TPMS1209M

USER MANUAL

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Table of Contents

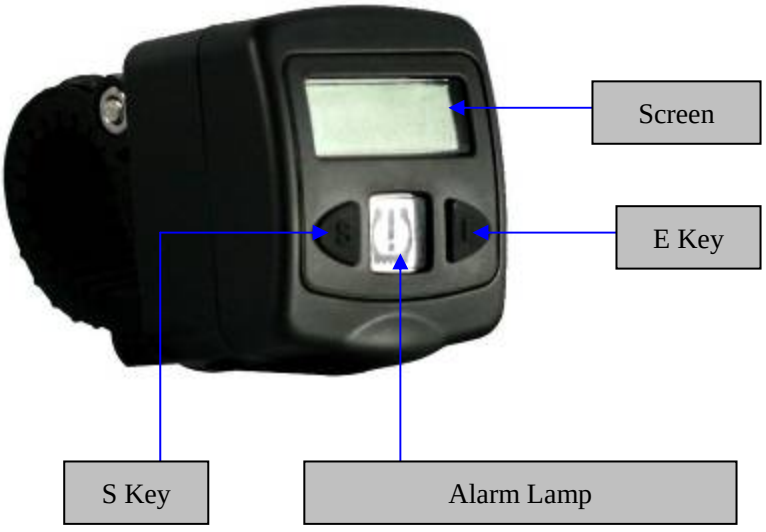
TPMS1209M Full-Time Direct TPMS

TPMS1209M is a full-time direct tire pressure monitoring system which includes one Monitor and two Transmitters.

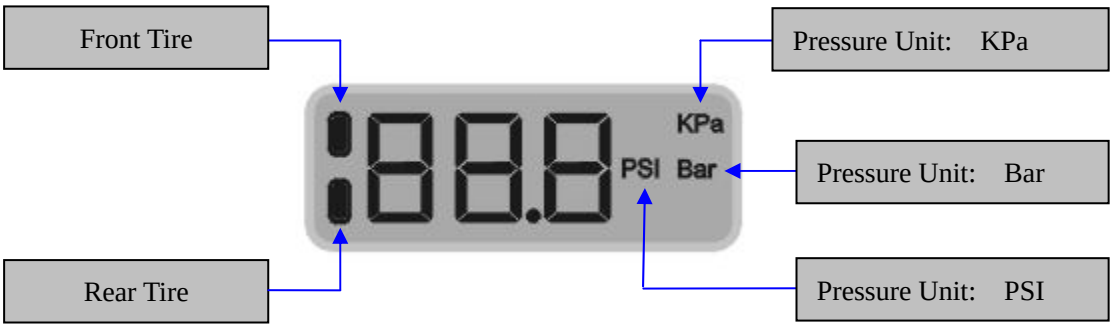
The transmitters can be screwed onto the tire valve and then monitor the tire pressure all the time. Transmitters send signals to monitor via RF technology and the monitor receives and deals with the data. The system will issue different alarms if the tire pressure is at an improper level based on the standard pressure. Through TPMS, the driver can keep the tire running under a proper pressure so as to avoid excess gasoline consumption and keep the vehicle in an easily controlled state.

Parts of TPMS1209M

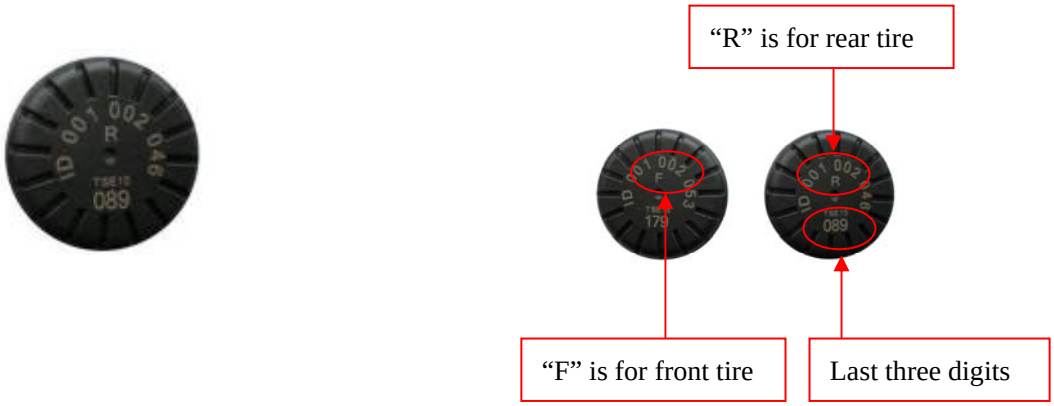
Monitor



Screen Display



Transmitter



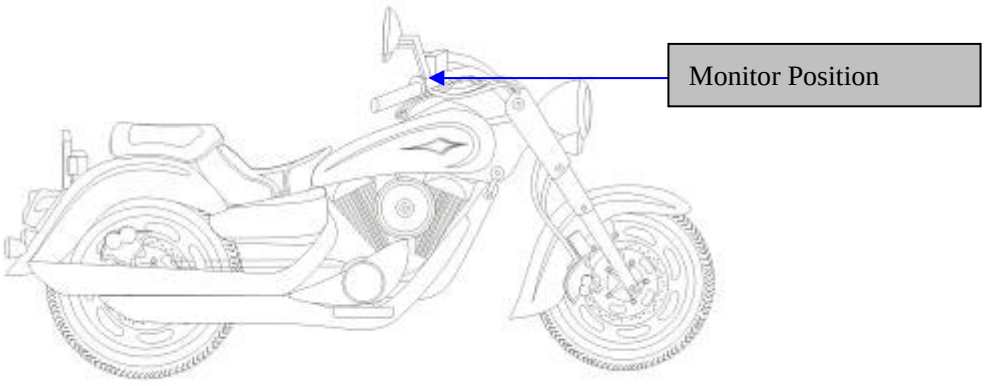
Installation of TPMS1209M

Monitor Installation

Note: TPMS1209M should be installed by the professional.

Fixing Monitor

Fix the monitor on the handlebar and adjust the angle of view.

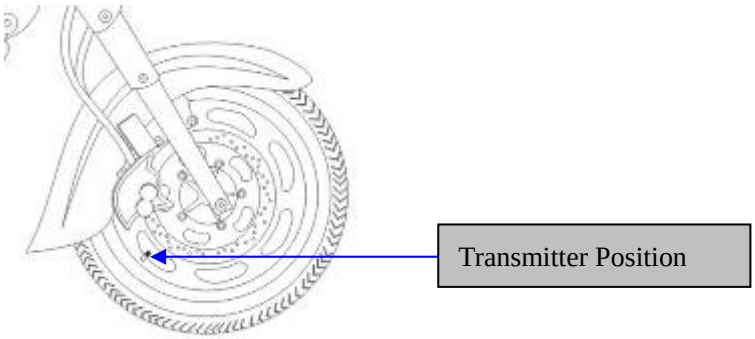


Wire Connection: Draw the socket wire to the wiring box of vehicle, connect the (red) positive wire to a 12V positive connection, and the (black) negative wire to a negative connection.

Display Mode: The monitor works after it was connected: from the front tire, the position of tires was displayed on screen by turn. As the transmitter hasn't been set, the monitor displays "NSP".

Transmitter Installation

1. Inflate the tire to the standard pressure.
2. Screw off the current tire valve cap.
3. Check the tire position symbol etched on top cover of the Transmitter, "F" is for front tire, "R" for rear tire.
4. Screw the transmitters onto the correspondent tire valve.



5. Check the connection of Transmitter and valve with the soap solution to confirm whether the transmitter is firmly screwed onto the valve or not, check whether there is air leakage caused by the installation or the seal of the Transmitters or not.
6. Once screwed onto the tire, transmitter can sense the pressure inside the tire and transmit the data to the monitor, and the information will appear on the screen

within 6 minutes.

Security Lock

Special tool for the lock

TPMS1209M has a Lock and a special tool for the Lock for each Transmitter to prevent the Transmitters from being stolen. The Transmitter Lock has three sockets on it and each socket has a bolt in it, as shown in the above figure.

The function of the Lock is to connect the Transmitter and the Lock by connecting the meshing part of them, and then fasten the Lock firmly by the three bolts in the sockets, thus the Transmitter with the Lock can be firmly screwed onto the valve and cannot be stolen or be screwed off by a sudden force.

Installing the Lock or not will not influence the functions of the Transmitter.

The customer can choose whether use the Security Lock or not.

Note: If the customer chooses to use the Lock, the following installing steps should be follow the Transmitter Installing Term 3.

Installation steps of the Security Lock

1. Connect the meshing parts of the Transmitter and the Lock

First connect the meshing parts of the Lock and the Transmitter to make them an integrated part, then screw the Transmitter together with the Lock firmly onto the valve, as shown in the left figure.

2. Lock the Transmitter

Use the special tool to screw the three bolts inside the sockets on the Lock. Let both the Lock and the Transmitter be screwed firmly onto the valve, as shown in the left figure.

Then the Transmitter can not be screwed off unless the three bolts are screwed off by using the special tool.

How to inflate the tire with a locked Transmitter

Before inflating the tire, please

1. Use the special tool to loose the three bolts inside the sockets on the Lock.
2. Screw off the Transmitter.
3. Remove the Transmitter together with the Lock from the Valve.

Note: The Lock will not influence the Transmitters' operation; you can choose whether or not to use the Lock while you install the Transmitter.

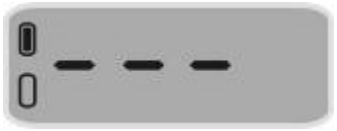
System Programming of TPMS1209M

Programming of Transmitter ID

The transmitter ID has 12 digits, for example, the ID number is "001 001 012 158", user only needs to input "158". Operation is as follows:

1. Under normal mode, press E key for 3 seconds to access the system programming index interface, "1" is the ID of transmitter interface, as show in below figure:

2. Press E key to access the front tire ID programming interface, and then press the E key again for 3 seconds the first digit of the ID flashes. Then press S key to adjust the number to "1", then press E key to switch to second digit.



3.The number flashes, press the S key to adjust the value to “5”, then press the E key to switch to third digit which will flash.

4. At this time press S key to adjust the value to “8” ,then press E key for 3 seconds, the screen flashes twice showing ID of front tire has been saved. It will automatically switch to ID programming interface of the rear tire.

5. The rear tire ID programming is the same as that of front tire. After programming the rear tire ID, press E key for 3 seconds to save. The screen flashes twice and automatically return to system programming index interface.

Pressure Unit Selection

TPMS1209M provides 3 pressure units “PSI”, “bar” and “KPa”, the system default unit is PSI. User can choose the unit as follows:

1. Under the ID programming index interface, press S key to switch to pressure unit selection interface, then press E key to access, as shown in below figure:

2. Press the E key for 3 seconds, the pressure unit flashes, then press S key to switch between pressure units “KPa”, “PSI” or “Bar”.

3.Under a certain pressure unit interface, press E key for 3 seconds to save the pressure unit, the screen flashes twice and returns to the pressure unit selection index interface automatically.

Standard pressure inquiry and programming

Standard pressure inquiry

1. Under the pressure unit selection interface, press S key to switch to standard pressure programming index interface, as shown in below figure:

2. Press E key to access standard pressure programming interface of the front tire,

then press S key to switch the tire position, and then press the S key for 3 seconds to return to the system programming index interface.

Standard pressure programming

1. For example, program the front tire standard pressure to 23 PSI.
2. Under standard pressure programming interface of the front tire, press E key for 3 seconds to access. At this time the first digit flashes, press E key to confirm and switch to the second position, then press S key to adjust the value to “3”. Press the E key for 3 seconds to save, the screen flashes twice and switch to the rear tire position for programming.

3. Programming of rear tire is the same as the front tire. Press E key for 3 seconds to save, the screen flashes twice and will automatically return to the system programming index interface.

Note: when the pressure unit is KPa or Bar, the third digit will always be 0 and

cannot be adjusted.

Alarm record inquiry

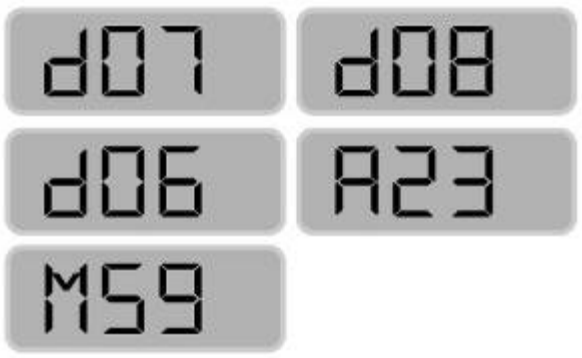
The user can check the latest 10 pieces of alarm records from 0 to 9, which includes tire position, alarm type, alarmed pressure value and alarm time etc. Operation is as follows:

1. Under the pressure unit selection index interface, press S key to switch to the alarm record inquiry interface.

2. Press E key to access the alarm record inquiry interface. “0” stands for the first alarm record. Then press S key to check the desired alarm record.

3. Under the alarm record inquiry interface, press E key to check the record. The system automatically displays alarmed pressure, alarm time (year, month, date, hour, minute) in turn with each displayed for 3 seconds. As shown in below figures:

Alarm time:



Above figures stand for the low pressure alarm of front tire. The pressure is 10kPa

and the time is “PM 23:59 on 6th August 2007”

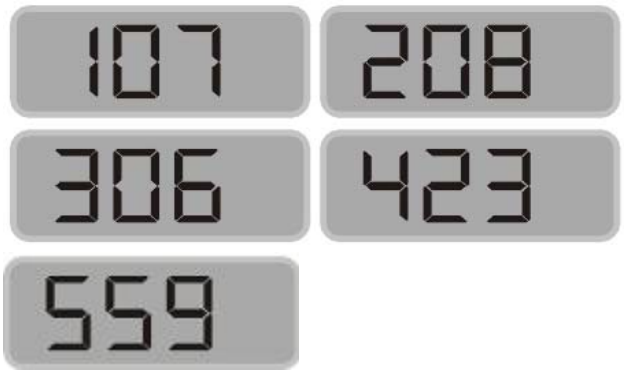
4. After inquiry, press S for 3 seconds can return to the alarm record inquiry index interface as shown below.

System time inquiry

The system time has been preset before in the factory. System clock is the base of the alarm time record. User can check the current date and time via following operation steps:

1. Under the alarm record inquiry index interface, press S key to switch to the system time inquiry index interface, as shown in below figure:

2. Press E key to access the interface. Press S key to check the system time and “ year, month, date, hour, minute” is displayed in turn. After that, press S key for 3 seconds to exit.



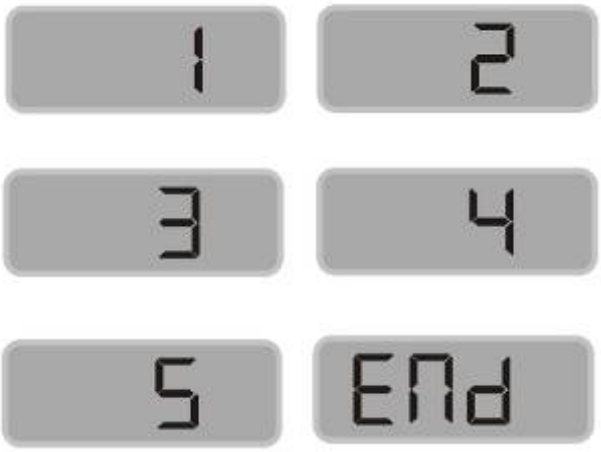
Exit of System

1. Exit of current programming interface

Under the system programming interface, press S key for 3 seconds to exit and return to the system programming index interface. For example, under the standard pressure programming interface for front tire, press the S key for 3 seconds to exit and then return to the system programming index interface.

2. Exit of programming index interface

1. Under the programming index interface, press S key to switch to the “END” interface, as shown in below figure:



2. Then press E key to exit and return to the normal operation mode. If there is no operation within in 3 seconds, the system will automatically return to the normal mode, as shown below:

System Function of TPMS1209M

Full-time Monitoring

Function：S&T TPMS1209M can monitor the tire pressure whether the vehicle is running or parked. Therefore to keep the driver informed of the tire state and realize full-time monitoring.

Low Pressure Level 1 Alarm

Display mode

Function：The system will issue a Low Pressure Level 1 Alarm when the tires pressure is 12.5% lower than the standard

Alarm mode: The alarm light, Low Pressure Level 1 Warning Icon and the audible alarm turn on together.

Treatment: Press any key to stop the audible alarm. The red alarm lamp remains on and the display reverts to the normal mode. The red alarm light will automatically turn off only when the tire pressure returns to the standard level.

Low Pressure Level 2 Alarm

Display mode

Function：The system will issue a Low Pressure Level 2 Alarm when the tires pressure is 25% lower than the standard

Alarm mode: The alarm light, Low Pressure Level 2 Warning Icon and the audible alarm turn on together.

Treatment: Press any key to stop the audible alarm. The red alarm lamp remains on

and the display reverts to the normal mode. The red alarm light will automatically turn off only when the tire pressure returns to the standard level.

Transmitter Trouble Alarm

Display mode:

Function：If one transmitter fails to work, or the monitor cannot receive the data because of the RF interference for a certain time, the system will issue a Transmitter Trouble Alarm.

Alarm mode: The alarm light, the Transmitter Trouble Alarm Icon and the audible alarm turn on together.

Treatment: Press the any key to stop the audible alarm. The red alarm light will automatically turn off when the Monitor can receive the signals from this tire position again.

Specifications

Operating Temperature of Monitor	-30℃～+70℃
Operating Temperature of Transmitter	-40℃～+85℃
Pressure Scale of Transmitter	0～600kPa/0～6Bar/0～87psi
Distant of Transmitter	12 meters
Battery Life of Transmitter	3－4 year
Pressure Monitoring Precision	±10kPa/±0.1Bar/±1.5 psi
Modulation Mode	FSK
RF Frequency	434.1MHz
Emission Output Power	-7dBm
Receiving Sensitivity	-75dbm
Input Voltage of monitor	DC12V

Frequently Asked Questions

1. **Q: Why do I need to check the tires periodically with the TPMS system installed?**

   A: Periodic check of the tire can keep the driver aware of the tires conditions and ensure driving safety.

2. **The red alarm lamp lights up without beep alarm:**

   The audible alarm can last for 100 seconds once alarm occurs. If the user does not press the S Key to stop it, it will stop automatically after 100 seconds. When the user notices that the red alarm lamp is on, pres S key can check the tire with alarm and alarm type.

3. **Pressure alarm frequently occurs:**

   The user can check if the standard pressure is suitable or not. If the standard pressure is too high or too low, re-set the standard pressure according to the page 7 of User Manual.

4. How to deal with the transmitter trouble alarm issued by monitor?

If one transmitter fails to work, or the monitor cannot receive the signals for

20 minutes because of the RF interference, the system will issue a transmitter trouble alarm. Once there is no interference, the system shall recover normal performance. If the system cannot recover, please contact us at +86-21-50792951.

5. There is sound when press the button, but no screen display.

The operation temperature of LCD screen is from -30℃ to +70℃ and the highest storage temperature is +75℃. And this is decided by the LCD characteristics. If the screen works at a much lower temperature (for example, -40℃) for a long time, it may result in the screen damage. So the display should not be used at a lower temperature for a long time.

Warranty Terms

Valid Warranty Card

1. The Warranty Card must be filled completely, signed by and sealed by the authorized distributors of Sate.
2. The Warranty Card is valid in the countries or regions where the purchase occurs.
3. The Warranty Service requires user to offer the Warranty Card and the original invoice.

Warranty Condition, Responsibility and Limitation

1. The product warranty period is one year and is subject to the time marked on the invoice.
2. Any damages or faults due to improper use are not involved in the warranty commitment.
3. Users are not allowed to open, repair and refit the products by themselves, otherwise the warranty service will be invalid.
4. Injecting chemicals such as leak-proof glue into the tire will damage the Transmitters, and, affect the system operation. Do not use such articles after the TPMS is installed.

5. The warranty does not include replacement of the enclosure and display panel.
6. The warranty does not cover the product damage due to abrasion and corrosion.

Important Notes

1. The Warranty Card must be filled completely and its number shall be quoted whenever the user requires the service.
2. Please inform Sate in case that the telephone number or address on the Warrant Card is changed.
3. The warranty responsibility is subject to the conditions and limitations specified in the *User Manual.*
4. TPMS1209M monitor should be connected with the continuous power supply and installed by the professional. S & T is not responsible for the vehicle circuit damage or accident caused by wrong installation or improper use of the system.
5. S&T TPMS can perform full-time monitoring function, but cannot avoid all unexpected accidents.