

# Tire Pressure Monitoring System

(Can be integrated with wireless parking assistant system)

## User's Manual



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.

**FCC NOTE:**

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

**Tire Pressure Monitoring System  
User's Manual  
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## **About Tire Pressure Monitoring System**



### **Working Theory:**

Tire Pressure Monitoring System consists of detector and control unit. While the vehicle moving at speed over 20km/h, the detectors monitor the pressure、temperature of each working tire, transmit the data to the control unit and display the relative data on the LCD display. The system will automatically alarm the drivers in forms of LCD display and sound on Excessive Tire Pressure, Insufficient Tire Pressure, Rapid Pressure Drop or/and Extremely High Temperature.

### **Function:**

- Alarms on under inflation, over inflation, leaks and high temperature
- Long life detectors with power saving work mode
- Two pressure unit: Bar、PSI are at the user's option for different vehicles

### **Alarms:**

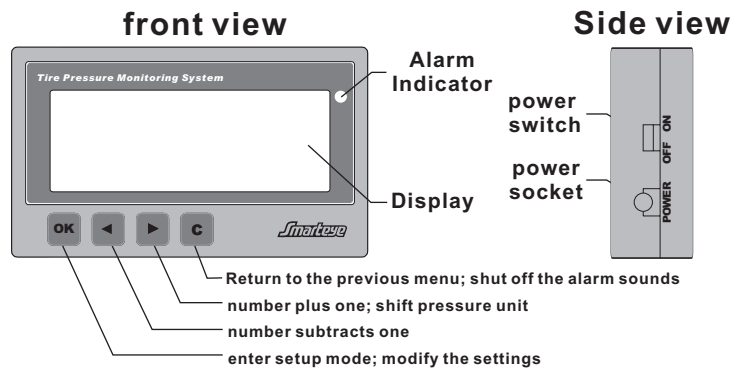
- **"P.High"**:When the tire pressure goes 25% higher than the rated value, the control unit will display the pressure value glisteningly and give an audible and visible alarm.
- **"P.Low"**:When the tire pressure goes 25% lower than the rated value, the control unit will display the pressure value glisteningly and give an audible and visible alarm.
- **"Leak"**:When the tire pressure drops quickly, the control unit will display the pressure value glisteningly and give an audible and visible alarm.
- **"T.High"**:When the tire temperature is higher than 85°C(185°F), the control unit will display the temperature glisteningly and give an audible and visible alarm.
- **""**:When the battery package pre-installed in the Detector runs under voltage, the "Battery Low"alarm will flash on the LCD.
- **""**:When the detector can not transmit the relative single for long time, an visible alarm will be on.

### **Specifications:**

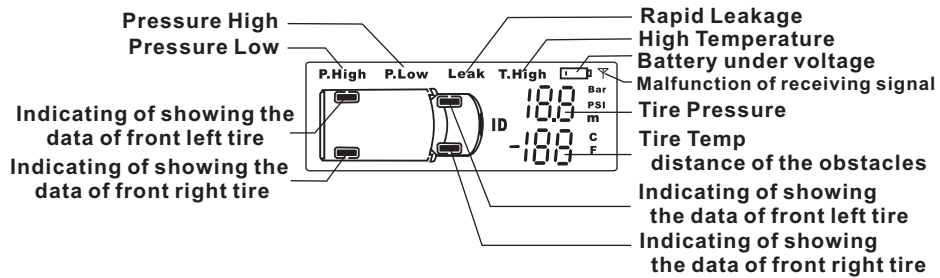
|                              |                          |
|------------------------------|--------------------------|
| Transmission Frequency:      | 433.92MHz                |
| Pressure Measuring Range:    | 0 ~ 4.5Bar / 0 ~ 72PSI   |
| Temperature Measuring Range: | -40 ~ 99°C / -40 ~ 199°F |

## Product Figure:

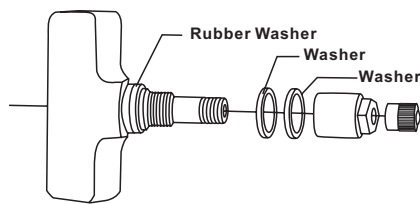
### • Views of the Control Unit:



### • Views of the Control Unit's Display:




### • Detector:



**Internal Detector**

## Function Operation:

1、 Select the pressure unit: Under normal mode, press  to select pressure unit desired.

2、 Shut off the sound alarm: Under normal mode, press  to shut off the sound alarm. If you don't fix the breakdown, the sound alarm will siren again in one hour.

### 3、 Parameters Setup:

The following Parameters can be set:

Rated Pres. , Front Tires

Rated Pres. , Rear Tires

ID , Front Left Tire

ID , Front Right Tire

ID , Rear Left Tire

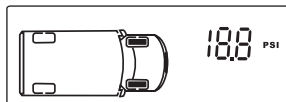
ID , Rear Right Tire

### 4、 Set the parameters:

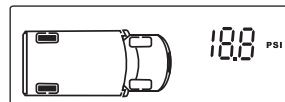
1) Under normal mode the pressure and temperature of four tires are displayed in turn. Press  to enter setup mode.

2) Press  and  to set the parameters. Please refer to the following pictures:

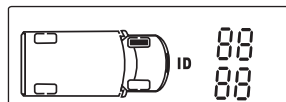
• Set Rated Pres., Front Tires



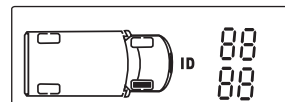
• Set Rated Pres. , Rear Tires



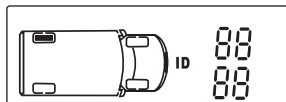
• Set the ID of Front Left Tire



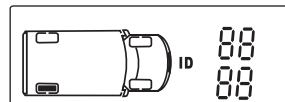
• Set the ID of Front Right Tire







• Set the ID of Rear Left Tire



• Set the ID of Rear Right Tire



3) Select the parameters need to be set, and press  to enter adjusting mode, press  and  to select the digit need to be changed. Press  to confirm the selection.

## **Installation Guide:**

### **• Detectors Installation Guide:**

- 1. Dismount the tires.**



- 2. Remove the original inflating valve.**
- 3. Fix the Detector on the inflating valve tightly. Be very careful with the rubber washer. Keep the washer flattened in order to avoid leakage.**



- 4. To be very careful when putting the tire back to wheel, to avoid possible damage on the Detector.**
- 5. After pumping up the tire to an adequate pressure, assemble tires back to the vehicle.**



**6. When dismantling the tires with Detectors please pay attention to the position of the inflating valve in order to avoid damages of the Detectors.**



**• Control Unit Installation Guide:**

**1、 Take the cover strip off from the adhesive on the bottom of the control unit, and fix the control unit to a proper position on the driver's panel. Or you can install the control unit to the window (intake) of the air-conditioner. Adjust the position carefully for the best view of the driver.**

**2、 Two power supply modes are optional to this system. The system can take the cigarettes lighter socket as its power source. The Control Unit can be connected to the cigarettes light socket with a specially designed power cord. No installation is required under this mode. However, the system should be plugged out off the socket when not in use, to avoid possible storage battery failure caused by excessive battery consuming.**

**Another power supply is to connect the system to the igniter of the vehicle with wires. The installation needs to be done by professional technicians. Under this power mode, the system will be turned on and off simultaneously with the vehicle.**



## **Attention:**

1. An unique ID code is given to each Detector. A corresponding ID code is set in the control unit, referring the location of the tire in the vehicle. The control unit receives and decoding the signals from each Detector when the two ID codes match with each other. Otherwise, the control unit may ignore or read by mistake the message sent by the Detector. The ID code is matched with a suggested tire location in the sale packaging. It is recommended to install the Detector to designated tire in the initial installation.

Make a record when replacing the tire. In case the Detector is removed to a different tire location in the tire replacement, resetting the ID code for each Detector in the control unit is required. For the details please refer to the Tire Replacement Record and the related instructions here after.

2. If tire pressure is 25% lower, or 25% higher, than the rated pressure, the system will give an alarm. So please set the rated tire pressure according to the driver's manual, otherwise it may make a false alarm or fail to give an alarm.

3. At the start of each driving course, the pressure and temperature of each tire will climb up for a stage. Generally the pressure rise is associated with the temperature rise and should not exceed 0.4Bar usually.

4. The sound alarm can be shut off while the problem stays unsolved. It is recommended to check the tire and solve the problem according to the alarm as soon as possible.

5. When battery logo appears for a Detector, you need to contact your maintenance provider for a replacement of the Detector at your own expenses.

6. In order to save the power, please close the power switch or pull out the power cord if do not use the system for long time.

7. Ask the professional technicians for the replacement of the Detectors.

8. Don't pour any liquid, such as tire repairing liquid, into the tires so as to keep the Detectors away from the possible damages.

9. This system is designed to monitor the pressure and temperature of the working tires, which to alarm the driver on the enlisted abnormal conditions. However, it is not able to settle the problems by itself. When an alarm is triggered, the driver should check out and solve the related problem as soon as possible, to eliminate the potential dangers.

10. The Parking Assistant System (PAS) can only be served as an auxiliary device to the reversing driving. It can not guarantee the safety. The driver should ever drive with care and attentions.

## **About the Parking Assistant System**

(Only for the TPMS with Wireless PAS)

### **Working Theory:**

The system is automatically activated when reverse gear is engaged. It alerts the driver to the distance of the obstacles while reversing or braking. Sensors are fixed to the rear of the vehicle, they send and receive ultrasonic radio waves which bounce off obstacles and alert you to their presence. "BeBe" alarm sound in four steps when obstacles are within 1.5 meters. In addition to acoustic signals, the system also visually alerts drivers of obstacles with direction indicator, and LCD numeric readout showing the exact distance. No cable is needed any more between host unit and display. Easy installation.

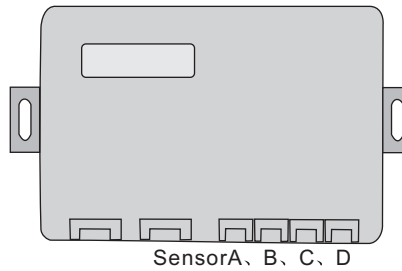
### **Features:**

- Automatically detecting distance of obstacles
- Sensors ensure full coverage of scanning zone without any blind point
- Wireless data transmission, easy to install

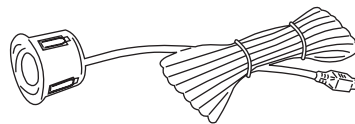
### **Specifications:**

|  |                 |
|--|-----------------|
| <b>Rated Work Voltage:</b>                     | <b>DC12V</b>    |
| <b>Operating Voltage Range:</b>                | <b>DC9V~16V</b> |
| <b>Detecting Range:</b>                        | <b>0.0~2.5m</b> |
| <b>Readable distance range on the display:</b> | <b>0.3~1.5m</b> |
| <b>Ultrasonic Frequency:</b>                   | <b>40KHz</b>    |

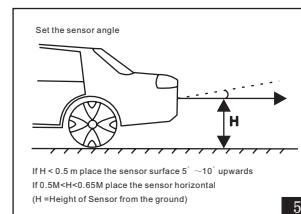
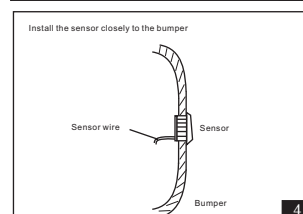
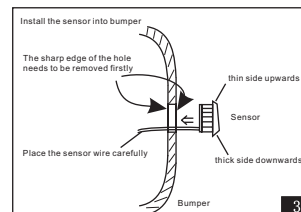
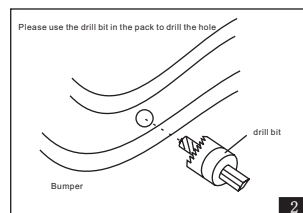
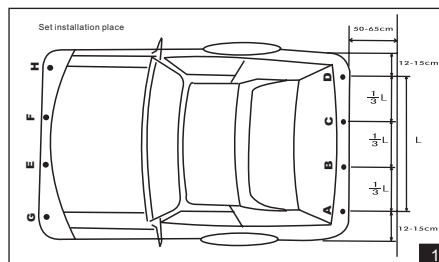
## Wireless PAS Host Unit:



## Wireless PAS Sensor:



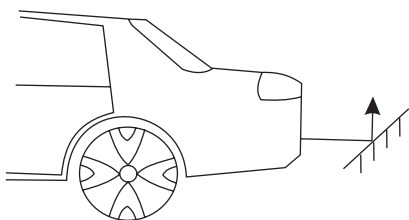
## Installation of the Sensors:



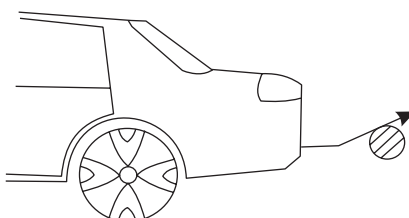
## Notice:

The situations below may affect the detecting result.

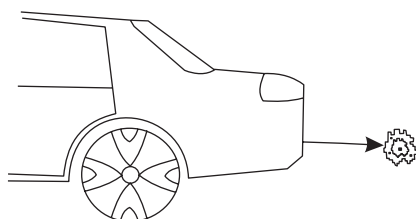
- When a slope or something like that is at the rear of the vehicle, the detecting waves will be refracted completely.



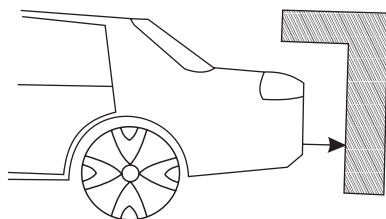
- When a column or something like that is at the rear of the vehicle, the reflection surface is so small that detecting waves can not be reflected totally.



- When cotton or multihole obstacle is at the rear of the vehicle, the detecting waves are absorbed entirely.



- when similar obstacle like the one shown below is at the rear of the vehicle, detecting waves can not be reflected.



## Parts List:

| Name  |                   | Qty | Remarks  |
|---|-------------------|-----|--|
| Control unit  |                   | 1   | Serial number:   |
| Power cord  |                   | 2   | Two power cords for two different power supply modes at the user's option. |
| Detector  | Left front wheel  | 1   | ID Code:   |
|   | Right front wheel | 1   | ID Code:   |
|   | Left rear wheel   | 1   | ID Code:   |
|   | Right rear wheel  | 1   | ID Code:   |
| Parking Assistant System Sensor                             |                   | 4   |  |
| Parking Assistant System Host Unit                          |                   | 1   | ID Code:   |
| Special tool for assembling Parking Assistant System Sensor |                   | 1   |  |
| User's Manual   |                   | 1   |  |

## Tire Replacement Record:

| Date | ID Code          |                   |                 |                  |
|------|------------------|-------------------|-----------------|------------------|
|      | Left front wheel | Right front wheel | Left rear wheel | Right rear wheel |
|      |                  |                   |                 |                  |
|      |                  |                   |                 |                  |
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**TPMS**