

A NEW ERA

By Hank Inman

The tire industry is now well into a new era. It may not rival the radial age, but the epoch already is memorable and some say forgettable. It's the TPMS era. While most participants know that the groundwork was laid several years ago, the reality is that the TREAD Act's final deadline for the "start" of this new period was September 2007, and it targeted the model year 2008 for full compliance.

By this time, most dealers and service shops already have become accustomed to a new routine. In addition to, among other things, checking fluid levels in the vehicle, checking the status (or existence) of the TPMS has become a part of a dealer's standard operating procedure – or at least it should be.

While NHTSA's TPMS mandates targeted new vehicles, there are still plenty of implications for aftermarket participants. Even though TPMS awareness has been around for a while, it's ironic because TPMS, as it relates to compatible equipment, diagnostic tools and service, is still in a growth stage. The product lineup can change frequently – sometimes daily.

With that in mind, there are a couple of noteworthy products that have managed to make their way onto the TPMS market. One is a TPMS retrofit kit for the aftermarket that was developed by Orange Electronic Co., based in Taiwan. The other is a TPMS activation tool introduced by Bartec USA, out of Sterling Heights, Mich.

The Bartec tool is the Wheelrite Tech 300-Plus and the next generation, the Wheelrite Tech 400-plus. Both were introduced at the recent SEMA and AAPEX shows in Las Vegas, but at around \$760, the 300-plus is the more affordable of the two.

"The 300-plus activates and decodes most of the sensors currently in use today," said Bartec engineer Paul Salisbury. "It features an 'audit mode,' and after a full sensor decode, the tool can be plugged into a PC or laptop and the sensor data is easily displayed. It can be saved and even printed to be used for customer reports."

The Tech 300-plus is sold as a complete kit, ready to use, and there's nothing extra to purchase. It also comes with a protective rubber boot and molded carrying case.

"It is absolutely the most user-friendly diagnostic tool on the market right now," said Craig Knarich, owner of Palm Harbor, Fla.-based Pit Crew Tire. "You don't need to read an entire manual just to conduct a 30-second diagnosis with this tool. It prompts you with on-screen instructions. It's slick!" Knarich said as soon as he bought the device, he tested it on a 2007 Corvette C6, a 2007 GMC Arcadia SUV and a 2005 Lexus GS430.

"What I liked about the 300-Plus was its size," said Knarich. "It was no bigger than a TV remote control (actually 6x2.25 inches), and you can output the sensor data via USB to your PC to print out a report for your customer."

For example, Knarich said when he checked the GMC Arcadia, the tool told him that a rear tire had 34 psi and a temperature of 78°F. He checked the rear tire – which had been in the shade – and it read 34 psi, but had a 73°F temperature.

"As we know in the tire industry, temperature is critical to tire inflation," said Knarich. "This is good information to supply to your customers."

Bartec's Salisbury said that the majority of sensors in TPMS-equipped vehicles today are Schrader sensors, but added that the Bartec product will activate almost every sensor in the market, including Siemens, Lear, Beru, TRW, and Pacific.

Retrofit Kit

The other new product helps fill a need for an aftermarket TPMS retrofit kit.

Orange Electronic also introduced its TPMS Retrofit Kit at this past year's SEMA Show, and it recently announced at the Tokyo Auto Show in mid-January that the product is on a new Honda. Orange supplies TPMS products to several Asian OEMs. Using that knowledge, they claim to have an advantage in the development of aftermarket systems.

Up until recently, however, there have been few offerings that had universal application for non-TPMS-equipped vehicles.

“Orange Electronic's real-time TPMS reads tire pressures and temperatures every three seconds and transmits readings to the driver's LED display for all four tires simultaneously every 30 seconds, 24 hours a day,” said Scott Lakin of South Bend, Ind.-based Tire Rack, one of Orange’s U.S. distributors.

The Orange system includes four sensors with adjustable valves, LED display and 12-volt power adapter. Spare sensors are sold separately.

After sensor installation, the LED receiver/display plugs into the vehicle's cigarette lighter using the 12-volt power adapter. It features a 3.5-foot cord, allowing the display to be placed where the driver can easily view the system's temperature and pressure readings. The receiver/display's patented antenna ensures problem-free reception during vehicle operation.

One of the marketable attributes of the Orange system is its adaptability. “This kit will fit about 99% of the wheels on the market,” said Lakin. “This gives a dealer another very saleable product to his customers.”

Lakin also said that the indicator displays pressures from zero to 76 psi, is accurate to +/- 1 psi and the high pressure warning level can be set between 40 and 60 psi. “Many international racecar drivers competing in GT N1, C1 and F3 events rely on the system to provide accurate tire data in any climate or location,” he said.

“Orange supplies a full line of products,” said Ray Sun, of Orange Electronic in Taiwan. “We can provide customers with all TPMS products from OE, retrofit, to OE replacement sensors.” In addition to Orange’s retrofit kit for automobiles, the company also provides TPMS systems for trucks, buses and motorcycles.

“We have equipped the Mitsubishi Fuso bus, Mitsubishi Canter and Isuzu ELF truck with our TPMS products,” said Sun. “We are an original equipment Tier 1 supplier for the products.”

Ray said that Mitsubishi Fuso buses already are driving through the eight-mile Hsuehshan Tunnel in Taiwan, the fifth longest tunnel in the world.

“The Taiwanese government mandated that buses traveling through the tunnel must have tire pressure monitors,” said Ray. “First attempts at equipping these buses with systems were difficult because the chassis is very long and the tremendous amount of metal on the vehicle would block the transmission signal. Orange developed a sensor system to solve this problem.”

This is pertinent as it relates to Orange’s successful certification of its RF wireless in the U.S., Europe, Japan, South Korea and Taiwan. Orange also has developed a TPMS for Japan’s Daytona motorcycle manufacturer.

Orange’s TPMS retrofit kit received SEMA’s “Best New Product Award” in 2006 and five combined international media awards between 2006-2007.

These products certainly aren’t the only innovative TPMS offerings on the market, and if you know of others, please let us know.



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