Pressure Alert™

Digital Tire Pressure Monitoring System

Installation & User Manual

Declaration

Kysonix Inc. reserves the right to change the contents of this manual at any time without notice. The information contained in this manual is proprietary and must not be reproduced without prior permission from Kysonix Inc.

- **Thank you for choosing Pressure Alert**.
- **To ensure your proper operation, please read this manual carefully.**
- **Kysonix Inc. holds the right of the manual's final explanation.**
- **If the pictures in the manual do not match the real product, please refer to the real product.**

Contents

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Chapter 1: Notices

Congratulations! As the owner of this state-of-the-art wireless tire pressure monitor system, you will enjoy the improved convenience and benefits of having tire pressure information automatically monitored while you are driving!

Pressure Alert digital tire pressure monitoring system (TPMS) consists of sensor transmitter and receiving display, which can monitor tire pressure and temperature inside each tire and transmit the information wirelessly to the receiver.

Please read this manual carefully before installation!

Special attention on following items：

1、The sensor, when attached to the valve stem, may change the balance and the performance of tire. If you feel the balance is affected or you feel the vibration when driving at high speed, please go to an auto shop to have the tire balance adjusted.

2、This system is designed to identify and display tire status and alert when pressure and temperature irregularities are detected. It is the responsibility of the driver to react promptly to the alerts. Abnormal tire inflation pressure should be corrected at the earliest opportunity to guarantee safety.

3、If tire pressure alarm default setting needs to be modified, please strictly follow the steps in this manual or you can ask Kysonix Inc. dealer or authorized qualified technician to do it. Otherwise the system might not work properly.

Chapter 2 System Parts

Pressure Alert digital tire pressure monitoring system includes the following parts:

1、Tire Pressure Sensors（The exact quantity depends on the model, the typical quantity is 4）： Sensor monitors the corresponding tire pressure, temperature and battery power and transmits the information wirelessly to the monitor. The sensor is powered by a replaceable 3V lithium battery(CR1632).

2、LCD Monitor：Monitor alternatively displays the pressure and temperature of each tire. It includes a base and a LCD monitor.

3、Power Cord：Connects LCD monitor to cigarette lighter socket. Provides power to the monitor.

4、Adhesive Tape ： It is used to mount the monitor base onto the dash board or any location user selects.

5、Spanner Wrench：Installs and disassembles sensor or to replace sensor battery.

1 2 3 4 5

Chapter 3 Installation Instruction

3.1 Monitor Installation

Identify a location for LCD monitor. Please make sure the distance between cigarette lighter socket and the installation location is shorter than the enclosed power cord.

Step 1. Stick Adhesive Tape：Remove the protection paper from adhesive tape. Stick the adhesive tape on the location where the monitor will be placed.

Step 2. Mount Monitor Base/Monitor：Align the monitor base to the adhesive tape, press the base firmly to the tape. Put LCD monitor into the mainframe. Adjust the angle of the base so the screen faces driver. .

Step 3. Connect Power Supply： Connect the appropriate end of the power cord to cigarette lighter socket, another end to the side of the monitor. Both the LCD screen and a red power light on the frame should be on if cigarette lighter socket power is on.

3.2 Sensor Installation

Install sensor body on the valve stem. Note: Before installing sensor, please install monitor and connect power supply first .

Step 1. Install Sensor Battery: Use spanner wrench to turn the sensor cap counter clockwise to remove the cap. Insert the battery (Lithium CR1632) into the cap, with positive side facing out. Tighten the cap back.

+ Positive -Negative

Note: waterproof rubber sealing O-ring should be installed properly.

Step 2. Install Sensor： The cap of the sensor indicates the sensor installation location on the tire. For correct sensor and tire location, please refer to appendix **Sensor Name and Tire Corresponding Form**. (P. 19)

Turn clockwise to install sensor on valve stem until it is firmly tightened.

Step 3. Verify if the sensor works properly. Within 30 seconds after installing sensor on the valve stem, the tire pressure ,temperature and battery status can be read from monitor. If there is no display or can't display properly, try reinstall with a different battery or unplug and reconnect the monitor power.

Chapter 4 Functions and Operation

4.1 Functions

4.1.1 Display

Monitor displays tire pressure, tire temperature and battery power of the sensor . The above information can be displayed from tire to tire or fixed for a specific tire. The interval time is 1.5S under normal tire pressure; 3 seconds under abnormal tire pressure..

4.1.2 Optional Pressure and Temperature Display： Pressure can be displayed in PSI or BAR and temperature in Celsius (℃) or Fahrenheit (F).

4.1.3 Real Time Clock Display Function： Display real time clock, year, month and date.

4.1.4 Pressure and temperature alarm thresholds for tires of different rows can be set up separately.

4.1.5 High Pressure Alert Function： When the detected pressure is 25% above preset threshold value, the high pressure alert indicator will flash and beep at a rate of one beep per second.

4.1.6 First Low Pressure Alert Function： First low pressure alert will flash and beep at a rate of one beep per second, when the detected pressure is 15% below preset threshold value.

4.1.7 Second Low Pressure Alert Function： Second low pressure alert will flash and beep at a rate of twice per second, when detected pressure is 25% below preset threshold.

4.1.8 High Temperature Alert Function： High temperature alert will flash and beep at a rate of one beep per second, when tire temperature reaches or is higher than preset threshold value.

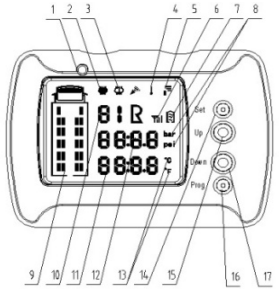
4.1.9 When alarm, press any button, then noise elimination will last for 15 minutes. Meanwhile if press UP,DOWN button, the monitor can be reset.

4.1.10 Alert Record Query Function： The system can store up to 256 records of past alert info, with detailed data on tire location, pressure, temperature, time and etc. Those info can be downloaded to computers when connected.

4.1.11 Sensor Malfunction Alarm Function： When the sensor malfunctions or monitor fails to receive data for 20 minutes, the corresponding sensor signal indicator will flash.

4.1.12 Low-Battery Power Alarm Function： It monitors and displays real life battery level of sensors. When the battery is low, the indicator will flash.

4.2 LCD Monitor Panel Introduction



1、Alarm Indicator
2、High Pressure Alert Indicator
3、 Low Pressure Alert Indicator
4、High Temperature Alert Indicator
5、Monitor Battery Indicator
6、Transmitter Signal Indicator
7、Transmitter Battery Indicator
8、Pressure Unit
9、Tire Position
10、Tire Position Indicator
11、Temperature Display Field
12、Pressure Display Field
13、Temperature Unit
14、Set Key
15、Up Key
16、Down Key
17、Program Key

4.3 Operation Mode

4.3.1 Normal Working Mode:

After connected to power source, the system enters working mode. The LCD monitor will display pressure, temperature info for each tire one by one. If no info received, then LCD monitor will display －－－－. In working mode, pressing “Up” button will switch pressure measurement unit between “PSI” and “BAR”. Pressing “Down” button will switch temperature measurement unit between “Celsius” and “Fahrenheit” .And also display time, date and year. Briefly pressing “Set” button will fix the display on a specific tire that is displayed in the monitor. Briefly pressing “Prog” button will turn on LCD screen back light 5S.

4.3.2 Communication Mode:

The system will enter communication mode when connected with enclosed communication cable, with the monitor displaying “Conn-PC”. The monitor will respond according to instruction. Basic functions include setting monitor code, setting time clock, setting pressure and temperature value and retrieving alert history records.

4.3.3 Parameter Setting Mode：

After pressing “Set” button for 3 seconds till the system enters setting mode.

Year Setting： The monitor displays “Se—y”. Use arrow keys to set year. After modification, press “Set” button and input new data to the system. (Picture 1)

Date Setting： The monitor displays “Se—d”. Use arrow keys to set date. After modification, press “Set” button and input new data to the system. (Picture 2)

Time Setting： After date data input, it enters into time setting. Pressure data field displays Se—C，temperature data field displays the time data you set. After modification, press “Set” button and input new data to the system. (Picture 3)

Standard Pressure Setting： After time data input, it enters into standard pressure setting mode. Tire standard pressure is set using row as unit. We define “from left to right ” as one row. Here tire position field displays XIR ,X means row serial number, L、R means left and right. The corresponding tire symbol will be displayed. Pressure data field displays pressure data you set and temperature data field displays Se— P. Input the recommended tire pressure by the manufacturers. (Refer to your auto manual for correct tire pressure setting). After input, press “Set” button and it enters into the setting mode for the of next row of tires. Repeat till all rows are set. The pressure unit you set is PSI. (Picture 4)

Picture 1

Picture 2

Picture 3

Picture 4

Alarm Temperature Setting： After standard pressure setting , it enters into alarm temperature setting. Pressure data field displays Se—t，temperature data field displays T and temperature you set. After modification, press “Set” button and input new data to the system. The temperature unit you set is F.（Picture 5）. The system will alert when tire temperature reaches Temperature Setting and above.

4.3.4 Program (Learning) Mode：

If you need to replace a sensor, the monitor needs to learn the new sensor before it is installed on the wheel. To enter this mode, press “Prog” for 8 seconds till you see the outline of the vehicles in the screen flashes. Push “Up” or “Down” button to select the tire that will have the new sensor” LRN flash,（Picture 6）push PROG button to confirm to learn this sensor. (The sensor will operate correspondently, see sensor working mode as reference).

Before the sensor is programmed, the pressure will show as “----”. After the sensor is programmed successfully, the buzzer will beep twice. Pressure data field displays “End”. Press “Set” button to exit this mode and enters working mode..（Picture 7）

Picture 5

Picture 6

Picture 7

4．4 Sensor Working Mode：

4．4．1 When the relative pressure is zero (Normal Atmospheric Pressure), the sensor is under sleep status；

4．4．2 When the relative pressure is zero (Normal Atmospheric Pressure), take out the battery for about one minute, then install battery again. The learning code will be transmitted for ten times, then come into sleep status；

4．4．3 When the sensor is installed on the tire, it will monitor the pressure periodically. When the pressure drops down 0.4PSI, the sensor will transmit tire data once. If pressure is not changed, it will transmit data once each 4 minutes to update the display data and status of receiver.

Chapter 5: Technical Specifications

5.1 Monitor

Working Temp. Range	-22℉ -- 185 ℉	
Working Frequency	433.92MHz±150KHz	
Size (inch)	Monitor	3.94X2.76X0.83（L X H X W）
	Base	4.13X3.82X2.17（L X H X W）
Working Voltage	DC12V	
Working Current	Normal Condition 40mA，The Maximum Alert Condition 100mA	

5.2 Sensor

Working Temp..Range	-40℉ -- 257 ℉
Weight	18±1g(including battery)
Size (inch)	1.14 X1.14 inch（Φ X H)
Working Pressure Range	0 ～ 130 PSI
Working Voltage	DC3V (Lithium battery CR1632)
Battery Life Time	>2Years normally, replaceable
Working Frequency	433. 92MHz ±100KHz
Transmitting Power	＜10 dBm
Working Distance	> 787 in.

Chapter 6: System Maintenance and Simple Troubleshooting

6.1 Inflation

When inflation is needed, disassemble the sensor first . Turn the sensor counterclockwise to remove it from valve stem in order to inflate the tire. After inflation, turn the sensor clockwise to install it back to the valve stem and tighten it. Observe the pressure status of inflated tire and judge whether the installation is good. See 3.2 for reference.

6.2 Sensor Battery Replacement.

The system design is good for easy installation and maintenance. The battery can be used for 2 years and it is replaceable. The monitor will continuously monitor sensor battery power. If the battery needs to be replaced, the monitor will transmit a signal for low battery of the sensor .

1. Loosen sensor cap from sensor body with spanner wrench. Remove the battery.

Note: Don't remove waterproof rubber O-ring surrounding the cap.

2. Replace the battery with new battery CR1632.The positive side facing out. Tighten the sensor cap with spanner wrench.

6.3 Simple Troubleshooting

Sensor Failure

Failure Code	Failure Analysis
E-01	If sensor lost contact for over 20 minutes, the possible reason is sensor damaged or lack of battery
E-02	Sensor self-monitoring failure
E-03	Exceed sensor span

If a sensor fails , the monitor will alarm. The possible reason is lack of battery. Please replace it with a new battery. Then the monitor will display the tire pressure, temperature and battery capacity of sensor. If not, that means the transmitter may not work properly and a new sensor should be purchased from dealer.

Monitor doesn't work

If the monitor doesn't turn on, check if the power cable is connected properly, and the car's battery power is on. Meanwhile if press UP,DOWN button, the monitor can be reset. Otherwise, the monitor might be damaged. Please replace or purchase it from dealer.

Chapter 7 After Service

This product carries one year warranty. It can be returned or exchanged if there is any quality problem within one month of purchase. The free repair service will be provided within the warrant period from the date of purchase if there is any quality problem. The technical support will be provided through product lifetime.

After Service Hotline: 866-516-9888

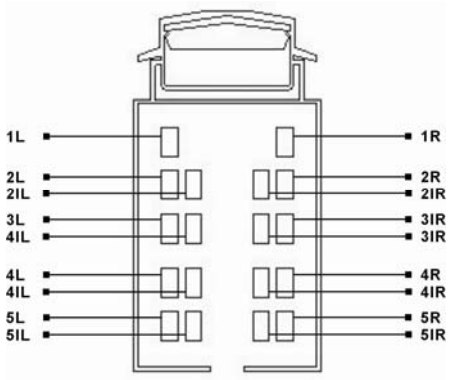
The product warranty does not cover the following situations:

(1) Sensors and monitor are lost or damaged by user.

(2) Parts damaged by collision or improper operation.

Chapter 8 Appendix

8.1 Sensor Name and Tire Corresponding Form



8.2 Glossary

Cold (Standard) Pressure	The vehicle manufacturer recommended inflation pressure of a tire at ambient temperature (64.4℉)
Alarm Pressure	The audible and visual alert activated when the tire's actual pressure drops to the programmed value (Usually when the pressure is 25% under-inflation).
Monitor	The electronic module which can receive tire pressure and temperature info from sensor and have a visible and audible warning.
Sensor	The electronic device which can detect tire pressure and temperature and transmit the data to receiver wirelessly.

8.3 Notice

1．Changes or modifications to this system without the approval of Kysonix Inc. may void the user’s rights to the product warranty.
2．When installing the battery to the sensor, please notice the negative side (marked - and positive side (marked ＋,See Fig1)of the battery. Please keep the positive electrode (symbol +) facing out.
3．When you install the power supply cable cord , please switch off the power supply or cut the connection of battery cable, in case of damaging any electronic circuit.
4．Don’t forget to check the battery of the sensor. When it shows low battery on the receiver display, please install a new battery.
5．You should remove the sensor to inflate the tire. After inflation is finished, please re-install the sensor.

+ Positive -Negative

Picture 1

8.4 Pressure Units Conversion

Pressure Units Conversion Table				
unit	kpa	Kg/㎠	bar	psi
kpa	1	0.0101972	0.01	0.145038
Kg/㎠	98.0665	1	0.980665	14.2233
bar	100	1.01972	1	14.5038
psi	6.89476	0.0703072	0.0689476	1

8.5 Warranty Card

IMPORTANT:

Thank you for purchasing Pressure Alert product!

In order for the warranty to be effective, you must fill out and mail this warranty card to the address below and make a copy of the card for your own. This warranty extends to the original consumer purchaser of the product only.

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.

Warranty Card

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone #: _____ E-mail Address: _____

Product and Model: _____

Date of Purchase: _____

Place of Purchase: _____

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