Tire Pressure Monitoring System
USER MANUAL

Congratulations to your purchase of *TPMS*, which will be a valuable addition to your vehicle for helping you to drive safety. *TPMS* keep watching pressure and temperature of your vehicle tires in real time, and immediately warn you when pressure and/or temperature are found in abnormal condition, providing you enough time to take actions. In addition, as *TPMS* show out the data through a digital display unit, no longer need you to manually check the tires with a pressure gauge every now and then, thus help you keeping all tires in optimal condition. More benefits from TPMS system for you are: less wearing out by uneven tire, less tire failures by air loss, and less severe tire damages, while longer tire life, more fuel efficiency, and easier to control your vehicle when braking and handling on vehicle. Best of all, *TPMS* help you to enjoy driving with more safety on the road, less trouble of flat tires and blowouts.

PARKING LIST

Qty.	DESCRIPTION & PART NUMBER	IMAGE
1	DISPLAY UNIT（TPM-HM2）	
6	SENSOR（TPM-P3）	
1	VELCRO TAPE（TPM-AS）	
1	CIGAR LIGHTER POWER CORD (TPM-HPC)	
1	POWER CORD（TPM-HPC1）	
1	DUSPLAY BRACKET （TPM-J2）	
1	ANTENNA（TPM-L）	
1	REPEATER（TPM-UT） OPTIONAL	
1	REPEATER POWER CORD （TPM-TRC） OPTIONAL	

INSTALLATION OF SYSTEM

- INSTALL THE DISPLAY UNIT IN CAB.
- INSTALL THE REPEATER UNDER THE VEHICLE.
- INSTALL THE SENSORS ON THE TIRE.

INSTALLATION OF THE DISPLAY

1.Set the Display unit on the bracket (TPM-J2), and fix the antenna (TPM-L) on the antenna connector.

（1）

（2）

2. Use Velcro (TPM-AS) to fix the bracket (TPM-J2) at the proper position of the cab's dashboard, where users can easily watch it.
3. The Power Cord (TPM-HPC1) has three wires. Connect the red wire and the yellow wire to the vehicle (+24 V) power, the black wire is connected to vehicle ground.
4. Plug the power cord pin in the mini USB socket of the display unit.

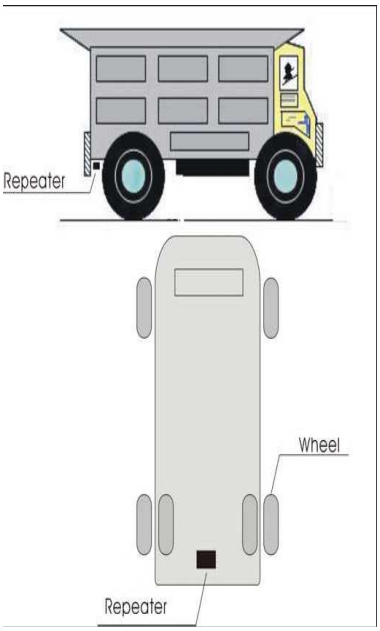
5. The user could use the cigar lighter power cord (TPM-HPC) to connect the display unit power also and charge the battery inside display temporarily.

1. When using Velcro, be sure to clean the target's surface.
2. Do not set the display under the sunshine, since high temperature will damage the rechargeable battery in the display unit.

INSTALLATION OF REPEATER (Optional)

Sometimes, we use repeater (TPM-UT) to guarantee the reliability and stability of the display. The repeater installation procedure as following:

1. Fix the repeater (TPM-UT) on the bottom of the truck/trailer with the binding belt (TPM-B).；
2. Fix the Repeater Power Cord (TPM-TRC) with the binding belt (TPM-B).
3. Connect the power cord to the vehicle power supply, the black line to Ground and the red line to +24V.
4. Plug the power cord pin to the repeater, and tighten the screw.



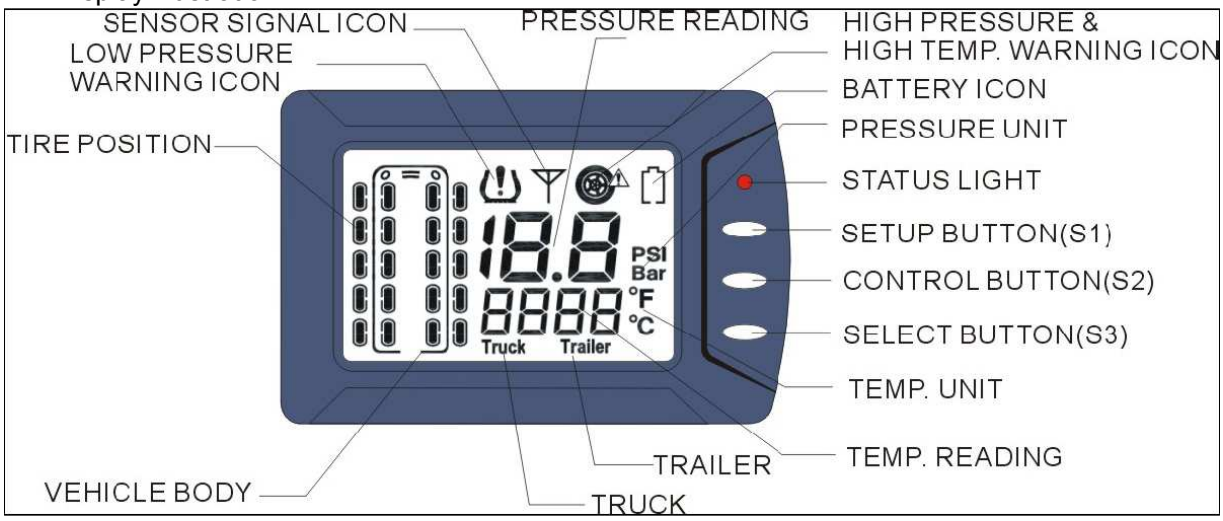
INSTALLATION OF THE SENSOR

1. Clean the tire's valve.
2. Remove the original cap of the valve.
3. Directly screw the sensor into the valve and lock the sensor if possible.

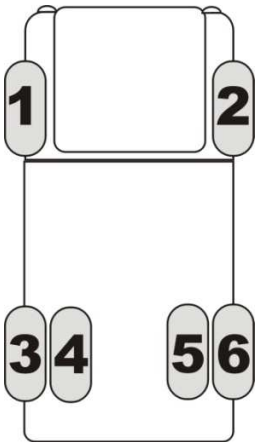
Since there is lots of heat exposure near the brake drum when the driver brake frequently on the urban road in some case, please use the extender pipes to keep the sensors out of the radiating heat area.

OPERATION

1. Display Illustration



2. After the system installation, press the CONTROL button (S2) and hold for 5 seconds and power on the display unit. The display will show the current pressure and temperature of each tire one by one for 4 seconds (from the No.1 tire to the last tire two times in cycle). Then the display turns off and only the status LED will remain on (monitoring mode).



Truck Mode

Trailer Mode

3． Reading Mode

1） In monitoring mode, press CONTROL button (S2) or SETUP button (S1) to enter into reading mode.

Press S2 the display unit will show the pressure and temperature of each tire one by one for 4 seconds (from the first tire to the last tire with two times in cycle), then back to monitoring mode automatically. Press S1 the display unit will show one tires' data for 8 seconds, then back to monitoring mode automatically.

2） In reading mode, press S1 one time the tire icon will skip to next location. The user could select the tire and watch the readings.

3） In reading mode, press SELECT button (S3) the display unit will switch between the truck and trailer.

4） In reading mode, press S2 and hold for 5 seconds , to turn on/off the display unit.

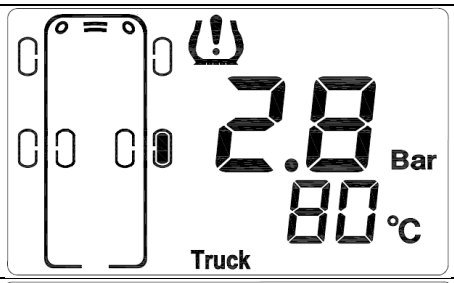
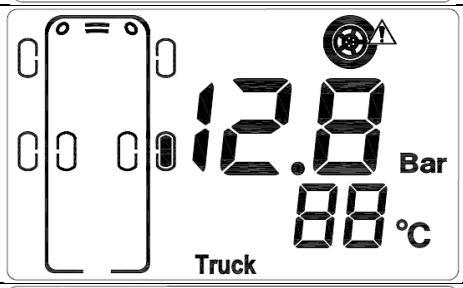
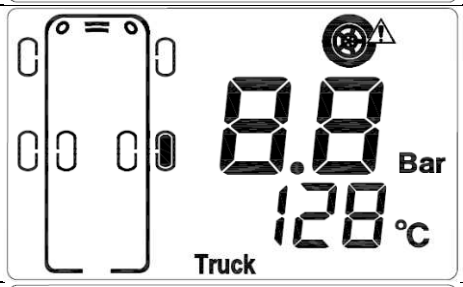
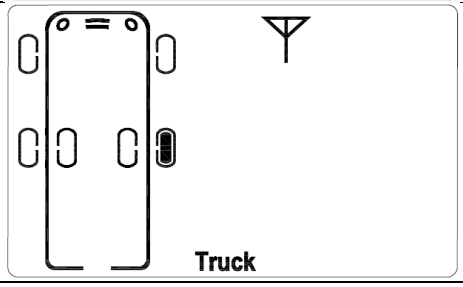
4． Upon detection of abnormal tire pressure and/or temperature, the display unit will enter into warning mode. The display unit will show the data readings of the abnormal tire and the warning icon, the status light will change to red from green. And after 8 seconds the display unit will show data reading for all tires with 2 times in cycle, then turn off and the screen remain in red status light.

5． The display unit equipped with rechargeable battery, could be used as handheld tool without vehicle power, the status light of display unit will flash green in normal mode and flash red in warning mode.

6． The battery icon is flashing on the display, when battery is being charged.

SYSTEM WARNING

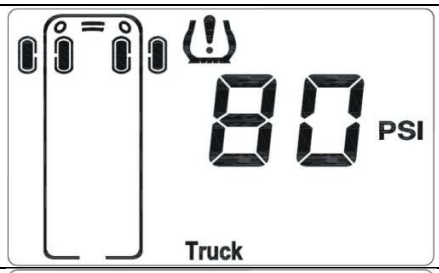
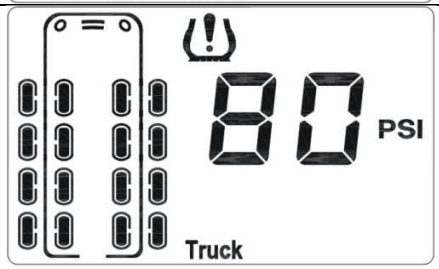
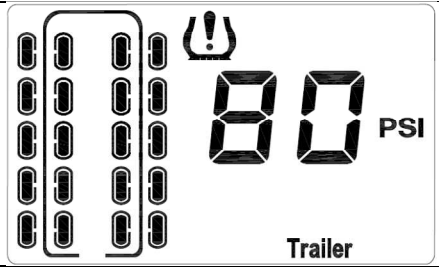
Upon detection of abnormal tire pressure and/or temperature, the system will display one of the following warnings.
In the case of more than one warnings happened, the highest priority warning icon will show first and the display will continue until all the conditions are normal again (priority order is given below, while has warning of high temperature and low air pressure simultaneous, TPMS show out warning of low air pressure). Press the CONTROL Button (S2) and hold for 3 seconds to clear all warning icons. If an abnormal situation continued, the warning icon will immediately display again.

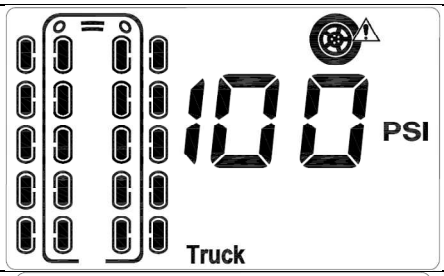
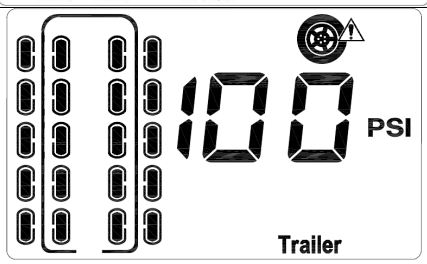
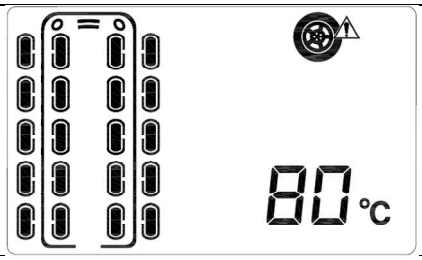
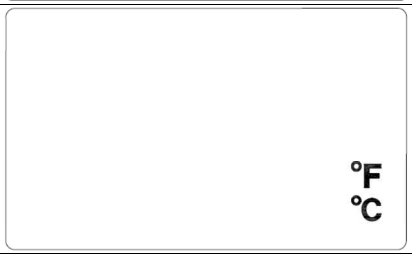
Low Pressure The first priority warning with red status light and 8 seconds alert sound.	
High Pressure With a red status light.	
High Temperature With a red status light.	
No Sensor Signal The lowest warning with a red status light.	

WARNING THRESHOLD & UNITS SET UP

The user may adjust the warning threshold for tire pressure and temperature, as follows:

1. In reading mode, press and hold S1 & S2 at the same time for 5 seconds, the display unit enter into setting mode.
2. The 1st setup item is the low pressure threshold of the front axle setting. Press S1 to modify the value and press S2 to enter into next item.
3. The 2nd item is the low pressure threshold of the rear axle setting. Press S1 to modify the value and press S2 to enter into next item.
4. The 3rd item is the low pressure threshold of the trailer setting. Press S1 to modify the value and press S2 to enter into next item. (skip this step If there has no trailer in system)
5. The 4th item is the high pressure threshold of the truck setting. Press S1 to modify the value and press S2 to enter into next item.
6. The 5th item is the high pressure threshold of the trailer setting. Press S1 to modify the value and press S2 to enter into next item. (skip this step If there has no trailer in system)
7. The 6th item is the high temperature threshold setting. Press S1 to modify the value and press S2 to enter into next item.
8. The 7th item is the selection of the pressure unit. Press S1 to select the PSI or BAR and press S2 to enter into next item.
9. The 8th item is the selection of the temperature unit. Press S1 to select the ℃ or ℉ and press S2 to quit the setting mode.

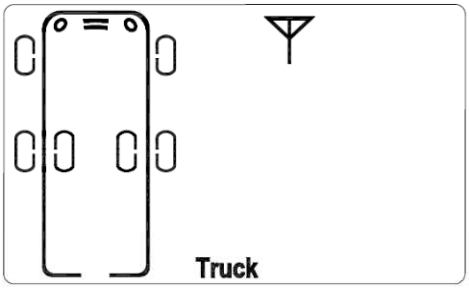
Front Axle Low Pressure Warning threshold can be set to in-between 0PSI to 199PSI.	
Rear Axle Low Pressure Warning threshold can be set to in-between 0PSI to 199PSI.	
Trailer Low Pressure Warning threshold can be set to in-between 18PSI to 140PSI.	

High Pressure Warning threshold can be set to the sum of Low Pressure warning threshold plus 15PSI to 199PSI.	
Trailer High Pressure Warning threshold can be set to the sum of Low Pressure warning threshold plus 15PSI to 199PSI.	
High Temperature Warning threshold can be set to in-between 70°C to 110°C.(158℉~230℉)	
Pressure Unit Selection There are PSI and BAR available.	
Temperature Unit Selection There are ℃ and ℉ available.	

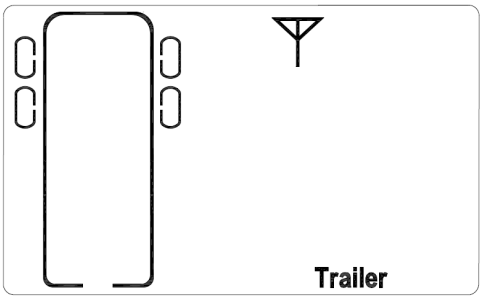
RETRAIN SYSTEM AFTER TIRE ROTATION

Alter tire rotation the system must be retrained for displaying the correct tire locations, the steps are as follows:

1. Press and hold S1 & S2, after 10 seconds (to skip the Warning Threshold Setup mode) the system enters Tire Retain mode. The antenna icon is showing.

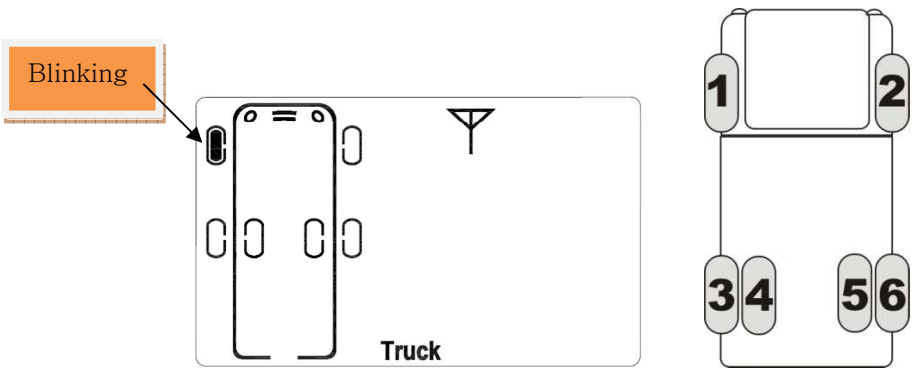


Press SETUP button (S1) to select the truck or trailer mode (If there has trailer in system).



2. Press and hold S2 enable the truck retraining process, The No.1 tire indicator starts blinking. Release 0.3 Bar of air from the No.1 tire, which triggers its sensor to send out a signal. Upon receiving the signal, the system sets up No.1 tire location mapping and then moves on to the No. 2 tire (No. 2 indicator blinks).

3. Repeat above step for the remaining tires. The setup order must always be tire No. 1, No. 2, No. 3, and lastly No. 6 or more. After successfully retraining the last tire the system exits the Tire Retrain mode automatically with beep for 8 seconds.



4. After the truck tire retraining, repeat the process from step 1 and select trailer tire retraining. Finish the trailer tire retraining with the same way.
5. If you don't need to retrain one tire, press S1 in the retraining process, the display will skip it to the next tire location. The next tire icon will be blinking.
6. Refill tires to the proper air pressure.
7. Press S3 in the procedure will cancel this process.

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.

Any changes or modifications (including the antenna) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

FCC ID: F2ONWK-LIS
Applicant: Nae Woi Korea., ltd.

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. 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 or more 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.