Tire Pressure Monitoring System

Instruction Manual
CL201/SO

TPMS

Contents

Product Picture

Monitor Display

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1. Product Introduction

1-1 Production Introduction

Thanks for choosing our TPMS product. The system is used to monitor the pressure and temperature of each tire. Once alarming condition is set up by the user, the system will alarm in case of abnormal pressure and temperature and make the driver be alerted of any danger . The system also enhance fuel efficient, prolong tire life and make the driving more comfortable. Be sure to read the user guide carefully before installation and keep the manual for future use.

1-2. SAFETY CAUTION

It is highly recommended to read the instructions below before installing the system:

(1) The monitor should be installed inside the vehicle where it does not affect driving visibility.

(2) The vehicle should be stopped for cooling if there is high temperature alarm in order to avoid braking problem or tire blowout.

(3) Driver should stop the vehicle and get off to check the tire if there is continue high pressure or slow leakage alarm .

(4) Be ware of tire blowout when there is high tire pressure, and be ware of fuel consumption and wheel balance while low tire pressure.

(5)The system can effectively monitor tire pressure and temperature but cannot avoid all traffic accident or tire blowout. Using quality tire product and monitor correct tire pressure is still necessary.

(6) Be ware of driving safety while checking tire data during driving.

(7) After the system is installed correctly, the driver does not need to stare at the monitor all the time and feel interrupt during driving.

1-3. INSTALLATION TIPS

1.The signal transmission from the monitor and sensors is wireless, and the transmission distance is long enough for a passenger car due to internal anti-inference circuit design.

2.Due to the air expansion and contraction, the tire pressure and temperature will normally changing all the time while driving.

3.There is normal air leakage in every tire rim, TPMS should have no responsibility to keep the tire pressure unchanged after long time storage or driving.

4.Should you have any question or problem while installation, please contact with your local distributor.

2. Prodvct Features

- • **Pressure, Temperature Alarm**
- • **Visual & Audible Alarm**
- • **Tire setting Interchangeable**
- • **Fixed Pressure, Temperature alarm level setting**

- • **Multiple measurement unit (PSI/BAR)**
- • **4 wheel display at the same time**
- • **Fast leakage alert**
- • **Easy installation, stable performance**

3. Product Assembly

3-1 Display Key and LCD diagram
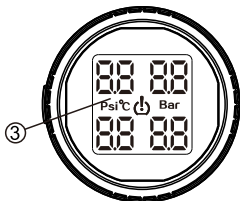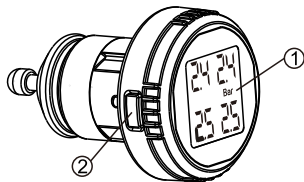
① LCD Screen
② "SET" Key
③ Full Character Display
Pressure unit BAR/PSI
Temperature ºC only

ICON	Description
⏻	Alarm Status
L0	Sensor Battery Low

3-2. Product Accessories

Enclosure details refer
to actual product

| Sensor	Opener Tool (1pc)	Hex Wrench (1pc)	Hex Nut (4pcs)	Ribber O-Ring (4pcs)

Quantity of Sensor will be shipped in 4 pieces or specified by customer to add one more pieces for spare at extra cost.

4. Installation Instruction

4-1. Monitor Display Installation

Design of this monitor is to use cigarette lighter adaptor (CLA) power for easier installation and avoid any obstacle to driver view. Please plug in the CLA firmly to begin the normal mode operation and upon power up through CLA.


mount position
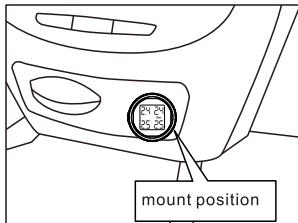
Tips:

1. When reading the data form the monitor shall need additional safety awareness.
2. The purpose of this monitor is to allow alarm to the driver on time and no need driver's attention during driving.

5. Parameter Setting

5-1 Pressure unit selection

Selection of pressure unit (PSI or BAR) can be done by user, details as below:

Under normal condition, press "SET" key for 3 seconds until "Bi "sound to release, system will begin SETUP mode, press on flashing unit once will allow changing to another unit, upon selection of preference unit, press "SET" again for 3 second until "Bi" sound to release will resume normal mode and save the changes. If nothing was pressed during SETUP mode for one minutes, system will also return to normal mode but without saving changes.
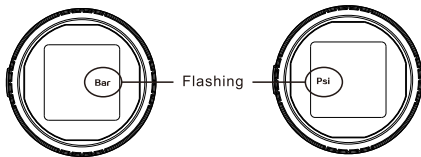
Flashing

5-2. High/Low pressure alarm level setting

During normal mode operation, long press "SET" key for 3 second until "Bi" sound to release, system will enter initial setup mode for pressure units with flashing icon, press "SET" key for 1 second will change to high (UP) pressure alarm level setup mode, short press "SET" key to scroll to preference pressure value, press "SET" key for another 1 second will change to low (d0) pressure alarm level set up mode. Short press "SET" key to scroll to preference pressure value. Upon selection of above UP/d0 alarm level, Long press "SET" key until "Bi" sound to release and save the changes. If nothing was pressed during setup mode for one minutes, system will also return to normal mode but without saving changes.
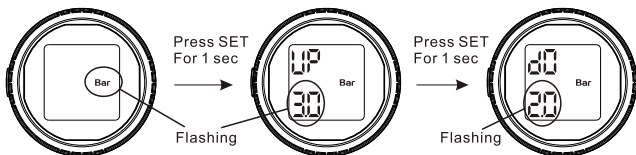
5-3. Temperature alarm level setting

During normal mode operation, long press "SET" key for 3 second until "Bi" sound to release, system will enter initial setup mode for pressure units with flashing icon, press "SET" key for 1 second will change to high (UP) pressure alarm level setup mode and press "SET" key to next 1 second will change to low (d0) pressure alarm level set up mode. press "SET" key for next "1" second to enter temperature setup mode. Short press "SET" key to scroll preference temperature value. Upon selection of above temperature alarm level, Long press "SET" key until "Bi" sound to release and save the changes. If nothing was pressed during setup mode for one minutes, system will also return to normal mode but without saving changes.
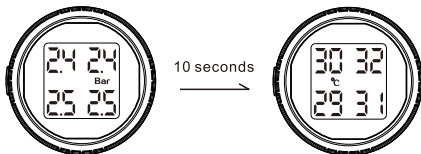
SUMMARY: Pressure Unit/ High Pressure value/Low pressure Value/High Temperature value setup sequence as below:
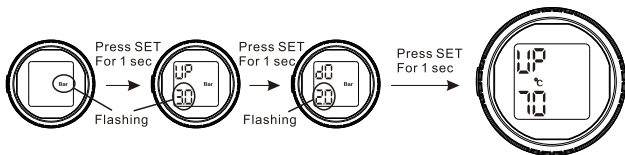
6. Monitor Parameter Display

Display can show 4 wheels Pressure & Temperature together:

During monitor displayed pressure, press "SET" once will change to temperature reading for 10 seconds and resume previous pressure reading.

10 seconds

7. Alarm Status

High Pressure/ Low Pressure/ High Temperature/ Fast Leakage/ Sensor Low Battery alarm

Display has design to use same user interface to show 4 wheels pressure & temperature reading together, when tire pressure excess its preset alarm limits, display will indicate corresponding alarm icon (⏻ , ⌊) through flashing and sound. Press "SET" once will stop the alarm sound , the flashing icon can only be stopped when tire problem can physically be resolved.

Factory default alarm setting:

High Pressure Alarm level	3.0BAR (44 PSI)
Low Pressure Alarm level	2.0BAR (29 PSI)
High Temperature Alarm level	70 ℃

Step to restore factory default setting: press and hold SET key and plug the console into the cigarette lighter power socket until Bi sound to confirm factory setting was restored.

7-1. High Pressure Alarm

e.g. Left Front tire pressure reached 3.1BAR,

display showing alarm together with (Bi…Bi…Bi…)

sound as shown.

Pressure Reading flashing ────

Alarm Status icon flashing ────
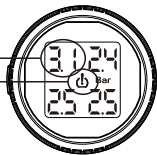
7-2 Low Pressure Alarm

e.g. Left Front tire pressure reached 1.9BAR,
display showing alarm together with (Bi…Bi…Bi…)
sound as shown.

Pressure Reading flashing
Alarm Status icon flashing

7-3 High Temperature Alarm

e.g. Left Front tire pressure reached 71°C,
display showing alarm together with (Bi…Bi…Bi…)
sound as shown

Pressure Reading flashing
Alarm Status icon flashing

7-4 Fast Leakage Alarm

Once sensor has detected fast leakage will signal to monitor immediately, pressure
reading, and alarm icon will flashing together, alarm (Bi…Bi… BI…) will sound. Press
 "SET" once will stop the alarm sound , the flashing icon can only be stopped when tire
problem can physically be resolved.

e.g. Left Front tire pressure dropped from
2.4BAR to 2.1 BAR, fast leakage display as
shown.

Pressure Reading flashing
Alarm Status icon flashing

7-5. Sensor Low Voltage Alarm

Once sensor battery has detected low voltage will signal to monitor immediately. Alarm (Bi..BI..BI..) sound for 10 seconds, and alarm icon " <img> , LO " will flash. "Pressure reading" and " LO " icon will flash alternatively (" LO " flash 3 second, "pressure reading" flash 5 seconds). Those flashing icon can only be stopped when sensor battery was replaced by new one.

e.g. left front tire battery low was detected, monitor alarm display as shown:

Low battery icon flashing

Alarm icon flashing
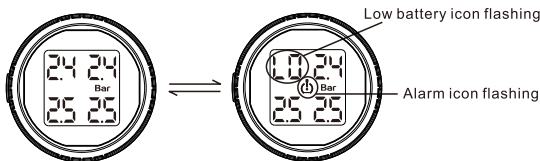
8. Custom ID coding

The factory has already coded 4 sensors to the monitor, and the sensors can be re-coded accordingly to actual tires' position after exchanging the tires. Below is Inflation Code Learning for re-code the sensors ID:

8-1 Inflate Code Learning

(1) In standby mode, short press "SET" button 5 times and release it after the "Bi.." sound to enter learning mode, the Left Front digits will flash on the LCD

(2) Short press "SET" once to scroll tire position needed to re-code. Once ready, then mount the sensor on to the tire valve, once the sensor sensed the inflation, the sensor will send its own ID code to the monitor and the monitor will display the sensor code after the "Bi.." sound. Repeat above step to re-code others sensor if needed .

(3) If no new ID code was detected, system will keep the old code unchanged.

(4) The new ID code will immediate replaced the old ID code when detected

(5) Ensure to press "SET" until "Bi.." sound to ensure new code completed saved into the monitor and resume standby mode operation.

(6) During learning mode if no key was press for one minutes, the system will resume to standby operation without saving any changes.

Corresponding tire display flashing
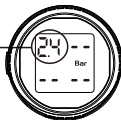
9. Sensors Installation

The factory has already set up the codes to each tire position .The standards are 4 sensors with one monitor, and every sensors marked tire's position with: LF, LR, RF, RR with stickers. If there is spare tire in customers' car, so it's needed to mark it's position with stickers. Please stick the correct tire position for easier future reference .
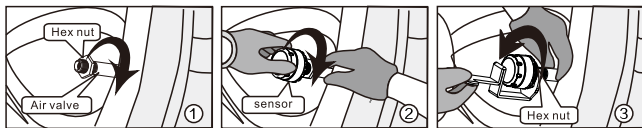
Default Mounting Position
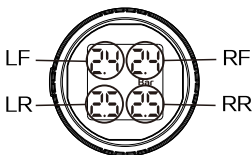
Tips:
Please mount sensors based on Factory default position. If there are error coding or wrong tire position, please read "recode sensor session" before restart.

9-1. External Sensors Installation

Notice: please ensure to turn on the monitor firstly before install the sensor so that the monitor can receive the sensor data on time.

① Fix the hexagon nuts in tire valve.

② Fasten sensor to the tire air valve.

③ Use special wrench to tight hexagonal nuts in counter clockwise direction.

Tips:
1. Each senor are labeled with its wheel position and highly recommended to be used during installation
2. If battery inside sensor has insufficient voltage will trigger battery low alarm
3. After all sensor has been installed, please ensure no any air leakage over wheel surface and may use soapy water for testing if necessary.

9-2. Sensor battery replacement

When the sensor low battery icon" ⬚ "shows on the monitor and corresponding tire icon is flashing, the sensor battery needs replacement. Using CR1632 battery cell which operates at -40℃ to +80℃ is recommended. You can buy replacement batteries from your local dealer.

(1) Use fixture provided inside package and open the plastic enclosure in counter clockwise direction

Battery Opener tools
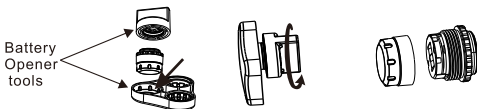
(2) Use the hex wrench provided to remove the cover from sensor.

(3) Replace new CR1632, (+) terminal upward.

CR1632
+

"_"
CR 1632 Lithium Battery

"+"
CR 1632 Lithium Battery

(5) Open or fasten the sensor battery cover with special opener tools. Please check if the rubber O-ring is in good condition otherwise replace a new one.

Rubber O-ring
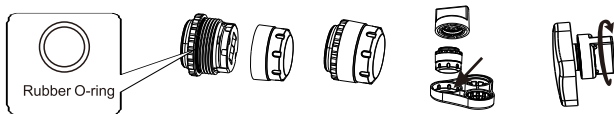
10. Technical Specification

10.1 Monitor Specification

Working temperature	−20℃~ 80℃
Storage temperature	−30℃ ~ 85℃
Output Voltage	DC 12 ~ 24V
Frequency	433.92MHz
Size	33 (Φ)X50 (H) mm
Weight	20g

10.2 Sensor Specification

Working temperature	−40℃ ~ 80℃
Storage temperature	−40℃ ~ 85℃
Pressure range	0~8 bar (0~116 psi)
Pressure Accuracy	±1.5 psi (±0.1 bar)
Temperature Accuracy	± 3 ℃
Transmission Power	＜10 dBm
Transmission	433.92MHz
Battery life	≥2 Yrs
Dimenson	21 (Φ)X17.5 (H) mm
Weight	9g

11. Friendly reminder

(1) Please use the system correctly in the right condition. Our company is not liable for damages from the miss-use.
(2) Installation should follow the instruction guide, if any damage occurs due to the wrong installation, our company is not liable for it.
(3) The content and specification are subject to change without prior notice. Pictures in the article are just for illustration. Please take the actual product for reference.
(4) Internal sensor installation should be carried out by professional person. Be ware of the internal sensors while reload the tire.