

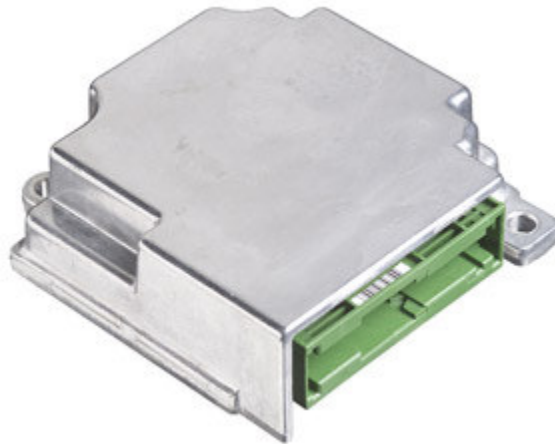
# Delphi Airbag Control Unit - SDM C7

### ► Description

The Delphi Airbag Control Unit (ACU) is the central control module for a vehicle's occupant protection system. Designed for installation in the passenger compartment, the ACU interfaces with vehicle crash sensors, occupant status sensors, vehicle indicators, and multiple deployable safety devices. Crash sensing algorithms assess event severity and direction, and use occupant status data to determine the optimum protection strategy for a specific event. This strategy can include deployment of multiple-stage frontal airbags, side protection airbags or vehicle battery disconnect devices. The ACU records event data for analysis after an event, provides a serial data link to the vehicle data bus, and is easily configured electronically at the assembly plant in-vehicle. It also provides continuous and startup diagnostics to help maintain the integrity of the vehicle safety system.

### ► Benefits

- Provides central controller features necessary to help vehicle manufacturers meet ECE R94 and ECE R95 equivalent regulations
- Provides front, side and rear crash sensing and discrimination capabilities, calibrated at the platform level based on vehicle data and Delphi's vehicle system level experience
- Reliable, robust design based on DFSS, DFMEA and over 15 years of crash sensing and airbag electronics experience



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### ► Features

- Supports up to 4 satellite sensor inputs for front and side crash detection
- Supports up to 8 deployment loops
- KW2000 for diagnostics
- Deployment thresholds adjustability based on crash severity and occupant status information
- Communication of crash detection to vehicle systems to accommodate additional vehicle safety measures
- Occupant status inputs including seat belt buckle sensors, seat track position sensors and occupant detection system, as well as diagnostics on each input
- Lamp control for restraint system status, seat belt reminder function or status of passenger airbag suppression
- Energy reserve capability for loss of battery conditions during a frontal crash
- System and component level diagnostics, driven by ACU output or serial data and enunciated via vehicle warning lamp
- Optional data recording of impact signals, occupant status, and restraint control timing for deploy and near-deploy events