

# OWNER'S MANUAL Model TS-104

WIRELESS TIRE PRESSURE AND TEMPERATURE MONITORING SYSTEM



## **INTRODUCTION**

If you have questions concerning the operation of this Whistler product please call:

### **CUSTOMER SERVICE**

#### 1-800-531-0004

Monday - Friday • 8:00 am - 5:00 pm CT USA or visit our website

#### www.whistlergroup.com

Please keep the receipt in a safe place. You may register your product online at www.whistlergroup.com. For warranty verification purposes, a copy of your dated store receipt must still accompany any unit sent in for warranty work. If the unit is returned without a dated store receipt an out of warranty service charge applies.

**Note:** Your warranty period begins at the time of purchase. The warranty is validated **only** by the dated store receipt! Now is the time to record the serial number of the unit in the space provided in the warranty section of the manual.

## TABLE OF CONTENTS

Product Features	3 - 4
System Components	3
button callouts and icons	
Installation	5 - 7
Sensor Location	
Sensor Battery Installation	
Sensor Installation	
Power Cord Connection	
• Turning the Monitor ON or OFF Manually	7
• Factory Default/Settings Mode	8 - 15
Adjusting the Alerts	9 - 10
• Alerts	11 - 12
High Pressure Alert	11
Low Pressure Alert	
High Temperature Alert	
Sensor Low Battery Alert	
Monitor Display Information	13 - 14
Monitor Sleep Mode	
Backlighting	
Replace the Transmitter Battery	
Troubleshooting	16
FCC Information	16
Warranty Information	17 - 19
Specifications	19
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## **SYSTEM COMPONENTS**



Monitor



Power Cord



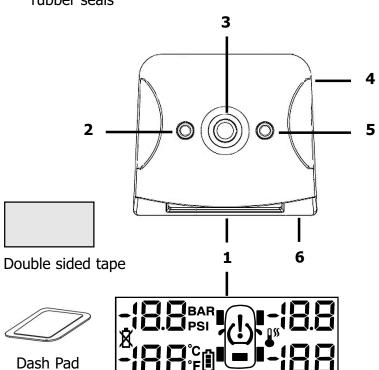


Spare water-proof rubber seals



CR 1632 Batteries







## **BUTTON CALLOUTS & ICONS**

Whistler's ergonomic and user-friendly design provides a new level of operating convenience. Special features include:

- **1. Backlit LCD Display** Shows tire and battery information.
- **2. Left Button** Dual function button. Press and hold to power on the monitor. Quick press selects a "Down" function while in a setting mode.
- **3. Middle Button/Alert Light** Button illuminates red during an alert condition. Quick press mutes the alert audio. Press and hold enters setting mode. Press this button while in a setting mode selects a "SET" function.
- **4. Power Jack** For connection with the supplied power cord.
- **5. Right Button** Quick press selects a "UP" function while in a setting mode.
- **6. Speaker** Provides alert warning tones.

Icon	Description	
X	TX Low Battery Indicator	
Ê	Monitor Battery Indicator	
<u>O</u> SS	High Temperature	
(!)	Faulty Pressure	

## **INSTALLATION**

#### **Sensor Location**

The factory has already set up the codes for the 4 sensors which are provided and matched with the monitor, and each sensor is marked with the corresponding tire position [LF, RF, LR, RR, SP (spare tire)]. Install each sensor in the correct tire position as per the diagram.



#### Sensor Battery Installation

- 1. Unscrew the sensor cap.
- 2. Insert battery into sensor ensuring that the positive "+" is facing up.
- 3. Replace the sensor cap. Repeat for the remaining sensors.

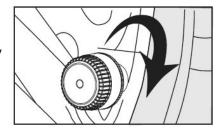


#### Sensor Installation

- 1. Unscrew the tire valve cap and mount the tire sensor in its place.
- 2. Save the tire valve cap in the vehicle's storage compartment. Important: Only hand tighten the sensor cap to prevent possible damage to the sensor.

#### **CAUTION:**

After proper sensor installation, it is highly recommended to check for any air leakage. Test by spraying soapy water on the valve stem and look for bubbles. No bubbles, no leaks. Retighten if bubbles appear.

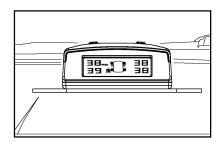


## **INSTALLATION**

#### **Monitor Installation**

- 1. Secure the monitor inside the vehicle cabin without obstructing the driver's vision of the road.
- Place the monitor on the dashboard using the Dash Pad or the double-sided tape. If using the double sided tape make sure that the area choosen is clean and dry. Clean with isopropyl alcohol, if necessary, to remove any waxes or polishes.
- 3. Plug the power adapter into the cigarette lighter; turn the monitor on to fully charge.

(It must be charged more than 2.5 hours the first time).



#### **CAUTION:**

- 1. The monitor should be installed inside the vehicle where it does not affect normal driving.
- 2. The monitor should be securely placed to avoid falling off during driving.
- 3. After the system is installed correctly, the driver does not need to check the monitor while driving. Alerts will be issued when abnormal conditions are found in the tires.

## **INSTALLATION**

#### **Power Cord Connection**

- Plug the small end of the power cord into the unit's power jack.
- Plug the large end into the vehicle's cigarette lighter socket.



### **Turning the Monitor ON or OFF Manually**

You can turn off the monitor when you park the vehicle for a long period. To turn on/off the monitor manually, press and hold the Left button until you hear a beep.

#### **NOTE:**

This TPMS can effectively monitor tire pressure and temperatures but cannot prevent traffic accidents. Regular tire inspection and maintenance is still necessary.

#### **Factory Default/Settings Mode**

The Min and Max settings from the factory are set to the following limits:

High Pressure:	44PSI (3.0 BAR)
Low Pressure:	29PSI (2.0 BAR)
High Temperature:	158°F (70°C)

Follow the steps below to change the settings to match your vehicle's requirements:

- 1. In standby mode, press and hold the Middle button and release it after the beep.
- 2. Press the Middle button repeatedly to scroll through the different parameters.
- 3. Press the Left or Right button to adjust the desired settings.
- 4. Press and hold the Middle button for 3 seconds then release after the beep to save the settings.
- 5. If no action is taken for 1 minute, the system will return to the standby mode without making any changes.
- 6. Pages 9 and 10 show how to change each setting to match your vehicle.

### **Factory Default/Settings Mode - continued**

**Note:** To restore the factory default settings follow these steps:

- 1. Turn off the monitor
- 2. Press and hold the Left button to turn on the monitor then immediately press and hold the Middle button for 3 seconds.
- 3. Release the Middle button after the unit beeps together with the flashing red light.

The factory default settings will be restored without changing the sensor's ID code (LF, RF, LR, RR, SP) information.

## **Adjusting the Alerts Pressure Unit Setting**

When "PSI" or "BAR" icon flash, press the Left or Right buttons to select between PSI or BAR.



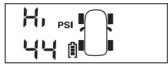
#### **Temperature Unit Setting**

When "F" or "C" icon flash, press the Left or Right buttons to select between "F "or "C".



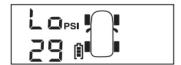
## Adjusting the Alerts - continued High Pressure (H ,) Setting

When high pressure data flash, press the Left or Right buttons to adjust.



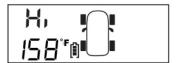
#### Low Pressure ( Lo ) Setting

When low pressure data flash, press the Left or Right buttons to adjust.



### High Temperature ( $H_{\perp}$ ) Setting

When high temperature data flash, press the Left or Right buttons to adjust.



**NOTE:** High and low pressure settings are adjustable separately for the front, rear and spare tires.

#### **Alerts**

The sensors send pressure and temperature readings to the monitor every 5 minutes. If any reading is out of the pre-defined values, you will notice 3 things:

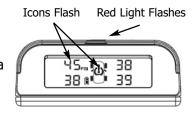
- 1. An audible alarm
- 2. The red light on the monitor will flash
- 3. The corresponding icons on the monitor will flash

Press any button to switch the alarm off. However, the red light and flashing icons will not be turned off until the correct pressure and temperature settings are restored to within range.

#### **High Pressure Alert**

When the sensor detects high pressure in a tire, it will send an alert to the monitor immediately.

The related tire icon, high pressure data and faulty pressure icon will flash. The audible alarm will be on together with the flashing red light.

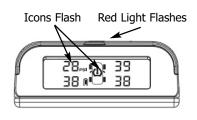


Press any button to turn off the alarm. However the flashing red light and flashing icons will continue until the problem is corrected.

#### **Low Pressure Alert**

When the sensor detects low pressure in a tire, it will send an alert to the monitor immediately.

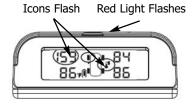
The related tire icon, low pressure data and faulty pressure icon will flash. The audible alarm will be on together with the flashing red light.



Press any button to turn off the alarm. However the flashing red light and flashing icons will continue until the problem is corrected.

### **Alerts - continued** High Temperature Alert

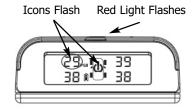
When the sensor detects high temperature in a tire, it will send an alert to the monitor immediately. The related tire icon, high temperature data and high temperature icon will flash. The audible alarm will be on together with the flashing red light.



Press any button to turn off the alarm. However, the flashing red light and flashing icons will continue until the problem is corrected.

#### Fast Leakage Alert

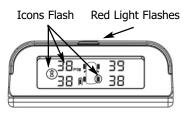
When the sensor detects abnormal loss of tire pressure, it will send an alert to the monitor immediately. The related tire icon, pressure data and faulty pressure icon will flash. The audible alarm will be on together with the



flashing red light. Press any button to turn off the alarm. However the flashing red light and flashing icons will continue until the problem is corrected.

#### **Sensor Low Battery Alert**

When the sensor detects low battery level, it will send an alert to the monitor immediately. The related tire icon and sensor low battery icon will flash. The audible alarm will be on together with the flashing red light. Press any button



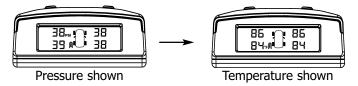
to turn off the alarm. However, the flashing red light and flashing icons will continue until the sensor has been replaced with a new battery.

## **Monitor Display Information Pressure Display**

The monitor displays the pressure of 4 tires. If the system senses high pressure, low pressure, or a puncture, an alert will be given and the display will flash a warning icon indicating the affected tire and that tires information.

#### **Temperature Display:**

Pressing the Middle button once will display the temperature reading for 10 seconds. The monitor will display in the sequence of the following diagram by each press.



#### **Monitor Sleep Mode**

If the vehicle does not move for 5 minutes or more, the monitor will stop sensing data and turn off (enter sleep mode) to save power. The monitor will power on when it detects movement of the vehicle. Pressing any button or touching the monitor will also power the monitor on again.

#### **Backlighting**

The monitor has a built in motion sensor. The backlight only turns on when it detects the vehicle is in motion. The monitor will be in sleep mode to conserve battery life if the motion sensor detects the vehicle is motionless for 5 minutes. It will turn on again when it detects the vehicle is in motion.

## **Monitor Display Information - continued Charging the Monitor**

The lithium-ion battery inside the monitor, when fully charged, is capable of running for 28 hours. For example, if you drive 4 hours per day, the monitor can be used for one week without connecting the power cord. When the low battery icon appears, a recharge is required.

You need to charge the battery immediately. It will take 2.5 hours to charge fully.

#### **Replacing the Transmitter Battery**

When the sensor low battery icon shows on the monitor and corresponding tire icon is flashing, the sensor battery needs replacement. A CR1632 battery cell is recommended which operates at -4F to 176F (-20C to +80C). You can buy replacement batteries from most retailers.

Follow these steps to replace the battery:

- 1. Remove the sensor from the valve stem.
- 2. Unscrew the sensor cap.



3. Take the battery out.



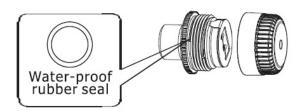


### **Replacing the Transmitter Battery - continued**

4. Replace a new CR1632 battery cell, ensure the positive "+" is facing upwards.



5. Check that the water-proof rubber seal is in its proper position. Screw the sensor cap back on.



**NOTE:** If the water-proof seal is missing or damaged replace with a new seal that was provided with the unit. Failure to install this seal will damage the transmitter.

#### **CAUTION:**

After the sensor re-installation, it is highly recommended to check for any air leakage. Test by spraying soapy water on the valve stem and look for bubbles. No bubbles, no leaks.

## TROUBLESHOOTING/ FCC INFO

#### Problem: Monitor will not power on.

- Press and hold the Left Button until the unit beeps.
- May need to be charged. Plug in the power cord to power the monitor and charge it.
- Make sure that lighter socket is functional.

#### Problem: No Pressure display from a sensor.

- Vehicle must be moving for sensors to transmit.
- After vehicle has moved it may take up to 5 minutes for the sensor to transmit the tire information.
- Possible bad sensor battery. Replace battery.

#### **FCC INFORMATION**

FCC ID: HSXTP01

This device complies with part 15 of the FCC Rules. Operation is subject to the following 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.

Important: FCC requirements state that changes or modifications not expressly approved by Whistler could void the user's authority to operate the equipment.

## WARRANTY INFORMATION

#### **Consumer Warranty**

This Whistler product is warranted to the original purchaser for a period of one year from the date of original purchase against all defects in materials and workmanship. This limited warranty is void if the unit is abused, modified, installed improperly, or if the housing and/or serial numbers have been removed. There are no express warranties covering this product other than those set forth in this warranty. All express or implied warranties for this product are limited to the above time. Whistler is not liable for damages arising from the use, misuse, or operation of this product.

Note: Damaged caused by incorrect battery placement or battery leakage is not covered under this warranty.

#### **Service Under Warranty**

During the warranty period, defective units will be repaired without charge to the purchaser when returned with a dated store receipt to the address below. Units returned without a dated store receipt will be handled as described in section

#### "Service Out Of Warranty."

Due to the specialized equipment necessary for testing a Tire Pressure Monitoring System, there are no authorized service stations for Whistler brand products other than Whistler.

When returning a unit for service, please follow these instructions:

1. Ship the unit in the original carton or in a suitable sturdy equivalent, fully insured, with return receipt requested to:

#### Whistler Repair Dept.

551 N. 13th St. Rogers, AR. 72756

#### Please allow 3 weeks turnaround time.

**Important:** Whistler will not assume responsibility for loss or damage incurred in shipping. Therefore, please ship your unit insured with return receipt requested. **CODs will not be accepted!** 

## WARRANTY INFORMATION

- 2. Include with your unit the following information, clearly printed:
  - Your name and street address (for shipping via UPS), a daytime telephone number and an email address, if applicable.
  - A detailed description of the problem (e.g., "Monitor does not power on").
  - A copy of your dated store receipt or bill of sale.
- 3. Be certain your unit is returned with its serial number. For reference, please write your unit's serial number in the following space: s/n\_\_\_\_\_\_.

Units without serial numbers are not covered under warranty.

**Important:** To validate that your unit is within the warranty period, make sure you keep a copy of your dated store receipt. You may register your warranty online at www.whistlergroup.com, however, for warranty verification purposes, a copy of your dated store receipt must accompany any unit sent in for warranty work.

#### **Service Out of Warranty**

Units will be repaired at "out of warranty" service rates when:

- The unit's original warranty has expired.
- A dated store receipt is not supplied.
- The unit has been returned without its serial number.
- The unit has been abused, modified, installed improperly, or had its housing removed.

The minimum out of warranty service fee for your Whistler product is \$55.00 (U.S.). If you require out of warranty service, please return your unit as outlined in the section "Service Under Warranty" along with a certified check or money order for \$55.00. Payment may also be made by MasterCard, VISA, or American Express; personal checks are not accepted.

In the event repairs cannot be covered by the minimum \$55.00 service fee, you will be contacted by a Whistler technical service specialist who will outline options available to you. If you elect not to have your unit repaired, it will be returned to you along with your certified check or money order.

## WARRANTY INFORMATION/SPECs

**Important:** When returning your unit for service, be certain to include a daytime telephone number and an email address (if applicable).

#### **Customer Service**

If you have questions concerning the operation of your Whistler product, or require service during or after the warranty period, please call Customer Service at:

#### 1-800-531-0004

Representatives are available to answer your questions Monday - Friday from 8:00 a.m. to 5:00 p.m. (CT) or visit the F.A.Q.'s at www.whistlergroup.com.

#### **SPECIFICATIONS**

#### **Transmitting Frequency:**

433.92 MHz

#### **Operating Temperature Range:**

-4° F to +176° F (-20° C to +80° C)

#### **Power Requirements:**

Monitor: Built-in non user replaceable lithium-ion battery or

12 to 15 volts DC with power cord.

Sensors: 1 CR1632 battery 3 volts for each sensor.

#### **Dimensions:**

Monitor: 2.55" L x 2.23" W x 1.06" H

Sensor: .826" Dia x .55" H

## **Battery Life:**Monitor: 28 hours Sensors: 2 years

#### Sensor Pressure Range:

0 to 99psi (0 to 6.8 Bar)

#### **Sensor Pressure Accuracy:**

+/- 1.5 PSI (+/- 0.1 Bar)

Specifications are subject to change without notice.

## THE WHISTLER GROUP, INC. CORPORATE HEADQUARTERS

3604 NW Frontage Rd. Bentonville, AR 72712 TEL: 1-800-531-0004 FX: 479.273.2927

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