Tire Pressure Monitoring System

The Tire Pressure Monitoring System (TPMS) fitted to the 2016MY XF has some subtle differences from previous models:

- Sensors are of a new design
- The sensors also have a new replaceable alloy valve stem, which also acts as the antenna.
- TPMS now has a separate standalone control module in the roof lining, rather than being integrated in the Central Junction Box (CJB).
- Sensor initiators are no longer fitted into the wheel arch area
- The previous separate RF Receiver is also no longer present, and is now integrated in to the new TPMS Control Module.
- Frequency of transmission is now 433MHZ for all markets

Each time the vehicle is driven, the TPMS learns the locations of the following four wheel-mounted sensors by combining Radio Frequency (RF) transmissions with data from the ABS module:

- Front Left (FL)
- Front Right (FR)
- Rear Left (RL)
- Rear Right (RR)

NOTE: An ABS fault will not directly cause the TPMS to stop operating. However, if an ABS fault persists, then a TPMS warning may also appear in the IC.

The system enters Parking Mode after vehicle speed has been below 12.5 mph (20 km/h) for 15 minutes. In Parking Mode, the tire pressure sensors transmit a coded signal to the TPMS module once every 13 hours. If the tire pressure decreases by more than 7 kPa (1 PSI; 0.07 bar), the sensor transmits more often to show that the tire pressure is reducing.

The process of locating the sensors, known as ‘Auto Location’, takes up to 10 minutes to complete. During this period, the tire sensors transmit at regular intervals – once every 16 seconds while vehicle speed is above 12.5 mph (20 km/h). For the remainder of the drive cycle, the tire sensors transmit once every 64 seconds while the vehicle speed remains above 12.5 mph (20 km/h), or, if a change in tire pressure is sensed, until the vehicle stops or vehicle speed drops below 12.5 mph (20 km/h) for 15 minutes and the system returns to Parking Mode.

At 25% deflation, the amber warning indicator in the IC comes on and an appropriate message and/or graphic will appear in the Instrument Cluster (IC) message center.

XF Shown; XE / F-PACE Similar

E175756

Item	Description	Item	Description
1	Instrument Cluster	3	Tire Pressure Sensor (5 if a full size spare wheel is fitted)
2	Tire Pressure Monitoring System Control Module		

Tire Pressure Monitoring System Control Module

The Radio Frequency (RF) receiver is integrated into the Tire Pressure Monitoring System Control Module (TPMSCM), which is mounted in the headliner next to the rear overhead console.

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The TPMSCM receives transmissions from each of the tire pressure sensors, which are sent by means of an internal antenna in each of the sensors. This information is then decoded and analyzed and any required warnings – along with current tire pressure information – are communicated on the Powertrain HS CAN bus.

Tire Pressure Sensor

The Tire Pressure Monitoring System uses 'active' tire pressure sensors, which are mounted on each wheel rim inside the tire cavity. The sensors transmit their Radio Frequency (RF) signals at 433 MHz.

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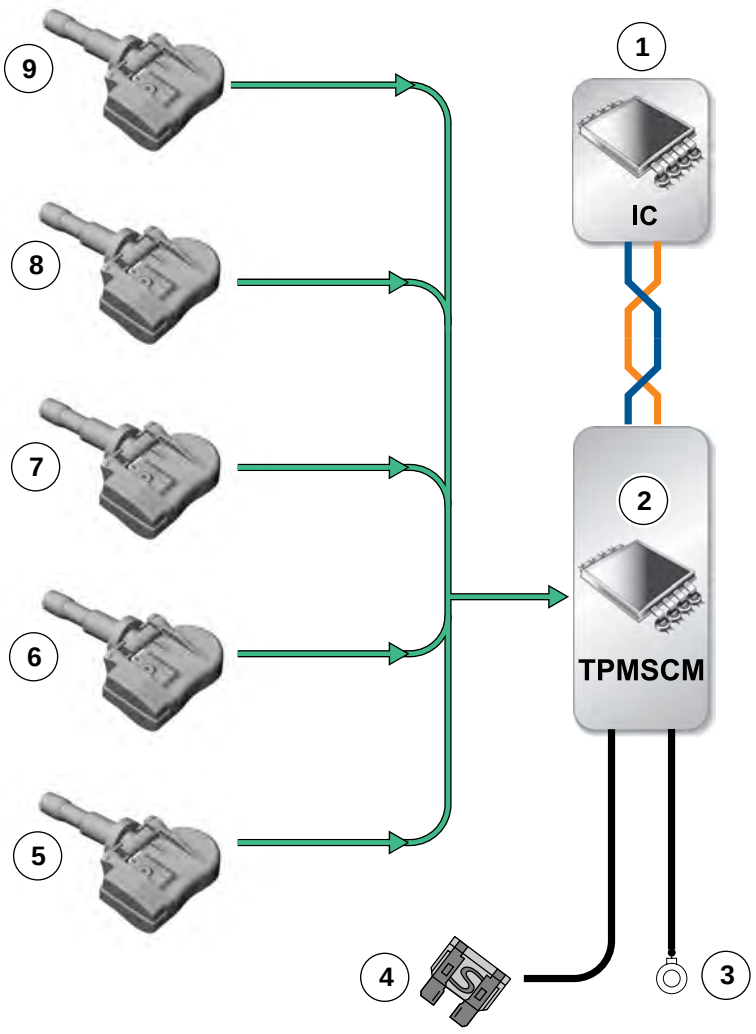
The sensors periodically measure the pressure and temperature of the air inside the tire plus the centripetal acceleration acting on the sensor. These measurements are transmitted periodically to the RF receiver located behind the rear overhead console.

Tire Pressure Monitoring System Control Diagram



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Item	Description	Item	Description
1	Tire Pressure Monitoring System Control Module (TPMSCM)	5	TPMS Sensors (5 if a full size spare is used)
2	Instrument Cluster (IC)	A	Hardwired
3	Ground	AN	Powertrain HS CAN
4	Power Supply	F	Radio Frequency Transmission

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