

Wire and Connector Repair

Almost anyone can replace damaged wires, as long as the proper tools and parts are available. Wire and terminals are available to fit almost any need. Even the specialized weatherproof, molded and hard shell connectors are now available from aftermarket suppliers.

Be sure the ends of all the wires are fitted with the proper terminal hardware and connectors. Wrapping a wire around a stud is never a permanent solution and will only cause trouble later. Replace wires one at a time to avoid confusion. Always route wires exactly the same as the factory.

➔ **If connector repair is necessary, only attempt it if you have the proper tools. Weatherproof and hard shell connectors require special tools to release the pins inside the connector. Attempting to repair these connectors with conventional hand tools will damage them.**

BATTERY CABLES

Disconnecting the Cables

When working on any electrical component on the vehicle, it is always a good idea to disconnect the negative (-) battery cable. This will prevent potential damage to many sensitive electrical components such as the Powertrain Control Module (PCM), radio, alternator, etc.

➔ **Any time you disengage the battery cables, it is recommended that you disconnect the**

negative (-) battery cable first. This will prevent your accidentally grounding the positive (+) terminal to the body of the vehicle when disconnecting it, thereby preventing damage to the above mentioned components.

Before you disconnect the cable(s), first turn the ignition to the **OFF** position. This will prevent a draw on the battery that could cause arcing (electricity trying to ground itself to the body of a vehicle). It will also help prevent a spike (like a

spark plug jumping the gap) when the cables are reconnected; and, of course, damaging some components such as the alternator diodes.

When the battery cable(s) are reconnected (negative cable last), be sure to check that your lights, windshield wipers and other electrically operated safety components are all working correctly. If your vehicle contains an Electronically Tuned Radio (ETR), don't forget to also reset your radio stations. Ditto for the clock.

AIR BAG (SUPPLEMENTAL RESTRAINT SYSTEM)

The Supplemental Air Bag Restraint System is designed to provide increased collision protection for front seat occupants in addition to that provided by the three point safety belt system. In the event of an accident, the air bag(s) will be the most effective if the vehicle occupant(s) is held in position by the seat belts.

A driver's side air bag first became standard equipment on 1990 vehicles.

General Information

➔ **See Figures 12 and 13**

The supplemental restraint system was designed to provide increased protection in case of an accident for those in the front seat of the car, when used along with the safety belt system. The system **MUST** be disarmed before any work is performed on or around the supplemental air bag system.

The system is an electronically controlled, mechanically operated system. The system contains two basic subsystems: the driver's side air bag module assembly and the passenger side air bag assembly, and the electrical system that connects them. The system consists of:

- The crash sensors

- The safing sensor
- The air bag module(s)
- The diagnostic monitor
- The back-up power supply
- The instrument cluster indicator
- The sliding contacts (clock spring assembly)

The system operates as follows: The system remains out of sight until activated in an accident that is determined to be the equivalent of hitting a parked car of the same size and weight at 28 mph (40 km/h) with the vehicle receiving severe front end damage. This determination is made by crash and safing sensors mounted on the vehicle which when a sufficient impact occurs, close their contacts completing the electrical circuit and inflating the air bags. When not activated the system is monitored by the air bag diagnostic monitor and system readiness is indicated by the lamp located on the instrument cluster. Any fault detected by the diagnostic monitor will illuminate the lamp and store a Diagnostic Trouble Code (DTC).

SERVICE PRECAUTIONS

Whenever working around, or on, the air bag supplemental restraint system, ALWAYS adhere to the following warnings and cautions.

➔ **Please refer to the appropriate vehicle shop manual to determine location of the front air bag sensors.**

➔ **The side air bag sensors are located at or near the base of the B-pillar.**

➔ **To deplete the backup power supply energy, disconnect the battery ground cable and wait at least one minute. Be sure to disconnect auxiliary batteries and power supplies (if equipped).**

- Always wear safety glasses when servicing an air bag vehicle and when handling an air bag module.
- Carry a live air bag module with the bag and trim cover facing away from your body, so that an accidental deployment of the air bag will have a small chance of personal injury.
- Place an air bag module on a table or other flat surface with the bag and trim cover pointing up.
- Wear gloves, a dust mask and safety glasses whenever handling a deployed air bag module. The air bag surface may contain traces of sodium hydroxide, a by-product of the gas that inflates the air bag and which can cause skin irritation.
- After deployment, the air bag surface can contain deposits of sodium hydroxide, a product of the

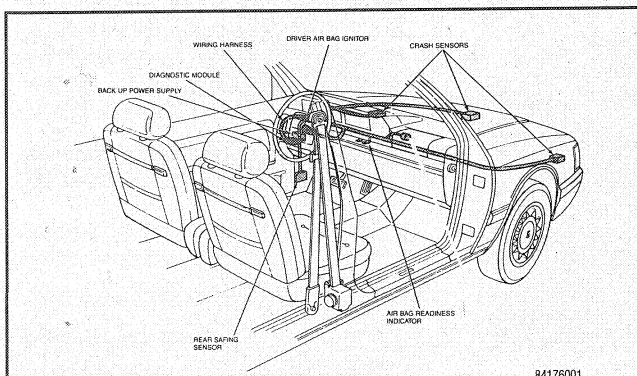


Fig. 12 Air bag system component locations—1990-91 vehicles

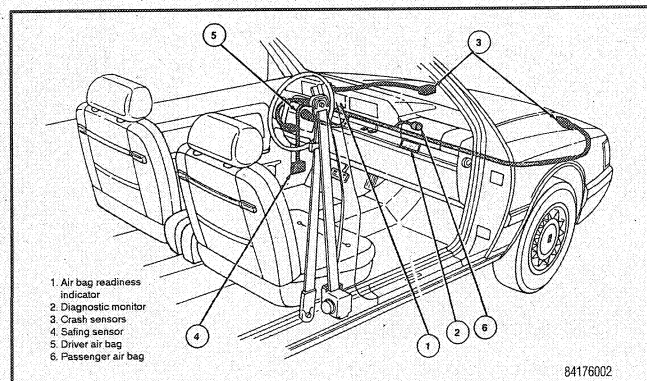


Fig. 13 Air bag system component locations—1992-00 vehicles