

WIRELESS TIRE PRESSURE AND TEMPERATURE MONITORING SYSTEM

TPMS

Monitors up to 34 tires in real time

Instruction Manual



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1. INTRODUCTION

1-1. Introduction

1. Thank you for choosing our TPMS, built with the highest quality standards. These instructions are step by step and you will successfully install your TPMS if you follow them closely. You will save yourself time by reading the manual to get an overview of your TPMS system.
2. Your new TPMS system will help you drive safer by constantly monitoring the pressure and temperature of your tires. Once you set the safety alarms according to your preferences, everything will be set. If there is a significant change in pressure or temperature, you will be alerted.
3. Overheating in your trailer bearings or brakes will set off a high temperature alarm. Your gas mileage should improve while driving on properly inflated tires.

1-2. Caution

1. Securely attach the monitor in a convenient place. The suction cup can be used for the windshield. A bracket is included for permanent installation. Or, the charged monitor can just sit in a convenient place in the driver's area.
2. It is not necessary for the driver to visually scan the monitor while driving. The auditory alarm will alert the driver to any significant changes in the pressure or temperature.
3. The monitor will stay charged for up to five days. It can re-charged overnight.

1-3. Installation Tips

1. Your TPMS system has industry leading features to make it easy to install.
2. Most users will use the **Sensor Perfect-Match Diagram** to place sensors on the correct tire. In that case, you will simply turn on the monitor and screw in the sensors in their designated place. Then you can proceed to SET your pressure and temperature alarms.

3. If your application is different from the **Sensor Perfect-Match Diagram**, you will use the inflation method to place the sensors and match them to the monitor.

..... IMPORTANT TIP

The monitor responds to a Long Press and a Short Click. Press and hold a button for 3 seconds during a Long Press. A Short Click is about the same length as the wink of the eye. A Long Press and a Short Click are as different from one another as a left and a right turn. While following the steps, pay close attention to whether a Long Press is required or if a Short Click is required.

4. These instructions may look long and complicated. The reason is because we have included every step. Do not place sensors on the tires until you have read these instructions. So when you go to each section, you will easily succeed by following each step. You should be finished within 20 minutes.

2. PRODUCT FEATURES

2-1. Monitor Features

- * Reliable and easy to install.
- * Large LCD screen.
- * Built-in rechargeable lithium battery.
- * Adjustable High/Low pressure warnings.
- * Adjustable High temperature warnings.
- * Visible and audible alerts.
- * Selectable pressure units.
- * Monitors up to 34 tires maximum.
- * Long range between sensors and monitor.

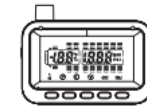
2-2. Sensor Features

- * Reliable cap sensors, easy to install.
- * Water resistant.
- * Replaceable sensor batteries.
- * Fast leakage alert.
- * Individually coded sensors.

2-3. Transceiver Features(Optional parts)

- * Amplify signal strength.
- * Transferable trailer sensor data between monitor and transceiver.
- * Records sensor ID, trailer ID , tire pressure and temperature limits.
- * Supports truck and trailer exchange
- * Transferable trailer sensor data between Monitor and transceiver.

3.SYSTEM COMPONENTS



Monitor(1pcs)



Power Adaptor(1pcs)



Monitor stand(1pcs)



Sensors



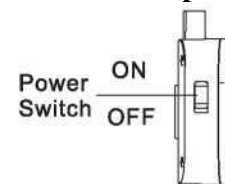
Sensors waterproof rubber seal (spare part)



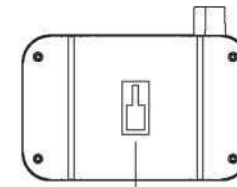
Transceiver (optional)

※ Sensors quantity depends on customer requirement, maximum can code up to 34

3-1 .Monitor Components And Icons



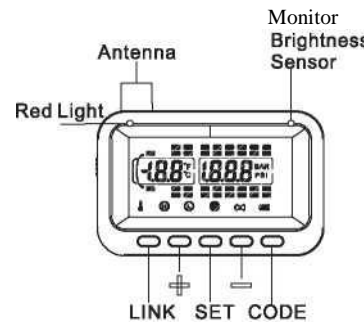
Power Switch ON OFF



Monitor Holder



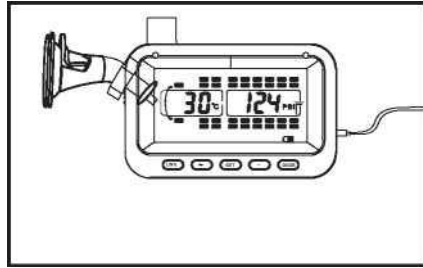
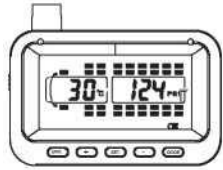
Power Socket



Icon	Description
	Tire Indicator
	High Temperature
	Low Pressure
	High Pressure
	Fast Leakage
	Sensor Low Battery Indicator
	Monitor Battery Indicator

※ Pressure Unit : BAR or PSI, user-selectable
 ※ Temperature Unit: °C or °F, user-selectable

3-2 Monitor Installation



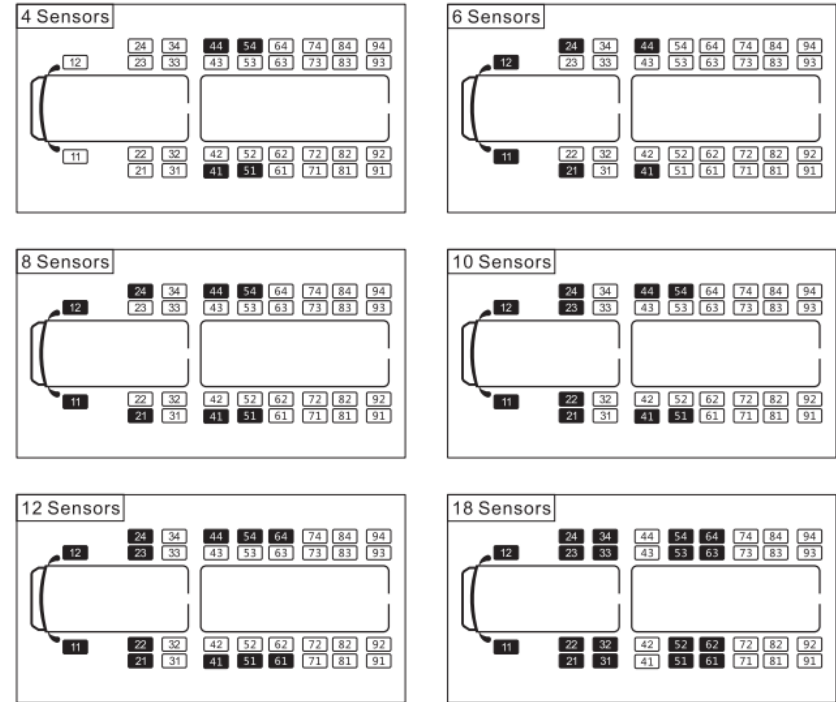
3-3 Monitor On/Off

Turn off the monitor when not in use for more than three days. Up toggle is on / Down toggle is off. When you are on the road, it is not necessary to turn the monitor off. It will go to sleep during inactivity and wake up when it senses motion and it will automatically begin monitoring the tire sensors.

When the monitor has been off and it is turned on, it is normal for it to take three to five minutes to re-connect to the sensors and begin monitoring the tires. During this time the tire icons will blink, but no pressure/temperature will be displayed.

4. Sensor Installation

Step 1: Please refer to the **Sensor Perfect-Match Diagram** below that matches the number of sensors in your TPMS kit. Your sensors are numbered and programmed at the factory to automatically match this diagram. The first axle numbers start with 1. The second axle numbers start with 2. The third axle numbers start with 3. The fourth axle, which is the first axle of the trailer, starts with 4. Tires are then numbered from left to right (drivers side to passenger side). For example, the sensor numbered 24 refers to the fourth tire from the left on the second axle.



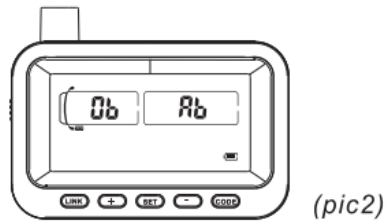
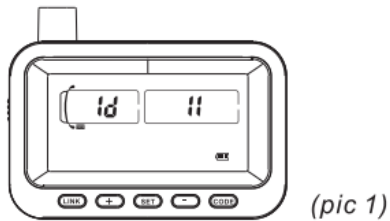
- Step 2: Turn on the Monitor
- Step 3: Place your numbered sensors on your tires in the same position as the **Sensor Perfect-Match Diagram**.
- Step 4: Proceed to the section Setting Monitor Alarms
- Step 5: If you are not using the **Sensor Perfect-Match Diagram**, then proceed to the next section to pair your sensors using the Inflation **Method of Sensor Pairing**.

SKIPTHIS SECTION IF YOU USED THE
Sensor Perfect-Match Diagram
 TO POSITION YOUR SENSORS

4-1 Inflation Method of Sensor Pairing.

You must be outside next to your vehicle. This method allows you to place ANY sensor on any tire position that you choose. Ignore the number on the top of the sensor and place it any tire position while using this method. **DO NOT PLACE SENSORS ON THE TIRES.** First use the following steps:

- Step 1: After turning on the monitor, enter the sensor pairing screen by using a long press on the CODE button for three seconds until you hear a beep. You will see a tire icon blinking.
- Step 2: Use the +/- Button to scroll to the location where you want to place your first sensor (Pic1).
- Step 3: Screw a sensor onto the tire valve stem.
- Step 4: Short Click the SET button. You will hear a beep and an ID number will appear on the screen (Pic2).
- Step 5: The monitor will automatically move to the next tire position. If that is not the tire position that you desire, then use the +/- Button to move to your desired tire position.
- Step 6: When you have placed all of your sensors you will see tire icons in your chosen locations. Then long press the CODE Button until you hear a beep to leave the sensor pairing screen.
- Step 7: Proceed to Section 5 to set the pressure alarms.



5. 5.SETTING MONITOR PRESSURE ALARMS

- Step 1: Turn the Monitor off and then back on again
- Step 2: Long Press the **Minus (-)** Button for three seconds until you hear a beep.
- Step 3: Short Click the SET Button to display the PSI/BAR scale. Short click the **SET** Button once again so you can change the pressure scale. Use the **PLUS (+)** sign to adjust the setting to PSI. PSI will start blinking.
- Step 4: Short Click the SET Button to display the temperature scale Setting.
- Step 5: Short Click the **SET** Button to choose the temperature scale. Use the **PLUS (+)** sign to adjust the setting to Fahrenheit. F will start blinking.
- Step 6: Short Click the **SET** Button to move to the PS (pressure Setting) screen.

- Step 7: Short Click the **SET** Button to move to the PS (pressure Setting) screen for the 1st Axle.
- Step 8: Short Click the **SET** Button to move to the High pressure alarm Setting.
- Step 9: Use the +/- Button to lower or raise the high pressure alarm Setting.
- Step 10: Short click the **SET** Button to move to the Low pressure alarm Setting.
- Step 11: Use the +/- Button to lower or raise the Low pressure alarm Setting.
- Step 12: Short Click the SET button to move forward and repeat until all axle alarms are SET. All tires on the trailer use one Setting for the alarms. Continue to Short Click the set button until you see the PS screen with PSI on the right
- Step 13: When you see the PS screen with PSI on the right, long press the **CODE** button to return to the Monitoring Screen (you will hear short beeps).

YOU HAVE FINISHED SETTING YOURTPMS

Skip this section 5-1 unless you have a specific reason to lower the default High Temperature Alarm below 185 degrees.

5-1 Setting The Monitor High Temperature Alarm

- Step 1: Turn the Monitor off and then back on again
- Step 2: Long Press the **Minus (-)** Button for three seconds until you hear a beep.
- Step 3: Short Click the **SET** Button to move past PSI. PSI will start blinking.
- Step 4: Short click the **SET** Button to move to the temperature scale Setting.
- Step 5: Short Click the **SET** Button to **SET** it to move past Fahrenheit. F will start blinking.
- Step 6: Short click the **SET** Button to move to the PS (pressure Setting) screen.
- Step 7: Short Click the Plus (+) Button and you will see **LH** (ignore the centigrade symbol).
- Step 8: Short Click the **SET** button. You will see tire icons and a temperature Setting.
- Step 9: Use the +/- Buttons to **SET** the high temperature alarm. There are five Setting to choose from: 185,176,167, and 158.

Step 10: Long press the CODE button until you see the LH screen.
 Step 11: Long press the CODE button to return to the monitoring screen.

6. DELETING A SENSOR POSITION ON THE MONITOR

Step 1: Turn the Monitor off and then back on again
 Step 2: Short click the CODE button (You will hear a beep)
 Step 3: Use the +/- Button to move to the tire position you want to remove
 Step 4: Long press the **SET** Button until you see FF FF on the screen. Step 5: Use the +/- to move to the next sensor you wish to remove. Step 5: Long press the CODE Button to return to the Home Monitoring Screen.

7. UNLINK TRAILER SENSOR MONITORING

When not towing, the trailer sensors can be un-linked. This allows you to continue using the tow vehicle TPMS without being disturbed by alarms sounding from the trailer.

Step 1: Long Press the **LINK** button and the (-) button simultaneously. The icon for the trailer will disappear.
 Step 2: To reinstate the trailer TPMS: Long Press the **LINK** button and (+) button simultaneously. The icon for the trailer will appear along with tire pressure and tire temperature readings.

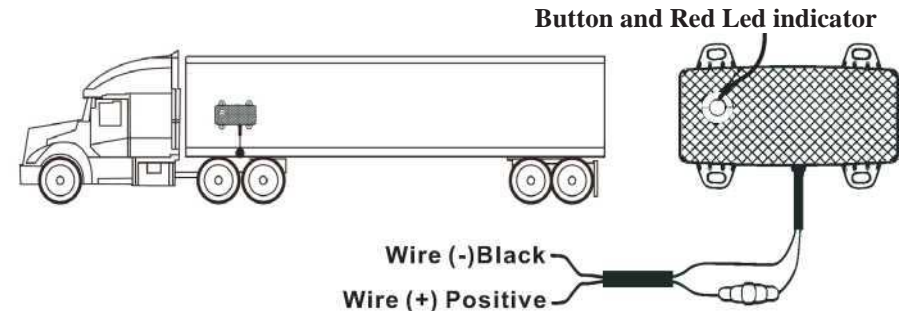
8. HOW THE ALARMS WORK

The monitor reads the pressure and temperature of each tire in rotation. If there is an abnormal tire reading, the red light will flash and an alarm will sound within 3 seconds of a change in pressure or temperature. The following icons tell you what the alarm means:

- High Pressure alert
- Low Pressure alert
- High Temperature alert
- Fast leak alert
- Sensor low battery alert

You can press any button to turn the alarm off, but the red light will continue to flash until the tire faults are corrected.

9. INSTALLATION OF TRANSCEIVER



A transceiver is included in Kits with 18 sensors designed for 18 Wheel Semi-Trucks. The transceiver boosts the signal of the sensors over the long distance of the Trailer

Step 1: Install the transceiver in the front of the trailer. It must be installed in the exterior of the trailer. You must splice it into a 12 to 36 volt wire of the trailer. Connect the positive (red) and negative (black) wires to the corresponding wires of the trailer. Place it out of the way of water and road debris as much as possible.

Step 2: Check to confirm that the Red light is blinking. There is no need to SET or alter the transceiver. It automatically amplifies the signal of the sensors.

9-1 Connecting The Monitor To The Transceiver

- Step 1: Connect transceiver to 12 to 36 volt power supply.
- Step 2: Move the Monitor close to the transceiver.
- Step 3: Long press the **LINK** button for 3 seconds.
- Step 4: When you see "ID PUT" Short Click the **SET** button to send trailer's data to the transceiver.
- Step 5: When you see and hear blinking lights on the monitor and transceiver Long press the **CODE** button to return to the monitoring screen.

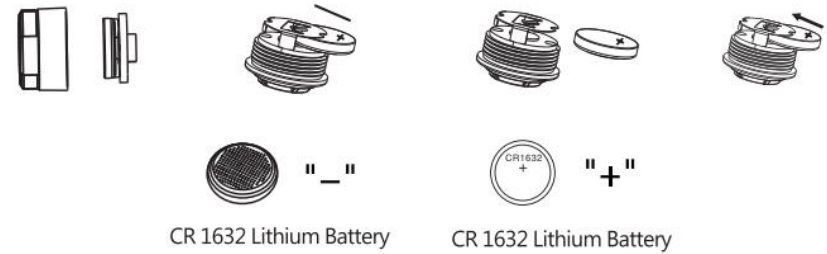
9-2 Trailer Exchange With The Transceiver

- Step 1: Connect transceiver to 12 to 36 volt power supply and move close to the transceiver.
- Step 2: The monitor will automatically connect to the new transceiver on the exchange trailer. When successful, you will see and hear blinking on the monitor and the transceiver. The monitor will return to the monitoring screen automatically.
- Step 3: If you get an ERR (error) message, then repeat Step 4 and 5 on section 8.1 above.

10. TIRE EXCHANGE SETTINGS

- Step 1: Turn the Monitor off and then back on again
- Step 2: Long Press the **Minus (-)** Button for three seconds until you hear a beep.
- Step 3: Short Click the **SET** Button to move past PSI. PSI will start blinking.
- Step 4: Short click the **SET** Button to move to the temperature scale Setting.
- Step 5: Short Click the **SET** Button to SET it to move past Fahrenheit. F will start blinking.
- Step 6: Short click the **SET** Button to move to the PS (pressure Setting) screen.
- Step 7: Short Click the **Plus (+)** Button twice and you will see EP.
- Step 8: Short Click the **SET** button and you will see all tire positions displayed.
- Step 9: Short Click **Plus (+)** to choose the tire location you want to exchange.

11. REPLACING THE SENSOR BATTERY (Battery # CR1632)



Batteries will last up to 2 years, but we recommend replacement every year. New batteries should have a minimum 3.1 volts to be considered fresh. If possible, check the voltage of the replacement batteries because new batteries are sometimes not fully charged.

- Step 1: Unscrew the sensor from your tire.
- Step 2: Grasp the metal fitting with pliers and gently twist off the black cap with your fingers. You can use pliers to twist off the cap, but be gentle.
- Step 3: Slide the #1632 Battery out of the sensor with a small flathead screw driver.
- Step 4: Slide the new Battery into the sensor with the + Positive side facing up.
- Step 5: Check to make sure the O ring is still in place and screw the black cap back into place. If the O ring is missing or damaged, replace it with one of your spare O rings. If you do not have a spare O ring, use Teflon Tape.
- Step 6: If you used the Sensor Perfect-Match Diagram, simply screw the sensor back into place. If you used the Inflation method of Sensor Pairing, you will need to re-pair the sensor with the same method

12.SPECIFICATIONS

12-1 Monitor and Transmitter(optional part)

Specifications & part	Monitor	Transceiver(optional part)
Working temperature	-20 ℃~80 ℃	■20℃~80℃
Storage temperature	■30℃~85℃	■30℃~85℃
Working Voltage	DC8-30V	12-24V
Frequency	2.4GHz	2.4GHz
Size(L*W*H/Unit:mm)	110*69*20	105.8*48*17.6
Weight	129g	82g
Transmission Power	\	<18dBm

12-2 external Sensors

Working temperature	-40 ℃-80 ℃
Storage temperature	■40℃~85℃
Pressure setting range	0-260PSI(0-19BAR)
Pressure Accuracy	±1.5PSI(±0.1BAR)
Temperature Accuracy	3 ℃
Transmission Power	<10dBm
Frequency	2.4GHz
Battery life	1-2 years
Size	24.43 (R) X 28.55 (H) mm
Weight	23.5g

12-3 inside Sensors

Working temperature	-40 ℃-80 ℃
Storage temperature	■40℃~85℃
Pressure setting range	0-260PSI(0-19BAR)
Pressure Accuracy	±1.5PSI(±0.1BAR)
Temperature Accuracy	3 ℃
Transmission Power	<10dBm
Frequency	2.4GHz
Battery life	1-2 years
Size	54.2*29.4*19.1 mm
Weight	26.5g

12-4 Bind Sensors

Working temperature	-40 ℃-80 ℃
Storage temperature	■40℃~85℃
Pressure setting range	0-260PSI(0-19BAR)
Pressure Accuracy	±1.5PSI(±0.1BAR)
Temperature Accuracy	3 ℃
Transmission Power	<10dBm
Frequency	2.4GHz
Battery life	5 years
Size	73.38*26.60*15.00 mm
Weight	30g

13. INSTALLATION OF THE MONITOR

The suction cup provided with your kit allows for a semi-permanent installation. The suction cup has a sticky surface. Search for a location on your windshield carefully before making the suction cup installation. The suction cup should not be moved more than three times.

Step 1: Clean the glass with glass cleaner and allow it to dry. Step 2: Lift the suction cup handle into a vertical position.

Press firmly on the suction cup.

Step 3: Push the lever down until it is horizontal.

A bracket is included for permanent installation. You can then use the cigarette lighter power source in your permanent location. If you wish to hard wire your power source, we suggest that you cut the cigarette plug off and strip the wires to connect to your permanent 12 volt power source. Reminder: the monitor can be charged with any micro USB connector.

Another alternative is to use Velcro strips on the bottom of the monitor to stand it up on the dash. Or, Velcro strips can be used on the back of the monitor to attach it to the dash board. Velcro is effective because the Monitor is very lightweight.

14. RESETTNG AND RESTORING FACTORY DEFAULTS

Step 1: Turn off the Monitor

Step 2: Simultaneously Press the **LINK** Button and the (+) Button. Step 3: Turn on the Monitor while continuing to hold the Buttons.

Step 4: Release the buttons when you hear a beep and see the red

15. SAFETY REMINDERS

Please make all adjustments to your TPMS system while the vehicle is parked.

Do not drop the monitor because damage will occur.

The manufacturer and distributor will not be responsible for damage due to improper installation and usage.

This manual can be changed at any time without prior notice. Pictures are for illustration only. Please refer to your actual product for reference.

FCC Caution.

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.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.