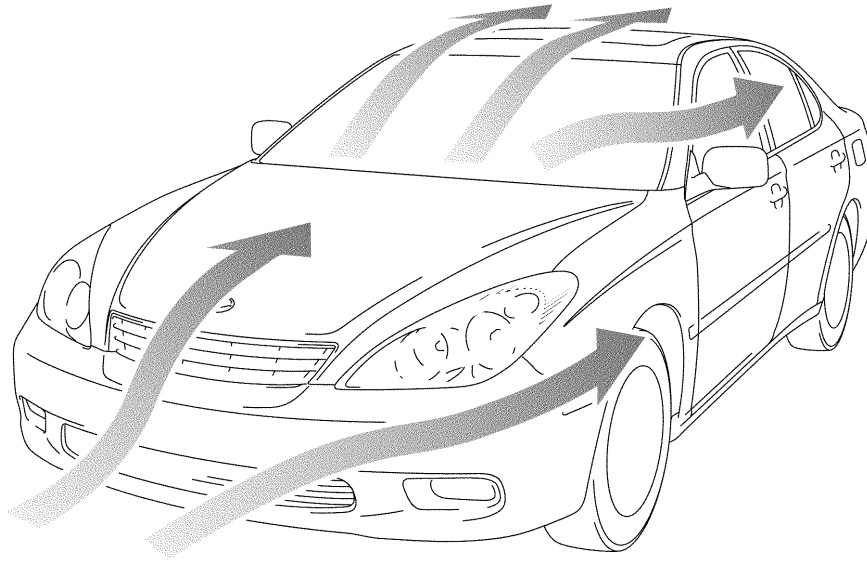


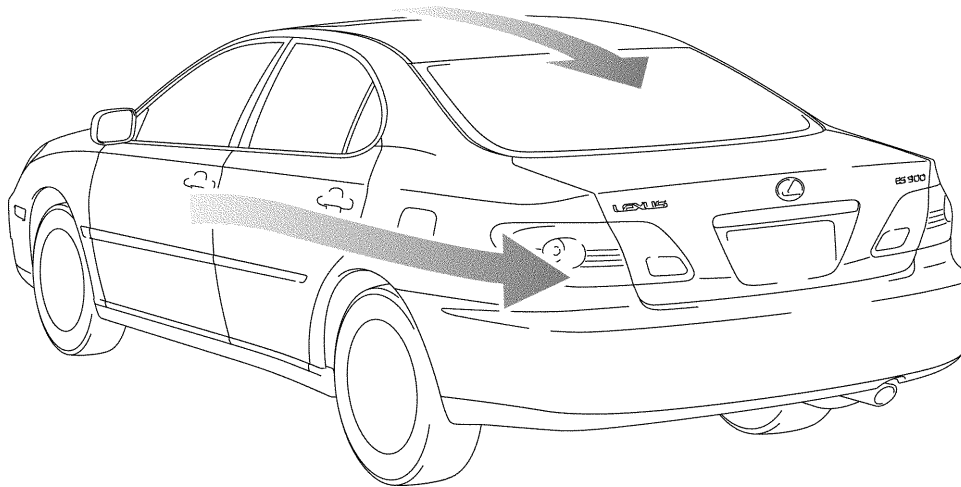
■ AERODYNAMICS

To improve aerodynamic performance, the following measures have been taken.

- The shape of the front bumper has been optimized to collect the flow of air from under the floor and the sides of the body.
- The flattened under body smoothly guides the under-the-car air flow towards the rear.
- The shape of the rear bumper has been optimized so as not to obstruct the flow of air under the floor.



211BO12



211BO13

BODY

BODY STRUCTURE

■ LIGHTWEIGHT AND HIGH RIGID BODY

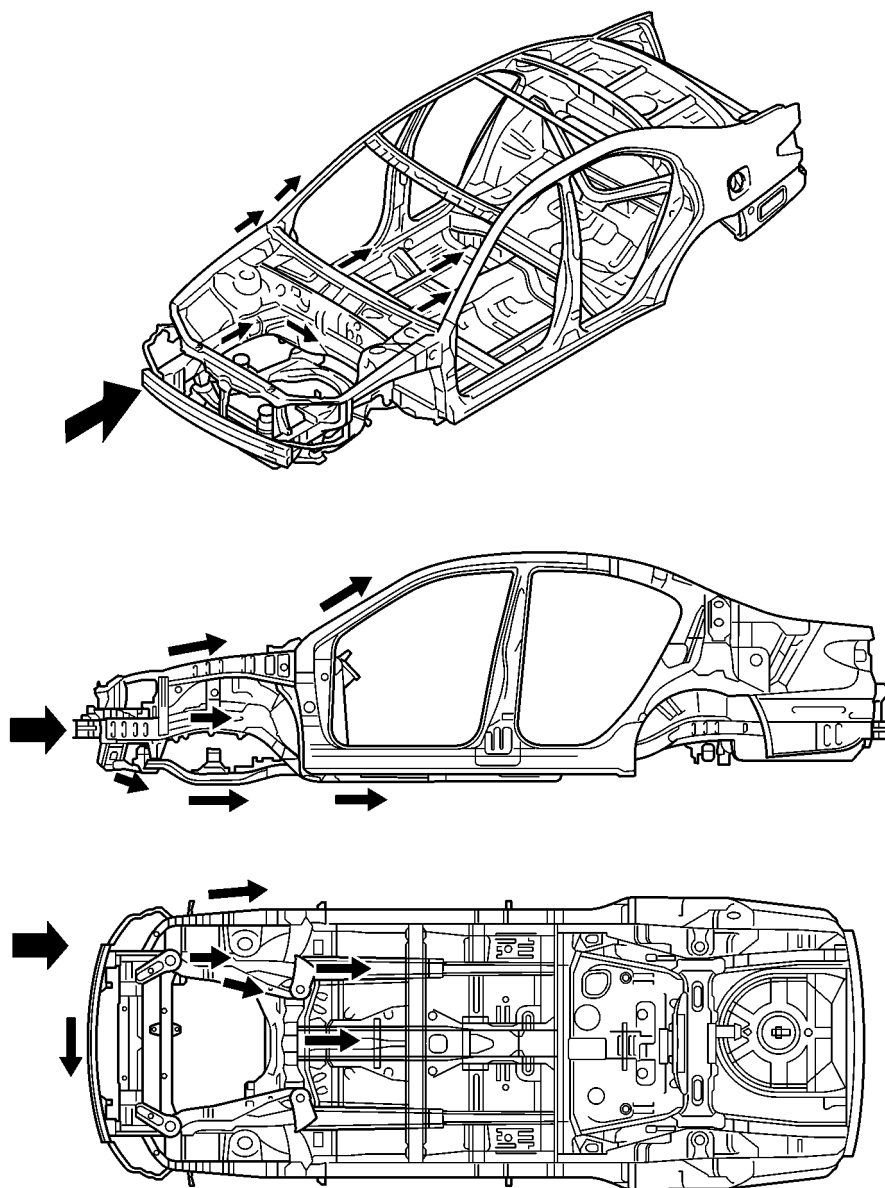
High strength sheet steel has been used in order to ensure body rigidity and realize a lightweight body.

■ SAFETY FEATURE

1. Impact Absorbing Structure for Frontal Collision

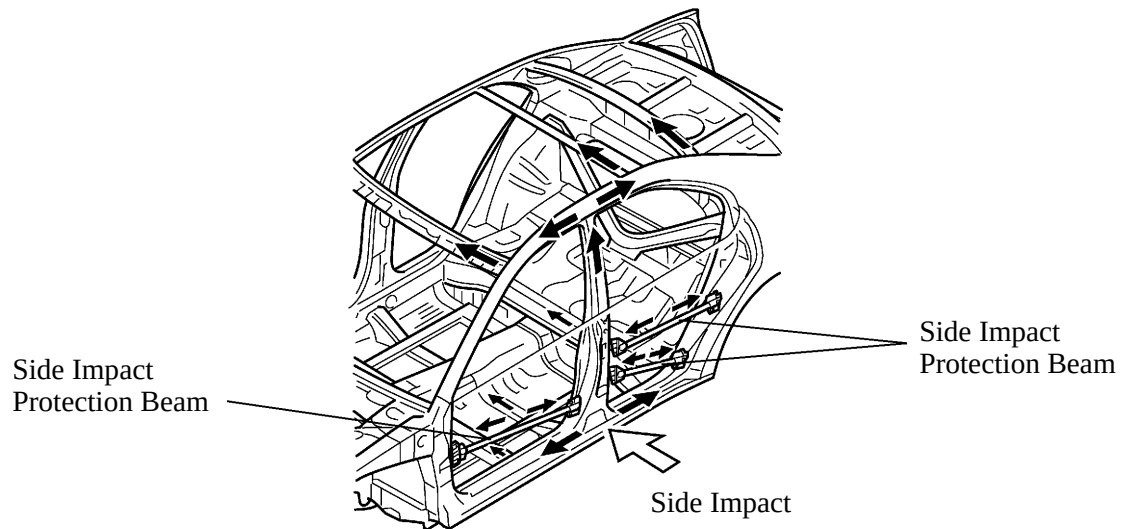
The impact absorbing body structure of the '02 ES300 can effectively help absorb the energy of impact in the event of a frontal or side collision. This structure also realizes high-performance occupant protection through the use of reinforcements and members that help to minimize cabin deformation.

► Frontal Collision Load Distribution Diagram ◀



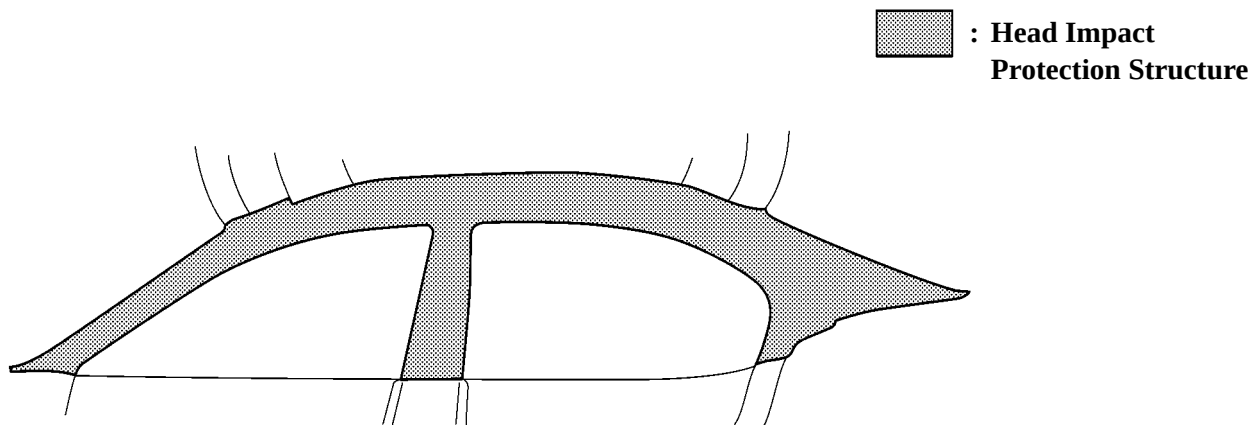
2. Impact Absorbing Structure for Side Collision

- Impact energy of a side collision directed to the cabin area is dispersed throughout the body via pillar reinforcements, side impact protection beams, floor cross members, thus helping minimize the impact energy finally directed to the cabin.

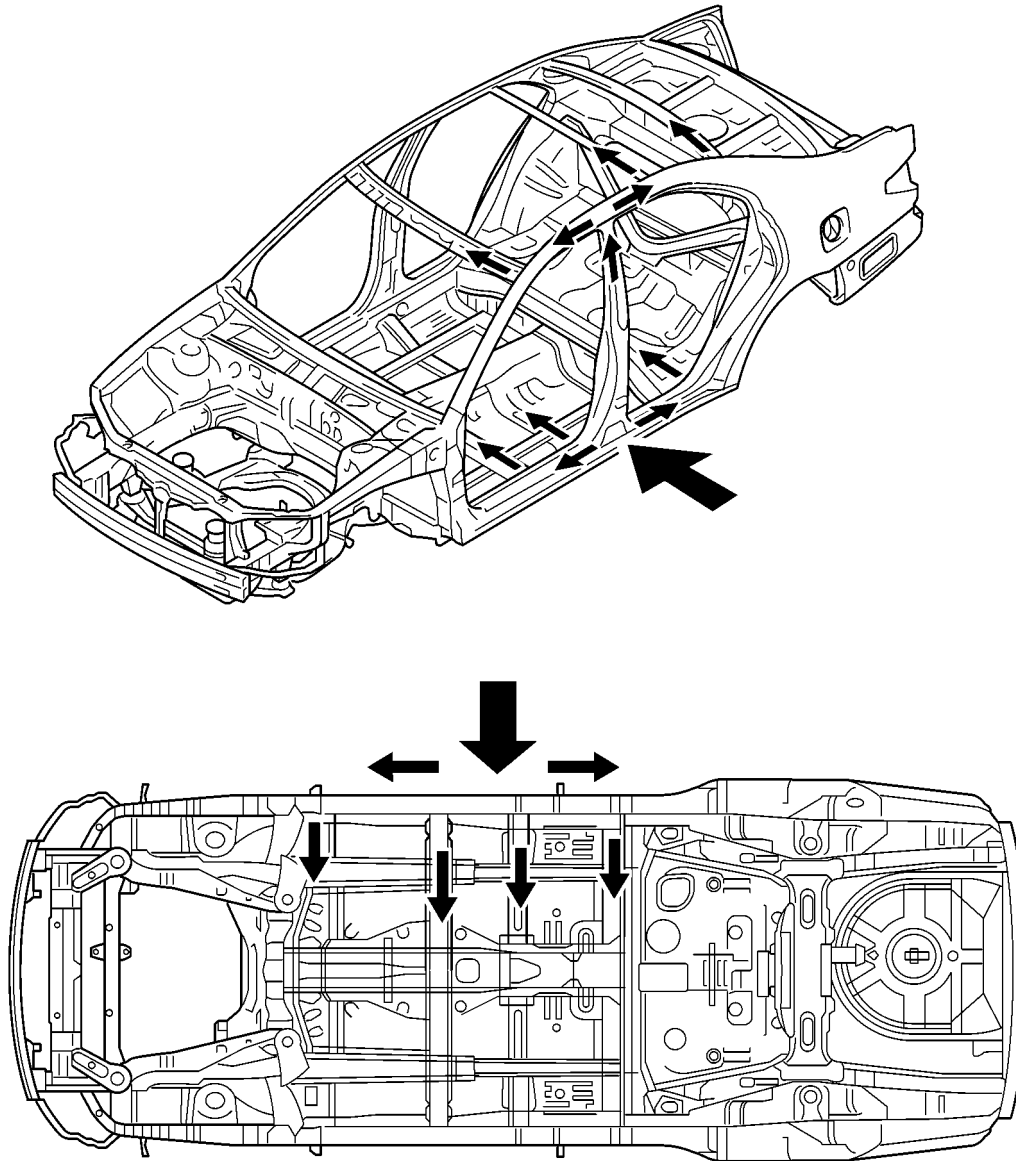


211BO02

- A Head Impact Protection Structure has been adopted. With this type of construction, if the occupant's head hits against the roof side rail and pillar in reaction to a collision, the inner panel of the roof side rail and pillar collapses to help reduce the impact.



211BO10

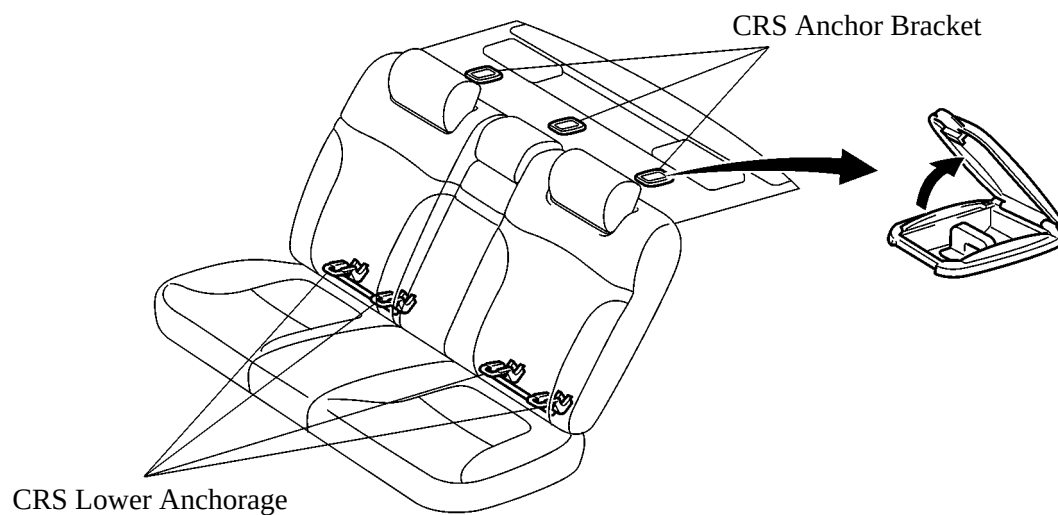
► Side Collision Load Distribution Diagram ◀

ENHANCEMENT OF PRODUCT APPEAL

■ REAR SEAT

CRS (Child Restrain System) lower anchorage for securing child seats has been provided behind the seat cushion of the rear seat.

Three CRS anchor brackets for securing a child seat have been provided above the package tray trim.

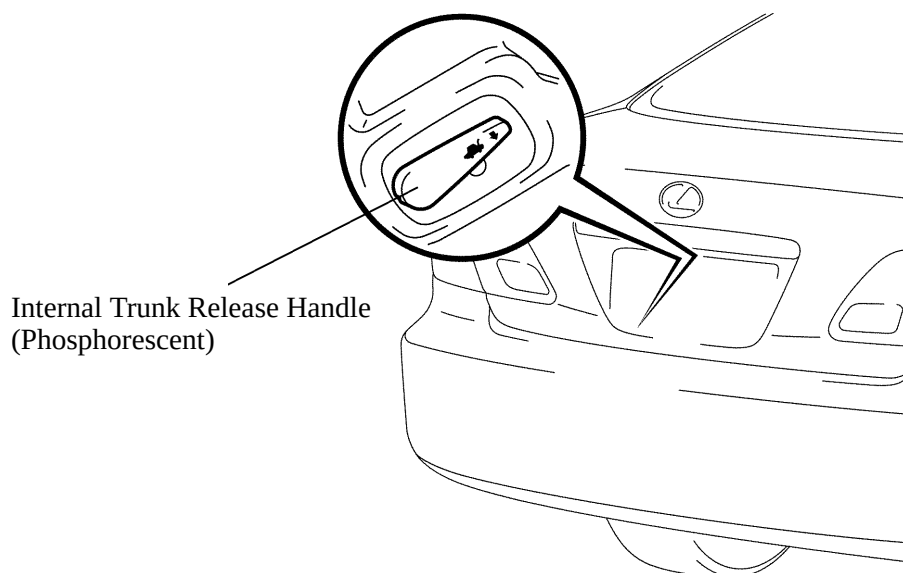


211BO08

■ INTERNAL TRUNK RELEASE HANDLE

In case a person inadvertently locks oneself within the trunk and needs to free oneself, an internal trunk release handle is included inside the luggage room.

The handle is made of phosphorescent, so that it is visible in the luggage room for a while even after the luggage room has been closed.



211BO14

■ SEAT BELT

1. General

- The following types of seat belts are provided:

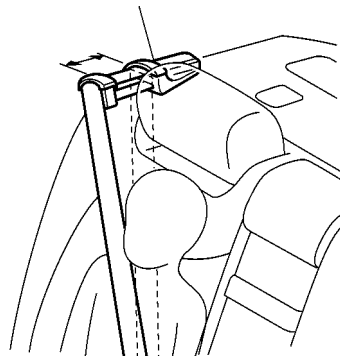
Seat	Seat Belt Type	Remarks
Driver	3-point ELR (Emergency Locking Retractor)	Electrical sensing type Pretensioner & Force Limiter
Front Passenger	3-point ELR & ALR (Automatic Locking Retractor)	Electrical sensing type Pretensioner & Force Limiter
Rear Passenger (LH, RH, and Center)		—

- The function of the airbag sensor assembly to memorize the driver and front passenger's seat belt wearing condition while inflating the airbag is added.
- Seat belt comfort guide for children or small occupant are provided on the both sides of rear seats.

2. Seat Belt Comfort Guide

This comfort guides for child or small occupant have been adopted on the both sides of rear seats. With this device, the belt guide can be slid to reduce the discomfort when the normal seat belt position would be too close to the person who is wearing the seat belt.

Seat Belt Comfort Guide



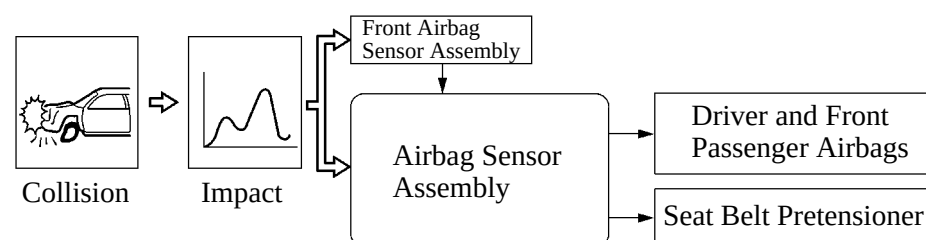
211B009

3. Pretensioner and Force Limiter

In accordance with the ignition signal from the airbag sensor assembly, the seat belt pretensioner activates simultaneously with the deployment of SRS airbag for the driver and front passenger.

In the beginning of the collision, the seat belt pretensioner instantly pulls up the seat belt thus providing the excellent belt's effectiveness in restraining the occupant.

When the impact of a collision causes the tension of the seat belt applied to the occupant to reach a predetermined level, the force limiter activates to control the force.

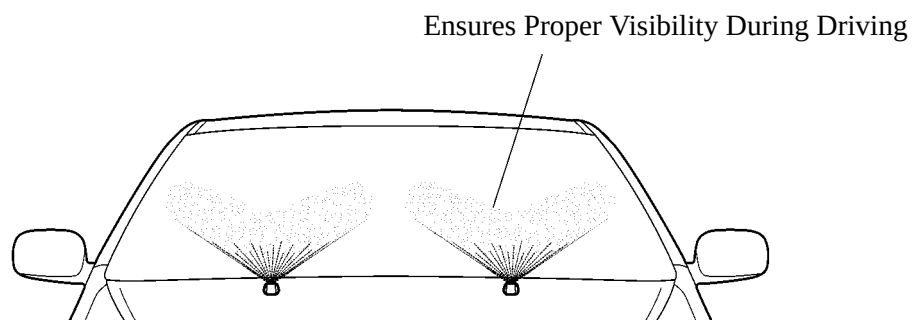


196B021

■ WINDSHIELD WASHER NOZZLE

Spray type windshield washer nozzles have been adopted. Because these nozzles can spray windshield washer fluid in a wide range, excellent wiping performance has been achieved.

The spray pattern has been designed so that it will not obstruct the driver's view.



Spray Pattern During Driving

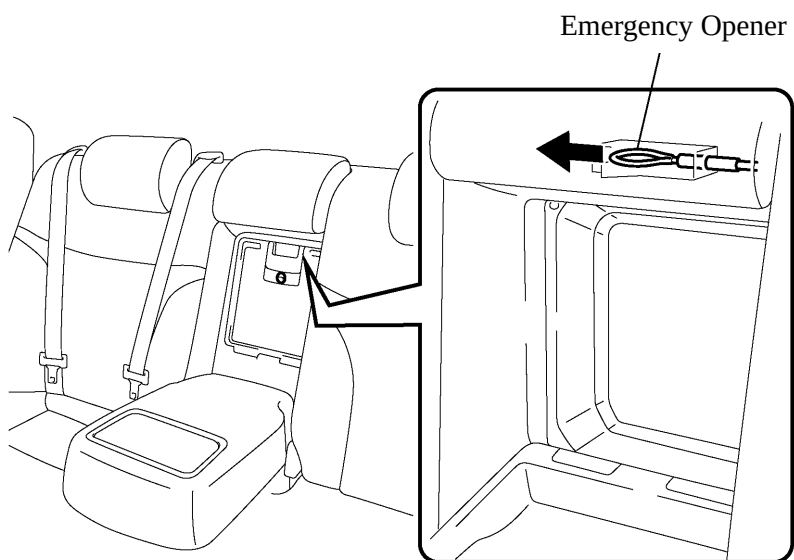
208BO20

Service Tip

With the adoption of the spray-type windshield washer nozzles, it is no longer necessary to adjust the nozzles.

■ LUGGAGE COMPARTMENT DOOR

In order to secure security, a key cylinder of the luggage compartment door has been discontinued. In accordance with this, an emergency opener has been adopted.



211BO11

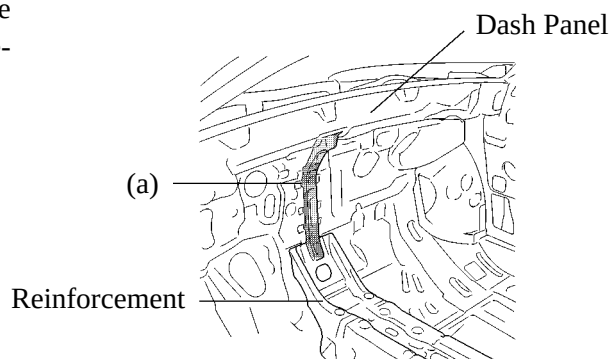
■ LOW VIBRATION AND LOW NOISE BODY

1. General

Effective application of vibration damping and noise suppressant materials reduce engine and road noise.

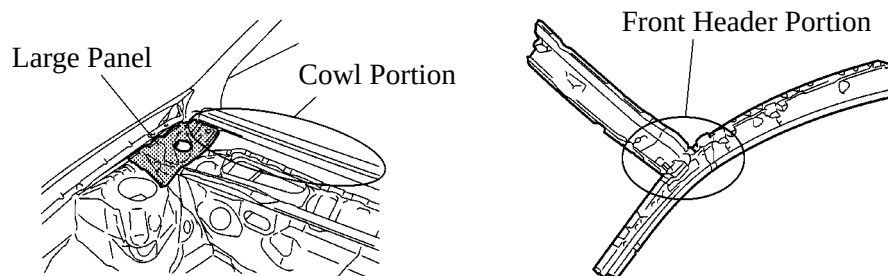
2. Body Shell Construction

- (a) The dash panel and the reinforcement at the top of the floor tunnel have been joined to restrain vibration.



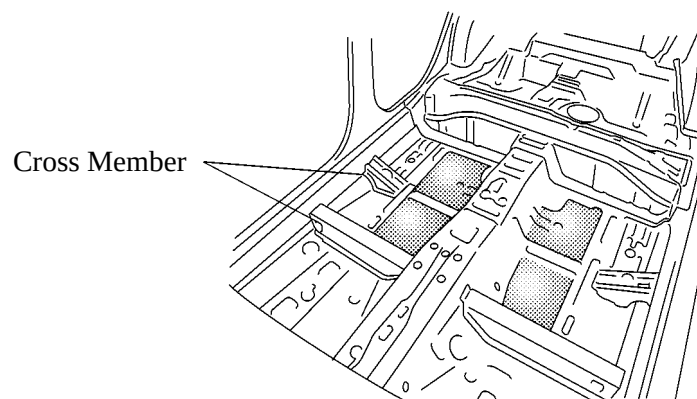
208BO08

- (b) To restrain the vibration of the front windshield glass, the cowl and front header portion that support the glass have been reinforced.
In addition, a large panel that connects the spring support to the cowl has been provided to ensure the rigidity of the spring support.



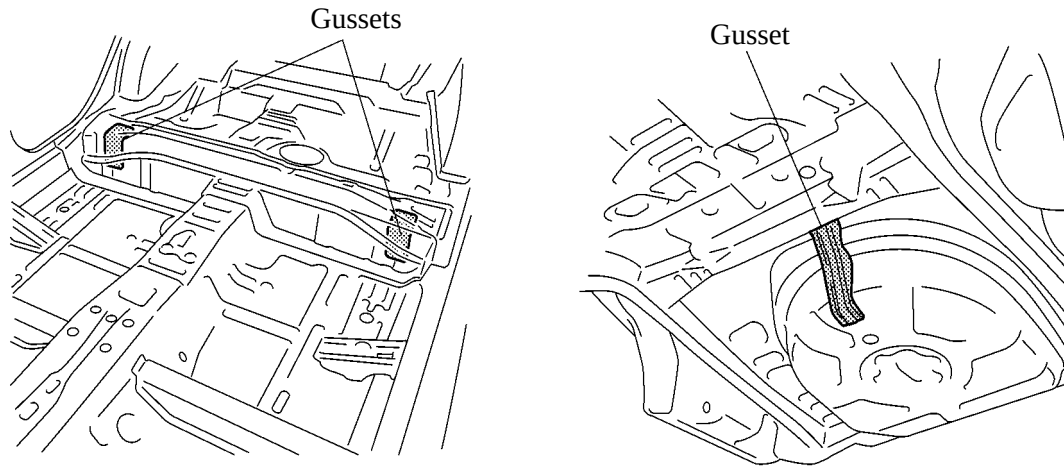
208BO09

- (c) The floor panel has been provided with a curvature to increase the rigidity of the panel, and the panel has been separated by a cross member to restrain the vibration of the panel.



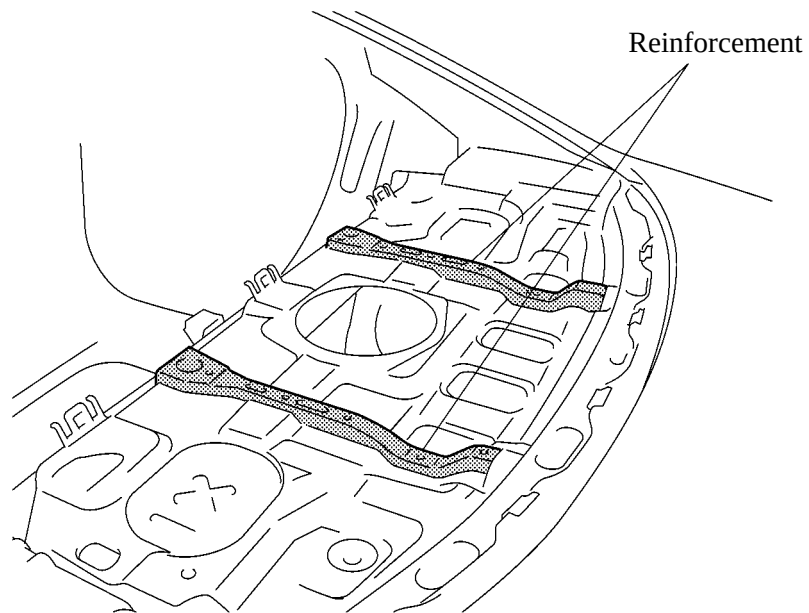
208BO10

- (d) Gussets have been added to the floor under reinforcement in order to restrain the vibration that is created by the difference in angles between the front floor and the center floor.
- (e) Gusset has been added to the front portion of the spare tire housing to restrain vibration.



208BO12

- (f) Two reinforcements that separate the upper back panel surface have been provided to restrain the vibration of the upper back panel.

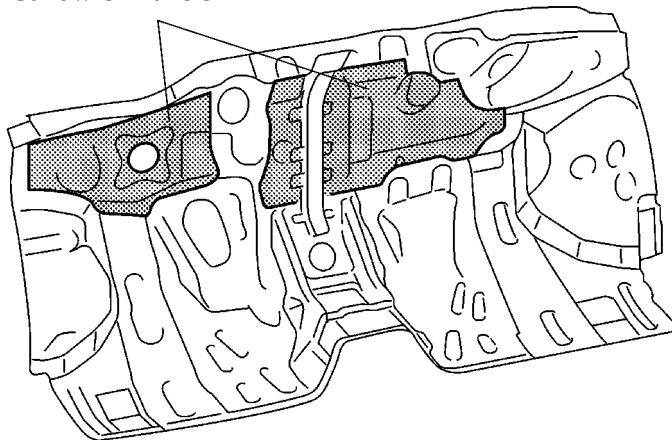


211BO07

3. Dash Panel Construction

Sandwich panels are used in the dash panel, which consists of a dash outer silencer, inner silencer, and floor tunnel silencer. This reduces engine and road noise and ensures a quieter vehicle operation.

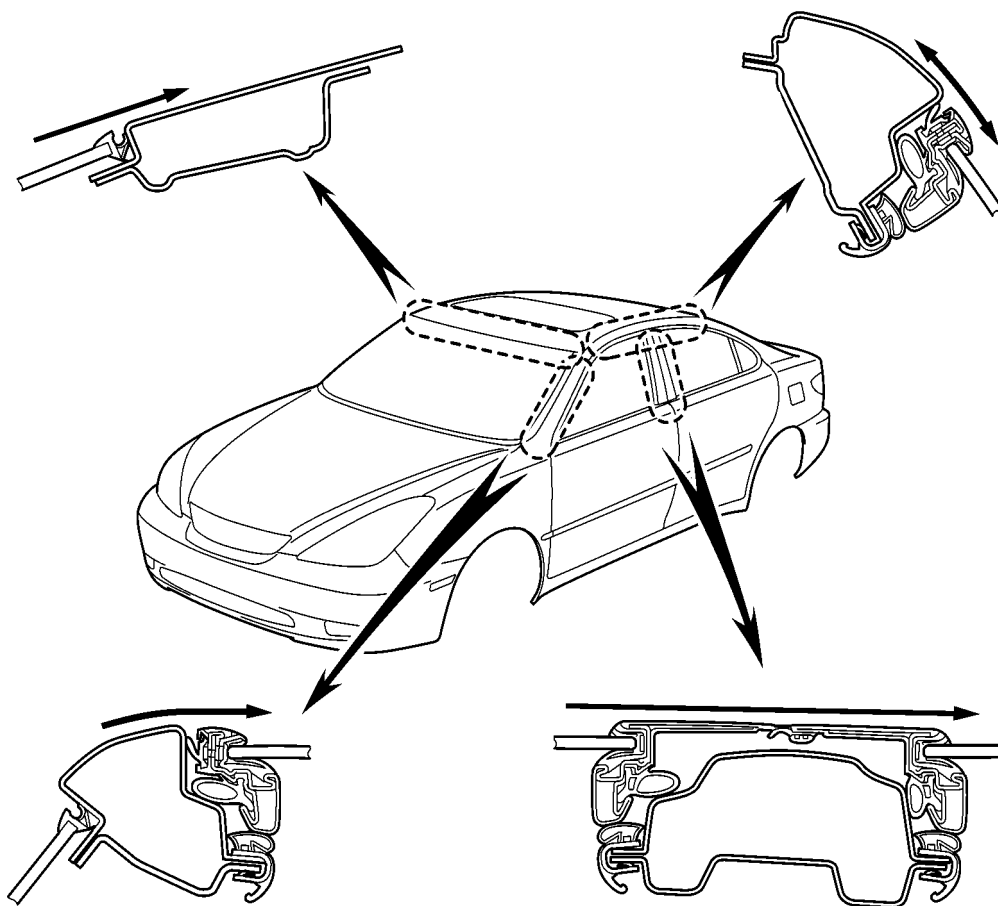
Sandwich Panels



208BO13

4. Roof Construction

The height offset has been eliminated from the glass, pillars, and the roof to reduce wind noise.



211BO06

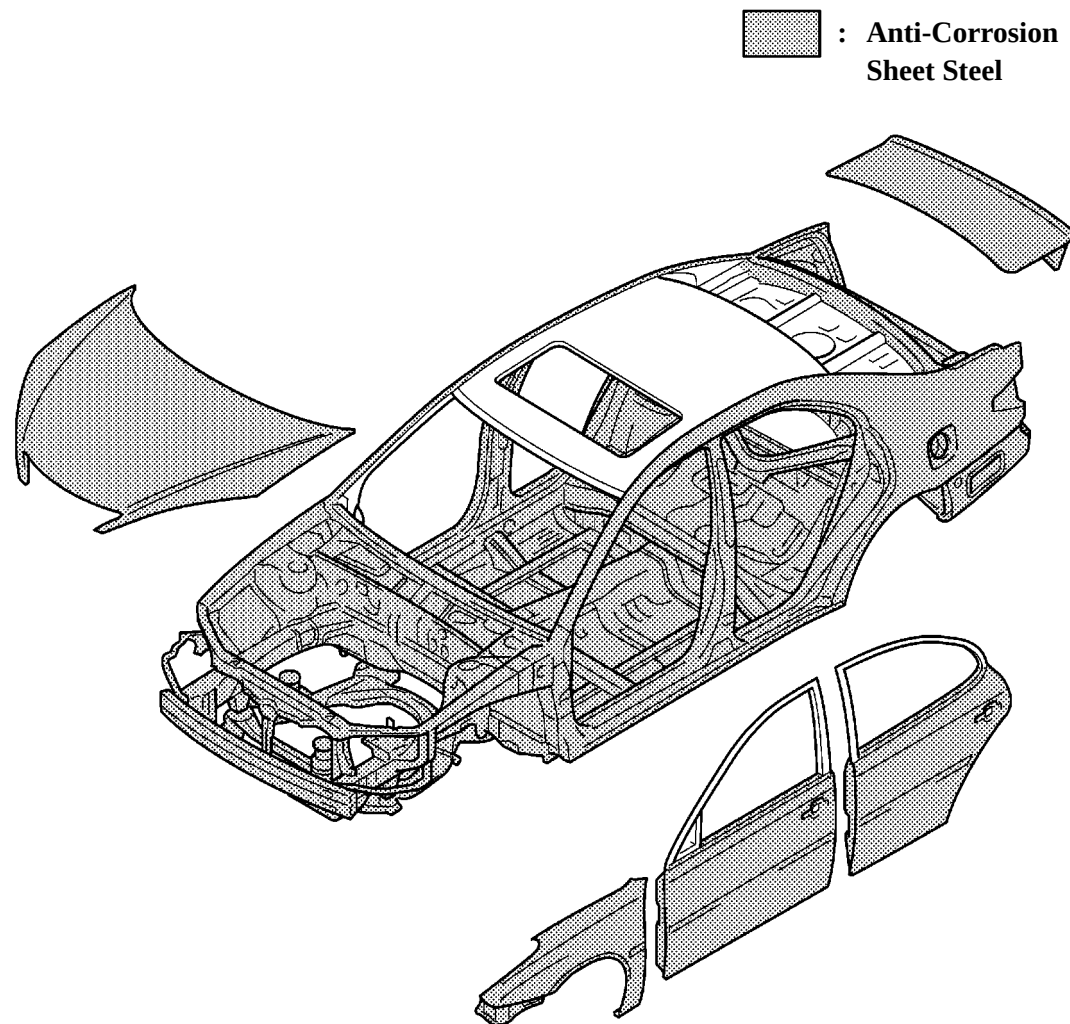
■ RUST-RESISTANT BODY

1. General

Rust-resistant performance is enhanced by extensive use of anti-corrosion sheet steel, as well as by an anti-corrosion treatment which includes the application of wax, sealer and anti-chipping paint to easily corroded parts such as the hood, doors and rocker panels.

2. Anti-Corrosion Sheet Steel

Anti-corrosion sheet steel is used in all areas other than the roof and interior parts.



211BO04

3. Wax and Sealer

Wax and sealer are applied to the hemmed portions of the hood, door panels and luggage compartment door to improve rust-resistant performance.