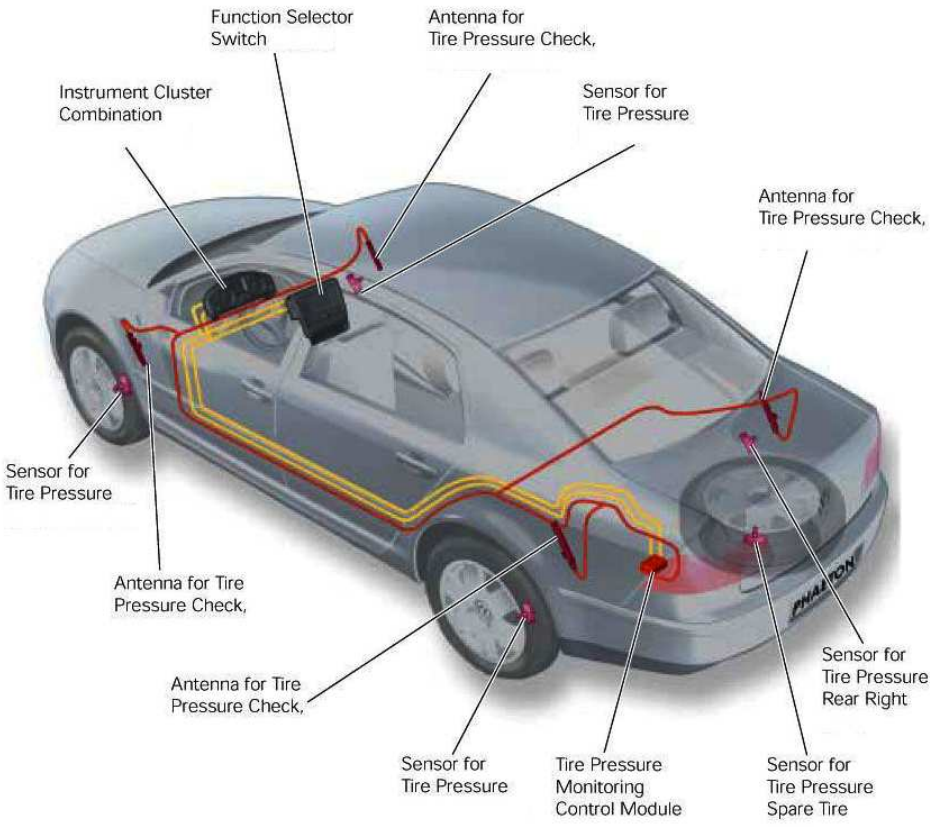
Tire Pressure Monitoring System



System Scope of Use 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 use on a passenger car, SUV and 4X4 tires, with up to maximum cold inflation pressure of 87psi (Gauge) or 102psi (Absolute), below instruction is Gauge value mentioned.

◆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.

◆Standard Cold Tire Pressure Setting

The user should enter into setup mode to change the standard cold tire pressure unit for own vehicle before installation tire sensor. W405 Factory Default standard cold tire pressure is 35psi for Front-Tire & Rear-Tire, so when the pressure is higher or lower than 25% (above 43psi or below 26psi) from the standard cold tire pressure setting value, the system will notify to the driver.

◆ORO TPMS & ID Match

When finished setting the Tire Sensor and Display then should enter Adv Setting →TPMS Setting →Tire ID Detect proceed to match the ID between ORO 4 wheels sensors and DVD recorders,
TPMS module can work properly and displayed.

TPMS Accessories

Accessories	Quantity	Accessories	Quantity
USB Receiver Module	1	Relay Module	1
Cigarette Power Cable	1	Aluminum Valve	4
Tire Sensor	4	Nylok Screw	4
Velcro	2	User Manual	1
Warranty Card	1		

※If there has any shortage or defect, please contact with ORO service window for processing.

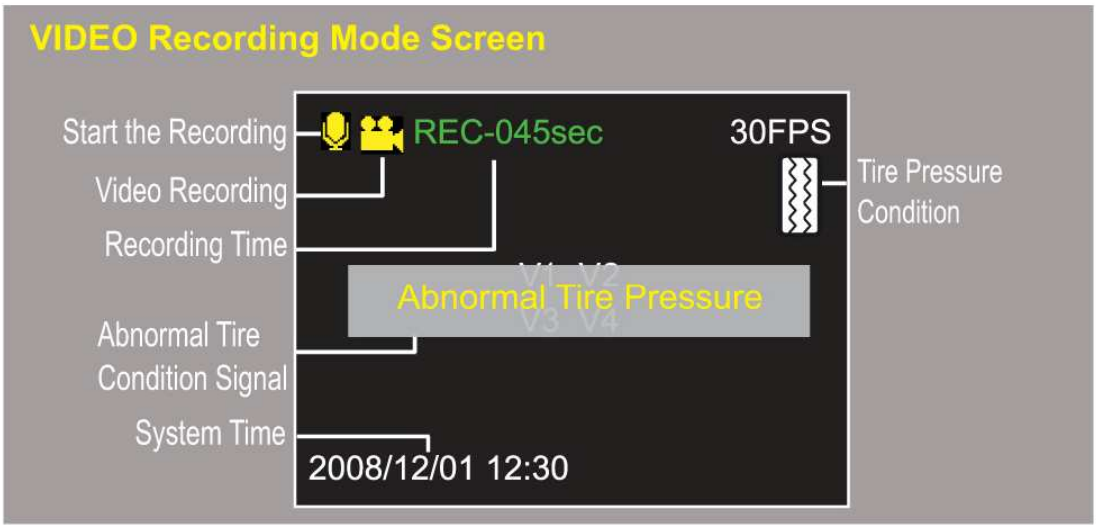
Symbol Description

bar	Tire pressure unit, 1 bar = 0.1N / mm2
psi	Tire pressure unit, 1 psi = 0.0689 bar
kPa	Tire pressure unit, 1 kPa = 0.01 bar
℃	Temperature unit, Centigrade = (Fahrenheit-32) x 5/9
℉	Fahrenheit

TPMS Display Interface Description

In VIDEO mode, press ▲ into TPMS mode as show below, press ▲ again to back VIDEO mode.

TPMS Display Description in VIDEO Recording Screen



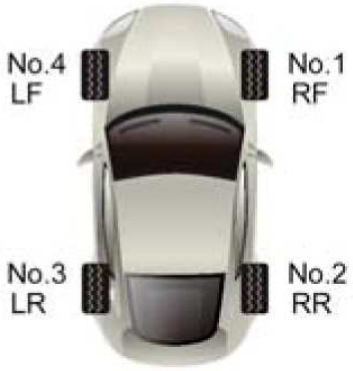
Condition	Condition Description
	Have not receive any tire pressure signal
	Receive the tire pressure signal
	Receive 4 tires pressure signal
	Receive abnormal tire condition signal

TPMS signal exception: when nine minutes after power has not yet received any of the tire pressure signal is displayed "Abnormal Tire Pressure" Should be checked the Relay and USB receiver module wiring is loose, the indicator light is displayed properly.

Sensors ID Data Record

No1. RF	No2. RR	No3. LR	No4. LF

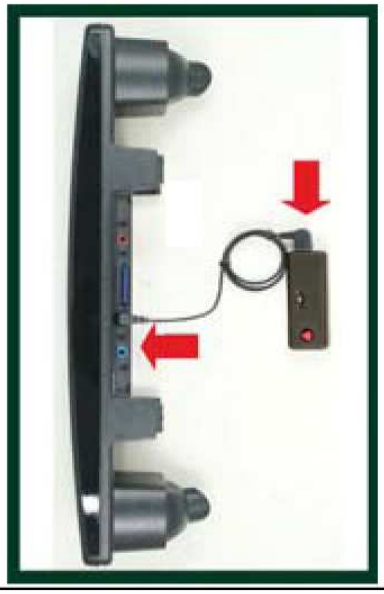
Tire Sensor Installation

Step	Operation Process	Photographs
a	Take off the 4 tires and mark 1~4 for each tire position. No.4 = Left Front Tire ； No.1 = Right Front Tire No.3 = Left Rear Tire ； No.2 = Right Rear Tire 	 
b	Take off the tire and bleed the air, then, to change to the ORO-Technology TPMS valve, follow the steps: 1.Snap in the valve from the internal edge side of the wheel. 2.Adjust the valve's angle, and make sure the valve is vertical to the edge of the wheel. 3.Put on the circle screw (washer)from the outside of the wheel. 4.Tighten the valve with the nylok screw from the outside of the wheel. 5.Use the alan key to tighten.	    

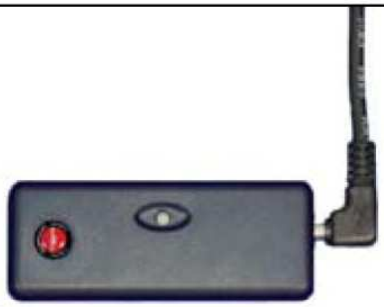
c	Put the marked No. 1 tire sensor to the tire which is marked No. 1. as step as. photo and follow steps: 1.Install the tire sensor to the valve. 2.Use the nylok screw and tighten up with the tire sensor. (Please use the screwdriver which is included to the accessories bag) 3.Adjust the tire sensor's angle (paste on the surface of the wheel), then tighten the nylok screw with a torque wrench and please set 5 Newton for torque wrench. 4.Put on the valve's cap, and finish the installation. When there is a need to re-install the tire sensor, please use a new nylok screw in order to prevent the usage of the old ones.	 
d	Place the No. 2 tire sensor to the tire which is marked No.2, and set up the other 2 sensors in the same manner as shown in the step "c".	
e	Make sure there is no other liquid or dust present around the area of the tire sensor.	
f	After installation, inflate the tire to the appropriate air pressure as suggested in each vehicle's user manual.	
g	Balance the tires with the tire balance machine。	
h	Place the tires back to it's corresponding position as shown in the photograph on step "a".	

Once TPMS is installed correctly, turn on the ignition to start monitoring the tire pressure/temperature and voltage.

Receiver Module Installation

Operation Process	Photographs
System USB cable connect to USB jack of the main body, on the other end of the USB receiver module, and wiring hidden along the car roof, and the receiver attached to the appropriate location.	

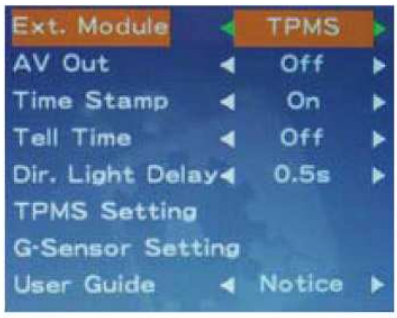
Relay Module Installation

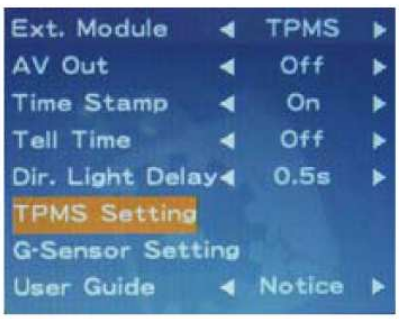
Connect the power cord connector Relay Module and wiring along the bottom of foot pad hidden, and the receiver attached to the appropriate location. Recommendations placed in the middle of Driving Seat at the bottom near the body. (Position adjustment can refer to the number of tire pressure receiver)	

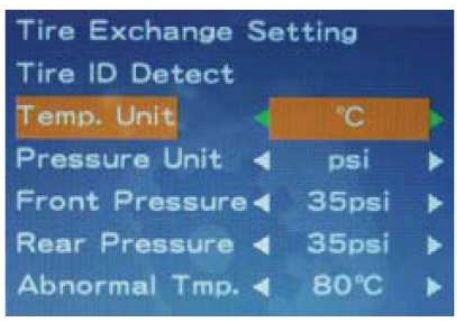
TPMS Function Setting

A、Into the Adv. setting, confirm that plug-ins is selected as TPMS, 10sec off the first set and then need to reboot.

B、Set MENU and select Ext. Module →TPMS →TPMS Setting to enter the TPMS function setting. In this setting mode, please press ▲ ▼ to select the field, ⏮ ⏭ to adjust the figure, when adjusted press ⏯ to recognize or press MENU to cancel the setting.







C、Basic Setting

1. Temperature Unit-℃and ℉ are displayed.
2. Pressure Unit-bar, kPa and psi are displayed.
3. FRONT TIRE-Standard Cold Tire Pressure Setting Mode
   When the pressure is higher or lower than 25% from the cold tire pressure setting value, the system will notify to the driver.

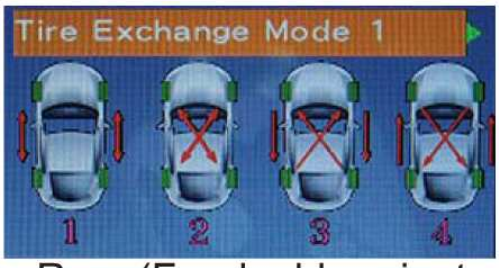
4. REAR TIRE-Standard Cold Tire Pressure Setting Mode
   When the pressure is higher or lower than 25% from the cold tire pressure setting value, the system will notify to the driver.
5. Over Temperature Setting Mode
   When the temperature is higher than the limit, the system will alarm.

Warning: Standard Cold Tire Pressure setting value, please check on each vehicle's user manual.

D、Tire Exchange Mode

When reset changing or rotation for tires, should change the sensors ID too, W405 has provided 4 modes where users can change and set the sensors ID on the System .

In this mode, press ⏮ ⏭ to set the rotation mode, press ⏯ to recognize or press MENU to cancel the setting.



1. Description: Front and Rear Tire Parallel Exchange (For single-oriented tires)
2. Description: Tire Diagonal Exchange (For four-wheel double-oriented tires)
3. Description: Rear Tire Diagonal Exchange, Front Tire Parallel Exchange to Rear (For double-oriented front-drive tires)
4. Description: Front Tire Diagonal Exchange, Rear Tire Parallel Exchange to Front (For double-oriented rear-drive tires)

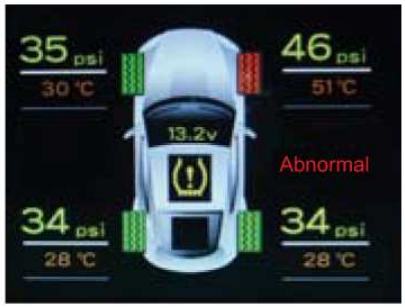
E、Tire ID Detect

After set the 4 sensors for the first time or user changed the tires. Need to use this Tire ID Detect to match System ID. Need to respective Right-Front ID, Right-Rear ID, Left-Rear ID and Left-Front ID learning paired, then TPMS can work and display. Tire ID Detect function can set the ID for each tire, after replaced the single sensor, should use this function to match the ID too.

In this mode, press ▲ ▼ matching tire options, press ⏯ into single ID match, in the meantime, the user should deflate the tire pressure rapidly over 30kPa or 4psi within 15 sec until there is a beep sound, which means the user has completed the set up the ID or press MENU to cancel the setting.

(Display the ID)

TPMS Alarm Mode Description

Mode	Warning Condition and Warning Method	Display Figure
1	Warning Situation: When the pressure or tire pressure < 0.75 * Cold tire std. pressure. (Factory Default for low tire pressure is 35 psi, so the systems will start warning when the tire pressure < 26 psi) Warning System: A beeping sound is heard as a warning when the abnormal tire condition signal is displayed and the abnormal tire symbol is displayed in red.	
2	Warning Situation: When the pressure or tire pressure > 1.25 * Cold tire std. pressure. (Factory Default for low tire pressure is 35 psi, so the systems will start warning when the tire pressure > 44 psi) Warning System: A beeping sound is heard as a warning when the abnormal tire condition signal is displayed and the abnormal tire symbol is displayed in red.	
3	Warning Situation: When the temperature is higher than set up limit. (Factory default is 80□and 176°F Warning System: A beeping sound is heard as a warning when the abnormal tire condition signal is displayed and the abnormal tire symbol is displayed in red.	
4	Warning Situation: When the tire pressure is decreasing rapidly. (When the pressures changes more than 2 psi in 30 sec.) Warning System: The affected tire flashes red along with the flashing tire deflating signal plus a beeping sound.	
5	Warning Situation: When the tire sensor battery level is low. (Suggest: change the sensor as soon as possible.) Warning System: The abnormal tire flashes green, and the low battery symbol lights up.	
6	Warning Situation: When Display unit sensor is unable to receive a signal from one of the tire sensor for more than 9 minutes. Warning System: The bad transmission symbol lights up and the affected tire symbol will not be lighted up.