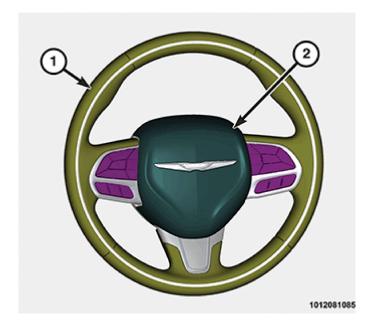
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Description & Operation

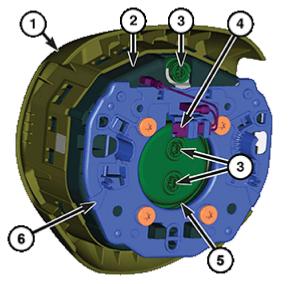
DESCRIPTION AND OPERATION

DESCRIPTION



The injection molded, thermoplastic Driver AirBag (DAB) protective trim cover (2) is the most visible part of the DAB. The DAB is secured to an integral combination floating horn switch and fixing plate unit. The DAB is located in the center of the steering wheel (1), where it is secured by a spring wire retainer integral to the fixing plate to two hooks of the steering wheel armature within the hub cavity of the steering wheel. An injection molded emblem with the Chrysler logo is applied to the center of the trim cover.





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Concealed beneath the DAB trim cover (1) are the folded airbag cushion, the airbag inflator (5), the electrically controlled airbag vent (3) and the retainers that secure the inflator to the housing. The airbag cushion, housing and inflator are secured within a molded plastic case to which the trim cover is secured. A horn switch, retainer spring and fixing plate unit (6) secured to the back of the DAB case is used to secure the unit to the steering wheel armature. The fixing plate also includes integral horn switch wiring, the horn switch connector (4) and four horn switch contacts.

The DAB used in this vehicle is a multistage-type that complies with revised federal airbag standards to deploy with less force than those used in some prior vehicles. A radial deploying fabric airbag cushion with internal tethers is used. The airbag inflator is a bi-initiator, single active vent initiator, non-azide, pyrotechnic-type unit and is secured to the airbag housing. Three keyed and color-coded connector receptacles (3) on the DAB inflator connect the three inflator initiators to the vehicle electrical system through three jacketed, two-wire pigtail harnesses from the clockspring. These connections are completed to the vehicle electrical system through three pigtail harnesses from the clockspring.

The DAB cannot be repaired, and must be replaced if deployed, ineffective or in any way damaged. The DAB trim cover and the floating horn switch are serviced only as a unit with the DAB.

OPERATION

The multistage DAB is deployed by electrical signals generated by the Occupant Restraint Controller (ORC) through the DAB squib 1, squib 2 and squib 3 circuits to the three initiators in the airbag inflator. By using three initiators, the airbag can be deployed at multiple levels of force. The force level is controlled by the ORC to suit the monitored impact conditions by providing one of several delay intervals between the electrical signals provided to the three initiators. The longer the delay between these signals, the less forcefully the airbag will deploy.

When the ORC sends the proper electrical signal to each initiator, the electrical energy generates enough heat to initiate a small pyrotechnic charge, which in turn ignites chemical pellets within the inflator. Once

ignited, these chemical pellets burn rapidly and produce a large quantity of inert gas. The inflator is sealed to the back of the DAB housing and a diffuser in the inflator directs all of the inert gas into the airbag cushion, causing the cushion to inflate. As the cushion inflates, the DAB trim cover will split at predetermined breakout lines, then fold back out of the way. Following a deployment, the airbag cushion quickly deflates by venting the inert gas towards the instrument panel through vent holes within the fabric used to construct the back (steering wheel side) panel of the airbag cushion.

Some of the chemicals used to create the inert gas may be considered hazardous while in their solid state before they are burned, but they are securely sealed within the airbag inflator. Typically, all three initiators are used and all potentially hazardous chemicals are burned during an airbag deployment event. However, it is possible for only one or two initiators to be used during a deployment due to a Supplemental Restraint System (SRS) fault; therefore, it is necessary to always confirm that all initiators have been used in order to avoid the improper disposal of potentially live pyrotechnic or hazardous materials. (Refer to Restraints - Standard Procedure).

The inert gas that is produced when the chemicals are burned during a deployment is harmless. However, a small amount of residue from the burned chemicals may cause some temporary discomfort if it contacts the skin, eyes, or breathing passages. If skin or eye irritation is noted, rinse the affected area with plenty of cool, clean water. If breathing passages are irritated, move to another area where there is plenty of clean, fresh air to breath. If the irritation is not alleviated by these actions, contact a physician.

The ORC monitors the condition of the DAB through circuit resistance. If any fault is detected the ORC will illuminate the airbag indicator in the instrument cluster and store a Diagnostic Trouble Code (DTC). Proper diagnosis of the DAB initiator and squib circuits requires the use of a diagnostic scan tool and may also require the use of the SRS Load Tool special tool along with the appropriate Load Tool Jumpers and Adapters. Refer to the appropriate diagnostic information.