

How TPMS Works

The TPMS (Tire Pressure Monitoring System) has many indicators; a low pressure indicator (LED indicator), a system indicator, and the tire(s) indicators (shown on the multi-information display). When the TPMS control unit detects low pressure in a tire or a problem in the system, it turns on the appropriate indicator(s).

- If low tire pressure is detected, the low pressure indicator and the appropriate tire indicator come on.
- If a problem in the system is detected, the TPMS indicator comes on.
- If low tire pressure and a problem in the system are detected, only the TPMS indicator comes on.



If the system is OK, the low pressure indicator should come on when you turn the ignition switch ON (II), and then go off 2 seconds later. If it doesn't, there is a problem with the system.

If the system detects low pressure in any of the four tires, the low pressure indicator comes on and the appropriate tire(s) indicator will show on the multi-information display. When the tire pressure returns to normal, the control unit will turn off the. However, if the control unit detects a problem in the system during an indication of low tire pressure, it will turn off the low pressure and tire(s) indicators and turn on the TPMS indicator.

Tire pressures will increase slightly as the temperature in the tires rises during driving at highway speeds. Pressures will also increase or decrease slightly with changes in outside air temperature. A temperature change of about 50 °F (10 °C) will change tire pressure by about 10 kPa (0.1 kgf/cm², 1.5 psi). If the temperature drops and then rises, tire pressure could decrease just enough to turn on the low pressure and tire(s) indicators, but later increase enough to turn them off.

If a flat tire is replaced with the spare tire, and the flat tire is stored in the cargo area, the low pressure indicator will stay on but the appropriate tire indicator will go off. When the flat tire is taken out of the vehicle for repair, the TPMS indicator will come on because the system is no

longer receiving the signal from the tire's transmitter.

Problems That Are Not System Faults

- **Tire Sealant**

Fluid sealant used to repair a punctured tire can damage the tire pressure sensor mounted on each wheel. It can prevent the system from detecting the correct tire pressure even though the system is normal.

- **Cold Weather**

When the weather is extremely cold - about -40 °F (-40 °C) or colder - the output of the lithium battery in each tire pressure sensor may drop far enough that the control unit sets a DTC for low battery voltage (31, 33, 35, or 37) even though the system is normal.

Memorizing a Tire Pressure Sensor ID

When a tire pressure sensor is replaced, the sensor ID must be memorized by the TPMS control unit.

NOTE: To ensure the control unit memorizes the correct ID, the vehicle with the new sensor must be at least 3 m (10 ft) from any other TPMS pressure sensor not installed on that vehicle.

Memorizing a Sensor ID Automatically

After rotating the tires or replacing a tire pressure sensor, drive the vehicle for at least 40 seconds at a speed of 15 mph (24 km/h) or more, and all the sensor IDs will be memorized automatically.

- After the IDs are memorized, reduce the pressure in all four tires to less than the appropriate specification, and check to see that the four tire indicators come on.

Memorize the ID with the HDS

The Honda Diagnostic System can memorize the ID of a new tire pressure sensor or a previously memorized ID.