A PRESSURE SYSTEMS INTERNATIONAL COMPANY

TST TRUCK SYSTEM TECHNOLOGIES

INSTALLATION MANUAL

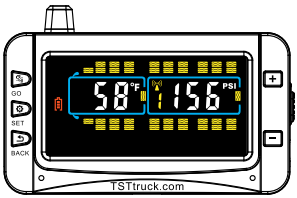
Wireless Tire Pressure and Temperature Monitoring System (TPMS)

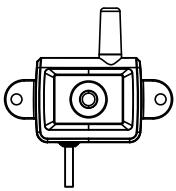
TST 507 Series Wide Screen Color Display & Repeater

(Compatible with all TST 507 Series Components)

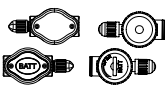
Thank you for purchasing a TST Tire Pressure Monitoring System (TPMS).
With minimal care, your new TPMS will provide reliable service for many years.
Please read and understand the information contained within this manual.

Keep this manual for future reference.





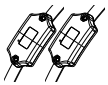
Compatible with all TST 507 Series Components:



Flow-Thru Sensors



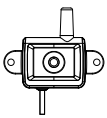
RV Cap Sensors



Internal Sensors



Hybrid Cap Sensors



Signal Repeater

CUSTOMER SUPPORT INFORMATION:

WEB: www.TSTtruck.com
EMAIL: support@TSTtruck.com
PHONE: (770) 889-9102
HOURS: Monday-Friday 9am-8pm, Saturday 9am-2pm (EST)

QUICK INSTALLATION INSTRUCTIONS

These QUICK INSTALLATION INSTRUCTIONS will get you up and running. Please refer to the index in this manual for complete and detailed instructions and specifications for your TPMS product.

Set the following BEFORE PAIRING sensors:

PRESSURE UNITS

Note: Default setting is PSI.

To change the Pressure Unit, press and hold SET until it beeps. Press + three (3) times and **SET** will appear at the bottom of the screen and **BAR** and **PSI** will be blinking on the screen. Press and release SET again, then use + to select **BAR** or **PSI**. Press SET again to save. Press and release BACK to go to the Main Screen.

TEMPERATURE UNITS

Note: Default setting is °F.

To change the Temperature Unit, press and hold SET until it beeps. Press + four (4) times and **SET** will appear at the bottom of the screen and **°F** and **°C** will be blinking on the screen. Press and release SET again, then use + to select **°F** or **°C**. Press and release SET again to save. Press and release BACK to go to the Main Screen.

HIGH TEMPERATURE ALARM

Note: Default setting is 158°F (70° C).

We recommend that you do not change the temperature alarm setting.

To set the High Temperature Alarm, press and hold SET until it beeps. Press + twice and **HI TEMP SET** will appear. Press and release SET again, then use + or - to adjust the High Temperature Alarm, if desired. Press and release SET to save. Press and release BACK to go to the Main Screen.

LOW PRESSURE ALARM

To set up the Low Pressure Alarm, press and hold SET until it beeps. Press + once and **LOW PRESSURE SET** will appear. Press and release SET, then press and release GO to select the appropriate axle. Press + or - to adjust the Low Pressure Alarm 10% below your normal tire pressure for that axle. Press and release GO to move to the next axle. For a trailer setup, see page 6.*

Note: Follow your tire manufacturers recommended cold tire pressure setting for each tire of your Vehicle/Trailer/RV. Tire pressure data charts are available on your tire manufactures website. The low tire pressure alarm should be set approximately 10% below that setting. The weight on each individual wheel can be determined by fully loading your vehicle/Trailer/RV as it would be for a trip and having each wheel position weighed individually.

QUICK INSTALLATION INSTRUCTIONS

HIGH PRESSURE ALARM

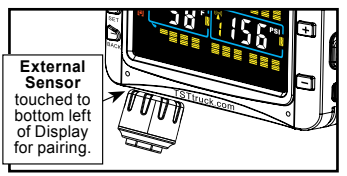
To set up the High Pressure Alarm, press and hold [SET] until it beeps. HI PRESSURE SET will appear at the bottom of the screen. Press and release [SET], then press and release [GO] to select the appropriate axle. Press [+] or [-] to adjust the High Pressure Alarm. Press and release [GO] to move to the next axle. When finished setting each axle, press and release [SET] to save. Press and release [BACK] to go to the Main Screen. For a trailer setup, see below.*

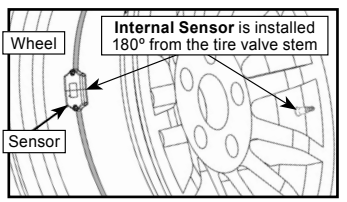
Note: Tire pressure data charts are available on your tire manufactures website. The high tire pressure alarm should be set approximately 25% above that setting. The weight on each individual wheel can be determined by fully loading your vehicle/Trailer/RV as it would be for a trip and having each wheel position weighed individually. For a trailer setup, see page 6.*

Power ON the display. The ON/OFF switch is on the right side of the display.

PROGRAM SENSORS TO DISPLAY

1. Press and hold [SET] until it beeps. Display is now in programming mode. The words **HI PRESSURE SET** will appear at the bottom of the screen. Press [+] 5 times to scroll through the parameters until **LEARN ID** appears.
2. Press and release [SET]. The first tire on the display will blink. Press [+] to move to the desired tire position. Press and release [SET] again and **FFF FFF** will blink. **Touch the desired sensor for that tire position to the bottom left side of the Display. For Internal Sensors hold the Display near the sensor for that tire position. See diagrams at right.** Press and release [GO]. **ID LF** will appear on the screen, then the 6 digit sensor ID code will appear. Press and release [SET] to save the code to that tire position. When coded correctly, a six (6) digit unique code will be displayed (you may record this code by wheel position using the Sensor Code Diagram on Page 3).





3. Use [+] to move to the next tire position to be programmed. Repeat Step 2 until all sensors have been programmed.
4. When complete, press and release [BACK] twice to return to the main screen. (Flow Thru and RV Cap sensors will begin reading **0** pressure and an alarm will sound. This is part of the normal setup process. Press [+] to silence the alarm while continuing the setup. Internal sensors will start to read pressure after coded to display).

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SENSOR FEATURES

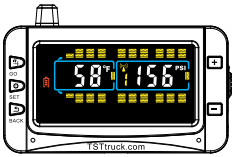
1. The sensors easily install on the valve stem, or came factory installed inside the wheel/tire assembly.
2. Sensors are water resistant.
3. Pressure and temperature data is read every 12 seconds and transmitted to the display every five (5) minutes unless your user programmable features are violated.
4. Removal of a sensor (0 PSI pressure) will shut off the sensor battery.
5. Cap and Flow-through sensor batteries last approximately one (1) year. Internal sensor batteries last approximately four (4) years depending on use.
6. Tire leaks and high temperatures are detected quickly.
7. With flow-through sensors, tires can be inflated without removing the sensor.
8. Each sensor has a unique, six (6) digit alpha numeric code for programming.

DISPLAY FEATURES

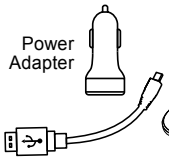
1. Large, wide screen LCD display.
2. Suction cup and cradle mount included.
3. Rechargeable internal lithium battery charges with provided USB power cord and adapter.
4. Automatic display dimming in dark conditions.
5. Programmable high and low pressure and temperature alarm parameters are configurable “by axle”.
6. Programmable high temperature alarm.
7. Visual, audible and textual warning alarms will alert you when pressure or temperature are out of user programmed parameters.
8. Tire pressure can be displayed in PSI or BAR.
9. Tire temperature can be displayed in °C or °F.
10. Will monitor up to four (4) trailers and a total of 115 tire positions including spares.
11. Tire pressure and temperature is displayed simultaneously for quick viewing of each tire.
12. When not in use, trailer and towing vehicle icons can be removed from the TPMS Display.
13. Simple, push-button programming.

SYSTEM COMPONENTS IN KIT

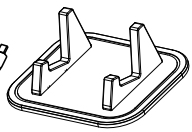
Display and Components

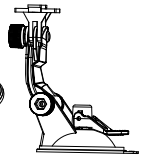


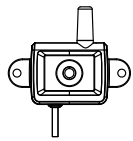
Color Display



USB Cable

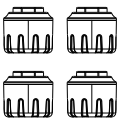

Cradle Mount

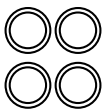

Suction Cup Mount


Repeater

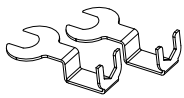
SYSTEM COMPATIBLE COMPONENTS

Cap Sensor Components (4 Sensor Kit shown)

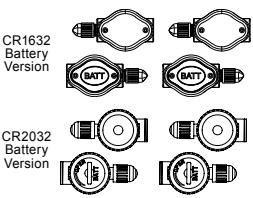

Cap Sensors


Extra “O” Rings

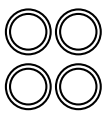

Hex Nuts

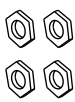

Cap Wrenches

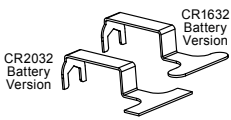
Flow-through Sensor Components (4 Sensor Kit shown)



Flow-through Sensors

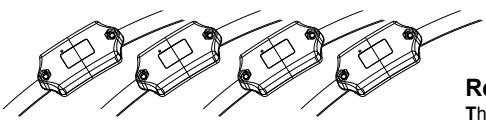

Extra “O” Rings


Hex Nuts



Flow-through Wrenches

Internal Sensor Components (4 Sensor Kit shown)


Internal Sensors & Band

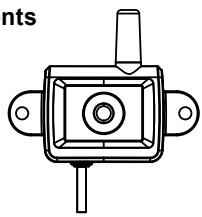
Hybrid Cap Sensor Components

(4 Sensor Kit shown)

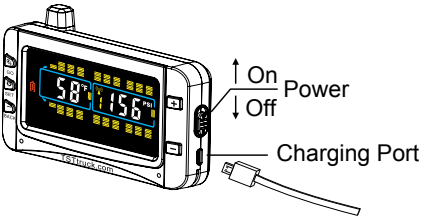

Hybrid/Marine
Cap Sensors

Repeater Components

The repeater is an integral component to your TPMS system.
Failure to install the repeater could void the warranty coverage.


Repeater

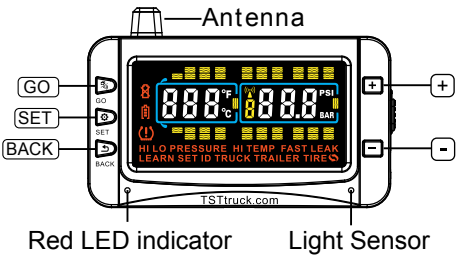
DISPLAY CONTROLS



Icon	Description
	Tire
	Warning
°F / °C	Temperature unit (Selectable)
BAR / PSI	Pressure unit (Selectable)
	Sensor low battery
	Display battery indicator
	Repeater active

There are five (5) programming buttons on the display. They are: GO, SET, BACK on the left side of the display and + and - on the right side of the display.

The power slide switch is located on the right side of the display. Slide it up to turn on the display. Slide it down to turn off the display.



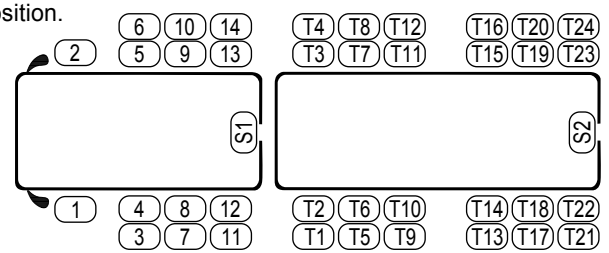
Note: The side power switch will not turn off the display when constant power is applied to the unit.

PROGRAMMING SENSOR CODES INTO THE DISPLAY

Note: **Flow-Thru / RV Cap Sensors:** After sensor is coded to the display and user returns to the Main Screen by pressing BACK twice, the alarm will sound and pressure will read “0” PSI. This is normal. Once the high/low settings are in place and set up is complete, these alarms will not sound. Simply press ANY button quickly to silence the alarm. Sensors will begin reading pressure when installed on the tire.

Internal Sensors: Sensors will begin reading as soon as they are coded into the display.

Note: It is recommended to record each sensor code by position similar to the following pattern. This allows you to know which sensor is programmed to which tire position.



PARAMETER SETTINGS (Setting the sensor alarms)

Note: The factory default settings are:

Pressure Unit: PSI **Temperature Unit:** °F

High Pressure Alarm: 175 PSI **High Temperature Alarm:** 158°F (70°C)

Low Pressure Alarm: 100 PSI

Note: Be sure your display is ON and it is showing the Main Screen.

Set the following BEFORE PAIRING sensors:

PRESSURE UNITS

Note: Default setting is PSI.

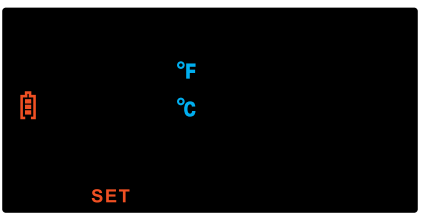
To change the Pressure Unit, press and hold [SET] until it beeps. Press [+] three (3) times and **SET** will appear at the bottom of the screen and **BAR** and **PSI** will be blinking on the screen. Press and release [SET] again, then use [+] to select **BAR** or **PSI**. Press [SET] again to save. Press and release [BACK] to go to the Main Screen.



TEMPERATURE UNITS

Note: Default setting is °F.

To change the Temperature Unit, press and hold [SET] until it beeps. Press [+] four (4) times and **SET** will appear at the bottom of the screen and **°F** and **°C** will be blinking on the screen. Press and release [SET] again, then use [+] to select **°F** or **°C**. Press and release [SET] again to save. Press and release [BACK] to go to the Main Screen.

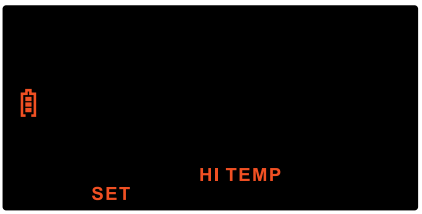


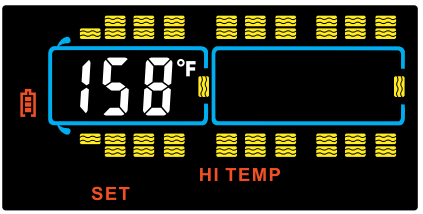
HIGH TEMPERATURE ALARM

Note: Default setting is 158°F (70° C).

We recommend that you <u>do not</u> change the temperature alarm setting.

To set the High Temperature Alarm, press and hold [SET] until it beeps. Press [+] twice and **<u>HI TEMP SET</u>** will appear. Press and release [SET] again, then use [+] or [-] to adjust the High Temperature Alarm, if desired. Press and release [SET] to save. Press and release [BACK] to go to the Main Screen.



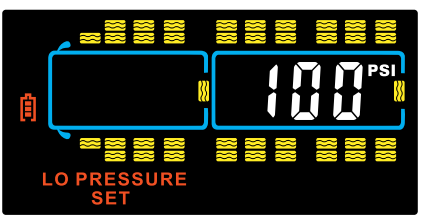


LOW PRESSURE ALARM

Note: <u>If the vehicle recommended tire pressure is below 100 PSI, the Low Pressure Alarm must be set first</u>. Then set the High Pressure Alarm. The High Pressure Alarm cannot go below the default Low Pressure Alarm of 100 PSI until the Low Pressure Alarm is reduced.

To set up the Low Pressure Alarm, press and hold [SET] until it beeps. Press [+] once and **<u>LOW PRESSURE SET</u>** will appear. Press and release [SET], then press and release [GO] to select the appropriate axle. Press [+] or [-] to adjust the Low Pressure Alarm 10% below your normal tire pressure for that axle. Press and release [GO] to move to the next axle. For a trailer setup, see page 6.*





Note: Follow your tire manufacturers recommended cold tire pressure setting for each tire of your Vehicle/Trailer/RV. Tire pressure data charts are available on your tire manufactures website. The low tire pressure alarm should be set approximately 10% below that setting. The weight on each individual wheel can be determined by fully loading your vehicle/Trailer/RV as it would be for a trip and having each wheel position weighed individually.

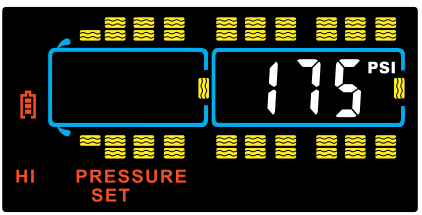
HIGH PRESSURE ALARM

Note: If the vehicle recommended tire pressure is below 100 PSI, the Low Pressure Alarm must be set first, then set the High Pressure Alarm. The High Pressure Alarm cannot go below the default Low Pressure Alarm of 100 PSI until the Low Pressure Alarm is reduced.

To set up the High Pressure Alarm, press and hold [SET] until it beeps. HI PRESSURE SET will appear at the bottom of the screen. Press and release [SET], then press and release [GO] to select the appropriate axle. Press [+] or [-] to adjust the High Pressure Alarm. Press and release [GO] to move to the next axle. When finished setting each axle, press and release [SET] to save. Press and release [BACK] 2 times to go to the Main Screen. For a trailer setup, see below.*

Note: Tire pressure data charts are available on your tire manufactures website. The high tire pressure alarm should be set approximately 25% above that setting. The weight on each individual wheel can be determined by fully loading your vehicle/Trailer/RV as it would be for a trip and having each wheel position weighed individually.





* Trailer Setup

Up to four trailers can be configured to a single display. When you get to the trailer section of the display, all the trailer axles on that section will flash in groups of three. You can set the High & Low Pressure Alarms for that group. Press and release [GO] to move to the next group or the next trailer. The trailer number will appear in the middle of the screen (#1 to #4). Press and release [SET] to save settings. Press and release [BACK] to return to the Main Screen.

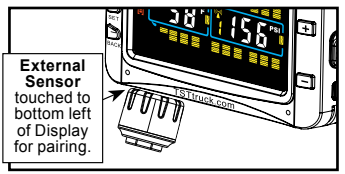
AUTOMATIC CODE LEARNING (OPTION #1)

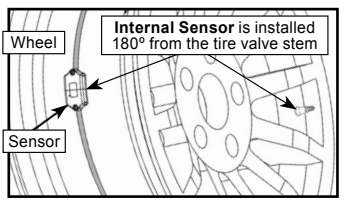
Note: Code all the sensors to the display BEFORE screwing them on to the tire valve stem unless otherwise noted.

Power ON the display. The ON/OFF switch is on the right side of the display.

PROGRAM SENSORS TO DISPLAY

1. Press and hold (SET) until it beeps. Display is now in programming mode. The words **HI PRESSURE SET** will appear at the bottom of the screen. Press (+) 5 times to scroll through the parameters until **LEARN ID** appears.
2. Press and release (SET). The first tire on the display will blink. Press (+) to move to the desired tire position. Press and release (SET) again and **FFF FFF** will blink. **Touch the desired sensor for that tire position to the bottom left side of the Display. For Internal Sensors hold the Display near the sensor for that tire position. See diagrams at right.** Press and release (GO). **ID LF** will appear on the screen, then the 6 digit sensor ID code will appear. Press and release (SET) to save the code to that tire position. When coded correctly, a six (6) digit unique code will be displayed (you may record this code by wheel position using the Sensor Code Diagram on Page 3).





3. Use (+) to move to the next tire position to be programmed. Repeat Step 2 until all sensors have been programmed.
4. When complete, press and release (BACK) twice to return to the main screen. (The sensors will begin reading **0** pressure and an alarm will sound. This is part of the normal setup process. Press (+) to silence the alarm while continuing the setup).

Note: To delete a single sensor code:

Press and hold the (SET) button until it beeps. Press the (+) button and scroll through the parameters until **LEARN ID** appears. Press and release the (SET) button. Use the (+) or (-) buttons to scroll to the tire you wish to remove. Press the (SET) button to select that tire. The sensor code will start flashing. Press and hold the (BACK) button for 3 seconds. You will hear 3 beeps. The code will change to **FFF FFF** which will be flashing. Press (SET) once. The flashing will stop and the ID code will be deleted. If you do not want to delete the code, press the (BACK) button.

AUTOMATIC CODE LEARNING (Option #1 continued)

Note: To delete all the tire sensor codes and start over:

To delete all the sensor codes when in the **LEARN ID** mode, press and release the (SET) button on any tire. Press and hold the (BACK) button. You will hear 3 quick beeps, a pause and then 6 beeps. **DEL ALL** will appear on the screen. Press (SET) once. **FFF FFF** will appear on the screen. All the sensor codes and tire icons are now deleted. This does not affect the parameters set in the display. Press (BACK) 2 times to go to the Main Screen.

Note: When in the coding mode, the display will time-out within approximately one (1) minute if no buttons are pressed. At that point, you will have to start the coding process again.

Note: Be sure to keep the sensors you are not currently coding 2-3 feet away from the display and the sensor you are now coding.

PRESSURE CODING (Option #2)

1. Be sure your sensors are numbered. Screw the sensors partly onto each valve stem in the order you numbered them. Do NOT screw them down far enough to hear air hissing out.
2. Press and hold (SET) until it beeps. You are now in the programming mode. The **HI PRESSURE SET** parameter will blink at the bottom of the screen. Press (+) and scroll through the parameters until **LEARN ID** appears.
3. Quickly press and release (SET). The first tire on the display will blink. If you want to program a different tire, press (+) to move to the correct tire. Press (SET) again and **FFF FFF** will flash.
4. Tighten the sensor down on the corresponding tire valve stem. The ID code will display and flash.
5. To save the ID code setting. Press (SET) once. It will beep and the sensor code is saved.
6. To remove the ID code setting, Press (BACK) once. **FFF FFF** will re-appear. The setting will not be saved.
7. Press (BACK) twice to return to the Main Screen when done.

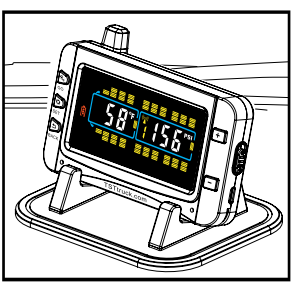
MANUAL CODING (Option #3)

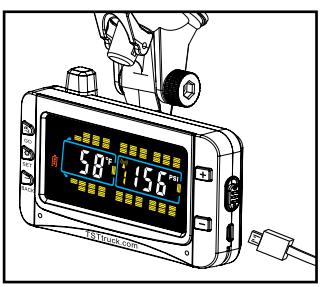
Note: This method is mainly used to program sensor codes from an old display to a new display if you do not have the sensors available. This method is not recommended for programming a new system.

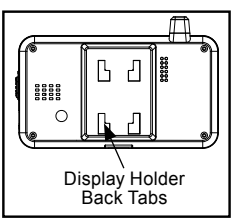
1. Press and hold SET until it beeps. You are now in the programming mode. The **HI PRESSURE SET** parameter will blink at the bottom of the screen. Press the + button 6 times. **SET ID** will appear at the bottom of the screen.
2. Quickly press and release SET. The first tire on the display will blink. If you want to program a different tire, press + to move to the correct tire. Press SET again and the first digit of **FFF FFF** will flash. Press + to select the correct number or letter. Press GO to move to the next position. Press + to change to the correct number or letter. Continue this procedure until all six digits are changed.
3. Press SET once to save the new codes. You will hear a beep and the code will stop flashing. Press + to move to the next tire position, if desired.
4. To stop the coding for any position, press BACK once. **FFF FFF** will reappear. No settings will be saved.
5. Press BACK twice to return to the Main Screen.

DISPLAY INSTALLATION

1. The provided suction cup mount can be used on the windshield, side window or directly on any smooth nonporous surface. Snap the mount into the back tabs on the display to use. Alternately, use the dash cradle to hold the display. Be sure you do not cover either hole on the displays' lower bezel with the cradle legs.
2. Plug the USB power cord into the provided 12v adapter then into the vehicles cigarette lighter/power port and finally into the side of the display to charge the internal lithium battery. Charge display for four (4) hours the first time. Unplug when battery is fully charged.





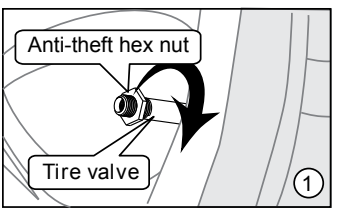


SENSOR INSTALLATION - FLOW-THROUGH SENSOR

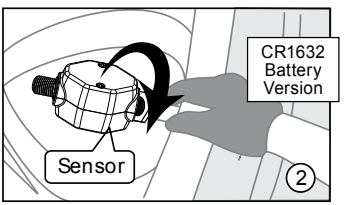
Note: We recommend these sensors only be used on <u>metal valve stems</u>.

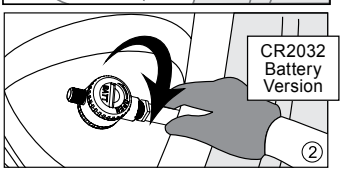
1. Screw the hex nut onto the valve stem threads until it bottoms out.
2. Screw the correctly marked sensor onto the valve stem for that tire position. Tighten the sensor until the air stops leaking and the sensor bottoms-out on the valve stem. Then give it a quarter turn more to seat it. <u>Do Not Over Tighten!</u>
3. Use your fingers to screw the hex nut up to the bottom of the sensor. Using the provided wrench, tighten the hex nut against the bottom of the sensor. This will prevent the sensor from being removed. Keep the wrench in a safe place for future use.
4. You can now inflate or deflate the tire through the 507FT sensor without removing it.

① Install the anti-theft hex nut onto the tire valve.

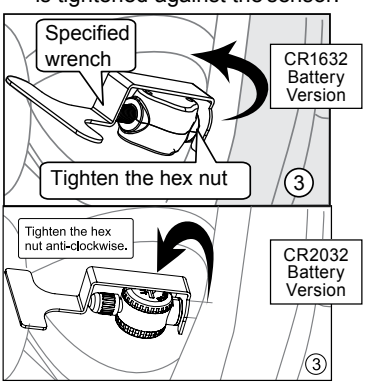


② Install the sensor onto the tire valve clockwise.

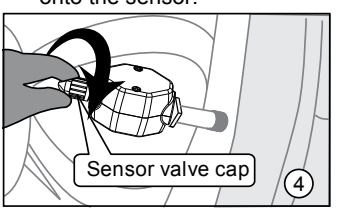




③ Tighten the anti-theft hex nut counterclockwise until the nut is tightened against the sensor.

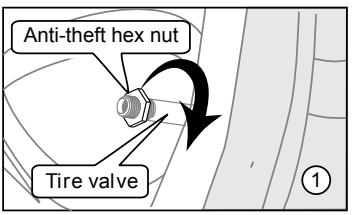


④ Install the sensor valve cap onto the sensor.

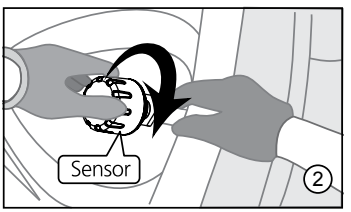


SENSOR INSTALLATION - CAP SENSOR

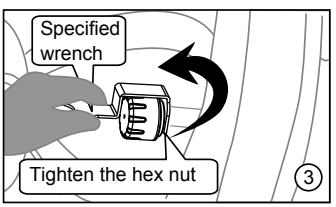
1. Screw the hex nut onto the valve stem threads until it bottoms out.
2. Screw the correctly marked sensor onto the valve stem for that tire position. Tighten the sensor until the air stops leaking and the sensor bottoms-out on the valve stem. Then give it a quarter turn more to seat it. Do Not Over Tighten!
3. Use your fingers to screw the hex nut up to the bottom of the sensor. Using the provided wrench, tighten the hex nut against the bottom of the sensor. This will prevent the sensor from being removed. Keep the wrench in a safe place for future use.
4. To inflate or deflate the tire, you must remove the cap sensor.



① Install the anti-theft hex nut onto the tire valve.



② Install the sensor onto the tire valve clockwise.



③ Tighten the anti-theft hex nut counterclockwise until the nut is tightened against the sensor.

RESTORE PARAMETERS TO FACTORY DEFAULT

First, turn off the display. Hold BACK and SET at the same time and turn the display back on. You will hear one beep. The display will power back on and original factory parameters will be restored. Tire codes will not be erased or changed.

DISPLAY ALERTS

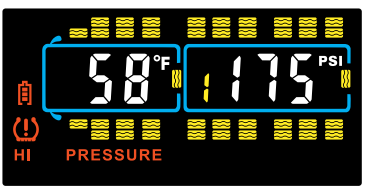
Out of Parameter Alert

The sensors send the tire pressure and temperature readings to the display every five (5) minutes. If a tire is outside of the parameters that were set at any time, the audible alarm will sound and the red LED light will immediately flash. The tire in question, pressure or temperature for that tire, and warning type will also flash. The audible alarm can be silenced for a short while by pressing any of the buttons on the front of the display. The red warning light will continue to flash until the pressure or temperature issue is resolved and brought back into your preset parameters.

High Pressure Alert

Example: High pressure threshold is 175 PSI.

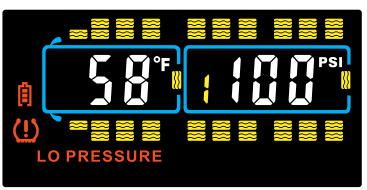
1. (!) & **HI PRESSURE** is displayed.
2. The tire pressure is too high.
3. Deflate the tire to the normal pressure.



Low Pressure Alert

Example: Low pressure threshold is 100 PSI.

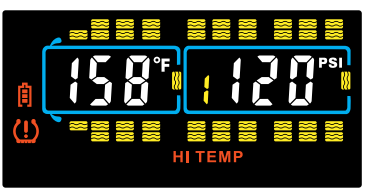
1. (!) & **LO PRESSURE** is displayed.
2. The tire pressure is too low.
3. Inflate the tire to the normal pressure.



High Temperature Alert

Example: High temperature threshold is 158°F

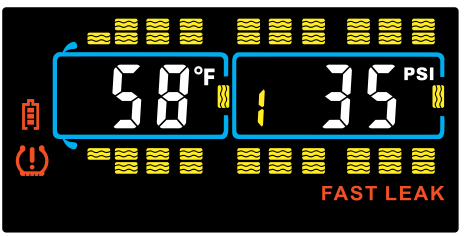
1. (!) & **HI TEMP** is displayed.
2. The tire temperature is too high.
3. Pull over to a safe location and assess the cause of the high temperature alert. If your tire pressure is low, this could be the cause.



DISPLAY ALERTS (continued)

Fast Leak Alert

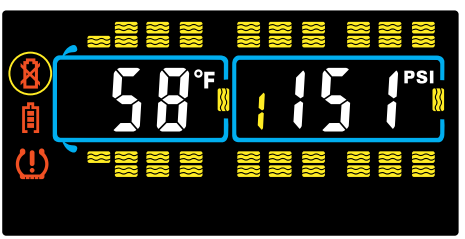
When a fast tire leak is detected (loss of 2 PSI or more in less than one minute), the sensor will send that data immediately to the display, the audible alarm will sound and the red LED light will immediately flash. The affected tire, pressure and temperature for that tire, and **FAST LEAK** will also flash. The audible alarm can be silenced for a short while by pressing any of the buttons on the front of the display. The red warning light will continue to flash until the pressure or temperature issue is resolved and brought back into your preset parameters.



Sensor Low Battery Alert

The sensor low battery indicator will display when the sensor battery is low. The affected tire will flash along with the pressure and temperature read-out and the and (!) symbols on the left side of the display. Replace with a new battery as soon as possible.

Note: This low battery alert will display for only a short time until the battery is exhausted. If you do not have the display on often, the indicator signal will be sent but not show on the display, since it was off. If your sensor is not reporting to the display, replace the battery.



OTHER FUNCTIONS

Normal Display Scrolling

The tire icons on the display will automatically scroll/cycle through, one by one. Each tire will be displayed for approximately 5-6 seconds. You can manually cycle through the displayed tires by pressing (+) or (-). The display will show the tire you choose for approximately 10 seconds before continuing to cycle.

Back-lighting and Motion Detection

The display is equipped with a light sensor and a motion sensor. The back-light will turn on when the vehicle is in motion and there is little ambient light. If the vehicle has stopped for a while and the display is on the internal battery, the display will "go to sleep" until the vehicle resumes motion.

Disconnecting and Reconnecting a Vehicle

When a towed vehicle is displayed on the screen and you want to temporarily remove it (example: leaving a trailer at a campground), momentarily press (GO) and (-), the trailer section of the display will disappear, the sensors on the trailer will not be read. To add the trailer back onto the display, again, momentarily press (GO) and (-) and the towed vehicle will reappear.

When a towing vehicle is displayed on the screen and you want to temporarily remove it (example: leaving a truck or car at a campground and using another vehicle to move the RV), momentarily press (GO) and (+) and the truck (towing) section of the display will disappear, the sensors on the towing vehicle will not be read. To add the truck (towing) section back onto the display, again, momentarily press (GO) and (+) and the towing vehicle will reappear.

Trailer Selection

Four different trailers with sensors can be programmed into the display and each trailer can be selected to be viewed on the screen and designated by numbers 1 to 4. On the Main Screen, press the (GO) button to select different trailers and trailer wheel groups you have programmed sensors to. Note that when in the High or Low Pressure areas, press (GO) to move through the four main axles, the front spare tire, the trailer 1 front - 3 axle group, the trailer 1 - rear axle group and spare, then to trailer 2, 3 and 4 with the same pattern. After trailer 4, the front steer axles will again highlight. Each flashing tire group on the trailer can have its own High or Low Pressure setting. If setting up one trailer or towed vehicle, be sure #1 is showing for all tires programmed to that trailer.

Charging the Display

The display is powered by a non-replaceable, lithium-ion battery. A battery level indicator is located on the left side of the display. When the indicator shows one bar, it is recommended you charge the display as soon as possible to avoid disruption when in use. It will take approximately four (4) hours to fully charge.

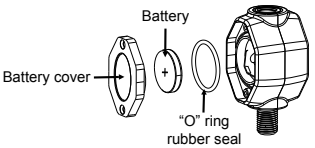
Do not keep a fully charged display plugged in constantly.

REPLACING THE FLOW-THROUGH SENSOR BATTERY (CR1632)

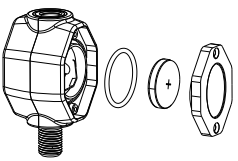
1. Remove the sensor from the metal valve stem.



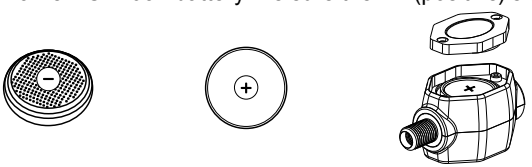
2. Using a #00 Phillip's screwdriver, remove the two screws from the battery cover on the side of the sensor. The "+" side of the battery can now be seen.



3. Remove the battery and check that the metal contact points in the sensor are not corroded. To clean the contact points, use a pencil easer and lightly rub the two metal battery contacts in the sensor.

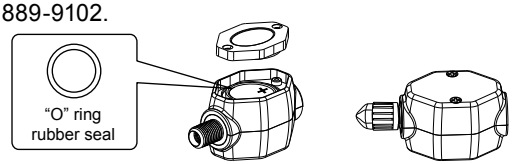


4. Replace with a new CR1632 battery. Be sure the "+" (positive) side is facing out.



Note: It is recommended that you check the voltage of the new battery before installation. It should read 3 volts or greater when new.

5. Replace the "O" ring that surrounds the battery compartment. Additional "O" rings are provided in your kit or can be purchased from TST by calling 770-889-9102.

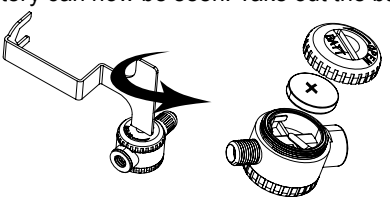


1. After the new battery and “O” ring installation replace the battery compartment cover and snugly tighten the two screws. Do not Over Tighten.
2. Screw the sensor on to the correct tire position.

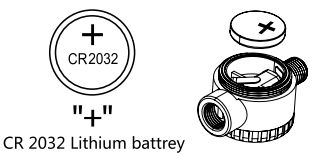
Note: Changing the battery in the sensor does NOT effect the sensor programming in the display. You will not have to reprogram the sensor into the display.

REPLACING THE FLOW-THROUGH SENSOR BATTERY (CR2032)

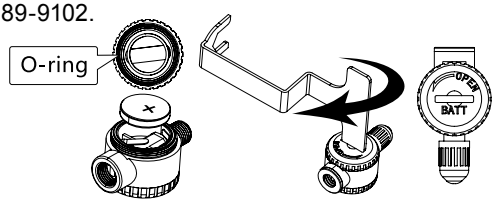
1. Remove the sensor from the metal valve stem.
2. Using the specified wrench, screw off the battery cover counterclockwise. The "+" side of the battery can now be seen. Take out the battery.



3. Replace with a new CR2032 battery. Be sure the “+” (positive) side is facing out.



4. Replace the “O” ring that surrounds the battery compartment. Additional “O” rings are provided in your kit or can be purchased from TST by calling 770-889-9102.

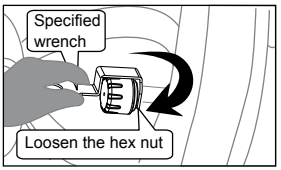


5. After the new battery and “O” ring installation replace the battery compartment cover screwing clockwise using the specified wrench. Do not Over Tighten.
6. Screw the sensor on to the correct tire position.

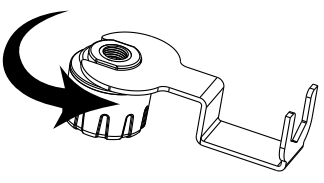
Note: Changing the battery in the sensor does NOT effect the sensor programming in the display. You will not have to reprogram the sensor into the display.

REPLACING THE CAP SENSOR BATTERY (CR2032)

1. Remove the sensor from the tire valve stem.



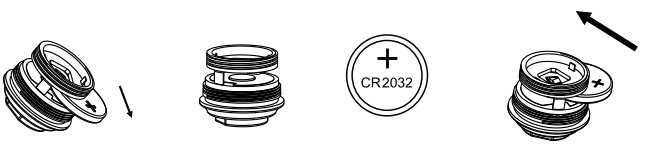
2. Use the specified wrench to open the sensor cap counterclockwise.



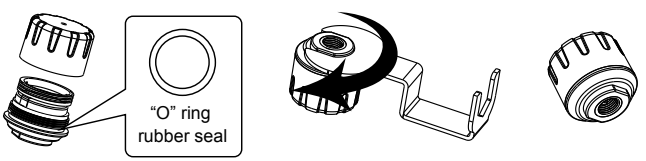


3. Slide the battery out of the cage sideways. Note that the (+) side is up. Replace with a new CR2032 battery.

Note: It is recommended that you check the voltage of the new battery before installation. It should read 3 volts or greater when new.



4. At this time replace the “O” ring at the base of the threads. Be sure it seated properly in it’s place.



Note: Changing the battery in the sensor does NOT effect the sensor programming in the display. You will not have to reprogram the sensor into the display.

ADDITIONAL FUNCTIONS

Swap Tire Sensor Positions

1. Press and hold SET until the display beeps and then release.
2. Press and release + 7 times until **TIRE** appears. Press SET.
3. Use + or - to select the tire sensor code you want to swap.
4. Press SET and then select the tire you want to swap the code to using the + or - buttons.
5. Press SET to move the sensor code to the new tire.
6. Press BACK twice to get back to the Main Screen.

Set ID Truck (Three Digit ID Identifier)

1. Press and hold SET until the display beeps, then release.
2. Press + 8 times until **SET ID TRUCK** appears.
3. Press SET to enter that mode.
4. Press SET again, the first digit will blink.
5. Use + or - to set the first digit. Press GO to move to the next digit.
6. Again, press + or - to select the next digit. Continue for the final (3rd) digit.
7. When done, press SET to save.
8. Press BACK twice to get back to the Main Screen.

Set ID Trailer (Three Digit ID Identifier)

1. Press and hold SET until the display beeps, then release.
2. Press + 9 times until **SET ID TRAILER** appears.
3. Press SET to enter that mode.
4. Press GO to select the trailer (1-4) to set the ID.
5. Press SET again, the first digit will blink.
6. Press GO to go to the first digit on the trailer section on the screen.
7. Use + or - to set the 1st digit. Press GO to select the next digit.
8. Continue for the final (3rd) digit.
9. Press SET to save the 3 digit code. To select the next trailer, press GO.
10. When done, press SET to save.
11. Press BACK twice to get back to the Main Screen.

TROUBLESHOOTING TIPS

- Label all of your sensors with the provided stickers first so you will know which sensor goes in which tire position.
- If a sensor is not allowing air to pass through it, or if the sensor is not reading, or reading a lower pressure, try unscrewing the valve core in the valve stem slowly until you hear air leaking a little. Stop unscrewing the core and screw it back in slightly, just enough to stop the air leak. This will allow more air to get to and through the sensor.
  CAUTION: Do not stand in front of the valve stem when performing this procedure with a valve core tool!
- It may take up to 15 minutes for the sensor data to appear on the display the first time you set up the system. Leave the display on until all sensor data appears. After the sensor data is received the first time, subsequent system use should only take minutes to acquire the sensor information.
- Do not over tighten the sensors on the valve stems. Make sure they are snug and be sure to tighten the hex lock nut to the bottom of the sensor.
- When done programming the Parameters into the display, remember to quickly press (SET) to save the Parameters. Press (BACK) twice to go back to the Main Screen.
- If your tire pressure is under 100 PSI, you will have to program the Low-Pressure alarm first and then program the High-Pressure alarm. The high pressure cannot go lower than the low-pressure setting, which defaults to 100 PSI.
- When the display is on and reading, you can press (+) or (-) to quickly scroll through the tires on your display. The automatic scrolling function will resume after 10 seconds when no buttons are pressed.
- If your display is plugged into a constant power source, the sliding power switch on the side will not function. To turn the display off, unplug the power supply and the switch will now operate.
- To extend the life of the sensor battery, remove the sensor from the valve stem when parked for an extended period of time. The internal pressure switch will shut the battery off. Note that, even though the battery is off, it will still degrade with time.
- If your sensor is not transmitting data to the display, try recoding the sensor to the same tire position. See Automatic Code Learning (Option #1) on page 7.

COMMON QUESTIONS

What do I do if my sensor is not reading?

1. Unscrew the sensor off the valve stem (just past the point where it leaks air), count quickly to 10 and then reinstall it. The sensors are pressure sensitive and will reset once reinstalled.
2. Replace the battery in the sensor. It is recommended that you check the voltage of the new battery before installation. It should read 3 volts or greater when new.
3. If it still does not read, try placing a working sensor from another tire on that valve stem. Keep in mind, the sensor you just moved will continue to read in its original tire position on the display. If that sensor does not read normally, you may have a valve stem problem. Try unscrewing the valve core as described above in the Troubleshooting Tips section. If the switched sensor reads normally, it may be a sensor issue. Call 770-889-9102 or go to the TST website at www.TSTtruck.com for more troubleshooting help.
4. If your sensor is not transmitting data to the display, try recoding the sensor to the same tire position. See Automatic Code Learning (Option #1) on page 7.

Why does my display sometimes "drop" sensor data from a tire position?

1. Ensure that the included repeater/signal booster is properly installed.
2. Be aware that an indoor/outdoor thermometer with an external temperature sensor may interfere with the TST TPMS. Temporarily remove all the batteries in the temperature display AND exterior temperature sensor and see if the problem is corrected. A thermometer with a higher frequency (915 MHZ) may be required. Atomic Clocks and Weather Stations can also cause interference and you may need to remove batteries from these devices as well.

Why does my display sometimes alarm while I am sitting still in the evening?

As night approaches and outdoor temperatures decrease, your tire pressures may drop below the parameters you have set, thus causing a low pressure alarm. When temperatures drop, turn your display off when not driving. As the air temperature rises the next day or as you start driving, the tires will heat up and come back into your parameters.

Why can't I set a lower pressure than 100 PSI for the High Pressure alarm?

The high-pressure alarm cannot go lower than the low-pressure alarm setting. If your tire pressure settings are below 100 PSI, you must first set the low- pressure alarm settings and then set the axles' high-pressure settings. When done, be sure to press and release [SET] to save all the parameter settings.

COMMON QUESTIONS (continued)

What conditions cause the display to alarm?

The display will alarm for the following reasons:

1. A rapid air loss (**FAST LEAK** at bottom of screen).
2. A low sensor battery (upper left battery icon flashes).
3. An overheating tire (**HIGH TEMP** at bottom of screen).
4. A high or low-pressure reading (be sure your parameters are set correctly).

In every instance, the tire Pressure and Temperature numbers will also flash when the tire with the problem blinks.

How do I remove my trailer from the display screen when I am not using it?

To electronically disconnect the trailer tire icons from the screen:

1. Momentarily press GO and - at the same time.
2. The trailer section on the display will disappear.
3. To electronically reconnect the trailer section, momentarily press GO and - again.

How do I remove my towing vehicle from the display screen when it is parked?

To electronically disconnect the towing vehicle tire icons from the screen:

1. Momentarily press GO and + at the same time.
2. The towing vehicle section on the display will disappear.
3. To electronically reconnect the towing vehicle section, momentarily press GO and + again.

How do I remove an unwanted tire icon from the display?

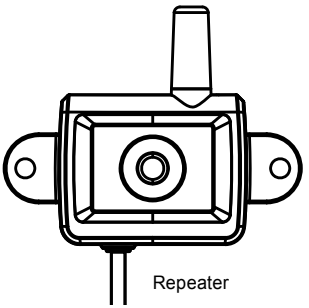
1. To delete a single sensor code:
2. Press and hold SET until it beeps. Press + and scroll through the parameters until **LEARN ID** appears. Press and release SET. Use the + or - buttons to scroll to the tire you wish to remove. Press SET to select that tire. The 6 digit code will start flashing. Press BACK until you hear 3 beeps. The code will change to **FFF FFF** which will be flashing. Press SET once. The flashing will stop and the ID code will be deleted. To cancel the function, press BACK. This will keep the original code.

Note: To delete all the sensor codes when in the **LEARN ID** mode, select any tire icon and press SET so the 6 digit code blinks. Press and hold BACK. You will hear 3 quick beeps, a pause and then 6 beeps. **DEL ALL** will appear on the screen. Press SET once. **FFF FFF** will appear on the screen. All the sensor codes and tire icons are now deleted. This does not affect the parameters set in the display. Press BACK 2 times to go to the Main Screen.

REPEATER

The repeater is an integral component to your TPMS system.
Failure to install the repeater could void the warranty coverage.

1. The repeater is used to strengthen/amplify the sensor signal to the display. A repeater is packaged with this system.
2. The repeater is wired to a 12V source that will be constant while driving.
3. The repeater comes with two wires, one red (+) and one black (-). Simply connect the red wire to a positive source and black wire to a ground or negative source.
4. The repeater is weather resistant. No additional setup is needed for the repeater.



Repeater

Motorhome Installation

We recommend installing the repeater in one of the rear basement compartments where there is a 12v power source. Mount the unit inside the bay but against the outer wall. Do not put the repeater in the engine compartment because of excessive heat. Do not put the repeater in the rear closet because the metal in the mirror will block the signal.

5th Wheel Installation

We recommend installing the repeater in or near the battery compartment under the front overhang. Mount it with hook & loop fastener or two-sided tape to the inner, exterior wall. An alternate mounting place is on the top of the pin-box. Use industrial two-sided tape and mount the repeater on the upper slope of the pin-box. Connect the positive lead to the break-away switch (which has 12v power while driving). Ground the negative lead to complete the circuit.

Travel Trailer Installation

We recommend installing the repeater in the battery box on the front of the trailer. If the battery box is metal, connect the lines to the battery, then run the lines outside of the box and mount on the side of the battery box or the front tongue of the travel trailer.

Note: The red light on the repeater will illuminate “constant or blinking” (the repeater will illuminate with a constant light when power is applied, once the display is on and the sensors are reporting. The light will blink occasionally when transmitting information to the display).

If the light is not on, check your connections, source power or the in-line fuse on the positive lead of the repeater for issues.

SPECIFICATIONS

Sensor Specifications

Temperature Operating Range	-40°F - 176°F / -40°C - 80°C (Internal) -40°F - 230°F / -40°C - 110°C
Storage Temperature Range	-40°F - 185°F / -40°C - 85°C (Internal) -40°F - 248°F / -40°C - 120°C
Pressure Range	1-218 PSI / 1-15 BAR 1-188 PSI / 1-13 BAR
Pressure Accuracy Range (with a digital gauge)	±1.5 PSI / ±0.1 BAR
Temperature Accuracy Range	± 3°F
Transmission Power	<10 dBm
Transmission Frequency	433.92 MHz
Approximate Battery Life	1-1.5 years (up to 4 years for Internal)
Physical Sensor Size - Flow-Thru (CR1632)	2.2'' (L) x 1" (W) x 0.9" (H) 52 (L) x 26 (W) x 23.5 (H) mm
Physical Sensor Size - Flow-Thru (CR2032)	1.7'' (L) x 1" (W) x 0.94" (H) 42.6 (L) x 26.8 (W) x 24 (H) mm
Physical Sensor Size - Cap	0.96'' (D) x 0.91" (H) 24.4 (D) x 23.1 (H) mm
Physical Sensor Size - Internal	2.64” (L) x 1.26” (W) x 0.70” (H) 67 (L) x 32 (W) x 18 (H) mm
Physical Sensor Size - Hybrid Cap	1.16” (D) x 1.02 “ (H) 29.5 (D) x 26 (H) mm
Sensor Weight - Flow-Thru (CR1632)	0.77 oz. / 22 grams
Sensor Weight - Flow-Thru (CR2032)	0.99 oz. / 28 grams
Sensor Weight - Cap	0.59 oz. / 16.8 grams
Sensor Weight - Internal	1.38 oz. / 39 grams
Sensor Weight - Hybrid Cap	0.88 oz. / 25 grams

Display Specifications

Temperature Operating Range	-4°F - 176°F / -20°C - 80°C
Storage Temperature Range	-22°F - 185°F / -30°C - 85°C
Display Input Voltage	5~24V DC
Frequency	433.92 MHz
Size	4.6'' (L) x 2.99" (W) X 1.06" (D) 117(L) X 76 (W) X 27 (D) mm
Display Weight	4.4 oz. / 125 grams

A PRESSURE SYSTEMS INTERNATIONAL COMPANY

TST

TRUCK SYSTEM TECHNOLOGIES

COLOR DISPLAY w/REPEATER

Designed for RVs, Motorhomes, Trucks, Vans and Trailers -- Cargo, Agriculture & More!



INCLUDED COMPONENTS

1 Display | Suction Cup & Dash Mount | Repeater | Installation Components

EASY INSTALLATION

FOR USE WITH TST 507 SERIES TIRE PRESSURE MONITORING SYSTEMS

DISCLAIMER

This system is designed to monitor air pressure and temperature within the tire. It is only for added information and not meant to replace regular tire maintenance and reasonable care when operating a motor vehicle. The system cannot prevent accidents nor will TST be responsible for damage or injury due to (a) improper use, (b) failure to follow the product instructions or to perform any preventative maintenance, (c) unauthorized repair or modifications, (d) use of products beyond their useful life, or (e) external causes such as accidents, abuse, road hazards, or other actions or events beyond TST's reasonable control.

www.TSTtruck.com **support@TSTtruck.com** **(770) 889-9102**

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