CONTENTS

GENERAL INFORMATION

GENERAL GUIDE LINES AND PRECAUTIONS

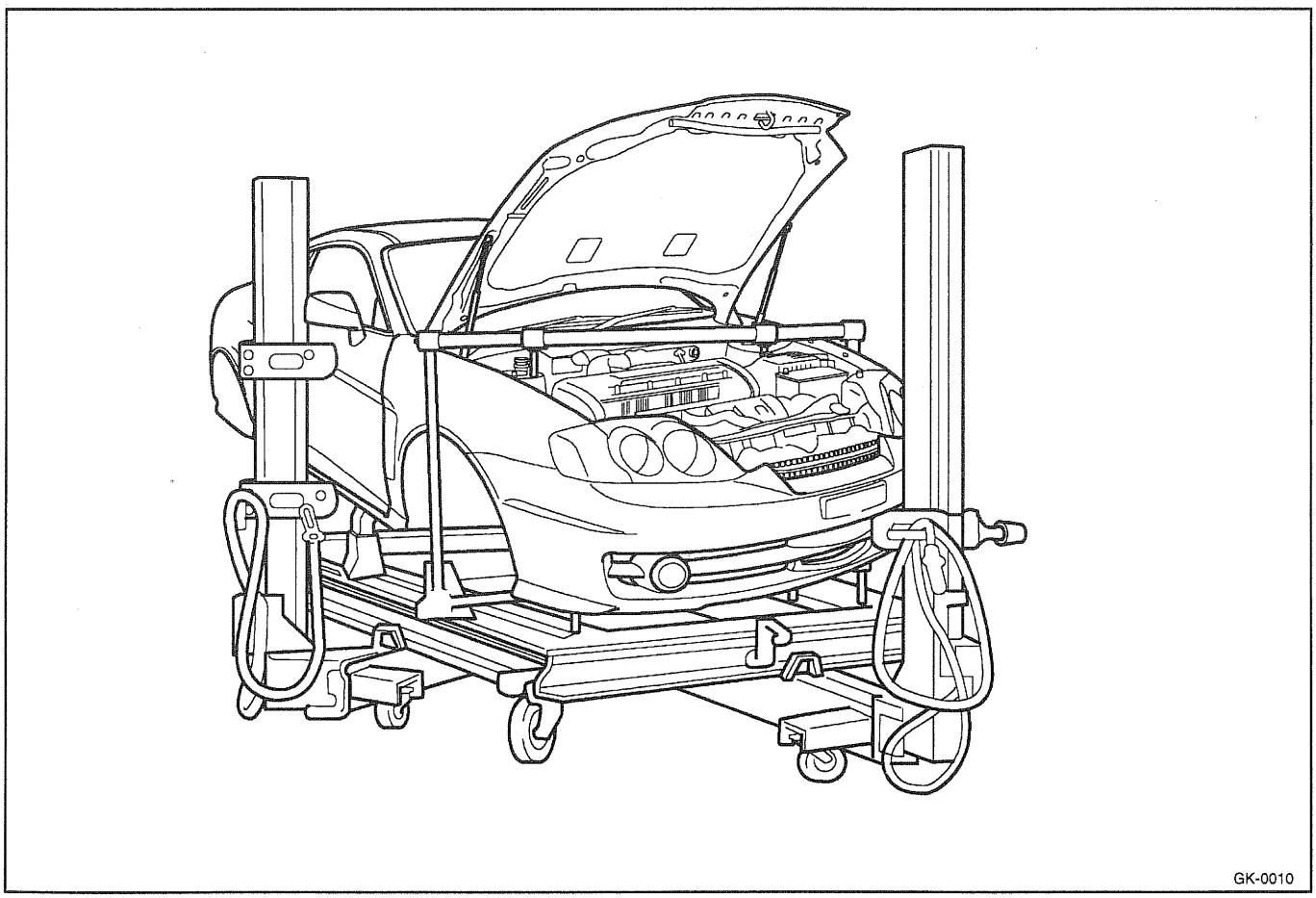
The Hyundai TIBURON/COUPE is a completely new vehicle design. During its development, close attention has been given to safety, stability, weight and corrosion protection. Typical of unit body design, the Hyundai TIBURON/ COUPE is designed so that the front and rear compartments will absorb much of the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

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

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

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

Certain guidelines and precaution are noted as follows.



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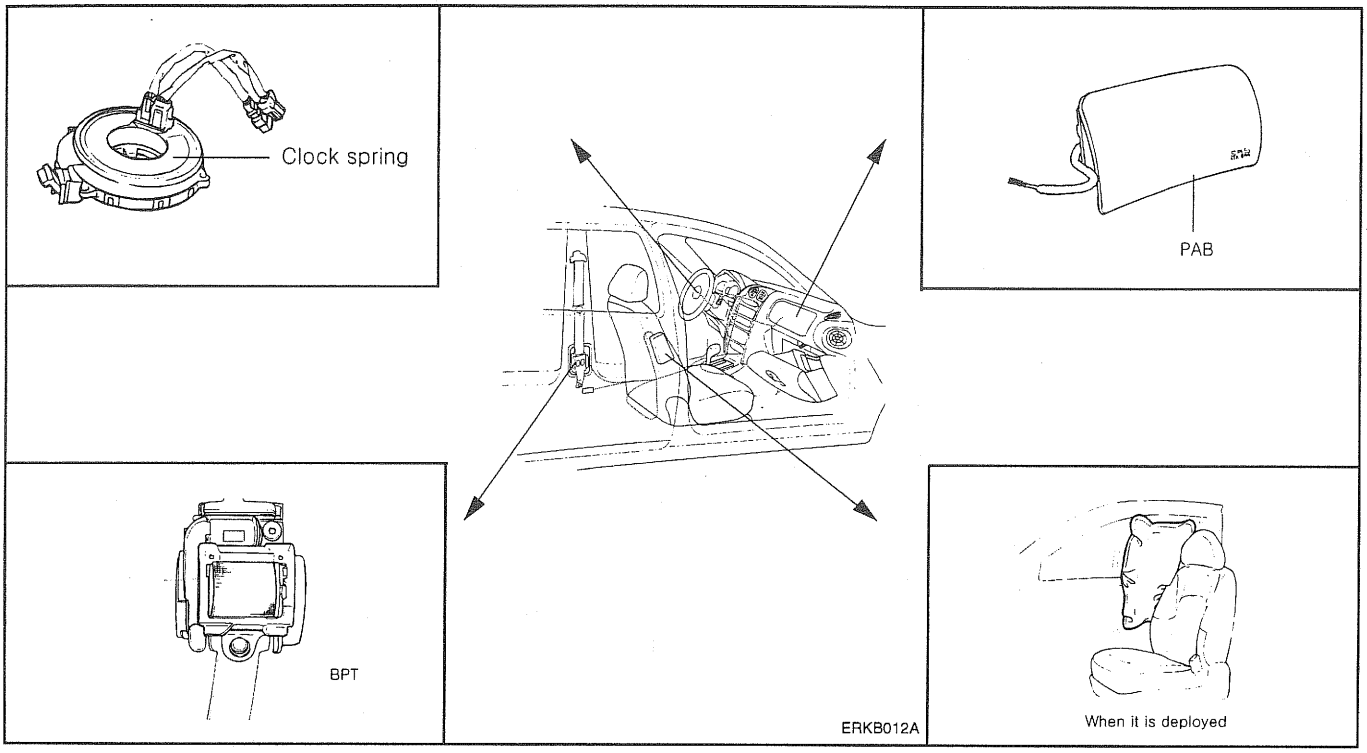
SRS AIRBAG

SYSTEM COMPONENT



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

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

Also take the following precautions when repairing the body:

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

ELECTRONIC PARTS

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

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

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

CORROSION PROTECTION AND SEALING

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

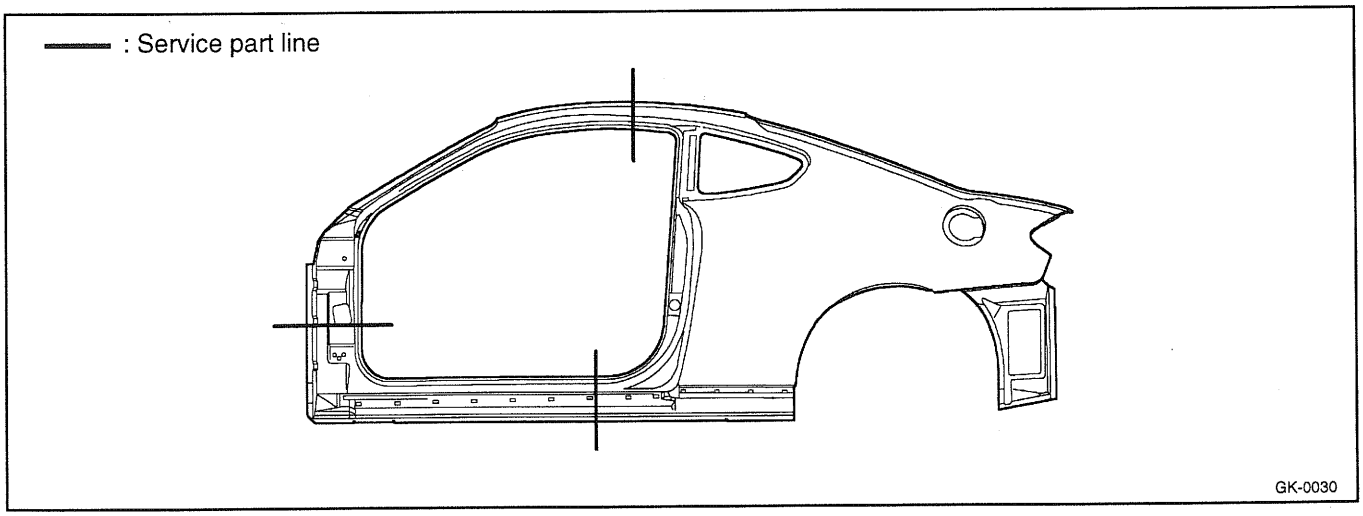
A two part epoxy primer was applied to the metal surfaces during the latter part of the repair. For closed sections, such as front and rear rails, rocker panels and pillars, the primer is applied without applying the metal conditioner and the conversion coating. These steps are omitted to insure that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

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

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

SIDE BODY PANELS

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

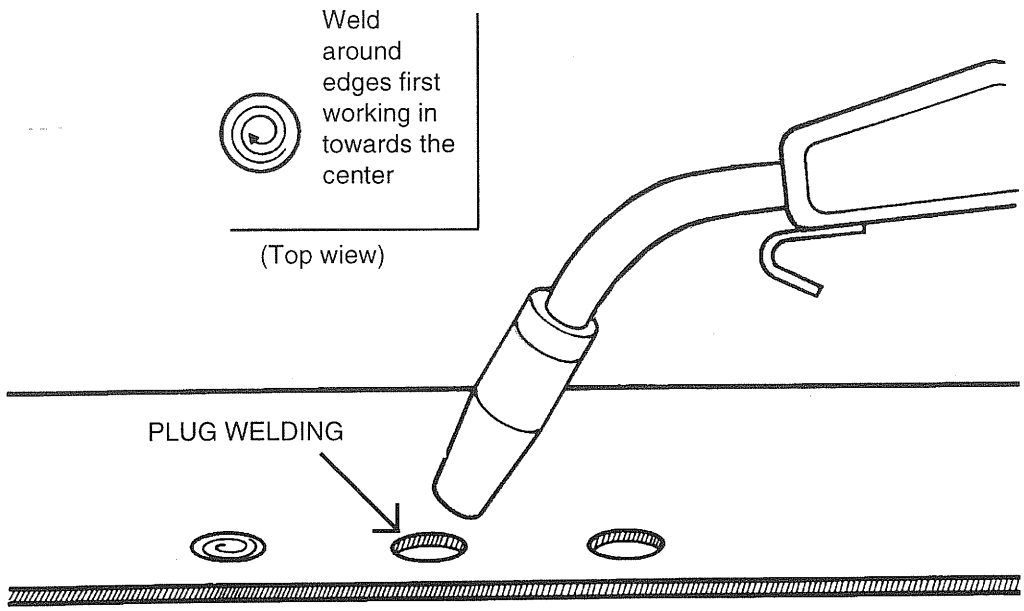


WELDING

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

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

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



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

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SAFETY FACTORS

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

BODY CONSTRUCTION

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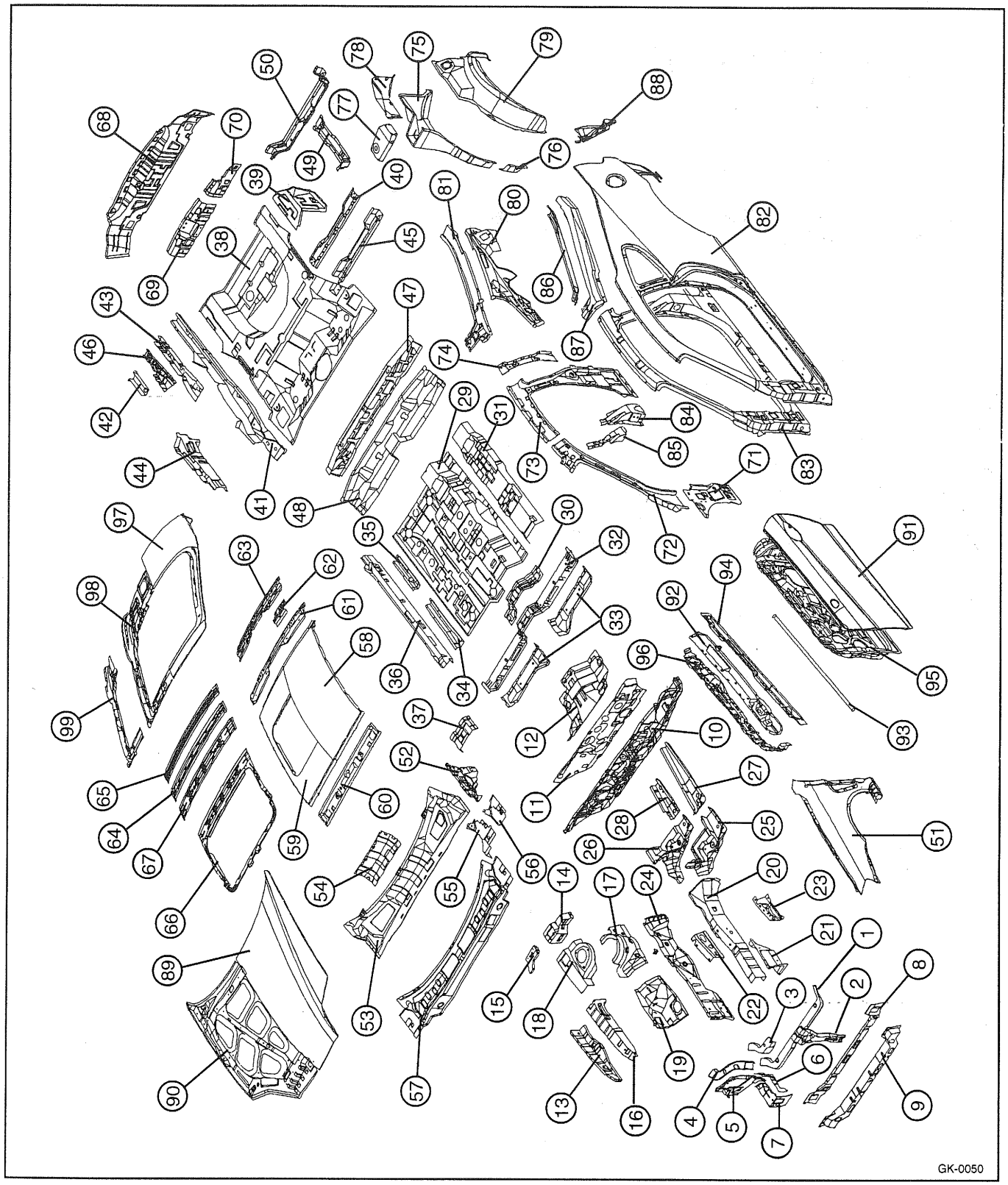
BODY COMPONENTS

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



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