



General Description

The TPMS-4000-x system is a compact full featured TPMS system designed for vehicles up to 22 wheels. The system monitors temperature and pressure for each wheel and provides several levels of alarms.

The system is very easy to set up and very flexible. Sensors, for example can be assigned to any wheel and are not preset for a particular wheel position unlike most systems.

The system has a number of unique features that make it easy for both setup and operation. Key features are as follows:



Monitor

The monitor is the smallest RV/truck capable monitor on the market and is fully portable with an internal lithium battery. It is supplied with a window mount or can just be velcroed to any suitable surface. It is charged either with a 12V aux charger or with a USB cable plugged into a suitable USB outlet.

Being a safety device the monitor does not display any information until an alarm is detected or if the monitor is manually addressed by the driver or, preferably, the passenger.

All functions are accessible through the simple 3 button interface.

The monitor has three operating modes; On, Sleep and Off. When in Sleep mode the monitor remains on but will not monitor the sensors in order to save battery power. An internal motion detector will revert the monitor to On mode as soon as movement is detected. The monitor may also be turned completely Off.

Sensors

The sensors are externally mounted to the valve stem. They are very small and light so will not affect wheel balance. They can be locked onto the stem if required. Being external they do not require the wheel to be removed for installation and are very easily replaced. The battery is user replaceable and will provide a life of between 12 and 24 months. The sensor will report a battery low condition to the monitor when the battery requires replacement. The sensors may be locked to the valve stem if desired using a lock nut that is easier to use and will not damage the valve stem thread like the grub screws used on most systems can.

Booster/Repeater

A signal booster/repeater is used on large vehicle rigs to boost the signal from the rear most signals to the monitor. The booster/repeater is normally permanently affixed the vehicle or trailer and powered from a 12-24V supply.



Set Up

Sensors are assigned to individual wheel position during the installation process which, with a user familiar with the system, can be achieved in 2-5 minutes. Each wheel can be set to an individual cold tyre pressure setting.

Alarms

There are five types of alarms as follows:

Pressure Alarms	The Pressure alarms are based on a percentage variation from the preset cold tyre pressure. 3 levels of low pressure alarm are triggered at 15%, 25% and 50% below the preset cold tyre pressure. A high pressure alarm is triggered at 20% above cold tyre pressure. These levels can be adjusted for specific large fleet requirements.
Temperature Alarms	The High Temperature alarms are preset at 65°C and 75°C. These can be adjusted for specific large fleet requirements.
Leak Alarms	The Slow and Fast Leak Alarms are based on a drop of pressure over time. The Slow Leak Alarm will trigger if pressure drops 3psi in any 10 minute period or less whilst the Fast Leak Alarm will trigger if pressure drops 3psi in any 2 minute period or less. The sensors will transmit 20 times in succession in the case of a leak alarm.
Loss of Signal Alarm	The loss of signal alarm (noS) will alert the driver to a loss of signal from a specific signal when signals have not been received from it for a pre-determined time.
Low Battery	Both the sensor and monitor will provide an alert when battery levels drops below a preset level.

Special Functions

Forced Update

This feature allows the operator to zero out all pressure readings. The monitor will then update on the next round of updates from sensors ensuring that the pressure readings are current.

Auto Trailer Disconnect

This feature will automatically switch the monitor to Trailer Disconnect mode when any 4 sensors in the Trailer section (any of the rear 12 tyres) have failed to report within a 60 minute period. "td" will show on screen. The monitor will revert to normal when it comes back into range of the sensors. Different criteria are available for specific large fleet requirements.



Manual Trailer Disconnect

This feature enables you to manually switch the monitor to Trailer Disconnect mode. When in tD mode the monitor will not continually report loss of signal on the sensors in the trailer section. It will beep several times each time it wakes up out of sleep mode and show 'tD' on screen.

Delete-All Function

This feature will allow all sensor alignments to be deleted from the monitor to allow realignment if sensors have been removed and wheel positions are unknown.

Dual Pressure Function

This feature is designed for vehicles that travel both on road and off road and are required to lower their tyre pressures when off road. It allows two pressure settings to be set on each wheel so that the monitor can be switched between low pressures and road pressures very easily.

Custom Development

Uniquely in Australia, InnoTechRV carries out firmware development on its TPMS systems which enables the company to add special functionality or restrict access to certain functions on special request for fleet operators. Please contact us if you have any special requirements you would like us to consider.

InnoTechRV is a division of WiPath Communications, a multi-disciplinary technology development company with operations in Australia, China, New Zealand and the USA

If you have any questions regarding the InnoTechRV TPMS-4000 system please contact us as follows:

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