RESTRAINT SYSTEM

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GENERAL INFORMATION

WARNINGS AND PRECAUTIONS

WARNING: THIS SYSTEM IS A SENSITIVE, COMPLEX ELECTRO–MECHANICAL UNIT. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE CABLE BEFORE BEGINNING AIRBAG SYSTEM COMPONENT REMOVAL OR INSTALLATION PROCEDURES. THIS WILL DISABLE THE AIRBAG SYSTEM. FAILURE TO DISCONNECT THE BATTERY COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

ALLOW SYSTEM CAPACITOR TO DISCHARGE FOR TWO MINUTES BEFORE REMOVING AIRBAG COMPONENTS.

DO NOT PLACE AN INTACT UNDEPLOYED AIRBAG FACE DOWN ON A SOLID SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED AND COULD RESULT IN PERSONAL INJURY. WHEN CARRYING OR HANDLING AN UNDEPLOYED AIRBAG MODULE, THE TRIM SIDE OF THE AIRBAG SHOULD BE POINTING AWAY FROM THE BODY TO MINIMIZE POSSIBILITY OF INJURY IF ACCIDENTAL DEPLOYMENT OCCURS.

REPLACE AIRBAG SYSTEM COMPONENTS WITH MOPAR® REPLACEMENT PARTS. SUBSTITUTE PARTS MAY APPEAR INTERCHANGEABLE, BUT INTERNAL DIFFERENCES MAY RESULT IN INFERIOR OCCUPANT PROTECTION.

WEAR SAFETY GLASSES, RUBBER GLOVES, AND LONG SLEEVES CLOTHING WHEN CLEANING POWDER RESIDUE FROM VEHICLE AFTER AIRBAG DEPLOYMENT. SODIUM HYDROXIDE POWDER RESIDUE EMITTED FROM A DEPLOYED AIRBAG CAN CAUSE SKIN IRRITATION. FLUSH AFFECTED AREA WITH COOL WATER IF IRRITATION IS EXPERIENCED. IF NASAL OR THROAT IRRITATION IS EXPERIENCED, EXIT THE VEHICLE FOR FRESH AIR UNTIL THE IRRITATION CEASES. IF IRRITATION CONTINUES, SEE A PHYSICIAN.

DO NOT USE A REPLACEMENT AIRBAG THAT IS NOT IN THE ORIGINAL PACKAGING, IMPROPER DEPLOYMENT AND PERSONAL INJURY CAN RESULT.

THE FACTORY INSTALLED FASTENERS, SCREWS AND BOLTS USED TO FASTEN AIRBAG COMPONENTS HAVE A SPECIAL COATING AND ARE SPECIFICALLY DESIGNED FOR THE AIRBAG SYSTEM. DO NOT USE SUBSTITUTE FASTENERS, USE ONLY ORIGINAL EQUIPMENT FASTENERS LISTED IN THE PARTS CATALOG WHEN FASTENER REPLACEMENT IS REQUIRED.

NOTE: Airbags should be stored in a cool dry location away from excessive heat and static electrical activity with the fabric airbag facing UP, or a premature deployment can result.

If the Driver/Passenger Airbag Module is defective and not deployed, refer to Chrysler Corporation current return list for proper handling procedures.

NOTE: This group covers both Left-Hand Drive (LHD) and Right-Hand Drive (RHD) versions of this model. Whenever required and feasible, the RHD versions of affected vehicle components have been constructed as mirror-image of the LHD versions. While most of the illustrations used in this group represent only the LHD version, the diagnostic and service procedures outlined can generally be applied to either version. Exceptions to this rule have been clearly identified as LHD, RHD, or Export if a special illustration or procedure is required.

DESCRIPTION AND OPERATION

AIRBAG CONTROL MODULE

The Airbag Control Module (ACM) contains the safing sensor and energy reserve capacitor. The safing sensor is located inside the ACM. The module is mounted on the tunnel/floor pan between the gear shift lever and the park brake lever (Fig. 1). The safing sensor provides confirmation of a crash, but does not discriminate severity. The ACM monitors the system to determine the system readiness. The ACM will store sufficient energy to deploy the airbags for at least one second after the battery is disconnected. The ACM contains on-board diagnostics, and will illuminate the AIRBAG warning lamp in the cluster when a fault occurs. The warning equipment is tested for six to eight seconds every time the vehicle is started.

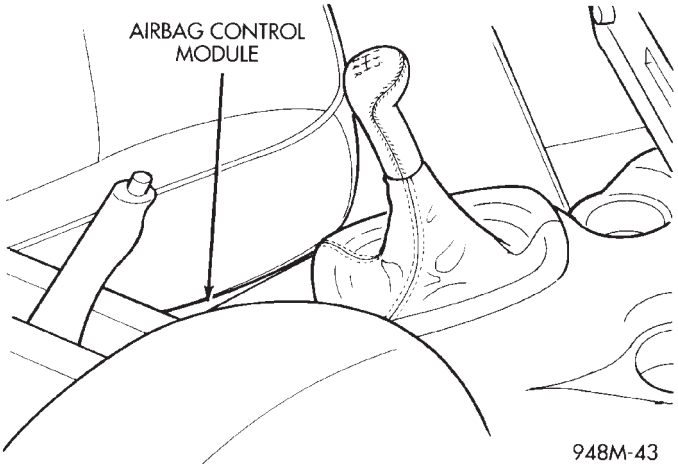

Fig. 1 Airbag Control Module Location

CLOCKSPRING

The clockspring is mounted to the steering column behind the steering wheel. The clockspring is used to maintain a continuous electrical circuit between the wiring harness and the:

- Driver's airbag module
- Speed control switches
- Horn switch

The clockspring consists of a flat, ribbon like, electrically conductive tape which winds and unwinds with the steering wheel rotation.

DRIVER AND PASSENGER AIRBAG MODULE

WARNING: NEVER DISASSEMBLE THE DRIVER OR PASSENGER AIRBAG MODULE, THERE ARE NO SERVICEABLE PARTS WITH IN THE MODULES.

The Driver Airbag Module located on the steering wheel is the most visible part of the system (Fig. 2). The airbag module contains a housing to which the cushion, inflator and cover are attached to.

The driver side inflator assembly is mounted from the back of the module housing. When supplied with the proper electrical signal the inflator assembly will produce a gas and discharge it directly into the cushion. A protective cover is fitted to the front of the Driver Airbag Module and forms a decorative cover in the center of the steering wheel. The Driver Airbag Module is mounted directly to the steering wheel.

The Passenger Airbag Module is located beneath the decorative cover of the instrument panel, facing the passenger seat (Fig. 3).

The passenger inflator assembly is within the module housing. The module is mounted to the instrument panel retainer and support structure. When supplied with the proper electrical signal the inflator will produce a gas and discharge it directly into the cushion. A protective cover is fitted into the instrument panel over the airbag module and forms a decorative cover.

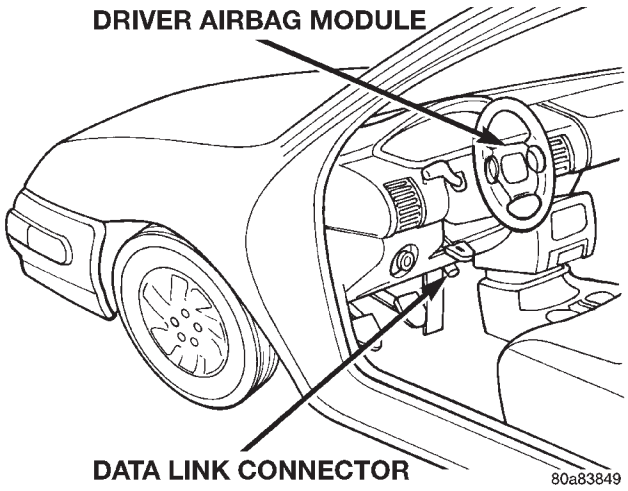

Fig. 2 Driver Airbag

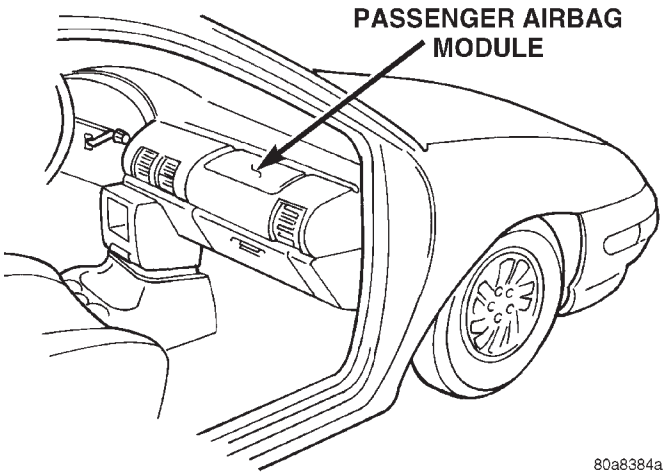

Fig. 3 Passenger Airbag

DIAGNOSIS AND TESTING

AIRBAG SYSTEM TEST

(1) Connect scan tool (DRB) to Data Link connector, located at right side of the steering column and at the lower edge of the lower instrument panel.

(2) Turn the ignition key to ON position. Exit vehicle with scan tool. Use the latest version of the proper cartridge.

(3) After checking that no one is inside the vehicle, connect the battery negative terminal.

(4) Using the scan tool, read and record active diagnostic code data.

(5) Read and record any stored diagnostic codes.

(6) Refer to the Passive Restraint Diagnostic Test Manual if any diagnostic codes are found in Step 4 or Step 5.

(7) Erase stored diagnostic codes if there are no active diagnostic codes. If problems remain, diagnostic codes will not erase. Refer to the Passive Restraint Diagnostic Test Manual to diagnose the problem. **If airbag warning lamp either fails to light, or goes on and stays on, there is a system malfunction. Refer to the Passive Restraint Diagnostic Test Manual to diagnose the problem.**

SERVICE PROCEDURES

CLEANUP PROCEDURE

Roll or fold the passenger airbag towards the instrument panel surface and close the door over the folded bag. Then tape the door shut.

Use a vacuum cleaner to remove any residual powder from the vehicle interior. Work from the outside in to avoid kneeling or sitting in a contaminated area. Vacuum the heater and A/C outlets as well (Fig. 4). If the heater or air conditioner was in RECIRC mode at time of airbag deployment, operate blower motor on low speed and vacuum powder residue expelled from the heater and A/C outlets. Multiple vacuum cleaning may to necessary to decontaminate the interior of the vehicle.

NOTE: Dispose deployed airbag properly, contact dealer or government agency for disposal recommendations.

SERVICE OF DEPLOYED AIRBAG MODULE

DRIVER AIRBAG

After a Driver Airbag Module has been deployed:

- Driver Airbag Module
- Clockspring assembly

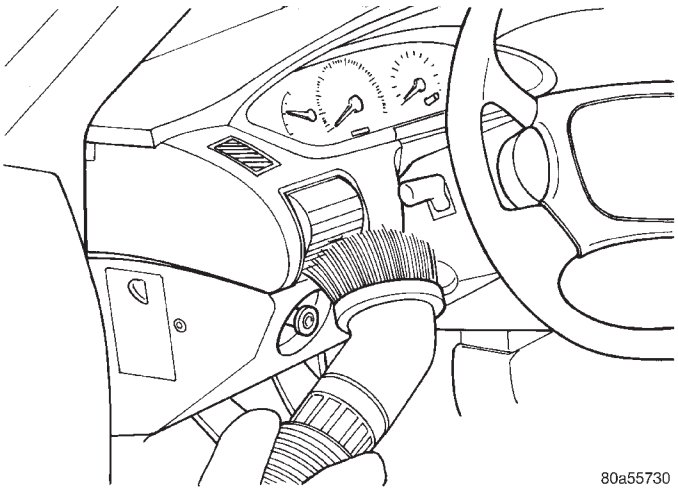

Fig. 4 Vacuum Heater and A/C Outlets

The component above must be replaced because they cannot be reused. Other driver airbag system components are replaced if damaged.

PASSENGER AIRBAG

After a Passenger Airbag Module has been deployed:

- Passenger Airbag Module
- Right trim panel

The lower instrument panel knee blocker, top cover, and any other components should be replaced if damaged.

HANDLING AIRBAG MODULE

DEPLOYED MODULE

The vehicle interior may contain a very small amount of sodium hydroxide powder, a by-product of airbag deployment. Sodium hydroxide powder can irritate the skin, eyes, nose and throat. Wear safety glasses, rubber gloves, and long sleeved clothing when cleaning any of the powder residue from the vehicle.

If you find that the cleanup is irritating your skin, run cool water over the affected area. Also, if you experience nasal or throat irritation, exit the vehicle for fresh air until the irritation ceases. If irritation continues, see a physician.

UNDEPLOYED

The airbag modules must be stored in its original special container until used for service. At no time should a source of electricity be permitted near the inflator on the back of an airbag module. When carrying or handling an undeployed airbag module, the trim side of the airbag should be pointing away from the body to minimize possibility of injury if accidental deployment occurs. Do not place undeployed air-

SERVICE PROCEDURES (Continued)

bag face down on a solid surface, the airbag will propel into the air if accidentally deployment occurs.

MAINTENANCE INSPECTION

(1) Check that both front impact sensors are properly installed to the closure panel with three fasteners each. Repair as required.

(2) Check the airbag warning lamp for proper operation as follows:

(a) Turn ignition switch to the ON position, the airbag warning lamp should light. If not, test the system using a scan tool and Passive Restraint System Diagnostic Procedures Manual. Repair as required.

(b) The airbag warning lamp lights, but fails to go out after eight seconds. Test the system using a scan tool and Passive Restraint System Diagnostic Procedures Manual. Repair as required.

(c) After correcting active malfunction erase stored diagnostic codes.

REMOVAL AND INSTALLATION

AIRBAG CONTROL MODULE (ACM)

REMOVAL

WARNING: THE ACM CONTAINS A SAFING SENSOR WHICH ENABLES THE SYSTEM TO DEPLOY THE AIRBAGS. TO AVOID ACCIDENTAL DEPLOYMENT, NEVER CONNECT ACM ELECTRICALLY TO THE SYSTEM WHILE VEHICLE BATTERY IS CONNECTED.

DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE BEFORE BEGINNING ANY AIRBAG SYSTEM COMPONENT REMOVAL OR INSTALLATION PROCEDURE. THIS WILL DISABLE THE AIRBAG SYSTEM. FAILURE TO DISCONNECT BATTERY COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

ALLOW SYSTEM CAPACITOR TO DISCHARGE FOR 2 MINUTES BEFORE REMOVING ANY AIRBAG COMPONENTS.

CAUTION: Failure to follow the parking brake service procedures can result in damage to the parking brake mechanism.

(1) Disconnect and isolate the battery negative cable.

(2) Manual transaxle only, remove shifter knob fastener and remove shifter knob.

(3) Remove screws attaching rear of center console assembly to console bracket (Fig. 5) or (Fig. 6).

(4) Remove the two screws located in cup holders (Fig. 7), attaching front of center console assembly to console bracket.

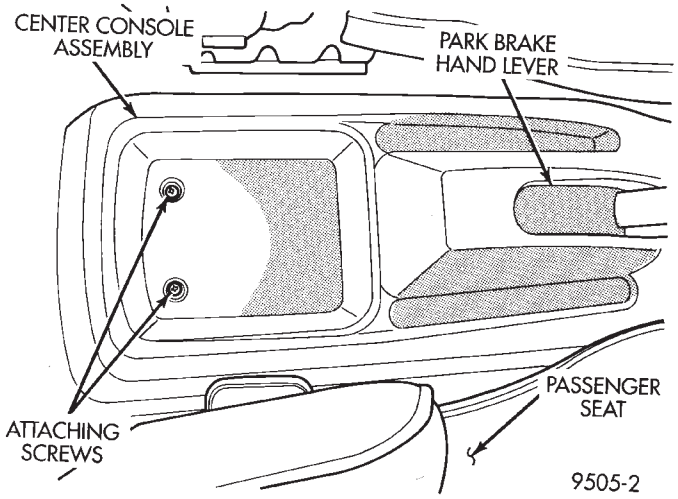

Fig. 5 Attaching Screws At Rear Of Center Console With/Without Arm Rest

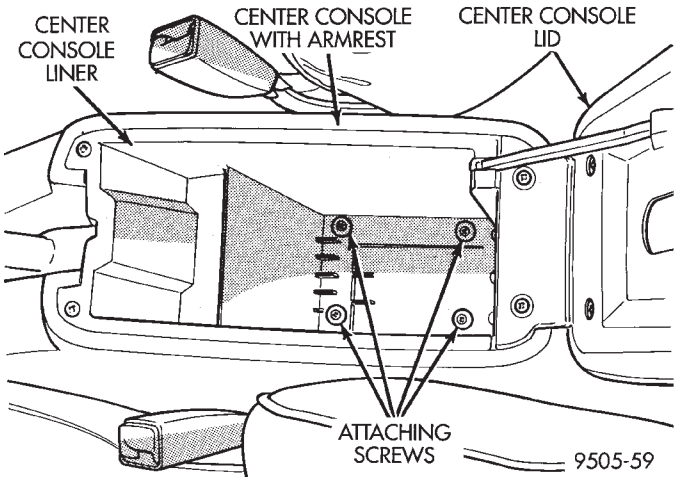

Fig. 6 Attaching Screws At Rear Of Center Console With Arm Rest

(5) Raise park brake hand lever assembly as high as it will go for required clearance to remove center console.

(6) Remove center console assembly from vehicle.

REMOVAL AND INSTALLATION (Continued)

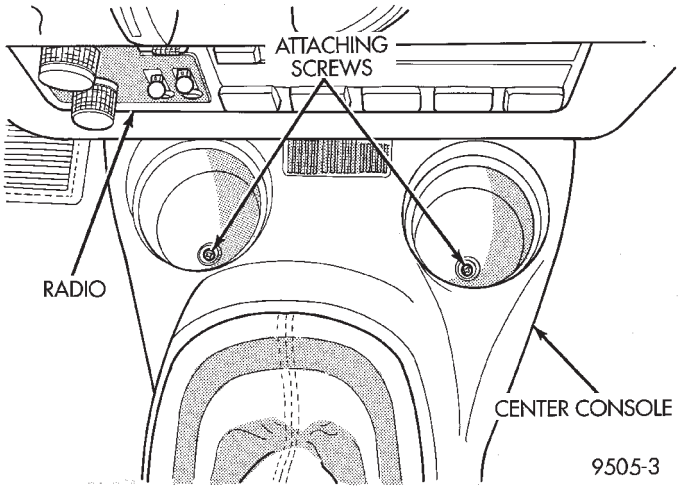

Fig. 7 Attaching Screws At Front Of Center Console

WARNING: THE AUTO ADJUSTING FEATURE OF THIS PARKING BRAKE LEVER ASSEMBLY CONTAINS A CLOCK SPRING LOADED TO APPROXIMATELY 20 POUNDS. DO NOT RELEASE THE AUTO ADJUSTER LOCKOUT DEVICE BEFORE INSTALLING CABLES INTO THE EQUALIZER. KEEP HANDS OUT OF AUTO ADJUSTER SECTOR AND PAWL AREA. FAILURE TO OBSERVE CAUTION IN HANDLING THIS MECHANISM COULD LEAD TO SERIOUS INJURY.

WHEN REPAIRS TO THE PARK BRAKE HAND LEVER ASSEMBLY OR CABLES IS REQUIRED, THE AUTO ADJUSTER MUST BE RELOADED AND LOCKED OUT.

(7) Lower park brake lever handle.

(8) Grasp park brake lever output cable by hand and pull upward. Continue pulling on cable until a 3/16 in. drill bit can be inserted into handle and sector gear of park brake mechanism (Fig. 8). This will lock the park brake mechanism and take tension off park brake cables.

(9) Remove both rear park brake cables from the park brake cable equalizer (Fig. 9).

(10) Remove wiring harness electrical connector for brake warning light from park brake lever (Fig. 10).

(11) Remove the two nuts (Fig. 11) attaching park brake lever to console bracket. Remove park brake lever mechanism from vehicle.

(12) Remove module mounting nuts and remove module (Fig. 12).

(13) Disconnect ACM 4-way and 13-way connectors (Fig. 13).

(14) Remove Airbag Control Module.

INSTALLATION

(1) Connect both ACM connectors and ensure both connectors and all locking tabs are engaged.

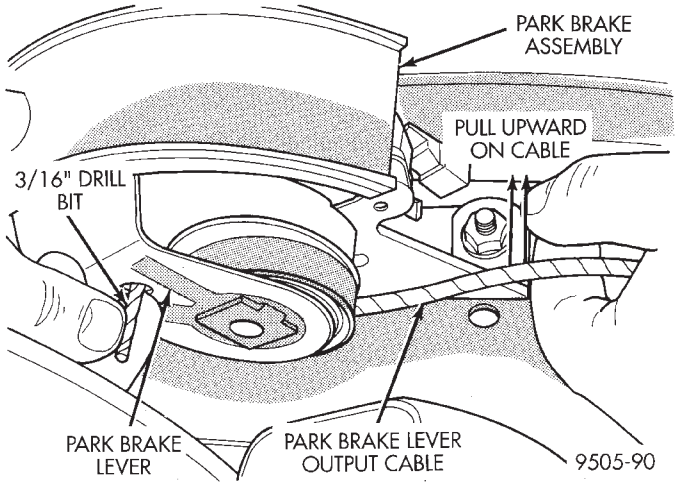

Fig. 8 Locking Pin Installed In Park Brake Mechanism

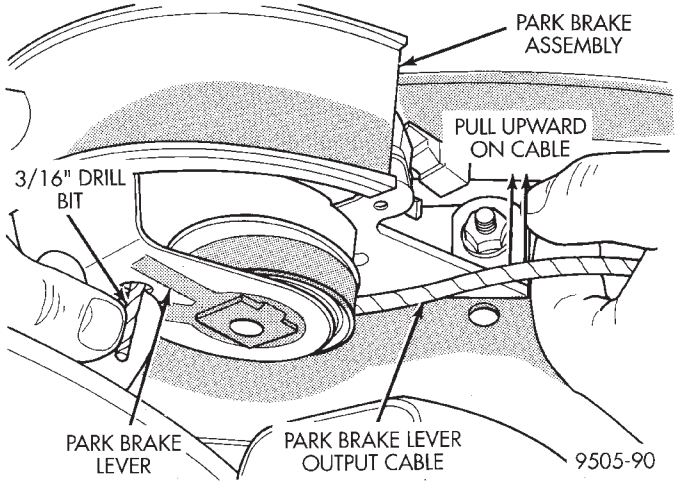

Fig. 9 Removing Park Brake Cables From Equalizer

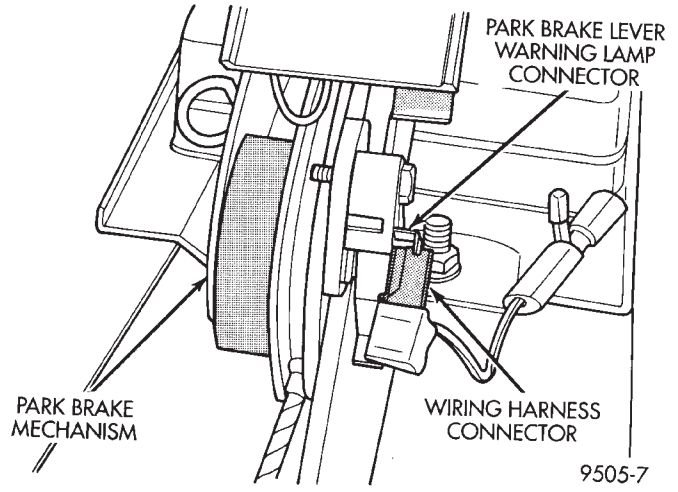

Fig. 10 Brake Warning Lamp Connection To Park Brake Lever

REMOVAL AND INSTALLATION (Continued)

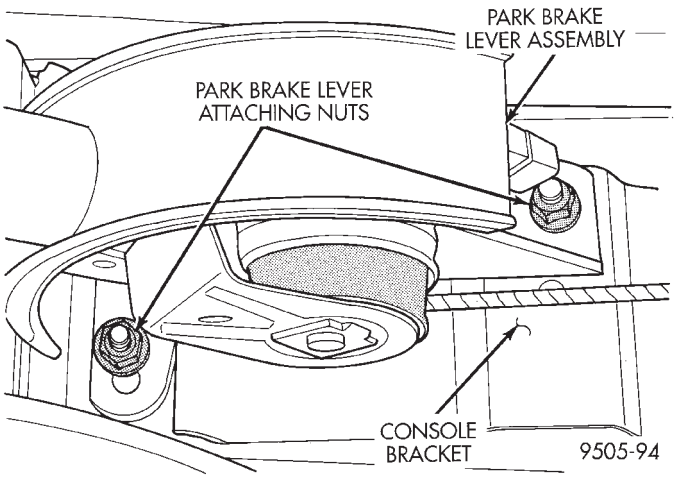

Fig. 11 Park Brake Lever Attachment To Console Bracket

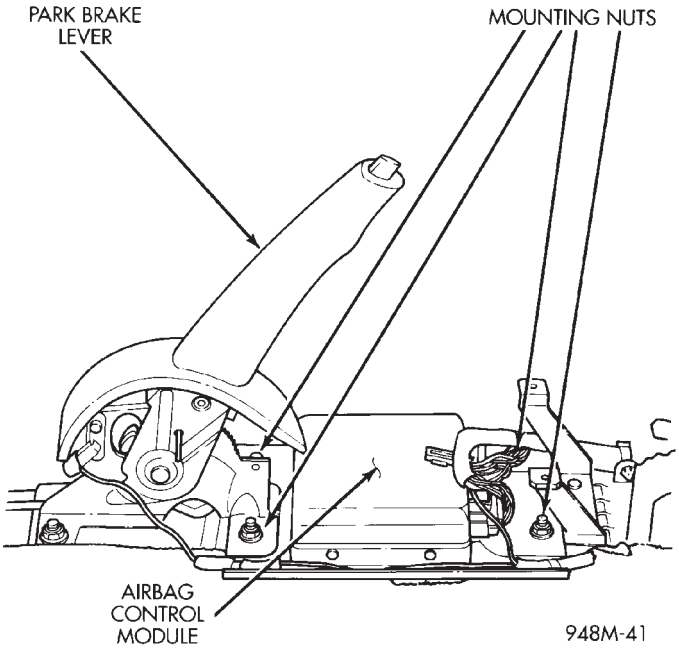

Fig. 12 Airbag Control Module

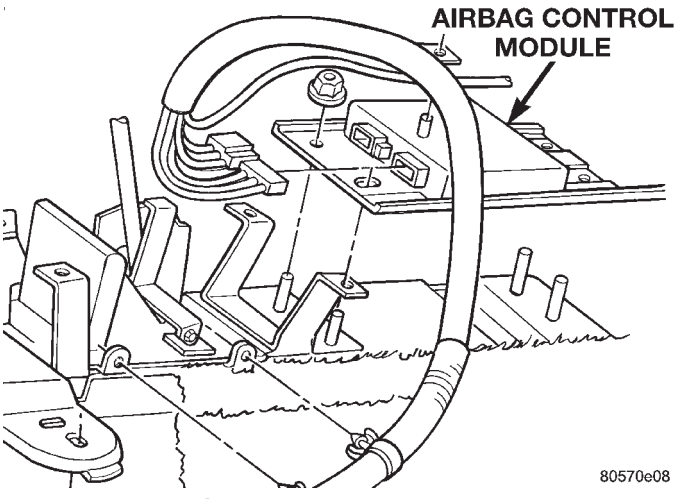

Fig. 13 ACM Connectors

CAUTION: USE SUPPLIED SCREWS ONLY

(2) Position ACM (arrow pointing forward) in the console floor bracket, attach the nuts and tighten to 11 to 14 N·m (105 to 125 in. lbs.) torque.

NOTE: The park brake lever can be in any position when releasing the auto adjuster. To ease installation of center console, it is advisable to pull park brake lever handle all the way up before removing lockout pin.

(3) Place park brake lever on console bracket. Install and securely tighten the 2 attaching nuts.

(4) Install both rear park brake cables into equalizer on park brake lever output cable (Fig. 14) and (Fig. 15).

(5) Ensure that park brake cable is correctly installed and aligned with cable track on park brake lever.

(6) Pull park brake lever handle all the way up.

(7) Firmly grasp park brake lever locking pin and quickly remove it from the park brake lever mechanism (Fig. 16) This will allow the park brake lever mechanism to correctly adjust the park brake cables.

(8) Connect electrical connector for brake warning lamp onto terminal on park brake lever assembly (Fig. 17).

(9) Cycle park brake lever once to position park brake cables. Then return the park brake lever its released position. Check the rear wheels of the vehicle. They should rotate freely without dragging.

(10) Raise park brake lever to its fully engaged position. This is necessary to allow installation of the center console.

(11) Install center console assembly.

(12) Install the four center console assembly attaching screws (Fig. 18), (Fig. 19) and (Fig. 20).

(13) Replace shifter knob and fastener.

(14) Do not connect battery negative cable. Refer to Diagnosis and Testing for Airbag System Test for the proper procedures.

REMOVAL AND INSTALLATION (Continued)

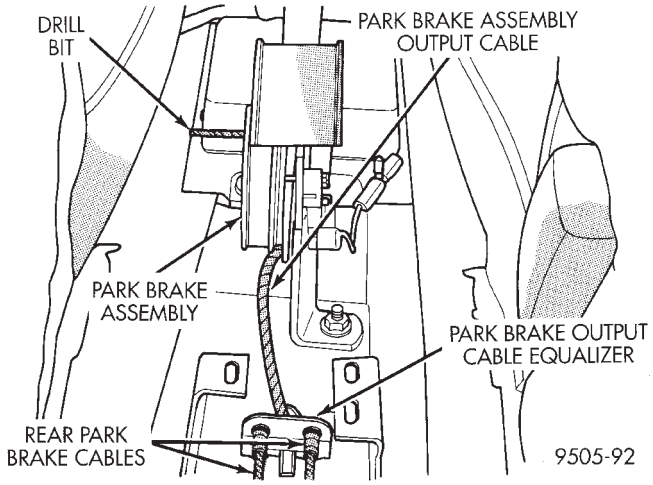

Fig. 14 Park Brake Cables Properly Installed In Equalizer

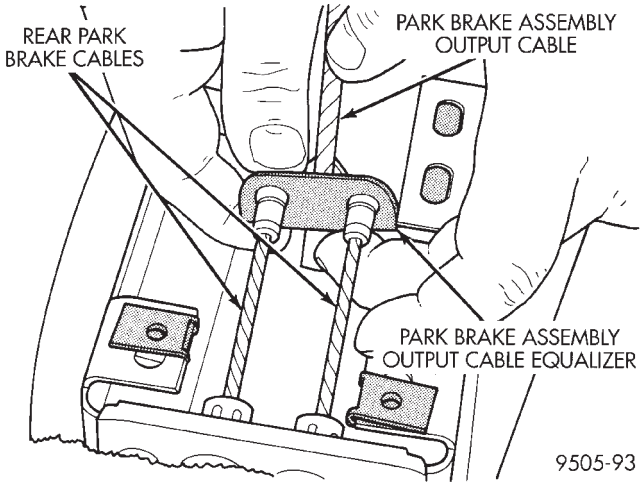

Fig. 15 Rear Park Brake Cable Installation On Equalizer

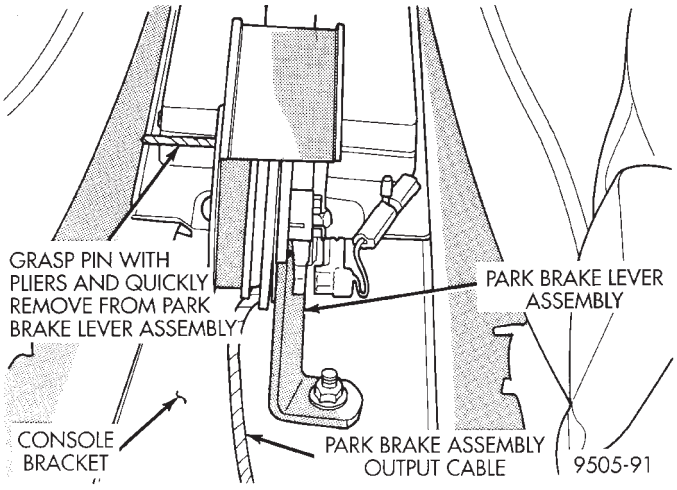

Fig. 16 Removing Lockout Pin From Park Brake Lever Assembly

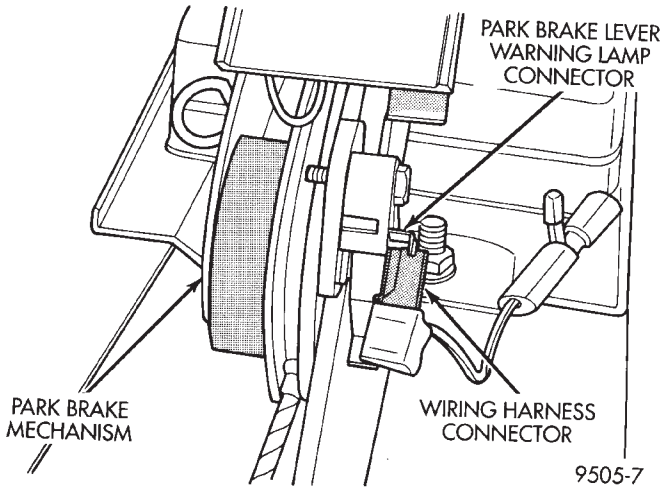

Fig. 17 Brake Warning Lamp Connection To Park Brake Lever

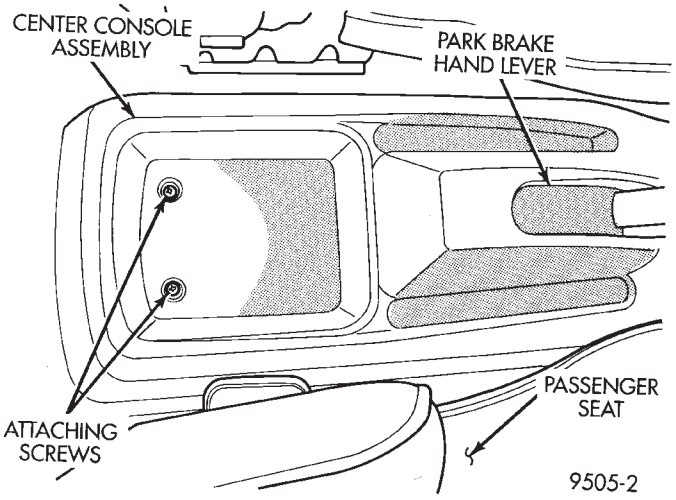

Fig. 18 Attaching Screws At Rear Of Center Console With/Without Arm Rest

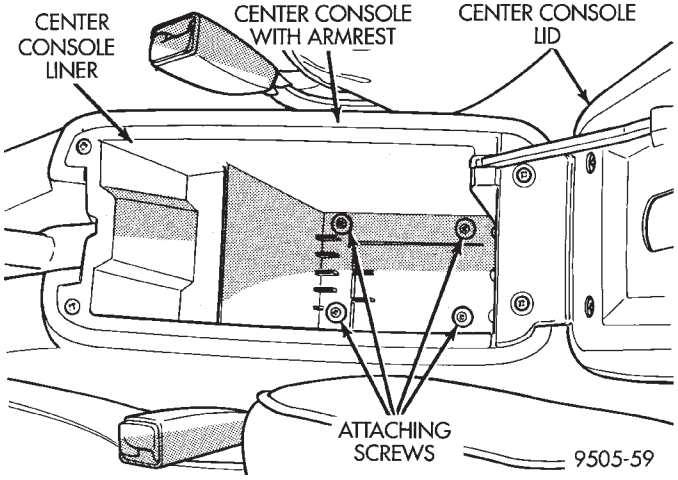

Fig. 19 Attaching Screws At Rear Of Center Console With Arm Rest

REMOVAL AND INSTALLATION (Continued)

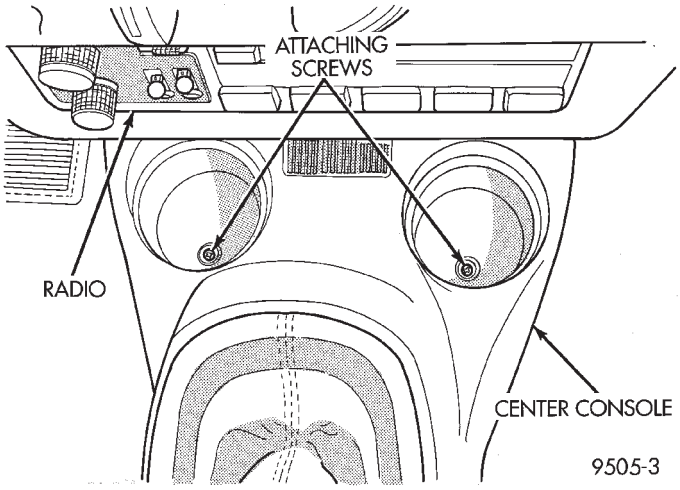

Fig. 20 Attaching Screws At Front Of Center Console

CLOCKSPRING

REMOVAL

WARNING: DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE BEFORE BEGINNING ANY AIRBAG SYSTEM COMPONENT REMOVAL OR INSTALLATION PROCEDURE. THIS WILL DISABLE THE AIRBAG SYSTEM. FAILURE TO DISCONNECT BATTERY COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY. ALLOW SYSTEM CAPACITOR TO DISCHARGE FOR 2 MINUTES BEFORE REMOVING ANY AIRBAG COMPONENTS.

(1) Place the front road wheels in the straight ahead position then:

- Rotate the steering wheel half turn (180 degrees) to the right (clockwise)
- Lock column with ignition lock cylinder.

(2) Disconnect and isolate the battery negative cable.

(3) Wait two minutes for the reserve capacitor to discharge before removing non-deployed module.

(4) Remove speed control switch mounting screws, switches and disconnect the wire connectors or remove covers.

(5) Remove the Driver Airbag Module attaching bolts from under the speed control switches or covers.

(6) Lift module and disconnect the airbag and horn wire connectors.

(7) Remove the steering wheel, refer to Steering Wheel removal procedures.

(8) Remove upper and lower steering column shrouds to gain access to clockspring wiring.

(9) Disconnect the 2-way and 4-way connectors between the clockspring and the instrument panel wiring harness at the base of the clockspring (Fig. 21).

(10) Unlatch and remove clockspring assembly from steering shaft. The clockspring cannot be repaired, and must be replaced if faulty.

(11) Rotate clockspring rotor a half turn (180 degrees) to the left (counter clockwise).

(12) Lock the clockspring rotor in the center position as follows: Insert a paper clip wire through the hole in the rotor at the 10 O'clock position and bend to prevent it from falling out.

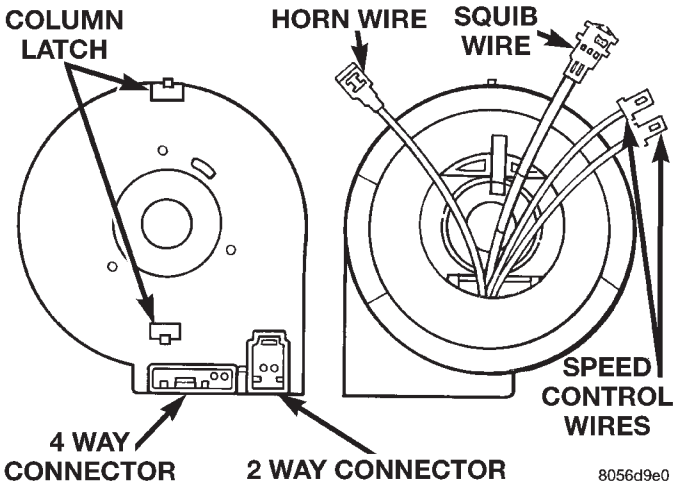

Fig. 21 Clockspring

INSTALLATION

(1) Confirm that:

- The steering wheel position is a half turn (180 degrees) to the right (clockwise)
- The column is locked with the ignition cylinder lock.
- Check that the turn signal stalk is in the neutral position
- When reusing the clockspring, remove locking wire and rotate clockspring rotor one half turn (180 degrees) to the right (clockwise). Locate the clockspring on the steering shaft and push down on the rotor until the clockspring is fully seated on the steering column.
- When installing a new clockspring, position the front wheels straight a head. Remove grenade pin. Rotate clockspring rotor one half turn (180 degrees) to the right (clockwise).

(2) Connect the clockspring to the instrument panel harness, ensure wiring is properly routed. Then check that the connectors, locking tabs are properly engaged and the halo lamp wire is in position.

(3) Install steering column shrouds. Be sure all wires are inside of shrouds.

(4) Install steering wheel ensuring the flats on hub align with the clockspring. Pull the horn, airbag and

REMOVAL AND INSTALLATION (Continued)

speed control leads through the larger slot. Ensure leads do not get pinched under the steering wheel.

(5) Route speed control wires under and behind the airbag module mounting tabs.

(6) Connect the horn lead wire and the airbag lead wire to the airbag module.

(7) Install the airbag module and tighten bolts to 12 to 14 N·m (105 to 125 in. lbs.) torque.

(8) Connect the speed control wires to the switches and install switches. Tighten screws to 2 N·m (20 in. lbs.) torque.

(9) Do not connect the battery negative cable. Refer to Diagnosis and Testing for Airbag System Test procedures.

DRIVER AIRBAG MODULE

REMOVAL

WARNING: DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE BEFORE BEGINNING ANY AIRBAG SYSTEM COMPONENT REMOVAL OR INSTALLATION PROCEDURE. THIS WILL DISABLE THE AIRBAG SYSTEM. FAILURE TO DISCONNECT BATTERY COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY. ALLOW SYSTEM CAPACITOR TO DISCHARGE FOR 2 MINUTES BEFORE REMOVING ANY AIRBAG COMPONENTS.

When removing a deployed module, rubber gloves, eye protection and long sleeved shirt should be worn, as there may be deposits on the surface which could irritate the skin and eyes.

(1) Disconnect and isolate the battery negative cable.

(2) Remove speed control switches or covers from steering wheel armature and disconnect the wires.

(3) Remove two bolts attaching Driver Airbag Module from the sides of steering wheel (Fig. 22).

(4) Lift module and disconnect airbag squib wire connector and horn wire.

(5) Remove Driver Airbag Module.

(6) When replacing a deployed driver airbag module, the clockspring must also be replaced. Refer to Clockspring Removal and Installation for proper procedure.

INSTALLATION

For installation, reverse the above procedures.

(1) Connect the squib wire to the module. Make airbag connection by pressing straight in on the connector. The connector should be fully seated feel for positive snap to assure positive connection.

(2) Connect the horn wire.

(3) Install two bolts and tighten to 10 to 11 N·m (90 to 100 in. lbs.) torque.

(4) Install covers to the steering wheel armature or connect the wire connectors to the speed control switches and install switches. Tighten fastener to 2 N·m (20 in. lbs.) TORQUE.

(5) Do not connect battery negative cable. Refer to Diagnosis and Testing for Airbag System Test procedures.

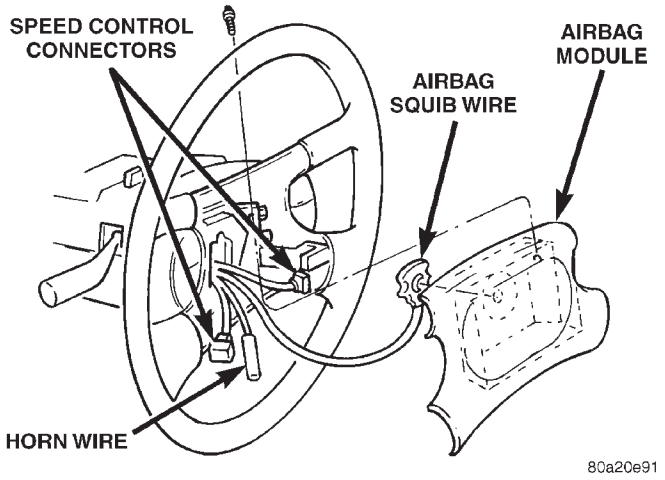

Fig. 22 Driver Airbag Module

PASSENGER AIRBAG MODULE

NON-DEPLOYED MODULE

REMOVAL

When removing a module for any reason other than DEPLOYMENT.

(1) Disconnect and isolate the battery negative cable.

(2) Remove instrument panel top cover (Fig. 23).

(3) Remove instrument panel right trim bezel.

(4) Open glove box and push the sides inward allowing the door bumper to pass and box to open.

(5) Remove the four trim screws which attach the Passenger Airbag Module to the top instrument panel (Fig. 24).

(6) Remove two module attaching nuts from the support structure.

(7) Lift module up until the wire connector is visible and disconnect the 4-way wire connector from module. Unlock the red locking tab and compress lock to release the connector (Fig. 25).

INSTALLATION

For installation, reverse the above procedures. Ensure that the red locking tab is in the lock position after installing the connector. Tighten trim screws to 2 N·m (20 in. lbs.) torque. Tighten the module nuts to 22 to 34 N·m (200 to 300 in. lbs.) torque. Do not connect battery negative cable. Refer to Diagnosis and Testing for Airbag System Test procedures.

REMOVAL AND INSTALLATION (Continued)

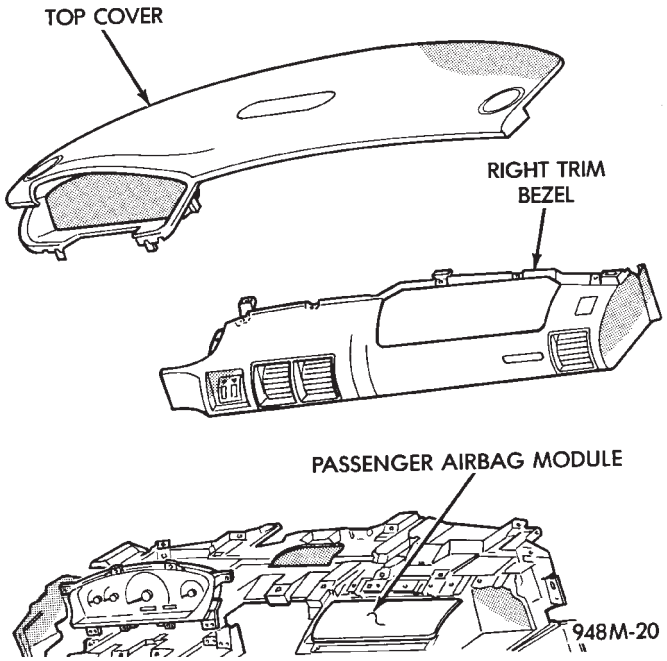

Fig. 23 Instrument Panel

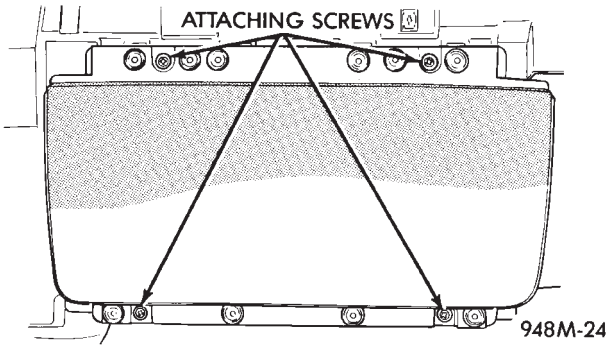

Fig. 24 Passenger Airbag Module

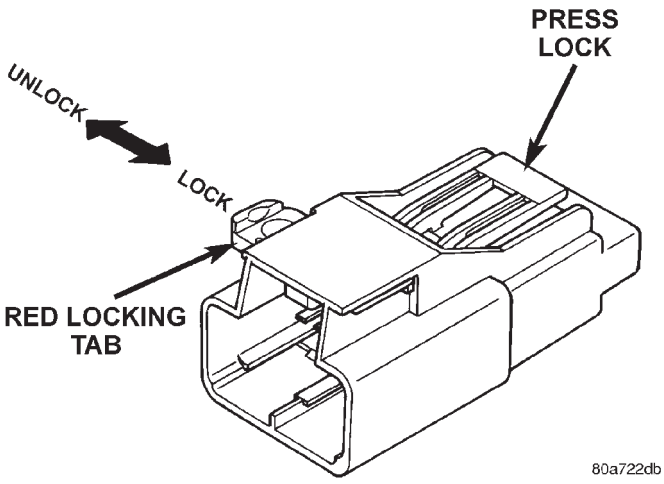

Fig. 25 Airbag Module Connector

DEPLOYED MODULE

REMOVAL

When removing a deployed module, rubber gloves, eye protection, and a long-sleeved shirt should be worn, as there may be deposits on the surface which could irritate the skin and eyes.

(1) Disconnect and isolate the battery negative cable.

(2) Roll/fold airbag towards instrument panel.

(3) Close door over folded airbag and tape door closed.

(4) Remove instrument panel top cover (Fig. 23).

(5) Remove instrument panel right trim panel.

(6) Open glove box and push the sides inward allowing the door bumper to pass and box to open.

(7) Remove the four trim screws which attach the module to the top instrument panel (Fig. 24).

(8) Remove two module attaching nuts from the support structure.

(9) Lift module up until the wire connector is visible and disconnect the 4-way wire connector from module. Unlock the red locking tab and compress lock to release the connector.

INSTALLATION

For installation, reverse the above procedures. Ensure that the red locking tab is in the lock position after installing the connector. Tighten trim screws to 2 N·m (20 in. lbs.) torque. Tighten the module nuts to 22 to 34 N·m (200 to 300 in. lbs.) torque. Do not connect battery negative cable. Refer to Diagnosis and Testing for Airbag System Test procedures.

STEERING WHEEL

WARNING: DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE BEFORE BEGINNING ANY AIRBAG SYSTEM COMPONENT REMOVAL OR INSTALLATION PROCEDURE. THIS WILL DISABLE THE AIRBAG SYSTEM. FAILURE TO DISCONNECT BATTERY COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

ALLOW SYSTEM CAPACITOR TO DISCHARGE FOR 2 MINUTES BEFORE REMOVING ANY AIRBAG COMPONENTS.

REMOVAL

(1) Adjust the steering wheel so that the tires are in the straight ahead position then:

- Rotate the steering wheel half turn (180 degrees) to the right (clockwise)
- Lock column with the ignition cylinder lock

(2) Disconnect and isolate the battery negative cable.

REMOVAL AND INSTALLATION (Continued)

(3) Remove the speed control switches and disconnect the wire connectors or covers.

(4) Remove the Driver Airbag Module attaching bolts from the back of steering wheel.

(5) Lift module and disconnect the airbag and horn wire connectors.

(6) Remove steering wheel retaining nut.

(7) Remove the steering wheel with a steering wheel puller. While removing the steering wheel take care to feed the wires gently through the holes in the clockspring armature.

INSTALLATION

(1) Confirm that:

- The steering wheel position is a half turn (180 degrees) to the right (clockwise)
- The column is locked with the ignition cylinder lock.
- Check that the turn signal stalk is in the neutral position

(2) Install the steering wheel ensuring the flats on hub align with the clockspring. Pull the horn lead, airbag and speed control leads through the larger slot. Ensure leads do not get pinched under the steering wheel.

(3) Install the steering wheel retaining nut, and tighten it to 61 N·m (45 ft. lbs.) torque.

(4) Install the airbag module. Refer to Driver Airbag Module Removal and Installation for proper procedures.

(5) Do not connect the battery negative cable. Refer to Diagnosis and Testing for Airbag System Test procedures.

ADJUSTMENTS

CLOCKSPRING CENTERING PROCEDURE

If the rotating tape within the clockspring is not positioned properly with the steering wheel and the front wheels, the clockspring may fail during use. The following procedure MUST BE USED to center the clockspring if:

- The clockspring is not known to be properly positioned
- The front wheels were moved
- The steering wheel was moved from the half turn (180 degrees) to the right (clockwise) position.

WARNING: DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE BEFORE BEGINNING ANY AIRBAG SYSTEM COMPONENT REMOVAL OR INSTALLATION PROCEDURE. THIS WILL DISABLE THE AIRBAG SYSTEM. FAILURE TO DISCONNECT BATTERY COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

ALLOW SYSTEM CAPACITOR TO DISCHARGE FOR 2 MINUTES BEFORE REMOVING ANY AIRBAG COMPONENTS.

(1) Remove clockspring, refer to Clockspring Removal.

(2) Rotate the clockspring rotor in the CLOCKWISE DIRECTION to the end of travel. Do not apply excessive torque.

(3) From the end of travel, rotate the rotor two full turns and a half in the counterclockwise direction. The horn wire and the squib wire should end up at the bottom. If not, rotate the rotor counter clockwise until the wires are properly orientated, but not more than half turn (180 degrees). Engage clockspring locking mechanism.

(4) For installation, refer to Clockspring Installation

(5) Do not connect battery negative cable. Refer to Diagnosis and Testing for Airbag System Test procedures.