

RESTRAINTS

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RESTRAINTS

DESCRIPTION

A dual front airbag system is standard factory-installed safety equipment on this model. The airbag system is a passive, inflatable, Supplemental Restraint System (SRS) and vehicles with this equipment can be readily identified by the "SRS - AIRBAG" logo molded into the driver airbag trim cover

in the center of the steering wheel and also into the passenger airbag door on the instrument panel above the glove box (Fig. 1). Vehicles with the airbag system can also be identified by the airbag indicator, which will illuminate in the instrument cluster for about seven seconds as a bulb test each time the ignition switch is turned to the On position.

The dual front airbag system consists of the following major components, which are described in further detail elsewhere in this service manual:

RESTRAINTS (Continued)



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Fig. 1 SRS Logo

• **Airbag Control Module** - The Airbag Control Module (ACM) is located in a stamped mounting bracket on the floor panel transmission tunnel, below the center of the instrument panel.

• **Airbag Indicator** - The airbag indicator is integral to the ElectroMechanical Instrument Cluster (EMIC), which is located on the instrument panel in front of the driver.

• **Clockspring** - The clockspring is located near the top of the steering column, directly beneath the steering wheel.

• **Driver Airbag** - The driver airbag is located in the center of the steering wheel, beneath the driver airbag trim cover.

• **Driver Knee Blocker** - The driver knee blocker is a molded plastic structural unit secured to the back side of and integral to the instrument panel steering column opening cover.

• **Passenger Airbag** - The passenger airbag is located on the instrument panel, beneath the passenger airbag door on the instrument panel above the glove box on the passenger side of the vehicle.

• **Passenger Airbag On/Off Switch** - The passenger airbag on/off switch is located in a dedicated opening in the upper right corner of the instrument panel cluster bezel, to the right of the center panel outlets of the climate control system.

• **Passenger Knee Blocker** - The passenger knee blocker is a structural reinforcement that is integral to and concealed within the glove box door.

The ACM and the EMIC each contain a central processing unit and programming that allow them to communicate with each other using the Chrysler Collision Detection (CCD) data bus network. This method of communication is used for control of the airbag indicator on all models. (Refer to 8 - ELECTRICAL/ELECTRONIC CONTROL MODULES/COMMUNICATION - DESCRIPTION).

Hard wired circuitry connects the airbag system components to each other through the electrical system of the vehicle. These hard wired circuits are integral to several wire harnesses, which are routed throughout the vehicle and retained by many different methods. These circuits may be connected to each other, to the vehicle electrical system, and to the airbag system components through the use of a combination of soldered splices, splice block connectors, and many different types of wire harness terminal connectors and insulators. Refer to the appropriate wiring information. The wiring information includes wiring diagrams, proper wire and connector repair procedures, further details on wire harness routing and retention, as well as pin-out and location views for the various wire harness connectors, splices and grounds.

OPERATION

The airbag system is referred to as a supplemental restraint system because it 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. It is referred to as a passive system because the vehicle occupants are not required to do anything to make it work. The primary passenger restraints in this or any other vehicle are the standard equipment factory-installed seat belts. Seat belts are referred to as an active restraint because the vehicle occupants are required to physically fasten and properly adjust these restraints in order to benefit from them. The vehicle occupants must be wearing their seat belts in order to obtain the maximum safety benefit from the factory-installed airbag system.

The airbag system electrical circuits are continuously monitored and controlled by a microprocessor and software contained within the Airbag Control Module (ACM). An airbag indicator in the ElectroMechanical Instrument Cluster (EMIC) lights for about seven seconds as a bulb test each time the ignition switch is turned to the On or Start positions. Following the bulb test, the airbag indicator is turned on or off by the ACM to indicate the status of the airbag system. If the airbag indicator comes on at any time other than during the bulb test, it indicates that there is a problem in the airbag system electrical circuits. Such a problem may cause the airbags not to deploy when required, or to deploy when not required.

The clockspring on the top of the steering column allows a continuous electrical circuit to be maintained between the stationary steering column and the driver airbag inflator, which rotates with the steering wheel. The passenger airbag on/off switch allows the passenger side airbag to be disabled when

RESTRAINTS (Continued)

circumstances necessitate that a child, or an adult with certain medical conditions be placed in the front passenger seating position. Refer to the owner's manual in the vehicle glove box for specific recommendations concerning the specific circumstances where the passenger airbag on/off switch should be used to disable the passenger airbag.

Deployment of the airbags depends upon the angle and severity of the impact. The airbag system is designed to deploy upon a frontal impact within a thirty degree angle from either side of the vehicle center line. Deployment is not based upon vehicle speed; rather, deployment is based upon the rate of deceleration as measured by the forces of gravity (G force) upon the airbag system impact sensor, which is integral to the ACM. When a frontal impact is severe enough, the microprocessor in the ACM signals the inflator units of both airbag modules to deploy the airbags. During a frontal vehicle impact, the knee blockers work in concert with properly fastened and adjusted seat belts to restrain both the driver and the front seat passenger in the proper position for an airbag deployment. The knee blockers also absorb and distribute the crash energy from the driver and the front seat passenger to the structure of the instrument panel.

Typically, the driver and front seat passenger recall more about the events preceding and following a collision than they have of the airbag deployment itself. This is because the airbag deployment and deflation occur so rapidly. In a typical 48 kilometer-per-hour (30 mile-per-hour) barrier impact, from the moment of impact until both airbags are fully inflated takes about 40 milliseconds. Within one to two seconds from the moment of impact, both airbags are almost entirely deflated. The times cited for these events are approximations, which apply only to a barrier impact at the given speed. Actual times will vary somewhat, depending upon the vehicle speed, impact angle, severity of the impact, and the type of collision.

When the ACM monitors a problem in any of the airbag system circuits or components, it stores a fault code or Diagnostic Trouble Code (DTC) in its memory circuit and sends an electronic message to the EMIC to turn on the airbag indicator. Proper testing of the airbag system components, the Chrysler Collision Detection (CCD) data bus, the data bus message inputs to and outputs from the EMIC or the ACM, as well as the retrieval or erasure of a DTC from the ACM requires the use of a DRBIII® scan tool. Refer to the appropriate diagnostic information.

See 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.

WARNING

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.

WARNING: THE DRIVER AIRBAG INFLATOR UNIT CONTAINS SODIUM AZIDE AND POTASSIUM NITRATE. THESE MATERIALS ARE POISONOUS AND EXTREMELY FLAMMABLE. CONTACT WITH ACID, WATER, OR HEAVY METALS MAY PRODUCE HARMFUL AND IRRITATING GASES (SODIUM HYDROXIDE IS FORMED IN THE PRESENCE OF MOISTURE) OR COMBUSTIBLE COMPOUNDS. THE PASSENGER AIRBAG UNIT CONTAINS ARGON GAS PRESSURIZED TO OVER 2500 PSI. DO NOT ATTEMPT TO DISMANTLE AN AIRBAG UNIT 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).

WARNING: REPLACE AIRBAG SYSTEM COMPONENTS ONLY WITH PARTS SPECIFIED IN THE DAIMLERCHRYSLER MOPAR PARTS CATALOG. SUBSTITUTE PARTS MAY APPEAR INTERCHANGEABLE, BUT INTERNAL DIFFERENCES MAY RESULT IN INFERIOR OCCUPANT PROTECTION.

WARNING: 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 DAIMLERCHRYSLER MOPAR PARTS CATALOG.

RESTRAINTS (Continued)

WARNING: WHEN A STEERING COLUMN HAS AN AIRBAG UNIT ATTACHED, NEVER PLACE THE COLUMN ON THE FLOOR OR ANY OTHER SURFACE WITH THE STEERING WHEEL OR AIRBAG UNIT FACE DOWN.

DIAGNOSIS AND TESTING - AIRBAG SYSTEM

Proper diagnosis and testing of the airbag system components, the Chrysler Collision Detection (CCD) data bus, the data bus message inputs to and outputs from the ElectroMechanical Instrument Cluster (EMIC) or the Airbag Control Module (ACM), as well as the retrieval or erasure of a Diagnostic Trouble Code (DTC) from the ACM requires the use of a DRBIII® scan tool. Refer to the appropriate diagnostic information.

WARNING: ON VEHICLES EQUIPPED WITH AIRBAGS, DISABLE THE AIRBAG SYSTEM BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE, THEN WAIT TWO MINUTES FOR THE AIRBAG SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER DIAGNOSIS OR SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

STANDARD PROCEDURE**STANDARD PROCEDURE - HANDLING NON-DEPLOYED AIRBAGS**

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

All damaged, faulty, or non-deployed airbags which are replaced on vehicles are to be handled and disposed of properly. If an airbag unit is faulty or damaged

and non-deployed, refer to the Hazardous Substance Control System for proper disposal. Dispose of all non-deployed and deployed airbags in a manner consistent with state, provincial, local and federal regulations.

AIRBAG STORAGE

An airbag must be stored in its original, special container until it is 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 any airbag on a surface with its trim cover or airbag cushion side facing up, to minimize movement in case of an accidental deployment.

STANDARD PROCEDURE - SERVICE AFTER AN AIRBAG DEPLOYMENT

Any vehicle which is to be returned to use following an airbag deployment, must have both airbags, the driver airbag trim cover, the clockspring, and the steering column assembly replaced. These components are not intended for reuse and will be damaged or weakened as a result of an airbag deployment, which may or may not be obvious during a visual inspection. Other vehicle components should be closely inspected, but are to be replaced only as required by the extent of the visible damage incurred.

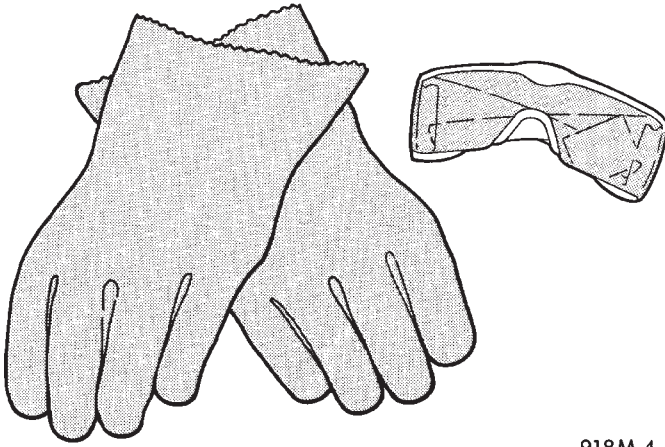
CLEANUP PROCEDURE

Following an airbag deployment, the vehicle interior will contain a powdery residue. This residue consists primarily of harmless particulate by-products of the small pyrotechnic charge used to initiate the propellant used to deploy the airbags. However, this residue may also contain traces of sodium hydroxide powder, a chemical by-product of the propellant material that is used to generate the nitrogen gas that inflates the airbag. Since sodium hydroxide powder can irritate the skin, eyes, nose, or throat, be sure to wear safety glasses, rubber gloves, and a long-sleeved shirt during cleanup (Fig. 2).

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 both airbags from the vehicle. Refer to the appropriate service removal procedures.

RESTRAINTS (Continued)

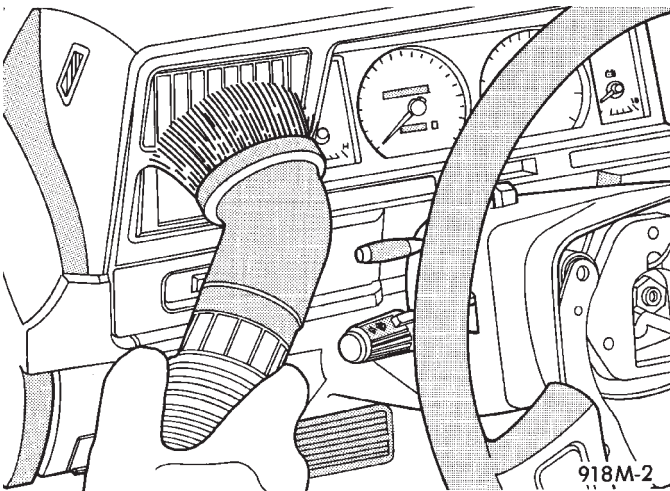


918M-4

Fig. 2 Wear Safety Glasses and Rubber Gloves - Typical

CAUTION: All damaged, faulty, or non-deployed airbags which are replaced on vehicles are to be handled and disposed of properly. If an airbag unit is faulty or damaged and non-deployed, refer to the Hazardous Substance Control System for proper disposal. Dispose of all non-deployed and deployed airbags in a manner consistent with state, provincial, local and federal regulations.

Next, 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 certain to vacuum the heater and air conditioning outlets as well (Fig. 3). Run the heater and air conditioner 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.



918M-2

Fig. 3 Vacuum Heater and A/C Outlets - Typical

STANDARD PROCEDURE - VERIFICATION TEST

The following procedure should be performed using a DRBIII® scan tool to verify proper airbag system operation following the service or replacement of any airbag system component.

WARNING: ON VEHICLES EQUIPPED WITH AIRBAGS, DISABLE THE AIRBAG SYSTEM BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE, THEN WAIT TWO MINUTES FOR THE AIRBAG SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER DIAGNOSIS OR SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

(1) During the following test, the battery negative cable remains disconnected and isolated, as it was during the airbag component removal and installation procedures.

(2) Be certain that the DRBIII® scan tool contains the latest version of the proper DRBIII® software. Connect the DRBIII® to the 16-way Data Link Connector (DLC). The DLC is located on the driver side lower edge of the instrument panel, outboard of the steering column (Fig. 4).

(3) Turn the ignition switch to the On position and exit the vehicle with the DRBIII®.

(4) Check to be certain that nobody is in the vehicle, then reconnect the battery negative cable.

(5) Using the DRBIII®, read and record the active (current) Diagnostic Trouble Code (DTC) data.

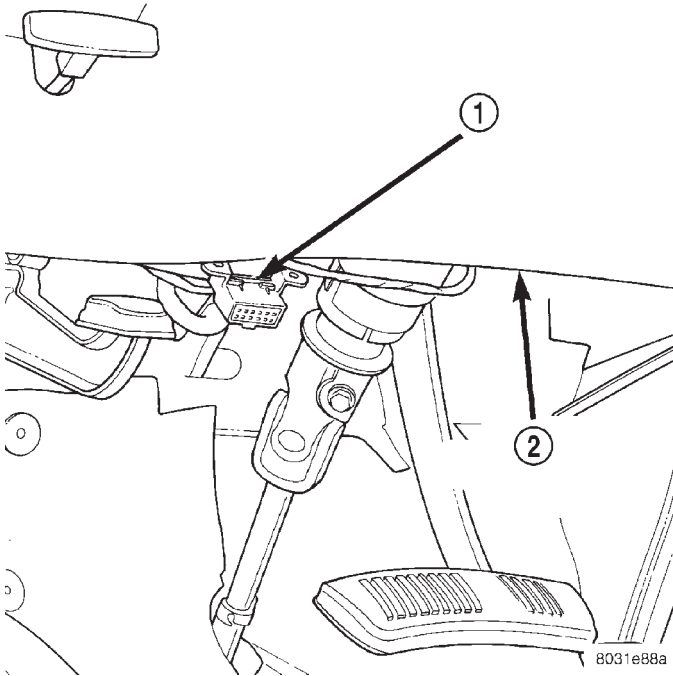
(6) Next, use the DRBIII® to read and record any stored (historical) DTC data.

(7) If any DTC is found in Step 5 or Step 6, refer to the appropriate diagnostic information.

(8) Use the DRBIII® to erase the stored DTC data. If any problems remain, the stored DTC data will not erase. Refer to the appropriate diagnostic information to diagnose any stored DTC that will not erase. If the stored DTC information is successfully erased, go to Step 9.

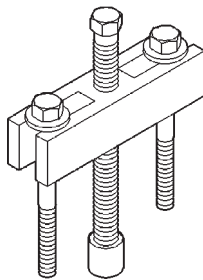
(9) Turn the ignition switch to the Off position for about fifteen seconds, and then back to the On position. Observe the airbag indicator in the instrument cluster. It should light for six to eight seconds, and then go out. This indicates that the airbag system is functioning normally and that the repairs are complete. If the airbag indicator fails to light, or lights and stays on, there is still an active airbag system

RESTRAINTS (Continued)

**Fig. 4 16-Way Data Link Connector - Typical**

- 1 - 16-WAY DATA LINK CONNECTOR
2 - BOTTOM OF INSTRUMENT PANEL

fault or malfunction. Refer to the appropriate diagnostic information to diagnose the problem.

SPECIAL TOOLS - AIRBAG SYSTEM**Puller C-3428-B****AIRBAG CONTROL MODULE****DESCRIPTION**

The Airbag Control Module (ACM) is concealed underneath the plastic ACM trim cover (automatic transmission) or center console (manual transmission), directly below the instrument panel in the passenger compartment of the vehicle. The ACM is secured with screws to a stamped steel mounting bracket located under the instrument panel center support bracket on the floor panel transmission tunnel. The ACM contains an electronic microprocessor, an electronic impact sensor, an electromechanical safing sensor, and an energy storage capacitor. The

ACM is connected to the vehicle electrical system through a take out and connector of the instrument panel wire harness.

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

OPERATION

The microprocessor in the ACM contains the airbag system logic circuits, and it monitors and controls all of the airbag system components. The ACM also uses On-Board Diagnostics (OBD) and can communicate with other electronic modules in the vehicle as well as with the DRBIII® scan tool using the Chrysler Collision Detection (CCD) data bus network. This method of communication is used for control of the airbag indicator in the ElectroMechanical Instrument Cluster (EMIC) and for airbag system diagnosis and testing through the 16-way data link connector located on the lower left edge of the instrument panel. (Refer to 8 - ELECTRICAL/ELECTRONIC CONTROL MODULES/COMMUNICATION - OPERATION). The ACM microprocessor continuously monitors all of the airbag system electrical circuits to determine the system readiness. If the ACM detects a monitored system fault, it sets an active Diagnostic Trouble Code (DTC) and sends messages to the EMIC over the CCD data bus to turn on the airbag indicator. (Refer to 8 - ELECTRICAL/INSTRUMENT CLUSTER/AIRBAG INDICATOR - OPERATION). If the airbag system fault is still present when the ignition switch is turned to the Off position, the DTC is stored in memory by the ACM. However, if a fault does not recur for a number of ignition cycles, the ACM will automatically erase the stored DTC.

The ACM receives battery current through two circuits, on a fused ignition switch output (run) circuit through a fuse in the Junction Block (JB), and on a fused ignition switch output (start-run) circuit through a second fuse in the JB. The ACM is grounded through a ground circuit and take out of the instrument panel wire harness. This take out has a single eyelet terminal connector secured by a nut to a ground stud located on the forward extension of the left front fender wheel housing in the engine compartment. Therefore, the ACM is operational whenever the ignition switch is in the Start or On positions. The ACM also contains an energy-storage capacitor. When the ignition switch is in the Start or On positions, this capacitor is continually being charged with enough electrical energy to deploy the airbags for up to one second following a battery disconnect or failure. The purpose of the capacitor is to provide backup airbag system protection in case there is a loss of battery current supply to the ACM during an impact. The capacitor is only serviced as a unit with the ACM.

AIRBAG CONTROL MODULE (Continued)

Two sensors are contained within the ACM, an electronic impact sensor and a safing sensor. The electronic impact sensor is an accelerometer that senses the rate of vehicle deceleration, which provides verification of the direction and severity of an impact. A pre-programmed decision algorithm in the ACM microprocessor determines when the deceleration rate as 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 airbags. The safing sensor is an electromechanical sensor within the ACM that is connected in series between the ACM microprocessor airbag deployment circuit and the airbags. The safing sensor is a normally open switch that is used to verify or confirm the need for an airbag deployment by detecting impact energy of a lesser magnitude than that of the electronic impact sensor, and must be closed in order for the airbags to deploy. The impact sensor and safing sensor are calibrated for the specific vehicle, and are only serviced as a unit with the ACM.

REMOVAL

WARNING: DISABLE THE AIRBAG SYSTEM BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE, THEN WAIT TWO MINUTES FOR THE AIRBAG SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER DIAGNOSIS OR SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

WARNING: THE AIRBAG CONTROL MODULE CONTAINS THE IMPACT SENSOR, WHICH ENABLES THE SYSTEM TO DEPLOY THE AIRBAGS. 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. FAILURE TO OBSERVE THIS WARNING COULD RESULT IN ACCIDENTAL, INCOMPLETE, OR IMPROPER AIRBAG DEPLOYMENT AND POSSIBLE OCCUPANT INJURIES.

(1) Disconnect and isolate the battery negative cable. If either of the airbags 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 floor console from the floor panel transmission tunnel. (Refer to 23 - BODY/INTERIOR/CENTER CONSOLE - REMOVAL).

(3) If the vehicle is equipped with an automatic transmission, remove the two screws that secure the trim cover to the Airbag Control Module (ACM) mounting bracket on the floor panel transmission tunnel and remove the trim cover (Fig. 5).

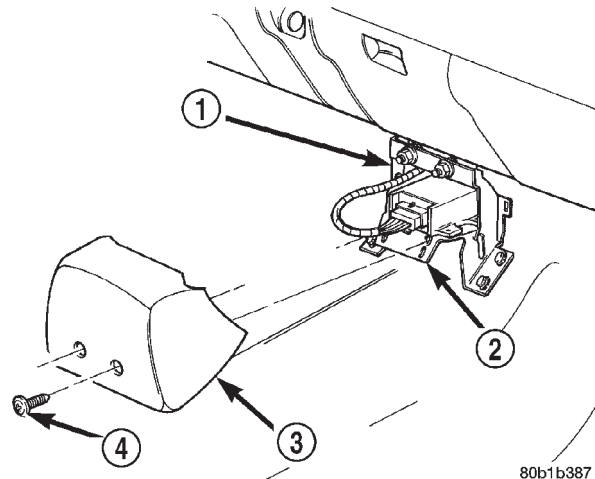


Fig. 5 Airbag Control Module Trim Cover Remove/Install

- 1 - INSTRUMENT PANEL SUPPORT BRACKET
- 2 - ACM MOUNTING BRACKET
- 3 - TRIM COVER
- 4 - SCREW

(4) Loosen the screw that secures each side of the instrument panel center support bracket to the ACM mounting bracket (Fig. 6). Do not remove these screws.

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

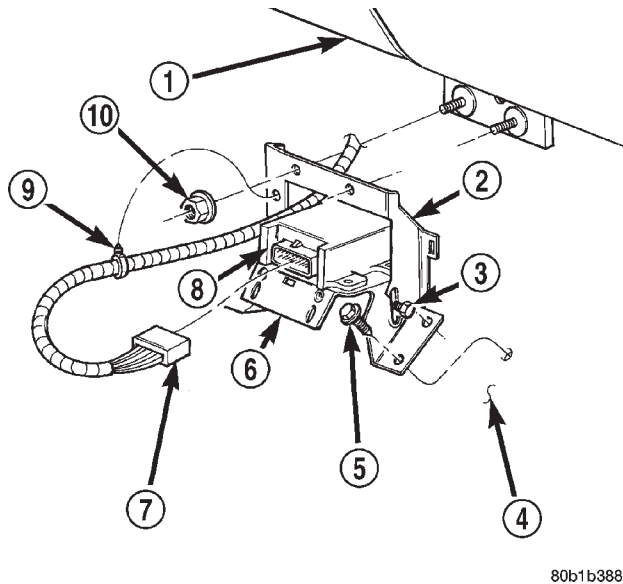
(6) Disengage the retainer on the instrument panel wire harness take out to the ACM from the retainer hole in the left side of the instrument panel center support bracket.

(7) Pull the top of the instrument panel center support bracket rearward and down from the instrument panel studs. Fold it down over the top of the ACM until it is laying flat on the floor panel transmission tunnel.

(8) Disconnect the instrument panel wire harness connector for the ACM from the ACM connector receptacle. To disconnect this connector:

(a) Slide the red Connector Position Assurance (CPA) lock on the top of the connector toward the side of the vehicle.

AIRBAG CONTROL MODULE (Continued)



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Fig. 6 Airbag Control Module Remove/Install

- 1 - INSTRUMENT PANEL
- 2 - SUPPORT BRACKET
- 3 - SCREW (2)
- 4 - FLOOR PANEL
- 5 - SCREW (4)
- 6 - MOUNTING BRACKET
- 7 - CONNECTOR
- 8 - ACM
- 9 - RETAINER
- 10 - NUT

(b) Depress the connector latch tab and pull the connector straight away from the ACM connector receptacle.

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

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

(10) Remove the ACM, the mounting bracket, and the instrument panel center support bracket from the floor panel transmission tunnel as a unit.

INSTALLATION

WARNING: DISABLE THE AIRBAG SYSTEM BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE, THEN WAIT TWO MINUTES FOR THE AIRBAG SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER DIAGNOSIS OR

SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

WARNING: THE AIRBAG CONTROL MODULE CONTAINS THE IMPACT SENSOR, WHICH ENABLES THE SYSTEM TO DEPLOY THE AIRBAGS. 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. FAILURE TO OBSERVE THIS WARNING COULD RESULT IN ACCIDENTAL, INCOMPLETE, OR IMPROPER AIRBAG DEPLOYMENT AND POSSIBLE OCCUPANT INJURIES.

(1) Carefully position the Airbag Control Module (ACM), the mounting bracket, and the instrument panel center support bracket onto the floor panel transmission tunnel as a unit (Fig. 6). When the ACM is correctly positioned, the arrow on the ACM label will be pointed forward in the vehicle.

(2) Install and tighten the four screws that secure the ACM mounting bracket to the floor panel transmission tunnel. Tighten the screws to 14 N·m (125 in. lbs.).

(3) With the instrument panel center support bracket still folded down flat on the floor panel transmission tunnel, reconnect the instrument panel wire harness connector for the ACM to the ACM connector receptacle. Be certain that the connector latch and the red Connector Position Assurance (CPA) lock are fully engaged.

(4) Fold the top of the instrument panel center support bracket up over the top of the ACM and forward over the studs on the lower instrument panel structural support.

(5) Install and tighten the nuts that secure the instrument panel center support bracket to the studs on the lower instrument panel structural support. Tighten the nuts to 14 N·m (125 in. lbs.).

(6) Engage the retainer on the instrument panel wire harness take out for the ACM in the retainer hole on the left side of the instrument panel center support bracket.

(7) Tighten the screws that secure each side of the instrument panel center support bracket to the ACM mounting bracket. Tighten the screws 14 N·m (125 in. lbs.).

(8) If the vehicle is equipped with an automatic transmission, position the ACM trim cover to the ACM mounting bracket on the floor panel transmission tunnel (Fig. 5).

AIRBAG CONTROL MODULE (Continued)

(9) If the vehicle is equipped with an automatic transmission, install and tighten the two screws that secure the ACM trim cover to the ACM mounting bracket. Tighten the screws to 2.2 N·m (20 in. lbs.).

(10) If the vehicle is equipped with a manual transmission, reinstall the center floor console onto the floor panel transmission tunnel. (Refer to 23 - BODY/INTERIOR/CENTER CONSOLE - INSTALLATION).

(11) Do not reconnect the battery negative cable at this time. The airbag system verification test procedure should be performed following service of any airbag system component. (Refer to 8 - ELECTRICAL/RESTRAINTS - STANDARD PROCEDURE - VERIFICATION TEST).

CHILD TETHER

REMOVAL

Standard cab models have two child tether anchors secured near the top of the cab back panel. Club cab and quad cab models have three child tethers secured near the top of the cab back panel.

WARNING: DURING AND FOLLOWING ANY SEAT BELT SERVICE, CAREFULLY INSPECT ALL SEAT BELTS, BUCKLES, MOUNTING HARDWARE, AND RETRACTORS FOR PROPER INSTALLATION, OPERATION, OR DAMAGE. REPLACE ANY BELT

THAT IS CUT, FRAYED, OR TORN. STRAIGHTEN ANY BELT THAT IS TWISTED. TIGHTEN ANY LOOSE FASTENERS. REPLACE ANY BELT THAT HAS A DAMAGED OR INOPERATIVE BUCKLE OR RETRACTOR. REPLACE ANY BELT THAT HAS A BENT OR DAMAGED LATCH PLATE OR ANCHOR PLATE. NEVER ATTEMPT TO REPAIR A SEAT BELT COMPONENT. ALWAYS REPLACE DAMAGED OR FAULTY SEAT BELT COMPONENTS WITH THE CORRECT, NEW AND UNUSED REPLACEMENT PARTS LISTED IN THE MOPAR PARTS CATALOG.

(1) Remove the trim from the inside of the cab back panel. (Refer to 23 - BODY/INTERIOR/REAR CLOSURE PANEL TRIM - REMOVAL).

(2) Remove the screw that secures the child tether anchor (standard cab) or child tether (club/quad cab) to the cab back panel (Fig. 7).

(3) Remove the child tether anchor (standard cab) or child tether (club/quad cab) from the cab back panel.

INSTALLATION

Standard cab models have two child tether anchors secured near the top of the cab back panel. Club cab and quad cab models have three child tethers secured near the top of the cab back panel.

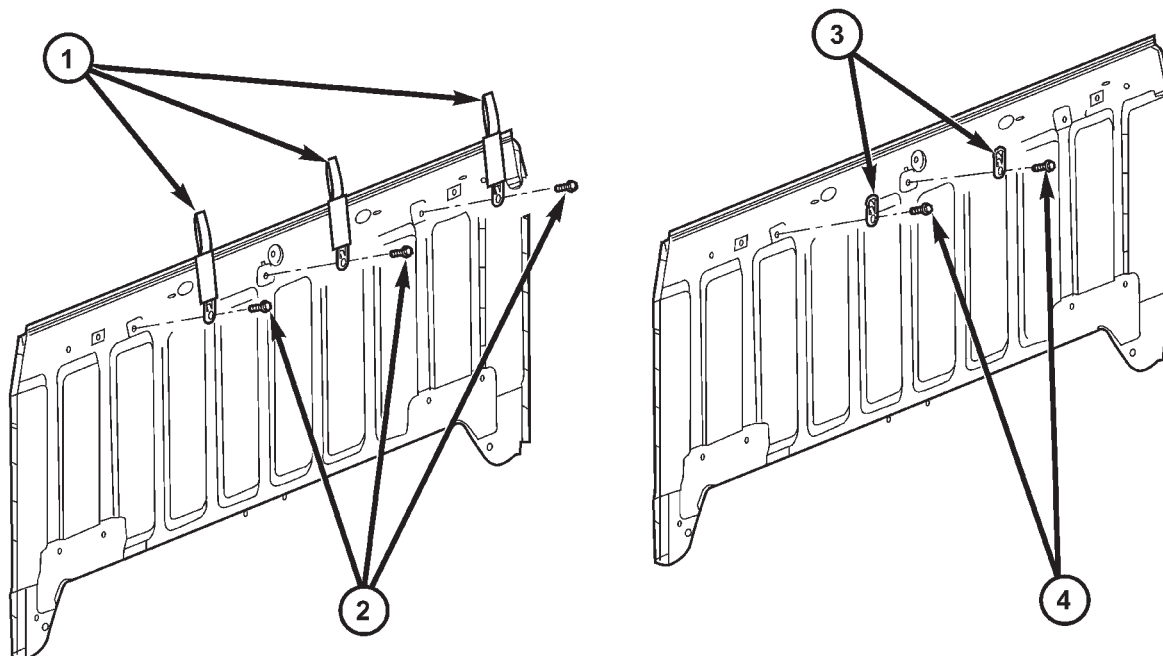


Fig. 7 Child Tether Anchor

1 - CHILD TETHER (CLUB/QUAD CAB) (3)
2 - SCREW (3)

3 - CHILD TETHER ANCHOR (STANDARD CAB) (2)
4 - SCREW (2)

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CHILD TETHER (Continued)

WARNING: DURING AND FOLLOWING ANY SEAT BELT SERVICE, CAREFULLY INSPECT ALL SEAT BELTS, BUCKLES, MOUNTING HARDWARE, AND RETRACTORS FOR PROPER INSTALLATION, OPERATION, OR DAMAGE. REPLACE ANY BELT THAT IS CUT, FRAYED, OR TORN. STRAIGHTEN ANY BELT THAT IS TWISTED. TIGHTEN ANY LOOSE FASTENERS. REPLACE ANY BELT THAT HAS A DAMAGED OR INOPERATIVE BUCKLE OR RETRACTOR. REPLACE ANY BELT THAT HAS A BENT OR DAMAGED LATCH PLATE OR ANCHOR PLATE. NEVER ATTEMPT TO REPAIR A SEAT BELT COMPONENT. ALWAYS REPLACE DAMAGED OR FAULTY SEAT BELT COMPONENTS WITH THE CORRECT, NEW AND UNUSED REPLACEMENT PARTS LISTED IN THE MOPAR PARTS CATALOG.

(1) Position the child tether anchor (standard cab) or child tether (club/quad cab) onto the cab back panel (Fig. 7).

(2) Install and tighten the screw that secures the child tether anchor (standard cab) or child tether (club/quad cab) onto the cab back panel. Tighten the screw to 13.5 N·m (120 in. lbs.).

(3) Reinstall the trim onto the inside of the cab back panel. (Refer to 23 - BODY/INTERIOR/REAR CLOSURE PANEL TRIM - INSTALLATION).

CLOCKSPRING

DESCRIPTION

The clockspring assembly is secured with two integral plastic latches onto the steering column lock housing near the top of the steering column, behind the steering wheel. The clockspring consists of a flat, round molded plastic case with a stubby tail that hangs below the steering column and contains a connector receptacle and a long pigtail wire with connector that face toward the instrument panel. Within the plastic housing is a spool-like molded plastic rotor with a large exposed hub. The upper surface of the rotor hub has a large center hole, two large flats, two auto-locking tabs, and three short pigtail wires with connectors that face toward the steering wheel. The lower surface of the rotor hub has two integral turn signal cancelling cam lobes. Within the plastic case and wound around the rotor spool is a long ribbon-like tape that consists of several thin copper wire leads sandwiched between two thin plastic membranes. The outer end of the tape terminates at the connector receptacle and pigtail wire that face the instrument panel, while the inner end of the tape terminates at the pigtail wires on the hub of the clockspring rotor that face the steering wheel.

Service replacement clocksprings are shipped pre-centered and with a piece of tape covering the

engaged auto-locking tabs. The auto-locking tabs secure the centered clockspring rotor to the clockspring case during shipment, but these tabs are automatically disengaged once the clockspring is installed on the steering column. (Refer to 8 - ELECTRICAL/RESTRAINTS/CLOCKSPRING - STANDARD PROCEDURE - CLOCKSPRING CENTERING).

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

OPERATION

The clockspring is a mechanical electrical circuit component that is used to provide continuous electrical continuity between the fixed instrument panel wire harness and the electrical components mounted on or in the rotating steering wheel. On this model the rotating electrical components include the driver airbag, the horn switch, the speed control switches, and the remote radio switches if the vehicle is so equipped. The clockspring case is positioned and secured to the upper steering column lock housing by two integral plastic latches. The connector receptacle on the tail of the fixed clockspring housing connect the clockspring to the vehicle electrical system through a take out with connector from the instrument panel wire harness. The lower clockspring pigtail on the tail of the clockspring housing connect the clockspring driver airbag circuits to a separate take out and connector of the instrument panel wire harness located near the lower instrument panel reinforcement, below the steering column. The clockspring rotor is movable and is keyed to the hub of the steering wheel by two large flats that are molded into the rotor hub. The two lobes on the lower surface of the clockspring rotor hub contact a turn signal cancel actuator of the multi-function switch to provide automatic turn signal cancellation. The pigtail wires on the upper surface of the clockspring connect the clockspring to the horn switch, the two speed control switches, and the remote radio switches on vehicles that are so equipped.

Like the clockspring in a timepiece, the clockspring tape has travel limits and can be damaged by being wound too tightly during full stop-to-stop steering wheel rotation. To prevent this from occurring, the clockspring must be centered when it is installed on the steering column. Centering the clockspring indexes the clockspring spool to the movable steering components so that the tape can operate within its designed travel limits. However, if the clockspring is removed from the steering column or if the steering shaft is disconnected from the steering gear, the clockspring spool can change position relative to the movable steering components and must be re-centered following completion of the service or the tape

CLOCKSPRING (Continued)

may be damaged. Service replacement clocksprings are shipped pre-centered and with the auto-locking tabs engaged. A piece of tape covers the auto-locking tabs to discourage tampering. These auto-locking tabs should not be disengaged until the clockspring has been installed on the steering column. If this shipping tape is removed or damaged, or if the auto-locking tabs are disengaged before the clockspring is installed on a steering column, the clockspring centering procedure must be performed. (Refer to 8 - ELECTRICAL/RESTRAINTS/CLOCKSPRING - STANDARD PROCEDURE - CLOCKSPRING CENTERING).

STANDARD PROCEDURE - 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. Centering the clockspring indexes the clockspring tape to other steering components so that it can operate within its designed travel limits. The rotor of a centered clockspring can be rotated two and one-half turns in either direction from the centered position, without damaging the clockspring tape.

However, if the clockspring is removed for service or if the steering column is disconnected from the steering gear, the clockspring tape can change position relative to the other steering components. The clockspring must then be re-centered following completion of such service or the clockspring tape may be damaged. Service replacement clocksprings are shipped pre-centered and with the auto-locking tabs engaged (raised). These auto-locking tabs should not be disengaged until the clockspring has been installed on the steering column. If the auto-locking tabs are disengaged before the clockspring is installed on a steering column, the clockspring centering procedure must be performed.

WARNING: DISABLE THE AIRBAG SYSTEM BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE, THEN WAIT TWO MINUTES FOR THE AIRBAG SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER DIAGNOSIS OR SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

NOTE: Before starting this procedure, be certain to turn the steering wheel until the front wheels are in the straight-ahead position.

- (1) Place the front wheels in the straight-ahead position.
- (2) Remove the clockspring from the steering column. (Refer to 8 - ELECTRICAL/RESTRAINTS/CLOCKSPRING - REMOVAL).
- (3) Depress the two plastic clockspring auto-locking tabs (Fig. 8).

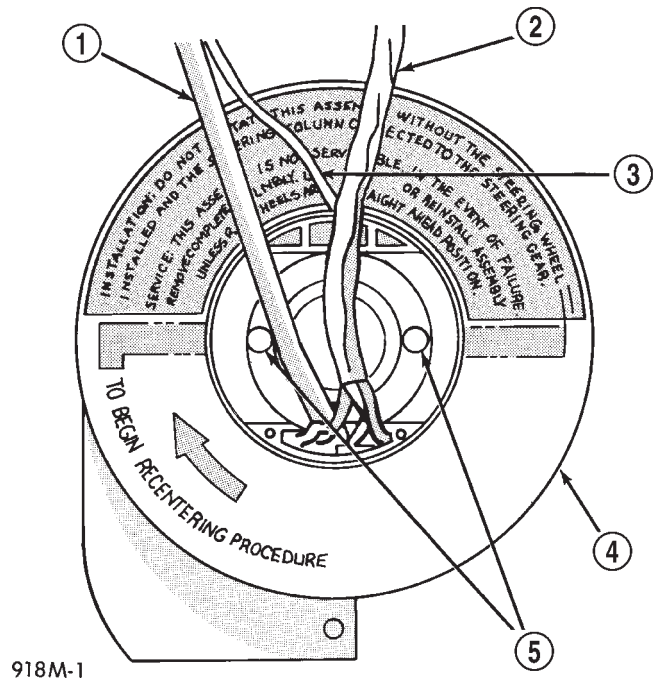


Fig. 8 Clockspring Auto-Locking Tabs

- 1 - AIRBAG MODULE WIRE
- 2 - SPEED CONTROL WIRING
- 3 - HORN WIRE
- 4 - CLOCKSPRING ASSEMBLY
- 5 - AUTO-LOCKING TABS

(4) Keeping the auto-locking tabs depressed, rotate the clockspring rotor clockwise to the end of its travel. **Do not apply excessive torque.**

(5) From the end of the clockwise travel, rotate the rotor about two and one-half turns counterclockwise, then release the auto-locking tabs. The clockspring pigtail wire for the horn switch should end up at the top, and the pigtail wires for the airbag, optional speed control switches, and optional remote radio switches at the bottom. The clockspring is now centered.

(6) The front wheels should still be in the straight-ahead position. Reinstall the clockspring onto the steering column. (Refer to 8 - ELECTRICAL/RESTRAINTS/CLOCKSPRING - INSTALLATION).

CLOCKSPRING (Continued)

REMOVAL

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

WARNING: DISABLE THE AIRBAG SYSTEM BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE, THEN WAIT TWO MINUTES FOR THE AIRBAG SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER DIAGNOSIS OR SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

NOTE: Before starting this procedure, be certain to turn the steering wheel until the front wheels are in the straight-ahead position.

(1) Place the front wheels in the straight-ahead position.

(2) Remove the driver airbag from the steering wheel. (Refer to 8 - ELECTRICAL/RESTRAINTS/DRIVER AIRBAG - REMOVAL).

(3) If the vehicle is so equipped, disconnect the clockspring pigtail wire connectors from the speed control switches and the remote radio switches located within the hub cavity of the steering wheel.

(4) Remove the nut that secures the steering wheel armature to the steering column upper shaft, which is located within the hub cavity of the steering wheel.

(5) Pull the steering wheel off of the steering column upper shaft spline using a steering wheel puller (Special Tool C-3428-B).

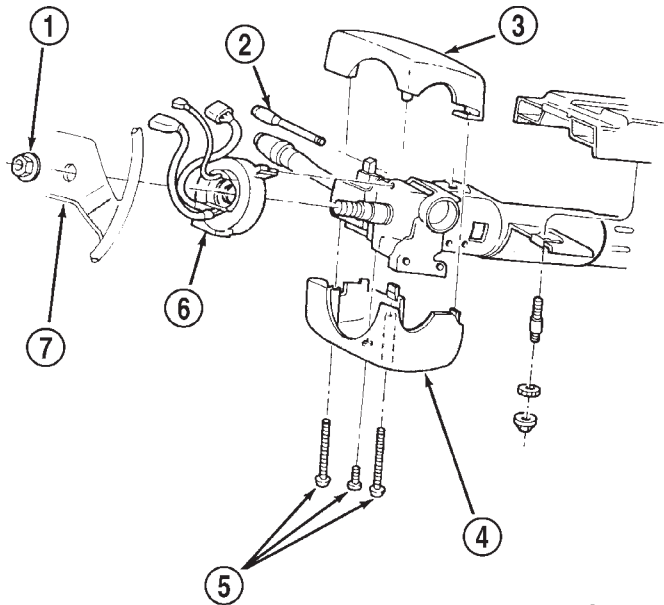
(6) Remove the steering column opening cover from the instrument panel. (Refer to 23 - BODY/INSTRUMENT PANEL/STEERING COLUMN OPENING COVER - REMOVAL).

(7) If the vehicle is so equipped, unscrew the lever from the tilt steering column adjuster mechanism located on the left side of the column just below the multi-function switch control stalk. Turn the lever counterclockwise to unscrew it from the adjuster.

(8) From below the steering column, remove the two outboard screws that secure the upper shroud to the lower outer shroud (Fig. 9).

(9) Press carefully inward on each side of the outer shrouds to release the snap features and remove the upper outer shroud from the lower outer shroud.

(10) From below the steering column, remove the one center screw that secures the lower outer shroud to the steering column housing.



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Fig. 9 Steering Column Shrouds Remove/Install - Typical

- 1 - NUT
- 2 - TILT LEVER
- 3 - UPPER SHROUD
- 4 - LOWER SHROUD
- 5 - SCREWS
- 6 - CLOCK SPRING
- 7 - STEERING WHEEL

(11) Remove the lower outer shroud from the steering column.

(12) From below the steering column, remove the two screws that secure the lower inner shroud to the steering column housing and the upper inner shroud.

(13) Press carefully inward on the gearshift lever side of the inner shrouds to release the snap features and remove the lower inner shroud from the steering column.

(14) Disconnect the instrument panel wire harness connector for the clockspring from the lower clockspring connector receptacle.

(15) Disconnect the lower clockspring pigtail wire connector from the instrument panel wire harness, located on the instrument panel lower reinforcement below the steering column.

(16) Carefully disengage the plastic latches of the clockspring assembly from the steering column lock housing and remove the clockspring from the column. The clockspring cannot be repaired. It must be replaced if faulty or damaged, or if the driver airbag has been deployed.

(17) If the removed clockspring is to be reused, secure the clockspring rotor to the clockspring case to maintain clockspring centering until it is reinstalled on the steering column. If clockspring centering is

CLOCKSPRING (Continued)

not maintained, the clockspring must be centered again before it is reinstalled. (Refer to 8 - ELECTRICAL/RESTRAINTS/CLOCKSPRING - STANDARD PROCEDURE - CLOCKSPRING CENTERING).

INSTALLATION

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

If the clockspring is not properly centered in relation to the steering wheel, steering shaft and steering gear, it may be damaged. (Refer to 8 - ELECTRICAL/RESTRAINTS/CLOCKSPRING - STANDARD PROCEDURE - CLOCKSPRING CENTERING). Service replacement clocksprings are shipped pre-centered and with a piece of tape covering the engaged clockspring auto-locking tabs. This tape should not be removed until the clockspring has been installed on the steering column. If the tape is removed before the clockspring is installed on a steering column, the clockspring centering procedure must be performed.

WARNING: DISABLE THE AIRBAG SYSTEM BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE, THEN WAIT TWO MINUTES FOR THE AIRBAG SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER DIAGNOSIS OR SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

NOTE: Before starting this procedure, be certain that the front wheels are still in the straight-ahead position.

(1) Carefully slide the centered clockspring down over the steering column upper shaft until the clockspring latches engage the steering column lock housing (Fig. 9).

(2) Reconnect the lower clockspring pigtail wire connector to the instrument panel wire harness connector located near the instrument panel lower reinforcement, below the steering column. Be certain that the pigtail wire locator clips are properly seated on the outside of the wiring trough and that the connector latches are fully engaged.

(3) Reconnect the instrument panel wire harness connector for the clockspring to the lower clockspring connector receptacle.

(4) Position the lower inner shroud onto the steering column. Be certain to insert the gearshift lever hider strip into the channel located on the inside surface of the shroud.

(5) Align the locking tabs on the gearshift lever side of the upper inner shroud with the receptacles on the lower inner shroud and apply hand pressure to snap them together.

(6) From below the steering column, install and tighten the two screws that secure the lower inner shroud to the steering column housing and the upper inner shroud. Tighten the screws to 2 N·m (18 in. lbs.).

(7) Position the lower outer shroud onto the steering column. Be certain that the lower clockspring pigtail wire is routed inside the shrouds.

(8) From below the steering column, install and tighten the one center screw that secures the lower outer shroud to the steering column housing. Tighten the screw to 2 N·m (18 in. lbs.).

(9) Align the locking tabs on the upper outer shroud with the receptacles on the lower outer shroud and apply hand pressure to snap them together.

(10) From below the steering column, install and tighten the two outboard screws that secure the lower outer shroud to the upper outer shroud. Tighten the screws to 2 N·m (18 in. lbs.).

(11) If the vehicle is so equipped, reinstall the lever into the tilt steering column adjuster on the left side of the column. Turn the lever clockwise to screw it into the adjuster.

(12) Reinstall the steering column opening cover onto the instrument panel. (Refer to 23 - BODY/INSTRUMENT PANEL/STEERING COLUMN OPENING COVER - INSTALLATION).

(13) Reinstall the steering wheel onto the steering column upper shaft. Be certain to index the flats on the hub of the steering wheel with the formations on the inside of the clockspring hub. Pull the upper clockspring pigtail wires through the upper and lower holes between the steering wheel back trim cover and the steering wheel armature.

(14) Install and tighten the steering wheel mounting nut. Tighten the nut to 61 N·m (45 ft. lbs.). Be certain not to pinch the pigtail wires between the steering wheel and the nut.

(15) If the vehicle is so equipped, reconnect the upper clockspring pigtail wire connectors to the speed control switches and/or the remote radio switches. Be certain that the upper clockspring pigtail wires are routed between the steering wheel back trim cover and the steering wheel armature.

(16) Reinstall the driver airbag onto the steering wheel. (Refer to 8 - ELECTRICAL/RESTRAINTS/DRIVER AIRBAG - INSTALLATION).

DRIVER AIRBAG

DESCRIPTION

The driver airbag protective trim cover is the most visible part of the driver airbag. The airbag used in this model is a Next Generation-type that complies with revised federal airbag standards to deploy with less force than those used in some prior models. The driver airbag is located in the center of the steering wheel, where it is secured with two screws to the steering wheel armature. Concealed beneath the driver airbag trim cover are the horn switch, the folded airbag cushion, the airbag retainer or housing, the airbag inflator, and the retainers that secure the trim cover to the airbag housing. The resistive membrane-type horn switch is secured with heat stakes to the inside surface of the airbag trim cover, between the trim cover and the folded airbag cushion. The airbag inflator is a conventional pyrotechnic-type unit that is secured with nuts to four studs on the back of the stamped metal airbag housing.

The driver airbag trim cover has locking blocks molded into the back side of it that engage a lip formed around the perimeter of the airbag housing. Two stamped metal retainers then fit over the inflator mounting studs on the back of the airbag housing and tabs on the retainer are engaged in slots on the inside of the trim cover, securely locking the cover into place. One horn switch pigtail wire has an eyelet terminal connector that is captured on the upper left inflator mounting stud between the inflator and the upper trim cover retainer. The connector insulator of the other horn switch pigtail wire is routed between the upper right inflator mounting stud and the inflator, where it is captured by a small plastic retainer that is pushed onto the stud. The driver airbag cannot be repaired, and must be replaced if deployed or in any way damaged. The driver airbag trim cover and horn switch are available as a unit, and may be disassembled from the driver airbag for service replacement.

OPERATION

The driver airbag is deployed by an electrical signal generated by the Airbag Control Module (ACM) through the driver airbag line 1 and line 2 (or squib) circuits. When the ACM sends the proper electrical signal to the airbag inflator, the electrical energy generates enough heat to initiate a small pyrotechnic charge which, in turn, ignites chemical pellets within the inflator. Once ignited, these chemical pellets burn rapidly and produce a large quantity of nitrogen gas. The inflator is sealed to the back of the airbag housing and a diffuser in the inflator directs all of the nitrogen gas into the airbag cushion, causing the cushion to inflate. As the cushion inflates, the driver

airbag trim cover will split at predetermined break-out lines, then fold back out of the way along with the horn switch. Following an airbag deployment, the airbag cushion quickly deflates by venting the nitrogen gas towards the instrument panel through the porous fabric material used on the steering wheel side of the airbag cushion.

Some of the chemicals used to create the nitrogen gas are considered hazardous in their solid state, before they are burned, but they are securely sealed within the airbag inflator. However, the nitrogen gas that is produced when the chemicals are burned is harmless. A small amount of residue from the burned chemicals may cause some temporary discomfort if it contacts the skin, eyes, or breathing passages. If skin or eye irritation is noticed, rinse the affected area with plenty of cool, clean water. If breathing passages are irritated, move to another area where there is plenty of clean, fresh air to breathe. If the irritation is not alleviated by these actions, contact a physician.

REMOVAL

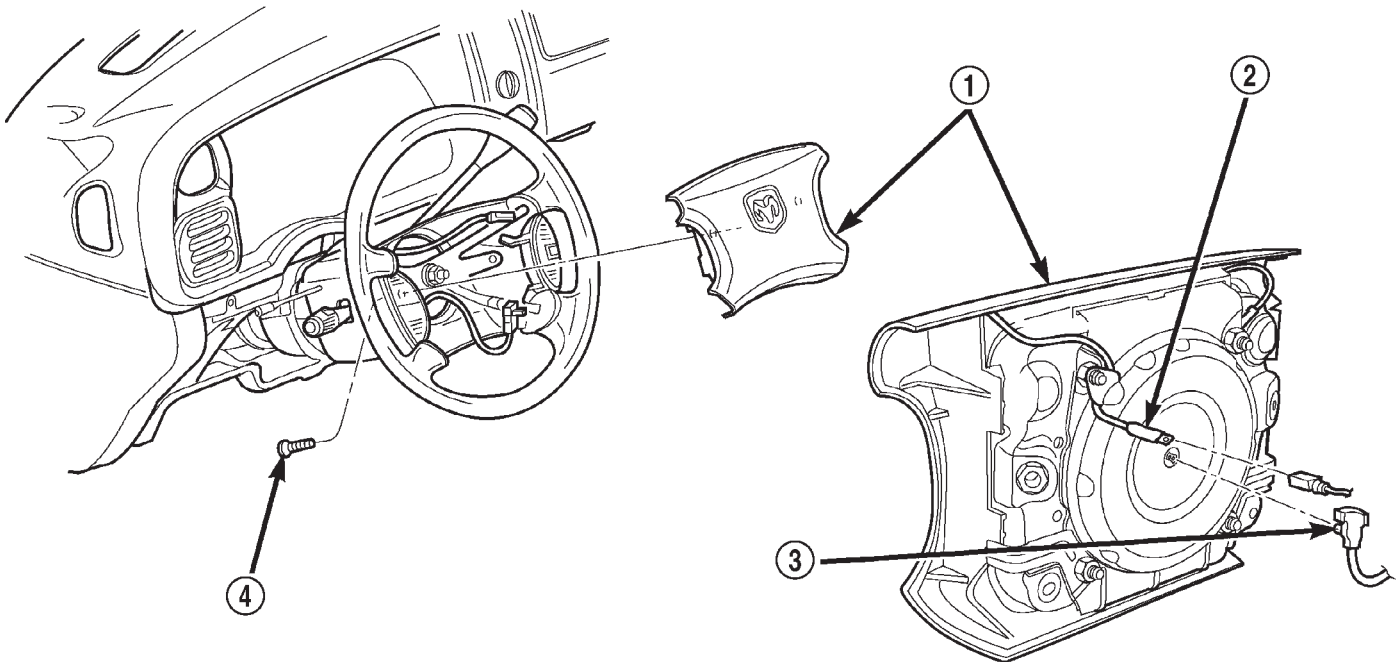
The following procedure is for replacement of a faulty or damaged driver airbag. If the driver airbag has been deployed, the clockspring and the steering column assembly must also be replaced. (Refer to 8 - ELECTRICAL/RESTRAINTS/CLOCKSPRING - REMOVAL) (Refer to 19 - STEERING/COLUMN - REMOVAL).

WARNING: DISABLE THE AIRBAG SYSTEM BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE, THEN WAIT TWO MINUTES FOR THE AIRBAG SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER DIAGNOSIS OR SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

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

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

DRIVER AIRBAG (Continued)



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Fig. 10 Driver Airbag Remove/Install

1 - DRIVER SIDE AIRBAG MODULE

2 - HORN SWITCH FEED WIRE CONNECTOR

3 - CLOCKSPRING WIRE HARNESS CONNECTOR

4 - SCREW (2)

(2) From the underside of the steering wheel, remove the two screws that secure the driver airbag to the steering wheel armature (Fig. 10).

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

(4) Disconnect the clockspring horn switch pigtail wire connector from the horn switch feed pigtail wire connector, which is located at the back of the driver airbag.

CAUTION: Do not pull on the clockspring pigtail wire to disengage the connector from the driver airbag inflator connector receptacle.

(5) The clockspring driver airbag pigtail wire connector is a tight snap-fit into the airbag inflator connector receptacle, which is located at the back of the driver airbag. Firmly grasp and pull or gently pry on the clockspring driver airbag wire harness connector to disconnect it from the airbag inflator connector receptacle.

(6) Remove the driver airbag from the steering wheel.

(7) If the driver airbag has been deployed, the clockspring and the steering column must be replaced. (Refer to 8 - ELECTRICAL/RESTRAINTS/

CLOCKSPRING - REMOVAL) (Refer to 19 - STEERING/COLUMN - REMOVAL).

DISASSEMBLY

The horn switch is integral to the driver airbag trim cover. If either component is faulty or damaged, the entire driver airbag trim cover and horn switch unit must be replaced.

WARNING: DISABLE THE AIRBAG SYSTEM BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE, THEN WAIT TWO MINUTES FOR THE AIRBAG SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER DIAGNOSIS OR SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

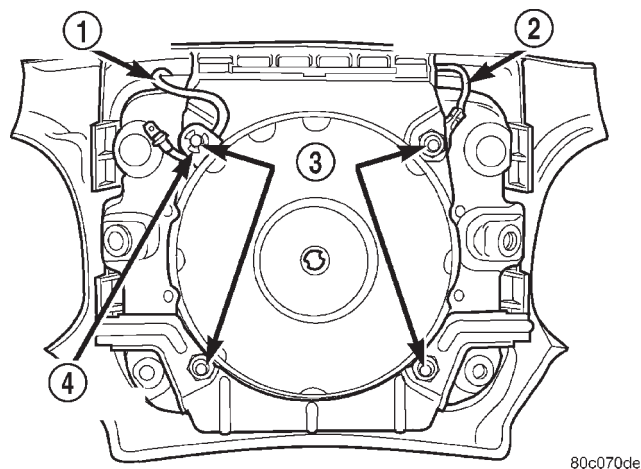
DRIVER AIRBAG (Continued)

WARNING: THE HORN SWITCH IS INTEGRAL TO THE DRIVER AIRBAG UNIT. SERVICE OF THIS UNIT SHOULD BE PERFORMED ONLY BY DAIMLERCHRYSLER-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 OCCUPANT INJURIES.

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

(2) Remove the driver airbag from the steering wheel. (Refer to 8 - ELECTRICAL/RESTRAINTS/DRIVER AIRBAG - REMOVAL).

(3) Remove the plastic wire retainer that captures the horn switch feed pigtail wire between the upper left inflator stud and the inflator on the back of the driver airbag housing (Fig. 11).



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Fig. 11 Driver Airbag Trim Cover Retainer Nuts Remove/Install

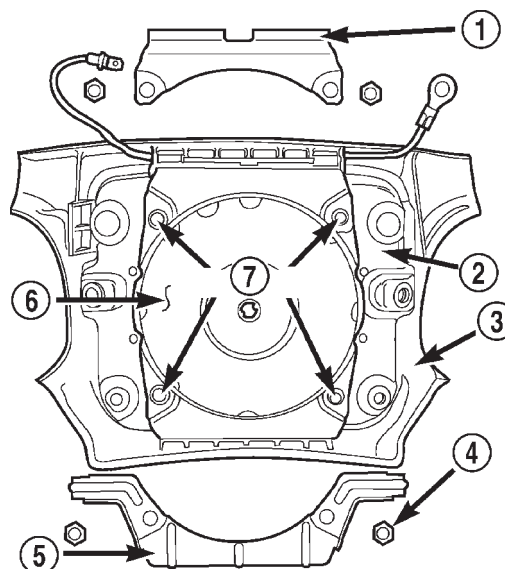
- 1 - HORN SWITCH FEED WIRE
- 2 - HORN SWITCH GROUND WIRE
- 3 - NUTS
- 4 - WIRE RETAINER

(4) Remove the four nuts that secure the upper and lower trim cover retainers to the studs on the back of the driver airbag housing

(5) Remove the upper and lower trim cover retainers from the airbag housing studs (Fig. 12).

(6) Remove the horn switch ground pigtail wire eyelet terminal from the upper right airbag housing stud.

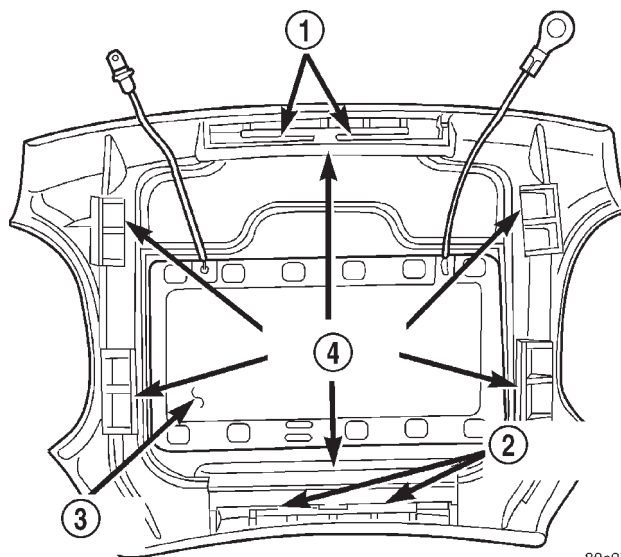
(7) Disengage the six trim cover locking blocks from the lip around the outside edge of the driver airbag housing and remove the housing from the cover (Fig. 13).



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Fig. 12 Driver Airbag Trim Cover Retainers

- 1 - UPPER RETAINER
- 2 - AIRBAG HOUSING
- 3 - TRIM COVER
- 4 - NUT (4)
- 5 - LOWER RETAINER
- 6 - INFLATOR
- 7 - STUDS



80c070da

Fig. 13 Driver Airbag Trim Cover Remove/Install

- 1 - RETAINER SLOTS
- 2 - RETAINER SLOTS
- 3 - HORN SWITCH
- 4 - LOCKING BLOCKS

ASSEMBLY

The horn switch is integral to the driver airbag trim cover. If either component is faulty or damaged,

DRIVER AIRBAG (Continued)

the entire driver airbag trim cover and horn switch unit must be replaced.

WARNING: DISABLE THE AIRBAG SYSTEM BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE, THEN WAIT TWO MINUTES FOR THE AIRBAG SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER DIAGNOSIS OR SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

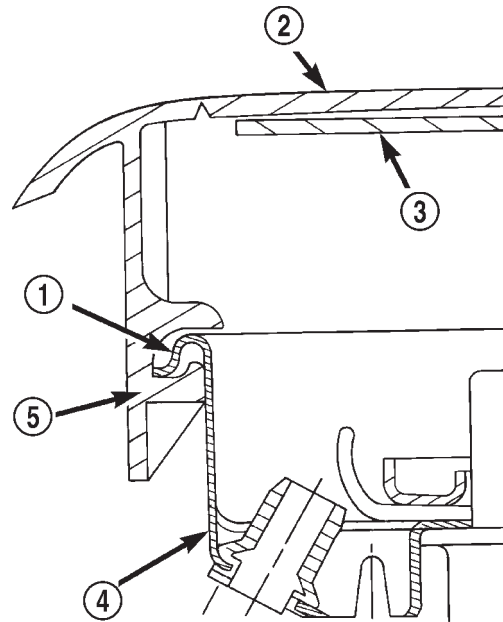
WARNING: THE HORN SWITCH IS INTEGRAL TO THE DRIVER AIRBAG UNIT. SERVICE OF THIS UNIT SHOULD BE PERFORMED ONLY BY DAIMLERCHRYSLER-TRAINED AND AUTHORIZED DEALER SERVICE TECHNICIANS. FAILURE TO TAKE THE PROPER PRECAUTIONS OR TO FOLLOW THE PROPER PROCEDURES COULD RESULT IN ACCIDENTAL, INCOMPLETE, OR IMPROPER AIRBAG DEPLOYMENT AND POSSIBLE OCCUPANT INJURIES.

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

WARNING: THE DRIVER AIRBAG TRIM COVER MUST NEVER BE PAINTED. REPLACEMENT TRIM COVERS ARE SERVICED IN THE ORIGINAL COLORS. PAINT MAY CHANGE THE WAY IN WHICH THE MATERIAL OF THE TRIM COVER RESPONDS TO AN AIRBAG DEPLOYMENT. FAILURE TO OBSERVE THIS WARNING COULD RESULT IN OCCUPANT INJURIES UPON AIRBAG DEPLOYMENT.

(1) Carefully position the driver airbag in the trim cover. Be certain that the horn switch feed and ground pigtail wires are not pinched between the airbag housing and the trim cover locking blocks.

(2) Engage the upper and lower trim cover locking blocks with the lip of the driver airbag housing, then engage the locking blocks on each side of the trim cover with the lip of the housing. Be certain that each of the locking blocks is fully engaged on the lip of the airbag housing (Fig. 14).



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Fig. 14 Driver Airbag Trim Cover Locking Blocks Engaged

- 1 - LIP
- 2 - TRIM COVER
- 3 - HORN SWITCH
- 4 - AIRBAG HOUSING
- 5 - LOCKING BLOCK

(3) Reinstall the horn switch ground pigtail wire eyelet terminal over the left upper airbag housing stud.

(4) Reinstall the upper and lower airbag trim cover retainers over the airbag housing studs. Be certain that the tabs on the retainers are engaged in the retainer slots of the trim cover locking blocks (Fig. 13).

(5) Install and tighten the nuts that secure the trim cover retainers to the airbag housing studs. Tighten the nuts to 10 N·m (90 in. lbs.).

(6) Route the horn switch feed pigtail wire between the inflator housing and the right upper airbag housing stud.

(7) Reinstall the plastic wire retainer onto the right upper airbag housing stud to capture horn switch feed pigtail wire.

(8) Reinstall the driver airbag onto the steering wheel. (Refer to 8 - ELECTRICAL/RESTRAINTS/DRIVER AIRBAG - INSTALLATION).

INSTALLATION

The following procedure is for replacement of a faulty or damaged driver airbag. If the driver airbag has been deployed, the clockspring and the steering column assembly must also be replaced. (Refer to 8 -

DRIVER AIRBAG (Continued)

ELECTRICAL/RESTRAINTS/CLOCKSPRING - REMOVAL) and (Refer to 19 - STEERING/COLUMN - REMOVAL).

WARNING: DISABLE THE AIRBAG SYSTEM BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE, THEN WAIT TWO MINUTES FOR THE AIRBAG SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER DIAGNOSIS OR SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

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

WARNING: THE DRIVER AIRBAG TRIM COVER MUST NEVER BE PAINTED. REPLACEMENT TRIM COVERS ARE SERVICED IN THE ORIGINAL COLORS. PAINT MAY CHANGE THE WAY IN WHICH THE MATERIAL OF THE TRIM COVER RESPONDS TO AN AIRBAG DEPLOYMENT. FAILURE TO OBSERVE THIS WARNING COULD RESULT IN OCCUPANT INJURIES UPON AIRBAG DEPLOYMENT.

(1) Assemble the driver airbag trim cover onto the airbag housing. (Refer to 8 - ELECTRICAL/RESTRAINTS/DRIVER AIRBAG - ASSEMBLY).

(2) When installing the driver airbag, reconnect the clockspring driver airbag pigtail wire harness connector to the airbag inflator connector receptacle by pressing straight in on the connector (Fig. 10). You can be certain that the connector is fully engaged by listening carefully for a distinct, audible click as the connector snaps into place.

(3) Reconnect the clockspring horn switch pigtail wire harness connector to the horn switch feed pigtail wire connector, which is located on the back of the driver airbag.

(4) Carefully position the driver airbag in the steering wheel. Be certain that the clockspring pigtail wires in the steering wheel hub area are not pinched between the driver airbag and the steering wheel.

(5) From the underside of the steering wheel, install and tighten the two screws that secure the driver airbag to the steering wheel armature. Tighten the screws to 10.2 N·m (90 in. lbs.).

(6) Do not reconnect the battery negative cable at this time. The airbag system verification test procedure should be performed following service of any airbag system component. (Refer to 8 - ELECTRICAL/RESTRAINTS - STANDARD PROCEDURE - VERIFICATION TEST).

FRONT SEAT BELT & RETRACTOR

REMOVAL

REMOVAL - STANDARD CAB

WARNING: DURING AND FOLLOWING ANY SEAT BELT SERVICE, CAREFULLY INSPECT ALL SEAT BELTS, BUCKLES, MOUNTING HARDWARE, AND RETRACTORS FOR PROPER INSTALLATION, OPERATION, OR DAMAGE. REPLACE ANY BELT THAT IS CUT, FRAYED, OR TORN. STRAIGHTEN ANY BELT THAT IS TWISTED. TIGHTEN ANY LOOSE FASTENERS. REPLACE ANY BELT THAT HAS A DAMAGED OR INOPERATIVE BUCKLE OR RETRACTOR. REPLACE ANY BELT THAT HAS A BENT OR DAMAGED LATCH PLATE OR ANCHOR PLATE. NEVER ATTEMPT TO REPAIR A SEAT BELT COMPONENT. ALWAYS REPLACE DAMAGED OR FAULTY SEAT BELT COMPONENTS WITH THE CORRECT, NEW AND UNUSED REPLACEMENT PARTS LISTED IN THE MOPAR PARTS CATALOG.

(1) Move the front seats to their most forward position for easiest access to the front shoulder belt lower seat belt anchor plate, the retractor, and the B-pillar.

(2) Remove the screw that secures the lower seat belt anchor plate to the floor panel near the base of the B-pillar.

(3) Unsnap and lift the front shoulder belt turning loop cover to access the screw that secures the turning loop to the height adjuster (Fig. 15).

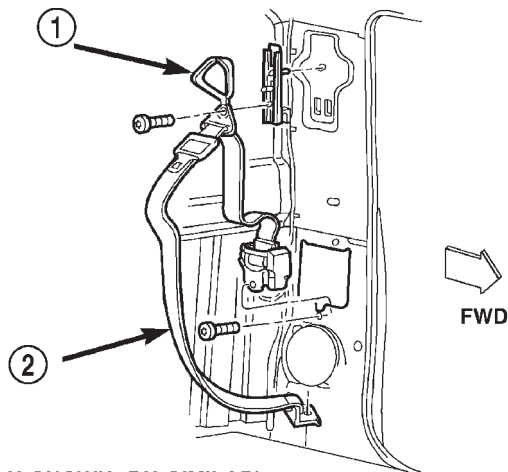
(4) Remove the screw that secures the shoulder belt turning loop to the height adjuster.

(5) Remove the shoulder belt turning loop from the height adjuster.

(6) Remove the trim from the B-pillar. (Refer to 23 - BODY/INTERIOR/B-PILLAR TRIM - REMOVAL).

(7) Disengage the front seat shoulder belt turning loop and lower seat belt anchor plate from the B-pillar trim.

FRONT SEAT BELT & RETRACTOR (Continued)



(LH SHOWN. RH SIMILAR)

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Fig. 15 Front Shoulder Belt - Standard Cab

- 1 - TURNING LOOP COVER
2 - SHOULDER BELT ASSEMBLY

(8) Remove the screw that secures the retractor to the B-pillar.

(9) Remove the front shoulder belt and retractor from the B-pillar.

REMOVAL - CLUB/QUAD CAB

The front seat shoulder belt and retractor are integral to the driver and passenger front seat backs on club cab and quad cab models.

WARNING: DURING AND FOLLOWING ANY SEAT BELT SERVICE, CAREFULLY INSPECT ALL SEAT BELTS, BUCKLES, MOUNTING HARDWARE, AND RETRACTORS FOR PROPER INSTALLATION, OPERATION, OR DAMAGE. REPLACE ANY BELT THAT IS CUT, FRAYED, OR TORN. STRAIGHTEN ANY BELT THAT IS TWISTED. TIGHTEN ANY LOOSE FASTENERS. REPLACE ANY BELT THAT HAS A DAMAGED OR INOPERATIVE BUCKLE OR RETRACTOR. REPLACE ANY BELT THAT HAS A BENT OR DAMAGED LATCH PLATE OR ANCHOR PLATE. NEVER ATTEMPT TO REPAIR A SEAT BELT COMPONENT. ALWAYS REPLACE DAMAGED OR FAULTY SEAT BELT COMPONENTS WITH THE CORRECT, NEW AND UNUSED REPLACEMENT PARTS LISTED IN THE MOPAR PARTS CATALOG.

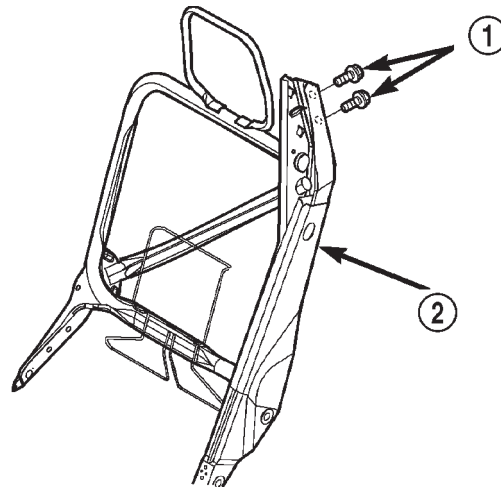
(1) Remove the trim cover from the front seat back frame. (Refer to 23 - BODY/SEATS/SEAT BACK COVER - REMOVAL).

(2) Remove the screws that secure the retractor cover to the seat back frame.

(3) Remove the retractor cover from the seat back frame.

(4) Remove the two screws that secure the seat belt retractor to the seat back frame (Fig. 16).

(5) Remove the front shoulder belt and retractor from the seat back frame.



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Fig. 16 Seat Belt Retractor

- 1 - RETRACTOR SCREWS
2 - SEAT BACK FRAME

INSTALLATION**INSTALLATION - STANDARD CAB**

WARNING: DURING AND FOLLOWING ANY SEAT BELT SERVICE, CAREFULLY INSPECT ALL SEAT BELTS, BUCKLES, MOUNTING HARDWARE, AND RETRACTORS FOR PROPER INSTALLATION, OPERATION, OR DAMAGE. REPLACE ANY BELT THAT IS CUT, FRAYED, OR TORN. STRAIGHTEN ANY BELT THAT IS TWISTED. TIGHTEN ANY LOOSE FASTENERS. REPLACE ANY BELT THAT HAS A DAMAGED OR INOPERATIVE BUCKLE OR RETRACTOR. REPLACE ANY BELT THAT HAS A BENT OR DAMAGED LATCH PLATE OR ANCHOR PLATE. NEVER ATTEMPT TO REPAIR A SEAT BELT COMPONENT. ALWAYS REPLACE DAMAGED OR FAULTY SEAT BELT COMPONENTS WITH THE CORRECT, NEW AND UNUSED REPLACEMENT PARTS LISTED IN THE MOPAR PARTS CATALOG.

(1) Position the retractor onto the B-pillar (Fig. 15).

(2) Install and tighten the screw that secures the retractor to the B-pillar. Tighten the screw to 40 N·m (29 ft. lbs.).

(3) Engage the front seat shoulder belt turning loop and lower seat belt anchor plate with the B-pillar trim.

(4) Reinstall the trim onto the B-pillar. (Refer to 23 - BODY/INTERIOR/B-PILLAR TRIM - INSTALLATION).

(5) Position the shoulder belt turning loop onto the height adjuster.

FRONT SEAT BELT & RETRACTOR (Continued)

(6) Install and tighten the screw that secures the shoulder belt turning loop to the height adjuster. Tighten the screw to 30 N·m (22 ft. lbs.).

(7) Fold and snap the cover over the front shoulder belt turning loop to conceal the screw that secures the turning loop to the height adjuster.

(8) Install and tighten the screw that secures the lower seat belt anchor plate to the floor panel near the base of the B-pillar. Tighten the screw to 40 N·m (29 ft. lbs.).

INSTALLATION - CLUB/QUAD CAB

The front seat shoulder belt and retractor are integral to the driver and passenger front seat backs on club cab and quad cab models.

WARNING: DURING AND FOLLOWING ANY SEAT BELT SERVICE, CAREFULLY INSPECT ALL SEAT BELTS, BUCKLES, MOUNTING HARDWARE, AND RETRACTORS FOR PROPER INSTALLATION, OPERATION, OR DAMAGE. REPLACE ANY BELT THAT IS CUT, FRAYED, OR TORN. STRAIGHTEN ANY BELT THAT IS TWISTED. TIGHTEN ANY LOOSE FASTENERS. REPLACE ANY BELT THAT HAS A DAMAGED OR INOPERATIVE BUCKLE OR RETRACTOR. REPLACE ANY BELT THAT HAS A BENT OR DAMAGED LATCH PLATE OR ANCHOR PLATE. NEVER ATTEMPT TO REPAIR A SEAT BELT COMPONENT. ALWAYS REPLACE DAMAGED OR FAULTY SEAT BELT COMPONENTS WITH THE CORRECT, NEW AND UNUSED REPLACEMENT PARTS LISTED IN THE MOPAR PARTS CATALOG.

(1) Position the front shoulder belt and retractor onto the seat back frame.

(2) Install and tighten the two screws that secure the seat belt retractor to the seat back frame (Fig. 16). Tighten the screws to 16 N·m (12 ft. lbs.).

(3) Position the retractor cover onto the seat back frame.

(4) Install and tighten the screws that secure the retractor cover to the seat back frame. Tighten the screws to 2 N·m (17 in. lbs.).

(5) Reinstall the trim cover onto the front seat back frame. (Refer to 23 - BODY/SEATS/SEAT BACK COVER - INSTALLATION).

FRONT SEAT BELT BUCKLE**REMOVAL**

WARNING: DURING AND FOLLOWING ANY SEAT BELT SERVICE, CAREFULLY INSPECT ALL SEAT BELTS, BUCKLES, MOUNTING HARDWARE, AND RETRACTORS FOR PROPER INSTALLATION, OPERATION, OR DAMAGE. REPLACE ANY BELT

THAT IS CUT, FRAYED, OR TORN. STRAIGHTEN ANY BELT THAT IS TWISTED. TIGHTEN ANY LOOSE FASTENERS. REPLACE ANY BELT THAT HAS A DAMAGED OR INOPERATIVE BUCKLE OR RETRACTOR. REPLACE ANY BELT THAT HAS A BENT OR DAMAGED LATCH PLATE OR ANCHOR PLATE. NEVER ATTEMPT TO REPAIR A SEAT BELT COMPONENT. ALWAYS REPLACE DAMAGED OR FAULTY SEAT BELT COMPONENTS WITH THE CORRECT, NEW AND UNUSED REPLACEMENT PARTS LISTED IN THE MOPAR PARTS CATALOG.

(1) Move the front seat to its most forward position for easiest access to the front seat belt buckle anchors.

(2) Tilt both front seat backs forward far enough to access the seat belt buckle anchor screws.

(3) On the driver's side only, disconnect the body wire harness connector for the seat belt switch from the seat belt switch pigtail wire connector on the seat belt buckle.

(4) Remove the screw that secures the seat belt buckle to the anchor on the seat cushion frame.

(5) Remove the front seat belt buckle from the seat cushion frame.

INSTALLATION

WARNING: DURING AND FOLLOWING ANY SEAT BELT SERVICE, CAREFULLY INSPECT ALL SEAT BELTS, BUCKLES, MOUNTING HARDWARE, AND RETRACTORS FOR PROPER INSTALLATION, OPERATION, OR DAMAGE. REPLACE ANY BELT THAT IS CUT, FRAYED, OR TORN. STRAIGHTEN ANY BELT THAT IS TWISTED. TIGHTEN ANY LOOSE FASTENERS. REPLACE ANY BELT THAT HAS A DAMAGED OR INOPERATIVE BUCKLE OR RETRACTOR. REPLACE ANY BELT THAT HAS A BENT OR DAMAGED LATCH PLATE OR ANCHOR PLATE. NEVER ATTEMPT TO REPAIR A SEAT BELT COMPONENT. ALWAYS REPLACE DAMAGED OR FAULTY SEAT BELT COMPONENTS WITH THE CORRECT, NEW AND UNUSED REPLACEMENT PARTS LISTED IN THE MOPAR PARTS CATALOG.

(1) Position the front seat belt buckle onto the seat cushion frame.

(2) On the driver's side only, reconnect the body wire harness connector for the seat belt switch to the seat belt switch pigtail wire connector on the seat belt buckle.

(3) Install and tighten the screw that secures the seat belt buckle to the anchor on the seat cushion frame. Tighten the screw to 40 N·m (29 ft. lbs.).

PASSENGER AIRBAG

DESCRIPTION

The rearward facing surface of the passenger airbag door above the glove box is the most visible part of the passenger airbag. The airbag used in this model is a Next Generation-type that complies with revised federal airbag standards to deploy with less force than those used in some prior models. The passenger airbag is located in the instrument panel in front of the front seat passenger seating position, where it is secured to the instrument panel. Concealed beneath the passenger airbag door are the folded airbag cushion, the airbag retainer or housing, and the airbag inflator. The airbag inflator is a hybrid-type unit that is secured to and sealed within the stamped steel airbag housing along with the folded airbag cushion. The airbag housing stamping also includes the two mounting brackets, one front and one rear. The front bracket is secured beneath the instrument panel top cover with screws to the instrument panel structural support. The rear bracket is secured with screws to the upper glove box opening reinforcement. A yellow connector on the end of a short, two-wire pigtail harness connects the passenger airbag inflator to the vehicle electrical system.

The molded plastic passenger airbag door has predetermined breakout lines concealed beneath its decorative cover. The lower edge of the passenger airbag door is secured to the airbag housing, and includes the two passenger side panel outlets. The sides and upper edges are secured to the instrument panel top cover with five molded tabs that are each fit with a small metal retainer. The five retainers are snapped into five slotted receptacles located around the sides and top of the airbag door opening in the instrument panel top cover. Following a passenger airbag deployment, the passenger airbag and airbag door unit must be replaced. The passenger airbag cannot be repaired, and must be replaced if faulty or in any way damaged. The passenger airbag door is serviced only as a unit with the passenger airbag, and includes the two passenger side heating and air conditioning panel outlet housings and barrels.

OPERATION

The passenger airbag is deployed by an electrical signal generated by the Airbag Control Module (ACM) through the passenger airbag line 1 and line 2 (or squib) circuits. The hybrid-type inflator assembly includes a small canister of highly compressed argon gas. When the ACM sends the proper electrical signal to the airbag inflator, the electrical energy generates enough heat to ignite chemical pellets within the inflator. Once ignited, these chemical pellets burn rapidly and produce the pressure necessary to rup-

ture a containment disk in the argon gas canister. The inflator and argon gas canister are sealed to the airbag cushion so that all of the released argon gas is directed into the airbag cushion, causing the cushion to inflate. As the cushion inflates, the passenger airbag door will split at the breakout lines and the door will pivot out of the way. Following an airbag deployment, the airbag cushion quickly deflates by venting the argon gas through the porous fabric material used on each end panel of the airbag cushion.

Some of the chemicals used to create the pressure to burst the argon gas containment disk are considered hazardous in their solid state, before they are burned, but they are securely sealed within the airbag inflator. However, the gas that is produced when the chemicals are burned is harmless. A small amount of residue from the burned chemicals may cause some temporary discomfort if it contacts the skin, eyes, or breathing passages. If skin or eye irritation is noticed, rinse the affected area with plenty of cool, clean water. If breathing passages are irritated, move to another area where there is plenty of clean, fresh air to breathe. If the irritation is not alleviated by these actions, contact a physician immediately.

REMOVAL

WARNING: DISABLE THE AIRBAG SYSTEM BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE, THEN WAIT TWO MINUTES FOR THE AIRBAG SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER DIAGNOSIS OR SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

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

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

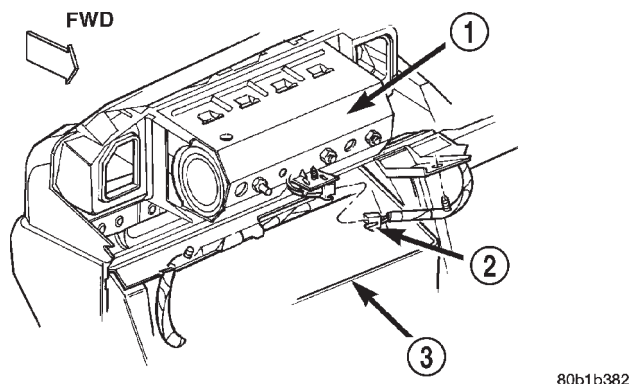
PASSENGER AIRBAG (Continued)

(2) Remove the glove box from the instrument panel. (Refer to 23 - BODY/INSTRUMENT PANEL/GLOVE BOX - REMOVAL).

(3) Remove the glove box opening upper trim from the instrument panel. (Refer to 23 - BODY/INSTRUMENT PANEL/GLOVE BOX OPENING UPPER TRIM - REMOVAL).

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

(5) Reach through and above the glove box opening to access and disconnect the passenger airbag pigtail wire connector from the instrument panel wire harness (Fig. 17).



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Fig. 17 Passenger Airbag Connector

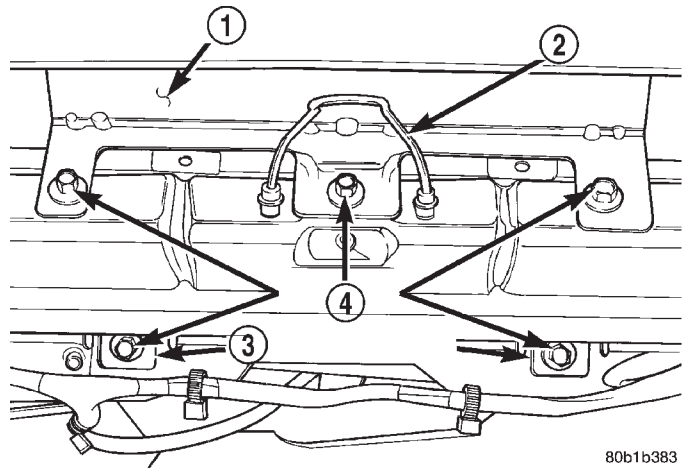
- 1 - PASSENGER SIDE AIRBAG MODULE
- 2 - WIRE HARNESS CONNECTOR
- 3 - GLOVE BOX OPENING

(6) Remove the two screws that secure the passenger airbag front bracket to the instrument panel structural support (Fig. 18).

(7) Remove the three screws that secure the passenger airbag 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 airbag door away from the instrument panel far enough to disengage the five molded tabs and snap retainers securing it to the receptacles in the instrument panel top cover (Fig. 19).

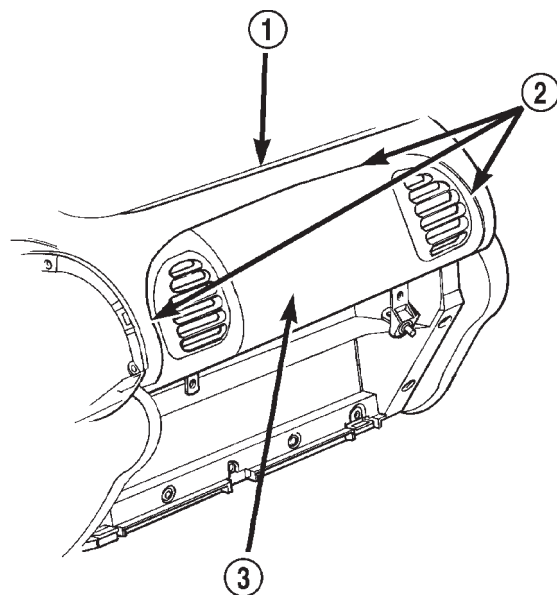
(9) Remove the passenger airbag, the airbag door, and the panel outlet housing and barrel assemblies from the instrument panel as a unit.



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Fig. 18 Passenger Airbag Remove/Install

- 1 - PASSENGER SIDE AIRBAG MODULE REAR BRACKET
- 2 - GLOVE BOX LATCH STRIKER
- 3 - FRONT BRACKET
- 4 - SCREWS



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Fig. 19 Passenger Airbag Door Disengage

- 1 - INSTRUMENT PANEL TOP COVER
- 2 - PRY HERE
- 3 - PASSENGER SIDE AIRBAG DOOR

PASSENGER AIRBAG (Continued)

INSTALLATION

WARNING: DISABLE THE AIRBAG SYSTEM BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE, THEN WAIT TWO MINUTES FOR THE AIRBAG SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER DIAGNOSIS OR SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

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

WARNING: USE EXTREME CARE TO PREVENT ANY FOREIGN MATERIAL FROM ENTERING THE PASSENGER AIRBAG, OR BECOMING ENTRAPPED BETWEEN THE PASSENGER AIRBAG CUSHION AND THE PASSENGER AIRBAG DOOR. FAILURE TO OBSERVE THIS WARNING COULD RESULT IN OCCUPANT INJURIES UPON AIRBAG DEPLOYMENT.

WARNING: THE PASSENGER AIRBAG DOOR MUST NEVER BE PAINTED. REPLACEMENT PASSENGER AIRBAG DOORS ARE SERVICED IN THE ORIGINAL COLORS. PAINT MAY CHANGE THE WAY IN WHICH THE MATERIAL OF THE AIRBAG DOOR RESPONDS TO AN AIRBAG DEPLOYMENT. FAILURE TO OBSERVE THIS WARNING COULD RESULT IN OCCUPANT INJURIES UPON AIRBAG DEPLOYMENT.

(1) Carefully inspect the five receptacle slots around the top and sides of the passenger airbag door opening of the instrument panel top cover. Remove any of the small metal airbag door snap retainers that did not remain on the molded airbag door tabs during the removal procedure.

(2) If the removed passenger airbag module is being reinstalled, install the metal snap retainers recovered in Step 1 onto the proper airbag door tabs. Each of the five molded airbag door tabs must have a snap retainer on it before it is installed in the instru-

ment panel. New replacement passenger airbags come with new airbag door snap retainers installed.

(3) Carefully position the passenger airbag onto the instrument panel.

(4) Align the five tabs and retainers on the upper edge and sides of the passenger airbag door with the receptacles in the instrument panel top cover.

(5) Using hand pressure, press firmly on the passenger airbag door over each of the tab and retainer locations until each of them is fully engaged in its receptacle. Be certain that each of the metal snap retainers is in position on the airbag door tabs.

(6) Install and tighten the five screws that secure the passenger airbag front and rear mounting brackets to the instrument panel (Fig. 18). Tighten the screws to 9 N·m (80 in. lbs.).

(7) Install and tighten the four screws that secure the two plastic support brackets of the passenger airbag door panel outlet housing to the glove box opening upper reinforcement. Tighten the screws to 2.2 N·m (20 in. lbs.).

(8) Reach through and above the glove box opening to access and reconnect the passenger airbag pigtail wire connector to the instrument panel wire harness connector (Fig. 17). Be certain that the passenger airbag pigtail wire connector is fully engaged with and latched to the instrument panel wire harness connector.

(9) Reinstall the glove box opening upper trim onto the instrument panel. (Refer to 23 - BODY/INSTRUMENT PANEL/GLOVE BOX OPENING UPPER TRIM - INSTALLATION).

(10) Reinstall the glove box onto the instrument panel. (Refer to 23 - BODY/INSTRUMENT PANEL/GLOVE BOX - INSTALLATION).

(11) Do not reconnect the battery negative cable at this time. The airbag system verification test procedure should be performed following service of any airbag system component. (Refer to 8 - ELECTRICAL/RESTRAINTS - STANDARD PROCEDURE - VERIFICATION TEST).

PASSENGER AIRBAG ON/OFF SWITCH**DESCRIPTION**

The passenger airbag on-off switch is standard equipment on this model when it is not equipped with a full size rear seat. This switch is a single pole, single throw switch with a single integral red Light-Emitting Diode (LED), and a non-coded key cylinder-type actuator. The switch is located in the upper right corner of instrument panel cluster bezel, near the center of instrument panel to make the Off indicator visible to all front seat occupants. When the

PASSENGER AIRBAG ON/OFF SWITCH (Continued)

switch is in its installed position, the only components visible through the dedicated opening of the cluster bezel are the switch face plate and nomenclature, the key cylinder actuator, and a small round lens with the text "Off" imprinted on it. The "On" position of the switch is designated by text imprinted upon the face plate of the switch, but is not illuminated. The remainder of the switch is concealed behind the switch face plate and the instrument panel cluster bezel.

The passenger airbag on-off switch housing is constructed of molded plastic and has three integral mounting tabs. These mounting tabs are used to secure the switch to the back of the molded plastic switch face plate with three small screws. The molded plastic face plate also has three integral mounting tabs that are used to secure the switch and face plate unit to the instrument panel carrier with three additional screws. Two short pigtail wires with molded plastic connector insulators exit the back of the switch housing and connect the switch to the vehicle electrical system through two dedicated take outs of the instrument panel wire harness. The harness take outs are equipped with molded plastic connector insulators that are keyed and latched to ensure proper and secure switch electrical connections. The passenger airbag on/off switch cannot be adjusted or repaired and, if faulty or damaged, the switch must be replaced.

OPERATION

The passenger airbag on/off switch allows the customer to turn the passenger airbag function On or Off to accommodate certain uses of the right front seating position where airbag protection may not be desired. See the owner's manual in the vehicle glove box for specific recommendations on when to enable or disable the passenger airbag. The Off indicator of the switch will be illuminated whenever the switch is turned to the Off position. The ignition key is the only key or object that should ever be inserted into the switch. The on/off switch requires only a partial key insertion to fully depress a spring-loaded locking plunger. The spring-loaded locking plunger prevents the user from leaving the key in the switch. The key will be automatically ejected when force is not applied. To actuate the passenger side airbag on/off switch, insert the ignition key into the switch key actuator far enough to fully depress the plunger and rotate to the desired switch position. When the switch key actuator is rotated to its clockwise stop (the key actuator slot will be aligned with the Off indicator lamp), the Off indicator is illuminated and the passenger airbag is disabled. When the switch is rotated to its counterclockwise stop (the key actuator slot will be in a vertical position), the Off indicator

will be extinguished and the passenger airbag is enabled.

The passenger airbag on/off switch is connected in series between the Airbag Control Module (ACM) and the passenger airbag inflator unit. When the switch is in the On position, the switch connects the ACM directly to the passenger airbag inflator. When the switch is in the Off position it interrupts the inflator circuits, but replaces the normal resistance in these circuits with an internal resistor. Thus, the ACM is unable to distinguish the mode of the switch and still sends an electrical signal as though it were deploying the passenger airbag when it detects a sufficient impact. However, the switch position should not be changed while the ignition switch is in the On position, as the ACM may detect a fault, record a Diagnostic Trouble Code (DTC), and illuminate the Airbag indicator in response to a momentary open it senses in the passenger airbag inflator circuits as the on/off switch changes states.

REMOVAL

WARNING: DISABLE THE AIRBAG SYSTEM BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE, THEN WAIT TWO MINUTES FOR THE AIRBAG SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER DIAGNOSIS OR SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

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

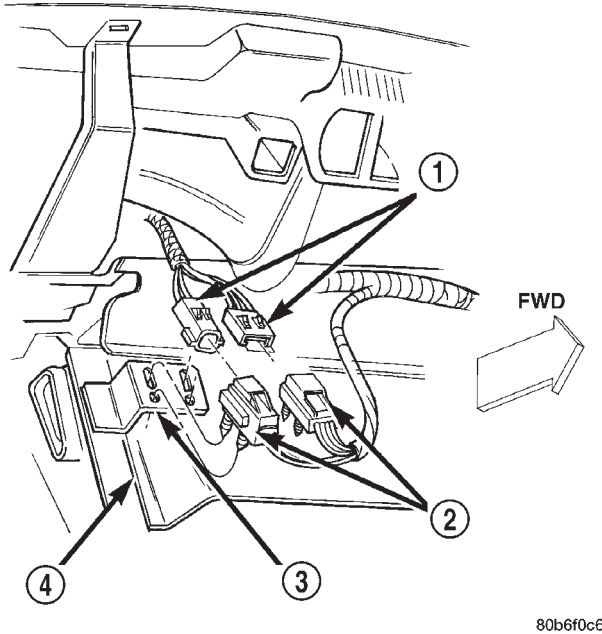
(2) Remove the cluster bezel from the instrument panel. (Refer to 23 - BODY/INSTRUMENT PANEL/CLUSTER BEZEL - REMOVAL).

(3) Remove the glove box from the instrument panel. (Refer to 23 - BODY/INSTRUMENT PANEL/GLOVE BOX - REMOVAL).

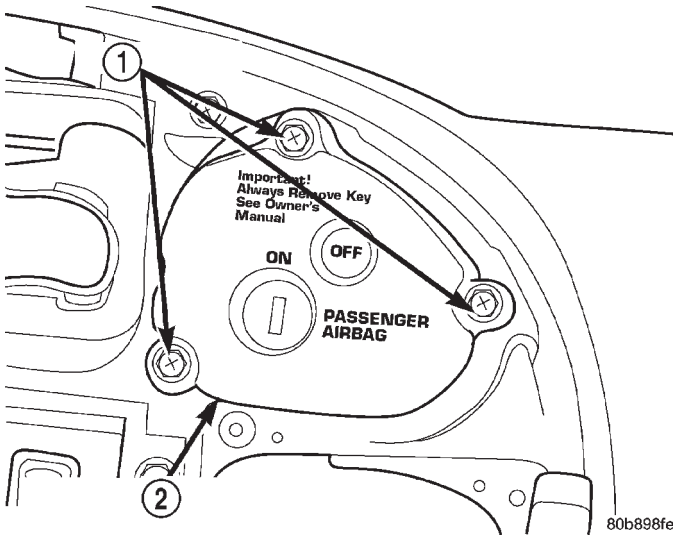
(4) Reach through the glove box opening to access and disconnect the two passenger airbag on/off switch pigtail wire harness connectors from the instrument panel wire harness connectors. These connectors are retained on a bracket located on the inboard glove box opening reinforcement (Fig. 20).

(5) Remove the three screws that secure the passenger airbag on/off switch face plate to the instrument panel (Fig. 21).

PASSENGER AIRBAG ON/OFF SWITCH (Continued)

**Fig. 20 Passenger Airbag On/Off Switch Connectors**

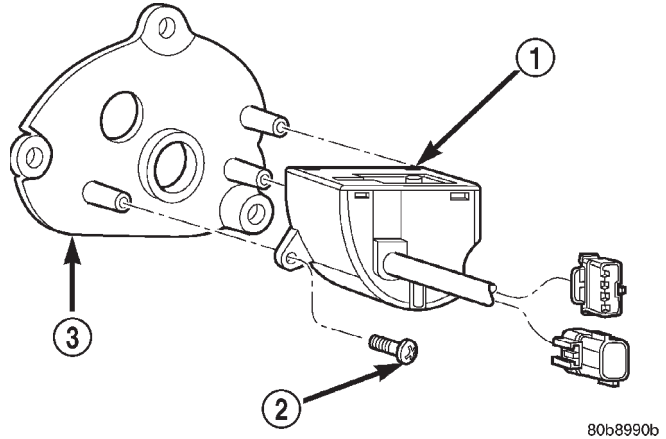
- 1 - PASSENGER SIDE AIRBAG ON/OFF SWITCH WIRE HARNESS CONNECTORS
- 2 - INSTRUMENT PANEL WIRE HARNESS CONNECTORS
- 3 - BRACKET
- 4 - REINFORCEMENT

**Fig. 21 Passenger Airbag On/Off Switch Remove/Install**

- 1 - SCREWS (3)
- 2 - PASSENGER AIRBAG ON/OFF SWITCH BEZEL

(6) Remove the passenger airbag on/off switch and face plate from the instrument panel as a unit.

(7) Remove the three screws that secure the passenger airbag on/off switch to the back of the switch face plate (Fig. 22).

**Fig. 22 Passenger Airbag On/Off Switch Face Plate Remove/Install**

- 1 - PASSENGER SIDE AIRBAG ON/OFF SWITCH
- 2 - SCREW (3)
- 3 - SWITCH BEZEL

(8) Remove the passenger airbag on/off switch from the face plate.

INSTALLATION

WARNING: DISABLE THE AIRBAG SYSTEM BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE, THEN WAIT TWO MINUTES FOR THE AIRBAG SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER DIAGNOSIS OR SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

(1) Position the passenger airbag on/off switch to the back of the face plate (Fig. 22).

(2) Install and tighten the three screws that secure the passenger airbag on/off switch to the face plate. Tighten the screws to 2.2 N·m (20 in. lbs.).

(3) Route the passenger airbag on/off switch pigtail wires through the switch opening of the instrument panel.

(4) Reach through the glove box opening to access and reconnect the two passenger airbag on/off switch pigtail wire connectors to the instrument panel wire harness connectors. These connectors are retained on a bracket located on the inboard glove box opening reinforcement (Fig. 20). Be certain that both connectors are fully engaged and latched.

PASSENGER AIRBAG ON/OFF SWITCH (Continued)

(5) Position the passenger airbag on/off switch and face plate unit to the opening in the instrument panel (Fig. 21).

(6) Install and tighten the three screws that secure the passenger airbag on/off switch face plate to the instrument panel. Tighten the screws to 2.2 N·m (20 in. lbs.).

(7) Reinstall the glove box onto the instrument panel. (Refer to 23 - BODY/INSTRUMENT PANEL/GLOVE BOX - INSTALLATION).

(8) Reinstall the cluster bezel onto the instrument panel. (Refer to 23 - BODY/INSTRUMENT PANEL/CLUSTER BEZEL - INSTALLATION).

(9) Do not reconnect the battery negative cable at this time. The airbag system verification test procedure should be performed following service of any airbag system component. (Refer to 8 - ELECTRICAL/RESTRAINTS - STANDARD PROCEDURE - VERIFICATION TEST).

REAR SEAT BELT & RETRACTOR

REMOVAL

WARNING: DURING AND FOLLOWING ANY SEAT BELT SERVICE, CAREFULLY INSPECT ALL SEAT BELTS, BUCKLES, MOUNTING HARDWARE, AND RETRACTORS FOR PROPER INSTALLATION, OPERATION, OR DAMAGE. REPLACE ANY BELT THAT IS CUT, FRAYED, OR TORN. STRAIGHTEN ANY BELT THAT IS TWISTED. TIGHTEN ANY LOOSE FASTENERS. REPLACE ANY BELT THAT HAS A DAMAGED OR INOPERATIVE BUCKLE OR RETRACTOR. REPLACE ANY BELT THAT HAS A BENT OR DAMAGED LATCH PLATE OR ANCHOR PLATE. NEVER ATTEMPT TO REPAIR A SEAT BELT COMPONENT. ALWAYS REPLACE DAMAGED OR FAULTY SEAT BELT COMPONENTS WITH THE CORRECT, NEW AND UNUSED REPLACEMENT PARTS LISTED IN THE MOPAR PARTS CATALOG.

(1) Remove the rear seat from the passenger compartment. (Refer to 23 - BODY/SEATS/REAR SEAT - REMOVAL).

(2) Remove the trim cover from the door sill. (Refer to 23 - BODY/INTERIOR/DOOR SILL TRIM - REMOVAL).

(3) Remove the screw that secures the lower seat belt anchor plate to the quarter inner panel near the base of the C-pillar (Fig. 23).

(4) Unsnap and lift the rear shoulder belt turning loop cover to access the screw that secures the turning loop to the quarter inner panel near the top of the C-pillar.

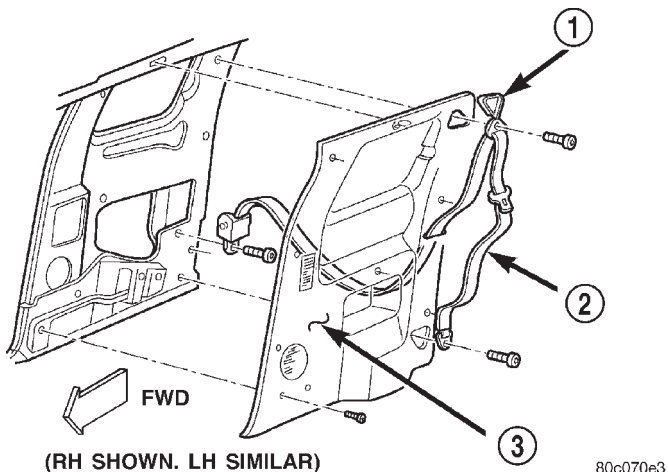


Fig. 23 Rear Seat Belt & Retractor - Typical

- 1 - TURNING LOOP
- 2 - REAR SEAT BELT AND RETRACTOR
- 3 - QUARTER TRIM PANEL

(5) Remove the screw that secures the shoulder belt turning loop to the quarter inner panel.

(6) Remove the trim from the quarter inner panel. (Refer to 23 - BODY/INTERIOR/QUARTER TRIM PANEL - REMOVAL).

(7) Disengage the rear seat shoulder belt turning loop and lower seat belt anchor plate from the quarter trim panel.

(8) Remove the screw that secures the retractor to the quarter inner panel near the C-pillar.

(9) Remove the rear shoulder belt and retractor from the quarter inner panel.

INSTALLATION

WARNING: DURING AND FOLLOWING ANY SEAT BELT SERVICE, CAREFULLY INSPECT ALL SEAT BELTS, BUCKLES, MOUNTING HARDWARE, AND RETRACTORS FOR PROPER INSTALLATION, OPERATION, OR DAMAGE. REPLACE ANY BELT THAT IS CUT, FRAYED, OR TORN. STRAIGHTEN ANY BELT THAT IS TWISTED. TIGHTEN ANY LOOSE FASTENERS. REPLACE ANY BELT THAT HAS A DAMAGED OR INOPERATIVE BUCKLE OR RETRACTOR. REPLACE ANY BELT THAT HAS A BENT OR DAMAGED LATCH PLATE OR ANCHOR PLATE. NEVER ATTEMPT TO REPAIR A SEAT BELT COMPONENT. ALWAYS REPLACE DAMAGED OR FAULTY SEAT BELT COMPONENTS WITH THE CORRECT, NEW AND UNUSED REPLACEMENT PARTS LISTED IN THE MOPAR PARTS CATALOG.

(1) Position the rear shoulder belt retractor onto the quarter inner panel (Fig. 23).

REAR SEAT BELT & RETRACTOR (Continued)

(2) Install and tighten the screw that secures the retractor to the quarter inner panel. Tighten the screw to 40 N·m (29 ft. lbs.).

(3) Engage the rear seat shoulder belt turning loop and lower seat belt anchor plate with the quarter trim panel.

(4) Reinstall the trim onto the quarter inner panel. (Refer to 23 - BODY/INTERIOR/QUARTER TRIM PANEL - INSTALLATION).

(5) Position the shoulder belt turning loop onto the quarter inner panel near the top of the C-pillar.

(6) Install and tighten the screw that secures the shoulder belt turning loop to the quarter inner panel. Tighten the screw to 40 N·m (29 ft. lbs.).

(7) Fold and snap the cover over the rear shoulder belt turning loop to conceal the screw that secures the turning loop to the quarter inner panel.

(8) Position the lower seat belt anchor plate onto the quarter inner panel near the base of the C-pillar.

(9) Install and tighten the screw that secures the lower seat belt anchor plate to the quarter inner panel near the base of the C-pillar. Tighten the screw to 40 N·m (29 ft. lbs.).

(10) Reinstall the trim cover onto the door sill. (Refer to 23 - BODY/INTERIOR/DOOR SILL TRIM - INSTALLATION).

(11) Reinstall the rear seat into the passenger compartment. (Refer to 23 - BODY/SEATS/REAR SEAT - INSTALLATION).

(2) Fold the rear seat unit up and back against the cab back panel (stowed position) for access to the rear seat belt buckle anchors.

(3) Reach through the opening between the rear seat back and the floor panel to access and remove the nut that secures the rear seat belt buckle/buckle unit (right side) or lap belt/buckle unit (left side) anchor plate to the stud on the rear floor panel (Fig. 24).

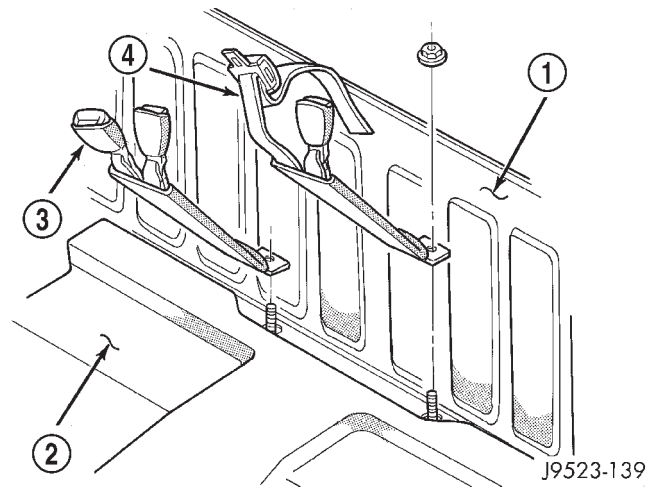


Fig. 24 Rear Seat Belt Buckle Remove/Install

- 1 - CAB BACK PANEL
- 2 - REAR FLOOR PANEL
- 3 - REAR SEAT BUCKLE/BUCKLE UNIT
- 4 - REAR SEAT LAP BELT/BUCKLE UNIT

REAR SEAT BELT BUCKLE

REMOVAL

WARNING: DURING AND FOLLOWING ANY SEAT BELT SERVICE, CAREFULLY INSPECT ALL SEAT BELTS, BUCKLES, MOUNTING HARDWARE, AND RETRACTORS FOR PROPER INSTALLATION, OPERATION, OR DAMAGE. REPLACE ANY BELT THAT IS CUT, FRAYED, OR TORN. STRAIGHTEN ANY BELT THAT IS TWISTED. TIGHTEN ANY LOOSE FASTENERS. REPLACE ANY BELT THAT HAS A DAMAGED OR INOPERATIVE BUCKLE OR RETRACTOR. REPLACE ANY BELT THAT HAS A BENT OR DAMAGED LATCH PLATE OR ANCHOR PLATE. NEVER ATTEMPT TO REPAIR A SEAT BELT COMPONENT. ALWAYS REPLACE DAMAGED OR FAULTY SEAT BELT COMPONENTS WITH THE CORRECT, NEW AND UNUSED REPLACEMENT PARTS LISTED IN THE MOPAR PARTS CATALOG.

(1) Disengage the rear seat latch by pulling the release handle on the underside of the rear seat cushion.

(4) Remove the rear seat belt buckle/buckle unit (right side) or lap belt/buckle unit (left side) from the rear floor panel.

INSTALLATION

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REAR SEAT BELT BUCKLE (Continued)

(1) Reach through the opening between the rear seat back and the floor panel to position the rear seat belt buckle/buckle unit (right side) or lap belt/buckle unit (left side) onto the stud on the rear floor panel (Fig. 24).

(2) Install and tighten the nut that secures the rear seat belt buckle/buckle unit (right side) or lap belt/buckle unit (left side) anchor plate to the stud on the rear floor panel. Tighten the nut to 40 N·m (29 ft. lbs.).

(3) Route the lap belt and buckles between the rear seat back and rear seat cushion.

(4) Disengage the rear seat from its stowed position by pulling the release handle on the underside of the rear seat cushion.

(5) Fold the rear seat cushion down toward the rear floor panel until the unit is latched in its open position.

SEAT BELT SWITCH

DESCRIPTION

The seat belt switch is a small, normally closed, single pole, single throw, leaf contact, momentary switch. Only one seat belt switch is installed in the vehicle, and it is integral to the buckle of the driver seat belt buckle-half, located near the inboard side of the driver side front seating position. The seat belt switch is connected to the vehicle electrical system through a two-wire pigtail wire and connector on the seat belt buckle-half, which is connected to a wire harness connector and take out of the body wire harness.

The seat belt switch cannot be adjusted or repaired and, if faulty or damaged, the entire driver seat belt buckle-half unit must be replaced.

OPERATION

The seat belt switch is designed to control a path to ground for the seat belt switch sense input of the Electro-Mechanical Instrument Cluster (EMIC). When the driver side seat belt tip-half is inserted in the seat belt buckle, the switch opens the path to ground; and, when the driver side seat belt tip-half is removed from the seat belt buckle, the switch closes the ground path. The switch is actuated by the latch mechanism within the seat belt buckle. The EMIC monitors the driver seat belt switch status, then controls the seatbelt indicator and sends hard wired chime requests to the Central Timer Module (CTM) based upon that input.

The seat belt switch receives ground through its pigtail wire connection to the body wire harness from another take out of the body wire harness. An eyelet terminal connector on that ground take out is

secured under a nut to a ground stud on the left lower B-pillar (standard cab models) or the left lower cowl side inner panel (club cab and quad cab models). The seat belt switch is connected in series between ground and the seat belt switch sense input of the EMIC.

DIAGNOSIS AND TESTING - SEAT BELT SWITCH

Refer to the appropriate wiring information. The wiring information includes wiring diagrams, proper wire and connector repair procedures, details of wire harness routing and retention, connector pin-out information and location views for the various wire harness connectors, splices and grounds.

WARNING: ON VEHICLES EQUIPPED WITH AIRBAGS, DISABLE THE AIRBAG SYSTEM BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE, THEN WAIT TWO MINUTES FOR THE AIRBAG SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER DIAGNOSIS OR SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

(1) Disconnect and isolate the battery negative cable. Disconnect the body wire harness connector for the seat belt switch from the seat belt switch pigtail wire connector located near the floor panel under the driver side front seat cushion. Check for continuity between the seat belt switch sense circuit and the ground circuit cavities in the seat belt switch pigtail wire connector. There should be continuity with the driver side seat belt tip-half and buckle-half unfastened, and no continuity with tip-half and buckle-half fastened. If OK, go to Step 2. If not OK, replace the faulty driver side seat belt buckle-half unit.

(2) Check for continuity between the ground circuit cavity in the body wire harness connector for the seat belt switch and a good ground. There should be continuity. If OK, go to Step 3. If not OK, repair the open ground circuit to ground (G301 - standard cab, or G300 - club/quad cab) as required.

(3) Remove the instrument cluster from the instrument panel. Check for continuity between the seat belt switch sense circuit cavity in the instrument panel wire harness connector (Connector C2) for the instrument cluster and a good ground. There should be no continuity. If OK, go to Step 4. If not OK, repair the shorted seat belt switch sense circuit

SEAT BELT SWITCH (Continued)

between the seat belt switch and the instrument cluster as required.

(4) Check for continuity between the seat belt switch sense circuit cavities in the body wire harness connector for the seat belt switch and the instrument panel wire harness connector (Connector C2) for the instrument cluster. There should be continuity. If OK, proceed to the diagnosis for the instrument cluster. (Refer to 8 - ELECTRICAL/INSTRUMENT CLUSTER - DIAGNOSIS AND TESTING). If not OK, repair the open seat belt switch sense circuit between the seat belt switch and the instrument cluster as required.

SEAT BELT TURNING LOOP ADJUSTER

REMOVAL

WARNING: DURING AND FOLLOWING ANY SEAT BELT SERVICE, CAREFULLY INSPECT ALL SEAT BELTS, BUCKLES, MOUNTING HARDWARE, AND RETRACTORS FOR PROPER INSTALLATION, OPERATION, OR DAMAGE. REPLACE ANY BELT THAT IS CUT, FRAYED, OR TORN. STRAIGHTEN ANY BELT THAT IS TWISTED. TIGHTEN ANY LOOSE FASTENERS. REPLACE ANY BELT THAT HAS A DAMAGED OR INOPERATIVE BUCKLE OR RETRACTOR. REPLACE ANY BELT THAT HAS A BENT OR DAMAGED LATCH PLATE OR ANCHOR PLATE. NEVER ATTEMPT TO REPAIR A SEAT BELT COMPONENT. ALWAYS REPLACE DAMAGED OR FAULTY SEAT BELT COMPONENTS WITH THE CORRECT, NEW AND UNUSED REPLACEMENT PARTS LISTED IN THE MOPAR PARTS CATALOG.

(1) Remove the knob from the lever of the seat belt turning loop adjuster. (Refer to 8 - ELECTRICAL/RESTRAINTS/TURNING LOOP HEIGHT ADJUSTER KNOB - REMOVAL).

(2) Remove the screw that secures the shoulder belt turning loop to the height adjuster.

(3) Remove the trim from the B-pillar. (Refer to 23 - BODY/INTERIOR/B-PILLAR TRIM - REMOVAL).

(4) Remove the screw that secures the upper end of the height adjuster to the B-pillar.

(5) Pull the upper end of the height adjuster away from the B-pillar far enough to disengage the hooks on the lower end of the adjuster from the slots in the pillar.

(6) Remove the adjuster from the B-pillar.

INSTALLATION

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(1) Position the height adjuster to the B-pillar with the hook formations oriented toward the lower end of the adjuster.

(2) Engage the hooks on the lower end of the adjuster into the slots in the B-pillar.

(3) Tilt the upper end of the height adjuster up into position against the B-pillar.

(4) Install and tighten the screw that secures the upper end of the height adjuster to the B-pillar. Tighten the screw to 41 N·m (30 ft. lbs.).

(5) Reinstall the trim onto the B-pillar. (Refer to 23 - BODY/INTERIOR/B-PILLAR TRIM - INSTALLATION).

(6) Install and tighten the anchor screw that secures the seat belt turning loop to the adjuster. Tighten the screw to 30 N·m (22 ft. lbs.).

(7) Reinstall the knob onto the lever of the seat belt turning loop adjuster. (Refer to 8 - ELECTRICAL/RESTRAINTS/TURNING LOOP HEIGHT ADJUSTER KNOB - INSTALLATION).

TURNING LOOP HGT ADJUSTER KNOB

REMOVAL

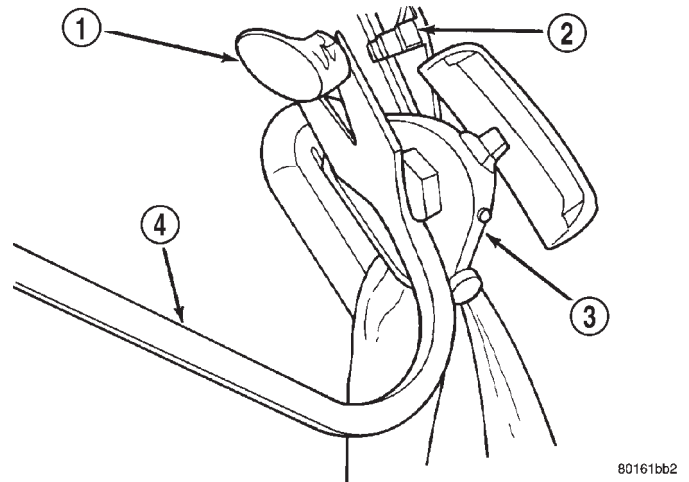
WARNING: DURING AND FOLLOWING ANY SEAT BELT SERVICE, CAREFULLY INSPECT ALL SEAT BELTS, BUCKLES, MOUNTING HARDWARE, AND RETRACTORS FOR PROPER INSTALLATION, OPERATION, OR DAMAGE. REPLACE ANY BELT THAT IS CUT, FRAYED, OR TORN. STRAIGHTEN ANY BELT THAT IS TWISTED. TIGHTEN ANY LOOSE FASTENERS. REPLACE ANY BELT THAT HAS A DAMAGED OR INOPERATIVE BUCKLE OR RETRACTOR. REPLACE ANY BELT THAT HAS A BENT OR DAMAGED LATCH PLATE OR ANCHOR PLATE. NEVER ATTEMPT TO REPAIR A SEAT BELT COMPONENT. ALWAYS REPLACE DAMAGED OR FAULTY SEAT BELT COMPONENTS WITH THE CORRECT, NEW AND UNUSED REPLACEMENT PARTS LISTED IN THE MOPAR PARTS CATALOG.

(1) Unsnap and lift the seat belt turning loop cover to expose the anchor screw that secures the turning loop to the height adjuster.

(2) Using the head of the turning loop anchor screw as a fulcrum, carefully pry the knob from the height adjuster lever with a suitable trim tool (Fig. 25).

INSTALLATION

WARNING: DURING AND FOLLOWING ANY SEAT BELT SERVICE, CAREFULLY INSPECT ALL SEAT BELTS, BUCKLES, MOUNTING HARDWARE, AND RETRACTORS FOR PROPER INSTALLATION, OPERATION, OR DAMAGE. REPLACE ANY BELT THAT IS CUT, FRAYED, OR TORN. STRAIGHTEN ANY BELT THAT IS TWISTED. TIGHTEN ANY LOOSE FASTENERS. REPLACE ANY BELT THAT HAS A DAMAGED OR INOPERATIVE BUCKLE OR



**Fig. 25 Turning Loop Height Adjuster Knob
Removal - Typical**

- 1 - KNOB
- 2 - ADJUSTER LEVER
- 3 - SEAT BELT TURNING LOOP
- 4 - TRIM TOOL (SNAP-ON A179A)

RETRACTOR. REPLACE ANY BELT THAT HAS A BENT OR DAMAGED LATCH PLATE OR ANCHOR PLATE. NEVER ATTEMPT TO REPAIR A SEAT BELT COMPONENT. ALWAYS REPLACE DAMAGED OR FAULTY SEAT BELT COMPONENTS WITH THE CORRECT, NEW AND UNUSED REPLACEMENT PARTS LISTED IN THE MOPAR PARTS CATALOG.

(1) Fold and snap the seat belt turning loop cover back into place over the anchor screw that secures the turning loop to the adjuster.

(2) Position the height adjuster knob to the seat belt turning loop height adjuster lever.

(3) Using hand pressure, push the knob firmly and evenly onto the lever until it is fully engaged.