



TPMS

Technical Service Bulletin



General Information

GI-503-012

Applies To: General TPMS and Bartec Tool Knowledge

August 13, 2012

Scope of this bulletin:

This bulletin will inform on basic TPMS and Tool knowledge including a general overview of TPMS, technical terms, and basic TPMS tips.

Topics covered in this bulletin:

1. Background and Terminology
2. Using Bartec Tools with Multi-Application Sensors
3. Checking Pressure when using Multi-Application Sensors

1. Background and terminology.

Stationary Re-learn

Using an activation tool with the car in “Re-learn” mode. New ID’s can be programmed without driving the vehicle.

*Refer to RP-502-012 for info on Relearning and working with GM vehicles
Refer to RP-501-012 for info on Relearning and working with Ford Vehicles*

Sensor Protocol

Is the message the sensor sends out to the vehicle’s receiver.

Most vehicles are DESIGNED to listen for a SINGLE type of message from the sensor. Like the vehicle, Bartec tools are also DESIGNED TO LOOK FOR A SPECIFIC MESSAGE FROM THE SENSOR. This is precisely why Bartec uses the MAKE-MODEL-YEAR system and is the basis for sensor diagnostics.

Multi-Application Sensor

A SINGLE sensor designed to fit multiple vehicles and sensor protocols. *Also known as Multi-Protocol.* These sensors transmit multiple messages whenever activated with a TPMS tool.

NOTE: The OE sensor transmits only the single message [or protocol] in which it was designed for.

2. Using TPMS Tools:

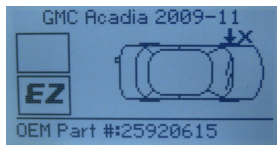
To provide advanced diagnostics, Bartec TPMS tools use Make–Model–Year look up; in effect you are drilling down to the specific sensor for the vehicle being serviced. In short, you are setting the tool to hear a specific message [the same message the car is looking for].

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Because Multi-Application sensors send out MANY MESSAGES, the TPMS tool can get “confused” or ignore the messages all together. This makes sensor discrimination and pressure measurement impossible.

Listed below are some of the screen views you may encounter:



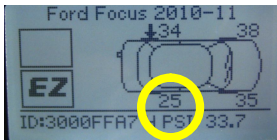
“X” = Tool indicates no sensor found.

Because the sensor is transmitting multiple messages, the tool may not see the message and indicate a failed sensor.



“?” = Tool indicates incorrect sensor found.

Because the sensor is transmitting multiple messages, the tool may see a message that does not match the Make, Model, and Year selected.



Tool may show incorrect pressure.

Because the sensor is transmitting multiple messages the tool may see the wrong message based on the MMY selected and compute the wrong PSI.

3. Checking Pressure:

It is recommended by the manufactures of multi-application sensors to use a stick gauge when checking and verifying proper inflation pressure. One popular multi-application sensor states the following in their product literature:

“Due to differing TPMS protocol scaling factors, tire pressure displayed on electronic TPMS scan tool may not be accurate (may apply to both REDI-Sensor multi-application sensors and OE sensors). Be sure to confirm tire pressure with tire pressure gauge.”

Source: FORM 2107F (FRM2107F.PDF) REDI-Sensor Installation Instructions

4. Notes:

When using Multi-Application sensors:

- Sensor Mode may also not match the OE mode
- Sensor Mode Change may or may not be required
- Relearn process may be different refer to manufacturer instructions
- For specific Bartec Tool information by vehicle, see respective Technical bulletins