

# **HydrX™ Fuel Conditioning System**

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## **FCC to ATG Conversion Guide**

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Contact TLS Systems Technical Support for additional troubleshooting information at 800-323-1799.

## **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 must be notified of any damages and/or shortages within 30 days of receipt of the shipment, as stated in our Terms and Conditions.

## **VEEDER-ROOT'S PREFERRED CARRIER**

1. Contact Veeder-Root 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 Veeder-Root Customer Service at 800-234-5350.
3. Veeder-Root 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, Veeder-Root will allow a Return to Stock without a restocking fee.
4. Veeder-Root 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" pages in the "Policies and Literature" section of the Veeder-Root **North American Environmental Products** price list. Veeder-Root will not accept any return product without a Return Goods Authorization (RGA) number clearly printed on the outside of the package.

**NOTE:** Contact Veeder-Root Technical Support for warranty claim assistance at 800-873-3313.

## Introduction

Overview .....	1
Contractor Certification Requirements .....	1
Related Manuals .....	1
Safety Precautions .....	1
Before Getting Started .....	2

## Procedure

Removing the FCC .....	3
Routing Cables to the I/O Modules of the TLS-4xx .....	3
Resuming operation .....	3

## Figures

Figure 1. FCC Controlled HydrX System Wiring Diagram .....	4
Figure 2. Wiring Removed for ATG Control .....	5

# Introduction

## Overview

With new software available in the TLS-4xx (TLS-450PLUS or TLS4 with TLS-XB), customers can upgrade their HydrX™ systems to the latest ATG-based controller, eliminating the need for the external Fuel Conditioning Controller (FCC). This manual steps you through the FCC to ATG conversion process.

## Contractor Certification Requirements

Veeder-Root requires the following minimum training certifications for contractors who will install and setup 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.

**TLS-4xx Technician Certification:** Contractors holding valid TLS-450 Technician Certifications are approved to perform installation checkout, startup, programming and operations training, troubleshooting and servicing for all Veeder-Root TLS-450 Series Tank Monitoring Systems, including Line Leak Detection and associated accessories.

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.

## Related Manuals

577014-466 HydrX™ Fuel Conditioning System Setup & Operation Manual - FCC Control  
577014-492 HydrX™ Fuel Conditioning System Setup & Operation Manual - ATG Control

## Safety Precautions

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

	<b>EXPLOSIVE</b> Fuels and their vapors are extremely explosive if ignited.		<b>FLAMMABLE</b> Fuels and their vapors are extremely flammable.
	<b>ELECTRICITY</b> High voltage exists in, and is supplied to, the device. A potential shock hazard exists.		<b>TURN POWER OFF</b> Live power to a device creates a potential shock hazard. Turn Off power to the device and associated accessories when servicing the unit.

**⚠ WARNING**

**WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury.

**NOTICE**

**NOTICE** is used to address practices not related to physical injury.

**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 operates in the highly combustible atmosphere of a diesel storage tank.

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



1. All installation work must comply with the latest issue of the National Electrical Code (NFPA 70), the Code for Motor Fuel Dispensing Facilities and Repair Garages (NFPA 30A), and any European, national, state, and local code requirements that apply.
2. If an E-stop is required by national or local codes or a local authority having jurisdiction, the HydrX Fuel Conditioning Controller (FCC) power must be supplied by a 15 amp circuit that can be interrupted by the same E-Stop as the FCC pump. Both the hot and neutral legs of the PLC must be connected to the E-Stop.
3. Turn off, tag, and lockout power to the STP before connecting or servicing the STP.
4. To protect yourself and others from serious injury, death, or substantial property damage, carefully read and follow all warnings and instructions in this manual.

**Before Getting Started**

1. Please note that two (02) unused relays must be available on the TLS-4xx I/O Module, if open relays are not available an additional input output module may be installed.
2. For ease of installation the Fuel Conditioning Controller may be replaced with a junction box with a conduit connected to the TLS-4xx. To reduce the number of splices and pieces of equipment mounted to the wall, it is recommended that connections are made in the main wiring trough.
3. Ensure ATG software version 10F or later supporting HydrX control is available.

## Procedure

### Removing the FCC

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1. Disable the HydrX system in the ATG by navigating to Menu, Setup, HydrX and pressing the disable button.
2. Disable HydrX external input by navigating to Menu, Setup, Devices, External input and pressing the disable button.

**▲WARNING**



**Locate the switched neutral breaker used to power the FCC. De-energize, lock out and tag the breaker.**

3. Disconnect serial adapters and cable from the bottom of the FCC and TLS-4xx. This cable will not be re-used.
4. Label all wires and loosen screws on the terminal board in the FCC controller. Remove wires from terminal board, disconnect lock nut from conduit running to FCC.
5. Remove the 4 screws holding the FCC to the wall, route wires through the knockout and remove the FCC from the wall.

### Routing Cables to the I/O Modules of the TLS-4xx

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1. Figure 1 is a wiring diagram of a typical HydrX system controlled by a FCC. Wires removed for ATG control are shown in Figure 2.
2. Note that 2 output relays must be available on the I/O Module. If 2 relays are not available an additional I/O Module must be installed.
3. The wiring for the following must be routed to the I/O Module of the TLS-4xx.
  - Inlet Valve 120V
  - Outlet Valve 120V
  - Switched neutral breaker L1
4. The following connections can be made in the I/O Module bay, or an approved electrical enclosure.
  - Switched neutral breaker N.
  - The HydrX switched neutral breaker wire must only be connected to HydrX inlet and outlet valve neural wires.
  - Inlet Valve neutral.
  - Outlet Valve neutral.
  - HydrX system ground.
5. For ease of installation, the FCC box may be replaced with a junction box, allowing splices to be made. It is recommended that new wires are run to the main wiring trough and panel for the cleanest installation and reduced number of splices.

### Resuming operation

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1. Upgrade software in TLS-4xx to the latest version (10F or later) supporting HydrX ATG Control - Re-energize HydrX circuit breaker.
2. Follow HydrX Setup and Operation manual to program ATG for HydrX control.
3. Remove lock from circuit breaker and re-energize.

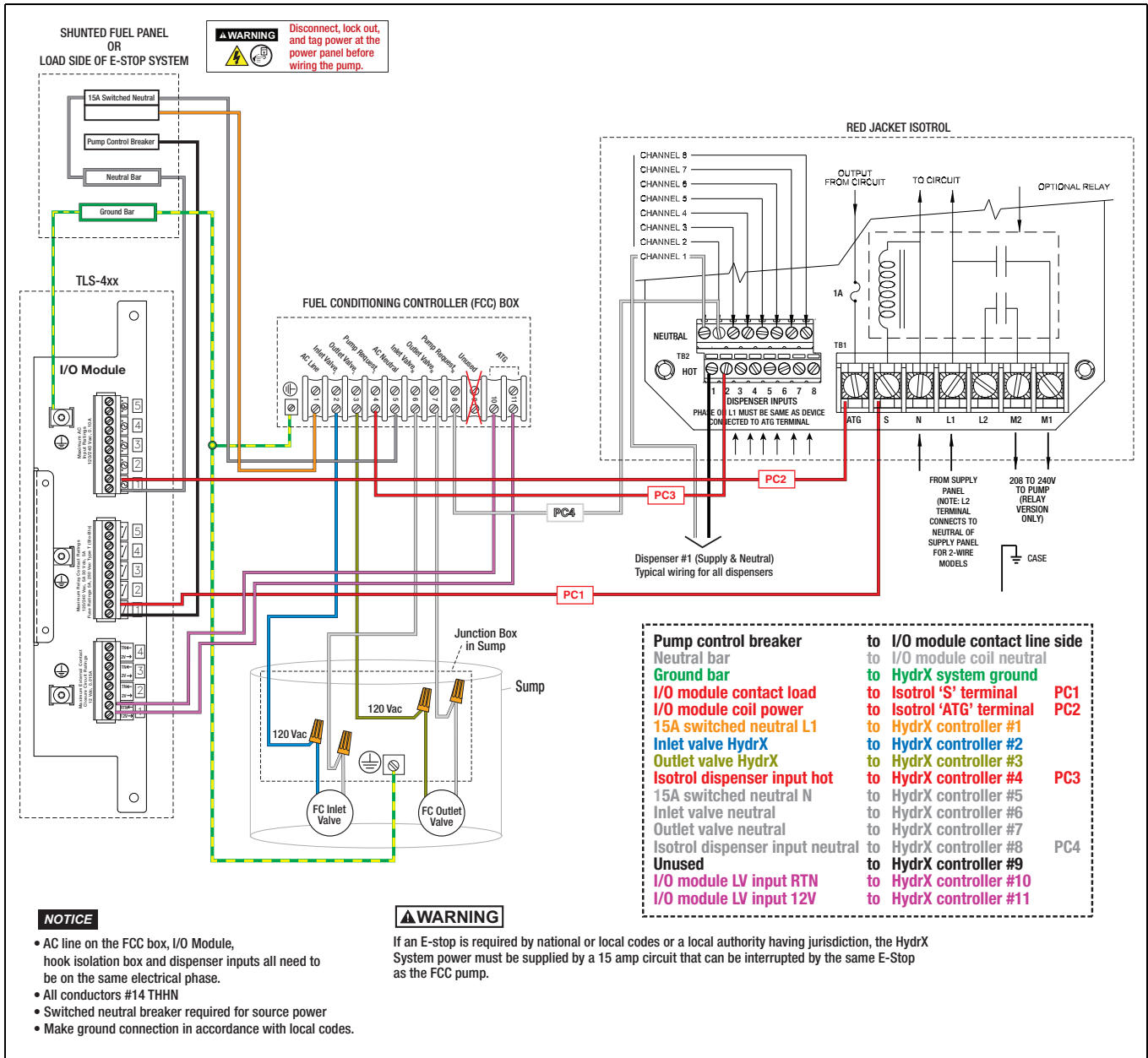


Figure 1. FCC Controlled HydrX System Wiring Diagram

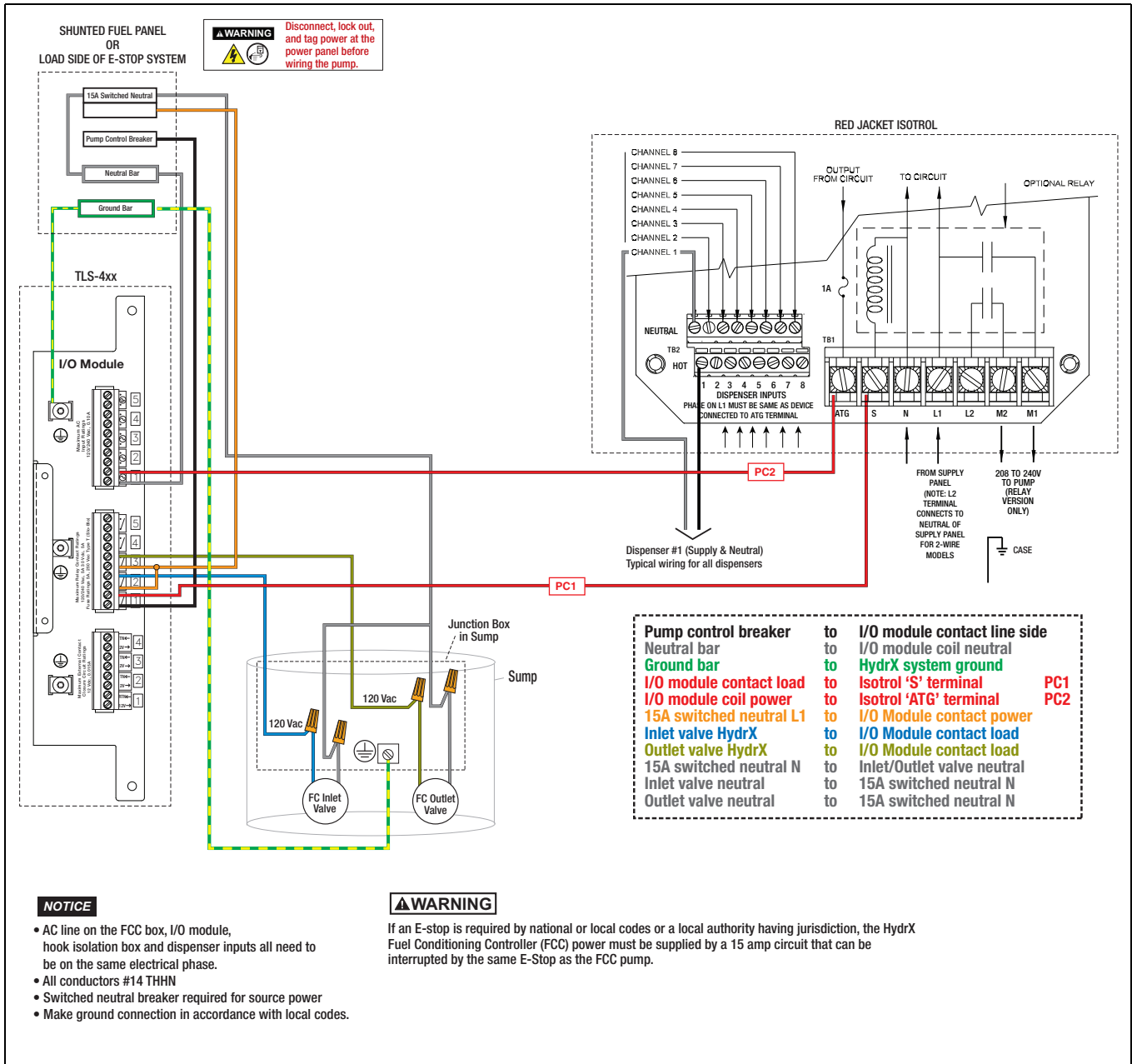


Figure 2. Wiring Removed for ATG Control



