



Installation Instructions and Owner's Manual



PRESSUREPRO 10 WHEEL MONITOR

Displays pressures for up to 10 wheel locations on a Primary vehicle.



PRESSUREPRO 16 WHEEL MONITOR

Displays pressures for up to 16 locations - 10 locations on Primary vehicle and 6 on tow.



PRESSUREPRO 34 WHEEL MONITOR

Displays pressures for up to 34 locations - 10 wheels on Primary vehicle and 24 on tow.



SENSORS

PressurePro Sensors screw onto the valve stem, read the tires' pressures and use an RF signal to transmit current pressure readings to the Monitor.

PRESSUREPRO DESCRIPTION

PressurePro is a wireless electronic Tire Pressure Monitoring System (TPMS) that is designed to display current tire pressures on demand, whether moving or stationary. PressurePro is a monitoring system and will not prevent tires from losing pressure or failing, but it can provide early notice of potential problems and alert to low tire pressure situations. PressurePro systems, which can be used on all pneumatic tires, monitor pressure in tires using Sensors which read pressures and transmit RF signals to a Monitor which displays those pressure readings. PressurePro Sensors read tire pressure 12,343 times a day, every 7 seconds, and transmit updated readings to the Monitor every 5 minutes assuring timely information. If an alarm level is reached, PressurePro Sensors will override the normal update and alert the Monitor immediately (see "Alerts" section). Because of the quirks of RF Transmissions and interference, no guarantee of signal reception can be made. PressurePro is not meant to function as a pressure gauge or low pressure indicator.

PressurePro consists of two basic components: Tire Sensors which screw onto the valve stems of the tires, and a Monitor. The Sensors transmit a coded RF signal and can alert if pressure drops. The Monitor displays each tire's pressure and can send an audible alert if tire pressures drop or rise. During an alert, the tire location light flashes on the Monitor, the current pressure reading for that tire flashes, and an audible alert sounds. The system can alert at two (2) low pressure levels: The first alert occurs when tire pressures drop more than 12.5%. A second, more urgent alert occurs if tire pressures drop by more than 25%. A variable high pressure alert set to your specifications, (see "Setting High Pressure Alert") alerts to high tire pressures. As with many RF products, signal interference is a common occurrence. There can be interference which prevents a reading.

PRE-INSTALLATION INSTRUCTIONS

When Sensors are installed, they recognize the tire's current pressure as their BASELINE, therefore tire pressure at the time of installation is important. It is recommended to install Sensors with all tires inflated to the manufacturer's recommended pressures while the tires are "cool". Installation in the morning before vehicle movement is optimal, but not necessary. Installations can be done when tires are "warm", though doing so may cause false alerts. If installation is done while tires are "warm", simply reset them the next morning (see "How To Guide"), allowing the baseline to recalibrate to cold pressures.

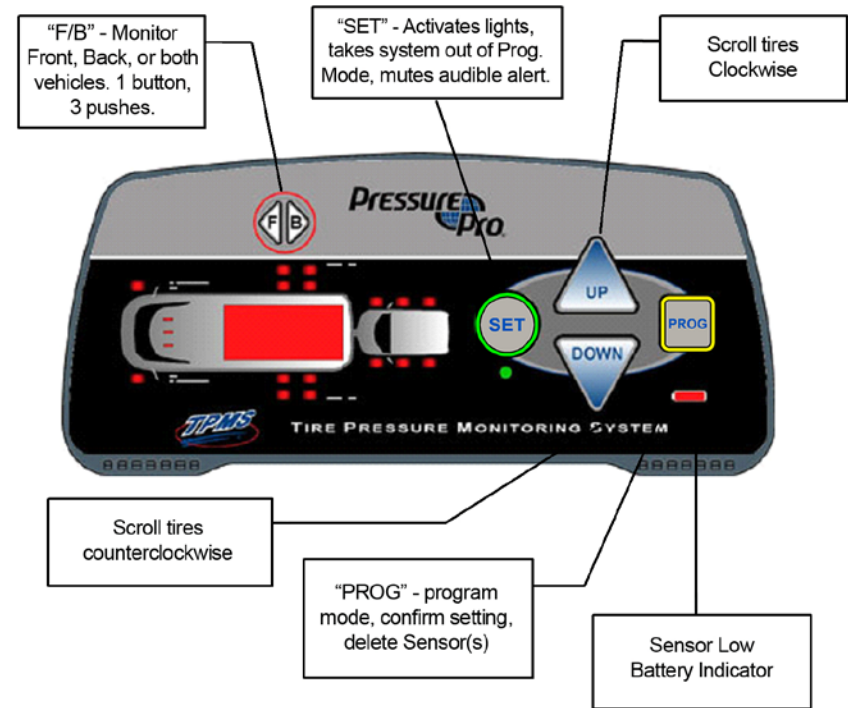
Tires and valve stems should be carefully inspected prior to installation of the system to ensure that they are in good condition. Defective valve stems must be replaced. At times, it may be necessary to clean the threads of the valve stem with a wire brush or tapping tool before installing a Sensor.

The dill valve (the small valve inside the valve stem) must depress fully and release air for the Sensor to activate. The Sensor might not activate properly if the dill valve pin is not flush with the end of the valve stem, allowing a good release of air to interface with the Sensor. It is not unusual to find dill valves installed too deep, which will cause the Sensor to not activate properly. The dill valve should be centered. Check dill valve by pressing the end of a thumbnail directly into the dill valve to make sure it releases a "burst" of air.

NOTE - When installing Sensors on vehicles with aluminum valve stems: New autos may include factory installed TPMS Systems. New vehicles with TPMS utilize aluminum valve stems while PressurePro Sensors are made with brass threads. **Brass will bond to aluminum due to the Galvanic action between the different metals.** When installing PressurePro Sensors to aluminum stems, carefully apply dielectric grease, an anti-seize compound, to the aluminum stem being careful to apply only to the threaded area of the valve stem. **IMPORTANT: Remove Sensors every 4 weeks to ensure that the aluminum stem and brass threads don't bond. If storing the vehicle for extended periods, remove the Sensors from the aluminum stems.**

INSTALLATION INSTRUCTIONS

1. **DO NOT PUT SENSORS ON TIRES!** First, position the Monitor, with antenna attached, temporarily at the desired mounting location (so it can be moved for best signal reception). Plug the power cord into the cigarette lighter socket, or use optional hard wire. When power is on, the green light below the “SET” button flashes once every 5 seconds.
2. **PLACE SYSTEM INTO “PROGRAM MODE”:** Press and Hold the “PROG” Button for 5 seconds; release ‘PROG’ when the small green power light shifts from flashing and become a continuous green light. The front driver’s side tire location light on the Monitor will begin to flash. The words “no SEn Sor” will scroll across the digital display on a new installation. (Note: The system will exit the “Program Mode” if there is no activity for 10 minutes. If this happens, simply place the Monitor back into the “Program Mode” when you are ready to continue.)
3. **SCREW A SENSOR ONTO THE VALVE STEM** of the tire at the location denoted by the flashing location light. Tighten firmly by hand, or with the optional PressurePro Sensor Installation Tool. Using any tools (other than PressurePro tool) can damage the Sensor and voids the Warranty. **IMPORTANT - Listen for the “release” of air when screwing on the Sensor.** It is not unusual for the dill valve to be seated too deeply in the valve stem. Check dill level by testing with thumb nail – placing nail straight onto the plunger to ensure it opens and a burst of air is released.
4. **WAIT FOR THE MONITOR TO DISPLAY A PRESSURE READING.** This can take up to 60 seconds and is the only time a pressure reading will be displayed while the Monitor is in “Program Mode”. This initial pressure reading from the Sensor is your BASELINE pressure, which alerts will be based on.
5. **ONCE A PRESSURE READING IS DISPLAYED, LOCK IN SENSOR** by pressing and holding the “PROG” button for approximately 2 seconds until the flashing tire location light on the Monitor moves to the next tire location. This locks that Sensor’s code to that wheel position in the Monitor’s memory and must be done to retain the Sensor’s ID. If you do not want to install a Sensor to the next wheel location, use the “UP” arrow button to move to the next desired location and install by repeating steps 3-5. If the next location already has a Sensor installed, the screen will simply display 3 dashes (---). Use your “UP” arrow to advance to the next position you wish to program. **Do not forget to lock in the final position programmed.**
6. **TAKE MONITOR OUT OF PROGRAM MODE.** To get Monitor out of “Program Mode”, tap the “SET” button.
7. **COMPLETE INSTALLATION:** Check for leaks by coating the Sensor, extension and valve stem with a solution of 1 part liquid soap to 1 part water - look for bubbles which indicate a leak. Complete a permanent installation of the Monitor with provided Velcro or purchased mounting accessories. If using the Optional Antenna Kit, complete the permanent installation of the antenna.



MONITOR – FEATURES

- **Normal Mode** – Monitor is in Normal Mode when first powered up. Monitor is listening for Sensor updates and alerts in Normal Mode. Green light below “SET” button flashes every 5 seconds when in Normal Mode. Tire pressures can be displayed by selecting a tire with “UP” or “DOWN” arrow.
- **Program Mode** – Used for programming Sensors to the Monitor. (See “Installation Instructions” step #2) When in Program Mode, green light is solid, tire location selected is flashing and display shows 3 dashes (- - -) for locations programmed previously. Non-programmed locations will flash when selected and will display “No SEn Sor” message (displays over 3 flashes). When a new Sensor is installed, a pressure value displays on the Monitor.

MONITOR BUTTON FUNCTIONS

“SET” Button

- **When in Program Mode** – Pushing “SET” button exits Program Mode.
- **When in Normal Mode** – Pushing and/or holding “SET” button will light up all tire locations that have been programmed.

“F/B” Button – (separating primary vehicle from tow)

The “Forward/Back” Button allows you to monitor your primary and secondary vehicles separately as well as together. When separating the main vehicle from the tow, push the F/B button. All tires with programmed Sensors will light and display on the Monitor. Continue pressing the F/B button until just the vehicle you want to use is active (lit on the Monitor display). System will monitor the lit vehicle only. *Push the F/B button again to reattach both vehicles.*

“UP” & “DOWN” Buttons

In Both Normal and Program Mode – Push “UP” arrow to rotate selected tire location clockwise. Push “DOWN” arrow to rotate selected tire location counterclockwise.

“PROG” Button

Entering Program Mode from Normal Mode: Hold “PROG” button (approx 5 seconds) until the green flashing light below the “SET” button remains solidly lit.

Deleting a Single Sensor/Location: With a tire location selected, holding “PROG” button for approximately 10 seconds (while in “Normal Mode”), will delete that tire location. **Note:** After approximately 5 seconds of holding the “PROG” button, the green light will turn solid; continue to hold “PROG” until the green light and the selected tire location turn off (approximately 5 more seconds). Display will show “dEL”. Deletion of Sensor is complete. Release button immediately.

Deleting all Sensors/Locations at one time: All installed Sensors can be deleted simultaneously by holding the “PROG” button for 30 seconds. (When holding “PROG” button, the following will happen: After 5 seconds, the green light will go solid; hold for another 10 seconds and “dEL” appears on Monitor face; continuing to hold for full 30 seconds deletes all readings and Monitor to display “No SEn Sor”.)



ALERTS

- **12.5% LOW PRESSURE ALERT** - alerts at 12.5% loss from baseline pressure. A first stage alert that will “beep”, flash tire location and display pressure value *once per second* until the low pressure is corrected, the “SET” button is pressed putting Monitor in “reminder mode” or Monitor is unplugged. Pull over, inspect tire and repair.
- **25% LOW PRESSURE ALERT** - alerts at 25% loss from baseline pressure. A second stage alert that will “beep”, flash tire location and display pressure value *twice per second*. If no button is pressed to mute system – system will alert until low pressure is corrected or for a total of 15 hours. Pull over, inspect tire and repair
- **HIGH PRESSURE ALERTS (Variable)** – Alerts at determined percentage over initial pressure at installation. The level of the alert can be set by user to OFF or at 10%, 15%, 19%, 24%, 28%, 33%, 40% and 45% over the set level. Note: Monitors come from the factory set to trigger at 24% high.

SETTING HIGH PRESSURE ALERT

1. Unplug the power cord from the Monitor (mini-USB connector).
 2. While holding down the UP Arrow button, plug the power cord back into the Monitor and it will advance to the next alert level higher (new alert level will display on the screen).
 3. Release the UP button.
 4. If the Monitor displays the upper alert pressure you desire, setting the upper alert is completed. If it is not the upper alert you desire, repeat steps #1 and #2 until you see the desired alert level.
 5. The high alert function can be turned OFF by repeating steps #1 and #2 after the 45% level is reached. To turn the high alert function back ON, repeat steps #1 and #2.
- **HIGH TEMPERATURE DISPLAY AND ALERT** – When the temperature at the Sensor hits approximately 210F, an alert is sounded. The Monitor Display flashes 210 and beeps (like the 25% low alert). When alert sounds, pull over and check for problems with the tire, brakes and bearings and such.
 - **REMINDER MODE** – To “mute” the audible alert, place into “reminder” mode by pressing the “SET” button briefly. Audible alert will sound periodically.
 - **MULTIPLE LOW PRESSURE ALERTS** – In the unlikely event that multiple alerts occur, the Monitor will flash all tire locations with low pressures. When selected, a tire location with an alert will flash its pressure and position while the alert sounds. (Non-selected low pressure tires will flash their wheel location every 2 seconds.)
 - **“SIGNAL CHECK IN” FEATURE** – A **Patent Pending** feature of the PressurePro system is the “check-in” feature. Sensors send short millisecond “check-in” signal bursts regularly. As with all RF devices, a signal may be lost or interrupted. If a signal is lost or interrupted, the Monitor will light that wheel location with a solid light – (there is no alert beep). If this type alert continues, it may indicate a Sensor has been removed, lost or damaged or a signal is not being received - check that Sensor’s location.

IMPORTANT: When an alert is given that one or more of your tires is under-inflated, stop and check your tires as soon as possible and inflate them to the proper pressure. Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces fuel efficiency, tire tread life and may affect the vehicle’s handling and stopping ability. Each tire, including the spare, should be checked monthly. Check pressures when tire is cold and fill to the recommended inflation pressure.

HOW TO GUIDE

CHECKING TIRE PRESSURES – Sensors send an updated pressure reading approx. every 5 minutes. Pressing the “UP” or “DOWN” button (with Monitor in Normal Mode), will select a tire location to display.

RESETTING BASELINE PRESSURE – Make sure the Monitor is powered so it will “hear” the reset of the baseline. Remove Sensor for 60 seconds, then screw back onto stem. Note: Resetting a baseline pressure immediately after driving can result in “false” alerts. Allow tire to cool to ambient temperature. If not possible to wait for tire to cool, simply remove when tire is cool, wait at least 60 seconds and screw back on.

MANUALLY CHECK TIRE PRESSURES AND INFLATE TIRES – It is recommended that tire pressures be checked regularly with a quality pressure gauge with tires at ambient temperatures. Remove Sensor, (Monitor will read “00” and give an audible alert), check pressure, and inflate if necessary. Leaving a Sensor off for 60 seconds allows a new baseline to be established.

INSTALLATION INTERRUPTION – If, during installation, an interruption occurs and the installer is delayed (no button pushed for 10 minutes) the system exits Program Mode. To restart installation, refer to step #2 in “Installation Instructions”.

MUTING THE AUDIBLE “ALERT” – Press “SET” button after the alert sounds. This will put the alert in the “reminder” mode. When the lights turn off, an “alert” beep will continue periodically as a reminder of a low-pressure situation. If no button is pressed within 15 minutes, “reminder” mode activates automatically.

REMOVING SENSORS TO ROTATE OR REPLACE TIRES: When Sensors are installed, they are programmed to a specific tire position. If rotating tires or installing new tires, Sensors must be removed and put back on to the same position to avoid having to perform a universal delete and reprogramming. We recommend marking each Sensor to identify its wheel location. (This can be done by placing Sensors into marked containers, such as envelopes or baggies, etc.) When putting the Sensors back onto the valve stem, screw the Sensors back onto the Sensor’s original wheel location. If you choose not to identify each Sensor, you must perform a deletion of all Sensors (see “Deleting all Sensors” in “Monitor Button Functions”) and follow Installation Instructions to reprogram Sensors.

RECEIVING PRESSURE READINGS IN PSI, kPa & BAR: Monitors come set from the factory to read in PSI, but can also read in BAR and kPa. To switch pressure modes, remove Monitor’s power source and re-power while holding the “SET” button. The Monitor will briefly display the mode on the screen and switch to BAR, then to kPa, then back to PSI. Repeat process as needed until desired mode is reached.

FREQUENTLY ASKED QUESTIONS

CAN I STORE MY VEHICLE WITH THE MONITOR ON? The Monitor draws 25mA to 150mA of power. It’s possible the Monitor could drain the vehicle’s battery over an extended period of time. If storing vehicle for more than one month it is recommended that you unplug Monitor and remove Sensors (see “Tips” section – “Vehicle Storage”).

DOES MONITOR NEED TO BE POWERED BY LIGHTER ACCESSORY? No. Hardwiring is actually a preferred method of powering as it reduces back feed interference. Connect the red wire to a 12-volt DC positive power source (direct wire to the battery is not required). The black wire should be connected to a ground or chassis. When direct wiring, it is important to install a 2 amp in-line, fast blow fuse which protects the Monitor from voltage spikes. Monitors damaged due to high voltage from an unfused line are not covered by Warranty.

CAN MONITOR BE USED INDEPENDENTLY ON FRONT OR BACK VEHICLE?
Yes - see “F/B” Button in “Monitor Button Functions” Section.

WHAT HAPPENS WHEN I REMOVE A SENSOR TO INFLATE A TIRE? Monitor will display “00” reading. After 5 minutes, the Monitor displays 3 dashes (- - -). Removing Sensors for 60 seconds allows a new “BASELINE” reading to be accepted.

WHAT IS THE “REMINDER” ALERT? After an “Alert” has been acknowledged with a button press (or 15 minutes have passed) and the location lights have turned off, the audible alert will periodically “sound” for a short duration to remind you of the alert.

HOW DO I DELETE SENSORS? See “Deleting a Single Sensor/Location” in the “Monitor Button Functions” section.

WHAT DO I DO ABOUT A LOW SENSOR BATTERY ALERT? When you see a low Sensor Battery alert, via the Sensor low battery indicator on the lower right hand corner of the Monitor, the Sensor indicated should be replaced. Contact your Dealer/Distributor for information and replacement.

CAN I USE A SEALANT OR EQUALIZER POWDER IN THE TIRE WITH PRESSUREPRO? PressurePro does not recommend using sealants or liquids inside the tire. If necessary, it’s recommended to use the paint on sealants which don’t remain liquid and to use a filtered Dill Valve when using the sealants or equalizing substances. Sealant can plug up the valve core and shut off pressures in stems.

WHAT SHOULD BE DONE IF A LOW PRESSURE ALERT IS SOUNDED?
Immediately pull over and check low tire. Be sure to check valve stem for damage. Soap bubble the area to check for leaks.

TIRE PRESSURES INCREASE WHILE DRIVING - DO I NEED TO DO ANYTHING? No. While driving, it is normal for tires to increase pressure and temperature.

DO I NEED TO REBALANCE MY TIRES WHEN USING A SENSOR? The 2/3 oz. Sensors, on large tires (RV/Truck), seldom necessitates a tire be balanced. Smaller tires may require a ½ ounce stick-on weight opposite the Sensor, or rebalancing.

WHEN DO MY SENSORS TRANSMIT?

1. Within 60 seconds of screwing Sensor onto the valve stem.
2. Every 5 minutes while updating, under normal conditions.
3. At a 12.5% drop from baseline pressure.
4. At a 25% drop from baseline pressure.
5. When a Sensor is removed from its valve stem.

IF I UNPLUG OR LOSE POWER, MUST I REPROGRAM MONITOR? No. Settings are always retained unless physically deleted. Monitor displays 3 dashes (- - -) until Sensors send a new updated reading within the normal 5 minute reporting period.

DURING INSTALLATION, NO SIGNAL WAS RECEIVED FROM THE SENSOR. Higher radio frequency (RF) transmissions propagate mostly via straight lines and along line-of-sight pathways. PressurePro Sensors are required to accomplish a daunting task – transmit from a vehicle’s tires to the Monitor. If a Sensor fails to give a pressure reading, slightly move the Monitor and wait 5 minutes for new signals to report.

AFTER INSTALLATION, PRESSURE READINGS DROP ON DISPLAY – ACTUAL TIRE PRESSURE REMAINS CORRECT. The probable cause is poor interaction between the Sensor and dill valve. Try the following procedures separately, in order, until the problem is resolved: 1) Unscrew the Sensor and again, hand-tighten and listen for the release of air to the Sensor. (Be sure the Sensor and valve stem are not cross-threaded.) 2) Make sure the proper dill valve is installed in your valve stem and that the dill pin is flush with the top of the valve stem. Replace the dill valve if necessary, as it can be worn or defective. 3) If condition still persists, contact your Distributor/Dealer.

POWER CORD & FUSE / WHY DOESN'T MY MONITOR TURN ON? If the Tractor LED on Monitor does not come on, make sure the cord is properly plugged into the Monitor. Make sure the LED light on the cord is on (if present) and the cord is plugged into the lighter receptacle. Check the fuse located in the cigarette lighter end of the cord by unscrewing the black ring (at the silver tip) of the plug. Replace if necessary with a 2 amp in-line, fast blow fuse. If direct wiring, it is important to install a 2 amp in-line, fast blow fuse which protects the Monitor from voltage spikes. Monitors damaged due to high voltage from a non-fused line are not covered under the PressurePro Warranty.

HOW DO I CHANGE BETWEEN kPa, BAR OR PSI READINGS / WHY DOES THE MONITOR DISPLAY UNUSUAL PRESSURES? The PressurePro Monitor can display pressure values in PSI, kPa and BAR. The observation of wrong pressure values for all locations can sometimes be the first indication that the Monitor has been placed into an alternate reading other than PSI. To change the reading, unplug the Monitor and re-power while simultaneously holding down the “SET” button. The pressure unit abbreviations will briefly show on the Monitor’s display each time you plug in the Monitor. The Monitor will cycle from PSI to kPa to BAR, so you might have to perform the reset more than once to get to the value you desire. Remember to wait 5 minutes for all Sensors to send and update pressure readings.

WHAT SHOULD I DO IF A SENSOR IS LOST OR DAMAGED? Contact your Dealer or Distributor to order a new Sensor.

WHAT HAPPENS DURING A BLOWOUT? During a blowout (or situation with complete loss of pressure) the Monitor will signal you of a 25% loss in pressure and read “00”. There may be instances, such as in a catastrophic blowout, when a Sensor or stem is blown off the tire, the vehicle moves out of signal range and no signal (alert) is received.

IMPORTANT NOTES

Once Monitor is programmed, it retains all programmed settings. Turning off the vehicle or removing power from the Monitor will not delete or change settings.

When a Sensor is installed, it records the tire pressure at the time of installation as its BASELINE pressure setting. If you remove and reinstall a Sensor while the tires are warm, the Sensor will record the elevated WARM pressure when reinstalled, as its new BASELINE pressure from which to trigger an alert. When the tires cool, the pressure could fall enough to cause an alert. If possible, wait to reinstall the Sensor until the tire is cold and at the manufacturer specified cold pressure.

Cold temperatures and high altitudes reduce tire pressures. If a tire is close to its low pressure, an alert can be sounded **when the pressure drops overnight** due to the cooler temperatures. To correct this problem, remove Sensor and inflate tire to its manufacturer specified pressure in the morning while the tires are still cold. Make sure Sensor is off of the stem for at least 60 seconds to allow Sensor to “reset”; then screw back on.

A visual inspection of tires on a regular basis is recommended. PressurePro does not PREVENT low tire pressure – but it can alert if tire pressure becomes low, allowing corrective action to be taken. A damaged Sensor or valve stem can cause pressure loss. Inspect regularly. If repeated faults are observed, discontinue use of the system and contact your Dealer/Distributor.

PressurePro cannot prevent tire/wheel overload. Overloading any tire is EXTREMELY dangerous and can cause failure of ANY SUSPENSION COMPONENT, not just tires. The ONLY way to detect overloading is to weigh the vehicle. A vehicle should NEVER be operated if the weight on ANY wheel is greater than the design specifications! Even a correctly inflated tire can fail if overloaded.

Tires can fail for other reasons besides low pressure or overloading. Always be on the alert for any OTHER tire problems as indicated by unusual noises, vibration, uneven tread wear, or bulges on the tire. If any of these symptoms occur, have the tires checked IMMEDIATELY by a professional.

VALVE STEM AND EXTENSION SUGGESTIONS

- PressurePro recommends the use of metal valve stems in conjunction with PressurePro Sensors.
- PressurePro recommends the use of fastener brackets to anchor valve stem extensions. Extensions add length and weight, adding greater centrifugal forces and putting added stress on the stem. When using PressurePro Sensors with an extension on the valve stem, securing the stem to prevent vibration and movement is important for safety.
- PressurePro recommends regular maintenance and upkeep on all valve stems, and replacement of older stems.

TESTING SIGNAL STRENGTH

TO SEE SENSOR PACKET COUNTS

1. Press “PROG” button until flashing green power light turns solid (5 sec.) then release. You are in Program Mode.
2. Use the UP or DOWN ARROWS to select a tire location with a Sensor. Monitor will display three dashes (---). Hold ‘SET’ button down until a number appears on the display, then release the button. The display will go blank With release of the 'SET' button - unit will change to **DIAGNOSTIC DISPLAY MODE**.
3. Scroll to tire locations with UP & DOWN arrows. The number displayed for each tire location is the current transmission packet count for that selected tire (00. to 255 at which time it rolls over and begins again).
4. **Note** - while in diagnostic mode, entry into programming mode and delete functions is disabled.

TO GET TO SIGNAL STRENGTH TESTING

1. Press and hold the “PROG” button to change the diagnostic display contents from packet counts to the background “signal” level. While holding the “PROG” button, 3 digits will appear. The left two digits indicate the RF ‘noise level’ the Monitor is experiencing at that time, and the right-hand digit display which shows as “A” (meaning Ambient). This tells you how much RF interference is present at that time and location. Levels over 5 can be considered 'noisy' and will make it more difficult to receive Sensor packets. The lower the number, the less interference. Once the “PROG” button is released, the **SIGNAL LEVEL STATUS** of the Sensor selected is displayed.
2. Signal strength of 1 or 2 is marginal reception; some signals will not be received. Signal strength above 4 is good. Average signal strength is 5 to 6.
3. The Monitor will pick up transmissions from both the Sensor on the tire and from the Echo Repeater. If the transmission is from the Echo Repeater, the reading could come in with a decimal point between the signal strength reading and temperature reading. For example, a signal strength reading of 5, coming from an Echo Repeater, with a temperature reading of 4 would appear as 5.4. If the signal is a Sensor strength signal, it would read as 54 (with no decimal).
4. The toggle sequence between packet counts and signal level can be repeated as desired with each press of “PROG”. Toggle sequence is:
 - a. Packet count (decimal point).
 - b. Background noise level while “PROG” held.
 - c. Sensor signal strength (no decimal point) or repeater signal strength (second decimal point) depending which was the last signal to be received for that programmed Sensor.
 - d. Background noise level while “PROG” held.
 - e. Cycle repeats.
5. Pressing “SET” at any time cancels diagnostic mode.

TEMPERATURE

When in **DIAGNOSTIC DISPLAY MODE**, (see above – Testing Signal Strength) the left two digits give an indication of the RF signal strength level *above* the background ‘noise’ level - measured during the latest packet. The right-most digit is the temperature code received from the sensor. 0= -58 to -22°F; 1= -22 to 14°F; 2 = 14 to 59°F; 3= 50 to 86°F; 4= 86 to 122°F; 5= 122 to 158°F; 6= 158 to 194°F; 7 = 194 to 230°F (Sensor melting range).

RANDOM RED SENSOR-LOCATION LIGHTS

On rare occasion you might notice your Monitor displays a solid red light at a specific location. If you scroll to that location it will display 3 dashes (---), emit an audible beep and commence a slow blinking of the tire’s depicted location light. This event occurs when there has been interference or your Sensor is in a poor rotational pathway, and your Sensor’s signal has been blocked from your Monitor. As with all devices utilizing radio frequency (RF), interference is normal and can be expected from time to time. If this event happens frequently however, you need to check your Sensor’s signal strength.

Note: PressurePro Sensors take a sample of your tire pressure every 7 seconds, and report new Update Pressure readings to your Monitor every 5 minutes. Sensors send Update signals through short bursts. If at any time your pressure hits a low or high pressure alert level, it will override the 5 minute Update alert and timing, and send a reading immediately to your Monitor. A Low Pressure Alert Transmission differs from regular update alerts in that it sends a longer, stronger RF transmission that emits continuously while the wheel rotates a number of times. This stronger and longer transmission helps assure that an Alert Signal will be received, even through most interference.

If inconvenienced by the red light indicators or dashes (---), the use of our optional “Extended Antenna Kit” or our “Echo Repeater” should be considered.

TIPS

VEHICLE STORAGE: If storing your vehicle for extended periods, remove the Sensors. Mark each Sensor’s location so it can be replaced on the same tire location from where it was removed (eliminating the need for reprogramming). When putting the system back on, power up Monitor first, next screw Sensors onto their original wheel locations. Pressure readings will display on Monitor (can take up to 1 minute for new readings to report). PressurePro system is now active.

CAUTIONS: (1) Know the general condition of tires before moving the vehicle. Running on deflated tires can ruin a tire. (2) The 2/3 oz. Sensor, on a typical RV or large truck, *normally* will not require the tire be rebalanced. Smaller tires may require rebalancing. (3) It is important to make sure valve stems are in good condition.

REMOTE ANTENNA FOR UNIQUE APPLICATIONS: Due to the unique features of RF signals and the construction and interference from electronics on some vehicles, an Optional Antenna Kit or Echo Repeater may be needed. Contact your Dealer/Distributor.

RESETTING BASELINE PRESSURE: PressurePro Sensors adjust automatically to the pressure in a tire when the Sensor is screwed onto the valve stem. **Removing the Sensor from the valve stem for 60 seconds will “blank” the old reading and allow the Sensor to accept a new BASELINE pressure reading when screwed back onto the valve stem.** The Sensor uses the new pressure as its “Baseline” point from which to trigger a low-pressure alert.

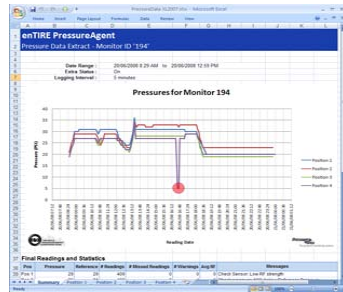
3 DASHES (- - -): If unplugged or when powering off the Monitor, the Monitor retains all settings and displays 3 dashes (- - -) until Sensors send an updated reading within the normal 5 minute reporting period.

DATA LOGGING CAPABILITIES

PressurePro Monitors come standard with data logging capabilities. If your Monitor is powered, it is saving data sent from your Sensors. The data logging capabilities allow drivers to view a complete, time-stamped history of the performance of their tires when manually downloaded. Free reporting software is provided for PressurePro users by Vehicle Management Corporation, for acceptance of the saved data upon user demand. VMC's software, "enTire", allows you to simply connect your Monitor to a PC or laptop and request the data using the free software. Full instructions and software are available on PressurePro's website (www.advantagepressurepro.com) on the 'Customer Support' page.

Features and benefits of the data logging function

- Free reporting software
- Time stamped data
- Set logging interval from 1 to 99 minutes
- Can log up to 30 days of data for most configurations and logging intervals
- Displays data for each tire/sensor separately
- Summary report to view all system alerts during current logging period
- Data provided per each logging event
 1. Sensor SET of Reference pressure (which alerts are based upon)
 2. Pressure for each tire
 3. Tire temperature
 4. Signal strength from each position
 5. All alerts



What you can infer from the data

1. When vehicle starts moving.
2. When vehicle comes to stop for long periods of time (>15 minutes).
3. Dangerous operating conditions. Temperature is displayed at all times, specifically when the tire temperature has reached the danger zone of 100°C (>200°F). Tire rubber compounds begin to break down at these temperatures.
4. When a vehicle is in remote areas with little around them.
5. If proper cold pressures are being maintained.
6. When sensors are removed from tire and for how long.
7. When tire began to lose air, when it alarmed and how long it ran in an alert condition.
8. When data logger was turned off.
9. Validation of driver statements.

SPECIFICATIONS

SENSOR

Sensor Transmit Range	Approx. 300 feet (Line-of-Sight)
Operating Frequency	433.92 MHz FM
Operating Temperature Range	-40°C / -40F to +150°C / 302F
Sensor Weight	2/3 oz. or 17 grams
Sensor Dimensions	1.01" H x 1.11" Dia.
Sensor Batteries	Internal, non-rechargeable/not replaceable
Sensor Pressure Range	8 to 299 PSI 55 to 1999 kPa 1 to 20.3 BAR
Sensor Low Voltage Shutdown	2.2 Volts
Accuracy	+/- 3% range up to 120 PSI +/- 5% from 120 PSI up

MONITOR

Monitor Power Requirements	12VDC; typically draws 125 mA in standby. Less than 250mA with LEDs on.
Monitor Dimensions	6.5" W x 3.0" H x 0.5" D
Monitor Weight	4 oz.
Monitor Power Cord Plug Type	USB Mini B – 8 ft. cord
Monitor Tire Positions	1 to 64 wheel positions
Sensor Alarm Trigger Settings	12.5% and 25% below the original tire inflation level; upper alert set at 24%, variable by user from 10% to 45%
J1708 Capable	Intelligent Monitor/Bridge/Repeater
RS232 Capable	All standard Monitors
J1939 Capable	CANbus
J2497	PLC for trucks

US Letter Patent # 6,453,737

PressurePro systems comply with Part 15, Class B of the FCC Rules.

Products using RF signals are subject to interference causing a loss of signal. Reception depends on the environment and conditions present at the time of use. PressurePro is a device meant for displaying tire pressures and has been designed to be as reliable as possible with the use of RF transmissions. There is no guarantee of signal reception. 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. PressurePro is a device meant for displaying tire pressures.

LIMITED WARRANTY

ONE YEAR LIMITED WARRANTY: Subject to the limitations and exclusions set forth in this Limited Warranty, PressurePro is warranted by Advantage PressurePro, LLC (hereinafter "APP") against defects in material or workmanship that result in a product failure during the one-year period following the date of purchase. This Limited Warranty applies only to claims made by the original end user (hereinafter "you") and cannot be assigned, transferred or conveyed to any subsequent users.

EXCLUSIONS FROM COVERAGE: This Warranty does not apply to any claims arising from misuse, abuse, unauthorized repair or alteration, circumstances where PressurePro is improperly installed or improperly wired contrary to PressurePro product instructions; or damage or defect attributable to fire or other casualty, including, without limitation, acts of God or exposure to abrasive or corrosive materials or pollutants, or attributable to collision or other accidents involving vehicles upon which the PressurePro is installed. Removal or alteration of labels voids product Warranty. Only PressurePro accessories may be used with PressurePro products. The use of other accessories with PressurePro product is prohibited and can damage the PressurePro product. Warranty problems caused by use of accessories not supplied by APP will not be covered under the warranty.

LIMITATIONS: APP expressly limits the applicability of the implied warranty of merchantability and the implied warranty of fitness for a particular purpose to the one-year warranty period as provided herein. Some states don't allow limitations on how long an implied warranty lasts, so the above limitation may not apply.

To the extent permitted by state law, the remedy of repair or replacement discussed below is the sole remedy available to the end user under this Limited Warranty. **THIS LIMITED WARRANTY SPECIFICALLY EXCLUDES ALL INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.** To the extent permitted by state law, APP's liability for PressurePro will not exceed the purchase price paid for the product.

NOTICE: This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

EXCLUSIVE AGREEMENT: To the extent permitted by state law, this One Year Limited Warranty is a complete and exclusive statement of the warranties, which apply to the PressurePro; there are no express or implied warranties beyond those expressly stated above. No employee, agent, dealer or other person is authorized to give any warranties on behalf of the APP, except as authorized in writing.

STATUTE OF LIMITATIONS: To the extent permitted by state law, in purchasing the PressurePro you agree that any action for breach of contract or warranty must be commenced within one year after the cause of action has accrued.

PROCEDURE: In the event that a product failure covered by this warranty occurs while this warranty is in effect, APP will, at its option, either: (a) repair the defective unit; (b) replace the defective unit with a new unit; or (c) replace the defective unit with a refurbished unit. APP will ship your repaired, new, or refurbished unit to you without charge for parts, service, or any other cost (except shipping and handling) incurred by APP or its representatives in connection with the performance of this warranty. Failed units covered under this warranty must be sent by you to APP with shipping prepaid by you. You are responsible for all costs incurred in the removal, reinstallation, and shipping of the unit. A copy of the sales slip received by you at the point of purchase of the unit must accompany the returned unit. Call APP for Warranty Return Authorization.

TIRE PRESSURE MONITORING SYSTEM



CORPORATE OFFICES:

ADVANTAGE PRESSUREPRO, LLC
205 W. WALL STREET; HARRISONVILLE, MO 64701
TEL: 816-887-3505 FAX: 816-887-3705
Website: www.advantagepressurepro.com

FOR ORDERING OR TECHNICAL ASSISTANCE, CONTACT YOUR DEALER.

WARRANTY AUTHORIZATION:

FOR RETURN AUTHORIZATION ON WARRANTY ISSUES
CALL PRESSUREPRO TOLL FREE AT: 800-959-3505

IMPORTANT: To initiate your Warranty, please return your warranty card to PressurePro (address above) to register and activate your warranty. Customers must retain their original purchase receipt as a copy will be required for warranty or service work on your PressurePro product.

NORTH AMERICAN DISTRIBUTOR:

L&S SAFETY SOLUTIONS LLC
PO Box 20309 / Wickenburg, AZ 85358
800-521-6820 / 928-685-3558

Website: www.TirePressureMonitor.com

E-mail: techquest@tirepressuremonitor.com



Developed and Manufactured in the USA