

# User Manual

## 1. General Description

Tire pressure sensor is composed of RF chip, battery, antenna and Rf matching network. It is applied to monitor tire pressure, temperature and acceleration and the tire data is transmitted via center frequency 433.92MHz.

## 2. Operation Functions

### 2.1 Data Accuracy

(measure @0~70°C)

- Temperature: +/-2°C
- Pressure: +/-2psi

### 2.2 TPMS chip

- Chip model#: Freescale FXTH87EK116
- Working temperature: -40~120°C
- Operation pressure range: 0~188psi
- Working Voltage: 2.3~3.6VDC

### 2.3 RF chip

- Chip model: MAX1479ATE
- Max. RF signal strength: 10dBm

### 2.4 Battery information

- Manufacturer: F0188-LF (Li/SOCI2)
- Capacity: 400mAh
- Normal voltage: 3.6V
- Extreme voltage: 3.8V
- Operation temperature: -55~125°C
- Estimated life span: 6 years

## 3. Environmental requirement

The sensor will be mounted onto the valve stem. For the OTR model, it has the built-in filter which can work with the tire that has the liquid inside.

- Temperature requirement: -40°C~125°C for storage  
-40°C~120°C for operation
- Vibration: Refer to ISO16750-3, 4.1.2.9 Test IX — Commercial vehicle, unsprung masses
- IP protection: IP6k9k (with sensor screwed onto valve stem)
- Codes for Climatic loads: E

## 4. PMN: Doran TPMS Sensor for Truck with 433.92MHz

## **5. Sensor Installation Instructions**

### **5.1 Program the sensor ID into the receiver**

To make TPMS products work properly, the sensor ID must be programmed into the receiver for each wheel to be monitored. The following operations are performed on the receiver.

- a) Press the P button to enter the program mode. Select the wheel position and press S button to enter the sensor ID.
- b) Input the last three digits of the sensor ID into the receiver by navigating the arrow keys.
- c) Press the S button for three seconds to confirm the information.

If there are more wheels to be programmed, repeat steps a-c in above until all the wheels have the sensor ID entered.

Finish the programming process by pressing the P button for 5 seconds to quit the program mode.

### **5.2 Install the sensor onto the valve stem.**

Once the receiver is prepared and programmed, simply screw the sensor onto the valve stem in each wheel.

Be sure to inspect and replace any defective or cracked valve stems before installing the sensors. If replacements are necessary, suggest replacing the valve stems with a Brass or Stainless-Steel stem. It does improve the life of the stem due to premature failure from drying out and cracking. Inferior stems have been found in the market and can cause extensive damage.

The sensor should be tightened only by hand not with a tool. Use a firm grip and tighten the sensor. When the sensor seal makes contact with the end of the valve stem only tighten the sensor an additional 1/2 turn. This should be tight enough to seal the sensor and hold it in place. Check for leaks with a soapy solution. The monitor or receiver will begin to receive and recognize the sensors, and it will display the wheel positions as they are received on the screen.

## **6. Manufacturer information**

Company name: Doran Manufacturing LLC

Company address: 2851 Massachusetts Avenue Cincinnati, OH 45225 USA

## **Federal Communications Commission (FCC) Interference Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generate, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

### **RF exposure warning**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

The equipment must not be co-located or operating in conjunction with any other antenna or transmitter.

## **Canadian Compliance Statement**

This device complies with Industry Canada license-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device

Le présent appareil est conforme aux CNR d'Industrie Canada applicable aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. l'appareil ne doit pas produire de brouillage;
2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

### **IMPORTANT NOTE:**

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé.