



Motorcycle Tire Pressure Monitoring Systems

TPMS Installation User Manual

Wireless Direct

Safe Driving with ORO TPMS



Model : W206


www.oro-technology.com

ORO MOTORCYCLE TPMS USER MANUAL

To ensure correct operations and services please read these instructions before installing and operating the TPMS

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FCC and FCC

This device complies with FCC (USA) Rules and NCC (Taiwan) Rules. Operation is subject to the following conditions:

- (1). Incorrect installation, improper usage or radio waves interference may cause unexpected operation of this device.
- (2). If this device does cause harmful interference to any electronic products or appliances, the user may increase the distance between the electronic product and this device or remove this device.

Certified low-power RF motors are not allowed for companies, firms or users to change the frequency without permission, either increase the power or change the original design features and performance.

The use of low-power RF motors shall not affect flight safety or interfere the communications; the presence of interference should be stopped immediately and modified without interference. The legal communication in the preceding paragraph means a radio communication that operates under the Telecommunications Act. Low-power RF motors are subject to interference from legitimate communications or industrial, scientific and medical radioactive electrical equipment.

System Scope of Usage and Warnings

■ System Installation and Usage

Use of the TPMS requires that qualified personnel according to the instructions here have properly installed it. This system is suitable for no inner-tube, two-wheels motorcycles, with up to maximum inflation pressure of 800kPa (Gauge) or 900kPa (**Absolute**). All instructions below use Gauge as a

reference.

■ Reacting to Alerts

When an alert or warning is received, reduce vehicle's speed and proceed to a safe location to stop where the tire can be inspected and /or serviced.

The low-pressure alert indicates that the air pressure has dropped to a selected minimum while a high-temperature alert indicates that the temperature of the tire content has surpassed the threshold value set.

Usage of Chemical Materials

Sealant or special tire filling chemicals may cause malfunction of the tire pressure monitoring system or affect sensors' functions.

Caution

The system is a wireless RF product and may not receive a signal due to poor environmental conditions, incorrect operation or incorrect installation. When the system continuously cannot receive any signal from any tire sensor for more than 10 minutes since the system has been switch on, the display will show " E2 " and activate the RED abnormal LED light along with an alert sound. If moving the vehicle to a different location to eliminate RF interference does not fix the problem, it is advised to take the car to a qualified tire maintenance center.

ORO-W206 Motorcycle Tire Pressure Monitoring Systems (TPMS), can provide immediate tires' pressure and temperature status. This real time information can extend tire life, reduce fuel consumption and provide a more safe riding condition.

ORO-W206 Tire Pressure Monitoring System includes 2 tire sensors, and 1 receiver display. The TPMS monitors the pressure/temperature by embedded installation into the tires, and transmits the tire information wirelessly to the receiver. The TPMS display will change its light from green to red and also activate an alarm when any abnormalities of pressure or temperature happen to the tire in order to prevent any possible accidents that may happen to the driver/vehicle.

W206 Motorcycle TPMS Specification

1. Transmitter Module Specification

Battery Voltage	3 V
Operating Humidity	Maximum 95 %
Storage Temperature	-40 °C to 125 °C
Operation Temperature	-30 °C to 115 °C

Transmitting Frequency	Maximum 75dB μ v/m
Operating Frequency	433.92 MHz
Pressure Monitoring Range	0 ~ 116 psi (0 ~ 800 kPa or 0 ~ 8 bar)
Pressure Reading Accuracy	± 1 psi (± 10 kPa or ± 0.1 bar)
Temperature Monitory Range	-30 °C to 115 °C
Temperature Reading Accuracy	± 3 °C
Weight (w/o valve)	12.5g \pm 1g

2. Receiver Module Specification

Power Supply	DC 9V ~ 16V
Operating Humidity	Maximum 95 %
Operation Current	< 40mA at DC 12V
Storage Temperature	-30°C to 85 °C
Operation Temperature	-25°C to 85 °C
Pressure Display Range	0 ~ 116 psi (0 ~ 800 kPa或 0 ~ 8 bar)
Temperature Display Range	-30 °C to 115 °C

Accessories	Picture	QTY	Accessories	Picture	QTY
Display Unit		1	Tire Sensor		2
Cigarette Power Cable		1	Aluminum Valve		2
Manual		1	Screw		2
Display Stand					

※The company reserves the right to change its spare parts, wire, shape and color (subject to product).

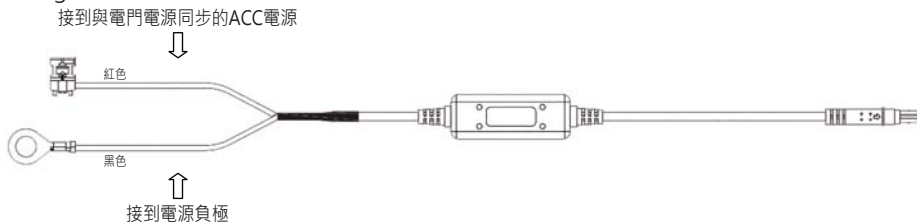
Please enter the default setting mode before installation. Make sure setting up the required front and rear Tire Pressure value. W206 default Tire Pressure value for front and rear is **35 psi (2.4bar)**. The warning system will alarm when the tire is **80% lower** or **130% higher** than the default Tire Pressure value.

The tire temperature will rise or drop simultaneously with Tire Pressure in normal riding conditions. When the weather decreases around 6°C (10°F), the tire pressure will adjust 1psi (0.07bar) as normal status. Always check the psi is within the recommended value as indicated in the manual.

NOTE : Make sure to follow the standard Tire Pressure default setting based on the value indicated on the manual of each model.


1. Display Installation:


- a. Connect the red cable from the power cable to plug-n-play ACC cord and the black cable to negative terminal.





- b. After decided the position of display, remove the adhesive from the stand, the angle of the display can be adjusted and fixed through the screwdriver.
- c. Plug the cigarette power cable to the power terminal located behind the display. Hold it firmly on the display stand and complete the display installation.
- d. Ensure the display unit to leave at least 20cm of distance to avoid the interference between GPS, dash or speed cameras.

2. Tire Sensor Installation:

Step	Operation Process	Picture
a	<p>Uninstall the front and rear tires and mark each tire' s position.</p> <p>Deflate the tire and remove the tread. Change the valve from the rim and replace with the ORO-Technology TPMS valve by following these steps:</p>	
b	<p>1. Snap in the valve from the external edge of the tire rim.</p>	

Step	Operation Process	Picture
b	<ol style="list-style-type: none"><li data-bbox="215 415 772 451">2. Snap in valve and screw by sequence<li data-bbox="215 607 1100 679">3. Use the torque wrench and tighten the valve attached to the rim. Setting as $4\text{N} \cdot \text{m}$ ($40.8\text{kg} \cdot \text{cm}$)<li data-bbox="215 795 972 907">1. Lock firmly the transmitter screw on the valve. The transmitter screw is single-sided to lock. Ensure the correct direction before the installation.	

c	<p>Mount the front sensor on the front tire rim by following the below steps:</p> <ol style="list-style-type: none">1. Use the torque wrench to tighten the sensor on the valve.2. Adjust the sensor's angle paralleling and firmly to the rim.3. Use the torque wrench to tighten the screw. Setting as $2.2\text{N} \cdot \text{m}$ ($22.4\text{kg} \cdot \text{cm}$).4. Put on the valve cap and complete the installation. <p>To uninstall/replace the sensor, it is highly recommended to use a new nylok screw.</p>	
d	<p>Mount the marked rear tire sensor on the rear rim. Same steps as indicated as C.</p>	
e	<p>Ensure only sensor is mounted on the rim. Avoid dust or liquid.</p>	

f	Mount the tread back to the rim with the embedded sensor and inflate the appropriate air pressure according to the models. It is recommended to install or uninstall the tread via the tire bead as this can avoid collision of the valve.	
g	Place the tires back to its original corresponding position.	

Once TPMS is completed its installation, turn on the power and start monitoring each tire' s pressure and temperature.

★Warning★

The product includes **Power Saving Type** :

- a. **Power SavingType** : transmit a signal each 30sec. when the vehicle speed is over 25km, and stop transmit signal upon the vehicle is stopped over 5 min. However, if the tire pressure is lower than 18psi (or 1.24bar), no matter whether the vehicle is moving or stopped, the transmitter will transmit a signal each 30 sec. to warn the vehicle driver.

1. Display Signals Description :

設定鍵(SET) 模式鍵(MODE)



: Front tire



: Rear tire

kPa
bar
psi

: Pressure Unit



: Temperature Unit



: Tire Status



: Abnormal Signal

8.88

: Tire Pressure Value/ Temperature

2. Operation to Change Display Mode :

W206 has 2 different modes by pressing **MODE button** shortly. The system will continuously monitor the tire pressure and tire temperature, no matter what kind of information is being displayed and will notify the driver whenever anything abnormal happens. After restarting the device, the system will display the tire pressure. The 2 modes of display are as follows :

Pressure Display Mode : Only display tires pressure unit.

Temperature Display Mode : Only display tires temperature unit.

3. How to Switch the Unit of Tire Pressure and Temperature :

W206 displays 3 kinds of pressure units, bar, kPa and psi. For temperature, Celsius or Fahrenheit can be displayed. To change the factory default for pressure or temperature, press the **MODE button** for 3 sec.

4. How to Modify Factory Default :

W206 has 3 factory default modes for users to choose from. Press the **SET button** shortly for 3 sec. to enter the set up mode from **Front Tire-Standard tire pressure set up**, **Rear Tire-Standard tire pressure set up** and **Tire Temperature-High Temperature Alarm Warning**. For detailed operations, please refer the below steps:

Set up Front Tire Pressure Value : Range 24psi~80psi (1.7bar~5.5bar), the default set value is 35psi (2.4bar)

- Press the **MODE button** shortly to enter the Front Tire-Standard Tire Pressure Setting Mode. The unit increases by 1 psi with each press of the button. When it has reached 50psi (3.5bar), pressing the button again will return the system unit to 24 psi (1.7bar).

- b. The system will enter to Rear Tire Pressure Value Mode automatically by pressing shortly the **SET button**.



Set up Rear Tire Pressure Value : Range : 24psi~50psi (1.7bar~3.5bar), the default set value is 35psi (2.4bar) °

- a. Press the **MODE button** shortly to enter the **Rear Tire-Standard Tire Pressure Setting Mode**. The unit increases by 1 psi with each press of the button. When it has reached 50psi (3.5bar), pressing the button again will return the system unit to 24 psi (1.7bar).
- b. The system will enter to High Temperature Alarm Warning Value Mode automatically by pressing the **SET button** shortly.



Set up Tire High Temperature Value : Range : 60°C~80°C (140°F到176°F), the default set value is 70°C (158°F) .

- a. Press the **MODE button** shortly to enter the High Temperature Alarm Warning Setting Mode. The unit increases by 1°C (1°F) with each press of the button. When it has reached 80°C (174°F), pressing the button again will return the system unit to 60°C (140°F).
- b. Press the **SET button** shortly to complete the High Temperature Alarm Warning Settings. The system will save all the settings and back to standard working mode and continues monitoring tires pressure and temperature.



Tire Pressure over Low/High Alarm Mode : When tire pressure is over low than 80% or higher than 130% of set value.

Warning Alarm : The abnormal tire will flash RED with Beep sound as warning.



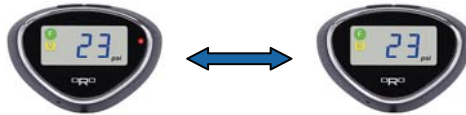
Tire Temperature High Alarm Warning Mode : When the tire temperature is higher than set value.

Warning Alarm : The abnormal tire will flash RED with Beep sound as warning.



Rapid Tire Deflate Alarm Mode : When the tire has a rapid deflate pressure situation.
(Vary more than 3psi or 20kPa in 30sec.)

Warning Alarm : The abnormal tire will flash RED with Beep sound as warning.



Receiver Display Abnormal Alarm Mode : When receiver display has a default failure.

Warning Mode : Show E1 and Green Light does not work.



No Signal Detecting Alarm Mode : When receiver module is not able to receive signal from tire sensor over 10 minutes.

Warning Mode : Show E2 on the display without Green Light.



NOTE!

1. When the alarm beep sound happens, pressing the **MODE button** continuously for 3 seconds will turn off the audible alarm.
2. When there is an abnormal status in the receiver module and the unit is not able to receive signals from tire sensor, please contact our customer service.

Before the replacement of W206 Tire Sensor, ensure the display cable is well-connected. If the power cut off, simply follow the steps indicated below and reset the unit. After the settings are completed, double check if each tire's information is functioning accordingly. Otherwise reset again and follow the steps according to the manual.

Tire Sensor Replacement Settings :

- a. The user should confirm whether the all sensors are manufactured by ORO before carrying out any changes or replacement. The system will not work with non ORO Technology sensors. Choose a sensor to be replaced starting from Front Tire -> Rear Tire to complete the set up mode 7 and return to the normal operating mode.
- b. Press the **SET button** and **MODE button** simultaneously for 3 seconds. The system will enter set up mode.
- c. Enter set up mode, front tire lights up and the number shows" --- "blinking, this indicates that the front tire in stands-by status. Inflate or deflate immediately (within 15 seconds exceeds 0.3bar, 30kPa or 4psi). When the beep sounds once and shows the number, the settings are completed and switch to the rear tire.

- d. If the front sensor no needs to reset then press **MODE button** shortly and the system will skip the front to rear tire setting. After rear tire inflation or deflation, press **MODE button** shortly and the system will skip rear tire and back to normal working status. The process is indicated as below :



We warrant our products for 24 months from the date of original purchase to be free from defects in materials and workmanship. If, during this period, the product fails under normal usage, because of a manufacturing defect, we will replace or repair the item. To obtain repair or replacement under the terms of this warranty, please return the product to the place of purchase. Proof of purchase and date of purchase with the store's stamp are required to validate the warranty claim. In the event where proof of purchase is unable to be determined, the warranty will be based on the manufactured date indicated on the label to add 2 years and 2 months. (ex. the manufacture date is on January 2017 then the warranty will be till end of March 2019).

The following situations void the warranty even when within warranty time period.

1. Broken or damage on appearance of the product.
2. The barcode label is not clear or torn.
3. Using tire repaired emulsion and causing the sensor failure.
4. The user did not follow the user manual instructions on installation, incorrect installation , or improper storage, which made the system fail or be damaged.
5. The system has been installed by non-authorized distributor or technician from ORO.
6. When the user is not using the original manufacturer's accessories (eg: Power code) thus causing the system to fail.

7. Any natural catastrophe, improper installation, improper usage, or any re-modelling process without authorization.
8. Consumables such as batteries which should be replaced on time.

Caution

The range of warranty are not including the "Aluminum Valves" and "Screws" , the user should change the "Aluminum Valves" and "Screws" when changing the tire sensor.

Attention

Any user self repairing or modifying the system included the device are NOT protected under the warranty policy.

Any other enquiries which related to the warranty policy, please feel free to contact with your nearest authorized distributor or contact directly with ORO by emailing :

sales@oro-technology.com

For ORO TPMS latest and updated news, please go to : www.oro-technology.com

ORO Technology thanks you for choosing ORO TPMS and wishes you "Safe Driving."

Model No.	W206	Serial No.	
Purchase Date	(DD/MM/YYYY)		
Dealers Stamp			

Customer information

Name		Telephone	
Address			



ORO Technology Co., Ltd.

<http://www.oro-technology.com>
