

Seatbelt Systems - System Operation and Component Description

System Operation

Emergency Locking Retractor (ELR)

All retractors have an Emergency Locking Retractor (ELR) mode, which is a vehicle-sensitive feature designed to activate and lock the safety belt webbing during hard braking, cornering, or an impact of approximately 24 km/h (14.9 mph). The Emergency Locking Retractor (ELR) feature helps reduce the forward movement of the driver and passengers. For testing, see Functional Test - Safety Belt Retractor, Road Test Inspection.

Refer to: [Seatbelt Systems](#) (501-20A Seatbelt Systems, Diagnosis and Testing).

Automatic Locking Retractor (ALR)

The Automatic Locking Retractor (ALR) mode is used when locking a child seat in any passenger seating position. The Automatic Locking Retractor (ALR) mode automatically activates when the safety belt webbing is fully extracted from the retractor and then allowed to retract. As the safety belt webbing retracts back onto the spool, an audible clicking sound is made, indicating the safety belt retractor is in Automatic Locking Retractor (ALR) mode and the safety belt webbing cannot pull back out of the safety belt retractor. The Automatic Locking Retractor (ALR) mode disengages when the webbing is allowed to fully retract back into the retractor. For testing, see Functional Test - Safety Belt Retractor, Automatic Locking Retractor (ALR) Mode,

Refer to: [Seatbelt Systems](#) (501-20A Seatbelt Systems, Diagnosis and Testing).

Safety Belt Warning Chime

The conditions of operation for the driver and/or front passenger safety belt warning indicator and chime operate as follows:

- If the driver safety belt is not buckled with the ignition ON, then the safety belt warning indicator illuminates for 1 to 2 minutes and the warning chime sounds for 4 to 8 seconds.
- If the driver safety belt is buckled while the warning indicator is illuminated and the warning