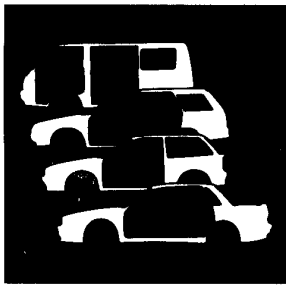
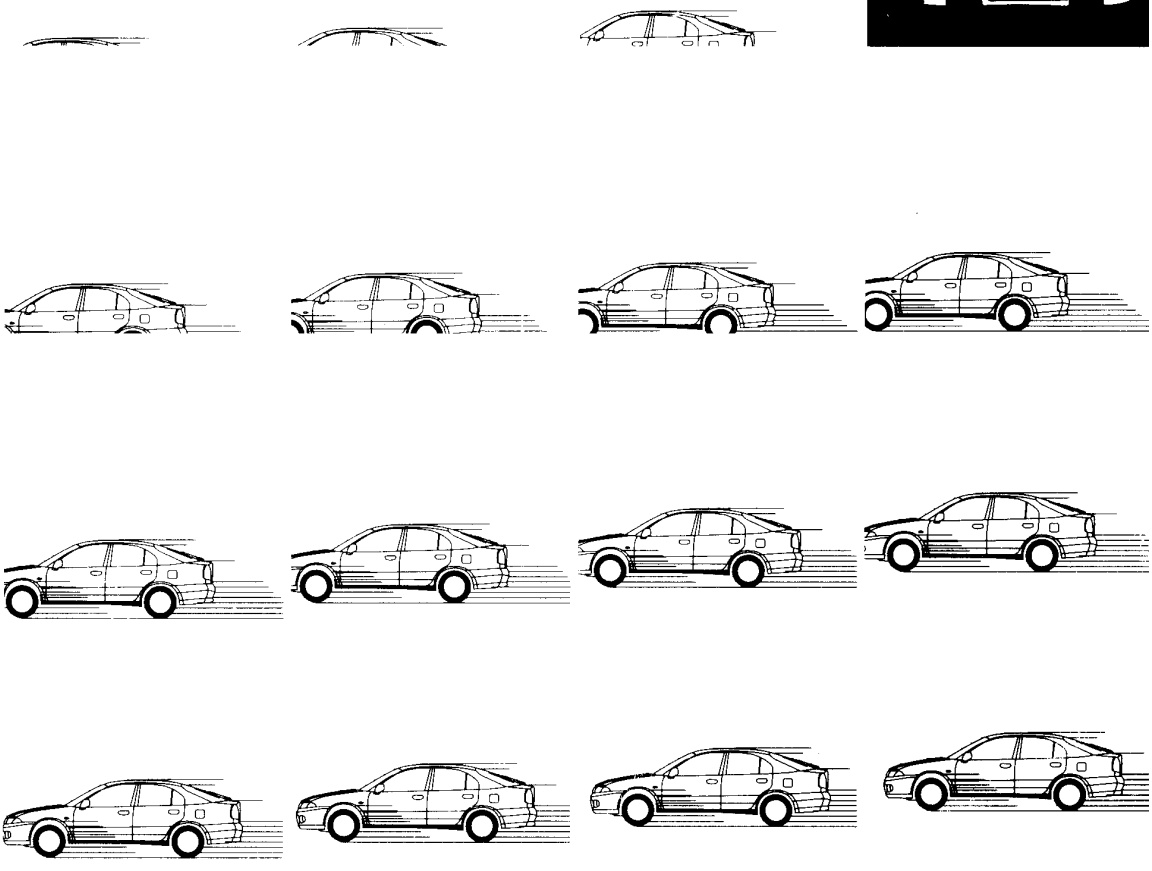
MITSUBISHI MOTORS

Body Repair Manual

CARISMA'96





Pub. No. PBGE95E1 FOR EUROPE

CARISMA

BODY REPAIR MANUAL

FOREWORD

This manual has been prepared for the use of all service mechanics engaged in the body repair service.
Body dimensions, welded panel replacement procedures, body sealing application instructions, and all the other information required to provide quick and accurate body repair service are contained herein. One especially important point is the welding method. All of the vehicle's original strength and durability can be maintained by following the welding procedures contained in this manual.
Note that, in order to maximize the efficiency of the repair work, first, both the extent of the damage and the replacement parts that are needed must be calculated accurately, and then the actual work must be performed accurately and efficiently.
The publications shown on the following page are also available, and should be used in conjunction with this manual.
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GROUP INDEX

MITSUBISHI MOTOR SALES
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RELATED PUBLICATIONS

- TECHNICAL INFORMATION MANUAL
  Pub. No.
- WORKSHOP MANUAL
  CHASSIS GROUP
  Pub. No.

  ENGINE GROUP
  Pub. No. PWEE□ □ □ □
  ELECTRICAL WIRING
  Pub. No.

- PARTS CATALOGUE
- BODY REPAIR MANUAL (PASSENGER CARS & LIGHT COMMERCIAL VEHICLES)
  Pub. No. PBAE9216

MANUAL DESCRIPTION

CONTENTS

The first page of this manual contains a table of contents which lists the title and number of each group.

TEXT

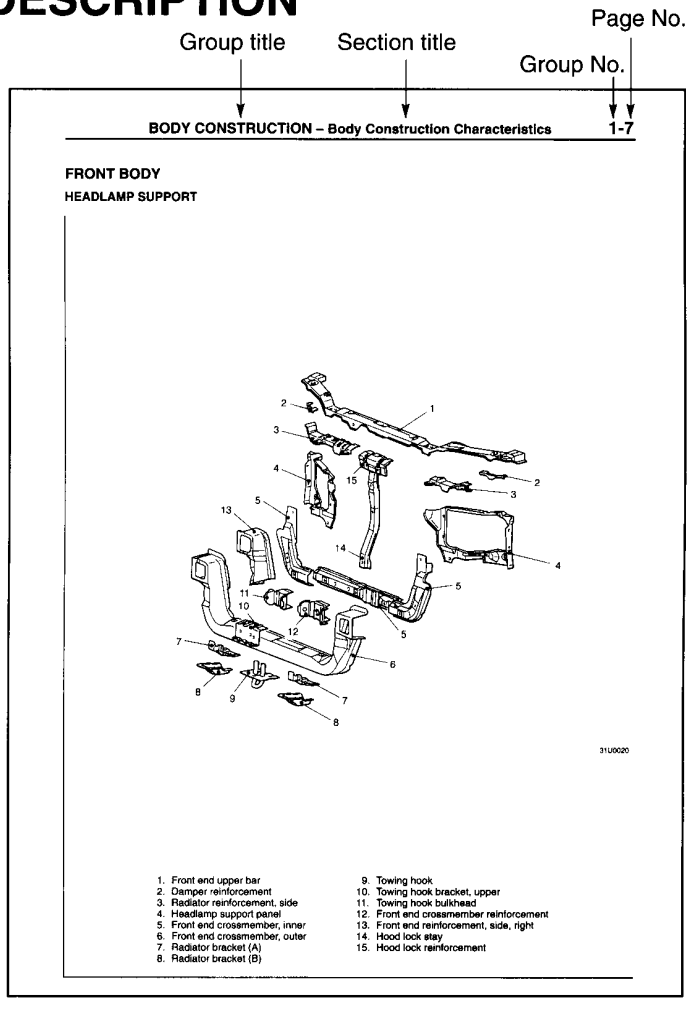
The vehicles to which the information in the text pertains are generally designated according to their body classification. In some cases, other limiting designations such as name, type of drive system, etc., are given. If there are no such limiting designations, the information can be assumed to cover all models.

PAGE NUMBERS

All pages are numbered consecutively within each group. The page numbers can be found on the upper left or right of each page.

SECTION TITLES

The section titles can be found at the upper centre of each page.



0 GENERAL

VEHICLE IDENTIFICATION

MODELS

Model code		Engine model	Transmission model	Fuel supply system
DA1A	LNDEL6/R6	4G92-SOHC (1,597cm^3)	F5MR1 (2WD-5M/T)	MPI
	LRDEL6/R6		F4A41 (2WD-4A/T)	
	LNJEL6/R6		F5MR1(2WD-5M/T)	
	LRJEL6/R6		F4A41 (2WD-4A/T)	
DA2A	LNJEL6/R6	4G93-SOHC (1,834 cm^3)	F5MR2 (2WD-5M/T)	
	LRJEL6/R6		F4A42 (2WD-4A/T)	
	LNPEL6/R6		F5MR2 (2WD-5M/T)	
	LRPEL6/R6		F4A42 (2WD-4A/T)	
	LNGML6	4G93-DOHC (1,834 cm^3)	F5MR2 (2WD-5M/T)	

MAJOR SPECIFICATIONS

<1600>

Items		DA1A			
		LNDEL6 LNDER6	LRDEL6 LRDER6	LNJEL6 LNJER6	LRJEL6 LRJER6
Dimensions	mm				
Overall length		4,435			
Overall width		1,695			
Overall height (unladen)		1,405			
Wheelbase		2,550			
Track-front		1,455			
Track-rear		1,475			
Body overhang					
Front		880			
Rear		1,005			
Ground clearance (unladen)		155*1, 150*2			
Wheel alignment					
Front wheel alignment					
Toe-in (at the centre of tyre tread)	mm	1 ± 2			
Toe angle (per wheel)		0°06' ± 12'			
Camber		0°00' ± 30'			
Caster		2°12'			
Kingpin inclination angle		12°41'			
Rear wheel alignment					
Toe-in (at the centre of tyre tread)	mm	3 ± 2			
Toe-in (at the rim of wheel disc)	mm	1.5 ± 1			
Toe angle (per wheel)		0°18' ± 12'			
Camber		–0°40' ± 30'			
Wheels and tyres					
Tyre size		175/65R14 82T			
Wheel size		14 x 5.5JJ			
Offset	mm	44			

*1: M/T
*2: A/T

<1800>

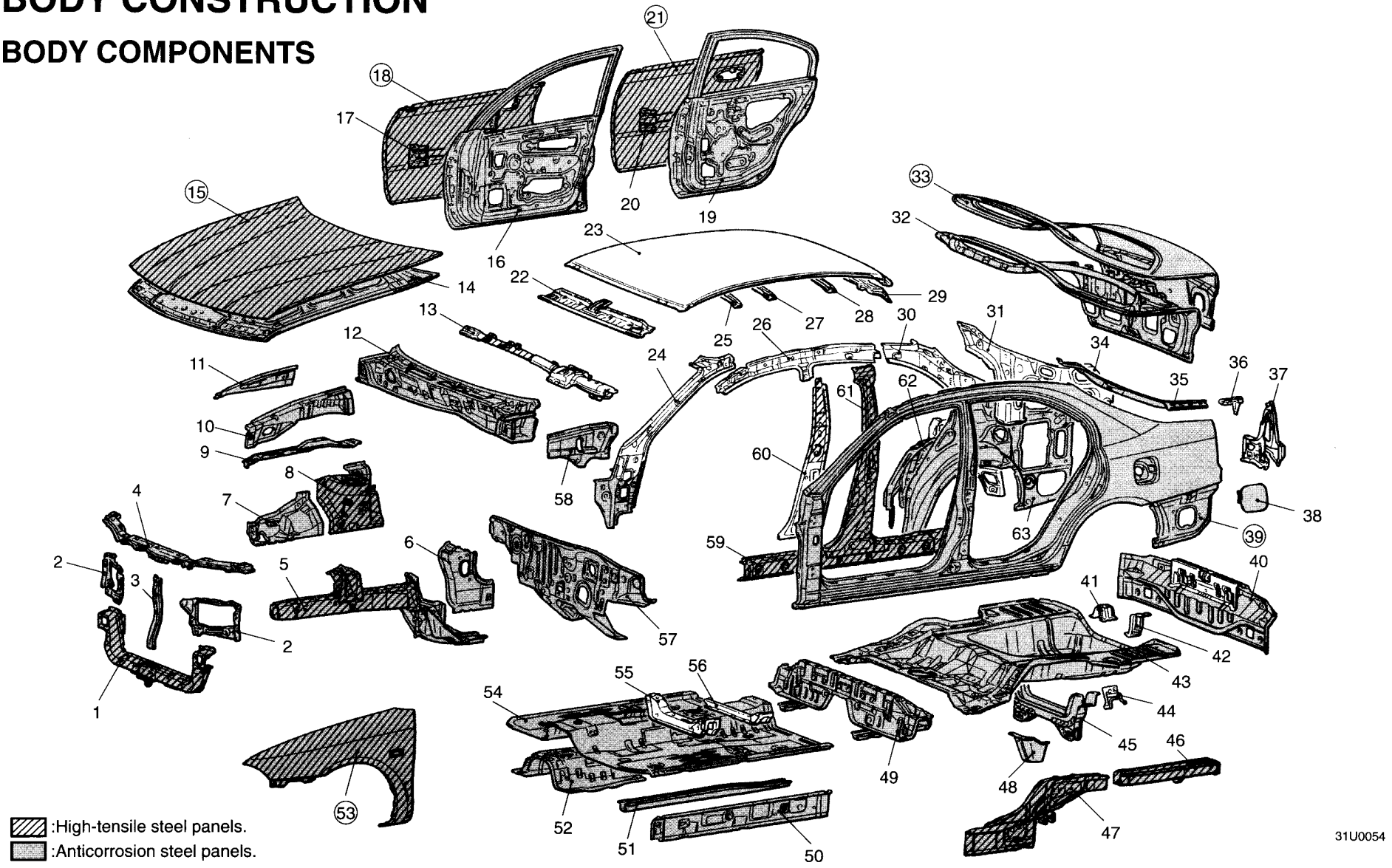
Items		DA2A				
		LNJEL6 LNJER6	LRJEL6 LRJER6	LNPEL6 LNPER6	LRPEL6 LRPER6	LNGML6
Dimensions	mm					
Overall length		4,435				
Overall width		1,695				
Overall height (unladen)		1,405				
Wheelbase		2,550				
Track-front		1,455				
Track-rear		1,475				
Body overhang						
Front		880				
Rear		1,005				
Ground clearance (unladen)		155*1,150*2				
Wheel alignment						
Front wheel alignment						
Toe-in (at the centre of tyre tread)	mm	1 ± 2				
Toe angle (per wheel)		0°06' ± 12'				
Camber		0°00' ± 30'				
Caster		2°12'				
Kingpin inclination angle		12°41'				
Rear wheel alignment						
Toe-in (at the centre of tyre tread)	mm	3 ± 2				
Toe-in (at the rim of wheel disc)	mm	1.5 ± 1				
Toe angle (per wheel)		0°18' ± 12'				
Camber		–0°40' ± 30'				
Wheels and tyres						
Tyre size		185/65R14 82H				195/60R14 85V
Wheel size		14 x 5.5JJ				14 x 5.5JJ
Offset	mm	44				44

*1: M/T
*2: A/T

1 BODY CONSTRUCTION

BODY CONSTRUCTION

BODY COMPONENTS



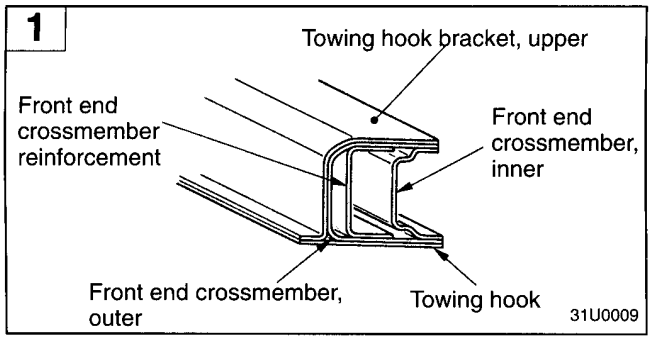
NOTES
Number with ○ indicates steel panels which have been galvanized on both sides, and which have a flush plating with outstanding paint finish on the surfaces.

1. Front end crossmember
2. Headlamp support panel
3. Hood lock stay
4. Front end upper bar
5. Front sidemember
6. Front floor side sill, inner, front
7. Front fender shield
8. Spring house panel
9. Front upper frame, lower
10. Front upper frame, inner
11. Front upper frame, outer
12. Cowl top panel
13. Front deck crossmember
14. Hood panel, inner
15. Hood panel, outer
16. Front door inner panel
17. Front side door beam
18. Front door outer panel
19. Rear door inner panel
20. Rear door outer panel
21. Rear door outer panel
22. Front roof rail
23. Roof panel
24. Front pillar, inner
25. Roof bow, front
26. Side roof rail, inner
27. Roof bow, center
28. Roof bow, rear
29. Rear roof rail
30. Rear pillar, inner
31. Rear pillar inner upper reinforcement
32. Tailgate inner panel
33. Tailgate outer panel
34. Quarter inner reinforcement
35. Rear pillar outer extension
36. Quarter outer extension, upper
37. Rear combination lamp housing
38. Fuel filler door panel
39. Side panel, outer
40. Rear end panel
41. Spare tire bracket
42. Jack bracket
43. Rear floor pan
44. Muffler hanger, center
45. Rear floor crossmember
46. Rear floor sidemember extension
47. Rear floor sidemember
48. Fuel tank rear bracket
49. Rear floor extension
50. Front floor side sill, inner
51. Front floor sidemember
52. Backbone reinforcement
53. Front fender
54. Front floor pan
55. Front floor crossmember, front
56. Front floor crossmember, rear
57. Dash panel
58. Front upper frame extension, outer
59. Side sill outer reinforcement
60. Center pillar, inner
61. Center pillar reinforcement
62. Rear wheelhouse, inner
63. Quarter panel, inner

BODY CONSTRUCTION CHARACTERISTICS

BODY MAIN CROSS-SECTIONAL VIEWS

1



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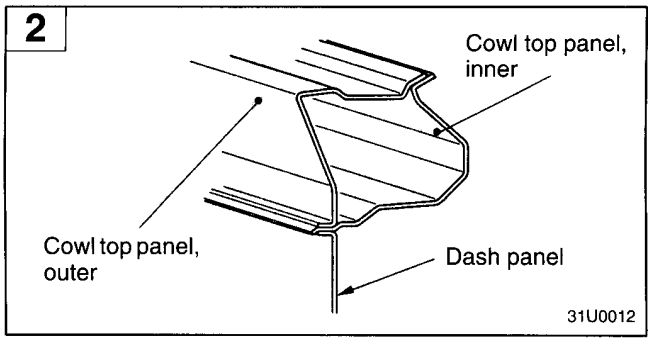

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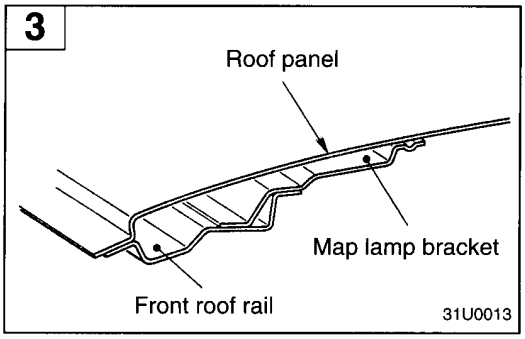

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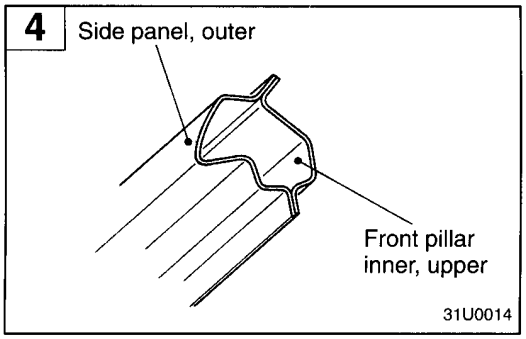

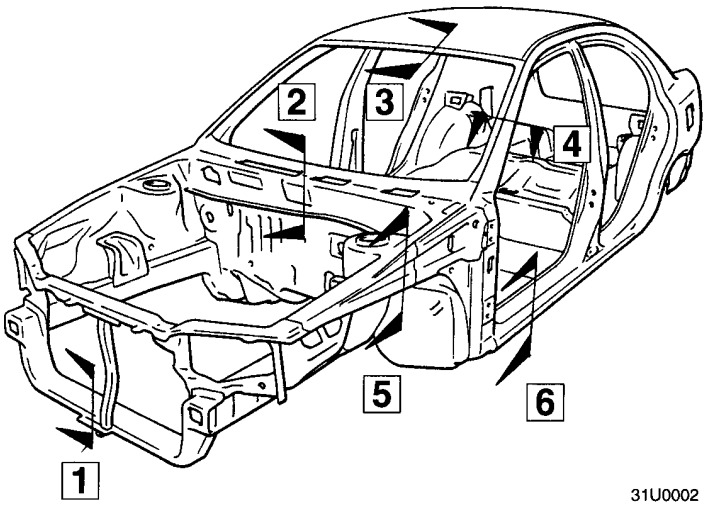

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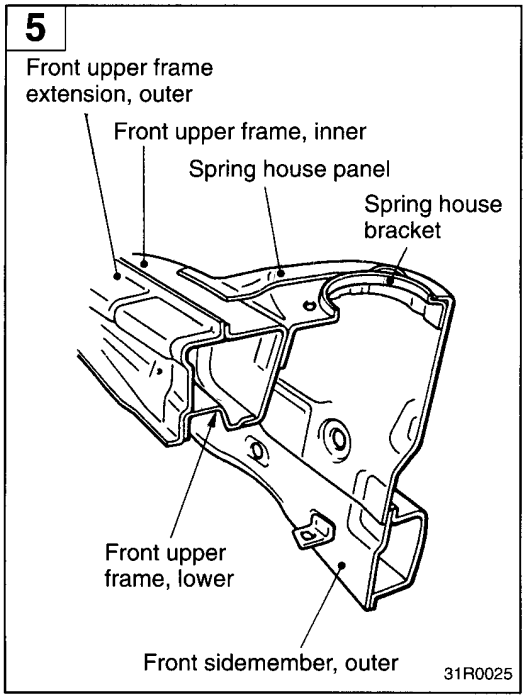

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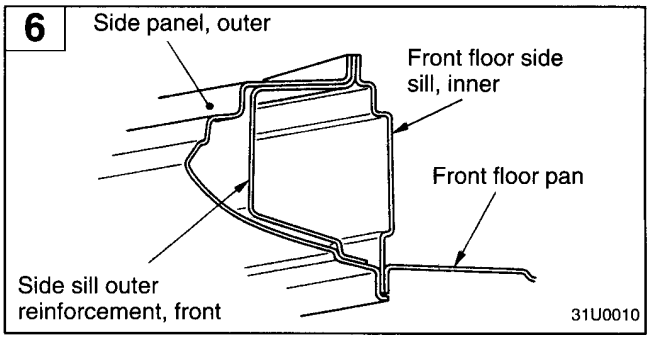
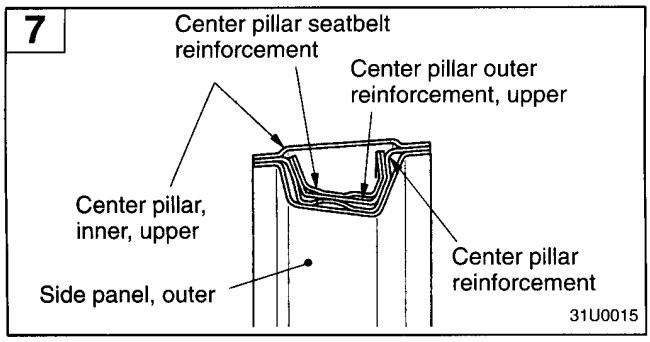
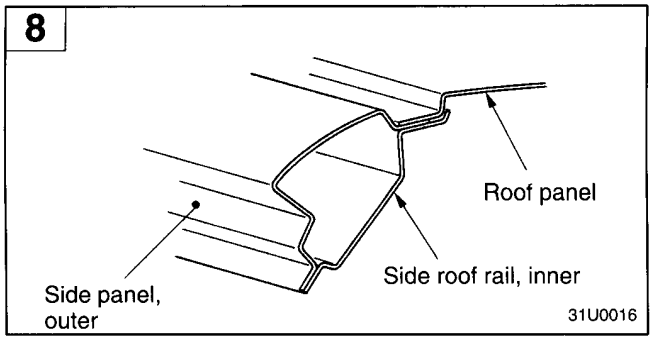



7
Center pillar seatbelt reinforcement
Center pillar outer reinforcement, upper
Center pillar, inner, upper
Center pillar reinforcement
Side panel, outer
31U0015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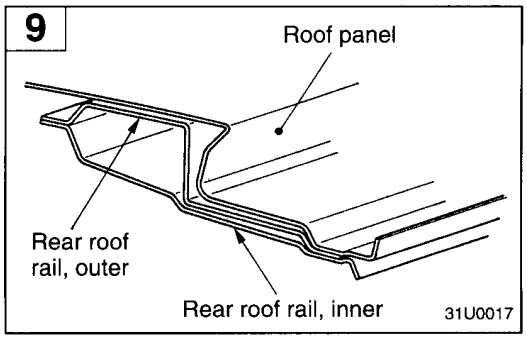
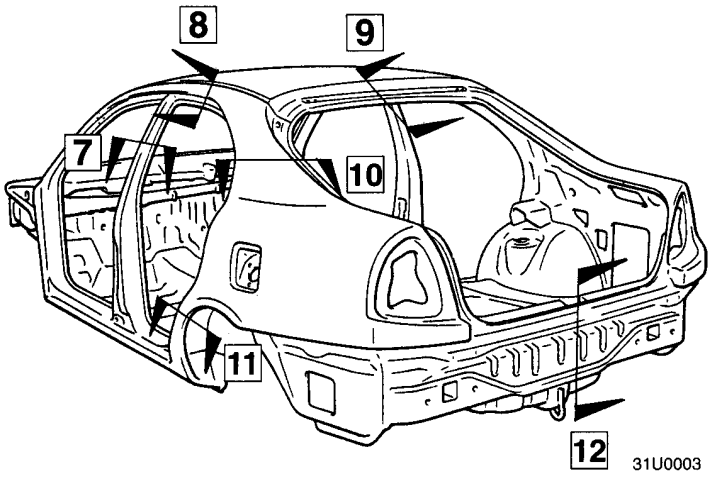
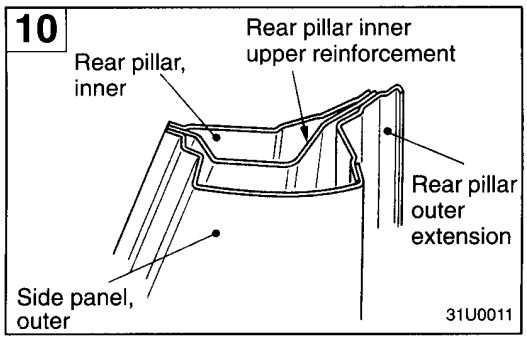
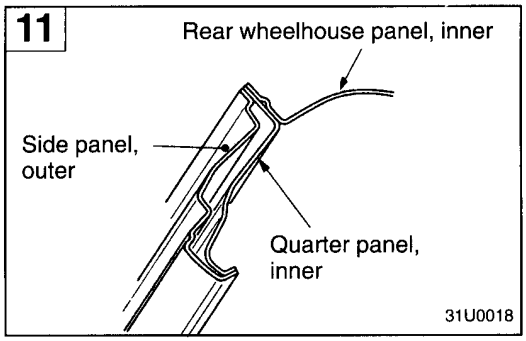
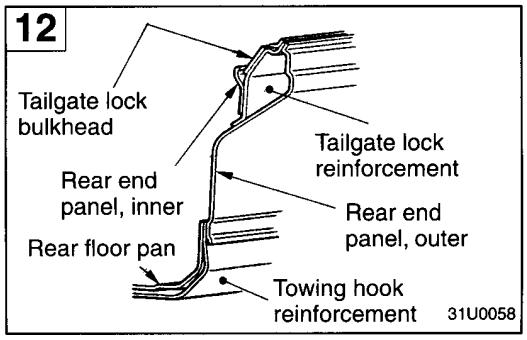
Roof panel
Side roof rail, inner
Side panel, outer
31U0016


9
Roof panel
Rear roof rail, outer
Rear roof rail, inner
31U0017


8
9
7
10
11
12
31U0003


10
Rear pillar inner upper reinforcement
Rear pillar, inner
Rear pillar outer extension
Side panel, outer
31U0011

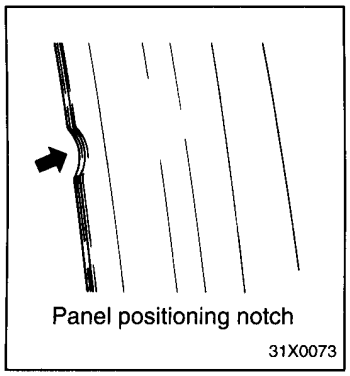

11
Rear wheelhouse panel, inner
Side panel, outer
Quarter panel, inner
31U0018

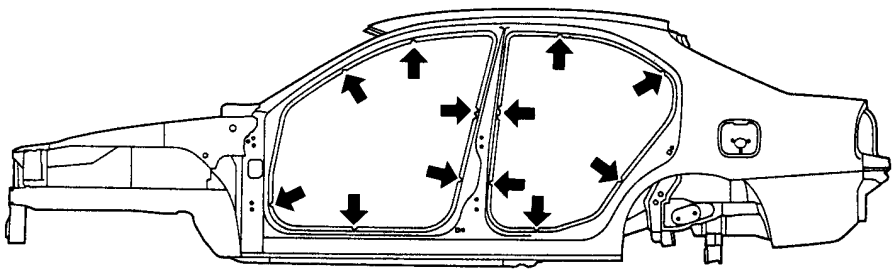

12
Tailgate lock bulkhead
Tailgate lock reinforcement
Rear end panel, inner
Rear end panel, outer
Rear floor pan
Towing hook reinforcement
31U0058

MAINTENANCE, SERVICEABILITY

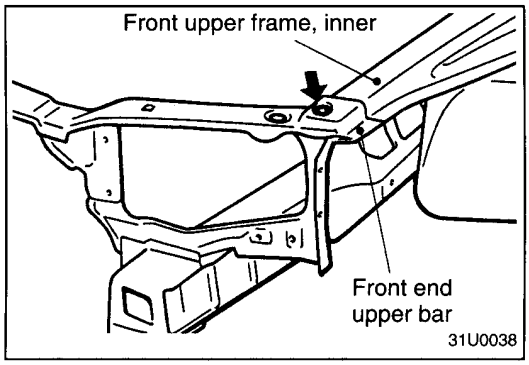
SIDE STRUCTURE

The door opening section is provided with panel positioning notches to improve workability when replacing panels.





32U0001

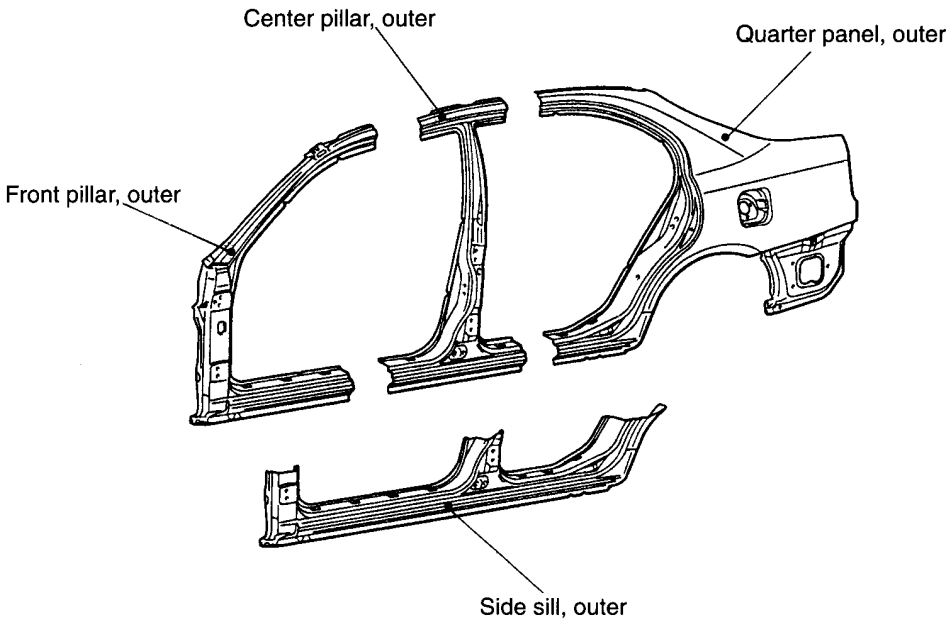


HEADLAMP SUPPORT

Mating holes are provided at the overlapping part of the front end upper bar and the front upper frame inner for use in position alignment, thus facilitating the assembly of new parts.

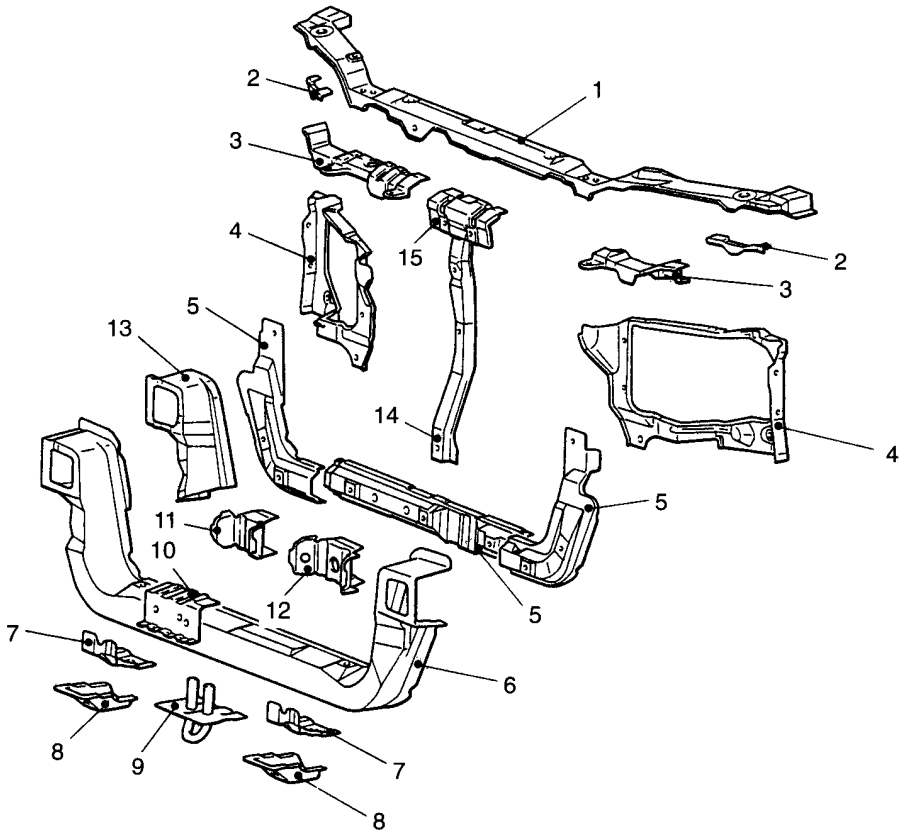
SIDE OUTER PANEL

Parts are supplied in the following cut forms in conjunction with the use of an integrated side outer panel.



FRONT BODY

HEADLAMP SUPPORT



31U0020

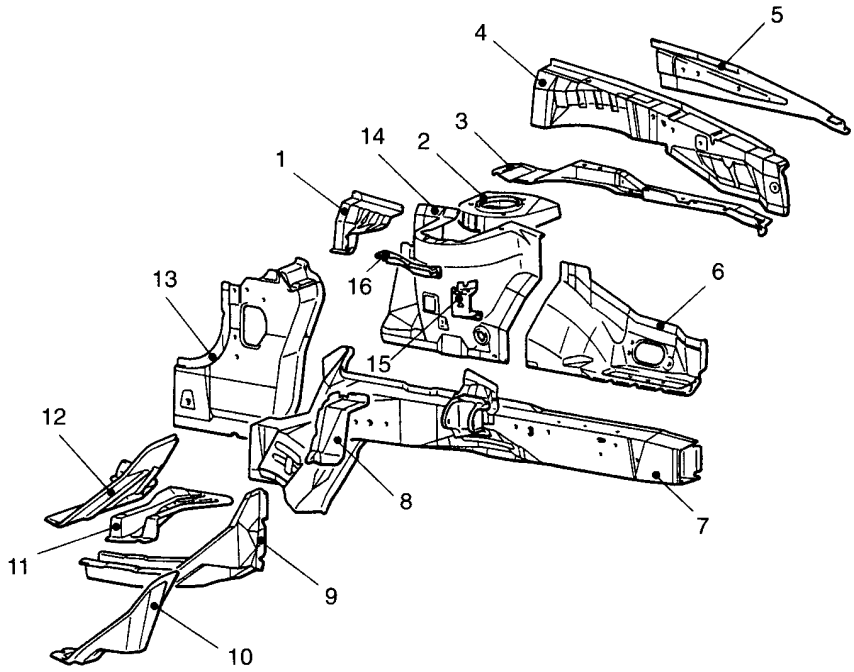
1. Front end upper bar
2. Damper reinforcement
3. Radiator reinforcement, side
4. Headlamp support panel
5. Front end crossmember, inner
6. Front end crossmember, outer
7. Radiator bracket (A)
8. Radiator bracket (B)
9. Towing hook
10. Towing hook bracket, upper
11. Towing hook bulkhead
12. Front end crossmember reinforcement
13. Front end reinforcement, side, right
14. Hood lock stay
15. Hood lock reinforcement

FENDER SHIELD

The front sidemember has been straightened, and the reinforcements and crash beads are optimally arranged. Because of this, the front sidemember can absorb impact during collision gradually from its front end.

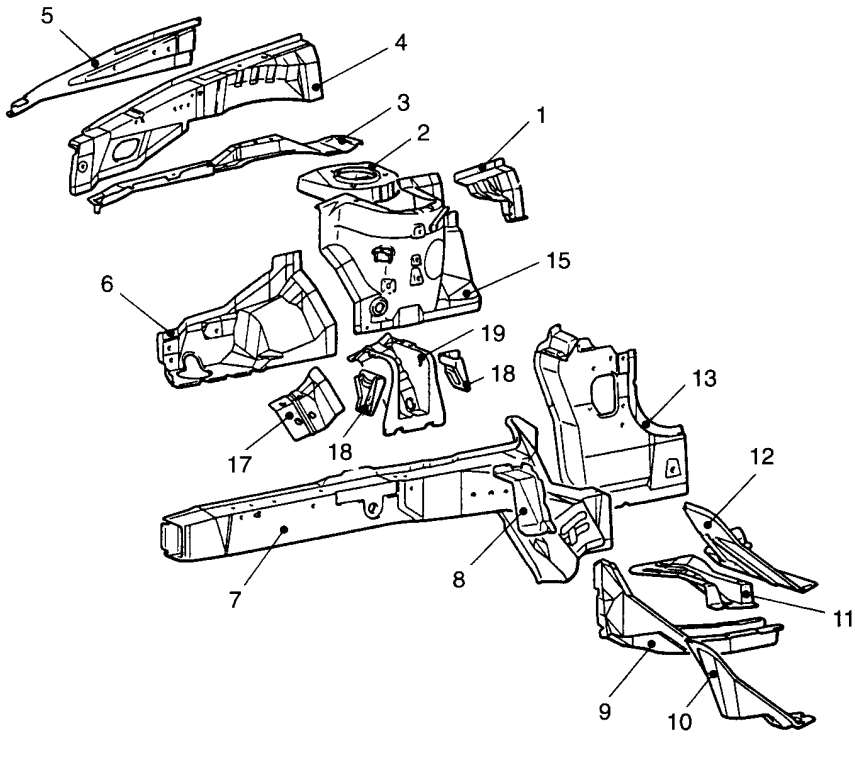
1. Upper frame extension gusset
2. Spring house bracket
3. Front upper frame, lower
4. Front upper frame, inner
5. Front upper frame, outer
6. Front fender shield
7. Front sidemember
8. Front sidemember rear gusset
9. Front sidemember, rear
10. Suspension crossmember support bracket
11. Sidemember to floor brace
12. Dash panel extension
13. Front floor side sill, inner, front
14. Spring house panel
15. Air cleaner bracket
16. Relay box bracket
17. Engine mounting reinforcement
18. Engine mounting support
19. Engine mounting bracket

(Left side)



31U0029

(Right side)

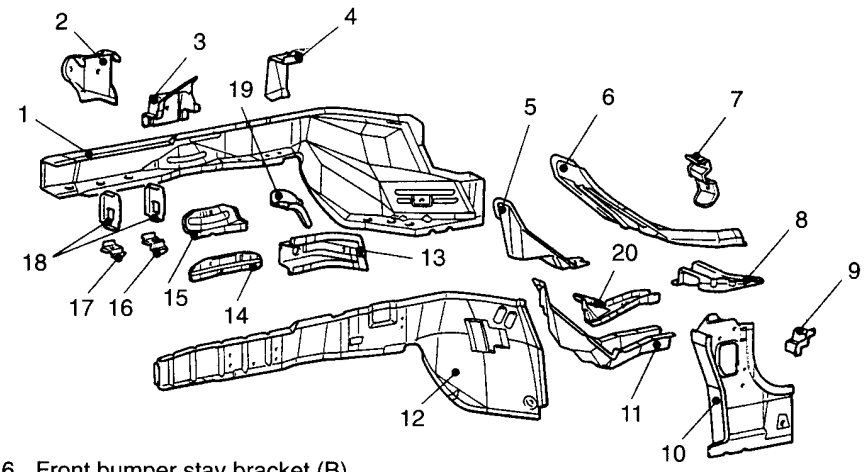


31U0030

FRONT SIDEMEMBER REINFORCEMENTS

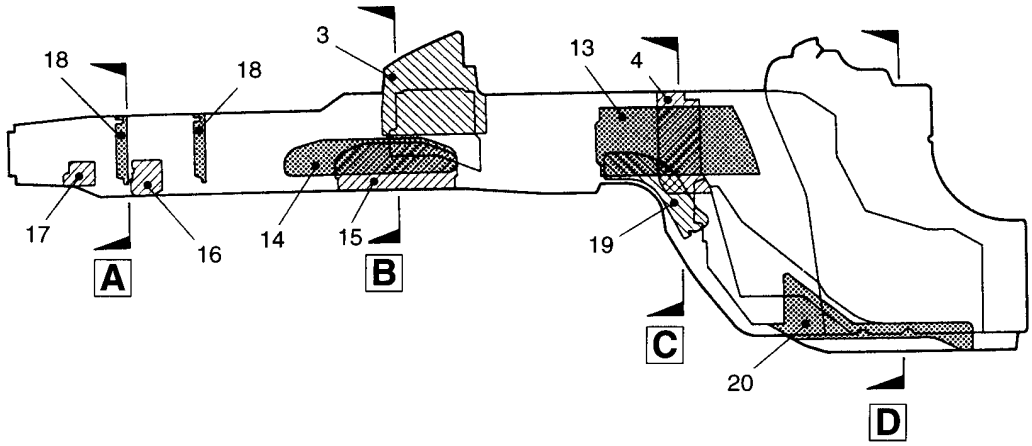
(Left side)

1. Front sidemember, inner
2. Transmisson mounting bracket
3. Transmisson mounting reinforcement
4. Front sidemember rear gusset
5. Suspension crossmember support bracket
6. Dash panel extension
7. Foot rest bracket (L.H. drive vehicles)
8. Sidemember to floor brace
9. Side sill inner front plate
10. Front floor side sill, inner, front
11. Front sidemember, rear
12. Front sidemember, outer
13. Front sidemember reinforcement, outer, rear
14. Front sidemember outer reinforcement
15. Front sidemember inner reinforcement



31U0028

16. Front bumper stay bracket (B)
17. Front bumper stay bracket (A)
18. Front sidemember bulkhead
19. Front sidemember reinforcement, inner, rear
20. Front sidemember reinforcement rear (Vehicles with SRS)



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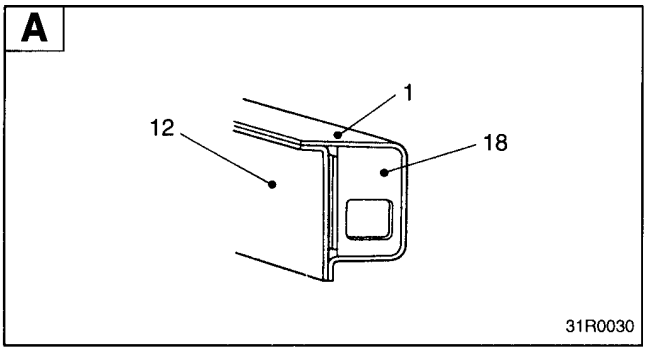

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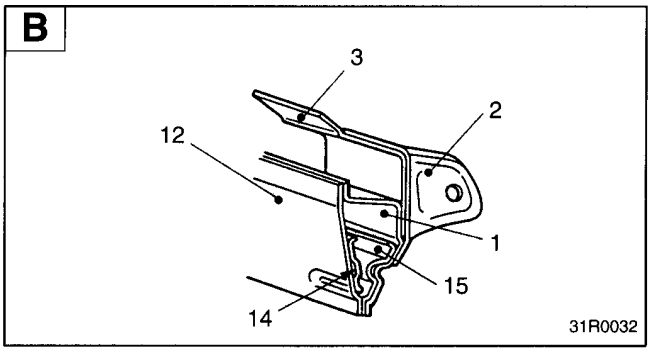

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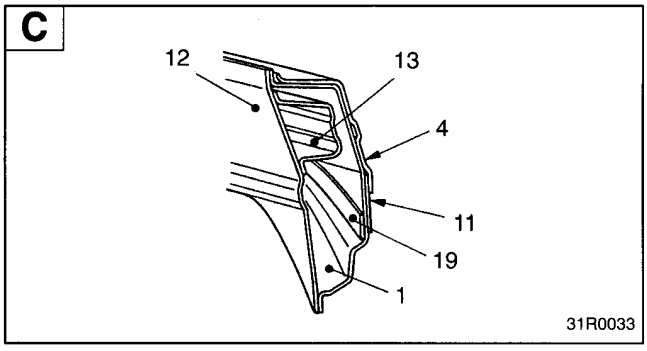

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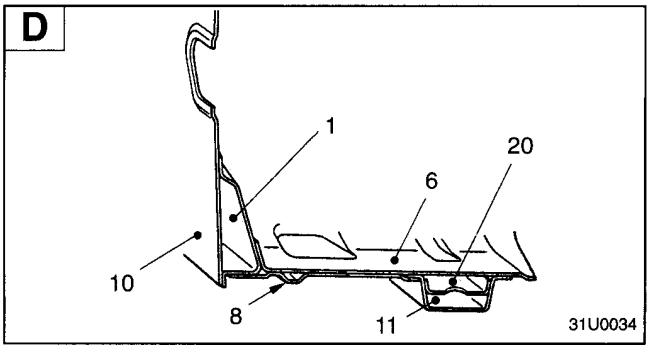
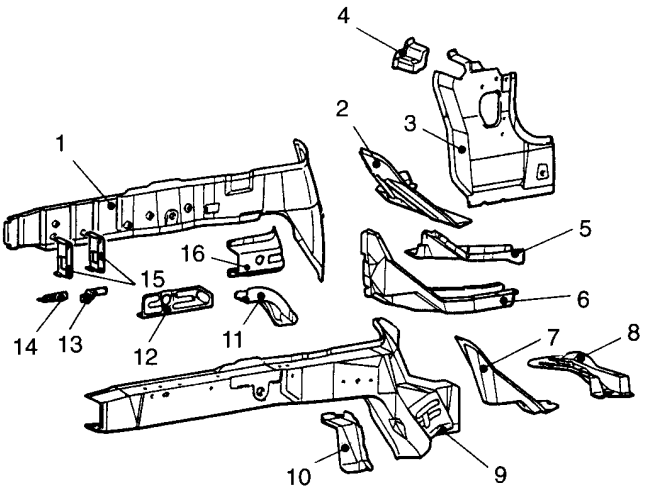


31U0034

(Right side)

1. Front sidemember, outer
2. Dash panel extension
3. Front floor side sill, inner, front
4. Side sill inner front plate
5. Front sidemember reinforcement, rear
6. Front sidemember, rear
7. Suspension crossmember support bracket
8. Sidemember to floor brace
9. Front sidemember, inner
10. Front sidemember rear gusset
11. Front sidemember reinforcement, inner, rear
12. Front sidemember inner reinforcement
13. Front bumper stay bracket (B)
14. Front bumper stay bracket (A)
15. Front sidemember bulkhead
16. Front sidemember reinforcement, outer, rear



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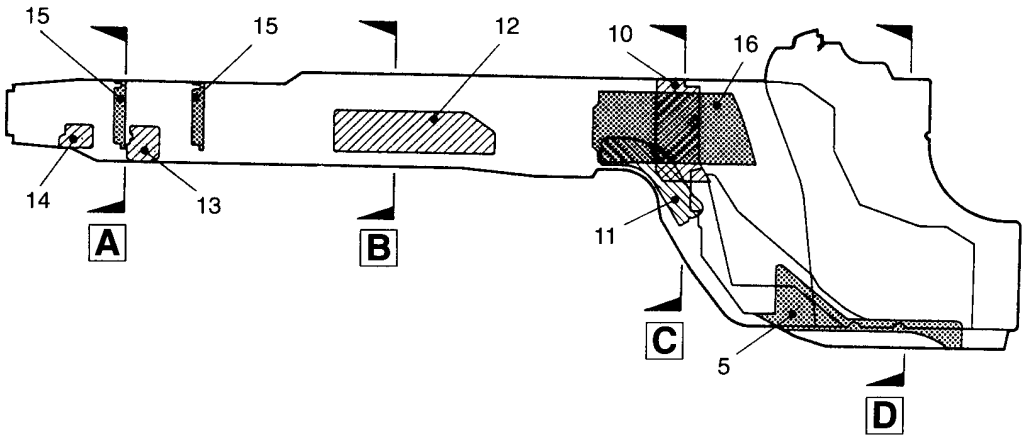

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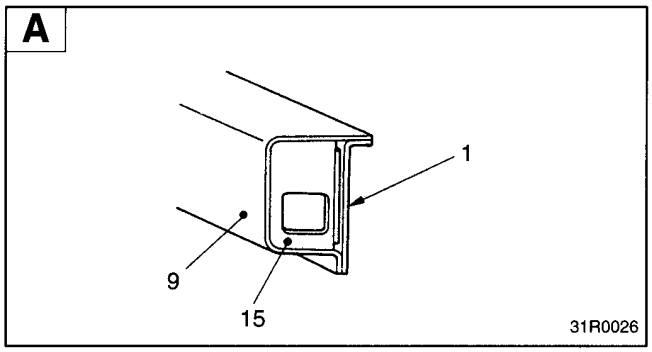

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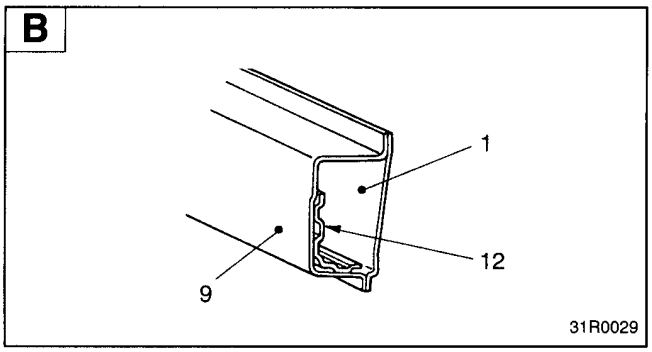
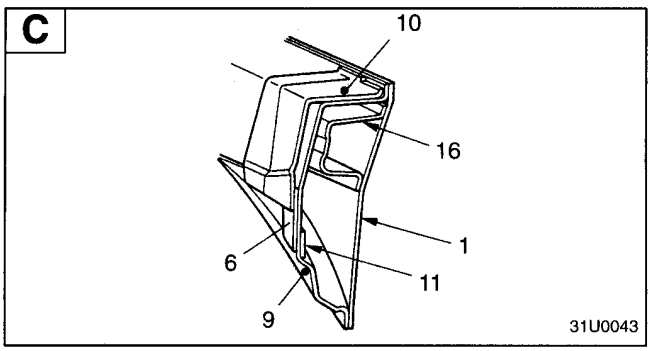
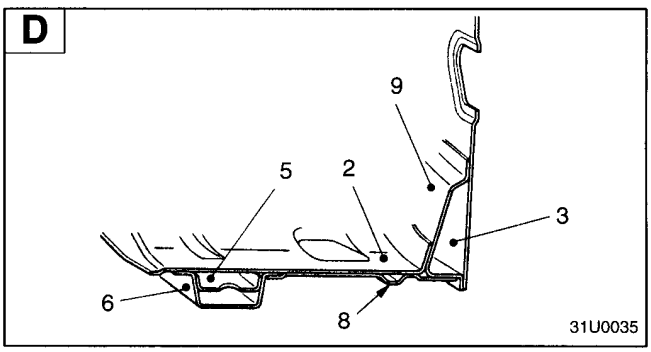


31R0029

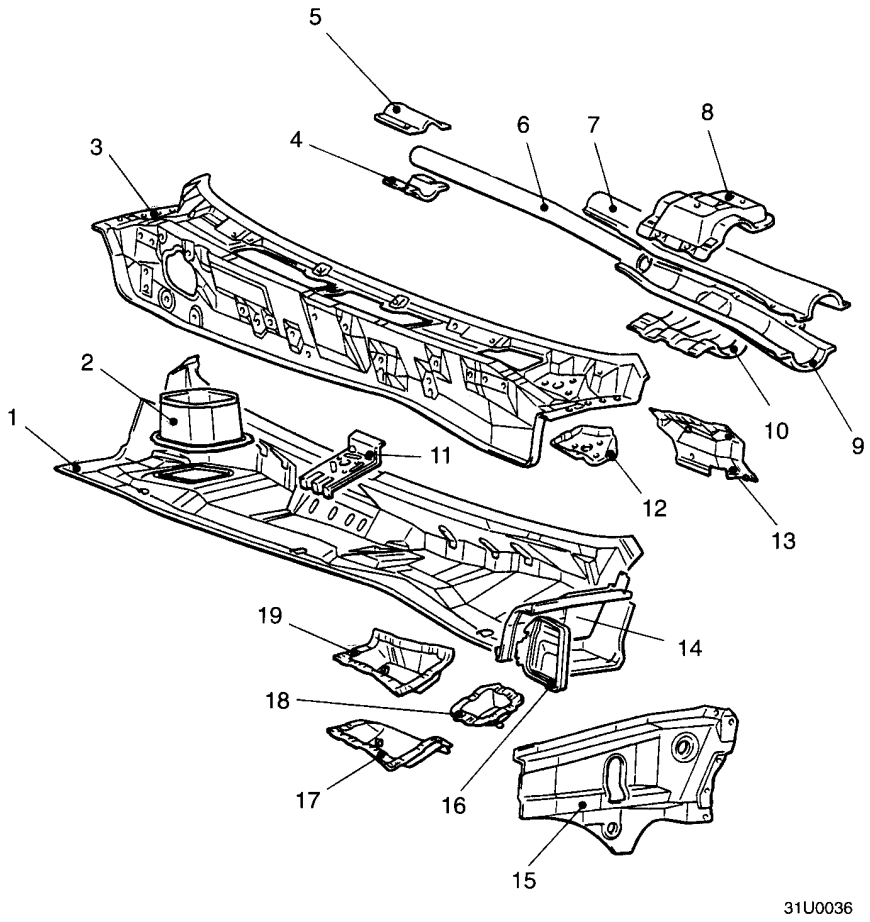


31U0043

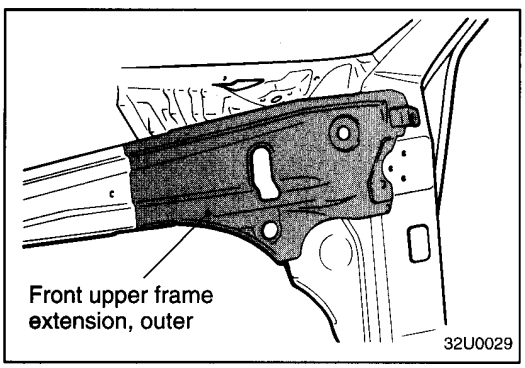


31U0035

FRONT DECK



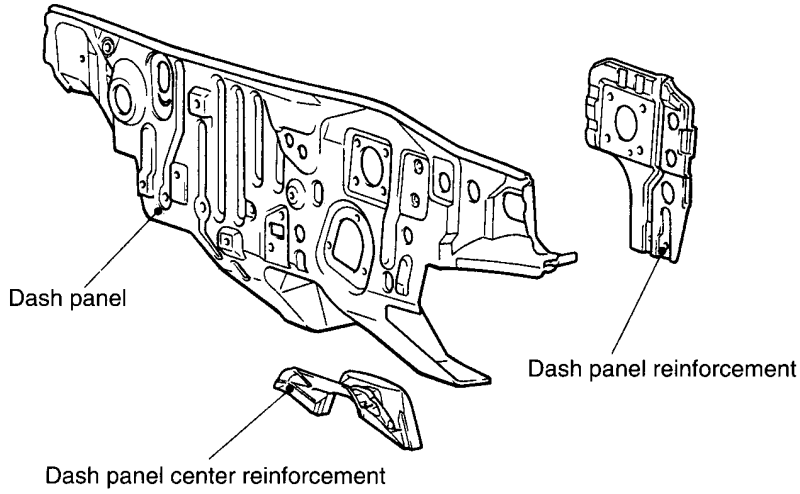
1. Cowl top panel, inner
2. Air intake duct
3. Cowl top panel, outer
4. Deck crossmember plate, lower
5. Deck crossmember plate, upper
6. Pipe
7. Deck crossmember bracket, upper
8. Steering column support bracket, upper
9. Deck crossmember bracket, lower
10. Steering column support bracket
11. Wiper bracket, center
12. Wiper reinforcement
13. Cowl top inner reinforcement (Vehicles with SRS)
14. Front upper frame extension, inner
15. Front upper frame extension, outer
16. Upper frame extension silencer
17. Steering column support bracket (C) (Vehicles with SRS)
18. Clutch pedal bracket
19. Pedal support bracket



The upper frame extension outer has strengthened the joint between the fender shield and front pillar to increase joining rigidity.

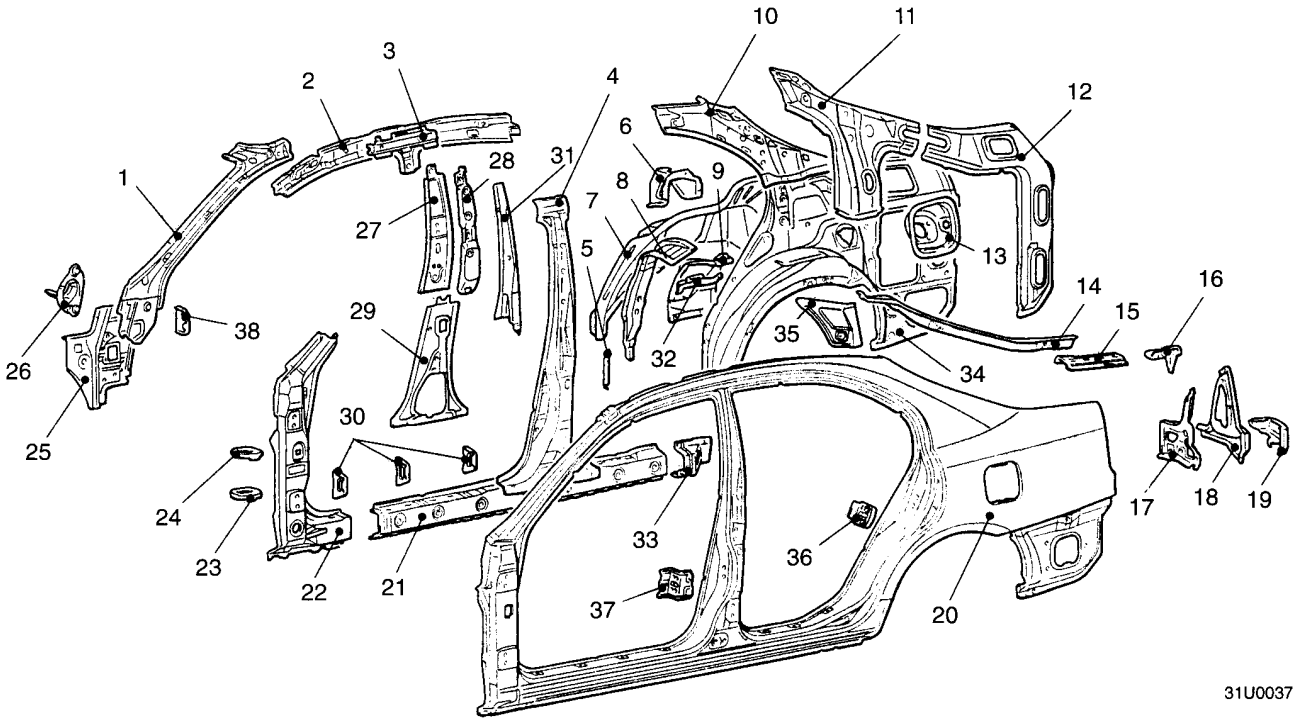
DASH PANEL

The reduction in size of the dash panel reinforcement provides a large degree of weight reduction for the vehicle body.



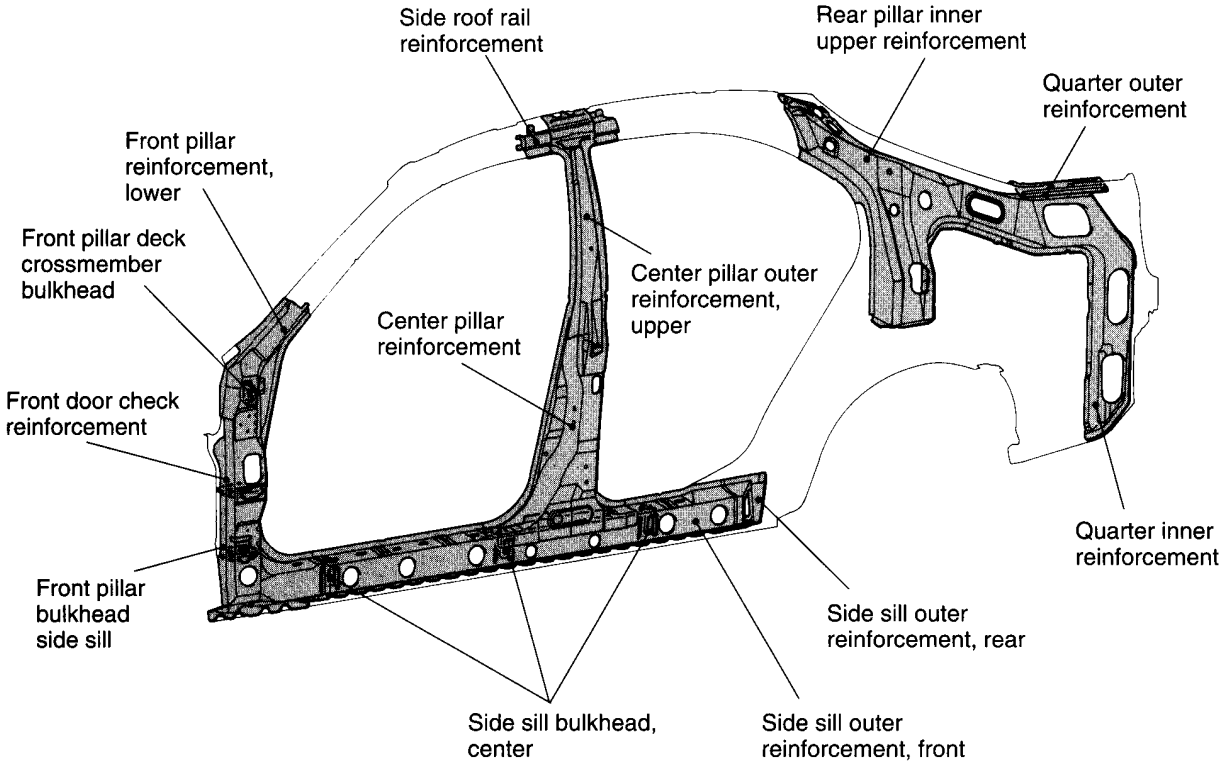
SIDE BODY

SIDE STRUCTURE



1. Front pillar, inner, upper
2. Side roof rail, inner
3. Side roof rail, reinforcement
4. Center pillar reinforcement
5. Side sill end plate
6. Rear seat back bracket
7. Rear wheelhouse panel, inner
8. Wheelhouse support
9. Spring house panel
10. Rear pillar, inner
11. Rear pillar inner upper reinforcement
12. Quarter inner reinforcement
13. Fuel filler neck bracket
14. Rear pillar outer extension
15. Quarter outer reinforcement
16. Quarter outer extension, upper
17. Rear end panel inner, side
18. Rear combination lamp housing
19. Quarter corner panel, rear
20. Side panel, outer
21. Side sill outer reinforcement, front
22. Front pillar reinforcement, lower
23. Front pillar bulkhead side sill
24. Front door check reinforcement
25. Front pillar, inner, lower
26. Crossmember bracket
27. Center pillar, inner, upper
28. Center pillar seatbelt reinforcement
29. Center pillar, inner, lower
30. Side sill bulkhead, center
31. Center pillar outer reinforcement, upper
32. Spring house bracket
33. Side sill outer reinforcement, rear
34. Quarter panel, inner
35. Wheelhouse extension, inner
36. Striker reinforcement
37. Center pillar striker reinforcement
38. Front pillar deck crossmember bulkhead

(1) A large reinforcement at the front pillar has increased joining rigidity at the side sill to improve the rigidity of the vehicle body.
(2) A large reinforcement at the center pillar has increased joining rigidity at the side roof rail and side sill to improve the rigidity of the vehicle body.
(3) The side sill has a large cross-sectional area, and large reinforcements and bulkheads have improved the rigidity of the vehicle body and resistance in the event of a side impact.
(4) The quarter panel has large reinforcements to increase the rigidity of the vehicle body.

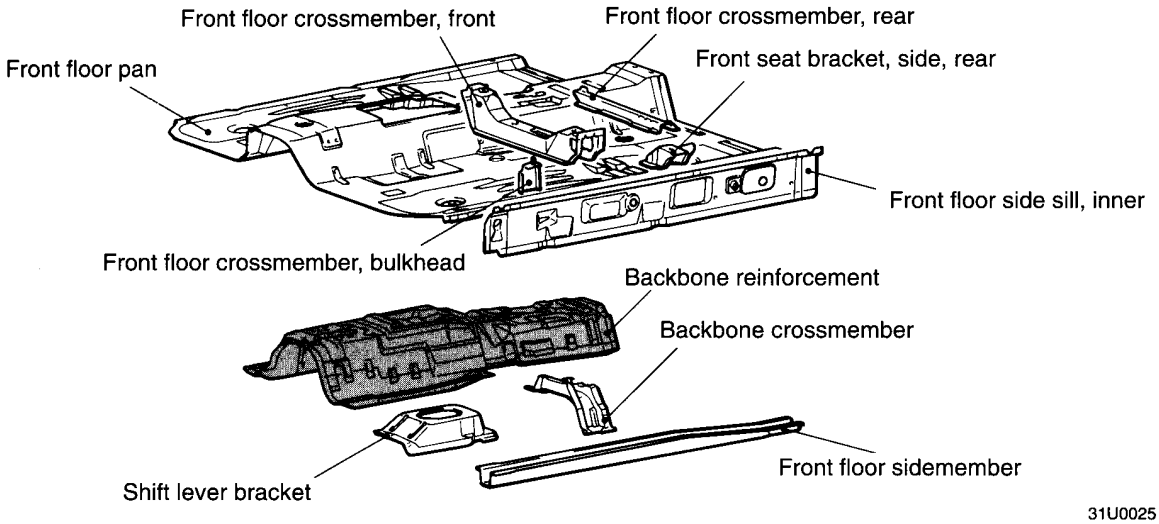


31U0048

UNDER BODY

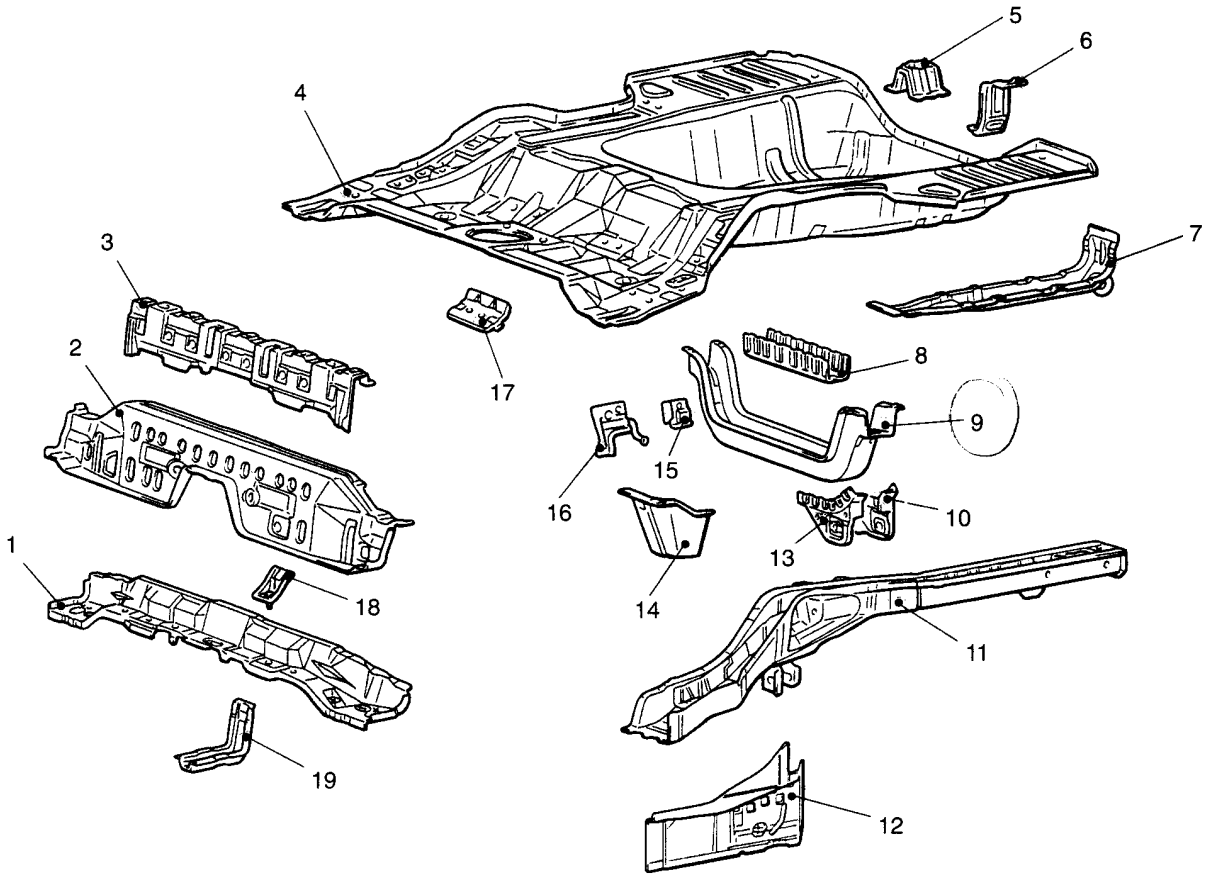
FRONT FLOOR

A large reinforcement at the front floor backbone (backbone reinforcement) has increased the overall rigidity of the floor together with the side sill and crossmember.



31U0025

REAR FLOOR

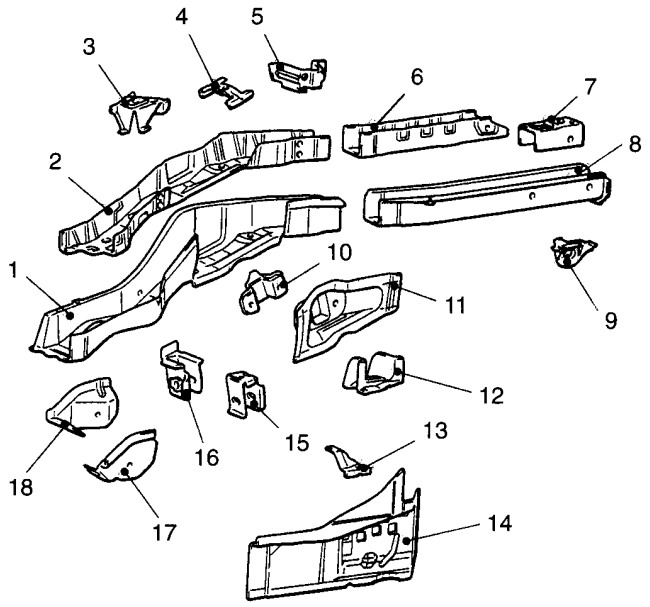


31U0057

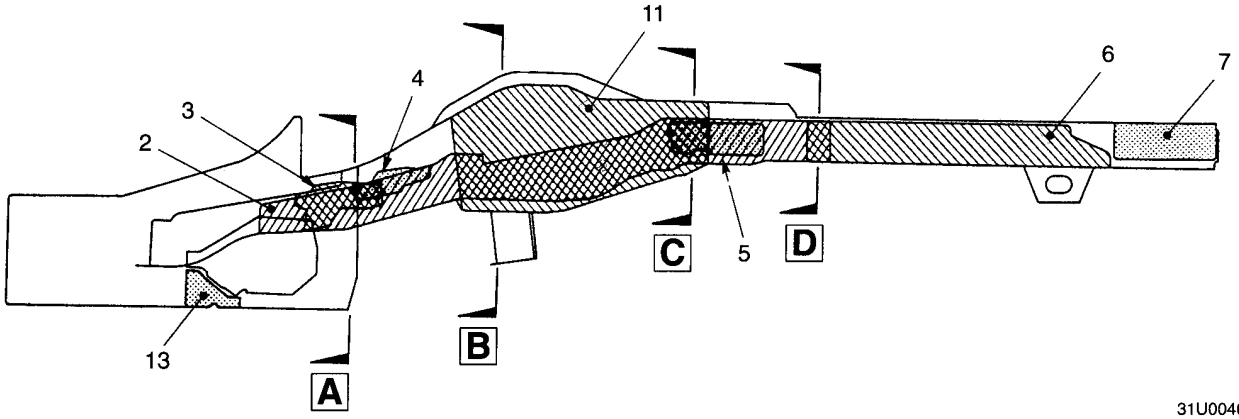
1. Rear seat crossmember
2. Rear floor extension
3. Rear seat crossmember, inner
4. Rear floor pan
5. Spare tire bracket
6. Jack bracket
7. Towing hook reinforcement
8. Rear floor crossmember reinforcement
9. Rear floor crossmember
10. Lower arm bracket, rear
11. Rear floor sidemember
12. Rear floor side sill
13. Lower arm bracket, front
14. Fuel tank bracket, rear
15. Muffler hanger, center, inner
16. Muffler hanger, center
17. Rear floor seatbelt reinforcement
18. Fuel tank reinforcement, front
19. Front floor sidemember extension

REAR FLOOR SIDEMEMBER REINFORCEMENTS

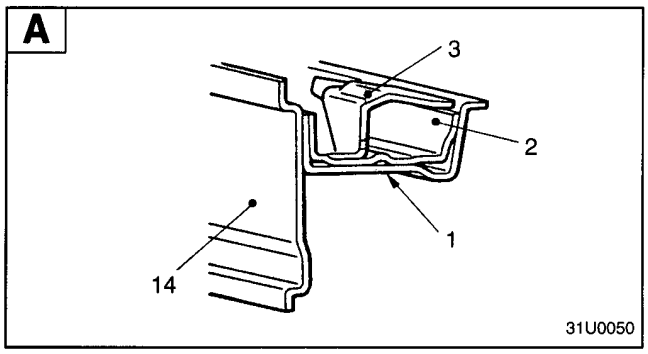
1. Rear floor sidemember
2. Rear floor sidemember reinforcement, front
3. Rear floor seatbelt reinforcement, side
4. Seatback reinforcement, side
5. Rear floor sidemember bulkhead
6. Rear floor sidemember reinforcement, rear
7. Rear bumper stay reinforcement
8. Rear floor sidemember extension
9. Sipping bracket
10. Upper link bracket
11. Rear floor sidemember reinforcement
12. Rear floor crossmember extension
13. Rear floor sidemember support
14. Rear floor side sill
15. Toe control link reinforcement
16. Toe control link bracket
17. Trailing arm bracket, outer
18. Trailing arm bracket, inner



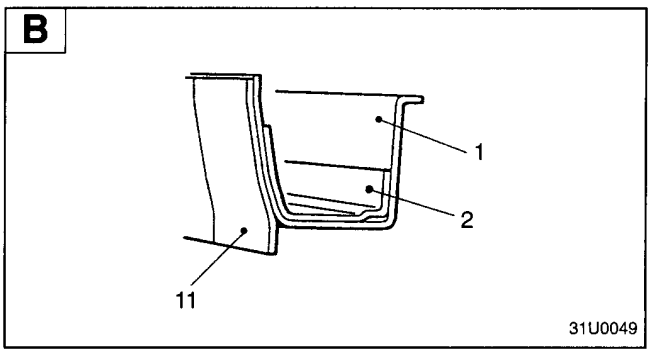
31U0056



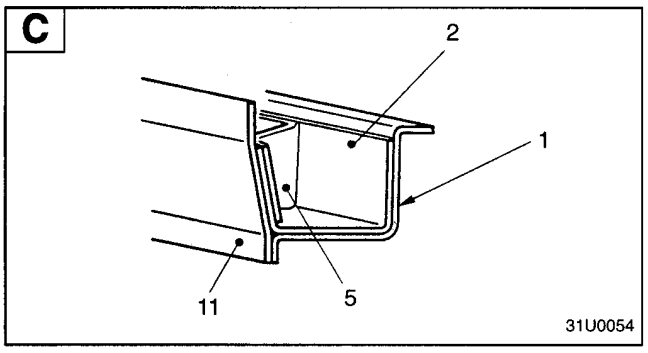
31U0046



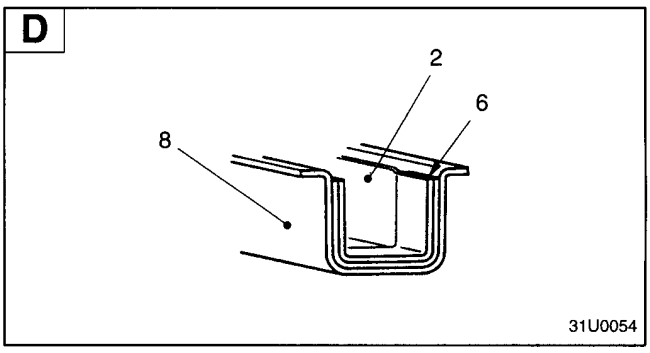
31U0050



31U0049



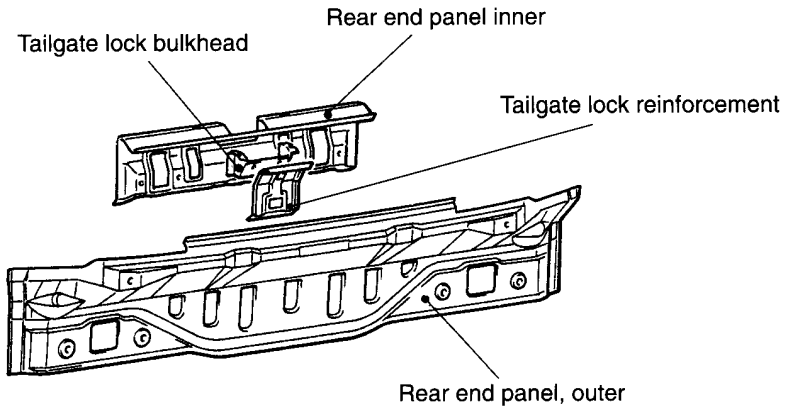
31U0054



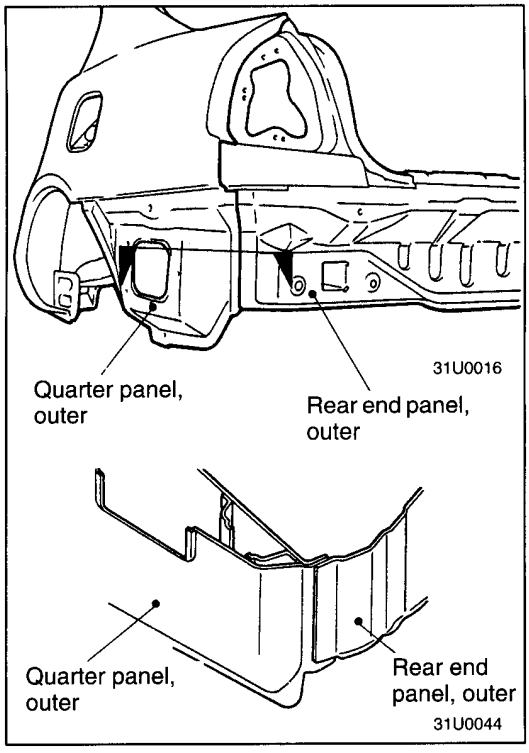
31U0054

REAR BODY

REAR END PANEL



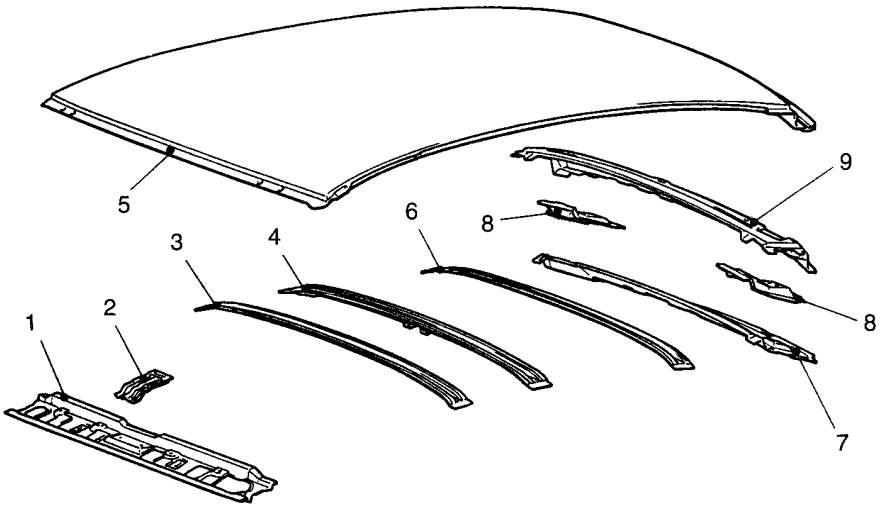
31U0023



The quarter panel outer is welded on the rear end panel outer. This facilitates replacement of the rear end panel.

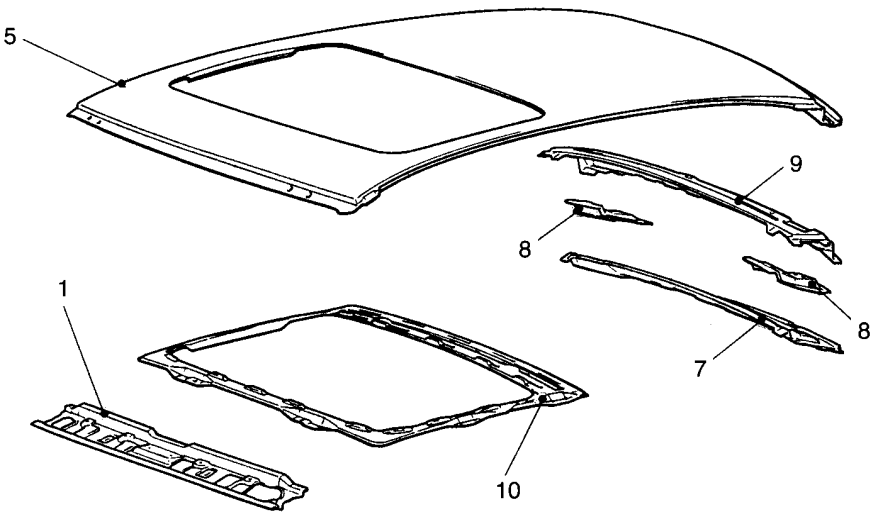
ROOF

Standard roof



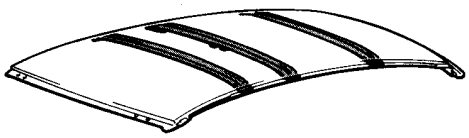
31U0021

Sunroof



31U0022

1. Front roof rail
2. Map lamp bracket
3. Roof bow, front
4. Roof bow, center
5. Roof panel
6. Roof bow, rear
7. Rear roof rail, inner
8. Rear roof rail hinge reinforcement
9. Rear roof rail, outer
10. Roof panel reinforcement



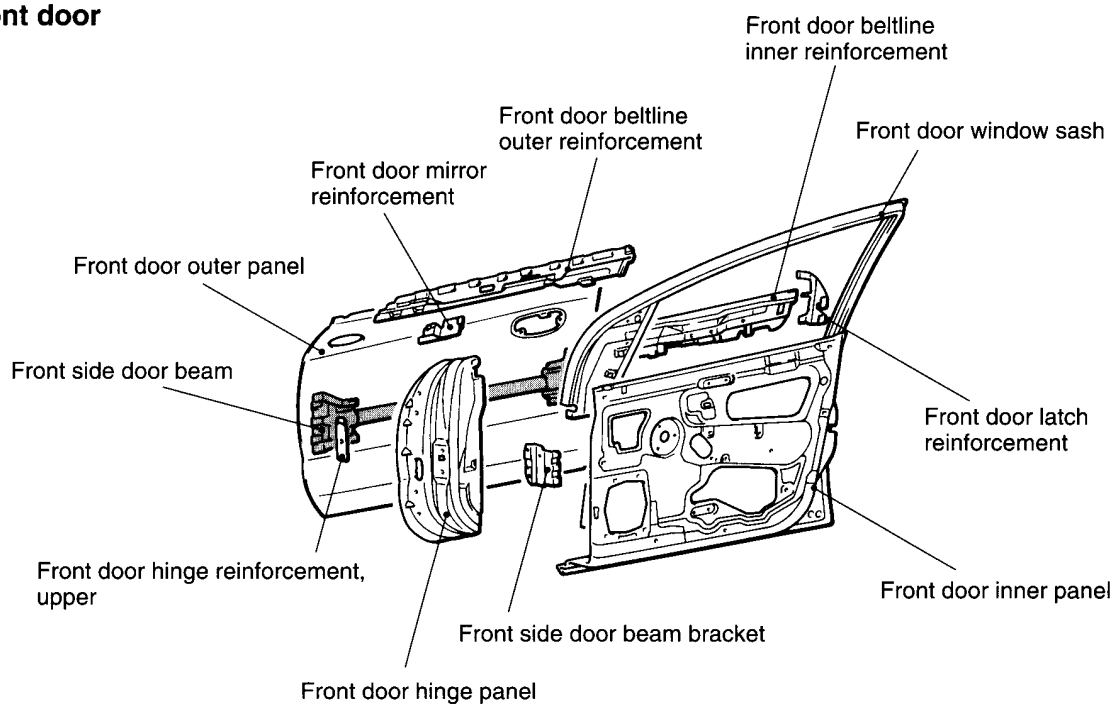
31U0047

Three roof bows are equipped laterally across the roof panel together with the front and rear roof rails, thus increasing the rigidity of the roof panel.

DOOR

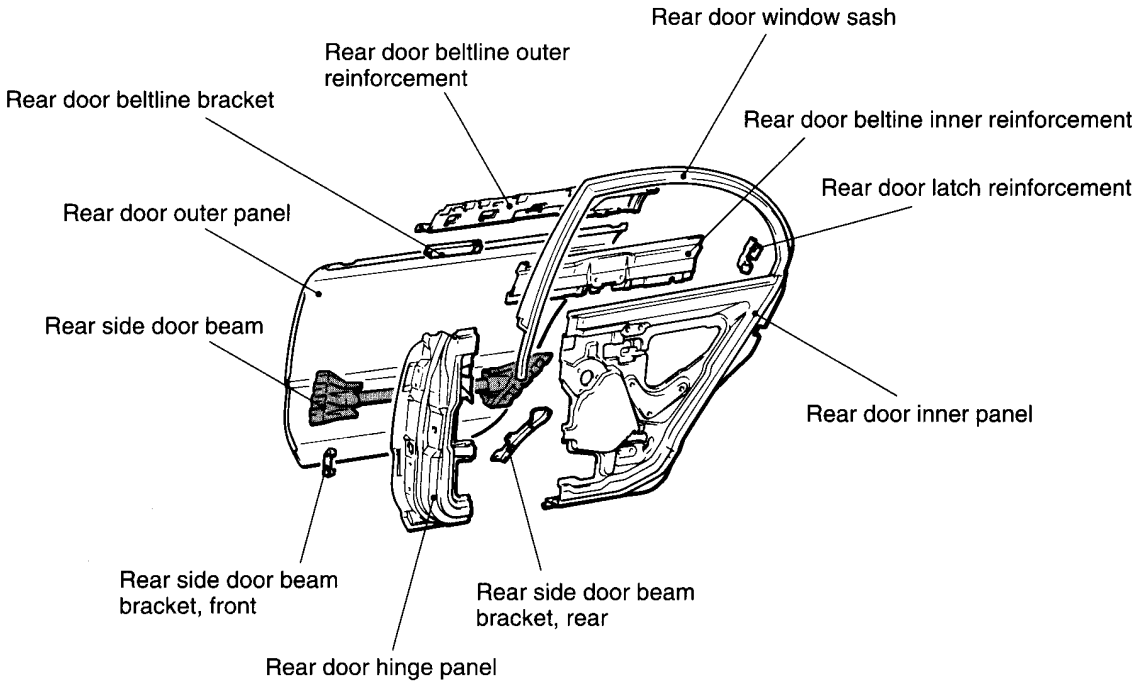
The side door beam has been used inside the door to protect occupants in the event of a side collision.

Front door



31U0026

Rear door



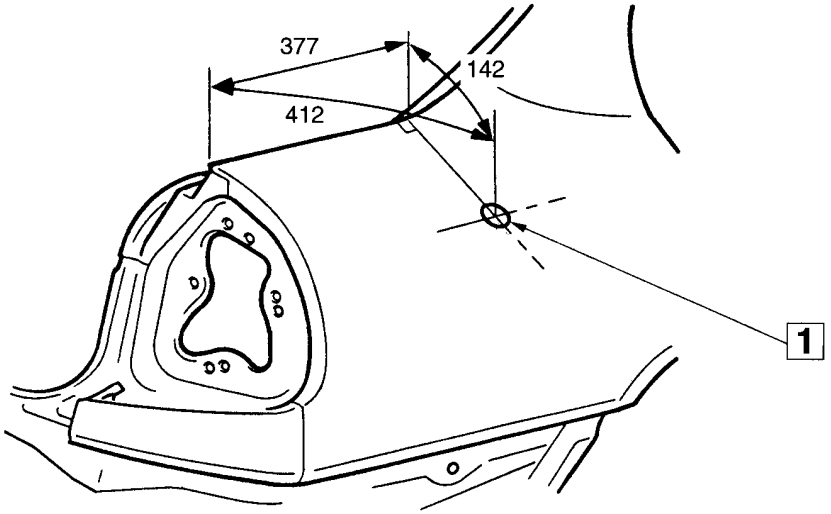
31U0027

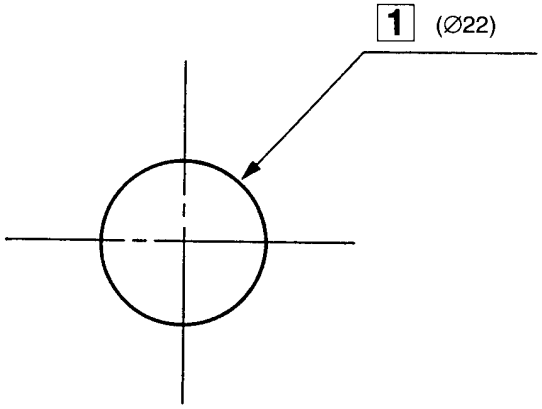
NOTES REGARDING PANEL REPLACEMENT

Some accessory parts are not equipped with holes for installation. When replacing such panels, make mounting holes to correspond to the installed parts.

QUARTER PANEL, OUTER (RIGHT SIDE)

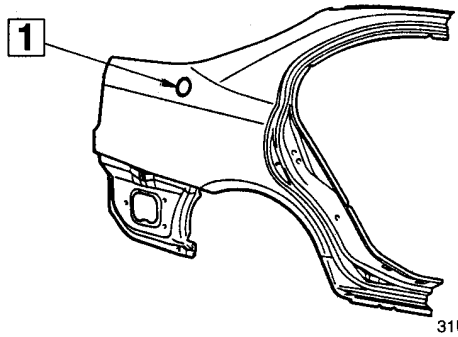
mm





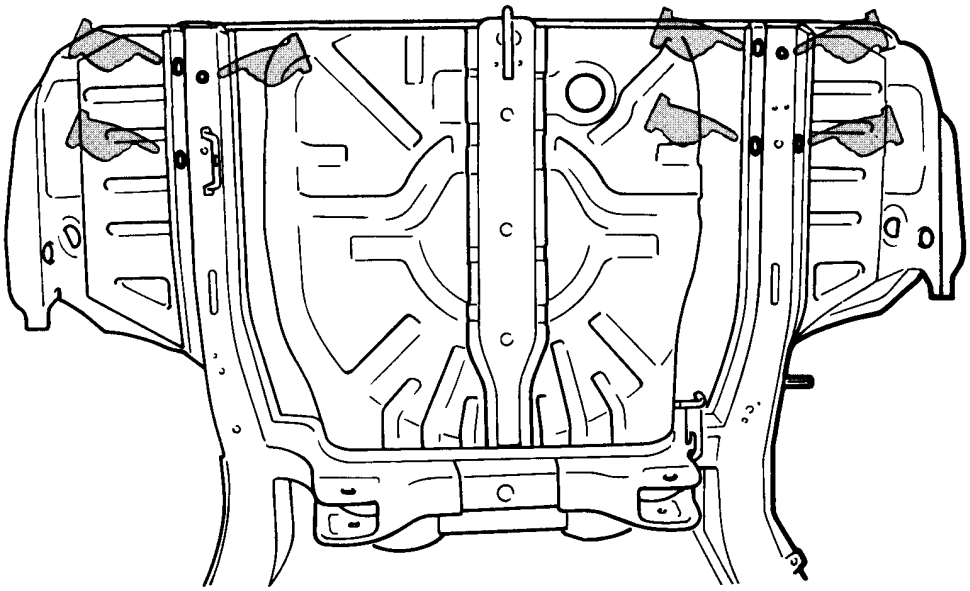
(Actual size)

31U0053

Illustration	Hole name	Hole shape – Size mm
 31U0051	1 Motor antenna installation hole	○ – 22

TOWING BAR MOUNTING LOCATIONS

(: Seven mounting locations)

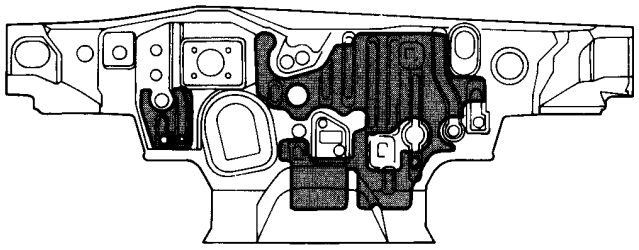


31U0039

SILENCER APPLICATION LOCATIONS

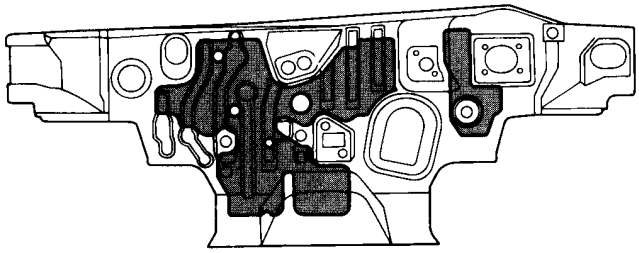
In order to reduce vibration and screen out heat from the exhaust gas, silencers (melting sheets) are applied to the top of the floor and to the passenger compartment side of the dash panel.

L.H. drive vehicles



31U0040

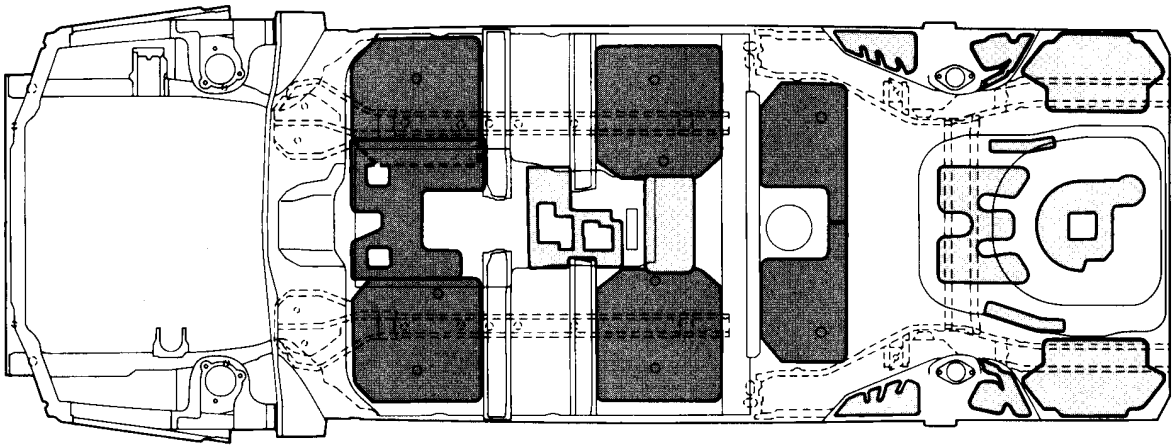
R.H. drive vehicles



31U0041

Dash panel (Interior side)

Dash panel (Interior side)

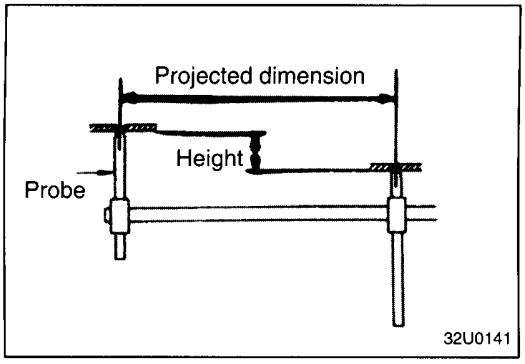


: 1.6 mm thick

: 3.2 mm thick (two layers of 1.6 mm thick silencer.)

31U0042

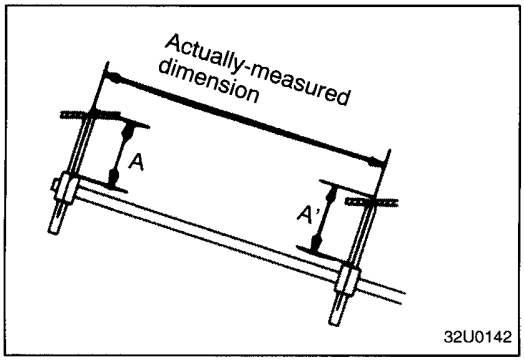
2 BODY DIMENSIONS



BODY DIMENSIONS AND MEASUREMENT METHODS

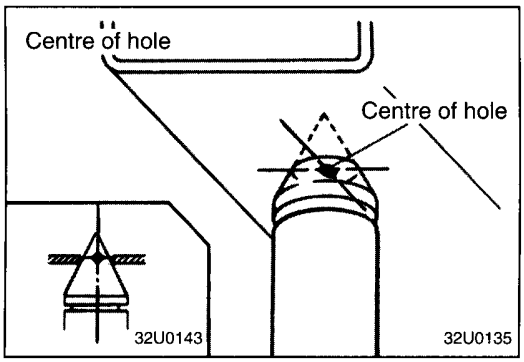
STANDARD DIMENSION INDICATIONS AND MEASUREMENT METHODS

(1) Type A (projected dimensions)
Indicates the dimension when a measurement location is projected onto a plane. The difference in height of the measurement points should be taken into consideration when measuring.

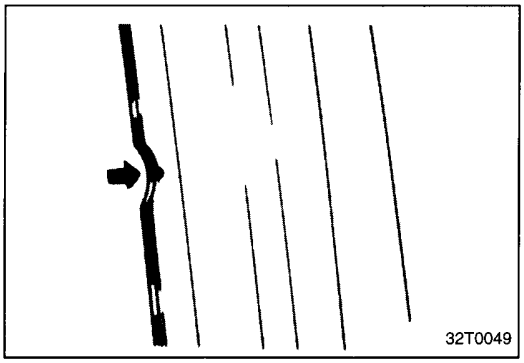


(2) Type B (actual-measurement dimensions)
Indicates the actual distance between the measurement points.
Measure using a tracking gauge or a measuring tape, etc.

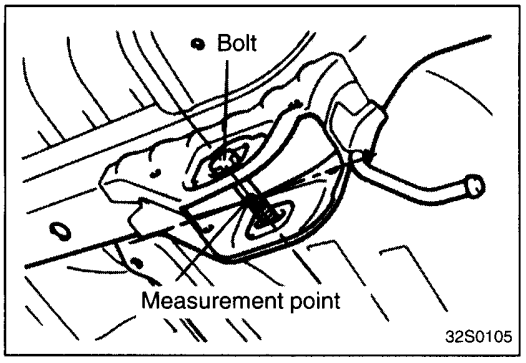
NOTES
- Make the lengths of the tracking gauge probes the same (A=A').
- Do not bend or twist the measuring tape.



(3) Insert the tracking gauge probes securely into the measurement holes.
(4) When the standard dimensions in the illustration are enclosed by □, this indicates that the symmetrical left and right positions have the same dimensions.



(5) When using a notch for dimension measurement, make the measuring point at the centre of the notch.



(6) When measuring the suspension mounting arm or the link mounting position, use the suspension mounting bolt as the measuring point.

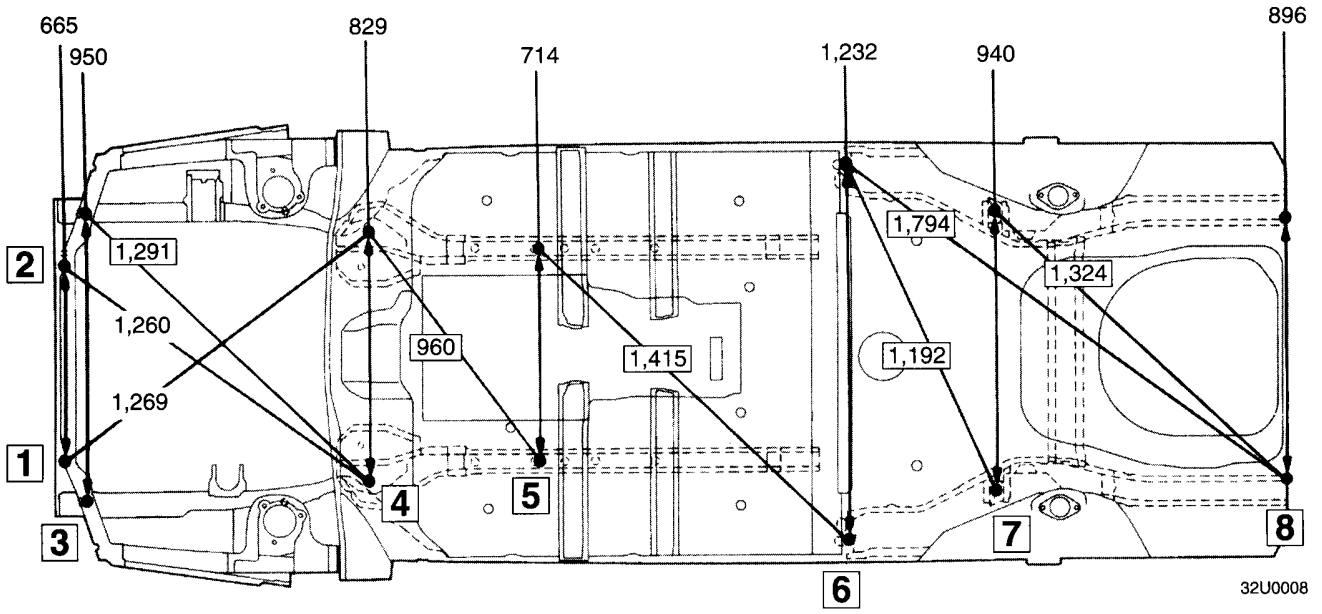
BODY CENTRE POINT

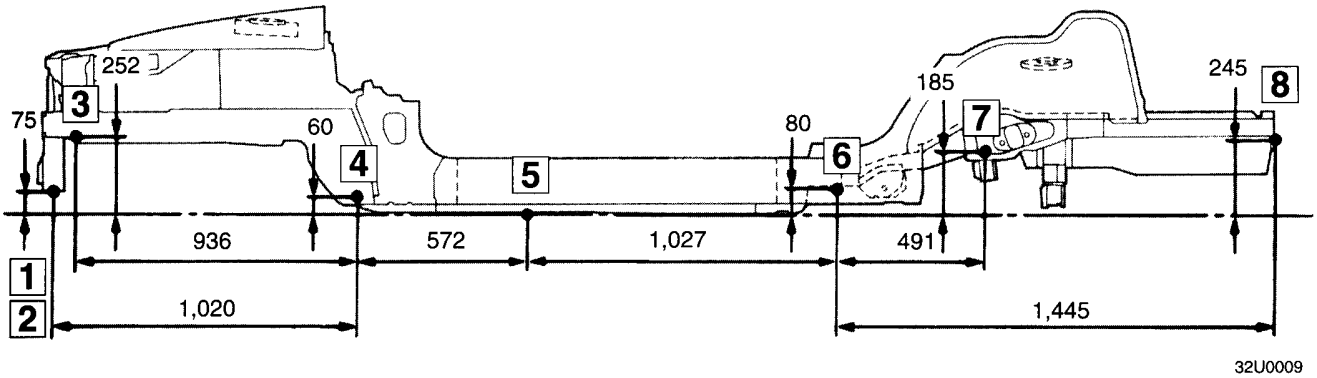
The body centre points are shown for the purpose of checking the position of the left and right symmetry locations.

TYPE A (PROJECTED DIMENSIONS)

UNDER BODY

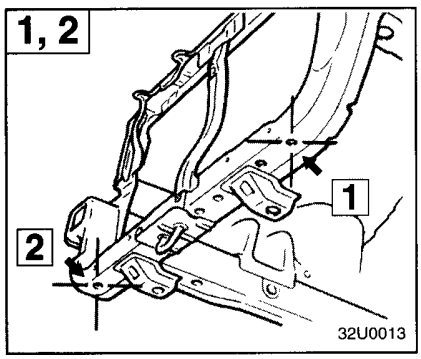
mm

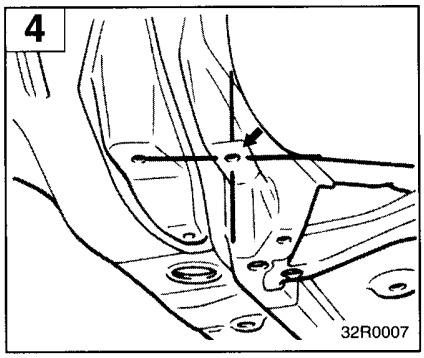


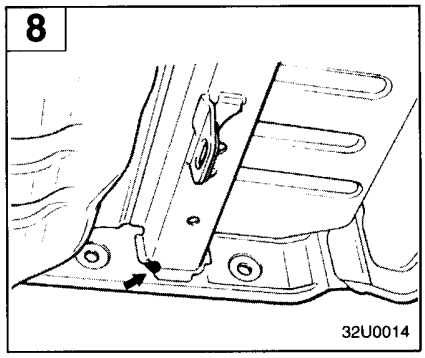


No.	Standard measurement point	Hole shape – Size mm	No.	Standard measurement point	Hole shape – Size mm
1	Centre of wax injection nozzle insertion hole	○ – 16	*5	Rear portion of front floor sidemember positioning hole	○ – 25
2	Centre of front bumper mounting hole	○ – 13	*6	Rear portion of rear seat crossmember positioning hole	▭ – 22 x 38
*3	Rear portion of front bumper stay mounting hole	○ – 30	7	Centre of rear floor sidemember drain hole	○ – 20
*4	Centre of suspension crossmember mounting hole	left ○ – 14 right ○ – 18	8	Joint of rear floor sidemember extension and rear end panel outer	–

NOTE: The * mark indicates the mounting position for the frame centering gauge.

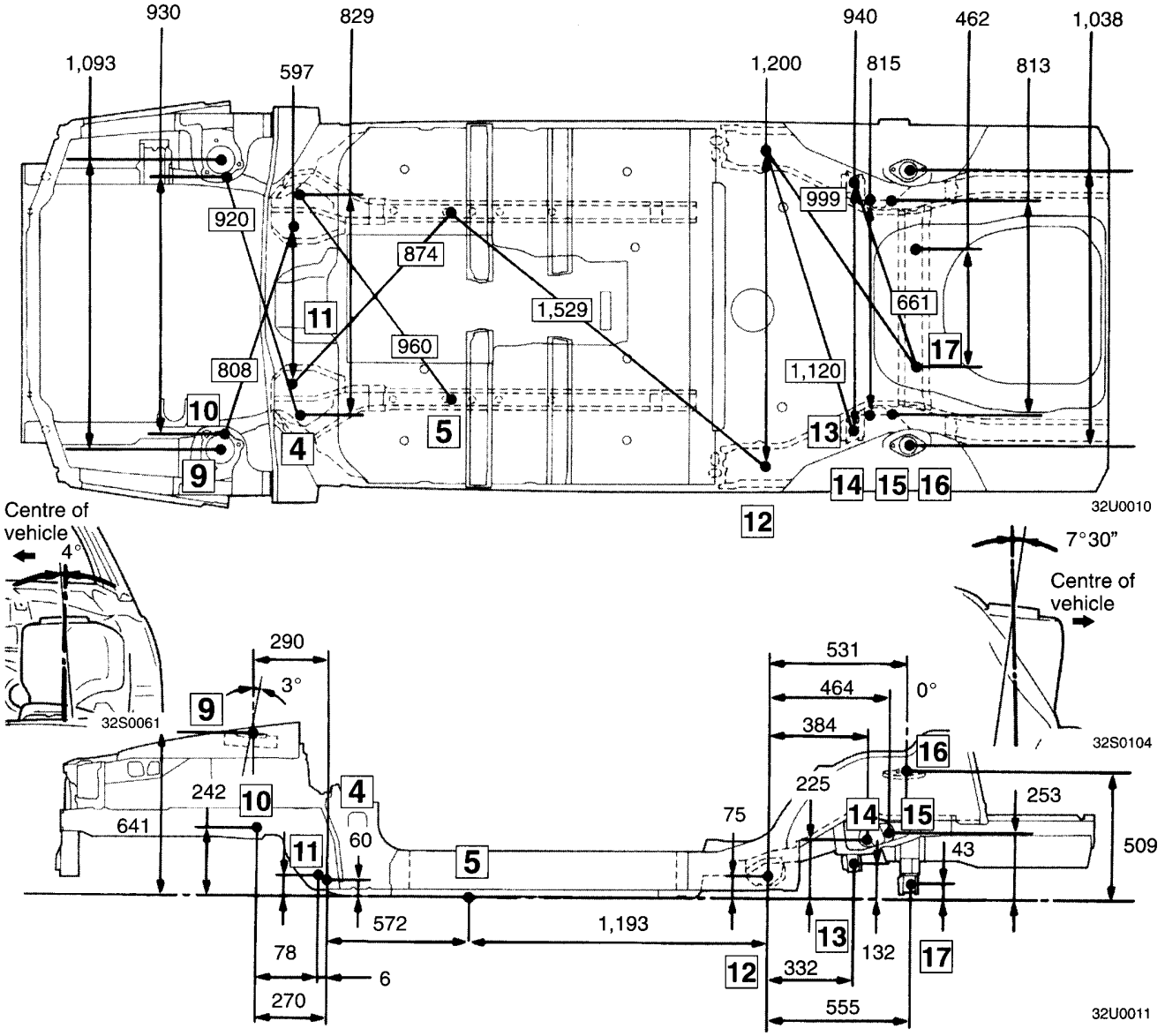




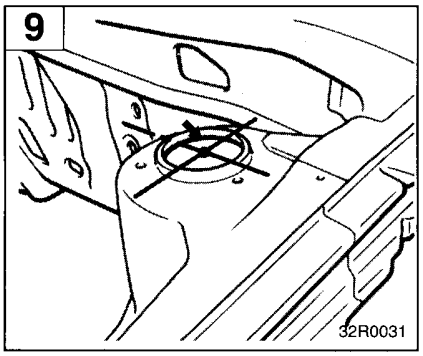


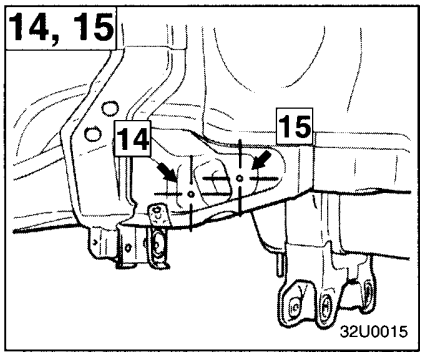
SUSPENSION INSTALLATION DIMENSIONS

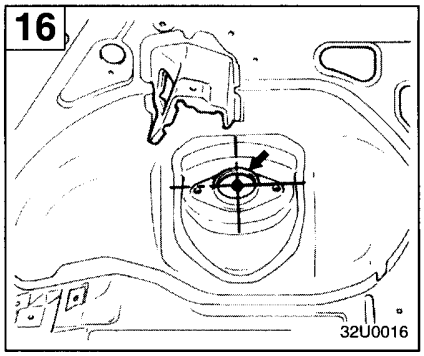
mm



No.	Standard measurement point	Hole shape – Size mm
9	Centre of strut insurator	○ – 144
10	Centre of suspension crossmember mounting hole	○ – 15
11	Centre of suspension crossmember mounting hole	○ – 16
12	Trailing arm mounting position	–
13	Control link mounting position	–
14	Centre of upper link mounting hole	○ – 14
15	Centre of upper link mounting hole	○ – 14
16	Centre of rear shock absorber maunting hole	○ – 68
17	Lower arm mounting position	–



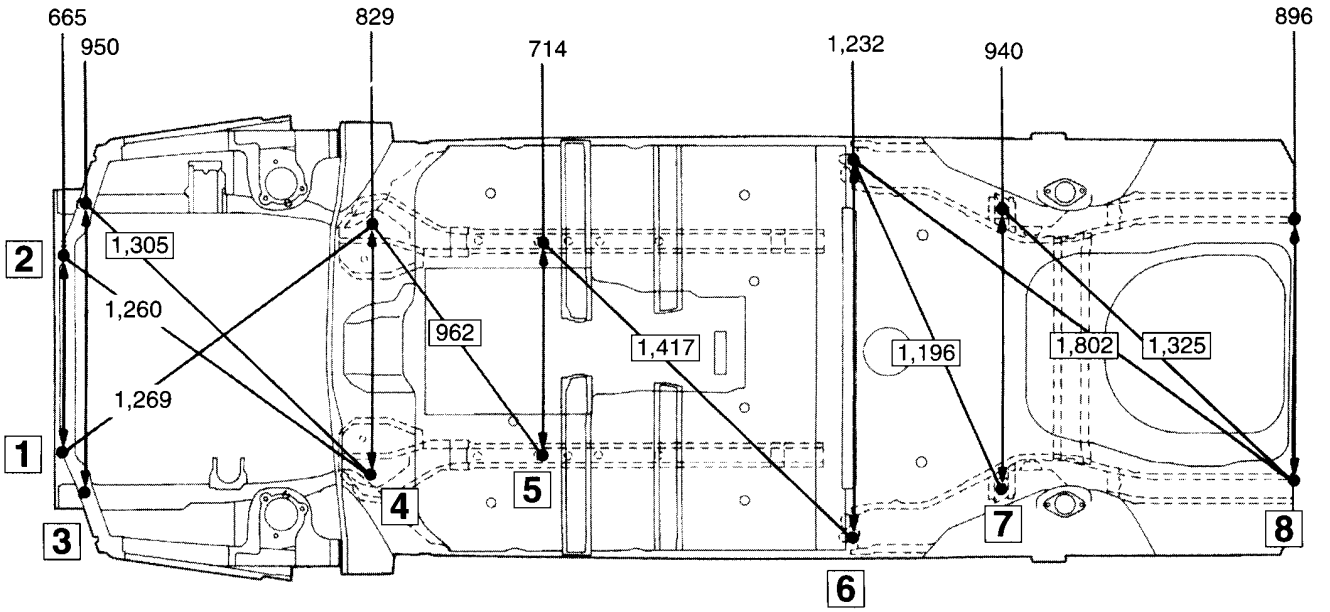




TYPE B (ACTUAL-MEASUREMENT DIMENSIONS)

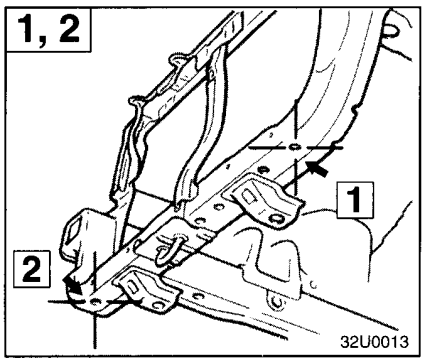
UNDER BODY

mm

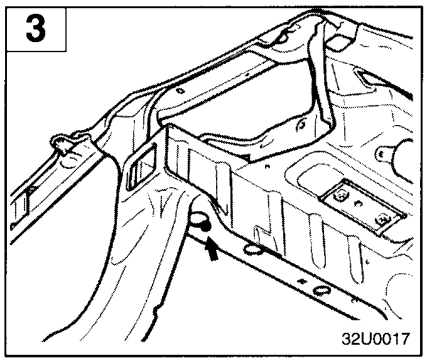


32U0008

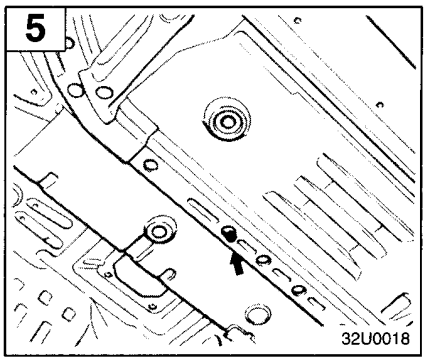
No.	Standard measurement point	Hole shape – Size mm	No.	Standard measurement point	Hole shape – Size mm
1	Centre of wax injection nozzle insertion hole	○ – 16	5	Rear portion of front floor sidemember positioning hole	○ – 25
2	Centre of front bumper mounting hole	○ – 13	6	Rear portion of rear seat crossmember positioning hole	▭ – 22 x 38
3	Rear portion of front bumper stay mounting hole	○ – 30	7	Centre of rear floor sidemember drain hole	○ – 20
4	Centre of suspension crossmember mounting hole	left ○ – 14 right ○ – 18	8	Joint of rear floor sidemember extension and rear end panel outer	–



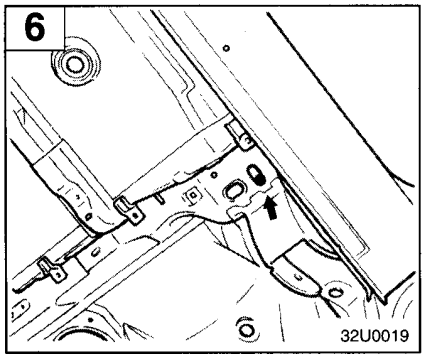
32U0013



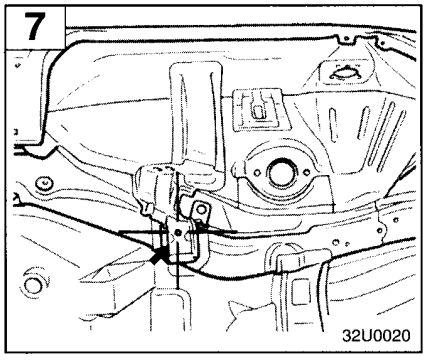
32U0017



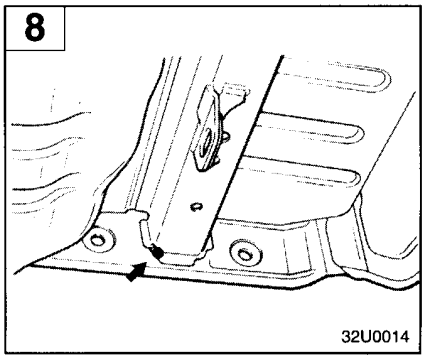
32U0018



32U0019



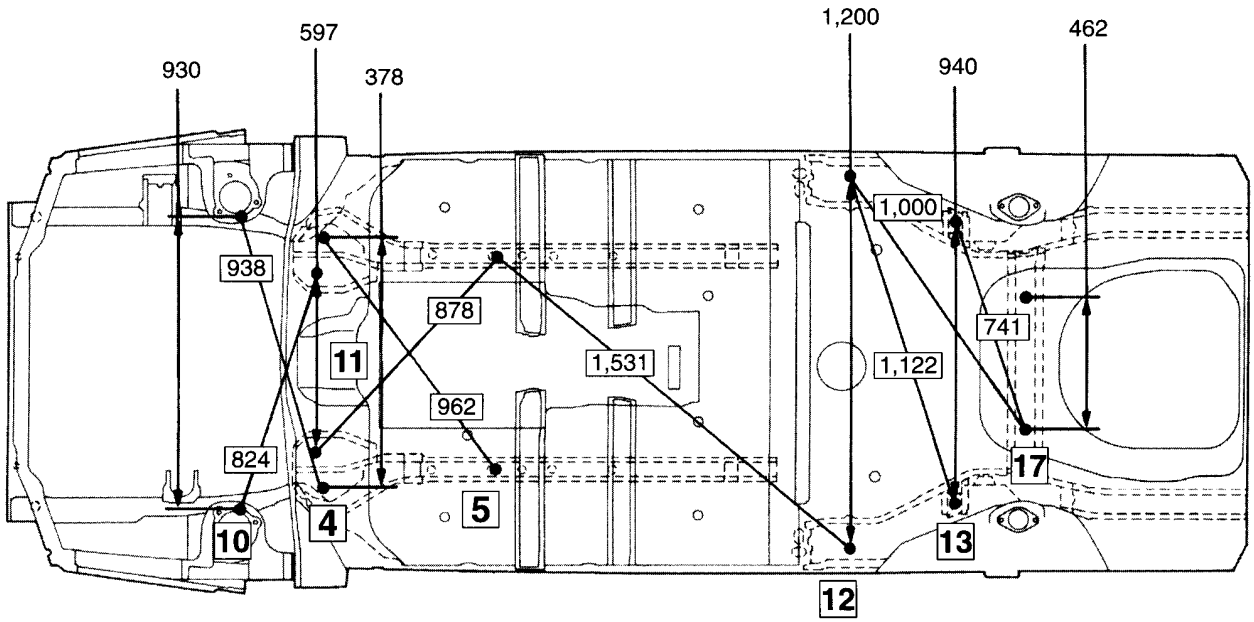
32U0020



32U0014

SUSPENSION INSTALLATION DIMENSIONS

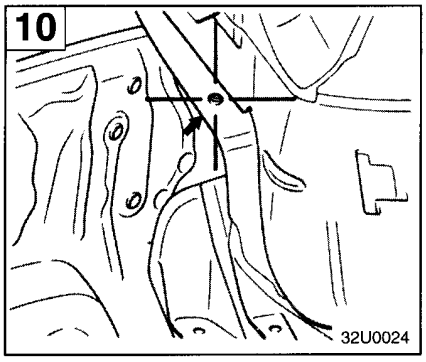
mm

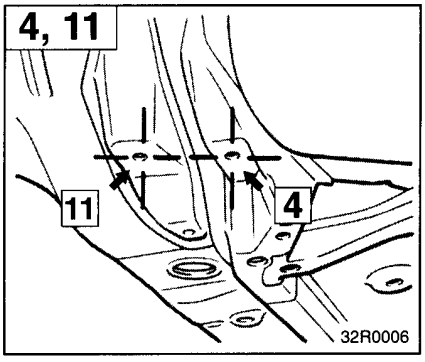


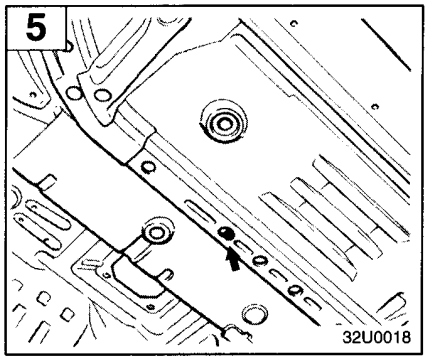
32U0032

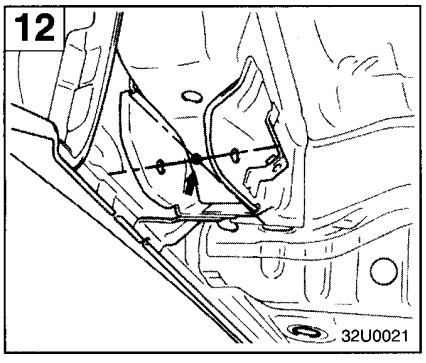
No.	Standard measurement point	Hole shape – Size mm
4	Centre of suspension crossmember mounting hole	left ○ – 14 right ○ – 18
5	Rear portion of front floor sidemember positioning hole	○ – 25
10	Centre of suspension crossmember mounting hole	○ – 15
11	Centre of suspension crossmember mounting hole	○ – 16

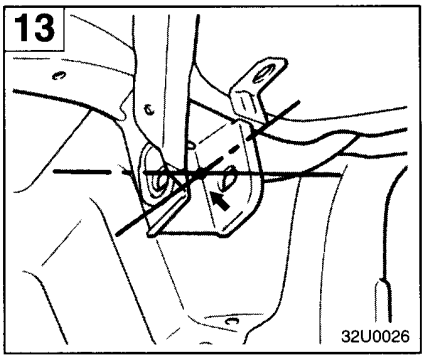
No.	Standard measurement point	Hole shape – Size mm
12	Trailing arm mounting position	–
13	Control link mounting position	–
17	Lower arm mounting position	–

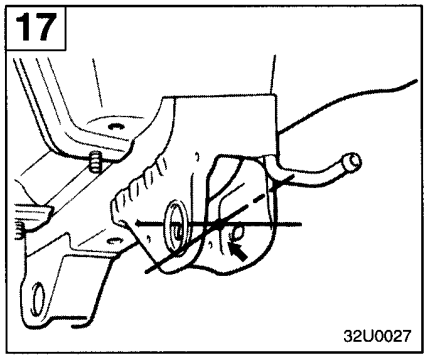




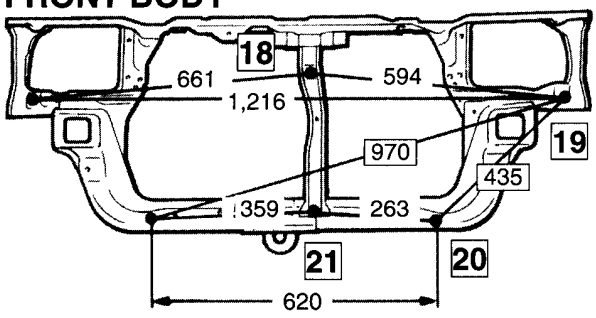




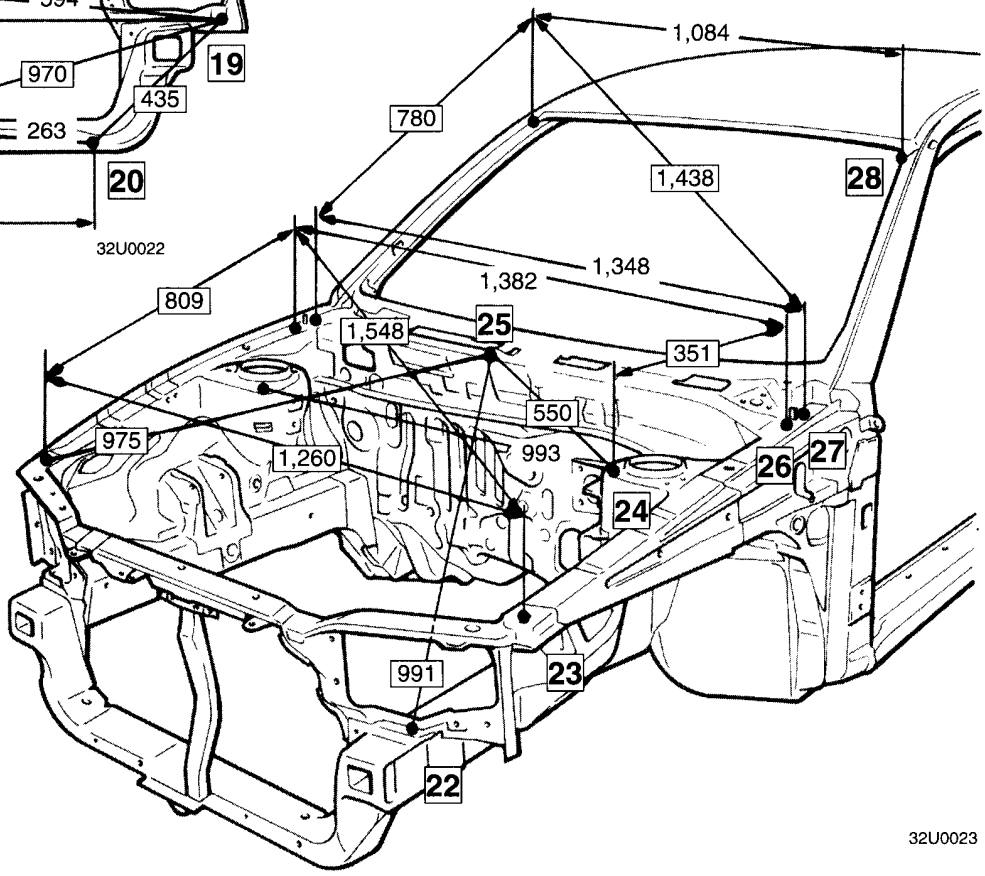




FRONT BODY

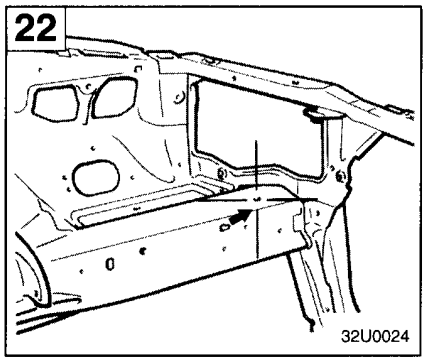


mm

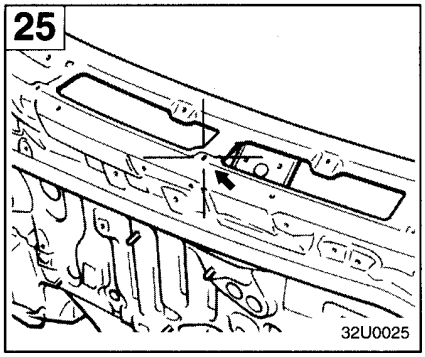


No.	Standard measurement point	Hole shape – Size mm
18	Centre of hood lock stay guide hole	○ – 7
19	Centre of headlamp support panel positioning hole	○ – 10
20	Centre of air guide panel mounting hole	○ – 7.5
21	Centre of air guide panel mounting hole	○ – 7
22	Centre of wiring harness clip mounting hole	○ – 7
23	Centre of front end upper bar positioning hole	○ – 5
24	Centre of front strut mounting hole	○ – 11.5
25	Body centre point	○ – 10
26	Centre of fender panel mounting hole	○ – 9
27	Centre of hood hinge mounting hole	○ – 12
28	Joint between side panel outer and roof panel	–

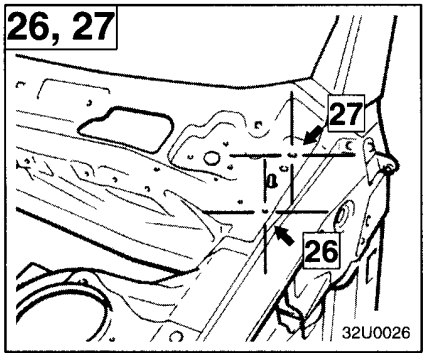
22



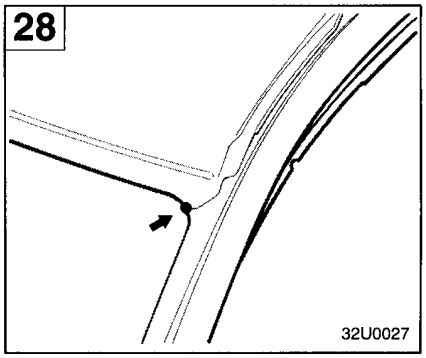
25



26, 27

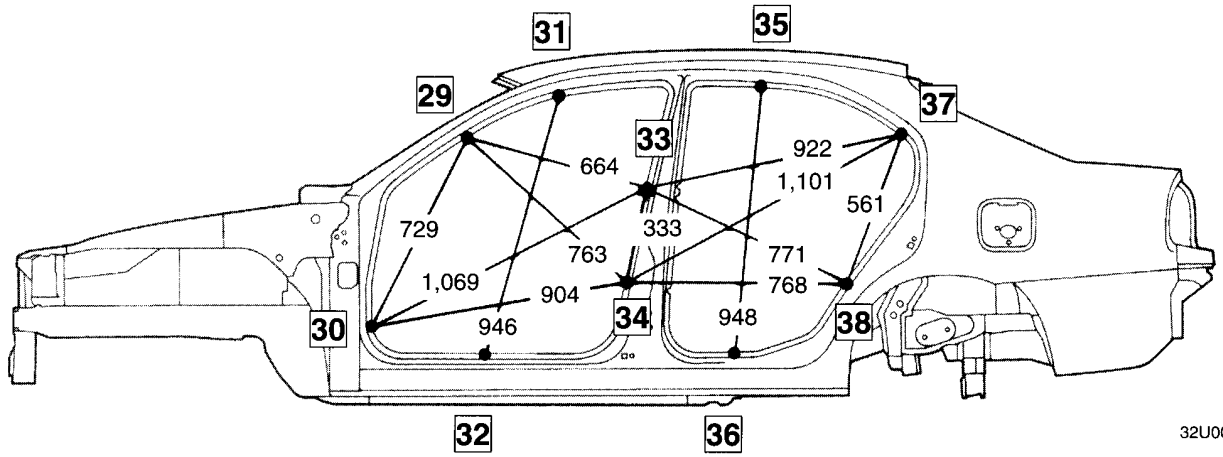


28

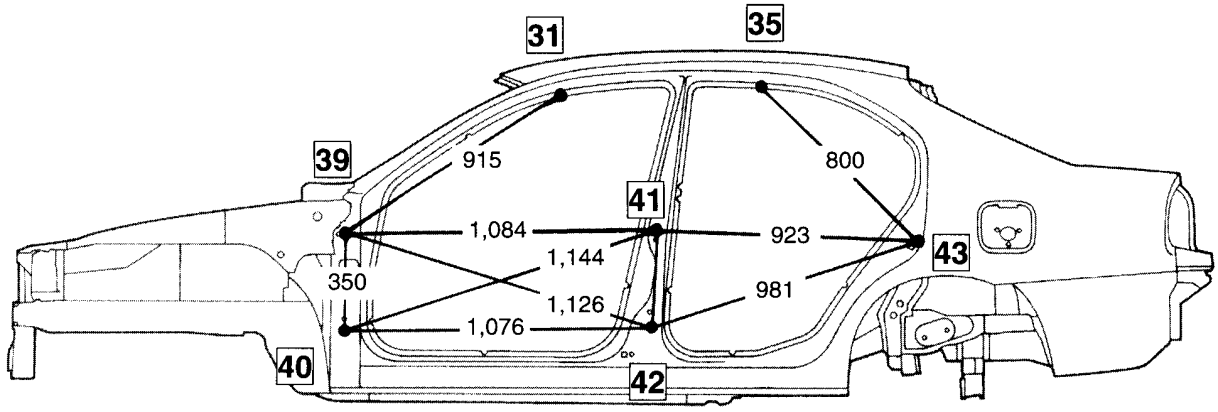


SIDE BODY

mm



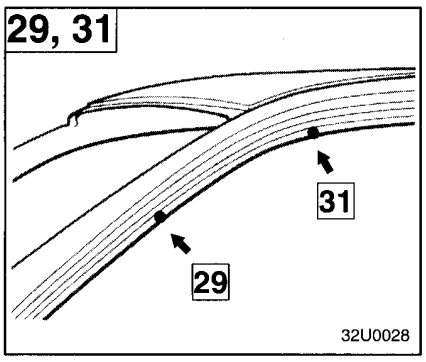
32U0002



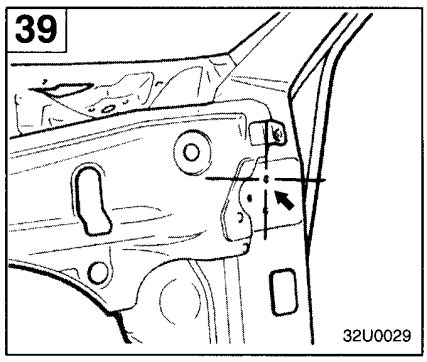
32U0003

No.	Standard measurement point	Hole shape – Size mm
29	Front pillar positioning notch (Upper section)	–
30	Front pillar positioning notch (Lower section)	–
31	Side roof rail positioning notch (Front section)	–
32	Side sill positioning notch (Front section)	–
33	Centre pillar positioning notch (Upper section)	–
34	Centre pillar positioning notch (Lower section)	–
35	Side roof rail positioning notch (Rear section)	–
36	Side sill positioning notch (Rear section)	–

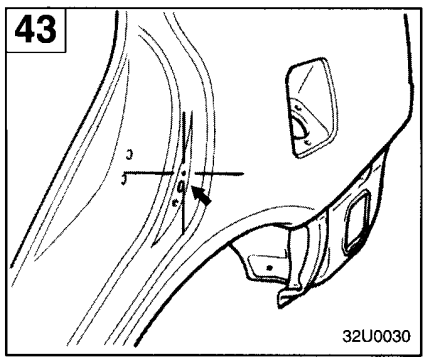
No.	Standard measurement point	Hole shape – Size mm
37	Rear pillar positioning notch (Upper section)	–
38	Rear pillar positioning notch (Lower section)	–
39	Centre of front door hinge mounting hole (Upper section)	○ – 10
40	Centre of front door hinge mounting hole (Lower section)	○ – 10
41	Centre of rear door hinge mounting hole (Upper section)	○ – 10
42	Centre of rear door hinge mounting hole (Lower section)	○ – 10
43	Centre of rear door switch mounting hole	○ – 5



32U0028



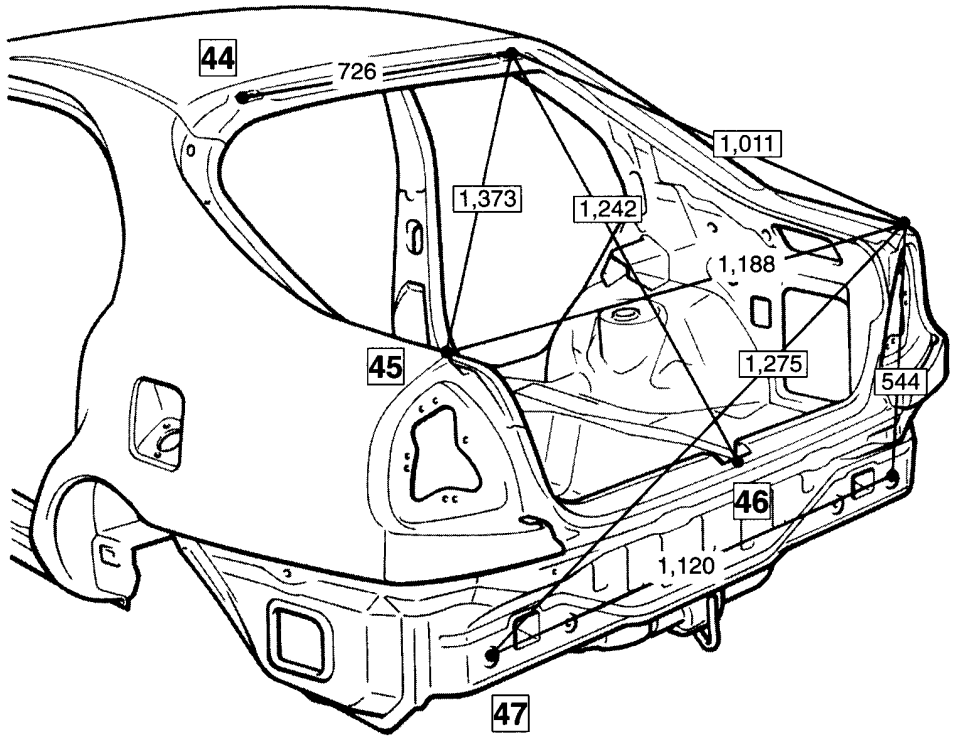
32U0029



32U0030

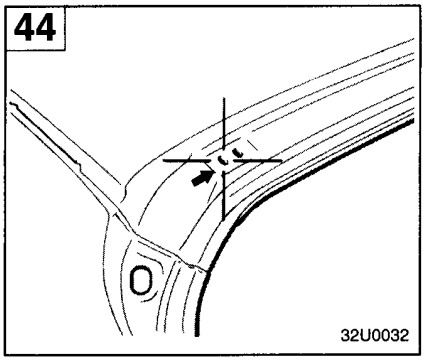
REAR BODY

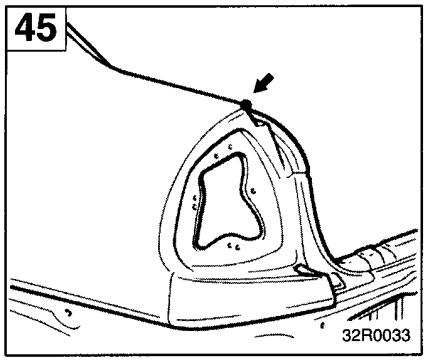
mm

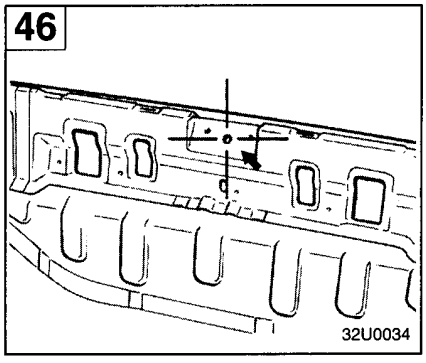


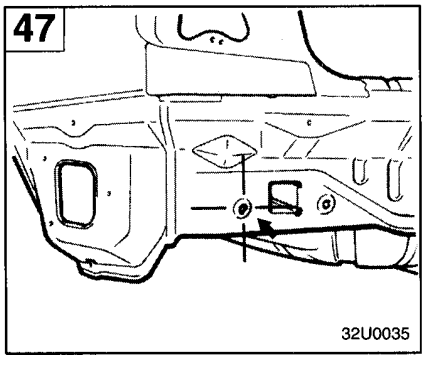
32U0031

No.	Standard measurement point	Hole shape	Size mm	No.	Standard measurement point	Hole shape	Size mm
44	Centre of tailgate hinge mounting hole	○	12	46	Water drain hole of tailgate lock bulkhead	○	12
45	Side outer panel projection	–		47	Rear end panel positioning hole	○	16



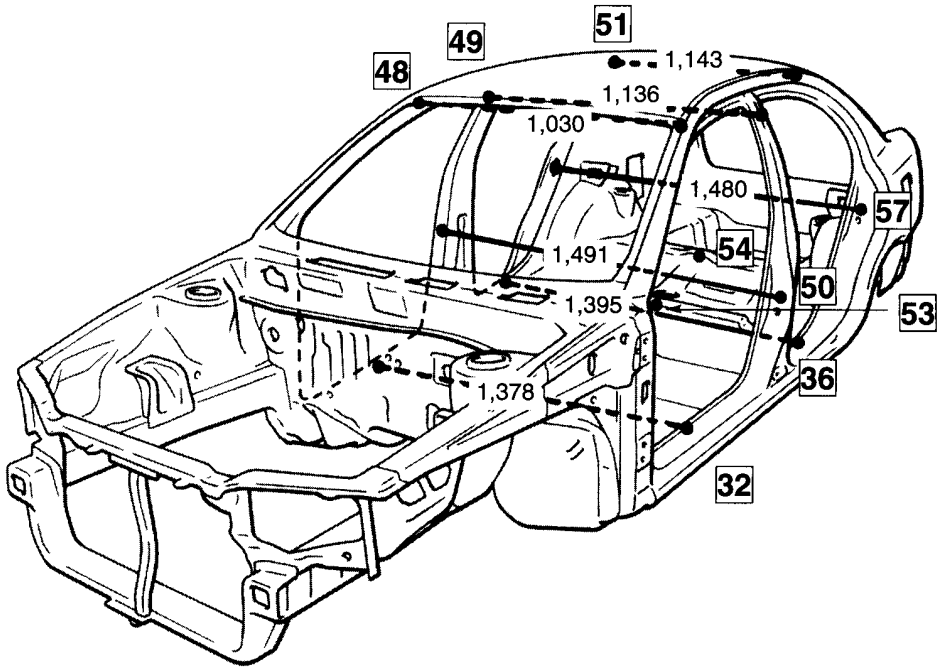






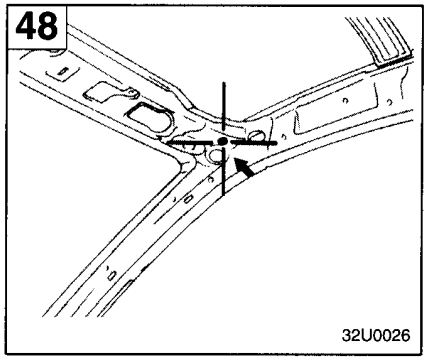
INTERIOR

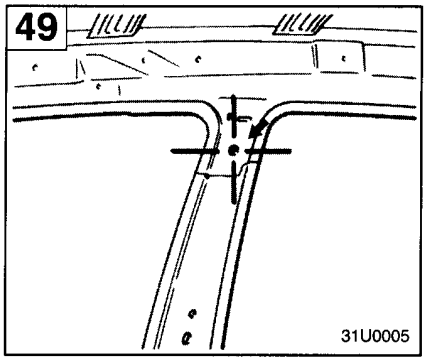
mm

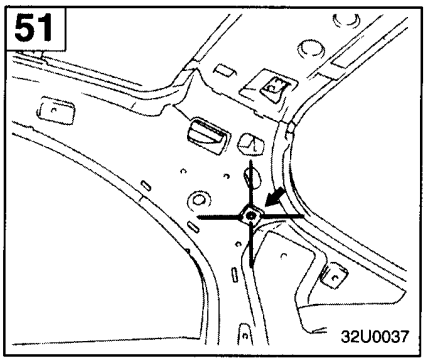


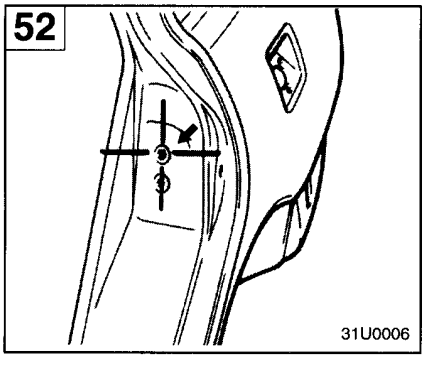
32U0005

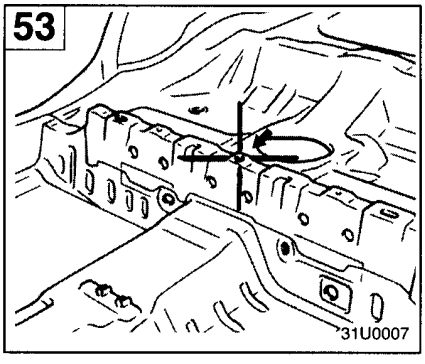
No.	Standard measurement point	Hole shape – Size mm
32	Side sill positioning notch (Front section)	–
36	Side sill positioning notch (Rear section)	–
48	Centre of harness clip attaching hole	○ – 7
49	Centre of adjustable shoulder belt anchor mounting hole	○ – 16.5
50	Centre of front door striker mounting hole (Upper section)	○ – 15
51	Centre of rear pillar trim mounting hole	○ – 7
52	Centre of rear door striker mounting hole (Upper section)	○ – 14
53	Body centre point	○ – 10
54	Body centre point	–

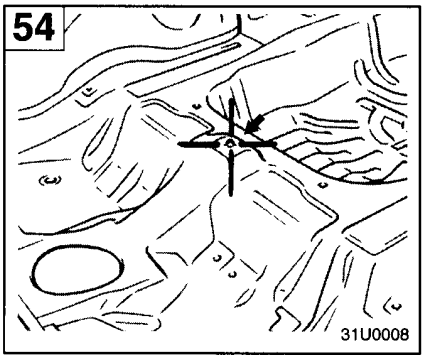








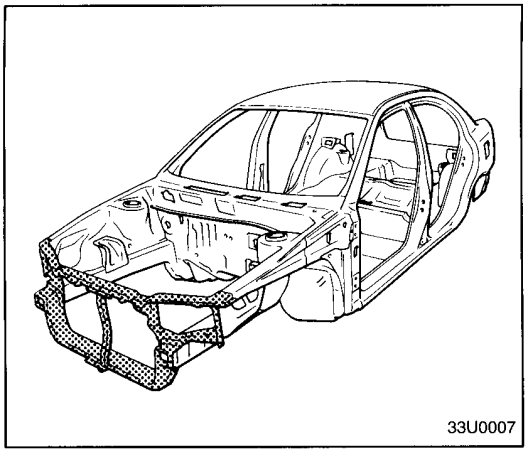




3 WELDED PANEL REPLACEMENT

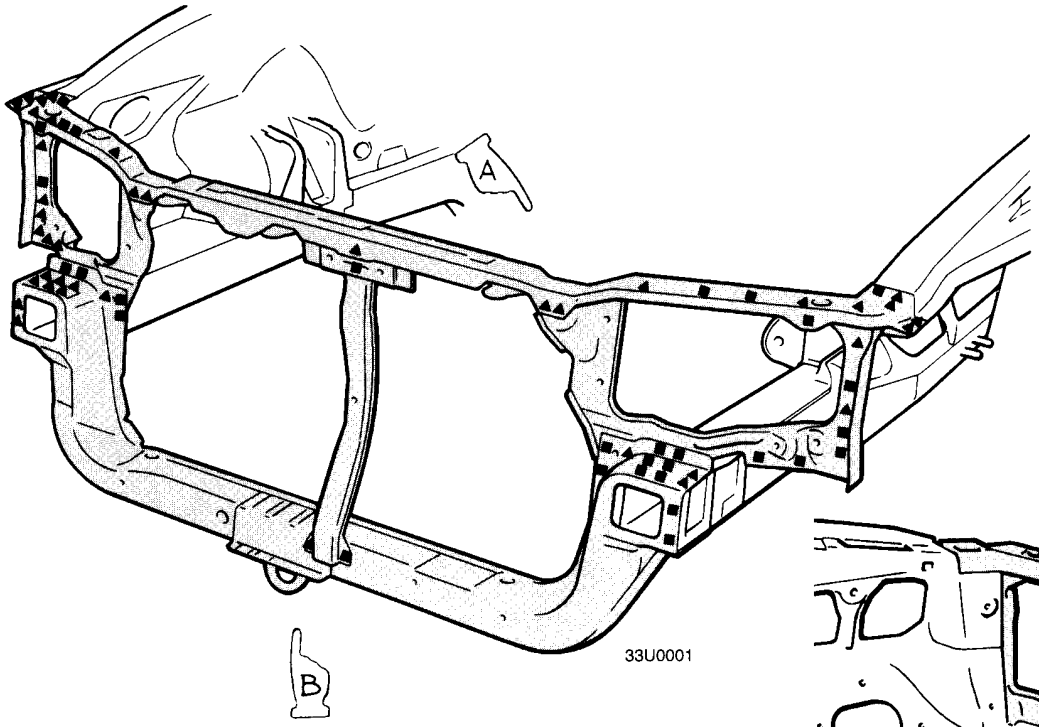
NOTES

HEADLAMP SUPPORT

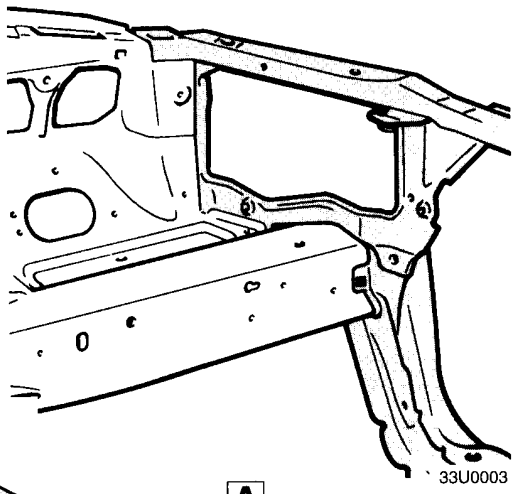

33U0007

Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding ■ indicates two panels to be welded ▲ indicates three panels to be welded
+ + + +	MIG spot welding
	MIG arc welding (continuous)
	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

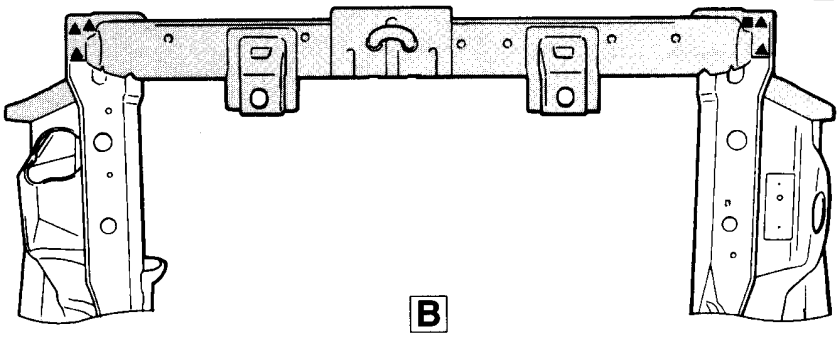
REPAIR WELDS



33U0001


33U0003

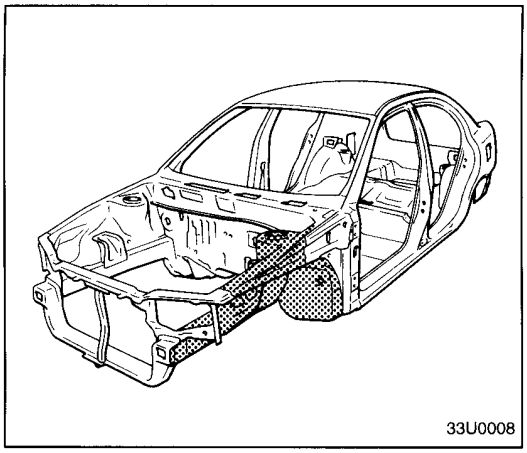
A


33U0002

B

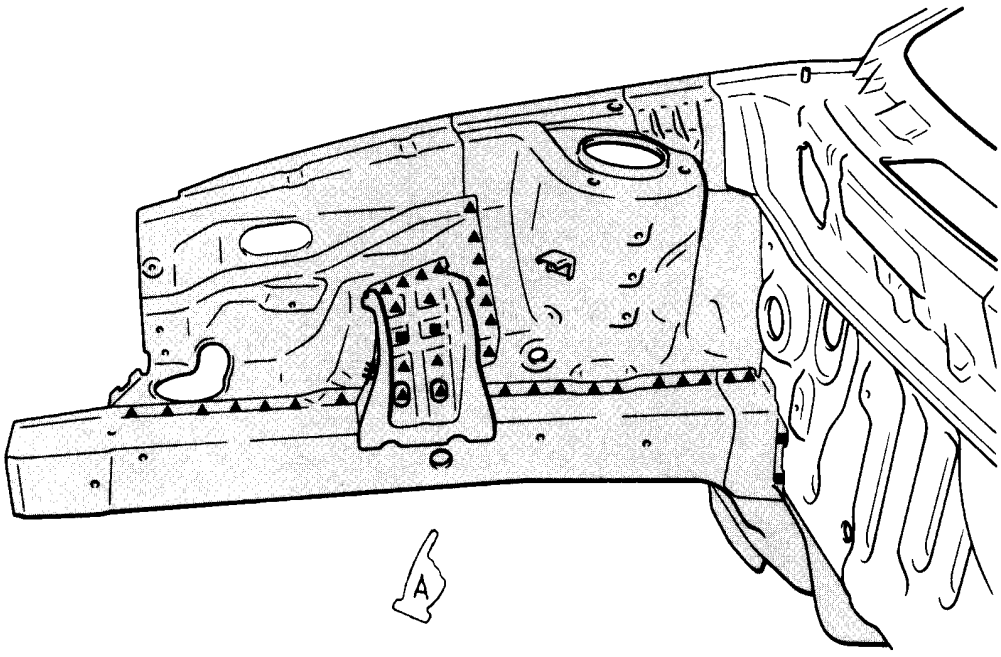
(UNDERVIEW)

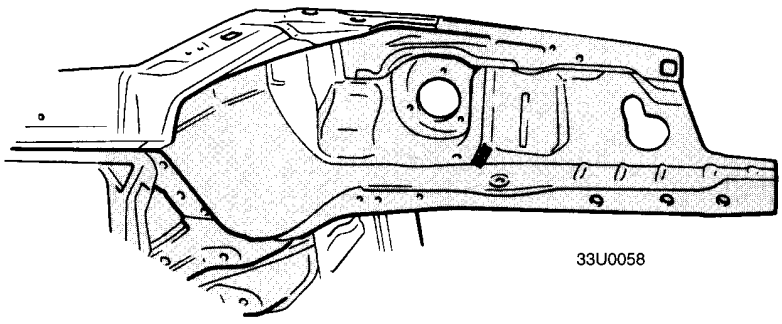
FENDER SHIELD



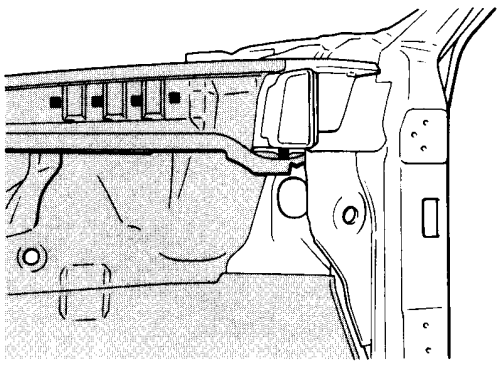
Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding ■ indicates two panels to be welded ▲ indicates three panels to be welded
+ + + +	MIG spot welding
⫴⫴⫴⫴⫴⫴⫴⫴⫴⫴	MIG arc welding (continuous)
∞∞∞∞∞∞∞∞∞∞	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

REPAIR WELDS





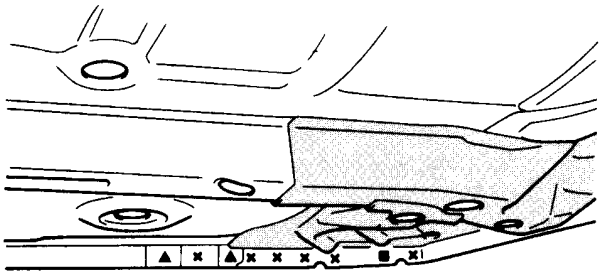
A



B

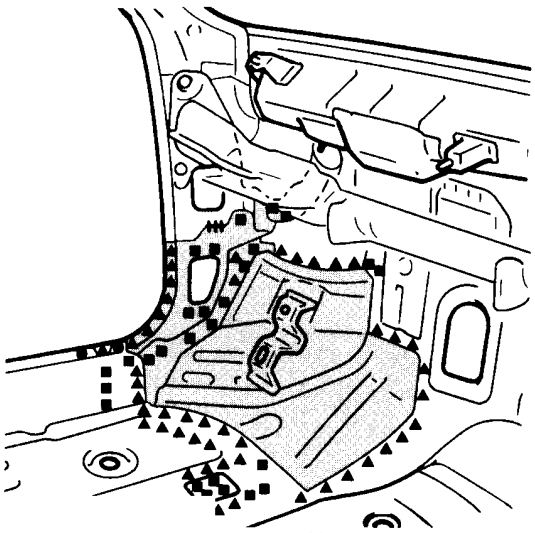
(With the front upper frame extension outer and the front upper frame outer removed.)

NOTE
(1) For the right side, only weld points that are different from those on the left side are shown.
(2) Refer to page 3-3 for the headlamp support weld points.



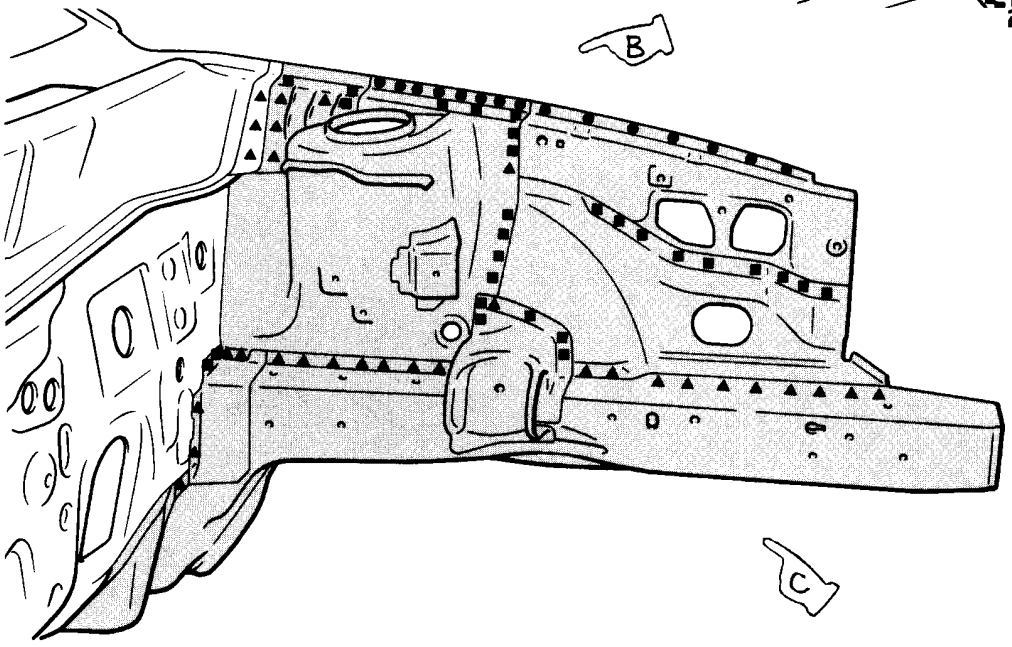
D

33U0062

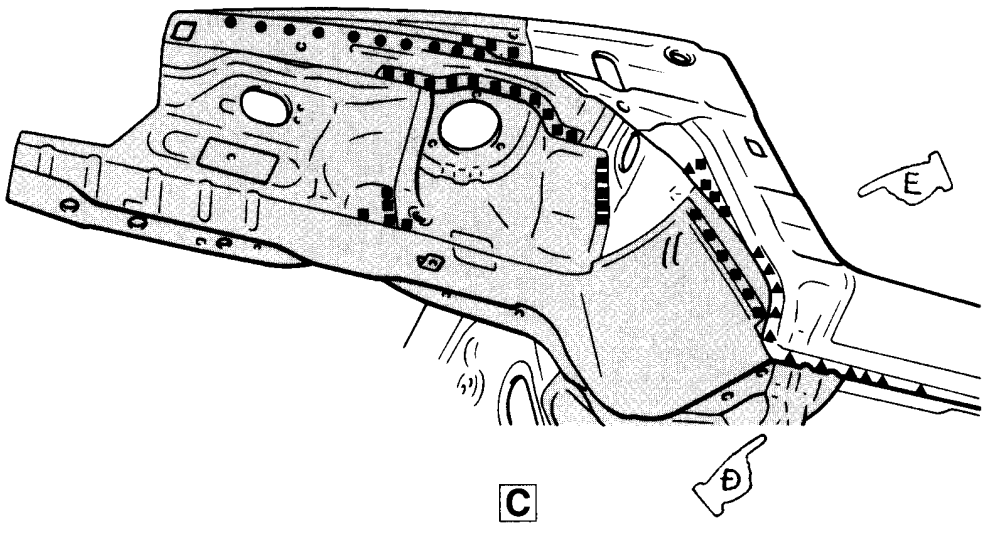


E

33U0063



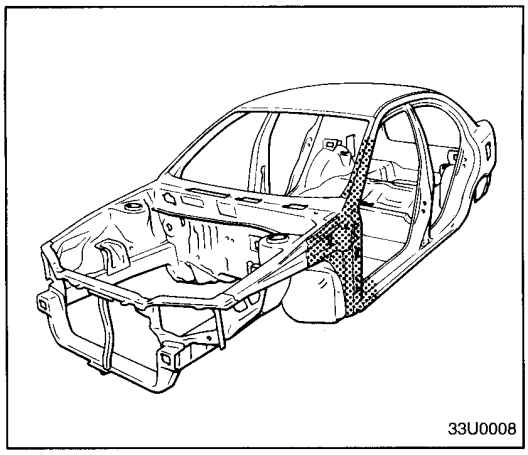
33U0061



C

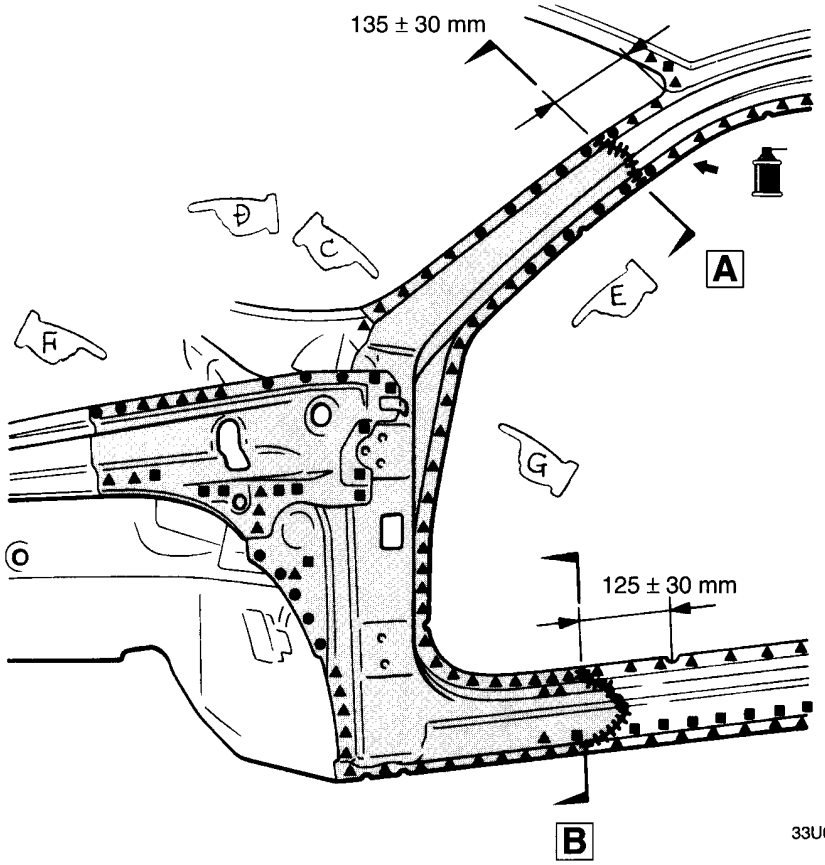
33U0060

FRONT PILLAR

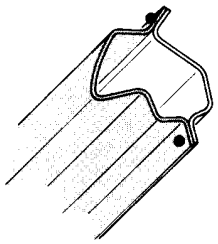

33U0008

Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding ■ indicates two panels to be welded ▲ indicates three panels to be welded
+ + + +	MIG spot welding
⫴⫴⫴⫴⫴⫴⫴⫴⫴⫴	MIG arc welding (continuous)
∞∞∞∞∞∞∞∞∞∞	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

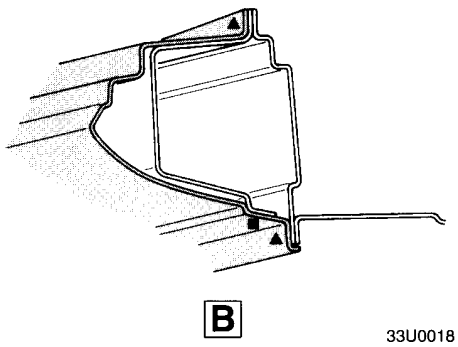
REPAIR WELDS



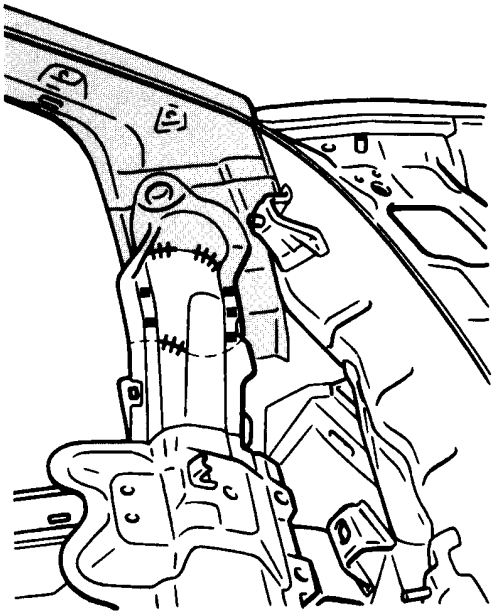
33U0064



33U0017

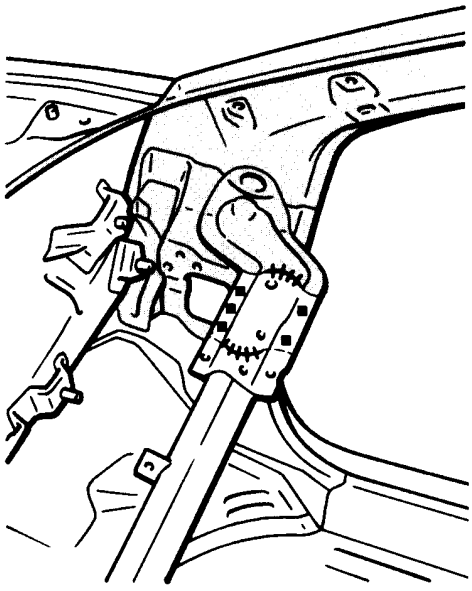


33U0018



33U0065

C



33U0066

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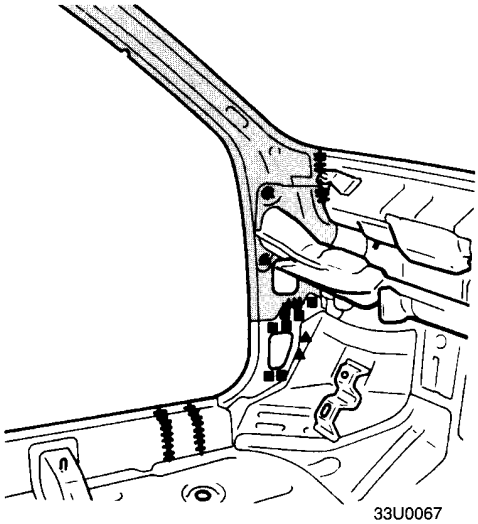
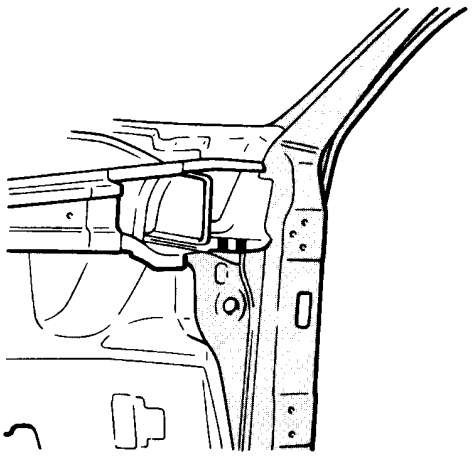


33U0067

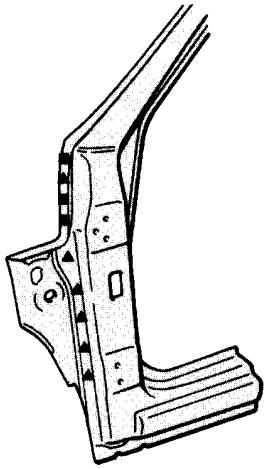
E



33U0068

F

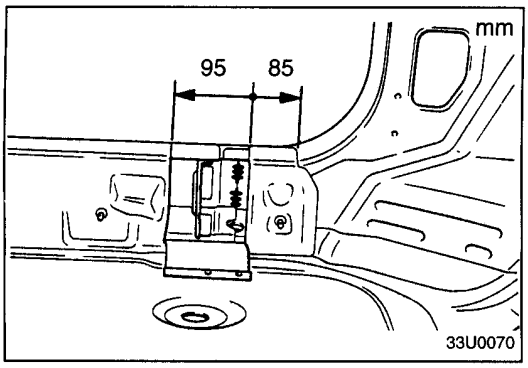
(With the front upper frame extension outer removed.)



33U0069

G

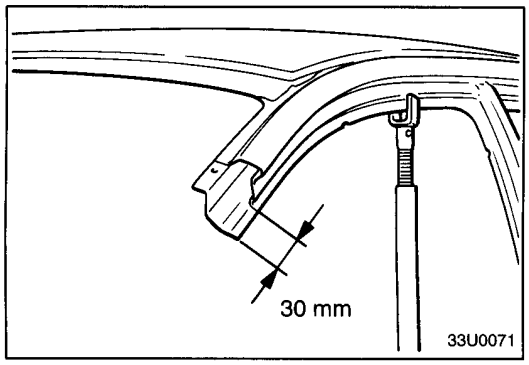
(Front pillar outer and inner assembled)



NOTES WITH REGARD TO REPAIR WORK

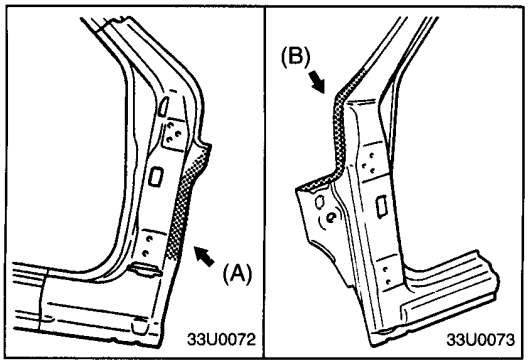
REMOVAL

In order to cut the MIG arc welding between the front pillar reinforcement lower and side sill outer reinforcement front, cut the front floor side sill inner as shown in the illustration.



INSTALLATION

(1) Cut the front pillar outer panel 30 mm above the cut line of the inner panel to butt weld a new front pillar to the body.
Then cut the new front pillar to correspond to it.



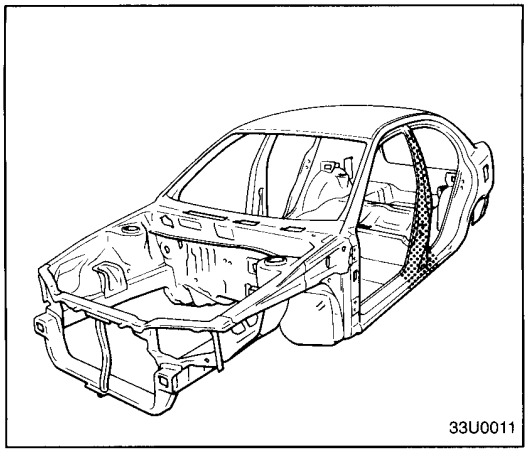
(2) When installing the front pillar outer to the front pillar inner, apply adhesive to section (A) in the illustration.

Adhesive	Type
	Chloroprene-base drying sealant

(3) When installing the front pillar outer and front pillar inner sub-assembly to the body, apply body sealant to section (B) in the illustration.

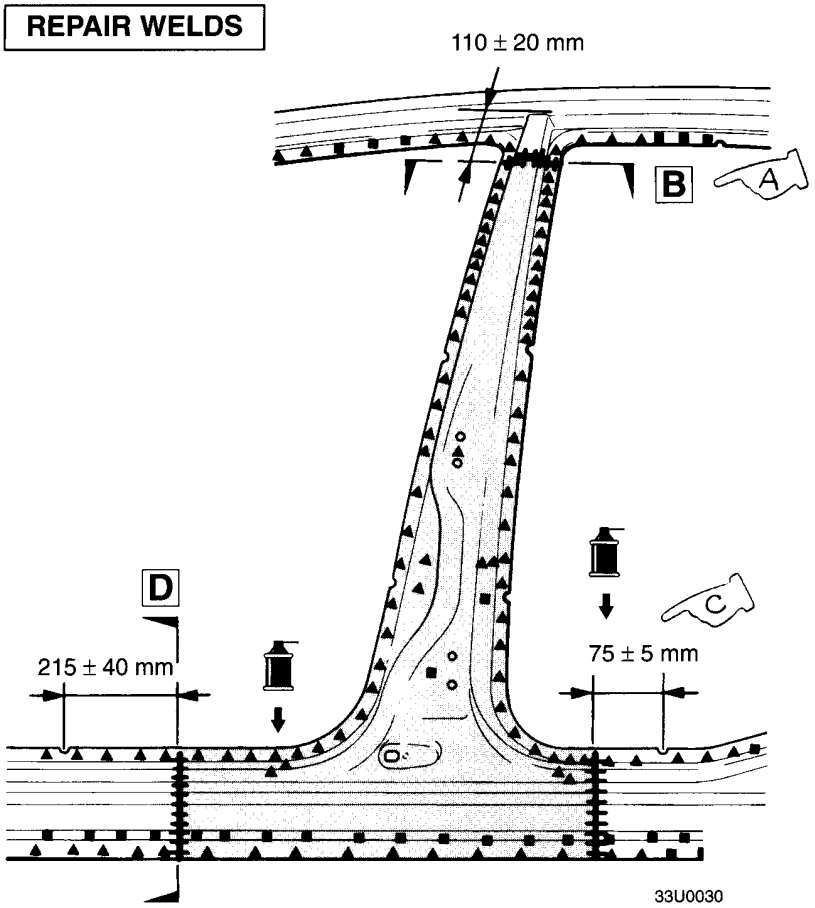
NOTES

CENTER PILLAR

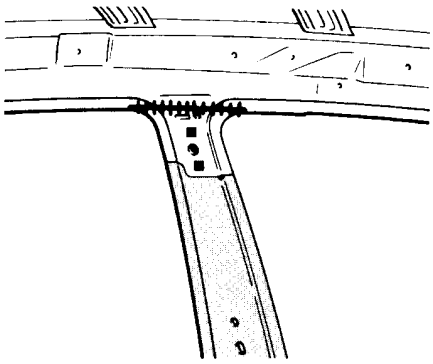


Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding ■ indicates two panels to be welded ▲ indicates three panels to be welded
+ + + +	MIG spot welding
⫴⫴⫴⫴⫴⫴⫴⫴⫴⫴	MIG arc welding (continuous)
∞∞∞∞∞∞∞∞∞	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

REPAIR WELDS

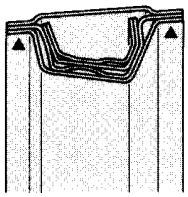


33U0030



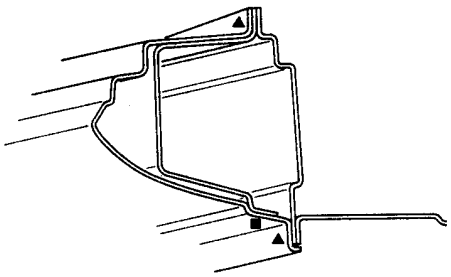
A

33U0031



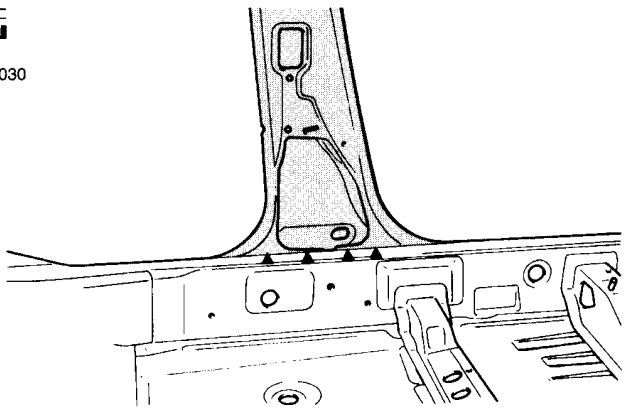
B

33U0020



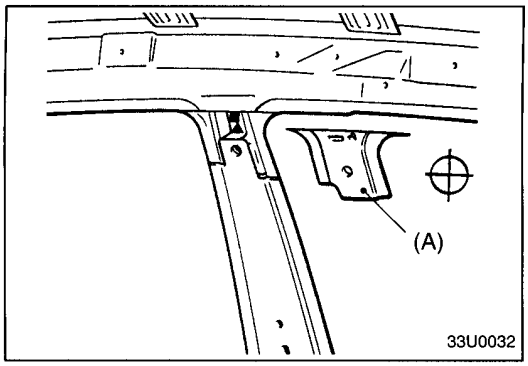
D

33U0018



C

33U0028

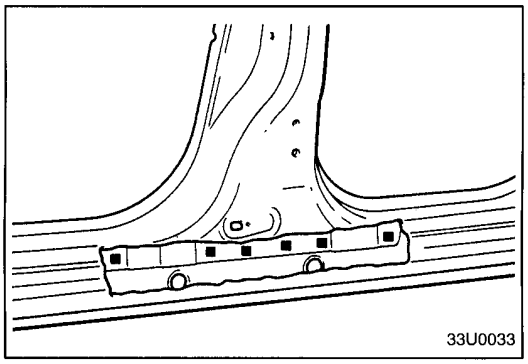


NOTES WITH REGARD TO REPAIR WORK

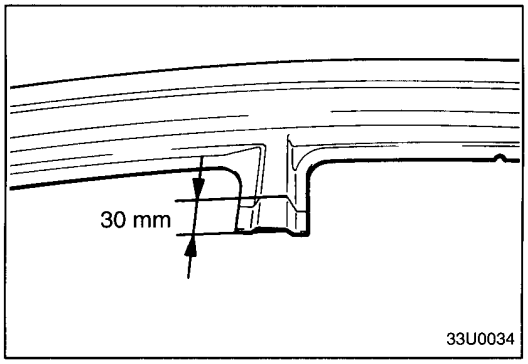
REMOVAL

(1) In order to cut the welding points between the center pillar seatbelt reinforcement and center pillar reinforcement, cut the lower part of the side roof rail inner as shown in the illustration.

NOTE
The cut side roof rail inner (A) will be reused, so it should be kept.

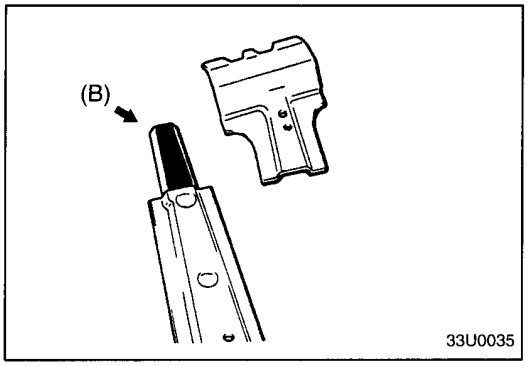


(2) Make a rough cutting of the side sill as shown in the illustration in order to cut the welding points between the center pillar reinforcement and the side sill outer reinforcement.



INSTALLATION

(1) When installing the center pillar outer and center pillar reinforcement to the body, cut the outer panel 30 mm above the cutting line of the center pillar.



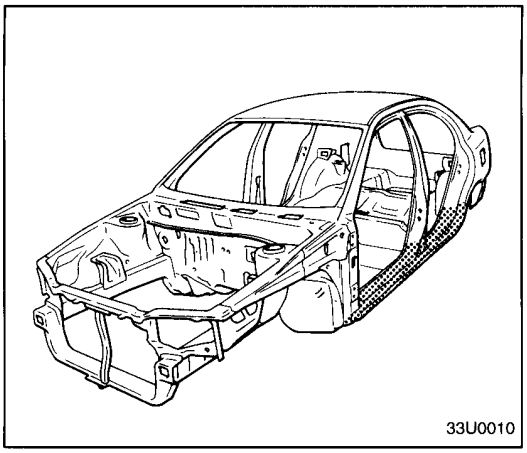
(2) Cut only the center pillar reinforcement from the new center pillar to correspond to the body.

NOTE
Be careful not to damage the center pillar reinforcement upper and seatbelt reinforcement.

(3) When installing the center pillar reinforcement to the body, apply adhesive to section (B) in the illustration.

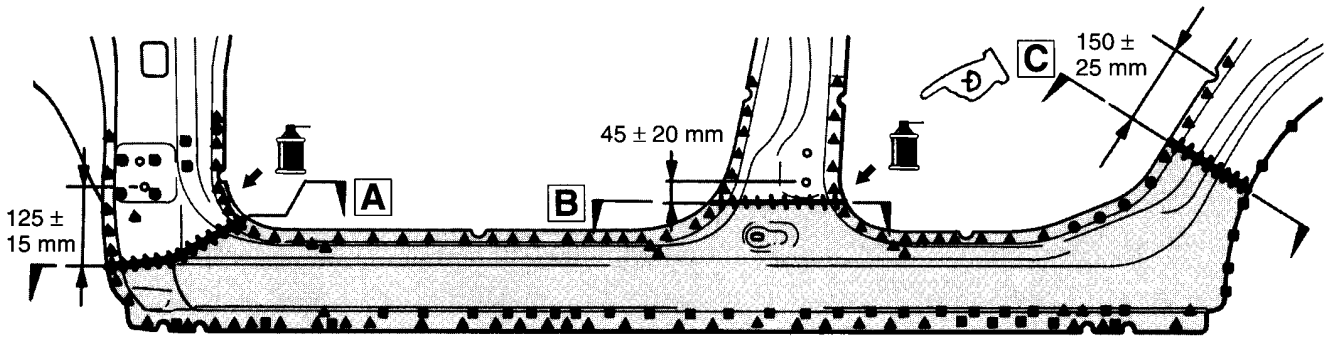
Adhesive	Type	Brand
	Epoxyresin adhesive	3M DP-420

SIDE SILL

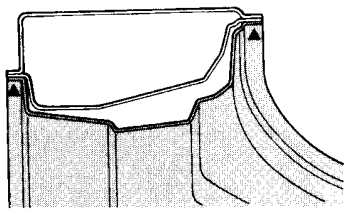

33U0010

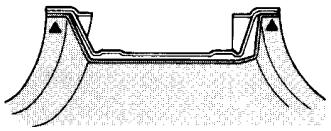
Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding ■ indicates two panels to be welded ▲ indicates three panels to be welded
+ + + +	MIG spot welding
⫴⫴⫴⫴⫴⫴⫴⫴⫴⫴	MIG arc welding (continuous)
∞∞∞∞∞∞∞∞∞∞	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

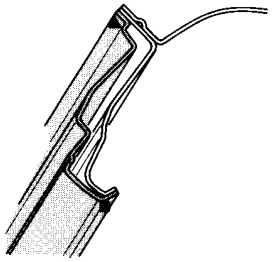
REPAIR WELDS

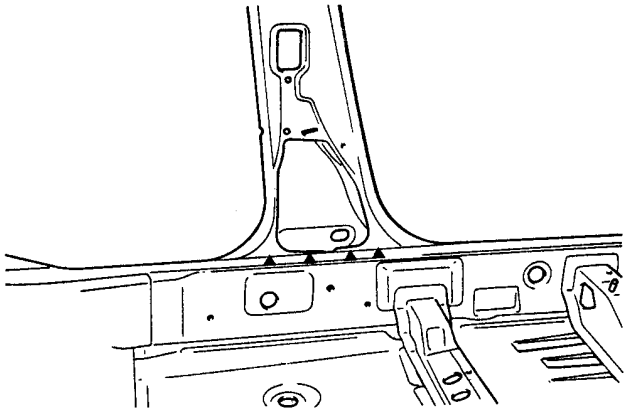


33U0025


A 33U0026


B 33U0027

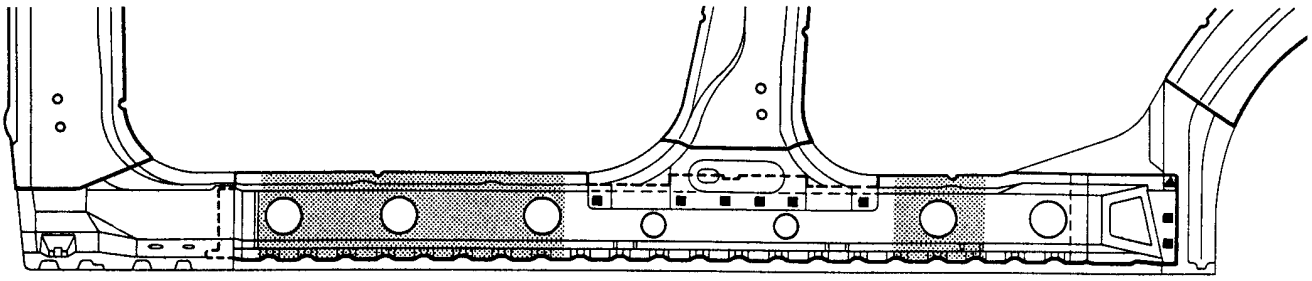

C 33U0019


D 33U0028

NOTES WITH REGARD TO REPAIR WORK

<Side sill outer reinforcement>

Cut the side sill outer reinforcement 30 mm away from the butt-welding of the side sill outer.



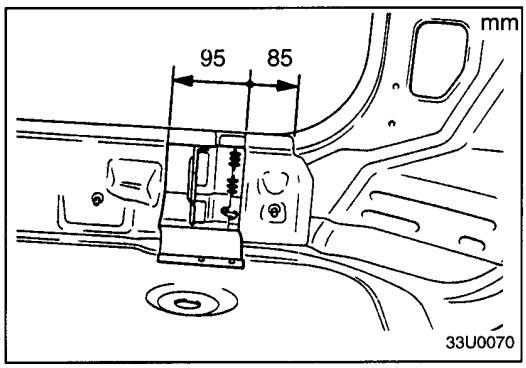
(With the side sill outer removed)

: Area that can be cut

33U0029

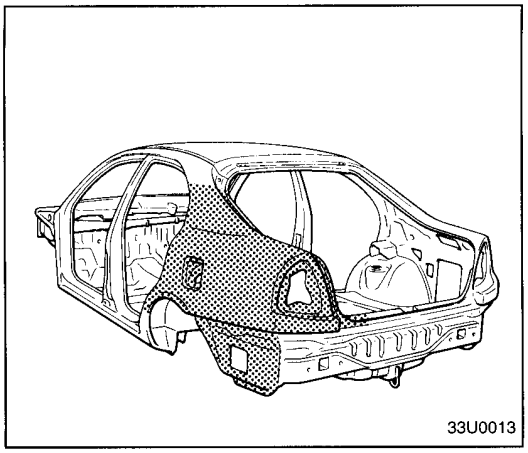
REMOVAL

Caution
Take care not to damage the front pillar reinforcement lower and center pillar reinforcement when cutting the side sill outer.



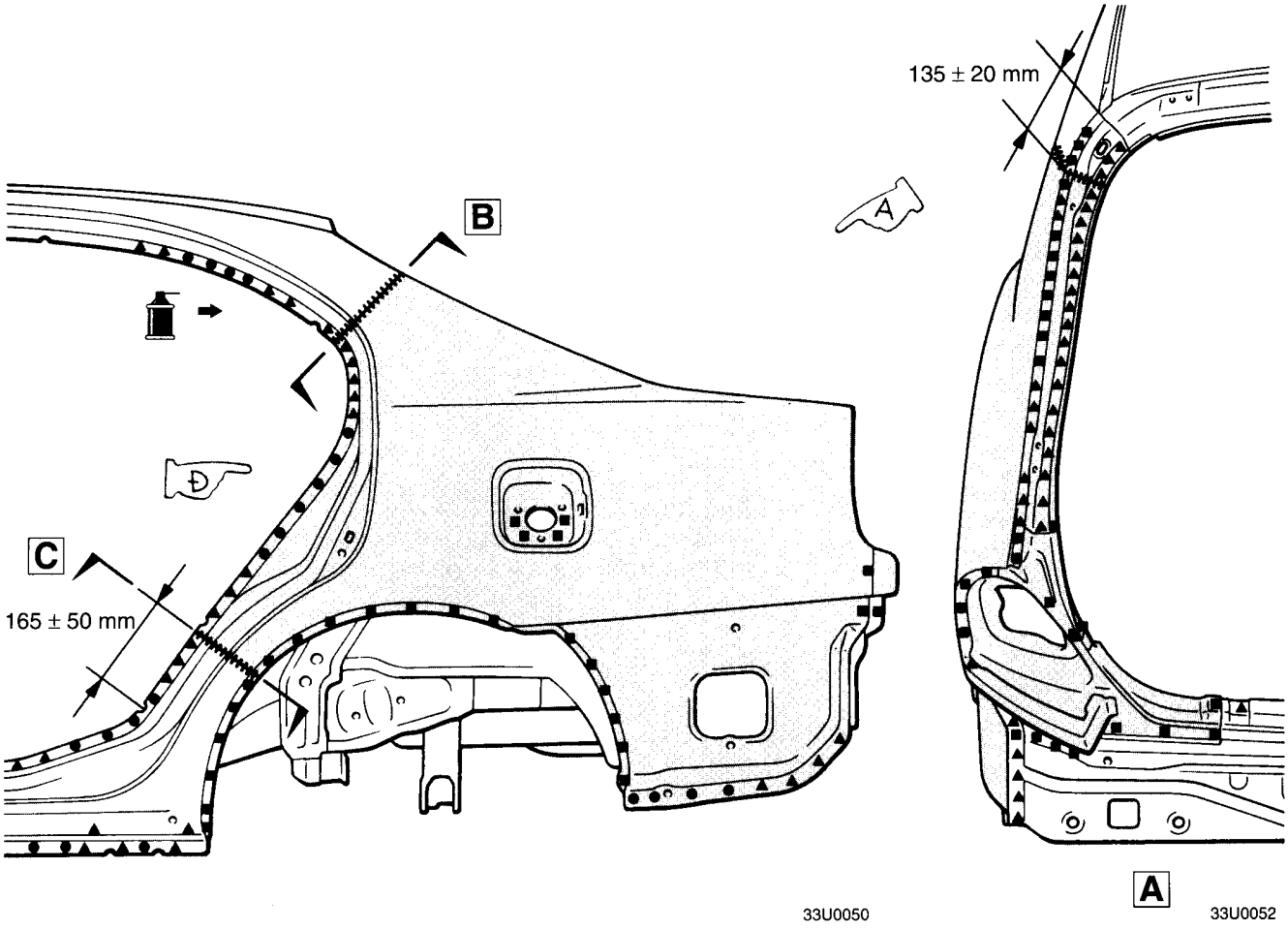
In order to cut the MIG arc welding between the side sill outer reinforcement lower and front pillar reinforcement lower, cut the front floor side sill inner as shown in the illustration.

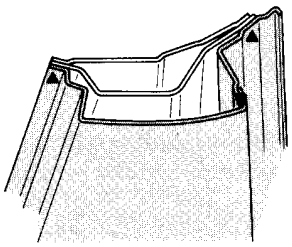
QUARTER, OUTER



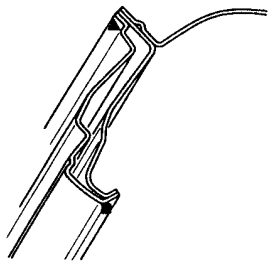
Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding ■ indicates two panels to be welded ▲ indicates three panels to be welded
+ + + +	MIG spot welding
⫴⫴⫴⫴⫴⫴⫴⫴⫴⫴	MIG arc welding (continuous)
∞∞∞∞∞∞∞∞∞	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

REPAIR WELDS

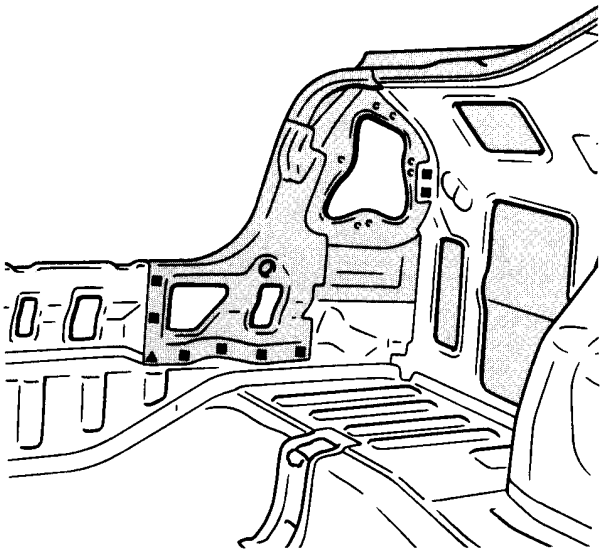




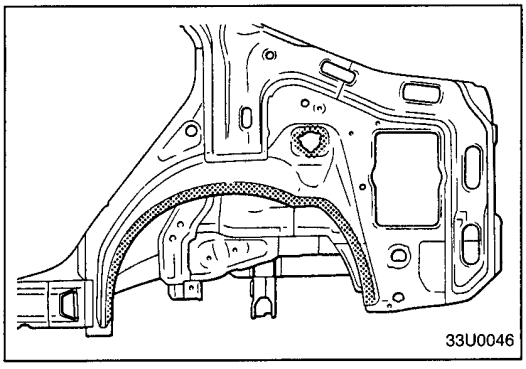
B 33U0021



C 33U0019



D 33U0051



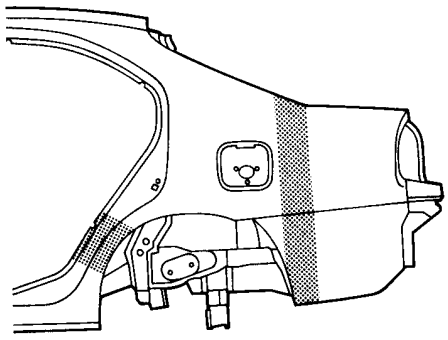
33U0046

NOTE
Depending on the size of the damaged area, parts can be replaced.

NOTES WITH REGARD TO REPAIR WORK

INSTALLATION

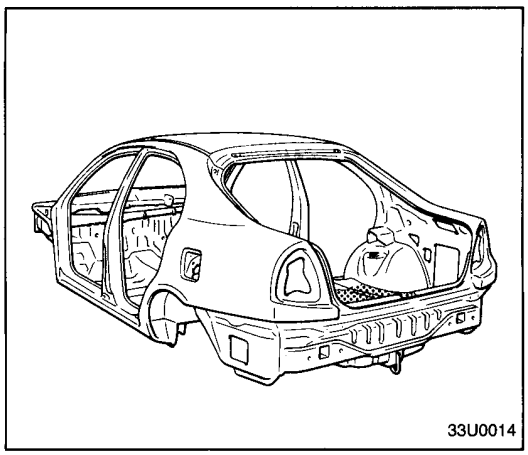
Apply body sealant to the wheel arch and fuel filler neck on the body side.



: Area that can be cut

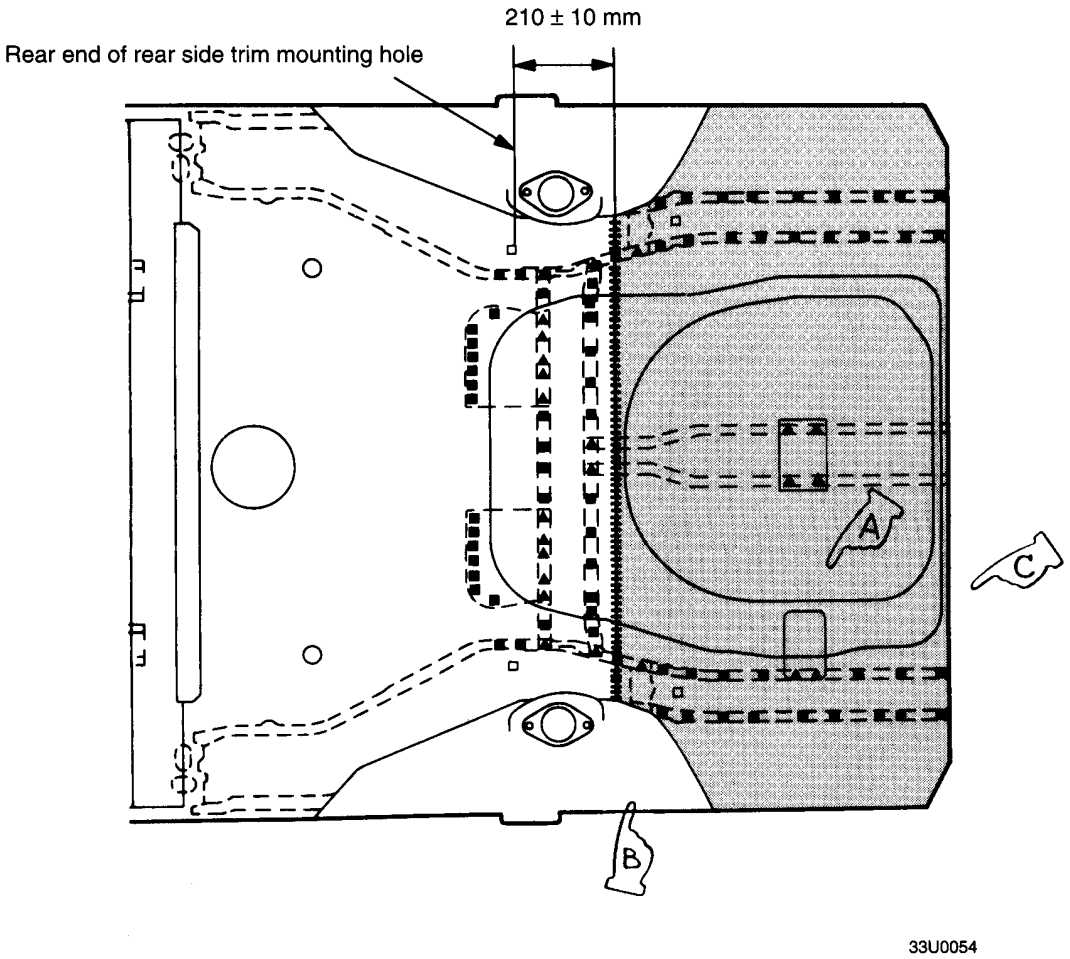
33U0053

REAR FLOOR

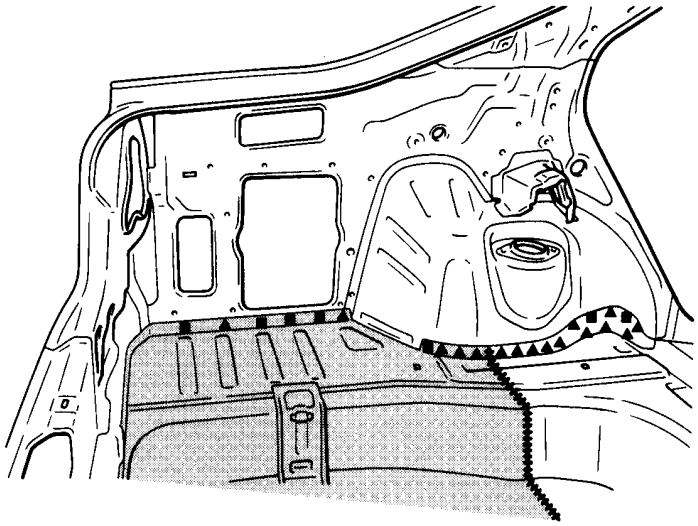


Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding ■ indicates two panels to be welded ▲ indicates three panels to be welded
+ + + +	MIG spot welding
|||||||||||	MIG arc welding (continuous)
∞∞∞∞∞∞∞∞∞	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

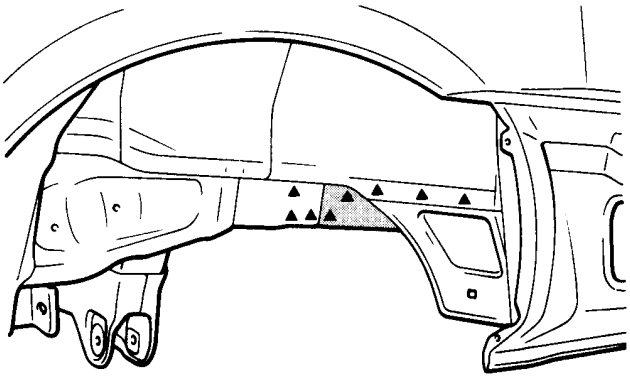
REPAIR WELDS



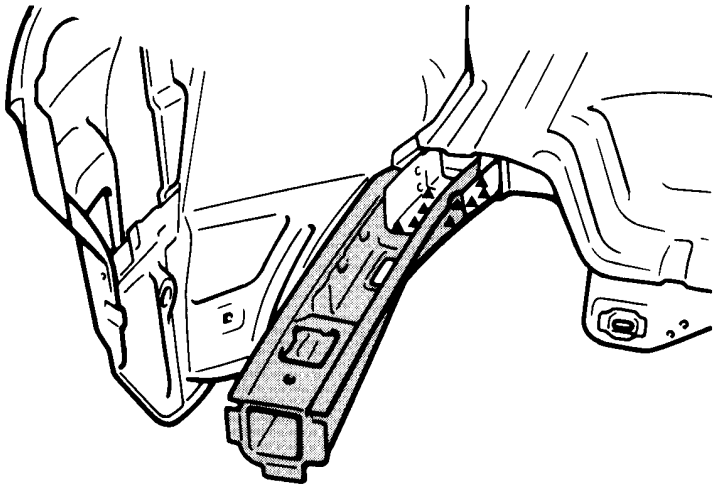
NOTE
Refer to P.3-18 for the rear end panel weld points.



A 33U0049

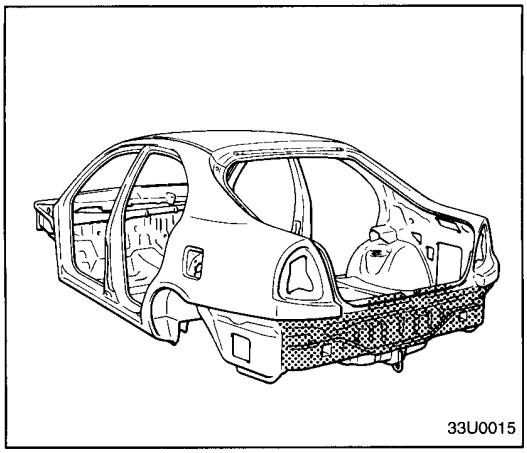


B 33U0055



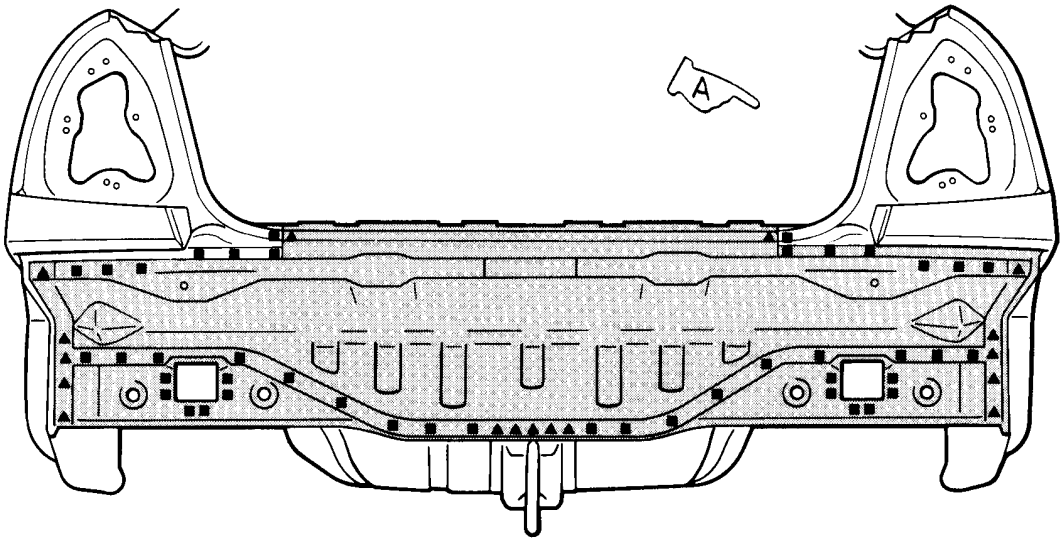
C 33U0056

REAR END PANEL

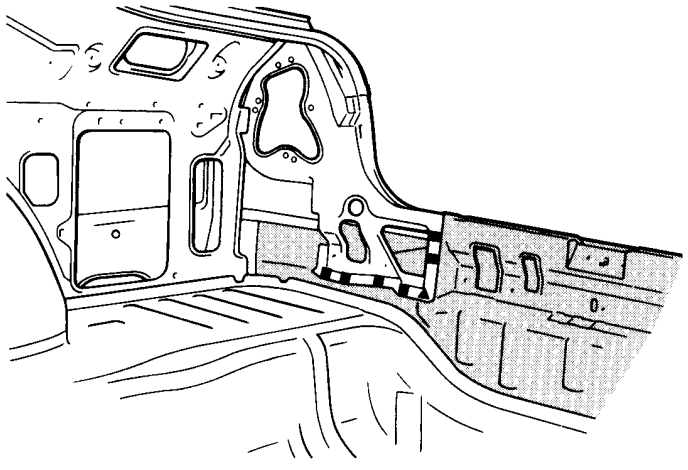

33U0015

Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding ■ indicates two panels to be welded ▲ indicates three panels to be welded
+ + + +	MIG spot welding
⫴⫴⫴⫴⫴⫴⫴⫴⫴⫴	MIG arc welding (continuous)
∞∞∞∞∞∞∞∞∞	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

REPAIR WELDS

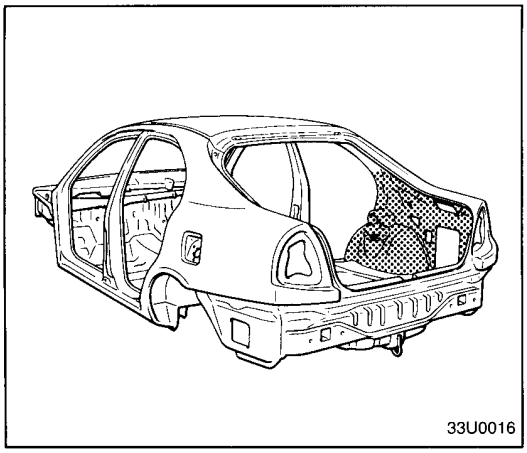


33U0004


33U0005

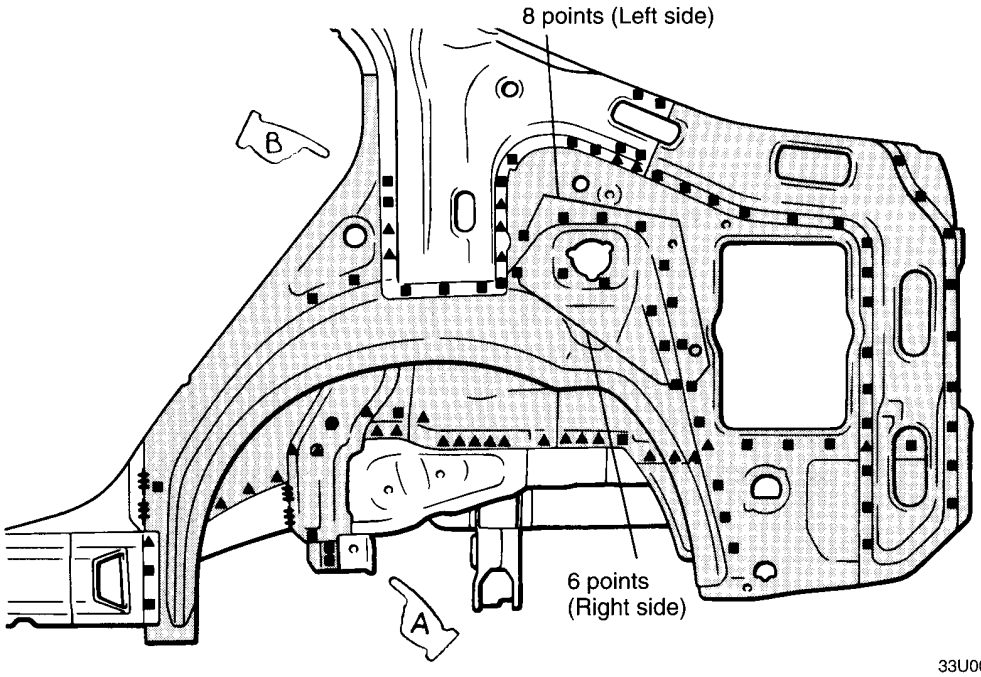
A

QUARTER, INNER

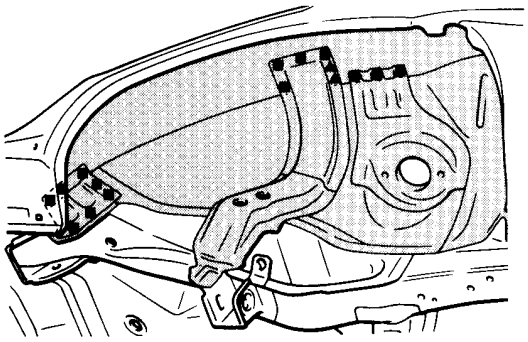

33U0016

Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding ■ indicates two panels to be welded ▲ indicates three panels to be welded
+ + + +	MIG spot welding
⫴⫴⫴⫴⫴⫴⫴⫴⫴⫴	MIG arc welding (continuous)
∞∞∞∞∞∞∞∞∞∞	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

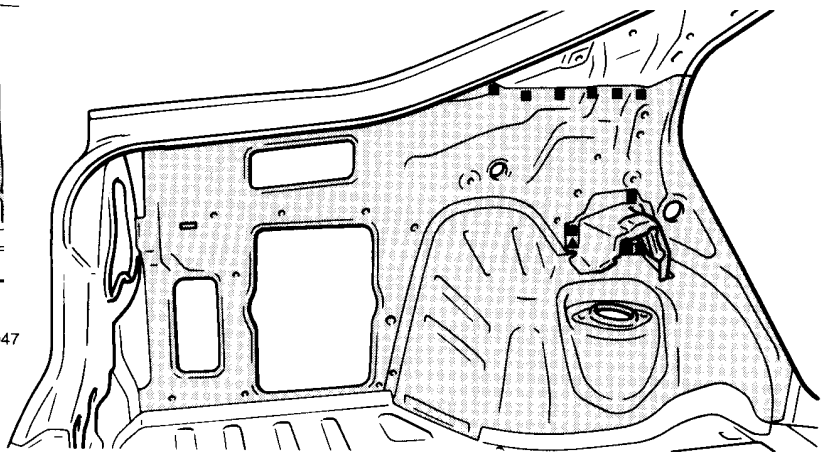
REPAIR WELDS



33U0045


33U0047

A

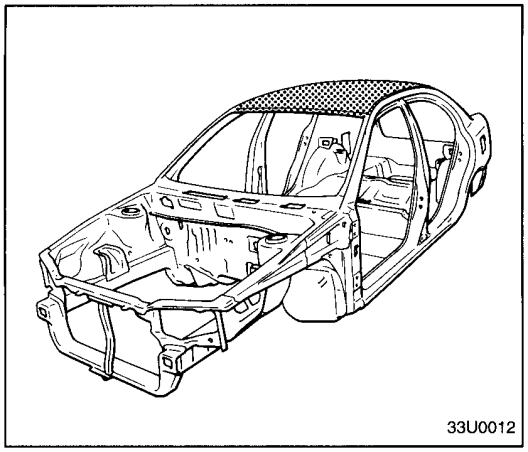


B

NOTE
Refer to P.3-14 for the quarter outer weld points.

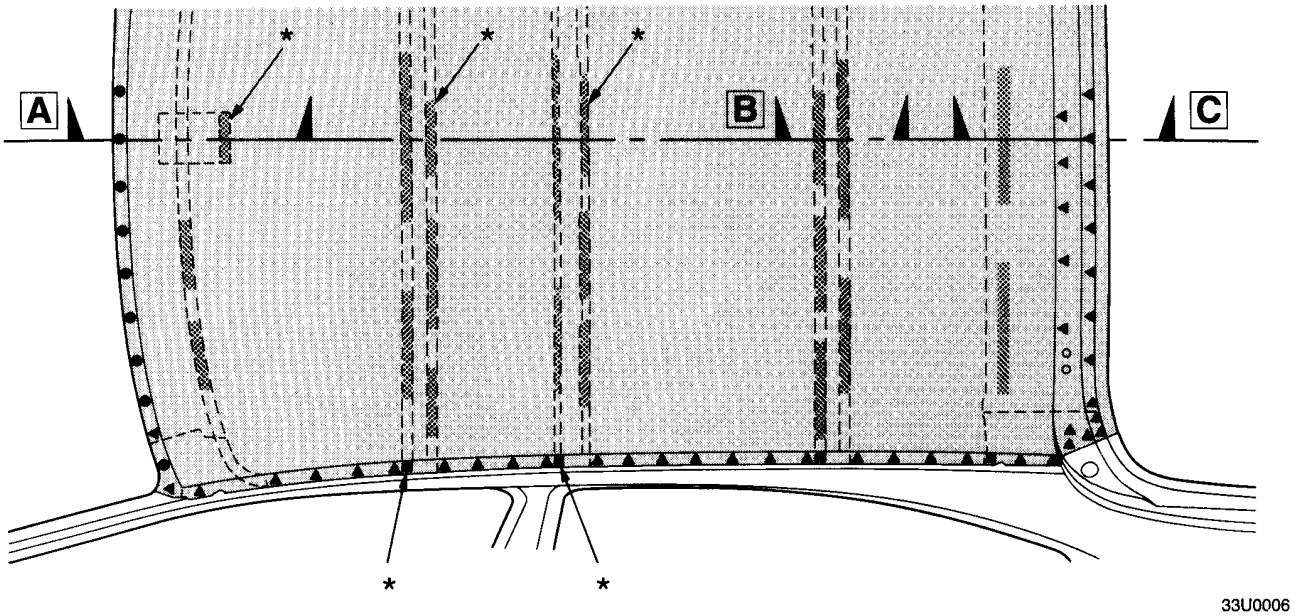
33U0048

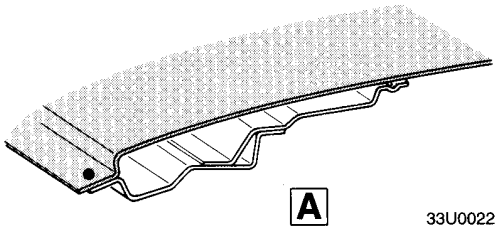
ROOF PANEL

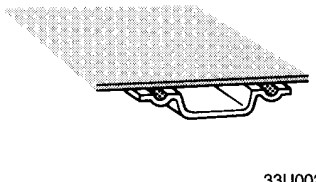


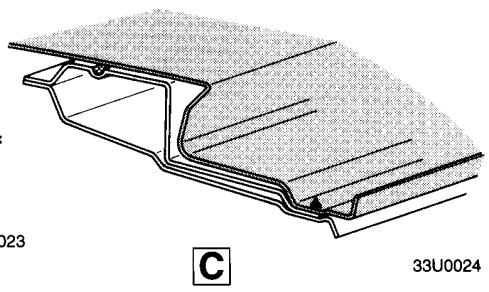
Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding ■ indicates two panels to be welded ▲ indicates three panels to be welded
+ + + +	MIG spot welding
⫴⫴⫴⫴⫴⫴⫴⫴⫴⫴	MIG arc welding (continuous)
∞∞∞∞∞∞∞∞∞	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

REPAIR WELDS







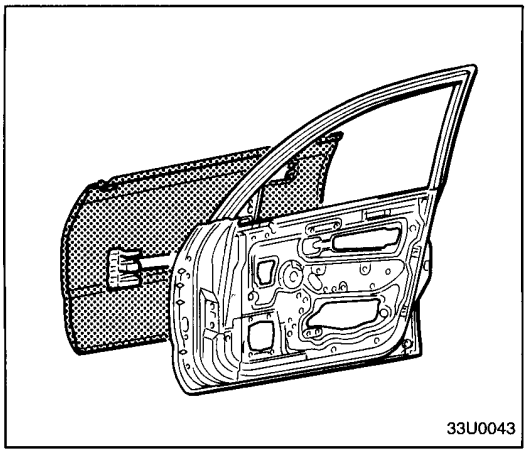


NOTE
* : Vehicles without sunroof

▒▒ : Adhesive

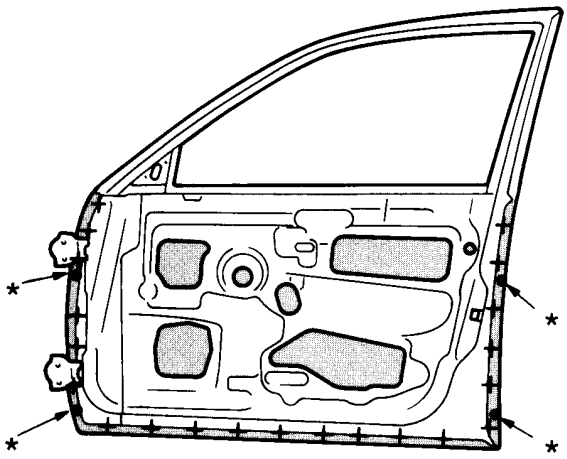
Adhesive	Type
	Chloroprene-base drying sealant

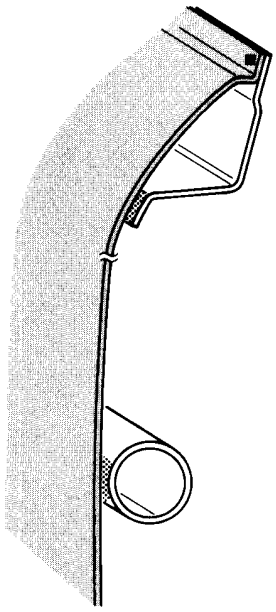
FRONT DOOR OUTER PANEL


33U0043

Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding ■ indicates two panels to be welded ▲ indicates three panels to be welded
+ + + +	MIG spot welding
⫴⫴⫴⫴⫴⫴⫴⫴⫴⫴	MIG arc welding (continuous)
∞∞∞∞∞∞∞∞∞∞	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

REPAIR WELDS


33U0036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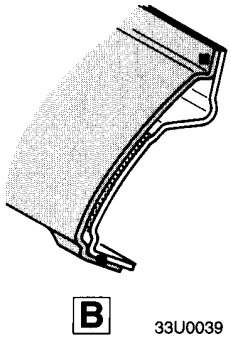
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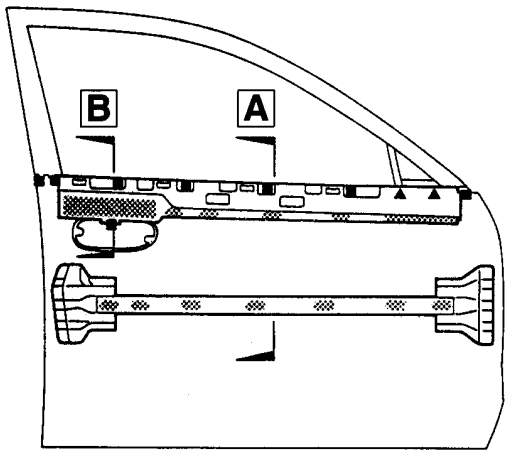
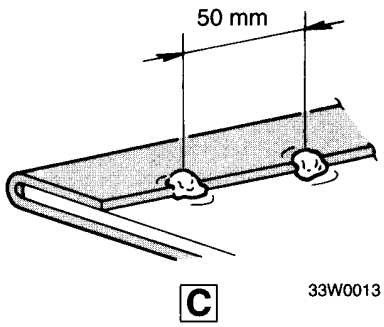

33U0037



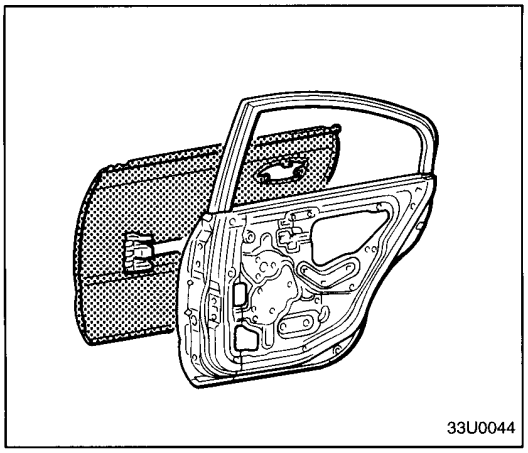
C 33W0013

▒▒ : Adhesive

Adhesive	Type
	Chloroprene-base drying sealant

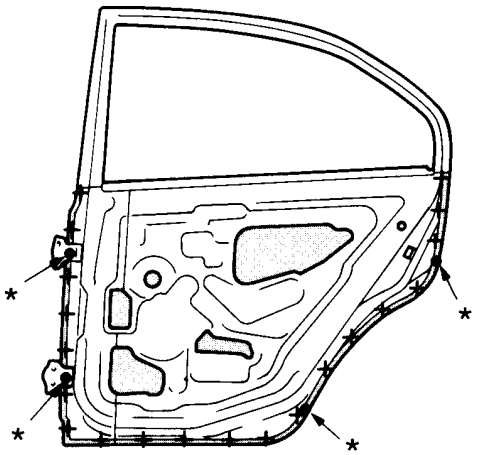
NOTES
(1) Weld point * indicates manufacturer's welding joint. (Unnecessary at repair work)
(2) After hemming the door outer panel, MIG spot weld the flange overlap section at a pitch of approx. 50 mm.

REAR DOOR OUTER PANEL


33U0044

Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding ■ indicates two panels to be welded ▲ indicates three panels to be welded
+ + + +	MIG spot welding
⫴⫴⫴⫴⫴⫴⫴⫴⫴⫴	MIG arc welding (continuous)
∞∞∞∞∞∞∞∞∞∞	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

REPAIR WELDS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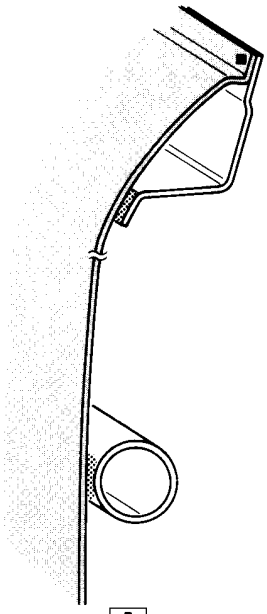
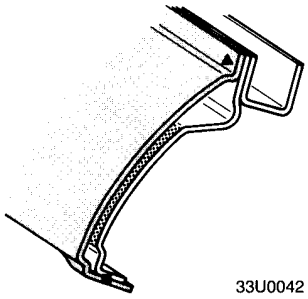
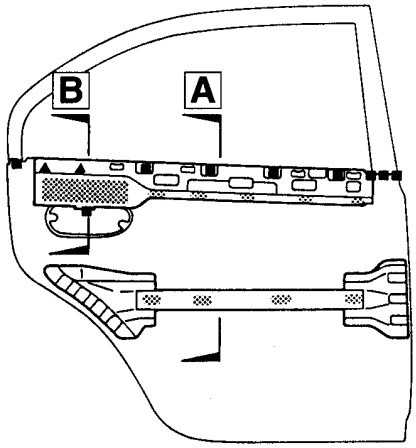
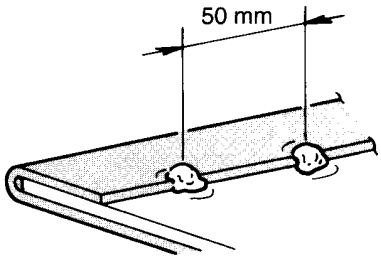

A 33U0038


33U0042
B


33U0041



33W0013
C

▒▒: Adhesive

Adhesive	Type
	Chloroprene-base drying sealant

NOTES
(1) Weld point * indicates manufacturer's welding joint. (Unnecessary at repair work)
(2) After hemming the door outer panel, MIG spot weld the flange overlap section at a pitch of approx. 50 mm.

4 CORROSION PROTECTION

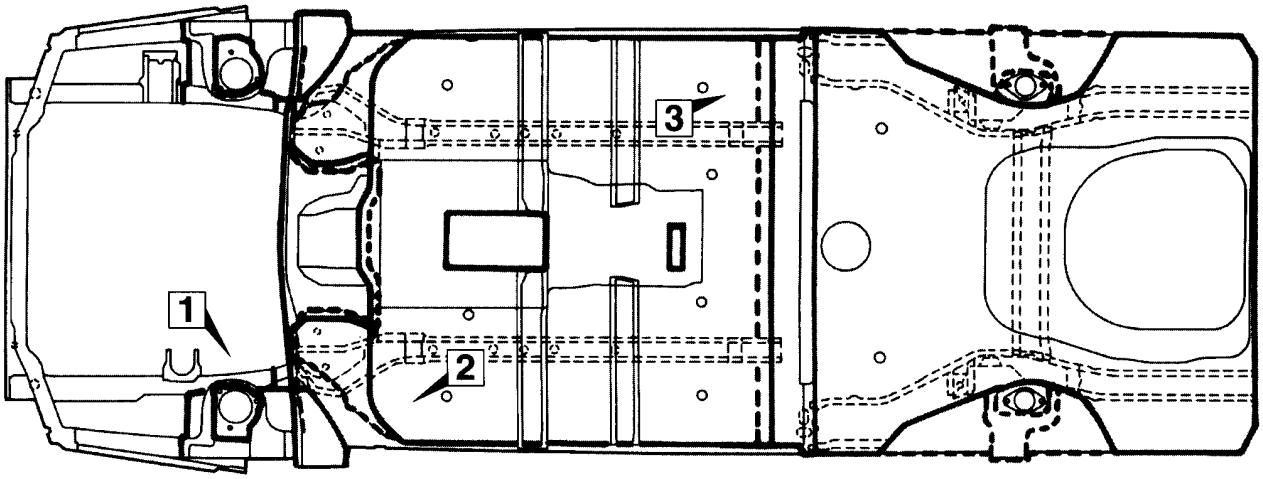
BODY SEALING LOCATIONS

NOTES WITH REGARD TO REPAIR WORK

In places where the sealant can be directly seen on surfaces such as the drip rails, pillars or clinch, and where the appearance of the paint surface is important, apply sealant or wipe away sealant after application to make the amount of sealant even. Be careful not to cover the drain hole.

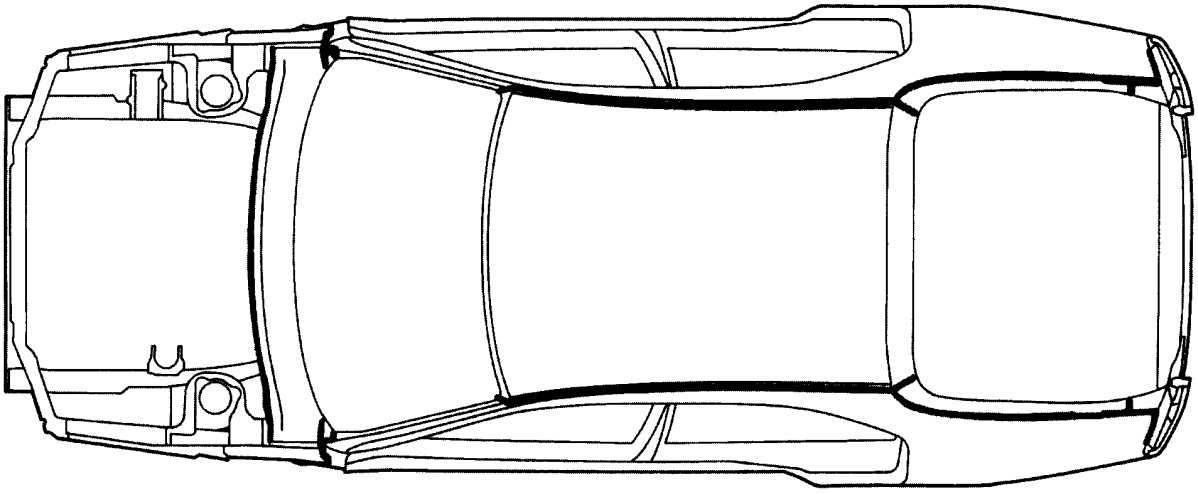
– – – Places indicated by thick dotted lines indicate application locations on the underside of the vehicle.

FLOOR



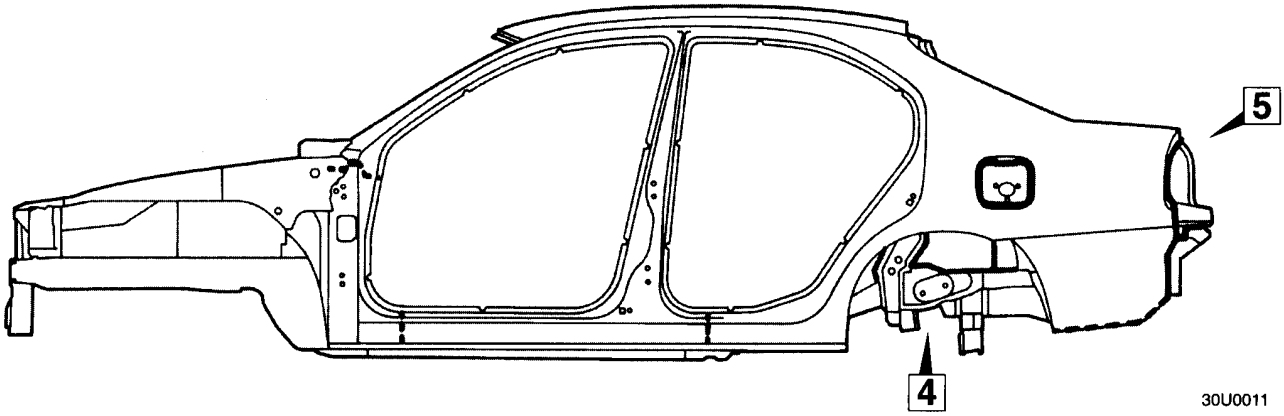
30U0015

UPPER BODY



30U0010

SIDE BODY



30U0011

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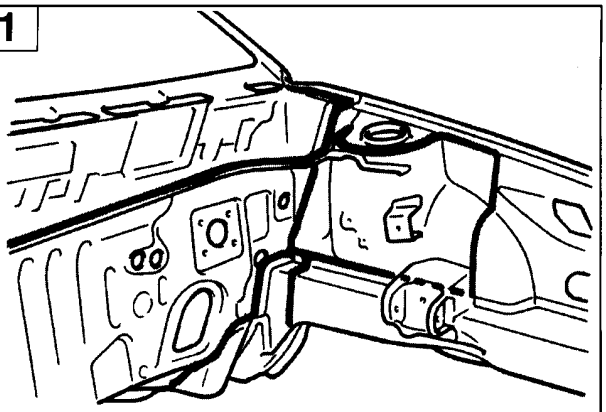

30U0001

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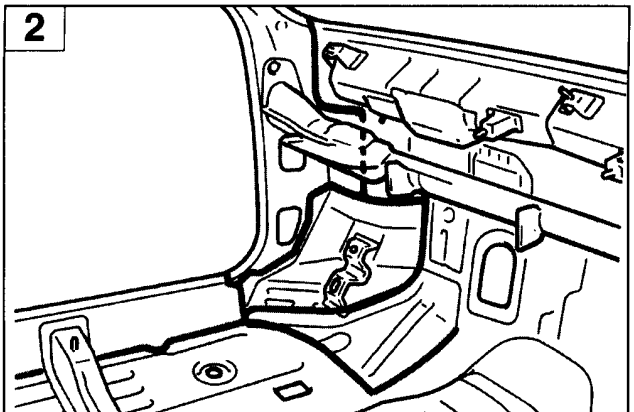

30U0002

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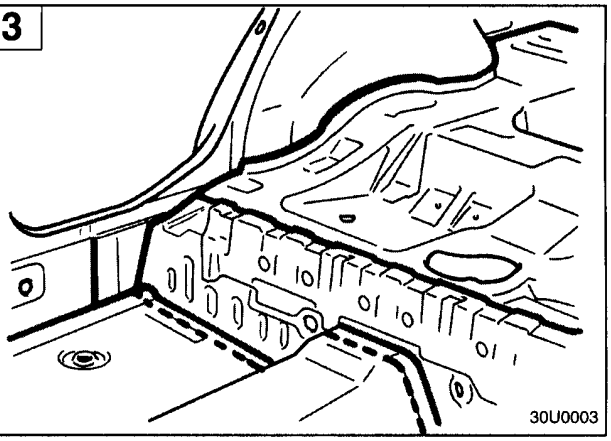

30U0003

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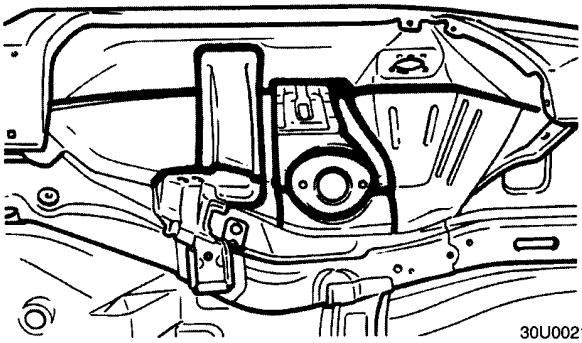

30U0021

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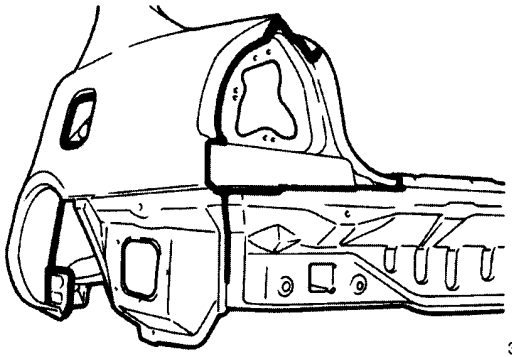
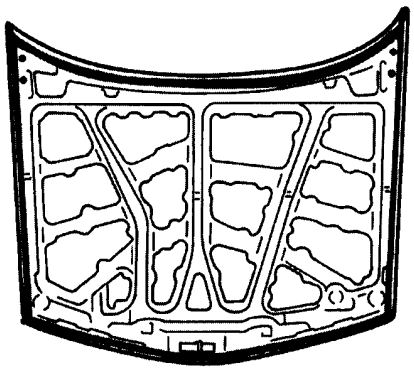


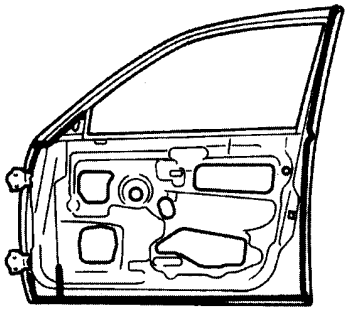
30U0016

Hood



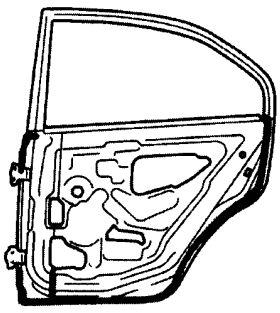
30U0004

Front door



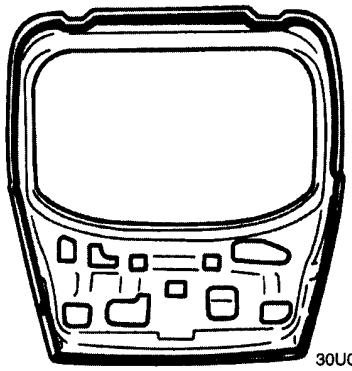
30U0005

Rear door



30U0006

Tailgate



30U0007

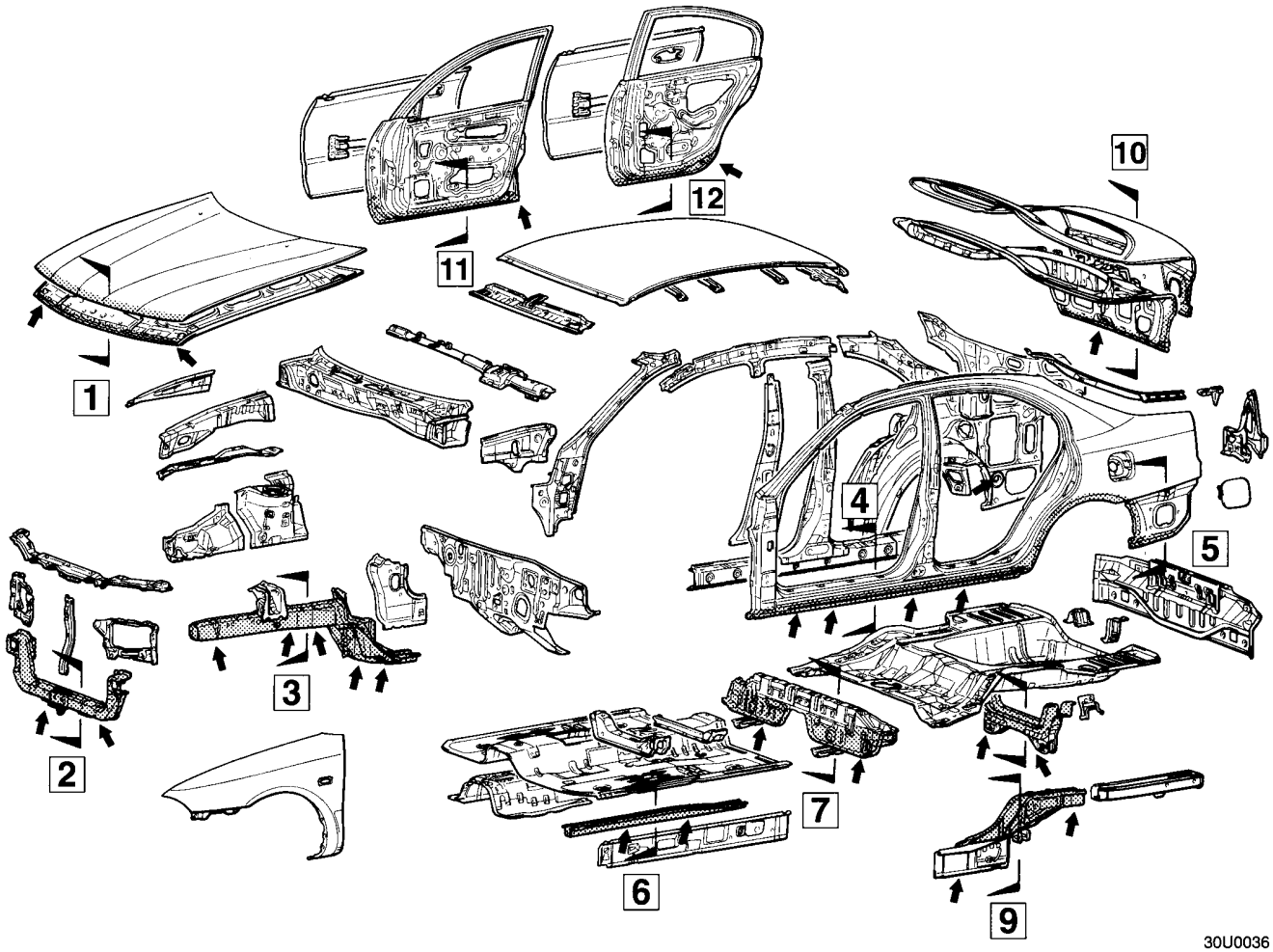
WAX INJECTION LOCATIONS

In order to provide greater corrosion resistance, wax injection has been performed for the lower areas of the vehicle, such as the frame, the side sill, and other panels which are a hollow-construction. If any of these panels are replaced, wax injection must be performed for the new parts.
Recommended wax:

- Tectyl 506, 506T or ML
- Waxoyl
- Dinitrol 3122 or 3654-1
- Mercasol 831-ML
- Terotex
- HV200PLUS or HV300

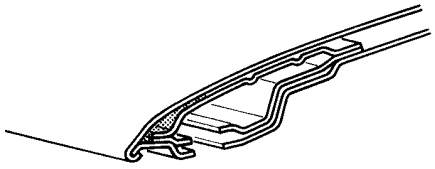
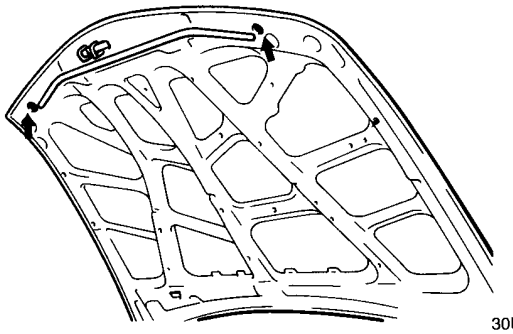
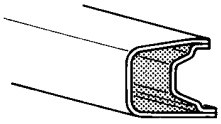
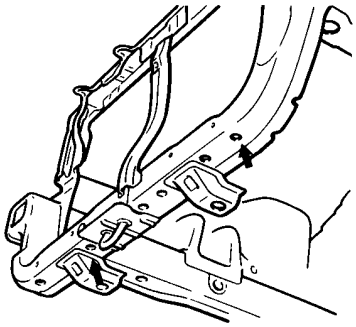
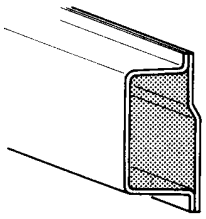
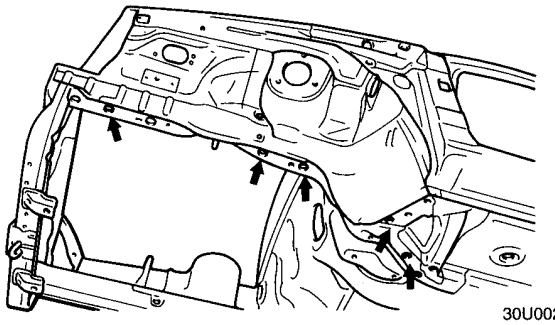
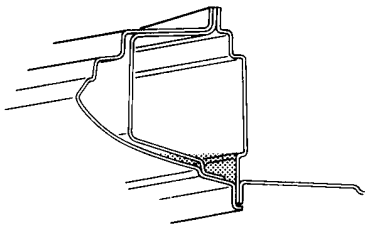
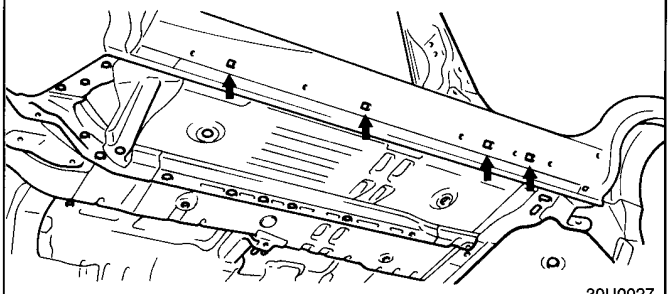
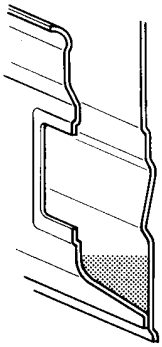
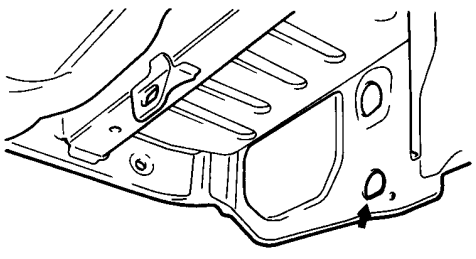
NOTES REGARDING WAX INJECTION WORK

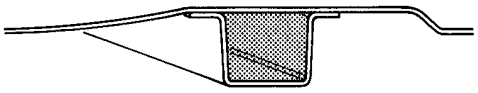
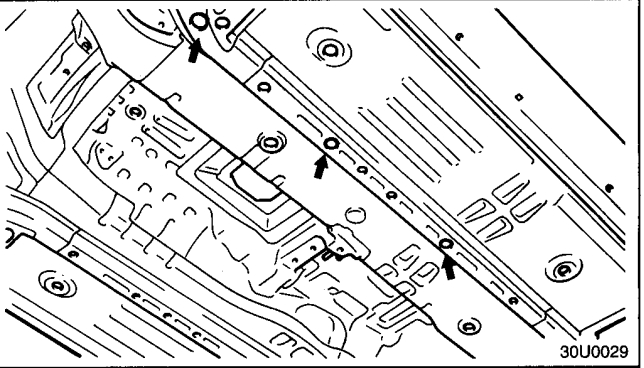
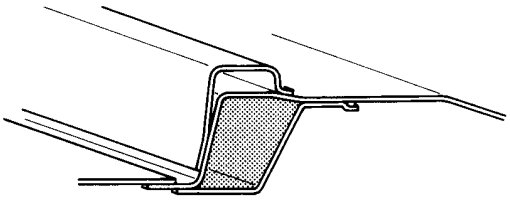
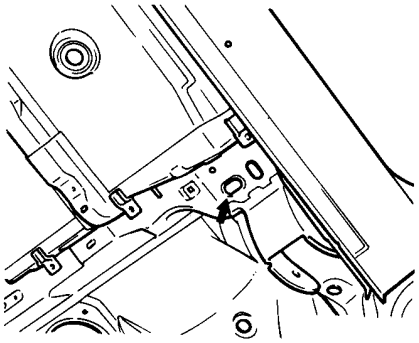
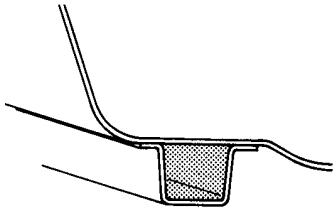
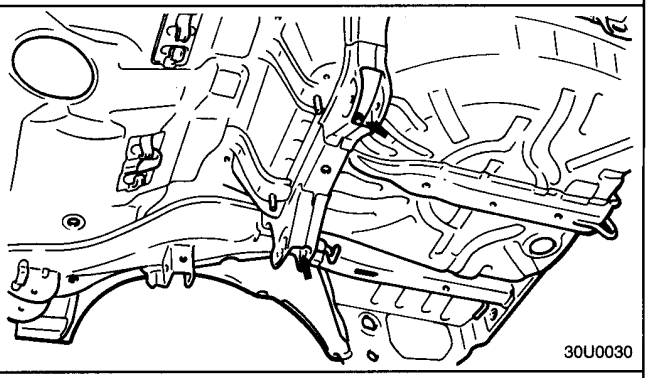
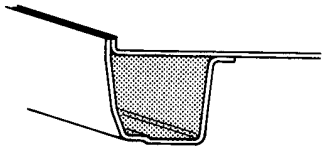
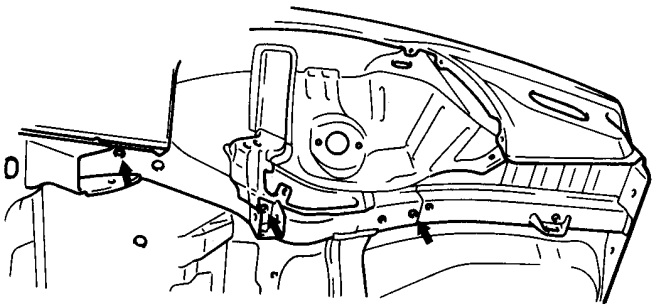
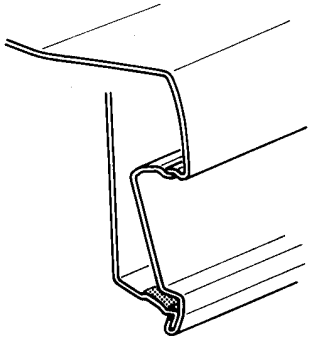
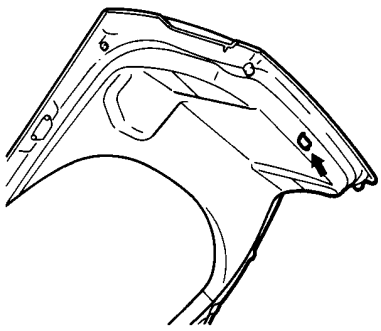
- Be careful that the wax does not get onto other parts. Especially if wax is to be injected into the lower part of the center pillar and into the side sill, first remove the seat belt retractor and the door switch.
- For wax injection locations which have a rubber plug, do not forget to reinstall the rubber plug after the wax injection is completed.

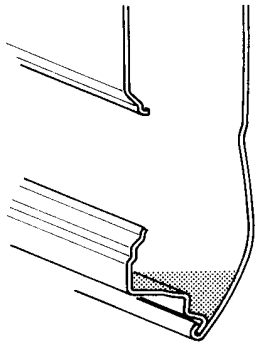
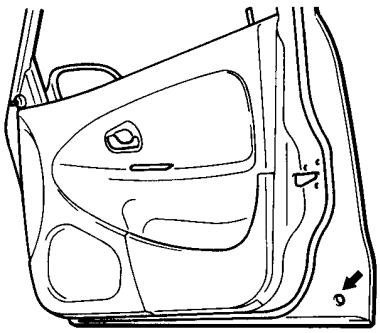
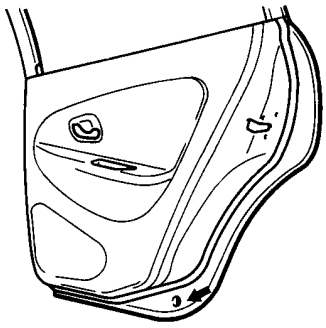


30U0036

NOTES
(1) ➡ : Nozzle insertion openings
(2) For the numbers shown in the figure, refer to detailed illustrations with the same numbers on later pages.

Application surfaces	⬅ : Nozzle insertion openings
1  30U0037	 30U0025
2  30U0038	 32U0013
3  30U0039	 30U0026
4  30U0040	 30U0027
5  30U0041	 30U0028

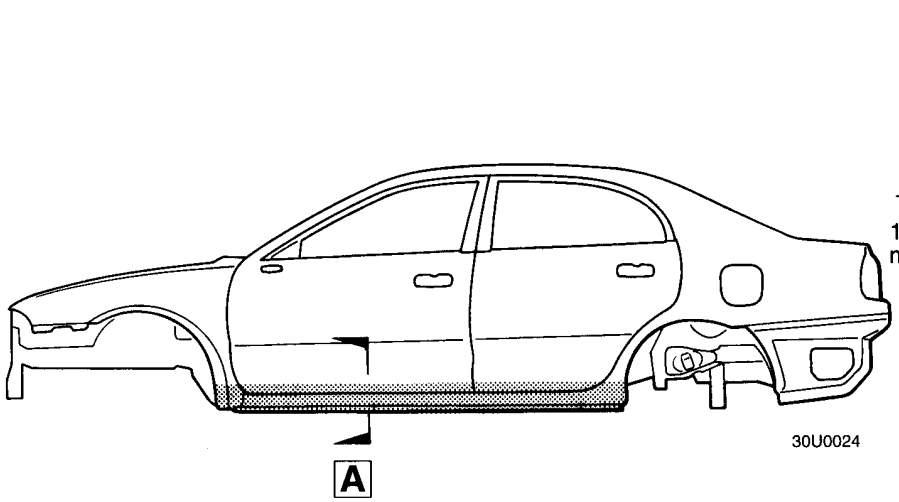
Application surfaces	⬅ : Nozzle insertion openings
6  30U0042	 30U0029
7  30U0043	 32U0019
8  30U0044	 30U0030
9  30U0045	 30U0031
10  30U0046	 30U0032

Application surfaces	⬅ : Nozzle insertion openings
11, 12  30U0047	 30U0033  30U0034

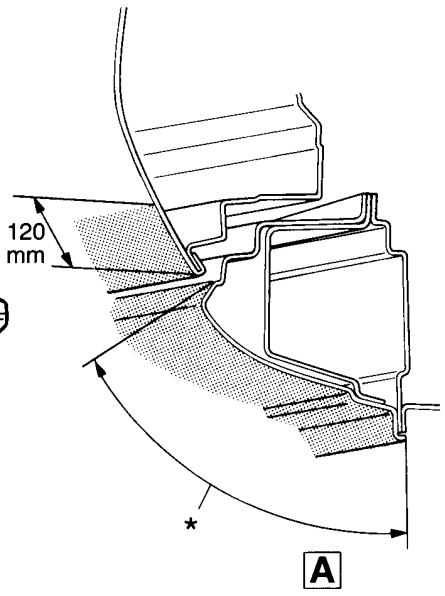
ANTICORROSION PRIMER LOCATIONS

An anticorrosion primer has been applied to the side sill outer panel, the lower edge of the front fender and the lower edge of the outer quarter panel for the purposes of corrosion prevention and abrasion protection. If any of these panels are replaced, apply an anticorrosion primer between the under coat and the second coat, as shown in the following illustrations.

Primer name	Recommended primer	Coating thickness
Rocker panel primer	Glasurit FX89-7330 (polyester basis) or FT90-7103 (water basis) or equivalent	400 μ or more.



30U0024

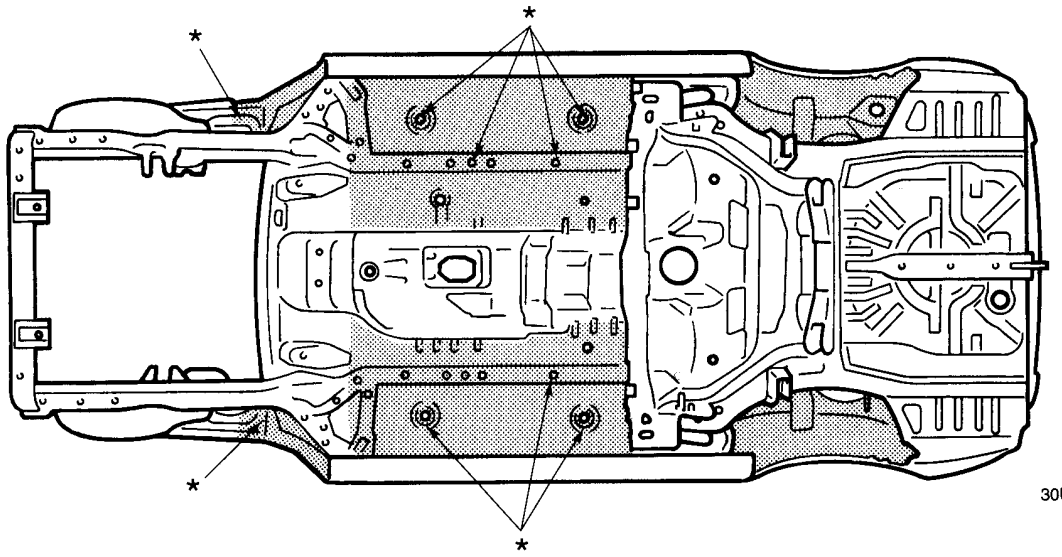


30U0023

NOTE
For vehicles with side air dam, the primer must not be applied to the area indicated by * mark.

UNDERCOAT APPLICATION LOCATIONS

In order to provide rust, corrosion, chipping, and vibration resistance, an undercoat is applied to certain areas of the underbody. After completing body repairs, restore this undercoat if necessary.



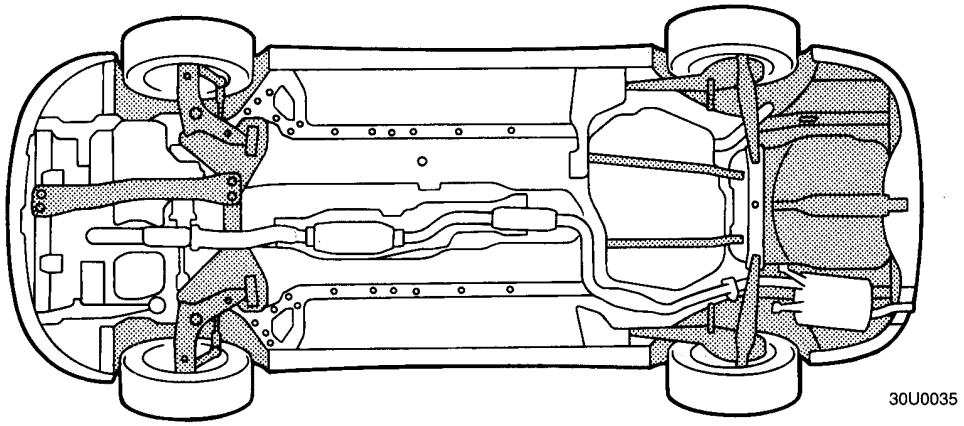
▒▒ : Polyvinyl chloride base undercoating (film thickness of at least 0.5 mm)

NOTE
* Because parts are to be mounted in these locations, mask the location before applying the undercoat.

UNDERBODY ANTICORROSION AGENT LOCATIONS

In order to provide a greater corrosion resistance, underbody corrosion prevention treatment should be performed after undercoat application. After completing body repairs, restore this underbody corrosion prevention treatment as indicated in the illustration if necessary.

Recommended agent:
- Tectyl 506T, 506 or S
- Waxoyl
- Dinitrol 4954
- Terotex WAX
- Mercasol NON-DRIP



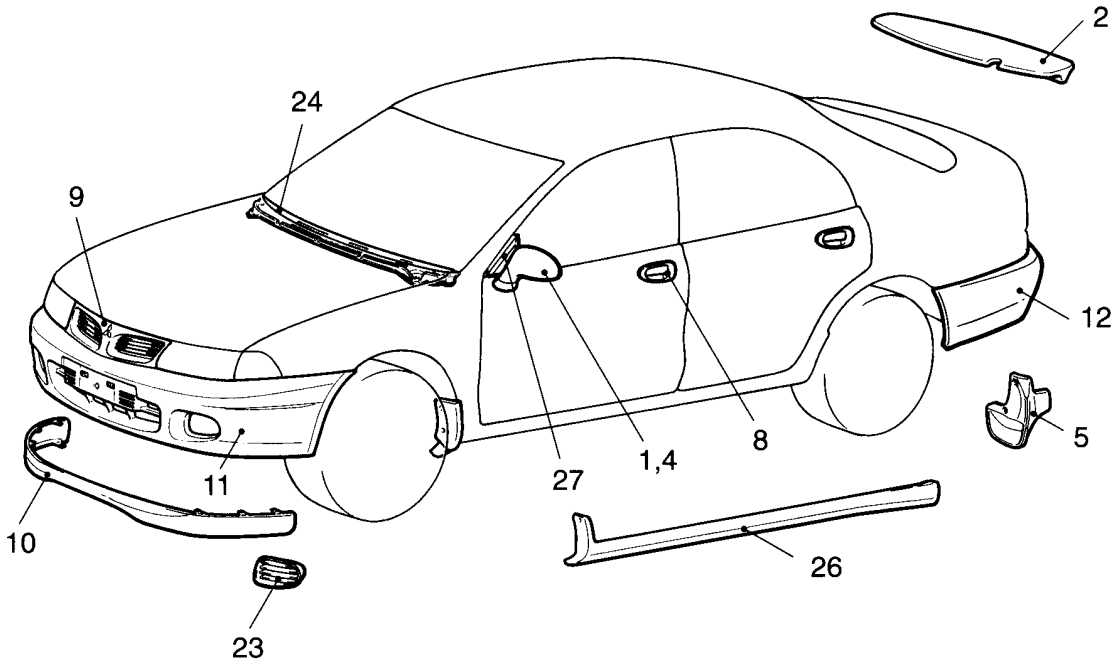
▒▒ : 100 μ or more

NOTE
(1) Be careful not to let the anticorrosion agent or other materials touch brake discs, tyres, drive belts in the engine compartment, exhaust pipes and muffler.
(2) Always apply masking tape to the oxygen sensor before applying anticorrosion agent. Failure to do this will damage the sensor.
(3) Some underbody parts are not easily accessible. Apply anticorrosion agent to these parts as far as possible.

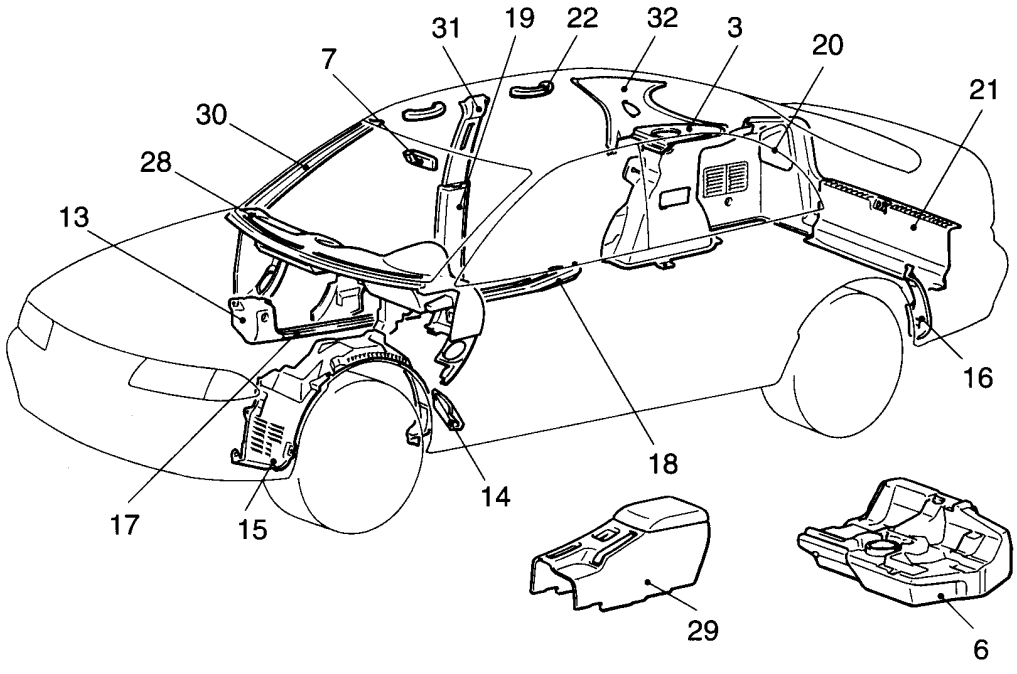
5 SYNTHETIC-RESIN PARTS

LOCATION OF SYNTHETIC-RESIN PARTS

The location and material of each of the principal synthetic-resin parts are shown below:



30U0012

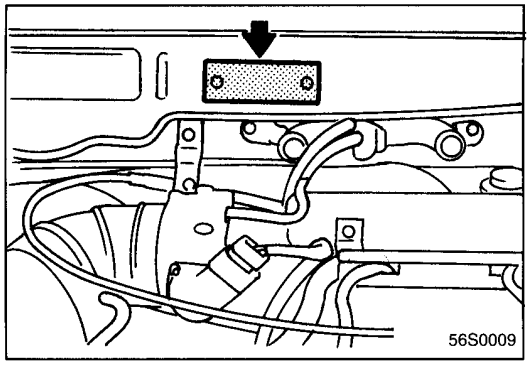


30U0019

No.	Part name	Name of resin	Abbreviation	Heat-withstand temp. [°C]
1 2 3	Door mirror (colour) Rear spoiler Side shelf	Acrylonitrile butadiene styrene	ABS	75 – 100
4	Door mirror (black)	Acrylonitrile styrene acrylate	ASA	85
5	Rear mud guard	Ethylen vinyl acetic acid	E/VAC (EVA)	40 – 80
6	Fuel tank	High-density polyethylene	PE-HD (HDPE)	70 – 90
7	Room mirror	Polyamide	PA	120
8	Door outside handle	Polycarbonate/ Polybutylene telephtalate	PC/PBT	100 – 120
9 10 11 12 13 14 15 16 17 18 19 20 21 22	Radiator grille Air dam skirt panel Front bumper face Rear bumper face Cowl side trim Foot rest Splash shield, front Splash shield, rear Front scuff plate Rear scuff plate Center pillar trim, lower Rear side trim Rear end trim Assist grip	Polypropylene	PP	60 – 100
23 24 25 26 27 28 29 30 31 32	Fog lamp cover Front deck garnish Stone guard Side air dam Delta cover Instrument pad Floor console Front pillar trim Center pillar trim, upper Rear pillar trim	Talc filled polypropylene	PP-TD (PP-F)	100 – 110

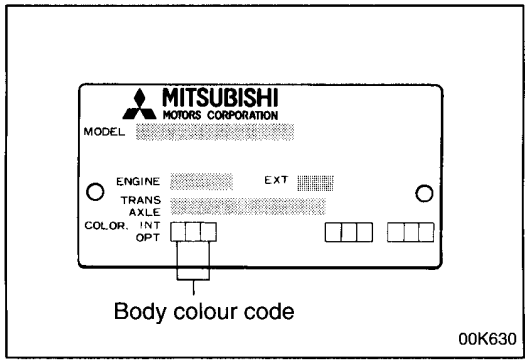
NOTES
(1) The indicated heat-resistance temperature for parts which are composed of two or more types of material is the value for the material with the lowest heat-resistance temperature.
(2) To correspond to the standardisation of material symbols by the ISO, old symbols in brackets ( ) are listed alongside new symbols in cases where the two are different.
(3) The material symbols for synthetic resin parts are embossed on the parts in hidden places.
(4) A slash (/) in the material symbol indicates that two different materials make 2-layer construction. A plus sign (+) indicates that the two different materials mix each other.

6 BODY COLOUR



BODY COLOUR CODE

The body colour code is imprinted on the vehicle information code plate, which is mounted on the front deck.



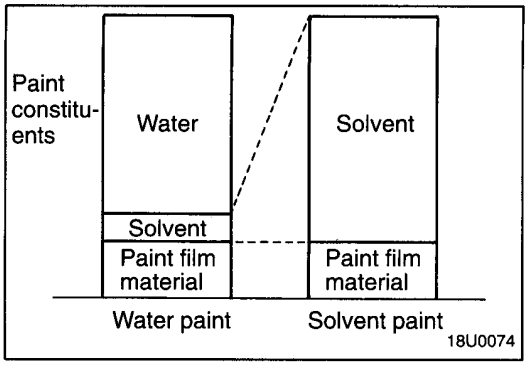
BODY COLOUR CODE INTERPRETATION

The information contained in the body colour code is explained in the body colour charts.

BODY COLOUR CHARTS

Check the vehicle's body colour code, and then use this body colour chart to determine the refinishing paint supplier from which the colour can be purchased.

	Colour	Body colour code	Colour number	Body colour name	Composition of film
Paint used by manufacturer	WHITE	W41	AC11141	St. Moritz White	Solid
	DARK GRAY	A47	AC11147	Mainz Gray	Pearl
	WARM SILVER	A49	AC11149	Luzern Silver	Metallic
	PURE SILVER	A50	AC11150	Haag Silver	Metallic
	LAMP BLACK	X66	AC11166	Lamp Black	Solid
	RED	R43	AC11143	Shining Red	Solid
	FLAME RED	R51	AC11151	Flame Red	Pearl
	OLIVE	L45	AC11145	Malaga Olive	Pearl
	GREEN	G42	AC11142	Derby Green	Solid
	BLUE	T46	AC11146	Scandinavia Blue	Pearl

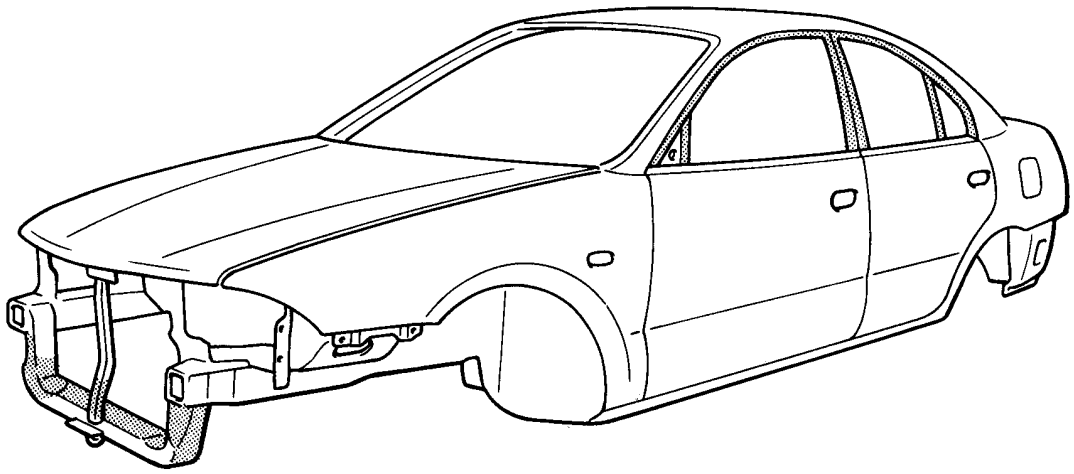


WATER PAINT (AC11147, AC11149, AC11151, AC11145, AC11146)

Water paint is used as top coat for metallic (pearl) colour. Adding water instead of solvent reduces the solvent that a paint emits when baking. This contributes to protecting global environment.
In addition, it is recommended that water paint is also used as a touch-up paint. That is because repaired surface matches other surfaces easily.

BODY COLOURING

BLACK PAINT



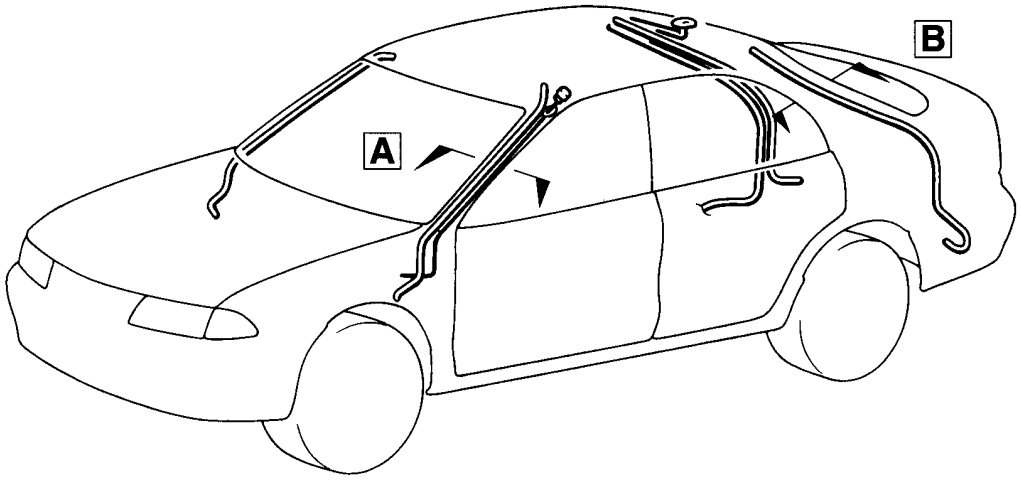
: AC10657

30U0020

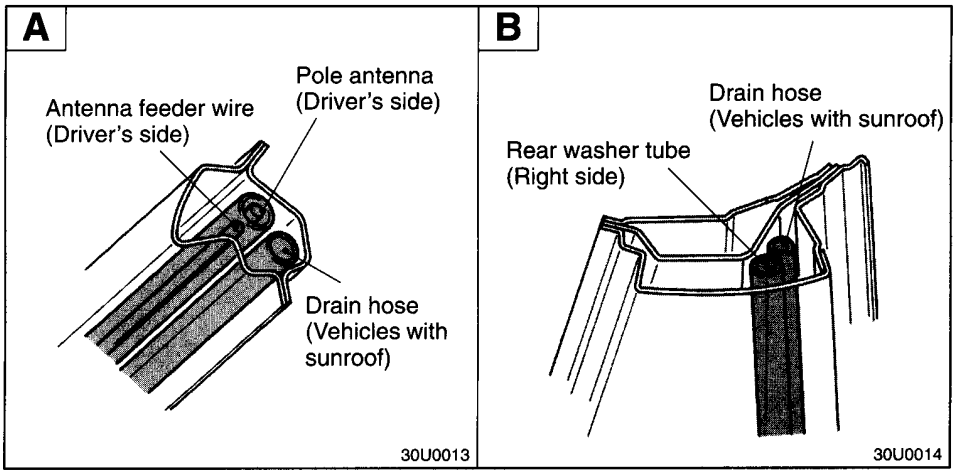
7 WIRING AND PIPING DIAGRAM

WIRING AND PIPING DIAGRAM

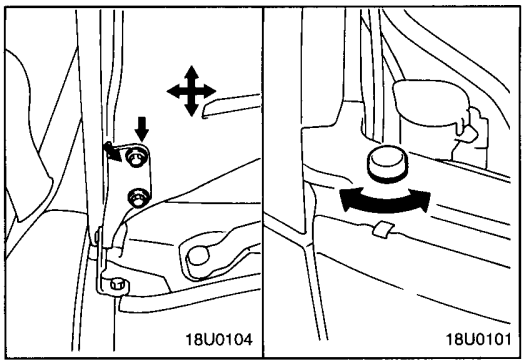
There are hoses routed through closed cross-section structures in some areas of the body; before cutting a panel in any of these areas, be sure to remove the hoses.

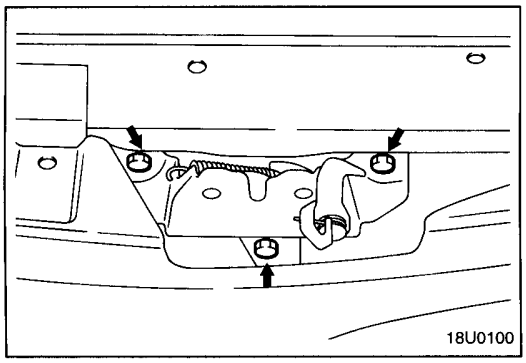


30U0022



8 REFERENCE MATERIAL





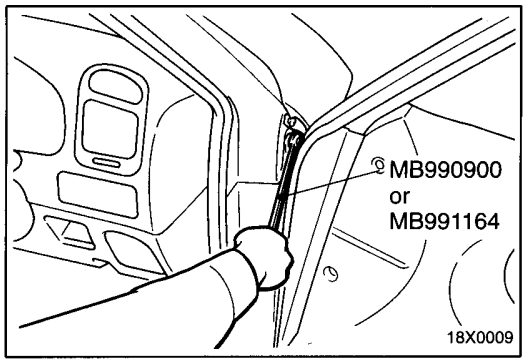
BOLTED PANEL FIT AND ADJUSTMENT

HOOD

HOOD FIT ADJUSTMENT

(1) Adjust the longitudinal and lateral positions of the hood by utilizing the oblong holes in the hinge.
(2) Turn the hood bumpers either left or right to adjust the height of the hood.
(3) Loosen the hood latch mounting bolts.
(4) Adjust the alignment of the hood striker and the hood latch by adjusting the horizontal and vertical position of the latch and height of the hood.

Hood mounting bolt tightening torque: 12 Nm
Hood latch mounting bolt tightening torque: 9 Nm



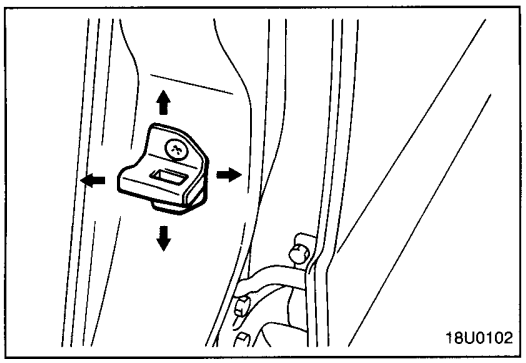
DOOR

DOOR FIT ADJUSTMENT

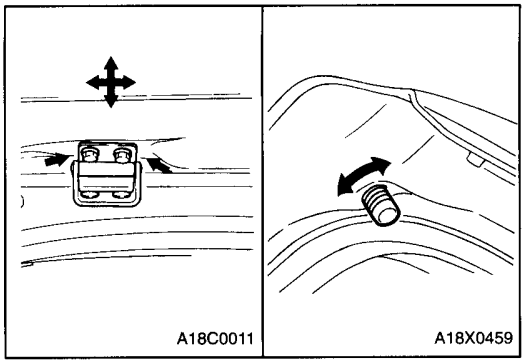
(1) Use the special tool to loosen the hinge mounting bolts on the body side, and then adjust the clearance around the door so that it is uniform on all sides.
(2) If there is a stepped section on the door and body, use the special tool to loosen the door hinge mounting bolts on the door side, and move the door to adjust the door fit.

Door hinge bolt tightening torque: 22 Nm

Caution
Attach protection tape to the fender edges where the hinge is installed.



(3) If the striker and latch do not mesh properly, adjust the position of the striker.



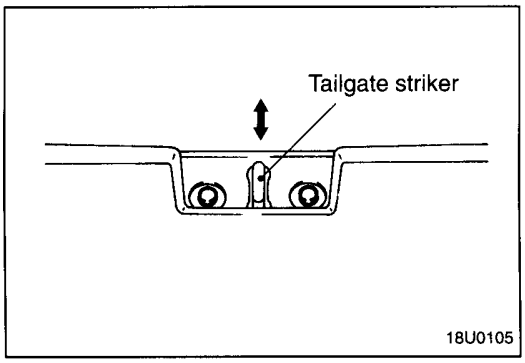
TAILGATE

TAILGATE FIT ADJUSTMENT

(1) Loosen the tailgate mounting bolts, and then move the tailgate forward and backward, and to the left and right, to make the adjustment.

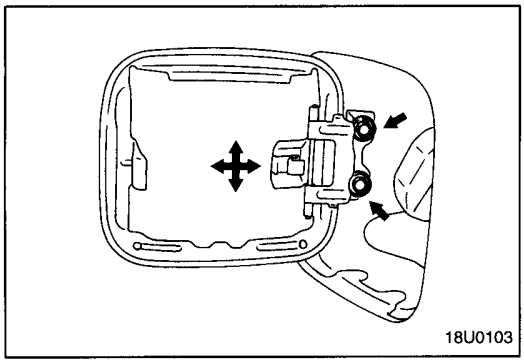
Tailgate mounting bolt tightening torque: 12 Nm

(2) Turn the tailgate bumpers either left or right to adjust the tailgate height.



(3) Loosen the tailgate striker mounting bolts, and then adjust the alignment of the tailgate by adjusting the vertical positioning of the striker.

Tailgate striker mounting bolt tightening torque: 9 Nm



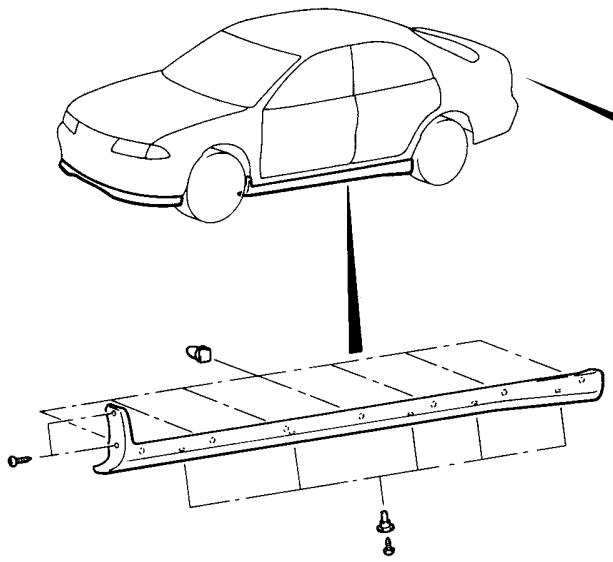
FUEL FILLER DOOR

FUEL FILLER DOOR FIT ADJUSTMENT

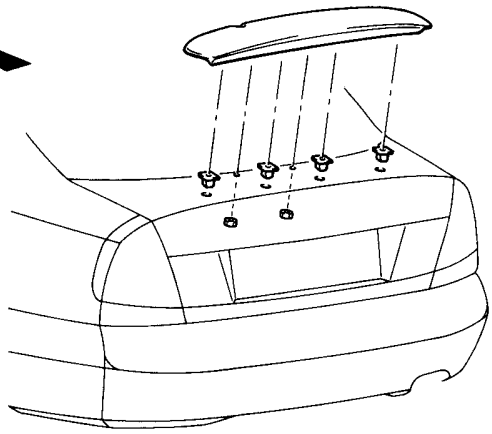
Loosen the fuel filler door mounting screws and adjust the fuel filler door so that the clearance around the fuel filler door is even without any height differences.

INSTALLATION AND REMOVAL OF ADHESIVE COMPONENTS

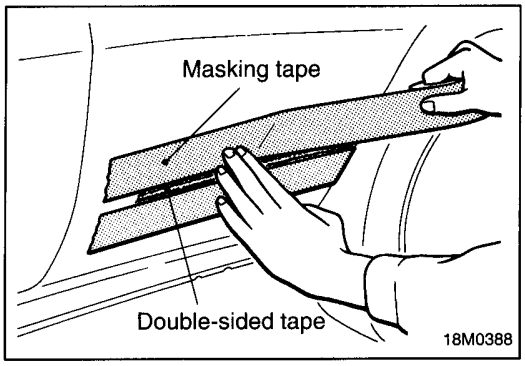
AERO PARTS



18U0011

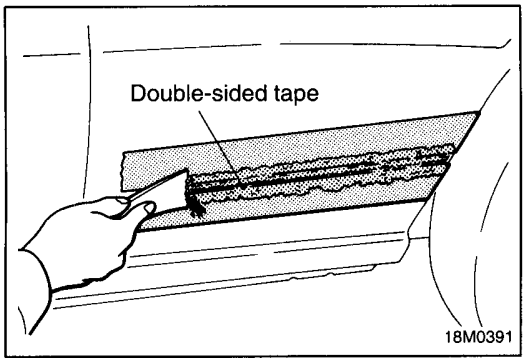


18U0010

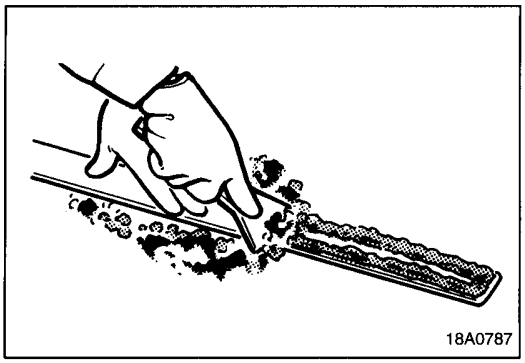


REMOVAL

(1) Apply masking tape to the outside circumference of the double-sided tape remaining on the body surface.



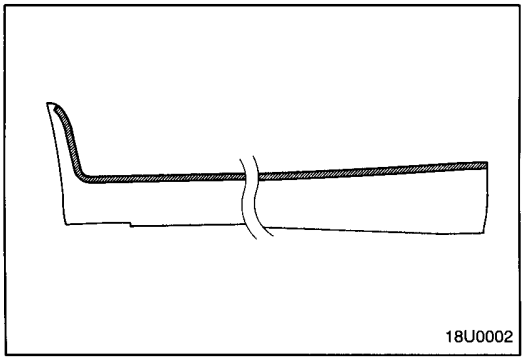
(2) Scrape off the double-sided tape with a resin spatula.
(3) Tear off the masking tape.
(4) Wipe the body surface clean with a rag moistened with isopropyl alcohol.


18A0787

INSTALLATION

Affixing the double-sided tape to the side air dam or rear spoiler (when reusing)

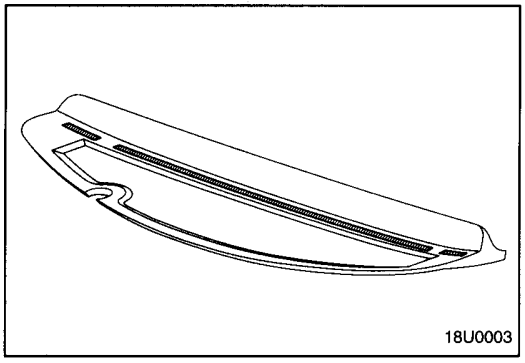
(1) Scrape off the double-sided tape with a resin spatula or gasket scraper.
(2) Wipe the side air dam or rear spoiler adhesion surface clean with a rag moistened with isopropyl alcohol.


18U0002

(3) Affix specified pressure sensitive double-sided tape to the side air dam or rear spoiler.

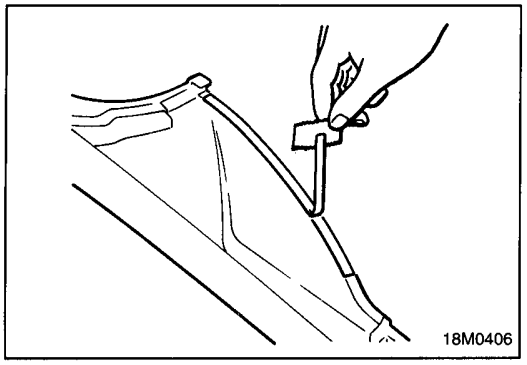
SIDE AIR DAM

Adhesive tape: Double-sided
5 mm wide and 1.2 mm thick


18U0003

REAR SPOILER

Adhesive tape: Double-sided tape
10 mm wide and 1.2 mm thick


18M0406

(4) Remove strip paper from the pressure sensitive double-sided tape.

NOTE
Affix double-sided tape to the end of strip paper for ease of strip paper removal.

(5) Install the side air dam or the rear spoiler.

NOTE
If it is hard to affix the pressure sensitive double-sided tape in winter, heat the application surface of the body and the adhesive surface of the side air dam or rear spoiler before affixing the tape.

Body ..... 40 – 60°C (104 – 140°F)
Side air dam or
rear spoiler ..... 20 – 30°C (68 – 86°F)

Apply pressure fully to the side air dam or rear spoiler.

ADJUSTMENT OF OTHER PARTS

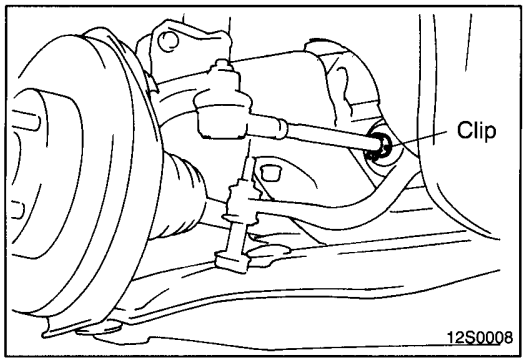
FRONT WHEEL ALIGNMENT

Measure the wheel alignment with the vehicle parked on a level surface.
The front suspension, steering system, and wheels should be serviced to normal condition prior to measurement of wheel alignment.

TOE-IN

Standard value:

At the centre of tyre tread	**1 ± 2 mm**
Toe angle (per wheel)	**0°06' ± 12'**



NOTE
1. If the toe-in is not within the standard value, adjust the toe-in by undoing the clips and turning the left and right tie rod turnbuckles by the same amount (in opposite directions).
2. The toe will move out as the left turnbuckle is turned toward the front of the vehicle and the right turnbuckle is turned toward the rear of the vehicle.
   For each one turn of the left and right tie rods, the toe-in will be adjusted by approx 1°05'.

   Caution
   The difference between the left and right tie rods shall not exceed 1°30'.

TOE-OUT ANGLE ON TURNS

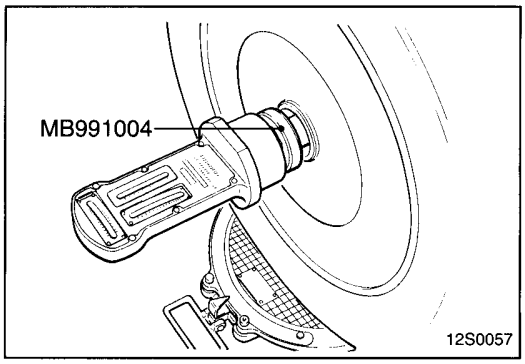
To check the steering linkage, especially after the vehicle has been involved in an accident or if an accident is presumed, it is advisable to check the toe-out angle on turns in addition to the wheel alignment.
Conduct this test on the left turn as well as on the right turn.

Standard value:
21.8° (inner wheel when outer wheel at 20°)

STEERING ANGLE

Standard value:

Inner wheel	**39°**
Outer wheel	**32°**



CAMBER, CASTER AND KINGPIN INCLINATION

Standard value:

Camber	**0°00' ± 30'**
Caster	**2°12'**
Kingpin inclination	**12°41'**

NOTE
1. Camber and caster are preset at the factory and cannot be adjusted.
2. If camber is not within the standard value, check and replace bent or damaged parts.
3. For vehicles with aluminium type wheels, attach the camber/caster/kingpin gauge to the drive shaft by using the special tool. Tighten the special tool to the same torque 200 – 260 Nm as the drive shaft nut.

Caution
Never subject the wheel bearings to the vehicle load when the drive shaft nuts are loosened.

REAR WHEEL ALIGNMENT

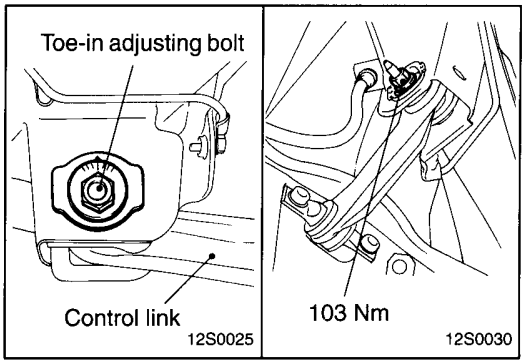
Measure the wheel alignment with the vehicle parked on level ground.
The rear suspension and wheels should be serviced to the normal condition prior to measurement of wheel alignment.

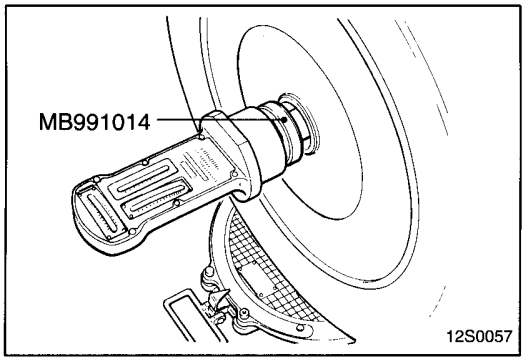
TOE-IN

Standard value:

At the centre of tyre tread	**3 ± 2 mm**
Toe angle (per wheel)	**0°18' ± 12'**

If outside the standard value, adjust by the following procedure.
(1) Be sure to adjust the camber before adjusting the toe-in.
(2) Adjust by turning the toe adjusting bolt (mounting bolt on the inside of the control link).
LH: Turning clockwise → toe-in direction
RH: Turning clockwise → toe-out direction
The scale has gradations of approximately 2.6 mm (single side toe angle equivalent to 16')



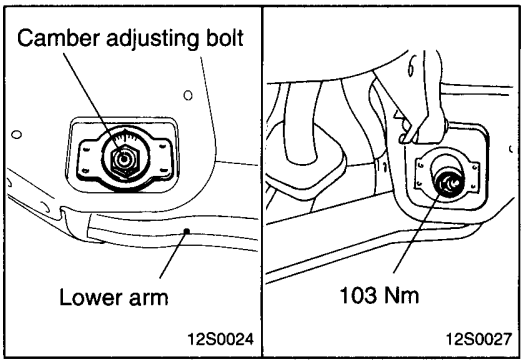


CAMBER

Standard value: −0°40' ± 30'
(The difference between the left and right wheels should be 30' or less.)

NOTE
For vehicles equipped with aluminium wheels, measure the camber after tightening the special tool MB991014 to the specified torque 180 Nm.

Caution
Never subject the wheel bearings to the full vehicle load when the flange nuts are loosened.

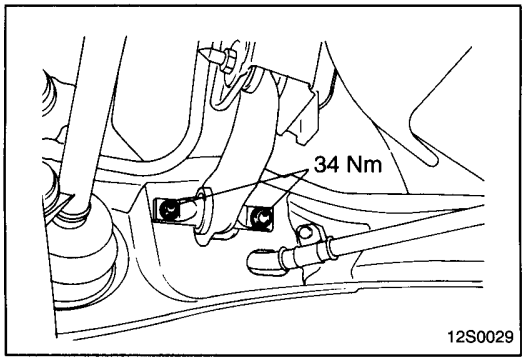


If outside the standard value, adjust by the following procedure.

(1) Remove the connection between the control link and the trailing arm.

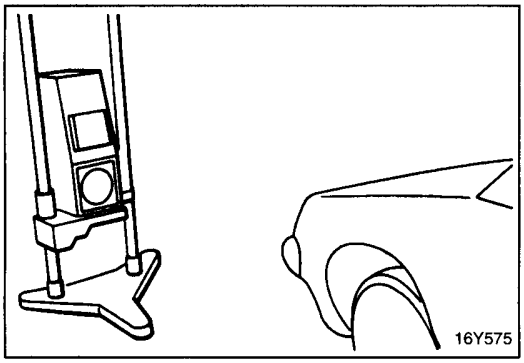
(2) Adjust by turning the camber adjusting bolt (mounting bolt for the lower arm and rear crossmember).

Left wheel: clockwise + camber
Right wheel: clockwise – camber
The scale has gradations of approximately 14'



(3) Tighten the control link to the trailing arm at the specified torque.

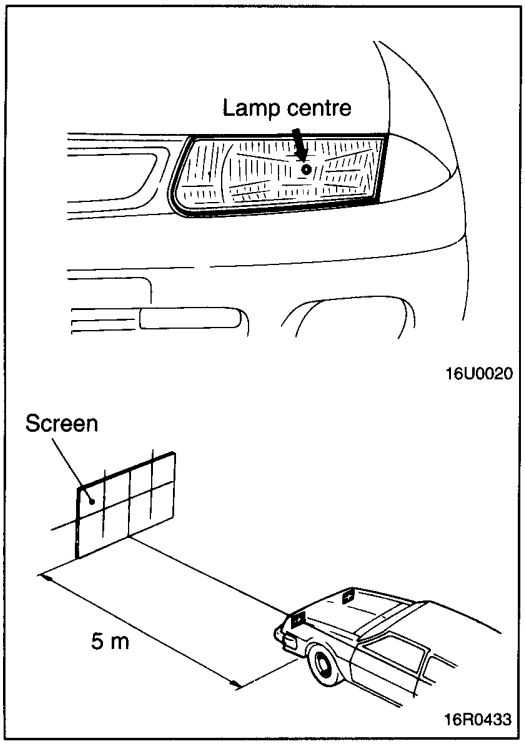
(4) After adjusting the camber, be sure to adjust the toe-in.



HEADLAMP AIMING

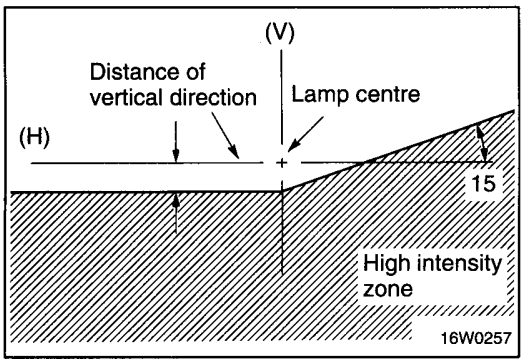
<USING A BEAMSETTING EQUIPMENT>

(1) The headlamps should be aimed with the proper beam-setting equipment, and in accordance with the equipment manufacturer's instructions.
NOTE
If there are any regulations pertinent to the aiming of headlamps in the area where the vehicle is to be used, adjust so as to meet those requirements.
(2) Alternately turn the adjusting screw to adjust the headlamp aiming.



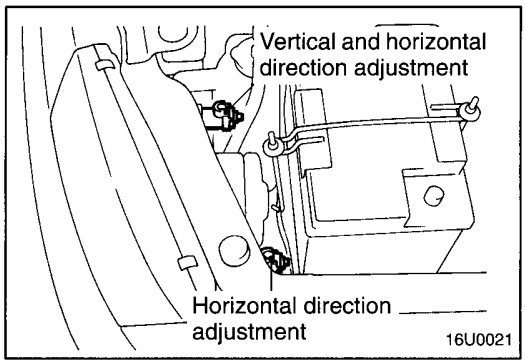
<USING A SCREEN>

(1) Inflate the tyres to the specified pressures and there should be no other load in the vehicles other than driver or substituted weight of approximately 75 kg placed in driver's position.
(2) Set the distance between the screen and the centre marks of the headlamps as shown in the illustration.



(3) Check if the beam shining onto the screen is at the standard value.

Standard value:
(Vertical direction)
60 mm below horizontal (H)
(Horizontal direction)
Position where the 15° sloping section intersects the vertical line (V)



(4) Alternately turn the adjusting screw to adjust the headlamp aiming.

Caution
Be sure to adjust the aiming adjustment screw in the tightening direction.

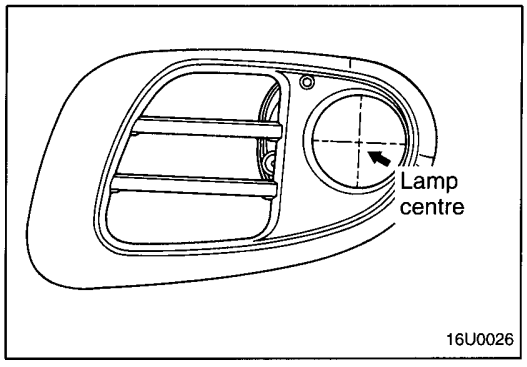
INTENSITY MEASUREMENT

Using a photometer, and following its manufacturer's instruction manual, measure the headlamp intensity and check to be sure that the limit value is satisfied.

Limit: 30,000 cd or more

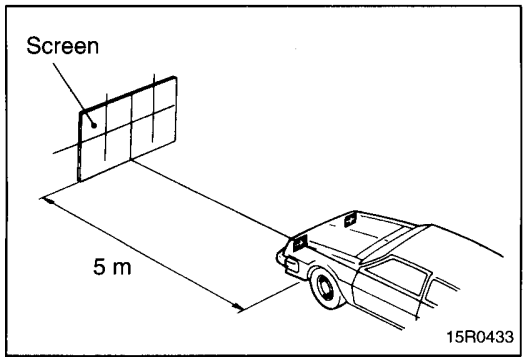
NOTE
1. When measuring the intensity, maintain an engine speed of 2,000 r/min., with the battery in the charging condition.
2. There may be special local regulations pertaining to headlamp intensity; be sure to make any adjustments necessary to satisfy such regulations.
3. If an illuminometer is used to make the measurements, convert its values to photometer values by using the following formula.

$I = Er^2$ Where: I = intensity (cd)
E = illumination (lux)
r = distance (m) from headlamps to illuminometer

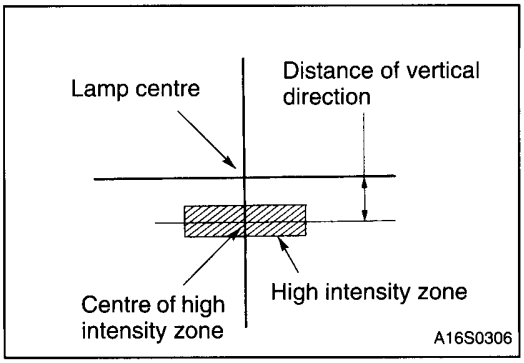


FRONT FOG LAMP AIMING

(1) Measure the centre of the fog lamps, as shown in the illustration.

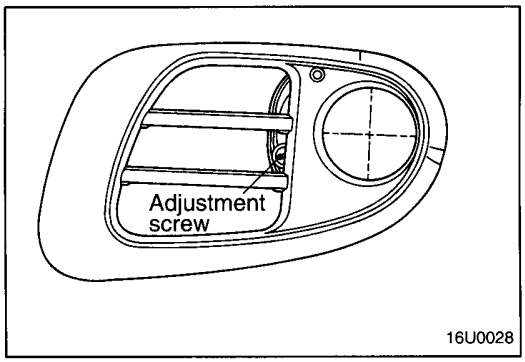


(2) Set the distance between the screen and the centre of the fog lamps as shown in the illustration.
(3) Inflate the tyres to the specified pressures and there should be no other load in the vehicles other than driver or substituted weight of approximately 75 kg placed in the driver's position.
(4) With the engine running at 2,000 r/min., aim the fog lamp.



(5) Check if the beam shining onto the screen is at the standard value.

Standard value:
(Vertical direction)
100 mm below horizonal (H)
(Horizontal direction)
Parallel to direction of vehicle travel



NOTE
The horizontal direction is non-adjustable. If the deviation of the light beam axis exceeds the standard value, check to be sure that the mounting location or some other point is not defective.

Caution
When making the aiming adjustment, be sure to mask those lamps which are not being adjusted.

SUPPLEMENTAL RESTRAINT SYSTEM (SRS) – AIR BAG AND SEATBELTS WITH PRE-TENSIONER

(1) Air bag (driver-side air bag or passenger-side air bag in combination with driver-side air bag) and Seatbelts with pre-tensioner have been installed in this vehicle as an optional equipment.
(2) The SRS includes the following components: SRS-ECU; SRS warning lamp, air bag module (driver-side and passenger-side), clock spring, seatbelts with pre-tensioner interconnecting wiring. Other SRS-related components (that may have to be removed/installed in connection with SRS service or maintenance) are indicated in the table of contents of Workshop Manual by an asterisk (*).
(3) Warning labels must be heeded when servicing or handling SRS components and seatbelts with pre-tensioner. Warning labels are located in the following locations.
- Sun visor
- Glove box
- SRS air bag control unit
- Steering wheel
- Steering gear and linkage
- Air bag module
- Clock spring
- Seatbelts with pre-tensioner

(4) Be sure to carefully read and understand the WARNING below before proceeding.

WARNING!
(1) Improper service or maintenance of any component of the SRS, or any SRS-related component, can lead to personal injury or death to service personnel (from inadvertent firing of the air bag) or to the driver (from rendering the SRS inoperative).
(2) If it is possible that the SRS components are subjected to heat over 93°C in baking or in drying after painting, remove the SRS components (air bag module, SRS diagnosis unit, front impact sensors) beforehand.
(3) Service or maintenance of any SRS component or SRS-related component must be performed only at an authorized MITSUBISHI dealer.
(4) MITSUBISHI dealer personnel must thoroughly review Workshop Manual, and especially its GROUP 52B-Supplemental Restraint System (SRS), before beginning any service or maintenance of any component of the SRS or any SRS-related component.