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1.1 INTRODUCTION

1.1.1

Transmitter: Mounted inside the tire on the centre of wheel using magnet or patch to continuously monitor tire's pressure and temperature every 10-second and transmit data via RF to the integrated display at 30-second intervals when tires are normal or immediately when the tires are abnormal.

Patchy Installation Method

Magnetic Installation Method

ID Module: ID module is an international patented innovative technology used to identify tire's position without any activation tool or complicated operation. Each ID module has an exclusive transmitter with the same ID code. The ID module is mounted in the display and Trailer ID box to register transmitter's ID code into the display that will recognize wheel positions as well as the baseline pressures for all tires.

1.2 WORKING MODE

1.2.1 NORMAL PRESSURE INSPECTING

If the pressure and temperature of tire is normal（when the pressure is over 4bar and the temperature is below 80℃）, the transmitter will send pressure and temperature data every 30 seconds.

1.2.2 LOW PRESSURE WARNING MODE

If the pressure of tire is between 0.66 Bar and 4 Bar, the transmitter will send pressure data every 4 seconds including low pressure warning sign.

1.2.3 AIR LEAKAGE WARNING MODE

If over 0.33 Bar / 4.78PSI pressure loss in 16 seconds: the sensor will send data with quick leakage icon immediately; If over 0.16bar/2.32PSI pressure loss in 8 seconds: the sensor will send data without quick leakage icon immediately.

1.2.4 STATIONARY WORKING MODE

If the pressure is below 0.66Bar, the sensor will not send any data and enter into stationary working mode.

1.2.5 HIGH TEMPERATURE WARNING MODE

If the temperature is over 80℃, the sensor will send temperature data with high temperature warning icon.

1.2.6 LOW FREQUENCE AWAKING MODE

Use the handled tool to awake the sensor to find out its ID number, pressure and temperature data.

1.3 INSTALLATION TRANSMITTER

- **Before installation, make sure you identify each pair of transmitter and ID module. We have two installation methods: magnetic installation method and patchy installation method. For magnetic installation method, there is a pair of transmitters & ID modules along with two magnets packed in a small box, they have the same ID code. For patchy installation method, there is also a pair of transmitters & ID modules along with a patch packed in a small box, they have the same ID code. For example: DF102027.**

Install the transmitter in the wheel with magnets or patch. Then install the ID modules in the corresponding position of display and trailer ID box.

1.3.1 Installation Transmitter

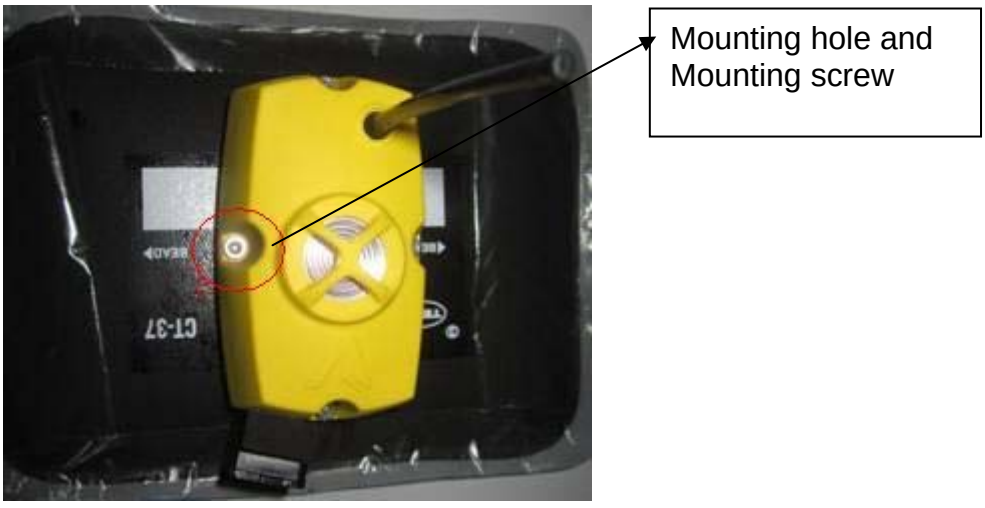
1.3.1.1 Remove the wheel from the vehicle and then remove the tire. Clean the area where the transmitter is to be installed.

1.3.1.2 Installation the transmitter

1〉**Patchy installation method**

Carefully cut the plastic cover without cutting the patch

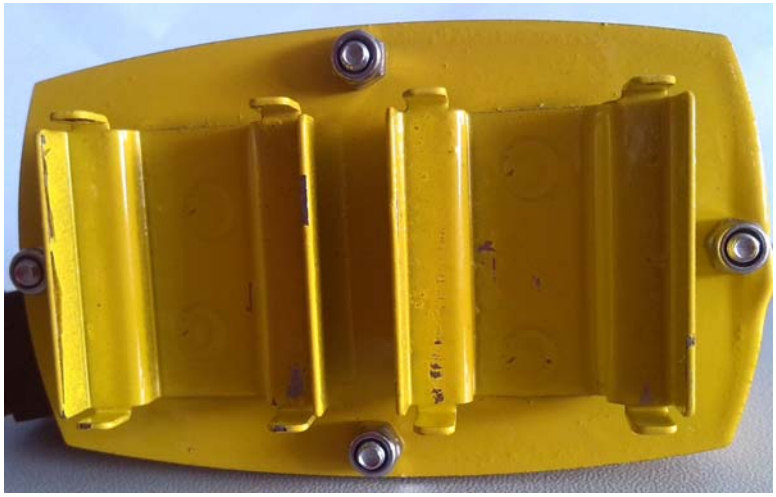
Once the sensor is correctly in place with the mounting holes lined up with the mounting bracket, replace the screws to secure the sensor to the mounti:



The final installation is shown in the following picture:

2〉**Magnetic Installation Method**

Clean the magnets and the bottom of the sensor:



Insert the two magnets into the frame of the sensor’s bottom:

Take the rubber cover of the tire and then attach the sensor (shown as in the following picture) to the rim:

NOTE: The transmitter must be positioned in the lowest spot possible and installed beside the tire valve in order to know its approximate location after the tire has been mounted.
NOTE: When fixing the transmitter on the rim, make sure the section of steel strap installed through the transmitter is complete NOT TOOTHED.

1.3.1.3 Mount the tire on the rim, inflate tire to standard cold inflation pressure specified on tire sidewall and dynamic balance the wheel before it is put back on the vehicle.

NOTE **Ensure that the tire beads and mounting hook do not touch the transmitter during mounting. Pay attention to the transmitter antenna not be clamped by tire bead and broken by mounting hook. DO NOT inflate tire higher than maximum pressure stamped on tire sidewall.**

1.3.1.4 Use the same procedure to install the other transmitters. And record all ID numbers labeled on the rim in the Annex table so that you can attach the ID modules to the proper location.

1.3.2 Installation ID Module

As it's shown in the picture, the ID module is pasted on the transmitter for convenient installation. Every ID module has a unique ID number like DF101D96; this number is only accordant with the attached transmitter.

When installing the ID module, remove it from the transmitter and then insert the ID module to the display.

Use the same procedure to install the other ID modules and make sure your installation is correct.

1.3.3 Removing Transmitter

1.3.3.1 Deflate the tire and remove the wheel weights from the rim. Push the tire bead away from the rim. Make sure to always set the bead breaker at least 90 degrees from the valve stem to avoid damaging the transmitter.

1.3.3.2 Firmly fix the wheel on the turntable clamps. (If the mounting head of the tire changer is positioned at 12 o'clock, then the valve stem should be at the 11 o'clock position.) Apply lubricant to both tire bead and rim, and then demount the upper tire bead。

1.3.3.3 Use the same procedure to demount the lower tire bead. (If the mounting head of the tire changer is at the 12 o'clock position, then the valve should also be at the 12 o'clock position.)

1.3.3.4 Final inspection: Visually inspect the rim and transmitter to ensure no damage has occurred.

1.4 PARAMETERS OF THE PRODUCTS

Transmitter

Weight: 123g (4.34 oz.)
Dimensions: 8.3 x 4.9 x 3.4 cm (3.27x1.93x1.34 inch)
Operating Temperature Range: -40°C to 85°C (-40°F to 185°F)
Pressure Accuracy: ±0.04 Bar / 0.58PSI (at 0°C ~85°C)
Temperature Accuracy: ± 3°C /5.4 °F(at -20℃～70℃) ，± 5°C /9 °F(-40℃～20℃、70℃～100℃)
Battery Life: 5years at 20 hours driving per day
Maximum Range: 14Bar (203PSI)
Frequency: 433.92MHz

1.5 FCC's authentication announcement

This device complies with part 15 of the FCC rules and Industry Canada licence-exempt RSS standard(s). 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.
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 generates 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. You can test that if this equipment does cause harmful interference to radio or television reception by turning the equipment off and on.
Caution content: changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

1.6 European regulations announcements

This device complies with all European Electromagnetic compatibility regulations (95/54/EC and EN300 220-1). The equipment has been tested and found to comply with the above regulations, and in addition it meets the requirements for low powered transmitters/receivers as defined by the relevant radio approval authority. The regulations are designed to provide reasonable protection against harmful interference or susceptibility.

1.7 CE directive announcement

This device complies with the essential protection requirements of Council Directive 89/336/EEC on the approximation of the law of the Member states relating to electromagnetic compatibility. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device can accept any interference received, including interference that may cause undesired operation.