# Tire Pressure Monitoring System

(User Manual)



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## I TPMS Main Features

#### 1. Brief Introduction

Thanks for purchasing our TPMS products, the system is consists of one monitor and four (internal or external) sensors.

The system is used to monitor pressure and temperature of tires, and sends the real time tire information to the monitor via wireless transmission. Monitor calculates the data received and displays the rear time tire pressure and temperature.

Although factory has already set up the alerts data, user could still have detailed alerts according to actual usage and get the best efforts to prevent flat tire, save fuel and tire ware. What's more, to make driving most comfortable and prolong vehicle life.

## 2. Product Features

- a) Monitor
- Solar power monitor
- \* Reliable and easy to install
- \* Pressure&temperature Alerts
- \* Audible&visible alerts
- Motion sensor inside
- Displays 5 tires simultaneously (including 1 spare tire)
- Built-in rechargeable battery
- \* Configurable high / low pressure alerts
- Configurable high temperature alerts
- \* Selectable pressure unit (°C/°F)
- \* Selectable temperature unit (PSI/BAR)

#### b) External Sensor

- \* Small in size, easy to install
- \* Battery replaceable
- Waterproof&high/low temperature resistance
- \* Reliable function
- \* Anti-theft design

#### c) Internal Sensor

- \* Adjustable installation angle
- \* Waterproof&high/low temperature resistance
- \* Reliable function

# II System Components

Monitor 1 pcs

USB Charge Cable 1 pcs

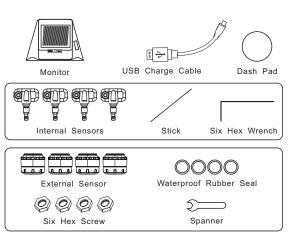
Dash Pad 1 pcs

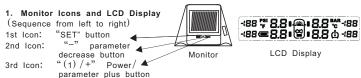
Sensor (Internal or External ) 4 pcs

Internal Sensors Stick Six Hex Wrench External Sensor Waterproof Rubber Seal

Six Hex Screw

Spanner





Pressure unit: PSI or BAR (selectable) Temperature Unit:  $\mathbb{C}/^{\circ}F$  (selectable)

Icon	Description		
	Tire		
Ř	Sensor low battery		
(i)	Sensor low battery		
<u>(l)</u>	Alert		
34	Solar (light) recharging		

## III Installation

#### 1. Monitor Installation

1-1 Installation Position and Recharging

Monitor should be placed inside the car without obstruct vision of driver.

Please recharge the monitor with the DC power cable supplied. The battery icon " iii will flash while recharging, and turns to be full after fully charged.



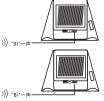
#### 1-2 Power On

When the monitor is power off, press the 3rd button "(1)/+" for 3s, release after a BEEP to turn on the monitor. All the icons on the LCD will be on for 1s then turns to standby mode.

## 1-3 Power Off

In standby mode, press the 3rd button "(1)/+" for 3s, release after a beep to turn off the monitor.

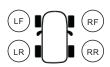
\* The Receiver will issue a BEEP every 5min if it is low battery. The beeps will stop only if the Receiver is recharged or run out of battery.



CAUTIONS: While the monitor is low battery voltage, please recharge the monitor with the DC cable provided. The monitor will turn off automatically if the battery voltage is too low.

## 2. Sensor Installation

Each sensor has been programmed to monitor in factory, please follow the picture below to install each sensor to the tire. Make sure not to mix up the 4 sensors' location while installation!



TIPS: User could still re-program the sensors if they have been mixed up during installation, please follow "Inflating Code" in the later part of the manual to re-program the sensors to the monitor.

#### 3-1 External Sensor Installation

\*ATTENTION: For swift tire pressure and temperature transmission, please turn on the

monitor before sensor installation.



\* Install the six hex screw onto tire valve

Sensor

Tire valve

- \* Install the sensor onto the tire valve clockwise
- \* Tighten the screw with the spanner provided



## b) Battery replacement

Loosen sensor cabinet



Take off the sensor cabinet



Replace a new CR1632 battery and ensure positive pole upside



## Ensure the waterproof seal is not broken



#### 3-2 Internal Sensor Installation

- \*ATTENTION: For swift tire pressure and temperature transmission, please turn on the monitor before sensor installation.
- a) Take off the rubber tire
- b) Sensor components
- c) Replace the original tire valve with the sensor valve
- d) Tighten the sensor with the sticker and the spanner provided
- e) Put back the tire and make balance



CAUTIONS: Please buy a new sensor from your local distributor if there is low battery alert or sensor runs out of battery.

## IV Monitor Alerts

The system has been set with suitable alert data in factory, monitor will alert in case of abnormal pressure or temperature with beeps, flashes and red back light. Below are the alerts in different situations.

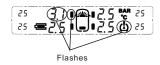
#### 1. High Pressure Alert

E. g.: While the left front tire pressure is

3. 1psi, monitor will alert as the picture below. Pressure Data Flashes

Tire Icon Flashes Alert Icon Flashes

Red Back Lights Flashes

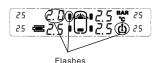


#### 2. Low Pressure Alert

E.g.: While the left front tire pressure is 2, 0 BAR, monitor will alert as the picture helow.

Pressure Data Flashes Tire Icon Flashes Alert Icon Flashes

Red Back Lights Flashes

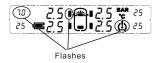


## 3. High Temperature Alert

E. g.: While the left front tire temperature is 70°C, monitor will alert as the picture below. Temperature Data Flashes

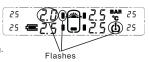
Tire Icon Flashes Alert Icon Flashes

Red Back Lights Flashes



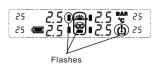
4. Fast Leakage Alert

E. a.: While the sensor detects there is fast leakage. it will send alert information to the monitor immediately. The corresponding tire icon and the alert icon will flash together while the tire data drops quickly. There will be continuous warning beeps if the pressure keeps dropping.



#### 5. Sensor Low Battery Alert

While the sensor is low battery sensor, monitor will alert as the picture below.



## V Sensor Programming

All the sensors' code has been set up in factory, user does not need to program the sensors with the monitor at the first time usage. In case user has mixed up the sensors installation position or the monitor has lost the sensor code, user could program the sensors by him or herself according to the steps below.

#### 1. Monitor Operation While Sensor Programming

- a) Press the middle button "-" on the the monitor for 3s, release after a beep.
- b) Press the middle button "-" for 1s to select the desired tire. A "LF" and the desired tire icon flashes.
- c) The monitor will issue a beep together with a six
- hex code such as "801001" displayed if the sensor is programmed successfully.



d) Press the middle button "-" for 3s and release after a beep to save the sensor code and exit to standby working mode.

## 2. Sensor Operation While Programming

2. 1 Internal Sensor

Inflate the desired tire while programming.

2. 2 External Sensor

Take off the sensor from the tire valve and install it onto the tire.

## 3. Exit Without Saving the Setting

While the system is in programming mode, if there is no operation within 1min, the system will return to standby mode without saving the settings.

## VI Parameter Settings

## 1. Factory Default Setting

High Pressure Alert	3.0 bar (44 psi)	
Low Pressure Alert	2.0 bar (29 psi)	
High Temperature Alert	70°C	
Pressure Unit	BAR	
Temperature Unit	℃	

CAUTIONS: Please take driving safety and consider vehicle actual situation at the first place while set alert parameter. Setting sequence as below.

#### 2. Pressure Unit Setting

Selectable pressure unit: PSI / BAR

In standby mode, press the "SET" button on the monitor for 3s, release after a beep to enter setting mode. The icon "BAR" on the monitor LCD will flash. Press the "-" or "(1)/+" button to select from "PSI" and "BAR".



Flashes

## 3. Temperature Unit Setting

Selectable pressure unit: °C/ °F

While "C" or "F" is flashing on monitor LCD, press the "-" or "(1)/+" button to select the desired temperature unit. Press the "SET" button for 3s and release after a beep to save and enter the next setting.

Press the "SET" button for 3s and release after a beep to save and enter the next setting.



## 5. Low Pressure Alert Setting on Front Axle Setting range: 0 3.0 BAR (0 43.5 PSI) While the icon "Lo" and the front axle icons are flashing, press the the "-" or "(1) /+" button to set the desired high pressure alert data.



BAR

BAR

Flashes

Flashes

Press the "SET" button for 3s and release after a beep to save and enter the next setting.

#### 6. High Pressure Alert Setting on Rear Axle Setting range: 3.0 8.0 BAR (43.5 116 PSI)

While the icon "Hi" and the rear axle icons are flashing, press the "-" or "(1)/+" button to set the desired high pressure alert data. Press the "SET" button for 3s and release after a been to save and enter the next setting.

7. Low Pressure Alert Setting on Rear Axle

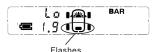
Setting range: 0<sup>-</sup> 3. 0 BAR (0<sup>\*</sup> 43. 5 PSI) While the icon "Lo" and the rear axle icons are flashing, press the "-" or "(1)/+" button to set the desired high pressure alert data. Press the "SET" button for 3s and release after a been to save and enter the next setting.



Setting range:  $70^-$  110°C (158  $^-$  230°F) While the icon "Hi" and the high temperature data "70°C" is flashing, press the "-" or "(1) /+" button to set the desired high temperature alert data.



Flashes



Flashes

\* While all the setting has been finished, press the "SET" button for 3s, release after a beep to save and exit to standby mode. If there is no operation within 1min during the parameter, monitor will return to standby mode without saving the settings.

# VII Products Specifications

Item\Model	Monitor	Internal Sensor	External Sensor
Pressure Setting Range	0~13BAR	0~8BAR	0~8BAR
Operation Temperature	-20℃~80℃	-40°C∼+80°C	-40°C~ 80°C
Storage Temperature	-30℃~85℃	-40°C∼+85°C	-40°C~ 85°C
Input Voltage	5V		
Frequency	433.92MHz	433.92MHz	433.92MHz
Size (mm)	91(L)78(W)26.5(H)	80(L)60(W)20(H)	21(Diameter)17.5(H)
Weight	65 g	9g	48g

## **VIII Cautions**

- The tires' temperature and pressure will increase while driving. The vehicle should be stopped if there is high temperature or high pressure alert in case of break problem or flat tire.
- 2. Driver should stop the vehicle and get off to check the tire if there is fast leakage or the pressure goes up quickly in the tire.
- After the system is installed correctly, it will alarm while there is abnormal tire pressure/
  temperature, driver does not need to stare at the monitor all the time while driving.
- Please use the system in appropriate conditions, any consequence caused by misusing is not liable for the distributors or the factory.
- Installation of the system should strictly follow the user guide, any breakage caused by improper installation is not liable for the distributors or the factory.
- 6. Please set the alert data according to actual vehicle type according to the suggestions of your local distributor. Usually the system has been set well in factory. Any improper settings out of the factory default settings is not liable for the distributors or the factory.
- Pictures in the manual is for reference only. Detail information in this manual is subjected to be changed without notice.
- System installation should be carried out by professional persons. Be ware of the sensors when reload the tires.
- Please be ware of children in case they touch any of the component or accessories in the system, it may be dangerous for children.

#### IX FAQ

- The monitor will be in sleeping mode if the motion sensor has not detected the movement
  of the vehicle for 5min, it will wake up again when the vehicle moves. It is normal
  condition if some of the sensors do have any data for a while, it will show the information
  when it detects tire data.
- The acceleration sensor will detect the movement of the tire automatically, all the tire data will be shown on the monitor after the vehicle moves for several minutes.
- Due to the air expansion and contraction, the tire pressure and temperature will change while driving.
- There is normal tire leakage in every tire, TPMS will have no effect with the tire pressure if the pressure data drops after long time driving.
- When the sensor is low battery, it could still work for a time, but it is highly suggested to change battery (for external sensor) or change a new sensor (for internal sensor).
- 6. The signal transmission from the monitor and sensors is wireless, and the transmission distance is long enough for a passenger car.
- Should you have any question or problem while installation, please contact with your local distributor.

#### FCC Statement:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- · Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.