

Under Pressure

Doran's new 360RV monitoring system keeps a critical eye on tire inflation while on the road

Once upon a time, you could look at a tire and tell that it was running low on pressure. Those days are long gone. Radial construction, combined with stiffer sidewalls means that, by the time a tire looks low on air, it is severely underinflated. As you are probably already aware, just being low a few pounds can result in shorter tread life and reduced fuel economy — but in the case of a truck and/or trailer, which often carries heavy loads, the consequences of underinflation can be far more dire, including a possible blowout and resultant body damage. Keeping tabs on tire inflation pressure values with a gauge is OK while the RV is in a park or storage area, but what about monitoring while on the road?

Tire pressure monitoring systems (TPMS) are the answer, of course, but not all of them are created equal and not all are designed for the unique requirements of RV owners. Recently, however, Doran Manufacturing developed the 360RV, its next-generation TPMS made especially for RVs and tow vehicles.



Doran's locking ring securely fastens the sensors to each valve stem.

The Doran 360RV is designed to take accurate readings of air pressure at each tire and communicate real-time data to the driver via a dash-mounted monitor. Complete with low-air-pressure alarms, the Doran TPMS is always on call to alert you to a potential problem. This system has

multiple visual and audio warnings including a new, fast-leak warning that is triggered when pressure in a tire drops 2.8 PSI in less than 12 seconds. In addition, the high temperature alarm will warn of tire failures, as well as brake shoes that are dragging or a wheel bearing that may be failing.

The Doran 360RV is equipped with an easy-to-read LCD monitor that is roughly the size of a dollar bill. This smart TPMS is outfitted with simple programming to read baseline and current tire pressure and temperature. The Doran is easy to install and offers multiple mounting options by way of its suction-cup base.

Before installation, be sure to

« **REAL-TIME DATA** Easy to read, easy to set, the Doran TPMS display offers several mounting options to suit a variety of applications.



inspect all valve stems and tires thoroughly to make sure they are in good condition. Mounting the sensors on a basic four-tire system should run approximately 35 minutes, but labor time will increase to about 1½ hours with the remote antenna and the hardwiring process of the monitor.

The first part of the installation requires mounting the monitor and plugging it to a 12-volt DC accessory outlet, then following the directions for programming each sensor in the desired tire position (right front, left front and so on). Write the sensor numbers on a piece of paper with the corresponding tire position diagram. Once the programming is complete, the sensors can be installed. Be sure that each tire sensor and tire match the diagram of the wheel positions on the monitor once installed.

Doran designed its durable tire sensors with a three-piece seal that will minimize the potential for air leaks. Each tire sensor is secured with



(Above from left) Doran's testing tool takes the guesswork out of proper installation, allowing the user to achieve optimal signal from each sensor. The windshield-mounting kit features replaceable suction cups specifically designed to fit multiple angles.

an adjustable locking ring, and the valve stem inserts can be changed, if necessary, to keep the sensors from leaking. An included tool can be used to gauge insert depth and make sure the sensors will seal properly. After installation, the sensors should be checked with soapy water to confirm there are no air leaks.

There are multiple optional accessories available through Doran, includ-

ing a remote antenna to extend RF signal reception, and flow-through valve stem extensions and adapters that will eliminate the need to remove the sensors when adding air to the tires.

We installed the optional remote antenna kit on the test truck. In doing so, the signal reception of the RF (radio frequency) is moved to the rear of the truck, improving the reception of the wheel sensors' signals. The

antenna option is imperative for long trailers, where the RF signal has a much greater distance to the monitor. Find a suitable location for the remote antenna, install the bracket and route the coax cable along the frame and through the firewall to the monitor. The coax cable will attach to the monitor in place of the supplied short antenna.

The test trailer tires were set at 80 PSI. Driving approximately four hours in 45-degree weather, we saw that the pressure rose roughly 6 to 8 PSI in each tire. The pressure from the base number will rise more in higher ambient temperature.

One week later, we checked the cold pressure in all the tires to be certain there were no air leaks by simply turning on the ignition and checking the monitor. If there had been a tire with low pressure, the Doran 360RV monitor would have alerted us. Pressures were checked against the readings from a manual gauge, to confirm

The remote antenna is imperative in preventing signal loss when the TPMS is being used on RVs longer than 25 feet.

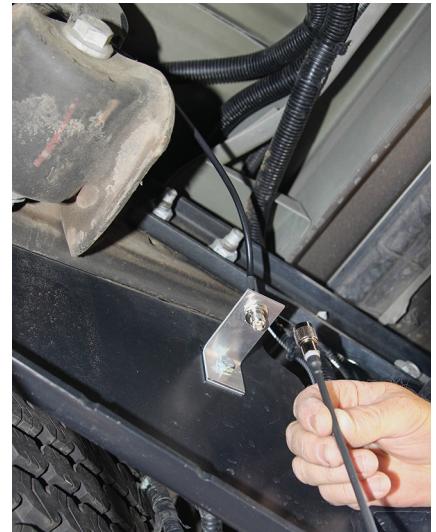
accuracy.

Once you go back to the manual gauge for checking each tire, you'll quickly realize the value and convenience of a TPMS. By adding a TPMS to your RV, you are also installing safety and peace of mind. The Doran 360RV retails for \$499.99 and comes with a two-year warranty. 🚐

Doran Manufacturing LLC

866-816-7233

www.doranmfg.com



Doran TPMS Sensor and Monitor Specifications:

Sensor Dimensions	1.31" W x 1.16" H
Sensor Pressure Range	10 to 188 psi +/-2 psi over operating pressure range
Monitor Dimensions	5.7" W x 2.16" L x 1.1" D
Fast Leak Alert	2.8 psi drop within 12 seconds
High Temperature Alert	175 degrees F