Supplemental Restraint System (SRS)

Description

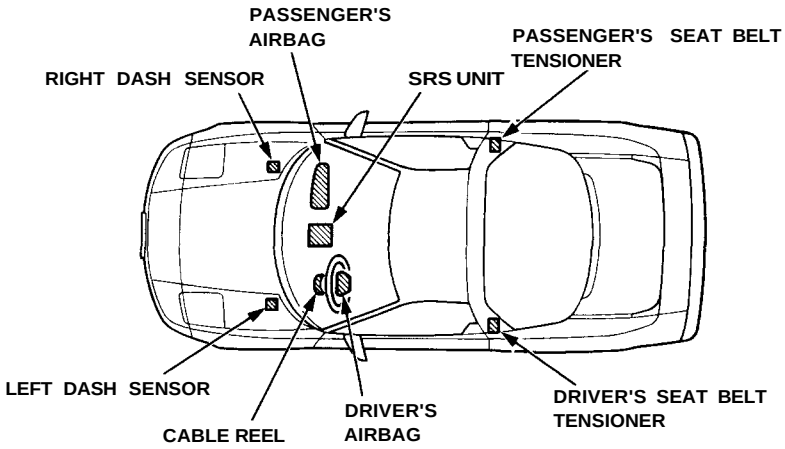
SRS Airbag System

The SRS is a safety device which, when used in conjunction with the seat belts, is designed to protect the driver and passenger in a frontal impact exceeding a certain set limit.

The system is composed of left and right dash sensors, the SRS unit (includes safing sensor), the cable reel, driver's airbag, and the passenger's airbag.

Seat Belt Tensioners

The seat belt tensioners are linked with the SRS airbags to further increase the effectiveness of the seat belts. In a front-end collision, the tensioners instantly retract the belts firmly to secure the occupants in their seats.

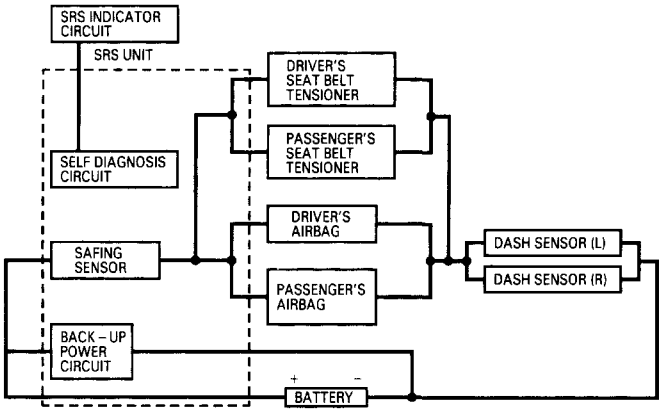


Operation

As shown in the diagram below, the left and right dash sensors are connected in parallel. The parallel set of sensors is connected in series to each airbag inflator circuit and the vehicle battery. In addition, a back-up power circuit is connected in parallel with the vehicle battery. The back-up power circuit and the safing sensor are located inside the SRS unit.

For the SRS to operate:

(1) One or both safing sensor and one or both dash sensors must activate.
(2) Electrical energy must be supplied to the airbag inflator by the battery, or the back-up power circuit if the battery voltage is too low.
(3) Airbag and seat belt tensioner charges must be released. Then the airbags will deploy and the tensioners will activate.



Self-diagnosis system

A self-diagnosis circuit is built into the SRS unit; when the ignition switch is turned ON (II), the SRS indicator light comes on and goes off after about six seconds if the system is operating normally. If the light does not come on, or does not go off after six seconds, or if it comes on while driving, it indicates an abnormality in the system. The system must be inspected and repaired as soon as possible.