P.S.I.
PRESSURE SYSTEMS INTERNATIONAL

INSTALLATION & MAINTENANCE MANUAL

Tire Pressure Monitoring Systems for Commercial Vehicles

TireView® TPMS

TireView® by P.S.I.
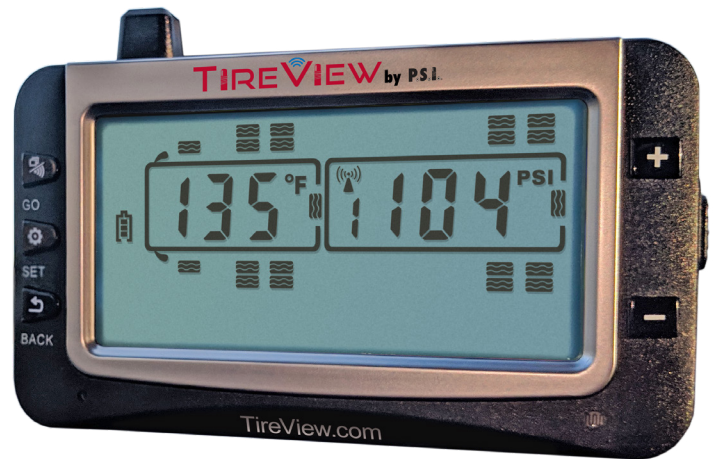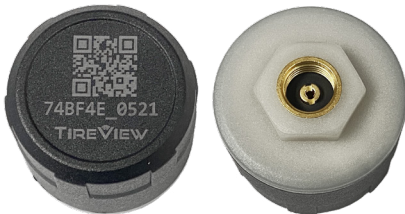
www.psitireinflation.com

TireView® TPMS Installation Manual
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Record of Revisions

Revision Number	Revision Date	By
A	May 28, 2019	Jana
B	June 25, 2019	CS
C	February 18, 2020	CS
D	May 15, 2020	CS
E	October 1, 2020	CS
F	October 1, 2021	CS

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About this Manual

This manual provides installation and maintenance procedures for TireView® TPMS by P.S.I. Use the procedures in this manual to install the system on commercial vehicles.

Before You Begin

⚠️ **CAUTION:** DO NOT PERFORM UNAUTHORIZED MAINTENANCE OR REPAIR PROCEDURES, OR INSTALL NON-P.S.I.® COMPONENTS ON ANY P.S.I. ® SYSTEM. THIS CAN VOID THE WARRANTY.

1. Read and understand all instructions and procedures before service to components begins.

2. Read and observe all Warning and Caution alert messages in this publication. They provide information that can prevent personal injury, damage to components, or both.

3. Follow the P.S.I. installation, maintenance, service, and troubleshooting guidelines.

4. Use special tools, when required, to avoid personal injury and damage to components.

Hazard Alert Messages and Torque Symbols

⚠️ **WARNING:**

A Warning alerts the technician to an instruction or procedure that must be followed to avoid personal injury and damage to components.

⚠️ **CAUTION:**

A Caution alerts the technician to an instruction or procedure that must be followed to avoid damage to components.

🅣 **TORQUE REQUIRED:**

The torque symbol alerts the technician to tighten fasteners to a specified torque value.

Additional Information

Visit the Resource section at www.psitireinflation.com to access and request additional information.

Call P.S.I.® at 210.222.1926 (United States and Canada) or email *info@psitireinflation.com* or *techsupport@psitireinflation.com*.

Introduction

The P.S.I.® TireView® Tire Pressure Monitoring System (TPMS) is designed to monitor air pressure and temperature in the tire. It is only for added safety and not meant to replace regular tire maintenance and exercise of reasonable care when operating a motor vehicle.

The system cannot prevent accidents nor will P.S.I.® be responsible for damage or injury due to (a) improper use,(b) failure to follow the product manufacturer's instructions or to perform preventative maintenance, (c) unauthorized repair or modifications, (d) use of products beyond their useful life, or (e) external causes such as accidents, abuse, or other actions or events outside of P.S.I.® control.

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System Components
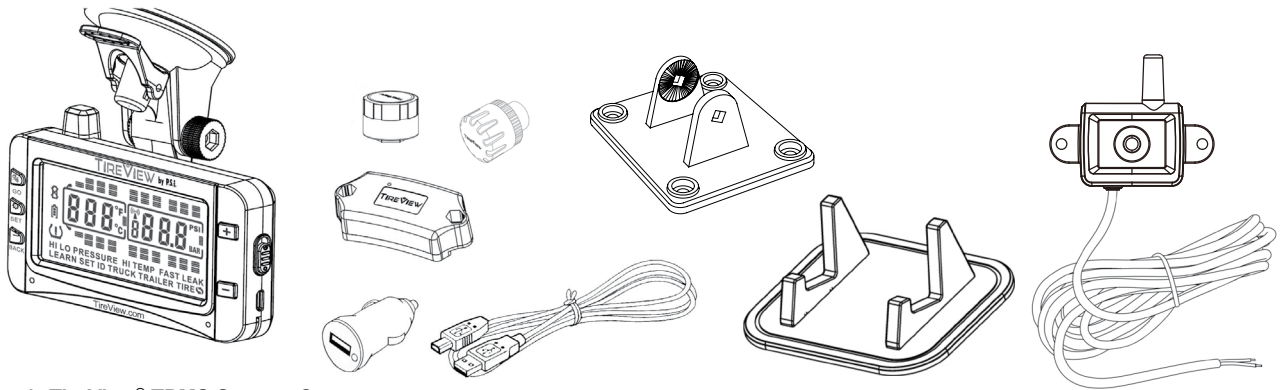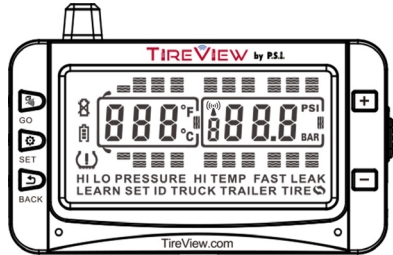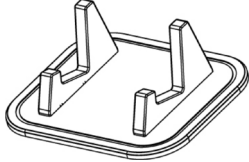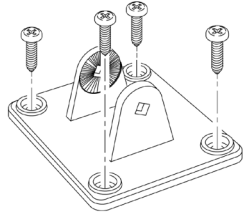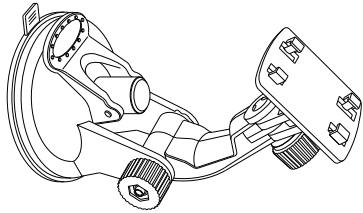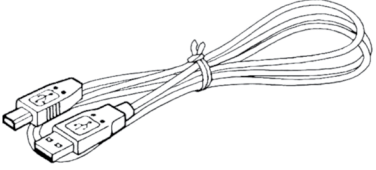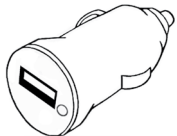
Figure 1: TireView® TPMS System Components
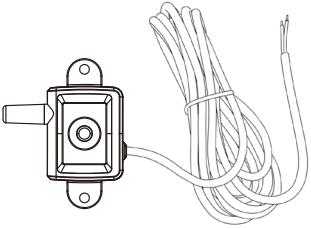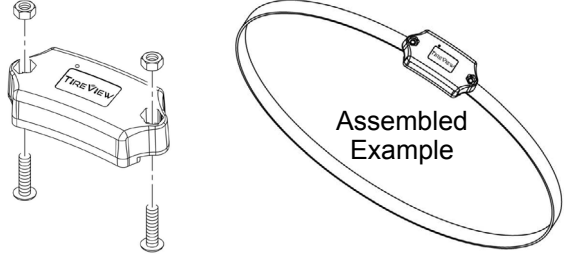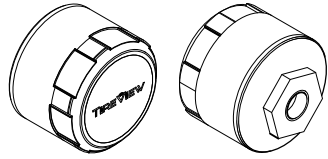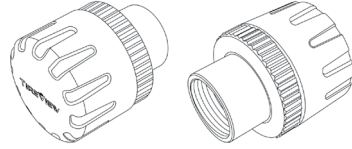
TireView® TPMS System Components

TireView Display, Color or Monochrome, USB or Hardwire		
Display Mount Kit	Display Mount, Dash Cradle	
	Display Mount, Fixed Base w/Hardware	
	Display Mount, Suction Cup	
Power Cord, 12 VDC USB		
Power Adapter, 12 VDC USB		

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System Components

TireView® TPMS System Components (cont.)

Repeater, 58 inch pigtail	
Internal Sensor Kit (Includes wheel band and hardware) (Loose)	Assembled Example
Cap Sensor	
Large Bore Cap Sensor	
Wiring Harness, 40'	
Wiring Harness, 70'	
ABS Drop Harness	
Cable Ties	

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TireView® TPMS Installation Manual
Display Features

TireView® TPMS Display Features

1. Easy to read display screen
2. Manual On/Off power slide-switch (USB only)
3. Internal, non-replaceable, lithium-ion battery
4. Includes suction cup, fixed base and dash cradle mounts
5. Display wake up activation when in motion
6. Automatic backlighting
7. Programmable high and low pressure alert thresholds
8. Programmable high temperature alert
9. Visual and audible warning alerts for when temperature or pressure exceeds limits
10. Selectable pressure units: PSI or BAR
11. Selectable temperature units: °C or °F
12. Program up to 115 tires, including up to four trailers and 5 spares
13. Quick, simultaneous view of each tire pressure and temperature
14. Electronically remove a tractor or trailer from the display
15. Push button programming
16. Hardwire or USB power (USB includes 12 VDC USB power adapter with 12 VDC USB power cable)
17. Tire pressure and temperature settings per axle on power unit and by axle group on trailer

TireView® TPMS Display Normal Scrolling

1. Automatic scroll/cycle of tire icons every five to six seconds
2. Manual scroll/cycle delay using the + or - buttons
3. 10 second delay after manual scroll/cycle; automatic scroll/cycle resumes after delay

TireView® TPMS Display Backlight and Motion Detection

1. Ambient light sensor on the lower right of the display
2. Motion detection from tire sensor feedback
3. Backlight is adjusted when there is low or high ambient light and the vehicle is in motion
4. The display goes to sleep when the vehicle stops for ten minutes or more when using the internal battery
5. The power slide-switch will not turn the display off if the display is plugged into a constant power source. Unplug the USB cable and the power slide-switch will function.

   NOTE: Power switch is disabled in hardwire configuration.

Charging the TPMS Display

The TPMS display is powered by a non-replaceable, lithium-ion battery. A battery level indicator is located on the left side of the display screen.

1. When the indicator shows one bar, it is recommended to charge the display battery as soon as possible to avoid disruption when in use.
2. It will take approximately four hours to fully charge the display battery.
3. A fully charged display can operate for five to seven days on battery power depending on usage.

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TireView® TPMS Installation Manual
Display Features

TireView® TPMS Display Controls

1. Display Unit
2. Antenna
3. Go Button
4. Set Button
5. Back Button
6. + (plus) Button
7. - (minus) Button
8. Red LED Indicator
9. Ambient Light Sensor
10. Display Screen
11. Power Slide Switch
12. Display Mount Attachment
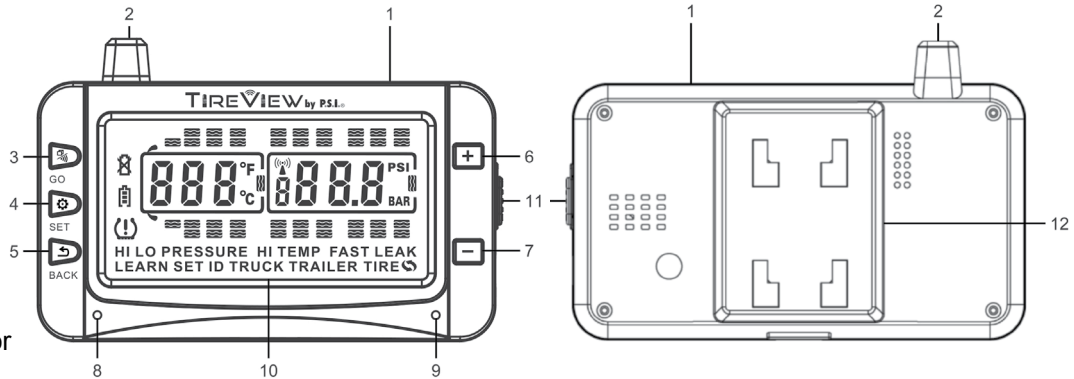
Figure 2: Display Controls

TireView® TPMS Display Icons

≋	Tire
(!)	Warning
ºF / ºC	Temperature unit (Selectable)
BAR / PSI	Pressure unit (Selectable)
(battery icon)	Sensor low battery
(battery icon)	Display battery indicator
((ᵖ))	Repeater active

TireView® TPMS Display Specifications

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

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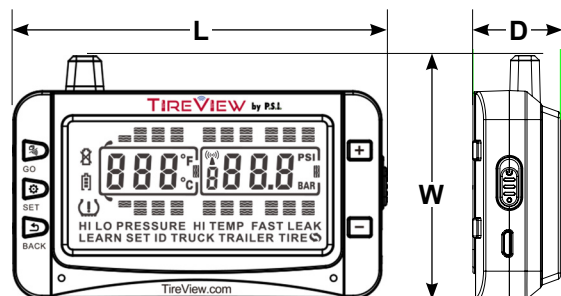
TireView® TPMS Installation Manual
Component Features

Repeater Features

1. Strengthen/amplify the sensor signal to the display

2. 3.3-30 VDC hard-wired power source for constant power while driving

3. Red light operational indicator; mostly steady with occasional blinking

4. Waterproof

5. Interior or exterior installation

6. There is no set-up needed for the repeater

Repeater Specifications

Temperature Operating Range	-4ºF to 176ºF / -20ºC to 80ºC
Storage Temperature Range	-40ºF to 85ºF / -40ºC to 85ºC
Ingress Protection Code (IP)	IP67
Frequency	433.92MHz
Working current	≤100mA
Standby current	≤10mA
Working Voltage	3.3V to 30V
Size	3.07"(L) x 2.48"(W) x .63"(D) 78mm (L) x 63mm (W) x 16mm (D)
Weight	4.4 oz. (125 grams)
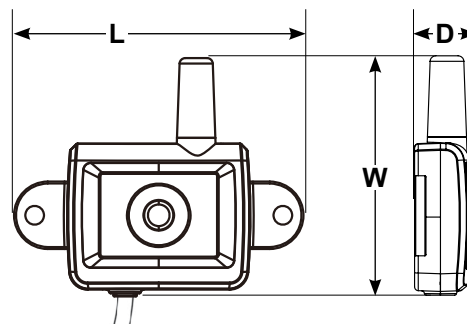
Internal Sensor Features

1. Compact and robust installation on the wheel hub

2. Sealed, water resistant construction

3. Pressure and temperature data are sent to the display

4. Long-life sensor batteries

5. Detects tire air leaks and high temperatures

6. Unique six digit code on each sensor for pairing

7. Sensor has a fully sealed non-replaceable battery

Internal Sensor Specifications

Temperature Operating Range	-40°F to 230°F / -40°C to 110°C
Storage Temperature Range	-40°F to 248°F / -40°C to 120°C
Ingress Protection Code (IP)	IP67
Pressure Range	1 to 188PSI / 1 to 13BAR
Pressure Accuracy Range	±1.5PSI / ±0.1BAR
Temperature Accuracy Range	± 5.4°F/ ± 3°C
Transmission Power	<10 dBm
Transmission Frequency	433.92 MHz
Approximate Battery Life	Up to 4 years
Physical Sensor Size	2.64"(L) x 1.26"(W) x 0.70"(H) 67mm (L) x 32mm (W) x 18mm (H)
Sensor Weight	1.38 oz. (39 grams)

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Component Features

Cap Sensor and Large Bore Cap Sensor Features
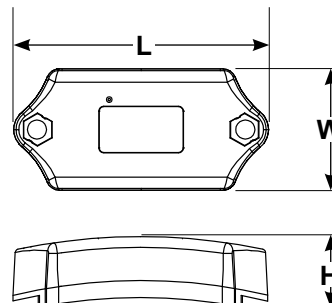
1. Easy installation on the valve stem
2. Sealed, water resistant construction
3. Pressure and temperature data are sent to the display
4. Disconnects battery power when sensor is removed
5. Long-life sensor batteries
6. Detects tire air leaks and high temperatures
7. Unique six digit code on each sensor for pairing
8. Cap Sensor has a fully sealed non-replaceable battery
9. Large Bore Cap Sensor has a user-replaceable battery (CR2032)

Cap Sensor Specifications

Temperature Operating Range	-40°F to 176°F / -40°C to 80°C
Storage Temperature Range	-40°F to 185°F / -40°C to 85°C
Ingress Protection Code (IP)	IP67
Pressure Range	1 to 188PSI / 1 to 13BAR
Pressure Accuracy Range (with a digital gauge)	±3PSI / ±0.2BAR
Temperature Accuracy Range	± 5.4°F/ ± 3°C
Transmission Power	<10 dBm
Transmission Frequency	433.92 MHz
Approximate Battery Life	2 to 3 years
Physical Sensor Size	1.16"(D) x 1.02"(H) 29.5mm (D) x 26mm (H)
Sensor Weight	0.88 oz. (25 grams)

Fits 8V1
(.305-32 THD)
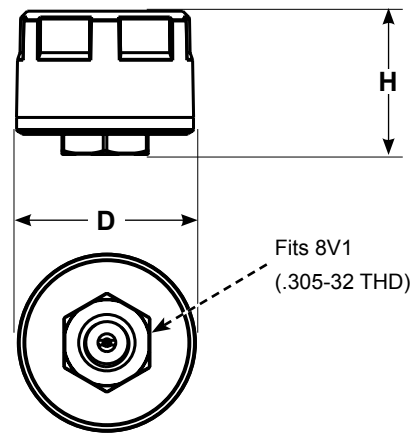
Large Bore Cap Sensor Specifications

Temperature Operating Range	-40°F to 176°F / -40°C to 80°C
Storage Temperature Range	-40°F to 185°F / -40°C to 85°C
Ingress Protection Code (IP)	IP67
Pressure Range	1 to 188PSI / 1 to 13BAR
Pressure Accuracy Range (with a digital gauge)	±3PSI / ±0.2BAR
Temperature Accuracy Range	± 5.4°F/ ± 3°C
Transmission Power	<10 dBm
Transmission Frequency	433.92 MHz
Approximate Battery Life	1 to 1.5 years
Physical Sensor Size	0.98"(D) x 1.09"(H) 25(D) x 27.7(H) mm
Sensor Weight	1.13 oz. (32 grams)

Fits 12V1
(.482-26 THD)

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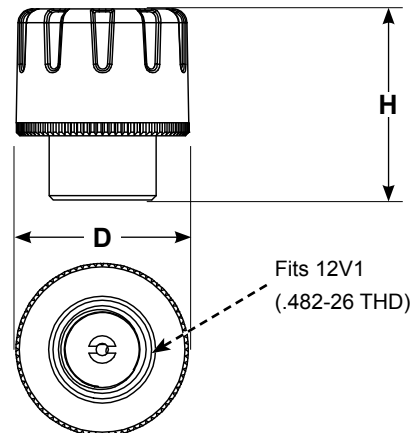
Setting ID Truck Three-Digit Identifier

1. Press the **SET** button until the display beeps and then release it.

2. Press the **+** button until **SET ID TRUCK** mode shows on the TPMS display.

3. Press the **SET** button to enter the **SET ID TRUCK** mode.

4. Press the **SET** button again. The first digit will blink.

5. Press the **+** button or the - button to select the first digit.

6. Press the **GO** button to move to the next digit.

7. Do steps 5-6 again for the second and third digits.

8. Press the **SET** button to save the three-digit ID.

9. Press the **BACK** button two times to return to the main screen.

Setting ID Trailer Three-Digit Identifier and Trailer Selection

NOTE: Four trailers with sensors can be paired into the TireView® TPMS display and each can be selected to be viewed on the TireView® TPMS display.

When selecting a trailer on the TireView® TPMS display:

NOTE: Be sure to adjust the high pressure and low pressure alerts for each trailer that has sensors paired to it.

On the main screen:

1. Press the **GO** button to scroll/cycle and view the trailers that have sensors installed on them.

2. Press the **SET** button until the display beeps and then release it.

3. Press the **+** button until **SET ID TRAILER** shows on the TPMS display.

4. Press the **SET** button to enter that mode.

5. Press the **GO** button to scroll/cycle to the desired trailer (1-4).

6. Press the **SET** button again. The first digit will blink.

7. Press the **GO** button to go to the first digit on the trailer section on the TPMS display.

8. Press the **+** button or the - button to select the value of the first digit.

9. Press the **GO** button to go to the next digit.

10. Do steps 7-8 again for the second and third digits.

11. Press the **SET** button to save the three-digit trailer ID.

12. Press the **GO** button to scroll/cycle to the next trailer.

13. Do steps 5-10 again to set the three-digit trailer ID for the remaining trailers.

14. Press the **BACK** button two times to return to the main screen.

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Programming Sensor Codes into the Display

NOTE: Keep all sensors at least three feet away from the sensor being paired.

1. Sensors will begin reading as soon as they are coded into the display. When returning to the main screen by pushing the **BACK** button twice, you may hear an alert and see a pressure reading of "0". This is normal. Once the high/low settings are in place and set up is complete, these alerts will not sound. Simply push any button quickly to silence the alert.

    NOTE: It is recommended to label each sensor first with the provided tire position stickers, similar to the following pattern, before you code the sensors. This allows for easy sensor and tire position identification. *See Figure 3.*
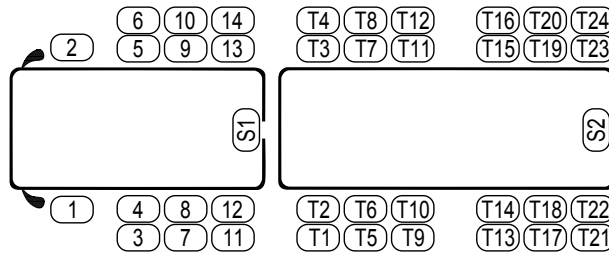

Figure 3: Tire Sensor Position Pattern

Automatic Code Learning (option #1)

NOTE: Code all of the sensors to the display BEFORE screwing them onto the tire valve stem, unless otherwise noted.

1. Push and hold the **SET** button until it beeps. The **HI PRESSURE SET** parameter will blink at the bottom of the screen. Push the **+** button and scroll through the parameters until **LEARN ID** appears.

2. Quickly push and release the **SET** button. The first tire on the display will blink. If programming a different tire, press the **+** button to move to the correct tire. Push the **SET** button again and **FFF FFF** will flash. Hold the desired sensor for that tire position near the bottom left side of the Display. For Internal Sensors pre-installed on tire and rim assembly, hold display near the tire 180° from valve stem and then push the **GO** button. *See Figure 4.*
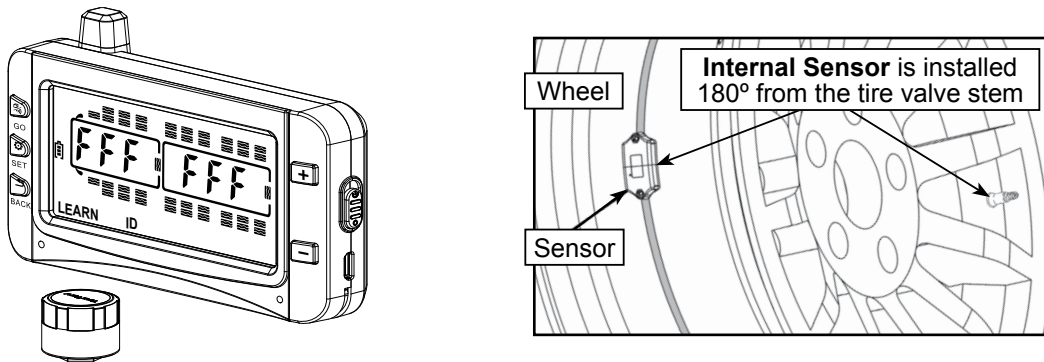
Figure 4: Recommended Sensor Position for Automatic Code Learning

3. The display will capture the sensor code and show it on the screen. Push and release the **SET** button to save the code to that tire position. When coded correctly, a unique six-digit code will be shown.

4. Use the **+** button to move to the next tire position to be programmed. Push and release the **SET** button and **FFF FFF** will flash. Place the sensor for that tire position at the bottom of the display and press the **GO** button to capture the sensor code. *See Figure 4*. Press **SET** again to save. Continue this process for each tire position/ sensor.

5. When all the sensors have been coded, pressing the **BACK** button twice will take you to the main screen.

    NOTE: The sensors will begin reading "0" pressure and an alert will sound. This is part of the normal setup process. Press any button to silence the alert while you continue your setup.

Pressure Code Learning (option #2)

1. Screw the sensors partly onto each designated valve stem. Do NOT screw them down far enough to hear air escaping out.

2. Push and hold the **SET** button until it beeps. The **HI PRESSURE SET** parameter will blink at the bottom of the screen. Push the **+** button and scroll through the parameters until **LEARN ID** appears.

3. Quickly push and release the **SET** button. The first tire on the display will blink. If programing a different tire, press the **+** button to move to the correct tire. Push the **SET** button again and **FFF FFF** will flash.

4. Tighten the sensor down on the corresponding tire valve stem. The sensor code will display and flash.

5. The display will capture the sensor code and show it on the screen. Push and release the **SET** button to save the code to that tire position. When coded correctly, a six-digit unique code will be shown.

6. To remove the sensor code, push **BACK** once. **FFF FFF** will reappear.

7. When all the sensors have been coded, pressing the **BACK** button twice will take you to the main screen.

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.

8. Push and hold the **SET** button until it beeps. The **HI PRESSURE SET** parameter will blink at the bottom of the screen. Push the **+** button and scroll through the parameters until **SET ID** appears.

9. Quickly push and release the SET button. The first tire on the display will blink. If programing a different tire, press the **+** button to move to the correct tire.

10. Push the **SET** button again and the first digit of **FFF FFF** will flash. Push the **+** or **-** button to select the correct number or letter. Push the **GO** button to move to the next digit. Repeat for all six digits.

11. Push **SET** once to save the new codes. The display will beep, and the code will stop flashing. Push the **+** button to move to the next tire position, if necessary.

12. To stop the sensor coding for any tire position, press **BACK** once. **FFF FFF** will reappear. No settings will be saved.

13. When all the sensors have been coded, pressing the **BACK** button twice will take you to the main screen.

Swap Tire Sensor Positions

NOTE: This procedure is used if tires are being rotated or if programmed in wrong position.

14. Press the **SET** button until the TPMS display beeps and then release it.

15. Press and release the **+** button until the tire swap icon, **TIRE↘**, shows on the TPMS display.

16. Press the **SET** button to enter the tire swap mode.

17. Press the **+** button or the - button to select the tire sensor ID code (moved from position).

18. Press the **SET** button.

19. Press the **+** button or the - button to select the tire sensor ID code (moved to position).

20. Press the **SET** button to swap the tire sensor ID code positions.

21. Press the **BACK** button two times to return to the main screen.

TireView® TPMS Installation Manual
Programming

Delete Sensor ID Codes from the TireView® TPMS Display

Delete a Sensor ID Code

1. Press and hold the **SET** button until it beeps.

2. Make sure **HI PRESSURE SET** is blinking at the bottom of the TPMS display.

3. Press the **+** button and scroll/cycle until **LEARN ID** shows on the TPMS display.

4. Press and release the **SET** button. The first tire on the TPMS display will blink.

5. Press the **+** button or the **-** button to scroll/cycle to the desired tire sensor ID code.

6. Press the **SET** button. The tire sensor ID code will flash on the TPMS display.

7. Press and hold the **BACK** button.

8. Listen for the TPMS display to beep THREE times, then release the **BACK** button. The code will change to a flashing **FFF FFF**.

9. Press the **SET** button one time. The TPMS display will beep and the tire sensor ID code will be deleted.

10. Press the **BACK** button two times to return to the main screen.

Delete All Sensor ID Codes

1. Press and hold the **SET** button until it beeps.

2. Make sure **HI PRESSURE SET** is blinking at the bottom of the TPMS display.

3. Press the **+** button and scroll/cycle until **LEARN ID** shows on the TPMS display.

4. Press and release the **SET** button. The first tire on the TPMS display will blink.

5. Press the **+** button or the **-** button to scroll/cycle to any programmed tire sensor ID code.

6. Press the **SET** button. The tire sensor ID code will flash on the TPMS display.

7. Press and hold the BACK button.

8. Listen for THREE beeps followed by SIX beeps, then release the **BACK** button. **DEL ALL** will show on the TPMS display.

9. Press the **SET** button one time. The TPMS display will beep and all sensor ID codes will be deleted.

10. Press the **BACK** button two times to return to the main screen.

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TireView® TPMS Installation Manual
Repeater Installation

The TireView repeater will boost the signal from the sensors to the TireView unit.

⚠️ **CAUTION**

The repeater must be installed to help ensure proper operation of the TireView system.
Failure to install the repeater could void warranty.

Repeater Mounting

1. The TireView repeater MUST be mounted on the tractor/truck or trailer in the recommended location. The unit is waterproof and can be mounted inside or outside.
   See Figure 5.

2. Secure the Repeater to the tractor/truck/trailer using wire ties. It is best to mount to the existing air line and wire harness bundle, if possible. *See Figures 6 & 7.*

3. Route the Repeater wire harness towards the power source along the existing wire harness.

Truck Example   Trailer Example
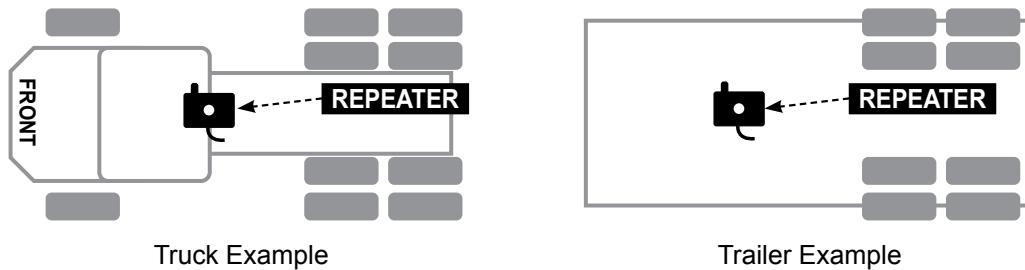
Figure 5: Recommended mounting locations for Repeater
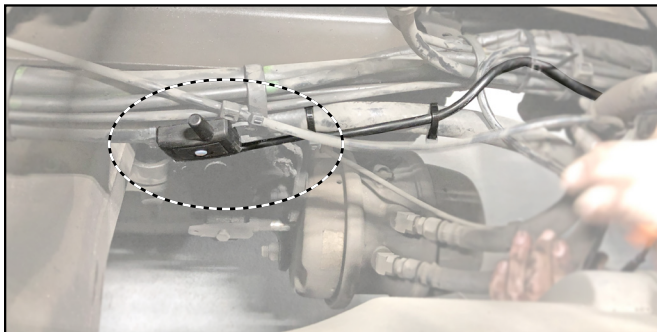
Figure 6: Repeater mounting - truck example
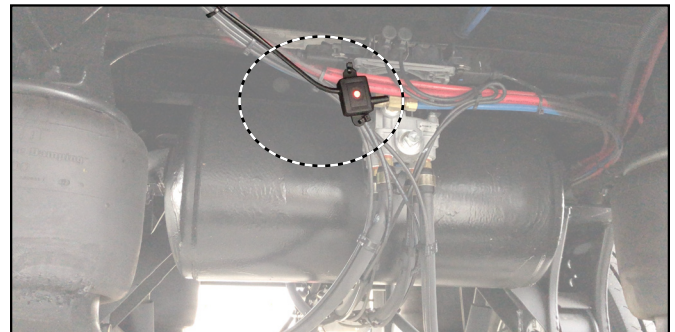
Figure 7: Repeater mounting - trailer example

Repeater Wiring

1. Make connections to the (+) and (-) wires from the repeater to the electrical harness.

Repeater Indicator Lights

1. When the Repeater receives power, the red light on the Repeater will illuminate (constant or blinking). No additional setup is needed for the repeater. *See Figure 8.*

Repeater
Indicator Light

Figure 8: Repeater indicator light

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Installing the Cap Sensor After Code Pairing

⚠️ **CAUTION: DO NOT OVER-TIGHTEN THE CAP SENSOR. DAMAGE CAN OCCUR.**

NOTE: The cap sensors will start to transmit data after they are paired to the TPMS display.

NOTE: The first time the display is turned on, it can take up to 20 minutes to receive all cap sensor data.

For cap sensor installation on wheel

1. Install the cap sensor onto the appropriate tire valve stem. Tighten the cap sensor until air stops leaking. Slightly twist the cap sensor to fully seat it.

For cap sensor installation with ATIS *See Figure 9*

1. If being installed in combination with ATIS, the CP hose is required.
2. Ensure CP hose is oriented correctly when attached to thru-tee.
3. Ensure valve cap is removed from the auxiliary port on the CP hose.
4. Install the cap sensor onto the appropriate CP hose auxiliary port.
5. Tighten the cap sensor until air stops leaking. Slightly twist the cap sensor to fully seat it.

Figure 9: TPMS cap sensor with ATIS
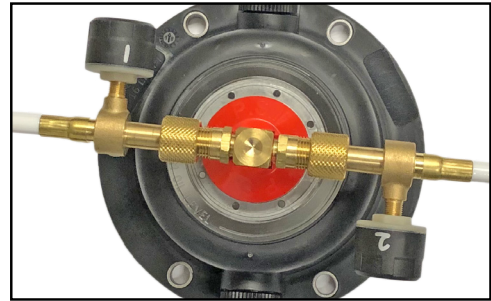
For cap sensor installation with Flow-thru Brackets

1. Install the cap sensor onto the appropriate flow-thru bulkhead located inside the flow-thru bracket assembly. Go to TireView® TPMS Flow-thru Bracket Assembly on page 23.
2. Tighten the cap sensor until air stops leaking. Slightly twist the cap sensor to fully seat it.

Install the Internal Sensor

⚠️ **CAUTION: DO NOT PLACE THE TIRE CHANGE SHOVEL ABOVE THE TIRE VALVE STEM. PLACE THE TIRE CHANGE SHOVEL 5.9 IN. (15 CM) AWAY FROM THE TIRE VALVE STEM. FOLLOW TIRE CHANGE SHOVEL MANUFACTURER'S INSTRUCTIONS.**

1. Remove the wheel from the vehicle and deflate the tire.
2. Use the tire change shovel to demount the tire from the wheel. *See Figure 10*.
3. Make sure the rubber pad has been installed on the sensor. *See Figure 11.*
4. Attach the sensor to the band clamp assembly with the accompanying hardware. Torque the screws to 10-12 in-lbs (1.1-1.4 Nm). 🔲 *See Figure 11*.
5. Put the sensor and band clamp assembly in the center position of the wheel hub. *See Figure 12*.
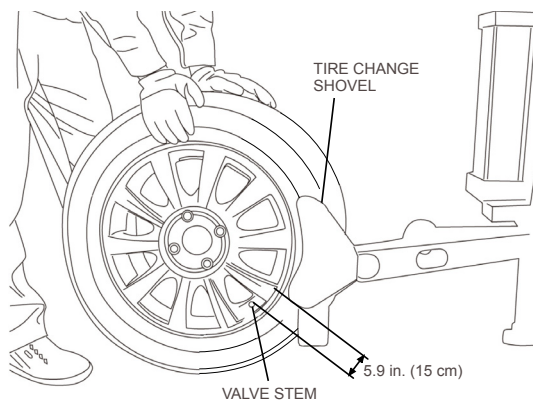6. Place the sensor 180° from the valve stem. *See Figure 12.*
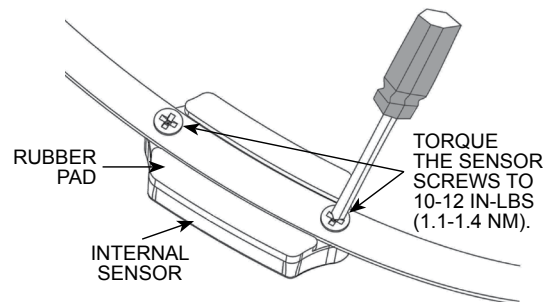

Figure 10: Tire Change Shovel - Correct Position

Figure 11: Internal Sensor Rubber Pad

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TireView® TPMS Installation Manual
Sensor Installation

⚠️ **CAUTION: MAKE SURE THE BAND CLAMP ASSEMBLY IS COMPLETELY INSTALLED ON THE WHEEL HUB AND DOES NOT MOVE OR SWAY.**

7. Tighten the band clamp assembly on the wheel hub. *See Figure 12.*

8. Torque the band clamp screw to 30-45 in-lbs (3.4-5.1 Nm). 🅣

9. Cut off excess band if applicable.

10. Install the tire onto the wheel and inflate the tire to the manufacturer's recommended pressure.

11. Use a balancing machine to balance the wheel with correction weights. An unbalanced wheel may experience excessive vibrations at high speeds.

TRIM EXCESS BAND TO LESS THAN THREE INCHES

TORQUE THE BAND CLAMP SCREW 30-45 IN-LBS (3.4-5.1 NM)

❌ **INCORRECT POSITION**   ⚠️   ✔️ **CORRECT POSITION**

INTERNAL SENSOR ORIENTATION

180º

VALVE STEM

⚠️ **IMPORTANT:** Sensor should be installed in the center "well" of the wheel 180 degrees from the tire valve stem.
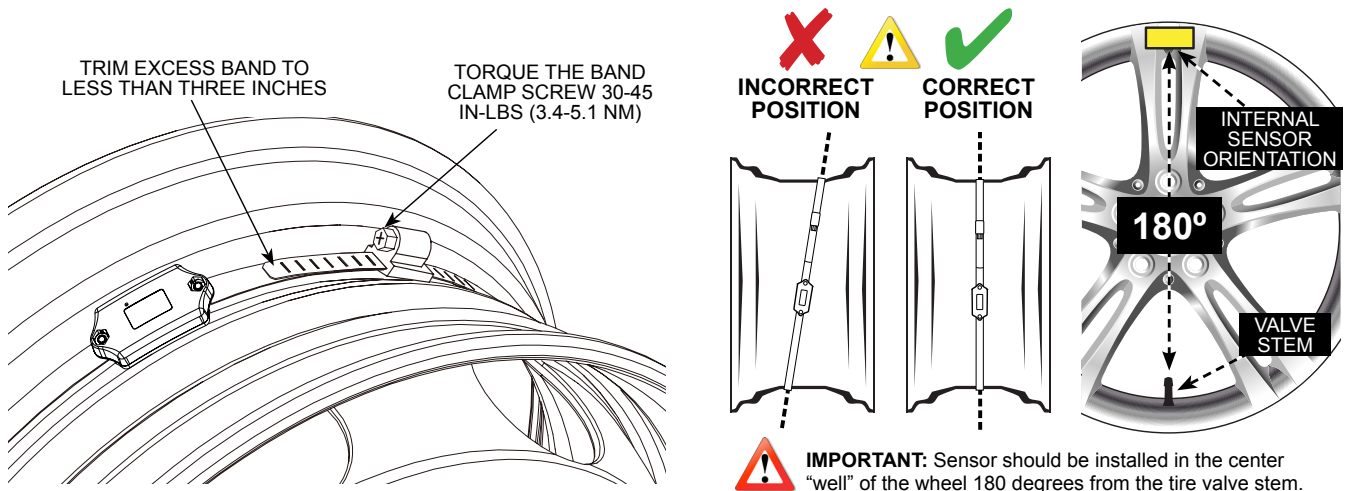
Figure 12: Internal Sensor Installation

12. Install the wheel on the vehicle per manufacturer's instructions. For dual wheel equipped vehicles valve stems must be oriented 180º from each other to allow pairing of internal sensors. *See Figure 13.*

NOTE: Dual Wheel Equipped Vehicles MUST be mounted with valve stems oriented 180º from each other to allow pairing of internal TPMS Sensors.

OUTSIDE TIRE

INSIDE TIRE

OUTSIDE WHEEL VALVE STEM

INSIDE WHEEL VALVE STEM
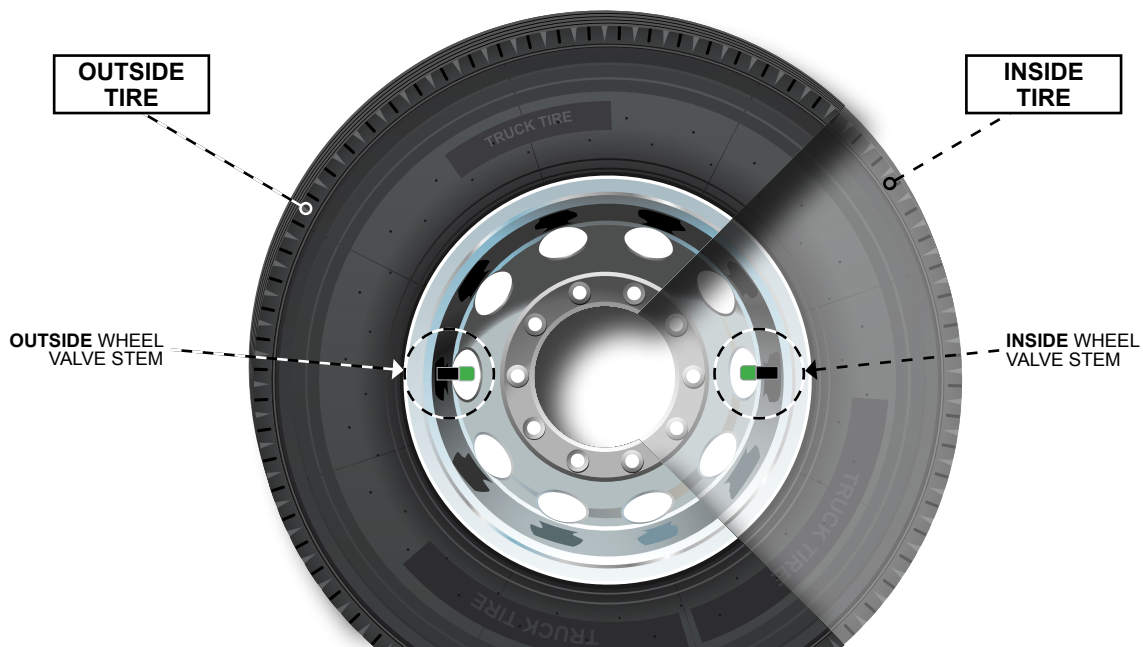
Figure 13: 180º Valve Stem Orientation.

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TireView® TPMS Installation Manual
System Settings

Setting the Sensor Alerts

NOTE: The TPMS display must be powered **ON** and showing the main screen.

NOTE: Pressure and temperature conversions are provided as a reference only.

Table 1: TireView® TPMS Display Factory Default Settings

Displayed Pressure Units	PSI
High Pressure Alert	175 PSI (12.1 BAR)
Low Pressure Alert	100 PSI (6.9 BAR)
Displayed Temperature Units	°F
High Temperature Alert	158 °F (70 °C)

Setting the Displayed Pressure Units

1. Press and hold the **SET** button until a beep is heard from the display.

2. Press the **+** button until **SET** shows at the bottom of the TPMS display. **BAR/PSI** will be blinking.
   See Figure 14.

Figure 14: Pressure Units Screen

3. Press the **SET** button again.

4. Press the **+** button to select **PSI** or **BAR**.

5. Press the **SET** button again to save the selection.

6. Press the **BACK** button to return to the main screen.

Setting the Low Pressure Alert

NOTE: Low pressure setting must be adjusted prior to high pressure setting.

1. Press and hold the **SET** button until a beep is heard from the display.

2. Press the **+** button until **LO PRESSURE SET** shows on the TPMS display. *See Figure 15*.

Figure 15: Low Pressure Set Screen

3. Press the **SET** button to enter that mode.

4. Press the **GO** button to scroll/cycle to a specific axle.

5. Press the **+** button or the **-** button to adjust the low pressure alert to 10% below the normal tire pressure for that axle. *See Figure 16.*

Figure 16: Low Pressure Set Parameter Screen

6. Press the **GO** button to scroll/cycle to the next axle.

    NOTE: At the trailer section of the display, all the tires will flash. All the trailer axle low pressures can now be set as one group.

7. Do steps 3-6 again for the remaining axles.

8. Press the **SET** button to return to the mode menu.

9. Press the **BACK** button to return to the main screen.

Setting the High Pressure Alert

1. Press and hold the **SET** button until a beep is heard from the display. **HI PRESSURE SET** will show at the bottom of the screen. *See Figure 17*.

Figure 17: High Pressure Set Parameter Screen

2. Press the **SET** button again to enter that mode.

3. Press the **GO** button to scroll/cycle to a specific axle.

    NOTE: Alert adjustment to 20% over normal tire pressure is ideal for colder climates, and 25% over normal tire pressure is ideal for hotter climates.

4. Press the **+** button or the **-** button to adjust the high pressure alert to 20-25% over the normal tire pressure for that axle. *See Figure 18*.
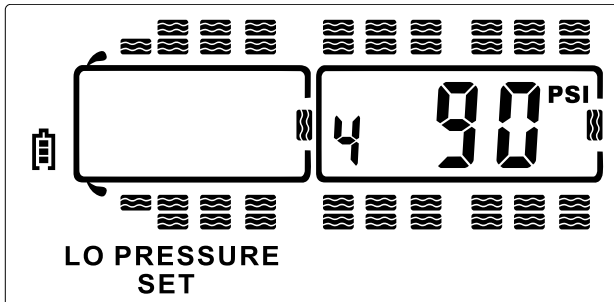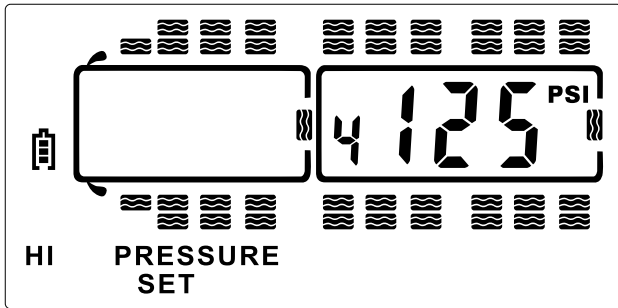

Figure 18: High Pressure Set Screen

5. Press the **GO** button to scroll/cycle to the next axle.

   NOTE: At the trailer section of the display, all the tires will flash. All the trailer axle high pressures can now be set as one group.

6. Do steps 2-5 for the remaining axles.

7. Press the **SET** button to save the settings and return to the mode menu.

8. Press the **BACK** button to go to the main screen.

Setting the Displayed Temperature Units

1. Press and hold the **SET** button until a beep is heard from the display.

2. Press the **+** button until **SET** shows at the bottom of the TPMS display. **°F/°C** will be blinking. *See Figure 19*.

Figure 19: Temperature Units Screen

3. 3. Press the **SET** button again.

4. 4. Press the **+** button to select °F or °C.

5. 5. Press the **SET** button again to save the selection.

6. 6. Press the **BACK** to return to the main screen.

Setting the High Temperature Alert

> **NOTE:** It is recommended that the default temperature setting of 158 °F (70 °C) be used for all types of tires.

1. Press and hold the **SET** button until a beep is heard from the display.

2. Press the **+** button until **HI TEMP SET** shows on the TPMS display. *See Figure 20*.

Figure 20: High Temperature Set Screen

3. Press the **SET** button to enter that mode.

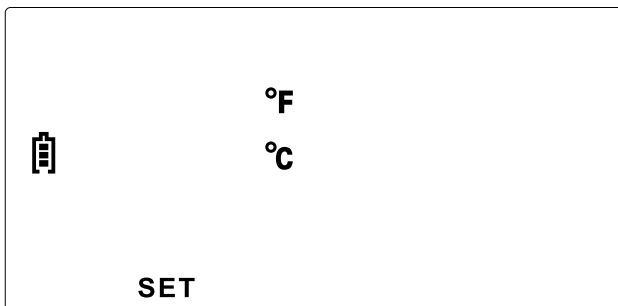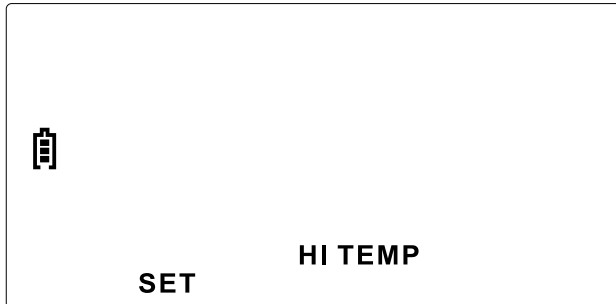4. Press the **+** button or the **-** button to adjust the high temperature alert. *See Figure 21*.
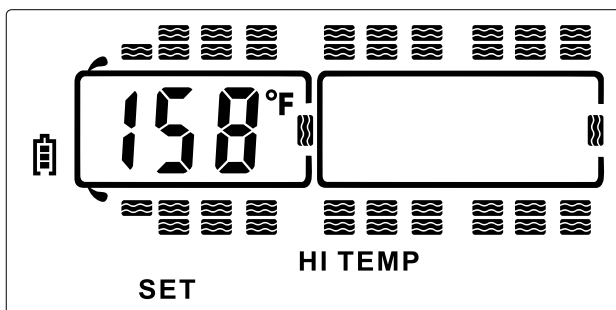
Figure 21: High Temperature Set Parameter Screen

5. Press the SET button to save the alert setting.

6. Press the BACK button to return to the main screen.

Restore the TireView® TPMS Display to Factory Settings

> **NOTE:** The display pressure units, temperature units, and alert settings will be restored to the default factory settings. *See Table 1 on page 18*.

> **NOTE:** Tire position sensor codes will not be erased or changed.

1. Move the TPMS display power slide-switch to the **Off** position.

> **NOTE:** The power slide-switch will not turn the TPMS display off if it is plugged into a constant power source. Unplug the USB cable and the power slide-switch will function.

2. Hold the **BACK** and **SET** buttons at the same time and turn the TPMS display back on. The TPMS display will beep once and power back on.

TireView® TPMS Installation Manual
System Settings

TireView® TPMS Display Alerts

Tire Pressure and Temperature Alerts

NOTE: The sensors send the tire pressure and temperature data to the display every five minutes, unless an alert has been triggered.

1. If a tire is outside of the set high/low values, the TPMS display alert will sound and the red LED warning light will immediately flash.

2. The tire position, pressure or temperature, and the warning type will also flash.

3. The audible alert can be silenced for a short time by pressing any of the buttons on the front of the TPMS display.

The red LED warning light will continue to flash until the pressure or temperature issue is resolved and brought back within the preset values. *See Figure 2* for location of the red LED warning light.

Fast Leak Alert

NOTE: When a fast tire air leak is detected, the sensor will send that data immediately to the TPMS display.

1. The TPMS display alert will sound and the red LED warning light will immediately flash.

2. The tire position, pressure, and **FAST LEAK** will also flash.

3. The audible alert can be silenced for a short time by pressing any of the buttons on the front of the TPMS display.

4. The red LED warning light will continue to flash until the pressure is resolved and brought back within the preset values. *See Figure 2* for location of the red LED warning light.

Sensor Low Battery Alert

NOTE: The sensor low battery alert will display for only a short time until the internal battery is exhausted. If the TPMS display is not **ON** often, the sensor low battery signal may be missed. If the sensor is not reporting to the TPMS display, call P.S.I. to troubleshoot potential issues first in order to determine if the sensor must be replaced.

1. The sensor low battery indicator will show when the sensor battery is at the end of its life.

2. The affected tire position, pressure and temperature readout, low battery symbol (🔋) and tire warning icon (⚠) will flash on the TPMS display.

Connect / Disconnect a Tractor from the TPMS Display

NOTE: A tractor can be temporarily removed from the TPMS display.

To disconnect a tractor from the TPMS display:

1. Make sure the tractor is showing on the TPMS display.

2. Press the **GO** button and the **+** button at the same time. The sensor data on the trailer will not be read.

To connect a tractor to the TPMS display:

1. Press the **GO** button and the **+** button at the same time. The tractor section on the TPMS display will appear and the TPMS display will now read data from the sensors.

Connect / Disconnect a Trailer from the TPMS Display

NOTE: A trailer can be temporarily removed from the TPMS display.

To disconnect a trailer from the TPMS display:

1. Make sure the trailer is showing on the TPMS display.

2. Press the **GO** button and the **-** button at the same time. The sensor data on the trailer will not be read.

To connect a trailer to the TPMS display:

1. Press the **GO** button and the **-** button at the same time. The trailer section on the display will appear and the TPMS display will now read data from the sensors.

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TireView® TPMS Installation Manual
Flow-thru Bracket Assembly

TireView® TPMS Flow-thru Bracket Assembly

NOTE: Tractor and trailer flow-thru brackets have a slightly different appearance, but they are assembled in the same way. *See Figure 22a-b, Figure 23a-b, and Figure 24a-b.* Each type of flow-thru bracket is specifically designed for installation on either an N-spindle, P-spindle, or R-spindle axle configuration. *See Figure 27 and Figure 28*.
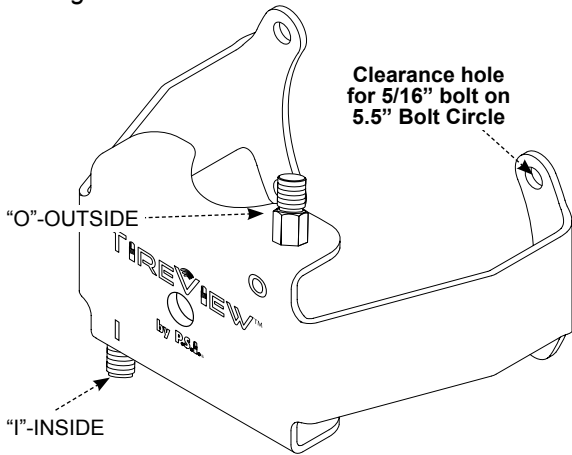

Clearance hole for 5/16" bolt on 5.5" Bolt Circle
"O"-OUTSIDE
"I"-INSIDE

Figure 22a: Flow-thru Bracket Kit - N-spindle Axle, Dual Tires

"O"-OUTSIDE ONLY FOR SINGLE TIRE APPLICATIONS
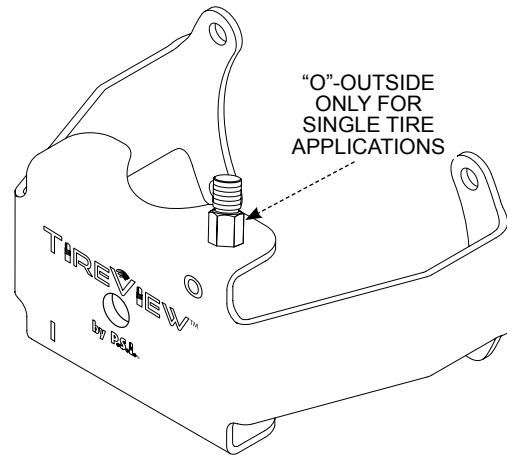
Figure 22b: Flow-thru Bracket Kit - N-spindle Axle, Single Tire

Clearance hole for 5/16" bolt on 6.75" Bolt Circle
"O"-OUTSIDE
"I"-INSIDE
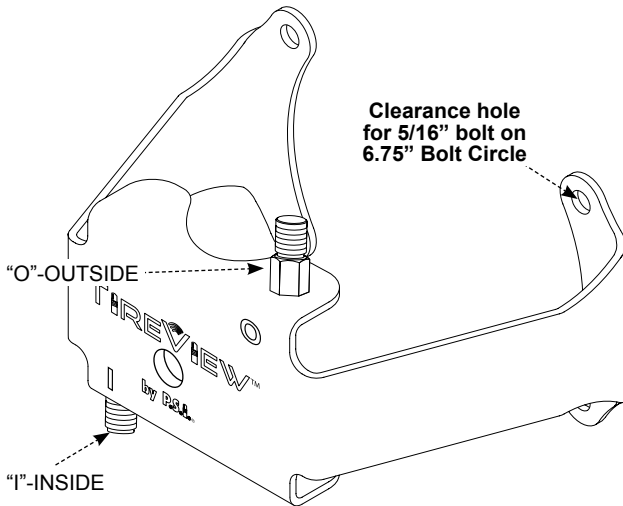
Figure 23a: Flow-thru Bracket Kit - P-spindle Axle, Dual Tires

"O"-OUTSIDE ONLY FOR SINGLE TIRE APPLICATIONS
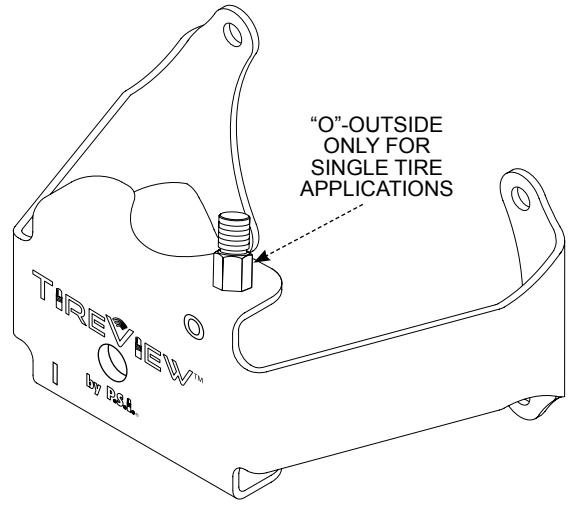
Figure 23b: Flow-thru Bracket Kit - P-spindle Axle, Single tire

7.12"
Mounting nuts
"O"-OUTSIDE
Clearance hole for 5/8" stud
"I"-INSIDE
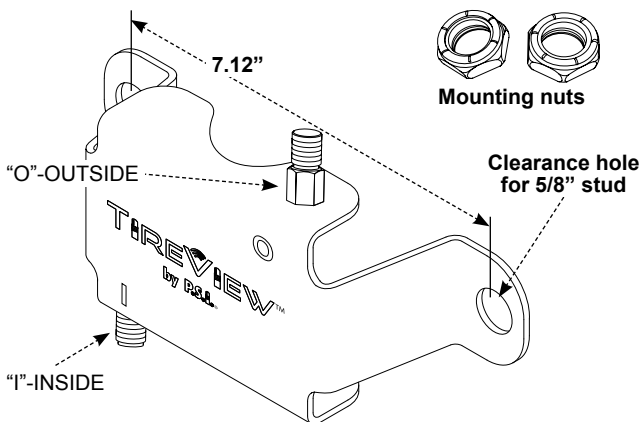
Figure 24a: Flow-thru Bracket Kit - R-spindle Axle, Dual tires

"O"-OUTSIDE ONLY FOR SINGLE TIRE APPLICATIONS
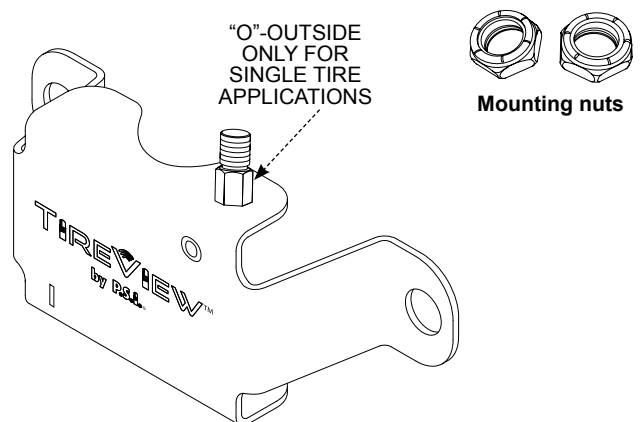Mounting nuts

Figure 24b: Flow-thru Bracket Kit - R-spindle Axle, Single tire

TireView® TPMS Installation Manual
Flow-thru Bracket Assembly

1. If not already installed, install the flow-thru bulkhead fitting(s) onto the side(s) of the flow-thru bracket. Make sure the valve stem threaded end of the flow-thru bulkhead fittings are on the interior of the flow-thru bracket. *See Figure 25*.

2. Secure each flow-thru bulkhead fittings to the flow-thru bracket with a Nylock® half nut.

3. Torque the Nylock® half nuts in accordance with the standard torque table for brass threads. 🔩

4. Pair the inside tire cap sensor and outside tire cap sensor to the TPMS display. Refer to *Automatic Code Learning (option #1)* on page 12.

   NOTE: The first time the display is powered ON, it can take up to 20 minutes for the display to receive all sensor data.

   NOTE: The cap sensors will start to transmit data after they are paired to the display, but tire data is only transmitted to the display after each sensor receives air pressure.
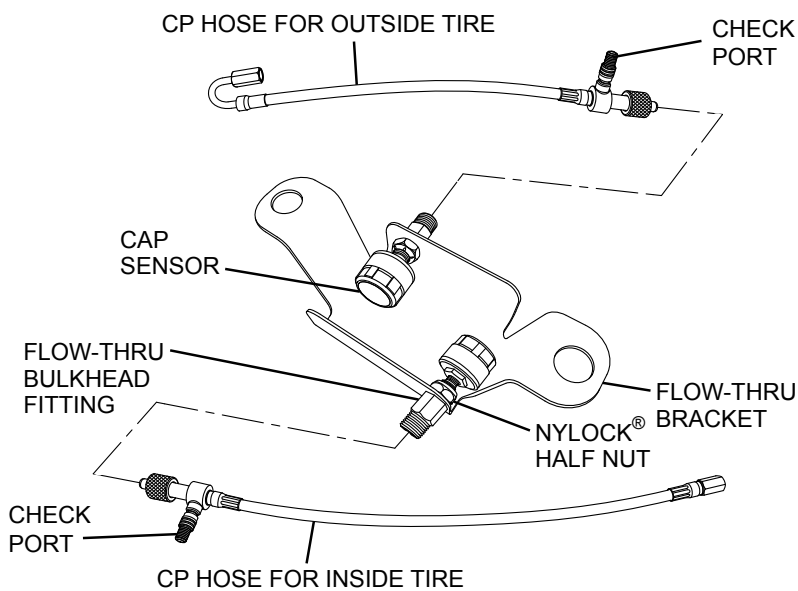
Figure 25: TireView® TPMS Flow-thru Kit Assembly

5. Loosely install the inside tire cap sensor and the outside tire cap sensor onto the flow-thru bulkhead fitting valve stems. Make sure the cap sensors are installed in the correct position per the **INSIDE (I)** and **OUTSIDE (O)** labels on the flow-thru bracket. *See Figure 22a-b, Figure 23a-b, and Figure 24a-b*.

⚠️ **CAUTION: DO NOT OVERTIGHTEN THE SENSOR CAPS. DAMAGE TO THE SENSOR CAP AND THREADS CAN OCCUR.**

6. Hand-tighten the cap sensors until they bottom out, and then slightly twist the cap sensors to fully seat them.

TireView® TPMS Installation Manual
Flow-thru Bracket Installation

TireView® TPMS Flow-thru Bracket Installation

NOTE: Confirm that the tire valve stems are approximately 180° opposite of each other.

NOTE: Tractor and trailer flow-thru brackets have a slightly different appearance, but the installation is similar for each. The tractor (R-spindle) flow-thru bracket will require 2 Nylock® half nuts to mount to the axle cap studs. The trailer (N-spindle and P-spindle) flow-thru bracket installation is the same. The brackets will use four of the hub cap mounting bolts to secure to the wheel end. *See Figure 22a-b, Figure 23a-b, and Figure 24a-b.*

1. Position the flow-thru bracket assembly next to the axle cap and align the flow-thru bulkhead labeled OUTSIDE **(O)** with the valve stem of the outside tire. *See Figure 26.*

ALIGN OUTSIDE FLOW-THRU BULKHEAD WITH OUTSIDE TIRE VALVE STEM
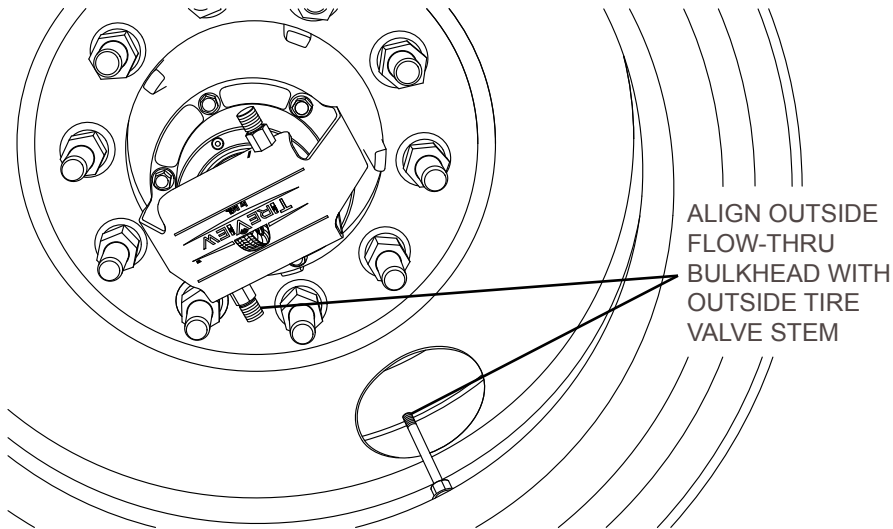
Figure 26: Outside Flow-thru Bulkhead Alignment with Valve Stem

2. For R-spindle configurations, mount flow-thru bracket assembly onto the axle cap studs. Install two Nylock® half nuts onto the flow-thru bracket assembly. Torque to 50-60 ft-lbs. 🅣 *See Figure 27.*
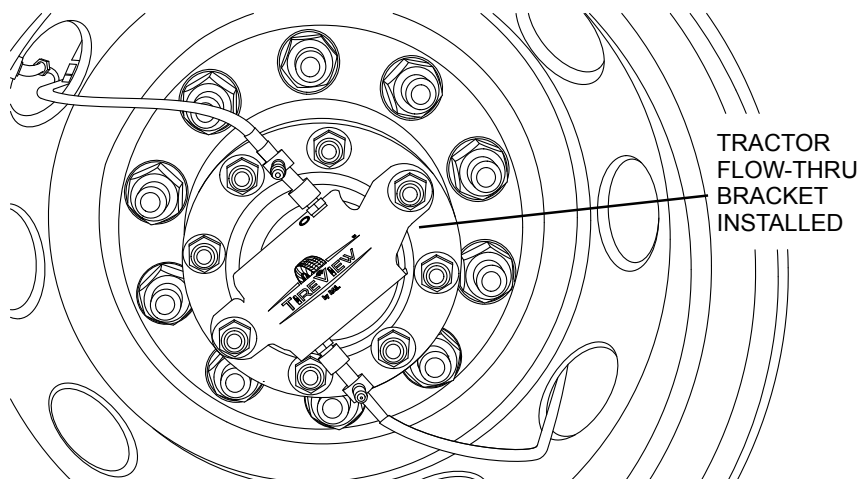

TRACTOR FLOW-THRU BRACKET INSTALLED

Figure 27: Tractor Flow-thru Bracket Installed - R-Spindles

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TireView® TPMS Installation Manual
Flow-thru Bracket Installation

3. For N-spindle and P-spindle configurations, identify and remove hub cap bolts that will be used to attach the flow-thru bracket assembly. Reinstall bolts and washers onto the flow-thru bracket assembly and hub cap. Torque to 12-16 ft-lbs. 🅣 *See Figure 28.*
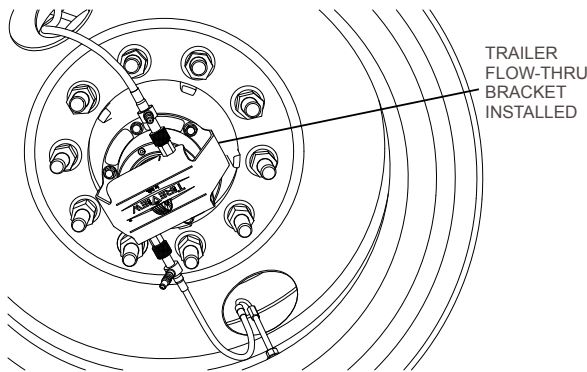

TRAILER FLOW-THRU BRACKET INSTALLED

Figure 28: Trailer Flow-thru Bracket Installed - N-Spindles and P-Spindles

⚠️ **CAUTION: MAKE SURE THAT YOU DO NOT TWIST OR KINK THE CP HOSE DURING INSTALLATION.**

4. Connect the CP OUTSIDE hose onto the OUTSIDE tire valve stem and the CP INSIDE hose onto the INSIDE tire valve stem and hand tighten.

5. Add an additional 1/2 turn with a 7/16 in. wrench.

⚠️ **CAUTION: DO NOT OVERTIGHTEN THE HOSE CONNECTION. THIS COULD DAMAGE THE HOSE SEAL AND CAUSE THE TIRE TO DEFLATE. DAMAGE TO COMPONENTS CAN OCCUR.**

⚠️ **CAUTION: THE KNURLED ENDS ON THE CP HOSES ARE TO BE HAND-TIGHTENED ONLY. DO NOT USE TOOLS TO TIGHTEN. DAMAGE TO THE KNURLED ENDS CAN OCCUR.**

6. Connect and hand tighten the CP OUTSIDE hose knurled end onto the fitting marked **OUTSIDE (O)** on the flow-thru bracket.

   NOTE: Make sure the check port on the CP hose is facing outboard.

7. Connect and hand tighten the CP INSIDE hose knurled end onto the fitting marked **INSIDE (I)** on the flow-thru bracket.

   NOTE: Make sure the check port on the CP hose is facing outboard.

8. Check the wheel-ends to confirm that the system hoses do not contact the wheels. *See Figure 29.*

CHECK TO ENSURE THERE IS NO HOSE CONTACT ON WHEEL OR BRAKE DRUMS
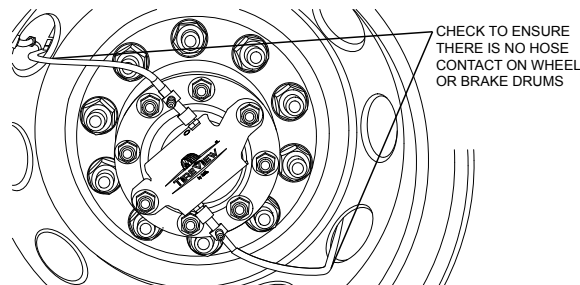
Figure 29: Hose Contact with Wheel

9. Check for air leaks at each connection point of the CP hoses, at the flow-thru bulkhead fittings, and at the cap sensors. If an air leak is found, then carefully hand-tighten the connection until the leak is sealed.

   NOTE: If air leaks cannot be sealed, check for debris on the threads or cross-threading.
   If additional assistance is needed, call P.S.I. Customer Support at 210.222.1926 (United States and Canada) or email *techsupport@psitireinflation.com*.

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TireView® TPMS Installation Manual
System Troubleshooting

Issue	Solution
Data does not show on the display screen when the display is powered on.	Wait 15-20 minutes for the sensor data to appear on the TPMS display after the first time the system is setup. Leave the TPMS display on until all sensor data appears. After the sensor data is received the first time, subsequent system use should take less time to acquire the sensor information.
The display did not accept the sensor ID code during the pairing procedure.	When programming, immediately press and release the **SET** button to save the sensor code.
The high pressure alert will not set.	If the tire pressure is under 100 PSI (6.9 BAR), you will have to program the low pressure alert first and then program the high pressure alert. The high pressure setting cannot go lower than the low pressure setting, which by default is set to 100 PSI (6.9 BAR).
Cannot read tire position data for more than a few seconds.	See TireView® TPMS Display Normal Scrolling on page 7, to pause the automatic scrolling function.
Cannot power **Off** the TPMS display using the **On/Off** power slide-switch.	If the display is plugged into an optional constant power source, the power slide-switch on the side will not function. To power Off the TPMS display, unplug the USB power supply and the slide-switch will now operate.
A sensor is not sending data to the TPMS display.	Unscrew the sensor from the valve stem, wait ten seconds, and then reinstall it. The sensors are pressure sensitive and will reset once reinstalled.
	Place a working sensor from another tire on the affected valve stem (the sensor will continue to collect data in its original tire position on the display). If the swapped sensor does not read normally, troubleshoot the valve stem. Check for a leaky valve core, debris in the valve stem, or damaged threads.
	Unscrew the valve core until it starts to release air, then screw it back in slightly to stop the air flow. Check both sensors on the same valve stem again. If the swapped sensor sends data and the original sensor does not, then it may be a sensor issue. If additional assistance is needed, call P.S.I. Customer Support at 210.222.1926 (United States and Canada) or email *techsupport@psitireinflation.com*.
	If the sensor is not transmitting data to the TPMS display, pair the sensor again to the same tire position. See Automatic Code Learning (option #1) on page 12.
The TPMS display dropped sensor data for a tire position.	If a repeater is installed, check the red LED light on the repeater to make sure that it is operational.
	An indoor/outdoor thermometer with an external temperature sensor may interfere with the P.S.I.™ TireView® TPMS. Use a thermometer with a higher frequency of 915 MHz.
	Atomic clocks can also cause interference with the sensors.
	If the sensor is over a year old, the battery may be dead. The battery in the sensor cannot be replaced, contact your P.S.I.® TireView® TPMS supplier for replacement.
The TPMS display alert sounds in the evening when the vehicle is not moving.	Lower outdoor temperatures at night decrease the tire pressure and may drop below the alert threshold. Turn the display off overnight. As the air temperature rises the next day or driving starts, the tires will also warm up and return to normal parameters. Add air to the tires if needed.
The high pressure alert will not set below 100 PSI (6.9 BAR).	The high pressure alert cannot go lower than the low pressure alert setting. If the tire pressure is below 100 PSI (6.9 BAR), first set the low pressure alert settings and then set the high pressure alert settings. See Setting the Sensor Alerts on page 18.
The TPMS display alert was triggered and the tire position and its current pressure and temperature values are flashing.	There may be a rapid leak in a tire position. If **FAST LEAK** shows at bottom of the TPMS display for a tire position, repair the leak.
	There may be a low sensor battery in a tire position. The upper left battery icon flashes on the TPMS display. Replace the sensor when the battery dies.
	There may be an overheating tire and **HI TEMP** shows at the bottom of TPMS display. Stop the vehicle to allow the tire temperature to decrease.
	Visually inspect the tire for damage or defects. Check the tire pressure as this can affect tire temperature. If necessary, have the tire serviced or replaced.
	There may be a high or low pressure reading from a tire position. Tire pressures will change over time from environmental conditions. Make sure the tire pressures are correct. Make sure the alert values are set correctly. See Setting the Sensor Alerts on page 18.
The trailer is not being used, but is still showing on the TPMS display.	To remove a trailer from the display, see Connect / Disconnect A Trailer from the TPMS Display on page 22.
The tractor is not being used, but is still showing on the TPMS display.	To remove a tractor from the display, see Connect / Disconnect A Tractor from the TPMS Display on page 22.
The display still shows a tire position that is no longer in use.	To delete a single sensor code, see Delete a Sensor ID Code on page 14.

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for additional support materials and
access to the latest revision.

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