■AIRBAGS FOR FRONTAL COLLISION

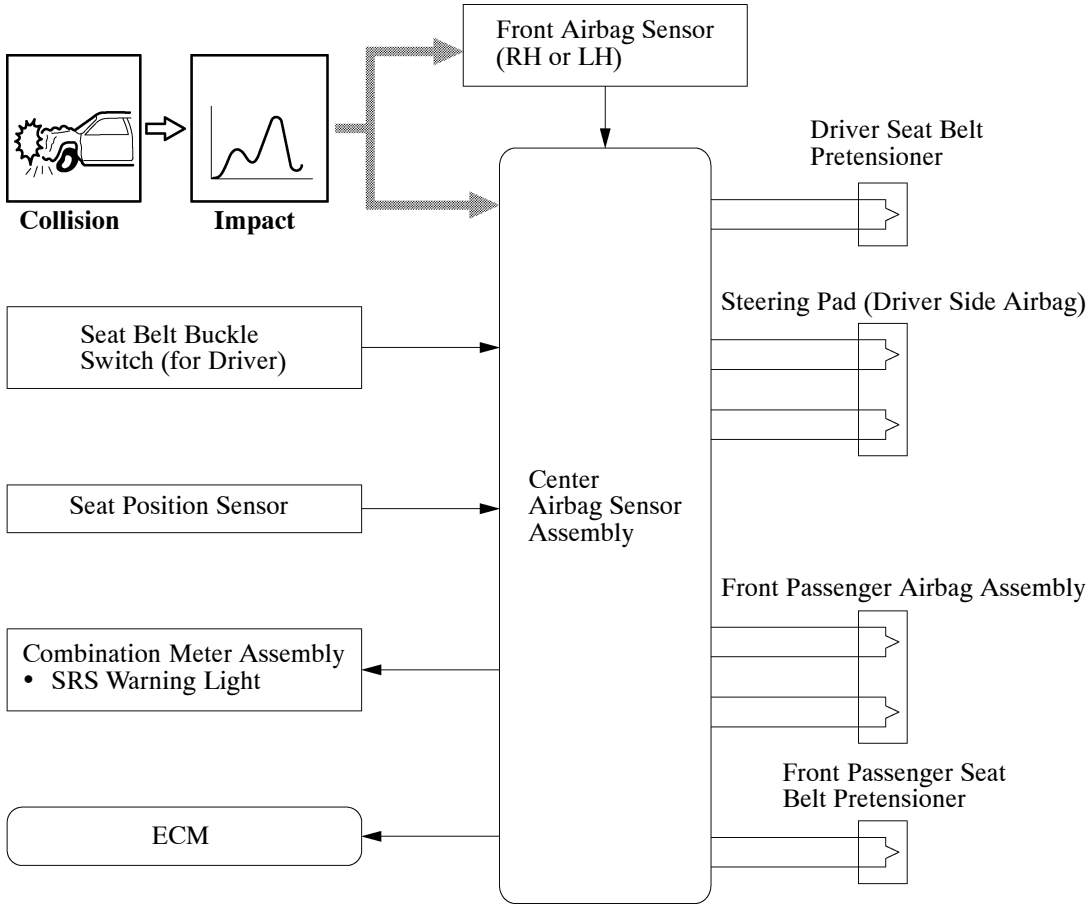
1. General

There are two airbags for frontal collisions: driver and front passenger. These airbags deploy simultaneously. The SRS driver and front passenger airbags use a dual-stage control.

- Center Airbag Sensor Assembly detects the information indicated below from various sources in order to control the dual stage activation.

Airbag	Information	Source
Driver	Extent of Impact	• Front Airbag Sensor (RH or LH) • Center Airbag Sensor Assembly
	Driver Seat Position	Seat Position Sensor
	Seat Belt Condition	Seat Belt Buckle Switch (Non-contact Type)
Front Passenger	Extent of Impact	• Front Airbag Sensor (RH or LH) • Center Airbag Sensor Assembly

▶ System Diagram ◀



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2. SRS Driver and Front Passenger Airbags

The SRS driver and front passenger airbags each contain a set of two initiators and propellants. The Center Airbag Sensor Assembly helps optimize the airbag inflation output by controlling the inflation timing of these initiators.

3. Front Airbag Sensor

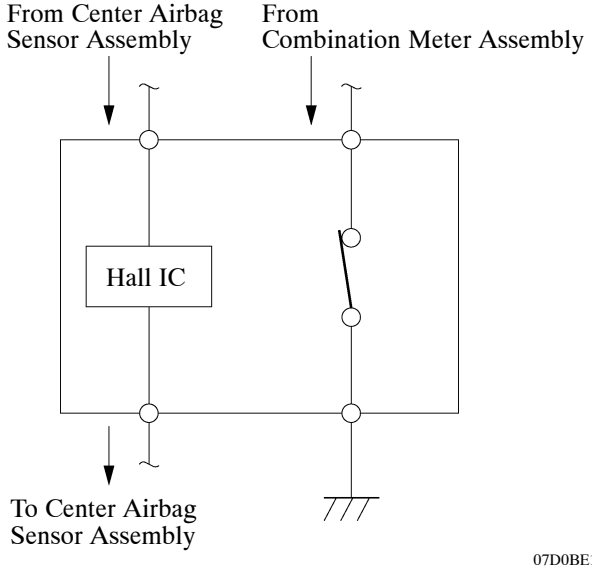
Front airbag sensor contains an electrical type deceleration sensor. Based on the deceleration of the vehicle during a front collision, a distortion is created in the sensor and converted into an electrical signal. Accordingly, the extent of the collision can be detected in detail.

4. Seat Belt Buckle Switch (for Driver)

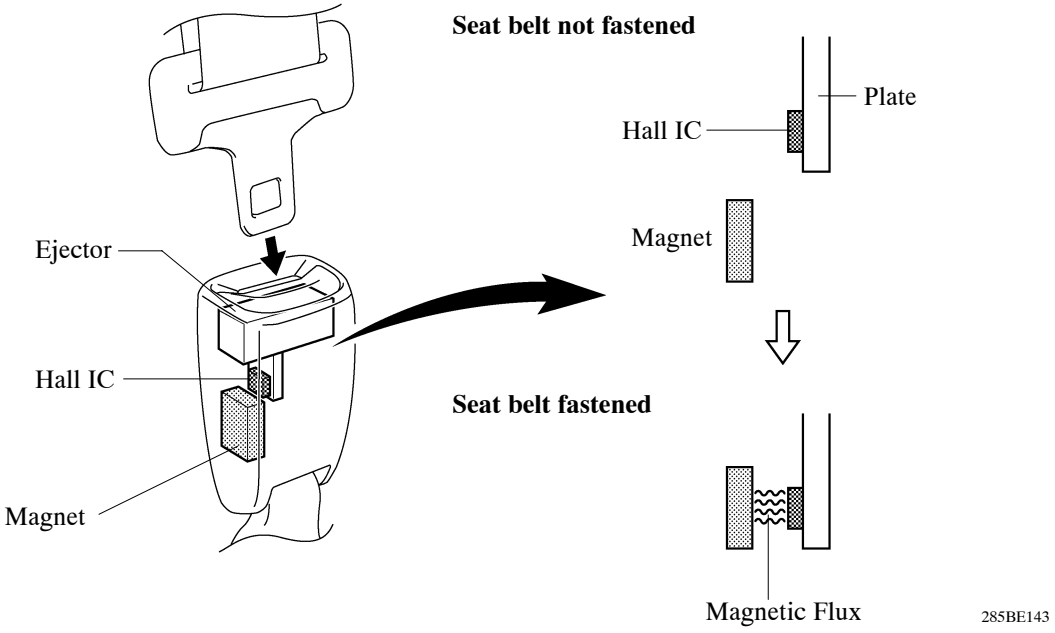
The seat belt buckle switch detects if the seat belt is fastened.

- The non-contact type switch is built in to the seat belt buckle on the driver side.
- The non-contact type switch contains a Hall IC and two magnets, installed into the front seat inner belt assembly.

▶ Electrical Circuit ◀

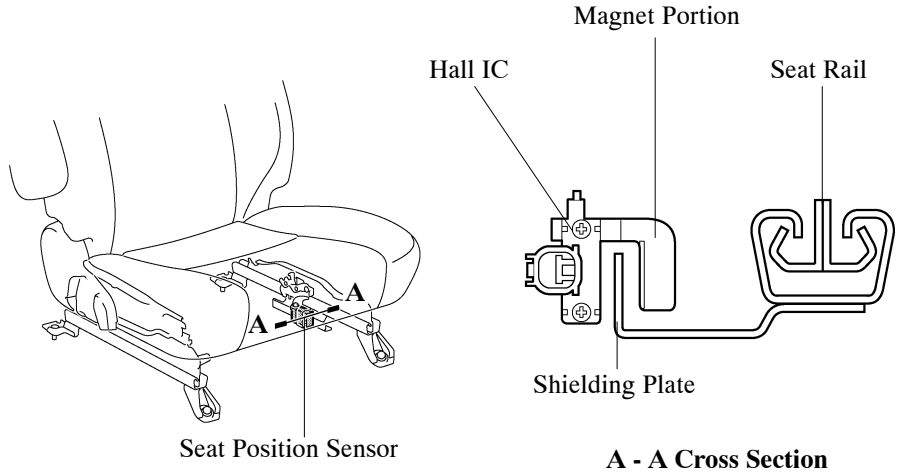


- The ejector inside the front seat inner belt assembly and the plate installed to the ejector move when the seat belt is removed or applied. The movement of the plate creates the magnetic flux density of the magnet.
- The Hall IC detects changes in the magnetic flux density. It uses this to determine if the seat belt is fastened or unfastened, and outputs a signal to the Center Airbag Sensor Assembly.



5. Seat Position Sensor

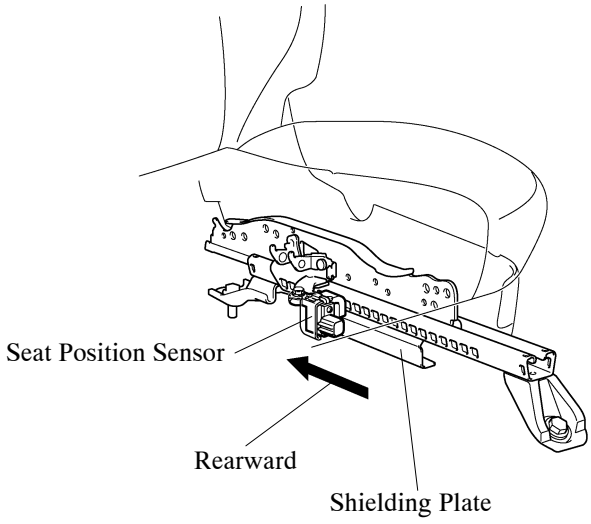
- The seat position sensor, which is attached to the seat rail of the driver seat, detects the sliding position of the seat. In addition, a shielding plate is installed on the seat rail to allow the seat position sensor to judge the seat position.
- The seat position sensor uses a Hall IC for its sensor and has a magnet portion on its opposite side.



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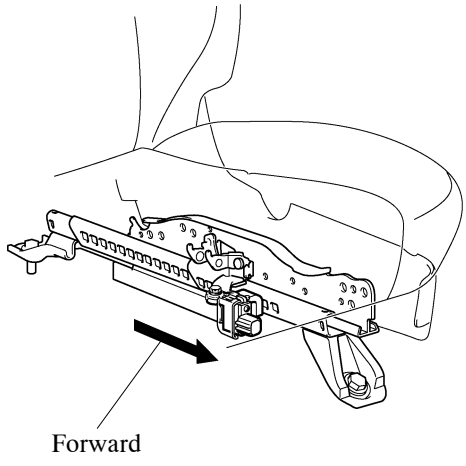
- The seat position sensor judges that the seat position is rearward if the shielding plate is inside the sensor, and that the seat position is forward if the shielding plate is not inside the sensor.

▶ Seat position is rearward ◀



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▶ Seat position is forward ◀



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