

# **TYRON**

**Flat Tyre Protection**

## **Tyre Pressure Monitoring System**



**Operators manual**

Tyron is a registered trademark and its "Flat Tyre Protection System" is patented throughout the world. We reserve the right to change specifications without notice.

**TYRON**  
Flat Tyre Protection

[www.tyron.com](http://www.tyron.com)

## Contents of the System

	See Box
Wheel Transmitters	
Monitor with LCD Display	1
Monitor stand	1
Sun Visor Clip	1
Reduced height, Wave Monopole Antenna	1
Li-ion rechargeable Battery 700mAh 3.7V	1
Battery Charger with AUX power adaptor	1

### Introduction

The major components of the TPMS are: one wheel sensor per tyre, and a rechargeable battery operated handheld monitor. The wheel sensor is fixed into a safety band (not included) which is installed inside the tyre and automatically monitors the tyre. Upon detection of abnormal tyre pressure and/or temperature the sensor immediately issues a warning signal. The monitor receives the signals and displays them on the screen. This system can monitor up to 20 wheel positions.

### Assembly of Monitor

Screw the small Antenna onto the receiver and connect the battery. Note if the battery only has a small charge when first installed the red/green LED will come on together – recharge the unit.

### The Monitor

The monitor unit is the interface between the TPMS and the user. The monitor LCD screen has a graphical representation of the vehicle with tyre icons, a thermometer icon, and a tyre status icon. The screen also displays temperature and pressure readings.

There is a status LED on the upper right edge of the monitor. Below the status LED on the front there is a Button. On the top right edge of the display unit there is a Button for programming the system. Detail description of the setup procedures will be described in a later section.

### Turning On/Off The Monitor

To switch ON press and hold the Front Button for 8 seconds and the status LED will start flashing. The monitor can be turned OFF to conserve battery power. When the monitor power is ON the status LED would flash once a second. Now press and hold the Front Button for 8 seconds. This

will turn OFF the monitor power; as indicated by the shutting down of the screen and the status LED.

Pressing the Front Button calls up clockwise the next tyre pressure and temperature readings, with a dark tyre icon on the vehicle graphic indicating the associated tyre location.

### Charging The Monitor Battery

The monitor has a rechargeable battery that can be safely charged with the included vehicle auxiliary power adapter. The monitor can only take on maximum power input of 5.5 volt DC. So if the user desired to use AC-to-DC power conversion chargers at home for the charging, make sure the converted power voltage did not exceed the limit. Use a volt meter to verify – actual output level is almost always at 2 or more volts higher than the voltage listed on the label.

For optimum battery performance:

1. Charge new battery 12 to 15 hours without interruption before using the monitor.
2. Do NOT let battery become fully discharged.
3. Allow 2 to 5 hours without interruption for the battery to fully recharge

### Resetting The Monitor/Receiver

On rare occasions the monitor might appear to be in a frozen state and not respond to button pressing. In this case a hard reset would bring the monitor back to normal operation. On the back of the monitor there is a small hole – insert a pin (not too sharp so as to prevent piercing) through the hole to the end and press once, the monitor will come back.

## Setting Up the System

### Monitor Set-up

The monitor should be pre-set for the number of wheels in the kit. For 2 wheel kits the monitor will be set for a Caravan / Trailer. For 4 wheel kits it will be set for a 4 wheel Car / Motorhome. If this is NOT the case or you need to change this to add additional wheels go to MASTER SET-UP at the end of these instructions.

**NOTE: When the battery is first connected, the unit will AUTOMATICALLY open in Master Set-Up Mode. It will revert back to STANDARD Mode after you scroll through the menu.**

The user can adjust the warning threshold for tyre pressure and temperature, and calibrate the pressure reading:

The monitor will require your tyre pressures. For easy reference - write down the tyre pressures in the chart below in PSI by referring to your relevant vehicle handbook.

	Front Axle Tyre Pressures	Rear Axle Tyre Pressures
Motorhome/Car		
Caravan		
Trailer		

### Setting Up your Monitor for a 2 or 4 wheel system

1. Press and hold down both the Top and the Front buttons - after 3 seconds the monitor enters the Setup Mode. Release the buttons.
2. The first screen is for setting up the Low Pressure warning threshold for the front axle. Use the Front Button to change the setting. If you enter too high a figure, continue scrolling past 140 and it will go back to the minimum number again. We recommend you should set it at 3PSI below recommended tyre pressure. Now Press top button.
3. For 4 wheel system repeat above for the Back Axle. Press top button.
4. The high pressure warning automatically defaults to approximately 20% above recommended tyre pressure. This can be increased if necessary by pressing the front button. Now Press top button.
5. Set the temperature at 80 degrees C. Press top button.
6. Pressure reading calibration for all tyres should read -0. Press top button to exit set-up mode.

### Getting the Monitor to recognise all the Wheel Sensors

There are three setup screens here: automatic tyre set-up, manual tyre setup, and change display. After fitting new sensors or if replacing the receiver, the system needs to be trained to display the correct tyre locations, as follows:

1. Press and hold down the Top and Front buttons, after 6 seconds the system enters the Automatic Tyre Set-up screen (indicated by AU on the screen). Release the buttons.
2. Press the Front button once to get to the Manual Tyre Setup screen. (NB: The system you have fitted will dictate which screen you see )

*Motorhome/Car*



*Caravan/Trailer*



3. Press the Top Button and the No.1 offside tyre indicator starts blinking:
4. Release 3 PSI or more of air from the No.1 tyre. This triggers its sensor to send out a signal. Upon receiving the signal, the system sets up this tyre as the No.1 tyre location. The system then moves on to the No.2 tyre.
5. Repeat above step for the remaining tyres (The set-up order will always be from tyre No.1 moving clockwise to No.2, 3, and 4). After successfully retraining the last tyre, the system will beep loudly 9 times and exit the Tyre Setup mode automatically.
6. Refill tyres to the proper air pressure.

### Recognising one or more replaced Wheel Sensors

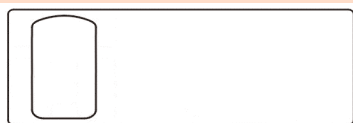
1. When one or more wheels are moved or replaced, go to the Manual Tyre Set-up screen as described above. Press the Front Button to move the blinking icon to the desired tyre location and then release the associated tyre air as described earlier to set it up.
2. Note that each skipped tyre will retain its previous location assignment.
3. If there is more than one tyre to setup then press the Front Button again to move the blinking icon to the next desired tyre location, and then repeat set-up procedure.
4. Press the Front Button passing the last tyre icon to exit the set-up. The system will again beep and save the new setting.

## Disabling a Caravan/Trailer from the system when not towing

In the event that a car/motorhome which is fitted with TPMS, is not towing a trailer or caravan which is programmed into the receiver, the system allows the user to easily disable the trailer/caravan tyre monitoring.

1. Press and hold down the Top Button (top) for 3 seconds. The system enters the Trailer/Caravan Set-up Select Mode. Release the Top Button. One of the following screens shows up on the display.

*caravan/trailer disconnected*



*caravan/trailer connected*



**AUTO Set-up TPMS:  
DO NOT USE THIS MODE.  
Press front button**



2. By pressing the Front Button the user disables or enables the caravan/trailer wheels. Press Top button to exit the set-up mode.

**NB: 4 Wheel Trailer/Caravan has similar graphic to Motorhome/Car (NO WIND-SCREEN)**



## Operating the System

After installation, the system operates automatically and continuously. When monitor power is on and receiving tyre sensor signals, the display will show the current tyre pressure and temperature. A green status light indicates normal pressure and temperature for all tyres, otherwise the status light turns red and the corresponding tyre indicator(s) and the warning icon(s) will appear.

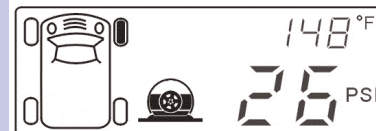
### Warnings

Upon detection of abnormal tyre pressure and/or temperature the monitor will display one of the following warnings. The display lasts 8 seconds and then will switch to a screen as shown in Abnormal Situation Display (described in the next section). For severe warnings (low pressure and rapid pressure change) the system will also sound an 8-second alarm.

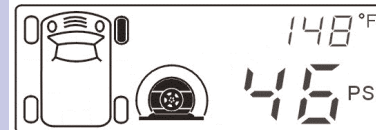
*Low pressure or blowout. The tyre icon is hollow; indicating tyre pressure is low or tyre is rapidly losing 3+ PSI of air within a number of seconds.*



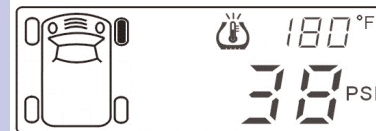
*Slow air leak. The tyre icon is 2/3 full; indicating tyre pressure depletion of 3 PSI or more within 2 to 10 minutes.*



*High tyre pressure. The tyre icon is full with an outer shell; indicating the tyre pressure is too high.*



*High temperature. The high-temp icon is visible; indicating tyre temperature is too high.*



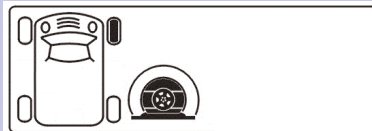
## Abnormal Situation Display

A persistent abnormal tyre situation (with possibly several tyre abnormalities) will cause one of the following warnings to be displayed. The warnings are listed below in the order of precedence for display selection (from multiple abnormalities) by the system.

*Very low tyre pressure  
(Highest priority)*



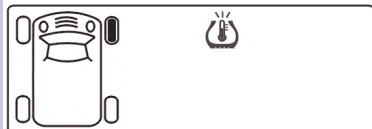
*High tyre pressure*



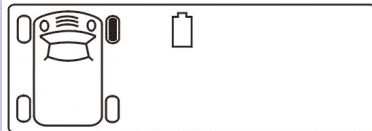
*Low tyre pressure*



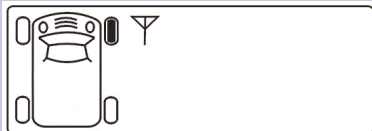
*High temperature*



*Low battery*



*No Sensor Signal  
(lowest priority)*



## Clearing the warning display

1. A warning will continue to be displayed until the cause of the warning is corrected.
2. When multiple warnings occurred, the highest priority warning will be displayed first.
3. Press the Top Button to turn on the LCD backlight, and then press the Front Button for 3 second. This will clear the warning display.
4. If the abnormal situation persists, warnings will again be displayed at a later time, even after the display has cleared.

## Safety Instructions

### Monitor/ Receiver Safety

When using this unit, basic safety precautions should always be followed to reduce the risk of fire, electric shock, or personal injury.

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on this unit.
3. Unplug this unit from power outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning. Never spill any liquid on the unit.
4. Do not use this unit near water, for example when washing the vehicle, in the rain, near a lake or river, etc.
5. Place the unit securely on a stable location inside the vehicle. Damage and/or injury may result if the unit falls.
6. Never place the unit near a heat emitting source.
7. Use only the power source marked on the unit. If you are not sure of the power supply, consult your dealer or the manufacturer.
8. Do not place objects on the power cord of the battery charger.
9. Never push any objects through slots in this unit. This may result in the risk of fire or electric shock.

10. Do not disassemble this unit. Take the unit to an authorized service centre when service is required. Opening or removing covers may expose you to voltages or other risks.
11. Unplug this unit from power outlets and refer servicing to an authorized service centre when the following conditions occur:
  - a. When the battery charger power cord is damaged or frayed.
  - b. If liquid has been spilled into the unit.
  - c. If the unit has been exposed to rain or water.
  - d. If the unit does not work normally by following the operating instructions. Adjust only controls covered by the operating instructions. Improper adjustment may require extensive work by an authorized service centre.
  - e. If the unit has been dropped or physically damaged.
  - f. If the unit exhibits a distinct change in performance.
12. Do not touch the power plug with wet hands.
13. The battery charger is used as the main disconnect device. Ensure that the vehicle AUX power outlet is near the unit and is easily accessible.

## Battery Safety

To reduce the risk of fire or injury to persons, read and follow these instructions.

1. Use only the battery specified.
2. Do not dispose of the battery in a fire. They may explode. Check with local waste management codes for special disposal instructions.
3. Do not open or mutilate the battery. Released electrolyte is corrosive and may cause burns or injury to the eyes or skin. The electrolyte may be toxic if swallowed.
4. Exercise care when handling the battery. Do not allow conductive materials such as rings, bracelets or keys to touch the battery. Otherwise a short circuit may cause the battery and/or the conductive material to overheat and cause burns.

5. Charge the battery provided with or identified for use with this product only in accordance with the instructions and limitations specified in this manual.
6. Store the battery in a cool, dry and well-ventilated area.
7. Keep out the reach of children.

## Master Set-Up

*You need to be in MASTER SET UP in order to change:*

*Your pressure readings from PSI to BAR*

*Your temperature readings from degC to degF*

*The number of wheels in your system (vehicle+ trailer+spare)*

On the back of the monitor there is a small hole, use a pin to insert. Press pin gently into hole and release (you should hear a Bleep).

Press both the Set-up button and Front button together for 3 seconds and the unit will go into Master set up mode which gives you access to All settings including degC bar and car trailer set up mode.

Use the top button to scroll the different settings and the front button to change them to the customer's requirements.

The setting sequence is as follows in scroll order by pressing top button:

(Also Available in Normal Set-Up Mode)

1. Low pressure Set-up
2. High pressure Set-up
3. Temperature
4. Calibration -0 (ignore)

***(Available ONLY IN MASTER SET-UP)***

***5. PSI or Bar***

***6. deg C or deg F***

***7. Car Wheel Arrangements. 2 -10 wheels and 2-10 wheels + spare***

***8. Trailer Wheel Arrangements. 2 - 8 wheels and 2-8 wheels + spare***

Press top button. Press again to exit