CONTENTS

GENERAL INFORMATION

GENERAL GUIDE LINES AND PRECAUTIONS

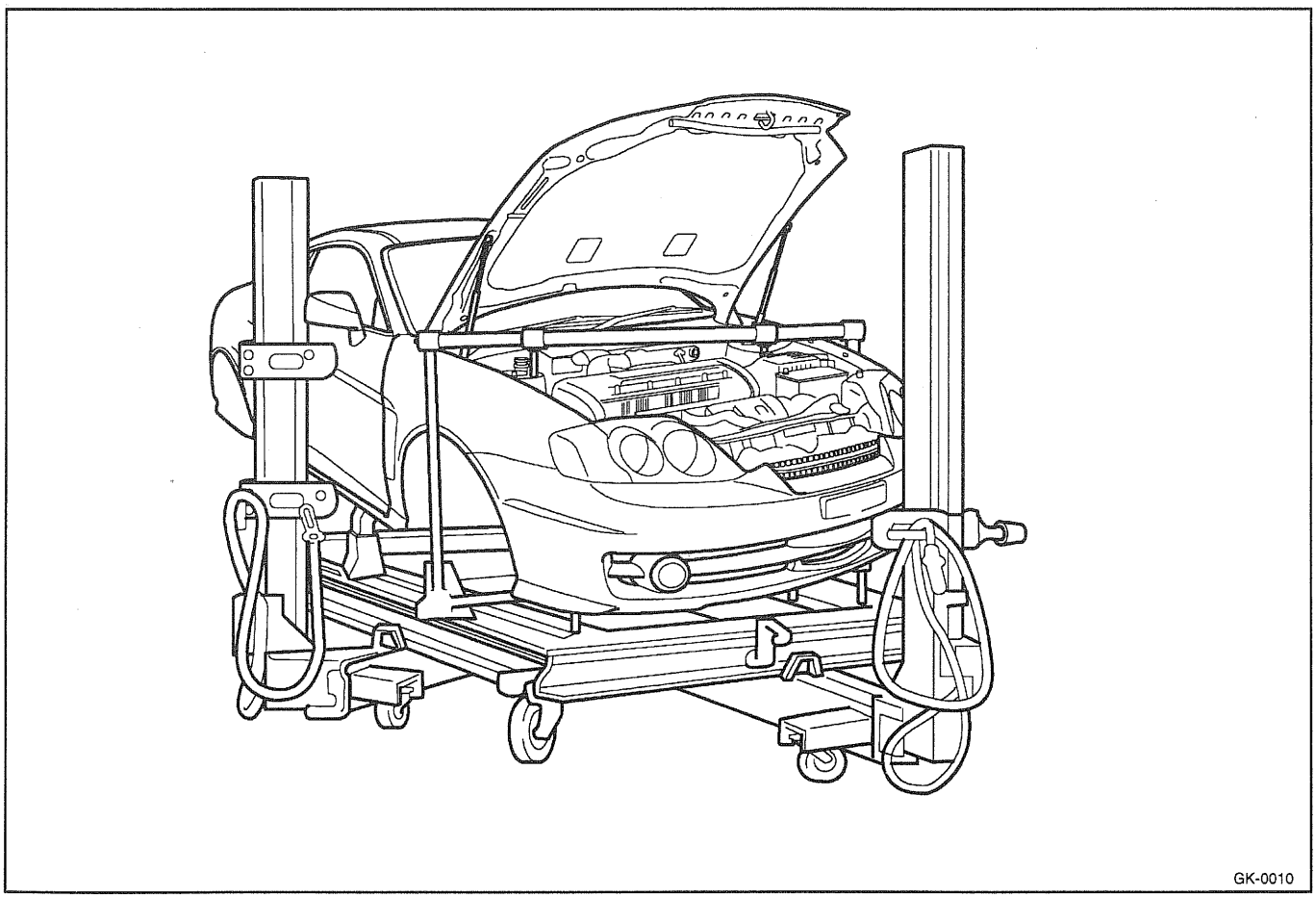
The Hyundai TIBURON/COUPE is a completely new vehicle design. During its development, close attention has been given to safety, stability, weight and corrosion protection. Typical of unit body design, the Hyundai TIBURON/ COUPE is designed so that the front and rear compartments will absorb much of the collision energy so that the passengers are better protected. During collisions, these front and rear energy absorbing systems may be severely damaged. During repair, these damaged areas must be returned to their original strength and geometry. If this is not properly done, the vehicle will not provide the intended level of protection to its occupants in the event of another collision.

The repairs described in this manual were performed on TIBURON/COUPE body shells. In some instances special fixtures were welded in place to support the structure. During the repair of an actual vehicle, the interior would be fully disassembled and standard jack screws or portable braces may be used for temporary support.

During the repair of an accident involved vehicle, the vehicle must first be returned to pre-impact dimensions prior to beginning the sectioning repair procedures. The extent of damage that must be repaired should then be evaluated to determine the appropriate repair procedures. This manual provides locations and procedures where structural sectioning may be employed. It is the responsibility of the repair technician, based upon the extent of damage, to determine which location and procedure is suitable for the particular damaged vehicle.

During the repair of a collision damaged automobile, it is impossible to fully duplicate the methods used in the factory during the vehicle manufacture. Therefore, auto body repair techniques have been developed to provide a repair that has strength properties equivalent to those of the original design and manufacture.

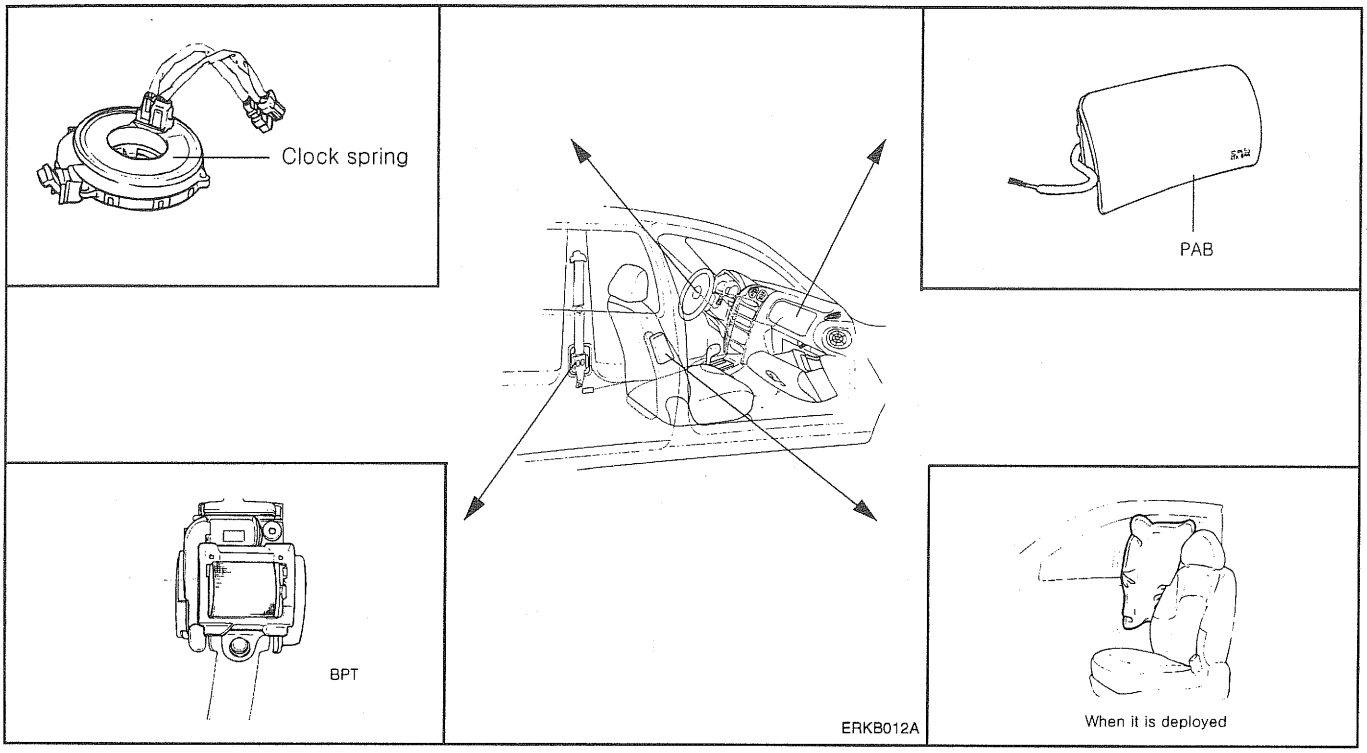
Certain guidelines and precaution are noted as follows.



GK-0010

SRS AIRBAG

SYSTEM COMPONENT



The Hyundai TIBURON/COUPE is equipped with a Supplemental Restraint System (AIRBAG) to provide the vehicle's driver and/or the front passenger with additional protection than that offered by the seat-belt system alone, in case of a frontal or lateral impact of sufficient severity.

When handling airbag components (removal, installation or inspection, etc.), always follow the directions given in the repair manual for the relevant model to prevent the occurrence of accidents and airbag malfunction.

Also take the following precautions when repairing the body:

1. Work must be started after approximately 30 seconds or longer from the time the ignition switch is turned to the LOCK position and the negative (-) terminal cable is disconnected from the battery. (The airbag system is equipped with a back-up power source so that if work is started within 30 seconds of disconnecting the negative (-) terminal cable of the battery, the airbag may be deployed.)
   When the negative(-) terminal cable is disconnected from the battery, memory of the clock and audio systems will be cancelled. So before starting work, make a record of the contents memorized by the audio memory system. Then when work is finished, reset the audio system as before and adjust the clock.
2. When using electric welding, first disconnect the SRSCM connectors under the lower crash pad center.
3. Store the airbag module where the ambient temperature remains below 80°C (176°F), without high humidity and away from electrical noise.
4. WARNING/CAUTION labels are attached to the periphery of the airbag components.
   Refer to the TIBURON/COUPE SHOP MANUAL.

ELECTRONIC PARTS

Vehicles today include a great many electronic parts and components, and these are in general very susceptible to adverse effects caused by over current, reverse current, electromagnetic waves, high temperature, high humidity impacts, etc..
In particular such electronic components can be damaged if there is a large current flow during welding from the body side.
Therefore, take the following precautions during body repair to prevent damage to the CONTROL MODULES (ECM, TCM, ABS CM, SRS CM, etc.)

1. Before removing and inspecting the electrical parts or before starting electric welding operations, disconnect the negative (-) terminal cable from the battery.
2. Do not expose the CONTROL MODULES to ambient temperatures above 80°C (176°F).

   NOTE :
   If it is possible the ambient temperatures may reach 80°C (176°F) or more, remove the CONTROL MODULES from the vehicle before starting work.
3. Be careful not to drop the CONTROL MODULES and not to apply physical shocks to them.

CORROSION PROTECTION AND SEALING

Proper corrosion protection and sealing is an important part of any repair. When reviewing these repair procedures, it is important to recognize the need for corrosion restoration to provide for long term strength of the repaired member.

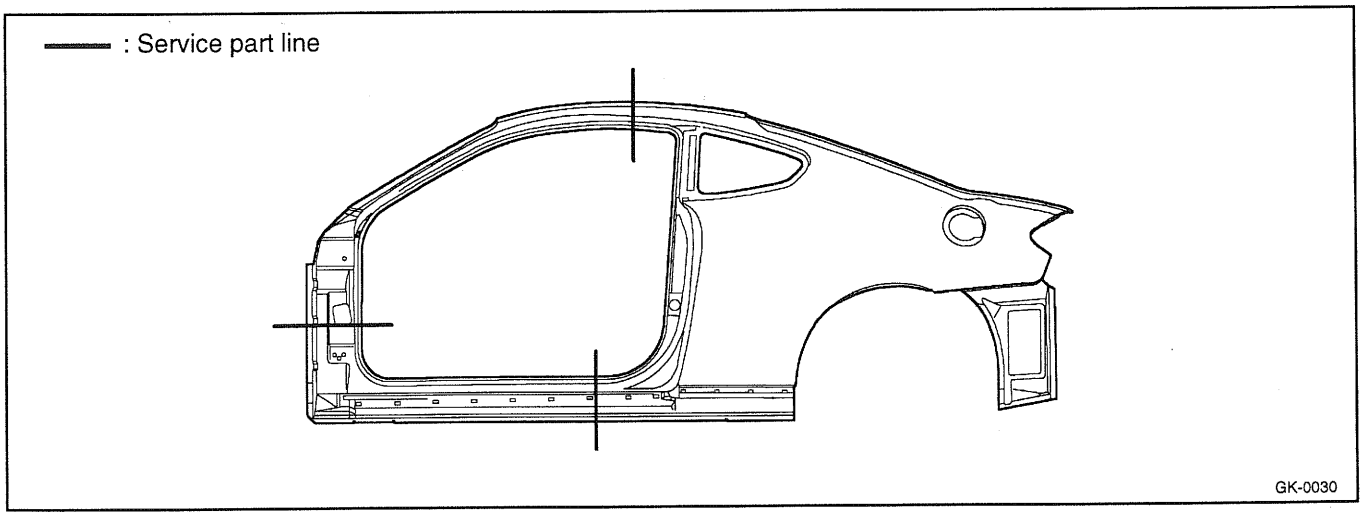
A two part epoxy primer was applied to the metal surfaces during the latter part of the repair. For closed sections, such as front and rear rails, rocker panels and pillars, the primer is applied without applying the metal conditioner and the conversion coating. These steps are omitted to insure that no rinse water is trapped in the closed sections. The primer application is followed by an application of an oil or wax based on rust proofing material.

After the corrosion restoration process for the closed sections are completed, then the process can be applied to all exterior sections. For exterior surfaces, both metal conditioner and conversion coating treatments are applied to the exterior surface prior to application of the epoxy primer. The procedure in applying the corrosion restoration process is important in order to insure that moisture, due to the water rinsing of the metal conditioner and conversion coating is not inadvertently trapped inside any closed section before the epoxy primer and rust proofing materials have been applied.

Appropriate seam sealers are then applied to all joints. Follow manufacturer's recommendations for the appropriate type of seam sealer to be used at each seam or joint.

SIDE BODY PANELS

The side body panel for TIBURON/COUPE is designed and stamped as single piece of sheet metal in factory as shown in the figure. While the entire side panel is available for service, the partial panels sectioned by several damaged areas are also available. Therefore when repairing side body, refer to "Replacement parts section" of this manual to select and use the appropriate part.

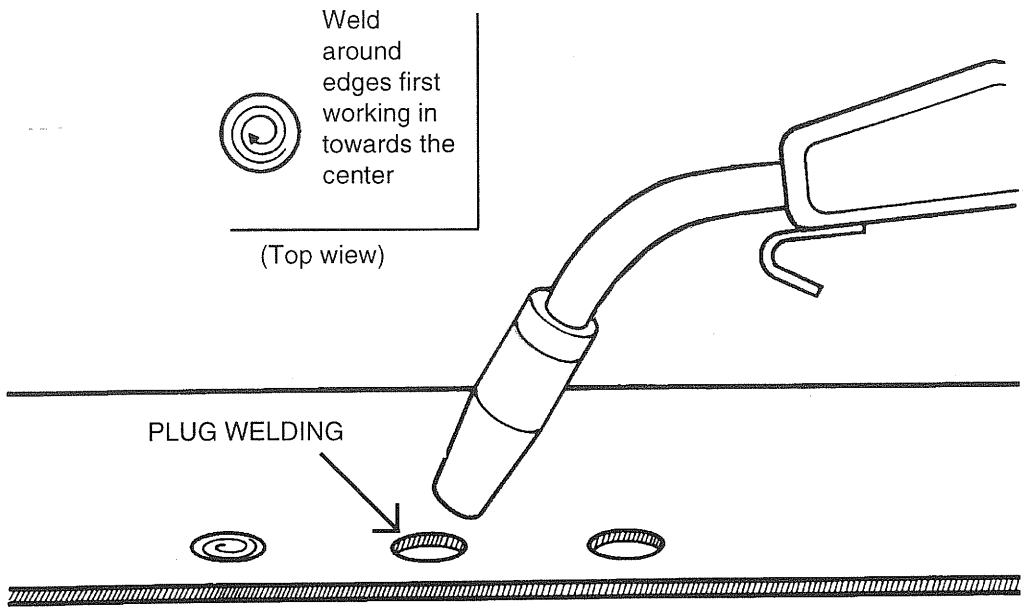


WELDING

All repairs in this manual require the use of a Metal-Inert Gas (MIG) welder, Gas (oxyacetylene) welding must not be used.
Both high strength steel and mild steel can be welded using the MIG welder. The I-CAR recommendations for welding should be followed. The shielding gas should be 75% Argon and 25% CO_2.
The recommended welding wire size is 0.23" and the wire should satisfy the American Welding Society Standard code AWSER70S-6.

During the repair process, plug welds are used to duplicate original factory spot welds. All plug welds should be done with the MIG welder. An 8 mm (5/16") hole is placed in the top (welding side) sheet metal.

You then begin welding along the edges and the spiral towards the center (see illustration). This is important so that weld penetration between the two metal pieces may take place along the circumference of the circle.



8mm or 5/16" dia. hole
Illustration-Welding in collision Repair

HP-0040

SAFETY FACTORS

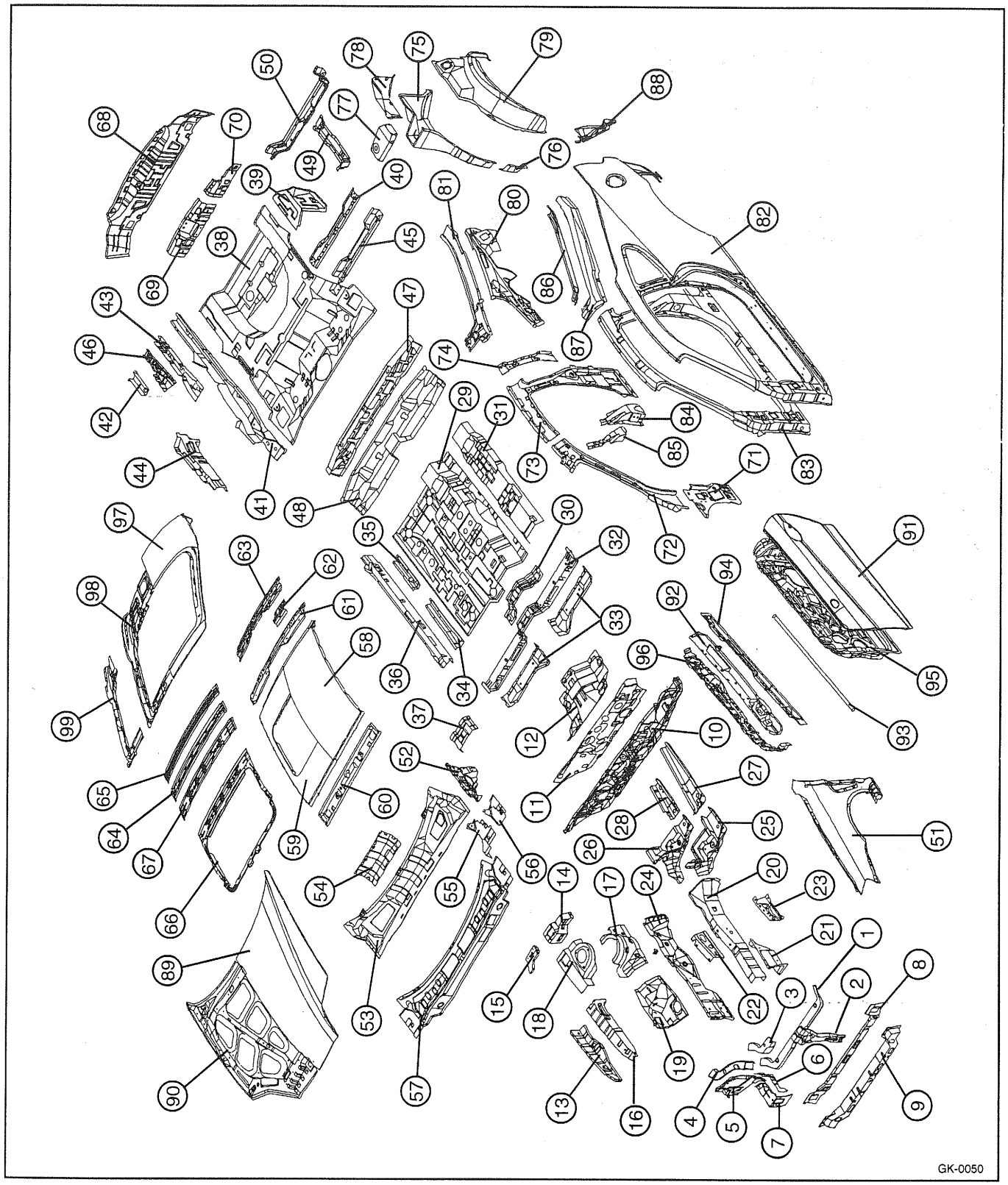
Disconnect the negative(-) battery cable before performing any work on the vehicle.
Protect yourself by wearing goggles, earplugs, respirators, gloves, safety shoes, caps, etc. when working on a vehicle.
Safely support the vehicle before any work is done. Block the front or rear wheels if the vehicle is not lifted off of the ground.
Cap or remove the fuel tank when working on the rear section of the car.
Insure proper ventilation of your working area. Some paint and sealant can generate toxic gases when heated.
Use an air chisel or saw to remove damaged panels instead of a gas torch.
Observe all local and national safety regulations when performing any work.
Cover interior with heat-resistant cover to insure safety when welding.
Take care when using gas or cutting torches so as not to burn body sealer or interior. Extinguish immediately if they should catch fire.

BODY CONSTRUCTION

BC

BODY COMPONENTS

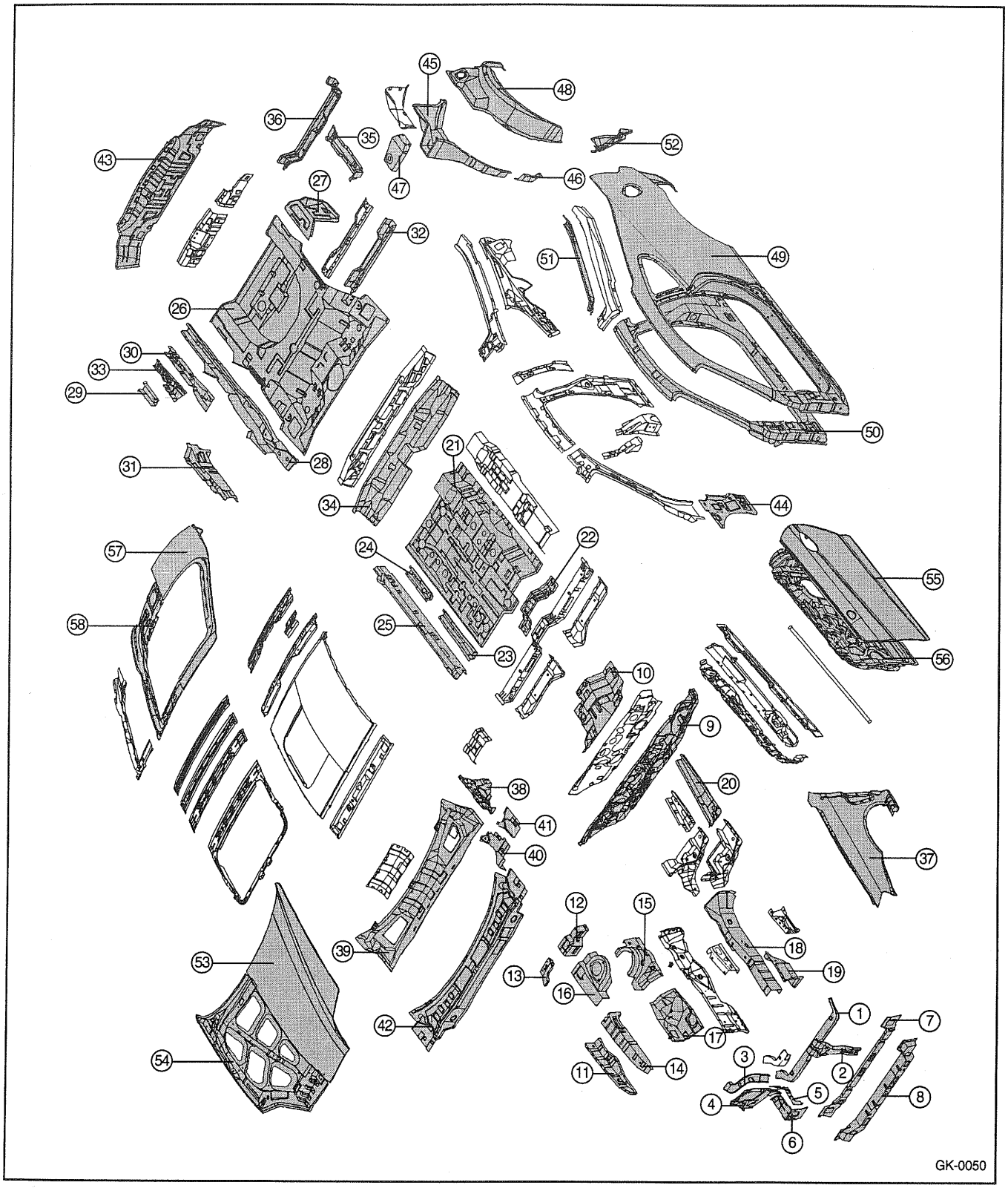
Body construction will sometimes differ depending on specifications and country of destination. Therefore, please keep in mind that the information contained herein is based on vehicles for general destination.



1. Radiator support upper center member
2. Radiator support center member
3. Radiator upper mounting bracket
4. Radiator support upper side member
5. Head lamp support panel
6. Head lamp support gusset
7. Front shipping hook bracket
8. Radiator support lower inner member
9. Radiator support lower outer member
10. Dash panel
11. Dash panel reinforcement
12. Dash lower member
13. Fender apron upper outer panel
14. Fender apron inner rear upper extension
15. Fender apron inner rear lower extension
16. Fender apron upper inner panel
17. Front shock absorber housing panel
18. Front shock absorber housing upper panel
19. Fender apron inner front panel
20. Front side inner member
21. Front side member inner gusset
22. Engine mounting reinforcement
23. Transmission mounting reinforcement
24. Front side outer member
25. Front side rear lower member
26. Front side rear upper member
27. Front side member rear lower extension
28. Front side member lower reinforcement
29. Center floor panel
30. Muffler hanger mounting bracket
31. Center floor reinforcement
32. Front seat cross member
33. Front seat cross No.2 member
34. Center floor side member
35. Center floor side member reinforcement
36. Side sill inner panel
37. Parking brake lever rear mounting reinforcement
38. Rear floor panel
39. Rear floor side panel
40. Rear floor center cross upper
41. Rear floor side member
42. Rear bumper mounting reinforcement
43. Rear floor side member center reinforcement
44. Side sill inner rear panel
45. Rear floor center cross member
46. Rear floor side member front reinforcement
47. Rear floor front extension
48. Rear floor front cross member
49. Jack up cross center member
50. Jack up cross rear member
51. Fender panel
52. Cowl side upper panel
53. Cowl inner lower panel
54. Cowl inner lower reinforcement
55. Cowl side upper inner panel
56. Hood hinge mounting reinforcement
57. Cowl top outer panel
58. Roof panel
59. Roof panel(sun roof)
60. Roof front lower
61. Roof rear upper rail
62. Tail gate hinge mounting reinforcement
63. Roof rear lower rail
64. Roof center rail
65. Roof center rail No.2
66. Sun roof ring reinforcement
67. Sun roof rear lower reinforcement
68. Back panel
69. Rear transverse member
70. Rear transverse side extension
71. Front inner lower pillar
72. Front inner upper pillar
73. Center pillar inner panel
74. Front seat belt upper mounting bracket
75. Wheel housing inner panel
76. Wheel housing inner front extension
77. Rear spring housing cover
78. Wheel housing inner rear cover
79. Quarter inner panel
80. Quarter inner reinforcement
81. Quarter inner upper panel
82. Side outer panel
83. Side outer reinforcement
84. Front door striker reinforcement
85. Front door striker upper reinforcement
86. Side outer rear upper extension
87. Quarter outer upper reinforcement
88. Rear combination lamp housing panel
89. Hood outer panel
90. Hood inner rail
91. Door outer panel
92. Door belt outer rail
93. Door reinforcement beam
94. Door upper member
95. Door inner panel
96. Door belt inner rail
97. Tail gate outer panel
98. Tail gate inner panel
99. Tail gate side reinforcement

ZINC - GALVANIZED STEEL PANELS

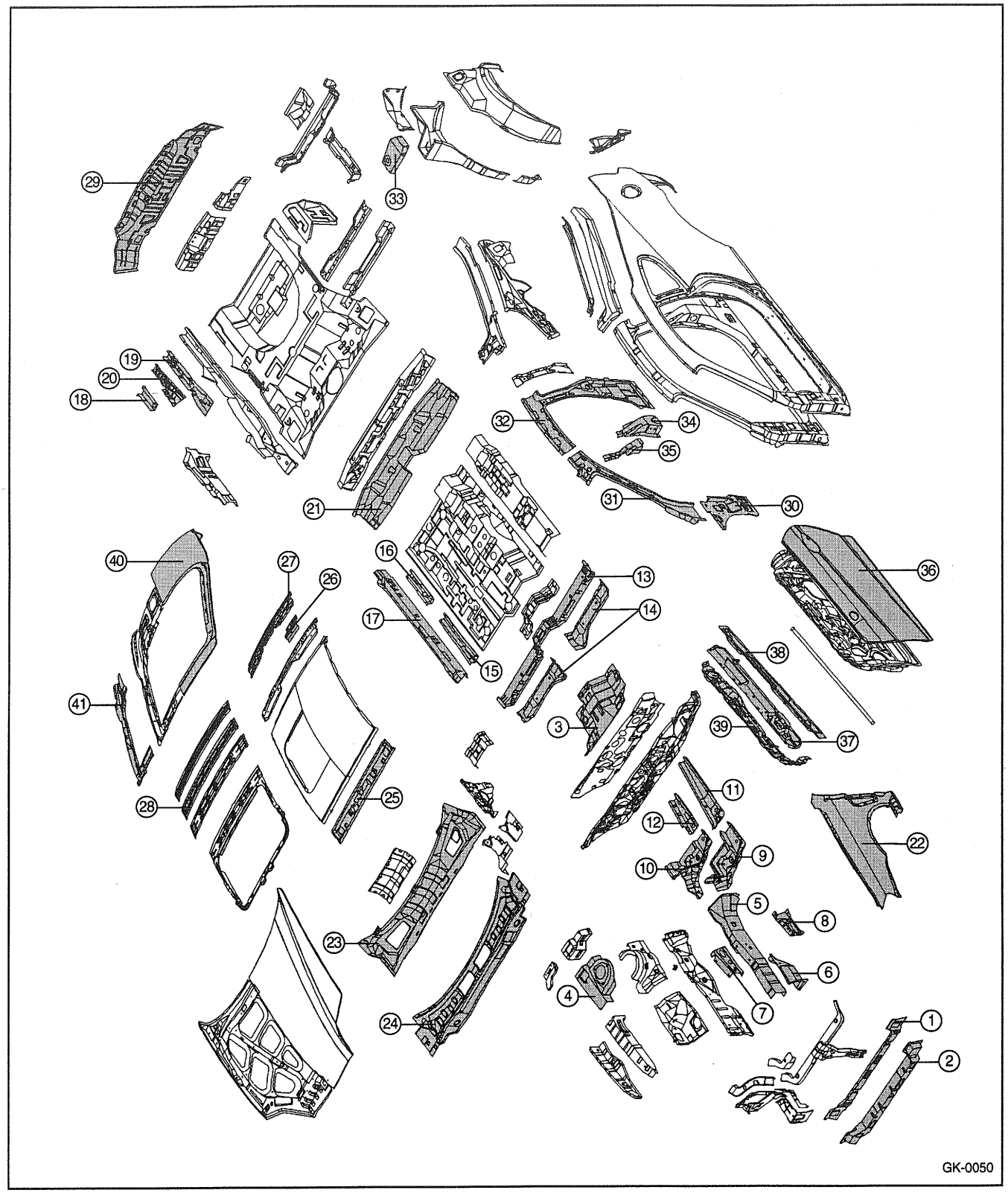
Because galvanized steel panel has excellent resistance, it is used in areas which have a high possibility of painting deficiency below



1. Radiator support upper center member
2. Radiator support center member
3. Radiator support upper side member
4. Head lamp support panel
5. Head lamp support gusset
6. Front shipping hook bracket
7. Radiator support lower inner member
8. Radiator support lower outer member
9. Dash panel
10. Dash lower member
11. Fender apron upper outer panel
12. Fender apron inner rear upper extension
13. Fender apron inner rear lower extension
14. Fender apron upper inner panel
15. Front shock absorber housing panel
16. Front shock absorber housing upper panel
17. Fender apron inner front panel
18. Front side inner member
19. Front side member inner gusset
20. Front side member rear lower extension
21. Center floor panel
22. Muffler hanger mounting bracket
23. Center floor side member
24. Center floor side member reinforcement
25. Side sill inner panel
26. Rear floor panel
27. Rear floor side panel
28. Rear floor side member
29. Rear bumper mounting reinforcement
30. Rear floor side member center reinforcement
31. Side sill inner rear panel
32. Rear floor center cross member
33. Rear floor side member front reinforcement
34. Rear floor front cross member
35. Jack up cross center member
36. Jack up cross rear member
37. Fender panel
38. Cowl side upper panel
39. Cowl inner lower panel
40. Cowl side upper inner panel
41. Hood hinge mounting reinforcement
42. Cowl top outer panel
43. Back panel
44. Front inner lower pillar
45. Wheel housing inner panel
46. Wheel housing inner front extension
47. Rear spring housing cover
48. Quarter inner panel
49. Side outer panel
50. Side outer reinforcement
51. Side outer rear upper extension
52. Rear combination lamp housing panel
53. Hood outer panel
54. Hood inner rail
55. Door outer panel
56. Door inner panel
57. Tail gate outer panel
58. Tail gate inner panel

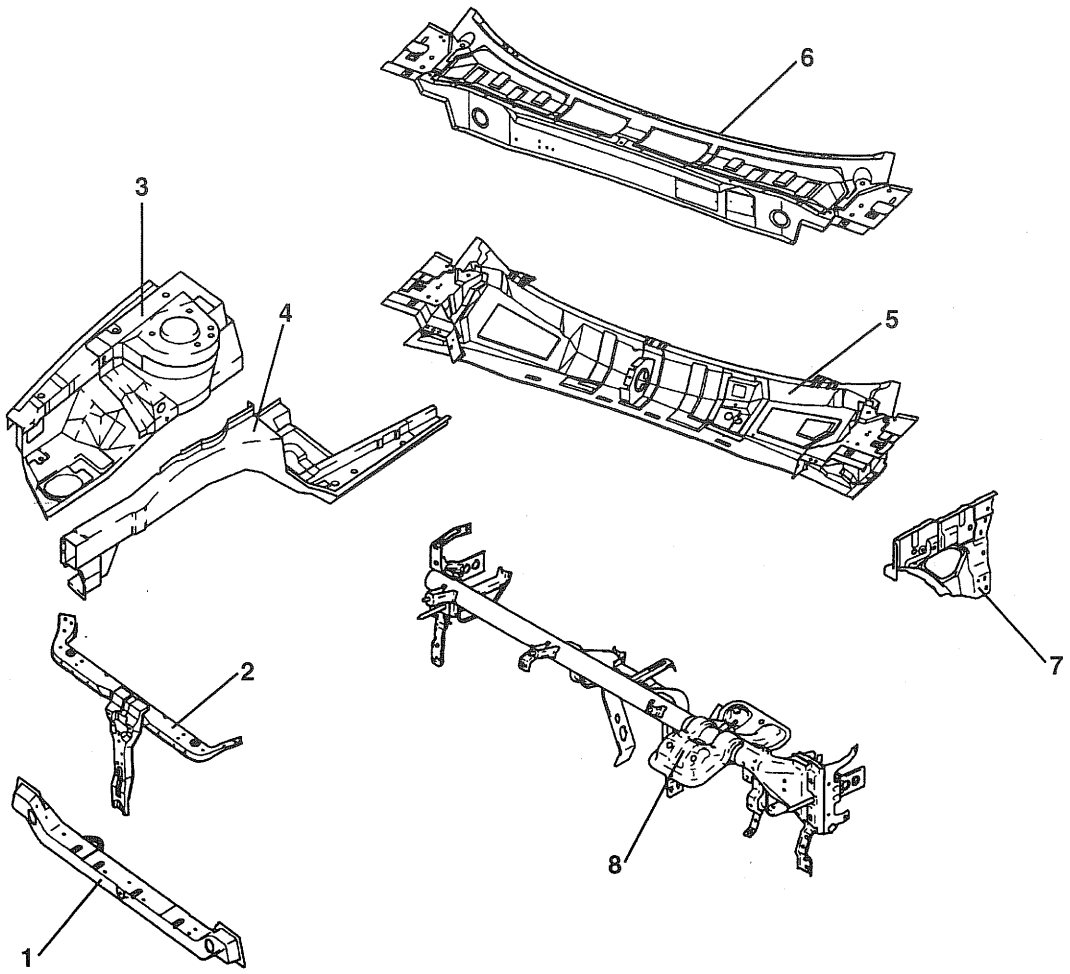
HIGH STRENGTH STEEL PANELS

Because High strength steel panel has excellent resistance, it is used in areas which have a high possibility of painting deficiency below



1. Radiator support lower inner member
2. Radiator support lower outer member
3. Dash lower member
4. Front shock absorber housing upper panel
5. Front side inner member
6. Front side member inner gusset
7. Engine mounting reinforcement
8. Transmission mounting reinforcement
9. Front side rear lower member
10. Front side rear upper member
11. Front side member rear lower extension
12. Front side member lower reinforcement
13. Front seat cross member
14. Front seat cross No. 2 member
15. Center floor side member
16. Center floor side member reinforcement
17. Side sill inner panel
18. Rear bumper mounting reinforcement
19. Rear floor side member center reinforcment
20. Rear floor side member front reinforcement
21. Rear floor front cross member
22. Fender panel
23. Cowl inner lower panel
24. Cowl top outer panel
25. Roof front lower
26. Tail gate hinge mounting reinforcement
27. Roof rear lower rail
28. Roof center rail
29. Back panel
30. Front inner lower pillar
31. Front inner upper pillar
32. Center pillar inner panel
33. Rear spring housing cover
34. Front door striker reinforcement
35. Front door striker upper reinforcement
36. Door outer panel
37. Door belt outer rail
38. Door upper member
39. Door belt inner rail
40. Tail gate outer panel
41. Tail gate side reinforcement

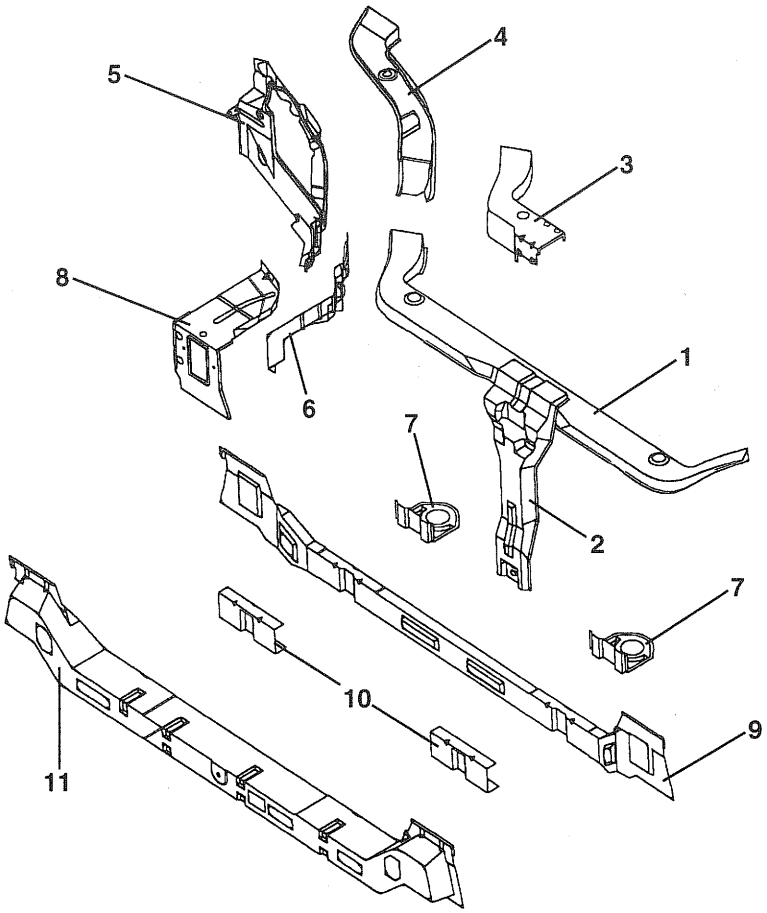
FRONT BODY



CON-0090

No.	PART NAME	
1	Radiator support panel complete	
2	Radiator support center complete member assembly	
3	Fender apron panel assembly,	LH/RH
4	Front side member assembly,	LH/RH
5	Cowl side outer panel assembly	
6	Cowl panel inner lower panel assembly	
7	Dash panel cower side outer upper panel,	LH/RH
8	Cowl cross bar assembly	

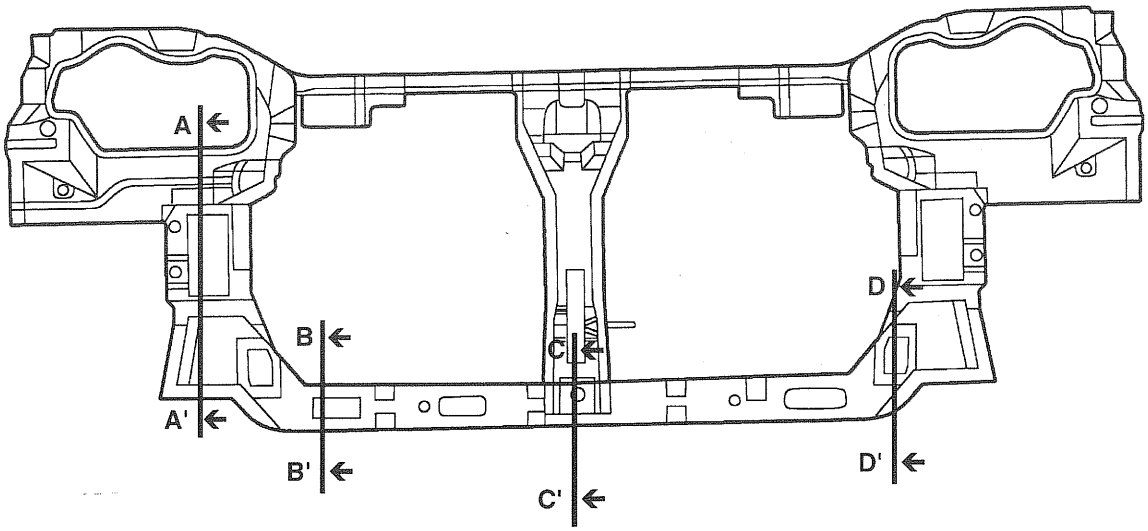
1. RADIATOR SUPPORT PANEL



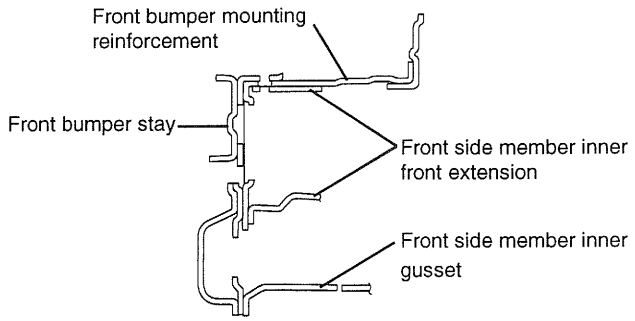
CON-0110

No.	PART NAME
1	Radiator support upper center member
2	Radiator support center member
3	Radiator upper mounting bracket
4	Radiator support upper side member
5	Head lamp support panel
6	Head lamp support gusset
7	Radiator lower mounting bracket
8	Front shipping hook bracket
9	Radiator support lower inner member
10	Radiator lower mounting reinforcement
11	Radiator support lower outer member

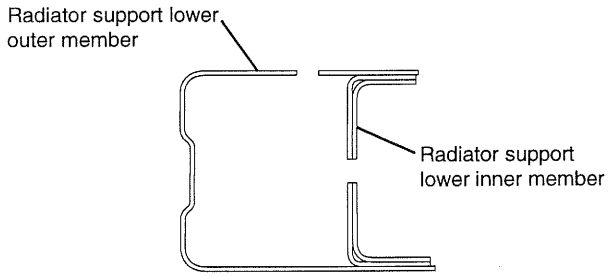
<Cross-Sectional Views>



CON-0120



SECTION A-A' CON- 0130



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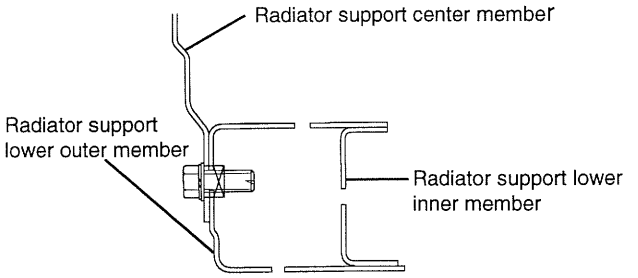
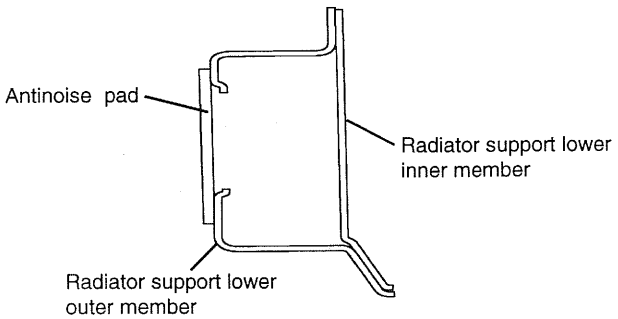
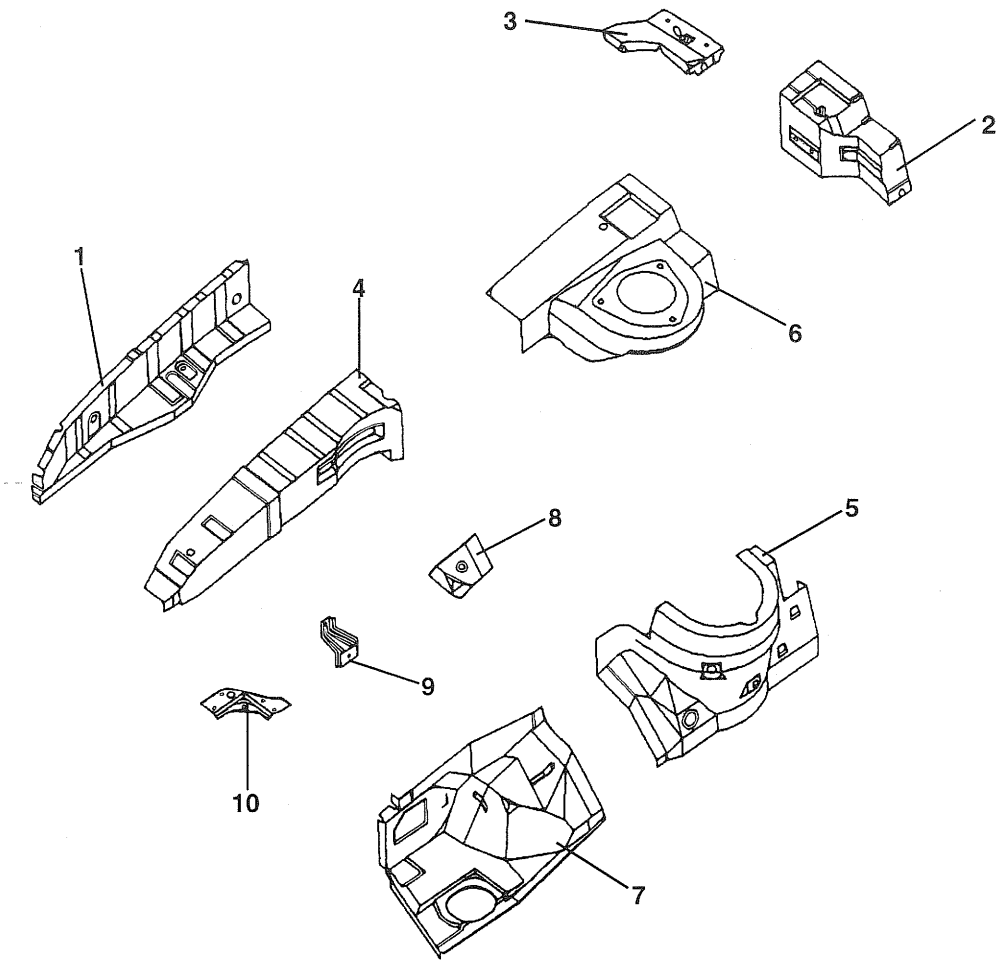


SECTION C-C' CON- 0150



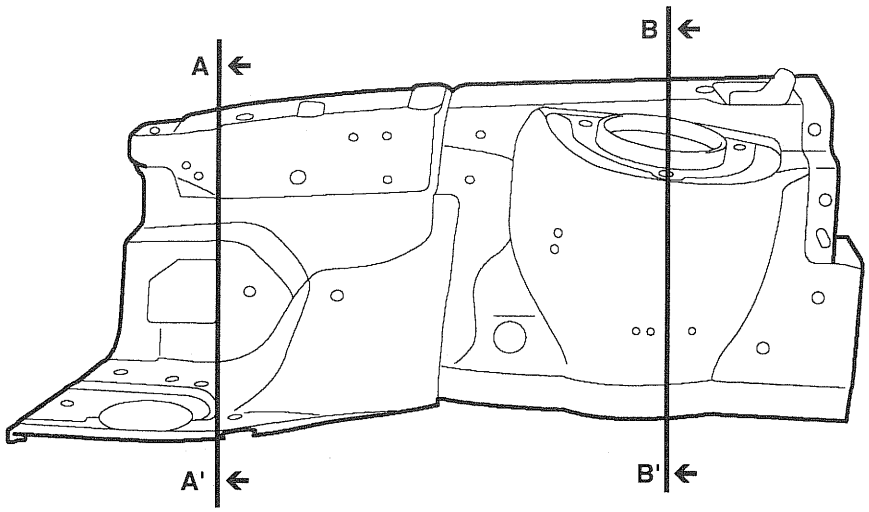
SECTION D-D' CON- 0160

2. FENDER APRON PANEL

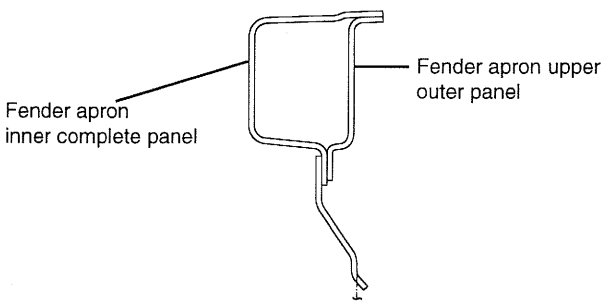


No.	PART NAME
1	Fender apron upper outer panel
2	Fender apron inner rear upper extension
3	Fender apron inner rear lower extension
4	Fender apron upper inner panel
5	Front shock absorber housing panel
6	Front shock absorber housing upper panel
7	Fender apron inner front panel
8	Engine stay mounting bracket
9	Fender mounting bracket
10	ABS module mounting bracket

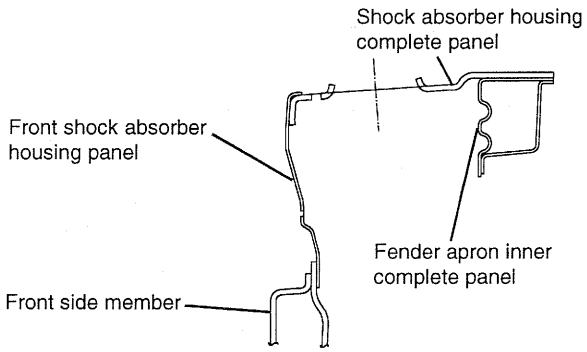
<Cross-Sectional Views>



CON-0180

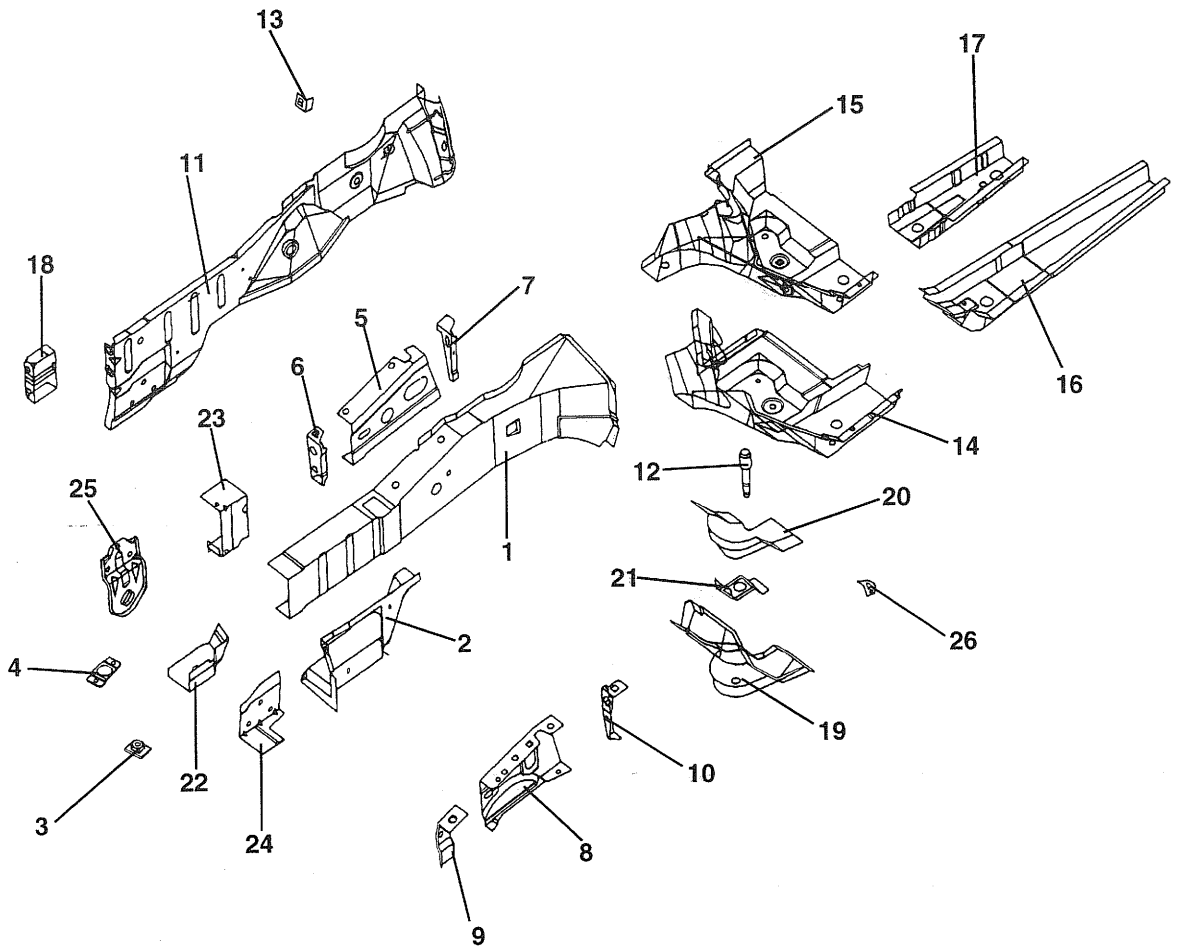


SECTION A-A' CON-0190



SECTION B-B' CON-0200

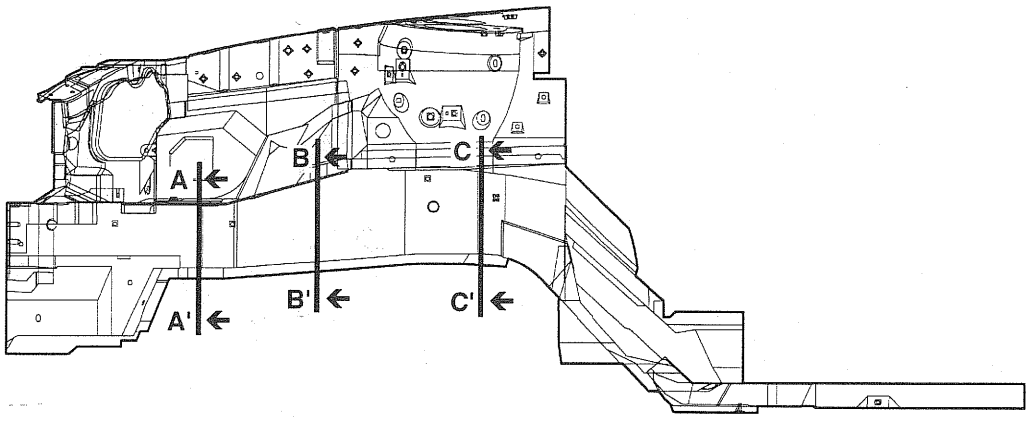
3. FRONT SIDE MEMBER



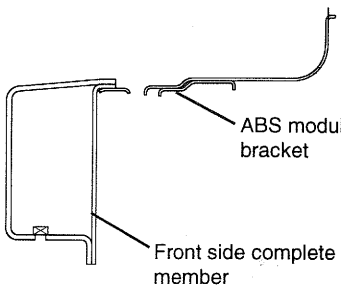
CON-0210

No.	PART NAME	No.	PART NAME
1	Front side inner member	14	Front side rear lower member
2	Front side member inner gusset	15	Front side rear upper member
3	Subframe mounting front plate	16	Front side member rear lower extension
4	Subframe mounting front support	17	Front side member lower reinforcement
5	Engine mounting reinforcement	18	Front back beam mounting bracket
6	Engine mounting front bracket	19	Subframe rear mounting bracket
7	Engine mounting rear bracket	20	Subframe rear mounting reinforcement
8	Transmission mounting reinforcement	21	Subframe rear mounting support
9	Transmission mounting front bracket	22	Subframe front mounting bracket
10	Transmission mounting rear bracket	23	Front side member inner front extension
11	Front side outer member	24	Front side member outer front extension
12	Subframe mounting stud bolt	25	Front tie down hook
13	Brake hose mounting bracket	26	Undercover mounting bracket

<Cross-Sectional Views>



CON-0220



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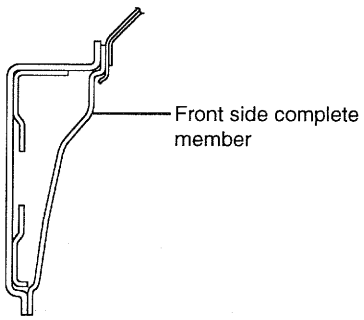
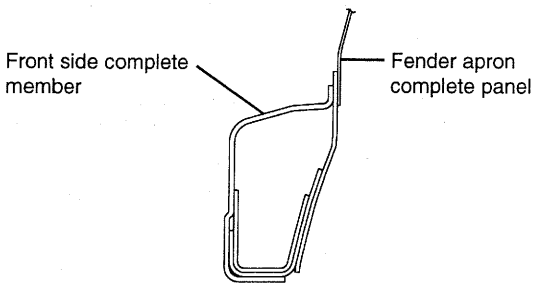
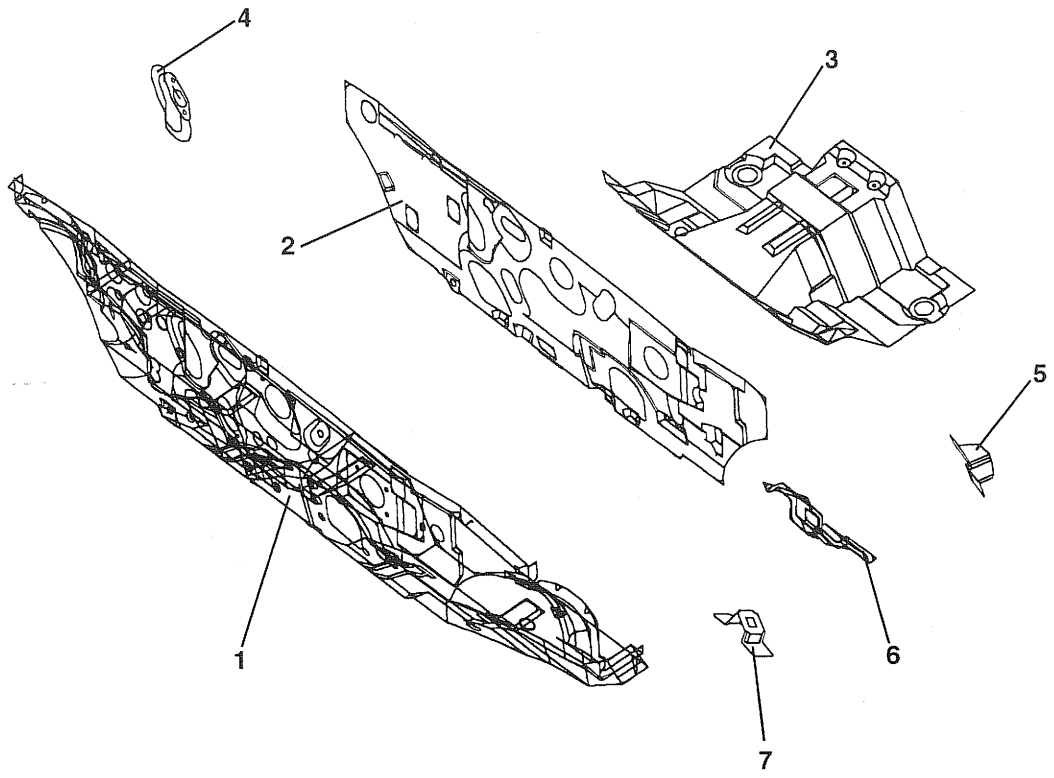


SECTION B-B' CON-0231



SECTION C-C' CON-0232

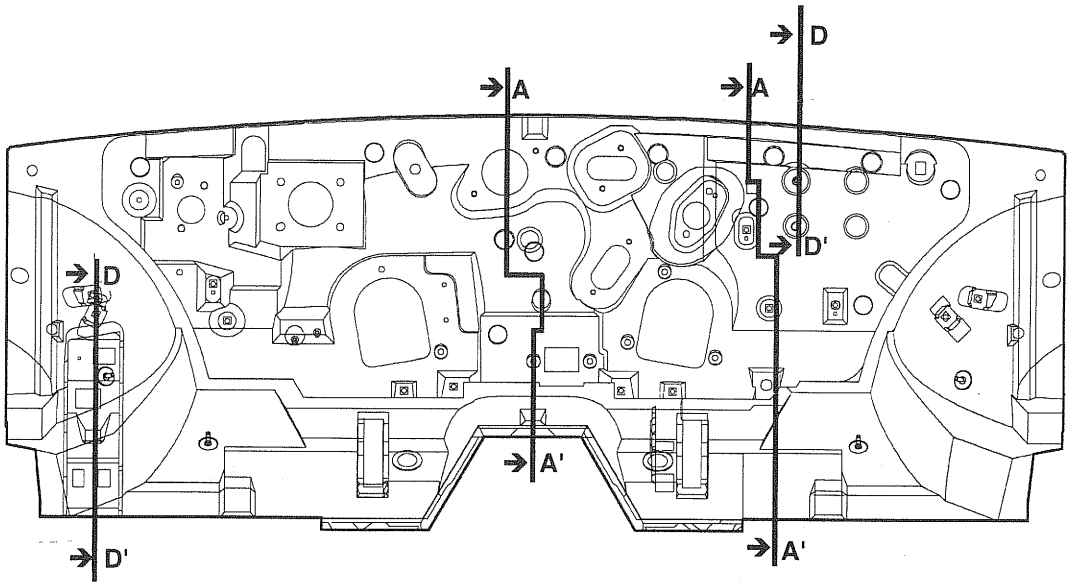
4. DASH PANEL



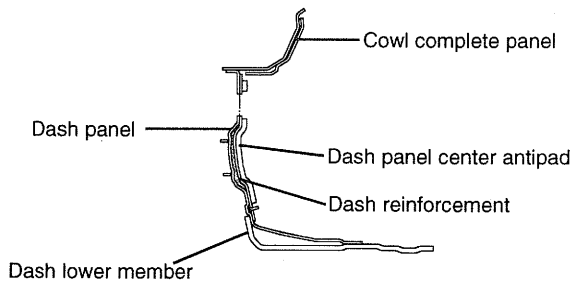
CON-0260

No.	PART NAME
1	Dash panel
2	Dash panel reinforcement
3	Dash lower member
4	Clutch pedal mounting bracket(RHD ONLY)
5	Blower lower mounting bracket
6	Foot rest bracket
7	E.C.U. mounting bracket

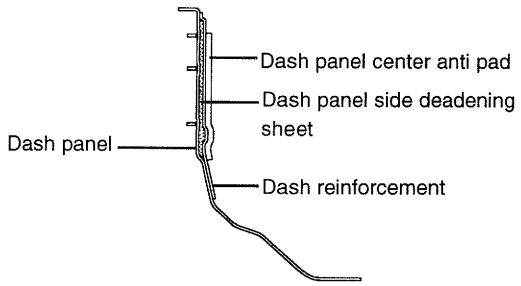
<Cross-Sectional Views>



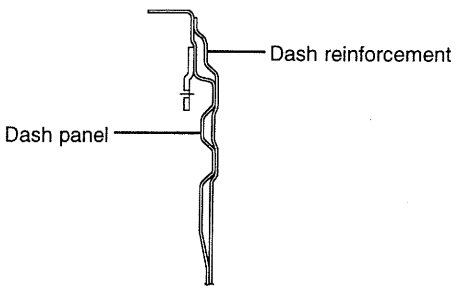
CON-0270



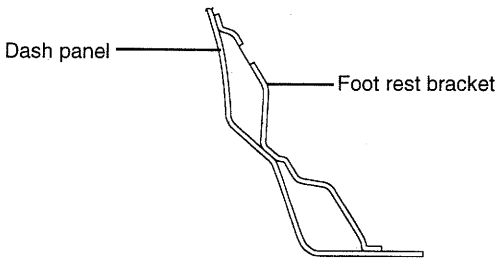
SECTION A-A' CON-0280



SECTION B-B' CON-290

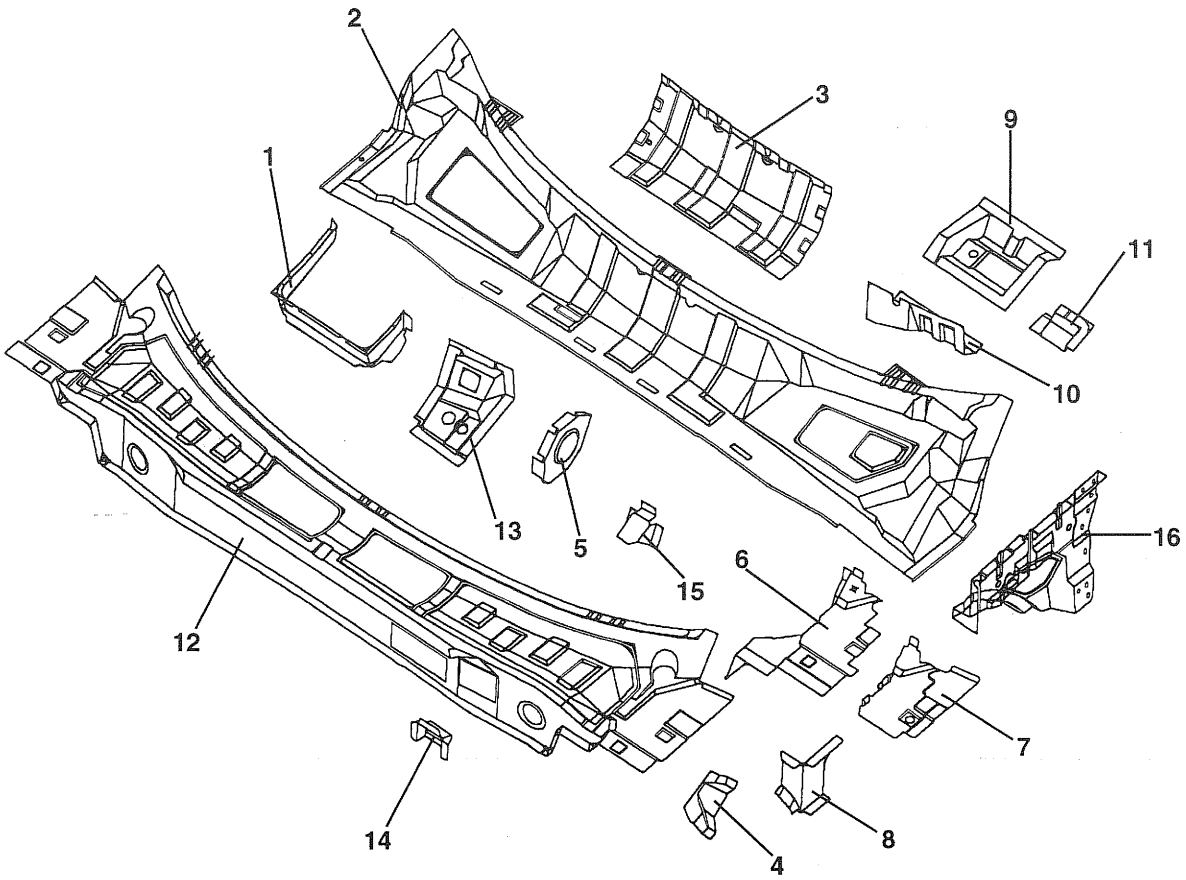


SECTION C-C' CON-0300



SECTION D-D' CON-0310

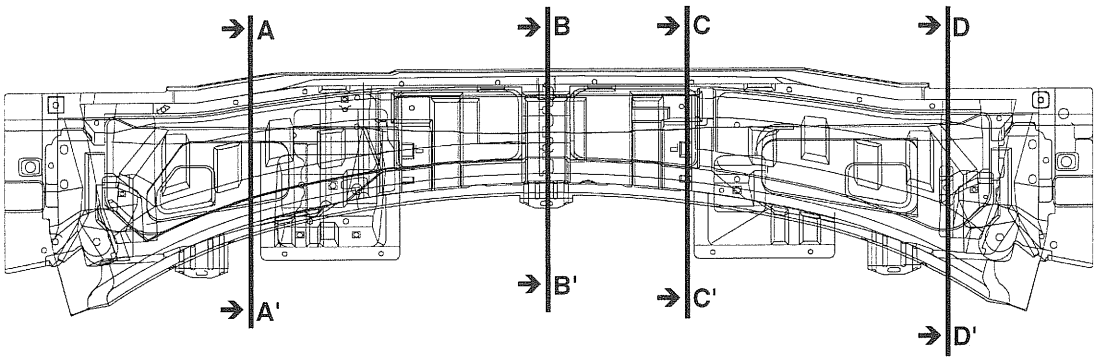
5. COWL PANEL



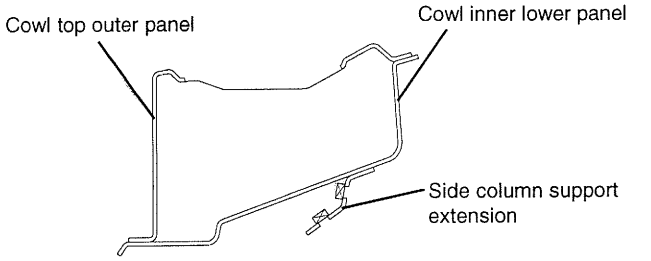
CON-0320

No.	PART NAME	No.	PART NAME
1	Plenum chamber guide panel	11	Clutch pedal mounting bracket
2	Cowl inner lower panel	12	Cowl top outer panel
3	Cowl inner lower reinforcement	13	Wiper mounting side reinforcement
4	Wiper pivot side mounting bracket	14	Wiper motor mounting bracket
5	Cowl inner lower center reinforcement	15	Wiper pivot center mounting bracket
6	Cowl side upper inner panel	16	Cowl side upper inner panel
7	Hood hinge mounting reinforcement		
8	Hood hinge mounting support		
9	Side column upper support extension		
10	Side column lower support extension		

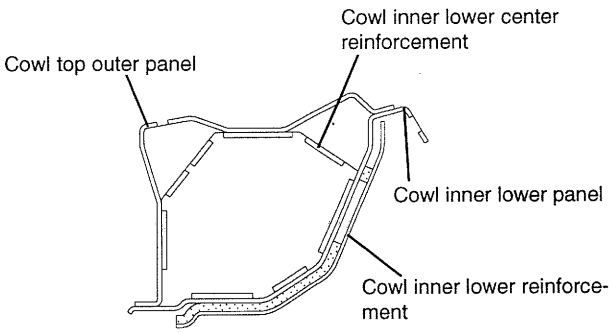
<Cross-Sectional Views>



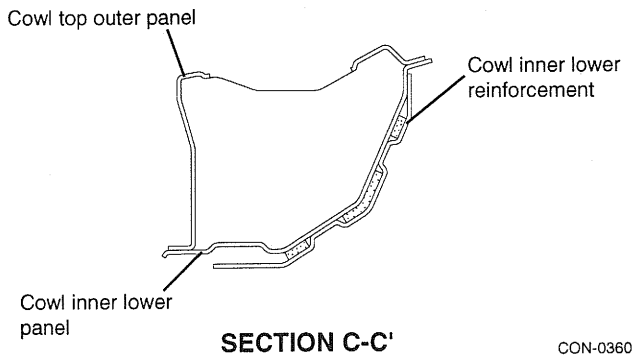
CON-0330



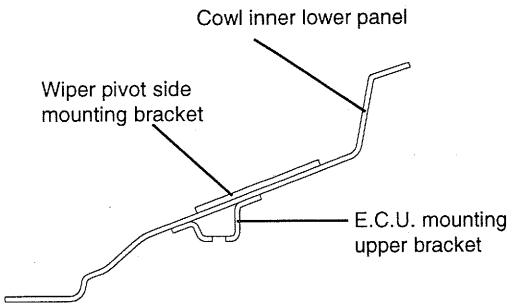
SECTION A-A' CON-0340



SECTION B-B' CON-0350

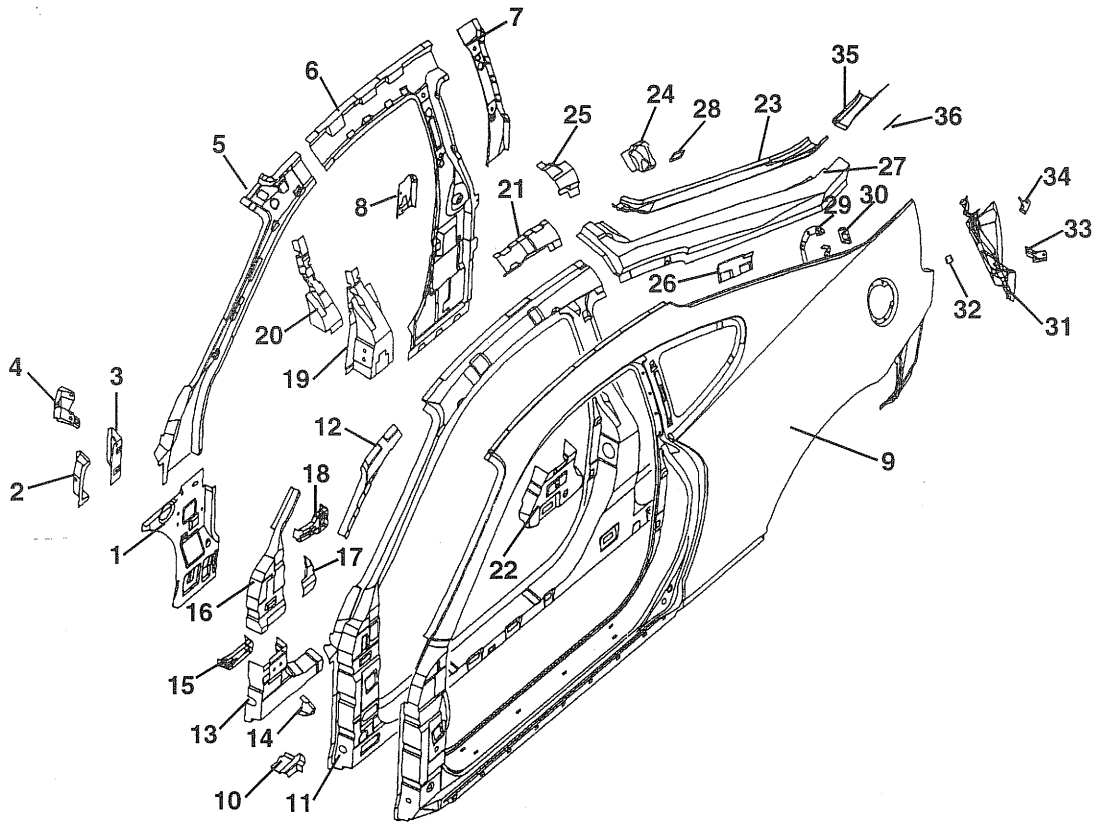


SECTION C-C' CON-0360



SECTION D-D' CON-0370

SIDE BODY

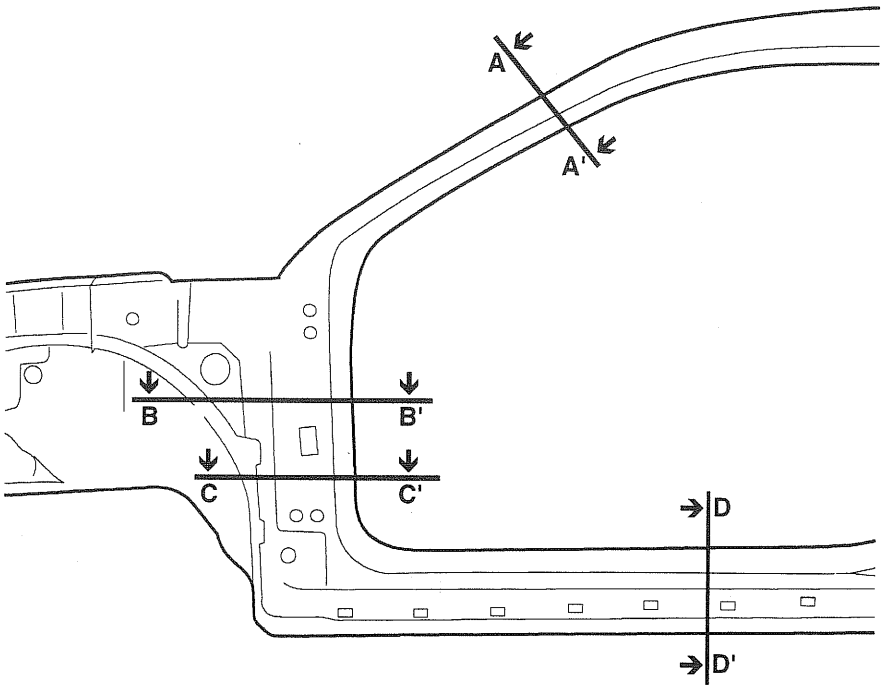


CON-0380

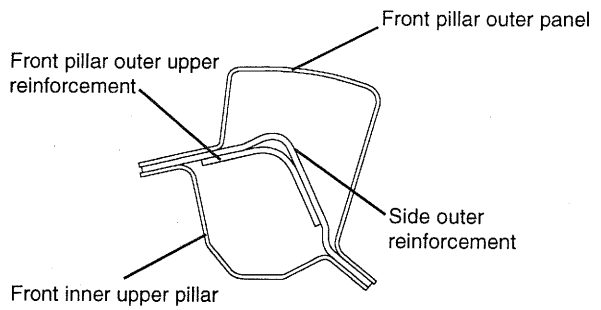
No.	PART NAME	No.	PART NAME
1	Front inner lower pillar	18	Front door upper hinge extension
2	Cowl center member mounting front bracket	19	Front door striker reinforcement
3	Cowl center member mounting rear bracket	20	Front door striker upper reinforcement
4	Cowl center member mounting bracket	21	Side outer rear upper feinforcement
5	Front inner upper pillar	22	Side outer rear filler
6	Center pillar inner panel	23	Side outer rear upper extension
7	Front seat belt upper mounting bracket	24	Quarter outer front reinforcement
8	Seat belt upper mounting reinforcement	25	Quarter outer upper filler
9	Side outer panel	26	Quarter outer lower reinforcement
10	Fender mounting bracket	27	Quarter outer upper reinforcement
11	Side outer reinforcement	28	Tail gate gas lift mounting bracket
12	Front pillar outer upper reinforcement	29	Fuel filler housing mounting plate
13	Front door hinge mounting lower reinforcement	30	Fuel filler housing catch mounting bracket
14	Front pillar lower gusset	31	Rear combi lamp housing panel
15	Front door lower hinge extension	32	Connector mounting bracket
16	Front door hinge mounting upper reinforcement	33	Rear bumper side mounting bracket
17	Front door checker reinforcement	34	Rear bumper mounting bracket
		35	Side outer rear extension
		36	Tail gate guide bumper mounting bracket

1. FRONT PILLAR

<Cross-Sectional Views>

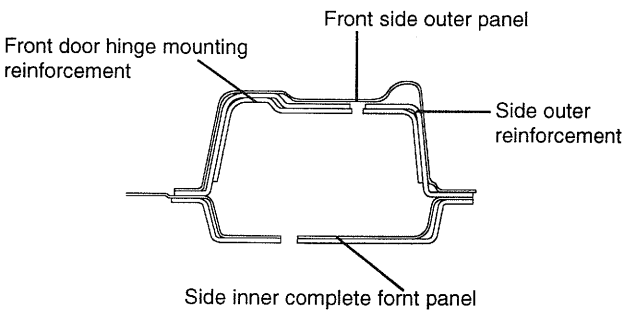


PRO-0600



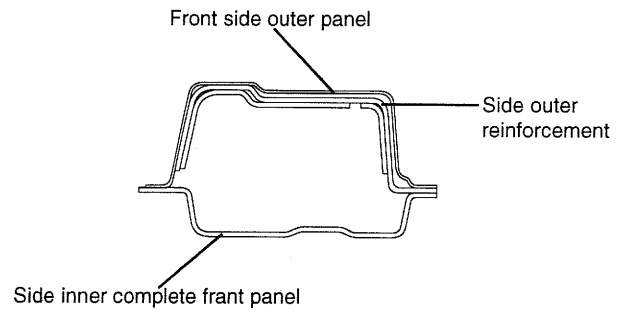
SECTION A-A'

CON-0390



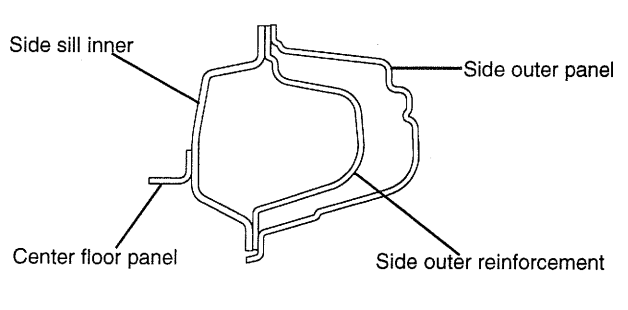
SECTION B-B'

CON-0400



SECTION C-C'

CON-0410

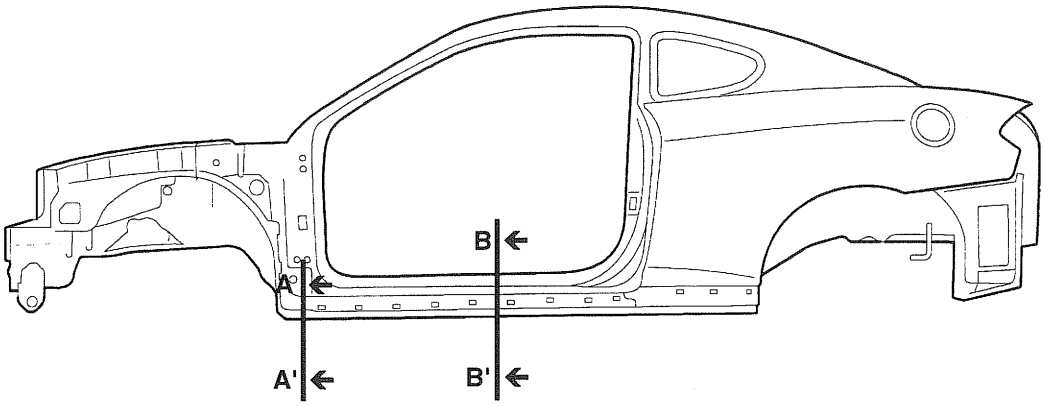


SECTION D-D'

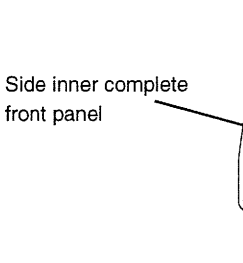
CON-0420

2. SIDE SILL

<Cross-Sectional Views>

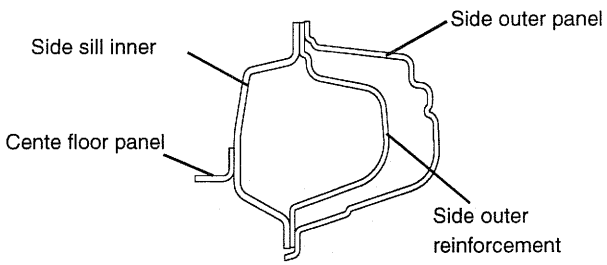


SIDE-2



SECTION A-A'

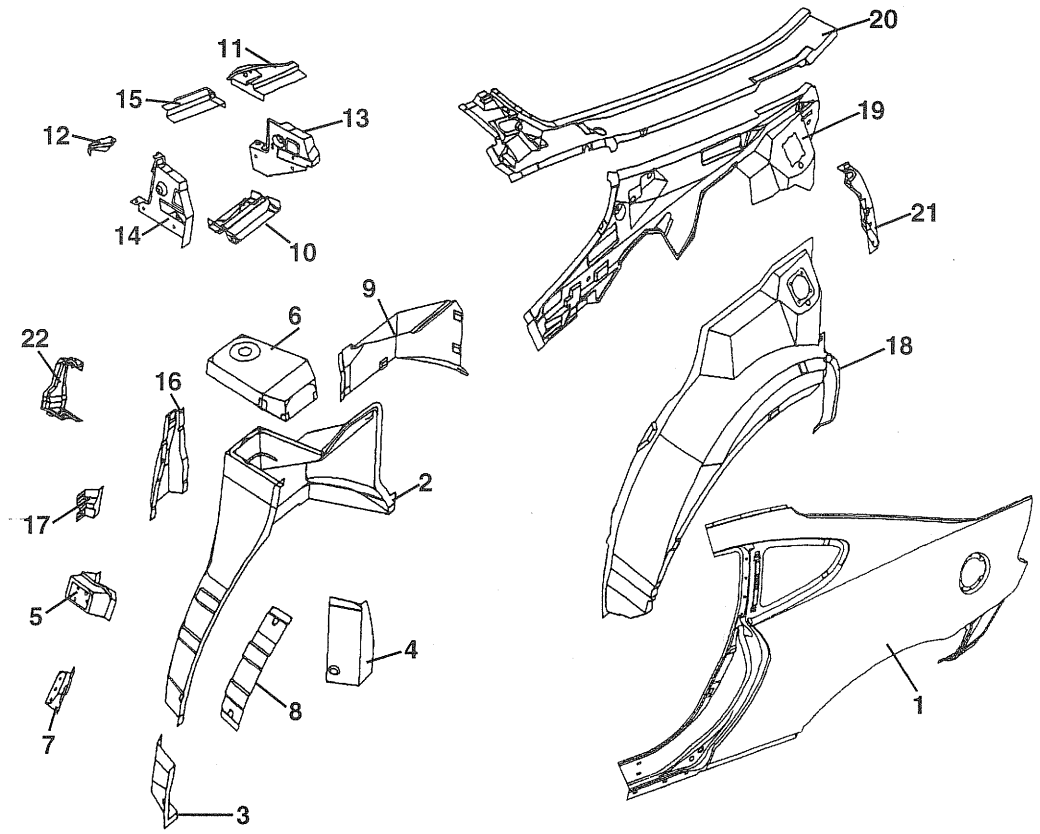
CON-0470



SECTION B-B'

CON-0420

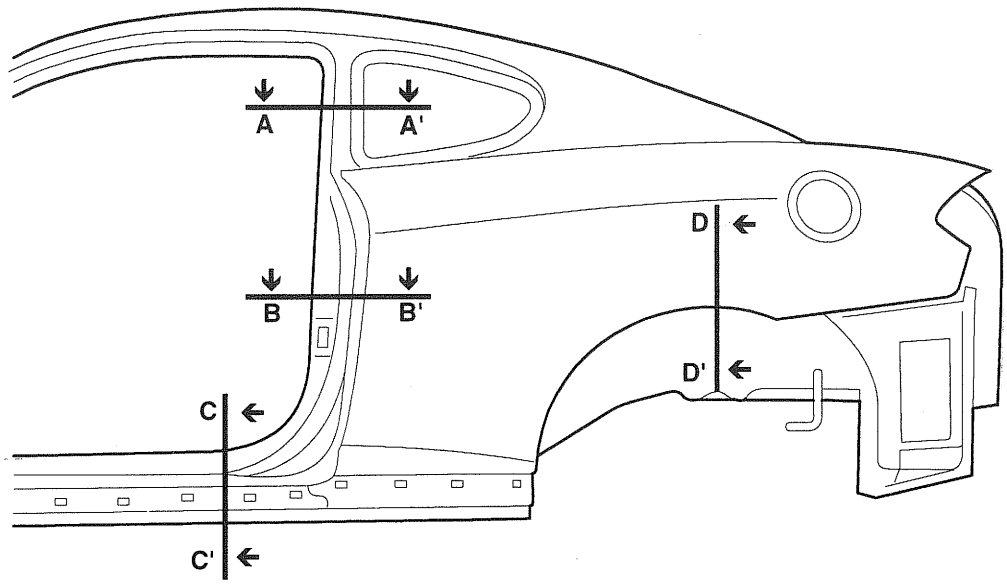
3. QUARTER PANEL



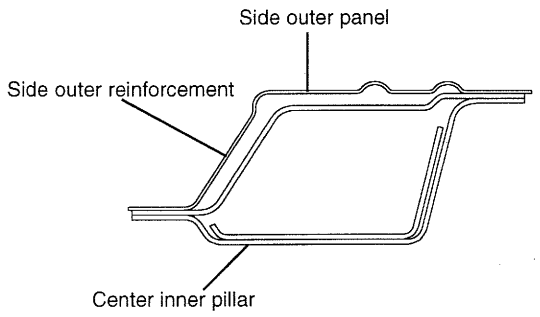
CON-0540

No.	PART NAME	No.	PART NAME
1	Quarter panel	18	Quarter inner panel
2	Wheel housing inner panel	19	Quarter inner reinforcement
3	Wheel housing inner front extension	20	Quarter inner upper panel
4	Wheel housing inner rear extension	21	Quarter antipad mounting bracket
5	Rear seat back side bracket	22	Jack mounting bracket
6	Rear seat back upper bracket		
7	Rear seat upper bracket		
8	Wheel housing inner front cover		
9	Wheel housing inner rear gusset		
10	Rear spring housing upper gusset		
11	Seat belt reel mounting bracket		
12	Covering shelf side trim mounting bracket		
13	Wheel housing inner upper reinforcement		
14	Wheel housing inner upper rear reinforcment		
15	Wheel housing inner upper gusset		
16	Wheel housing inner front reinforcement		
17	Luggage net mounting bracket		

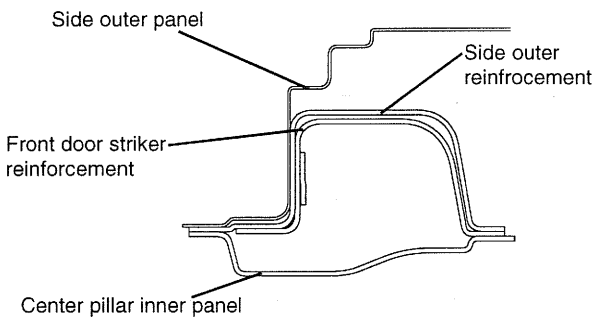
<Cross-Sectional Views>



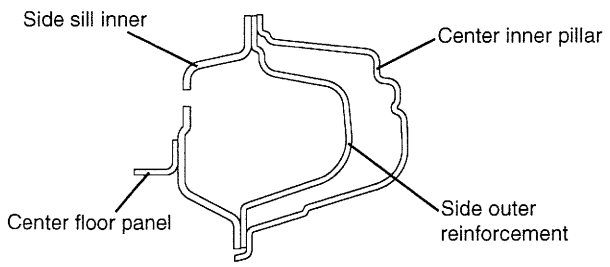
PRO-1220



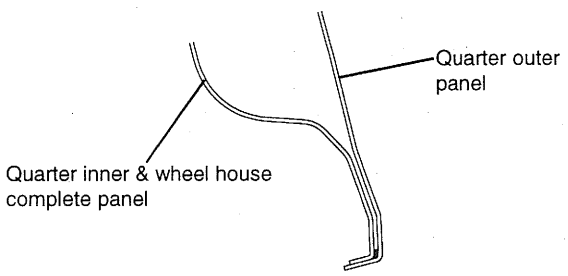
SECTION A-A' CON-0550



SECTION B-B' CON-0570



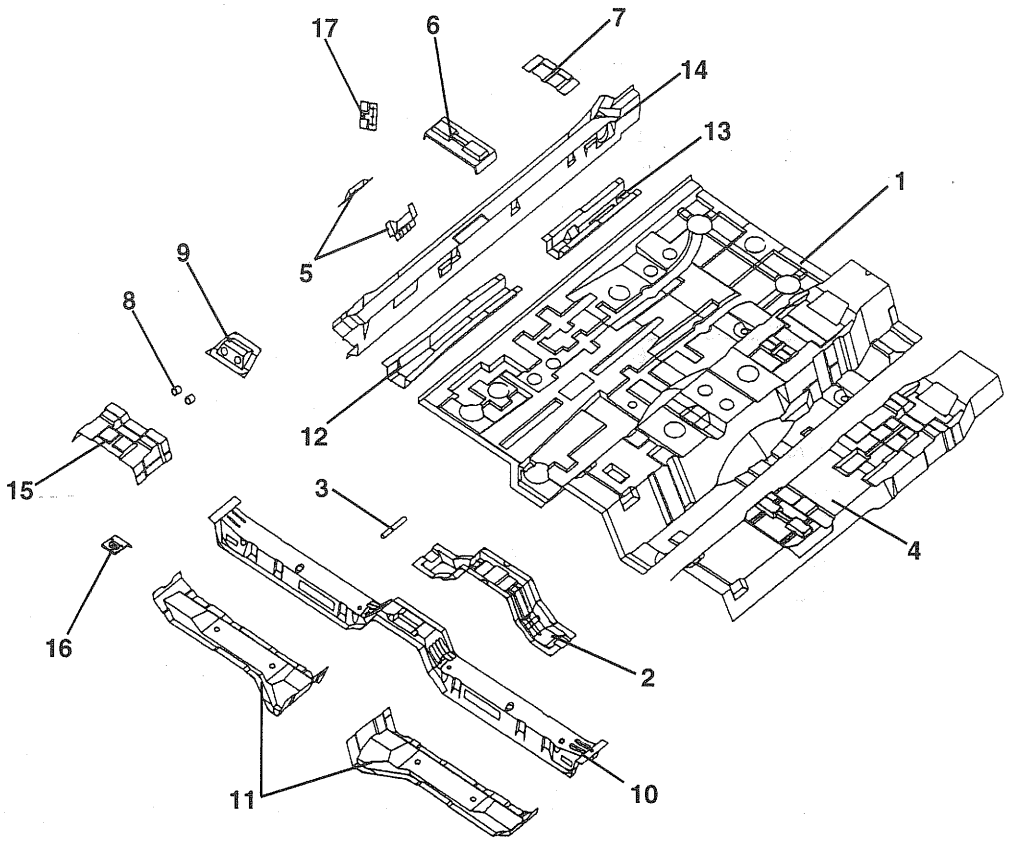
SECTION C-C' CON-0551



SECTION D-D' CON-0571

UNDER BODY

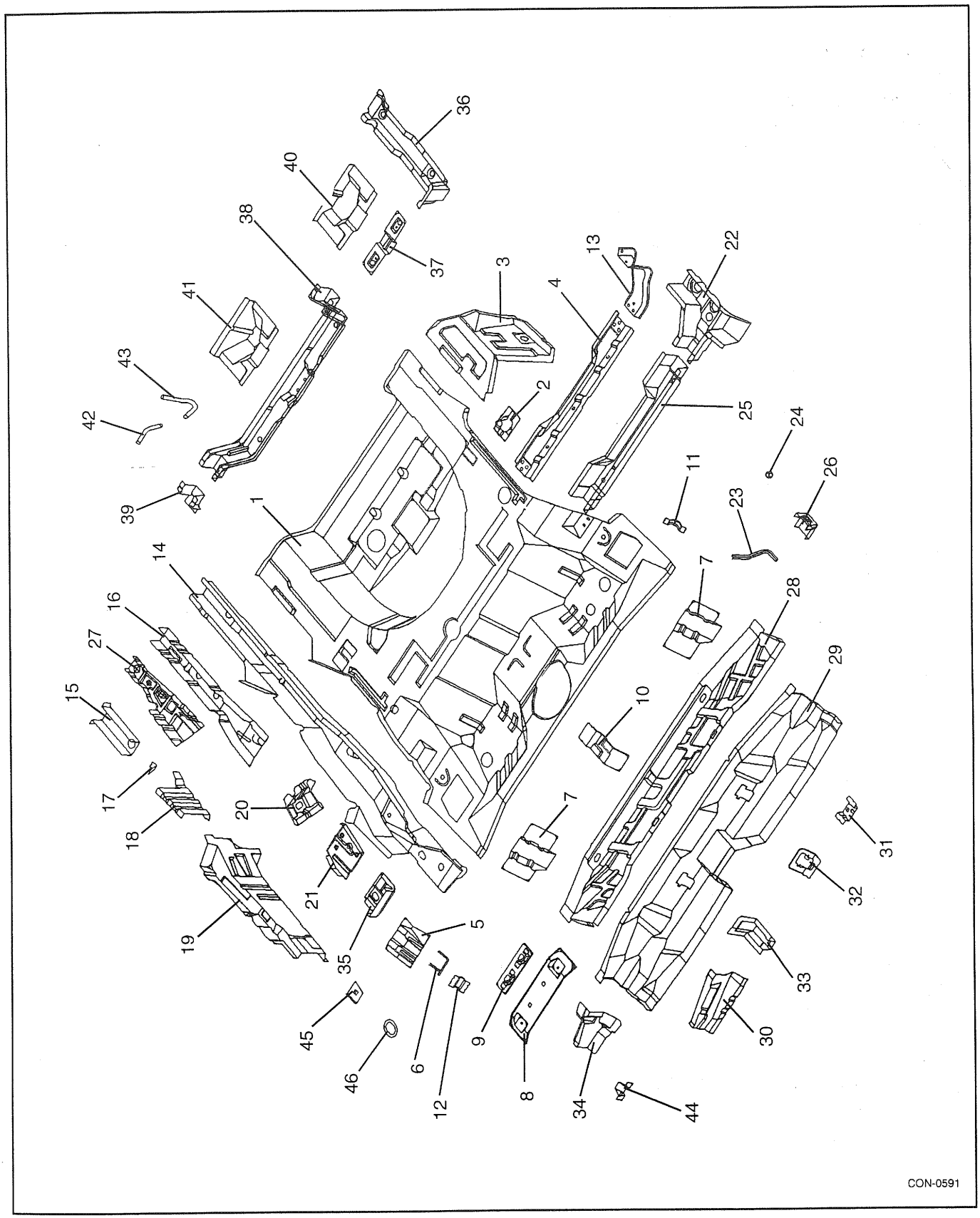
1. CENTER FLOOR



CON-0590

No.	PART NAME
1	Center floor panel
2	Muffler hanger mounting bracket
3	Muffler hanger mounting bar
4	Center floor reinforcement
5	Center support mounting reinforcement
6	T.G.S. lever mounting reinforcement
7	Parking brake lever mounting reinforcement
8	Parking brake cable guide pipe
9	Parking brake cable mounting reinforcement
10	Front seat cross member
11	Front seat cross No. 2 member
12	Center floor side member
13	Center floor side member reinforcement
14	Side sill inner panel
15	Parking brake lever rear mounting reinforcement
16	Front seat mounting bracket
17	Wiring protector mounting bracket

2. REAR FLOOR & SIDE MEMBER

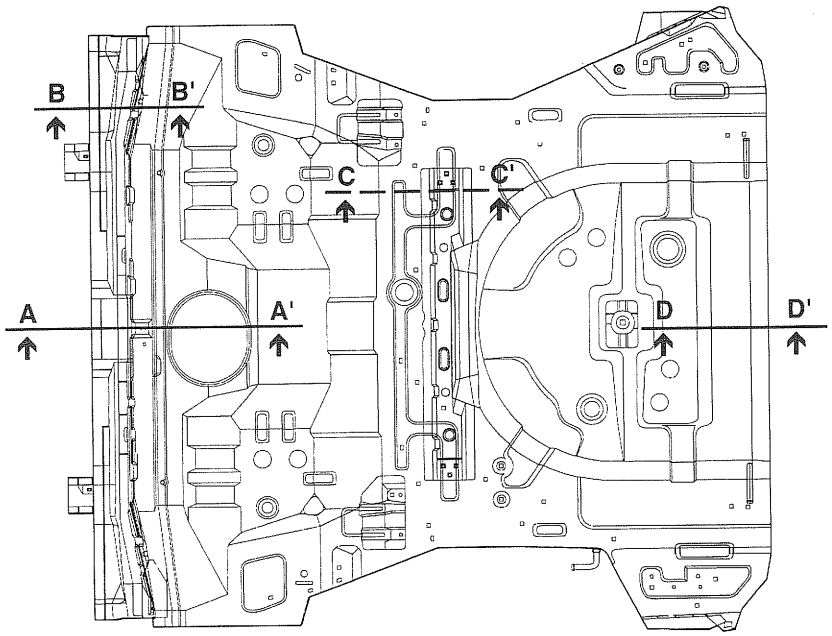


2. REAR FLOOR & SIDE MEMBER

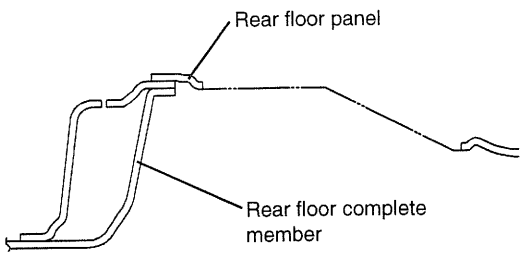
1. Rear floor panel
2. Spare tire mounting bracket
3. Rear floor side panel
4. Rear floor center cross upper
5. Rear seat side mounting bracket
6. Rear seat isofix mounting bar
7. Rear seat mounting bracket
8. Rear seat belt center mounting bracket
9. Rear seat belt center mounting reinforcement
10. Rear seat center mounting bracket
11. Rear seat back side protector
12. Rear seat cushion protector
13. Floor to wheel housing inner reinforcement
14. Rear floor side member
15. Rear bumper mounting reinforcement
16. Rear floor side member center reinforcement
17. Brake hose mounting front bracket
18. Side sill inner rear reinforcement
19. Side sill inner rear panel
20. Rear seat belt mounting side bracket
21. Trailing arm mounting bracket
22. Rear floor center cross extension
23. Muffler hanger front pipe
24. Rear cross member mounting pipe
25. Rear floor center cross member
26. Fuel tank mounting rear bracket
27. Rear floor side member front reinforcement
28. Rear floor front extension
29. Rear floor front cross member
30. Rear floor front side extension
31. Parking cable mounting center bracket
32. Fuel tank mounting front bracket
33. Center floor side member rear extension
34. Rear floor side member front extension
35. Rear tie down reinforcement
36. Jack up cross center member
37. Canister mounting front bracket
38. Jack up cross rear member
39. Jack up cross rear extension
40. Canister mounting rear bracket
41. Rear towing hook bracket
42. Muffler hanger rear pipe
43. Rear towing hook
44. Parking cable mounting side bracket
45. Trailing arm mounting plate
46. Rear tie down support

1. REAR FLOOR

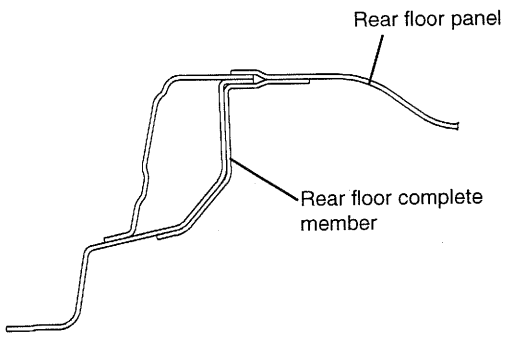
<Cross-sectional views>



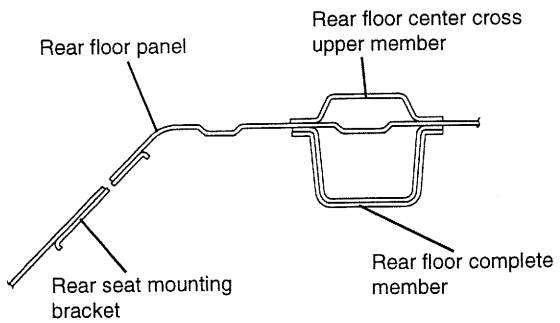
RRF-1100



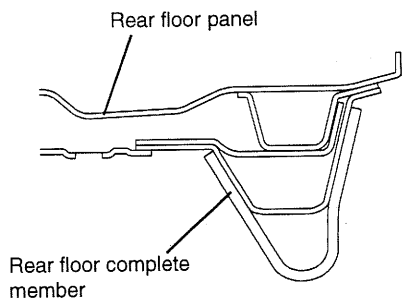
SECTION A-A' CON-0600



SECTION B-B' CON-0610

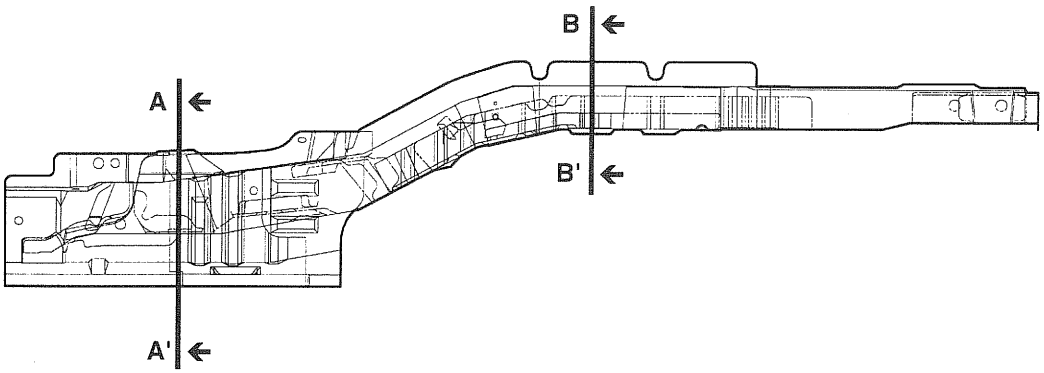


SECTION C-C' CON-0620

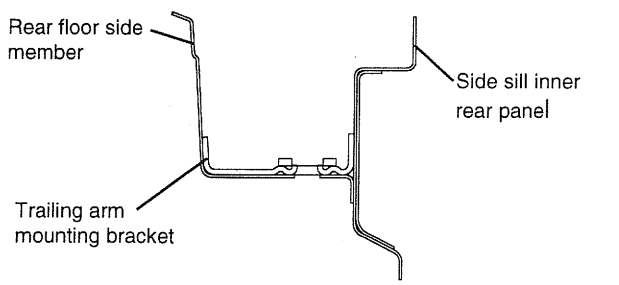


SECTION D-D' CON-0630

2. REAR SIDE MEMBER

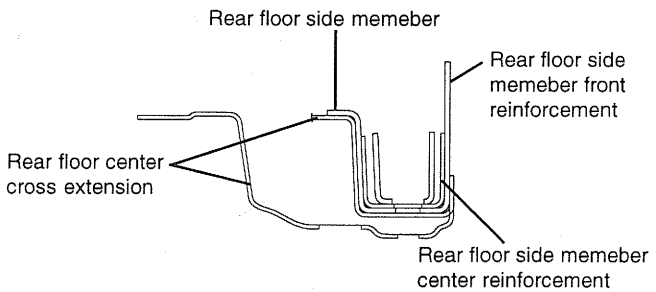


CON-0640



SECTION A-A'

CON-0650

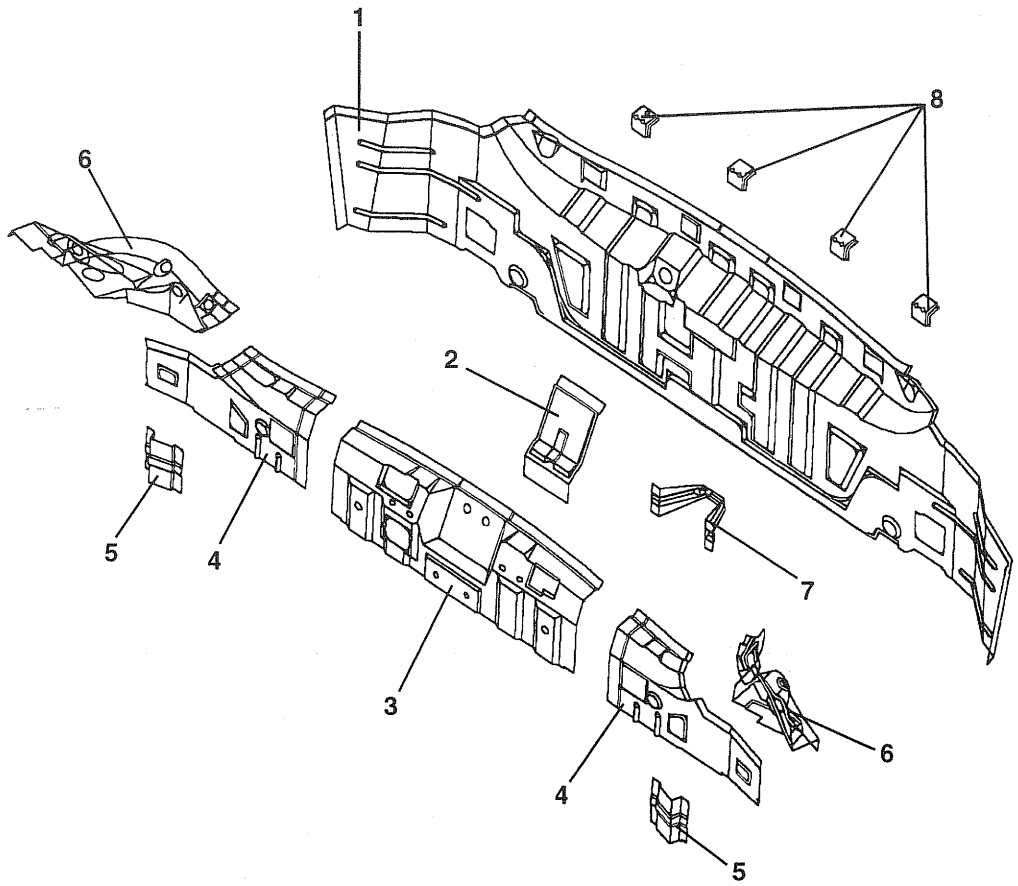


SECTION B-B'

CON-0660

REAR BODY

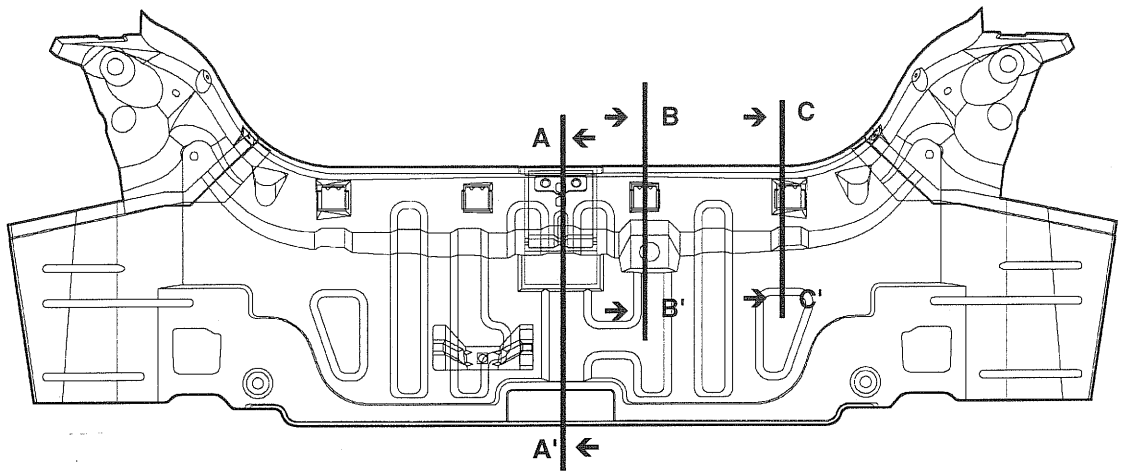
1. BACK PANEL



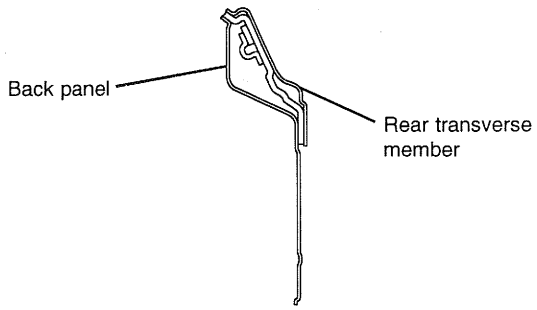
CON-0690

No.	PART NAME
1	Back panel
2	Tail gate striker support
3	Rear transverse member
4	Rear transverse side extension
5	Trunk net rear mounting bracket
6	Rear transverse upper extension
7	License plate mounting bracket
8	Rear bumper upper side mounting bracket

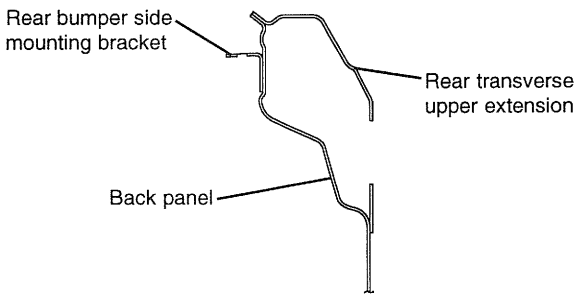
<Cross-sectional views>



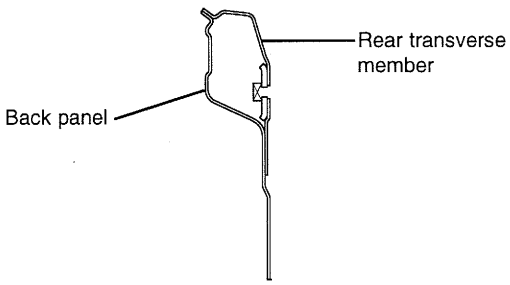
CON-0700



SECTION A-A' CON-0710



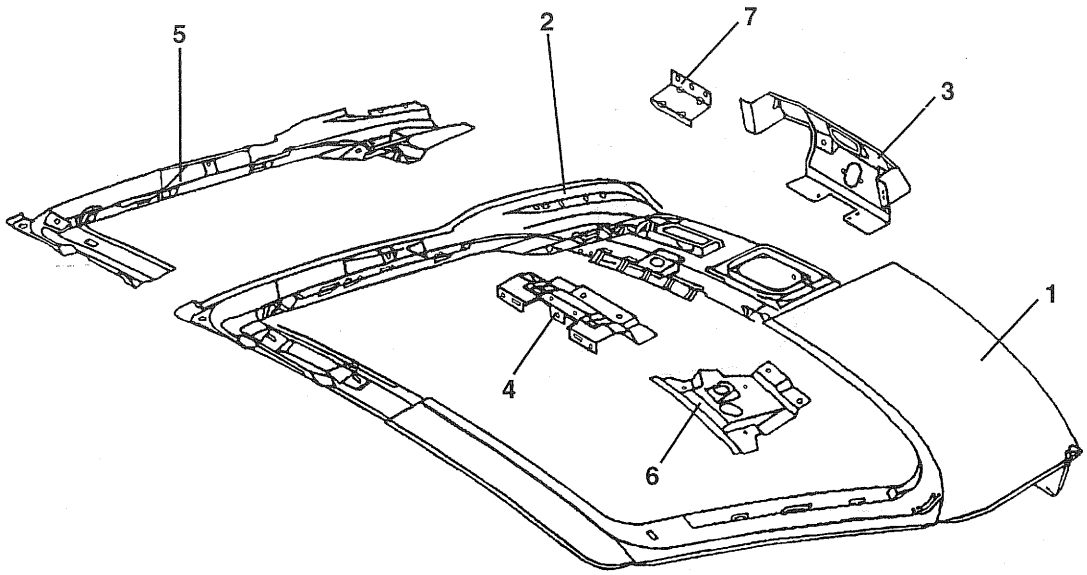
SECTION B-B' CON-0711



SECTION C-C' CON-0720

CON-0721

2. TAIL GATE

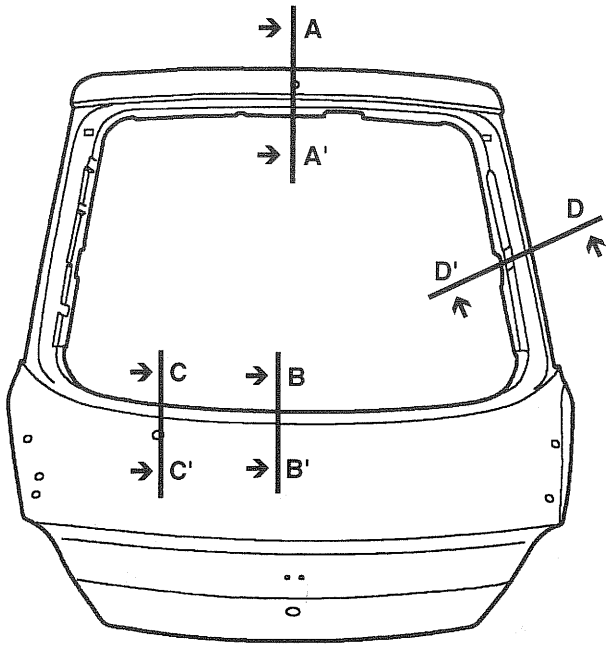


TG-1090

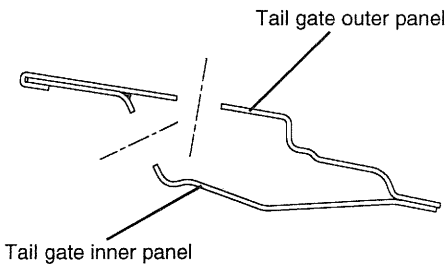
No.	PART NAME
1	Tail gate outer panel
2	Tail gate inner panel
3	Tail gate latch reinforcement
4	Tail gate high mounting stop lamp mounting bracket
5	Tail gate side reinforcement
6	Tail gate wiper motor mounting reinforcement
7	Tail gate inside handle housing bracket

TAIL GATE PANEL

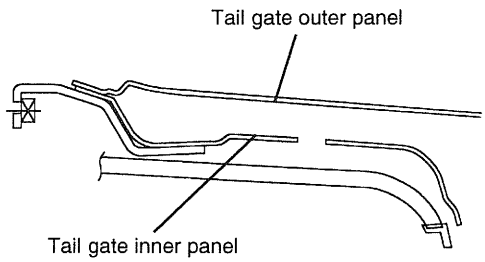
<Cross-sectional views>



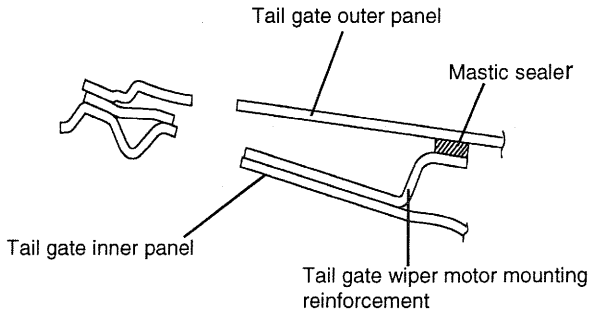
TG-1100



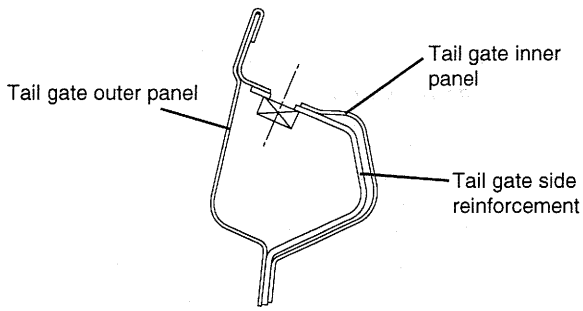
SECTION A-A' TG-1101



SECTION B-B' TG-1102

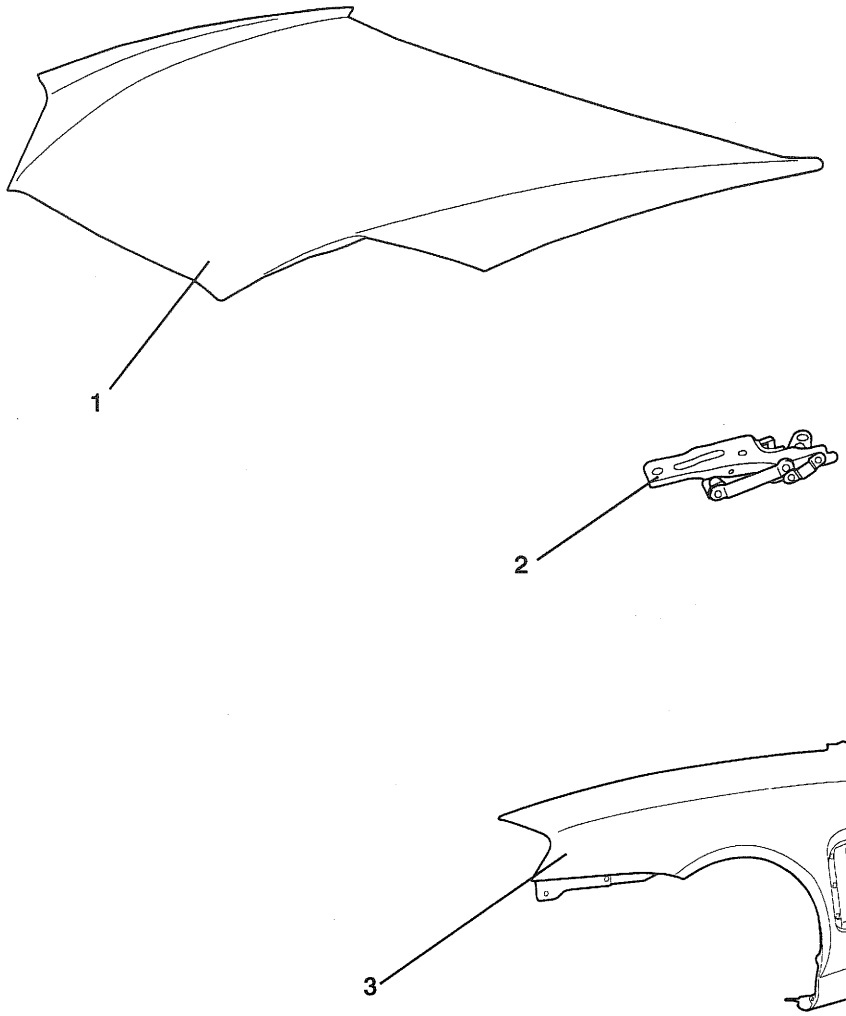


SECTION C-C' TG-1103



SECTION D-D' TG-1104

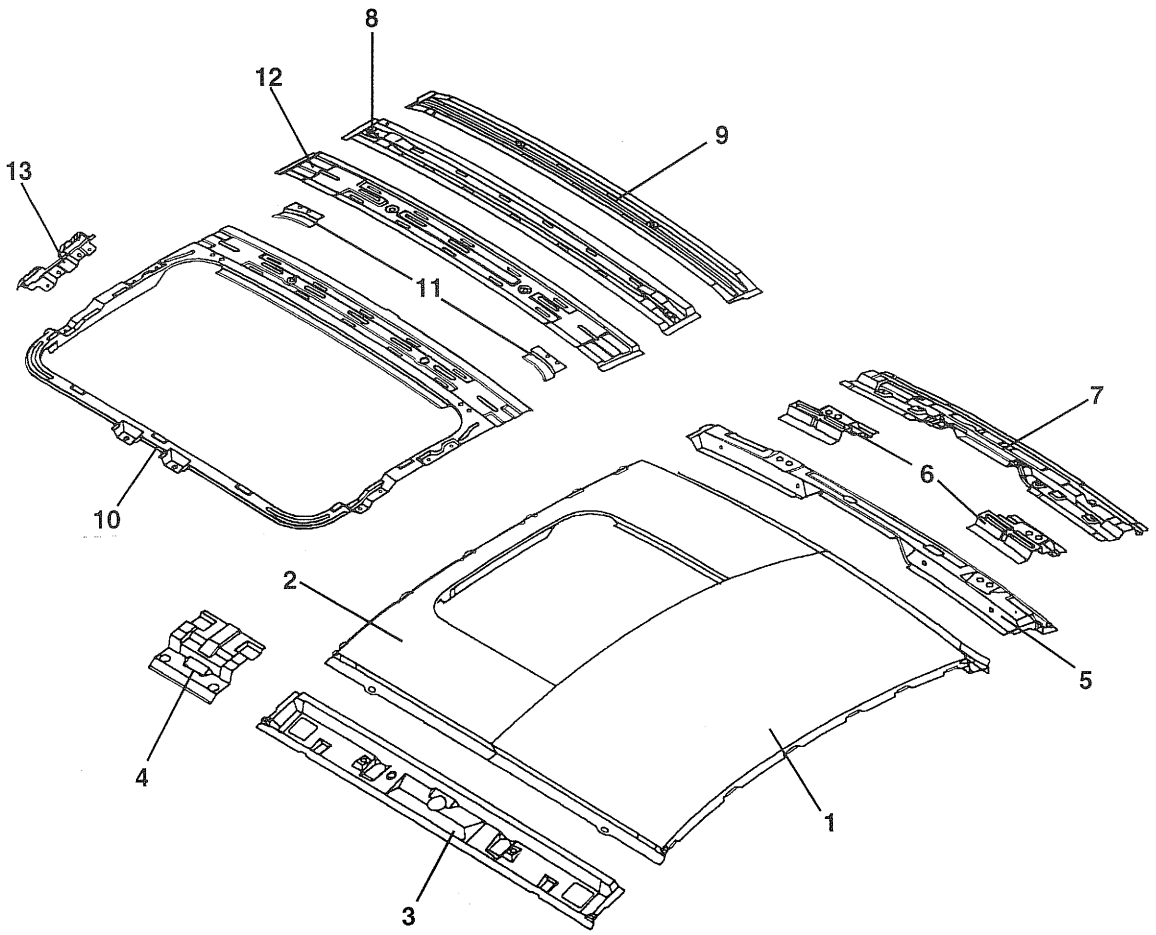
FENDER & HOOD



CON-0730-2

No	PART NAME
1	Hood panel assembly
2	Hood hinge assembly
3	Fender panel

ROOF



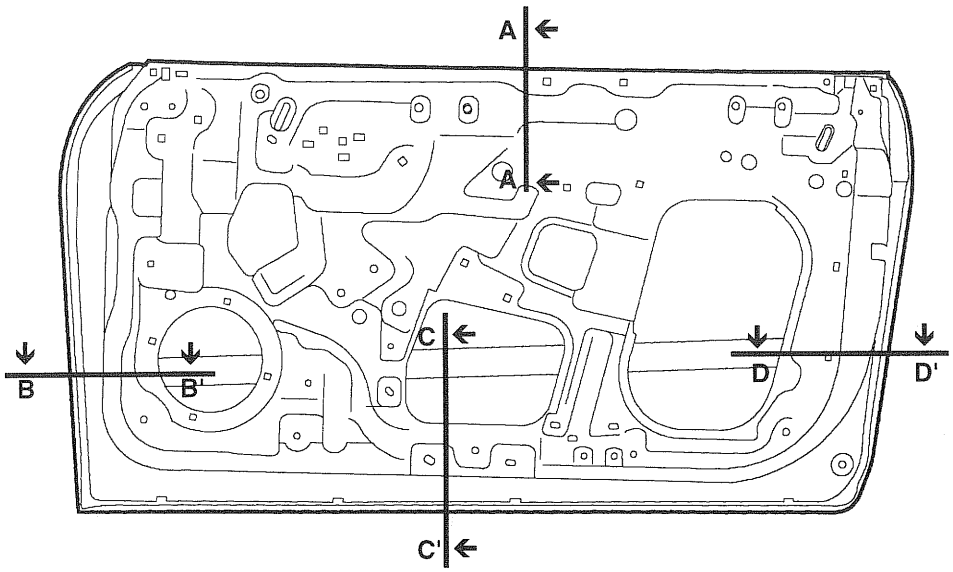
CON-0740

No.	PART NAME
1	Roof panel
2	Roof panel(sun roof)
3	Roof front lower
4	Over head console mounting bracket
5	Roof rear upper rail
6	Tail gate hinge mounting reinforcement
7	Roof rear lower rail
8	Roof center rail
9	Roof center rail No. 2
10	Sun roof ring reinforcement
11	Sun roof rear side reinforcement
12	Sun roof rear lower reinforcement
13	Sun roof side mounting bracket

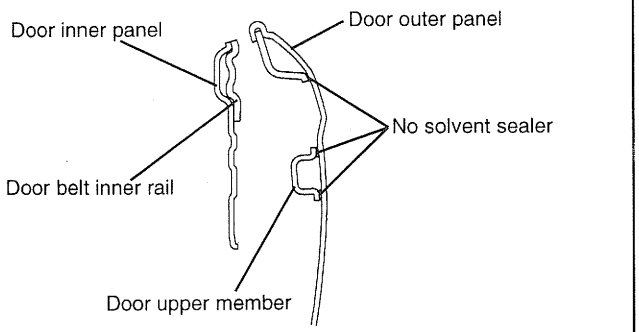
DOOR

1. FRONT DOOR

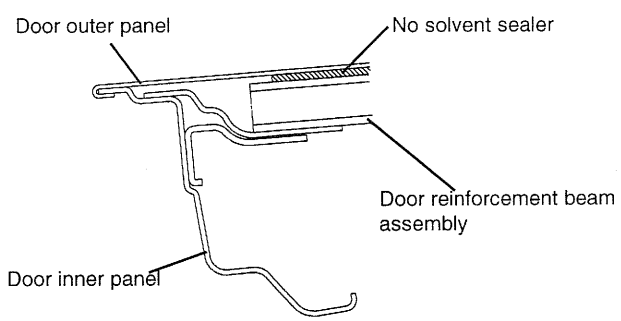
<Cross-Sectional Views>



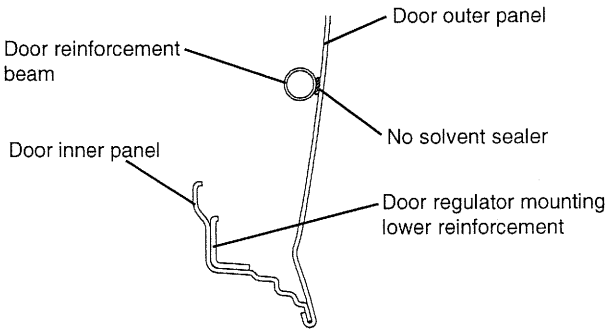
CON-0750



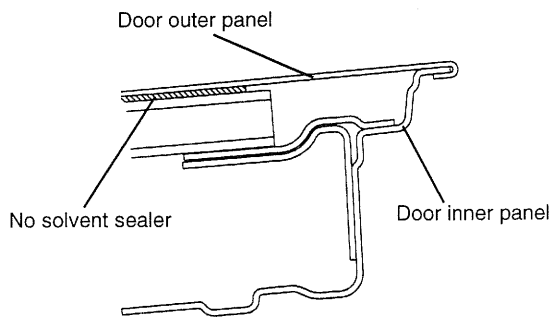
SECTION A-A' CON-0760



SECTION B-B' CON-0770



SECTION C-C' CON-0780



SECTION D-D' CON-0790

REPLACEMENT PARTS

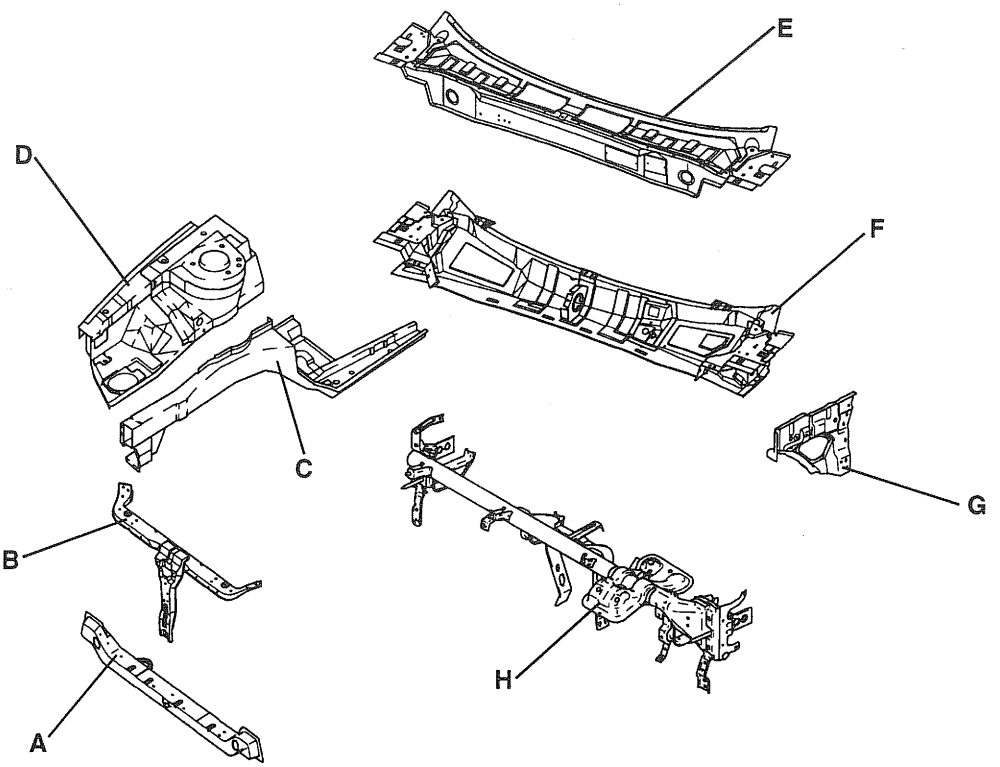
RP

REPLACEMENT PARTS

The following section illustrates replacement parts used in the repairs described in this manual. It is important that only Hyundai replacement parts be used in making these repairs to ensure the repairs are made with the highest possible standards for fit, safety and corrosion protection.

For a more complete listing of service parts, refer to an authorized Hyundai dealership.

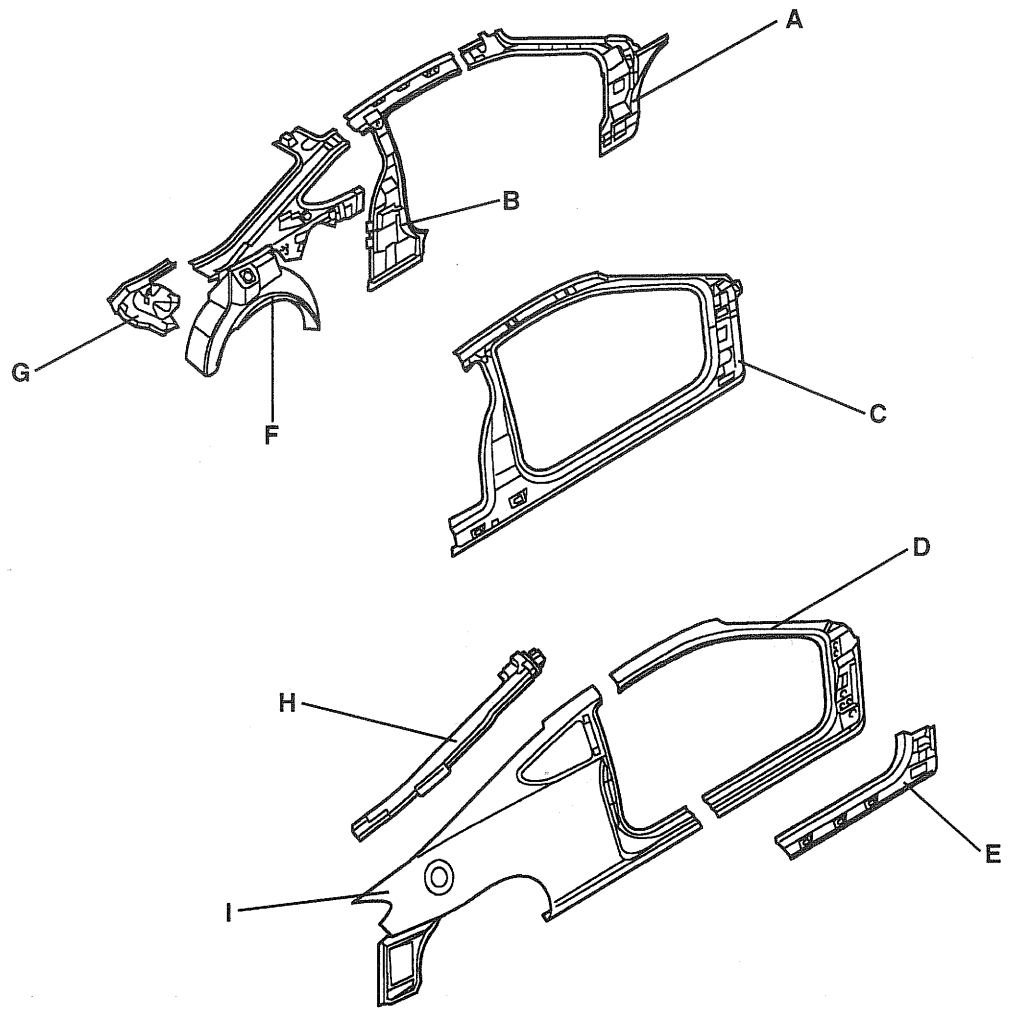
FRONT BODY



CON-0090

	PART NAME	
A	RADIATOR SUPPORT PANEL COMPLETE	
B	RADIATOR SUPPORT CENTER COMPLETE MEMBER ASSEMBLY	
C	FRONT SIDEMEMBER ASSEMBLY,	LH/RH
D	FENDER APRON PANEL ASSEMBLY,	LH/RH
E	COWL TOP OUTER PANEL ASSEMBLY	
F	COWL INNER LOWER PANEL ASSEMBLY	
G	COWL SIDE OUTER UPPER PANEL,	LH/RH
H	COWL CROSS BAR ASSEMBLY	

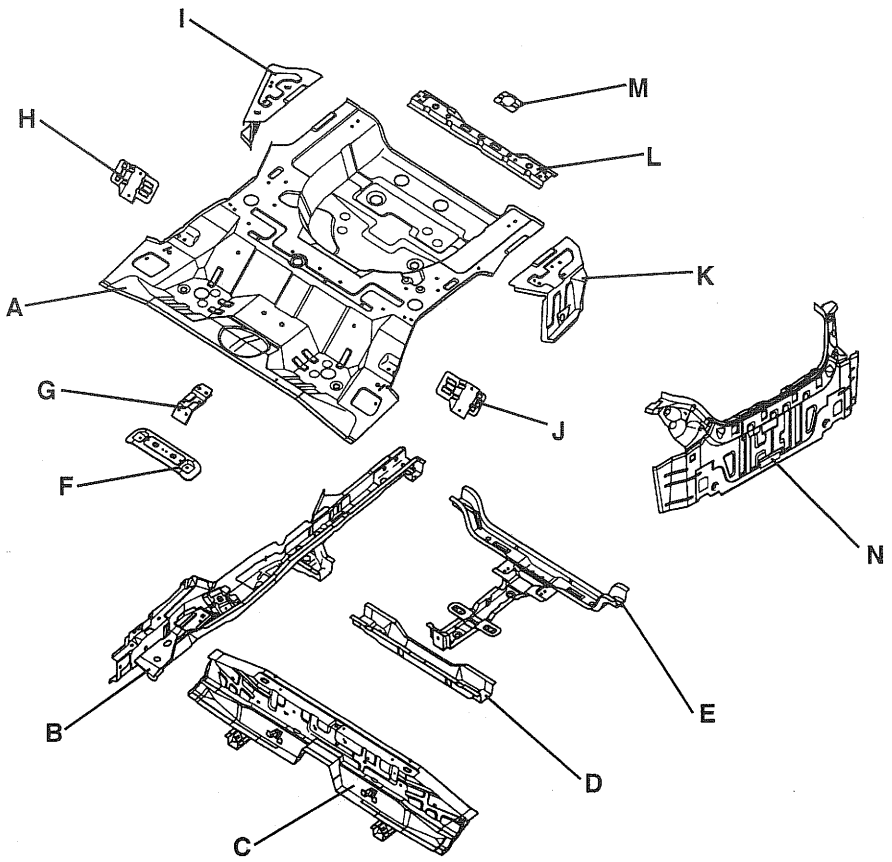
SIDE BODY



CON-0381

	PART NAME	
A	FRONT INNER PILLAR ASSEMBBLY,	LH/RH
B	CENTER INNER PILLAR ASSEMBLY,	LH/RH
C	STDE OUTER REINFORCEMENT ASSEMBLY,	LH/RH
D	PILLAR OUTER PANER ASSEMBLY,	LH/RH
E	SIDE SILL OUTER PANEL,	LH/RH
F	QUARTER INNER PANEL ASSEMBLY,	LH/RH
G	REAR COMBI LAMP HOUSING PANEL ASSEMBLY,	LH/RH
H	SIDE OUTER REAR EXTENSION ASSEMBLY,	LH/RH
I	QUARTER OUTER PANEL ASSEMBLY,	LH/RH

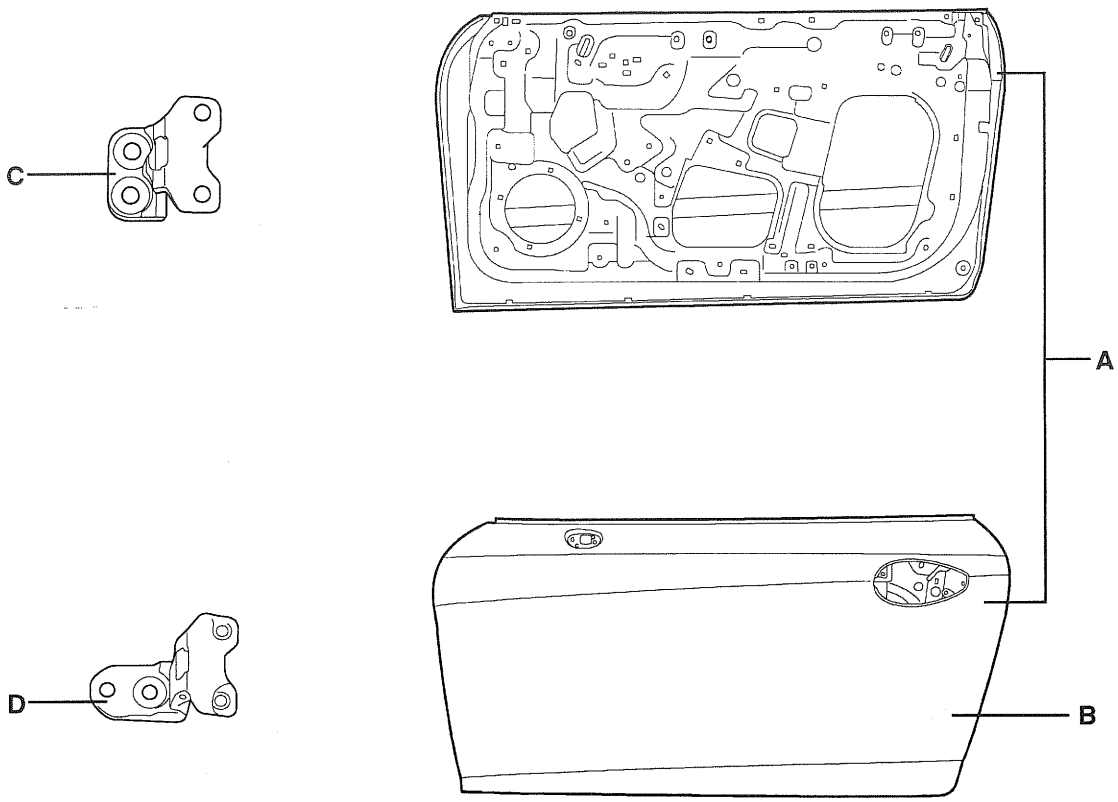
REAR BODY



CON-0860

	PART NAME	
A	REAR FLOOR PANEL	
B	REAR FLOOR SIDE COMPLETE MEMBER ASSEMBLY,	LH/RH
C	REAR FLOOR FRONT EXTENSION ASSEMBLY	
D	REAR FLOOR CENTER CROSSMEMBER ASSEMBLY	
E	JACK UP CROSSMEMBER ASSEMBLY	
F	REAR SEAT BELT MOUNTING BRACKET ASSEMBLY	
G	REAR SEAT CENTER MOUNTING BRACKET ASSEMBLY	
H	REAR SEAT MOUNTING BRACKET ASSEMBLY,	RH
I	REAR FLOOR SIDE PANEL,	RH
J	REAR SEAT MOUNTING BRACKET ASSEMBLY,	LH
K	REAR FLOOR SIDE PANEL,	LH
L	REAR FLOOR CROSSEMBER ASSEMBLY	
M	SPARE TIRE MOUNTING BRACKET ASSEMBLY	
N	BACK PANEL ASSEMBLY	

DOOR



CON-0870~1

CON-0750~1

	PART NAME	
A	DOOR PANEL ASSEMBLY,	LH/RH
B	DOOR OUTER PANEL,	LH/RH
C	DOOR UPPER HINGE ASSEMBLY,	LH/RH
D	DOOR LOWER HINGE ASSEMBLY,	LH/RH

BODY DIMENSIONS

BD

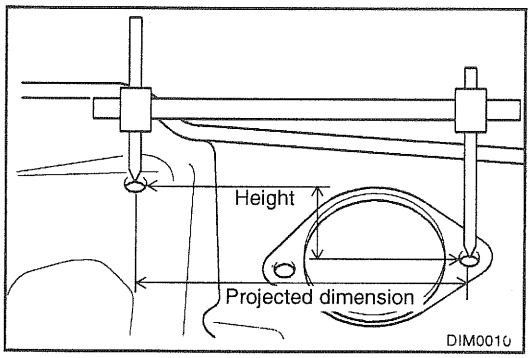
GENERAL

1. Basically, all measurements in this manual are taken with a tracking gauge.
2. When a measuring tape is used, check to be sure there is no elongation, twisting or bending.
3. For measuring dimensions, both projected dimension and actual-measurement dimension are used in this manual.

MEASUREMENT METHOD

PROJECTED DIMENSIONS

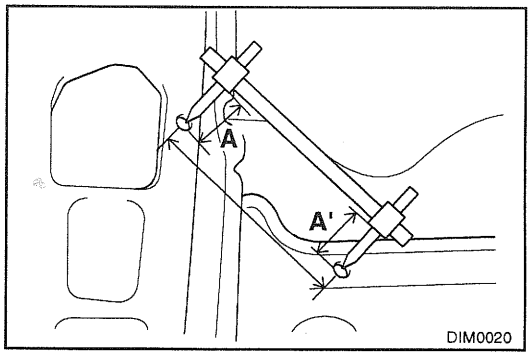
1. These are the dimensions measured when the measurement points are projected into the reference plane, and are the reference dimensions used for body alterations.
2. If the length of the tracking gauge probes are adjustable, make the measurement by lengthening one probe by the amount equivalent to the difference in height of the two surfaces.



ACTUAL-MEASUREMENT DIMENSIONS

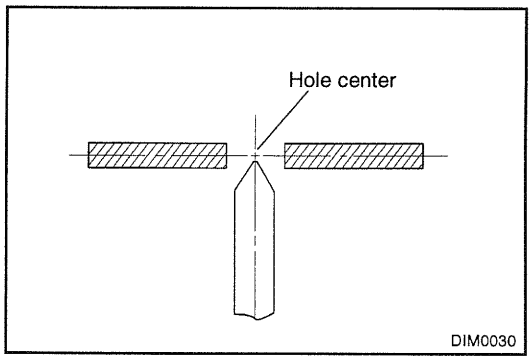
1. These dimensions indicate the actual linear distance between measurement points, and are the reference dimensions for use if a tracking gauge is used for measurement.
2. Measure by first adjusting both probes to the same length (A=A').

NOTE
Check the probes and gauge itself to make sure there is no free play.

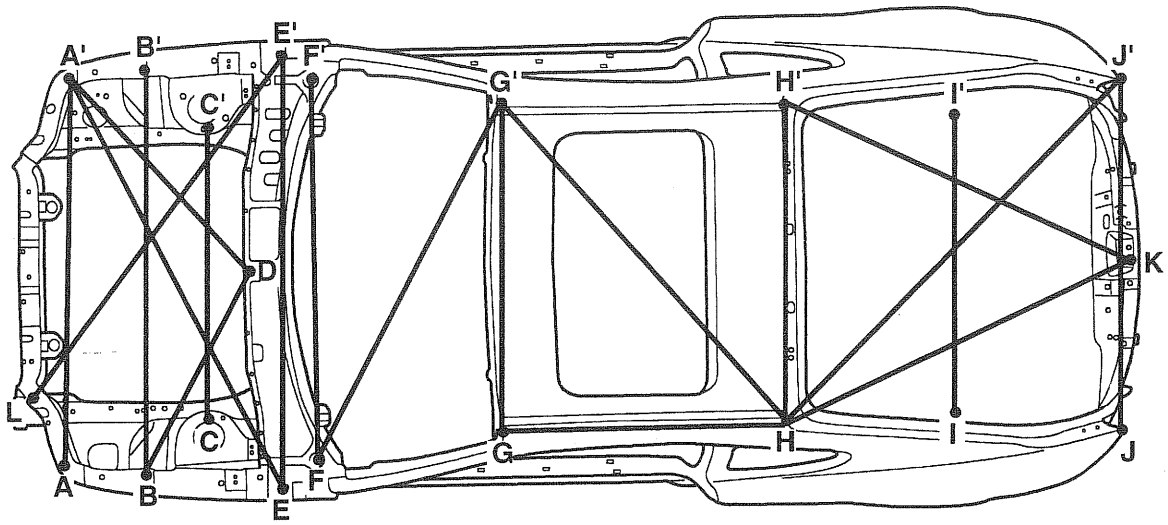


MEASUREMENT POINT

1. Measurements should be taken at the hole center.



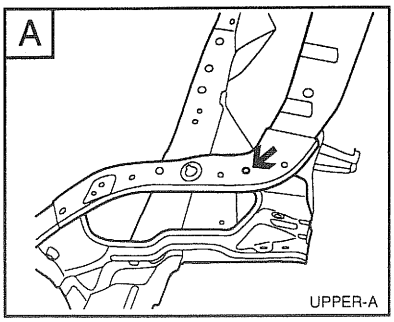
UPPER BODY



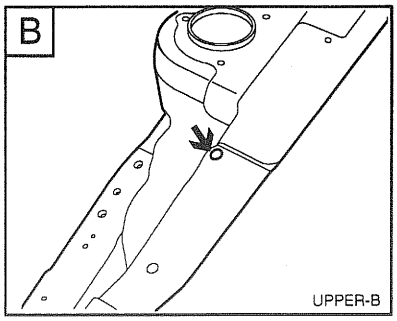
UPPER

* These dimensions indicated in this figure are **actual-measurement dimensions.**

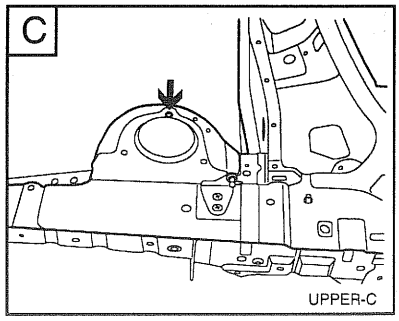
Point symbol	A-A'	A'-D	B-B'	B-D	C-C'	D-L	E-E'	F-F'
Length (mm)	1304	954	1372	785	998	944	1498	1305
Point symbol	F-G'	G-G'	G-H	H-G'	H-H'	H-J'	I-I'	J-J'
Length (mm)	1380	1032	915	1376	1032	1663	1084	1184
Point symbol	K-H	K-H'	L-E'					
Length (mm)	1489	1503	1490					



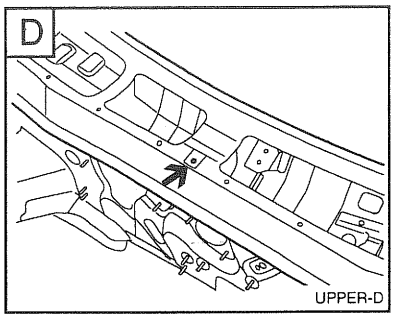
Fender mounting hole (Ø8)



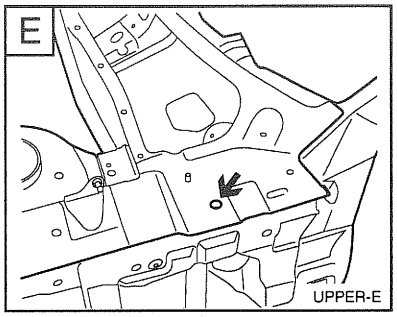
Fender mounting hole (Ø6.6)



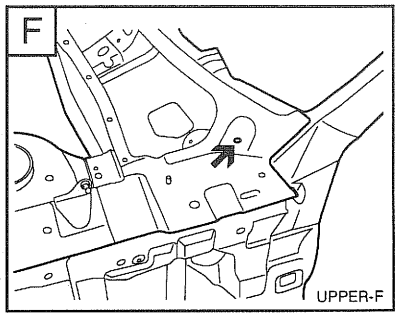
Front suspension mouning hole(Ø11)



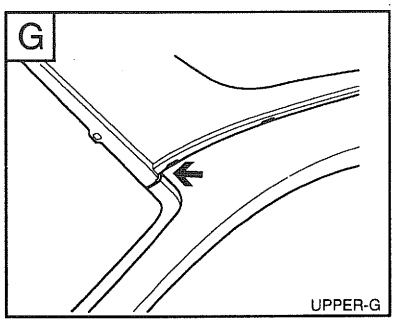
Cowl top cover mounting hole (Ø7)



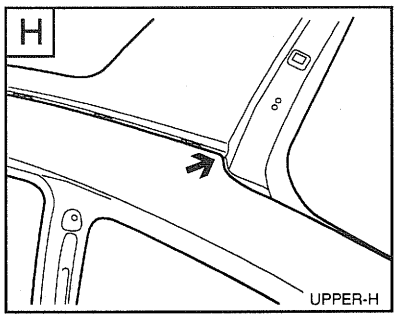
Tooling hole(Ø15)



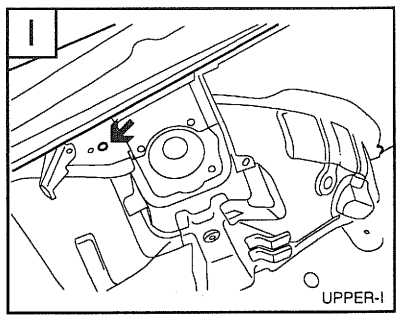
Hood hinge mounting hole (Ø13)



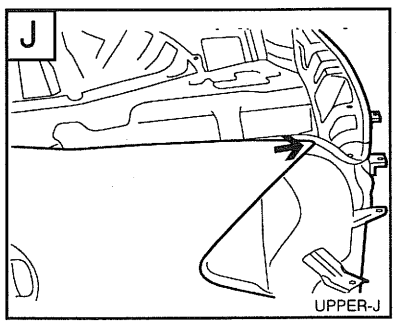
Front edge of side outer panel



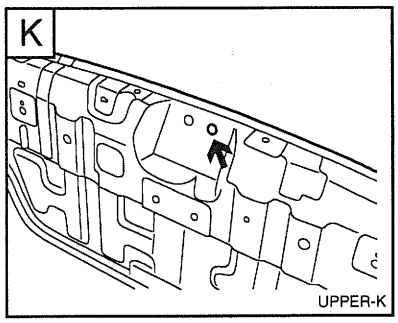
Rear edge of side outer panel



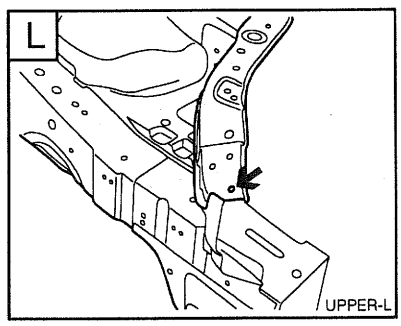
Rear seat belt reel mounting hole(Ø12)



Corner of side outer panel

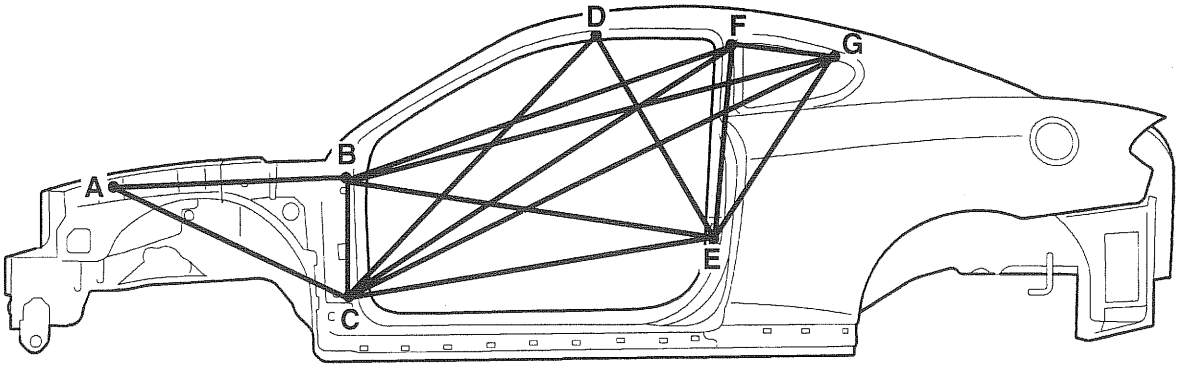


Tail gate striker mounting hole (Ø14)



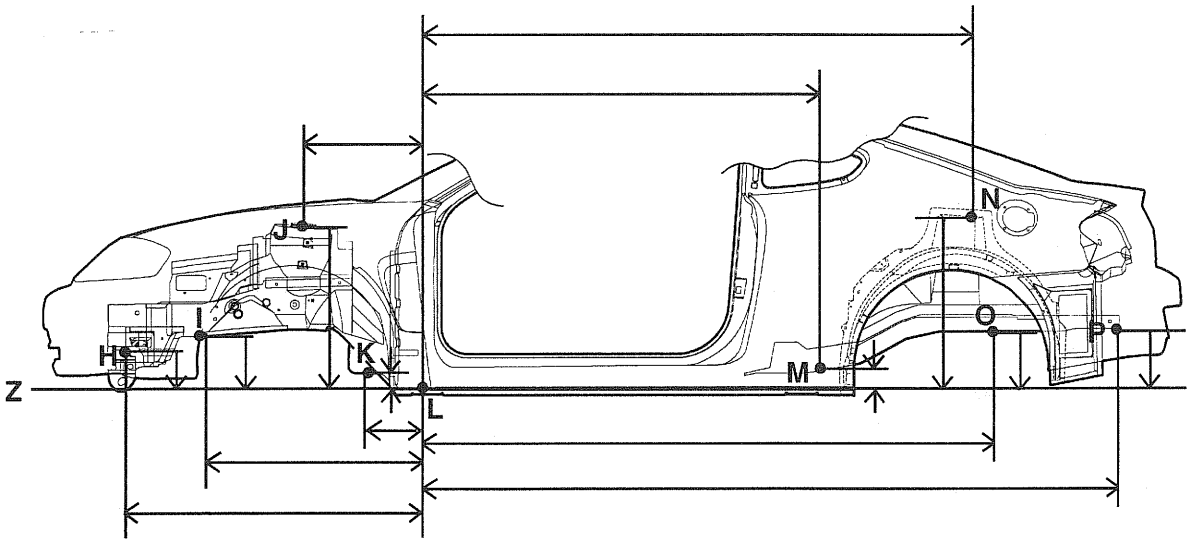
Member side mounting hole (Ø6)

SIDE BODY



SIDE-2

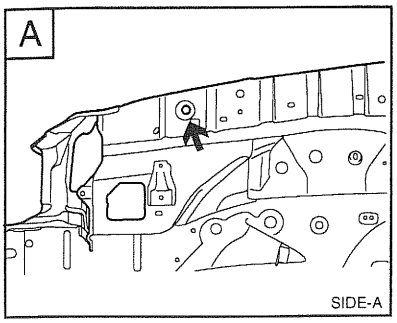
* These dimensions indicated in this figure are **actual-measurement dimensions.**



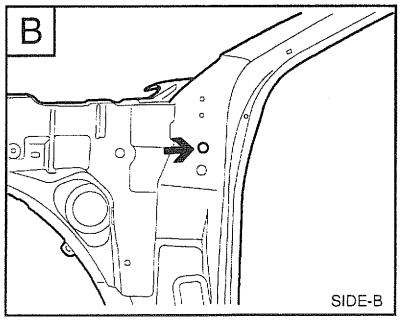
SIDE-1

* These dimensions indicated in this figure are **projected dimensions.**

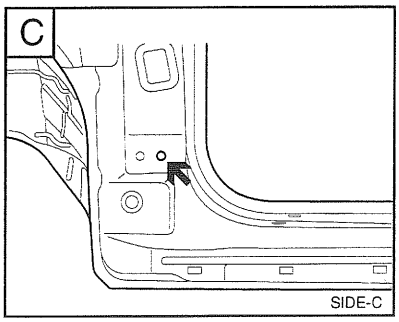
Point symbol	A-B	A-C	B-C	B-E	B-F	B-G	C-D	C-E
Length (mm)	805	872	372	1220	1340	1646	1218	1224
Point symbol	C-F	C-G	D-E	E-F	E-G	F-G	H-Z	I-Z
Length (mm)	1494	1763	726	586	662	338	142	229
Point symbol	J-Z	K-Z	M-Z	N-Z	O-Z	P-Z	H-L	I-L
Length (mm)	635	68	67	772	127	238	1159	850
Point symbol	J-L	K-L	L-M	L-N	L-O	L-P		
Length (mm)	455	223	1325	2074	2950	2666		



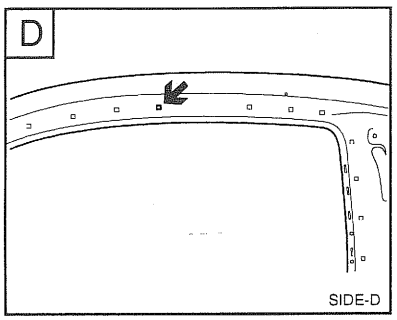
Tooling & hood cable passage hole(∅15)



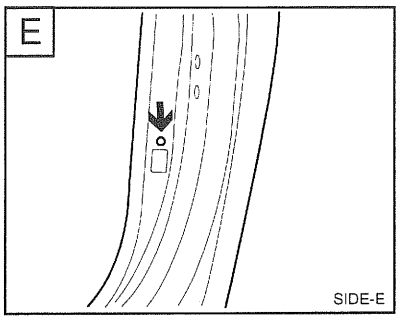
Door hinge mounting hole(∅13)



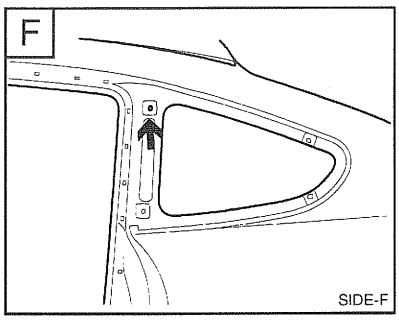
Door hinge mounting hole (∅13)



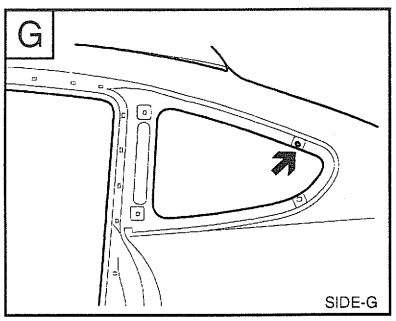
Retainer mounting hole (□ 6.7 x 6.7)



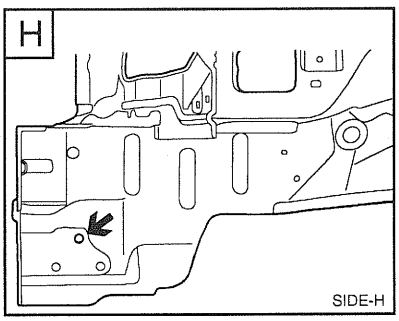
Door switch mounting hole (∅9)



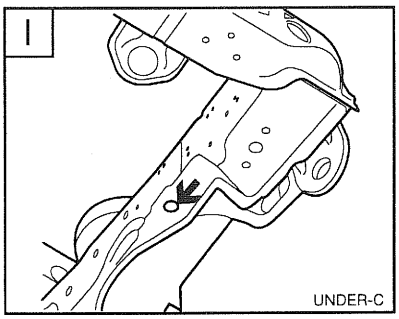
Fixed glass mounting hlole (9 x 7 slot)



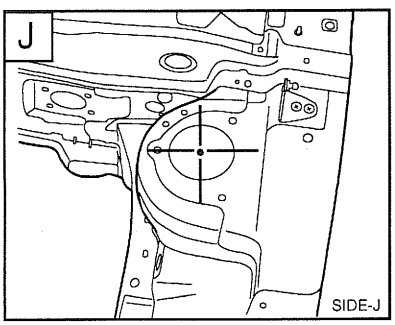
Fixed glass mounting hole (9 x 7 slot)



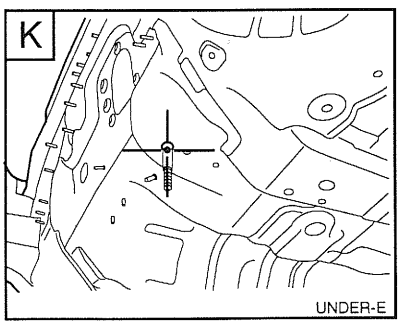
Front tie down hook mounting hole(∅12)



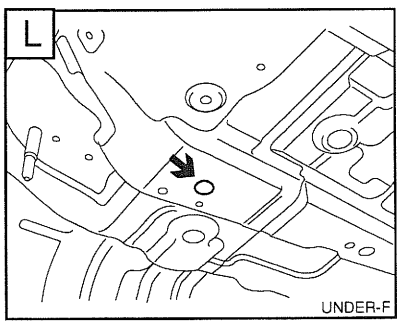
Tooling hole(∅25)



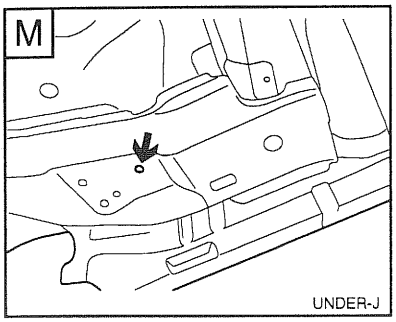
Front suspension passage hole (∅51)



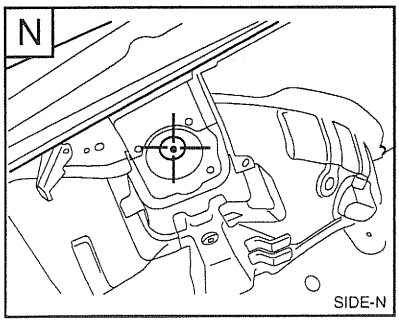
Sub-frame mounting hole (∅20)



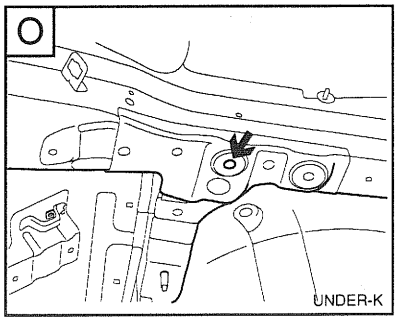
Tooling hole (∅28)



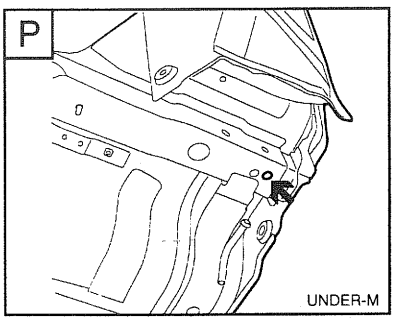
Trailing arm mounting hole (Ø13)



Rear suspension passage hole (Ø34)

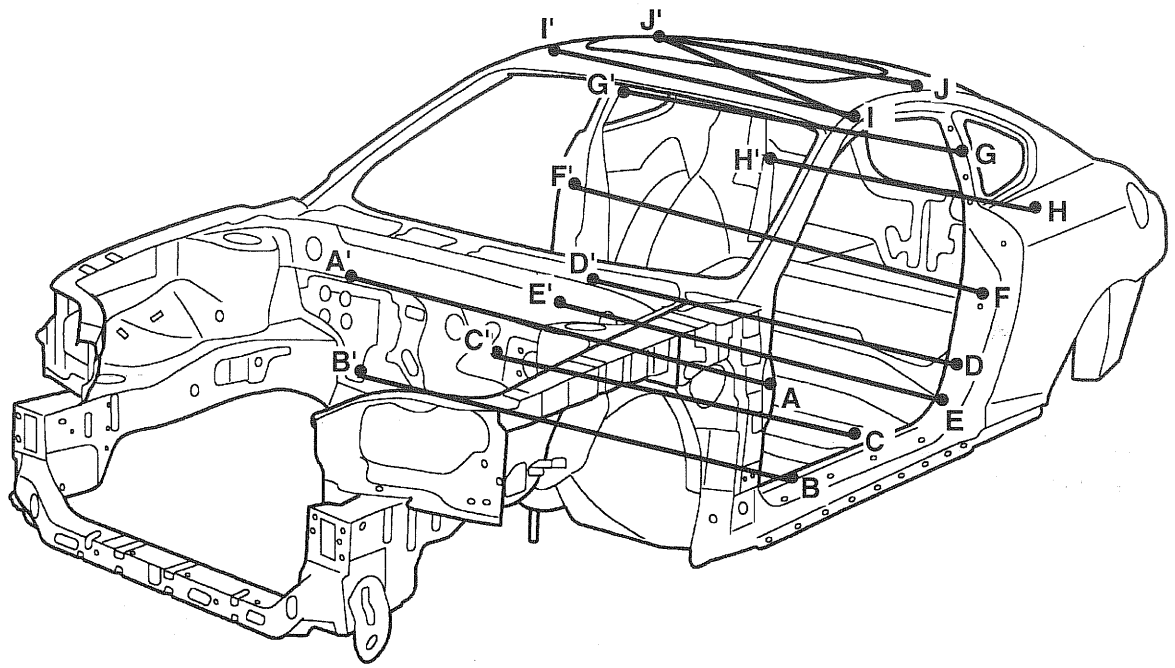


Rear cross member mounting hole(Ø14)



Bumper stay mounting hole (Ø13)

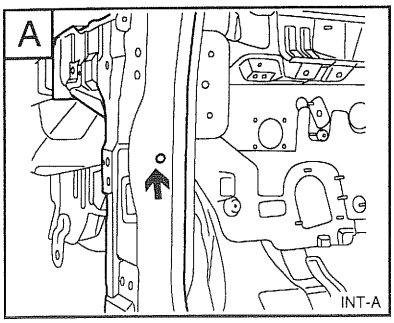
INTERIOR



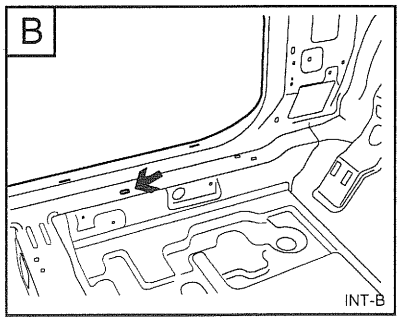
INTER

* These dimensions indicated in this figure are **actual-measurement dimensions.**

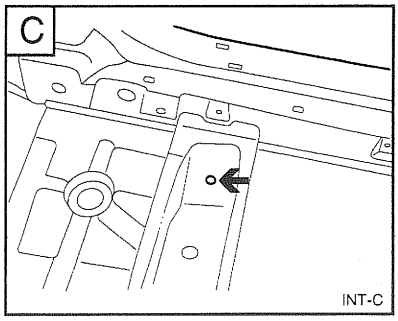
Point symbol	A-A'	B-B'	C-C'	D-D'	E-E'	F-F'	G-G'	H-H'
Length (mm)	1480	1348	1164	1387	1122	1507	1153	1053
Point symbol	I-I'	I-J'	J-J'					
Length (mm)	1021	1063	1013					



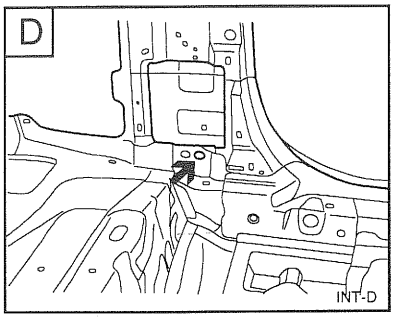
Front door checker mounting hole(Ø11)



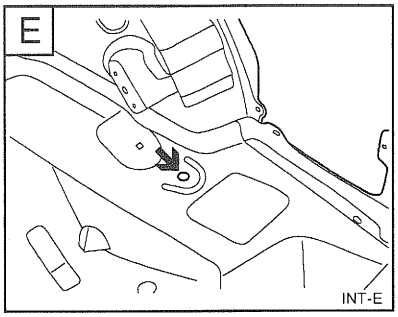
Floor wiring mounting hole (7 x 12 slot)



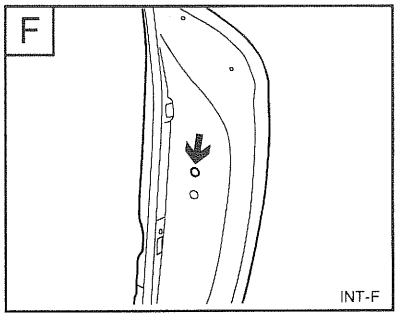
Seat mounting hole(Ø11)



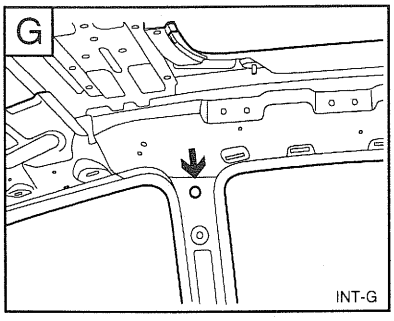
Seat belt reel mounting hole (Ø12.2)



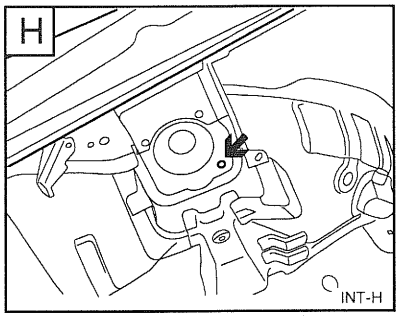
Rear seat belt side lower mounting hole(Ø15.7)



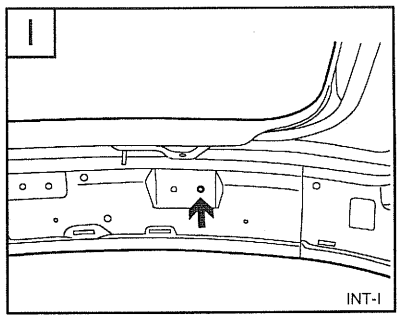
Door striker mounting hole (Ø13)



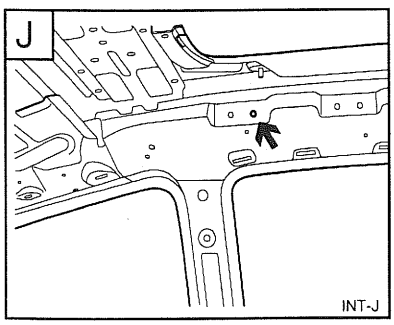
Front seat belt mounting hole (Ø15)



Rear suspension mounting hole (Ø 9)

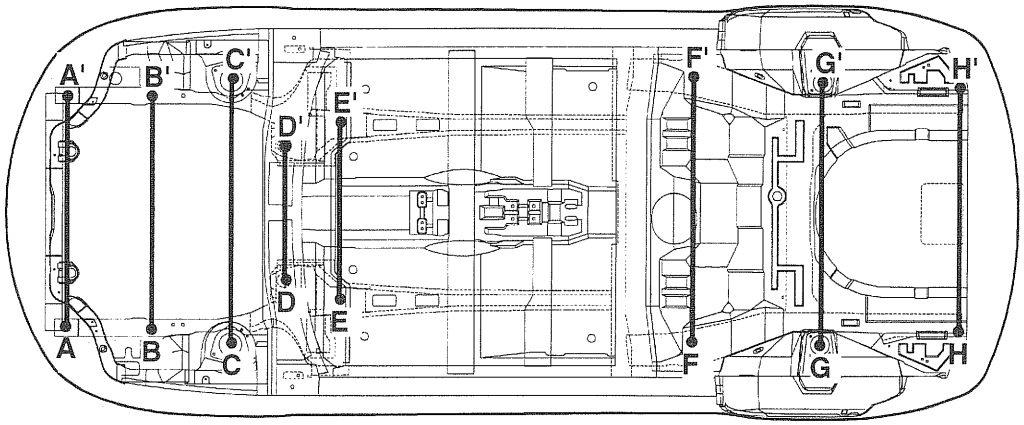


Sun roof side bracket mounting hole(Ø6.6)



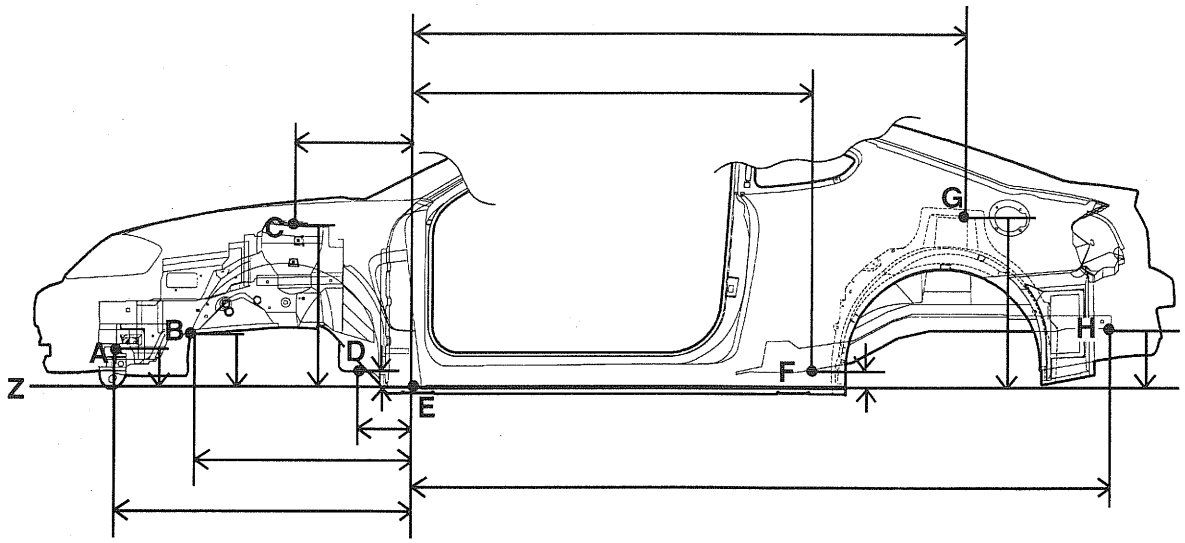
Sun roof side bracket mounting hole(Ø6.6)

UNDER BODY



UND-ASSY

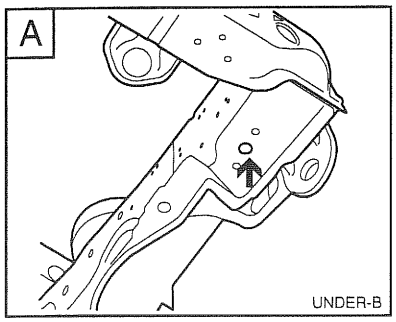
* These dimensions indicated in this figure are **actual-measurement dimensions.**



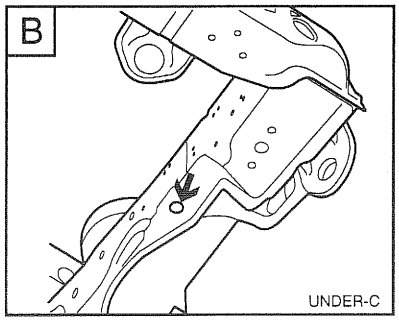
* These dimensions indicated in this figure are **projected dimensions.**

SIDE-1

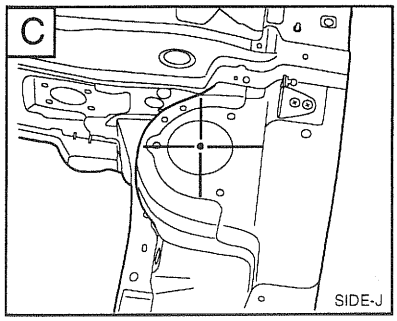
Point symbol	A-A'	B-B'	C-C'	D-D'	E-E'	F-F'	G-G'	H-H'
Length (mm)	960	960	1136	560	754	1192	1136	970
Point symbol	A-Z	B-Z	C-Z	D-Z	F-Z	G-Z	H-Z	A-E
Length (mm)	102	229	635	68	67	772	238	1078
Point symbol	B-E	C-E	D-E	E-F	E-G	E-H		
Length (mm)	850	455	223	1325	2074	2666		



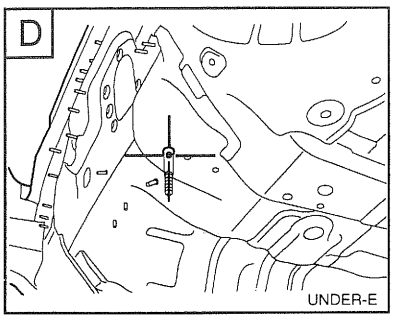
Sub-frame mounting hole(∅24)



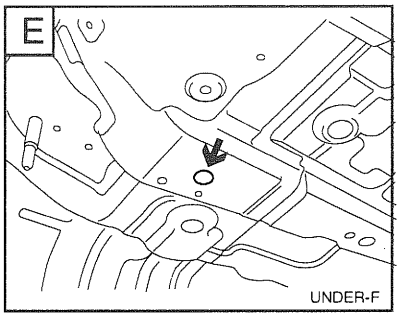
Tooling hole(∅25)



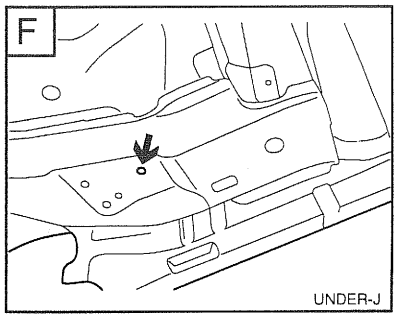
Front suspension passage hole (∅102)



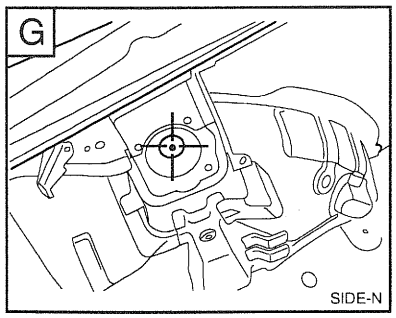
Sub-frame mounting hole(∅20)



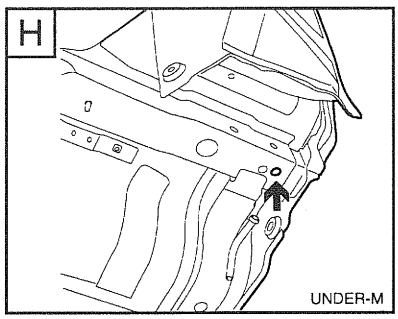
Tooling hole(∅28)



Trailing arm mounting hole (∅13)

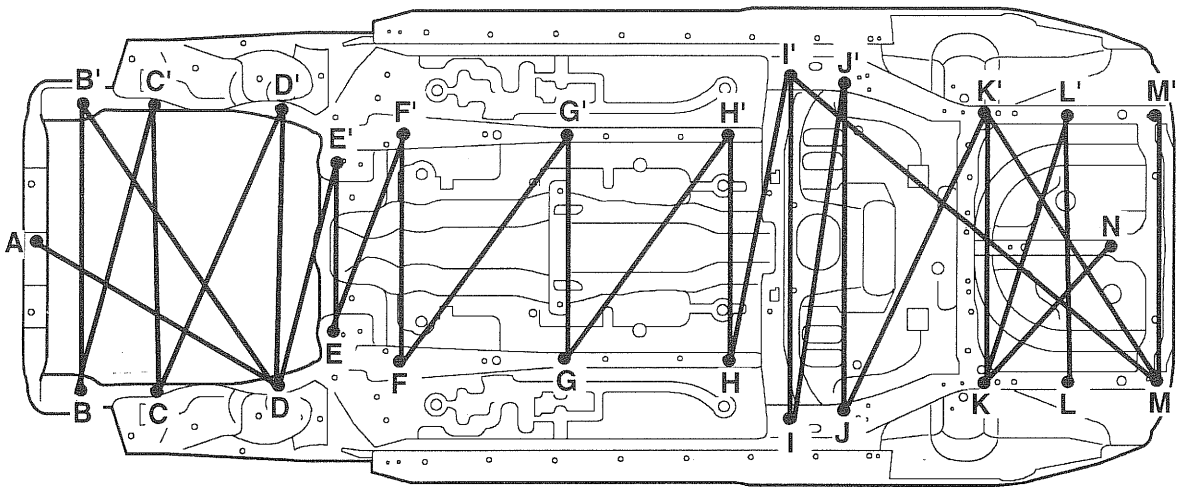


Rear suspension passage hole(∅34)



Bumper stay mounting hole (∅13)

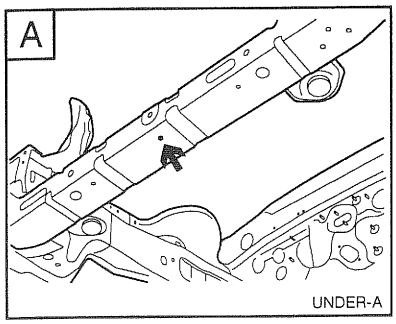
UNDER BODY



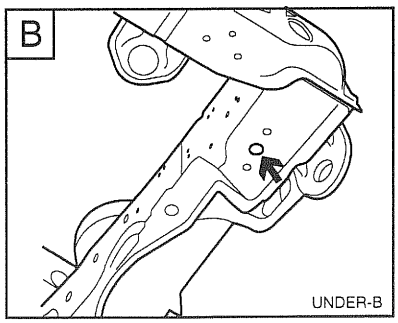
ACT-ASSY

* These dimensions indicated in this figure are **actual-measurement dimensions.**

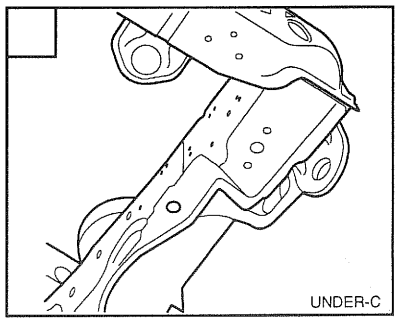
Point symbol	A-D	B-B'	B-C'	C-C'	C-D'	D-D'	D-B'	D-E'
Length (mm)	957	960	994	960	1046	956	1165	817
Point symbol	E-E'	E-F'	F-F'	F-G'	G-G'	G-H'	H-H'	H-I'
Length (mm)	580	707	754	866	754	1012	754	1002
Point symbol	I-I'	I-J'	J-J'	J-K'	K-K'	K-L'	L-L'	M-M'
Length (mm)	1192	1175	1126	1170	959	995	961	970
Point symbol	M-I'	M-K	N-K					
Length (mm)	1731	1153	656					



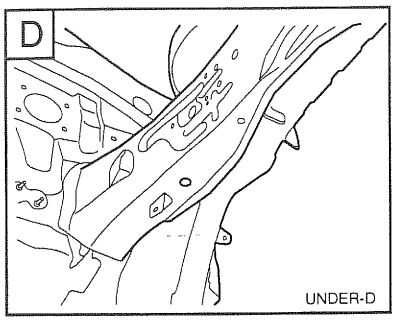
Air dam mounting hole(Ø6)



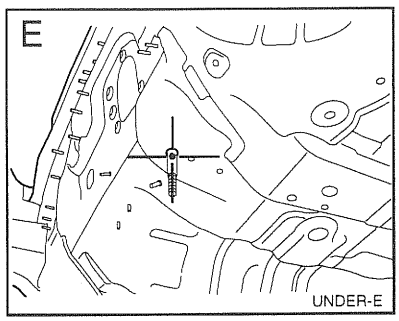
Sub-frame mounting hole(Ø24)



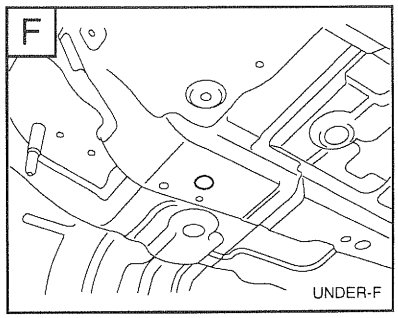
Tooling hole(Ø25)



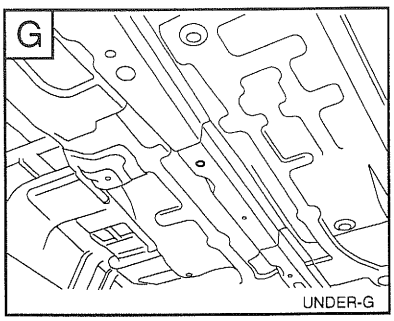
Tooling hole(Ø15)



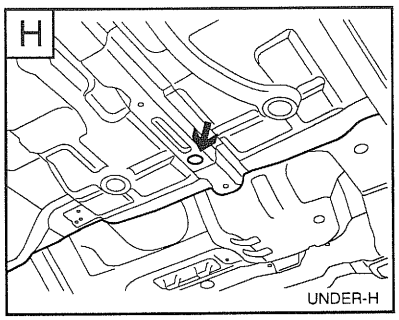
Sub-frame mounting hole(Ø20)



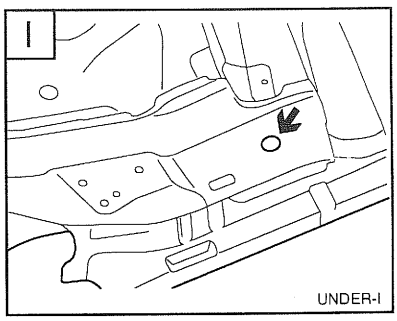
Tooling hole(Ø28)



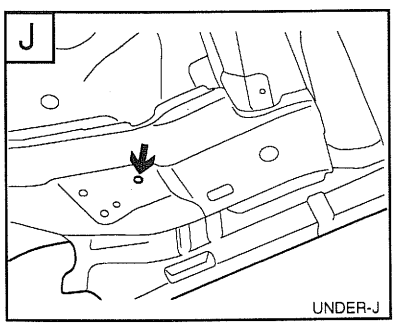
Tooling hole(Ø15)



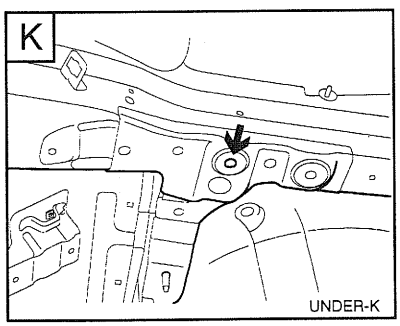
Tooling & paint drain hole(Ø27)



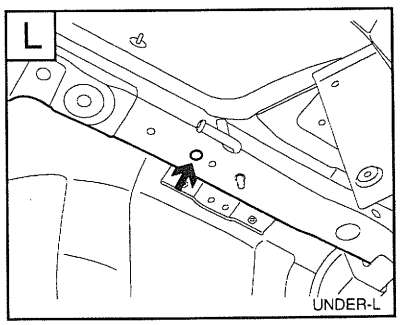
Tooling hole(Ø25)



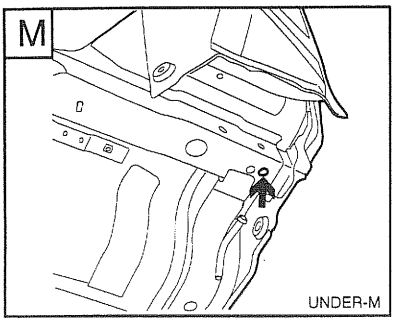
Trailing arm mounting hole (Ø13)



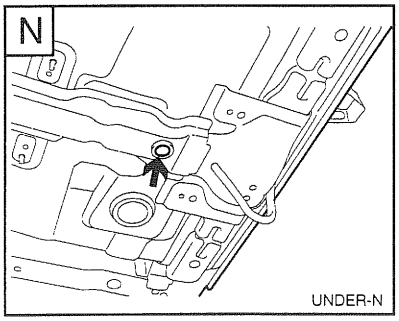
Rear cross momber mounting hole(Ø14)



Tooling hole(Ø13)

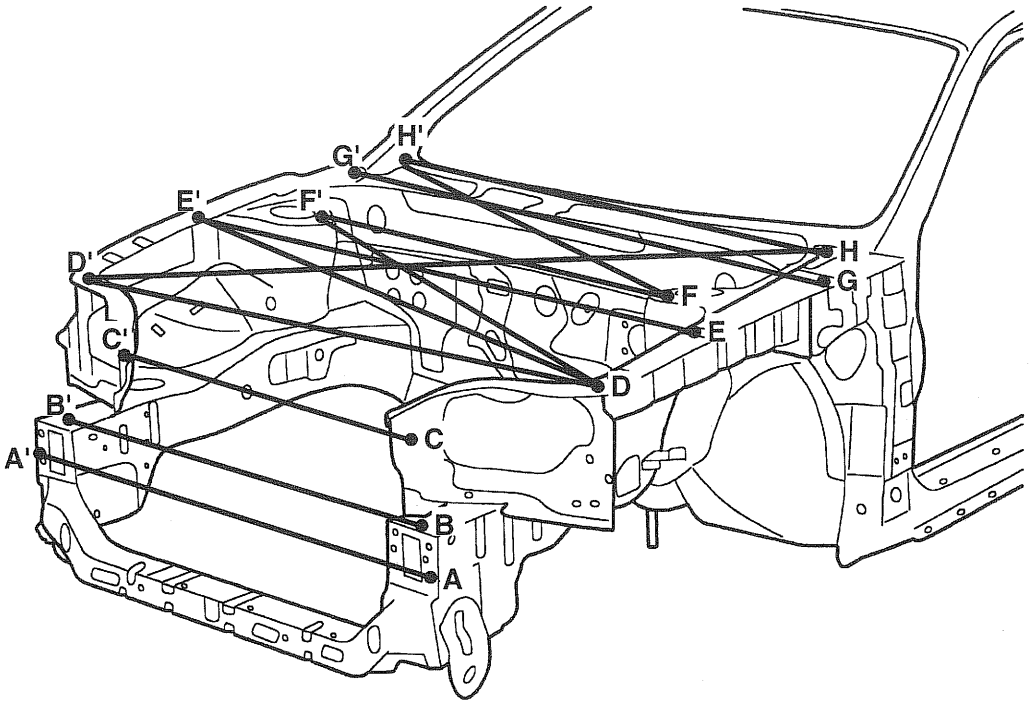


Bumper stay mounting hole (∅13)



Tooling & paint drain hole(∅20)

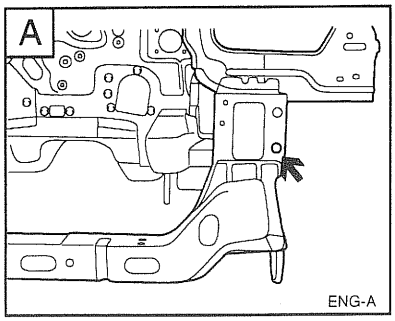
ENGINE COMPARTMENT



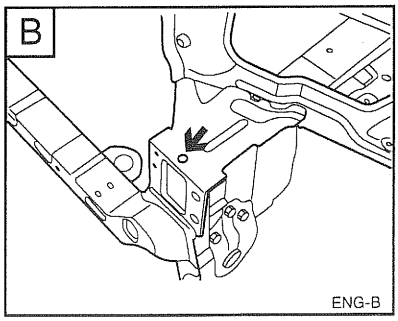
ENGINE

* These dimensions indicated in this figure are **actual-measurement dimensions.**

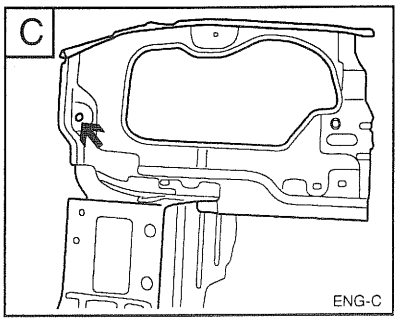
Point symbol	A-A'	B-B'	C-C'	D-D'	D-E'	D-F'	E-E'	F-F'
Length (mm)	1070	980	778	1310	1377	1269	1372	998
Point symbol	F-H'	G-G'	H-H'	H-D'				
Length (mm)	1213	1498	1305	1593				



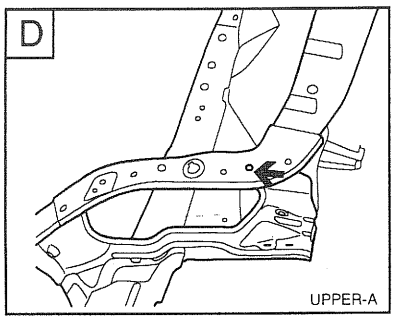
Passage bumper stay hole (Ø16)



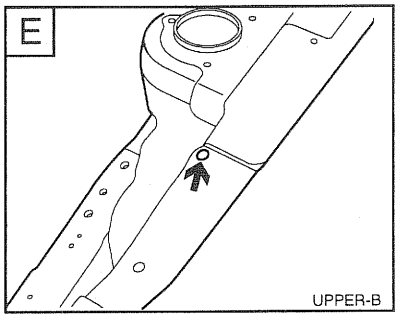
Front bumper mounting hole (Ø12)



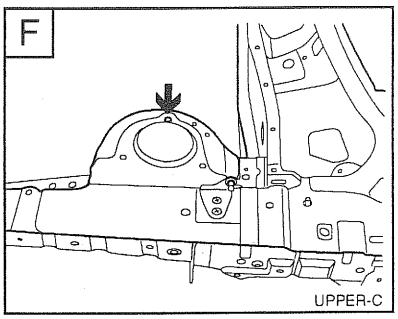
Tooling hole(Ø8)



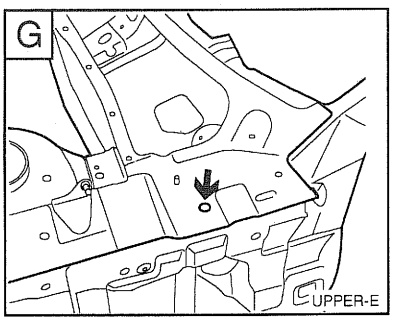
Fender mounting hole(Ø8)



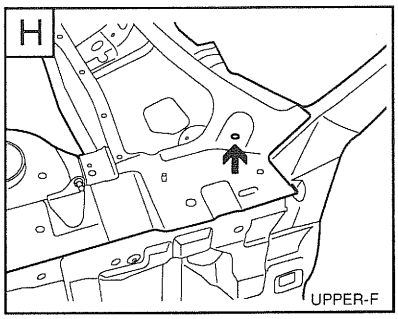
Fender mounting hole(Ø6.6)



Front suspension mounting hole(Ø11)

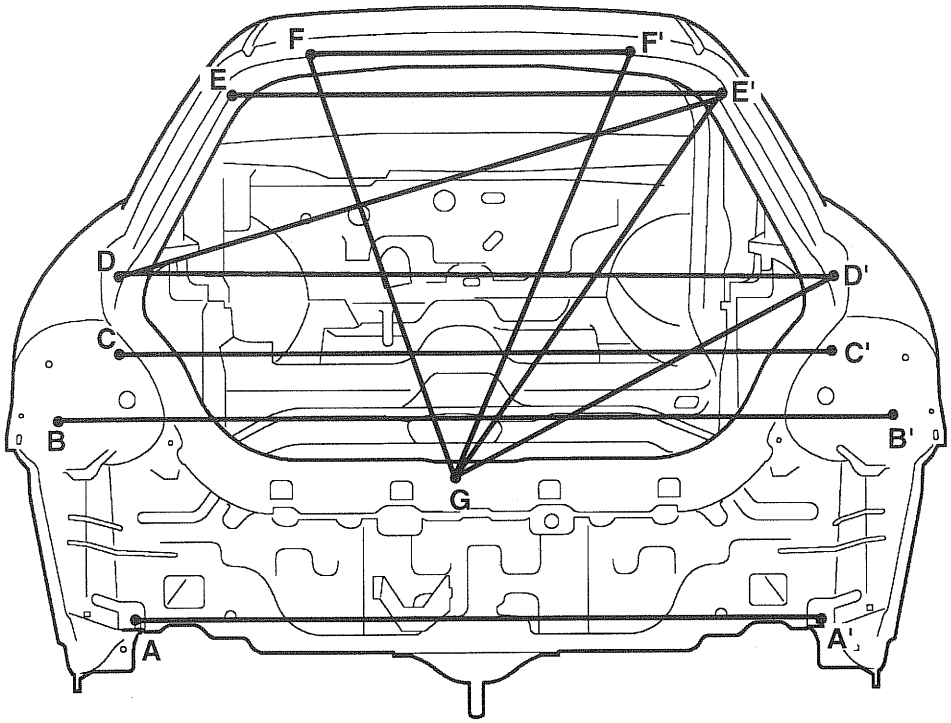


Tooling hole(Ø15)



Hood hinge mounting hole (Ø13)

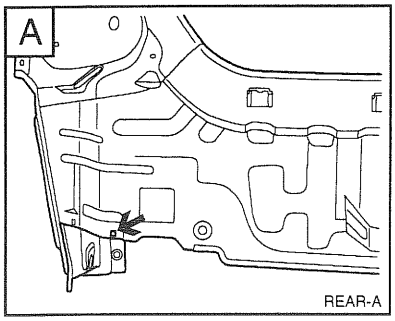
LUGGAGE COMPARTMENT



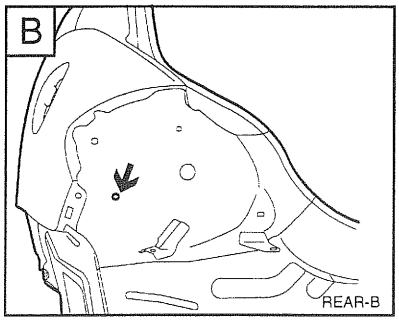
LUGG

* These dimensions indicated in this figure are **actual-measurement dimensions.**

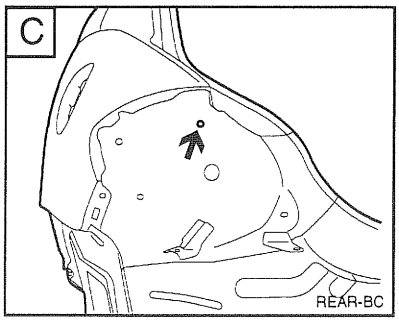
Point symbol	A-A'	B-B'	C-C'	D-D'	D-E'	E-E'
Length (mm)	1128	1390	1176	1179	1456	1119
Point symbol	F-F'	F-G	G-F'	G-E'	G-D'	
Length (mm)	625	1410	1421	1273	668	



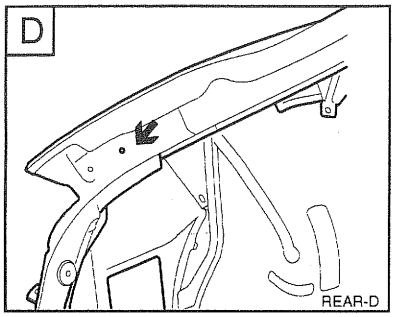
Cover mounting hole
(□ 8.5 x 8.5)



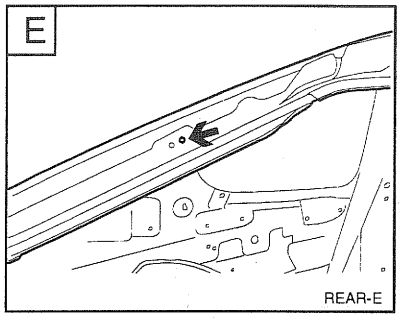
Combi lamp mounting hole
(∅8)



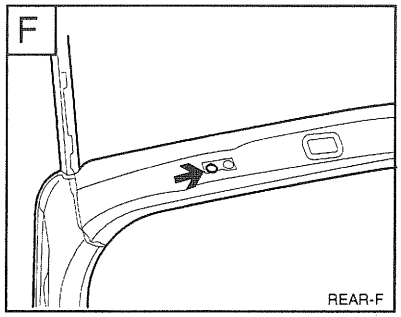
Rear combi lamp mounting
hole(∅8)



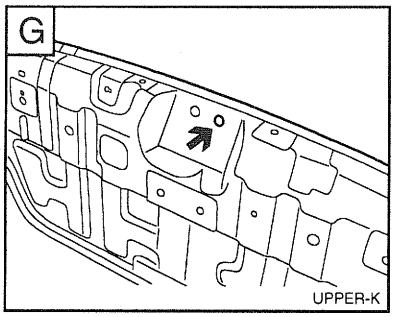
Tail gate guide bumper mount-
ing hole(∅9)



Tail gate lift mounting hole
(∅12.5)

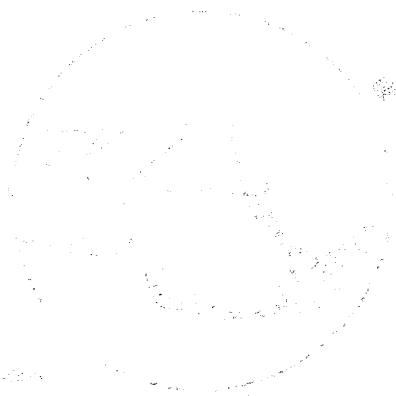


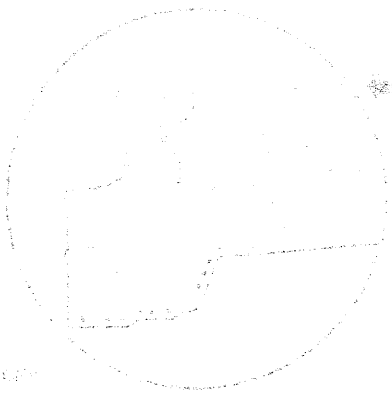
Tail gate hinge mounting hole
(∅14)



Tail gate striker mounting hole
(∅14)

BODY PANEL REPAIR PROCEDURE

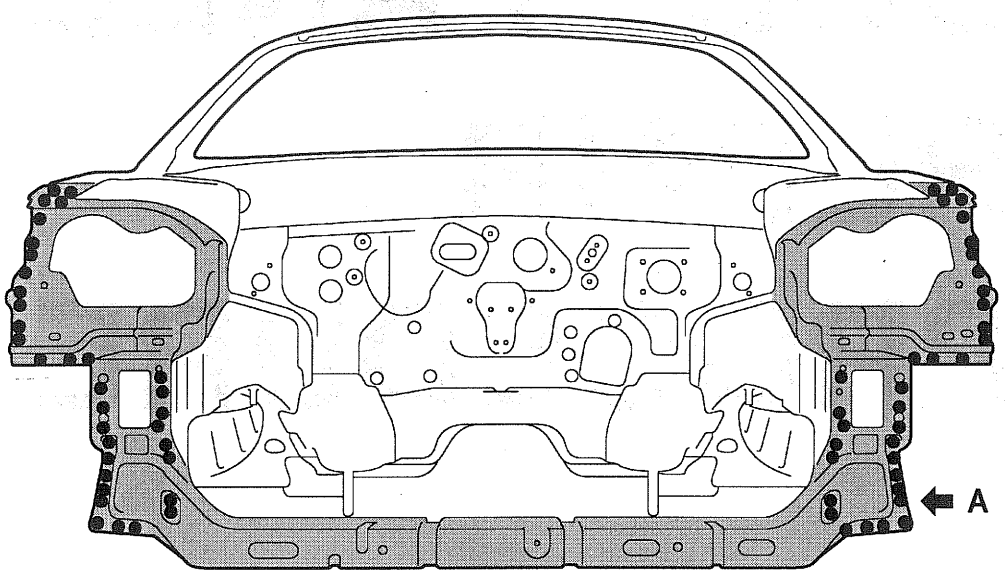




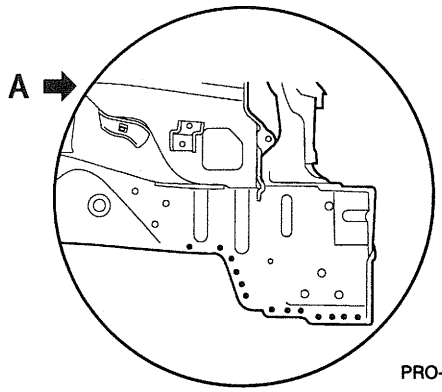
BP

RADIATOR SUPPORT PANEL

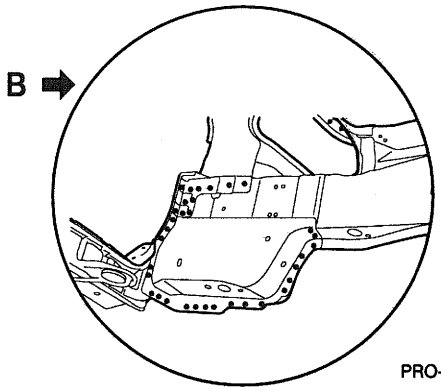
WELDLING POINTS



PRO-0020



PRO-0320

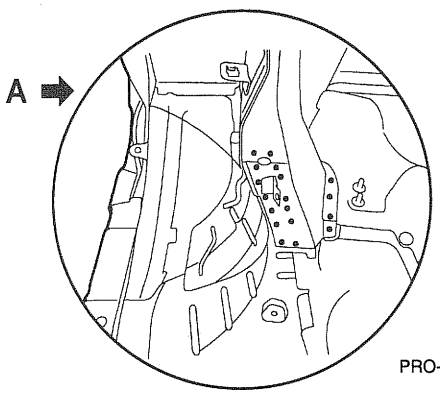


PRO-0040

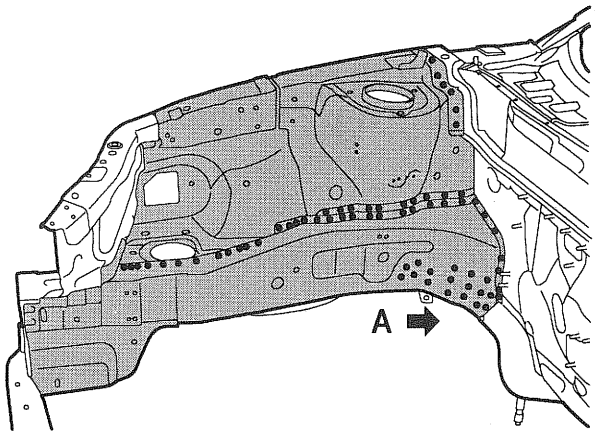
- MIG plug welding

FENDER APRON AND FRONT SIDE MEMBER (ASSEMBLY)

WELDLING POINTS

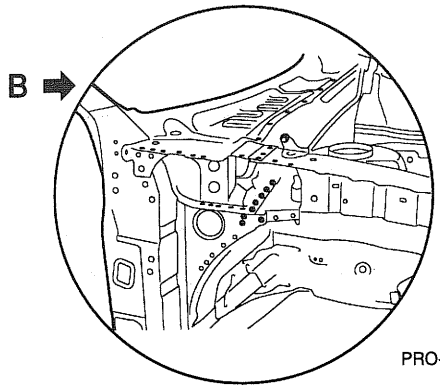


PRO-0050

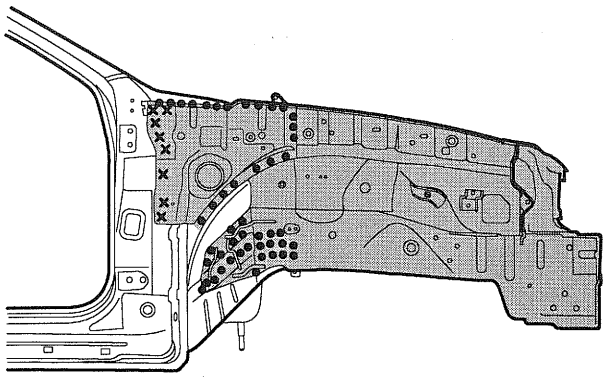


PRO-0060

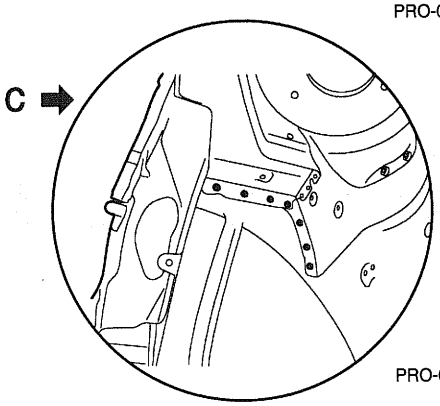
● MIG plug welding



PRO-0070



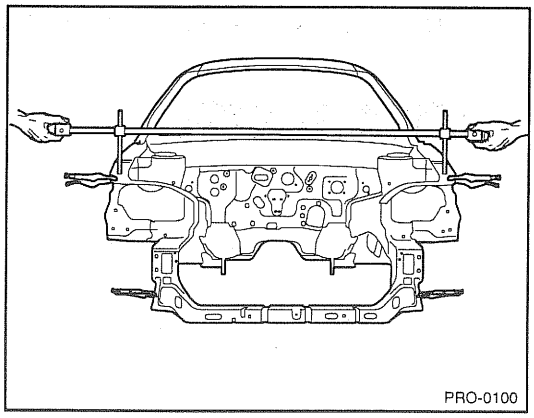
PRO-0080



PRO-0071

● MIG plug welding
MIG butt welding
MIG lap welding

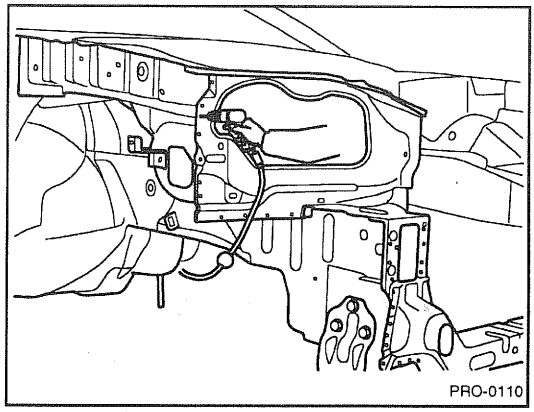
NOTE
Before repairing, remove Engine and Suspension Components. Refer to the body dimension charts and measure the vehicle to determine straightening and alignment requirements. The body must be returned to its original dimension before you begin the repair procedure.


PRO-0100

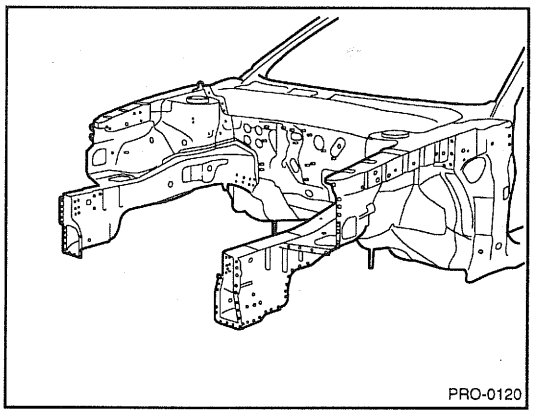
REMOVAL

1. Drill out all the spotwelds to separate radiator support panel from front side member.

   NOTE
   When spotwelded portions are not apparent, remove paint with a rotary wire brush.

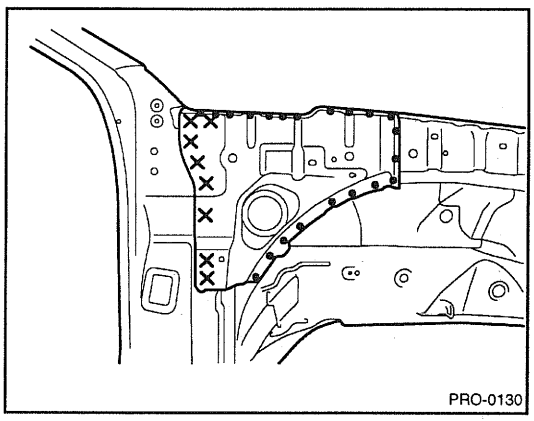

PRO-0110

2. Remove the radiator support panel.

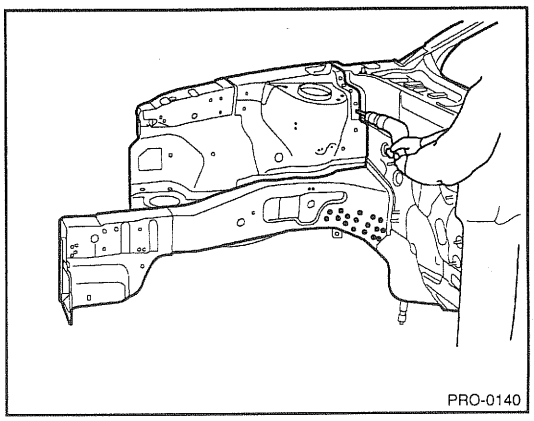

PRO-0120

3. Drill out all the spotwelds attaching the cowl side upper outer panel.

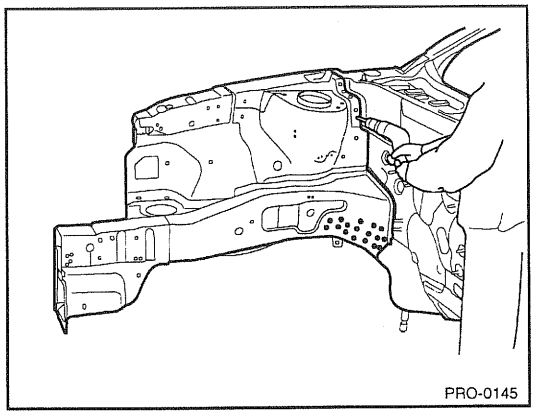
   NOTE
   If it is possible that the cowl side upper outer panel is reusable, be careful not to damage it while removing.


PRO-0130

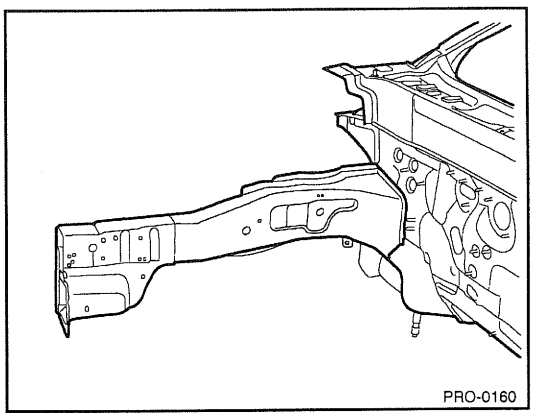
4. Using a spotweld cutter, drill out all the spotwelds attaching the fender apron to the dash panel and front side member.
5. Remove the fender apron panel.


PRO-0140

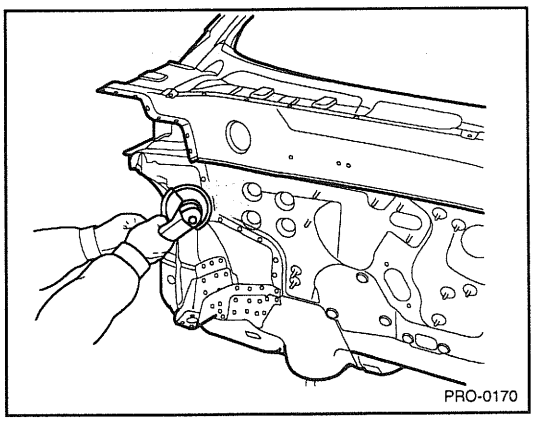
NOTE
If collision damage requires replacement of fender apron and front side member together, remove both of them at the same time.


PRO-0145

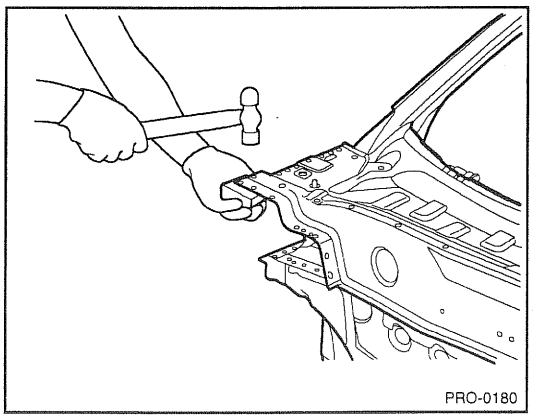
6. Using a spotweld cutter, remove the front side member by drilling out the spotwelds.


PRO-0160

7. Grind and smooth any weld traces which might be left on the body surface by using an air grinder or similar tool, being careful not to damage any of the panels which is not to be replaced.

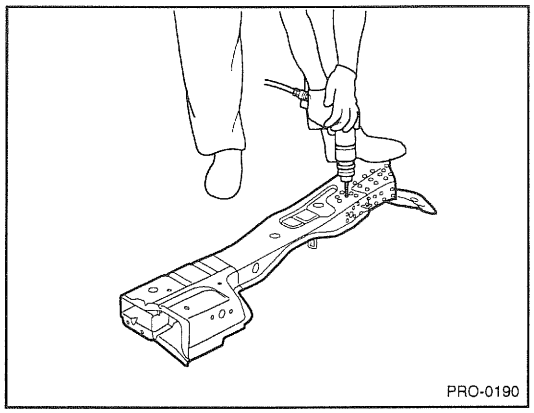

PRO-0170

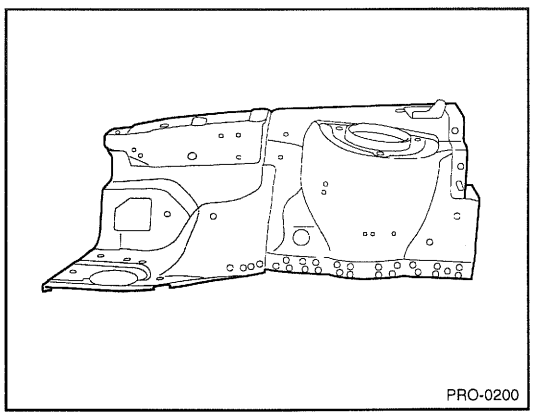
8. Using a hammer and dolly, correct any flanges that become bent or deformed when spotwelds are broken.


PRO-0180

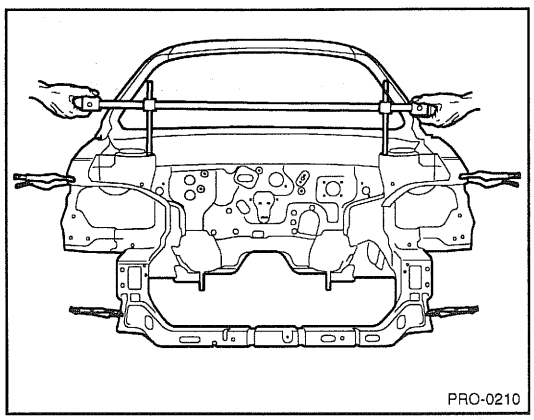
INSTALLATION

1. Drill 8 mm holes in the new fender apron and front side member for MIG plug welding.
2. Remove paint from both sides of all portions that are to be welded such as peripheries of MIG plug weld holes.

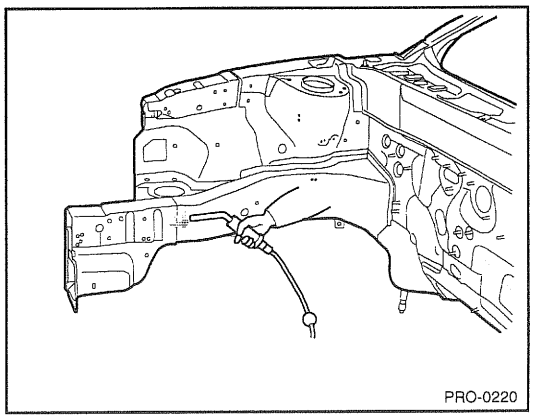

PRO-0190


PRO-0200

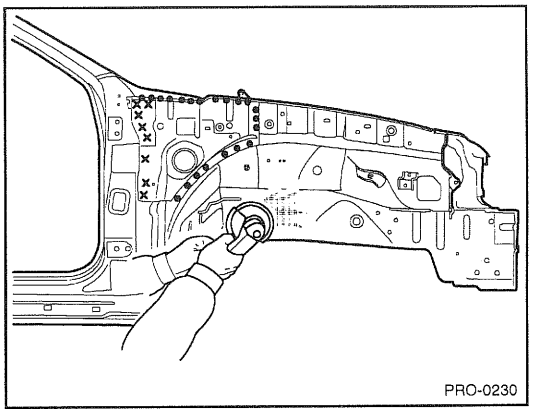
3. Temporarily install new parts in place.
4. Measure each measurement point (Refer to the BODY DIMENSIONS) and corrcet the installation position.


PRO-0210

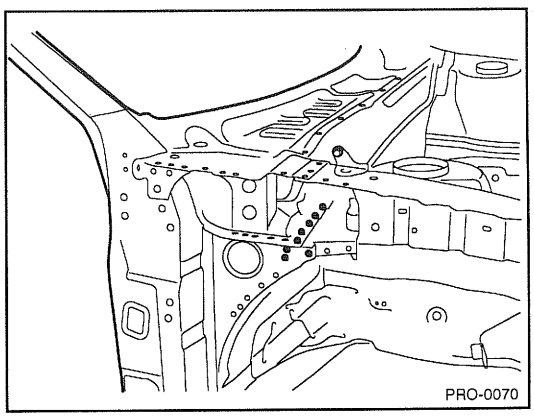
5. MIG plug weld all holes


PRO-0220

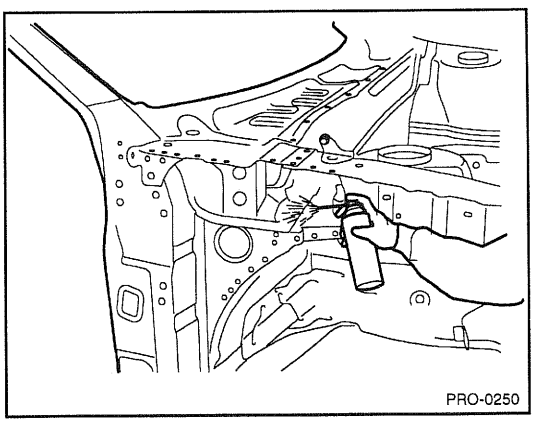
6. Clean MIG welds with a disc grinder.


PRO-0230

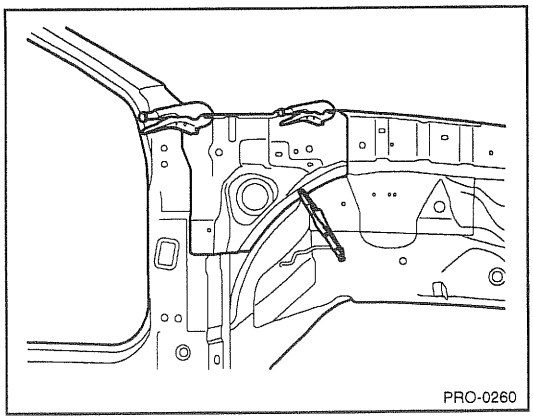
NOTE
1. **Be careful not to grind welded portions too much.**
2. **The internal parts will be stronger if the weld traces are not ground.**


PRO-0070

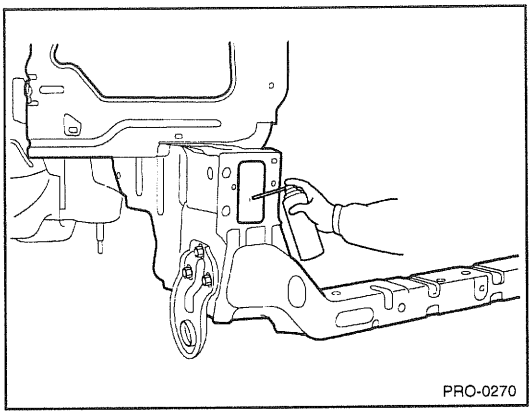
7. Before welding the cowl side upper outer panel, apply the two part epoxy primer and anti-corrosion agent to the interior of the fender apron panel.


PRO-0250

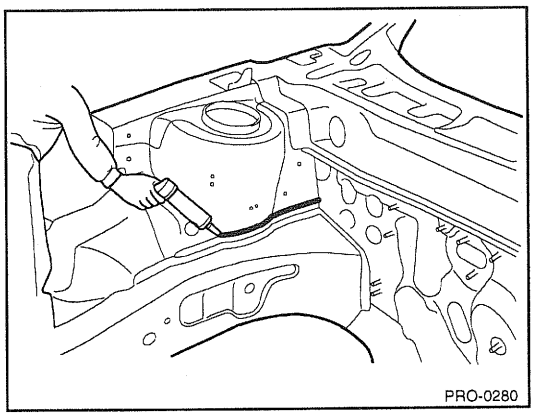
8. Install the cowl side upper outer panel in place.
9. MIG plug weld all holes.
10. Clean and prepare all welds, remove all residue.
11. Apply the two part epoxy primer to the interior of the each panel.


PRO-0260

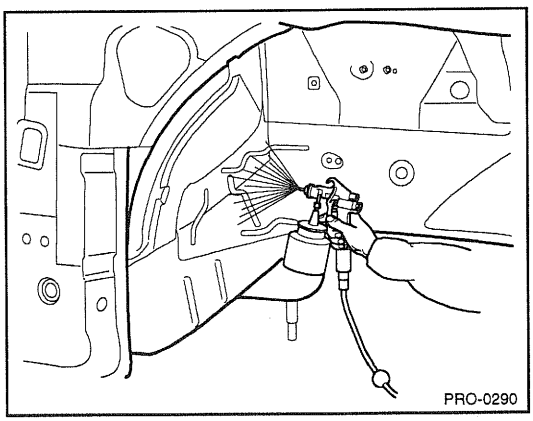
12. Apply an anti-corrosion agent as required (Refer to the CORROSION PROTECTION).
13. Prepare the exterior surfaces for priming using wax and grease remover.
14. Apply metal conditioner and water rinse.
15. Apply conversion coating and water rinse.
16. Apply the two-part epoxy primer.


PRO-0270

17. Apply the correct seam sealer to all joints carefully (Refer to the BODY SEALING LOCATION).
18. Reprime over the seam sealer to complete the repair.


PRO-0280

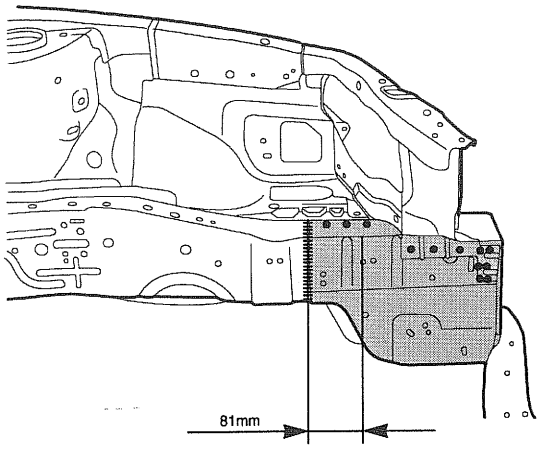
19. After completing body repairs, carefully apply under coating to the front sidemember and fender apron (Refer to the CORROSION PROTECTION).
20. In order to improve corrosion resistance, if necessary, apply an under body anti-corrosion agent to the panel which is repaired or replaced (Refer to the CORROSION PROTECTION).


PRO-0290

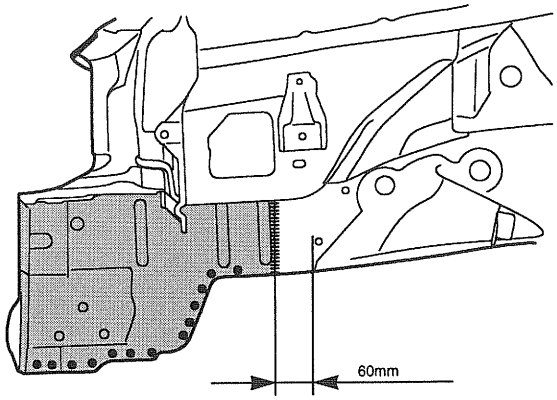
FRONT SIDE MEMBER (PARTIAL)

WELDLING POINTS

L/H



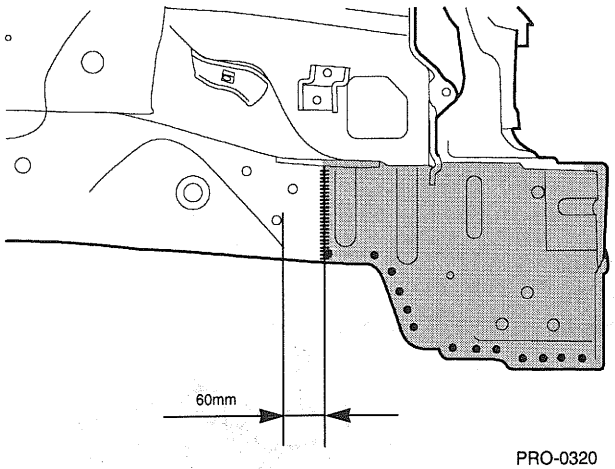
PRO-0300



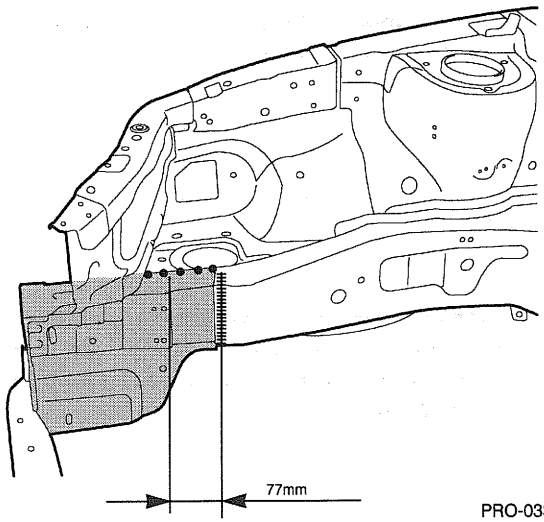
PRO-0310

● MIG plug welding
MIG butt welding

R/H



PRO-0320



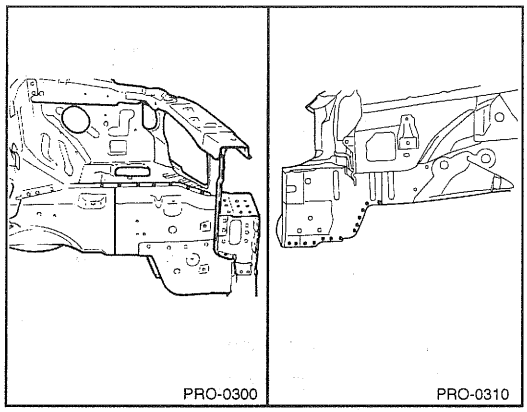
PRO-0330

● MIG plug welding
MIG butt welding

REMOVAL

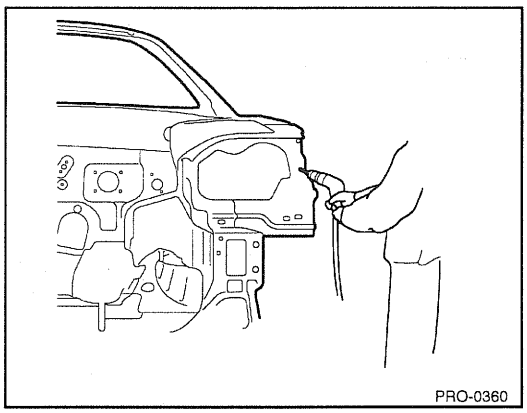
NOTE
This procedure is to be used only for repair of minor damage to the front side member and when it is impossible to straighten the damaged side member. The following procedure illustrates a repair for the front left side member.
The procedure may also be applied to the front right side-member.

1. Measure and mark the vertical cutlines on front side member outer and inner from rear edge of front side member gusset.

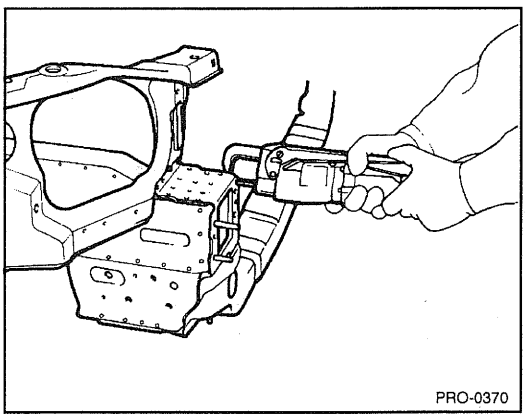


2. Drill out all the spotwelds to separate radiator support panel from front side member.

NOTE
1. **When spotwelded portions are not apparent, remove paint with a rotary wire brush.**



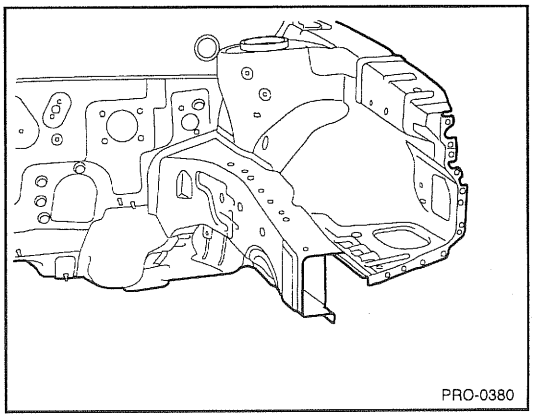
2. **In order to perform cutting and separation of spotwelded points use a spot weld cutter which is larger than the size of the nugget to make a hole only in the panels to be replaced.**



3. Cut through the front side member inner and outer at cutlines.

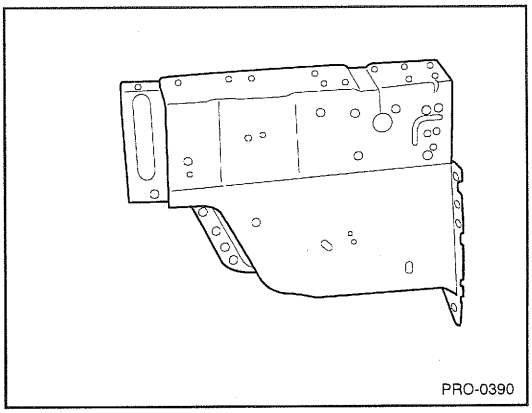
   NOTE
   Take care not to cut through front side member inner reinforcement.

4. Prepare all surfaces to be welded.

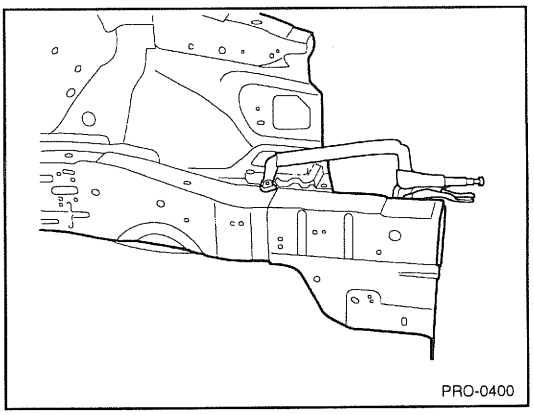

PRO-0380

INSTALLATION

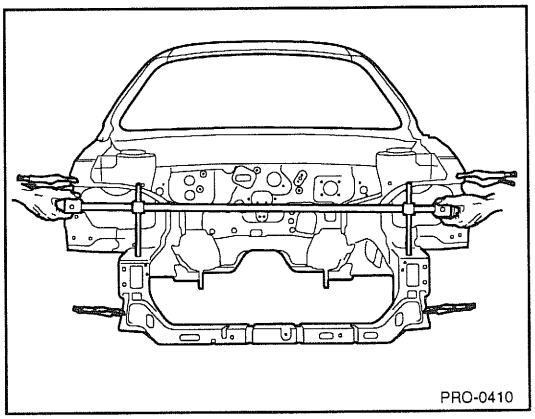
1. Transcribe the front side member inner and outer cutline to the new front side member, cut to length and chamfer butt end to improve weld surface.
2. Drill 8mm holes in new front side member for MIG plug welding.


PRO-0390

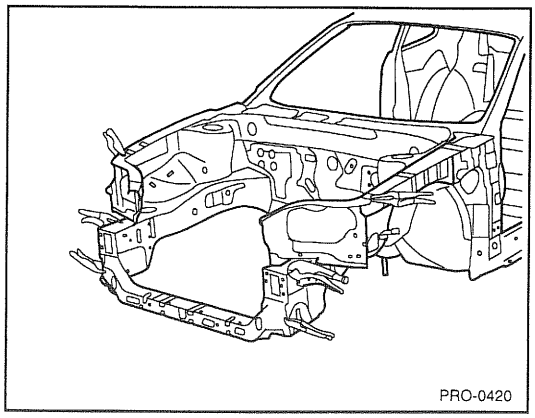
3. Fit and clamp the front side member inner and outer in place.
4. MIG plug weld all holes and MIG butt weld all seams.


PRO-0400

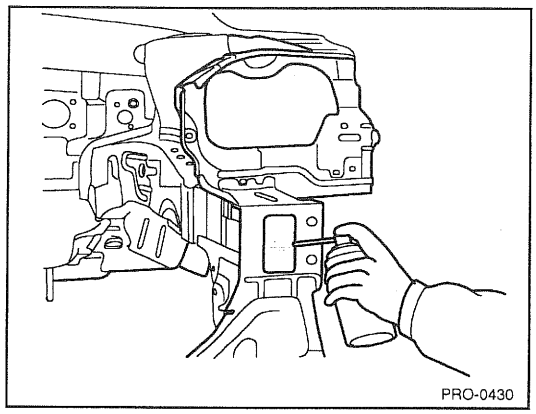
5. Measure each measurement point (Refer to the BODY DIMENSIONS) and correct the installation position.


PRO-0410

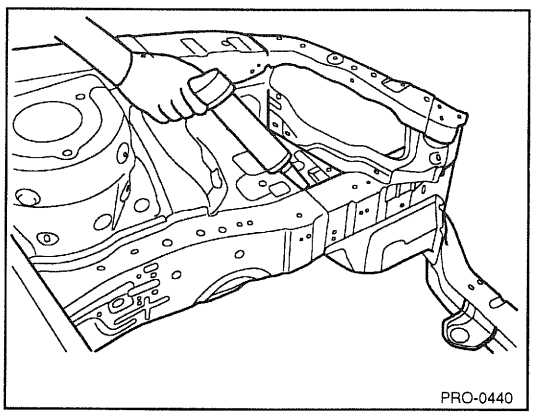
6. Fit and clamp the radiator support panel in place.
7. MIG plug weld all holes.
8. Clean and prepare all welds, remove all residue.
9. Apply the two-part epoxy primer to the interior of the front side member.


PRO-0420

10. Apply an anti-corrosion agent as required (Refer to the CORROSION PROTECTION).
11. Prepare the exterior surfaces for priming using wax and grease remover.
12. Apply metal conditioner and water rinse.
13. Apply conversion coating and water rinse.
14. Apply the two-part epoxy primer.

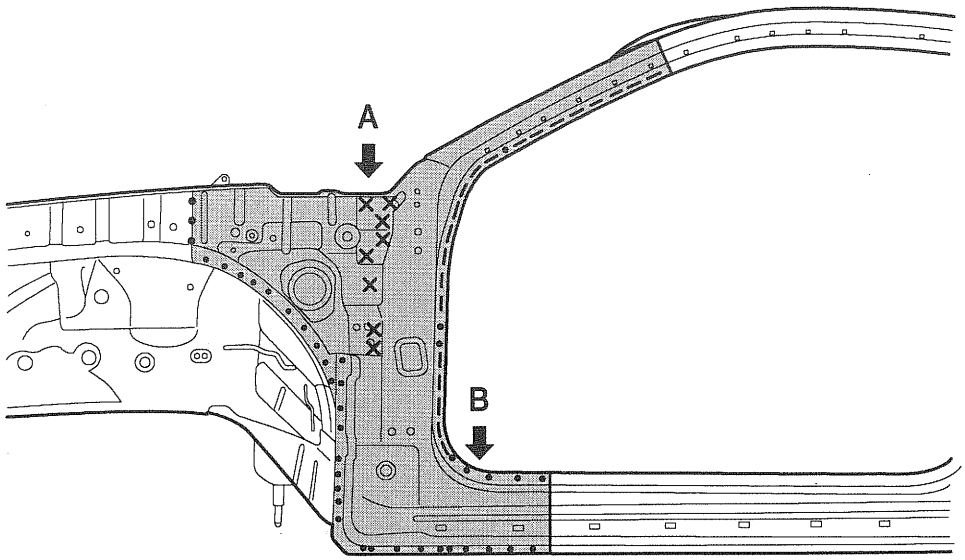

PRO-0430

15. Apply the correct seam sealer to all joints carefully (Refer to the BODY SEALING LOCATIONS).
16. Reprime over the seam sealer to complete the repair.

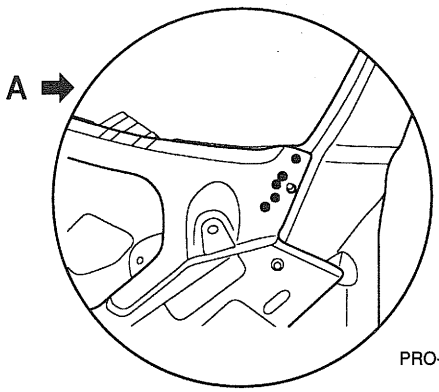

PRO-0440

FRONT PILLAR

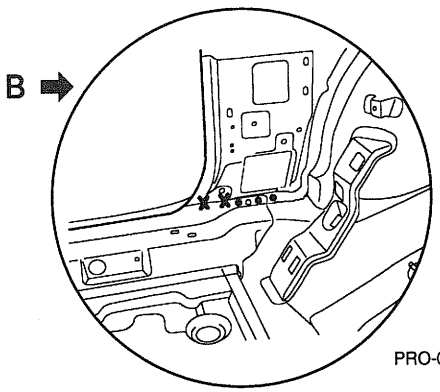
WELDLING POINTS



PRO-0460



PRO-0450

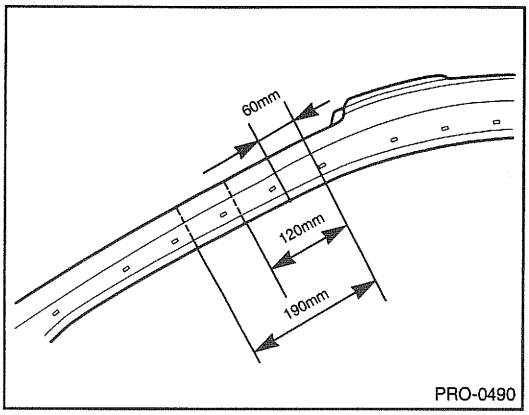


PRO-0480

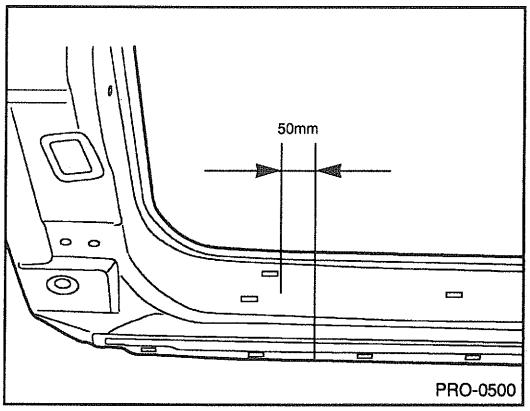
- ● MIG plug welding
- ||| MIG butt welding
- ×× MIG lap welding

REMOVAL

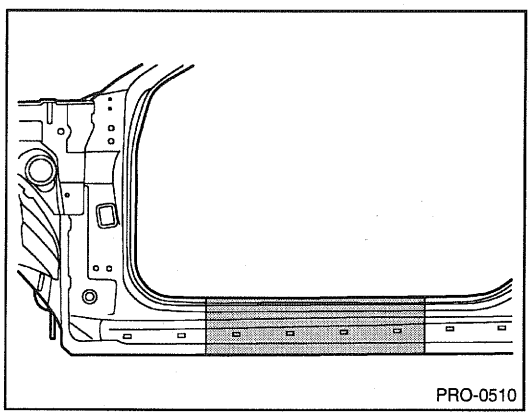
1. Measure and mark the each cutline on the front outer pillar, front outer upper pillar and front inner upper pillar from the windshild glass moulding mounting hole indicated in the illustration.



2. Measure and mark the cutline on front side sill outer panel as shown in the illustration.

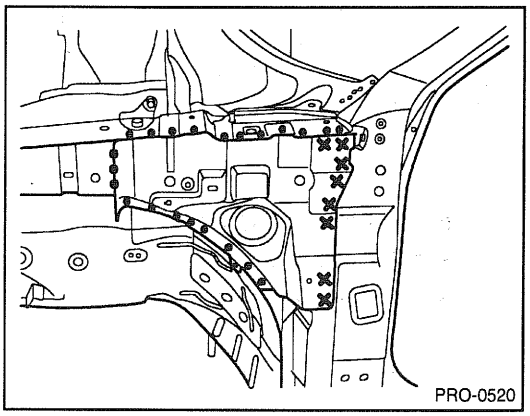


3. Depending on the extent of damaged area, it may be possible to determine the cutting range within indicated in the illustration.

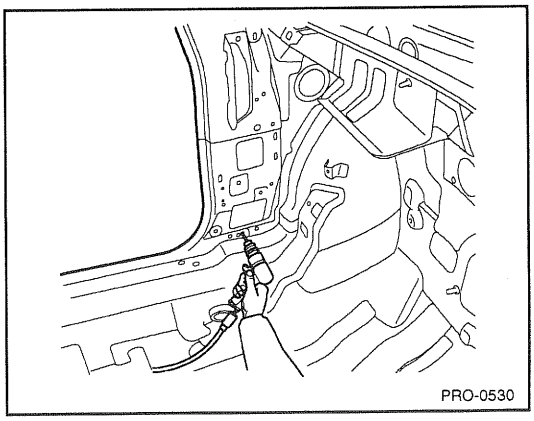


4. To remove the front pillar, grind away and drill out all welds attaching the cowl side upper outer panel as illustration.

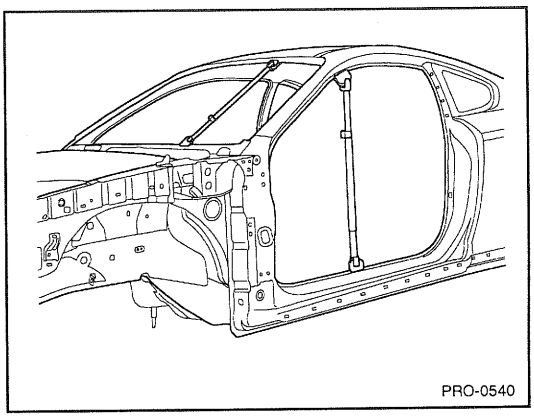
NOTE
If it is possible that the cowl side upper outer panel is reusable, be careful not to damage it while removing.



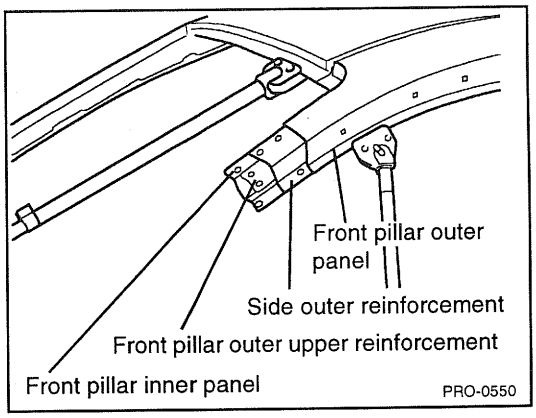
5. Drill out all welds attaching the front pillar to dash, cowl top outer and cowl inner lower panel.
6. Remove spotwelds and lap welds attaching cowl crossmember bar mounting upper bracket to remove front pillar.


PRO-0530

7. Before cutting front pillar, be sure to support roof panel.


PRO-0540

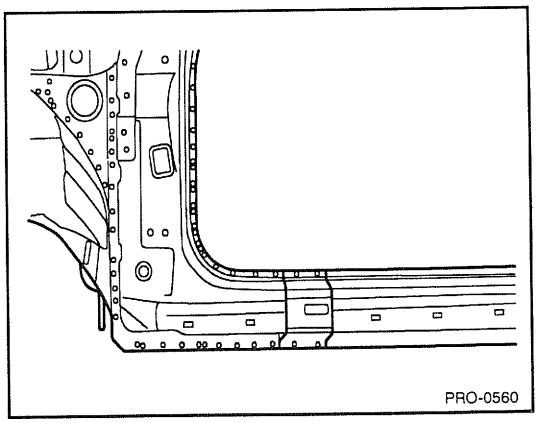
8. Cut the front pillar through each cutline, taking care not to damage the other panel as illustration.



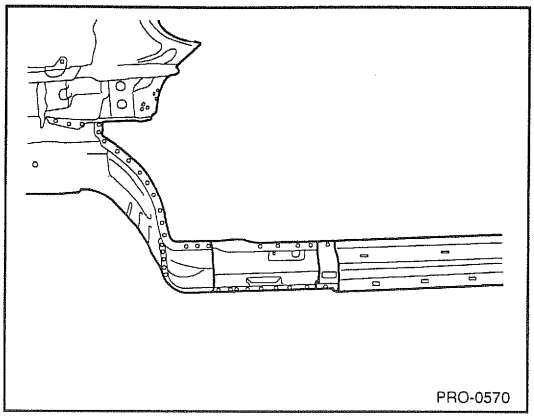
PRO-0550

9. Before cutting the front side sill outer panel, make a rough cut the front side sill outer panel only.

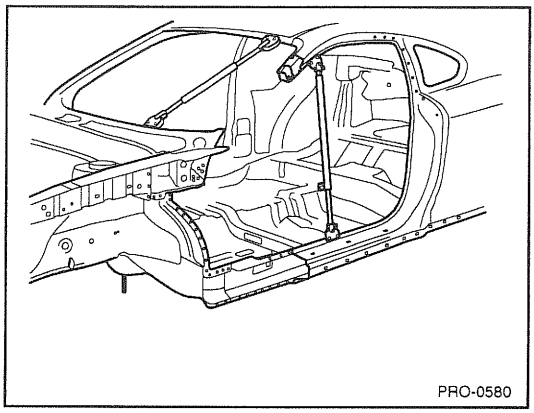
NOTE
When cutting the front side sill outer panel, be careful not to cut side sill outer front reinforcement.


PRO-0560

10. Cut the side sill outer front reinforcement as illustration.
11. Cut the front side sill outer panel vertical cutline and remove the front pillar.

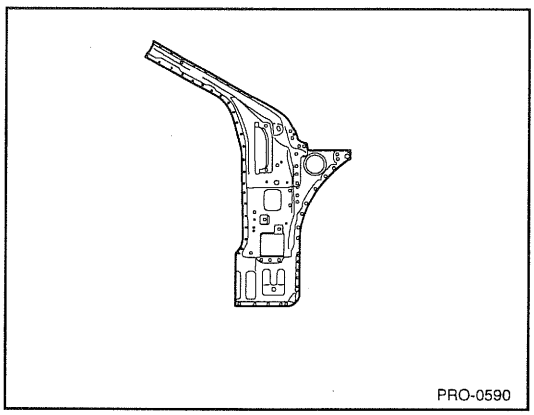

PRO-0570

12. Straighten all flanges as necessary, prepare all surfaces to be welded.

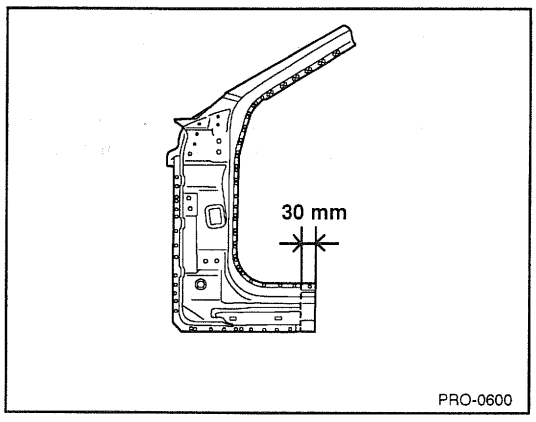

PRO-0580

INSTALLATION

1. Transcribe the cutline to the new front inner upper pillar, cut to length and chamfer butt end to improve weld surface.

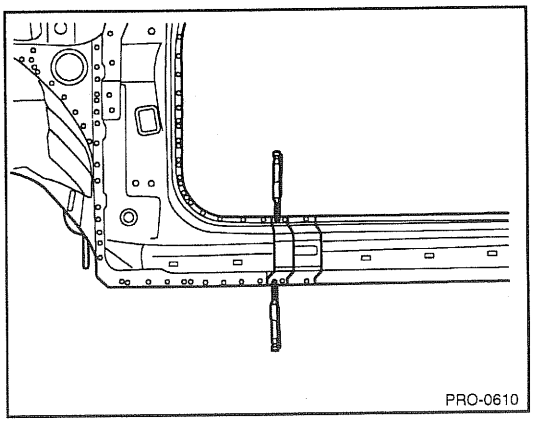

PRO-0590

2. Transcribe the cutline to the new front side sill outer panel and new front pillar, adding 30mm overlap to end and cut to length.
3. Drill 8mm holes along outer panel flanges in production location for attachment to other panels.

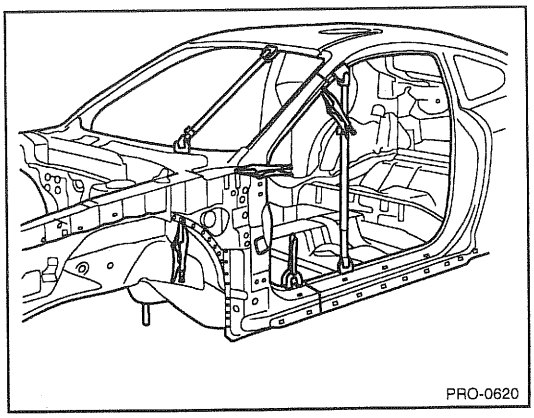


PRO-0600

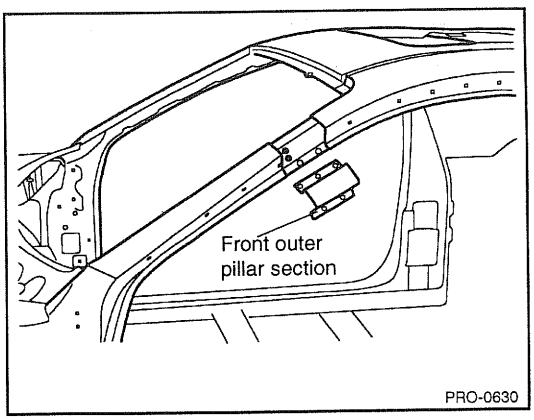
4. Transcribe the cutline to the new side sill outer front reinforcement panel, adding 30mm overlap to end and cut to length.
5. Drill 8mm holes in the side sill outer front reinforcement for MIG plug welding.
6. Fit and clamp the new side sill outer front reinforcement panel in place for welding.
7. MIG plug weld all holes and MIG butt weld the seams.


PRO-0610

8. Temporarily install front inner pillar and front side outer panel in place.
9. Measure and each measurement point (Refer to the BODY DIMENSIONS) and correct the installation position.
10. If necessary, make temporary welds, and then check to confirm that the closing and fit for windshield glass, door and fender are correct.

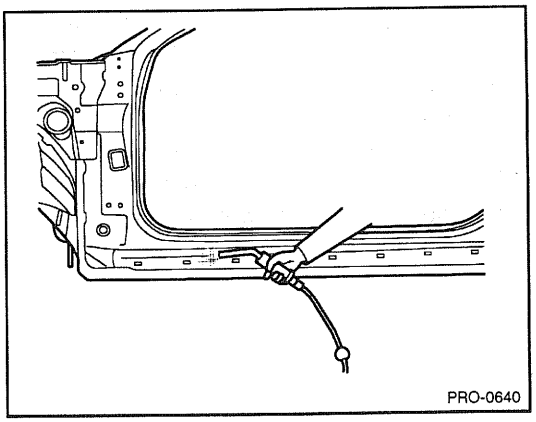

PRO-0620

11. MIG butt weld front outer pillar and front side outer panel seams.
12. Reattach the cut away front inner pillar section, then MIG butt weld.



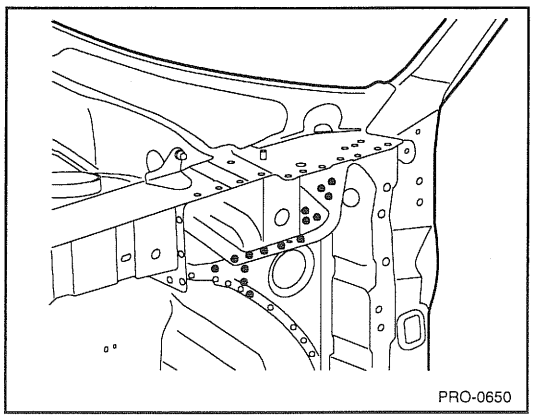
PRO-0630

13. MIG plug weld all holes and MIG butt weld all seams in the front side sill outer panel.
14. Clean and prepare all welds, remove all residue.
15. Apply body filler to joints and sand as needed.
16. Apply the two-part epoxy primer to the interior of the front pillar.

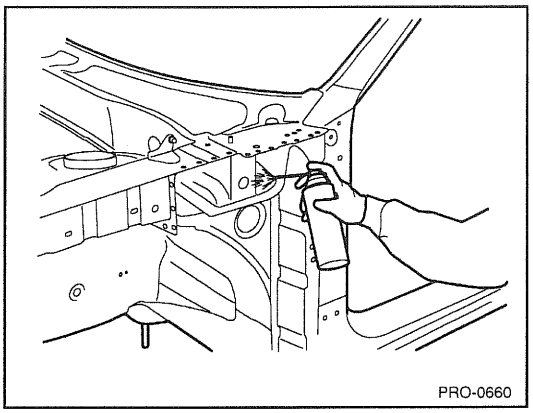

PRO-0640

17. Clean all welds with a disc grinder.

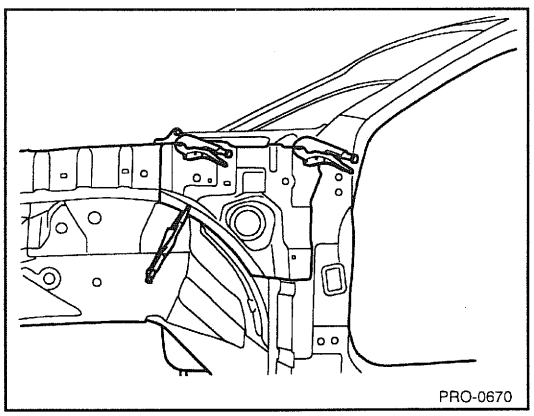
    NOTE
    1. **Be careful not to grind welded portions too much.**
    2. **The internal parts will be stronger if the weld traces are not ground.**


PRO-0650

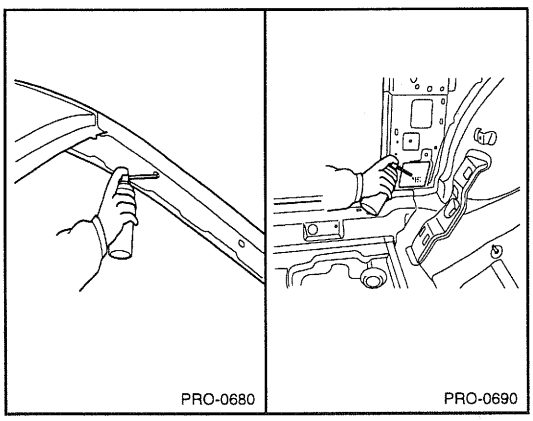
18. Before welding the cowl side upper outer panel, apply the two part epoxy primer and anti-corrosion agent to the interior of the fender apron panel.


PRO-0660

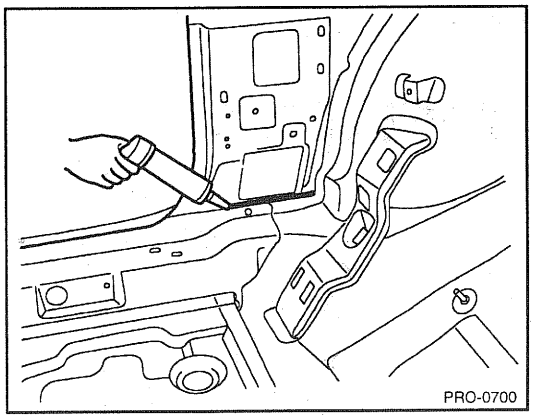
19. Install the cowl side upper outer panel in place.
20. MIG plug weld all holes.
21. Clean and prepare all welds, remove all residue.


PRO-0670

22. Apply an anti-corrosion agent to the welded parts and inside of front pillar (Refer to the CORROSION PROTECTION).
23. Prepare exterior surfaces for priming, using wax and grease remover.
24. Apply metal conditioner and water rinse.
25. Apply conversion coating and water rinse.
26. Apply the two-part epoxy primer.

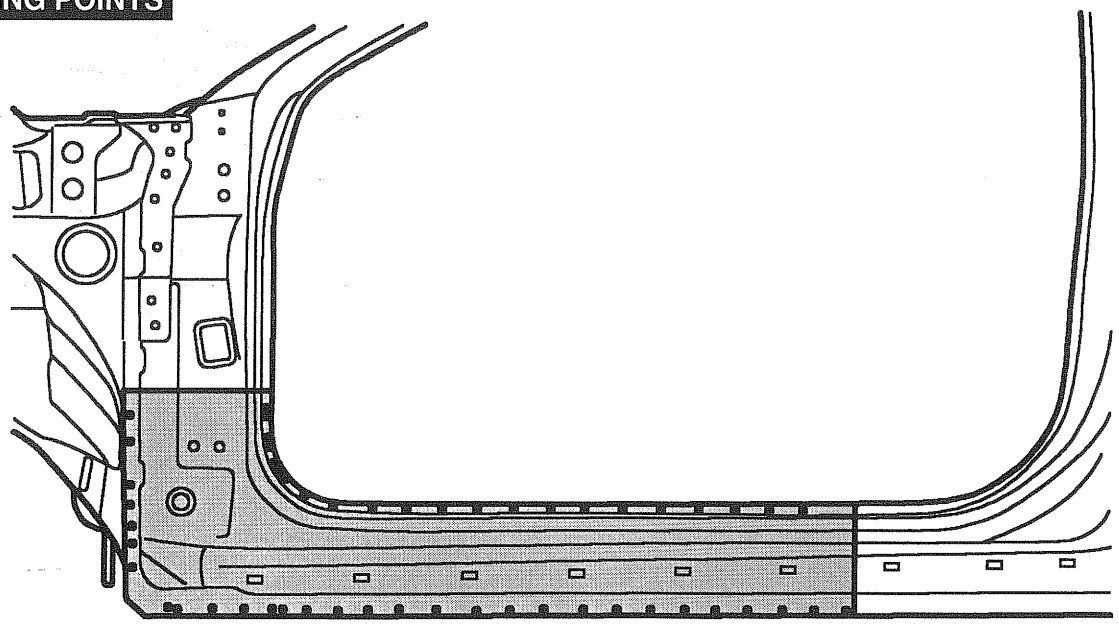

PRO-0680 PRO-0690

27. Apply the correct seam sealer to all joints carefully (Refer to the BODY SEALING LOCATIONS).
28. Reprime over the seam sealer to complete the repair.



SIDE SILL (ASSEMBLY)

WELDLING POINTS

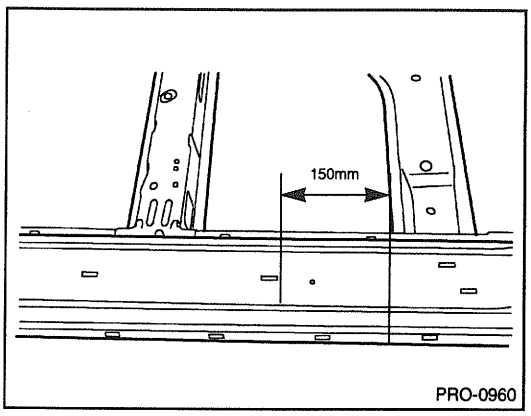


● MIG plug welding
MIG butt welding

PRO-0950

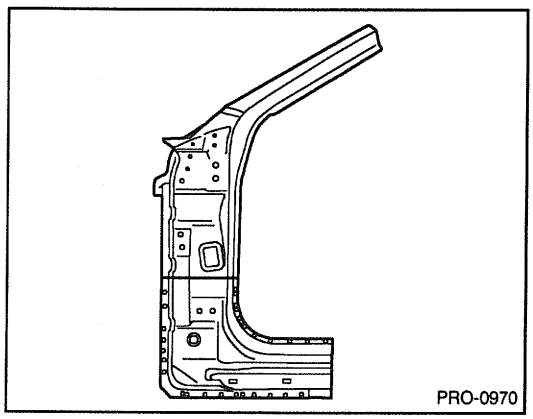
REMOVAL

1. Measure and mark vertical cutline from the rear door scuff trim mounting hole on the rear side sill outer panel.



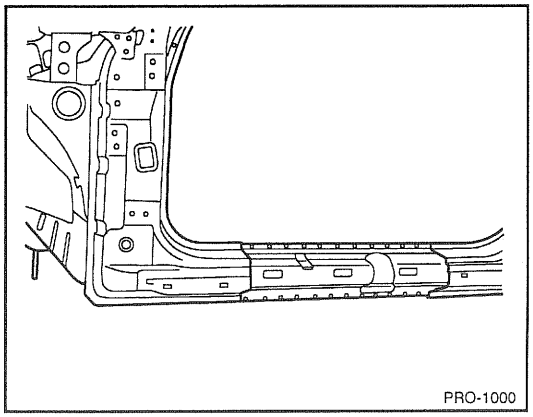
PRO-0960

2. At the front and side sill, measure and mark horizontal cutlines from the door hinge mounting hole on the side outer panel as illustration.

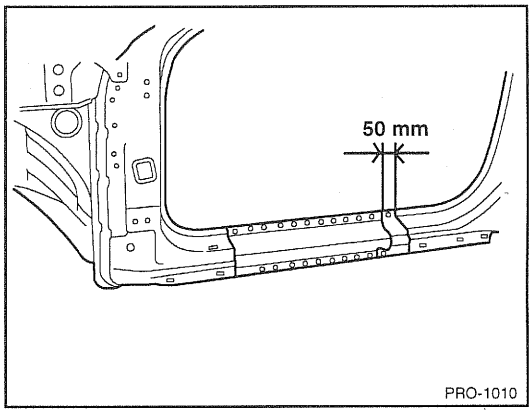


PRO-0970

3. Cut the side sill outer panel along cutlines. Be careful not to cut mating flanges.
4. Drill out all spotwelds, attaching the side sill outer panel.
5. Remove the side sill outer panel.


PRO-1000

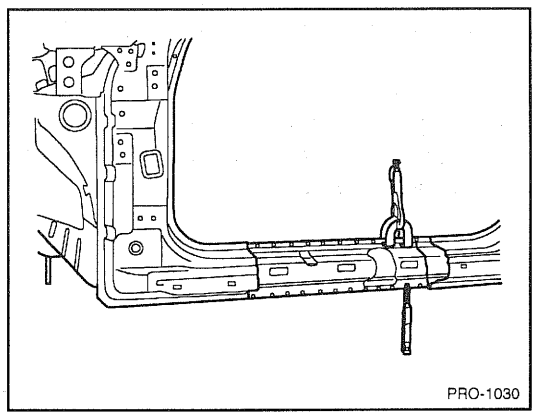
6. Determine if the side outer reinforcement is damaged and needs to be replaced, measure cutline on reinforcement as illustration.
7. Cut side outer reinforcement along the cutline.
8. Drill out spotwelds attaching the side outer reinforcement to the body and remove side sill outer reinforcement.
9. Prepare all surfaces to be welded.



PRO-1010

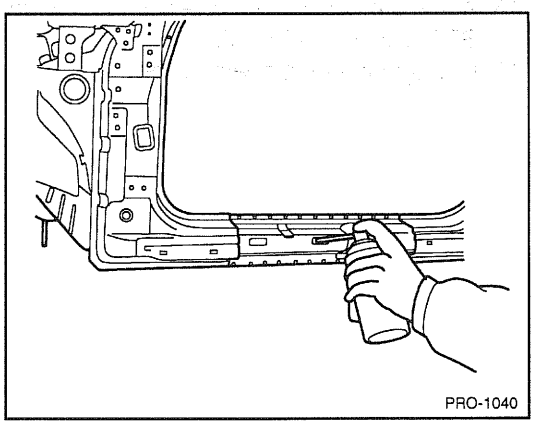
INSTALLATION

1. Transcribe cutline dimension to side outer reinforcement, adding 30mm overlap to rear end and cut to length.
2. Drill 8mm holes in overlap area on rear end and along front flange.
3. Fit and clamp the side outer reinforcement in place.
4. MIG plug weld all holes and MIG butt weld seams.

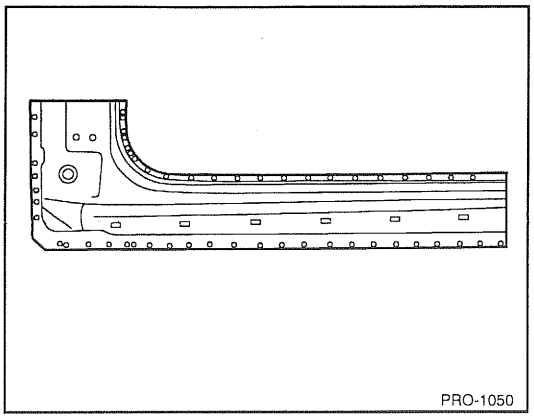

PRO-1030

5. Before welding the side sill outer panel, apply the two-part epoxy primer and anti-corrosion agent to the welded parts.

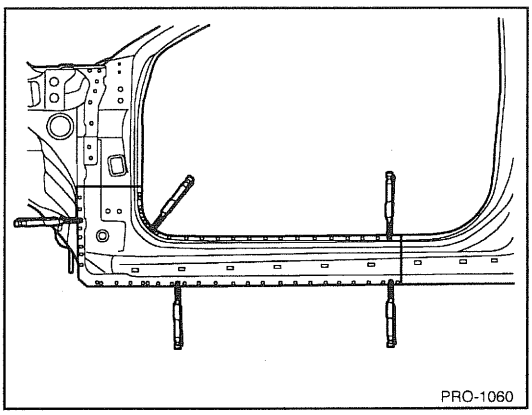
NOTE
The reinforcement will be stronger if the weld traces are not ground.


PRO-1040

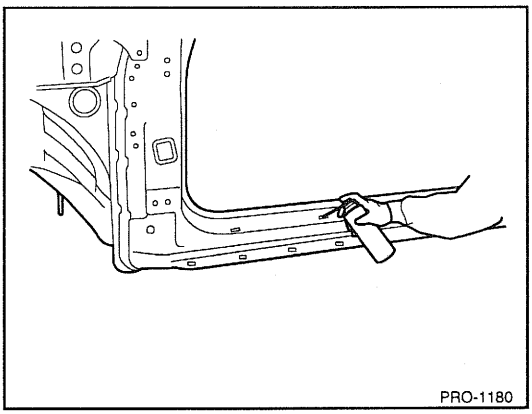
6. Using service panel for replacement of side sill outer panel, drill 8mm holes in overlap areas and along upper and lower flanges.


PRO-1050

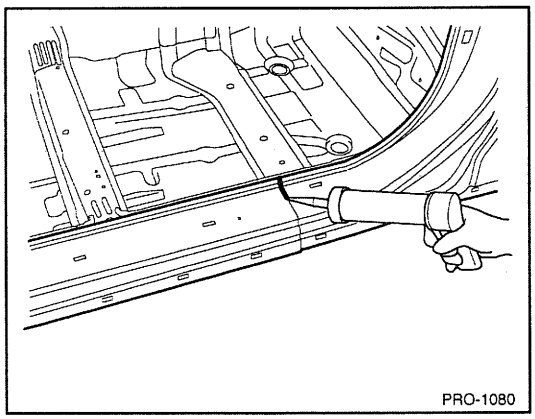
7. Crimp flanges on the remaining portion of the side sill outer panel at all joint for overlap.
8. Fit and clamp the side sill outer panel in place.
9. MIG plug weld all holes and MIG butt weld seams.
10. Clean and prepare all welds and remove all residue.
11. Apply body filler to the side sill outer seams.
12. Apply the two-part epoxy primer to the interior of the side sill.


PRO-1060

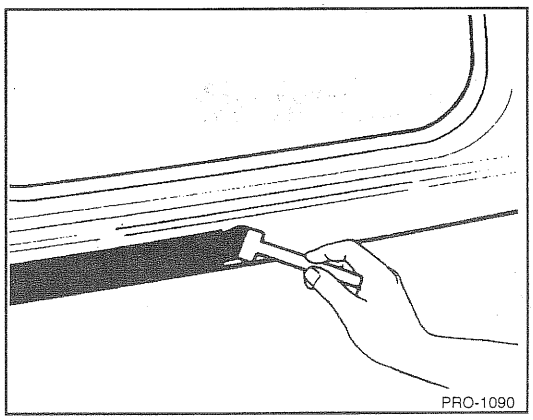
13. Apply an anti-corrosion agent to welded parts and interior of the side sill (Refer to the CORROSION PROTECTION).
14. Prepare the exterior surfaces for priming, using wax and grease remover.
15. Apply metal conditioner and water rinse.
16. Apply conversion coating and water rinse.
17. Apply the two-part epoxy primer.


PRO-1180

18. Apply the correct seam sealer to all joints (Refer to the BODY SEALING LOCATIONS).
19. Reprime over the seam sealer.

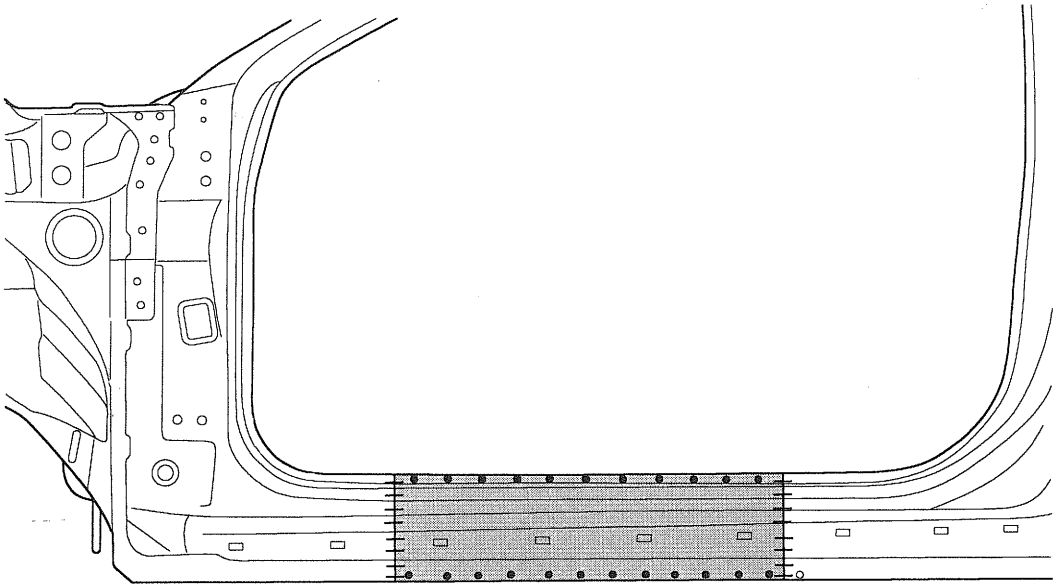

PRO-1080

20. Apply the anti-corrosion primer to the side sill outer panel to complete the repair (Refer to the CORROSION PROTECTION).



SIDE SILL (PARTIAL)

WELDLING POINTS

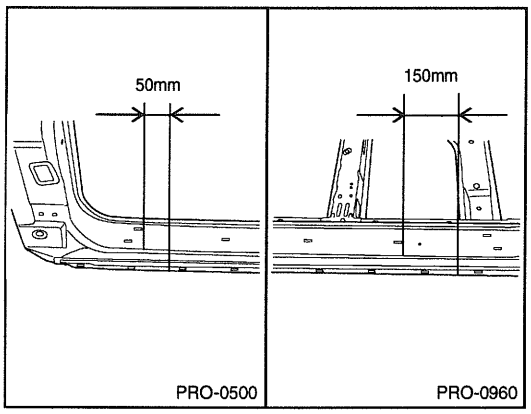


● MIG plug welding
MIG butt welding

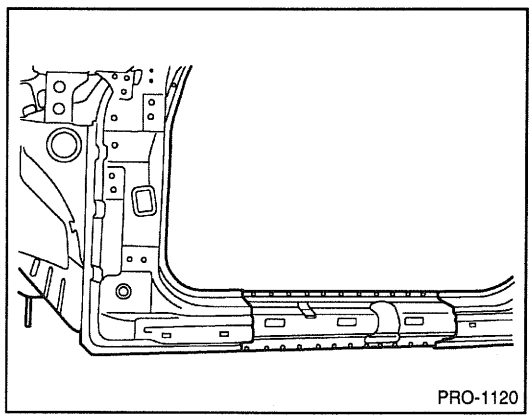
PRO-0955

REMOVAL

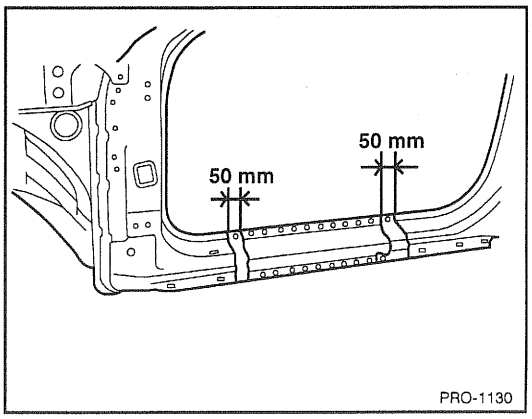
1. Depending on the extent of damage, mark out the damaged portion of the side sill.



2. Drill out the spotwelds in upper and lower flanges of side sill between cutlines to remove side sill outer panel and cut the damaged portion of the side sill at the cutlines.



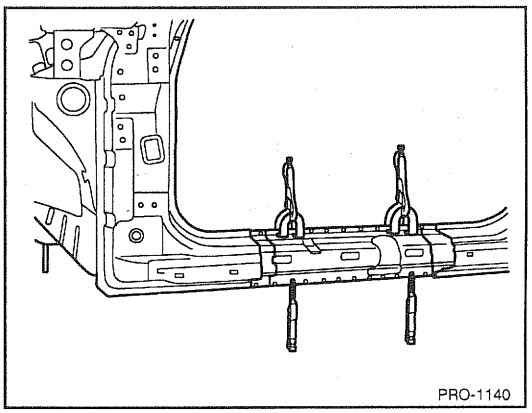
3. Determine if the side outer reinforcement is damaged and needs to be replaced. If replacing is necessary, mark out the damaged portion of the side outer reinforcement. Cut at cutlines and remove the damaged portion.
4. Prepare all surfaces to be welded.



PRO-1130

INSTALLATION

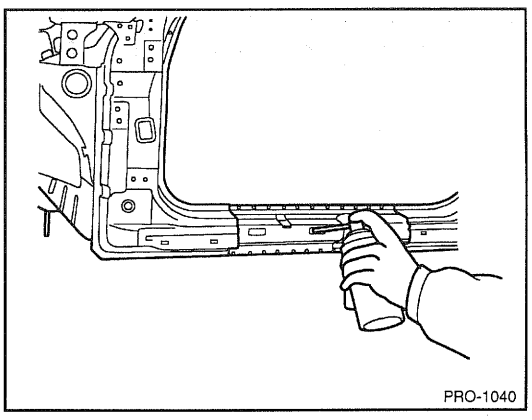
1. Transcribe the cutline to the new side outer reinforcement, adding 30 mm overlap to each end and cut to length.
2. Drill 8 mm holes in overlap areas on each end and upper flange of new side outer reinforcement and clamp the new side outer reinforcement in place.


PRO-1140

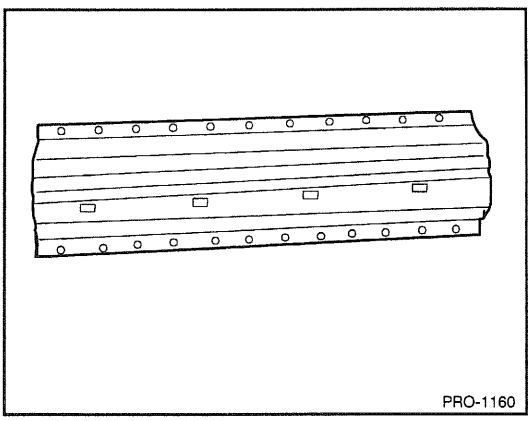
3. MIG plug weld all holes and MIG butt weld all seams.

   NOTE
   The reinforcement will be stronger if the weld traces are not ground.

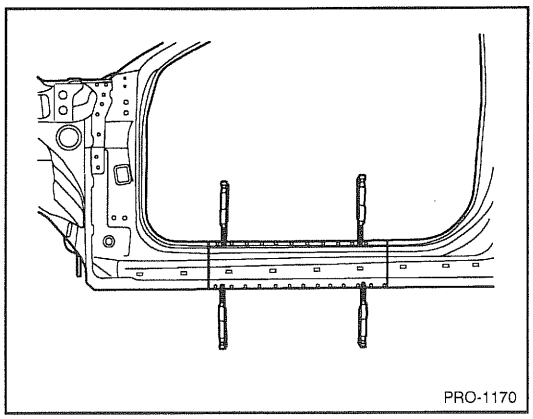
4. Before welding the side sill outer panel, apply the two part epoxy primer and anti-corrosion agent to the welded parts.


PRO-1040

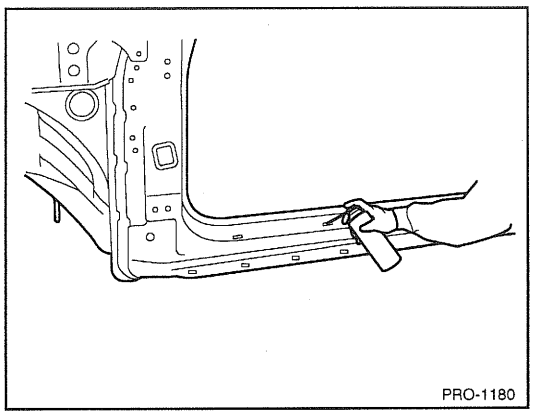
5. Transcribe the side sill outer panel cutline to the new side sill, adding 30 mm overlap to each end, cut and chamfer butt end to improve weld surface.
6. Drill 8 mm holes in overlap areas on each end and along upper and lower flanges of the new side sill outer panel for MIG plug welding.


PRO-1160

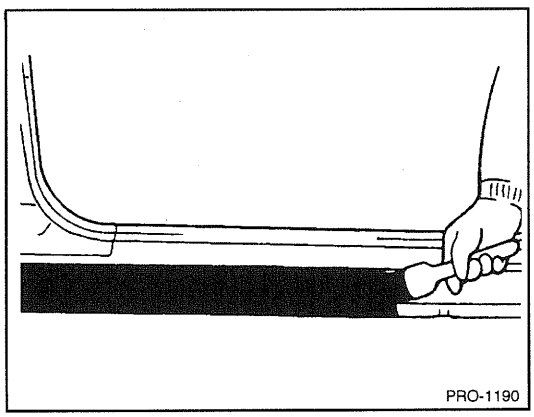
7. Fit and clamp the side sill in place.
8. MIG plug weld all holes and MIG butt weld seams.
9. Clean and prepare all welds, remove all residue.
10. Apply body filler to the side sill outer seams.
11. Apply the two-part epoxy primer to the interior of the side sill.


PRO-1170

12. Apply an anti-corrosion agent to the welded parts and interior of the side sill (Refer to the CORROSION PROTECTION).
13. Prepare the exterior surfaces for priming, using wax and grease remover.
14. Apply metal conditioner and water rinse.
15. Apply conversion coating and water rinse.
16. Apply the two-part epoxy primer.

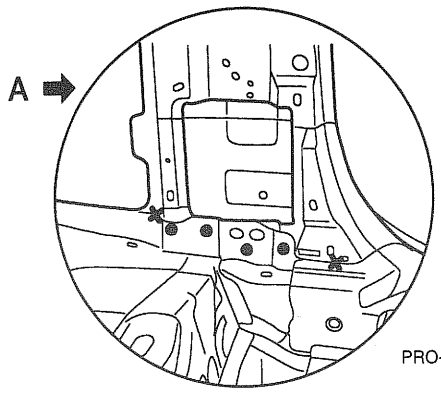

PRO-1180

17. Apply the anti-corrosion primer to the side sill outer panel to complete the repair (Refer to the CORROSION PROTECTION).

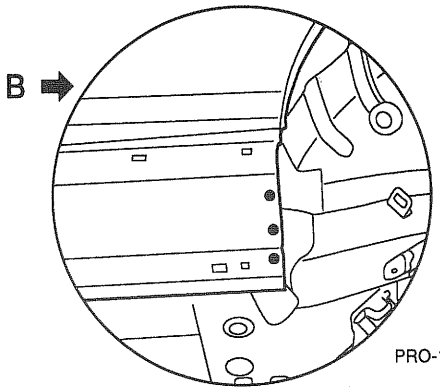

PRO-1190

QUARTER PANEL

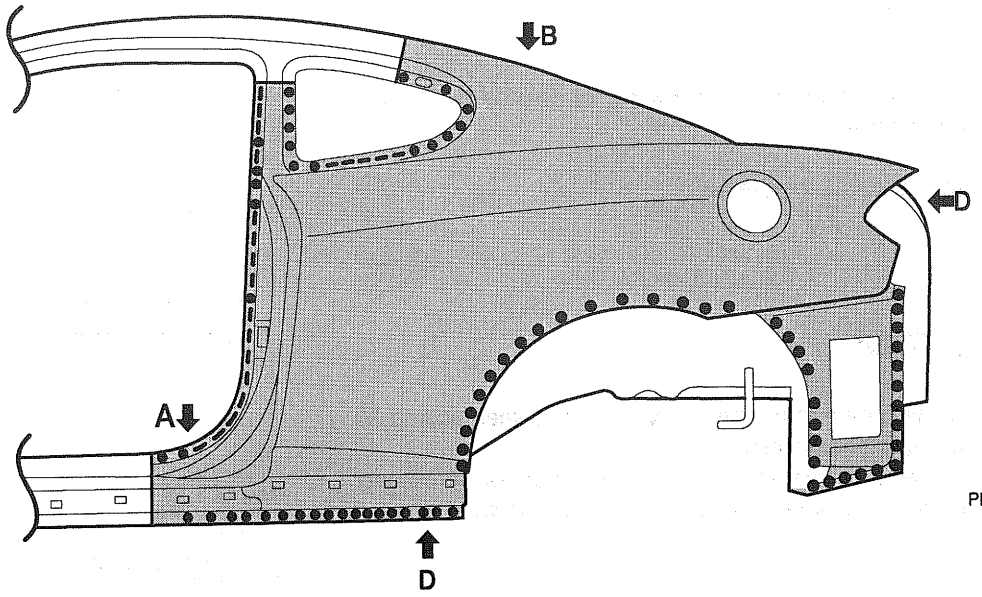
WELDLING POINTS



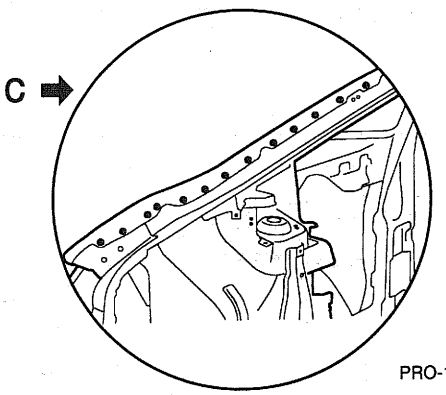
PRO-1200



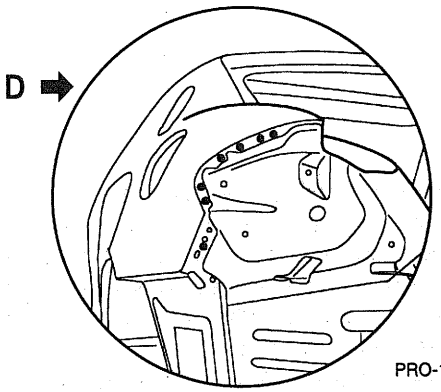
PRO-1201



PRO-1230



PRO-1202

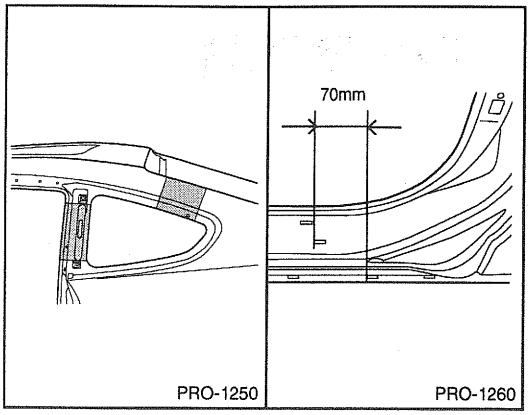


PRO-1203

● MIG plug welding
MIG butt welding
×× MIG lap welding

REMOVAL

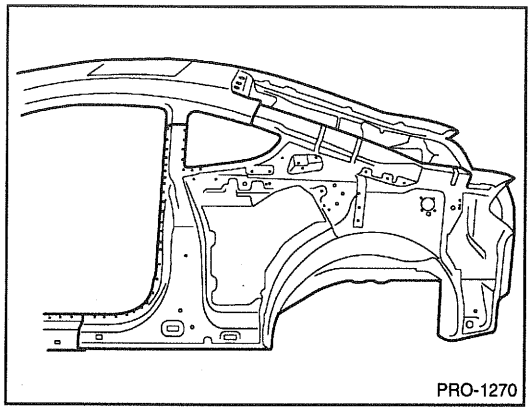
1. Depending on the extent of damage, measure and mark cutlines on the quarter outer panel as illustration.



2. Drill out all attaching welds on the quarter outer panel, including the seam around the door lip opening.
3. Cut the quarter outer panel at cutlines and remove the quarter outer panel as illustration.

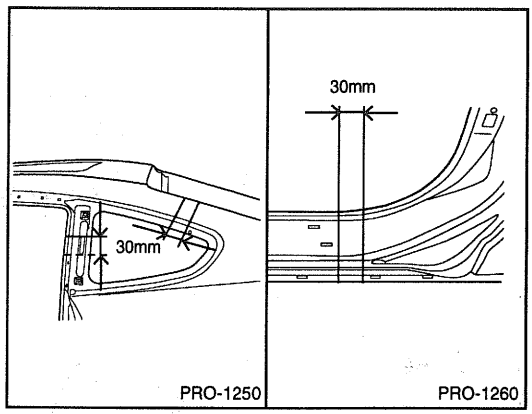
NOTE
When cutting the quarter outer panel, be careful not to cut quarter inner panel.

4. Prepare all surfaces to be welded.

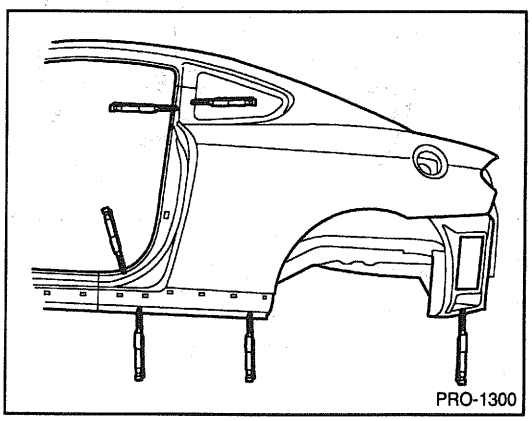


INSTALLATION

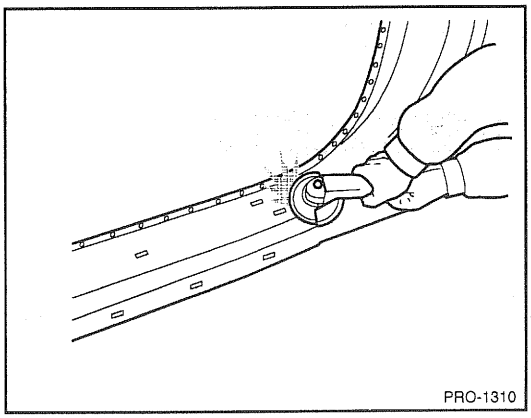
1. Transcribe the cutline to the new quarter outer panel, adding 30 mm for overlap at the old joint.
2. Drill 8 mm holes in overlap areas and along upper and lower flanges of the new quarter outer panel for MIG plug welding.



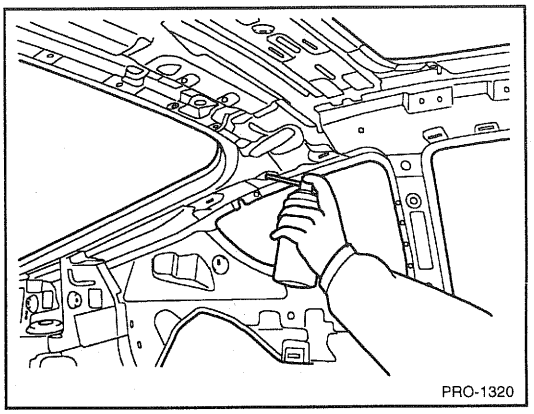
3. Fit and clamp the quarter outer panel in place.
4. MIG plug weld all holes and MIG butt weld seams. At the wheel well the edge must be crimped over the wheel housing.
   This joint may be welded after crimping or may be made by applying a bead of adhesive which may be applied to the joint before or after crimping.
5. Clean and prepare all welds, remove all residue.



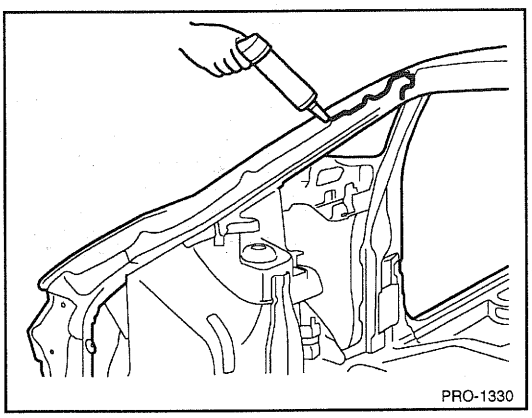
6. Apply body filler to the welded seam. Sand and finish. Apply the two-part epoxy primer to the interior of the quarter outer panel.


PRO-1310

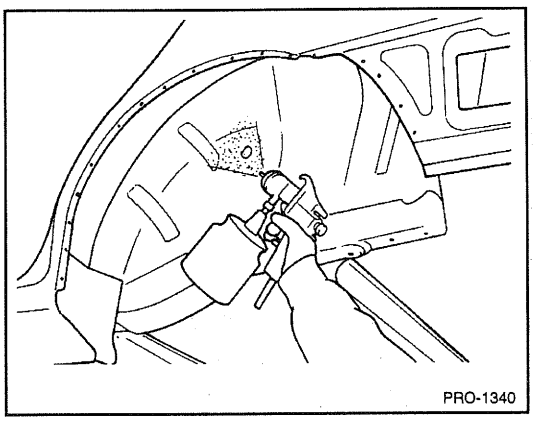
7. Apply an anti-corrosion agent to the welded parts and interior of the quarter outer panel (Refer to the CORROSION PROTECTION).
8. Prepare exterior surfaces for priming, using wax and grease remover.
9. Apply metal conditioner and water rinse.
10. Apply conversion coating and water rinse.
11. Apply the two-part epoxy primer.


PRO-1320

12. Apply the correct seam sealers to all joints.
13. Reprime over the seam sealer to complete the repair.

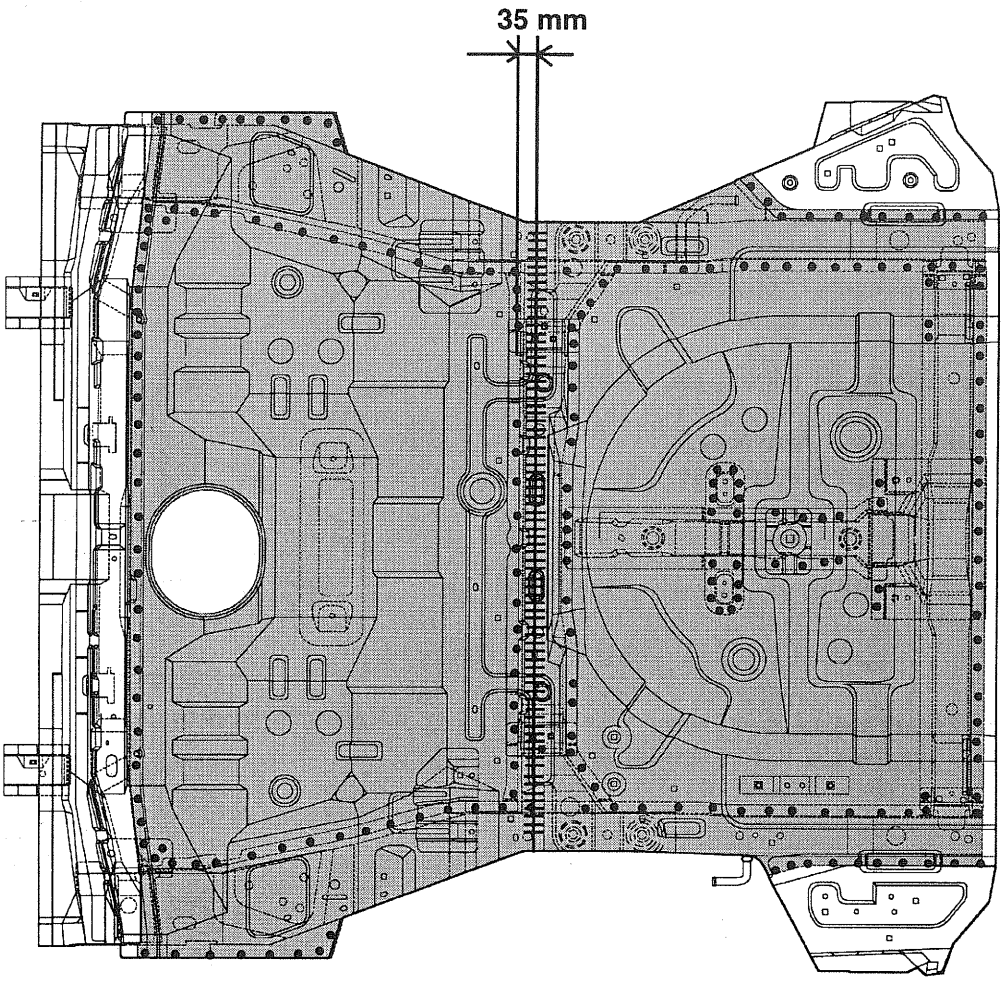

PRO-1330

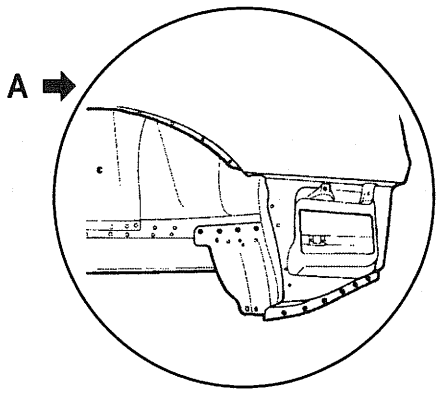
14. In order to improve corrosion resistance, if necessary, apply an under body anti-corrosion agent to the wheel well (Refer to the CORROSION PROTECTION).


PRO-1340

REAR FLOOR

WELDLING POINTS



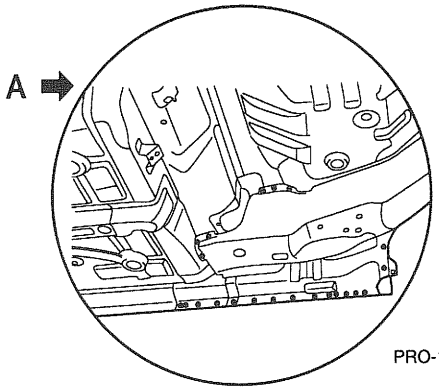


PRO-1521

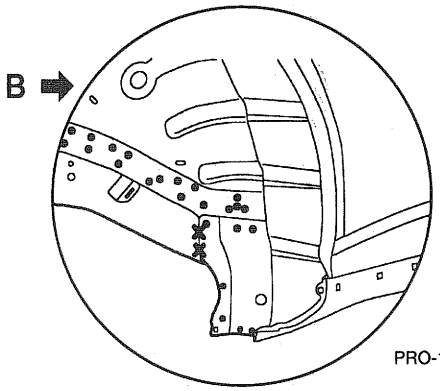
● MIG plug welding
MIG butt welding
MIG lap welding

REAR SIDE MEMBER (ASSEMBLY)

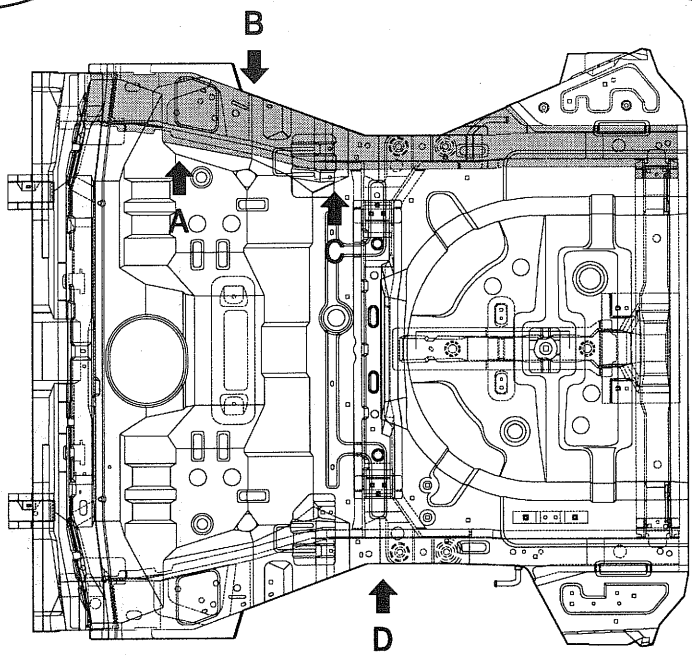
WELDLING POINTS



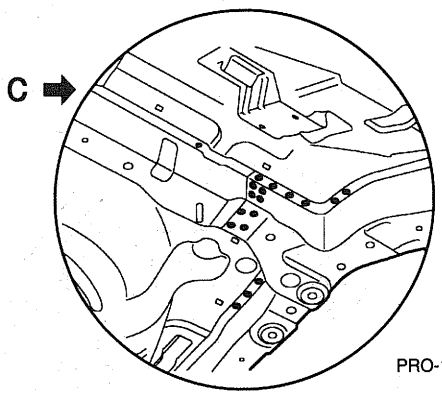
PRO-1500



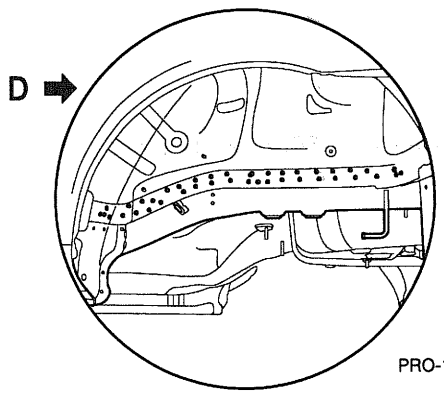
PRO-1501



PRO-1520



PRO-1502



PRO-1503

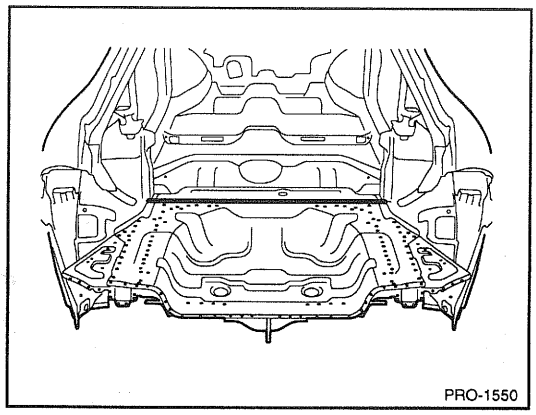
● MIG plug welding
MIG butt welding

NOTE
Because the rear side members are desigened to absorb energy during a rear collision, care must be taken when deciding to use this repair method. This repair is recommended only for moderate damage to vehicle, where distortions do not extend forward of the trunk region. If the damage is more severe, then the entire side member assembly should be replaced at factory seams without employing this sectioning procedure.

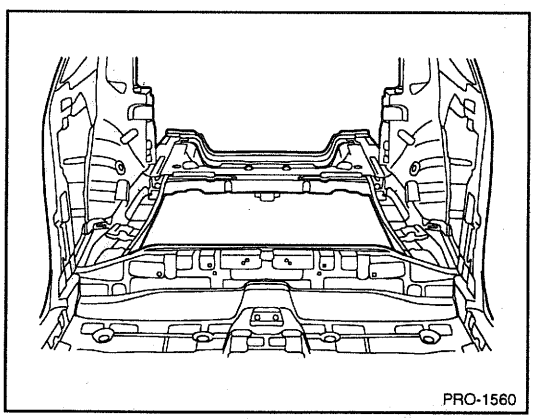
Refer to the body dimension chart and measure the vehicle to determine straigthening and alignment requirements. **The body must be returned to its original dimension before beginning the repair procedure.**

REMOVAL

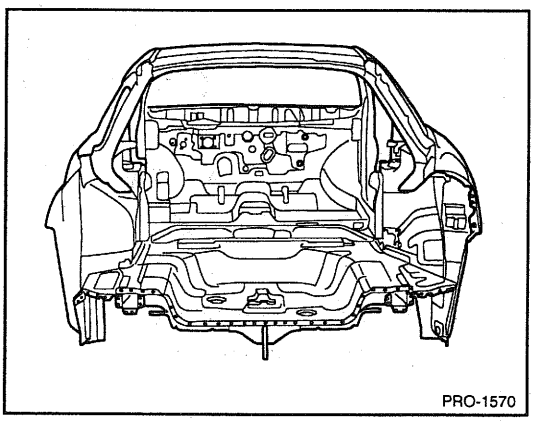
1. Drill out all the spotwelds attaching the rear floor panel to the wheel housings and rear side members.
2. Make a rough cutting of the rear floor panel as shown in the figure.


PRO-1550

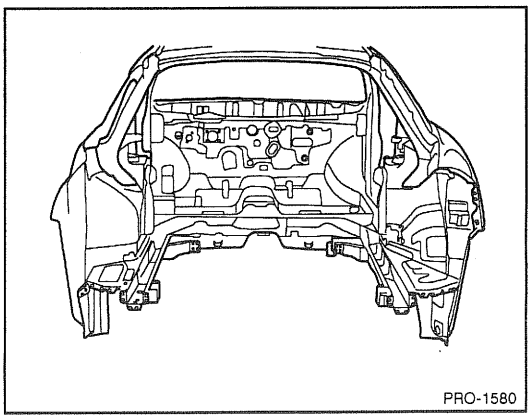
3. Remove the rear floor panel (front section).

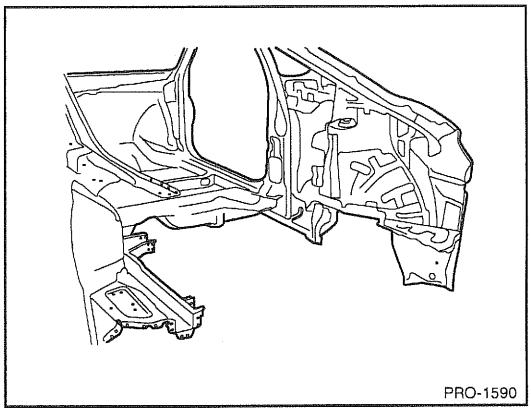

PRO-1560

4. Remove the back panel by drilling out all attaching spotwelds.


PRO-1570

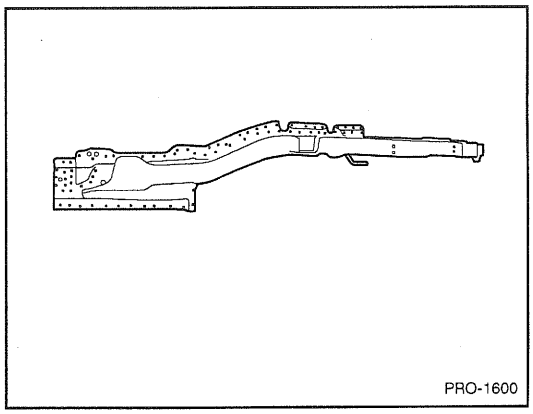
5. Remove the rear floor panel (rear section) and rear side member from the rear body.


PRO-1580


PRO-1590

INSTALLATION

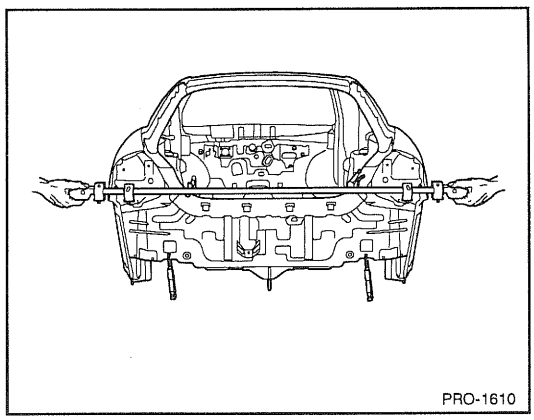
1. Transcribe the cutline to the new rear side members. Drill out the spotwelds attaching the inner reinforcements.
   Remove remaining portions of side members.


PRO-1600

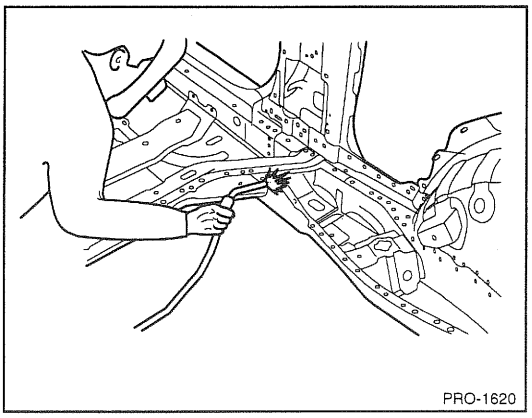
2. Temporarily fit and clamp the rear side members in place.

   NOTE
   When installing the rear floor side member, temporarily install the back panel to measure each measurement point.

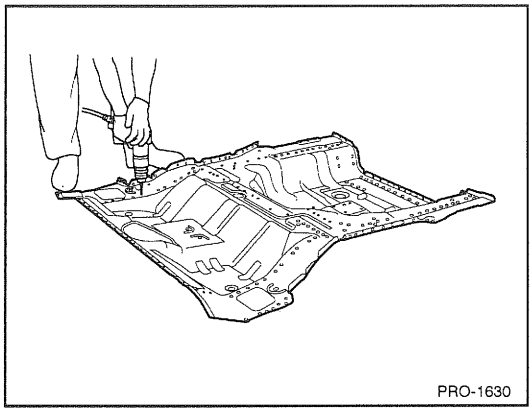
3. Measure each measurement point (Refer to BODY DIMENSIONS) and correct the installation position.
4. If necessary, make temporarily welds, and then check to confirm that the fit of rear floor panel is correct.


PRO-1610

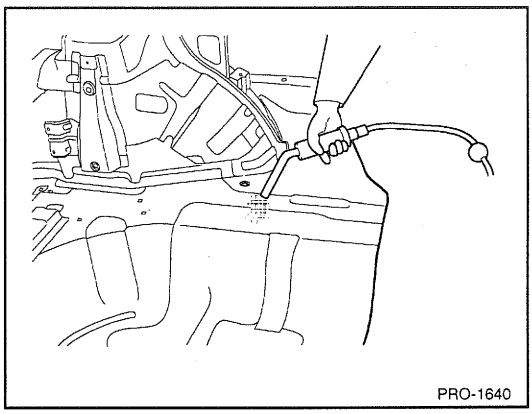
5. MIG plug weld the rear side members and MIG butt weld seams.
6. Prepare the welds and surfaces to which the rear floor will attach.
7. Transcribe the cutline to the new rear floor panel, adding 30mm for overlap at the old joint.


PRO-1620

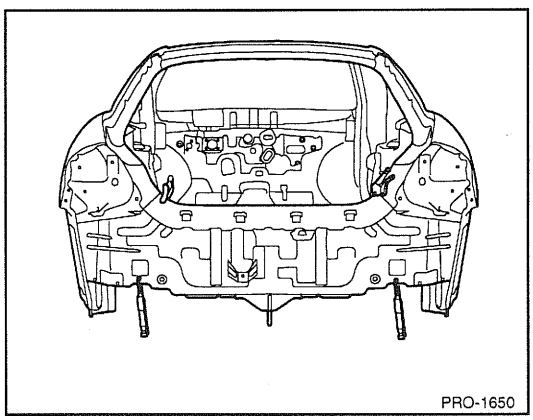
8. Drill 8mm holes in overlap area and production locations of the new rear floor panel for MIG plug welding.
9. Fit and clamp the rear floor panel and attach the rear floor panel to the rear side members and other panels.


PRO-1630

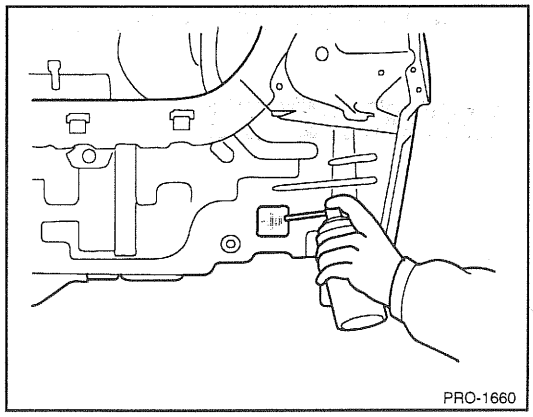
10. MIG plug weld all holes and MIG butt weld the seams.
11. Clean all welded surfaces.
12. Drill 8 mm holes on the flange attaching the back panel to the rear floor and side member ends.


PRO-1640

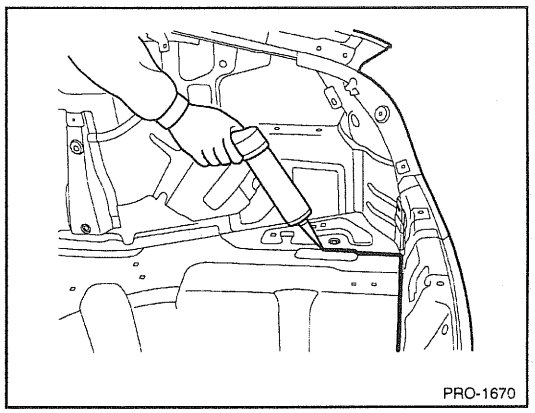
13. Fit and clamp the back panel in place.
14. MIG plug weld the back panel.
15. Clean and prepare all welds, remove all residue.
16. Apply the two-part epoxy primer to the interior of the rear side members.


PRO-1650

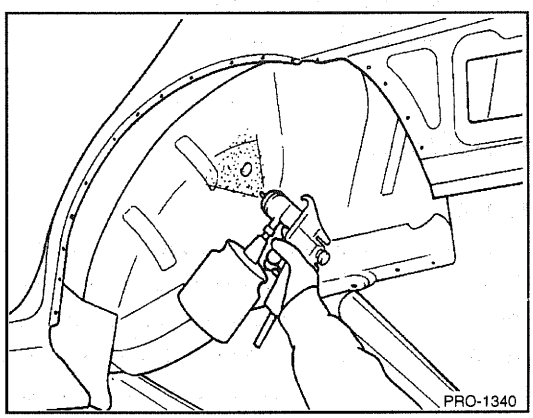
17. Apply an anti-corrosion to the interior of the rear side members (Refer to the CORROSION PROTECTION).
18. Prepare exterior surfaces for priming, using wax and grease remover.
19. Apply metal conditioner and water rinse.
20. Apply the two-part epoxy primer.



21. Apply the correct seam sealer to all joints (Refer to the BODY SEALING LOCATIONS).
22. Reprime over the seam sealer to complete the repair.

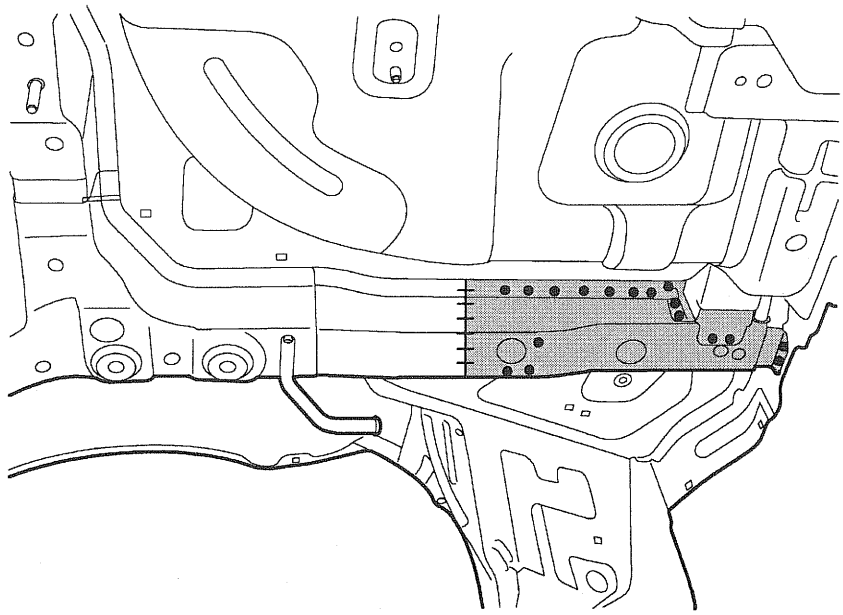


23. After completing body repairs, carefully apply under coating to the under body (Refer to the CORROSION PROTECTION).
24. In order to improve corrosion resistance, if necessary, apply an under body anti-corrosion agent to the panel which is repaired or replaced (Refer to the CORROSION PROTECTION).



REAR SIDE MEMBER (PARTIAL)

WELDLING POINTS



● MIG plug welding
MIG butt welding

PRO-1690

REMOVAL

NOTE

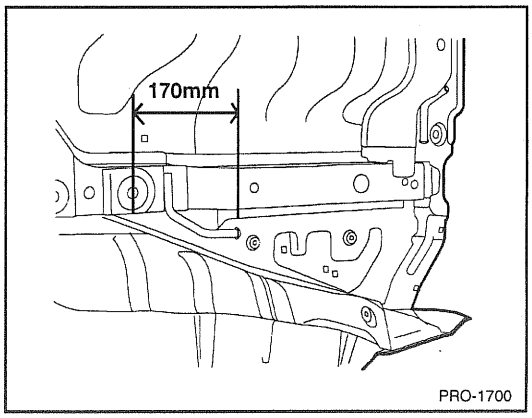
Because the rear side members are designed to absorb energy during a rear collision, care must be used when deciding to use this repair method. This repair is recommended only for moderate damage to the vehicle, where distortions do not extend forward of the trunk region. If the damage is more severe, then the entire side member assembly should be replaced at the factory seams without employing this sectioning procedure.

The following procedure applys when only one rear side member needs to be replaced. If both side members are damaged and need to be replaced, then the procedure of Rear Side members And Rear Floor Section should be followed.

Refer to the body dimension charts and measure the vehicle to determine straightening and alignment requirements. **The body must be returned to its original dimensions before beginning the repair procedure.**

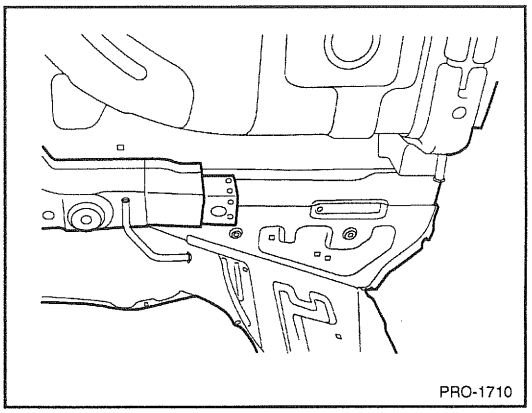
1. Depending on the extent of damage, if the right side member is to be replaced it should be measured and marked 210mm from the tooling hole center of the rear floor center crossmember.

   NOTE
   The flowing procedure illustrates a repair for the right rear side member. The procedure may also be applied the left rear side member.



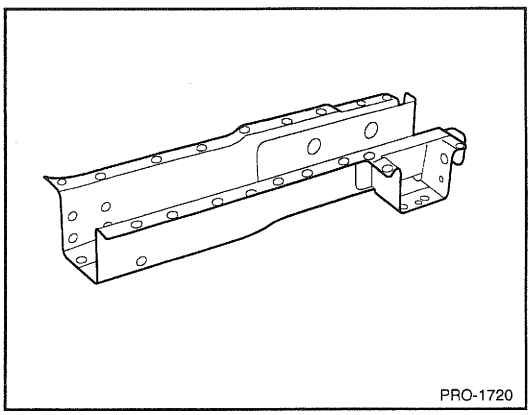
PRO-1700

2. Cut through rear side member at cutline being careful not to cut rear side member reinforcement.
3. Remove the rear floor side member by drilling out all attaching spotwelds.
4. Prepare all surfaces to be welded.

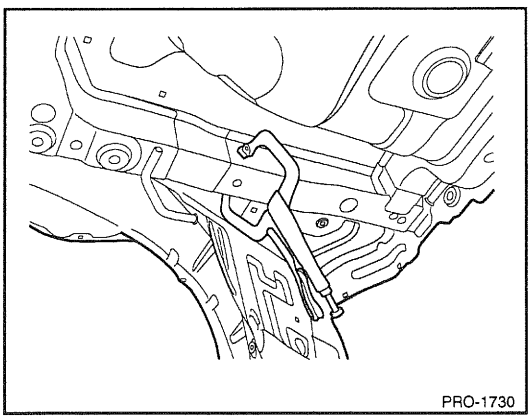

PRO-1710

INSTALLATION

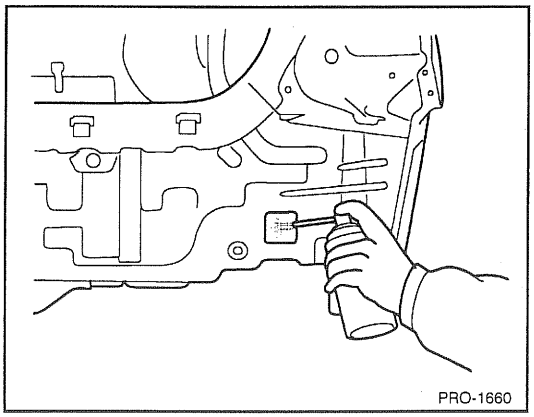
1. Transcribe the cutline to the new rear side member. Cut at line and drill out the spotwelds attaching the inner reinforcement and separate it.


PRO-1720

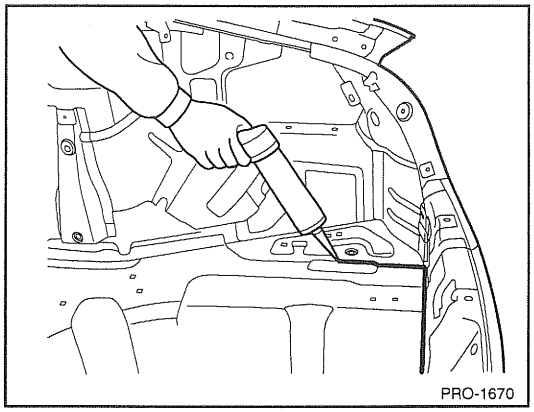
2. Fit and clamp the new rear side member in place for welding. Measure to ensure dimensions are accurate as given in the body dimension charts.
3. MIG plug weld at the holes and MIG butt weld the seam in the side member.
4. Clean and prepare all surfaces to be welded and remove all residue.
5. Apply the two-part epoxy primer to the interior of the rear side member.


PRO-1730

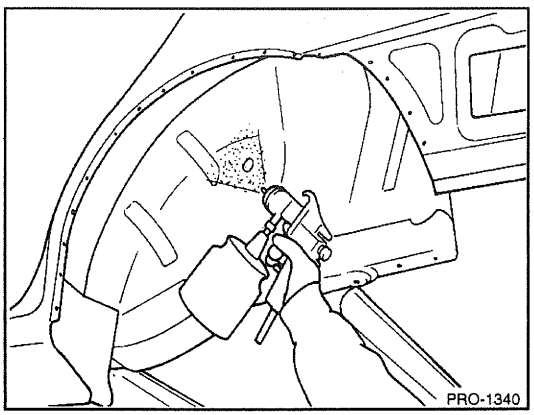
6. Apply an anti-corrosion to the interior of the rear side member (Refer to the CORROSION PROTECTION).
7. Prepare exterior surfaces for priming, using wax and grease remover.
8. Apply metal conditioner and water rinse.
9. Apply conversion coating and water rinse.
10. Apply the two-part epoxy primer.


PRO-1660

11. Apply the correct seam sealer to all joints (Refer to the BODY SEALING LOCATIONS).
12. Reprime over the seam sealer to complete the repair.

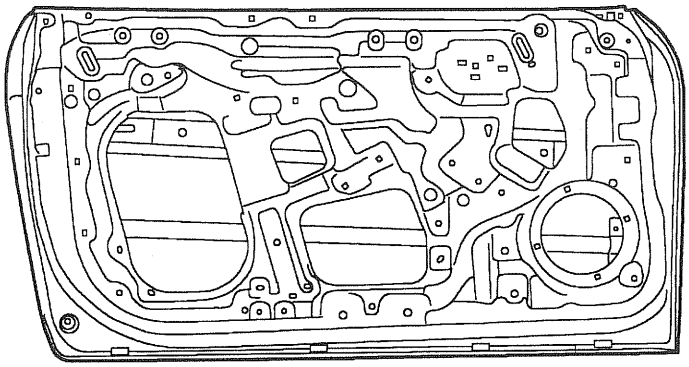

PRO-1670

13. After completing body repairs, carefully apply under coating to the under body (Refer to the CORROSION PROTECTION).
14. In order to improve corrosion resistance, if necessary, apply an under body anti-corrosion agent to the panel which is repaired or replaced (Refer to the CORROSION PROTECTION).

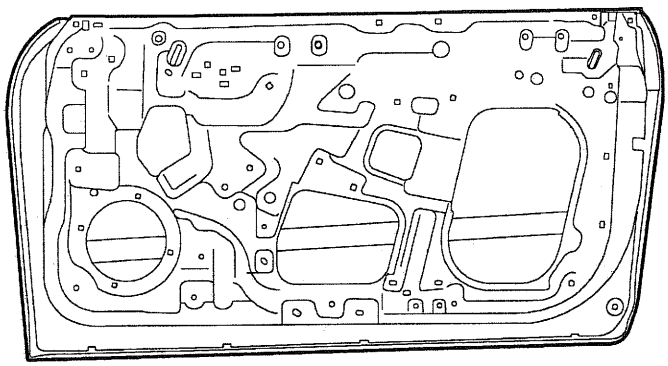

PRO-1340

DOOR

WELDLING POINTS



PRO-1800

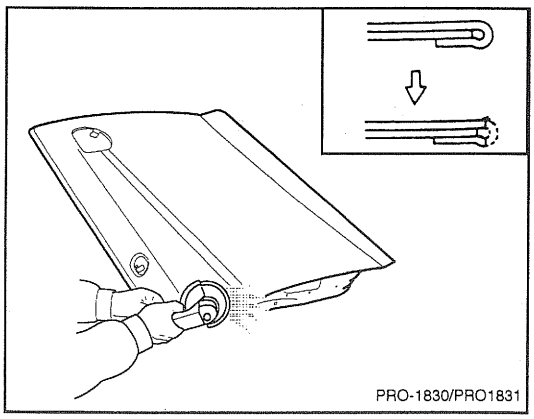


CON-0751

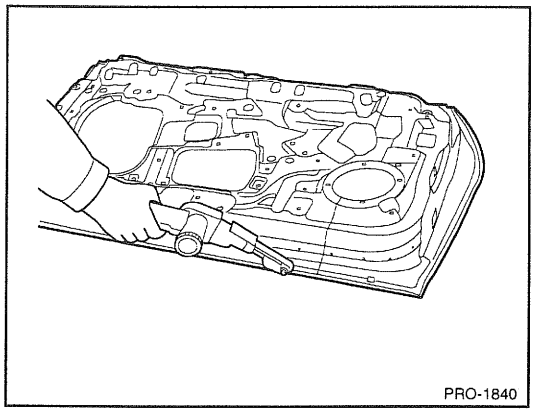
⋇⋇ MIG lap welding

REMOVAL

1. Cut door outer panel hem with a sander.
2. After grinding off the hemming location, remove the outer panel.

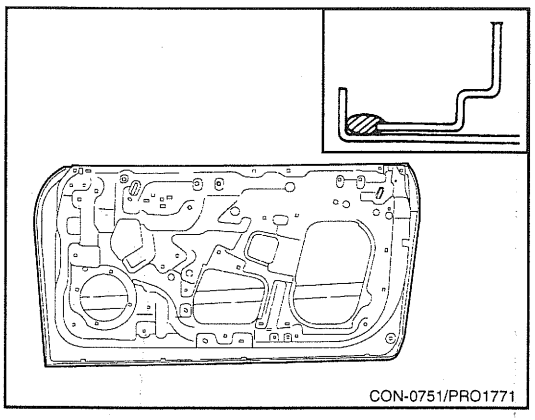

PRO-1830/PRO1831

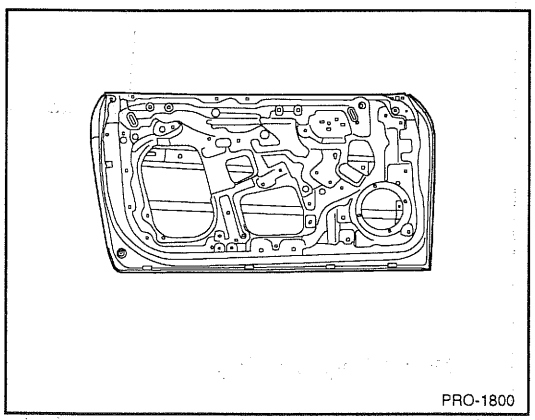
3. Dress rusty part with a sander and prepare surface to be hemmed.


PRO-1840

INSTALLATION

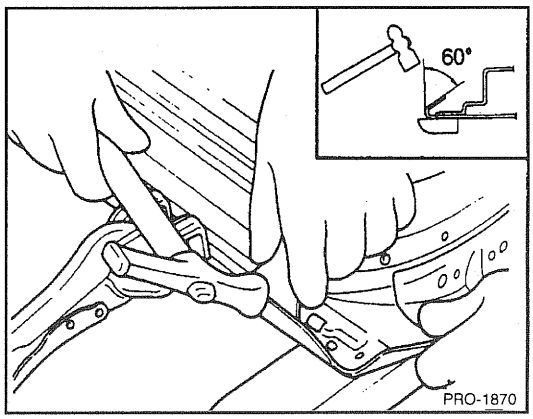
1. Apply adhesive or equivalent to outer panel hem.
2. Apply mastic sealer or equivalent to the door upper member and door reinforcement beam as shown in the figure.

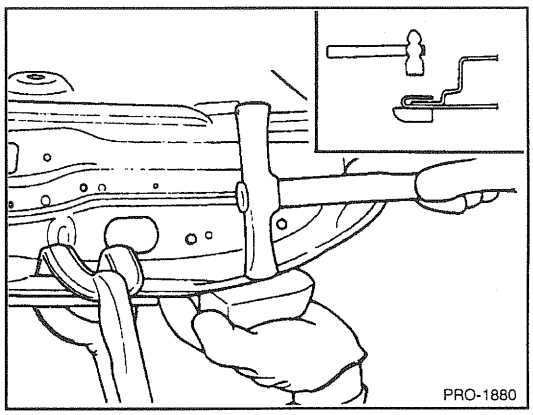

CON-0751/PRO1771

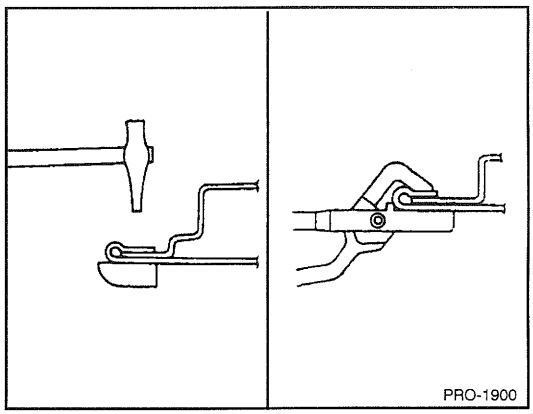

PRO-1800

3. Bend the flange hem with a hammer and dolly, then fasten tightly with a hemming tool.

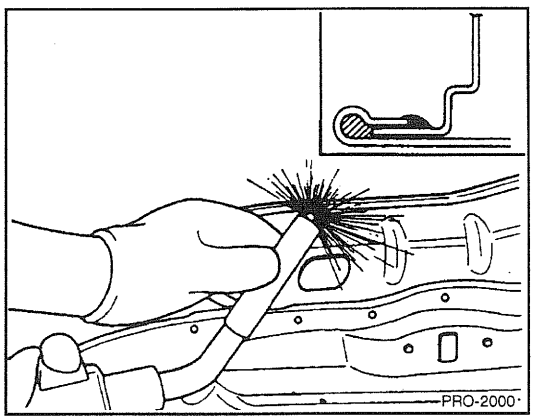
   NOTE
   1. **Hemming work should be done in three steps as illustration.**
   2. **If a hemming tool cannot be used, hem with a hammer and dolly.**



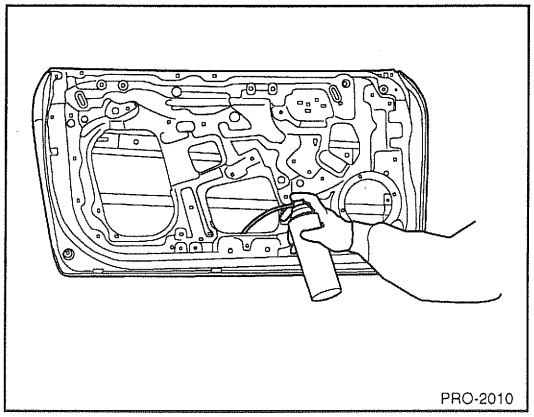




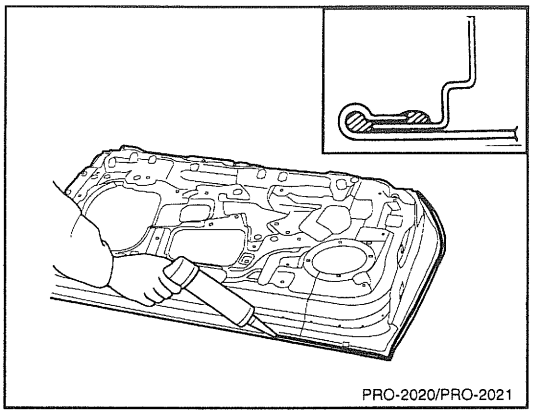
4. After completing the hemming work, make MIG spot welds at 50 mm intervals on the inside.
5. Clean and prepare all welds, remove all residue.
6. Apply the two-part epoxy primer to the interior of the door panel.



7. Apply an anti-corrosion agent to the welded parts and lower inside of the door panel (Refer to the CORROSION PROTECTION).
8. Prepare exterior surfaces for priming, using wax and grease remover.
9. Apply metal conditioner and water rinse.
10. Apply conversion coating and water rinse.
11. Apply the two-part epoxy primer.


PRO-2010

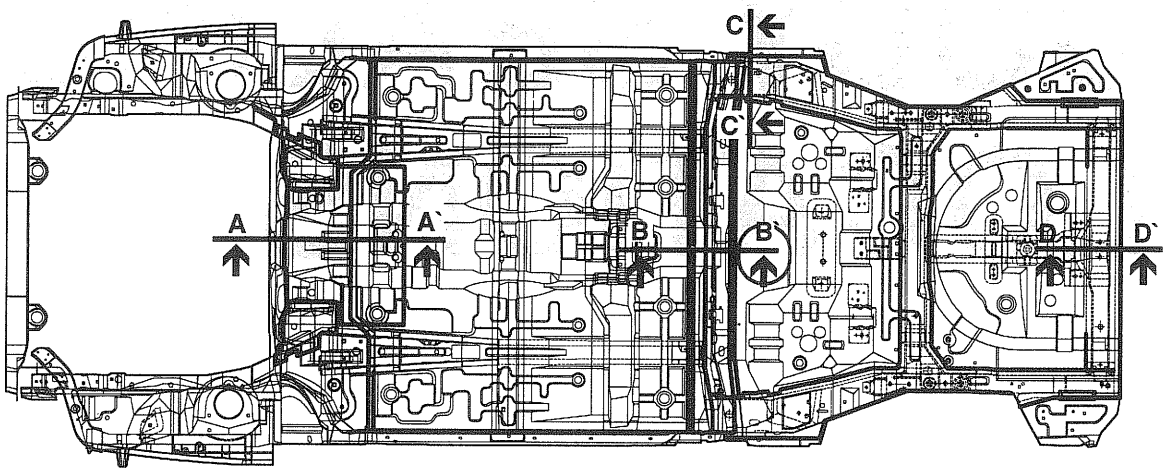
12. Apply the correct seam sealer to whole panel edge.
13. Reprime over the seam sealer to complete the repair.


PRO-2020/PRO-2021

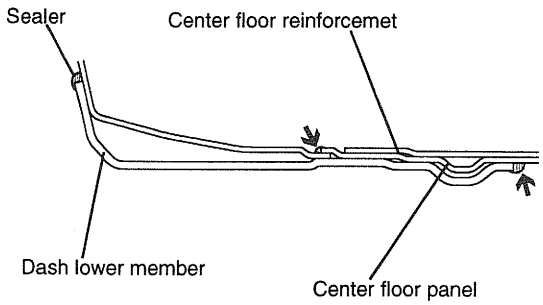
BODY SEALING LOCATIONS

BS

FLOOR

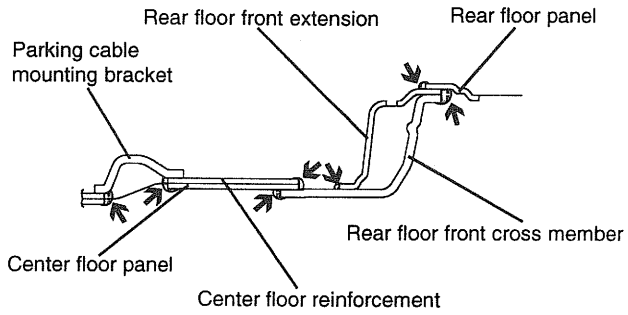


SEA-0010



SECTION A-A'

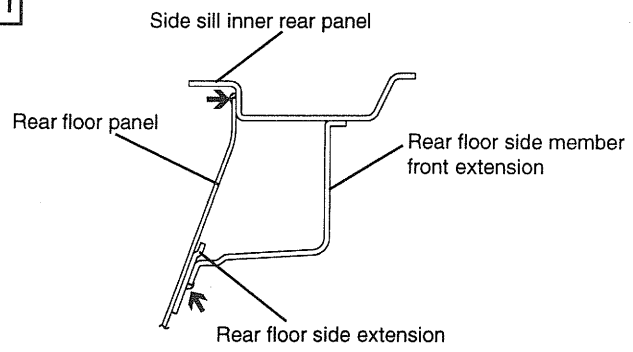
SEA-0011



SECTION B-B'

SEA-0012

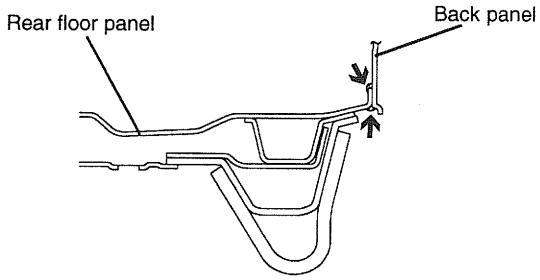
11



SECTION C-C'

SEA-0013

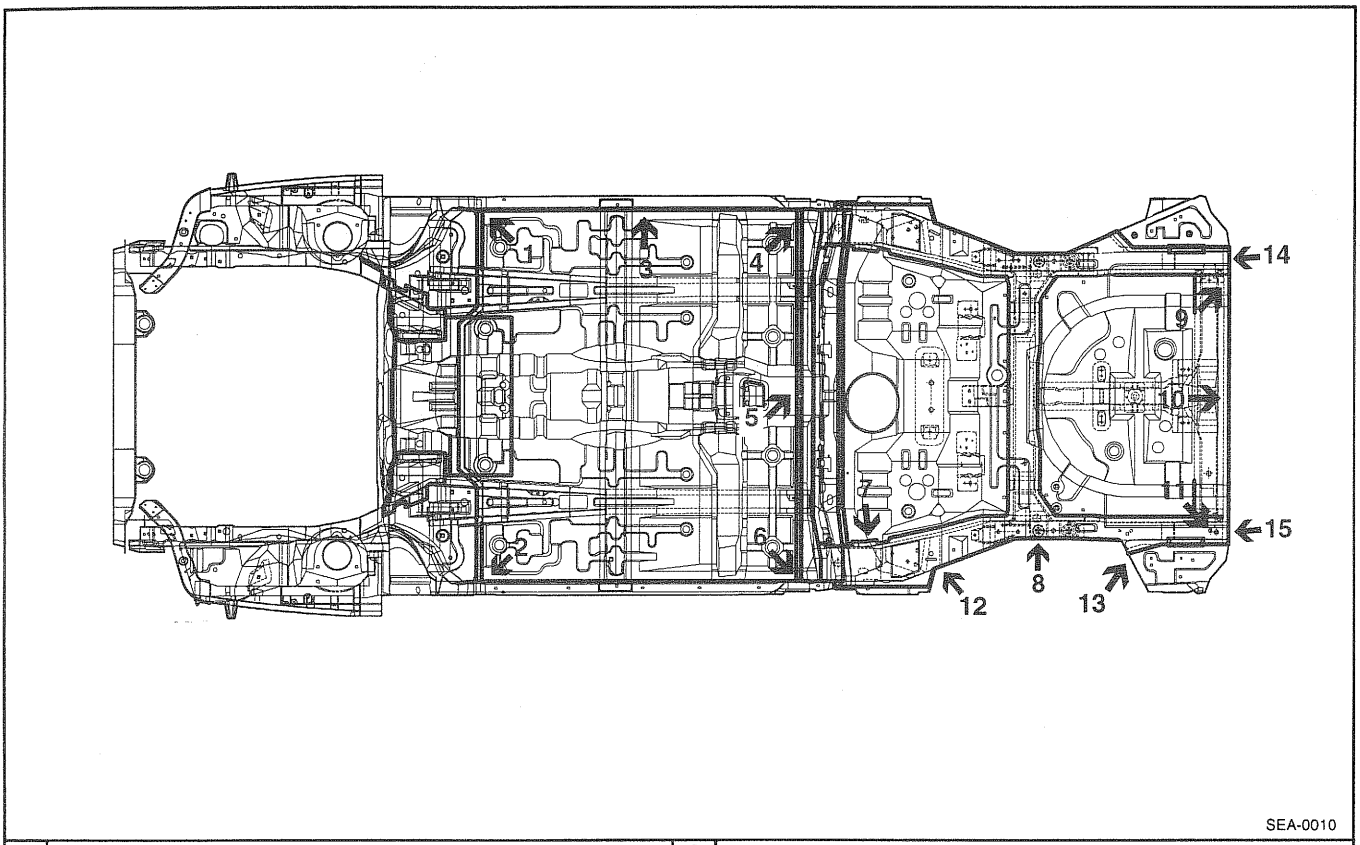
12



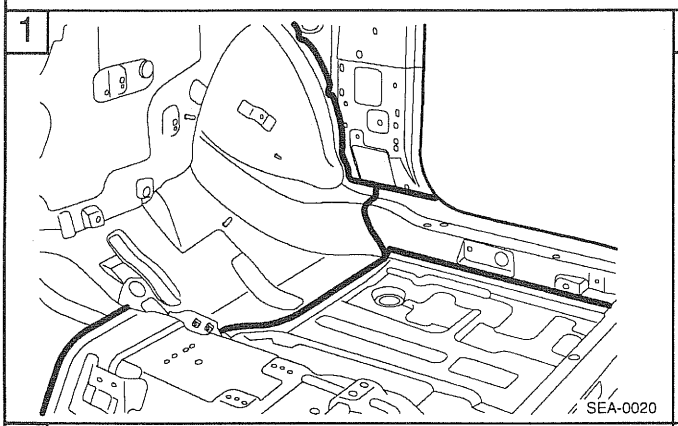
SECTION D-D'

SEA-0014

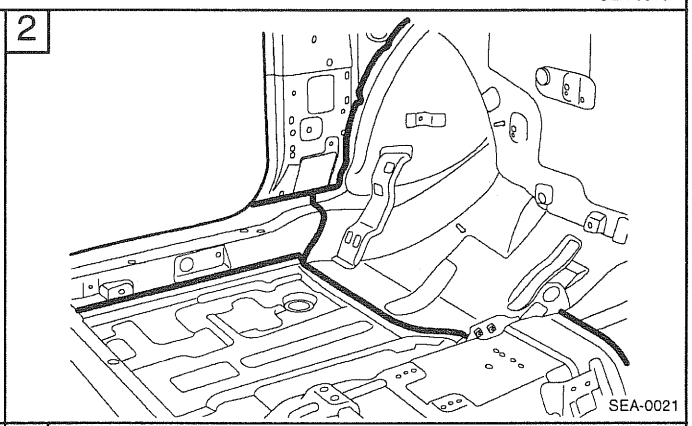
FLOOR



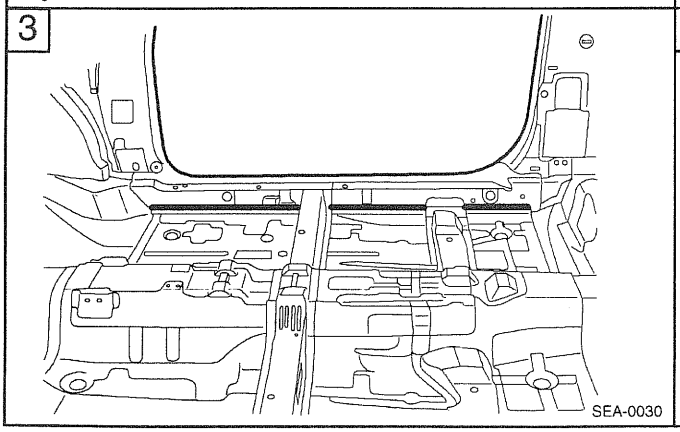
SEA-0010



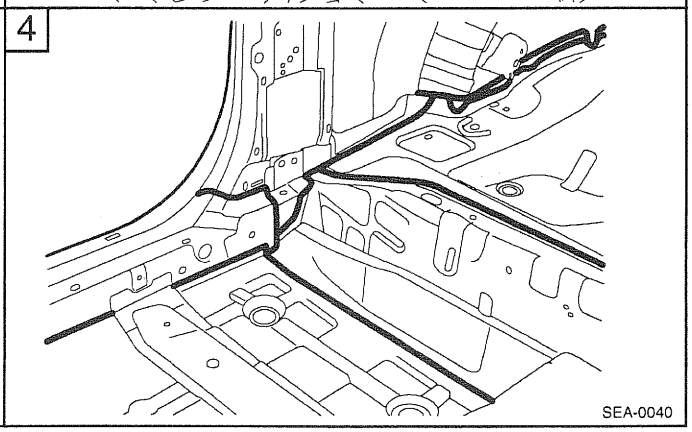
SEA-0020



SEA-0021



SEA-0030



SEA-0040

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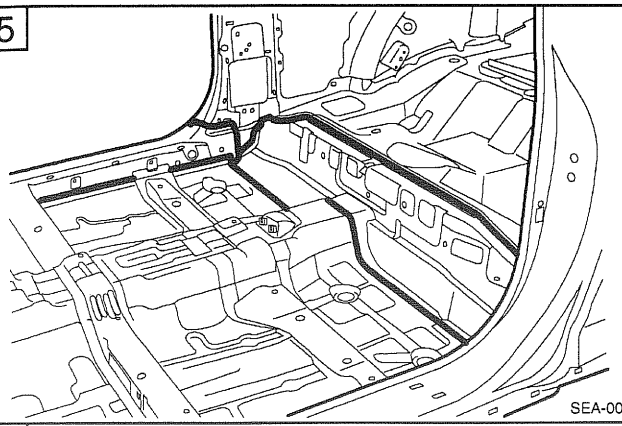

SEA-0050

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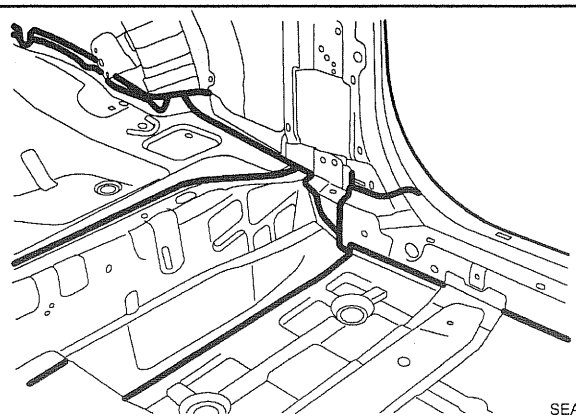

SEA-0051

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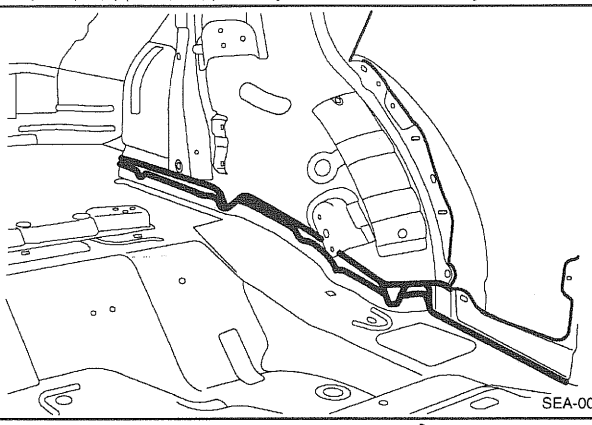

SEA-0060

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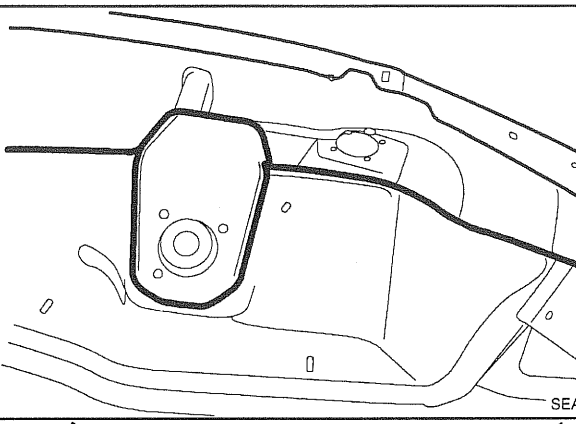

SEA-0070

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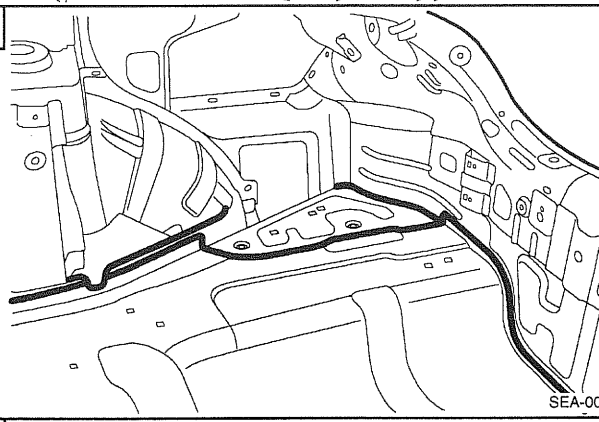

SEA-0080

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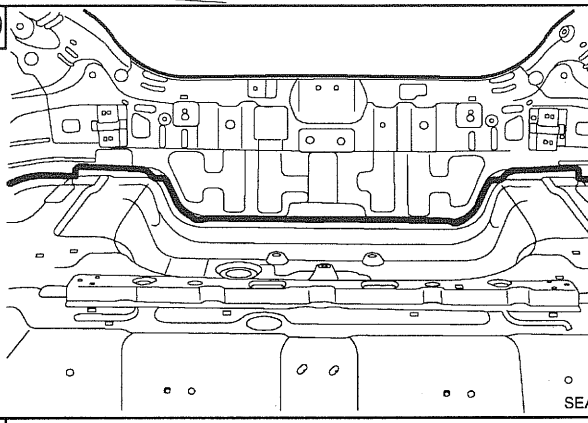

SEA-0090

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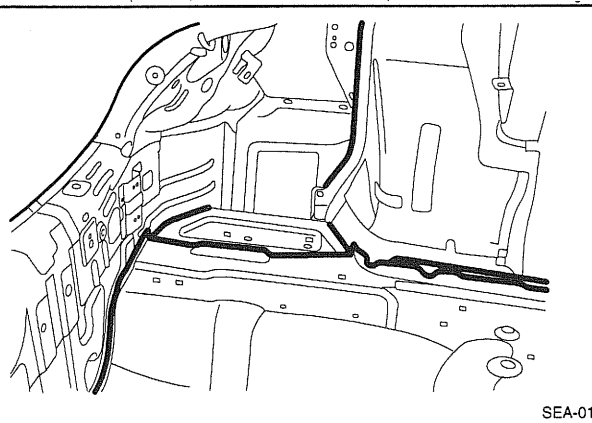

SEA-0100

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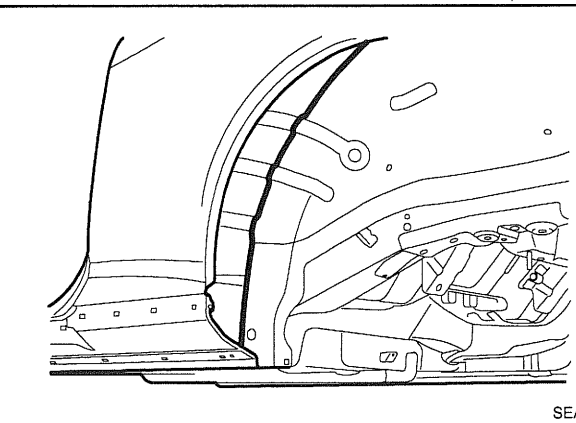

SEA-0110

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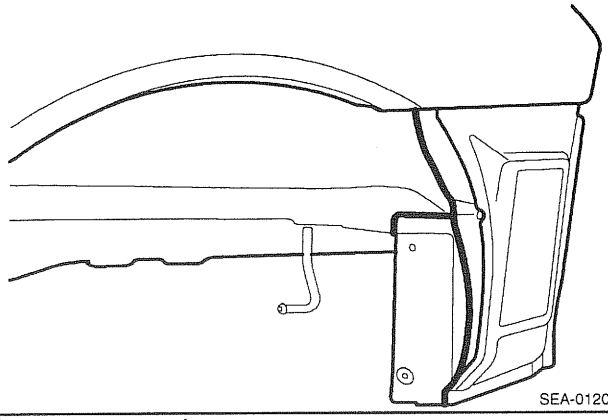

SEA-0120

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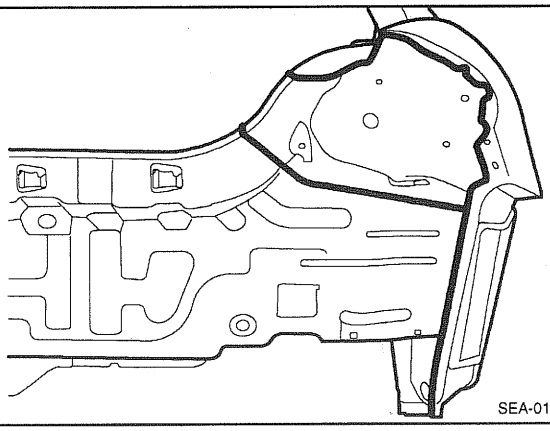

SEA-0130

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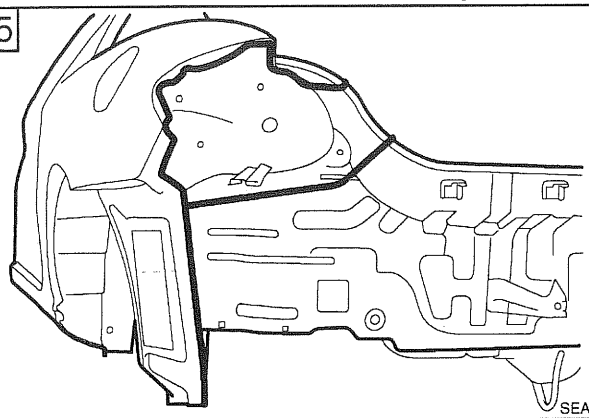
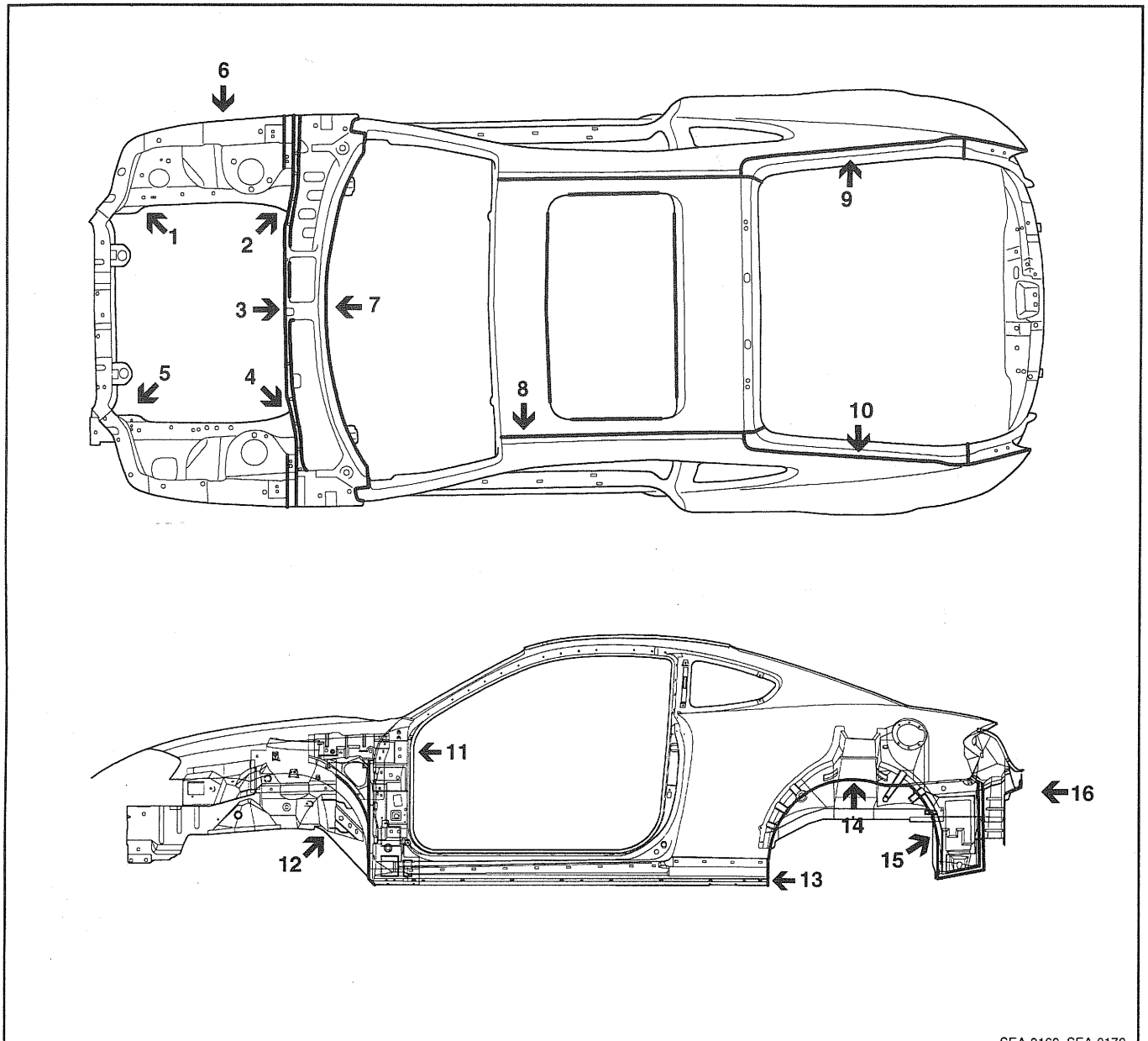


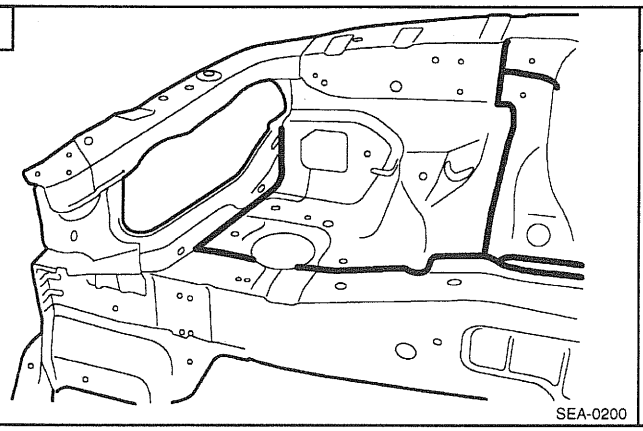
SEA-0140

UPPER AND SIDE BODY



SEA-0160, SEA-0170

1



SEA-0200

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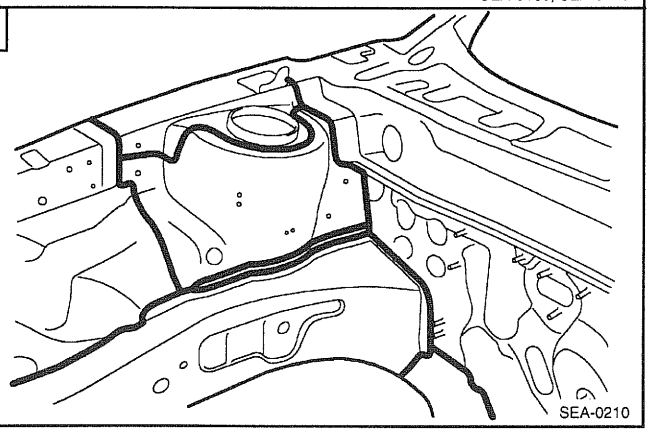
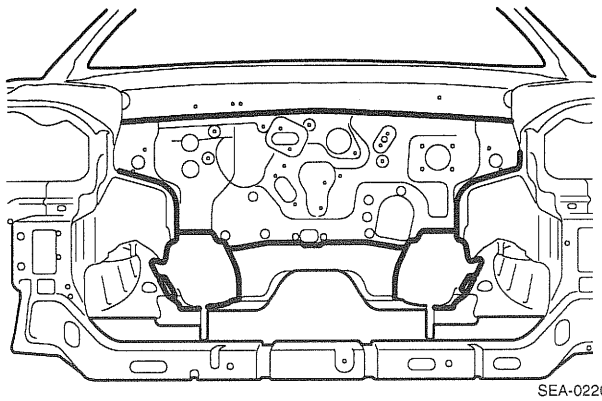


SEA-0210

BODY SEALING LOCATIONS - Upper and side body

3



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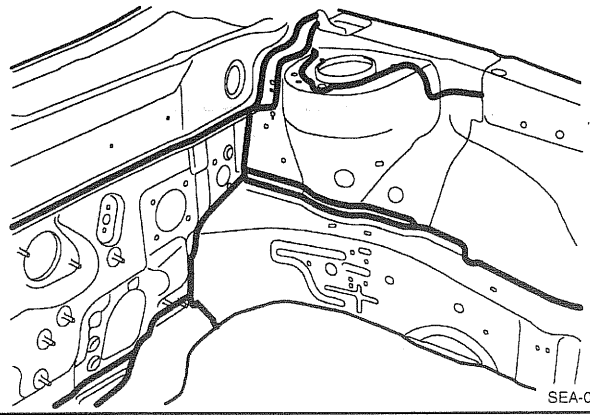

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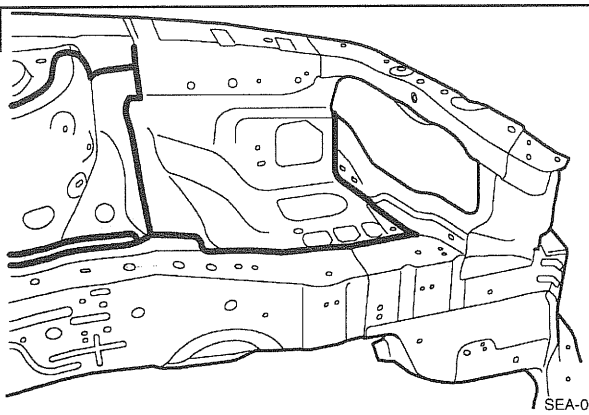

SEA-0240

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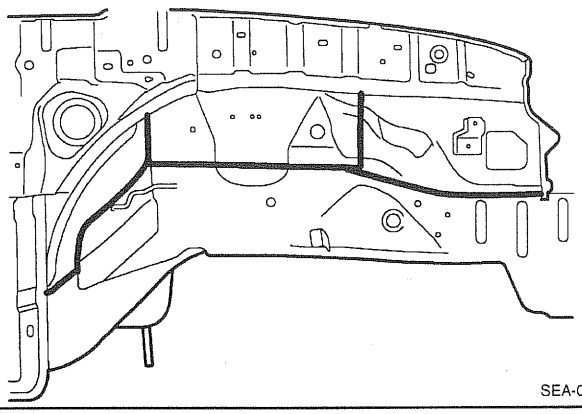

SEA-0250

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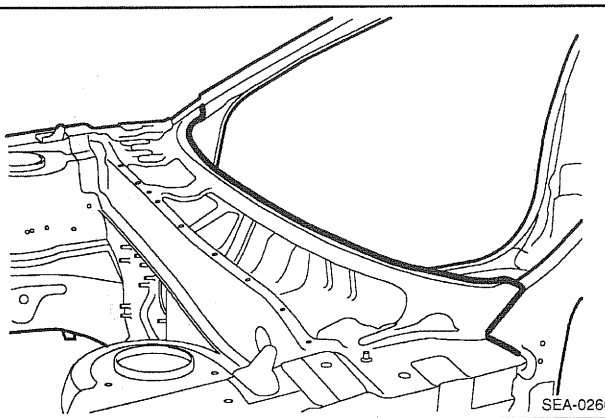

SEA-0260

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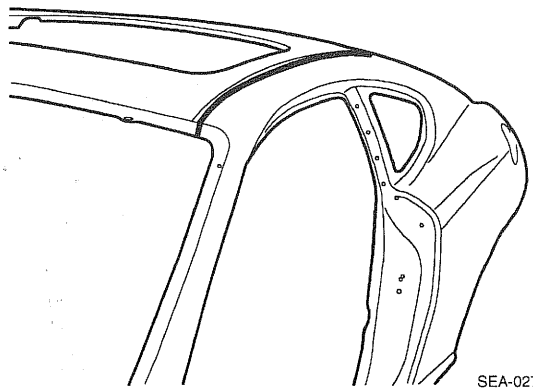

SEA-0270

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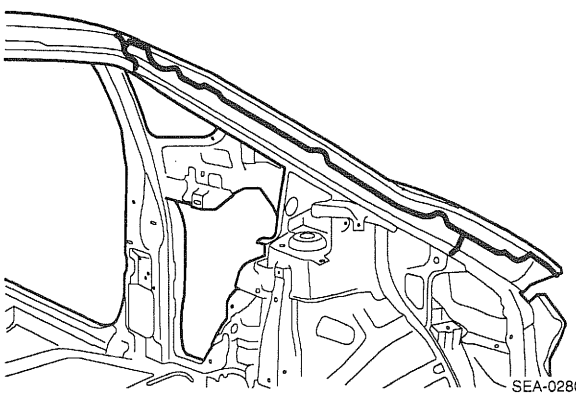

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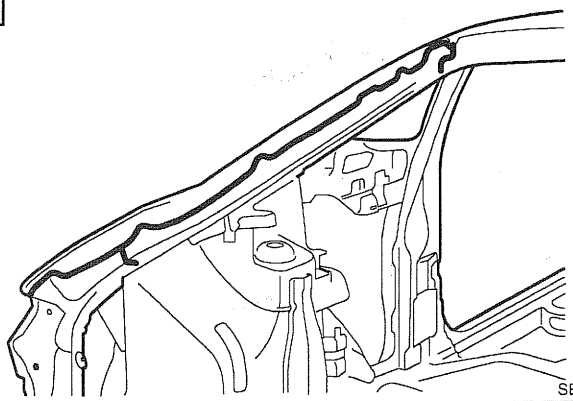

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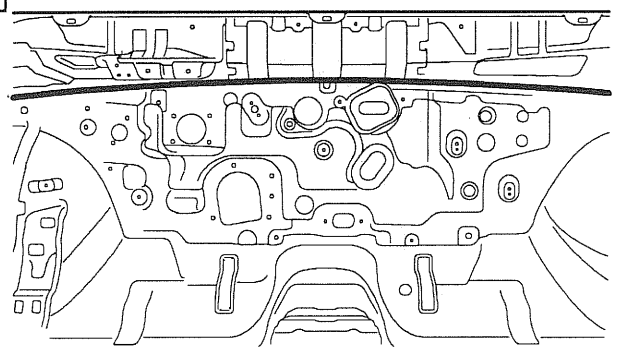

SEA-0300

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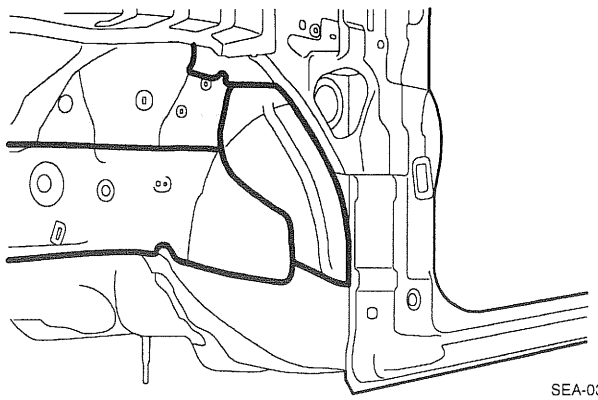

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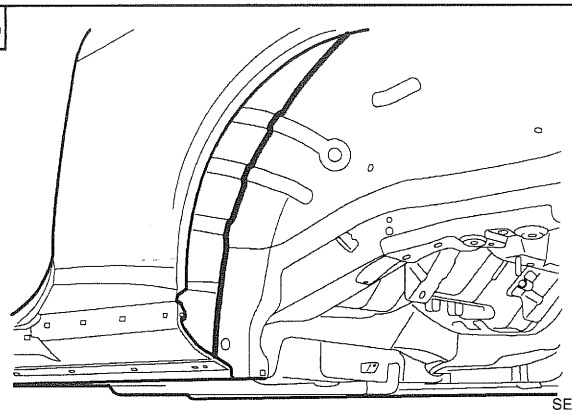

SEA-0110

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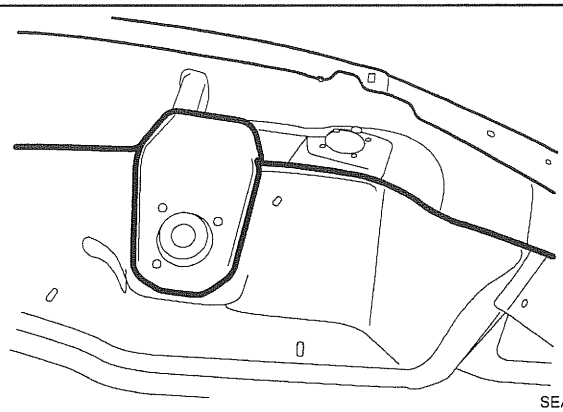

SEA-0070

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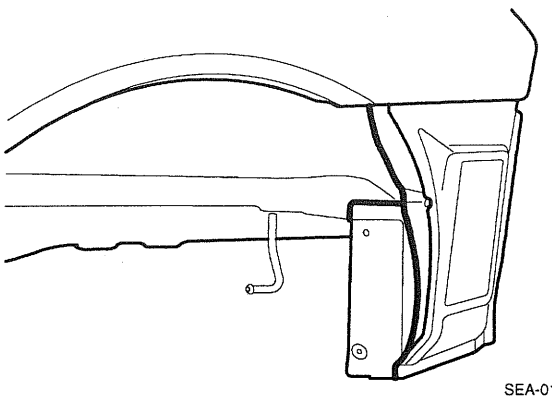

SEA-0120

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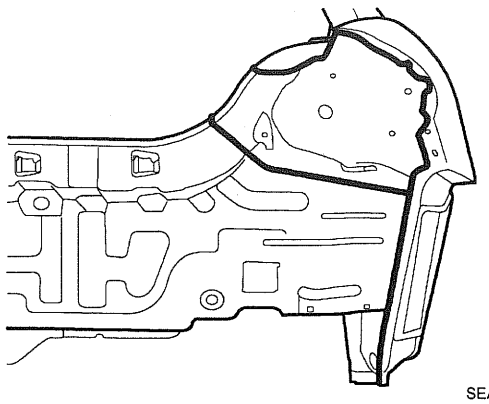
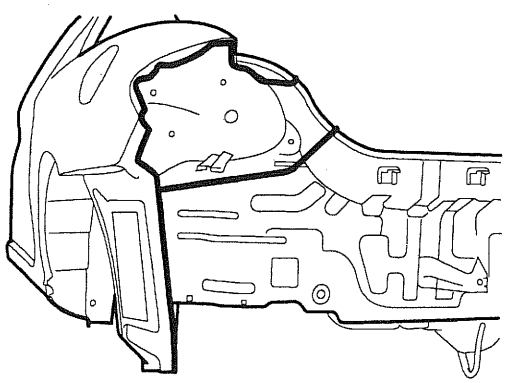


SEA-0130

17



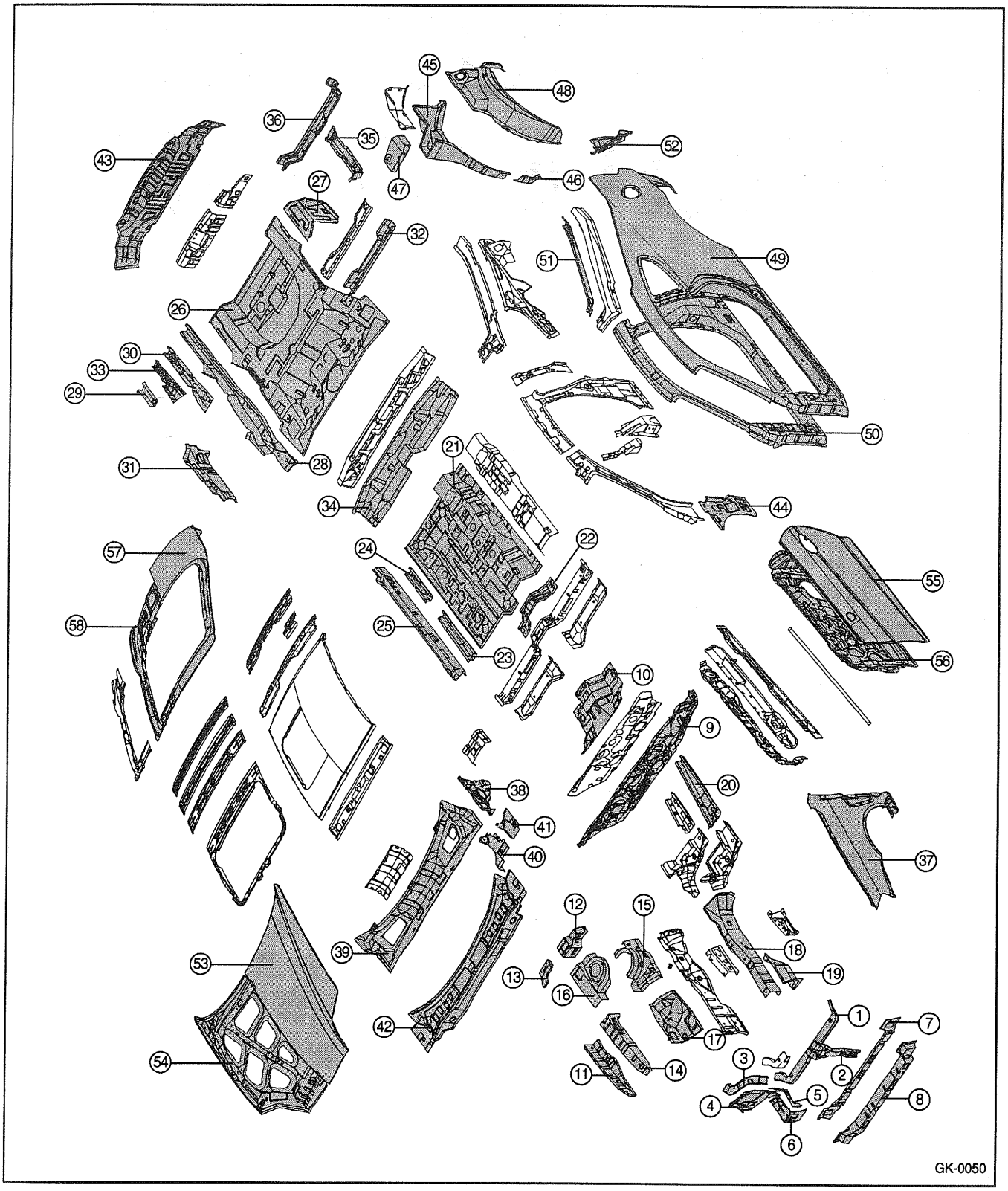
SEA-0140

CORROSION PROTECTION

CP

ZINC - GALVANIZED STEEL PANELS

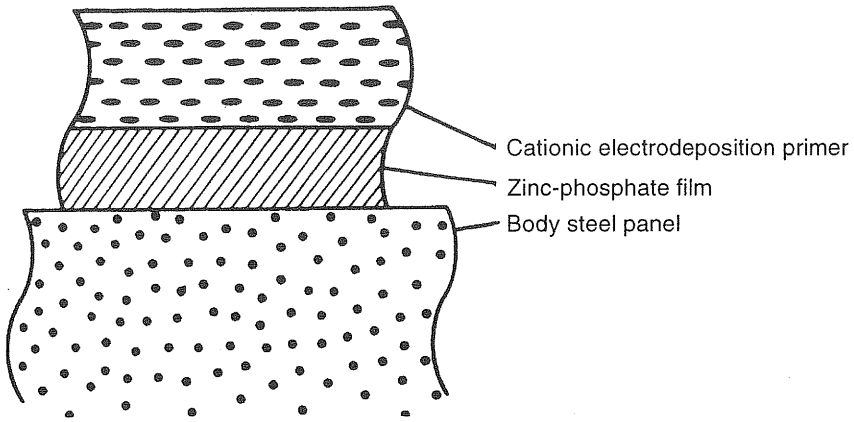
Because galvanized steel panel has excellent resistance, it is used in areas which have a high possibility of painting deficiency below.



1. Radiator support upper center member
2. Radiator support center member
3. Radiator support upper side member
4. Head lamp support panel
5. Head lamp support gusset
6. Front shipping hook bracket
7. Radiator support lower inner member
8. Radiator support lower outer member
9. Dash panel
10. Dash lower member
11. Fender apron upper outer panel
12. Fender apron inner rear upper extension
13. Fender apron inner rear lower extension
14. Fender apron upper inner panel
15. Front shock absorber housing panel
16. Front shock absorber housing upper panel
17. Fender apron inner front panel
18. Front side inner member
19. Front side member inner gusset
20. Front side member rear lower extension
21. Center floor panel
22. Muffler hanger mounting bracket
23. Center floor side member
24. Center floor side member reinforcement
25. Side sill inner panel
26. Rear floor panel
27. Rear floor side panel
28. Rear floor side member
29. Rear bumper mounting reinforcement
30. Rear floor side member center reinforcement
31. Side sill inner rear panel
32. Rear floor center cross member
33. Rear floor side member front reinforcement
34. Rear floor front cross member
35. Jack up cross center member
36. Jack up cross rear member
37. Fender panel
38. Cowl side upper panel
39. Cowl inner lower panel
40. Cowl side upper inner panel
41. Hood hinge mounting reinforcement
42. Cowl top outer panel
43. Back panel
44. Front inner lower pillar
45. Wheel housing inner panel
46. Wheel housing inner front extension
47. Rear spring housing cover
48. Quarter inner panel
49. Side outer panel
50. Side outer reinforcement
51. Side outer rear upper extension
52. Rear combination lamp housing panel
53. Hood outer panel
54. Hood inner rail
55. Door outer panel
56. Door inner panel
57. Tail gate outer panel
58. Tail gate inner panel

ZINC-PHOSPHATE COAT & CATIONIC ELECTRODEPOSITION PRIMER

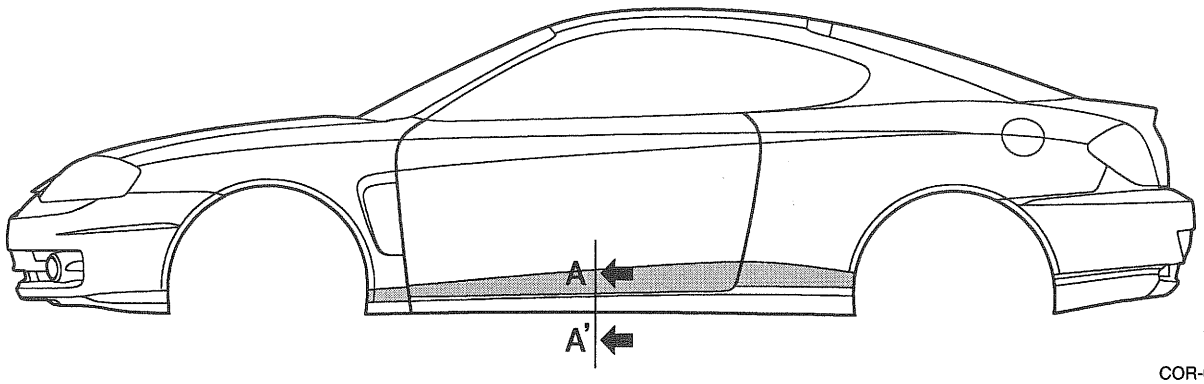
In order to improve the adhesion of the paint coat on the steel panel, and also to improve the corrosion resistance, the entire body is coated with a film of Zinc-phosphate and a cationic electrodeposition primer.



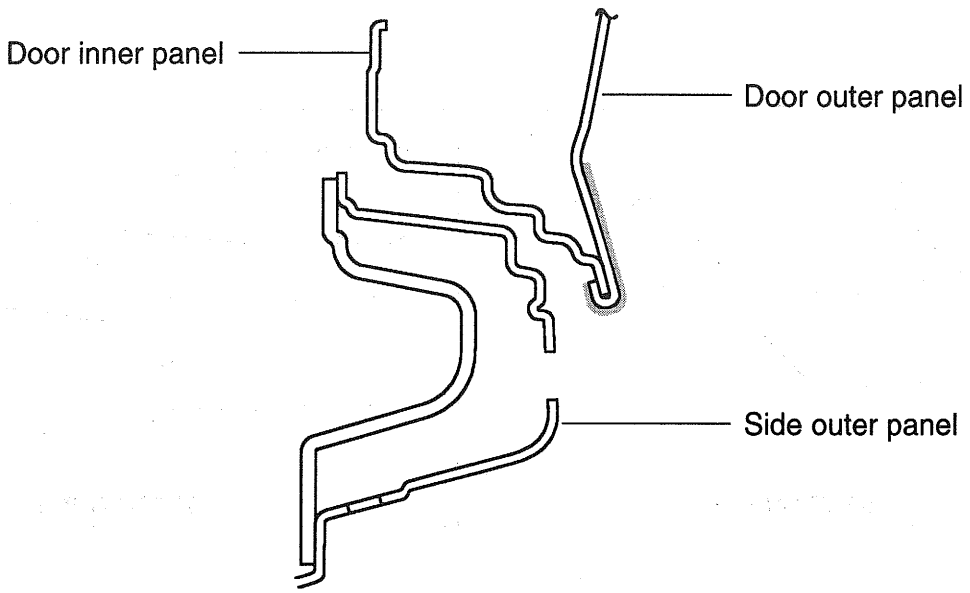
COR-0020

ANTI - CORROSION PRIMER

An anti-corrosion primer has been applied to the side sill outer panel for the purposes of corrosion prevention and abrasion protection. If this panel is replaced, apply an anti-corrosion primer between the undercoat and the intermediate coat, as shown in the following illustrations.



COR-0030

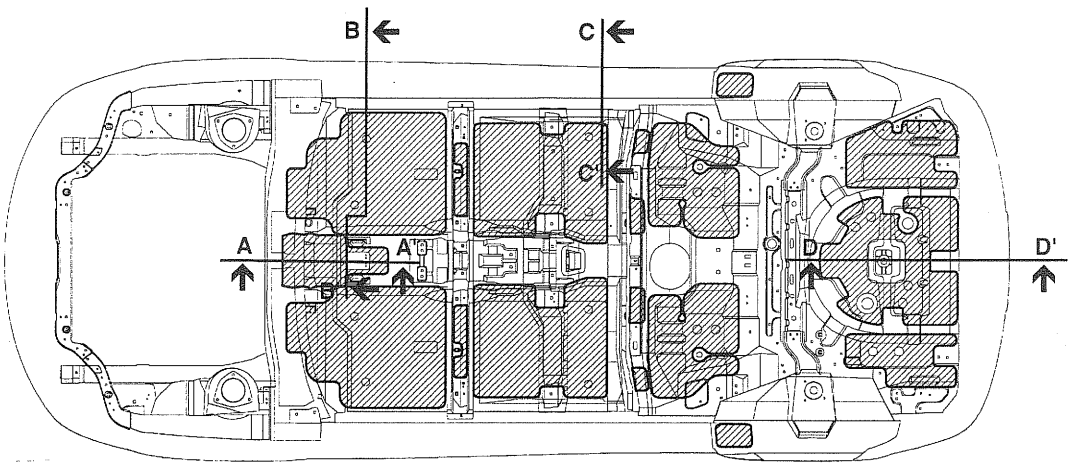


COR-0040

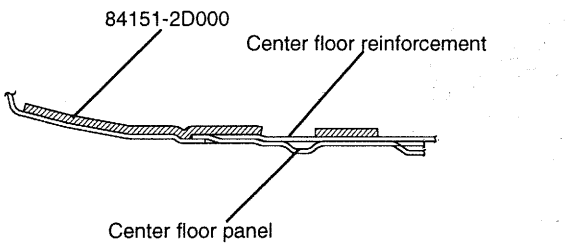
SECTION A-A'

Rock panel primer (Thickness 180 ~ 200 ㎛)

ANTIVIBRATION PADS-LOCATION & SECTION

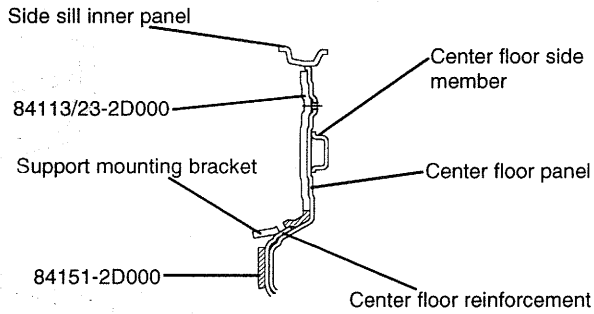


ANT-1100



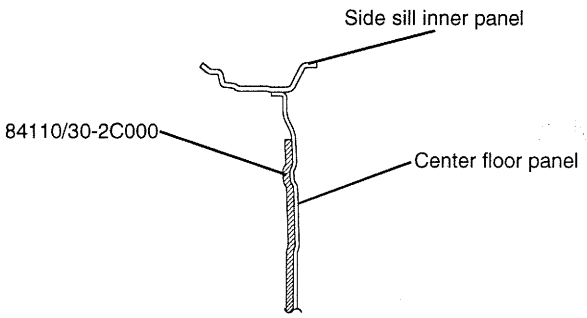
ANT-1101

SECTION A-A'



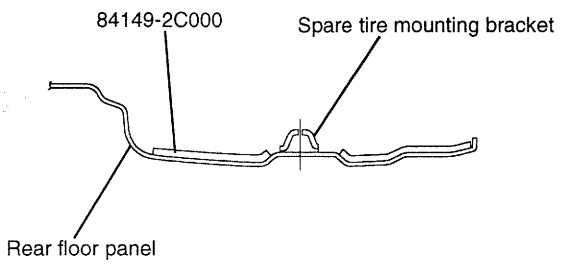
ANT-1102

SECTION B-B'



ANT-1103

SECTION C-C'

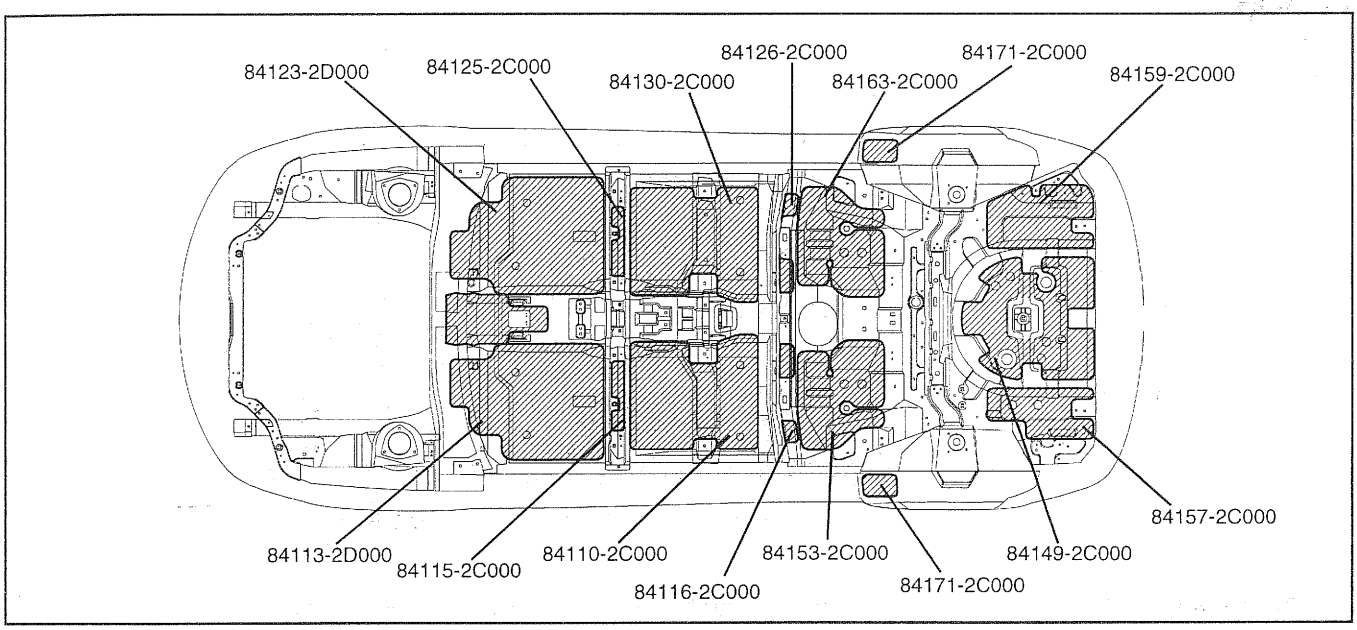


ANT-1104

SECTION D-D'

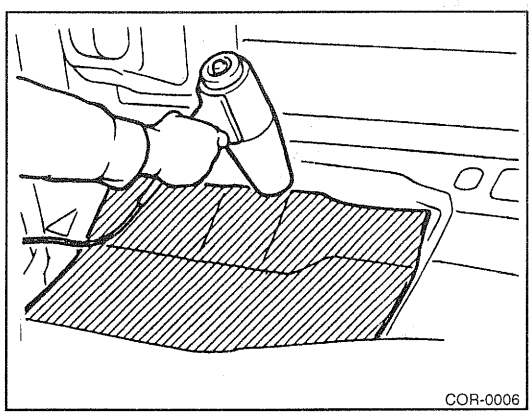
ATTACHMENT OF ANTIVIBRATION PADS

Antivibration pads are attached to the upper surface of the floor and at the interior side of the dash panel in order to absorb vibrations and shut out exhaust gas heat. If these antivibration pads are peeled off in the course of replacement or repair of a welded panel, cut and attach replacement material (in the shape shown in the figure). For detailed information concerning the location where antivibration pads are to be attached for individual models, refer to the figure below.



ANT-1100

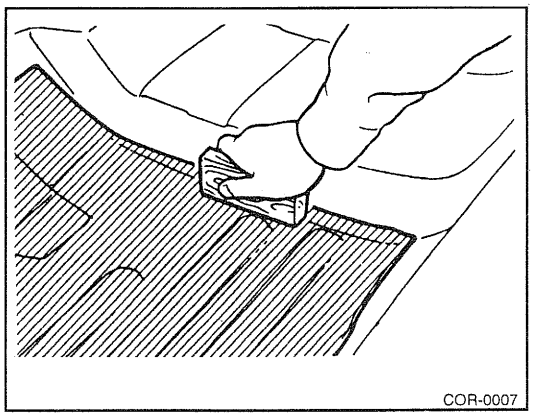
1. Heat the "antivibration pad" with a blow drier to soften it.



COR-0006

2. Align the antivibration pad layer in the position where it is to be installed, and then press it down with a roller or a block of wood so that it adheres well.

NOTE
An infrared lamp can also be used to heat both the antivibration pad layer and the body panels(be sure to wear gloves).

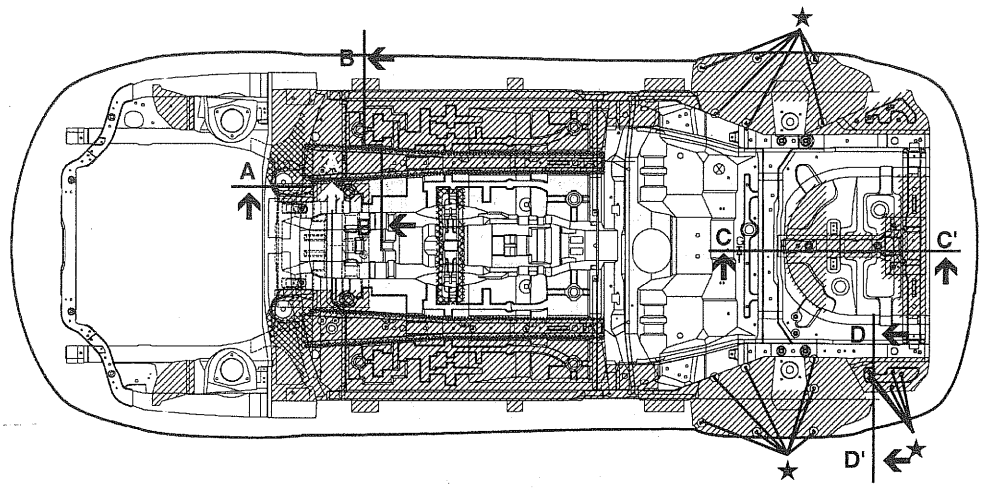


COR-0007

UNDER BODY COAT

In order to provide corrosion, stone chipping and vibration resistance, under body coat is applied to the under sides of the floor and wheel house.
Therefore, when such panel is replaced or repaired, apply under body coat to that part.

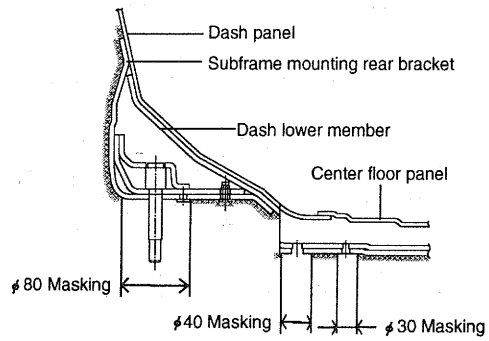
FLOOR



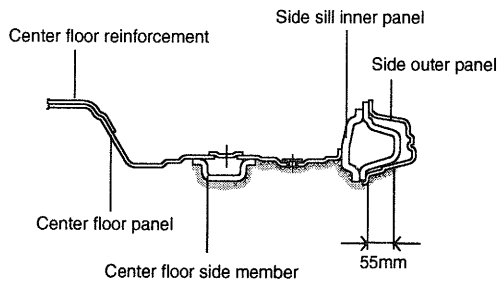
COR-0050

★ Because parts are to be mounted in these locations, mask the location, before applying the under body coat.

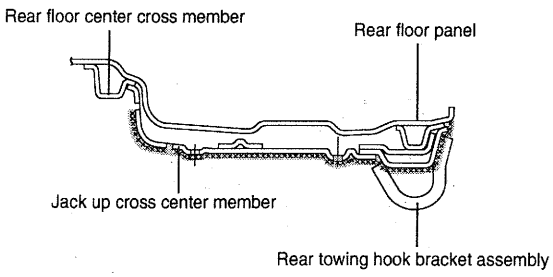
Under body coating (Thickness 1.0 mm - 2.0 mm)



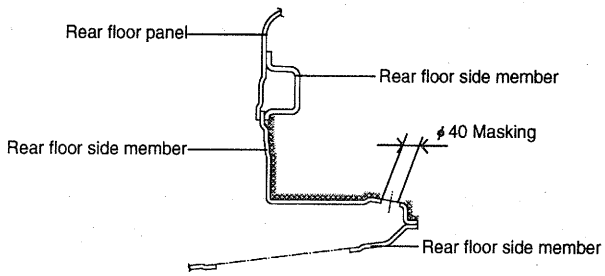
SECTION A-A' COR-0060



SECTION B-B' COR-0070

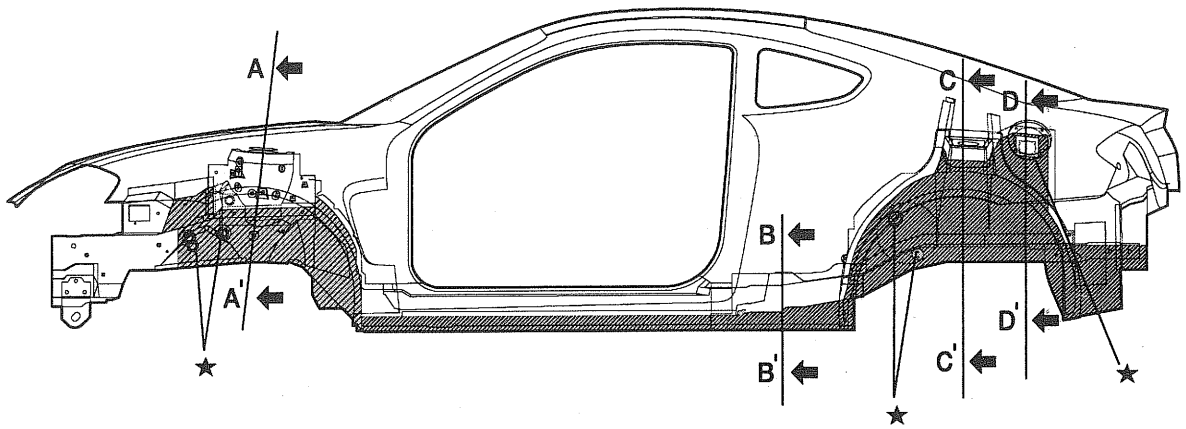


SECTION C-C' COR-0080



SECTION D-D' COR-0090

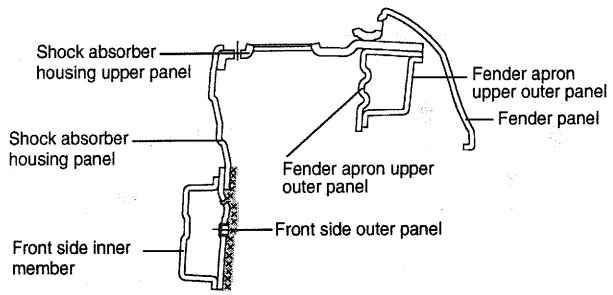
SIDE BODY



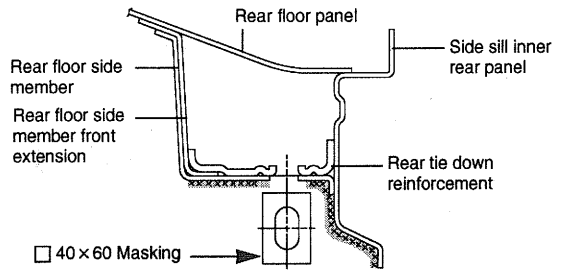
COR-0100

★ Because parts are to be mounted in these locations, mask the location, before applying the under body coat.

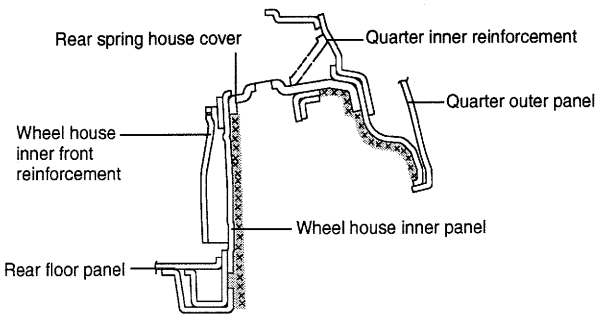
Under body coating (Thickness 1.0 mm - 2.0 mm)



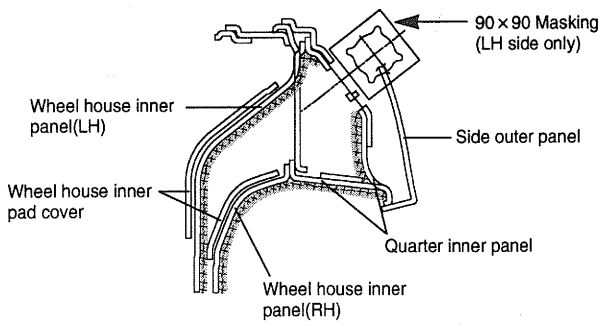
SECTION A-A' COR-0110



SECTION B-B' COR-0120



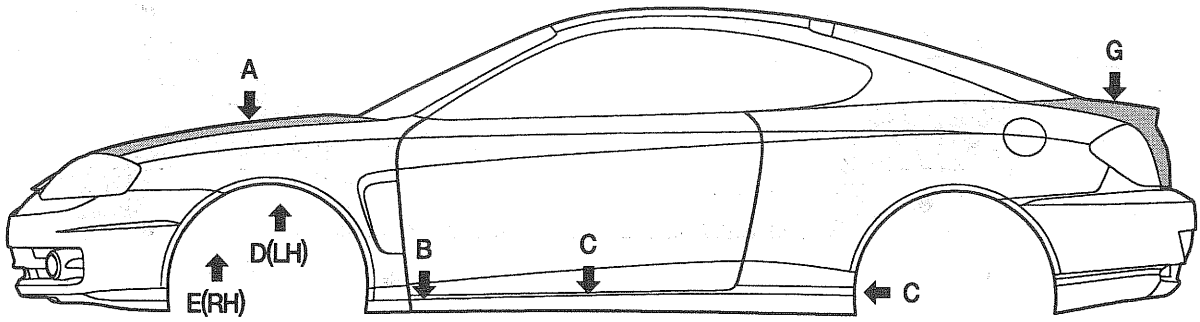
SECTION C-C' COR-0130



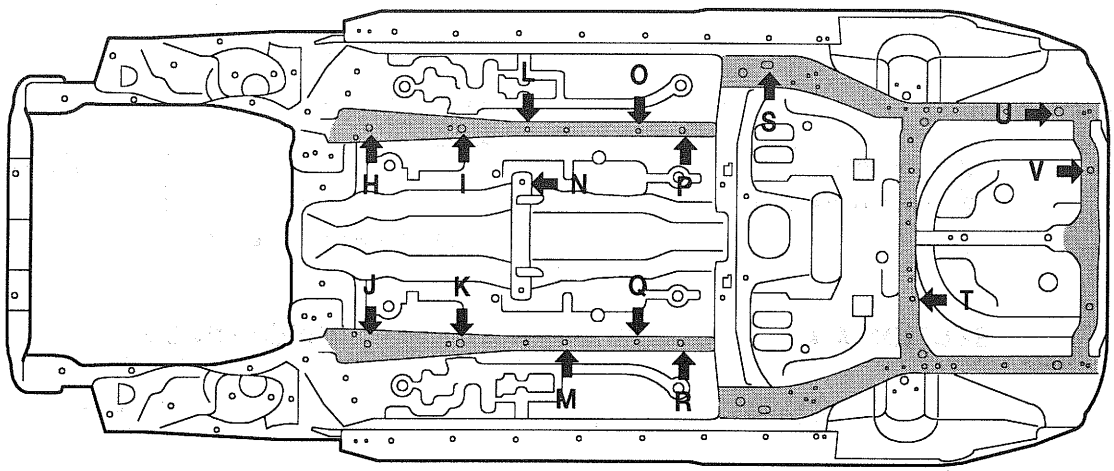
SECTION D-D' COR-0140

CAVITY WAX INJECTION

In order to provide greater corrosion resistance, cavity wax injection has been performed for the lower areas of the vehicle, such as the sidemember, the side sill and the inside of other panels which are a hollow construction.
When replacing these parts, be such to apply cavity wax to the appropriate areas of the new parts.



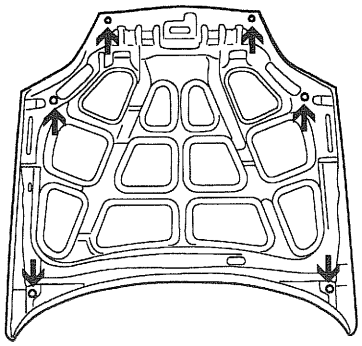
COR-0030



ACT-ASSY

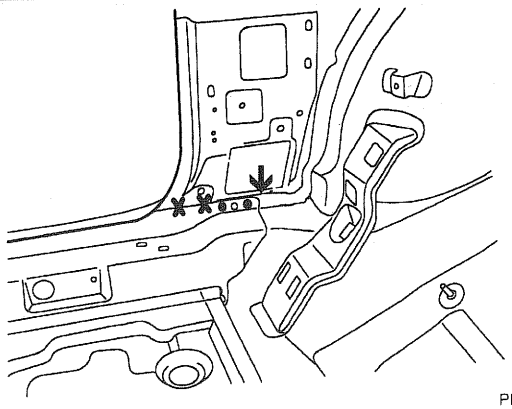
Cavity wax injection (Thickness 40 μl - 50 μl)

A



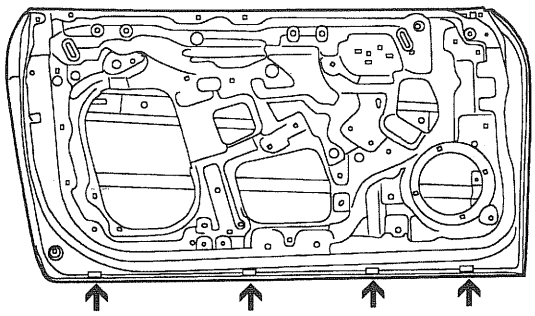
COR-0160

B



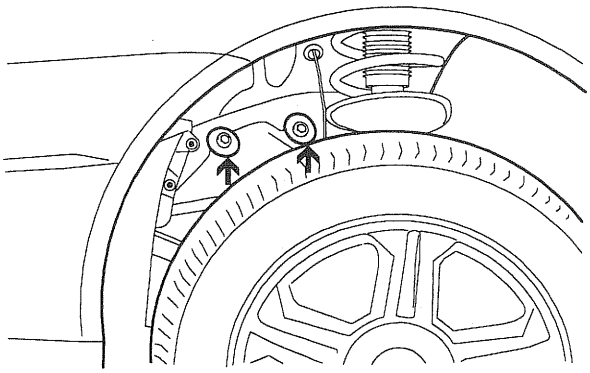
PRO-0480

C



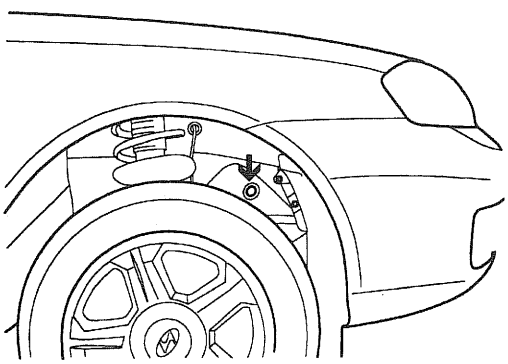
PRO-1800

D



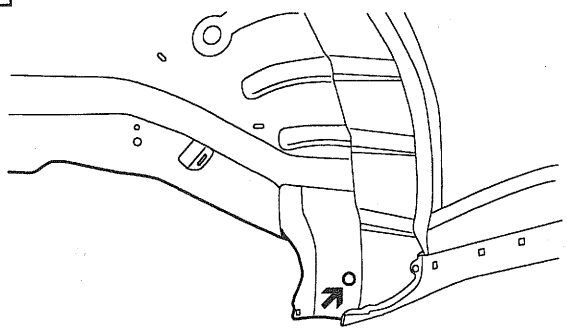
COR-0190

E



COR-0200

F



COR-0210

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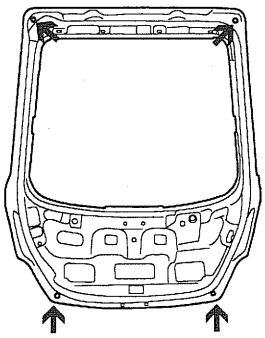

COR-0220

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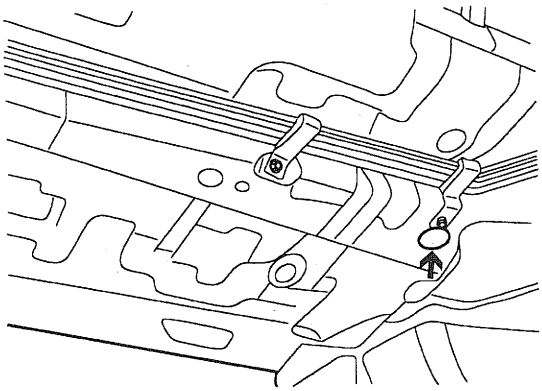

COR-0230

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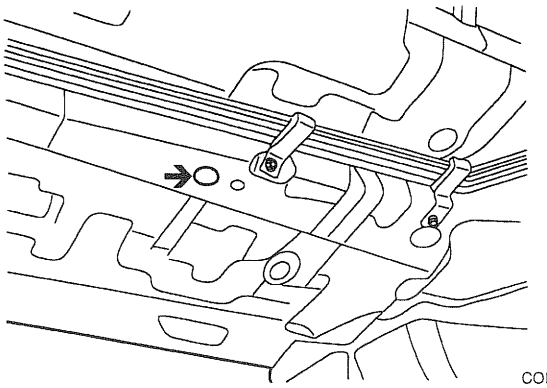

COR-0240

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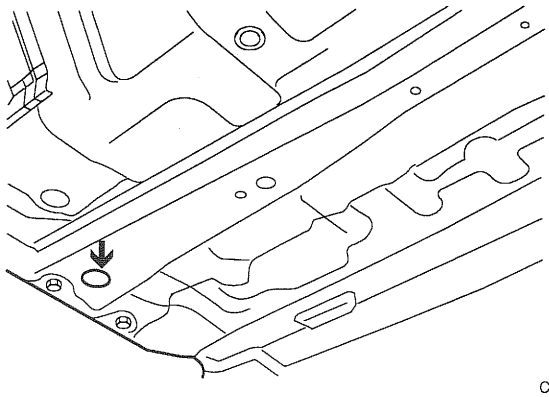

COR-0250

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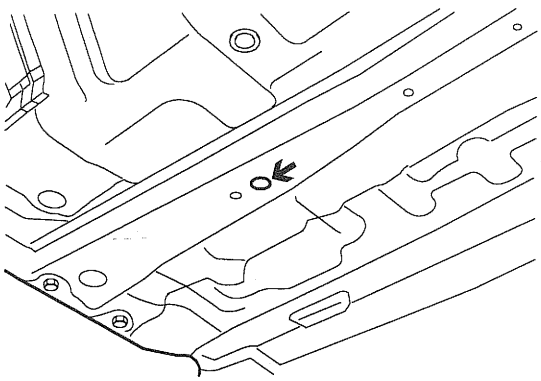

COR-0260

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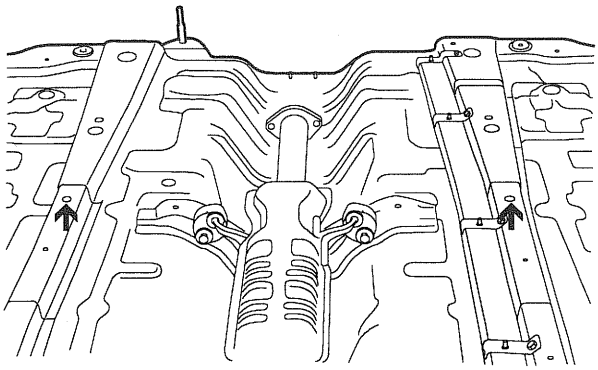

COR-0270

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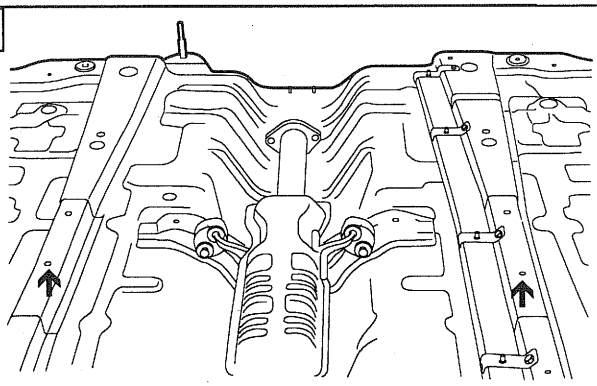

COR-0280

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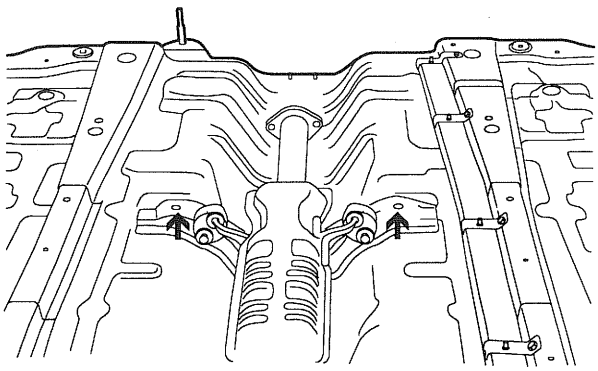

COR-0290

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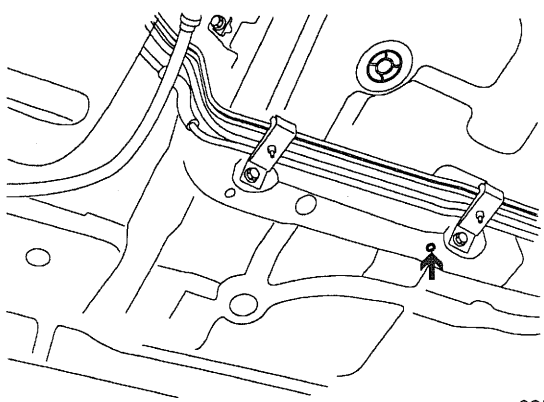

COR-0300

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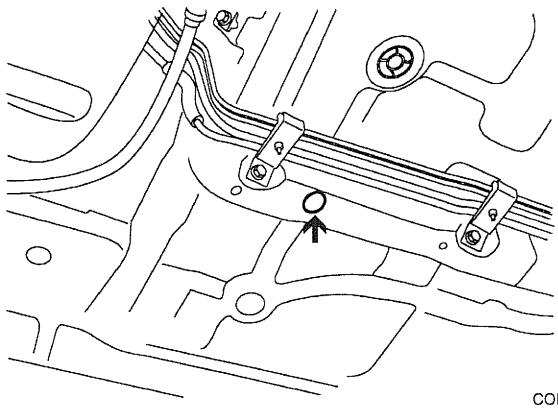

COR-0310

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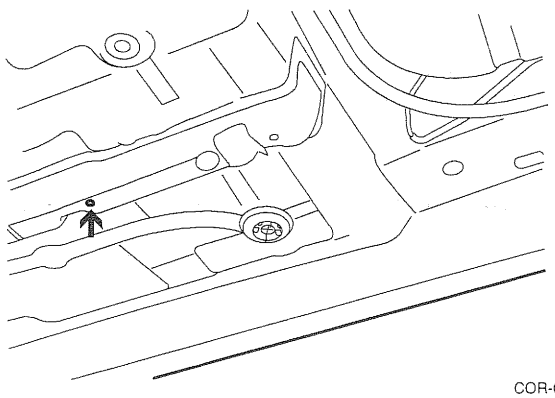

COR-0320

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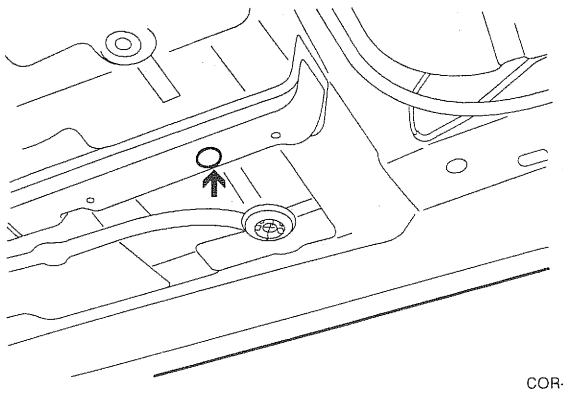

COR-0330

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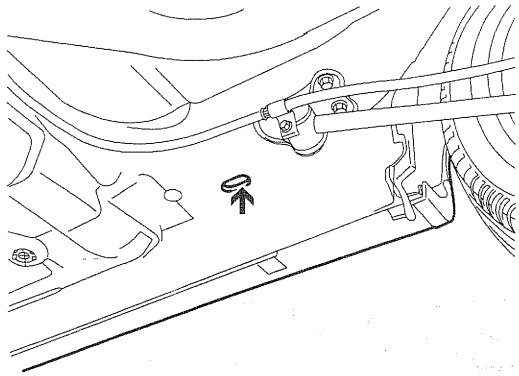

COR-0340

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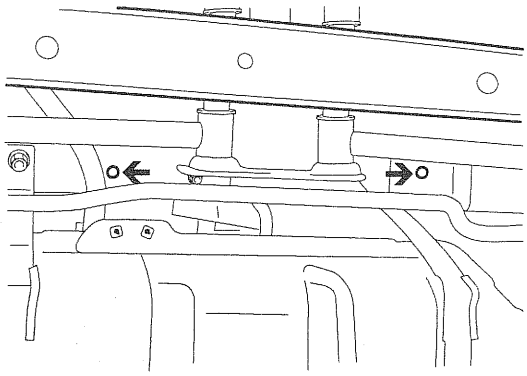

COR-0350

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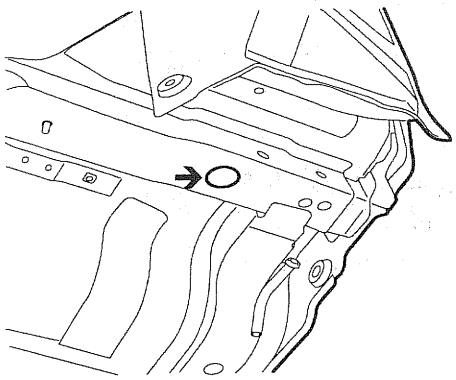
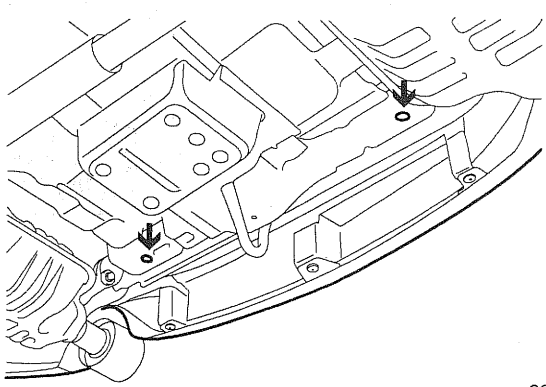


COR-0360

V



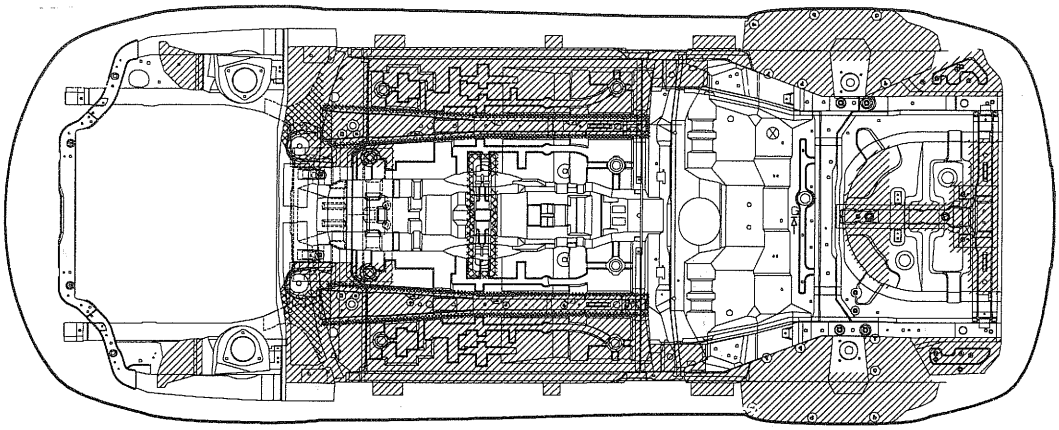
COR-0370

UNDER BODY ANTI-CORROSION AGENT

The undersides of the floor and wheel house are undercoated to provide greater corrosion resistance. Therefore, when such panel is replaced or repaired, apply under body anti-corrosion agent to that part.

NOTE

Do not apply the under body anti-corrosion agent to come in contact with tires, muffler and exhaust pipe.



Under body anti-corrosion agent (Thickness 2.0mm)

COR-0050