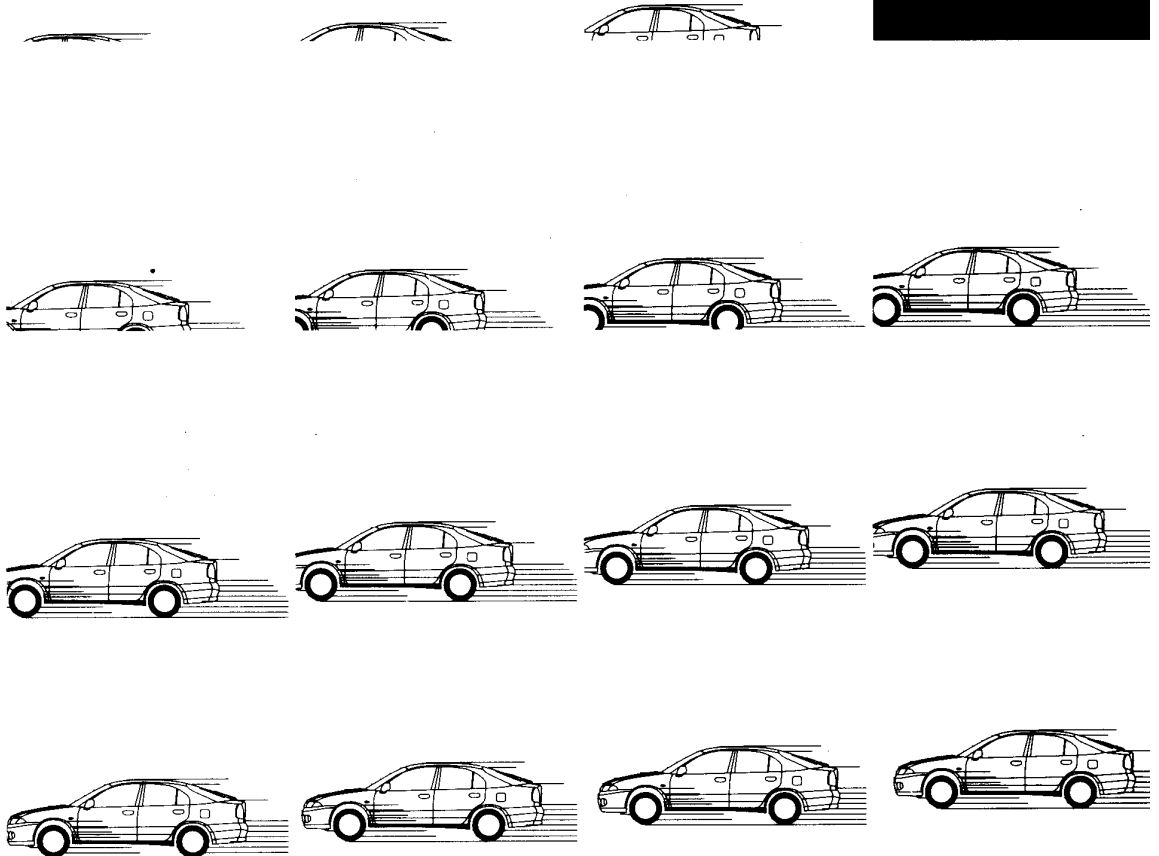




# Body Repair Manual

SUPPLEMENT

## CARISMA '97



# CARISMA

## BODY REPAIR MANUAL SUPPLEMENT

### FOREWORD

This manual has been prepared for the use by all service mechanics engaged in the body repair service of the MITSUBISHI CARISMA. Because of the introduction of new vehicle models, the differences regarding the body construction, standard frame dimensions, etc. for each basic vehicle type are explained. 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. Mitsubishi Motor Sales Europe B.V. reserves the right to make changes in design and specification and/or to make additions to or improvements in its products without imposing any obligation upon itself to install them on its products previously manufactured.

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 **MITSUBISHI MOTOR SALES**  
Europe B.V.



# 0 GENERAL

**0**

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## VEHICLE IDENTIFICATION

### MODELS

#### < Hatchback >

Model code		Engine model	Transmission model	Fuel supply system
DA1A	LNDEL6/R6	4G92-SOHC (1,597 ml)	F5MR1 (2WD-5M/T)	MPI
	LNDEL6/R6			
	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 ml)	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 ml)	F5MR2 (2WD-5M/T)	
DA4A	LNDFL6/R6	F8QT (1,870 ml)	F5MR3 (2WD-5M/T)	Fuel injection pump
	LNJFL6/R6			
	LNPFL6			

#### < Sedan >

Model code		Engine model	Transmission model	Fuel supply system
DA1A	SNMEL6/R6	4G92-SOHC (1,597 ml)	F5MR1 (2WD-5M/T)	MPI
	SNMVL6B			
	SNDEL6/R6			
	SNDVL6B		F4A41 (2WD-4A/T)	
	SRDEL6/R6			
	SRDVL6B		F5MR1 (2WD-5M/T)	
	SNJEL6/R6			
	SNJVL6B			
	SRJEL6/R6			
	SRJVL6B		F4A41 (2WD-4A/T)	
DA2A	SNJEL6/R6	4G93-SOHC (1,834 ml)	F5MR2 (2WD-5M/T)	
	SRJEL6/R6		F4A42 (2WD-4A/T)	
	SNPEL6/R6		F5MR2 (2WD-5M/T)	
	SRPEL6/R6		F4A42 (2WD-4A/T)	
	SNGML6	4G93-DOHC (1,834 ml)	F5MR2 (2WD-5M/T)	
DA4A	SNDFL6/R6	F8QT (1,870 ml)	F5MR3 (2WD-5M/T)	Fuel injection pump
	SNJFL6/R6			
	SNPFL6			

## MAJOR SPECIFICATIONS

## &lt; Hatchback &gt;

Items		DA1A				
		LNJEL6 LNJER6	LRJEL6 LRJER6	LNDEL6 LNDER6	LRDEL6 LRDER6	LNJEL6 LNJER6
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, 175/70R14 84T*3				
Wheel size		14 x 5.5J				
Offset	mm	44				

Items		DA2A				
		LNJEL6 LNJER6	LRJEL6 LRJER6	LNDEL6 LNPER6	LRDEL6 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				

\*1: M/T

\*2: A/T

\*3: Optional items

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 86H	185/65R14 86H 195/60R14 86V*3	195/60R14 86V 205/50R15 86V*3	
Wheel size	14 x 5.5J	14 x 5.5J	14 x 5.5J 15 x 6J*3	
Offset mm	44	44	44	

Items	DA4A		
	LNDFL6 LNDFR6	LNJFL6 LNJFR6	LNPFL6
Dimensions mm			
Overall length		4,445	
Overall width		1,695	
Overall height (unladen)		1,405	
Wheelbase		2,550	
Track-front		1,455	
Track-rear		1,475	
Body overhang			
Front		890	
Rear		1,005	
Ground clearance (unladen)		155	
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 5.5J	
Offset mm		44	

\*1: M/T

\*2: A/T

\*3: Optional items

< Sedan >

Items	DA1A					
	SNMEL6 SNMER6	SNMVL6B	SNDEL6 SNDER6	SNDVL6B	SRDEL6 SRDER6	SRDVL6B
Dimensions	mm					
Overall length	4,435					
Overall width	1,695					
Overall height (unladen)	1,405, 1,420*4					
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, 170*4 *1, 165*4*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, 175/70R14 84T*3, 175/65R14 82H*4					
Wheel size	14 x 5.5J					
Offset	mm	44				

Items	DA1A			
	SNJEL6 SNJER6	SNJVL6B	SRJEL6 SRJER6	SRJVL6B
Dimensions	mm			
Overall length	4,435			
Overall width	1,695			
Overall height (unladen)	1,405, 1,420*4			
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, 170*4 *1, 165*4*2			

\*1: M/T

\*2: A/T

\*3: Optional items

\*4: 6B models





Items	DA4A		
	SNDFL6 SNDFR6	SNJFL6 SNJFR6	SNPFL6
Dimensions	mm		
Overall length		4,445	
Overall width		1,695	
Overall height (unladen)		1,405	
Wheelbase		2,550	
Track-front		1,455	
Track-rear		1,475	
Body overhang			
Front		890	
Rear		1,005	
Ground clearance (unladen)		155	
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 5.5J	
Offset	mm	44	

## OUTLINE OF CHANGES

Items	Remarks
<b>BODY CONSTRUCTION</b> <ul style="list-style-type: none"> <li>● Brackets and reinforcements have been added to correspond to the adoption of diesel engines. (Headlamp support, roof)</li> <li>● Special parts for sedan have been established for use in the following places: Side body, rear deck, rear end panel, rear floor, roof, rear door</li> <li>● Silencer installation locations have been established for vehicles with diesel engines.</li> </ul>	DA4A  Sedan  DA4A
<b>BODY DIMENSIONS</b> <ul style="list-style-type: none"> <li>● Standard dimensions for sedan have been established.</li> </ul>	Sedan
<b>WELDED PANEL REPLACEMENT</b> <ul style="list-style-type: none"> <li>● The following welding points have been established for sedan: Quarter outer, rear floor, rear end panel, quarter inner, roof panel</li> </ul>	
<b>CORROSION PROTECTION</b> <ul style="list-style-type: none"> <li>● Sealant application locations have been established for sedan.</li> </ul>	
<b>SYNTHETIC-RESIN PARTS</b> <ul style="list-style-type: none"> <li>● Synthetic-resin part locations have been established for sedan.</li> </ul>	
<b>BODY COLOUR</b> <ul style="list-style-type: none"> <li>● Body colours have been established for sedan.</li> </ul>	
<b>WIRING AND PIPING DIAGRAM</b> <ul style="list-style-type: none"> <li>● Wiring configuration diagrams have been established for sedan.</li> </ul>	
<b>REFERENCE MATERIAL</b> <ul style="list-style-type: none"> <li>● Trunk lid fitting procedures have been established.</li> </ul>	

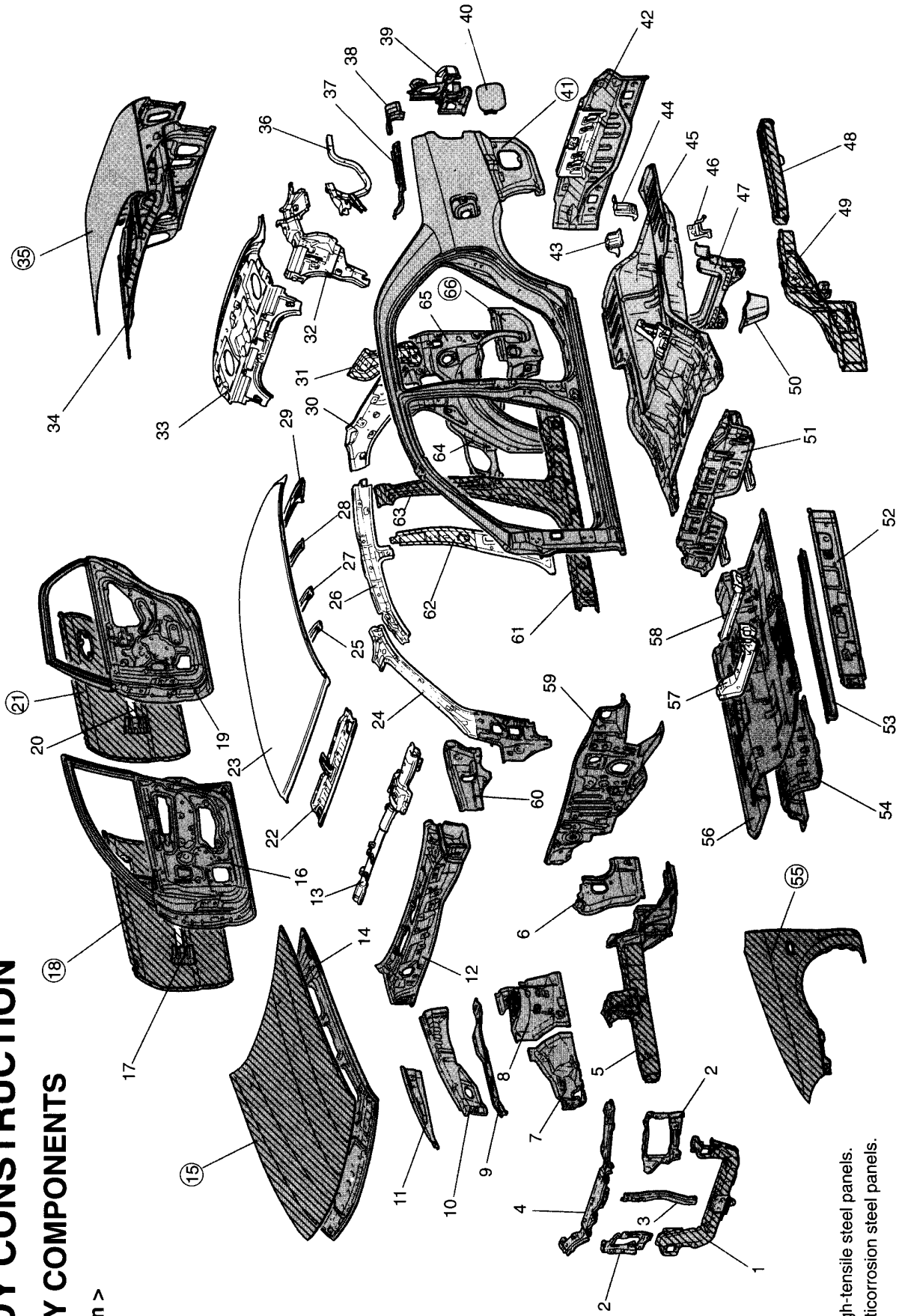
# 1 BODY CONSTRUCTION



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# BODY CONSTRUCTION

## BODY COMPONENTS

< Sedan >



-  : High-tensile steel panels.
-  : Anticorrosion steel panels.

**NOTES**

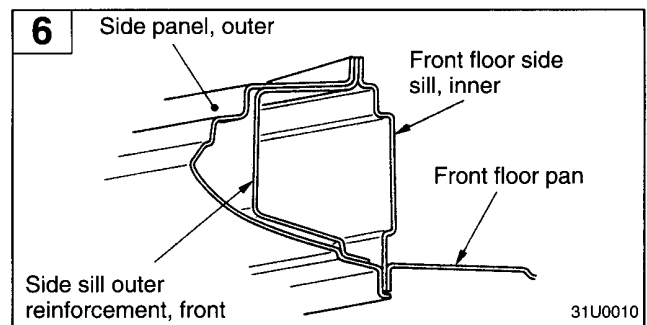
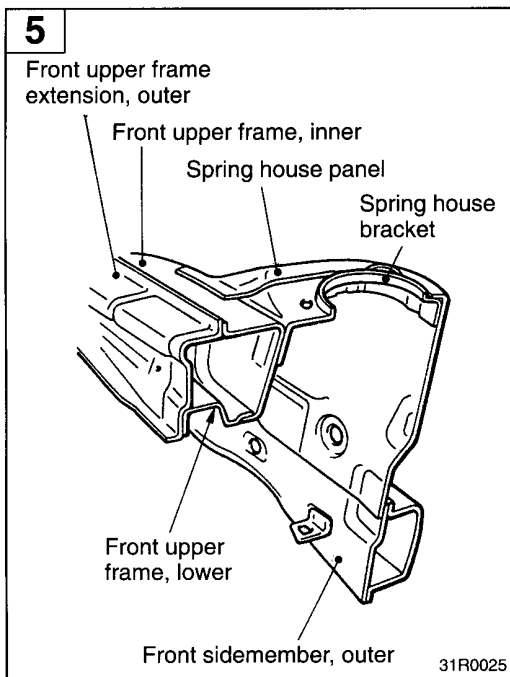
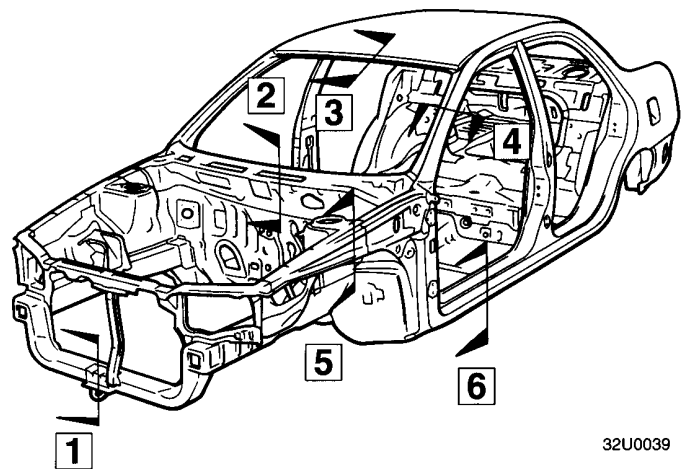
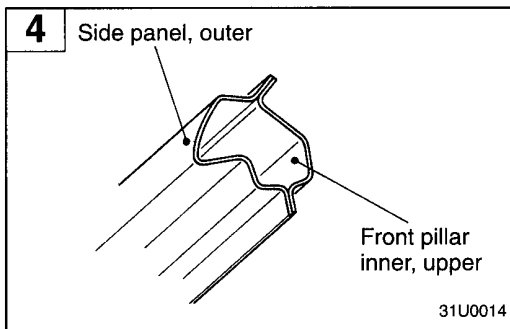
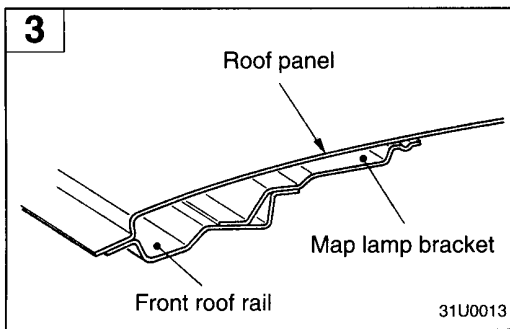
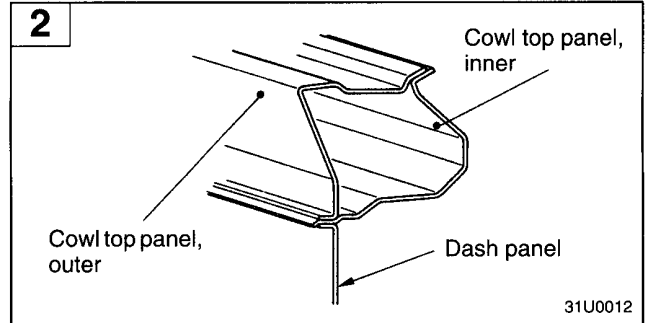
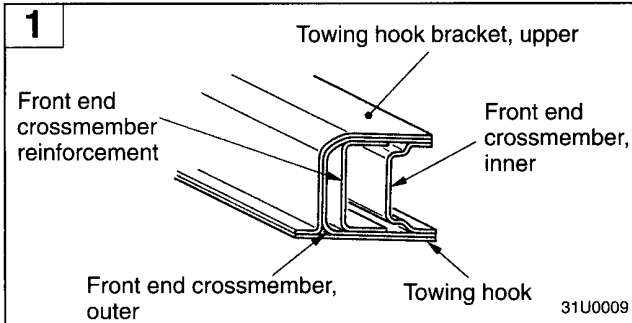
Number with ○ indicates steel panels which have been galvanized on both sides, and which have a flush plating with outstanding paint finish on the surfaces.

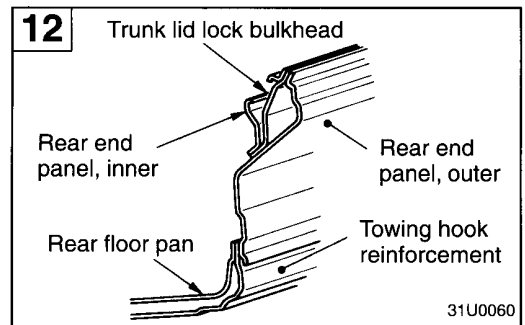
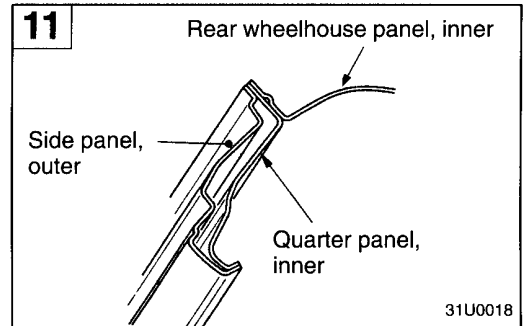
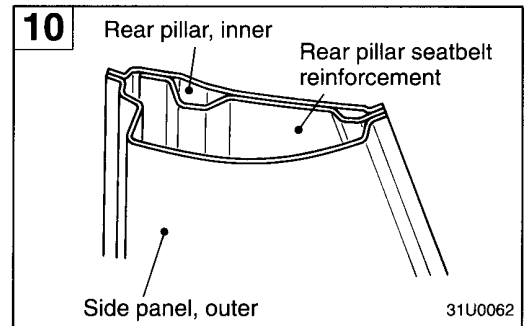
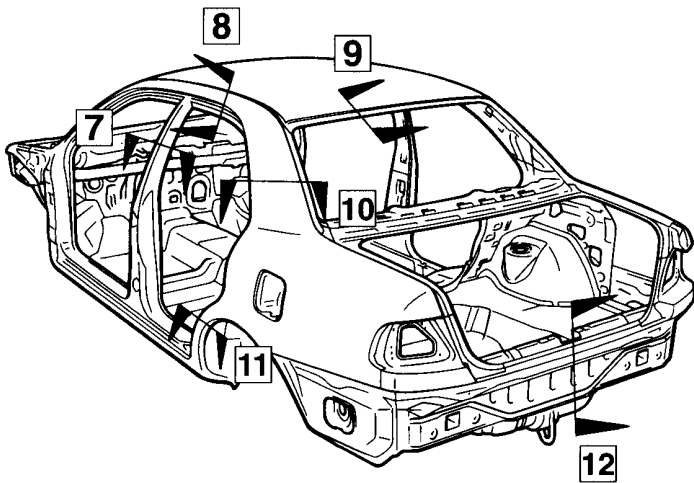
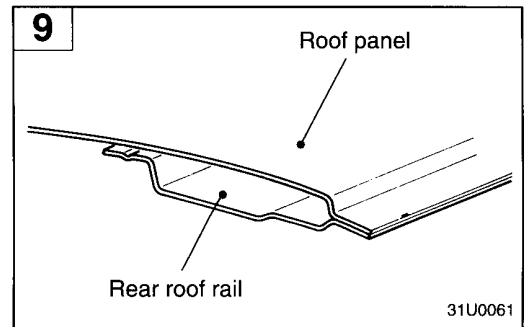
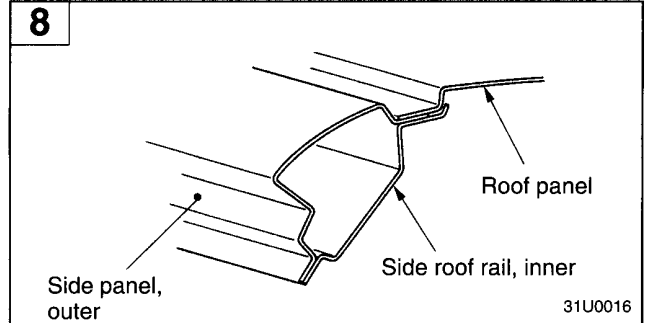
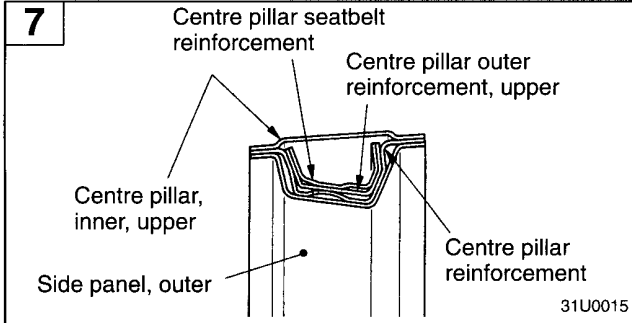
- |  |  |  |
|--|--|--|
| 1. Front end crossmember               | 23. Roof panel                         | 45. Rear floor pan                     |
| 2. Headlamp support panel              | 24. Front pillar, inner                | 46. Muffler hanger, centre             |
| 3. Hood lock stay                      | 25. Roof bow, front                    | 47. Rear floor crossmember             |
| 4. Front end upper bar                 | 26. Side roof rail, inner              | 48. Rear floor sidemember extension    |
| 5. Front sidemember                    | 27. Roof bow, centre                   | 49. Rear floor sidemember              |
| 6. Front floor side sill, inner, front | 28. Roof bow, rear                     | 50. Fuel tank rear bracket             |
| 7. Front fender shield                 | 29. Rear roof rail, inner              | 51. Rear floor extension               |
| 8. Spring house panel                  | 30. Rear pillar, inner                 | 52. Front floor side sill, inner       |
| 9. Front upper frame, lower            | 31. Rear pillar seatbelt reinforcement | 53. Front floor sidemember             |
| 10. Front upper frame, inner           | 32. Rear seat back brace               | 54. Backbone reinforcement             |
| 11. Front upper frame, outer           | 33. Rear shelf panel                   | 55. Front fender                       |
| 12. Cowl top panel                     | 34. Trunk lid panel, inner             | 56. Front floor pan                    |
| 13. Front deck crossmember             | 35. Trunk lid panel, outer             | 57. Front floor crossmember, front     |
| 14. Hood panel, inner                  | 36. Trunk lid hinge                    | 58. Front floor crossmember, rear      |
| 15. Hood panel, outer                  | 37. Quarter outer extension, upper     | 59. Dash panel                         |
| 16. Front door inner panel             | 38. Quarter outer extension, lower     | 60. Front upper frame extension, outer |
| 17. Front side door beam               | 39. Rear combination lamp housing      | 61. Side sill outer reinforcement      |
| 18. Front door outer panel             | 40. Fuel filler door panel             | 62. Centre pillar, inner               |
| 19. Rear door inner panel              | 41. Side panel, outer                  | 63. Centre pillar reinforcement        |
| 20. Rear side door beam                | 42. Rear end panel                     | 64. Rear wheelhouse, inner             |
| 21. Rear door outer panel              | 43. Spare tire bracket                 | 65. Quarter panel, inner               |
| 22. Front roof rail                    | 44. Jack bracket                       | 66. Rear floor side brace              |

**BODY CONSTRUCTION CHARACTERISTICS**

**BODY MAIN CROSS-SECTIONAL VIEWS**

< Sedan >





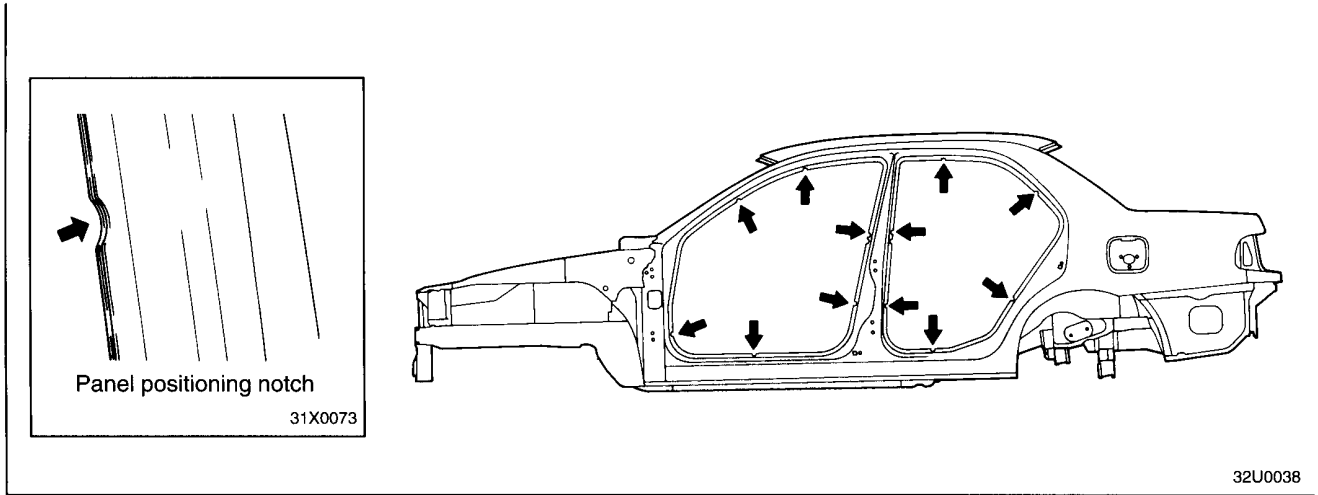


**MAINTENANCE, SERVICEABILITY**

**SIDE STRUCTURE**

< Sedan >

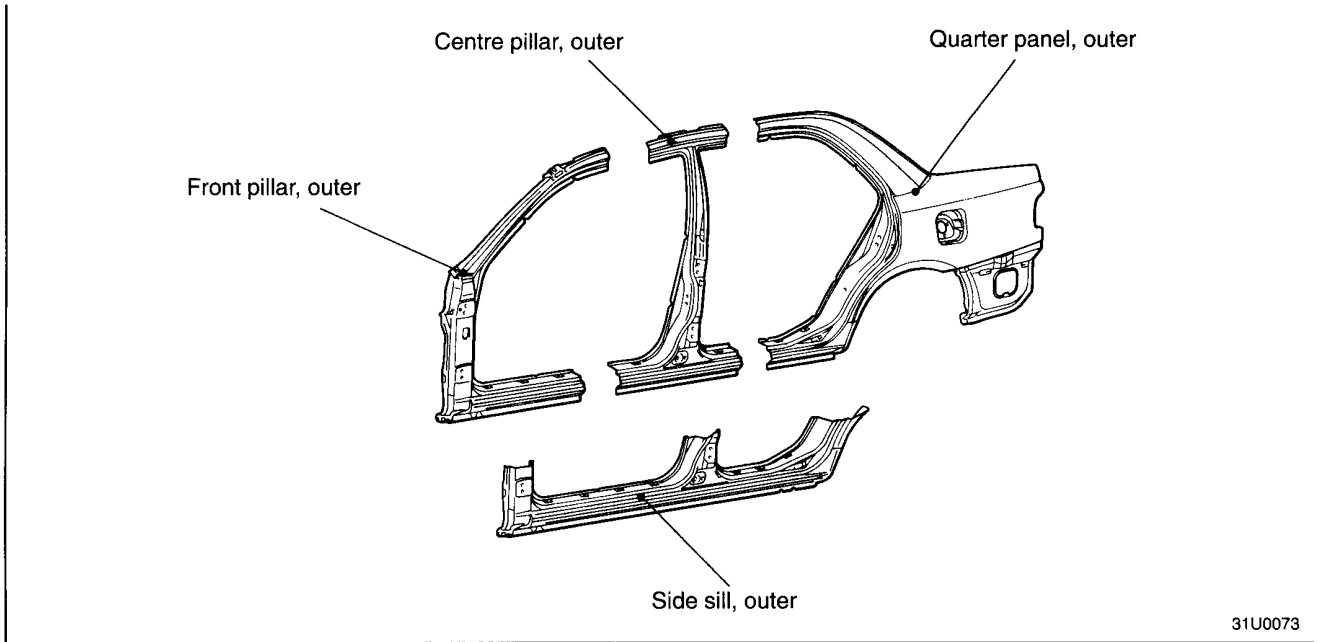
The door opening section is provided with panel positioning notches to improve workability when replacing panels.



**SIDE OUTER PANEL**

< Sedan >

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

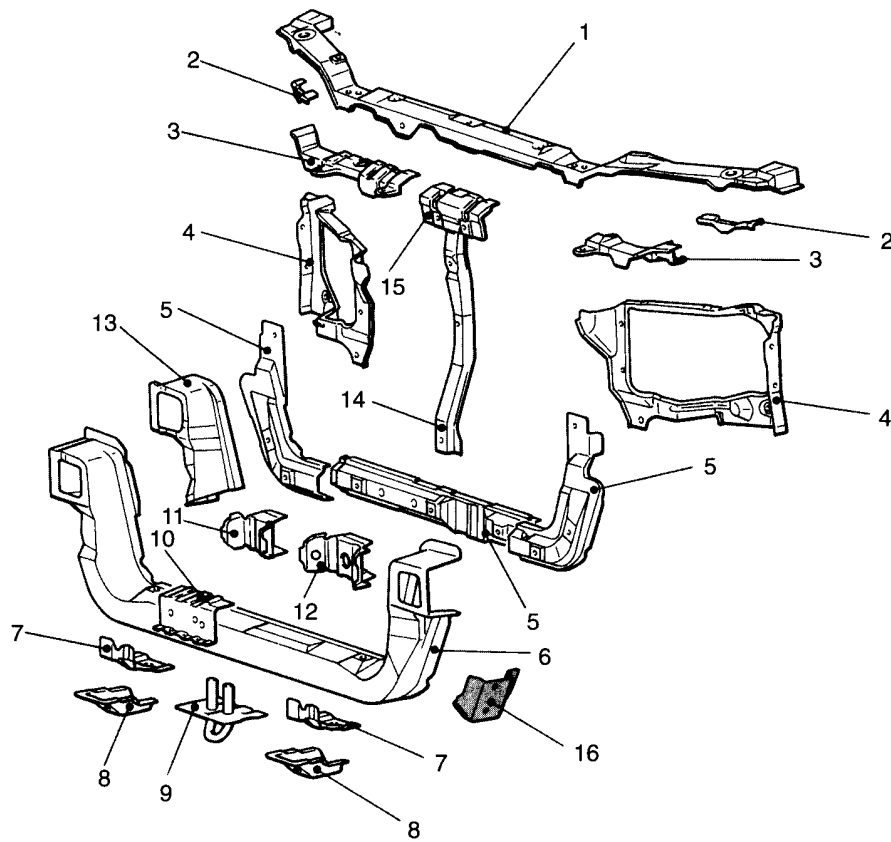


**FRONT BODY**

**HEADLAMP SUPPORT**

An intercooler stay bracket has been added to correspond to the addition of vehicles with diesel engine.

**(DA4A)**



31U0076

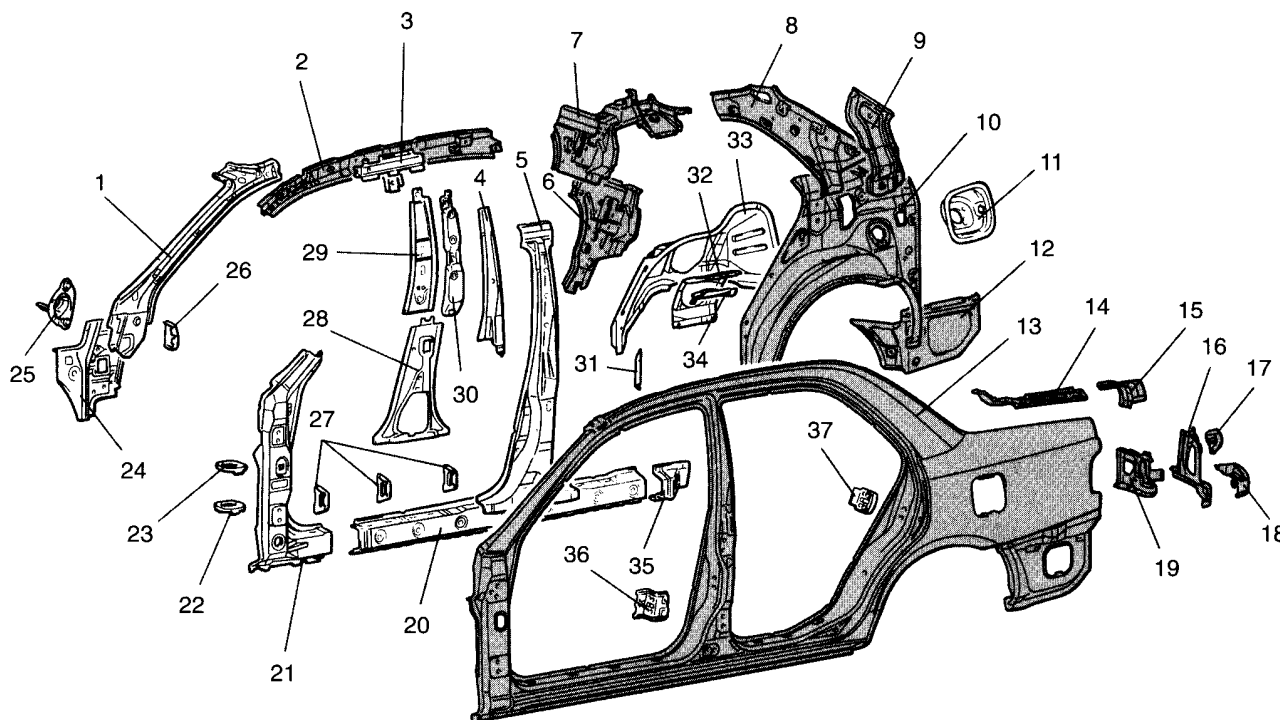
- |                                 |  |
|---------------------------------|--|
| 1. Front end upper bar          | 9. Towing hook                           |
| 2. Damper reinforcement         | 10. Towing hook bracket, upper           |
| 3. Radiator reinforcement, side | 11. Towing hook bulkhead                 |
| 4. Headlamp support panel       | 12. Front end crossmember reinforcement  |
| 5. Front end crossmember, inner | 13. Front end reinforcement, side, right |
| 6. Front end crossmember, outer | 14. Hood lock stay                       |
| 7. Radiator bracket (A)         | 15. Hood lock reinforcement              |
| 8. Radiator bracket (B)         | 16. Intercooler stay bracket             |

## SIDE BODY

## SIDE STRUCTURE

&lt; Sedan &gt;

The following special parts have been established to correspond to the adoption of sedan bodies.



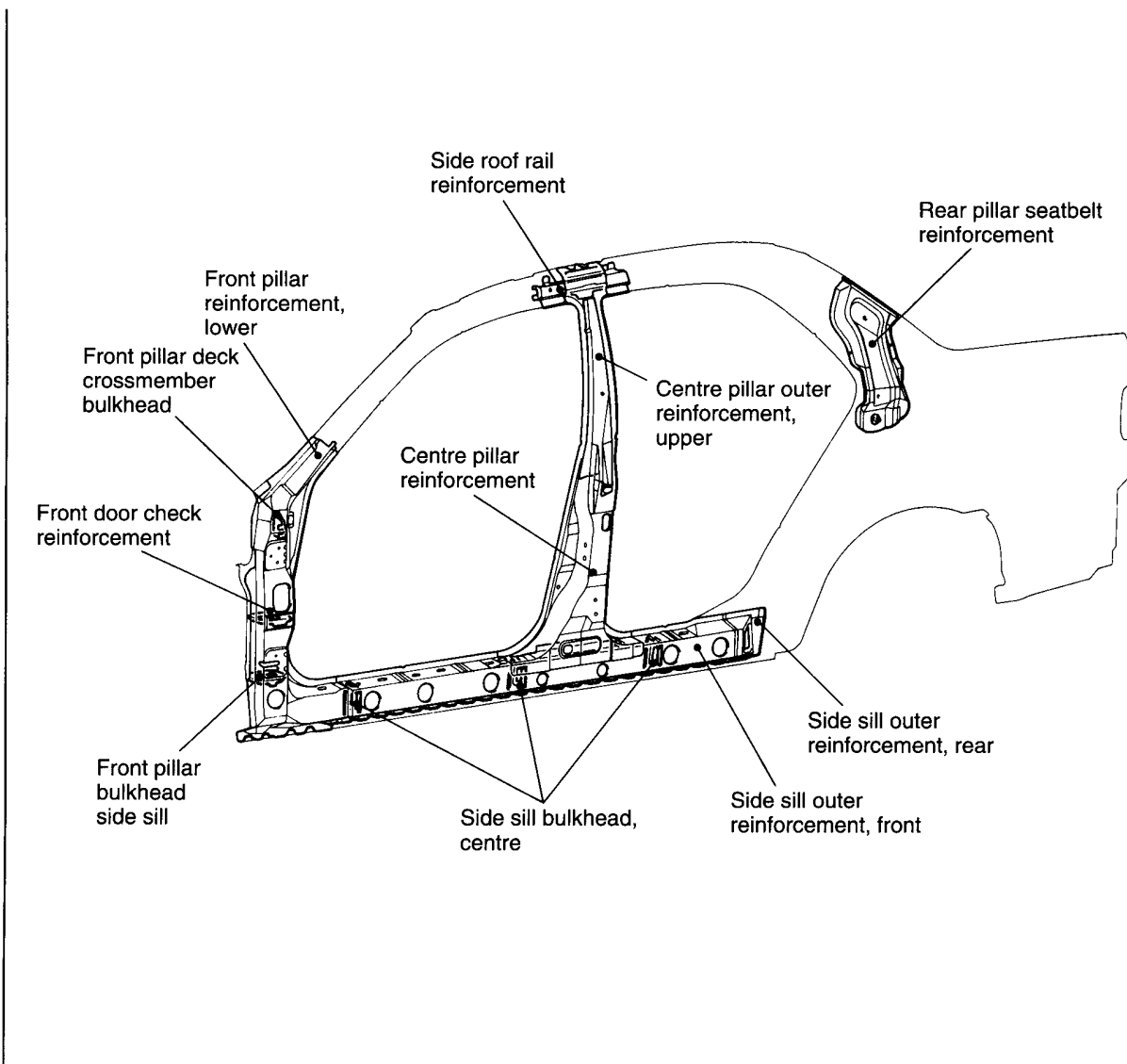
31U0072

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

**SIDE STRUCTURE REINFORCEMENTS**

< Sedan >

- (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 centre 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.

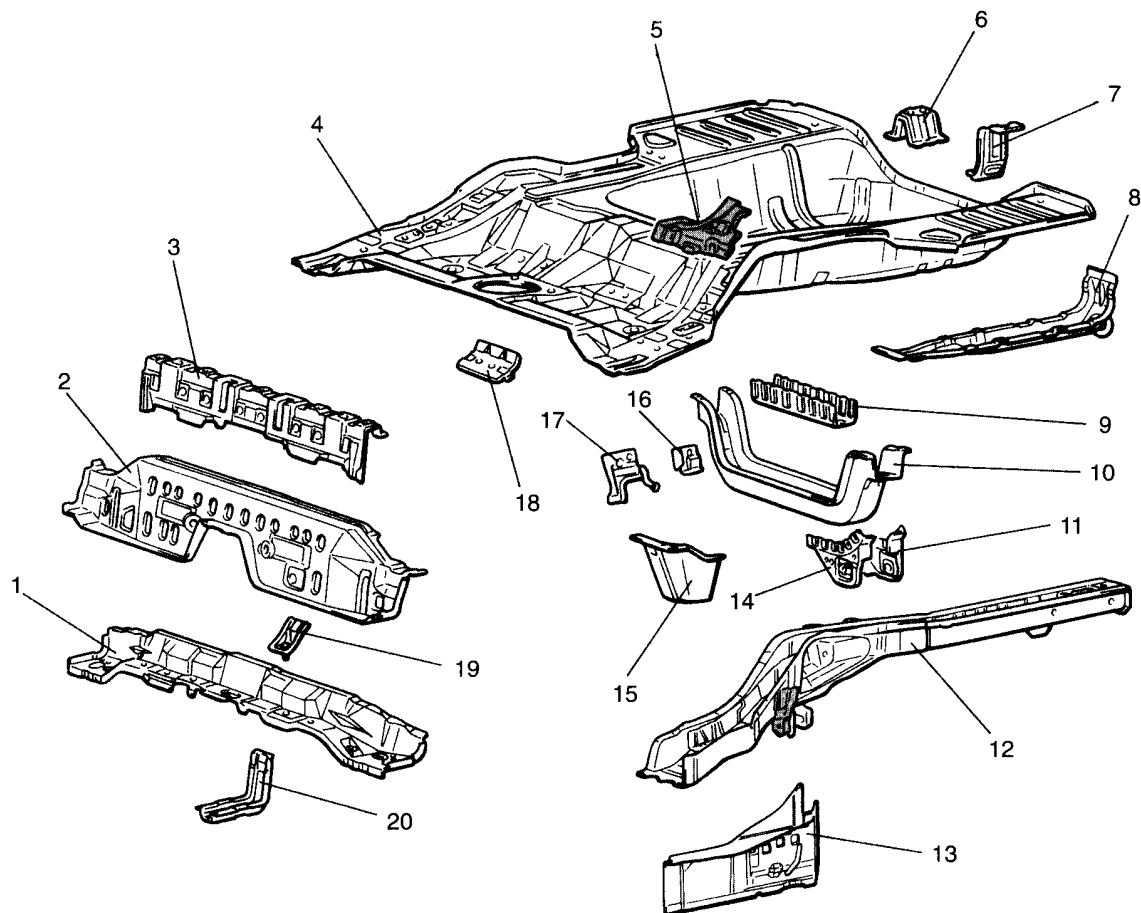


## UNDER BODY

## REAR FLOOR

&lt; Sedan &gt;

The following special parts have been established to correspond to the adoption of sedan bodies.



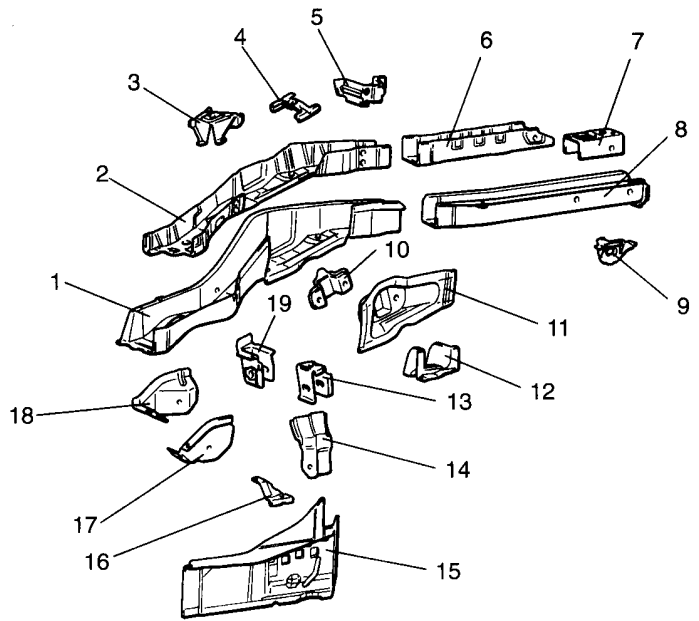
1. Rear seat crossmember
2. Rear floor extension
3. Rear seat crossmember, inner
4. Rear floor pan
5. Rear seatback reinforcement
6. Spare tire bracket
7. Jack bracket
8. Towing hook reinforcement
9. Rear floor crossmember reinforcement
10. Rear floor crossmember
11. Lower arm bracket, rear

12. Rear floor sidemember
13. Rear floor side sill
14. Lower arm bracket, front
15. Fuel tank bracket, rear
16. Muffler hanger, centre, inner
17. Muffler hanger, centre
18. Rear floor seatbelt reinforcement
19. Fuel tank reinforcement, front
20. Front floor sidemember extension

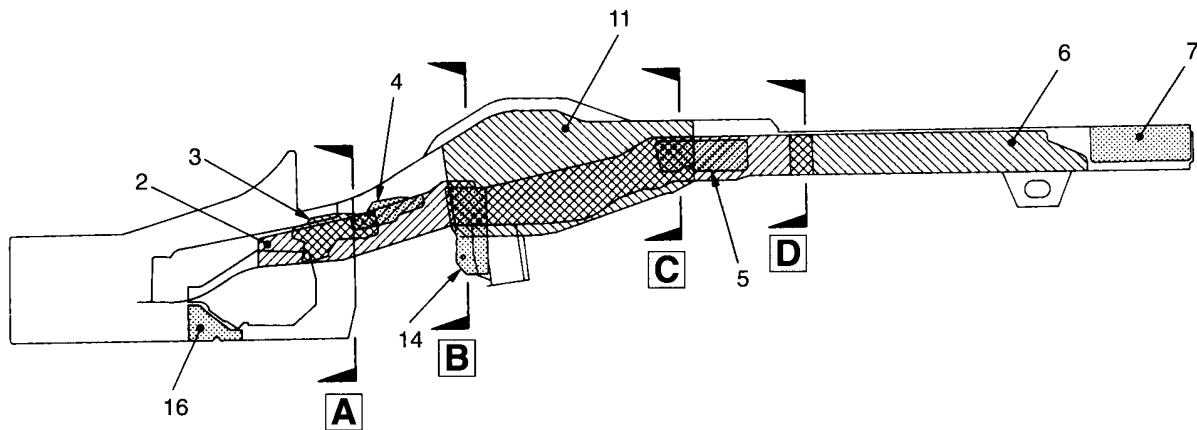
**REAR FLOOR SIDEMEMBER REINFORCEMENTS**

< Sedan >

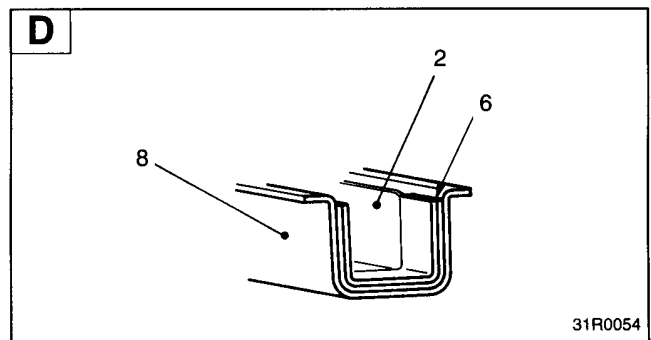
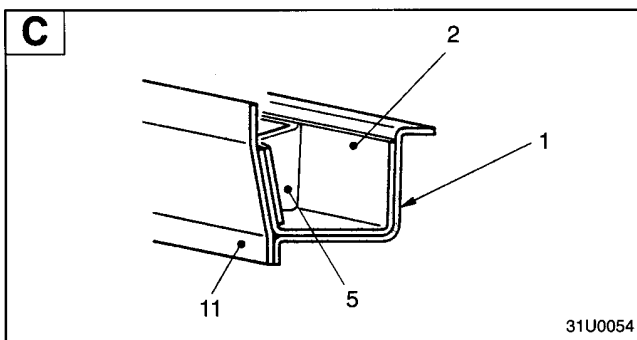
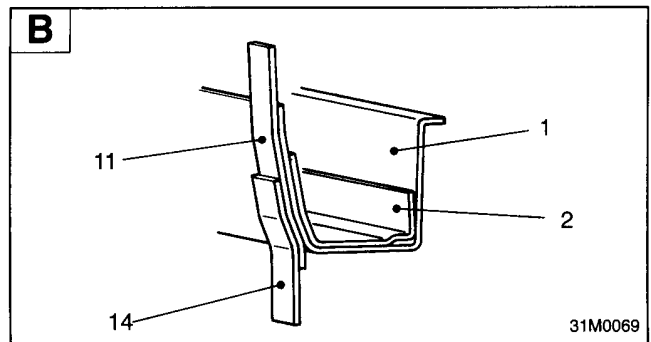
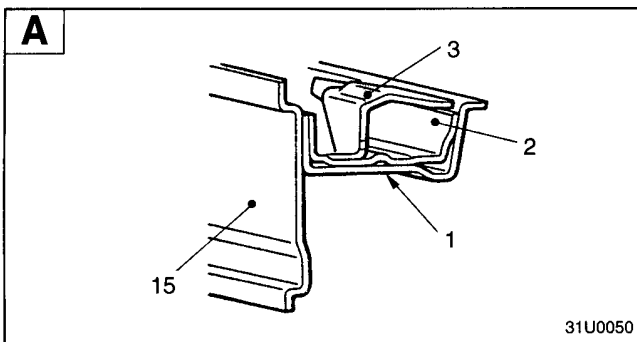
1. Rear floor sidemember
2. Rear floor sidemember reinforcement, front
3. Rear floor seatbelt reinforcement, side
4. Seatback reinforcement, side
5. Rear floor sidemember bulkhead
6. Rear floor sidemember reinforcement, rear
7. Rear bumper stay reinforcement
8. Rear floor sidemember extension
9. Shipping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



31U0065



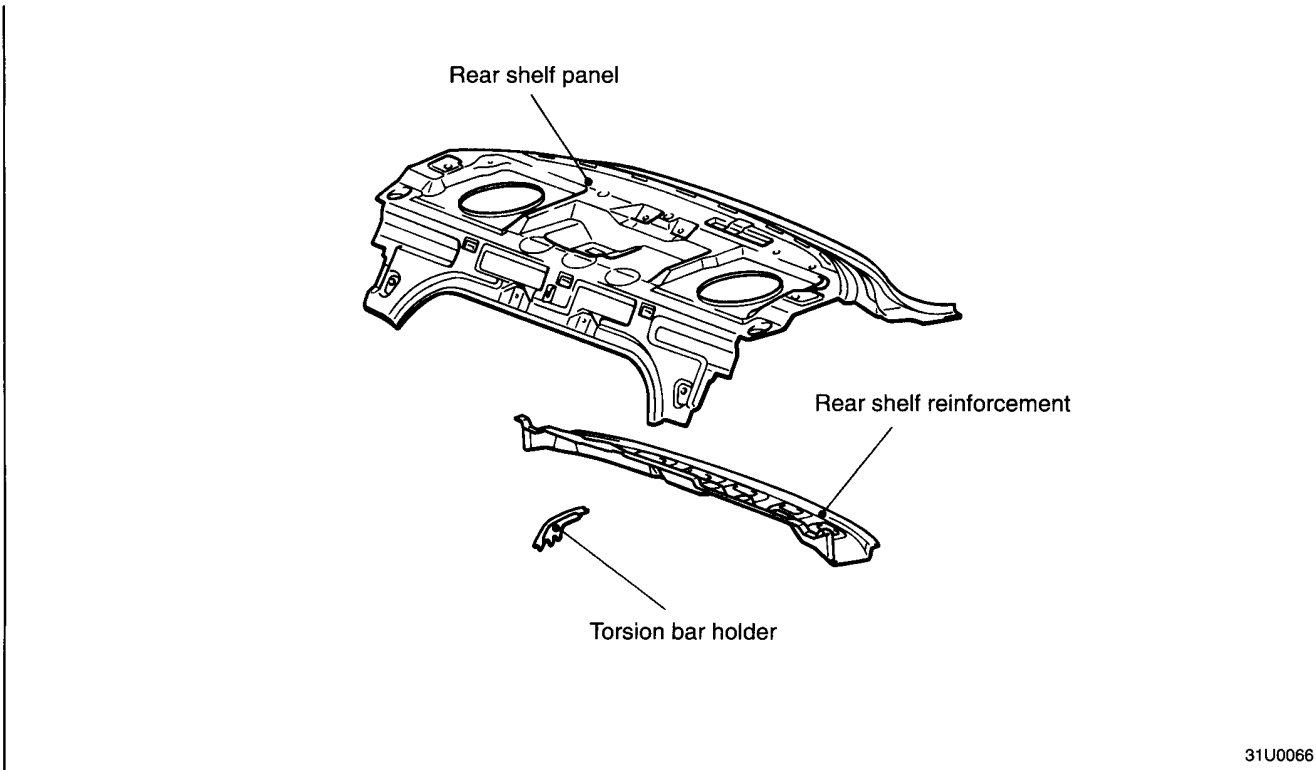
31U0063



REAR BODY

REAR DECK

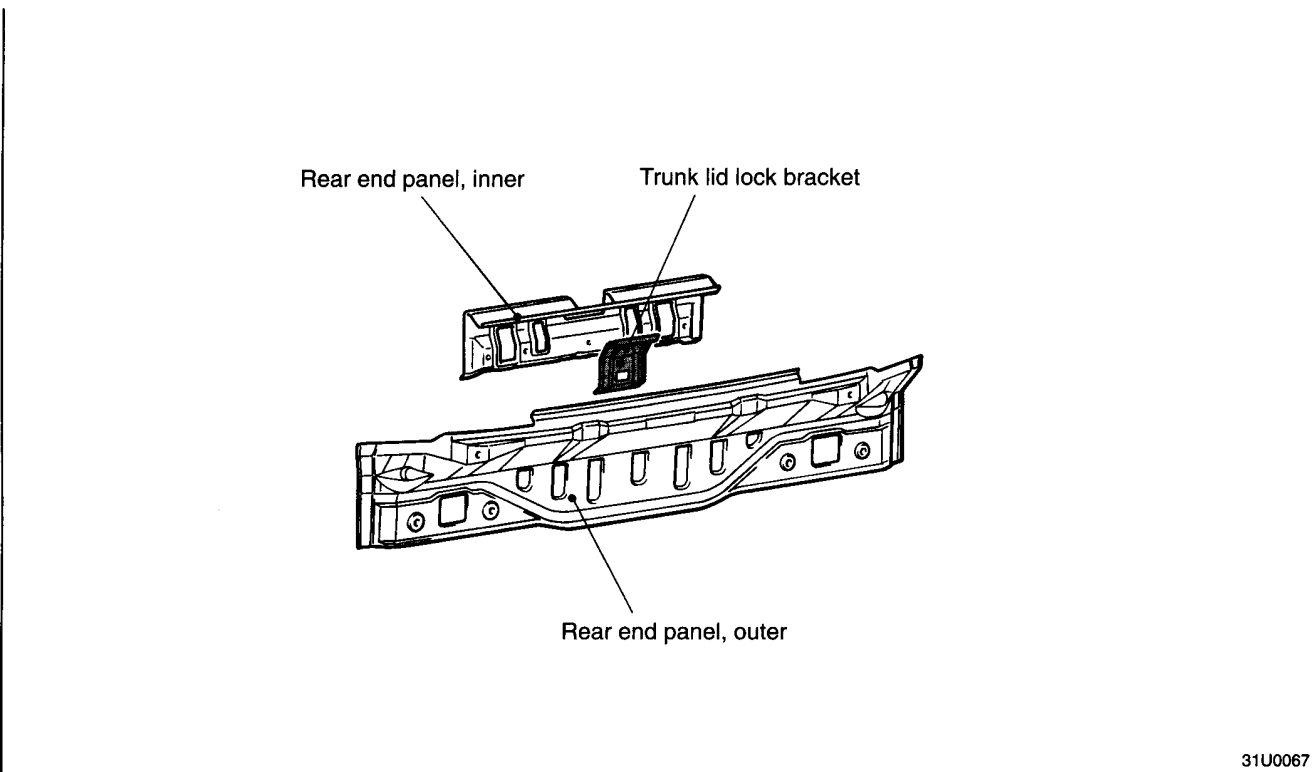
< Sedan >



REAR END PANEL

< Sedan >

A trunk lid lock bracket has been added to correspond to the adoption of sedan bodies.



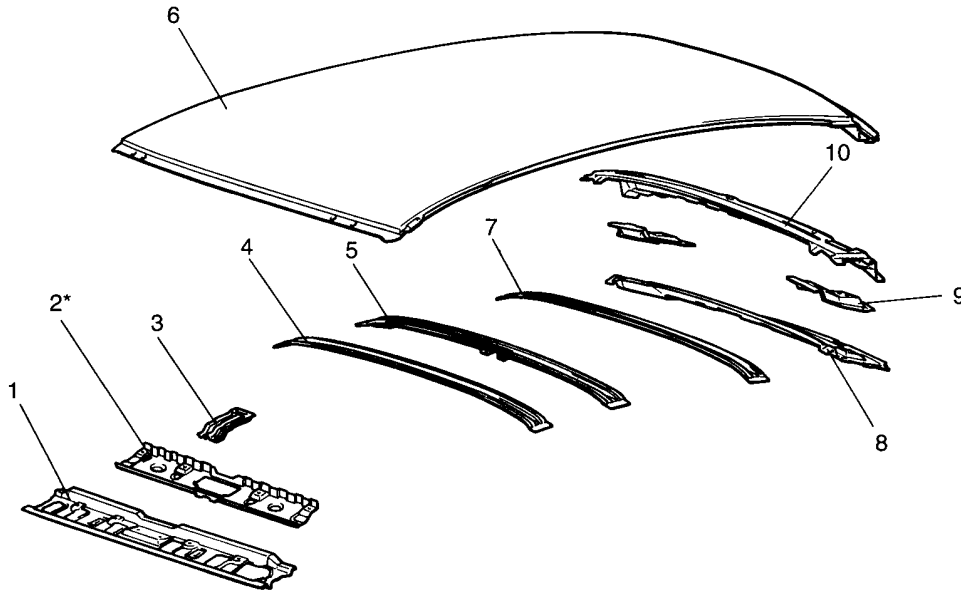
**ROOF**

**ROOF PANEL**

(1) A reinforcement has been added to the front roof rail to correspond to the addition of vehicles with diesel engine.

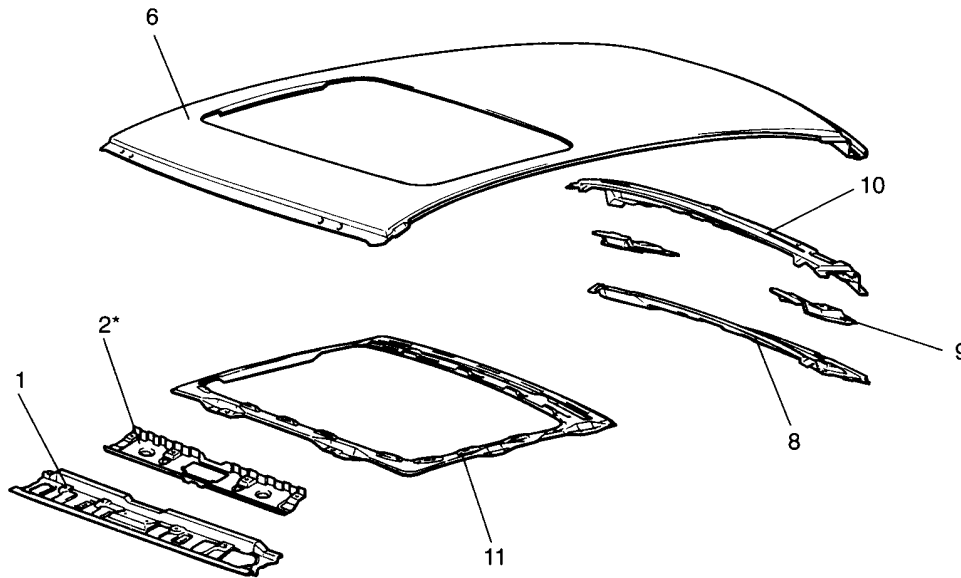
< Hatchback >

**Standard roof**



31U0068

**Sunroof**



31U0069

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>1. Front roof rail</li> <li>2. Front roof rail reinforcement<br/>(Diesel-powered vehicles)</li> <li>3. Map lamp bracket</li> <li>4. Roof bow, front</li> <li>5. Roof bow, centre</li> </ul> | <ul style="list-style-type: none"> <li>6. Roof panel</li> <li>7. Roof bow, rear</li> <li>8. Rear roof rail, inner</li> <li>9. Rear roof rail hinge, reinforcement</li> <li>10. Rear roof rail, outer</li> <li>11. Roof panel reinforcement</li> </ul> |
|--|---|

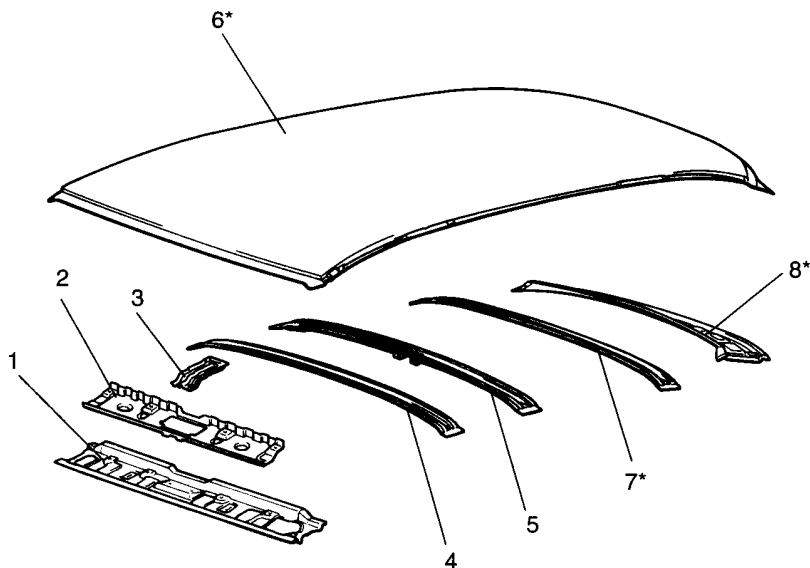
The \* mark indicates parts which have been added.



(2) The following special parts have been established to correspond to the adoption of sedan bodies.

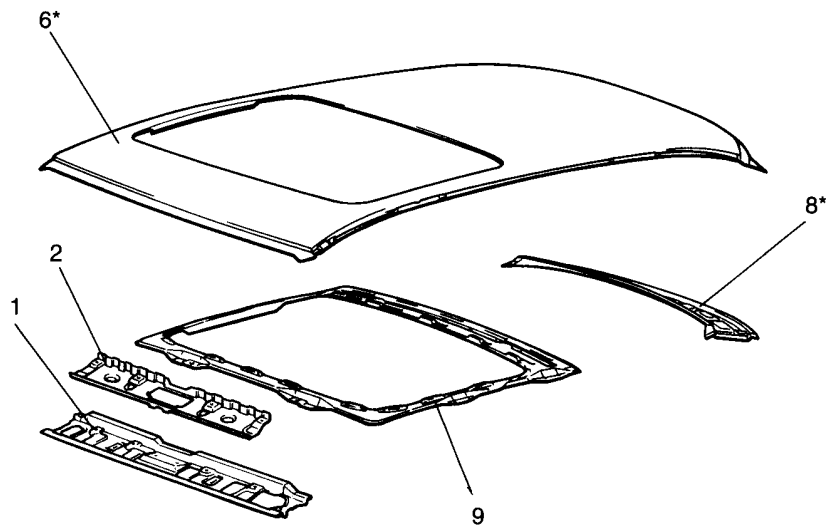
< Sedan >

Standard roof



31U0070

Sunroof



31U0071

- 1. Front roof rail
- 2. Front roof rail reinforcement  
(Diesel-powered vehicles)
- 3. Map lamp bracket
- 4. Roof bow, front
- 5. Roof bow, centre

- 6. Roof panel
- 7. Roof bow, rear
- 8. Rear roof rail, inner
- 9. Roof panel reinforcement

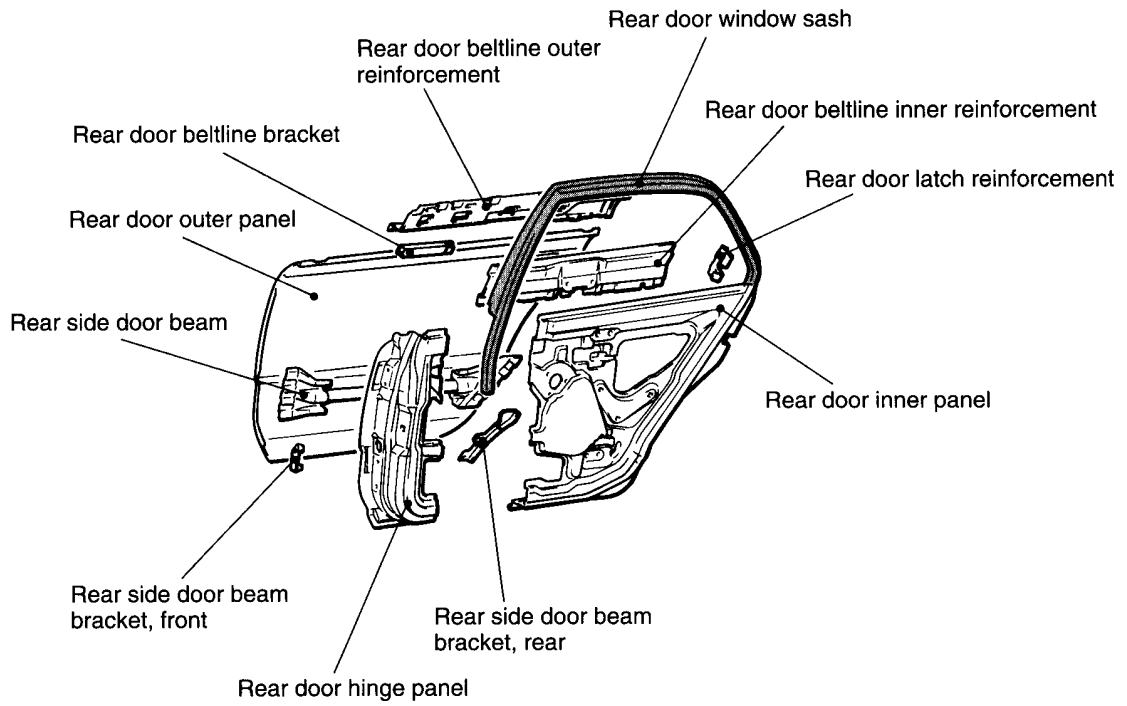
Parts marked \* are special parts for sedan only.

**DOOR**

The shape of the rear door window sash has been changed to correspond to the adoption of sedan bodies.

< Sedan >

**Rear door**

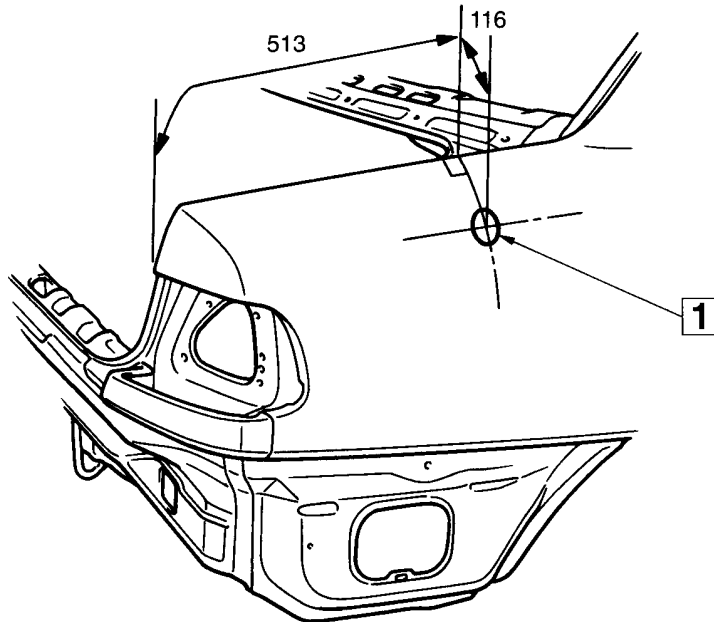


**NOTES REGARDING PANEL REPLACEMENT**

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

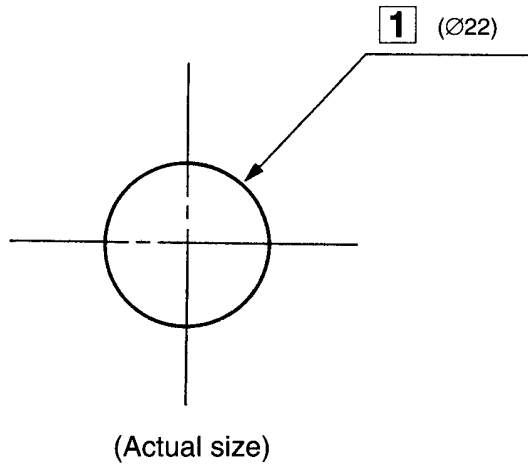
**QUARTER PANEL, OUTER (RIGHT SIDE)**

< Sedan >

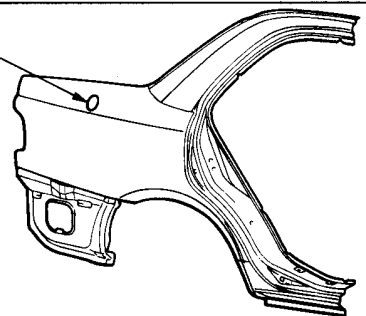


mm

31U0077



31U0053

Illustration	Hole name	Hole shape – Size mm
 <p style="text-align: right;">31U0079</p>	<p><b>1</b> Motor antenna installation hole</p>	<p>○ – 22</p>

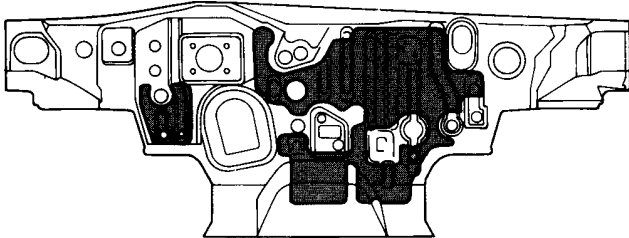
**SILENCER APPLICATION LOCATIONS**

< Vehicles with diesel engine >

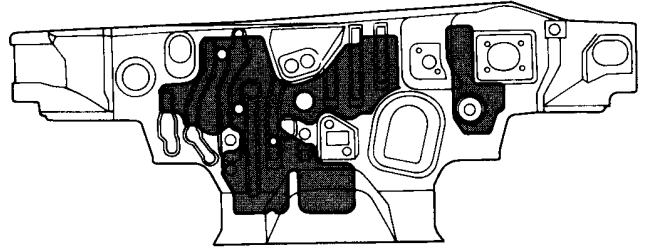
In order to reduce vibration and screen out heat from the exhaust gas, silencers (melting sheets) are applied to the top of the floor and to the passenger compartment side of the dash panel.

**L.H. drive vehicles**

**R.H. drive vehicles**



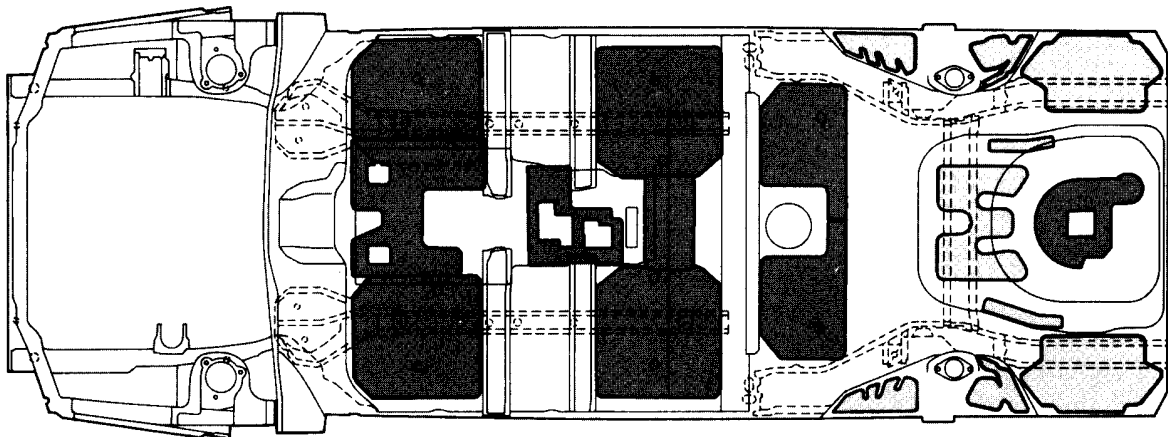
31U0040



31U0041

**Dash panel (Interior side)**

**Dash panel (Interior side)**

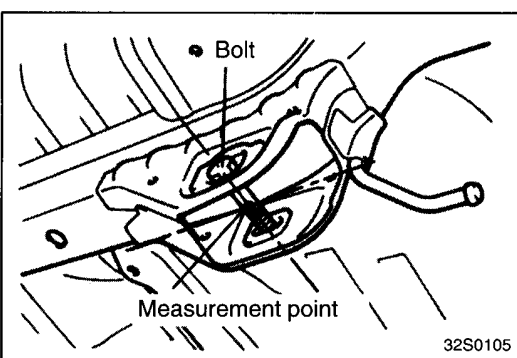
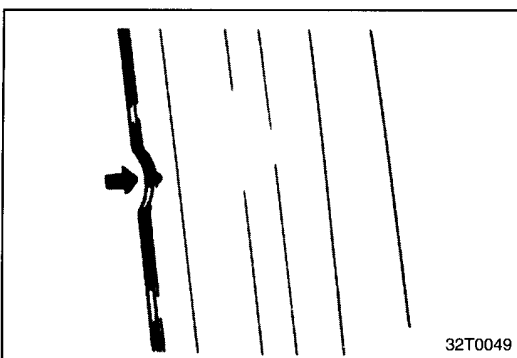
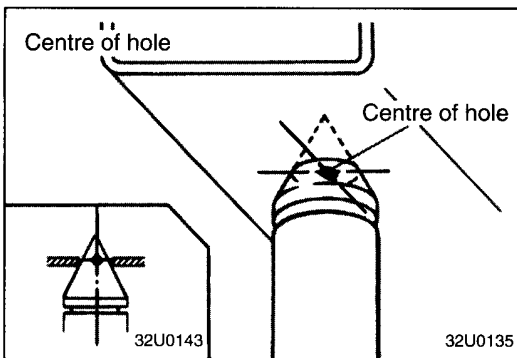
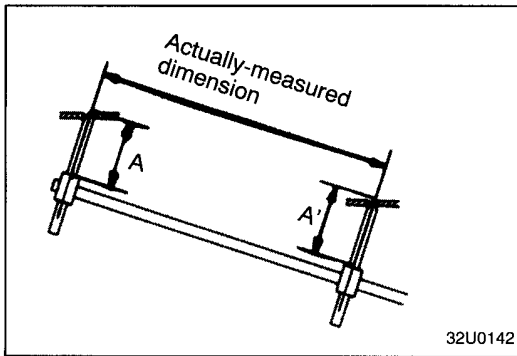
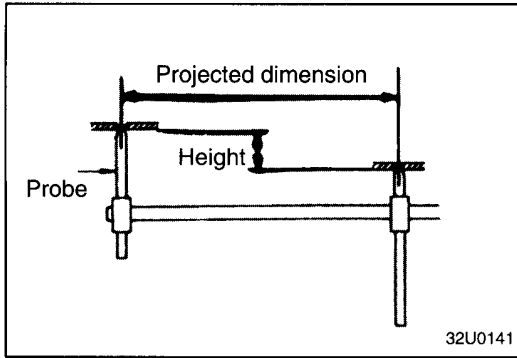


31U0042

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

# 2 BODY DIMENSIONS

<b>BODY DIMENSIONS AND MEASUREMENT</b>	
<b>METHODS</b> .....	2- 2
<b>&lt; SEDAN &gt;</b>	
<b>TYPE A</b>	
<b>(PROJECTED DIMENSIONS)</b> .....	2- 3
<b>UNDER BODY</b> .....	2- 3
<b>SUSPENSION INSTALLATION DIMENSIONS</b> .....	2- 4
<b>TYPE B</b>	
<b>(ACTUAL – MEASUREMENT DIMENSIONS)</b> .....	2- 5
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## 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  $\square$ , 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.

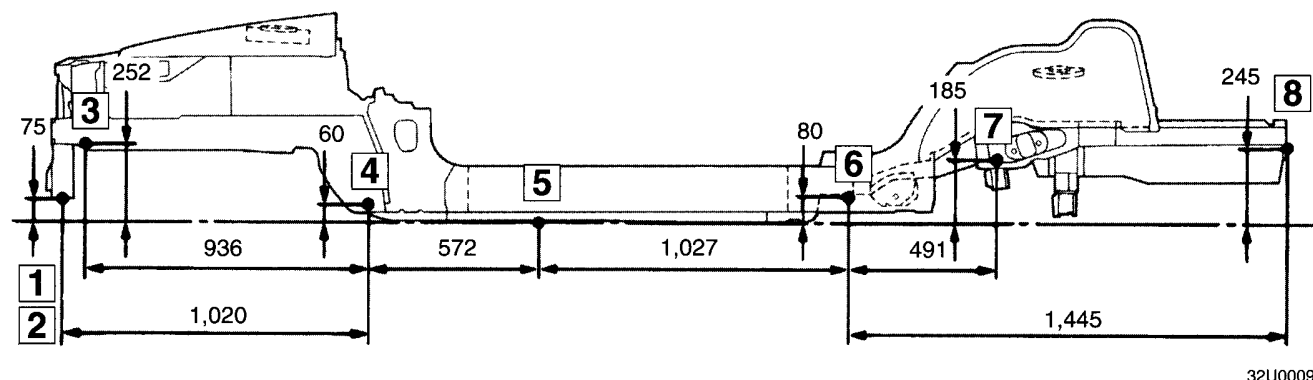
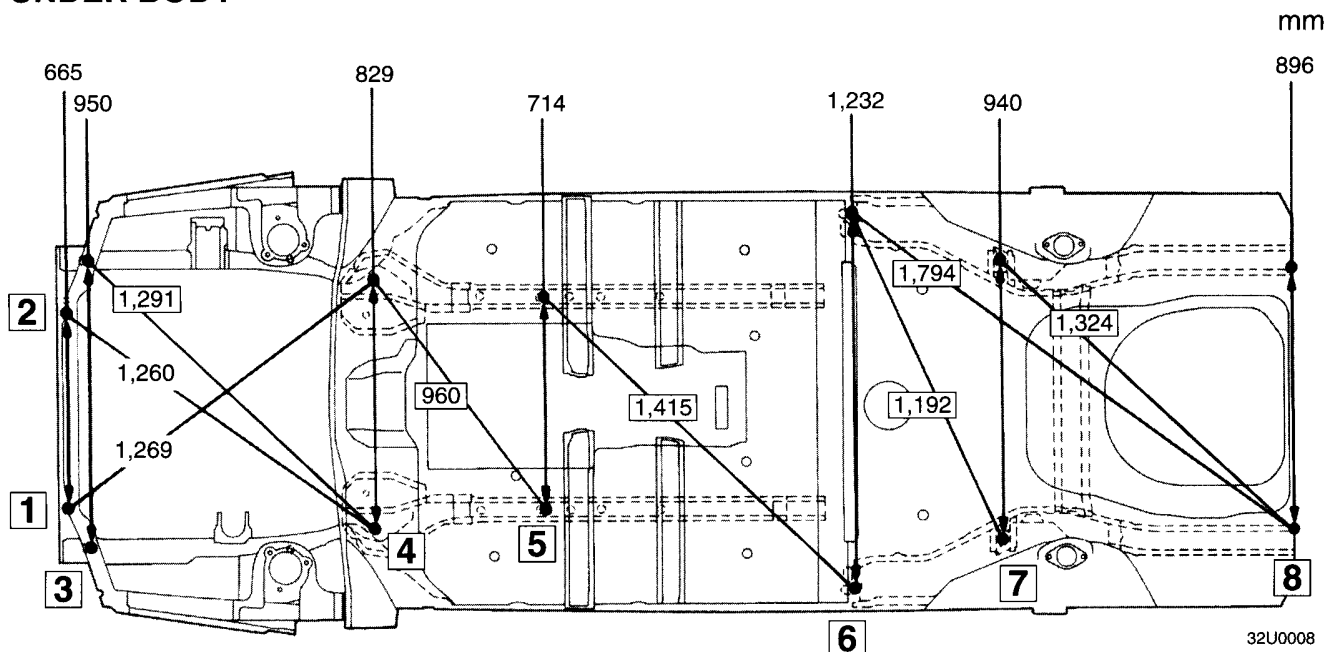
(6) When measuring the suspension mounting arm or the link mounting position, use the suspension mounting bolt as the measuring point.

### BODY CENTRE POINT

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

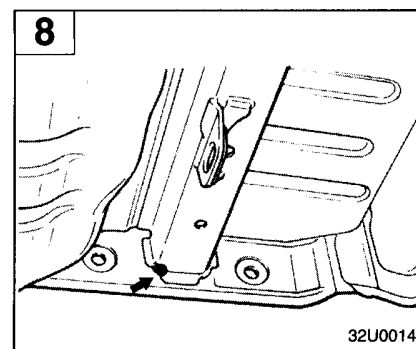
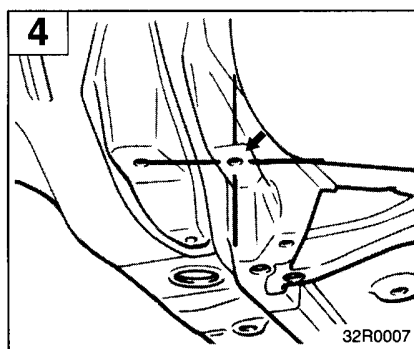
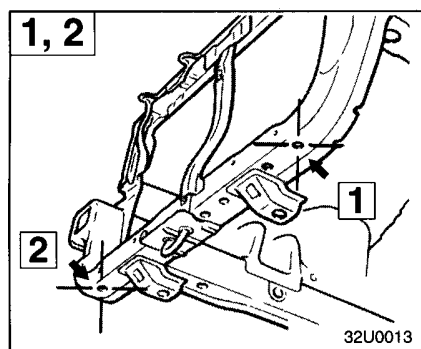
< SEDAN >  
TYPE A (PROJECTED DIMENSIONS)

UNDER BODY



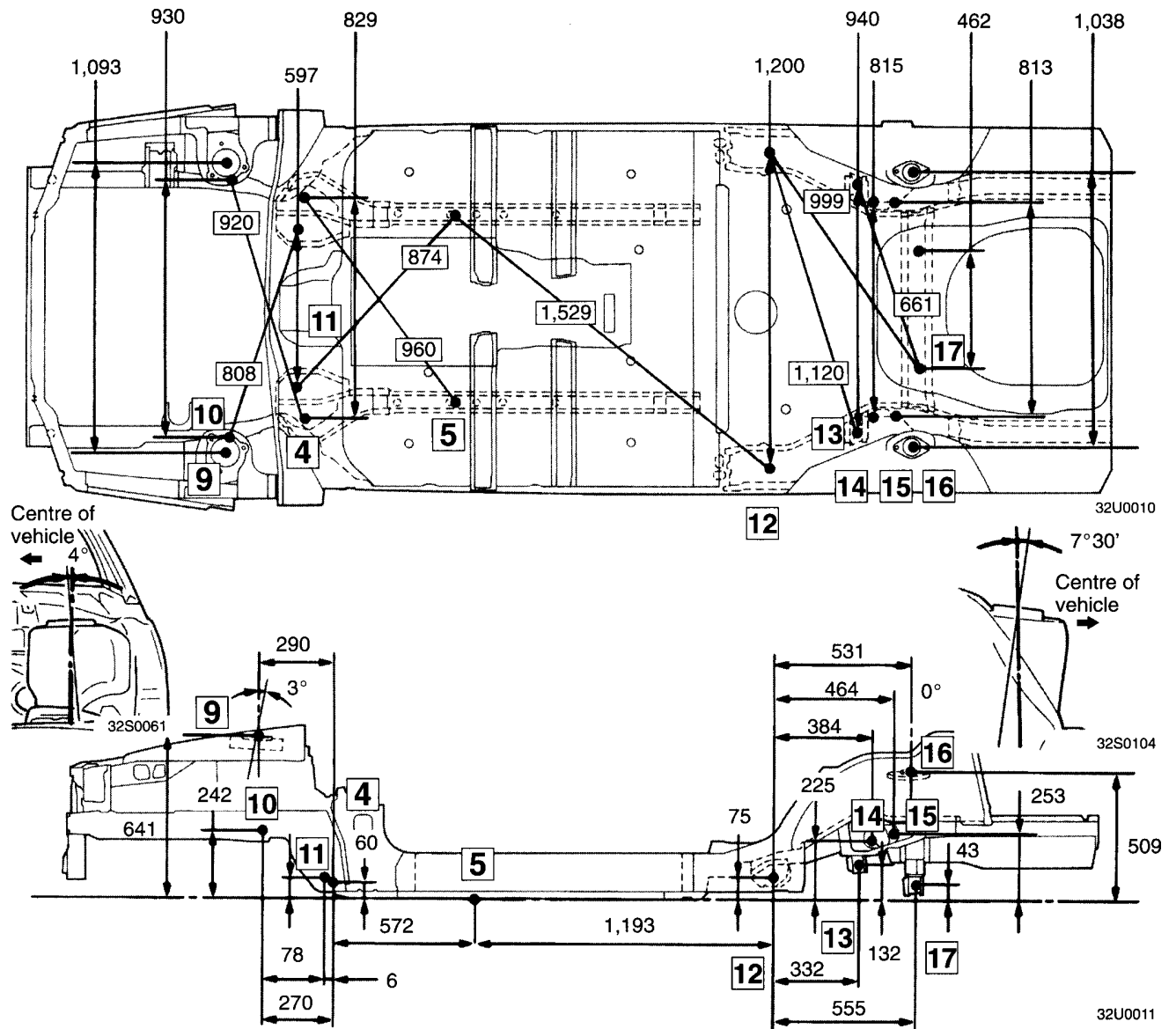
No.	Standard measurement point	Hole shape - Size mm	No.	Standard measurement point	Hole shape - Size mm
1	Centre of wax injection nozzle insertion hole	○ - 16	*5	Rear portion of front floor sidemember positioning hole	○ - 25
2	Centre of front bumper mounting hole	○ - 13	*6	Rear portion of rear seat crossmember 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.

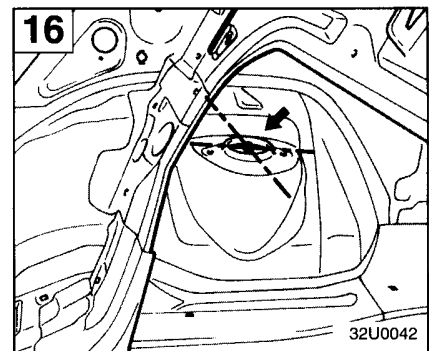
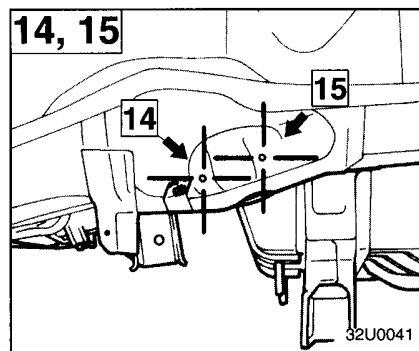
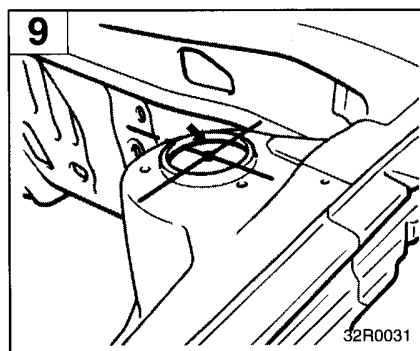


SUSPENSION INSTALLATION DIMENSIONS

mm



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

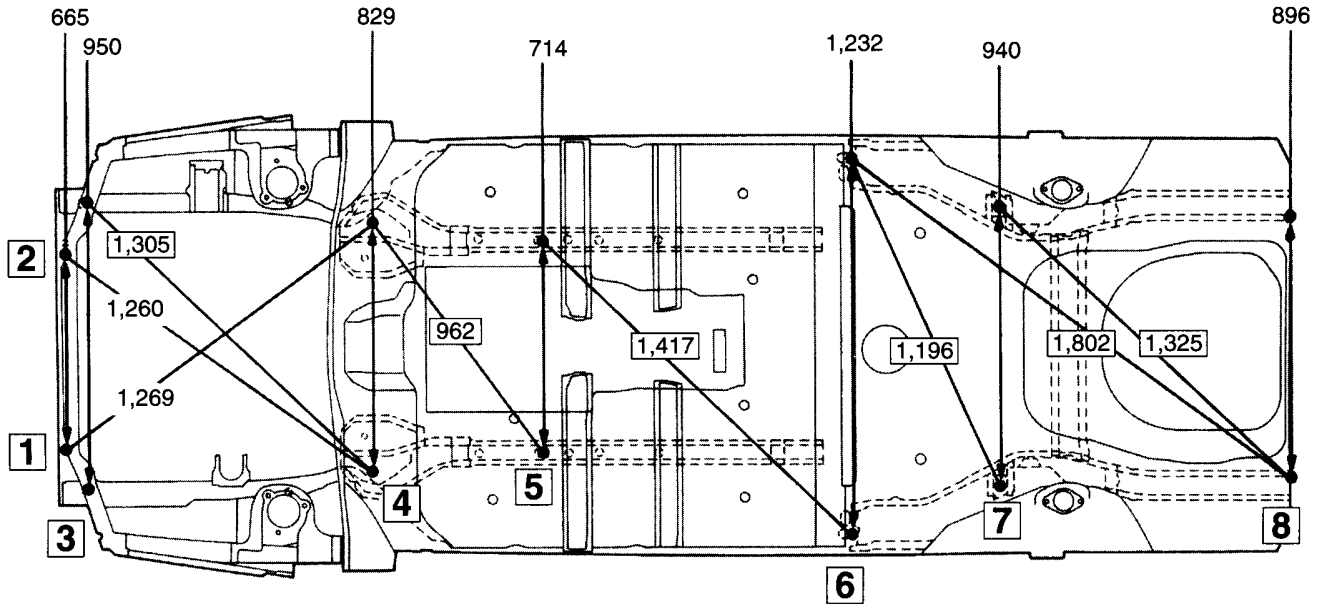




## TYPE B (ACTUAL-MEASUREMENT DIMENSIONS)

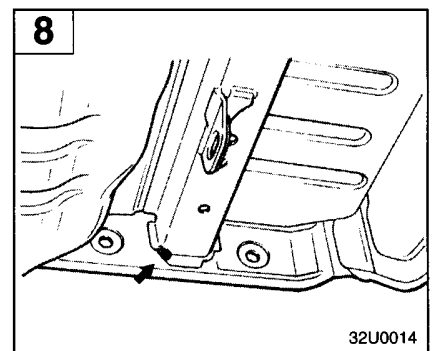
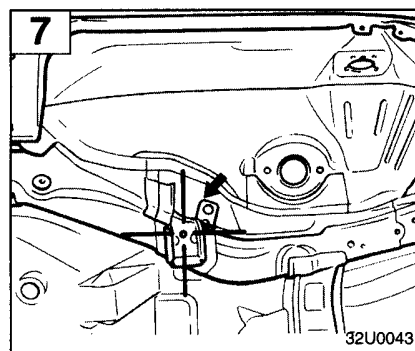
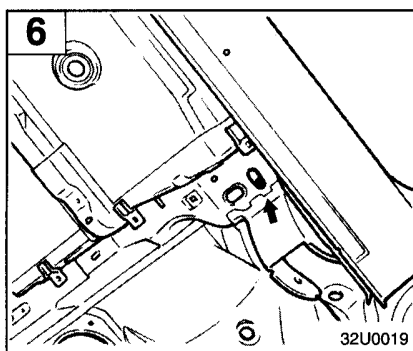
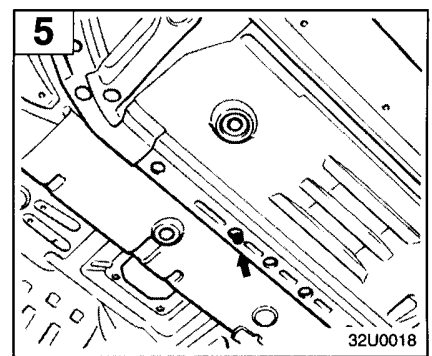
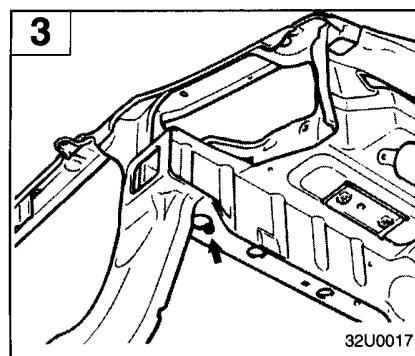
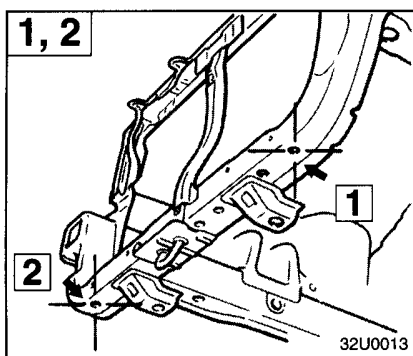
### UNDER BODY

mm



32U0008

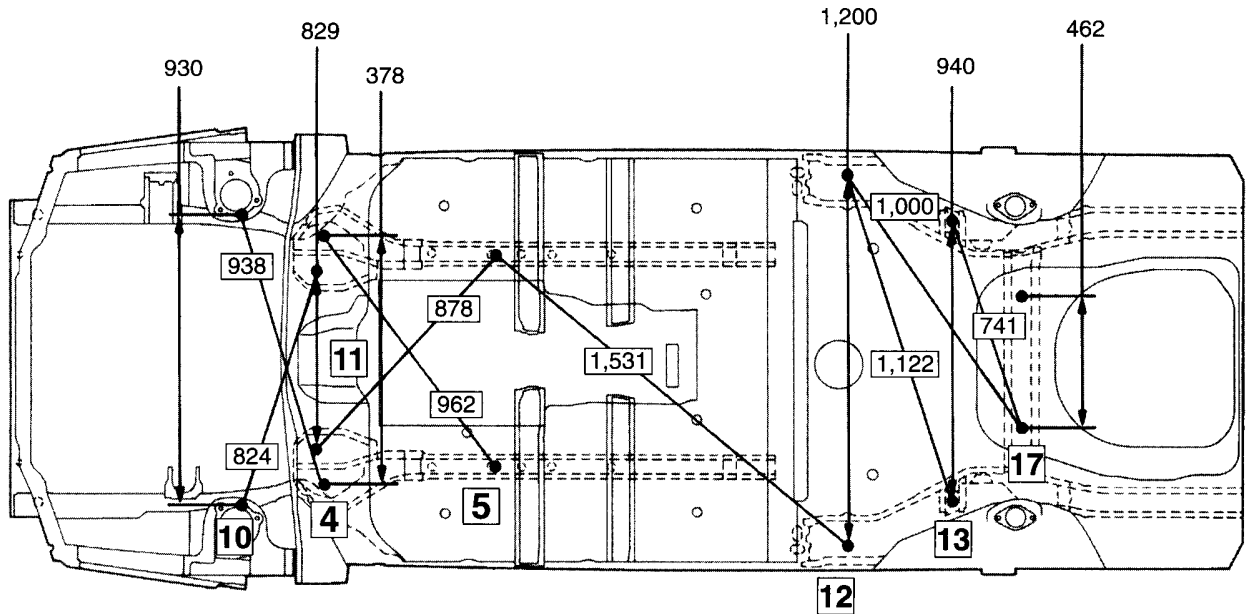
No.	Standard measurement point	Hole shape – Size mm	No.	Standard measurement point	Hole shape – Size mm
1	Centre of wax injection nozzle insertion hole	○ – 16	5	Rear portion of front floor sidemember positioning hole	○ – 25
2	Centre of front bumper mounting hole	○ – 13	6	Rear portion of rear seat crossmember 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	–



## 2-6 BODY DIMENSIONS – Type B (Actual-measurement Dimensions) < Sedan >

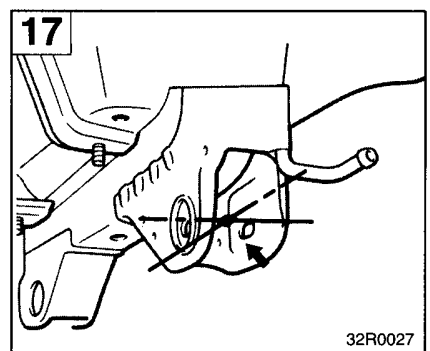
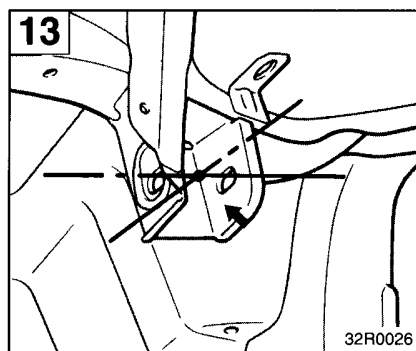
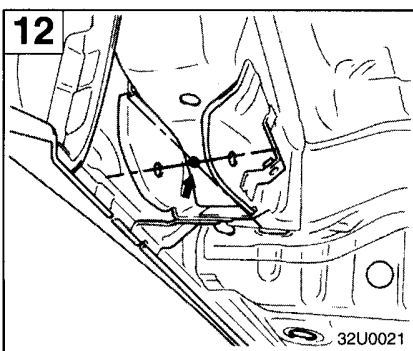
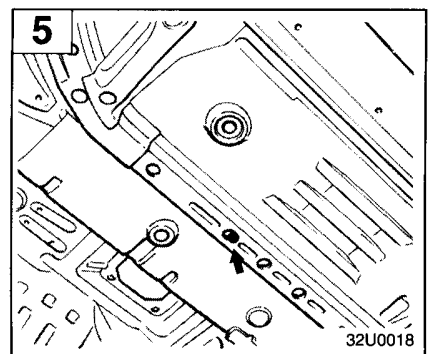
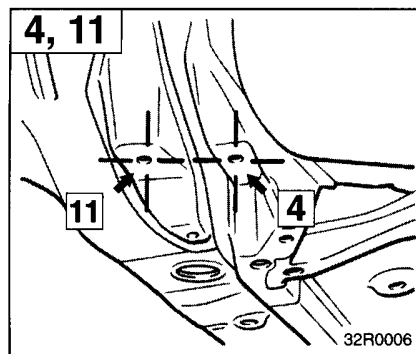
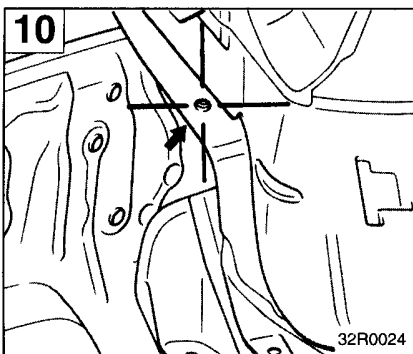
### SUSPENSION INSTALLATION DIMENSIONS

mm

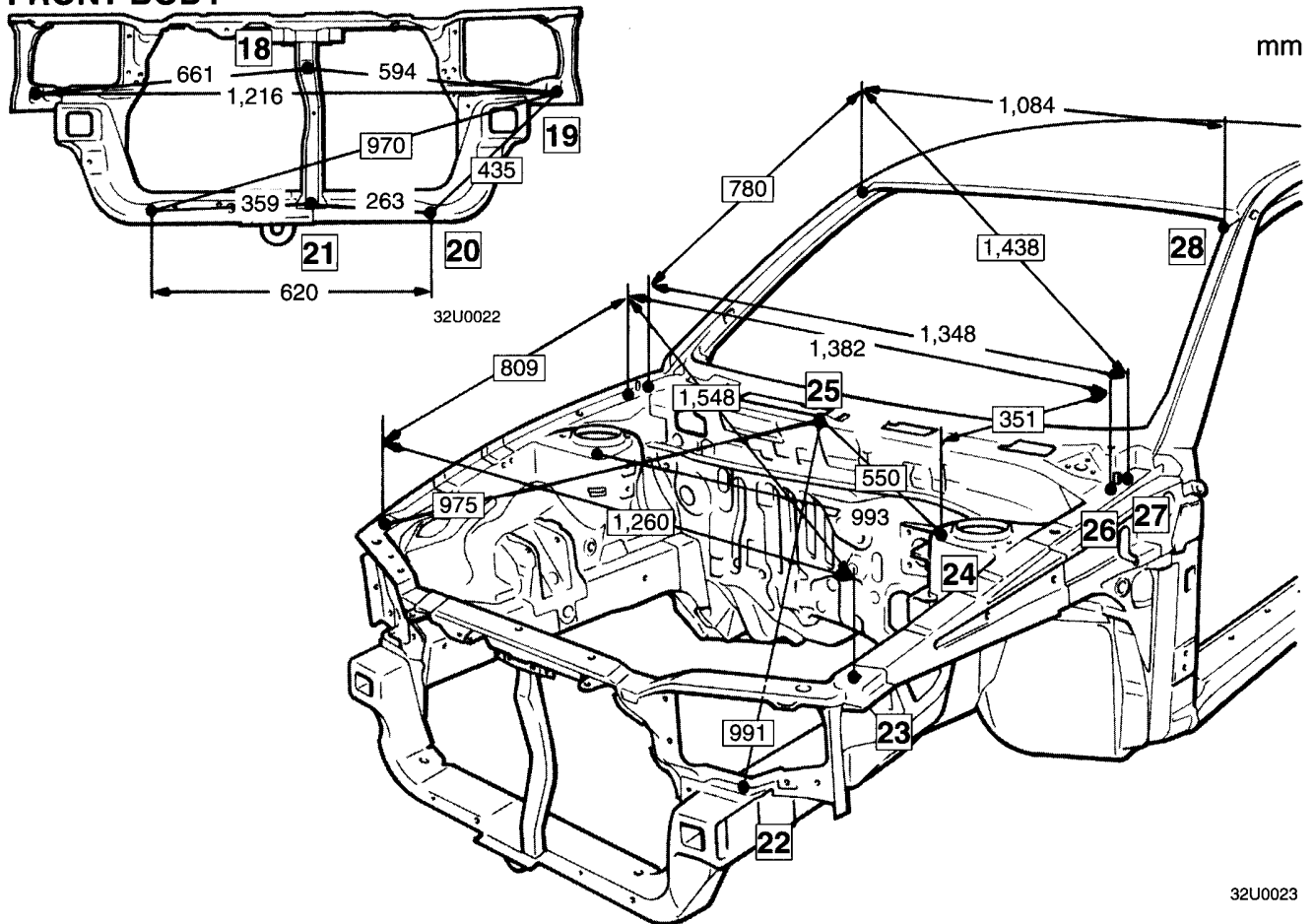


32U0032

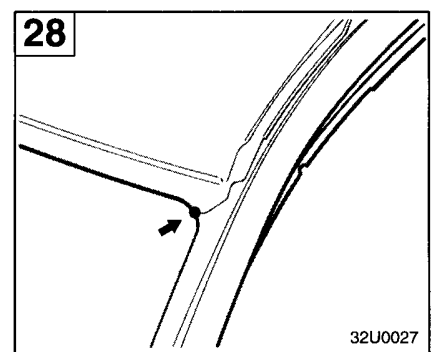
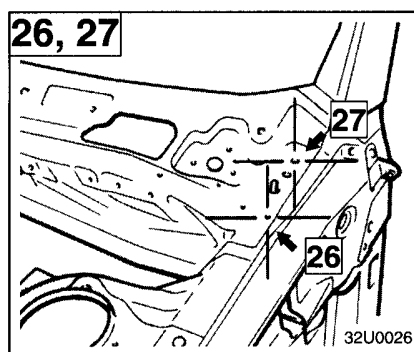
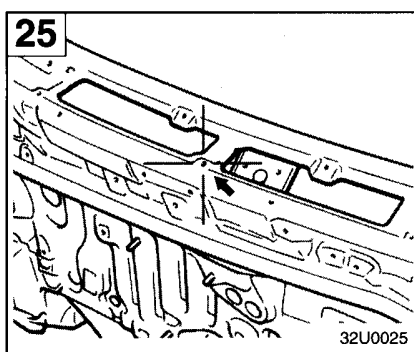
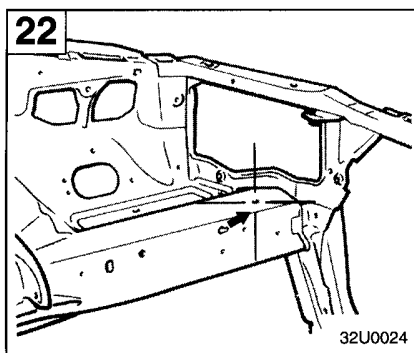
No.	Standard measurement point	Hole shape – Size mm	No.	Standard measurement point	Hole shape – Size mm
4	Centre of suspension crossmember mounting hole	left ○ – 14 right ○ – 18	12	Trailing arm mounting position	–
5	Rear portion of front floor sidemember positioning hole	○ – 25	13	Control link mounting position	–
10	Centre of suspension crossmember mounting hole	○ – 15	17	Lower arm mounting position	–
11	Centre of suspension crossmember mounting hole	○ – 16			



**FRONT BODY**



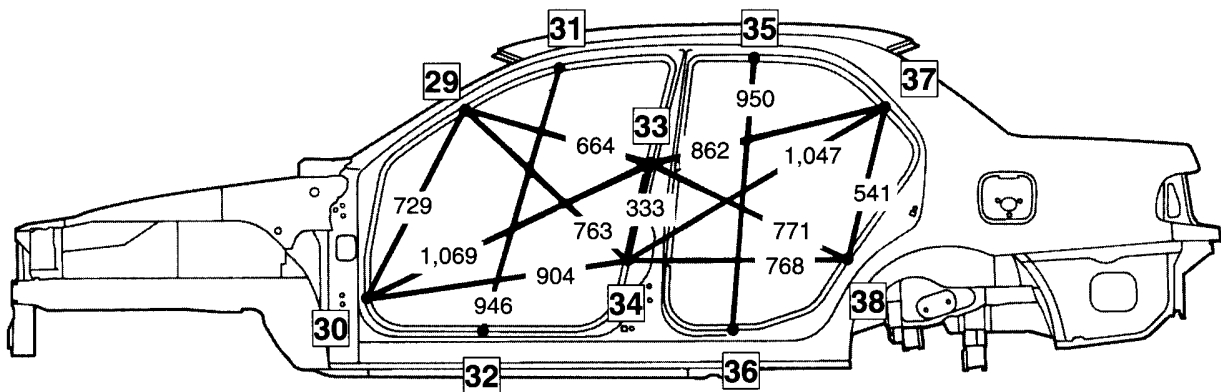
No.	Standard measurement point	Hole shape - Size mm	No.	Standard measurement point	Hole shape - Size mm
18	Centre of hood lock stay guide hole	○ - 7	20	Centre of air guide panel mounting hole	○ - 7
19	Centre of headlamp support panel positioning hole	○ - 10	21	Centre of air guide panel mounting hole	○ - 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	-



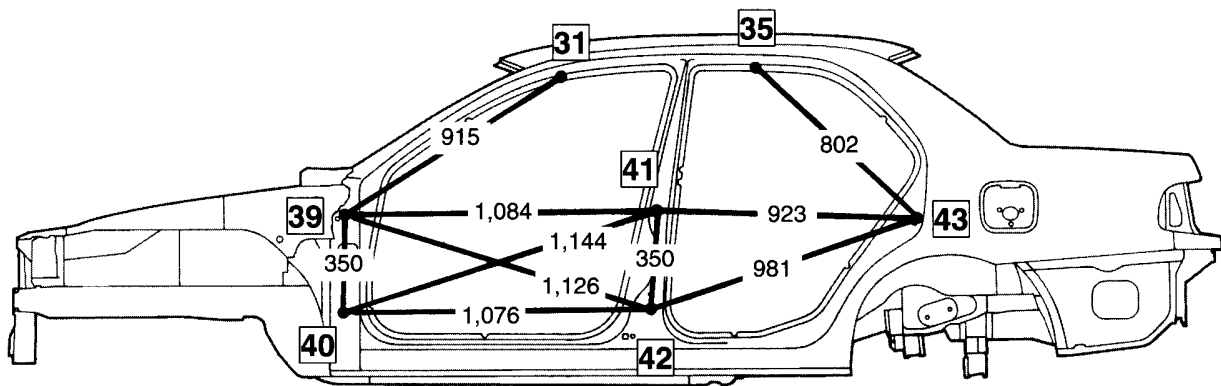
## 2-8 BODY DIMENSIONS – Type B (Actual-measurement Dimensions) < Sedan >

### SIDE BODY

mm

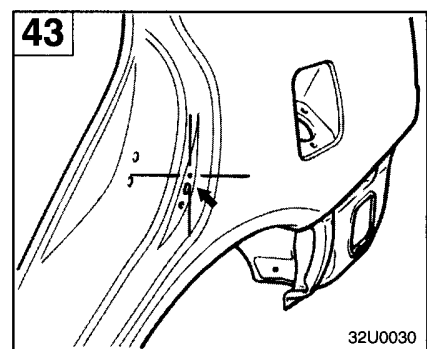
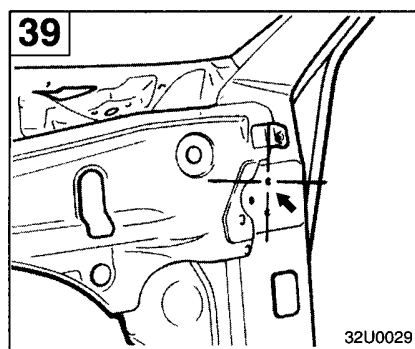
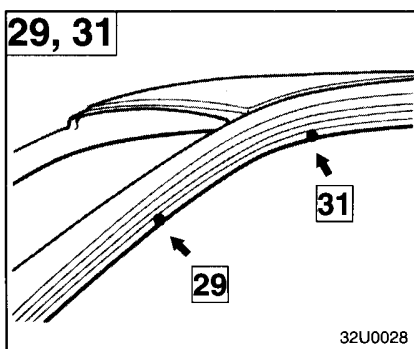


32U0051



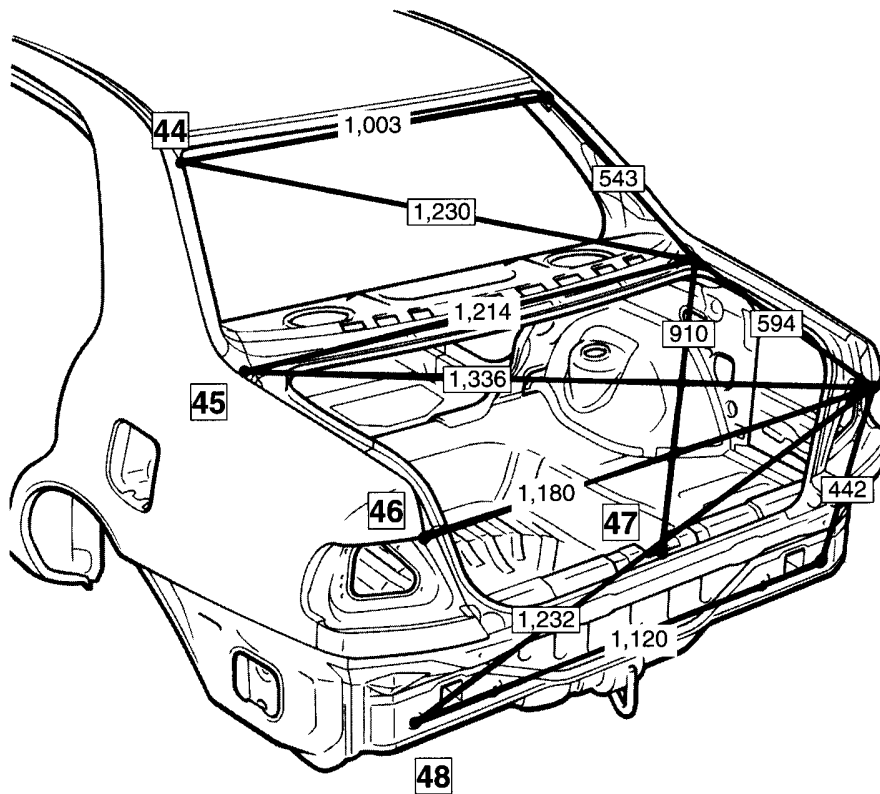
32U0052

No.	Standard measurement point	Hole shape	Size mm	No.	Standard measurement point	Hole shape	Size mm
29	Front pillar positioning notch (Upper section)	-	-	37	Rear pillar positioning notch (Upper section)	-	-
30	Front pillar positioning notch (Lower section)	-	-	38	Rear pillar positioning notch (Lower section)	-	-
31	Side roof rail positioning notch (Front section)	-	-	39	Centre of front door hinge mounting hole (Upper section)	○ - 10	-
32	Side sill positioning notch (Front section)	-	-	40	Centre of front door hinge mounting hole (Lower section)	○ - 10	-
33	Centre pillar positioning notch (Upper section)	-	-	41	Centre of rear door hinge mounting hole (Upper section)	○ - 10	-
34	Centre pillar positioning notch (Lower section)	-	-	42	Centre of rear door hinge mounting hole (Lower section)	○ - 10	-
35	Side roof rail positioning notch (Rear section)	-	-	43	Centre of rear door switch mounting hole	○ - 5	-
36	Side sill positioning notch (Rear section)	-	-				



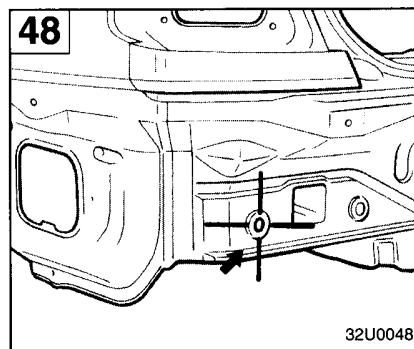
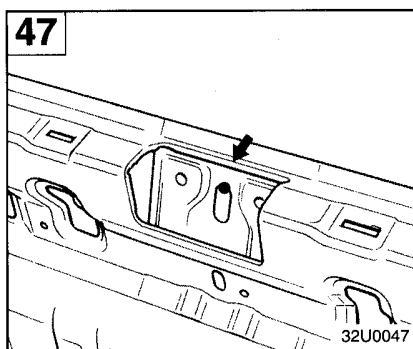
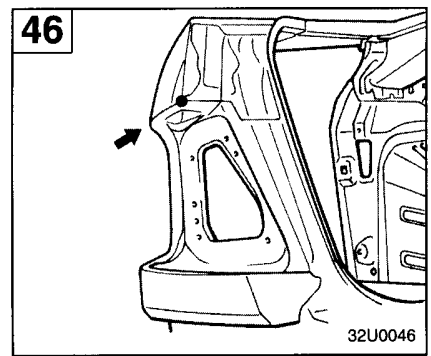
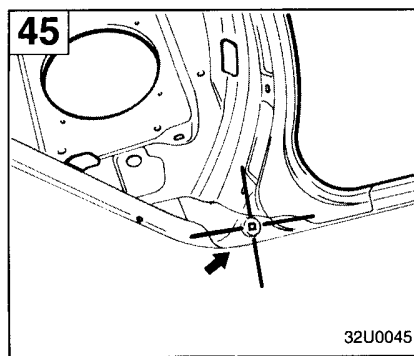
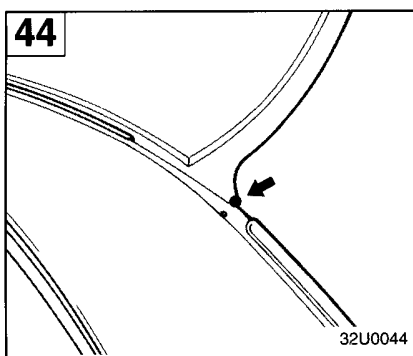
**REAR BODY**

mm



32U0040

No.	Standard measurement point	Hole shape	Size mm	No.	Standard measurement point	Hole shape	Size mm
44	Joint between side panel outer and roof panel	–	–	47	Upper portion of water drain hole of trunk lid lock bulkhead	⬭	25 x 12
45	Centre of rear window lower moulding mounting hole	□	8.5	48	Centre of rear end panel positioning hole	○	16
46	Side outer panel projection	–	–				



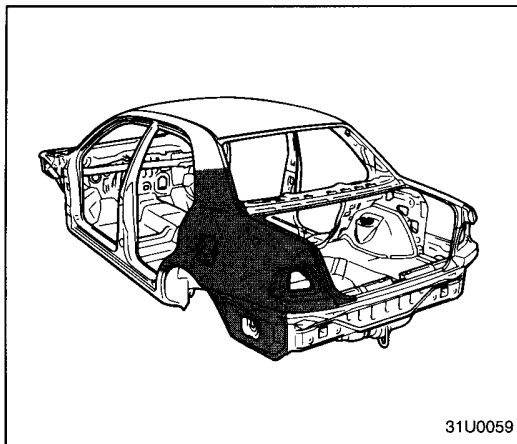


# 3 WELDED PANEL REPLACEMENT

< SEDAN >

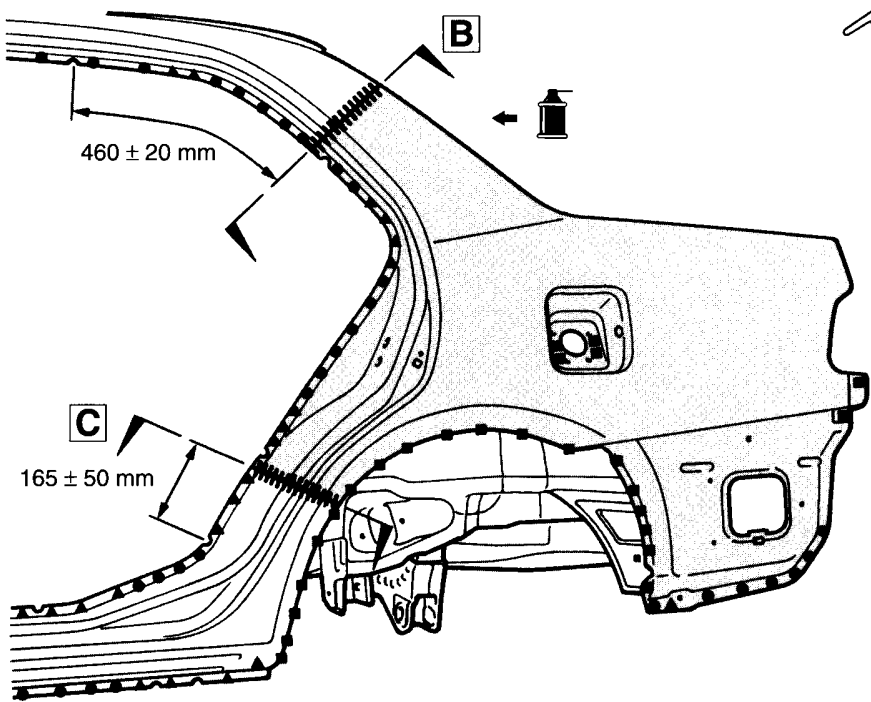
QUARTER, OUTER .....	3-2
REAR FLOOR .....	3-4
REAR END PANEL .....	3-6
QUARTER, INNER .....	3-7
ROOF PANEL .....	3-8

QUARTER, OUTER < Sedan >

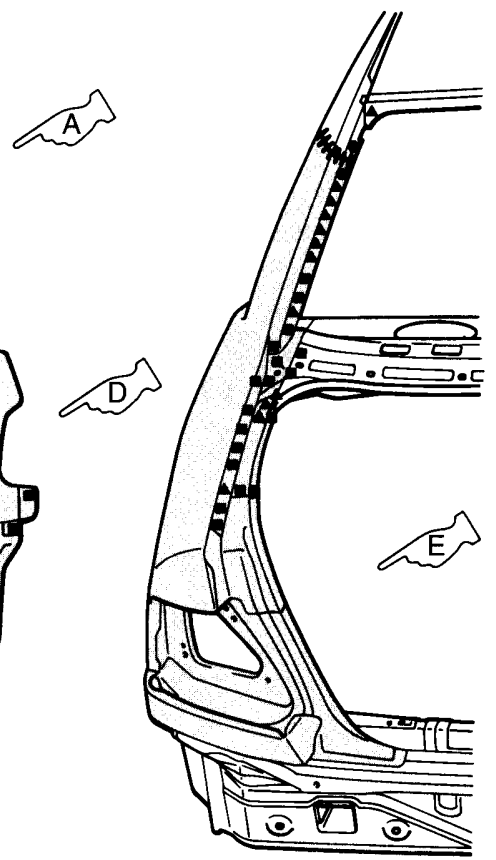


Symbol	Operation description
••••	Spot welding
■ ■ ▲ ▲	MIG plug welding ■ indicates two panels to be welded ▲ indicates three panels to be welded
+ + + +	MIG spot welding
	MIG arc welding (continuous)
○○○○○○○	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally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

REPAIR WELDS

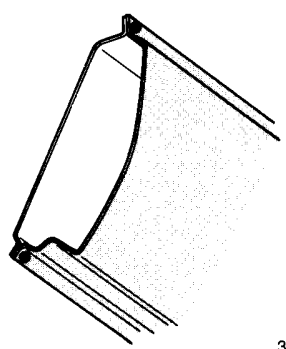


33U0088

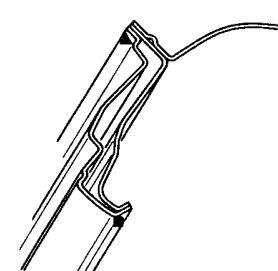


A

33U0089

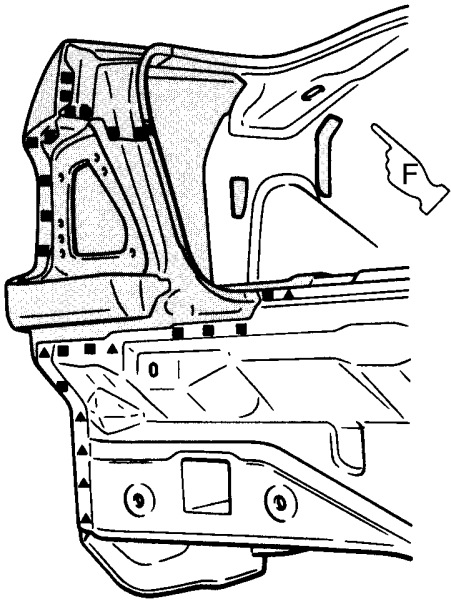


33U0085



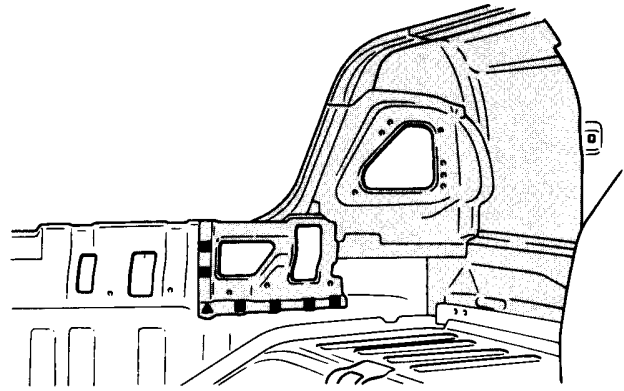
33U0019





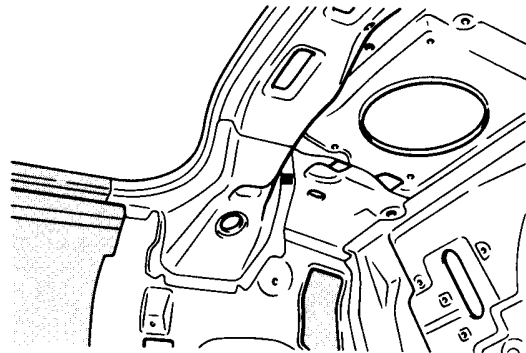
**D**

33U0086



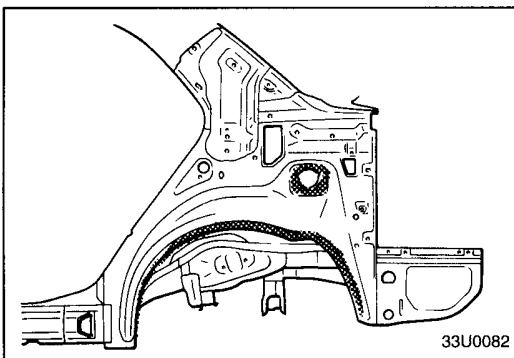
**E**

33U0079



**F**

33U0087



33U0082


**NOTES WITH REGARD TO REPAIR WORK**

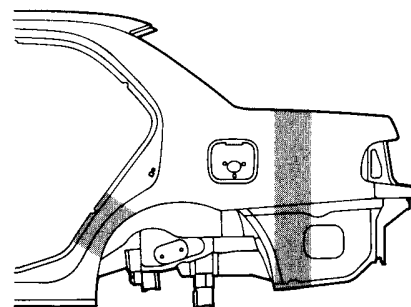
**INSTALLATION**

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

**NOTE**

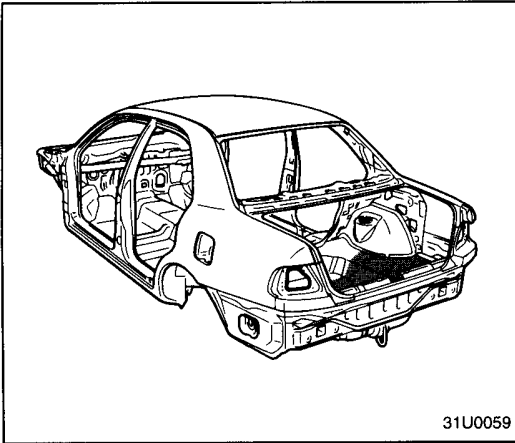
Depending on the size of the damaged area, parts can be replaced.

 : Area that can be cut



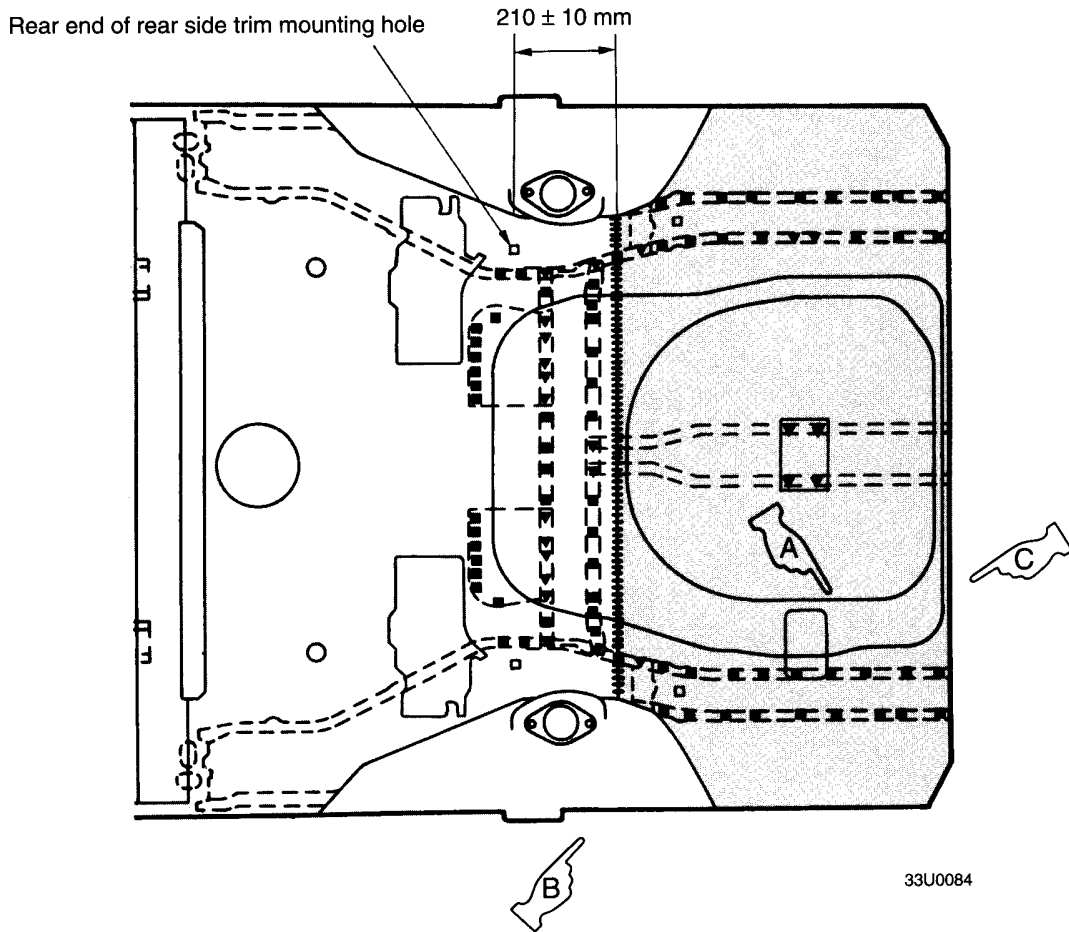
32U0038

REAR FLOOR < Sedan >

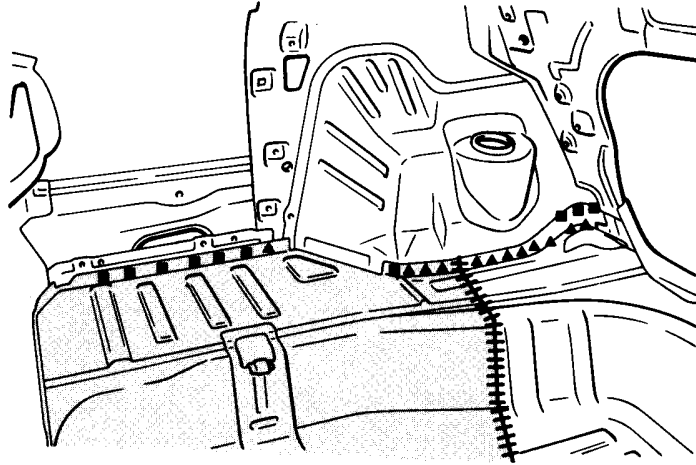


Symbol	Operation description
••••	Spot welding
■ ■ ▲ ▲	MIG plug welding ■ indicates two panels to be welded ▲ indicates three panels to be welded
+ + + +	MIG spot welding
	MIG arc welding (continuous)
○○○○○○	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally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

REPAIR WELDS

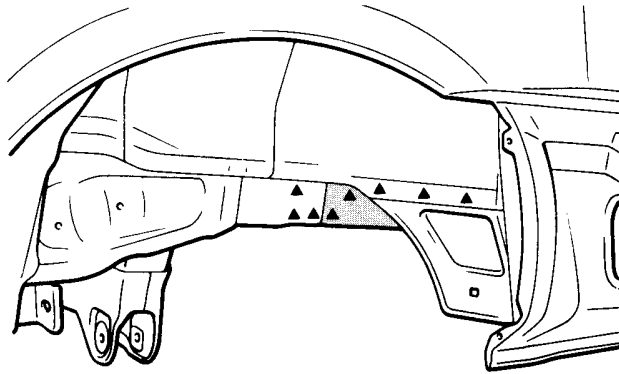


NOTE  
 Refer to P. 3-6 for the rear end panel weld points.



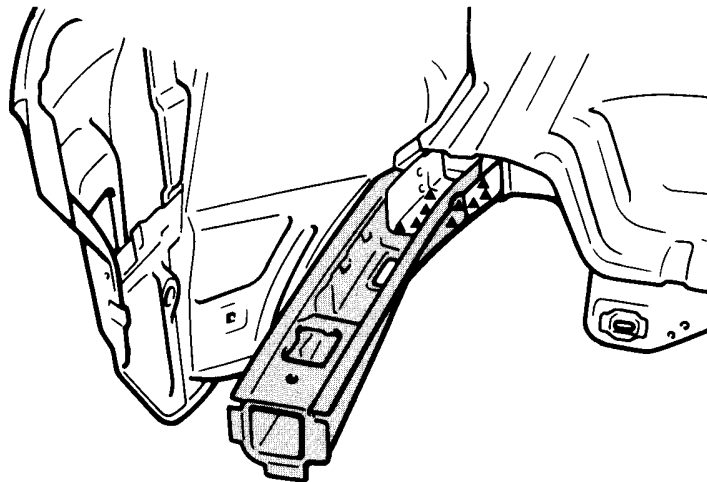
**A**

33U0078



**B**

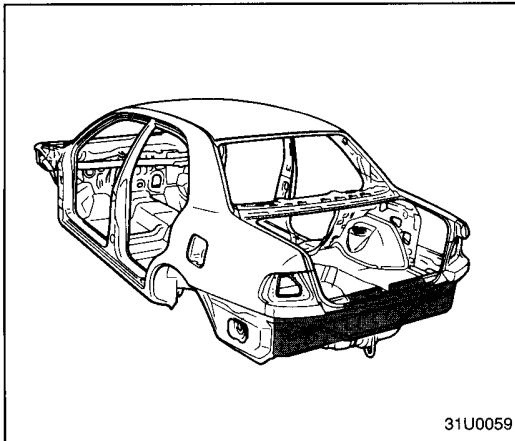
33U0055




**C**

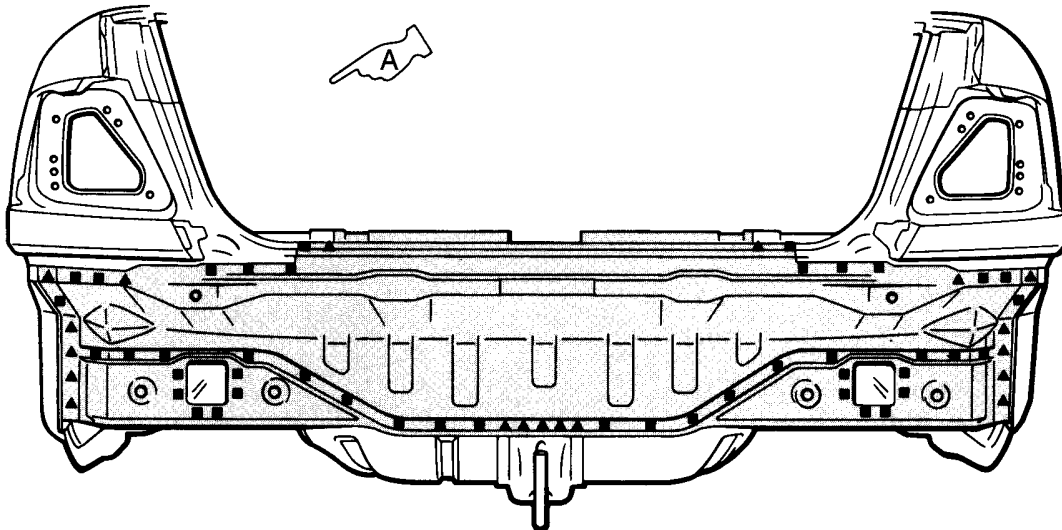
33U0056

REAR END PANEL < Sedan >

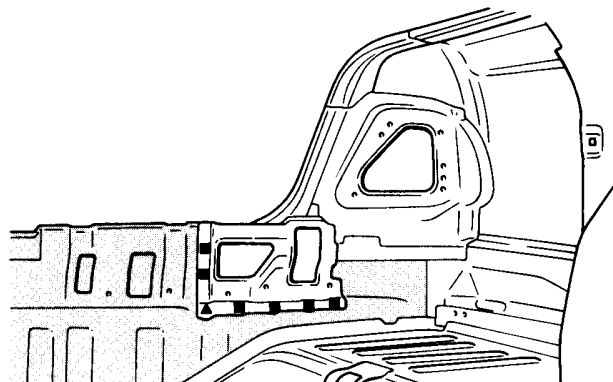


Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding ■ indicates two panels to be welded ▲ indicates three panels to be welded
+ + + +	MIG spot welding
	MIG arc welding (continuous)
○○○○○○	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally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

REPAIR WELDS



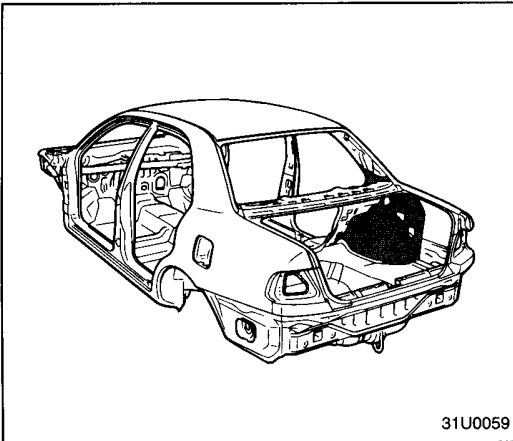
33U0077




33U0079

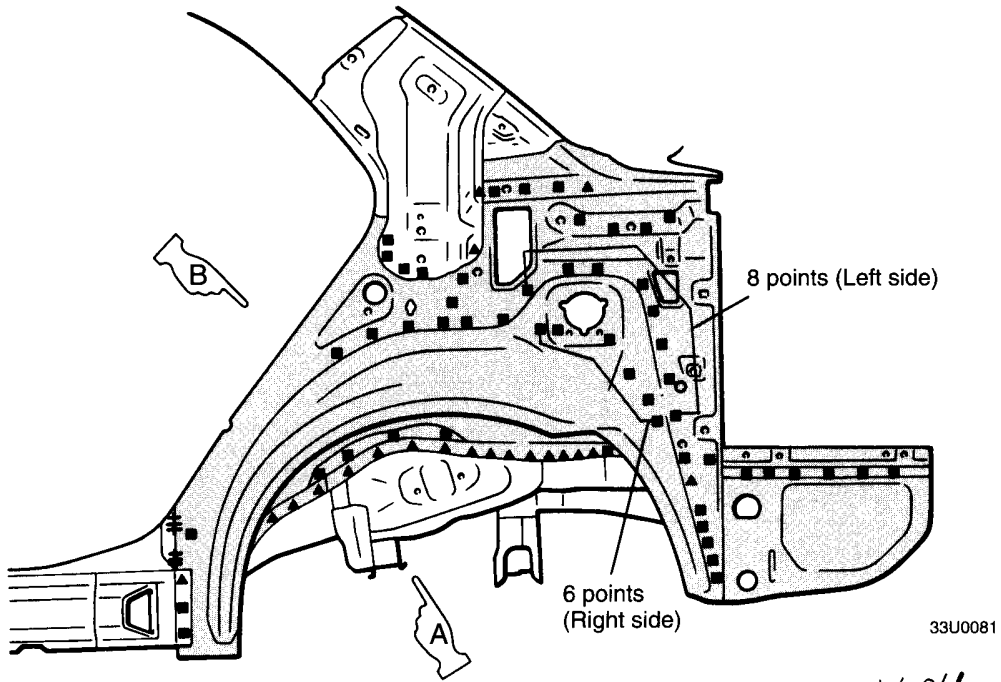
A

QUARTER, INNER < Sedan >

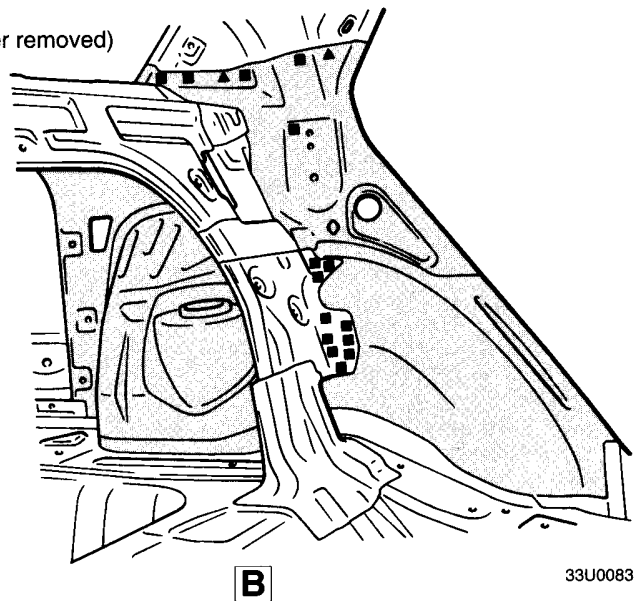
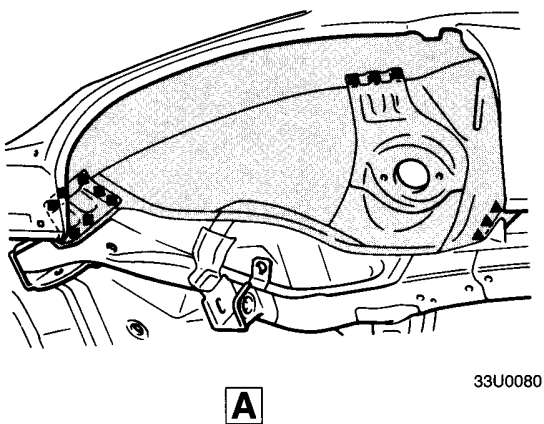


Symbol	Operation description
• • • •	Spot welding
■ ■ ▲ ▲	MIG plug welding ■ indicates two panels to be welded ▲ indicates three panels to be welded
+ + + +	MIG spot welding
	MIG arc welding (continuous)
oooooo	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally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

REPAIR WELDS

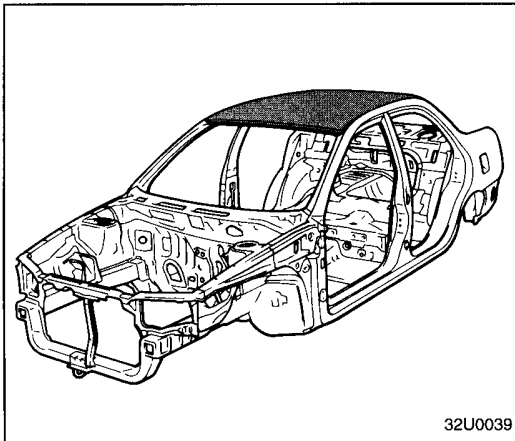


(Condition with quarter outer removed)



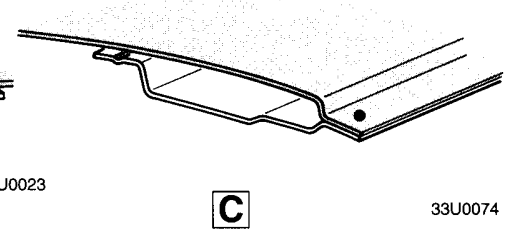
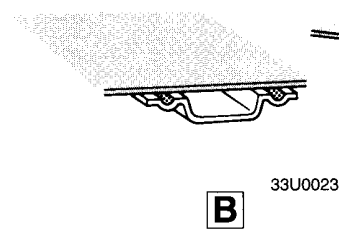
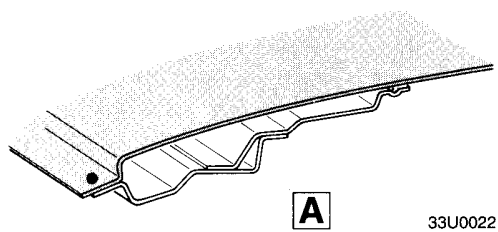
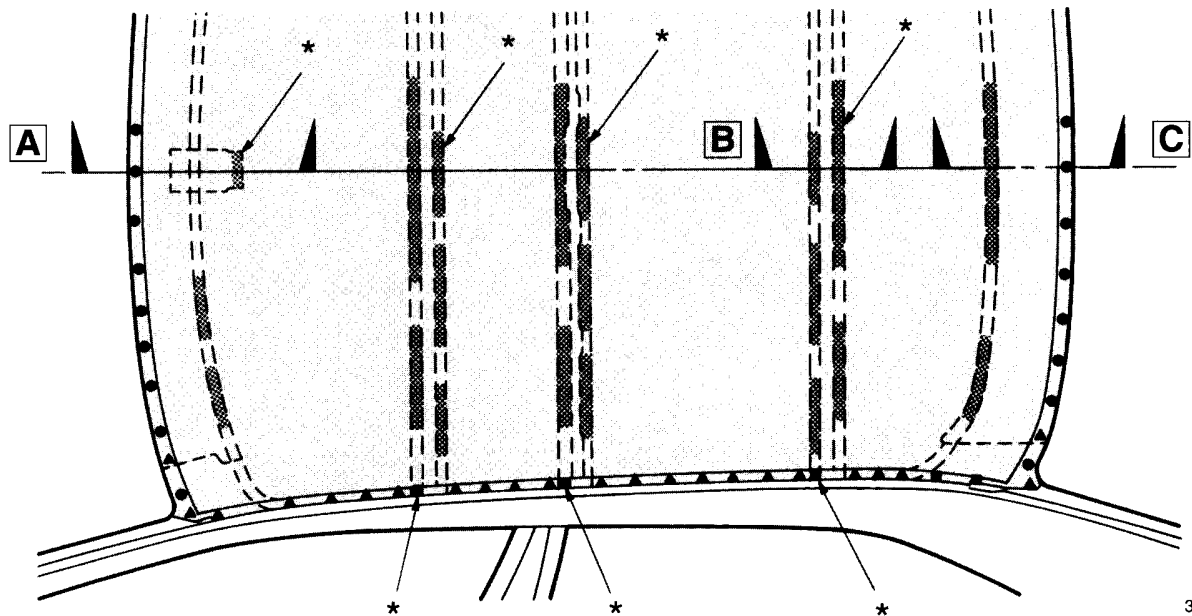
NOTE  
 Refer to P. 3-2 for the quarter outer weld points.

ROOF PANEL < Sedan >



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

# **4 CORROSION PROTECTION**

<b>BODY SEALING LOCATIONS .....</b>	<b>4-2</b>
<b>UPPER BODY .....</b>	<b>4-2</b>
<b>SIDE BODY .....</b>	<b>4-2</b>

# BODY SEALING LOCATIONS

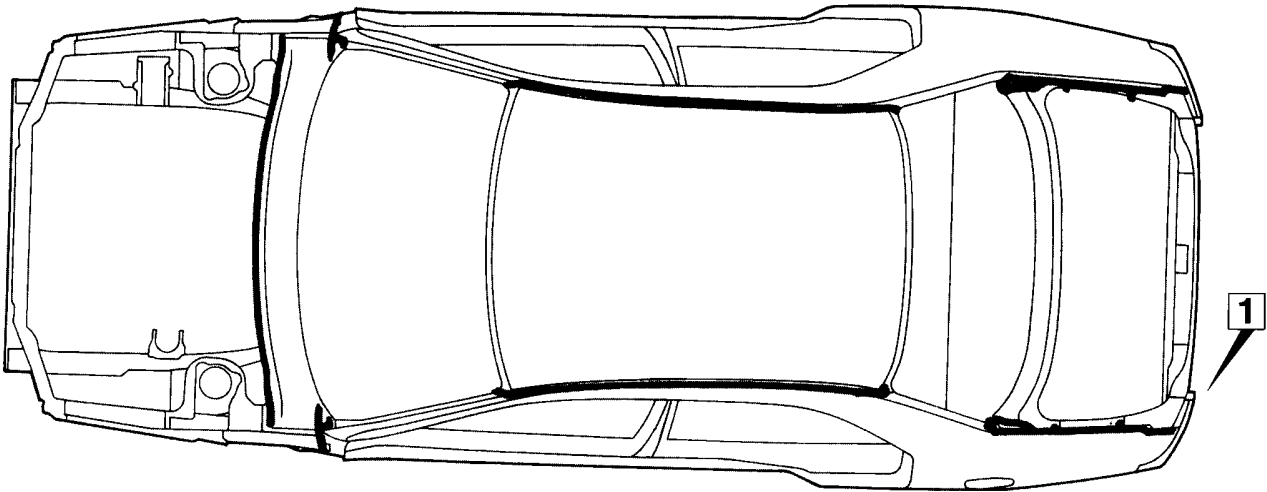
## NOTES WITH REGARD TO REPAIR WORK

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.

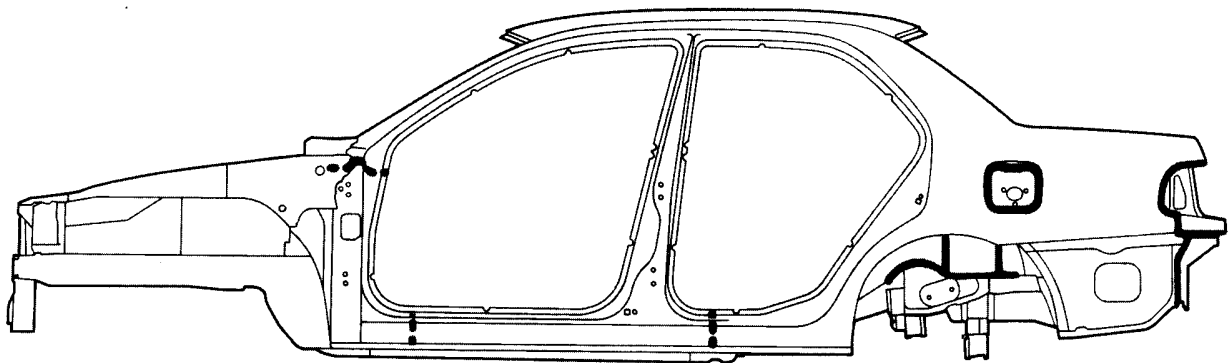
< Sedan >

### UPPER BODY

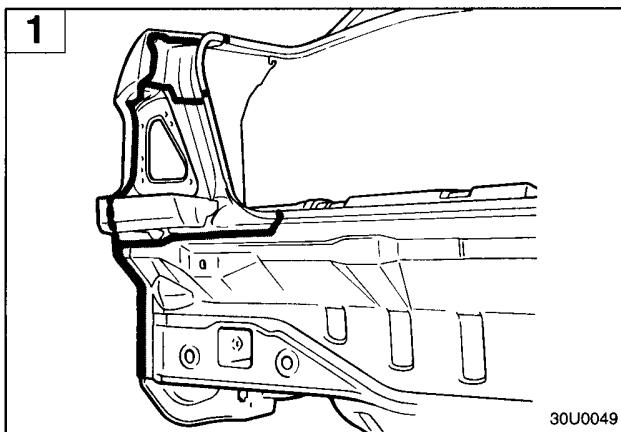


30U0052

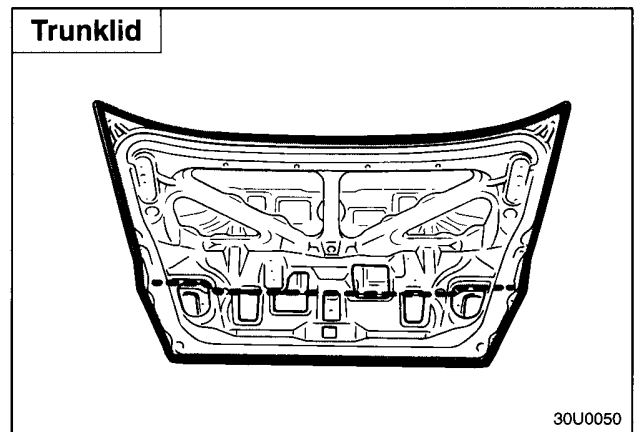
### SIDE BODY



30U0053



30U0049



30U0050



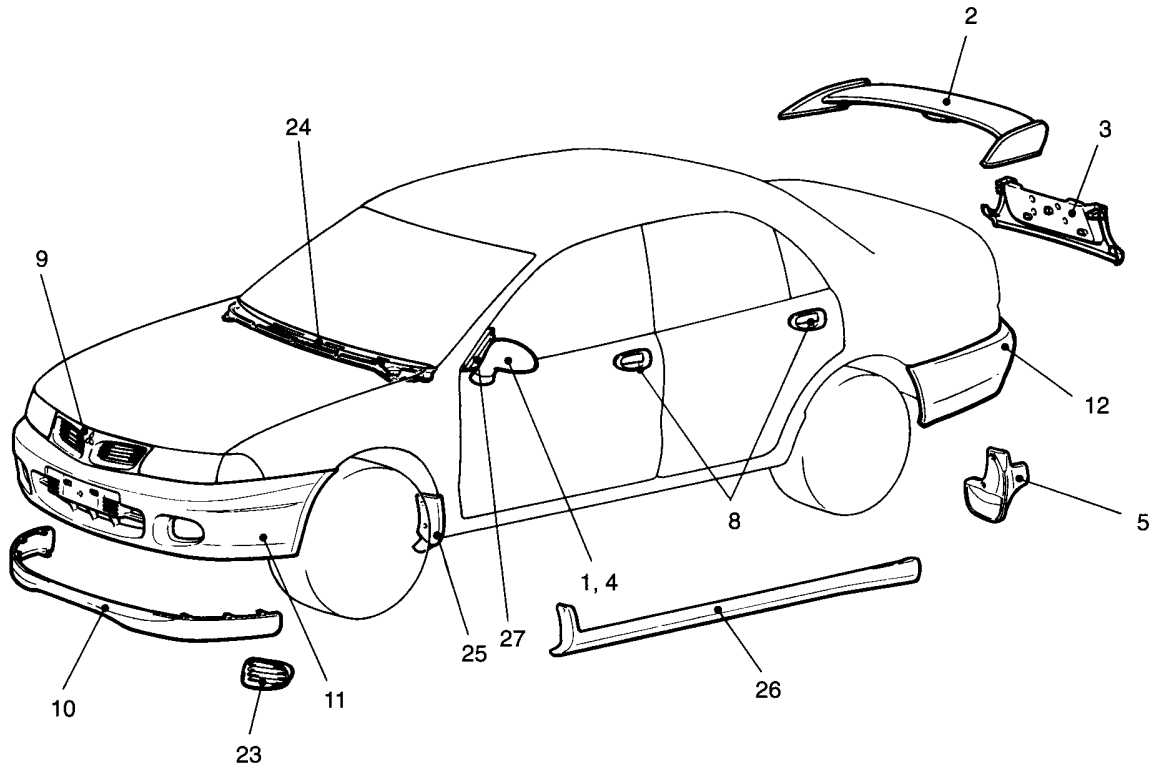
# **5 SYNTHETIC-RESIN PARTS**

**LOCATION OF SYNTHETIC-RESIN PARTS ..... 5-2**

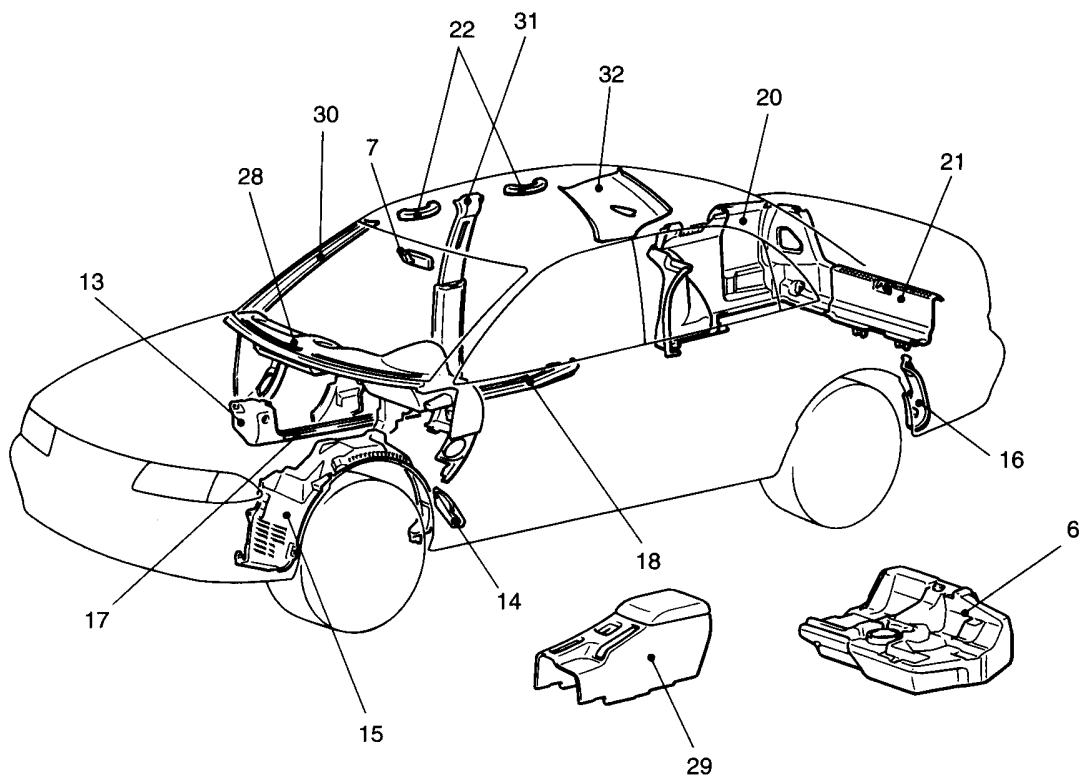
### LOCATION OF SYNTHETIC-RESIN PARTS

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

< Sedan >



30U0055



30U0056

No.	Part name	Name of resin	Abbreviation	Heat-withstand temp. [°C]
1	Door mirror (colour)	Acrylonitrile butadiene styrene	ABS	80 – 110
2	Rear spoiler			
3	Rear panel garnish			
4	Door mirror (black)	Acrylonitrile styrene acrylate	ASA	80 – 100
5	Rear mud guard	Ethylen vinyl acetic acid	E/VAC (EVA)	60
6	Fuel tank	High-density polyethylene	PE-HD (HDPE)	70 – 90
7	Room mirror	Polyamide	PA	140 – 160
8	Door outside handle	Polycarbonate/ Polybutylene telephthalate	PC/PBT	140 – 150
9	Radiator grille	Polypropylene	PP	80 – 120
10	Air dam skirt panel			
11	Front bumper face			
12	Rear bumper face			
13	Cowl side trim			
14	Foot rest			
15	Splash shield, front			
16	Splash shield, rear			
17	Front scuff plate			
18	Rear scuff plate			
19	Centre pillar trim, lower			
20	Trunk side trim			
21	Rear end trim			
22	Assist grip			
23	Fog lamp cover	Talc filled polypropylene	PP-TD (PP-F)	110 – 140
24	Front deck garnish			
25	Stone guard			
26	Side air dam			
27	Delta cover			
28	Instrument pad			
29	Floor console			
30	Front pillar trim			
31	Centre pillar trim, upper			
32	Rear pillar trim			

## 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 standardization 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 CHARTS ..... 6-2**

**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.

< Sedan >

	Colour	Body colour code	Colour number	Body colour name	Composition of film
Paint used by manufacturer	DARK GRAY	A47	AC11147	Mainz Gray	Pearl
	WARM SILVER	A49	AC11149	Luzern Silver	Metallic
	PURE SILVER	A50	AC11150	Haag Silver	Metallic
	BLUE	T44	AC11144	Oslo Blue	Solid
	BROWN	C54	AC11154	Delphi Brown	Metallic
	GREEN	G42	AC11142	Derby Green	Solid
	GREEN	G48	AC11148	Leman Green	Pearl
	OLIVE	L45	AC11145	Malaga Olive	Pearl
	WHITE	W41	AC11141	St. Moritz White	Solid
	RED	R43	AC11143	Shining Red	Solid
	FLAME RED	R51	AC11151	Flame Red	Pearl

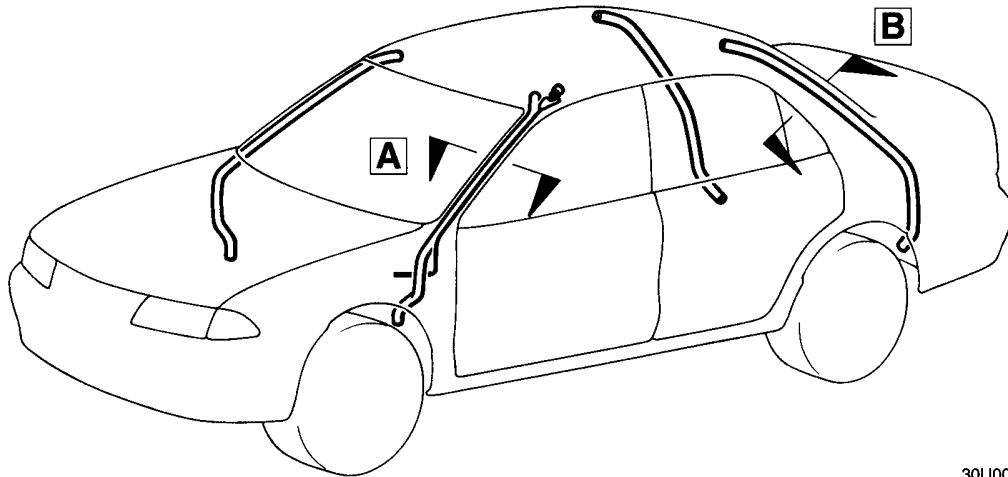
# **7 WIRING AND PIPING DIAGRAM**

**WIRING AND PIPING DIAGRAM ..... 7-2**

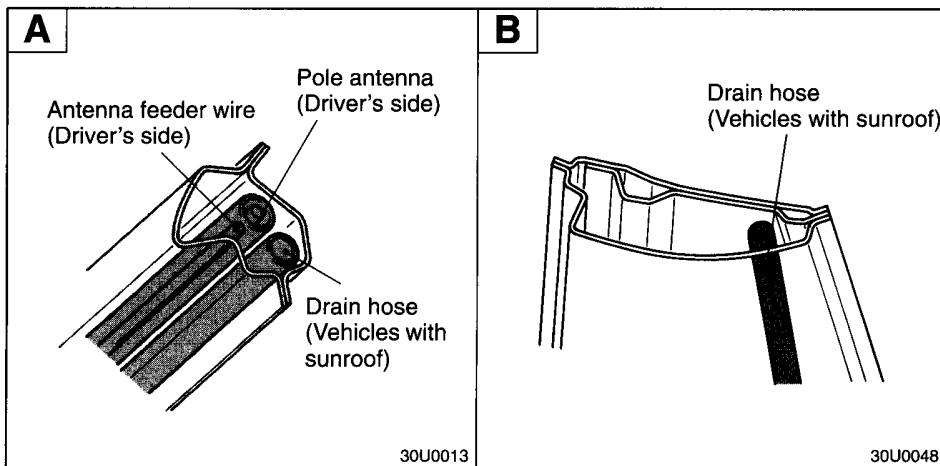
### WIRING AND PIPING DIAGRAM

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.

< Sedan >



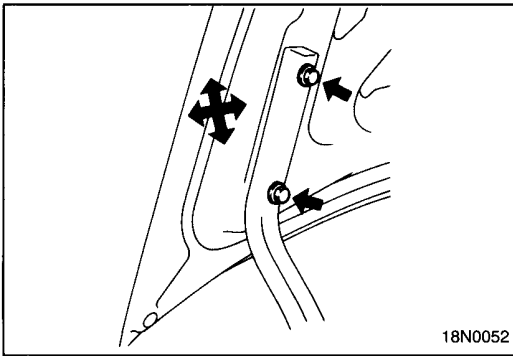
30U0054



# 8 REFERENCE MATERIAL

BOLTED PANEL FIT AND ADJUSTMENT .....	8-2
TRUNK LID .....	8-2





## BOLTED PANEL FIT AND ADJUSTMENT

< Sedan >

### TRUNK LID

#### ADJUSTMENT OF TRUNK LID FIT

- (1) If the clearance between the trunk lid and the body is not uniform, loosen the trunk lid mounting bolts and move the trunk lid to adjust so that the clearance around the trunk lid is uniform.
- (2) If the floating, locking and unlocking of the trunk lid are heavy, check the condition of the release cable, and then loosen the trunk lid striker mounting bolts and move the trunk lid striker to adjust the meshing with the trunk lid latch.

