

Tire Pressure Monitoring

What is Tire Pressure Monitoring

What:

A system that utilizes either wheel speed sensor inputs or direct pressure sensing to notify driver of low tire pressures.

Why:

To improve passenger safety, increase fuel economy and reduce vehicle emissions.

Benefits:

Decrease in accidents / injuries / deaths caused by underinflated tires.

How:

Utilization of sensors, can interpret and react to changing conditions faster than a human driver in many situations reacts. System is "Passive" (Provide audio, visual) to notify driver of a pending situation.

Tire Pressure Monitoring Operation

The system utilizes either wheel speed sensor rotational rates, or absolute pressure sensing to compare current “Pressure” to calibrated pressure.

Indirect: Wheel speed sensors measure changes in rotational speed due to changes in tire diameter to calculate tire pressure change.

Direct: Pressure sensors mounted in the tire provide pressure and temperature information directly.

Tire Pressure Monitoring Components

Wheel Sensors

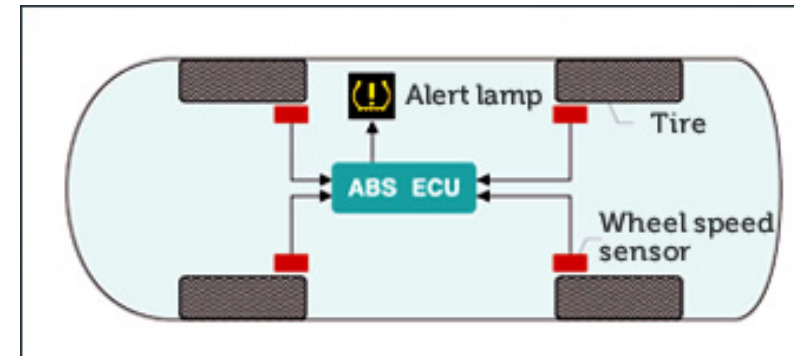
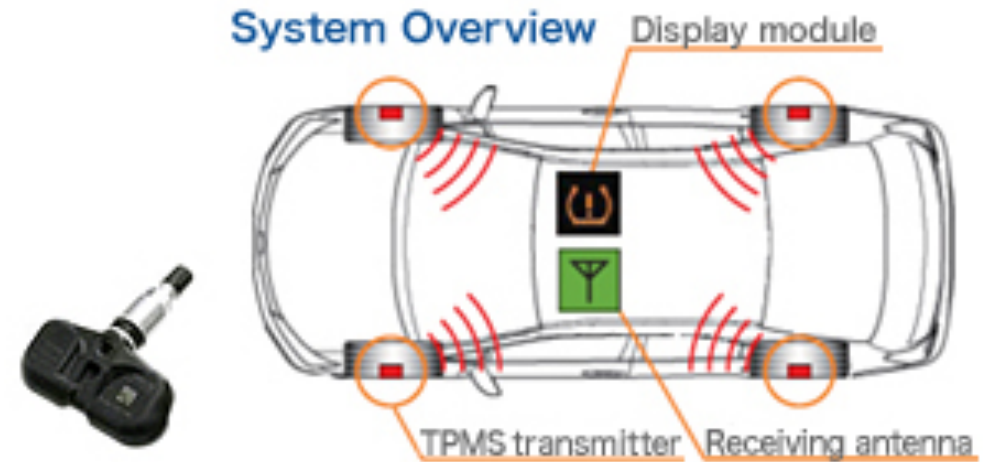
Wheel Speed (Indirect)

Tire Pressure (Direct)

Module(s)

Control Switch

Visual Indicators



Tire Pressure Monitoring Diagnosis

Visual inspection

- Damage to tire / wheel

- Damage to sensor

Fault codes

- OEM

- SAE

Electrical testing

- Power

- Ground

- Signals

- BUS Communications



Tire Pressure Monitoring Service / Calibration

Mechanical

Using scan tool

Self / Auto

Driving