

# AMSAFE AIRBAG SYSTEMS

AmSafe Airbag Systems are the first and only airbag systems certified for use on commercial aircraft.

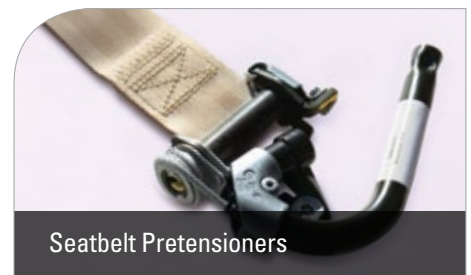
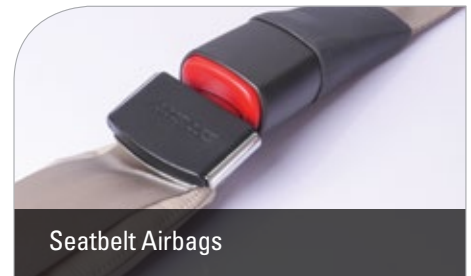
## NEXT GENERATION AIRBAG SYSTEMS

The AmSafe Airbag System was developed as a cost-effective method of 16g, FAR/CS 25.562 compliance for difficult to certify seat placements. Over 100,000 AmSafe Airbag Systems are in-service on over 100 airlines. The system is certified on all major airframes.

In the event of an otherwise survivable accident, AmSafe Airbag Systems protect passengers of all sizes from traumatic head and neck injury.

### AMSAFE AIRBAG SYSTEMS TECHNOLOGY

- ⦿ **NexGen Electronics Module:** The crash sensing module is battery powered with a 10 year service life, push-to-test system diagnostics, and optional wireless diagnostics that can check the status of the entire aircraft airbag systems in minutes.
- ⦿ **Seatbelt Airbags:** The airbag is stored in the seatbelt and deploys away from the passenger, making it safe for all occupant sizes. The system is easily installed on new and retrofit applications. Deflating in seconds, the system does not impede passenger egress.
- ⦿ **Structural Airbags:** The airbags are stored in the forward monument or seatback, making the airbag invisible to the passenger. Sophisticated airbag designs deploy the airbag away from the occupant, before placing the airbag in front of the strike hazard in milliseconds.
- ⦿ **Seatbelt Pretensioners:** Linear and rotary seatbelt pretensioners reduce occupant headpath by up to 3.5 inches, helping to avoid contact with forward strike hazards. Small form factors can be easily incorporated into the seat design. All the passenger sees is a standard lap belt.





Contains on-board diagnostics, manually or through an integrated wireless system

### ELECTRONICS MODULE ASSEMBLY

- ⊕ All AmSafe airbag and pretensioner systems are controlled by the NexGen Electronics Module Assembly (EMA).
- ⊕ The EMA is comprised of the system electronics, crash sensors and an advanced, non-rechargeable lithium battery. The sensor and electronics detects and analyzes decelerations.
- ⊕ The airbag or pretensioner will not deploy inadvertently during normal operations such as a hard landing, random vibration or food cart strikes on the seat.
- ⊕ Deployment will occur, however, when a force is at or above 6gs for approximately 50 milliseconds.
- ⊕ The EMA has a battery life of 10 years. The EMA can control up to 3 inflators or 3 pretensioners.

### INFLATOR ASSEMBLY

The airbag inflator consists of a compressed gas cylinder optimized for the aviation environment and the airbag size. The inflator has a life limit of 10 years.

### CABLE INTERFACE ASSEMBLY

The cable interface assembly connects the EMA to the inflator or pretensioner.

### SYSTEM MAINTENANCE

AmSafe airbag and pretensioner systems diagnostics need to be performed at 4,000 flight hours for commercial aircraft applications. All maintenance procedures and diagnostics are performed by pushing the test button on the EMA or by using AmSafe wireless software to check the entire cabin at one time without accessing the EMAs. Trained technicians can easily perform the test.

### RETROFIT APPLICATIONS

The AmSafe Seatbelt Airbag system can be easily retrofit into existing aircraft seats for operators looking to modify or upgrade their interiors. The seatbelt airbag system may not require any modifications to existing seat structure for installation.

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