

INSTRUMENT PANEL AND SYSTEMS

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DESCRIPTION AND OPERATION

DATA LINK CONNECTOR

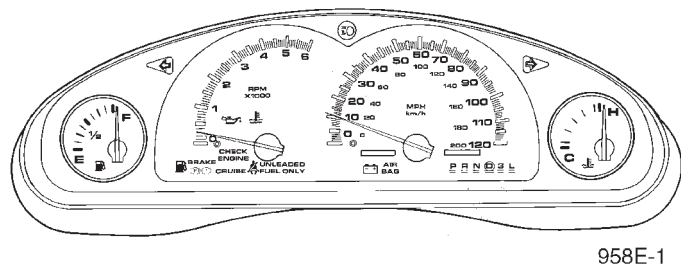
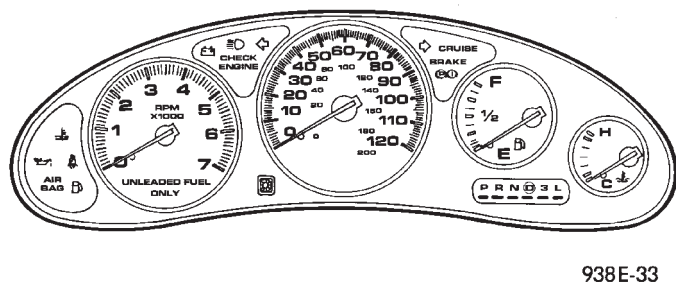
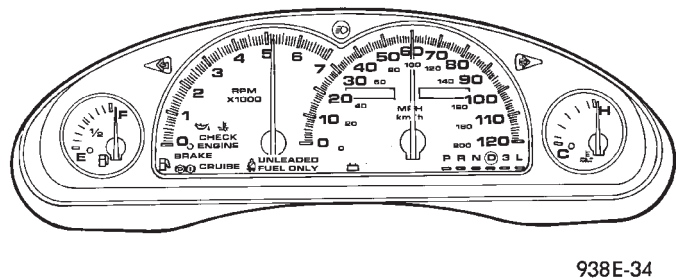
Data link connector is located at the lower edge of the knee blocker to the right of the steering column. Reach inside of the opening and swing the data link connector down for access.

ELECTRO-MECHANICAL INSTRUMENT CLUSTER

The mechanical instrument cluster is an electro-mechanical module which receives most of its information from the Body Control Module or Timing Control Module via the CCD bus.

There are three types of clusters, each cluster includes (Fig. 1), (Fig. 2) and (Fig. 3):

DESCRIPTION AND OPERATION (Continued)

**Fig. 1 Cluster Type - A****Fig. 2 Cluster Type - B****Fig. 3 Cluster Type - C**

- 240 km/h (120 mph) speedometer
- Tachometer
- Odometer/trip odometer
- Fuel gauge
- Temperature gauge
- Electronic transmission range

The warning and information indicators include the following:

- Check Engine Soon
- Airbag
- Charging system
- Low oil pressure
- High temperature
- Low fuel
- Seat belt
- Cruise
- Brake/park brake
- High beam
- Turn signals

The gauges are the magnetic air-core type. When the ignition switch is OFF, the gauge pointers should rest at or below the low graduation.

DIAGNOSIS AND TESTING**DIAGNOSTIC PROCEDURE**

In order to diagnose the instrument cluster function, a scan tool (DRB) and the proper Body Diagnostic Procedures Manual are required.

As a quick diagnosis, the cluster will perform a function check immediately after the ignition is switched to the RUN/START position. All transmission range LEDs and warning lamps, except cruise, will illuminate for a brief period. If the cluster is not receiving CCD bus messages, the cluster will appear non-functional except for the continuously illuminated airbag indicator.

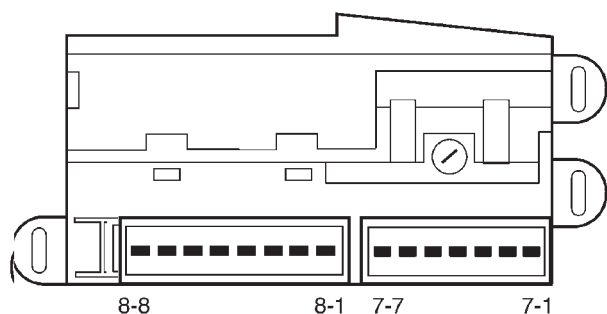
If the cluster is not receiving CCD bus messages, refer to the pre-diagnostic test described in Body Diagnostic Procedures Manual.

If the diagnostic procedure determines that a replacement of an instrument cluster component is required, refer to the Removal and Installation Procedures.

HEADLAMP SWITCH TEST

Using an ohmmeter, test for continuity between the terminals of the switch as shown in the Headlamp Switch Test (Fig. 4).

POSITION	TERMINALS	RESISTANCE VALUE
ALL SWITCHES OFF	7-5 to 8-2	10K to 12K Ω
	7-5 to 8-6	10K to 12K Ω
	8-2 to 8-6	6 to 7
	7-5 to 8-5	Variable
	8-2 to 8-5	Variable
HEADLAMPS ON	7-7 to 7-6	Continuity
	7-4 to 7-5	Continuity
	7-4 to 8-2	10K to 12K Ω
	7-4 to 8-6	10K to 12K Ω
	7-4 to 8-5	Variable
PARKING LAMPS ON	7-4 to 7-5	Continuity
	7-4 to 8-2	10K to 12K Ω
	7-4 to 8-6	10K to 12K Ω
	7-4 to 8-5	Variable
THUMBWHEEL- DIM POSITION	7-5 to 8-5	900 to 1.2K Ω
	8-2 to 8-5	10K to 12K Ω
	8-6 to 8-5	10K to 12K Ω
THUMBWHEEL- BRIGHT POSITION	7-5 to 8-5	10K to 12K Ω
	8-2 to 8-5	Continuity
	8-6 to 8-5	Continuity
THUMBWHEEL- DOME LAMPS POSITION	7-5 to 8-5	10K to 12K Ω
	8-2 to 8-5	Continuity
	8-6 to 8-5	Continuity
	8-2 to 8-3	Continuity
FRONT FOG LAMPS ON	7-7 to 7-6	Continuity
	7-4 to 7-5	Continuity
	7-4 to 8-2	10K to 12K Ω
	7-4 to 8-6	10K to 12K Ω
	7-4 to 8-5	Variable
	7-1 to 7-2	Continuity
	8-2 to 7-1	Continuity
	8-6 to 7-1	6 to 7
	8-5 to 7-1	Variable



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Fig. 4 Headlamp Switch Test

REMOVAL AND INSTALLATION

ASH RECEIVER/LAMP

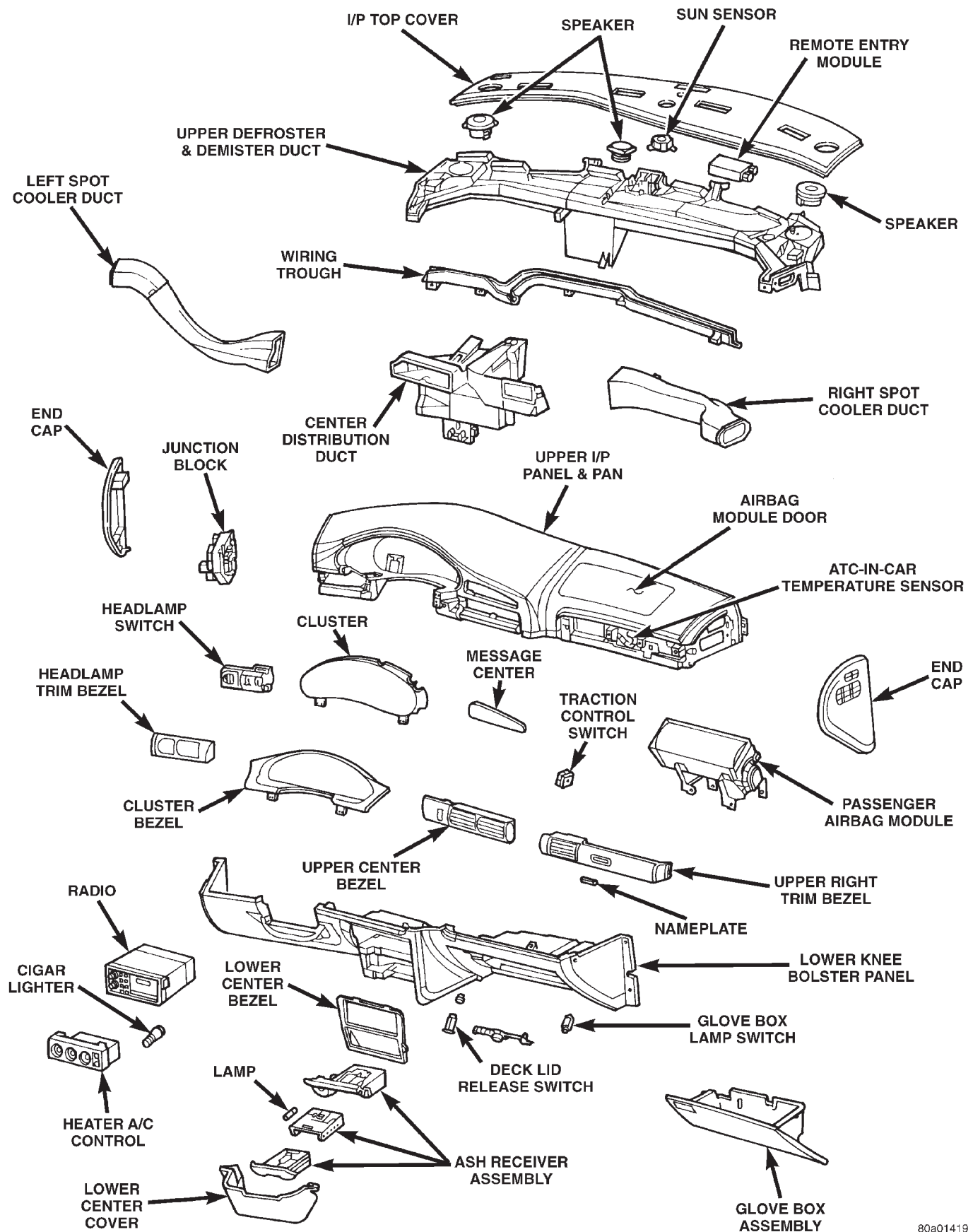
REMOVAL

- (1) Remove the lower slide out ash tray (Fig. 5).
- (2) Remove the two outboard screws from carrier assembly (Fig. 6).
- (3) Remove the carrier and pull rearward to disengage from the forward locator.
- (4) Ash receiver light is accessible by removing the socket from metal light housing.
- (5) Remove the lamp from the socket.

INSTALLATION

For installation, reverse the above procedures.

REMOVAL AND INSTALLATION (Continued)



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Fig. 5 Instrument Panel Components

REMOVAL AND INSTALLATION (Continued)

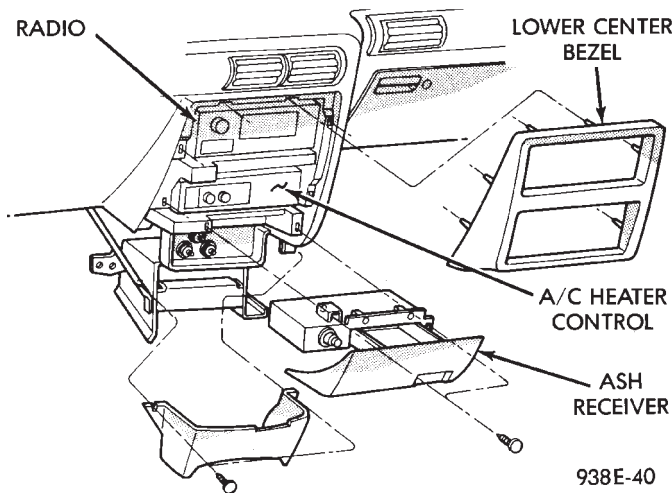


Fig. 6 Lower Center Bezel

ASH RECEIVER/LAMP - LHS

REMOVAL

- (1) Remove the ash tray and the lower center bezel (Fig. 6).
- (2) Remove the two housing mounting screws.
- (3) Remove the housing and lamp.

INSTALLATION

For installation, reverse the above procedures.

ATC-IN-CAR TEMPERATURE SENSOR

REMOVAL

- (1) Remove the right end cover (Fig. 5), and (Fig. 7).
- (2) Remove the right trim bezel.
- (3) Remove the sensor attaching screws.
- (4) Disconnect the wire connector.
- (5) Remove the sensor.

INSTALLATION

For installation, reverse the above procedures

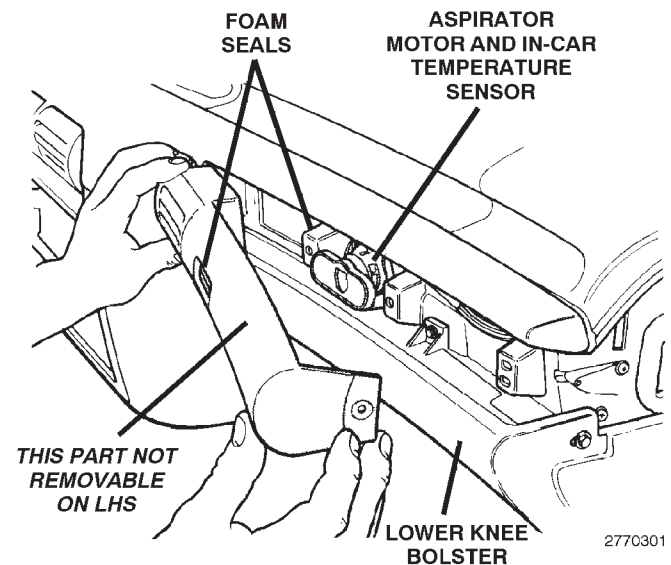


Fig. 7 Air-In-Car Temperature Sensor

ATC-IN-CAR TEMPERATURE SENSOR - LHS

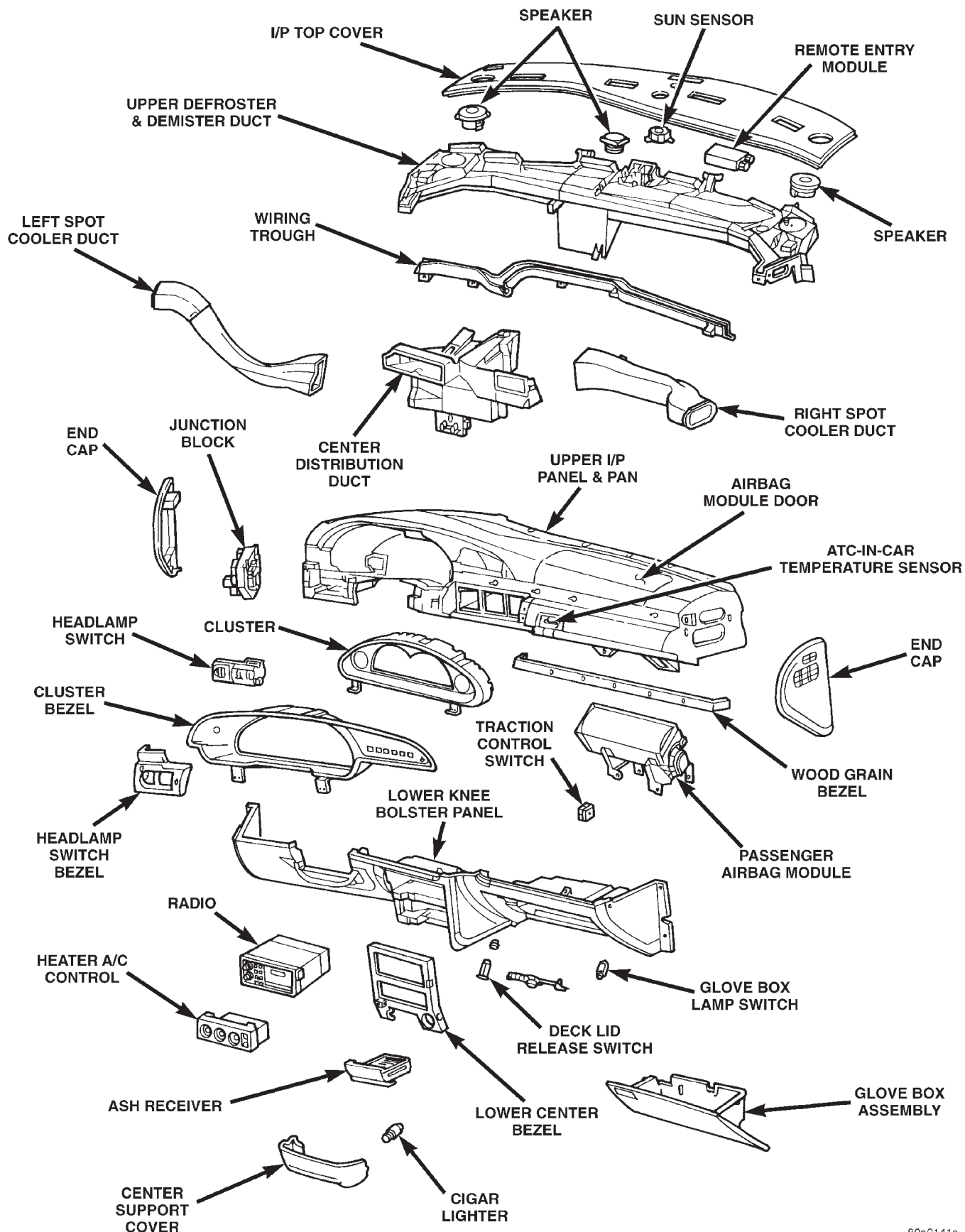
REMOVAL

- (1) Remove the lower instrument panel (Fig. 8).
- (2) Remove the two screws attaching ATC in-car sensor from underneath the upper instrument panel and behind the nameplate.
- (3) Remove the sensor and disconnect the wire connector.

INSTALLATION

For installation, reverse the above procedures.

REMOVAL AND INSTALLATION (Continued)



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Fig. 8 Instrument Panel Components -LHS

REMOVAL AND INSTALLATION (Continued)**ATC-SUN SENSOR****REMOVAL**

(1) Remove the instrument top cover, refer to the above removal and installation procedures (Fig. 5), or (Fig. 8).

(2) Remove the two sun sensor mounting screws.

(3) Disconnect the wire connector and remove the sensor.

INSTALLATION

For installation, reverse the above procedures

BODY CONTROL MODULE (BCM)**REMOVAL**

(1) Remove the right end cover.

(2) Remove the right cowl side trim panel and pull the carpeting back, exposing the dash liner.

(3) Cut dash liner along the perforated lines and pull back dash liner.

(4) Remove the screw through oblong access hole at right end of knee blocker (Fig. 9).

(5) Remove the push-in fastener at the lower leg of the module from underneath the instrument panel and maneuver module down and out. Disconnect the:

- Two wire connectors on the base Body Control Module
 - Three wire connectors on the premium Body Control Module
- (6) Remove Body Control Module from vehicle.

INSTALLATION

For installation, reverse the above procedures.

CENTER UPPER OUTLET BEZEL**REMOVAL**

Pull the center bezel rearward and disengage the two retaining clips and disconnect electrical connector (Fig. 5), or (Fig. 8). It may require a hook tool to pull right end of bezel free.

INSTALLATION

For installation, reverse the above procedures.

CIGAR LIGHTER ASSEMBLY - LHS**REMOVAL**

(1) Remove the ash tray and the lower bezel (Fig. 6).

(2) Remove the two housing mounting screws. Remove the housing and lamp.

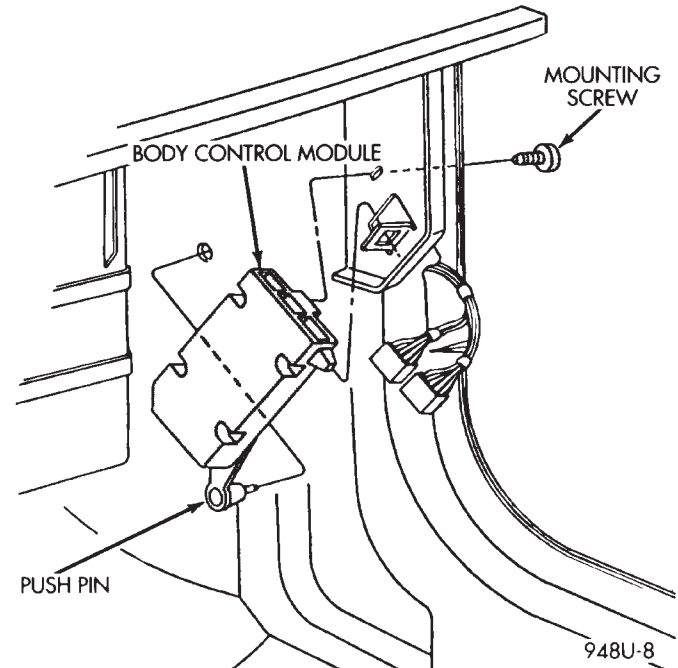


Fig. 9 Body Control Module

(3) Remove the two Heater-A/C control mounting screws. Move to the Heater-A/C control.

(4) Reach through the Heater-A/C control opening to disconnect the two wire from the cigar lighter wiring connectors. The cigar lighter shell can be unscrew from the clamp so that the cigar lighter can be removed.

INSTALLATION

For installation, reverse the above procedures.

CIGAR LIGHTER ASSEMBLY**REMOVAL**

(1) Remove the lower slide out ash tray (Fig. 6).

(2) Remove the two outboard screws from housing assembly.

(3) Remove the housing and pull rearward to disengage from the forward locator.

(4) Ash receiver light is accessible by removing socket from metal light housing and remove lamp from socket.

(5) Disconnect the two cigar lighter wiring connectors from cigar lighter. Unscrew the shell and clamp assembly to replace cigar lighter assembly.

INSTALLATION

For installation, reverse the above procedures. The shell has a locating feature.

REMOVAL AND INSTALLATION (Continued)

CLUSTER AND BEZEL

REMOVAL

To service any instrument cluster component, the instrument cluster must be removed from the instrument panel. Use the following procedure:

- (1) Remove the instrument panel left end cap (Fig. 10).

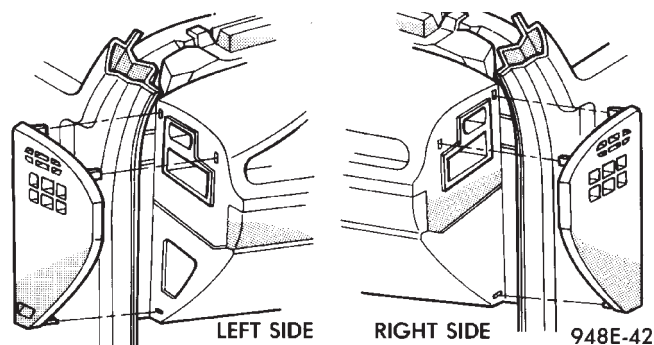


Fig. 10 End Caps

- (2) Remove the instrument panel headlamp bezel.
- (3) Remove the headlamp switch screws and move the switch to allow clearance for the instrument cluster removal.
- (4) Remove the instrument panel upper center bezel (Fig. 11).

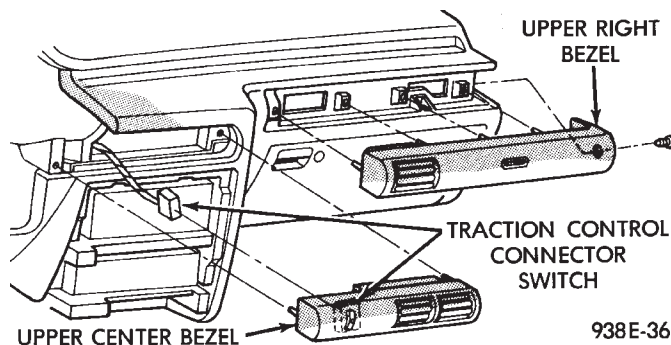


Fig. 11 Center Bezel

- (5) Tilt the steering column down into the lowest position.

- (6) Remove the instrument panel cluster bezel. LHS only, disconnect the message center wire connector. The message center lamps may be serviced at this time (Fig. 12) and (Fig. 13).

- (7) Remove the instrument cluster screws and disengage the upper latch.

CAUTION: Pull steering wheel down to gain access for instrument cluster removal.

- (8) Remove the instrument cluster from panel. The instrument panel wiring harness connectors are mounted directly to the rear panel. A force of approx-

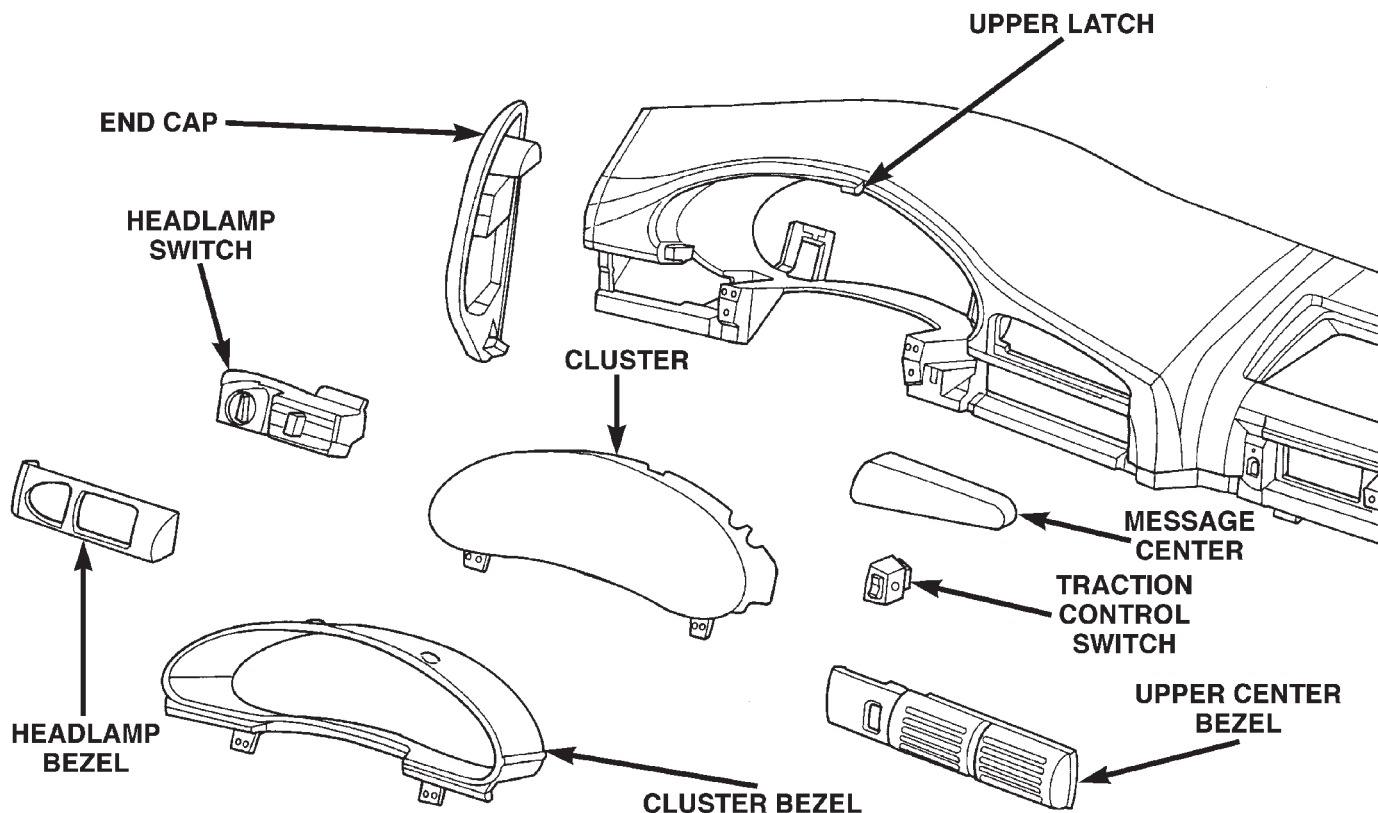


Fig. 12 Cluster Bezel

REMOVAL AND INSTALLATION (Continued)

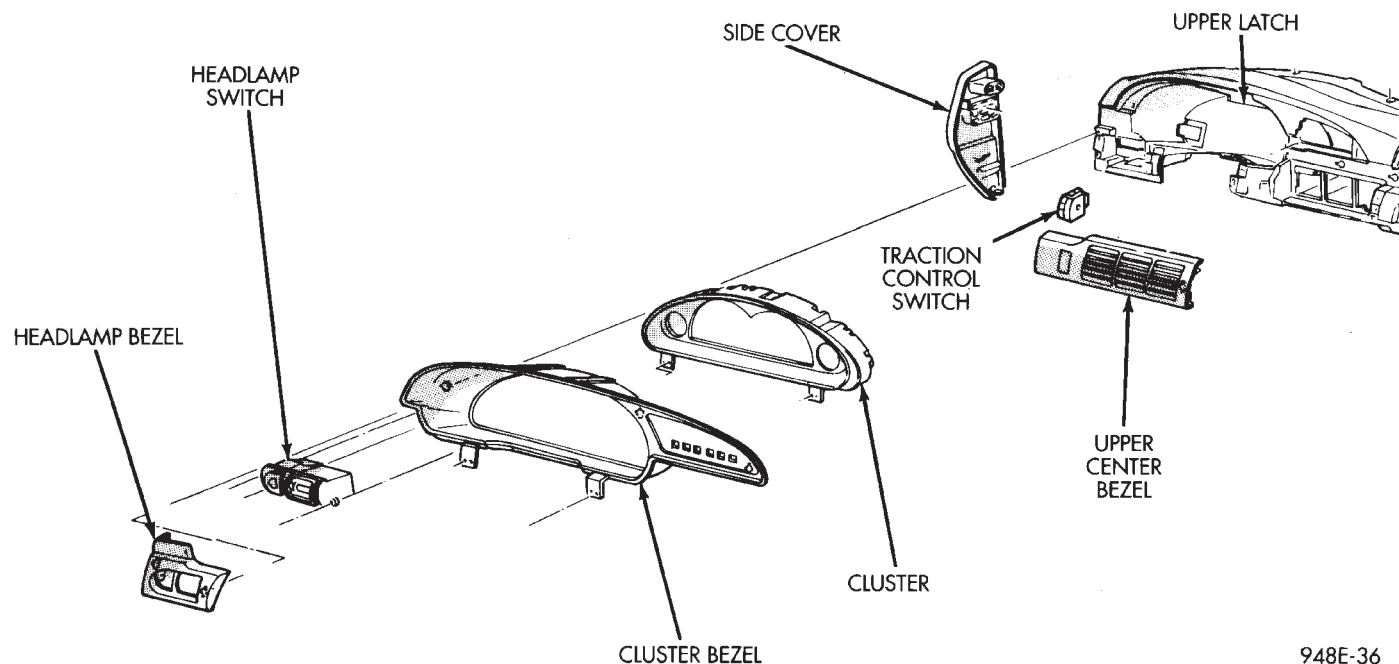


Fig. 13 Cluster Bezel – LHS

imately 9 kilograms (20 lbs.) will be required to dis-engage the cluster from the connectors.

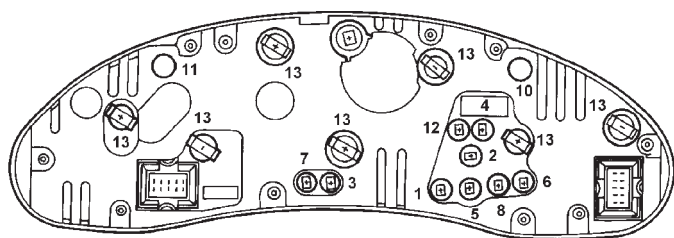
INSTALLATION

For installation, reverse the above procedures.

CLUSTER LAMPS

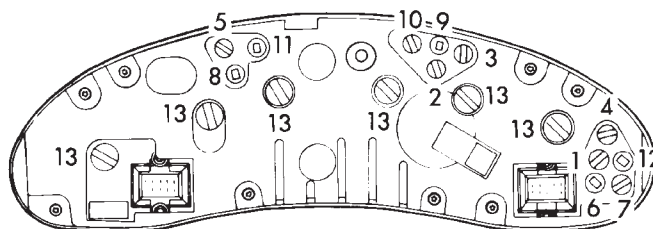
For removal and installation procedures of the instrument cluster and bezel refer to the procedures above.

Refer to (Fig. 14), or (Fig. 15) for appropriate lamp locations.



1	SEAT BELT	8	BRAKE/PARK BRAKE
2	CHECK ENGINE	9	HIGH BEAM
3	CHARGE SYSTEM	10	LEFT TURN
4	OIL PRESSURE	11	RIGHT TURN
5	CRUISE ACTIVE	12	ENGINE TEMP
6	LOW FUEL	13	ILLUMINATION
7	AIR BAG		
TRANSMISSION RANGE INDICATOR — NO LAMPS			

Fig. 14 Cluster Lamp Location – TypeA and C



1	SEAT BELT	8	BRAKE/PARK BRAKE
2	CHECK ENGINE	9	HIGH BEAM
3	CHARGE SYSTEM	10	LEFT TURN
4	OIL PRESSURE	11	RIGHT TURN
5	CRUISE ACTIVE	12	ENGINE TEMP
6	LOW FUEL	13	ILLUMINATION
7	AIR BAG		
TRANSMISSION RANGE INDICATOR — NO LAMPS			

Fig. 15 Cluster Lamp Location – TypeB

CLUSTER MASK/LENS WITH TRANSMISSION RANGE INDICATOR—TYPE B

For removal and installation procedures of the instrument cluster and bezel refer to the detailed procedures above.

REMOVAL

(1) Remove the trip odometer reset knob by gently pulling rearward.

REMOVAL AND INSTALLATION (Continued)

(2) Remove the back cover retaining screws then remove cover (Fig. 16).

(3) Disconnect the transmission range connector from the printed circuit board.

(4) Remove the mask/lens retaining screws then remove mask/lens.

INSTALLATION

For installation, reverse the above procedures. Ensure gauge pins are aligned and engage with the printed circuit board clips as the gauge assembly is installed into the cluster.

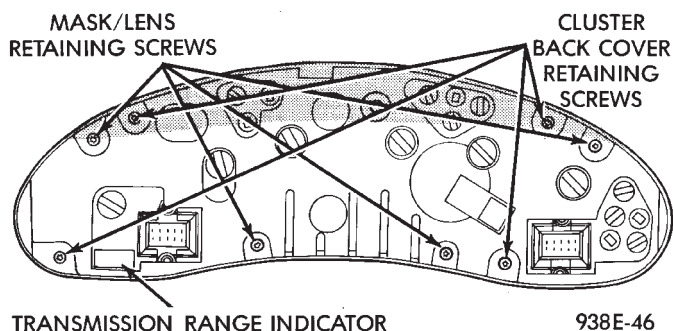


Fig. 16 Retaining Screws

CLUSTER MASK/LENS TYPE A AND C

For removal and installation procedures of the instrument cluster and bezel refer to the procedures above.

REMOVAL

(1) Remove the four mask/lens retaining screws (Fig. 17).

(2) Remove the mask/lens.

INSTALLATION

For installation, reverse the above procedures.

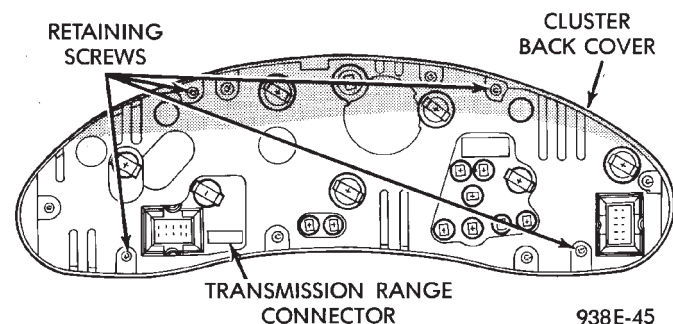


Fig. 17 Retaining Screws

CLUSTER PRINTED CIRCUIT BOARD

For removal and installation procedures of the instrument cluster and bezel refer to the procedures above.

REMOVAL

(1) Remove the cluster back cover retaining screws and remove the cover (Fig. 16), or (Fig. 17).

(2) Disconnect the transmission range indicator and the odometer connectors from the printed circuit board.

(3) Remove the four printed circuit board retaining screws. There are two screws located at the base of each connector (Fig. 18), or (Fig. 19).

INSTALLATION

For installation, reverse the above procedures.

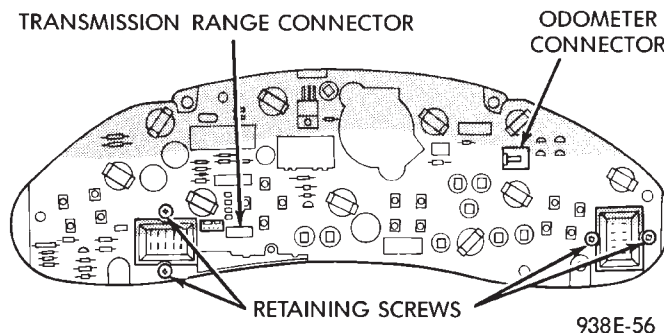


Fig. 18 Printed Circuit Board – TypeA and C

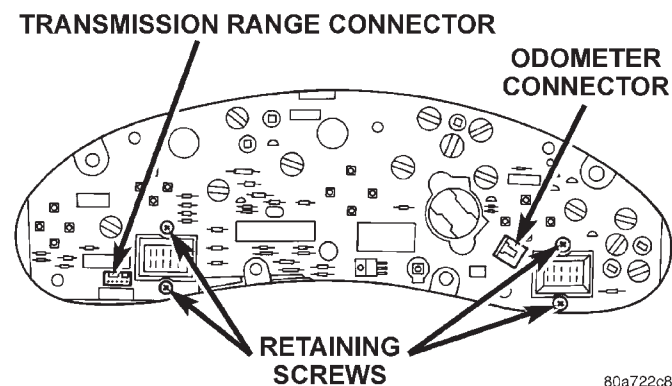


Fig. 19 Printed Circuit Board – TypeB

FUEL GAUGE AND TEMPERATURE GAUGE – TYPE A AND C

For removal and installation procedures of the instrument cluster and bezel refer to the procedures above.

REMOVAL

(1) Disconnect the transmission range indicator and odometer connectors from the printed circuit board.

(2) Remove the mask/lens retaining screws and then remove the mask/lens.

(3) Remove the screws attaching speedometer/tachometer assembly and remove the assembly.

(4) Remove the gauge from the cluster.

REMOVAL AND INSTALLATION (Continued)**INSTALLATION**

For installation, reverse the above procedures.

GLOVE BOX DOOR/HANDLE**REMOVAL**

- (1) Remove the three screws at bottom of glove box door.
- (2) Open the glove box door and press sidewalls inboard to remove the door from panel (Fig. 5), or (Fig. 8).
- (3) Place the glove box on a cloth to protect the paint.
- (4) Remove the nine screws from backside of the door. The LHS has eight screws.
- (5) Separate the inner and outer door.
- (6) Remove the handle and latch.

INSTALLATION

For installation, reverse the above procedures.

GLOVE BOX LAMP/SWITCH ASSEMBLY**REMOVAL**

- (1) Open the glove box door, and pull out the glove box lamp/switch assembly from upper right hand corner of opening (Fig. 5), or (Fig. 8).
- (2) Replace the lamp if necessary.
- (3) To replace the lamp/switch assembly, disconnect the wire connector.
- (4) Remove the lamp/switch assembly.

INSTALLATION

For installation, reverse the above procedures.

HAZARD FLASHER RELAY**REMOVAL**

- (1) Located on the left side, between the Junction Block and the brake pedal (Fig. 20).
- (2) Slide the hazard-flasher relay rearward to remove from the electrical bracket.

INSTALLATION

For installation, reverse the above procedures.

HEADLAMP SWITCH BEZEL**REMOVAL**

- (1) Open the front door and remove the left end cover (Fig. 5), (Fig. 8), or (Fig. 10).

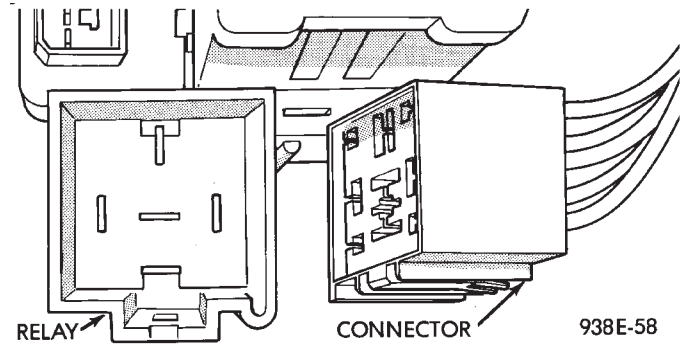


Fig. 20 Hazard Flasher Relay

- (2) Remove the screw from left end of instrument panel and the pull bezel rearward to disengage clip(s).
- (3) Remove the switch bezel.

INSTALLATION

For installation, reverse the above procedures.

HEADLAMP SWITCH**REMOVAL**

- (1) Remove the end cover and the headlamp switch bezel (Fig. 5), or (Fig. 8).
- (2) Remove the three screws on headlamp switch and pull it out to disconnect two wiring connectors and remove the switch.

INSTALLATION

For installation, reverse the above procedures. Twist out lamp sockets are serviceable at this time. Ensure that the switch is seated against the pad.

HEATER-A/C ATC CONTROL**REMOVAL**

- (1) Remove the ash receiver assembly, if necessary.
- (2) Remove the lower center bezel and remove the mounting screws from sides of control (Fig. 6).
- (3) Remove the control and disconnect the two electrical connectors.

INSTALLATION

For installation, reverse the above procedures.

REMOVAL AND INSTALLATION (Continued)

HEATER-A/C FAN RELAY**REMOVAL**

(1) Remove the lower center bezel and remove the two mounting screws from sides of control (Fig. 6).

(2) Remove the control and disconnect the two electrical connectors.

(3) Disconnect the relay from the rear of control (Fig. 21).

INSTALLATION

For installation, reverse the above procedures.

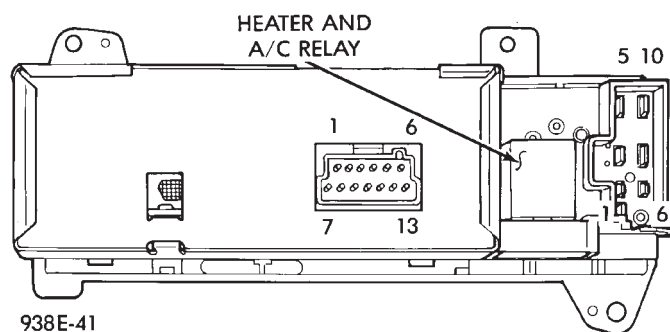


Fig. 21 Heater-A/C Fan Relay

INSTRUMENT PANEL END COVERS – LEFT AND RIGHT**REMOVAL**

(1) Open the left door and pull on the access handle and outlet to disengage the end cover clips. fuse puller, spare fuses and fuse diagram are located on the left end cover. Fuse Access is under the left end cover (Fig. 5), (Fig. 8), or (Fig. 10).

(2) Open the right door and remove the right end cover by pulling from outlet vanes to disengage clips.

INSTALLATION

For installation, reverse the above procedures. Ensure spare fuses are properly seated on the left end cover.

INSTRUMENT PANEL LOWER CENTER COVER**REMOVAL**

(1) Remove the screw, on each side of center cover (Fig. 5), or (Fig. 8).

(2) Remove the center cover.

INSTALLATION

For installation, reverse the above procedures

INSTRUMENT PANEL SPEAKERS

Refer to Group 8F, Audio System for the proper speaker removal and installation procedures.

INSTRUMENT PANEL TOP COVER**REMOVAL**

(1) Using a trim stick, pry-up each end of the top cover disengaging clips (Fig. 5), (Fig. 8), or (Fig. 22).

(2) Lift rear edge of the top cover using straight edge along rear edge.

(3) Lift rear edge and slide top cover rearward to disengaging clips for removal of the cover.

INSTALLATION

For installation, reverse the above procedures. Ensure the two center clips are engaged first. Place thumb in VIN opening and pull towards pad to ensure VIN alignment.

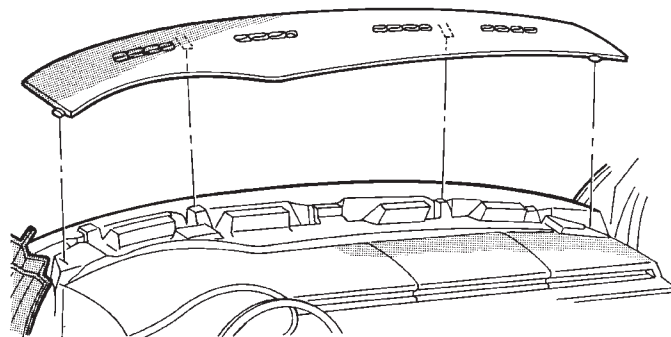


Fig. 22 Top Cover

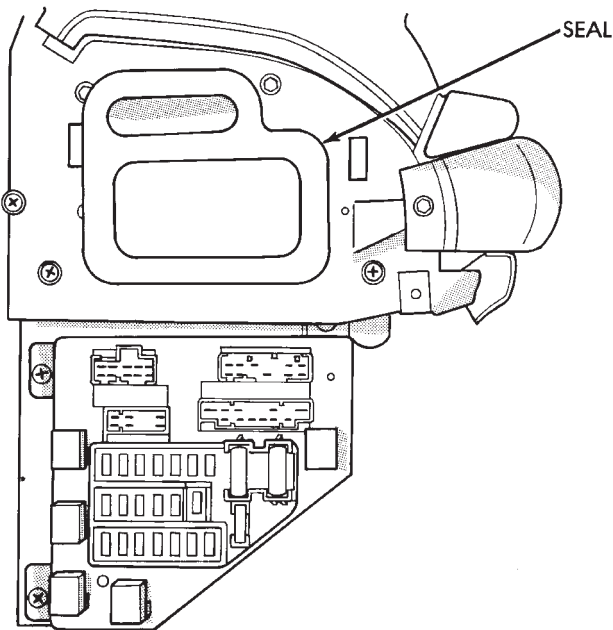
REMOVAL AND INSTALLATION (Continued)

JUNCTION BLOCK**REMOVAL**

- (1) Remove the lower instrument panel assembly.
- (2) Remove the six electrical connectors on inboard side and the four electrical connectors on outboard side of the Junction Block (Fig. 23).
- (3) Remove the three mounting screws and remove the Junction Block.

INSTALLATION

For installation, reverse the above procedures.



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Fig. 23 Junction Block**LEFT UNDER INSTRUMENT PANEL SILENCER/ DUCT****REMOVAL**

- (1) Remove the push-in fastener under left end of the instrument panel (Fig. 5), or (Fig. 8).
- (2) Maneuver part off of the brake bracket stud and center floor distribution duct.
- (3) Remove the silencer/duct.

INSTALLATION

For installation, reverse the above procedures.

LOWER CENTER BEZEL**REMOVAL**

Pull the bezel straight rearward along the sides of the radio and A/C control openings to disengage six clips (Fig. 6).

INSTALLATION

For installation, reverse the above procedures.

LOWER INSTRUMENT PANEL

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

When removing a Passenger Airbag Module refer to Group 8M Restraint System, for Passenger Airbag Module Removal procedures.

REMOVAL

- (1) Disconnect and isolate the battery negative cable.
- (2) Open both vehicle doors and remove both instrument panel end covers (Fig. 5), or (Fig. 8).
- (3) Remove the floor console shifter bezel and cowl side trim panels if equipped. If not, remove the instrument panel lower center cover and ash receiver assembly.
- (4) Remove the screw at radio ground strap at left side of the center support bracket. Proper Routing Of Radio Ground Strap Is Essential For Radio Service.
- (5) Open the glove box door, flex sides of the glove box inboard to the swing glove box door down to floor. Remove the four screws at top of the glove box opening. The LHS has six screws.
- (6) Remove the two nuts from center support bracket at the ash receiver area.
- (7) Remove the two screws from center outlet bezel opening and the two screws from right bezel opening. The LHS has only one screw from outlet bezel opening.
- (8) Remove the screw from each end cover area of instrument panel. The LHS has no screws.
- (9) Remove the screws at each end of the instrument panel at the cowl sides, then detach the lower instrument panel from upper instrument panel, with column in tilt-up position.
- (10) Disconnect the following electrical connectors:
 - Trunk Release Switch
 - Glove box Light Switch
 - Radio/Antenna Connectors
 - Heater - A/C Connectors
 - Ash Receiver Light
- (11) Remove the lower instrument panel assembly.
- (12) Remove the left silencer/duct under instrument panel.

INSTALLATION

For installation, reverse the above procedures.

REMOVAL AND INSTALLATION (Continued)

(1) When installing the lower instrument panel to the upper instrument panel install the center two screws first and work from center out. Tighten screws to 3 N·m (25 in. lbs.) torque.

(2) Open the glove box to gain access to the screws attaching lower instrument panel to module bracket. Tighten screws to 3 N·m (25 in. lbs.) torque.

(3) DO NOT CONNECT the battery negative cable. Refer to Group 8M Restraint System, Airbag System Diagnosis and Test.

MESSAGE CENTER - LHS

For removal and installation procedures of the instrument cluster and bezel refer to the detailed procedures above.

REMOVAL

(1) Open the front door and remove the left end cover.

(2) Remove the headlamp switch bezel and center upper outlet bezel (Fig. 24).

(3) Remove the wood grain trim bezel in center of the instrument panel and move bezel out of the way.

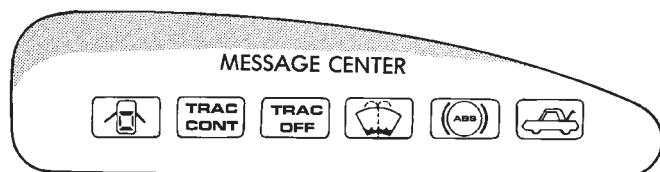
(4) Remove the cluster bezel screws.

(5) Pull the cluster bezel straight rearward to disengage the bezel attaching clips.

(6) Disconnect the wire connector from message center. The Message Center lamps may be service at this time.

INSTALLATION

For installation, reverse the above procedures.



938E-54

*Fig. 24 Message Center Module***MESSAGE CENTER****REMOVAL**

(1) Using a trim stick, remove the message module from instrument panel (Fig. 25).

(2) Disconnect the wire connector.

(3) Replace the lamps as needed.

INSTALLATION

For installation, reverse the above procedures.

ODOMETER -TYPE A AND C

For removal and installation procedures of the instrument cluster and bezel refer to the detailed procedures above.

MESSAGE CENTER

938E-53

*Fig. 25 Message Center Module***REMOVAL**

(1) Remove the cluster back cover retaining screws and the remove cover (Fig. 17).

(2) Disconnect the transmission range indicator and odometer connectors from the printed circuit board.

(3) Remove the mask/lens retaining screws then remove the mask/lens.

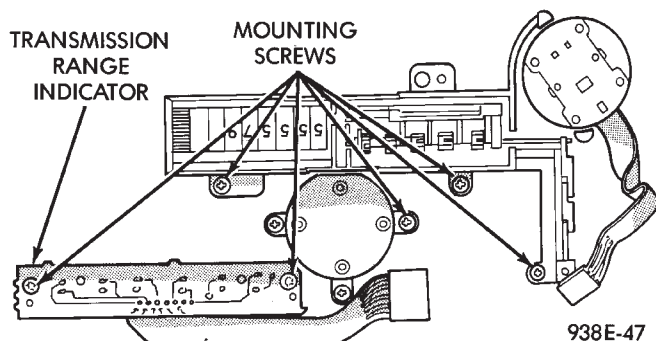
(4) Remove the trip odometer reset knob by gently pulling rearward.

(5) Remove the screws attaching speedometer/tachometer assembly to the housing and remove assembly.

(6) Remove the four odometer retaining screws from the speedometer and then remove the odometer (Fig. 26).

INSTALLATION

For installation, reverse the above procedures. Install the odometer before starting installation.



938E-47

*Fig. 26 Odometer***ODOMETER - TYPE B****REMOVAL**

(1) Remove the trip odometer reset knob by gently pulling rearward.

(2) Remove the cluster back cover retaining screws and remove the cover (Fig. 16).

(3) Disconnect the transmission range indicator and the odometer connectors from the printed circuit board.

(4) Remove the mask/lens retaining screws then remove the mask/lens.

(5) Remove the tachometer and the fuel/temperature gauge from the cluster.

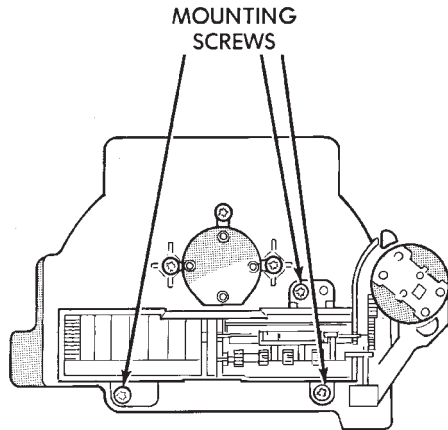
(6) Remove the speedometer from the cluster.

(7) Remove the odometer from the speedometer (Fig. 27).

REMOVAL AND INSTALLATION (Continued)

INSTALLATION

For installation, reverse the above procedures. Install the odometer before starting installation.



938E-48

Fig. 27 Odometer Type - B

RADIO

Refer to Group 8F, Audio System for the proper radio removal and installation procedures.

REMOTE KEYLESS ENTRY MODULE

Refer to Group 8P, Power Lock for the proper Remote Keyless Entry Module removal and installation procedures.

RIGHT UNDER INSTRUMENT PANEL SILENCER/ DUCT

REMOVAL

- (1) Remove the two push-in fasteners at the center and left end of silencer/duct (Fig. 5), or (Fig. 8).
- (2) Maneuver part off of the center floor distribution duct to remove.

INSTALLATION

For installation, reverse the above procedures. Install prior to knee blocker.

RIGHT UPPER TRIM BEZEL

REMOVAL

- (1) Open the front door and remove right end cover (Fig. 5).
- (2) Remove the screw at end of the instrument panel.
- (3) Pull rearward to disengage the four retaining clips. May need a hook tool to pry-out inboard end of bezel. The hook tool is made from a stiff wire with a hook on the one end to be used as a removal tool (Fig. 28).

INSTALLATION

For installation, reverse the above procedures.



948E-43

Fig. 28 Hook Tool

SPEEDOMETER/TACHOMETER AND TRANSMISSION RANGE INDICATOR - TYPE A AND C

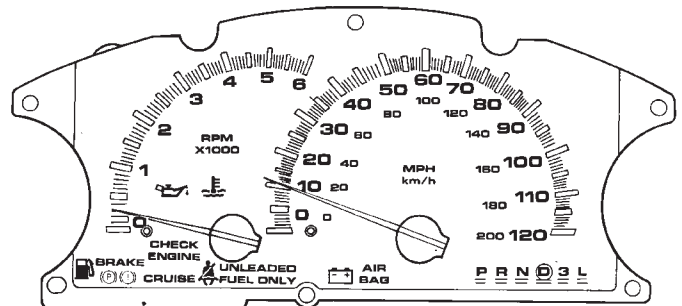
For removal and installation procedures of the instrument cluster and bezel refer to the detailed procedures above.

REMOVAL

- (1) Remove the cluster back cover retaining screws and remove cover (Fig. 17).
- (2) Disconnect the transmission range indicator and the odometer connectors from the printed circuit board.
- (3) Remove the mask/lens retaining screws then remove the mask/lens.
- (4) Remove the trip odometer reset knob by gently pulling rearward.
- (5) Remove the speedometer/tachometer assembly from cluster. The speedometer/tachometer assembly and the transmission range indicator is service as one component (Fig. 29).
- (6) Remove the odometer assembly from the speedometer/tachometer assembly.

INSTALLATION

For installation, reverse the above procedures. Attach the odometer assembly to the new speedometer/tachometer assembly before installing components.



TRANSMISSION RANGE INDICATOR

938E-50

Fig. 29 Speedometer/Tachometer

REMOVAL AND INSTALLATION (Continued)

SPEEDOMETER - TYPE B

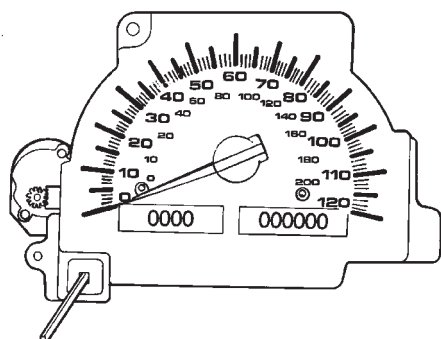
For removal and installation procedures of the instrument cluster and bezel refer to the detailed procedures above.

REMOVAL

- (1) Remove the trip odometer reset knob by gently pulling rearward.
- (2) Remove the cluster back cover retaining screws and remove the cover (Fig. 16).
- (3) Disconnect the transmission range indicator and odometer connectors from the printed circuit board.
- (4) Remove the mask/lens retaining screws then remove the mask/lens.
- (5) Remove the tachometer and the fuel/temperature gauge from the cluster.
- (6) Remove the speedometer from the cluster (Fig. 30).
- (7) Remove the odometer assembly from the speedometer/tachometer assembly.

INSTALLATION

For installation, reverse the above procedures. Attach the odometer assembly to the speedometer/tachometer assembly before installing components.



938E-49

Fig. 30 Speedometer - Type B**STOP LAMP/SPEED CONTROL CUTOUT SWITCH****REMOVAL**

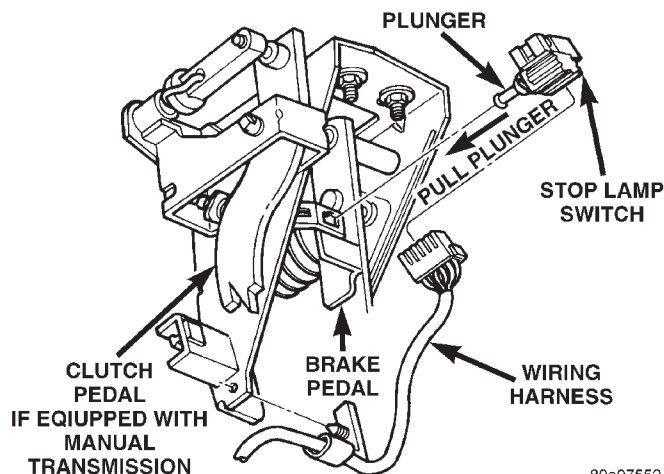
- (1) Remove the left under instrument panel silencer/duct.
- (2) Twist and pull the switch assembly rearward from the brake bracket. After switch is free disconnect the wire connector and remove switch (Fig. 31).

INSTALLATION

For installation, reverse the above procedures.

TACHOMETER AND FUEL/TEMPERATURE GAUGE ASSEMBLY - TYPE B

For removal and installation procedures of the instrument cluster and bezel refer to the detailed procedures above.



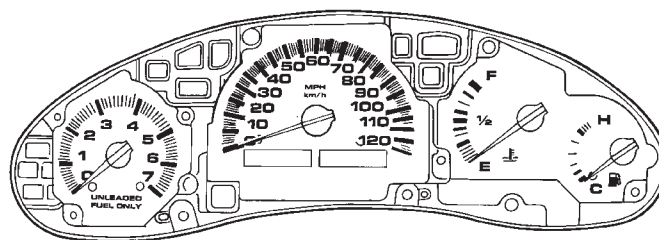
80a07552

Fig. 31 Stop Lamp/Speed Control Cutout Switch**REMOVAL**

- (1) Remove the trip odometer reset knob by gently pulling rearward.
- (2) Remove the cluster back cover retaining screws and remove the cover (Fig. 16).
- (3) Disconnect the transmission range indicator and the odometer connectors from the printed circuit board.
- (4) Remove the mask/lens retaining screws then remove the mask/lens.
- (5) Remove the tachometer and/or the fuel/temperature gauge from the cluster (Fig. 32).

INSTALLATION

- (1) For installation, reverse the above procedures.



938E-55

Fig. 32 Gauge Removal**TRACTION CONTROL SWITCH****REMOVAL**

- (1) Remove the upper center outlet bezel (Fig. 5), or (Fig. 8).
- (2) Press the tabs at top and bottom of the switch and remove the switch from the bezel.
- (3) Press the retaining tab up and remove from the wiring harness.

INSTALLATION

For installation, reverse the above procedures. Check the switch for proper operation.

REMOVAL AND INSTALLATION (Continued)

TRUNK RELEASE SWITCH

REMOVE

(1) Open the glove box door and pry the switch out of the opening (Fig. 5), or (Fig. 8).

(2) Disconnect the electrical connector and remove the switch.

INSTALLATION

For installation, reverse the above procedures.

UPPER INSTRUMENT PANEL

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

When removing a Passenger Airbag Module refer to Group 8M Restraint System, Passenger Airbag Module Removal and Installation procedures.

(1) Disconnect and isolate the battery negative cable.

(2) Open both vehicle doors and remove both instrument panel end covers (Fig. 5), or (Fig. 8).

(3) Remove the floor console and the cowl side trim panels if equipped. If not equipped, remove the instrument panel lower center cover and the ash receiver assembly.

(4) Remove the radio ground strap screw at the side of the center support bracket. Proper routing of radio ground strap is essential for the radio performance.

(5) Open the glove box door to gain access to the four screws attaching the lower instrument panel to the module bracket and remove the screws. The LHS has six screws.

(6) Remove the two screws from the center outlet bezel opening and the two screws from right bezel opening. The LHS has only one screw from the outlet bezel opening.

(7) Remove the screw from each end cover area of instrument panel. The LHS has no screws.

(8) Remove the two screws at each end of the instrument panel at cowl sides, then detach the lower instrument panel from the upper instrument panel, with the column in tilt-up position.

(9) Disconnect the following electrical connectors:

- Trunk Release Switch
- Glove box Light Switch
- Radio/Antenna Connectors

- Heater-A/C Connectors

- Ash Receiver Light

(10) Remove the lower instrument panel assembly.

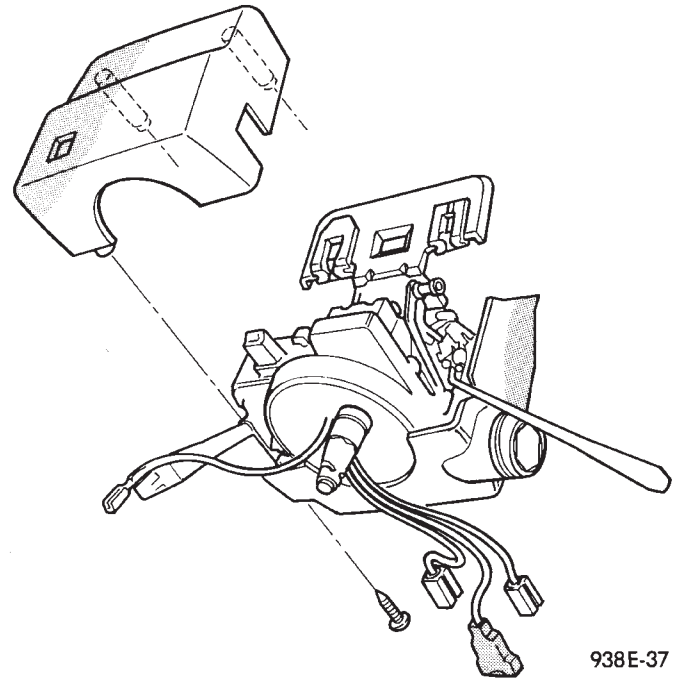
(11) Remove the left silencer/duct under instrument panel.

(12) Remove the instrument panel top cover, right and left A- pillar trim panels (Fig. 22).

(13) Remove Body Control Module at the right end of instrument panel.

(14) Remove the left outlet duct.

(15) Remove the steering column shrouds and disconnect the six electrical connectors. Slide the wiring trough retainer off of the trough and stow the wiring away from steering column (Fig. 33).



938E-37

Fig. 33 Column Shroud

(16) Loosen the two lower screws and remove the two upper nuts on steering column assembly and lay the column on floor.

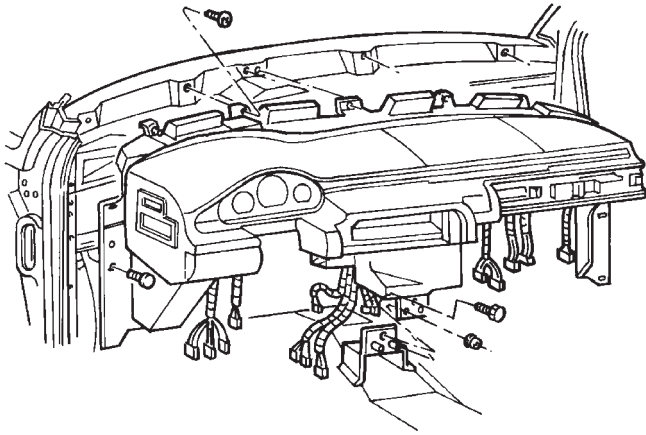
(17) Disconnect the following electrical connectors:

- Power antenna and cable at right cowl side
- Body wiring at right end of A/C unit
- Three ATC unit connectors at center of unit
- Ground wire at left of center support
- Data link connector at left brace
- Two airbag diagnostic module connectors
- Three in-line bracket connector including the 40-way jack screw and remove the hazard relay.
- Four outboard connectors to Junction Block.
- Headliner connector at the top of panel.

(18) Remove the two panel attaching bolts at each cowl side and one bolt from center support bracket. Remove the five panel attaching bolts along top of panel (Fig. 34).

REMOVAL AND INSTALLATION (Continued)

(19) Then remove the upper instrument panel rearward off of the lower attaching studs.



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Fig. 34 Upper Instrument Panel

INSTALLATION

(1) Install the NEW center distribution duct to the NEW instrument panel and pad assembly.

(2) Install all of the instrument panel components which are not damaged to panel. Tighten screws to 2 N·m (20 in. lbs.) torque.

(3) Install the passenger airbag module to the instrument panel and pad assembly. Tighten screws to 4 N·m (35 in. lbs.) torque.

(4) For installation of the upper and lower instrument panels, reverse the above procedures.

(a) When installing the lower instrument panel to the upper instrument panel install the center two screws first and work from the center out. Tighten screws to 3 N·m (25 in. lbs.) torque.

(b) Open the glove box to gain access to the screws attaching the lower instrument panel to the module bracket. Tighten screws to 3 N·m (25 in. lbs.) torque.

(c) **DO NOT CONNECT** the battery negative cable. Refer to Group 8M, Airbag System Diagnosis and Test.

WOOD GRAIN TRIM BEZEL - LHS**REMOVAL**

(1) Open the right front door and remove the right end cover and center upper outlet bezel (Fig. 8).

(2) Remove the screw at the right end of the instrument panel and the screw at the center outlet opening.

(3) Remove the wood grain bezel by pulling straight rearward disengaging the three clips.

INSTALLATION

For installation, reverse the above procedures.