

OVERHEAD CONSOLE

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GENERAL INFORMATION

INTRODUCTION

- There are three types for overhead consoles.
- (1) Full console has (Fig. 1):
- Overhead Travel Information System (OTIS).
 - Two map/courtesy lamps.
 - Two storage compartments one for garage door opener and the other for eye glasses.

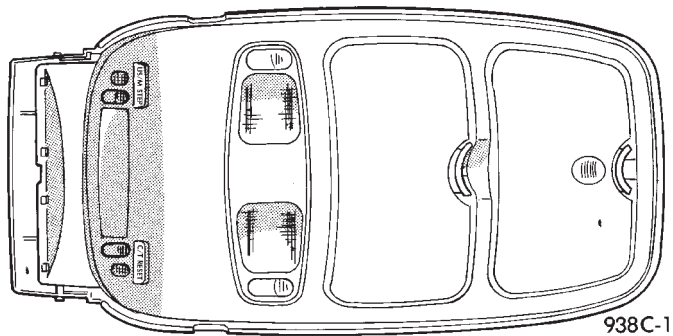


Fig. 1 Full Console

- (2) Mini console has (Fig. 2):
- Overhead Travel Information System (OTIS)
 - Two map/courtesy lamps
- (3) Base unit has two map/courtesy lamps (Fig. 3).

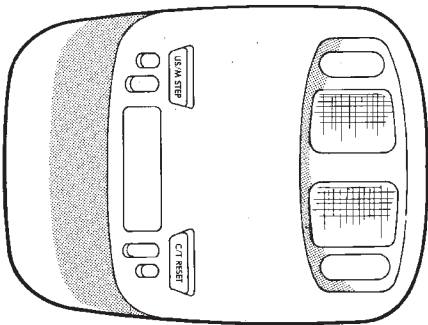


Fig. 2 Mini Console

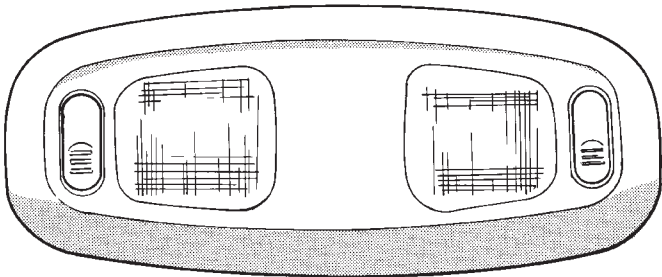


Fig. 3 Base Unit

DESCRIPTION AND OPERATION

MAP READING LAMPS

The map lamps are actuated by pressing on the switch to turn ON and a second time for OFF. The lamps also serve as courtesy lamps whenever:

- A door is opened
- The illuminated entry system is activated
- The headlamp dimmer switch is rotated up to the courtesy lamp detent.

OVERHEAD TRAVEL INFORMATION SYSTEM (OTIS)

Overhead Travel Information System (OTIS) is a module with six informational displays and four buttons. When the vehicle is first turned ON:

- OTIS blanks the display for a half second
- Illuminates all segments of the vacuum fluorescent display (VFD) for one second
- Blanks the display again for half second
- OTIS then displays whatever display was being viewed when the ignition was turned OFF

THERE ARE 6 DISPLAYS:

- Compass/Temperature
- Average fuel economy
- Distance to empty
- Instantaneous fuel economy
- Trip odometer
- Elapsed time

THERE ARE 4 BUTTONS

The buttons operate when the ignition is in the ON position (Fig. 4).

- STEP
- C/T
- US/M
- RESET

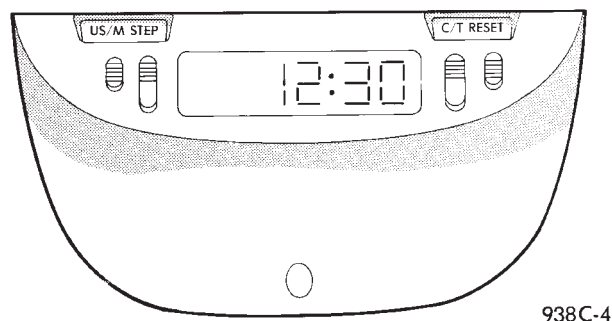


Fig. 4 OTIS

STEP BUTTON

Pressing the STEP button selects one of the following 5 displays:

- Average fuel economy
- Distance to empty

- Instantaneous fuel economy
- Trip odometer
- Elapsed time

C/T (COMPASS/TEMPERATURE) BUTTON

Pressing the C/T button selects the Compass/Temperature display.

US/M (ENGLISH/METRIC MEASUREMENT) BUTTON

Pressing the US/M button switches the display units between English and Metric readings.

RESET BUTTON

Pressing the RESET button resets the function on the display, provided that function can be reset. The functions which can be reset are Average fuel economy, Trip odometer and Elapsed time.

The RESET button is also used to set the variance and/or calibrate the compass. Refer to the Variance Procedure and Calibration Procedure.

DIAGNOSIS AND TESTING

DISPLAY DIAGNOSTICS

OTIS receives Chrysler Collision Detection (CCD bus) messages from the Body Control Module (BCM) for all displayed information except the compass display. If a dash (-) is displayed, OTIS is not receiving a CCD message from the BCM. To check out the CCD lines and the BCM use the scan tool (DRB) and Body Diagnostic Procedure manual.

TEMPERATURE

The OTIS displays the temperature range of -56°C (-70°F) to 85°C (85°F)

AVERAGE FUEL ECONOMY

OTIS receives average fuel economy information from the BCM over the CCD lines. If OTIS displays -- instead of an average fuel economy value, it is not receiving a CCD message for the average fuel economy from the BCM. To check out the CCD lines and the BCM use the scan tool.

DISTANCE TO EMPTY

OTIS receives distance to empty information from the BCM over the CCD lines. If OTIS displays a dash (-) instead of a distance to empty value, it is not receiving a CCD message for the distance to empty from the BCM. To check out the CCD lines and the BCM use the scan tool.

INSTANTANEOUS FUEL ECONOMY

OTIS receives instantaneous fuel economy information from the BCM over the CCD lines. If OTIS displays a dash (-) instead of an instantaneous fuel

DIAGNOSIS AND TESTING (Continued)

economy value, it is not receiving a CCD message for the instantaneous fuel economy from the BCM. To check out the CCD lines and the BCM use the scan tool.

TRIP ODOMETER

OTIS receives trip odometer information from the BCM over the CCD lines. If OTIS displays dashes -- instead of the trip odometer value, it is not receiving a CCD message for the trip odometer from the BCM. To check out the CCD lines and the BCM use the scan tool.

ELAPSED TIME

OTIS receives a bus message containing elapsed time information. If OTIS displays dashes --- instead of the elapsed time, it is not receiving a CCD message for the elapsed time from the BCM. To check out the CCD lines and the BCM use the scan tool.

COMPASS DISPLAY

To display the vehicle direction, OTIS processes information from a sensor internal to the module. OTIS is self-calibrating and requires only variation adjustments dependent upon location. OTIS displays the label CAL whenever the compass is in the fast calibration mode.

If all three of the following conditions listed below occur, the vehicle must be demagnetized.

- Compass portion of the display is blank
- Temperature portion of the display is OK
- The label CAL is illuminated

If demagnetizing the vehicle is needed refer to the demagnetizing procedure. After demagnetizing, to calibrate the compass refer to Calibration Procedure and to set the variance refer to Variance Procedure. If the compass portion of the display is still blank, replace OTIS.

SELF-DIAGNOSTIC TEST

(1) With the ignition switch in the OFF position simultaneously press the C/T and STEP buttons and hold.

(2) Turn ignition switch ON, then release C/T and STEP buttons.

(3) OTIS lights all segments on the VFD for 2-4 seconds. Check for segments that are not illuminated.

(4) If OTIS displays PASS, the module is OK.

(5) If OTIS displays FAIL, replace the module.

(6) If OTIS displays CCD, check for an open or a short in the bus communication wires.

(7) Press the C/T or the STEP button to exit self-test.

SERVICE PROCEDURES

COMPASS CALIBRATION PROCEDURE

Do not attempt to set the compass calibration near large metal objects such as other vehicles, large buildings or bridges. Remove all magnetic devices from roof panel. This compass is equipped with an auto-calibration feature which eliminates the need to manually set compass calibration. For a short time when the vehicle is new, the compass may appear erratic and the CAL symbol will be lit. After completing 3 complete 360 degree turns, in an area free of metal objects and on level ground, the CAL symbol will turn off and the compass will perform normally.

If at any time the compass should become inaccurate it can be put in auto-calibration mode by using the following procedure.

(1) Turn key to the ON position.

(2) Press C/T button to select the Compass/Temperature display.

(3) Press and hold RESET button, for about 5 seconds the VAR symbol will light. While continuing to hold the RESET button, for about 10 seconds the CAL symbol will light.

(4) Drive the vehicle through 3 complete 360 degree turns, in an area free of metal objects and in no less than 48 seconds, the compass will be calibrated.

(5) The OTIS will extinguish the CAL label.

(6) Reset compass variance. The calibration procedure automatically sets the variance to 8. If you are in an area with a variance number other than 8 you must reset the variance.

DEMAGNETIZING PROCEDURE

Do not attach magnetic devices, such as magnetic CB antennas to the vehicle roof, as they can cause the compass to give false readings.

Every vehicle has its own magnetic field. This magnetic field is created by the various processes a steel roof goes through when the vehicle is built. A magnetic field can also be created if the roof is subjected to a magnet, example magnetic CB antenna, magnetic tipped screwdriver, etc. If the roof becomes magnetized use a demagnetizing Tool 6029 to demagnetize the roof.

In this demagnetizing procedure you will use the demagnetizing tool to demagnetize the roof. It is important that you follow the instructions below exactly.

(1) Be sure the ignition switch is in the OFF position before you begin the demagnetizing procedure.

(2) Place an 8 1/2 in. X 11 in. piece of paper lengthwise on the roof of vehicle directly above compass. The purpose of the paper is to protect the roof

SERVICE PROCEDURES (Continued)

panel from scratches and define the area to be demagnetized.

(3) Plug in the demagnetizing tool, keeping it at least two feet away from the OTIS.

(4) Slowly approach the center of the roof panel at the windshield with the demagnetizing tool plugged in.

- Contact the roof panel with the tip of the tool.
- Using slow sweeping motions of 1/2 inch between sweeps
- Move the tool about four inches either side of the centerline, and at least 11 inches back from the windshield.

(5) With the demagnetizing tool still energized, slowly back away from the roof panel until the tip is at least two feet from the roof before unplugging the tool.

(6) Recalibrate compass and set variance.

VARIANCE SETTING PROCEDURE

Variance is the difference between magnetic North and geographic North. In some areas the difference between magnetic and geographic north is great enough to cause the compass to give false readings. If this occurs, the variance must be set (Fig. 5).

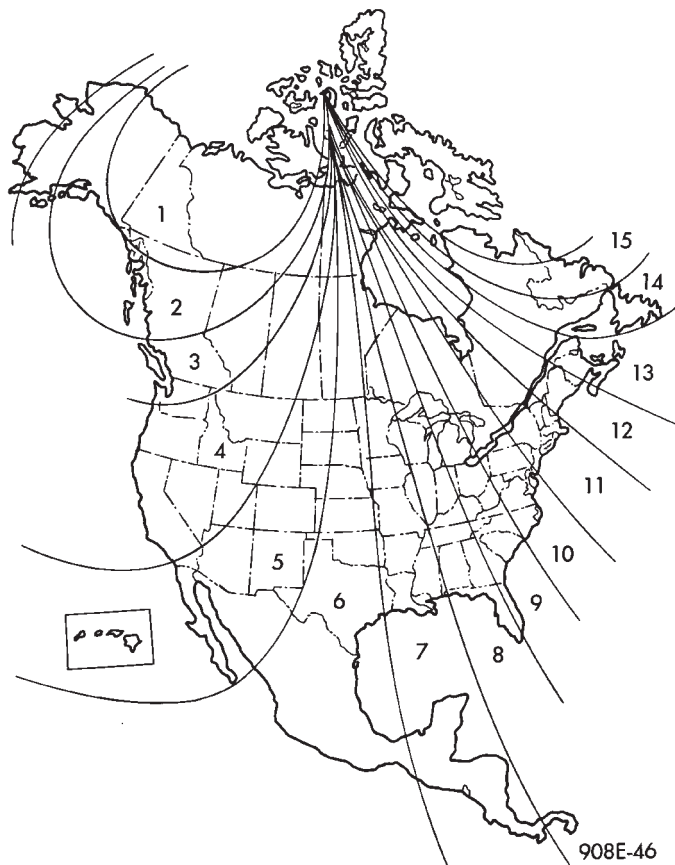


Fig. 5 Variance Zone Map

To set the variance:

- Turn ignition key ON

- Press the C/T button to select the Compass/Temperature display

- Press and hold RESET button; the VAR symbol should come on in about 5 seconds.

- The OTIS will display the variance zone and the word VAR.

- Press STEP button to select the desired zone.
- Press RESET button to set the new variance zone and resume normal operation.

REMOVAL AND INSTALLATION

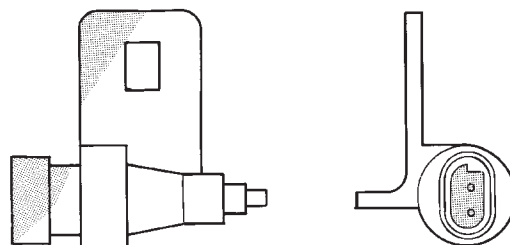
AMBIENT TEMPERATURE SENSOR

REMOVAL

- (1) Raise and support vehicle on safety stands.
- (2) From behind front bumper fascia, remove screw attaching sensor to radiator closure panel (Fig. 6).

INSTALLATION

For installation, reverse the above procedures.



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Fig. 6 Ambient Temperature Sensor

BASE UNIT

REMOVAL

- (1) Grasp the both outer sides and pull downward to disconnect the retaining clips.
- (2) Disconnect wire connector and lower the unit.

INSTALLATION

For installation, reverse the above procedures.

FULL CONSOLE

REMOVAL

(1) Open the garage door opener and the sun glass compartments (Fig. 7).

(2) Remove two screws from the eye glasses compartment.

(3) Remove screw from garage door transmitter compartment and remove transmitter, if necessary. Pull gently down at the rear of the console to disconnect the console from mounting bracket

REMOVAL AND INSTALLATION (Continued)

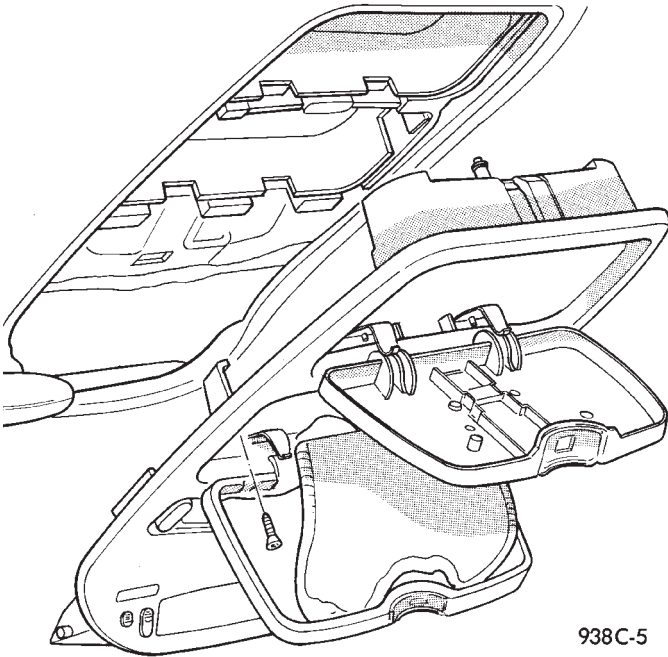


Fig. 7 Full Overhead Console

(4) Disconnect wire connectors and lower the console.

INSTALLATION

For installation, reverse the above procedures.

MAP LAMP

REMOVAL

- (1) Remove overhead console, refer to above procedures.
- (2) Remove lamp socket from mounting.
- (3) Remove lamp(s), replace as necessary.

INSTALLATION

For installation, reverse the above procedures.

MAP LAMP SWITCHES/WIRE HARNESS

REMOVAL

- (1) Remove overhead console, refer to above procedures.
- (2) Disconnect wire harness connector (Fig. 8).
- (3) Remove lamp socket from mounting.
- (4) Remove switches by sliding them out of position.

INSTALLATION

For installation, reverse the above procedures.

MINI CONSOLE

REMOVAL

- (1) Remove screw from windshield side of console.

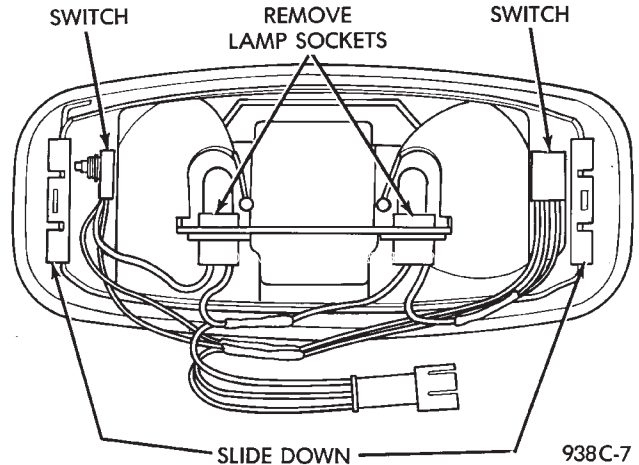


Fig. 8 Wire Harness Removal

(2) Grasp the front of console and pull downward to disconnect the retaining clips.

(3) Disconnect wire connectors and lower the console.

INSTALLATION

For installation, reverse the above procedures.

OTIS

REMOVAL

- (1) Remove overhead console, refer to above procedures.
- (2) Remove mounting screws and release the map lamp wire connector from the OTIS (Fig. 9).

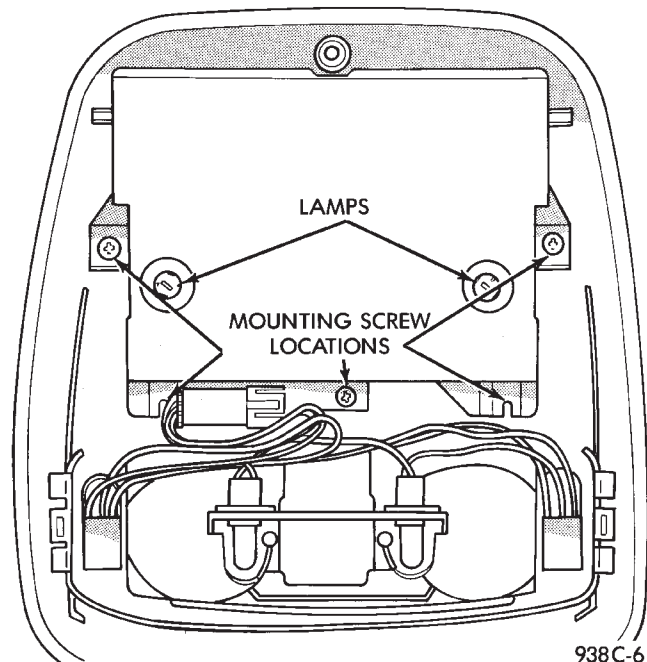


Fig. 9 OTIS Removal

- (3) Remove the OTIS from overhead console.

REMOVAL AND INSTALLATION (Continued)

INSTALLATION

For installation, reverse the above procedures. Align the OTIS guides on the housing with the grooves of the console.

OTIS LAMP

REMOVAL

- (1) Remove overhead console, refer to above procedures.
- (2) Using a flat blade screwdriver twist out socket/lamp.
- (3) Replace lamp(s) as necessary.

INSTALLATION

For installation, reverse the above procedures.

OVERHEAD CONSOLE BASE PLATE

REMOVAL

- (1) Remove overhead console, refer to above procedures.
- (2) Remove head liner refer to Group 23, Body.
- (3) Using an trim stick, remove console base by disengaging the body clips (Fig. 10) and (Fig. 11).

INSTALLATION

For installation, reverse the above procedures.

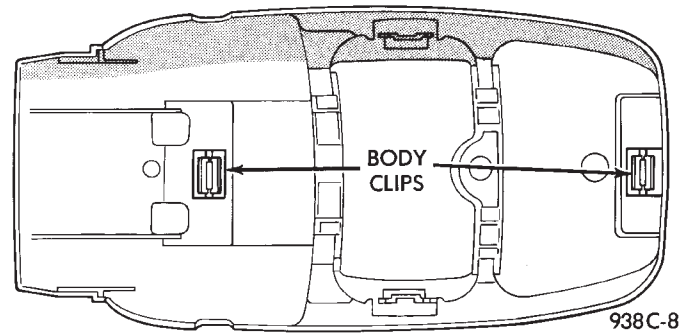


Fig. 10 Full Console Base Removal

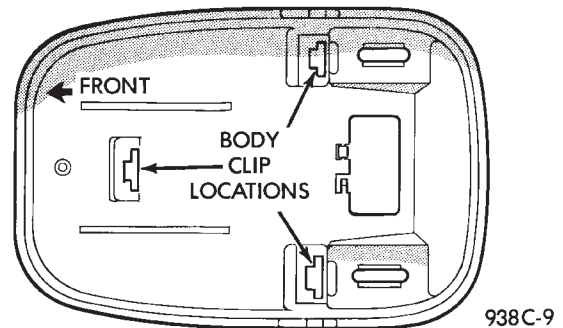


Fig. 11 Mini Console Base Removal