

MESSAGE SYSTEMS

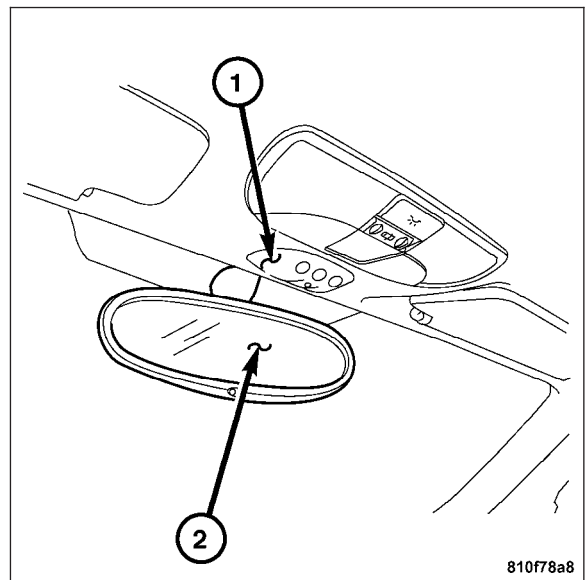
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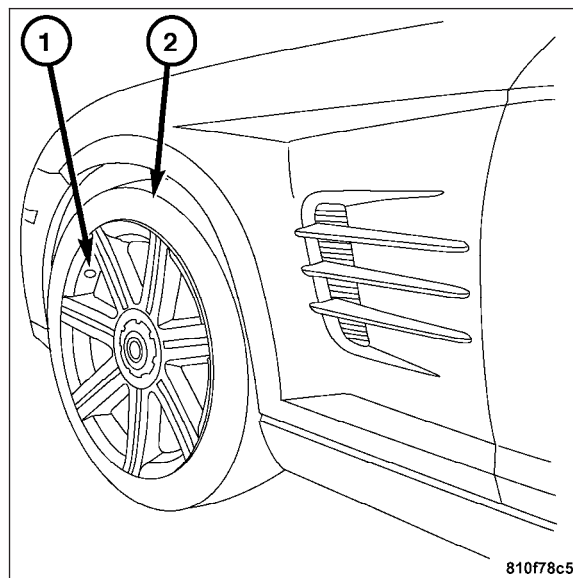
UNIVERSAL TRANSMITTER

DESCRIPTION

The Universal Garage Door Opener/Tire Pressure Monitor Module (1) is located in the headliner near the inside rear view mirror (2). The Tire Pressure Monitoring (TPM) system utilizes a control module to monitor and operate the system. The control module also has a universal garage door opener integrated along with it.



The tire pressure monitoring system utilizes transmitters that are located in the valve stem (1) of each tire (2) to communicate the tire pressure condition to the module. If a tire has low air pressure, an indicator light on the Instrument Cluster is illuminated. The vehicle operator must check the tire pressure of each tire in order to determine which tire has a low pressure condition.



OPERATION

The Universal Garage Door Opener/Tire Pressure Monitoring (TPM) module has a microprocessor controller that can monitor the transmissions from the sensor/transmitters anytime the ignition is on. It can store the last 32 transmissions. There are two important values included in these transmissions. They are:

- Why the transmission was sent
- Low tire pressure

The module compares the transmitted tire pressure to the pressure threshold. If the module determines that the tire pressure transmitted is below the low pressure thresholds, it will signal for the “Low Tire” pressure warning lamp to come on.

The TPM module performs diagnostic routines, stores diagnostic trouble codes and provides the appropriate lamp status to the Body Control Module (BCM). When the module determines there is a fault, the low tire pressure indicator lamp circuit is grounded and the BCM turns on the “Low Tire Pressure” indicator lamp.

The UGDO/TPM module also stores its own identification number, module version and the date of manufacture.

DIAGNOSIS AND TESTING - UNIVERSAL TRANSMITTER

If the universal transmitter is inoperative, see the owner’s manual in the vehicle glove box for instructions on training the universal transmitter. Retrain the transmitter using a known good remote as instructed in the owner’s manual and test the transmitter operation again. If the transmitter is still inoperative, test the universal transmitter with a Radio Frequency Detector special tool.

1. Turn the Radio Frequency (RF) Detector “ON”. A “chirp” will sound and the green power LED will light. If the green LED does not light, replace the battery.
2. Hold the RF detector within one inch of the TRAINED universal transmitter and press any one of the transmitter buttons.
3. The red signal detection LEDs will light and the tool will beep if a radio signal is detected. Repeat this test three times.
4. If a RF signal is not detected, replace the universal transmitter and reprogram as instructed in the owner's manual.

STANDARD PROCEDURE - UNIVERSAL TRANSMITTER PROGRAMMING

ERASING CODES

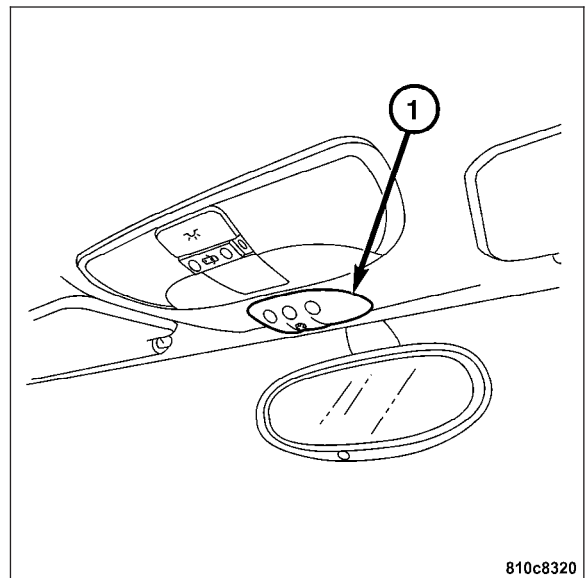
To erase previously programmed Garage Door Opener codes, simply hold down the two outside buttons until the red LED begins to flash.

PROGRAMMING CODES

1. Turn off the engine.
2. Erase the factory test codes by pressing the two outside buttons. Release the buttons when the red light begins to flash.
3. Choose one of the three buttons to program. Place the manufacturer's hand-held transmitter within one inch of the vehicle Universal Garage Door Opener and push the buttons on both transmitters. The red light on the Universal Garage Door Opener will begin to flash slowly.
4. When the red light on the Universal Garage Door Opener begins to flash rapidly (this may take as long as 60 seconds), release both buttons. The Universal Garage Door Opener is now programmed. Advise the vehicle owner to be sure to keep the manufacturer's hand-held transmitter in case it is needed to reprogram the Universal Garage Door Opener.

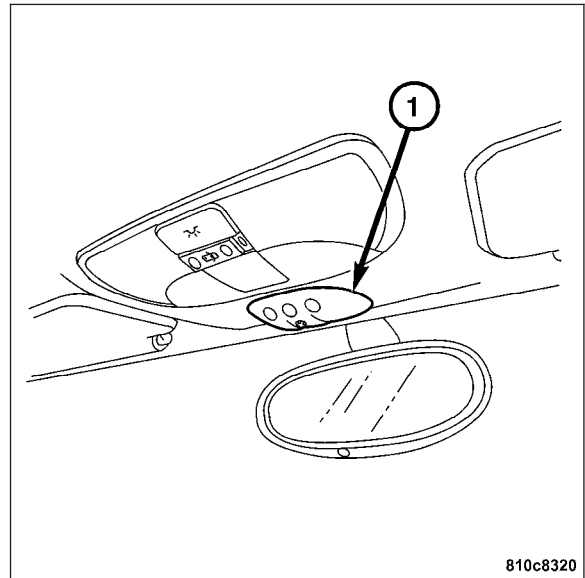
REMOVAL

1. Disconnect the negative battery cable.
2. Using a plastic wedge, slide the wedge under the Universal Garage Door Opener/Tire Pressure Monitor module and the headliner and pry the Universal Garage Door Opener/Tire Pressure Monitor module away from the headliner.
3. Disconnect the Universal Garage Door Opener/Tire Pressure Monitor module harness connector.



INSTALLATION

1. Connect the harness connector to the Universal Garage Door Opener/Tire Pressure Monitor module.
2. Install the Universal Garage Door Opener/Tire Pressure Monitor module by snapping it into the headliner.
3. Connect the negative battery cable.



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