



AKTV8

PressureTech™ Installation Guide

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1 | Introduction

AKTV8's journey began by developing integrated control systems for air suspensions and pneumatic systems across all transportation markets. That experience has led to our latest product, PressureTech™, which is a configurable pressure-monitoring sensor platform capable of keeping tabs on tire pressure, suspension pressure, onboard scales and virtually any other pneumatic system on a vehicle.

PressureTech™ products are designed and tested to auto and heavy-truck OEM standards that, depending on the application, will last 2 years or more on a single, replaceable battery. Each sensor is easily configured by scanning a durable, laser-etched QR code on the cap.

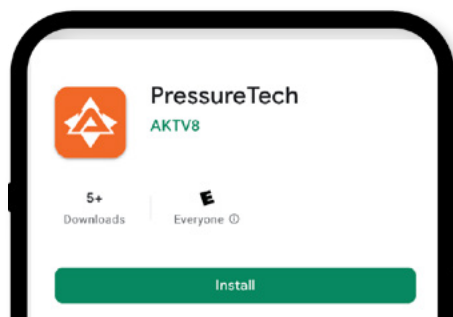
PressureTech™ can be used as a stand-alone system with the mobile app or in combination with the AKTV8 iAir® gateway range extender to enhance functionality. Each Sensor Kit comes equipped with everything needed to complete installation. Unlike hobby-grade systems, PressureTech was designed to withstand the rigors of heavy trucks. It offers a single mobile app for TPMS, load monitoring, and gateway range-extender configuration. PressureTech is the all-in-one solution that makes managing one or all applications easy.

The following installation instructions may vary based on the year, make, model and configuration of the vehicle(s).

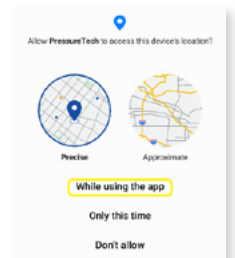
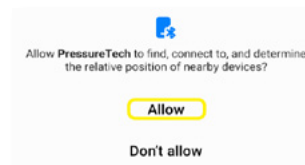
2 | PressureTech™ App – Download App and Setup Vehicle

STEP ONE: DOWNLOAD AND INSTALL APP

Download and install the AKTV8 PressureTech™ app from Google Play Store for Android devices or the Apple App Store for Apple devices.



- Allow the AKTV8 PressureTech™ app access to your device's location if prompted (you will only be asked this the first time the app is opened).
- Allow the AKTV8 PressureTech™ app to turn on Bluetooth on your device if prompted – if Bluetooth is off, you will be asked to turn it on each time the app is opened.



After opening the PressureTech™ app, you will be taken to the “My Vehicles” page. This page allows you to view vehicles and configure App settings.

2 | STEP TWO: APP SETTINGS

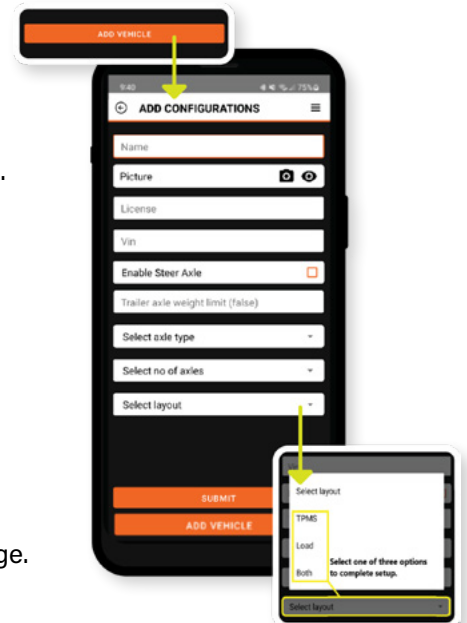
- On the top-right corner, tap the list drop down.
- Select “Settings”.
- Tap “Prevent Screen Lock” if desired.
- Tap “Enable alerts” if desired.
- If an emailed alert is desired:
 - » Tap “Configure Emails.”
 - » Add your email address and tap “Save.”



STEP THREE: CREATE VEHICLE

Creating a Vehicle is required before pairing and installing the AKTV8 sensors. Once created, vehicles can be easily added or removed, giving you the ability to easily swap vehicles for viewing.

- On the bottom of “My Vehicles” screen, tap “Add Vehicle.”
- Fill in all required fields.
- If installing on truck or car, check “Steer Axle.”
- Select “Rear Axle Type”: single tire or dual tires.
- Select “No of Rear Axles”: not including steer axle.
- Set “Select layout” to either be for “TPMS”, “Load” or “Both.”
- Tap “Submit” to add the configuration to the app’s Vehicle page.



2 | **STEP FOUR: DRIVE AND MONITOR**

Once PressureTech™ sensors are configured, the “Drive Mode” page can be used to easily monitor system condition with green-yellow-red status. Green = good to drive. Yellow = monitor and check next stop. Red = pull over and inspect.

- Tap the steering wheel icon on TPMS or Load page to go to “Drive Mode.”
- This page will display boxes for tire pressure, temperature, battery life, and vehicle weight. Based on your settings, any alerts will appear on your device’s screen as yellow or red.
- Touching any status box will take you to the corresponding alert section and provide more information.



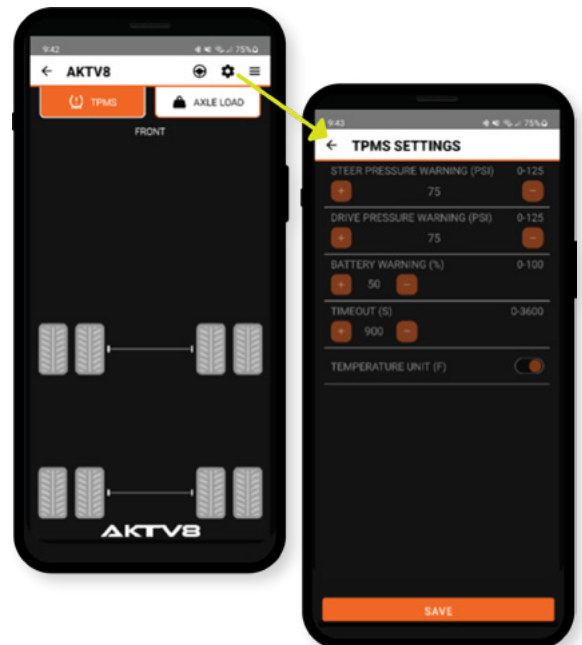
3 | **PressureTech™ TPMS**

Each PressureTech™ Sensor Kit comes equipped with everything needed to complete installation, including Bluetooth valve stem sensors, anti-theft locknuts and wrench.

STEP ONE: TPMS SETTINGS

TPMS settings are defined per vehicle, allowing each vehicle to have custom alerts.

- In upper right, tap the Settings wheel.
- Input the Low Pressure warning thresholds.
- Change Battery, Timeout, Units as desired.



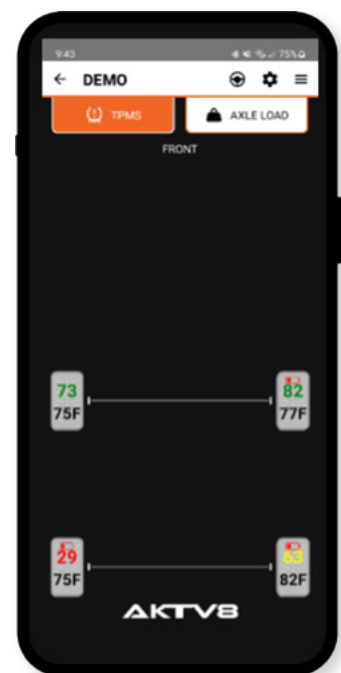
3 | **STEP TWO: INSTALL TPMS**

Select your vehicle from the Vehicle page. Add TPMS to the App as they are installed.

- Pair TPMS to app.
- On the TPMS page, tap the corresponding tire and tap "Add" on the pop-up window.
- Use your device's camera to scan the QR code located on top of the sensor. Once the sensor code is captured, you will see a value in the ID line of the pop-up box.
- Tap "Save."



- Install the sensor on the tire stem.
- Thread locknut on tire stem.
- Thread TPMS on tire stem till finger tight.
- Use wrench to lock TPMS in place with locknut ~ 10 in-lbs.
- Once configured, TPMS pressure, temperature, and battery State of Charge will be displayed on each tire.



3 | PressureTech™ TPMS for Automatic Tire Inflation System (ATIS)

If your trailer is equipped with an Automatic Tire Inflation System (ATIS), and the tire hoses are not equipped with check ports, the hoses will need to be upfitted with integral check ports to accommodate the PressureTech™ TPMS Sensors.

If you don't have a check port, contact the manufacturer of your ATIS system to see if they have one available. Or you can use the [PressureTech™ TPMS flow through sensor](#) connected directly to the valve stem.

****When using the TPMS flow through sensor, install the sensor to the valve stem first and then install the ATIS hose. Follow the instructions from your ATIS system for removing and installing the hoses.***

4 | PressureTech™ Load

Air-Scale Sensor(s) Installation

This section details the steps for installing an Air-Scale sensor and fitting to the air suspension system. Before you start the installation process below, the vehicle profile must be complete and the sensor(s) paired in the PressureTech™ mobile app. PressureTech™ Air-Scale sensors are purchased with either a ¼" or ⅜" push-to-connect Tee fittings (only one fitting will be needed per axle, depending on the size of air line).

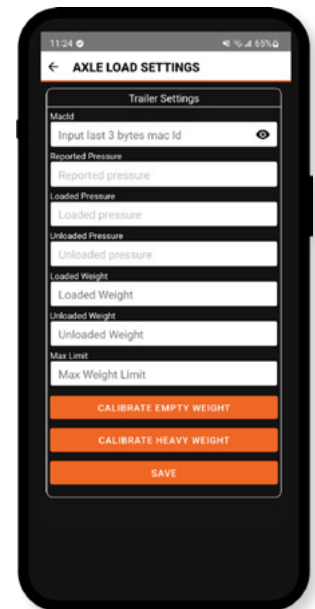


Pair app to Suspension Pressure Monitor Sensor SPMS

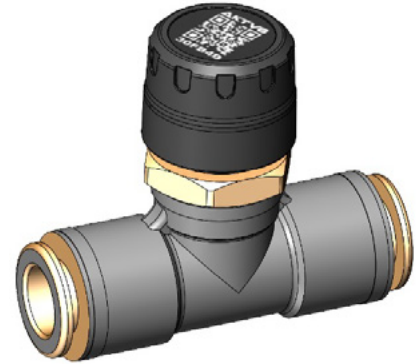
- Select your vehicle from the home screen. Tap on the "Axle Load" tab.
- To pair Load sensors, tap the eyeball icon in the upper-right corner.
- Use your device's camera to scan the QR code located on top of the sensor.
- Tap "Save."

Install SPMS in Vehicle

- Apply parking brakes and chock the wheels.
- Dump the air pressure from the air suspension system.
- Find a location in the air line to install the push-to-connect Tee Fitting. Choose a location in the air line feeding both air springs of an axle, as close to the springs as possible ("downstream" from the leveling or dump valve).



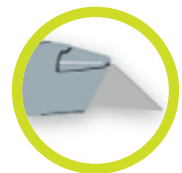
- 4 |
- Select the correct Tee for the air line (3/8" or 1/2") and install a sensor on the Tee valve stem by screwing on the sensor clockwise until finger tight ~10 in-lbs. **Overtightening could damage the sensor and or threads.**
 - Cut air line at desired sensor location. Refer to the cutting instructions in Section 4a for details on making a proper 90-degree cut for the Tee Fitting installation.
 - Clean the ends of the cut air line to remove any dirt or grease.
 - Install Tee Fitting by pushing the cut ends of the air line into the ends of the Tee Fitting. Apply a good amount of force to ensure the air line ends go in as far as they can. Tug on the air line after installation to ensure proper engagement.
 - Start the vehicle and let the height control valve(s) charge the air system to operating pressure/height.
 - Check for air leaks using soapy water and a spray bottle, refer to instruction in Section 4c. It is important that there are no air leaks in the air suspension system for the PressureTech™ system to work properly.
 - Secure the air line with the sensor installed and prevent the sensor and airline from rubbing or impacting sharp edges, or vehicle frame during travel.
 - Proceed to calibration steps outlined in AKTV8 PressureTech™ App Section.



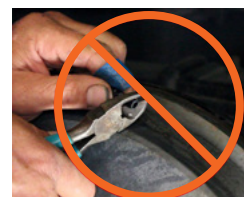
a. Cutting Air Hose

Improper cutting of air hose is the #1 installation issue! Using the right tool the right way will ensure a leak-free connection. Using the wrong tool will cause leaks and frustration.

- ONLY use sharp-bladed tools to cut the hose square.
- DO NOT USE side cutters or scissors – these pinch the hose and create burrs that cut the internal O-Rings of the push to connect fittings and will cause leaks.
- DO NOT cut on angle.
- We have found these to be the best tool as they have a recess for both 1/4" and 3/8" hose. Check them out on [Amazon](#).

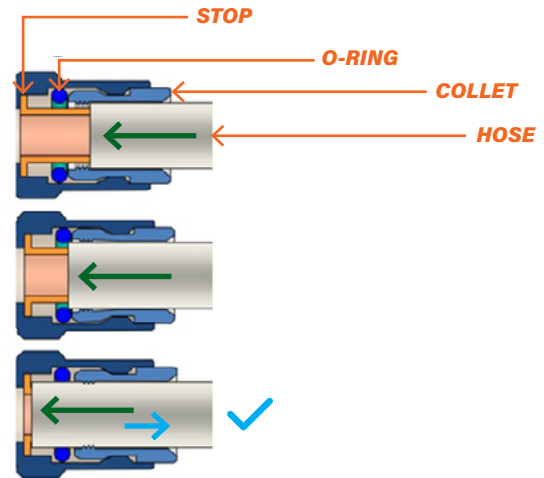


SNS Soft Tube Cutter Pipe Cutter Hose Cutter
 Plastic Tubing Cutter New Black Whole Body Steel
 Material for PU PE Nylon Tube TK-2
Visit the SNS Store
 4.5 ★★★★★ 173 ratings
30+ bought in past month
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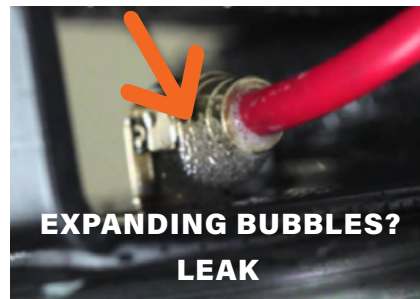
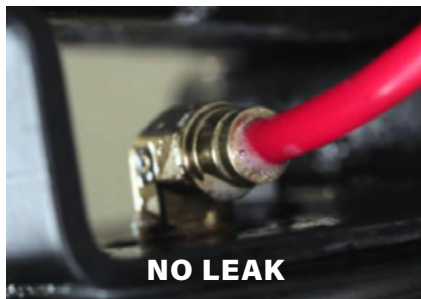
4 | b. Hose Insertion into Tee Fitting

- Insert nylon hose into Push In Fitting.
- Push hose through Collet, lightly twisting.
- Continue to push and twist hose through O-Ring until tube reaches mechanical stop.
- Lightly pull hose to ensure retention: this will secure Collet teeth into hose.



c. Leak Checking

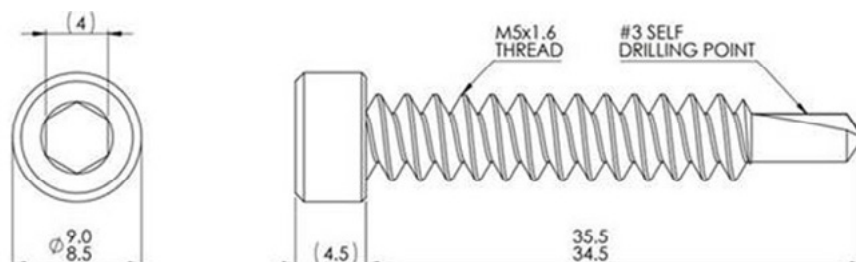
- Check leaks at all connections using soapy water solution or Snoop. Soapy water in a spray bottle works great: 1 tablespoon dish detergent (no ammonia or salt) to 1 quart water, mixed.



5 | Gateway Range Extender Installation

The PressureTech™ Gateway Range Extender is a rugged, waterproof ECU that can be mounted anywhere under the vehicle. The Gateway will recognize PressureTech™ sensors and retransmit their signals over Bluetooth to your device.

- Optimally the Gateway is equidistant/centralized between all PressureTech™ sensors and cab/cockpit to enable best performance. Trial install harness to determine locations to mount Gateway. The unit requires 12v+ ignition switched and -ground. Determine if harness needs to be extended to comfortably route without stretching or kinking.
- Use self-tapping screws provided to mount unit to chassis. Max torque is 23 in-lbs.



- 5** |
- Secure wiring while ensuring connector wiring is not strained The wires must not be pulled to the side as this can allow water/moisture past the wires. Protect wiring over sharp edges / through sheet metal holes with grommets or sheathing (split or spiral convolute works great).
 - Power up and confirm PressureTech™ sensors are reading in your cab/cockpit.



6 | Troubleshooting

Red band around tire/load icon: device not receiving data from sensor.

- Device too far from sensors.
 - » Move device closer to sensor location.
- Sensor not awake.
 - » Unscrew sensor from valve stem and reinstall, ensuring Shrader valve engaged by sensor.
 - » All sensors will not update at identical times but should report in 30 seconds depending on device.
- Battery below operating voltage.
 - » Replace battery with new 1632 lithium cell.

Unable to scan QR code:

- Sensor code dirty.
 - » Wipe sensor clean.
- Sensor code damaged.
 - » Type last 6 digits of code into box, tap "Submit."

