

Replacement Instructions

Introduction

This document focuses on maintenance alerts that occur with the HydrX System and what to do about them.

- Veeder-Root makes no representation or warranty about the information in this publication. A qualified professional is required for service of the components addressed in this publication.
- The information in this publication cannot be used as a substitution for the knowledge and experience of a qualified professional.
- The information contained in this publication is merely for the consideration of a qualified professional, which should make their own determination of how to address any issues based on the situation.
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- Contact TLS Systems Technical Support for additional troubleshooting information at 800-323-1799.

Contractor Certification Requirements

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

Service Technician Certification (Previously known as Level 2/3): Contractors holding valid Technician Certifications are approved to perform installation checkout, startup, programming and operations training, system tests, troubleshooting and servicing for all Veeder-Root Series Tank Monitoring Systems, including Line Leak Detection. This certification includes TLS-3xx and TLS-4xx certification training.

In-Station Diagnostics (ISD-PMC) Technician Certification: ISD PMC Contractors holding a valid ISD/PMC Certification are approved to perform (ISD/PMC) installation checkout, startup, programming, and operations training. This training also includes troubleshooting and service techniques for the Veeder-Root In-Station Diagnostics system. A current Veeder-Root Technician Certification is a prerequisite for the ISD/PMC course.

All service personal on site must comply with all recommended safety practices identified by OSHA and your employer.

Review and comply with all the safety warnings in the manuals listed in this document above and any other Federal, State or Local requirements.

Warranty Registrations may only be submitted by selected Distributors.

Safety Warnings

FAILURE TO COMPLY WITH THE FOLLOWING WARNINGS AND SAFETY PRECAUTIONS COULD RESULT IN SERIOUS INJURY OR DEATH, AND/OR CAUSE DAMAGE TO PROPERTY, AND THE ENVIRONMENT.

⚠ WARNING



Due to the presence of high voltages, pressurized fuel connections and hazardous work area dangers, only certified service technicians should attempt repairs to the HydrX System components and/or wiring connections.

General Precautions

To ensure proper installation, operation, and continued safe use of this product:

1. Read and follow all instructions in this manual, including all safety procedures, local and federal guidelines.

2. Have equipment installed by a contractor trained in its proper installation and in compliance with all applicable codes including: National Electrical Codes 70 and 30A; federal, state, and local codes; and other applicable safety codes.
3. Substitution of components may impair intrinsic safety.
4. Do not modify or use service parts other than those provided by Veeder-Root.

Reference Documents: Manual 577014-466, 577014-446

Suggested Equipment: V-R kit# 330020-873 (19" probe) or 330020-903 (12" probe) as required, approved 5-gallon container to receive diesel fuel; siphon pump; petroleum jelly; UL classified for petroleum, non-setting thread sealant; wire strippers; two 1-1/4" open-end or adjustable wrenches and a 1/2" drive ratchet and extension.

Procedure

⚠ WARNING



Tag, lockout power to the STP.

1. Close the STP Adapter ball valve to isolate the Fuel Conditioner unit from the pump (see Figure 1).

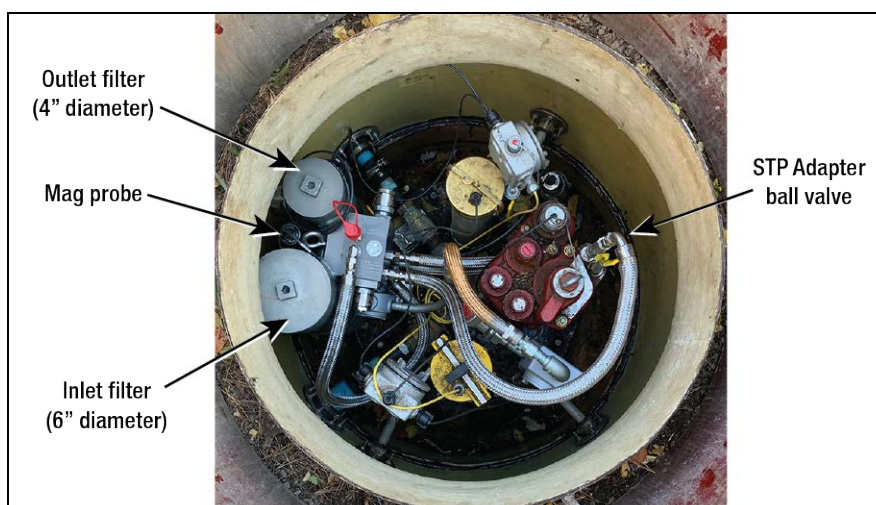


Figure 1. HydrX Sump

2. Using a 1/2" drive ratchet and extension remove either of the two filter caps.
3. Remove filter and set aside. Using a handheld pump or siphon, remove fluid from the HydrX housing until the level is below the probe adapter fitting.
4. Disable the HydrX probe on the TLS-4xx console then disconnect the cable from the top of the HydrX Mag Probe.
5. Using a wrench, loosen the 1-1/4" Adapter (see Figure 2), then carefully lift the old Mag Probe and float assembly out of the Fuel Conditioner opening.

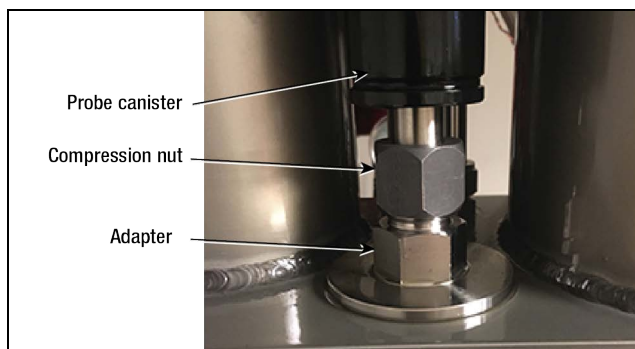


Figure 2. FC Opening for Mag Probe

6. Get the new Mag Probe and parts from the replacement parts kit.
7. Apply Lubriplate 630-AA, or similar grease to the o-ring and position it into the groove under the flange of the adapter (see Figure 3).

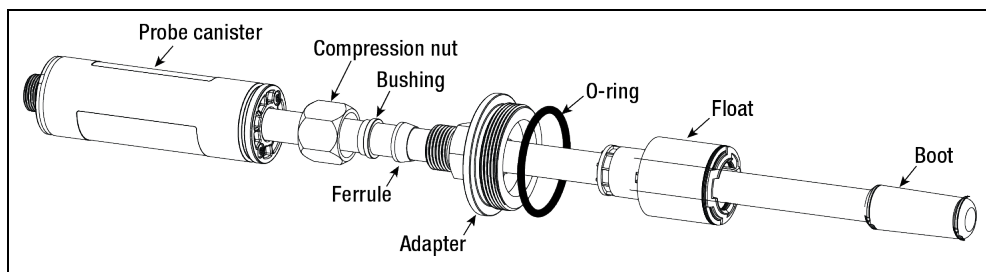


Figure 3. FC Mag Probe Components

NOTICE The system can be damaged if the steps below are not followed exactly.

8. Referring to Figure 3, slide the parts onto the Mag Probe shaft in the following order: compression nut, stainless steel bushing, plastic ferrule, adapter with o-ring, and float. Finally, push the boot onto the bottom of the shaft until it snaps into the groove. Apply Lubriplate 630-AA, or similar grease to both the flat and tapered surfaces of the plastic ferrule prior to installation.
9. Thread the compression nut onto the probe adapter fitting hand tight. Note: The entire assembly should still slide freely on the probe shaft.
10. Carefully lower the Mag Probe assembly into the Fuel Conditioner opening until the boot on the Mag Probe shaft is resting on the bottom of the Fuel Conditioner tank.
11. While ensuring that the compression nut is still only hand tight, use the wrench to tighten the adapter in the Fuel Conditioner opening to 126 foot-pounds.
12. Ensure the probe boot is still resting on the bottom of the housing, then tighten the compression nut an additional 1/2 turn past hand tight to seal the assembly.
13. Replace the HydrX filter, cap and nut. Tighten the filter cap nut until snug.
14. Turn on power to the STP.
15. Re-open the STP Adapter ball valve (see Figure 1).
16. Enable the HydrX probe that was disabled in Step 5.
17. Run a Fill Cycle to refill HydrX with fuel from the tank as outlined below for ATG and FCC controlled HydrX systems.

FILL CYCLE - ATG CONTROLLED HYDRX

1. Touch **Menu>Diagnostics>Hydrx>Overview** (Item 1, Figure 4) to open the HydrX Diagnostic Overview screen (see Figure 5).

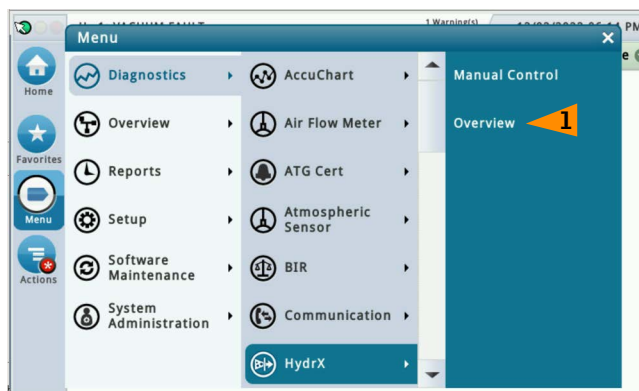


Figure 4. Accessing HydrX Diagnostic Overview Screen

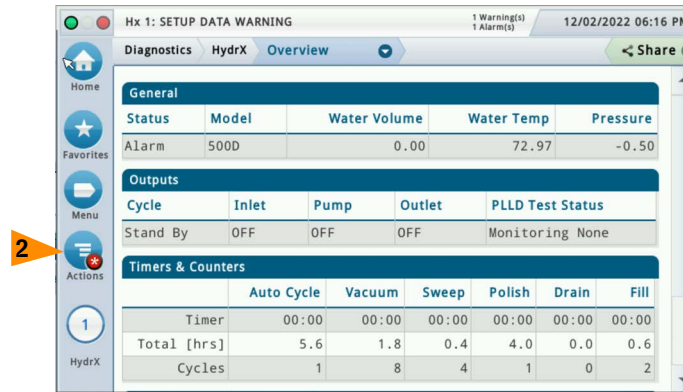


Figure 5. HydrX Diagnostic Overview Screen

2. Touch the **Actions** button (Item 2, Figure 5) to open the HydrX diagnostic service buttons menu. Note: Gray Action buttons are disabled.



Figure 6. HydrX Diagnostic Service Menu

3. Touch **Fill** (Item 3, Figure 6) to refill the HydrX filter compartments with fuel from the tank.

FILL CYCLE - FCC CONTROLLED HYDRX

1. At the Fuel Conditioning Controller Display Home screen, touch the Service button (Figure 7) to open the FCC Service Home screen (see Figure 8).

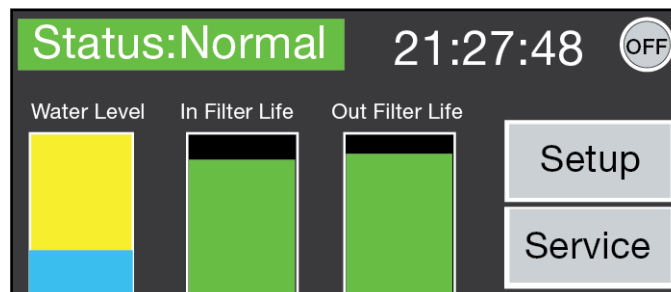


Figure 7. FCC Display Home Screen

2. Touch the **Fill** button to refill the Fuel Conditioner filter compartments with fuel from the tank.

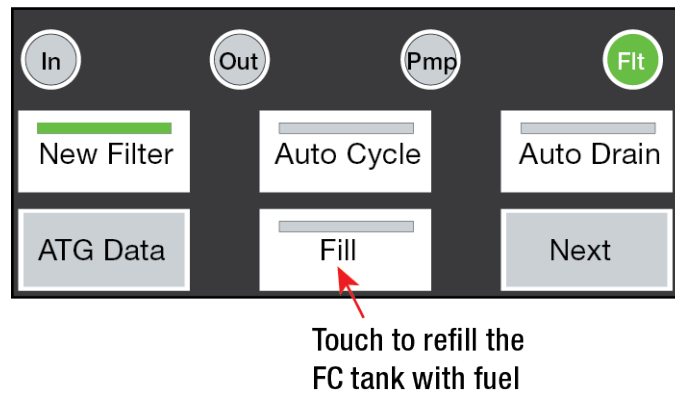


Figure 8. FCC Service Home Screen

For additional assistance, please contact Veeder-Root Technical Support by phone at 800-323-1799 or by email to technical-support@veeder.com.