PMP CORPORATION

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Installation Instructions

Remanufactured Veeder-Root® Fiberglass Tank Interstitial Sensor

PMP # 62401, 62404, 62407, 62409

Replaces Veeder-Root #794390-401, -404, -407, -409

Contents

Disclaimer

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Related Manuals

This installation requires specific knowledge of Veeder-Root® equipment and you may need to refer to the following OEM manuals to complete the installation:

576013-879 TLS-3XX Series Console Site Prep and Installation Manual
577013-879 TLS-4XX Series Console Site Prep and Installation Manual
576013-617 Interstitial Liquid Sensor – Fiberglass Tanks Installation Guide
577013-750 Sensor Product Application Guide
577013-814 Operability Testing Guide

Safety Symbols

The following safety symbols are used to alert you to potential hazards and precautions that should be taken. These symbols are not intended to alert you to all of the potential hazards you could be exposed to while working in a service station environment. These symbols cannot replace common sense and industry practices.

Read and understand all of the written material related to the installation of this product. If you are un-sure of any aspect of this product, contact PMP for clarification.

Attention. Pay particular attention to the text adjacent to the use of this symbol to alert you to safety or operational issues.

Remove / disconnect all power before proceeding with this installation.

Potential shock hazard. Test circuit to verify power has been disconnected.

Cordon off work area with barriers to avoid contact with traffic.

Potentially explosive materials and or atmosphere. Take necessary precautions.

Potentially flammable materials and or atmosphere. Take necessary precautions.

Electro-static discharge hazard has the potential to damage sensitive electronic equipment

BEFORE YOU BEGIN

- **Service station equipment has both electricity and hazardous, flammable and potentially explosive liquid. Failure to follow the precautions below and instructions in this guide may result in serious injury and death. Follow all rules, codes and laws that apply in your area.**
- **Veeder-Root requires training certifications for contractors who install and set up equipment related to the TLS-350. Installers of this product must have a Veeder-Root® certification of Level 2/3. Be sure that you have familiarized yourself with these requirements and determined if you are qualified to perform this installation.**

- **PMP shall not be liable for errors contained herein or for incidental or consequential damages in connection with furnishing, performance or use of this publication.**
- **PMP reserves the right to change product features or the information contained in this publication.**
- **Failure to install this product in accordance with OEM instructions and warnings will result in voiding of all warranties connected with this product and may damage the environment.**

SAFETY PRECAUTIONS FOR INSTALLATION AND MAINTENANCE

- **Only a person with knowledge and experience with service station equipment should perform this work.**

- **Always make sure ALL power to the equipment you are working with is turned OFF before starting any maintenance.**

- **Note that more than one disconnect switch may be required to de-energize the equipment for maintenance and servicing. Use a voltmeter to make sure ALL circuits in the dispenser are de-energized. Failure to do so may result in serious injury.**

Description

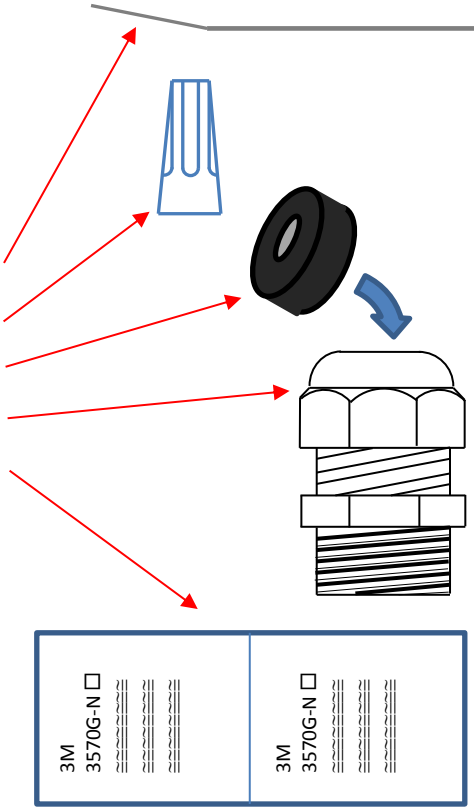
PMP Corporation's 62401, 62404, 62407 and 62409 interstitial sensors are identical with the exception of the wire length used on the sensor. The sensor detects the presence of fluid in the interstitial space of a double wall fiberglass tank. If the liquid level in the interstitial space of a fiberglass tank rises above the threshold of the 62401, 62404, 62407 or 62409 sensors, an alarm is generated and logged in the ATG console so that a historical record of the alarm due to the change in position is recorded. This alarm would indicate there is liquid present in the interstitial space where the sensor is installed. The sensor can easily be removed, cleaned and reinstalled if an alarm is triggered or for periodic testing.

Sensor Models

PMP Number	OEM Number	Description
62401	794390-401	Sensor for 4', 5' Diameter Fiberglass Tank
62404	794390-404	Sensor for 5'4" to 7" Diameter Fiberglass Tank
62407	794390-407	Sensor for 7'6" to 9" Diameter Fiberglass Tank
62409	794390-409	Sensor for 9'4" to 12' Diameter Fiberglass Tank

In the box

Contents	Qty
Fiberglass Sensor	1
Installation instructions	1
Cable tie wrap,	2
Wire nut, P2 blue	2
Rubber insert for cord-grip	2
Cord-grip, 1/2 NPT	2
3M Scotchcast™ Seal Pack	1



Note:
An additional rubber insert, for the cord grip, has been provided to accommodate smaller gauge wire such as the one used on this sensor.

Depending on your installation, you may need to replace the rubber insert to ensure a water tight connection.

Installation Prep

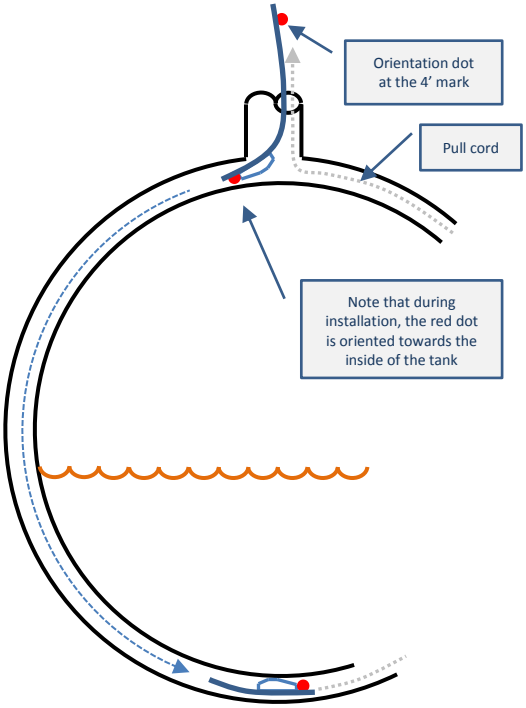
1. Turn-off power to the system.
2. Block off the work area.

3. Confirm you have the correct sensor for the size tank you are installing into. Use the chart above to determine you have the correct sensor for the application.
4. Confirm that there is no liquid in the interstitial space prior to installing the sensor.

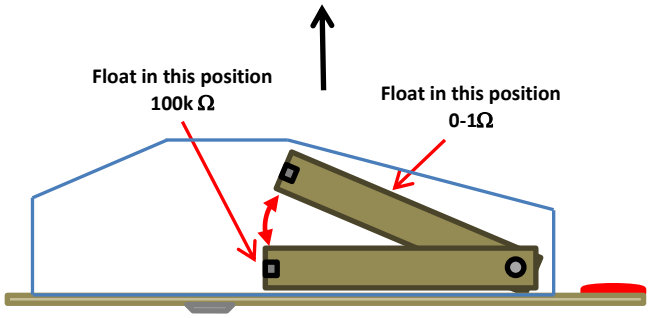
5. Installation of the Fiberglass Interstitial sensor requires a rope or pull cord be installed in the interstitial space of the tank. If there is no pull cord available, you may need to fish a pull cord through the riser and around the tank prior to installation.

Installation of the Sensor

Note: You must refer to the OEM manuals listed earlier in this manual for detailed instructions including console setup.



1. Tie the pull cord to the sensor using the hole provided at the head of the sensor.
2. While pulling the cord, feed the sensor into the riser pipe.
3. Use the red dots on the sensor to determine that the sensor is entering the interstice in the correct orientation. When resting at the bottom of the tank, the red dot must be facing up.
4. Ensure the sensor is positioned at the bottom of the tank.
5. If the sensor is the proper length and is positioned correctly, the black heatshrink on the sensor should be approximately half way up the riser.



Verifying proper orientation

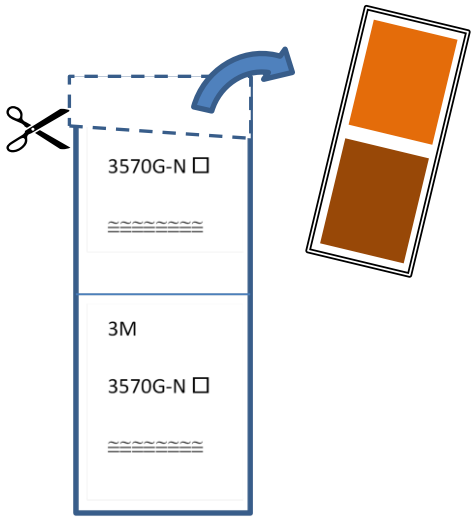
1. Verify that the sensor has been installed in the proper orientation.
2. Connect an ohm meter to the two wire cable of the sensor.
3. The ohm meter must read 100k ohms. If the ohm meter reads 0 ohms, the sensor must be re-installed in the correct orientation.

Note: You can confirm proper orientation by using an ohm meter across the sensor wires:
100k Ω = ✓
0 Ω = ×

Complete the installation

1. Feed the sensor cable though the riser cap and cord grip. Tighten the cord grip.
2. Install the cap on the riser.
3. Using the wire nuts provided, connect the sensor to the field wiring in accordance with applicable codes.
4. Place the field wiring in the Connector Sealing Pack provided. See instructions below on how to use the Connector Sealing Pack.

How to use the Connector Sealing Kit



a. Carefully cut the bag and remove the seal pack.

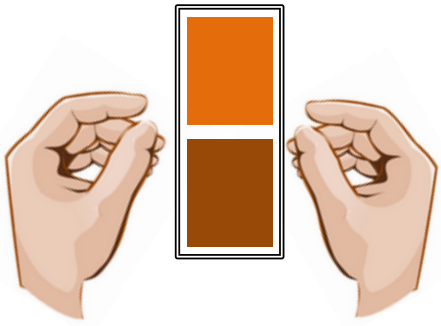
b. Remove the two part seal pack.

c. Grip the edges of the seal pack at the center and vigorously wiggle the plastic bag to weaken the barrier between the two halves.

d. Squeeze the resin back and forth 25-30 times to thoroughly mix the two parts.

e. Squeeze the mixed resin to one side of the packet and cut off the other side.

f. Insert the connections made above. **Be sure the connections are inserted to the full depth of the seal pack to ensure a watertight connection.**

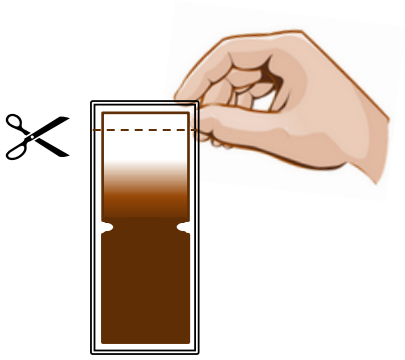


g. Use the wire tie provided to cinch the packet, where shown, to secure the wires in the epoxy pack during the curing process. You can also use electrical tape to secure the wires if you prefer.

h. Cure time is approximately 8-12 min @ 73°F.

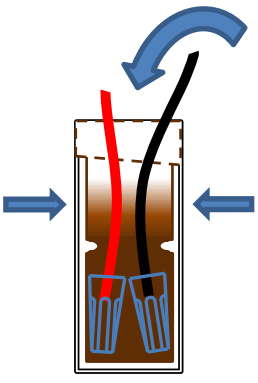
Complete the installation (cont.)

5. Enclose the wiring and seal kit in the junction box.
6. Re-install the junction box cover.
7. Check to be sure all of the cord grips have been tightened to make them water tight.
8. Restore power to the console and proceed with the setup process.



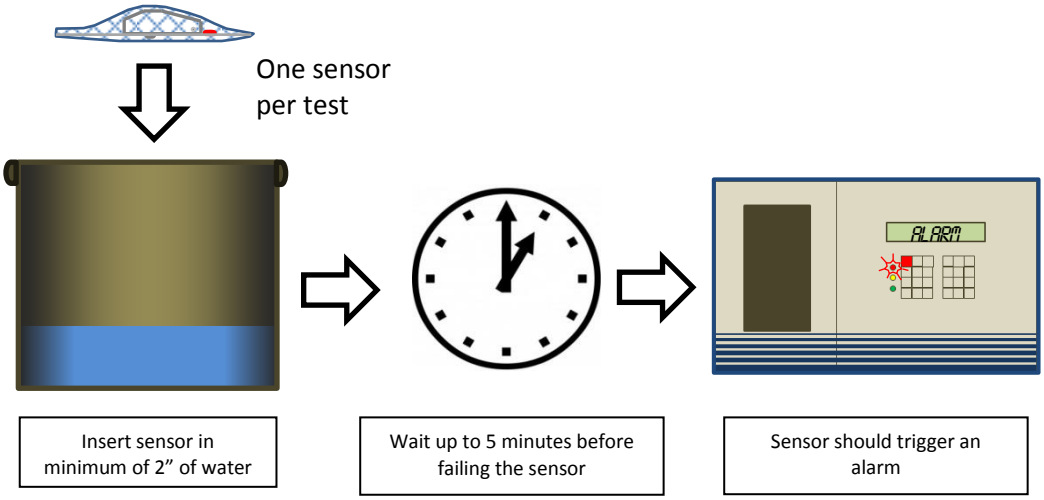
Functional / Maintenance Test Procedure

1. Fill a container with a minimum of 2 inches of water.
2. Remove sensor from tank or sump.
3. Inspect the sensor for any physical damage including cables and connections.
4. Place the sensor in the container, oriented as it would be installed, until it is submerged.
5. The sensor should trigger an alarm on the TLS. Depending on the console and site configuration, it may take up to 5 minutes to trigger an alarm.
6. Clear the alarm on the TLS-350 by pressing the Alarm / Test key or pressing the Alarm button twice on the TLS-450.
7. **If an alarm is not detected, the sensor has failed the test and must be replaced.**
8. If the sensor passed the test, allow the sensor to dry and reinstall per the installation instructions



Functional / Maintenance Test Procedure (cont.)

9. Record the test results for your records.



Quick Reference

Installation and Operation manuals

PMP provides an overview of the sensor installation with each sensor shipped. These installation overviews can also be found on the internet at www.pmp-corp.com. Refer to the OEM manuals listed page 2 for detailed installation instructions.

Equipment Check Guidelines

No vendor specific checklist is provided for the equipment used to monitor these sensors. However, the EPA provides a useful checklist for Underground Storage Tank (UST) owners. This checklist is available on the EPA's website: www.epa.gov/oust/cmplastc/cheklist.pdf

Equipment Calibration

No calibration is required for the sensors discussed in this document.

Maintenance Procedures

Periodic maintenance may be required by local regulations. Operability test guidelines for each sensor can be obtained from PMP or be found on the internet at www.pmp-corp.com. Sensors should be tested at least annually. However, Federal, State or Local regulations may require more frequent inspections and testing.

Test Results/Reports

Third party evaluations were conducted by Ken Wilcox and Associates. Test results can be obtained from PMP.

Technical Contact

Support questions can be directed to the Engineering department at PMP. Refer to the contact information printed at the bottom of this page.

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