

# *Tire Pressure Monitoring System*

*Onboard Tire Pressure Monitoring System for Mining Trucks  
MODEL X61x series*

## *User's Manual*

# System organization

## About TPMS (Tire Pressure Monitoring System)

The TPMS (Tire pressure monitoring system (below, it calls “the system” or “this system”), with the sensor which is installed inside the tire, measures the tire pressure and temperature.

### — The organization and the function —

This system consists of the sensor, the receiver the ECU, the indicator, the hand-held reader and the tag reader, uses with the kind of configuration which is shown in the figure.

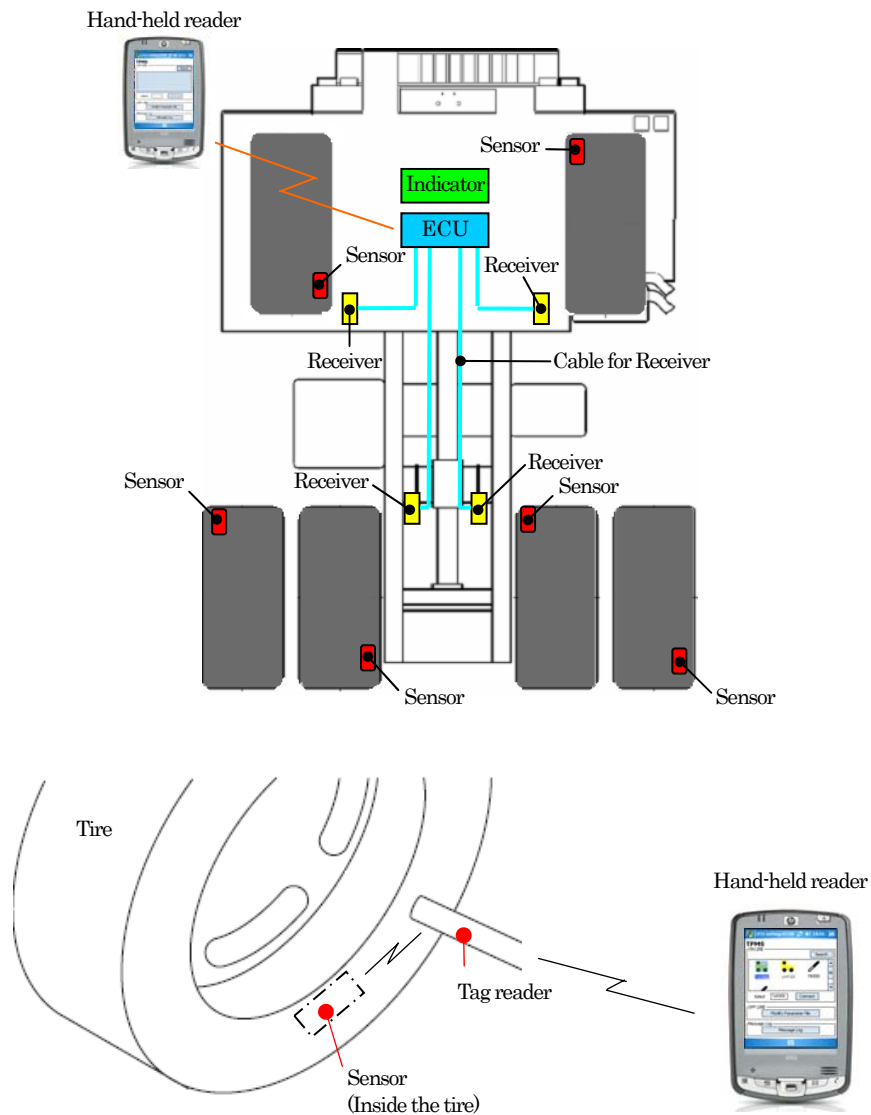


Fig1. The organization of the system

## **This system has the following function.**

- The tire pressure and temperature, indicating warning for them and the system state in the Hand-held reader.

The wireless is communicated with ECU set up in the vehicle with the Hand-held reader, worth of one vehicle the tire pressure and temperature are read to, and it is possible to display it.

- The warning, the error code, the tire pressure and temperature indicating in the indicator. If the tire pressure and temperature which was measured with the sensor inside the tire have come off from the set range, it puts out warning to the indicator where is set in the driver's seat and informs the operator.

In addition, when the ECU detects the breakdown of the system, the error code which displays the contents of breakdown is indicated in the indicator.

Furthermore, the tire pressure and temperature can be indicated in the indicator with the indicator's button operation.

- Measurement of the tire pressure and the temperature that uses the Tag reader.

With the Tag reader, the tire pressure and temperature can read directly from the sensor inside the tire.

And it can be indicated read data in the Hand-held reader by the wireless communication.

## **In this system, for the tire pressure management, it is necessary to set below.**

- Set up of the ECU

By the Hand-held reader, the ECU can set up and change the information of model, the vehicle number etc and the warning condition.

- Set up of the Sensor

By using the Hand-held reader and the Tag reader, it can set up and change the installation of the vehicle classification, the number and the information of the tire position to the Sensor.

- Switch of operation mode of the Sensor

By using the Hand-held reader and the Tag reader, it can switch the "The mode of Normal sending", "The mode of sending stop" and "The mode of filling up the tire internal pressure".

- Set up of the Tag reader

By the Hand-held reader, it can set up and change the number of the Tag reader and information of the monthly average temperature etc to the Tag reader.

## **This EUT has two following modes.**

- Normal mode

System doesn't detect any emergency signal.

- Alarm mode

System detects that the pressure of the tire is too low and/or temperature is too high.

## Notices for using in USA

This device complies with Part 15 of the FCC Rules and IC RSS-Gen. 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 and IC RSS-Gen.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates use and can radiate radio frequency energy and, if not installed and used in accordance with 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 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.

### **WARNING**



Changes or modifications not expressly approved by the manufacturer for compliance could void the user's authority to operate the equipment.

**This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.**

This equipment complies with FCC radiation exposure limits set forth for uncontrolled equipment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65. This equipment has very low levels of RF energy that it deemed to comply without maximum permissive exposure evaluation (MPE). But it is desirable that it should be installed and operated with at least 20cm and more between the radiator and person's body (excluding extremities: hands, wrists, feet and ankles).