

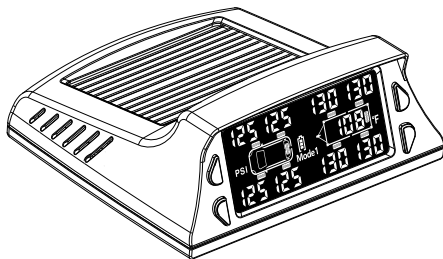


SOLAR AND RECHARGEABLE TIRE PRESSURE MONITORING SYSTEM

Monitors up to 10 tires (2 spare tires) in real time

Model number : M20 (Monitor display)

Instruction Manual



Contents

1.TPMS INTRODUCTION	01
1-1. ABOUT TPMS	01
1-2. SAFETY PRECAUTIONS	01
1-3. INSTALLATION TIPS	01
2.PRODUCT FEATURES	02
3.PACKAGE CONTENTS	02
4. MONITOR COMPONENTS AND ICONS	03
5.INSTALLATION	04
6.SENSOR ID CODE PAIRING TO MONITOR	05
6-1. TOUCH CODE LEARNING	05
6-2. INFLATE CODE LEARNING	06
6-3. DELETE ID CODE	07
7.PARAMETER SETTING	07
7-1. FACTORY DEFAULT SETTING	08
7-2. MANUALLY SETTING PARAMETER	08
8.ALERTS	11
9.OTHER FUNCTIONS	13
9-1. Receiving data while parking	13
9-2. Monitor displayed	13
9-3. Sleep mode/awake	13
9-4. Two levels automatic backlight	13
9-5. Recharge monitor	13
10.PARAMETERS	14
11.CAUTIONS	14
12.GET HELP	14

1. TPMS INTRODUCTION

1-1. ABOUT TPMS

Thanks for choosing our TPMS products. TPMS is a system monitoring pressure and temperature of vehicle tires in real time, by sensors detecting the tire conditions, and transmit the data to monitor display. With alarming conditions set up by user, when there's abnormal situation detected, system alerts driver by audio alarm and displaying data in monitor, thus to aware and avoid potential accident. Applying TPMS to vehicles can also efficiently reduce fuel consumption, prolong tire life and save energy.

Be sure to read these instructions carefully before installation and it's suggested to keep this manual for future use.

1-2. SAFETY PRECAUTIONS

It is strongly suggested to read below instructions before TPMS installation:

1. The monitor should be installed inside the vehicle driver cabin where it does not affect normal driving.
2. The monitor should be firmly fixed to prevent falling off during driving.
3. After sensors installed to tires, please examine it and make sure there's no air leakage.
4. The tires' temperature and pressure could increase dramatically while driving, when it reach the alarm limits please stop vehicle to cool down and to avoid braking problem or tire blowout.
5. When tire pressure is continually increasing or dropping, please stop the vehicle and examine tires.
6. When high tire pressure is observed, please beware of possible tire blowout; when it's low tire pressure beware of fuel consumption and wheel balance.
7. The system can effectively monitor tire pressure and temperature but cannot avoid traffic accident. Using quality tires and keep normal pressure in tires are essentially important.
8. Be sure of safety while checking tire data in monitor during driving.
9. With correct installation this TPMS system issues alert when abnormal situation appears, driver does not have to check the monitor frequently but should focus in safety driving.

1-3. INSTALLATION TIPS

1. After 10 minutes of no vehicle vibration detected the monitor goes into sleep mode, and can be awoken by vehicle vibration and starts receiving data from sensors. At the start some data might be missing in monitor, it'll be displayed when tire pressure or temperature updated.
2. Monitor and sensors transmit signals by wireless, with long effective transmission distance and anti-interference protection. Anyway in case of long vehicle it's suggested to install an additional Transceiver for effective signal transmission.
3. It's a normal situation that the tire pressure and temperature changing all the time during driving, as result of air expansion and contraction.
4. Tire air leakage with time is a normal phenomenon and is not caused or affected by TPMS.
5. For any question or problem of installation, please contact with local distributors.

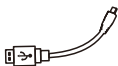
2.PRODUCT FEATURES

- Receiving data while parking
- Reliable functions and easy installation
- Large size LCD display of pressure and temperature
- Automatically solar power battery re-charging.
- Vibration awaken
- Two levels automatic backlight.
- Configurable high/low pressure and high temperature alert threshold
- Audio and display alert for abnormal pressure, temperature and fast leakage
- Selection of pressure unit (PSI, BAR) and temperature unit (°F/°C)
- Switch Mode1 and Mode 2 for different road condition (Common road and special road)
- Long receiving distance
- Monitor up to 10 tires (including 2 spare tires)
- Display temperature and pressure simultaneously
- Individual setting of high/low pressure alert threshold for each axel
- Two ways of pairing sensor (INFLATE CODE learning and touch code learning)

3.PACKAGE CONTENTS



LCD Monitor
(1 pc)



USB charging cable
(1 pc)

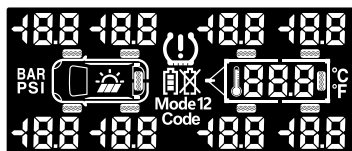
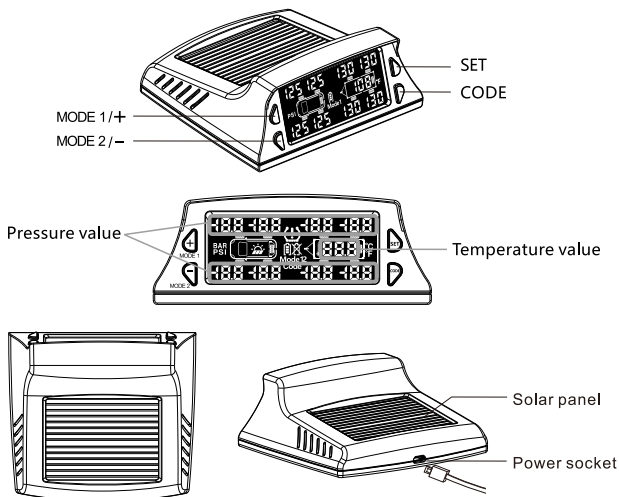


DC-DC Power adapter
(1 pc)



Sticky pad
(1 pc)

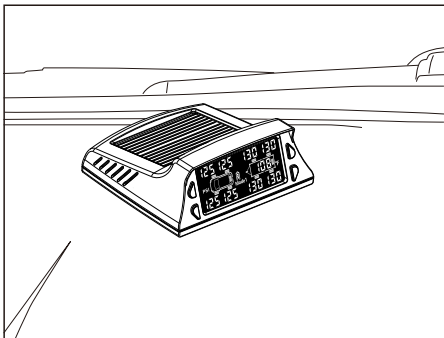
4. MONITOR COMPONENTS AND ICONS



Icon	Description
	Tire
	Pressure warning
	Temperature unit
	Pressure unit
	Solar charging
	Sensor low battery
	Monitor battery indicator
	High temperature alert

5.INSTALLATION

Monitor should be installed in appropriate place using sticky pad. Recharge the monitor by DC-DC power adaptor for the first time and allow continue recharge by solar power after the first time full DC recharge.



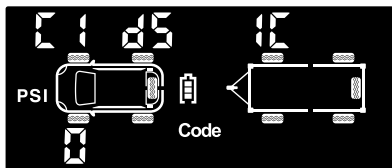
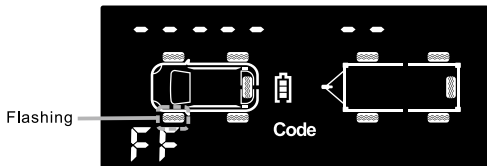
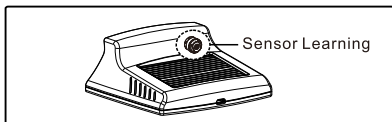
Turn on/off monitor

Driver could turn on/off monitor manually after/before a long time parking.
Hold "SET" and "+" button simultaneously for 1 second to turn on monitor.
Hold "SET" and "-" button simultaneously for 1 second to turn off monitor.
Monitor automatically turn off when power is low, please re-charge in time for continue using.

6.SENSOR ID CODE PAIRING TO MONITOR

6-1. TOUCH CODE LEARNING

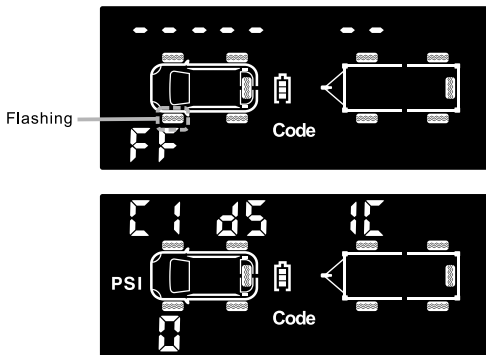
In Standby mode, hold CODE button for 3 seconds to enter Pairing mode, press "+" "/" "-" button to select desire tire, place sensor near monitor like the diagram, and short press CODE once with a beep, 1st tire icon, "-----" and CODE starts flashing, monitor receives sensor code with a beep, current pressure value and sensor ID code displayed. New code will be stored into monitor automatically. Press CODE button until Beep sound will return standby mode.



Note: Please keep other sensors at least 1 feet away from the monitor to prevent any wrong pairing.

6-2. INFLATE CODE LEARNING

In Standby mode, hold CODE button for 3 seconds to enter pairing mode, press "+" / "-" button to select desire tire. Once ready, mount sensor on to tire valve, when monitor receives sensor data with a Beep, current pressure value and sensors' ID displayed. New code will be stored into monitor automatically. Press CODE button until Beep sound will resume to standby mode.



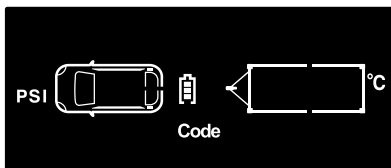
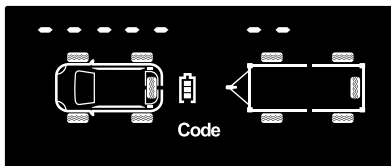
If no any operations made within 1 minutes it will automatically return to Standby mode.

6-3. DELETE ID CODE

In Standby mode, hold CODE button for 3 seconds to enter Coding mode, press "+" / "-" buttons to select desire tire to be removed.

A.Delete a single tire ID code:
hold ""-"" button for 3 seconds with a Beep, ID code will be deleted.

B.Delete all tires ID code:
hold ""-"" button for 6 seconds with a second Beep, all ID code will be deleted.

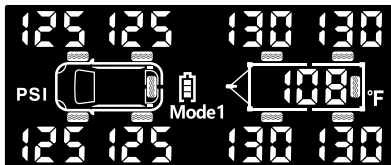


7.PARAMETER SETTING

NORMAL STATE

In normal status, monitor displays all tire pressures (except spare tires) and each tire's temperature in turn.

Press +/- button to check desire tire temperature and spare tire pressure & temperature value.



7-1. FACTORY DEFAULT SETTING:

High pressure threshold: 175PSI

Low pressure threshold: 100PSI

Pressure unit: PSI

Temperature unit: °F

High temperature threshold: 158°F

Reset parameter setting: Turn off the monitor, then turn on monitor (press "+" and SET buttons) as soon as press "-" button.

7-2. MANUALLY SETTING PARAMETER

There are 2 modes for option, hold "+" button for 3 seconds to enter MODE 1, hold

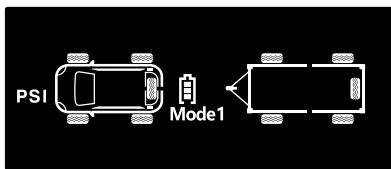
"-" button for 3 seconds to enter MODE 2. MODE 1 is used in common road and

MODE 2 is used in special road (such as desert).

In Standby mode, press SET button for 3 seconds to enter Setting mode, press "+"/
"-" to select desire setting items.

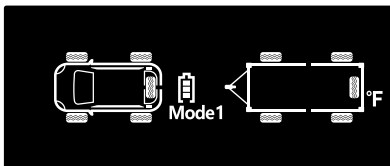
1) MODE 1 Pressure unit setting

In pressure unit setting mode, when PSI/BAR is flashing, press "+"/"-" button to select the desire unit, press SET button once with a beep and go into Temperature unit setting, hold SET button for 3 seconds to save setting, or hold CODE button for 3 seconds to abort without saving and return to Standby mode.



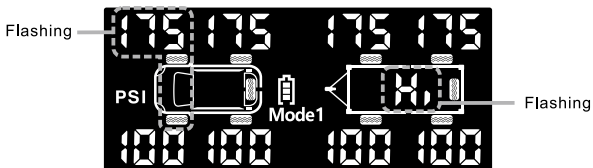
2) MODE 1 Temperature unit setting

In temperature unit setting mode, when °F/°C is flashing, press "+"/"-" button to select the desire unit, press SET button once to go High pressure threshold setting, hold SET button for 3 seconds to save setting, or hold CODE button for 3 seconds to abort without saving and return to Standby mode.



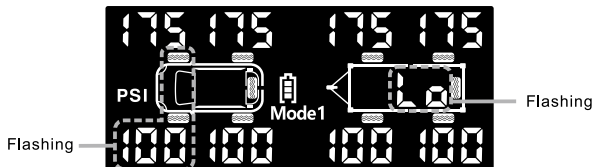
3) MODE 1 High pressure threshold setting (2nd 3rd 4th axles are the same operation)

In 1st axle high pressure threshold setting mode, when 1st axle tire icons and start flashing with a pressure value, press "+"/"-" button to adjust pressure value. Press SET button once with a beep and go into Low pressure threshold setting, hold SET button for 3 seconds to save setting, or hold CODE button for 3 seconds to abort without saving and return to Standby mode. (High pressure maximum value 190psi, 13.2bar)



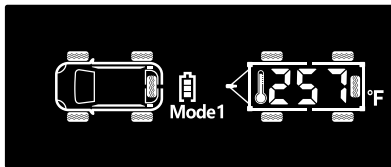
4) MODE 1 Low pressure threshold setting

In 1st axle low pressure threshold setting mode, when 1st axle tire icons and Lo start flashing with a pressure value, press "+" / "-" button to adjust pressure value. Press SET button once with a beep to and go into Low pressure threshold setting, hold SET button for 3 seconds to save setting, or hold CODE button for 3 seconds to abort without saving and return to Standby mode. (Low pressure minimum value is 3psi, 0.2 bar)



5) MODE 1 High temperature threshold setting

When 4th axle low pressure threshold setting is finished, press SET button once into High temperature threshold setting mode. When all tire icons and Thermometer icon start flashing with a high temperature value, press "+" / "-" button to adjust temperature value. Press SET button once with a beep to return to Standby mode, hold SET button for 3 seconds to save setting, or hold CODE button for 3 seconds to abort without saving and return to Standby mode. (High temperature value range from 77 °F - 257°F, 25°C - 125 °C)




Remarks : hold ""+"" button for 3 seconds with a beep will go to MODE 2
Parameter setting is the same operation as MODE 1

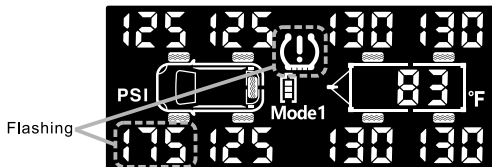
8.ALERTS

High pressure / Low pressure / High temperature / Sensor low battery


When any abnormal situation is detected (e.g. when tire pressure or temperature exceeds the threshold value), the faulty tire icon flashes in monitor with value, warning sign and audio beep issued at the same time. Press any key to stop audio warning, but the warning sign keeps on flashing until problems solved.

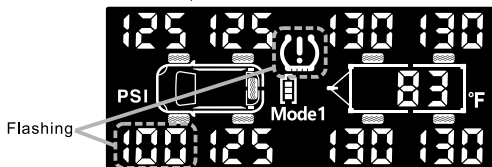
a) High pressure alert display (e.g.: High pressure threshold is 175 PSI)

Note: When  & 175 are flashing, the faulty tire pressure is too high, please deflate the tire to normal pressure.




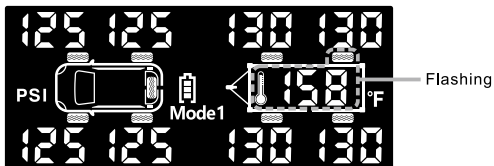
b) Low pressure alert display (e.g.: Low pressure threshold is 100 PSI)

Note: When  & 100 are flashing, the faulty tire pressure is too low, please inflate the tire to normal pressure.

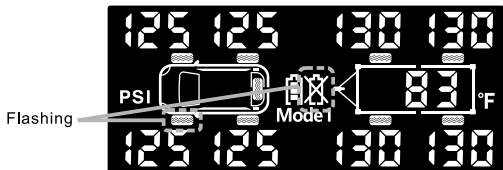



c) High temperature alert display (e.g.: High temperature threshold is 158°F)

Note: When  & 158 & tire icons are flashing, the faulty tire temperature is too high, please stop vehicle to cool down to normal temperature.





d) Sensor low battery alert display

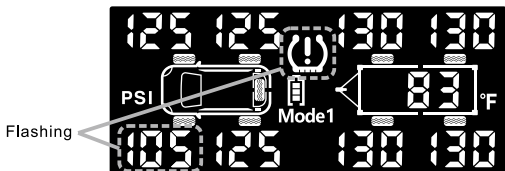


Note: When  and tire icons are flashing, the faulty tire sensor battery is almost out of power, please replace with new battery.

e) Fast leakage alert display

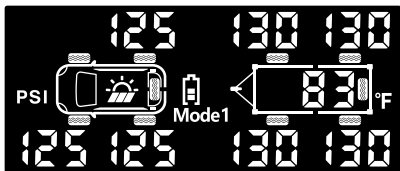
(e.g. The pressure dropped rapidly from 125 PSI to 105 PSI)

When there's fast leakage detected in tire, sensor will send data to monitor at once,  & faulty tire icons will flash with value (105) and audio beep issued. Press any key to stop audio warning, but  is still on and keeps on flashing until problems solved.



f) Sensor data lost alert display

When there's tire sensor data lost in monitor for more than 1 hour, faulty tire icon hides, no any data display.



9. OTHER FUNCTIONS

9-1. Receiving data while parking

The monitor will keep receiving data while the vehicle is parking.

9-2. Monitor display

In normal operation status, monitor displays all tire pressures and each tire's temperature in turn at 5 seconds interval, press "+" / "-" button to view a specific tire data.



9-3. Sleep mode/awake

After vehicle is parked and no motion is sensed for 10 minutes, monitor enters sleep mode, awoken it by vehicle vibration or hold any key in monitor.


9-4. Two levels automatic backlight

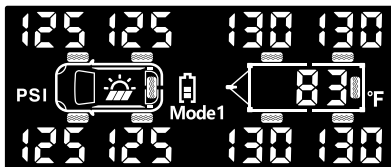
The display backlight will be adjusted according the surrounding brightness.

9-5. Recharge monitor

Monitor battery indicator <  > indicates the remaining power, when it's changed to <  > please recharge monitor by vehicle power through USB cable. Disconnect the charging cable before a long time parking.

Note: Charge monitor in 0~45°C environment.

Solar power charging 



10.PARAMETERS

Operation temperature	-4~176°F (-20°C~80°C)
Storage temperature	-22~185°F (-30°C~85°C)
Input voltage	DC 8 ~ 30V
Frequency	433.92MHz
Dimension (LxWxH)	113 x 124 x 50 mm
Weight	183g
Monitor tire pressure range	0-188psi
Type of sensor battery	CR 2032

11.CAUTIONS

- 1) Please follow the instruction manual in use of product, factory is not responsible for any consequences caused by misuse out of instruction manual.
- 2) Please install product according to instruction manual, factory is not responsible for any consequences caused by un-proper installation out of instruction manual.
- 3) Please set the alert threshold values according to specifications and parameters provided by tire manufacturer and its distributors, TPMS factory is not responsible for any consequences caused by faulty setting of the alarm threshold.
- 4) TPMS installation must be handled by technicians, be cautious of sensors in tire during maintenance and detaching/loading tire.
- 5) This instruction manual is subject to further revisions in need without prior notification.

12.GET HELP

We promise 2-YEAR WARRANTY and 24/7 CONSIDERATE CUSTOMER SERVICE.
If you need us, please contact us via [US-support@guta-tech.com].

