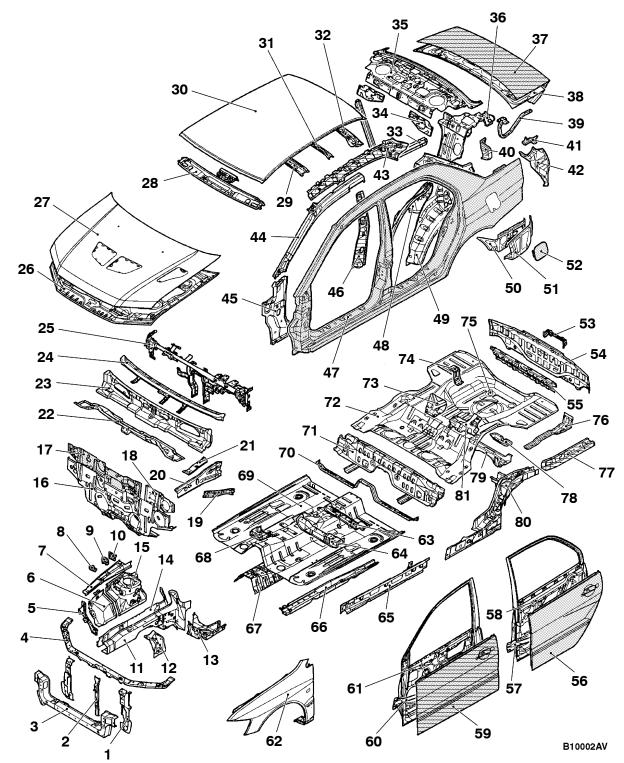
# BODY CONSTRUCTION

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# **BODY COMPONENTS**

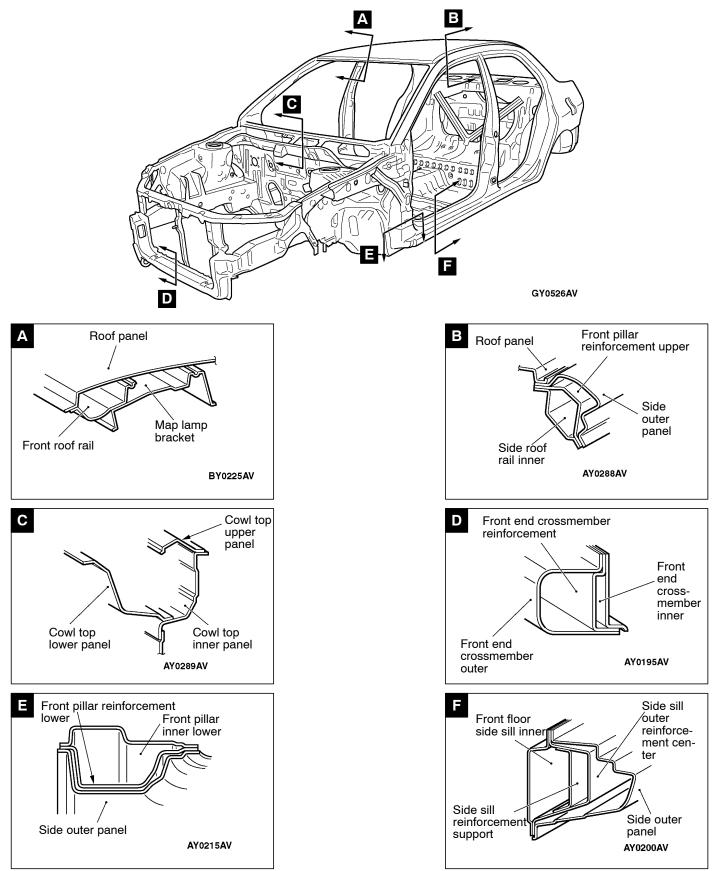


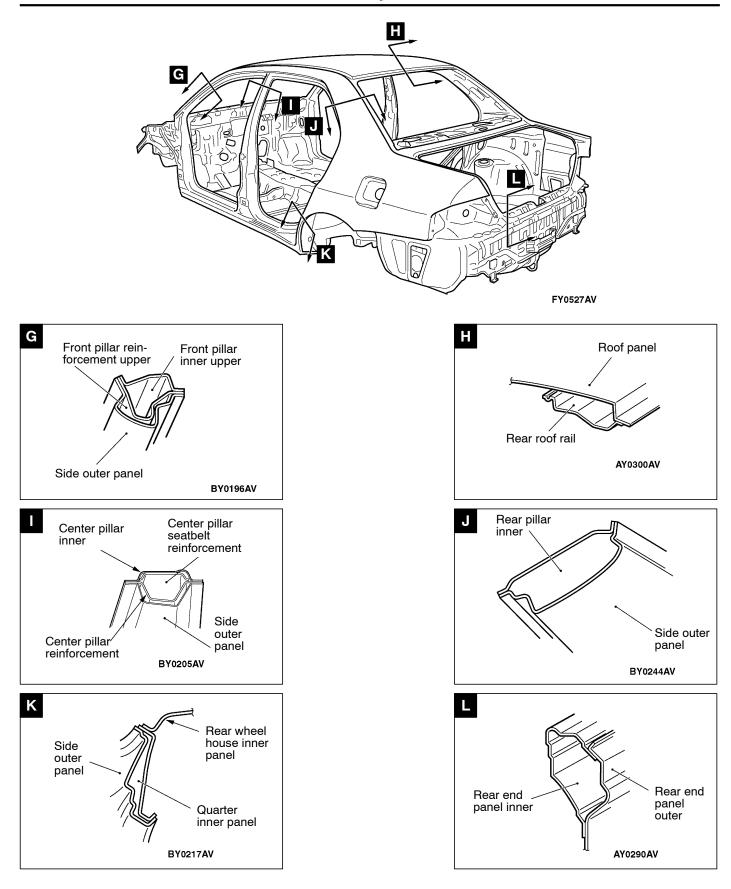
: Anticorrosion steel plates : High-tensile steel panels

- 1. Headlamp support panel
- 2. Hood lock stay
- 3. Front end crossmember
- 4. Front end upper bar
- 5. Headlamp support panel side
- 6. Front fender shield
- 7. Front upper frame inner
- 8. Upper frame bulkhead front
- 9. Upper frame bulkhead
- 10. Upper frame bulkhead rear
- 11. Front sidemember inner
- 12. Engine mount bracket
- 13. Front sidemember rear
- 14. Front sidemember outer
- 15. Spring house panel
- 16. Dash panel
- 17. Dash panel silencer
- 18. Dash panel reinforcement
- 19. Upper frame to front pillar brace
- 20. Upper frame extension outer
- 21. Upper frame extension inner
- 22. Cowl top lower panel
- 23. Cowl top inner panel
- 24. Cowl top upper panel
- 25. Front deck crossmember
- 26. Hood inner panel
- 27. Hood outer panel
- 28. Front roof rail
- 29. Front roof bow
- 30. Roof panel
- 31. Rear roof bow
- 32. Rear roof rail
- 33. Seat back plate
- 34. Rear seat back panel
- 35. Rear shelf panel
- 36. Rear seat back brace
- 37. Trunk lid outer panel
- 38. Trunk lid inner panel
- 39. Trunk lid hinge
- 40. Quarter inner extension rear
- 41. Quarter corner panel

- 42. Rear combination lamp housing
- 43. Side roof rail inner
- 44. Front pillar inner upper
- 45. Front pillar inner lower
- 46. Center pillar inner
- 47. Side outer panel
- 48. Rear wheel house inner panel
- 49. Quarter inner panel
- 50. Rear floor side brace
- 51. Quarter outer extension lower
- 52. Fuel filler door
- 53. Rear license plate bracket
- 54. Rear end panel outer
- 55. Rear end panel inner
- 56. Rear door outer panel
- 57. Rear door side door beam
- 58. Rear door inner panel
- 59. Front door outer panel
- 60. Front door side door beam
- 61. Front door inner panel
- 62. Fender panel
- 63. Front floor crossmember rear
- 64. Front floor crossmember front
- 65. Front floor side sill inner
- 66. Front floor sidemember
- 67. Backbone reinforcement
- 68. Installment panel center bracket reinforcement
- 69. Front floor pan
- 70. Front floor extension panel rear
- 71. Rear floor extension
- 72. Rear floor pan
- 73. Seat back plate extension
- 74. Jack bracket
- 75. Spare tire bracket
- 76. Towing hook reinforcement
- 77. Rear floor sidemember extension
- 78. Crossmember center support
- 79. Rear floor crossmember
- 80. Rear floor sidemember
- 81. Rear seat back reinforcement

# **BODY MAIN CROSS-SECTIONAL VIEWS**

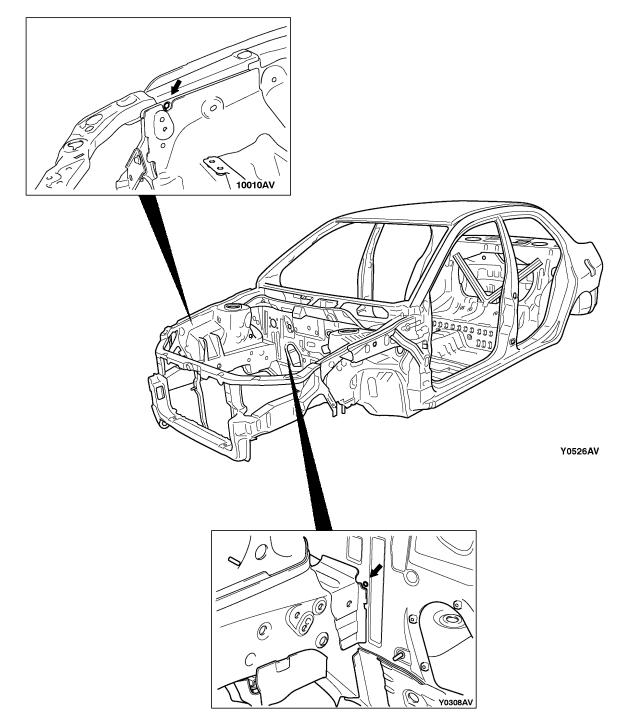




# MAINTENANCE, SERVICEABILITY

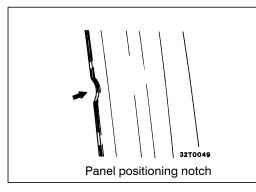
### Fender Shield

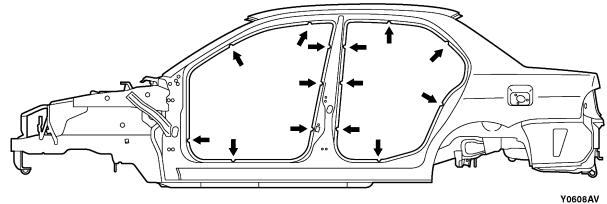
Positioning holes, marks, and notches have been provided at the following overlapped areas to improve operation performance when replacing panels.



#### Side Structure

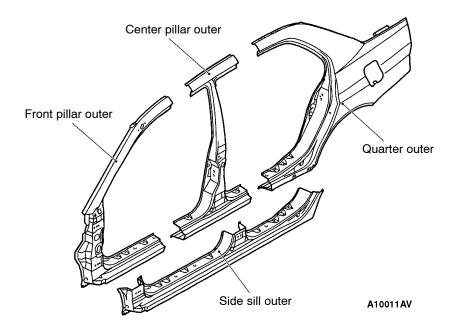
Panel positioning notches have been provided at the door opening section to improve operation performance when replacing panels.





#### Side Outer Panel

Spare parts are provided in the following cut form with the adoption of the pillar integral type side outer panel.



# **BODY CONSTRUCTION CHARACTERISTICS**

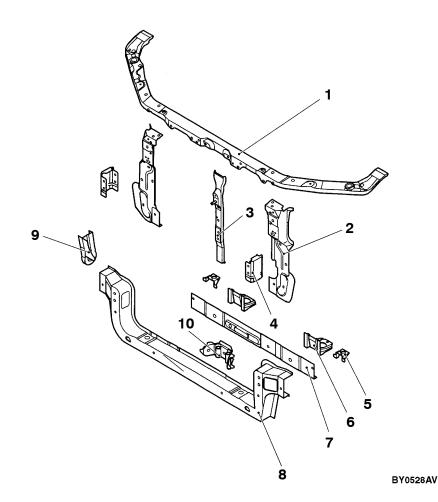
## FRONT BODY

#### **Headlamp Support**

1. By adopting a steel sheet with variable thickness\* for the front end crossmember outer, the steel sheet thickness on the right side of the vehicle has been increased to improve safety in collision and body rigidity.

#### NOTE

\*: Steel sheets with different thickness welded to formone steel sheet.

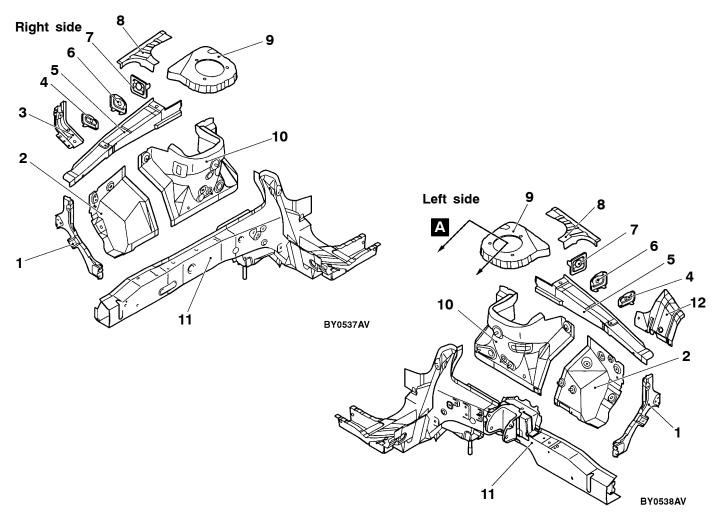


- 1. Front end upper bar
- 2. Headlamp support panel
- 3. Hood lock stay
- 4. Front end crossmember inner reinforcement
- 5. A/C condenser bracket

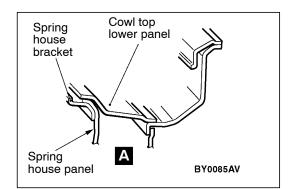
- 6. Radiator bracket
- 7. Front end crossmember inner
- 8. Front end crossmember outer
- 9. Shipping hook
- 10. Front end crossmember reinforcement

#### **Fender Shield**

- 1. The cross section of the front sidemember has been increased and a steel sheet with variable thickness\* has been adopted for the front sidemember inner to increase the thickness of the cabinet side in the aim to improve safety in collision, body rigidity, and realize lightweight.
  - NOTE
  - \*: Steel sheets with different thickness welded to form one steel sheet.



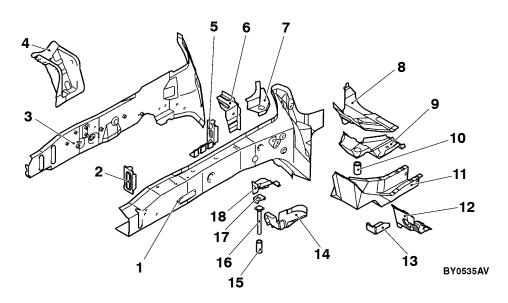
- 1. Headlamp support panel side
- 2. Front fender shied
- 3. Engine mount reinforcement
- 4. Upper frame bulkhead front
- 5. Front upper frame inner
- 6. Upper frame bulkhead

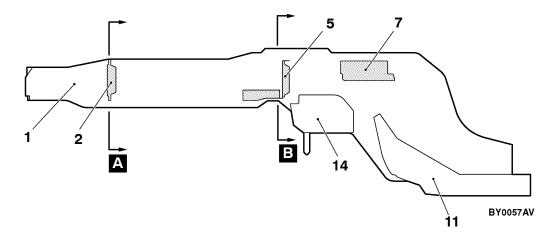


- 7. Upper frame bulkhead rear
- 8. Spring house bracket reinforcement
- 9. Spring house bracket
- 10. Spring house panel
- 11. Front sidemember
- 12. Transmission mount reinforcement outer
- 2. The spring house panel has been designed to be directly installed with the cowl top lower panel, and the body rigidity of the suspension attachment holder has been increased to improve operational stability and quietness.

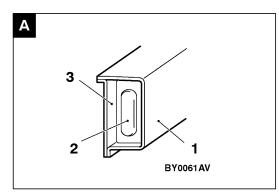
#### **Front Sidemember Reinforcement**

**Right side** 

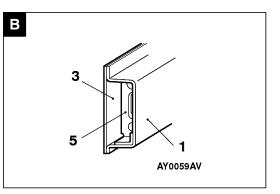




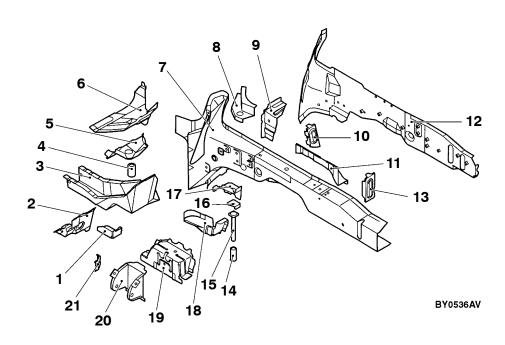
- 1. Front sidemember inner
- 2. Front sidemember bulkhead A
- 3. Front sidemember outer
- 4. Engine mount bracket
- 5. Front sidemember inner reinforcement lower
- 6. Front sidemember gusset rear
- 7. Front sidemember inner reinforcement rear
- 8. Dash panel extension
- 9. Pipe support rear

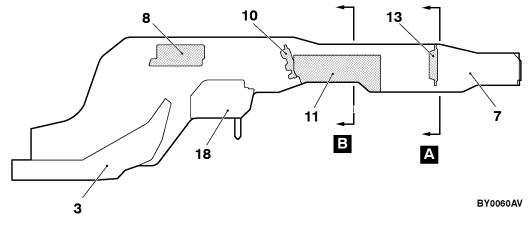


- 10. Pipe nut
- 11. Front sidemember rear
- 12. Dash crossmember extension
- 13. Suspension crossmember support bracket
- 14. Suspension crossmember bracket inner
- 15. Pipe
  - 16. Square head bolt
  - 17. Retainer
  - 18. Pipe support front

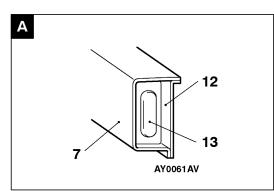


#### Left side

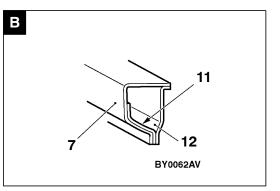




- 1. Suspension crossmember support bracket
- 2. Dash crossmember extension
- 3. Front sidemember rear
- 4. Pipe nut
- 5. Pipe support rear
- 6. Dash panel extension
- 7. Front sidemember inner
- 8. Front sidemember inner reinforcement rear
- 9. Front sidemember gusset rear
- 10. Front sidemember bulkhead rear
- 11. Front sidemember inner reinforcement

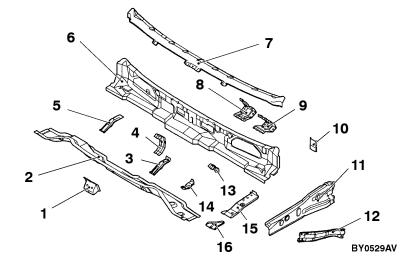


- 12. Front sidemember outer
- 13. Front sidemember bulkhead A
- 14. Pipe
- 15. Square head bolt
- 16. Retainer
- 17. Pipe support front
- 18. Suspension crossmember bracket inner
- 19. Transmission mount reinforcement
- 20. Transmission mount bracket
- 21. Transmission mount reinforcement rear



#### **Front Deck**

Strut house gussetandupper frame to front pillar brace have been added to improve body rigidity.

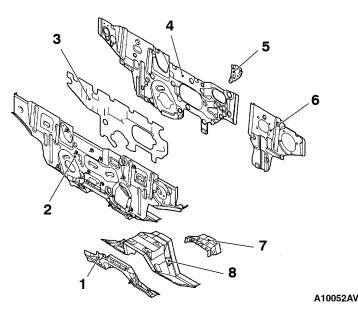


- 1. Strut tower bar bracket
- 2. Cowl top lower panel
- 3. Cowl top upper bracket center
- 4. Cowl top upper reinforcement center
- 5. Cowl top upper bracket side (LHD)
- 6. Cowl top inner panel
- 7. Cowl top upper panel
- 8. Pedal support bracket

- 9. Clutch pedal support bracket
- 10. A/C Unit bracket (RHD)
- 11. Upper frame extension outer
- 12. Upper frame to front pillar brace
- 13. Cowl top upper reinforcement
- 14. Cowl top lower bracket
- 15. Upper frame extension inner
- 16. Strut house gusset

#### Dash Panel

- 1. A dash panel crossmember has been added and the thickness of the dash panel lower has been increased to improve collision stability.
- 2. A silencer (steel sheet binding type vibration damping material) has been added between the dash panel and dash panel silencer to control the penetrating sound and vibration from the engine.

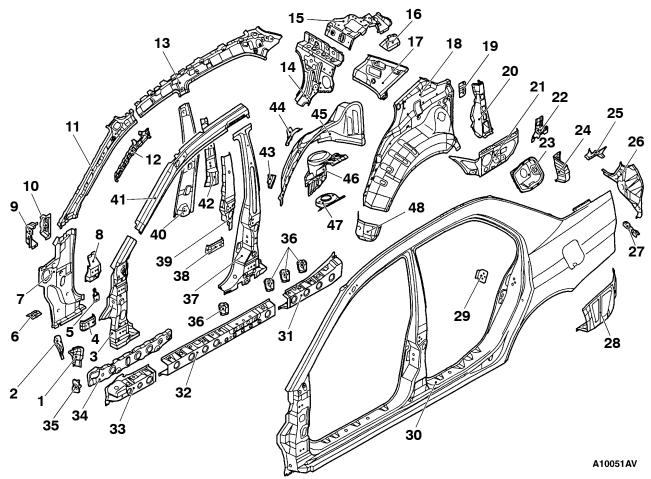


- 1. Dash panel crossmember
- 2. Dash panel
- 3. Dash silencer center
- 4. Dash panel silencer

- 5. Accel pedal reinforcement (LHD)
- 6. Dash panel reinforcement
- 7. Dash lower reinforcement (LHD)
- 8. Dash panel lower

## SIDE BODY

Side Structure



- 1. Front pillar reinforcement lower extension
- 2. Front pillar inner lower extension
- 3. Front pillar reinforcement lower
- 4. Front door hinge reinforcement lower
- 5. Front door check reinforcement
- 6. Side sill to floor plate
- 7. Front pillar inner lower
- 8. Front door hinge reinforcement upper
- 9. Deck crossmember bracket front
- 10. Deck crossmember bracket
- 11. Front pillar inner upper
- 12. Front pillar inner upper reinforcement (LHD, Left side)
- 13. Side roof rail inner
- 14. Rear seat back brace
- 15. Rear shelf upper brace
- 16. Rear shelf lower brace (Europe and General Export spec. models)
- 17. Rear pillar inner
- 18. Quarter inner panel
- 19. Oil tank bracket (Vehicles with ACD, Left side)
- 20. Rear pillar reinforcement
- 21. Rear floor side brace
- 22. Rear floor brace reinforcement (Vehicles with ACD, Left side)
- 23. Fuel filler neck bracket (Left side)

- 24. Quarter inner extension rear
- 25. Quarter corner panel
- 26. Rear combination lamp housing
- 27. Rear bumper bracket
- 28. Quarter outer extension lower
- 29. Striker reinforcement
- 30. Side outer panel
- 31. Side sill outer reinforcement rear
- 32. Side sill outer reinforcement center
- 33. Side sill outer reinforcement front
- 34. Side sill reinforcement support
- 35. Side sill (A) bulkhead (LHD, Left side)
- 36. Side sill bulkhead
- 37. Center pillar reinforcement
- 38. Rear door hinge reinforcement lower
- 39. Rear door hinge reinforcement upper
- 40. Center pillar inner
- 41. Front pillar reinforcement upper
- 42. Center pillar seatbelt reinforcement
- 43. Rear seatbelt wheel house reinforcement
- 44. Spring house brace
- 45. Rear wheel house inner panel
- 46. Spring house panel
- 47. Spring house bracket
- 48. Side sill end plate

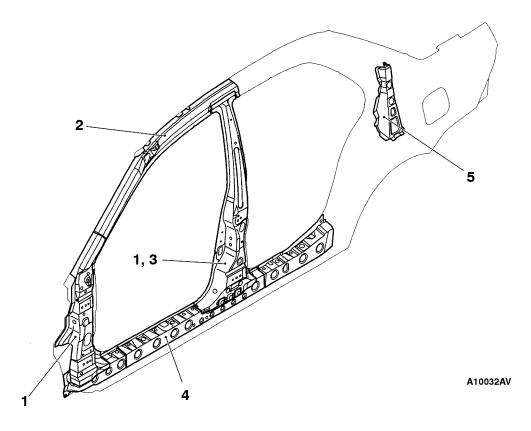
## A-14 BODY CONSTRUCTION - Body Construction Characteristics

#### Side Structure Reinforcement

- 1. The thickness of the reinforcements of the front pillar and center pillar has been increased to improve collision safety.
- 2. The front pillar reinforcement upper, side outer panel, and front roof rail have been joined to improve twisting rigidity.
- 3. The side sill has been made thin by employing a variable thickness steel sheet\* for the center pillar reinforcement to improve safety in collision and realize lightweight.
- 4. The cross section of the side sill outer reinforcement has been made large to improve safety in collision and body rigidity.
- 5. A rear pillar reinforcement has been added, and the rear shelf and rear wheel house have been joined to improve the twisting rigidity of the suspension attaching portion.

#### NOTE

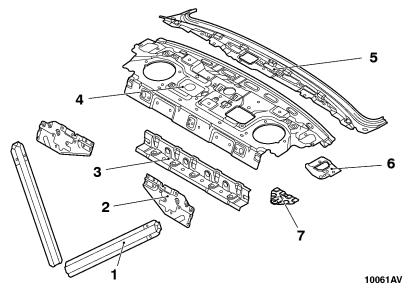
\*: Steel sheets with different thickness welded to form one steel sheet.



## **REAR BODY**

#### **Rear Deck**

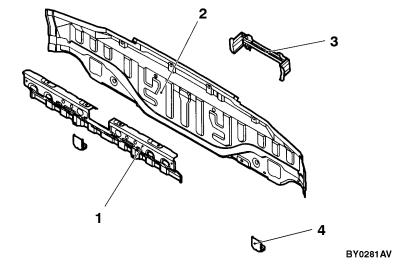
A rear shelf extension has been added to form closed surface structure. Then, the rear shelf and the rear floor have been joined to improve the torsion rigidity of the seat back plate.



- 1. Seat back plate
- 2. Rear seat back panel
- 3. Rear shelf extension
- 4. Rear shelf panel

#### Rear end panel

- 5. Rear shelf reinforcement
- 6. Trunk lid hinge reinforcement
- 7. Seat belt reinforcement (Europe and General Export spec. models)

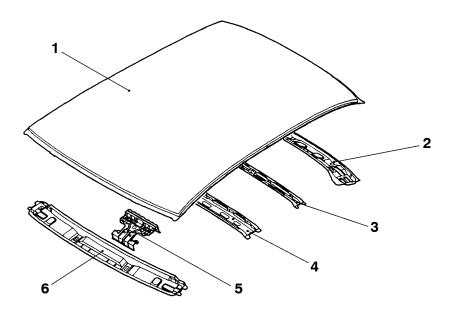


- 1. Rear end panel inner
- 2. Rear end panel outer

- 3. Rear license plate bracket
- 4. Bumper bracket lower

## ROOF

The cross section of the roof bow has been made large to improve safety in collision.



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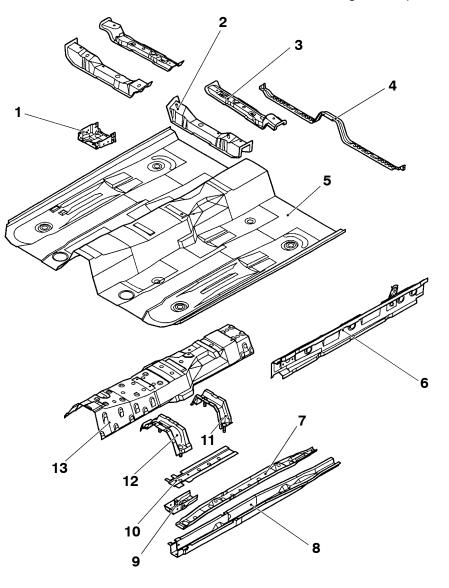
- Roof panel
  Rear roof rail
- 3. Rear roof bow

- 4. Front roof bow
- Map lamp bracket
  Front roof rail

## UNDER BODY

#### **Front Floor**

The cross section of the front floor sidemember has been made large to improve safety in collision.

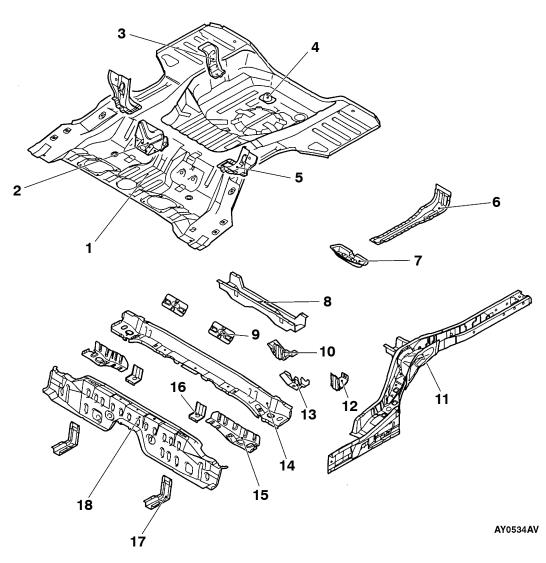


- 1. Installment panel center bracket reinforcement
- 2. Front floor crossmember front
- 3. Front floor crossmember rear
- 4. Front floor extension panel rear
- 5. Front floor pan
- 6. Front floor side sill inner
- 7. Front floor sidemember reinforcement rear (LHD, Left side)
- 8. Front floor sidemember
- 9. Front floor sidemember reinforcement front (LHD, Left side)

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- 10. Front floor sidemember reinforcement
- 11. Backbone crossmember rear
- 12. Backbone crossmember front
- 13. Backbone reinforcement

#### **Rear Floor**

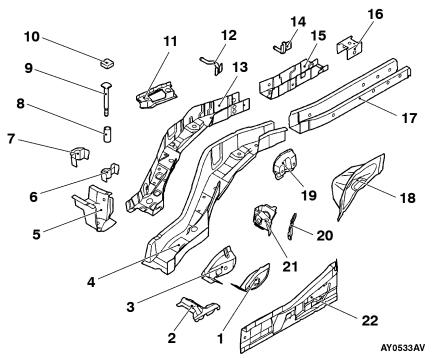


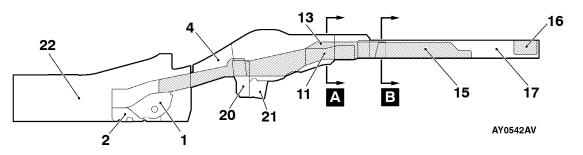
- 1. Rear floor pan
- 2. Seat back plate extension
- 3. Jack bracket
- 4. Spare tire bracket
- 5. Rear seat back reinforcement
- 6. Towing hook reinforcement
- 7. Crossmember center support
- 8. Rear floor crossmember
- 9. Rear floor seatbelt reinforcement
- 10. Differential/fuel support bracket rear (Vehicles with mechanical LSD)

- 11. Rear floor sidemember
- 12. Fuel tank rear bracket (Vehicles with AYC)
- 13. Differential/fuel support bracket front (Vehicles with mechanical LSD)
- 14. Rear seat crossmember
- 15. Seat crossmember reinforcement
- 16. Fuel tank front reinforcement
- 17. Front floor sidemember extension
- 18. Rear floor extension

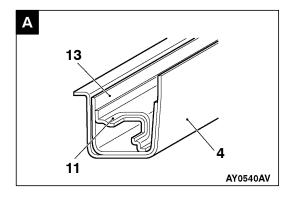
A-18

#### **Rear Floor Sidemember Reinforcement**

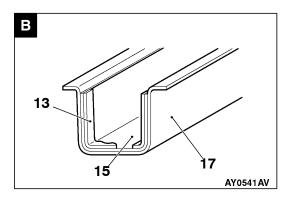




- 1. Trailing arm outer bracket
- 2. Rear floor sidemember support
- 3. Trailing arm inner bracket
- 4. Rear floor sidemember
- 5. Rear floor crossmember extension
- 6. Differential mount bulkhead
- 7. Differential mount reinforcement
- 8. Pipe
- 9. Square head bolt
- 10. Retainer
- 11. Rear suspension bracket



- 12. Muffler hanger center
- 13. Rear floor sidemember reinforcement front
- 14. Muffler hanger rear
- 15. Rear floor sidemember reinforcement rear
- 16. Bumper stay reinforcement (RS)
- 17. Rear floor sidemember extension
- 18. Rear floor sidemember reinforcement
- 19. Upper link bracket
- 20. Toe-control link side reinforcement
- 21. Toe-control link bracket
- 22. Rear floor side sill

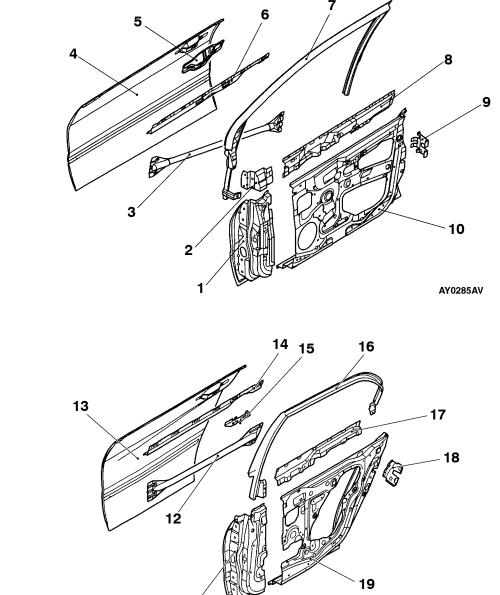


## DOOR

The front and back of the side door beam has been made large to cope with the force from the front and sides during collision.

#### Front door

Rear door



11

- 1. Front door hinge panel
- 2. Front door hinge reinforcement upper
- 3. Front door side door beam
- 4. Front door outer panel
- 5. Front door outside handle reinforcement
- 6. Front door beltline reinforcement outer
- 7. Front door window sash
- 8. Front door beltline reinforcement inner
- 9. Front door latch reinforcement
- 10. Front door inner panel

- 11. Rear door hinge panel
- 12. Rear door side door beam upper
- 13. Rear door outer panel
- 14. Rear door beltline reinforcement outer

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- 15. Rear door beltline bracket
- 16. Rear door window sash
- 17. Rear door beltline reinforcement inner
- 18. Rear door latch reinforcement
- 19. Rear door inner panel

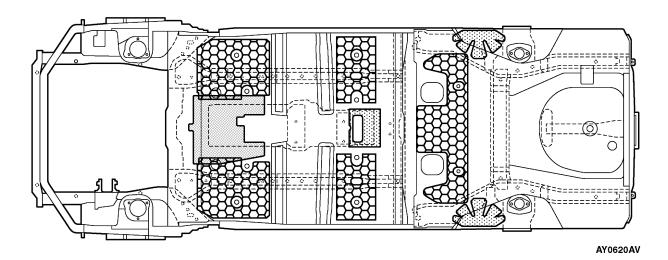
# SILENCER APPLICATION LOCATIONS

Silencers (MD-12 and melting sheets) are attached to the top of the floor to reduce vibration and insulate against the heat from exhaust gas.

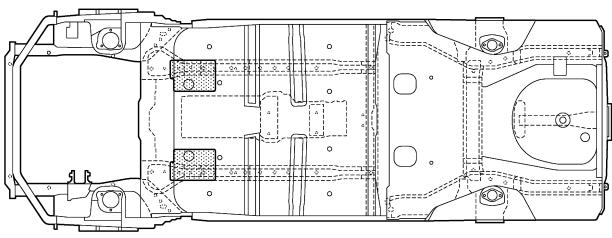
NOTE

MD-12 is a high performance sheet composed of asphalt applied with mica and thermosetting resin for improving anti-vibration performance.

<RS-II>



<RS>



AY0621 AV

: 1.6 mm thick melting sheet

: 3.2 mm thick melting sheet (Place two 1.6 mm melting sheets one on top of another.)

: 4.0 mm thick MD-12 (Place three 1.6 mm melting sheets one on top of another.)

#### NOTE

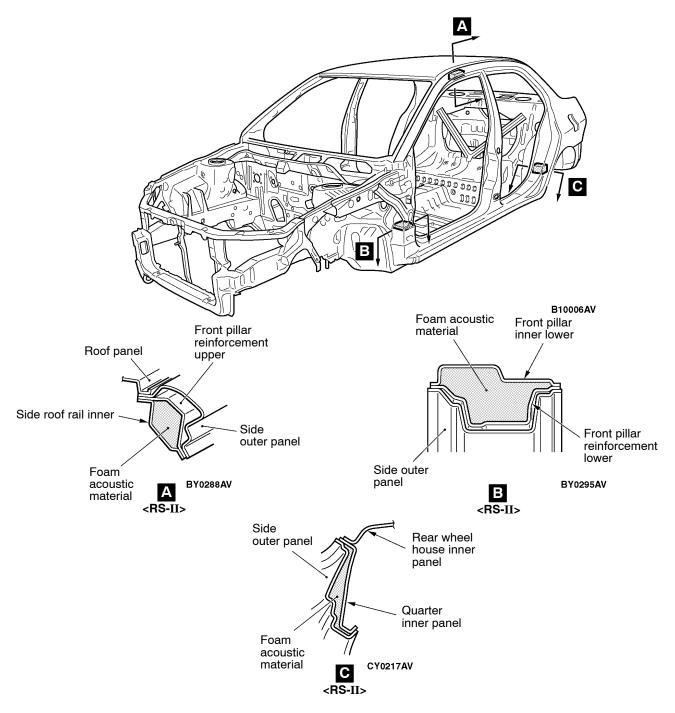
The number in the parentheses indicates the number of melting sheet used for repair.

# LOCATIONS USING URETHANE FOAM AND FOAM MATERIAL

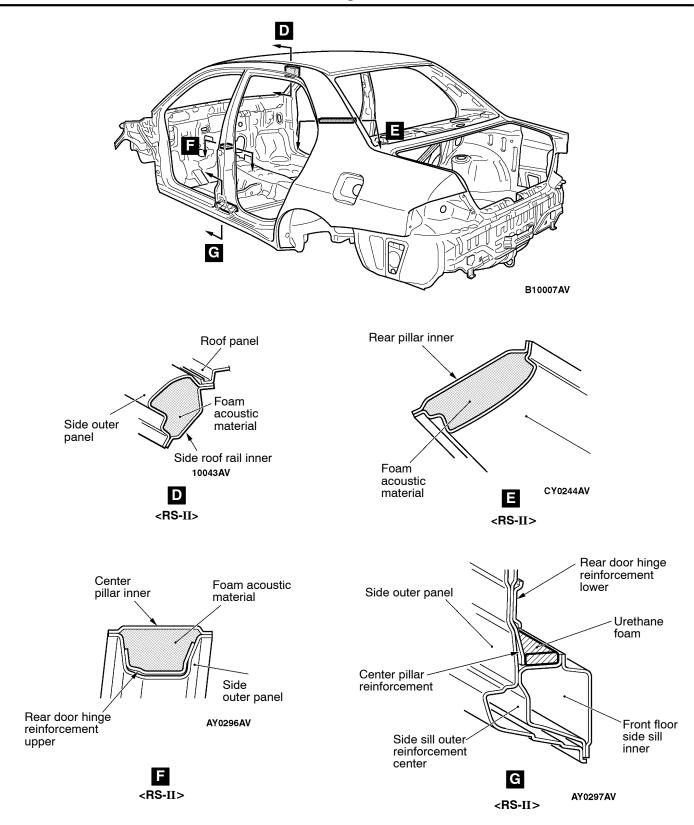
- 1. Urethane foam is inserted into the center pillar to prevent the penetration of noise.
- 2. By filling the top of the front pillar, bottom of the front pillar, center pillar, side roof rail, rear pillar and inside the wheel house arch with foam acoustic material, penetration of noise is prevented.

Precautions on performing work involving sheet metal at locations using foam material As foam may burn when heated, observe the following precautions.

- 1. Do not perform heating work using gas burners at locations using foam material.
- 2. When cutting locations using foam material, use tools (air saw, etc.) which do not generate heat.
- 3. If leftover foam material is present at the area to be cut (body side), remove the foam around the area to be welded before proceeding with welding.



# BODY CONSTRUCTION - Locations Using Urethane Foam and Foam Material A-23

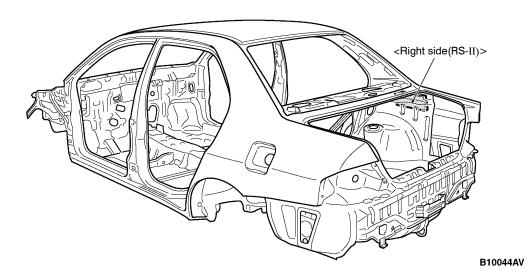


# STIFFENER AND DUMP SHEET APPLICATION LOCATIONS

Stiffener is pasted to the inside of the side outer panel, and dump sheets are pasted on the inside of the front doors to increase surface rigidity, thus improving soundproof qualities with the anti-vibration effects.

#### NOTE

The stiffener comes in sheet form and is composed mainly of epoxy resin, glass fibers, and fillers. It hardens when heated. It is used to improve the rigidity of outer panels. **Stiffener** 



Dump sheet

