

## **Tire Pressure Indicator Sensor Learn**

### **Learn Mode Description**

The Tire Pressure Monitor (TPM) System uses the keyless entry transmitter, body control module (BCM), remote control door lock receiver (RCDLR), 4 radio frequency transmitting pressure sensors, and the serial data circuit to perform the TPM learn mode functions. The sensor learn procedure must be performed after every tire rotation, RCDLR replacement, or sensor replacement. Once the learn mode has been enabled, each of the sensors unique identification codes can be learned into the RCDLRs memory. When a sensor ID has been learned, the RCDLR sends a serial data message to the BCM to sound a horn chirp. This verifies the sensor has transmitted its ID and the RCDLR has received and learned it. The RCDLR must learn the sensor IDs in the proper sequence to determine correct sensor location. The first learned ID is assigned to the left front location, the second to right front, the third to right rear and the fourth to left rear.

### **Sensor Functions Using J-46079**

Each sensor has an internal low frequency coil. When the J-46079 Tire Pressure Monitor Diagnostic Tool is used in activate mode, it produces a low frequency transmission that activates the sensor. The sensor responds to a low frequency activation by transmitting in learn mode. When the RCDLR receives a learn mode transmission while in TPM learn mode, it will assign that sensors ID to the location on the vehicle relative to the order in which it was learned.

### **Learn Mode Cancellation**

The learn mode will cancel if the ignition is cycled to OFF or if more than 2 minutes has elapsed for any sensor that has not been learned. If the learn mode is cancelled, the original sensor IDs will be maintained. If the learn mode is cancelled after any sensor is learned, the DIC will display dashes instead of tire pressures for the remaining unlearned sensors and the learn procedure will need to be repeated for the system to function properly.

### **TPM Learn Procedure**

Important: Before proceeding, ensure that no other learn procedure is being performed simultaneously or that tire pressures are not being adjusted on another TPM equipped vehicle within close proximity. Stray signals from other TPM equipped vehicles just driving by can be inadvertently learned. If any random horn chirps are heard from the vehicle while performing the learn procedure, most likely a stray sensor has been learned and the procedure will need to be cancelled and repeated. Under these circumstances, performing the TPM Learn Procedure away from other vehicles would be highly recommended. In the event a particular sensor activation does not cause the horn to chirp, it may be necessary to rotate the wheel valve stem to a different position due to the sensor signal is being blocked by another component.

Place the electronic keyless ignition in the ACCY position.

Using a scan tool, initiate the TPM Learn Mode. A horn chirp will sound indicating the Learn Mode has been enabled. Starting with the left front tire, hold the antenna of the J-46079 aimed upward against the tire sidewall close to the wheel rim at the valve stem location. Press and release the activate button and wait for a horn chirp.

After the horn chirp has sounded, repeat step 3 for the remaining 3 sensors in the following order:

- Right front
- Right rear
- Left rear

After the LR sensor has been learned, a double horn chirp will sound indicating all sensors have been learned.

Place the electronic keyless ignition in the OFF position to exit the learn mode.

After the learn mode has been exited, adjust all tires to the recommended pressures. Refer to Vehicle Certification, Tire Placard, Anti-Theft, and Service Parts ID Label .