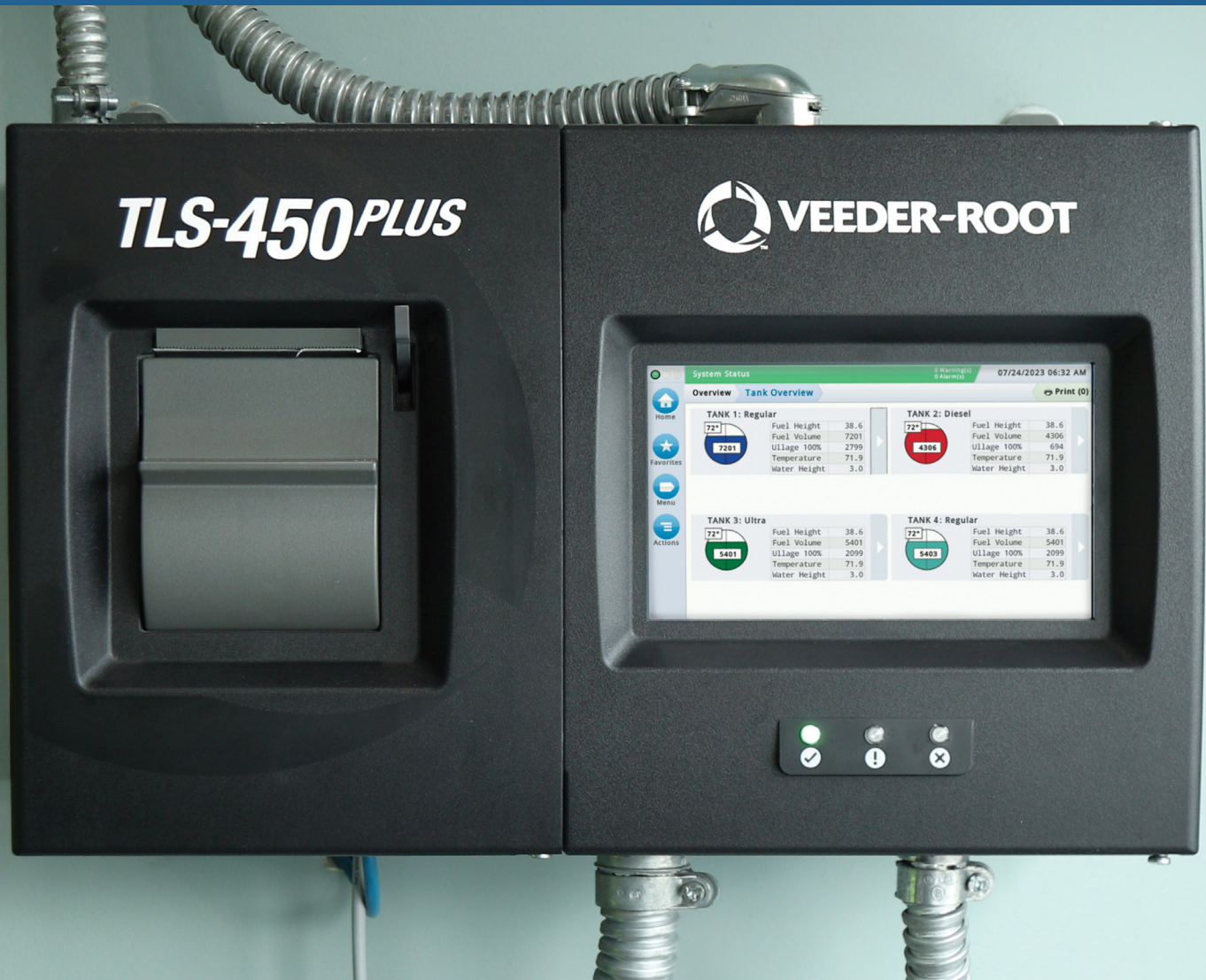




# VEEDER-ROOT

Powered by Vontier



# BENEFITS OF UPGRADING TO THE **TLS-450PLUS**

# ELEVATE YOUR FUEL MANAGEMENT SYSTEM

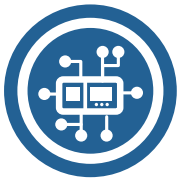


The TLS-350 Automatic Tank Gauge (ATG) has long set the standard for exceptional quality in fuel management systems.

Today, the TLS-450PLUS ATG builds on that solid legacy to set a new bar for reliability and convenience.



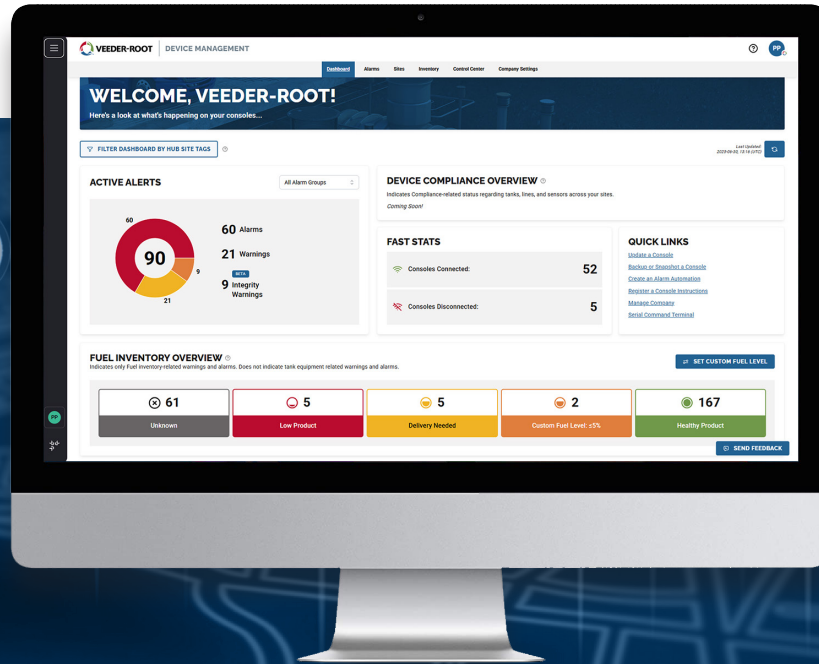
*Due to the lack of availability of several components needed to manufacture and support various parts of the discontinued TLS-350 console, many spare parts have already been discontinued.*



# REMOTE CONNECTIVITY

## EASILY ACCESS & MANAGE CRITICAL DATA

The TLS-450PLUS provides a wide range of connectivity options, ensuring you always know what is going on with your fueling assets. Whether you need to remotely access or configure your Automatic Tank Gauge (ATG) from a computer, or you want to check fuel inventories, alarms or more from your cell phone or tablet, the connectivity features needed to get the job done come standard, exclusively on the TLS-450PLUS and TLS4 Series ATGs.



## ▶ DEVICE MANAGEMENT APPLICATION & ATG DATA API

### Comprehensive ATG network control

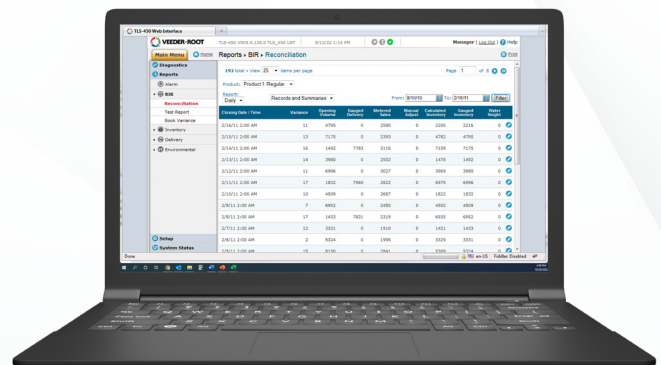
The Veeder-Root Device Management cloud application on the Hub provides a consolidated view of your ATG network, with inventory, alarms, advanced alarm diagnostics, predictive maintenance, remote upgrades, and actionable insights. The real-time data enables maintenance workflow optimization and maximum site uptime to keep fuel flowing.

Additionally, real-time data via ATG Data API can integrate ATG data with other back-office applications, including ATG Alarms, Inventory, and Deliveries.

## ▶ WEB-ENABLED INTERFACE

### Modify configuration & programming, including:

- Print wet stock management and compliance reports
- Set up email notifications for alarms and reports
- Establish automatic events scheduled to your business needs

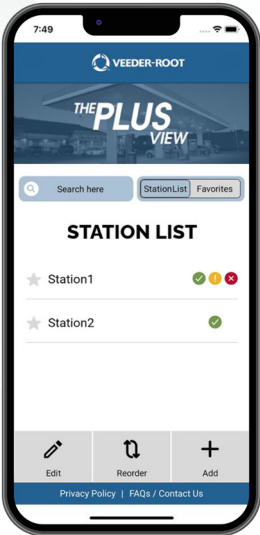


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# REMOTE CONNECTIVITY

## EASILY ACCESS & MANAGE CRITICAL DATA



**THE PLUS VIEW** is a mobile app available free for download on Android or Apple iOS mobile/tablet devices for remotely accessing inventory, delivery, and alarm data for your ATGs. See data in real-time for remote on-site displays or more remote mobile applications.

- Station overview for an immediate status check on tank inventory
- Reports tab allows quick access to inventory and last delivery reports
- Alarms tab gives instant access to view active alarms at a site
- Pin favorite sites for easy access in the Station List
- Request a fuel delivery or email a technician for support in the app to optimize workflows

### APP FEATURES

### THE PLUS VIEW

**Station Overview:** Immediate status check on tank inventory



**Reports Tab:** Easy access to Inventory and Last Delivery Reports



**Alarms Tab:** One-touch access to alarm information



**Real-Time Updates:** Continuous connectivity and updates



**Notifications:** Real-time audible / visual alarms



**Disconnect:** Audible / Visual notification for lost connectivity



**In-Store Format:** For optimal experience for site personnel



# ENHANCED SECURITY

## GREATER CONNECTIVITY NEEDS GREATER PROTECTION

The TLS-450PLUS provides the security needed for today's connected world. Whether a security breach comes from inside or outside an organization, older technology lacks modern security features needed to combat cyber intruders, who can wreak havoc on your business. Rest assured with the comprehensive security features of the TLS-450PLUS.

Features such as strong encryption, configurable user access, and segmented network ports help ensure your network is safe at every level. No matter your network's size, security comes standard with the TLS-450PLUS.





# ENHANCED SECURITY

## GREATER CONNECTIVITY NEEDS GREATER PROTECTION

### THE TLS-450PLUS SUPPORTS THESE ENHANCED SECURITY FEATURES:

TLS-350

TLS-450PLUS

#### 1. Isolated Networks:

The TLS-450PLUS provides three Ethernet connectors (for easy isolation of critical networks):

- ETH1 provides a direct connection into the gauge and will typically be used for connecting internal corporate data (POS, management, and DIM data).
- ETH2 and ETH3 are connected to an internal switch and can be used to isolate external connectivity (on-site maintenance, Wireless connections with The PLUS VIEW, etc.).

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#### 2. Encrypted Web Access:

The TLS-450PLUS only uses the secure HTTPS interface. Access to the gauge requires a username and password.

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#### 3. Encrypted Serial Access:

Previous consoles provided a Raw / Telnet interface for the serial commands. This is still available on the TLS-450PLUS but can be disabled. A very secure SSL/SSH-based serial command interface is available using private-public key pairs.

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#### 4. Role-Based Access:

The TLS-450PLUS provides standard roles as well as customizable roles for users connecting to the gauge via front panel or remote connectivity. Each role controls the user's abilities on the console screens (no access, read-only, and full control).

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#### 5. Front Panel Access:

Access to the console screen can be set up to require the user to log in to the system before being able to use the gauge. Activating Front Panel Security will help prevent unwanted access inside the station.

**Security breaches originate from both inside and outside companies.**

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#### 6. Network Routing:

The TLS-450PLUS supports advanced network routing tables to control the flow of data to gateways and networks. It can also be used to drop data coming from unwanted sources, make sure data is isolated to a certain network (e.g., ETH1), and prevent data from flowing through a default gateway.

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#### 7. System Security:

Veeder-Root utilizes advanced Common Vulnerabilities and Exposures (CVE) cybersecurity database to identify emerging information-security vulnerabilities and provides regular software updates to defend against them.

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## ENHANCED SECURITY

### GREATER CONNECTIVITY NEEDS GREATER PROTECTION

#### ▶ WHAT CAN HAPPEN IF YOU DO NOT TAKE OWNERSHIP OF YOUR NETWORK?

- 1. Rename Tank Information:** On consoles using Telnet, hackers find the MAC address, determine whether it is a TLS-350 or TLS-450PLUS, and simply change the tank names to something inappropriate.
- 2. Resize Tanks (From 10K to 20K Gallons):** It is possible to change the tank size, so it appears the tank can hold more than it really can. The thresholds could also be changed so that overflow alarms appear at a higher level. The potential would be to overfill the tank causing an environmental leak.
- 3. Shutdown Dispensing (DPLLD and Relay Settings):** The relays could be deprogrammed so that the pump wouldn't be activated on a hook signal. Additionally, DPLLD could be turned off so catastrophic leaks may not be detected.
- 4. Capture Sensitive Corporate Data:** By monitoring unsecure Telnet connections, observers can gather operations data (delivery, inventory, alarms, etc.) for sale to third parties.
- 5. Shutdown IP Cards / Networking Services:** After gaining access to a vulnerable corporate network, hackers could alter TLS-350 Ethernet cards lacking passwords; changing configurations and rendering management systems ineffective. Critical operations could be impacted (hospitals, emergency providers, cell service, power plants, etc.).
- 6. Loss of Compliance Data:** Reprogramming the console could result in the loss of compliance data translating to potential regulatory fines.



## LOWER COST OF OWNERSHIP

### PROTECT YOUR INVESTMENT & EXTEND YOUR WARRANTY



Upgrading to a TLS-450PLUS console provides an expanded, advanced feature set over the TLS-350 console and extends the warranty on most connected devices.

Significant labor savings can be gained with the TLS-450PLUS in comparison with the TLS-350, from the use of features like remote configuration, remote connectivity, automatic event notifications, and more. The TLS-450PLUS helps reduce downtime by ensuring you have real-time access to everything you need to keep your station in top condition.

COST SAVINGS CATEGORY	SAVINGS LEVEL
Reduced downtime due to real time access to data	\$\$\$\$
Free monthly software upgrades	\$\$\$
Remote software download	\$\$
Warranty extension	\$\$
Remote troubleshooting and configuration	\$
Equipment cost savings	\$



# EXPANDED CAPABILITIES

## YOUR PLATFORM FOR THE FUTURE

### ▶ IMPORTANT FEATURES ON THE TLS-450PLUS ATG INCLUDE:



#### Digital Pressurized Line Leak Detection (DPLLD)

The line volume expansion of DPLLD for the TLS-450PLUS provides advanced line leak detection to meet the capacity of growing fuel sites, certified up to 1,178 gallons (4,459 liters) of capacity. The DPLLD equipment performs a 3.0 Gallons Per Hour (GPH)/11.4 Liters Per Hour (LPH) line leak test following each dispense. With the proper software enhancement feature installed, the DPLLD equipment will also perform 0.1 GPH/0.38 LPH and 0.2 GPH/0.76 LPH line tests to meet your regulatory needs, eliminating the need for separate annual line leak testing.



#### In-Tank Calibration with AccuChart™

Our third generation AccuChart utilizes enhanced geometric tank chart modeling for the TLS-450PLUS with optional restricted tank ranges to perform calibration. Chart volumes are calculated using adjustable geometry parameters: diameter, capacity, end shape, tilt, and probe offset. Completed charts are established more quickly and with higher accuracy from a limited amount of data.



#### Intelligent Pump Control (IPC)

TLS-450PLUS software feature that enables communication between the ATG and Red Jacket® Submersible Turbine Pumps (STPs) through the IQ Smart Control Box for advanced pump control, as well as through FE Petro® controllers. With IPC, you are able to benefit from flow optimization, operational redundancy, proper equipment loading and protection and more with pump staging, advanced pump dispense modes, line and pump priority, and other advanced pump control features.



#### HydrX™ Fuel Conditioning System

Combats in-tank corrosion by providing continuous water removal within diesel storage tanks. The unique design of HydrX removes water from the lowest point in the tank, preventing water from stagnating on the tank bottom and breeding microbial contaminants. The integrated filtration removes entrained water, rust, sand, and microbial particulate from the fuel, polishing it before returning clean fuel back to the tank.



#### Diesel Exhaust Fluid (DEF) Recirculation

Unlike fueling products, DEF is extremely temperature sensitive, and will freeze when exposed to temperatures below 12°F (-11°C) or break down in conditions above 86°F (30°C). Veeder-Root's DEF Recirculation feature on the TLS-450PLUS ATG utilizes a sensor to measure the temperature of the DEF fluid between the tank and dispensing system and will circulate the liquid as temperatures approach a set threshold to ensure product quality is maintained.



#### In-Station Diagnostics (ISD)

Our California Air Resources Board (CARB) certified ISD system continuously monitors the vapor recovery equipment, maintains test records, provides test reports, and generates warnings or alarms following equipment failure.



#### Business Inventory Reconciliation (BIR)

BIR on the TLS-450PLUS has been enhanced for your custom reconciliation needs and meets federal, state, or local requirements.

It includes automated reporting on:

- Throughput thresholds
- Delivery thresholds
- Capacity thresholds
- Custom thresholds



#### Data Logging

Our data logging system has the ability to record inventory history, sensor history, and other reports at predetermined intervals. This feature is important as it can be used to reconcile business data and support audit integrity.

## ADDITIONAL FEATURES INCLUDE:

Time Sudden Loss Detection | Free Software Upgrades | Email Notifications | Custom Alarms  
Historical Inventory | Sensor Data | Enhanced Encryption Methods



# UPGRADE TODAY!

- ▶ To learn more about upgrading to the TLS-450PLUS ATG, the financial options available, and the Veeder-Root ATG Trade-Up Program, contact your distributor, Veeder-Root sales representative today, or visit [veeder.com/upgrade](https://veeder.com/upgrade).