



General

The supplemental restraint system (SRS) is designed to supplement the seat belt to help reduce the risk or severity of injury to the driver and passenger by activating and deploying the driver, passenger, side airbag and seat belt pretensioner in certain frontal or side collisions.

The SRS (Airbag) consists of: a driver side airbag module with the folded cushion and an inflator unit located at the center of the steering wheel, a passenger side airbag module with the folded cushion assembled with inflator unit located in the passenger side crash pad, side airbag modules with the folded cushion and an inflator unit located in the front seat, and curtain airbag modules with folded cushions and inflator units located inside the headliner. The impact sensing function of the SRSCM is carried out by electronic accelerometer that continuously measures the vehicle's acceleration and delivers the corresponding signal through amplifying and filtering circuitry to the microprocessor.

SRSCM (SRS Control Module)

SRSCM will detect front impact with front impact sensor, and side impact with side impact sensor, to determine airbag module deployment.

1. DC/DC converter: DC/DC converter in power supply unit includes up/down transformer converter, and provides ignition voltage to 2 front airbag ignition circuits and the internal operation voltage to the SRSCM. If the internal operation voltage is below critical value setting, it will perform resetting.
2. Back up power supply: SRSCM has separate back up power supply, that will supply deployment energy instantly in low voltage condition or upon power failure by front crash.
3. Self diagnosis: SRSCM will constantly monitor current SRS operation status and detect system failure while vehicle power supply is on. System failure may be checked with trouble codes using KDS.
4. Airbag warning lamp on: Upon detecting error, the module will transmit signal to SRSCM indicator lamp located in cluster. MIL lamp will inform the driver of SRS error. Upon Ignition on, SRS lamp will turn on for about six seconds.
5. Trouble code registration: Upon error occurrence in system, SRSCM will store DTC corresponding to the error. DTC can be cleared only by KDS. However, if an internal fault code is logged or if a crash is recorded, the fault code(s) cannot be cleared.
6. Self diagnostic connector: Data stored in SRSCM memory will be sent to KDS or other external output devices through connector located below the driver side crash pad.
7. Once airbag is deployed, the SRSCM must be replaced. It should never be reused.
8. SRSCM will determine whether passenger is wearing the seat belt by the signal from built-in switch in the seat belt buckle, and deploy front seat airbag at each set of crash speed.
9. Side airbag deployment will be determined by SRSCM that detects satellite sensor impact signal upon a side crash, irrespective to seat belt condition.
10. SRSCM senses the vehicle rollover by using the rollover sensor. SAB, CAB, and BPT will be deployed in case of mechanical movement of the SRSCM with ignition ON. For this reason, disconnect the battery negative cable before repairing the SRSCM.
11. Check for the normal operation of SRSCM after repair procedure.