

### Section 1 - Introduction

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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.
- **Veeder-Root shall not be liable for errors contained herein or for any type of damages in connection with the furnishing, performance, or use of this publication.**
- Veeder-Root reserves the right to change system options or features, or the information contained in this publication, at any time without notice.
- This publication contains proprietary information which is protected by copyright. All rights reserved. No part of this publication may be photocopied, reproduced, or translated to another language without the prior written consent of Veeder-Root.
- 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.**



**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.**



### RELATED MANUALS

- 577014-492 HydrX™ Fuel Conditioning System Setup & Operation Manual - ATG Control
- 577014-446 HydrX™ Fuel Conditioning System Installation Manual
- 577014-473 HydrX™ Fuel Conditioner Inlet/Outlet Filter Replacement Instructions
- 577014-474 HydrX™ Fuel Conditioner Waste Water Tank Draining Instructions
- 577014-478 HydrX™ Fuel Conditioner Siphon Cartridge Service/Installation Guide
- 577014-348 Magnetostrictive Probes Quick Troubleshooting Guide

## Section 2 - HydrX System Alarm Notifications

HydrX System alarms appear in the TLS-4xx display Status Bar and turns on the console beeper. Touch the display Status Bar to silence the alarm (see Figure 1).

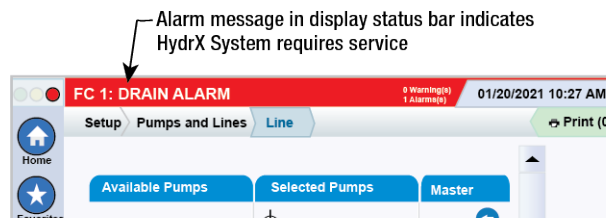


Figure 1. Display Status Bar

## Section 3 - HydrX Overview and Diagnostic Screens

### HydrX System Overview Screen

1. Touch **Menu>Overview>HydrX** to open the HydrX System Overview Screen (see Figure 2).

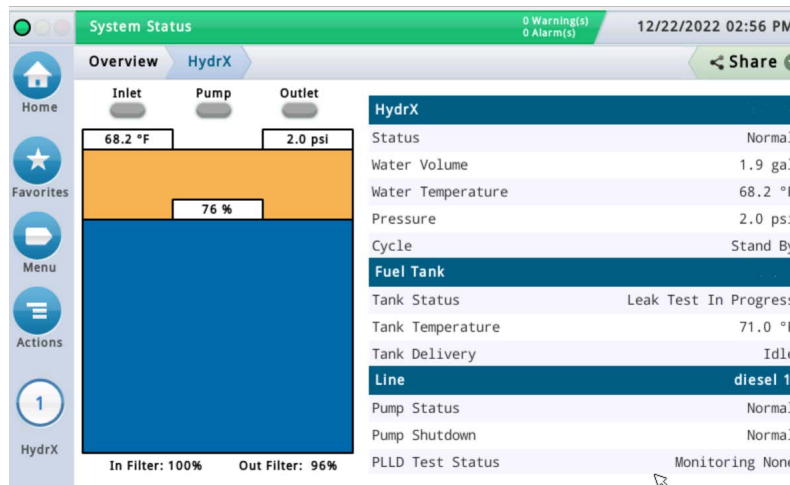


Figure 2. HydrX System Overview Screen

2. The HydrX tab displays information regarding the HydrX filter housing:
  - HydrX Status
  - Water volume
  - Temperature
  - Pressure
  - Current cycle
3. The visual on the left of the screen displays information about HydrX in a visual format including:
  - Valve status
  - Pump status
  - Filter life as a %
  - Water volume as a %
4. The Fuel Tank tab displays information regarding the tank on which HydrX is installed:
  - Test Status
  - Tank Temperature
  - Delivery Status

- The Line tab displays information regarding the line on which HydrX is installed:
  - Pump status
  - Pump shutdown
  - PLLD test status

## HYDRX DIAGNOSTICS OVERVIEW SCREEN

- Touch **Menu>Diagnostics>HydrX** to open the HydrX Diagnostic Screen, then touch **Overview** (Item 1, Figure 3) to open the HydrX System Diagnostics Overview screen (Figure 4).

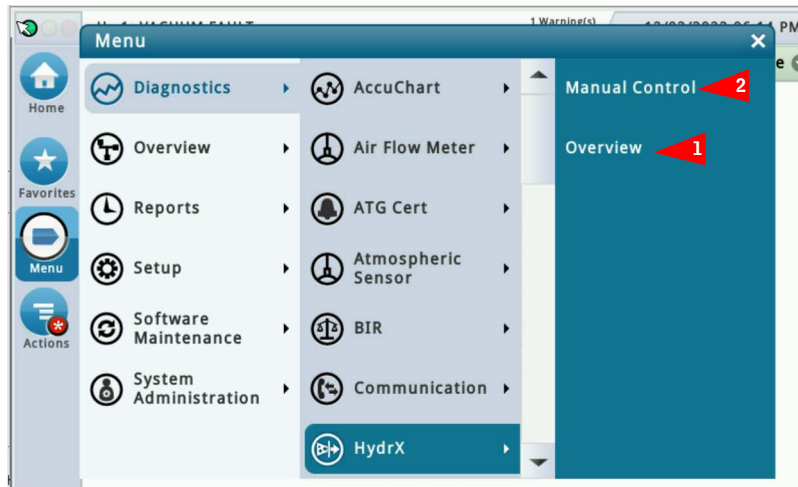


Figure 3. Accessing HydrX Diagnostic Screens

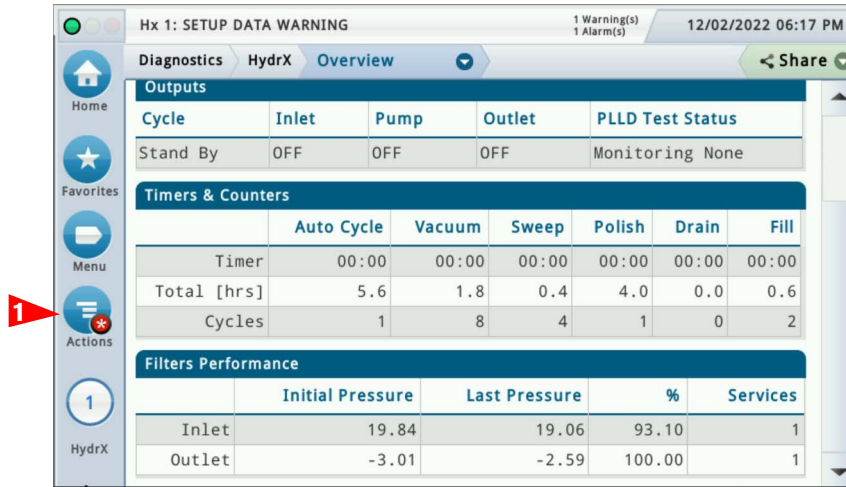
Hx 1: SETUP DATA WARNING						12/02/2022 06:16 PM
Diagnostics > HydrX > Overview						Share
General						
Status	Model	Water Volume	Water Temp	Pressure		
Alarm	500D	0.00	72.97	-0.50		
Outputs						
Cycle	Inlet	Pump	Outlet	PLLD Test Status		
Stand By	OFF	OFF	OFF	Monitoring None		
Timers & Counters						
	Auto Cycle	Vacuum	Sweep	Polish	Drain	Fill
Timer	00:00	00:00	00:00	00:00	00:00	00:00
Total [hrs]	5.6	1.8	0.4	4.0	0.0	0.6
Cycles	1	8	4	1	0	2

Figure 4. Example HydrX Diagnostics Overview Screen - Page 1

- The **General** tab contains the alarm status of the HydrX, water level, temperature and pressure values recorded on the HydrX pressure sensor.
- The **Outputs** tab contains current HydrX cycle and status of the Inlet/Outlet Valves, the STP and PLLD tests.
- The **Timers & Counters** tab contains a historical record of the number and duration of the various HydrX cycles.
- Scroll down to view the **Filters Performance** tab (see Figure 5) which displays:
  - Inlet and Outlet Filter Initial Pressure-The pressure recorded during the most recent 'New Filter Cycle'
  - Inlet and Outlet Filter Last Pressure - the pressure recorded during the last cycle run.

- Inlet and Outlet Filter life (%) - remaining filter life as a percentage.
- Services - number of times filters have been replaced. This value increments at the successful completion of each new filter cycle.

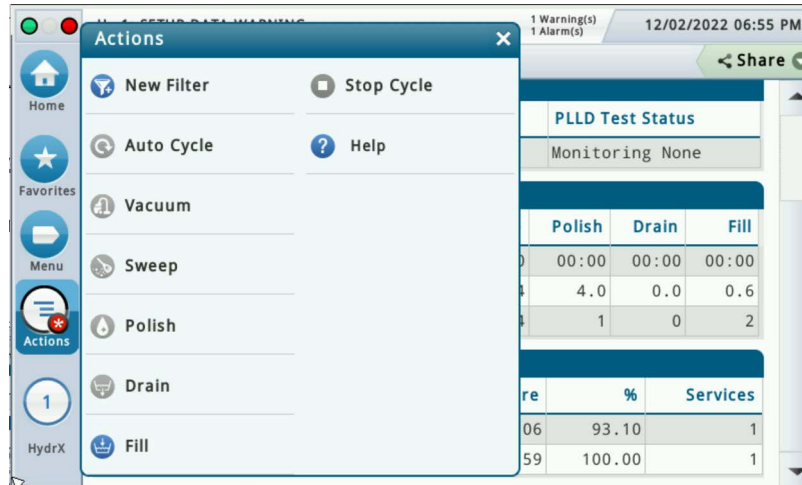
**NOTICE**  
**Reference HydrX System Maintenance Alerts Table on page 6 of this manual regarding when action buttons are enabled/disabled**



**Figure 5. Example HydrX Diagnostics Overview Screen - Page 2**

6. Touch the **Actions** button (Item 1, Figure 5) to open the HydrX diagnostic service buttons menu (see Figure 6). Note: Gray Action buttons are disabled.

**NOTICE** Reference table beginning on page 6 of this manual regarding when action buttons are enabled/disabled.



**Figure 6. HydrX Diagnostics Overview Actions Menu**

- a. Touch the **New Filter** button to run a New Filter cycle during initial system startup or after a filter replacement. Running a New Filter Cycle on used filters may invalidate the filter life calculation. Assuming a typical 15 minute fill/vacuum times, the New Filter Cycle interval is 30 minutes.
- b. Touch the **Auto Cycle** button to run a complete Auto Cycle. An Auto Cycle always starts with vacuum cycles followed by sweep cycles followed by a Polish Cycle. The Auto Cycle interval depends on entered HydrX cycle duration entires.
- c. Touch the **Vacuum** button to run a Vacuum cycle. The Vacuum Cycle interval depends on time entered in HydrX setup.
- d. Touch the **Sweep** button to run a Sweep cycle. The Sweep Cycle interval depends on time entered in HydrX setup.
- e. Touch the **Polish** button to run a Polish cycle. The Polish Cycle interval depends on time entered in HydrX setup
- f. Touch the **Drain** button to run a Drain cycle. The Drain Cycle interval depends on time entered in HydrX setup.

**NOTICE** The Drain button is only available directly through the TLS-4xx GUI and is not available for use through the web interface. Drain button is active when water level on HydrX probe is above 0".

g. Touch the **Fill** button to run a Fill cycle. The Fill Cycle interval depends on time entered in HydrX setup.

**NOTICE** This function is used to re-fill the conditioner following service where filters are NOT replaced or to clear fault conditions.

h. Touch the **Stop Cycle** button to abort any HydrX cycle currently running.

**NOTICE** Reference table beginning on page 6 of this manual regarding when action buttons are enabled/disabled

## HYDRX DIAGNOSTICS MANUAL CONTROL SCREEN

1. Touch **Menu>Diagnostics>HydrX** to open the HydrX Diagnostic screen, then touch **Manual Control** (Item 2, Figure 3) to open the HydrX System Diagnostics Manual Control screen (Figure 7).

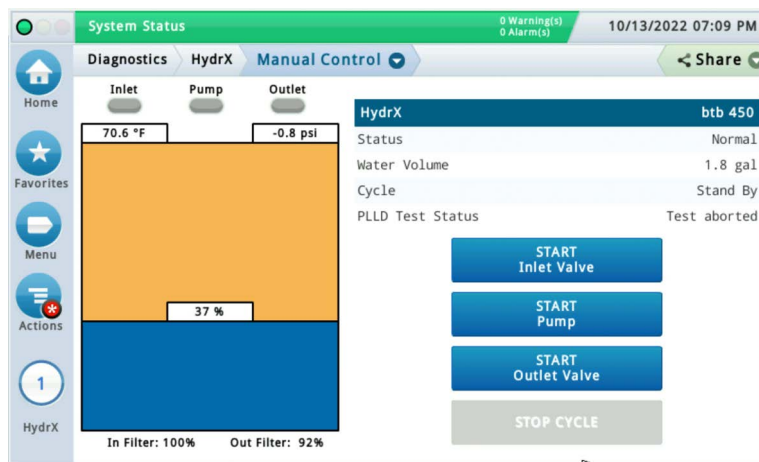


Figure 7. Example HydrX Diagnostics Manual Control Screen

2. The HydrX Manual Control screen allows you to view the status of the HydrX System and manually control the Inlet/ Outlet Valves and the STP for advanced troubleshooting purposes. Each action will run for 10 minutes or until you either touch the start button again or you touch the STOP CYCLE button.


- Touching the **Start Inlet Valve** button sends power to the Inlet Valve and turns the Inlet Indicator green and the 'START Inlet Valve' button red.
- Touching the **Start Pump** button turns the Pump Indicator green and the 'START Pump' button red.
- Touching the **Start Outlet Valve** button turns the Outlet Indicator green and the 'START Outlet Valve' button red.
- Touching the **STOP CYCLE** button aborts any HydrX action currently running.




**NOTICE** Reference table beginning on page 6 of this manual regarding when action buttons are enabled/disabled.

**NOTICE** The Manual Control actions are only usable directly through the TLS-4xx GUI and are not available for use through the web interface.


## Section 4 - HydrX System Maintenance Alerts







Numbers in Applicable Notes Column refer to the 4 actions below

1 	<b>WARNING! Before beginning this action the circuit breakers supplying power to HydrX and the STP must be LOCKED and TAGGED OUT. The pump adapter ball valve must also be CLOSED to prevent accidental release of fuel during troubleshooting.</b>
2	Following any service where filters are replaced, or at new system startup, a NEW FILTER CYCLE must be run to return the system to an operational state.
3	Following any service where hardware is disconnected a FILL CYCLE must be run to return the system to an operational state.
4	Full manual on this procedure available at Veeder.com

Alarm	Description	Cause	Applicable Notes	Action
Pressure Fault	HydrX inlet pressure is outside of operating limits · New Filter Cycle Min Pressure 15 psi · Operating range 7-50 psi	Submersible Turbine Pump is not turning on		Verify Circuit breaker for the STP is in the ON position.
				Check to ensure there are no alarms on the ATG or STP Controller that would disable the pump.
				When starting up a new site with DPPLD, a passing 3.0 gph test is required to enable the STP.
		STP pressure is not entering the HydrX housing		Confirm Inlet Valve wiring and operation using HydrX manual control screen to activate inlet valve.
				Ensure HydrX pump adapter ball valve is in the open position by observing the arrow on the handle.
			1  , 2	Ensure the check valve on the HydrX pump adapter is installed in the proper orientation. Confirm arrow on check valve is pointed in the correct direction. Arrow should point away from ball valve, toward hose connected to port P on the HydrX manifold.  Pump Adapter ball and check valve may be disassembled to correct.
		Insufficient pressure in HydrX housing	1  , 2	If insufficient pressure is present at startup, ensure pump adapter ball valve is opened fully.
			3	Access HydrX cycles report through Menu>Reports>HydrX>Cycles report, compare the last 2 sweep cycle pressures, if they are greater than 2.5 psi apart this produces pressure alarm. Attempt Fill Cycle.
			1  , 2, 4	A leak can cause insufficient pressure, check HydrX / STP sump for any signs or leakage and ensure Flare-Tite fittings have been installed as outlined in HydrX installation manual.
			4	HydrX Installation Manual 577014-446 'Installation' section available at Veeder.com.
		Negative pressure during Fill or New Filter Cycle stage 1	4	HydrX inlet and Outlet valve are wired backwards, verify valve operation using HydrX Manual Control
			4	HydrX Installation Manual 577014-446 'System Wiring' section available at Veeder.com.


Numbers in Applicable Notes Column refer to the 4 actions below








1 	<b>WARNING! Before beginning this action the circuit breakers supplying power to HydrX and the STP must be LOCKED and TAGGED OUT. The pump adapter ball valve must also be CLOSED to prevent accidental release of fuel during troubleshooting.</b>
2	Following any service where filters are replaced, or at new system startup, a NEW FILTER CYCLE must be run to return the system to an operational state.
3	Following any service where hardware is disconnected a FILL CYCLE must be run to return the system to an operational state.
4	Full manual on this procedure available at Veeder.com

Alarm	Description	Cause	Applicable Notes	Action
Vacuum Fault	HydrX outlet pressure is outside of operating limits ·New Filter Cycle vacuum range -1.25 to -10psi ·Min operating Vacuum: Outlet initial pressure + 1.75 psi ·Idle min Vacuum: -0.75psi	Submersible Turbine Pump is not turning on		Verify Circuit breaker for the STP is in the ON position.
				Check to ensure there are no alarms on the ATG or STP Controller that would disable the pump.
				When starting up a new site with DPPLD, a passing 3.0 gph test is required to enable the STP.
		STP is not providing flow to HydrX Venturi		Ensure HydrX pump adapter ball valve is in the open position by observing the arrow on the handle.
			1  , 2	Ensure the check valve on the HydrX pump adapter is installed in the proper orientation. Confirm arrow on check valve is pointed in the correct direction. Arrow should point away from ball valve, toward hose connected to port P on the HydrX manifold.
		HydrX Outlet Valve issue		Confirm Outlet Valve wiring and operation using HydrX manual control screen to activate outlet valve.
			1  , 2, 3	Ensure HydrX Outlet valve is securely mounted to HydrX manifold.
		Blocked HydrX Siphon Cartridge.	1  , 3, 4	Remove the HydrX Siphon Cartridge from the top of the HydrX manifold.
			1  , 3, 4	Remove debris from HydrX Siphon Cartridge screen.
			1  , 3, 4	Remove debris from HydrX Siphon Cartridge mounting cavity.
1  , 4	Reinstall Siphon Cartridge.			
4	HydrX Siphon Cartridge Service Manual 577014-478 Available at Veeder.com			




Numbers in Applicable Notes Column refer to the 4 actions below





1 	<b>WARNING! Before beginning this action the circuit breakers supplying power to HydrX and the STP must be LOCKED and TAGGED OUT. The pump adapter ball valve must also be CLOSED to prevent accidental release of fuel during troubleshooting.</b>
2	Following any service where filters are replaced, or at new system startup, a NEW FILTER CYCLE must be run to return the system to an operational state.
3	Following any service where hardware is disconnected a FILL CYCLE must be run to return the system to an operational state.
4	Full manual on this procedure available at Veeder.com

Alarm	Description	Cause	Applicable Notes	Action
Vacuum Fault	HydrX outlet pressure is outside of operating limits -New Filter Cycle vacuum range -1.25 to -10psi -Min operating Vacuum: Outlet initial pressure + 1.75 psi -Idle min Vacuum: -0.75psi	Slow Vacuum loss (-0.75 to 0 psi)	1  , 3	Inspect HydrX / STP sump for signs of leakage and trace back to the source.
			1  , 3	Verify That all Flare-Tite fittings were installed as outlined in the HydrX Installation Manual.
			4	HydrX Installation Manual 577014-446 'Installation' section available at Veeder.com.
			1  , 3	Inspect HydrX drain quick disconnect on top of the HydrX manifold. The surface of the operator should be flush with the valve body.
			1  , 3	Ensure HydrX Outlet valve is securely mounted to HydrX manifold.
			1  , 3	Inlet valve contamination can cause slow vacuum loss. This applies to systems in service for extended periods of time. Remove the Coil nut and electrical conduit from the inlet (square body) valve. Remove the 4 Allen-head bolts securing the inlet valve to the HydrX manifold. Carefully clean valve parts and manifold cavity, taking care not to misplace any valve components.
			1  , 3	Remove the 3 bolts securing the WID to the guide tube and raise the WID enough to inspect where the clear tubing attaches. Verify All hoses are free from damage, blockage or kinks.
		High vacuum (-10 psi) New Filter Cycle	3	Using HydrX Manual Control, Activate the STP and inlet valve to flush heavy debris from the HydrX WID and associated flow path, Re-Attempt previously failed cycle.
			1  , 3	Remove WID and inspect along the entire lengths for and damage or kinks. Items damaged during installation or shipping must be returned.




Numbers in Applicable Notes Column refer to the 4 actions below

1 	<b>WARNING! Before beginning this action the circuit breakers supplying power to HydrX and the STP must be LOCKED and TAGGED OUT. The pump adapter ball valve must also be CLOSED to prevent accidental release of fuel during troubleshooting.</b>
2	Following any service where filters are replaced, or at new system startup, a NEW FILTER CYCLE must be run to return the system to an operational state.
3	Following any service where hardware is disconnected a FILL CYCLE must be run to return the system to an operational state.
4	Full manual on this procedure available at Veeder.com


Alarm	Description	Cause	Applicable Notes	Action
Drain Warning	HydrX water level has not returned to 0 following a Drain Cycle	HydrX Drain Cycle timed out before completion. Solid debris accumulation at bottom of HydrX housing is interfering with HydrX water float.	4	Repeat Drain Cycle using Menu>Diag>Hydrx>Overview Actions Drain.
			4	Waste water Drain Manual 577014-474 available at Veeder.com
			1  , 3, 4	<ol style="list-style-type: none"> <li>1. Remove HydrX Outlet Filter lid (smaller lid). Refer to Inlet/Outlet Filter Replacement Manual 577014-473 available at Veeder.com</li> <li>2. Remove HydrX Outlet Filter and save, this filter will be re-installed.</li> <li>3. Locate the square cavity at the bottom of the Outlet Filter cavity and insert an approved pump to access the bottom of the housing.</li> <li>4. Pump liquid and debris from the HydrX housing into an approved container.</li> <li>5. Inspect the bottom of the HydrX housing. If heavy debris is still present continue to flush housing by introducing clean diesel and removing it with an approved pump.</li> <li>6. Re-Install HydrX Outlet Filter and lid.</li> </ol>
Drain Alarm	HydrX water level has exceeded the limit set in Menu>Setup>HydrX	Schedule and perform HydrX drain cycle	1  , 4	<ol style="list-style-type: none"> <li>1. Locate HydrX drain kit provided with HydrX system. V-R kit# 330020-880. Refer to Waste water Drain Manual 577014-474 Available at Veeder.com</li> <li>2. Connect HydrX Drain kit to quick disconnect on HydrX manifold.</li> <li>3. Start HydrX drain cycle using Menu&gt;Diag&gt;HydrX&gt;Overview&gt;Actions Drain.</li> <li>4. Discharge waste water into an approved container and dispose of properly.</li> <li>5. Confirm water level has reached 0% by navigating to Menu&gt;Overview&gt;Hydrx on ATG.</li> </ol>
Filter Warning	One, or, both filters are below the % limits in Menu>Setup>HydrX.	One or both HydrX filters in approaching End Of Life Limit set in Menu>Setup>HydrX.	1  , 2, 4	<p>HydrX system will continue to operate until Filter Alarm.</p> <ol style="list-style-type: none"> <li>1. Obtain HydrX Filter replacement Kit V-R kit# 330020-904 and schedule replacement. Refer to Inlet/Outlet Filter Replacement Manual 577014-473 available at Veeder.com.</li> <li>2. Remove HydrX Filter Lids, remove, and replace filters, dispose of used filters properly.</li> </ol>
Filter Alarm	One, or, both filters are below the % limits in Menu>Setup>HydrX.	One or both HydrX filters is at End Of Life Limit set in Menu>Setup>HydrX.		HydrX will be disabled until filter service is performed.
			1  , 4	<ol style="list-style-type: none"> <li>1. Obtain HydrX Filter replacement Kit V-R kit# 330020-904 and schedule replacement. Refer to Inlet/Outlet Filter Replacement Manual 577014-473 available at Veeder.com.</li> <li>2. Remove HydrX Filter Lids, remove, and replace filters, dispose of used filters properly.</li> </ol>








Numbers in Applicable Notes Column refer to the 4 actions below

1	 <b>WARNING! Before beginning this action the circuit breakers supplying power to HydrX and the STP must be LOCKED and TAGGED OUT. The pump adapter ball valve must also be CLOSED to prevent accidental release of fuel during troubleshooting.</b>
2	Following any service where filters are replaced, or at new system startup, a NEW FILTER CYCLE must be run to return the system to an operational state.
3	Following any service where hardware is disconnected a FILL CYCLE must be run to return the system to an operational state.
4	Full manual on this procedure available at Veeder.com

Alarm	Description	Cause	Applicable Notes	Action
Low Temperature Warning	HydrX is approaching freezing temperatures.	HydrX Housing is below 37°F		No action required.
				HydrX will run an extended Sweep cycle in an attempt to warm itself using fuel from the UST.
				Warning clears when HydrX temperature is 38°F for 5 minutes.
				Observe HydrX cycles report for information on low temperature circulation at Menu>Reports>HydrX>Reports Cycles Report on ATG.
Low Temperature Alarm	HydrX is below freezing temperature.	HydrX Housing is below 25°F.		No action required.
				HydrX is disabled.
				Alarm clears when HydrX is above 25°F for 5 minutes.
				HydrX Will run low temperature circulation in the form of an extended Sweep Cycle.
	Observe HydrX cycles report for information on low temperature circulation at Menu>Reports>HydrX>Reports Cycles Report on ATG.			
High Temperature Warning	HydrX is approaching a high temperature condition.	HydrX Housing is above 113°F.		No action required.
				HydrX will run an extended Sweep Cycle in an attempt to cool itself using fuel from the UST.
				Warning clears when HydrX temperature is below 100°F for 5 minutes.
				Observe HydrX cycles report for information on high temperature circulation at Menu>Reports>HydrX>Reports Cycles Report on ATG.
High Temperature Alarm	HydrX is in a high temperature condition.	HydrX Housing is above 120°F.		No action required.
				HydrX is disabled.
				Alarm clears when HydrX temperature is below 120°F for 5 minutes.
				HydrX Will run high temperature circulation in the form of an extended Sweep Cycle.
	Observe HydrX cycles report for information on high temperature circulation at Menu>Reports>HydrX>Reports Cycles Report on ATG.			

Numbers in Applicable Notes Column refer to the 4 actions below

1 	<b>WARNING! Before beginning this action the circuit breakers supplying power to HydrX and the STP must be LOCKED and TAGGED OUT. The pump adapter ball valve must also be CLOSED to prevent accidental release of fuel during troubleshooting.</b>
2	Following any service where filters are replaced, or at new system startup, a NEW FILTER CYCLE must be run to return the system to an operational state.
3	Following any service where hardware is disconnected a FILL CYCLE must be run to return the system to an operational state.
4	Full manual on this procedure available at Veeder.com

Alarm	Description	Cause	Applicable Notes	Action
Low Pressure Alarm	Excessive vacuum upon startup during New Filter Cycle, vacuum is between -10 and -13 psi.	WID is blocked, or damaged		Using HydrX Manual Control, Activate the STP and Inlet Valve to flush heavy debris from the HydrX WID and associated flow path, Re-Attempt previously failed cycle.
			1  , 3	Remove the 3 bolts securing the WID to the guide tube and raise the WID enough to inspect where the clear tubing attaches. Verify All hoses are free from damage, blockage or kinks.
			1  , 3	Remove WID and inspect along the entire lengths for and damage or kinks. Items damaged during installation or shipping must be returned.
High Pressure Alarm	HydrX Pressure is above 50 psi.	HydrX LPr assigned to a product line with trapped air.		Verify HydrX LPr sensor wiring and assignment.
		HydrX LPr out of calibration	1  , 3, 4	Replace HydrX LPR V-R using kit# 330020-872. Refer to Pressure Sensor Replacement Manual 577014-470 available at Veeder.com
HydrX Probe Out	ATG has lost communication with the HydrX Probe. HydrX is disabled.	Poor wiring connection.		Verify junction box splice of probe cable to field wiring Verify connection at ATG USM terminal
		Faulty probe	1  , 3, 4	1. Disconnect probe cable at HydrX probe. 2. Connect alternate probe to HydrX probe cable. 3. If the ATG reads the new probe, replace the HydrX probe using V-R kit# 330020-873 (19" probe) Model 500D or kit# 330020-903 (12" probe) Model 250D as appropriate.
HydrX LPr Out	ATG has lost communication with the HydrX LPr. HydrX is disabled	Poor wiring connection.		Verify junction box splice of LPr to field wiring Verify connection at ATG USM terminal
		Faulty LPr sensor	1  , 3, 4	Replace LPr sensor V-R kit# 330020-872. Refer to Pressure Sensor Replacement Manual 577014-470 available at Veeder.com.
Invalid Height	Probe Height is out of range. Reading less than 0 ". Reading > probe length.	HydrX probe installation issue.	1  , 3, 4	Remove and inspect probe to verify that float and boot are properly installed.
		Faulty HydrX probe	1  , 3, 4	Replace probe using V-R kit# 330020-873 (19" probe Model500D) or kit# 33030-903 (12" probe Model250D) as appropriate. Refer to Mag Probe Replacement manual 577014-469 available at veeder.com.
HydrX Out	One of the component devices is in alarm and prevents HydrX Operation	Any alarm associated with the tank/line HydrX is installed will cause a HydrX Out alarm.		Address alarm condition. HydrX Out will clear when underlying condition is addressed.