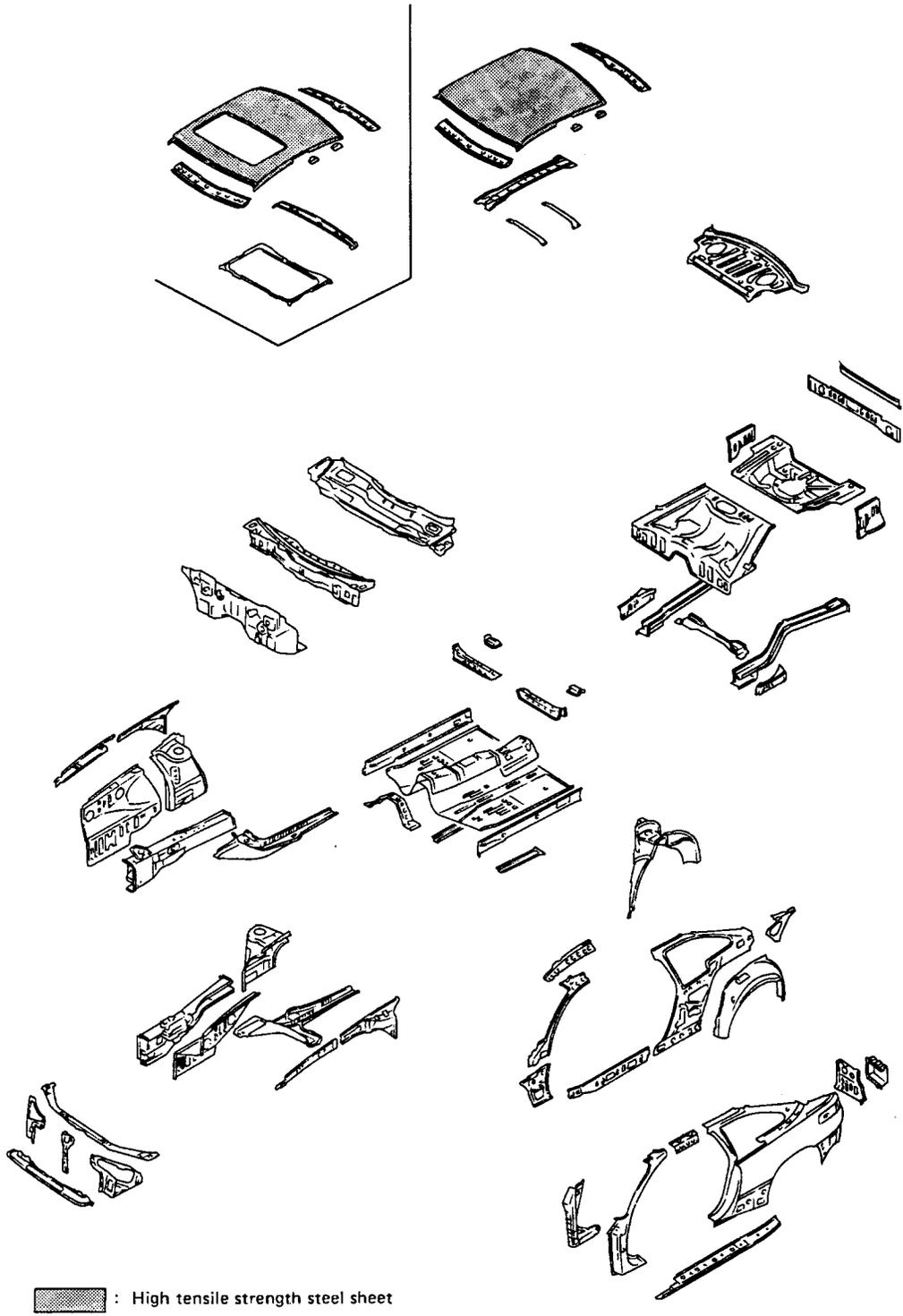


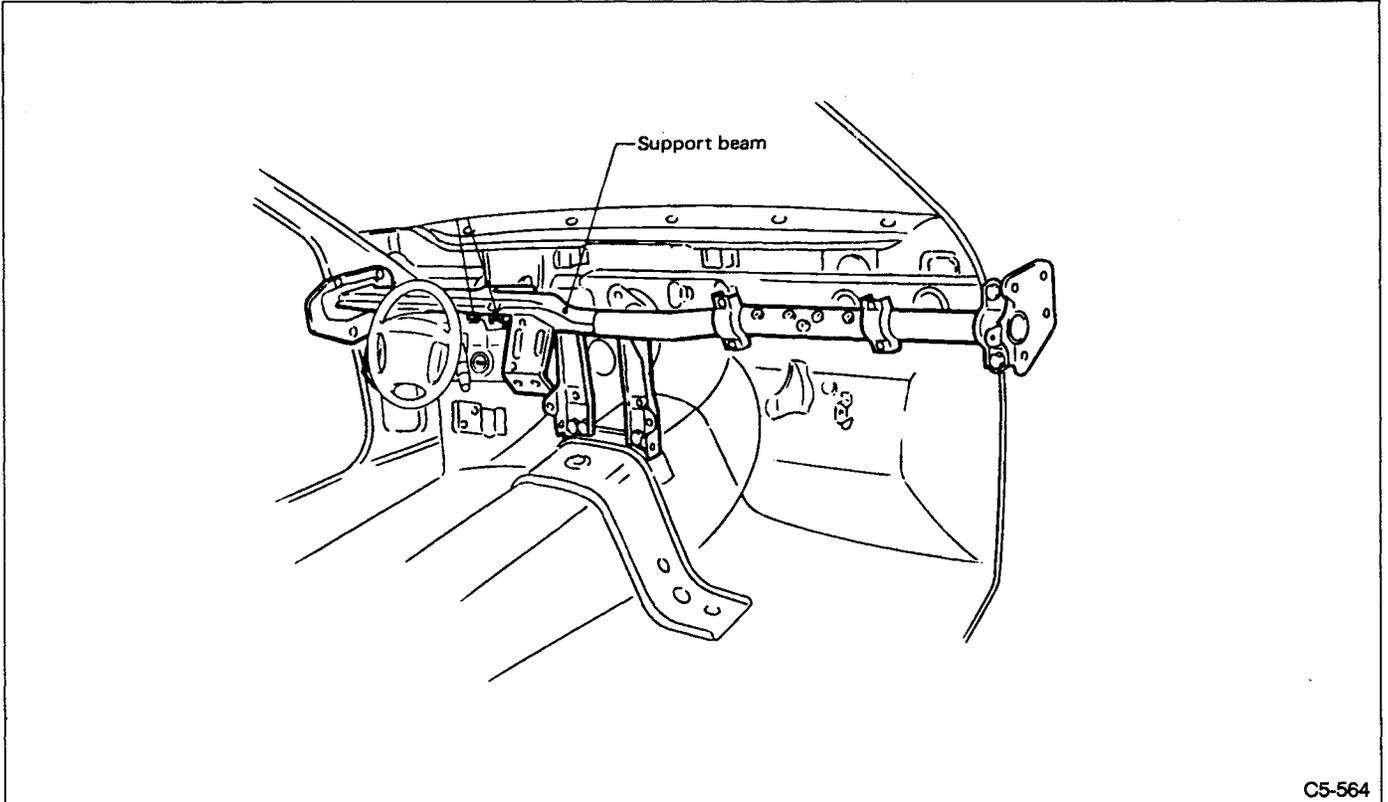
Fig. 3

C5-497

3. Steering Support Beam

A steering support beam is provided between the left and right front pillars to reinforce the steering column. It

also minimizes vibration and steering column extension in a collision.



C5-564

Fig. 4

4. Quietness

Silencers, dual-wall panels, sound-absorbing materials, etc. are utilized in conjunction with a high-rigidity and vibration/noise-proof body structure in order to provide a quiet passenger compartment.

1) Dual-wall toeboard

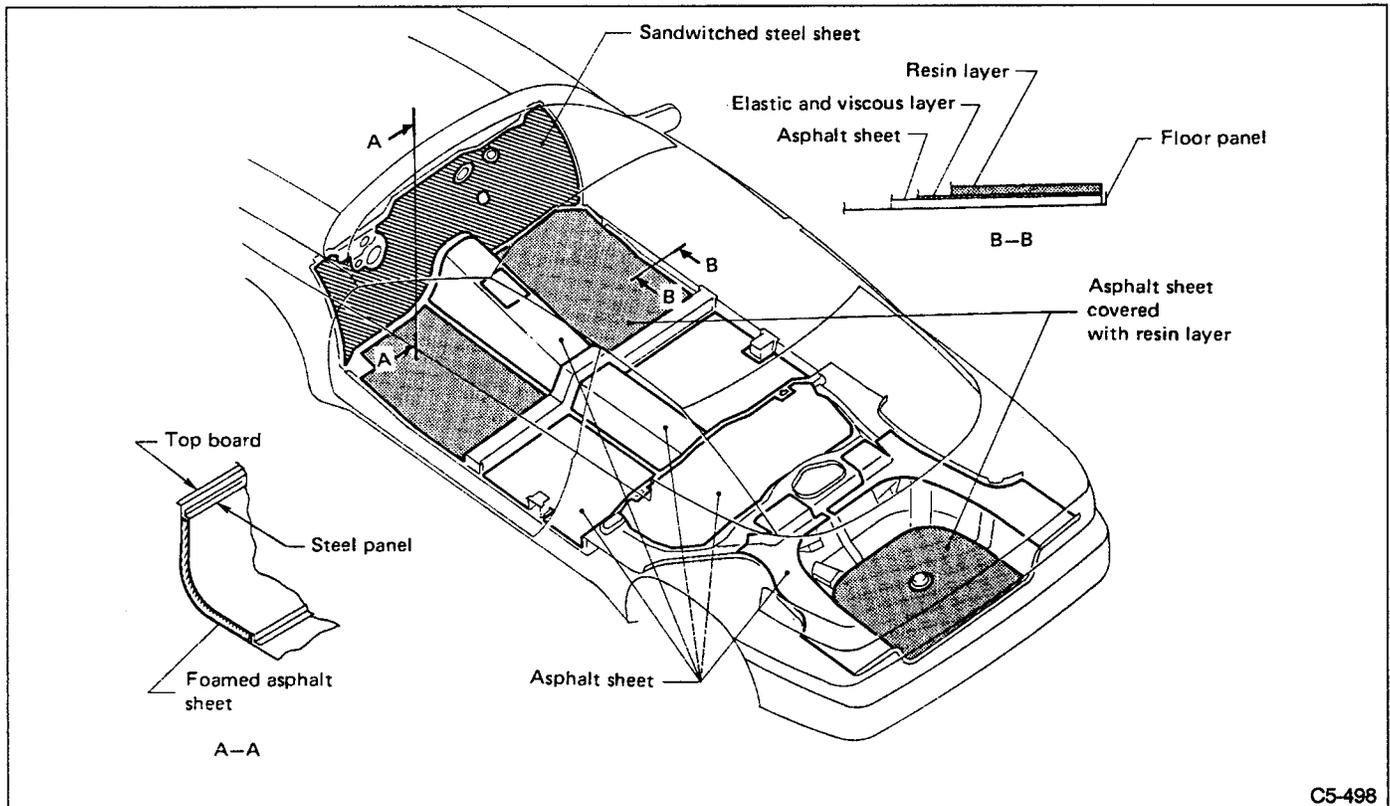
The toeboard is a dual-wall design consisting of an asphalt sheet placed between two steel panels to reduce the transmission of noise and vibration from the engine compartment to the passenger compartment.

A foam asphalt sheet provides a good contact surface with steel panels. This increases the dampening effect.

2) Silencers over the floor area

Silencers minimize the transmission of noise/vibration into the passenger compartment.

An asphalt sheet covered with a resin layer is located on the floors in the spare tire stowage and front passenger seat, significantly reducing the transmission of noise and vibration.



C5-498

Fig. 5

Note: The asphalt sheet silencer without the resin layer is available as a replacement part to facilitate servicing.

3) Sound-absorbing materials

Insulators are installed in the engine hood, toe-board,

roof, lower front pillars, rear bulkhead, etc. to increase the sound-absorbing effect.

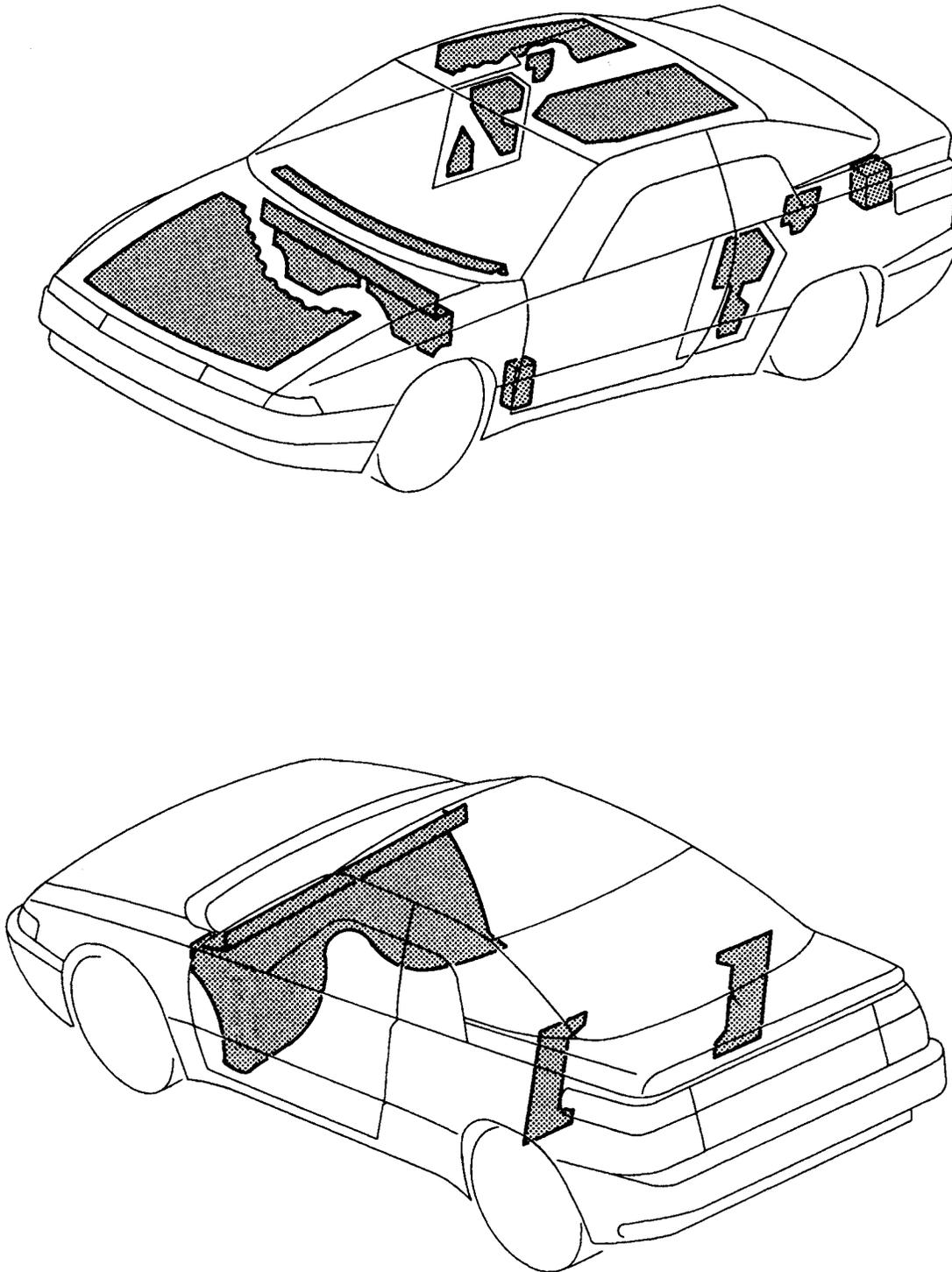


Fig. 6

C5-499

5. Plastic and Resin-molded Outer Parts

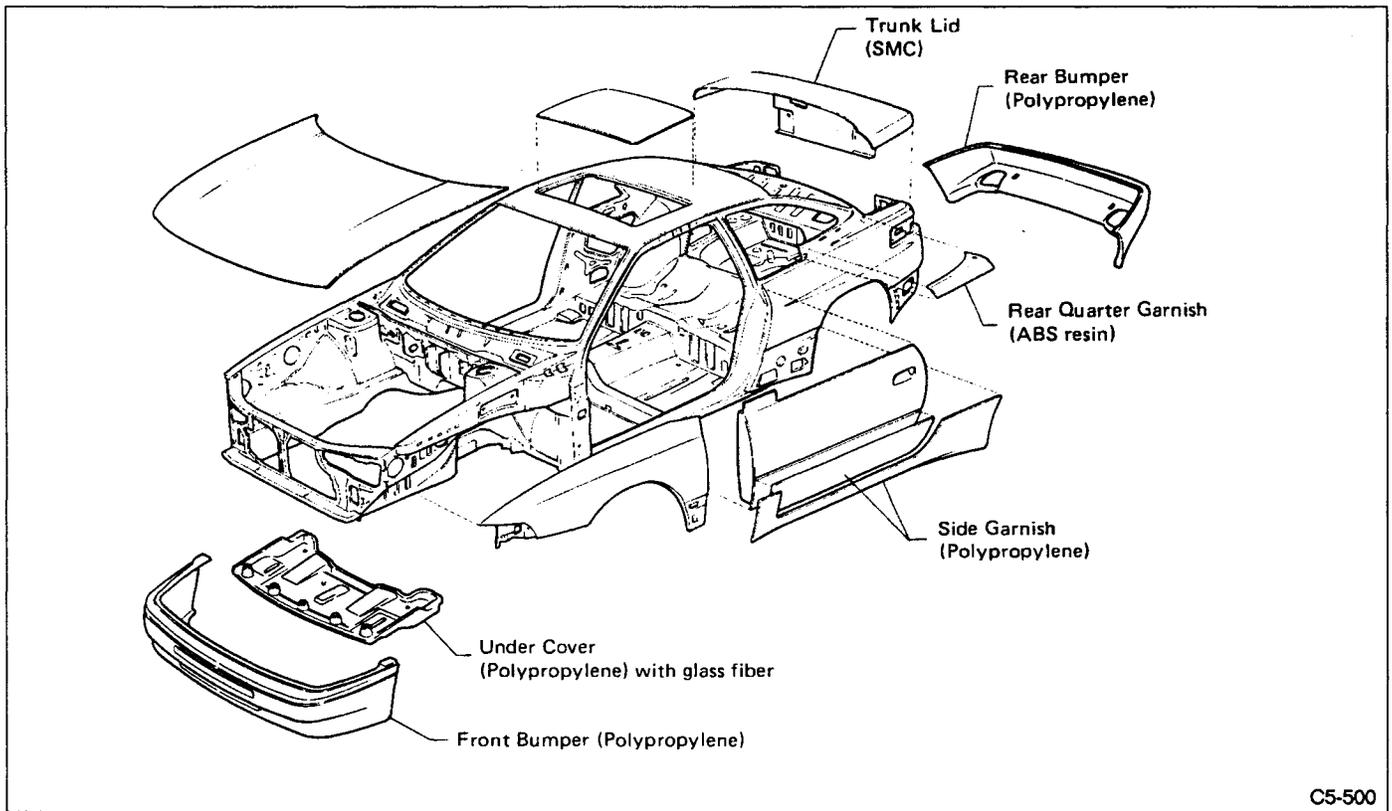


Fig. 7

6. Painting

Specification

Color name	Color code
White Mica	167
Silver Metallic	149
Black Mica	135
Dark Red Mica	165
Peacock Blue Metallic	169

Paint film structure

Paint film structure, after surfacing the steel sheet, is composed of electrocoated paint, intermediate paint and top coat paint.

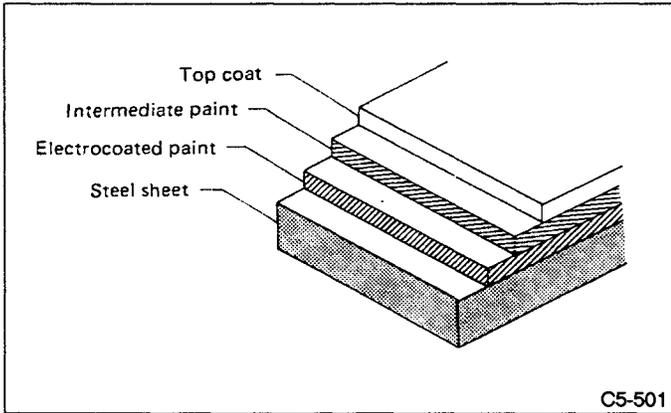


Fig. 8

Depending on the finish color, the following four kinds of paint are used for the top coat.

1) Solid finish...black color (roof)

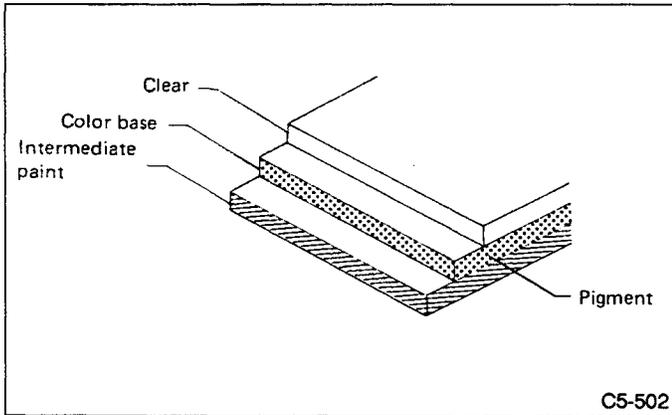


Fig. 9

2) Metallic finish... silver and peacock blue color

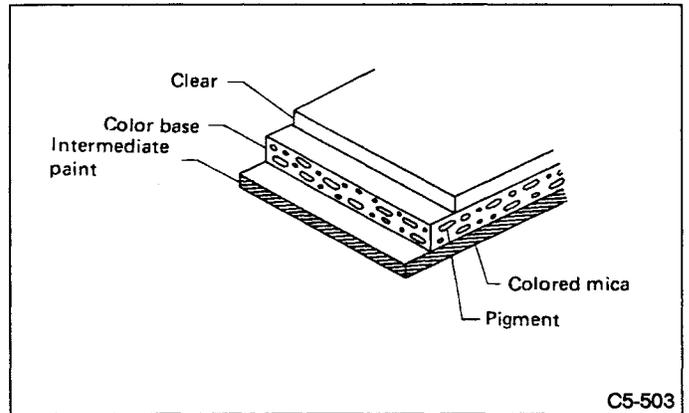


Fig. 10

3) Mica finish...black and dark red color

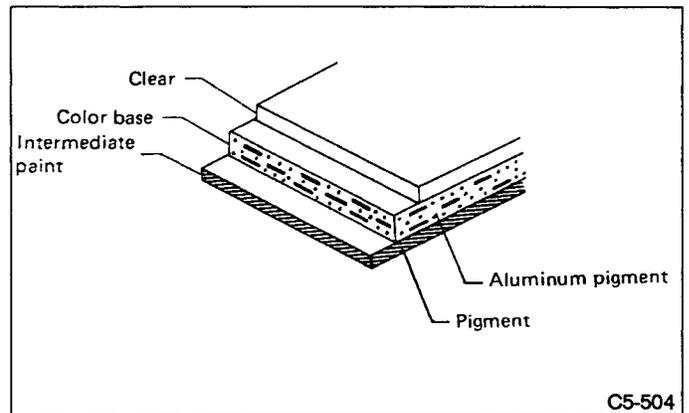


Fig. 11

4) Mica finish...white color

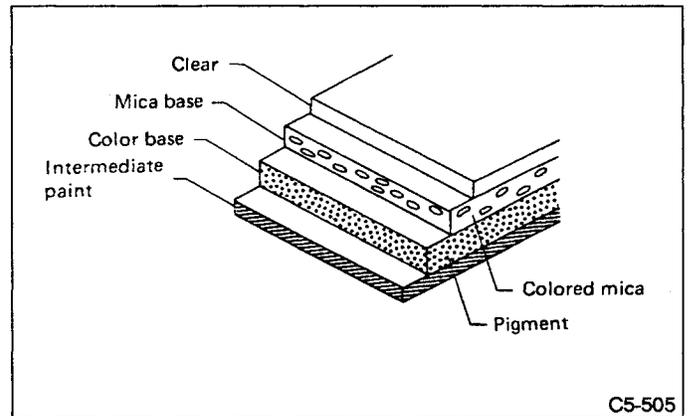


Fig. 12

The color finish of the white mica paint is affected by the color of the base layer. For convenience in checking the color during the body servicing, an area is provided where the mica base and clear layers are not applied.

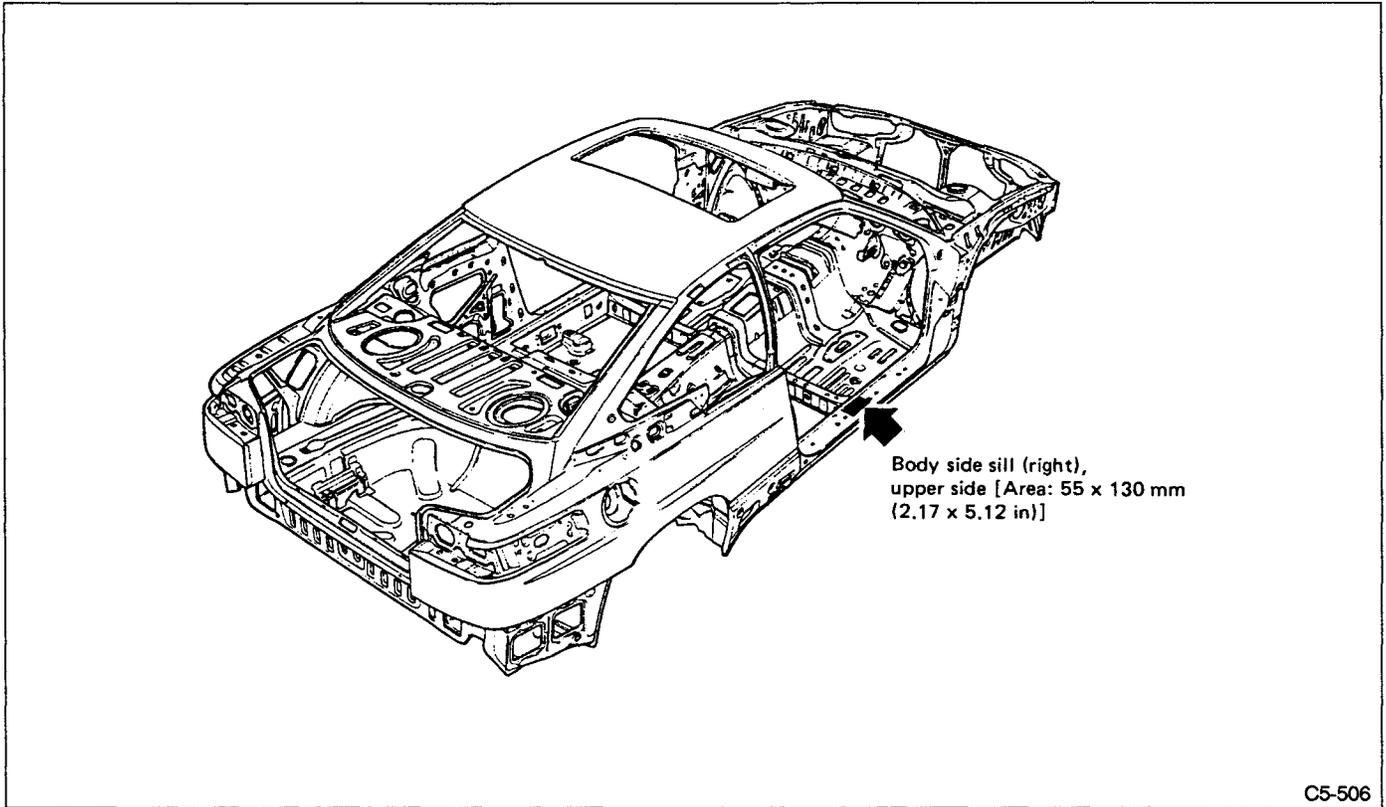


Fig. 13

7. Rust Prevention

The following items are utilized where necessary to protect the body against corrosion.

1. Panel Arrangement

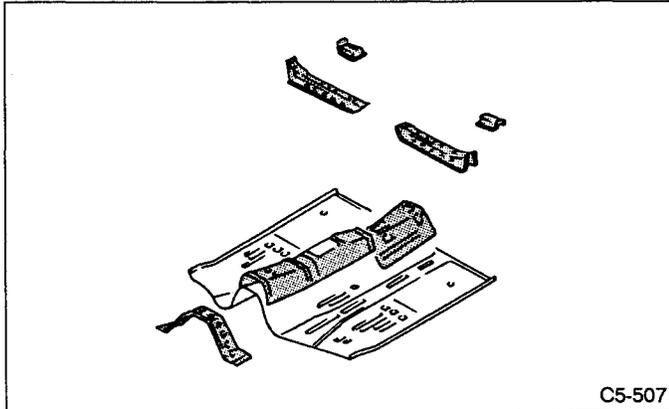


Fig. 14

2. Galvanized Sheet Metal Application

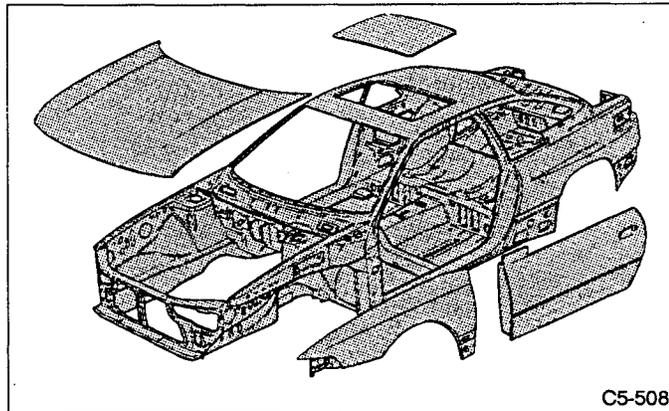


Fig. 15

3. Cation Electrocoating

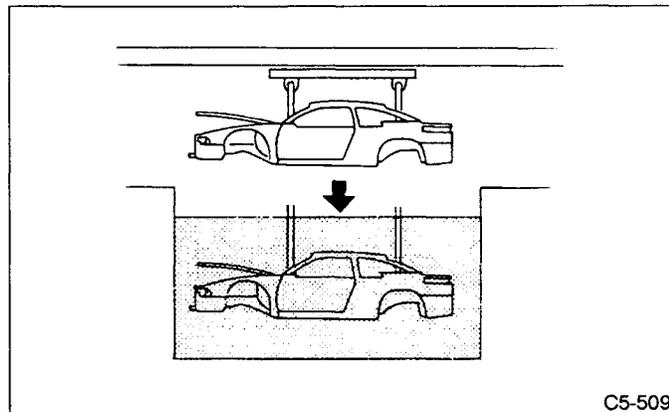


Fig. 16

4. Sealer and Adhesive Application

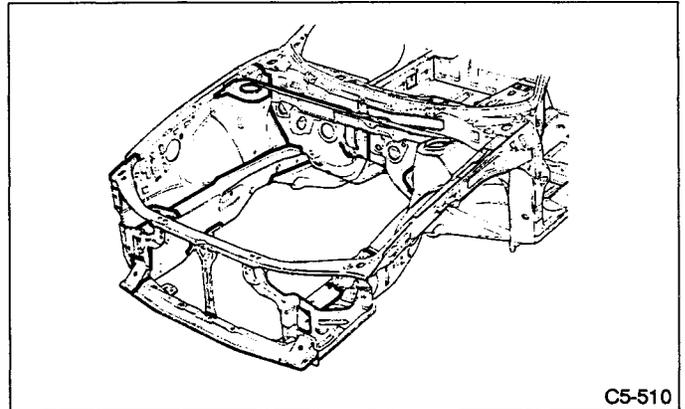


Fig. 17

5. Polyvinyl Chloride (PVC) Application (Uses new material.)

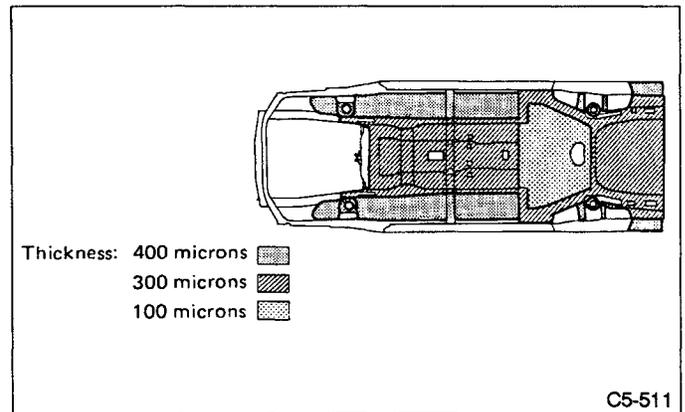


Fig. 18

6. Anti Chipping Coat (ACC) Application (Uses new material.)

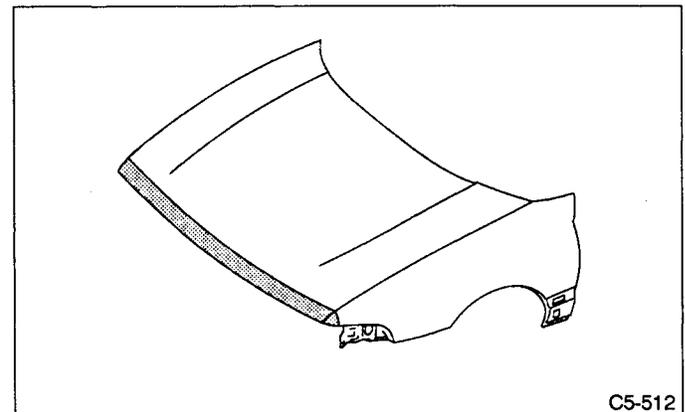


Fig. 19

7. Hot Wax Application

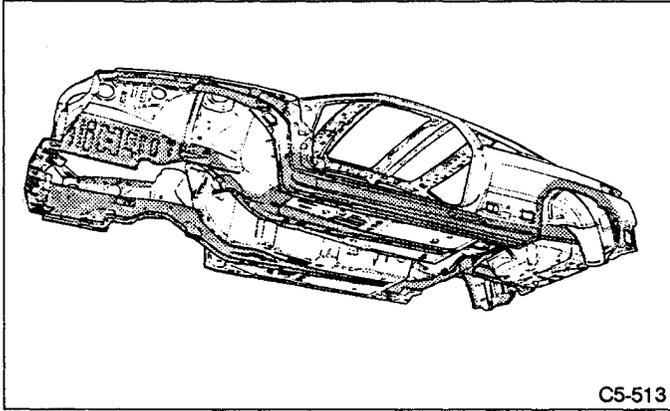
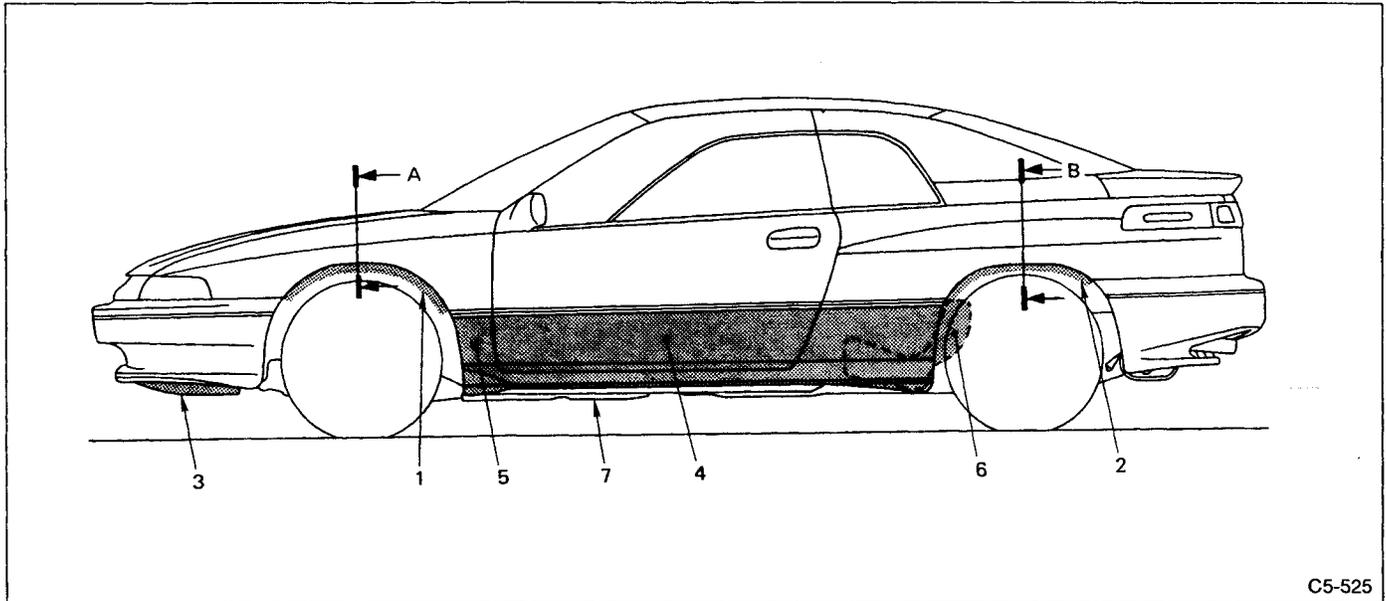


Fig. 20

M MECHANISM AND FUNCTION

7. Rust Prevention

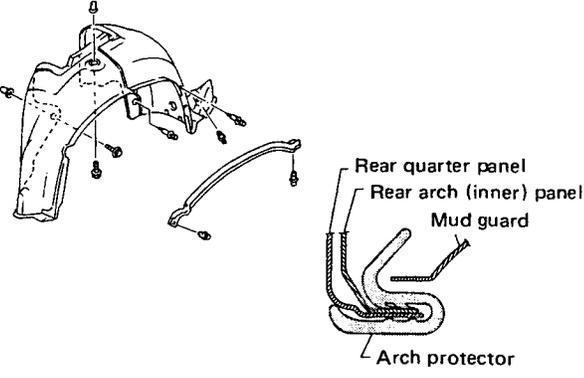
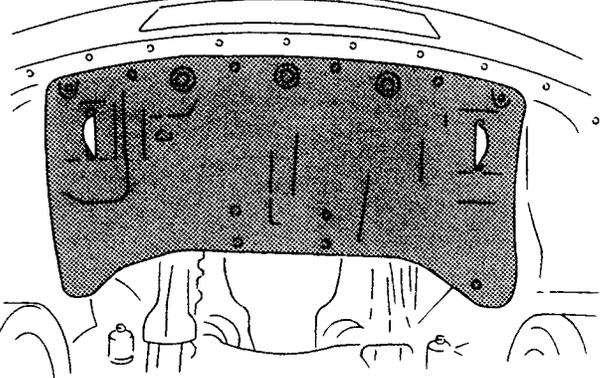
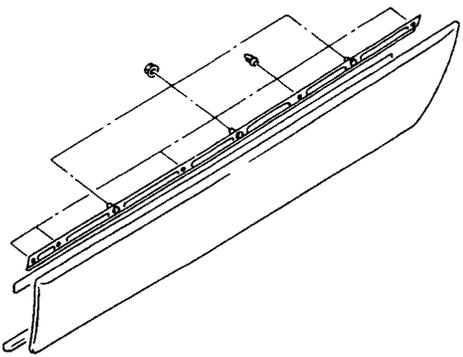
8. Rustproof Parts

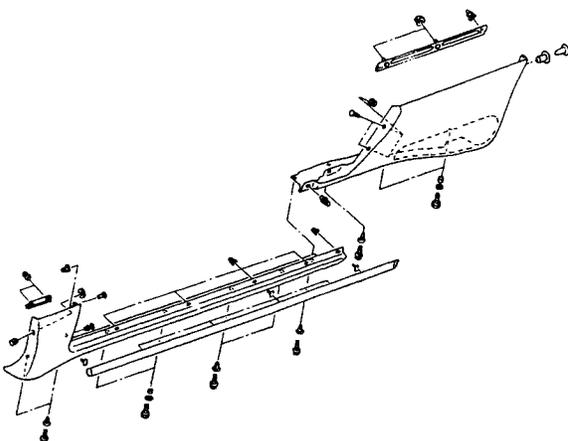
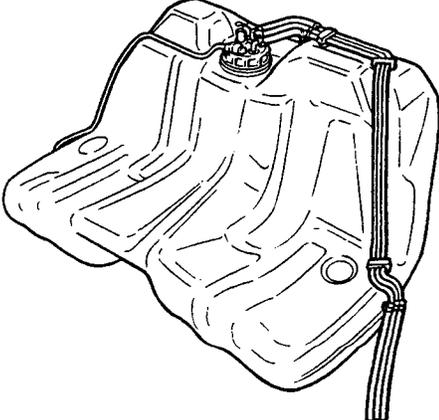


C5-525

Fig. 1

No.	Applied section	Anti-rust material	Remarks
1		Rubber (arch protector) Polyethylene (mud guard)	—

No.	Applied section	Anti-rust material	Remarks
2	 <p>Rear quarter panel Rear arch (inner) panel Mud guard Arch protector</p> <p>C5-526-2</p>	<p>Rubber (arch protector)</p> <p>Polyethylene (mud guard)</p>	<p>—</p>
3	 <p>C5-526-3</p>	<p>Polyethylene with glass fiber</p>	<p>—</p>
4	 <p>C5-526-8</p>	<p>Polypropylene</p>	<p>—</p>

No.	Applied section	Anti-rust material	Remarks
5	 <p style="text-align: right;">C5-526-9</p>	Polypropylene	---
6	 <p style="text-align: right;">C5-526-6</p>	Multi-layer plastic	---

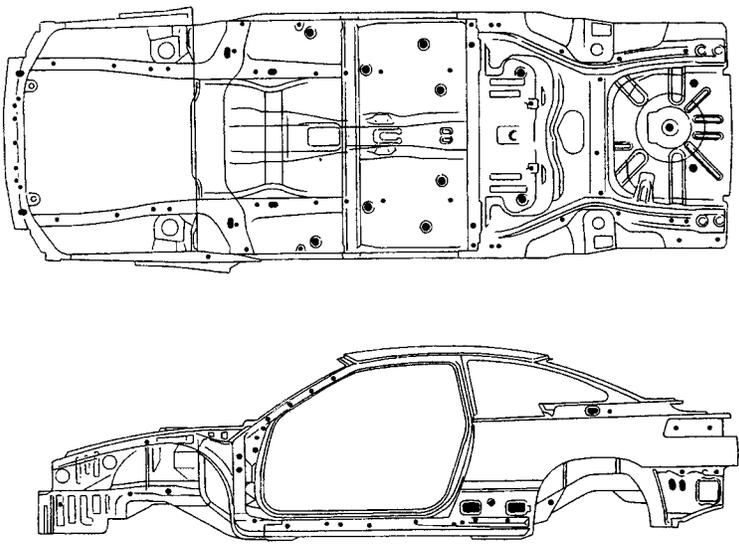
No.	Applied section	Anti-rust material	Remarks
7	 <p style="text-align: right;">C5-526-7</p>	<p>Nylon (Plug)</p> <p>Polypropylene (Hot melting plug)</p>	<p>—</p>

Fig. 2

9. Anti-rust Wax Application

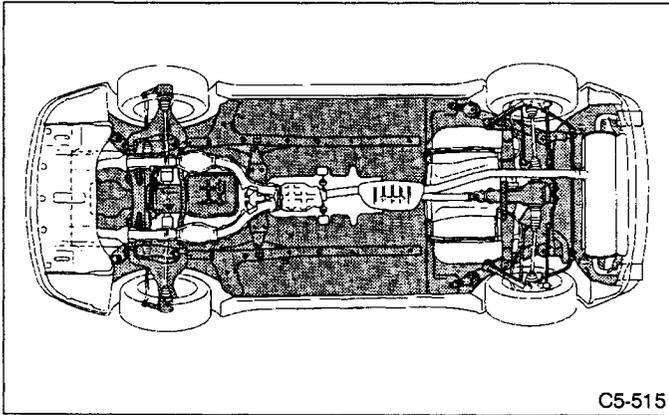


Fig. 22

1. Panel Arrangement

Members are installed on the passenger compartment side of the floor panels to prevent rust formation on the lapped portions.

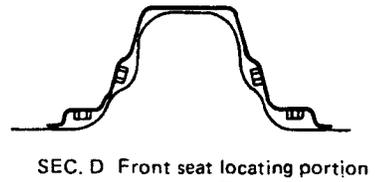
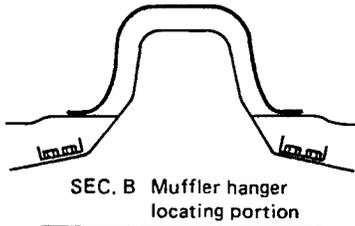
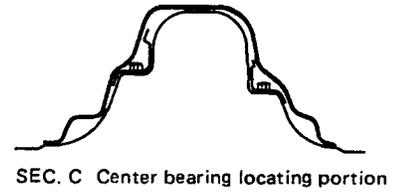
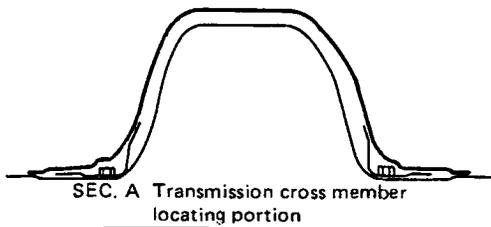
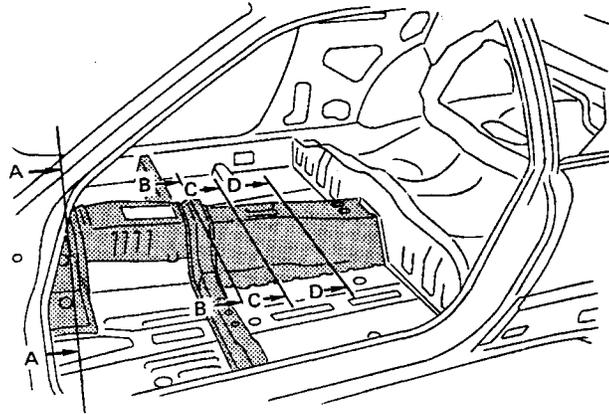


Fig. 23

C5-516

2. Galvanized Sheet Metal Application

Galvanized sheet metal is used for all body sheet metal parts.

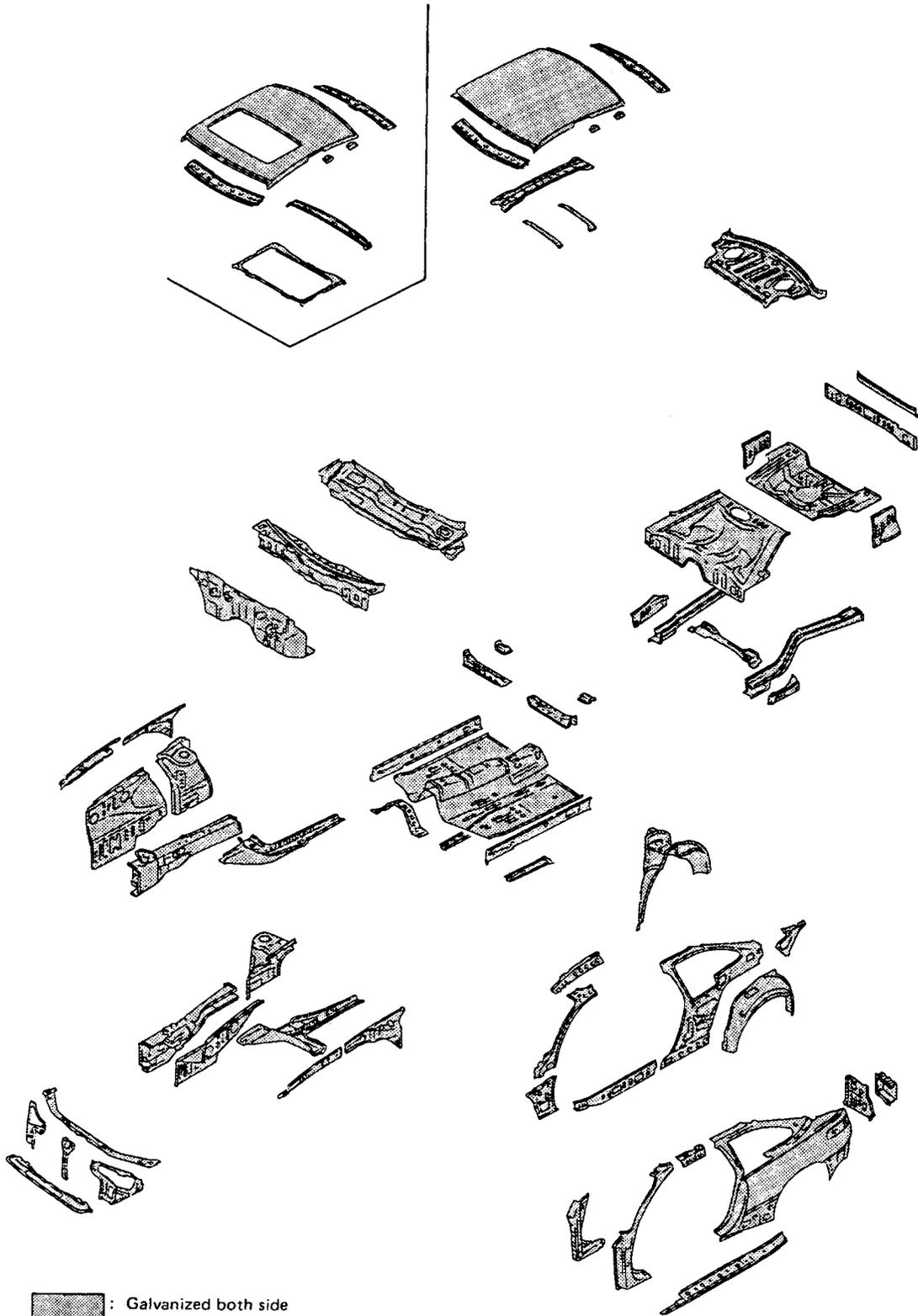


Fig. 24 : Galvanized both side

C5-517

4. Sealer and Adhesive Application

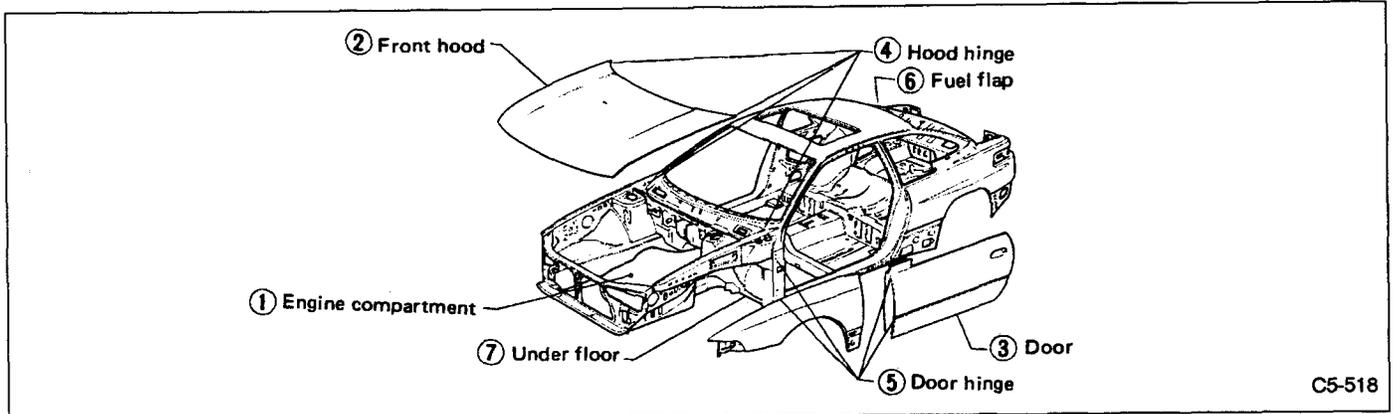
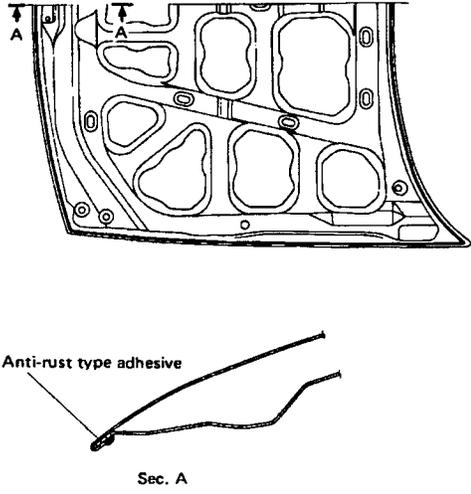
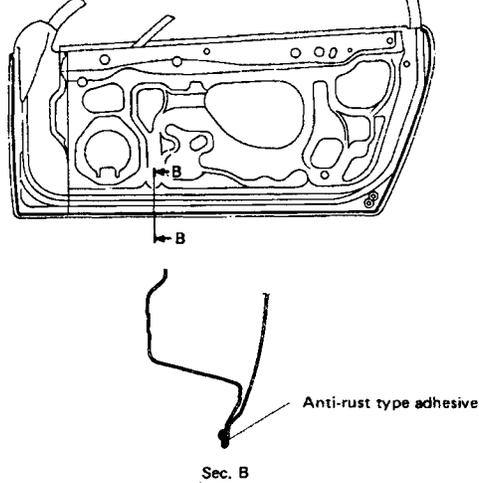
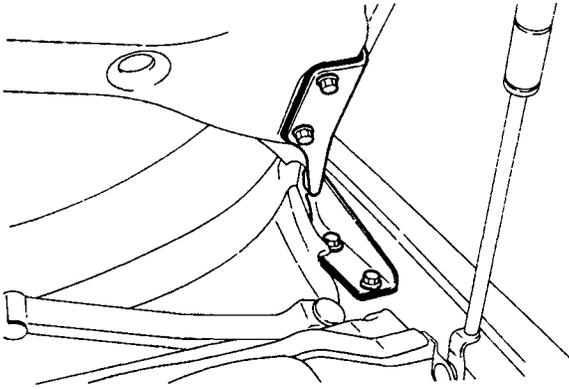
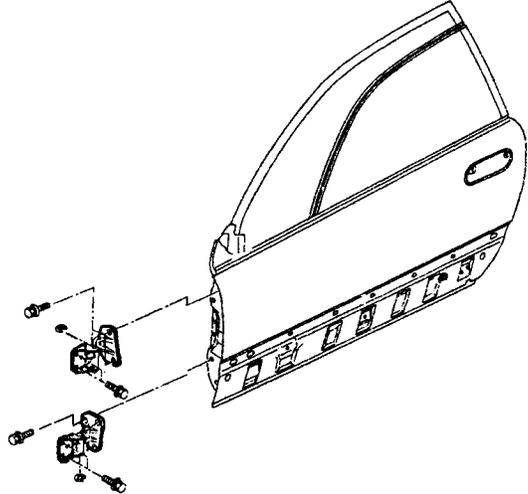
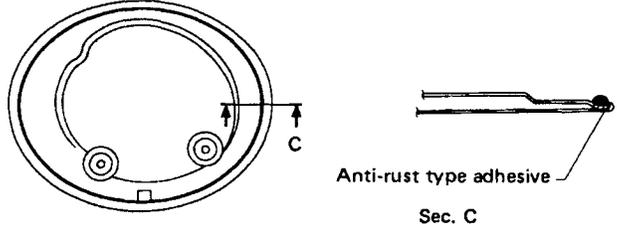
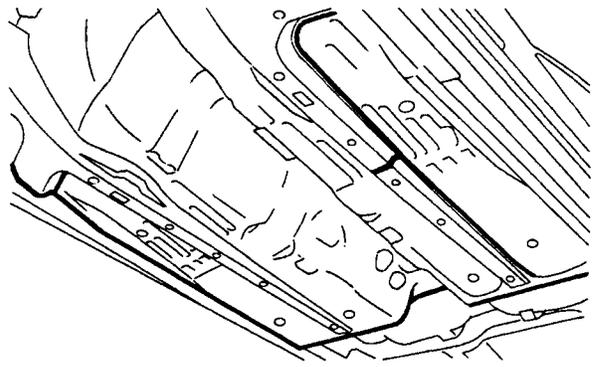


Fig. 25

No.	Applied section	Anti-rust material	Remarks
1	<p style="text-align: right;">C5-519-1</p>	Sealer	—

No.	Applied section	Anti-rust material	Remarks
2	 <p>Anti-rust type adhesive</p> <p>Sec. A</p> <p>C5-519-2</p>	<p>Sealer</p> <hr/> <p>Adhesive</p>	<p>—</p>
3	 <p>Anti-rust type adhesive</p> <p>Sec. B</p> <p>C5-519-3</p>	<p>Sealer</p> <hr/> <p>Adhesive</p>	<p>—</p>
4	 <p>C5-519-4</p>	<p>Sealer</p>	<p>—</p>

No.	Applied section	Anti-rust material	Remarks
5	 <p style="text-align: right;">C5-519-5</p>	Sealer	—
6	 <p style="text-align: right;">C5-519-6</p>	Sealer Adhesive	—
7	 <p style="text-align: right;">C5-519-7</p>	Sealer	—

5. Polyvinyl Chloride (PVC) Application
(Uses new material.)

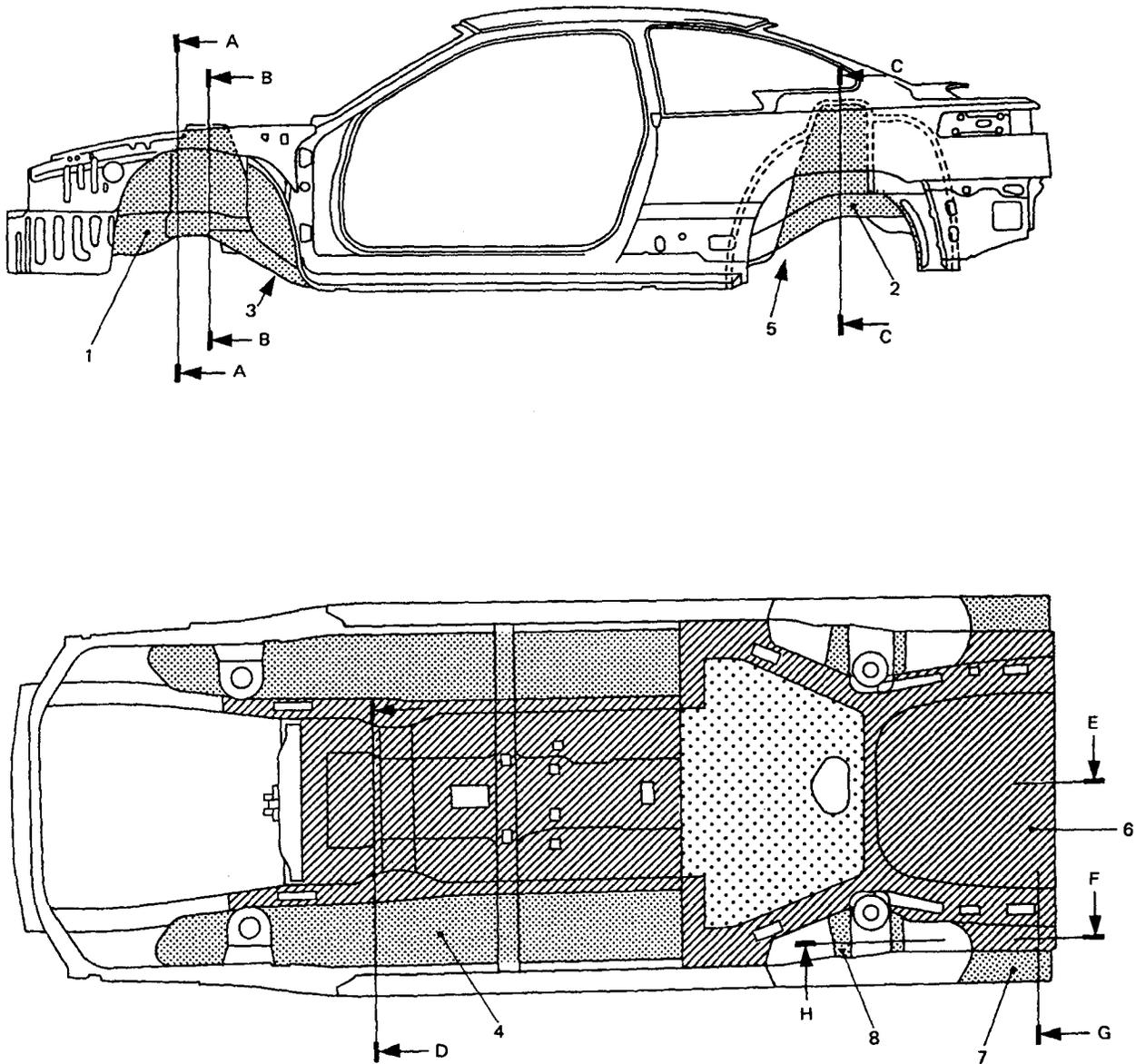
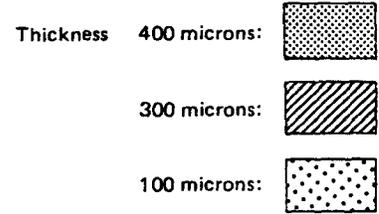
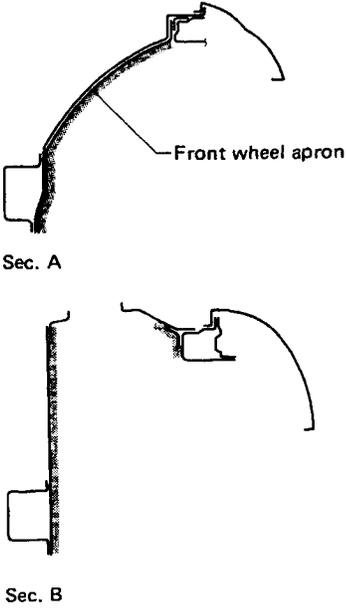
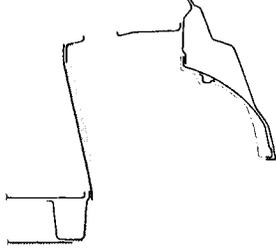
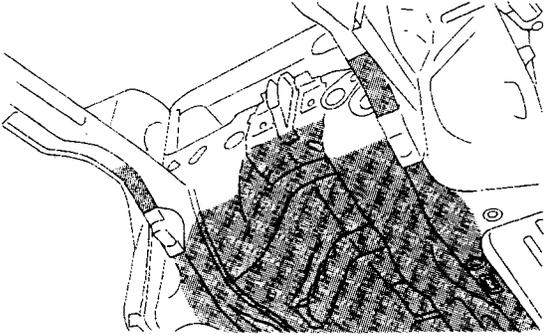
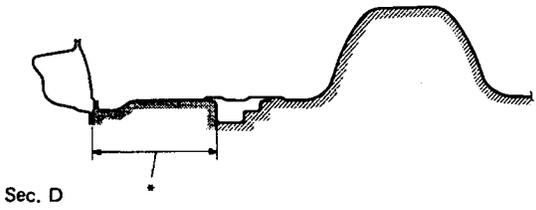
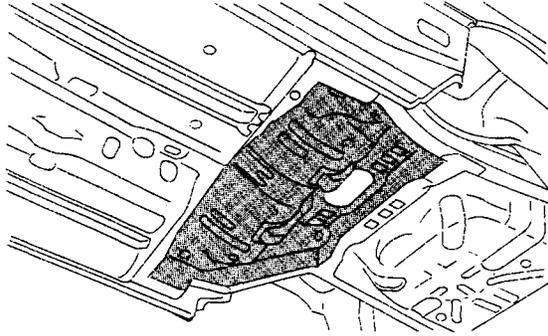
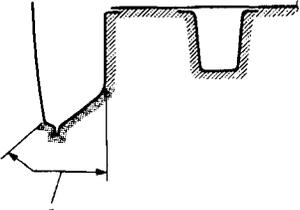
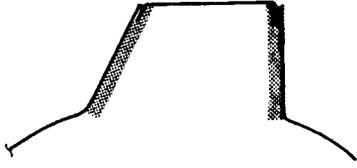


Fig. 26

C5-520

No.	Cross sectional view	Applied section	Thickness	Remarks
1	 <p style="text-align: right;">C5-521-1</p>	Front wheel house	Over 400 microns	—
2	 <p style="text-align: right;">C5-521-2</p>	Rear wheel house	Over 400 microns	—
3	 <p style="text-align: right;">C5-521-3</p>	Toe-board	Over 300 microns	—

No.	Cross sectional view	Applied section	Thickness	Remarks
4	 <p>Sec. D</p> <p style="text-align: right;">C5-521-4</p>	Front floor	Over 300 microns *: Over 400 microns	—
5	 <p style="text-align: right;">C5-521-5</p>	Rear floor pan (front)	Over 100 microns	—
6	 <p>Sec. E</p> <p>Sec. F</p> <p style="text-align: right;">C5-521-6</p>	Rear floor pan (rear)	Over 300 microns *: Over 400 microns	—
7	 <p>Sec. G</p> <p style="text-align: right;">C5-521-7</p>	Side rear floor	Over 300 microns *: Over 400 microns	—
8	 <p>Sec. H</p> <p style="text-align: right;">C5-521-8</p>	Rear suspension bracket	Over 400 microns	—

6. Anti Chipping Coat (ACC) Application
 (Uses new material.)

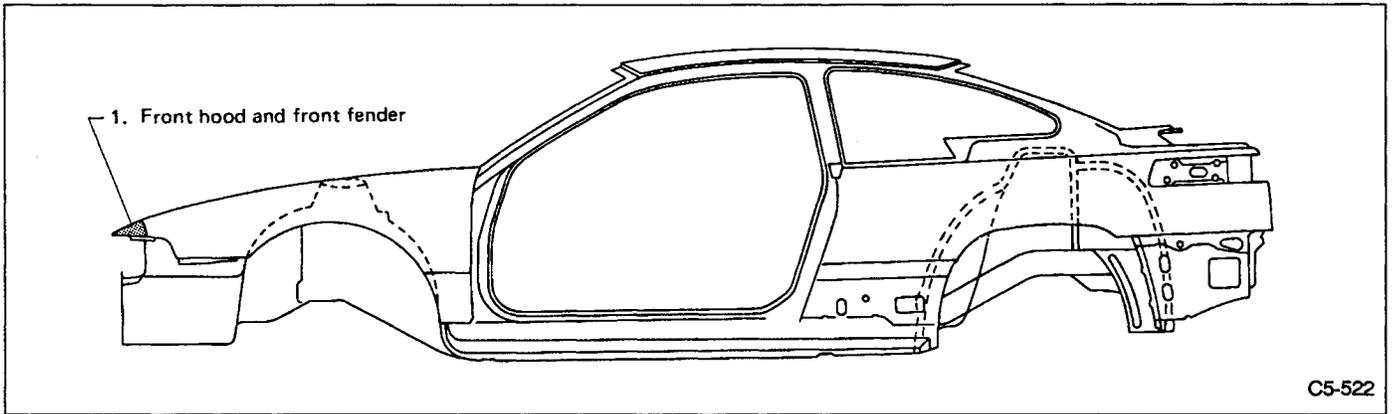


Fig. 27

Unit: mm (in)

No.	Cross sectional view	Applied section	Thickness	Remarks
1		Front section of front hood Front section of front fender	10 microns	—

Fig. 28

7. Hot Wax Application

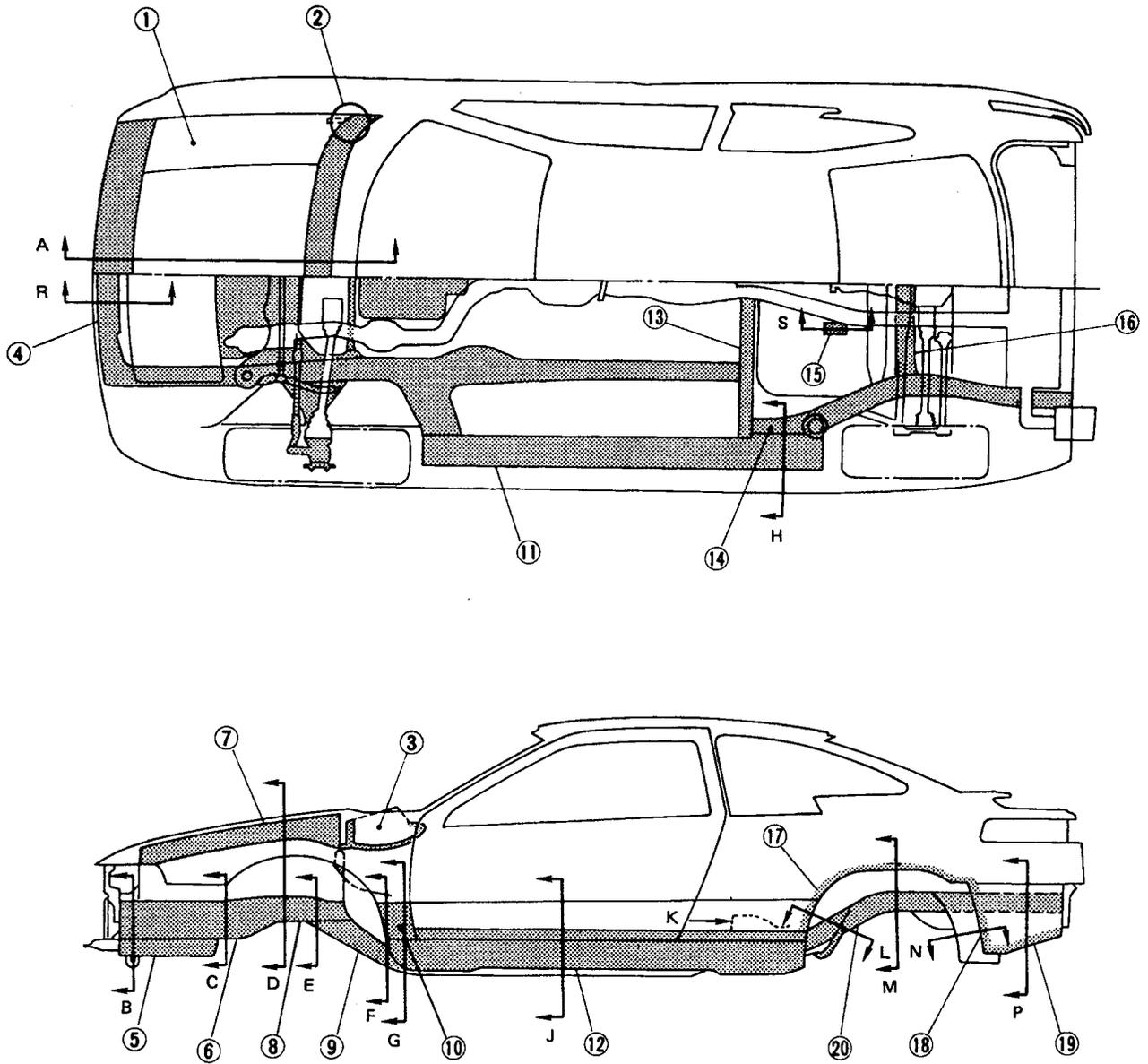
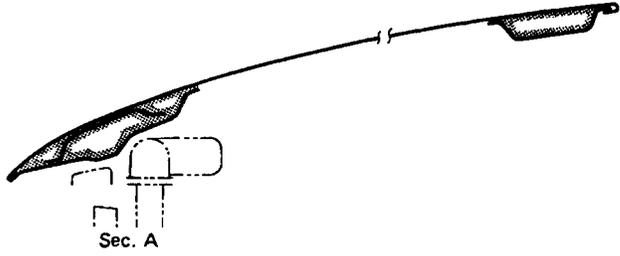
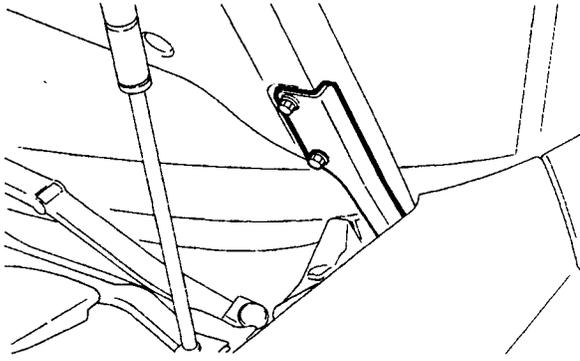
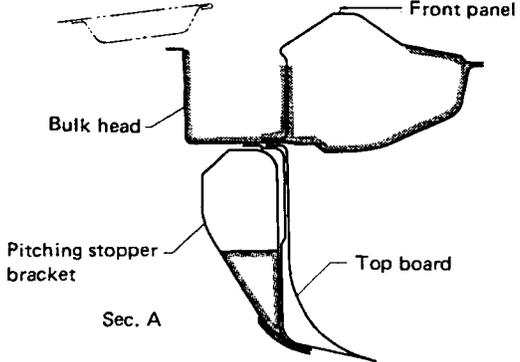
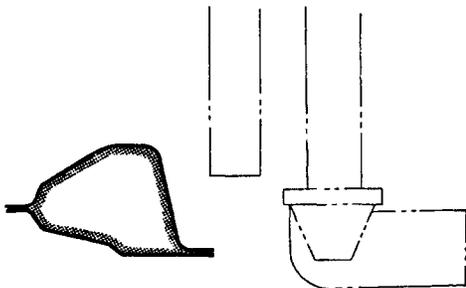
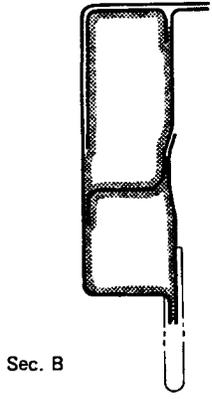
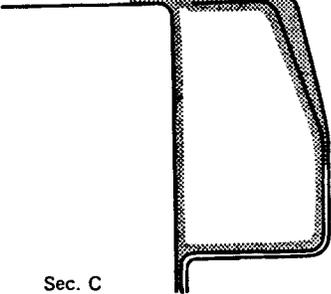
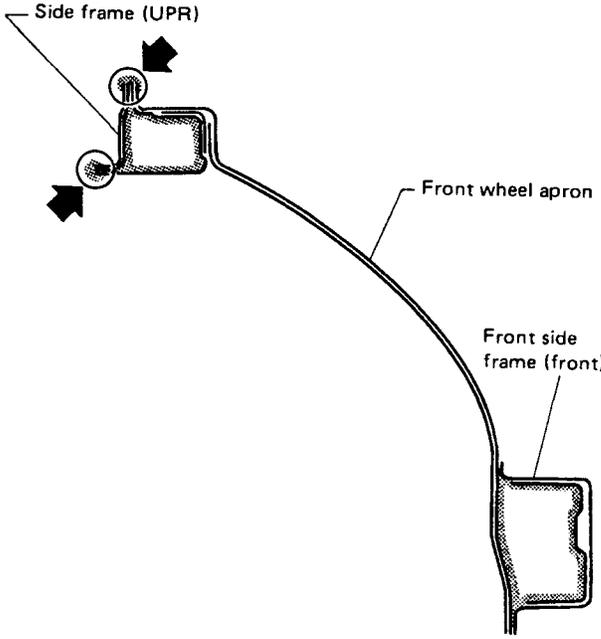


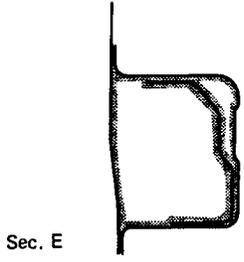
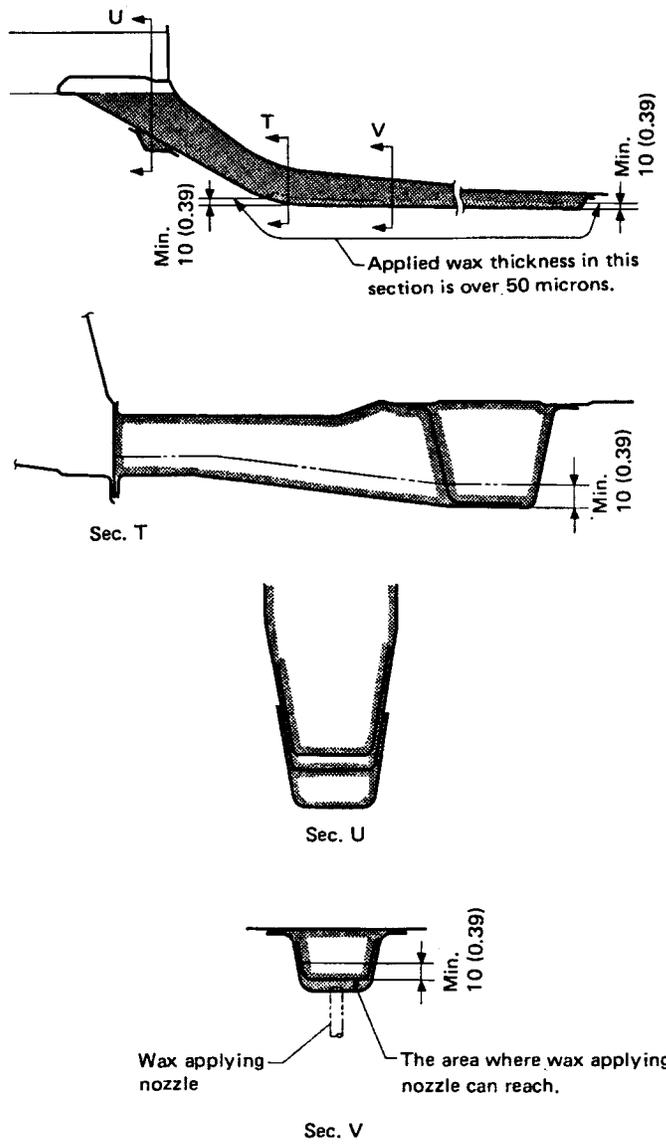
Fig. 29

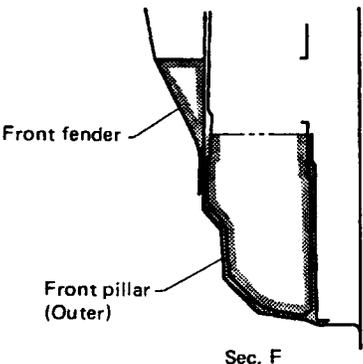
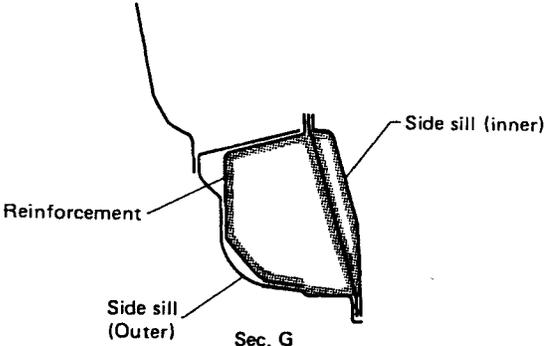
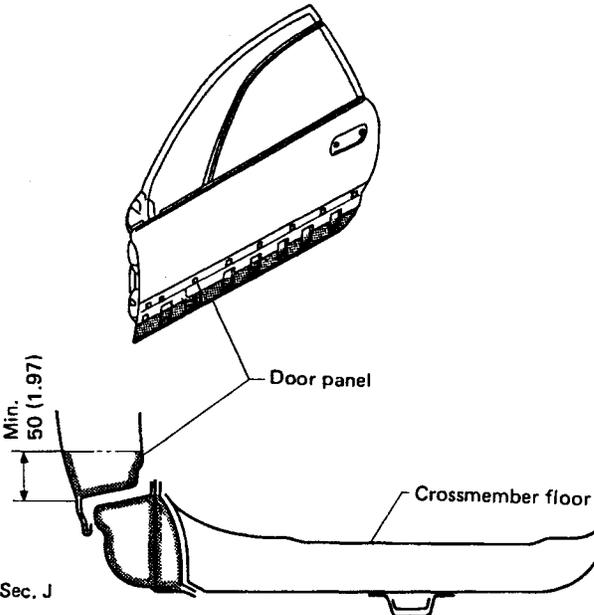
C5-523

No.	Cross sectional view	Applied section	Thickness	Remarks
1	 <p style="text-align: center;">C5-524-1</p>	Rear and front end section of front hood	Over 20 microns (Dry condition)	—
2	 <p style="text-align: center;">C5-524-2</p>	Front hood hinge	Over 20 microns (Dry condition)	—
3	 <p style="text-align: center;">C5-524-3</p>	Bulkhead (inside of duct) Lower section of pitching stopper bracket	Over 20 microns (Dry condition)	—
4	 <p style="text-align: center;">C5-524-4</p>	Frame (radiator panel LWR)	Over 20 microns (Dry condition)	—

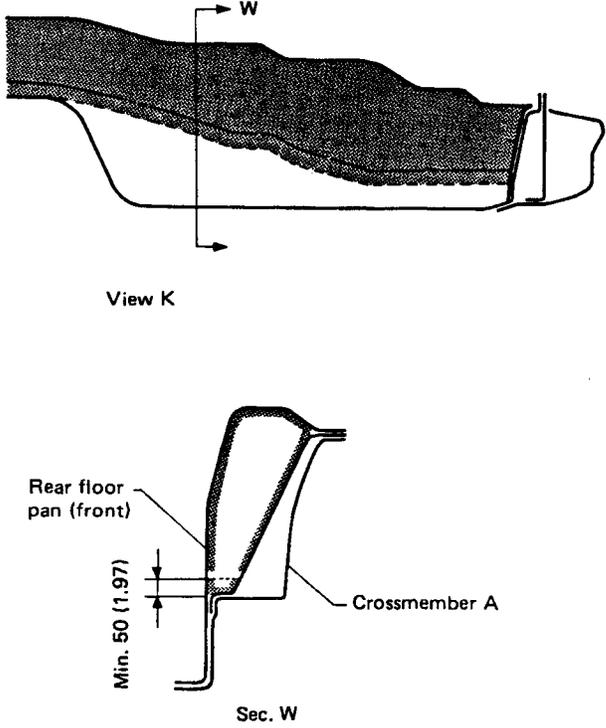
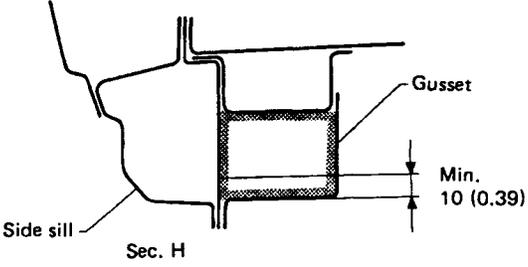
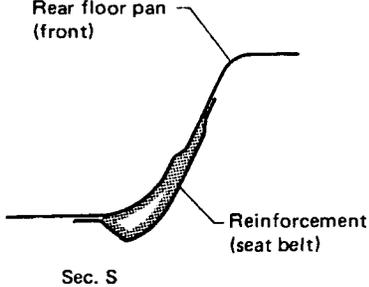
No.	Cross sectional view	Applied section	Thickness	Remarks
5	 <p style="text-align: center;">Sec. B</p> <p style="text-align: right;">C5-524-5</p>	Front side frame (front)	Over 20 microns (Dry condition)	—
6	 <p style="text-align: center;">Sec. C</p> <p style="text-align: right;">C5-524-6</p>	Front side frame (front)	Over 20 microns (Dry condition)	—
7	 <p style="text-align: center;">Sec. D</p> <p style="text-align: right;">C5-524-7</p>	Front side frame (front) Front and rear side frame (UPR) End of flange	Over 20 microns (Dry condition)	Apply wax to the flanged end of front and rear side frames.

Unit: mm (in)

No.	Cross sectional view	Applied section	Thickness	Remarks
8	 <p>Sec. E</p> <p>C5-524-8</p>	Front side frame (front)	Over 20 microns (Dry condition)	—
9	 <p>Min. 10 (0.39)</p> <p>Min. 10 (0.39)</p> <p>Applied wax thickness in this section is over 50 microns.</p> <p>Min. 10 (0.39)</p> <p>Sec. T</p> <p>Sec. U</p> <p>Min. 10 (0.39)</p> <p>Wax applying nozzle</p> <p>The area where wax applying nozzle can reach.</p> <p>Sec. V</p> <p>C5-524-9</p>	Front side frame (rear)	Over 20 microns (Dry condition) Over 50 microns (Dry condition)	—

No.	Cross sectional view	Applied section	Thickness	Remarks
10	 <p>Front fender</p> <p>Front pillar (Outer)</p> <p>Sec. F</p> <p>C5-524-10</p>	<p>Rear section of front fender</p> <p>Lower section of front pillar</p>	<p>Over 20 microns (Dry condition)</p>	<p>—</p>
11	 <p>Side sill (inner)</p> <p>Reinforcement</p> <p>Side sill (Outer)</p> <p>Sec. G</p> <p>C5-524-11</p>	<p>Side sill</p>	<p>Over 20 microns (Dry condition)</p>	<p>—</p>
12	 <p>Door panel</p> <p>Min. 50 (1.97)</p> <p>Crossmember floor</p> <p>Sec. J</p> <p>C5-524-12</p>	<p>Inner section of door</p> <p>Side sill</p>	<p>Over 20 microns (Dry condition)</p>	<p>—</p>

Unit: mm (in)

No.	Cross sectional view	Applied section	Thickness	Remarks
13	 <p>View K</p> <p>Sec. W</p> <p>Min. 50 (1.97)</p> <p>Rear floor pan (front)</p> <p>Crossmember A</p> <p>C5-524-13</p>	Crossmember A	Over 20 microns (Dry condition) Over 50 microns (Dry condition)	—
14	 <p>Sec. H</p> <p>Min. 10 (0.39)</p> <p>Gusset</p> <p>Side sill</p> <p>C5-524-14</p>	Inside of gusset	Over 20 microns (Dry condition) Over 50 microns (Dry condition)	—
15	 <p>Sec. S</p> <p>Rear floor pan (front)</p> <p>Reinforcement (seat belt)</p> <p>C5-524-15</p>	Inside of reinforcement	Over 20 microns (Dry condition)	—

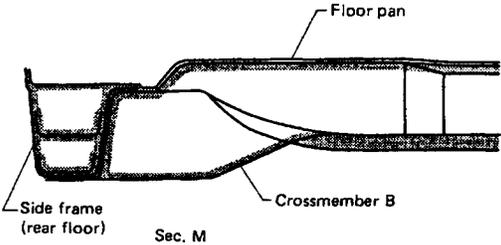
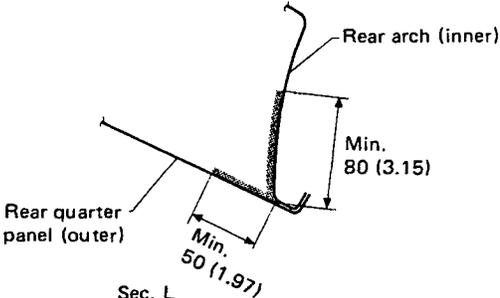
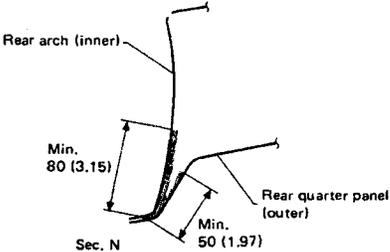
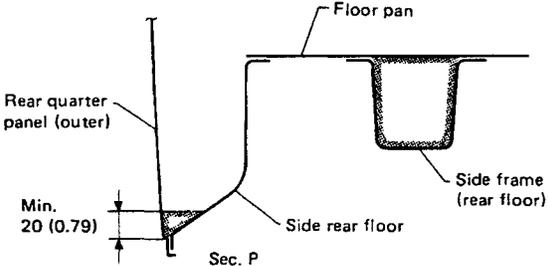
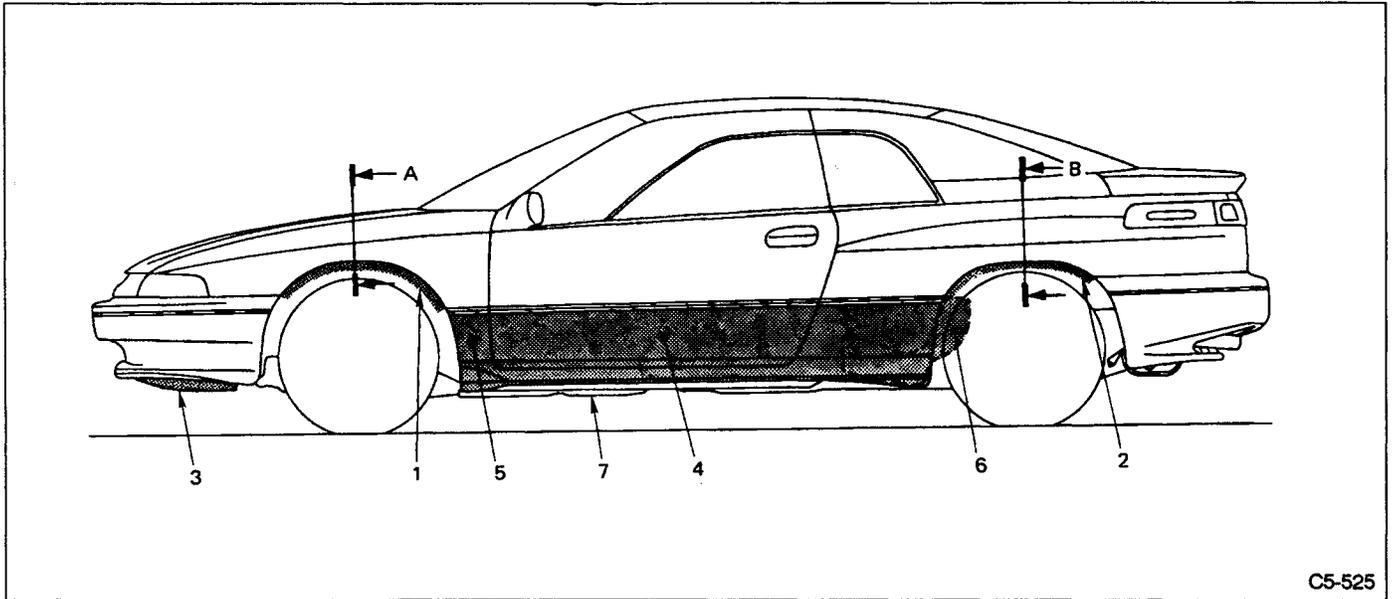
No.	Cross sectional view	Applied section	Thickness	Remarks
16	 <p>Sec. M</p> <p>C5-524-16</p>	Crossmember B Side frame (rear floor)	Over 20 microns (Dry condition)	—
17	 <p>Sec. L</p> <p>C5-524-17</p>	Inside of rear quarter panel	Over 20 microns (Dry condition)	—
18	 <p>Sec. N</p> <p>C5-524-18</p>	Inside of rear quarter panel (Area adjoining side bumper)	Over 20 microns (Dry condition)	—
19	 <p>Sec. P</p> <p>C5-524-19</p>	Lower section of rear quarter panel	Over 20 microns (Dry condition)	—
20	 <p>C5-524-20</p>	Side frame (rear floor)	Over 20 microns (Dry condition)	—

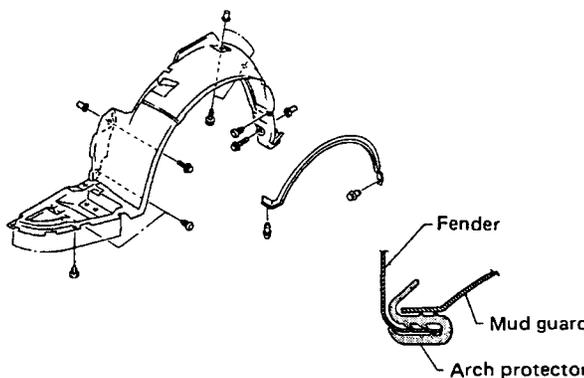
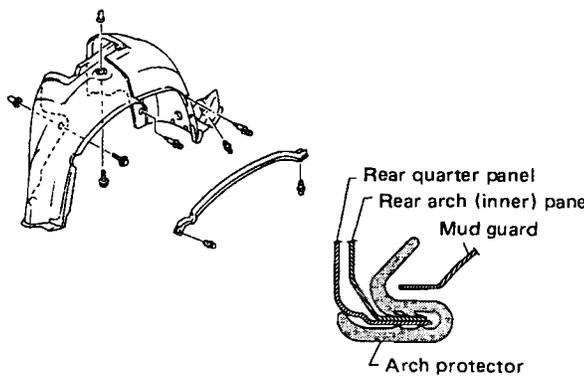
Fig. 30

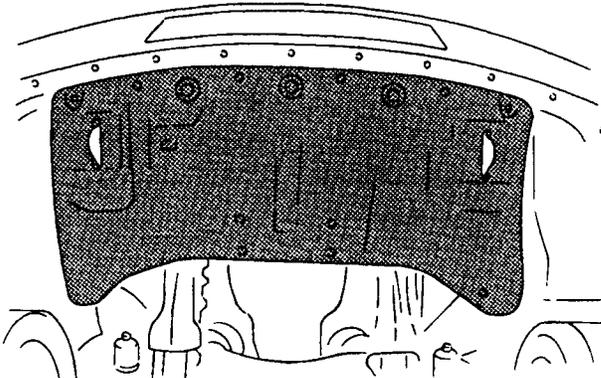
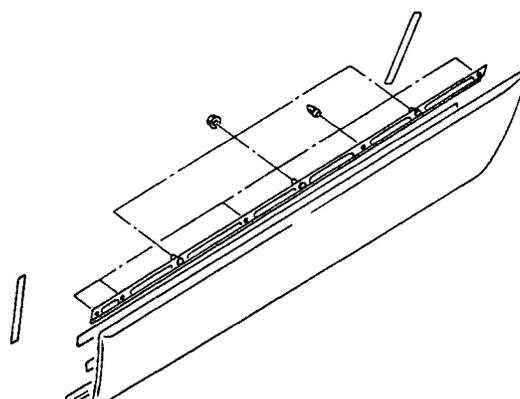
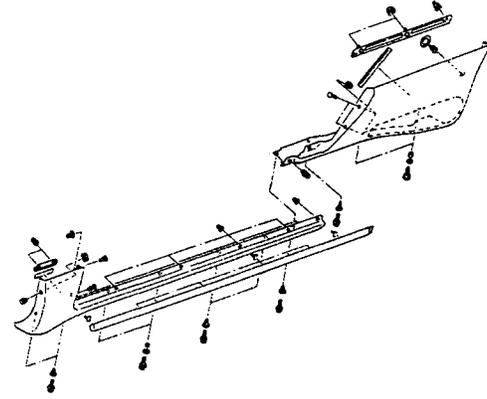
8. Rustproof Parts



C5-525

Fig. 31

No.	Applied section	Anti-rust material	Remarks
1	 <p>C5-526-1</p>	Rubber (arch protector) Polyethylene (mud guard)	—
2	 <p>C5-526-2</p>	Rubber (arch protector) Polyethylene (mud guard)	—

No.	Applied section	Anti-rust material	Remarks
3	 <p style="text-align: right;">C5-526-3</p>	Polyethylene with glass fiber	—
4	 <p style="text-align: right;">C5-526-4</p>	Polypropylene	—
5	 <p style="text-align: right;">C5-526-5</p>	Polypropylene	—

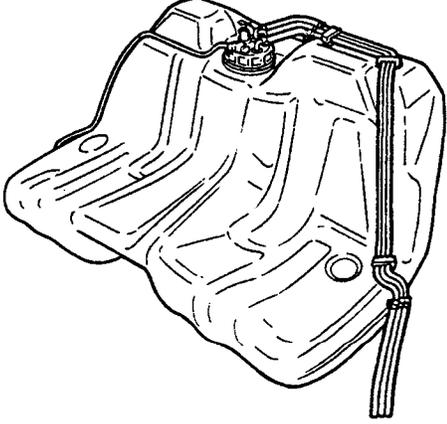
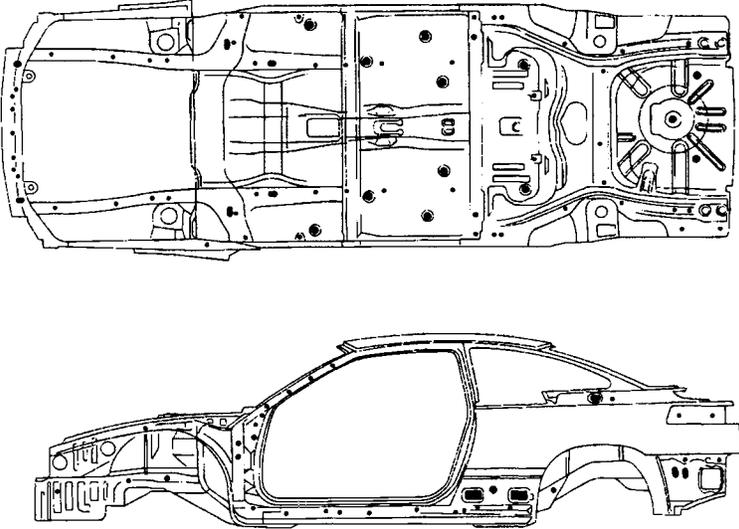
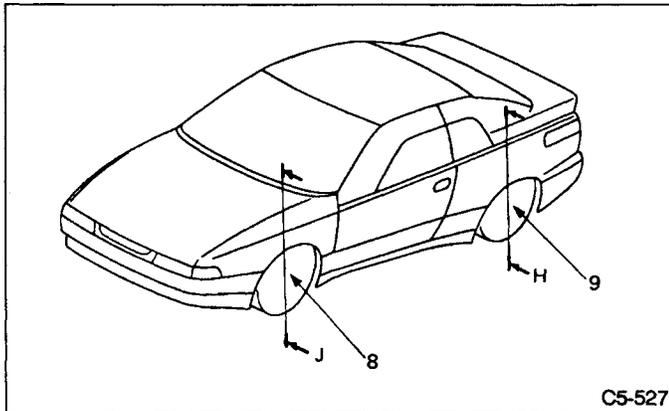
No.	Applied section	Anti-rust material	Remarks
6	 <p style="text-align: right;">C5-526-6</p>	Multi-layer plastic	—
7	 <p style="text-align: right;">C5-526-7</p>	Nylon (Plug) Polypropylene (Hot melting plug)	—

Fig. 32

9. Anti-rust Wax Application

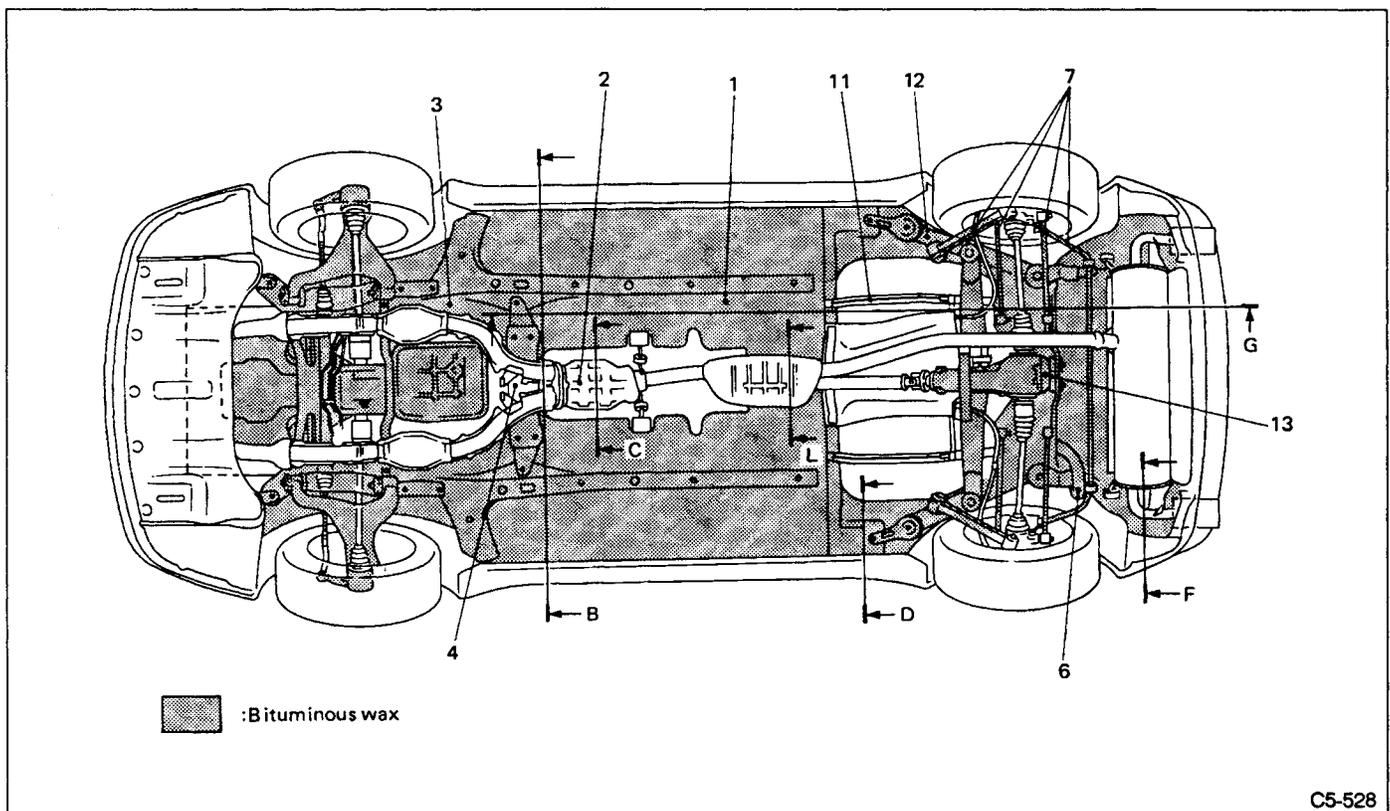


C5-527

Fig. 33

Sections excluded from wax application:

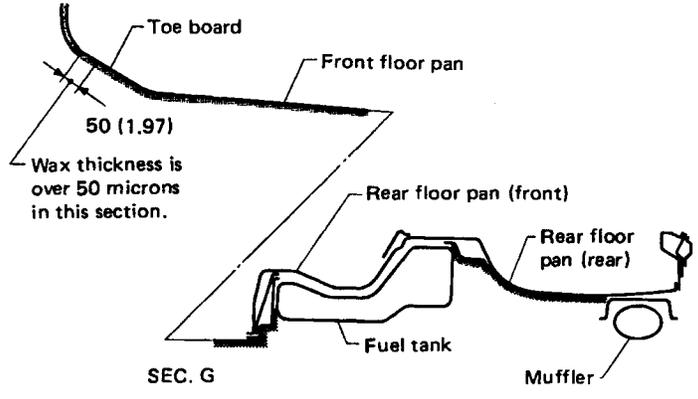
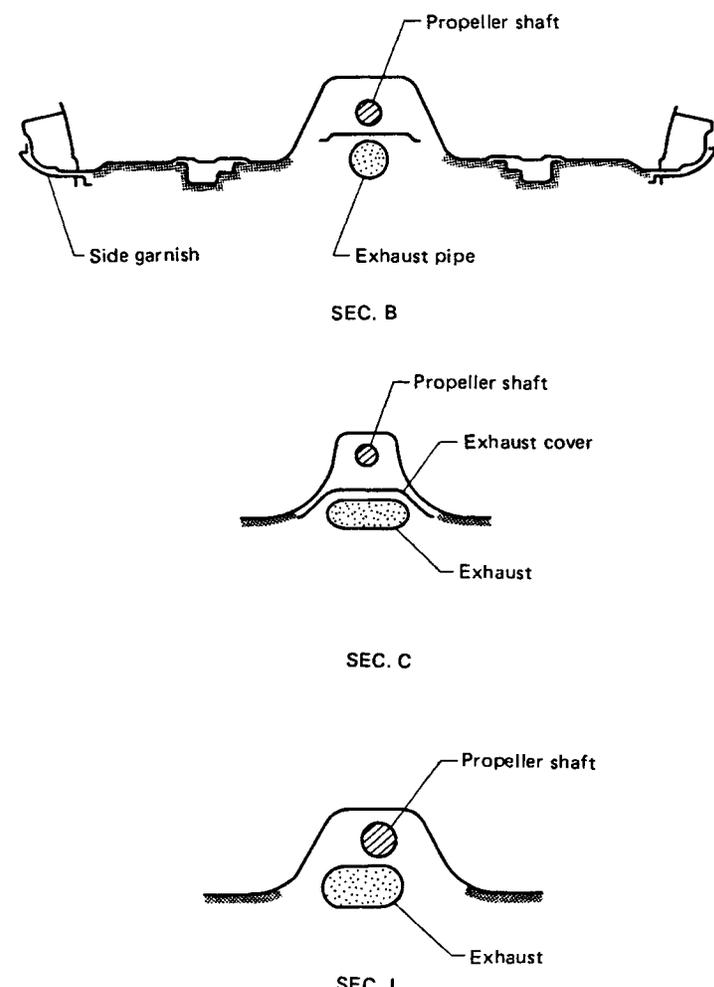
- Brake disc rotors
- Wheels and tires
- Label affixed to the rear side of rear differential
(A slight spray of wax mist is allowable)
- O₂ sensor
- Exhaust pipe and muffler
(A slight spray of wax mist is allowable)
- Axle shaft and propeller shaft



C5-528

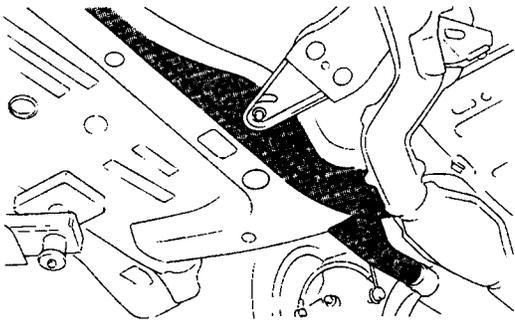
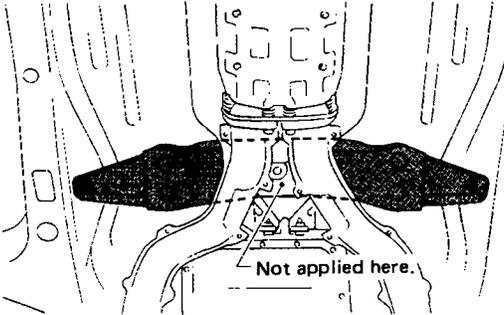
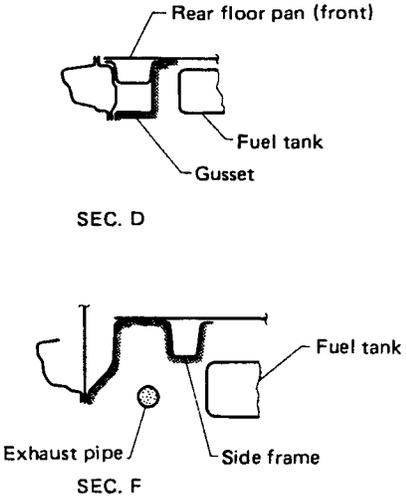
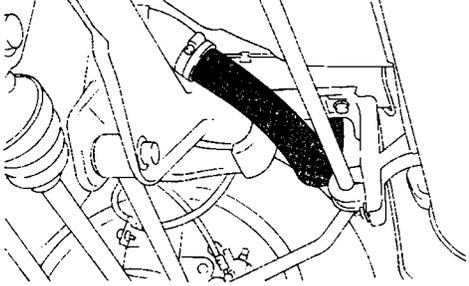
Fig. 34

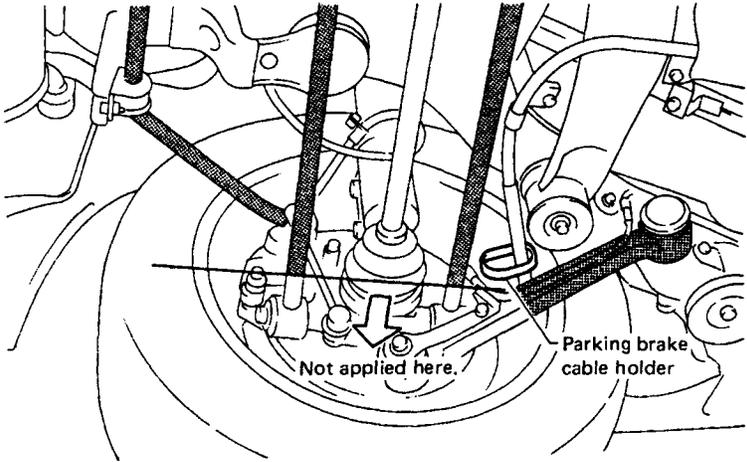
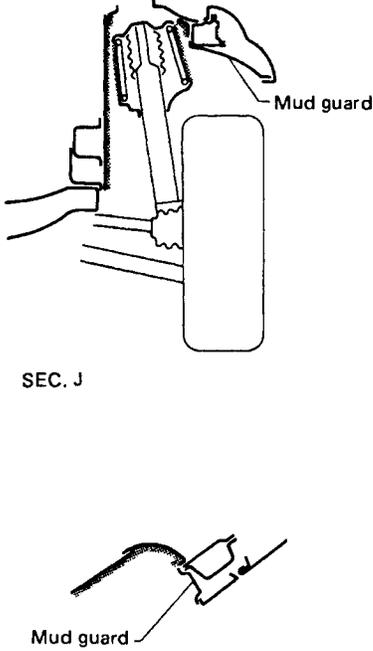
Unit: mm (in)

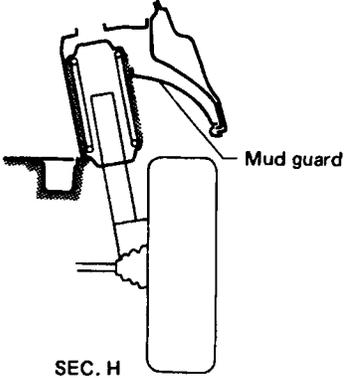
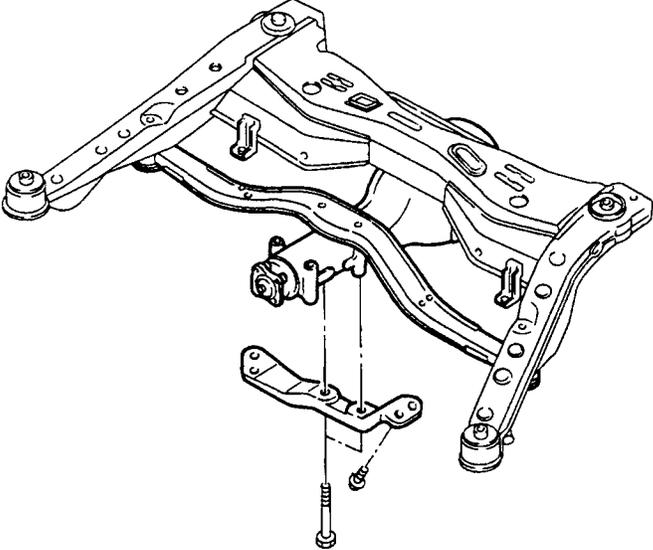
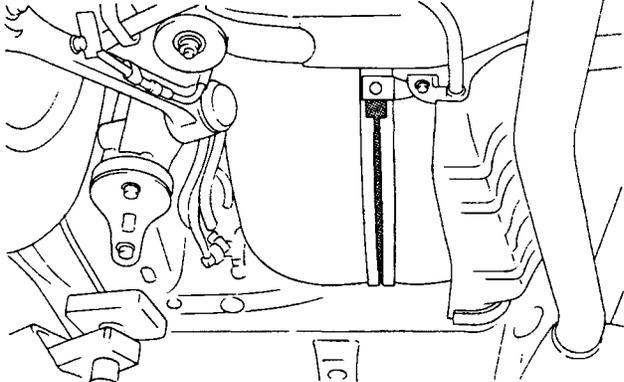
No.	Applied section	Thickness	Remarks
1	 <p>Diagram showing the applied wax section on various vehicle components. The components labeled are: Toe board, Front floor pan, Wax thickness is over 50 microns in this section. (with a dimension of 50 (1.97)), Rear floor pan (front), Rear floor pan (rear), Fuel tank, and Muffler. The section is identified as SEC. G.</p>	Over 300 microns (Dry condition)	—
2	 <p>Diagram showing the applied wax section on the exhaust system components. The components labeled are: Side garnish, Propeller shaft, Exhaust pipe, Exhaust cover, and Exhaust. The section is identified as SEC. B, SEC. C, and SEC. L.</p>	Over 300 microns (Dry condition)	<p>Wax mist may settle onto exhaust pipe.</p> <p>Wax is not applied to the propeller shaft.</p>

C5-529-1

C5-529-2

No.	Applied section	Thickness	Remarks
3	 <p style="text-align: right;">C5-529-3</p>	Over 300 microns (Dry condition)	—
4	 <p style="text-align: center;">Not applied here.</p> <p style="text-align: right;">C5-529-4</p>	Over 300 microns (Dry condition)	Do not apply wax to crossmember above exhaust pipes.
5	 <p style="text-align: center;">SEC. D</p> <p style="text-align: center;">SEC. F</p> <p style="text-align: right;">C5-529-5</p>	Over 300 microns (Dry condition)	—
6	 <p style="text-align: right;">C5-529-6</p>	Over 300 microns (Dry condition)	—

No.	Applied section	Thickness	Remarks
7	 <p data-bbox="511 640 673 661">Not applied here.</p> <p data-bbox="771 619 917 661">Parking brake cable holder</p> <p data-bbox="933 892 1015 913">C5-529-7</p>	<p data-bbox="1031 210 1209 262">Over 50 microns (Dry condition)</p> <p data-bbox="1031 283 1209 336">Over 300 microns (Dry condition)</p>	<p data-bbox="1274 210 1494 378">Wax is not applied to the components inside the tires because there is the possibility that wax mist may contaminate brake rotors and wheels.</p>
8	 <p data-bbox="747 1060 852 1081">Mud guard</p> <p data-bbox="495 1333 560 1354">SEC. J</p> <p data-bbox="381 1585 462 1606">SEC. K</p> <p data-bbox="503 1585 609 1606">Mud guard</p> <p data-bbox="933 1627 1015 1648">C5-529-8</p>	<p data-bbox="1031 955 1209 1008">Over 150 microns (Dry condition)</p> <p data-bbox="1031 1029 1209 1081">Over 50 microns (Dry condition)</p>	<p data-bbox="1372 955 1388 976">—</p>

No.	Applied section	Thickness	Remarks
9	 <p style="text-align: right;">C5-529-9</p>	<p>Over 150 microns (Dry condition)</p> <p>Over 50 microns (Dry condition)</p>	<p>—</p>
10	 <p style="text-align: right;">C5-529-10</p>	<p>Over 300 microns (Dry condition)</p>	<p>Apply masking to the entire filler and drain holes.</p>
11	 <p style="text-align: right;">C5-529-11</p>	<p>Over 300 microns (Dry condition)</p>	<p>Apply wax to the metal portion of band.</p>

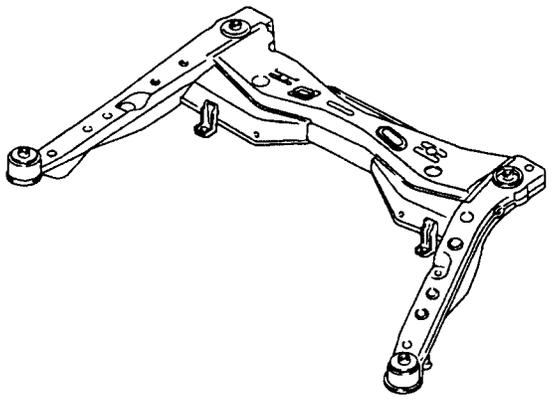
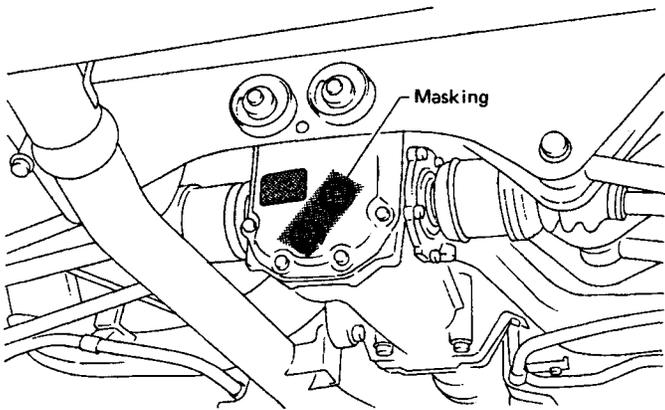
No.	Applied section	Thickness	Remarks
12	 <p style="text-align: right;">C5-529-12</p>	Over 300 microns (Dry condition)	—
13	 <p style="text-align: right;">C5-529-13</p>	—	Tape must be removed at pre-delivery inspection.

Fig. 35

8. Sunroof

The sunroof has two operating mechanisms. One raises the rear of the slide panel for ventilation and the other fully opens the panel.

The sunroof also has the following features:

- Use of the outer slide type provides the sunroof function despite the small size of the roof.
- The reduced thickness of the roof provides extra overhead clearance in the passenger compartment.
- Die-cast aluminum is used for roof components, thus reducing weight.
- Sheet metal components are copper-plated for rust-proofing.

<p>Operation (Operating time)</p>	<p>When opened: Fully closed → tilted up → Pause after tilt-up → Slides to rear in tilted-up mode → Fully open (Fully closed → 0.5 — 1.5 sec → Pause after tilt-up → 5.0 — 6.0 sec → Fully open)</p> <p>When closed: Fully open → Slides to front in tilted-up mode → Pause with 150 mm (5.91 in) open → From tilt-up to tilt-down while sliding → Fully closed (Fully open → 2.5 — 3.5 sec → Pause with 150 mm (5.91 in) open → 3.0 — 4.0 sec → Fully closed)</p>
<p>Sliding length of sunroof panel</p>	
<p>Effective opening dimensions</p>	
<p>Amount of sunroof tilt</p>	

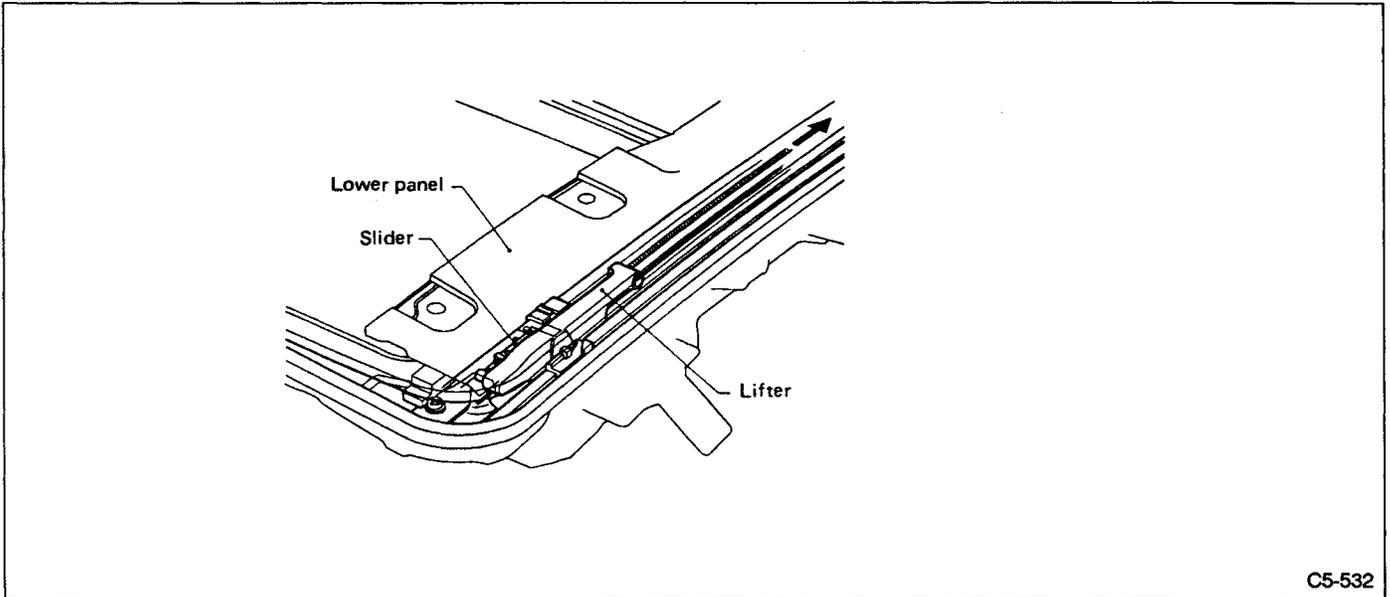
Fig. 36

C5-530

Tilt-up Mechanism

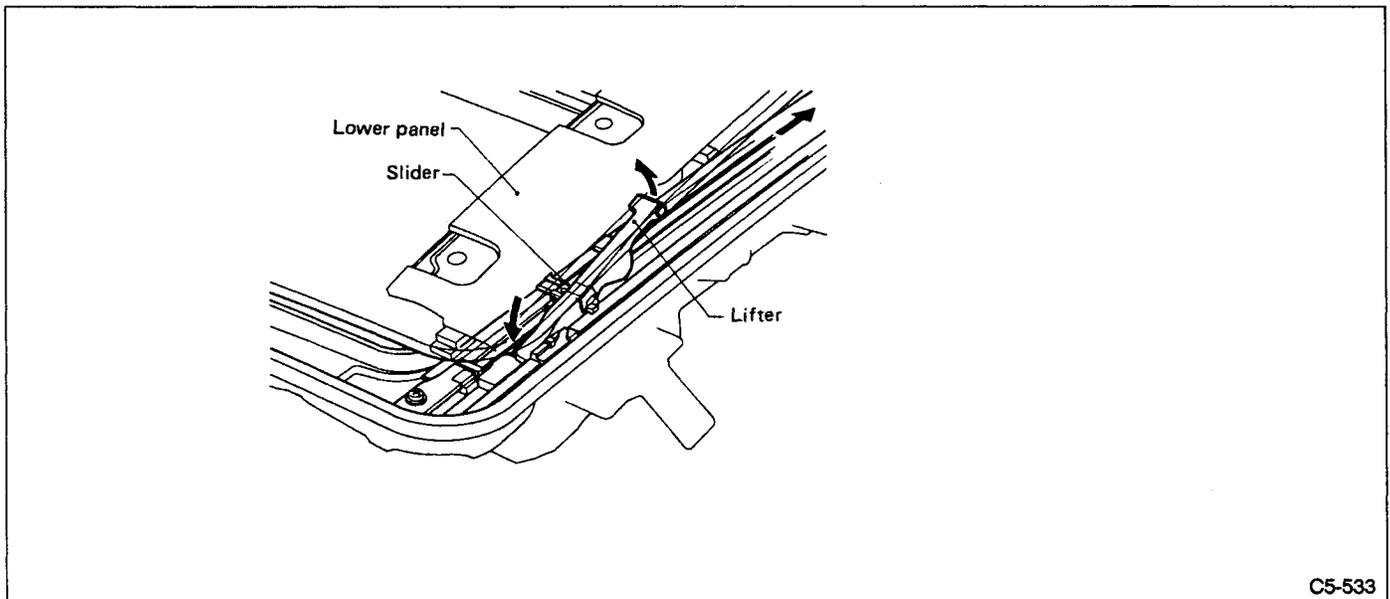
(Operation)

- The lower panel installed with the outer panel is secured to the lifter.
- When the "OPEN" switch is pressed, the slider is pulled back by the motor.
- The slider guide pin moves along the guide hole to tilt the rear of the lifter up.
- When the "OPEN" switch is pressed again, the slider is pulled back further. Since the slider guide pin is located at the rear end of the lifter guide hole, the lifter and slider move back as a unit to open the sunroof.



C5-532

Fig. 37



C5-533

Fig. 38

Sunroof motor**(Construction)**

The sunroof motor consists essentially of a motor, timing gear and limit switch. The timing gear is provided

with a pinion gear cam mechanism, and the limit switch turns the relay on or off according to the tilt-up position of the slide panel.

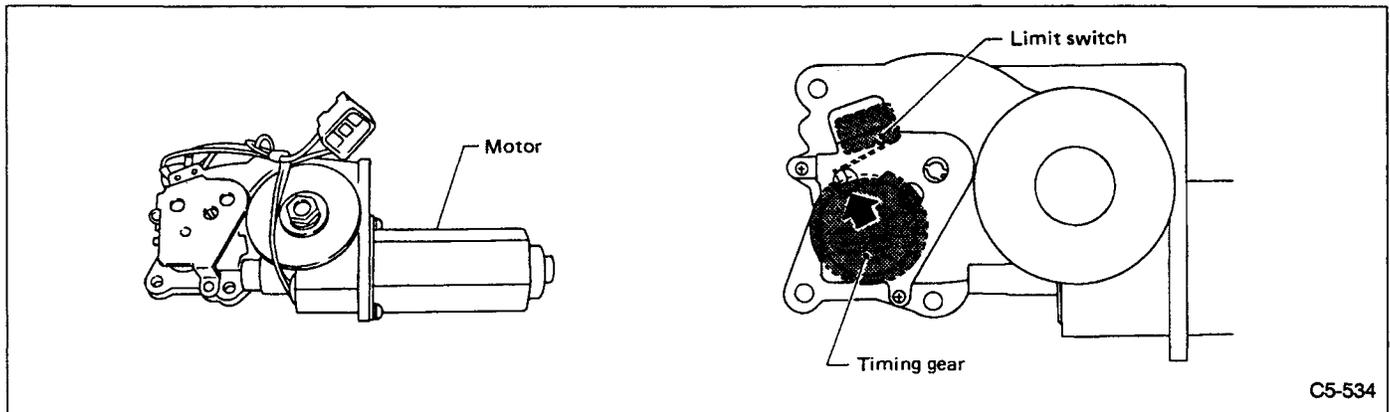


Fig. 39

Limit switch

This switch closes or opens according to the tilt-up position of the slide panel. It also activates when the

slide panel reaches the 150 mm (5.91 in) open position.

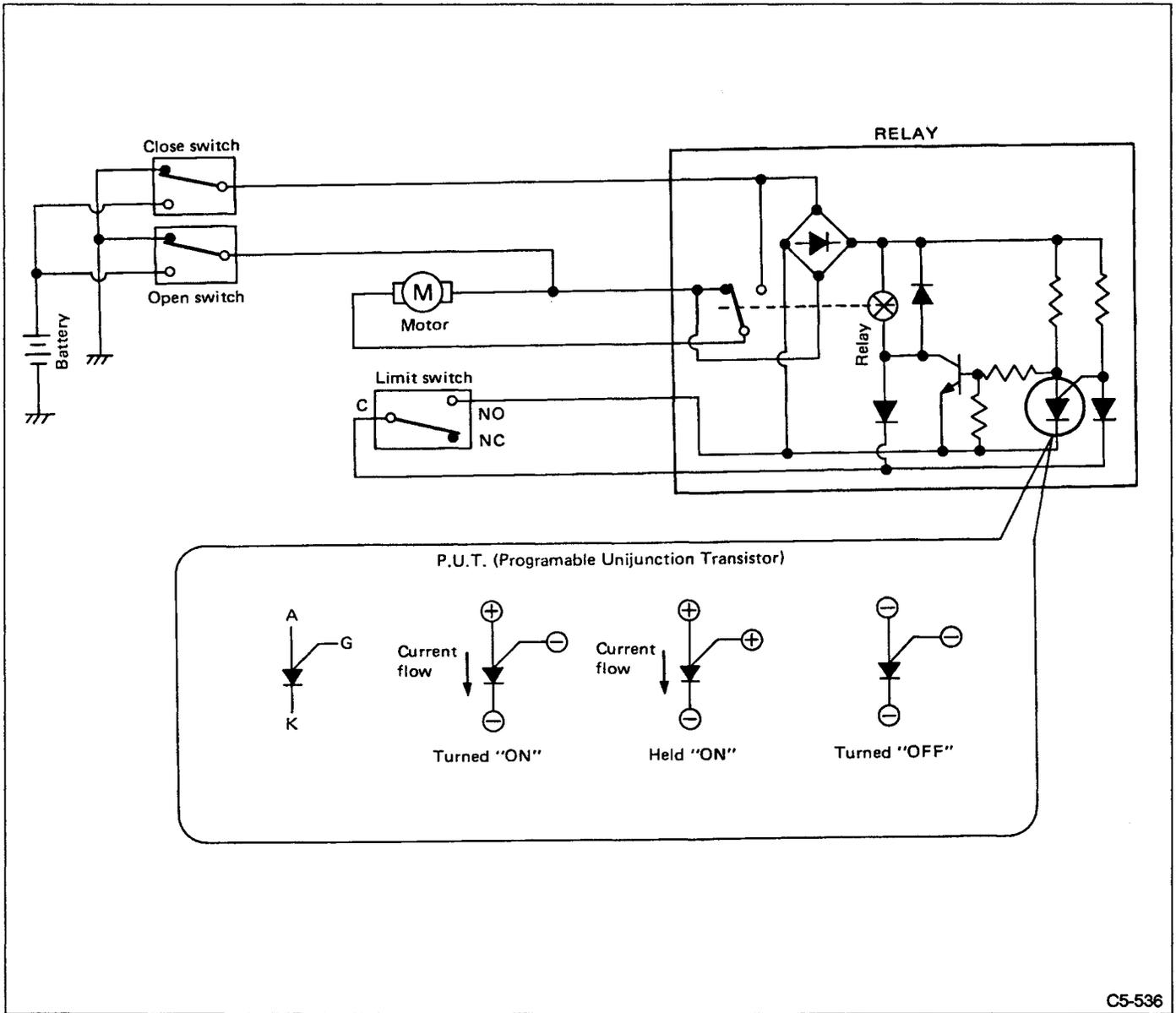


Fig. 40

System operation

The slide panel continuously opens while the "OPEN" switch is pressed, and stops at the specified tilt-up position. When the switch is released and pressed again, the slide panel continues to move to the fully open position.

The slide panel continuously closes while the "CLOSE" switch is pressed, and stops at approximately the 150

mm (5.91 in) open position. When the switch is released and pressed again, the slide panel continues to move to the fully closed position.

Open operation

When the "OPEN" switch is pressed, current flows to activate the transistor and relay so that the motor rotates in the direction that opens the slide panel. (The P.U.T. is held "OFF")

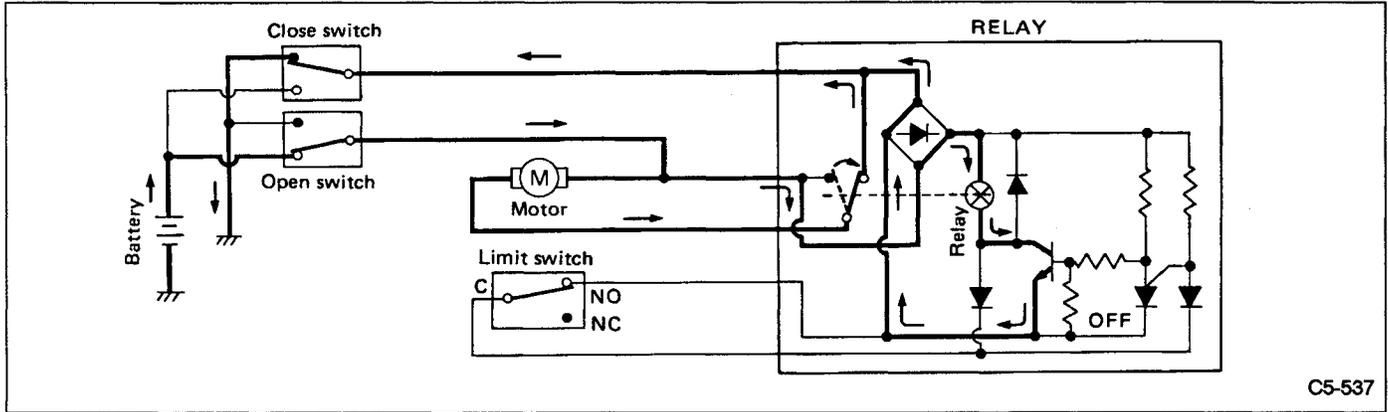


Fig. 41

The limit switch turns from "ON" to "OFF" so that the P.U.T. turns ON. This turns the transistor and relay off, and the motor will then stop.

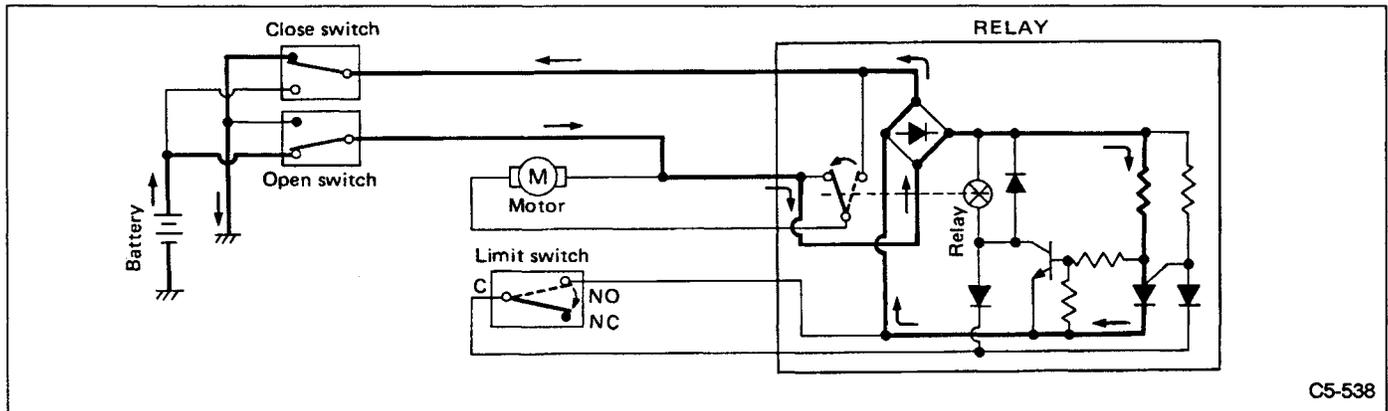


Fig. 42

When the "OPEN" switch is released, the P.U.T. turns OFF. The circuit is then held in a stand-by mode for ready operation.

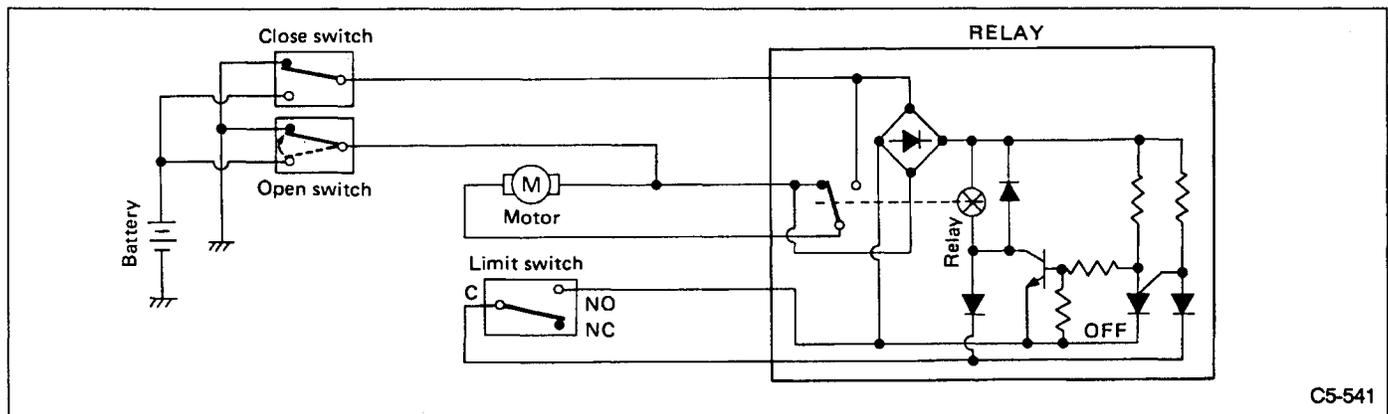
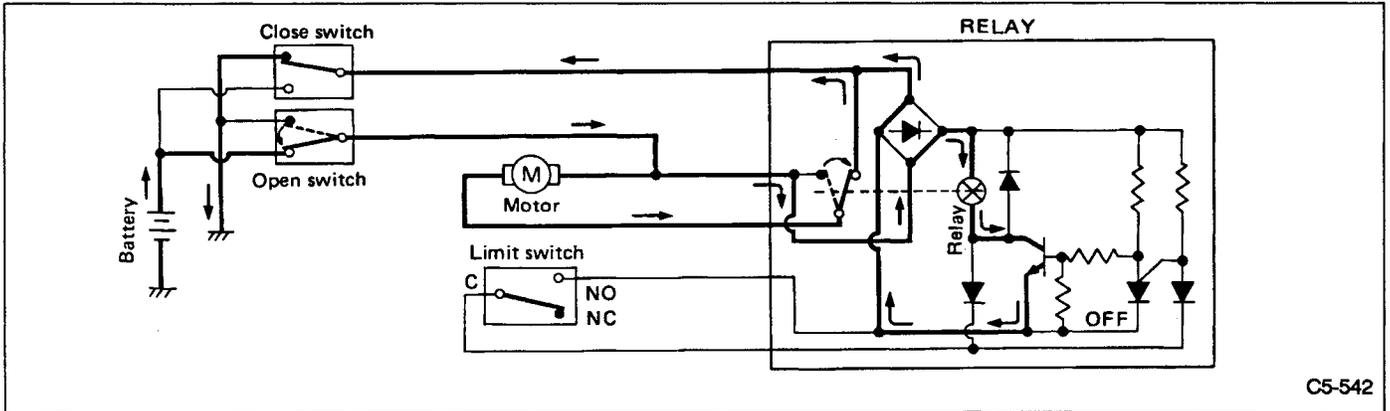


Fig. 43

When the "OPEN" switch is pressed again, the transistor and relay turn ON (the P.U.T. held OFF). The motor will then rotate in the direction that opens the slide panel fully.

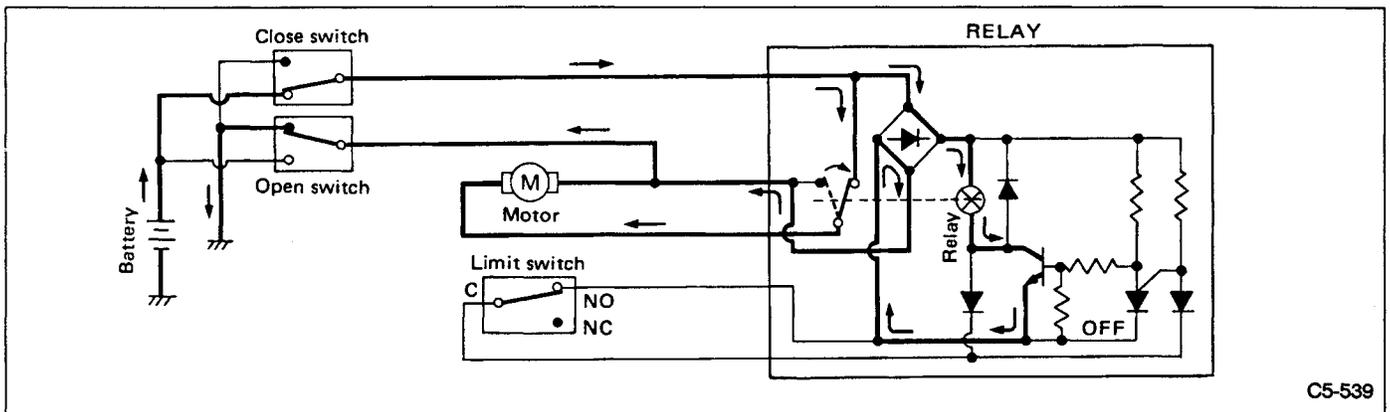


C5-542

Fig. 44

Closed operation

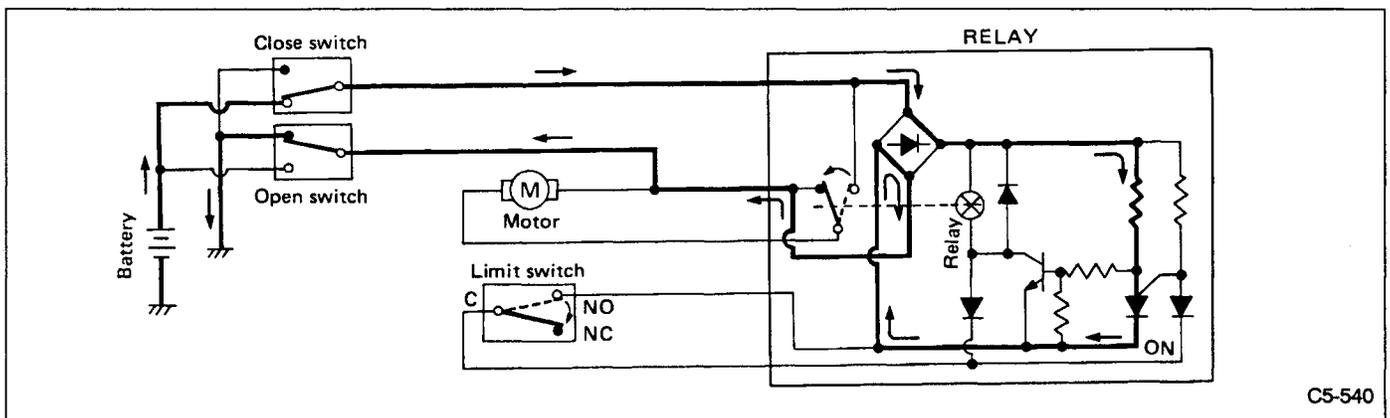
When the "CLOSE" switch is pressed, current flows to turn the transistor and relay ON (the P.U.T. is held OFF), the motor rotates in the direction that closes the slide panel.



C5-539

Fig. 45

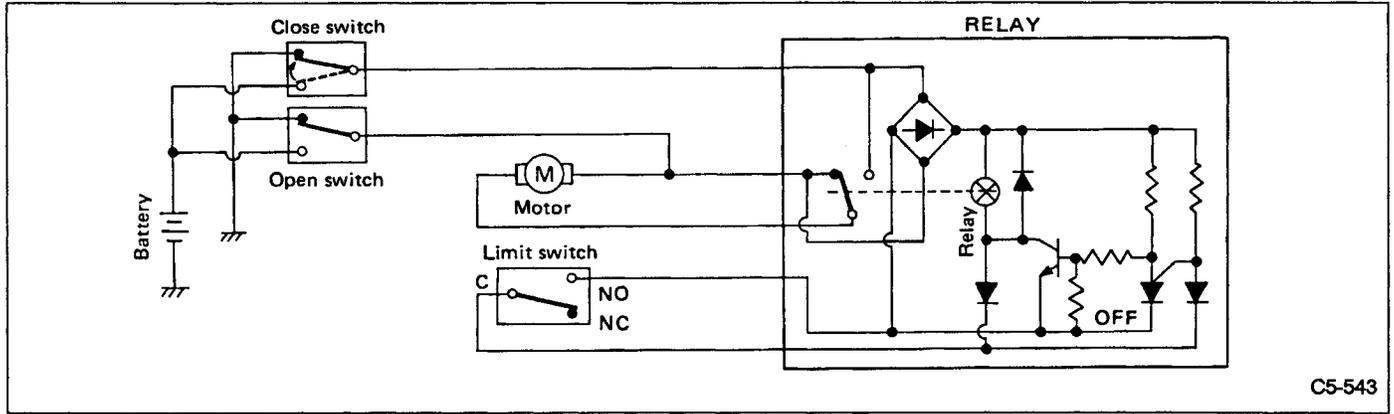
The limit switch turns from ON to OFF, the P.U.T. turns ON, and the motor will stop.



C5-540

Fig. 46

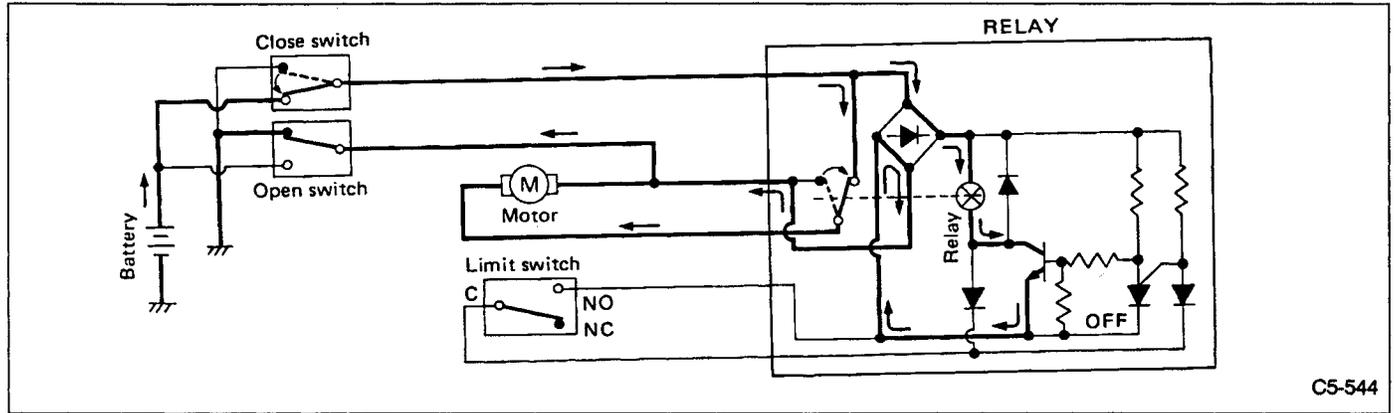
When the "CLOSE" switch is released, the P.U.T. turns OFF, holding the circuit in a stand-by mode for ready operation.



C5-543

Fig. 47

When the "CLOSE" switch is pressed again, the transistor and relay turn ON. The motor will then rotate in the direction that closes the slide panel fully. (In this case, the slide panel does not stop at the tilt-up position.)



C5-544

Fig. 48

Drain tube layout

The front drain tube is routed to the inner side of the front wheel arch through the front pillar. The rear drain

tube is routed to the back of the rear bumper through the side rail and rear pillar.

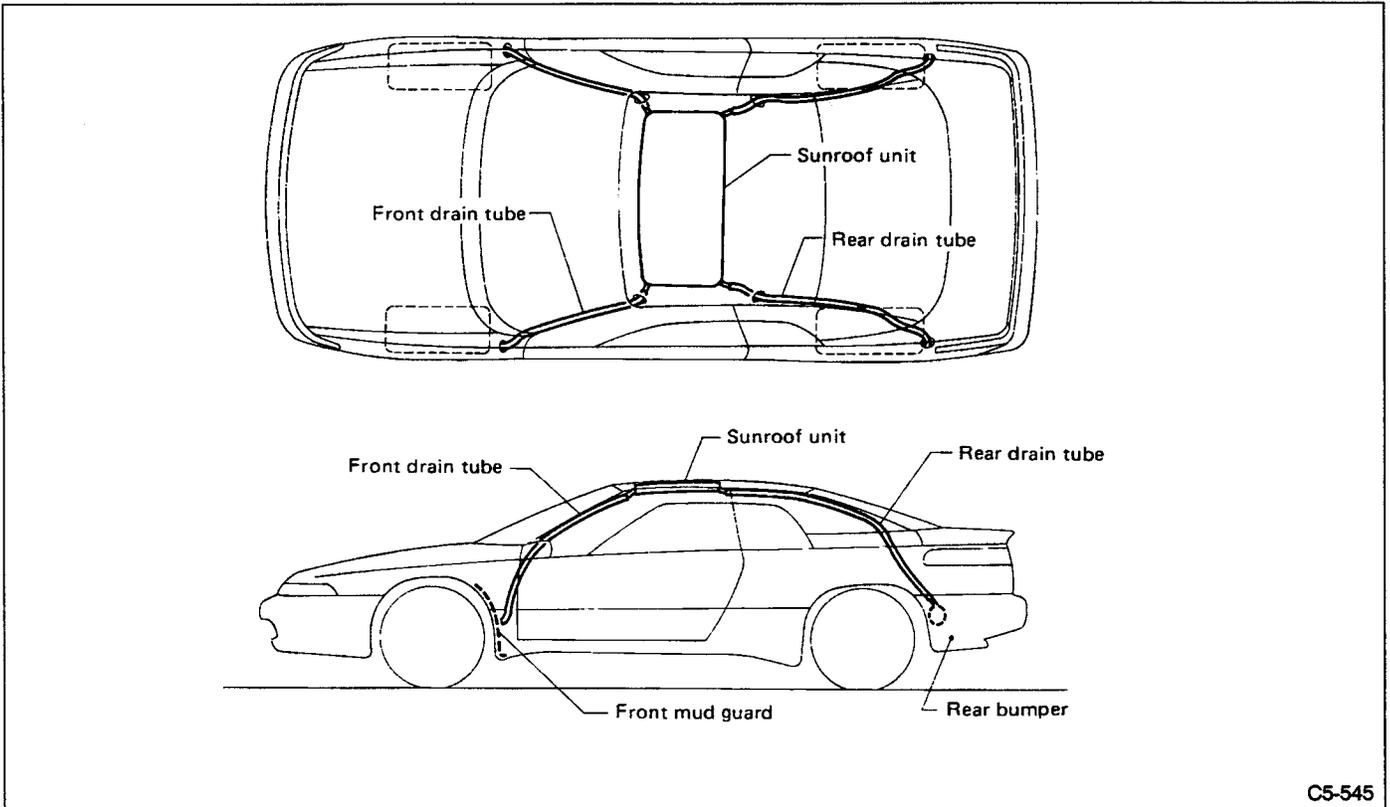


Fig. 49

9. Ventilation

Fresh air flows through the cowl panel into the passenger compartment via the air conditioning system.

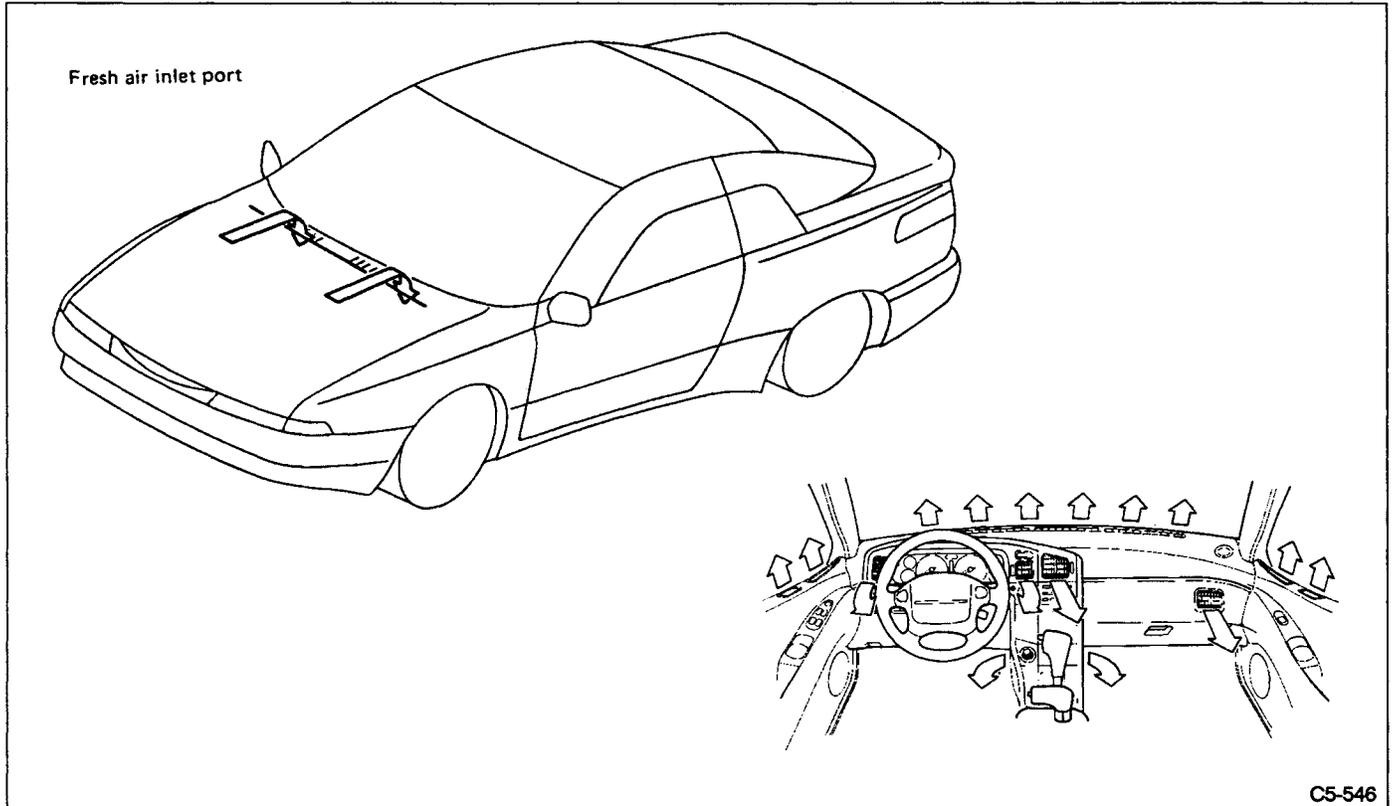
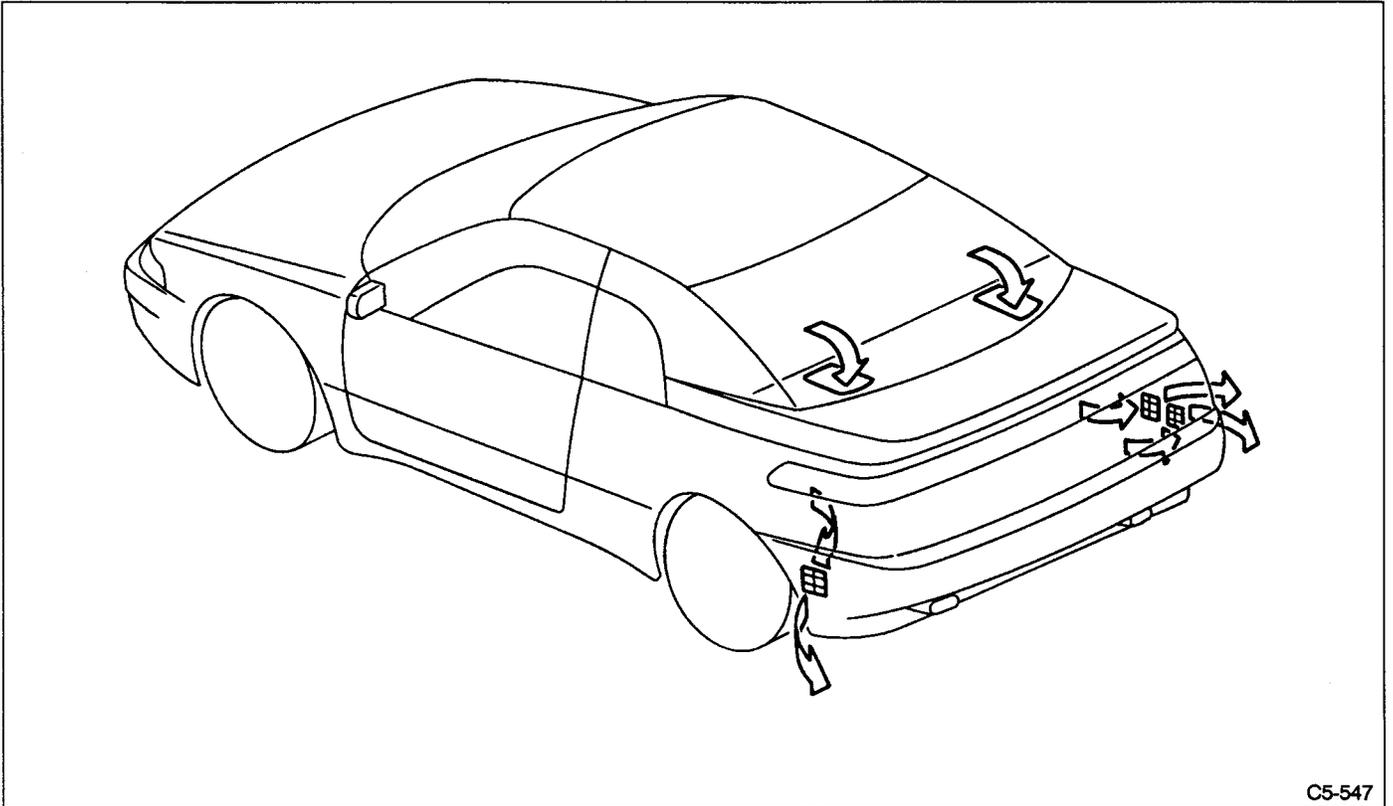


Fig. 50

C5-546

Air outlet ports are located on the rear quarter panels near the back of the rear bumper where high vacuum pressure develops while driving.



C5-547

Fig. 51

S SERVICE DATA

1. Body Datum Points

Various master repair locations are established as datum points used during body repairs. In addition, guide holes, locators and indents are provided to facilitate panel replacement and achieve alignment accuracy.

Left and right datum points are all symmetrical to each other.

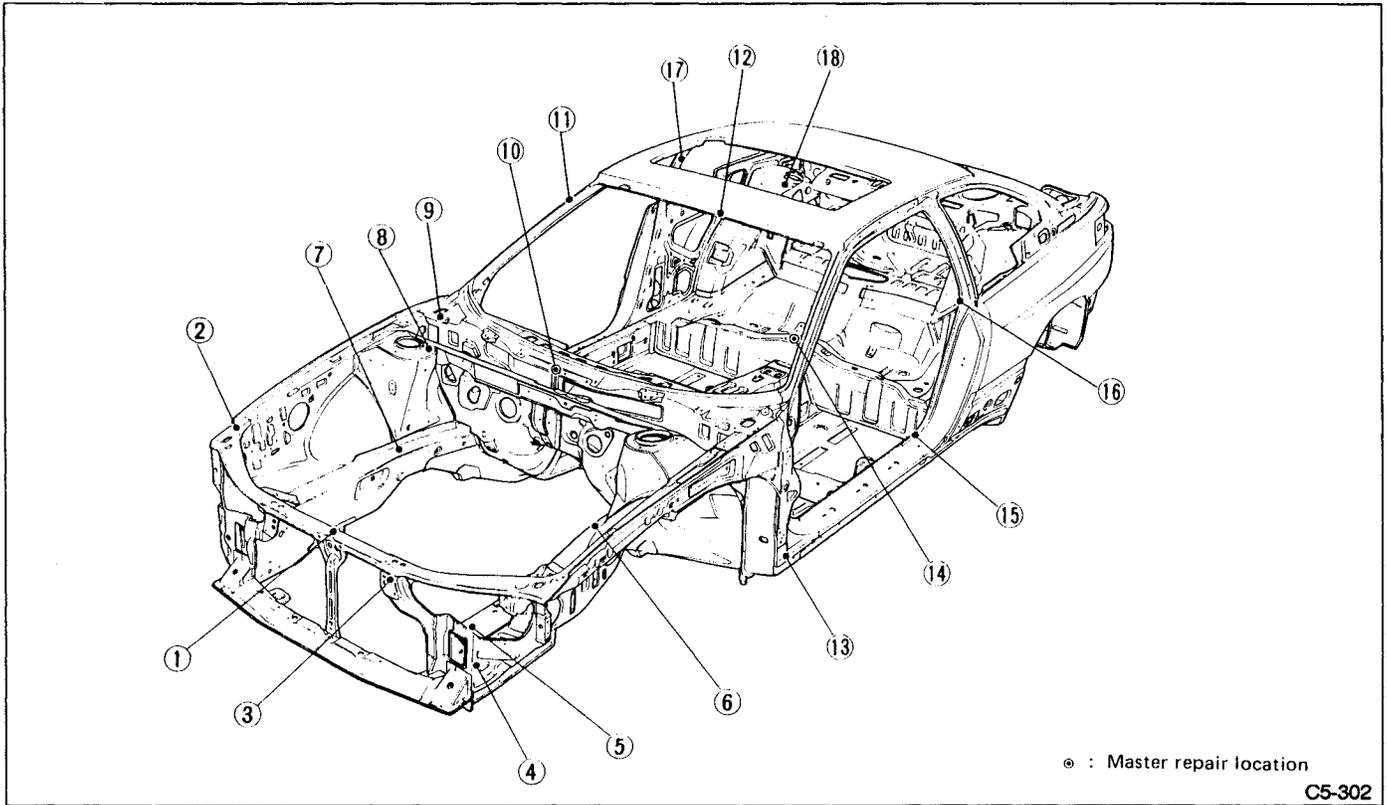
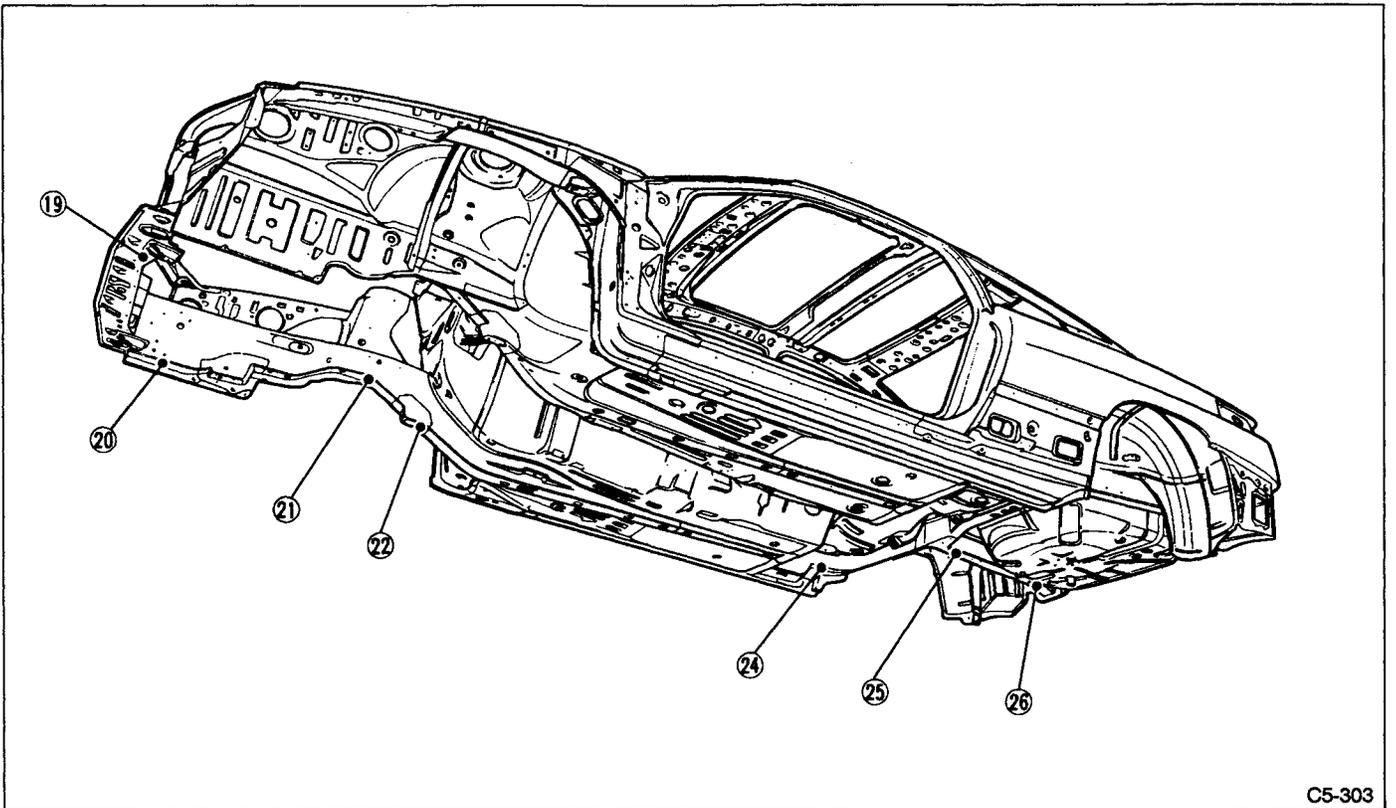


Fig. 52



C5-303

Fig. 53

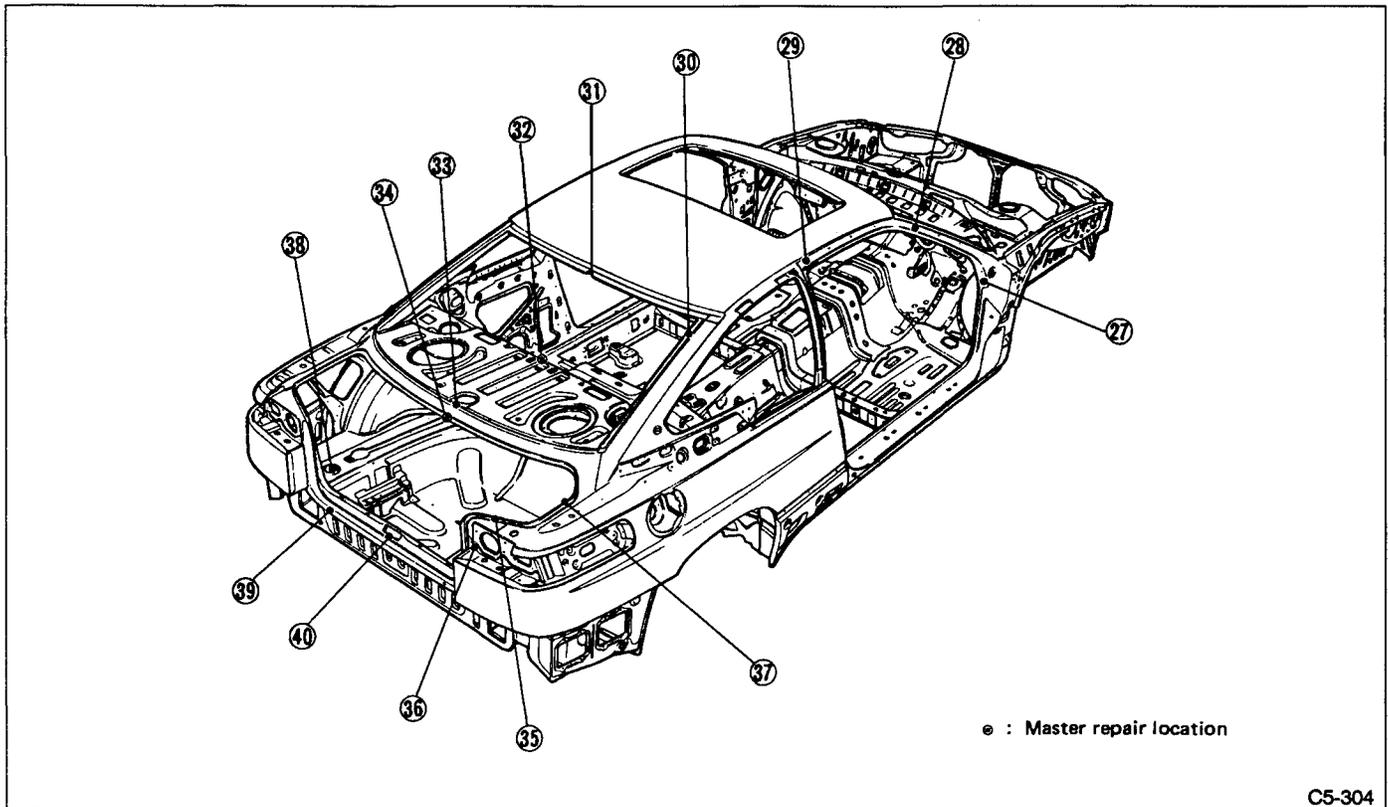


Fig. 54

- | | |
|---|--|
| ① Radiator panel (UPR) repair location hole 5 mm (0.20 in) dia. (Located in center of vehicle) | ⑱ Frame (radiator panel LWR) gauge hole 20 mm (0.79 in) dia. (Symmetrical) |
| ② Fender attaching bolt hole M6 (Symmetrical) | ⑳ Front side frame gauge hole 20 mm (0.79 in) dia. (Symmetrical) |
| ③ Head light attaching bolt hole M6 (Symmetrical) | ㉑ Front side frame gauge hole 20 mm (0.79 in) dia. (Symmetrical) |
| ④ Radiator panel side gauge hole 20 mm (0.79 in) dia. (Symmetrical) | ㉒ Bracket (front suspension rear) gauge hole 10 mm (0.39 in) dia. (Symmetrical) |
| ⑤ Front bumper mounting hole
Right side 13 x 16 mm (0.51 x 0.63 in) dia.
Left side 13 mm (0.51 in) dia. | ㉓ Rear side frame gauge hole 20 mm (0.79 in) dia. (Symmetrical) |
| ⑥ Fuse box attaching bolt hole M6 | ㉔ Sub frame attaching bolt hole M12 (Symmetrical) |
| ⑦ Air cleaner attaching bolt hole M8 | ㉕ Sub frame attaching bolt hole M12 (Symmetrical) |
| ⑧ Front strut mounting hole 11.5 mm (0.453 in) dia. (Symmetrical) | ㉖ Side frame (rear floor) gauge hole 30 mm (1.18 in) dia. (Symmetrical) |
| ⑨ Hood hinge attaching bolt hole M6 (Symmetrical) | ㉗ Weatherstrip attaching clip hole 5.2 mm (0.205 in) dia. (Symmetrical) |
| ⑩ Cowl panel mounting hole 8 mm (0.31 in) dia. (Located in center of vehicle) | ㉘ Retainer attaching bolt hole M6 (Symmetrical) |
| ⑪ Front pillar (outer) repair locater (Symmetrical) | ㉙ Retainer attaching bolt hole M6 (Symmetrical) |
| ⑫ Roof panel repair locater (Located in center of vehicle) | ㉚ Rear quarter panel (outer) repair locater (Symmetrical) |
| ⑬ Fender attaching bolt hole M6 (Symmetrical) | ㉛ Roof panel repair locater (Located in center of vehicle) |
| ⑭ Floor mat mounting hole 8 mm (0.31 in) dia. (Located in center of vehicle) | ㉜ Rear shelf trim attaching clip hole 8 mm (0.31 in) dia. (Located in center of vehicle) |
| ⑮ Rear quarter panel (outer) cutout portion (Symmetrical) | ㉝ Rear shelf air bleeder hole 5 mm (0.20 in) dia. (Located in center of vehicle) |
| ⑯ Rear quarter panel (outer) repair locater (Symmetrical) | ㉞ Reinforcement (rear panel) repair locater (Located in center of vehicle) |
| ⑰ Wiring harness attaching clip hole 7 mm (0.28 in) dia. (Symmetrical) | ㉟ Rear quarter panel (outer) flange graded portion (Symmetrical) |
| ⑱ Rear strut mounting hole 10 mm (0.39 in) dia. (Symmetrical) | |

- ③⑥ Rear combination light mounting hole 10 mm (0.39 in) dia. (Symmetrical)
- ③⑦ Rear quarter panel (outer) flange graded portion (Symmetrical)
- ③⑧ Rear bumper mounting hole 45 mm (1.77 in) dia. (Symmetrical)
- ③⑨ Rear skirt frame gauge hole 15 mm (0.59 in) dia. (Symmetrical)
- ④⑩ Reinforcement (Striker) gauge hole 6 mm (0.24 in) dia. (Symmetrical)

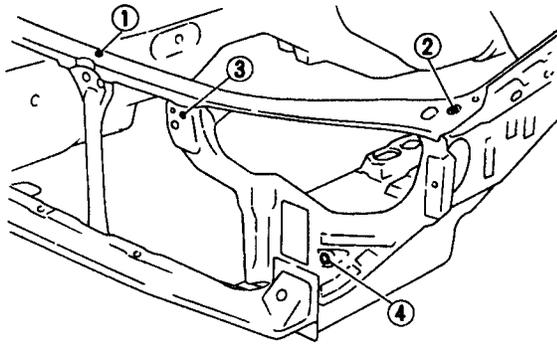


Fig. 55

C5-305

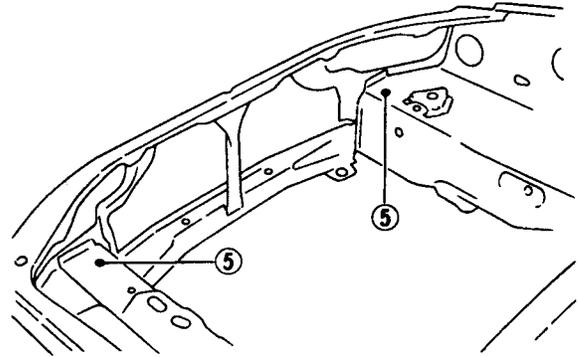


Fig. 56

C5-306

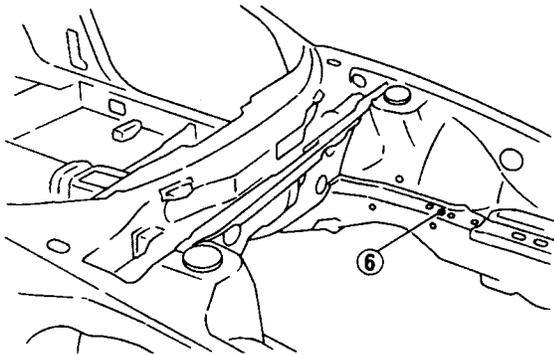


Fig. 57

C5-307

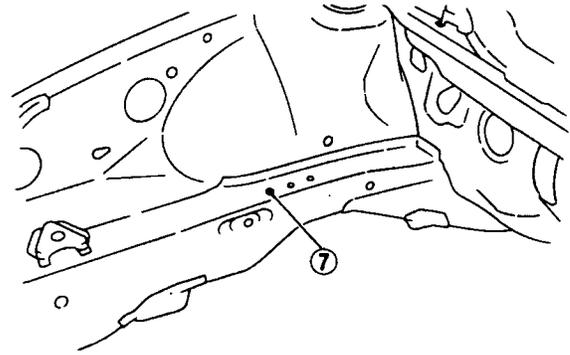


Fig. 58

C5-308

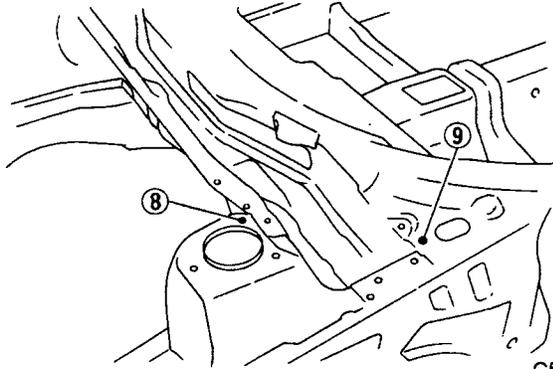


Fig. 59

C5-309

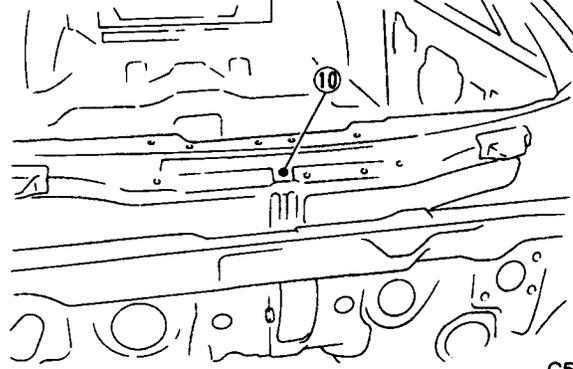


Fig. 60

C5-310

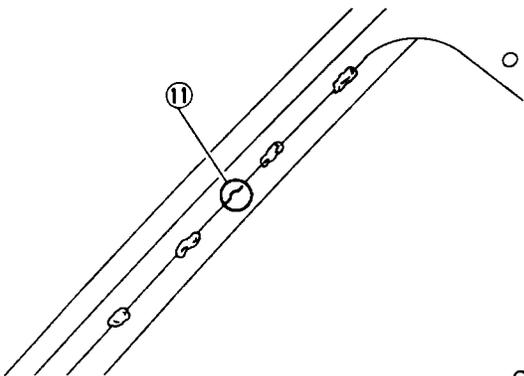


Fig. 61

C5-311

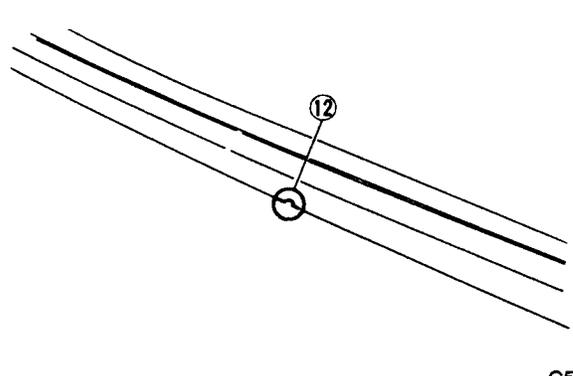


Fig. 62

C5-312

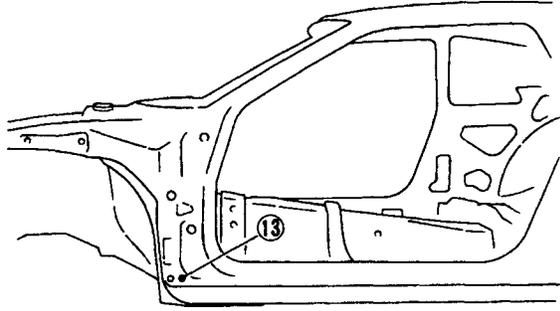


Fig. 63

C5-313

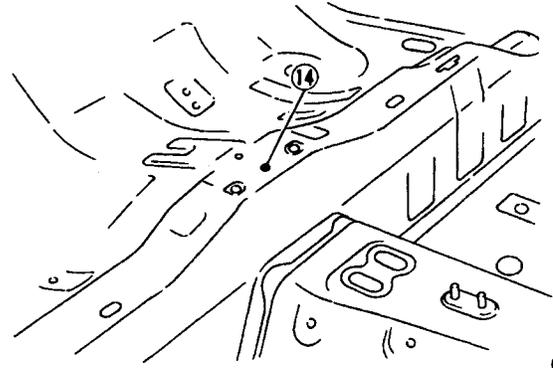


Fig. 64

C5-314

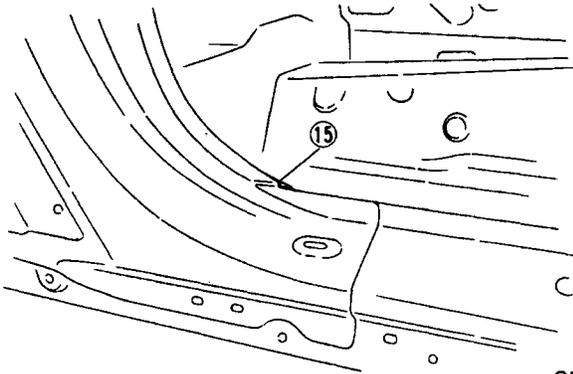


Fig. 65

C5-315

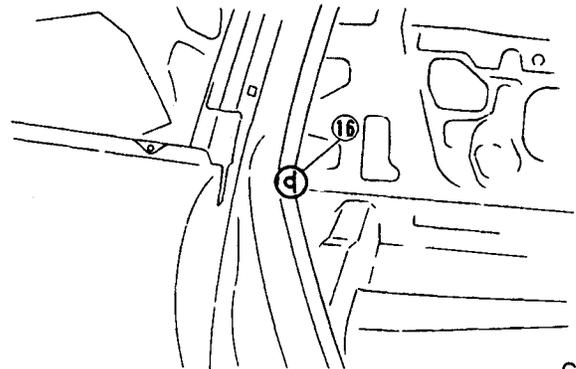


Fig. 66

C5-316

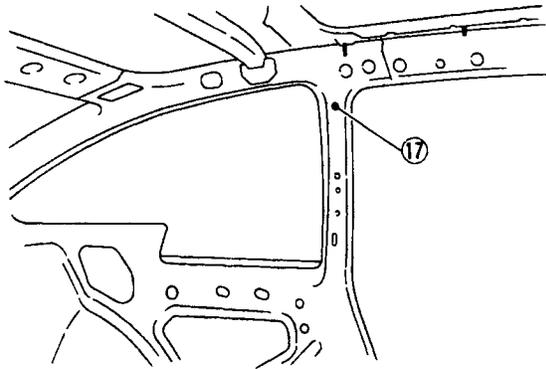


Fig. 67

C5-317

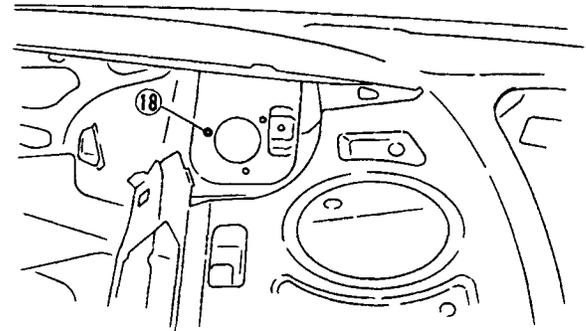


Fig. 68

C5-318

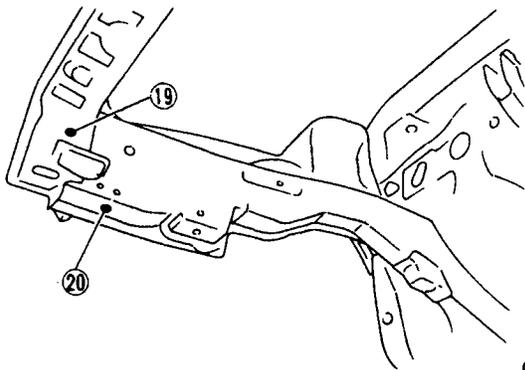


Fig. 69

C5-319

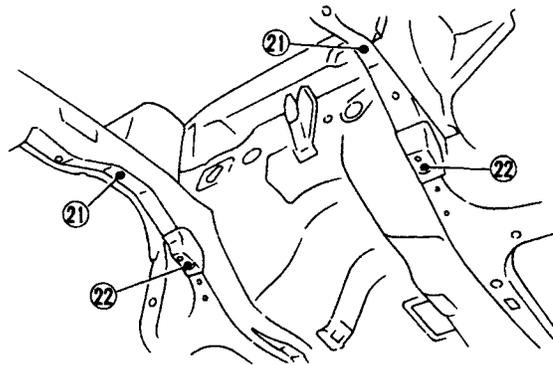


Fig. 70

C5-320

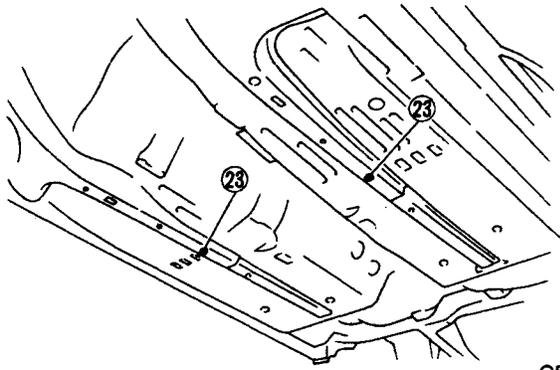


Fig. 71

C5-321

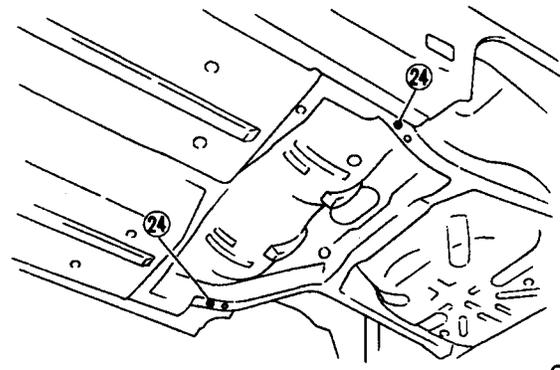


Fig. 72

C5-322

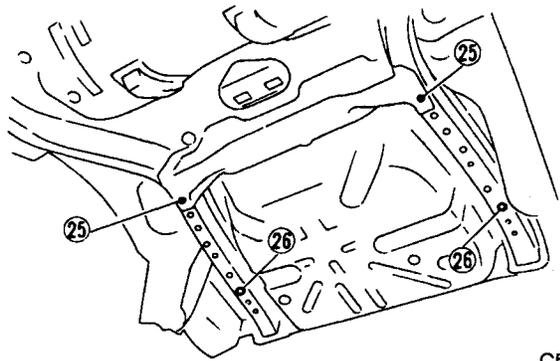


Fig. 73

C5-323

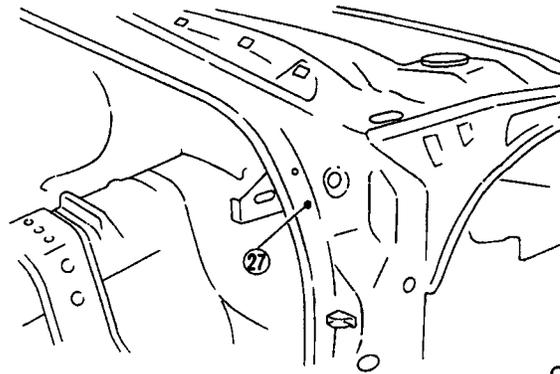


Fig. 74

C5-324

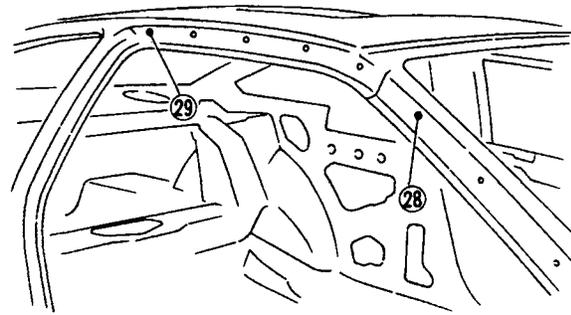


Fig. 75

C5-325

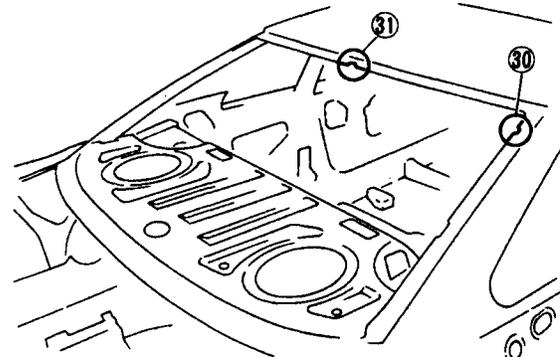


Fig. 76

C5-326

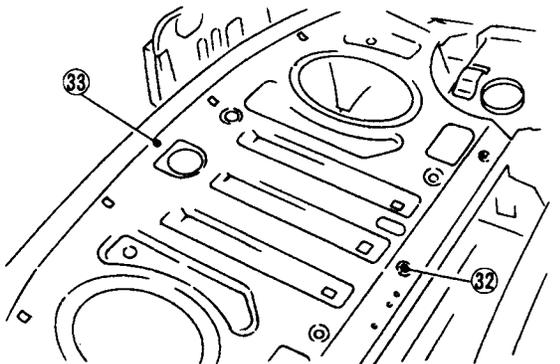


Fig. 77

C5-327

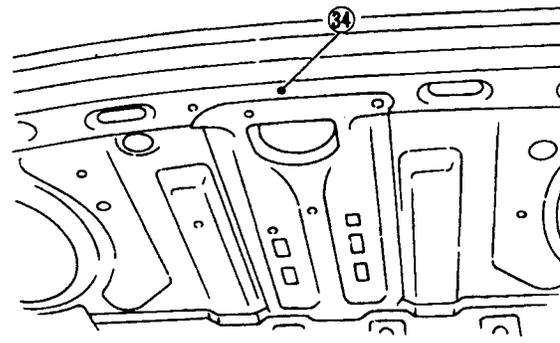


Fig. 78

C5-328

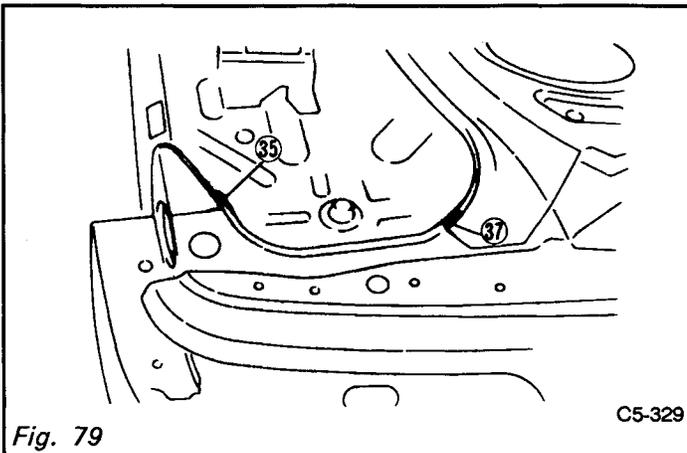


Fig. 79

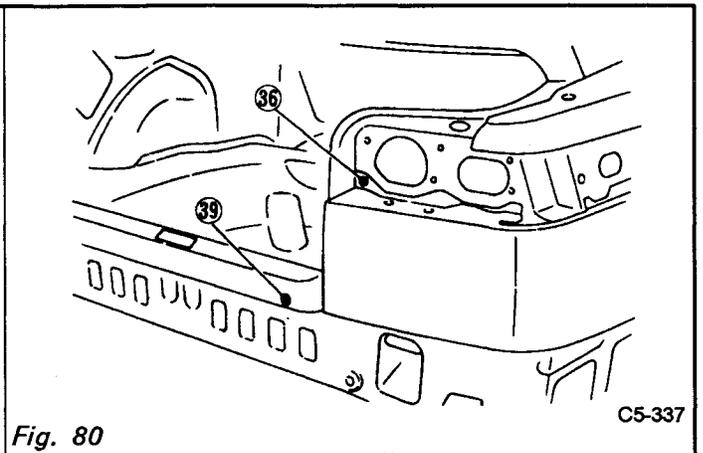


Fig. 80

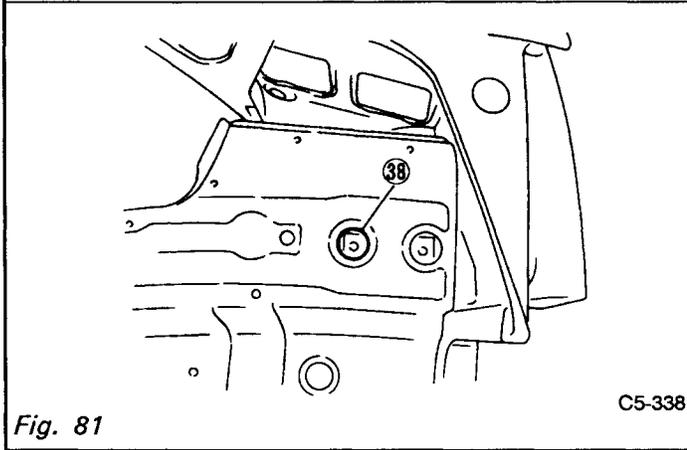


Fig. 81

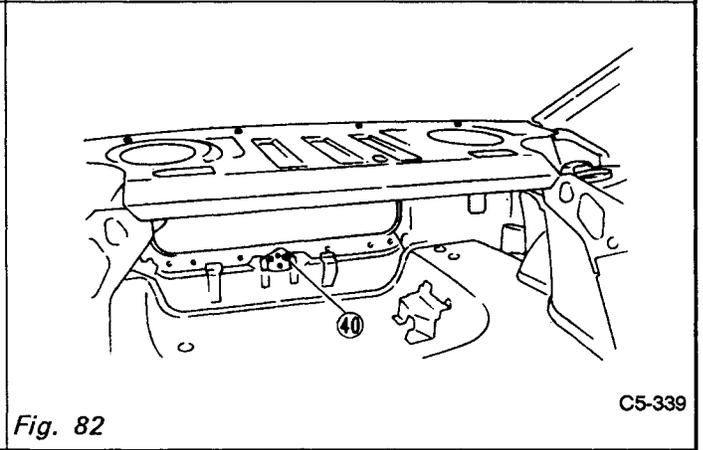


Fig. 82

2. Datum Dimensions

Use a tram tracking gauge to measure all dimensions. If a measuring tape is used, be extremely careful because it tends to deflect or twist, which results in a false reading.

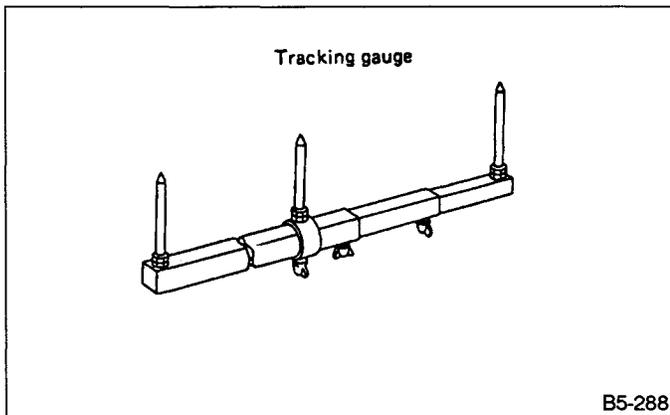
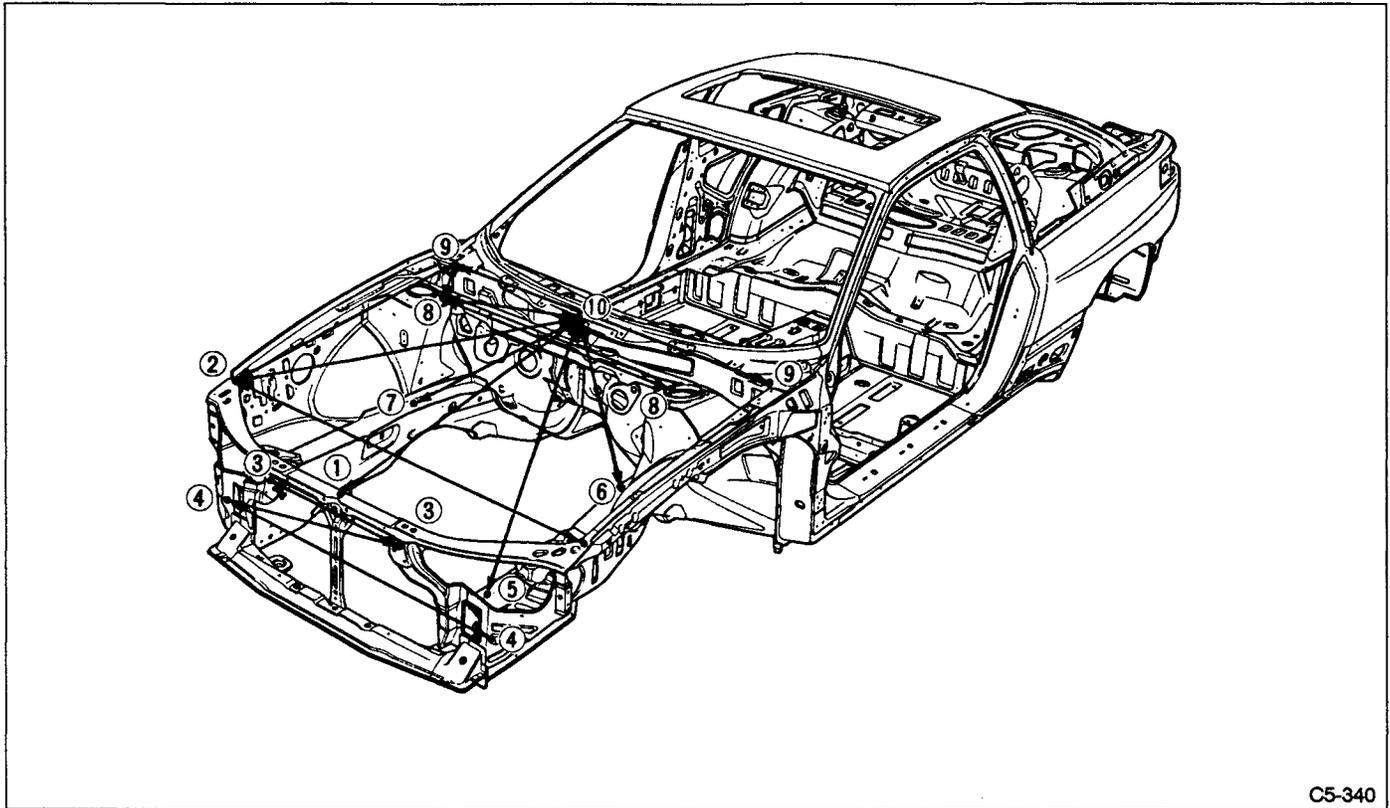


Fig. 83

1. FRONT STRUCTURE



C5-340

Fig. 84

Unit: mm (in)

③ _R — ③ _L : 510 (20.08)	⑩ — ⑥ : 790 (31.10)
④ _R — ④ _L : 1,066 (41.97)	⑩ — ⑦ : 696 (27.40)
③ _R — ④ _L : 352 (13.86)	⑩ — ⑧ _L : 490 (19.29)
③ _L — ④ _R :	⑩ — ⑧ _R :
② _R — ② _L : 1,354 (53.31)	⑧ _R — ⑨ _R : 295 (11.61)
⑧ _R — ⑧ _L : 946 (37.24)	⑧ _L — ⑨ _L :
⑨ _R — ⑨ _L : 1,338 (52.68)	② _R — ⑨ _R : 968 (38.11)
⑩ — ① : 1,048 (41.26)	② _L — ⑨ _L :
⑩ — ② _L : 1,109 (43.66)	
⑩ — ② _R :	
⑩ — ⑤ : 1,120 (44.09)	

A suffix character "R" or "L" refers to the right or the left.

All dimensions refer to the distance between the centers of holes measured in a straight line.

2. CENTER STRUCTURE

- a. Each dimension indicates a projected dimension between hole centers.
- b. All dimensions refer to the distance between the center of holes.

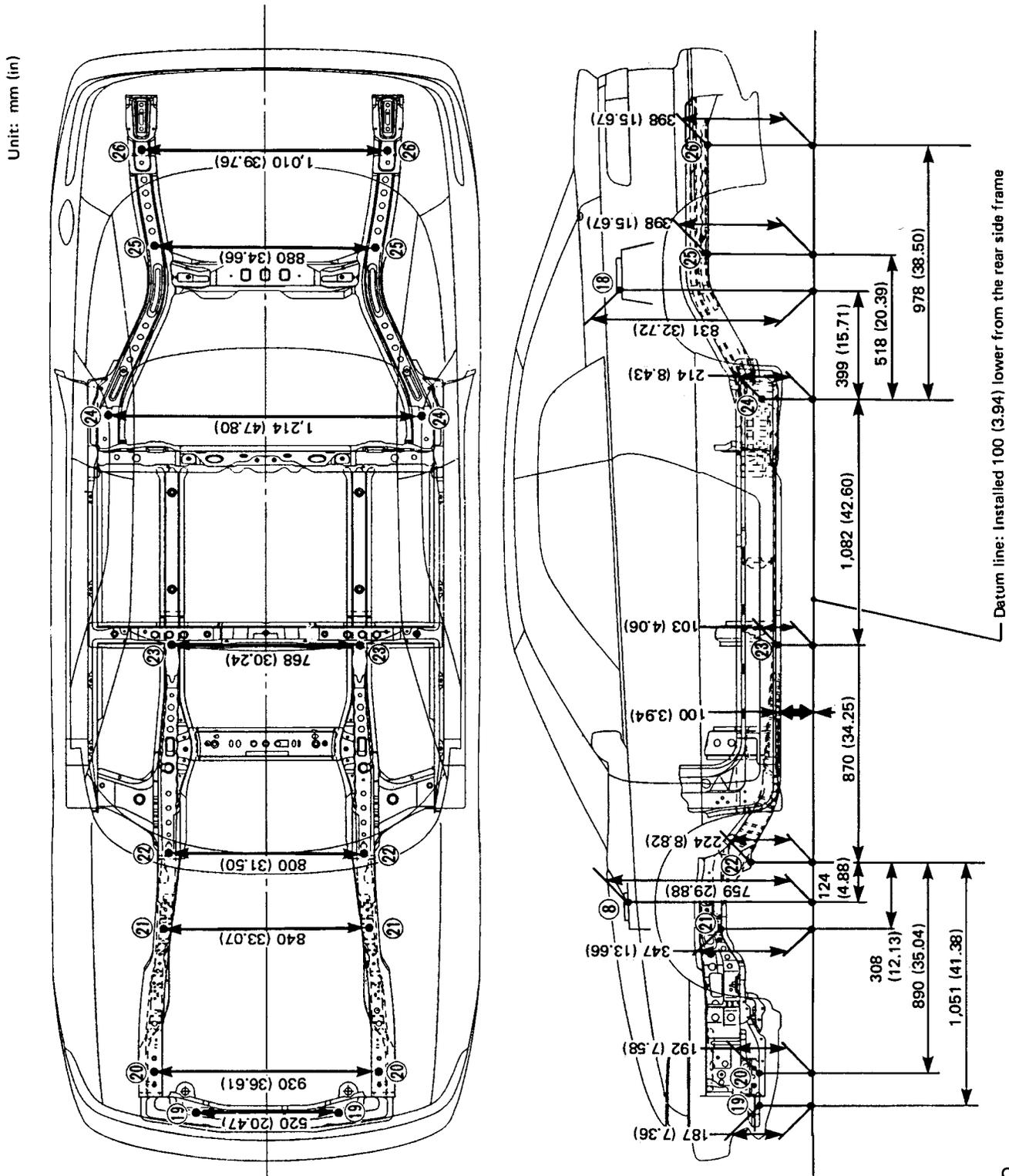


Fig. 85

C5-341

All dimensions refer to the distance between the centers of holes when measured in a straight line.

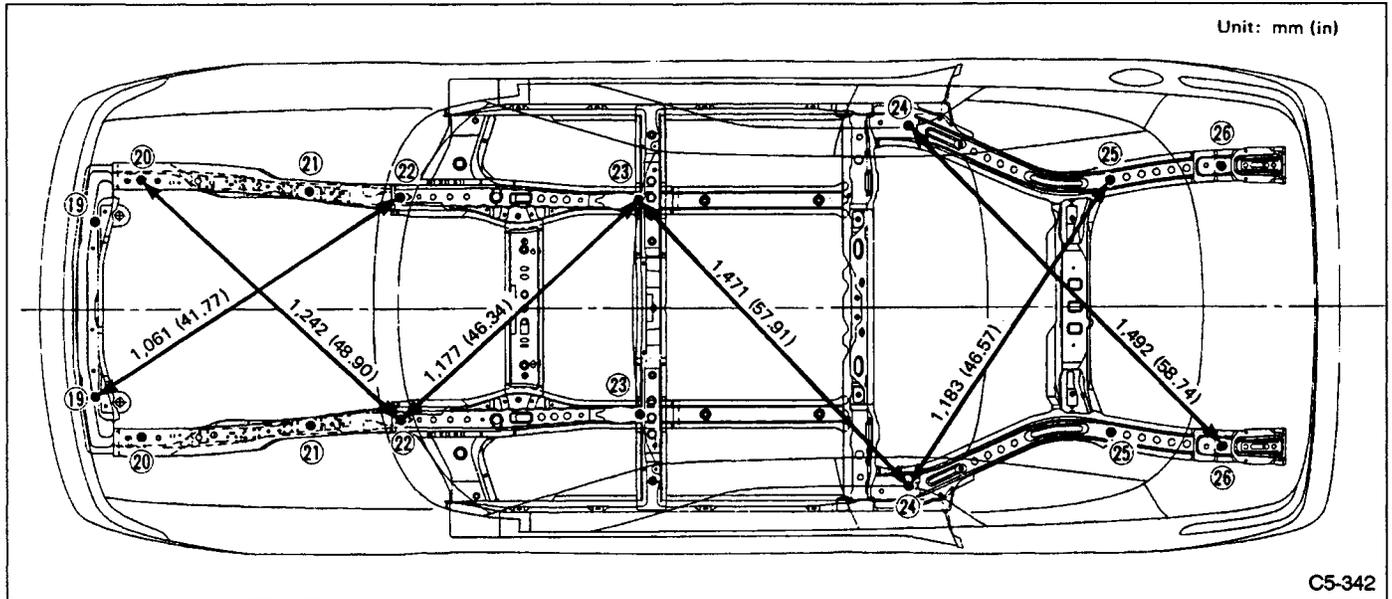


Fig. 86

3. DOORS

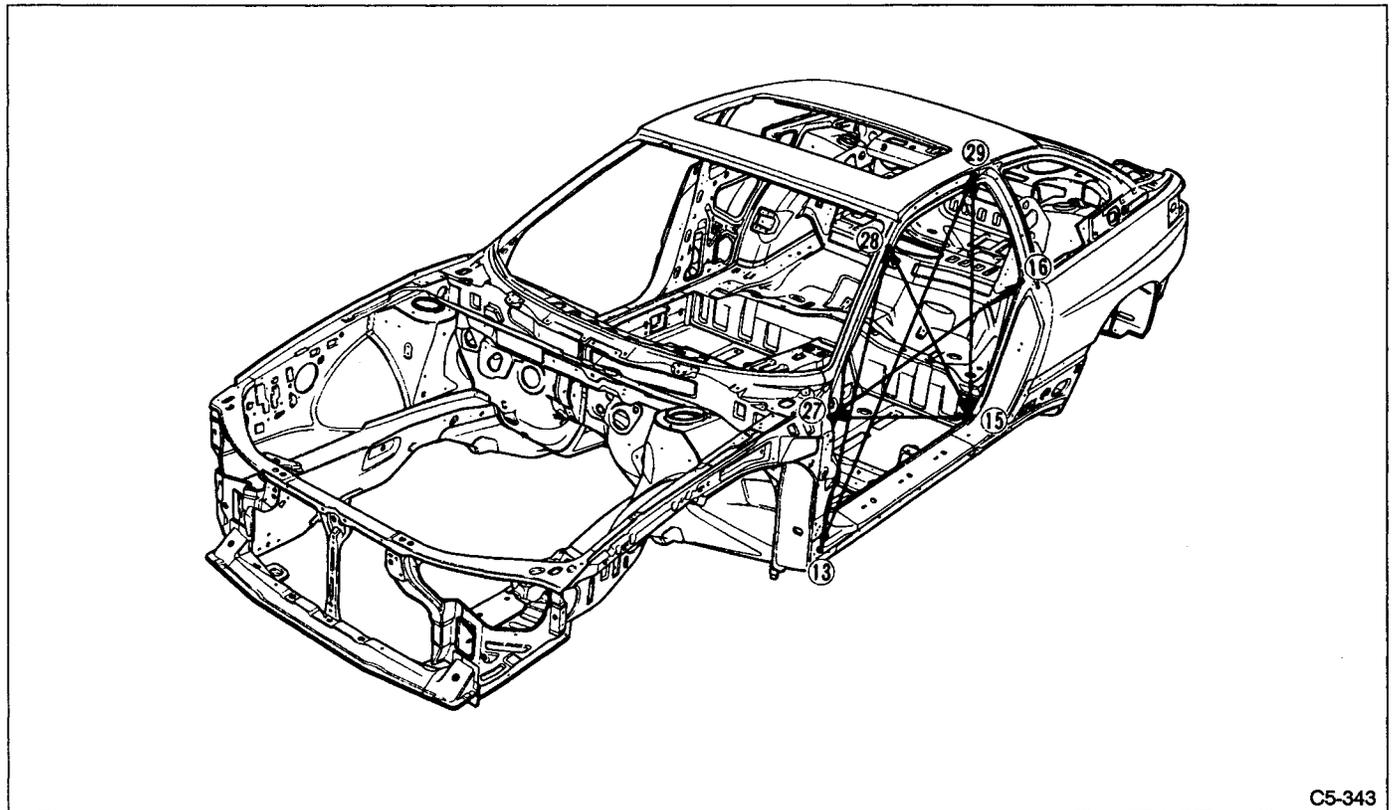


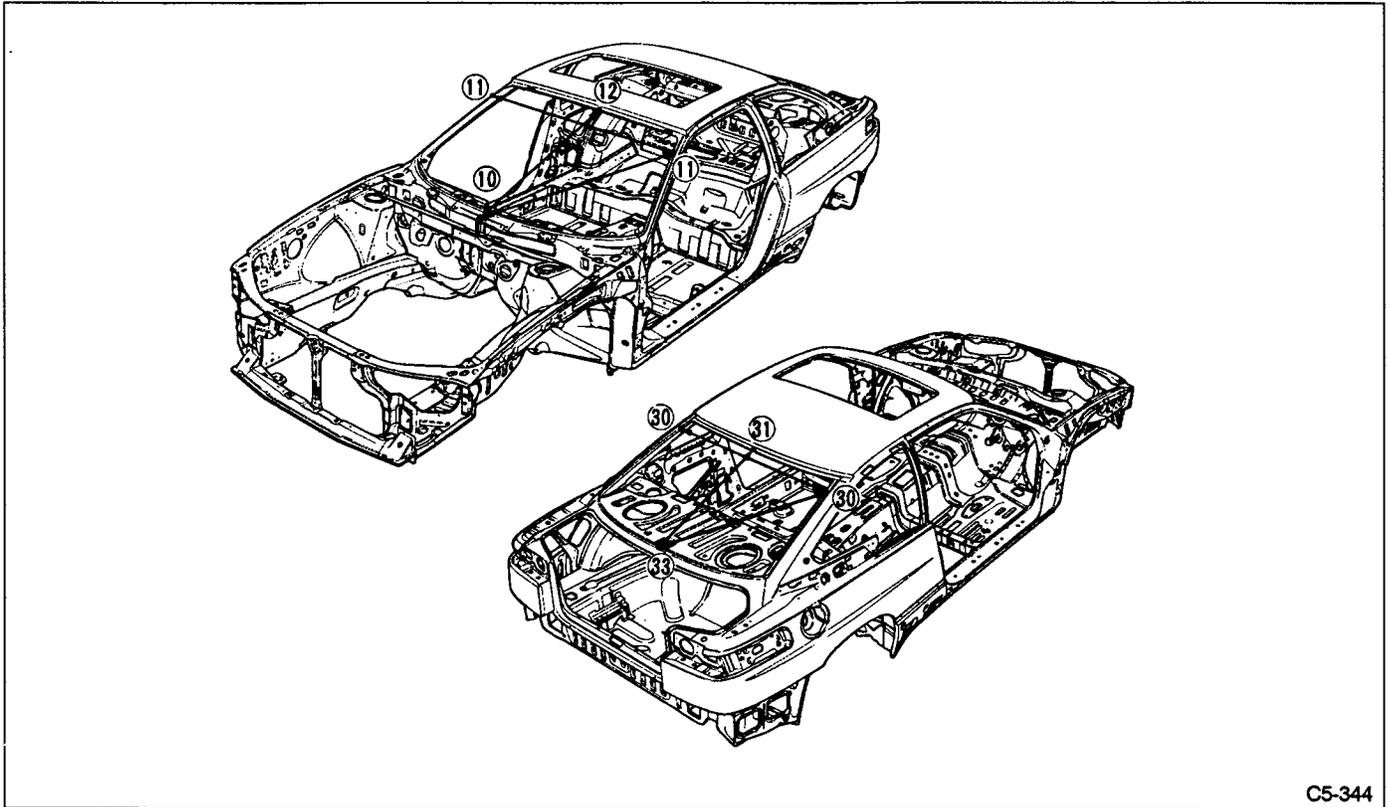
Fig. 87

Unit: mm (in)

⑰	—	⑱	:	1,228 (48.35)	⑮	—	⑳	:	981 (38.62)
⑰	—	⑮	:	1,079 (42.48)	⑮	—	㉑	:	913 (35.94)
⑬	—	⑳	:	996 (39.21)					
⑬	—	㉑	:	1,575 (62.01)					

All dimensions refer to the distance between the centers of holes when measured in a straight line.

4. FRONT WINDSHIELD AND REAR WINDOW



C5-344

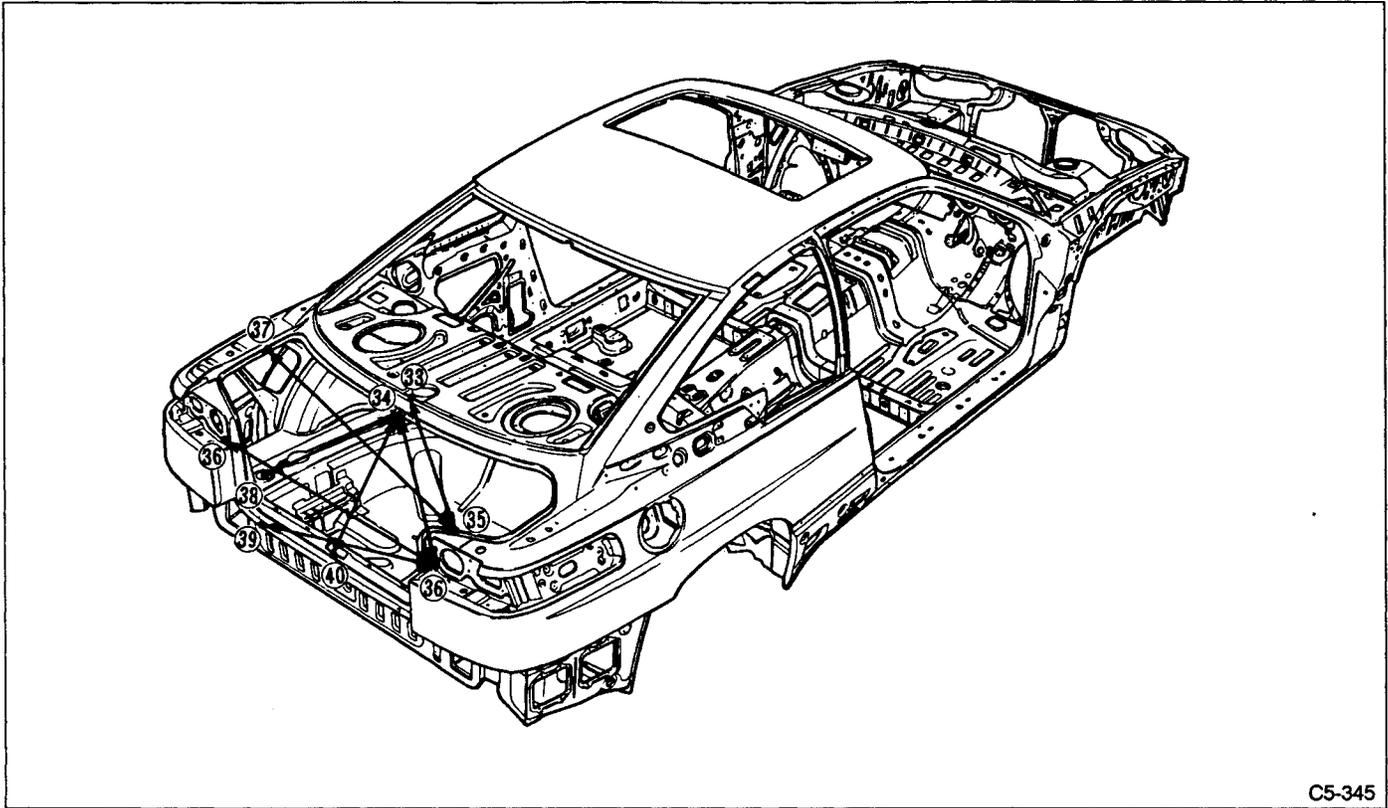
Fig. 88

Unit: mm (in)

Front Windshield		Rear Window	
⑩	— ⑫	⑪	— ⑬
	: 896 (35.28)		: 745 (29.33)
⑩	— ⑪ _L	⑬	— ⑭ _L
	: 1,004 (39.53)		: 866 (34.09)
⑩	— ⑪ _R	⑬	— ⑭ _R
⑪ _R	— ⑪ _L	⑭ _R	— ⑭ _L
	: 1,134 (44.65)		: 1,002 (39.45)

- a. All dimensions refer to the distance between the centers of holes when measured in a straight line.
- b. A suffix character "R" or "L" refers to the right or the left.

5. TRUNK LID



C5-345

Fig. 89

Unit: mm (in)

③③	—	③⑤ _R	:	606 (23.86)	③④	—	③⑥ _R	:	668 (26.30)
③③	—	③⑤ _L	:		③④	—	③⑥ _L	:	
③⑤ _R	—	③⑦ _L	:	1,172 (46.14)	③④	—	③⑥ _R	:	572 (22.52)
③⑤ _L	—	③⑦ _R	:		③④	—	③⑥ _L	:	
③⑥ _R	—	③⑥ _L	:	900 (35.43)	③④	—	③⑩	:	494 (19.45)
③⑥ _R	—	③⑧ _L	:	786 (30.94)					
③⑥ _L	—	③⑧ _R	:						

All dimensions refer to the distance between the centers of holes when measured in a straight line.

6. COMPARTMENT

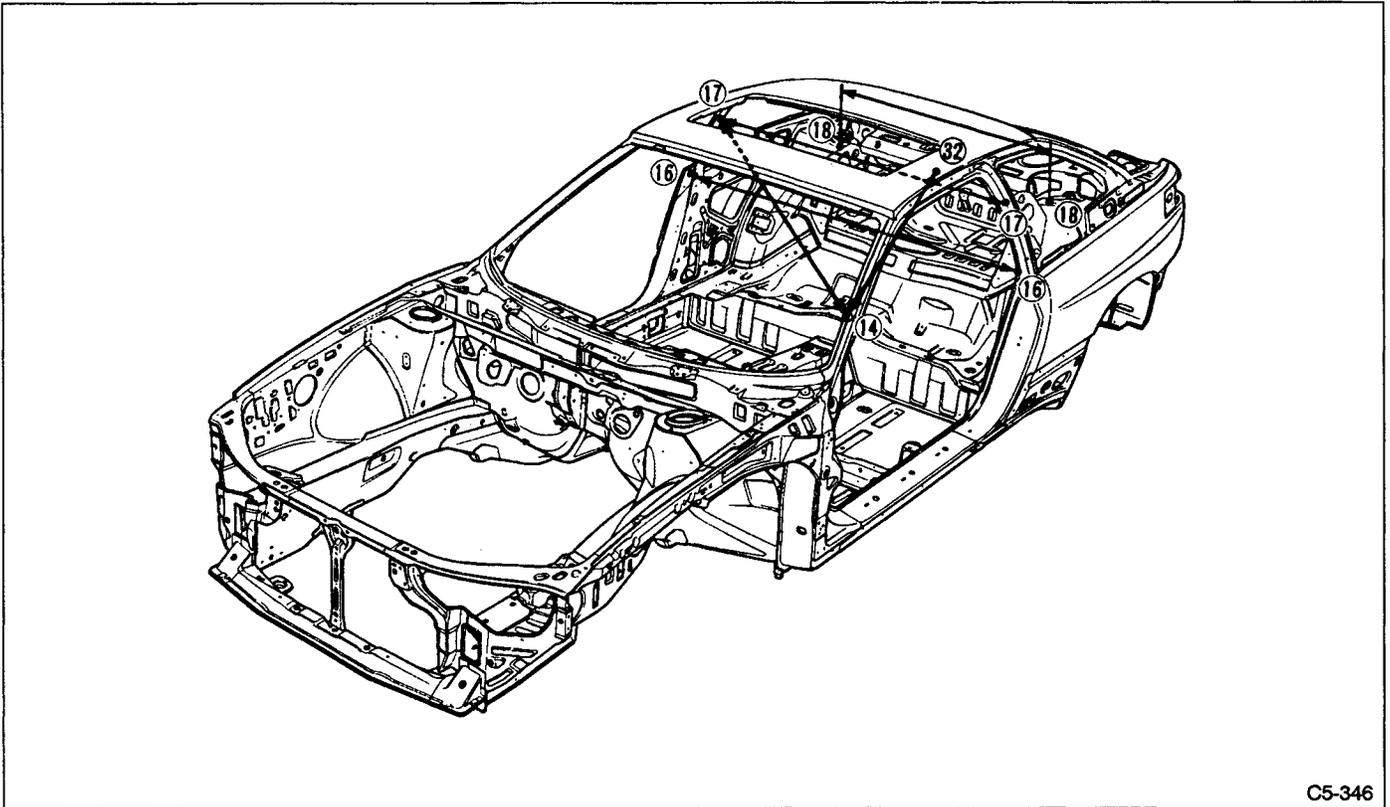


Fig. 90

Unit: mm (in)

①⑥ _R — ①⑥ _L : 1,464 (57.64)	①④ — ①⑦ _R : 945 (37.20)
①⑦ _R — ①⑦ _L : 1,138 (44.80)	①④ — ①⑦ _L : 945 (37.20)
①⑧ _R — ①⑧ _L : 1,056 (41.57)	①④ — ② : 856 (33.70)

- a. All distance refer to the distance between the centers of holes when measured in a straight line.
- b. A suffix character "R" or "L" refers to the right or the left.

3. Datum Points and Dimensions Concerning On-Board Aiming Adjustment

If headlamp aiming is misaligned due to damaged body panel, repair headlamp mating surface using body and headlamp datum points as a guide.

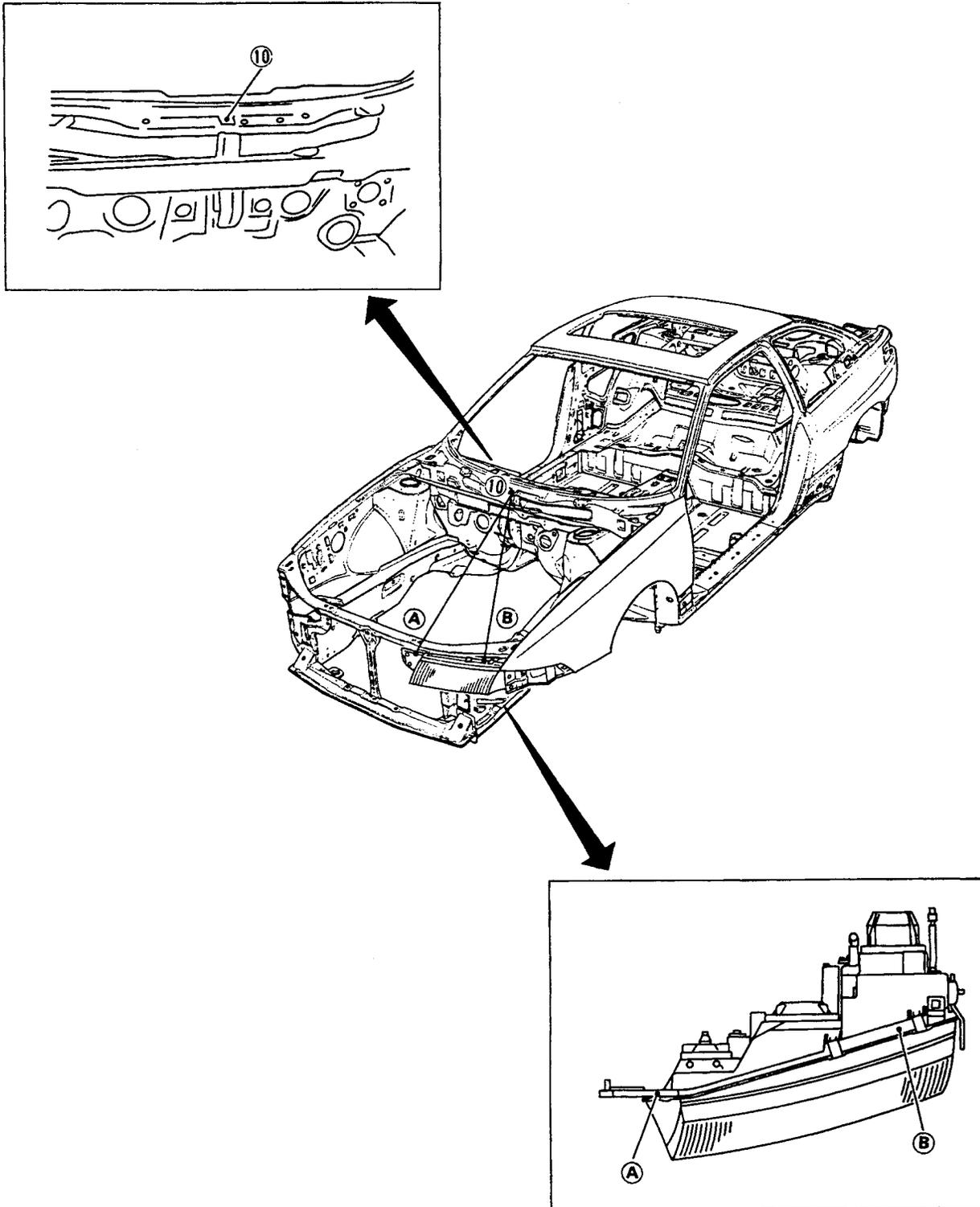


Fig. 91

- a. A suffix character "R" or "L" refers to the right or the left.
- b. All dimensions refer to the distance between the centers of holes measured in a straight line.

C5-550

4. Rear Quarter Brace Welding

When joining outer rear quarter panel and rear skirt extension by using brace-weld method, make sure both

parts are new. If either of the parts is old, they cannot be properly jointed by brace welding method. In this case, use spot or plug-weld method.

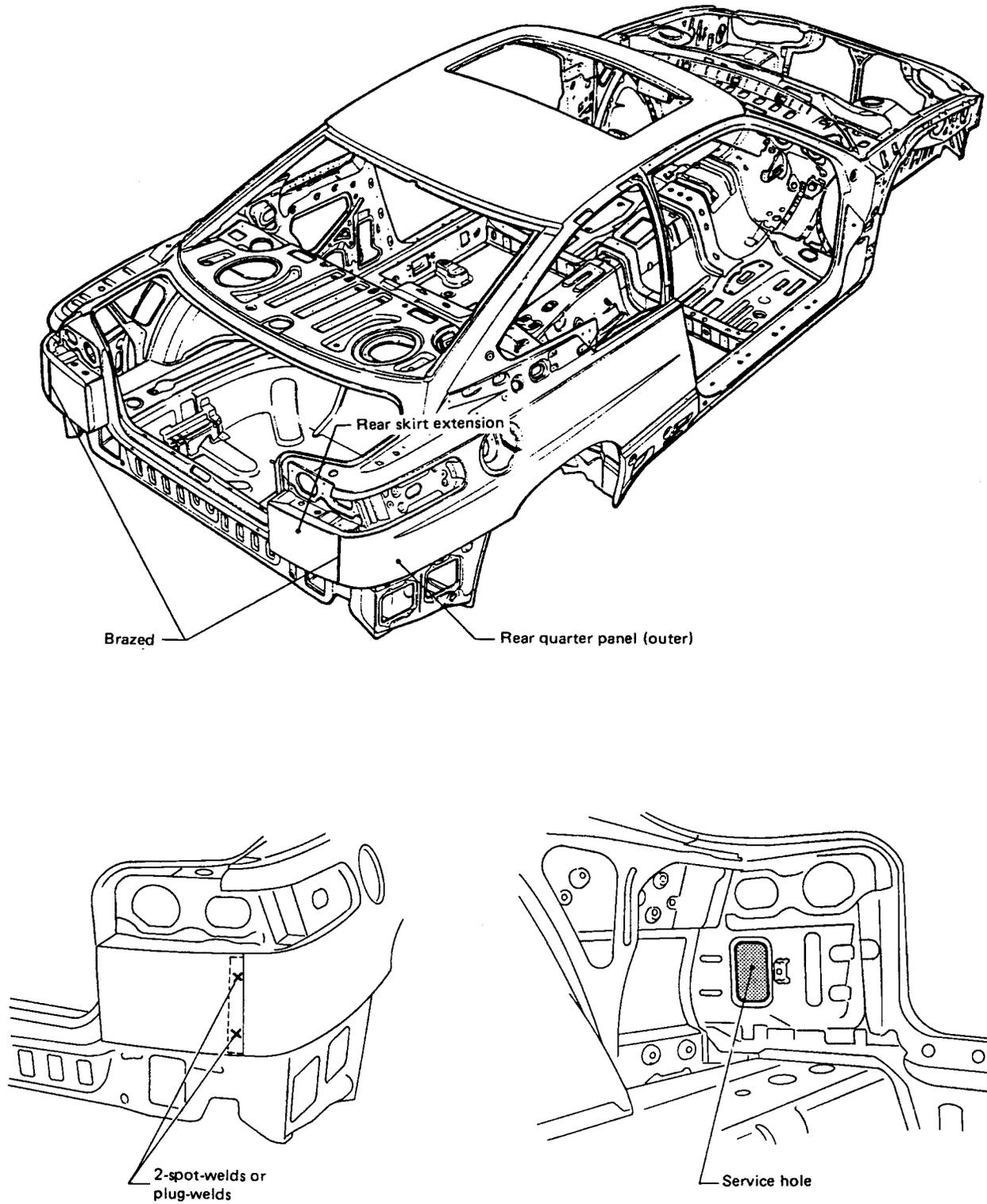


Fig. 92

C5-553

C COMPONENT PARTS

1. Body Construction

- 1 Front rail COMPL.
- 2 Roof panel
- 3 Roof panel (sunroof)
- 4 Rear rail COMPL.
- 5 Front roof brace
- 6 Rear roof brace
- 7 Brace (sunroof)
- 8 Frame (sunroof)
- 9 Center brace
- 10 Carrier bracket
- 11 Frame (radiator panel LWR)
- 12 Hood lock stay
- 13 Radiator side panel
- 14 Frame (UPR)
- 15 Front wheel apron
- 16 Rear side frame (UPR)
- 17 Front side frame (UPR)
- 18 Front suspension bracket
- 19 Front side frame (Front)
- 20 Front side frame (Rear)
- 21 Toe board
- 22 Front panel
- 23 Front bulkhead
- 24 Steering support beam
- 25 Bracket (Rear crossmember)
- 26 Front floor frame
- 27 Front side sill (INNER)
- 28 Front floor
- 29 Front floor reinforcement
- 30 Reinforcement (parking brake)
- 31 Crossmember (front floor)
- 32 Front seat bracket (side)
- 33 Crossmember B
- 34 Rear side sill (INNER)
- 35 Rear side frame
- 36 Rear floor pan (Front)
- 37 Rear floor pan (Rear)
- 38 Rear floor side
- 39 Center rear skirt
- 40 Rear skirt frame
- 41 Rear panel
- 42 Front pillar (inner, LWR)
- 43 Front pillar (inner, UPR)
- 44 Side rail (inner)
- 45 Side sill reinforcement
- 46 Rear quarter panel (inner)
- 47 Rear arch (inner)
- 48 Hinge bracket
- 49 Rear suspension bracket
- 50 Front pillar reinforcement (LWR)
- 51 Front pillar (outer)
- 52 Side rail (outer)
- 53 Rear quarter panel (outer)
- 54 Side sill (outer)
- 55 Rear quarter end
- 56 Rear quarter extension

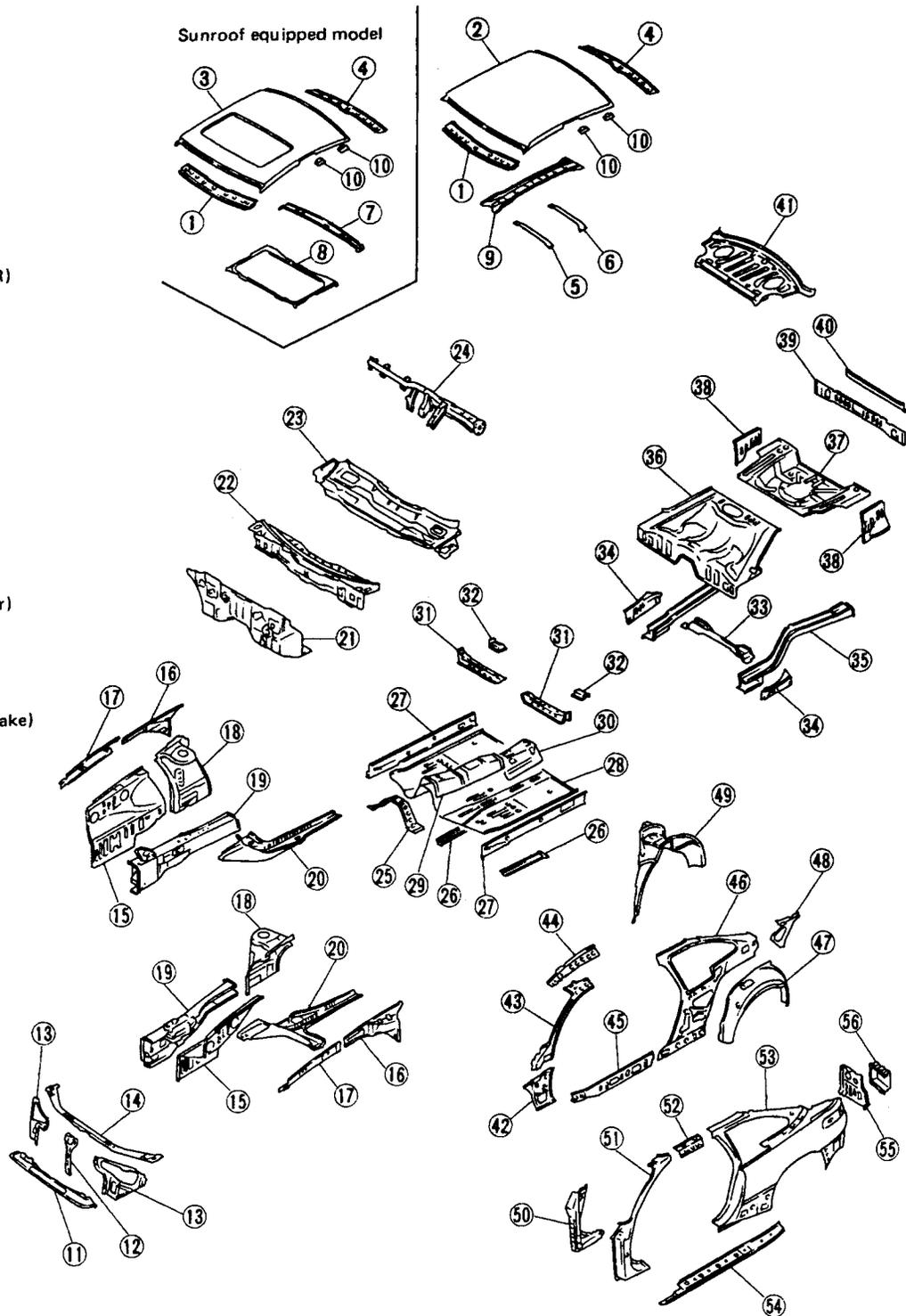


Fig. 93

2. Front Hood and Hood Lock

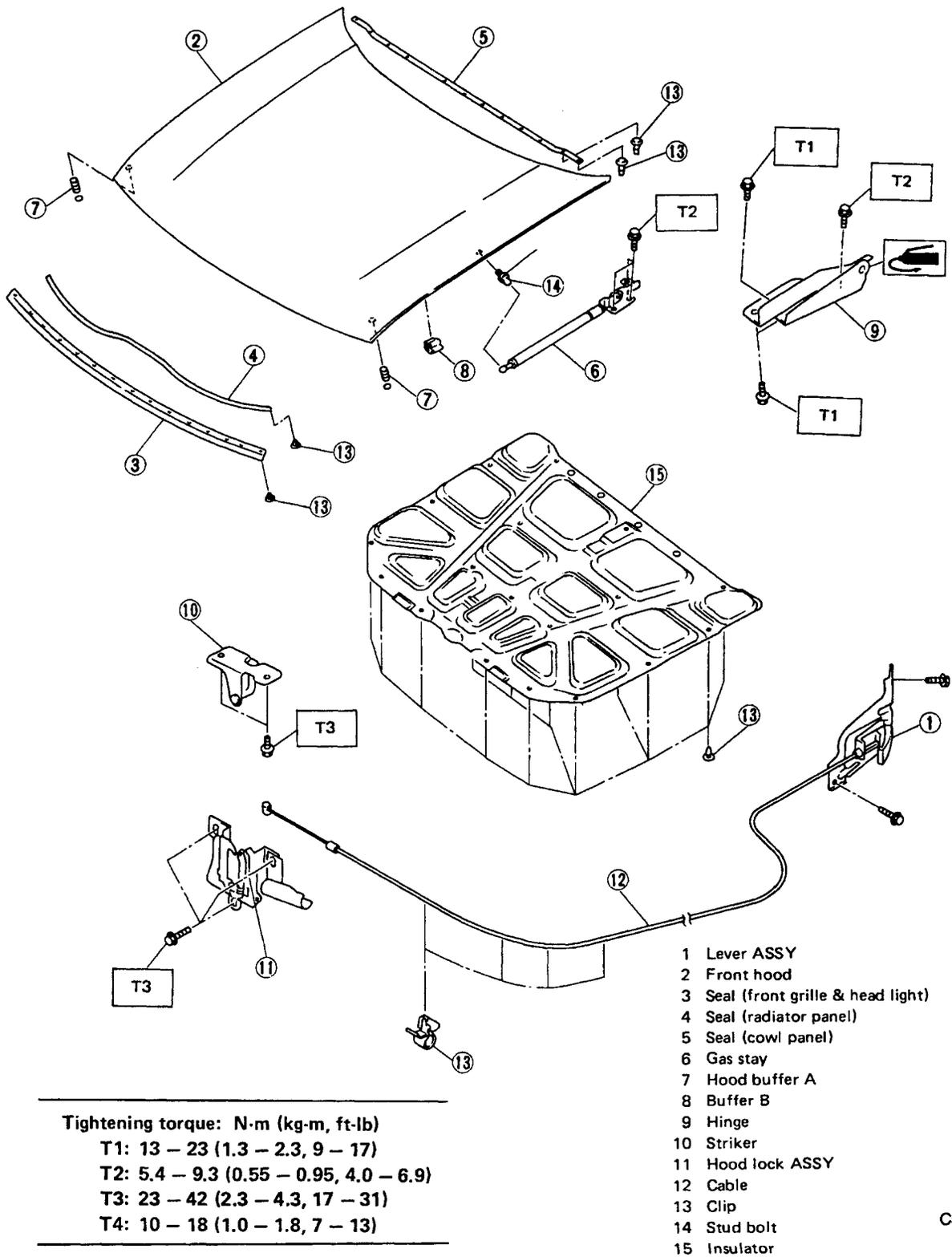


Fig. 94

C5-128

3. Trunk Lid, Trunk Lid Opener, Fuel Flap and Fuel Flap Opener

- 1 Fuel flap
- 2 Hinge
- 3 Hinge stopper
- 4 Spring
- 5 Striker
- 6 Saucer
- 7 Drain pipe
- 8 Rear drain grommet
- 9 Fuel look holder
- 10 Cover
- 11 Pull handle ASSY
- 12 Knob (trunk lid)
- 13 Knob (fuel flap)
- 14 Cable ASSY
- 15 Trunk lid
- 16 Trunk lid lock ASSY
- 17 Cover A
- 18 Striker
- 19 Hinge
- 20 Gas stay
- 21 Key cylinder
- 22 Buffer
- 23 Weatherstrip
- 24 Clip
- 25 Clip
- 26 Screw grommet

Tightening torque: N·m (kg·m, ft·lb)
 T1: 5.4 – 9.3 (0.55 – 0.95, 4.0 – 6.9)
 T2: 13 – 23 (1.3 – 2.3, 9 – 17)

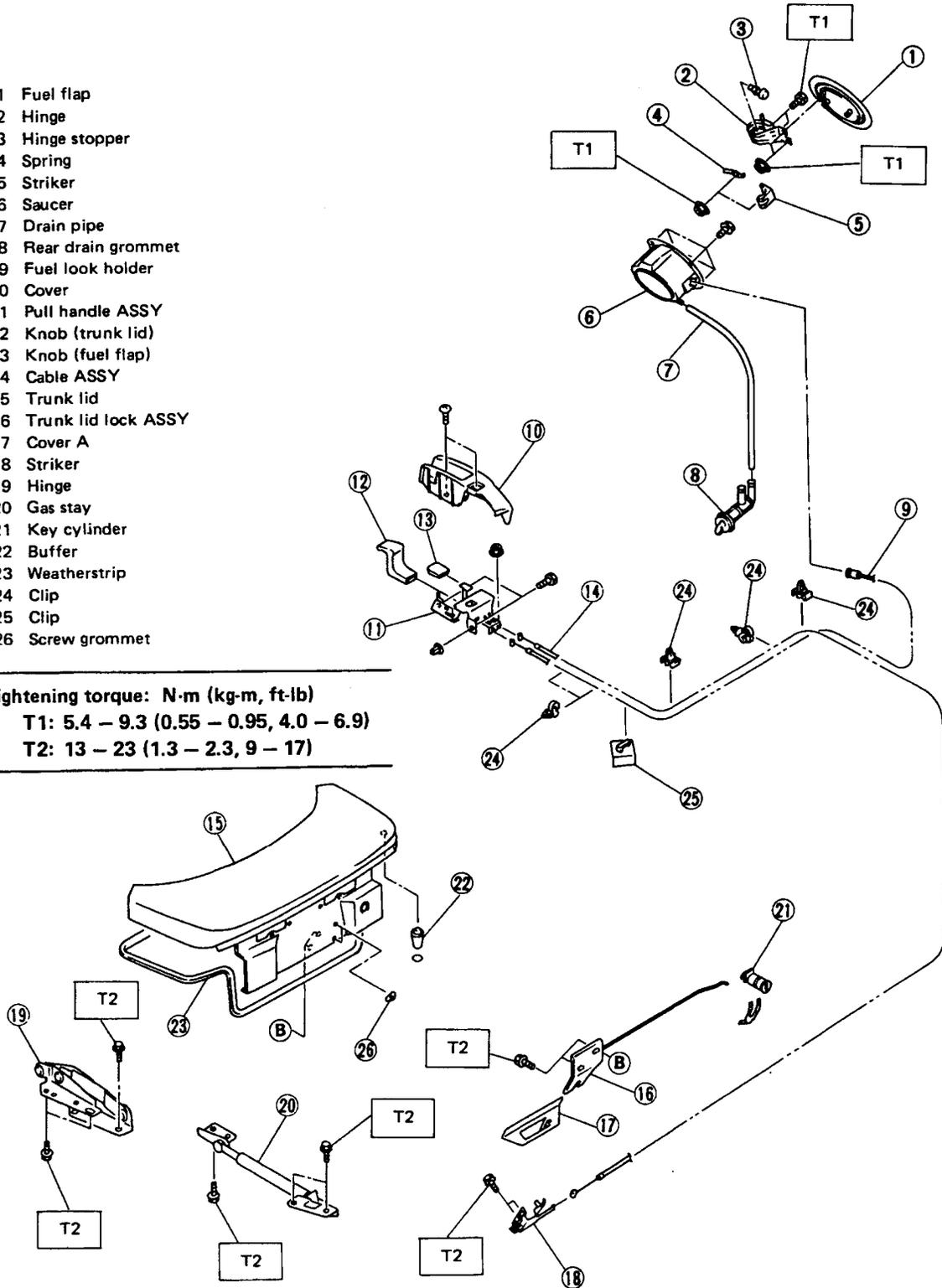
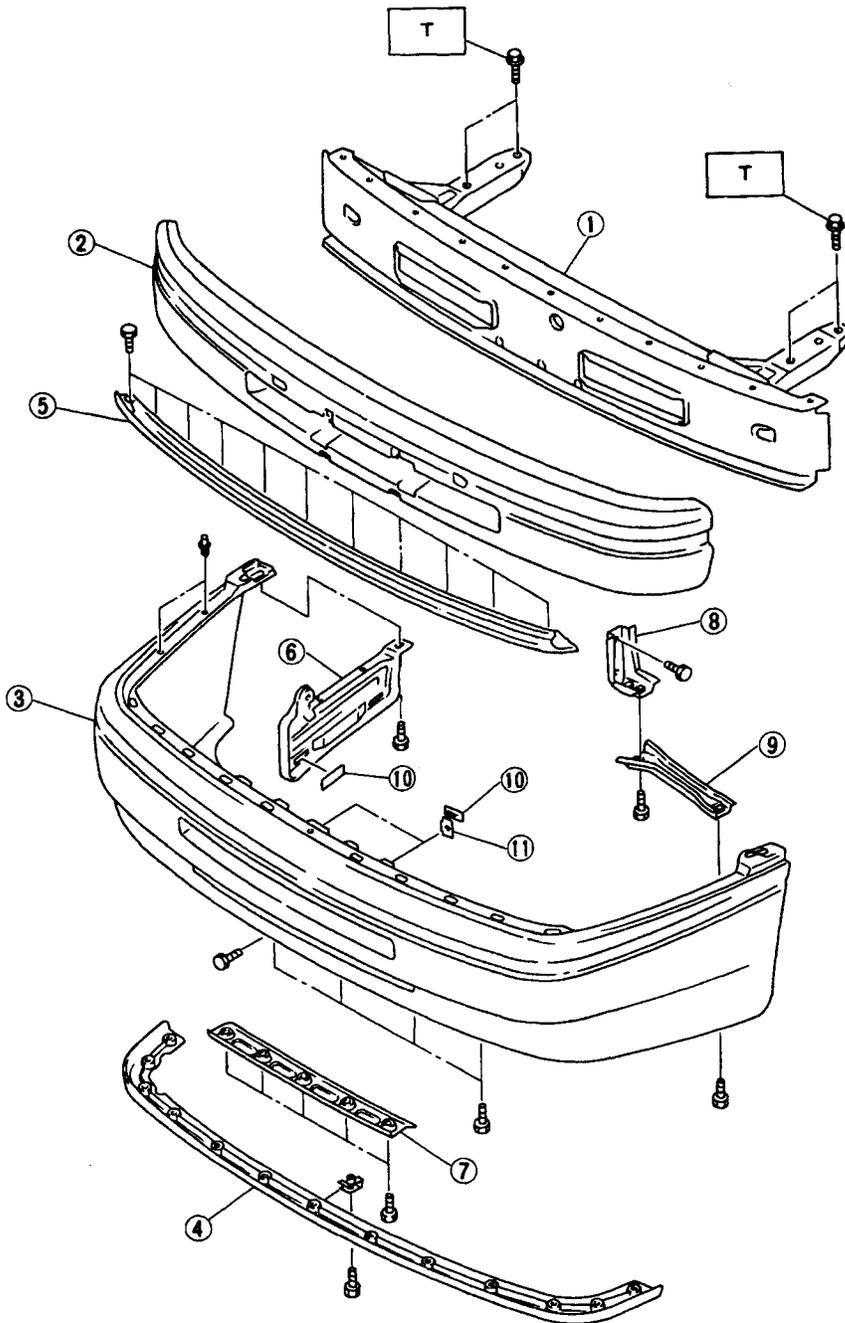


Fig. 95

C5-129

4. Front Bumper



- 1 Front beam
- 2 Energy absorbing foam
- 3 Bumper face
- 4 Front skirt (LWR)
- 5 Holder (UPR)
- 6 Side bracket
- 7 Holder (LWR)
- 8 Side stay bracket
- 9 Side stay
- 10 Clip
- 11 Net plate

Tightening torque: N-m (kg-m, ft-lb)
 T: 69 – 118 (7.0 – 12.0, 51 – 87)

Fig. 96

C5-130

C COMPONENT PARTS

5. Rear Bumper

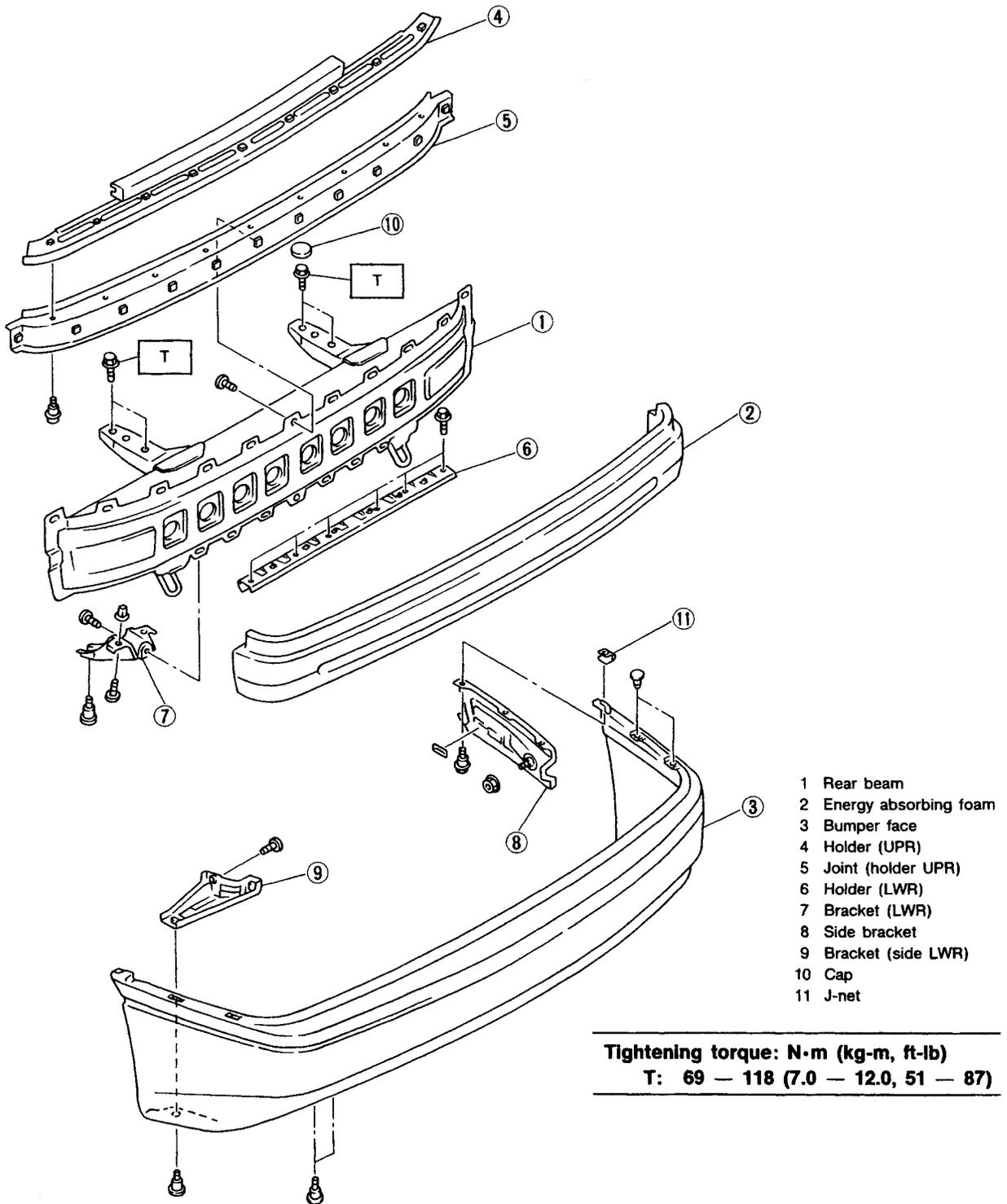


Fig. 3

6. Body Parts

- 1 Front mud guard
- 2 Front arch protector
- 3 Rear mud guard
- 4 Rear arch protector
- 5 Under cover
- 6 Front fender
- 7 Stay

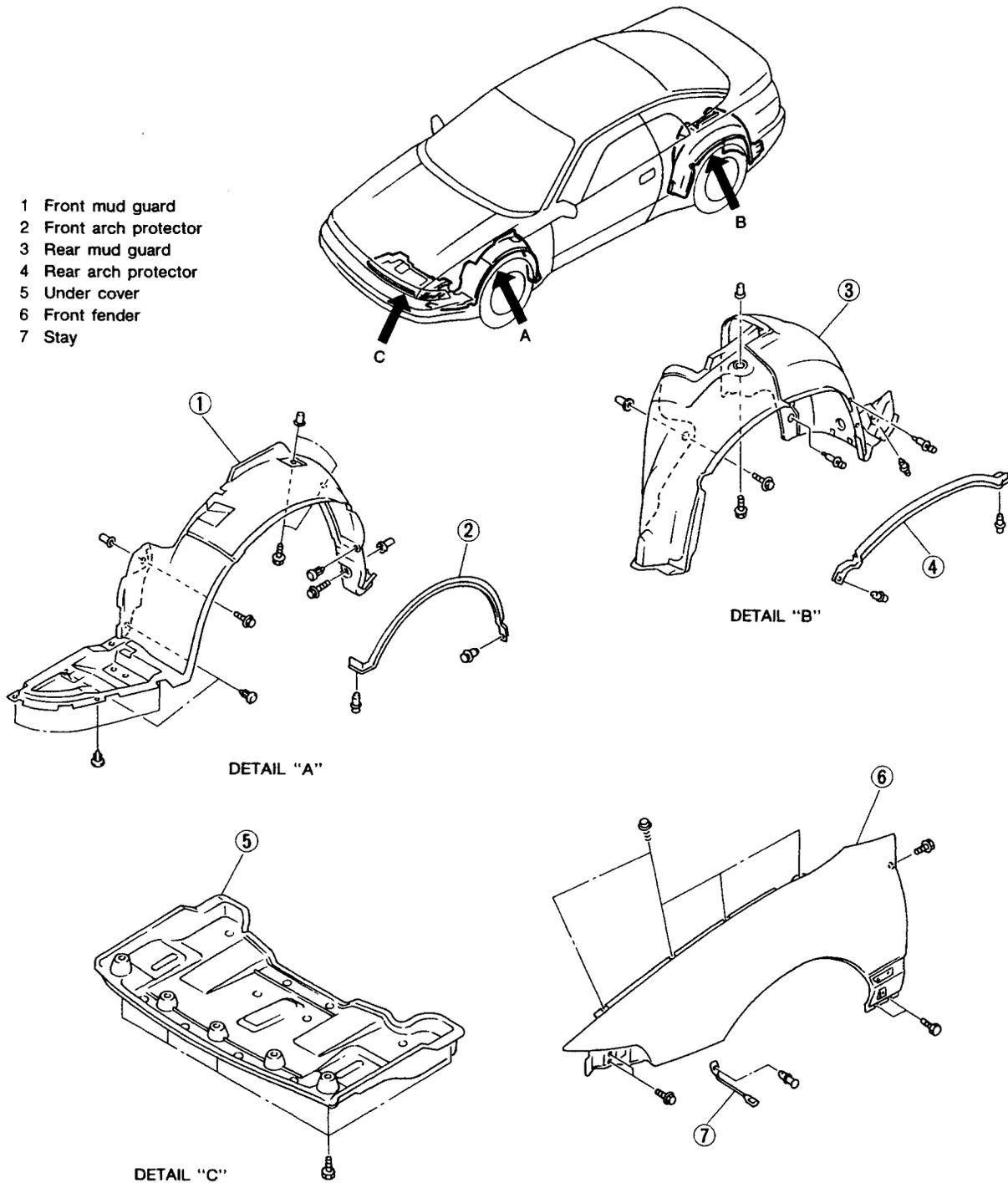
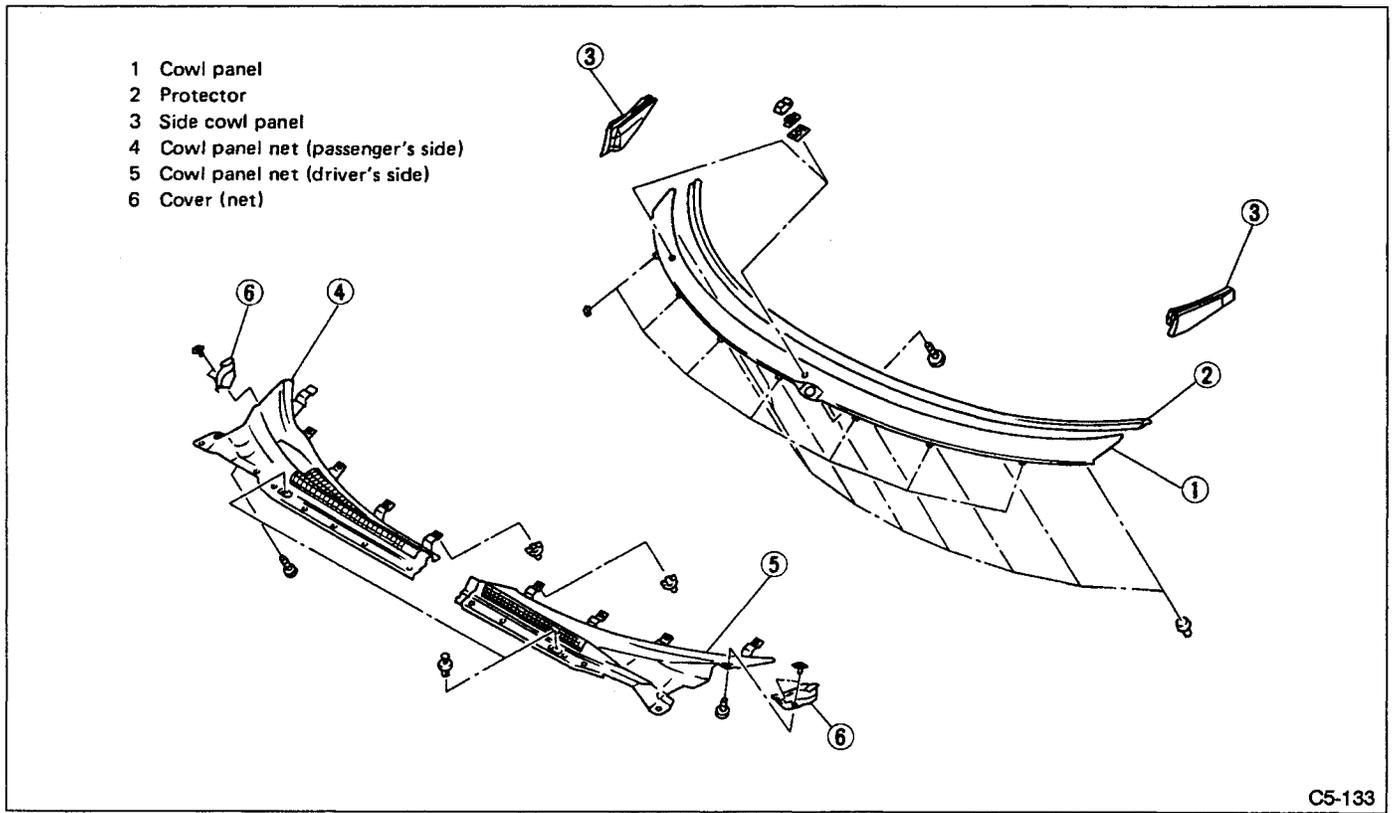


Fig. 4



C5-133

Fig. 99

7. Outer Accessories

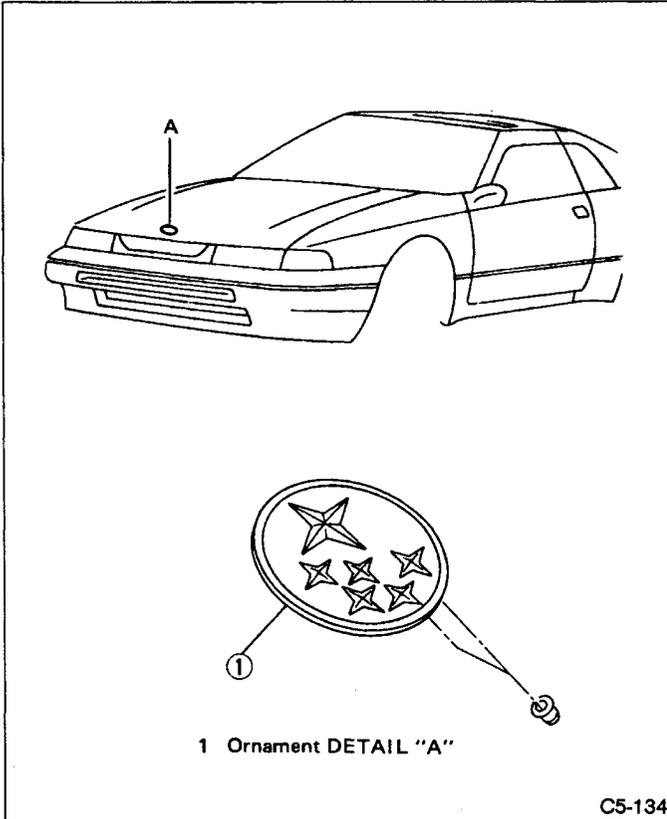


Fig. 100

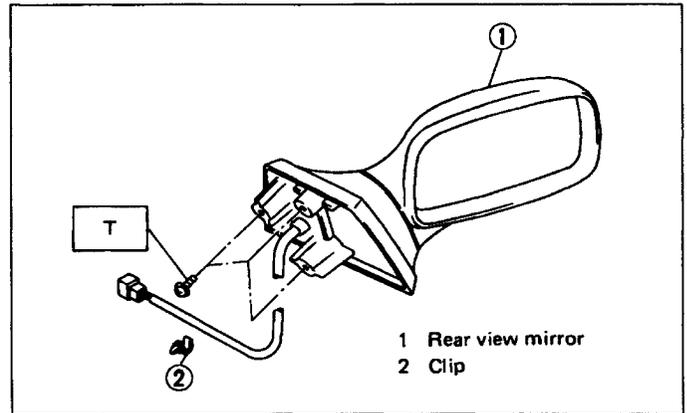
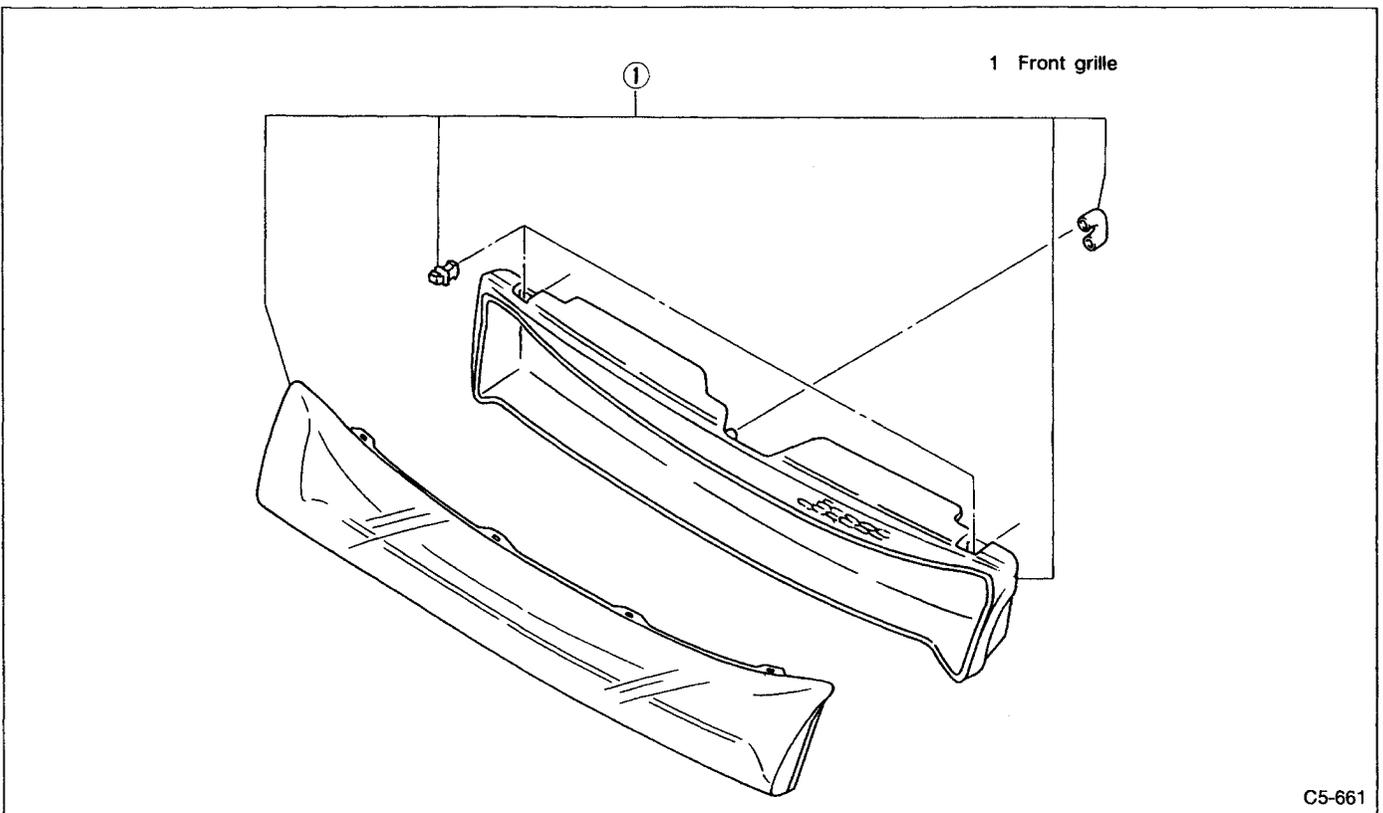


Fig. 101



C5-661

Fig. 5

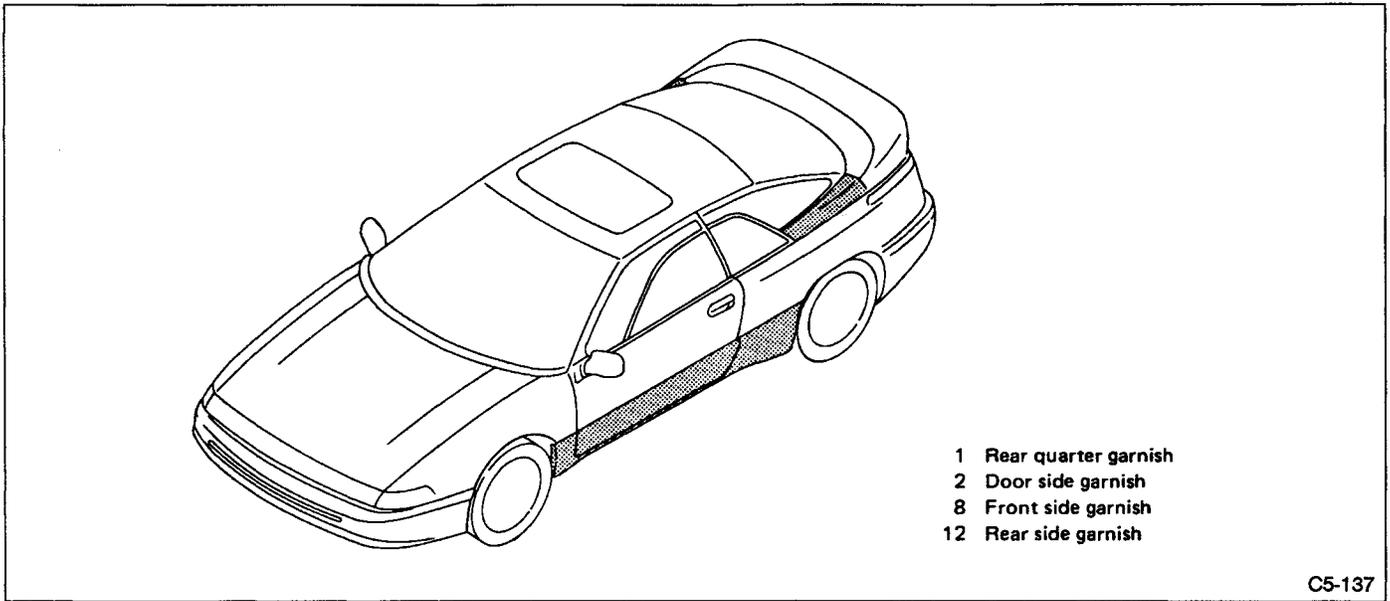
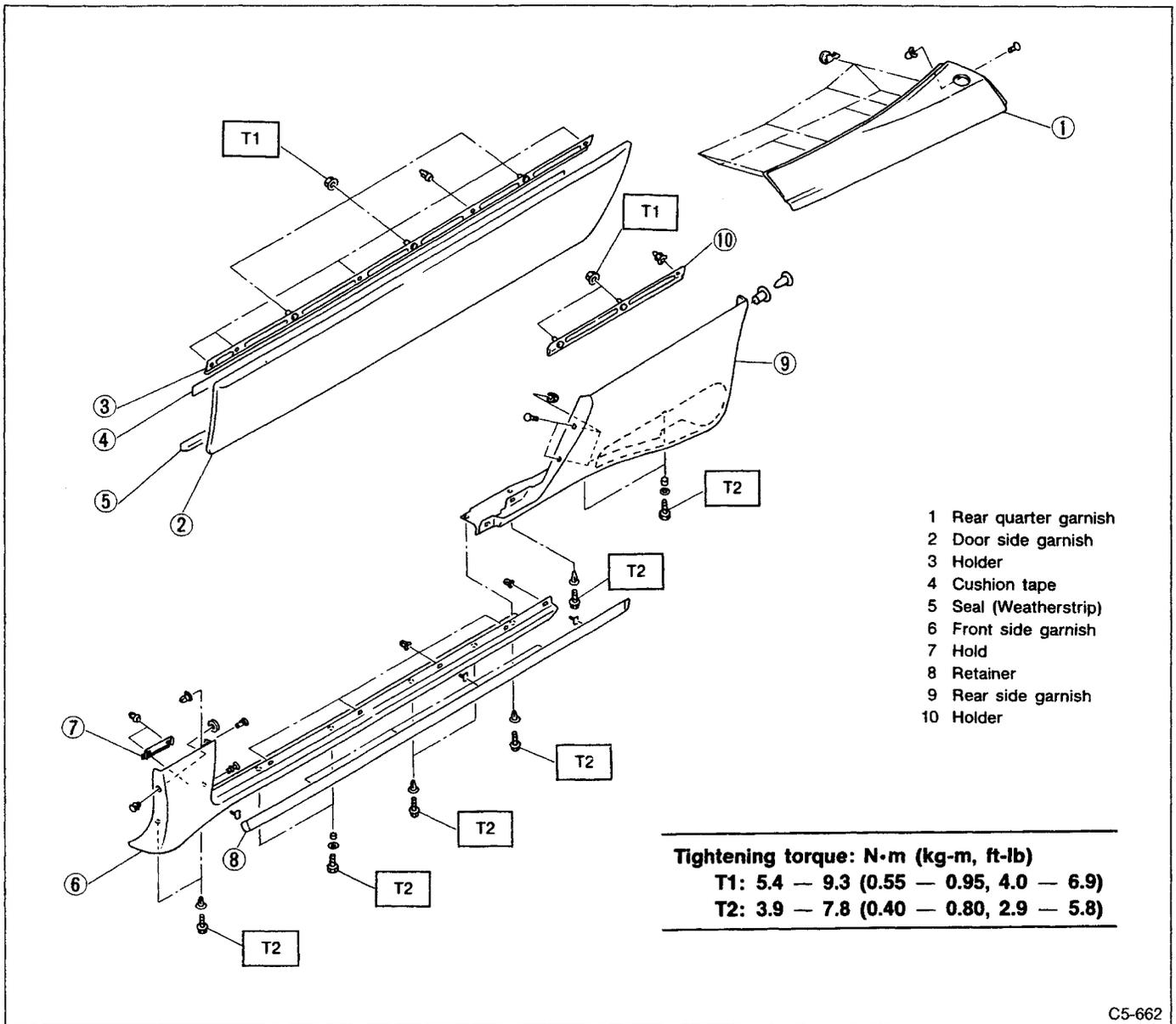


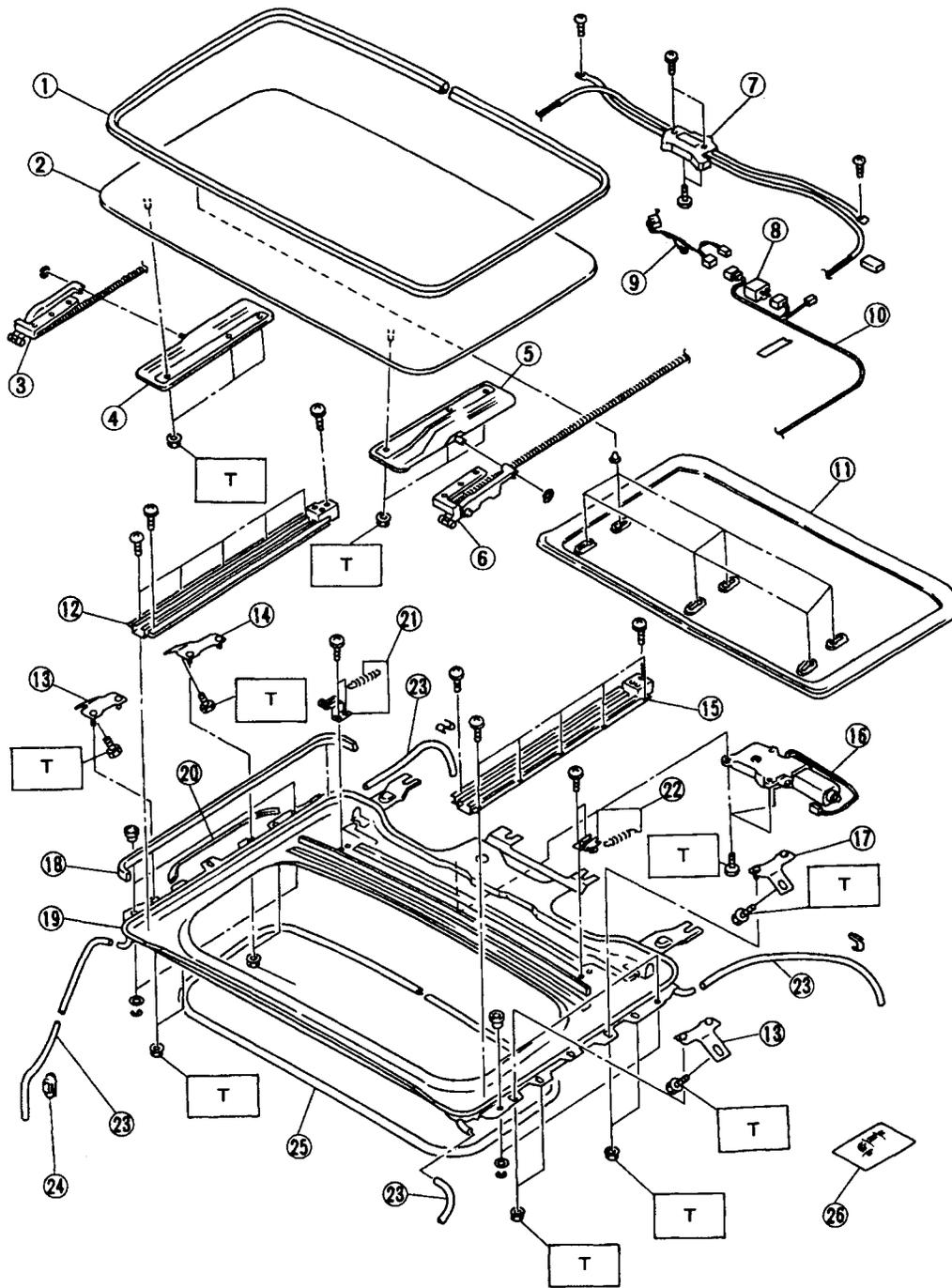
Fig. 103



C5-662

Fig. 6

8. Sunroof



- 1 Weatherstrip
- 2 Sunroof panel
- 3 Rear guide ASSY
- 4 Lower panel
- 5 Lower panel
- 6 Rear guide ASSY
- 7 Drive unit
- 8 Relay
- 9 Harness
- 10 Harness
- 11 Sunroof trim
- 12 Guide rail
- 13 Set bracket
- 14 Set bracket (RH)
- 15 Guide rail
- 16 Motor ASSY
- 17 Set bracket (LH)
- 18 Sealed tape
- 19 Frame ASSY
- 20 Sealed cushion
- 21 Shutting ASSY (RH)
- 22 Shutting ASSY (LH)
- 23 Drain tube
- 24 Grommet
- 25 Garnish
- 26 Handle

Tightening torque: N-m (kg-m, ft-lb)
 T: 5.4 – 9.3 (0.55 – 0.95, 4.0 – 6.9)

Fig. 105

W SERVICE PROCEDURE

1. Hood

The hood lock has a dual locking design which consists of a main lock and a safety lock mechanism. When the release knob located at the front pillar on the driver's side is pulled back, the main lock is released through the cable attached to the knob.

The safety lock can be released by pushing the lever protruding above the front grill while opening the hood.

A: REMOVAL

1. HOOD PANEL

- 1) Open front hood, and remove washer hose.
- 2) Remove studs which hold gas stays to hood.

Be careful because hood drops under its own weight when gas stays are removed.

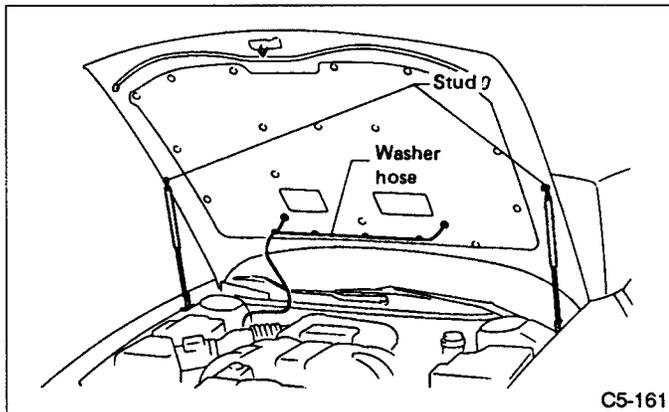


Fig. 106

- 3) Remove hood attaching bolts from hinge, and detach hood from hinges.

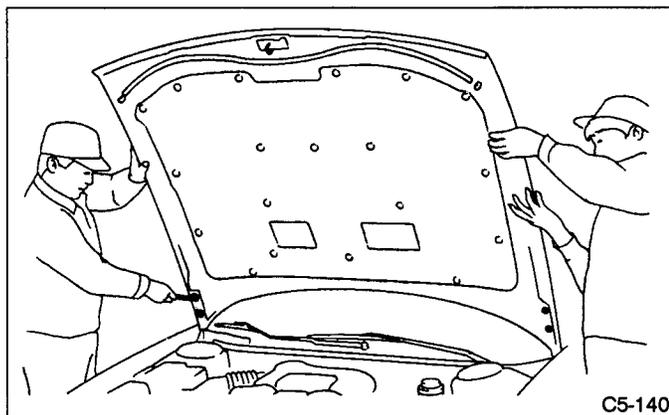


Fig. 107

Have an assistant support front hood while removing bolts.

2. HOOD LOCK ASSY

- 1) Open front hood and remove front grille.
- 2) Remove bolts which secure lock ASSY to radiator panel, and remove lock ASSY.

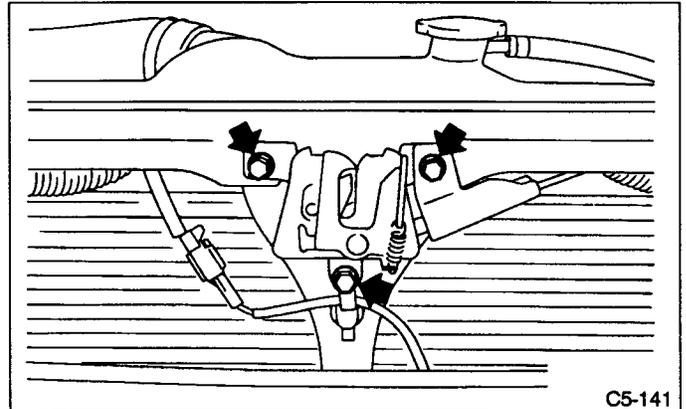


Fig. 108

- 3) Disconnect release cable from lock ASSY.

3. RELEASE CABLE

- 1) Open front hood and remove front grille.
- 2) Remove lock ASSY and disconnect release. Cable from lock ASSY.

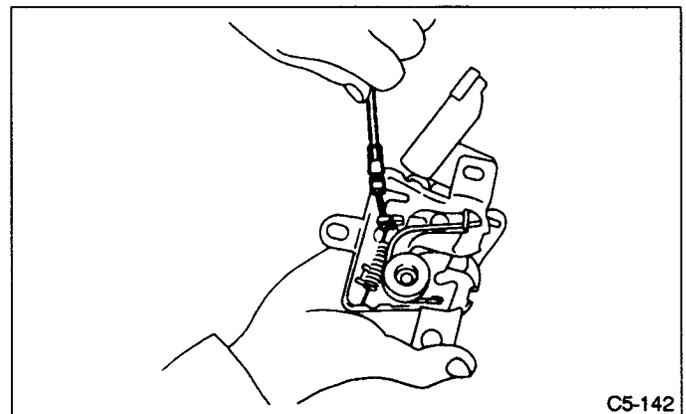


Fig. 109

- 3) Remove cable clip from engine compartment.

4) Remove trim panel on driver's side.

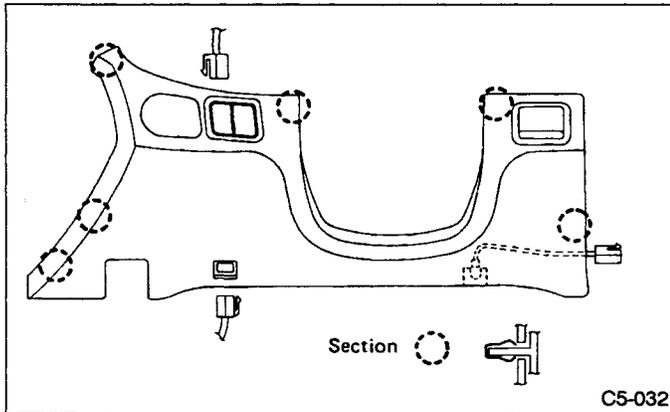


Fig. 110

5) Disconnect release cable from lever Assy.

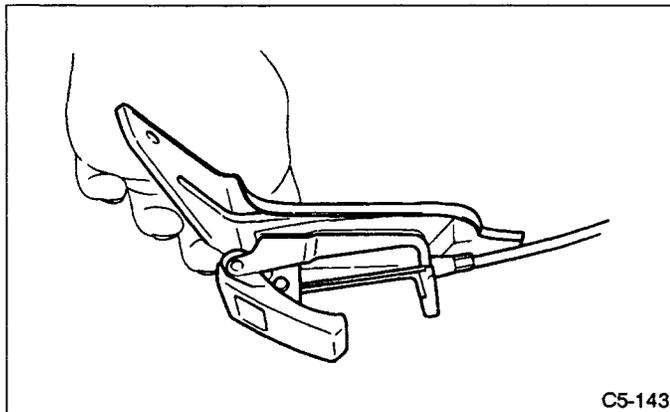


Fig. 111

6) Remove mud guard.

7) Remove clip from harness bracket and pull out. Release cable.

Be careful not to bend or break cable.

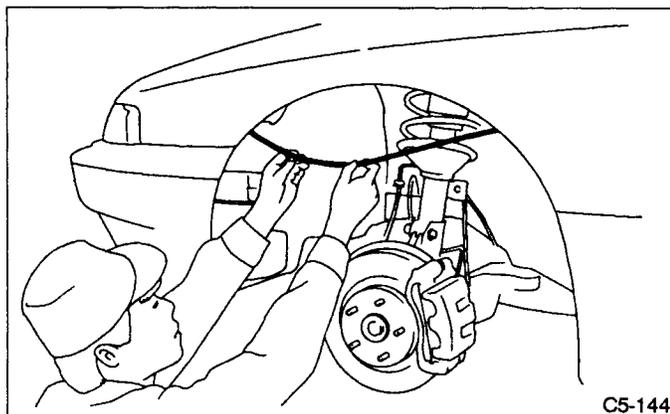


Fig. 112

4. INSULATOR

1) Open front hood, and remove attaching clips and washer hose.

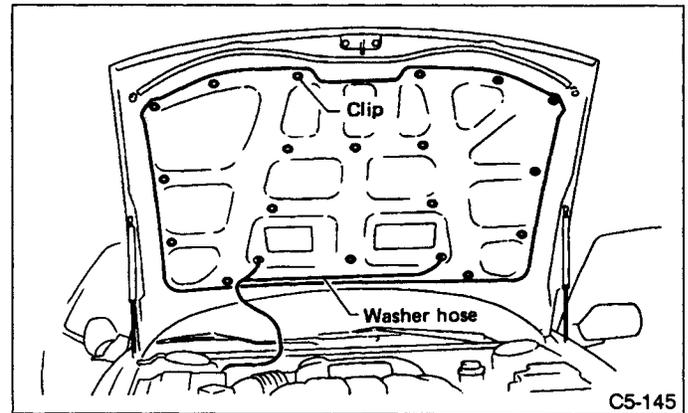


Fig. 113

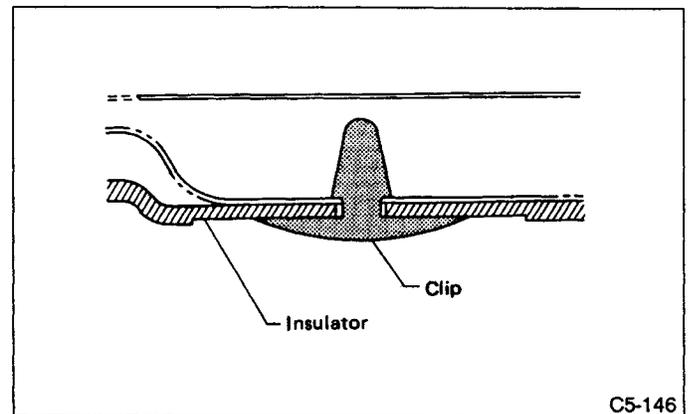


Fig. 114

2) Remove insulator from front hood.

5. GAS STAYS

1) Open front hood.

2) Remove studs which hold gas stays to hood.

3) Remove bolts which hold gas stays.

Be careful because hood drops under its own weight when gas stays are removed.

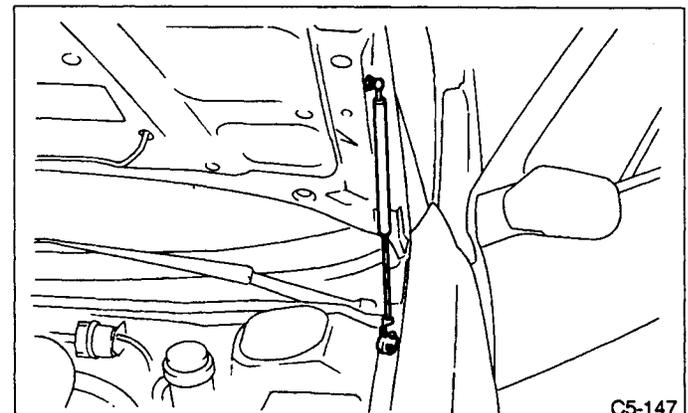


Fig. 115

B: POINTS TO CHECK

- 1) Check striker for bending or abnormal wear.
- 2) Check safety lever for improper movement.
- 3) Check other levers and spring for rust formation and unsmooth movement.

C: INSTALLATION

Installation is in the reverse order of removal.

- a. Align the center of striker with lock during installation. Make sure safety lever is properly caught by striker under the hood's own weight.
- b. Route hood lock release cable and hold with clips.
- c. After installing release cable, ensure it operates smoothly.
- d. Apply grease to sliding surfaces of parts.

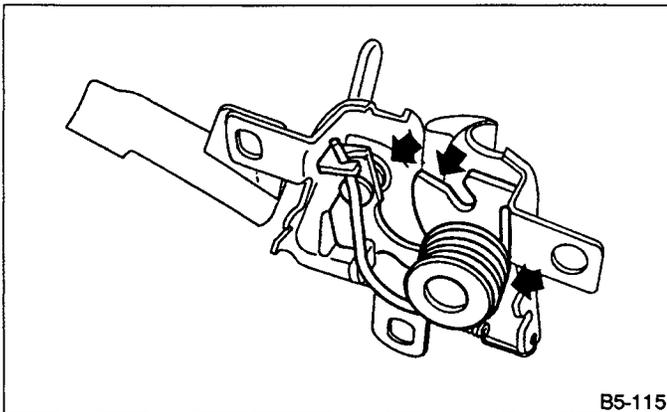


Fig. 116

D: ADJUSTMENT

- a. Adjust hood fitting by removing gas stay.
- b. Adjust hood in fore-aft and left-right directions within range of hinge bolt mounting hole.
- c. Adjust height of hood end center position within range of hood lock assembly bolt mounting long hole.
- d. Adjust height of right and left ends of hood by rotating buffer.

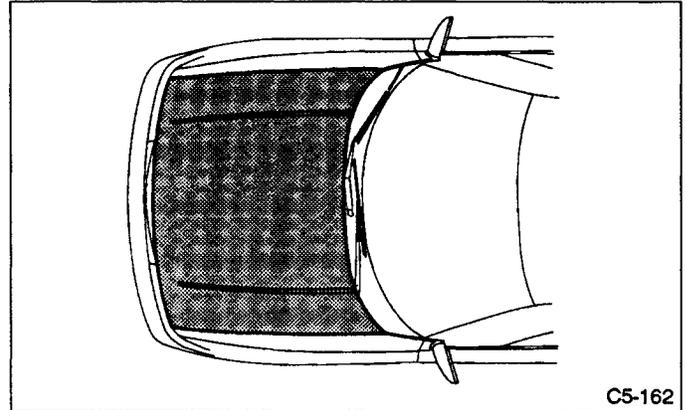


Fig. 117

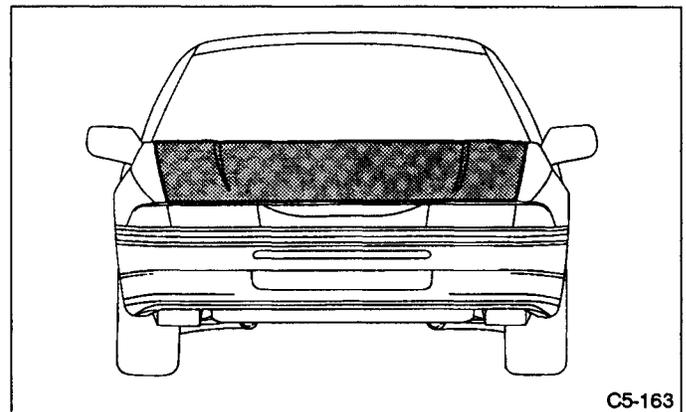


Fig. 118

2. Trunk Lid

A: REMOVAL

1. TRUNK LID

1) Open trunk lid. Disconnect connector and remove harness holder from hinge.

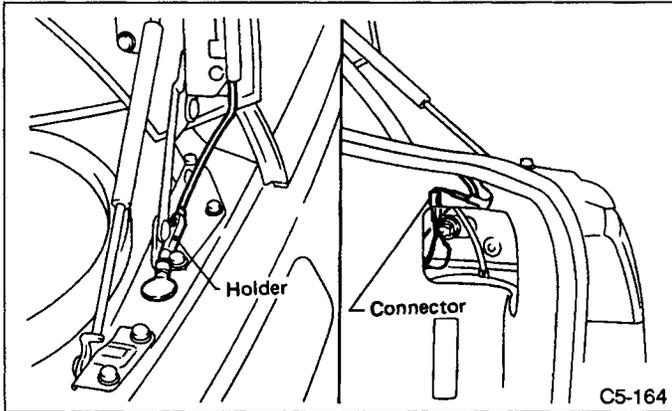


Fig. 119

2) Remove gas stays from trunk lid. Be careful because trunk lid drops under its own weight when gas stays are removed.

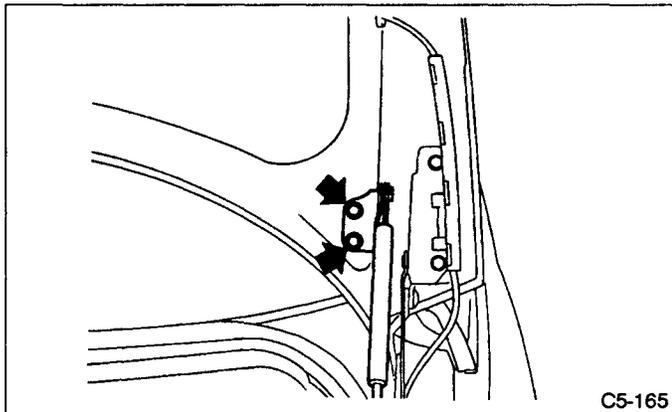


Fig. 120

3) Remove hinge from trunk lid.

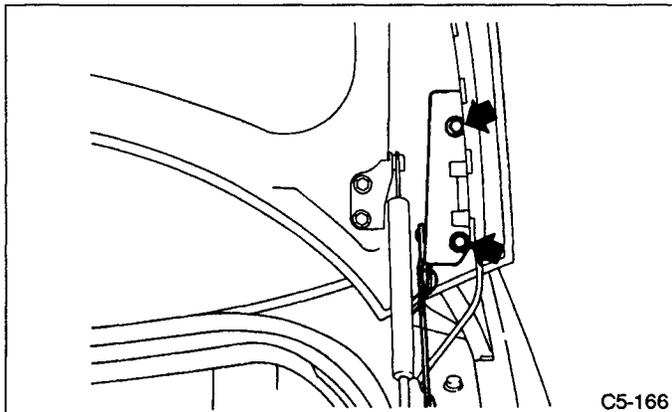


Fig. 121

4) Remove harness holder from hinge.

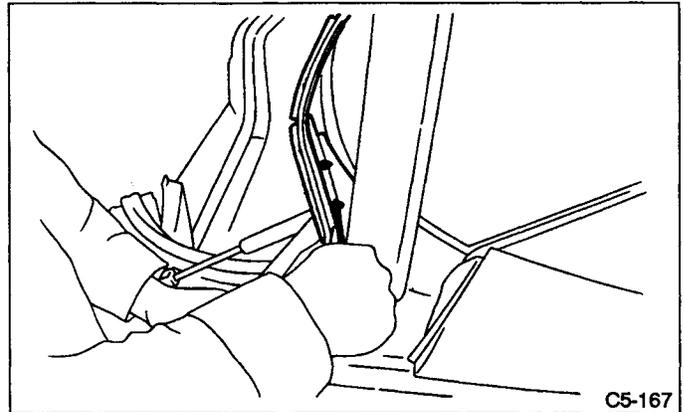


Fig. 122

2. GAS STAYS

1) Open trunk lid. Remove gas stays mounting bolts. Be careful because trunk lid drops under its own weight when gas stays are removed.

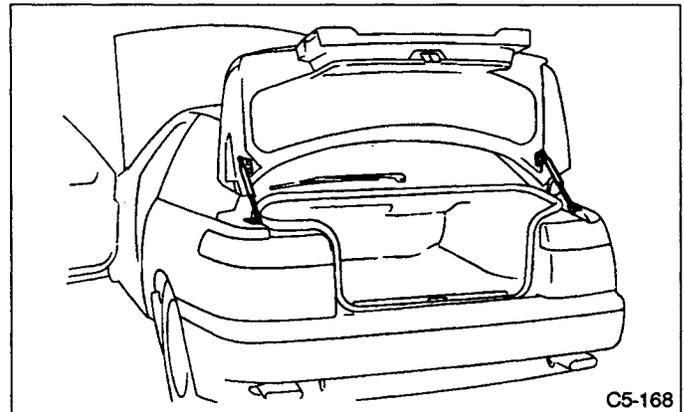


Fig. 123

3. TRUNK LID LOCK ASSEMBLY AND KEY CYLINDER

1) Open trunk lid and remove trunk lid trim.

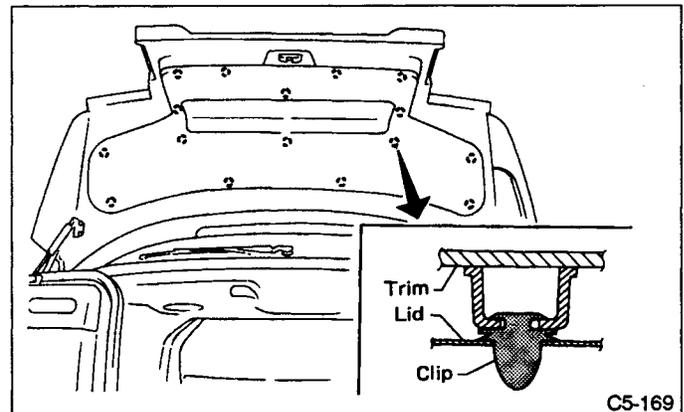


Fig. 124

2) Remove cover. Pull out cover while prying up portion indicated by "→" mark using standard-tip screwdriver.

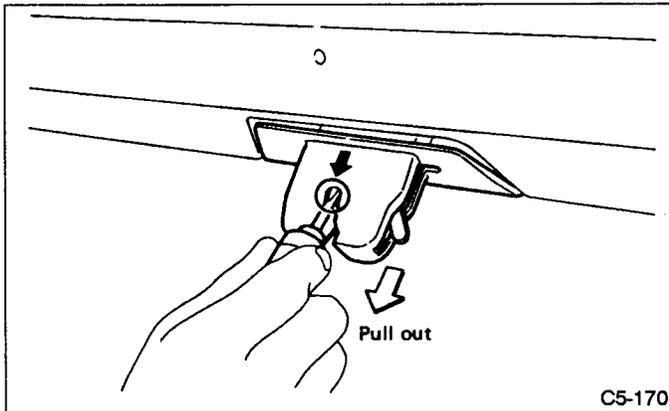


Fig. 125

3) Disconnect rod from rod holder and remove nuts which hold lock ASSY.
4) Remove clip and detach key cylinder from trunk lid.

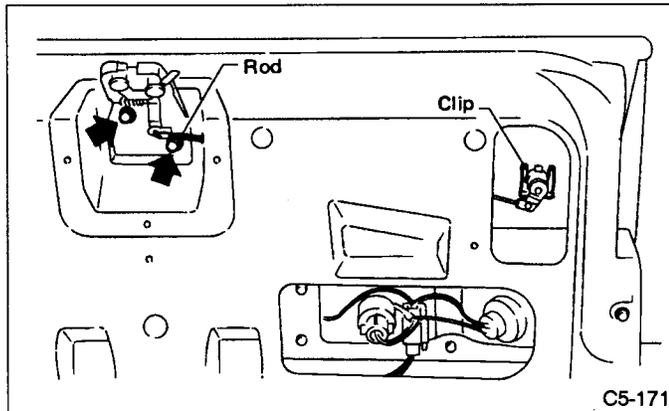


Fig. 126

4. TRUNK LID OPENER

1) Remove trunk trims.

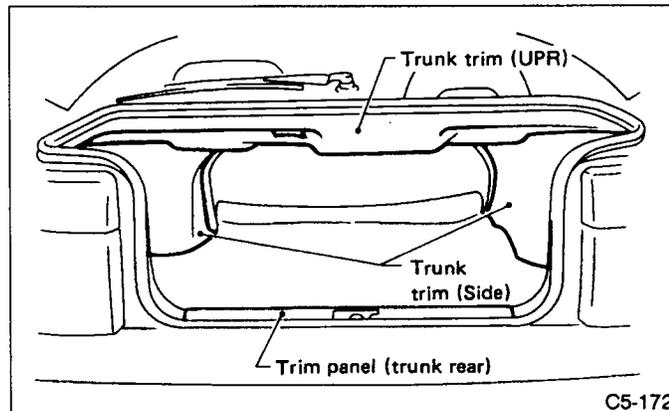


Fig. 127

2) Disconnect cable from striker.

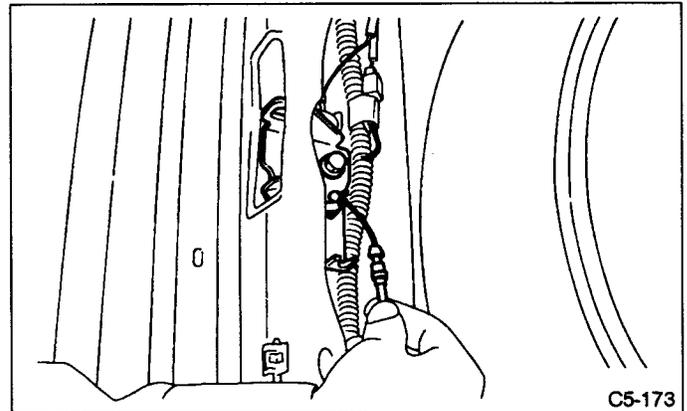


Fig. 128

3) Remove cable from clips.
4) Remove driver's seat, rear seat cushion, rear quarter trim and side sill cover (UPR).

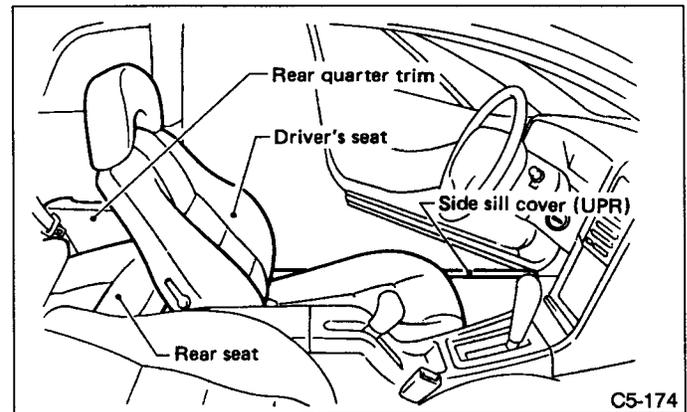


Fig. 129

5) Draw trunk lid knob out by holding its base portion to prevent bending or by hooking lower portion of knob using tool as shown.

Pay attention to prevent grease from getting on knob.

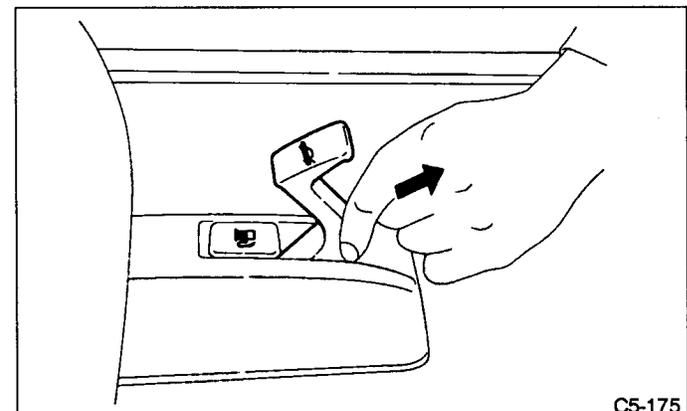


Fig. 130

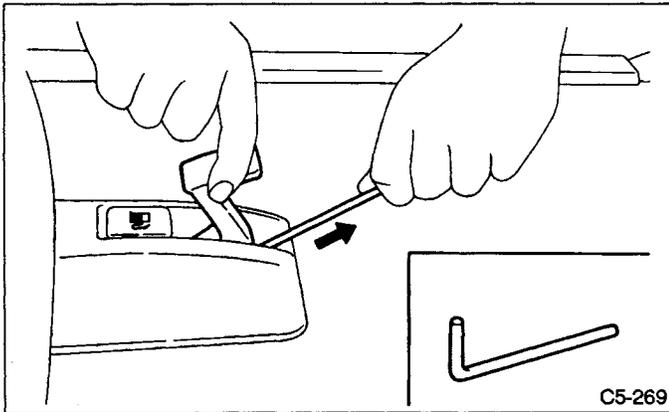


Fig. 131

6) Remove fuel flap knob by pushing it out.
Prevent grease from getting on knob.

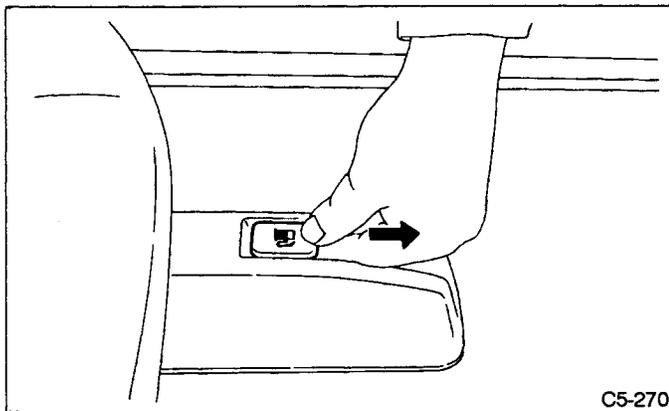


Fig. 132

7) Unhook side face of opener cover from pawls using tool as illustrated, and remove opener cover.

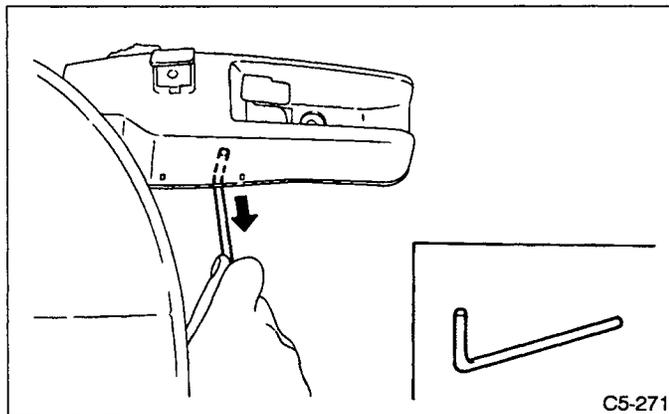


Fig. 133

8) Remove side sill cover (LWR).

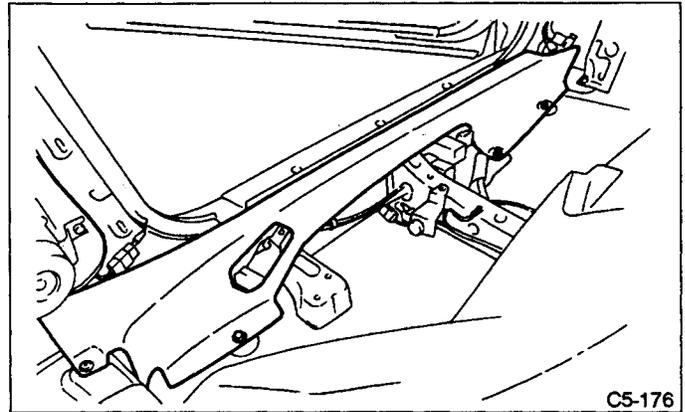


Fig. 134

9) Detach pull handle ASSY by removing screws and nut, and then disconnect cable.

10) Remove cable from clips and take it out.

B: INSTALLATION

Installation is in the reverse order of removal.

a. When installing cover to pull handle assembly, observe the following:

- Engage pull handle assembly pawls firmly.
- b. After installing opener cable, ensure it moves smoothly.
- c. Apply a coat of grease to the rotary section of hinges and contact surfaces of torsion bars.
- d. Apply grease to sliding surfaces of lock ASSY and striker.

C: ADJUSTMENT

1. TRUNK LID

- 1) Adjust fitting of trunk lid by removing gas stay.
- 2) To adjust left-right lid positioning, loosen bolts which hold trunk lid to hinges.
- 3) To adjust up-down lid alignment, place washer(s) between trunk lid and hinges or move trunk lock ASSY up or down.

3. Repair Instructions for Trunk Lid

1. GENERAL PRECAUTIONS DURING REPAIR

- 1) Protectors
 - (1) When performing repairs, be sure to wear goggles, respirator, and gloves. Also wear working clothes, working cap and safety shoes.
 - (2) When sanding with sander, be sure to wear respirator and goggles.
 - (3) When handling resin, hardener, putty, acetone and other solvents, and glass mat, be sure to wear rubber gloves.
- 2) Working environment
 - (1) Always pay attention to provide adequate ventilation.
 - (2) Polyester resin, hardener, putty and solvents are combustible materials. Be sure to keep fire away from work area.
 - (3) Keep combustible substances apart from working site because resin generates heat when hardening. After completing work, put remaining resin (combined with hardener) in water-filled can, and dispose of after making sure that it has cooled down sufficiently.

2. HOW TO USE MATERIALS (POLYESTER RESIN, HARDENER, GLASS MAT

- 1) Prepare polyester resin and hardener as per directions using only the amounts specified. Note that these materials will deteriorate when exposed to air for a long time. Use within three months after unsealing.
- ☆2) Store resin, hardener, putty and solvents in a location where temperatures will not rise above 30°C (86°F).
- 3) Stir polyester resin well before using.
- 4) When unsealing polyester resin, hardener or solvent can, pay attention to avoid splashing.
- ☆5) Never attempt to mix metal material (such as cobalt), acid or alkali with hardener.
- 6) Mix polyester resin and hardener only by amount needed.
- 7) Be sure to store acetone and other solvents in sealed containers.
- 8) Pay attention to keep resin or hardener from getting on working clothes. Wipe thoroughly with acetone or other solvent, then wash with soap, if a spill occurs. If resin, hardener or solvent gets into eye, flush with clean running water for about 15 minutes, then consult eye doctor.
- 9) The hardening rate of polyester resin largely varies with ambient temperature. Be sure to mix specified amount of hardener according to ambient temperature. Error in mixing amount may result in failure in hardening or too fast a rate of hardening.
- 10) Never add more than 3% hardener to polyester resin.

11) Immediately clean any tool used for mixing resin and hardener using acetone or other solvent before substances harden.

12) Wash any hardener container with water after use.

☆13) Never throw away resin into an ordinary garbage can. Be sure to dump resin in a location free from any combustible matter.

Pay special attention to the following points and items with ☆ mark.

a. Place "NO FIRE" or "NO SMOKING" signs around work site.

b. Never store large amounts of hardener by large amount. (Hardener is an organic peroxide, and extremely combustible.)

c. Never mix metal material with resin and hardener.

<Reference>

Relationship between changes in added amount (volume %) of hardener and usable time of polyester resin is shown below.

Example: Polyester resin: PS-660 (Hitachi-Kasei)
Hardener: Parmelic (Nihon-Yushi)

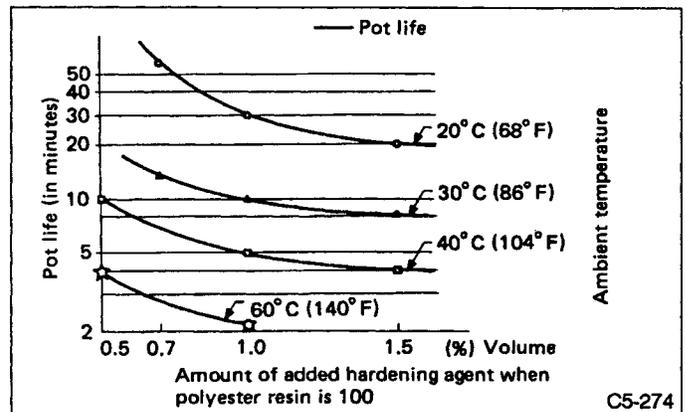


Fig. 135

3. REPAIR PROCESS

Table below shows recommended selection of process type depending on condition and degree of damage to be repaired. For further details of each repair process, refer to the Repair Method.

- A: Hollow on surface
- B: Chipped edge of FRP body
- C: Crack or hole in FRP body
- D: Small dent or minute cracks
- E: Small scratches on coated surface (not reaching FRP body)

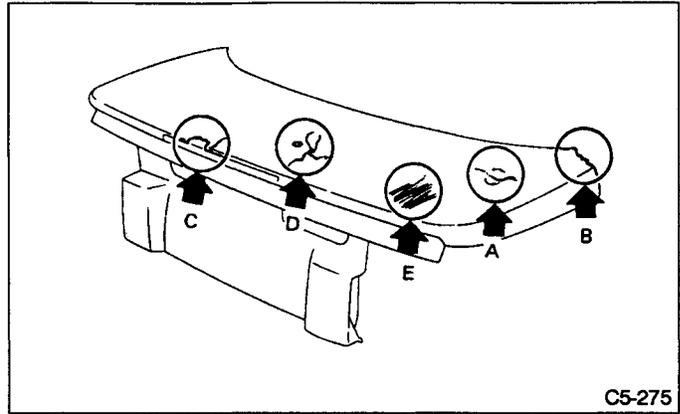


Fig. 136

- : Necessary
- ▲: To be performed if necessary
- : Unnecessary

	Process No.	Job contents	A	B	C	D	E
Repair process	①	Cutting	—	▲	●	—	—
	②	De-greasing	●	●	●	●	●
	③	Sanding (1)	—	●	●	—	—
	④	Washing (1)	—	●	●	—	—
	⑤	Masking	—	●	●	—	▲
	⑥	Modeling of trunk lid edge	—	—	●	—	—
	⑦	Preparation of reinforcement plate	—	●	●	—	—
	⑧	Installation of reinforcement plate	—	●	●	—	—
	⑨	Drying (1)	—	●	●	—	—
	⑩	Sanding (2)	●	—	●	●	—
	⑪	Washing (2)	●	—	●	●	—
	⑫	Preparation of reinforcement plate and putty filling	●	●	●	●	—
Paint process	⑬	Sanding (3)	●	●	●	●	●
	⑭	Washing (3)	●	●	●	●	●
	⑮	Under-coating	●	●	●	●	●
	⑯	Drying (2)	●	●	●	●	●
	⑰	Sanding (4)	●	●	●	●	●
	⑱	Washing (4)	●	●	●	●	●
	⑲	Finish-coating	●	●	●	●	●
	⑳	Drying (3)	●	●	●	●	●

If FRP body, inner panel or metal fitting mount of trunk lid is broken extensively, replace trunk lid since repair is difficult.

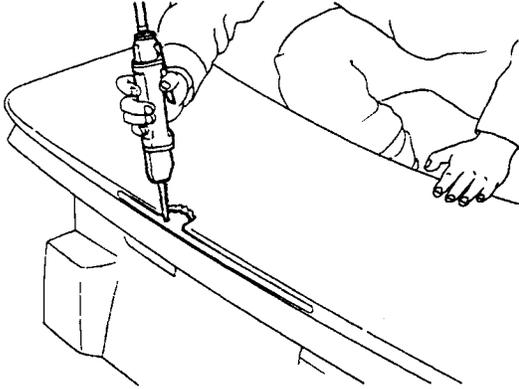
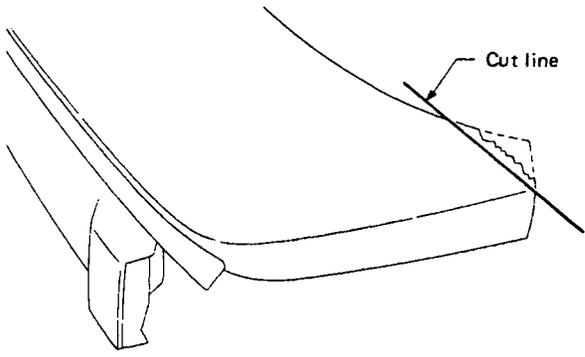
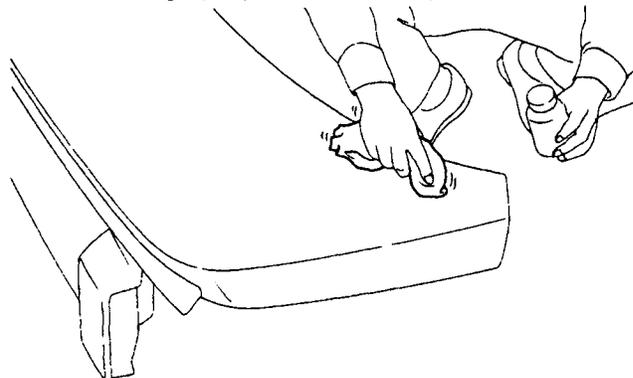
4. REPAIR MATERIALS

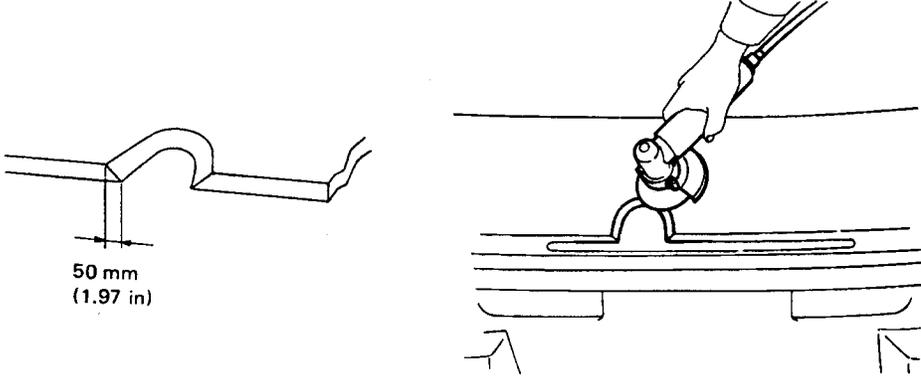
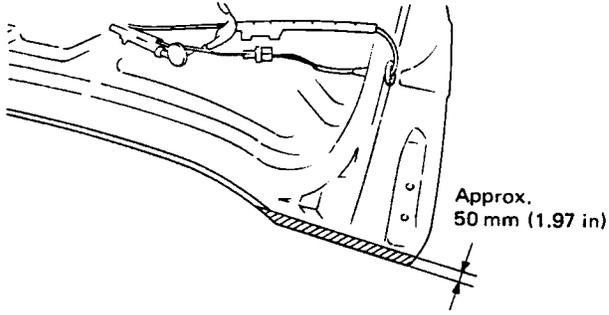
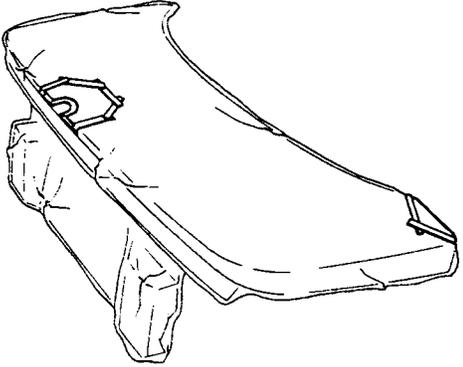
Examples of materials to be used during repair are shown below:

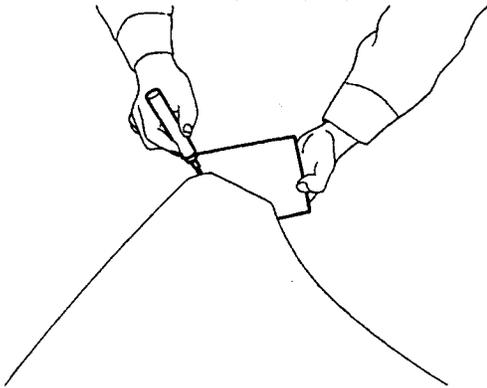
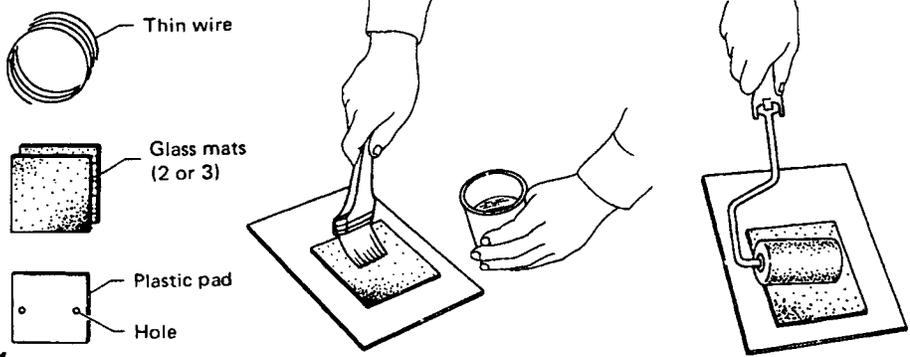
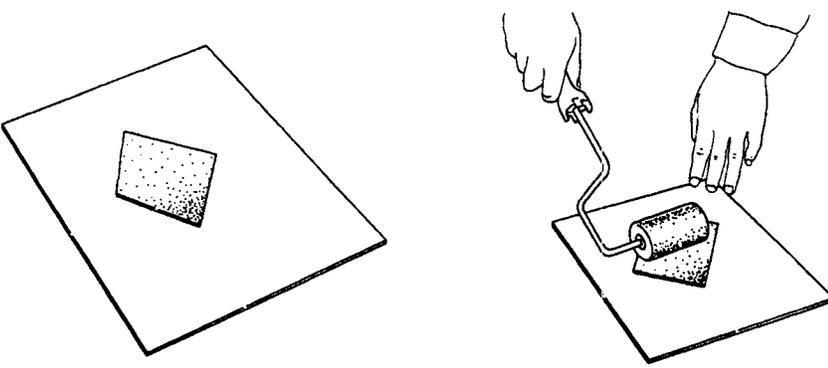
- Putty Polyester putty "ESTELACK" (Kashu)
- Polyester resin Unsaturated polyester resin "PS-660" (Hitachi-Kasei)
- Hardener "PARMEK N" (Nihon-Yushi)
- Glass fiber Glass mat or glass cloth (Fuji Fiber-glass)

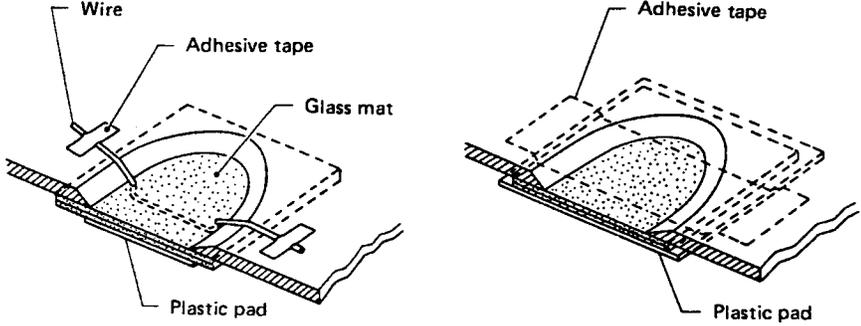
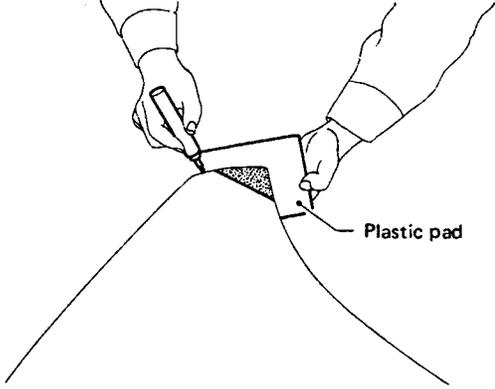
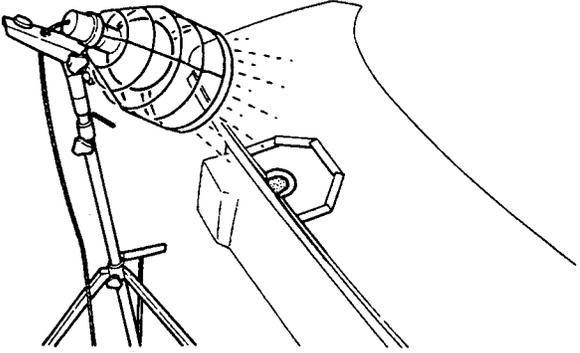
5. REPAIR METHOD

- 1) Observe usage instructions for repair materials given in manual.
- 2) If small cracks are found on painted surface, remove paint layer and check if FRP body is cracked.

Process No.	Process name	Job contents
①	Cutting	<p>[Large opening] Cut out hole a little wider than opening to be repaired using a jigsaw.</p>  <p><i>Fig. 137</i> [Broken edge] Obliquely cut a little inside the broken portion to be repaired.</p>  <p style="text-align: right;">C5-276</p> <p style="text-align: right;">C5-277</p>
②	De-greasing	<p>Using acetone-moistened soft cloth, lightly wipe surface to be repaired.</p>  <p><i>Fig. 139</i></p> <p style="text-align: right;">C5-278</p>

Process No.	Process name	Job contents
③	Sanding (1)	<p>[Large opening] After cutting out a hole in process ①, bevel surface of edge of hole about 50 mm (1.97 in). Sand area around beveled surface using coarse No. 24 to 80 sand paper, then finish with fine #240 sand paper.</p>  <p style="text-align: right;">C5-279</p> <p><i>Fig. 140</i> [Broken edge] Sand area about 50 mm (1.97 in) from broken edge. (Inside surface only)</p>  <p style="text-align: right;">C5-280</p> <p><i>Fig. 141</i></p>
④	Washing (1)	Wipe off dirt and dust with dry cloth, and then lightly wipe outer and inner surfaces with acetone.
⑤	Masking	<p>Mask around hole to be repaired.</p>  <p style="text-align: right;">C5-281</p> <p><i>Fig. 142</i></p>

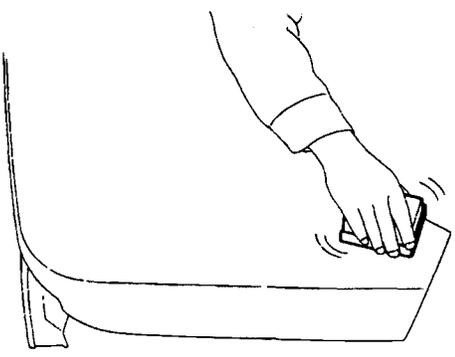
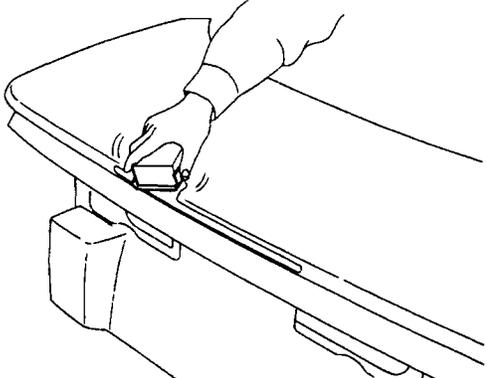
Process No.	Process name	Job contents
⑥	Modeling of trunk lid edge	<p>Apply patch plate to unbroken trunk lid, and scribe outline of lid a little larger than broken portion. Scribe area to be overlapped with FRP about 50 mm (1.97 in) larger.</p>  <p style="text-align: right;">C5-282</p>
⑦	Preparation of reinforcement plate (glass mat impregnated with resin compound)	<p>[Large hole] Cut glass mat piece a little larger than the portion to be repaired. Bore two holes in patch plate to pass thin wire through. To remove patch plate later, attach gummed cloth tape to plate. Put glass mat on patch plate. Mix resin and hardener thoroughly in cup, and apply mixture to glass mat by pressing with roller or spatula so that resin mixture will thoroughly soak into glass mat. Glass mat color will change from white to transparent as resin soaks into mat.</p>  <p style="text-align: right;">C5-283</p> <p>Fig. 144 [Broken edge] Place glass mat cut to size of scribed model on patch plate. Fix glass mat to patch plate using gummed cloth tape so that patch plate can be removed afterward. Impregnate resin mixture into glass mat.</p>  <p style="text-align: right;">C5-284</p>
		<p>Fig. 145</p>

Process No.	Process name	Job contents
⑧	Installation of reinforcement plate	<p>[Large hole] Press patch plate and glass mat to rear side, and fix patch plate using paper tape. If unable to reach rear side, use wire and pull out wire to front side and fix.</p>  <p><i>Fig. 146</i> [Broken edge] Place patch plate and glass mat prepared in ⑦ by giving a little overlap.</p>  <p><i>Fig. 147</i></p>
⑨	Drying (1)	<p>Heat resin mixture using infrared lamp for thermo hardening. Temperature must be below 80°C (176°F) when using lamp. Mixture will harden in 30 to 45 minutes at 60°C (140°F).</p>  <p><i>Fig. 148</i></p>

C5-285

C5-286

C5-287

Process No.	Process name	Job contents
⑩	Sanding (2)	<p>[Broken edge] After fully hardened, remove patch plate. Sand repaired surface with coarse No. 24 to 120 sand paper. Excessively thick resin at body overlapping portion may impair normal closing of trunk. Reduce resin thickness as necessary using sand paper.</p>  <p><i>Fig. 149</i> [Hollow][Dent or minute cracks] Sand with coarse #24 to 120 sand paper.</p>  <p><i>Fig. 150</i></p> <p style="text-align: right;">C5-288</p> <p style="text-align: right;">C5-289</p>
⑪	Washing (2)	Same as "Washing (1)"

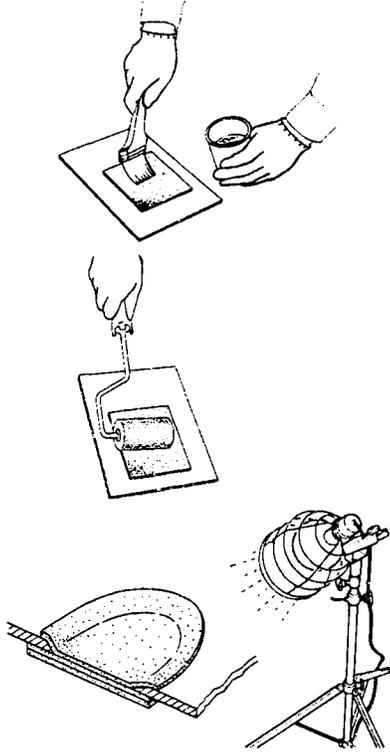
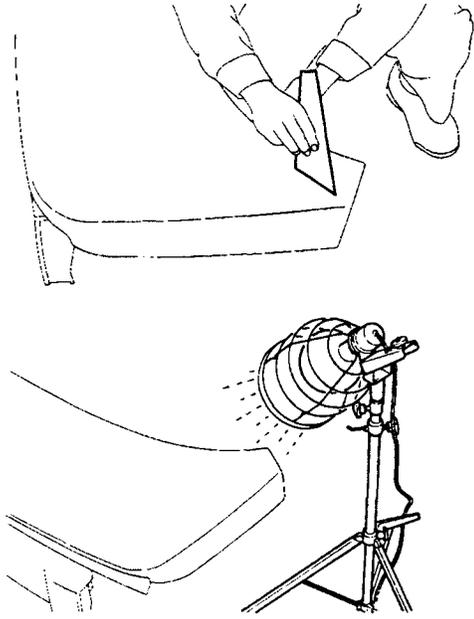
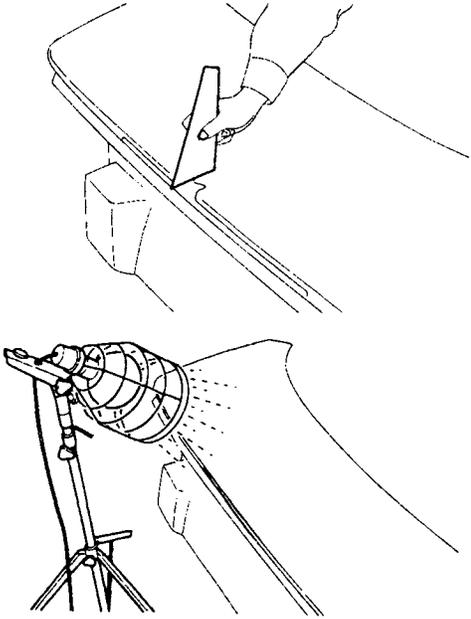
Process No.	Process name	Job contents
⑫	Preparation of reinforcement plate (glass mat impregnated with resin mixture) and putty filling	<p>[Large hole] Fully impregnate resin into glass mat using roller or spatula in similar manner as process ⑦. Place glass mat on hollowed portion, and press with roller or spatula for complete adhesion while preventing air bubbles from forming. If hollow can be repaired by simply filling with putty, apply putty to hollowed portion with spatula, taking care not to form air bubbles. After applying, harden resin using infrared lamp. Keep temperature below 80°C (176°F) when using lamp. Resin will harden in 30 to 45 minutes at 60°C (140°F).</p> 

Fig. 151

C5-290

Process No.	Process name	Job contents
<p>⑫ continued</p>	<p>Preparation of reinforcement plate (glass mat impregnated with resin mixture) and putty filling</p>	<p>[Broken edge] Apply putty to broken portion of trunk lid and form contour using spatula. Harden resin mixture using infrared lamp. Keep temperature below 80°C (176°F) when using lamp. Resin will harden in 30 to 45 minutes at 60°C (140°F).</p>  <p style="text-align: right;">C5-291</p> <p><i>Fig. 152</i> [Hollow, dent, minute cracks] Apply putty to hollowed portion, dent, or cracked portion. After applying, harden resin using infrared lamp. Keep temperature below 80°C (176°F) when using lamp. Resin will harden in 30 to 45 minutes at 60°C (140°F).</p>  <p style="text-align: right;">C5-292</p> <p><i>Fig. 153</i></p>

Process No.	Process name	Job contents
⑬	Sanding (3)	Sand surface using No. 180 to 320 sand paper, then finish with No. 400 to 500 sand paper.
⑭	Washing (3)	Same as "Washing (1)"
⑮	Undercoating	Perform coating in the same manner as iron plate coating.
⑯	Drying (2)	Bake paint in the same manner as iron plate coating.
⑰	Sanding (4)	After complete hardening of paint, finish surface with No. 400 to 500 sand paper.
⑱	Washing (4)	Same as "Washing (1)"
⑲	Finish coating	Perform coating in the same manner as iron plate coating.
⑳	Drying (3)	Bake paint in the same manner as iron plate coating.

4. Fuel Flap

A: REMOVAL

1. FUEL FLAP

Remove bolts which hold hinge to car body, and detach fuel flap and hinge as a unit.

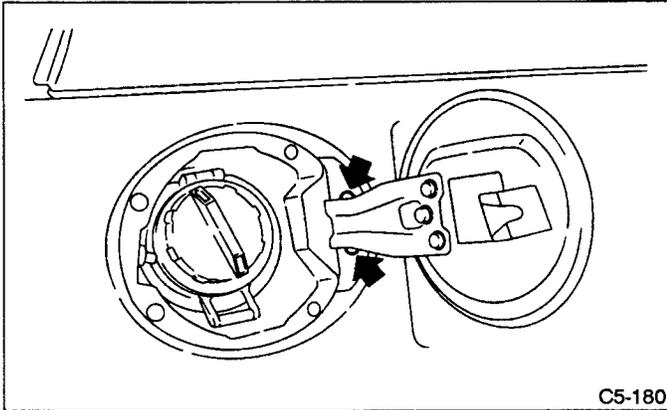


Fig. 154

2. FUEL FLAP OPENER

1) Remove trims.

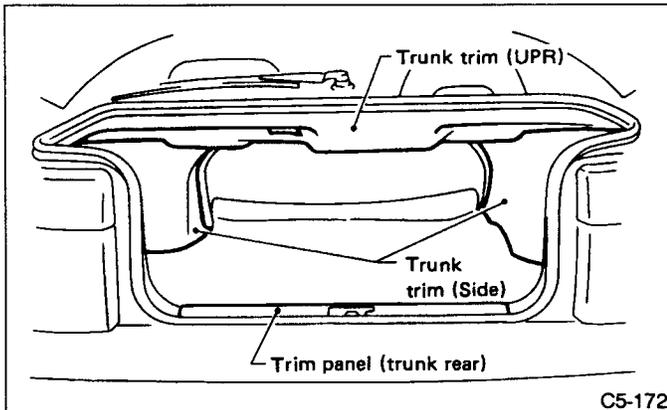


Fig. 155

2) Detach fuel lock holder by turning it.

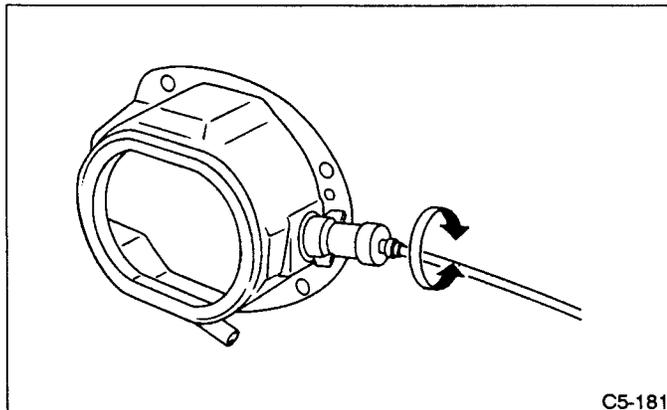


Fig. 156

3) Remove cable from clips.

4) Remove driver's seat, rear seat cushion, rear quarter trim and side sill cover (UPR).

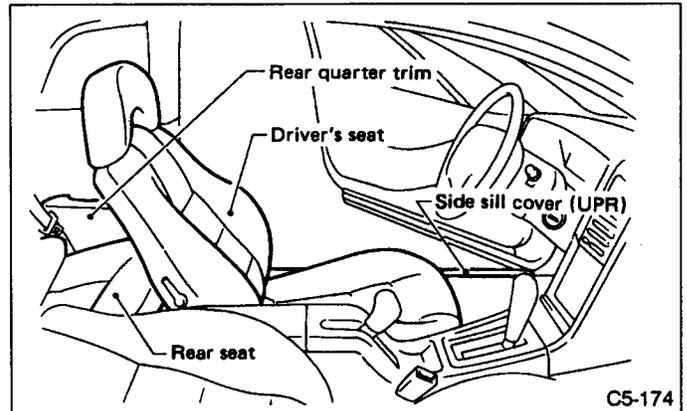


Fig. 157

5) Draw trunk lid knob by holding its root so as to prevent bending.

Or, hook lower portion of knob using tool as illustrated. Prevent grease from getting on trunk lid knob.

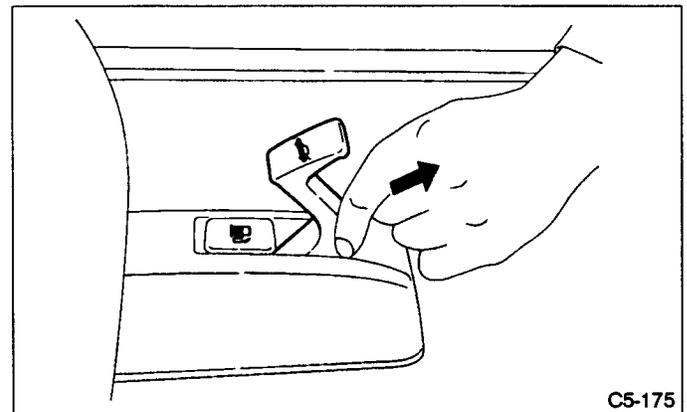


Fig. 158

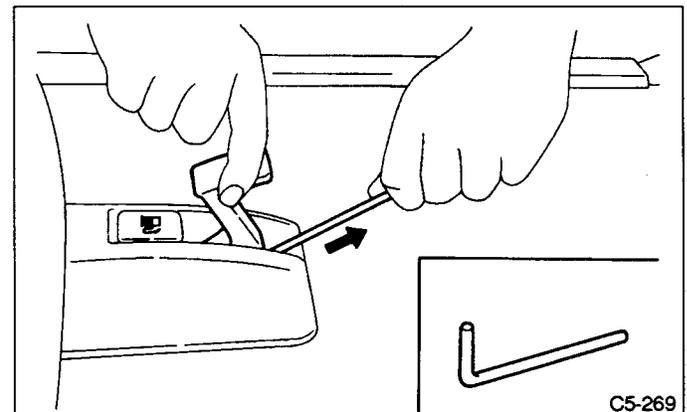
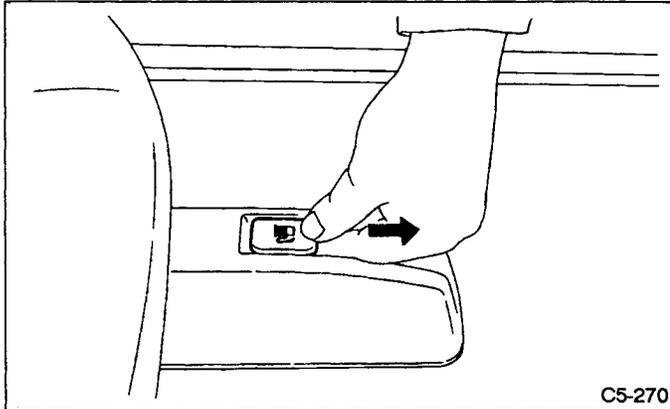


Fig. 159

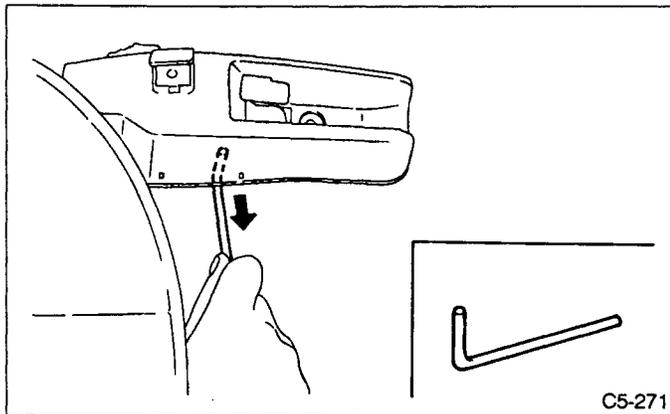
- 6) Remove fuel flap knob by pushing out it.
Prevent grease from getting on knob.



C5-270

Fig. 160

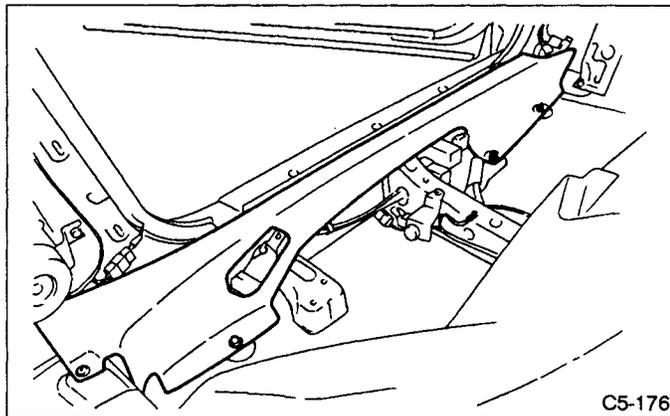
- 7) Detach side face of opener cover using tool as illustrated, and remove cover.



C5-271

Fig. 161

- 8) Remove side sill cover (LWR).



C5-176

Fig. 162

B: INSTALLATION

Installation is in the reverse order of removal.

a. When installing cover to pull handle assembly, observe the following:

- Engage pull handle assembly pawls firmly.

b. Make sure the clearance between fuel flap and car body is equal at all points.

c. After installing opener cable, ensure it moves smoothly.

5. Front Bumper **AIRBAG**

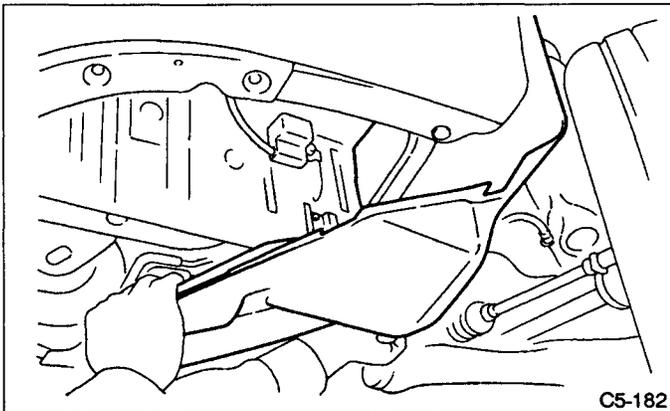
Supplemental Restraint System "Airbag"

Airbag system wiring harness is routed near the front bumper.

- a. All Airbag system wiring harness and connectors are colored yellow. Do not use electrical test equipment on these circuit.
- b. Be careful not to damage Airbag system wiring harness when servicing the front bumper.

A: REMOVAL

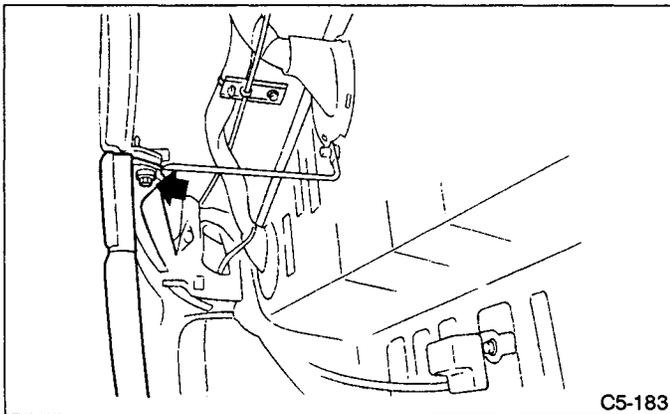
- 1) Lift up the car.
- 2) Remove under cover.
- 3) Detach front side of mud guard.



C5-182

Fig. 163

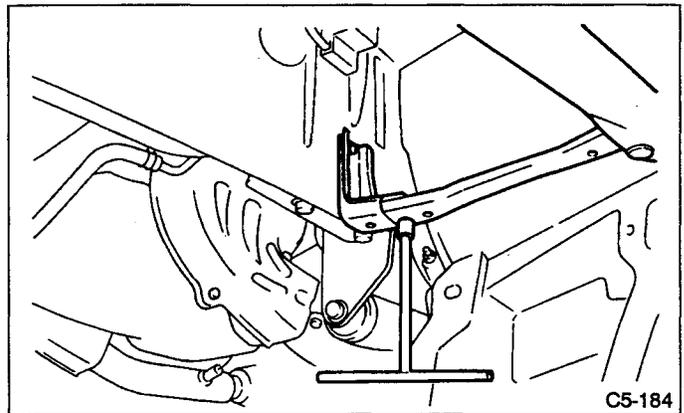
- 4) Remove bolt from side of bumper.



C5-183

Fig. 164

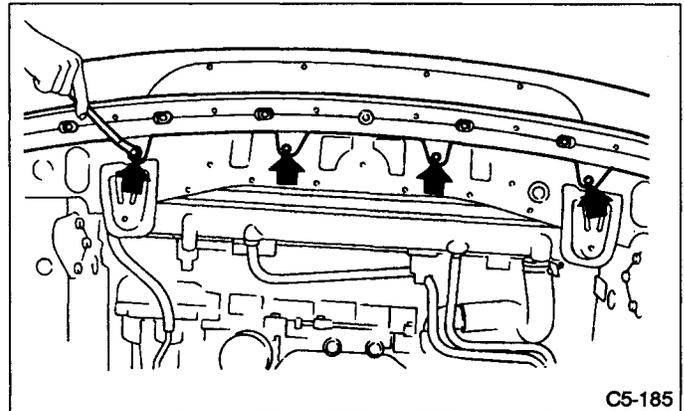
- 5) Remove side stay from side stay bracket.



C5-184

Fig. 165

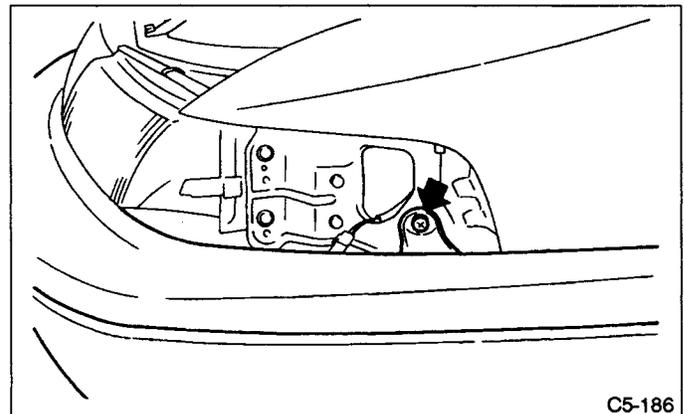
- 6) Remove bolts securing lower side of bumper face to body.



C5-185

Fig. 166

- 7) Remove front combination light.
- 8) Remove bolt from side of bumper.



C5-186

Fig. 167

- 9) Remove canister from bracket (right side only).
- 10) Remove bolts (engine compartment side) from bumper stays.

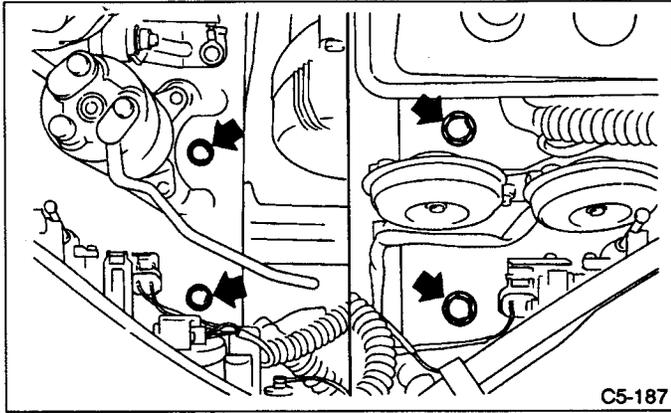


Fig. 168

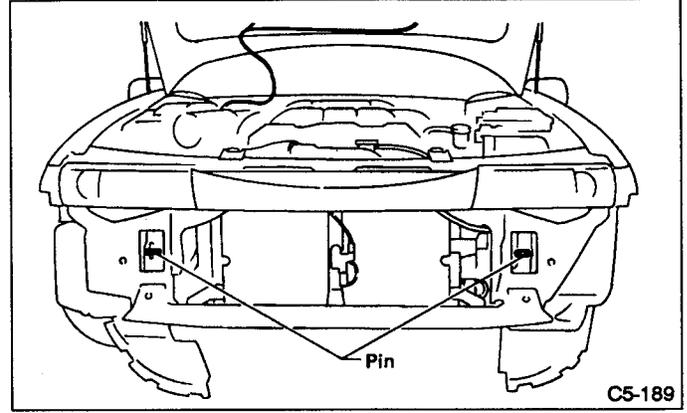


Fig. 170

11) Remove bumper ASSY.

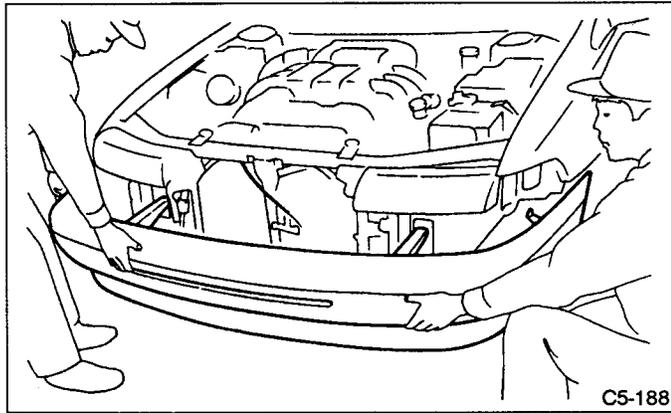


Fig. 169

B: INSTALLATION

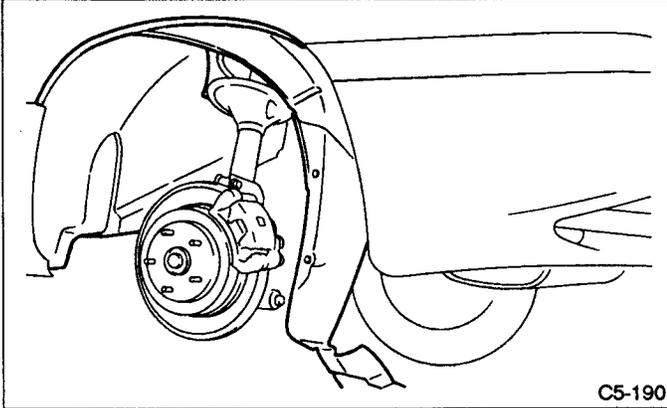
To install the front bumper, reverse the above removal procedures.

- a. Be extremely careful to prevent scratches on bumper face as it is made of resin.
- b. Be careful not to scratch the body when removing or installing the bumper.
- c. Pins are provided on body side to facilitate installation of front bumper.

6. Rear Bumper

A: REMOVAL

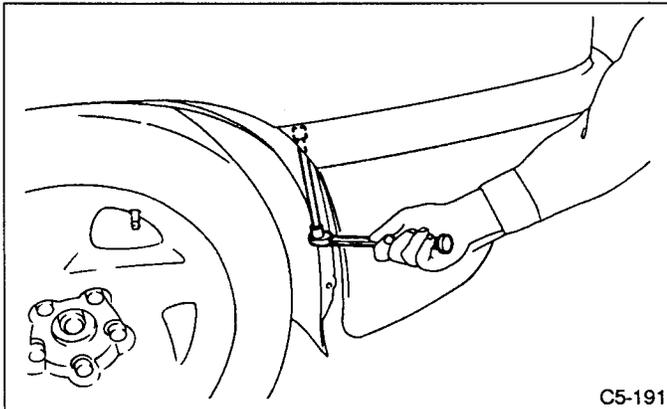
- 1) Lift up the car.
Please balance weights, etc in the trunk compartment.
- 2) Remove rear side of mud guard.



C5-190

Fig. 171

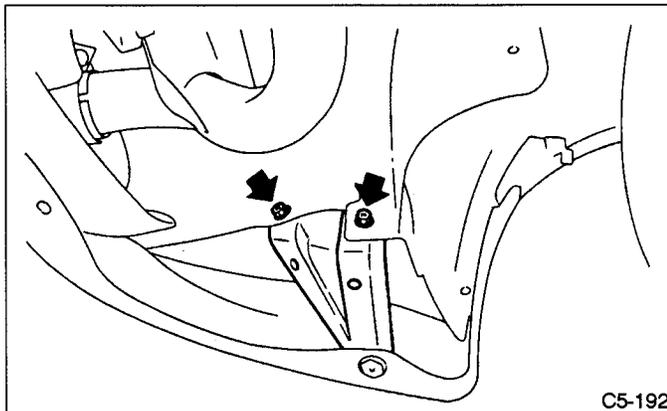
- 3) Remove bolt from side of bumper.



C5-191

Fig. 172

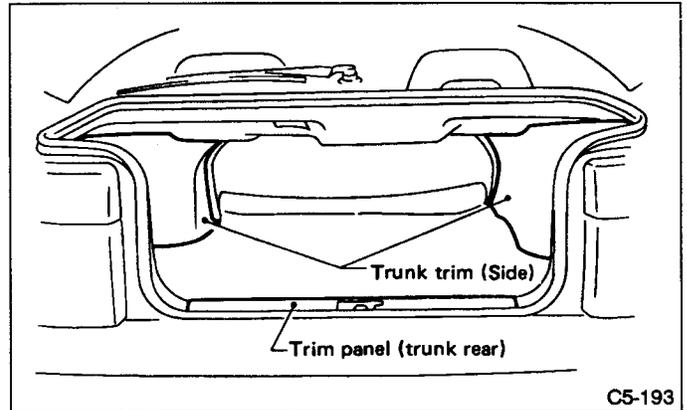
- 4) Remove bracket (side LWR) from car body.



C5-192

Fig. 173

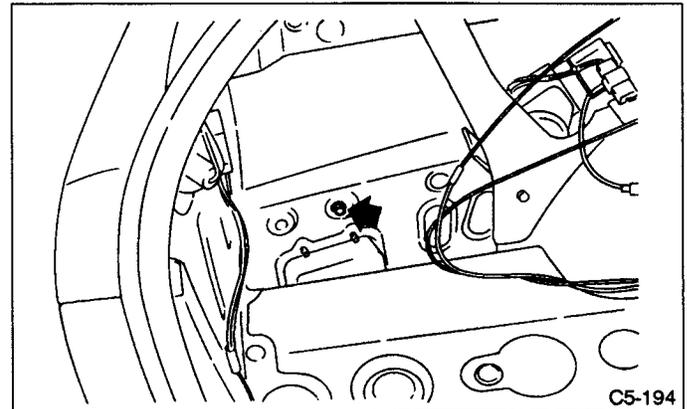
- 5) Remove trim panel (trunk rear), and detach rear side of trunk trim (side).



C5-193

Fig. 174

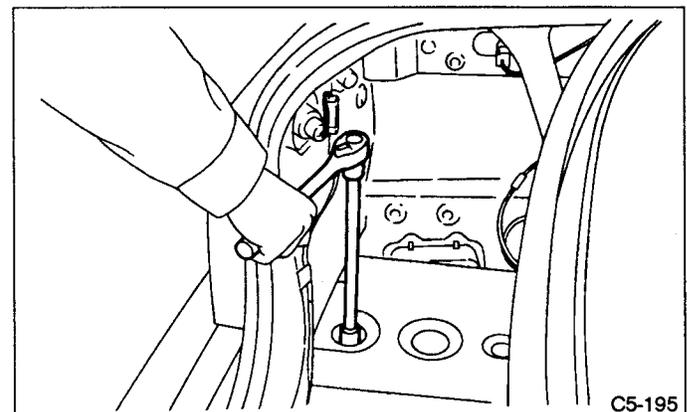
- 6) Remove rear wiper washer tank (right side only).
- 7) Remove nut from side of bumper.



C5-194

Fig. 175

- 8) Detach cap and remove bolts from bumper stays.



C5-195

Fig. 176

9) Pull out bumper side mounting bolt from body.

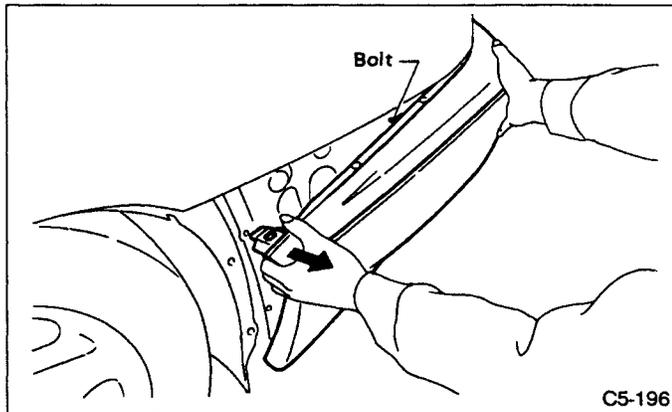


Fig. 177

10) Slightly lift up bumper to disengage hook (provided on top of stay) from body, and take out bumper.

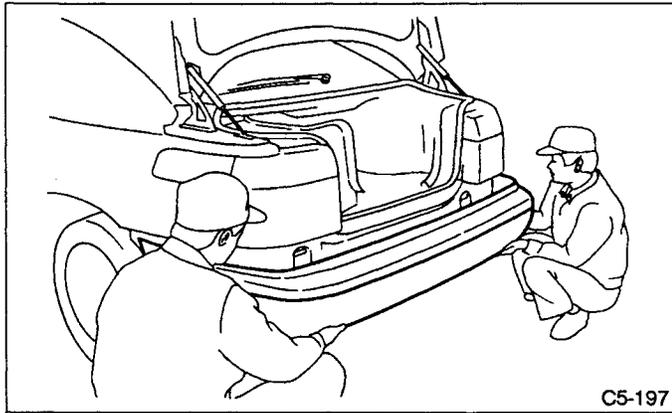


Fig. 178

B: INSTALLATION

To install the rear bumper, reverse the above removal procedures.

a. Be extremely careful to prevent scratches on bumper face as it is made of resin.

b. Be careful not to scratch the body when removing or installing bumper.

c. To facilitate installation of rear bumper, attach hook (located at stay) to body panel.

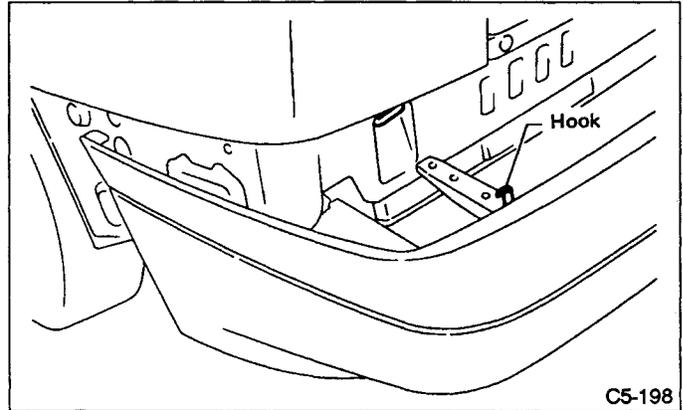


Fig. 179

W SERVICE PROCEDURE

7. Side Garnish

A: REMOVAL

1. DOOR SIDE GARNISH

- 1) Remove door trim.
- 2) Remove three nuts.

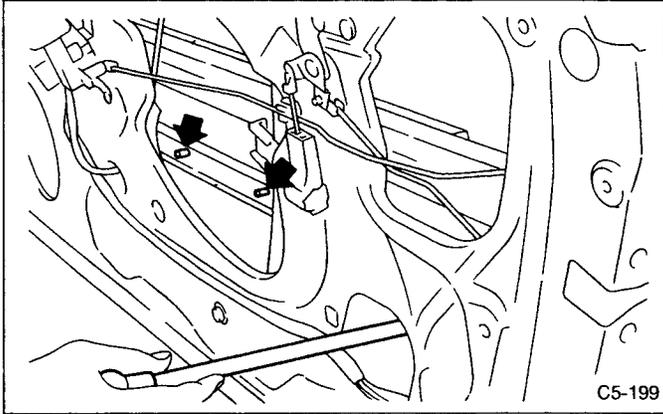


Fig. 7

- 3) Remove clip by pulling garnish.

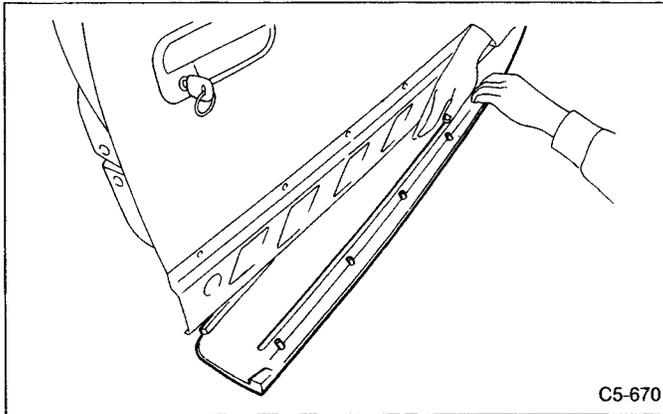


Fig. 8

2. FRONT SIDE GARNISH

- 1) Remove screws and bolts.

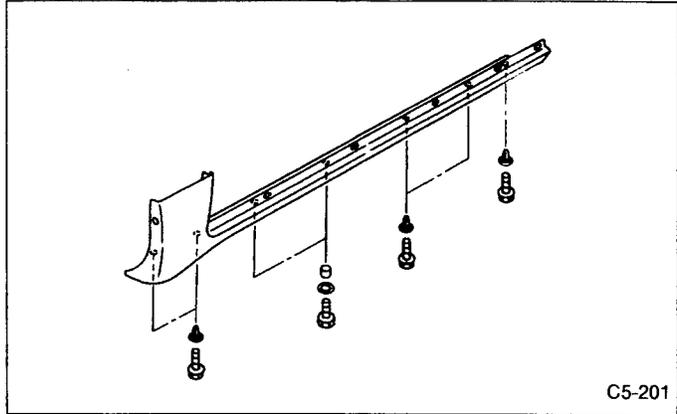


Fig. 9

- 2) Remove retainer.

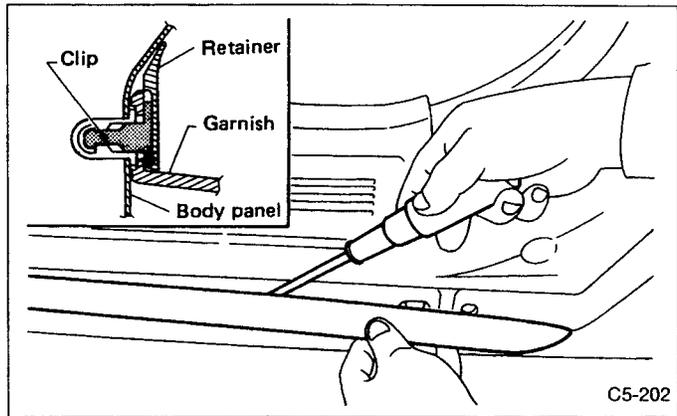


Fig. 10

- 3) Remove clips.

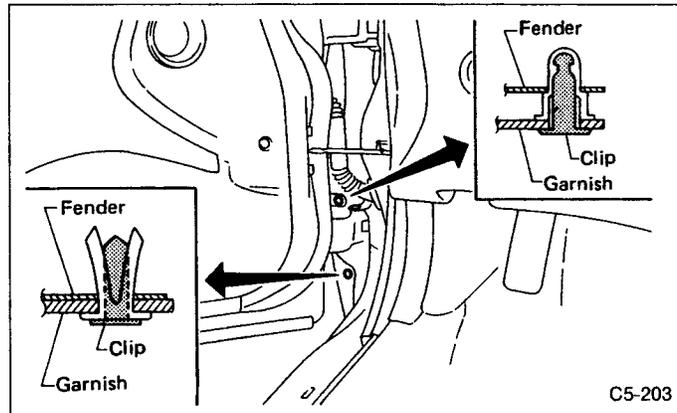


Fig. 11

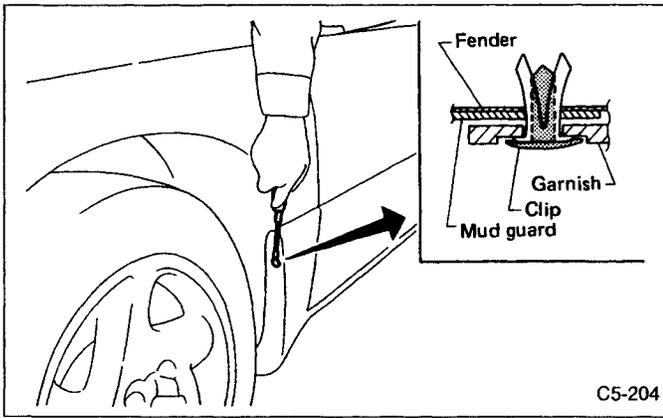


Fig. 12

4) Remove clip by pulling garnish, and then detach garnish.

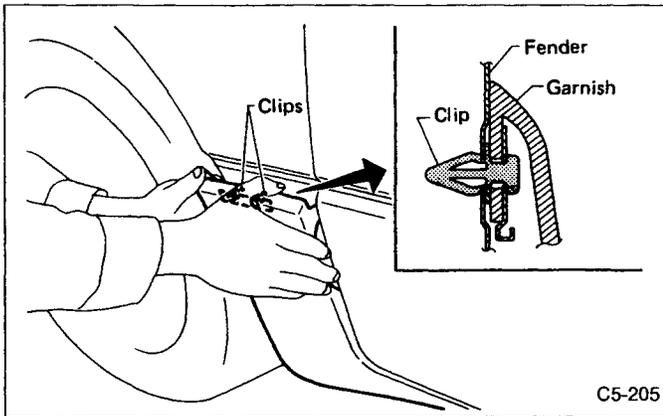


Fig. 13

3. REAR SIDE GARNISH

1) Remove screws and bolts.

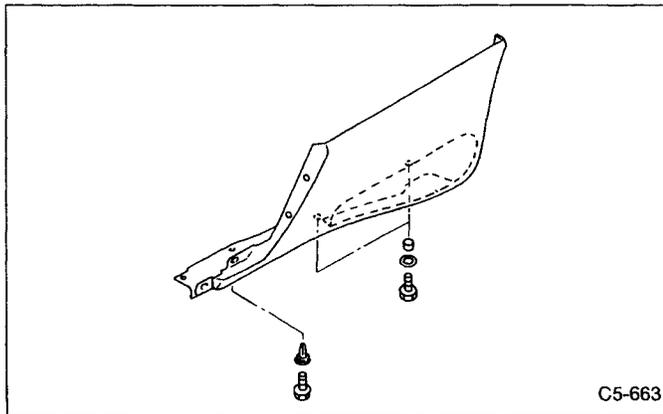


Fig. 14

- 2) Remove rear quarter trim.
- 3) Remove motor ASSY for automatic shoulder belt.
- 4) Remove nuts.

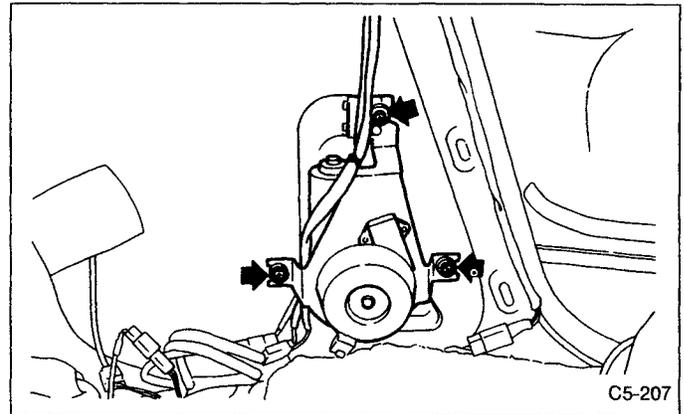


Fig. 15

5) Remove clips.

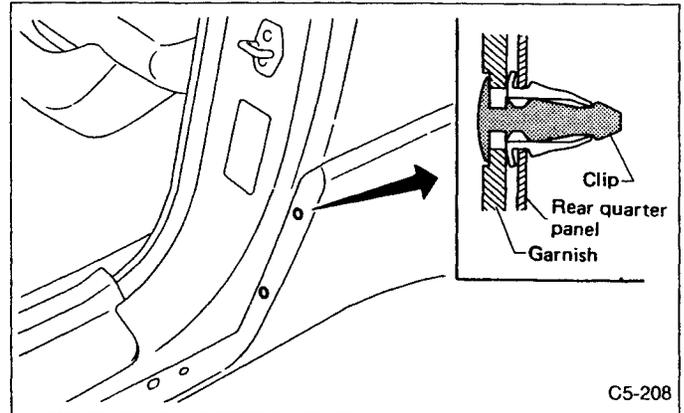


Fig. 16

6) Remove clip by turning it from inside of compartment.

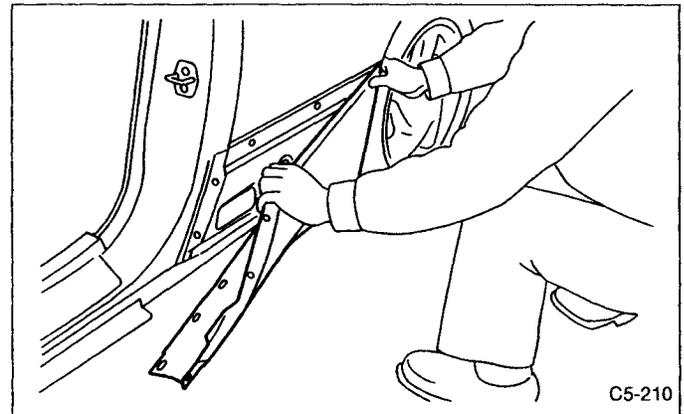


Fig. 17

7) Move garnish rearward, and pull pin out from rear arch, then remove garnish.

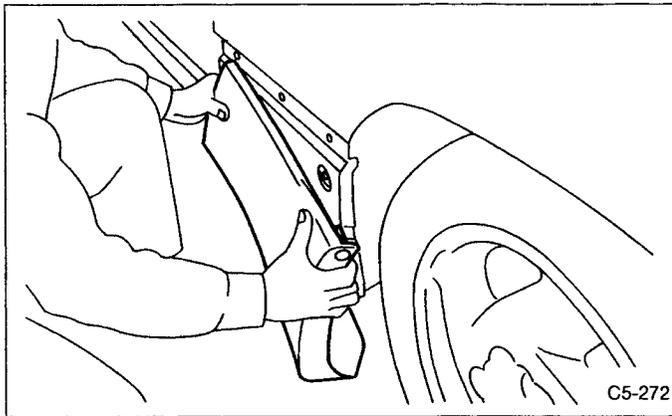


Fig. 18

B: INSTALLATION

Installation is in the reverse order of removal. **Ensure door side garnish is installed as shown in figure below.**

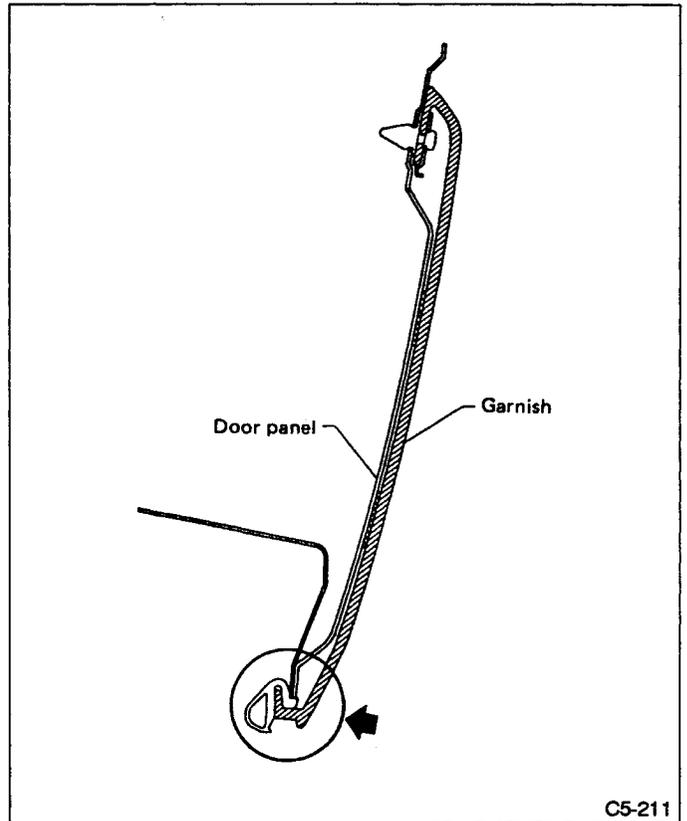
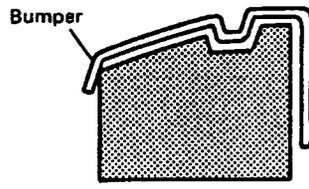


Fig. 193

8. Coating Method for PP Bumper and Side Garnish

PROCESS STEPS

Process No.	Process name	Job contents	
1	Bumper mounting	Set bumper on paint worktable if required. Use paint worktable conforming to inner shape of bumper when possible.	 <p>Bumper</p> <p>Set bumper section</p> <p>Fig. 194</p> <p>B5-302</p>
2	Masking	Mask specified part (black base) with masking tape. Use masking tape for PP (example, Nichiban No. 533, etc.). For details, see the following figures.	
3	Degreasing, cleaning	Clean all parts to be painted with white gasoline, normal alcohol, etc. to remove dirt, oil, fat, etc.	
4	Primer paint	Apply primer one to all parts to be painted, using air gun. Use primer (clear).	
5	Drying	Dry at normal temperature [10 to 15 min. at 20°C (68°F)]. In half-dried condition, PP primer paint is dissolved by solvent, e.g. thinner, etc. Therefore, if dust or dirt must be removed, use ordinary alcohol, etc.	
6	Top coat paint	Solid color	Metallic color
		Use section (block) paint for top coat. <ul style="list-style-type: none"> ● Paint in use (for each color) Solid paint Hardener PB Thinner T-301 ● Mixing ratio: Main agent vs. hardener = 4 : 1 ● Viscosity: 10 — 13 sec/20°C (68°F) ● Film thickness: 35 — 45μ ● Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kg/cm², 36 — 50 psi) 	← <ul style="list-style-type: none"> ● Paint in use (for each color) Metallic paint Hardener PB Thinner T-306 ● Mixing ratio: Main agent vs. hardener = 10 : 1 ● Viscosity: 10 — 13 sec/20°C (68°F) ● Film thickness: 15 — 20μ ● Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kg/cm², 36 — 50 psi)
7	Drying	Not required.	Dry at normal temperature [10 min. or more at 20°C (68°F)]. In half-dried condition, avoid dust, dirt.
8	Top coat (II)	Not required.	Apply a clear coat to parts with top coat (I), three times, at 5 — 7 minute intervals. <ul style="list-style-type: none"> ● Paint in use Metallic paint Hardener PB Thinner T-301 ● Mixing ratio: Clear vs. hardener = 6 : 1 ● Viscosity: 14 — 16 sec/20°C (68°F) ● Film thickness: 25 — 30μ ● Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kg/cm², 36 — 50 psi)
9	Drying	60°C (140°F), 60 min. or 80°C (176°F), 30 min. If higher than 80°C (176°F), PP may be deformed. Keep maximum temperature of 80°C (176°F).	
10	Inspection	Paint check.	
11	Masking removal	Remove masking in process No. 2.	

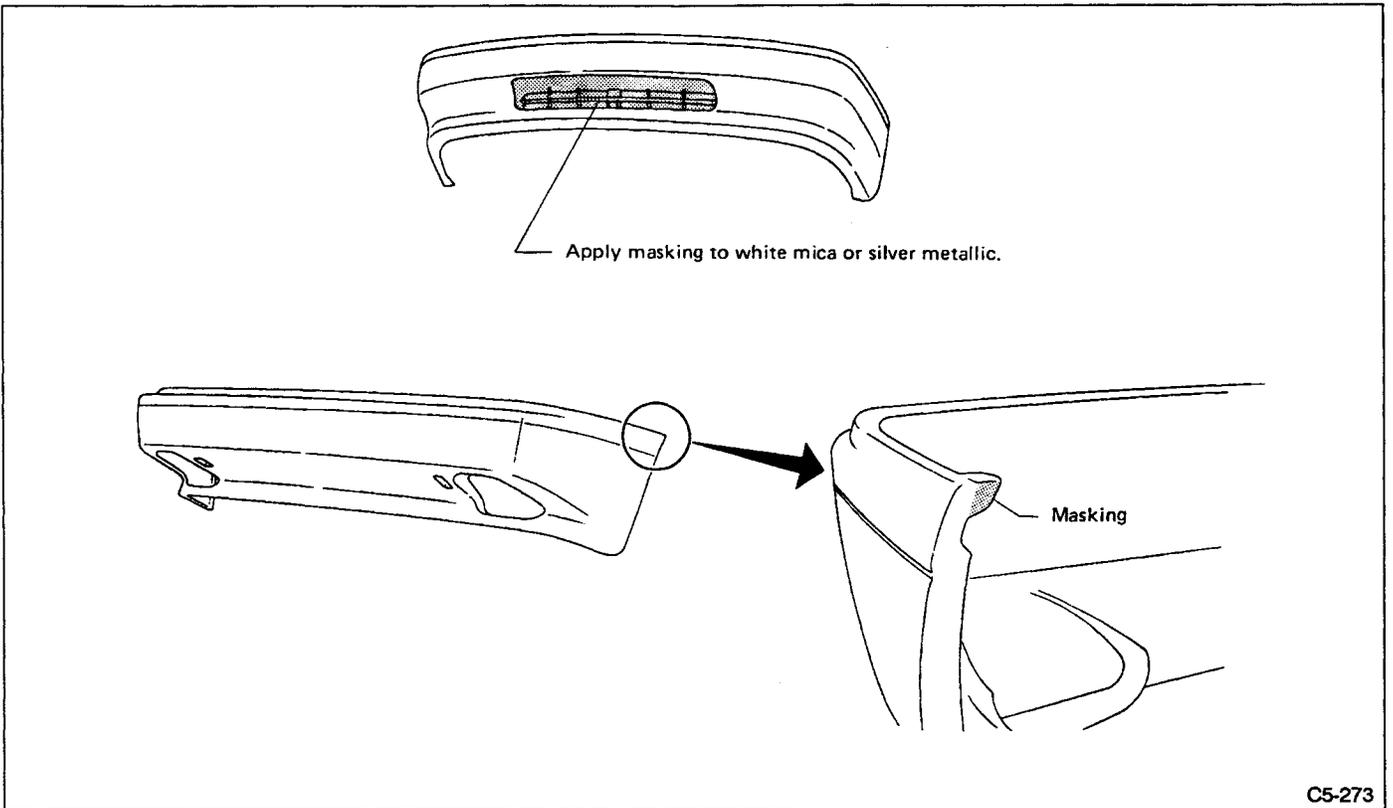


Fig. 195

9. Repair Instructions for Colored PP Bumper and Side Garnish

All PP bumpers are provided with a grained surface, and if the surface is damaged, it cannot normally be restored to its former condition. Damage limited to shallow scratches that cause only a change in the lustre of the base material or coating, can be almost fully restored. Before repairing a damaged area, explain this point to the customer and get an understanding about the matter.

Repair methods are outlined below, based on a classification of the extent of damage.

1. MINOR DAMAGE CAUSING ONLY A CHANGE IN THE LUSTRE OF THE BUMPER DUE TO A LIGHT TOUCH

Almost restorable.

Process No.	Process name	Job contents	
1	Cleaning	Clean the area to be repaired using water.	
2	Sanding	Grind the repairing area with #500 sandpaper in a "feathering" motion.	
3	Finish	Resin section	Coated section
		Repeatedly apply wax to the affected area using a soft cloth (such as flannel). Recommended wax: NITTO KASEI Soft 99 TIRE WAX BLACK, or equivalent.	Perform either the same operation as for the resin section or process No. 18 and subsequent operations in the "(3)" section, depending on the degree and nature of damage.
		Polish the waxed area with a clean cloth after 5 to 10 minutes.	

2. DEEP DAMAGE CAUSED BY SCRATCHING FENCES, ETC.

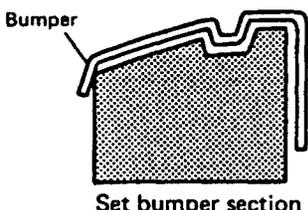
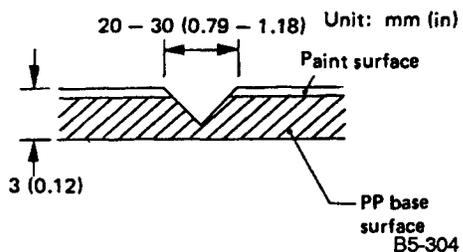
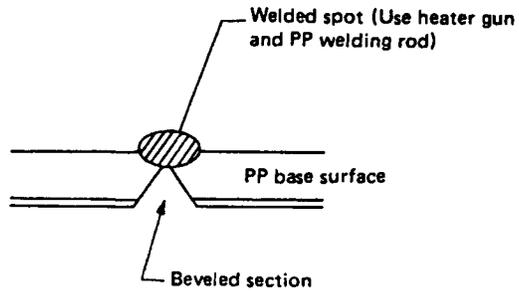
A dent cannot be repaired but a whitened or swelled part can be removed.

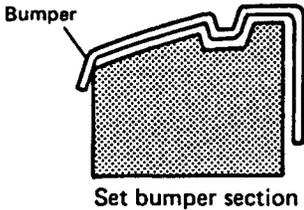
Process No.	Process name	Job contents	
1	Cleaning	Clean damaged area with water.	
2	Removal of damaged area	Cut off protruding area, if any, due to collision, using a putty knife.	
3	Sanding	Grind the affected area with #100 to #500 sandpaper.	
4	Finish	Resin section	Coated section
		Same as Process No. 3 in the "(1)" section.	Perform Process No. 12 and subsequent operations in the "(3)" section.

3. DEEP DAMAGE SUCH AS A BREAK OR HOLE THAT REQUIRES FILLING

Much of the peripheral grained surface must be sacrificed for repair, and the degree of restoration is not really worth the expense. (The surface, however, will become almost flush with adjacent areas.)

Recommended repair kit: PP Part Repair Kit (NRM)

Process No.	Process name	Job contents
1	Bumper removal	Remove bumper as required.
2	Part removal	Remove parts built into bumper as required.
3	Bumper placement	Place bumper on a paint worktable as required. It is recommended that contour of worktable accommodate internal shape of bumper. <div style="text-align: right;">  <p>Fig. 196 B5-302</p> </div>
4	Surface preparation	Remove dust, oil, etc. from areas to be repaired and surrounding areas, using a suitable solvent (NRM No. 900 Precleno, white gasoline, or alcohol).
5	Cutting	If nature of damage is cracks or holes, cut a guide slit of 20 to 30 mm (0.79 to 1.18 in) in length along the crack or hole up to the bumper's base surface. Then, bevel or "vee-out" the affected area using a knife or grinder. <div style="text-align: right;">  <p>Fig. 197 B5-304</p> </div>
6	Sanding (I)	Grind beveled surface with sandpaper (#40 to #60) to smooth finish.
7	Cleaning	Clean the sanded surface with the same solvent as used in Process No. 4.
8	Temporary welding	Grind the side just opposite the beveled area with sandpaper (#40 to #60) and clean using a solvent. Temporarily spot-weld the side, using a PP welding rod and heater gun. <div style="text-align: right;">  <p>Fig. 198 B5-305</p> </div> <p>a. Do not melt welding rod until it flows out. This results in reduced strength. b. Leave the welded spot unattended until it cools completely.</p>

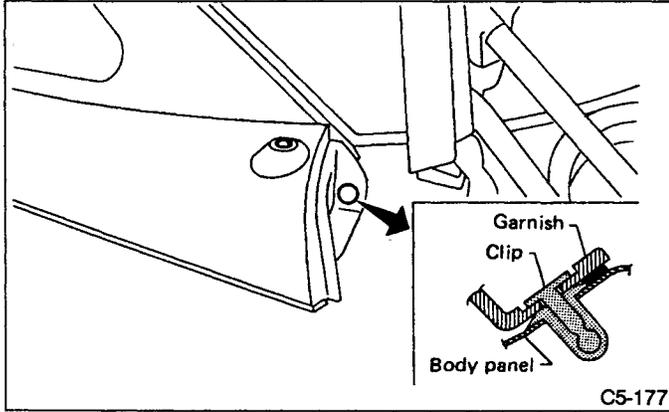
Process No.	Process name	Job contents
9	Welding	<p>Using a heater gun and PP welding rod, weld the beveled spot while melting the rod and damaged area.</p>  <p style="text-align: right;">B5-302</p> <p><i>Fig. 199</i> a. Melt the sections indicated by hatched area. b. Do not melt welding rod until it flows out, in order to provide strength. c. Always keep the heater gun 1 to 2 cm (0.4 to 0.8 in) away from the welding spot. d. Leave the welded spot unattended until it cools completely.</p>
10	Sanding (II)	<p>Remove excess part of weld with a putty knife. If a drill or disc wheel is used instead of the knife, operate it at a rate lower than 1,500 rpm and grind the excess part little by little. A higher rpm will cause the PP substrate to melt from the heat.</p>  <p style="text-align: right;">B5-307</p> <p><i>Fig. 200</i> Sand the welded spot smooth with #240 sandpaper.</p>
11	Masking	<p>Mask the black substrate section (as indicated in the figure), using masking tape. Recommended masking tape: Nichiban No. 533 or equivalent. For details, see the figures showing the masking portions.</p>
12	Cleaning/degreasing	<p>Completely clean the entire coated area, using solvent similar to that used in Process No. 4.</p>
13	Primer coating	<p>Apply a coat of primer to the repaired surface and its surrounding areas. Mask these areas, if necessary. Recommended primer: No. 364 PP Primer. Be sure to apply one coat of primer at a spraying pressure of 245 to 343 kPa (2.5 to 3.5 kg/cm², 36 to 50 psi) with a spray gun.</p>
14	Leave unattended	<p>Leave the repaired area unattended at 20°C (68°F) for 10 to 15 minutes until primer is half-dry. If dirt or dust comes in contact with the coated area, wipe it off with a cloth dampened with alcohol. (Do not use thinner since the coated area tends to melt.)</p>

Process No.	Process name	Job contents	
15	Primer surfacer coating	Apply a coat of primer surfacer to the repaired area two or three times at an interval of 3 to 5 minutes. Recommended surfacer: <ul style="list-style-type: none"> ● UPS 300 Flex Primer ● No. 303 UPS 300 Exclusive hardener ● NPS 725 Exclusive Reducer (thinner) ● Mixing ratio: 2 : 1 (UPS 300: No. 303) ● Viscosity: 12 — 14 sec/20°C (68°F) ● Coated film thickness: 40 — 50μ 	
16	Drying	Allow the coated surface to dry for 60 minutes at 20°C (68°F) [or 30 minutes at 60°C (140°F)].	
17	Sanding (III)	Sand the coated surface and its surrounding areas using #400 sandpaper and water.	
18	Cleaning/degreasing	Same as Process No. 12.	
19	Top coat (I)	Solid color	Metallic color
		Use a "block" coating method. <ul style="list-style-type: none"> ● Recommended paint: Suncryl (SC) No. 307 Flex Hardener SC Reducer (thinner) ● Mixing ratio: 3 : 1 (Suncryl: No. 307) ● Viscosity: 11 — 13 sec/20°C (68°F) ● Coated film thickness: 40 — 50μ ● Spraying thickness: 245 — 343 kPa (2.5 — 3.5 kg/cm², 36 — 50 psi) 	← ← ← ← ← ● Coated film thickness: 20 — 30μ ←
20	Leave unattended	Not required.	Leave unattended at 20°C (68°F) for at least 10 minutes until the topcoated area is half-dry. Be careful to keep dust or dirt from coming in contact with the affected area.
21	Top coat (II)	Not required.	Apply a clear coat three times at an interval of 3 to 5 minutes. <ul style="list-style-type: none"> ● Recommended paint: SC710 Overlay Clear No. 307 Flex Hardener SC Reducer (thinner) ● Mixing ratio: 3 : 1 (SC710: No. 307) ● Viscosity: 10 — 13 sec/20°C (68°F) ● Coated film thickness: 20 — 30μ ● Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kg/cm², 36 — 50 psi)
22	Drying	Allow the coated surface to dry at 20°C (68°F) for two hours or 60°C (140°F) for 30 minutes. Do not allow the temperature to exceed 80°C (176°F) since this will deform the PP substrate.	
23	Inspection	Carefully check the condition of the repaired area.	
24	Masking removal	Remove masking tape applied in Process No. 11 and 13.	
25	Parts installation	Install parts on bumper in reverse order of removal.	
26	Bumper installation	Install bumper.	

10. Rear Quarter Garnish

A: REMOVAL

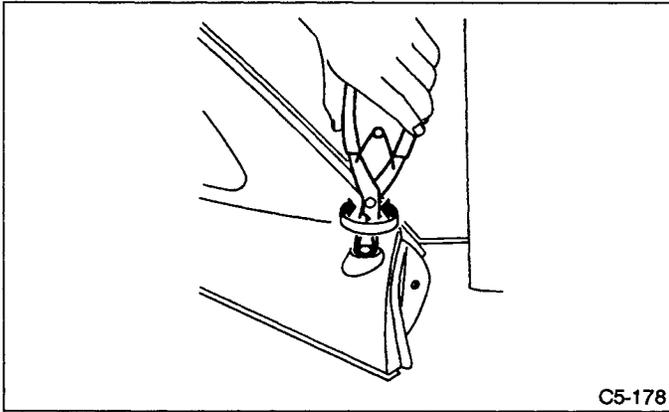
- 1) Remove clip at end of garnish.



C5-177

Fig. 201

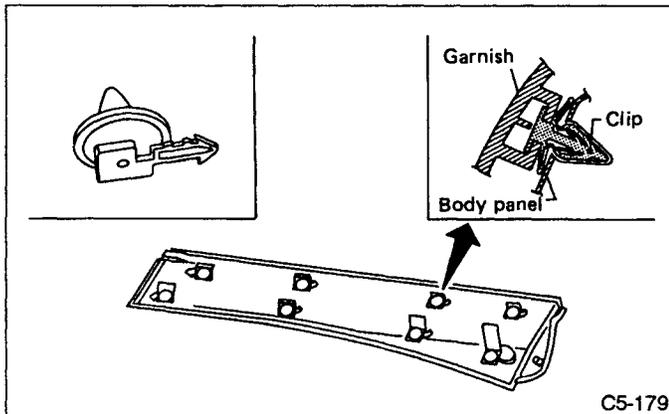
- 2) Remove radio antenna holder (LH side only).



C5-178

Fig. 202

- 3) Remove clip by lifting front end of garnish.



C5-179

Fig. 203

B: INSTALLATION

Installation is in the reverse order of removal.

11. Front Fender **AIRBAG**

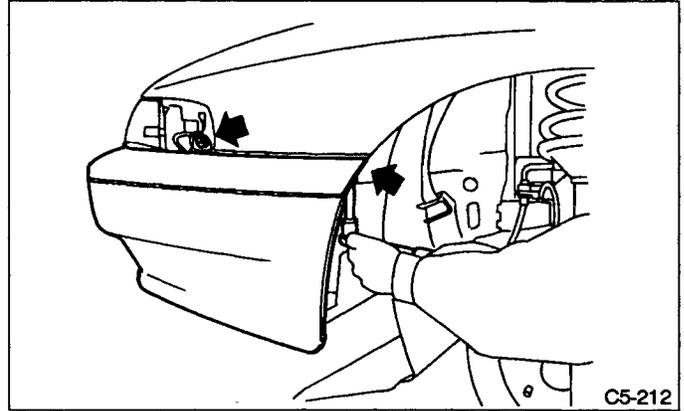
Supplemental Restraint System "Airbag"

Airbag system wiring harness is routed near the front fender.

- a. All Airbag system wiring harness and connectors are colored yellow. Do not use electrical test equipment on these circuit.
- b. Be careful not to damage Airbag system wiring harness when servicing the front fender.

A: REMOVAL

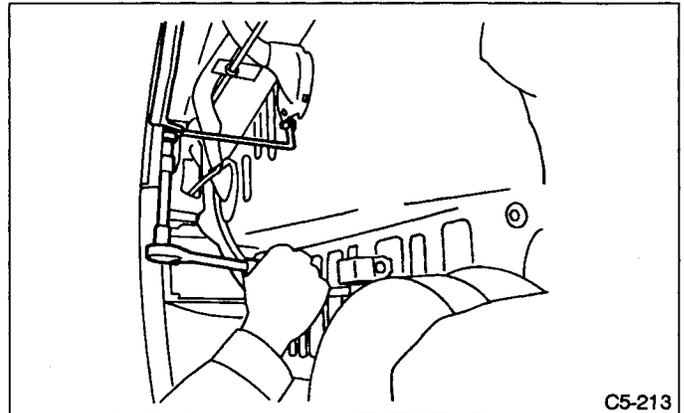
- 1) Lift up the car.
- 2) Remove under cover.
- 3) Remove mud guard.
- 4) Remove front combination light.
- 5) Remove bolt securing fender to bumper side.



C5-212

Fig. 204

- 6) Remove stay from body panel.



C5-213

Fig. 205

- 7) Remove front side garnish.
- 8) Remove eleven attaching bolts.

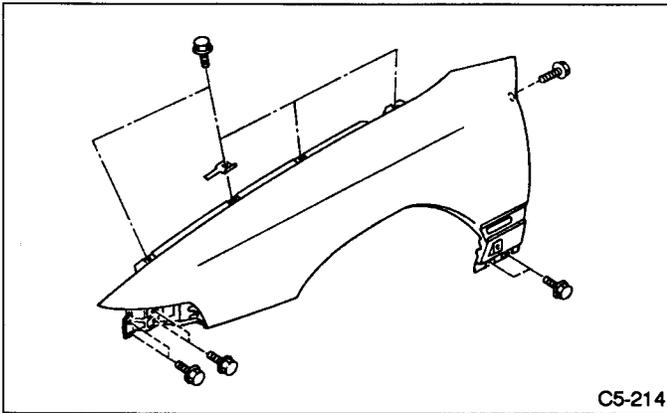


Fig. 206

9) Detach fender.
Be careful not to scratch body panels with fender edges when removing it.

B: INSTALLATION

1) Installation is in the reverse order of removal.
2) Check for alignment of front fender with hood and front door with front fender at all points. Adjust, if necessary.

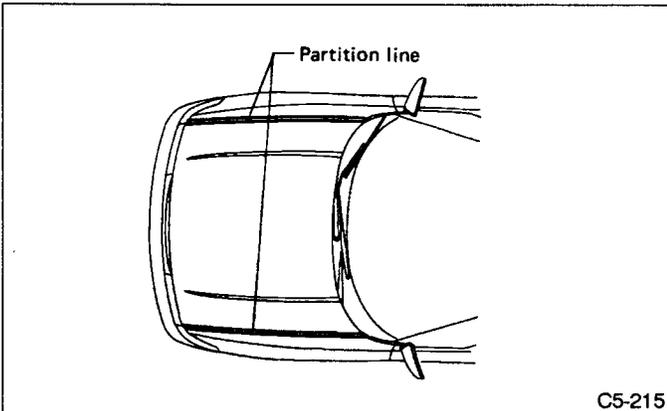


Fig. 207

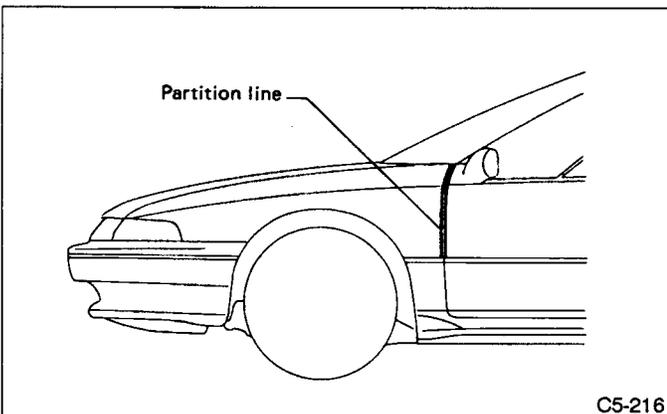


Fig. 208

12. Mud Guard and Front Arch Protector AIRBAG

Supplemental Restraint System "Airbag"

Airbag system wiring harness is routed near the mud guard and front arch protector.

- a. All Airbag system wiring harness and connectors are colored yellow. Do not use electrical test equipment on these circuit.
- b. Be carefull not to damage Airbag system wiring harness when servicing the mud guard and front arch protector.

A: REMOVAL

1. FRONT SIDE

- 1) Lift up the car after loosening wheel nuts.
- 2) Remove tire.
- 3) Remove under cover.
- 4) Remove screw rivets, clips and screws.

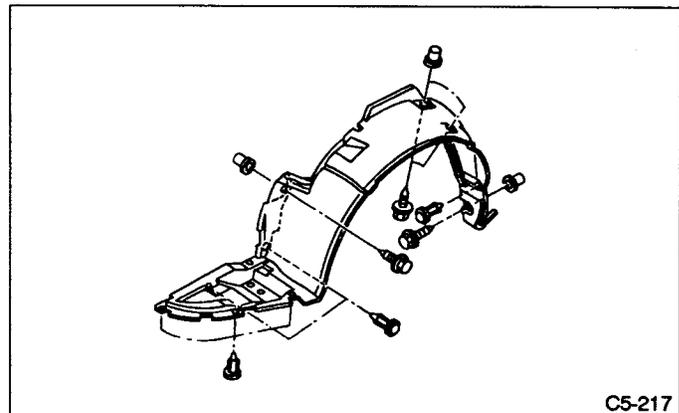


Fig. 209

- 5) Detach mud guard.
- 6) Remove bolt securing fender to bumper side.

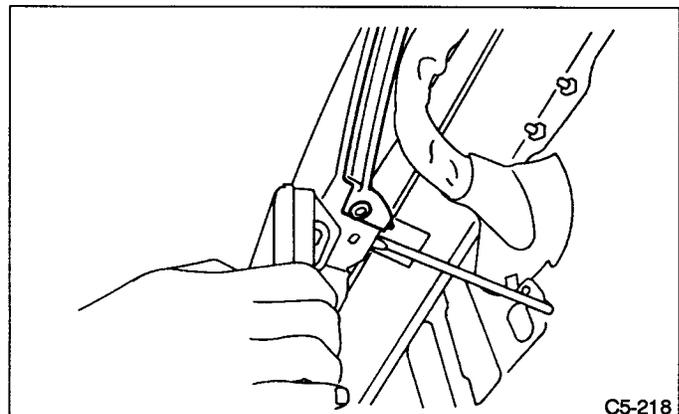


Fig. 210

- 7) Peel front end of front side garnish. (refer to removal of front garnish.)

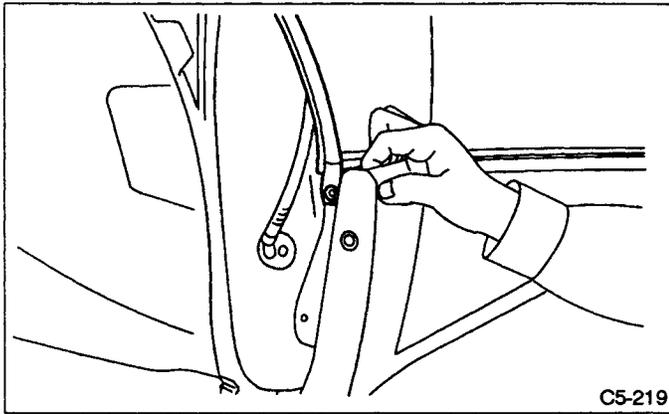


Fig. 211

8) Remove screw and then detach arch protector.

2. REAR SIDE

- 1) Lift up the car after loosening wheel nuts.
- 2) Remove tire.
- 3) Remove screw rivets and screws.

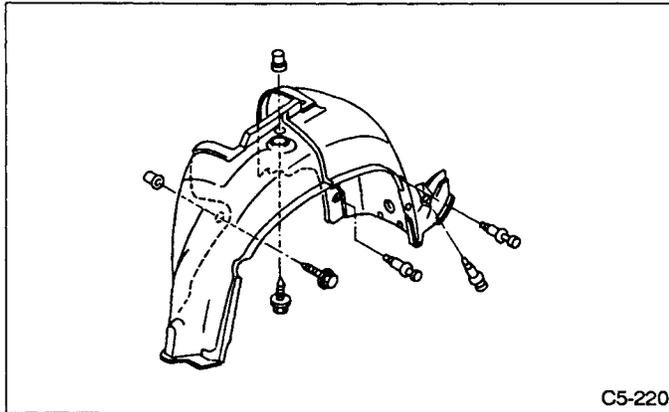


Fig. 212

- 4) Detach mud guard.
- 5) Remove bolt securing rear quarter panel and bumper side, then remove clip.

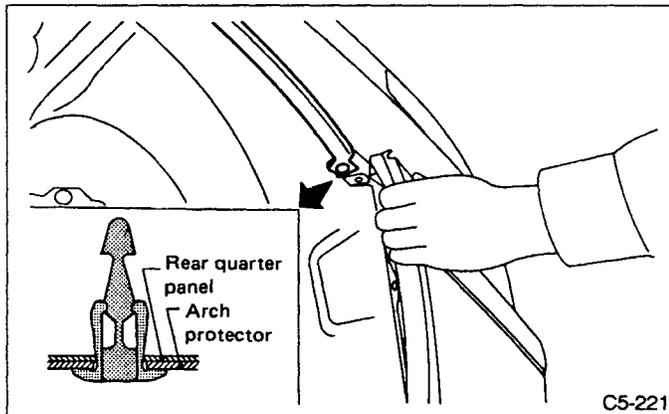


Fig. 213

- 6) Peel rear end of rear side garnish (refer to removal of rear side garnish), and then remove clip.

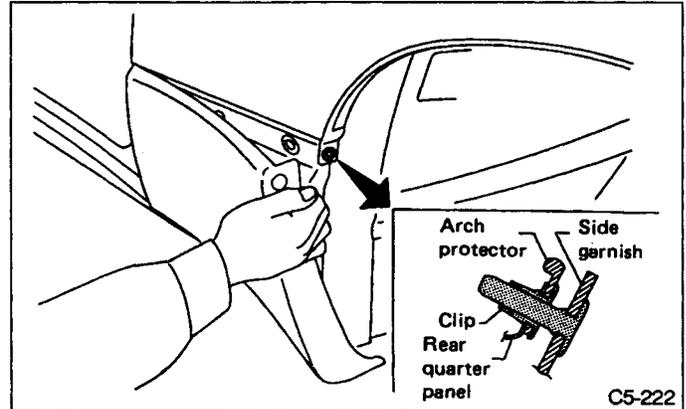


Fig. 214

- 7) Detach arch protector.

B: INSTALLATION

Installation is in the reverse order of removal.

- a. Only use new nuts and clips.
- b. Ensure mud guard and arch protector are installed as shown in figure below.

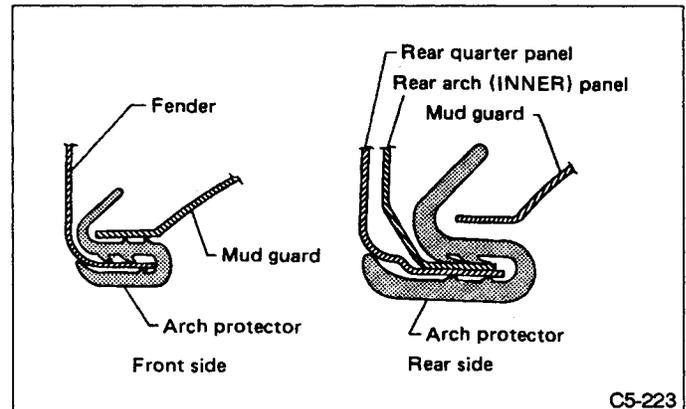


Fig. 215

13. Cowl Panel

A: REMOVAL

- 1) Open front hood.
- 2) Pry clips of seal off using a flatbed screwdriver.

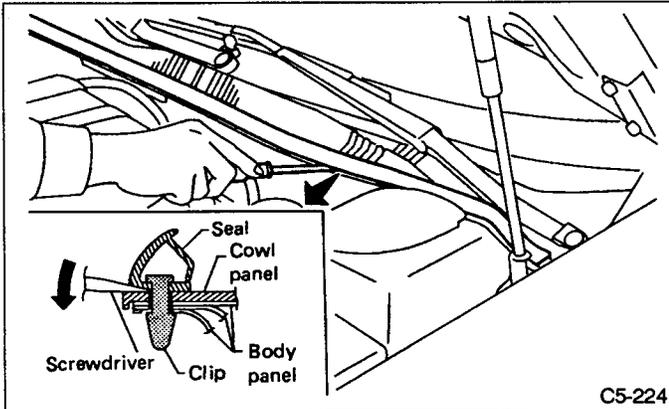


Fig. 216

- 3) Remove wiper arms.
 - 4) Remove side cowl panel to pry it off using a flatbed screwdriver.
- Perform this job by closing hood.

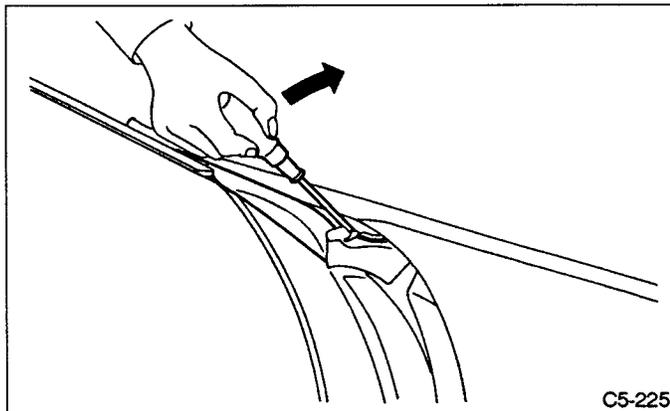


Fig. 217

- 5) Remove clips by lifting cowl panel.

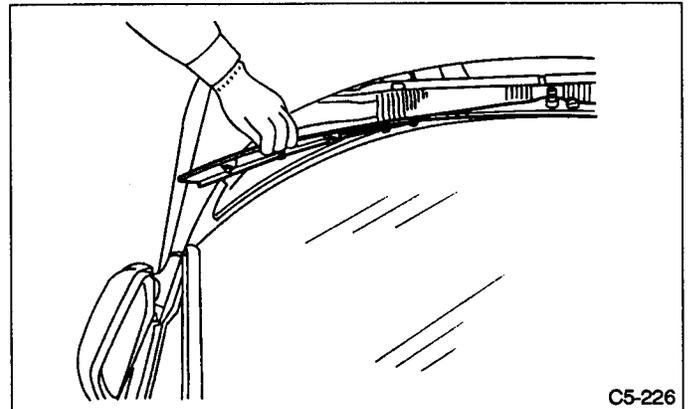


Fig. 218

- 6) Remove clips.

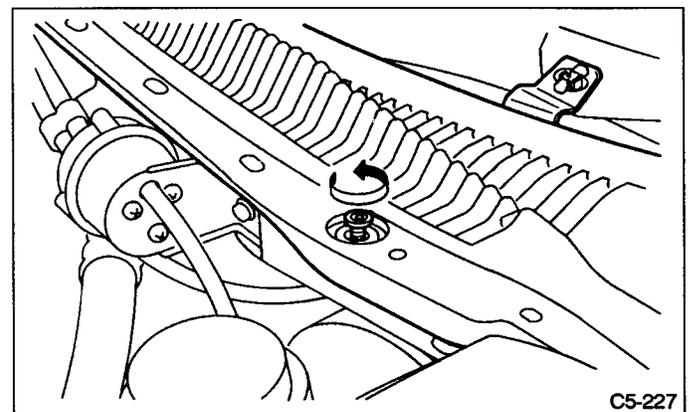


Fig. 219

- 7) Rotate clip head 90°, and then detach cowl panel net.

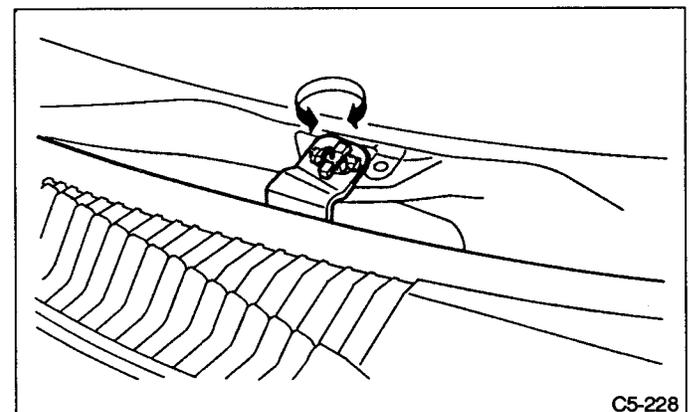


Fig. 220

B: INSTALLATION

Installation is in the reverse order of removal.

14. Front Grille

A: REMOVAL

While lightly pulling grille, pry clips off body using flatbed screwdriver.

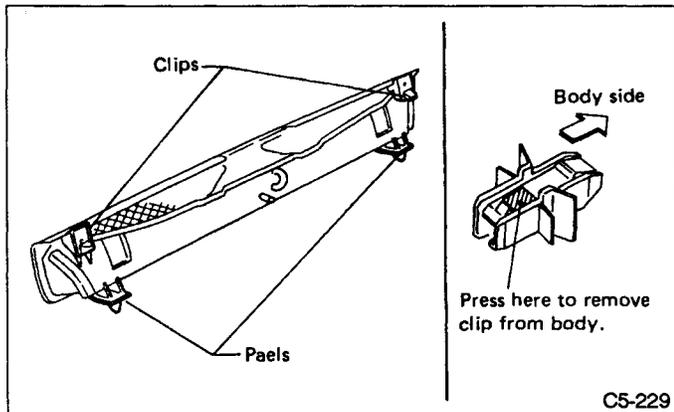


Fig. 221

B: INSTALLATION

- 1) Insert pawls of grill lower side into holes of body.
- 2) Push clip into clip hole in body.

15. Under Cover

A: REMOVAL

Lift up the car and remove bolts.

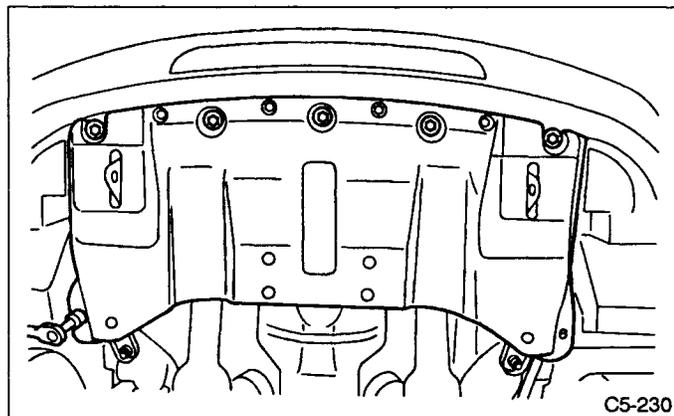


Fig. 222

B: INSTALLATION

Installation is in the reverse order of removal.

16. Side Splash Board

A: REMOVAL

- 1) Lift up the car and remove wheel.
- 2) Remove clip, nut and bolt.

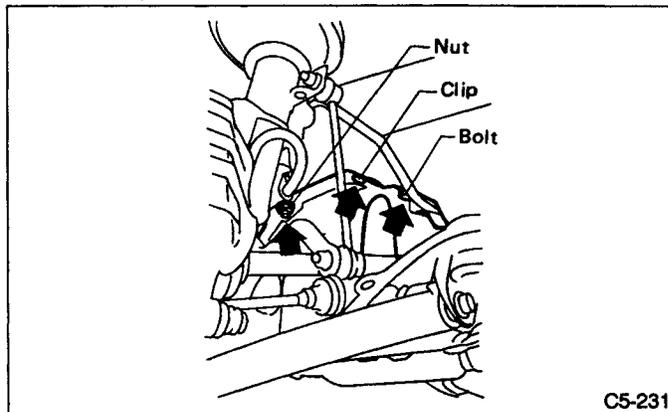


Fig. 223

B: INSTALLATION

Installation is in the reverse order of removal.

17. Ornament

A: REMOVAL

Cut double-sided adhesive tape using thin wire, and pull off ornament from clip.

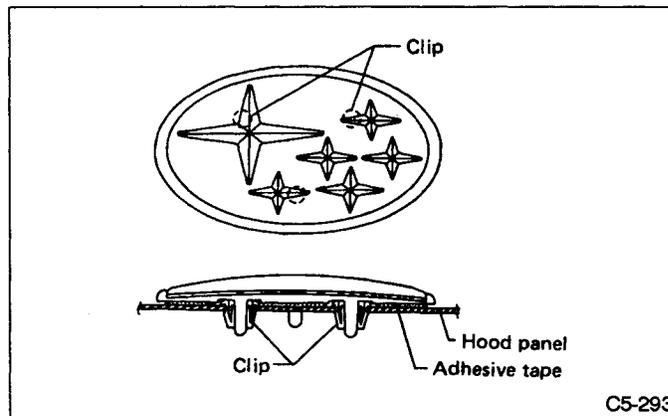


Fig. 224

B: INSTALLATION

Install ornament after de-greasing ornament mounting surface on front hood.

18. Rear View Mirror

A: REMOVAL

- 1) Remove door trim and disconnect connector.

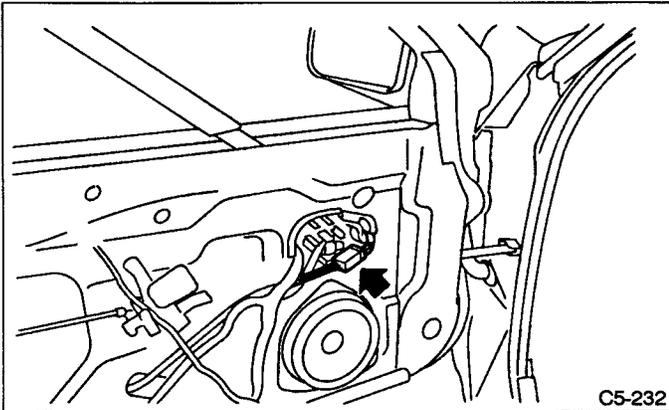


Fig. 225

- 2) Remove weather-strip from around mirror mounting.

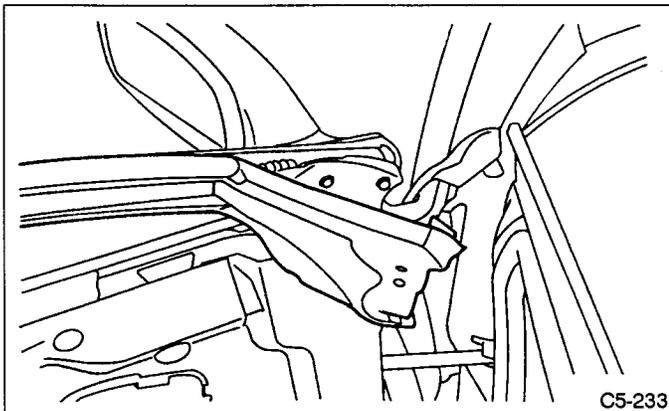


Fig. 226

- 3) Remove bolts and detach mirror.

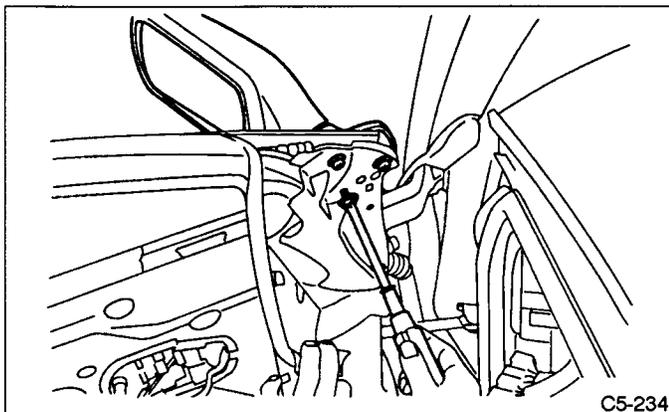


Fig. 227

B: INSTALLATION

Installation is in the reverse order of removal.

19. Sunroof

A: REMOVAL

1. SUNROOF PANEL

- 1) Open sunroof approx. 1/3.
- 2) Remove clips attached to front side of sunroof trim by pulling trim from inside of compartment.

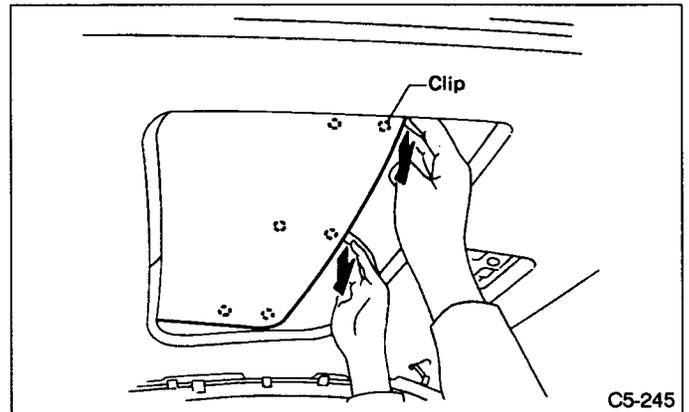


Fig. 228

- 3) Move trim forward, and detach trim end from holder.

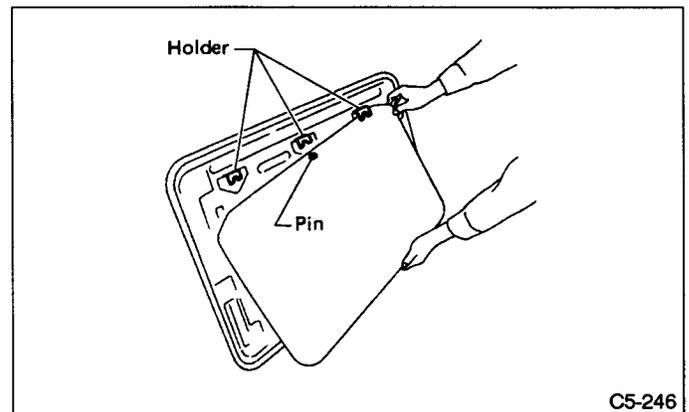


Fig. 229

- 4) Detach trim.

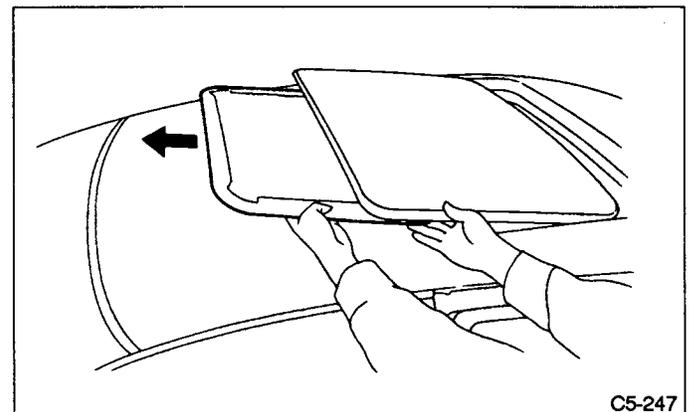


Fig. 230

5) Close sunroof and remove nuts.

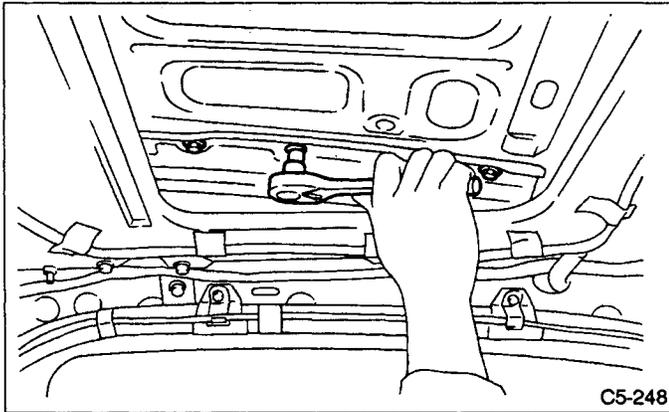


Fig. 231

3) Remove relay by pulling it out.

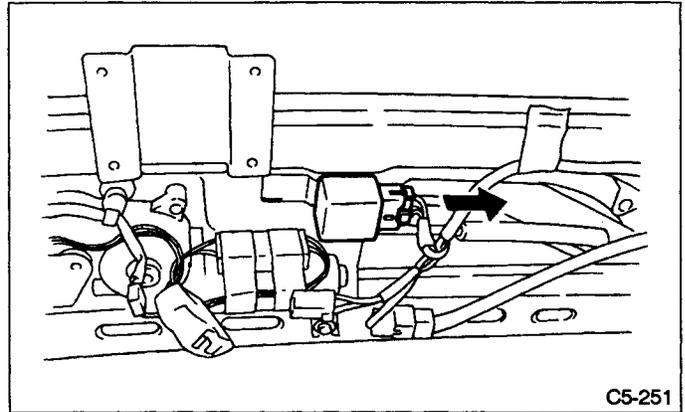


Fig. 234

6) Remove sunroof panel.

2. SUNROOF MOTOR AND RELAY

1) Remove rear quarter trim, pillar trim, roof trim, etc. (Refer to chapter 5-3.)

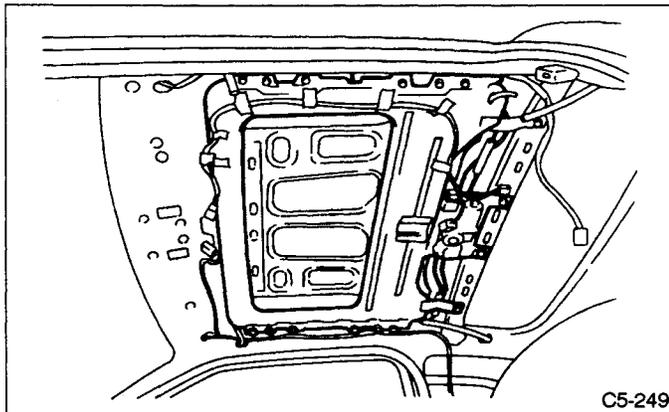


Fig. 232

3. SUNROOF FRAME

1) Remove rear quarter trim, pillar trim, roof trim etc. (Refer to chapter 5-3.)

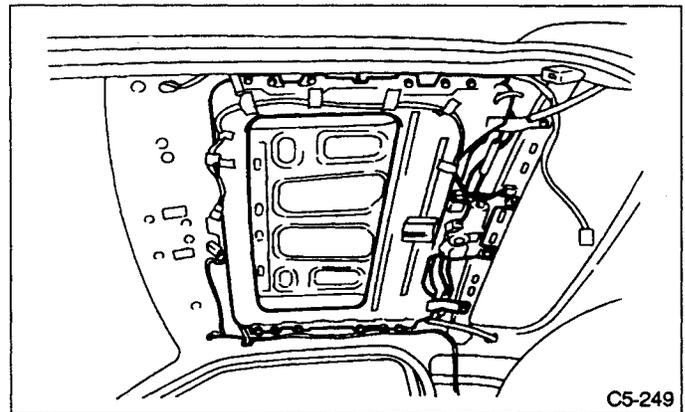


Fig. 235

2) Disconnect connector and remove screws.

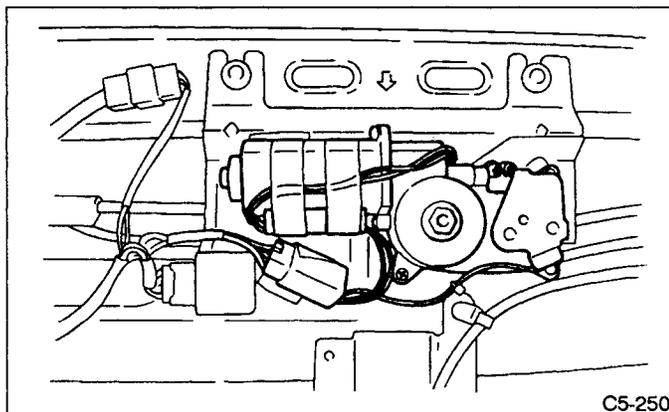


Fig. 233

2) Remove sunroof panel.
3) Disconnect drain tubes.

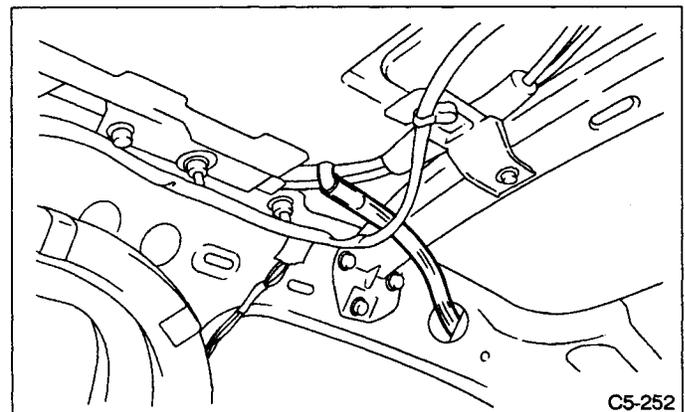


Fig. 236

4) Disconnect connector between body harness and sun roof harness.

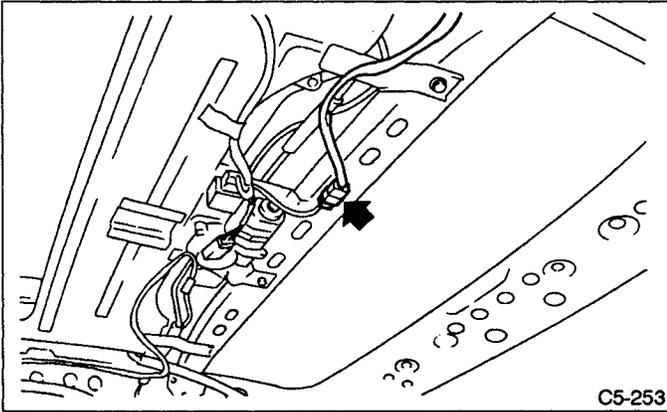


Fig. 237

5) Loosen two mounting bolts near motor. (Do not remove bolts.)

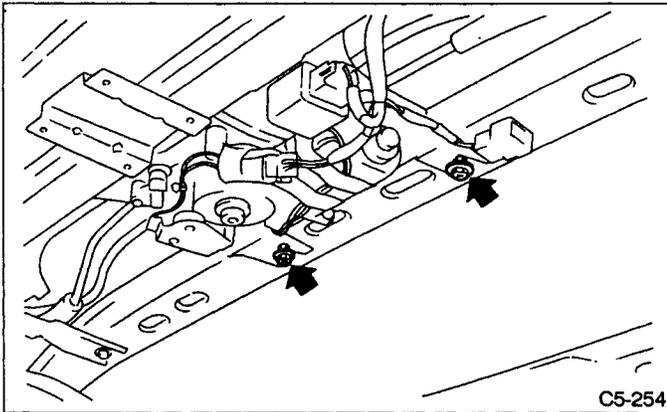


Fig. 238

6) Remove two bolts, eight nuts and four adjusting nuts.

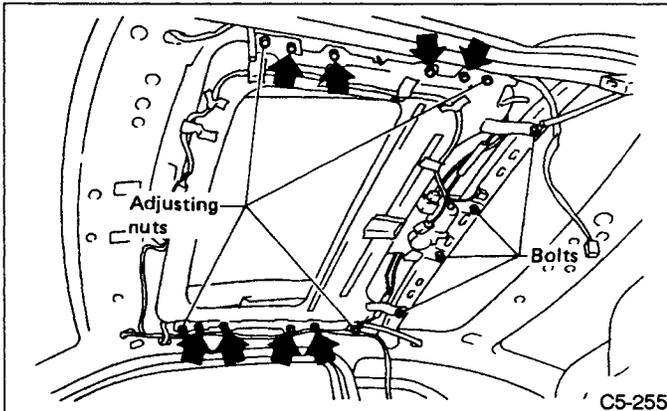


Fig. 239

7) Remove sunroof frame.

8) Loosen set bracket mounting bolt.

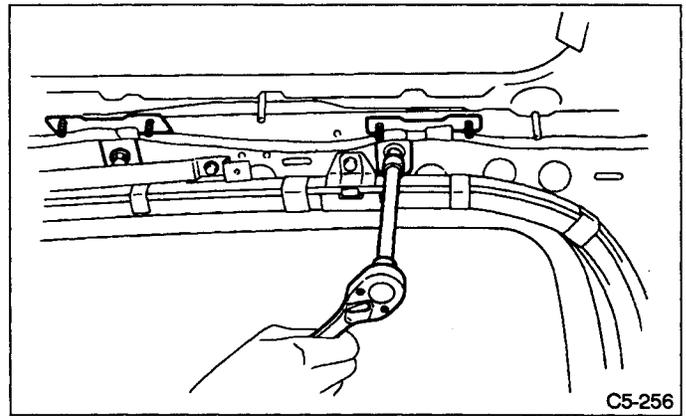


Fig. 240

B: INSTALLATION

1. SUNROOF PANEL, MOTOR AND RELAY

Installation is in the reverse order of removal.

Sun roof trim reference pin must be fitted in holder notch.

2. SUNROOF FRAME

1) Insert frame rear end slit to two bolts fitted temporarily to roof brace.

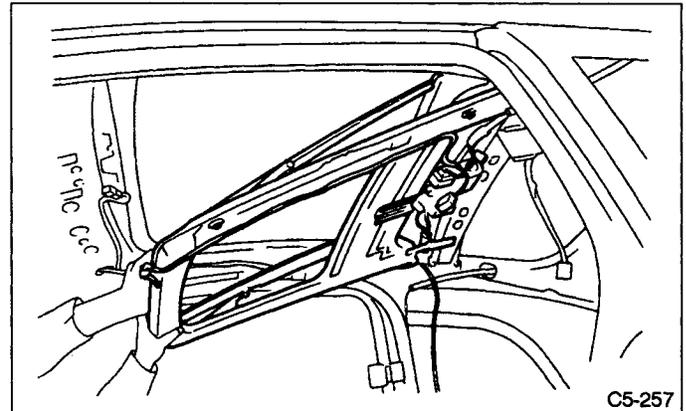


Fig. 241

2) Align frame to reference pin installed on roof.

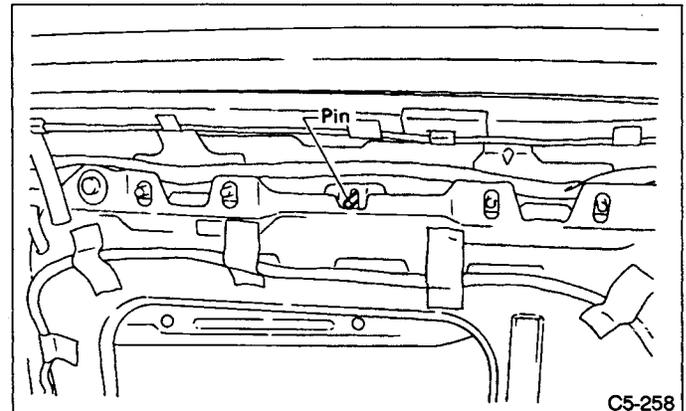


Fig. 242

- 3) Tighten adjusting nut (that is, set frame at highest position).
Temporarily tighten nuts and bolts.

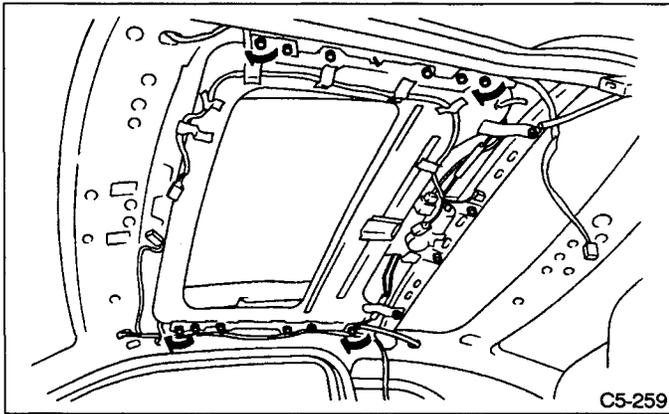


Fig. 243

- 4) Install sunroof panel.
5) Adjust height by turning adjusting nut.
Also adjust front, rear, right, and left-side partitions.

Partition clearance: 5.9 ± 0.5 mm (0.232 ± 0.020 in)

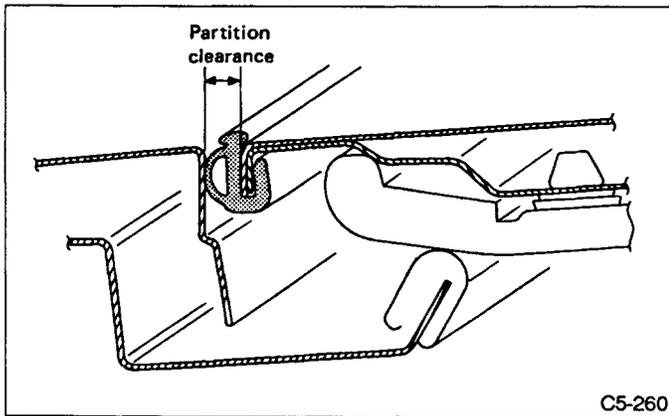


Fig. 244

**Difference in height between roof panel and sunroof panel:
 0 ± 1.0 mm (0 ± 0.039 in)**

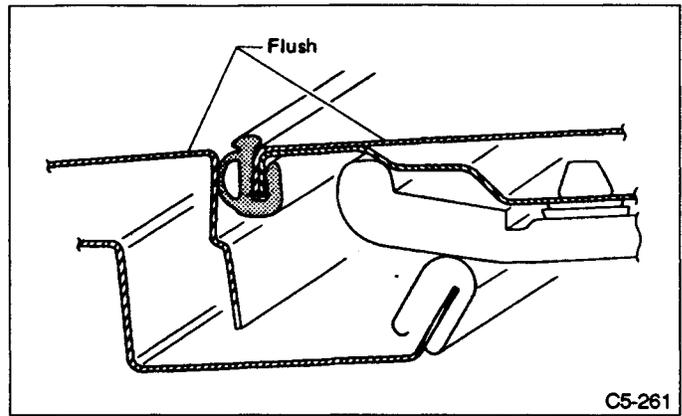


Fig. 245

- 6) Tighten set bracket mounting bolts.

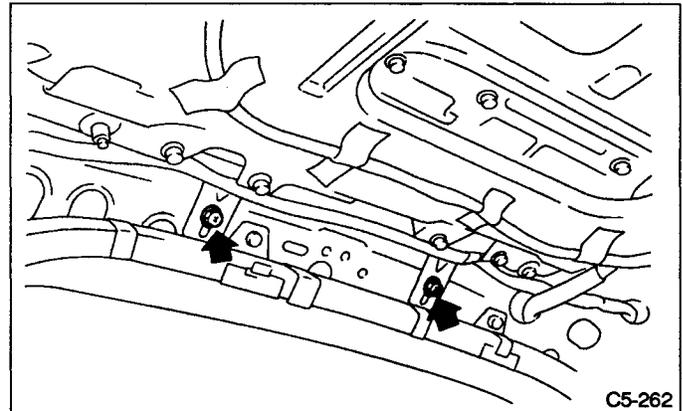


Fig. 246

- 7) Tighten bolts and nuts.

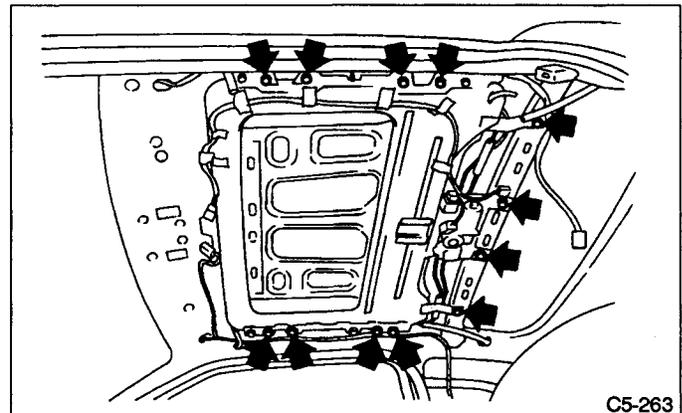


Fig. 247

- 8) Install drain tubes.
Insert drain tube securely up to bend of drain pipe.

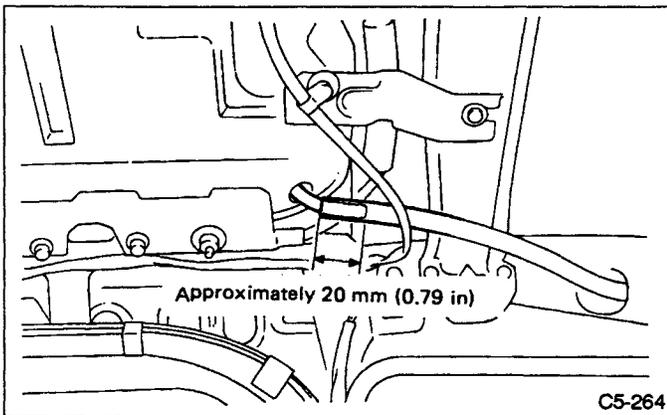


Fig. 248

11) Install sunroof trim, pillar trim, rear quarter trim etc.
 12) Check the following items after assembling all parts;

- Garnish must be free from waves.
- When sun roof is fully closed, must be no clearance between garnish and sun roof trim.
- Sun roof must be free from slack and noise when it is fully opened and closed.

9) Install roof trim.

10) Install garnish.

Place garnish joint at rear center of body.

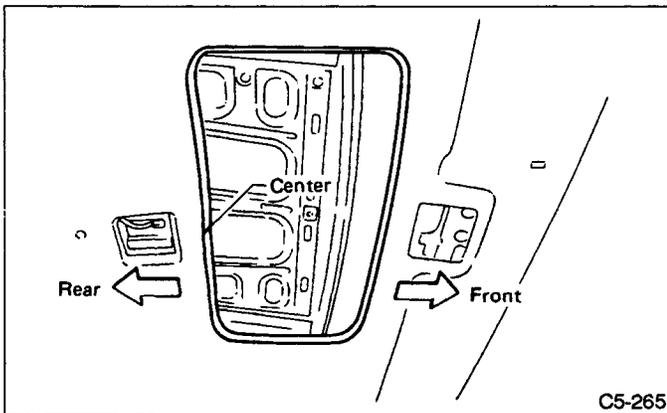


Fig. 249

T TROUBLESHOOTING

1. Sunroof

Entry of water into compartment	<ol style="list-style-type: none"> ① Check roof panel and sunroof panel for improper or poor sealing. ② Check drain tube for clogging. ③ Check sunroof frame seal and body for improper fit.
Booming noise	<ol style="list-style-type: none"> ① Check sunroof panel and roof panel for improper clearance. ② Check sunroof trim and roof trim for improper clearance.
Abnormal motor noise	<ol style="list-style-type: none"> ① Check motor for looseness. ② Check gears and bearings for wear. ③ Check cable for wear. ④ Check cable pipe for deformities.
Failure of sunroof to operate (Motor operates properly)	<ol style="list-style-type: none"> ① Check guide rail for foreign particles. ② Check guide rail for improper installation. ③ Check parts for mutual interference. ④ Check cable slider for improper clinching. ⑤ Check cable for improper installation. ⑥ Check clutch adjustment nut for improper tightness.
Motor does not rotate or rotates im- properly. (Use sunroof wrench to check operation.)	<ol style="list-style-type: none"> ① Check fuse for blowout. ② Check switch for improper function. ③ Check motor for incorrect terminal voltage. ④ Check relay for improper operation. ⑤ Check poor grounding system. ⑥ Check cords for discontinuity and terminals for poor connections. ⑦ Check limit switch for improper operation.