

# Hello.

## TPMS Start Guide

Welcome to your automobile's smart partner TPMS device. Please read the users' guide thoroughly and follow the instructions carefully to set up the device . Thank you.

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## **Introductions**

Thank you for purchasing our TPMS Device Model No. T501.

Adopting the Infineon solution, the TPMS device mainly consists of 4 tire sensors modules and a 4 inches LCD color screen brilliantly monitoring vehicle status such as air pressure & tire temperature in real time.

Also a L-capacity rechargeable battery is inserted inside the host (or we say the LCD screen) . And a high-efficient solar panel is equipped as well. Moreover the integrated circuit board built-in is designed for low power consumption. With all 3 delicate elements above the endurance of the device is up to 45 days which offers profound assistance for long road trips.

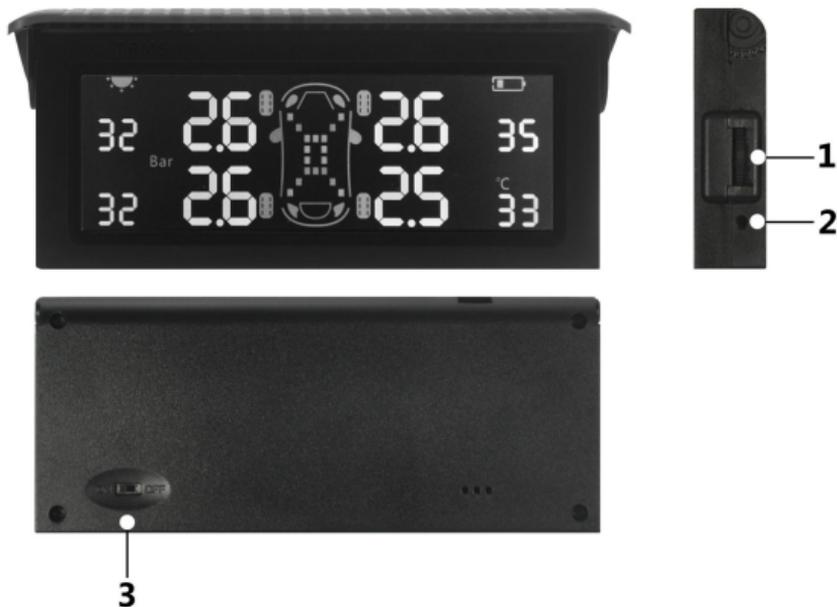
Further, via our self-developed Android and iOS Apps available in Google Play and App Store, you can connect

your phone with the TPMS device, monitoring and controlling your vehicle more smartly.

Now please take some time to know the device well, install it properly as per instructions below and commence the fantastic experience.

For more information please visit our official website [www.v-checker.com](http://www.v-checker.com) or follow us on Facebook. Thank you.

# Overview

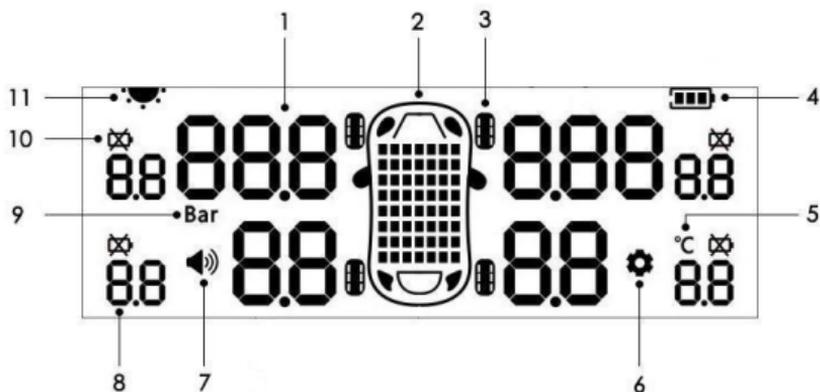


## Button Basics

1. Scroll Buttons: Up Key (Scroll Upward), Down Key (Scroll Downward), OK Key (Press-down Vertically)
2. Charger Connector (DC 5V Input)
3. ON/OFF Switch

## Functional Specifications

### Meet the Icons on Screen



1. Tire Pressure Value
2. Vehicle Symbol
3. Tire Icons
4. Battery: Showing battery level or charging status
5. Temperature Unit (°C)
6. Settings Indicator
7. Buzzing Indicator: lit-up when buzzer sound is on.
8. Tire Temperature Value.
9. Pressure Unit (Bar)
10. Tire Sensors Low Battery Indicator
11. Solar Panel

## Sensor's Types

The TPMS Model No. T501 employs sensors on each wheel, either internal or external, displaying real-time tire pressures, temperature and etc. at each location monitored whenever the vehicle is moving.

In regards to the External Sensor Module, it can be easily mounted to the valve stems manually. And there's no need to adjust the tire's dynamic balance due to sensor's negligible weight. Please refer to the picture of the external sensors below.



External Sensors

While for the Internal Sensor Module, instead of the original valve stem, is mounted on the inside of the rim. And we highly recommend you that please bring the device to a tire-repair workshop and let the professionals do the exchange as it is being possible only with the tires dismounted. Also the dynamic balance adjustment is required since our internal sensor module has a certain weight which makes some difference to pressure. Picture of the internal sensors are as followings.



Internal Sensors

## Installing and Setting Up

1. Connect the device to a power outlet and charge it for at least 4 hours. Make sure the battery is fully charged on first use. (**Important: DC 5V**)
2. Turn on the power switch on the back and screen will be lit up.
3. **External Sensors:** Mount the sensor modules to the valve stems one by one, meantime check the data (air pressure value / temperature value) showing on the corresponding position of the display screen is normal or not.

**Internal Sensors:** Please take device to a tire-repair workshop and let professionals

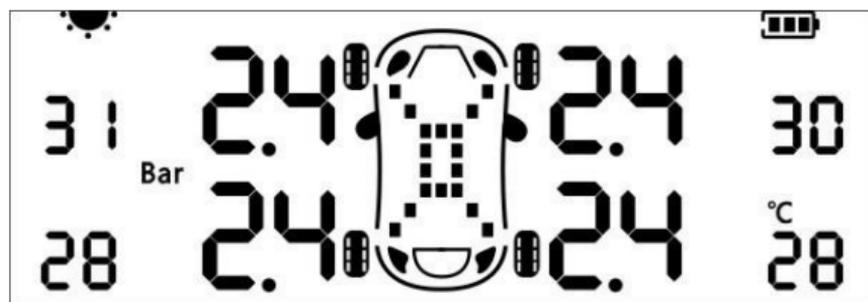
- ① Dismount tires.
- ② Replace the valve stems with sensor modules.
- ③ Bleed and fill the tire one by one.
- ④ At the same time observe the data (air pressure value / temperature value) showed on the corresponding position of the display screen is

normal or not.

4. Start the car and run at a speed of no less than 30Km/H for 10 minutes. The whole set-up process is complete.

## Proper Display

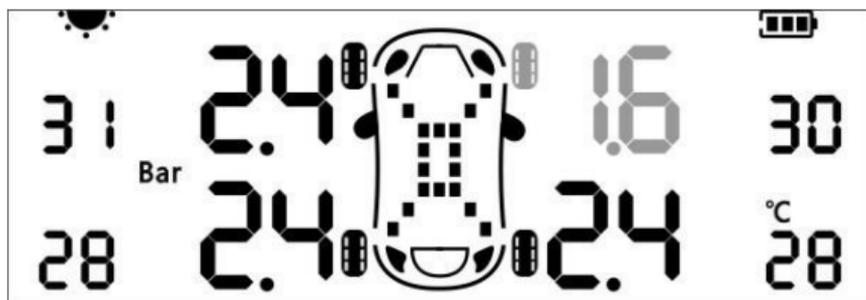
A real-time and accurate display of tire air pressure value / temperature value / solar panel working status / battery capacity, etc.



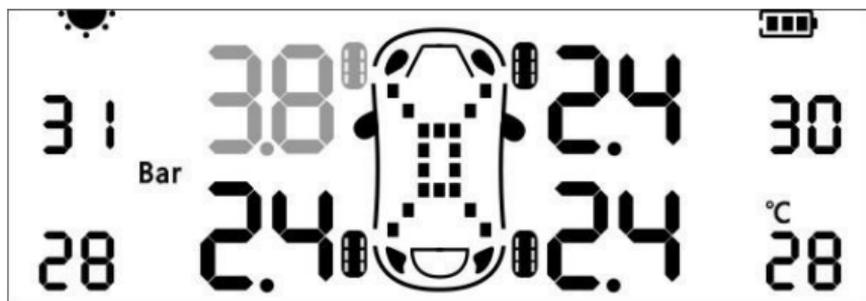
## Alarm and Warning

TPMS T501 monitors the real-time status of tires when vehicle is moving and will warn driver timely if there is any abnormal situation.

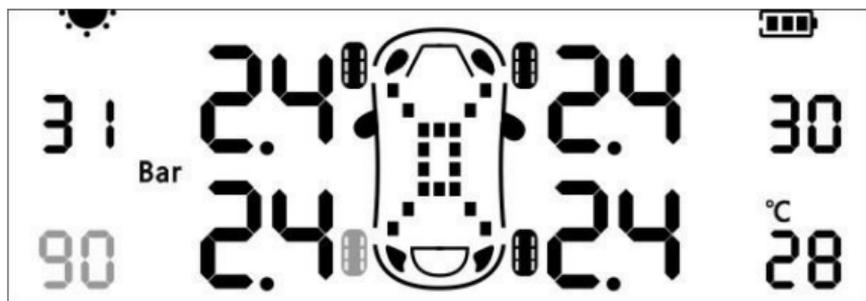
**Low Pressure Warning:** When the tire pressure is lower than the set value, the corresponding tire icon as well as the pressure value will keep flashing and a buzzer sound will pop out.



**High Pressure Warning:** When the tire pressure is higher than the set value, the corresponding tire icon and the pressure value will keep flashing and a buzzer sound will pop out.

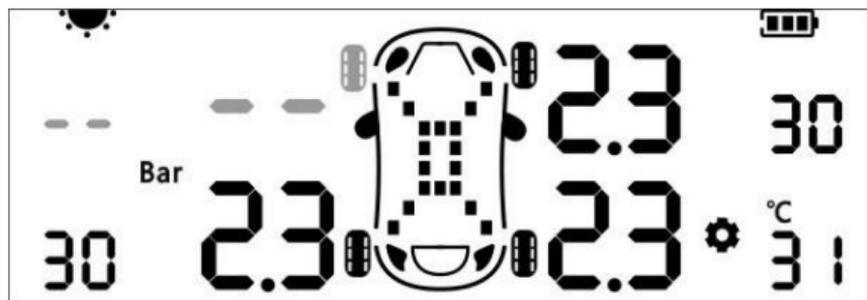


**High Temperature Warning:** When the tire temperature is higher than the set value, the corresponding tire icon and the temperature value will keep flashing and a buzzer sound will pop out.

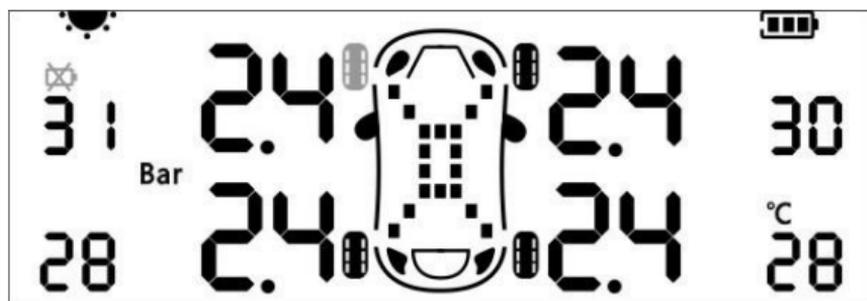


**RF Receive Data Failure Warning:** it may happens that the sensor is damaged because of the improper installation or usage the sensor. In a set time (System setting value is 15 minutes) the host will fail to receive the radio frequency transmitted from the damaged tire sensor. Under this circumstance the icon of the corresponding tire, the tire pressure value and the temperature value will be blinking, which alerts the driver to the emergency

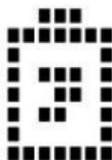
situation.



**Sensor Low Battery Warning:** A button cell is inserted in each tire sensor. Normally the cell life of the external sensors can last for 2 - 3 years, while 4 - 5 years for the internal sensors (depending on the actual usage conditions). When system detects a low-battery status the corresponding tire icon as well as low-battery indicator will be lit up.



**Low Battery Warning for Rechargeable Battery:** The host (main device) is equipped with a high-temperature rechargeable polymer battery. When the system detects that the battery is low, the following alarm interface will show up. Then the host shall be charged promptly.



## **APP Software Installation**

Scan QR code below with your smart phone, install the App software and set it up properly as per wizards instructions.



QR Code

Tap “Settings” on smart phone App software and open “Bluetooth”, then tap ”Search for Device” and choose “V-checker”, at last enter password ”1234” for pairing.

## **System Settings**

Press the OK key on the home interface, the device will enter the settings menu. Then select settings by scroll the button upward or downward. Below are sample pictures of various settings for your reference.

Please press the OK key if there is any need to set the device and scroll the button upward or downward to adjust

the value, then press down OK key to save the preferred setting.

01: Buzzer Alarm Switch

02: Tire High Pressure Warning

03: Tire Low Pressure Warning

04: Tire High Temperature Warning

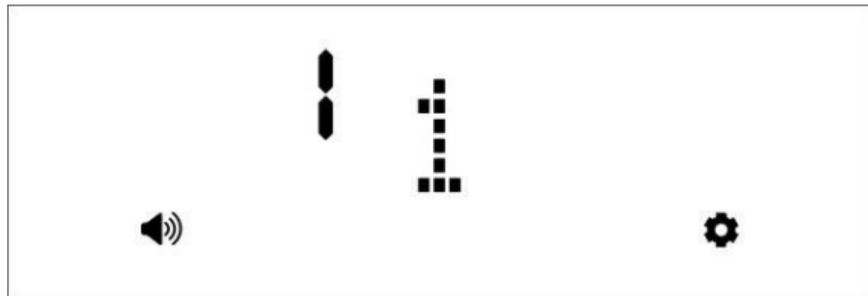
05: Boot Sensitivity

06: Auto Shutdown

07: Replacement of the Damaged Sensor

08: LCD Back-lit Brightness

09: RF Reception Interval



System Setting: Buzzer alarm switch



System Setting: Tire High Pressure Warning



System Setting: Tire Low Pressure Warning



## System Setting: Tire High Temperature Warning



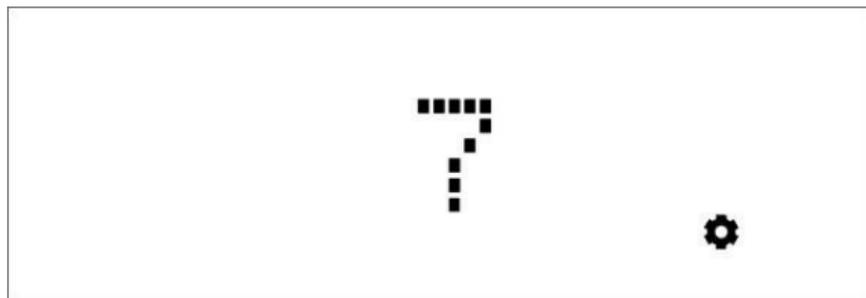
## System Setting: Boot Sensitivity

Owing to the inserted G-sensor detecting the vehicle's vibration intensity all the time, the device is programmed to turn itself on automatically once the ignition is on. This is what we call “the boot sensitivity of the device”. In the setting menu the value of “Boot Sensitivity” can be edited, saved and loaded. The bigger the boot sensitivity value is, the more sensitive the device will be.



System Setting: Auto Shutdown (unit:Second)

The TPMS is also programmed to shift to “sleeping mode” i.e. be shut down automatically after a set time (unit:Second) when the vehicle is completely stationary and there is no vibration signal being detected any more.



System Setting: Replacement of the Damaged Sensor



System Setting: LCD Back-lit Brightness

【0: Shut-down】

【1: Soft】

【2: Bright】



System Setting: RF Reception Interval

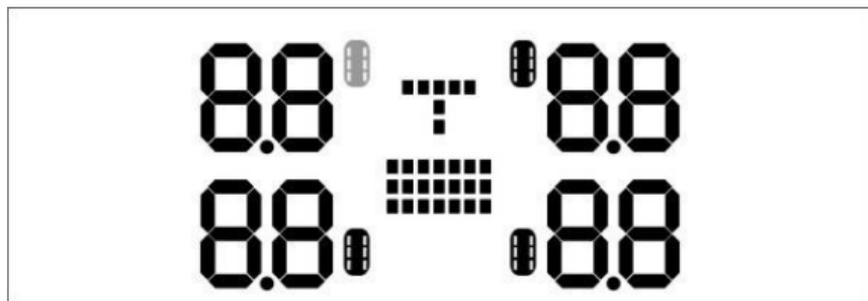
In order to prolong the cell life, the sensor will stop transmitting RF signals when there is no change in tire pressure or temperature. RF Reception Interval will be set on this interface (unit:Minute)

## Replacement of Damaged Sensor

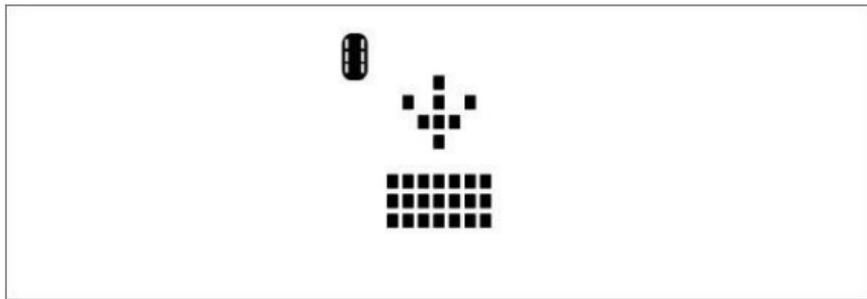
It may occur that the tire sensor is damaged due to improper installation and usage, and the device is no longer working properly. As such the damaged tire sensor must be replaced for maintenance.

Specific steps are as follows ( Take LR Sensor as an example below ):

1. Enter replacement interface in System Setting and select the corresponding tire icon of the damaged sensor by scrolling button upward or downward.



2. Press OK key and start the setting. The host is waiting for signals from the new sensor.

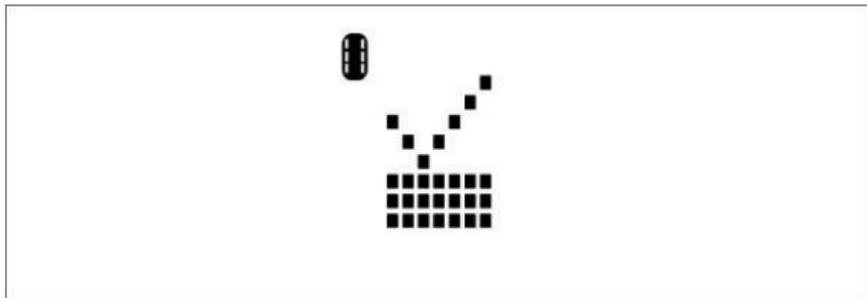


External Sensor: Mount the new sensor to the valve stems and install it properly.

Internal Sensor: As per suggestions above, please let professionals in tire-repair workshop replace the sensor and adjust the dynamic balance accordingly.

Note: RF signals are being transmitted as long as the sensor (either external or internal) detects status change during inflating process or deflating process.

3. Press the OK key after the host receives signals from the new sensor successfully. Save the setting and replacement is done.



## **Restore Factory Settings**

In order to ensure the convenient usage of the device, the TPMS device can be restored to factory settings manually if there is any need. Specific steps are as followings:

Step1: Turn off the power switch.

Step2: Press down the OK key and at the same time turn on the power switch.

Step3: Wait till there is a “0” showing up. Factory settings reset is complete.

For more information, see the V-checker® Support articles on our website or send email to our Support Team [tech@v-checker.com](mailto:tech@v-checker.com) if you can't restore your device.