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# TPMS for truck

Tire pressure monitoring system



Manual



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# TPMS

## User's Manual

### Important notice

- This unit is for vehicles with 12/24 VDC.
- This unit should be installed by a professional technician according to the installation instruction.
- TPMS (tire pressure monitoring system) is designed to help the driver to monitor the tire irregularities. It is the driver's responsibility to react promptly to alerts. Abnormal tire pressure should be corrected ASAP.
- TPMS is a wireless RF product, therefore, it may not receive signals due to the poor environment, RF interference, low sensor battery or a damaged sensor.
- 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

2.This device must accept any interference received, including interference that may cause undesired operation.

#### Note:

**Changes or modifications made to this equipment not expressly approved by (Guangdong Steelmate Security Co., Ltd) May void the FCC authorization to operation this equipment**

## About the product

Tire Pressure Monitoring System (TP-81) is a wireless RF sensing device designed to measure and display the tire pressure and temperature. Once installed in your truck or bus, the system will automatically monitor tires in real-time for pressure and temperature. When any tire's pressure and/or temperature are abnormal, the system will, in real-time, transmit signals to activate an alarm to warn the driver of tire problem.

With the universal design, this system can be programmed 4~22 tires according to different commercial vehicle.

TPMS can help you to avoid tire accidents due to tire failure, to improve fuel efficiency and decrease tire wear.

## Key features

- TPMS for commercial vehicles
- Suitable for 12~24V vehicles
- Match with 4~22 tires
- Display installed on dashboard/windshield or portable
- Display with rechargeable battery
- Self-test function
- Real time monitoring tire pressure and temperature

## Technical specifications

### 1. Sensor

Operating frequency: 433.92MHz  
Operating voltage: 2.2~3.6V  
Operating temperature: -40°C~+125°C/-40°F~+257°F  
Humidity: 0%~100%  
Pressure range: 0~14.0 Bar  
Temperature range: -40°C~+98°C/-40°F~+208°F  
Pressure accuracy: ±0.14 Bar  
Temperature accuracy: ±3°C  
Batter life: 3 years

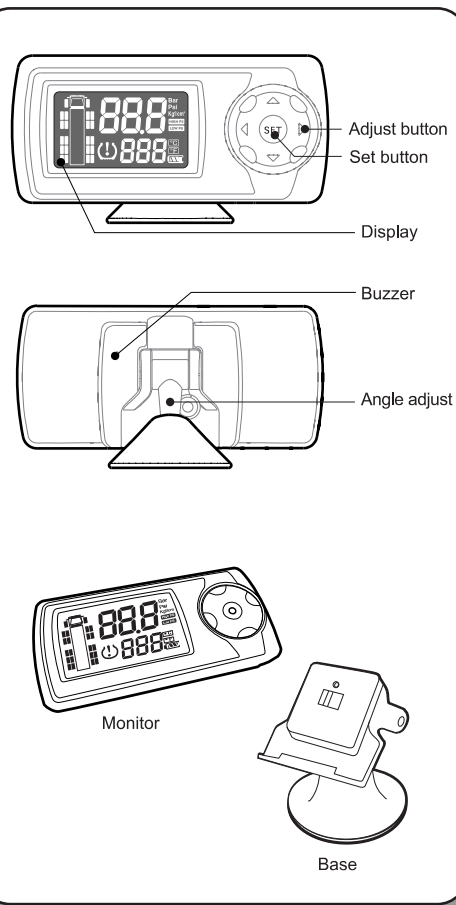
### 2. Display

Operating frequency: 433.92MHz  
Operating voltage: 9~27V  
Operating temperature: -20°C~+70°C/-4°F~+158°F

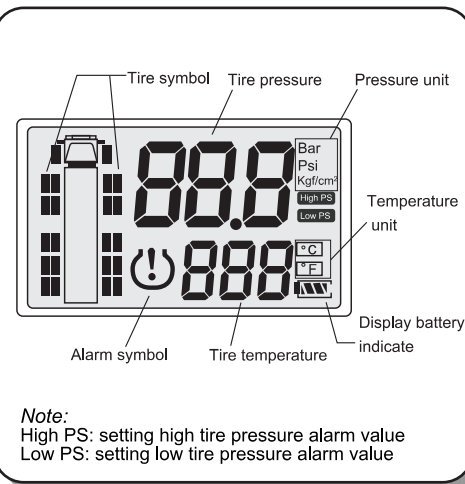
### 3. Air pressure unit

1 Bar = 14.5 Psi = 100K Pa = 1.02 Kgf/cm<sup>2</sup>

## Brief look at LCD display



## Symbols on the LCD display



**Note:**  
High PS: setting high tire pressure alarm value  
Low PS: setting low tire pressure alarm value

## Parameter settings

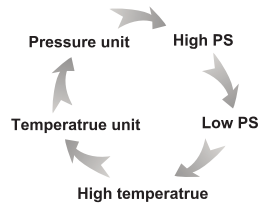
### Factory settings:

Pressure unit: Bar  
Temperature unit: °C  
High PS: 10.0 Bar  
Low PS: 6.0 Bar  
High Temperature: 70°C

**Note:** If you change the pressure/temperature unit, the default tire pressure/temperature values will be changed automatically.

## Setting mode

At standby mode, press "SET" button continuously for 5 times or more, then enter setting mode with a long beep. Press "◀, ▶" button to choose the parameter:



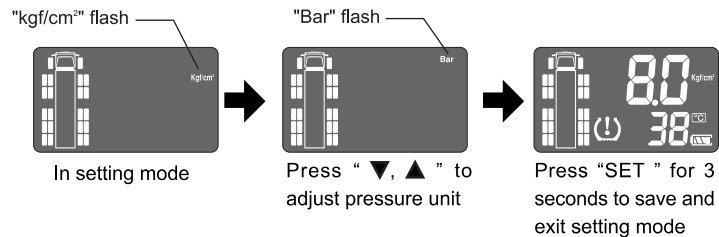
"pressure unit" -> "pressure upper limit" -> "lower limit of pressure" -> "temperature warning" -> "temperature unit" -> "pressure unit".

Press "▼, ▲" button to adjust the parameters. Press "SET" button for 3 seconds to save date and exit the setting mode with the buzzer beep twice.

*Note:* In setting mode, if there is no operation in 1 minute, the system will exit automatically and return to normal mode.

### Pressure Unit setting

In "pressure unit" setting mode, the unit icon will flash. Press "▼, ▲" button to adjust. You can choose the unit of Psi, Bar, Kgf/cm<sup>2</sup>. Press "SET" button to confirm and enter next program. Press "SET" button for 3 seconds to save and exit with the buzzer beep twice.

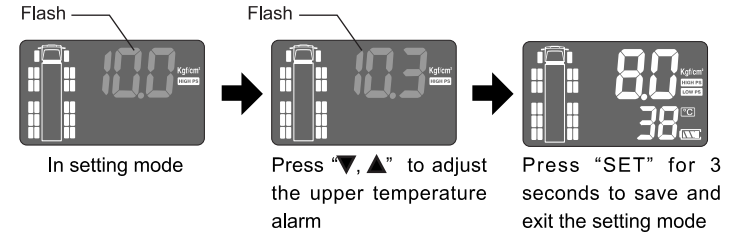


### Pressure upper limit setting

In "pressure upper limit" setting mode, the number will flash. Press "▼, ▲" button to adjust. Press "SET" button to confirm and enter next program. Press "SET" button for 3 seconds to save and exit with the buzzer beep twice. The upper pressure limit can not lower than the lower pressure limit.

Adjust range: 14 bar

Factory setting: 10.0 bar

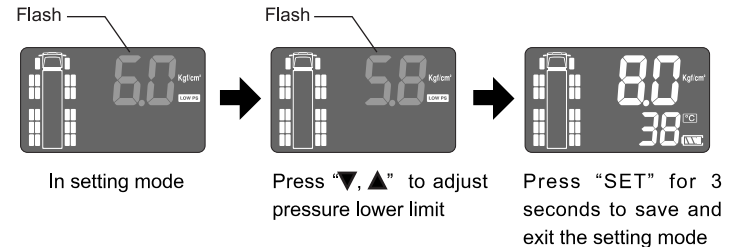


### Pressure lower limit setting

In "pressure lower limit" setting mode, the number will flash. Press "▼, ▲" button to adjust. Press "SET" button to confirm and enter next program. Press "SET" button for 3 seconds to save and exit with the buzzer beep twice. The lower pressure limit can not higher than the upper pressure limit.

Adjust range: 1.0 bar

Factory setting: 6.0 bar

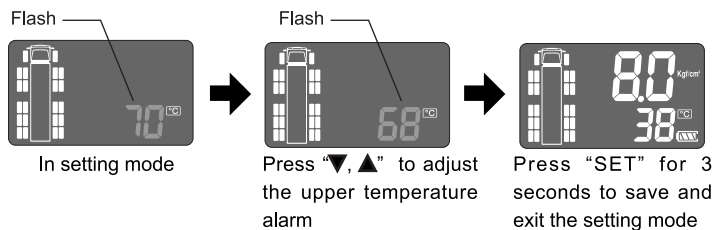


### Temperature warning

In "temperature warning" setting mode, the alarm temperature number will flash. Press "▼,▲" button to adjust. Press "SET" button to confirm and enter next program. Press "SET" button for 3 seconds to save and exit with the buzzer beep twice.

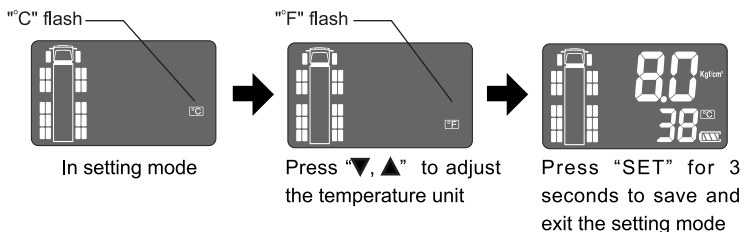
Adjust range: 50~90°C

Factory setting: 70°C



### Temperature unit

In "temperature unit" setting mode, the unit icon will flash. Press "▼,▲" button to adjust. Press "SET" button to confirm and enter next program. Press "SET" button for 3 seconds to save and exit with the buzzer beep twice.



### Day light mode

Press and hold the "◀" button for 3 seconds to choose the day/night mode of the display.

#### In day mode:

The backlight of the display will turn on constantly.

#### In night mode:

1). Once the ACC turns on, the backlight will turn on. After all tires information have been showed circularly one time, the backlight will turn off. (If the quantity of tire is less, the backlight will turn on at least 30 seconds)

2). The backlight will turn on constantly when there is alarm warning for abnormal tire.

3). If the display battery is low or there is false alarm, the backlight will turn on 10 seconds.

4). Press any button of the display, the backlight will turn on 10 seconds.

### Display turn on/off

Remove the display from the holder, press and hold the "▲" button for 5 seconds, the display will turn off after one beep heard.

Press and hold the "▲" button for 5 seconds, the display will turn on again after one beep heard. (Or reconnect the display on the holder, it will also turn on)

### Tire information query

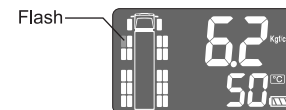
#### At charge mode (The display is connected to theholder)

Press "◀▶" buttons to choose left or right tires. Press "▼▲" buttons to choose front or rear tires. The information of tire which you chose will be showed on the display. Press the "SET" button once, the display will stay on the current image and only showed the information of the current tire. The corresponding tire icon "■" will flash quickly. Press the "SET" button once again, it will return to normal tire information showed. (If there is alarm warning for any abnormal tires, this operation is invalid.)

#### At portable mode

(The display is removed from the holder)

Press "◀▶" buttons to choose left or right tires. Press "▼▲" buttons to choose front or rear tires. The corresponding tire icon "■" will flash slowly.



*Note:* In this mode, the display will not show the tire information circularly.