KUENDER

Wireless Tire Pressure Monitoring System

KD-TPMS-R03T03EX(system)

KD-TPMS-T03EX (transmitter)

KD-TPMS-R03 (receiver)

User's Guide

Version 1.1

Content

1. Wireless tire pressure monitoring system

The wireless tire pressure monitoring system is a wireless device which detects the tire pressure status and transmits the signal to the receiver and displays on the screen to monitor the status in real time driving. The driver can clearly know the pressure, temperature as well as the power running out condition of the transmitter of each tire from the screen. (Normally the screen of the receiver will not show the battery status unless reboot.) When the tire is in unusual status, the receiver shall warn to remind the driver automatically so that the abnormal situation can be dealt with and avoid from the accident.

2. Warning

FCC warning

The system is in compliance with U.S. FCC regulation term 15th requirements. However, users are advised to aware the following matters:

(1) The system may be not work due to surrounding interferences.

(2) The system may be failed due to incorrect operation.

(3) Please use the receiver placed in the appropriate position. If receiving bad, move the receiver location or moving vehicles. Move the tire, so the receiver can proceed smoothly to receive.

15.21 “Changes or modifications are not expressly approved by the manufacturer could void the user's authority to operate the equipment.”

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

Warning: Any changes or modifications are not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Article XII: Certified by the type of low power radio frequency motor , and by the permission of the company , firm or unauthorized users are not allowed to change more frequency, great service rate or change the original design features and functions.

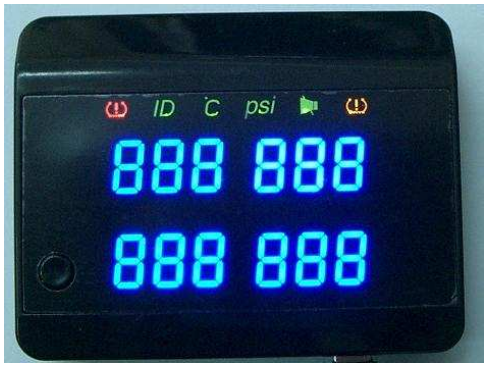
Article XIV: of low- frequency electrical power shall not affect the use of aviation safety and interfere with legitimate traffic. Found to have interference

should be immediately suspended , and no interference from the time of improvement may continue to use . Legitimate traffic in the preceding paragraph , means operating in accordance with the provisions of the Telecommunications Act of radio communication . Low- frequency electrical power to bear legitimate traffic or industrial , scientific and medical use of radiation of radio interference with electrical equipment .

3. Contents list

The contents of the wireless pressure monitoring system (KD-TPMS-R03T03EX) includes:

NO.	Items	Q'ty
1	transmitter (KD-TPMS-T03EX)	4
2	receiver (KD-TPMS-R03)	1



receiver

transmitter

4. Specification

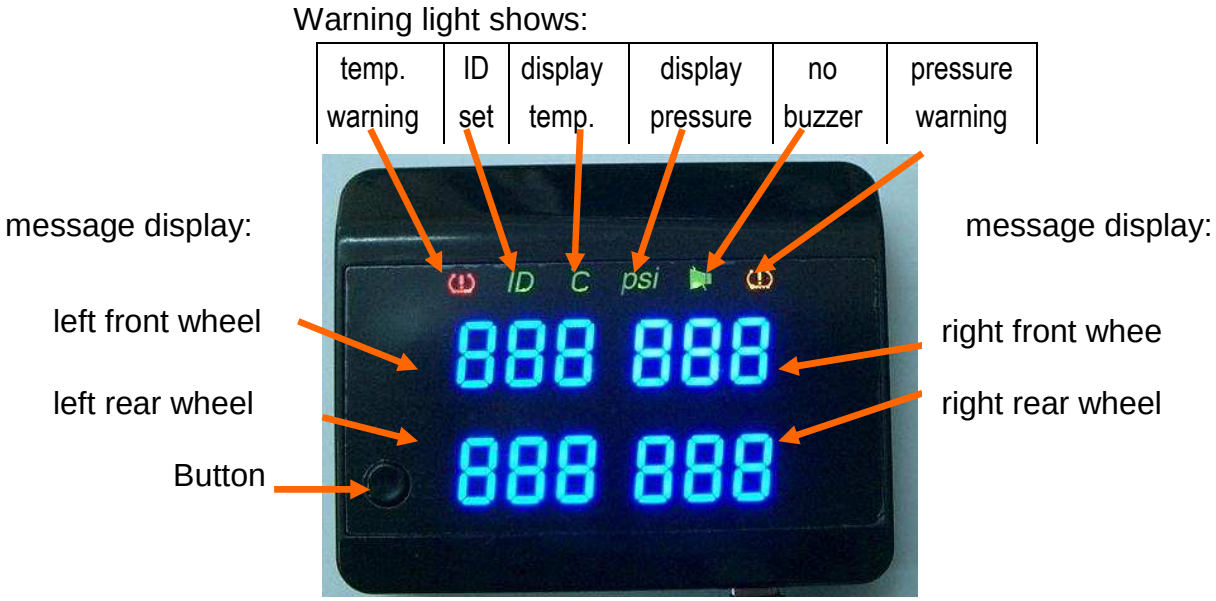
Spec. of transmitter:：

Pressure range	6 psi ~ 150psi
Accuracy of pressure	+/- 2% psi (0℃ ~ 70℃)
Accuracy of temp.	+/- 3 ℃ (0℃ ~ 70℃)
Working temp.	-30℃ ~ 85℃
Storage temp.	-40℃ ~ 125℃
Tuning method	FSK
Working frequency	433MHz
Output power	66.37dBuV/m (PK)
Battery voltage	3 V (Replaceable CR1632 battery)
Battery life	about 1~3 years(by working frequency)
Weight	15 ± 2g

Spec. of receiver:

System power	DC 12V(miniUSB to cigar-lighter power)
Working temp.	-10℃ ~ 75℃
Storage temp.	-20℃~85℃

5. Notes on the receiver panel:



6. Display explain:

(1). Cycle Show Status

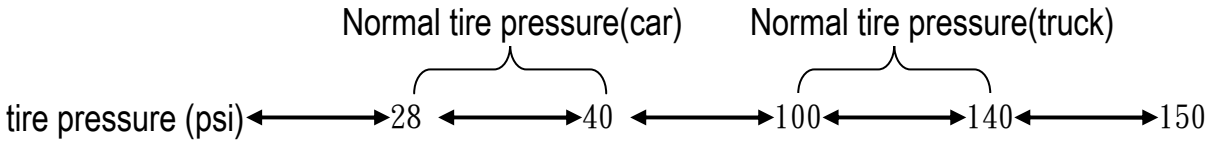
battery status → pressure ⇄ Temp.

(2). battery status: The receiver after the first 5 seconds of power show the battery BL0~BL3

battery	no power	Power Low	Power Medium	Power high
7-SEG display	bL0	BL1	bL2	bL3
Flashing and buzzer	V	X	X	X

PS: Next, the battery will no longer display. Even if the received signal power is low, the battery is no longer displayed. Except when the receiver re-energized.

(3). pressure status: As the receiver type (car or truck)



pressure(psi)	Normal tire pressure(car) 28~40	Normal tire pressure(truck) 100~140	Abnormal tire pressure (As the car type)	20 min. did't receive
7-SEG display	Figure	Figure	Figure	---
LED display	psi	psi	psi +right(!)	psi
Flashing and buzzer	X	X	V	V

(4). temperature: -30~85℃

temp.(℃)	Normal temp. -30~85	higher temp. >85	20 min. did't receive
7-SEG display	Figure	Figure	---
LED display	℃	℃+left(!)	psi
Flashing and buzzer	X	V	V

PS1: When the receiver can not receive the transmitter signal more than 20 minutes, Will clear the tire pressure and tire temperature and display"---", But do not remove the battery data, Unless the re-learning ID, otherwise the battery will never clear. Battery update the status at any time, in order to display the next boot.

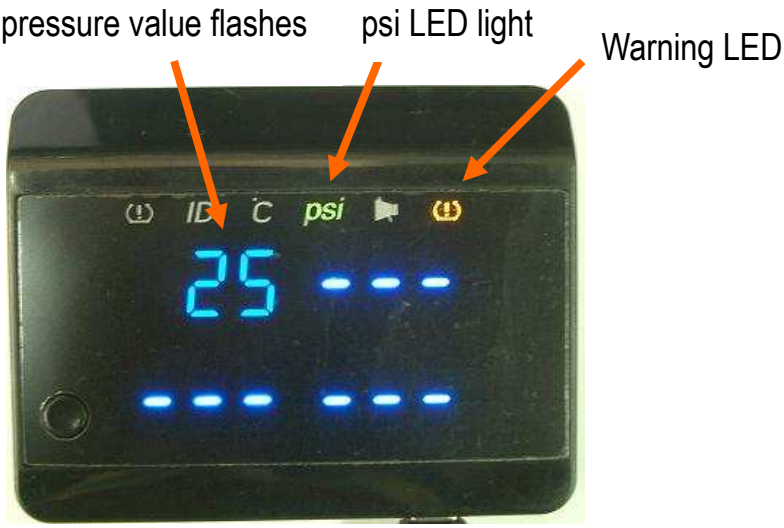
PS2: The receiver did not receive maybe the signal being shaded. Move the car forward or backward and start up again. If still unable to receive, may request technical assistance.

(5). button:

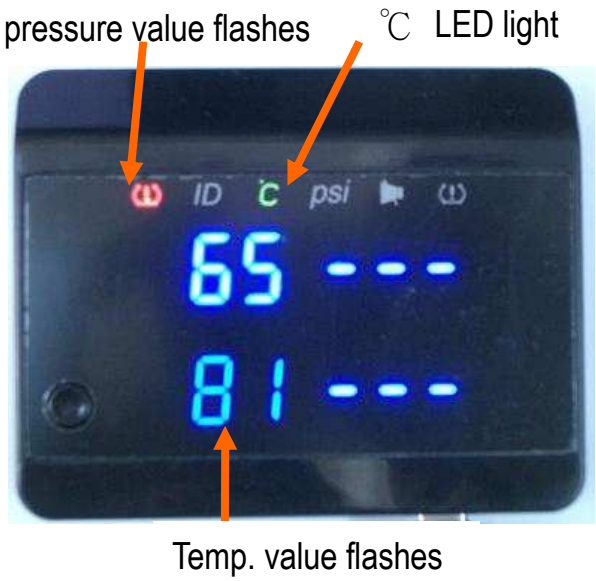
- Initial boot state: buzzer LED do not display, If abnormal, there will be a beep.
- Press button: Buzzer can be switched On / Off and LED display / not display the status.
- Hold down the button about 5 seconds: Switch to the learning mode.

7. Function of the warning system:

(1). Pressure High-Low warning:
when tire pressure higher than 40 psi or lower than 28 psi



(2). Temperature abnormal warning (when tire temperature higher 85℃)



(3). Battery operation voltage low warning: (The receiver after the first 5 seconds of power on. when reciver power on battery operation voltage is in low)

Warning: Please slow down and stop the car in a safe place to check whether the tire is in abnormal condition whenever the system generates abnormal state warning.

8. Warnings in using the device:

- The system can detect the tire status effectively, but can not avoid the accident.However, the user can take use of this system to ensure the normal condition of tires in the driving. Those unqualified or seriously worn out tires are advised not to be used.
- In order to operate the system in normal condition, do not dismantle any element or outer shell of the system.
- Injection of some certain chemicals (i.e. anti-leakage resin…) into the tire will damage the function of the transmitter; therefore, the manufacturer will not guarantee the system operation on such condition.
- This system provides automatic monitoring function that the user has no need to read information by the operating keys in driving and avoids distracting the driving attention.
- The front shield glass should avoid from using metallic heat insulation film.
- Recommend the use of clip-on bracket, fixed receivers

9. System set up:

The system has been divided into two main parts and is required to be installed separately:

1. To set up the receiver in the vehicle.
2. To set up Install the transmitter on the tire valve
3. To set up ID(four tires)

Suggest setting up the receiver in the vehicle first, and then the transmitter.

10. Installation receiver:

The power of product is coming from car charger and it will be turn on without any key when power core inter into the cigarette .This will enable the receiver into the detecting state.

11. Installation transmitters(include set up tire ID):

transmitters in accordance with the front left→rear left→rear right→ front right order, The following steps to set. Please turn tight to avoid leakage when transmitters Spin to the tire valve.

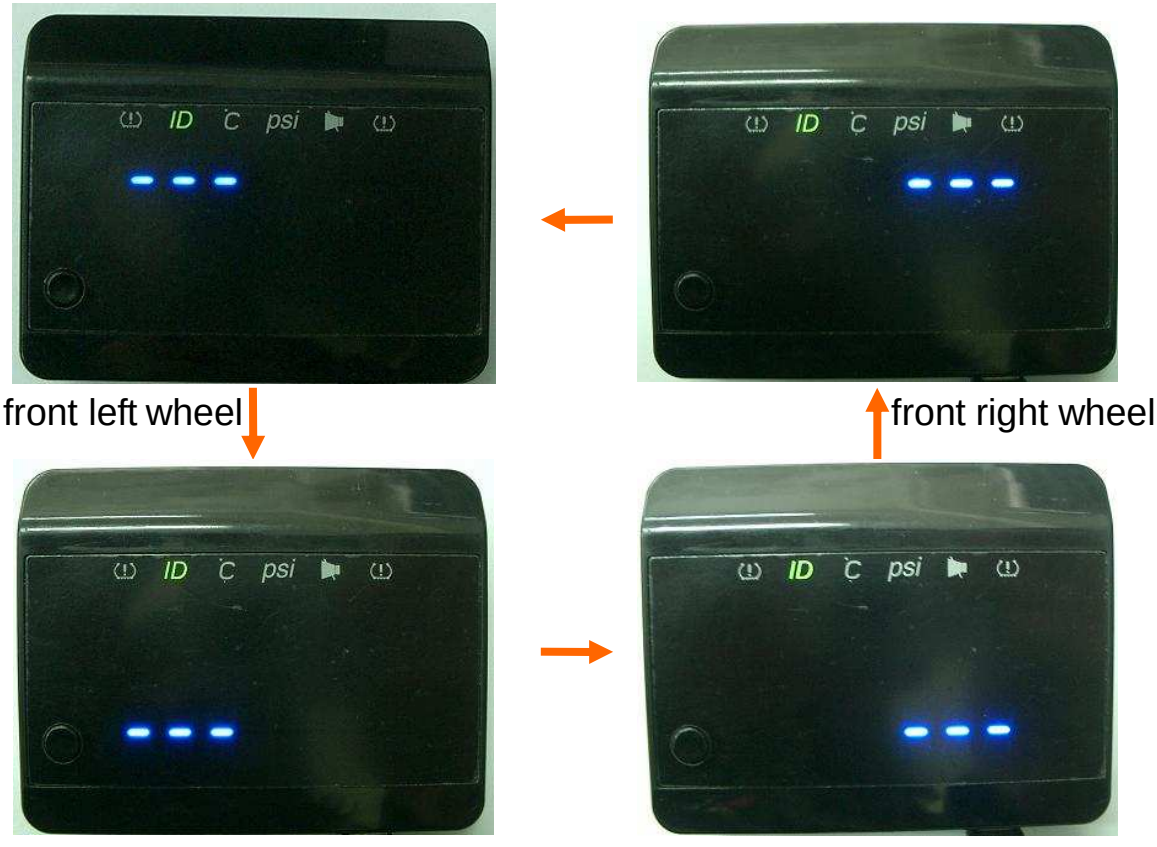
1. Transmitter spin to the tire valve first. Wait about 30 seconds, then Spin off . Transmitter near to the receiver to set up ID (Please 3 minutes to complete

a set id, if more than not, by the time 1 minute, then repeat steps 1

Threaded part

Spin to the valve

2. Button on the receiver for a long time by about 5 seconds, begin to enter the setting mode.
   Set the mode cycle is as follows,"---"symbol will rotate counter-clockwise

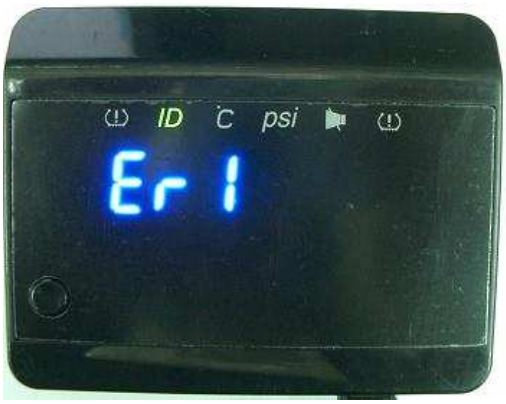


3. Transmitter near the receiver side, When the symbol at the location to be set, click the button to start the set.

Distance as shown

a. When the setting is successful, will show "don"

b. When the set fails, it will display "Er1", Click the button that will return to Step 2



4. To set the transmitter to complete the set of tires installed in the position

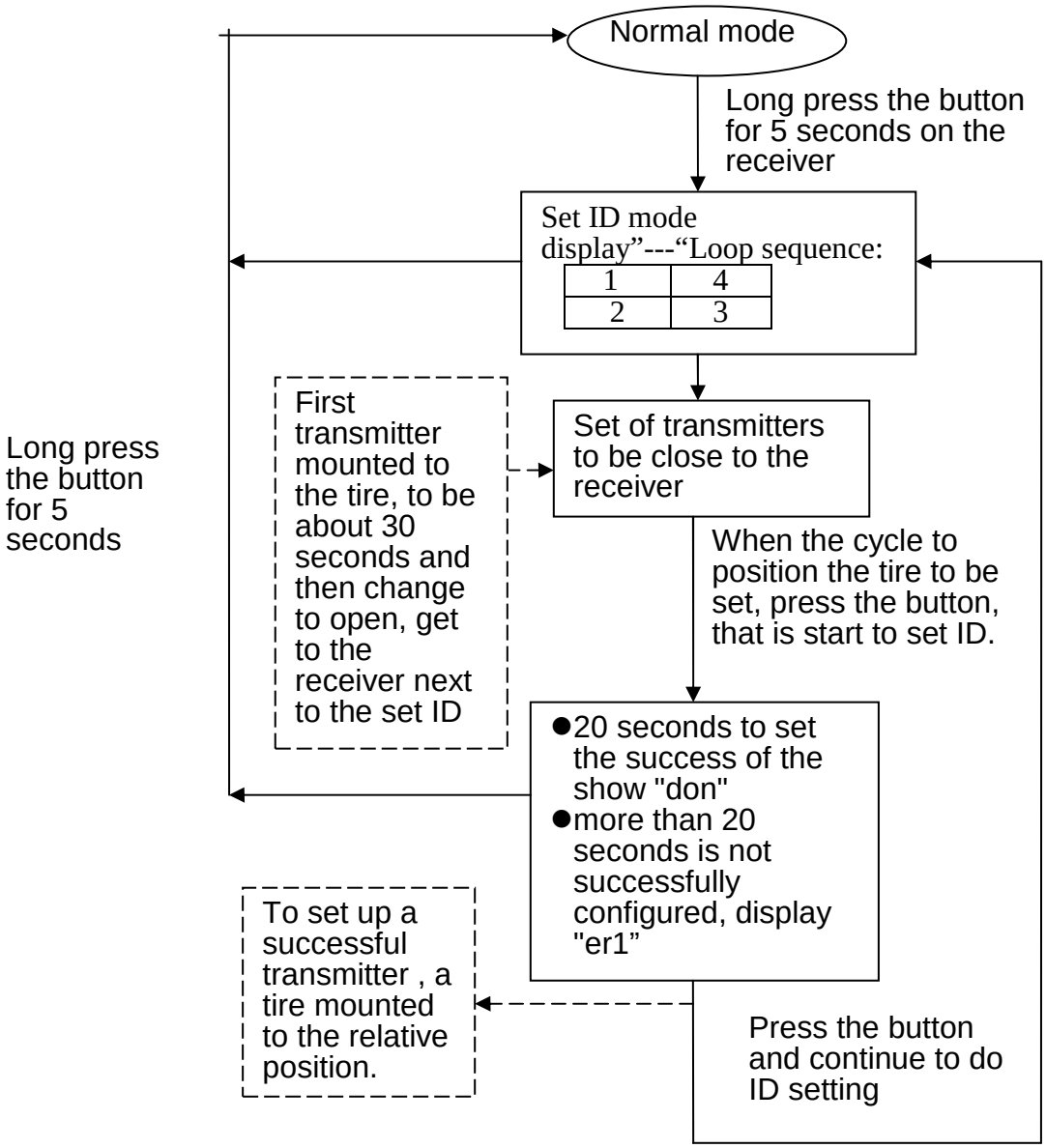
A. For another set, click the button that will return to step 2, then according to the relative position of the tire needed to be set.

B. when the four are set to complete, or not set, please long-press the button that will return to normal mode.

5. Transmitter mounted to the tire valve, please use the bubble test whether the gas leak.

6. . Non-return screws to use within six angle wrench M3 fastening, as shown here, can be fixed transmitter.

12. Set tire ID Flowchart:



13. Appendix:

Reference unit：

1 psi = 6.895 kpa
1 kpa=0.145 psi

Normal range of tire pressure:

The slight variation of tire pressure resulted from some external factors during the driving is normal. Generally speaking, variation scope shall be within 2 ~ 3 psi according to standard tire pressure of 32 psi. Hence, variation of 28 psi ~ 40 psi is normal during the driving.

The replacement of transmitter:

The battery life of the transmitter is at least 3 years in normal operating condition.
The warranty of the transmitter is one year.

Knowledge of using tires:

It is important to keep the correct tire pressure all the time that the life cycle can be extended and the accident can be avoided. Besides, never flat the tire when tire is hot. Don’t use recycled tires or never to use the different model of tires on the same axle. Keep in mind these important rules would guarantee the safety of tires and vehicles.