

TLS System Warnings & Alarms

Troubleshooting Guide



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TLS Warnings And Alarms

The TLS console is constantly monitoring its probes and sensors for warning and alarm conditions, such as fuel leaks, excessively high or low fuel levels, and equipment problems. In the Operating Mode with no warning or alarm condition active, the TLS-3XX consoles display 'ALL FUNCTIONS NORMAL' and the TLS4/8601 & TLS450PLUS/8600 consoles display 'SYSTEM STATUS'. When a warning or alarm condition occurs, the system displays/posts the alarm type and its location, indicating either tank, input or sensor number. Consoles with printers generate an alarm report showing the warning or alarm type, the location and the date and time of the warning or alarm condition that occurred. TLS4/8601 & TLS450PLUS/8600 consoles can be programmed to email a selected address if warnings/alarms occur.




WARNINGS - These indicate that an alarm is imminent or that a system fault has occurred.

ALARMS - Alarms indicate that a potentially dangerous situation may have occurred.



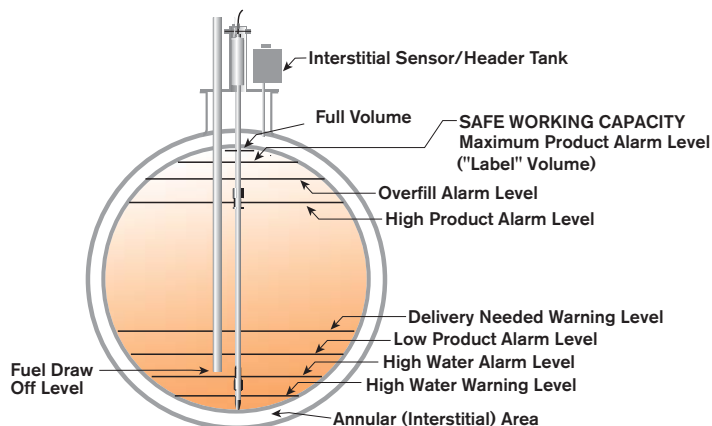
WARNING! DO NOT IGNORE ALARMS! Know the alarm response procedures for your site.

When a Warning or Alarm is posted follow the procedure below to acknowledge the alarm and shut off the audible beeper:

TLS-3XX Consoles	TLS4/8601 & TLS-450PLUS/8600 Consoles w/Display
 <p>Press the front panel red ALARM/TEST key to silence the alarm. The front panel warning and alarm lights cannot be turned off until the cause of the condition is corrected. The warning and alarm message(s) will remain active. If more than one alarm or warning exists the display will flash the messages alternately until the cause of the alarm condition is corrected.</p>	 <p>Touch anywhere on the status/warning or status/alarm bar (shown) at the top of the touch screen to go to the Reports > Alarms > Active screen and view the cause of the alarm. While in that screen, touch the status bar again to acknowledge the warning/alarm and shut off the beeper. The warning and alarm message(s) remain on the active alarm report screen until the cause of the condition is corrected. The warning/alarm status bar will continue to display until the alarm condition is corrected.</p>
	<p>TLS4/8601 & TLS-450PLUS/8600 Consoles w/o Display</p>  <p>Touch the red ALARM RESET button on the console's front panel to acknowledge the warning/alarm and shut off the beeper. Warnings and alarms will remain active until the cause of the condition is corrected.</p>

In-Tank Warning And Alarm Levels

Typical European Tank



Displayed Alarm Messages

Common Alarm messages and a possible cause/action for the Alarms are listed in the table below. Actual Alarms displayed by a particular console will depend upon the features installed.

Short Device IDs used in the table below:

C = 2-wire CL sensor
 H = 3-wire CL sensor
 MS = Mag sensor
 Q = PLLD line
 T = Tank

Co = Comm device
 I = External input
 P = Printer
 R = Relay (TLS4/TLS-450PLUS),
 s = Smart sensor

G = Groundwater sensor
 L = Liquid sensor
 Pm = Pump
 R = Receiver (TLS-3XX)
 V = Vapor sensor

Message	Short Device ID	Cause	Action
Annual Test Needed Alarm	Q, T	System failed to perform an annual test (0.1 gph [0.38 lph]) in the programmed number of days.	Schedule a 0.1 gph (0.38 lph) test.
Annual Test Needed Warning	Q, T	System failed to perform an annual test (0.1 gph [0.38 lph]) in the programmed number of days.	Schedule a 0.1 gph (0.38 lph) test.
Annual Line Test Fail Alarm	Q	0.1 gph (0.38 lph) line test failure. Dispensing halts, if programmed to do so.	Consult PLLD Alarm Quick Help Guide and PLLD diagnostic screens.
Annual Leak Test Fail Alarm	T	System failed an annual in-tank leak test.	Rerun in-tank leak test. If second test fails, call for service.
Autodial Failed Alarm (TLS4/TLS-450PLUS only)	Co	System failed to connect to a remote receiver after 'n' tries.	Verify the address book settings for the contact are correct (i.e., modem device number, phone number to dial), verify the receiving device (fax or modem) is operational. Contact technical support for assistance.
Cold Temperature Warning	T	Probe temperature drops below -4°F (-20°C).	Probe returns to normal operation after probe temperature rises above 0°F (-17.8°C).
Continuous Handle On Alarm	Q	Handle signal has been active for a programmed number of hours.	Call for service following the procedures established for your site.
CSLD Rate Increase Warning	T	An excessive amount of fluid leaked into the tank during a test period.	Call for service following the procedures established for your site.
Density Offset Warning	T	The console calculated density offset amount exceeds the threshold amount: $\pm 10.012 \text{ kg/m}^3$ ($\pm 0.625 \text{ lbs/ft}^3$).	Check the density offset values configured for the probe. If these values are correct, the probe float may be contaminated, and should be replaced. NOTE: This alarm message will continue to display (scroll) in the System Status box until you correct the cause of the problem.
Density Warning	T	Tank density is either: <ul style="list-style-type: none"> • Greater than the tank density low limit plus 1.00 kg/m^3 (0.062 lbs/ft^3) • Or is less than the tank density high limit minus 1.00 kg/m^3 (0.062 lbs/ft^3) 	Verify fluid density (retest when product density is within the tank density low and high limits.
Delivery Needed Warning	T	Product level dropped below programmed limit.	Call for a delivery.

Message	Short Device ID	Cause	Action
Email Failed Alarm (TLS4/TLS-450PLUS only)	Co	The console did not successfully send email when configured to email.	Verify the address book settings for the contact are correct (email address of recipient), verify network connectivity is available (Ethernet card is installed). Contact technical support for assistance.
Fuel Alarm	L, G, C, H, V	Fuel is present in the area being monitored by the sensor.	Call for service following the procedures established for your site.
Fuel Out Alarm	Q	Tank product level below 10-inch (25.4 cm) level - cannot pump when active.	Schedule a delivery.
Fuel Quality Alarm	T	Water/phase separation may be present in tank.	Test fuel at bottom of tank to ensure water/phase separation is not present.
Generator Off	I	Backup generator shut down, in-tank leak testing resumed.	None
Generator On	I	Backup generator switched on, in-tank leak testing halted.	None
Gross Test Fail Alarm	Q	3 gph (11.3 lph) line test failure. Dispensing halts, if programmed to do so, while the alarm is active.	Consult PLLD Alarm Quick Help Guide and PLLD diagnostic screens.
Gross Leak Test Fail Alarm	T	In-tank leak (3.0 gph [11.3 lph]) test failed.	Rerun in-tank leak test. If second test fails, call for service.
HRM Reconciliation Alarm (HRM = Hourly Reconciliation Mode)	T	Activated for a tank 90 minutes after the 24-hour average variance has exceeded the preset HRM limits.	Review HRM hourly diagnostics. Contact VR Technical Support if variance cannot be resolved.
High Liquid Alarm	L	Dispenser Pan/Containment Sump Sensors Liquid reached 8" (203mm) on the dispenser pan sensor or 10" (254mm) on the containment sump sensor.	Immediately follow the alarm reporting procedures established for your site.
		Dual-Float Differentiating Hydrostatic Sensor A sensor in a brine-filled interstice detects an increase in the brine level increase. Liquid is entering the riser pipe, or in a high groundwater area, an outer wall rupture has occurred.	Call for service following the procedures established for your site.
	H	The sensor detects a high liquid level.	Call for service following the procedures established for your site.
High Product Alarm	T	Product level in tank rose above programmed limit.	Do not allow additional delivery until product is dispensed below preset limit.
High Water Alarm	T	Water detected in tank exceeds programmed alarm limit.	Remove water from tank.
High Water Warning	T	Water detected in tank exceeds programmed warning limit.	Remove water from tank.

Message	Short Device ID	Cause	Action
iButton Fault Alarm (TLS4/TLS-450PLUS only)	System <No ID>	iButton failure. System detected Damaged or Corrupted iButton. The warning has been active 20 days and has transitioned to an alarm. The alarm will be active a maximum of 10 days. After the duration of 30 days, the user will be able to access only the following screens: About, Active Alarms, Alarm History, Priority Alarm, Maintenance Software and Ethernet Communication Setup.	Replace iButton with valid one.
iButton Fault Warning (TLS4/TLS-450PLUS only)	System <No ID>	iButton failure. System detected Damaged or Corrupted iButton. Warning can be active a maximum of 20 days.	Replace iButton with valid one
Input Alarm	I	External device changed from programmed condition.	Check the operation of the external device.
Input Normal	I	(Not displayed, printed out only) External device returned to preset condition.	None
Invalid Fuel Level	T	Product level is too low, causing the fuel and water floats to be too close together.	Call for a delivery.
Leak Alarm	T	A static in-tank leak test failed.Rerun in-tank leak test.	Rerun in-tank leak test.
Leak Test Active	T	In-tank leak test is underway.	Do not dispense fuel from this tank until message disappears.
Liquid Warning	L, H	Liquid reached 1" (25.4 mm) on the dispenser pan or containment sump sensor.	Immediately follow the alarm reporting procedures established for your site.
Line Equipment Alarm	Q	A problem with the pressure measurement equipment has been detected.	Call for service following the procedures established for your site.
Low Liquid Alarm	L	The sensor in a brine-filled interstice detects a decrease in the brine level. A hole is in the tank's inner wall, or in low groundwater areas, a hole is in the outer wall.	Call for service following the procedures established for your site.
Low Pressure Alarm	Q	Low pump dispense pressure is detected during a dispense. Dispensing halts if programmed to do so.	The next handle up will restart the pump.
Low Product Alarm	T	Tank level dropped below the programmed limit.	Call for a delivery.
Low Temperature Alarm	T	Probe temperature drops below -4°F (-20°C).	Probe returns to normal operation after probe temperature rises above 0°F (- 17.8°C).
Mag Sensor Communication Alarm	MS, s	Hardware failure - sensor or interconnecting wiring to console.	Call for service following the procedures established for your site.
Mag Sensor Fault Alarm	MS, s	Monitored parameter exceeded preset threshold.	Call for service following the procedures established for your site.
Mag Sensor Fuel Alarm	MS, s	Monitored parameter exceeded preset threshold.	Call for service following the procedures established for your site.
Mag Sensor Fuel Warning	MS, s	Monitored parameter exceeded preset threshold.	Call for service following the procedures established for your site.

Message	Short Device ID	Cause	Action
Mag Sensor High Liquid Alarm	MS, s	Monitored parameter exceeded preset threshold.	Call for service following the procedures established for your site.
Mag Sensor High Liquid Warning	MS, s	Monitored parameter exceeded preset threshold.	Call for service following the procedures established for your site.
Mag Sensor Install Alarm	MS, s	Sensor not installed in correct position.	Call for service following the procedures established for your site.
Mag Sensor Low Liquid Alarm	MS, s	Monitored parameter exceeded preset threshold.	Call for service following the procedures established for your site.
Mag Sensor Low Liquid Warning	MS, s	Monitored parameter exceeded preset threshold.	Call for service following the procedures established for your site.
Mag Sensor Temperature Warning	MS, s	Ambient temperature exceeded sensor's operating range (-40 to +122°F [-40 to +50°C]).	Warning removed when temperature returns to within sensor's operating range.
Mag Sensor Water Alarm	MS, s	Monitored parameter exceeded preset threshold.	Call for service following the procedures established for your site.
Mag Sensor Water Warning	MS, s	Monitored parameter exceeded preset threshold.	Call for service following the procedures established for your site.
Maximum Product Alarm	T	Product level rose above the programmed limit.	Stop delivery. Do not allow additional delivery until product drops below preset limit.
Missing Delivery Ticket Warning	T	Delivery Ticket information has not been entered at the console.	Enter Delivery Ticket information.
No Dial Tone Alarm (TLS4/TLS-450PLUS only)	Co	System failed to detect an operational line after 3 tries.	This alarm must stay active until it is confirmed that the alarm has been reported.
No CSLD Idle Time Warning	T	System has not had enough idle time over previous 24 hours to run a statistical leak detection test.	Stop dispensing fuel from this tank until CSLD test is complete.
Overfill Alarm	T	Fuel level has exceeded a programmed limit. Potential overflow of tank may occur.	Stop delivery. Check for spillage.
Printer Out Of Paper (TLS4/TLS-450PLUS only)	P	Paper roll is empty.	Replace the paper roll only with Veeder-Root supplied paper rolls: P/N 514100-456 - TLS-4/450PLUS P/N 514100-210 - TLS-3XX
Printer Out Of Paper (TLS-3XX only)	System		
Periodic Test Fail Alarm	Q	0.2 gph (0.76 lph) test failure. Dispensing halts, if programmed to do so.	Consult PLLD Alarm Quick Help Guide and PLLD diagnostic screens.
Periodic Test Needed Alarm	Q, T	A periodic in-tank leak (0.2 gph [0.76 lph]) test has not been successfully completed within the programmed number of days.	Schedule a 0.2 gph (0.76 lph) test.
Periodic Test Needed Warning	Q, T	A periodic in-tank leak (0.2 gph [0.76 lph]) test has not been successfully completed within the programmed number of days.	Schedule a 0.2 gph (0.76 lph) test.
Periodic Leak Test Fail Alarm	T	In-tank leak (0.2 gph [0.76 lph]) test failed. Dispensing halts if programmed to do so.	Rerun in-tank leak test. If second test fails, call for service.

Message	Short Device ID	Cause	Action
Printer Error (TLS4/TLS-450PLUS only)	P	Printer feed roller release is open..	Push the release lever to the up position.
Printer Error (TLS-3XX only)	System		
Probe Out	T	Hardware failure - probe or interconnecting wiring to console.	Call for service following the procedures established for your site.
Pump Out Alarm	Pm	A relay or external input has a Device Out alarm active and the pump(s) that use that device will not pump gas. Note that if a pump goes into Device out, the Line it is on will go into 'Device Out' as well.	Call for service following the procedures established for your site.
Sensor Open Alarm	Q	Pressure sensor reading is less than -8 psi (-55.16 kPa). Only tested while the pump is running. Dispensing halts if programmed to do so.	3 gph (11.3 lph) test must pass to clear the alarm. Call for service following the procedures established for your site.
Sensor Out Alarm	L, G, C, H, V	The sensor setup was performed incorrectly or a sensor is disconnected or is not functioning properly.	Call for service following the procedures established for your site.
Setup Data Warning	All Devices	Device setup data problem.	Recheck device setup parameters.
Short Alarm	L, G, C, H, V	A short has occurred in the sensor wiring or in the sensor.	Call for service following the procedures established for your site.
Shutdown	Q	System shut down line because of failed line leak test, or an alarm assigned to disable the line is active.	Identify offending alarm, and refer to PLLD alarms for corrective action.
Siphon Break Active Warning	T	Siphon break valve has shut down manifold for tank test.	Clears when tank test completes.
Sudden Loss Alarm	T	System detects loss of fuel during an idle period.	Check for gross leak.
Water Out Alarm	G	Water level is below the float switch, making the sensor ineffective.	Call for service following the procedures established for your site.

