

PRESSURE SENSOR [TWO-STEP DEPLOYMENT CONTROL SYSTEM]

id0810b1001100

Purpose

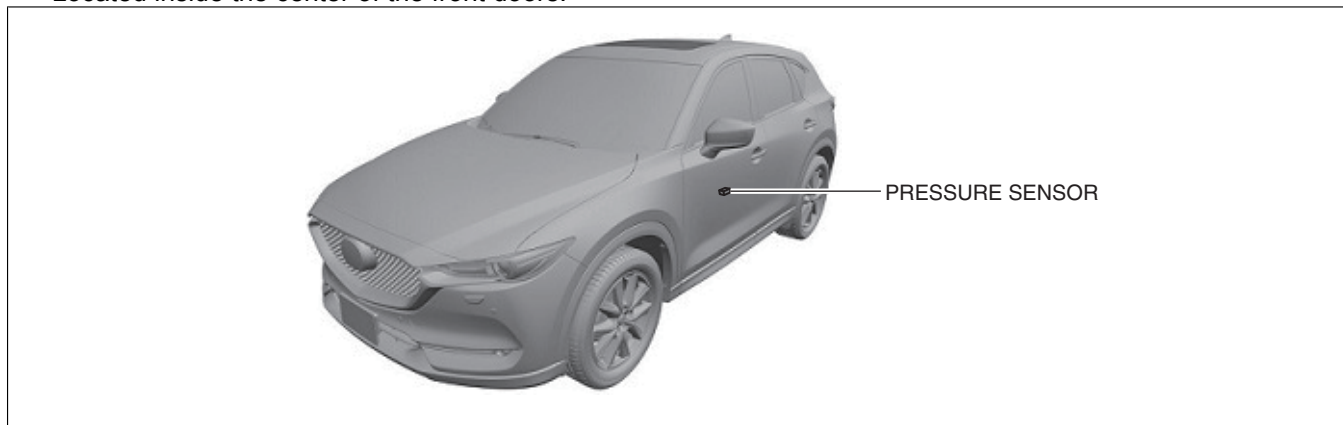
- The pressure sensor detects deformation of a front door by a collision to the vehicle side and shortens the time to operate (deploy) the air bag from the collision.

Function

- The pressure sensor converts the pressure of the air against the internal part of a front door to an electrical signal when the vehicle receives a side impact from a collision.

Structure/Construction

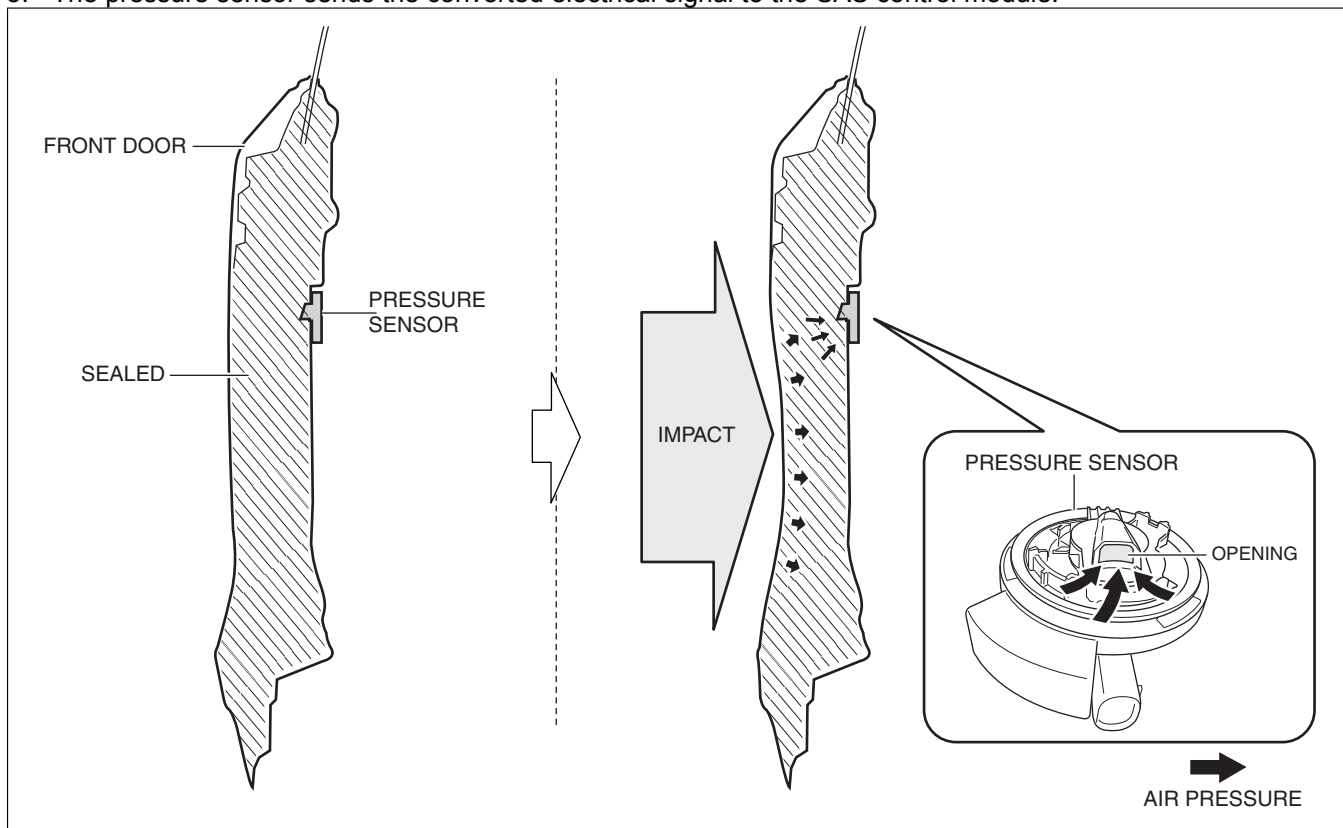
- The pressure sensor consists of the pressure detection sensor and signal processing circuit.
- Located inside the center of the front doors.



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Operation

1. If the vehicle receives a side impact and a front door deforms, the pressure of the air inside the sealed front door is added and air flows into the opening of the pressure sensor.
2. The amount of air flowing into the pressure sensor is detected by the pressure detection sensor and the pressure value at the signal processing circuit is converted to an electrical signal.
3. The pressure sensor sends the converted electrical signal to the SAS control module.



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Fail-safe

- Not applicable