



# Notice

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# Introduction

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This manual covers Transducer Replacement Instructions for Veeder-Root Wireless Pressurized Line Leak Detection (WPLLD) Systems.

## Safety Symbols

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The following safety symbols may be used throughout this manual to alert you to important safety hazards and precautions.



### **Explosive**

Fuels and their vapors are extremely explosive if ignited.



### **Flammable**

Fuels and their vapors are extremely flammable.



### **Electricity**

High voltage exists in, and is supplied to, the device. A potential shock hazard exists.



### **Turn Power Off**

Live power to a device creates a potential shock hazard. Always turn power off to the device and associated accessories when servicing the unit.



### **No Power Tools**

Sparks from power tools (such as drills) can ignite fuels and their vapors.



### **Use Safety Barricades**


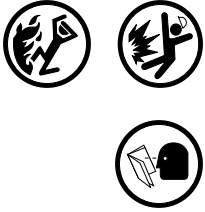
Unauthorized people or vehicles in the work area are dangerous. Always use safety cones or barricades, safety tape, and your vehicle to block the work area.



### **Read All Related Manuals**

Knowledge of all related procedures before you begin work is important. Read and understand all manuals thoroughly. If you do not understand a procedure, ask someone who does.

## Warnings and Important Notes






 <b>WARNING</b>	
	<p><b>This product is to be installed in systems operating near locations where highly combustible fuels or vapors may be present.</b></p> <p><b>Fire or explosion resulting in serious injury or death could result if the equipment is improperly installed or modified. Serious contamination of the environment may also occur.</b></p> <ol style="list-style-type: none"><li><b>1. Read and follow all instructions in this manual, including all safety warnings.</b></li><li><b>2. Comply with all applicable codes including: the National Electrical Code; federal, state, and local codes; and other applicable safety codes.</b></li><li><b>3. Do not alter or modify any component or substitute components in this kit.</b></li><li><b>4. Do not use this component for other systems aside from the WPLLD. Install console only as described in this manual.</b></li><li><b>5. The WPLLD must be installed and operated in an indoor location.</b></li></ol>

## Damage Claims

1. Thoroughly examine all components and units as soon as received. If damaged, write a complete and detailed description of the damage on the face of the freight bill. The carrier's agent *must* verify the inspection and sign the description.
2. Immediately notify the delivering carrier of damage or loss. This notification may be given either in person or by telephone. Written confirmation must be mailed within 48 hours. Railroads and motor carriers are reluctant to make adjustments for damaged merchandise unless inspected and reported promptly.
3. Risk of loss, or damage to merchandise remains with the buyer. It is the buyer's responsibility to file a claim with the carrier involved.
4. Immediately advise your Veeder-Root representative, distributor, or the factory so that we may assist you.


# Replacing The WPLLD Sensor

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 <b>WARNING</b>	
     	<p>This equipment uses lethal voltages and attaches to accessory components which operate in areas where flammable liquids and vapors may be present.</p> <p>Serious injury or death from shock, explosion, or fire may result if power is on during installation and the device is improperly installed.</p> <p>When installing this product:</p> <ol style="list-style-type: none"><li>1. Read and understand all instructions.</li><li>2. Turn OFF power to the console and submersible pumps during installation.</li><li>3. Use only Veeder-Root supplied service parts to avoid compromising safety.</li><li>4. Wiring must comply with all applicable requirements of the National Electrical Code; federal, state, and local codes; and any other safety codes.</li><li>5. To protect yourself and others from being struck by vehicles, block off your work area during installation or service.</li></ol>

## Checking the Functional Element Orifice (For Red Jacket Pumps)

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**Important**  *If you are using an FE Petro pump, skip this section.*

1. Remove the six slot-head screws from the functional element [Figure 1 on page 4].
2. Visually verify that the orifice is free from debris and that the spring has been removed.
3. Carefully reassemble the functional element. Be sure that all gasketed surfaces are free from debris when reinstalling.

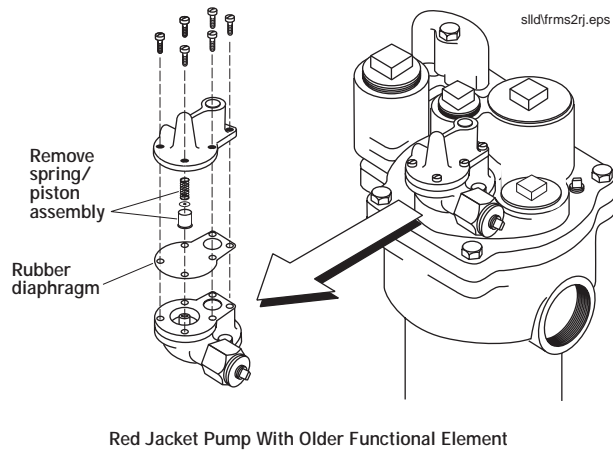






Figure 1. Disabling the Functional Element

 <b>WARNING</b>	
  	<p><b>This system contains hazardous fuels.</b></p> <p><b>If the functional element leaks, serious injury or death from fire or explosion, or environmental contamination may result.</b></p> <p><b>When reinstalling:</b></p> <ol style="list-style-type: none"> <li><b>1. Follow instructions completely.</b></li> <li><b>2. Check for leaks after the system is pressurized.</b></li> </ol>

### WPLLD Sensor Removal

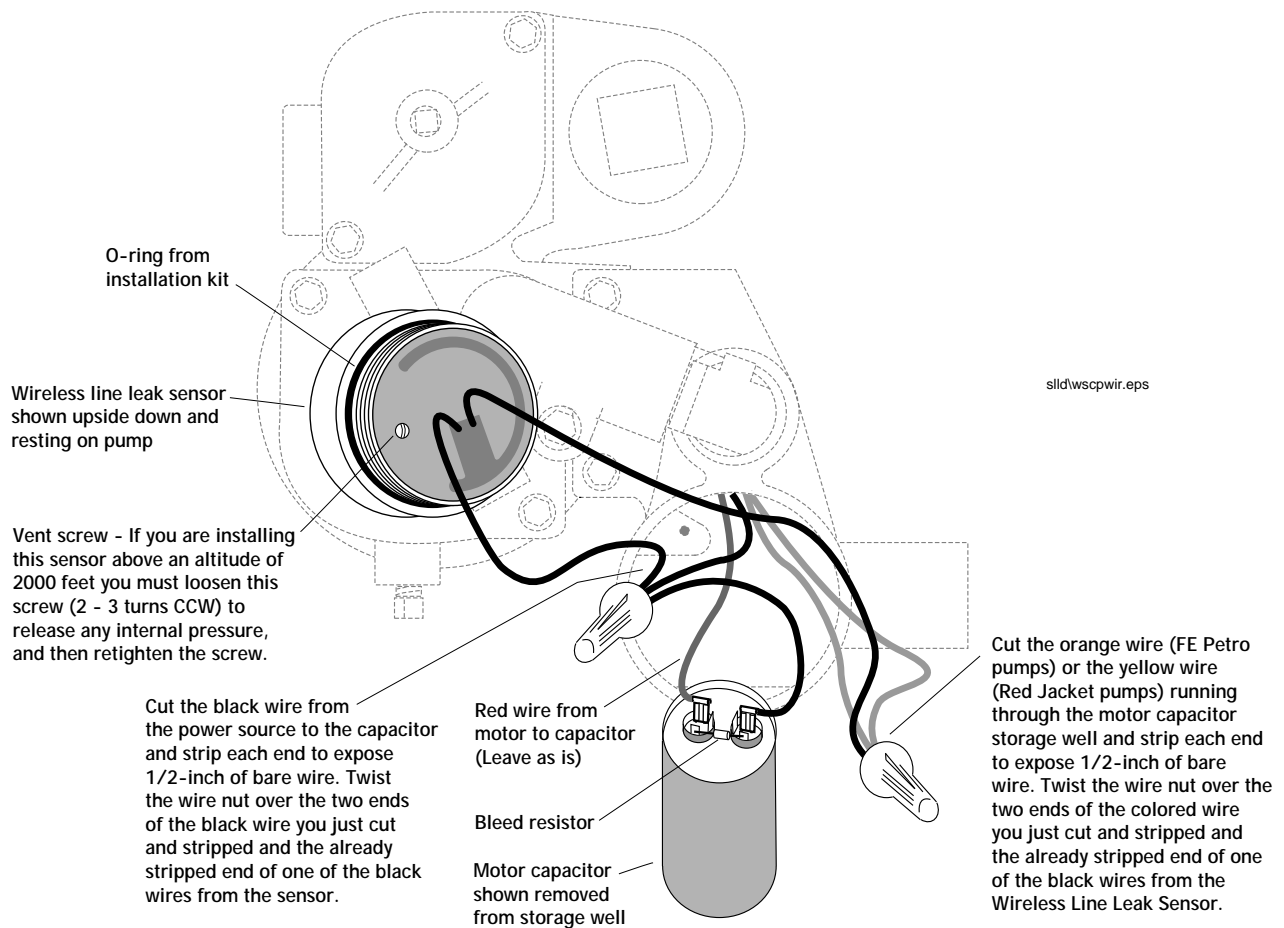


1. Ensure power to the STP is turned OFF.
2. Disconnect the sensing line from the WPLLD sensor.
3. Remove the capacitor cover bracket from the WPLLD sensor and set it (and pump capacitor cover) aside for reinstallation.
4. Unscrew the WPLLD sensor from the pump.
5. Remove the plastic shield from the capacitor housing and disconnect the sensor wires from the pump wires.



### WPLLD Sensor Installation

1. Remove the protective plastic cap from the WPLLD sensor.
2. If the sensor is being installed at altitudes above 2,000 feet, open the vent screw at least two turns, but not more than three turns, to vent any internal pressure. (WPLLD sensors are equipped with a vent screw to equalize internal pressure.)
3. Retighten the vent screw securely to prevent water from entering. (Failure to release internal pressure in the WPLLD sensor at altitudes above 2,000 feet could cause inaccurate pressure readings and false line leak alarms.)



**Figure 2.** Connecting WPLLD Sensor To Pump

4. Follow the instructions in Figure 2 (above) to connect the WPLLD sensor to the pump.
5. Replace the shield into the capacitor housing with open side up. Hold the shield at an angle and place notched tab into the compartment first. Guide the two wires from the WPLLD sensor into the notch on the shield, leaving as much slack in the wires as possible above the shield (this will prevent stressing them when the WPLLD sensor is threaded into the pump).
6. Lightly lubricate the O-ring on the WPLLD sensor with mineral oil or other suitable lubricant.
7. Rotate the sensor about three turns counterclockwise, then screw the Wireless Line Leak Sensor into the pump compartment and tighten it securely.
8. Reconnect the sensing line to the WPLLD sensor and tighten it securely.
9. With the two 6-32 x 0.375" screws provided, attach the capacitor cover bracket (removed from the original WPLLD sensor) to the top of the new WPLLD sensor. Snap the capacitor cover into the bracket.

## Checking STPs for leaks

After connecting all of the sensors, apply power to each pump and check for leaks. Verify that the functional element, sensing lines, and check valve threads into each pump are not leaking. Product leakage can create serious environmental and safety hazards.



- Tighten any leaking fittings until the leak is stopped. **Be careful** not to overtighten and strip the threads. If the leak cannot be stopped, turn OFF power to the pump and check the fitting for thread damage or improper sealing.
- Replace or reseal the fitting(s) as required.



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