

Sump Sensor

Installation Guide

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DAMAGE CLAIMS / LOST EQUIPMENT

Thoroughly examine all components and units as soon as they are received. If any cartons are damaged or missing, write a complete and detailed description of the damage or shortage on the face of the freight bill. The carrier's agent must verify the inspection and sign the description. Refuse only the damaged product, not the entire shipment.

VEEDER-ROOT'S PREFERRED CARRIER

1. Contact VR Customer Service at 800-873-3313 with the specific part numbers and quantities that were missing or received damaged.
2. Fax signed Bill of Lading (BOL) to VR Customer Service at 800-234-5350.
3. VR will file the claim with the carrier and replace the damaged/missing product at no charge to the customer. Customer Service will work with production facility to have the replacement product shipped as soon as possible.

CUSTOMER'S PREFERRED CARRIER

1. It is the customer's responsibility to file a claim with their carrier.
2. Customer may submit a replacement purchase order. Customer is responsible for all charges and freight associated with replacement order. Customer Service will work with production facility to have the replacement product shipped as soon as possible.
3. If "lost" equipment is delivered at a later date and is not needed, VR will allow a Return to Stock without a restocking fee.
4. VR will NOT be responsible for any compensation when a customer chooses their own carrier.

RETURN SHIPPING

For the parts return procedure, please follow the appropriate instructions in the "General Returned Goods Policy" and "Parts Return" pages in the "Policies and Literature" section of the Veeder-Root **North American Environmental Products** price list.

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Introduction

This manual contains installation procedures for the Veeder-Root Sump Sensor (Part No. 794380-208 or 794380-209), in the following Veeder-Root consoles:

- TLS-3XX Consoles
- TLS-4XX Console

This manual assumes field wiring has been run from the console to the sump in which the sensor will be installed following instructions in the appropriate console's site prep manual. **Important!** Sump Sensor field wiring must not be connected to the console prior to sensor installation.

Related Manuals

Depending on your installed console, you must reference the appropriate manual below for sensor-to-console connections:

576013-879	TLS-3XX Consoles Site Prep Manual
577013-879	TLS-4XX Consoles Site Prep Manual
576013-773	ILS-350 Console Site Prep and Installation Guide

Contractor Certification Requirements

Veeder-Root requires the following minimum training certifications for contractors who will install and setup the equipment discussed in this manual:







Level 1 Contractors holding valid Level 1 Certification are approved to perform wiring and conduit routing, equipment mounting, probe and sensor installation, tank and line preparation, and line leak detector installation.

Level 2/3 Contractors holding valid Level 2 or 3 Certifications are approved to perform installation checkout, startup, programming and operations training, troubleshooting and servicing for all Veeder-Root Tank Monitoring Systems, including Line Leak Detection and associated accessories.

Warranty Registrations may only be submitted by selected Distributors.

Safety Precautions

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

 <p>EXPLOSIVE Fuels and their vapors are extremely explosive if ignited.</p>	 <p>FLAMMABLE Fuels and their vapors are extremely flammable.</p>
 <p>TURN POWER OFF Live power to a device creates a potential shock hazard. Turn Off power to the device and associated accessories when servicing the unit.</p>	 <p>INJURY Careless or improper handling of materials can result in bodily injury.</p>
 <p>GLOVES Wear gloves to protect hands from irritation or injury.</p>	 <p>WEAR EYE PROTECTION Wear eye protection when working with pressurized fuel lines or epoxy sealant to avoid possible eye injury.</p>



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.

⚠ WARNING



This product is installed in areas where flammable liquids and explosive vapors may be present.

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.

1. Read and follow all instructions in this manual, including all safety warnings.
2. Comply with all applicable codes including: the National Electrical Code; federal, state, and local codes; and other applicable safety codes.
3. Sensor wiring conduit must not contain any other wires and must enter the console only through their designated knockouts.
4. Substitution of components may impair intrinsic safety.

Sensor Installation

Installation Hardware

The Sump Sensor 's Installation kit is shown in Table 1:

Table 1. Sump Sensor Installation Kit (P/N 330020-076)

Item	Qty.	Description	Part No.
1	2	Mounting strip	330314-001
2	2	#4-20 x 3/8" Plastite screw	510500-398
3	3	1/4"-20 x 1/2" Bolt, hx hd	503328-001
4	3	1/4"-20 Speed nut	511000-232
5	2	Wire nut	576008-461
6	1	Sealing pack	514100-304
7	1	Cord grip	331028-001
8	2	Tie wrap	510901-337

Site Preparation



1. Check that the Sump Sensor's field wiring is not connected to the console.

Mounting Sensor to Support Member

1. Make sure no liquid exists in the sump. Failure to comply can result in undetected potential environmental and health hazards.
2. Attach one of the mounting strips to the top of the sensor using the 2 Plastite screws provided as shown in Figure 1.
Important! The sensor must be positioned in the lowest part of the sump and it must be mounted in a true vertical position to ensure proper operation of the float switch contained inside.
3. Depending on your mounting requirements (again see Figure 1), attach the second mounting strip to the first strip using two 1/4-20 x 1/2-inch screws and speed nuts. With the sensor resting on the bottom of the sump, wrap the mounting strip around the support member and secure it using a 1/4-20 x 1/2-inch screw and speed nut.
4. Carefully bend the mounting strip so that the sensor is in a true vertical position and still rests on the bottom of the sump.
5. Install the cord grip into the junction box. Feed the sensor cable through the cord grip on the junction box. Tighten the cord grip nut to ensure a water-tight seal at the cable entry.

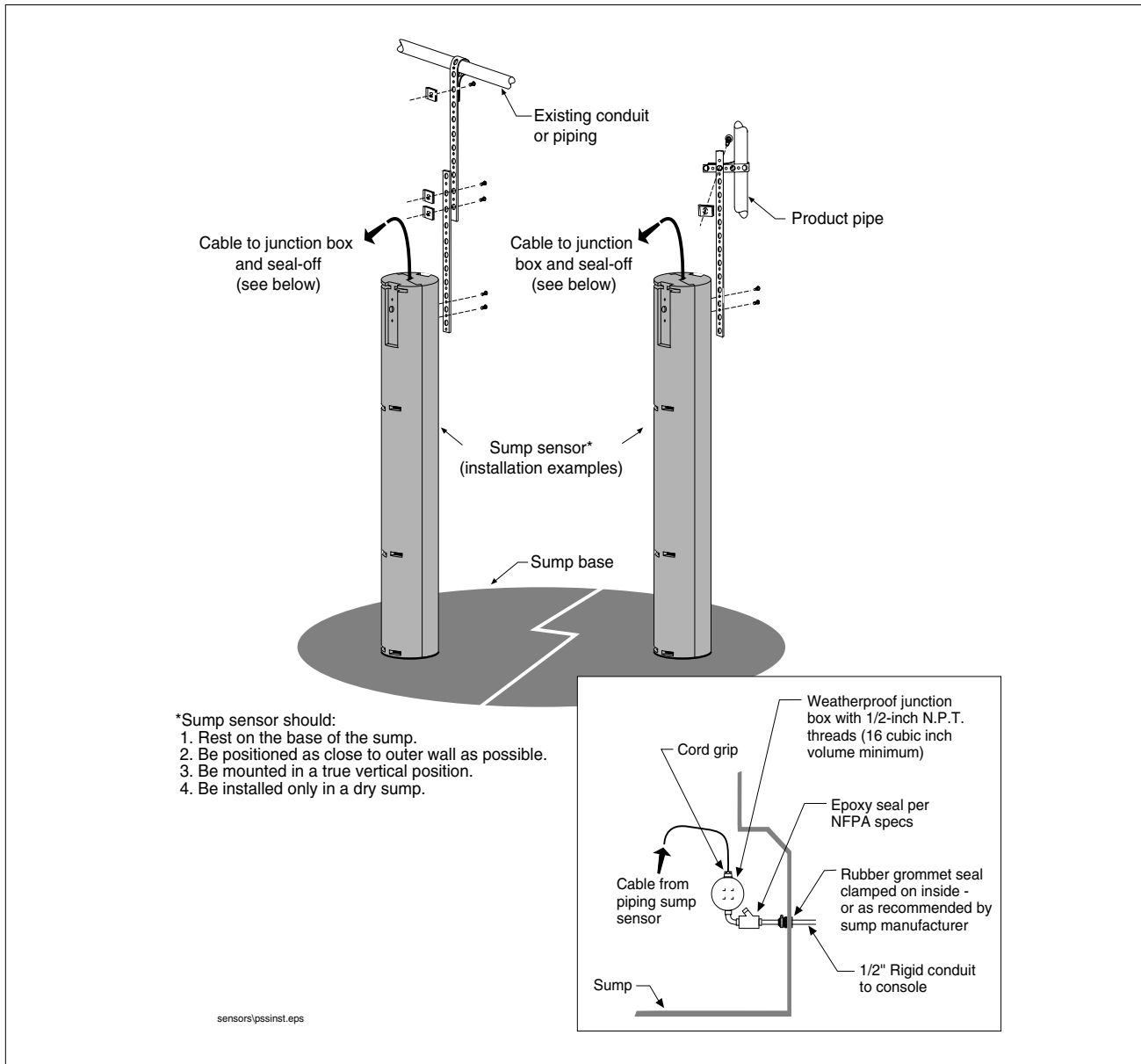


Figure 1. Sensor Mounting Examples

Wiring Procedure

- Using wire nuts, connect the two-wire sensor cable to the field wires in the sensor junction box (see Figure 2). Note, the Sump Sensor wiring has no polarity.

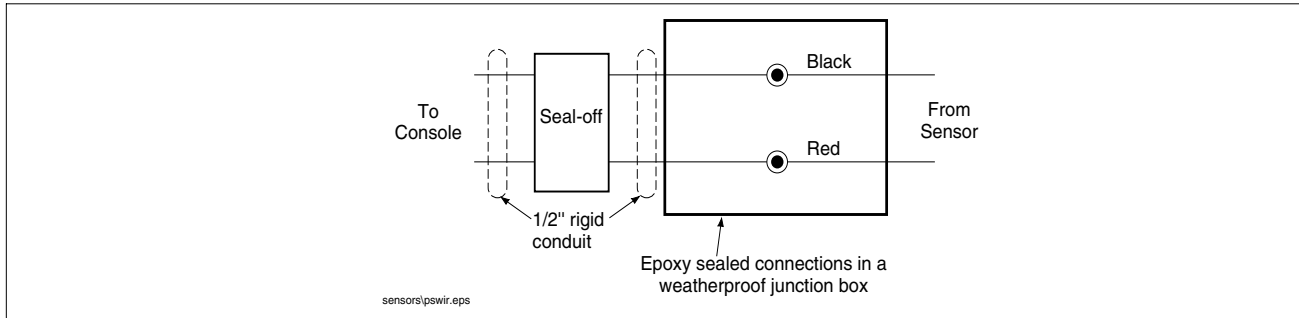


Figure 2. Sensor Field Wiring Diagram

- Do NOT terminate drain wire at this location, ground drain wire at console only.
- Seal wire nuts with epoxy sealant following the instructions in Figure 3.



CAUTION: Epoxy sealant is irritating to eyes, respiratory system, and skin. Can cause allergic skin reaction. **Contains:** epoxy resin and Cycloaliphatic epoxy-carboxylate. **Precautions:** Wear suitable protective clothing, gloves, eye, and face protection. Use only in well ventilated areas. Wash thoroughly before eating, drinking, or smoking.

- Push the epoxy sealed bag into the junction box. Replace and tighten the junction box cover.

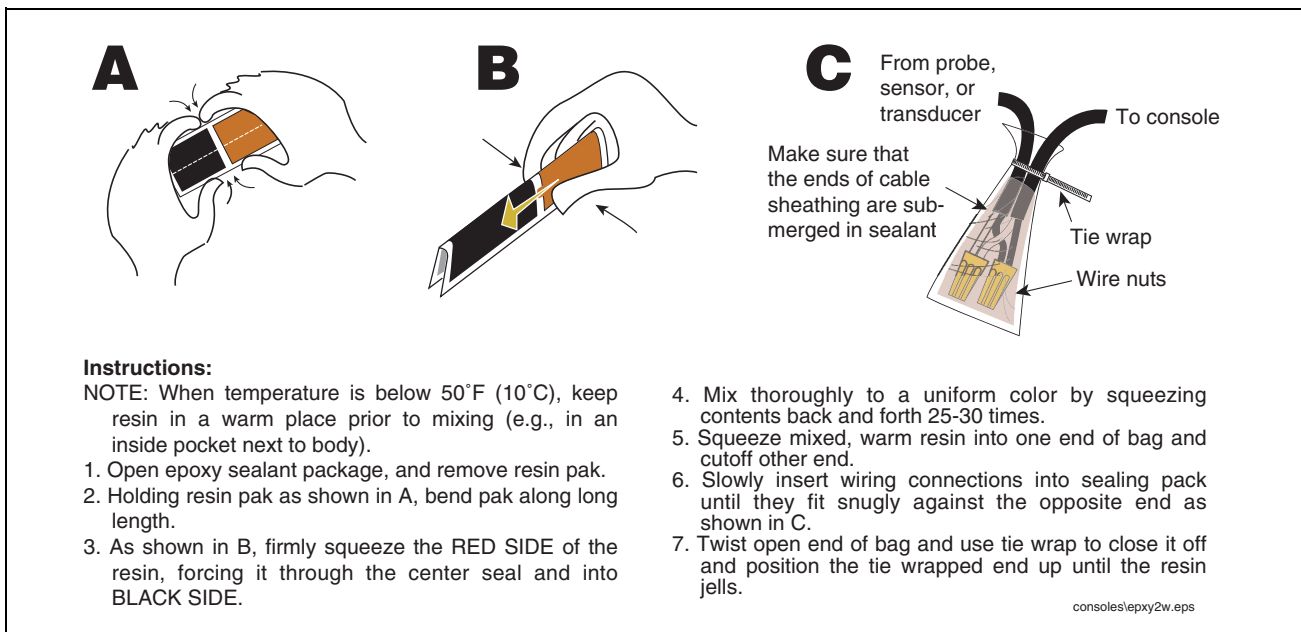


Figure 3. Epoxy Sealing Field Connections

- Consult the appropriate console site prep manual to connect the Sump Sensor to the console.

