PASSIVE RESTRAINT SYSTEMS

CONTENTS

AIRBAG SYSTEMS

INDEX

GENERAL INFORMATION

INTRODUCTION

A dual front airbag system is standard factory-installed equipment on this model. Refer to 8W-43 - Airbag System in Group 8W - Wiring Diagrams for complete circuit descriptions and diagrams.

AIRBAG SYSTEM

The driver side airbag system includes an inflatable airbag module in the center of the steering wheel. The passenger side airbag system includes a second inflatable airbag module in the instrument panel above the glove box. These supplemental restraint systems are designed to reduce serious injuries to the driver and front seat passenger during a frontal impact of the vehicle.

The primary passenger restraints in this vehicle are the standard equipment factory-installed seat belts, which require active use by the vehicle occupants. The airbag is a supplemental passive restraint system that was designed and is intended to enhance the protection for the front seat occupants of the vehicle **only** when used in conjunction with the seat belts. Refer to the owner's manual in the vehicle glove box for more information on the features, use and operation of all of the factory-installed passenger restraints, including the airbag system.

Following are general descriptions of the major components in the airbag system. To test the airbag system, refer to the proper Diagnostic Procedures manual. If an airbag module assembly is faulty or damaged and non-deployed, refer to the parts return list in the current Chrysler Corporation Warranty Policies and Procedures manual for the proper handling and disposal procedures.

GENERAL INFORMATION (Continued)

WARNING:

- **THE AIRBAG SYSTEM IS A SENSITIVE, COMPLEX ELECTROMECHANICAL UNIT. BEFORE ATTEMPTING TO DIAGNOSE OR SERVICE ANY AIRBAG SYSTEM OR RELATED STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENTS YOU MUST FIRST DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE. THEN WAIT TWO MINUTES FOR THE SYSTEM CAPACITOR TO DISCHARGE BEFORE FURTHER SYSTEM SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO DO THIS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.**
- **THE AIRBAG MODULE INFLATOR ASSEMBLIES CONTAIN ARGON GAS PRESSURIZED TO OVER 2500 PSI. DO NOT ATTEMPT TO DISMANTLE AN AIRBAG MODULE OR TAMPER WITH ITS INFLATOR. DO NOT PUNCTURE, INCINERATE, OR BRING INTO CONTACT WITH ELECTRICITY. DO NOT STORE AT TEMPERATURES EXCEEDING 93° C (200° F).**
- **REPLACE AIRBAG SYSTEM COMPONENTS ONLY WITH PARTS SPECIFIED IN THE CHRYSLER MOPAR PARTS CATALOG. SUBSTITUTE PARTS MAY APPEAR INTERCHANGEABLE, BUT INTERNAL DIFFERENCES MAY RESULT IN INFERIOR OCCUPANT PROTECTION.**
- **THE FASTENERS, SCREWS, AND BOLTS ORIGINALLY USED FOR THE AIRBAG SYSTEM COMPONENTS HAVE SPECIAL COATINGS AND ARE SPECIFICALLY DESIGNED FOR THE AIRBAG SYSTEM. THEY MUST NEVER BE REPLACED WITH ANY SUBSTITUTES. ANY TIME A NEW FASTENER IS NEEDED, REPLACE IT WITH THE CORRECT FASTENERS PROVIDED IN THE SERVICE PACKAGE OR SPECIFIED IN THE CHRYSLER MOPAR PARTS CATALOG.**
- **WHEN A STEERING COLUMN HAS AN AIRBAG MODULE ATTACHED, NEVER PLACE THE COLUMN ON THE FLOOR OR ANY OTHER SURFACE WITH THE STEERING WHEEL OR AIRBAG MODULE FACE DOWN.**

DESCRIPTION AND OPERATION

AIRBAG MODULE

DRIVER SIDE

The airbag module protective trim cover is the most visible part of the driver side airbag system. The module is mounted directly to the steering wheel. Located under the airbag module trim cover are the horn switch, the airbag cushion, and the airbag cushion supporting components. The airbag module includes a housing to which the cushion and inflator are attached and sealed. The airbag module cannot be repaired, and must be replaced if deployed or in any way damaged.

The inflator assembly is mounted to the back of the airbag module. The inflator includes a small canister of highly compressed argon gas. The inflator seals the hole in the airbag cushion so it can discharge the compressed gas it contains directly into the cushion when supplied with the proper electrical signal. The protective trim cover is fitted to the front of the airbag module and forms a decorative cover in the center of the steering wheel. Upon airbag deployment, this cover will split at a predetermined breakout line.

PASSENGER SIDE

The airbag door in the instrument panel top cover above the glove box is the most visible part of the passenger side airbag system. Located under the airbag door are the airbag cushion and its supporting components. The airbag module includes a housing to which the cushion and inflator are attached and sealed. The airbag module cannot be repaired, and must be replaced if deployed or in any way damaged.

The inflator assembly is mounted to the back of the airbag module. The inflator includes a small canister of highly compressed argon gas. The inflator seals the hole in the airbag cushion so it can discharge the compressed gas it contains directly into the cushion when supplied with the proper electrical signal. The airbag door has a living hinge at the top, which is secured to the instrument panel top cover. The door also has predetermined breakout lines concealed beneath its decorative cover. Upon airbag deployment, the airbag door will split at the breakout lines and the door will pivot out of the way.

The airbag module is secured at the bottom to the steel structural base of the instrument panel above the glove box opening. The airbag door is serviced as a unit with the passenger side airbag module, and includes the two passenger side heating and air conditioning panel outlet housings and barrels. Following an airbag deployment, the airbag module assembly must be replaced.

STORAGE

An airbag module must be stored in its original, special container until used for service. Also, it must be stored in a clean, dry environment; away from sources of extreme heat, sparks, and high electrical energy. Always place or store an airbag module on a surface with its trim cover or airbag side facing up, to minimize movement in case of an accidental deployment.

DESCRIPTION AND OPERATION (Continued)

AIRBAG CONTROL MODULE

The Airbag Control Module (ACM) is secured to a bracket on the floor panel transmission tunnel below the instrument panel inside the vehicle. The ACM mounting bracket also serves as the instrument panel center support. The ACM contains a microprocessor, the impact sensor, and an energy storage capacitor. The microprocessor contains the airbag system logic. The ACM system logic includes On-Board Diagnostics (OBD) capability, and communicates with the instrument cluster circuitry on the Chrysler Collision Detection (CCD) data bus to control the airbag indicator lamp.

The microprocessor in the ACM monitors the impact sensor signal and the airbag system electrical circuits to determine the system readiness. If the ACM detects a monitored system fault, it sends messages to the instrument cluster on the CCD data bus to turn on the airbag indicator lamp. A pre-programmed decision algorithm in the ACM microprocessor determines when the deceleration rate signaled by the impact sensor indicates an impact that is severe enough to require airbag system protection. When the programmed conditions are met, the ACM sends an electrical signal to deploy the airbag system components.

Only one impact sensor is used in this airbag system. The impact sensor is an accelerometer that senses the rate of vehicle deceleration, which provides verification of the direction and severity of an impact. The impact sensor is calibrated for the specific vehicle, and is only serviced as a unit with the ACM.

The ACM also contains an energy-storage capacitor. This capacitor stores enough electrical energy to deploy the airbags for up to one second following a battery disconnect or failure during an impact. The purpose of the capacitor is to provide airbag system protection in a severe secondary impact, if the initial impact has damaged or disconnected the battery, but was not severe enough to deploy the airbags.

Club cab and quad cab models of this vehicle are equipped with a structural seat belt control system. The structural seat belt control system includes a Seatbelt Control Timer Module (SCTM). The SCTM has a hard wired input to the ACM. If the ACM detects a fault input from the SCTM, or if the ACM does not detect an input from the SCTM, it sends messages to the instrument cluster on the CCD data bus to turn on the seat belt reminder lamp. See Structural Seat Belt Control System in this group for more information.

The ACM cannot be repaired or adjusted and, if damaged or faulty, it must be replaced.

CLOCKSPRING

The clockspring is mounted on the steering column behind the steering wheel. This assembly consists of a plastic housing which contains a flat, ribbon-like, electrically conductive tape that winds and unwinds with the steering wheel rotation.

The clockspring is used to maintain a continuous electrical circuit between the instrument panel wire harness and the driver side airbag module, the horn switch, and the vehicle speed control switches on vehicles that are so equipped.

The clockspring must be properly centered when it is installed on the steering column following any service removal, or it will be damaged. See Clockspring Centering in the Adjustments section of this group for the procedures.

The clockspring cannot be repaired. If the clockspring is faulty, damaged, or if the airbag has been deployed, the clockspring must be replaced.

PASSENGER AIRBAG DISARM SWITCH

A Passenger Airbag Disarm Switch (PADS) located on the instrument panel allows the passenger side airbag module to be disarmed when certain child restraint devices are being used in the right front seating position. The PADS is equipped with a key cylinder so that the switch position can only be changed using an ignition key. When the ignition switch is in the On position and the passenger side airbag is disarmed, a Light-Emitting Diode (LED) illuminates an “Off” indicator lamp on the face plate of the switch.

To actuate the PADS switch, insert the ignition key in the switch key cylinder. The PADS key cylinder is then rotated with the ignition key to its clockwise stop (the key cylinder slot will be aligned with the Off indicator lamp) to disarm the passenger side airbag. When the PADS key cylinder is rotated with the ignition key to its counterclockwise stop (the key cylinder slot will be in a vertical position), the Off indicator lamp will be extinguished and the passenger side airbag module will once again be armed.

WARNING: THE KEY MUST ALWAYS BE REMOVED FROM THE PASSENGER AIRBAG DISARM SWITCH KEY CYLINDER AFTER THE SWITCH HAS BEEN USED. NEVER LEAVE A KEY IN THE PADS KEY CYLINDER.

The PADS cannot be adjusted or repaired and, if faulty or damaged, the PADS unit must be replaced.

DIAGNOSIS AND TESTING

AIRBAG SYSTEM

A DRB scan tool is required for diagnosis of the airbag system. Refer to the proper Diagnostic Procedures manual for more information.

(1) Connect the DRB scan tool to the 16-way data link wire harness connector. The connector is located on the driver side lower edge of the instrument panel, inboard of the steering column (Fig. 1) .

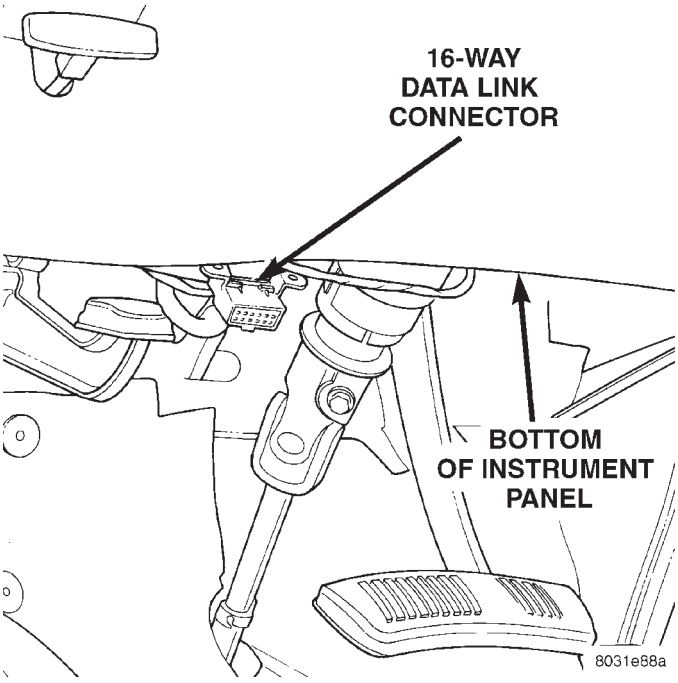

Fig. 1 16-Way Data Link Connector - Typical

(2) Turn the ignition switch to the On position. Exit the vehicle with the DRB. Use the latest version of the proper DRB cartridge.

(3) Using the DRB, read and record the active Diagnostic Trouble Code (DTC) data.

(4) Read and record any stored DTC data.

(5) Refer to the proper Diagnostic Procedures manual if any DTC is found in Step 3 or Step 4.

(6) Erase the stored DTC data. If any problems remain, the stored DTC data will not erase.

(7) With the ignition switch still in the On position, make sure nobody is in the vehicle.

(8) From outside of the vehicle (away from the airbag modules in case of an accidental deployment) turn the ignition switch to the Off position for about ten seconds, and then back to the On position. Observe the airbag indicator lamp in the instrument cluster. It should light for six to eight seconds, and then go out. This indicates that the airbag system is functioning normally.

NOTE: If the airbag indicator lamp fails to light, or lights and stays on, there is an airbag system malfunction. Refer to the proper Diagnostic Procedures manual to diagnose the problem.

NOTE: All extended cab models (club cab or quad cab) are equipped with a structural seat, which uses an electronic structural seat belt control system to control the latching and unlatching of the integral seat belt retractors. The structural seat belt control system MUST be tested to ensure proper operation following the service of any airbag system component. See Seat Belt Control System Test Mode in the Seat Belt Control Systems section of this group for the test procedure.

SERVICE PROCEDURES

AIRBAG SYSTEM

NON-DEPLOYED

At no time should any source of electricity be permitted near the inflator on the back of an airbag module. When carrying a non-deployed airbag module, the trim cover or airbag side of the module should be pointed away from the body to minimize injury in the event of an accidental deployment. If the module is placed on a bench or any other surface, the trim cover or airbag side of the module should be face up to minimize movement in the event of an accidental deployment.

In addition, the airbag system should be disarmed whenever any steering wheel, steering column, or instrument panel components require diagnosis or service. Failure to observe this warning could result in accidental airbag deployment and possible personal injury. Refer to Group 8E - Instrument Panel Systems for additional service procedures on the instrument panel. Refer to Group 19 - Steering for additional service procedures on the steering wheel and steering column.

DEPLOYED

Any vehicle which is to be returned to use after an airbag deployment, must have both airbag modules, the clockspring, and the steering column assembly replaced. These components will be damaged or weakened as a result of an airbag deployment, which may or may not be obvious during a visual inspection, and are not intended for reuse.

Other vehicle components should be closely inspected, but are to be replaced only as required by the extent of the visible damage incurred.

SERVICE PROCEDURES (Continued)

CLEANUP PROCEDURE

Following an airbag system deployment, the vehicle interior may contain a powdery residue. This residue consists of harmless particulate by-products of the small pyrotechnic charge used to initiate the airbag deployment. However, this residue may cause irritation to the skin, eyes, nose, or throat, be sure to wear safety glasses, rubber gloves, and a long-sleeved shirt during cleanup (Fig. 2) .

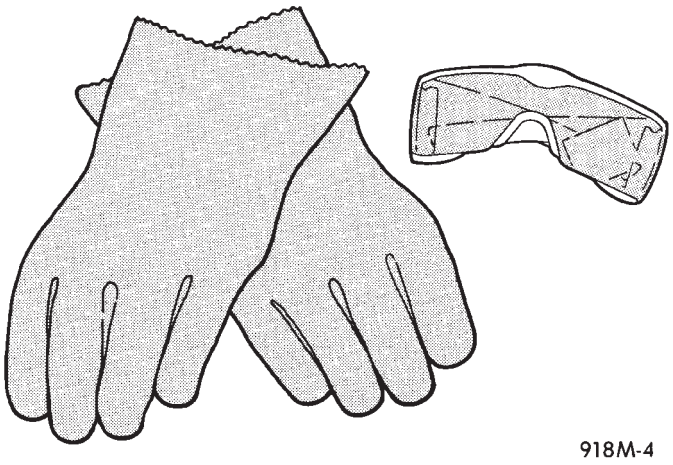

Fig. 2 Wear Safety Glasses and Rubber Gloves

WARNING: IF YOU EXPERIENCE SKIN IRRITATION DURING CLEANUP, RUN COOL WATER OVER THE AFFECTED AREA. ALSO, IF YOU EXPERIENCE IRRITATION OF THE NOSE OR THROAT, EXIT THE VEHICLE FOR FRESH AIR UNTIL THE IRRITATION CEASES. IF IRRITATION CONTINUES, SEE A PHYSICIAN.

Begin the cleanup by removing the airbag modules from the vehicle as described in this group.

Use a vacuum cleaner to remove any residual powder from the vehicle interior. Clean from outside the vehicle and work your way inside, so that you avoid kneeling or sitting on a non-cleaned area.

Be sure to vacuum the heater and air conditioning outlets as well (Fig. 3). Run the heater and air conditioning blower on the lowest speed setting and vacuum any powder expelled from the outlets. You may need to vacuum the interior of the vehicle a second time to recover all of the powder .

Place the deployed airbag modules in your vehicular scrap pile.

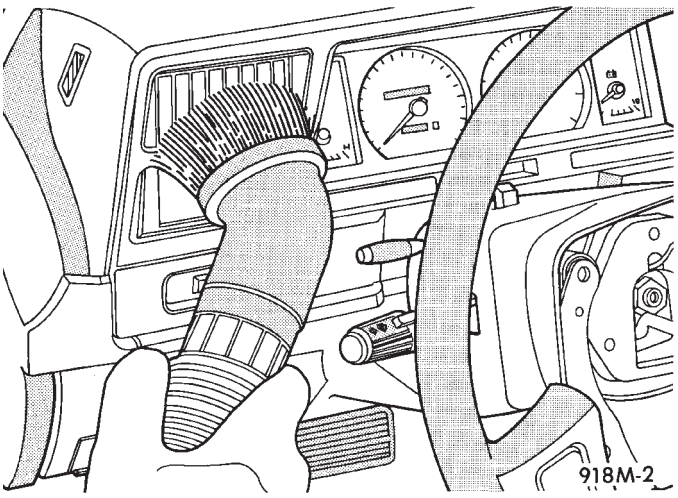

Fig. 3 Vacuum Heater and A/C Outlets

REMOVAL AND INSTALLATION

AIRBAG MODULE

WARNING:

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• WHEN REMOVING A DEPLOYED AIRBAG MODULE, RUBBER GLOVES, EYE PROTECTION, AND A LONG-SLEEVED SHIRT SHOULD BE WORN. THERE MAY BE DEPOSITS ON THE AIRBAG MODULE AND OTHER INTERIOR SURFACES. IN LARGE DOSES, THESE DEPOSITS MAY CAUSE IRRITATION TO THE SKIN AND EYES.

DRIVER SIDE

(1) Disconnect and isolate the battery negative cable. If the airbag has not been deployed, wait two minutes for the system capacitor to discharge before further service.

(2) From the underside of the steering wheel, remove the two screws that secure the driver side airbag module to the steering wheel.

(3) Pull the airbag module away from the steering wheel far enough to access the wire harness connectors on the back of the airbag module.

(4) Unplug the airbag module and horn switch wire harness connectors from the back of the airbag module.

(5) Remove the driver side airbag module from the steering wheel.

REMOVAL AND INSTALLATION (Continued)

(6) If the airbag has been deployed, the clockspring and steering column must be replaced. See Clockspring in the Removal and Installation section of this group for the clockspring service procedures. Refer to Group 19 - Steering for the steering column service procedures.

(7) When installing the airbag module, connect the clockspring wire harness connector to the module by pressing straight in on the connector. Be certain that the connector is fully engaged by listening for a faint click. When the click is heard, the connector is latched.

(8) Connect the horn switch wire harness connector.

(9) Position the airbag module in the steering wheel. Be certain that the airbag and horn wiring is not pinched between the airbag module and the steering wheel armature.

(10) Install the airbag module mounting screws. Tighten the mounting screws to 10.2 N·m (90 in. lbs.).

(11) Do not connect the battery negative cable at this time. See Airbag System in the Diagnosis and Testing section of this group for the proper procedures.

PASSENGER SIDE

WARNING: THE PANEL OUTLET BARRELS INSTALLED IN THE PASSENGER SIDE AIRBAG DOOR PANEL OUTLET HOUSINGS MUST NEVER BE REINSTALLED FOLLOWING REMOVAL FOR ANY REASON. THEY MUST BE REPLACED WITH NEW BARRELS. REFER TO DUCTS AND OUTLETS IN THE REMOVAL AND INSTALLATION SECTION OF GROUP 24 - HEATING AND AIR CONDITIONING FOR THE SERVICE PROCEDURES. FAILURE TO OBSERVE THIS WARNING COULD RESULT IN OCCUPANT INJURIES UPON AIRBAG DEPLOYMENT.

(1) Disconnect and isolate the battery negative cable. If the airbag has not been deployed, wait two minutes for the system capacitor to discharge before further service.

(2) Remove the glove box from the instrument panel. Refer to Glove Box in the Removal and Installation section of Group 8E - Instrument Panel Systems for the procedures.

(3) Remove the glove box opening upper trim strip from the instrument panel. Refer to Glove Box Opening Upper Trim Strip in the Removal and Installation section of Group 8E - Instrument Panel Systems for the procedures.

(4) Remove the four screws that secure the two plastic support brackets of the passenger side airbag door panel outlet housing to the glove box opening upper reinforcement.

(5) Reach through and above the glove box opening to access and unplug the passenger side airbag module wire harness connector (Fig. 4) .

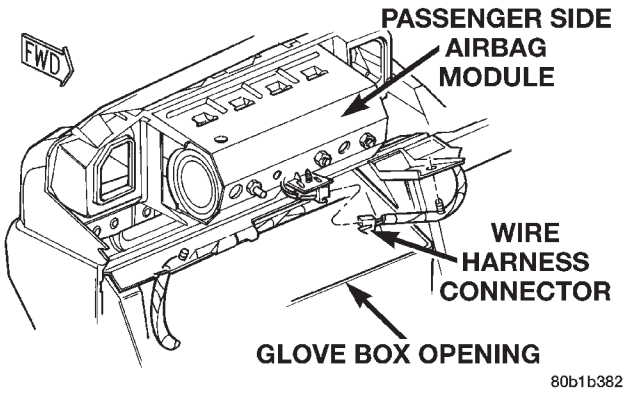

Fig. 4 Passenger Side Airbag Module Wire Harness Connector

(6) Remove the two screws that secure the passenger side airbag module front bracket to the instrument panel (Fig. 5) .

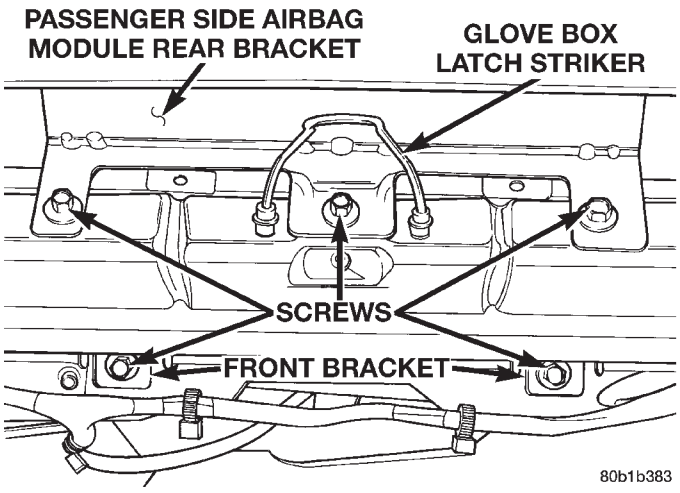

Fig. 5 Passenger Side Airbag Module Remove/Install

(7) Remove the three screws that secure the passenger side airbag module rear bracket to the glove box opening upper reinforcement.

(8) Using a trim stick or another suitable wide flat-bladed tool and starting at the lower left edge, gently pry the passenger side airbag door away from the instrument panel top cover to release the five snap retainers (Fig. 6) .

(9) Remove the passenger side airbag module and door from the instrument panel as a unit.

(10) Inspect the five slots in the instrument panel top cover airbag door opening and remove any airbag door snap retainers that did not remain on the airbag door tabs during removal.

REMOVAL AND INSTALLATION (Continued)

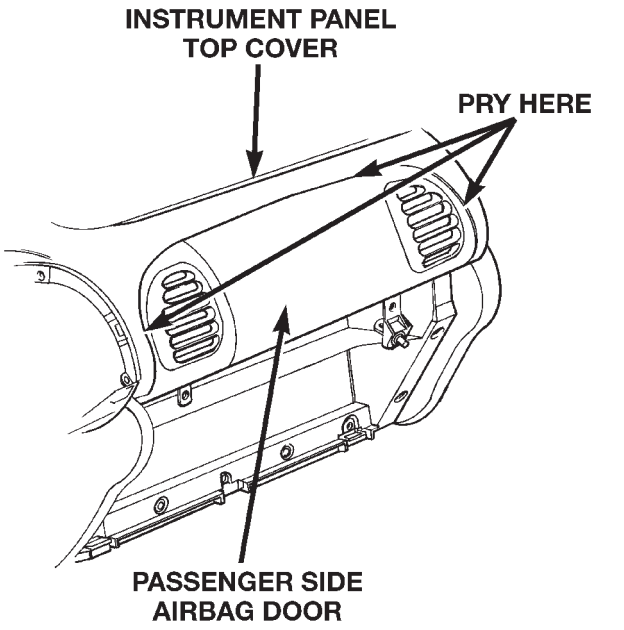

Fig. 6 Passenger Side Airbag Door Remove/Install

(11) Reverse the removal procedures to install. When reinstalling the airbag door to the instrument panel top cover, be certain that the snap retainers on the airbag door tabs are fully engaged in the five instrument panel top cover slots. Tighten the four passenger side airbag door panel outlet housing plastic support bracket mounting screws to 2.2 N·m (20 in. lbs.). Tighten the passenger side airbag module front and rear bracket mounting screws to 9 N·m (80 in. lbs.).

(12) Before reinstalling the glove box, be certain that the airbag module wire harness connector latches are fully engaged.

(13) Do not connect the battery negative cable at this time. See Airbag System in the Diagnosis and Testing section of this group for the proper procedures.

DRIVER SIDE AIRBAG TRIM COVER AND HORN SWITCH

WARNING:

• THE AIRBAG SYSTEM IS A SENSITIVE, COMPLEX ELECTROMECHANICAL UNIT. BEFORE ATTEMPTING TO DIAGNOSE OR SERVICE ANY AIRBAG SYSTEM OR RELATED STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENTS YOU MUST FIRST DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE. THEN WAIT TWO MINUTES FOR THE SYSTEM CAPACITOR TO DISCHARGE BEFORE FURTHER SYSTEM SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO DO THIS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

• THE HORN SWITCH IS INTEGRAL TO THE AIRBAG MODULE TRIM COVER. SERVICE OF THIS COMPONENT SHOULD BE PERFORMED ONLY BY CHRYSLER-TRAINED AND AUTHORIZED DEALER SERVICE TECHNICIANS. FAILURE TO TAKE THE PROPER PRECAUTIONS OR TO FOLLOW THE PROPER PROCEDURES COULD RESULT IN ACCIDENTAL, INCOMPLETE, OR IMPROPER AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

(1) Disconnect and isolate the battery negative cable. If the airbag has not been deployed, wait two minutes for the system capacitor to discharge before further service.

(2) Remove the driver side airbag module from the steering wheel. See Airbag Module in the Removal and Installation section of this group for the procedures.

(3) Disengage the horn switch feed wire retainer from the hole in the trim cover retainer on the back of the airbag housing.

(4) Remove the three nuts that secure the trim cover retainer to the studs on the airbag housing.

(5) Remove the horn switch ground wire eyelet from the lower left airbag housing stud.

(6) Remove the trim cover retainer from the airbag housing studs.

(7) Disengage the six trim cover locking blocks from the lip around the outside edge of the airbag housing and remove the housing from the cover.

WARNING: USE EXTREME CARE TO PREVENT ANY FOREIGN MATERIAL FROM ENTERING THE DRIVER SIDE AIRBAG MODULE, OR BECOMING ENTRAPPED BETWEEN THE DRIVER SIDE AIRBAG MODULE TRIM COVER AND THE DRIVER SIDE AIRBAG MODULE. FAILURE TO OBSERVE THIS WARNING COULD RESULT IN OCCUPANT INJURIES UPON AIRBAG DEPLOYMENT.

(8) When reinstalling the trim cover and horn switch, be certain that the locking blocks are fully engaged on the lip of the airbag housing (Fig. 7) .

(9) When reinstalling the trim cover retainer, be certain that the tabs on the retainer are engaged in each of the retainer slots of the trim cover.

(10) Install the horn switch ground wire eyelet over the lower left airbag housing stud.

(11) Install and tighten the trim cover retainer nuts to 10 N·m (90 in. lbs.).

(12) Reverse the remaining removal procedures to complete the installation, but do not connect the battery negative cable at this time. See Airbag System

REMOVAL AND INSTALLATION (Continued)

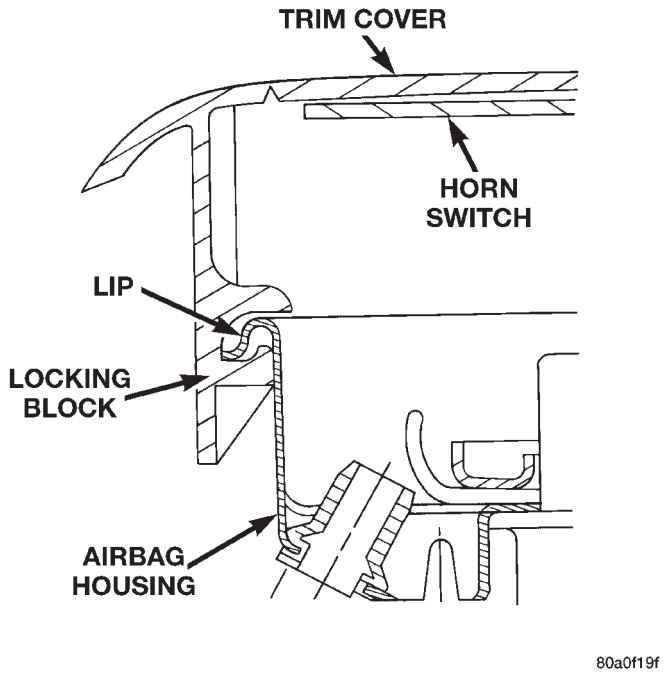

Fig. 7 Airbag Trim Cover Locking Blocks Installed

in the Diagnosis and Testing section of this group for the proper procedures.

PASSENGER AIRBAG DISARM SWITCH

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(1) Disconnect and isolate the battery negative cable. If the airbag has not been deployed, wait two minutes for the system capacitor to discharge before further service.

(2) Remove the cluster bezel from the instrument panel. Refer to Cluster Bezel in the Removal and Installation section of Group 8E - Instrument Panel Systems for the procedures.

(3) Remove the glove box from the instrument panel. Refer to Glove Box in the Removal and Installation section of Group 8E - Instrument Panel Systems for the procedures.

(4) Remove the three screws that secure the switch mounting plate to the instrument panel (Fig. 8) .

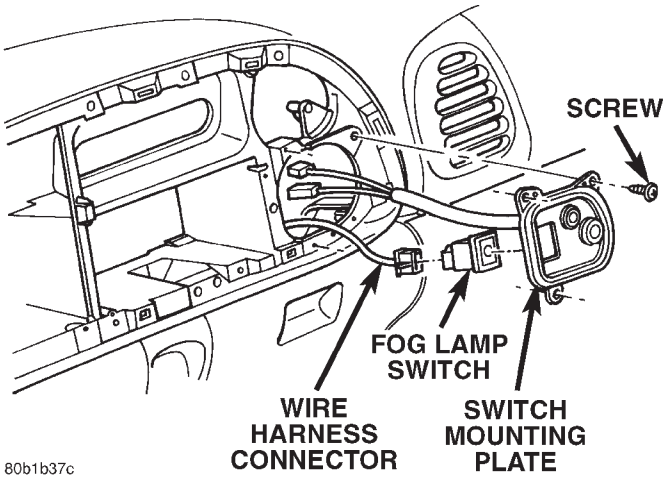


Fig. 8 Switch Mounting Plate Remove/Install

(5) If the vehicle is equipped with fog lamps, pull the switch mounting plate away from the instrument panel far enough to access and unplug the wire harness connector from the back of the fog lamp switch.

(6) Reach through the glove box opening to access and unplug the two passenger airbag disarm switch wire harness connectors, located on a bracket on the inboard glove box opening reinforcement (Fig. 9) .

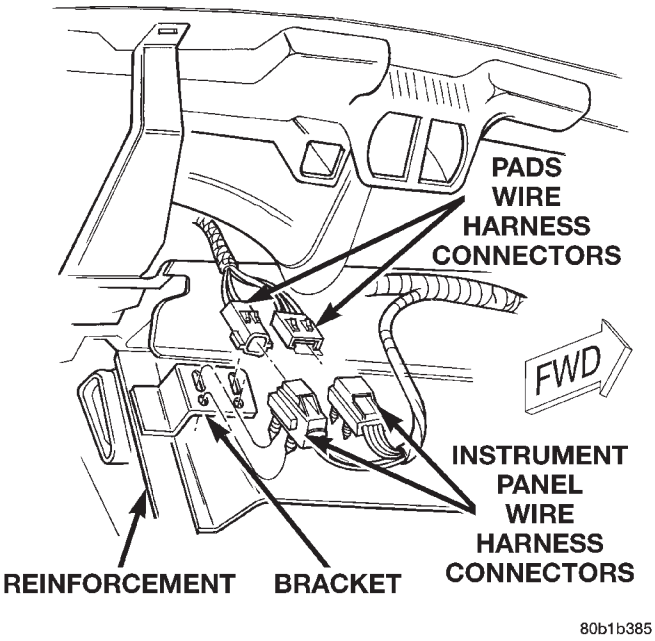


Fig. 9 Passenger Airbag Disarm Switch Connectors

(7) Remove the switch mounting plate and passenger airbag disarm switch from the instrument panel as a unit.

REMOVAL AND INSTALLATION (Continued)

(8) Remove the three screws that secure the passenger airbag disarm switch to the switch mounting plate (Fig. 10) .

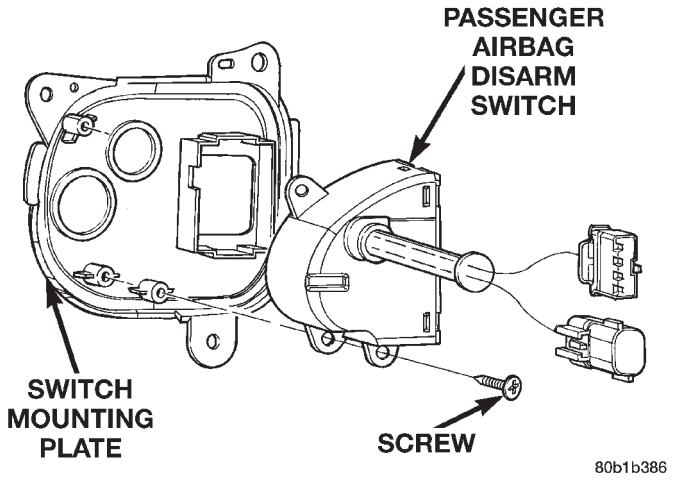


Fig. 10 Passenger Airbag Disarm Switch Remove/ Install

(9) Remove the passenger airbag disarm switch from the switch mounting plate.

(10) Reverse the removal procedures to install. Tighten the mounting screws to 2.2 N·m (20 in. lbs.).

(11) Do not connect the battery negative cable at this time. See Airbag System in the Diagnosis and Testing section of this group for the proper procedures.

AIRBAG CONTROL MODULE

WARNING:

• THE AIRBAG CONTROL MODULE CONTAINS THE IMPACT SENSOR, WHICH ENABLES THE SYSTEM TO DEPLOY THE AIRBAG. BEFORE ATTEMPTING TO DIAGNOSE OR SERVICE ANY AIRBAG SYSTEM OR RELATED STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENTS YOU MUST FIRST DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE. THEN WAIT TWO MINUTES FOR THE SYSTEM CAPACITOR TO DISCHARGE BEFORE FURTHER SYSTEM SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO DO THIS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

• NEVER STRIKE OR KICK THE AIRBAG CONTROL MODULE, AS IT CAN DAMAGE THE IMPACT SENSOR OR AFFECT ITS CALIBRATION. IF AN AIRBAG CONTROL MODULE IS ACCIDENTALLY DROPPED DURING SERVICE, THE MODULE MUST BE SCRAPPED AND REPLACED WITH A NEW UNIT.

(1) Disconnect and isolate the battery negative cable. If the airbag has not been deployed, wait two minutes for the system capacitor to discharge before further service.

(2) If the vehicle is equipped with a manual transmission, remove the center console from the floor panel transmission tunnel. Refer to Group 23 - Body for the procedures.

(3) If the vehicle is equipped with an automatic transmission, remove the two screws that secure the trim cover to the airbag control module mounting bracket, then pull the top of the trim cover rearward to release the two snap clips from the instrument panel support bracket (Fig. 11) .

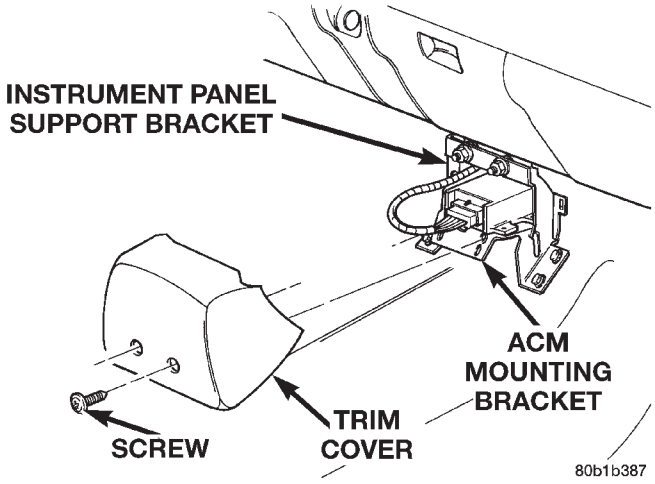


Fig. 11 Airbag Control Module Trim Cover Remove/ Install

(4) Loosen but do not remove the two screws on the sides that secure the instrument panel support bracket to the airbag control module mounting bracket (Fig. 12) .

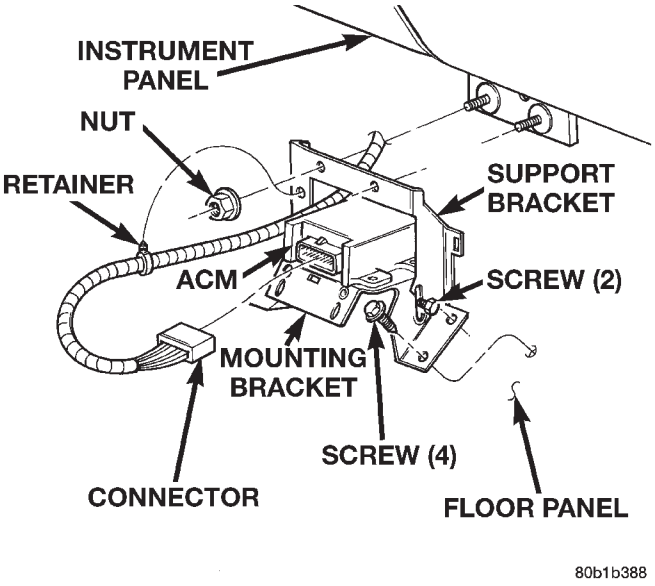


Fig. 12 Airbag Control Module Remove/Install

REMOVAL AND INSTALLATION (Continued)

(5) Remove the two nuts that secure the support bracket to the stubs on the lower instrument panel.

(6) Disengage the wire harness retainer from the hole in the support bracket.

(7) Pull the top of the support bracket away from the instrument panel studs and fold it down over the airbag control module until it is laying on the floor panel.

(8) Unplug the wire harness connector from the airbag control module.

NOTE: Always remove and replace the airbag control module and its mounting bracket as a unit. Replacement modules include a replacement mounting bracket. Do not transfer the module to another mounting bracket.

(9) Remove the four screws that secure the mounting bracket to the floor panel transmission tunnel.

(10) Remove the airbag control module, the mounting bracket and the support bracket as a unit from the floor panel.

(11) When installing the airbag control module, position the unit with the arrow on the module housing pointing forward.

(12) Attach the ACM to the floor panel transmission tunnel with the four mounting screws.

(13) Reverse the removal procedures to install. Before installing the trim cover or the floor console, be certain that the airbag control module wire harness connector latches are fully engaged and that the connector lock is pushed in. Tighten the mounting hardware as follows:

- Mounting bracket screws - 14 N·m (125 in. lbs.)
- Support bracket nuts - 14 N·m (125 in. lbs.)
- Trim cover screws - 2.2 N·m (20 in. lbs.).

(14) Do not connect the battery negative cable at this time. See Airbag System in the Diagnosis and Testing section of this group for the proper procedures.

CLOCKSPRING

WARNING: THE AIRBAG SYSTEM IS A SENSITIVE, COMPLEX ELECTROMECHANICAL UNIT. BEFORE ATTEMPTING TO DIAGNOSE OR SERVICE ANY AIRBAG SYSTEM OR RELATED STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENTS YOU MUST FIRST DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE. THEN WAIT TWO MINUTES FOR THE SYSTEM CAPACITOR TO DISCHARGE BEFORE FURTHER SYSTEM SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO DO THIS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

(1) Turn the steering wheel until the front wheels are in the straight-ahead position before starting the procedure.

(2) Disconnect and isolate the battery negative cable. If the airbag has not been deployed, wait two minutes for the system capacitor to discharge before further service.

(3) Remove the driver side airbag module from the steering wheel. See Airbag Module in the Removal and Installation section of this group for the procedures.

(4) If the vehicle is equipped with the optional vehicle speed control, unplug the wire harness connectors from the speed control switches in the steering wheel.

(5) Remove the nut that secures the steering wheel to the steering column upper shaft.

(6) Remove the steering wheel with a steering wheel puller (Special Tool C-3428-B).

(7) Remove the steering column opening cover and knee blocker from the instrument panel. Refer to Steering Column Opening Cover and Knee Blocker in the Removal and Installation section of Group 8E - Instrument Panel Systems for the procedures.

(8) If the vehicle is so equipped, remove the tilt steering column lever.

(9) Remove both the upper and lower shrouds from the steering column (Fig. 13) .

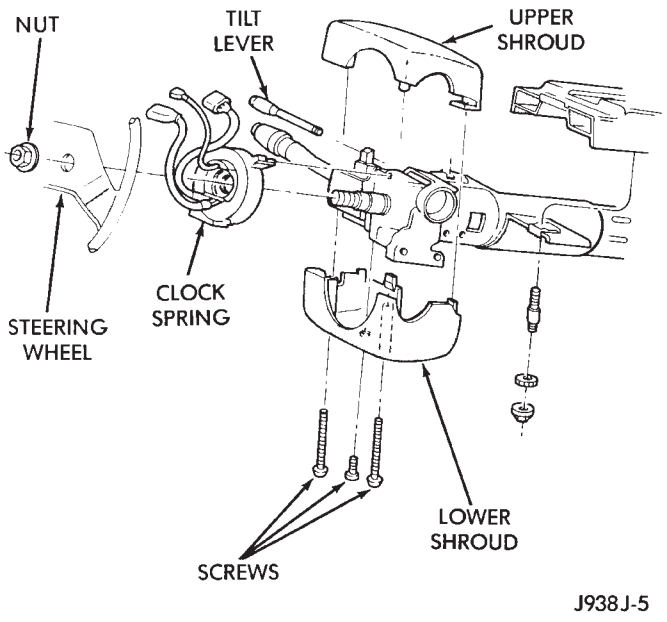


Fig. 13 Steering Column Shrouds Remove/Install - Typical

(10) Remove the lower fixed column shroud from the steering column.

(11) Unplug the wire harness connectors from the clockspring.

REMOVAL AND INSTALLATION (Continued)

(12) Unplug the wire harness connector between the clockspring and the instrument panel wire harness, located on the instrument panel lower reinforcement underneath the steering column.

(13) To remove the clockspring, carefully lift the locating fingers of the clockspring assembly from the steering column as necessary. The clockspring cannot be repaired. It must be replaced if faulty or damaged, or if the airbag has been deployed.

CAUTION: Before installing the clockspring, be certain that the front wheels are still in the straight-ahead position.

(14) When installing the clockspring, snap the clockspring onto the steering column. If the clockspring is not positioned properly in relation to the steering wheel, see Clockspring Centering in the Adjustments section of this group before installing the steering wheel.

(15) Plug the clockspring wire harness connector into the instrument panel wire harness. Be certain that the wire harness locator clips are properly seated on the outside of the wiring trough and that the connector latches are fully engaged.

(16) Reinstall the steering column shrouds. Be certain that the clockspring wire harness is inside the shrouds.

(17) Reinstall the steering column opening cover and knee blocker to the instrument panel. Refer to Steering Column Opening Cover and Knee Blocker in the Removal and Installation section of Group 8E - Instrument Panel Systems for the procedures.

(18) The front wheels should still be in the straight-ahead position. Install the steering wheel being certain to index the flats on the hub of the steering wheel with the formations on the inside of the clockspring. Pull the wire harnesses from the clockspring through the upper and lower holes between the steering wheel back trim cover and the steering wheel armature. Tighten the steering wheel nut to 61 N·m (45 ft. lbs.). Be certain not to pinch the wiring between the steering wheel and the nut.

(19) If the vehicle is so equipped, plug in the wire harness connectors to the vehicle speed control switches. Be certain that the speed control switch wire harnesses are routed between the steering wheel back trim cover and the steering wheel armature.

(20) Install the driver side airbag module onto the steering wheel. See Airbag Module in the Removal and Installation section of this group for the procedures.

ADJUSTMENTS

CLOCKSPRING CENTERING

The clockspring is designed to wind and unwind when the steering wheel is rotated, but is only designed to rotate the same number of turns (about five complete rotations) as the steering wheel can be turned from stop to stop. If the rotating tape within the clockspring is not indexed properly to the steering wheel and the front wheels, the clockspring may become wound too tight and fail during use. The clockspring must be centered if it is not known to be properly indexed, or if the front wheels were moved from the straight-ahead position with the clockspring removed during any service procedure.

WARNING: THE AIRBAG SYSTEM IS A SENSITIVE, COMPLEX ELECTROMECHANICAL UNIT. BEFORE ATTEMPTING TO DIAGNOSE OR SERVICE ANY AIRBAG SYSTEM OR RELATED STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENTS YOU MUST FIRST DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE. THEN WAIT TWO MINUTES FOR THE SYSTEM CAPACITOR TO DISCHARGE BEFORE FURTHER SYSTEM SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO DO THIS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

(1) Turn the steering wheel until the front wheels are in the straight-ahead position before starting the centering procedure.

(2) Disconnect and isolate the battery negative cable. If the airbag has not been deployed, wait two minutes for the system capacitor to discharge before further service.

(3) Remove the driver side airbag module from the steering wheel. See Airbag Module in the Removal and Installation section of this group for the procedures.

(4) If the vehicle is equipped with the optional vehicle speed control, unplug the wire harness connectors from the speed control switches in the steering wheel.

(5) Remove the nut that secures the steering wheel to the steering column upper shaft.

(6) Remove the steering wheel with a steering wheel puller (Special Tool C-3428-B).

(7) Depress the two plastic clockspring auto-locking tabs (Fig. 14) .

(8) Keeping the locking mechanism disengaged, rotate the clockspring rotor clockwise to the end of its travel. **Do not apply excessive torque.**

(9) From the end of the clockwise travel, rotate the rotor about two and one-half turns counterclockwise.

ADJUSTMENTS (Continued)

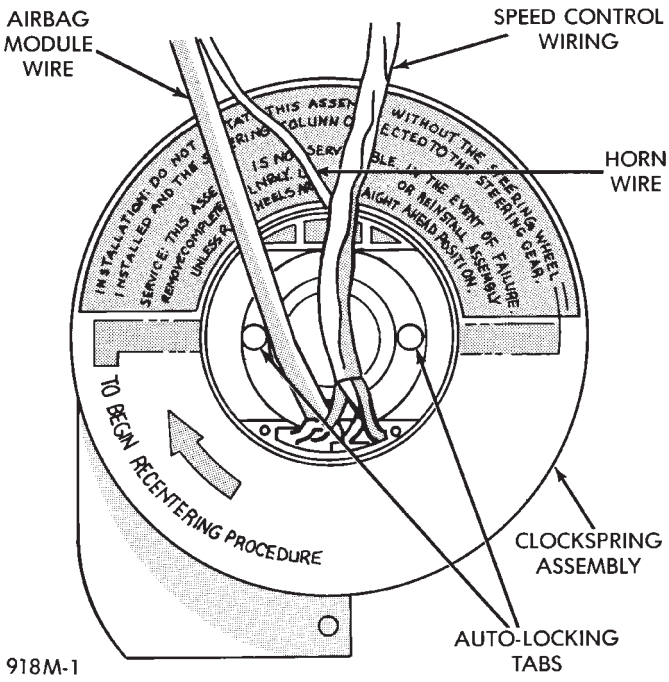


Fig. 14 Clockspring Auto-Locking Tabs

The clockspring horn wire harness should end up at the top, and the airbag wire harness and optional speed control switch wire harnesses at the bottom.

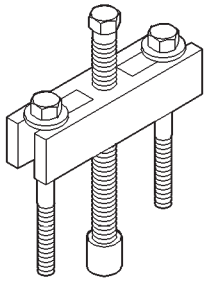
(10) The front wheels should still be in the straight-ahead position. Install the steering wheel being certain to index the flats on the hub of the steering wheel with the formations on the inside of the clockspring. Pull the wire harnesses from the clockspring through the upper and lower holes between the steering wheel back trim cover and the steering wheel armature. Tighten the steering wheel nut to 61 N·m (45 ft. lbs.). Be certain not to pinch the wiring between the steering wheel and the nut.

(11) If the vehicle is so equipped, plug in the wire harness connectors to the vehicle speed control switches. Be certain that the speed control switch wire harnesses are routed between the steering wheel back trim cover and the steering wheel armature.

(12) Install the driver side airbag module onto the steering wheel. See Airbag Module in the Removal and Installation section of this group for the procedures.

SPECIAL TOOLS

STEERING WHEEL



Puller C-3428-B

SEAT BELT CONTROL SYSTEMS

INDEX

GENERAL INFORMATION

INTRODUCTION

A structural seat belt control system is standard factory-installed equipment on all extended cab (club cab and quad cab) versions of this model. Refer to 8W-67 - Restraint System in Group 8W - Wiring Diagrams for complete circuit descriptions and diagrams.

STRUCTURAL SEAT BELT CONTROL SYSTEM

A structural seat with driver and passenger side integrated seat belt retractors and height adjusters is standard equipment on all extended cab (club cab and quad cab) models. In this system the seat belts are anchored to the seat back frame instead of the vehicle body, providing easier access to the rear seating area of the vehicle.

However, because the structural seat system has the seat belt and retractor mounted on a movable reclining seat back frame, a typical inertia-type mechanism cannot be used to latch the seat belt retractor. Therefore, an electronic structural seat belt control system is used to actuate the seat belt retractor latches. The structural seat belt control system consists of a Seatbelt Control Timer Module (SCTM) and two electric seat belt retractor latch solenoids, one for each front outboard seating position.

The structural seat belt control system also has a test mode feature. This feature allows the seat belt control system to be tested for proper operation while the vehicle is stationary by overriding the normal SCTM control functions. The seat belt control system **must** be tested for proper operation following the service of any seat belt control system or airbag system component. See Seat Belt Control System Test Mode on the Diagnosis and Testing section of this group for more information.

Following are general descriptions of the major components in the structural seat belt control system. Refer to the owner's manual in the vehicle glove box for more information on the features, use and operation of all of the factory-installed passenger restraints, including the structural seat belt system.

DESCRIPTION AND OPERATION

SEATBELT CONTROL TIMER MODULE

The Seatbelt Control Timer Module (SCTM) is secured to a bracket underneath the front edge of the front seat center cushion. The SCTM mounting bracket also serves as the support for the slide-out rear seat cup holder unit. The SCTM controls the supply of battery current to both of the front seat belt retractor latch solenoids. The SCTM contains an electromechanical Gravity (G)-sensor and an electronic timer circuit. The SCTM monitors the ignition switch state and both door jamb switches through hard wired inputs. In response to those inputs, the SCTM controls hard wired outputs to both seat belt retractor latch solenoids. The SCTM also sends diagnostic outputs to the Airbag Control Module (ACM) over a hard wired fault circuit.

The SCTM provides battery current to energize the seat belt retractor latch solenoids whenever the ignition switch is in the On or Accessory positions, unless the G-sensor input indicates a vehicle condition that requires the seat belt retractor to be latched. When the seat belt retractor latch solenoids are energized the retractor spools are unlatched, and the seat belt webbing can be extracted from the retractor. When the solenoids are de-energized the retractor spools latch, preventing the seat belt webbing from being extracted further from the retractor. This logic ensures that the seat belts will latch and/or remain latched if battery power is lost during a vehicle collision.

The electromechanical G-sensor within the SCTM monitors the rate of vehicle acceleration and deceleration in any horizontal direction. The G-sensor also

DESCRIPTION AND OPERATION (Continued)

responds to the horizontal attitude of the vehicle. If the G-sensor monitors a gravity force of greater than about 0.7G in any horizontal direction, or that the vehicle is tilted in any direction at an angle of greater than about 45 degrees, the SCTM will sense the input from the G-sensor and de-energize the seat belt retractor latch solenoids, which will cause the retractors to latch.

The SCTM electronic timer circuit provides the vehicle occupants with the ability to extract the seat belt webbing from the retractor spool for a time period of about 30 minutes after the ignition switch is turned to the Off position. The electronic timer circuit also monitors the state of the door jamb switches, and unlatches the seat belt retractors after either door jamb switch cycles from open to closed or from closed to open. Each time the SCTM receives an input indicating a change in the state of a monitored switch has occurred, the 30 minute timer starts again. The timer also is used to de-energize the retractor latch solenoids after about 30 minutes, and prevent the battery from being drained while the vehicle is not being driven.

The hard wired SCTM output to the ACM is used to indicate whether a fault condition is present in the structural seat belt control system. The ACM monitors the input from the SCTM and sends the proper messages to the instrument cluster on the Chrysler Collision Detection (CCD) data bus to turn the seat belt reminder lamp on or off. If the ACM receives a fault input or does not detect any input from the SCTM, it sets a fault code and sends messages to the instrument cluster to turn the lamp on. See Seat Belt Reminder Lamp in the Description and Operation section of Group 8E - Instrument Panel Systems for more information.

See Airbag Systems in this group for more information about the ACM. For diagnosis of the CCD data bus, the ACM or the ACM input from the SCTM, the use of a DRB scan tool and the proper Diagnostic Procedures manual are recommended. The SCTM cannot be repaired. If faulty or damaged, it must be replaced.

SEAT BELT RETRACTOR LATCH SOLENOID

A seat belt retractor latch solenoid is integral to each of the two outboard front seat belt retractors. The solenoid is grounded at all times through its wire harness connector and circuit. The solenoid receives battery current, which is switched by the Seatbelt Control Timer Module (SCTM), through a fuse in the junction block.

When the seat belt retractor latch solenoids are energized the retractor spools are unlatched, and the seat belt webbing can be withdrawn from the retractor. When the solenoids are de-energized the retractor spools latch, preventing the seat belt webbing from being withdrawn any further from the retractor.

The seat belt retractor latch solenoids cannot be repaired. If the solenoid is faulty or damaged, the entire seat belt retractor unit must be replaced. Refer to Group 23 - Body for the seat belt retractor service procedures.

DOOR JAMB SWITCH

The door jamb switches are mounted to the door hinge pillars. The switches close a path to ground for the Seatbelt Control Timer Module (SCTM) when a door is opened, and open the ground path when a door is closed.

The door jamb switches cannot be repaired and, if faulty or damaged, they must be replaced. Refer to Door Jamb Switch in the Removal and Installation section of Group 8Q - Vehicle Theft Security Systems for the service procedures.

DIAGNOSIS AND TESTING

SEAT BELT CONTROL SYSTEM TEST MODE

The structural seat belt control system has a test mode feature. This feature allows the seat belt control system to be tested for proper operation while the vehicle is stationary by overriding the normal Seatbelt Control Timer Module (SCTM) control functions. The seat belt control system and the airbag system **must** be tested for proper operation following the service of any seat belt control system or airbag system component. See Airbag Systems in this group for more information on testing of the airbag system.

This test mode will confirm the following:

- Both door jamb switches and their input circuits to the SCTM are functional.
- The fused B(+), fused ignition switch output (run/acc), and ground circuits to the SCTM are functional.
- The SCTM fault circuit to the Airbag Control Module (ACM), the ACM, the Chrysler Collision Detection (CCD) data bus, and the seat belt reminder lamp in the instrument cluster are functional.
- Both seat belt retractor latch solenoids and their circuits are functional and can be activated by the SCTM.

To initiate the seat belt control system test mode, proceed as follows:

(1) If the seat belt control system test mode has not been performed previously within the past 72 hours, reset the SCTM by removing the Ignition-Off Draw (IOD) fuse from the junction block, then reinstalling it.

(2) Sit in the driver side front seat of the vehicle and close all doors.

(3) Push in the cigar lighter.

DIAGNOSIS AND TESTING (Continued)

(4) Within five seconds the ignition switch must be cycled On, Off, On, Off, On, Off, and then finally back to On. Leave the ignition switch in the On position for the remainder of this procedure. This action enters the seat belt control system into its test mode for a maximum of five minutes. After five minutes, the seat belt control system will automatically return to its normal operating mode.

(5) The seat belt reminder lamp should light shortly after entering the test mode to confirm that the seat belt control system is in the test mode, and that the seat belt control system fault circuit is functional. If the lamp fails to light, use a DRB scan tool and the proper Diagnostic Procedures manual to diagnose the SCTM fault circuit to the ACM, the ACM, and the CCD data bus.

(6) Open the driver side front door. Check that both the passenger and driver side outboard front seat belt retractors are unlatched by slowly pulling the seat belt webbing out of the retractor. If only one retractor is unlatched, the latched retractor and circuit must be diagnosed. See Seat Belt Retractor Latch Solenoid in the Diagnosis and Testing section of this group. If both retractors are latched, see Seatbelt Control Timer Module in the Diagnosis and Testing section of this group.

(7) Close the driver side front door. Check that both the passenger and driver side outboard front seat belt retractors are latched by slowly pulling the seat belt webbing out of the retractor. If only one retractor is latched, the unlatched retractor and circuit must be diagnosed. See Seat Belt Retractor Latch Solenoid in the Diagnosis and Testing section of this group. If both retractors are unlatched, see Seatbelt Control Timer Module in the Diagnosis and Testing section of this group.

(8) Repeat Step 6 and Step 7, but open and close the passenger side front door instead of the driver side.

(9) Turn the ignition switch to the Off position. This will cause the seat belt control system to exit its test mode and return to normal operation.

(10) Turn the ignition switch back to the On position. The seat belt reminder and airbag indicator lamps should turn off shortly after their normal display functions (about six and seven seconds, respectively). If either lamp remains lighted, use a DRB scan tool and the proper Diagnostic Procedures manual to diagnose the SCTM fault circuit to the ACM, the airbag system, the ACM, and the CCD data bus.

(11) If the seat belt control system test mode has timed out prior to completion of the tests (about five minutes after the test was initiated), go back to Step 2.

The SCTM is programmed to consider certain parameters as an indication of a faulty Gravity (G)-sensor. In some peculiar vehicle use situations these parameters may be exceeded, causing the seat belt reminder lamp to illuminate indicating an SCTM fault, and then extinguish for no apparent reason. The following parameters should be considered if an intermittent seat belt reminder lamp illumination complaint is being diagnosed, and the test mode reveals no problems with the structural seat belt control system operation.

- If the SCTM monitors ten ignition cycles without an input from the G-sensor indicating that the vehicle has accelerated or decelerated sufficiently to require the seat belts to be latched. An ignition cycle is defined as: The ignition switch turned to the On position for at least thirty minutes, followed by the ignition switch being turned to the Off position. The SCTM considers this a G-sensor fault because it would normally be expected that the seat belts would require latching at some point within ten ignition cycles of driving. The SCTM will discontinue the fault signal and reset the ignition cycle counter to zero as soon as it sees a “normal” G-sensor input.
- If the SCTM monitors that the G-sensor input has required the seat belts to remain latched for more than about four seconds. This condition could occur if the vehicle is parked on a steep grade with the ignition switch in the On position, and is considered a G-sensor fault by the SCTM because the duration of the G-sensor input requiring the seat belts to be latched should not normally exceed four seconds. The SCTM will discontinue the fault signal as soon as it sees a “normal” G-sensor input.

SEATBELT CONTROL TIMER MODULE

For circuit descriptions and diagrams, refer to 8W-67 - Restraint System in Group 8W - Wiring Diagrams.

(1) Check the fused B(+) fuse in the junction block. If OK, go to Step 2. If not OK, repair the shorted circuit or component as required and replace the faulty fuse.

(2) Check for battery voltage at the fused B(+) fuse in the junction block. If OK, go to Step 3. If not OK, repair the open circuit as required.

(3) Check the fused ignition switch output (run/acc) fuse in the junction block. If OK, go to Step 4. If not OK, repair the shorted circuit or component as required and replace the faulty fuse.

(4) Turn the ignition switch to the On position. Check for battery voltage at the fused ignition switch output (run/acc) fuse in the junction block. If OK, go to Step 5. If not OK, repair the open circuit to the ignition switch as required.

(5) Turn the ignition switch to the Off position. Disconnect and isolate the battery negative cable. Unplug the Seatbelt Control Timer Module (SCTM)

DIAGNOSIS AND TESTING (Continued)

wire harness connector. Connect the battery negative cable. Check for battery voltage at the fused B(+) circuit cavity of the SCTM wire harness connector. If OK, go to Step 6. If not OK, repair the open circuit to the junction block as required.

(6) Turn the ignition switch to the On position. Check for battery voltage at the fused ignition switch output (run/acc) circuit cavity of the SCTM wire harness connector. If OK, go to Step 7. If not OK, repair the open circuit to the junction block as required.

(7) Turn the ignition switch to the Off position. Disconnect and isolate the battery negative cable. Check for continuity between the two ground circuit cavities of the SCTM wire harness connector and a good ground. There should be continuity. If OK, go to Step 8. If not OK, repair the open circuit to ground as required.

(8) Check for continuity between the right door ajar switch sense circuit cavity of the SCTM wire harness connector and a good ground. There should be no continuity with the right front door closed, and continuity with the right front door open. Repeat this test for the left door ajar switch sense circuit. If both circuits check OK, and the problem is with only one inoperative latch solenoid, see Seat Belt Retractor Latch Solenoid in the Diagnosis and Testing section of this group. If both circuits check OK, and the problem is with both latch solenoids being inoperative, replace the faulty SCTM. If either or both door ajar switch sense circuits is not OK, see Door Jamb Switch in the Diagnosis and Testing section of this group.

SEAT BELT RETRACTOR LATCH SOLENOID

For circuit descriptions and diagrams, refer to 8W-67 - Restraint System in Group 8W - Wiring Diagrams.

(1) Disconnect and isolate the battery negative cable. Unplug the wire harness connector from the Seatbelt Control Timer Module (SCTM).

(2) Check the resistance between the inoperative (driver or passenger) latch signal circuit cavity of the SCTM wire harness connector and a good ground. The correct resistance should be from 50 to 60 ohms. If OK, see Seatbelt Control Timer Module in the Diagnosis and Testing section of this group. If not OK, go to Step 3.

(3) Unplug the wire harness connector at the inoperative (driver or passenger) seat belt retractor latch solenoid. Check the resistance between the two terminals of the latch solenoid. The correct resistance should be from 50 to 60 ohms. If OK, go to Step 4. If not OK, replace the faulty seat belt retractor unit.

(4) Check the resistance between the ground circuit cavity of the latch solenoid wire harness connector and a good ground. There should be no measurable resistance. If OK, repair the inoperative (driver or passenger) latch signal circuit between the solenoid wire harness connector and the SCTM wire harness connector as required. If not OK, repair the circuit to ground as required.

DOOR JAMB SWITCH

For circuit descriptions and diagrams, refer to 8W-67 - Restraint System in Group 8W - Wiring Diagrams.

(1) Disconnect and isolate the battery negative cable. Unplug the inoperative (driver or passenger) door jamb switch from its wire harness connector. Check for continuity between the ground circuit cavity of the door jamb switch wire harness connector and a good ground. There should be continuity. If OK, go to Step 2. If not OK, repair the circuit to ground as required.

(2) Check for continuity between the door jamb switch ground circuit terminal and each of the other two terminals of the door jamb switch. There should be continuity with the switch plunger released, and no continuity with the switch plunger depressed. If OK, go to Step 3. If not OK, replace the faulty switch.

(3) Unplug the Seatbelt Control Timer Module (SCTM) wire harness connector. Check for continuity between the inoperative (driver or passenger) door ajar switch sense circuit cavity of the SCTM wire harness connector and a good ground. There should be no continuity. If OK, go to Step 4. If not OK, repair the short circuit as required.

(4) Check for continuity between the inoperative (driver or passenger) door ajar switch sense circuit cavities of the SCTM wire harness connector and the door jamb switch wire harness connector. There should be continuity. If not OK, repair the open circuit as required.

REMOVAL AND INSTALLATION

SEATBELT TIMER CONTROL MODULE

(1) Disconnect and isolate the battery negative cable.

(2) Remove the fasteners that secure the front seat adjusters to the floor panel. Refer to Group 23 - Body for the procedures.

(3) Tilt the seat back and reach under the forward edge of the front seat center cushion to remove the two screws that secure the seatbelt timer control module to the mounting bracket (Fig. 1) .

(4) Lower the seatbelt control timer module from the mounting bracket far enough to access and unplug the wire harness connector.

(5) Remove the seatbelt control timer module from under the front seat.

(6) Reverse the removal procedures to install. Tighten the mounting screws to 2.2 N·m (20 in. lbs.).

(7) Do not connect the battery negative cable at this time. See Seatbelt Control System Test Mode in the Diagnosis and Testing section of this group for the proper procedures.

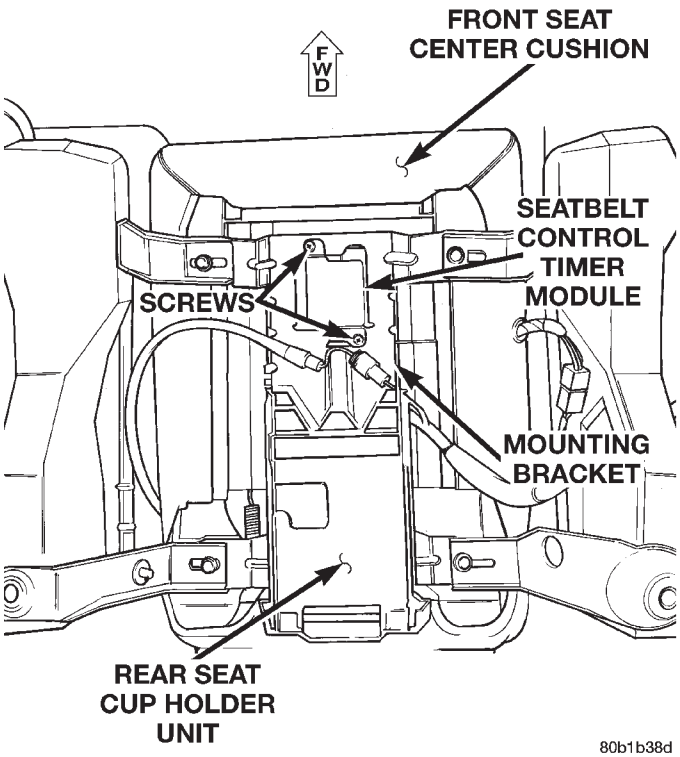


Fig. 1 Seatbelt Timer Control Module Remove/Install