

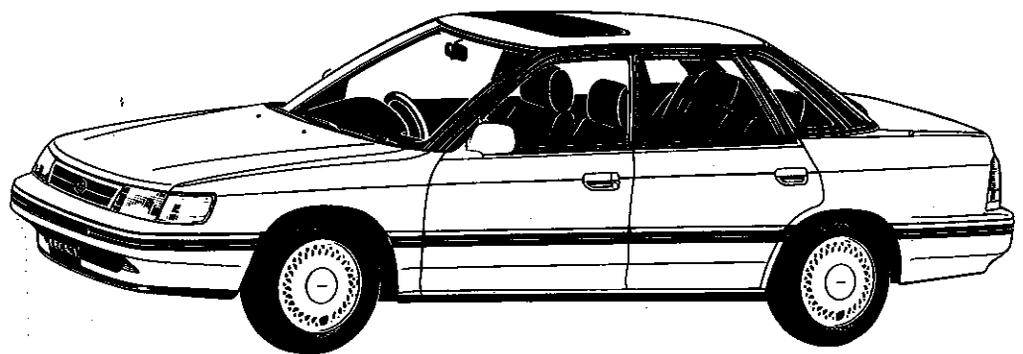


**SUBARU®**

**LIBERTY**

**1992  
SERVICE  
MANUAL**

SECTION 5



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**FUJI HEAVY INDUSTRIES LTD.**

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GLENDALE

## QUICK REFERENCE INDEX

# SUBARU®

## 1992

# SERVICE MANUAL

DATE DUE

This service manual has been prepared to provide SUBARU service personnel with the necessary information and data for the correct maintenance and repair of SUBARU vehicle.

This manual include the procedures for maintenance disassembling, reassembling, inspection and adjustment of components and troubleshooting for guidance of both the fully qualified and the less-experienced mechanics.

Please peruse and utilize this manual fully to ensure complete repair work for satisfying our customers by keeping their vehicle in optimum condition. When replacement of parts during repair work is needed, be sure to use SUBARU genuine parts.

All information, illustration and specifications contained in this manual are based on the latest product information available at the time of publication approval.

**FUJI HEAVY INDUSTRIES LTD.**

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## 5 BODY SECTION

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DOORS AND WINDOWS 5-2

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## IMPORTANT SAFETY NOTICE

Providing appropriate service and repair is a matter of great importance in the serviceman's safety maintenance and safe operation, function and performance which the SUBARU vehicle possesses.

In case the replacement of parts or replenishment of consumables is required, genuine SUBARU parts whose parts numbers are designated or their equivalents must be utilized.

It must be made well known that the safety of the serviceman and the safe operation of the vehicle would be jeopardized if he used any service parts, consumables, special tools and work procedure manuals which are not approved or designated by SUBARU.

## How to use this manual

- This Service Manual is divided into six volumes by section so that it can be used with ease at work. Refer to the Table of Contents, select and use the necessary section.
- Each chapter in the manual is basically made of the following five types of areas.

M : Mechanism and function  
S : Specifications and service data  
C : Component parts  
W : Service procedure  
(X : Service procedure)  
(Y : Service procedure)  
T : Troubleshooting

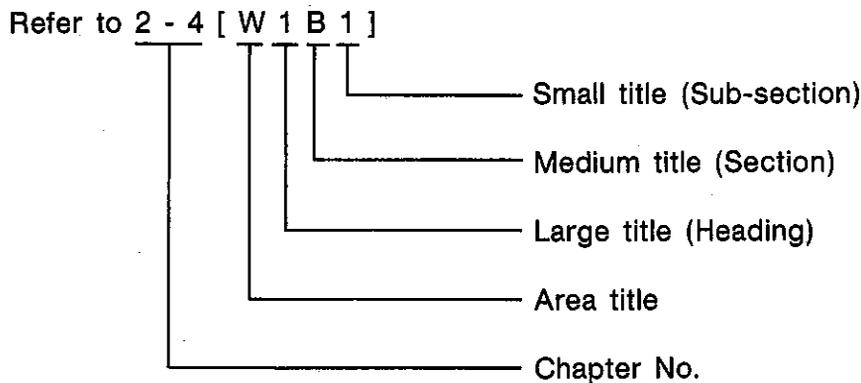
- The description of each area is provided with four types of titles different in size as shown below. The Title No. or Symbol prefixes each title in order that the construction of the article and the flow of explanation can be easily understood.

[Example of each title]

- Area title: W. Service procedure (one of the five types of areas)
- Large title (Heading): 1. Oil Pump (to denote the main item of explanation)
- Medium title (Section): A. REMOVAL (to denote the type of work in principle)
- Small title (Sub-section): 1. INNER ROTATOR (to denote a derivative item of explanation)

- The Title Index No. is indicated on the top left (or right) side of the page as the book is opened. This is useful for retrieving the necessary portion.

(Example of usage)



Example of title placement

2-10 [W 1 A 0] CLUTCH

Area title → **W SERVICE PROCEDURE**

Large title → **1. General**

Medium title → **A: PRECAUTION**

When servicing clutch system, pay attention to the following items.

- 1) Check the routing of clutch cable for smoothness.
- 2) Excessive tightness or looseness of clutch cable have a bad influence upon the cable durability.
- 3) Apply grease sufficiently to the connecting portion of clutch pedal.
- 4) Apply grease sufficiently to the release lever portion.
- 5) Position clutch cable through the center of toeboard hole

Adjustment is done by

Small title → **2.RELEASE LEVER**  
 Check lever pivot portion and the point of contact with holder for wear.

**2.Release Bearing and Lever**

**A: REMOVAL**

2) Seal

- In this manual, the following symbols are used.

 : Should be lubricated with oil.

 : Should be lubricated with grease.

 : Sealing point

 : Tightening torque

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**SUBARU®**

**1992**

**SERVICE  
MANUAL**



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Wagon

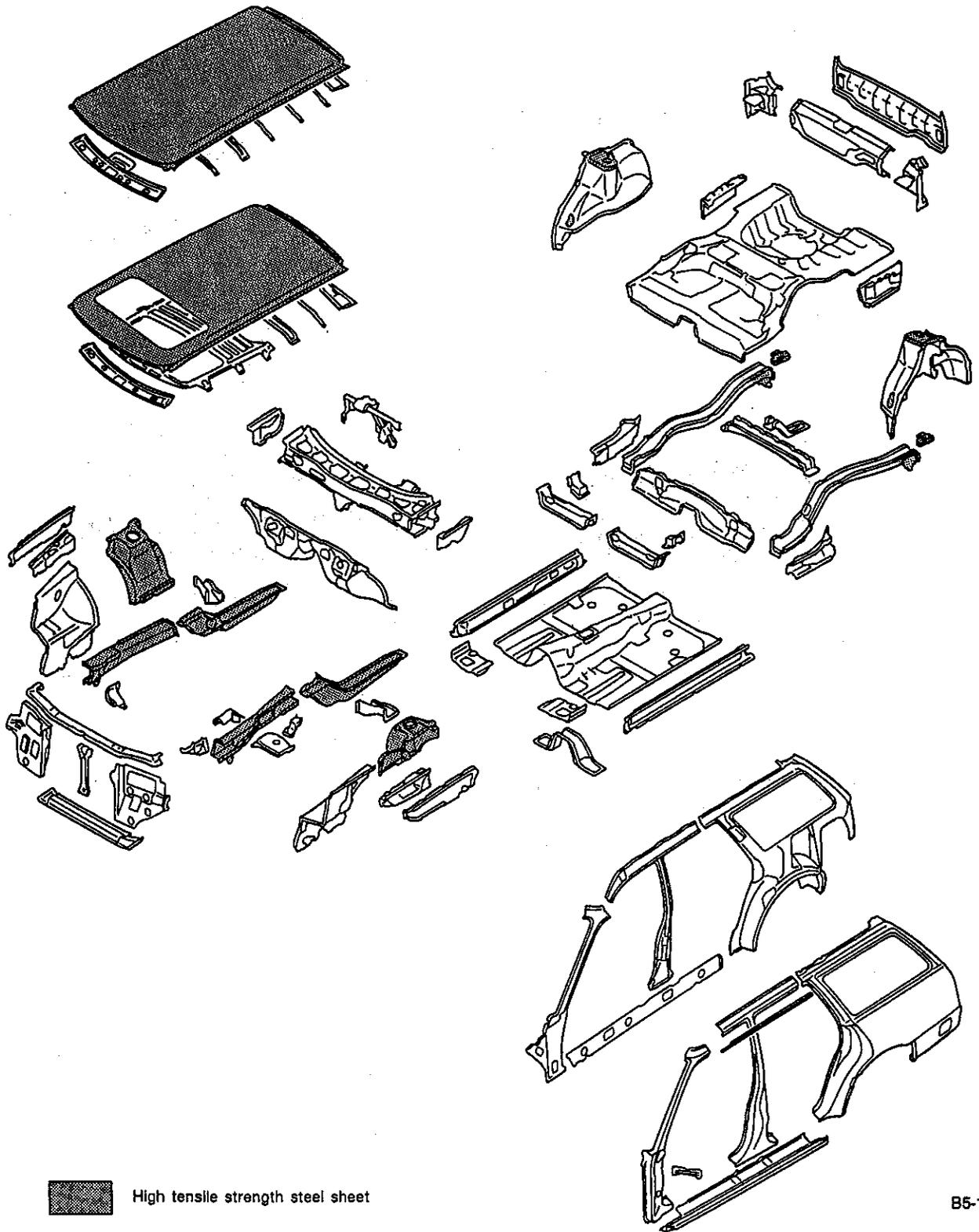


Fig. 2

B5-1066

## 2. Cross-sectional Structure of Body

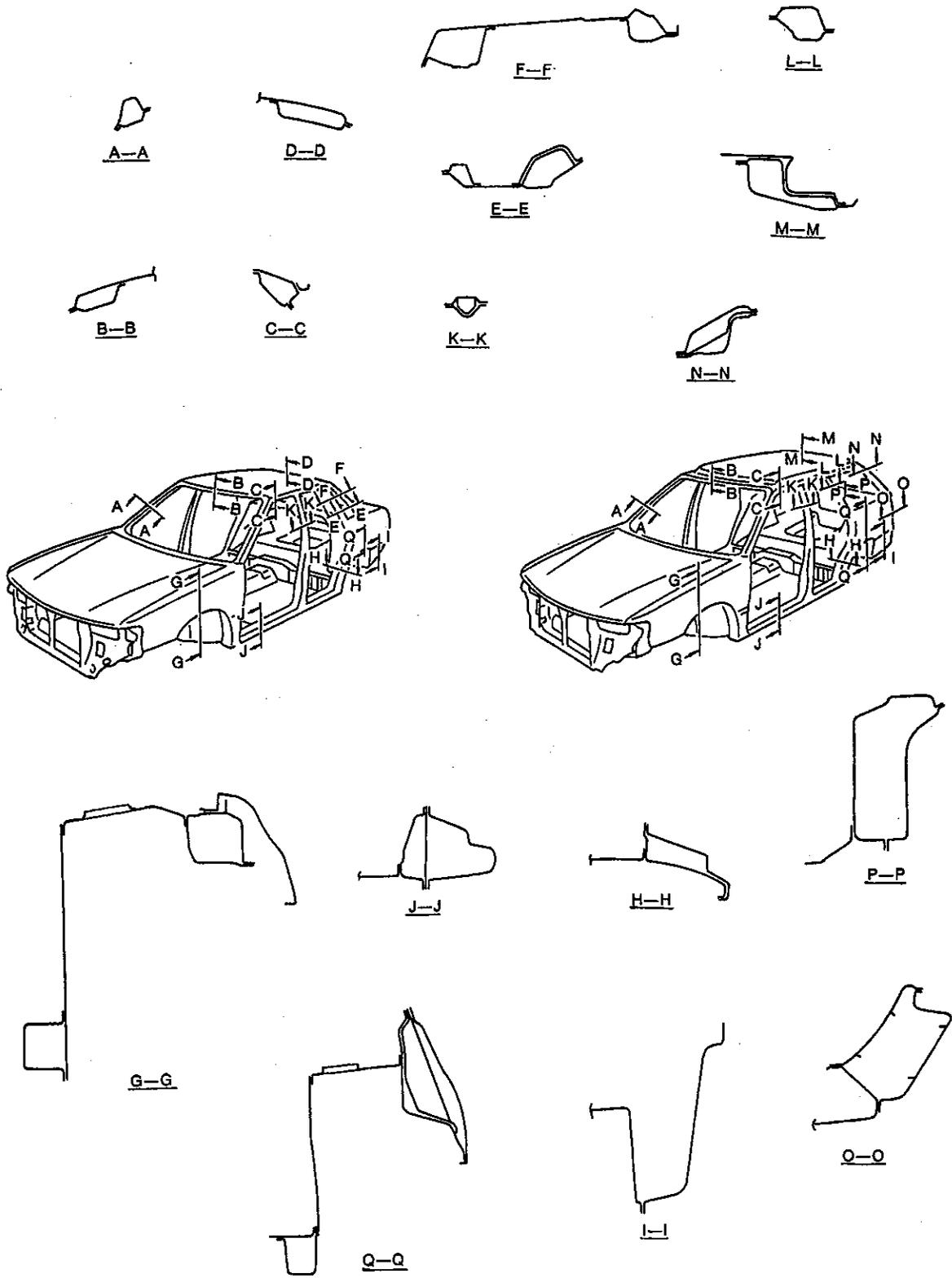


Fig. 3

B5-1067

### 3. 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) Silencers

They (= asphalt sheets) minimize the transmission of noise/vibration into the passenger compartment.

2) 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.

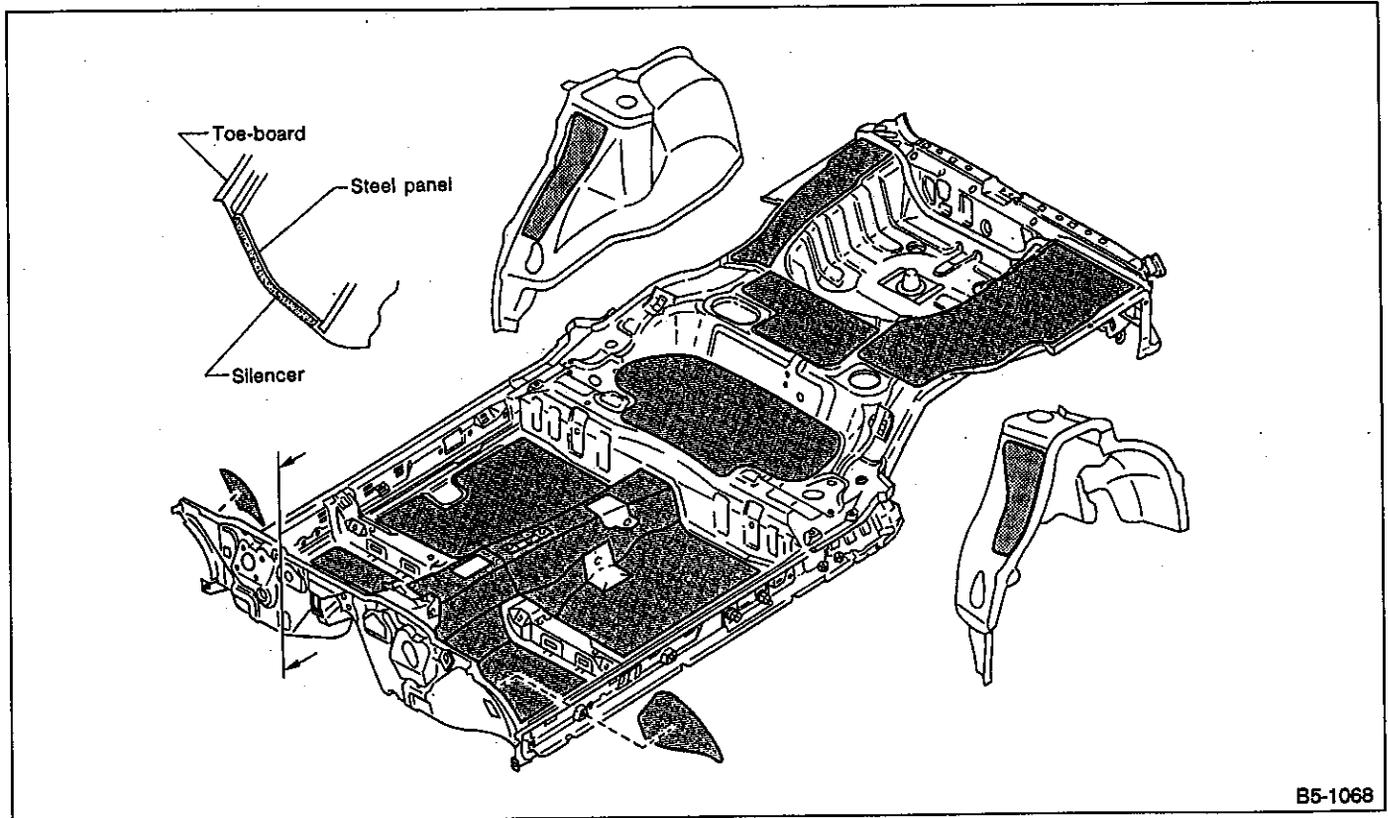
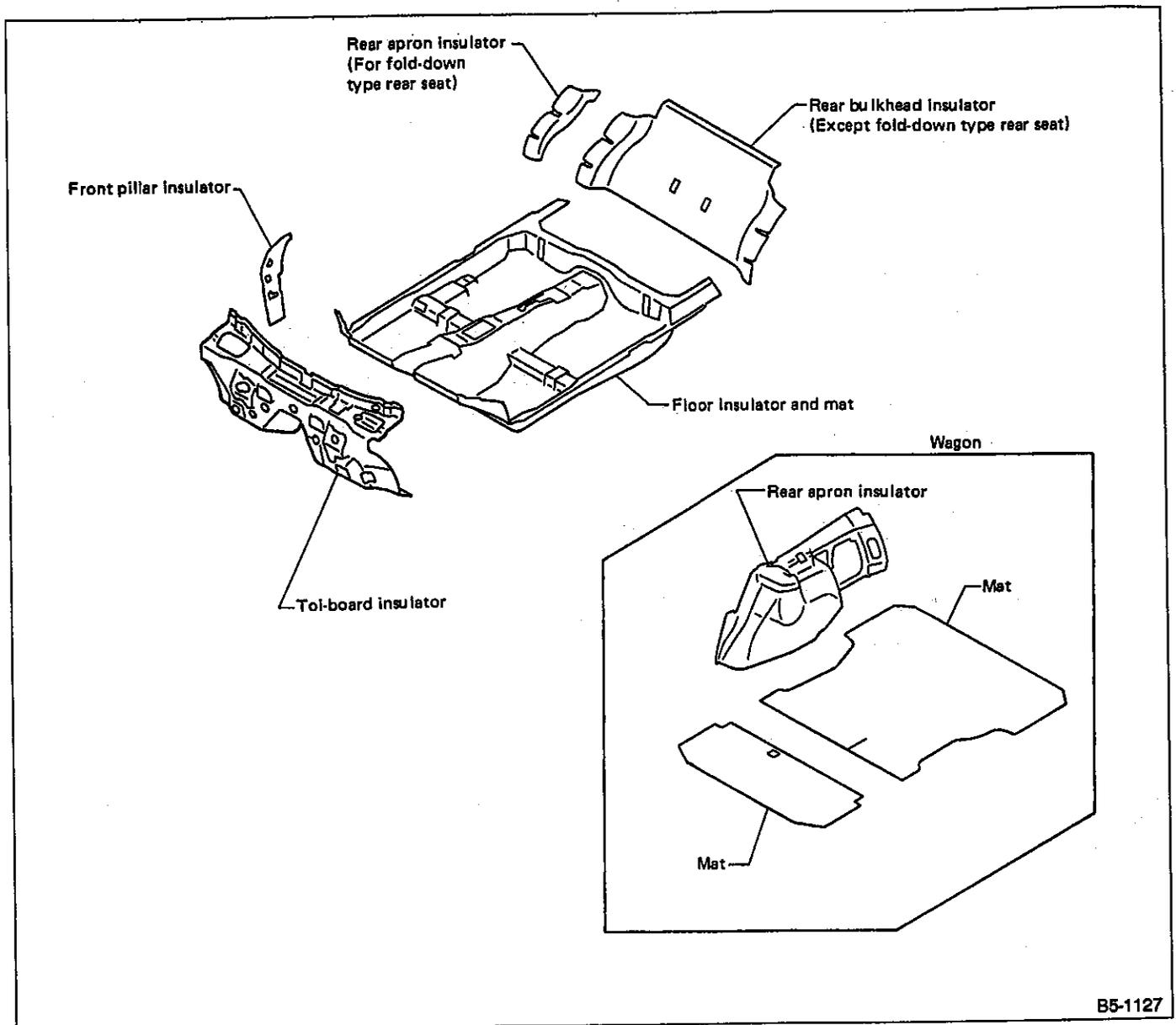


Fig. 4

### 3) Sound-absorbing materials

A unit construction type insulator is used respectively for the toeboard and rear bulkhead section to improve

the sound-absorbing effect and even thicker sound-absorbing material is used in the floor and toeboard area.



B5-1127

Fig. 5

## 4. Body Sealing

### Sealed parts

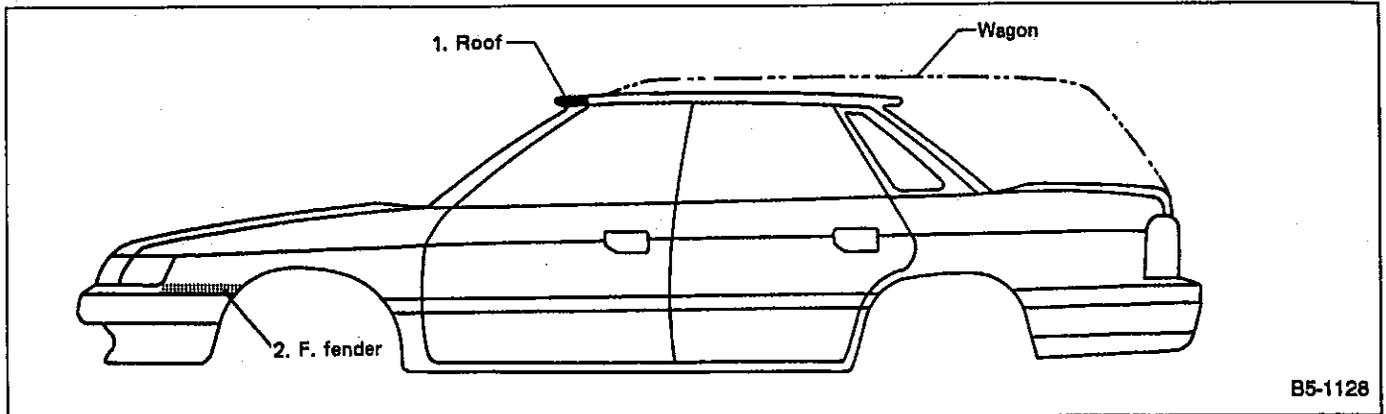
All gauge holes and other holes used during the body manufacturing process are plugged to prevent entry of water and dust.

Anytime the vehicle body has been repaired, etc., the affected holes should be properly plugged with the use of the specified plugs.

## 5. Rust Prevention

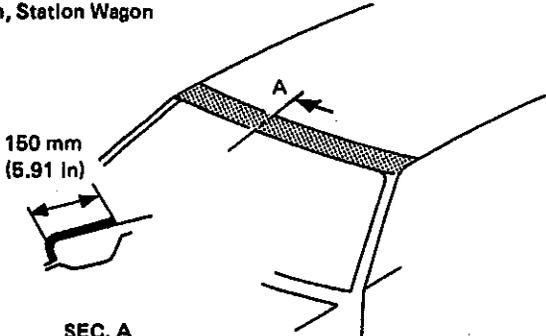
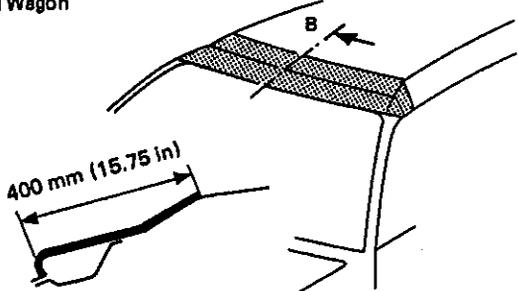
The following information for the 4-door Sedan is basically the same as that for the Station Wagon and Touring Wagon.

### 1. Anti Chipping Coat (ACC) Application



B5-1128

Fig. 6

No.	Cross sectional view	Applied section	Thickness	Remarks
1	<p data-bbox="257 1043 467 1070">Sedan, Station Wagon</p>  <p data-bbox="373 1366 448 1393">SEC. A</p> <p data-bbox="263 1447 410 1473">Touring Wagon</p>  <p data-bbox="379 1769 451 1796">SEC. B</p>	Front section of roof	Over 20 microns	—

B5-411-1

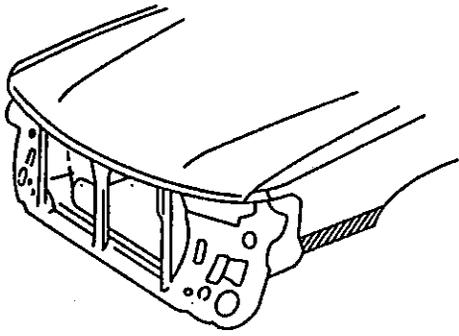
No.	Cross sectional view	Applied section	Thickness	Remarks
2	 <p style="text-align: right; margin-right: 20px;">B5-411-4</p>	Front section of F. fender	Over 20 microns	—

Fig. 7

B5-1129

2. Stone Guard Coating (SGC) Application

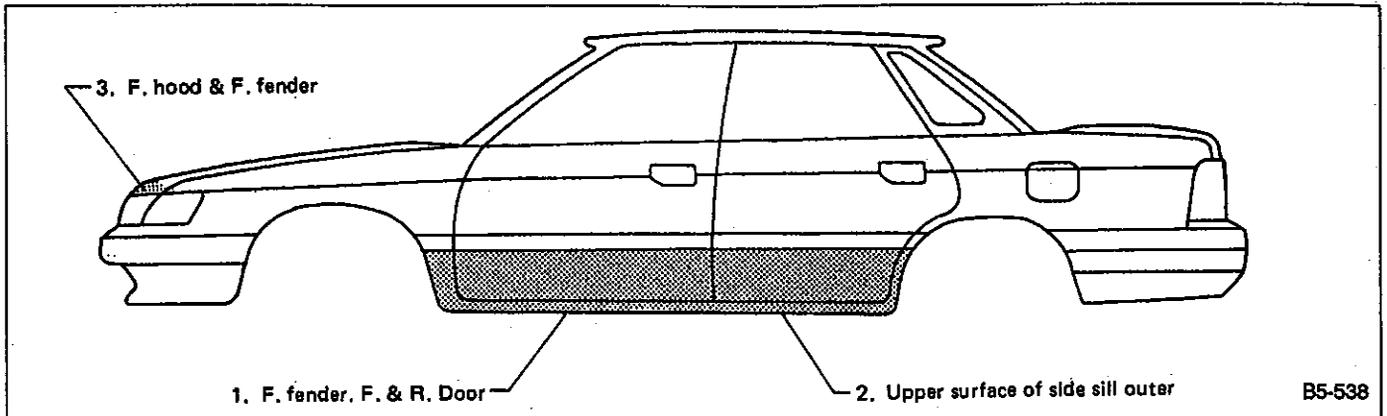


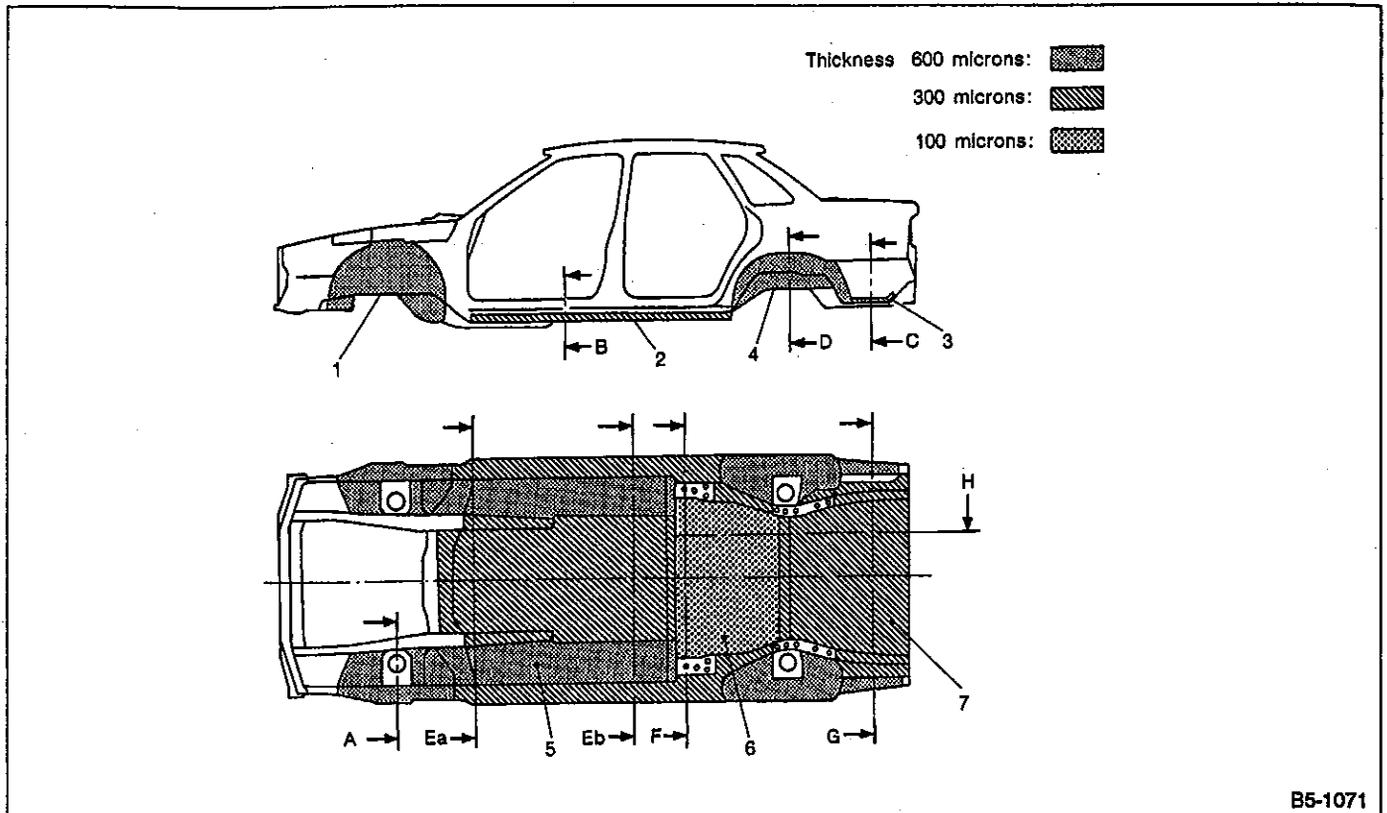
Fig. 8

No.	Cross sectional view	Applied section	Thickness	Remarks
1	<p>B5-388-1</p>	F. fender F. door R. door	Over 100 microns	—
2	<p>Up to the same height as SGC applied to the doors</p> <p>B5-388-2</p>	Upper surface of side sill outer	Over 80 microns *: Over 100 microns	—
3	<p>50 mm (1.97 in)</p> <p>SEC. A</p> <p>B5-1130-1</p>	Front section of F. hood Front section of F. fender	Over 20 microns	—

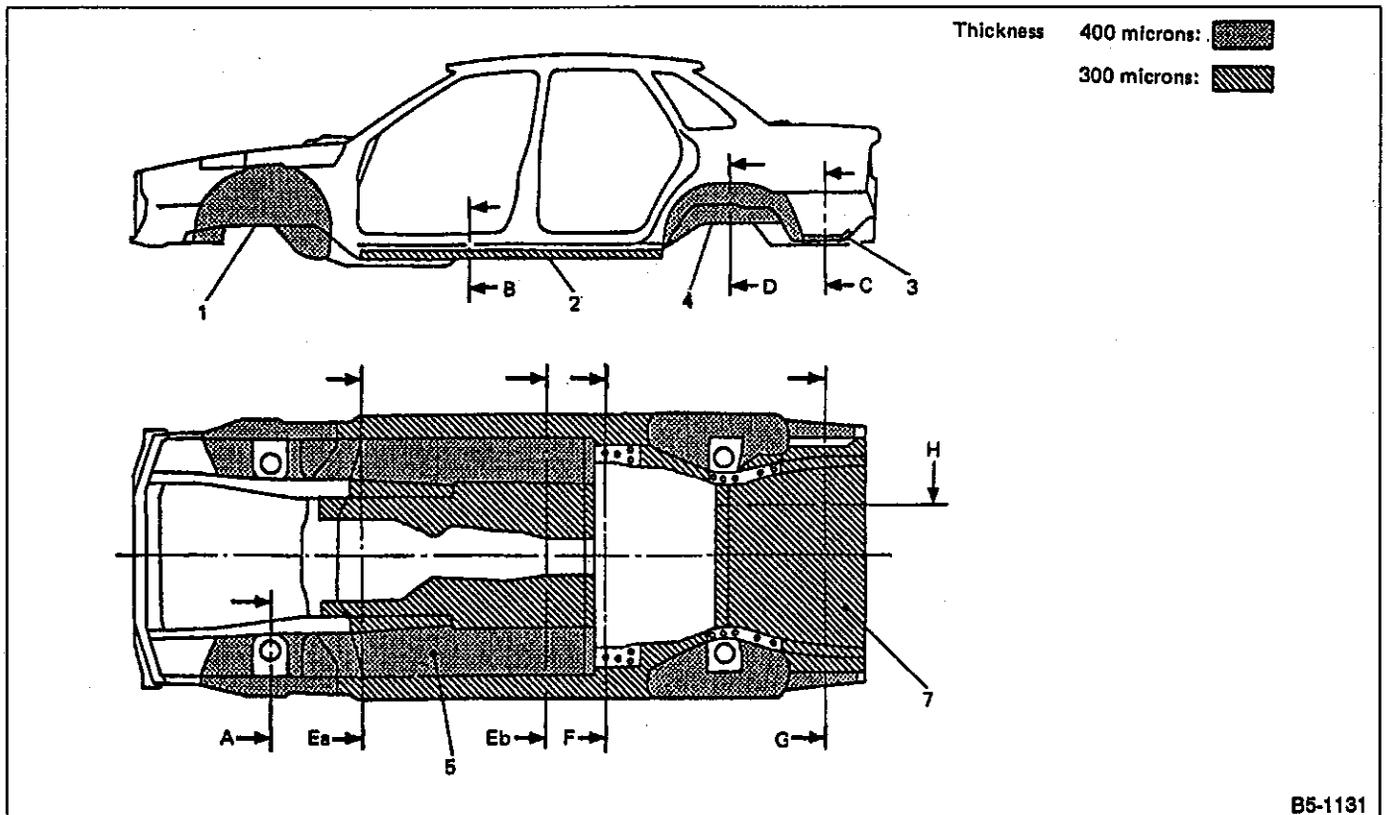
Fig. 9

B5-1130

3. Polyvinyl Chloride (PVC) Application



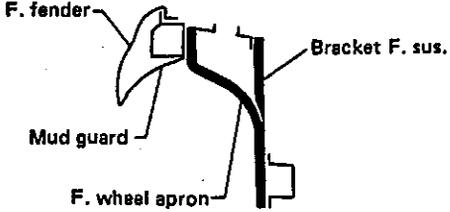
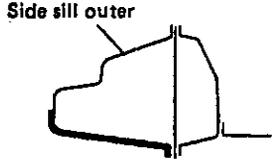
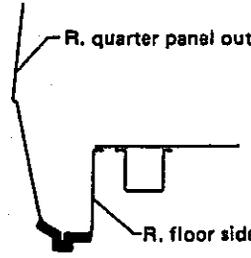
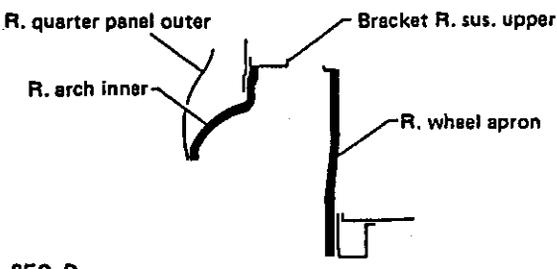
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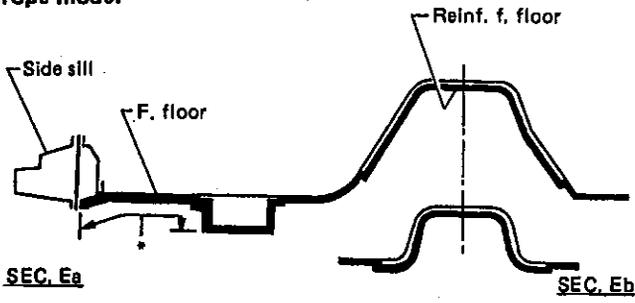
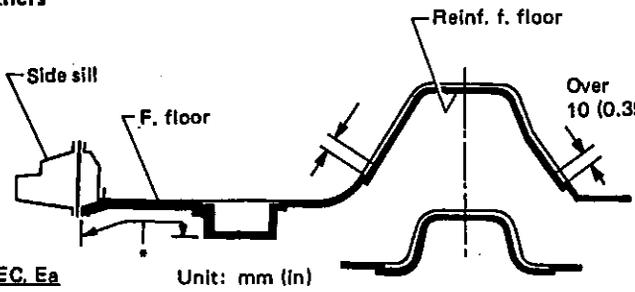
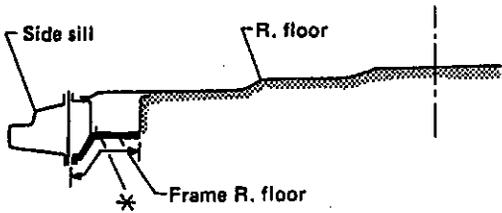


B5-1131

BODY AND EXTERIOR

[M503] 5-1

No.	Cross sectional view	Applied section	Thickness	Remarks
1	 <p><u>SEC. A</u></p> <p style="text-align: right;">B5-080-1</p>	F. wheel house	Over 600 microns (Europe model)  Over 400 microns (Others)	—
2	 <p><u>SEC. B</u></p> <p style="text-align: right;">B5-080-2</p>	Side sill	Over 300 microns	—
3	 <p><u>SEC. C</u></p> <p style="text-align: right;">B5-080-3</p>	R. quarter panel	Over 600 microns (Europe model)  Over 400 microns (Others)	—
4	 <p><u>SEC. D</u></p> <p style="text-align: right;">B5-080-4</p>	R. wheel house	Over 600 microns (Europe model)  Over 400 microns (Others)	—

No.	Cross sectional view	Applied section	Thickness	Remarks
5	<p><b>Europe model</b></p>  <p>SEC. Ea <span style="float: right;">SEC. Eb</span></p> <p style="text-align: right;">B5-1132-2</p>	F. floor	Over 300 microns *:Over 600 microns	—
5	<p><b>Others</b></p>  <p>SEC. Ea <span style="float: right;">SEC. Eb</span></p> <p style="text-align: center;">Unit: mm (in)</p> <p style="text-align: right;">B5-1132-1</p>	F. floor	Over 300 microns *:Over 400 microns	—
6	 <p>SEC. F</p> <p style="text-align: right;">B5-080-6</p>	R. floor	Over 100 microns (Europe model only) *:Over 300 microns	—

No.	Cross sectional view	Applied section	Thickness	Remarks
7	<p>SEC. G</p> <p>SEC. H</p> <p>Fuel tank</p> <p>Unit: mm (in)</p> <p>Thickness: Over 200 microns</p>	<p>R. floor</p> <p>R. floor Rear section of R. floor</p>	<p>Over 100 microns</p> <p>*: Over 300 microns</p> <p>** : Over 600 microns (Europe model)</p> <p>** : Over 400 microns (Others)</p>	<p>—</p>

B5-080-7

Fig. 12

B5-1132

4. Hot Wax Application

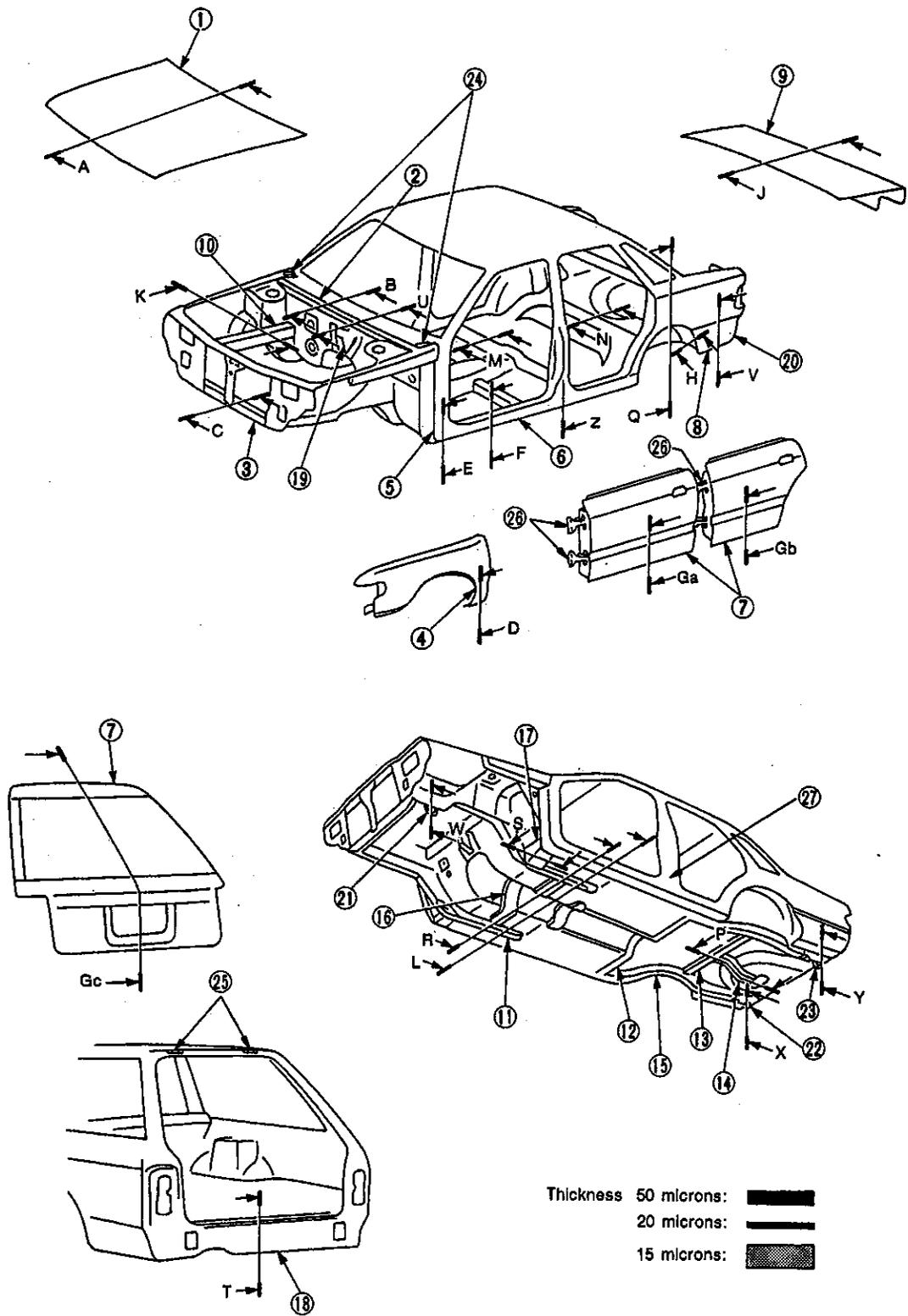


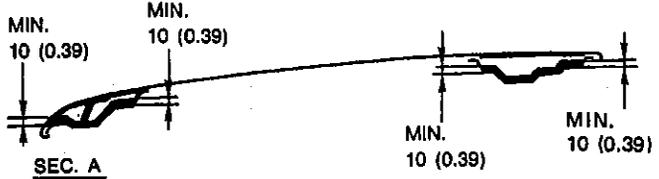
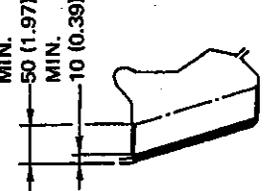
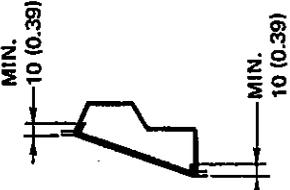
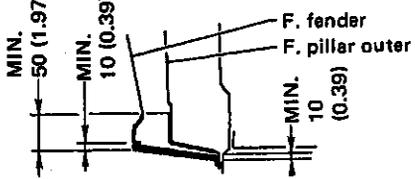
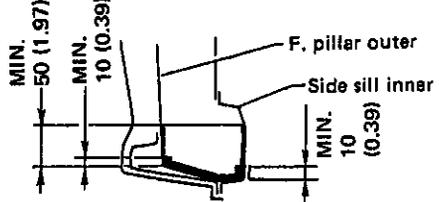
Fig. 13

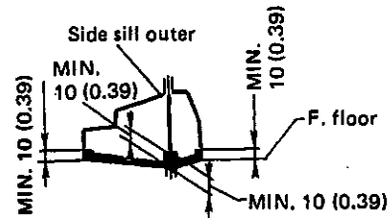
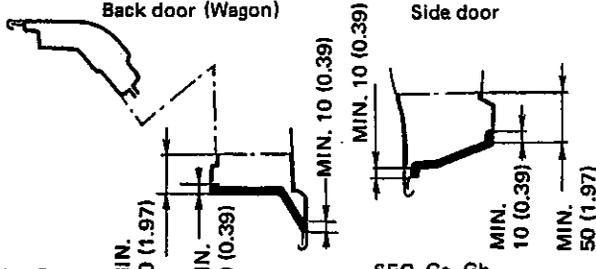
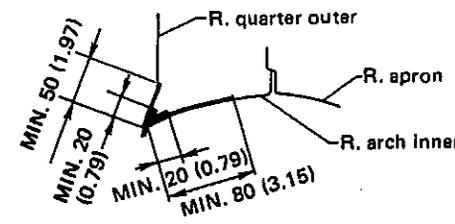
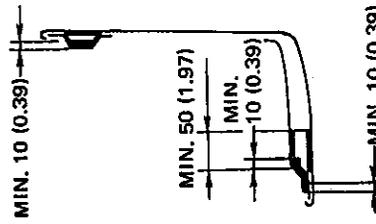
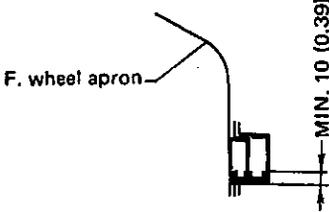
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BODY AND EXTERIOR

[M504] 5-1

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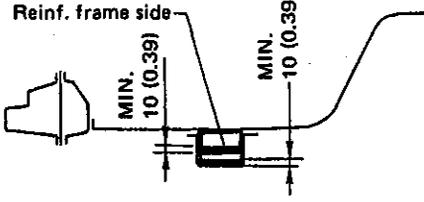
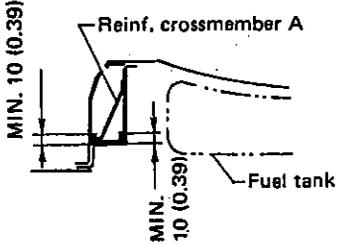
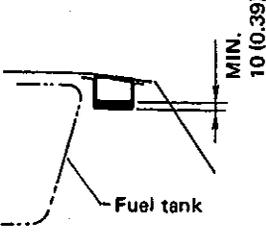
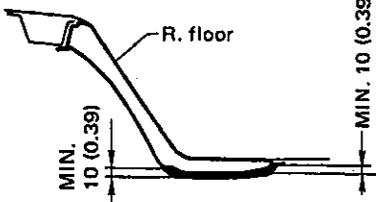
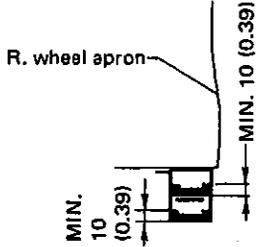
No.	Cross sectional view	Applied section	Thickness	Remarks
1	 <p>MIN. 10 (0.39) MIN. 10 (0.39) MIN. 10 (0.39) MIN. 10 (0.39)</p> <p>SEC. A</p> <p>B5-1074-1</p>	Rear and front end section of F. hood	Over 20 microns Over 50 microns (Dry condition)	—
2	 <p>MIN. 50 (1.97) MIN. 10 (0.39)</p> <p>SEC. B</p> <p>B5-1074-2</p>	F. bulkhead (Inside of duct)	Over 20 microns Over 50 microns (Dry condition)	Europe model only
3	 <p>MIN. 10 (0.39) MIN. 10 (0.39)</p> <p>SEC. C</p> <p>B5-1074-3</p>	Radiator panel lower	Over 20 microns Over 50 microns (Dry condition)	Europe model only
4	 <p>MIN. 50 (1.97) MIN. 10 (0.39) MIN. 10 (0.39)</p> <p>F. fender F. pillar outer</p> <p>SEC. D</p> <p>B5-1074-4</p>	Rear section of F. fender	Over 20 microns Over 50 microns (Dry condition)	Europe model only
5	 <p>MIN. 50 (1.97) MIN. 10 (0.39) MIN. 10 (0.39)</p> <p>F. pillar outer Side sill inner</p> <p>SEC. E</p> <p>B5-1074-5</p>	Lower section of F. pillar	Over 20 microns Over 50 microns (Dry condition)	Europe model only

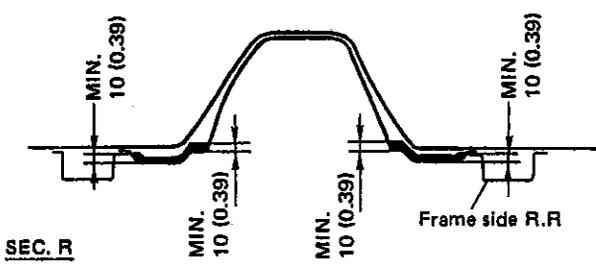
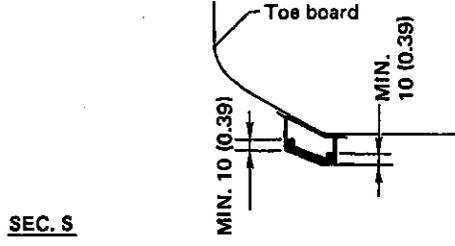
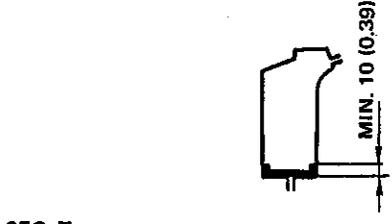
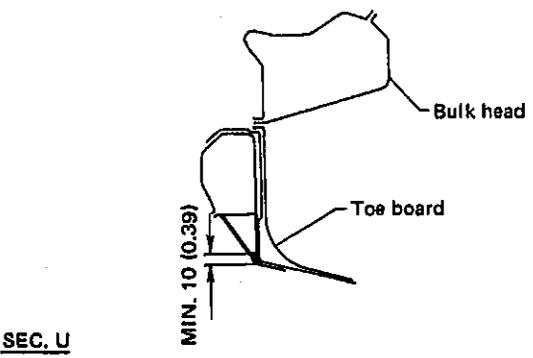
No.	Cross sectional view	Applied section	Thickness	Remarks
6	 <p>Side sill outer MIN. 10 (0.39) MIN. 10 (0.39) F. floor MIN. 10 (0.39)</p> <p><u>SEC. F</u></p> <p>B5-1074-6</p>	Side sill	Over 20 microns Over 50 microns (Dry condition)	—
7	 <p>Back door (Wagon) MIN. 50 (1.97) MIN. 10 (0.39) MIN. 10 (0.39) Side door MIN. 10 (0.39) MIN. 10 (0.39) MIN. 50 (1.97)</p> <p><u>SEC. Gc</u>      <u>SEC. Ga, Gb</u></p> <p>B5-1074-7</p>	Inner section of door and back door panel	Over 20 microns Over 50 microns (Dry condition)	—
8	 <p>R. quarter outer MIN. 50 (1.97) MIN. 20 (0.79) MIN. 20 (0.79) MIN. 80 (3.15) R. apron R. arch inner</p> <p><u>SEC. H</u></p> <p>B5-1074-8</p>	R. quarter panel	Over 20 microns Over 50 microns (Dry condition)	Europe model only
9	 <p>MIN. 10 (0.39) MIN. 50 (1.97) MIN. 10 (0.39) MIN. 10 (0.39)</p> <p><u>SEC. J</u></p> <p>B5-1074-9</p>	Rear and front end section of tank lid	Over 20 microns Over 50 microns (Dry condition)	—
10	 <p>F. wheel apron MIN. 10 (0.39)</p> <p><u>SEC. K</u></p> <p>B5-1074-10</p>	F. side frame	Over 20 microns Over 50 microns (Dry condition)	Europe model only

BODY AND EXTERIOR

[M504] 5-1

Unit:mm(in)

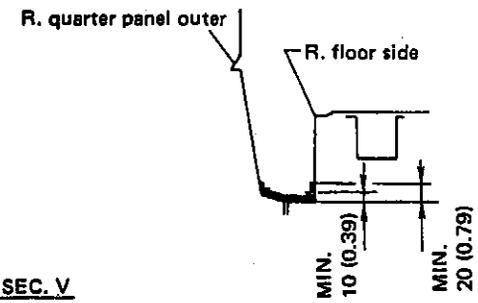
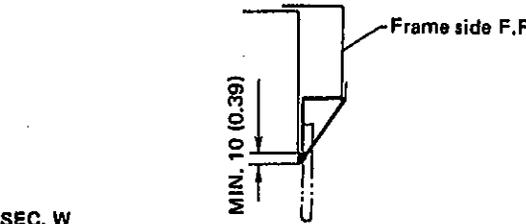
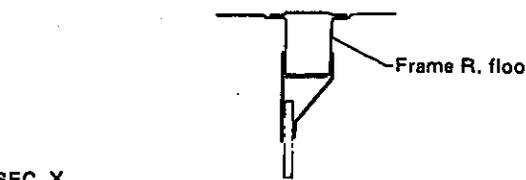
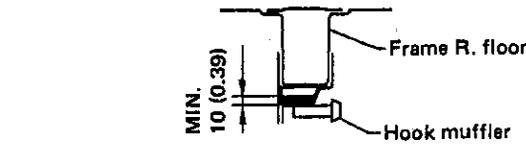
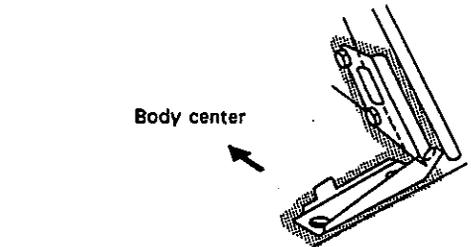
No.	Cross sectional view	Applied section	Thickness	Remarks
11	 <p>Reinf. frame side</p> <p>MIN. 10 (0.39)</p> <p>MIN. 10 (0.39)</p> <p><u>SEC. L</u></p> <p>B5-1074-11</p>	Frame side F. R	Over 20 microns Over 50 microns (Dry condition)	Europe model only
12	 <p>Reinf. crossmember A</p> <p>MIN. 10 (0.39)</p> <p>MIN. 10 (0.39)</p> <p>Fuel tank</p> <p><u>SEC. M</u></p> <p>B5-1074-12</p>	Crossmember A	Over 20 microns Over 50 microns (Dry condition)	Europe model only
13	 <p>MIN. 10 (0.39)</p> <p>Fuel tank</p> <p><u>SEC. N</u></p> <p>B5-1074-13</p>	Crossmember B	Over 20 microns Over 50 microns (Dry condition)	Europe model only
14	 <p>R. floor</p> <p>MIN. 10 (0.39)</p> <p>MIN. 10 (0.39)</p> <p><u>SEC. P</u></p> <p>B5-1074-14</p>	Frame spare tire	Over 20 microns Over 50 microns (Dry condition)	Europe model only
15	 <p>R. wheel apron</p> <p>MIN. 10 (0.39)</p> <p>MIN. 10 (0.39)</p> <p><u>SEC. Q</u></p> <p>B5-1074-15</p>	Frame R. floor	Over 20 microns Over 50 microns (Dry condition)	Europe model only

No.	Cross sectional view	Applied section	Thickness	Remarks
16	 <p>MIN. 10 (0.39)</p> <p>MIN. 10 (0.39)</p> <p>MIN. 10 (0.39)</p> <p>MIN. 10 (0.39)</p> <p>Frame side R.R.</p> <p><u>SEC. R</u></p>	Bracket R. cross-member	Over 20 microns Over 50 microns (Dry condition)	Europe model only
17	 <p>Toe board</p> <p>MIN. 10 (0.39)</p> <p>MIN. 10 (0.39)</p> <p><u>SEC. S</u></p>	Reinforcement toe board	Over 20 microns Over 50 microns (Dry condition)	Europe model only
18	 <p>MIN. 10 (0.39)</p> <p><u>SEC. T</u></p>	R. skirt	Over 20 microns Over 50 microns (Dry condition)	Europe model only
19	 <p>Bulk head</p> <p>Toe board</p> <p>MIN. 10 (0.39)</p> <p><u>SEC. U</u></p>	Bracket pitching stopper	Over 20 microns Over 50 microns (Dry condition)	Europe model only

BODY AND EXTERIOR

[M504] 5-1

Unit:mm(in)

No.	Cross sectional view	Applied section	Thickness	Remarks AAA
20	 <p>SEC. V</p> <p>B5-1074-20</p>	R. quarter panel	Over 20 microns Over 50 microns (Dry condition)	Europe model only
21	 <p>SEC. W</p> <p>B5-1074-21</p>	Reinforcement tie down hook	Over 20 microns Over 50 microns (Dry condition)	Europe model only
22	 <p>SEC. X</p> <p>B5-1074-22</p>	Plate tractive	Over 20 microns Over 50 microns (Dry condition)	Europe model only
23	 <p>SEC. Y</p> <p>B5-1074-23</p>	Bracket tie down	Over 20 microns Over 50 microns (Dry condition)	Europe model only
24	 <p>B5-1074-24</p>	F. hood hinge	Over 15 microns (Dry condition)	

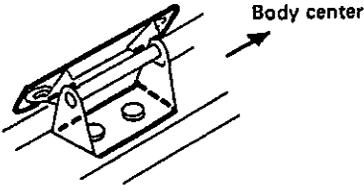
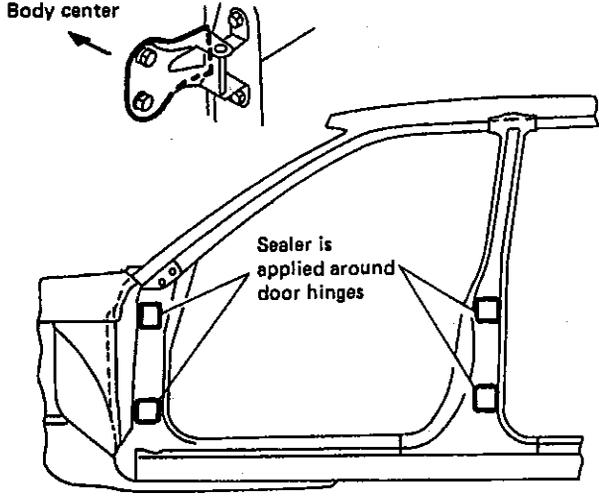
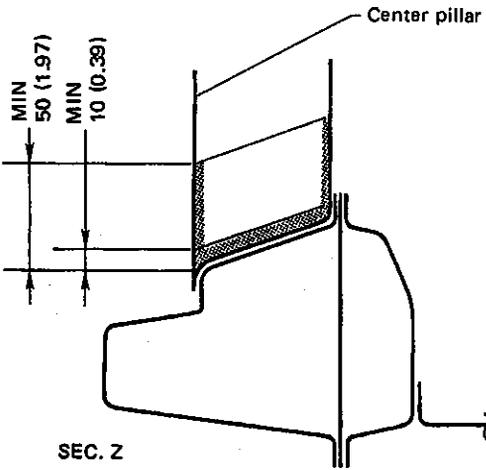
No.	Cross sectional view	Applied section	Thickness	Remarks
25	 <p style="text-align: right;">Body center</p> <p style="text-align: right;">B5-1076-9</p>	R. gate hinge	Over 15 microns (Dry condition)	—
26	 <p style="text-align: left;">Body center</p> <p style="text-align: center;">Sealer is applied around door hinges</p> <p style="text-align: right;">B5-1078-3</p>	Around door hinges	Over 15 microns (Dry condition)	—
27	 <p style="text-align: center;">Center pillar</p> <p style="text-align: left;">MIN 50 (1.97) MIN 10 (0.39)</p> <p style="text-align: left;">SEC. Z</p> <p style="text-align: right;">B5-1074-27</p>	Lower section of center pillar	Over 20 microns Over 50 microns (Dry condition)	Europe model only

Fig. 14

B5-1074

5. Anti-rust Wax Application on Undercarriage

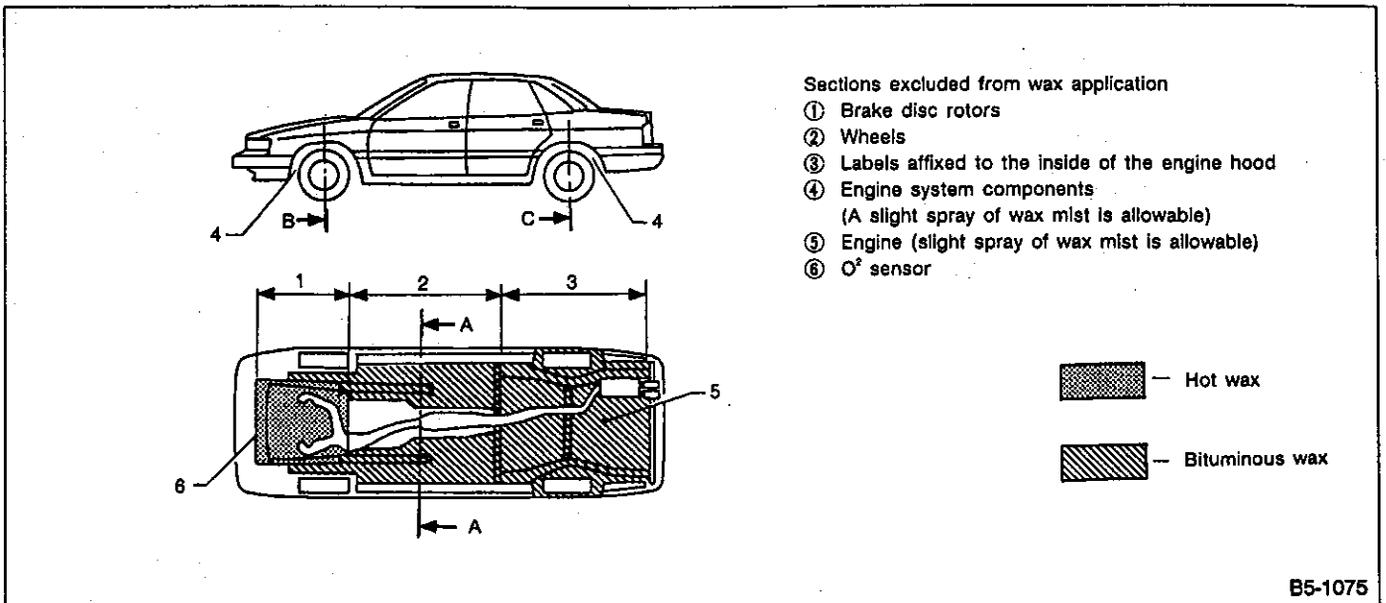
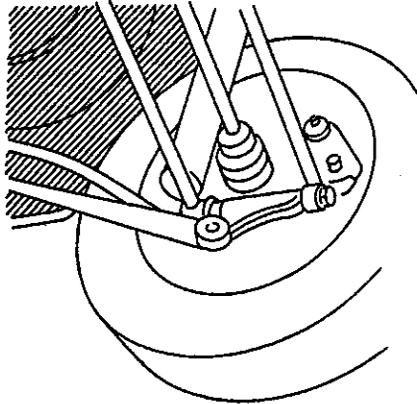
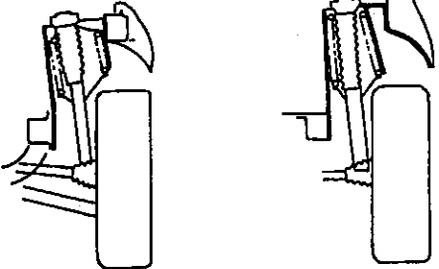
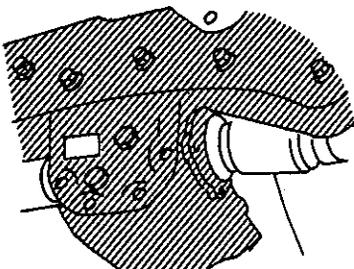


Fig. 15

No.	Cross sectional view	Applied section	Anti-rust material	Thickness	Remarks
1	<p>40 mm (1.57 in) Not applied here</p> <p>B5-1076-1</p>	Front side of under-floor  F. suspension components  E/G and T/M mounting parts  Cover, etc.	Hot wax	Over 50 microns (dry condition)	Wax is not applied to the components inside the tyres because there is the possibility that wax mist may contaminate brake rotors and wheels.
2	<p>Propeller shaft</p> <p>Not applied here.</p> <p>Side sill</p> <p>Exhaust</p> <p>SEC. A</p> <p>B5-1076-2</p>	Center section of under floor  Floor panel  Toe board	Bituminous wax	Over 300 microns (Dry condition)  Wax thickness is 150 microns inside the floor tunnel.	Wax mist may settle onto exhaust pipe. Wax may not be applied to blind spots of brackets, etc. in tunnel section.

No.	Cross sectional view	Applied section	Anti-rust material	Thickness	Remarks
3	 <p style="text-align: right;">B5-1076-3</p>	Rear side of underfloor  R. suspension components  Fuel tank  Covers  Floor panel	Bituminous wax	Over 300 microns (Dry condition)	Wax may not be applied to where components are installed close together.
4	 <p style="text-align: center;">SEC. B                      SEC. C</p> <p style="text-align: right;">B5-1076-4</p>	Tire house  Wheel apron, fender inner and R. quarter inner  Strut ASSY.	Bituminous wax	Over 150 microns (Dry condition)	Air suspension ASSY is covered by a protector.
5	 <p style="text-align: right;">B5-1076-5</p>	Rear section of 4WD vehicle  R. differential ASSY.  Differential member	Bituminous wax	Over 300 microns (Dry condition)	
6	 <p style="text-align: right;">B5-1076-6</p>	Radiator panel lower	Hot wax	Over 50 microns (Dry condition)	

BODY AND EXTERIOR

[M505] 5-1

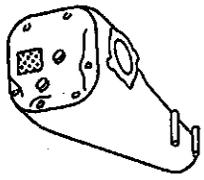
No.	Cross sectional view	Applied section	Anti-rust material	Thickness	Remarks
7	 <p style="text-align: right;">B5-1076-7</p>	Air suspension is covered to prevent splashing of wax.	—	—	Cover must be removed at PDI.
8	 <p style="text-align: right;">B5-1076-8</p>	Label of rear differential is covered by tape.	—	—	Tape must be removed at PDI.

Fig. 16

B5-1076

6. Sealer and Adhesive Application

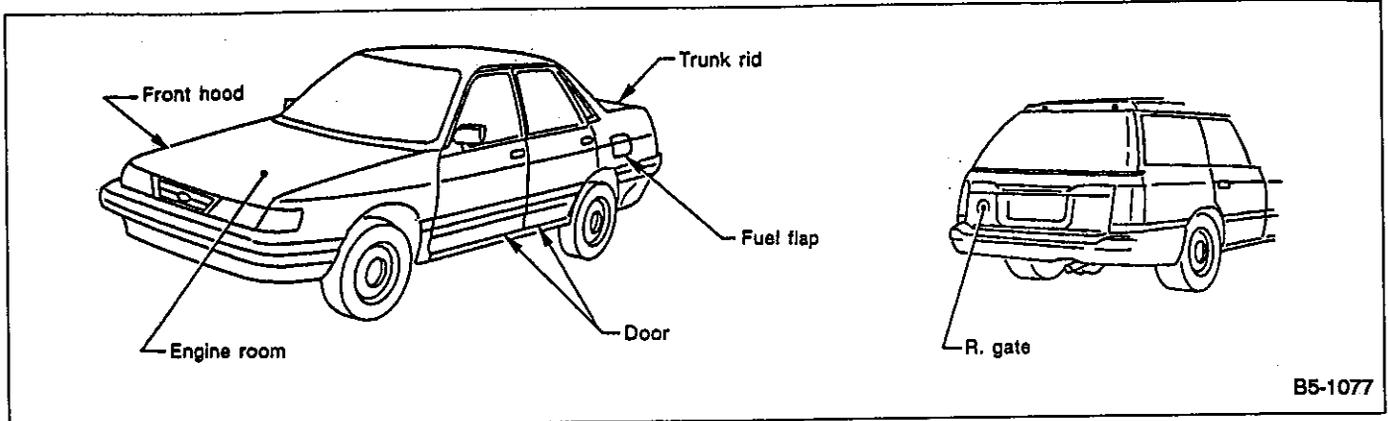
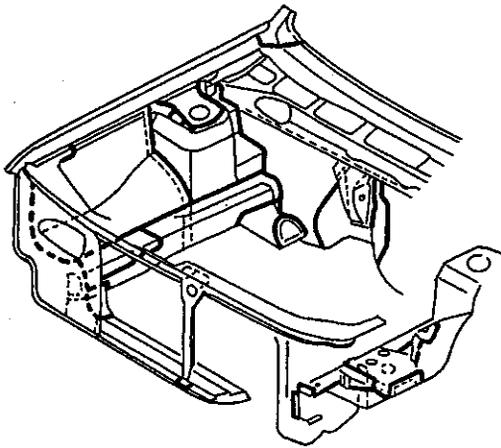
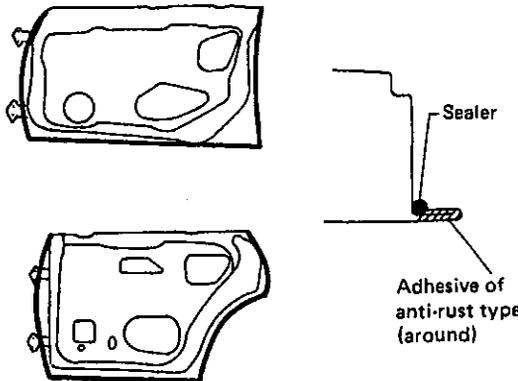


Fig. 17

No.	Cross sectional view	Applied section	Anti-rust material	Remarks
1	 <p style="text-align: right;">B5-1078-1</p>	Engine room	Sealer	—
2	 <p style="text-align: right;">B5-1078-2</p>	Door	Sealer  Adhesive	—

BODY AND EXTERIOR

[M506] 5-1

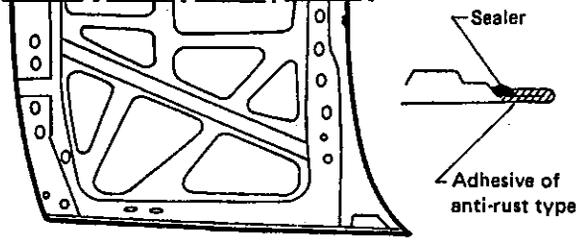
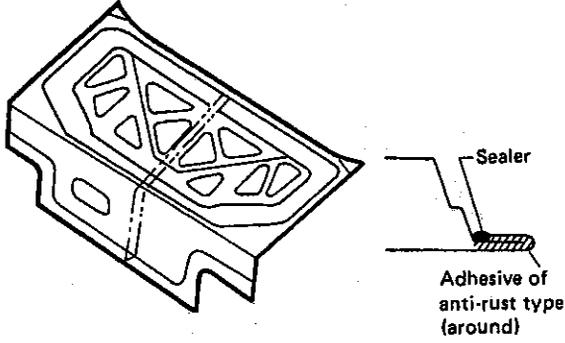
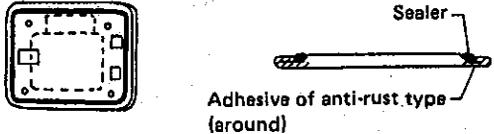
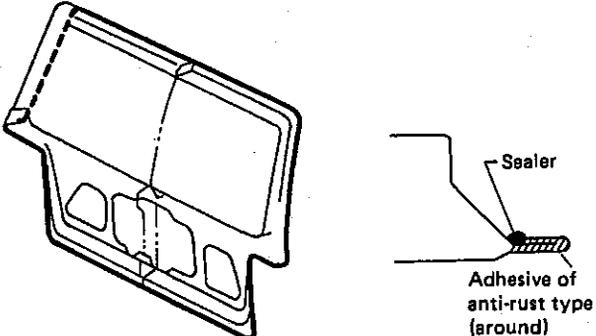
No.	Cross sectional view	Applied section	Anti-rust material	Remarks
3	 <p style="text-align: right;">B5-1078-4</p>	F. hood	Sealer  Adhesive	—
4	 <p style="text-align: right;">B5-1078-5</p>	Trunk lid	Sealer  Adhesive	—
5	 <p style="text-align: right;">B5-1078-6</p>	Fuel flap	Sealer  Adhesive	—
6	 <p style="text-align: right;">B5-1078-7</p>	R. gate	Sealer  Adhesive	—

Fig. 18

B5-1078

7. Galvanized Sheet Metal Application

Corrosion preventive steel sheets are utilized where necessary to protect the body against corrosion.

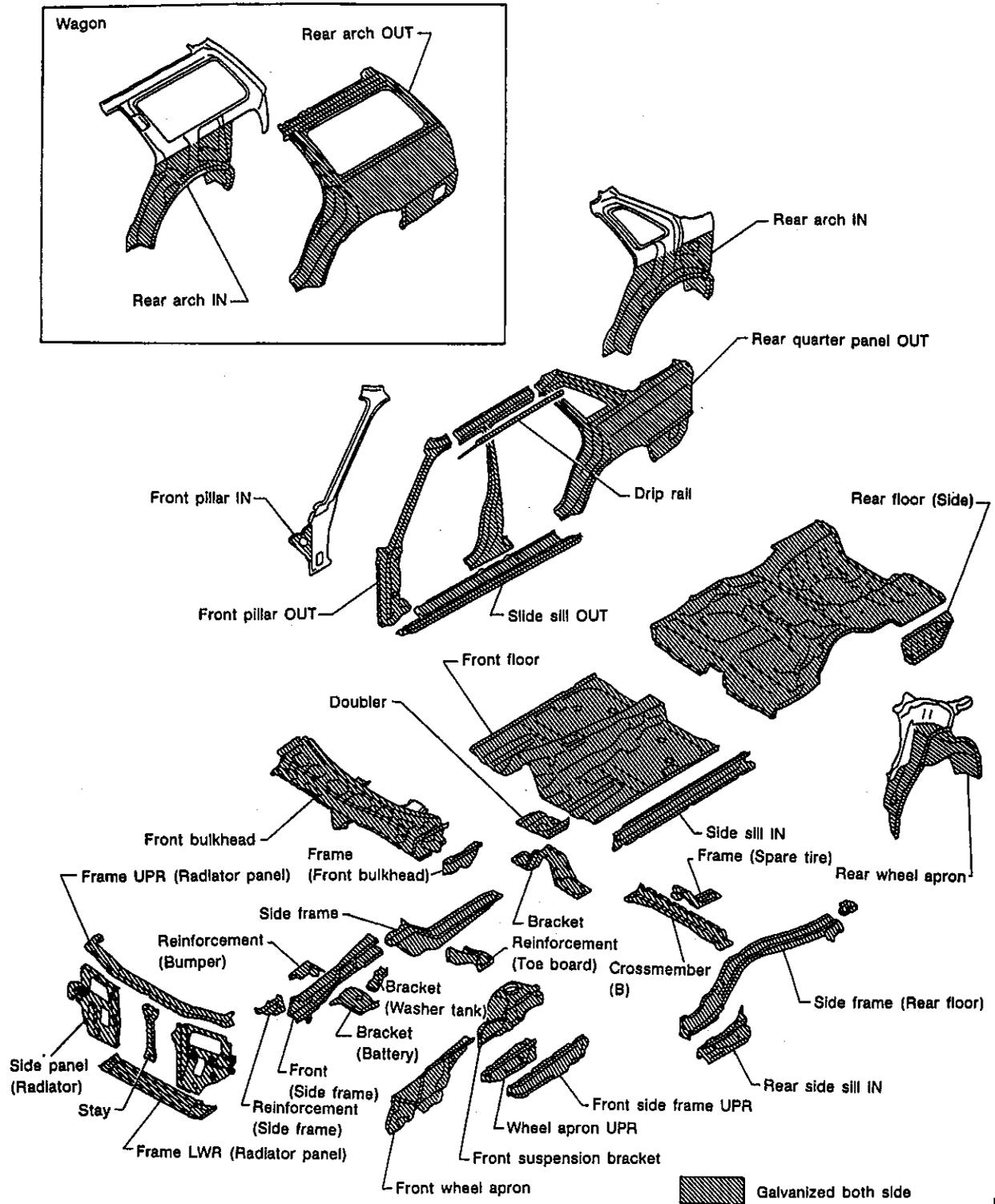


Fig. 19

B5-1079

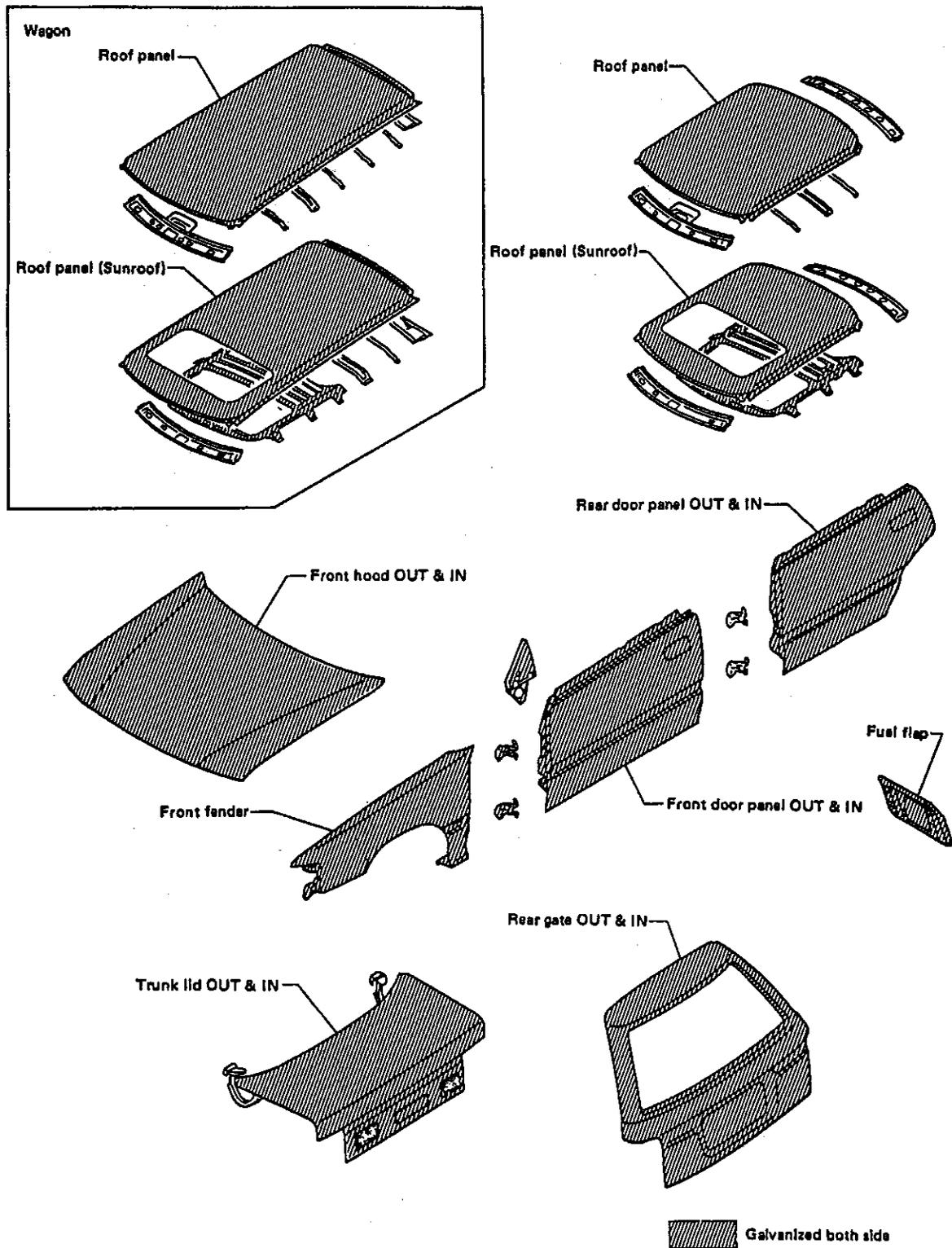
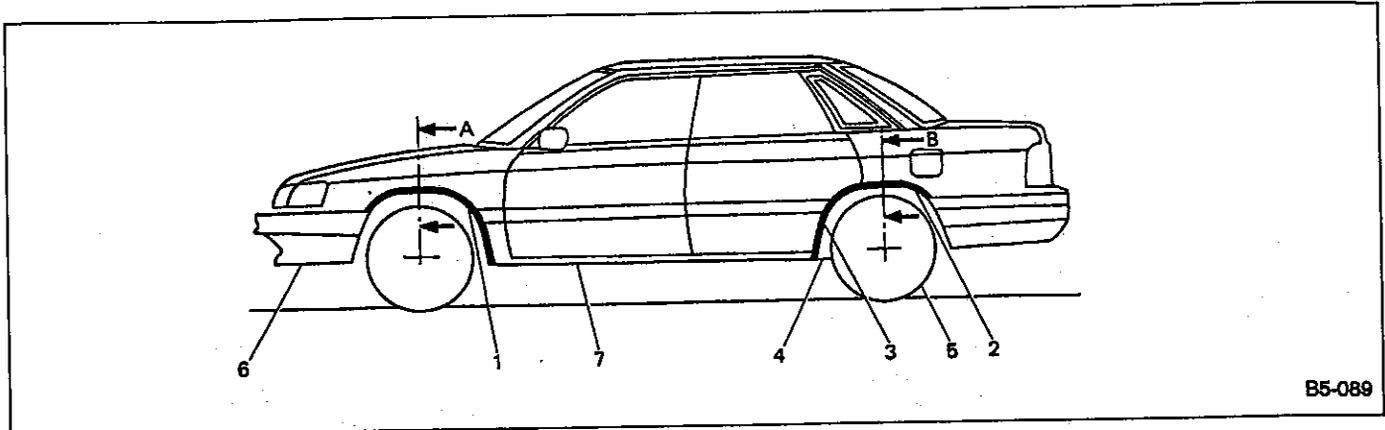


Fig. 20

B5-1080

8. Rustproof Parts



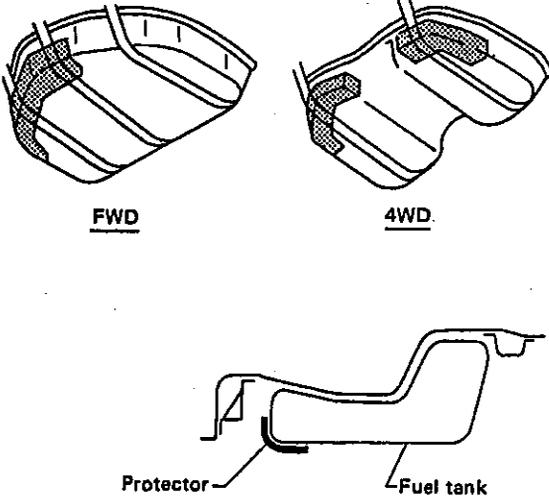
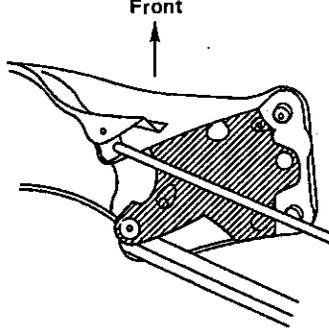
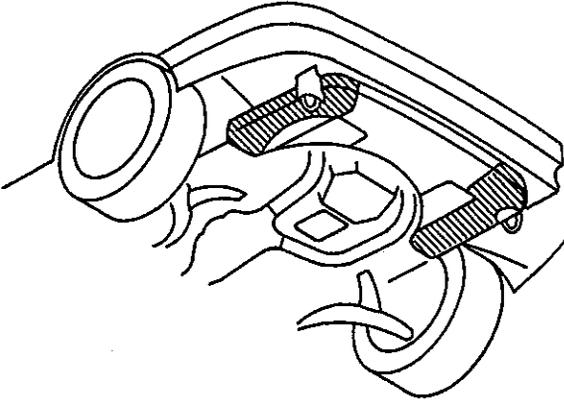
B5-089

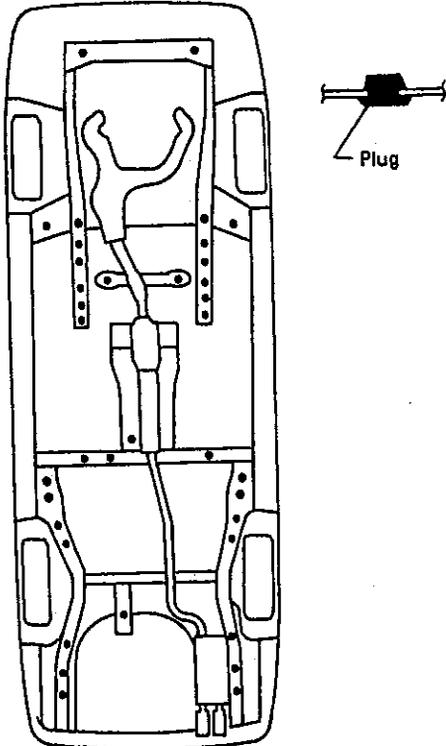
Fig. 21

No.	Cross sectional view	Applied section	Anti-rust material	Thickness	Remarks
1  2	<p style="text-align: center;">Front                      Rear</p> <p style="text-align: center;"><u>SEC. A</u>                      <u>SEC. B</u></p> <p style="text-align: right; margin-right: 50px;">Butyl</p>	Front and rear arch	Rubber	—	—
3	<p style="text-align: right; margin-right: 100px;">R. arch protector</p> <p style="text-align: center;">Rear door                      Protector</p>	Front section of rear arch	T.P.E. (Plastic)	—	—

BODY AND EXTERIOR

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No.	Cross sectional view	Applied section	Anti-rust material	Thickness	Remarks
4	 <p>FWD</p> <p>4WD</p> <p>Protector</p> <p>Fuel tank</p> <p>B5-391-4</p>	Fuel tank	P.E. (Plastic)	—	—
5	 <p>Front</p> <p>B5-391-5</p>	Rear cross-member of rear suspension	E.V.A. (Plastic)	—	—
6	 <p>B5-532</p>	Under cover	P.P. (Plastic)	—	—

No.	Cross sectional view	Applied section	Anti-rust material	Thickness	Remarks
7	 <p>The diagram shows a cross-section of a vehicle's floor pan. It includes various structural components like the floor pan itself, crossmembers, and suspension parts. A callout labeled 'Plug' points to a specific hole in the floor pan. The plug is shown as a small, dark, rectangular component with a central hole and a flange on one side.</p>	Under floor			Plugs all holes except water drain ones.

B5-391-7

Fig. 22

B5-391

### 6. Ventilation

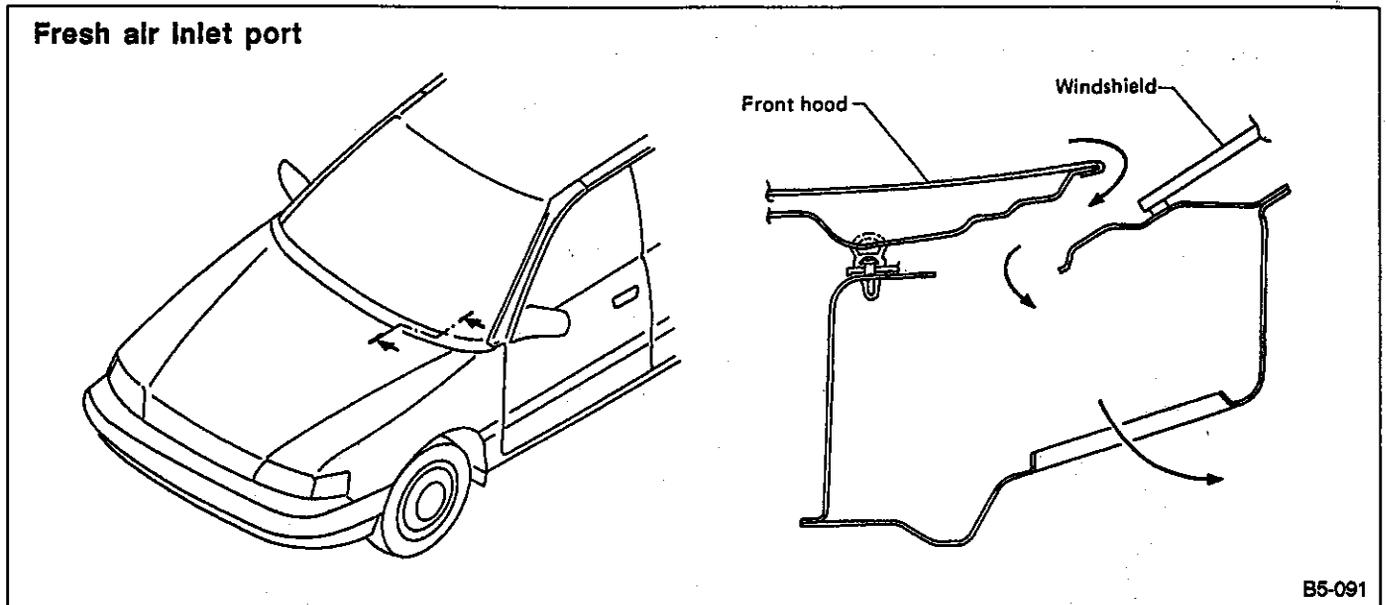


Fig. 23

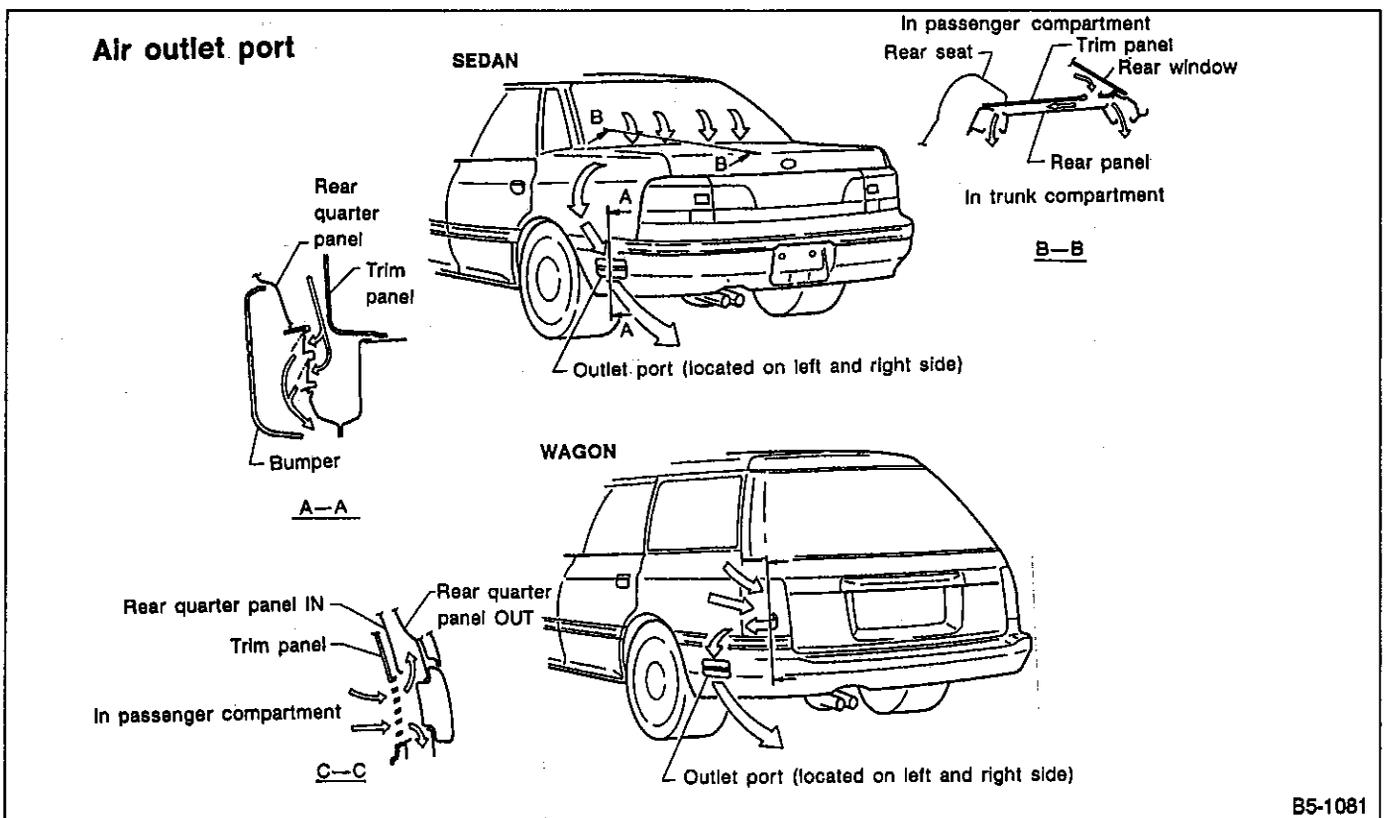


Fig. 24

# 7. Sunroof

## 1. Construction

The following figure refers to the cross-sectional contours of the sunroof.

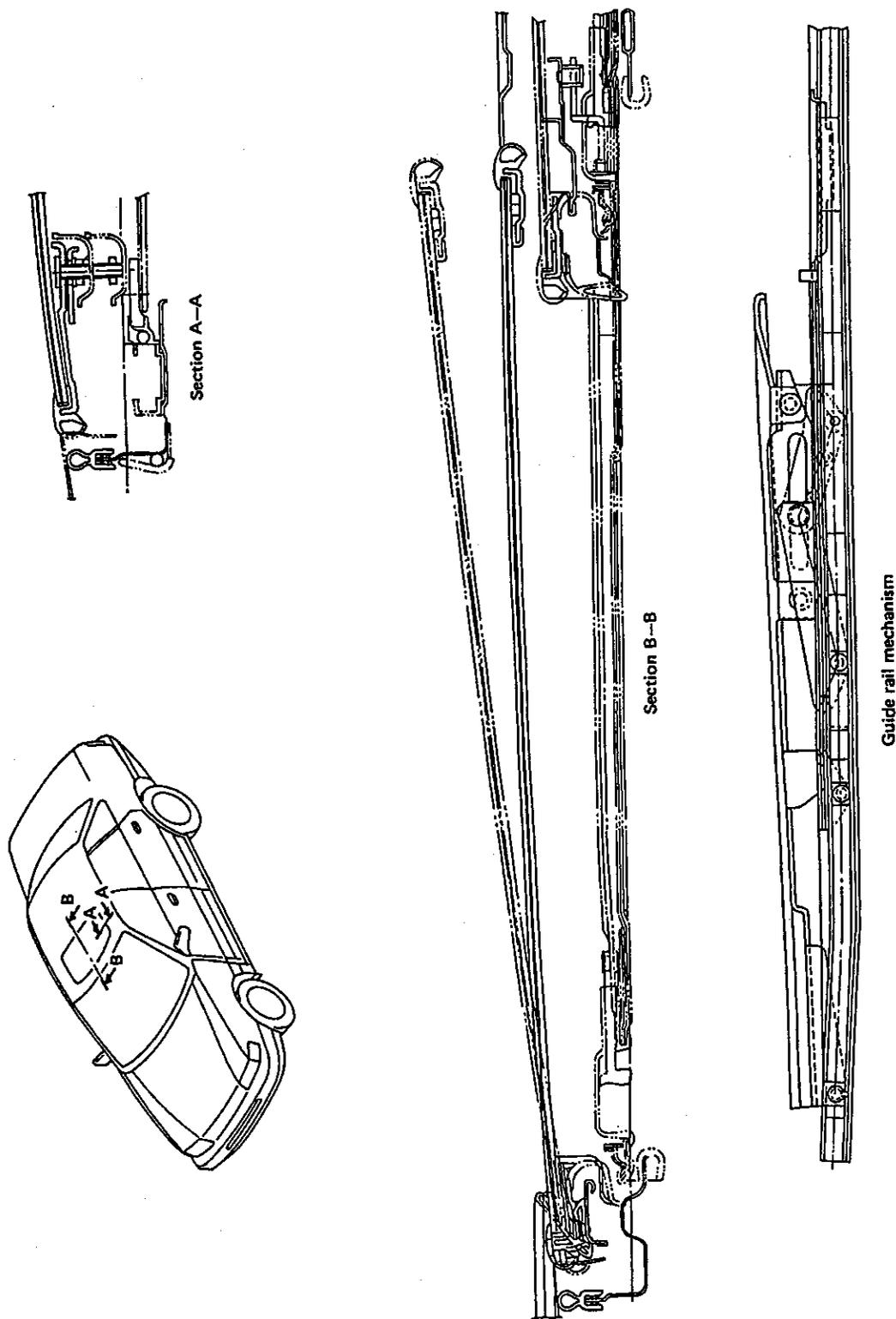


Fig. 25

B5-093

2. Drain Tube Layout

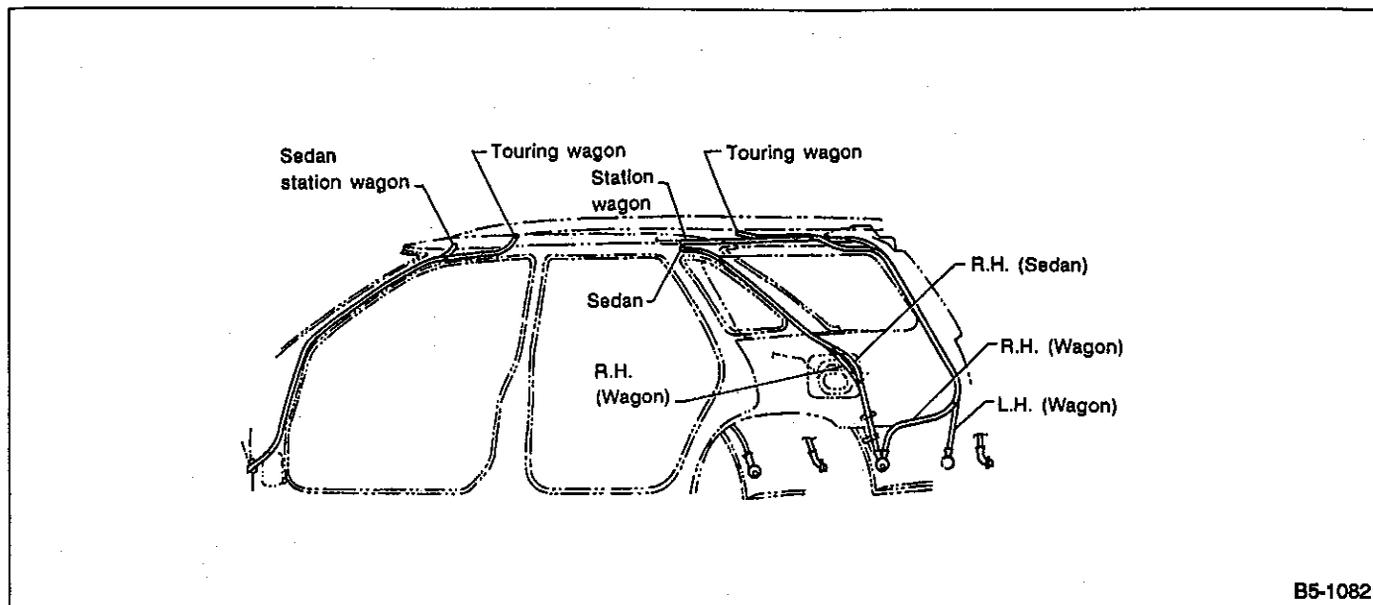


Fig. 26

# 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.

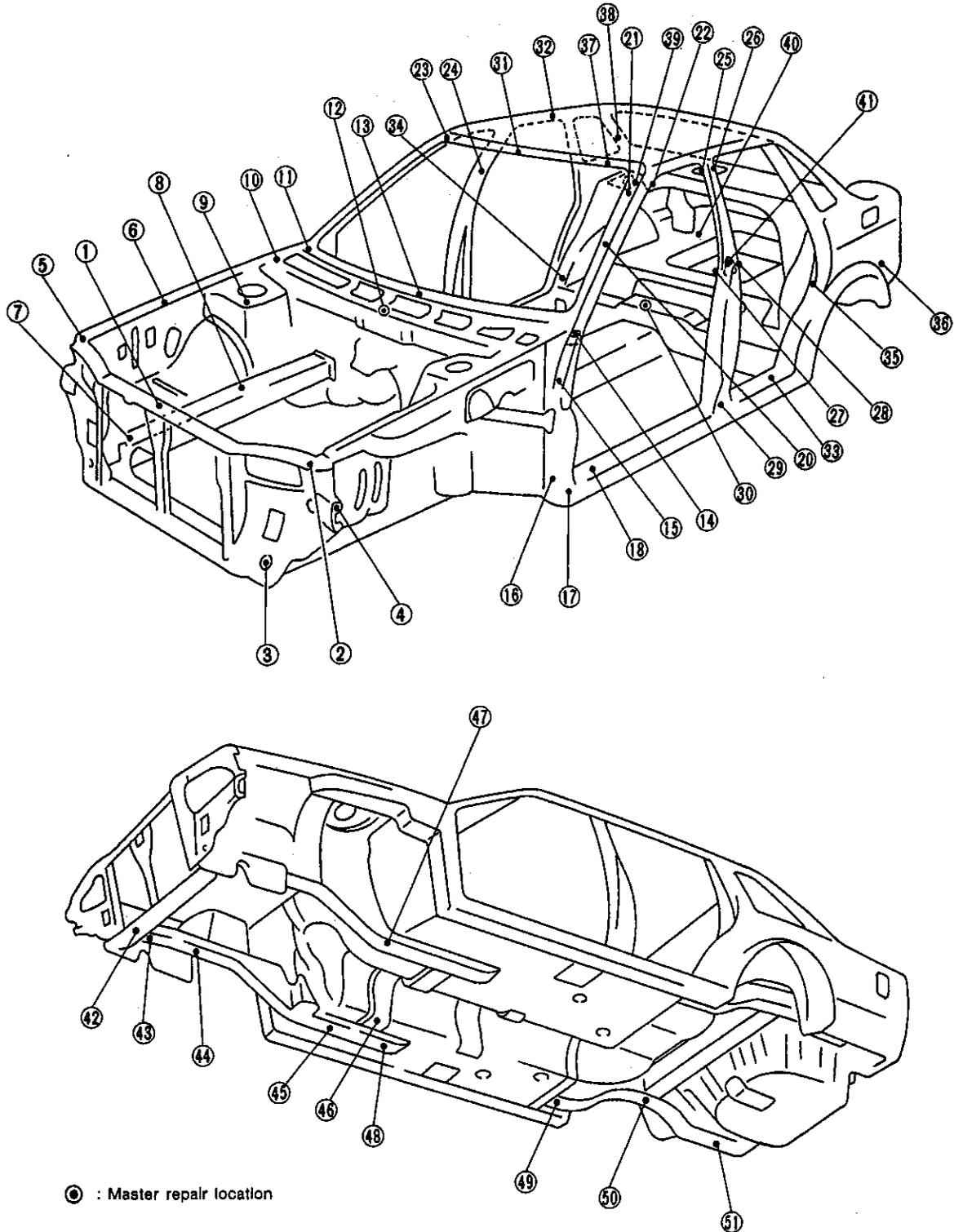


Fig. 27

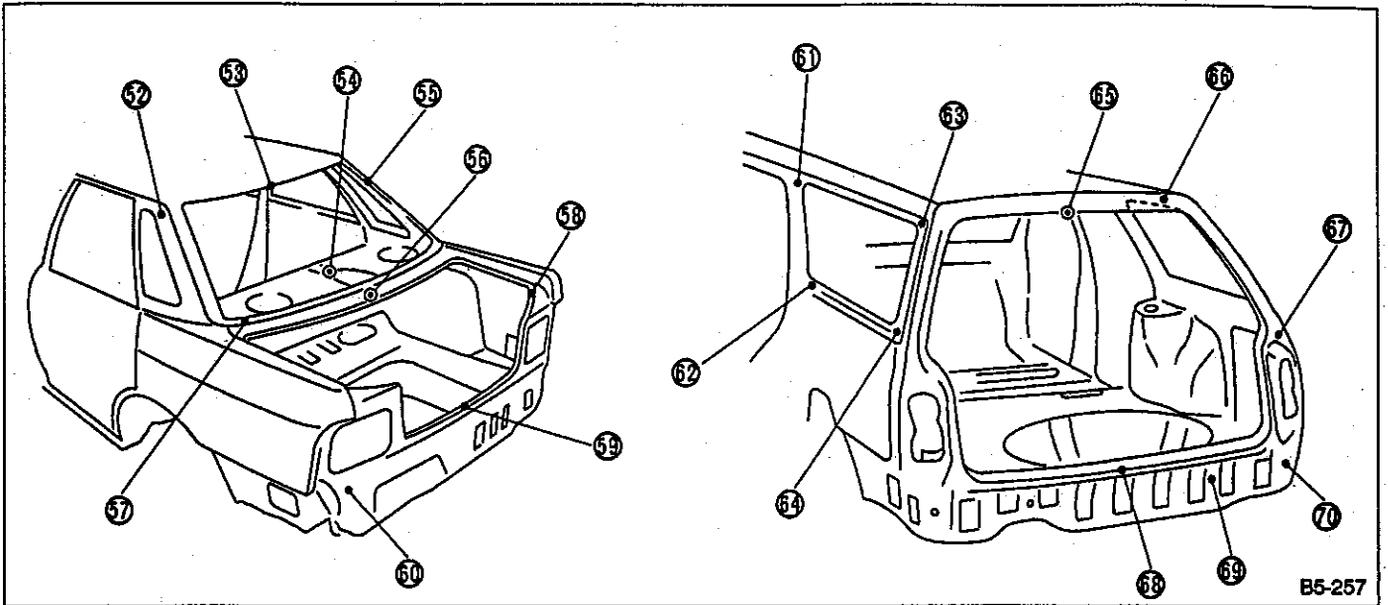


Fig. 28

B5-257

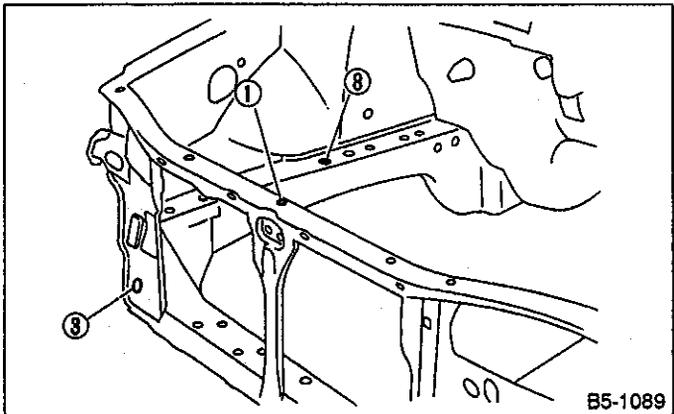


Fig. 29

B5-1089

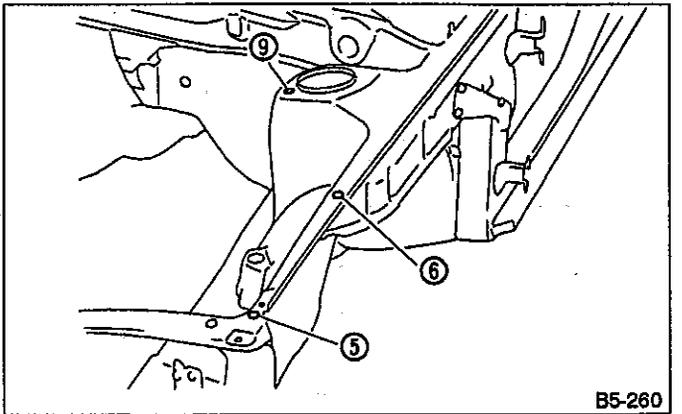


Fig. 31

B5-260

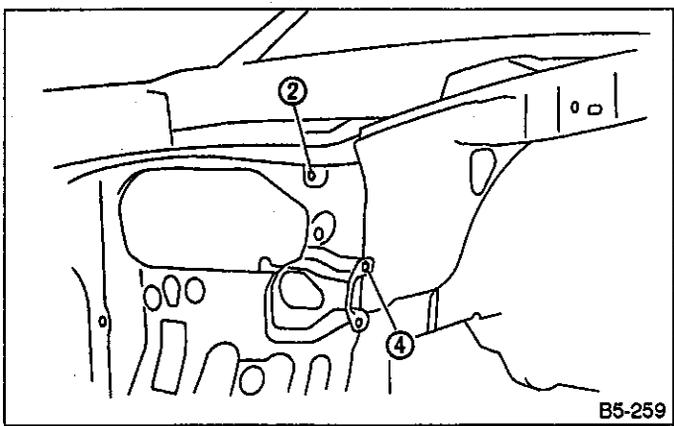


Fig. 30

B5-259

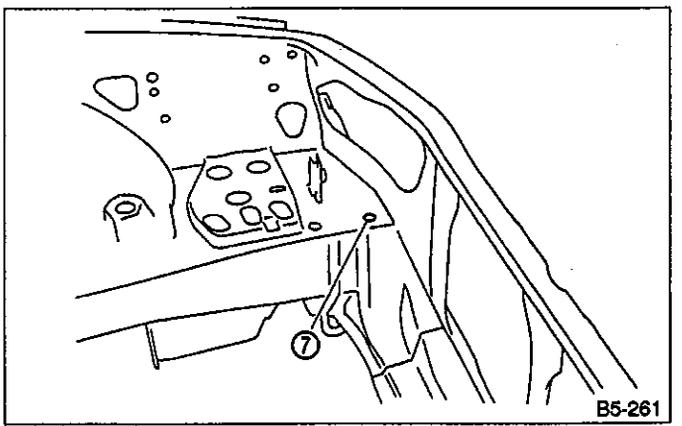


Fig. 32

B5-261

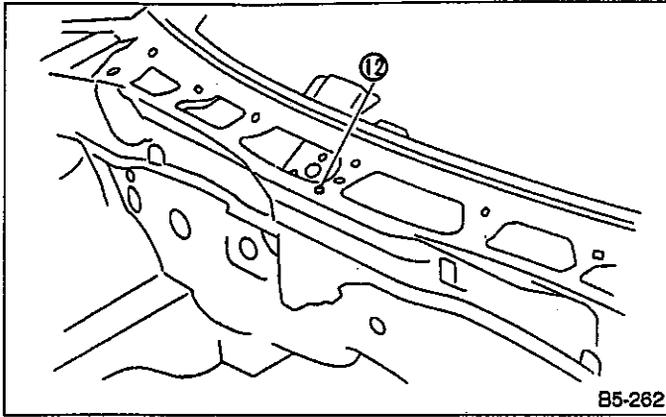


Fig. 33

B5-262

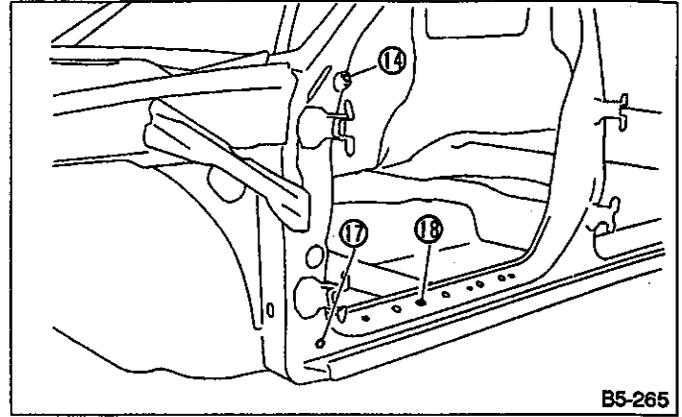


Fig. 36

B5-265

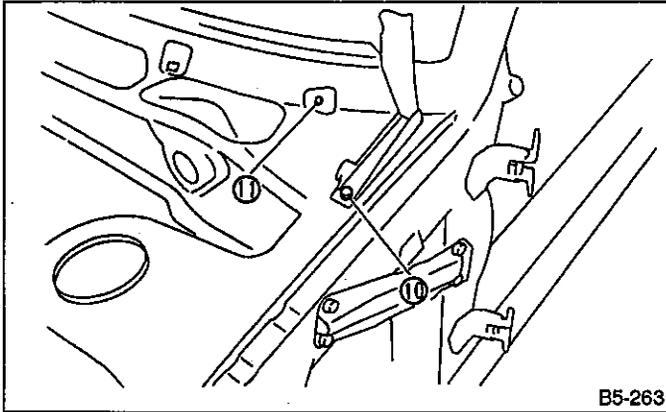


Fig. 34

B5-263

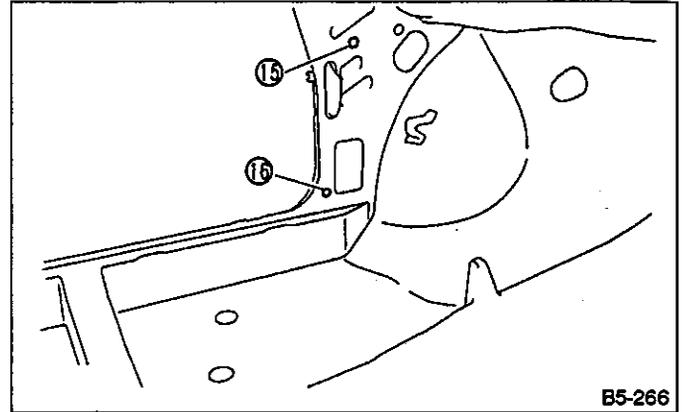


Fig. 37

B5-266

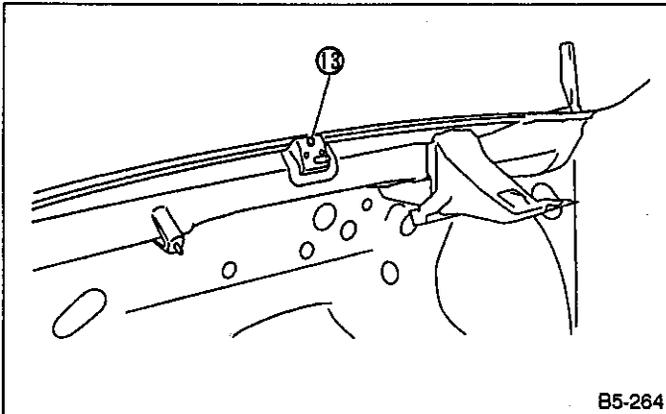


Fig. 35

B5-264

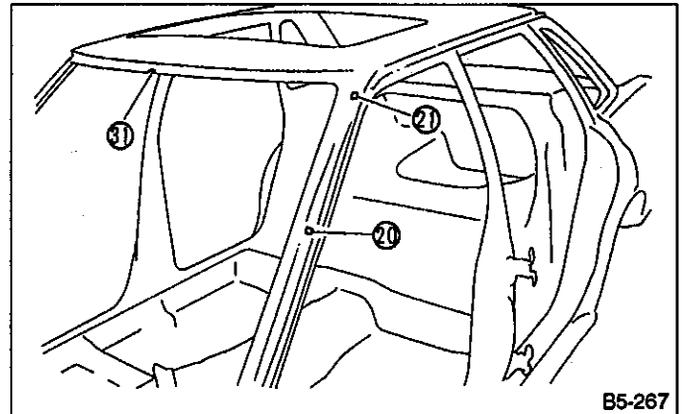


Fig. 38

B5-267

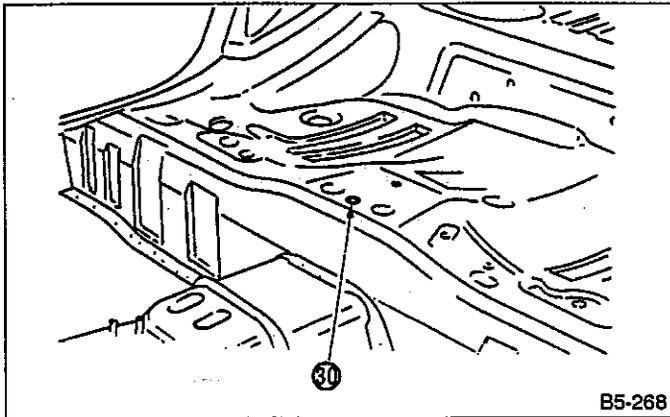


Fig. 39

B5-268

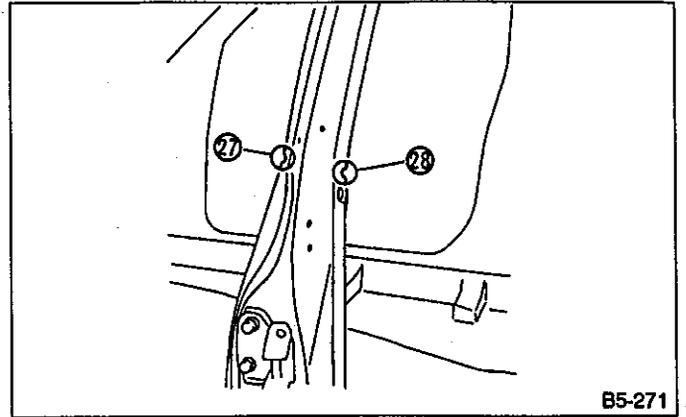


Fig. 42

B5-271

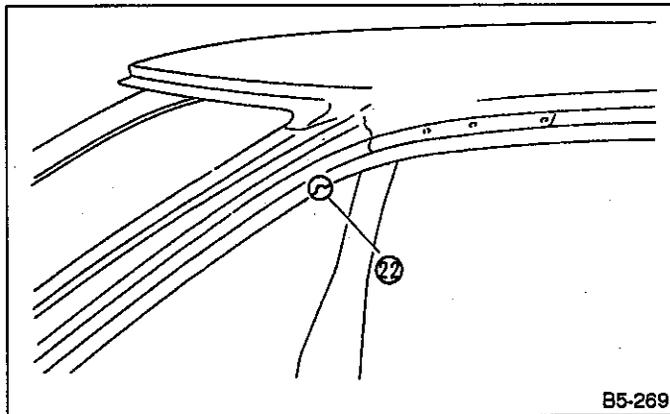


Fig. 40

B5-269

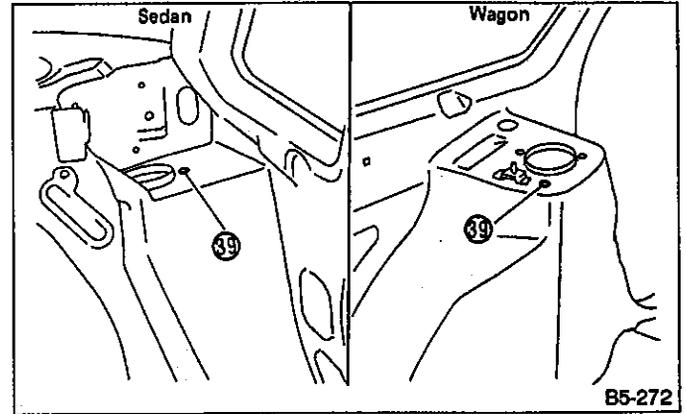


Fig. 43

B5-272

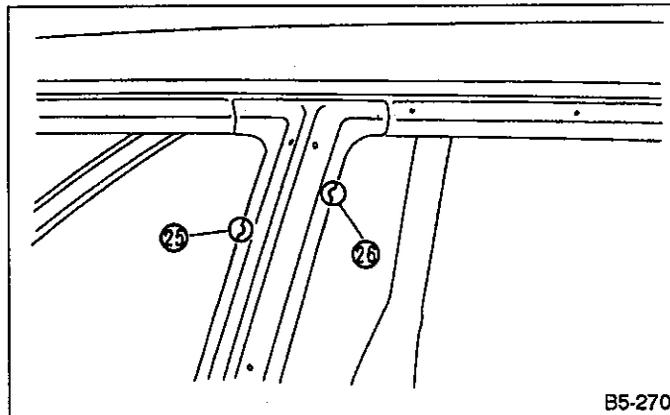


Fig. 41

B5-270

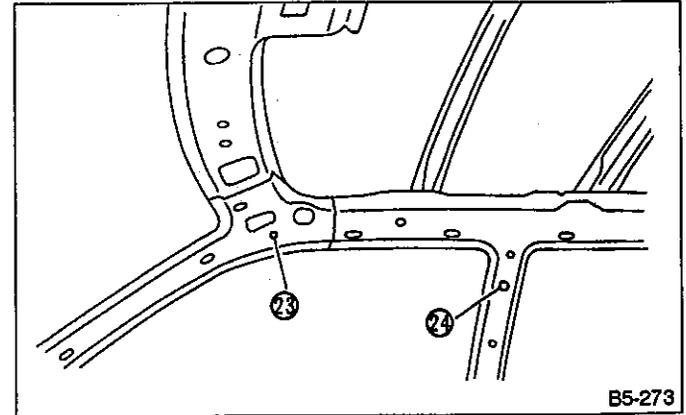


Fig. 44

B5-273

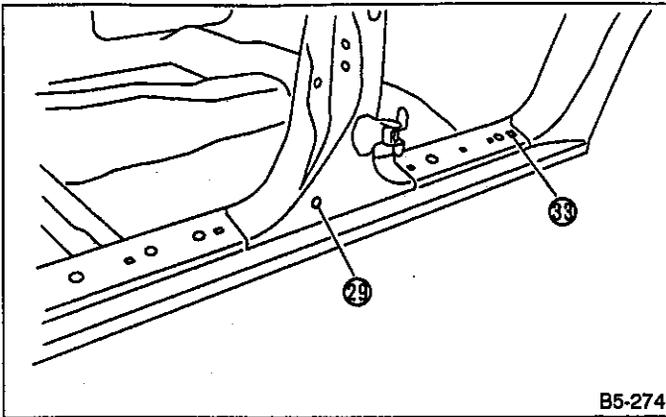


Fig. 45

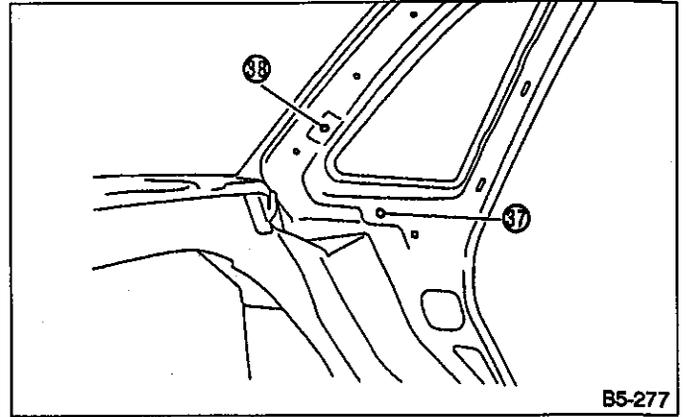


Fig. 48

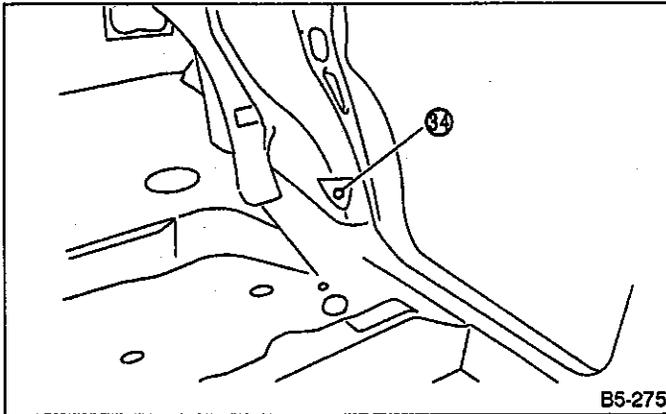


Fig. 46

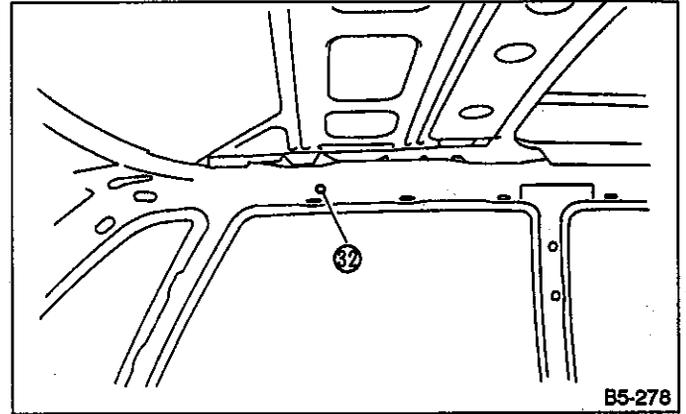


Fig. 49

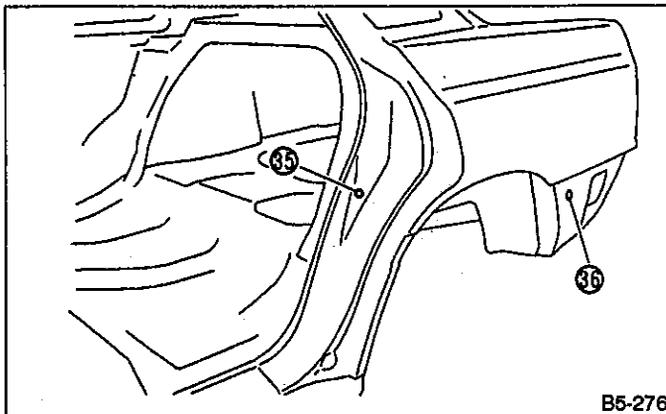


Fig. 47

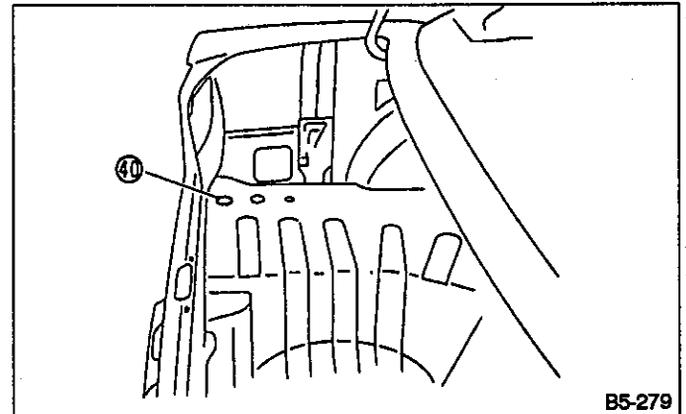


Fig. 50

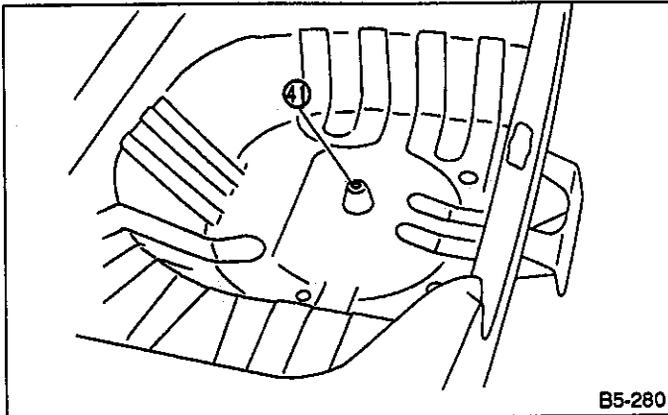


Fig. 51

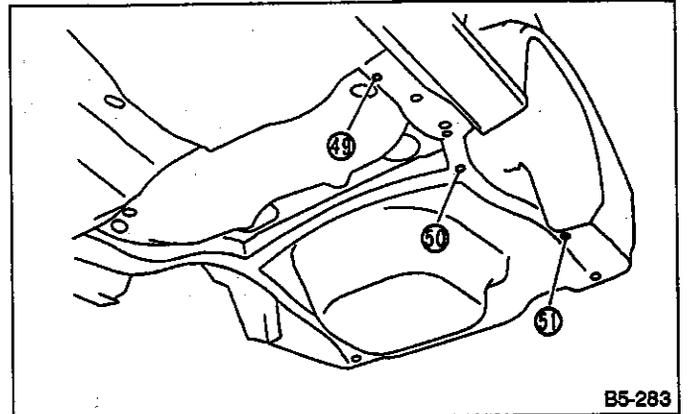


Fig. 54

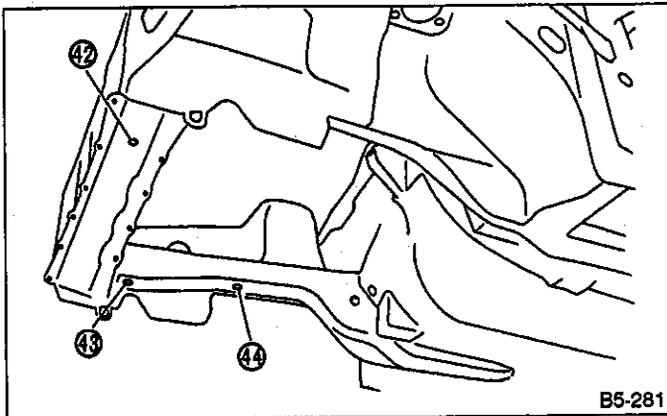


Fig. 52

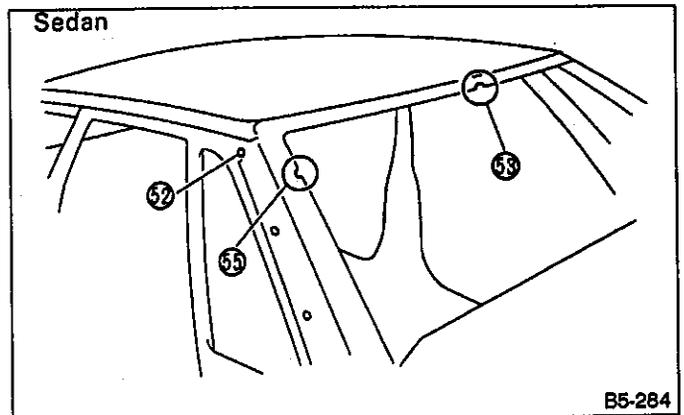


Fig. 55

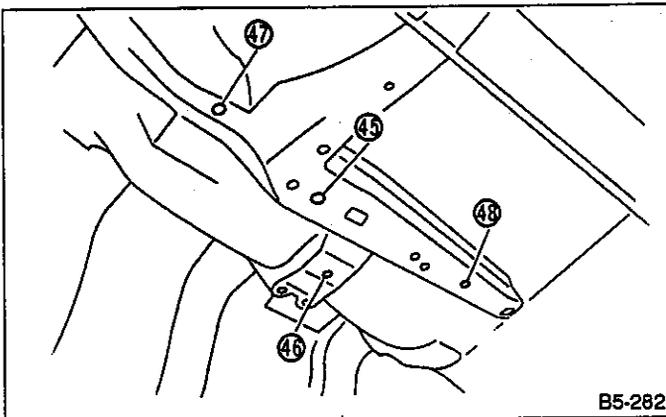


Fig. 53

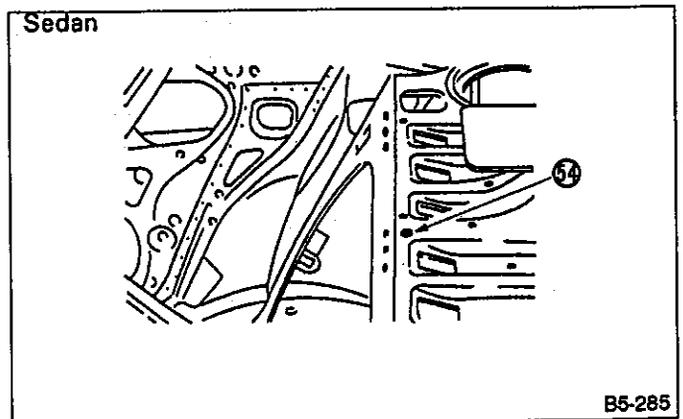


Fig. 56

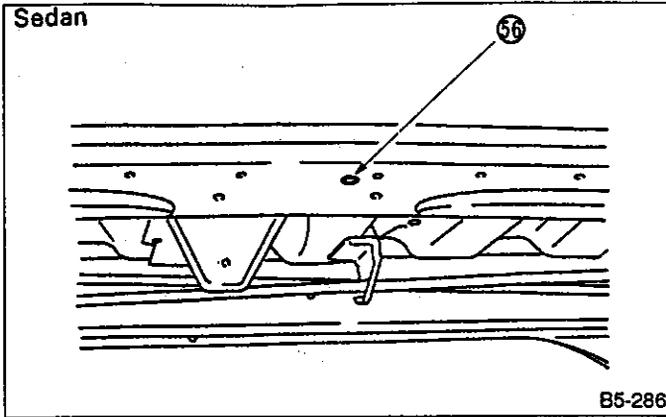


Fig. 57

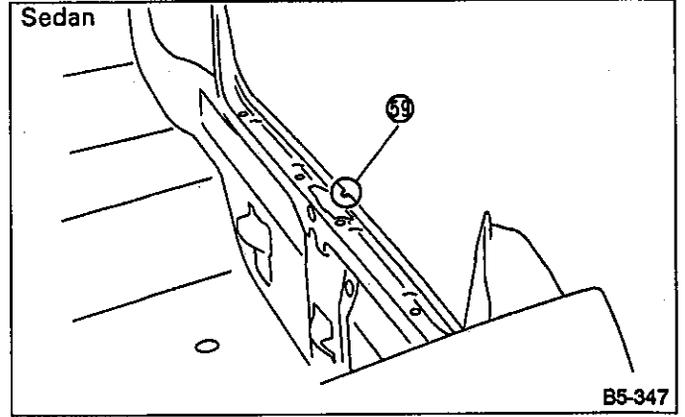


Fig. 60

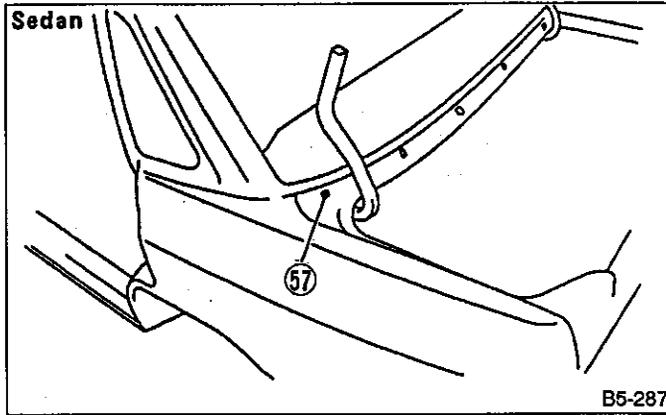


Fig. 58

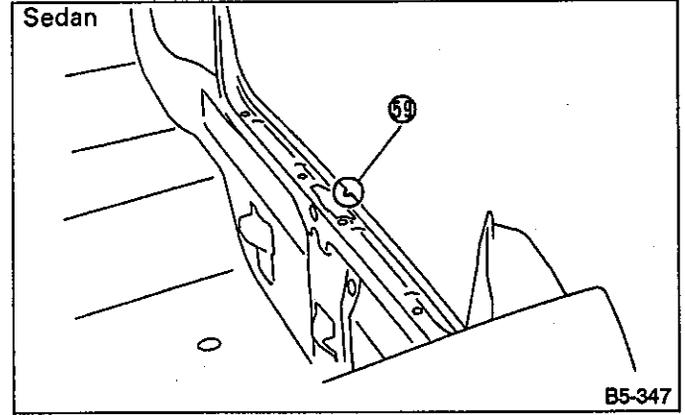


Fig. 61

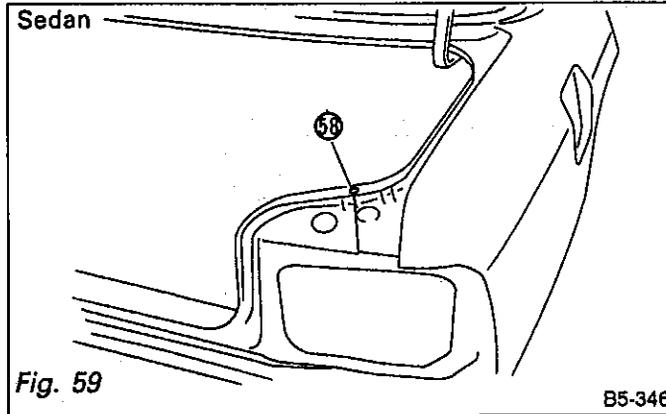


Fig. 59

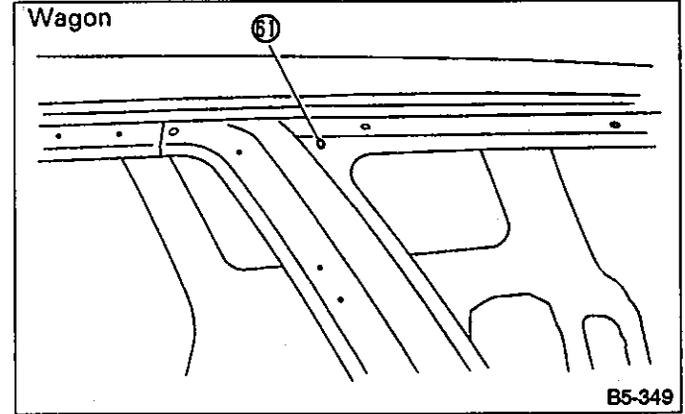


Fig. 62

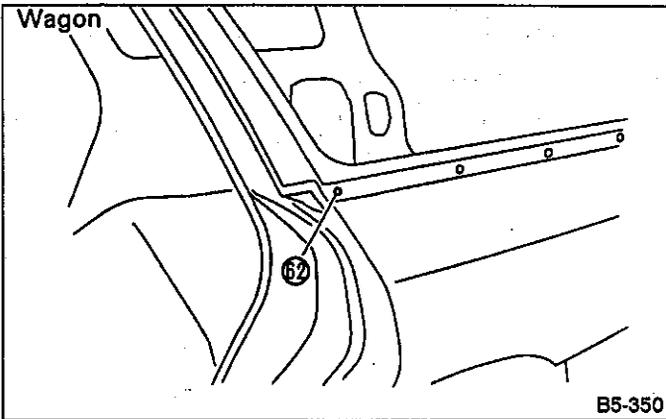


Fig. 63

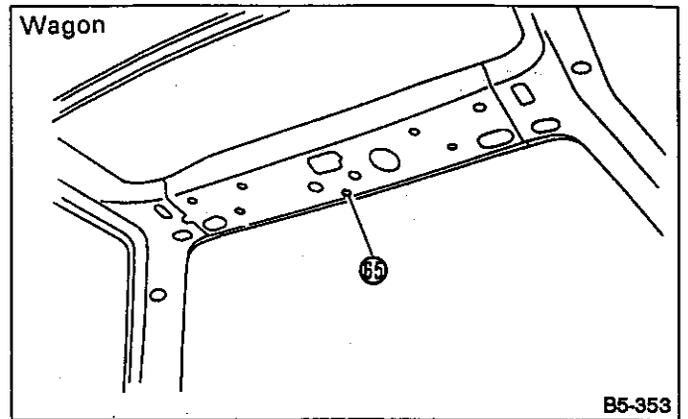


Fig. 66

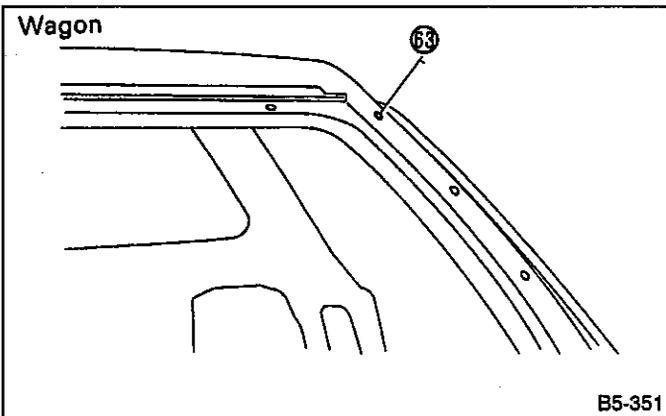


Fig. 64

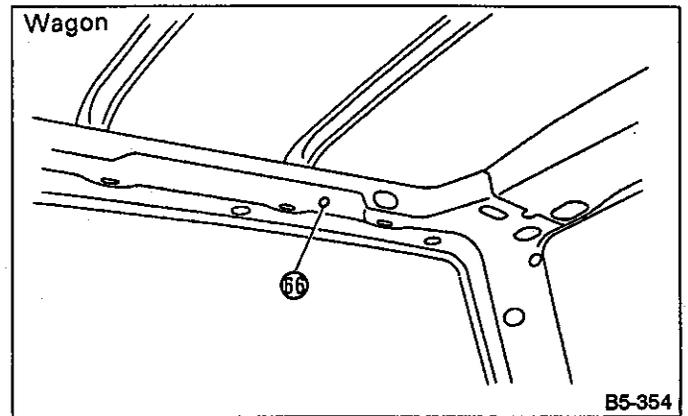


Fig. 67

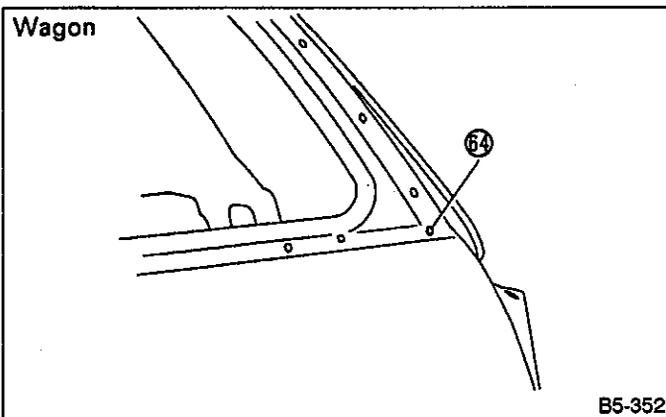


Fig. 65

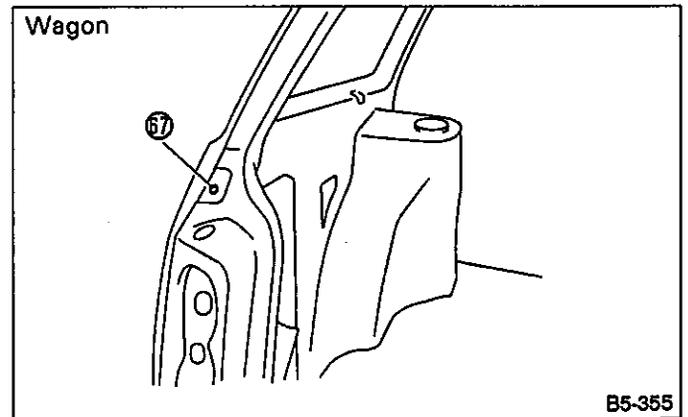


Fig. 68

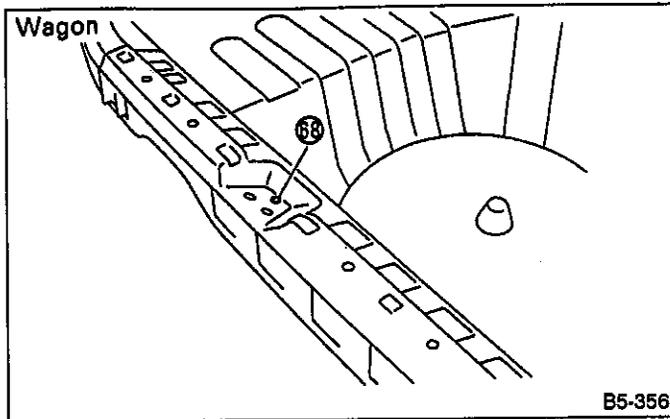


Fig. 69

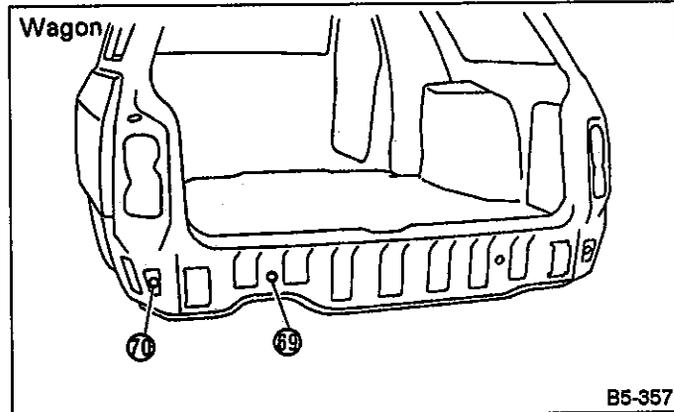


Fig. 70

## 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.

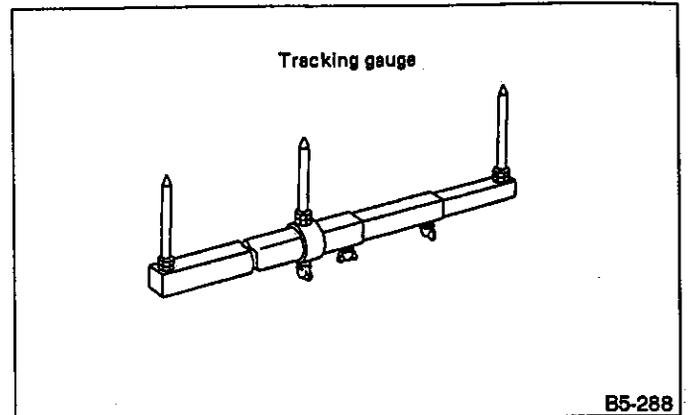
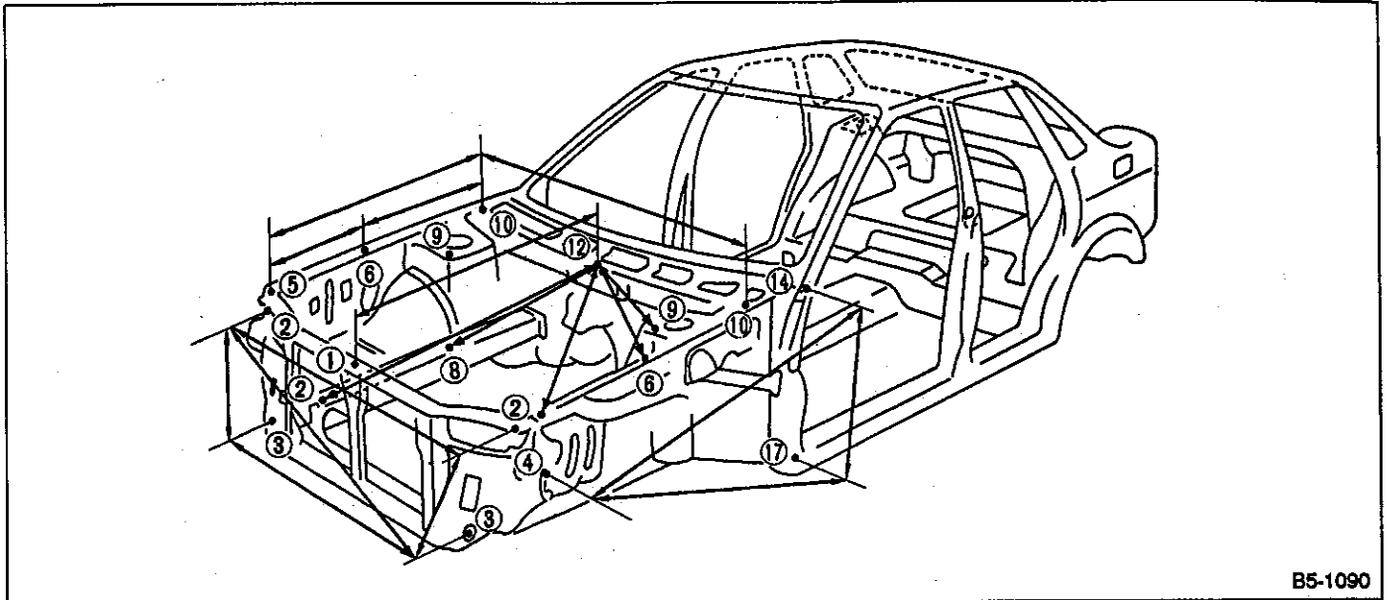


Fig. 71

1. FRONT STRUCTURE



B5-1090

Fig. 72

Unit: mm (in)

② <sub>R</sub> — ② <sub>L</sub> : 1,296 (51.02)	① — ⑫ : 881 (34.68)
③ <sub>R</sub> — ③ <sub>L</sub> : 924 (36.38)	⑩ <sub>R</sub> — ⑩ <sub>L</sub> : 1,408 (35.43)
② <sub>R</sub> — ③ <sub>L</sub> } : 1,175 (46.26)	⑫ — ⑨ <sub>R</sub> } : 530 (20.87)
② <sub>L</sub> — ③ <sub>R</sub> } : 1,175 (46.26)	⑫ — ⑨ <sub>L</sub> } : 530 (20.87)
⑤ <sub>R</sub> — ⑩ <sub>R</sub> } : 833 (32.80)	⑫ — ⑥ <sub>R</sub> } : 842 (33.15)
⑤ <sub>L</sub> — ⑩ <sub>L</sub> } : 833 (32.80)	⑫ — ⑥ <sub>L</sub> } : 842 (33.15)
⑤ <sub>R</sub> — ⑥ <sub>R</sub> } : 292 (11.50)	⑫ — ⑤ <sub>R</sub> } : 1,022 (40.24)
⑤ <sub>L</sub> — ⑥ <sub>L</sub> } : 292 (11.50)	⑫ — ⑤ <sub>L</sub> } : 1,022 (40.24)
⑥ <sub>R</sub> — ⑩ <sub>R</sub> } : 542 (21.34)	⑫ — ⑧ <sub>R</sub> } : 688 (27.09)
⑥ <sub>L</sub> — ⑩ <sub>L</sub> } : 542 (21.34)	⑫ — ⑧ <sub>L</sub> } : 688 (27.09)
	⑫ — ⑦ <sub>R</sub> } : 998 (39.29)
	⑫ — ⑦ <sub>L</sub> } : 998 (39.29)
	④ <sub>R</sub> — ⑭ <sub>R</sub> } : 1,181 (46.46)
	④ <sub>L</sub> — ⑭ <sub>L</sub> } : 1,181 (46.46)
	④ <sub>R</sub> — ⑰ <sub>R</sub> } : 1,140 (44.88)
	④ <sub>L</sub> — ⑰ <sub>L</sub> } : 1,140 (44.88)
	⑭ <sub>R</sub> — ⑰ <sub>R</sub> } : 529 (20.83)
	⑭ <sub>L</sub> — ⑰ <sub>L</sub> } : 529 (20.83)

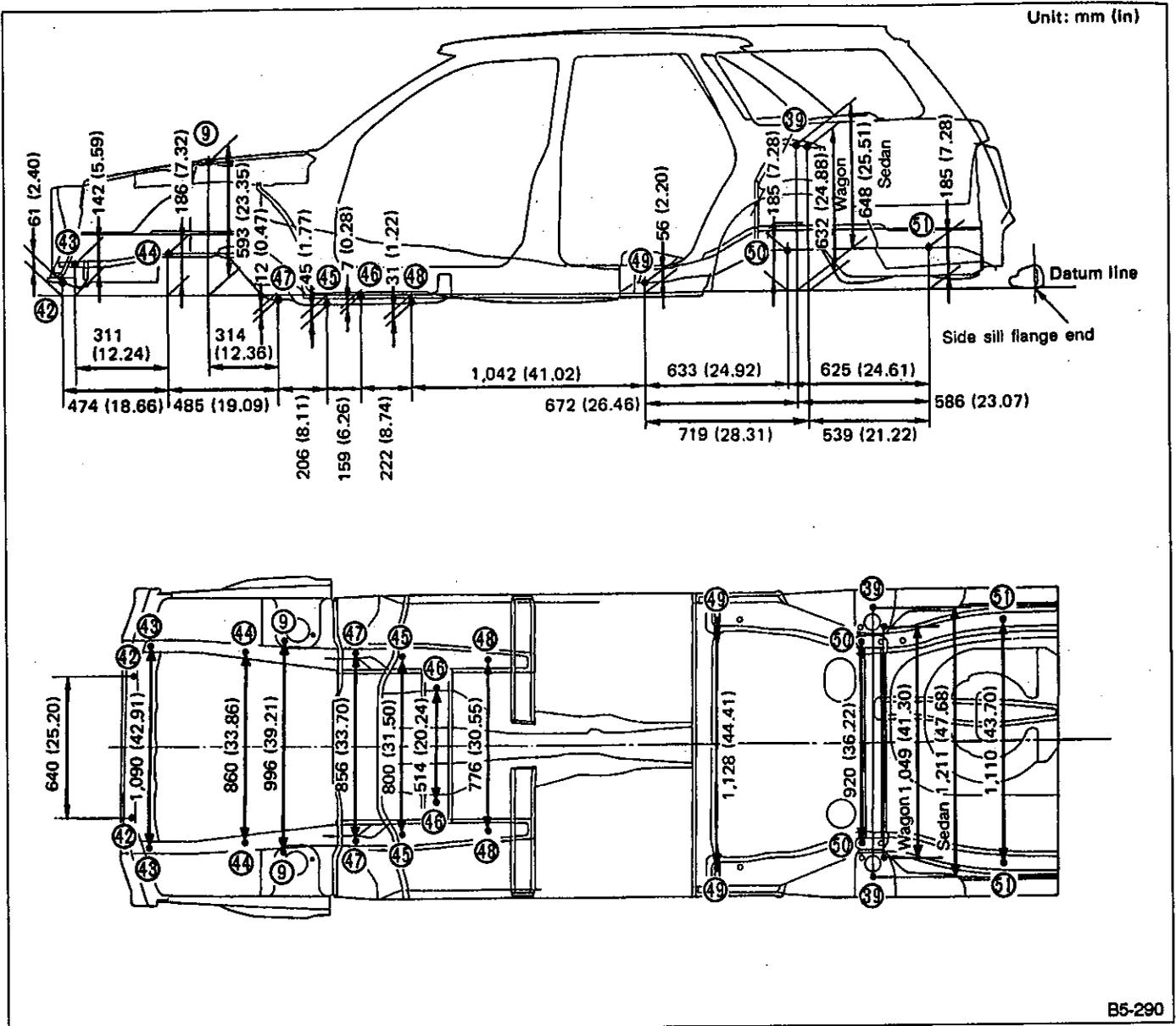
A suffix character "R" or "L" refers to the right or the left.

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.



B5-290

Fig. 73

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

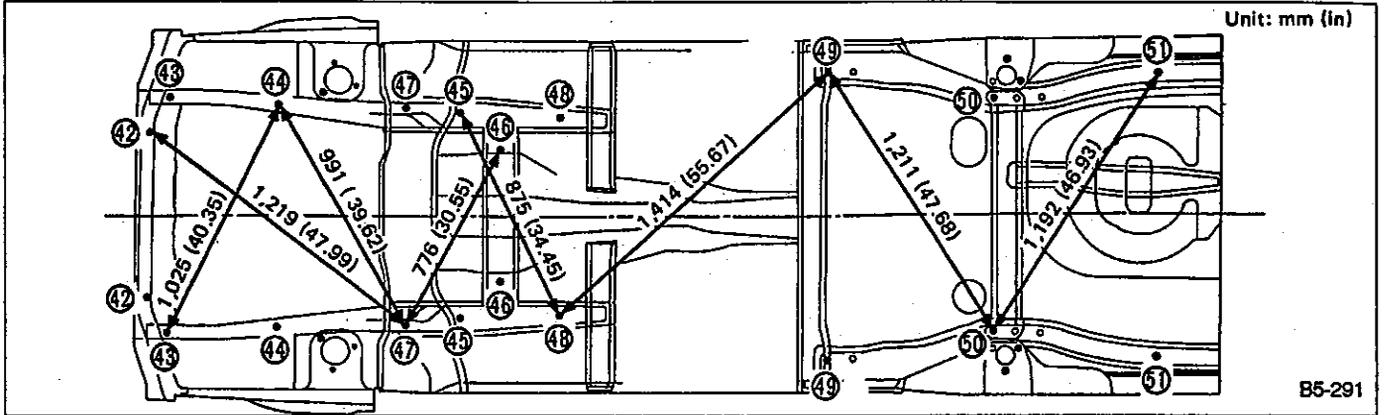
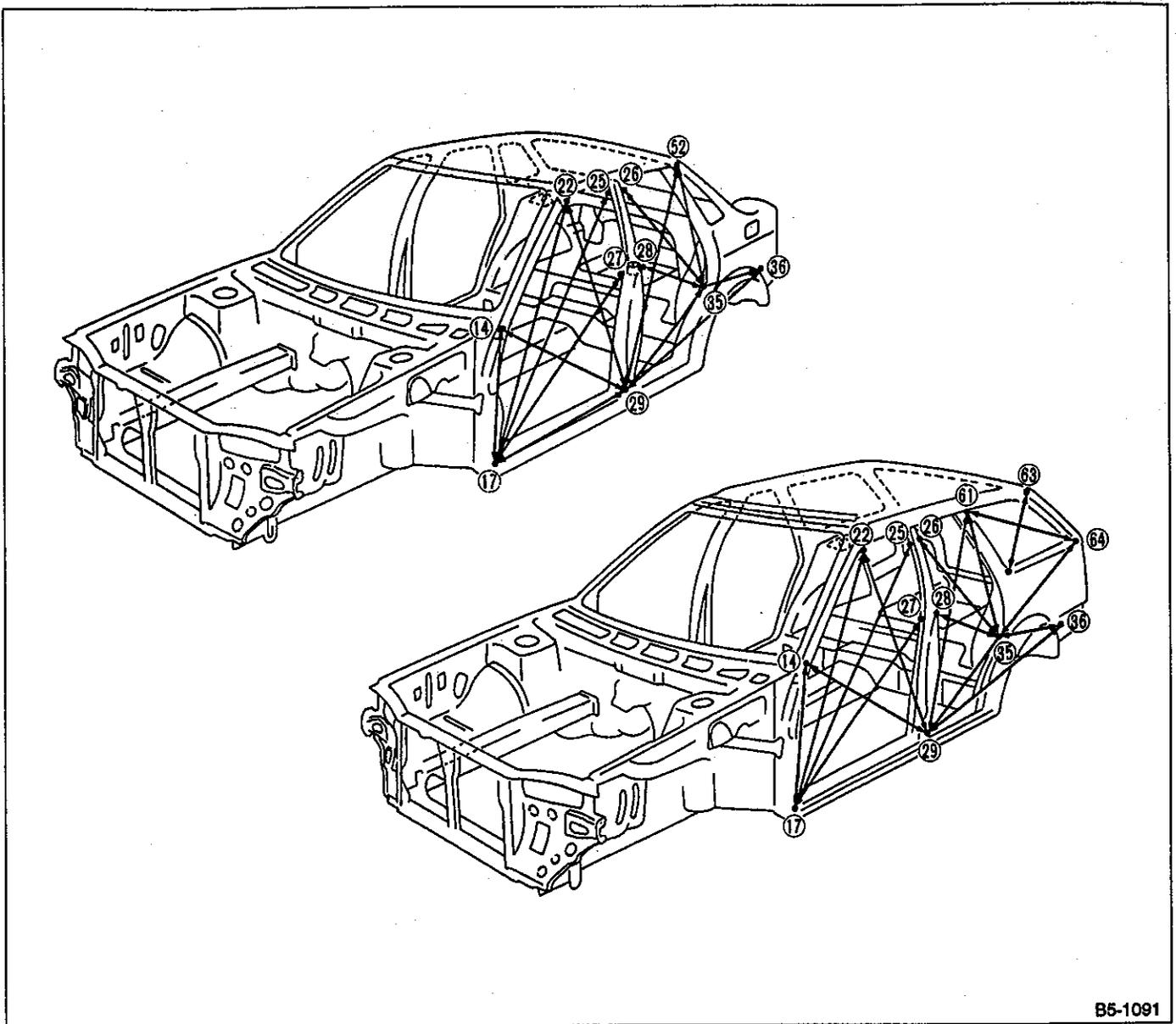


Fig. 74

3. DOORS AND REAR QUARTER



B5-1091

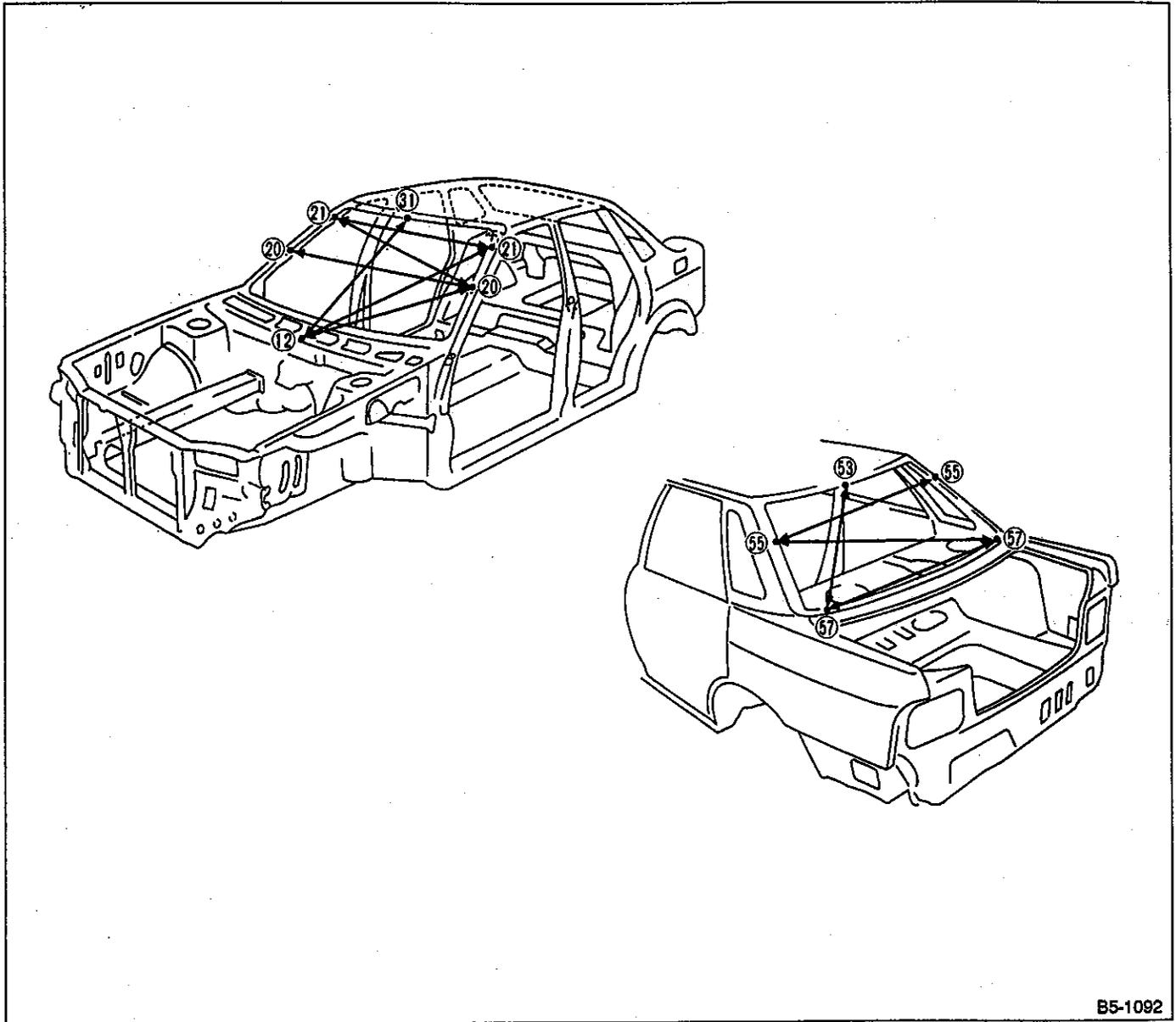
Fig. 75

Unit: mm (in)

17	—	14	: 539 (21.22)	All model	20	—	15	: 918 (36.14)	All model
17	—	22	: 1,123 (44.21)		20	—	15	: 781 (30.75)	
17	—	25	: 1,372 (54.02)		For Sedan	29	—	22	: 1,345 (52.95)
17	—	27	: 1,153 (45.39)			35	—	22	: 669 (26.34)
17	—	29	: 879 (34.61)		For Wagon	29	—	61	: 1,294 (50.94)
14	—	29	: 967 (38.07)			35	—	61	: 681 (26.81)
22	—	29	: 968 (38.11)			35	—	64	: 1,022 (40.24)
29	—	35	: 963 (37.91)			61	—	64	: 1,063 (41.85)
29	—	36	: 1,835 (64.37)			62	—	63	: 761 (29.96)
35	—	36	: 732 (28.82)						

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

4. FRONT WINDSHIELD AND REAR WINDOW



B5-1092

Fig. 76

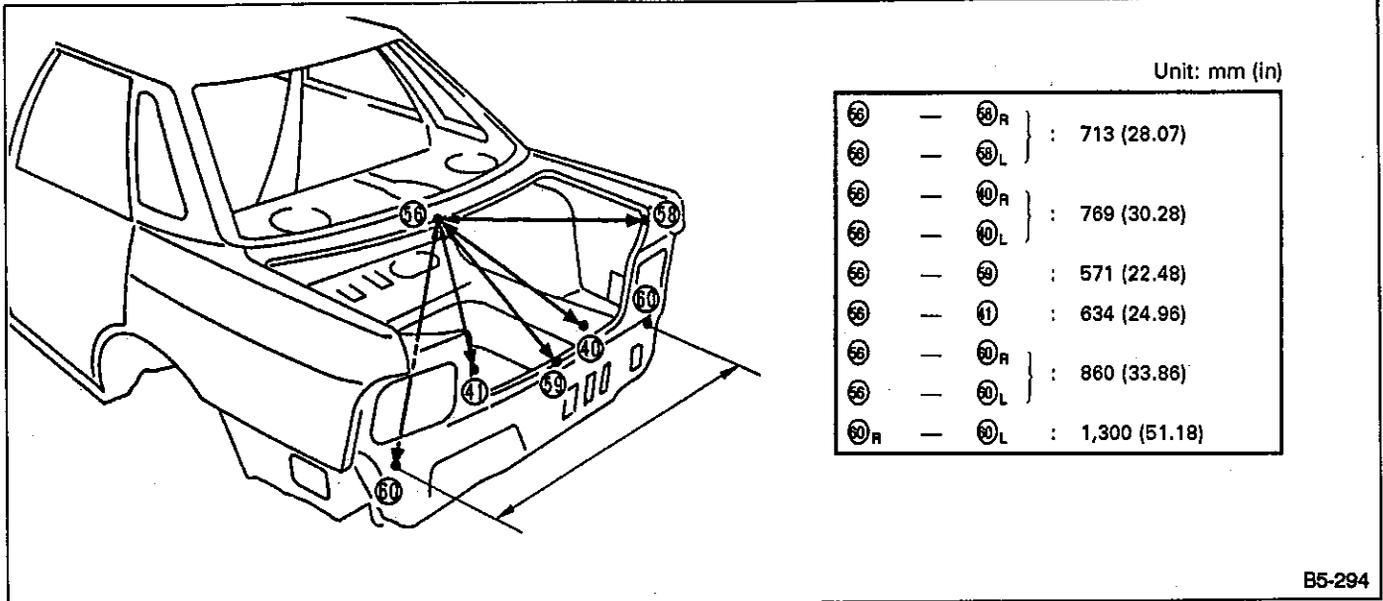
Unit: mm (in)

Front			Rear				
⑫	—	①	: 916 (36.06)	⑤③	—	⑦ <sub>R</sub>	} : 836 (32.91)
⑫	—	② <sub>R</sub>	} : 1,132 (44.57)	⑤③	—	⑦ <sub>L</sub>	
⑫	—	② <sub>L</sub>		} : 915 (36.02)	⑤⑥ <sub>R</sub>	—	⑦ <sub>L</sub>
⑫	—	② <sub>R</sub>	} : 1,280 (50.39)		⑤⑥ <sub>L</sub>	—	⑦ <sub>R</sub>
⑫	—	② <sub>L</sub>		} : 1,128 (44.41)	⑤⑥ <sub>R</sub>	—	⑤⑤
② <sub>R</sub>	—	② <sub>L</sub>	} : 1,329 (52.32)		⑦ <sub>R</sub>	—	⑦ <sub>L</sub>
② <sub>L</sub>	—	② <sub>R</sub>					
② <sub>R</sub>	—	② <sub>L</sub>					
② <sub>L</sub>	—	② <sub>R</sub>					

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

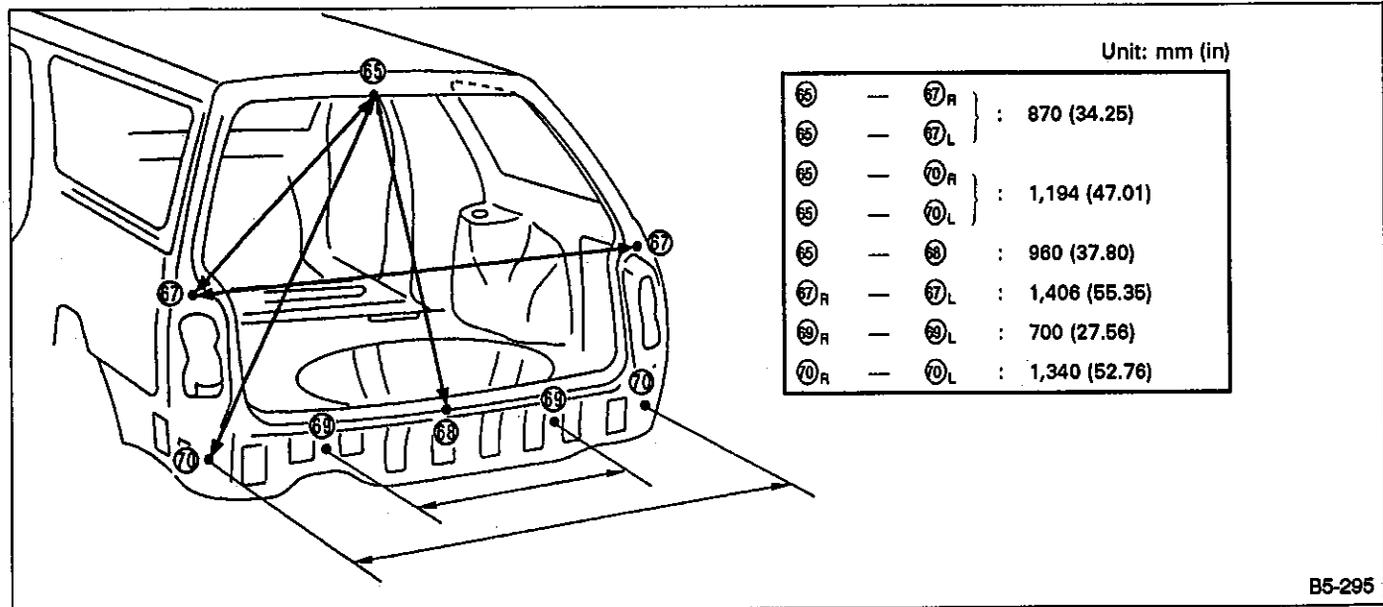


B5-294

Fig. 77

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

6. REAR GATE

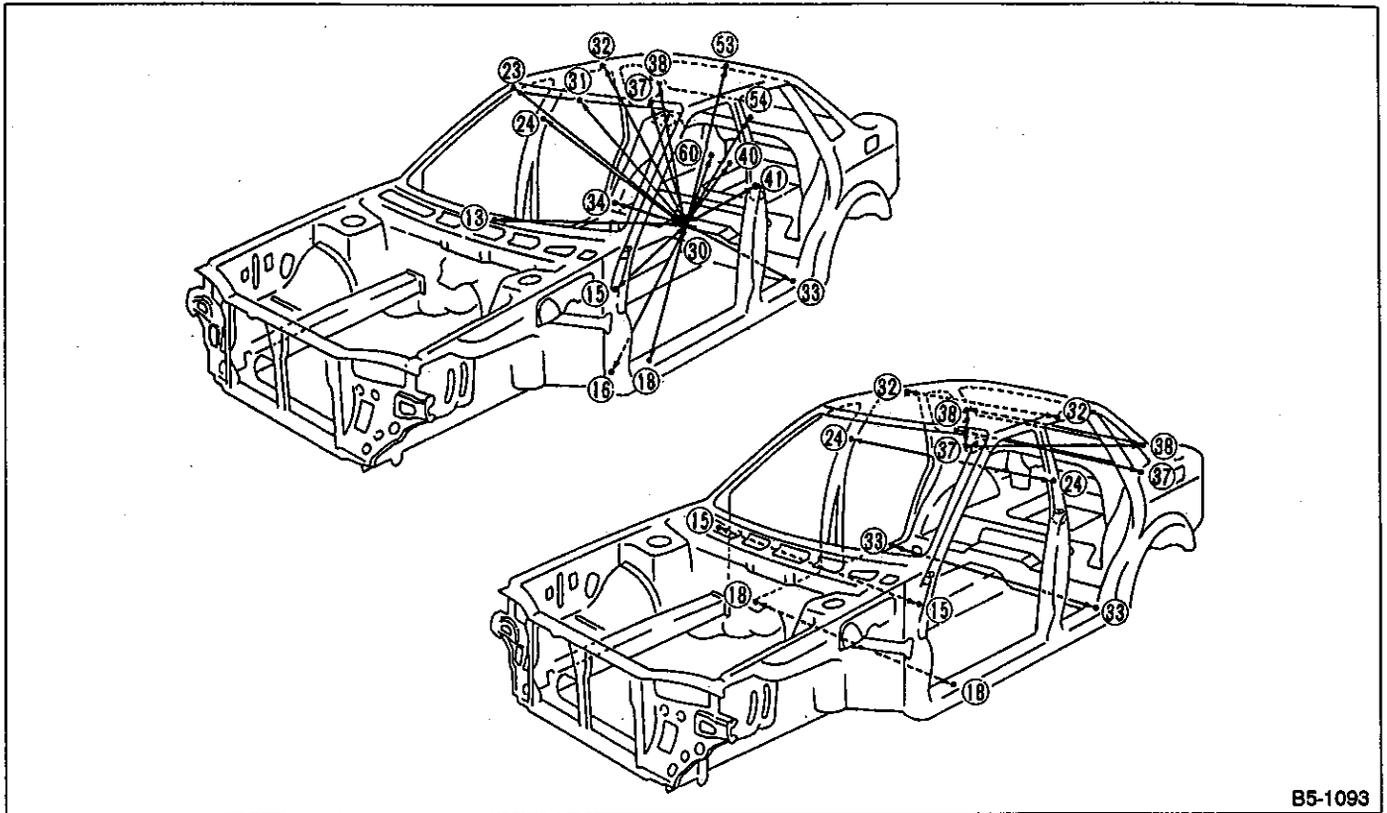


B5-295

Fig. 78

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

7. COMPARTMENT



B5-1093

Fig. 79

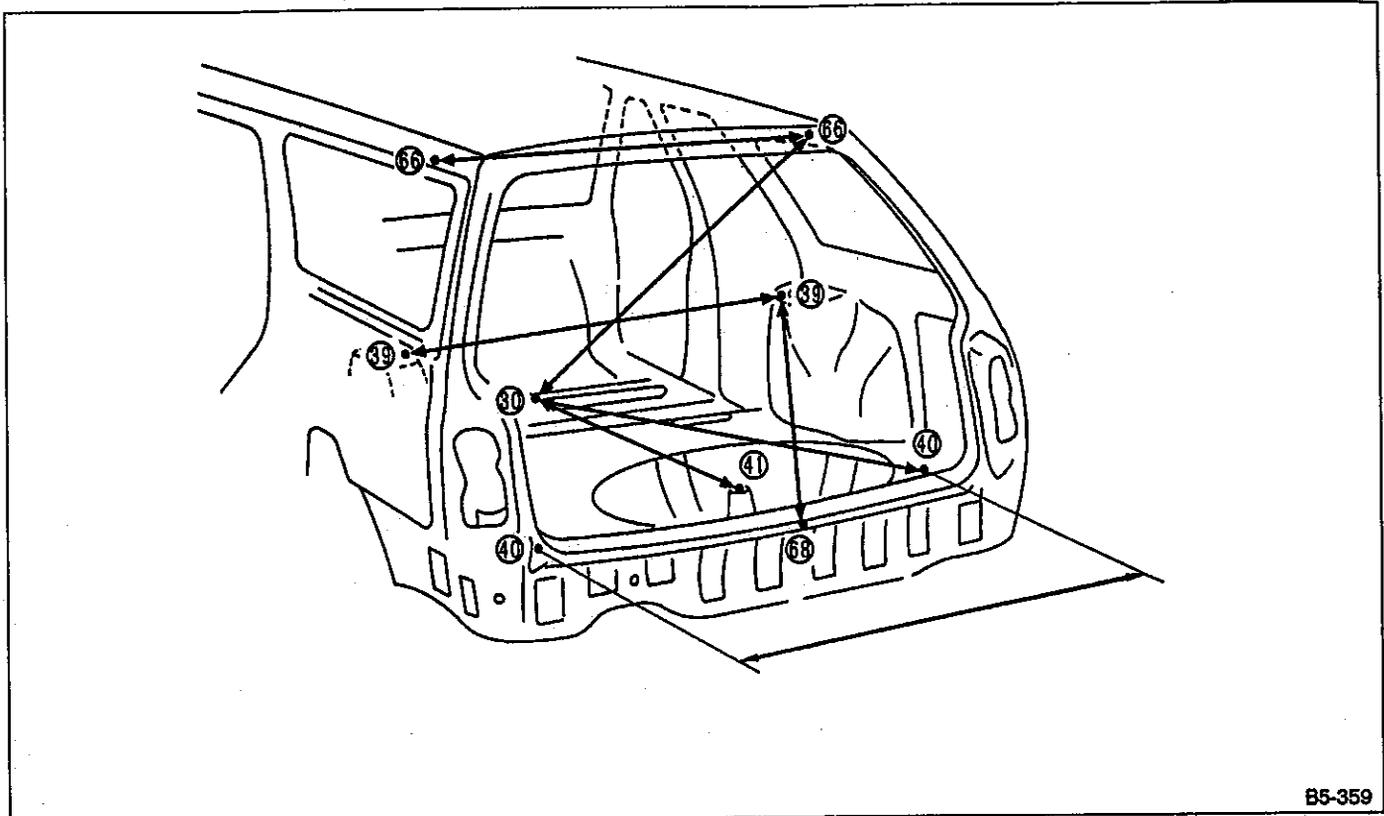
Unit: mm (in)

30	—	13	:	1,558 (61.34)	30	—	37 <sub>R</sub>	:	1,087 (42.01)
30	—	15 <sub>R</sub>	}	1,582 (62.28)	30	—	37 <sub>L</sub>	}	1,160 (45.67)
30	—	15 <sub>L</sub>			30	—	38 <sub>R</sub>		
30	—	16 <sub>R</sub>	}	1,500 (59.06)	30	—	38 <sub>L</sub>	}	1,621 (63.82)
30	—	16 <sub>L</sub>			30	—	40 <sub>R</sub>		
30	—	18 <sub>R</sub>	}	1,384 (54.49)	30	—	40 <sub>L</sub>	}	1,261 (49.65)
30	—	18 <sub>L</sub>			30	—	41		
30	—	23 <sub>R</sub>	}	1,222 (48.11)	30	—	43	}	1,070 (42.13)
30	—	23 <sub>L</sub>			30	—	44		
30	—	24 <sub>R</sub>	}	1,030 (40.55)	30	—	40 <sub>R</sub>	}	1,713 (67.44)
30	—	24 <sub>L</sub>			30	—	40 <sub>L</sub>		
30	—	31	:	1,241 (48.86)	15 <sub>R</sub>	—	15 <sub>L</sub>	:	1,393 (54.84)
30	—	32 <sub>R</sub>	}	Sedan 1,048 (41.26)	18 <sub>R</sub>	—	18 <sub>L</sub>	:	1,432 (56.38)
30	—	32 <sub>L</sub>			Wagon 1,039 (40.91)	24 <sub>R</sub>	—	24 <sub>L</sub>	:
30	—	33 <sub>R</sub>	}	740 (29.13)	32 <sub>R</sub>	—	32 <sub>L</sub>	}	Sedan 1,018 (40.08)
30	—	33 <sub>L</sub>			Wagon 1,012 (39.84)	33 <sub>R</sub>	—		33 <sub>L</sub>
30	—	34 <sub>R</sub>	}	745 (29.33)	37 <sub>R</sub>	—	37 <sub>L</sub>	:	1,364 (53.70)
30	—	34 <sub>L</sub>			39 <sub>R</sub>	—	39 <sub>L</sub>	:	1,258 (49.53)

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.

8. LUGGAGE ROOM



B5-359

Fig. 80

Unit: mm (in)

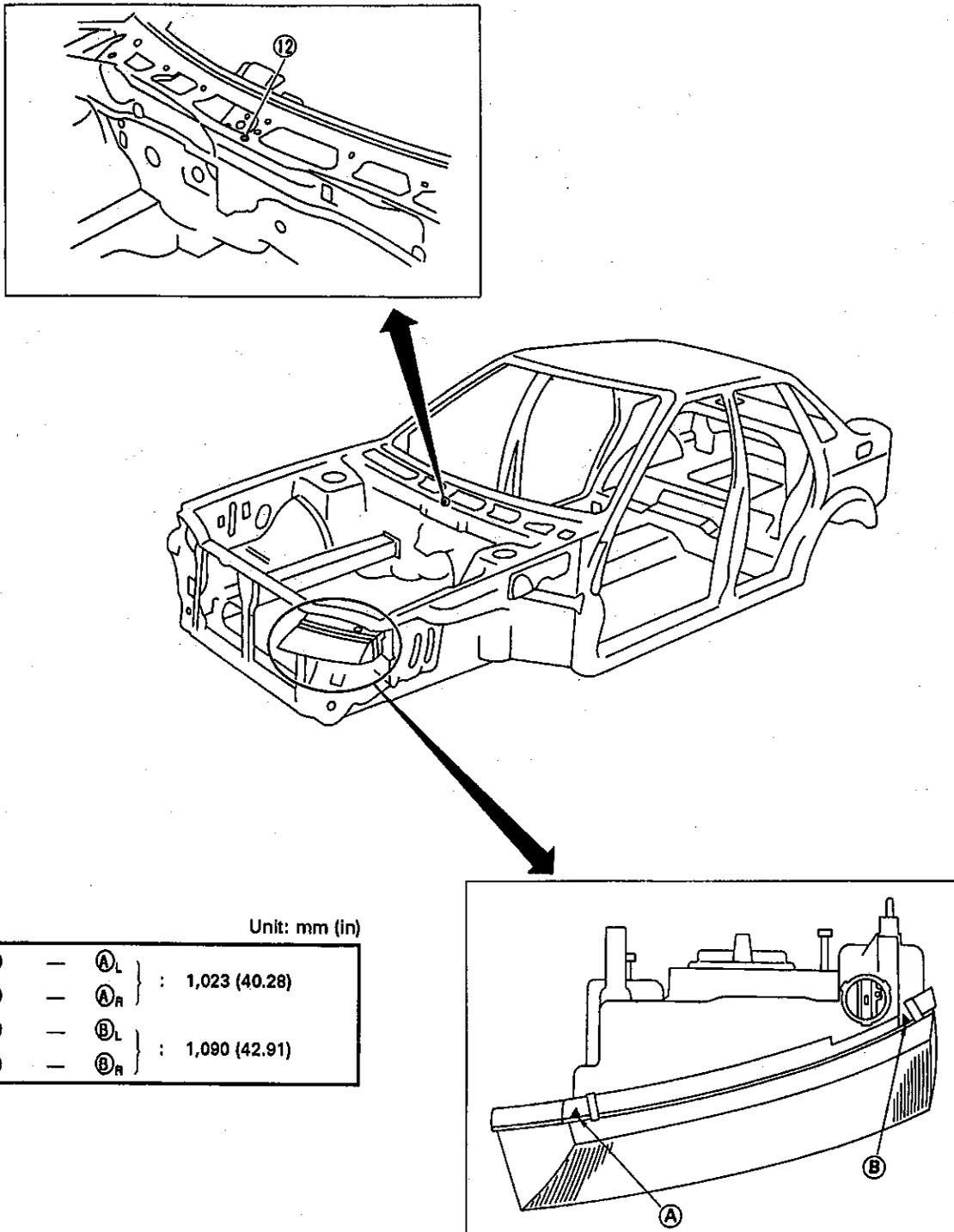
30	—	41	:	1,261 (49.65)
30	—	65 <sub>R</sub>	}	: 1,335 (52.56)
30	—	65 <sub>L</sub>		
30	—	40 <sub>R</sub>	}	: 1,443 (56.81)
30	—	40 <sub>L</sub>		
68	—	39 <sub>R</sub>	}	: 1,072 (42.20)
68	—	39 <sub>L</sub>		
39 <sub>R</sub>	—	39 <sub>L</sub>	:	1,049 (41.30)
40 <sub>R</sub>	—	40 <sub>L</sub>	:	1,110 (43.70)
65 <sub>R</sub>	—	65 <sub>L</sub>	:	996 (39.21)

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 (G.C.C. countries only)

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



Unit: mm (in)

⑫	—	A <sub>L</sub>	} : 1,023 (40.28)
⑫	—	A <sub>R</sub>	
⑫	—	B <sub>L</sub>	} : 1,090 (42.91)
⑫	—	B <sub>R</sub>	

Fig. 81

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.

B5-1119

# C COMPONENT PARTS

## 1. Body Construction

### 1. SEDAN

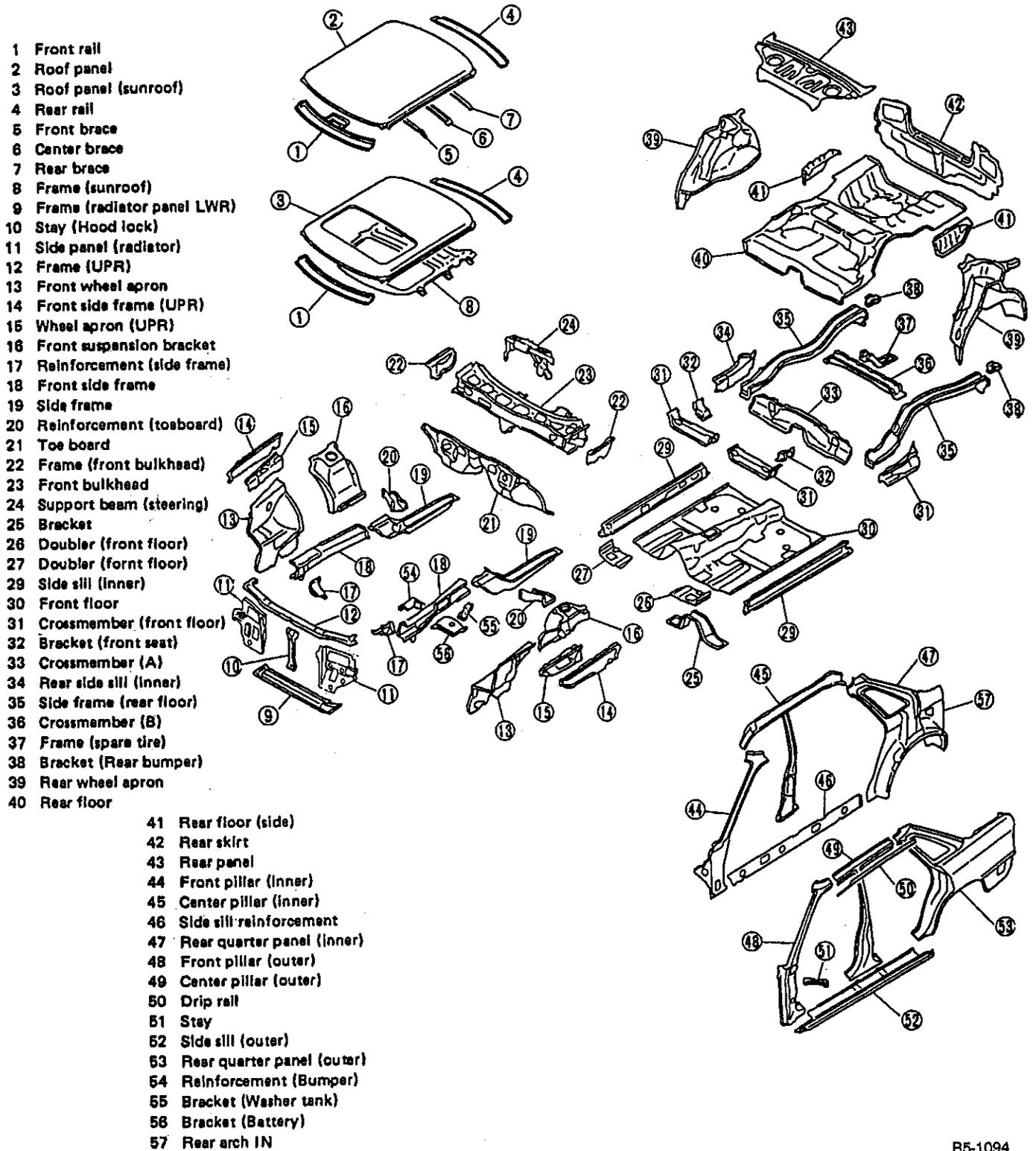


Fig. 82

B5-1094

2. WAGON

- 1 Front rail
- 2 Roof panel
- 3 Roof panel (sunroof)
- 4 Rear rail
- 5 Brace (A)
- 6 Brace (center)
- 7 Brace (B)
- 8 Brace (C)
- 9 Brace (D)
- 10 Frame (sunroof)
- 11 Brace (sunroof)
- 12 Frame (radiator panel LWR)
- 13 Stay (hood lock)
- 14 Side panel (radiator)
- 15 Frame (UPR)
- 16 Front wheel apron
- 17 Front side frame (UPR)
- 18 Wheel apron (UPR)
- 19 Front suspension bracket
- 20 Reinforcement (side frame)
- 21 Front side frame
- 22 Side frame
- 23 Reinforcement (toe board)
- 24 Toe board
- 25 Frame (front bulkhead)
- 26 Front bulkhead
- 27 Support beam (steering)
- 28 Bracket
- 29 Doubler (front floor)
- 30 Doubler (front floor)
- 31 Side sill (inner)
- 32 Front floor
- 33 Crossmember (front floor)
- 34 Bracket (front seat)
- 35 Crossmember (A)
- 36 Rear side sill (inner)
- 37 Rear wheel apron
- 38 Crossmember (B)
- 39 Frame (spare tire)
- 40 Bracket (Rear bumper)
- 41 Rear wheel apron
- 42 Rear floor
- 43 Rear floor (side)
- 44 Rear skirt (inner)
- 45 Rear skirt (outer)
- 46 Rear skirt (inner side)
- 47 Front pillar (inner)
- 48 Center pillar (inner)
- 49 Side sill reinforcement
- 50 Rear quarter panel (inner)
- 51 Front pillar (outer)
- 52 Center pillar (outer)
- 53 Drip rail
- 54 Stay
- 55 Side sill (outer)
- 56 Rear quarter panel (outer)
- 57 Reinforcement (Bumper)
- 58 Bracket (washer tank)
- 59 Bracket (Battery)
- 60 Rear arch IN

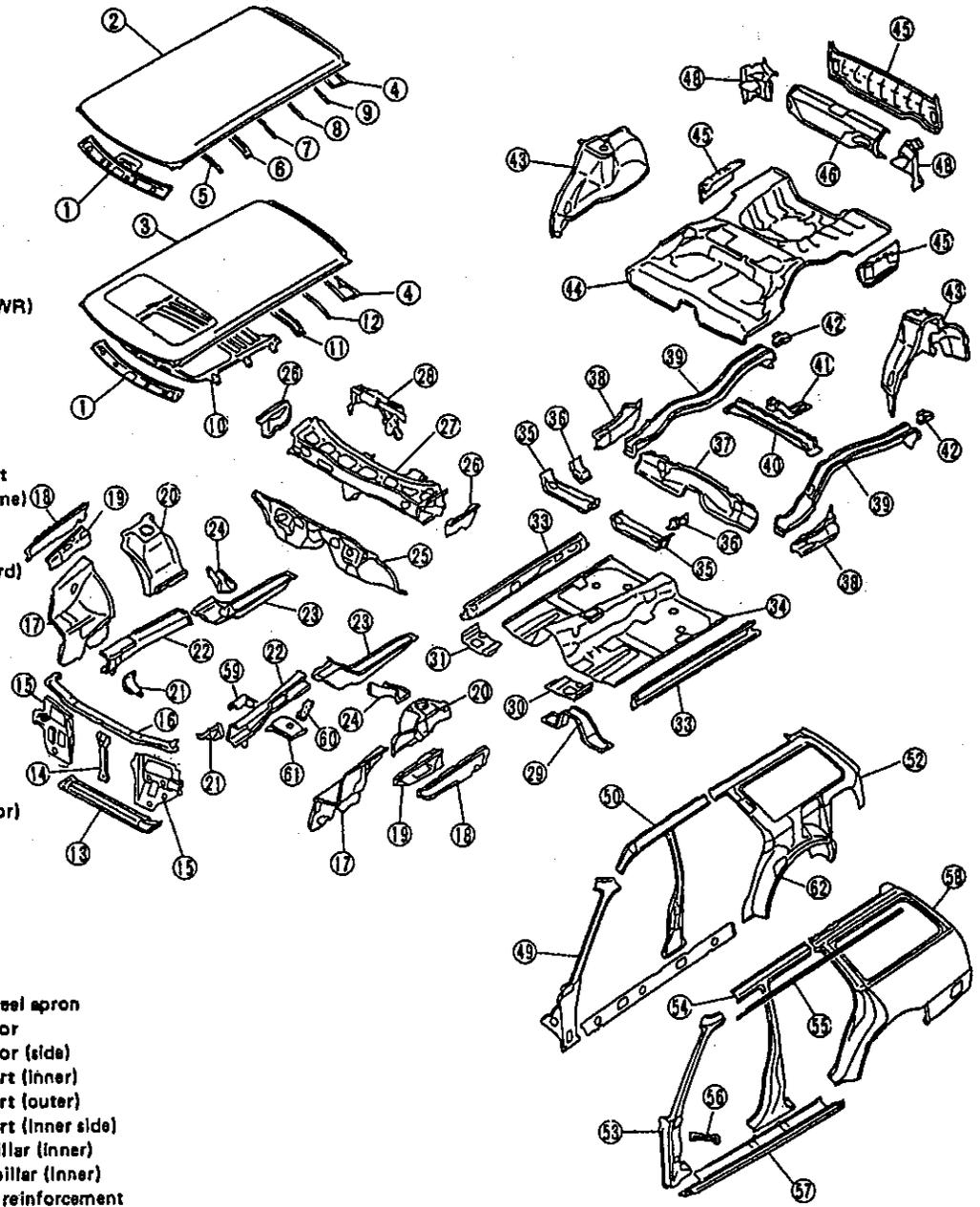


Fig. 83

## 2. Front Hood and Hood Lock

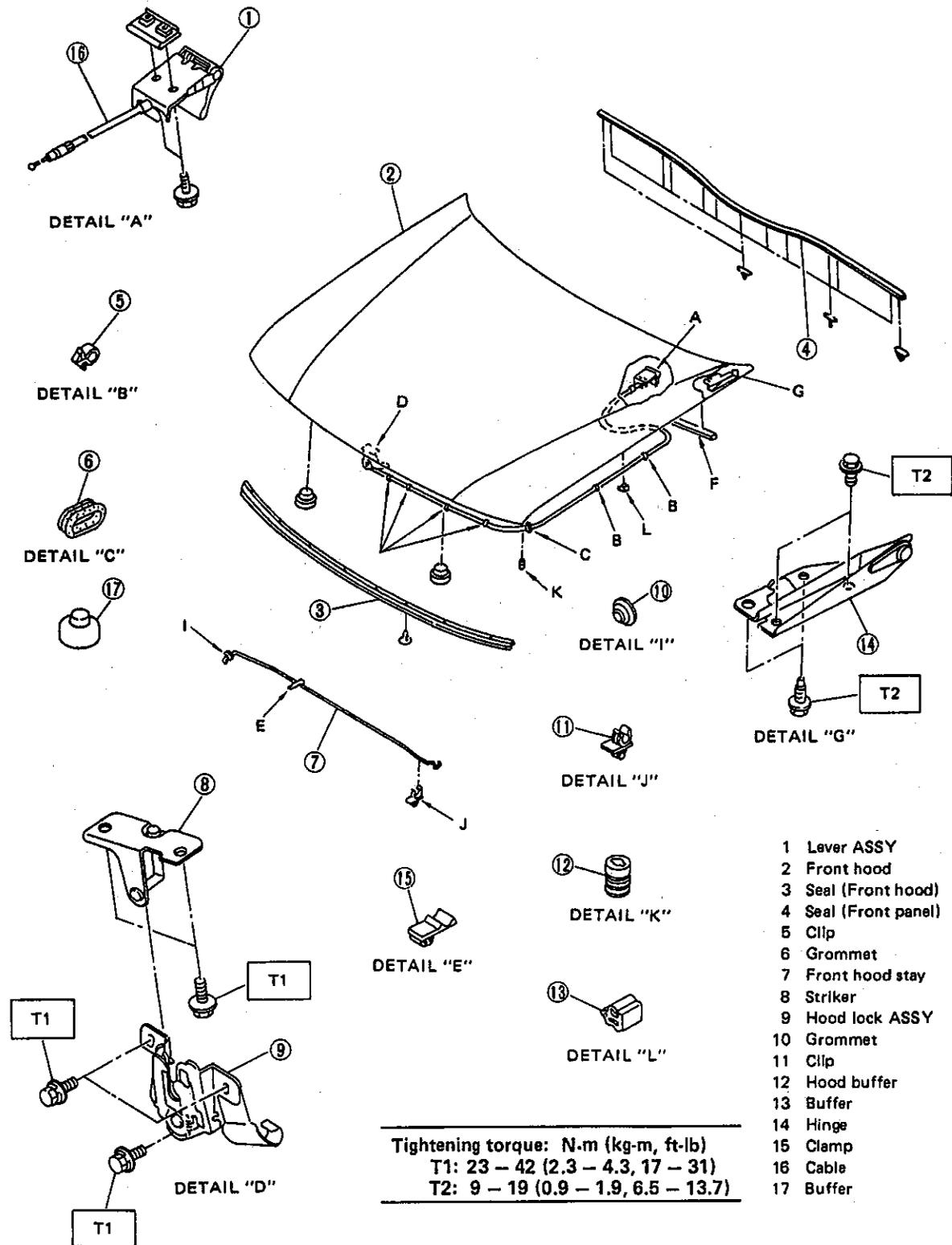
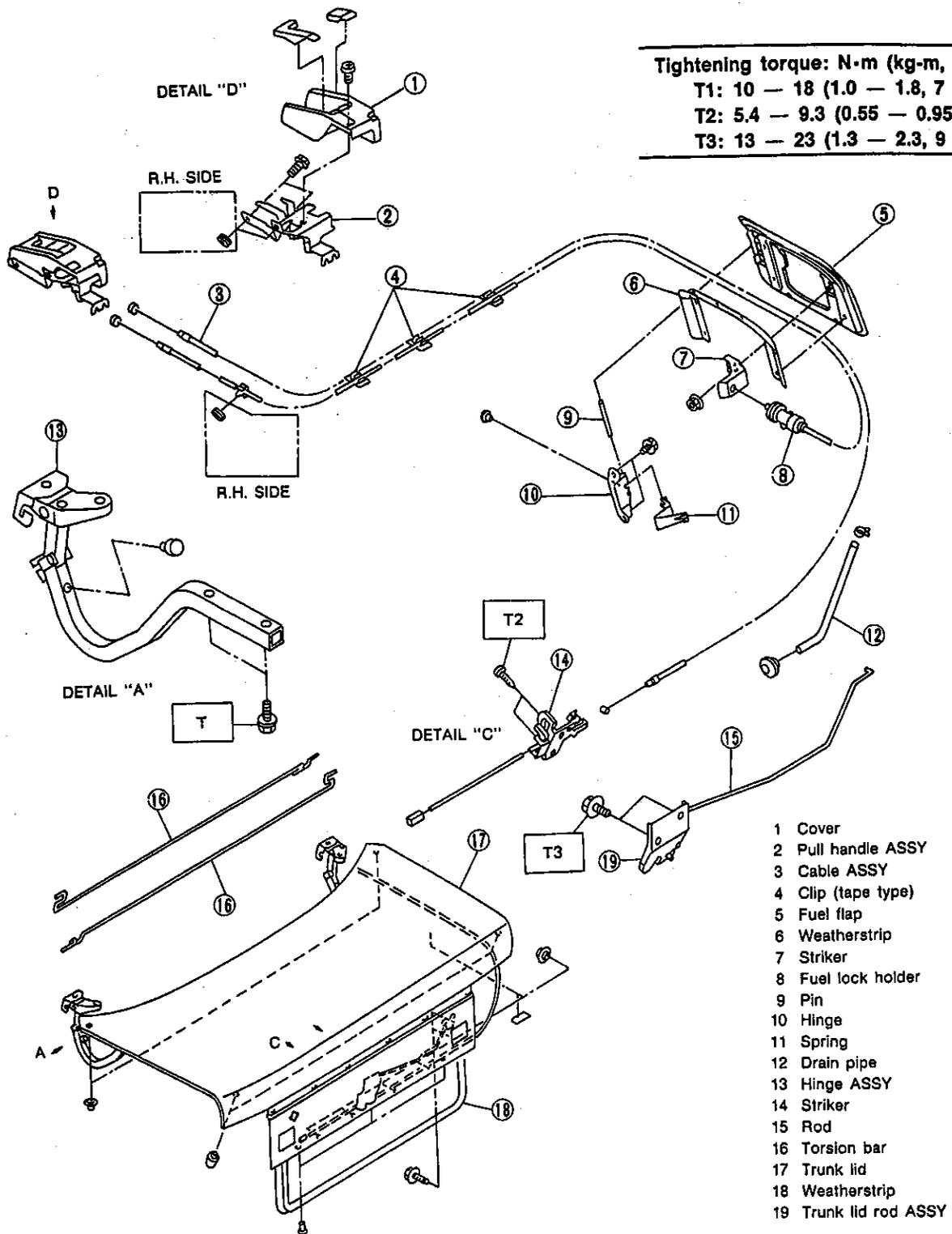


Fig. 84

B5-1133

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



Tightening torque: N-m (kg-m, ft-lb)	
T1:	10 — 18 (1.0 — 1.8, 7 — 13)
T2:	5.4 — 9.3 (0.55 — 0.95, 4.0 — 6.9)
T3:	13 — 23 (1.3 — 2.3, 9 — 17)

- 1 Cover
- 2 Pull handle ASSY
- 3 Cable ASSY
- 4 Clip (tape type)
- 5 Fuel flap
- 6 Weatherstrip
- 7 Striker
- 8 Fuel lock holder
- 9 Pin
- 10 Hinge
- 11 Spring
- 12 Drain pipe
- 13 Hinge ASSY
- 14 Striker
- 15 Rod
- 16 Torsion bar
- 17 Trunk lid
- 18 Weatherstrip
- 19 Trunk lid rod ASSY

B5-1097

Fig. 85

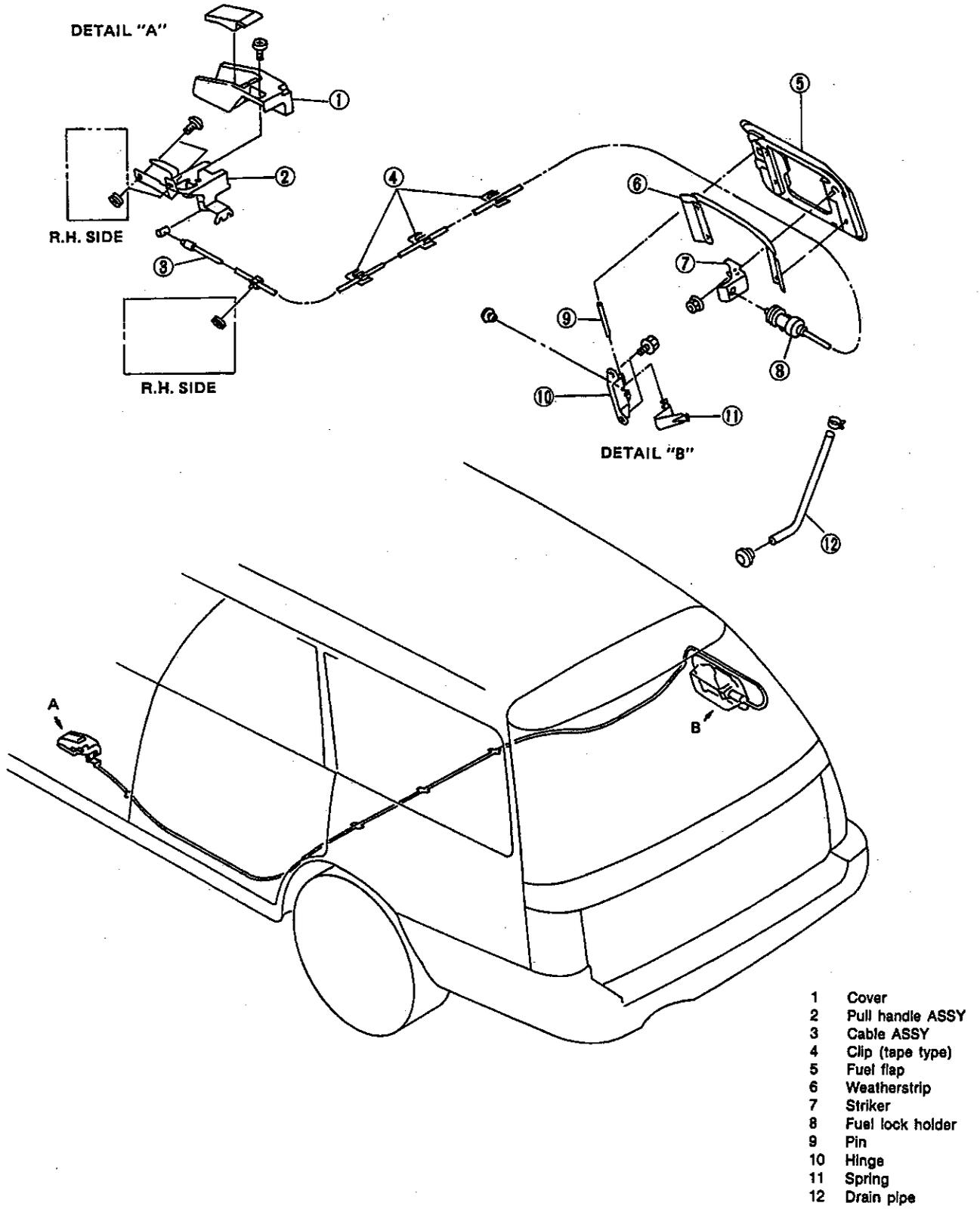
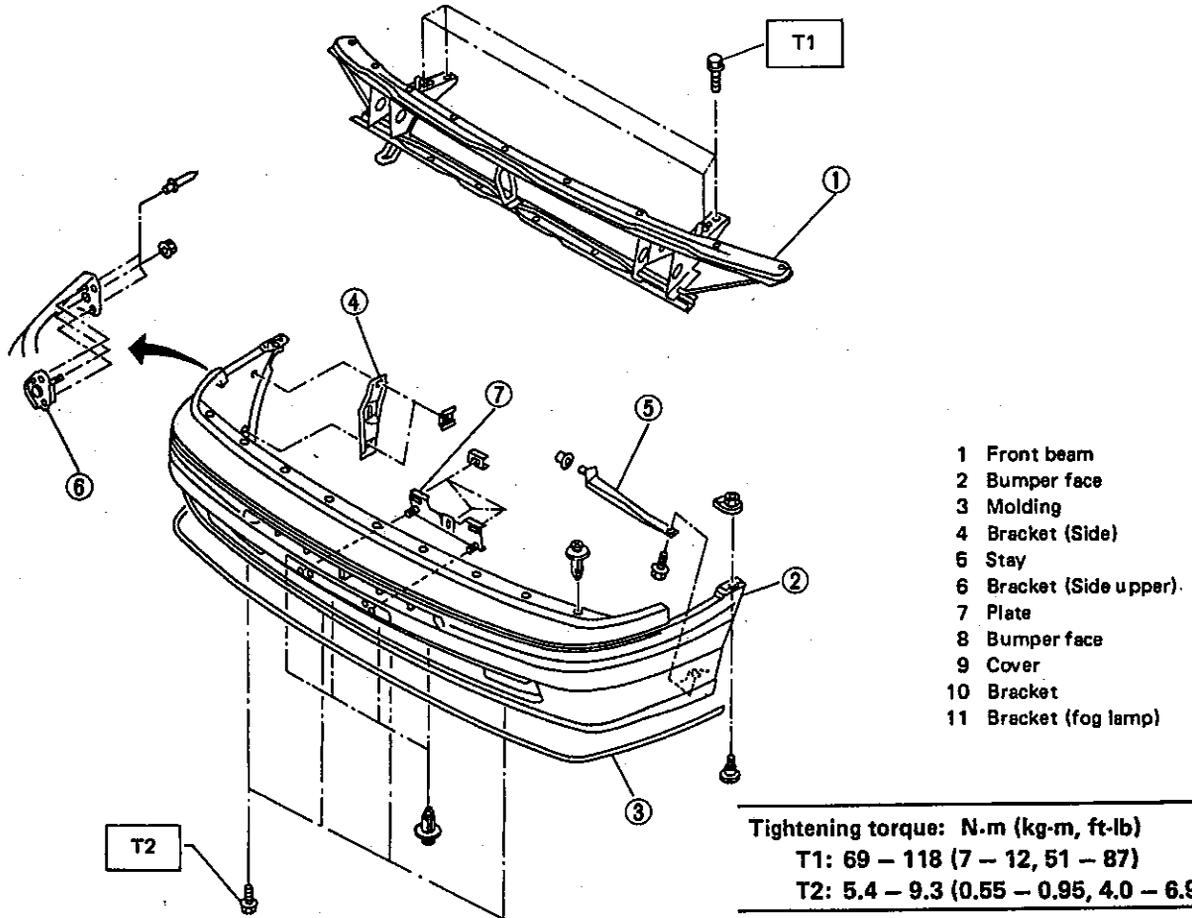


Fig. 86

B5-100

4. Front Bumper



- 1 Front beam
- 2 Bumper face
- 3 Molding
- 4 Bracket (Side)
- 5 Stay
- 6 Bracket (Side upper)
- 7 Plate
- 8 Bumper face
- 9 Cover
- 10 Bracket
- 11 Bracket (fog lamp)

Tightening torque: N.m (kg-m, ft-lb)  
 T1: 69 - 118 (7 - 12, 51 - 87)  
 T2: 5.4 - 9.3 (0.55 - 0.95, 4.0 - 6.9)

TURBO model

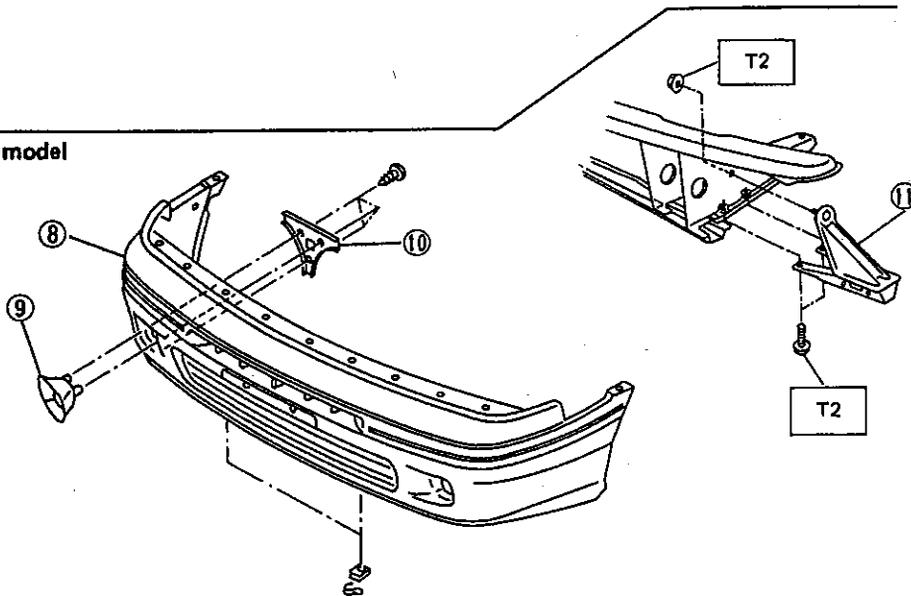


Fig. 87

# 5. Rear Bumper

## 1. SEDAN

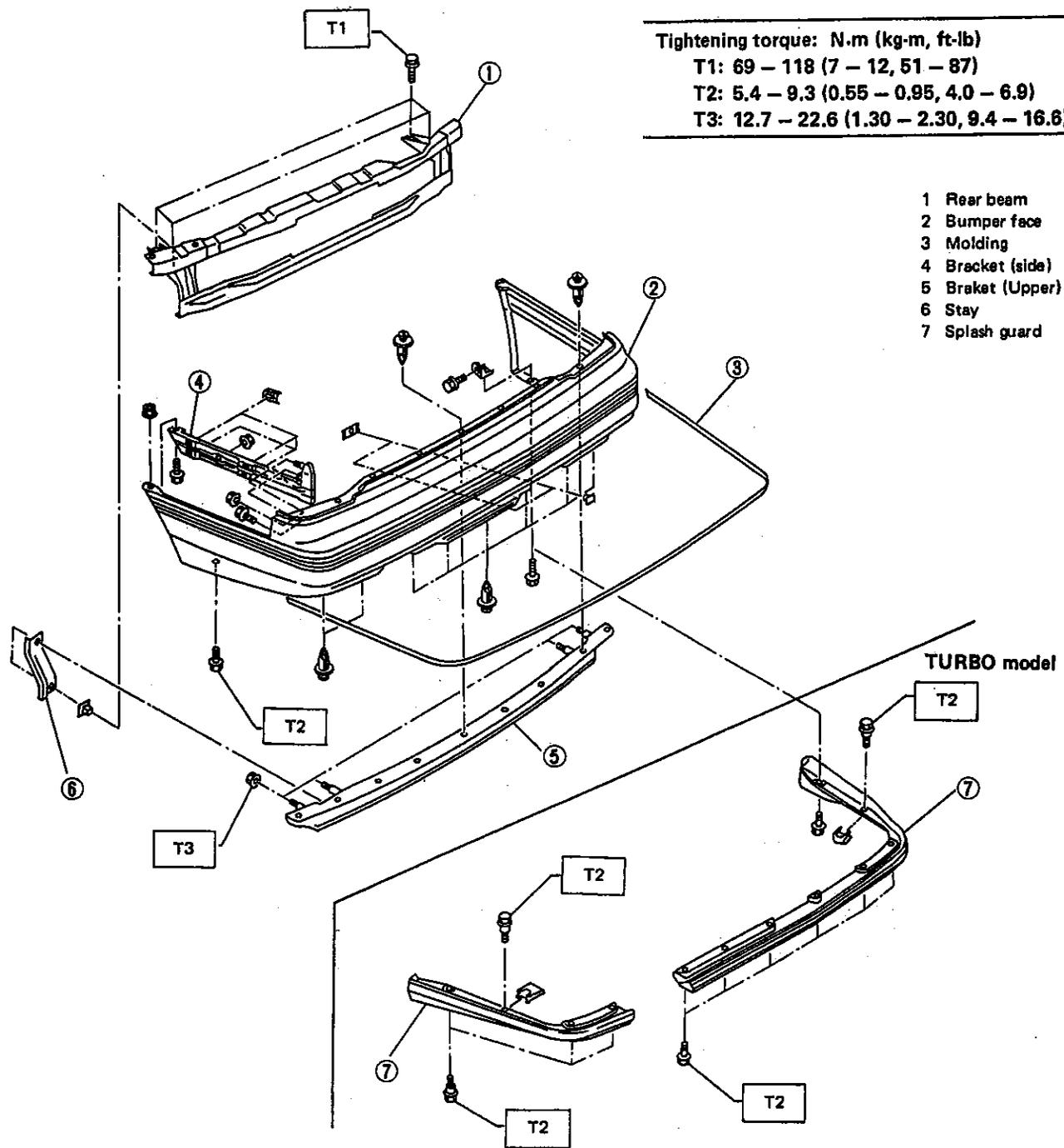


Fig. 88

B5-1135

2. WAGON

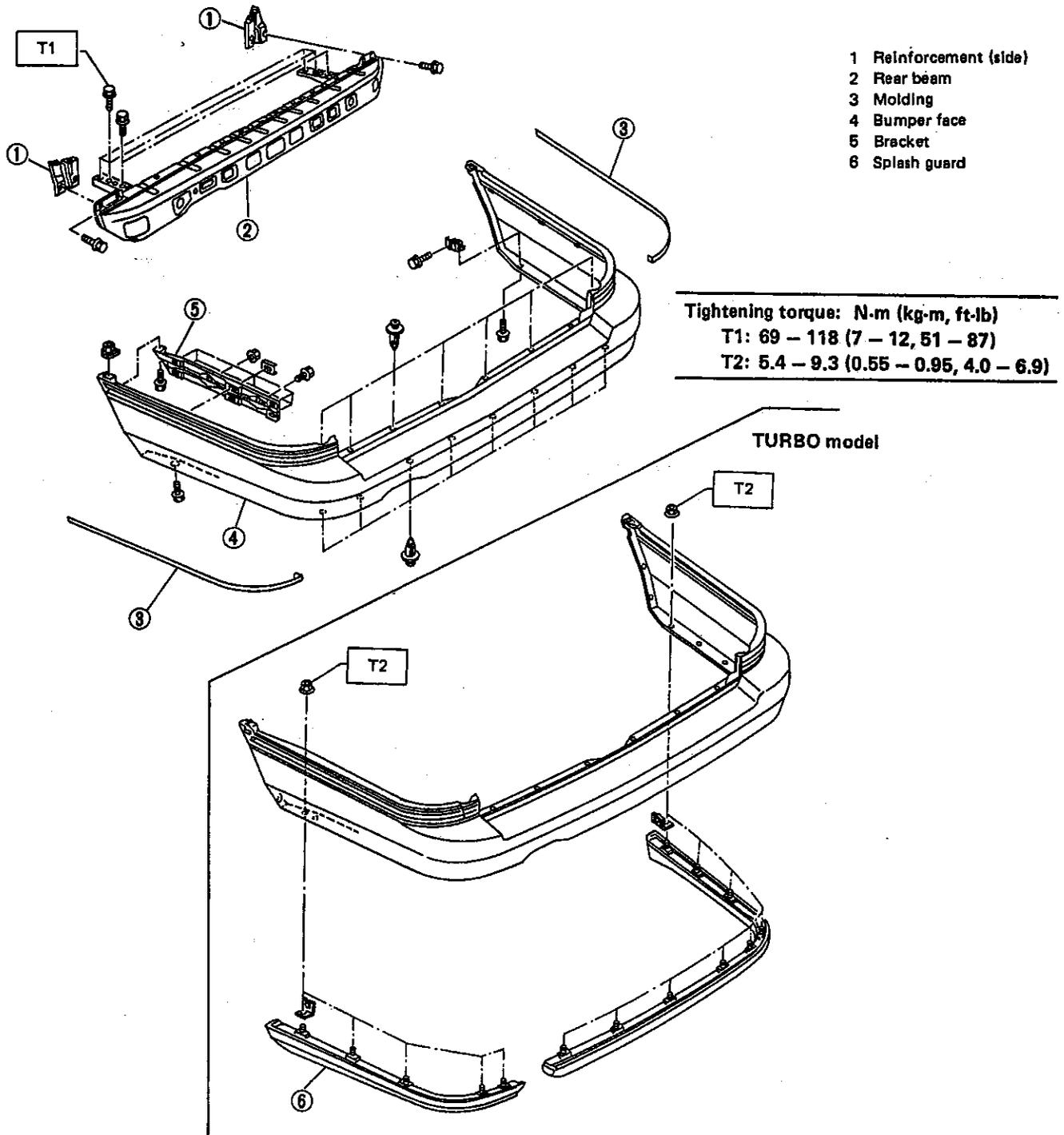
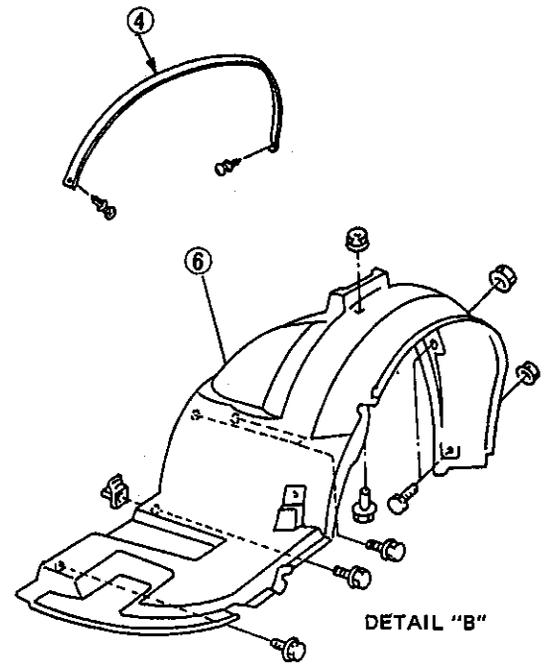
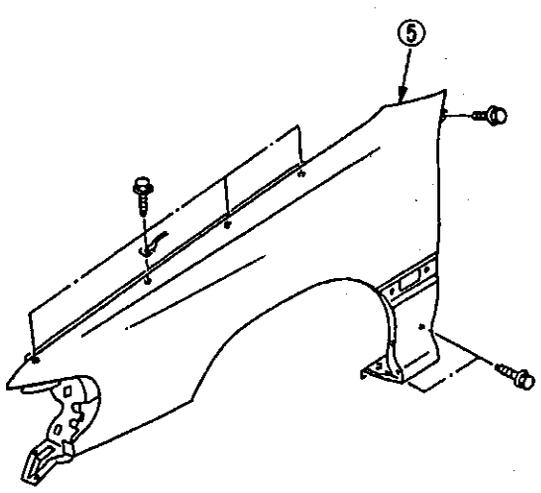
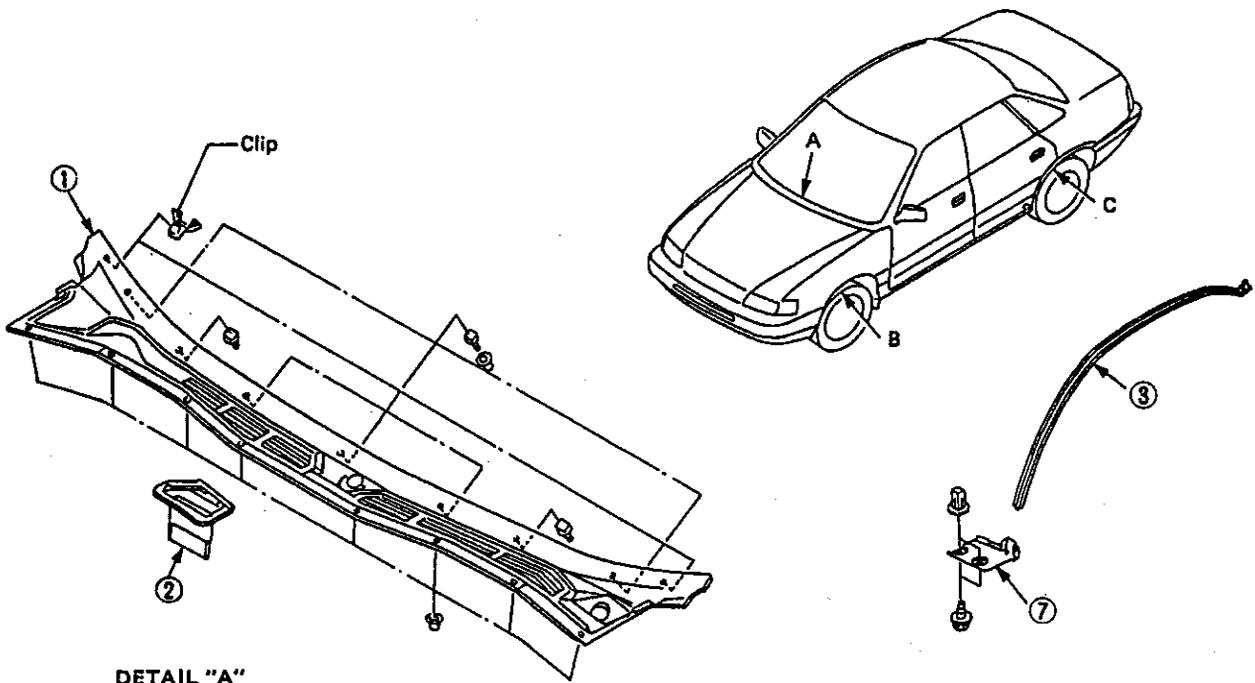


Fig. 89

6. Body Parts

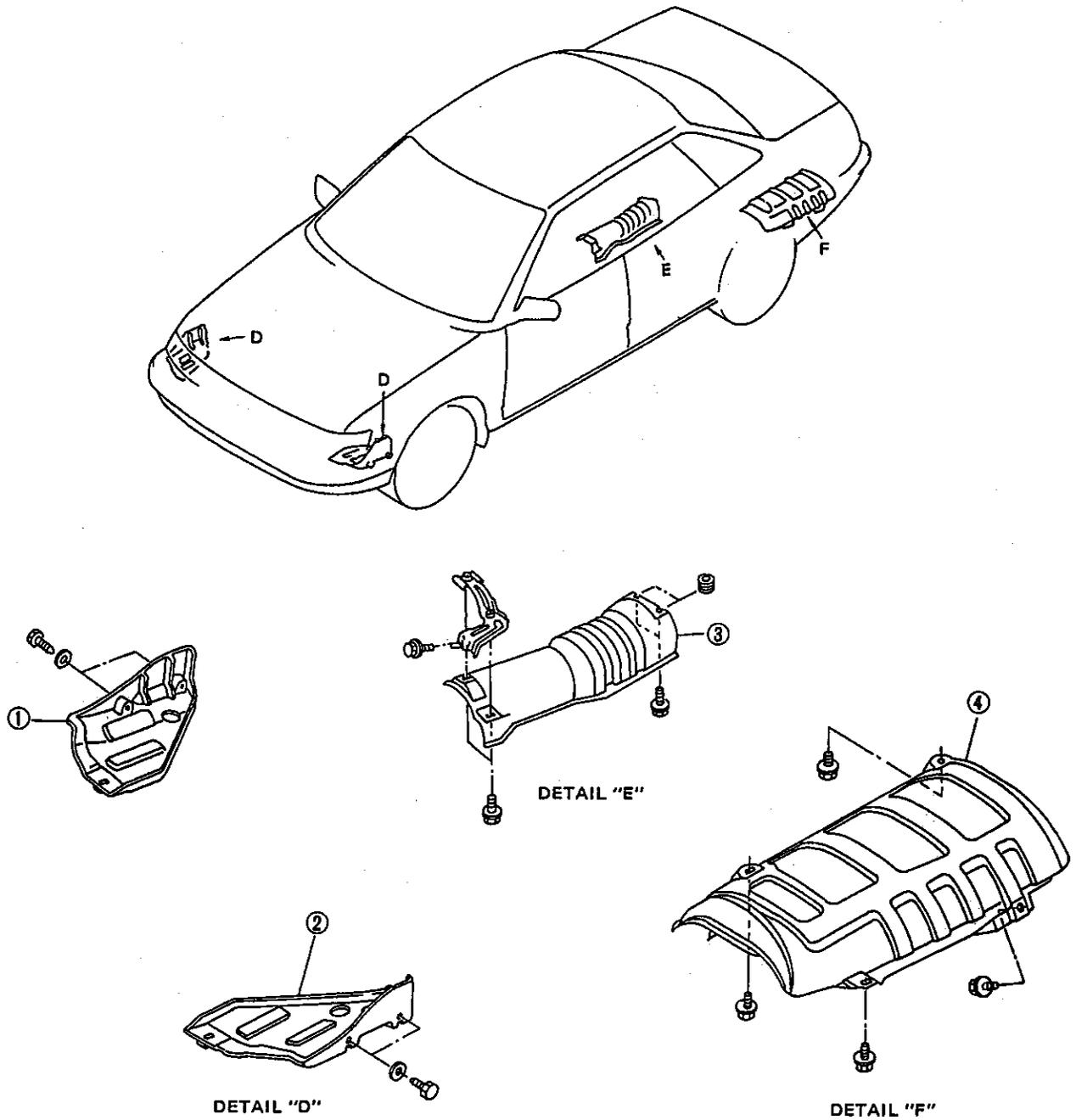


- 1 Cowl panel
- 2 Front panel cover (B)
- 3 Rear arch protector
- 4 Front arch protector
- 5 Front fender
- 6 Mud guard
- 7 Rear arch protector (Front)

DETAIL "B"

Fig. 90

B5-1137



- 1 Under cover (R.H.)
- 2 Under cover (L.H.)
- 3 Exhaust cover
- 4 Exhaust cover

Fig. 91

7. Outer Accessories

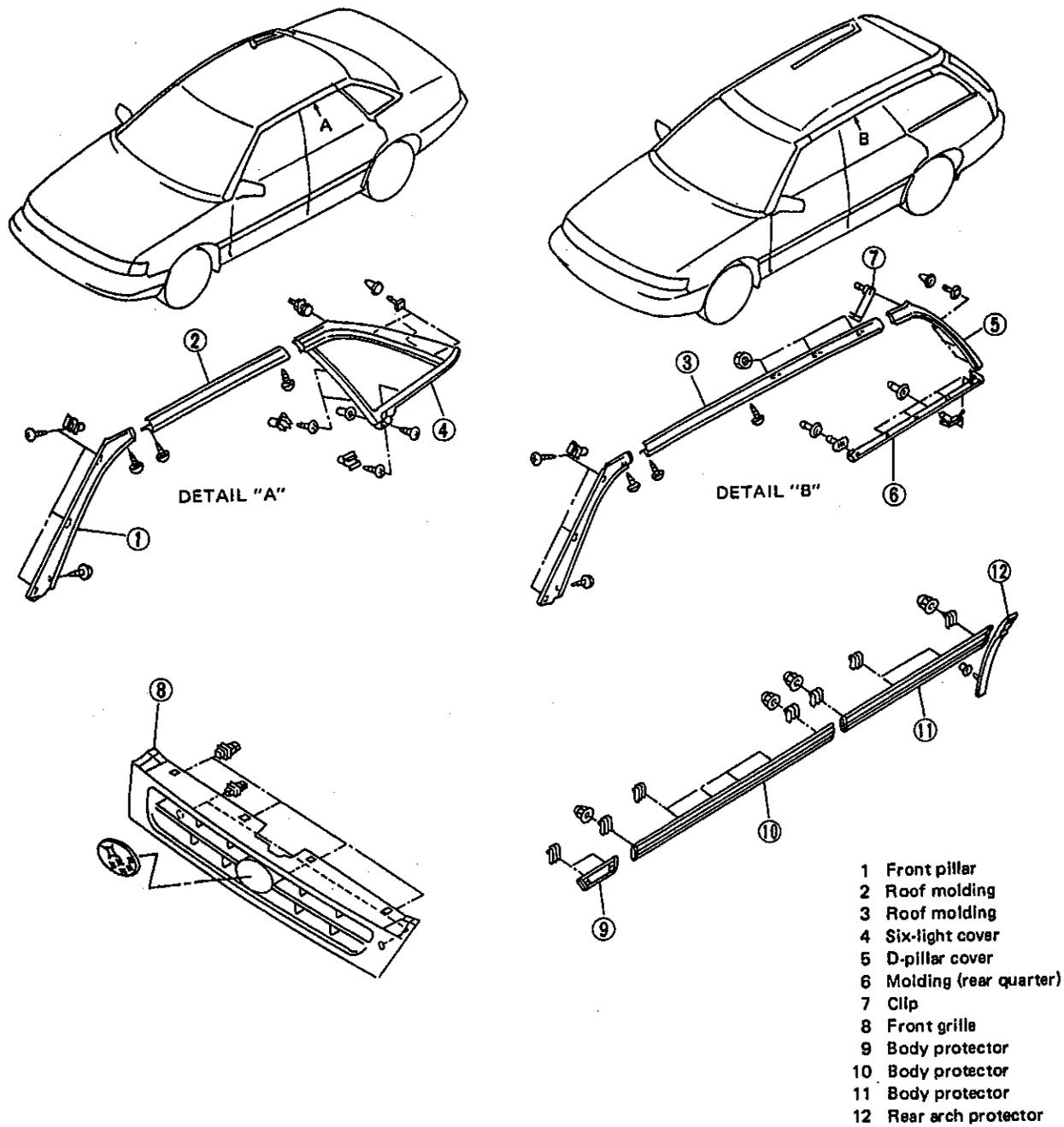
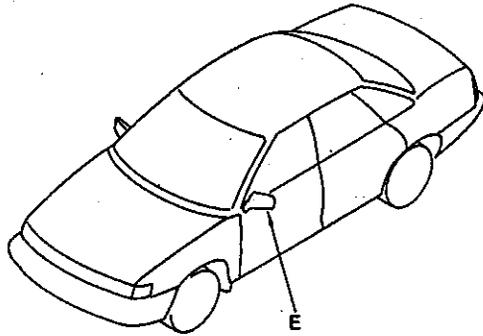
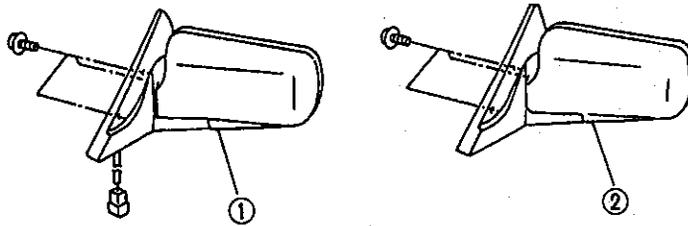


Fig. 92

B5-1138



- 1 Rearview mirror (remote control type)
- 2 Rearview mirror



DETAIL "E"

Fig. 93

B5-1103

## 8. Sunroof

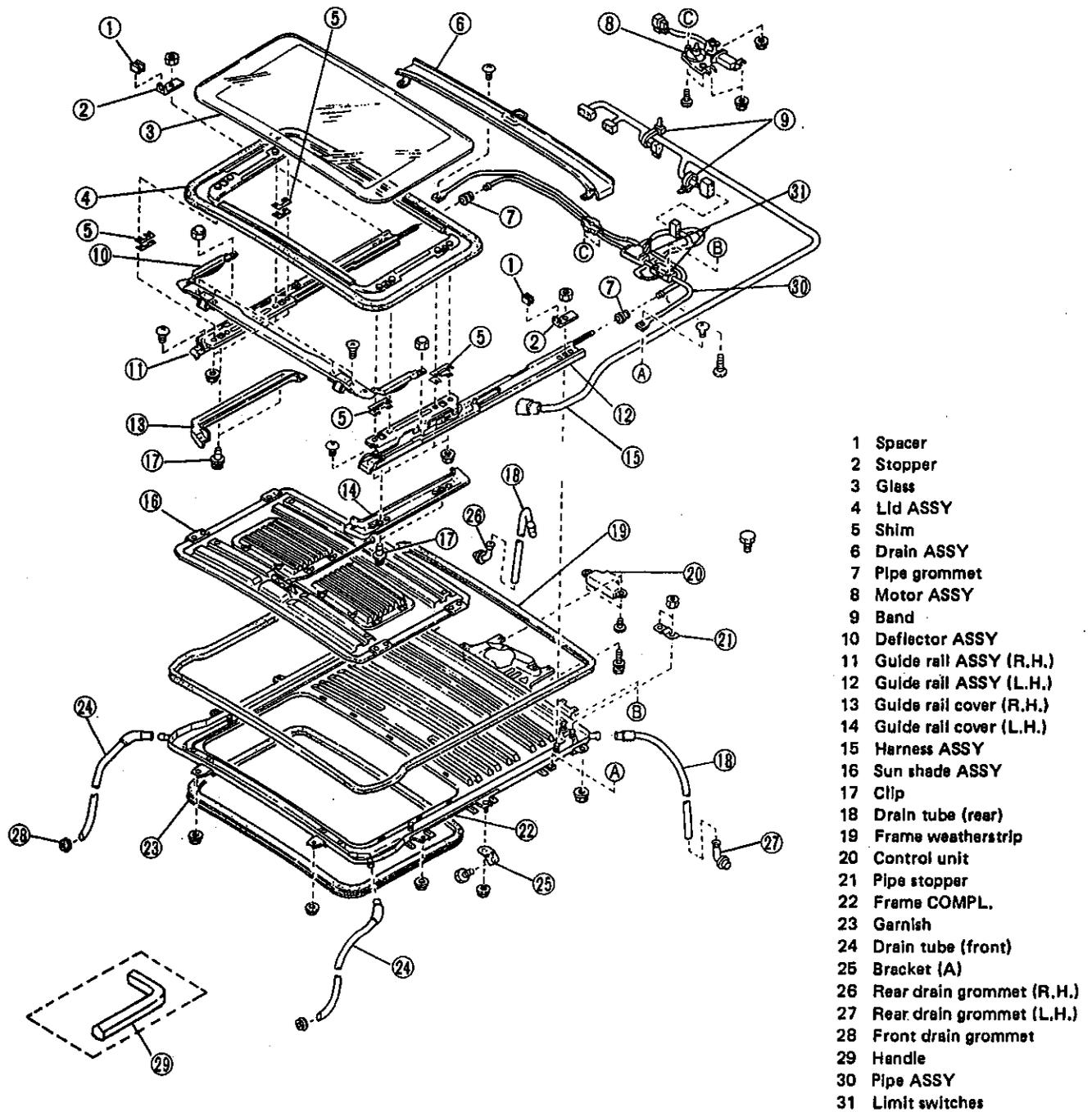
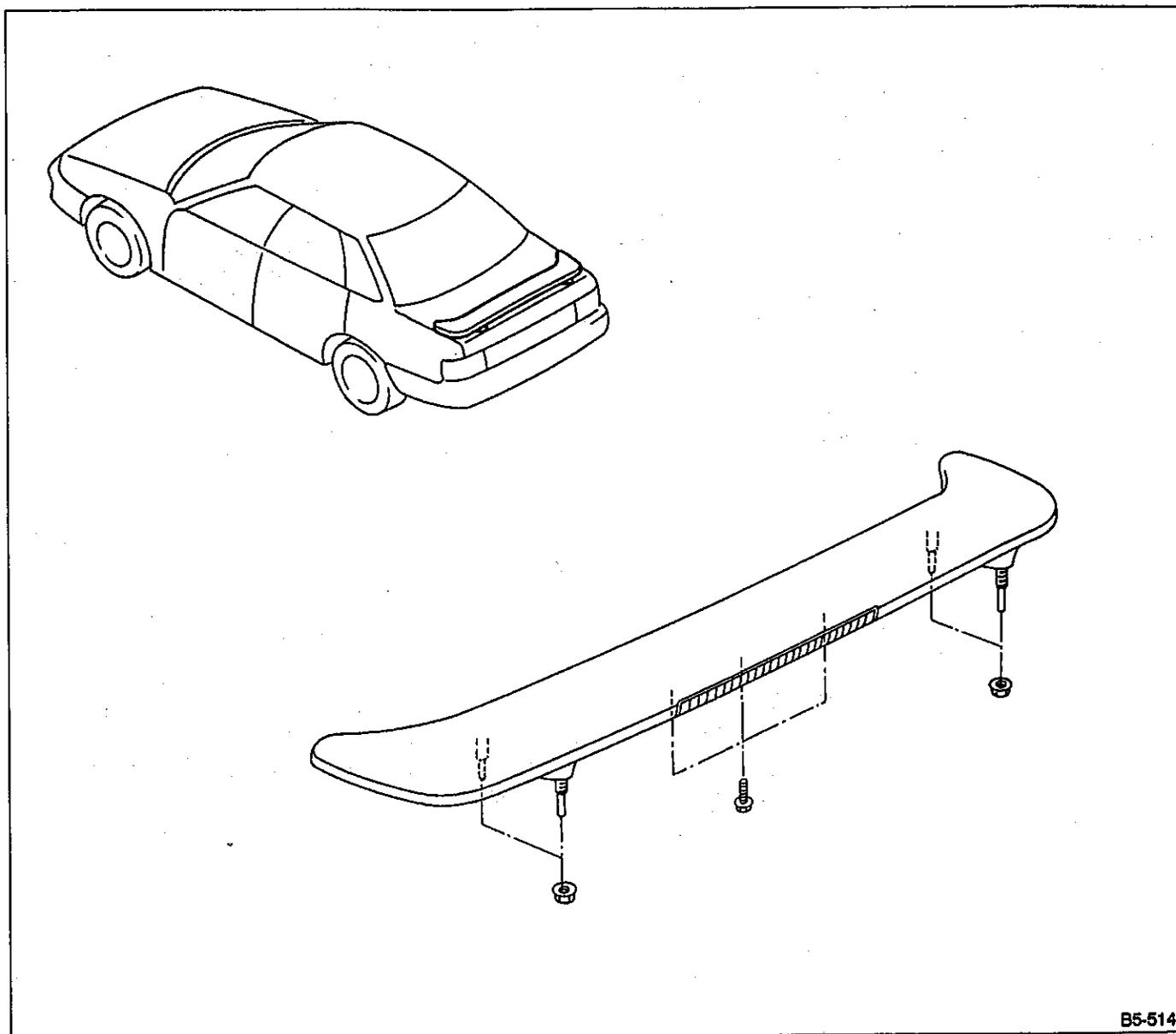


Fig. 94

B5-403

### 9. Rear Spoiler (TURBO)



B5-514

Fig. 95

# 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 grille while opening the hood.

### A: REMOVAL

#### 1. HOOD

- 1) Open front hood, and remove attaching bolt.
- 2) Detach front hood from hinges.

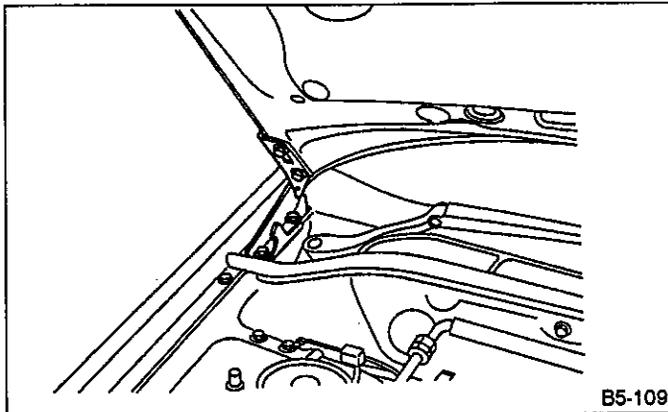


Fig. 96

#### 2. HOOD LOCK

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

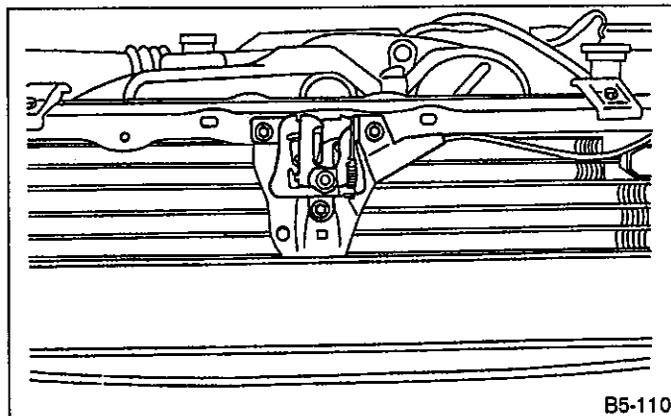


Fig. 97

#### 3. RELEASE CABLE

- 1) Remove front grille.
- 2) Remove release cable from lock ASSY.
- 3) Remove cable clip from engine compartment.
- 4) Remove bracket from front pillar.

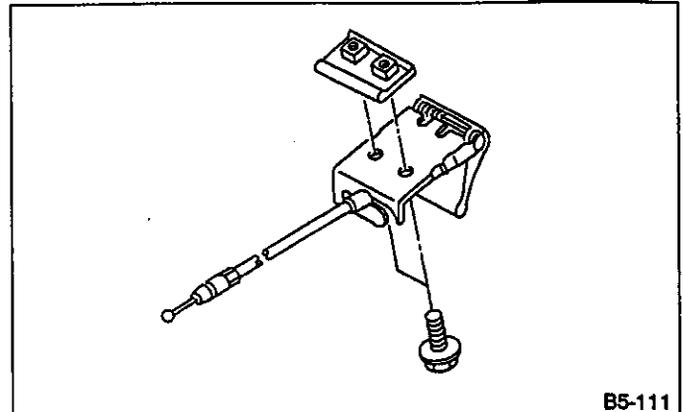


Fig. 98

### 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.

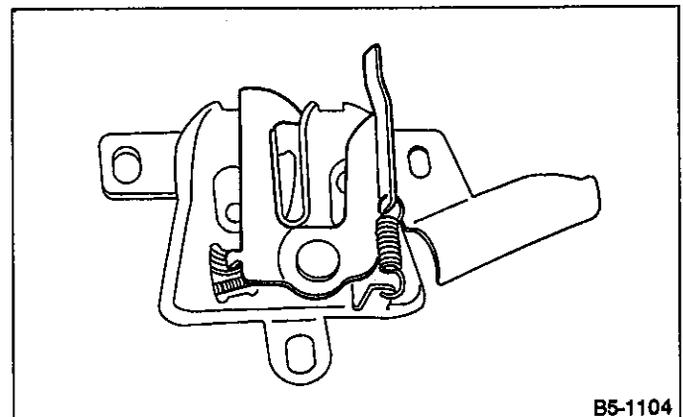


Fig. 99

**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. Adjust buffer ASSY on each end so that main lock is applied securely when hood is released from a height of approx. 20 mm (0.79 in).

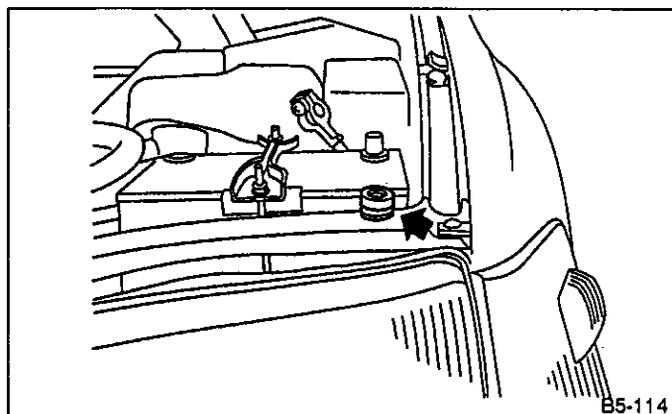


Fig. 100

- d. After installing release cable, ensure it operates smoothly.
- e. Apply grease to sliding surfaces of parts.

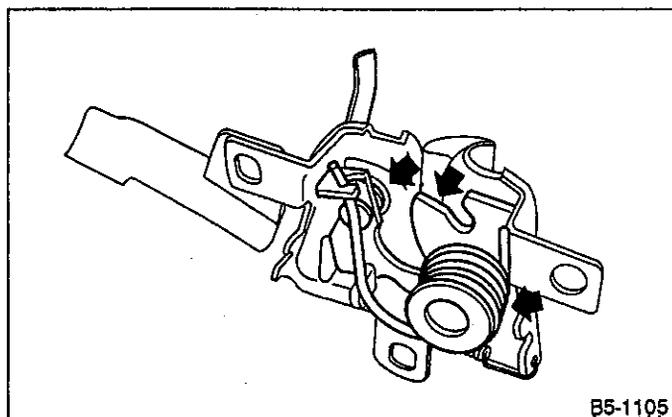


Fig. 101

**D: ADJUSTMENT**

1) Fore-aft and left-right adjustments  
Loosen striker mounting bolts and adjust fore-and-aft position of striker.

**Do not adjust striker position using the lock. Doing so may result in a misaligned front grille.**

2) Up-down adjustment

Make up-and-down adjustment of striker only when hood does not properly contact buffer or hood is not flush with fender, or when release cable does not prop-

erly operate. Adjustment can be made by adjusting the stroke length of striker after lock ASSY mounting screws are removed.

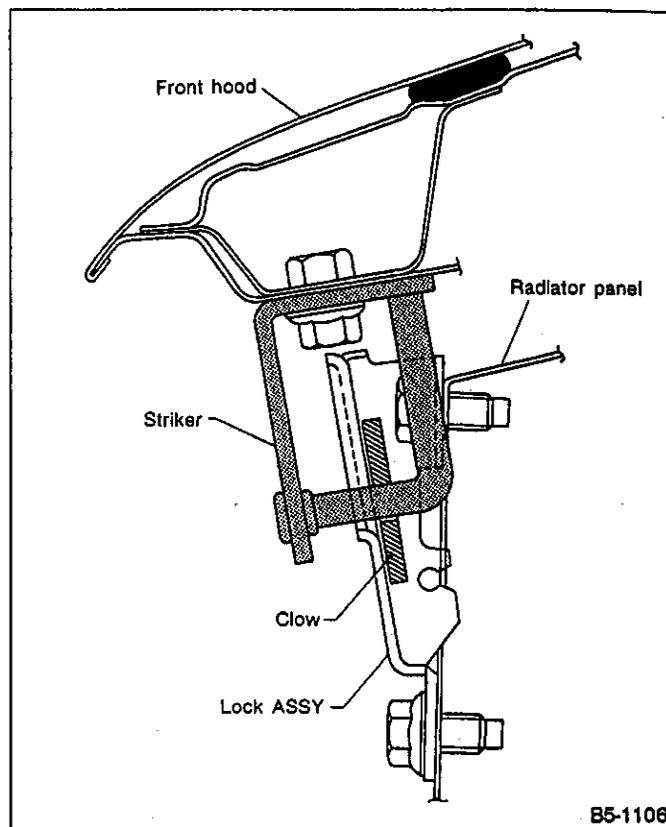


Fig. 102

**2. Trunk Lid**

**A: REMOVAL**

**1. TRUNK LID**

Open trunk lid. Remove trunk lid mounting bolts and detach trunk lid from hinges.

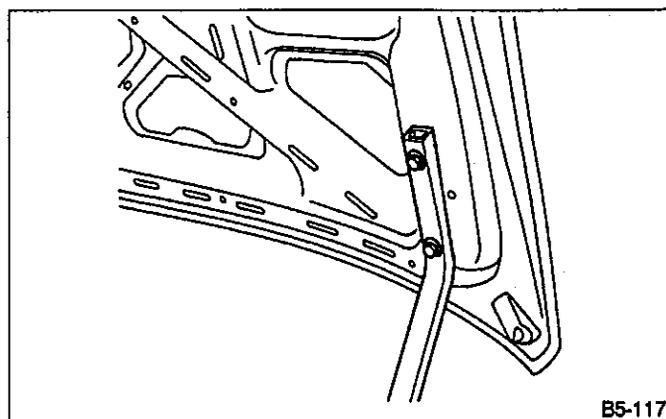


Fig. 103

## 2. TORSION BAR

- 1) Open trunk lid. Remove torsion bars from hinge links using REMOVER (927780000).
- 2) Remove the torsion bar from bracket using REMOVER (927780000).

**Be careful because torsion bar quickly swings back when released.**

- 3) Remove the left and right torsion bars.

**Be careful because trunk lid drops under its own weight when torsion bars are removed.**

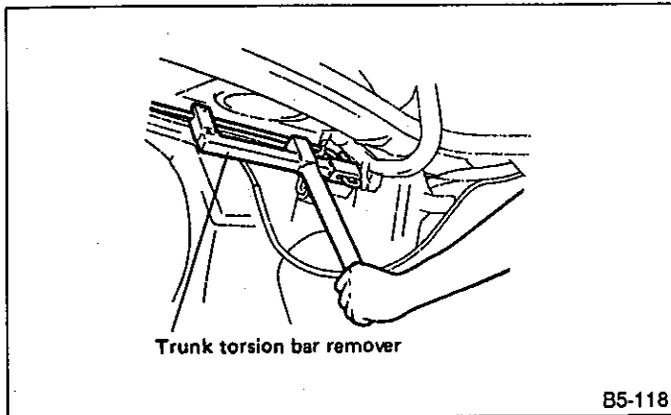


Fig. 104

## 3. TRUNK LID LOCK ASSEMBLY AND KEY CYLINDER

- 1) Remove rod of lock ASSY from rod holder of key lock ASSY.
- 2) Remove bolts which hold lock ASSY and remove lock ASSY.

a. Always remove rear skirt trim panel beforehand, if so equipped.

b. Be careful not to bend opener cable.

- 3) Remove clip and detach key cylinder from trunk lid.

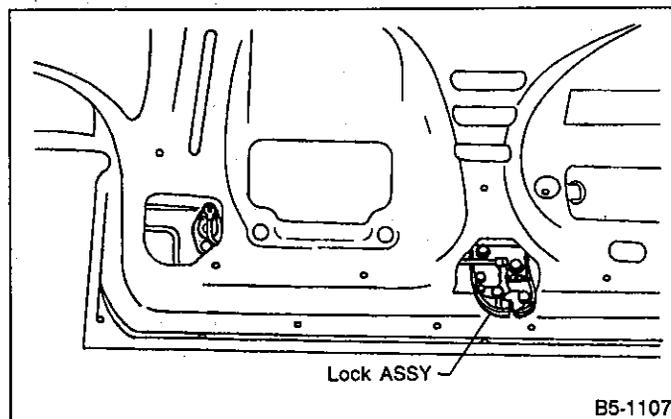


Fig. 105

## 4. TRUNK LID OPENER

- 1) Remove driver's seat, rear seats, center pillar lower cover, floor mat, rear arch cover and side sill cover (on the driver's side).
- 2) Remove all clips which hold cable.
- 3) Disconnect cable from pull handle ASSY.
- 4) Remove bolts and detach pull handle ASSY.
- 5) Loosen bolts which hold lock ASSY, and remove it.
- 6) Remove striker from trunk lid.
- 7) Disconnect cable from striker.

**Be careful not to bend or break cable.**

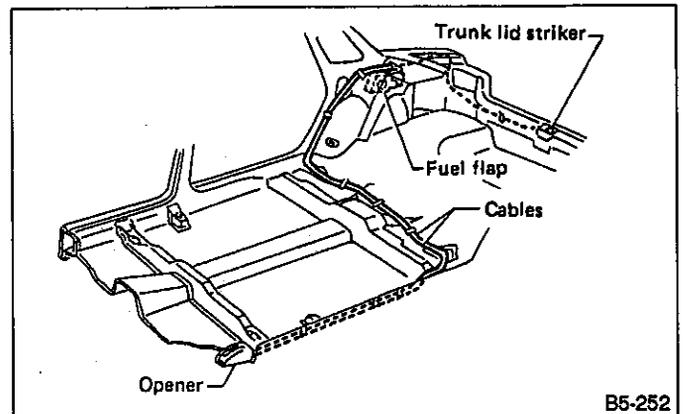


Fig. 106

## B: INSTALLATION

Installation is in the reverse order of removal.

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

- Be careful not to catch harness.
- 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.

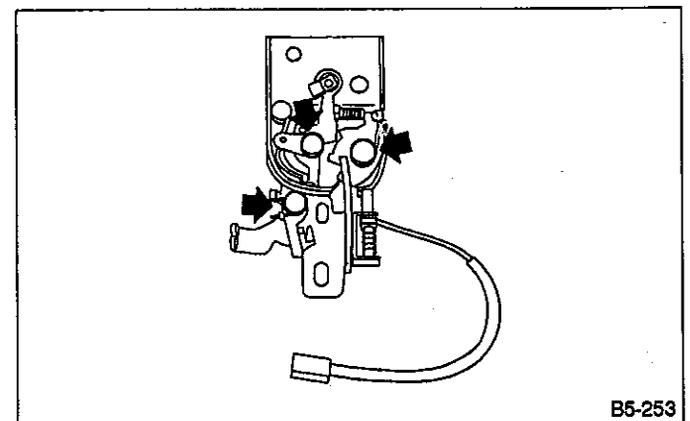


Fig. 107

**C: ADJUSTMENT**

**1. TRUNK LID**

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

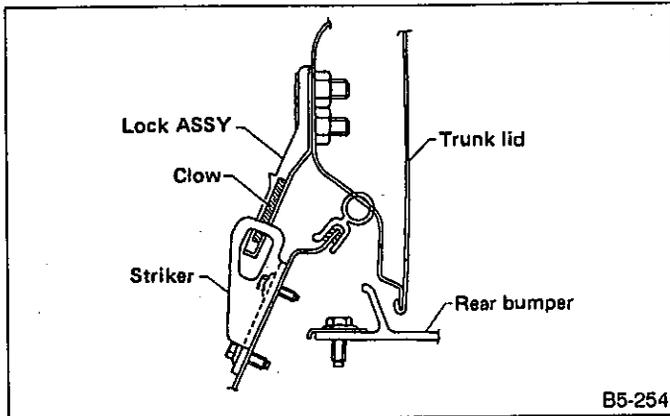


Fig. 108

**3. Fuel Flap**

**A: REMOVAL**

**1. FUEL FLAP**

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

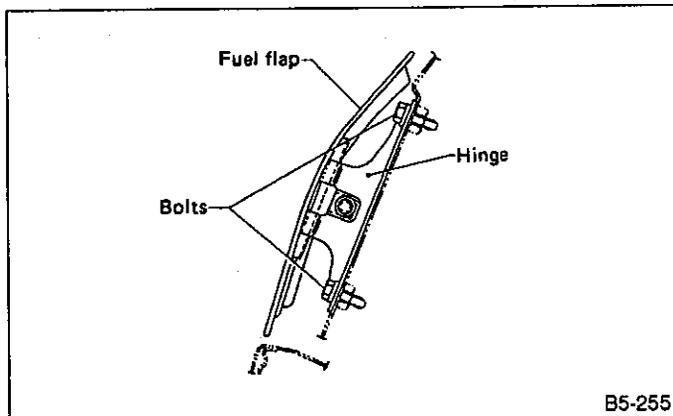


Fig. 109

**2. FUEL FLAP OPENER**

- 1) Remove driver's seat, rear seats, center pillar lower cover, floor mat, rear arch cover/rear quarter trim (wagon), and side sill cover (on the driver's side).
- 2) Remove all clips which hold cable.
- 3) Disconnect cable from pull handle.
- 4) Detach pull handle by removing bolts.
- 5) Detach fuel lock holder by turning it.

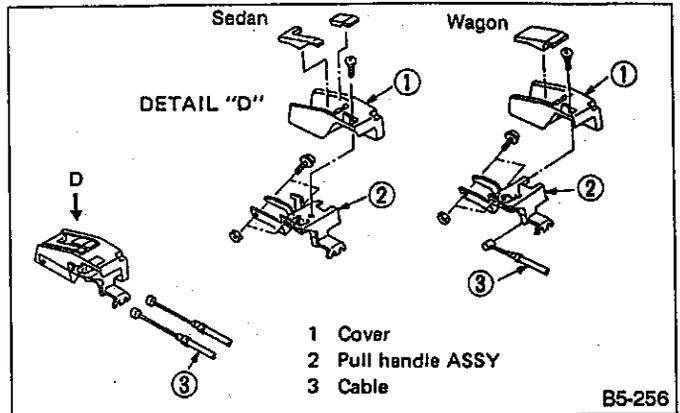


Fig. 110

**B: INSTALLATION**

Installation is in the reverse order of removal.

- a. When installing cover to pull handle assembly, observe the following:
  - Be careful not to catch harness.
  - 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.

**4. Front Bumper**

**A: REMOVAL**

- 1) Disconnect the ground cable from the battery.
- 2) Remove the canister.
- 3) Remove the mud guard.
- 4) Remove bolts and nuts from side of bumper.

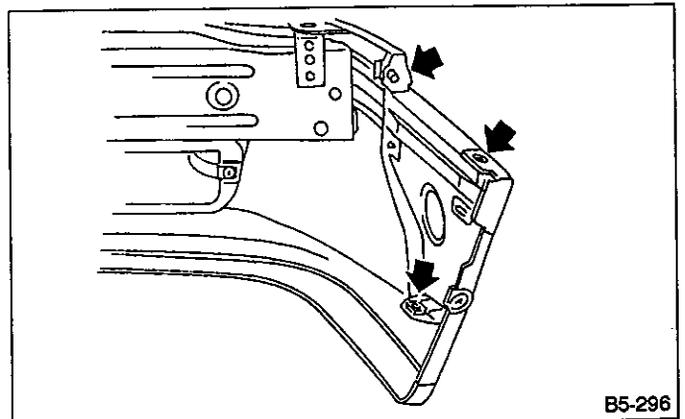
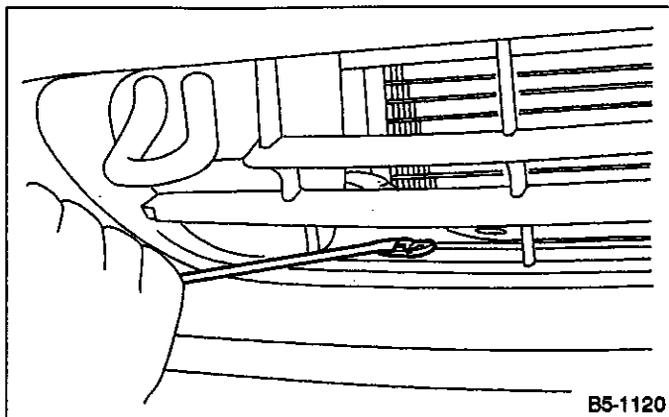


Fig. 111

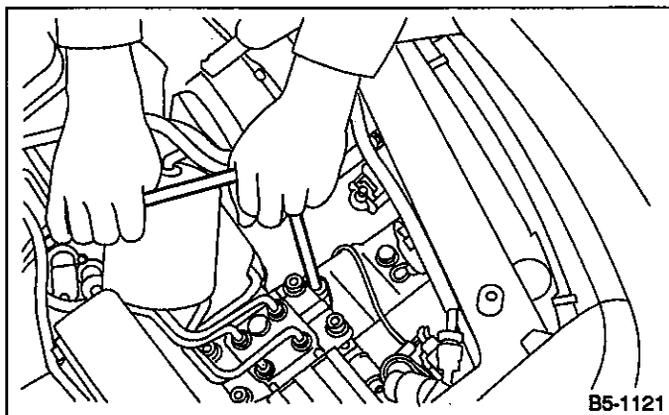
5) Remove clips from lower side of bumper.



B5-1120

Fig. 112

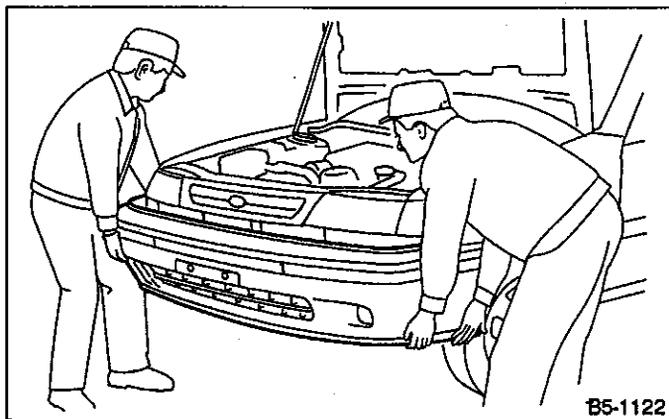
6) Remove bolts (engine compartment side) from bumper stays.



B5-1121

Fig. 113

7) Remove bumper ASSY.



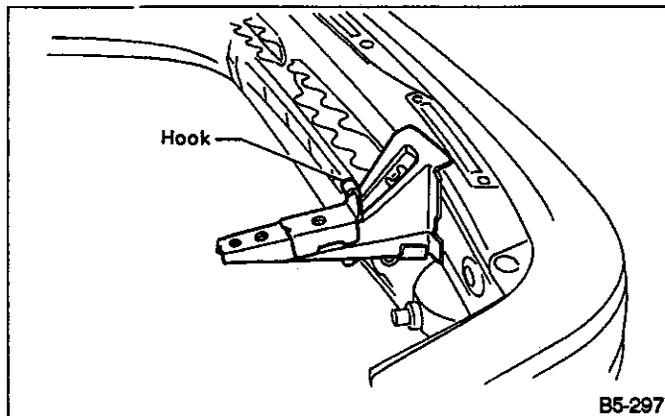
B5-1122

Fig. 114

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



B5-297

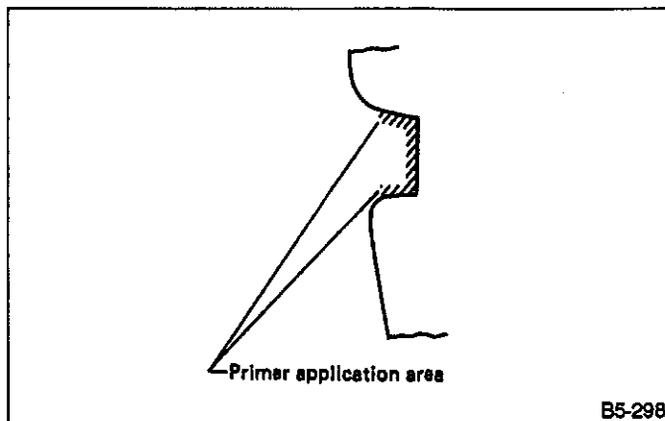
Fig. 115

## C: INSTALLING THE BUMPER MOLDING

- 1) Clean the groove on the surface of the bumper. Remove foreign matter with white gasoline or methanol, and then wipe with a clean cloth.
- 2) Apply a thin coat of primer (3M-brand K-500) using a brush or felt, and allow the coated area to dry for 1 to 5 minutes.  
(If humidity is above 65%, allow the affected area to dry for at least 10 minutes.)

Apply primer to the designated area only (shown in the figure on the under).

Areas coated with primer will shine and adversely affect the appearance.



B5-298

Fig. 116

3) Install the molding.

Peel the separator from one end of the molding and insert the end of the molding into the hole in the end of the bumper. While gradually peeling the separator from the molding, press the molding against the groove.

a. Be careful not to allow the end of the molding to ride over the sharp-bend corner. Otherwise, the molding may lift and peel off.

b. Maintain the temperature of the molding and bumper above 15°C (59°F) during operation. Lower temperatures reduce adhesive power of the molding.

c. Do not contaminate the adhesive surface with fingerprints, etc.

4) Press the molding against the mating surface. Using a suitable roller, press the molding along the groove in the bumper.

Pressing force:

49 N (5 kg, 11 lb), min.

## 5. Rear Bumper

### A: REMOVAL

#### 1. SEDAN

- 1) Open trunk lid. Remove trunk trim panel clips and detach trim.
- 2) Disconnect the license plate light connector.
- 3) Remove bolts and nuts from side of bumper.

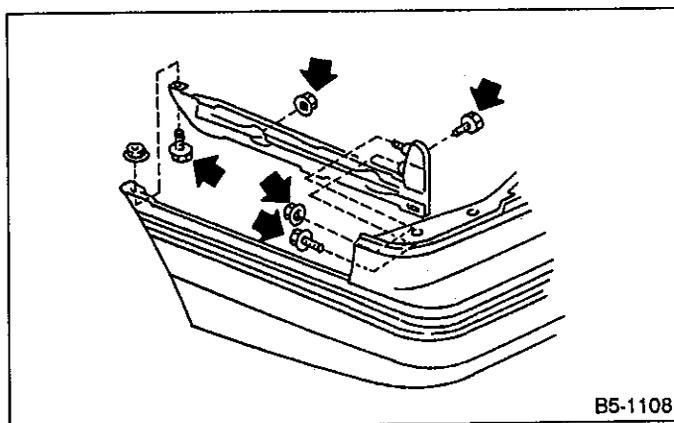


Fig. 117

- 4) Remove bolts from bumper stays.

5) Remove bumper ASSY.

#### 2. WAGON

- 1) Open rear gate and rear quarter trim lid.
- 2) Remove bolts and nuts from side of bumper.

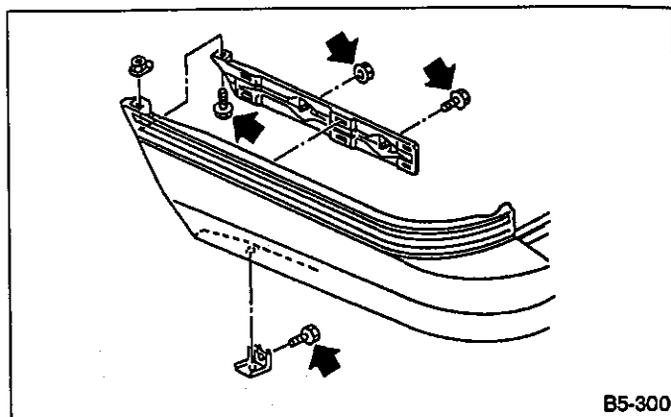


Fig. 118

- 3) Remove bolts from bumper stays.
- 4) Remove bumper ASSY.

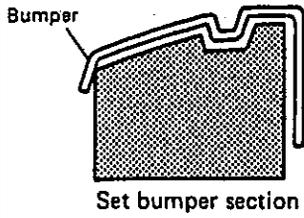
### B: INSTALLATION

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

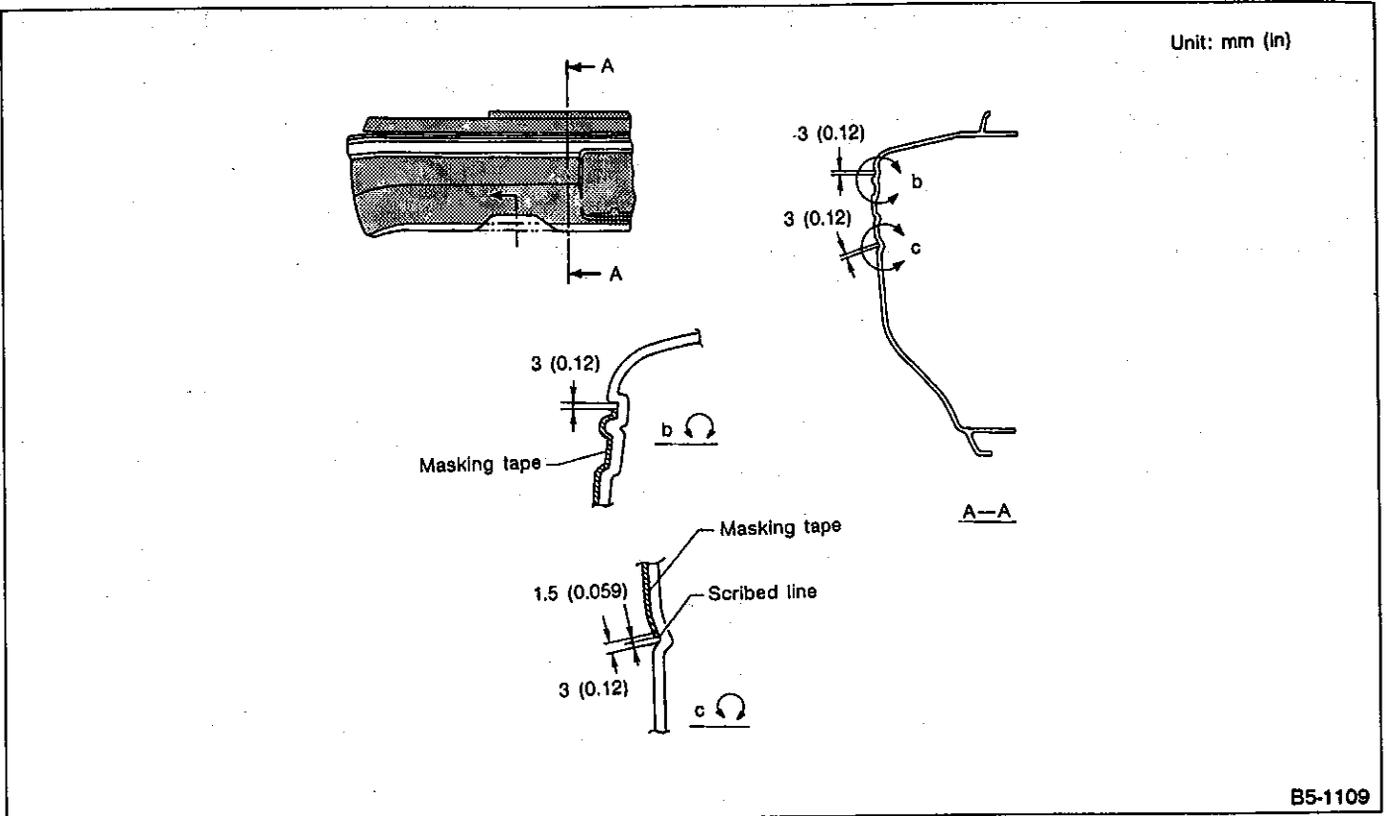
- a. Be extremely careful to prevent scratches on bumper face as it is made of resin.
- b. Be careful not to scratch the body when removing or installing bumper.

## 6. Coating Method for PP Bumper

### 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 style="text-align: right;">B5-302</p>
			<i>Fig. 119</i>
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"> <li>• Paint in use (for each color) Solid paint Hardener PB Thinner T-301</li> <li>• Mixing ratio: Main agent vs. hardener = 4 : 1</li> <li>• Viscosity: 10 — 13 sec/20°C (68°F)</li> <li>• Film thickness: 35 — 45<math>\mu</math></li> <li>• Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kg/cm<sup>2</sup>, 36 — 50 psi)</li> </ul>	← <ul style="list-style-type: none"> <li>• Paint in use (for each color) Metallic paint Hardener PB Thinner T-306</li> <li>• Mixing ratio: Main agent vs. hardener = 10 : 1</li> <li>• Viscosity: 10 — 13 sec/20°C (68°F)</li> <li>• Film thickness: 15 — 20<math>\mu</math></li> <li>• Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kg/cm<sup>2</sup>, 36 — 50 psi)</li> </ul>
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"> <li>• Paint in use Metallic paint Hardener PB Thinner T-306</li> <li>• Mixing ratio: Clear vs. hardener = 6 : 1</li> <li>• Viscosity: 14 — 16 sec/20°C (68°F)</li> <li>• Film thickness: 25 — 30<math>\mu</math></li> <li>• Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kg/cm<sup>2</sup>, 36 — 50 psi)</li> </ul>
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.	

Unit: mm (in)



B5-1109

Fig. 120

## 7. Repair Instructions for Colored PP Bumper

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.	
		Polish the waxed area with a clean cloth after 5 to 10 minutes.	
		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.	

### 2. DEEP DAMAGE CAUSED BY SCRATCHING FENCES, ETC.

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

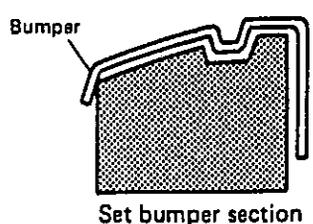
Process No.	Process name	Job contents	
1	Cleaning	Clean damaged area with water.	
2	Removal of damaged area	Cut off protruding area, if any, due to collision, using a putty knife.	
3	Sanding	Grind the affected area with #100 to #500 sandpaper.	
4	Finish	Resin section	Coated section
		Same as Process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

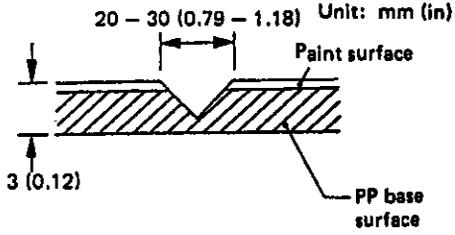
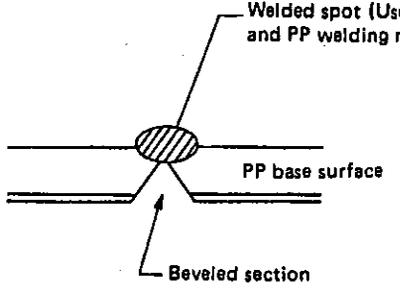
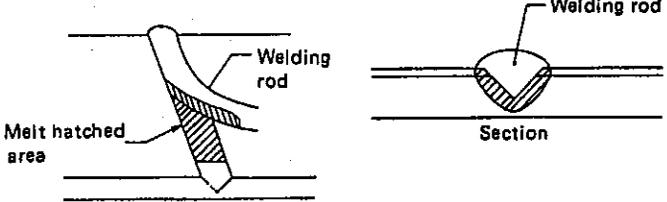
### 3. DEEP DAMAGE SUCH AS A BREAK OR HOLE THAT REQUIRES FILLING

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.	
			
		B5-302	
		Fig. 121	
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).	

Process No.	Process name	Job contents
5	Cutting	<p>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.</p>  <p style="text-align: right;">B5-304</p> <p style="text-align: right;"><i>Fig. 122</i></p>
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	<p>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.</p>  <p style="text-align: right;">B5-305</p> <p style="text-align: right;"><i>Fig. 123</i></p> <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>
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;">B5-306</p> <p style="text-align: right;"><i>Fig. 124</i></p> <p>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>

Process No.	Process name	Job contents
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 1500 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. 125</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	Completely clean the entire coated area, using solvent similar to that used in Process No. 4.
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/cm<sup>2</sup>, 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 damp-ened with alcohol. (Do not use thinner since the coated area tends to melt.)</p>
15	Primer surfacer coating	<p>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"> <li>• UPS 300 Flex Primer</li> <li>• No. 303 UPS 300 Exclusive hardener</li> <li>• NPS 725 Exclusive Reducer (thinner)</li> </ul> <ul style="list-style-type: none"> <li>• Mixing ratio: 2 : 1 (UPS 300: No. 303)</li> <li>• Viscosity: 12 — 14 sec/20°C (68°F)</li> <li>• Coated film thickness: 40 — 50μ</li> </ul> </p>
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
		<p>Use a "block" coating method.</p> <ul style="list-style-type: none"> <li>• Recommended paint: Suncryl (SC) No. 307 Flex Hardener SC Reducer (thinner)</li> <li>• Mixing ratio: 3 : 1 (Suncryl: No. 307)</li> <li>• Viscosity: 11 — 13 sec/20°C (68°F)</li> <li>• Coated film thickness: 40 — 50μ</li> <li>• Spraying thickness: 245 — 343 kPa (2.5 — 3.5 kg/cm<sup>2</sup>, 36 — 50 psi)</li> </ul>
		Metallic color
		<ul style="list-style-type: none"> <li>←</li> <li>←</li> <li>←</li> <li>←</li> <li>←</li> <li>• Coated film thickness: 20 — 30μ</li> </ul>
20	Leave unattended	<p>Not required.</p> <p>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.</p>

Process No.	Process name	Job contents
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"> <li>Recommended paint: SC710 Overlay Clear No. 307 Flex Hardener SC Reducer (thinner)</li> <li>Mixing ratio: 3 : 1 (SC710: No. 307)</li> <li>Viscosity: 10 — 13 sec/20°C (68°F)</li> <li>Coated film thickness: 20 — 30μ</li> <li>Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kg/cm<sup>2</sup>, 36 — 50 psi)</li> </ul>
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.

## 8. Body Protector

### A: REMOVAL

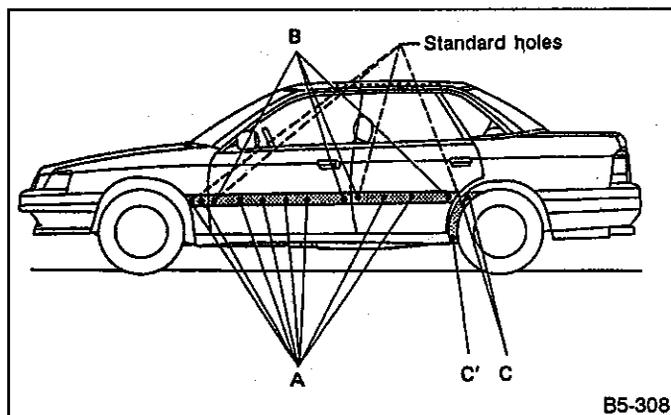


Fig. 126

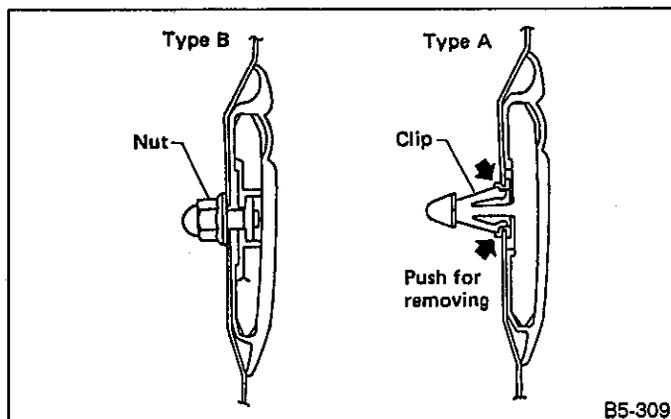


Fig. 127

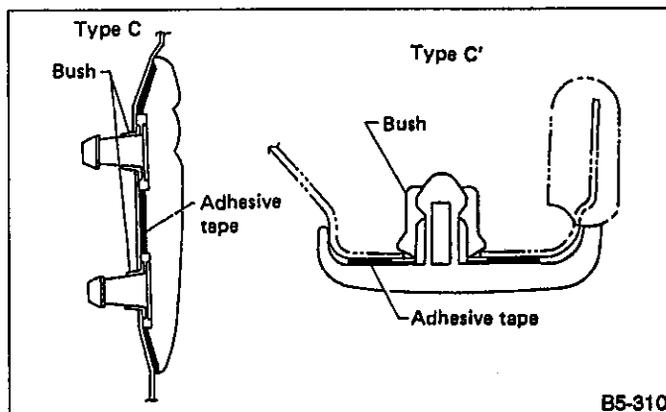


Fig. 128

Type A: Protector is attached to car body with clips. Remove mud guard and door inner trim, and detach protector by pushing clips pawl from inside.

Type B: Remove the nuts.

Type C: Protector is attached to car body with clips and double-sided adhesive tape.

Peel off double-sided adhesive tape.

### B: INSTALLATION

Type A: Align the clips with holes in the car body and insert them. Then, tighten the nuts.

Type B: Tighten the nuts.

Type C and C': Position bushing in car body hole to install clip C. Remove tack paper from double-sided adhesive tape.

When clip C is aligned with car body hole, push in the clip.

Install bushing to clip C' and position in the hole.

Install clips in standard holes first.

## 9. Front Fender

### A: REMOVAL

- 1) Disconnect ground cable from battery.
- 2) Remove mud guard.
- 3) Remove front bumper.
- 4) Remove front combination light, and remove bolts which secure fender to radiator panel.
- 5) Remove body protector. (This step may be skipped if fender is to be reused.)
- 6) Remove attaching bolt to remove fender.

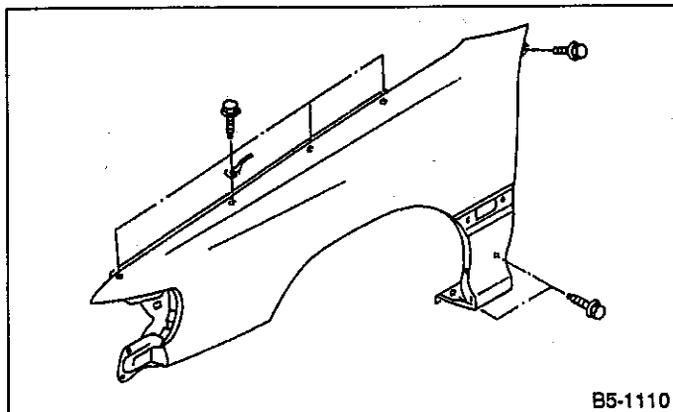


Fig. 129

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.

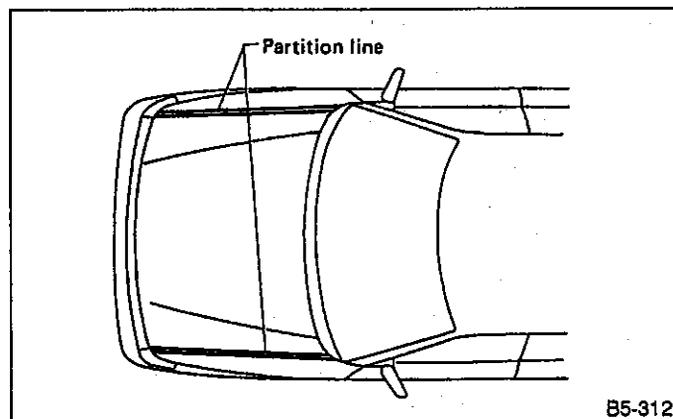


Fig. 130

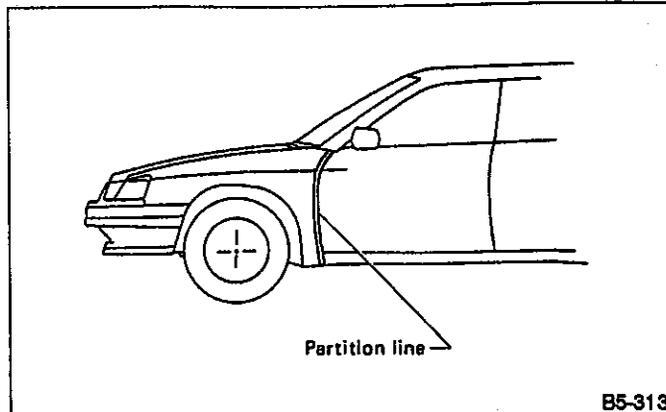


Fig. 131

## 10. Mud Guard and Arch Protector

### A: REMOVAL

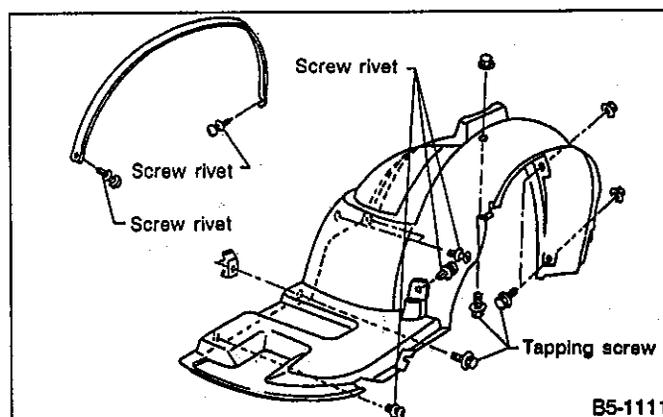


Fig. 132

### 1. MUD GUARD AND FRONT ARCH PROTECTOR

- 1) Jack up car to remove tire.
- 2) Remove screws and bolts. Move mud guard toward the center of the body and remove mud guard.
- 3) Remove clips and arch protector.

**2. REAR ARCH PROTECTOR**

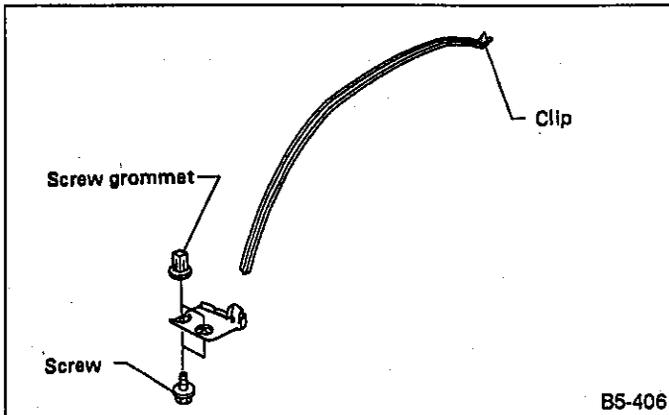


Fig. 133

- 1) Remove clip and screws.
- 2) Remove arch protectors.

**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.

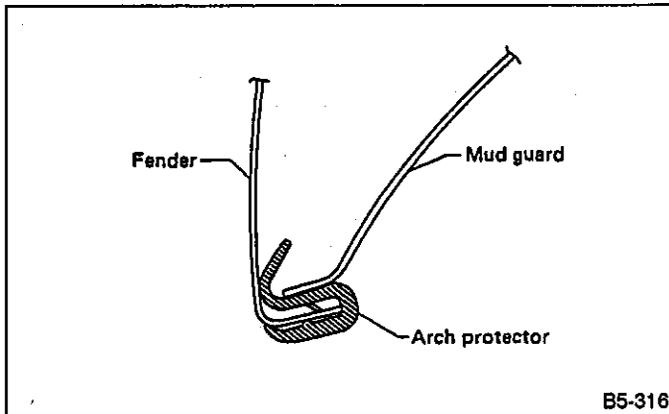


Fig. 134

**11. Cowl Panel**

**A: REMOVAL**

- 1) Remove wiper arms.
- 2) Open front hood.
- 3) Pry clip off front hood seal using a screwdriver.
- 4) Lift cowl panel and remove clips from windshield.

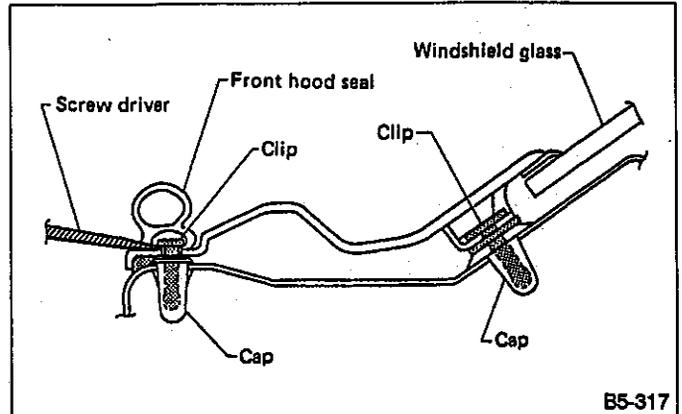


Fig. 135

**B: INSTALLATION**

- 1) Install clips on cowl panel.
- 2) Install cap on front panel.

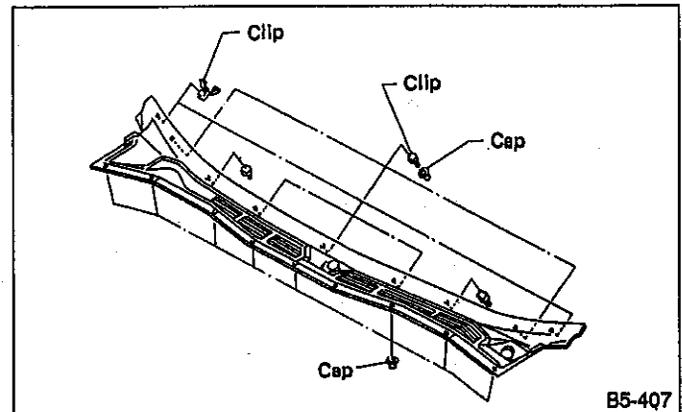


Fig. 136

- 3) Install middle clip and other clips in that order. Clips which have no cap must be installed on front windshield stopper.
- 4) Attach clips to both edges of windshield.

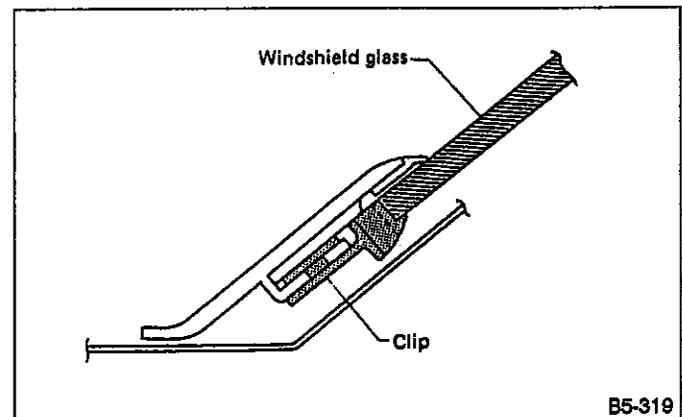


Fig. 137

- 5) Install front hood seal attaching clip on seal.
- 6) Install caps on front panel and push attaching clips into place. Install seal and cowl panel.

## 12. Molding

### A: REMOVAL

#### 1. FRONT PILLAR COVER

- 1) Remove weatherstrip and retainer.
- 2) Remove tapping screws.
- 3) Slide pillar cover up and remove.

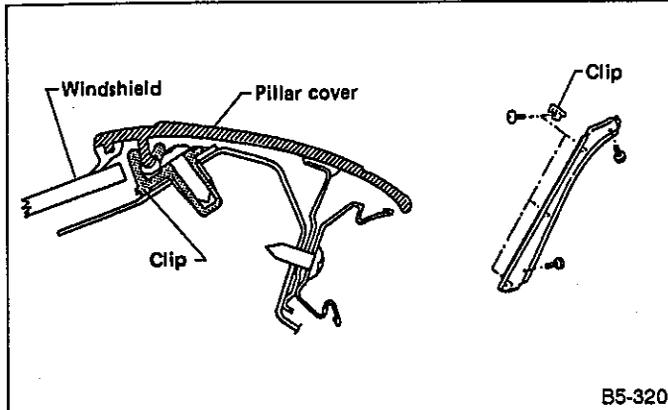


Fig. 138

#### 2. SIDE RAIL COVER

##### — SEDAN —

- 1) Remove weatherstrip and retainer.
- 2) Remove tapping screws.
- 3) Remove side rail cover.

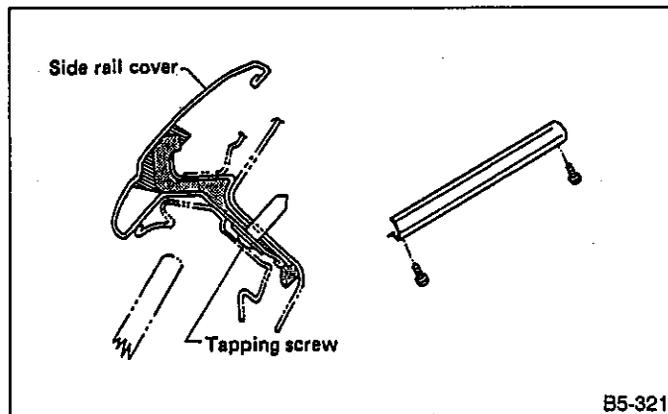


Fig. 139

##### — WAGON —

- 1) Remove weatherstrip and retainer.
- 2) Remove tapping screws.
- 3) Remove side rail trim, and then remove nuts.

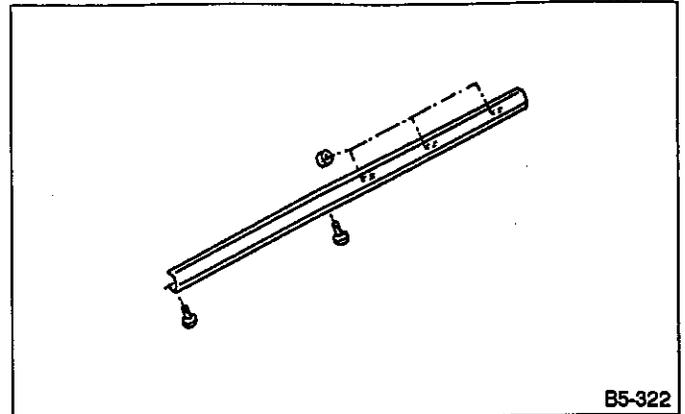


Fig. 140

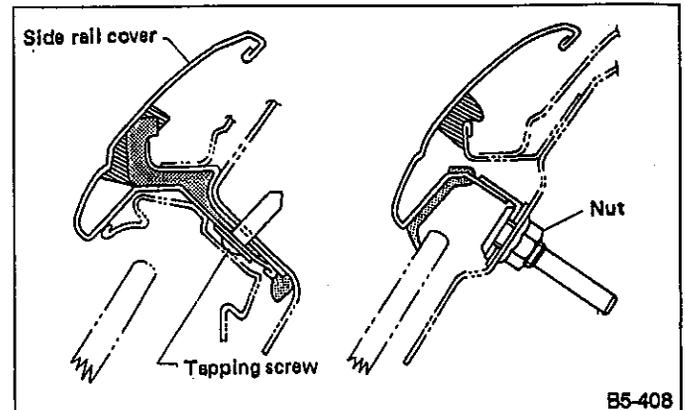


Fig. 141

#### 3. SIX-LIGHT COVER (SEDAN)

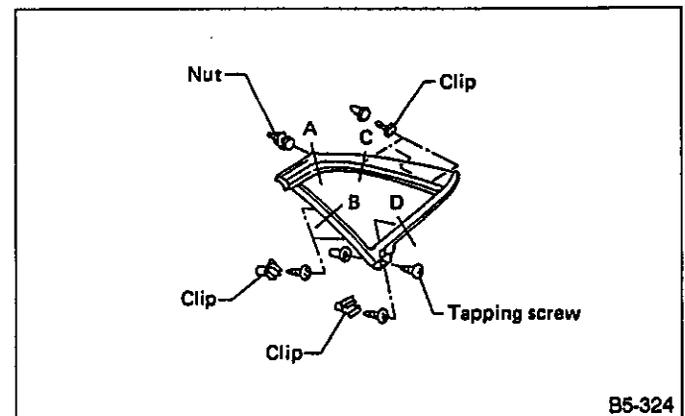


Fig. 142

- 1) Remove rear quarter trim.
- 2) Remove nut.
- 3) Open rear door. Remove lower tapping screw from cover.
- 4) Remove screw which secures lower side of cover.

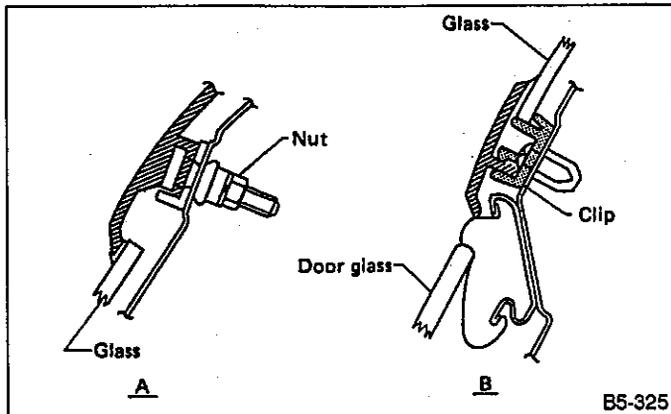


Fig. 143

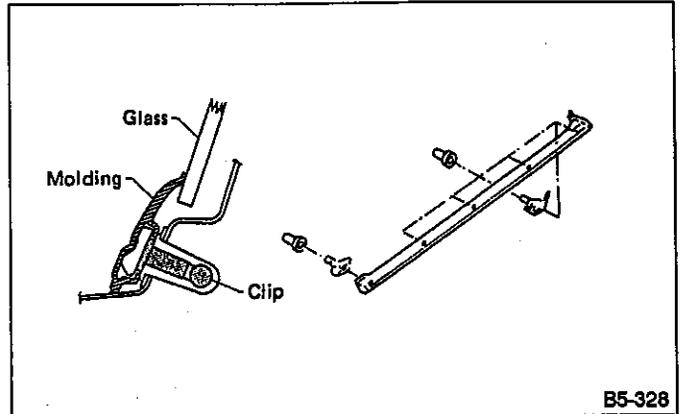


Fig. 146

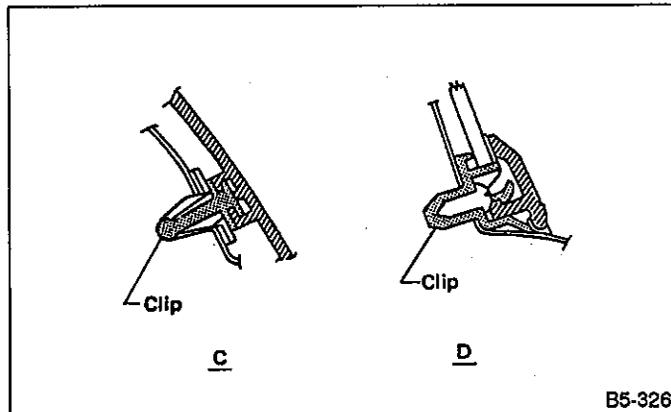


Fig. 144

**4. D-PILLAR COVER (WAGON)**

Remove clips, starting with those on the lower side of cover.

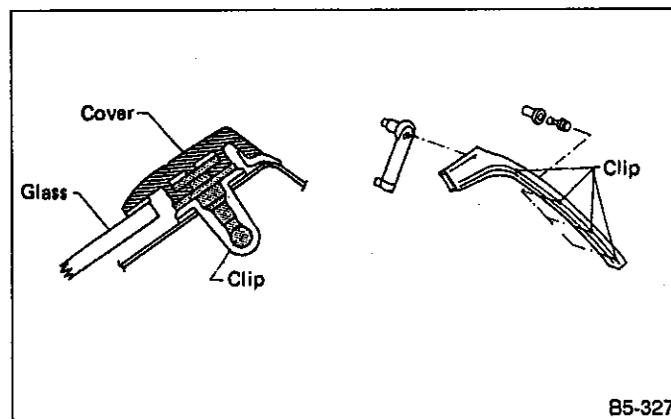


Fig. 145

**5. REAR QUARTER SHOULDER MOLDING (WAGON)**

Remove clips, starting with the one at end of molding.

**B: INSTALLATION**

Installation is in the reverse order of removal.

a. Install tapping screw (used to determine datum point), then install other clips and tapping screws.

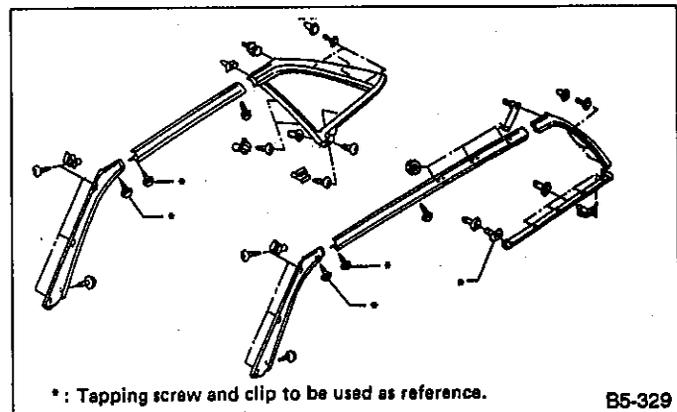


Fig. 147

b. Attach spring clip (shown by an arrow) to rear window and install clip.

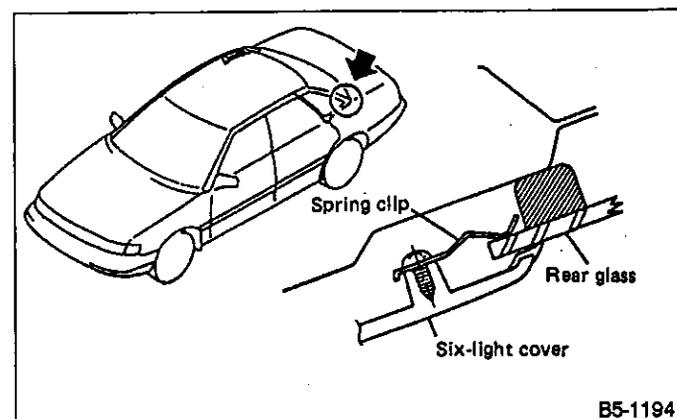


Fig. 148

## 13. Front Grille

### A: REMOVAL

1) Remove four upper clips from body panel. To facilitate removal, press portion shown in figure using screwdriver while lightly pulling front grille.

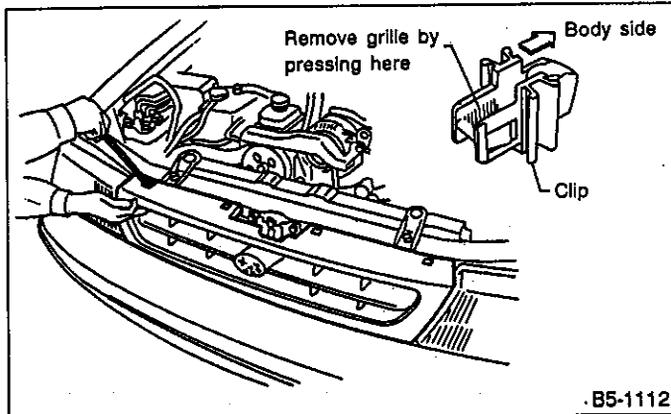


Fig. 149

2) Lift grille and unfasten it from three lower clips.

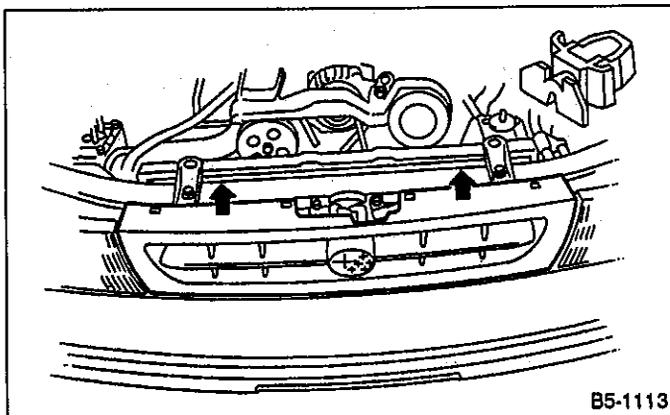


Fig. 150

3) Remove clips from body panel while pushing lever (located under clips) up.

### B: INSTALLATION

Attach clip to grille. Align it with clip hole in body and push it into place.

## 14. Rear Molding (Sedan)

### A: REMOVAL

Working inside trunk compartment, remove nuts, clip and garnish in that order.

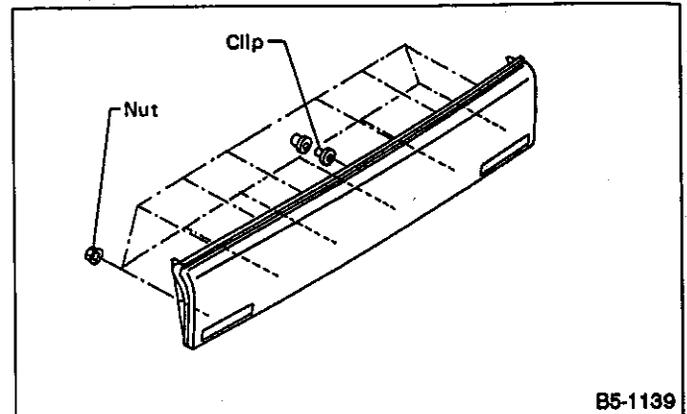


Fig. 151

## 15. Sunroof

### A: REMOVAL

#### 1. SUNROOF LID ASSY

- 1) Open sunroof approximately 40 mm (1.57 in).
- 2) Completely open sunshade. (Push it far back.)
- 3) Remove bracket cap and screws, and detach guide rail cover.

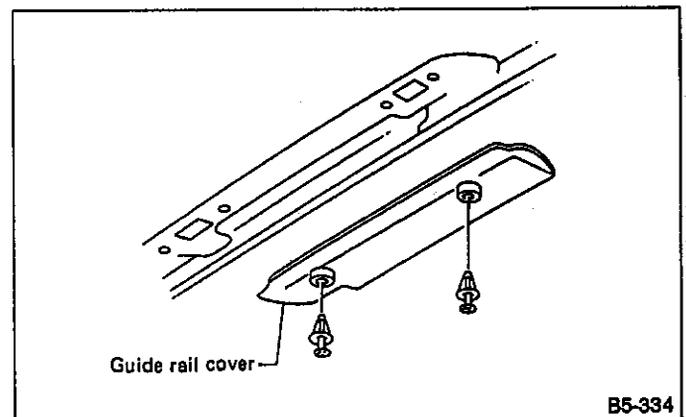


Fig. 152

4) Remove eight nuts from the left and right ring bracket.

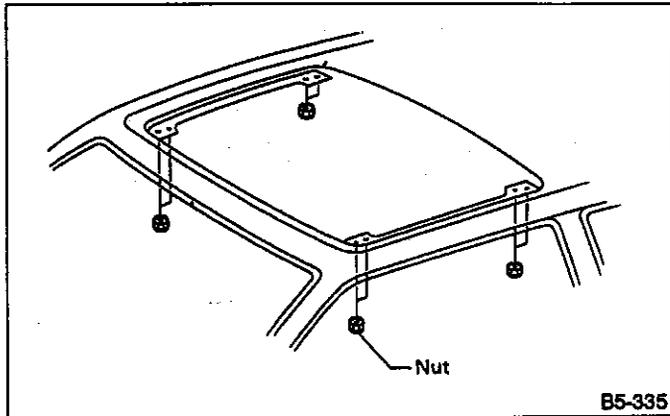


Fig. 153

5) Working inside, slightly raise sunroof lid ASSY until it is disengaged from link bracket.  
6) Hold both ends of sunroof and remove it at an angle.

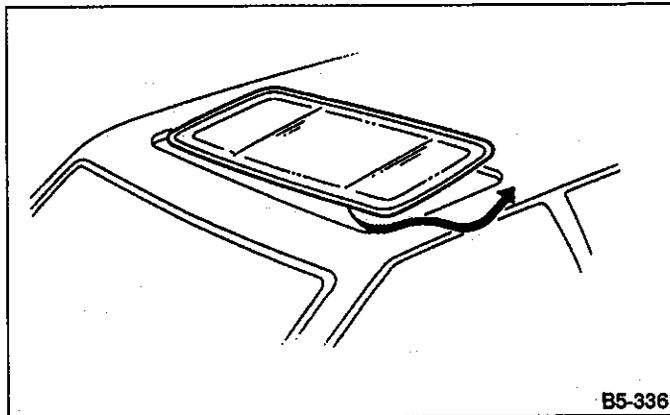


Fig. 154

**2. SUNSHADE**

1) Remove sunroof frame.  
2) Unhook sunshade hooks.  
3) Align sunshade rail guide with cutout portion of frame. While raising sunshade, remove rail guide from frame.

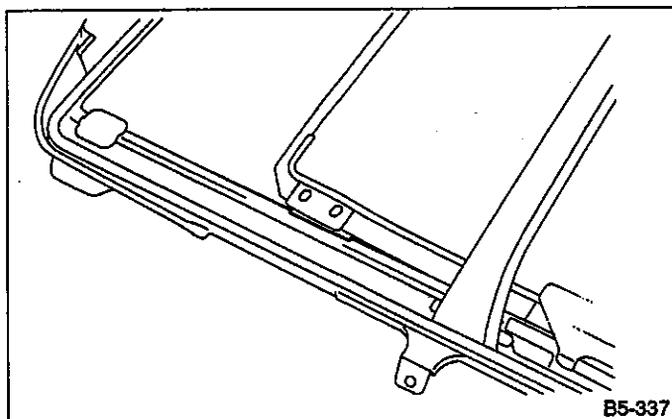


Fig. 155

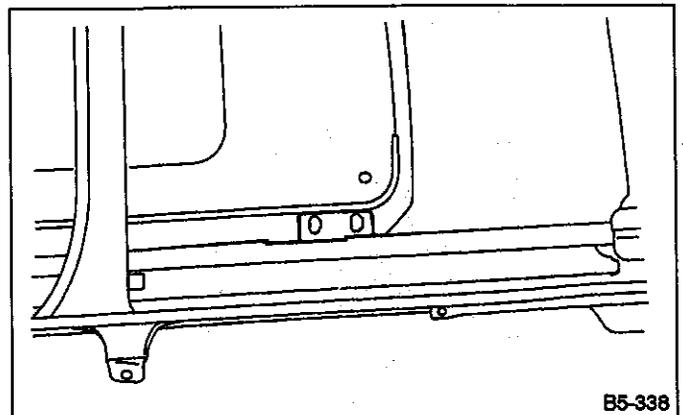


Fig. 156

**3. SUNROOF MOTOR**

1) Remove roof trim.  
2) Remove screw and nuts.  
3) Disconnect connector.

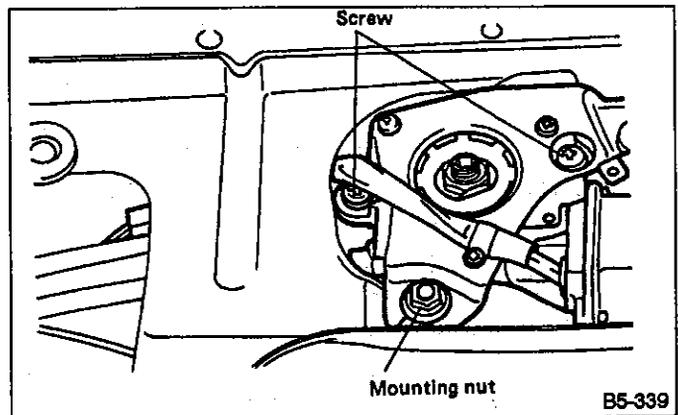


Fig. 157

**4. SUNROOF FRAME**

1) Remove roof trim.  
2) Disconnect front and rear drain tubes. Also, disconnect connector.

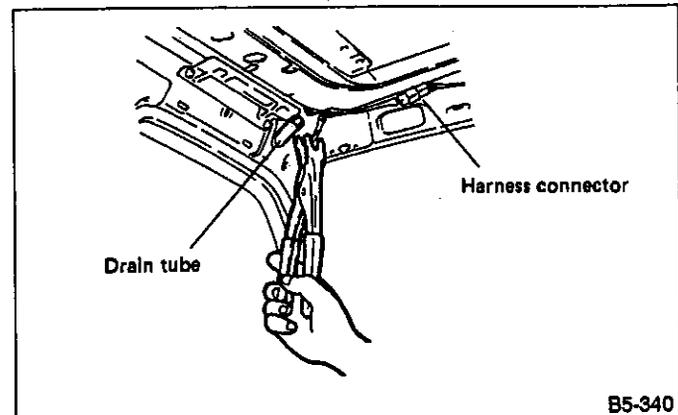


Fig. 158

3) Remove bolts and nuts.

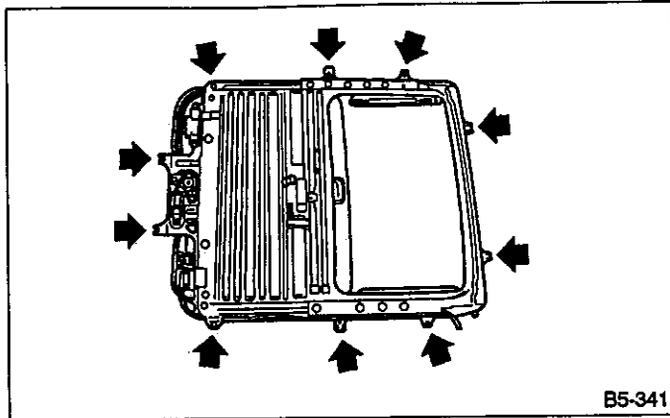


Fig. 159

## B: INSTALLATION

Installation is in the reverse order of removal.

## C: ADJUSTMENTS

### 1. ALIGNMENT OF HIGH BETWEEN GLASS AND ROOF PANEL

- 1) Remove guide rail cover.
- 2) Loosen nuts and place shim(s) between link bracket and lid ASSY to align sunroof with roof panel.

Difference in height between roof panel and glass should be adjusted to within  $0.7 \pm 1.5$  mm ( $0.028 \pm 0.059$  in).

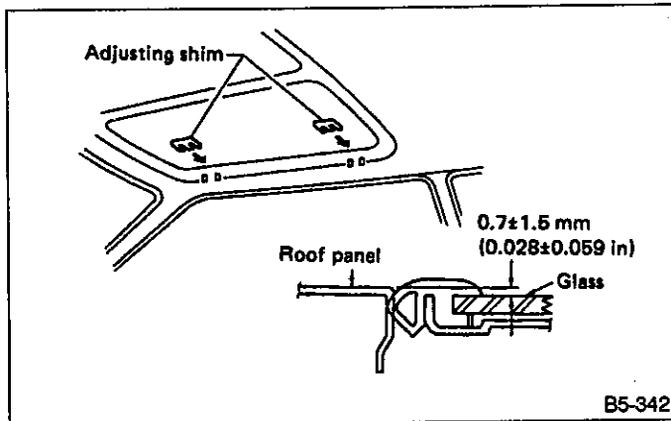


Fig. 160

### 2. ALIGNMENT OF GLASS WITH ROOF PANEL

- 1) Remove guide rail cover.
- 2) Loosen nuts and move glass to either side along the oblong hole at stay location, until proper adjustment is reached. Then, tighten nuts.

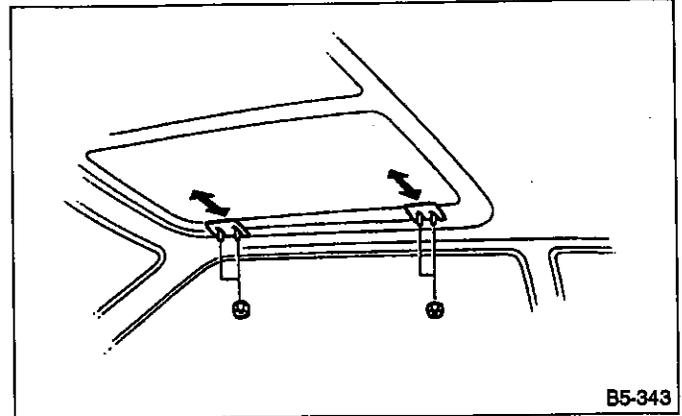


Fig. 161

- 3) Check to see if deflector is positioned at proper height.

The height of deflector cannot be adjusted. Repair or replace deflector if deformed or damaged.

### 3. CHECKING FOR MOVEMENT OF GLASS ITSELF

- 1) Before installing motor, check glass for movement.
- 2) Place a cloth on glass and sunshade, and attach a spring scale to glass edge using the cloth.
- 3) Pull spring scale to measure force required to move glass.

Force required to move glass and sunshade:  
Below 196 N (20 kg, 44 lb).

Considerable effort is required to start glass moving, so take scale reading while glass is moving smoothly.

- 4) If force required exceeds specifications, check the following points.

- Lid ASSY and guide rail ASSY for improper installation
- Cable for seizure
- Glass and sunshade for improper installation

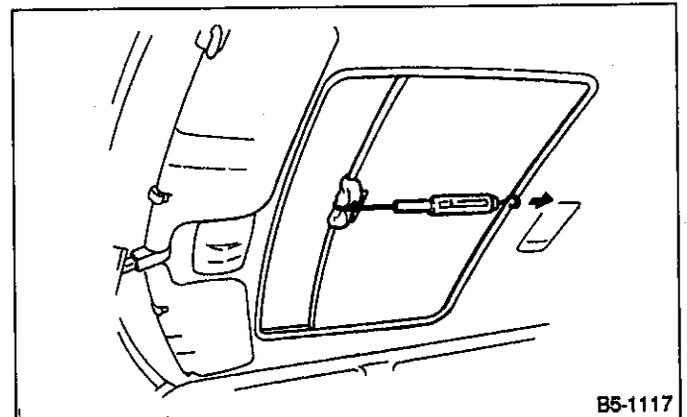
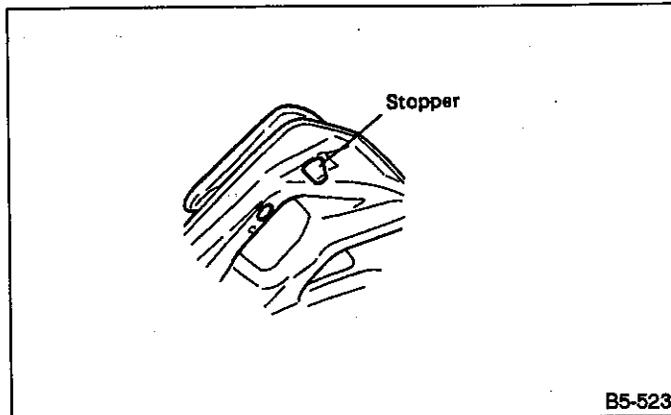


Fig. 162

## 16. Rear Spoiler (TURBO)

### A: REMOVAL

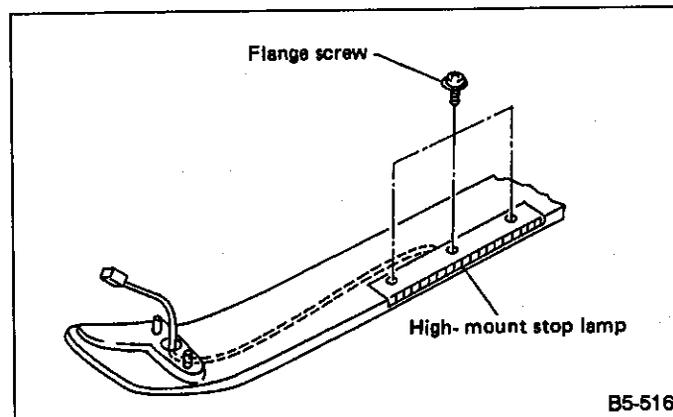
1) Remove stoppers from both sides of trunk lid.



B5-523

Fig. 163

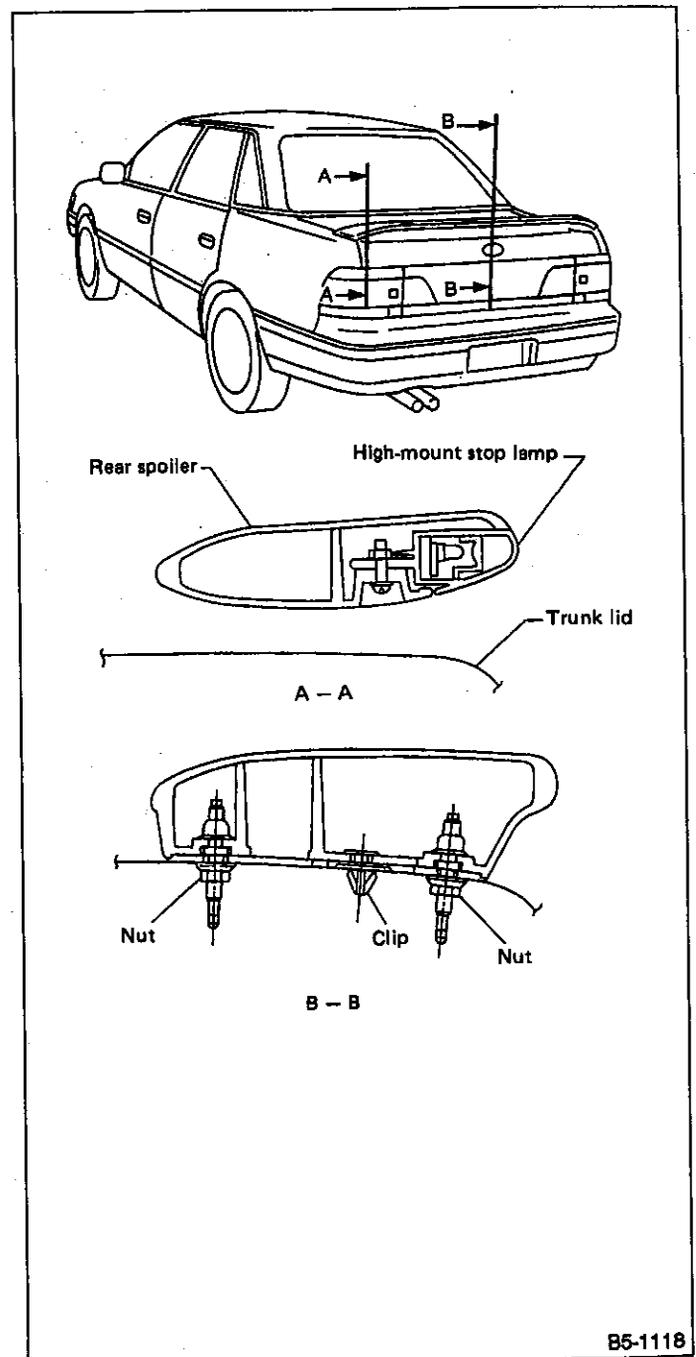
2) Disconnect high-mount stop lamp connector.  
(Stop lamp equipped vehicle only)



B5-516

Fig. 164

3) Remove nuts from rear spoiler.



B5-1118

Fig. 165

4) Lift rear spoiler and unfasten clips. Remove spoiler from trunk lid.

Be careful not to damage trunk lid.

### B: INSTALLATION

Installation is in the reverse order of removal.

# T TROUBLESHOOTING

## 1. Sunroof

Entry of water into compartment	<ol style="list-style-type: none"> <li>① Check lid ASSY and sunroof panel for improper or poor sealing.</li> <li>② Check drain tube for clogging.</li> <li>③ Check sunroof frame seal and body for improper fit.</li> </ol>
Booming noise	<ol style="list-style-type: none"> <li>① Check lid ASSY and roof panel for improper clearance.</li> <li>② Check sunshade and roof trim for improper clearance.</li> </ol>
Booming noise at deflector	<ol style="list-style-type: none"> <li>① Check deflector and roof panel for improper fit.</li> <li>② Check deflector for improper "lift".</li> <li>③ Check deflector for deformities.</li> </ol>
Abnormal motor noise	<ol style="list-style-type: none"> <li>① Check motor for looseness.</li> <li>② Check gears and bearings for wear.</li> <li>③ Check cable for wear.</li> <li>④ Check cable pipe for deformities.</li> </ol>
Failure of sunroof to operate (Motor operates properly)	<ol style="list-style-type: none"> <li>① Check guide rail for foreign particles.</li> <li>② Check guide rail for improper installation.</li> <li>③ Check parts for mutual interference.</li> <li>④ Check cable slider for improper clinching.</li> <li>⑤ Check cable for improper installation.</li> <li>⑥ Check clutch adjustment nut for improper tightness.</li> </ol>
Motor does not rotate or rotates improperly. (Use sunroof wrench to check operation.)	<ol style="list-style-type: none"> <li>① Check fuse for blowout.</li> <li>② Check switch for improper function.</li> <li>③ Check motor for incorrect terminal voltage.</li> <li>④ Check relay for improper operation.</li> <li>⑤ Check poor grounding system.</li> <li>⑥ Check cords for discontinuity and terminals for poor connections.</li> <li>⑦ Check control unit for improper operation.</li> <li>⑧ Check limit switch for improper operation.</li> </ol>

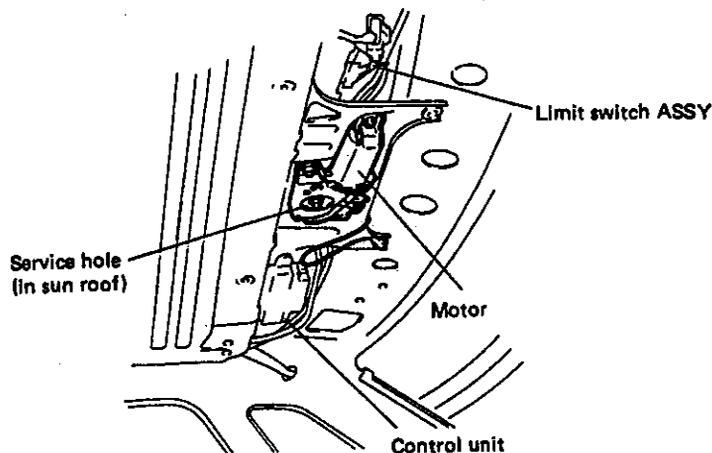


Fig. 166

B5-345

DOORS AND WINDOWS

**SUBARU®**

**1992**

**SERVICE  
MANUAL**



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# M MECHANISM AND FUNCTION

## 1. Door

### 1. DOOR HINGE

A two-stage arm checker is used to insure that the door opens and closes in two steps and the checker arm operates with weak friction over the entire opening range of the door. This arrangement allows the door to stop easily in any position and improves the overall ease of door opening and closing.

		4-Door Sedan and Station Wagon	
		Front door	Rear door
Degree of opening of door hinge	1st stage	26°	38°
	2nd stage	64°	68°

### 2. DOOR LOCK SYSTEM

The surface where the lock contacts the striker is covered with a soundproof resin which provides excellent wear resistance. This lessens the striker's shock noise and improves the closing sound of the door.

### 3. DOOR GLASS

The radius of curvature of the glass is 1,250 mm (49.21 in). This, together with flush surfaces, improves aerodynamic characteristics.

### 4. AUTOMATIC DOOR LOCK

Pressing the driver-seat door lock knob (or key plate) permits the locking and unlocking of all doors with one touch.

## 2. Rear Gate

### 1) Rear gate panel

A large, side split, one-piece panel which can be fully opened is used to allow easy loading and unloading of luggage. The clinching parts are coated with a sealer for greater corrosion resistance.

### 2) Hinge

A small attractive plug-in hinge is placed in the rear rail.

### 3) Stay

A gas-sealed absorbed type stay is used to improve the feeling of opening and closing.

### 4) Latch and striker

The latch and striker are mounted on the inside of the body weatherstrip to keep dirt, dust, and water away from them.

### 5) Outer handle

A pull-up type outer handle like that in the side door is used to make the opening and closing operation easier and safer.

## 3. Window Glass

An adhesive is used to attach the following:

4-Door Sedan: Windshield, rear window glass and rear quarter glass

Station Wagon: Windshield, rear quarter glass and rear gate glass (some models)

### 1. ADHESIVE

#### 1) General

A single-liquid urethane adhesive hardens into a gum elastic body at room temperature through a chemical reaction with water content in the air.

#### 2) Usable time

Although the time during which the adhesive is usable varies with the environmental temperature, make it a standard practice to finish attaching the glass within thirty minutes after a cartridge is opened for use.

#### 3) Hardening time

Leave the vehicle alone for a whole day after attaching the glass. In addition, high-speed or off-road driving should be avoided for three days to allow the adhesive to harden completely.

#### 4) Primer

The job of a primer is to increase the effect of adhesion. Therefore, it should be applied to the contact surfaces of the glass and body without fail.

#### 5) Precautions in handling adhesive and primer

(1) The adhesive and primer qualities deteriorate about six months after manufacture. Thus, adhesive and primer which are more than six months old must not be used. (The date of manufacture is indicated on the adhesive package.)

(2) Keep the adhesive and primer in a cool, dark place.

(3) The adhesive and primer harden through a reaction with water content in the air. Therefore, remove the seals right before use and do not use any remains.

(4) Shake primer well before using.

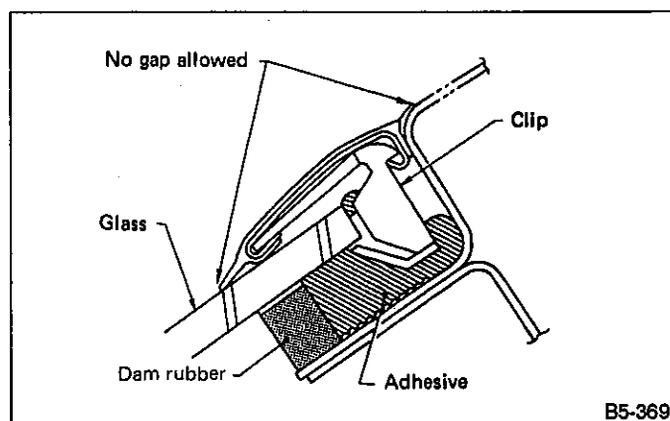


Fig. 1

## 4. Keyless Entry System

The keyless entry system is provided to allow a driver to lock and unlock the door without using a key. The driver does not need to search for the key hole when locking or unlocking the doors.

The keyless entry system has the following three functions:

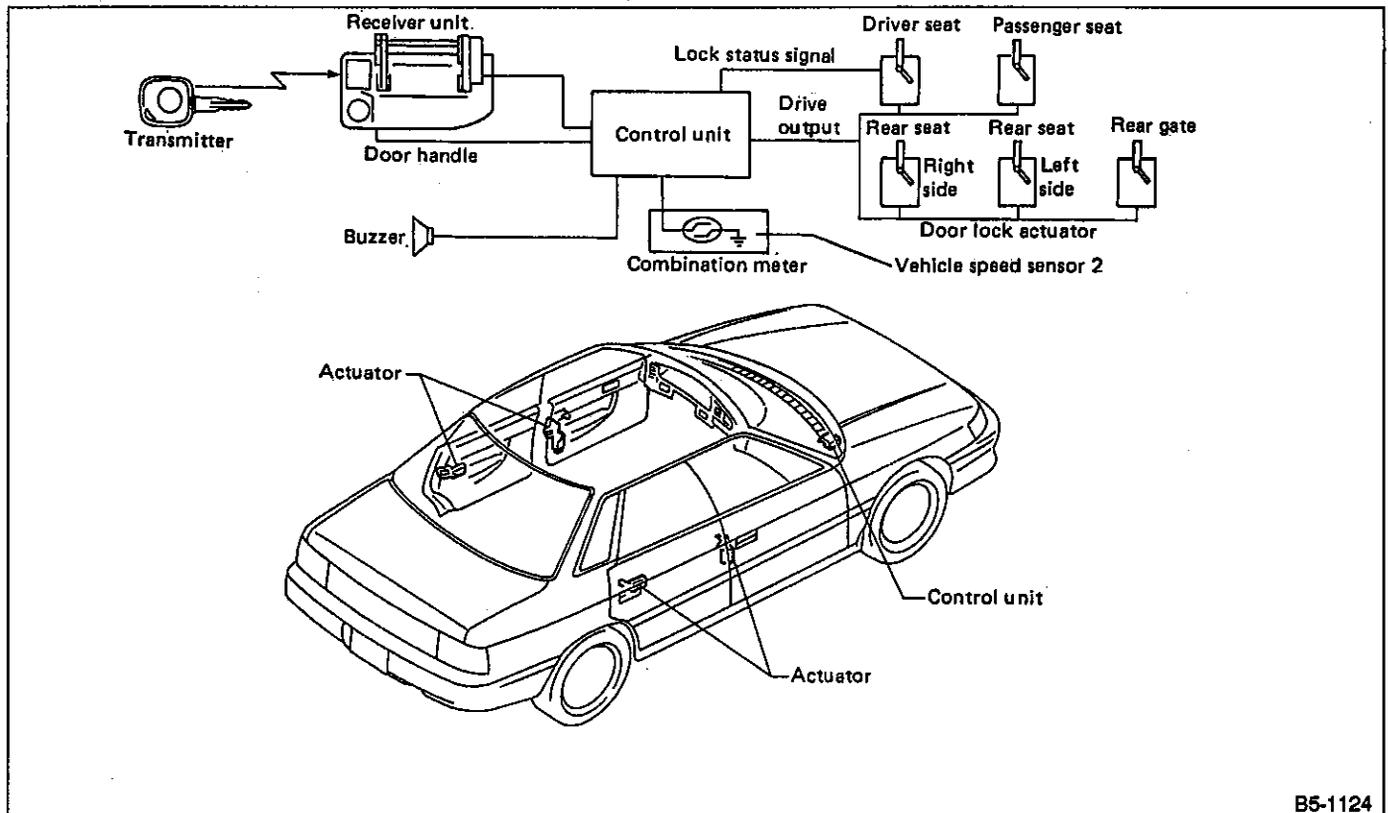
1) Infrared remote control function: A transmitter is built into the key plate for locking and unlocking the door.

2) Door handle pulling function: The driver's side door handle is unlocked when it is pulled by the number of times specified by a cipher.

3) Centralized door locking function: All doors can be locked or unlocked by manual operation of the driver's door lock knob.

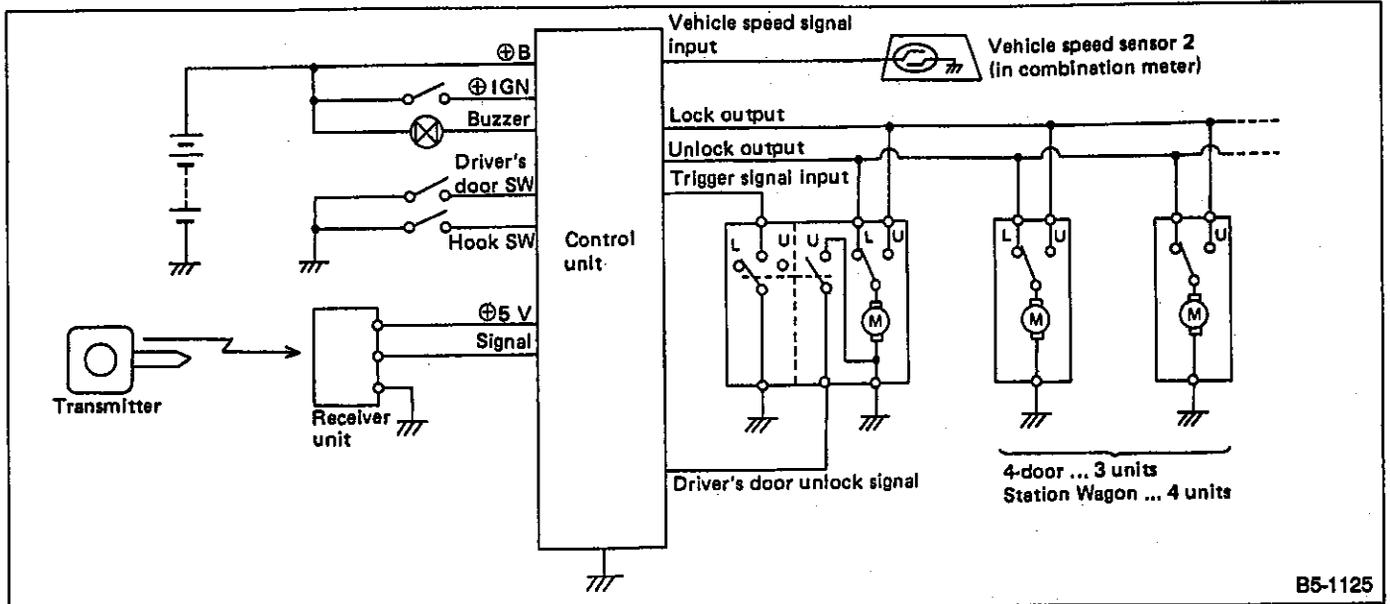
### A: SYSTEM CONSTRUCTION

The signals from the receiver unit built into the driver's door handle, the hook switch, the vehicle speed sensor2 (built into combination meter) and the lock status signal are sent to the control unit, which actuates the door lock actuator.



B5-1124

Fig. 2



B5-1125

Fig. 3

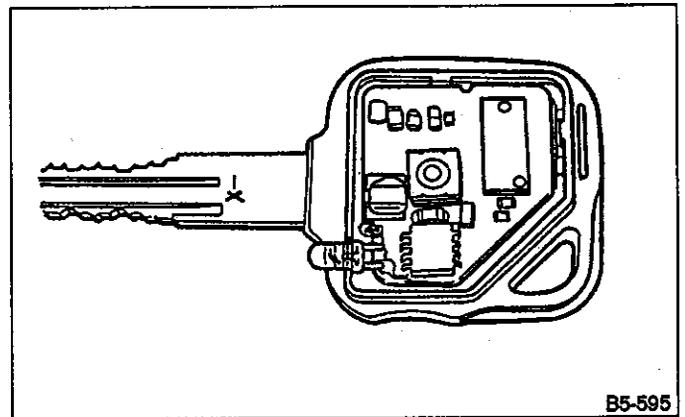
**1. GENERATOR**

**1) Transmitter**

A transmitter is built inside the master key grip. It transmits a specially coded infrared signal when the transmitter switch is operated. More than 900,000 different codes can be used. The lithium cell built inside has a life of longer than two years if it is used 20 times per day.

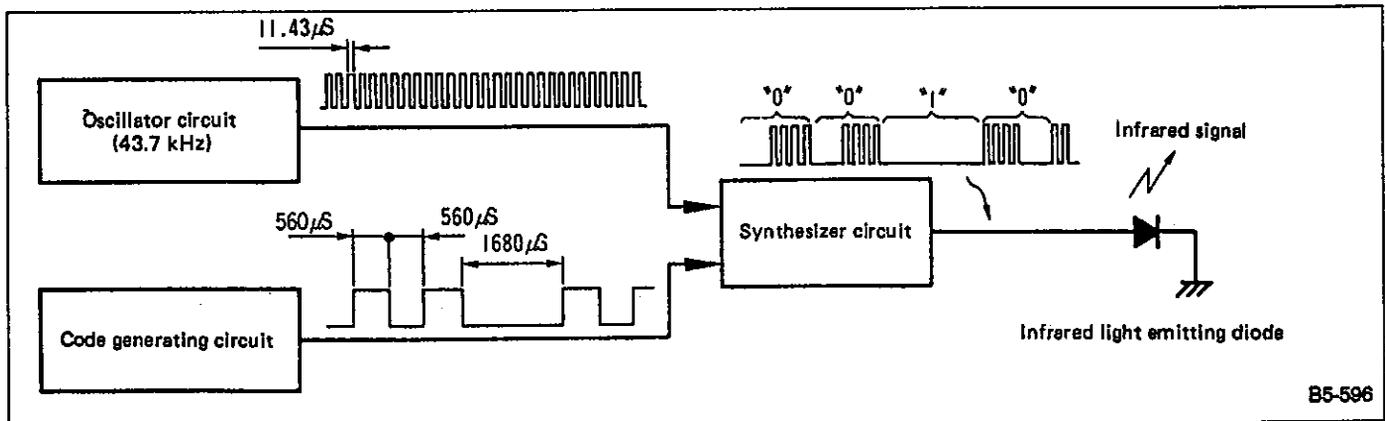
**2) Infrared remote control transmitter**

The oscillator circuit generates a modulated signal whose basic frequency is 43.7 kHz. The code generating circuit generates a special code, which is synthesized using the modulated signal to cause the infrared light emitting diode to flash.



B5-595

Fig. 4



B5-596

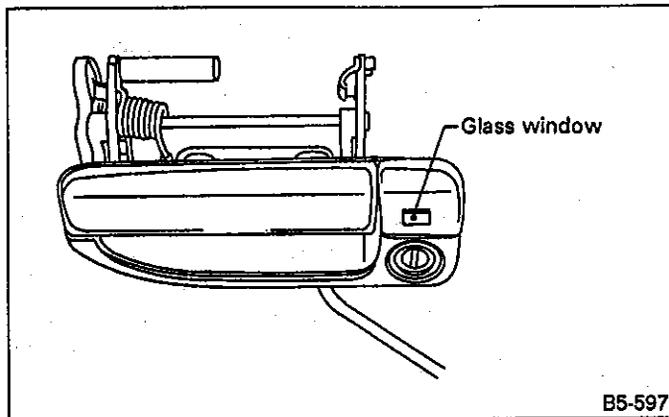
Fig. 5

## 2. KEYLESS ENTRY DOOR HANDLE

A keyless switch and receiver are built into the door handle. When the user presses the oscillator button of the key plate or operates the outer door handle, a cipher is input into the system for locking or unlocking the door. (The pulling operation is allowed only for unlocking.)

### 1) Infrared remote control receiver

The receiver built into the handle receives an infrared ray signal, and converts it into an electrical signal.



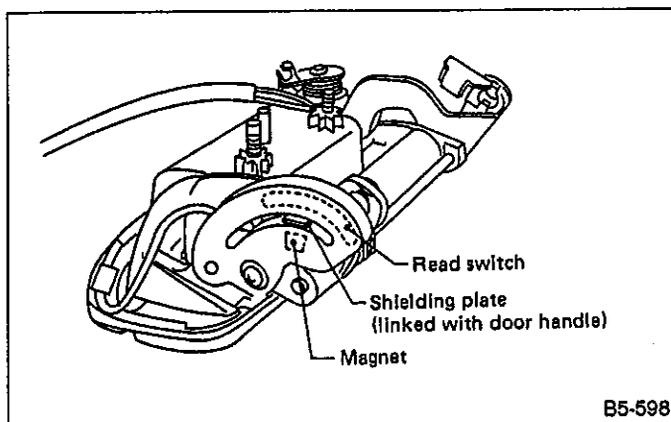
B5-597

Fig. 6

### 2) Door handle pulling mechanism

With the driver's door locked, repeat pulling and releasing of the outer handle by a specified method. When the pulling operation is performed correctly, all the doors are unlocked. This pulling procedure cannot be used for locking.

1) When the door handle is pulled and then released, a shielding plate attached to the door handle moves back and forth, and the number of times of this movement is counted by the read switch. The count is then input as the registered cipher or code number.



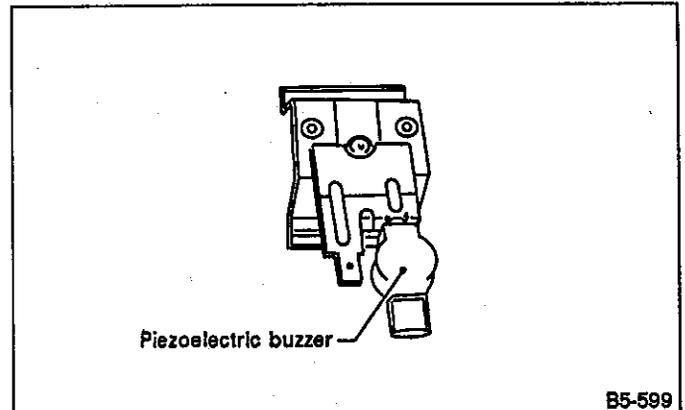
B5-598

Fig. 7

2) The keyless switch turns ON when the handle open angle is greater than 30°, and turns OFF when it is less than 10°.

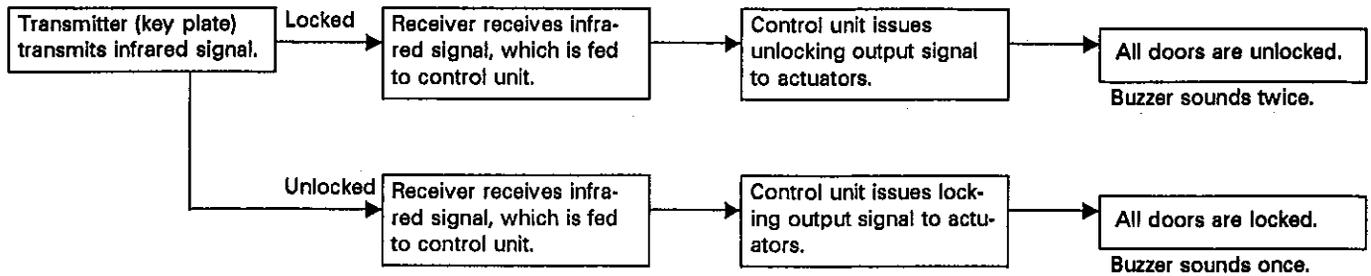
## 3. PIEZOELECTRIC BUZZER

A piezoelectric buzzer is secured together with the handle assembly to the handle bracket inside the door. It sounds when the handle is pulled, or when registering a cipher.



B5-599

Fig. 8

**B: FUNCTION****1. INFRARED REMOTE CONTROL KEYLESS ENTRY****1) System operation**

- The transmitter is capable of providing more than 900,000 different codes.
- The infrared signal code is unique for each unit. (The unit and key plate are uniquely matched.)
- The remote controller operating range is within approximately 1 m (3 ft) in front of the receiver glass window. Shortened operating range may be attributable to a discharged key battery. Early replacement of the cell is recommended.

**2) Operation**

If the transmit button is pressed with the infrared signal transmitter directed to the receiver glass window on the outer door handle when the driver's door is locked, all the doors are unlocked. (At this time, the buzzer sounds twice.) If this operation is performed when the driver seat door is unlocked, all the doors are locked. (At this time, the buzzer sounds once.)

The transmitter issues a specially coded infrared signal which can be decoded only by its matched receiver. This function is disabled if the driver's door is open. In addition, this function is inoperative for five seconds after the centralized door lock is operated by the lock knob or key plate.

- Do not attempt to disassemble the key, or allow it to become wet or be shocked.
- Do not shock the receiver window.

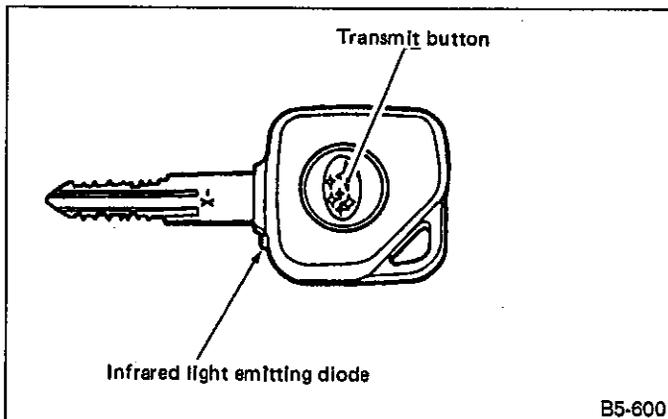
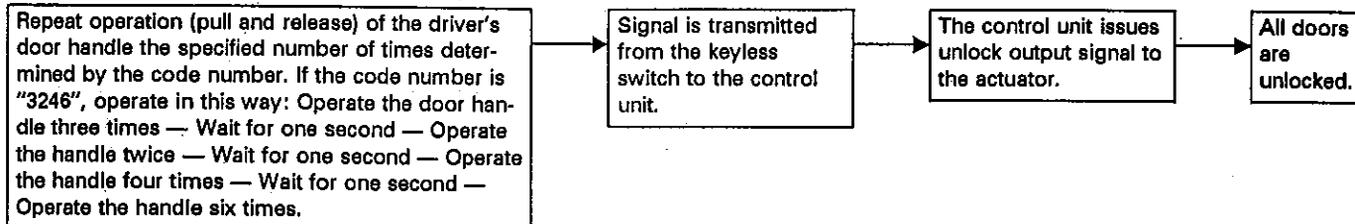


Fig. 9

## 2. DOOR HANDLE PULLING TYPE KEYLESS ENTRY

### 1) System operation

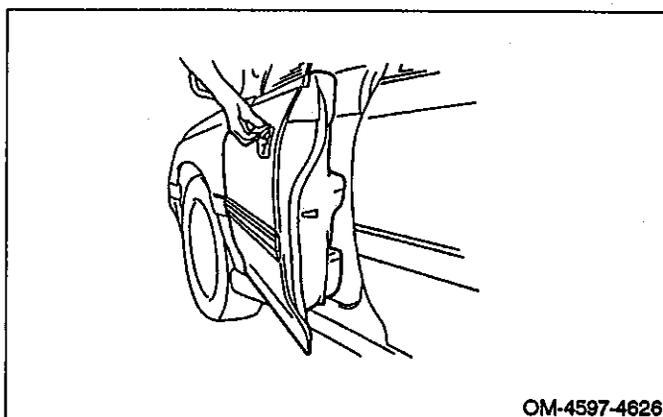


- If "0" is contained in a 4-digit code number, operate the handle ten times to represent "0".
- The door cannot be locked by this operation.
- The code number (a 4-digit number) can be determined and registered by the user. A registered code number can be altered. "1111", "2222", ... "9999", "0000", and "1234" are invalid. It is advisable not to use the vehicle's registration number and simple ones such as "1112", "1212", etc.
- When "1112" is entered with the ignition switch ON and door switch ON in the check mode, the control unit will issue the lock output signal, and then will issue an unlock output signal.

### 2) Operation

With the driver's door locked, pull and then release the driver's door outer handle. Enter the specified code number by operating the handle in the specified manner. After the operation has been completed correctly,

all the doors are unlocked by the unlocking actuator. This method cannot be used for locking.

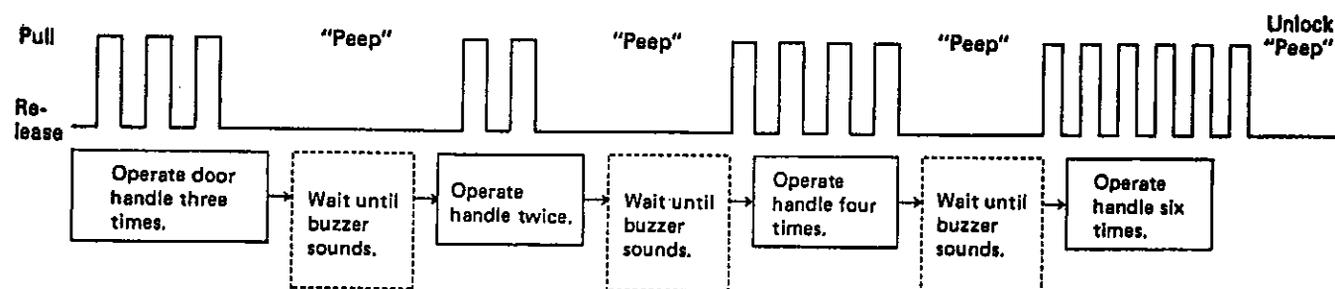


OM-4597-4626

Fig. 10

### Locking

Example: When the registered code number is "3246":



B5-1191

If a wrong code number has been entered five times in succession, the control unit stops reception of any signal for five minutes. If the battery terminal was disconnected for more than two hours, the registered code number is erased. In such a case, a new code number must be entered.

### 3) Registration of code number

(1) Set the ignition key switch to ON, and open the driver's door. (Keep this state until code number registration is over.)

(2) Keep the outer handle in the pulled position for more than five seconds. After five seconds, the buzzer

will "peep" for 0.5 seconds. This signal indicates that the system is prepared for registration of a new code number.

(3) After sounding of buzzer, operate the outer handle the number of times as determined by the 1st digit number.

If the outer handle is not pulled for more than five seconds after buzzer sounding, no data will be accepted unless the operation is restarted beginning from step (2).

(If the interval between two pulling operations is longer than one second, the system regards it as the pause between digits, and causes the buzzer to sound for 0.5 seconds.)

(4) After confirming the "peep" of buzzer in step (3), start pulling of outer handle to enter the 2nd digit number.

(5) Repeat the above-mentioned steps to enter the four-digit code number.

(6) When operating for the four-digit code number is completed, the buzzer will sound at intervals of 0.5 seconds.

This sounding continues for 30 seconds. By this intermittent sounding of buzzer, the system is requesting you to confirm the registered code number. If no confirmation is done within this 30 second period, the entered code number is canceled.

(7) While the buzzer is sounding as mentioned in step (6), start operating beginning with the 1st digit of the entered code number.

When operating starts, the buzzer stops sounding.

The interval between digits must be longer than one second. If the confirmation number does not match the entered number, the buzzer sounds again, and the condition of step (6) is resumed. If a mistake is made in confirmation, or if an operation period of longer than 10 seconds occurs more than five times, that is, if the condition of step (6) is resumed five times, then the entered code number is canceled. In this case, registration must be started again from the beginning. However, the formerly registered code number remains in the system memory.

If a mistake is made in the registration procedure, turn OFF the engine switch once, then turn it ON and start registration correctly.

(8) When confirmation of four-digit code number is completed (that is, when the 1st entered code number coincides the 2nd entered number), the buzzer sounds for one second, indicating that the code number registration is over.

The code number has been registered in the memory, and it will be maintained even if the ignition key switch is set to OFF.

## S SPECIFICATIONS AND SERVICE DATA

### A: SPECIFICATIONS

#### 1. PIEZOELECTRIC BUZZER

##### Rated specification

Voltage	12 V
Current	Less than 20 mA
Sound pressure	$80 \pm 10$ dB (A)/at 1 m (3 ft)
Basic frequency	$3,700 \pm 500$ Hz

**B: SERVICE DATA**

**1. DOOR ALIGNMENT**

Unit: mm (in)

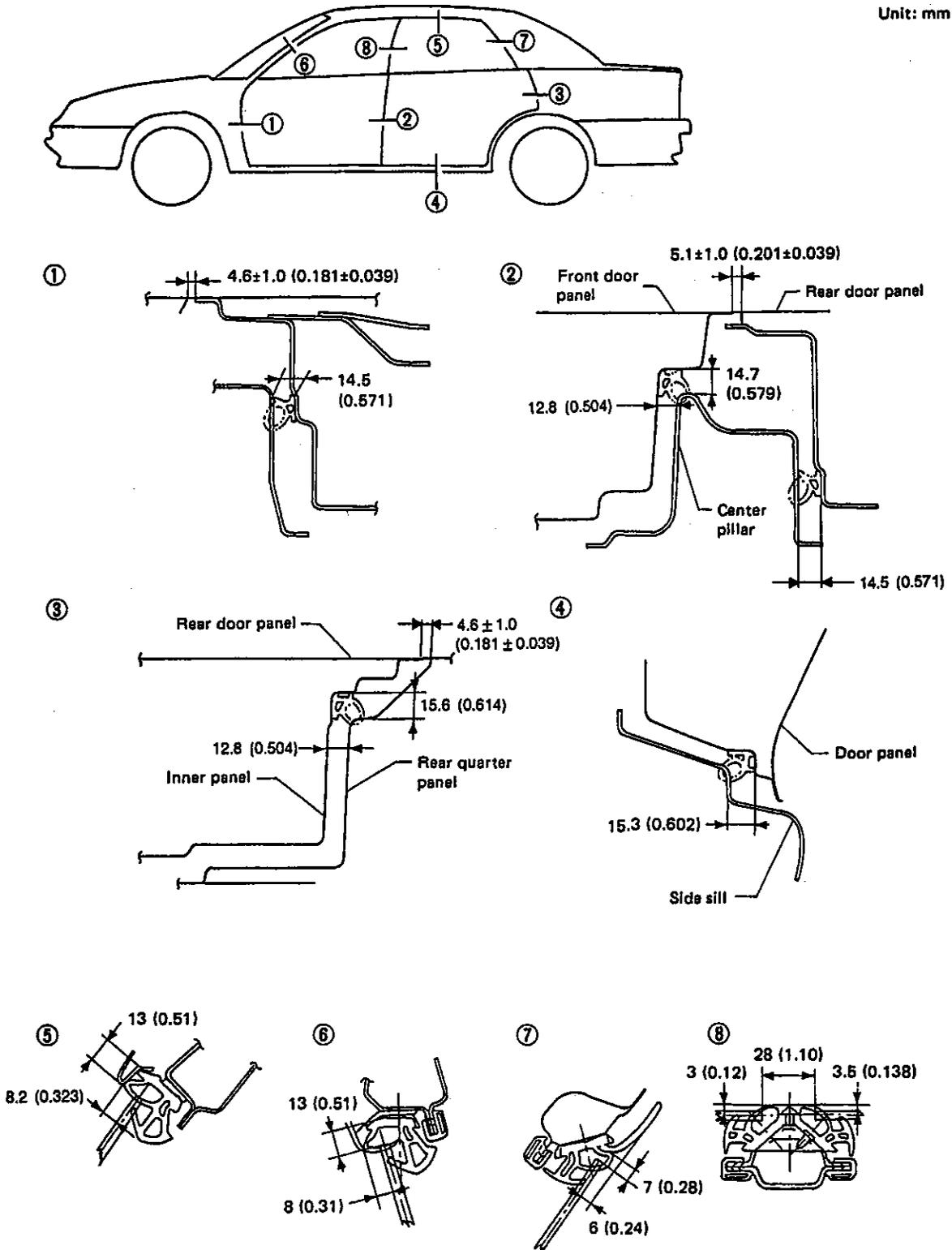


Fig. 11

B5-166

## C COMPONENT PARTS

### 1. Front Door

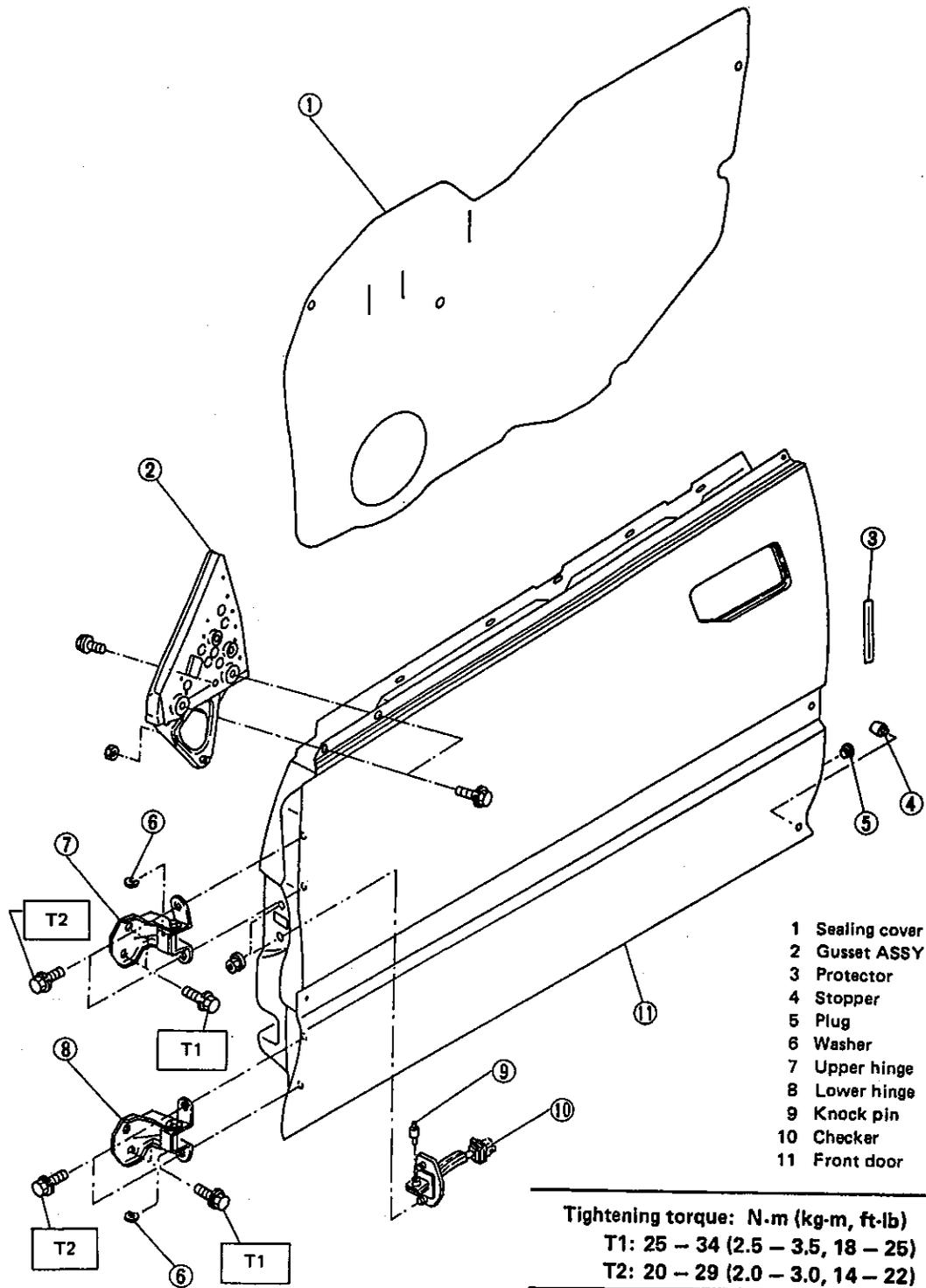


Fig. 12

B5-1022

2. Rear Door

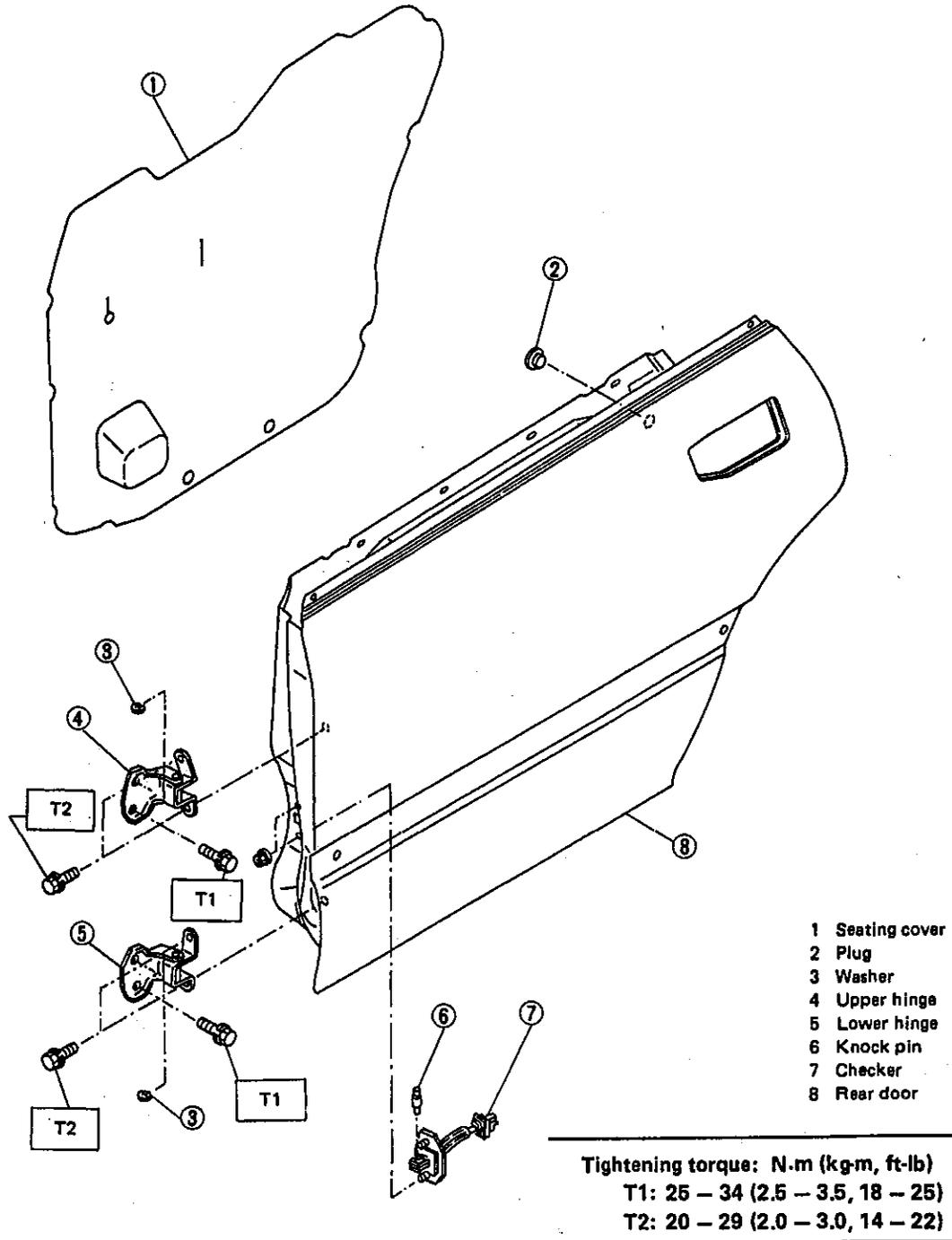


Fig. 13

3. Front Door Glass

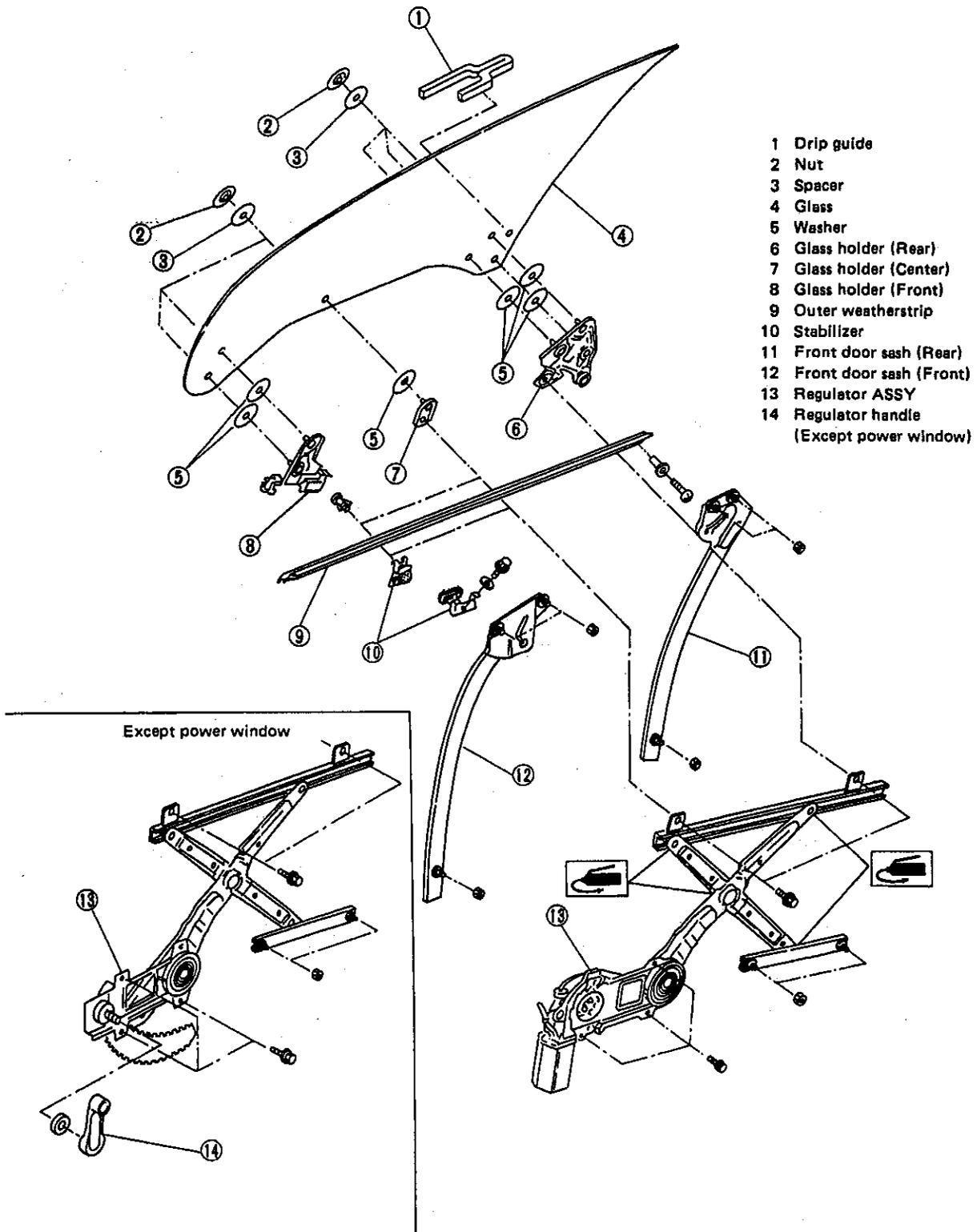
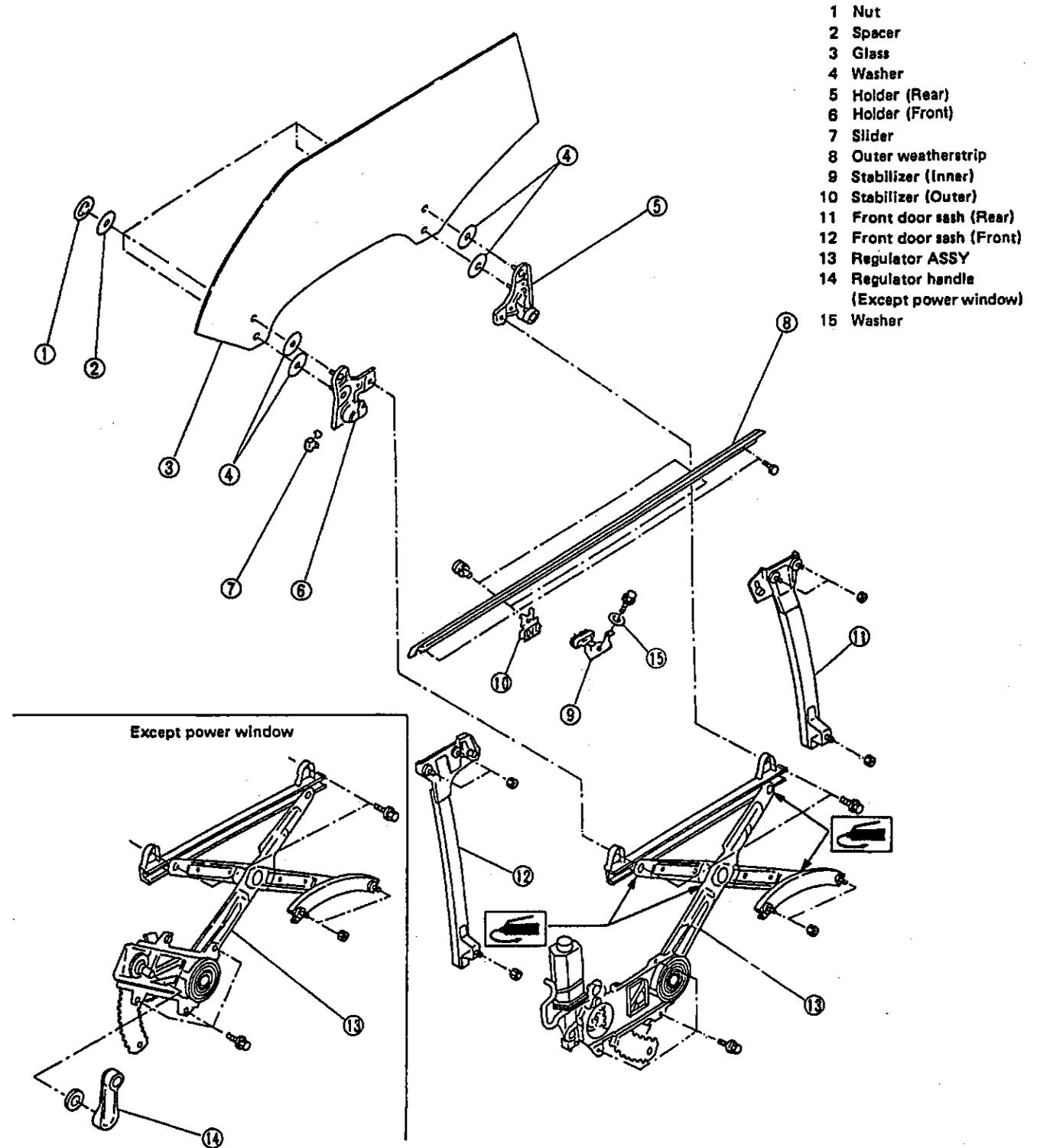


Fig. 14

### 4. Rear Door Glass

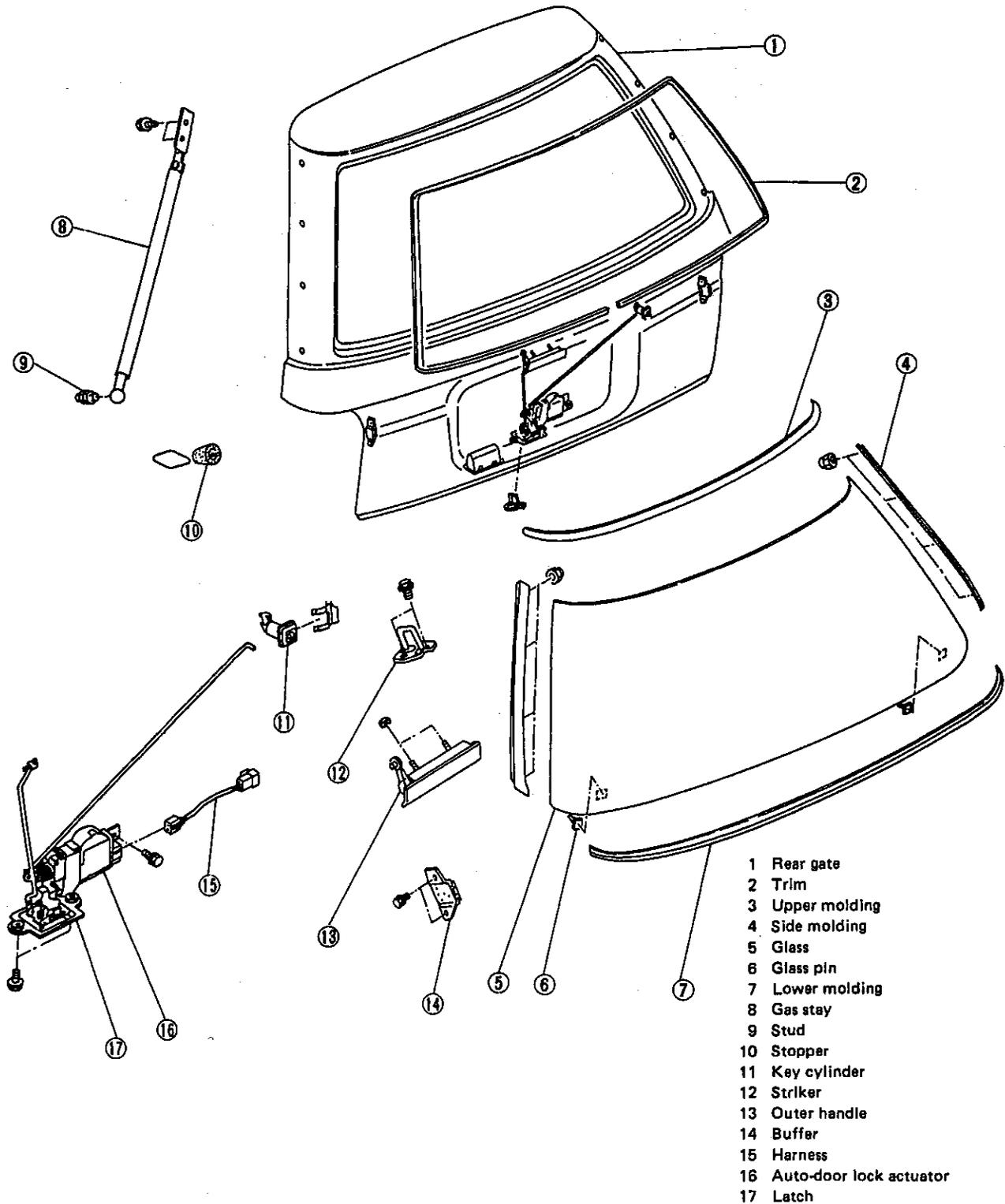


- 1 Nut
- 2 Spacer
- 3 Glass
- 4 Washer
- 5 Holder (Rear)
- 6 Holder (Front)
- 7 Slider
- 8 Outer weatherstrip
- 9 Stabilizer (Inner)
- 10 Stabilizer (Outer)
- 11 Front door sash (Rear)
- 12 Front door sash (Front)
- 13 Regulator ASSY
- 14 Regulator handle (Except power window)
- 15 Washer

Fig. 15

B5-547

## 5. Rear Gate and Glass



B5-1025

Fig. 16

6. Door Lock Assembly (Front)

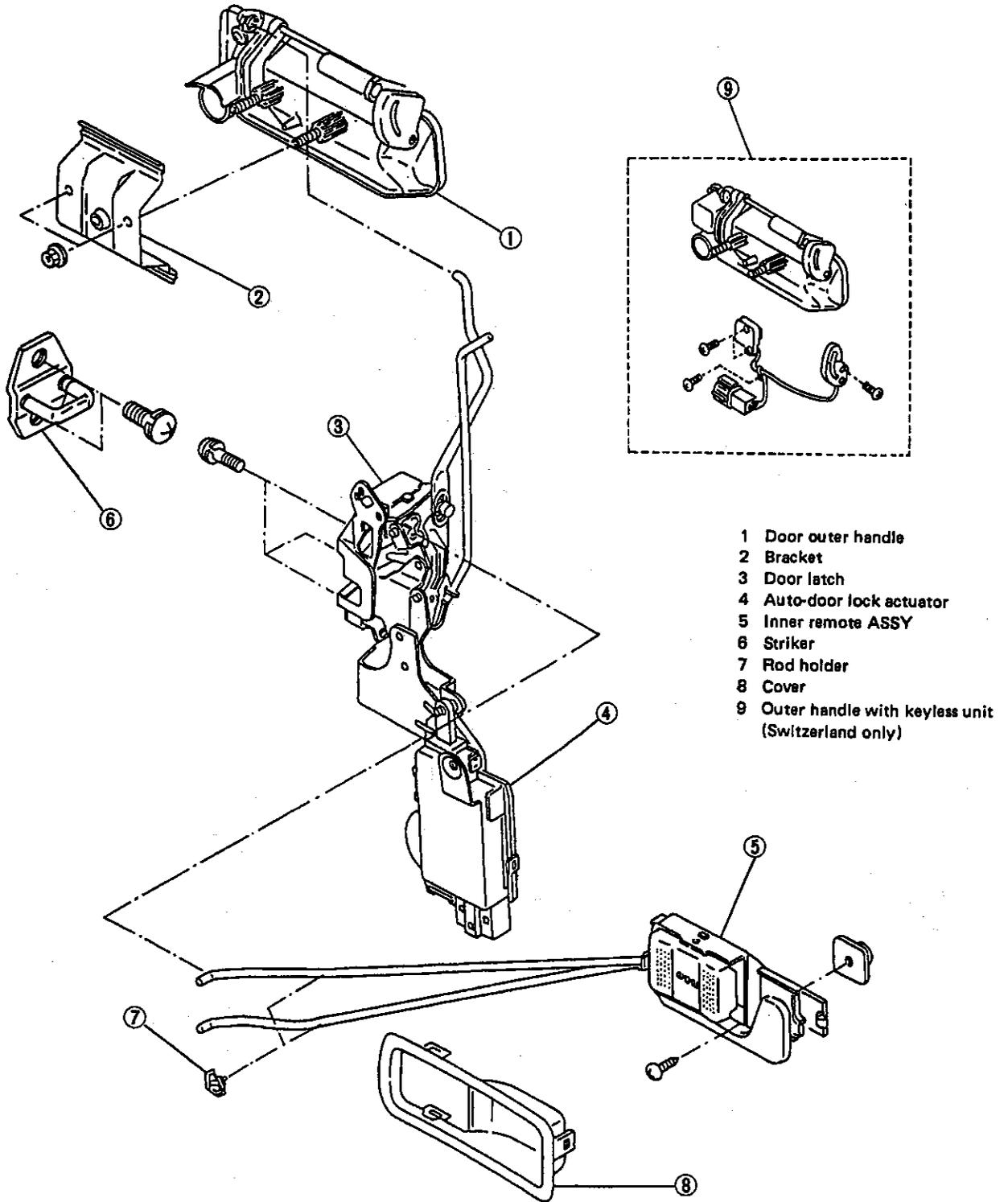
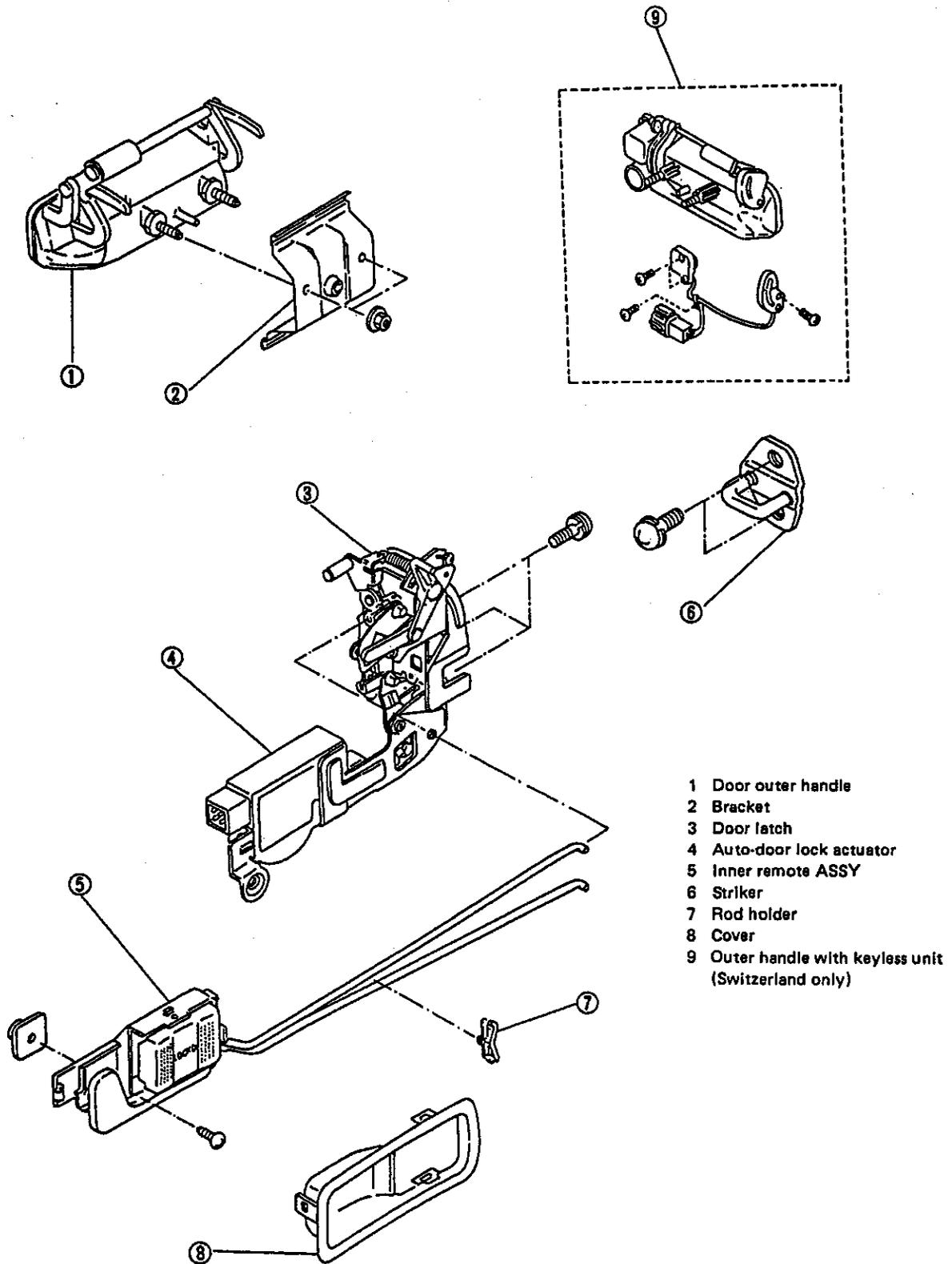


Fig. 17

B5-601

## 7. Door Lock Assembly (Rear)



- 1 Door outer handle
- 2 Bracket
- 3 Door latch
- 4 Auto-door lock actuator
- 5 Inner remote ASSY
- 6 Striker
- 7 Rod holder
- 8 Cover
- 9 Outer handle with keyless unit  
(Switzerland only)

Fig. 18

B5-602

## 8. Window Glass

### 1. WINDSHIELD GLASS

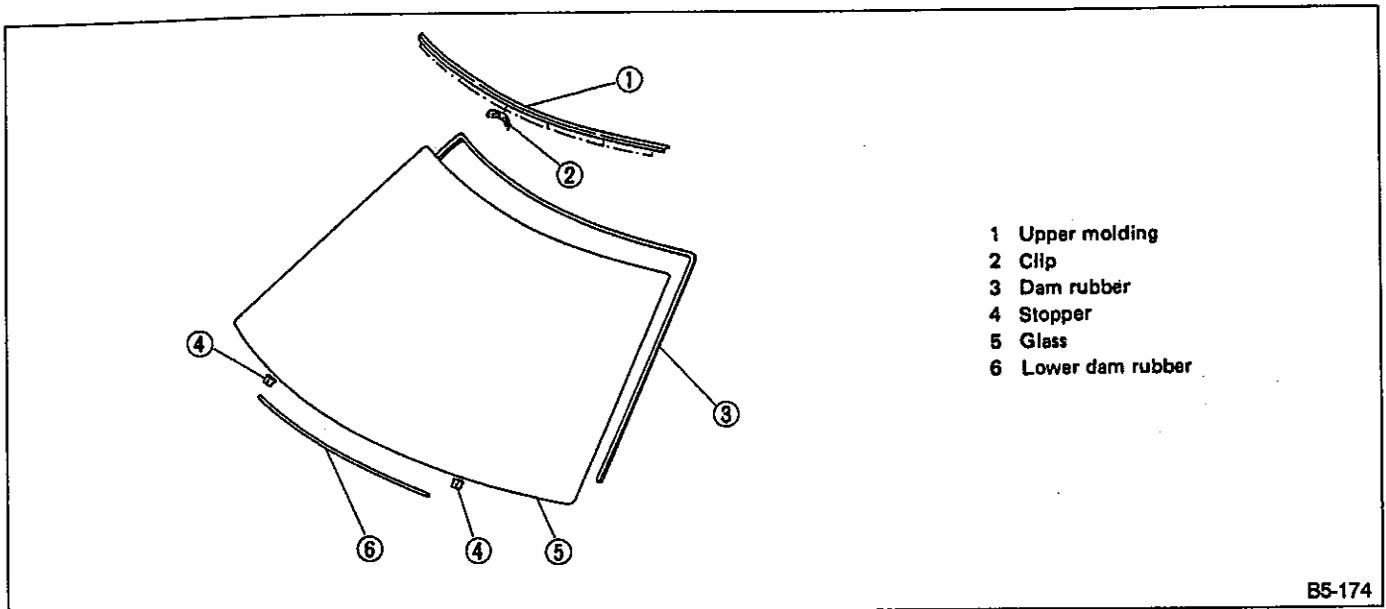


Fig. 19

### 2. REAR WINDOW GLASS [SEDAN]

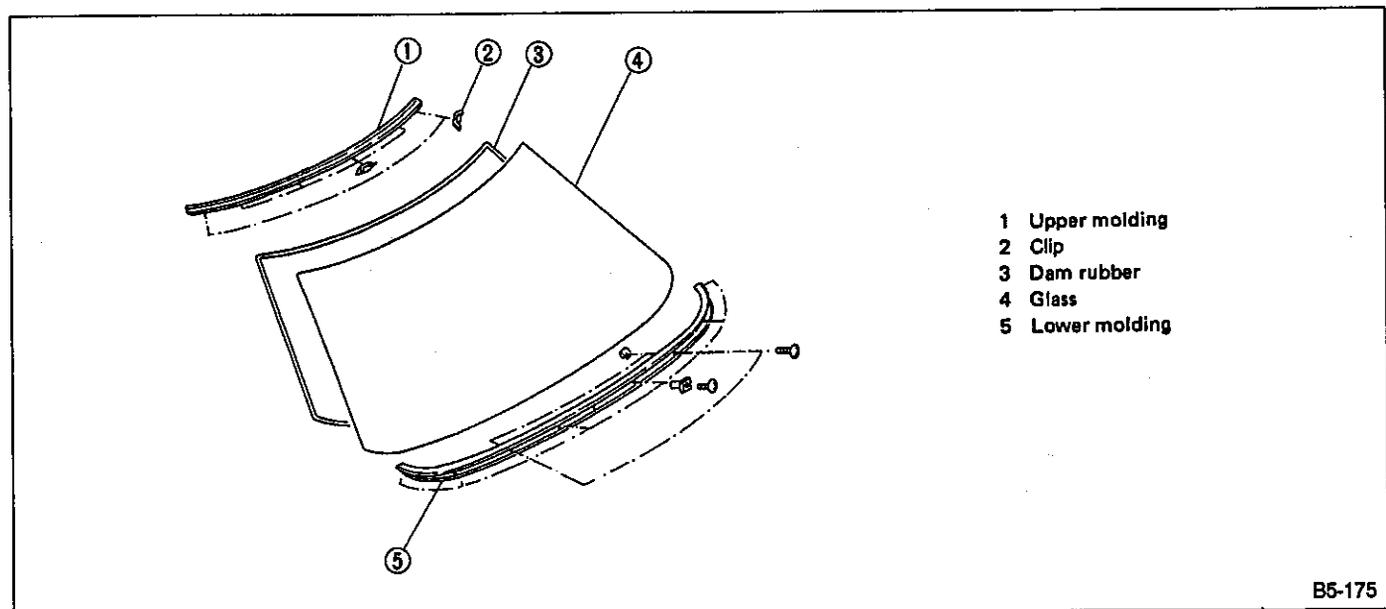


Fig. 20

3. REAR QUARTER GLASS [SEDAN]

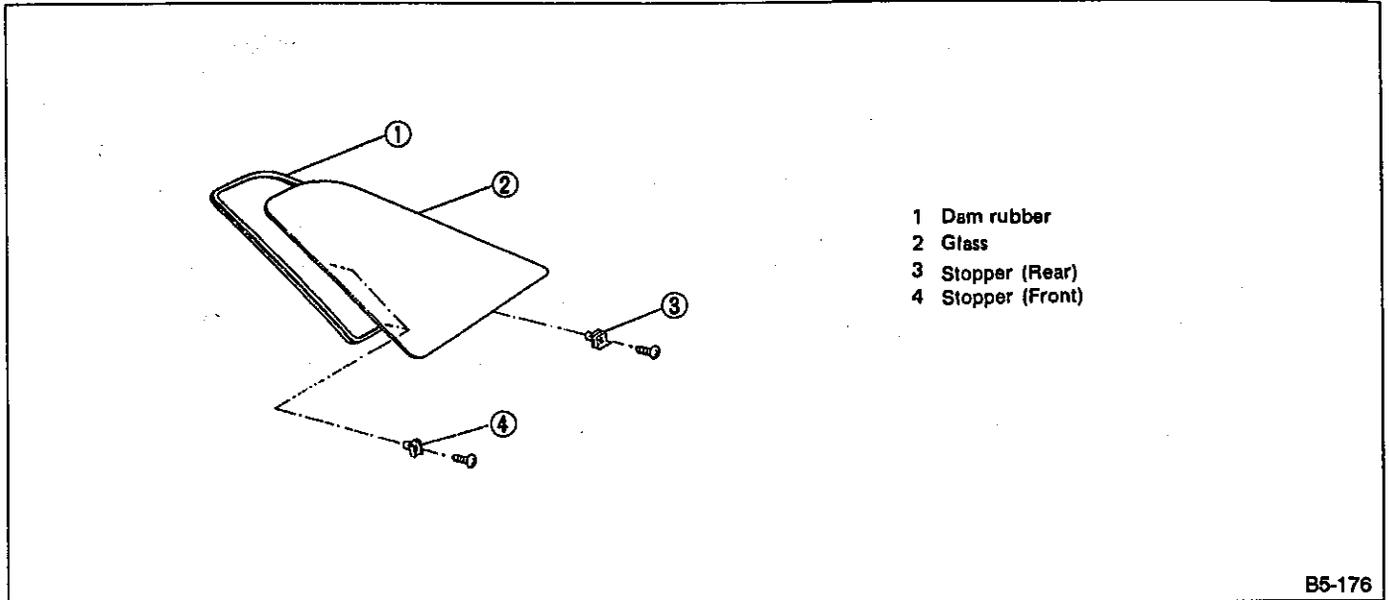


Fig. 21

4. REAR QUARTER GLASS [WAGON]

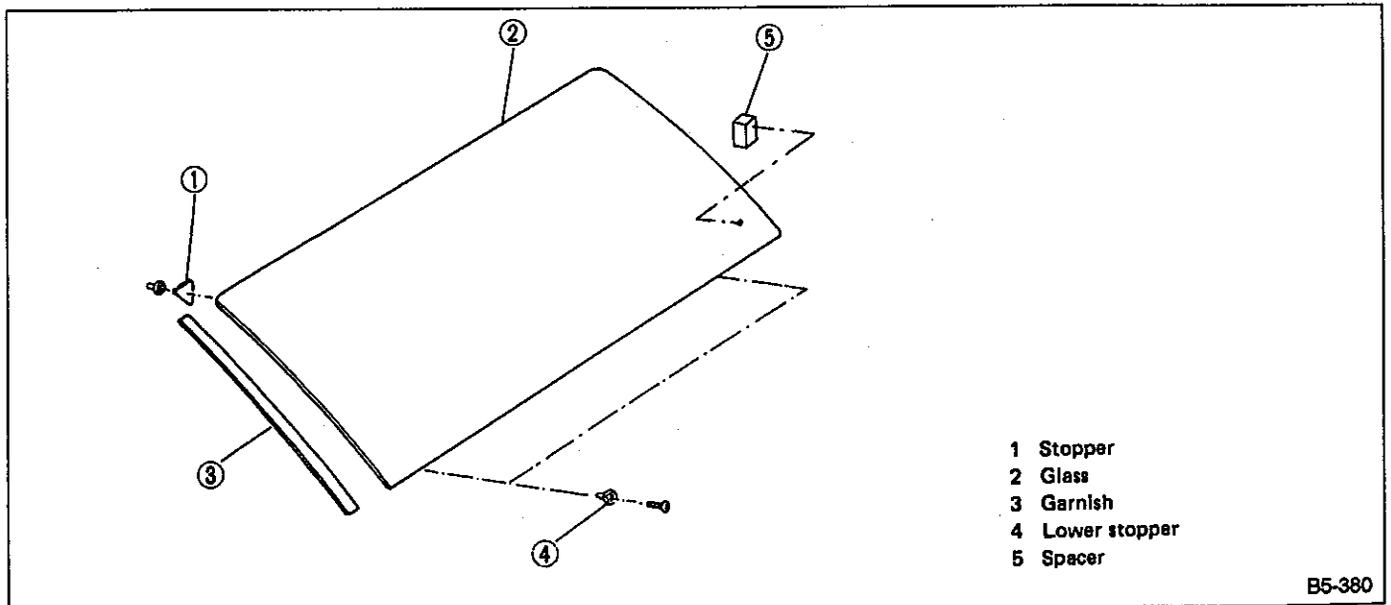


Fig. 22

# 9. Weatherstrip

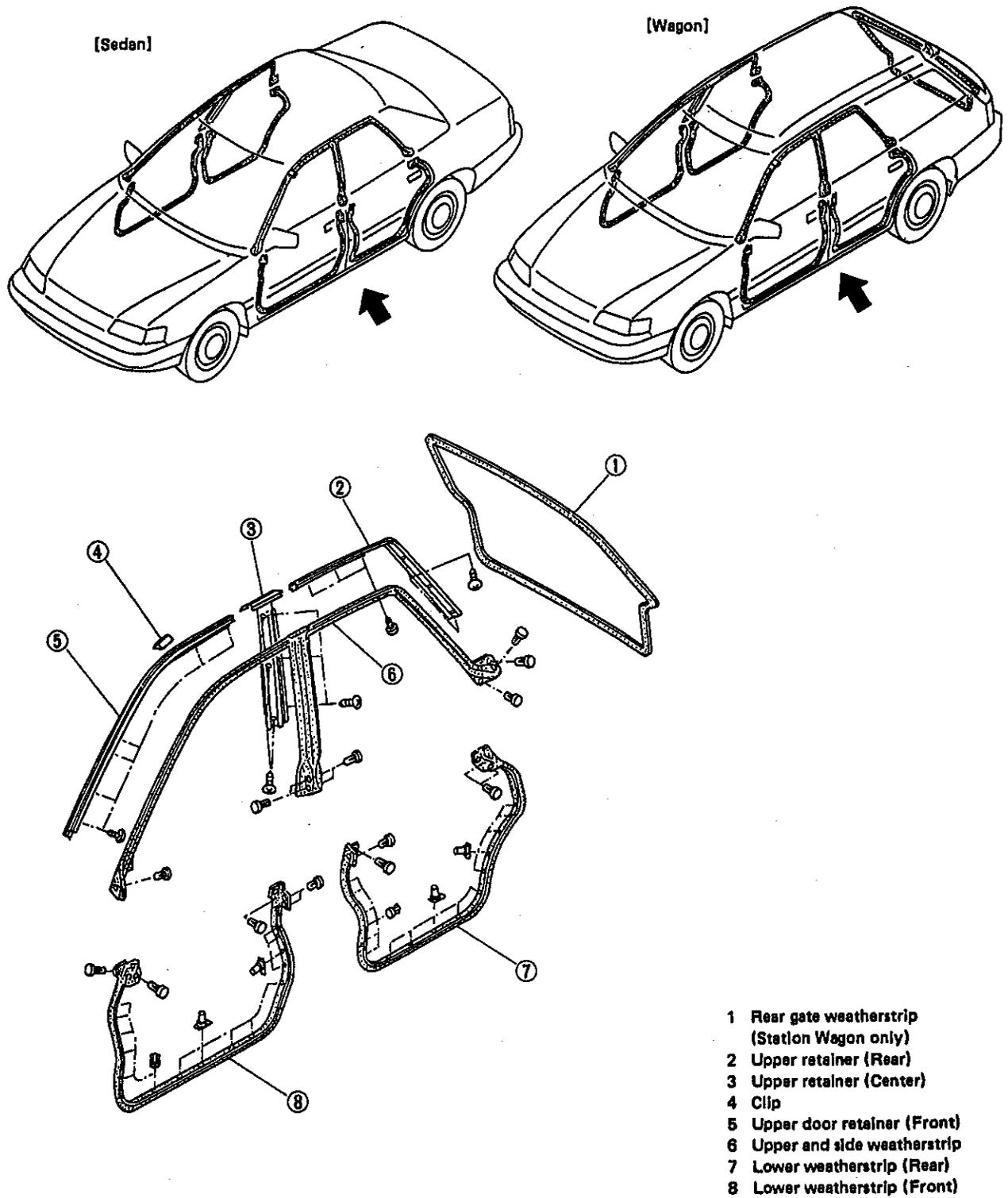


Fig. 23

B5-361

### 10. Garnish

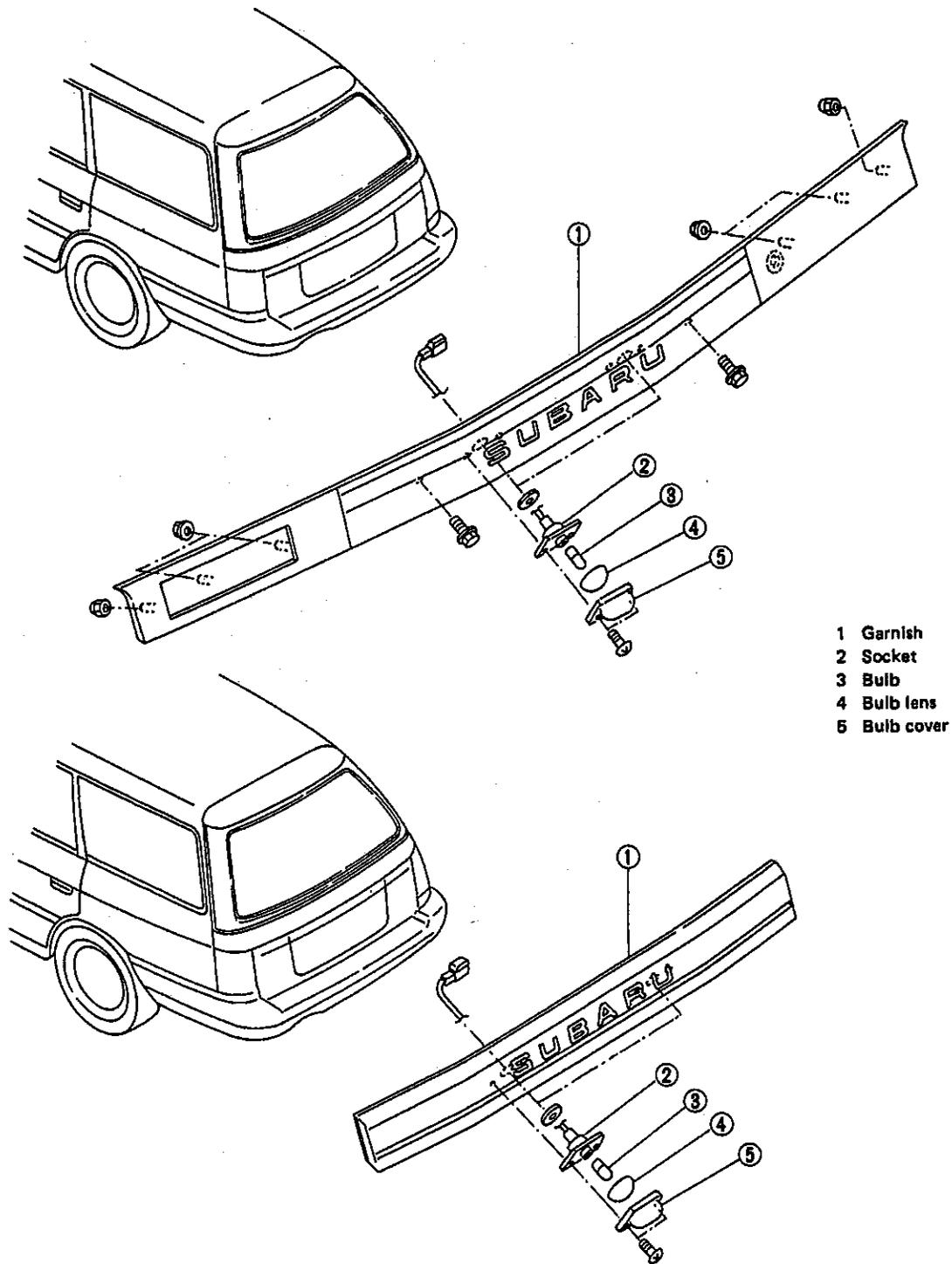
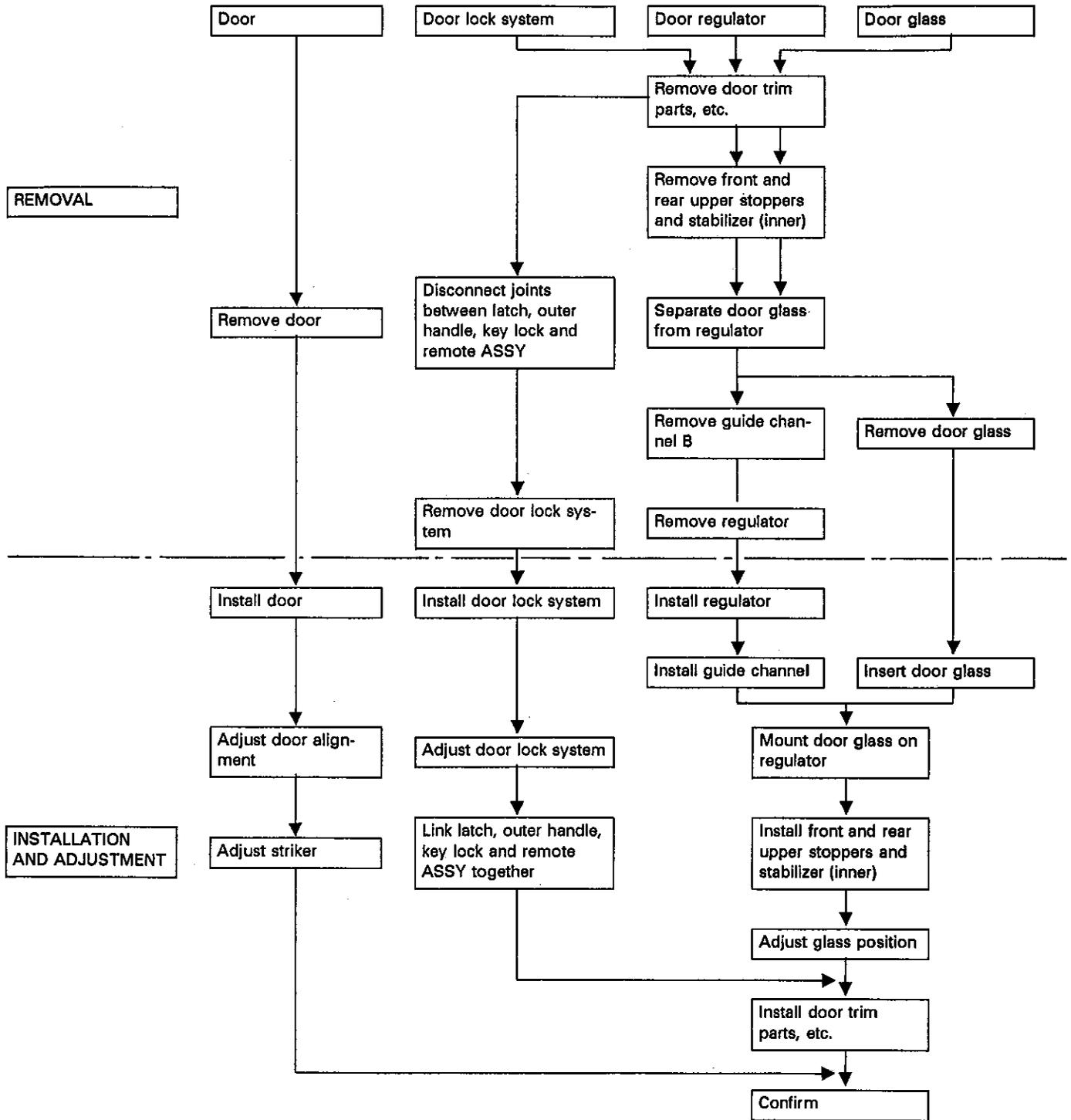


Fig. 24

# W SERVICE PROCEDURE

## 1. Procedure Chart of Removing and Installing Door and Related Parts



This flowchart shows the main procedures for removing and installing the door and its related parts. For details, refer to text.

## 2. Door and Hinge

The method described below involves removing and installing only the front door itself. There is another method of removal and installation in which the front fender is first removed.

The hinges may be removed and installed with the front fender removed. But the method of removal and installation is described below and should be performed after removing the door itself.

### A: REMOVAL

- 1) Place a cloth or a wood block under door to prevent damage, and support it with a jack.
- 2) Remove checker pin by driving it upward. Be careful not to damage door and body.

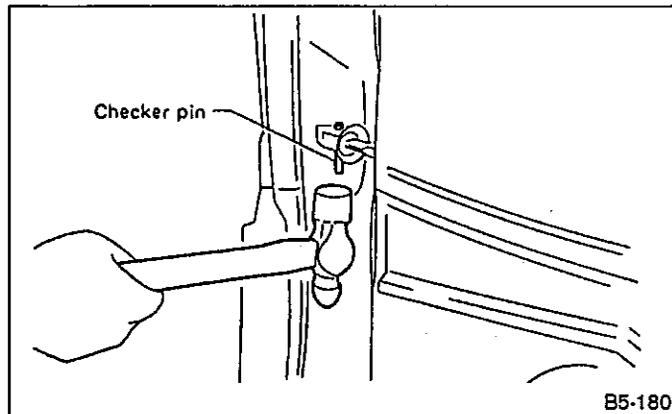


Fig. 25

- 3) Remove bolts (M8) securing upper and lower hinges to door, and remove door from hinges.
- 4) Remove hinges by loosening hinges mounting bolt (M8) off of body.
  - a. Work carefully to avoid damaging door.
  - b. If equipped with power window regulator, disconnect harness first.

### B: INSTALLATION

- 1) Fasten hinges to body with bolts kept after removal.
- 2) Install door itself to hinges.
- 3) Install checker pin.

Apply grease to moving parts of door hinges.

### C: ADJUSTMENT

- 1) Using DOOR HINGE WRENCH (925610000), loosen bolts securing upper and lower hinges to body, and adjust fore-and-aft and vertical alignment of door.

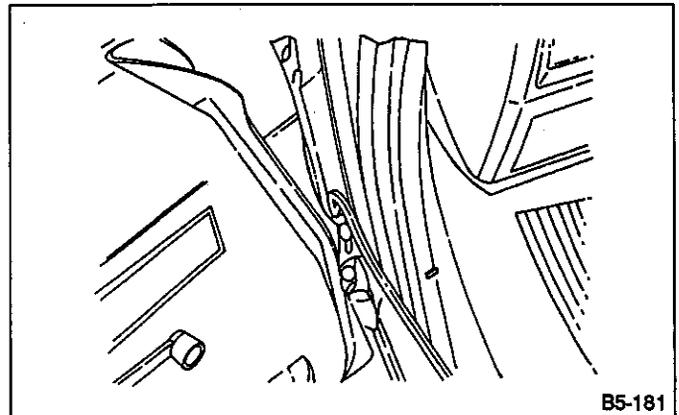


Fig. 26

- 2) Loosen screw (which is tightened to specified torque) one complete rotation, and adjust opening/closing direction of door using a hammer covered with a cloth. Be careful not to damage striker.

Hinge tightening torque (body side):  
25 — 34 N·m (2.5 — 3.5 kg-m, 18 — 25 ft-lb)

Hinge tightening torque (door side):  
20 — 29 N·m (2.0 — 3.0 kg-m, 14 — 22 ft-lb)

Striker tightening torque:  
10 — 18 N·m (1.0 — 1.8 kg-m, 7 — 13 ft-lb)

## 3. Trim Panel

### A: REMOVAL

- 1) Remove the screws.
 

In upper-grade vehicles, when removing blind cap covering hole in armrest, be careful not to damage cap.
- 2) First remove retainer spring and then regulator handle. Use a wire bent at one end, as shown below, for easier removal of retainer spring.

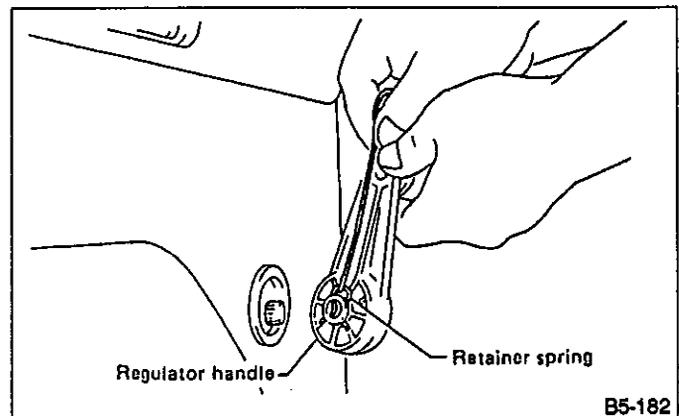


Fig. 27

- 3) Remove remote handle cover.
- 4) Disengage the square clip, then the other clips. Then remove trim panel. Be careful not to break clip by applying undue force.

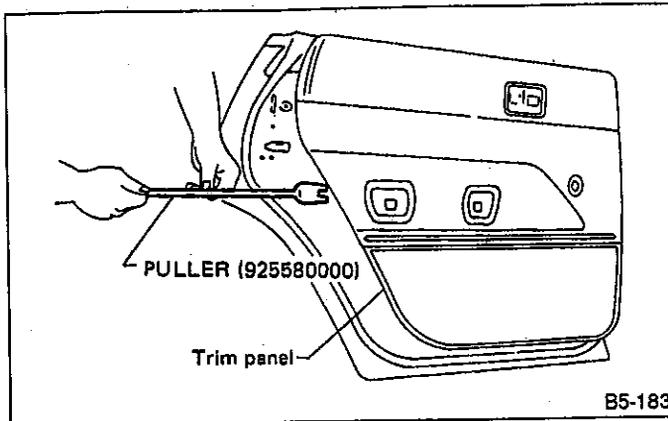


Fig. 28

**B: INSTALLATION**

Installation is in the reverse order of removal.

**4. Sealing Cover**

**A: REMOVAL**

- 1) In vehicles equipped with door speaker, loosen speaker mounting screws, disconnect harness, and remove speaker.
- 2) Remove sealer with a spatula.

**Be careful because cover may break if sealer is removed forcefully.**

**B: INSTALLATION**

- 1) Confirm that sealer is properly applied without breaks. Then install sealing cover.
- 2) When repairing or replacing sealing cover, use "Cemedine 5430L" as sealer. It may be overlaid on existing sealer.

**Any breaks in sealer can cause water leakage or entry of air and dust. Be sure sealer is applied in a continuous line.**

**5. Checker**

**A: REMOVAL**

- 1) Remove trim panel.
- 2) Remove sealing cover.
- 3) Apply a cloth to door and body to prevent damaging them, and remove checker pin by driving it upward.

**Be careful not to damage door and body.**

- 4) Completely close door glass.
- 5) Loosen two nuts securing checker, and take out checker through access hole in underside.

**B: INSTALLATION**

Installation should be made in the reverse order of removal.

**Tightening torque:**

**5.4 — 9.3 N·m (0.55 — 0.95 kg-m, 4.0 — 6.9 ft-lb)**

**6. Inner Remote Assembly**

**A: REMOVAL**

- 1) Remove trim panel.
- 2) Remove sealing cover.
- 3) Disconnect joints of two rods with latch.
- 4) Unlatch rod holder.

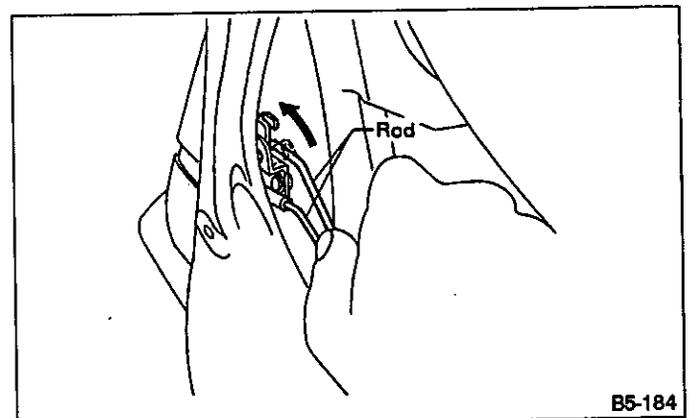


Fig. 29

- 5) Remove screws holding remote ASSY.

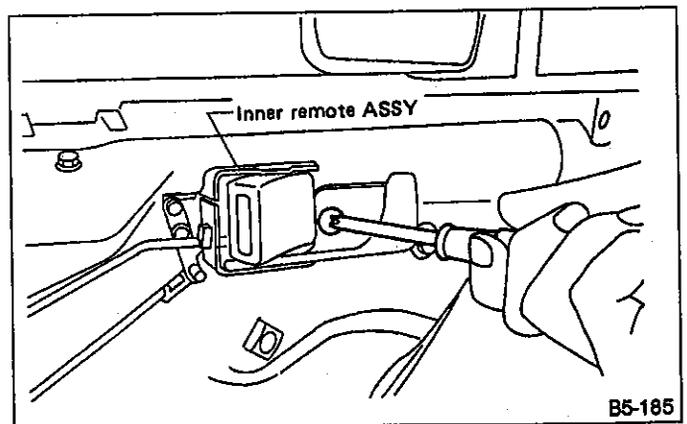


Fig. 30

**B: INSTALLATION**

- 1) After passing two rods through holder, attach remote ASSY to inner panel.
  - 2) Latch rod holder.
  - 3) Attach upper rod to door latch rod holder.
  - 4) Attach lower rod to door latch rod holder.
- If rear door is equipped with child safety lock, check that child lock lever moves without dragging.

**Tightening torque (Screw):**

2.0 — 2.9 N·m (0.20 — 0.30 kg-m, 1.4 — 2.2 ft-lb)

**7. Door Latch****A: REMOVAL**

- 1) Remove trim panel.
- 2) Remove sealing cover.
- 3) Completely close door glass.
- 4) Remove remote ASSY from latch.
- 5) Turn rod holder to disconnect joint between key lock ASSY and rod.
- 6) Turn rod holder to disconnect joint between outer handle and rod.
- 7) Loosen screws securing latch, and remove latch through service hole in bottom.

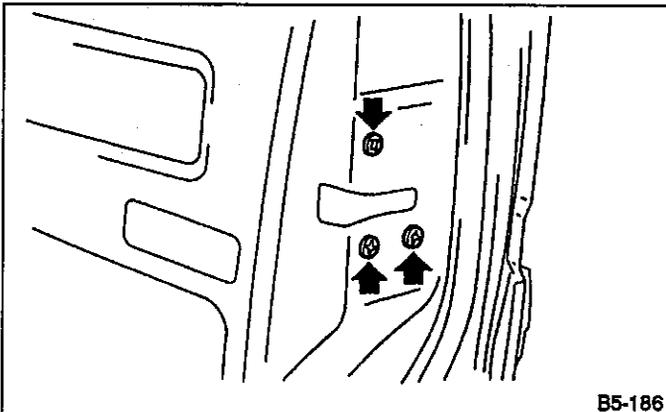


Fig. 31

**B: INSPECTION**

- 1) Check operation of each part.
  - 2) Check each sliding part for proper lubrication.
- After installation, be sure lock mechanism operates normally.

**Tightening torque(screw):**

4.4 — 7.4 N·m (0.45 — 0.75 kg-m, 3.3 — 5.4 ft-lb)

**8. Outer Handle****A: REMOVAL**

- 1) Remove trim panel.
- 2) Remove sealing cover.
- 3) Remove door glass. Then detach outer handle and key lock from door latch rod.
- 4) Loosen nut securing outer handle.
- 5) Remove bracket from inside.
- 6) Remove outer handle from outside.

Be careful not to damage door.

**9. Key Lock****A: REMOVAL**

- 1) Remove trim panel.
- 2) Remove sealing cover.
- 3) Completely close door glass.
- 4) Remove outer handle.
- 5) Loosen spring securing key lock.
- 6) Remove key lock from outer handle.

**B: INSTALLATION**

Installation is in the reverse order of removal.

Install so that key slot in key lock comes to center of hole in outer handle.

**10. Gusset Assembly****A: REMOVAL**

Be sure window is all the way down.

- 1) Remove trim panel.
- 2) Remove door rearview mirror.
- 3) Remove outer weatherstrip.
- 4) Remove sealing cover.

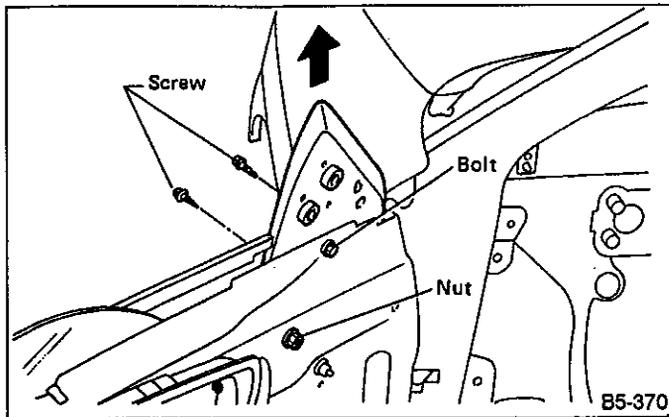


Fig. 32

Be careful not to drop nuts on the "IN" side (See Figure).

- 5) Remove screws and nuts ("IN" side) which secure gusset.
- 6) Remove screws ("OUT" side) which secure gusset.
- 7) Lift out gusset.

### B: INSTALLATION

#### Tightening torque:

##### Screw (Outside)

5.4 — 9.3 N·m (0.55 — 0.95 kg-m, 4.0 — 6.9 ft-lb)

##### Bolt (Inside)

10 — 16 N·m (1.0 — 1.6 kg-m, 7 — 12 ft-lb)

##### Nut

10 — 18 N·m (1.0 — 1.8 kg-m, 7 — 13 ft-lb)

To install, reverse the above removal procedures.

## 11. Door Sash

Instructions for removing and installing the rear door sash are omitted, because they are done in the same manner as the front door sash.

### A: REMOVAL

- 1) Remove trim panel.
- 2) Remove sealing cover.
- 3) Remove glass.
- 4) Remove window regulator.

For both door, removal of the window regulator is not mandatory.

- 5) Remove three nuts from front sash, and then three nuts from rear sash.

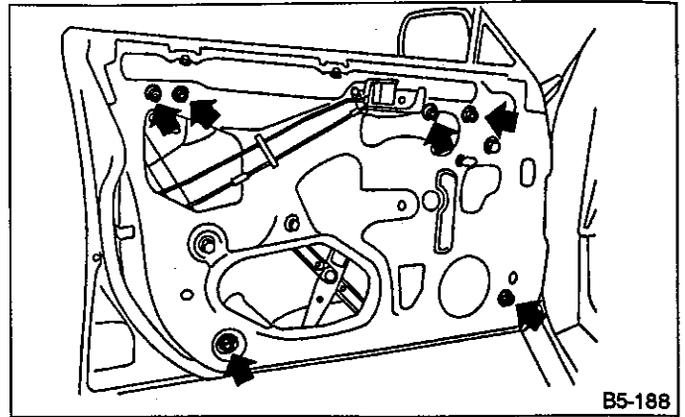


Fig. 33

- 6) Pull door up and out.

### B: INSTALLATION

Installation is in the reverse order of removal.

#### Tightening torque:

##### Sash mounting nut

10 — 18 N·m (1.0 — 1.8 kg-m, 7 — 13 ft-lb)

## 12. Rear Gate

- a. Be careful not to scratch coated surfaces of car body and window glass during removal. Place a cloth over the affected area.
- b. Be careful not to damage trim panels.
- c. Use an assistant when handling heavy parts.
- d. Be careful not to damage or lose small parts.

### A: REMOVAL

- 1) Remove clips from trim panel using CLIP PULLER (925580000) and detach trim panel.

Be careful not to damage clips or their holes.

- 2) Disconnect connector from rear gate defogger terminal.

Do not pull lead wire, but unlock connector and then disconnect it.

- 3) Disconnect wiper connector and rear washer hose.
- 4) Unlock connector and disconnect from rear gate door switch.

Do not pull lead wire.

- 5) Disconnect license light connector and high-mount stop lamp connector.
- 6) Disconnect auto-door lock actuator connector.
- 7) If disconnected harness is re-used, tie connector with a string and place on the upper side of rear gate for ready use.

Do not forcefully pull cords, lead wires, etc. since damage may result; carefully extract them in a wavy motion while holding connectors.

## 8) Rear wiper

- (1) Remove rear wiper arm.
- (2) Remove cap and special nut.
- (3) Detach trim panel.
- (4) Remove bolt from rear wiper and detach wiper.

## 9) Gas stay

- (1) Completely open rear gate.
- (2) Remove bolts which hold gas stay to rear gate.

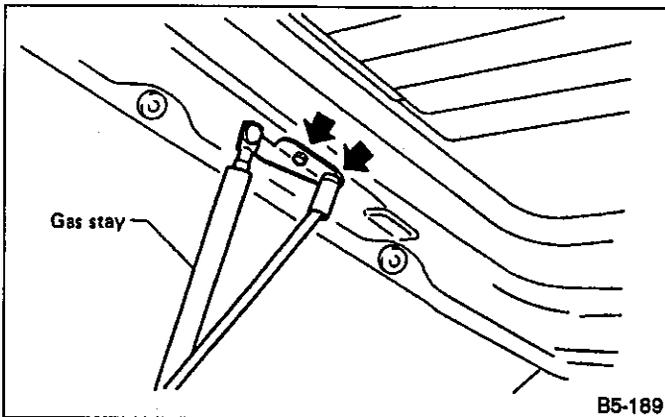


Fig. 34

- (3) Remove stud which hold gas stay to car body.

- a. Remove bolts, one at a time.
- b. Be careful because rear gate drops while removing bolts. Have an assistant support it while removing bolts.
- c. Be sure to place a folded cloth between rear gate and body to prevent scratches.

• General precautions in handling rear gate gas stay.

- a. Do not attempt to disassemble gas stay because its cylinder is filled with gas.
- b. Before discarding gas stay, place it at a slight angle with the cylinder body side facing up and drill a 2 to 3 mm (0.08 to 0.12 in) dia. hole to completely discharge the content. (Gas is odorless, colorless and harmless; however, metal powder may come out of the hole.)

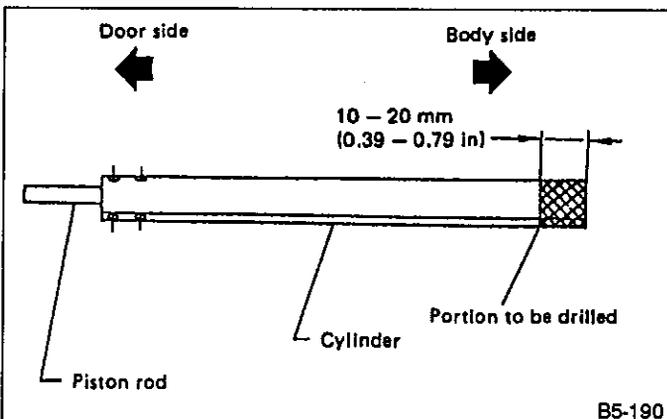


Fig. 35

c. It is good practice to place a vinyl cover over it before drilling the hole because oil may spurt out. Be careful to prevent vinyl cover from becoming entangled on the drill.

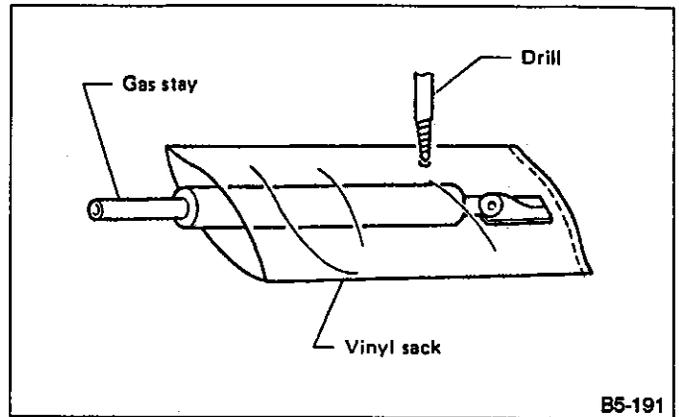


Fig. 36

d. Be careful not to scratch the exposed section of piston rod or allow oil or paint to come in contact with it.

e. Do not attempt to rotate the extended piston rod.

## 10) Hinge

- (1) Remove trim side rail, and remove roof trim clips as far as the center pillar.
- (2) Hang roof trim down (to prevent it from bending). Remove nuts which hold hinge with a ratchet wrench placed between roof trim car body, and detach hinge.

Place a folded cloth between car body and rear gate to prevent the coated surfaces of car body and rear gate from being scratched.

## 11) Latch

- (1) Remove trim panel.
- (2) Disconnect rear gate switch connector.
- (3) Disengage rod from holder (= key cylinder).
- (4) Disengage adjustment nut from holder (= outer handle).
- (5) Remove bolts from auto-door lock actuator.
- (6) Remove bolts from latch, and detach latch.

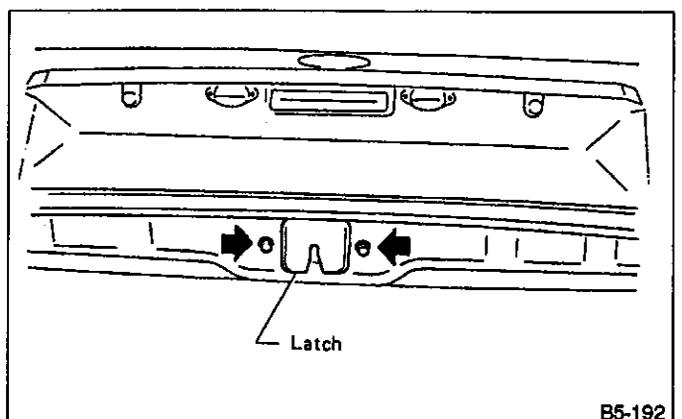


Fig. 37

- 12) Rear gate outer handle
- (1) Remove trim panel.
  - (2) Disengage latch from outer handle.
  - (3) Remove two nuts used to hold outer handle to the inside of rear gate, and detach outer handle.

**Be careful not to damage packing when removing outer handle.**

- 13) Key cylinder
- (1) Remove trim panel.
  - (2) Disengage key cylinder from latch.
  - (3) Remove retaining spring from key cylinder, and detach key cylinder from outside.
- 14) Auto-door lock actuator
- (1) Remove trim panel.
  - (2) Remove latch.
  - (3) Disconnect joint.
  - (4) Remove actuator.
- 15) Buffer
- (1) Remove weatherstrip.
  - (2) Remove two bolts from buffer and detach buffer.

**Do not remove bolts together with weatherstrip. Doing so may scratch weatherstrip with tool, resulting in water leakage.**

- 16) Weatherstrip
- (1) Remove grommet edge.
  - (2) Remove six screws from rear edge.
  - (3) Remove weatherstrip.
- a. Always remove by holding the garnish section.  
b. Remove weatherstrip parallel to mounting flange.
- 17) Stopper
- Remove stopper while turning it with screwdriver.

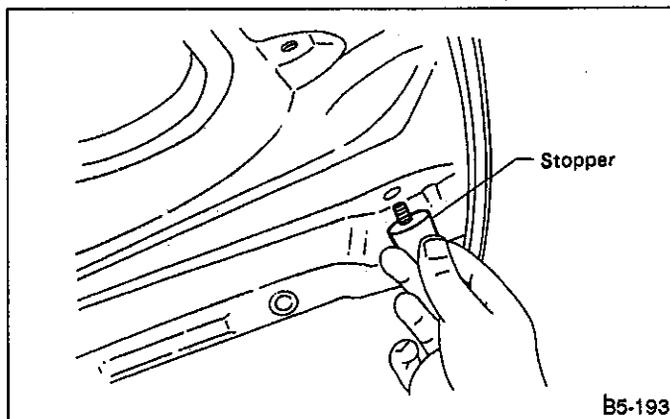


Fig. 38

- 18) Striker
- (1) Remove grommet edge.
  - (2) Remove two bolts from striker and detach striker.

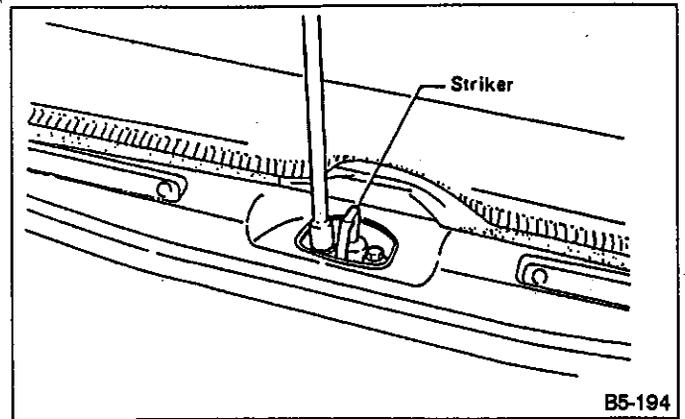


Fig. 39

## B: INSTALLATION

Install in reverse order of removal. Some special items will be described below.

### 1. WEATHERSTRIP

- 1) Place weatherstrip so that its joints meet at lower center of vehicle body, and install by inserting flanged portion from below, as shown in section A-A in figure below.
  - 2) Tap along entire length with a rubber hammer to firmly insert body flange into weatherstrip.
- a. Be careful not to install in wrong direction.  
b. Install weatherstrip carefully and firmly.

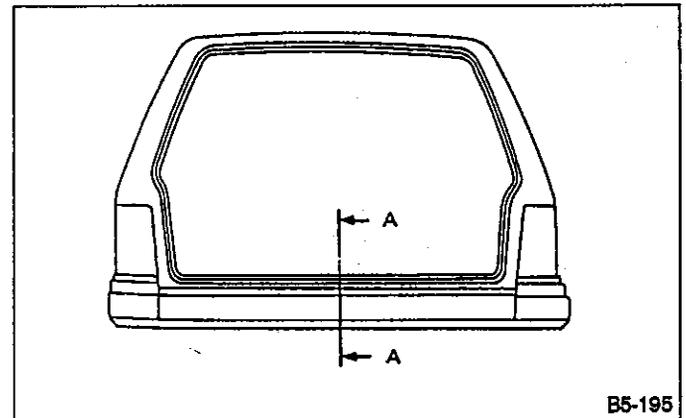


Fig. 40

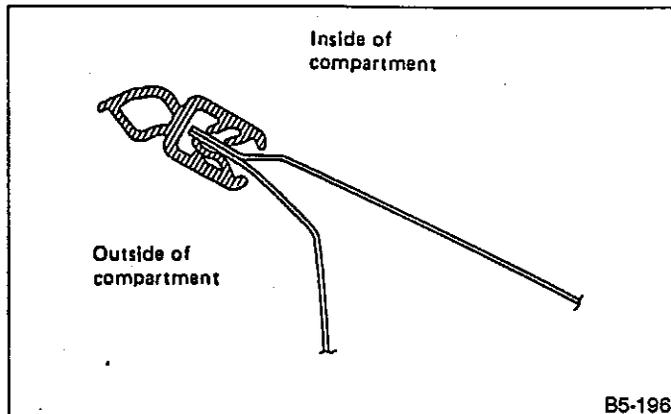


Fig. 41

## 2. OUTER HANDLE (REAR GATE)

### Tightening torque:

Outer handle mounting nut  
 5.4 — 9.3 N·m (0.55 — 0.95 kg-m, 4.0 — 6.9 ft-lb)

- a. When installing outer handle, replace packing attached to garnish if damaged.
- b. Join outer handle to latch without pushing down on rod.

## 3. LATCH

### Tightening torque:

Latch mounting bolt  
 20 — 29 N·m (2.0 — 3.0 kg-m, 14 — 22 ft-lb)

Firmly join latch with key cylinder, and outer handle.

## 4. HINGE

### Tightening torque:

#### Hinge mounting bolt & nut

##### Door side

20 — 29 N·m (2.0 — 3.0 kg-m, 14 — 22 ft-lb)

##### Body side

20 — 29 N·m (2.0 — 3.0 kg-m, 14 — 22 ft-lb)

- a. Be sure to add sealer to hinge.
- b. When installing rear gate, be careful not to damage coating on body and rear gate.

## 5. GAS STAY

### Tightening torque:

#### Gas stay mounting bolt

5.4 — 9.3 N·m (0.55 — 0.95 kg-m, 4.0 — 6.9 ft-lb)

#### Stud bolt

10 — 18 N·m (1.0 — 1.8 kg-m, 7 — 13 ft-lb)

- a. Replace packing attached to stay if damaged.
- b. Be careful not to break threads on stay mounting nuts with bolt.

## 6. STRIKER

### Tightening torque:

#### Striker mounting bolt

20 — 29 N·m (2.0 — 3.0 kg-m, 14 — 22 ft-lb)

## 7. BUFFER

### Tightening torque:

#### Buffer mounting bolt

10 — 16 N·m (1.0 — 1.6 kg-m, 7 — 12 ft-lb)

With rear gate closed, check to see that buffer slider has moved by looking through the gap between the rear gate and rear combination light. If slider does not move far enough, adjust slide stroke with spacer(s). One spacer can change slide stroke by about 3 mm (0.12 in).

## 8. AUTO DOOR LOCK ACTUATOR

### Tightening torque:

#### Actuator mounting bolt

5.4 — 9.3 N·m (0.55 — 0.95 kg-m, 4.0 — 6.9 ft-lb)

**C: ADJUSTMENT****1. ADJUSTING REAR GATE ALIGNMENT**

Remove gas stay, striker and buffer, and loosen bolts on hinges securing rear gate to body. Then, adjust clearances around rear gate to dimensions in figure below.

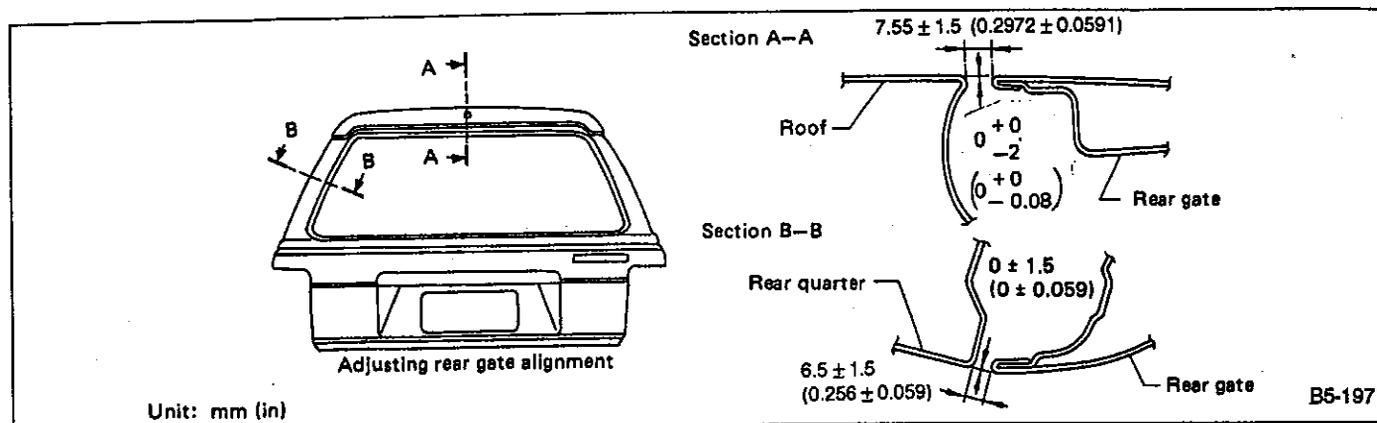


Fig. 42

**13. Garnish****A: REMOVAL**

- 1) Disconnect license plate light connector.
- 2) Remove rear gate handle.

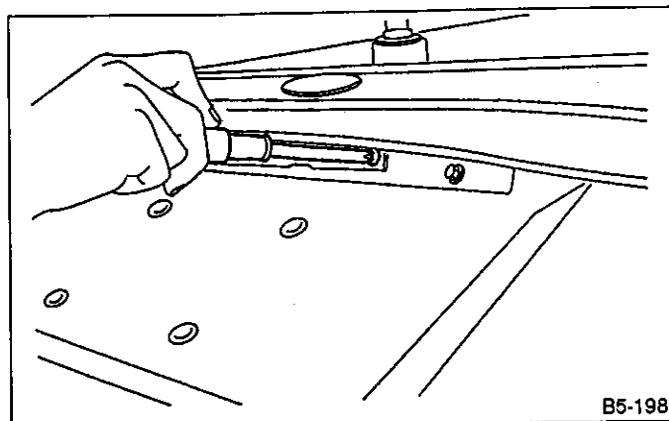


Fig. 43

- 3) Remove bolt to install garnish, and remove garnish. (large garnish equipped model)
- 4) While holding clips with pliers, remove garnish. (small garnish)

**B: INSTALLATION**

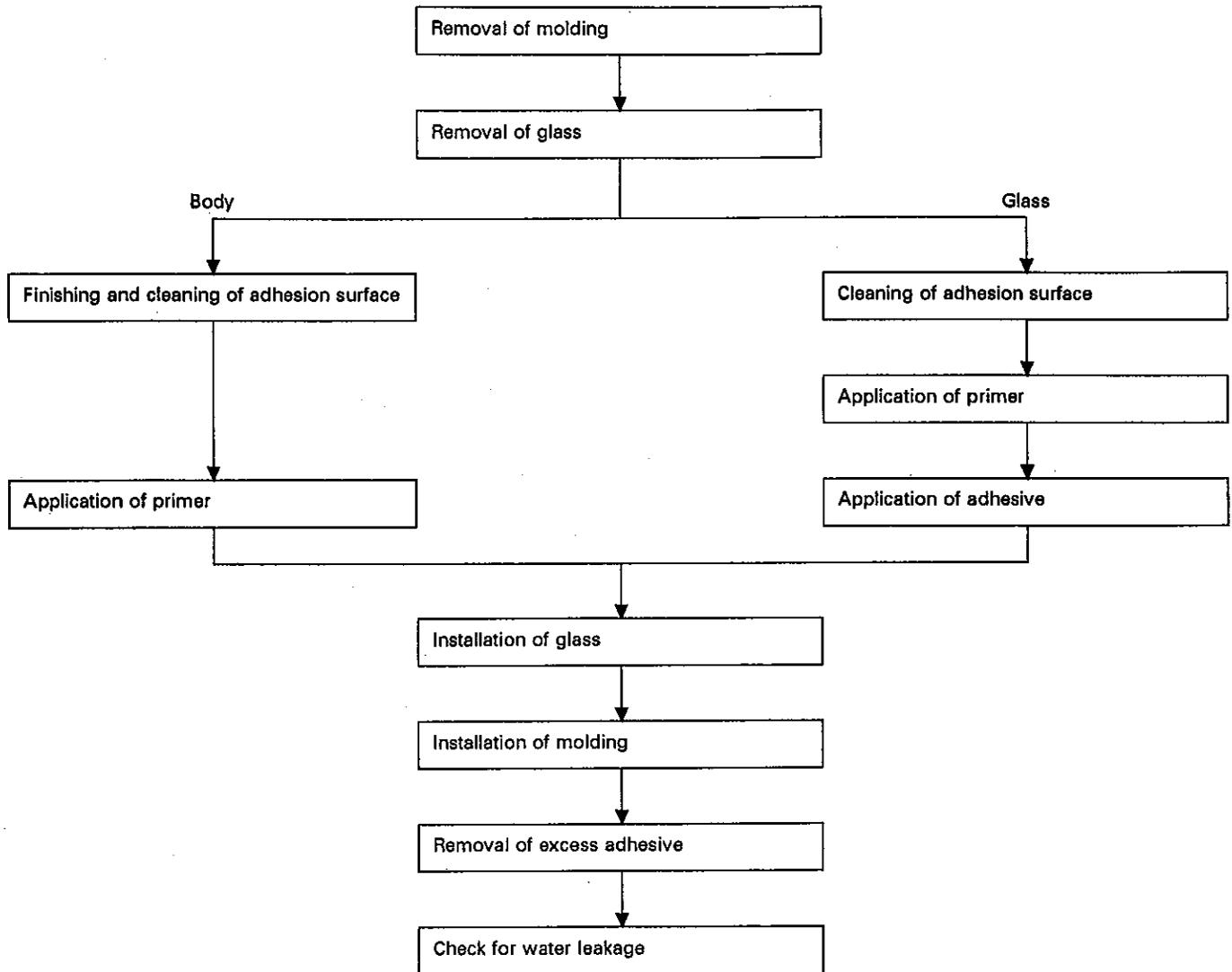
- 1) Install garnish on rear gate, and tighten bolt to install garnish. (large garnish equipped model)
- 2) After attaching clip on license cover, install license cover on rear gate. (small garnish equipped model)

**Always use new clips.**

- 3) Install rear gate handle.
- 4) Connect license plate light connector.

## 14. Removal and Installation of Adhesion Type Window Glass

### 1. PROCEDURES OF REMOVAL AND INSTALLATION



## 2. MATERIALS REQUIRED FOR APPLICATION

Description	Remarks
Repair adhesive set <ul style="list-style-type: none"> <li>• Cartridge of single-liquid urethane adhesive</li> <li>• Primer for glass and body</li> </ul>	Sunstar No. 580 or Essex Chemical Corp's Urethane E Sunstar No. 435-580
Windshield knife or piano wire	For cutting windshield
Sealant gun	For applying adhesive
Suction cups	For holding glass
Putty knife	For finishing adhesion surface and cutting spacer
Sponge	For applying primer
Gauze or cloth	For cleaning
Alcohol or white gasoline	For cleaning adhesion surface
Tape	For preventing damage to painted surface

## 15. Windshield

### A: REMOVAL

#### 1. USING WINDSHIELD KNIFE:

The following procedure for the front windshield can also be applied to other window glass.

- 1) Remove wiper arm.
- 2) Remove front fender rubber seal, cowl panel and front pillar cover.
- 3) Remove molding.
- 4) Remove glass.
  - (1) Put protective tape on body to prevent damage.
  - (2) Apply soapy water to the surface of the adhesive agent so the knife blade slides smoothly.
  - (3) Cut off excess adhesive agent.
  - (4) Put windshield knife into layer of adhesive.

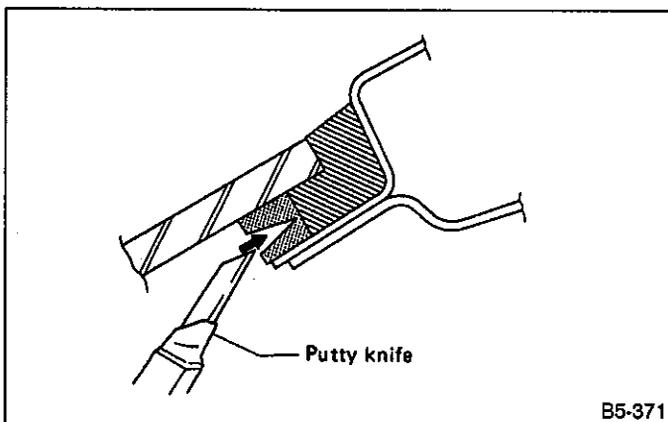


Fig. 44

- (5) Hold part "a" in one hand, and cut by pulling part "b" parallel to glass while holding knife edge at right angle to glass.

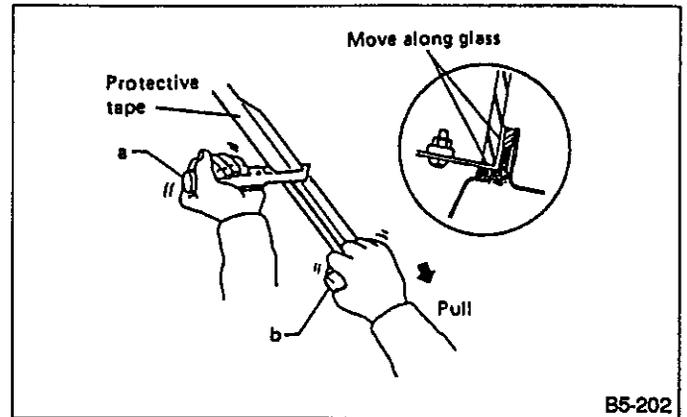


Fig. 45

- a. Keep knife edge along glass surface and end face.
- b. When first putting knife into layer of adhesive, select point with wide gap between body and glass.

#### 2. USING PIANO WIRE:

- 1) Remove wiper arm.
- 2) Remove front fender rubber seal, cowl panel and front pillar cover. Refer to "USING WINDSHIELD KNIFE".
- 3) Remove glass.
  - (1) Put protective tape on body to prevent damage.
  - (2) Using drill or putty knife, make through-hole (one place) in adhesive agent.
  - (3) Pass piano wire through the hole from inside the compartment, and connect both ends of wire securely to wooden blocks.
  - (4) Cut adhesive layer with the wire by pulling it back and forth.

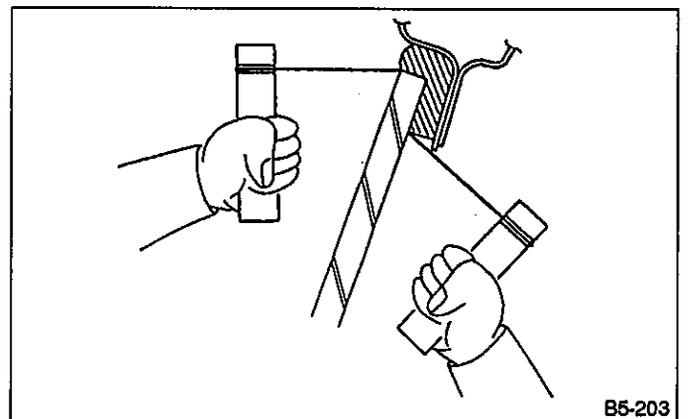


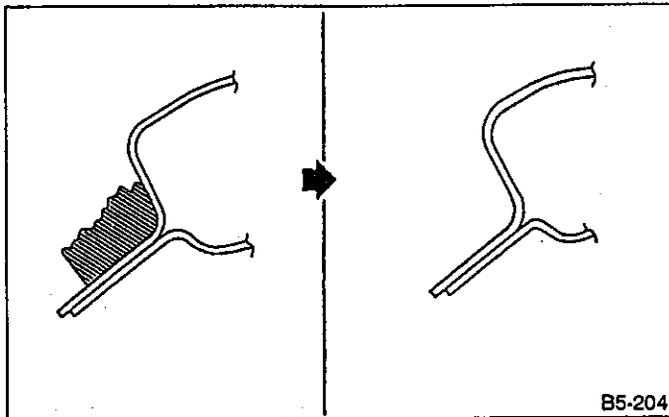
Fig. 46

When making through-hole into adhesive layer and cutting the adhesive, be careful not to damage interior and exterior parts.

### B: INSTALLATION

- 1) Removing gum rubber and spacer stopper.
  - (1) After cutting layer of adhesive, remove gum rubber remaining on body.

- (2) Remove remaining spacer stopper. At this time, also remove two-sided tape from spacer stopper completely.
- 2) Finishing adhesion surface on body side.  
Using a cutter knife, etc., cut layer of adhesive sticking to body.

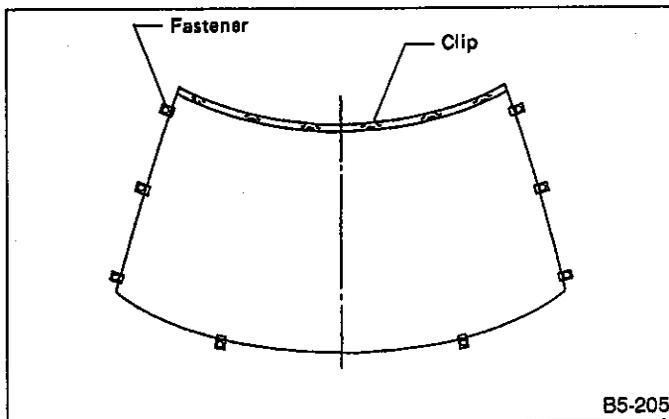


B5-204

Fig. 47

Take extra care not to cause damage to body paint.

- 3) Cleaning body surface.
- (1) Thoroughly remove chips, dirt and dust from body surface.
  - (2) Clean body wall surface and upper surface of layer of adhesive with a solvent such as alcohol or white gasoline.
- 4) Pasting stopper and fastener.  
Put new spacer stopper and fastener at place from which they were removed.



B5-205

Fig. 48

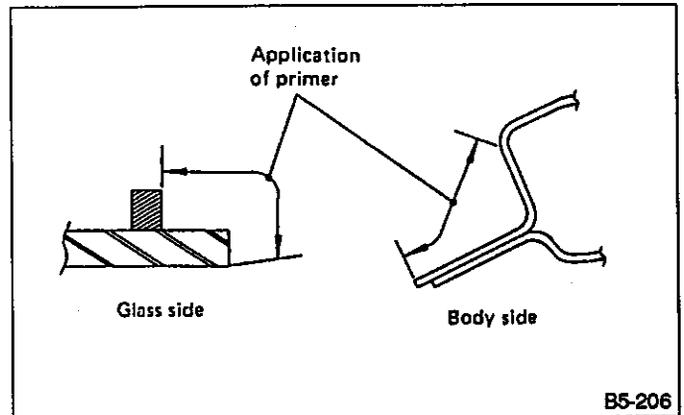
Remove tack paper from back of spacer stopper and stick it to body positively.

- 5) Positioning glass.
- (1) Mount glass on body.
  - (2) Adjust position of glass so that gap between body and glass is uniform on all sides.
  - (3) Put matching mark on body and glass in several places.
- 6) Cleaning glass.
- (1) Dismount glass from body.

- (2) Clean surface of glass to be adhered with alcohol or white gasoline.

7) Application of primer.

- (1) Using a sponge, apply primer to part of glass to be adhered.
- (2) Apply primer to part of body to be adhered.



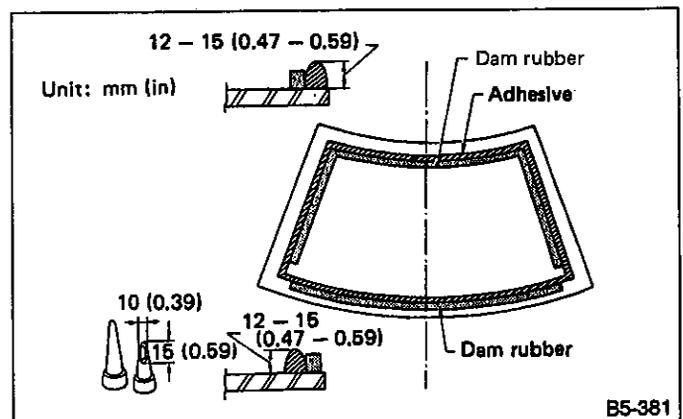
B5-206

Fig. 49

- a. Primer is hard to wipe off of body paint, instrument panel, inner trim, etc. So put masking around these areas for protection.
- b. After application, let 1st primer dry spontaneously for about 10 minutes.
- c. Do not touch primer-coated surface under any circumstances.

8) Application of adhesive.

- (1) Cut nozzle tip of cartridge as shown in figure below.
- (2) Open cartridge and put it into a gun with nozzle attached.
- (3) Apply adhesive uniformly to all sides of adhesion surface while operating gun along glass end face.



B5-381

Fig. 50

On lower side of window glass, apply adhesive to inside of dam rubber.

9) Installation of glass.

- (1) Hold glass with rubber suction cups.
- (2) Mount glass on body with matching marks aligned.
- (3) Stick them fast by pressing all sides lightly.

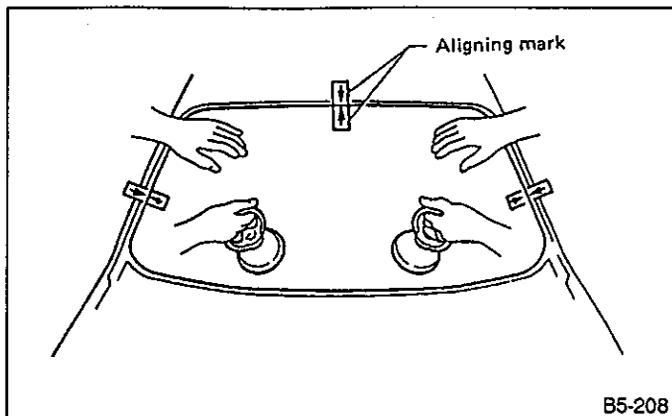


Fig. 51

## 10) Installation of molding.

- (1) Remove adhesive overflowing from outside of glass until it becomes level with outer height of glass. Then, add adhesive to portions that need it.

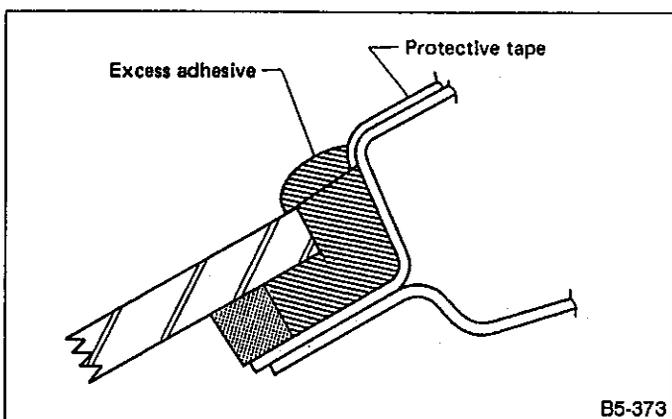


Fig. 52

## (2) Press-fit moldings.

- (3) Remove overflowing adhesive with a spatula, and clean with alcohol or white gasoline.

**b. Do not open and close door after moldings have been installed. When opening and closing door for unavoidable reason, lower door glass and gently move door.**

## 11) Water leakage test.

Test for water leakage about one hour after installation.

## a. Move vehicle very gently.

**b. Do not squirt strong hose stream on vehicle.**

## 12) Spontaneous drying.

After completing all operations, leave vehicle alone for 24 hours.

**When delivering vehicle to user, tell him that vehicle should not be subjected to heavy shocks for at least three days.**

## 13) Install wiper arm.

## 16. Rear Window Glass (Sedan)

## A: REMOVAL

- 1) Remove six-light cover.
- 2) Disconnect connector from rear defogger terminal.
- 3) Remove molding and glass in same manner as in windshield.

## B: INSTALLATION

- 1) Install molding and glass in same manner as in windshield.
- 2) Install six-light cover right after installing molding.
- 3) After installation, test for water leakage after about one hour, and leave vehicle alone for 24 hours.
- 4) Make rear defogger connections.

## 17. Rear Window Glass (Wagon)

## A: REMOVAL

- 1) Remove rear wiper.
- 2) Disconnect connector from rear defogger terminal.
- 3) Remove side molding.
- 4) Remove upper and lower molding in same manner as windshield.
- 5) Remove glass and trimming from inside cabin to outside.

**A locating pin is cemented to lower corners of glass on compartment side. Use a piano wire when cutting each pin.**

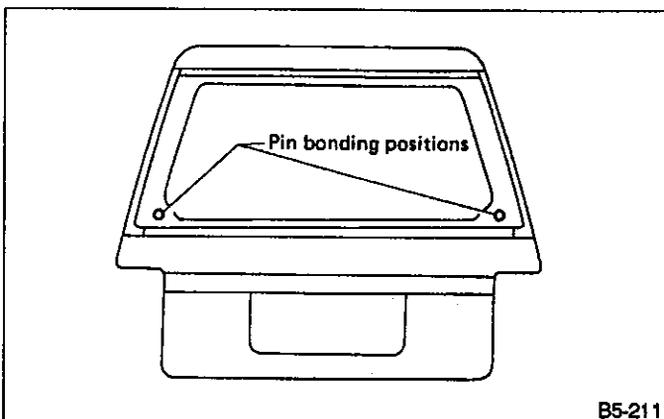


Fig. 53

**B: INSTALLATION**

- 1) Install trim.
- 2) Install upper and lower molding, and glass in same manner as windshield.

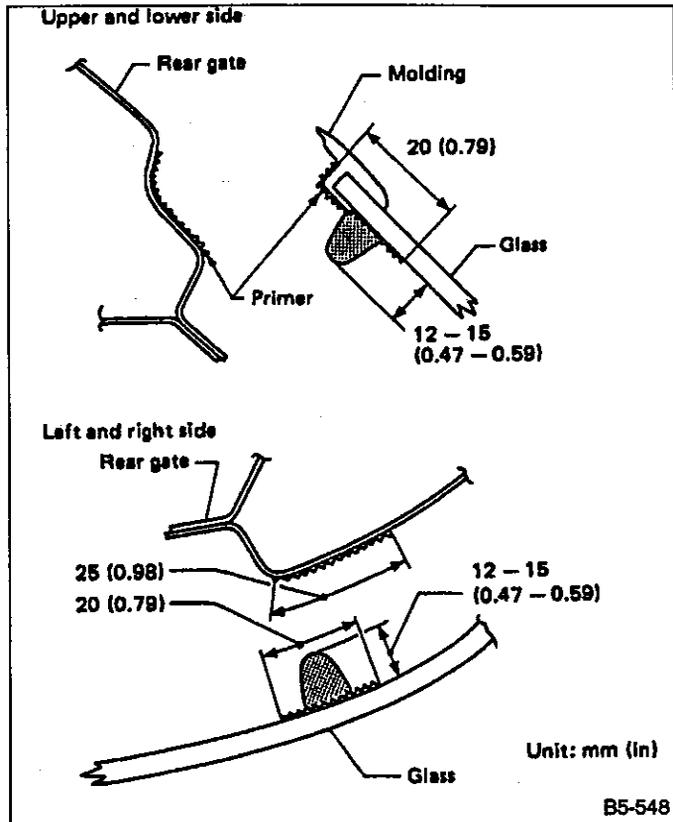


Fig. 54

- 3) Install side molding, and tighten bolts to secure it.  
**When molding is damaged, use a new one.**
- 4) About one hour after installation, test for water leakage. Leave vehicle for 24 hours before using it.
- 5) Make rear defogger connections.

**18. Rear Window Glass (Wagon-conventional type)****A: REMOVAL**

- 1) Remove rear wiper.

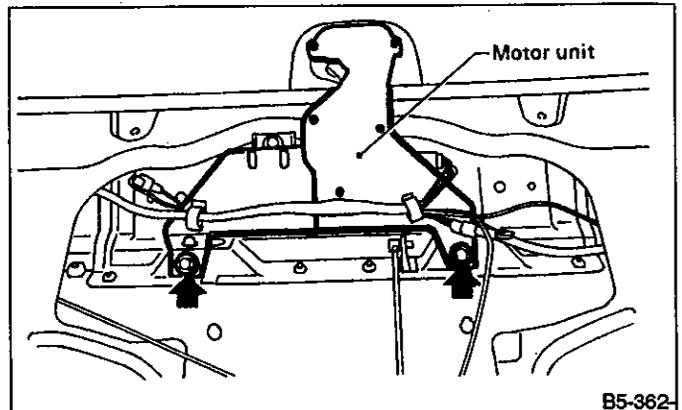


Fig. 55

- 2) Disconnect connector from rear defogger terminal.

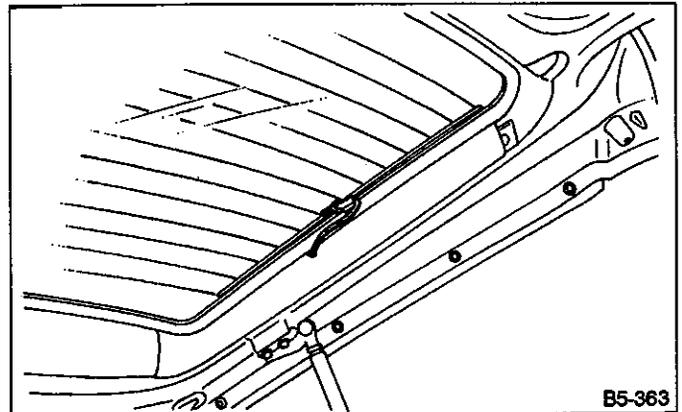


Fig. 56

- 3) Pry lip of indoor weatherstrip with a screwdriver or spatula and push to outside of body flange. (at top and upper half of both sides.)
- 4) Push glass, with weatherstrip, from inside to outside.

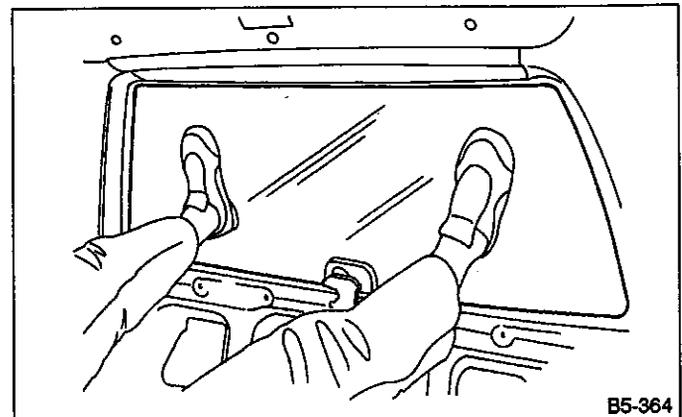


Fig. 57

Apply even pressure to glass at portions near weatherstrip.

5) If weatherstrip is not to be reused, it may be cut with a knife for removal of glass.

## B: INSTALLATION

- 1) Remove sealer from glass and weatherstrip with white gasoline.
- 2) Fit weatherstrip onto glass. Then, insert a cord into weatherstrip.

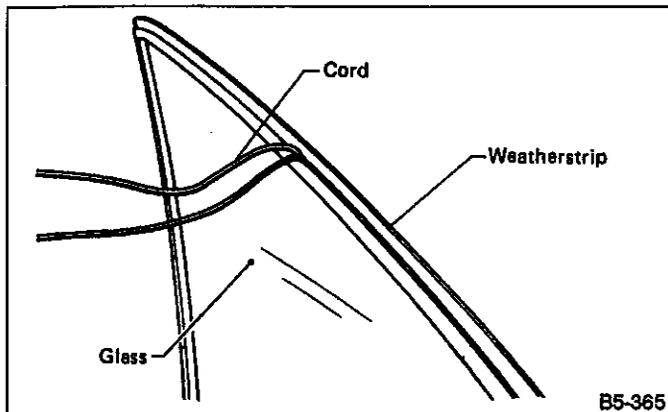


Fig. 58

- a. Overlap cord ends at bottom of glass.
- b. After cord has been attached to weatherstrip, apply white gasoline to entire periphery.
- 3) Apply white gasoline to entire periphery of weatherstrip lip.
- 4) Install glass in position from outside and put cord overlap inside body.

Glass must be so positioned that its right and left edges may be evenly overlapped with respect to window flange.

5) Pull cord ends from inside.

While pulling cord ends at such an angle that cord may run over body flange, tap glass by hand from outside to seat weatherstrip in position on body.

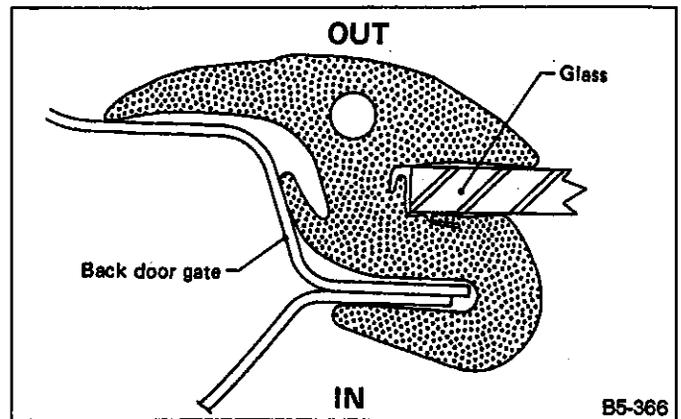


Fig. 59

- a. Work from center to both ends of glass.
- b. Used palm to tap glass.
- c. Weatherstrip must be correctly positioned with respect to body.
- 6) Press screwdriver or spatula throughout weatherstrip circumference to set it into place.
- 7) Remove sealing tape on underside of weatherstrip, and press fit these parts.

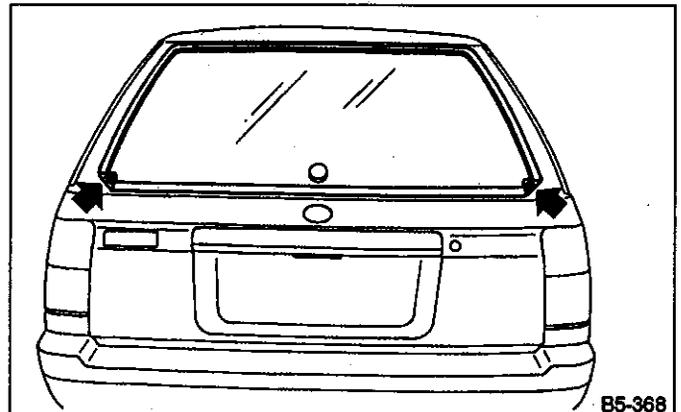


Fig. 60

- 8) Tap entire glass with palm of hand or rubber hammer from outside to seat weatherstrip in body.

## 19. Rear Quarter Glass (Sedan)

### A: REMOVAL

- 1) Remove six-light cover.

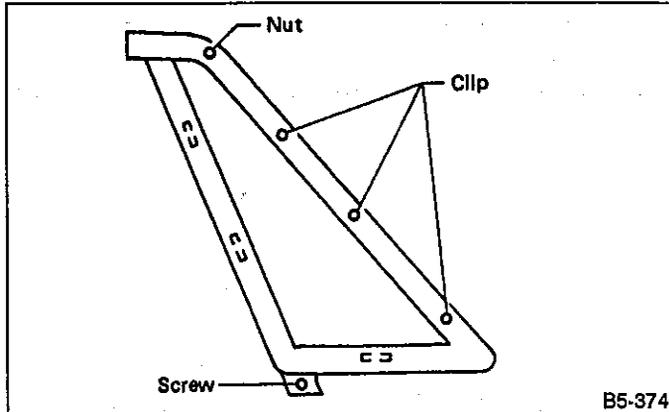


Fig. 61

- 2) Remove glass in same manner as in windshield.

### B: INSTALLATION

- 1) Finish surface of adhesive layer on body. Using a putty knife, etc., cut layer of adhesive stick firmly to body and finish it into a smooth surface of about 2 mm (0.08 in) in thickness.

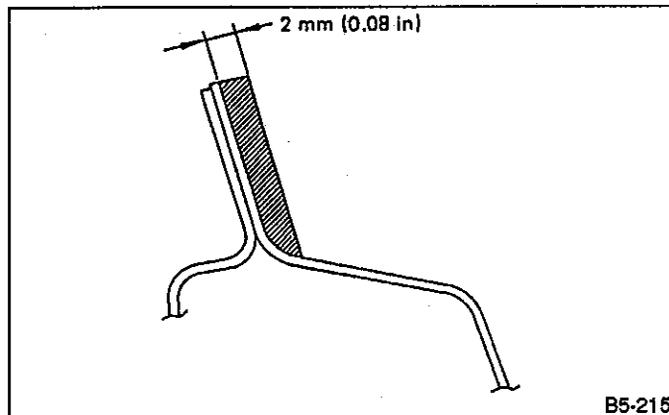


Fig. 62

**Be careful not to damage body finish**

- 2) Cleaning of body surface.
  - (1) Remove chips, dirt and dust from body surface.
  - (2) Clean body wall surface and upper surface of adhesive layer with a solvent such as alcohol or white gasoline.
- 3) Cleaning glass
  - (1) Remove dirt and dust from surface of glass to be adhered.
  - (2) Clean surface of glass to be adhered with alcohol or white gasoline.
- 4) Application of primer

- (1) Using a sponge, apply primer to surface of glass to be adhered.
- (2) Apply primer to surface of body to be adhered.

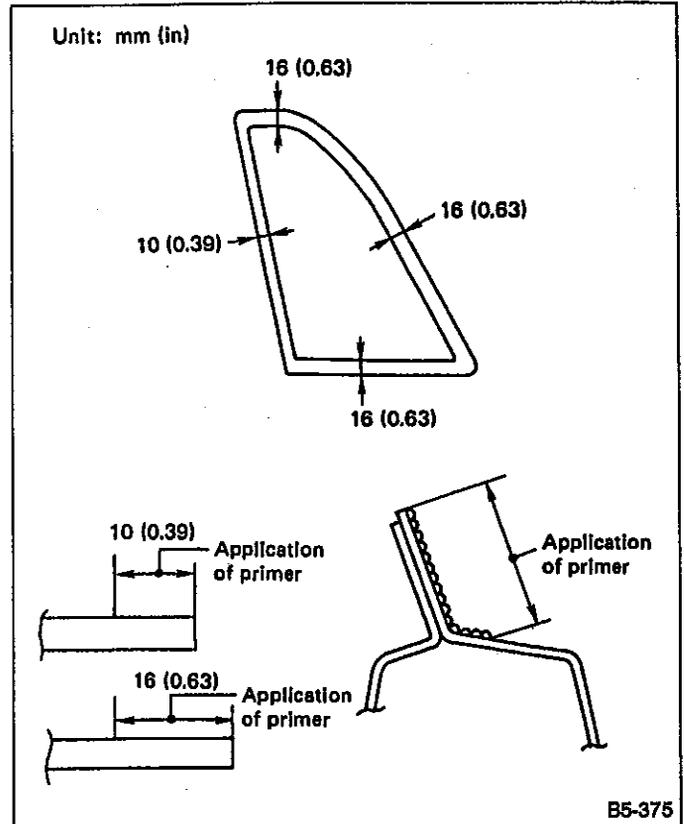


Fig. 63

- If primer has dropped on body finish, it is hard to wipe it off. So protect with masking.
- Primer must not project from black frame of glass.
- After applying primer, let it dry spontaneously for about 10 minutes.

- 5) Application of adhesive

- (1) Cut nozzle tip as shown in figure below.
- (2) Open cartridge and put it into a gun with nozzle attached.
- (3) Apply adhesive uniformly to all sides of adhesion surface while operating gun along glass end face.

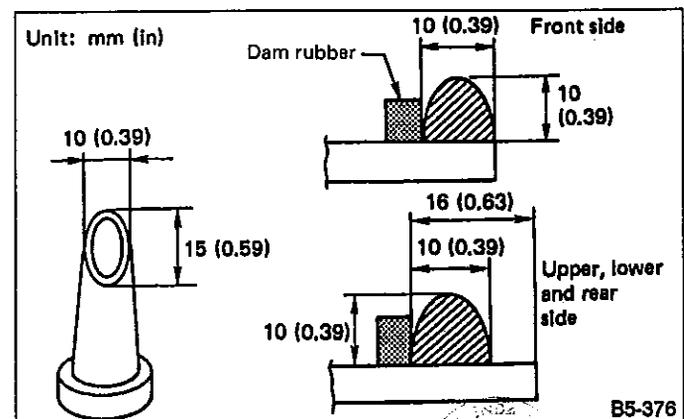


Fig. 64

- 6) Installation of glass.
- 7) Water leakage test.  
After installing glass, test for water leakage after about one hour.
  - a. Move vehicle slowly.
  - b. When opening and closing door, lower door glass and move door gently.
  - c. Do not squirt strong hose stream on vehicle.
- 8) Spontaneous drying.  
After completing all operations, leave vehicle alone for 24 hours.

When delivering vehicle to user, tell him that vehicle should not be subjected to heavy shocks for at least three days.

## 20. Rear Quarter Glass (Wagon)

### A: REMOVAL

- 1) Remove D-pillar cover.
- 2) Remove rear quarter molding.
- 3) Remove roof molding.
- 4) Remove rear quarter glass in same manner as in windshield.

### B: INSTALLATION

- 1) Removal of spacer, etc.
- 2) Finishing layer surface of adhesive on body.  
Using a cutter knife, etc., cut layer of adhesive stick firmly to body and finish all sides of layer into plain surface of about 1 mm (0.04 in) in thickness.

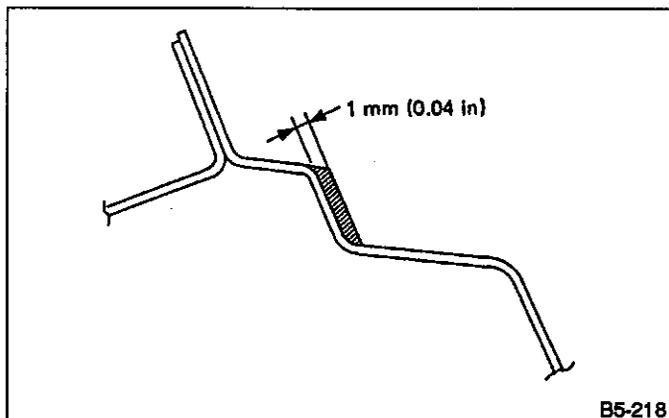


Fig. 65

Work carefully to avoid damaging body coating.

- 3) Cleaning of body surface.
  - (1) Remove chips, dirt and dust from body surface.
  - (2) Clean body wall surface and upper surface of layer of adhesive with a solvent such as alcohol or white gasoline.

- 4) Cleaning of glass.
  - (1) Remove dirt and dust from surface of glass to be adhered.
  - (2) Clean surface of glass to be adhered with alcohol or white gasoline.
- 5) Application of primer.
  - (1) Using a sponge, apply primer to surface of glass to be adhered.
  - (2) Likewise, apply primer to area of body to be adhered.

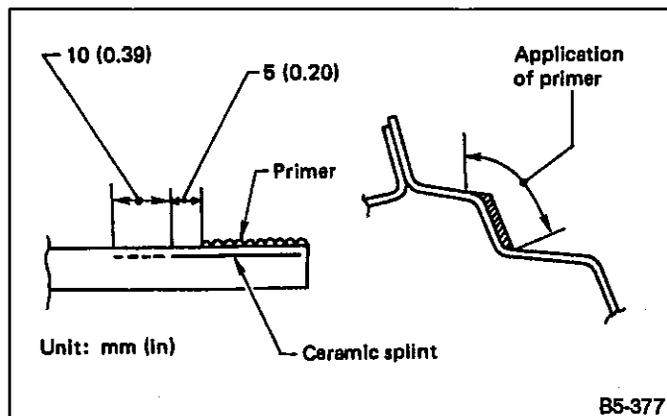


Fig. 66

- a. If primer has dropped on body finish, it is hard to wipe it off. So protect with masking.
- b. Primer must not project from black frame of glass.
- c. After applying primer, let it dry spontaneously for about 10 minutes.
- d. Do not touch primer-coated surface under any circumstances.

- 6) Application of adhesive.
  - (1) Cut nozzle tip as shown in figure below.
  - (2) Open cartridge and put it into a gun with nozzle attached.
  - (3) Apply adhesive uniformly to all sides of adhesion surface while operating gun along glass end face.

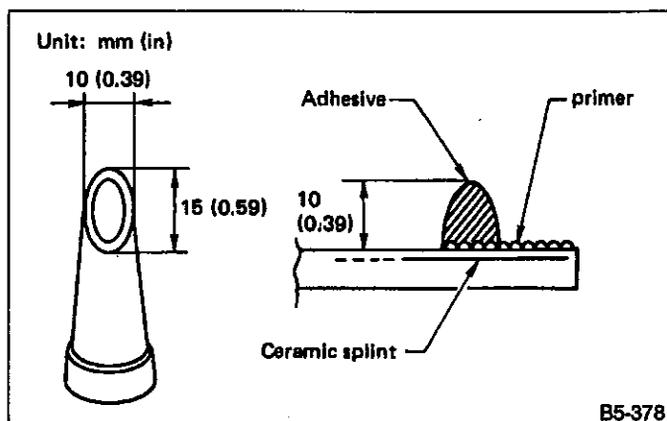


Fig. 67

- 7) Installation of glass.
  - (1) Hold glass with rubber suction cups.
  - (2) Mount glass on body.

(3) Stick them firmly together by lightly pressing down.

**If the cap removed, using a new one.**

8) Water leakage test.

After installing glass, test for water leakage after about one hour.

a. Move vehicle slowly.

b. When opening and closing door, lower door glass and move door gently.

c. Do not squirt strong hose stream on vehicle.

9) Spontaneous drying.

After completing all operations, leave vehicle alone for 24 hours.

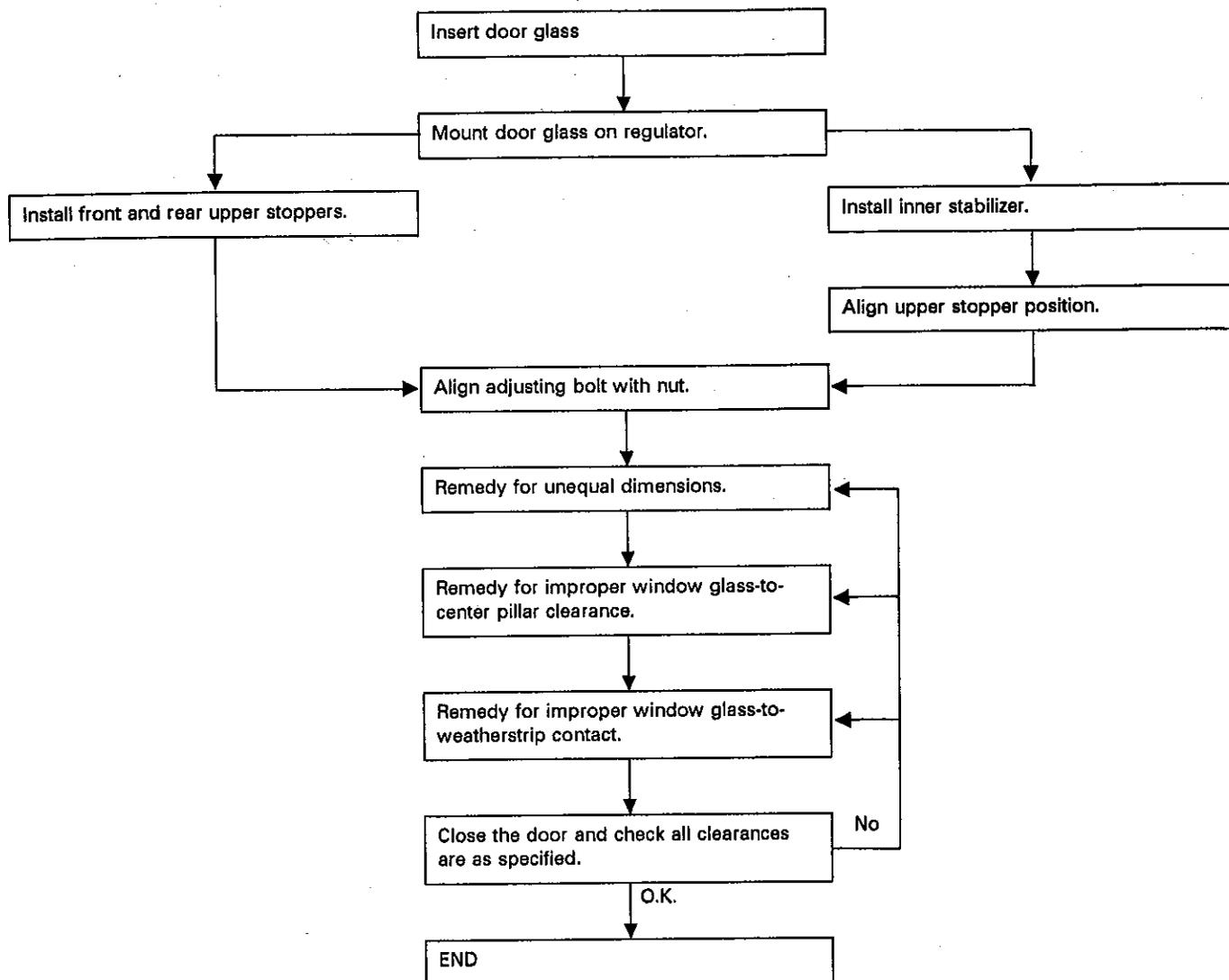
**When delivering vehicle to user, tell him that vehicle should not be subjected to large shocks for at least three days.**

10) Install drip rail molding.

11) Install rear quarter molding.

12) Install door pillar cover.

## 21. Procedure Chart for Adjusting Door Glass



## 22. Front Door Glass Adjustment

Before adjusting front door glass, set the center of bolt ③, nut ① and nut ② on the middle of the graduation.

- a. Install stabilizer before adjusting door glass.
- b. Lower door glass a little before adjustment.

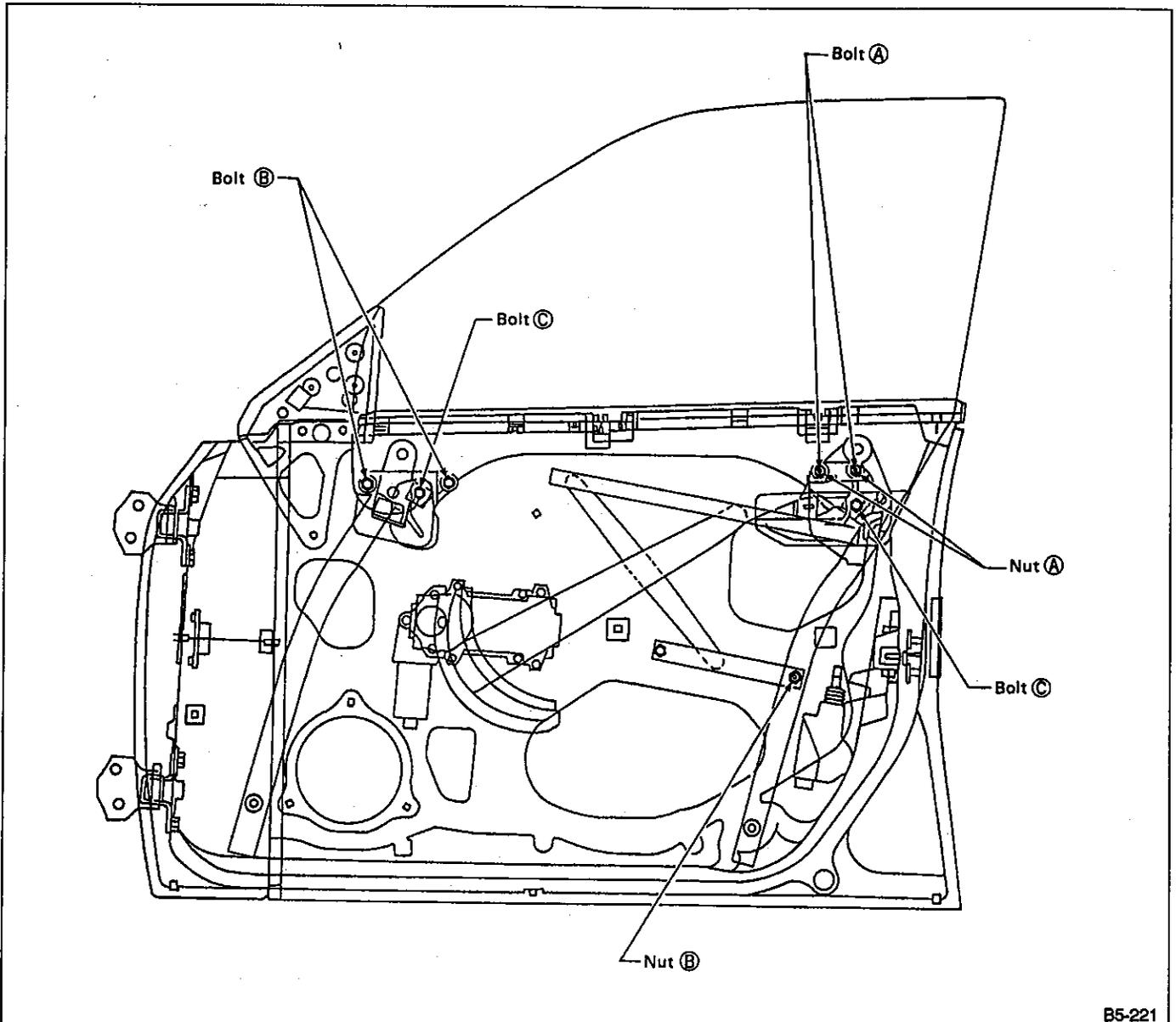


Fig. 68

B5-221

**A: ADJUSTMENT**

1) Remedy for unequal dimensions, between upper, lower and center pillar sides.

- (1) Close front door and raise door glass.
- (2) Make sure of unequal dimensions.

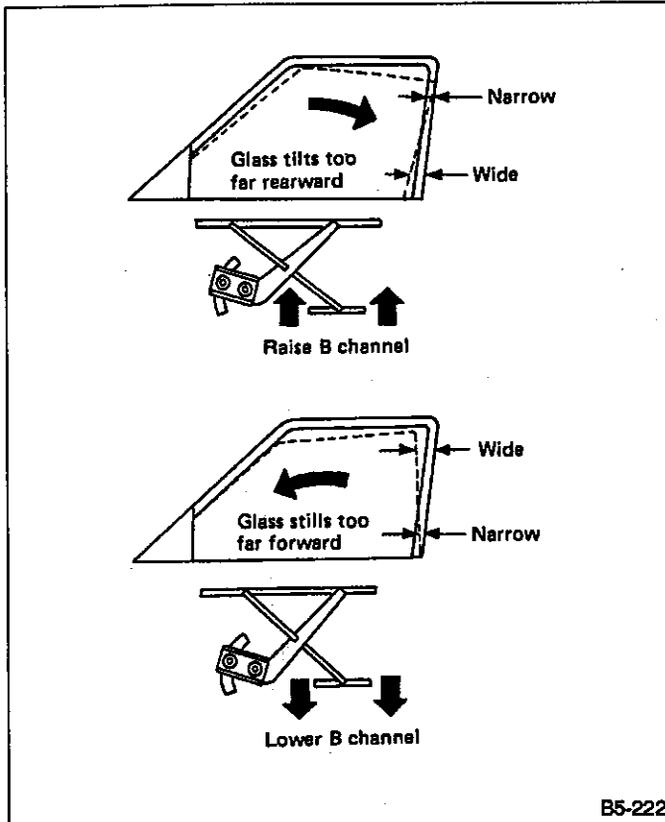


Fig. 69

When dimensions are as specified, proceed to step 2).

- (3) If glass tilts to far rearward, loosen nut (B) in figure 68 and adjust glass to be parallel with center pillar.

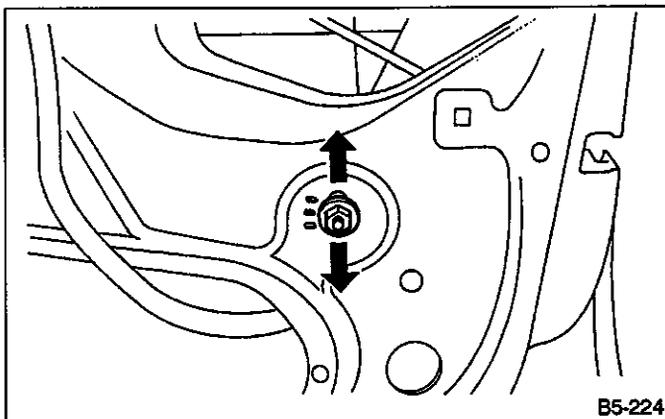


Fig. 70

After adjustment, tighten nut (B).

2) Remedy for improper glass to center pillar clearance.

- (1) Close front door and raise door glass.
- (2) Make sure of improper clearance.

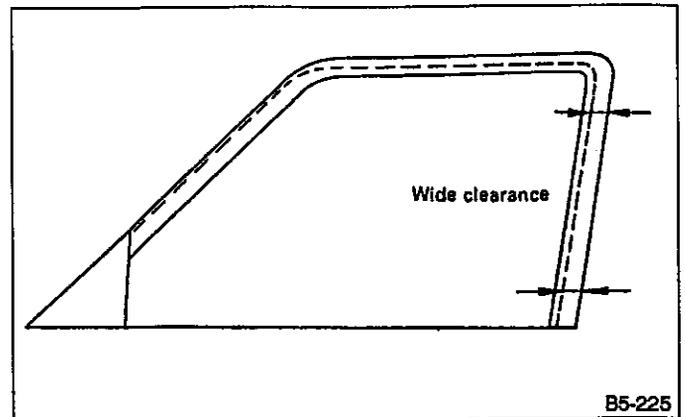


Fig. 71

When clearances are as specified, proceed to step 3).

- (3) Loosen nut (A) in figure 68 and adjust glass to center pillar.

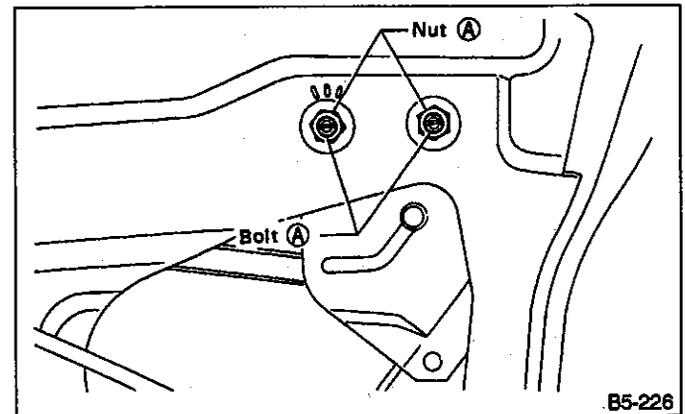


Fig. 72

3) Remedy for improper upper stop point of door glass.

- (1) Loosen bolts (C) in figure 68.
- (2) Increase the upward travel of window glass up to the position where upper edge just touches weather-strip surface with door closed.

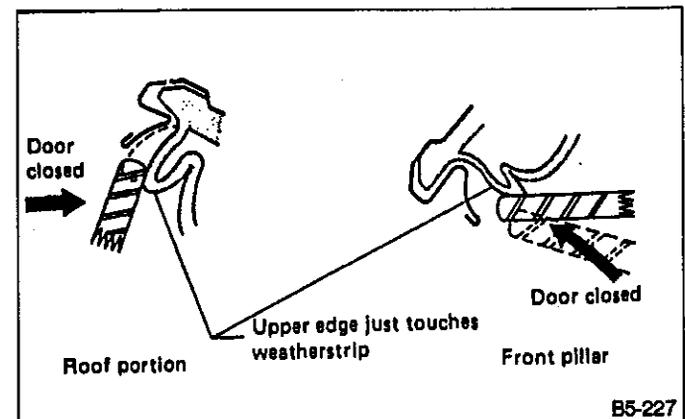


Fig. 73

(3) After adjustment, temporarily tighten bolts ③.

**Make sure that each glass stopper is touched.**

4) Remedy for incorrect contact of door glass to weatherstrip.

(1) Close front door and raise door glass.

(2) If clearance is below specifications, loosen bolt ① and bolt ②.

(3) If clearance is over specifications, tighten bolt ① and bolt ②.

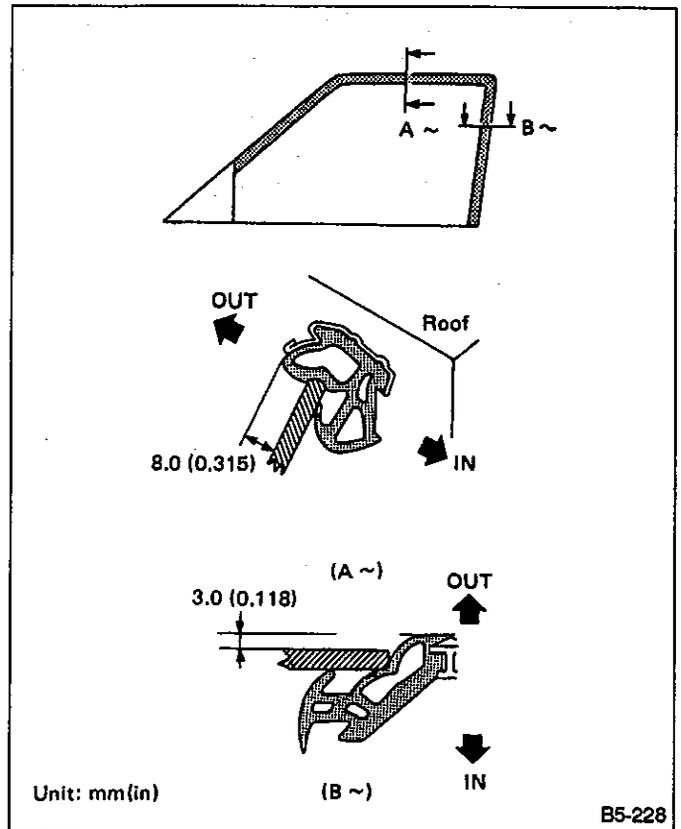


Fig. 74

4) Close front door and make sure of all clearances.

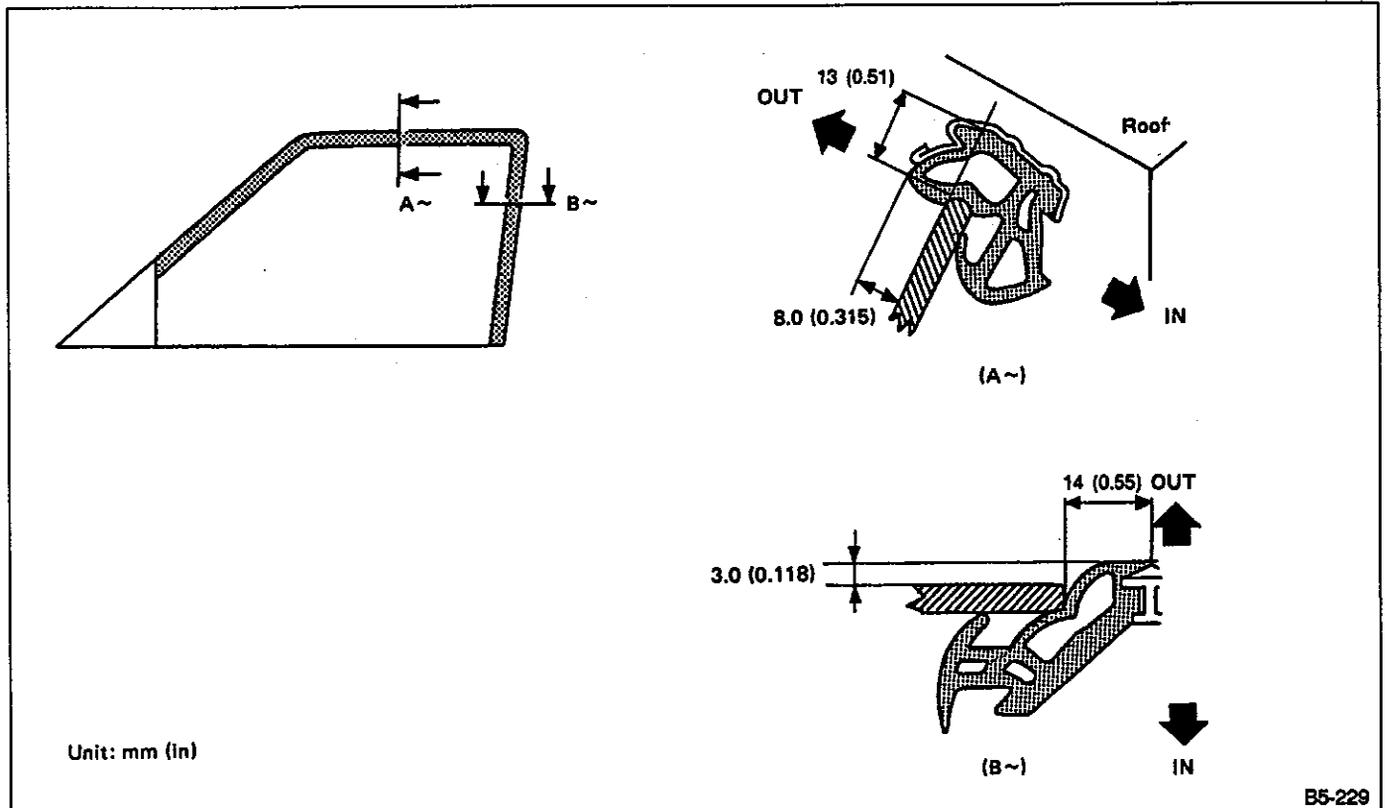


Fig. 75

5) If any clearance is not correct, adjust affected parts.  
Recheck all clearances.

- Repeatedly adjust parts until all clearances are correct.
- After clearance adjustment, make sure that bolts are tightened (shown in figure 75).

## 23. Rear Door Glass Adjustment

Alignment of rear door glass is basically the same as for the front door glass. Due to slight difference in adjustment dimensions for fore-aft, up-down, and in-out alignments, key points for rear door adjustment are described below.

Before making door glass adjustments, align nuts **A** and **B**, and bolt **C** with centerline of scale.

- a. Install stabilizer before adjusting door glass.
- b. Lower door glass for a little before adjustment.

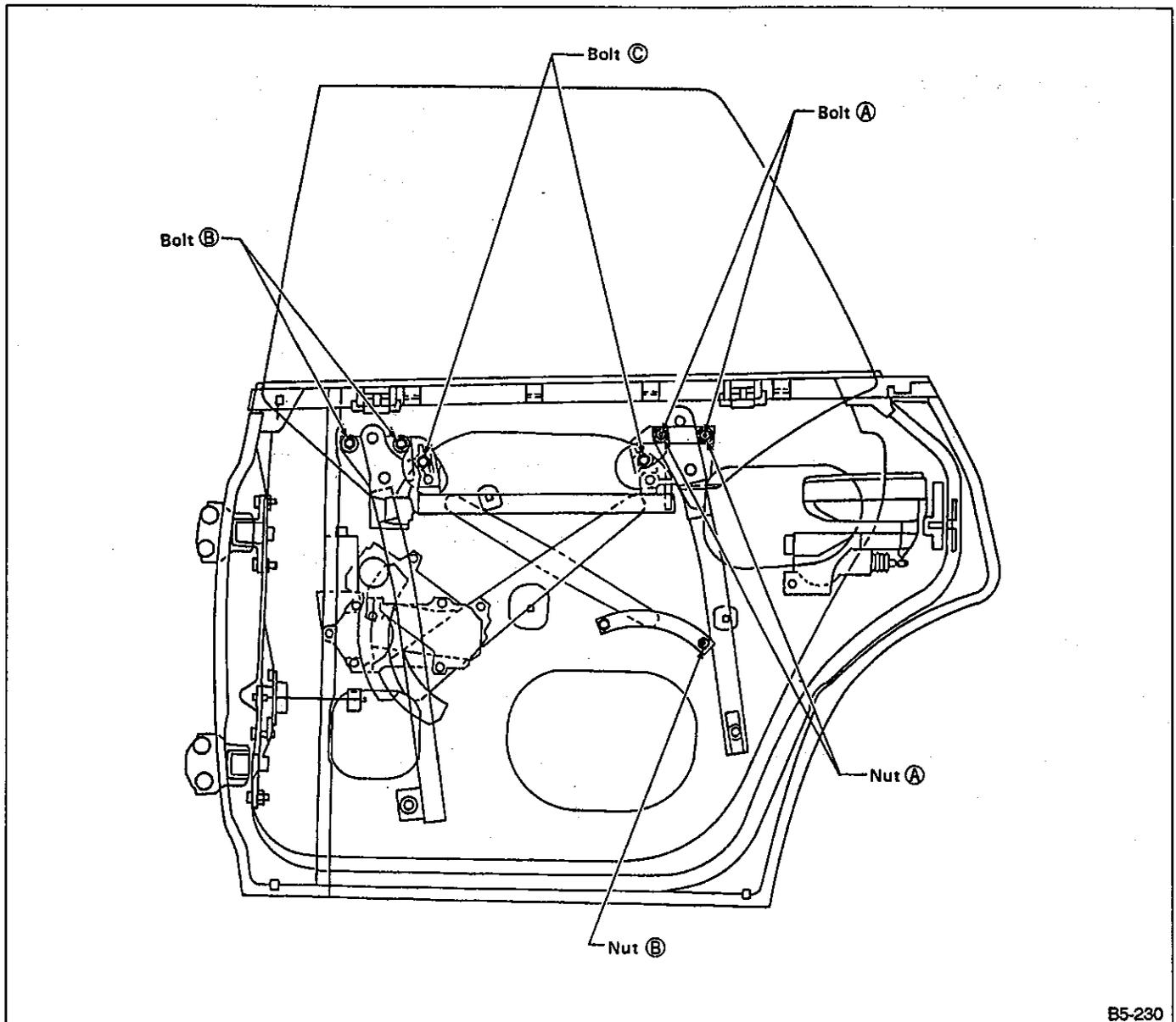


Fig. 76

B5-230

## A: ADJUSTMENT

- 1) Adjustment procedures are the same as for front door.
- 2) Close rear door and make sure of all clearances.

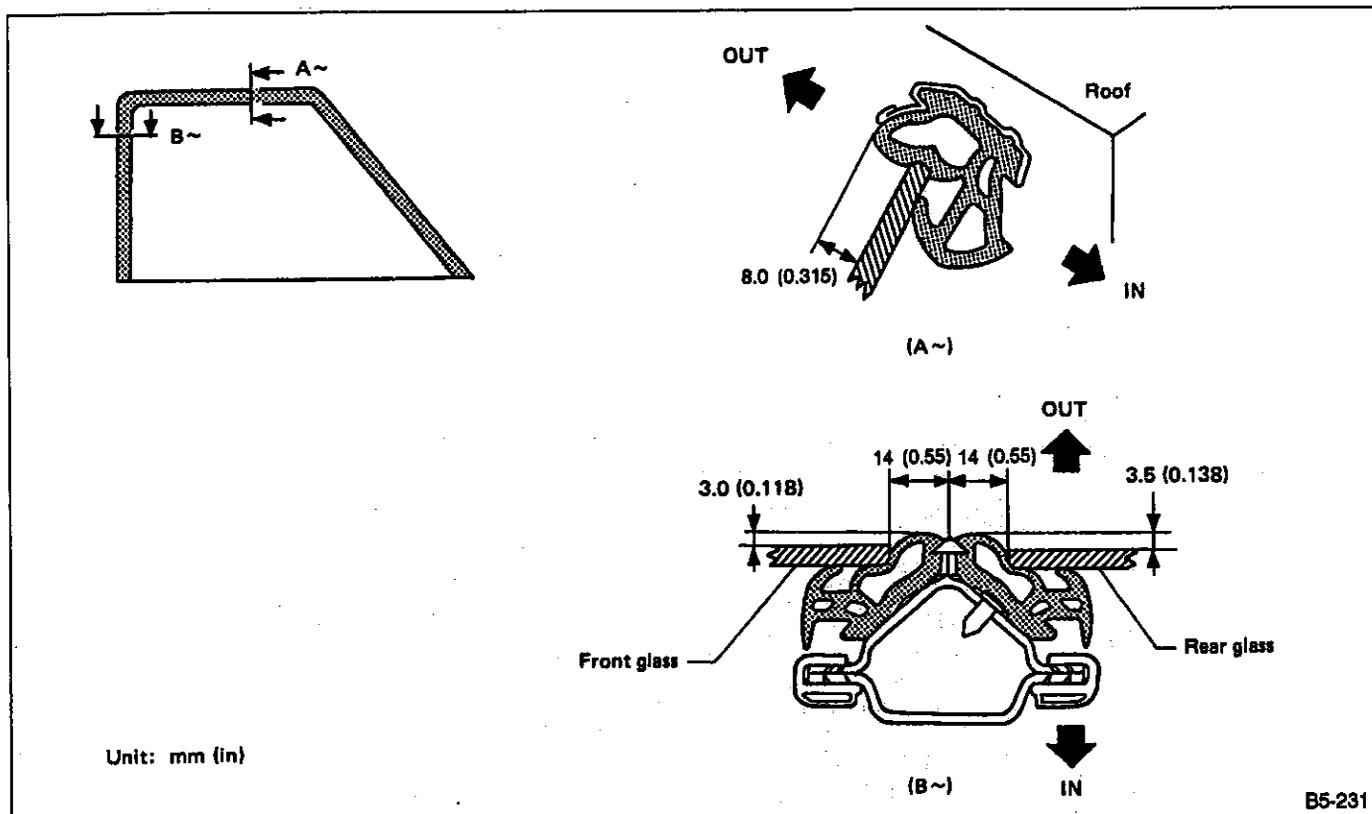


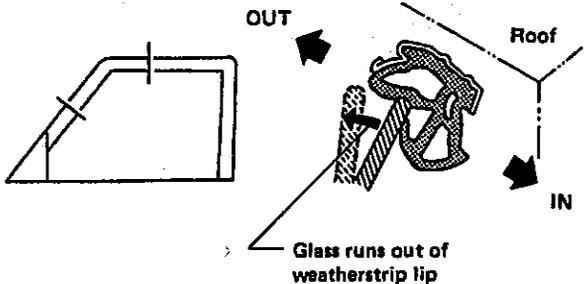
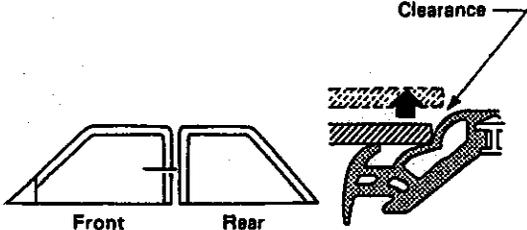
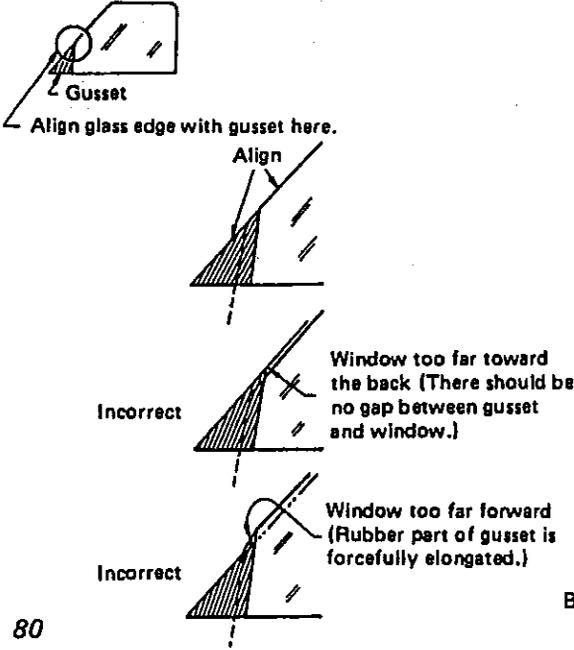
Fig. 77

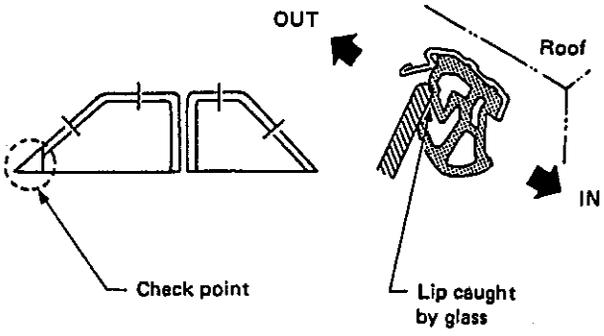
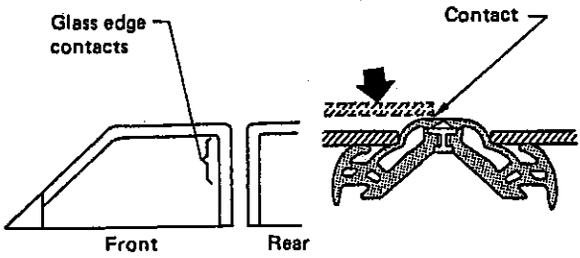
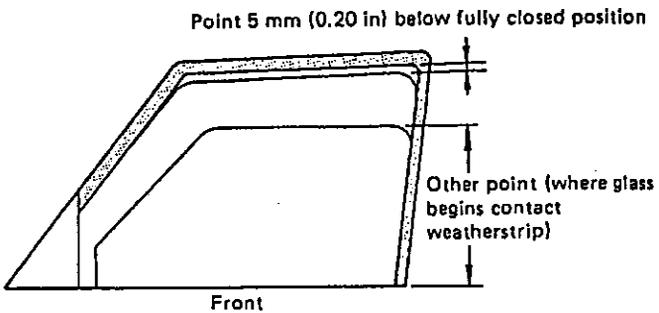
- 3) If any clearance is not correct, adjust affected parts. Recheck that all clearances are correct.

- a. Repeatedly adjust parts until all clearances are correct.
- b. After clearance adjustment, make sure that bolts are tightened (shown in figure 77).

# T TROUBLESHOOTING

## 1. Door Glass

	Condition	Apparent Cause/Correction
<p>Glass in fully closed position</p>	<p>1) Glass runs out of weatherstrip lip when considerable hand pressure is applied to it from inside.</p>  <p><i>Fig. 78</i> (This condition may cause wind/booming noise during high-speed operation.)</p> <p style="text-align: right;">B5-232</p>	<ul style="list-style-type: none"> <li>• Insufficient upward travel of glass. Increase upward travel of glass.</li> </ul>
	<p>2) Clearance exists between glass and weatherstrip when light hand pressure is applied to it at center and rear pillar locations.</p>  <p><i>Fig. 79</i> (This condition may cause wind noise and/or water leakage.)</p> <p style="text-align: right;">B5-233</p>	<ul style="list-style-type: none"> <li>• Insufficient glass-to-door weatherstrip contact. Check stabilizer and glass for proper contact. Increase contact using upper sash adjustment bolt.</li> <li>• Improper adjustment of striker in "in-out" direction. Close door and check for alignment of striker with car body.</li> </ul>
	<p>3) Adjust door glass so that it is aligned with door rearview mirror gusset.</p>  <p><i>Fig. 80</i></p> <p style="text-align: right;">B5-234</p>	<ul style="list-style-type: none"> <li>• Window is not properly adjusted in up-down/fore-aft direction. Adjust window. If necessary, move "B" channel for regulator to eliminate window "tilt."</li> <li>• Gusset is not properly adjusted in fore-aft direction. Adjust gusset after loosening all bolts and nuts with tightening it.</li> </ul>

	Condition	Apparent Cause/Correction
<p>Door in fully closed/open position</p>	<p>1) Glass rides over weatherstrip lip when door is closed.</p>  <p style="text-align: right;">B5-235</p> <p><b>Fig. 81</b> (This condition increases wind/booming noise, leakage and/or effort required to close door.)</p>	<ul style="list-style-type: none"> <li>Improper up-down and in-out glass alignments. Adjust glass for up-down and in-out alignments (incl. rear sash, upper stopper adjustment, etc.). If necessary, correct glass tilt by moving regulator "B" channel.</li> </ul>
	<p>2) Edge of glass contacts retainer when door is fully closed.</p>  <p style="text-align: right;">B5-236</p> <p><b>Fig. 82</b></p>	<ul style="list-style-type: none"> <li>Improper glass-to-center pillar weatherstrip or excessive glass contact to weatherstrip. Excessive adjusting in contact to weatherstrip. Causes rear edge of glass to tilt inboard closer to center pillar.</li> <li>Adjust rear sash adjustment bolt to reduce glass contact to weatherstrip.</li> </ul>
<p>Raise or lower window glass</p>	<p>1) Considerable effort or time is required to operate regulator. Standard operating effort:</p> <ul style="list-style-type: none"> <li>Entire up-down travel except for point 5 mm (0.20 in) below fully closed position: 29.4 N (3.0 kg, 6.6 lb)</li> <li>Point 5 mm (0.20 in) below fully closed position: 45.0 N (4.5 kg, 10.12 lb)</li> </ul>  <p style="text-align: right;">B5-237</p> <p><b>Fig. 83</b></p>	<ul style="list-style-type: none"> <li>Sliding resistance increased due to high stabilizer-to-glass contact pressure. Reduce contact by mounting inner stabilizer to inside of the car.</li> <li>High glass-to-windshield contact pressure. Reduce contact using upper sash adjustment bolt.</li> <li>Unequal contact adjustment stroke between front and rear sashes. Set to equal stroke.</li> <li>Tilt of rear sash adjustment bolt mounting bracket. Correct tilt of bracket so it is parallel to inner panel.</li> </ul>

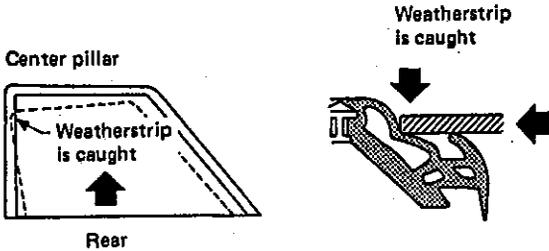
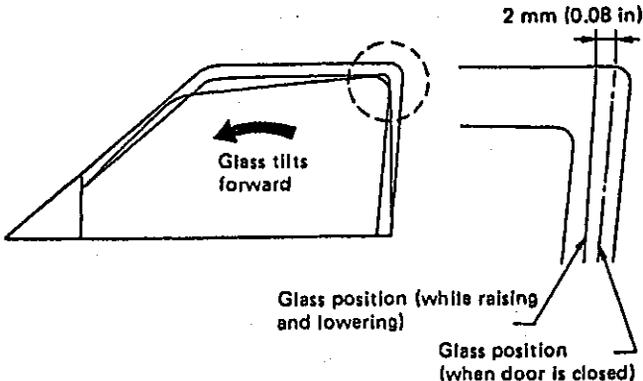
	Condition	Apparent Cause/Correction
<p>Raise or lower window glass</p>	<p>2) Center pillar weatherstrip is caught by rear window glass when glass is raised.</p>  <p style="text-align: right;">B5-1126</p>	<ul style="list-style-type: none"> <li>• Improper fore-aft or in-out alignment of window glass.</li> </ul> <p>Lower regulator "B" channel to tilt window glass back.</p>
	<p>3) Glass tilts forward by more than 2 mm (0.08 in).</p>  <p style="text-align: right;">B5-239</p>	<ul style="list-style-type: none"> <li>• Excessive glass contact pressure or improper in-out alignment.</li> </ul> <ol style="list-style-type: none"> <li>1) Lower regulator "B" channel to tilt glass rearward.</li> <li>2) Reduce contact pressure using upper sash adjustment bolt.</li> </ol>

Fig. 84

Fig. 85

(Excessive tilt of glass forward is due to excessive glass "contact" which causes reaction of center pillar weatherstrip.) Glass can be tilted forward due to increase in reaction of shoulder weatherstrip or free play between sash and roller. Taking these symptoms into account, glass should be aligned.

## 2. Door Lock System

No.	Trouble	Possible cause	Remedy
1	Door cannot be opened by outer handle (Door can be opened by inner handle)	Disconnect outer handle rod.	Connect firmly.
2	Door cannot be opened by inner handle (Door can be opened by outer handle)	a. Joint of upper rod is disconnected. b. Rear-door child lock lever is set to lock side.	Connect firmly. Functionally normal.
3	Door does not open when outer or inner handle is operated with inner lock knob set to unlock position	a. Joint of lower rod is disconnected. b. Lock is not released due to improper adjustment of lower rod.	Connect firmly. Remove rod from latch. Adjust rod so that lock knob is set in "lock" position is locked.
4	Door opens even when inner lock knob is set to lock position (Keyless locking is impossible)	a. Lower rod joint is separated. b. Door is not locked due to improperly adjusted lower rod.	Same as a in No. 3. Same as b in No. 3.
5	Child lock lever will not come up	a. Inner handle fails to return completely. b. Joint of upper rod is disconnected.	Refer to No. 6.
6	Inner handle stops halfway	Contact of upper rod with inner handle mounting case.	Eliminate contact by bending upper rod properly.
7	Door cannot be locked or unlocked by key.	Joint of key lock rod is disconnected.	Connect firmly.
8	Auto door-lock switch does not act when inner lock knob is pushed.	Auto door-lock switch does not act due to improperly adjusted lower rod.	Same as b in No. 3.

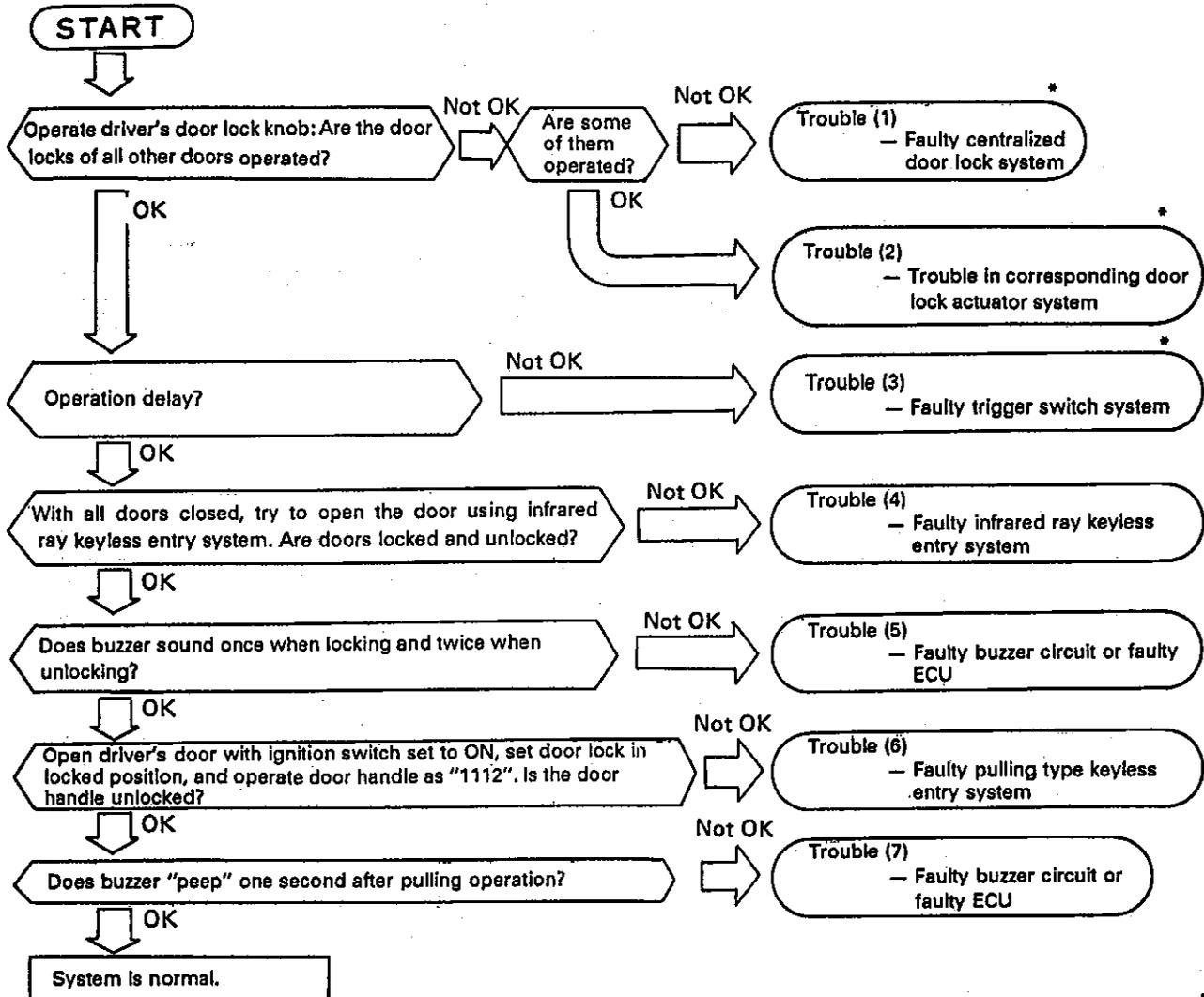
## 3. Power Window

Symptom	Part conditioned to be in problem										
	Battery	Fuse (10A) No. 15 in fuse box	Power window circuit breaker & power window relay	Power window main switch	Power window sub-switch of each passenger side	Power window motor of driver side	Power window motor of each passenger side	Regulator ASSY of each window	Power supply line of main switch	Ground line	Harness and connector
All of the window does not move.	①	②	③	④					⑤	○	○
The window of driver side does not move.				①		②			③		○
The window of driver side does not move "AUTO" up-down.				①		②			③		○
The window of each passenger side does not move.				①	②		③	④			○
				①	②		③	④			○
				①	②		③	④			○

○: Figures in a circle refer to diagnostic procedures.

### 4. Keyless Entry System

#### A: BASIC TROUBLESHOOTING PROCEDURE



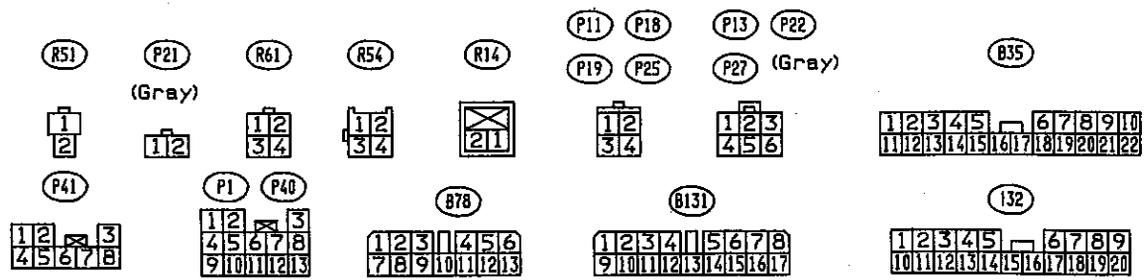
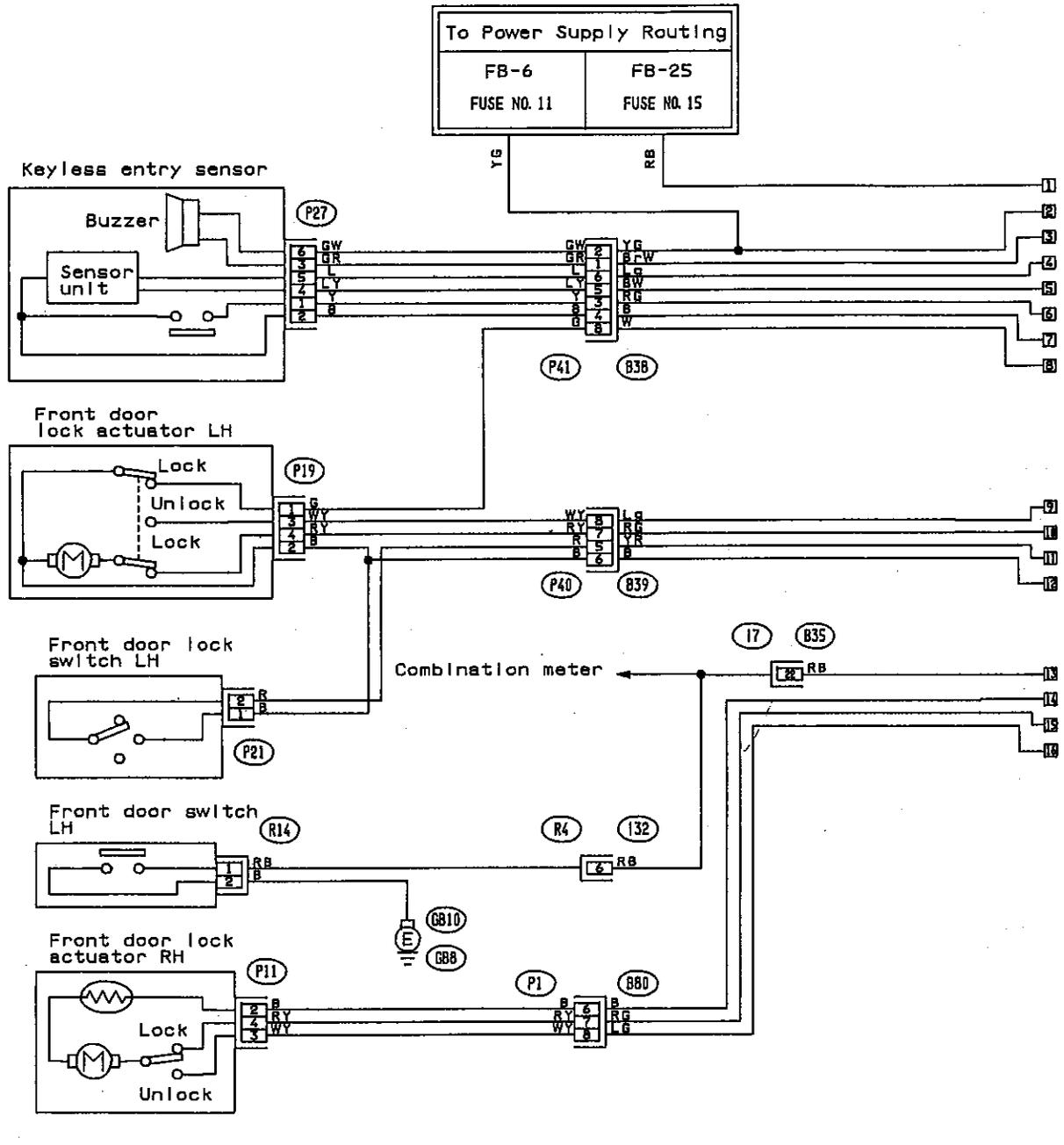
B5-1192

\*: These troubles relate to the entire subsequent procedures, and should be resolved in the beginning.

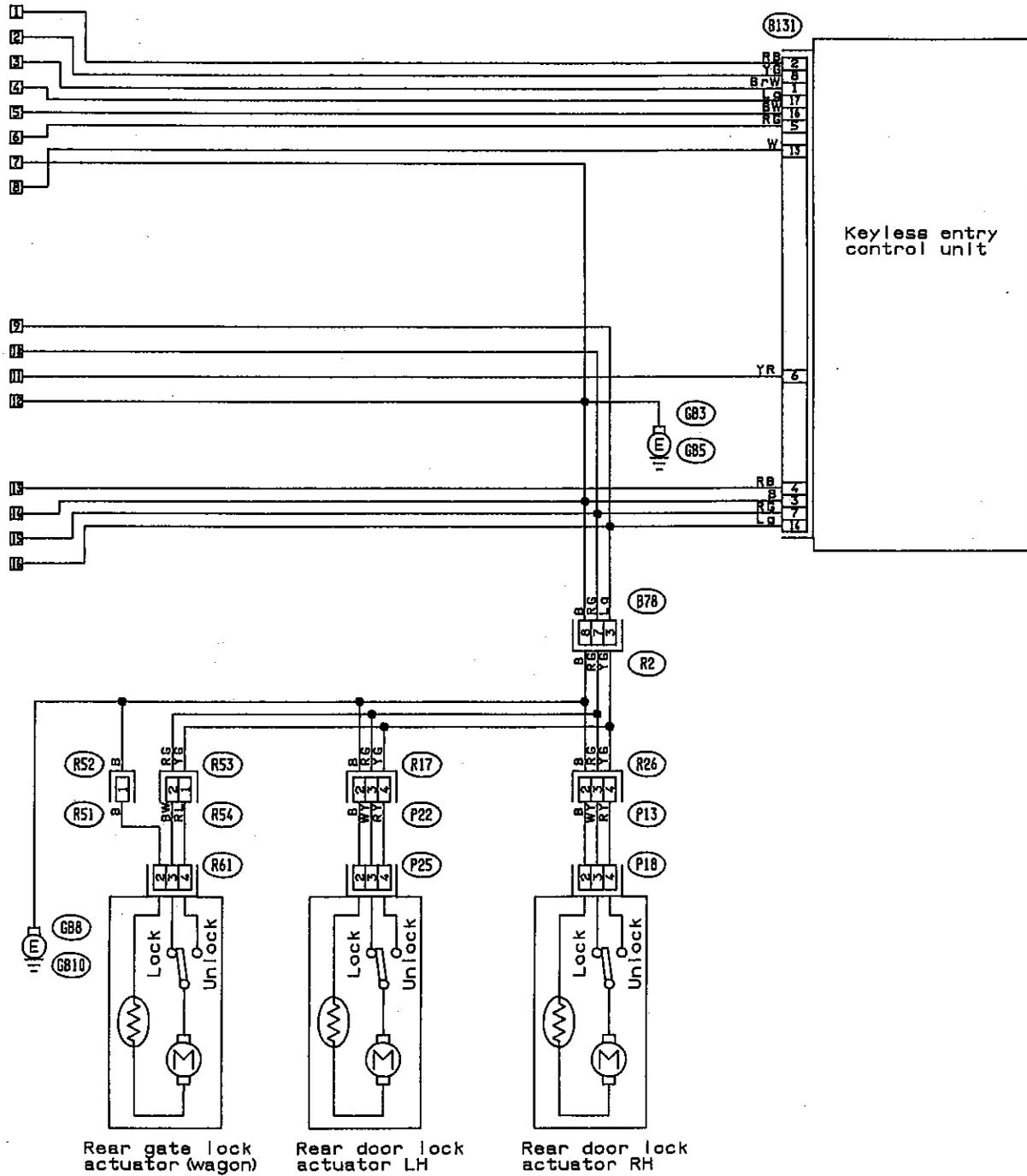
#### B: TROUBLE AND PROBABLE CAUSE

Trouble	Unlock switch (driver's door)	Door lock actuator	Trigger switch (door lock switch) (driver's door)	Receiving and transmitting units	Driver's door switch	Buzzer	Hook switch	Vehicle speed sensor	ECU			Actuator output harness
									Power supply and grounding	Power supply for ignition system	Main body	
1	○								○		○	○
2		○										○
3			○						○		○	
4				○	○				○		○	
5				○		○			○		○	
6							○		○	○	○	
7						○	○		○		○	

**C: WIRING DIAGRAM**



BL77-01A



BL77-01B

**D: TROUBLE (1) — FAULTY CENTRALIZED DOOR LOCK**

**CONTENTS OF DIAGNOSIS:**

- Faulty control unit (ECU)
- Faulty ECU power supply, or faulty grounding circuit
- Faulty unlock switch and circuit
- Faulty actuator output and circuit

**TROUBLE SYMPTOM:**

Even when operating the door lock of driver's door, none of other door locks are actuated.

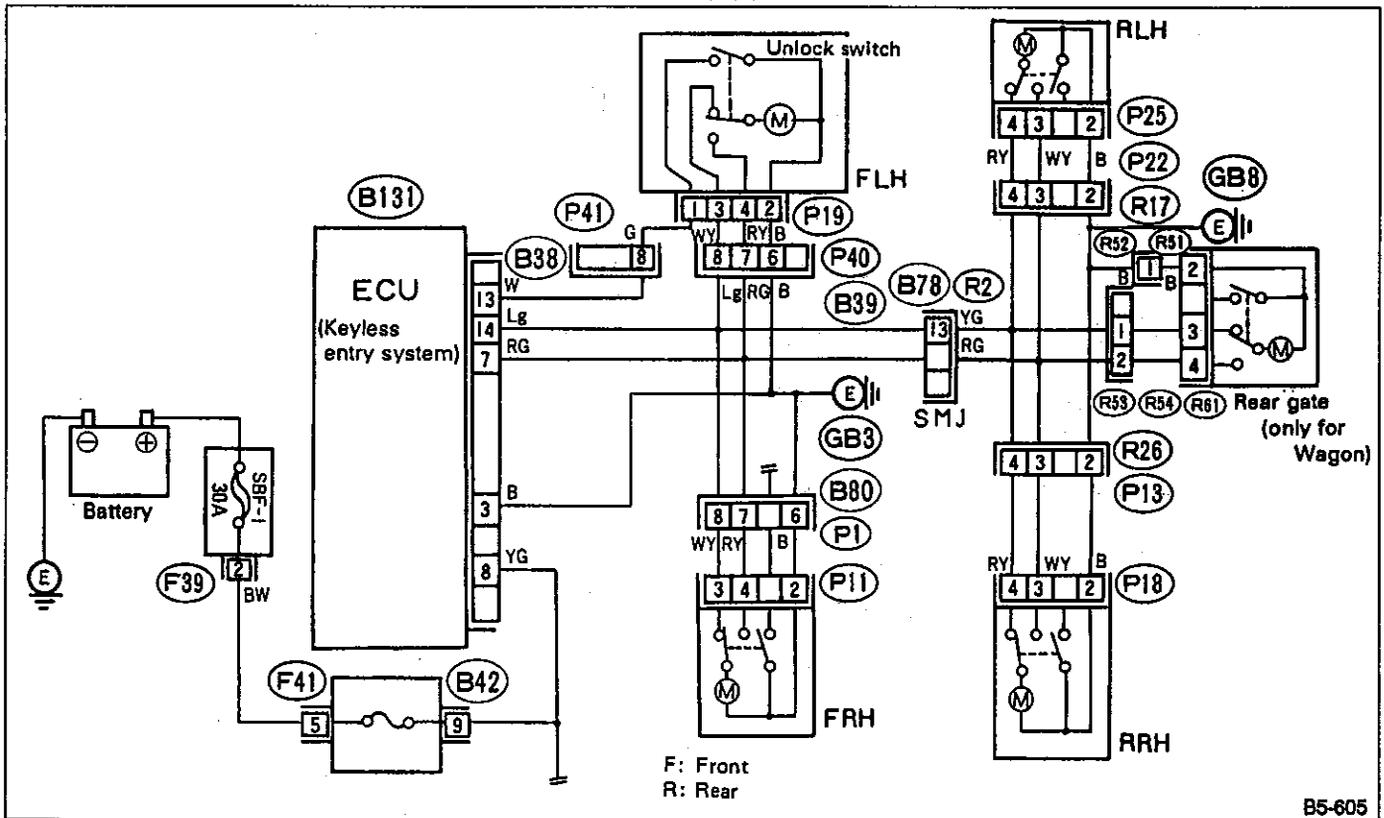
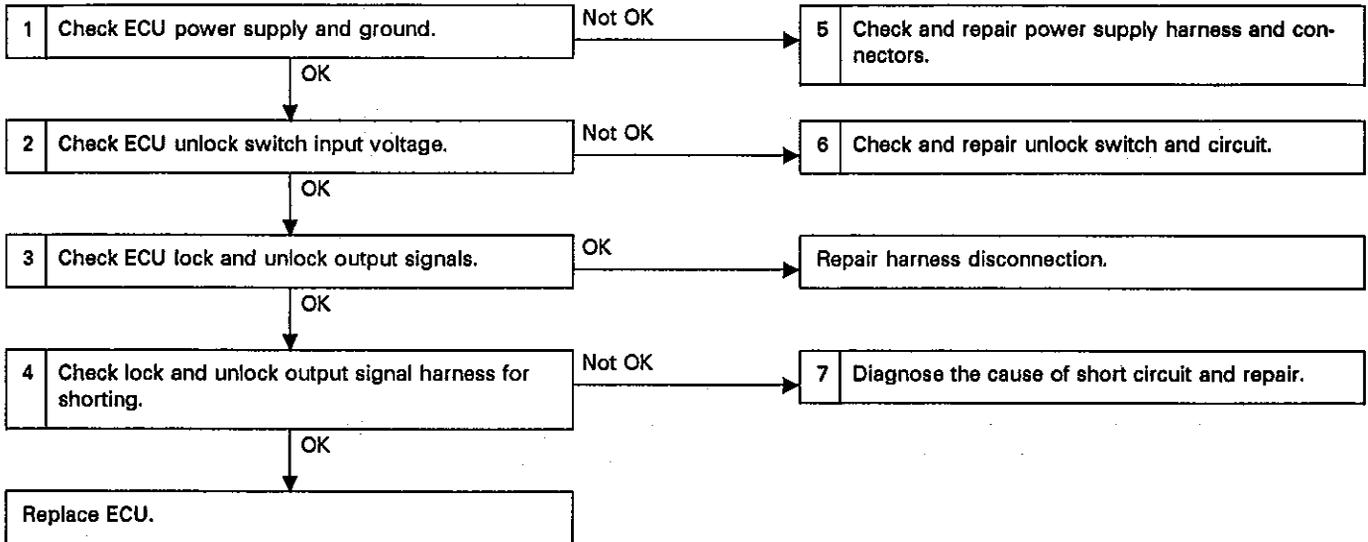


Fig. 87

**1. CHECK ECU POWER SUPPLY AND GROUND.**

- 1) Check power supply voltage.
  - (1) Set ignition switch to OFF.
  - (2) Separate ECU from connector.
  - (3) Measure voltage between ECU connector and ground.

**Connector & Terminal/Specified voltage:**  
**(B131) No. 8 — Body/Battery voltage**

2) Check ground.

- (1) Separate ECU from connector.
- (2) Check circuit between ECU connector and ground for continuity.

**Connector & Terminal/Specified resistance:**  
**(B131) No. 3 — Body/Continuity should exist.**

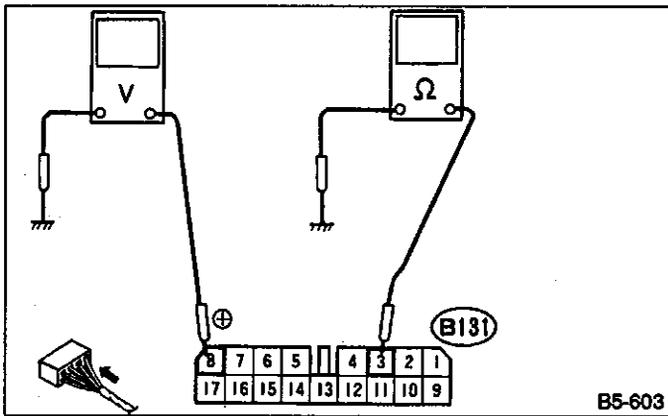


Fig. 88

**2. CHECK ECU UNLOCK SWITCH INPUT VOLTAGE.**

- 1) Connect ECU to connector.
- 2) Measure voltage between ECU and ground.
- 3) Measure voltage while repeating lock/unlock operation of driver door lock.

**Connector & Terminal/Specified voltage:**  
**(B131) No. 13 — Body/Lock: Approx. 5 V**  
**Unlock: 0 V**

- If voltage remains 5 V, disconnection is suspected.
- If voltage remains 0 V, short circuit is suspected.

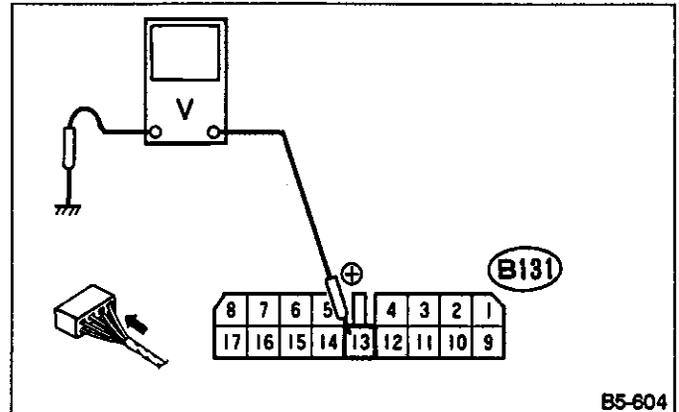


Fig. 89

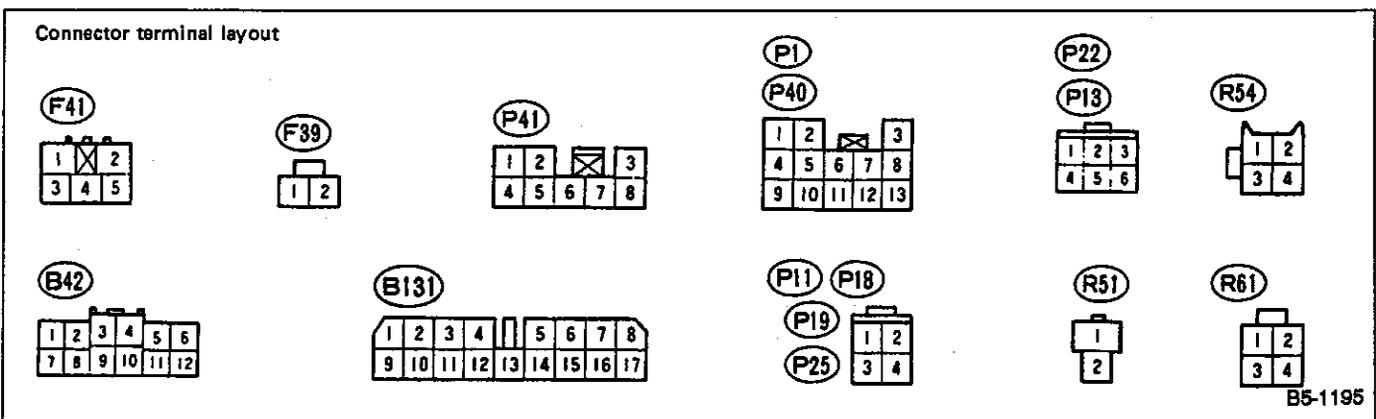


Fig. 90

**3. CHECK ECU LOCK AND UNLOCK OUTPUT VOLTAGES.**

1) Check lock output.

- (1) Measure voltage between ECU and ground. (Use an analog tester.)
- (2) Lock and unlock the driver's door lock repeatedly.

**Connector & Terminal/Specified voltage:**  
(B131) No. 14 — Body/

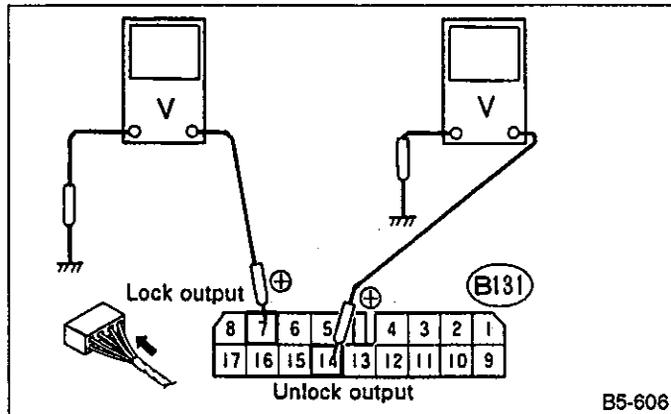
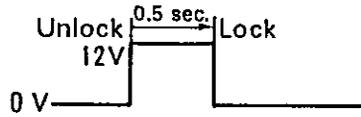
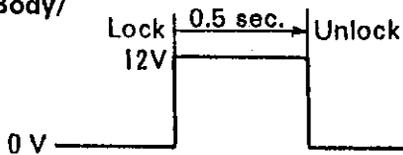


Fig. 91

2) Check unlock output.

- (1) Measure voltage between ECU and ground. (Use an analog tester.)
- (2) Lock and unlock the driver's door lock repeatedly.

**Connector & Terminal/Specified voltage:**  
(B131) No. 7 — Body/



- If voltage remains 0 V, a short circuit is suspected.

**3-1. CHECK ECU LOCK AND UNLOCK OUTPUT.**

1) Check lock output.

- (1) Connect an oscilloscope between ECU and ground. (DC, 0.5 V/Div, 2ms/Div, x10 probe)
- (2) Lock and unlock the driver's door lock repeatedly.

**Connector & Terminal/Specified voltage:**

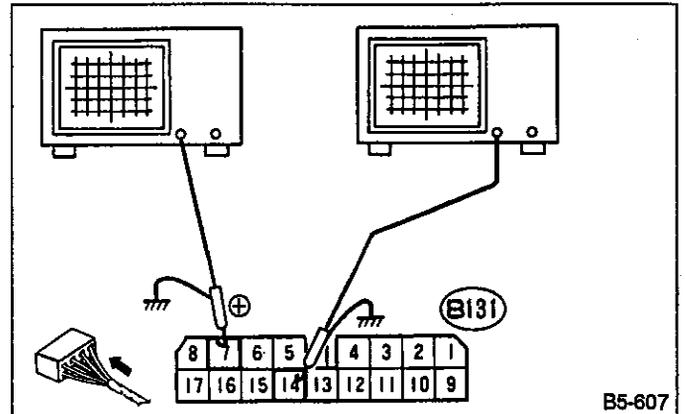
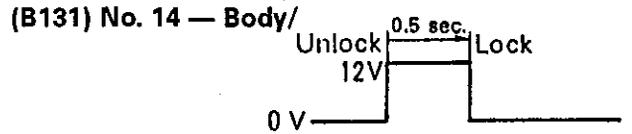
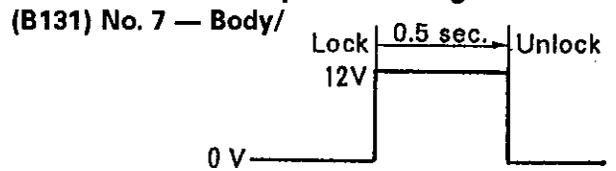


Fig. 92

2) Check unlock output.

- (1) Connect an oscilloscope between ECU and ground. (DC, 0.5 V/Div, 2ms/Div, x10 probe)
- (2) Lock and unlock the driver's door lock repeatedly.

**Connector & Terminal/Specified voltage:**



**4. CHECK LOCK AND UNLOCK OUTPUT HARNESSSES FOR SHORT.**

1) Check lock harness for short to body.

- (1) Set the ignition switch to OFF.
- (2) Disconnect ECU from the connector.
- (3) Disconnect the connectors [(P19), (P22), (P11), (P13), (R61)] of all actuators.
- (4) Check continuity between ECU connector and ground.

2) Check unlock harness for short to ground.

- (1) Perform steps (1) and (2) of item 1) above.
- (2) Check the circuit between ECU connector and ground for continuity.

**Connector & Terminal/Specified resistance:**

- (B131) No. 7 — Body/Continuity should exist.
- (B131) No. 14 — Body/Continuity should exist.

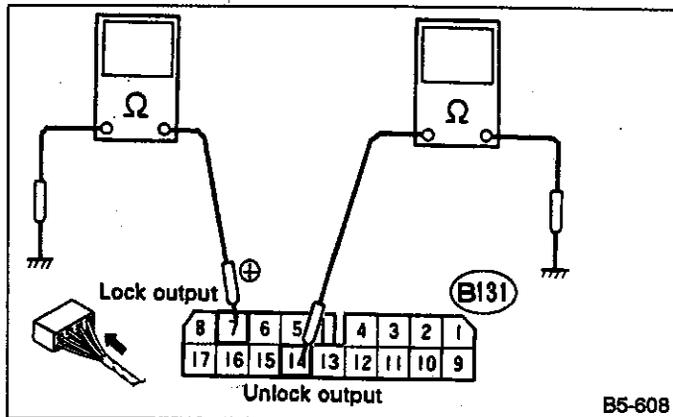


Fig. 93

### 5. CHECK AND REPAIR POWER SUPPLY HARNESS AND CONNECTOR.

Measure voltage between fuse box connector and ground.

**Connector & Terminal/Specified voltage:**  
(F41) No. 5 — Body/Battery voltage

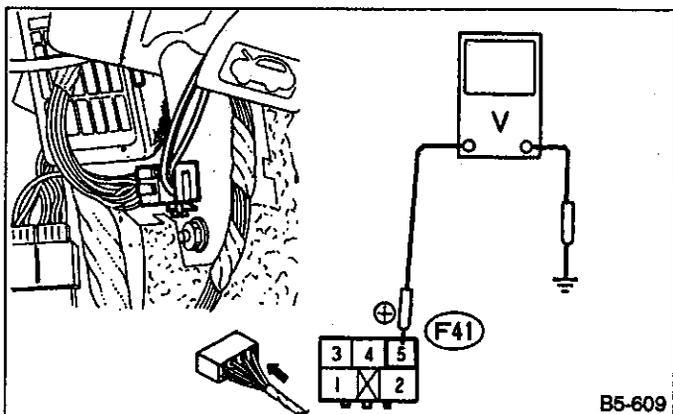


Fig. 94

### 6. CHECK AND REPAIR UNLOCK SWITCH AND CIRCUIT.

1) Check switch.

- (1) Disconnect (P41) connector of unlock switch.
- (2) Check circuit between (P41) connector and ground.

**Connector & Terminal/Specified resistance:**  
(P41) No. 8 — Body/  
When unlocked: Continuity should exist.  
When locked: Continuity should not exist.

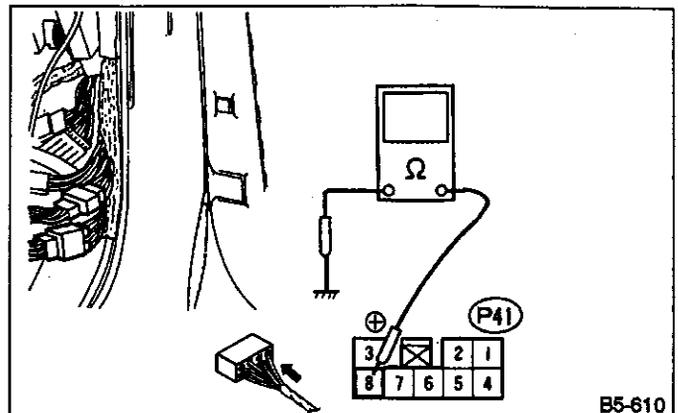


Fig. 95

- If OK, go to 3).
  - If NOT OK, go to 2).
- 2) Check switch harness.

- (1) Disconnect (P19) connector of door lock actuator.
- (2) Check circuit between (P19) and (P41) connectors for continuity and a short to ground.

**Connector & Terminal/Specified resistance:**  
(P19) No. 3 — (P41) No. 8/Continuity should exist.  
(P41) No. 8 — Body/Continuity should not exist.

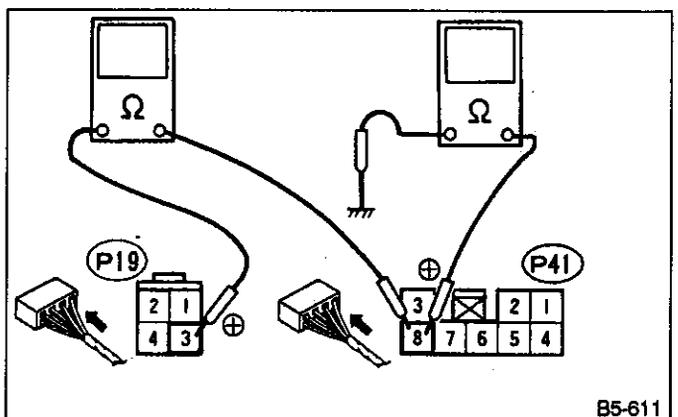


Fig. 96

- If OK, replace switch.
- 3) Check harness.

- (1) Disconnect ECU connectors [(P41), (P40), and (P19)].
- (2) Check for continuity and a short between ECU connector and (B38) connector.

**Connector & Terminal/Specified resistance:**  
(B131) No. 13 — (B38) No. 8/Continuity should exist.  
(B38) No. 8 — Body/Continuity should not exist.

- (3) Check for continuity between (P19) and (P40) connectors.

- (4) Connect (P40) connector.
- (5) Check for continuity between (P40) connector and ground.

**Connector & Terminal/Specified resistance:**  
 (P19) No. 2 — (P40) No. 6/Continuity should exist.  
 (P40) No. 6 — Body/Continuity should not exist.

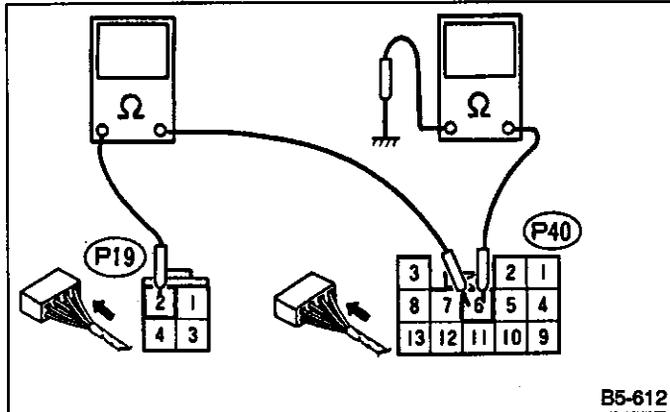


Fig. 97

### 7. DIAGNOSE AND REPAIR SHORT CIRCUIT.

- 1) Set the ignition switch to OFF.
- 2) Separate ECU from connector.
- 3) Check the main line.
  - (1) Separate connectors [(P40), (P1), (P22), (P13), and (R54)].
  - (2) Check for continuity between ECU connector and ground when locked or unlocked.

**Connector & Terminal/Specified resistance:**  
**When locked**  
 (B131) No. 14 — Body/Continuity should not exist.

**When unlocked**  
 (B131) No. 7 — Body/Continuity should not exist.

- If OK, go to 4).
  - If NOT OK, repair or replace the main line harness.
- 4) Check each door harness.
    - (1) Separate the connectors [(P19), (P11), (P25), (P18), (R61)] of all door lock actuators.
    - (2) Check for continuity between front door (P1) connector (RH) and (P40) connector (LH) and ground in both locked and unlocked states.

**Connector & Terminal/Specified resistance:**  
**When locked**  
 (P1, P40) No. 8 — Body/Continuity should not exist.

**When unlocked**  
 (P1, P40) No. 7 — Body/Continuity should not exist.

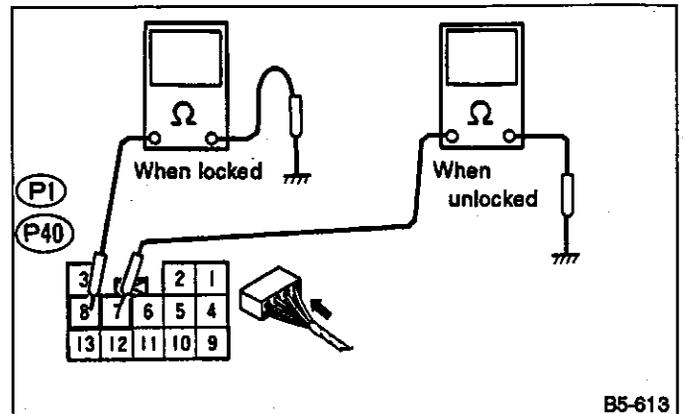


Fig. 98

- (3) Check for continuity between rear door (P13) connector (RH) and (P22) connector (LH) and ground in both locked and unlocked states.

**Connector & Terminal/Specified resistance:**  
**When locked**  
 (P13, P22) No. 4 — Body/Continuity should not exist.

**When unlocked**  
 (P13, P22) No. 3 — Body/Continuity should not exist.

- (4) Check for continuity between rear gate (R54) connector ground when locked and when unlocked.

**Connector & Terminal/Specified resistance:**  
**When locked**  
 (R54) No. 1 — Body/Continuity should not exist.

**When unlocked**  
 (R54) No. 2 — Body/Continuity should not exist.

- If OK, replace actuator.
- If NOT OK, replace harness.

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**E: TROUBLE (2) — TROUBLE IN CORRESPONDING DOOR LOCK ACTUATOR**

**CONTENTS OF DIAGNOSIS:**

- Faulty door lock actuator motor and circuit

**TROUBLE SYMPTOM:**

Some door locks are not linked with the driver's door lock.

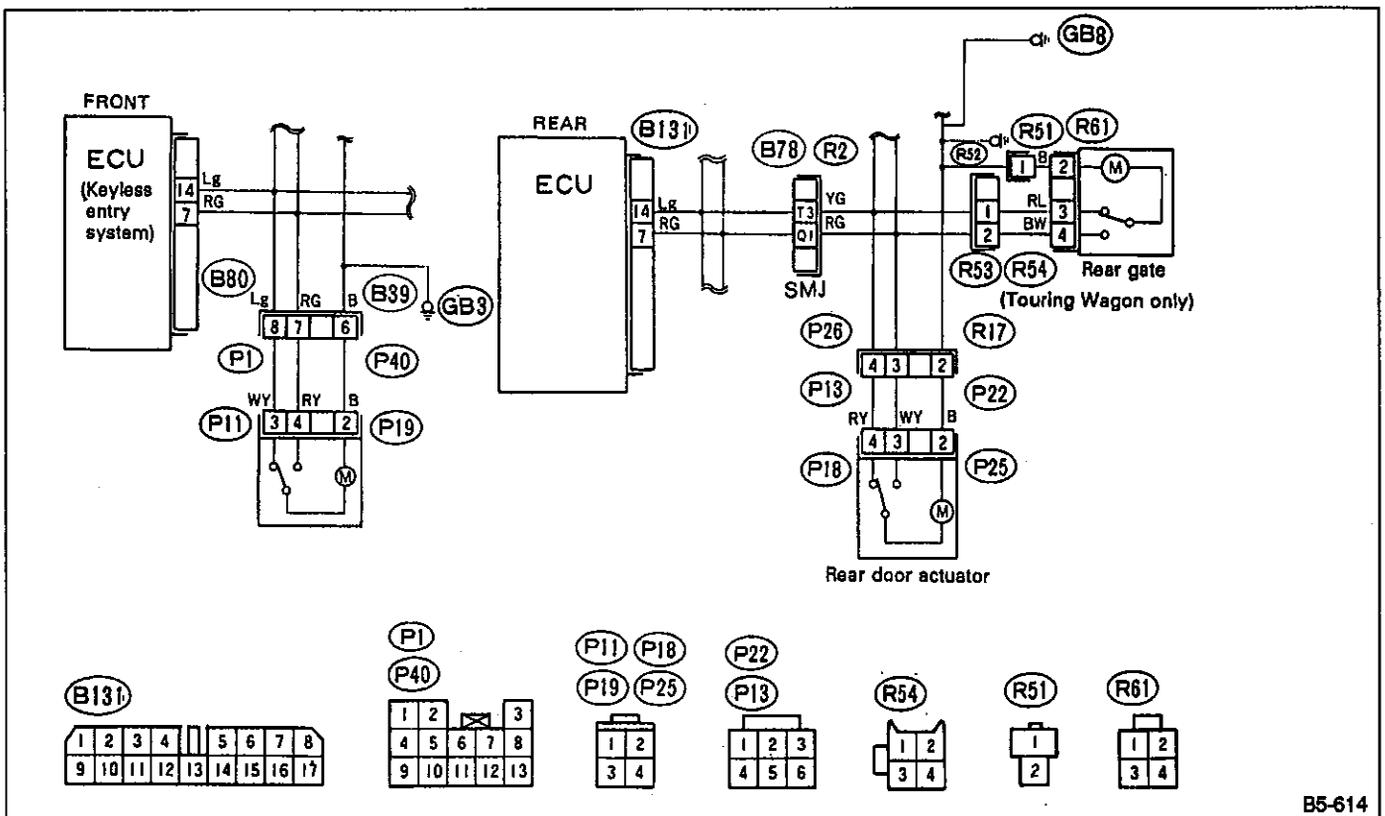
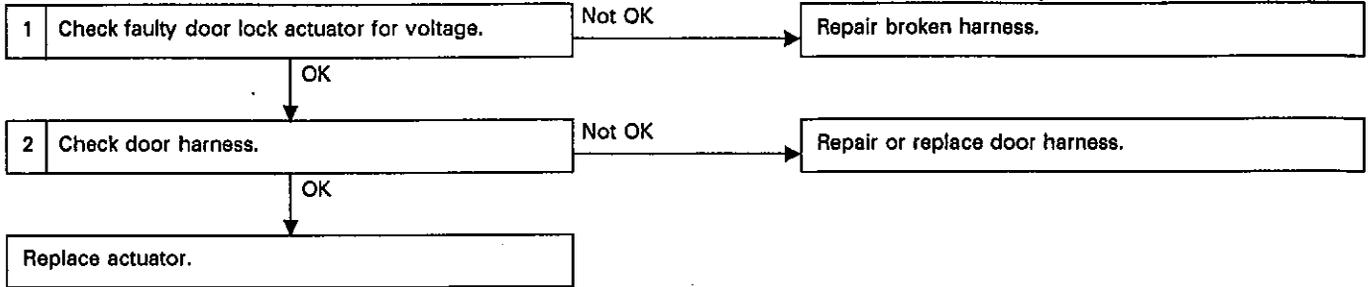


Fig. 99

**1. CHECK VOLTAGE OF FAULTY DOOR LOCK ACTUATOR.**

1) Confirm faulty door operation.

If either lock or unlock operation is faulty, the door will become inoperative when it is actuated once.

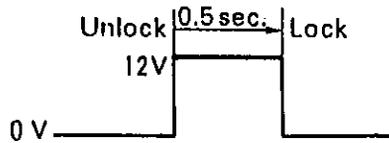
2) Check for voltage at door lock actuator.

If lock or unlock operation is faulty, measure voltage between connector of corresponding door harness, shown in the table following, and ground.

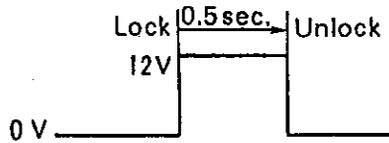
Door	FRH	FLH	RRH	RLH	Rear gate
Door harness connector	P1	P40	P13	P22	R54
When locked	⑧	⑧	④	④	①
When unlocked	⑦	⑦	③	③	②

F: Front  
R: Rear

Specified voltage:  
When locked



When unlocked



- If OK, go to 2.
- If NOT OK, circuit between ground and door harness connector may be broken.

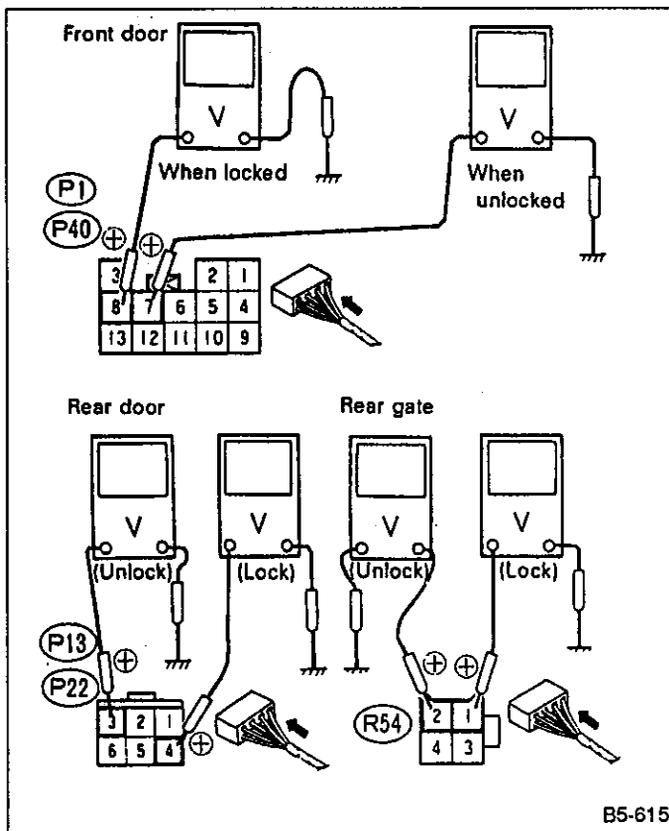


Fig. 100

3) Both lock and unlock operations are faulty.  
(Check ground.)

(1) Perform check of item 2) above.

- If OK, go to 2.
- If NOT OK, circuit between ECU and door harness connector may be broken, or connector disconnected.

(2) Separate corresponding door harness connector terminals shown in the table following, and check for continuity between separated terminal and ground.

FRH	FLH	RRH	RLH	Rear gate
B80	B39	R26	R17	R52
⑥	⑥	②	②	①

Specified resistance:  
Continuity should exist.

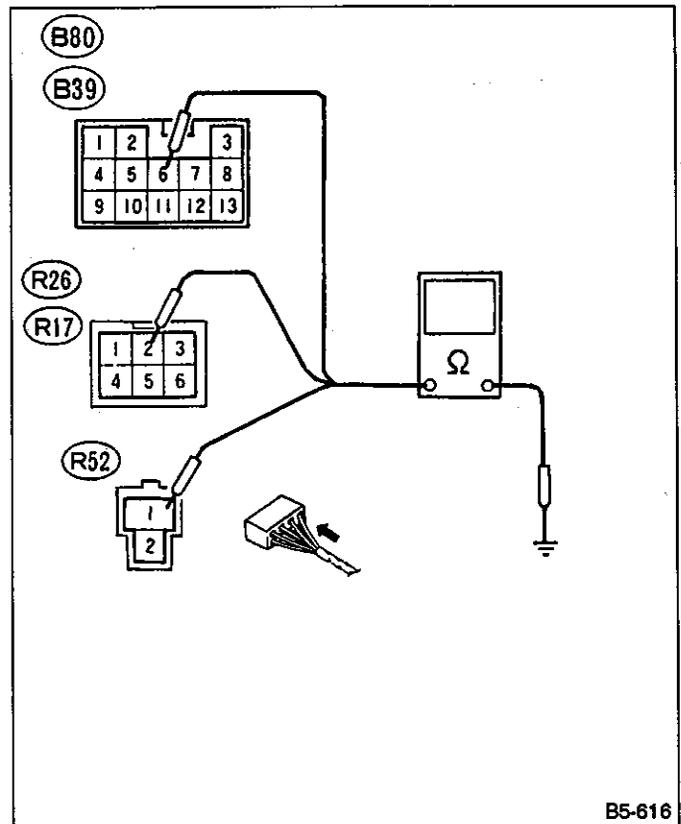


Fig. 101

- If OK, go to 2.
  - If NOT OK, the circuit between ground and door harness connector may be broken.
- 4) The rear door or rear gate only does not operate. Perform check as described in step (2) of item 3) above.
- If OK, repair or replace harness relating to rear harness SMJ (Super Multiple Junction).
  - If NOT OK, ground may be faulty.

**2. CHECK THE DOOR HARNESS.**

1) Separate door harness connector and door actuator connector of faulty door.

Door	FRH	FLH	RRH	RLH	Rear gate
Door harness connector	P1	P40	P13	P22	R54, R51
Door actuator connector	P11	P19	P18	P25	R61

2) If either locking or unlocking operation is faulty, check circuit between corresponding connector pins shown in the table below.

Door	FRH P1 → P11	FLH P40 → P19	RRH P13 → P18	RLH P22 → P25	Rear gate R54 → R61
When locked	⑧ → ③	⑧ → ③	④ → ④	④ → ④	① → ③
When unlocked	⑦ → ④	⑦ → ④	③ → ③	③ → ③	② → ④

**Specified resistance:**  
Continuity should exist.

3) If both locking and unlocking operations are faulty;  
 (1) Perform check as described in 2) above. If OK, go to (2) below.  
 (2) Check for continuity between corresponding connector terminals shown below.

Door	FRH P1 → P11	FLH P40 → P19	RRH P13 → P18	RLH P22 → P25	Rear gate R54 → R61
	⑥ → ②	⑥ → ②	② → ②	② → ②	① → ②

**Specified resistance:**  
Continuity should exist.

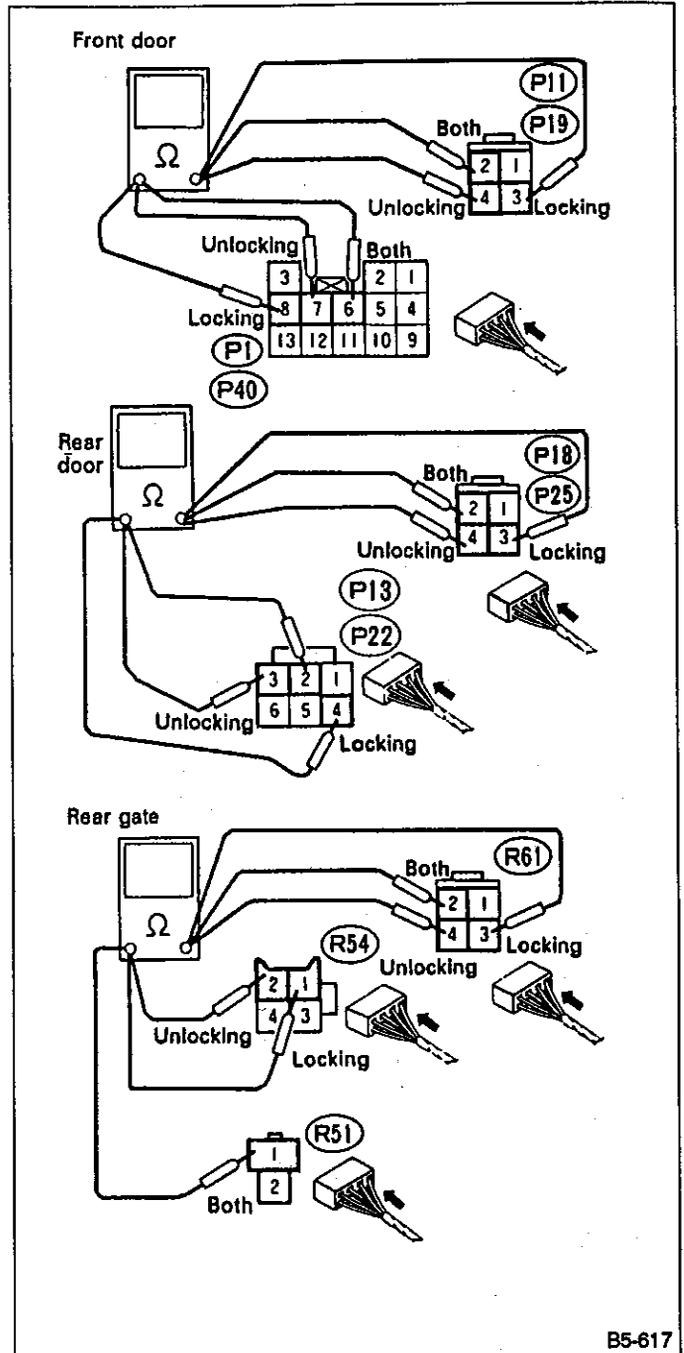


Fig. 102

B5-617

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**F: TROUBLE (3) — FAULTY TRIGGER SWITCH**

**CONTENTS OF DIAGNOSIS:**

- Trigger signal is not entered
- Trigger switch is faulty
- Trigger circuit is faulty

**TROUBLE SYMPTOM:**

When driver's door lock is actuated, door locks of other doors operate with a delay time.

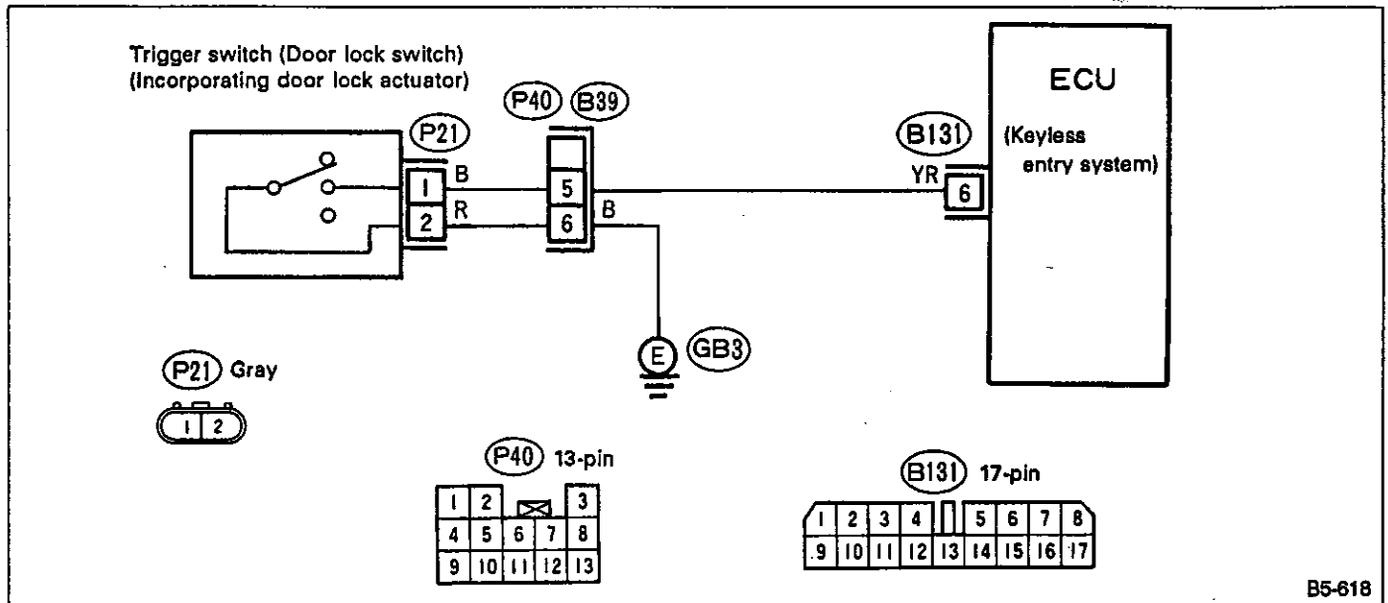
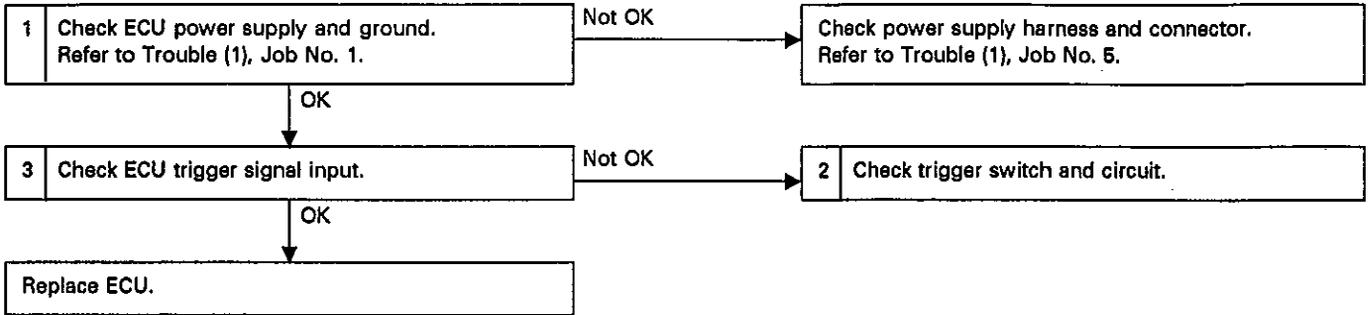


Fig. 103

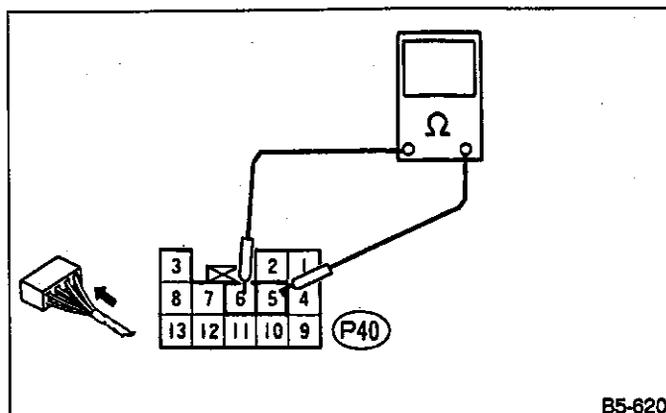
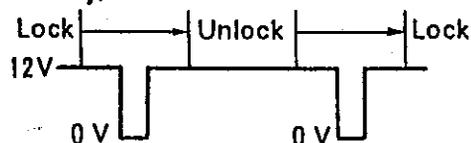
B5-618

**1. CHECK ECU TRIGGER SIGNAL INPUT.**

- 1) Connect an oscilloscope between ECU and ground. (DC, 0.5 V/Div, 20ms/Div, x10 probe)
- 2) Measure voltage change while repeating locking and unlocking of driver's door lock.

Connector & Terminal/Specified voltage:

(B131) No. 4 — Body/



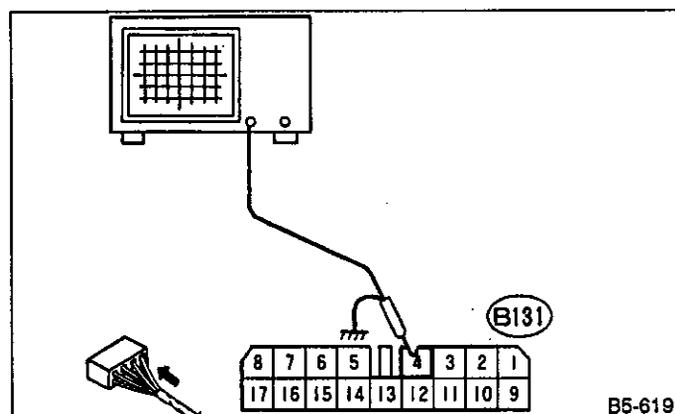
B5-620

Fig. 105

- If OK, go to "2) Check harness."
  - If NOT OK, go to step (5).
- (5) Separate (P21) connector.
  - (6) Check circuit between (P40) connector and (P21) connector for continuity and short to ground.

Connector & Terminal/Specified resistance:

- (P40) No. 5 — (P21) No. 2/Continuity should exist.  
 (P40) No. 5 — Body/Continuity should not exist.



B5-619

Fig. 104

- If voltage remains at 12 V, circuit may be broken.
- If voltage remains 0 V, circuit may be shorted to ground.

**2. CHECK TRIGGER SWITCH (DOOR LOCK SWITCH) AND CIRCUIT.**

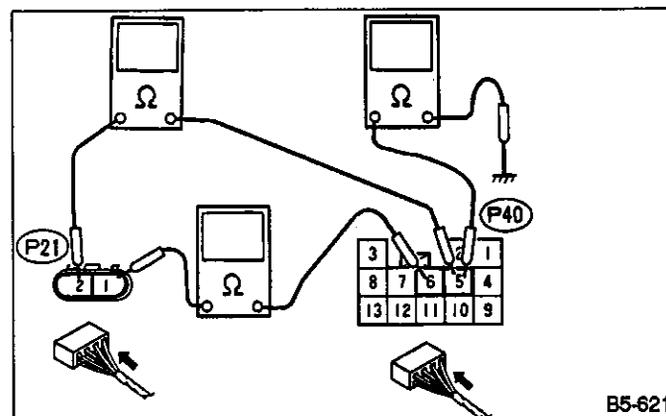
- 1) Check switch.
  - (1) Set ignition switch to OFF.
  - (2) Separate (P40) connector.
  - (3) Check for continuity of (P40) connector.
  - (4) Set driver's door switch to "LOCK" and "UNLOCK" repeatedly.

Connector & Terminal/Specified resistance:

(P40) No. 5 — No. 6/

When locked → Unlocked → Locked .....

No continuity → Continuity → No continuity .....



B5-621

Fig. 106

- (7) Check for continuity between (P40) connector and (P21) connector.

Connector & Terminal/Specified resistance:

- (P40) No. 6 — (P21) No. 1/Continuity should exist.

- If OK, replace switch.
- If NOT OK, repair or replace switch harness.

**2) Check harness.**

(1) Check circuit between (B39) connector and ECU connector for continuity and short to ground.

---

**Connector & Terminal/Specified resistance:**

(B39) No. 5 — (B131) No. 6/Continuity should exist.

(B39) No. 5 — Body/Continuity should not exist.

---

(2) Check for continuity between (B39) connector and ground.

---

**Connector & Terminal/Specified resistance:**

(B39) No. 6 — Body/Continuity should exist.

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**G: TROUBLE (4) — FAULTY INFRARED KEYLESS ENTRY SYSTEM**

**CONTENTS OF DIAGNOSIS:**

- Faulty ECU power supply circuit or grounding circuit
- Faulty door switch and circuit
- Faulty transmitting or receiving unit and circuit
- Faulty ECU

**TROUBLE SYMPTOM:**

The door lock is not actuated even when infrared remote control key is pressed.

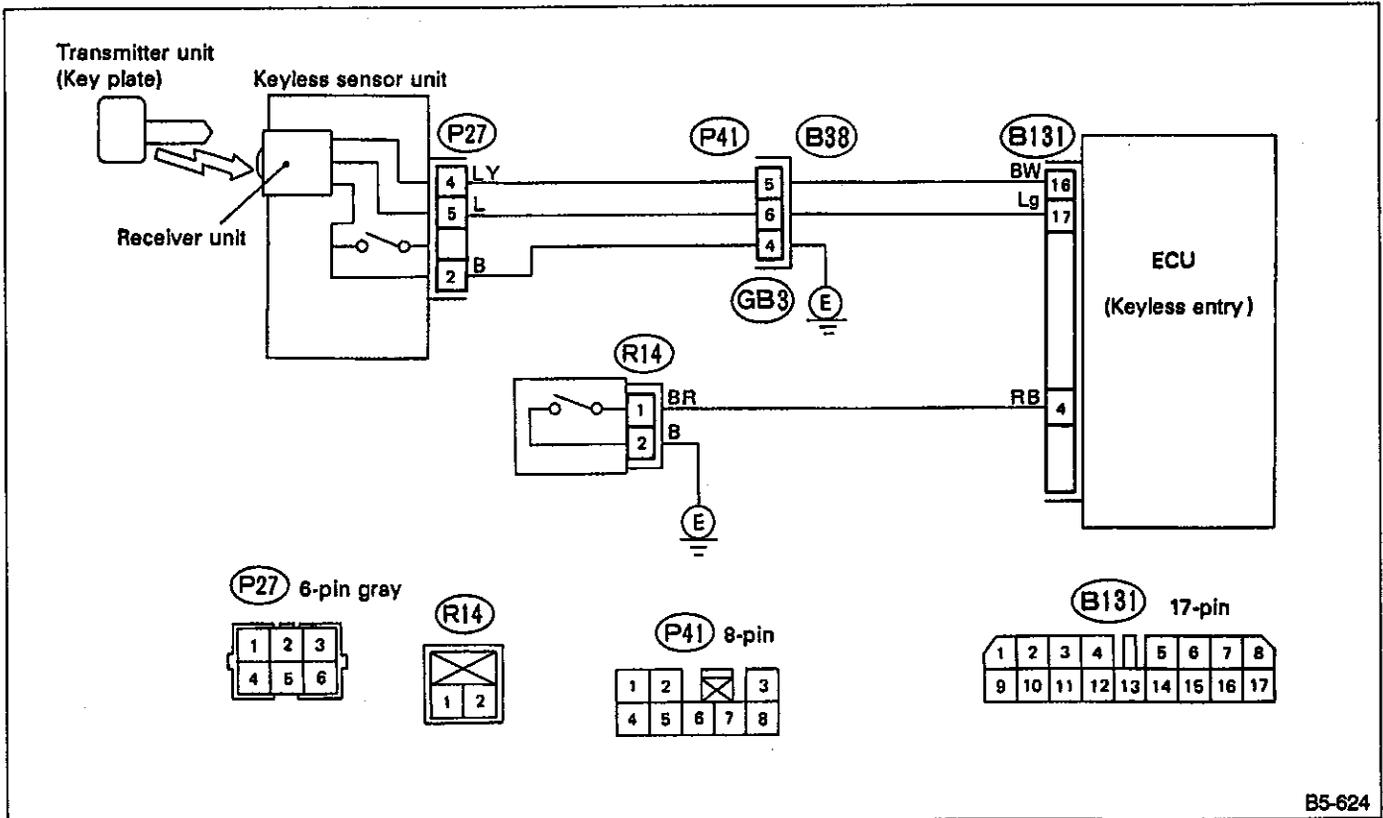
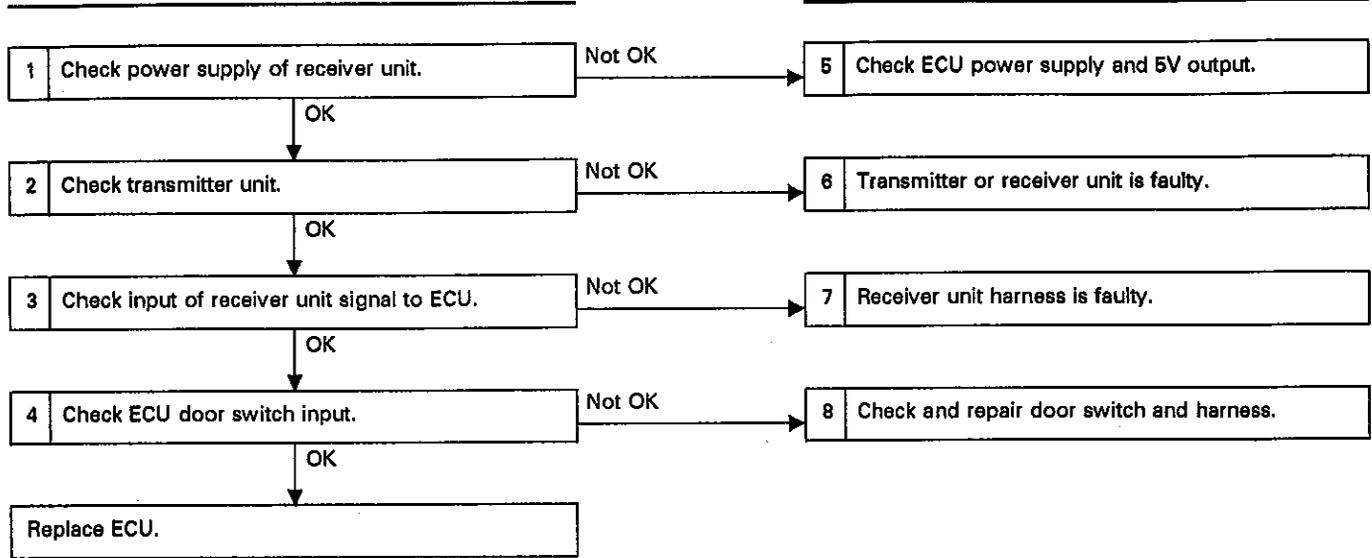


Fig. 107

B5-624

**1. CHECK POWER SUPPLY OF RECEIVER UNIT.**

- 1) Measure voltage between (B38) connector and ground.

Connector & Terminal/Specified voltage:  
(B38) No. 5 — Body/5 V

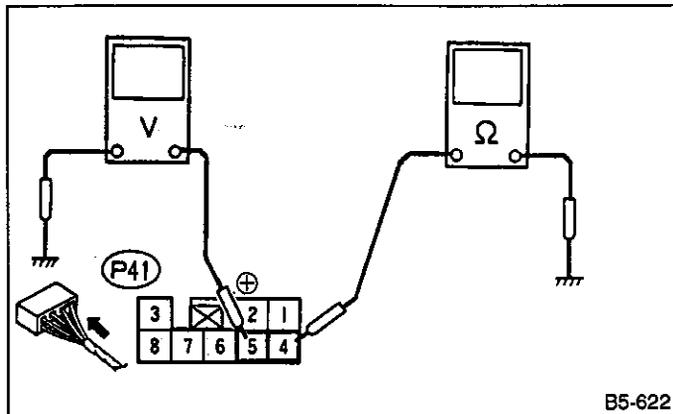


Fig. 108

- 2) Set ignition switch to OFF.
- 3) Check for continuity between (B38) connector and ground.

**2. CHECK TRANSMITTER UNIT.**

- 1) Clean receiver glass window with tissue paper.
- 2) Connect an oscilloscope between (B38) connector and ground.  
(DC, 0.5 V/Div, 20ms/Div, x10 probe)
- 3) Press transmitter switch on key plate.
- 4) See waveform displayed on screen.

Connector & Terminal/Specified voltage:  
(B38) No. 6 — Body/ 5V



(Wave form varies from vehicle to vehicle.)

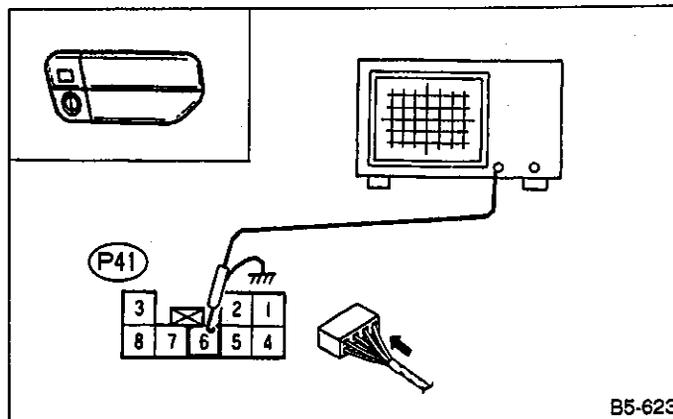


Fig. 109

**3. CHECK INPUT OF RECEIVER UNIT SIGNAL TO ECU.**

- 1) Connect an oscilloscope between ECU and ground.  
(DC, 0.2 V/Div, 20ms/Div. x10 probe)
- 2) Press switch on key plate.
- 3) Observe waveform displayed on screen.

Connector & Terminal/Specified voltage:  
(B131) No. 17 — Body/

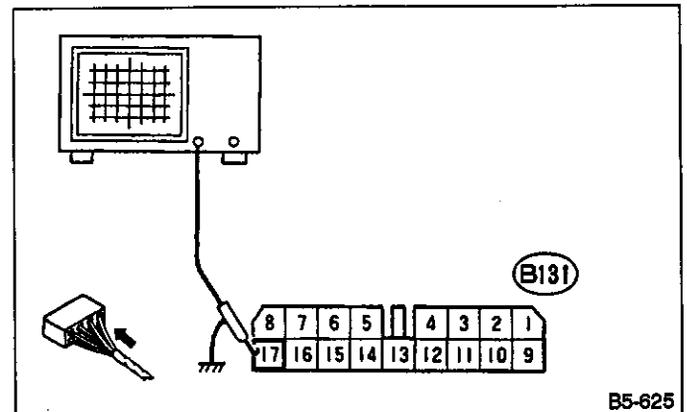


Fig. 110

**4. CHECK INPUT VOLTAGE TO ECU DOOR SWITCH.**

- 1) Measure voltage between ECU and ground.
- 2) Open and close driver's door repeatedly.

Connector & Terminal/Specified voltage:  
(B131) No. 4 — Body/Door open: 0 V  
Door close: 12 V

- If voltage remains at 12 V, circuit may be broken.
- If voltage remains at 0 V, circuit may be shorted to ground.

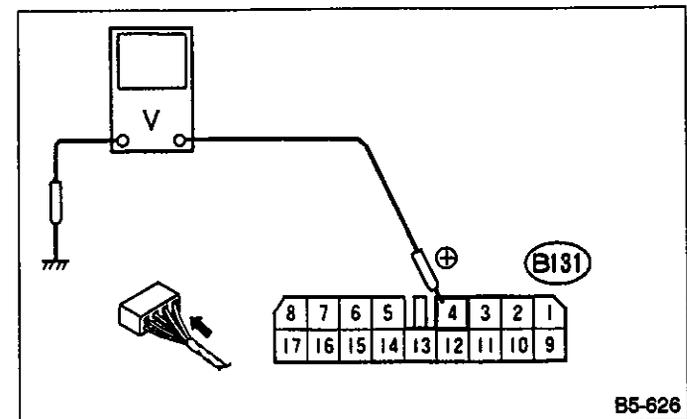


Fig. 111

### 5. CHECK ECU POWER SUPPLY AND 5 V OUTPUT.

- 1) Check ECU power supply.  
Refer to Jobs 1 and 5 of Trouble (1).
- 2) Check for 5 V output.

(1) Measure voltage between ECU and ground.

**Connector & Terminal/Specified voltage:**  
(B131) No. 16 — Body/5 V

- If OK, harness between (B38) connector and ECU is broken, and must be repaired.
  - If NOT OK, go to (2).
- (2) Separate connector from ECU.
  - (3) Check for continuity between ECU connector and ground.

**Connector & Terminal/Specified voltage:**  
(B131) No. 16 — Body/Continuity should not exist.

- If OK, replace ECU.
- If NOT OK, repair harness between (B38) connector and ECU.

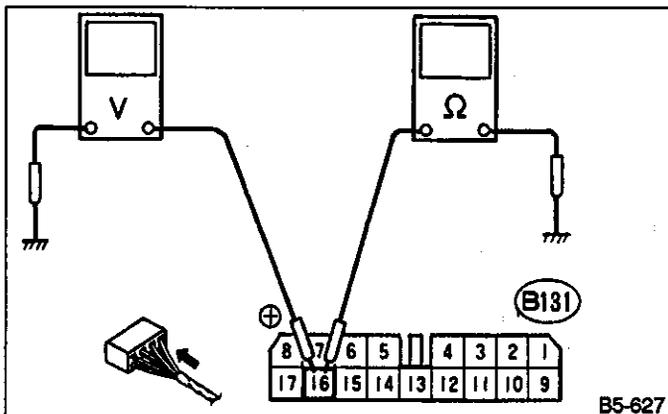


Fig. 112

### 6. TRANSMITTER OR RECEIVER UNIT IS FAULTY.

- 1) Transmitter unit is faulty.

- (1) Prepare another key plate for keyless entry system, or a TV remote controller.
- (2) Using key plate or TV remote controller, perform operation "2. Check transmitter unit."

- If OK (waveform is displayed), replace battery of transmitter unit, or replace the unit.
- If NOT OK, go to (2).

- 2) Check receiver unit harness.

- (1) Separate (P27) connector and (P41) connector.
- (2) Check circuit between (P27) connector and (P41) connector for continuity and for a short to ground.

**Connector & Terminal/Specified resistance:**

- (P27) No. 4 — (P41) No. 5/Continuity should exist.
- (P27) No. 5 — (P41) No. 6/Continuity should exist.
- (P41) No. 5 — Body/Continuity should not exist.
- (P41) No. 6 — Body/Continuity should not exist.

- If OK, go to (3).
- If NOT OK, repair or replace harness.

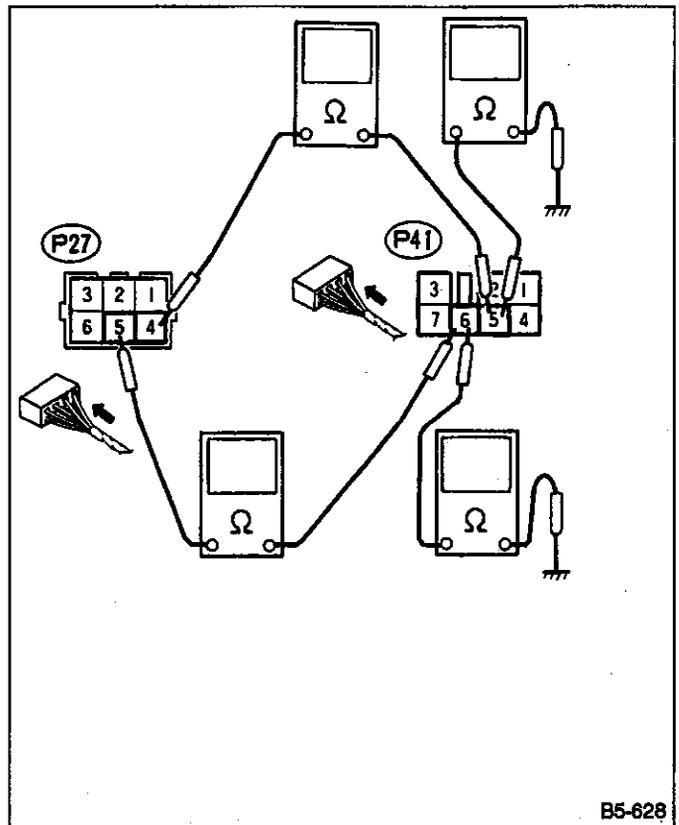


Fig. 113

- (3) Check for continuity between (P27) connector and (P41) connector.

**Connector & Terminal/Specified resistance:**

- (P27) No. 2 — (P41) No. 4/Continuity should exist.

- If OK, replace receiver unit.

- If NOT OK, repair or replace harness.

### 7. CHECK RECEIVER UNIT HARNESS.

Check circuit between (B38) connector and ECU connector for continuity and for a short to ground.

**Connector & Terminal/Specified resistance:**

- (B38) No. 6 — (B131) No. 17/Continuity should exist.

- (B38) No. 6 — Body/Continuity should not exist.

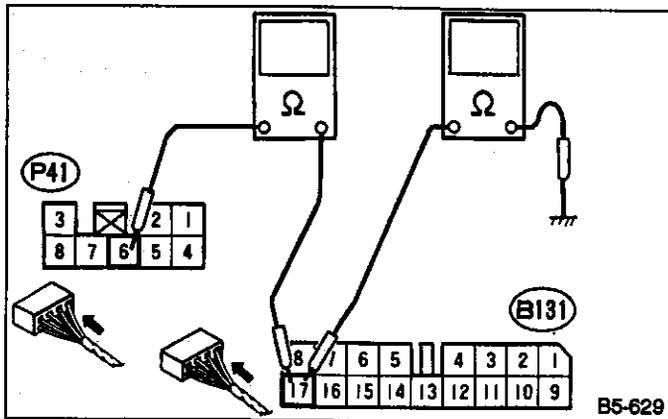


Fig. 114

**8. CHECK AND REPAIR DOOR SWITCH AND CIRCUIT.**

- 1) Check the switch.  
Check for continuity of (R14) connector.

**Connector & Terminal/Specified resistance:**  
 (R14) No. 1 — No. 2/  
 Door open: Continuity should exist.  
 Door close: Continuity should not exist.

- If OK, go to 2).
- If NOT OK, replace switch.

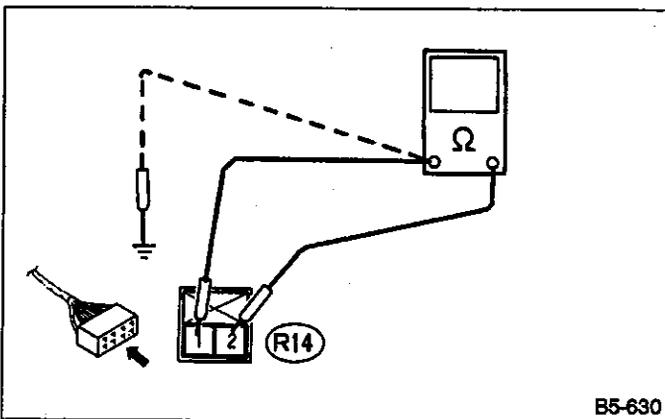


Fig. 115

- 2) Check the harness.
  - (1) Separate ECU from connector.
  - (2) Check for continuity between (R14) connector and ground.

**Connector & Terminal/Specified resistance:**  
 (R14) No. 2 — Body/Continuity should exist.

- If OK, go to 2).
- If NOT OK, grounding to body is unsatisfactory.  
 (3) Check circuit between (R14) connector and ECU connector for continuity and a short to ground.

**Connector & Terminal/Specified resistance:**  
 (R14) No. 1 — (B131) No. 4/Continuity should exist.  
 (B131) No. 4 — Body/Continuity should not exist.

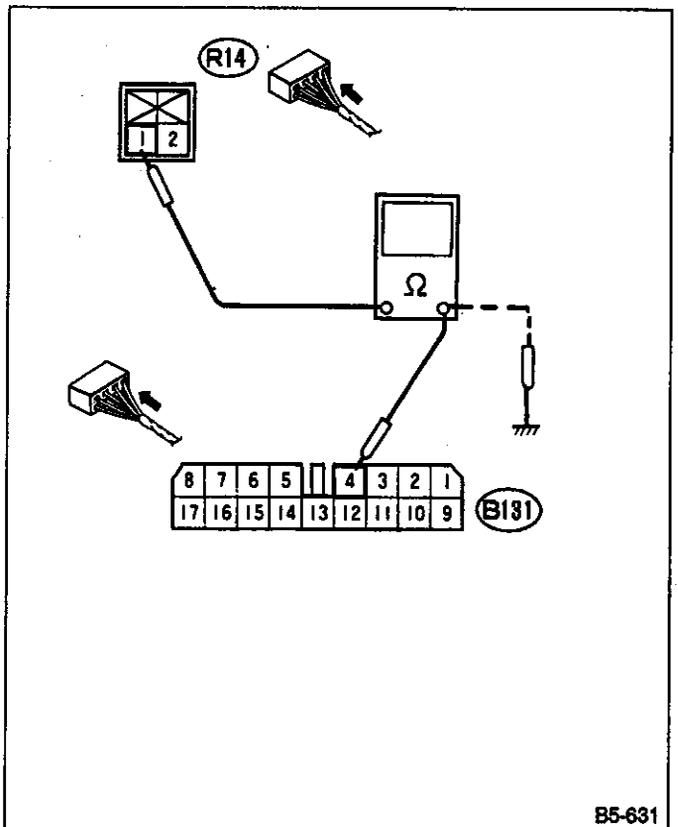


Fig. 116

**H: TROUBLE (5) — FAULTY BUZZER CIRCUIT OR ECU**

**CONTENTS OF DIAGNOSIS:**

- Faulty buzzer and circuit

**TROUBLE SYMPTOM:**

Buzzer fails to sound when infrared keyless entry system is operated.

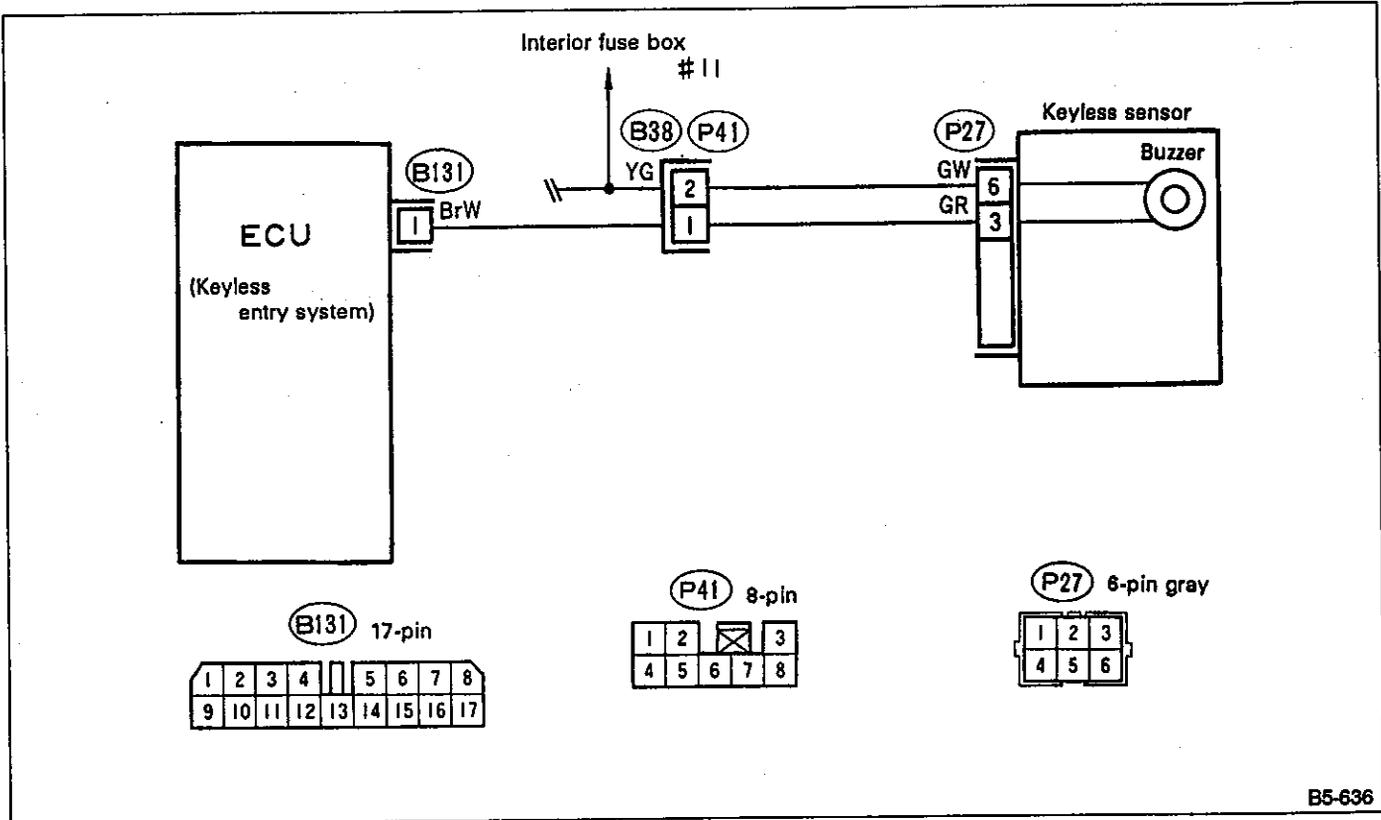
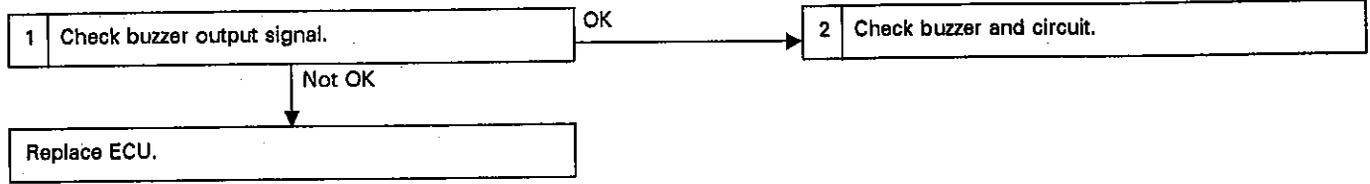


Fig. 117

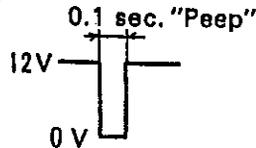
B5-636

**1. CHECK BUZZER OUTPUT SIGNAL.**

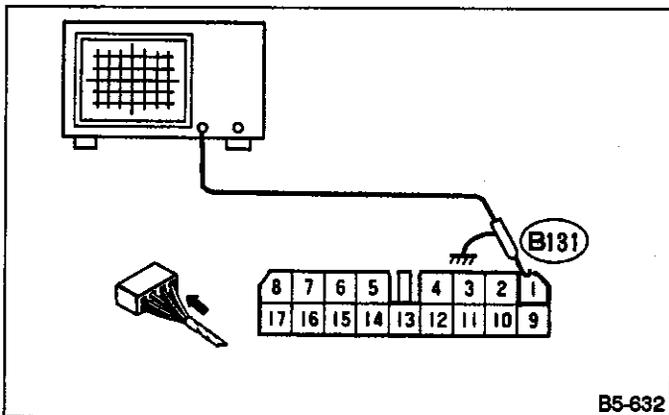
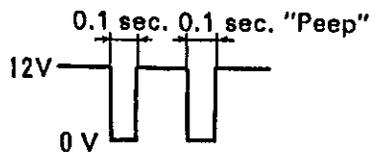
- 1) Connect an oscilloscope to ECU and ground.  
(DC, 0.5 V/Div, 20ms/Div, x10 probe)
- 2) With door closed, press switch on key plate several times.

**Connector & Terminal/Specified voltage:**  
(B131) No. 1 — Body/

**When locked**



**When unlocked**



B5-632

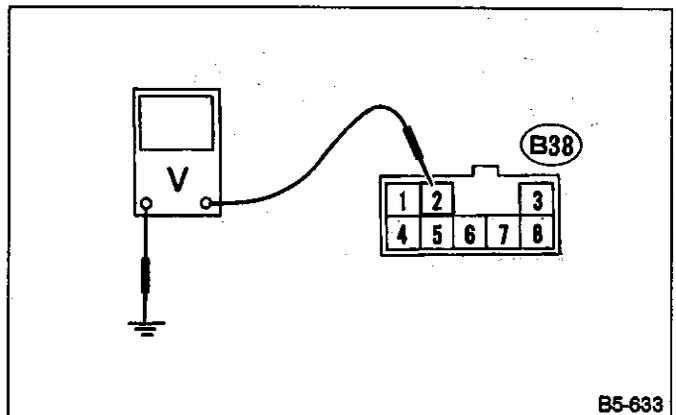
Fig. 118

**2. CHECK AND REPAIR BUZZER CIRCUIT.**

- 1) Check the harness.
  - (1) Measure voltage between (B38) connector and ground.

**Connector & Terminal/Specified voltage:**  
(B38) No. 2 — Body/Battery voltage

- If OK, go to 2).
- If NOT OK, repair or replace harness between fuse box and (B38) connector.



B5-633

Fig. 119

**2) Check the buzzer.**

- (1) Separate ECU connector, (B38) connector and (P27) connector.
- (2) Check for continuity between the ECU connector and (B38) connector.
- (3) Check for continuity between (P41) connector and (P27) connector.

**Connector & Terminal/Specified resistance:**

(B131) No. 1 — (B38) No. 1/Continuity should exist.

(P41) No. 1 — (P27) No. 3/Continuity should exist.

(P41) No. 2 — (P27) No. 6/Continuity should exist.

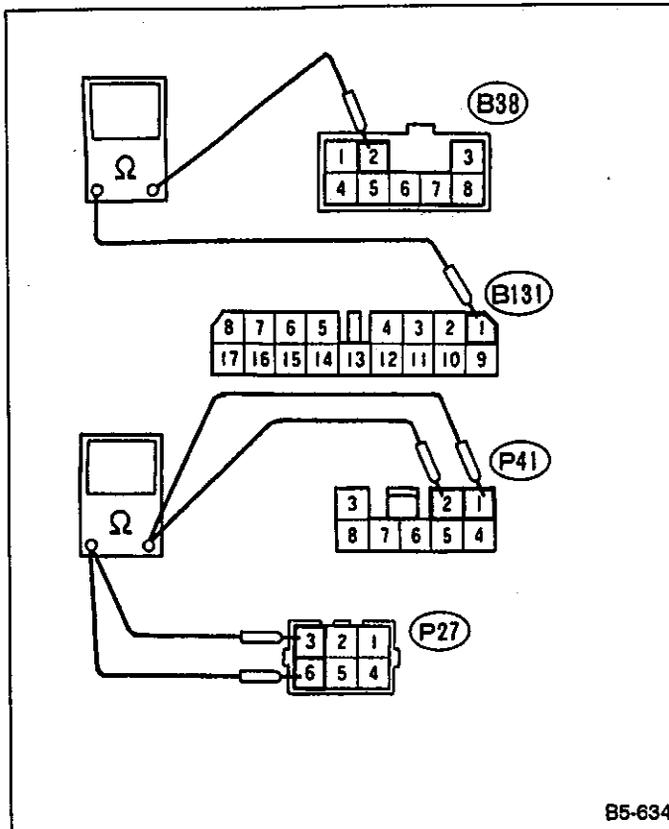


Fig. 120

(4) Connect (B38) connector (Pin No. 1) to ground, and confirm that buzzer sounds.

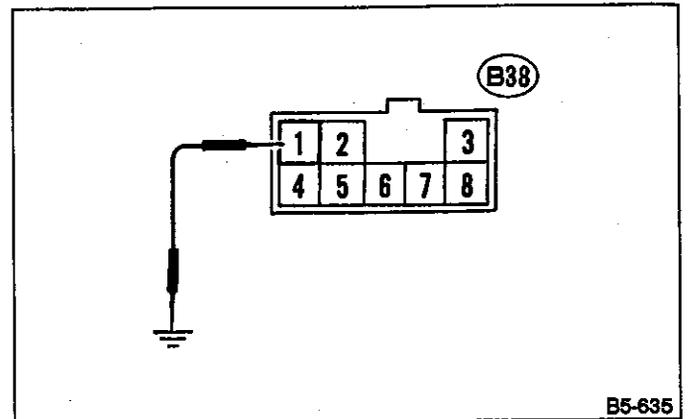


Fig. 121

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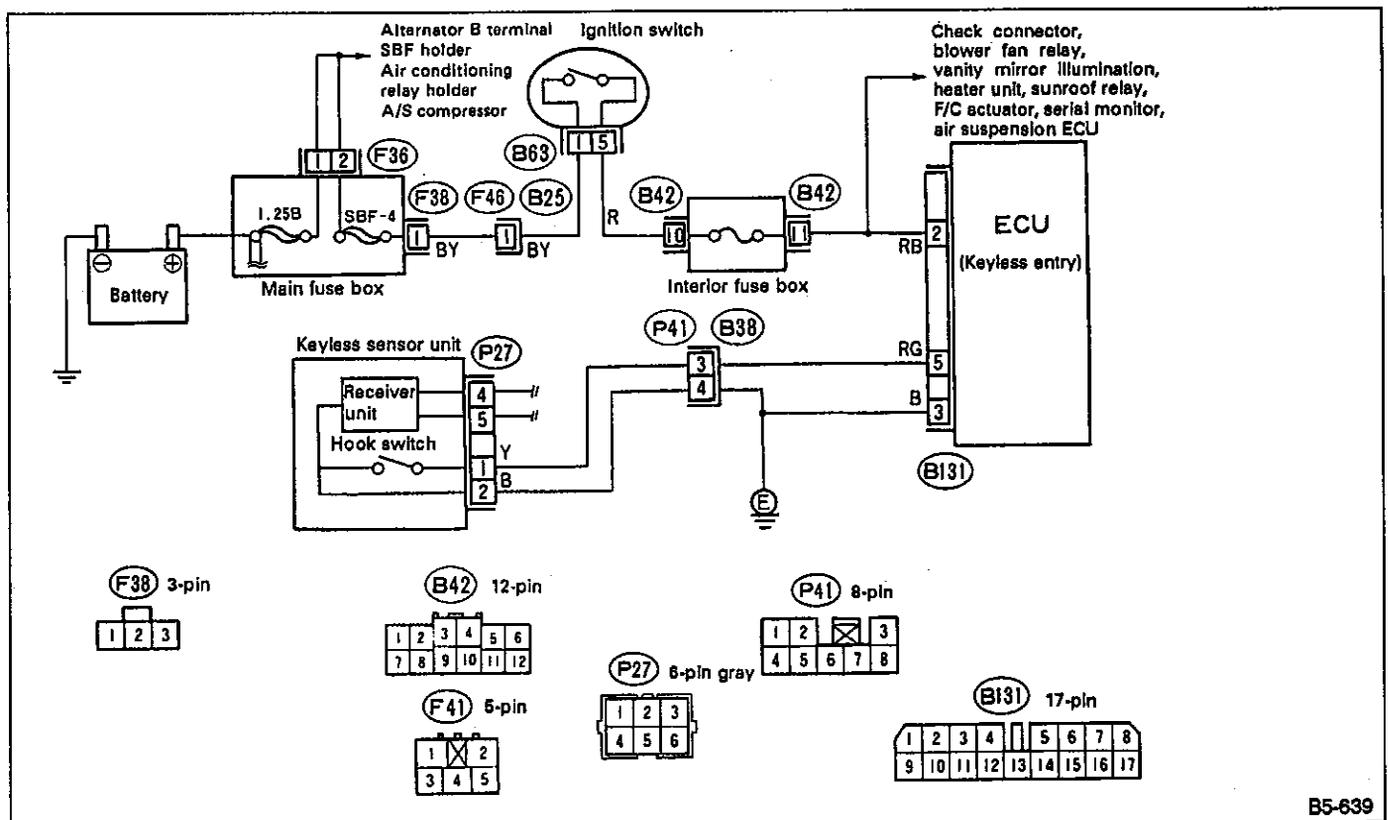
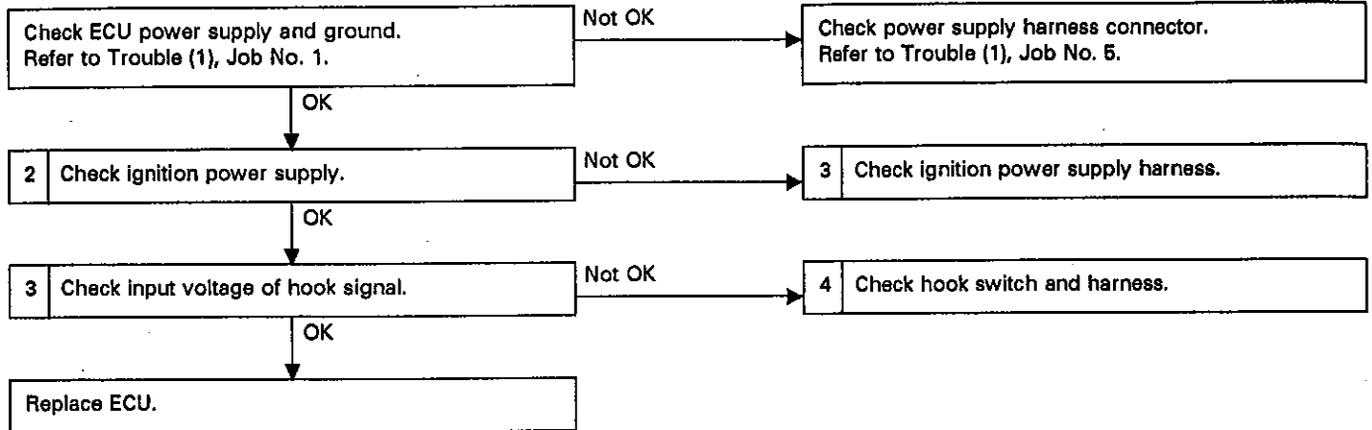
**I: TROUBLE CODE (6) — FAULTY PULLING TYPE KEYLESS ENTRY SYSTEM**

**CONTENTS OF DIAGNOSIS:**

- Faulty control unit (ECU)
- Faulty ECU power supply and grounding circuit
- Faulty ignition power supply circuit
- Faulty hook switch

**TROUBLE SYMPTOM:**

The door handle is operated as specified by the code number, but the door fails to open.



B5-639

Fig. 122

**1. CHECK IGNITION POWER SUPPLY.**

- 1) Set ignition switch to OFF.
- 2) Separate ECU from connector.
- 3) Measure voltage between ECU and ground.
- 4) Set ignition switch to ON.

**Connector & Terminal/Specified voltage:**

(B131) No. 2 — Body/  
Ignition SW ON: Battery voltage  
Ignition SW OFF: 0 V

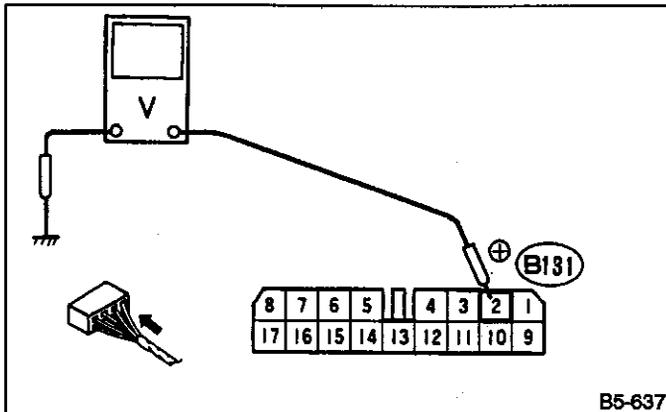


Fig. 123

**2. CHECK HOOK SIGNAL INPUT VOLTAGE.**

- 1) Measure voltage between ECU and ground.
- 2) Operate door outer handle.

**Connector & Terminal/Specified voltage:**

(B131) No. 5 — Body/  
When releasing handle: Battery voltage  
When pulling handle: 0 V

- If voltage remains at 12 V, an open-circuit is suspected.
- If voltage remains at 0 V, a short circuit is suspected.

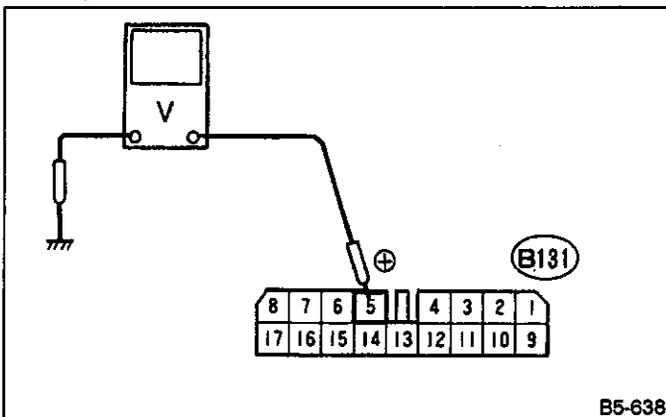


Fig. 124

**3. CHECK IGNITION POWER SUPPLY HARNESS.**

- 1) Separate ECU from connector.
- 2) Set ignition switch to ON.
- 3) Measure voltage between (B42) connector and ground.

**Connector & Terminal/Specified voltage:**

(B42) No. 11 — Body/Battery voltage

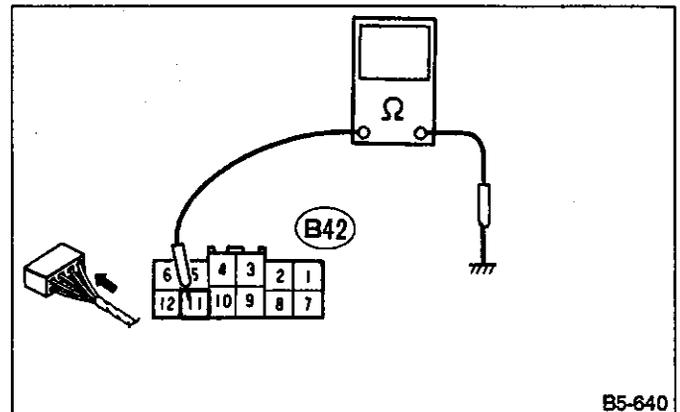


Fig. 125

**4. CHECK HOOK SWITCH AND HARNESS.**

- 1) Check switch.
  - (1) Separate (P41) connector.
  - (2) Check for continuity of (P41) connector.
  - (3) Repeat pulling and releasing of door handle.

**Connector & Terminal/Specified resistance:**

(P41) No. 3 — No. 4/  
When pulling handle: Continuity should exist.  
When releasing handle: Continuity should not exist.

- If OK, replace harness.
- If NOT OK, go to (4).
- (4) Check circuit between (P27) connector and (P41) connector for continuity and for a short to ground.

**Connector & Terminal/Specified resistance:**

(P27) No. 1 — (P41) No. 3/Continuity should exist.  
(P27) No. 2 — (P41) No. 4/Continuity should exist.  
(P27) No. 1 — Body/Continuity should not exist.  
(P27) No. 2 — Body/Continuity should not exist.

- If OK, replace switch.
- If NOT OK, repair or replace switch harness.

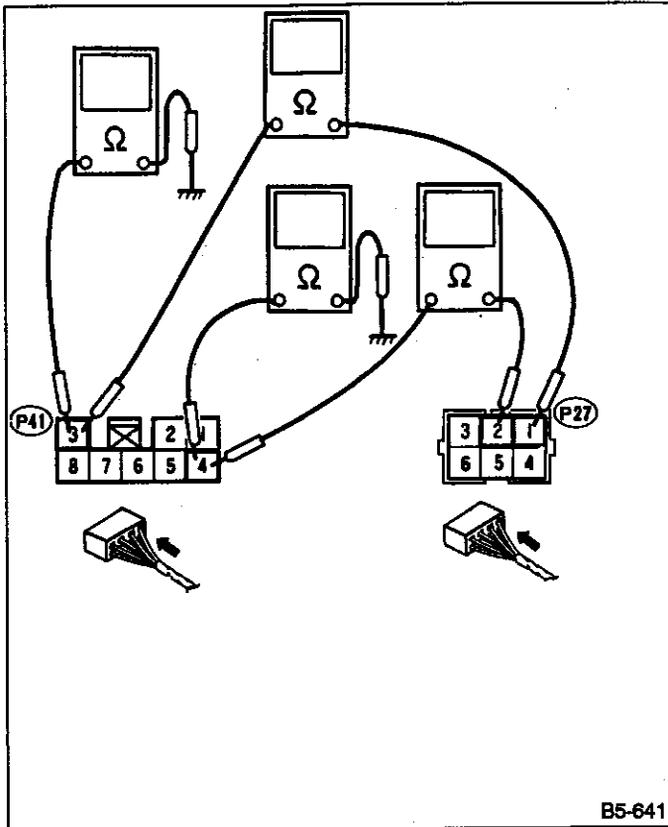


Fig. 126

B5-641

2) Check the harness.

(1) Check circuit between (B38) connector and ECU connector for continuity and for a short to ground.

**Connector & Terminal/Specified resistance:**

(B38) No. 3 — (B131) No. 5/Continuity should exist.

(B38) No. 3 — Body/Continuity should not exist.

- If OK, go to (2).
- If NOT OK, repair or replace harness.

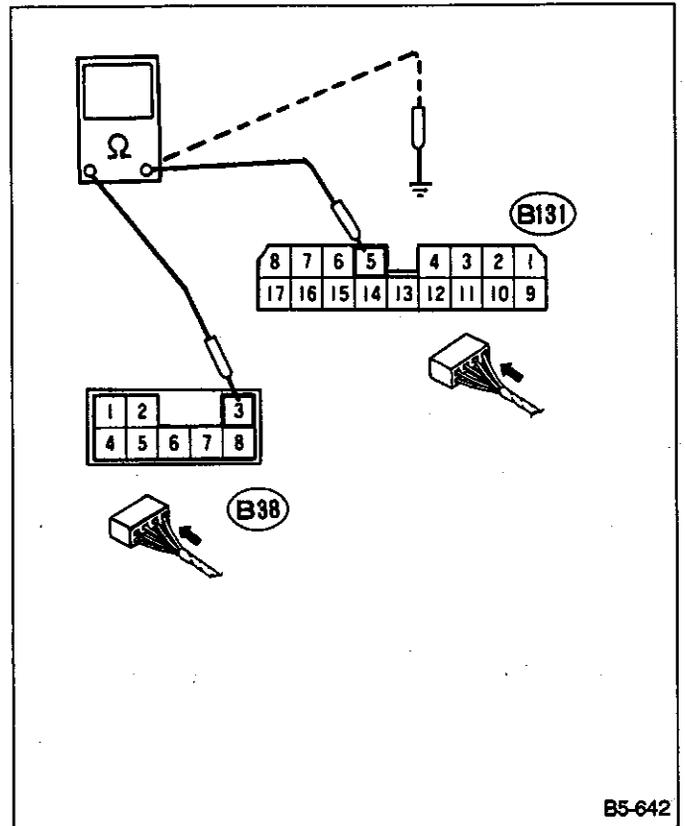


Fig. 127

(2) Check for continuity between (P41) connector and ground.

**Connector & Terminal/Specified resistance:**

(P41) No. 4 — Body/Continuity should exist.

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**J: TROUBLE (7) — FAULTY BUZZER CIRCUIT OR ECU**

**CONTENTS OF DIAGNOSIS:**

- Faulty buzzer and circuit

**TROUBLE SYMPTOM:**

Even when door handle is operated for actuating the keyless entry system, no buzzer sounds.

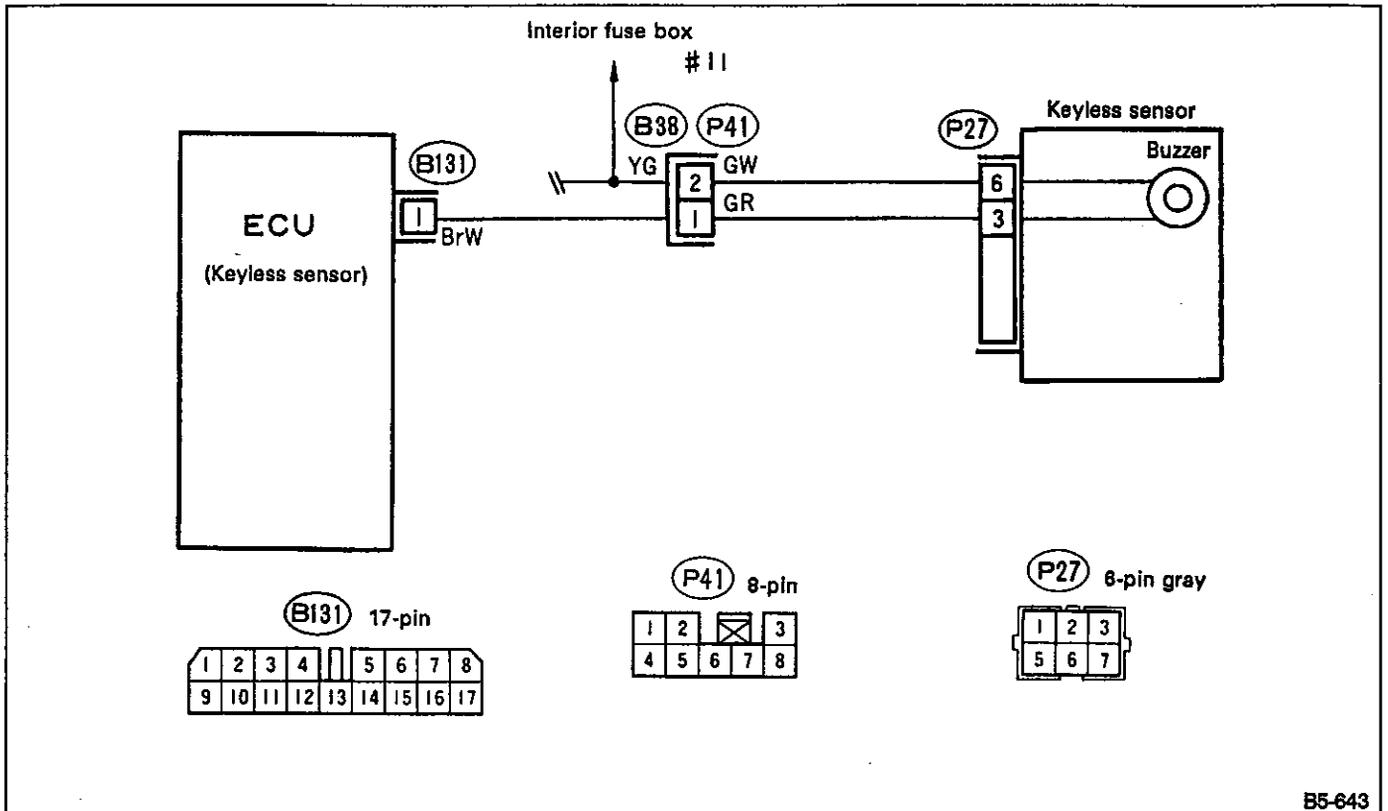
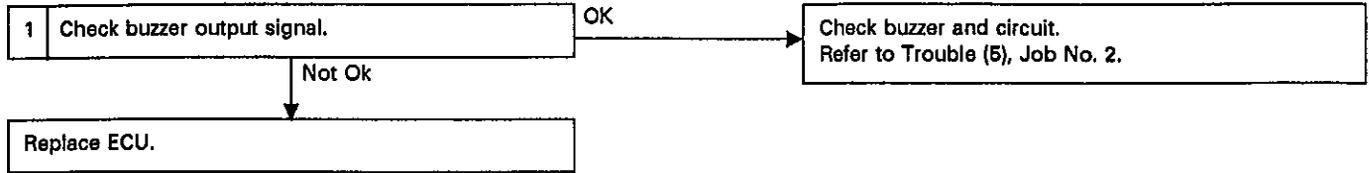


Fig. 128

B5-643

**1. CHECK BUZZER OUTPUT SIGNAL.**

- 1) Connect an oscilloscope between ECU and ground.  
(DC, 0.5/Div, 50ms/Div, x10 probe)
- 2) Enter specified code number by operating door handle, and measure voltage after entering each digit.

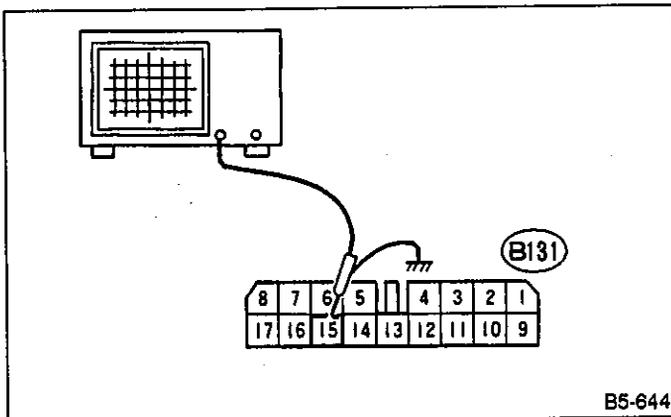
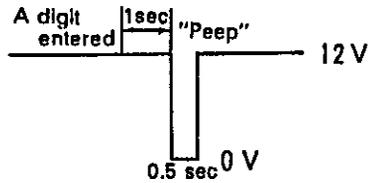
**Connector & Terminal/Specified voltage:****(B131) No. 1 — Body/**

Fig. 129

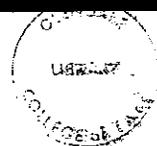
**SUBARU®**

**1992**

**SERVICE  
MANUAL**



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# M MECHANISM AND FUNCTION

## 1. Front Seat

### A: OUTLINE

The front seat can be adjusted to different positions to suit the driver's physique, and to improve driving comfort.

### B: SEAT SLIDING ADJUSTMENT

When the slide adjuster lever is turned, the slide rail lock is released. The front seat can then be moved 216 mm (8.50 in) in the fore-and-aft direction [17 positions at a pitch of 13.5 mm (0.531 in)].

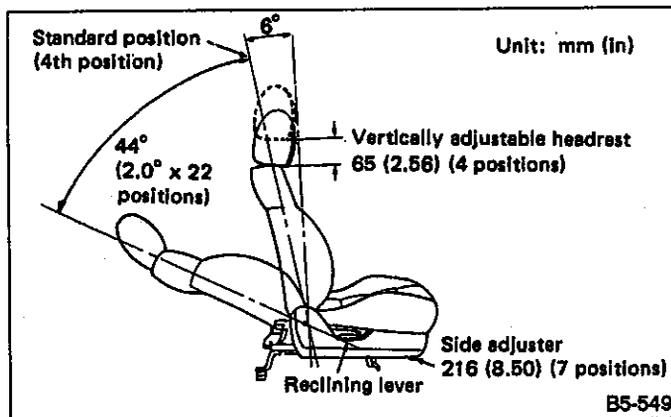


Fig. 1

### C: SEAT RECLINING

When the reclining lever is moved up, the reclining hinge lock is released. The seat backrest can be adjusted every 2°, and also folded fully forward.

### D: SEAT LIFTER MECHANISM

#### 1. CONSTRUCTION

When the lifter adjustment lever is extended and rotated, the lifter brake is released. The seat can be precisely adjusted to the desired height within a range of 35 mm (1.38 in).

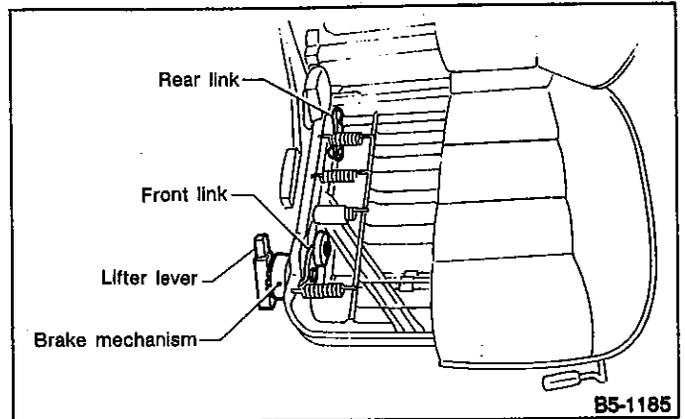


Fig. 2

#### 2. MECHANISM

When the adjustment lever is extended and moved up, the pinion, interconnected with the lever, will move in direction A. This causes the sector gear to rotate in direction B, so that the front link is lifted in direction C. The rear link also is lifted, along with the front link, in direction D. As a result, the entire seat cushion moves up. The brake lock mechanism, which is built into the rotary shaft section of the adjustment lever, has the same design as the window regulator in order to securely hold the cushion in place.

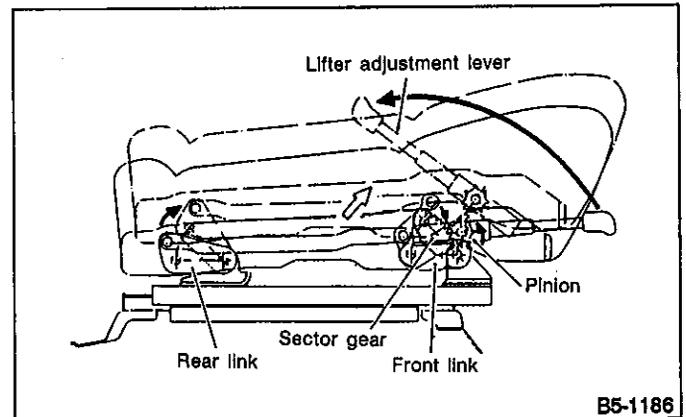


Fig. 3

**E: LUMBAR SUPPORT****1. CONSTRUCTION**

The lumbar support adjustment lever can set the loin supporting section of the seatback to any of three positions in the fore-and-aft direction.

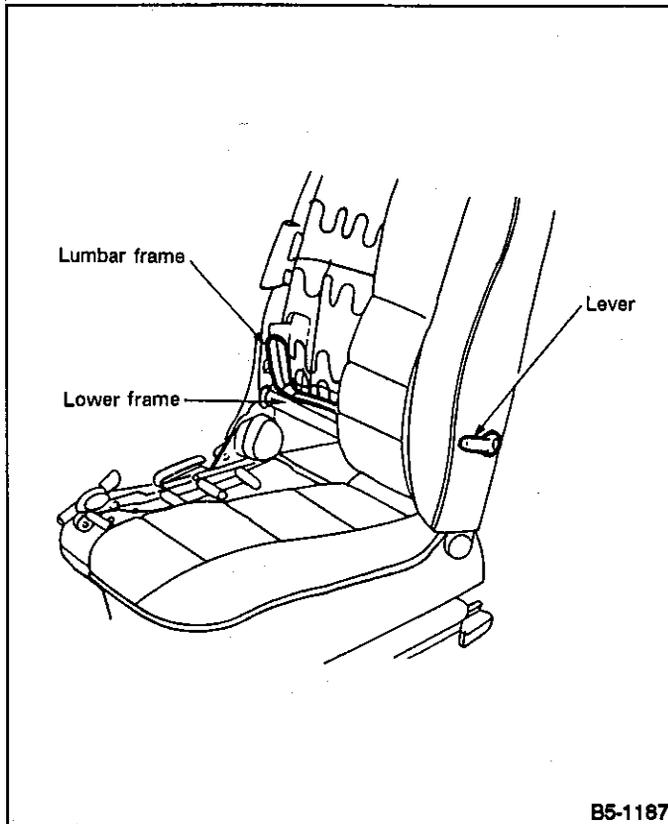


Fig. 4

**2. OPERATION**

When the operating knob is pushed down and forward, the cam which is linked with the knob rotates in the direction of (A). This then pushes the lumbar frame pin forward [in the direction of (B)] so that the backrest can be moved forward with the pipe (located at the lower portion of the lumbar frame) utilized as a pivot.

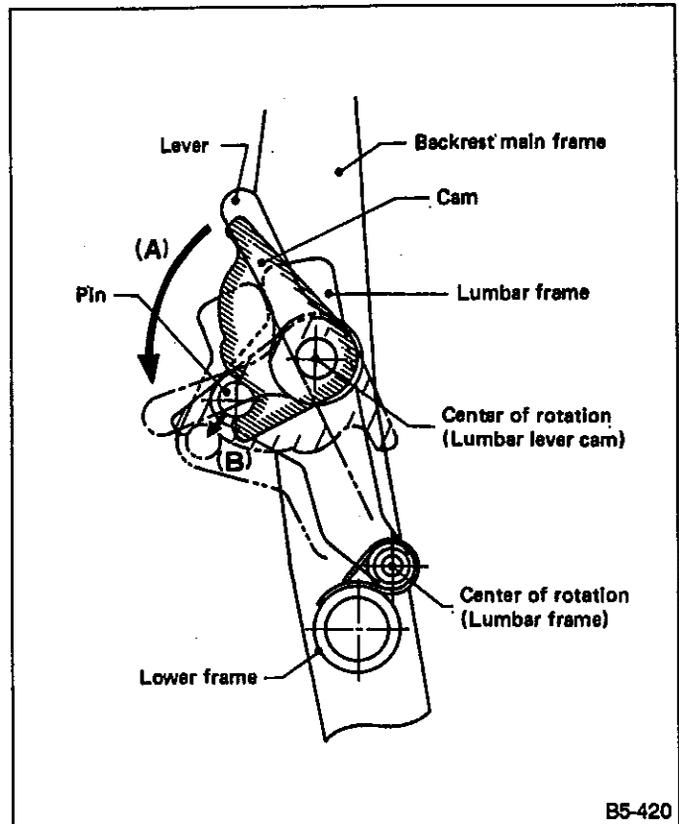


Fig. 5

**F: HEADRESTRAINT UP-DOWN ADJUSTMENT****1. CONSTRUCTION**

The up-down adjustment knob, located at the headrest on the seatback, can set the headrest at any of four positions in the up-down direction over a total range of 65 mm (2.56 in).

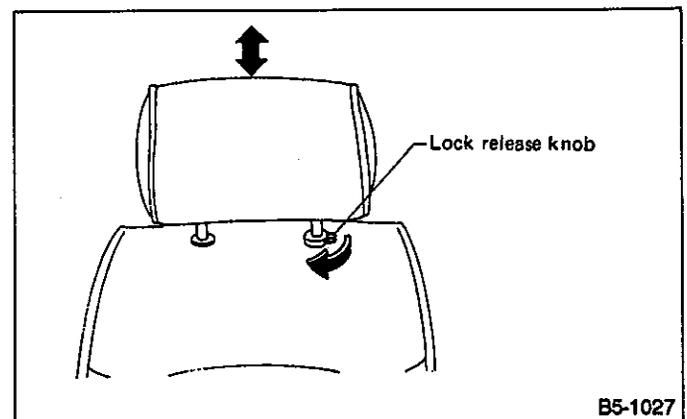


Fig. 6

## 2. OPERATION

- 1) Moving the headrest up  
Lightly hold the headrest and move it up. Operating the adjustment knob is not necessary.
- 2) Moving the headrest down  
Move the adjustment knob in the direction of the arrow "→" and lightly lower the headrest. (If the knob is not operated, the headrest will remain locked and cannot be lowered.)
- 3) Extracting the headrest  
Move the adjustment knob in the direction of the arrow "→" and lift the headrest off.

## 2. Rear Seat

### A: FOLD-DOWN TYPE (4-Door Sedan)

#### 1. CONSTRUCTION

Because of the fold-down rear seat design, each seat-back and armrest can be folded forward independently, making it possible to load or unload luggage from the passenger compartment.

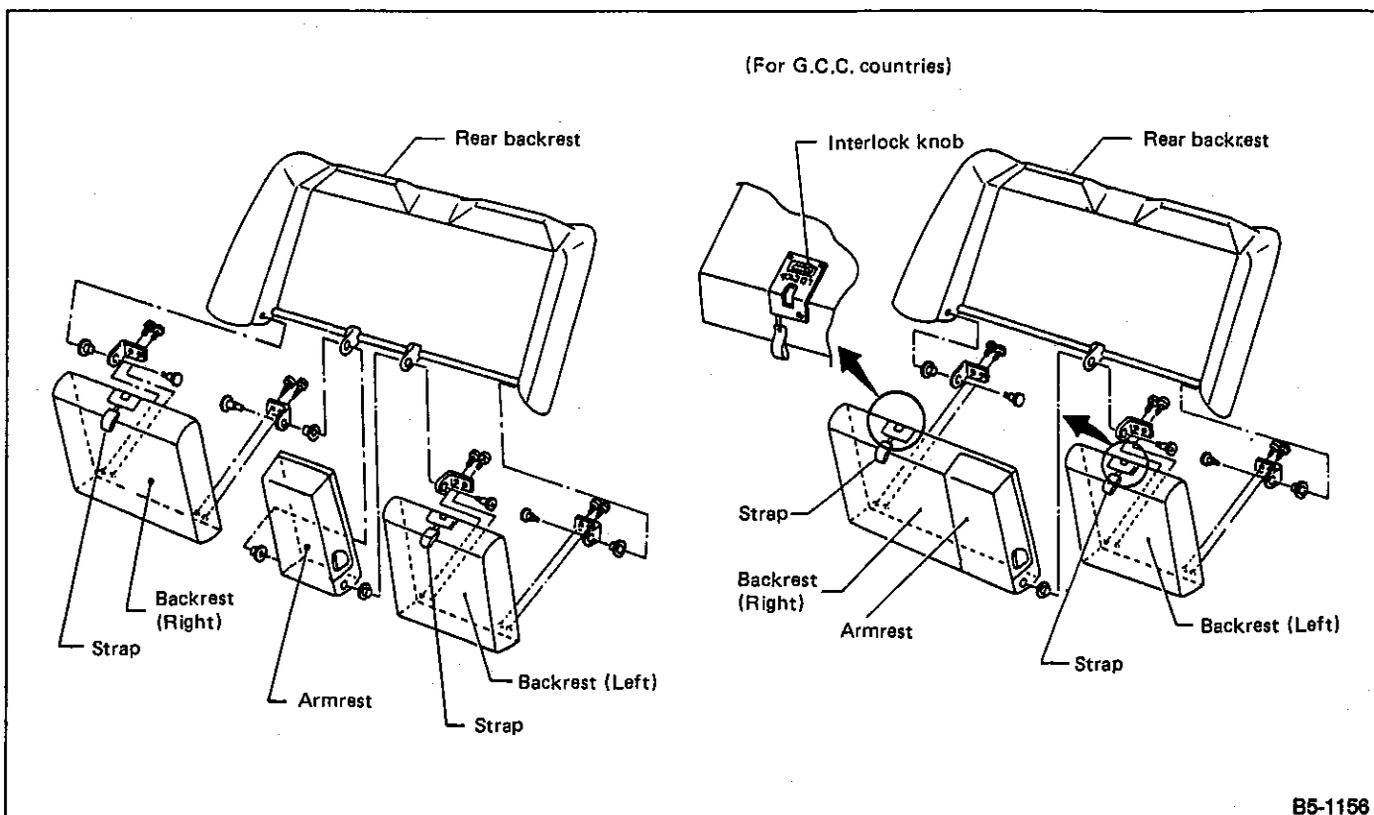


Fig. 7

## 2. OPERATION

- 1) When the upper part of armrest is pulled, the armrest is ready to use.
- 2) When the strap located below the pillow is pulled, the backrest can be folded forward and the cushion position will be set for "Fold-down" use.
- 3) For Australia: The fold-down rear seat is provided with an interlock mechanism which is controlled with a knob located at the left and right sides of the backrest. When the knob is moved to the LOCK direction (shown by an arrow), the fold-down lock cannot be released from the interior. The fold-down lock can be released by moving the knob in the opposite direction from the trunk compartment.

**B: FOLDABLE BENCH SEAT (Wagon)**

**1. CONSTRUCTION**

The seat is foldable to provide wider floor space and increase loading capacity.

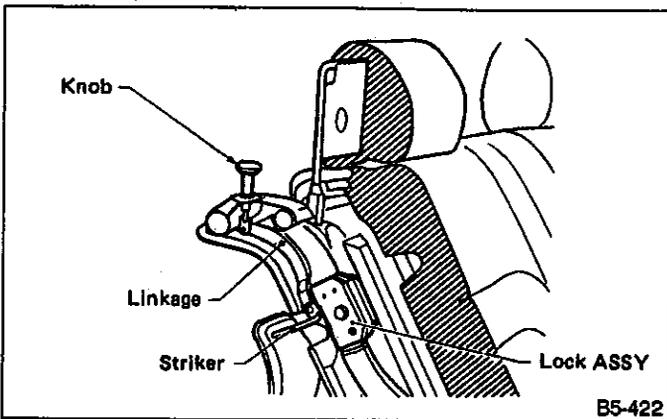
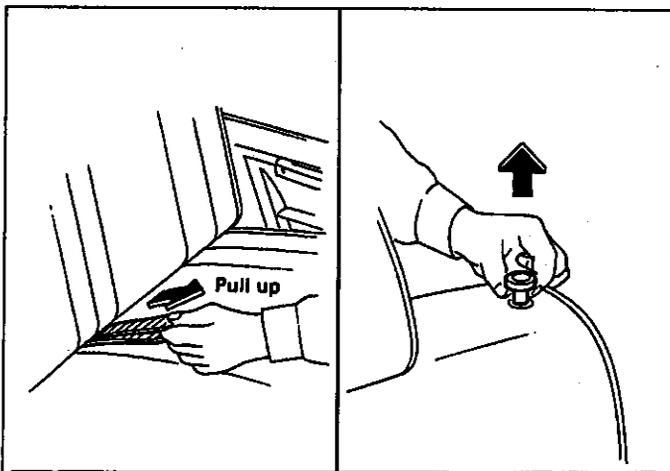


Fig. 8

**2. OPERATION**

- 1) Move strap up to release lock, and set cushion up.
- 2) Move the knob up to release the lock.
- 3) Fold backrest forward.



B5-010

Fig. 9

**C: DETACHABLE REAR SEAT PILLOW (Wagon)**

**1. CONSTRUCTION**

The rear seat pillow is a detachable type as shown in Figure 13.

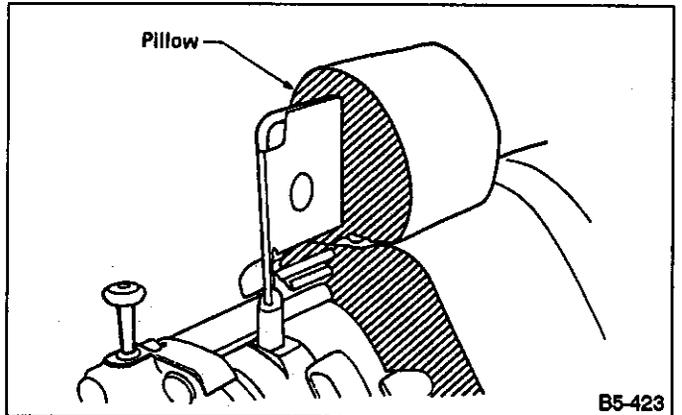


Fig. 10

**2. OPERATION**

- 1) Turn the knob located on the rear of backrest clockwise to release the lock.
- 2) Carefully extract the pillow in the front upper direction.
- 3) To install, align the position of bushing and carefully insert the pillow into place.
- 4) The pillow can also be installed at the rear side of the seat backrest.

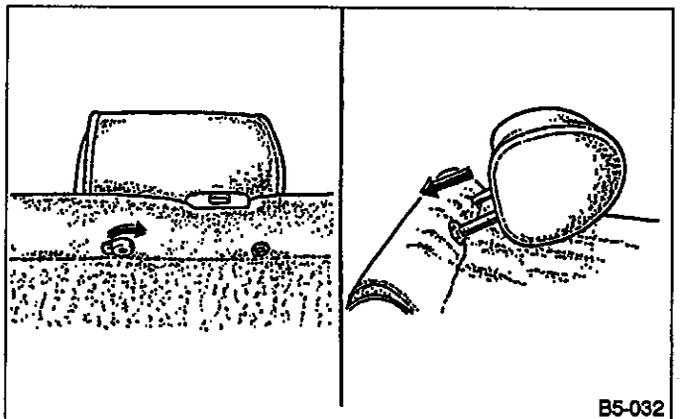


Fig. 11

### 3. Seat Belts

#### A: FRONT SEAT BELT

##### 1. OUTLINE

The front seat belt is a 3-point type equipped with an ELR (emergency locking retractor). It is also provided with a shoulder belt anchor which can be adjusted by 90 mm (3.54 in) in five steps by "one-touch" operation.

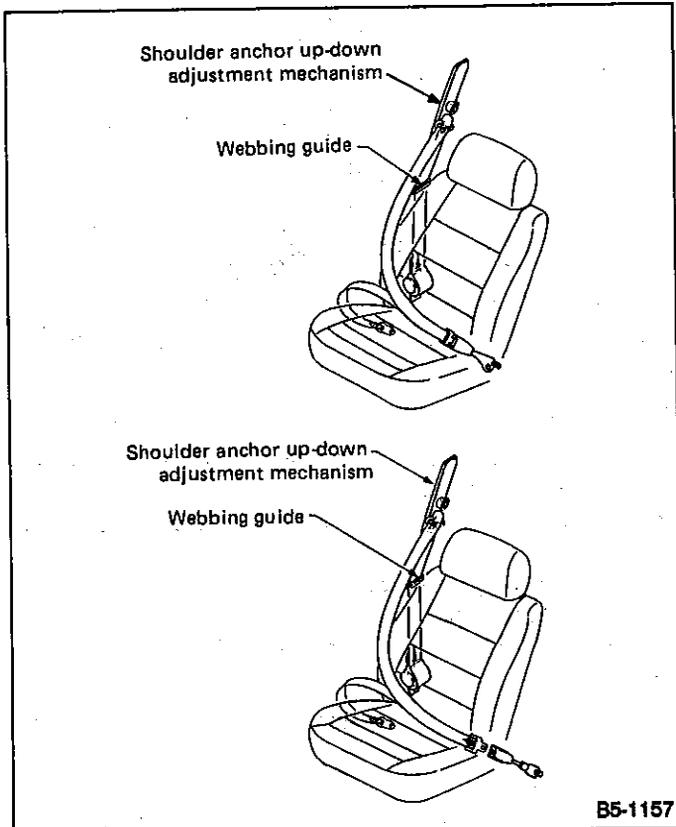


Fig. 12

##### 2. ADJUSTABLE SHOULDER BELT

The shoulder belt anchor can be adjusted to suit the occupant's physique.

When the shoulder anchor knob is pulled, the locking pin is disengaged from the adjusting rail. The shoulder anchor will then move up or down along the guide rail. After aligning the shoulder anchor with the shoulder (not too close to the neck), release the knob. The lock pin will then enter the hole and locks. A click is heard when the lock pin is properly locked. If a click is not heard, slightly move the knob up and down while releasing the knob.

#### B: REAR SEAT BELT

##### 1. OUTLINE

- 1) The rear seat is equipped with a three-point type seat belt.
- 2) A belt pocket stores the center seat belt so that two occupants can be seated comfortably.

##### 2. CONSTRUCTION

The rear seat belt (ELR) has almost the same design as the front.

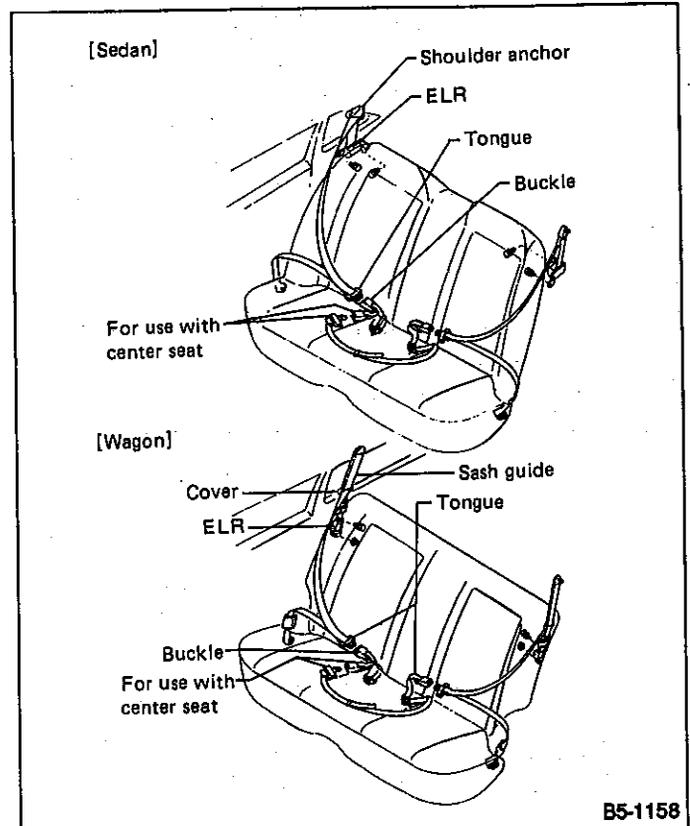


Fig. 13

## C COMPONENT PARTS

### 1. Front Seat [with LIFTER] (For Europe)

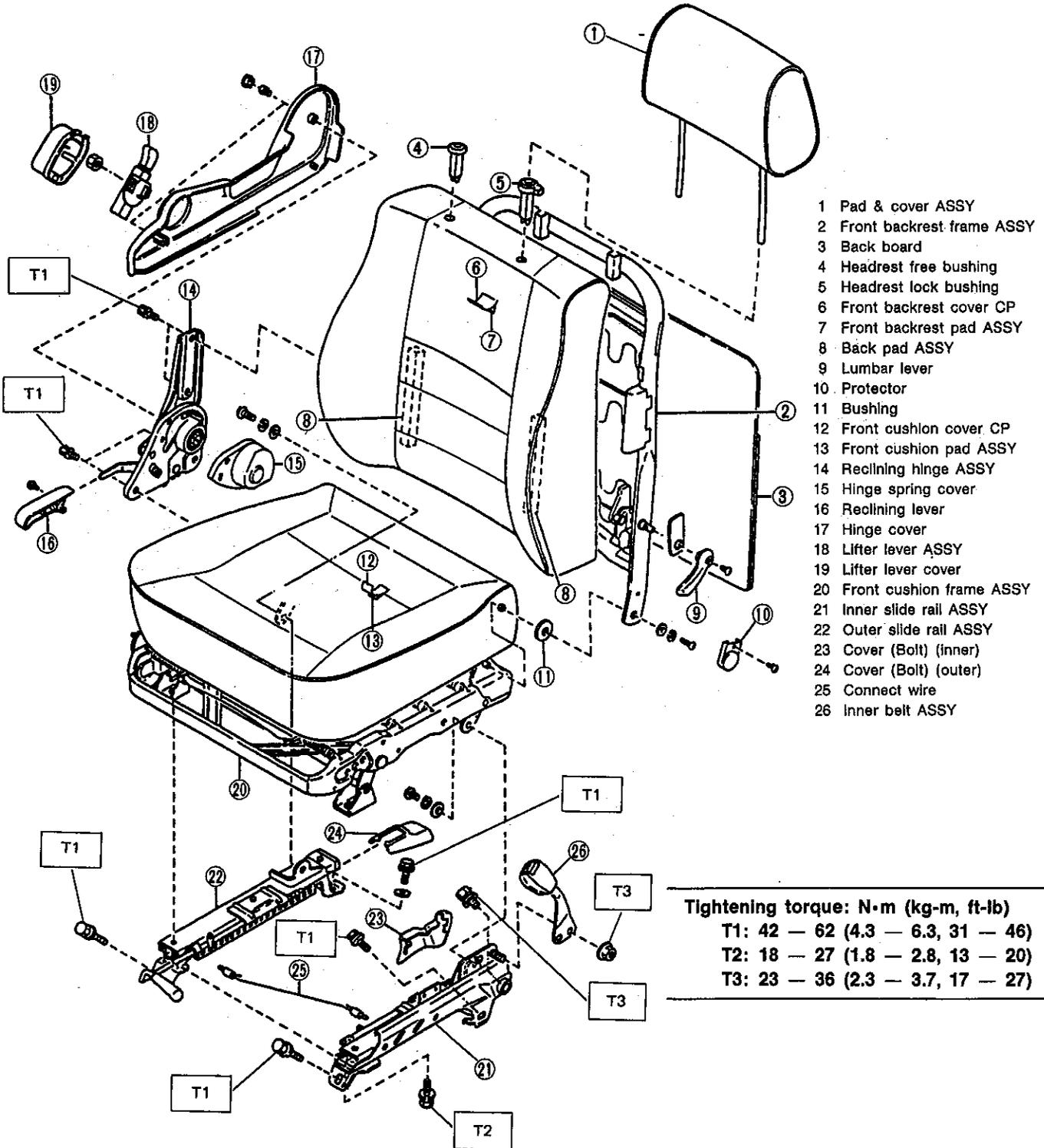


Fig. 14

B5-1181

## 2. Front Seat [without LIFTER] (For Europe)

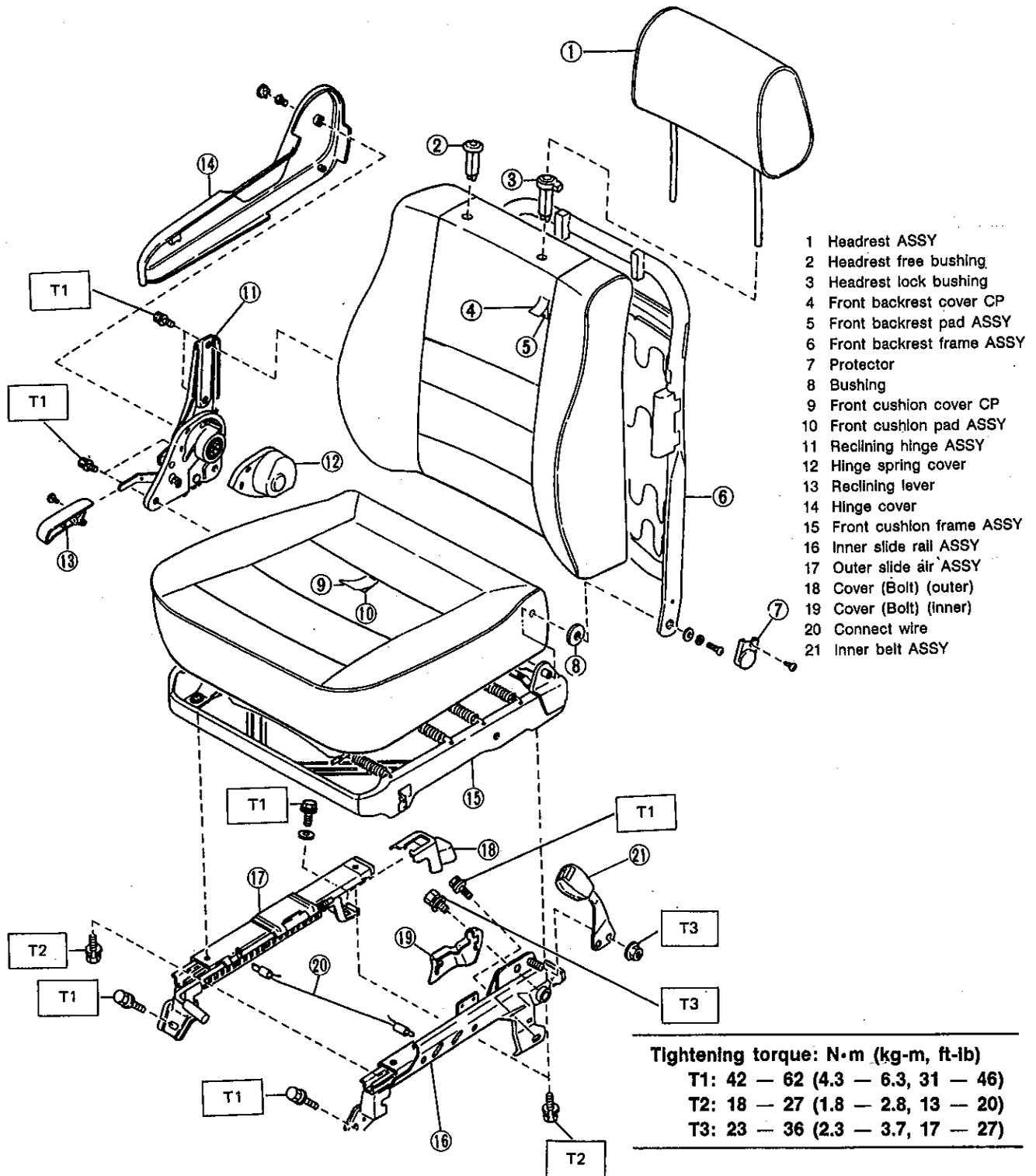


Fig. 15

3. Front Seat [with LIFTER] (Except Europe)

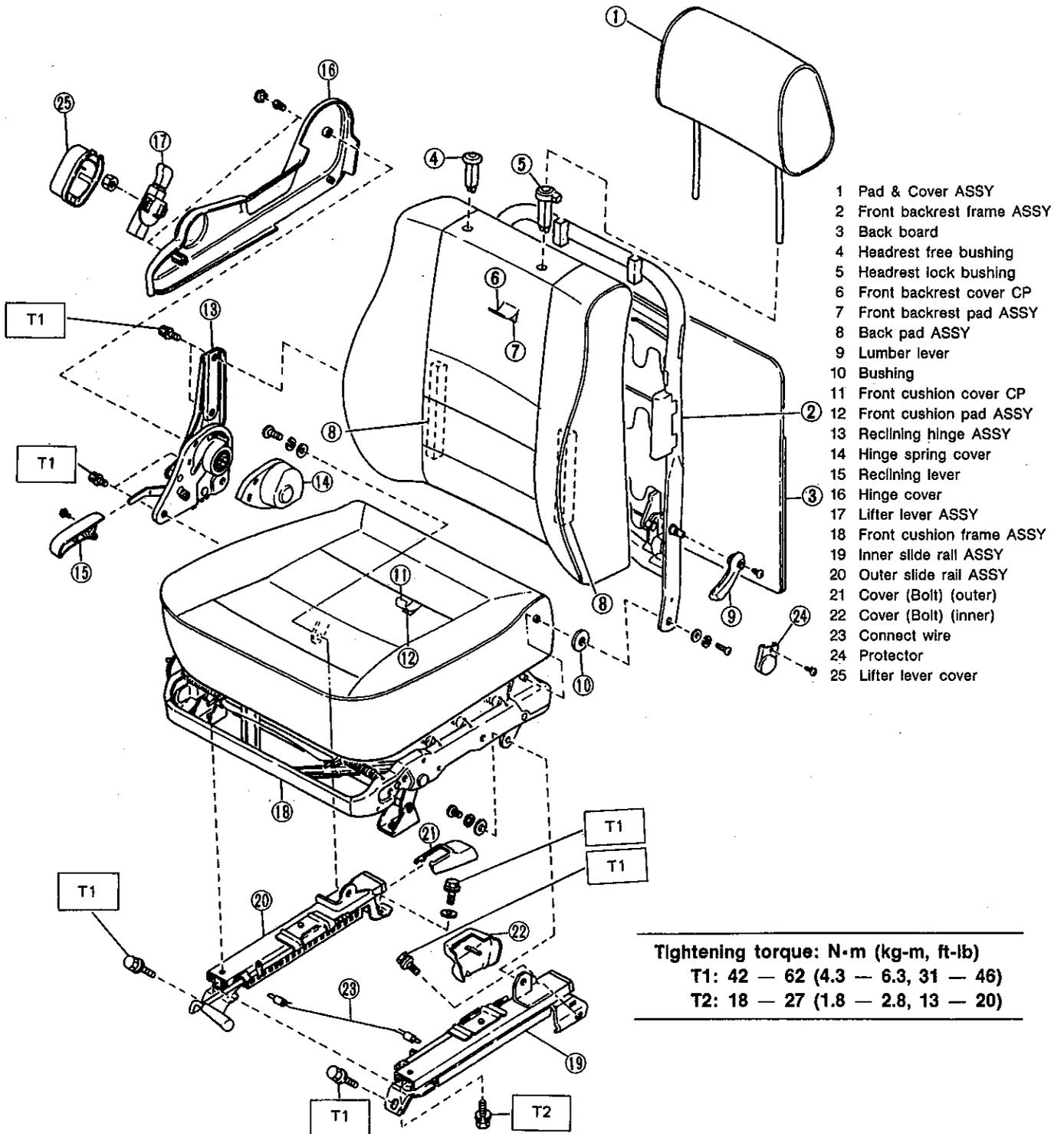
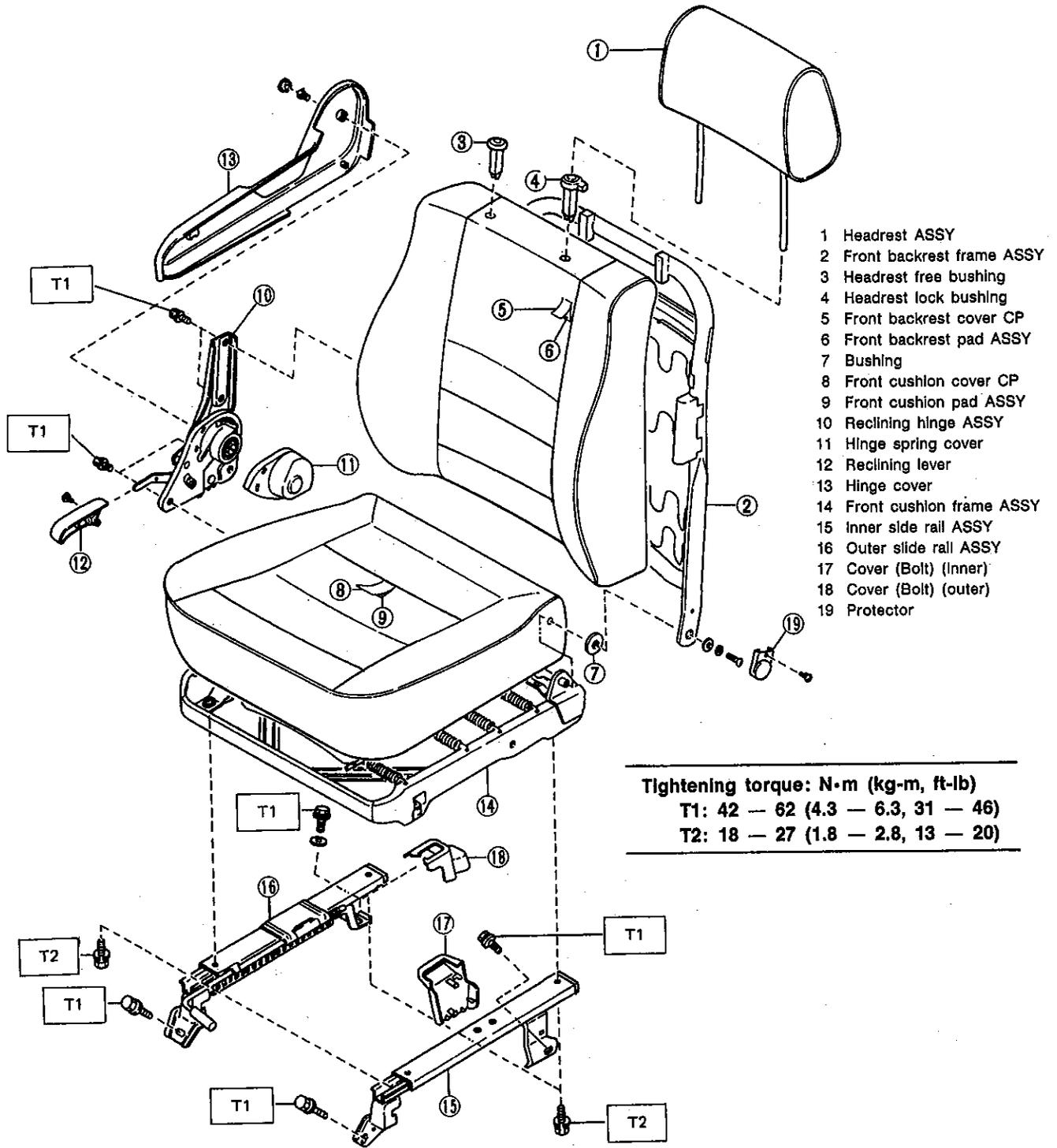


Fig. 16

B5-1183

4. Front Seat [without LIFTER] (Except Europe)



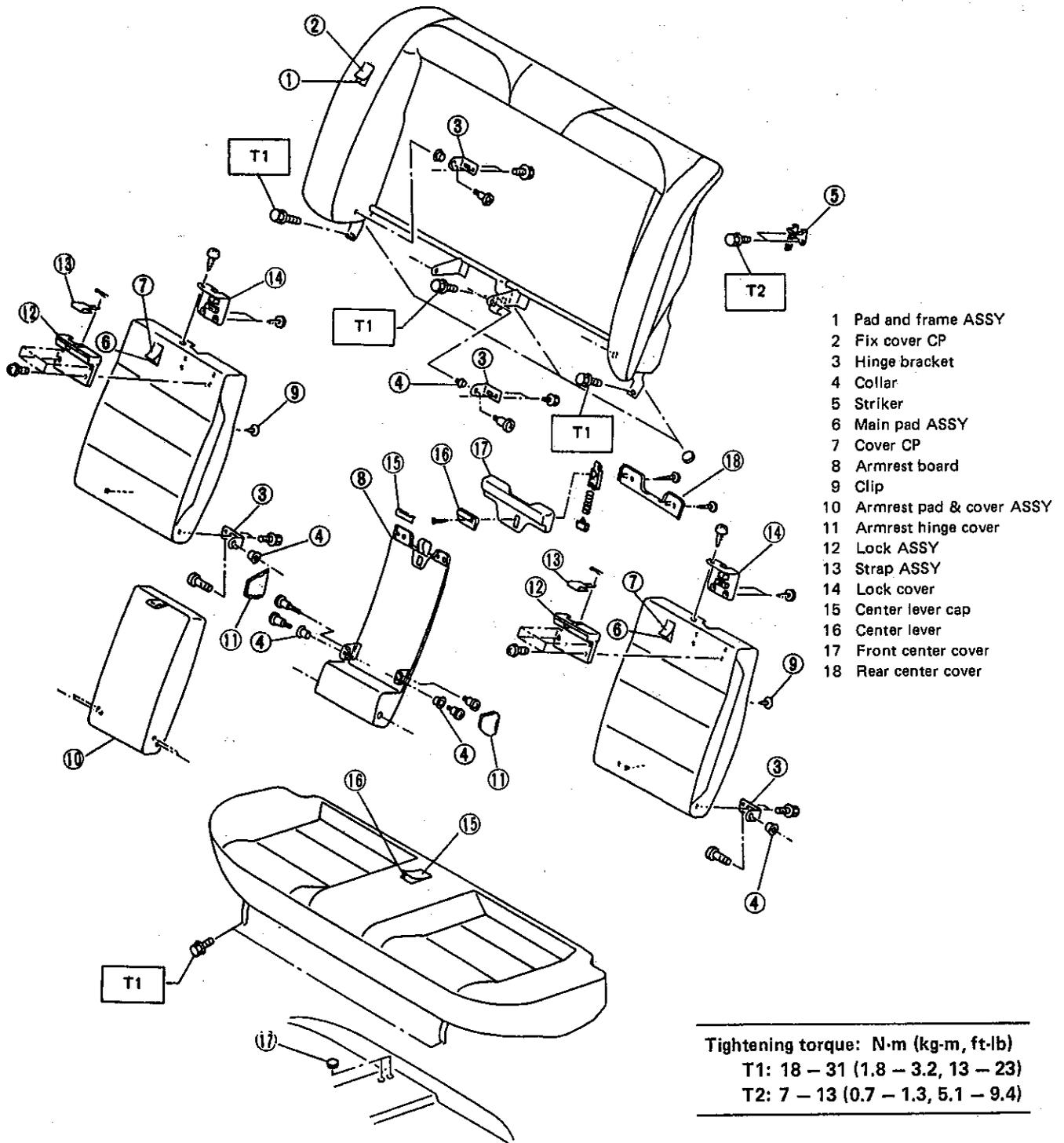
- 1 Headrest ASSY
- 2 Front backrest frame ASSY
- 3 Headrest free bushing
- 4 Headrest lock bushing
- 5 Front backrest cover CP
- 6 Front backrest pad ASSY
- 7 Bushing
- 8 Front cushion cover CP
- 9 Front cushion pad ASSY
- 10 Reclining hinge ASSY
- 11 Hinge spring cover
- 12 Reclining lever
- 13 Hinge cover
- 14 Front cushion frame ASSY
- 15 inner side rail ASSY
- 16 Outer slide rail ASSY
- 17 Cover (Bolt) (inner)
- 18 Cover (Bolt) (outer)
- 19 Protector

**Tightening torque: N-m (kg-m, ft-lb)**  
**T1: 42 — 62 (4.3 — 6.3, 31 — 46)**  
**T2: 18 — 27 (1.8 — 2.8, 13 — 20)**

Fig. 17

B5-1184

5. Rear Seat [4-Door Sedan] (FOLD-DOWN TYPE)



- 1 Pad and frame ASSY
- 2 Fix cover CP
- 3 Hinge bracket
- 4 Collar
- 5 Striker
- 6 Main pad ASSY
- 7 Cover CP
- 8 Armrest board
- 9 Clip
- 10 Armrest pad & cover ASSY
- 11 Armrest hinge cover
- 12 Lock ASSY
- 13 Strap ASSY
- 14 Lock cover
- 15 Center lever cap
- 16 Center lever
- 17 Front center cover
- 18 Rear center cover

Tightening torque: N·m (kg·m, ft·lb)  
 T1: 18 - 31 (1.8 - 3.2, 13 - 23)  
 T2: 7 - 13 (0.7 - 1.3, 5.1 - 9.4)

Fig. 18

**6. Rear Seat [4-Door Sedan] (FOLD-DOWN TYPE)**

FOR AUSTRALIA

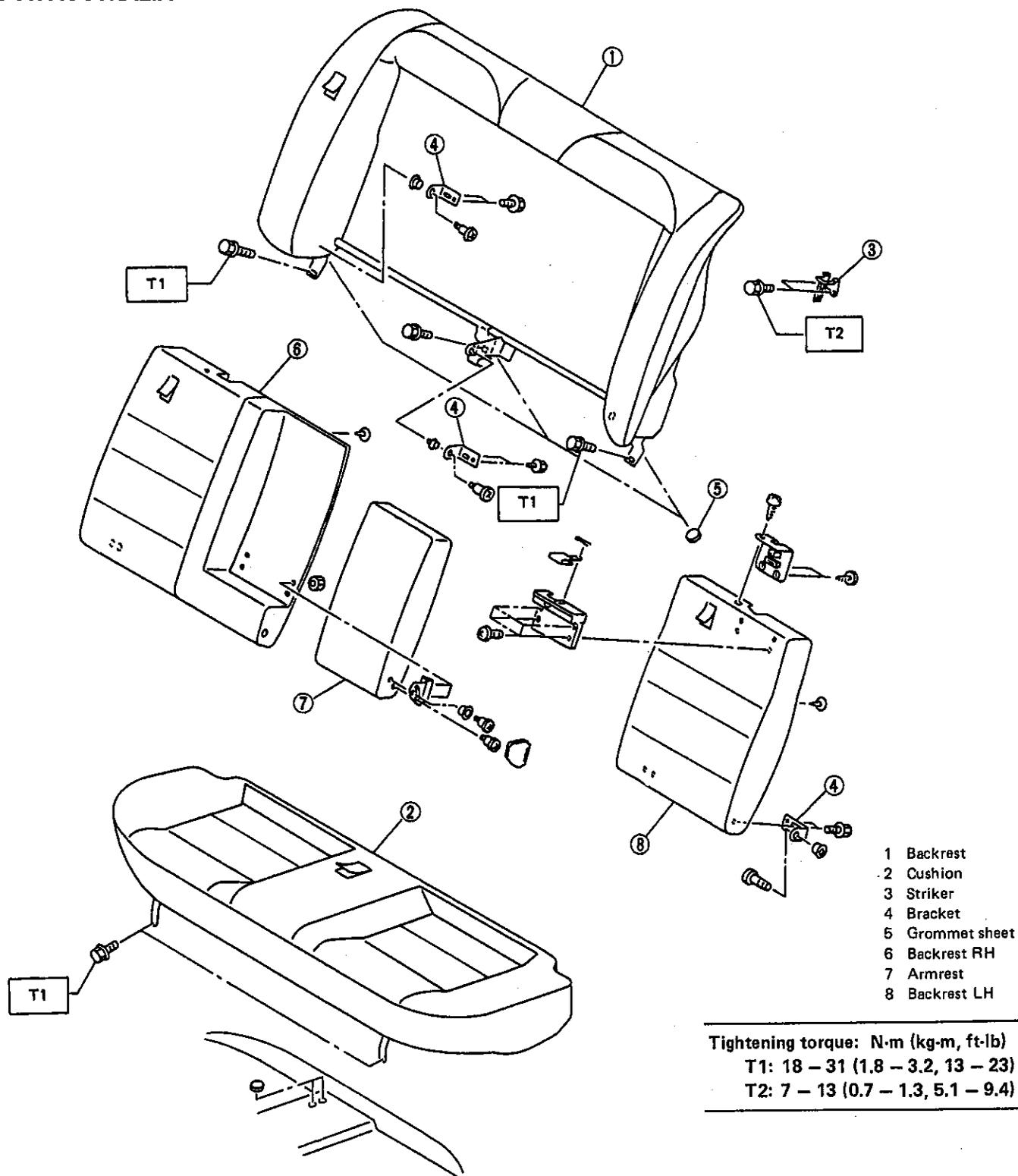


Fig. 19

B5-1164

## 7. Rear Seat [4-Door Sedan] (Except FOLD-DOWN TYPE)

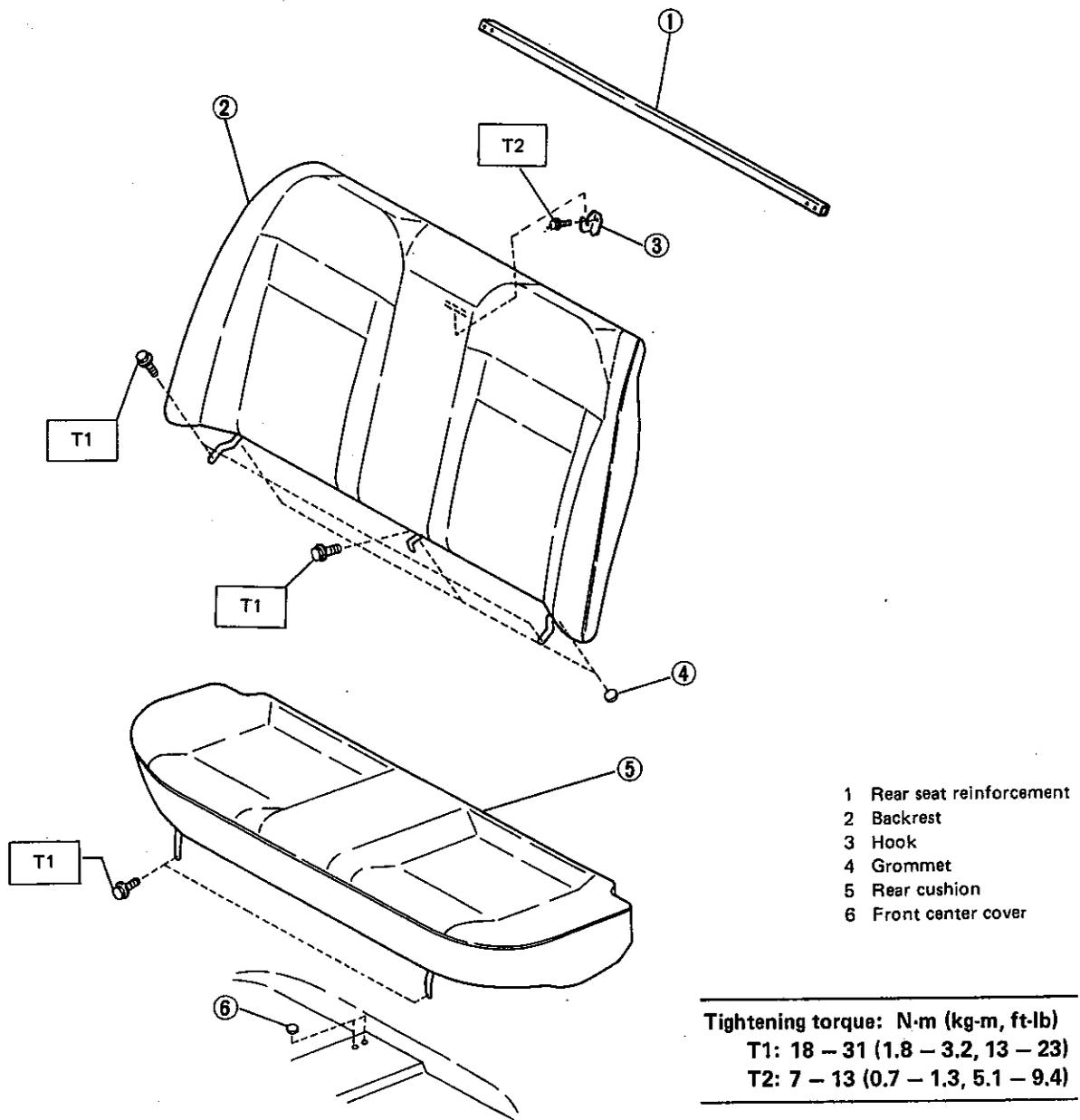


Fig. 20

B5-1165

## 8. Rear Seat [Station Wagon] (SEPARATE TYPE)

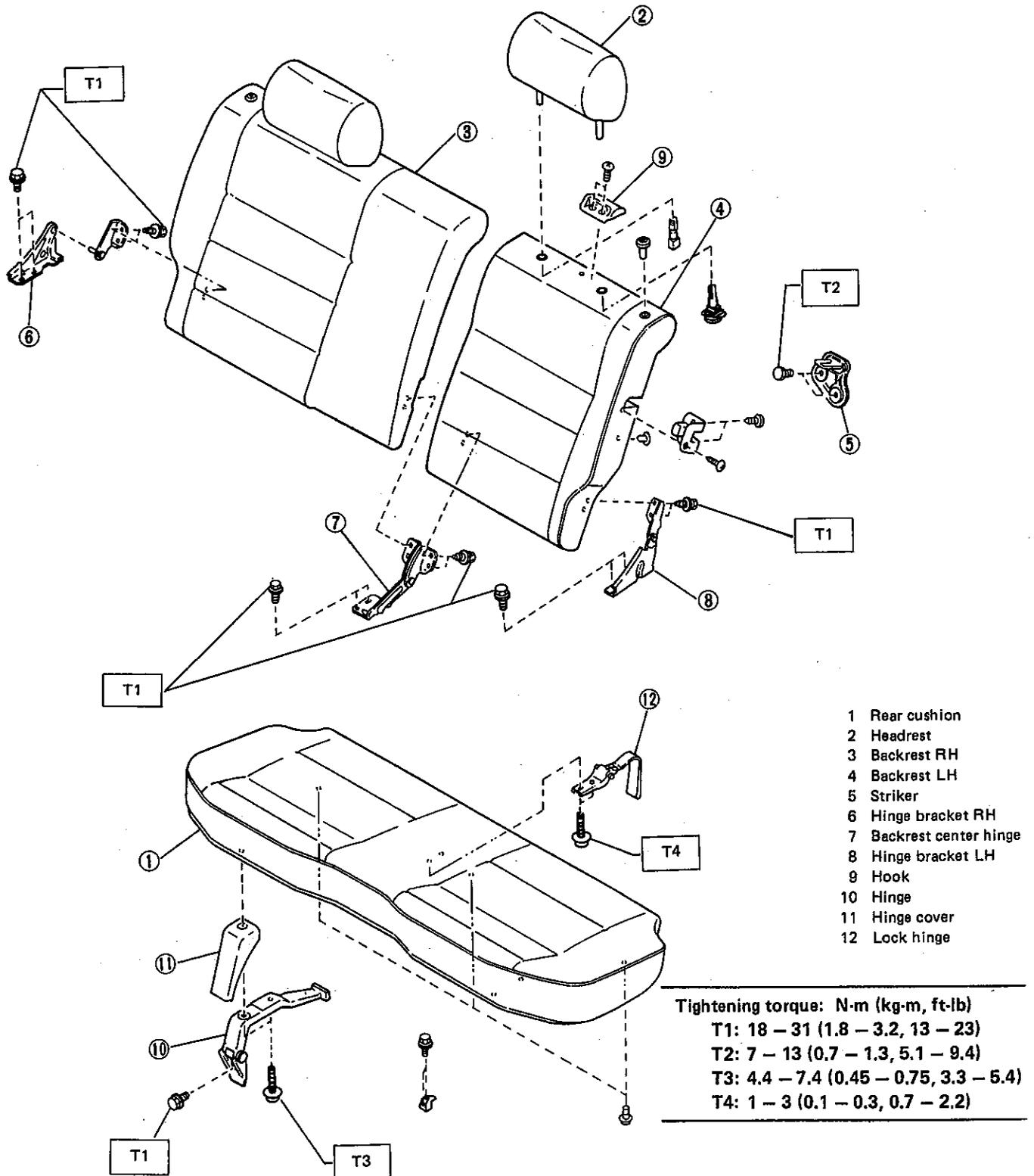


Fig. 21

B5-1166

## 9. Rear Seat [Station Wagon] (BENCH TYPE)

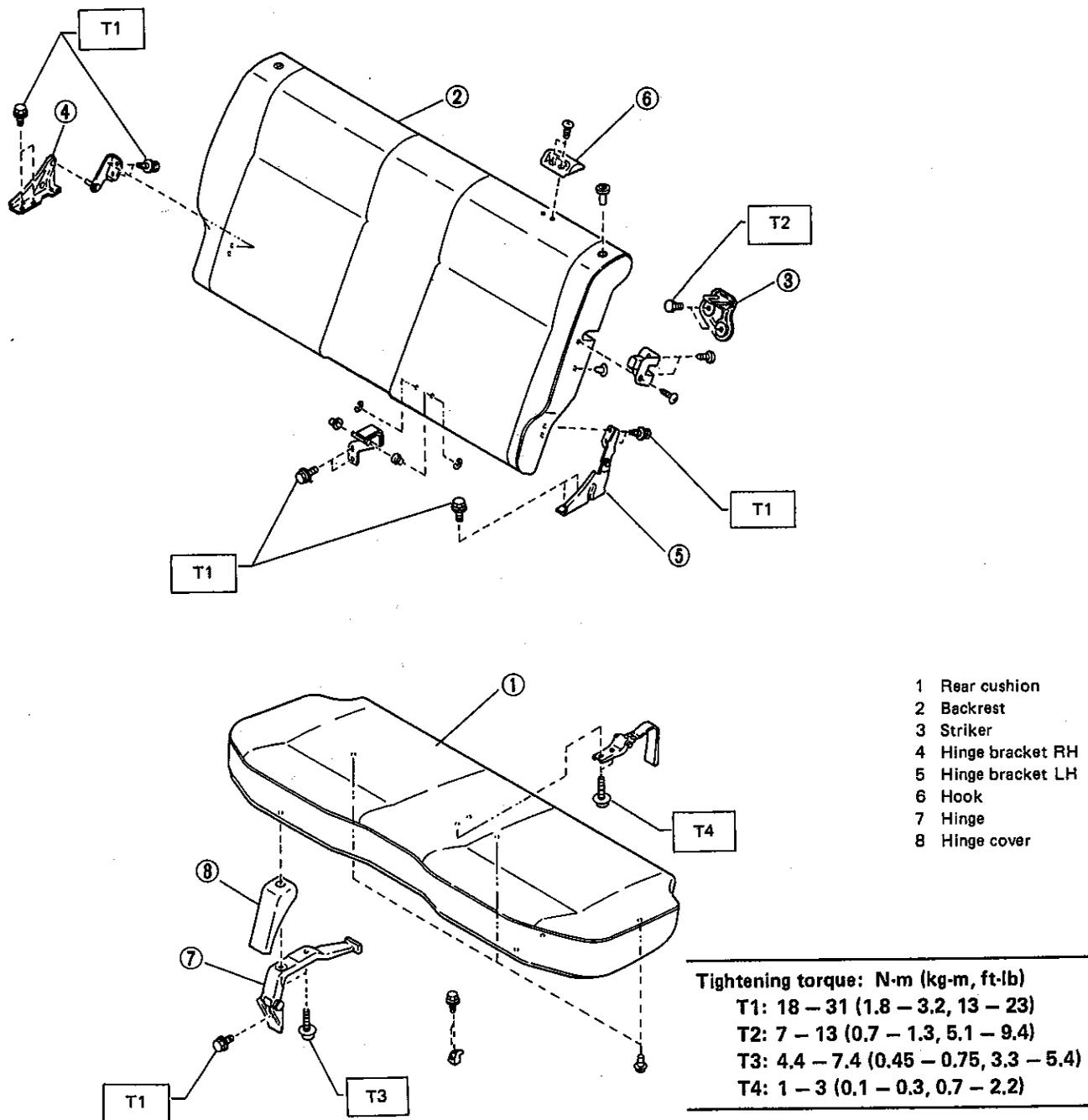


Fig. 22

B5-1167

# 10. Front Seat Belts

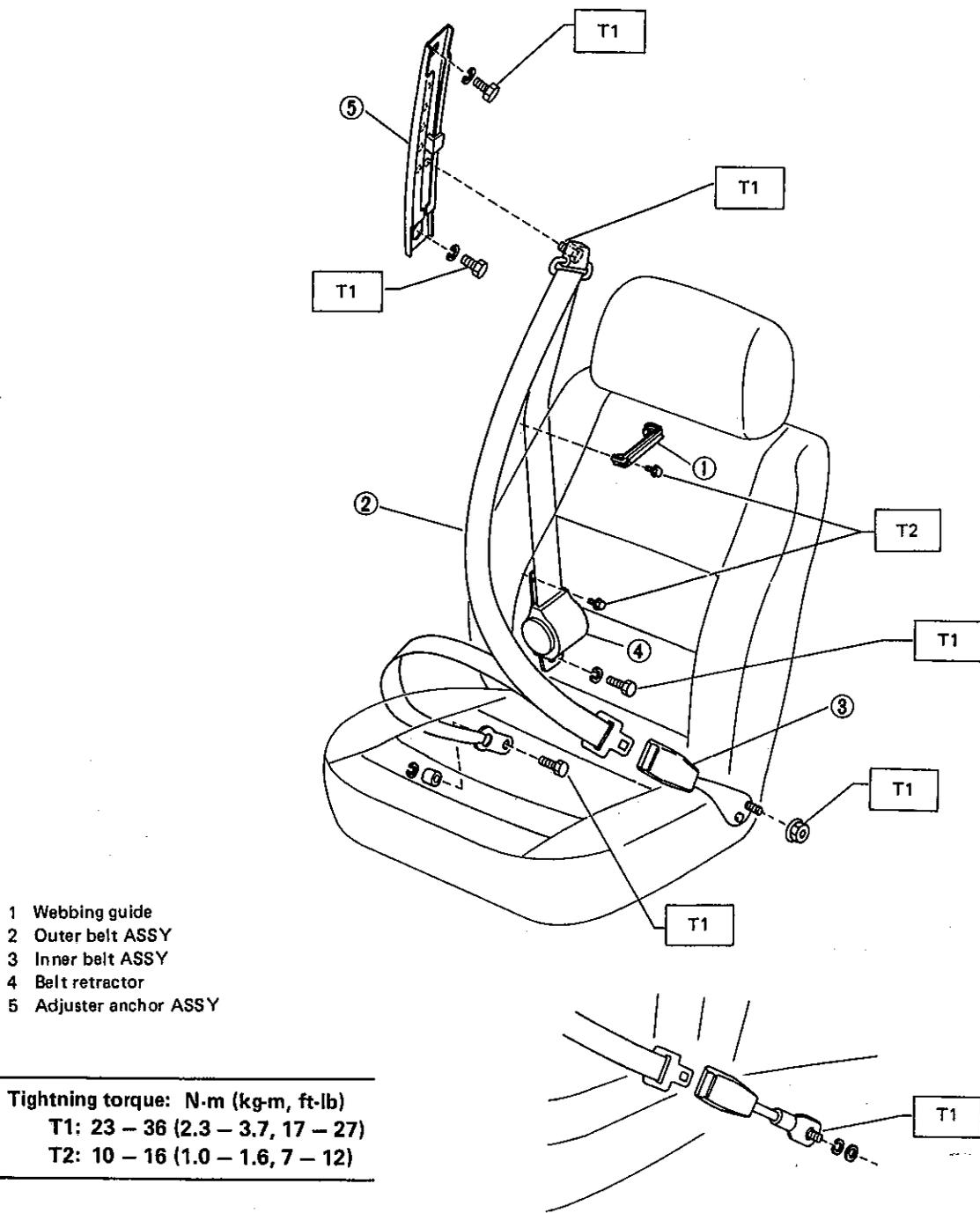
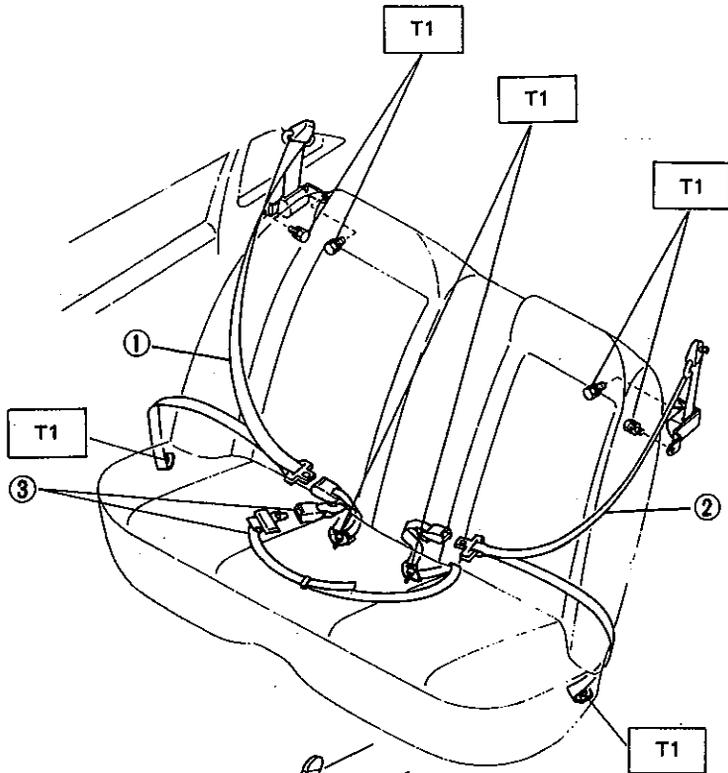


Fig. 23

B5-1168

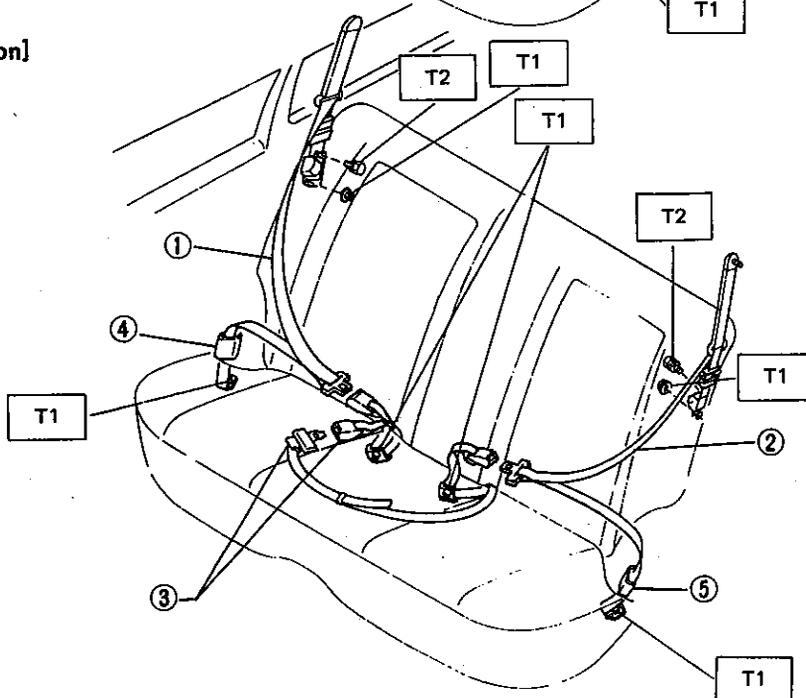
# 11. Rear Seat Belts

[Sedan]



- 1 Outer belt ASSY RH
- 2 Outer belt ASSY LH
- 3 Center belt ASSY
- 4 Lap anchor cover RH
- 5 Lap anchor cover LH

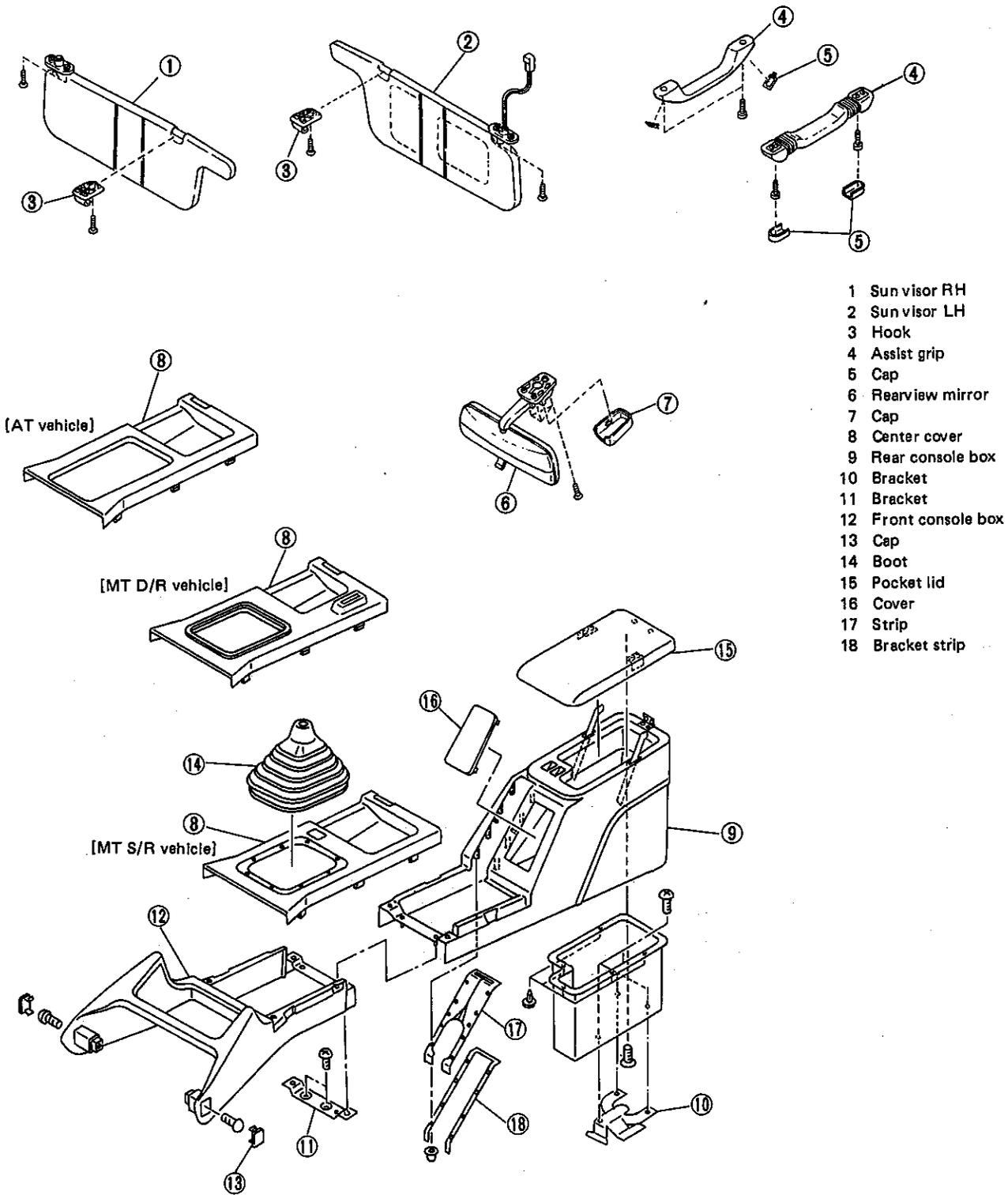
[Wagon]



Tightening torque: N.m (kg-m, ft-lb)  
 T1: 23 – 36 (2.3 – 3.7, 17 – 27)  
 T2: 10 – 16 (1.0 – 1.6, 7 – 12)

Fig. 24

12. Inner Accessories



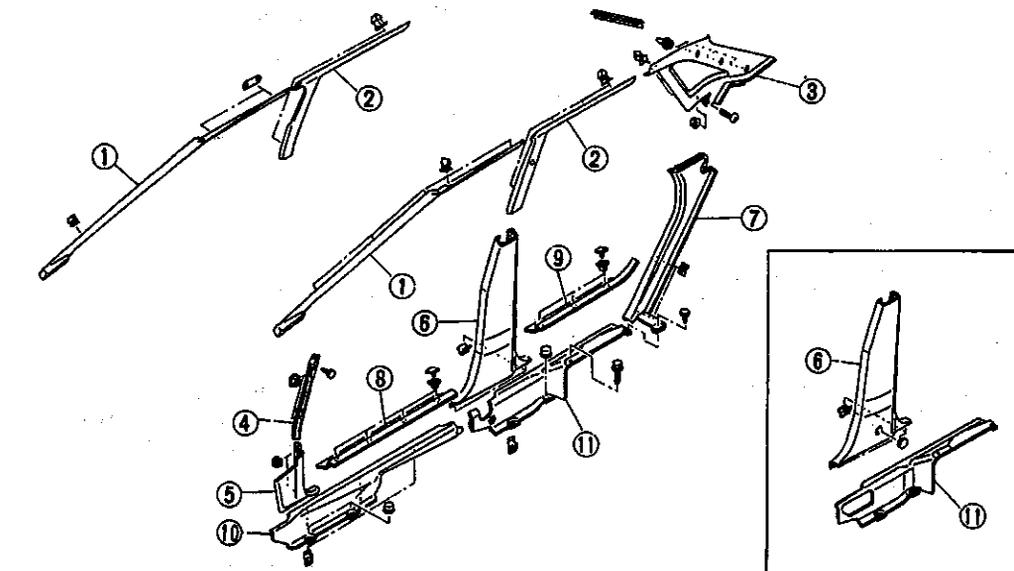
- 1 Sun visor RH
- 2 Sun visor LH
- 3 Hook
- 4 Assist grip
- 5 Cap
- 6 Rearview mirror
- 7 Cap
- 8 Center cover
- 9 Rear console box
- 10 Bracket
- 11 Bracket
- 12 Front console box
- 13 Cap
- 14 Boot
- 15 Pocket lid
- 16 Cover
- 17 Strip
- 18 Bracket strip

Fig. 25

B5-1170

### 13. Inner Trim

[Sedan]



- 1 Front pillar upper trim
- 2 Center pillar upper trim
- 3 Rear quarter pillar upper trim
- 4 Front pillar center trim
- 5 Front pillar lower trim
- 6 Center pillar lower trim
- 7 Rear quarter pillar lower trim
- 8 Front cover side plate
- 9 Rear cover side plate
- 10 Front side sill cover
- 11 Rear side sill cover
- 12 Front pillar upper trim
- 13 Center pillar upper trim
- 14 Rear quarter pillar trim
- 15 Rear quarter rail trim
- 16 Rear pillar trim
- 17 Rear gate side trim
- 18 Rear gate upper trim
- 19 Rear rail trim
- 20 Rear gate lower trim
- 21 Front pillar center trim
- 22 Front pillar lower trim
- 23 Center pillar lower trim
- 24 Front cover side plate
- 25 Rear cover side plate
- 26 Front side sill cover
- 27 Rear side sill cover
- 28 Trunk side rear trim
- 29 Cover
- 30 Strut mount cover
- 31 Speaker grille
- 32 Lamp cover
- 33 Pocket
- 34 Upper pocket cover
- 35 Lower pocket cover

[Wagon]

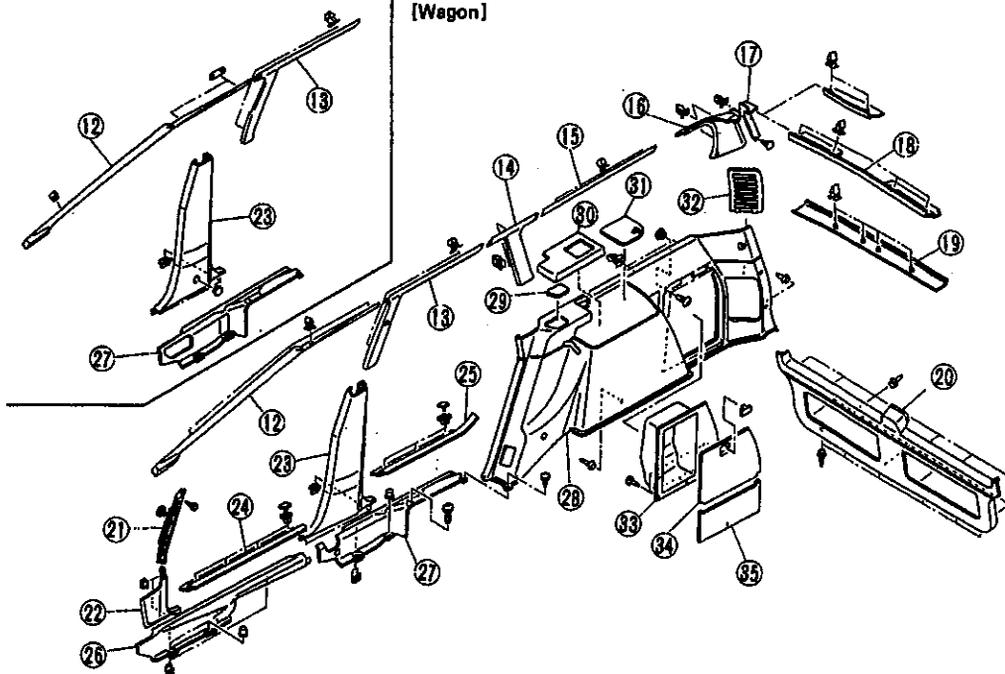


Fig. 26

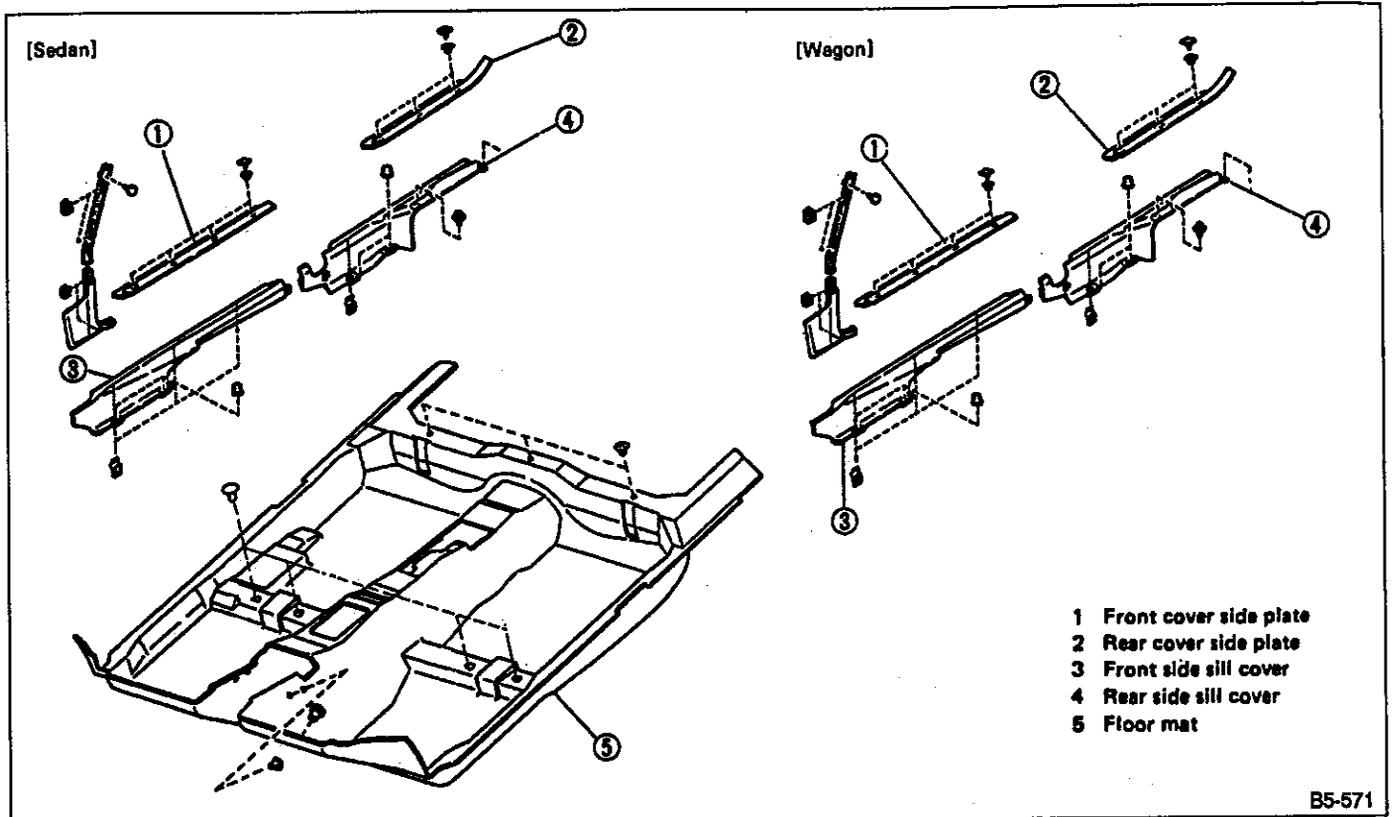


Fig. 27

## W SERVICE PROCEDURE

### 1. Front Seat

#### A: REMOVAL

- 1) While operating knob (located on top of backrest), lift headrest out with hand placed between backrest and headrest.
- 2) Pull reclining lever back to fold backrest all the way forward. While pulling slide adjuster lever, move seat all the way forward.
- 3) Remove bolt cover at rear end of slide rail.
- 4) Remove bolts securing seat rear.

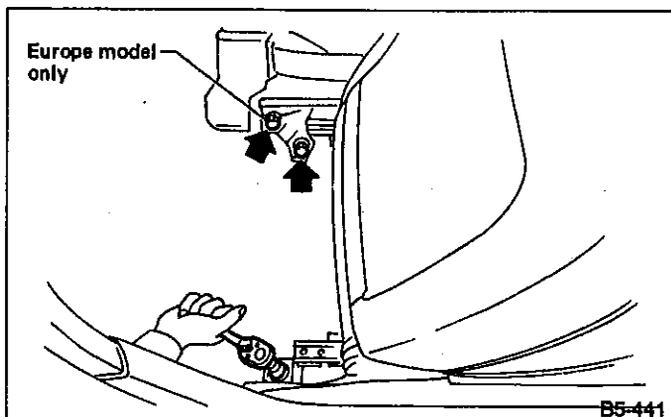


Fig. 28

- 5) While pulling slide adjuster lever, slide seat all the way back.
- 6) Remove bolts securing front of seat, and remove seat belt from belt guide.

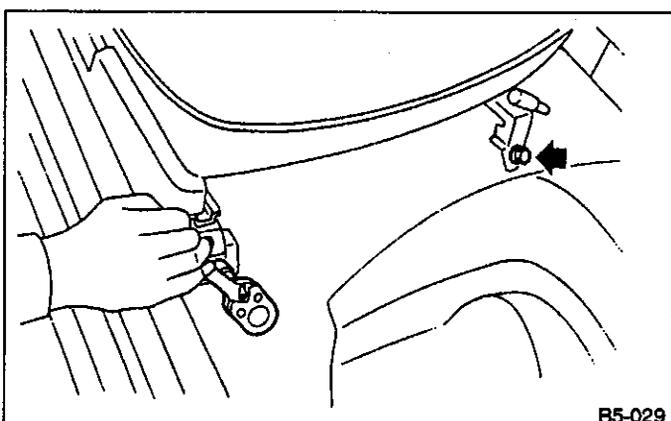


Fig. 29

- 7) Remove front seat from vehicle, then install headrest.

**Be careful not to scratch seat when removing it from vehicle.**

#### B: INSTALLATION

- 1) While operating knob (located on top of backrest), lift headrest out by placing your hand between backrest and headrest.
- 2) Pull reclining lever back to fold backrest all the way forward. Pull slide adjuster lever and move lower slide rail all the way backward.

**Check that all lock plate pawls are completely and equally inserted into the hole in the slide rail bracket.**

- 3) Position seat in compartment and align the holes on the seat with the holes on the car body side.
- 4) Secure the front of seat using inward and outward bolts ① and ② in that order.
- 5) While pulling slide adjuster lever, move seat all the way forward.

**Check that all lock plate pawls are completely and equally inserted into holes in slide rail brackets.**

- 6) Secure the rear of seat using inward and outward bolts ③ and ④.
- 7) Install bolt ⑤.

**On European models, seat belt bolts (in inches) are used as inward bolts to secure the rear of seat.**

#### Bolt tightening torque:

42 — 62 N·m (4.3 — 6.3 kg-m, 31 — 46 ft-lb)

#### Anchor bolt tightening torque:

23 — 36 N·m (2.3 — 3.7 kg-m, 17 — 27 ft-lb)

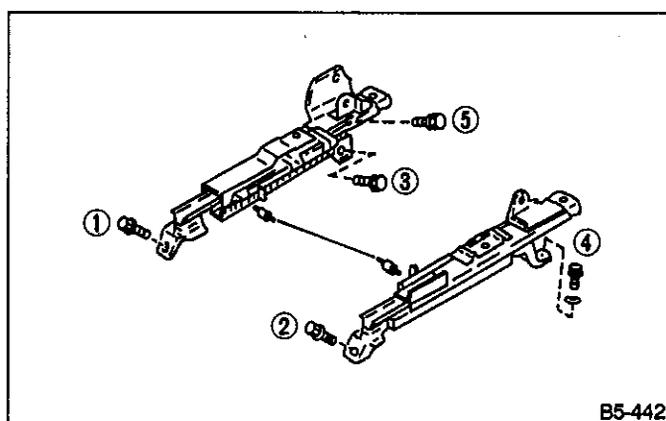


Fig. 30

- 8) After installation, ensure that all mechanisms operate properly and lock.
- 9) If any mechanism does not function properly, loosen bolts ③, ④ and ⑤, slide seat as required, insert all lock plate pawls into holes in slide rail brackets, and tighten bolts ③, ④ and ⑤ in that order.
- 10) Install bolt cover on rear end of slide rail.
- 11) Install headrest on backrest.

**Tighten bolts in the order designated.**

## 2. FIXED TYPE Rear Seat

### A: REMOVAL

- 1) Remove bolts securing hinges (located at front section of cushion) to body.
- 2) Slightly raise front of cushion while pushing down on cushion in the direction of "C". With cushion held in that position, move it forward until it is unhooked.
- 3) Remove bolts securing lower portion of backrest to body.
- 4) Lift rear seat backrest in direction "A" until it is released from upper hooks.

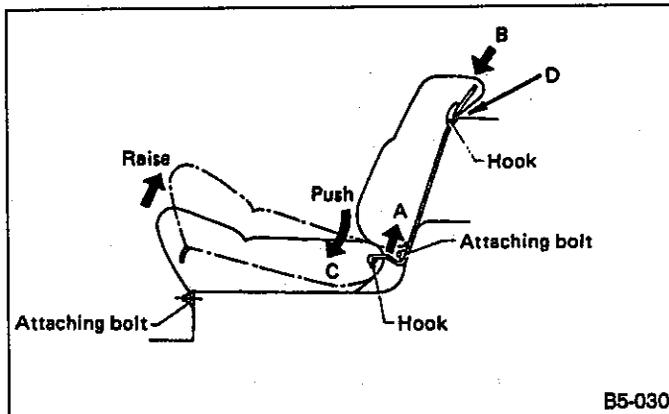


Fig. 31

### B: INSTALLATION

- 1) Before installing backrest, ensure that trim panel, insulator, and seat belt are properly installed.
- 2) Transfer outer seat belt webbing to front of backrest and attach it to upper hooks (2 places). Move pillow in the direction of "B" until backrest is aligned with lower holes in body.
- 3) Secure center lower portion and each side of backrest to body with bolts.
- 4) Slightly raise front section of cushion while pushing down on cushion in the direction of "C". With cushion held in that position, attach rear section of cushion to hooks at lower frame location.
- 5) Tighten bolts to secure front section of cushion to body.

#### Bolt tightening torque:

18 — 31 N·m (1.8 — 3.2 kg-m, 13 — 23 ft-lb)

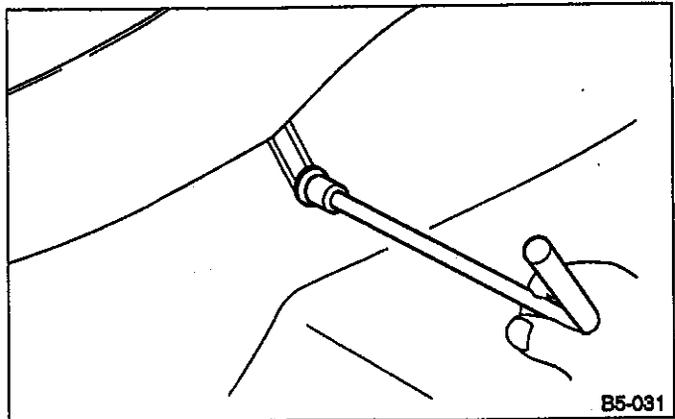


Fig. 32

- a. Before installing seat, ensure that seat belt is placed on cushion.
- b. Observe instructions when storing seat belt in belt pocket.
- c. Before removing or installing backrest, remove seat belt from belt pocket.
- d. Make sure section shown by arrow "D" closely contacts rear shelf (as viewed from rear of car) when installing backrest.
- e. Confirm that winding of three-point type seat belt can operate regularly.

## 3. FOLD-DOWN TYPE Rear Seat

### A: REMOVAL

- 1) Remove bolts securing hinges (located at front of cushion) to body.
- 2) Slightly raise front of cushion while pushing down on cushion in the direction of "C". With cushion held in that position, move it forward until it is unhooked.

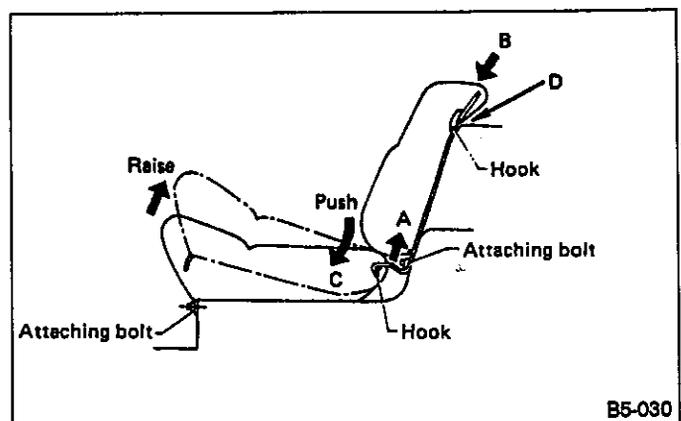


Fig. 33

- 3) Remove bolts securing lower portion of backrest to body.
- 4) Pull strap (located in center of fold-down backrest) to release lock, and fold backrest onto cushion.
- 5) Remove screws (located at overlapped portions of trunk compartment mat) and mat (on rear of backrest), and remove edges.

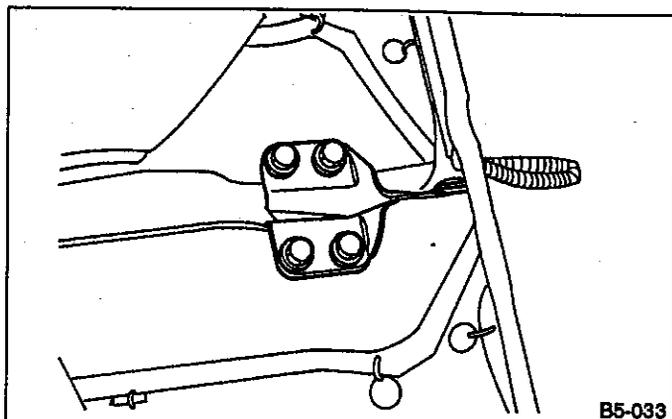


Fig. 34

6) Lift rear seat backrest in direction "A" until it is released from upper hooks.

### B: INSTALLATION

- 1) Before installing backrest, ensure that trim panel, insulator and seat belt are properly installed.
- 2) Transfer outer seat belt webbing to front of backrest and fold backrest forward. Attach seat belt webbing to upper hooks (2 places), and move pillow in the direction of "B" until backrest is aligned with lower mounting holes in body.
- 3) Engage backrest's folding mechanism with striker.
- 4) Secure lower center and both sides of backrest to body with bolts.
- 5) Slightly raise front section of cushion while pushing down on cushion in the direction of "C". With cushion held in that position, attach rear section of cushion to hooks at lower frame location.
- 6) Secure front of cushion to body with bolts.
- 7) Fold backrest onto cushion and overlap trunk mat and mat (on backrest). While pushing down on edges of the mats, tighten with screws.

#### Bolt tightening torque:

18 — 31 N·m (1.8 — 3.2 kg-m, 13 — 23 ft-lb)

- a. Before installing seat, ensure that seat belt is placed on cushion.
- b. Observe instructions when storing seat belt in belt pocket in backrest.
- c. Before removing or installing backrest, remove seat belt from belt pocket.
- d. Confirm that winding of three-point type seat belt can operate regularly.

## 4. BENCH TYPE Rear Seat

### A: REMOVAL

- 1) Remove bolts which secure hinges (located at front section of cushion) to body.

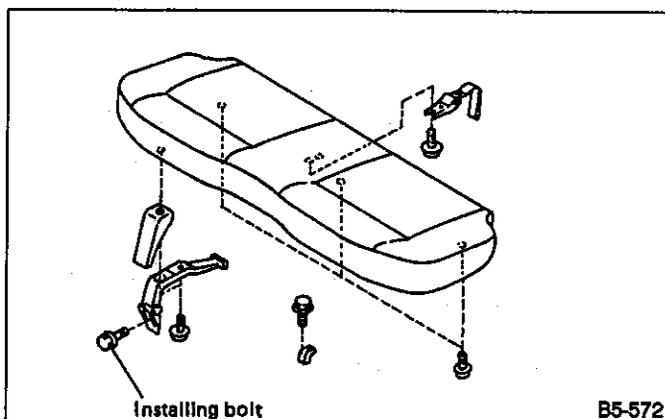


Fig. 35

- 2) Pull strap (located in rear center of cushion) to release lock, and remove cushion from vehicle.
- 3) Pull knob (located at each upper side of backrest) to release lock, and fold backrest forward to the floor.
- 4) Remove screws (securing overlapped portions of trunk mat) and mat (on backrest).
- 5) Engage backrest with striker and fold it back until it locks. Remove bolts which secure side and center hinges to body.

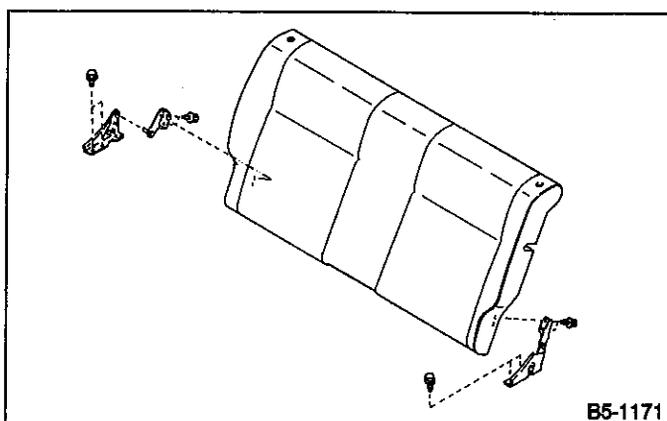


Fig. 36

- 6) Pull knob up until backrest lock is released. While folding backrest forward, remove hinge pin from hole in bracket and remove backrest from vehicle.

**B: INSTALLATION**

- 1) Install hinge bracket on body.
- 2) Insert backrest's hinge pin into hole in bracket, and fold backrest up to engage it with striker.
- 3) Secure side and center hinges of backrest's lower side to body using bolts.
- 4) Secure hinges (located at front of cushion) using bolts. Ensure that lock operates properly.
- 5) Fold backrest onto cushion, and overlap trunk mat and mat (on rear of backrest). While pushing down on edges of these mats, tighten screws.

**Bolt tightening torque:**

18 — 31 N·m (1.8 — 3.2 kg-m, 13 — 23 ft-lb)

- a. Do not allow seat belt to get under cushion when folding cushion.
- b. Ensure that side seat belt's tongue is not caught between cushion and trim panel.
- c. Before folding cushion, store seat belt in belt pocket located in backrest.
- d. Lift edge of cushion to ensure that cushion is locked properly.
- e. Before removing or installing backrest, remove seat belt from belt pocket.

**5. SEPARATE TYPE Rear Seat****A: REMOVAL**

- 1) Remove bolts securing hinges (located at front of seat) to body.

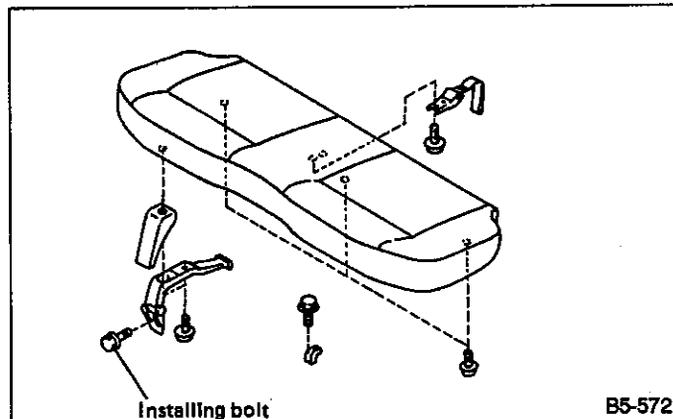


Fig. 37

- 2) Pull strap (located in middle rear portion of cushion) to release lock. Lift cushion out and away from body.
- 3) Pull knobs (located at each side of backrest's upper portion) up to release lock, and fold backrest all the way forward.
- 4) Remove screws which secure overlapped portions of luggage compartment mat and mat directly behind backrest.

- 5) Roll up mat (located at rear of left backrest) and remove the bolt which secures center hinge to backrest.
- 6) Tilt left backrest forward until striker engages with lock, and remove the bolt which secures side hinge to body.
- 7) Pull knob up until left backrest lock is released. Slide backrest forward and away from body.
- 8) Remove the bolt which secures center hinge of right backrest to body.

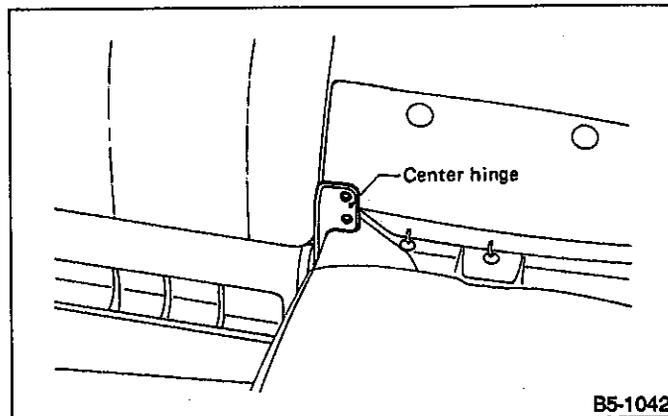


Fig. 38

- 9) Pull knob up until right backrest lock is released. While tilting backrest forward, remove hinge pin from hole in bracket, and remove backrest and away from body.

**B: INSTALLATION**

- 1) Install hinge bracket to body.
- 2) Insert right backrest hinge pin into hole in bracket. Tilt backrest backward until striker engages with lock.
- 3) Secure right backrest center hinge to body using a bolt.
- 4) Temporarily install left backrest side hinge to body using a bolt, and fold backrest forward to the floor.
- 5) Roll up mat (located at rear of left backrest), and install center hinge using a bolt.
- 6) Tilt left backrest until striker engages with lock, and tighten bolt [refer to step 4)].
- 7) Install hinges to front of cushion and tighten with bolts. Check that lock properly engages.
- 8) Fold backrest onto cushion and overlap trunk mat and mat at rear of backrest. While pushing down on edges of these mats, tighten screws.

**Bolt tightening torque:**

18 — 31 N·m (1.8 — 3.2 kg-m, 13 — 32 ft-lb)

- a. Do not allow center seat belt to get under cushion when folding cushion.
- b. Ensure that side seat belt tongue is free from cushion and trim panel.

- c. Before folding cushion, store seat belt in belt pocket located in backrest.
- d. Lift front of cushion to ensure that cushion is properly locked.
- e. Before removing or installing backrest, pull seat belt out of backrest belt pocket.

## 6. Front Seat Belt

### A: REMOVAL

#### 1. OUTER BELT

- 1) Remove through-anchor cover cap.
- 2) Remove shoulder anchor bolt.

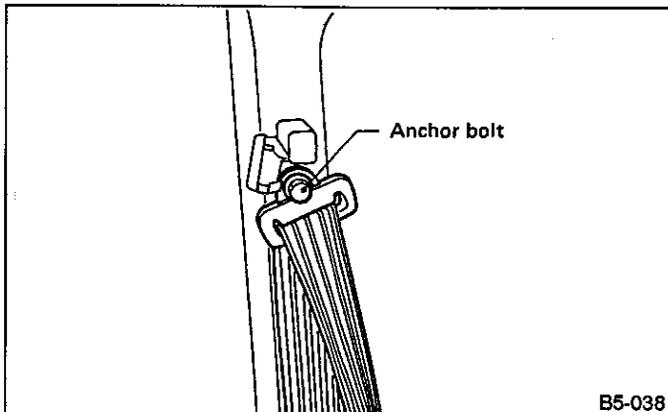


Fig. 39

- 3) Remove center upper pillar trim panel.
- 4) Remove center lower pillar trim panel by lifting it along center pillar.
- 5) Roll up floor mat at the bottom of center pillar.
- 6) Remove lap anchor bolt.

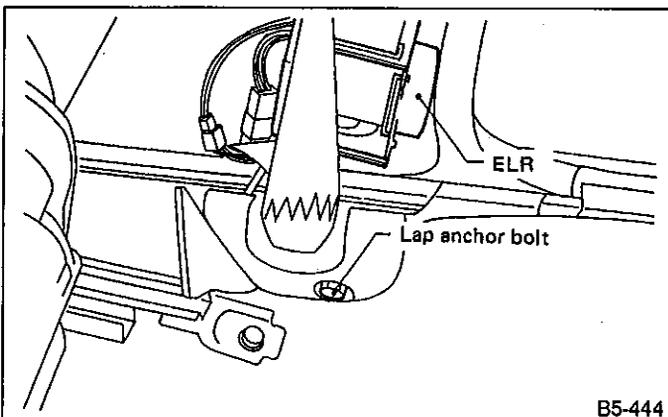


Fig. 40

- 7) Remove webbing guide.
- 8) Remove belt retractor and outer belt.

#### 2. INNER BELT

[Europe model]

- 1) Remove anchor nut.

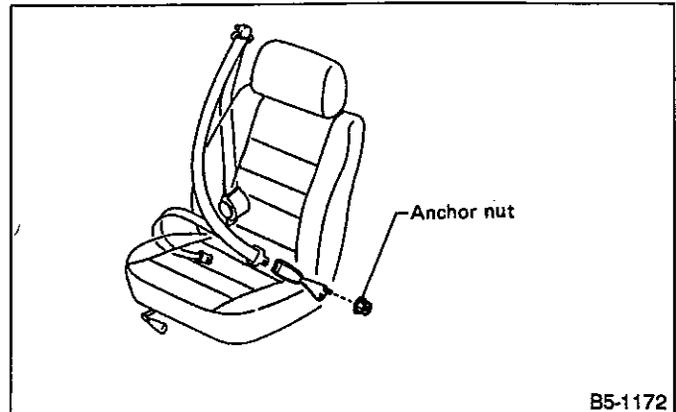


Fig. 41

[Other than Europe model]

- 1) Pull anchor bolt cover up.
- 2) Remove anchor bolt, then inner belts.

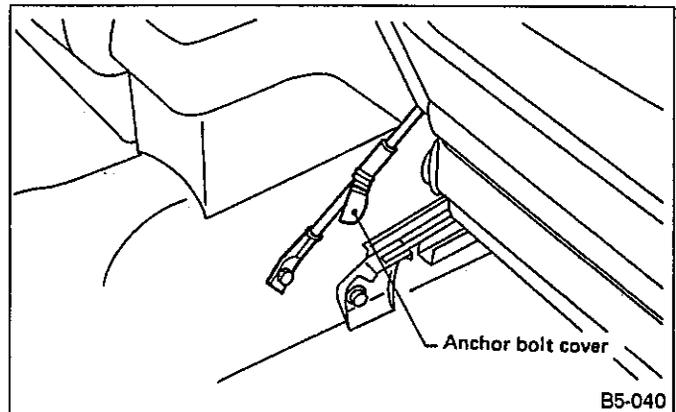


Fig. 42

#### 3. ADJUSTABLE SHOULDER ANCHOR

- 1) Remove shoulder anchor bolt.
- 2) Remove lower center-pillar trim.

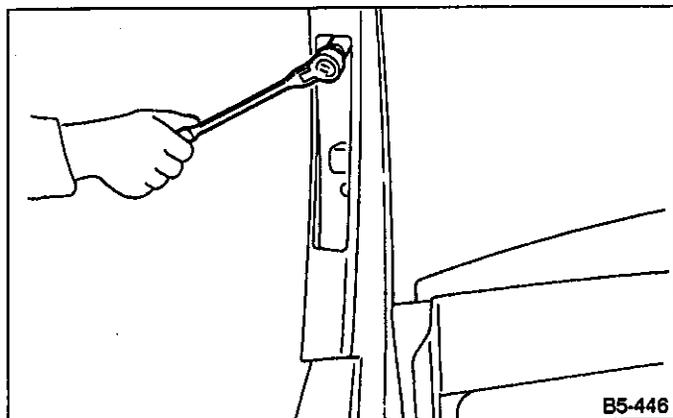


Fig. 43

- 3) Remove center upper pillar trim panel.
- 4) Remove bolts which secure adjuster rail, and remove adjuster anchor.

## B: INSTALLATION

Installation is in the reverse order of removal.

- a. The left and right ELR's are not mutually interchangeable because different sensors are used.
- b. Be careful not to twist belts during installation.

## 7. Rear Seat Belt

### A: REMOVAL

#### 1. 4-DOOR SEDAN MODEL

- 1) Remove rear cushion from body.
- 2) Remove rear backrest from body.
- 3) Remove outer anchor bolts.
- 4) Remove bolts from sash guide and sash guide cover at rear pillar.
- 5) Remove screw from lower side of rear quarter trim, and lift up lower side of rear quarter trim.
- 6) Remove front bolt, then rear bolt, from ELR.
- 7) Remove belt from outlet in rear quarter along slit.
- 8) Remove inner bolts which secure outer seat.

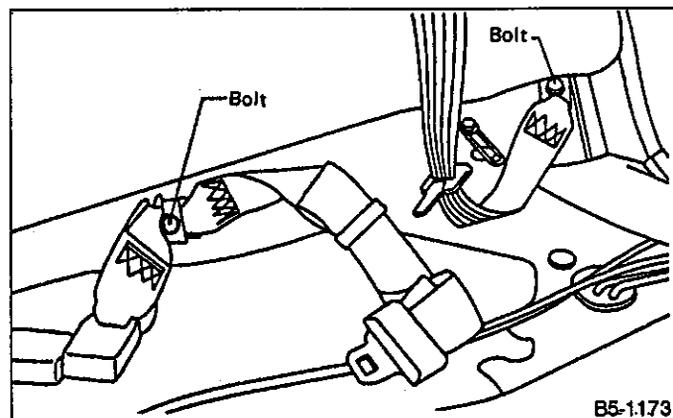


Fig. 44

- 9) Remove washer from bolt, then remove bolt, belt ASSY, and anchor plate bracket.
- 10) Remove inner bolts (2 places) from center seat.
- 11) Remove washer from bolt, and remove bolt, belt ASSY and anchor plate bracket.

#### 2. STATION WAGON MODEL

- 1) Raise rear cushion.
- 2) Remove rear backrest from body.
- 3) Remove lap anchor cover from lower portion of rear quarter trim, and remove upper webbing cover.
- 4) Remove anchor bolts located outer side of outer seat and sash guide.
- 5) Insert webbing cover, sash guide and seat belt into outlet in upper portion of rear quarter trim, and remove rear quarter trim.

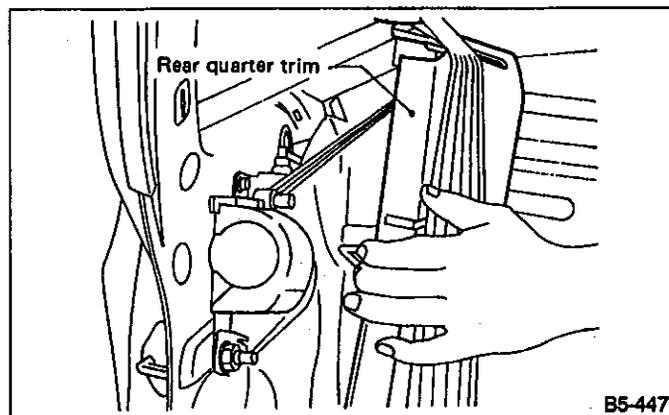


Fig. 45

- 6) Remove rear backrest striker, then remove bolts and 7/16-20 UNF nuts which secure ELR. Remove ELR.

Remove outer seat belt and center seat belt in similar manner used to remove those from 4-Door Sedan.

### B: INSTALLATION

Installation is in the reverse order of removal. Ensure that seat belt is properly reeled on and off after installation of ELR.

- a. Be extremely careful not to confuse center seat anchor plate with outer seat anchor plate during installation.
- b. Ensure that seat belts are free from twisting after installation.
- c. Ensure that tongues, buckles and belts are properly placed on seat.

## 8. Console Box

### A: REMOVAL

- 1) Apply parking brake lever.
- 2) Remove knob from gearshift lever.
- 3) Remove console box center cover.
- 4) Remove four screws securing console box.

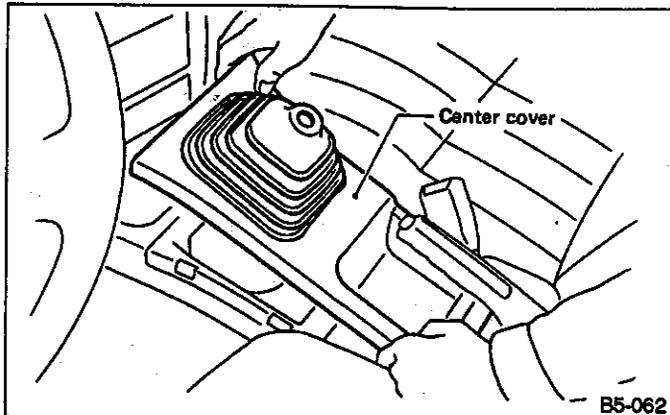


Fig. 46

- 5) Remove rear console box.
- 6) Remove caps from left and right front portions of front console box.
- 7) Remove screws securing front console box, and remove console box.

### B: INSTALLATION

Installation is in the reverse order of removal.  
**Be careful not to pinch harnesses during installation.**

## 9. Front Pillar Trim Panel

### A: REMOVAL

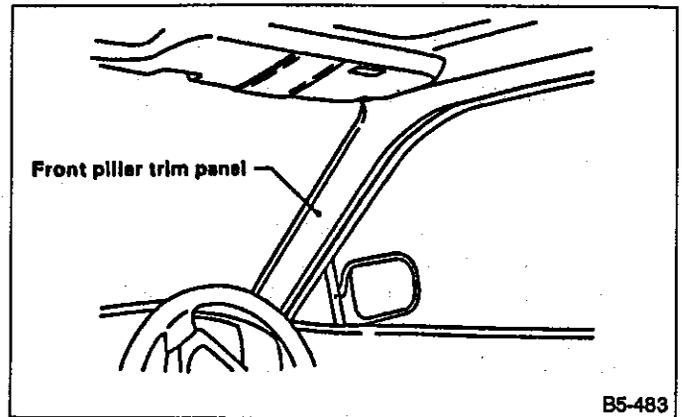


Fig. 47

- 1) Pry pawls off body flange of front pillar upper trim panel using screwdriver.
- 2) Remove clips which hold front pillar upper trim panel, and lift trim panel out by moving it toward the compartment.
- 3) Remove front pillar center trim panel by moving it up and to the rear. (If it is hard to remove by hand, place screwdriver on its upper side and pry off.)

**B: INSTALLATION**

Installation is in the reverse order of removal.

Be sure to securely hook pawls of front pillar upper trim panel on body flange.

**10. Center Pillar Trim Panel****A: REMOVAL**

- 1) Remove seat belt anchor bolts.
- 2) Remove clips of center pillar upper trim panel. Lift trim panel out while opening the outer flanged section.

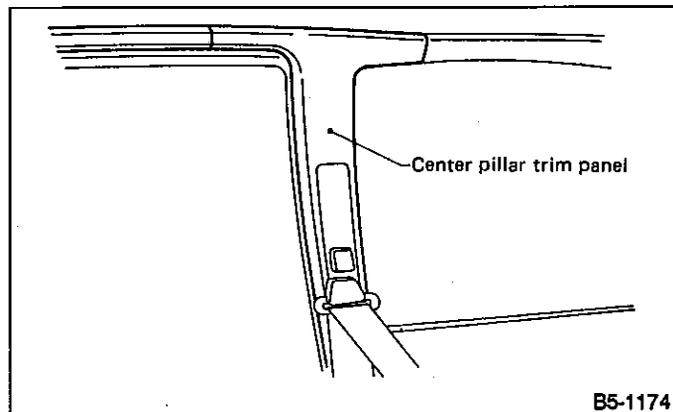


Fig. 48

- 3) Lift center pillar lower trim panel out. To facilitate removal, first move trim panel toward the compartment, then lift out. Otherwise, pawls will hamper removal of trim panel.

**B: INSTALLATION**

Installation is in the reverse order of removal.

**11. Rear Pillar Trim Panel (4-Door Sedan)****A: REMOVAL**

- 1) Remove rear seat cushion and backrest.
- 2) Remove tapping screw from rear pillar lower trim panel, and remove trim panel by sliding it forward.
- 3) Pry the pawl off front end using screwdriver.

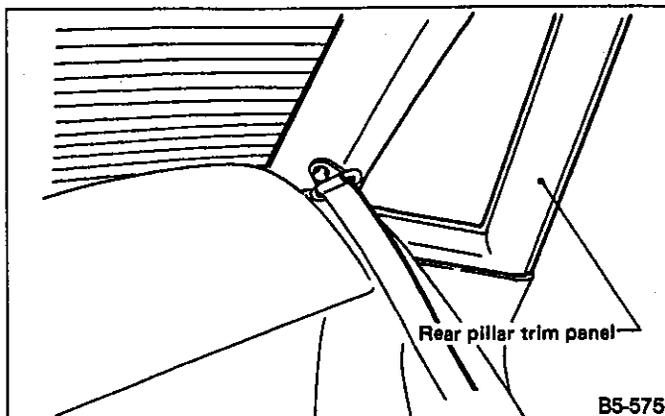


Fig. 49

- 4) Remove clips which hold rear pillar upper trim, and remove trim panel by sliding it forward.

**B: INSTALLATION**

Installation is in the reverse order of removal.

Be sure to securely hook pawls of rear pillar upper trim panel on body flange.

**12. Rear Quarter Pillar Trim Panel (Station Wagon)****A: REMOVAL**

- 1) Remove rear roof side trim rail.
- 2) Remove three pawls which hold the front end of rear quarter pillar trim panel to body flange using screwdriver.

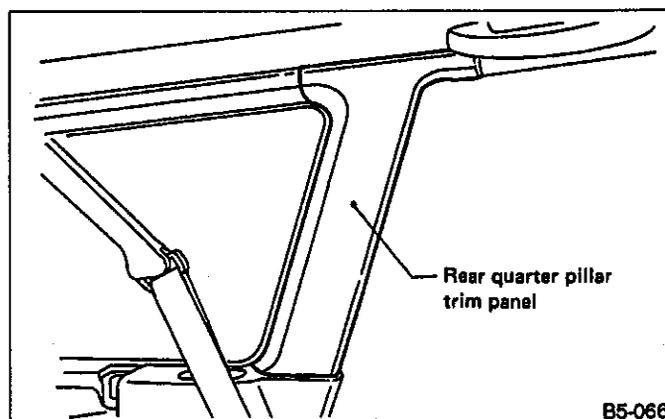


Fig. 50

**B: INSTALLATION**

Installation is in the reverse order of removal.

Be sure to securely hook pawls of rear quarter pillar trim panel on body flange.

### 13. Rear Pillar Trim Panel (Station Wagon)

#### A: REMOVAL

- 1) Remove rear roof side trim rail.
- 2) Pry three pawls which are hooked on inner surface of body using screwdriver.

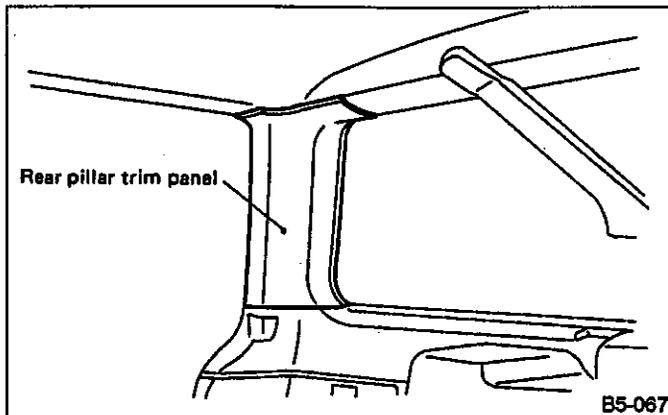


Fig. 51

#### B: INSTALLATION

Installation is in the reverse order of removal.

- 1) Securely affix rear pillar trim panel and body flange with adhesive tape, and insert garnish into place.

### 14. Rear Quarter Trim Panel (Station Wagon)

#### A: REMOVAL

- 1) Set rear seat cushion up.
- 2) Remove rear seat backrest.
- 3) Remove striker cover and belt covers.
- 4) Remove rear edge.
- 5) Remove tapping screws and clips which hold rear quarter trim panel.

Models equipped with luggage cover:

- (1) Remove luggage cover.
- (2) Remove luggage cover holder.
- (3) Remove luggage cover support.

- 6) Remove two upper clips which hold rear quarter trim panel. Remove trim panel by moving the rear end toward compartment and sliding it forward.

#### B: INSTALLATION

Installation is in the reverse order of removal.

Be careful not to ride trim panel over harness, insulators, etc.

### 15. Floor Mat

The following procedure is applicable to all models.

#### A: REMOVAL

- 1) Remove front seat.
- 2) Remove rear seat cushion.

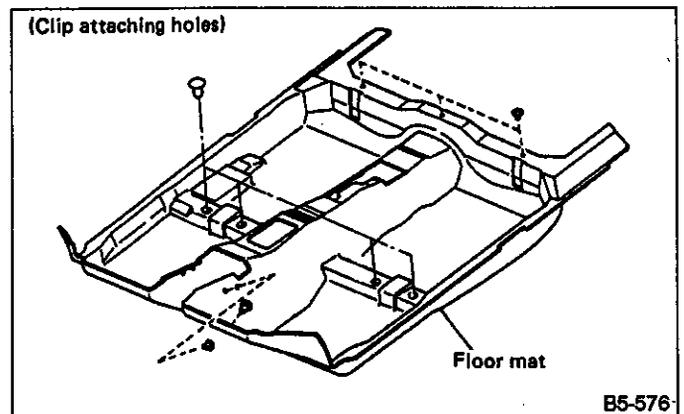


Fig. 52

- 3) Remove parking brake cover.
- 4) Remove center tray, indicator cover, cover ASSY, and console box, depending on the specifications.
- 5) Remove front inner belt.
- 6) Remove front pillar lower trim panel.
- 7) Remove center pillar lower trim panel.
- 8) Remove three clips under rear seat cushion.
- 9) Pull out edge in the groove of side sill cover.

When pulling out edge, do not pull mat alone; pull mat together with edge.

Pry off two steel clips on side sill front cover and one on side sill rear cover using screwdriver.

- 10) Remove mat hook.
- 11) Remove mat from toe board area.
- 12) Remove mat from heater unit.
- 13) Roll mat, and take it out of opened rear door.

#### B: INSTALLATION

Installation is in the reverse order of removal.

- 1) Secure mat firmly with hook and velcro tape.
- 2) Insert mat edge firmly into the groove of side sill cover.

**INSTRUMENT PANEL**

**SUBARU®**

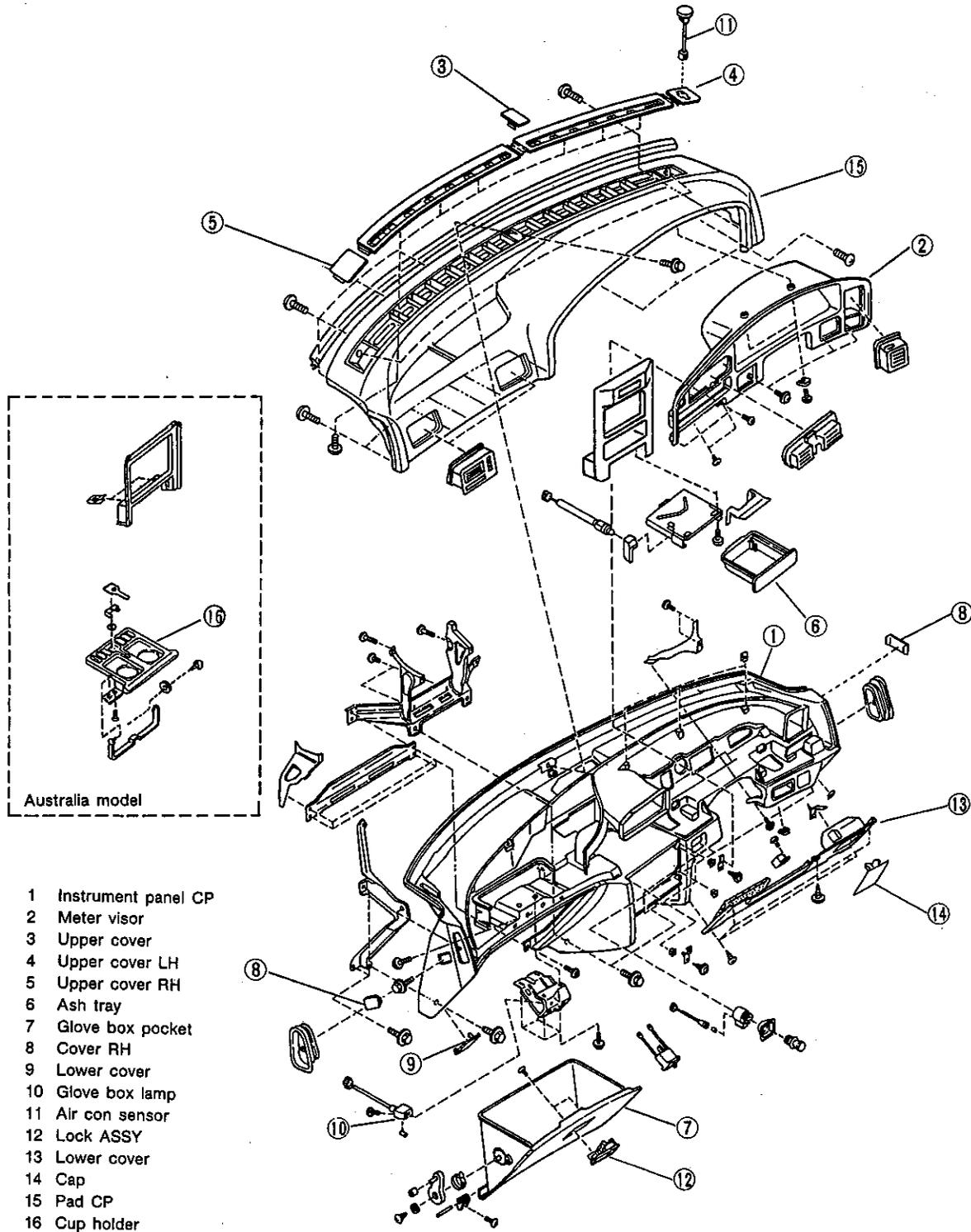
**1992**

**SERVICE  
MANUAL**

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# C COMPONENT PARTS



- 1 Instrument panel CP
- 2 Meter visor
- 3 Upper cover
- 4 Upper cover LH
- 5 Upper cover RH
- 6 Ash tray
- 7 Glove box pocket
- 8 Cover RH
- 9 Lower cover
- 10 Glove box lamp
- 11 Air con sensor
- 12 Lock ASSY
- 13 Lower cover
- 14 Cap
- 15 Pad CP
- 16 Cup holder

Fig. 1

B5-1175

# W SERVICE PROCEDURE

## 1. Instrument Panel

### A: REMOVAL

- 1) Disconnect ground cable from battery.
- 2) Remove center console box.

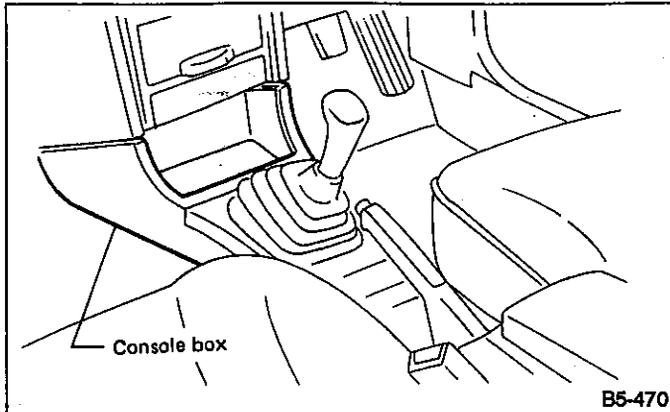


Fig. 2

- 3) Remove instrument panel covers.
  - (1) Remove three upper covers with a screwdriver.
  - (2) Remove both side covers with a screwdriver.
  - (3) Remove lower passenger side cover with a screwdriver.

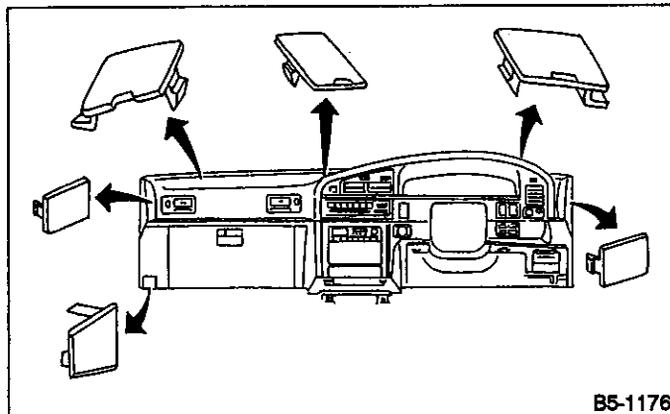


Fig. 3

- 4) Remove front pillar lower trim panel from the body.
- 5) Remove front hood cable from the front hood.
- 6) Disconnect harness connectors.
  - a. Be sure to hold socket section when disconnecting, not harness.
  - b. Put matching mark, if necessary, for easy re-assembly.
- 7) Disconnect speedometer cable from rear side of combination meter.
- 8) Disconnect blower switch harness connector.

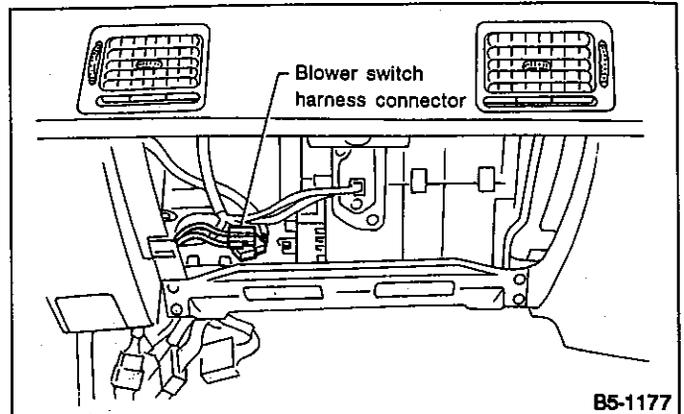


Fig. 4

- 9) Disconnect ventilation cable from heater unit.
- 10) Disconnect radio antenna feeder.
- 11) Disconnect temperature control cable from heater unit.
- 12) Disconnect connector from fuse box.
- 13) Remove lower cover on driver's side.

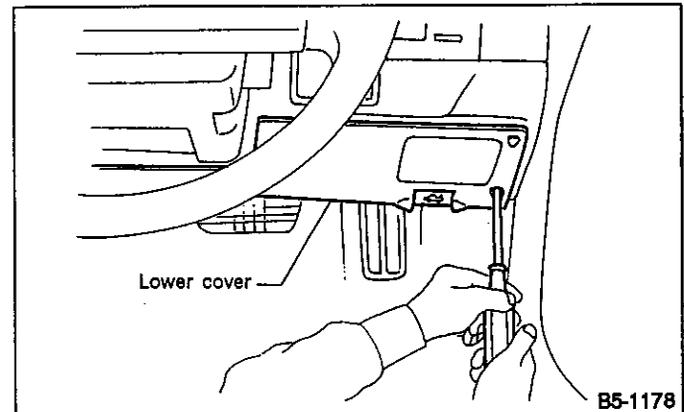


Fig. 5

- 14) Remove bolts which secure steering system.
- 15) Remove bolts holding instrument panel in place.

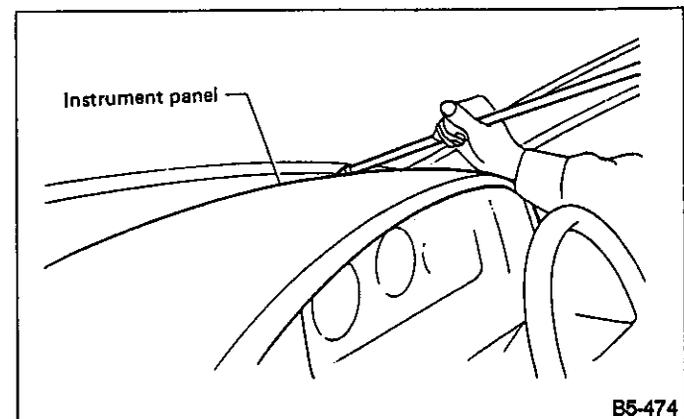


Fig. 6

Instrument panel is supported by center bracket and will not fall even when all bolts are removed.

- 16) Disconnect blower motor vacuum hose at upper rear side of pocket frame.  
 17) Remove instrument panel from the body.

## B: INSTALLATION

- 1) Installation is in the reverse order of removal. Observe the following:

- (1) Have a helper to install instrument panel in vehicle. Be careful not to strike it against adjacent parts during installation.  
 (2) Be sure to attach forward center section of instrument panel to body bracket with the helper.

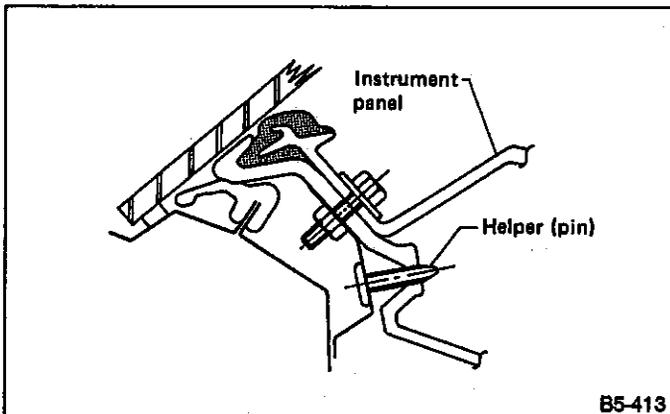


Fig. 7

- (3) While setting instrument panel in position, be careful not to obstruct air outlets of heater and blower with harness connectors, cables of vacuum hoses. Also, do not allow them to be caught between bracket and instrument panel.  
 (4) Be sure to place forward end of instrument panel on top of weatherstrip located at lower side of windshield. Do not fold up weatherstrip.

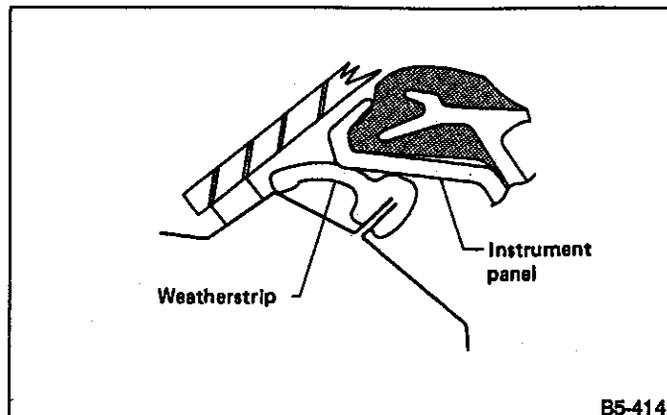


Fig. 8

## 2. Meter Visor

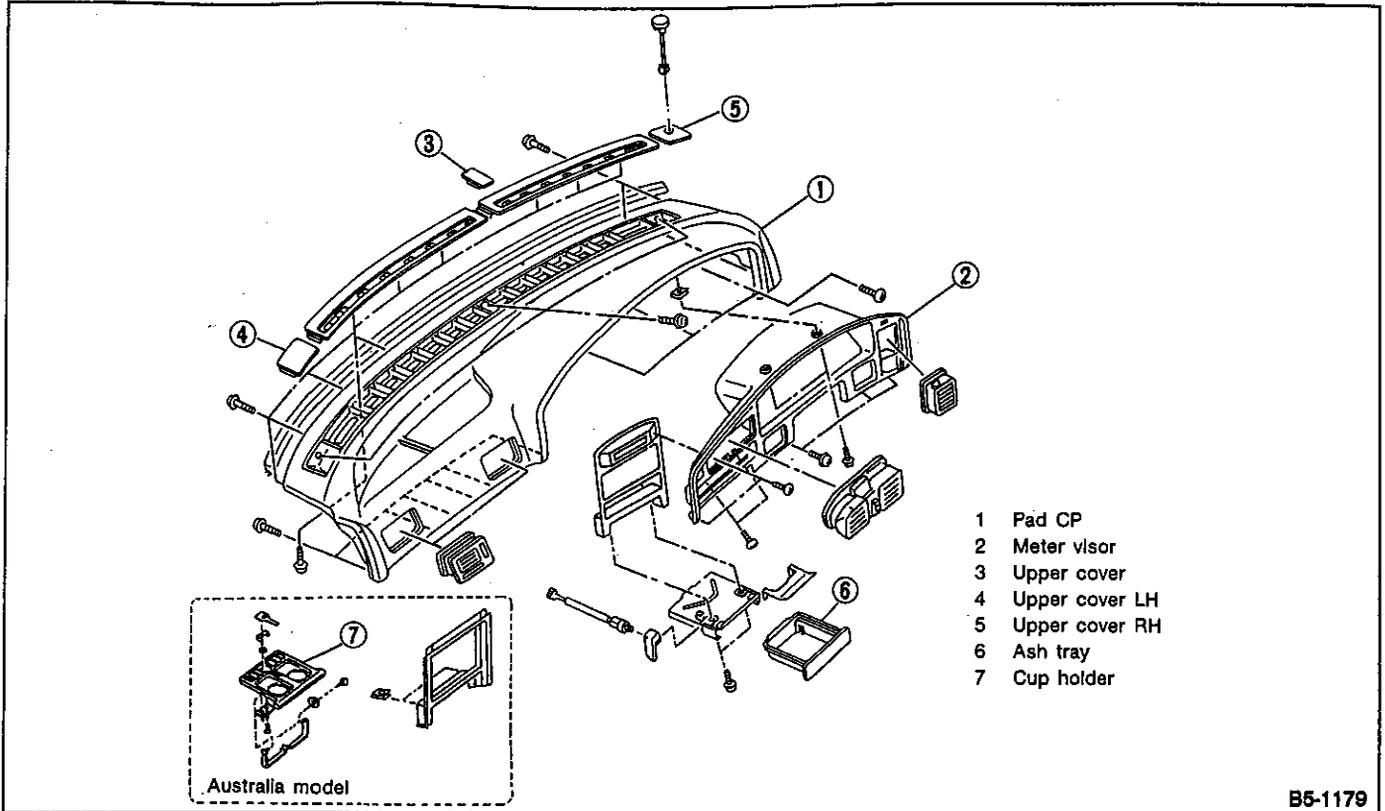


Fig. 9

### A: REMOVAL

- 1) Pull out cup holder (only models for Australia) and ash tray from instrument panel.
- 2) Remove center panel by removing the four screws.

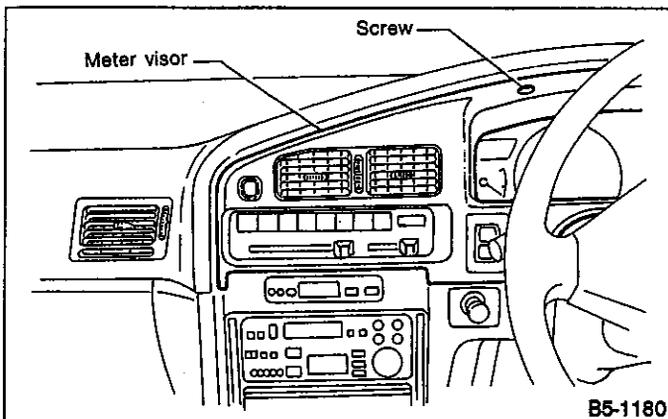


Fig. 10

- 3) Remove parts such as ventilation grills (both driver and center sides), switch box, mirror control switch, height control switch, and then remove the screw at the bottom of each part.

- 4) Remove the two screws on the upper side of heater control panel.
- 5) Remove the two screws on the upper side of meter.
- 6) Remove meter visor from instrument panel by pulling it up and forward.

### B: INSTALLATION

Installation is in the reverse order of removal.  
 After installation, make sure there is no clearance between parts.