

System Setup and Programming Parameters for Veeder-Root
TLS-450PLUS Underground Storage Tank and Line Monitoring System

The following guidelines shall be used for setup of the Veeder-Root TLS-450PLUS system at Murphy USA facilities. Refer to Veeder-Root System Setup Manual Number 577013-940 for complete setup instructions.

NOTE: SYSTEM SETUP MUST BE PERFORMED BY AN AUTHORIZED VEEDER-ROOT SERVICE CONTRACTOR.

TLS-450PLUS
Module Configuration Diagram

Diagram showing Universal I/O Module Slots (1-4) and Universal Sensor Module Slots (1-2) with their respective configurations and addresses.

Console Programming

To Access the Work Flow Wizard Click on from the Home screen: then and then

The workflow wizard will walk you through the setup of the console. Use the next and previous arrows to navigate through the setup.

Setup Display Language / Units
System Units: US
System Language: English

Setup Date and Time
Set Current Date: Enter Date
Set Current Time: Enter Time
Select Time Zone: Select from Pull down menu

Note: Time Zone Selection will automatically enable Daylight Savings
Note: Remember to remove the battery isolator from the battery.

Setup Display Date/Time Format
Date Format: MM dd yyyy
Date Separator: /
Time Format: hh:mm AP

Setup Display Number Format
Decimal Separator: .
Thousands Separator: None

Setup Headers
Header # 1: MURPHY USA #XXXX (ex. MURPHY USA 6672)
Header # 2: Street Address
Header # 3: City, ST, ZIP
Header # 4: Station Phone Number (ex. 555-555-5555)
Fax Sender Name: Enter Name
Fax Number: Enter Number

Setup System Alarm Filtering
Alarm Filtering Enabled: True

Setup Communication Host Name
Hostname: tls450

Setup Communication Ethernet Setup
ID 1 or 14: Eth1
IP Assignment: Dynamic
IP Address: Customer Supplied
Subnet mask: Customer Supplied
Gateway IP: Customer Supplied
Default Gateway: True
Primary DNS Server: Customer Supplied (Automatic with Dynamic IP Assignment)
Secondary DNS Server: Customer Supplied (Automatic with Dynamic IP Assignment)
MAC Address: Automatically Populated
Send Command Port: 10001
SSH port: 22
HTTP port: 443
Sender Email Address: TBD
Command Security: 1: Password Protected, 2: Password Protected, 3: Password Protected
RS232 End of Message: 1: CR, 2: LF, 3: CR LF

Setup Communication Serial Bus
ID 1 or 2: RS232
Usage: RS232
Baud Rate: 9600
Data Bits: 7
Parity: Odd Parity
Stop Bits: 1
Handshaking: No Handshaking
Command Port Security Enabled: Disabled
Security Code: Enter Code
RS232 End of Message: Disabled
ETX Character Display: Enter Value
ETX Character Computer: ETX Character Computer

Setup Probes
Device: PROBES
Probe 1: Enabled, USM Address: B1 S1.1, Label: Reference Below, Water Min: 4.0 in
Probe 2: Enabled, USM Address: B1 S1.2, Label: Reference Below, Water Min: 4.0 in
Probe 3: Enabled, USM Address: B1 S1.3, Label: Reference Below, Water Min: 4.0 in
Note: number of probe labels will vary by site
Example: B1 S1.1, B1 S1.2, B1 S1.3, B1 S1.4, B1 S1.5, B1 S1.6, B1 S1.7, B1 S1.8, B1 S1.9, B1 S1.10, B1 S1.11, B1 S1.12, B1 S1.13, B1 S1.14, B1 S1.15, B1 S1.16, B1 S1.17, B1 S1.18, B1 S1.19, B1 S1.20

Refer to the tank configuration table below for Probe Label. (Make sure the labels for the premium and diesel on the 15/7, 14/7 and 6/6 tanks are labeled correctly. Make sure regular tanks are identified as Regular-1 or Regular-2. Make sure that each label includes the tank size. The Probe labels consist of the type of product and the size of the tank.)

Table 6: Probe Labels and Relay Types. Columns: Tank Size, Probe Label, Relay Type, Orientation.

Use 1 if site is using PLLD. Example: B1 S1.5

Device: Liquid Sensor

4 MPD Tank Configuration 25

Table with 5 columns: Configured, Address, Sensor Label, Model, Category. Lists configurations for 4 MPD tanks.

6 MPD Tank Configuration 25

Table with 5 columns: Configured, Address, Sensor Label, Model, Category. Lists configurations for 6 MPD tanks.

8 MPD Tank Configuration 25

Table with 5 columns: Configured, Address, Sensor Label, Model, Category. Lists configurations for 8 MPD tanks.

Table 1: Tank Configuration. Columns: Tank, Configuration, T1, T2, T3, T4.

Table 2: Tank Type. Columns: Tank Type, Diameter.

Table 3: US Units. Columns: Region, Precision, Low Prod, Leak, High Prod, Density.

Table 4: Tank Capacity. Columns: Tank, Capacity, Gallons, Liters.

Table 5: Tank Settings. Columns: Tank, Max or Label Volume, High Product, Delivery Overfill Limit, Delivery Limit, Low Product Limit, High Water Warning, High Water Alarm, Water Alarm Filter Level, Water Alarm Filter Delay, Leak Alarm Limit, Sudden Loss Limit, Density Low Limit, Density High Limit.

Table 5: Tank Capacity (continued). Columns: Tank Size, Max Volume (US), Max Volume (L).

Table 6

If you have an Fe Petro Smart Controller
Xeres - 19" Diameter Tank
Tank Size, Max Volume (US), Max Volume (L)

Table 6: Tank Profile. Columns: Tank Profile, Tank 1, Tank 2, Tank 3, Tank 4.

Table 6: Tank Chart. Columns: Tank Chart, Tank 1, Tank 2, Tank 3, Tank 4.

Setup Tank All Tanks. Fields: User Usage, Print TC Volumes, TC Reference, CSLD Evap Raid Vap Pressure Chart, Periodic Test Needed Warning, Days Before Periodic Alarm, Annual Test Needed Warnings.

Setup Delivering. Fields: Delivery Method, Ticketed Delivery, TC Ticketed Delivery, Tank Idle Delivery.

System Administration Roles Admin. Fields: Select Create New Role to enter a new Administrative role, System Administration Roles Admin, Select Add New User to create a new log in account.

Setup System Security. Fields: Front Panel Security, Password, Enter Password when Front Panel Security is enabled.

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