

FOREWORD

This Body Repair Manual contains information and instructions for repairing the body structure of the 1997 INFINITI Q45 (FY33) model. In order to achieve reliable repair work and ensure customer satisfaction, the technician should study this manual and become familiar with appropriate sections before starting repair and rebuilding work.

This Body Repair Manual is prepared for use by technicians who have attained a high level of skill and experience in repairing collision-damaged vehicles and also use modern service tools and equipment. Persons unfamiliar with body repair techniques should not attempt to repair collision-damaged vehicles by using this manual.

Technicians are also encouraged to read the 1997 INFINITI Q45 (FY33) Service Manual and Body Repair Manual (Fundamentals) in order to ensure that the original functions and quality of the vehicle can be maintained. The Body Repair Manual (Fundamentals) contains additional information, including cautions and warnings, that are not included in this manual. Technicians should refer to both manuals to ensure proper repairs.

Please note that these manuals are prepared for worldwide usage, and as such, certain procedures might not apply in some regions or countries. In the U.S.A. it is recommended that a M.I.G. welder be used by a trained technician.

All information in this manual is based on the latest product information at the time of publication. The right is reserved to make changes in specifications and methods at any time without notice.

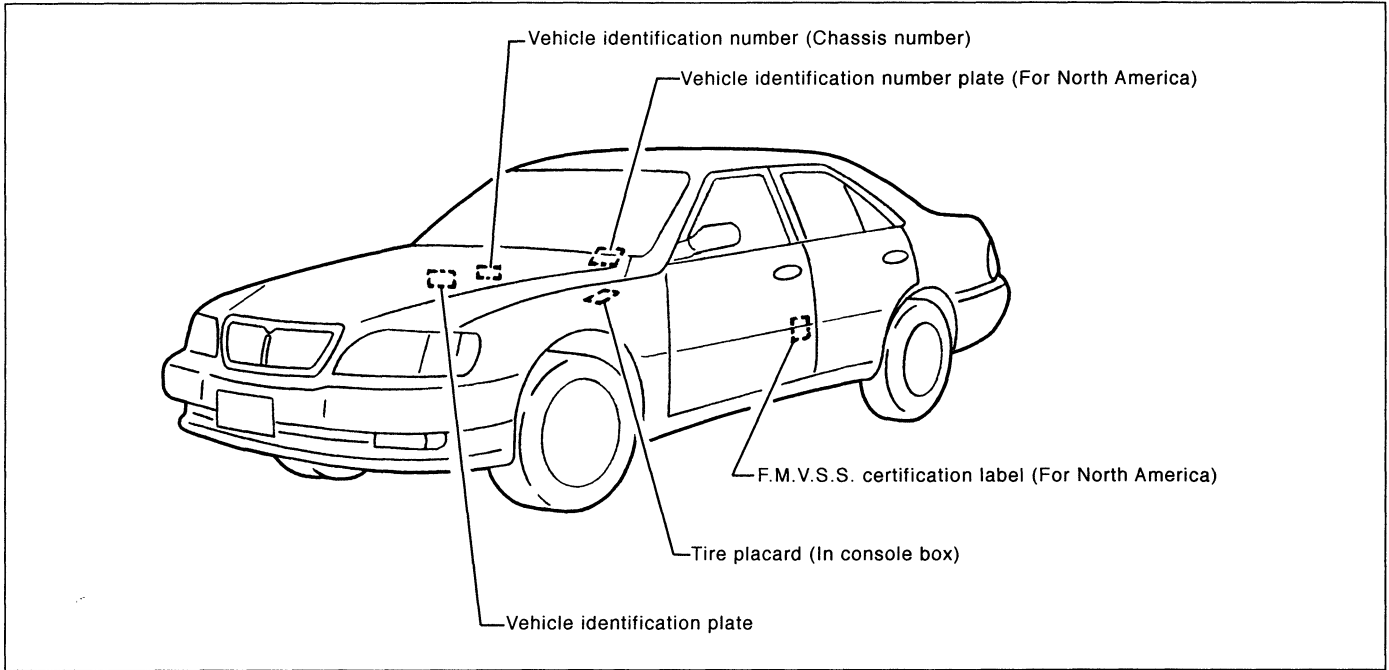
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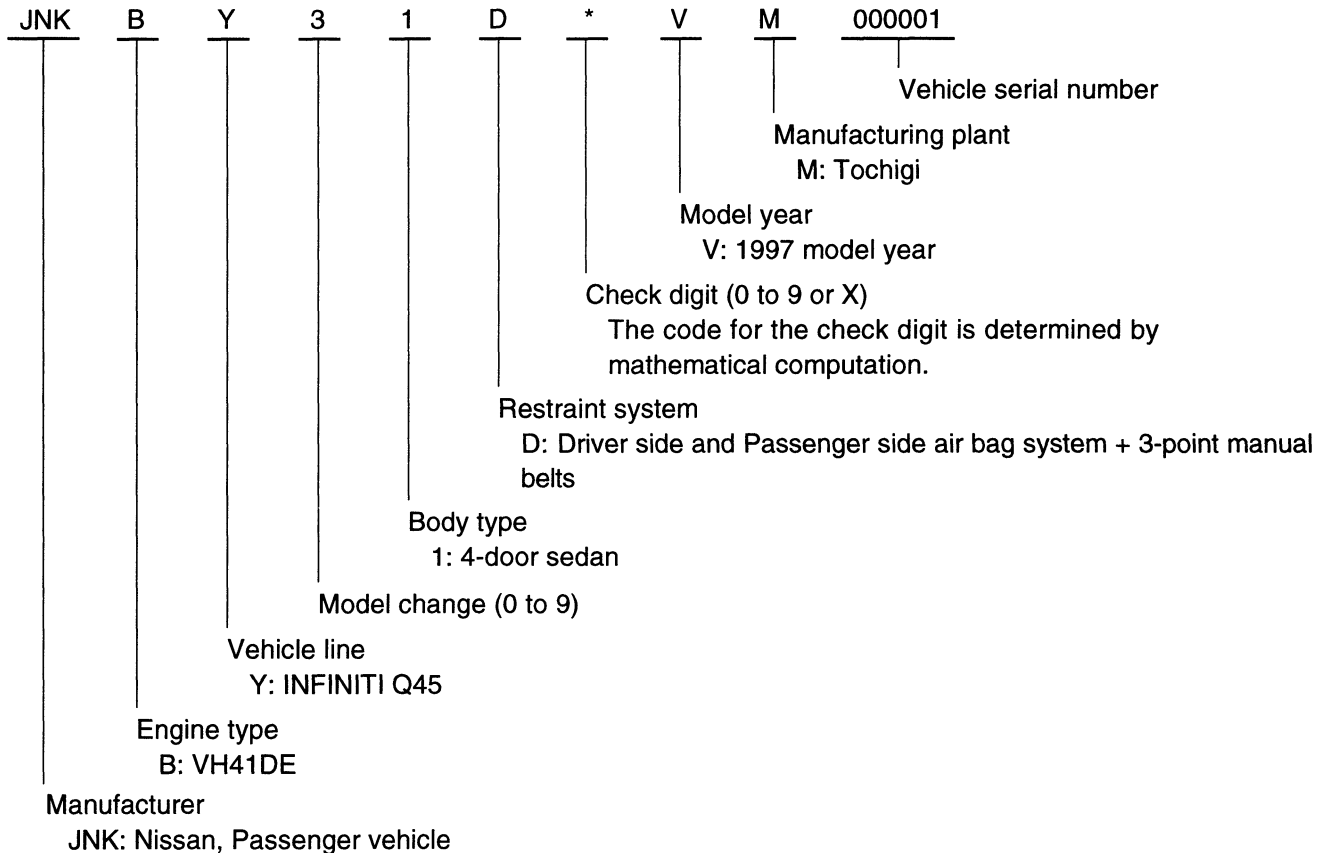
Identification Number



VEHICLE IDENTIFICATION NUMBER

Prefix and suffix designations:

(For North America)



Identification Number (Cont'd)




IDENTIFICATION PLATE

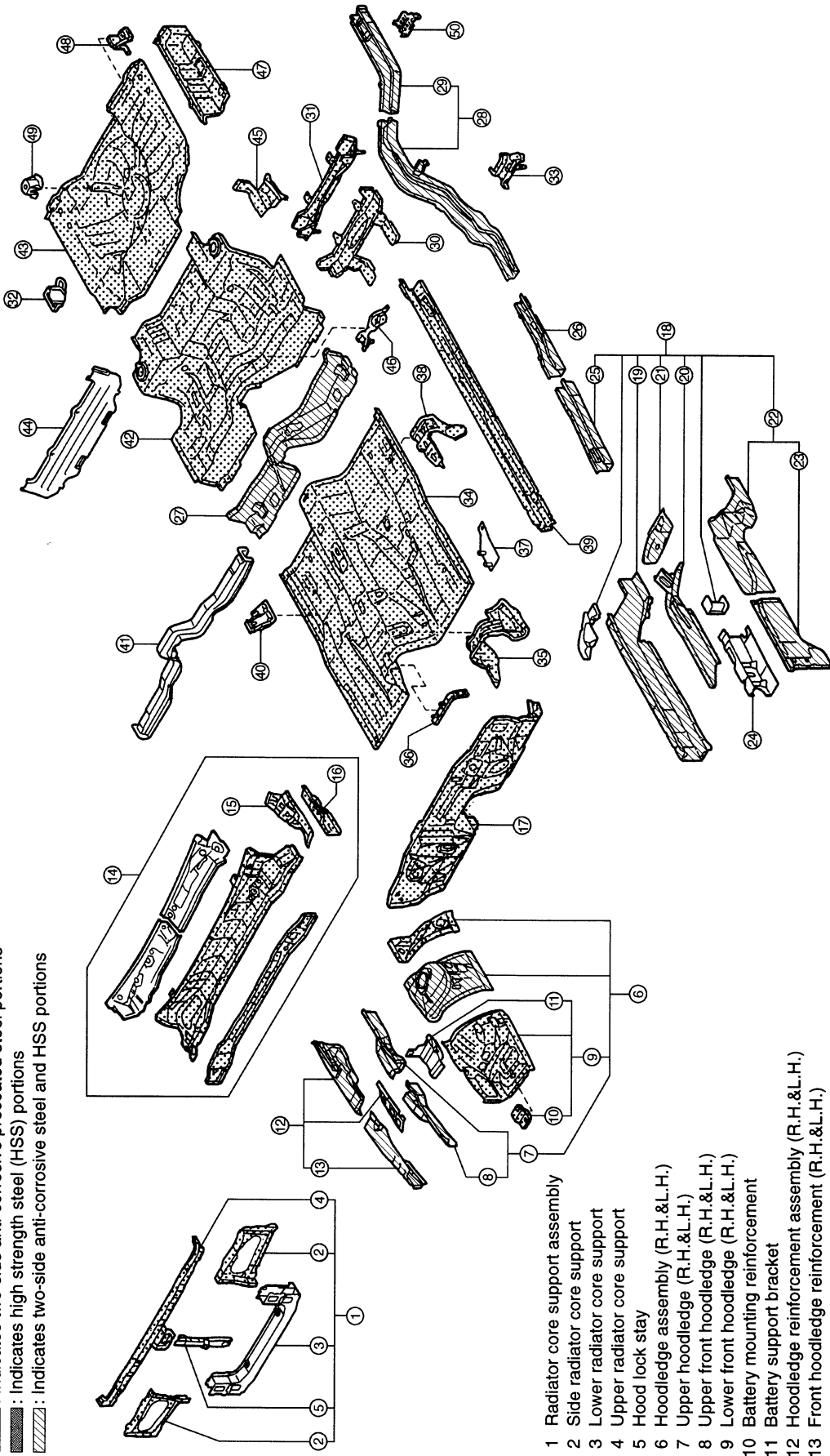
North America

NISSAN MOTOR CO., LTD. JAPAN					
型式	TYPE TIPO	△1			
CHASSIS NO. NO. DE CHASIS		△2			
MODEL MODELO		△3			
○ カラー-COLOR TRIM トリムCOLOR GUARNICION		△4	△5	○	
エン ENGINE ジン MOTOR		△6	△7	CC	
ミッション TRANS., AXLE アクスル TRANS., EJE		△8	△9		
		工場		PLANT PLANTA	
日産自動車株式会社			MADE IN JAPAN		

- 1 Type
- 2 Vehicle identification number(Chassis number)
- 3 Model
- 4 Body color code
- 5 Trim color code
- 6 Engine model
- 7 Engine displacement
- 8 Transmission model
- 9 Axle model




Underbody Component Parts

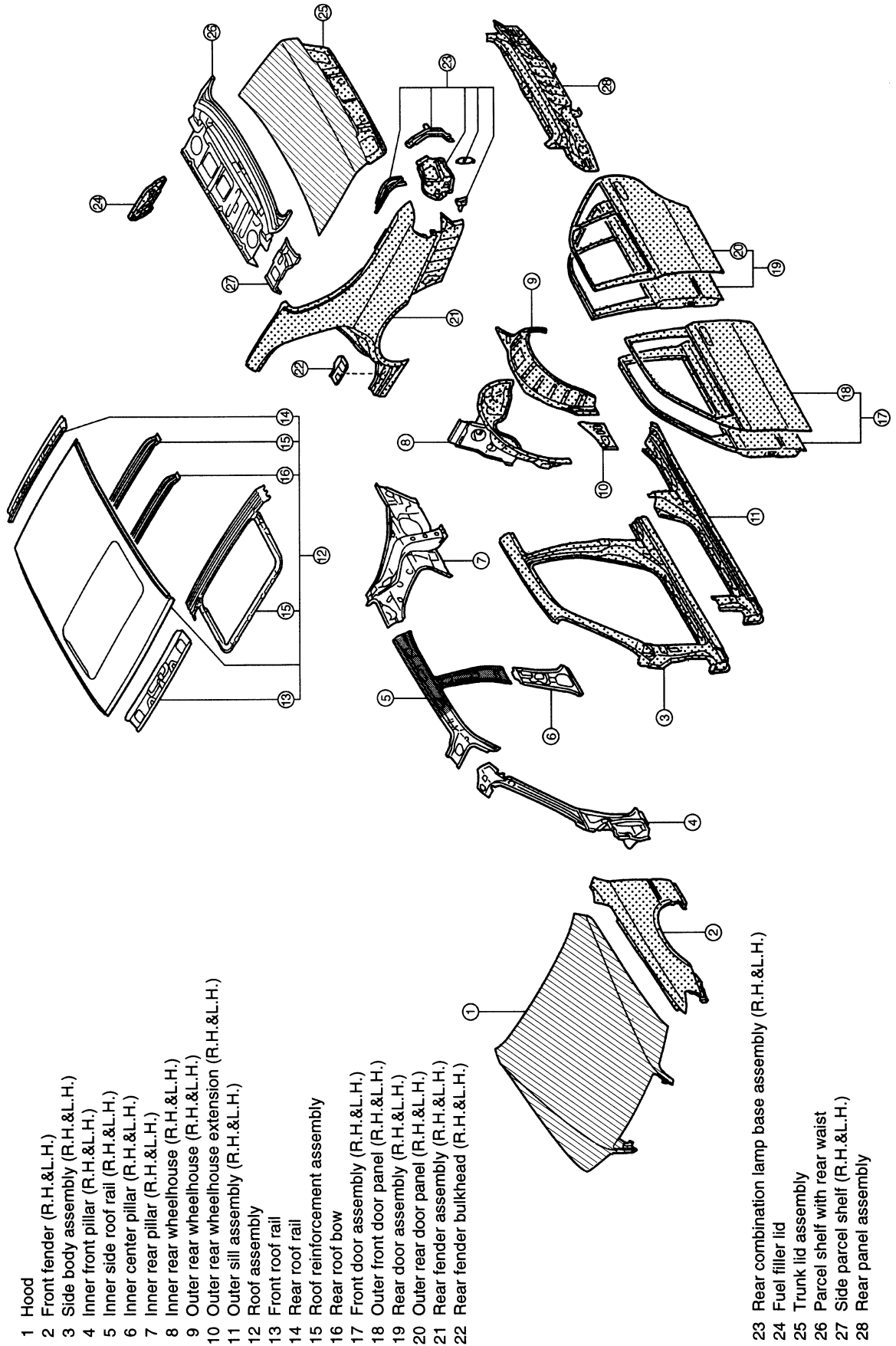
-  : Indicates two-side anti-corrosive pre-coated steel portions
-  : Indicates high strength steel (HSS) portions
-  : Indicates two-side anti-corrosive steel and HSS portions



- 1 Radiator core support assembly
- 2 Side radiator core support
- 3 Lower radiator core support
- 4 Upper radiator core support
- 5 Hood lock stay
- 6 Hoodledge assembly (R.H.&L.H.)
- 7 Upper hoodledge (R.H.&L.H.)
- 8 Upper front hoodledge (R.H.&L.H.)
- 9 Lower front hoodledge (R.H.&L.H.)
- 10 Battery mounting reinforcement
- 11 Battery support bracket
- 12 Hoodledge reinforcement assembly (R.H.&L.H.)
- 13 Front hoodledge reinforcement (R.H.&L.H.)
- 14 Air box assembly
- 15 Side cowl top brace (R.H.&L.H.)
- 16 Side cowl top (R.H.&L.H.)
- 17 Lower dash assembly
- 18 Front side member assembly (R.H.&L.H.)
- 19 Front side member (R.H.&L.H.)
- 20 Front side member reinforcement assembly (R.H.&L.H.)
- 21 Front side member outrigger (R.H.&L.H.)
- 22 Front side member closing plate assembly (R.H.&L.H.)
- 23 Front side member front closing plate (R.H.&L.H.)
- 24 Front side member patch (R.H.&L.H.)
- 25 Front side member extension (R.H.&L.H.)
- 26 Center side member (R.H.&L.H.)
- 27 Rear seat crossmember
- 28 Rear side member (R.H.&L.H.)
- 29 Rear side member extension (R.H.&L.H.)
- 30 Differential mounting crossmember
- 31 Center rear crossmember
- 32 Rear towing hook bracket
- 33 Rear side member outrigger (R.H.&L.H.)
- 34 Front floor
- 35 Rear engine mouting bracket
- 36 Instrument stay bracket
- 37 Sensor mounting bracket
- 38 Front seat mounting inner bracket
- 39 Inner sill (R.H.&L.H.)
- 40 Front seat mounting outer bracket (R.H.&L.H.)
- 41 2nd crossmember assembly
- 42 Rear floor front
- 43 Rear floor rear
- 44 Rear seat back lower support
- 45 Rear seat belt anchor inner reinforcement (R.H.&L.H.)
- 46 Parking brake mouting bracket (R.H.&L.H.)
- 47 Rear floor side (R.H.&L.H.)
- 48 Muffler mouting bracket
- 49 Spare wheel clamp bracket
- 50 Rear tie down hook bracket

Body Component Parts

 : Indicates two-side anti-corrosive pre-coated steel portions
 : Indicates high strength steel (HSS) portions
 : Indicates two-side anti-corrosive steel and HSS portions



- 1 Hood
- 2 Front fender (R.H.&L.H.)
- 3 Side body assembly (R.H.&L.H.)
- 4 Inner front pillar (R.H.&L.H.)
- 5 Inner side roof rail (R.H.&L.H.)
- 6 Inner center pillar (R.H.&L.H.)
- 7 Inner rear pillar (R.H.&L.H.)
- 8 Inner rear wheelhouse (R.H.&L.H.)
- 9 Outer rear wheelhouse (R.H.&L.H.)
- 10 Outer rear wheelhouse extension (R.H.&L.H.)
- 11 Outer sill assembly (R.H.&L.H.)
- 12 Roof assembly
- 13 Front roof rail
- 14 Rear roof rail
- 15 Roof reinforcement assembly
- 16 Rear roof bow
- 17 Front door assembly (R.H.&L.H.)
- 18 Outer front door panel (R.H.&L.H.)
- 19 Rear door assembly (R.H.&L.H.)
- 20 Outer rear door panel (R.H.&L.H.)
- 21 Rear fender bulkhead (R.H.&L.H.)
- 22 Rear door assembly (R.H.&L.H.)
- 23 Rear combination lamp base assembly (R.H.&L.H.)
- 24 Fuel filler lid
- 25 Trunk lid assembly
- 26 Parcel shelf with rear waist
- 27 Side parcel shelf (R.H.&L.H.)
- 28 Rear panel assembly

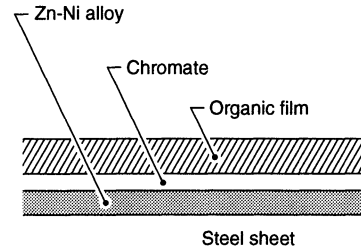
Description

To provide improved corrosion prevention, the following anti-corrosive measures have been implemented in our production plants. When repairing or replacing body panels, it is necessary to use these same anti-corrosive measures.

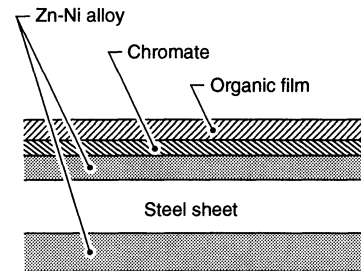
**ANTI-CORROSIVE PRECOATED STEEL
(DURASTEEL)**

To improve repairability and corrosion resistance, a new type of anti-corrosive precoated steel sheet has been adopted replacing conventional zinc-coated steel sheet. Durasteel is electroplated, zinc-nickel alloy under organic film, which provides excellent corrosion resistance.

Durasteel is classified as either one-side precoated steel or two-side precoated steel. The two side precoated steel provides excellent corrosion resistance.



One-side precoated



Two-side precoated

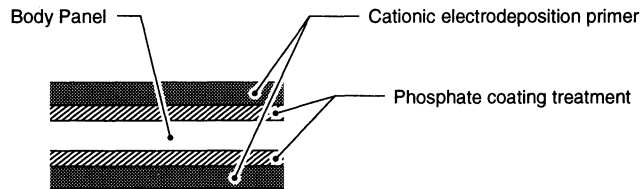
Nissan Genuine Service Parts are fabricated from durasteel sheets. Therefore, it is recommended that GENUINE NISSAN PARTS be used for panel replacement to maintain the anti-corrosive performance built into the vehicle at the factory.

**PHOSPHATE COATING TREATMENT AND
CATIONIC ELECTRODEPOSITION PRIMER**

A phosphate coating treatment and a cationic electrodeposition primer, which provide an excellent corrosion protection, are employed on all body components.

Caution:

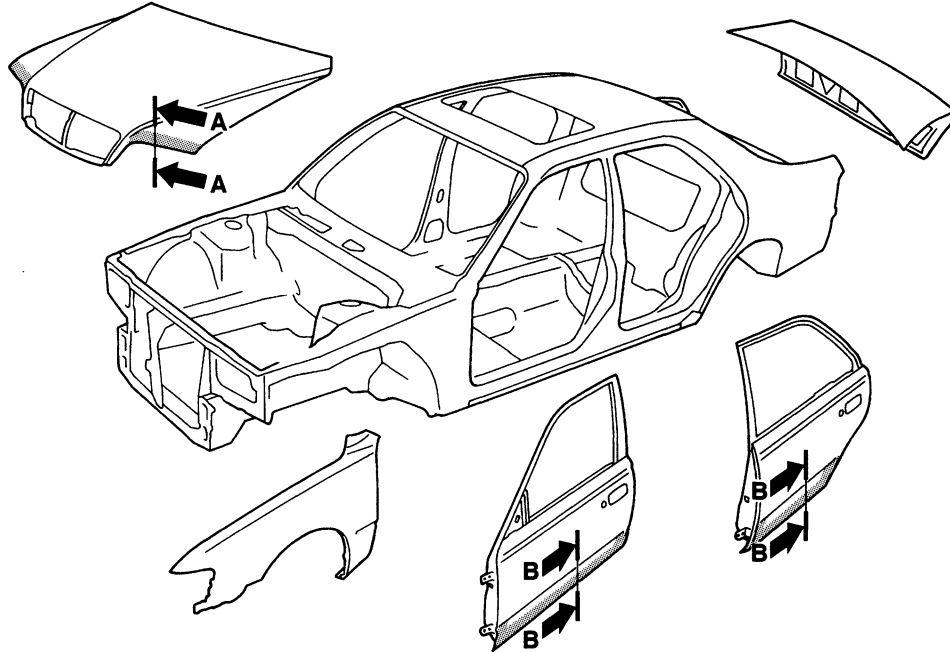
Confine paint removal during welding operations to an absolute minimum.




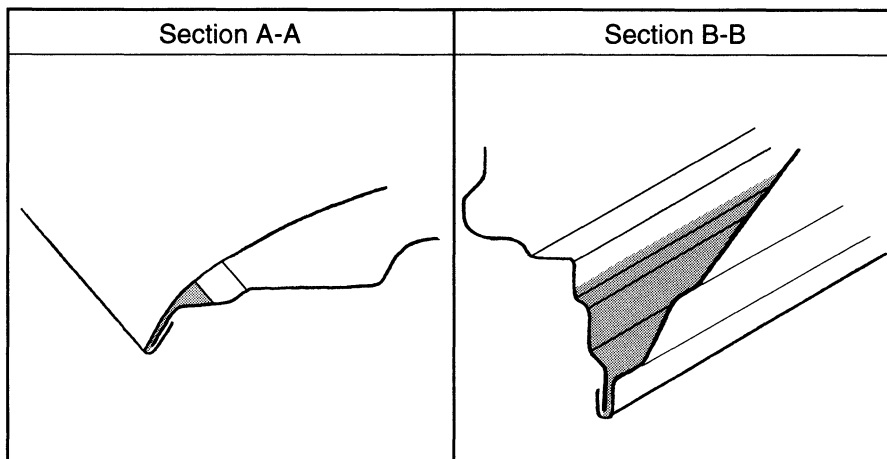
Nissan Genuine Service Parts are also treated in the same manner. Therefore, it is recommended that GENUINE NISSAN PARTS be used for panel replacement to maintain anti-corrosive performance built into the vehicle at the factory.

Anti-Corrosive Wax

To improve corrosion resistance, anti-corrosive wax is applied inside the body sill and inside other closed sections. Accordingly, when replacing these parts, be sure to apply anti-corrosive wax to the appropriate areas of the new parts. Select an excellent anti-corrosive wax which will penetrate after application and has a long shelf life.



 : Indicates anti-corrosive wax coated portions.



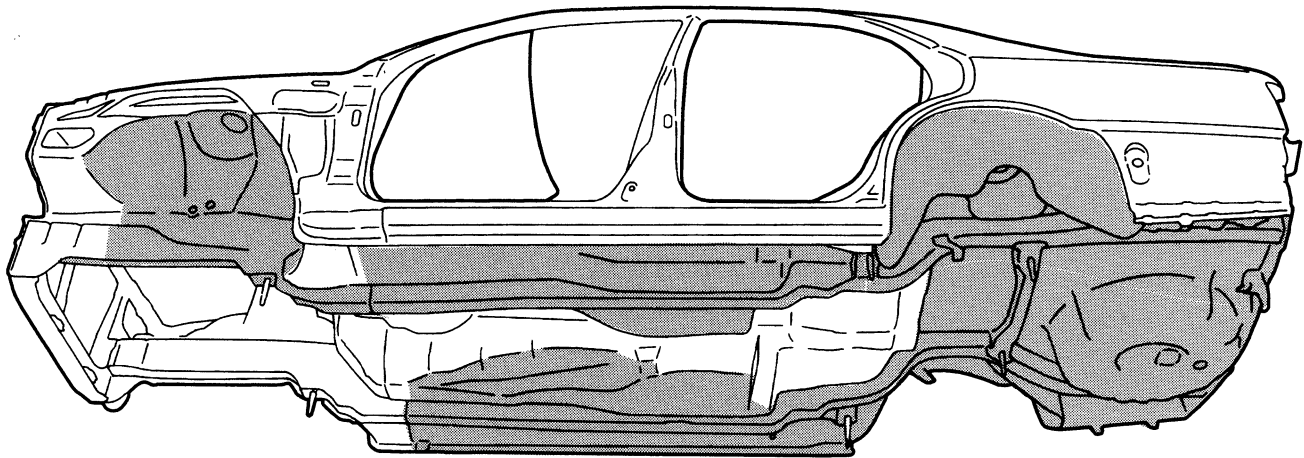
Undercoating

The underside of the floor and wheelhouse are undercoated to prevent rust, vibration, noise and stone chipping. Therefore, when such a panel is replaced or repaired, apply undercoating to that part. Use an undercoating with the following properties: rust preventive, soundproofing, vibration-proofing, shock-resistance, adhesive, and durable.

Precautions in undercoating


1. Do not apply undercoating to any place unless specified (such as the areas above the muffler and catalytic converter which are subjected to heat).
2. Do not undercoat the exhaust pipe or other parts which become hot .
3. Do not undercoat rotating parts.
4. Apply bitumen wax after applying undercoating.

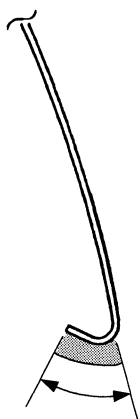
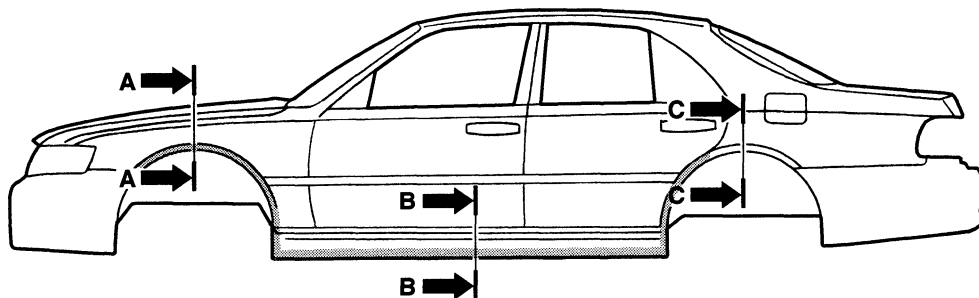
 : Indicates undercoated portions.



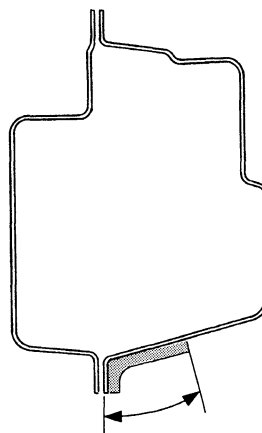
Stone Guard Coat

To prevent damage caused by stones, the lower outer body panel (fender, door, etc.) have an additional layer of Stone Guard Coating over the ED primer coating. When replacing or repairing these panels, apply undercoating to the same portions as before. Use a coating which is rust preventive, durable, shock-resistant and has a long shelf life.

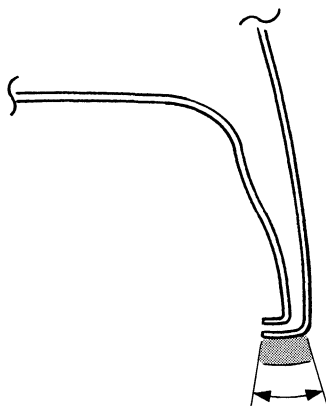
 : Indicates stone guard coated portions.



Section A-A

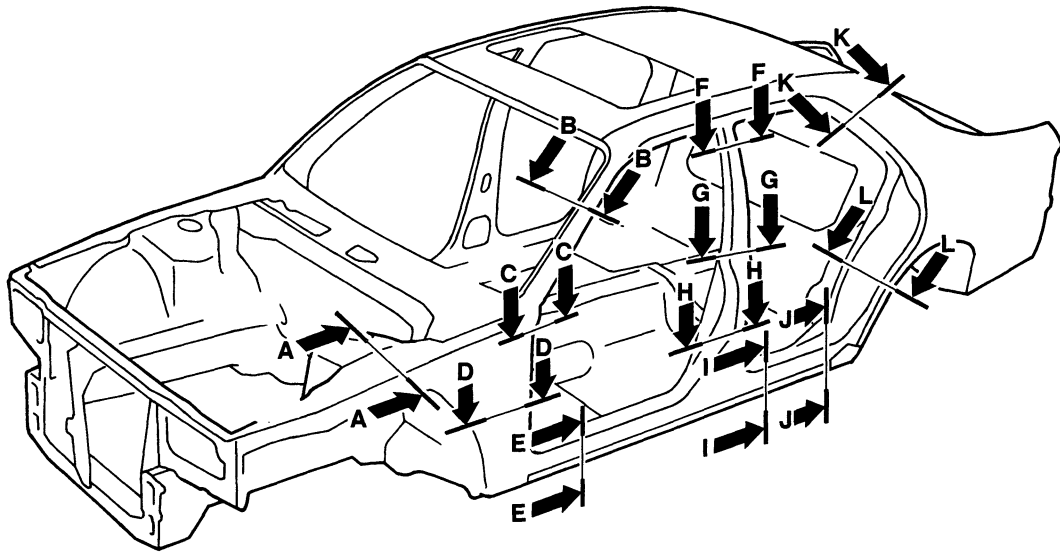


Section B-B



Section C-C

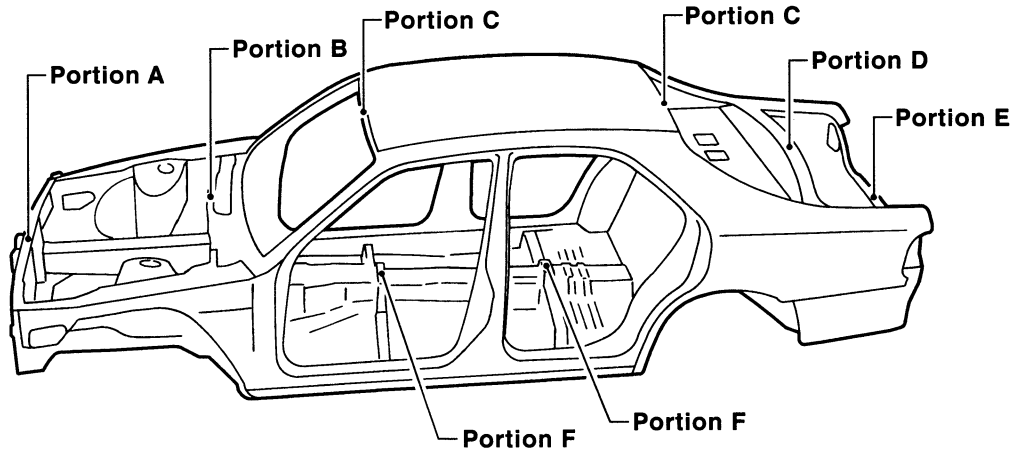
Body Construction



Section A-A	Section B-B	Section C-C	Section D-D
Section E-E	Section F-F	Section G-G	Section H-H
Section I-I	Section J-J	Section K-K	Section L-L

Body Center Marks

A mark has been placed on each part of the body to indicate the vehicle center. When repairing parts damaged by an accident which might affect the vehicle frame (members, pillars, etc.) more accurate, effective repair will be possible by using these marks together with body alignment data.

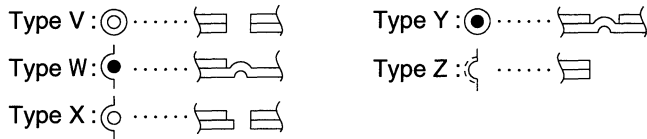
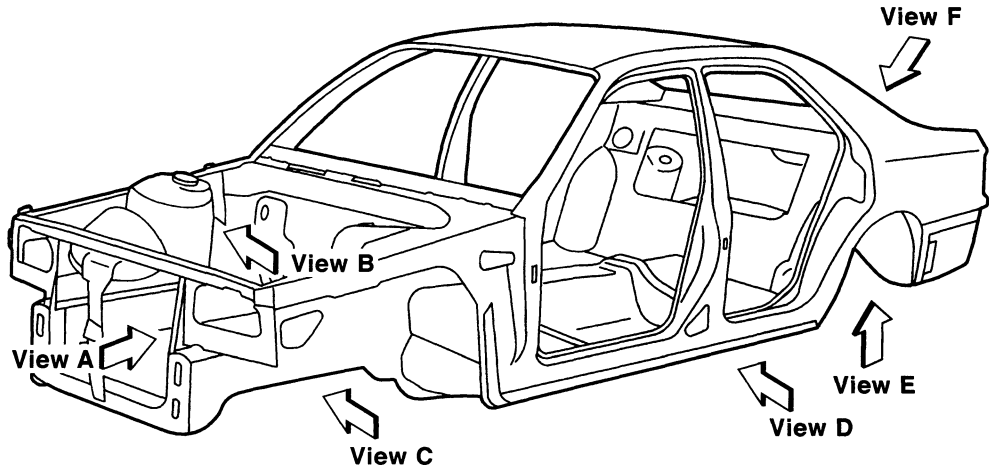


Unit: mm

Portion A	Portion B	Portion C
<p>Hole (8 dia)</p> <ul style="list-style-type: none"> ● Upper radiator core support 	<p>Hole (5 dia)</p> <ul style="list-style-type: none"> ● Cowl top 	<p>Embossing</p> <ul style="list-style-type: none"> ● Front roof ● Rear roof
Portion D	Portion E	Portion F
<p>Embossing</p> <ul style="list-style-type: none"> ● Rear waist panel 	<p>Dent</p> <ul style="list-style-type: none"> ● Rear panel crossmember 	<p>Elongated hole</p> <ul style="list-style-type: none"> ● Front floor

Panel Parts Matching Marks

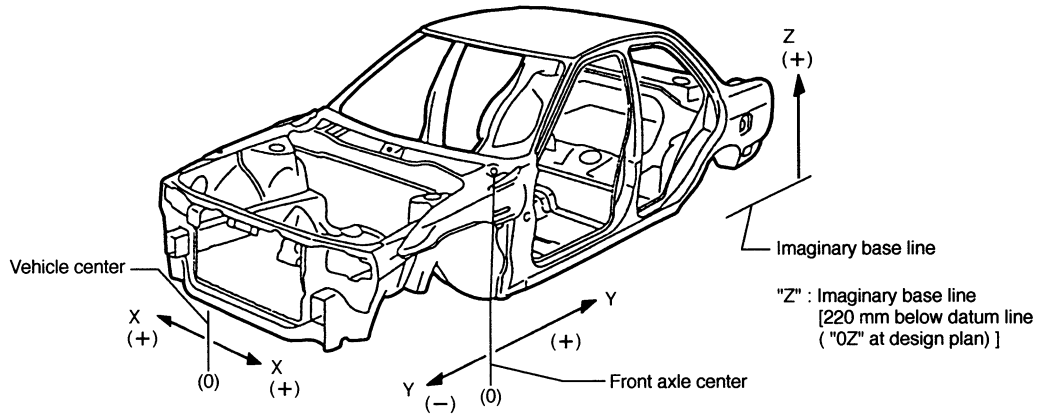
A mark has been placed on each body panel to indicate the parts matching positions. When repairing parts damaged by an accident which might affect the vehicle structure (members, pillars, etc.) more accurate, effective repair will be possible by using these marks together with body alignment specifications.



View A	View B	View C
View D	View E	View F

Description

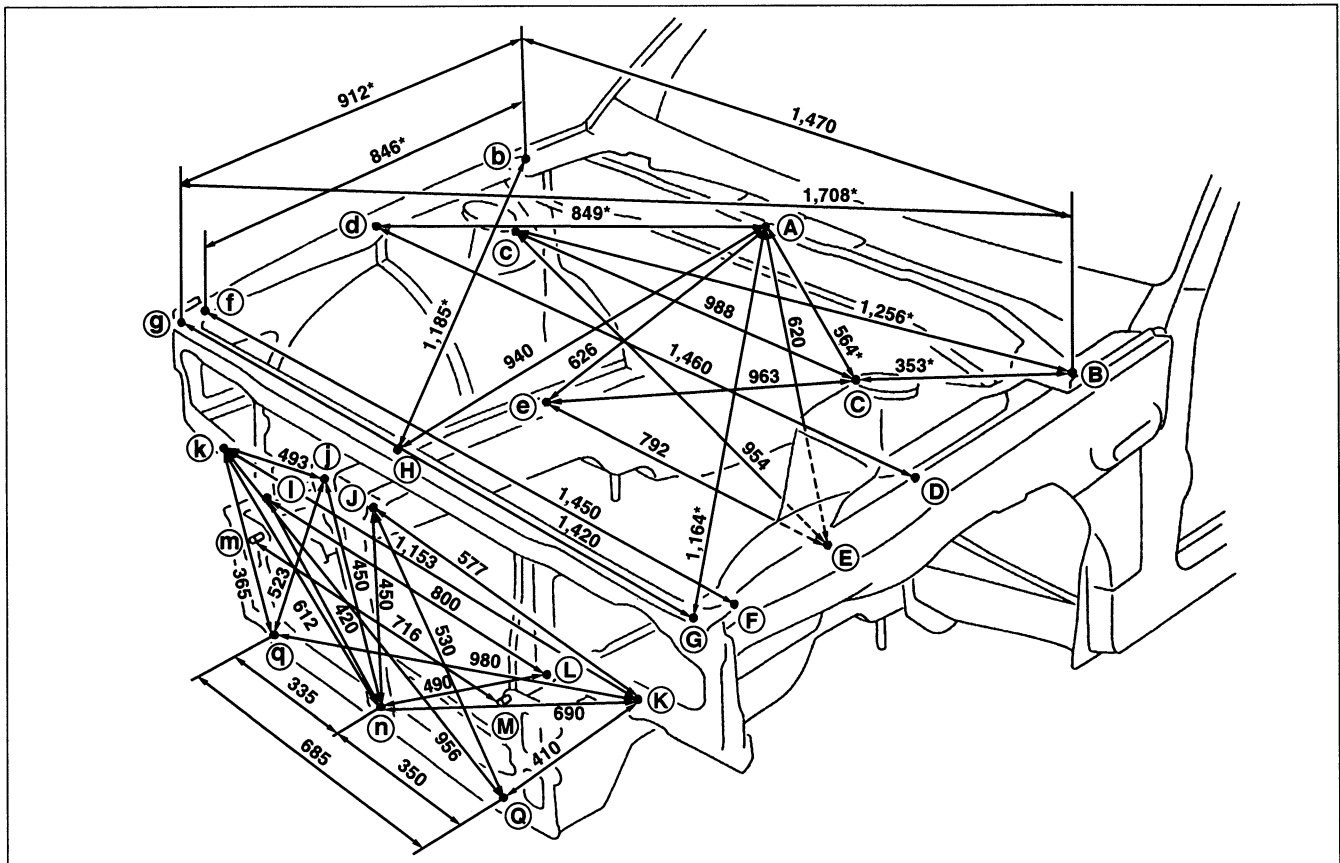
- All dimensions indicated in the figures are actual.
- When using a tracking gauge, adjust both pointers to equal length. Then check the pointers and gauge themselves to make sure there is no free play.
- When a measuring tape is used, check to be sure there is no elongation, twisting or bending.
- Measurements should be taken at the center of the mounting holes.
- An asterisk (*) following the value at the measuring point indicates that the measuring point on the other side is symmetrically the same value.
- The coordinates of the measurement points are the distances measured from the standard line of "X", "Y" and "Z".



Engine Compartment

MEASUREMENT

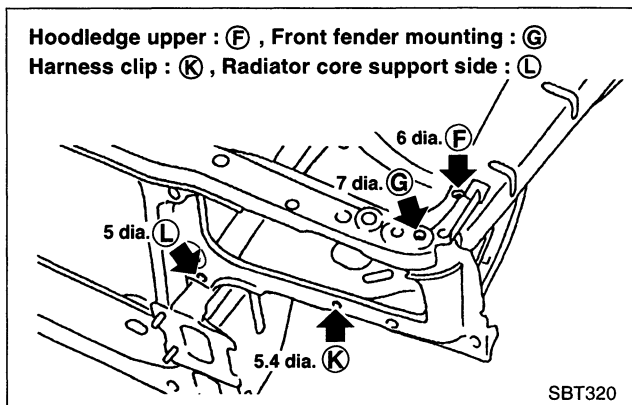
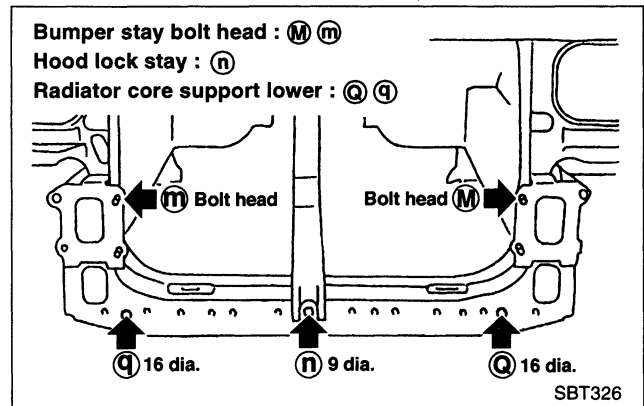
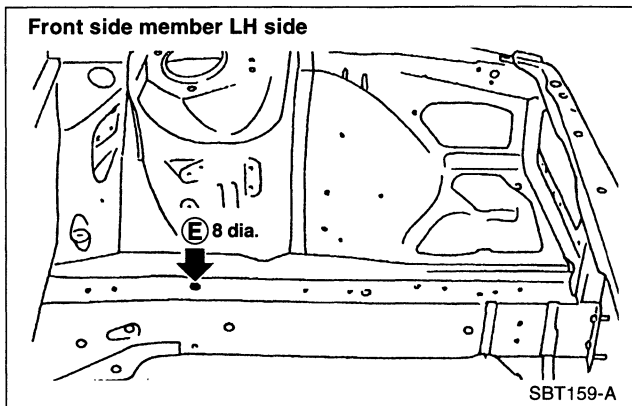
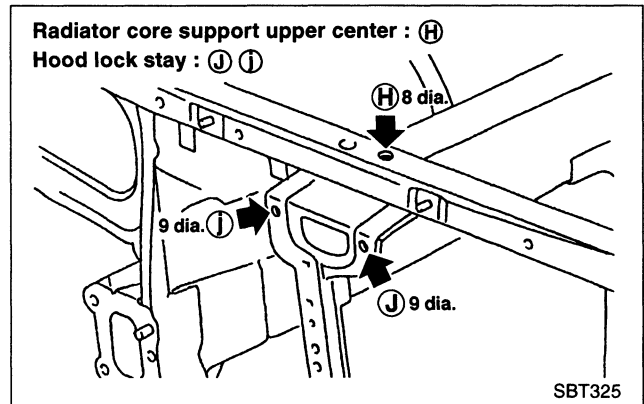
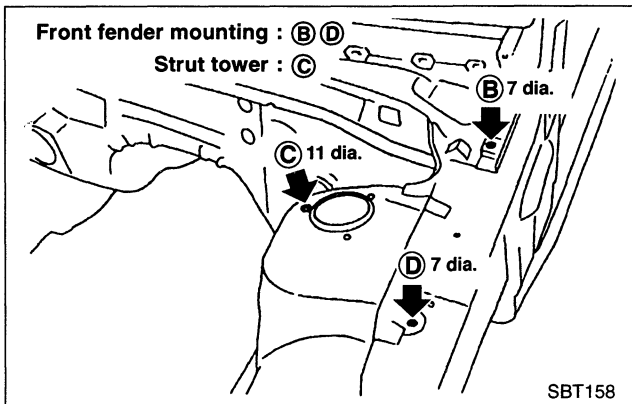
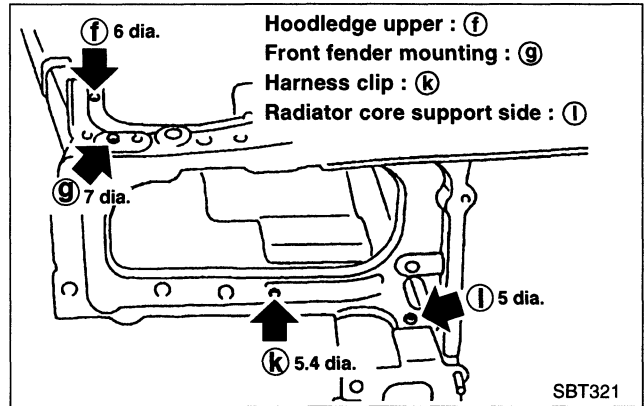
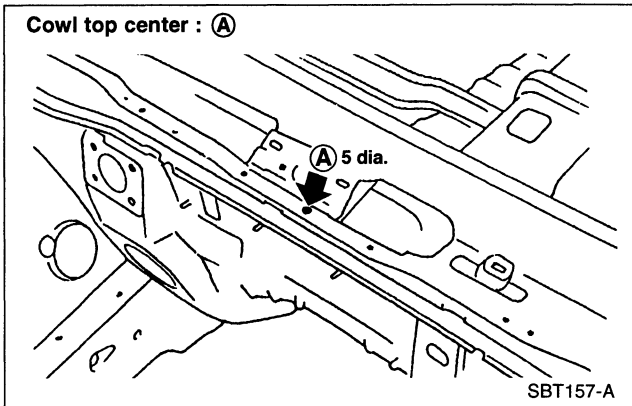
Unit: mm



Engine Compartment (Cont'd)

MEASUREMENT POINTS

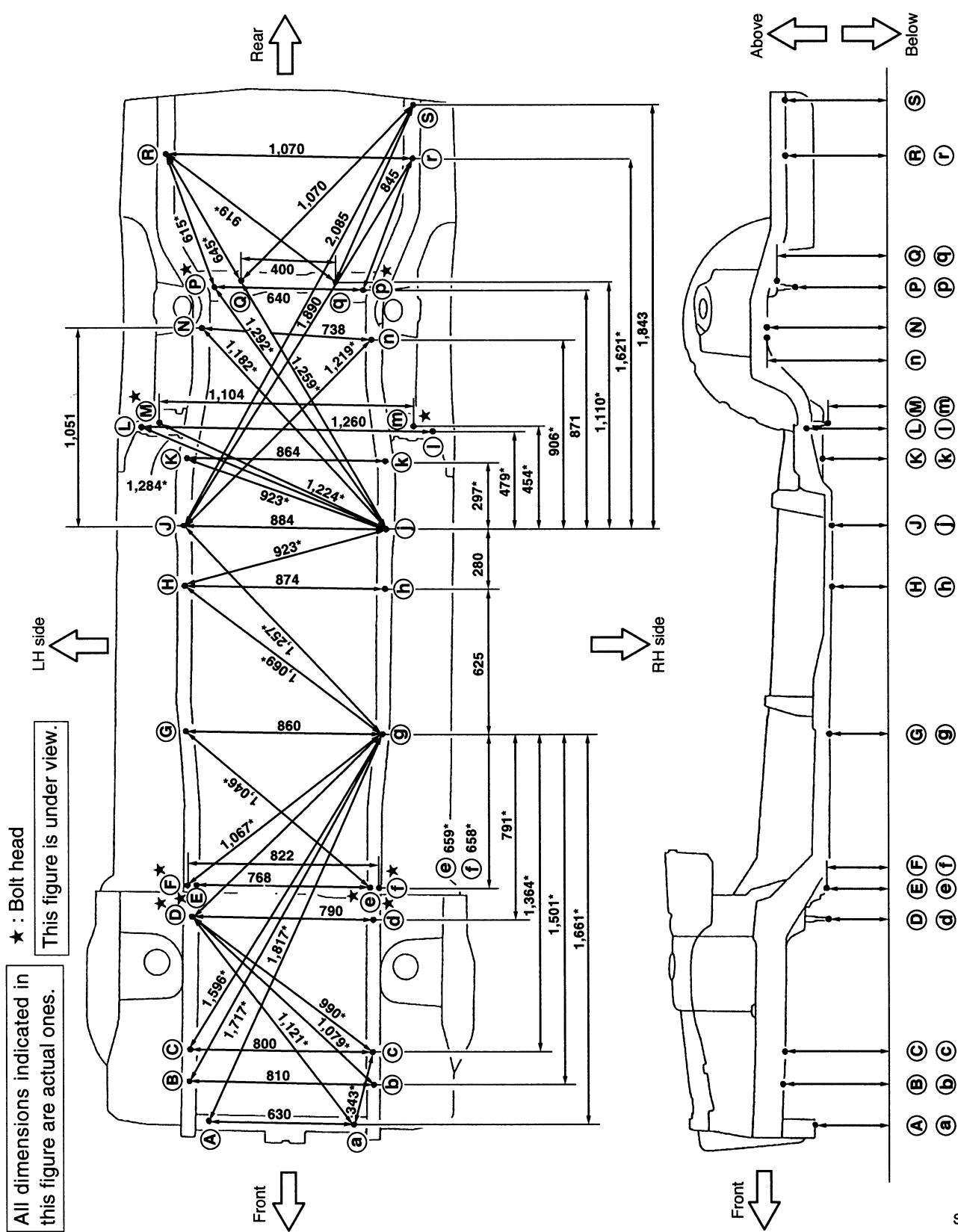
Unit: mm



BODY ALIGNMENT

Underbody

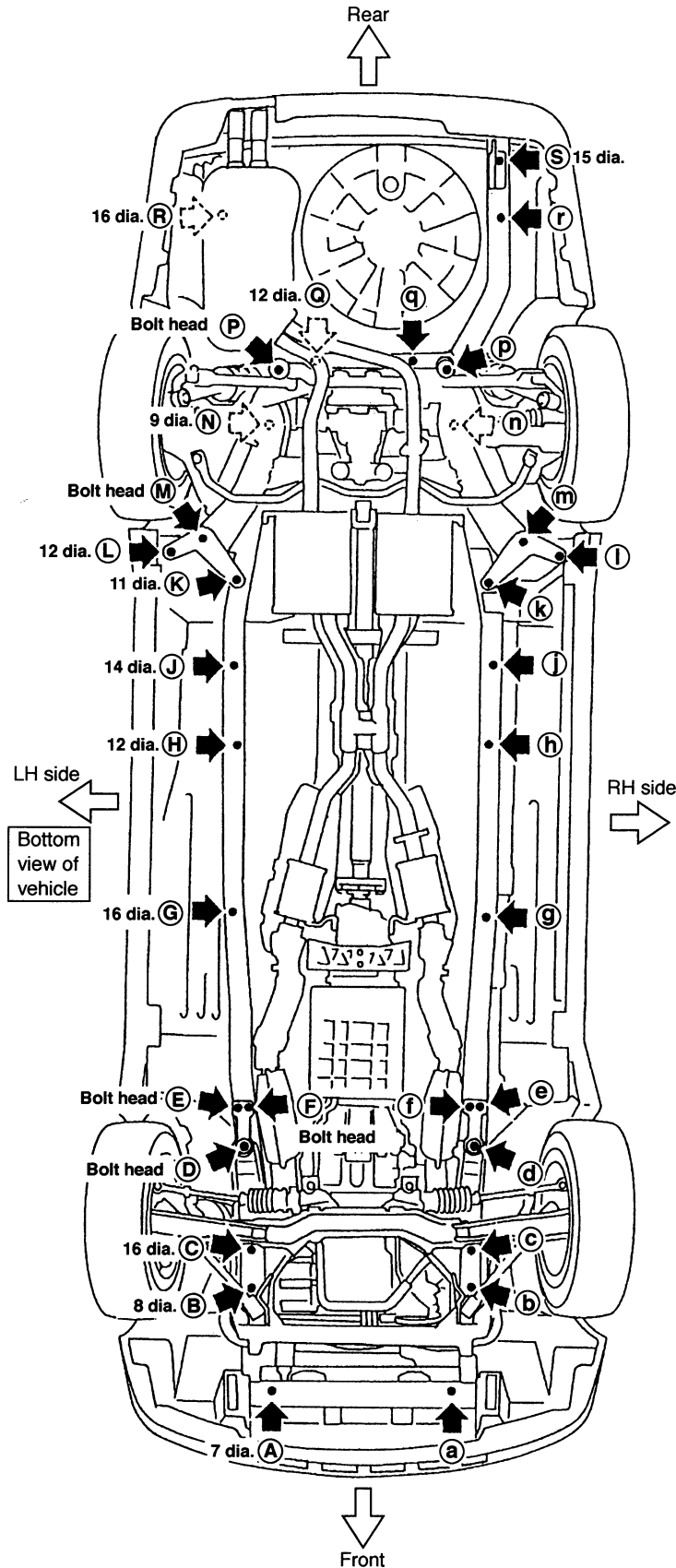
MEASUREMENT



SBT322

Underbody (Cont'd)

MEASUREMENT POINTS



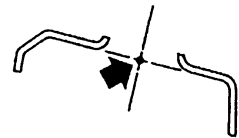
Coordinates:

(A, a) X: 315 Y: -596 Z: 173	(G, g) X: 430 Y: 1,060 Z: 110.4	(N) X: 376 Y: 2,820 Z: 397.7
(B, b) X: 405 Y: -427 Z: 311.9	(H, h) X: 437 Y: 1,685 Z: 104.8	(n) X: -361 Y: 2,782 Z: 397.7
(C, c) X: 400 Y: -290 Z: 302	(J, j) X: 442 Y: 1,965 Z: 106.2	(P, p) X: 320 Y: 2,995 Z: 274.1
(D, d) X: 395 Y: 270 Z: 119	(K, k) X: 432 Y: 2,258 Z: 151.2	(Q, q) X: 200 Y: 3,020 Z: 352.9
(E, e) X: 384 Y: 403.2 Z: 128.8	(L, l) X: 630 Y: 2,390 Z: 221.5	(R, r) X: 535 Y: 3,570 Z: 311.6
(F, f) X: 411 Y: 402.7 Z: 128.8	(M, m) X: 552 Y: 2,375 Z: 124.2	(S) X: -537.7 Y: 3,794 Z: 311.6

Front and rear strut tower centers

Coordinates:

(T, t) X: 543 Y: 71.5 Z: 800
(U, u) X: 454 Y: 2,877.2 Z: 667.7

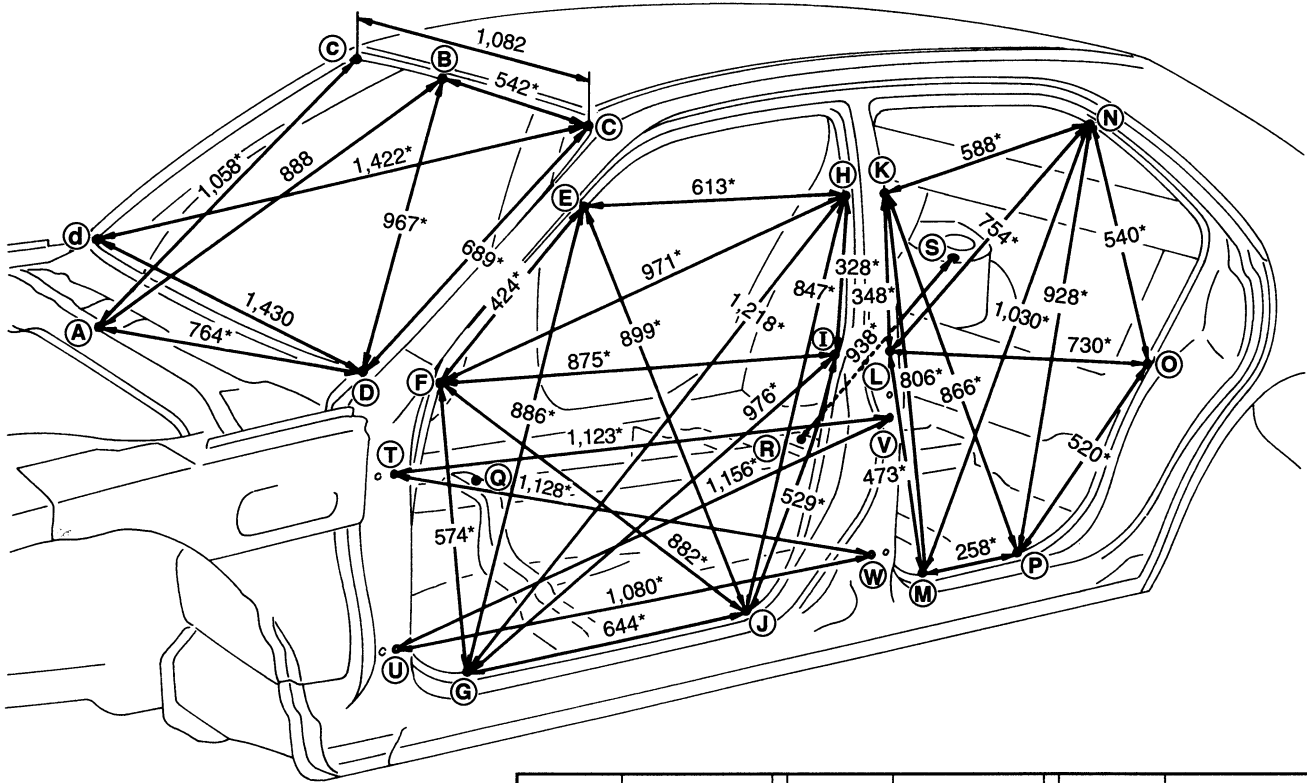


Front: **(T, t)** 106 dia.
Rear: **(U, u)** 84 dia.

Unit: mm

Passenger Compartment

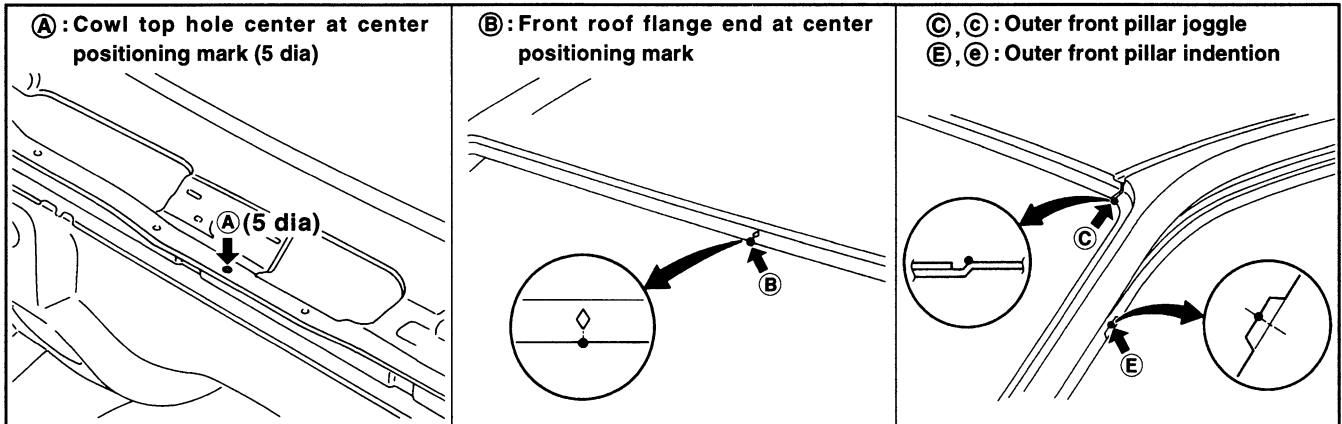
MEASUREMENT



Point	Dimension	Point	Dimension	Point	Dimension
E ~ e	1,279	P ~ p	1,462	V ~ E	795 *
F ~ f	1,443	Q ~ E	969 *	V ~ F	989 *
G ~ g	1,464	Q ~ F	964 *	V ~ G	1,020 *
H ~ h	1,303	Q ~ H	1,077 *	V ~ N	856 *
I ~ i	1,467	Q ~ I	934 *	V ~ O	780 *
K ~ k	1,307	R ~ K	1,013 *	V ~ P	566 *
L ~ l	1,468	R ~ L	883 *	W ~ O	866 *
N ~ n	1,203	R ~ N	1,057 *	W ~ P	470 *
O ~ o	1,440	R ~ O	887 *		

Figures marked with a * indicate symmetrically identical dimensions on both right and left hand sides of the vehicle.

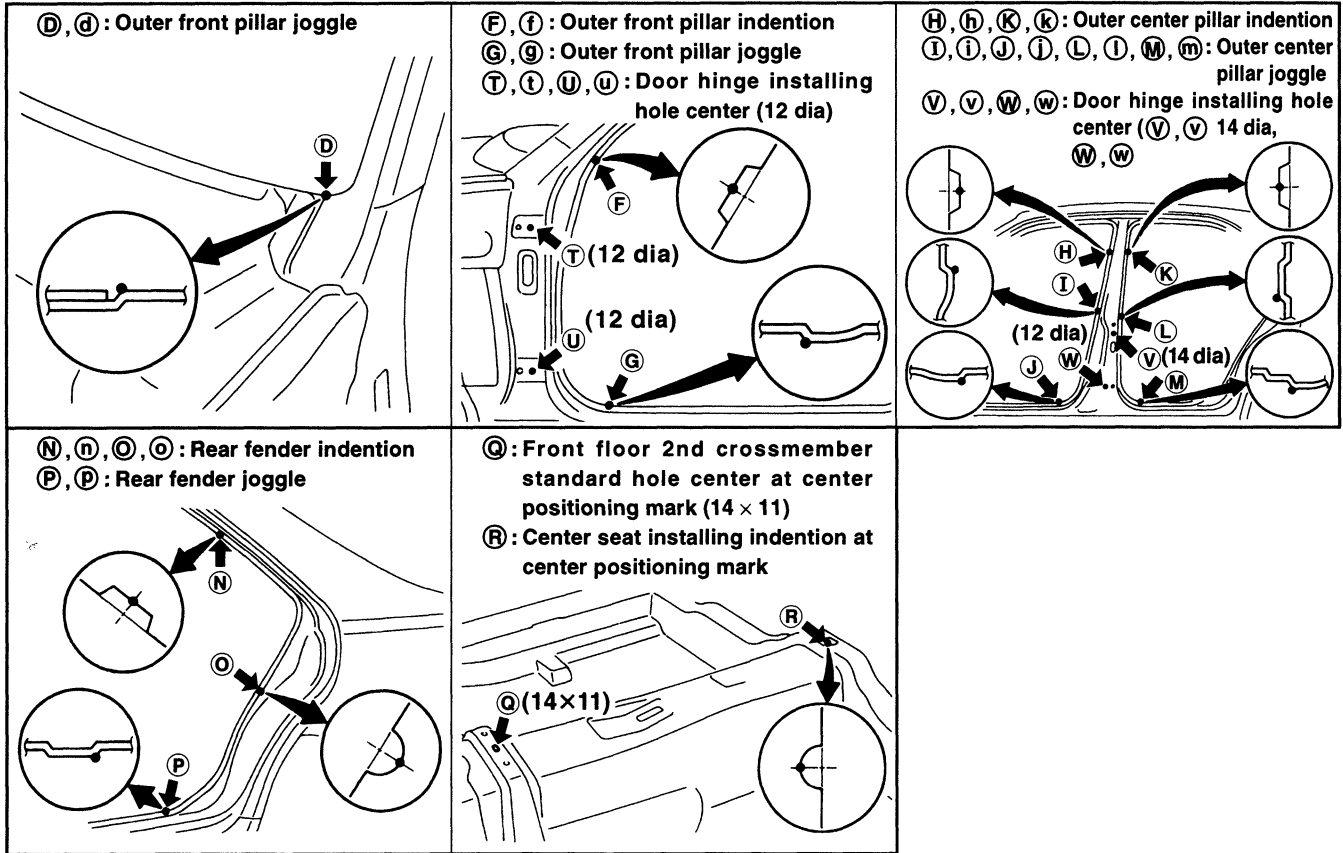
Unit: mm



Passenger Compartment

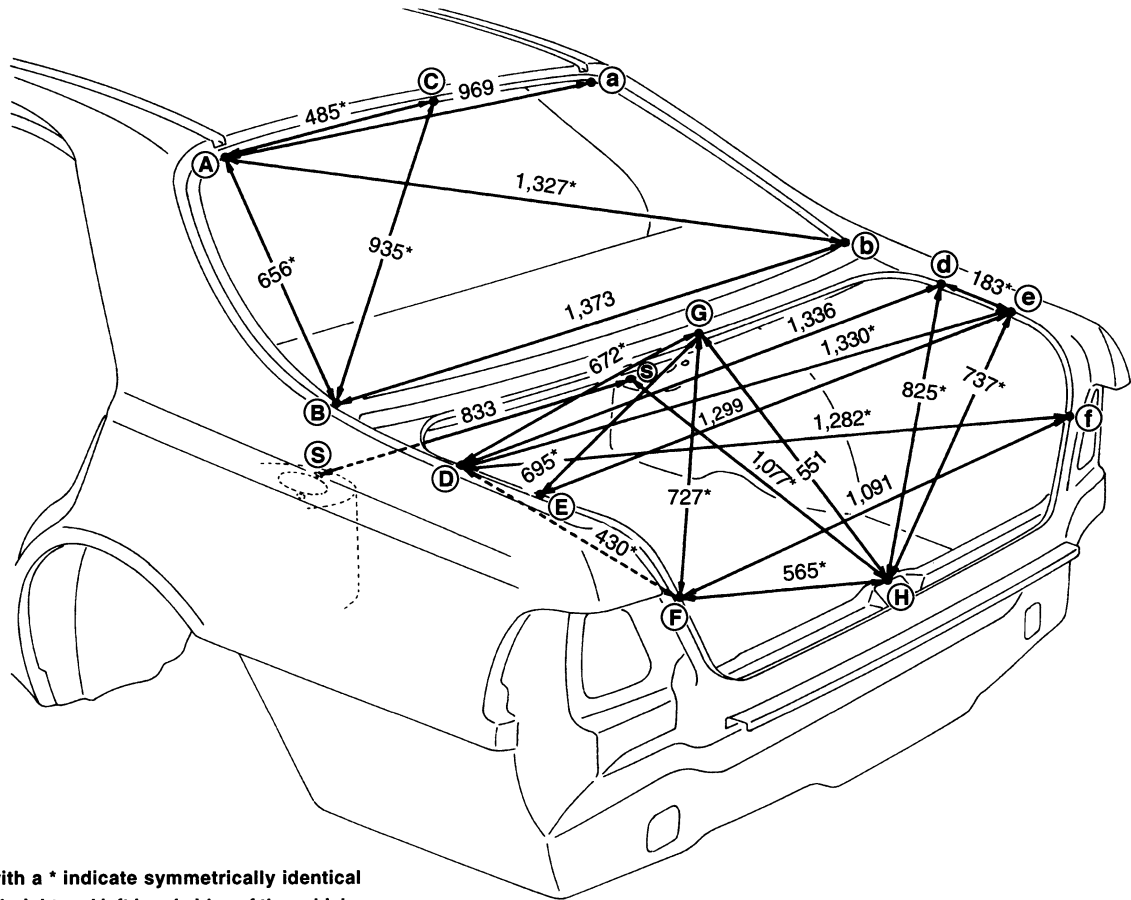
MEASUREMENT

Unit: mm



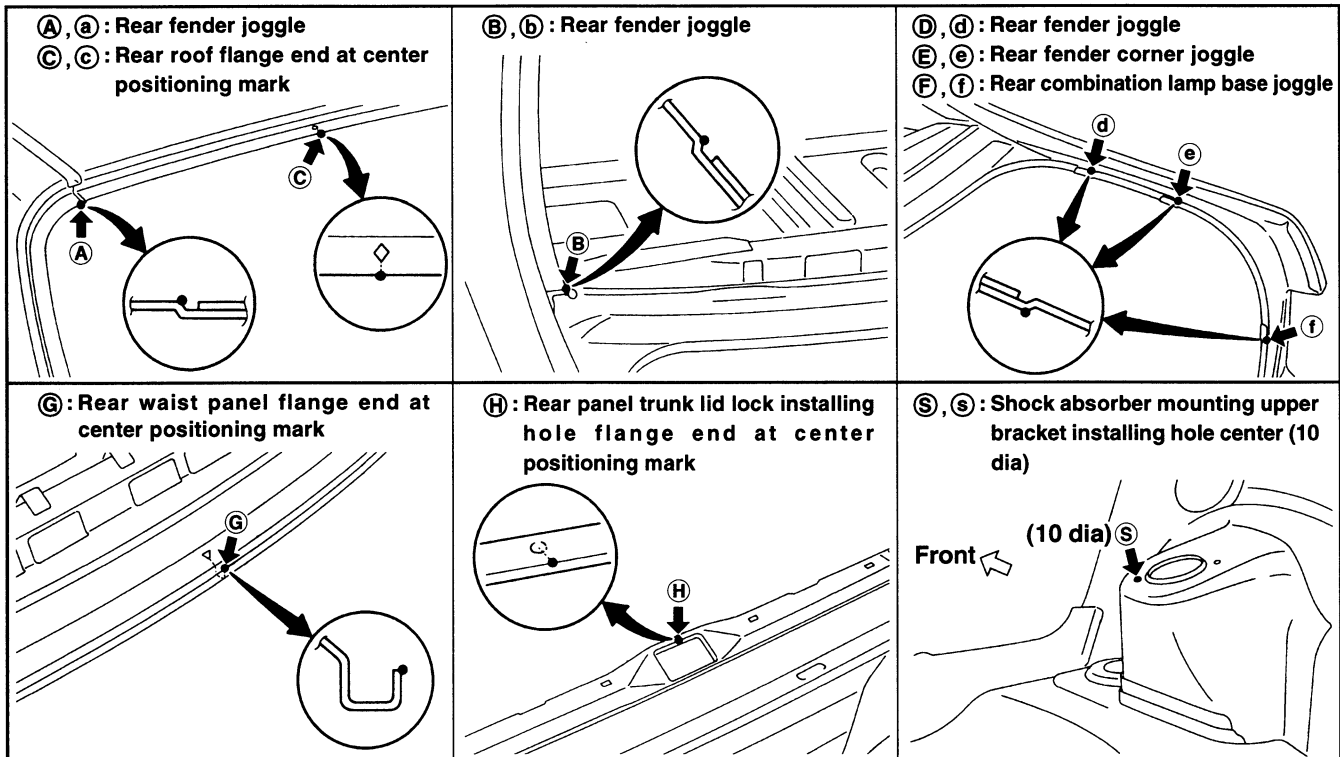
Rear Body

MEASUREMENT



Figures marked with a * indicate symmetrically identical dimensions on both right and left hand sides of the vehicle.

Unit: mm

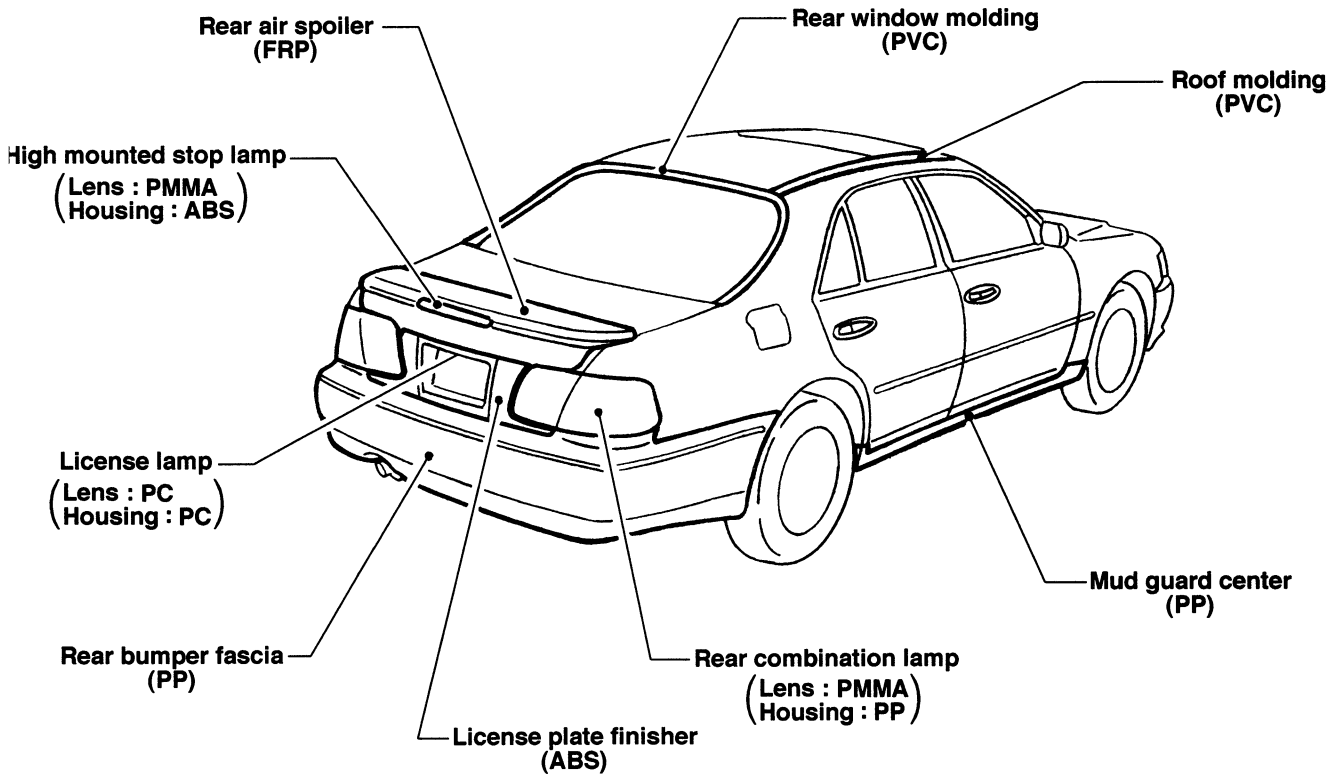
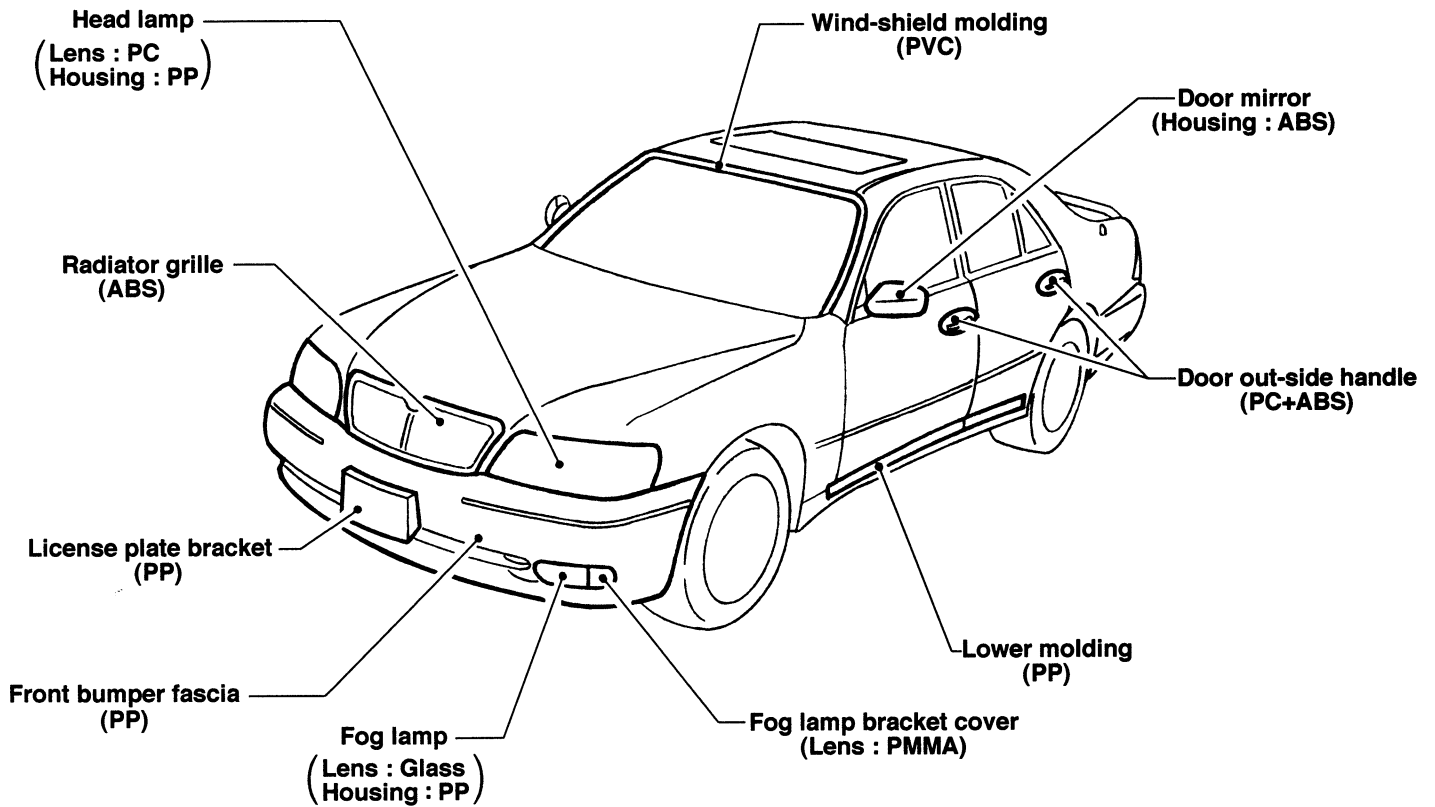


Handling Precautions for Plastics

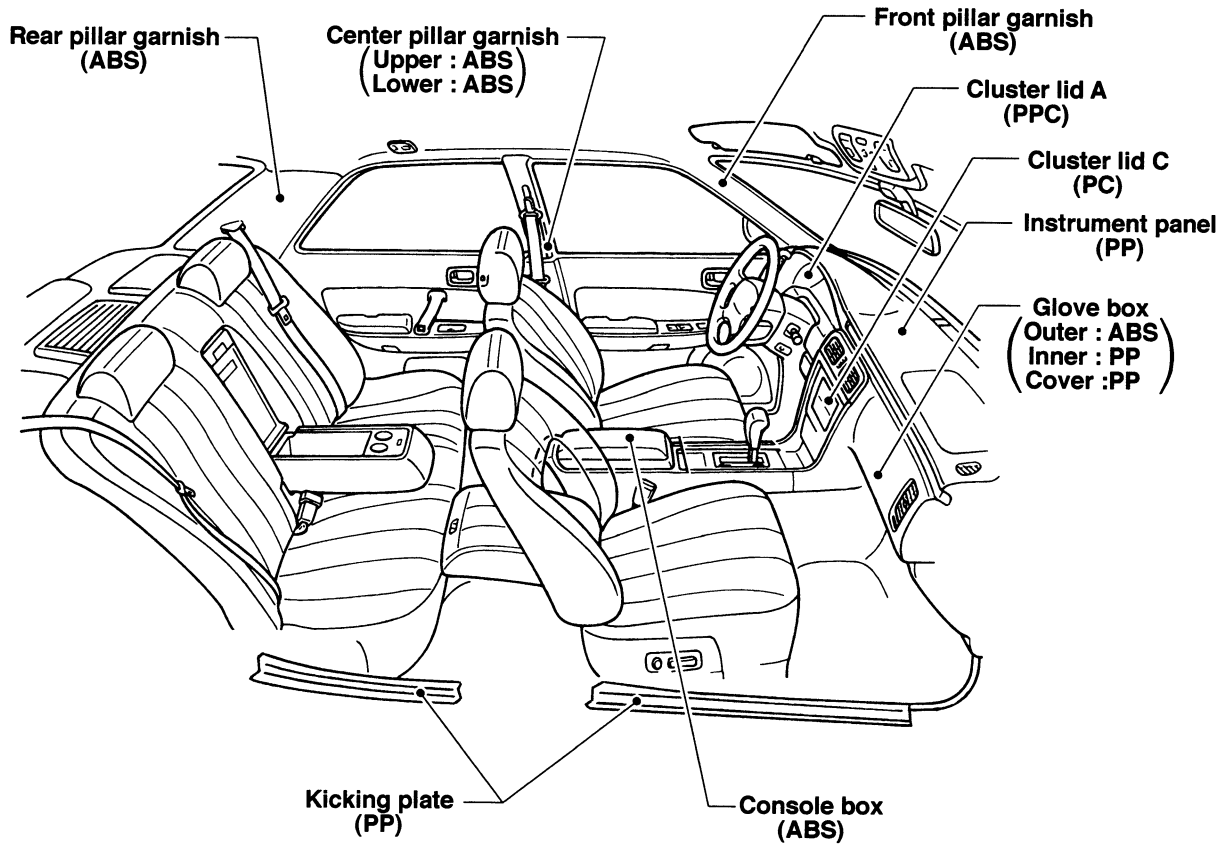
Abbreviation	Material name	Heat resisting temperature °C (°F)	Resistance to gasoline and solvents	Other cautions
PET	Polyethylene terephthalate	180 (356)	Gasoline and most solvents are harmless.	
PVC	Polyvinyl chloride	80 (176)	Gasoline and most solvents are harmless if applied for a very short time (wipe up quickly).	Poison gas is emitted when burned.
PP	Polypropylene	90 (194)	Same as above. Also avoid battery acid.	Flammable
UP	Polyester thermoset	90 (194)	Same as above.	Flammable
ABS	Acrylonitrile butadiene styrene resin	80 (176)	Avoid gasoline and solvents.	
AES	Acrylonitrile ethylene styrene	80 (176)	Avoid gasoline and solvents.	
PMMA	Polymethyl methacrylate	85 (185)	Avoid gasoline and solvents.	
PUR	Polyurethane	90 (194)	Gasoline and most solvents are harmless.	
AAS	Acrylonitrile acrylic rubber styrene	85 (185)	Avoid gasoline and solvents.	
AS	Styrene-acrylonitrile	85 (185)	Avoid gasoline and solvents.	
PPO	Polyphenylene oxide	110 (230)	Avoid gasoline and solvents.	
POM	Polyacetal	120 (248)	Gasoline and solvents are harmless.	Avoid battery acid.
PC	Polycarbonate	120 (248)	Avoid gasoline and solvents.	
PA	Polyamide (Nylon)	140 (284)	Gasoline and most solvents are harmless.	Avoid immersing in water.
FRP	Fiber reinforced plastics	170 (338)	Gasoline and most solvents are harmless.	Avoid battery acid.
PPC	Polypropylene composite	115 (239)	Gasoline and most solvents are harmless.	Flammable
PBT	Polybutylene terephthalate	140 (284)	Gasoline and most solvents are harmless.	
TPR	Thermoplastic rubber	80 (176)	Avoid gasoline and solvents.	
PAR	Polyarylate	180 (356)	Avoid gasoline and solvents.	
EVA	Polyvinyl ethyl acetate	90 (194)	Avoid gasoline and solvents.	
TPO	Polyolefinic	80 (176)	Avoid gasoline and solvents.	

1. When repairing and painting a portion of the body adjacent to plastic parts, consider their characteristics (influence of heat and solvent) and remove them if necessary or take suitable measures to protect them.
2. Plastic parts should be repaired and painted using methods suiting the materials characteristics.

Location of Plastic Parts




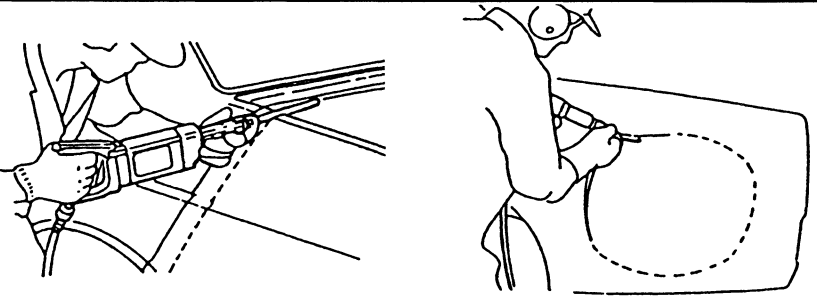


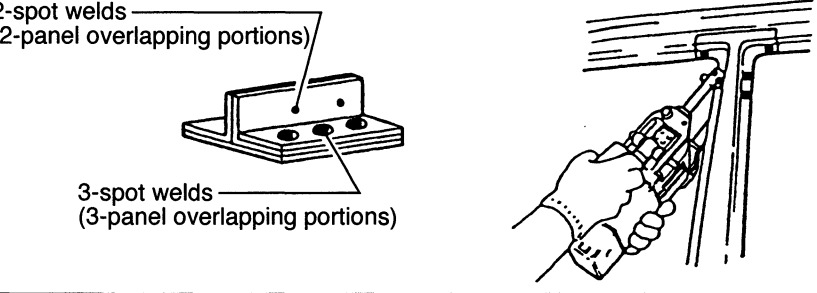

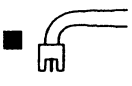
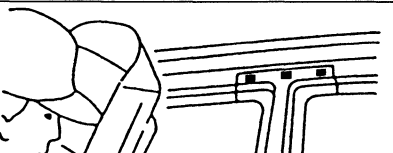





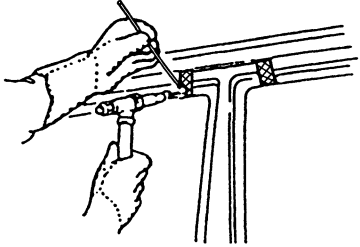
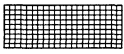

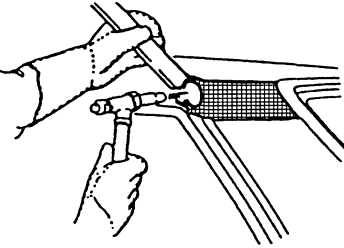

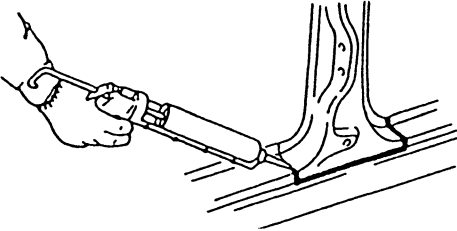
Location of Plastic Parts



Description

SYMBOLS FOR CUTTING AND WELDING/BRAZING OPERATIONS

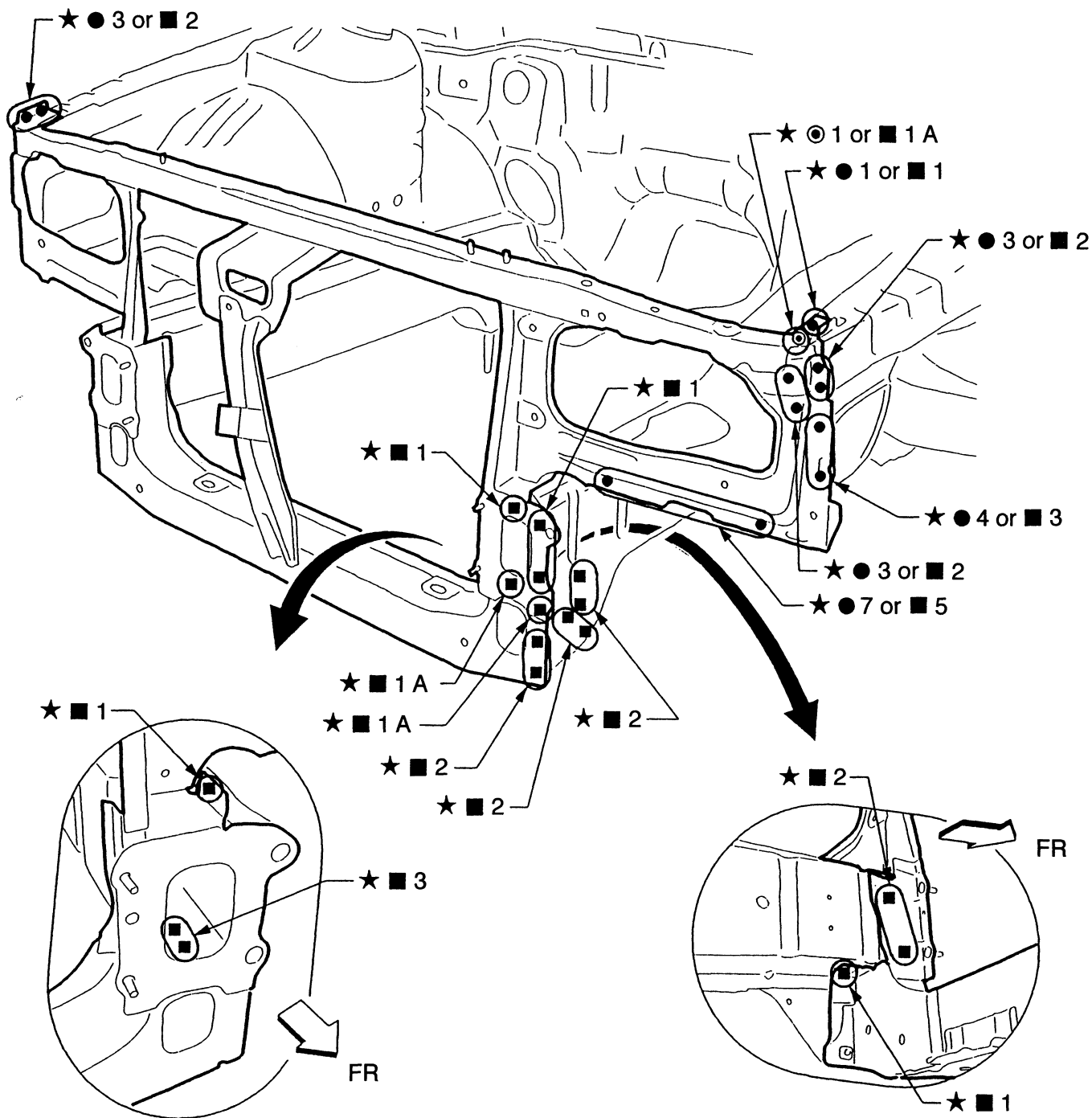
The identification for the cutting and the welding/brazing symbols used throughout this guide are given in the following pages

 <p>Saw cut or air chisel cut</p>	
<p>Spot weld</p>  <p>2-spot welds</p>  <p>3-spot welds</p>	<p>2-spot welds (2-panel overlapping portions)</p>  <p>3-spot welds (3-panel overlapping portions)</p>
 <p>M.I.G. plug weld</p> 	
 <p>M.I.G. seam weld/ Point weld</p> 	
 <p>Brazing</p> 	
 <p>Soldering</p> 	
 <p>Sealing</p>	

Radiator Core Support

Service Joint

★ indicates that there is an equivalent welding portion with the same dimensions on the opposite side.



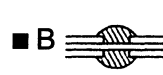
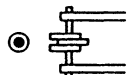
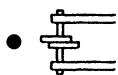
2-spot welds

3-spot welds

M.I.G plug weld

For 3 panels plug weld method

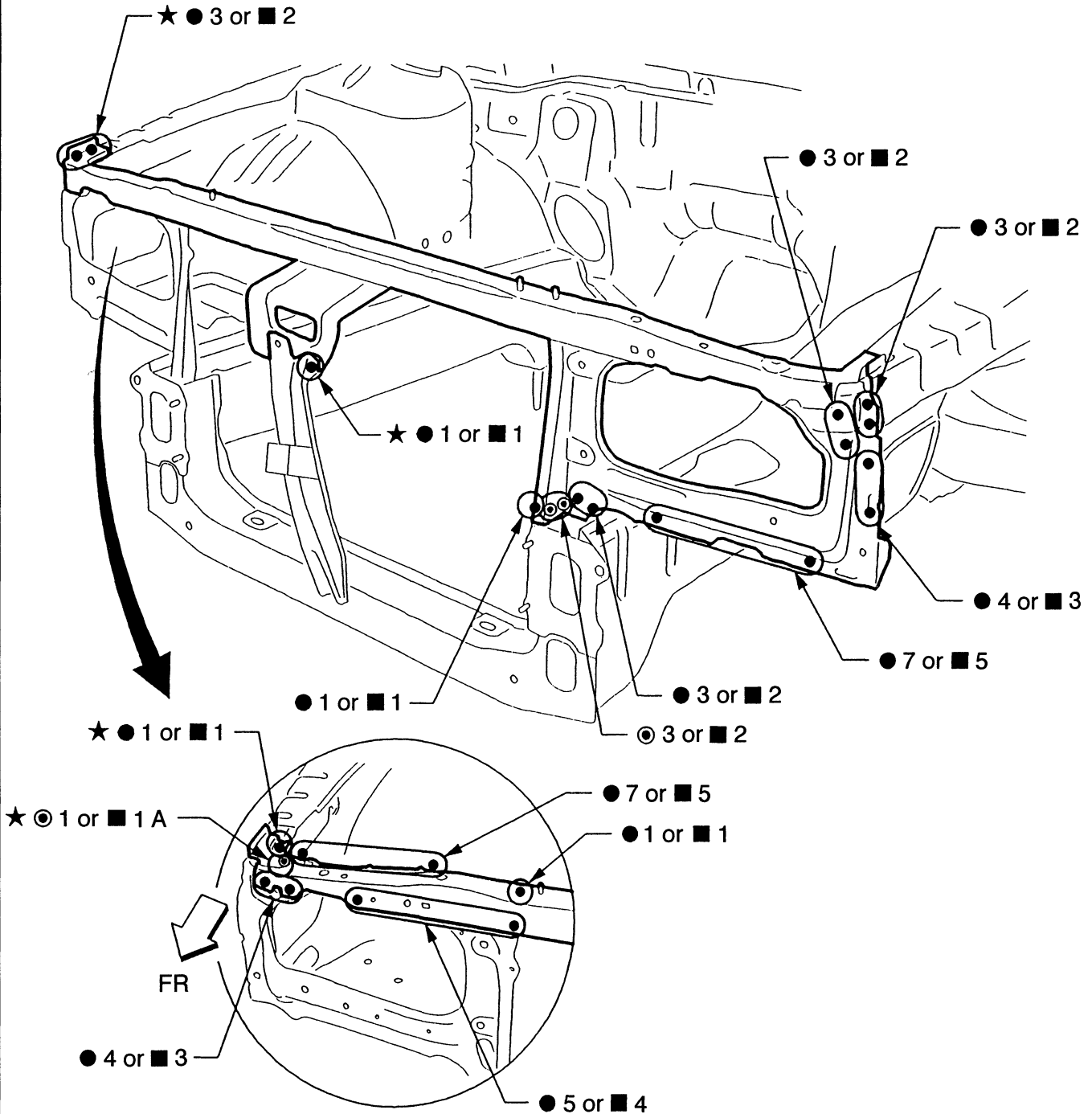
M.I.G seam weld/
Point weld



Radiator Core Support (Partial Replacement)

Service Joint

★ indicates that there is an equivalent welding portion with the same dimensions on the opposite side.



2-spot welds

3-spot welds

M.I.G plug weld

For 3 panels plug weld method

M.I.G seam weld/
Point weld

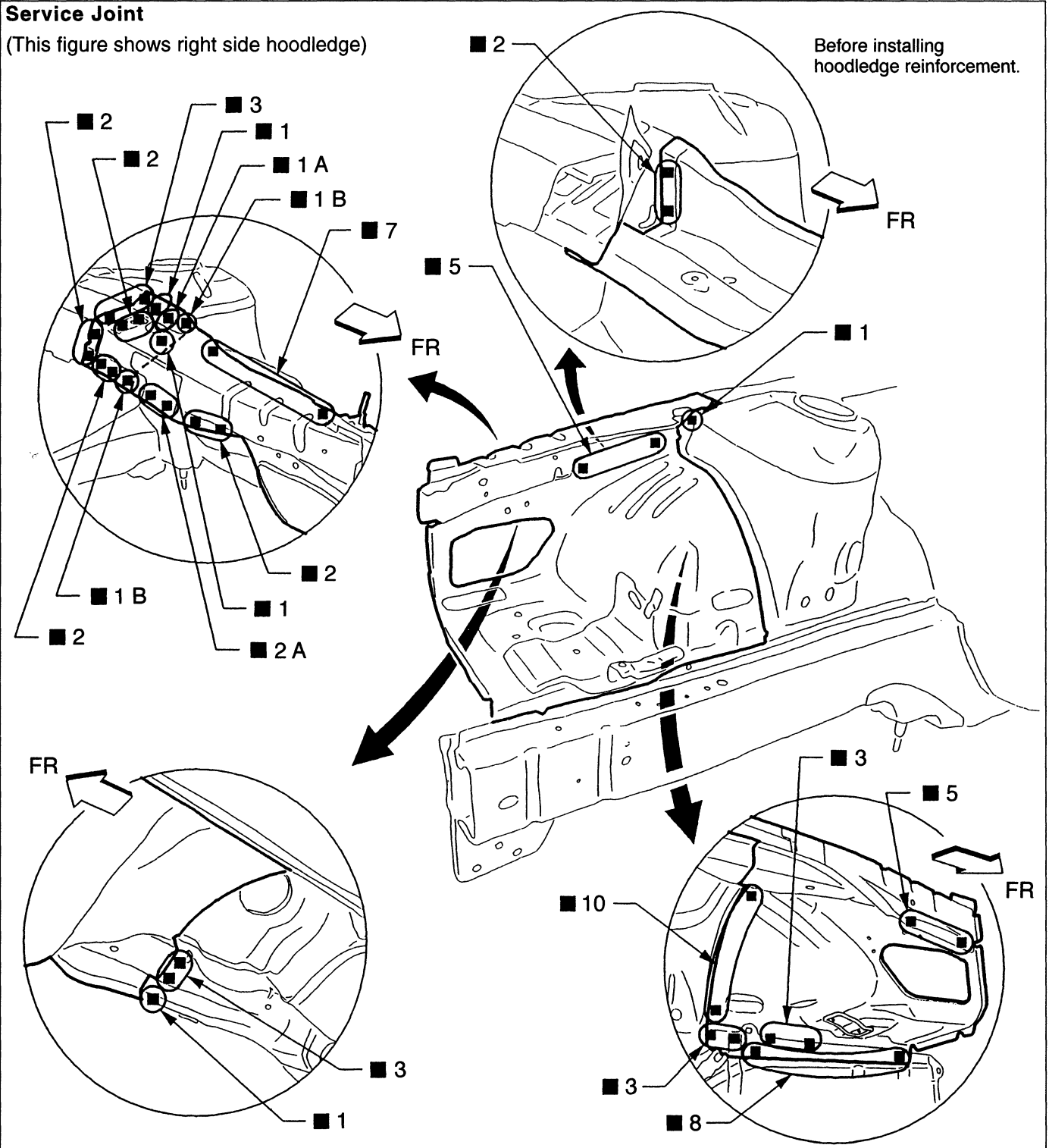


Hoodledge (Partial Replacement)

● Work after radiator core support has been removed.

Service Joint

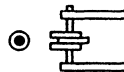
(This figure shows right side hoodledge)



2-spot welds



3-spot welds



M.I.G plug weld



For 3 panels plug weld method



M.I.G seam weld/
Point weld

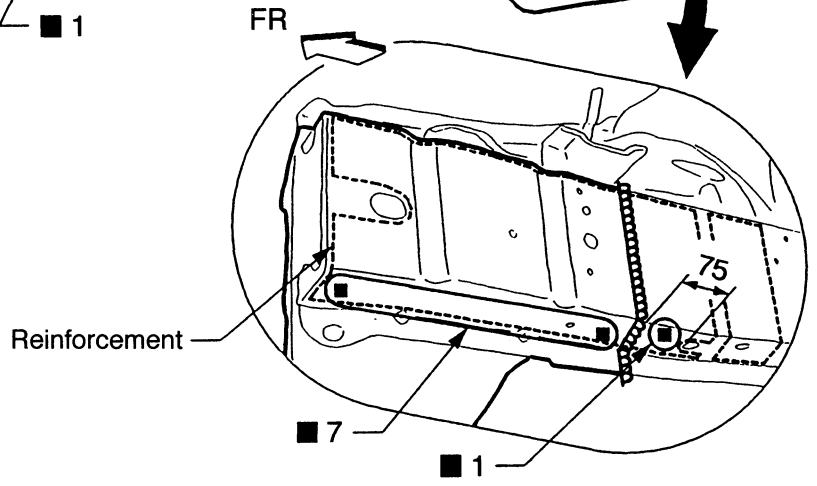
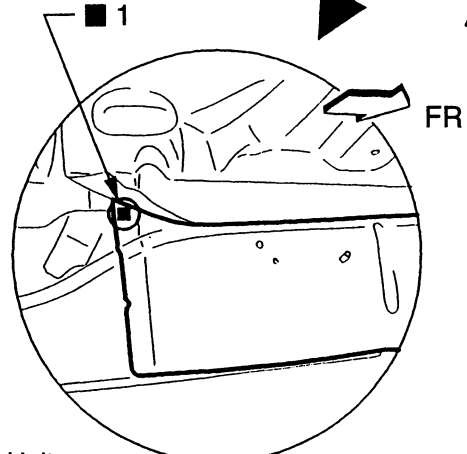
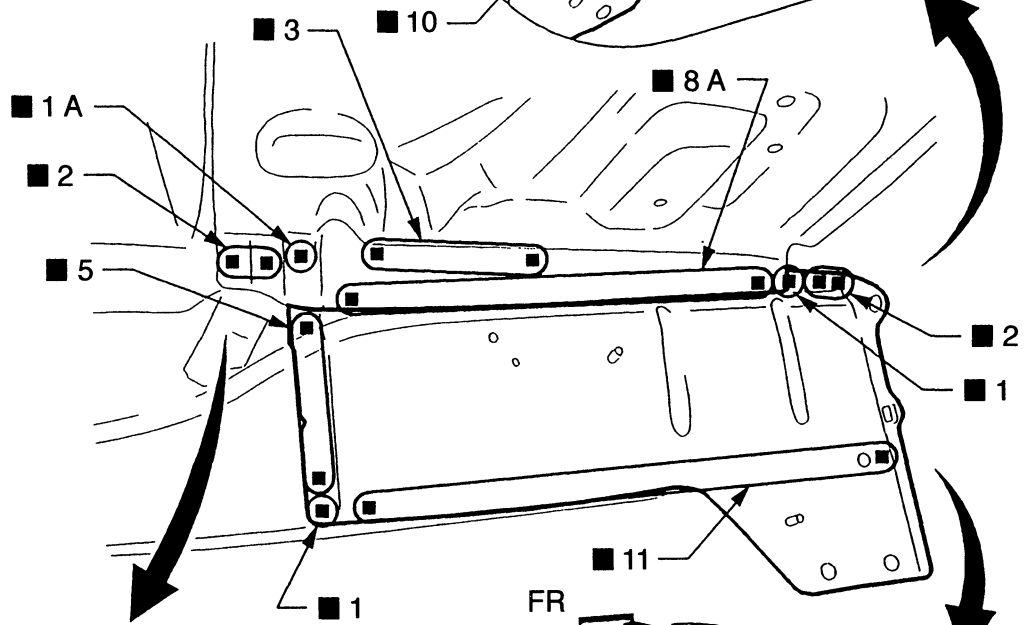
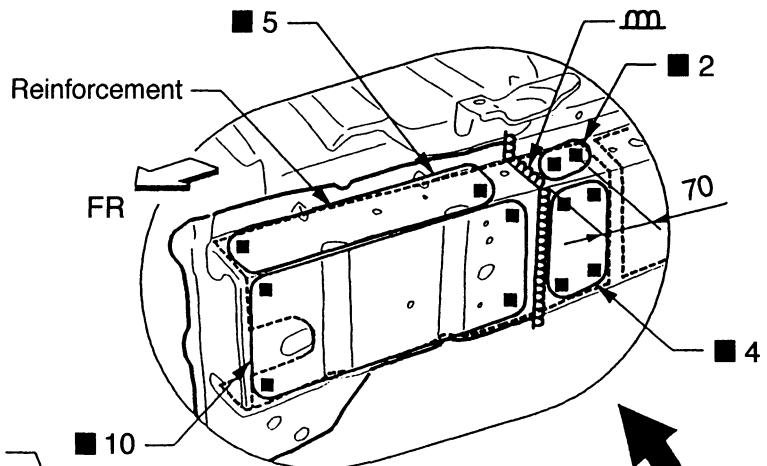
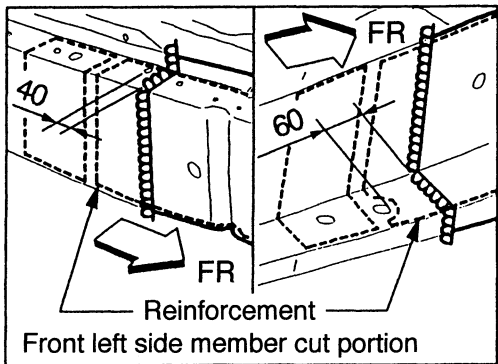


Front Side Member (Partial Replacement)

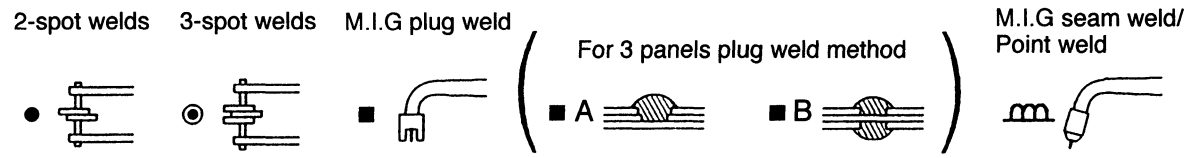
- Work after radiator core support has been removed.

Service Joint

(This figure shows right front side member)



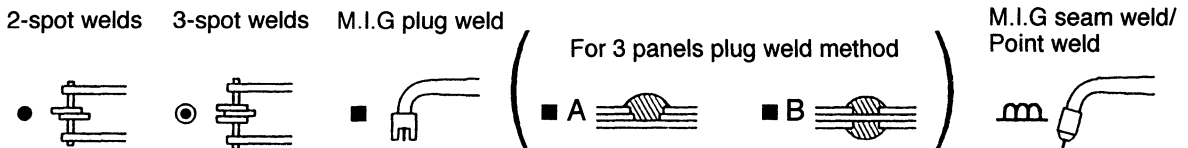
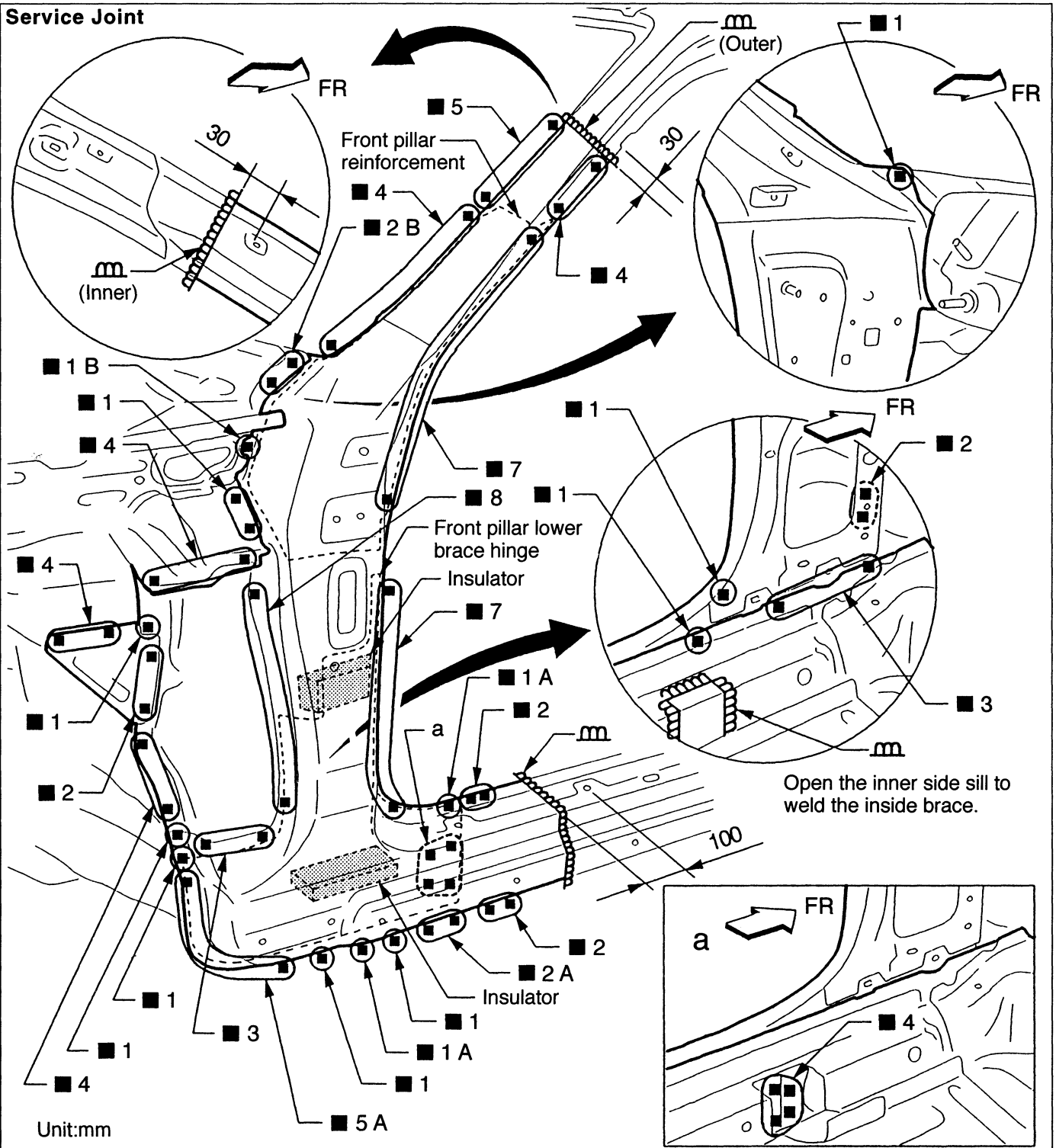
Unit:mm



Front Pillar

- Work after hoodledge reinforcement has been removed.
- Insulators are installed in the pillar. Remove them before the body work.

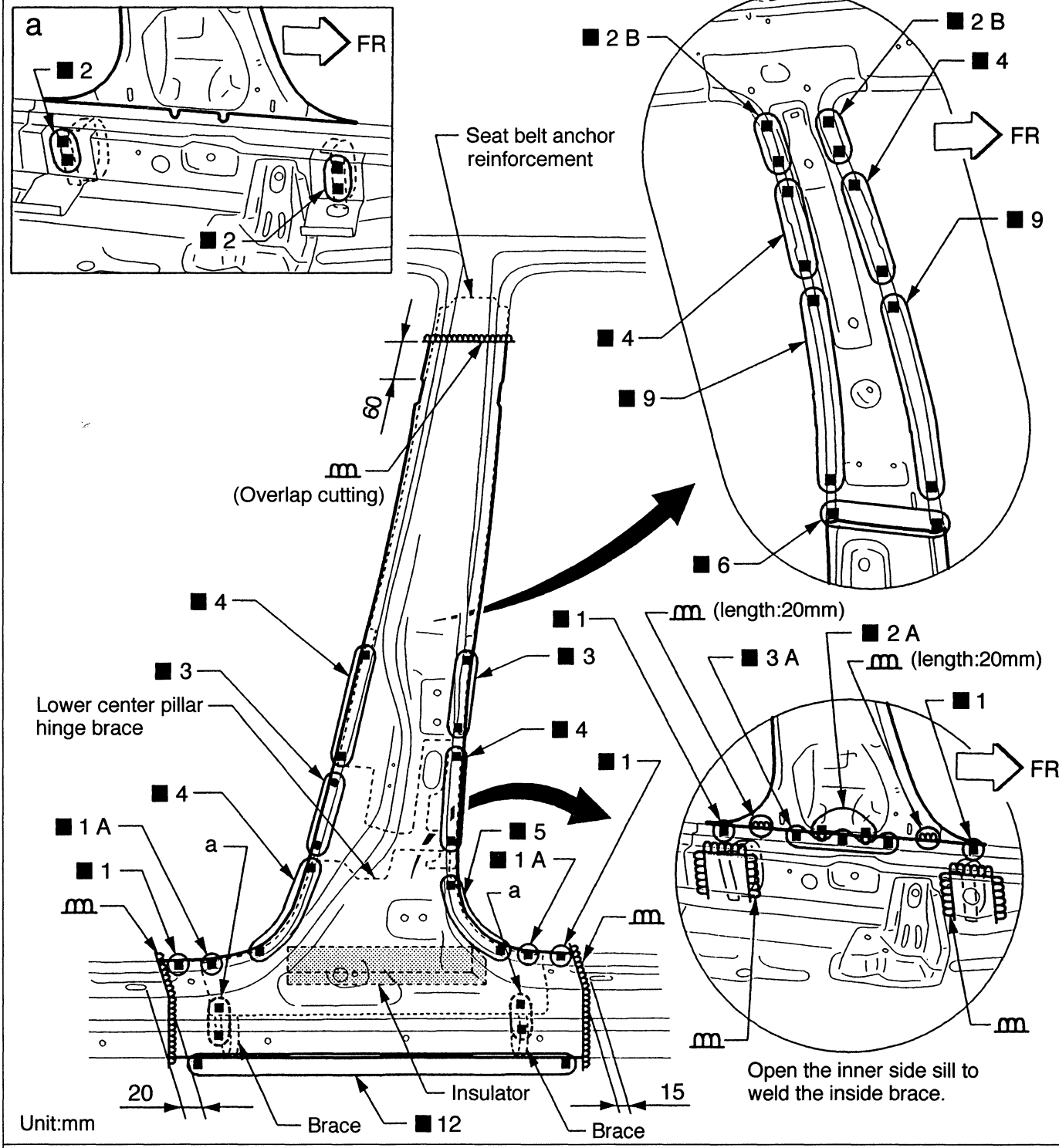
Service Joint



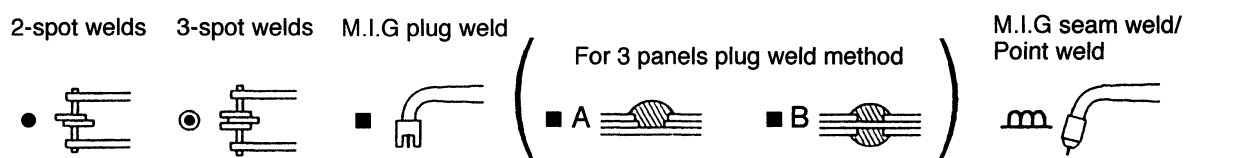
Center Pillar

- Insulators are installed in the pillar. Remove them before the body work.

Service Joint

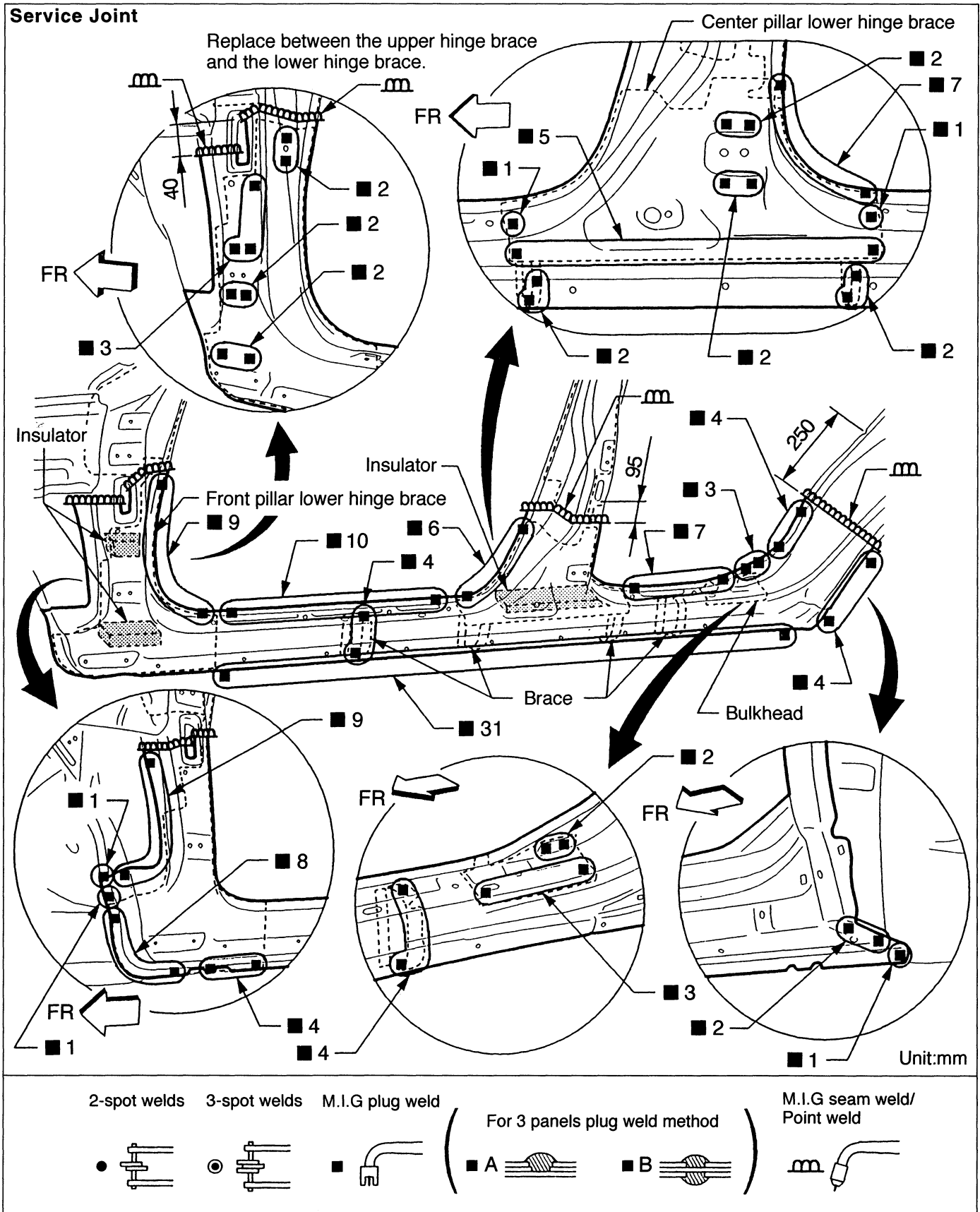


Unit:mm



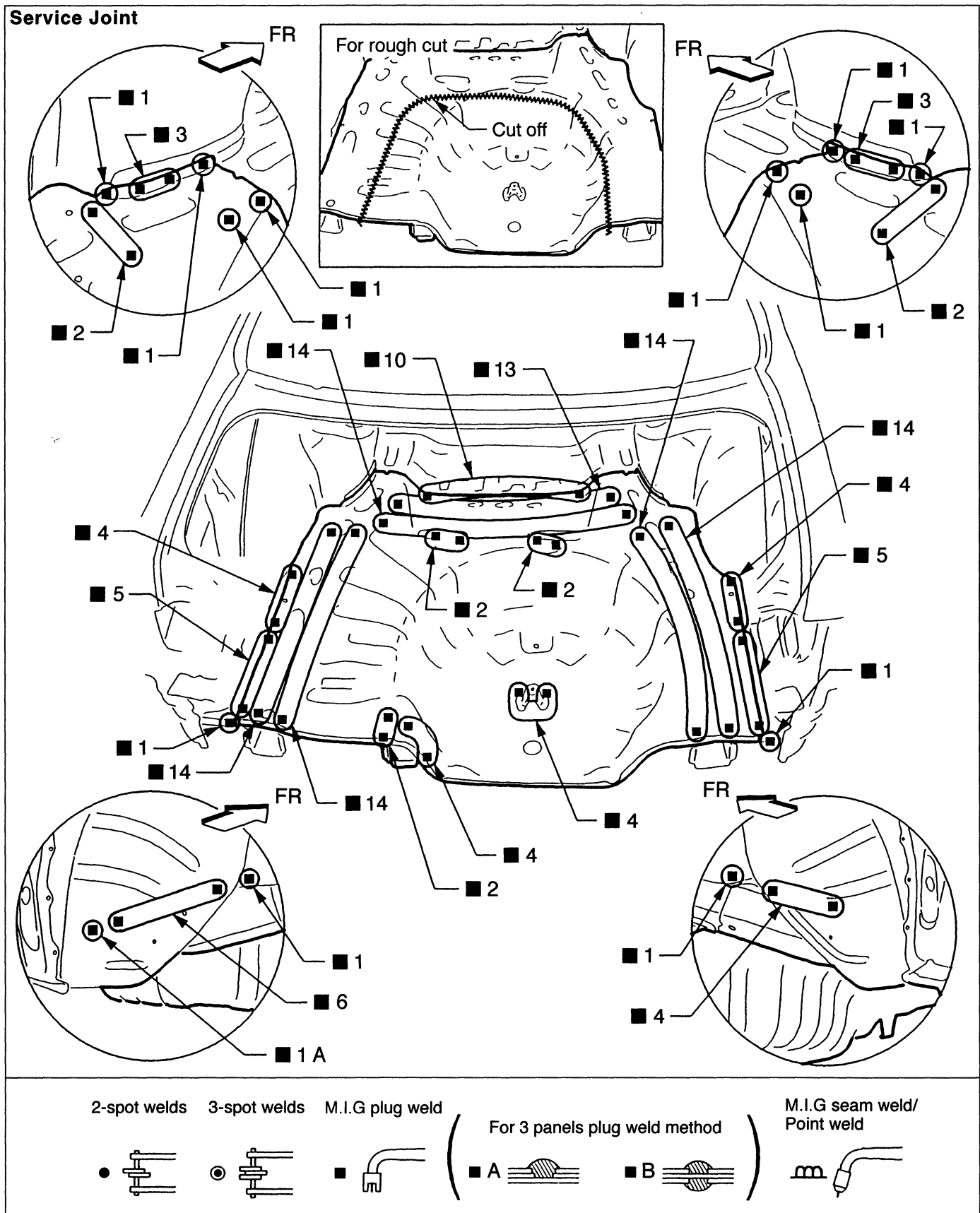
Outer Sill

- Insulators are installed in the pillar. Remove them before the body work.



Rear Floor Rear

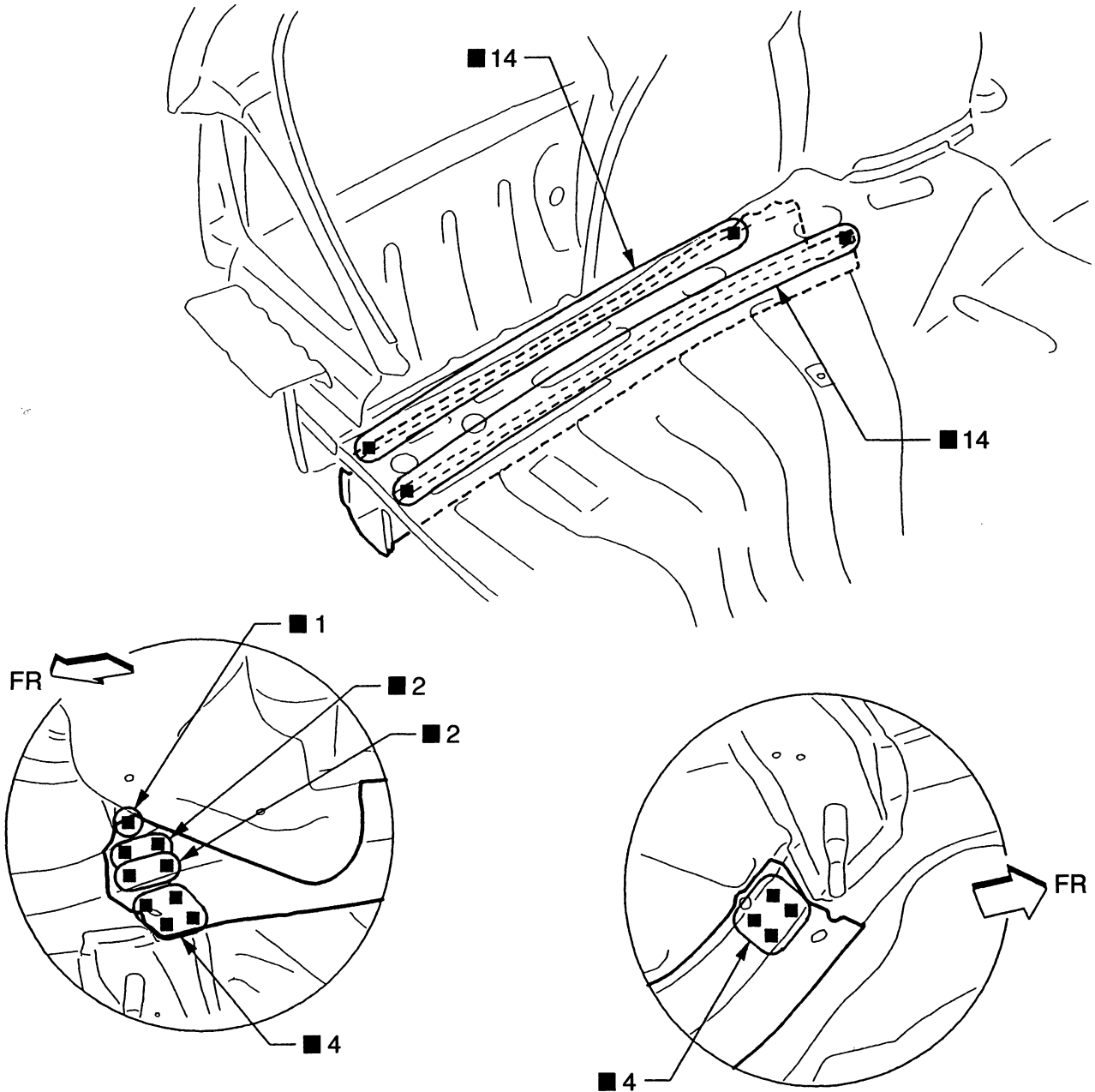
● Work after rear panel has been removed.



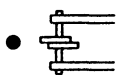
Rear Side Member Extension

- Work after rear panel has been removed.

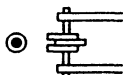
Service Joint



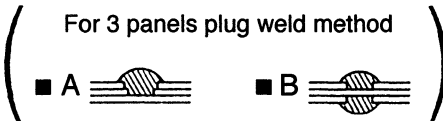
2-spot welds



3-spot welds



M.I.G plug weld



M.I.G seam weld/
Point weld

