

MOBILETRON™



Tire Pressure Monitoring System

TPMS Installation User Manual



Model: TPV08

Safe Driving with MOBILETRON TPMS

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

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FCC

This device complies with FCC 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.

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 using on a passenger car, SUV and 4X4 tires, with up to maximum cold inflation pressure of 600kPa=87 psi (Gauge) or 700kPa=101psi (**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.

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

Caution

The system is a wireless RF product; therefore, it may not receive a signal due to poor environmental conditions or 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 switched on, the display will show " E2 " and activate the RED abnormal LED light along with an alert sound. In this case, a RF interference environment may have caused it; a driver will need to drive the vehicle to a different location. If the display is still unable to receive any correct signal from tire sensor, the driver will need to find a nearby qualified tire maintenance service to check or carry out maintenance. This abnormality may be caused by a damaged tire sensor or excessive battery power consumption.

MOBILETRON-TPV08 TPMS, can monitor and provide tire pressure, tire temperature and car battery information in real time to help the driver control and keep the normal tire pressure in order to reduce the fuel consumption and extend the tire life, and also through the battery information, the driver can change the battery before any incident occurs and reduce the possibility of vehicle breakdown on the roads.

MOBILETRON-TPV08 TPMS, includes 4 tire sensors and 1 receiver display, the TPMS can monitor the pressure/temperature by snap-in installation into the tire, and transmit the tire information to the receiver by wireless. The TPMS display will trigger an alarm when any abnormalities happen to the tire in order to prevent any possible accidents which may happen to the driver/vehicle.

TPV08 TPMS Specification

1. Transmitter Module Specification

Battery Life	Up to 5~ 7 years in normally use
Power Supply	3 V Lithium battery
Operating Humidity	Max 95%
Storage Temperature	-40 °C to 125 °C
Operation Temperature	-30 °C to 115 °C
Transmitting Power	Max 75 dBuv/m
Transmitting Frequency	433.92 MHz
Pressure Monitoring Range	0 ~ 87 psi (or 0~600 kPa or 0~6 bar)
Pressure Reading Accuracy	±1 psi (or ±7 kPa ; ±0.1 bar)
Temperature Monitoring Range	-30 °C to 115 °C
Temperature Reading Accuracy	±3 °C
Module Weight	29.4g ± 1g

2. Receiver Module Specification

Power Supply	DC 9V ~ 16V
Operating Humidity	Max 95%
Operation Current	<200mA at DC 12V
Storage Temperature	-30 °C to 85 °C
Operation Temperature	-25 °C to 85 °C
Pressure Display Range	0 ~ 87 psi (or 0~600 kPa or 0~6 bar)
Temperature Display Range	-30 °C to 115 °C

Accessories	Pictures	QTY	Accessories	Picture	QTY
Display		1	Nylok Screw		4
Tire Sensor		4	New Adjustable Multi Angle Holder		1
Cigarette Power Cable		1	Velcro & 3M Double Side Adhesive		1
Aluminum Valve		4	Manual		1

TPV08 TPMS Installation

1 . Display Unit Installation

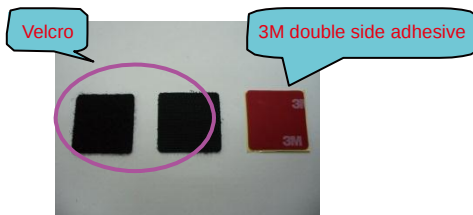
New adjustable multi angle holder (**STANDING TYPE**) assemble manual:



New adjustable multi angle holder (**PASTE TYPE**) assemble manual:

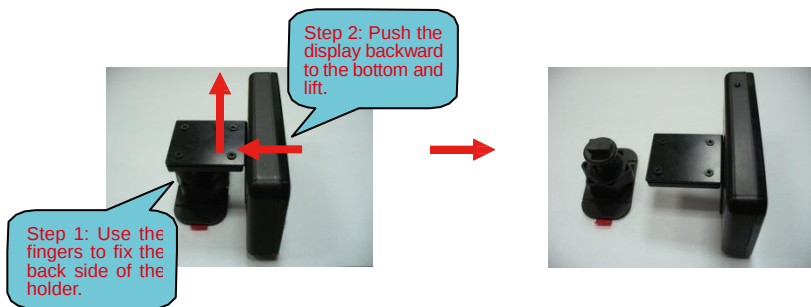


Upon decided where to paste, tear out 3M adhesive from the base and stick on the holder. The user can decide to use the adhesive in the box or 3M double side adhesive:



NOTE

The display (STAND and PASTE type) shall be 180 degree reverse up and down with opposite direction when is using 3M double side adhesive.

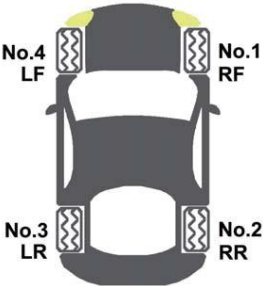


- Firmly secure the magnetic holder in a suitable place. (Suggested place as shown in the picture)
- Plug in the USB cigarette power cable on the back of display.
- Put the display on the magnetic holder.
- Plug in the power cable to the cigarette lighter power connection.
- Keep 20cm of distance from GPS, digital TV, speed measure device or other automotive electronic devices while are installing TPMS in order to prevent any possible of interference.



If the user wants to connect the power directly, please visit an electrical auto shop, dismantle the cigar plug and solder the red and green cable to the AC power, the black and white cables are for grounding.

2. Tire Sensor Installation

Steps	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 MOBILETRON 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 provided to tighten.



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 tight up the with the nylok screw.
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.

1. Display Signals Description



Bad Transmission Signal



Battery Signal



Pressure Unit



Tire Deflating Signal



Battery Voltage Unit



Normal Tire



Low Battery on Tire Sensor



Temperature Unit



Abnormal Tire Pressure



Abnormal Tire Condition Signal



Tire Pressure/Temperature Display Unit

NOTE

There is an ambient light sensor on the top right of the display, MOBILETRON TPMS is able to automatically adjust the brightness of the LED Display. The display will be brighter in the day and darker in the night to ensure that the user will be able to read the LED Display clearly and not be affected by external lighting.

2. Operation to Change Display Mode

TPV08 has 3 different modes, they are Tire Pressure Display Mode, Temperature Display Mode, and Pressure-Temperature Rotation Mode. The display will show the tire pressure mode once it is turned on, to enter the temperature mode press on the **MODE** button once and to display pressure-temperature press it another time. The system will continuously monitor the tire pressure, tire temperature, battery voltage, no matter what kind of information are being displayed and will notify the driver whenever anything abnormal happens. If the user does not change from the factory default, the system will show the tire pressure display, the 3 modes of display are as follows:

- Pressure Display Mode: Display of 4 tires pressure and battery voltage unit only.
- Temperature Display Mode: Display of 4 tires temperature and battery voltage unit only.
- Pressure-Temperature Rotation Display Mode: Rotating display of tire pressure and temperature with a constant display of battery voltage.

3. Operation to Change Unit of Tire Pressure and Temperature

TPV08 displays 3 kinds of pressure units, bar, kPa and psi. For temperature, °C, °F are the units displayed. The factory default for pressure unit is psi, the user can change the pressure unit by pressing the **MODE button** for 3 sec., and the factory default for temperature is °C. the user can change the temperature unit by pressing **MODE button** for 3 sec.

4. Operation to Modify Factory Default

TPV08 has 4 factory default modes for users to choose from. Press the **SET button** continuously for 3 sec. to enter the set up mode from Front tire-Std. tire pressure set up, Rear Tire-Std. tire pressure set up, Tire Temperature-Over Temperature Warning, Operation Mode and for other parameter settings, please refer below for the relevant process:

NOTE: The user should change the suitable pressure unit for own vehicle before entering into the setup mode.

FRONT TIRE-Standard Cold Tire Pressure Setting Mode

When the tire is under normal inflated condition, the pressure will increase and decrease simultaneously with the temperature, normally, there will be 1psi (7kPa) fluctuation when the temperature differs about 10°F (6°C), and this is normal physics phenomenon. MOBILETRON suggests that, when checking on tire pressure, it's important to keep the tire pressure under suggested specifications, the Cold & Low tire pressure setting will be recognized as a warning, however, when the pressure is higher or lower than 25% from the cold tire pressure setting system will notify to the driver.

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

Steps	Operating Process	Photographs
a	Pressing the SET button for over 3 seconds to enter the Front Tire-Standard Cold Tire Pressure Setting Mode.	
b	The wireless receiver and display unit shows the standard cold tire pressure. The factory default value (35psi) is shown in blue and the yellow light indicates the "psi". or pre-selected units (kPa or bar). If no modification is needed, press the SET button to enter the next setup mode. NOTE: If the pressure unit is in "kPa" the display will flash 250 and 2.5 for "bar".	

c	Pressing the MODE button once, will increase the cold tire pressure value by 1 unit; and the unit increases by 1 psi with each press of the button, when it has reached 50 psi, pressing the button again will return the system unit to 27 psi. NOTE: If the user choose kPa mode, 10 kPa will be added with each press of the button, the range for kPa is 190kPa~350kPa, and 1.9 bar ~ 3.5 bar for bar unit.	
d	Press the SET button to complete the Front Tire-Standard Cold Tire Pressure Setting. The system will automatically enter the Rear Tire-Standard Cold Tire Pressure Setting Mode.	

Rear Tire-Standard Cold Tire Pressure Setting Mode

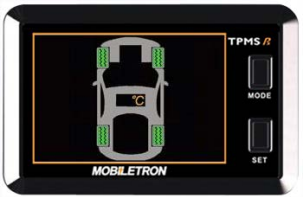
Steps	Operating Process	Photographs
a	The system will enter the Rear Tire-Standard Cold Tire Pressure Setting Mode automatically after setting up the Front Tire- Standard Cold Tire Pressure setting.	
b	The wireless receiver and display unit shows the standard cold tire pressure. The factory default value (35psi) is shown in blue and the yellow light indicates the "psi". or pre-selected units(kPa or bar). If no modification is needed, press the SET button to enter the next setup mode. NOTE: If the pressure unit is in "kPa" the display will flash 250 and 2.5 for "bar".	
c	Pressing the MODE button once, will increase the cold tire pressure value by 1 unit, and the unit increases by 1 psi with each press of the button, when it has reached 50 psi, pressing the button again will return the system unit to 27 psi. NOTE: If the user choose kPa mode, 10 kPa will be added with each press of the button, the range for kPa is 190kPa~350kPa, and 1.9 bar ~ 3.5 bar for bar unit.	
d	Press the SET button to complete the Rear Tire-Standard Cold Tire Pressure Setting. The system will automatically enter the Tire Temperature-Over Temperature Setting Mode.	

Tire Temperature-Over Temperature Setting Mode

Steps	Operating Process	Photographs
a	The system will enter the Tire Temperature-Over Temperature Setting Mode automatically after setting up the Rear Tire-Cold Tire Pressure Setting.	
b	The display will show the factory default temperature limit for the tires (80°C) in blue. If no modification is needed, then press the SET button to enter the next set up mode. NOTE: If the unit is °F the number 176 will be flashing.	
c	Press the MODE button to change the limit for the temperature, the unit will add 1°C with each depression. The range for temperature is between 60°C~99°C, the system will return back to 60°C after reaching 99°C. NOTE: If the unit is °F, each depression will add 1°F, The range for °F is from 140°F~212°F	
d	Push the SET button to complete the Tire Temperature-Over Temperature setting and the display will enter to the Power On Setting Mode.	

Power On Setting Mode

Steps	Operating Process	Photographs
a	The system will enter the Power On setting mode automatically after setting up the Tire Temperature-Over Temperature Setting.	
b	The display shown is the factory default for tire pressure value. This is "psi" in yellow. NOTE: The system may use other unit for pressure by psi, kPa or bar, depending on the region.	

c	Press the MODE button to enter the temperature display mode as the shown on the right hand side, and the unit for temperature is °C. NOTE: The system may use other unit for pressure by °C,°F , depending the system for different area of the world.	
d	Pressing the MODE button, will enter to the Tire Pressure~ temperature by rotation mode. And the battery voltage will display permanently.	 
e	Press the SET button, and the system will complete the Power On Setting Mode and back to the normal operation mode to monitoring tire pressure/temperature and battery voltage.	

TPV08 System Alarm Mode Description

Mode	Warning Condition and Warning Method	Display Figure
a	Warning Situation: When the present tire pressure > 1.25 x Cold tire std. pressure or tire pressure < 0.75 x Cold tire std. pressure, the system will start warning. (Factory Default for low tire pressure is 35psi, so the systems will start warning when the tire pressure >44psi or below 26psi.	

	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.	
b	Warning Situation: When the temperature is higher than set up limit. (Factory default is 80°C 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.	
c	Warning Situation: When the tire pressure is decreasing rapidly. (When the pressures changes more than 2psi in 30 sec.) Warning System: The affected tire flashes red along with the flashing tire deflating signal plus a beeping sound.	 
d	Warning Situation: When the battery voltage is below than the limit that has been set up. (Factory default for warning is 11.5V) Warning System: The battery symbol shows red.	

e	Warning Situation: When the tire sensor battery level is low. (Suggest to change the sensor as soon as possible.) Warning System: The abnormal tire flashes green, and the low battery symbol lights up.	 
f	Warning Situation: When the Monitor run out of initial setting up by factory default. Warning System: The four display unit shows by E1 and not lighting on four tires symbols.	
g	Warning Situation: When Display unit sensor is unable to receive a signal from one of the tire sensor for more than 10 minutes. Warning System: The bad transmission symbol lights up and the affected tire symbol will not be lighted up with a reading of E2.	

NOTE: The user can press the **MODE** button continuously for 3 sec. to stop the warning sound.

TPV08 Reset for Tire Changing and Rotation

Upon completion of changing or rotation of tires, the user should also reset the position of the tires on the display unit. TPV08 has provided 7 modes where users can reset quickly and keep the tire position as it on the display unit.

The user should ascertain that the display is plugged in, when carrying out the tire changing/rotating mode, if the power is interrupted, please follow the reset process in order to proceed successfully. The user should confirm whether the display is able to monitor all the tire information correctly, if not, please carry out the reset process.

Set Up Process for Enter the Tire Changing and Rotation

Depress the **SET button** and **MODE button** simultaneously for 3 sec., and the system will enter set up mode 1, pressing once each time will allow the user to traverse from mode 1 to mode 7 and back to normal display.

Description for Each Set Up Process

When the display shows a yellow "1", this means the display is now in mode 1 and the 4 red lights indicates the tire position are not set as shown in Fig. 1. The 4 green lights indicates the tire position that user wants to set up as shown in Fig. 2. Press the **SET button** continuously for 3 sec. until sounds beep indicating set up complete for mode 1. (Front and Rear Tires Exchange) then the system will return to the normal operating display.

Mode 1: Front and Rear Tire Parallel Exchange



Fig. 1



Fig. 2

Mode 2: Tire Diagonal Exchange



Fig. 1



Fig. 2

Mode 3: Front Tire Diagonal Exchange, Rear Tire Parallel Exchange to Front



Fig. 1



Fig. 2

Mode 4: Rear Tire Diagonal Exchange, Front Tire Parallel Exchange to Rear



Fig. 1



Fig. 2

Mode 5: Right Side and Left Side Tire Parallel Exchange



Fig. 1

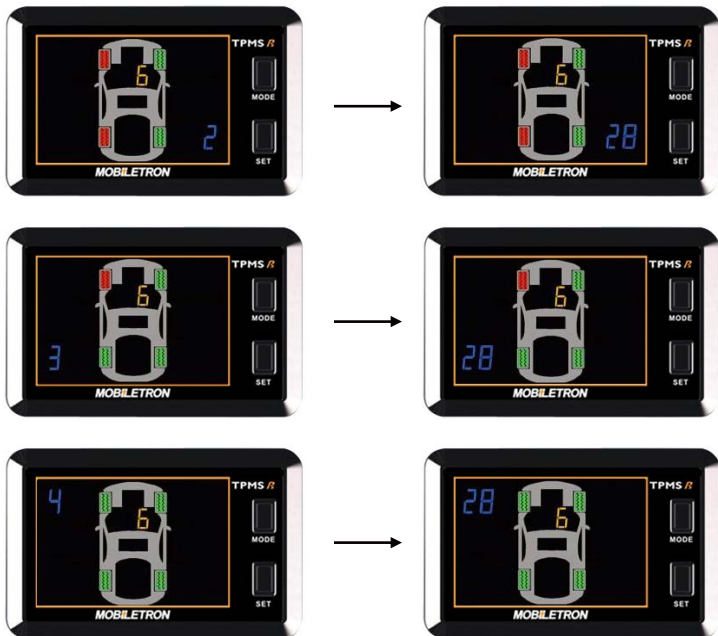


Fig. 2

Mode 6: Random Repositioning

The user should install the tire to their desired position before entering mode 6. When the display shows a yellow " 6 this means that it is now in mode 6. Reset starting from Right Front Tire -> Right Rear Tire -> Left Rear Tire -> Left Front Tire automatically in order to complete the set up mode 6. The user should deflate the tire pressure rapidly over 0.3bar /30kPa or 4 psi within 15 sec. until there is a beep sound, which means the user has completed the set up





Depress the **SET** key to skip LF relearn or after completing the rapid deflation of Left Front tire for relearn process. The system will return to the normal operation system automatically.

Mode 7: Single Sensor Replaced

The user should confirm whether the all sensors are manufactured by MOBILETRON before carrying out any changes or replacement. The system will not work with non MOBILETRON Technology sensors. The monitor will display No.7 in yellow which means the system is in mode 7.

Choose a sensor to be replaced starting form Right Front Tire -> Right Rear Tire -> Left Rear



Limit Warranty

Mobiletron, hereby warrants that this Mobiletron wireless tire pressure monitoring system shall be free from defects in workmanship and/or materials until the expiry of twelve months from its purchase by the end user. EXCEPT WHERE any such defect has been caused by: Improper or non-normal use, Improper installation, contacts with any corrosive or otherwise harmful substance, any other acts or omission not sanctioned by the User Manual.

- Mobiletron warrants the wireless tire pressure monitoring system product for twelve months from the end user purchase date under normal operation condition, which is free from manual improper operation, improper installation or any casualty.
- Mobiletron's sole obligation shall be to repair or replace the defective product at no charge to the original owner.
- Mobiletron warns the user or driver of the driving safety by the limited warning signal range, and does not protect or take the responsibility of the user's or driver's safety directly.
- In no event will Mobiletron be liable for any direct, indirect, special, incidental or consequential damage, including loss of profit, loss of savings, or any other damages caused by product, or its documentation, or failure of the product to perform, even if Mobiletron has been advised of the possibility of such damages.

Warranty Service

- (1) The above warranty will be honored by the retailer from which it was purchased, provided that the owner can provide dated proof of purchase.
- (2) In the event that any defect in the unit is covered by the above warranty, Mobiletron will replace the affected components free of charge, shipping prepaid. The owner shall be responsible for any labor and installation costs incurred in removing the defective parts and/or installing the replacement.

This Limited Warranty Provided by Mobiletron Does Not Cover

- (1) Product that have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, improper transportation, repair or service in any way that is not authorized by Mobiletron.
- (2) Any damage attributable to fire, flood, lightning strike or act of God.
- (3) Any repair should implement in Mobiletron by returning from the Mobiletron authorized retailer. Any repair without authorization will be excluded from the warranty.

bar	Tire pressure unit, 1 bar = 0.1N/ mm ²
psi	Tire pressure unit, 1 psi = 0.0689 bar.
kPa	Tire pressure unit, 1 kPa = 0.01 bar
°C	Temperature unit, Centigrade = (Fahrenheit-32) x 5/9
°F	Fahrenheit