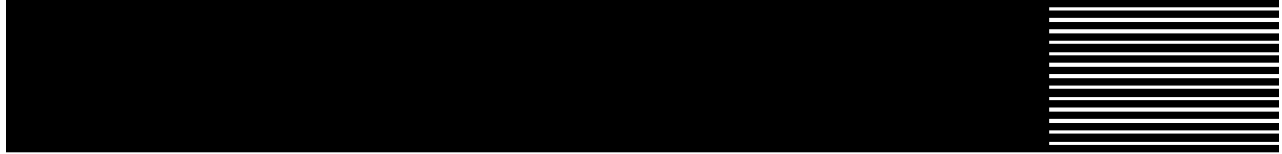


AUTO GENUINE PRODUCTS



Application Models: Buses & Trucks & Fleets & OTR

- It is highly appreciated to buy the genuine products of VALOR.
- Please read this user's manual carefully to make sure correct operation
- Do not use other ways of operating that is not included in this manual



User's Manual for TPMS-203 Display

The Third Edition

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1.1 Integrated Display

The display monitors pressure and temperature information of each tyre in a visual form continuously. It can provide 6 axles up to 24 tyres' data as well as enabling baseline pressure adjustment to suit different tyres.



Controls and Indicators	Functions
Axle Switch	Press it to circularly show the data of each axle
Pressure & Temperature Switch	Press it to scroll through the pressure interface and temperature interface
Axle Indicator	Display circularly shows the data of six axles
Bar	Pressure unit
°C	Temperature unit
	Leakage icon
	Abnormality icon: low / high pressure and high temperature
Switch	Turn on or off the display
Buzzer	Give audible alert when the tyre is abnormal
Set Key	Press it to set baseline pressures of truck according to your tyres' cold inflation pressure
ID Module Slot	ID modules are used to register Transmitters' ID code into the display that will recognize wheel positions
Mini USB Port	To download data from display via USB cable to U-disk.

1.2 Getting Started

--- **For tractor with trailer:** turn on the integrated display and trailer ID box, register trailer into integrated display (see 4.1 in this manual) and set the baseline pressure for each axle.

1.2.1 Set the Baseline Pressure of Tractor

The baseline pressure has been set in the factory at 6Bar (87PSI) for all wheel positions. We recommend that you set the baseline pressure at the same pressure as standard cold inflation pressure recommended by tire manufacturer.

1.2.1.1 Inflate all tires' pressures to their standard cold inflation pressure.

1.2.1.2 Find the set key on the back of display. Press the set key briefly to check the baseline pressure set by manufacturer (6Bar/87PSI).

1.2.1.3 Press the SET KEY for 4 seconds, you will hear sound "beep", all backlights will be on and the screens will show "000". This means you succeed in deleting the default baseline pressure.█



1.2.1.4 The system will exit setting mode automatically after receiving signal from all transmitters.

1.2.1.5 The display will refresh the tire data after receiving signal. The first pressure value received will be saved as new baseline pressure automatically.

After the display has received all transmitters' pressure, then you can press the SET KEY of display briefly to look up all tires' baseline pressure.

--- **For bus / straight truck / OTR:** turn on the integrated display and set the baseline pressure for each axle (Just the same as tractor).

--- The screen will remain "000" until the data from its transmitter is received. After data from all transmitters is received the display will be in the state shown until an alert or warning condition is detected.

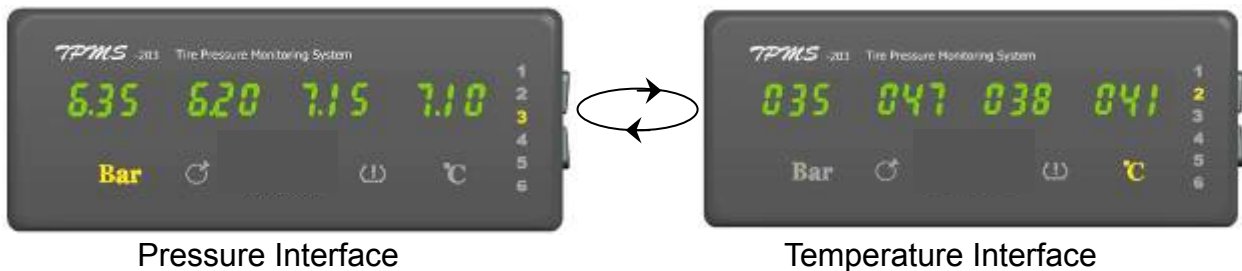
1.3 Checking Tyre Conditions

--- After data from all transmitters is received, the display will show each axle's data for 5 seconds and automatically shift to next axle when all tyres are normal. You can also press Axle Switch to look up tyre data quickly.

--- The display just circularly shows the axles with abnormality when there are abnormal tyres.

--- If the pressure warning and temperature warning exist in the same axle, the display just show the pressure warning of this axle.

--- Press "Pressure & Temperature Switch" to scroll through the pressure interface and temperature interface.



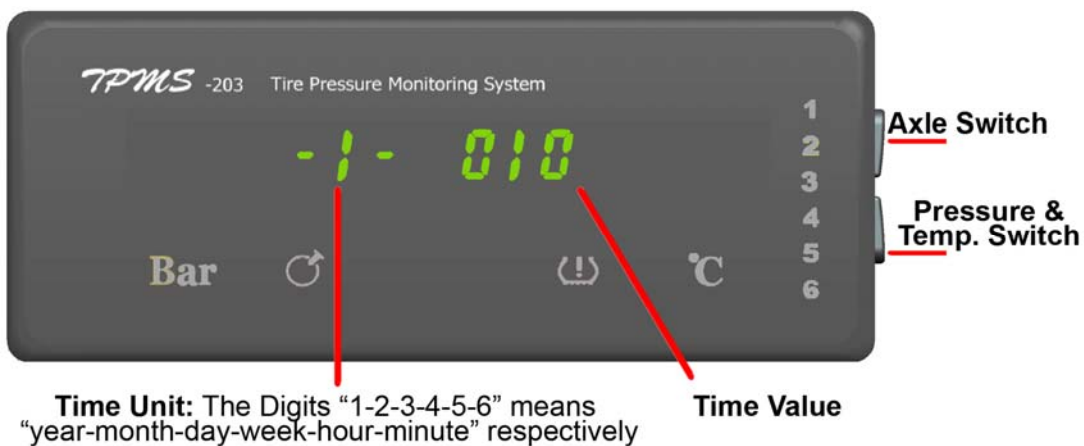
--- No data received from the tyre in 20 minutes is shown as dashes "---".

1.4 Time Setting

Manage the tyre data for fleet owner is very important, this system can store more than 8000 data. If you need to download them into your computer, please contact us or our local distributor.

We have set the time in Beijing Time, so you should reset it in your time.

1.4.1 Press the **Axle Switch** for 8 seconds to get into Time Setting Mode and you will hear sound "DI".



1.4.2 Press the **Axle Switch** swiftly to look up the time "year-month-day-week-hour-minute" value circularly. The following time is **22:57, Tuesday, May 25, 2010**.



1.4.3 Press the **Pressure & Temp. Switch** to change the time value.

1.4.4 You must press the Axle Switch for 8 seconds to exit time setting mode, if not, the time setting will not come into effect. A sound “DI” will follow the normally exit.

1.5 Low Pressure Warning

When current pressure in the tyre is 20% lower than baseline pressure: ①Display shows the pressure of axle with abnormal tyre; ②Warning sound “Di-Di”; ③Abnormality icon “(!)” appears; ④The digits of abnormal tyre position twinkle.




1.6 High Pressure Warning

When current pressure in the tyre is 30% higher than baseline pressure: ①Display shows the pressure of axle with abnormal tyre; ②Warning sound “Di-Di”; ③Abnormality icon “(!)” appears; ④The digits of abnormal tyre position twinkle.



The figure above shows “3B” tyre is over-inflated and “3A” tyre is under-inflated. The display just shows axle3 until the problems are corrected.


1.7 Leakage Warning

If over 0.33 Bar / 4.78PSI pressure loss in 16 seconds: ①Display shows the pressure of axle with abnormal tyre; ②Warning sound “Di-Di”; ③Leakage icon “” appears; ④The digits of abnormal tyre position twinkle.



The figure above shows “2C” tyre is leaking and “1A” tyre is over-hot. The display just shows axle1 and axle2 automatically and circularly until the problems are corrected.

1.8 High Temperature Warning

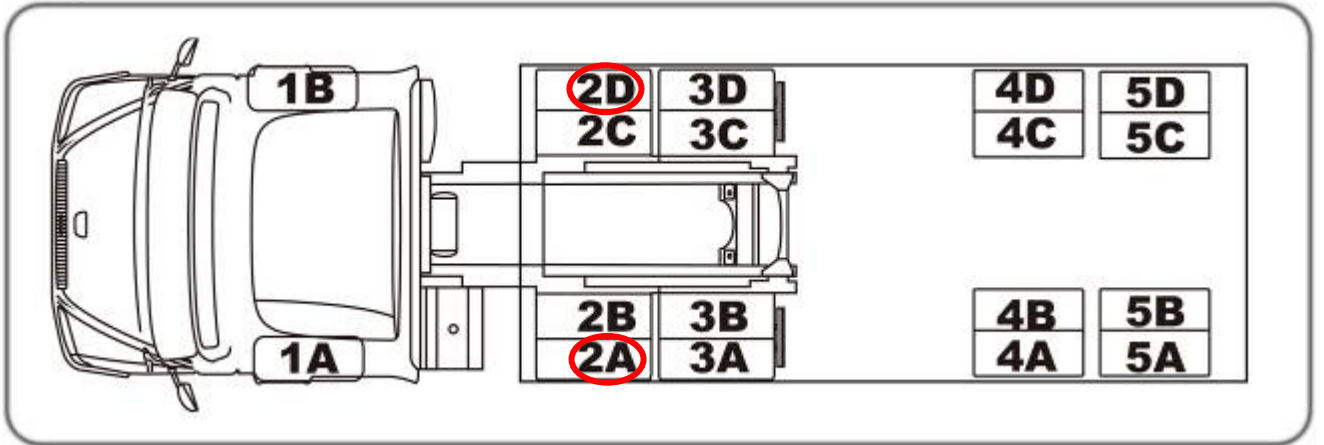
When temperature inside tyre is higher than 80°C (176°F): ①Display shows the temperature of axle with abnormal tyre; ②Warning sound “Di-Di”; ③Abnormality icon “” appears; ④The digits of abnormal tyre position twinkle.



The figure above shows “1A” tyre is over-hot. The display just shows axle1 until the problem is corrected.

1.9 Change ID Module Position

Thanks to our unique ID module technology, when you change wheel position later on, you don't need any learn or relearn / register tool. Just change corresponding ID modules' position and restart the display and trailer ID box. Take 18-wheel vehicle for example.



Rotate the wheels in position "2A" and "2D"



Change their corresponding ID modules' position, restart display and trailer ID box

2.1 Trouble Shooting

Problems	Possible Reasons	Solutions
Both pressure value and temperature value of all tyres are "000" shown on the display	Problems of antenna connection	Check antenna connection
	The antenna is broken (all transmitters are well)	Replace antenna
	There is something wrong with display	Use a pair of transmitter & ID module and TPMS Smart Tool to confirm. If it doesn't work, replace it
The pressure and temperature values are "000" at one or more transmitter locations (After start the display)	Problem of transmitter	Use TPMS Smart Tool to check it
	Problems of ID module	Pull out the ID module and re-plug in, then restart the display. If problem still exist, do next step
		Pull out the ID module and plug in other ID module seat, then restart the display. If problem still exist, replace the ID module.
The pressure value is "000", but temperature value is normal.	Air hole of transmitter is air-logged	Replace the transmitter
No values shown on the display and all icon indicators don't shine	Display is turned off	Turn on switch on the back of display
	Power cord is not properly installed	Check power cord connection
	The display is burnt out	Replace display
No values shown on the display, but icon indicator shines	Without ID module in the seat	Plug in ID module
Dash "- - -" shows on the display (When the data transmission was interrupted)	System failure	Restart the system
	Surrounding interference	Leave the surrounding
	Problem of transmitter	Use TPMS Smart Tool to check it
	Problems of ID module	Pull out the ID module and re-plug in, then restart the system. If problem still exist, do next step.
		Pull out the ID module and plug in other ID module seat, then restart the system. If problem still exist, replace the ID module.
All data does not refresh	System failure	Restart the system and run your vehicle
The display continues to		

show incomprehensible codes		
Values are not being received at a tyre location after a transmitter was replaced or a spare tyre was installed.	The ID number for the transmitter at that location is not programmed into the receiver	Replace the old ID module with a new one came with the new transmitter. Restart the system and set baseline pressure.
(High or low) Pressure Warning is activated at more or all transmitter locations after the installation is complete	Didn't setup the baseline pressure	Setup the baseline pressure for each axle
The buzzer is continuously chirping and nothing shown on the display	The display does not work	Replace the display

2.2 Parameters of The Products

Display

Power Consumption: 1300 mW (Regular); 1680mW (Max)

Power Supply: DC 12/24 Volt

Weight: 231g (8.15 oz.)

Dimensions: 15.5 x 6.2 x 2.3 cm (6.1 x 2.4 x 0.9 inch)

Operating Temperature Range: -40°C to 85°C (-40°F to 185°F)

Pressure Resolution: ±0.01Bar (0.1PSI)

Temperature Resolution: 1°C (1°F)

2.3 FCC's authentication announcement

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.

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.

2.4 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.

2.5 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.