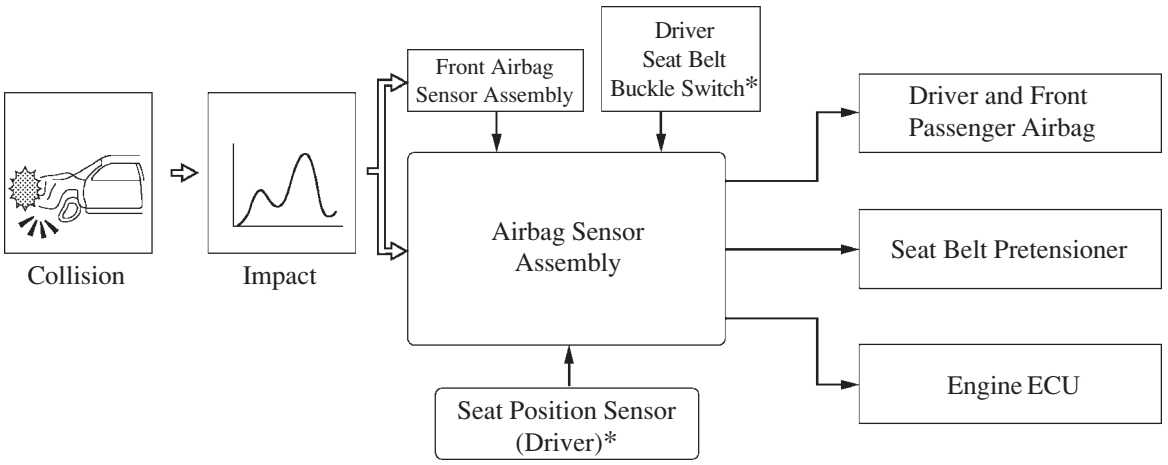
3. Airbag for Front Collision

General

- In conjunction with impact absorbing structure for front collision, the driver and front passenger dual-stage SRS airbags have been designed to help reduce injury to the head and chest in the event of a front collision. These airbags all deploy with the same timing, and are supplements to the seat belts.
- The deceleration sensor is enclosed in the front airbag sensor. Based on the deceleration of the vehicle during a front collision, a distortion is created in the sensor and converted into an electrical signal. Accordingly, the extent of the initial collision can be detected in detail.

▶ Front Airbag Operation ◀



*: Only for Europe Models

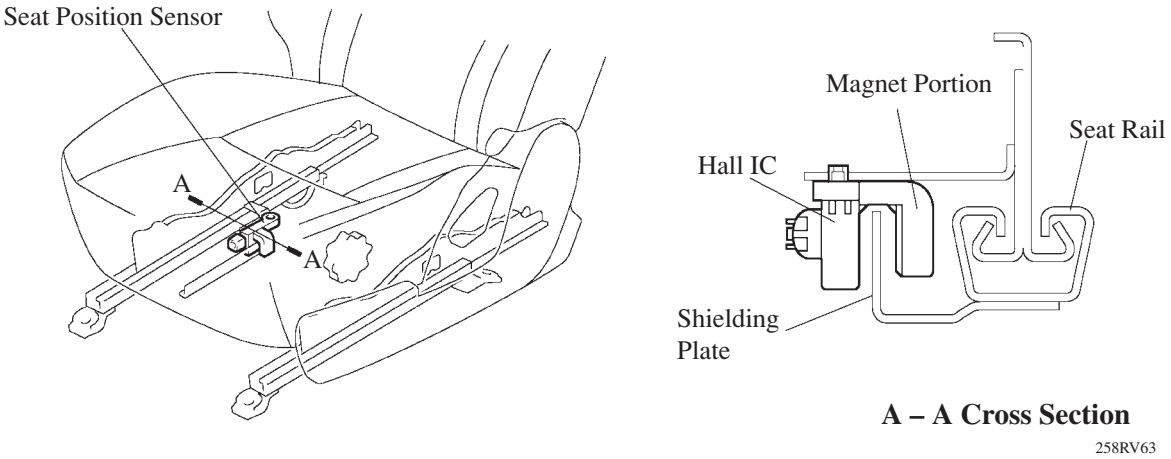
231LX12

Dual-stage SRS Airbags System (Europe Models Only)

In this system, when the front airbag sensors and airbag sensor assembly detect the front collision, the airbag sensor assembly judges the extent of impact, seat position and whether or not the seat belt is fasten, thus making the airbag inflating output optimum by delaying the inflating timing of the 2nd initiator and the 1st initiator.

Seat Position Sensor (Europe Models Only)

- The seat position sensor, which is attached to the seat rail of the driver seat, detects the sliding position of the seat. In addition, the shielding plate to make the seat position sensor judge the seat position is installed on this seat rail.
- The seat position sensor use a Hall IC for its sensor and has magnet portion on its opposite side.
- The seat position detection by the seat position sensor judges that the seat position is rearward if the shielding plate is between the sensor and the seat position is forward if the shielding plate is not between the sensor.



Seat Belt Buckle Switch (Europe Models Only)

- The no-contact type seat belt buckle switch using a Hall IC which outputs a signal to the dual-stage airbag and the airbag sensor has been adopted in the driver's seat on Europe model (except for Hong Kong, Singapore, Thailand, and Colombia).
- The seat belt buckle switch comprises a Hall IC and 2 magnets, installed into the front seat inner belt assembly.
- The ejector inside the front seat inner belt assembly and the plate installed to the ejector move when the seat belt is removed or applied. The movement of the plate cuts off the magnetic flux density of the seat belt buckle switch magnet. The Hall IC detects the changes in the magnetic flux density as seat belt removal or application, and outputs the signal to the airbag sensor.