

TPMS and the Dealership

Do You Know the Basics of the Tire Pressure Monitoring System?

By Scot A. Holloway

As a franchised new vehicle dealership and service provider, you are no doubt aware that, with the 2008 model year, all cars and light trucks sold in the United States now include a Direct Tire Pressure Monitoring System (TPMS). In fact, for many of you, these systems have been included on your vehicles for a number of years. We all know that with change comes opportunity, and TPMS represents huge opportunity for dealerships as they increasingly supply wheel and tire service to their customers.

When it comes to routine maintenance, people (myself included) tend to be lazy and will often only deal with a problem when it hits them over the head. Well, TPMS is intended to be that rap on the noggin. The TPMS is designed to warn the driver when the pressure of one or more tires falls below 25% of placard value. Typically, the warning is in the form of a light on the instrument panel. This is an important feature because, in most cases, you cannot visually detect the



difference between a fully inflated tire and one that is only 75% inflated.

How does it work?

Now maybe you're thinking, "How does it work?" Well, how it works is the interesting part. Direct TPM Systems utilize what's known as a TPMS Wheel Sensor. This device is located inside

the wheel and tire assembly. It is usually part of or attached to the valve stem. In some models, the TPMS sensor is banded to the drop center. In either case, the sensors work in a similar manner. Complete with a processor, power supply and a transmitter, these "miniature computers" sample pressure and temperature inside the wheel and then periodically transmit the data back to a receiver located on-board the vehicle. Once received, the data is decoded and processed by a control module. When a low pressure condition is detected (not by the sensor itself but, rather, by the control module) a warning indication is made on the instrument panel. Some vehicles have a warning light; others display pressure. All vehicles must flash a warning when pressure is low. Also, the TPMS will alert the driver to system problems like a broken or non-functioning sensor. A flashing TPMS light indicates a system problem and that service is required. Typically, a "solid" TPMS light means that one or more of tires are underinflated (below 25% of placard).



sion of the sensor data. If you service a variety of makes and models (either in your service lane

or in your used vehicle department) a universal TPMS scan tool is required.

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Why TPMS?

I refer back to my earlier point ~ people are lazy and, as a rule, do not routinely check the air pressure of their car's tires. There are many factors to consider with a low tire pressure situation, not least of which is safety. Under-inflated tires roll at higher temperatures, handle poorly and require longer vehicle stopping distances. Underinflated tires also reduce gas mileage and lead to uneven tire wear. Properly inflated tires also yield better fuel economy. Finally, TPMS helps to maximize tire life. Since tires are also rising in cost, it pays for all of us to get as many miles as possible from them and properly maintaining tire pressure helps to do just that.

The reality is that properly inflated tires, monitored by a properly maintained TPMS, will make the vehicle safer and save money. Since it is believed that the TPMS (including the sensors) may last as long or longer than three sets of tires, the value to maintaining them is high and will save the consumer considerable operating cost over the life of the vehicle.

What are the service requirements?

Service of TPM Systems varies by manufacturer. Typically, the service most often required is TPMS Sensor registration. Since each TPMS sensor has a unique digital ID, when replacing or relocating a wheel (as with tire rotation, for example) the vehicle's control module needs updating. Some vehicles have the "re-learn" mode built in; others require updating through the OBDII port. In either case, a TPMS tool is required to activate the sensor to force the transmis-



What does it mean to the Dealership?

As we know, dealers today consistently seek ways to increase traffic and improve margins. More and more, dealers are offering a larger menu of wheel-related services (tire replacement, rotations, repair, replacement wheels, etc.). There is no doubt that, as this business model continues to develop and as more vehicles with TPMS find their way to the used car lot, dealer service departments and technicians will find themselves confronted with TPM Systems on vehicles other than their store's particular brand. This has implications on replacement parts inventory as well as the necessary tooling required to repair these systems. Getting the proper TPMS tool is critical to efficient and accurate TPMS repair. In fact, the right TPMS tool can improve the efficiency of service and repair of the dealer's primary brand of vehicles, without tying up the scan tool.

The real impact will be seen in both sales and service. From the sales point of view, an easy-to-use TPMS tool means that a wheel / tire package from one car can be easily swapped to another to complete the sale. The TPMS Sensor swap can take up to ten minutes. A TPMS Scan tool can reduce



that process time to less than two minutes. Consider the service perspective: providing the finishing touch to a new set of wheels and tires (registering the TPMS sensors) means keeping the work in your store. Dealerships that can service the wheels and tires, which include TPMS, of any make or model will increase margins and customer satisfaction.

Benefits of a TPMS Scan Tool

To summarize, a TPMS Scan tool can offer many benefits to the OE dealership, yielding improved efficiency and greater capacity:

- Swap wheel / tire packages from vehicle to vehicle without tying up a diagnostic scan tool.



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Scot Holloway is General Manager of Bartec USA, LLC. With over 80 TPMS facilities worldwide, Bartec pro-

grams the TPMS of all varieties of makes and models. Bartec supplies TPMS tools to OE dealers as well as to the aftermarket. ■

- Swap wheel / tire packages for the sales department to close more deals.
- Process wheel and tire repairs and rotations more efficiently.
- Rotate wheels without the diagnostic scan tool.
- Repair the TPMS on “other brands” of vehicles.
- Service the TPMS of used vehicles and keep the work “in-house.”
- TPMS Scan tools are easier to use than diagnostic scan tools.

As you consider your menu of services for 2009 and how you plan to improve efficiency in the wheel and tire repair segment, better understanding of TPMS and the tools and the parts required will help you make informed business decisions. In the case of the OE dealership, you are already faced with TPMS for your own models. Adding the ability to service other brands will only help increase business traffic through your service department – as well as your used vehicle department. Selecting the right TPMS Scan Tool can help overall service efficiency and ultimately improve customer satisfaction – two things that ANY business certainly needs in these difficult times.