

ActSensor

Tire Pressure Monitor System

Installation & Operation

Instructions

Introduction

The ActSensor is an electronic sensing system employing advanced microchip technology, and state-of –art Superheterodyne, Surface Acoustic Wave RF technology to provide the most advanced tire pressure monitoring available today. The system will monitor the

air pressure drops below the normal operating pressure.

The ActSensor system consists of a set of tire pressure wheel Sensor/Transmitters (External or Internal) for each tire, and a Receiver-Display Instrument.

FCC Rules

This system complies with Part. 15 of the FCC Rules. Operation is subject to the following two conditions(1) This system may not cause harmful interference, and (2) This system must accept any interference received, including interference that may cause

undesired operation.

This system 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. If not installed and used in accordance with the

instructions, the radio frequency energy that the system generates, uses and radiates may cause harmful interference to radio communication. However, there's no guarantee that interference will not occur in a particular situation.

If this system does cause harmful interference to radio or television reception, which can be

determined by turning the system off, the user is encouraged to try to connect the interference by the following measures:

Reorient or Relocate the receiving antenna.

***Increase the separation between the receiver and the system**

***Connect the equipment to an outlet on a circuit different from that which the receiver**

is connected.

***Consult the dealer or an experienced
radio/TV technician for help**

CAUTION: Changes or modifications not
expressly approved by the manufacturer
responsible for compliance could void the
users authority to operate the equipment.

European Rules

**This system complies with all European
Electromagnetic compatibility regulations
(95 54/EC and EN 300 220-1). This system
has been tested and found to comply with
the above regulations, and in addition it**

meets the requirements for low powered transmitter/receiver as defined by the relevant radio approval authority. The regulations are designed to provide reasonable protection against harmful interference or susceptibility.

System Installation

This system is designed to identify and display tire operating status and activate an alert when pressure irregularities are detected. It is the responsibility of the driver to react promptly to the alerts. Abnormal tire inflation pressure should be corrected at the earliest

opportunity.

Use if ActSensor requires that it has been properly installed and programmed by qualified personnel according to ActSensor documentation. This includes the Owner's Installation & Operation Instruction.

**This system is suitable for Cars, RVs,
Buses , Trucks & Heavy Duty Trucks.
With cold inflation from 20 Psi to 130
Psi.**

Audible Alarm

When an alert condition is detected, reduce vehicles speed to an appropriate safe level and process to a safe stopping location where the tire can e inspected and serviced. The low pressure alert indicated that the air has dropped to a selected minimum.

Power Connection

If your display is connected to an un-key cigarette lighter socket, unplug it when you park the vehicle for extended periods (more than three days) to avoid draining the battery.

Operation

Tire Sensor consisting of a pressure sensor & RF transmitter are installed on each valve stem or inside the wheel and are pre-set to an Alarm Pressure (or Psi) that will activate an alarm response when a tire drops below its recommended air pressure level. A coded

wireless signal is sent to the Receiver Display instrument that decodes the signal and lights the appropriate LED on the Display. A beeping tone also alerts the driver while a flash LED on the graphic outline of vehicle will identify which tire losing air pressure.

The ActSensor continuously scans all wheel

Sensors for loss of pressure even when parked or unattended. It stores any incident of pressure loss or Low Battery in its memory until the IGN. Is turned on and the dash Display is activated. The instrument will remain dark until a low tire is detected.

Push Reset to clear the memory after

inspecting and correcting any tire pressure or low battery problems. The Display will respond by lighting all tire positions for 0.5 second to acknowledge the Reset. The Reset button can also be used to confirm a signal from a tire sensor is valid.

Note: Your ActSensor is coded for operation with your vehicles only and will receive stray transmission from other source or vehicles.

Display Installation

(1) Square Display Type

A. Unfold the reserved hole.

B. Install the Display into the hole.

C. Fix the receiver till the spring impacted

(2) Cigar Lighter Display Type

A. Plug the Display into the Lighter Socket.

(3) Round Type Display

A. Adhere the Display on the Dashboard.

Power Connection

- (1) Plug in power for 4 or 6 wheels Cars and Buses. For common vehicles, the display can connect in-car power or cigarette lighter. The Display could be connected directly with the in-car power. However the installation**

procedures must be performed by a train technician.

(2) Wire for over 6 wheels Buses, Trucks & Heavy- Duty Trucks.

Wire the Power Cable to suitable power source (usually the fuse box). If additional wire is necessary be sure to observe the color code during hook-up.

Connect the Red wire to a 500mA or 1 Amp

**fused +12 or +24 volt power source.
Connect the White wire to an ignition or
Accessory source (preferably at the fuse box).
This allows the system to function while
parked or stationary while keeping the
memory active. The display will be activated
only when the ignition or IGN. Aux. key is
turned on.**

Connect the Black wire to a suitable Ground (-); and run the power cable through the instrument panel hole and connect it to the rear of the Display instrument.

(NOTE: If the unit interferes with the operation of any other equipment, run a separate(18 AWG) power wire to an unused

fuse box outlet. If interference still exist, run a separate Red Power wire directly to the battery)

Tire Sensor Installation

External Sensor with **Anti-Theft Function**

Check and Inflates all tires to their normal operating pressure.

- 1. Turn on your ignition to activate the**

system Display Instrument. Take a wheel sensor to its respective wheel location (marked on the sensor dome, such as LF,RR or 2L,3R)

- 2. Install one battery if they have not been pre-installed (care should be taken to maintain proper battery polarity with the mark (-) side facing you)**

- 3. Activate one tire sensor at a time by removing the colored insulating disk from the inside of the sensor and secure the two halves together by spanner tightening. The sensor should be transmitting now and will continue until it is placed onto the valve**

stem marked on the top the sensor.

4.To prevent from leaking air, be sure to use the Lock Spanner to lock the sensor on the valve stem tightly

5.The audible alarm will stop a few seconds after securing the wheel sensor onto a properly inflated tire. Repeat this process until all wheel sensors are secured to their respective wheels.

Internal Sensor with valve stem

- 1. Turn on your ignition to activate the system Display Instrument. Take a wheel sensor to its respective wheel location (marked on the sensor dome, such as LF,RR or 2L,3R)**
- 2. Install one battery if they have not been**

pre-installed (care should be taken to maintain proper battery polarity with the mark (-) side facing you)

- 4. Activate one tire sensor at a time by removing the colored insulating disk from the inside of the sensor and secure the two**

halves together by spanner tightening. The sensor should be transmitting now.

- 5. The sensor in the wheel is part of the normal air valve stem that goes through the side.**

NOTE:

- 1. Make sure that the sensors are not resting on , or touching the rim. If unavoidable due to the position of the valve stem, place a suitable O-ring over the sensor to**

**prevent it from rubbing on the rim.
(rubber grommets and extender kits are
available for Alcoa Aluminum wheels from
your Dealer.**

- 2. It is not recommended installing your tire
sensors on flexible air valve Extenders.
Although the sensors weigh less than 1 OZ.,
adding this additional weight to some**

Extenders may result in damage to the valve or the sensor if not properly secured to prevent any movement. If Extenders are required it is recommended using rigid steel extenders.

Battery Replacement

- 1. Unscrew the sensor cover and take out the used battery.**
- 2. Replace one new Battery No.CR-1225.
Battery polarity must be observed by**

keeping the base (marked +) down and (marked -) facing you.

- 3. Screw the sensor cover tightly with lock spanner.**

Description of Display

Low Battery

Alarm Light

**Tire Location
Pressure**

Low

PGM(P):Your Tire Sensors must be programmed into the Display instrument memory by activating 1 sensor at a time and pressing the PGM Button for 10 seconds until the beep sound. A tire position light will come on indicating the sensor code has been

successfully installed into the memory

RESET(R): To clear the memory after inspecting and correcting any tire pressure or low battery problems. The Display will respond by lighting all tire position for 1/2 second to acknowledge the Reset. The Reset button can also be used to confirm a signal

from a tire sensor is valid.

Components Description

Item #	Name	Q'ty
1.	Base	1

2.	Antenna	1
3.	Battery	1
4.	Dome	1
5.	Cover	1
6.	Brass Ring	1
7.	Pressure Pad	1
8.	PCB	1
9.	O-Ring	2

Pressure Sensor

The Sensor may pre-set by your Dealer or by your own maintenance personnel for the cold inflation pressure recommended for your

vehicle's tires. Pressure setting is accomplished by dialing-in the tire's cold inflation pressure. The Pressure Sensor are designed to operate with air pressures that may exceed normal operating pressures, and will not be damaged by normal over-inflation that may result from excessive not weather or road conditions.

System Maintenance

The system has been designed so that the only maintenance required is to check and replace

sensor battery occasionally. A built-in Power Monitor continuously monitors battery power and lets you know when the batteries in any of your wheel sensors need replacing. You can also check the batteries and/or Sensor operation by unscrewing a Sensor from the valve stem with the Display power on . If the alarm is activated on the Display, the battery

in that wheel sensor is OK. Return that sensor to the tire, otherwise the LOW Battery LED will light on, replace the battery right away and repeat the process on the next wheel. You may clean the wheel sensors as necessary just with soapy water.

WARRANTY

Products are warranted for 1 year against defective parts and workmanship. Warranty

returns should be returned to the Customer Service Department at the address listed below. Or you may wish call them discuss your systems operation before returning it for repair. The warranty will be considered void if the unit is damaged as result of an accident or improper installation. The Manufacturer and its Agents, Distributors or subsidiaries

assumes no responsibility or liability for the use, installation or removal of this system or its components. This Warranty is in lieu of all other expressed or implied warranty, and no representative or person is authorized to assume any other liability in connection with this product.

Technical Specification

(1). Pressure Sensor

Battery Life	3+ Years Normal, Replaceable
Operating Temp.	-40 C to 85 C
Weight	17 g.
Size	Dia25.4mmxH31.5mm
Frequency	433.92 MHz
Pressure Range	4 wheels 0-40 Psi

	6 wheels	0-140 Psi
Voltage	3V	(DC)
Operating Range	30	M

(2).Receiver/Display

Power	20mA	Norminal,	125 mA
	Maximum	during	alert
Operating Temp.	-40	C	to 55 C.

Frequency	433.92 MHz +/-75 KHz
Size	L45 x W25 x H44 mm
Weight	55 gm
Voltage	12 V or 24 V (DC)

Appendix

Cold Pressure **The vehicle**
manufacturer recommended inflation pressure

of a tire at ambient temperature (18 C)

Low Pressure Alert **The audible and visual alert activated when the tire's actual pressure drops to the programmed value (Usually when the pressure is 15 % under-inflation)**

Receiver **The electronic module receives data from the transmitter and**

displays tire pressure alerts.

Transmitter Measures contained air pressure and transmits this data to the Receiver/Display.

Attention

- 1. Changes or modifications to this system without the express approval of**

Manufacturer may void the user's authority to the product warranty.

- 2. When installing the battery to the sensor, please keep the negative electrode (symbol -) facing on you.**
- 3. Please turn off or block the power before install the power lead to avoid harming the electronic loop.**

- 4. Attention to the battery of the transmitter.
Please replace the battery when it reads
low voltage.**
- 5. If there's no reserved hole on the dash,
please use the Display bracket as Fig.**

