

TLS Overfill Alarm

Early alert and backup protection for overfill conditions

SPECIFICATIONS

Alarm Unit

Form No. 790091-001

Actuation: From TLS alarm contact, individually programmable alarm levels for each tank (when used with a Veeder-Root ATG)

Audible Alarm: Noise level from 78 - 103dB at 10 ft
Adjustable "Time On" 0 - 60 sec

Visual Alarm: Lamp Rating - 25 watt, 120 VAC
Lens - Red Polycarbonate Flashing Rate - 75 per minute

Dimensions: Box: 10.3"L x 8"W x 4"D
Lens - 4"Ø x 3.5"D

Operating Temperature Range:
-40F to +150F (-40C to +65C)

Supply Voltage: 120 VAC, 50/60 Hz

Alarm Acknowledgement Switch

Form No. 790095-001

Function: Turns off alarm unit while actuating acknowledgement lamp

Acknowledgment Lamp: 120 VAC, amber lens

Box Dimensions: 6.8"L x 4.3"W x 3"D

Operating Temperature Range:
-40F to +150F (-40C to +65C)

Supply Voltage: 120 VAC, 50/60 Hz

Compatibility: TLS-450PLUS, TLS4 series, TLS-350 series, TLS-300 series automatic tank gauges

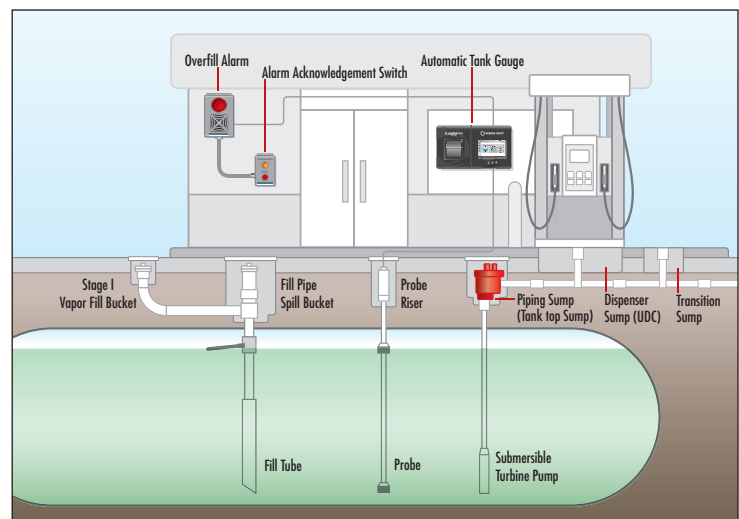
Regulatory: listed for use with Veeder-Root TLS systems for use in non-hazardous location

*This represents Veeder-Root's sole interpretation of the latest UST regulations. Check your local, state and federal authorities for compliance and enforcement policies in your area.



FEATURES

- Meets revised 2015 EPA UST regulations for Overfill Protection Equipment when used alone or in conjunction with an automatic shutoff device*
- Designed to give driver and backoffice instant visibility to an overfill condition
- Light and horn provide a clear and distinct signal for overfill alarm condition
- Provides protection against flapper valve failure or compromise
- A single alarm unit monitors all tanks at a site
- Test button simplifies inspections while ensuring overfill prevention equipment is operational
- Built-in noise level adjustment and alarm expiration timer allows alert customization for your site environment
- May also be used as a remote alarm unit or general purpose alarm based on the console programming



Typical installation

125 Powder Forest Drive • PO Box 2003 • Simsbury, CT 06070

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Overfill Alarm

Installation Guide



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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'S PREFERRED CARRIER

1. Contact VR 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 VR Customer Service at 800-234-5350.
3. VR 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, VR will allow a Return to Stock without a restocking fee.
4. VR 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" and "Parts Return" pages in the "Policies and Literature" section of the Veeder-Root **North American Environmental Products** price list.

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Introduction

This manual contains installation procedures for the Veeder-Root Overfill Alarm and Acknowledgement (Ack) Switch.

The Overfill Alarm unit contains:

- Red flashing light
- Alarm horn

The Acknowledgement Switch unit contains:

- ACKNOWLEDGED light
- RESET push button
- TEST push button

Compatible Consoles

- TLS-3XX/4XX Series
- TLS-IB
- TLS-50
- TLS-HLD
- TLS2

Related Manuals

Depending on your installed console, you should reference the appropriate manuals below, to connect/setup the Overfill Alarm:

576013-879	TLS-3XX Series Site Prep Manual	576013-623	TLS-3XX Series Setup manual
577013-608	TLS-50 Site Prep manual	577013-609	TLS-50 Setup manual
577013-756	TLS2 Site Prep manual	577013-757	TLS2 Setup manual
577013-719	TLS-IB Site Prep manual	577013-785	TLS-HLD Setup manual
577013-784	TLS-HLD Site Prep manua	577013-879	TLS-4XX Site Prep Manual

Contractor Certification Requirements





Veeder-Root requires the following minimum training certifications for contractors who will install and setup the equipment discussed in this manual:

- Level 1** Contractors holding valid Level 1 Certification are approved to perform wiring and conduit routing, equipment mounting, probe and sensor installation, tank and line preparation, and line leak detector installation.
- Level 2/3** Contractors holding valid Level 2 or 3 Certifications are approved to perform installation checkout, startup, programming and operations training, troubleshooting and servicing for all Veeder-Root Tank Monitoring Systems, including Line Leak Detection and associated accessories.



Warranty Registrations may only be submitted by selected Distributors.

Safety Symbols

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

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

Safety Warnings

⚠ WARNING	
 	<p>This product is to be installed in systems operating near locations where highly combustible fuels or vapors may be present.</p> <p>Fire or explosion resulting in serious injury or death could result if the Overfill Alarm and Ack switch units are installed in a volatile, combustible or explosive (Class I, Division I and Division II) atmosphere.</p> <p>Explosion could occur if alarm wires share tank monitor or console probe or sensor wire conduits or wiring troughs. Do not run Overfill Alarm and Ack Switch wires with console probe and sensor wires.</p> <ol style="list-style-type: none"> 1. Read and follow all instructions in this manual, including all safety warnings. 2. Comply with all applicable codes including: the National Electrical Code; federal, state, and local codes; and other applicable safety codes. 3. Do not alter or modify any component or substitute components in this kit.

Mounting Instructions

Overfill Alarm and Acknowledgement Switch Dimensions

Figure 1 shows the Overflow Alarm mounting dimensions and Figure 2 shows the Acknowledgement Switch mounting dimensions.

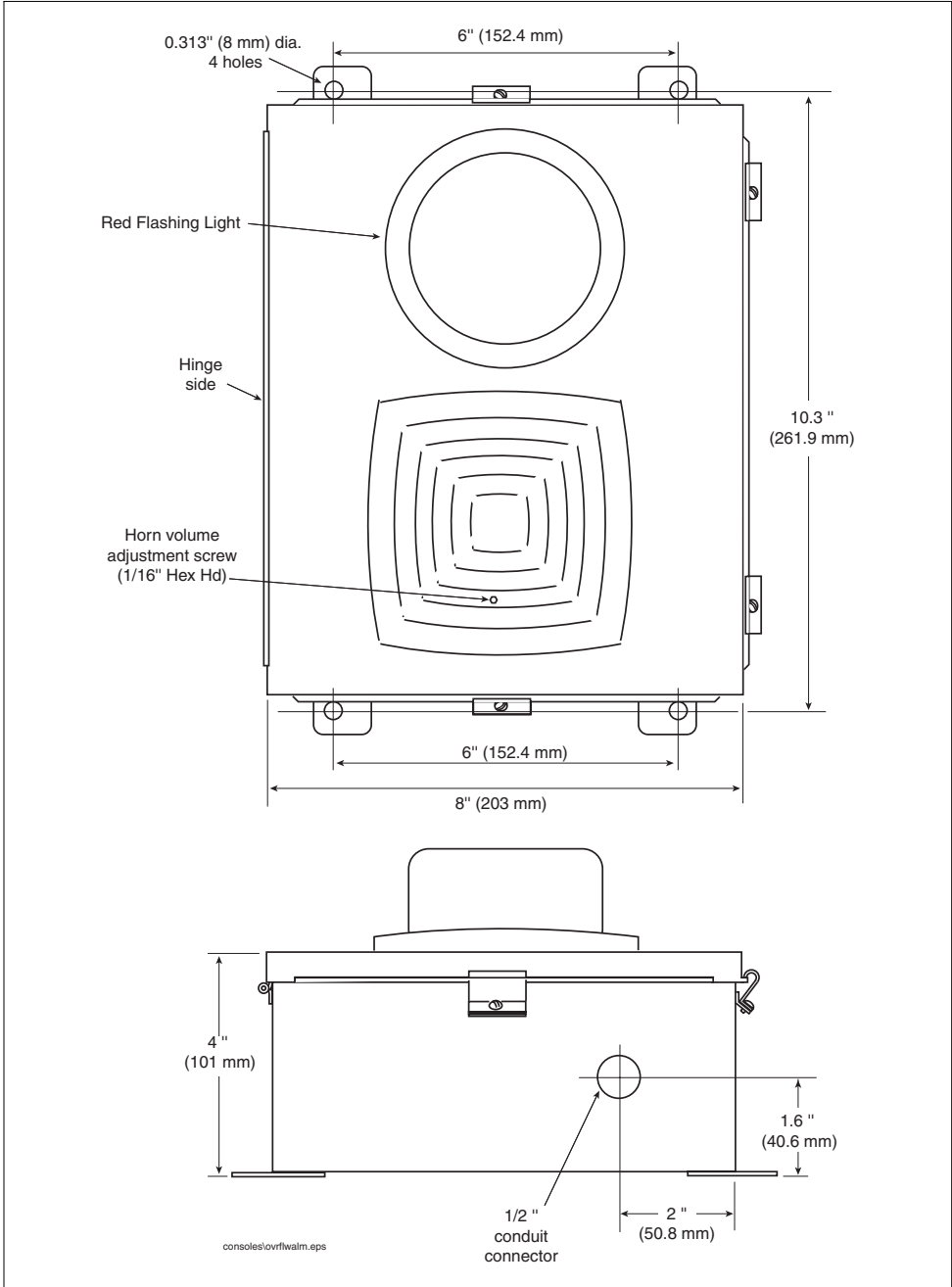


Figure 1. Overflow Alarm mounting dimensions

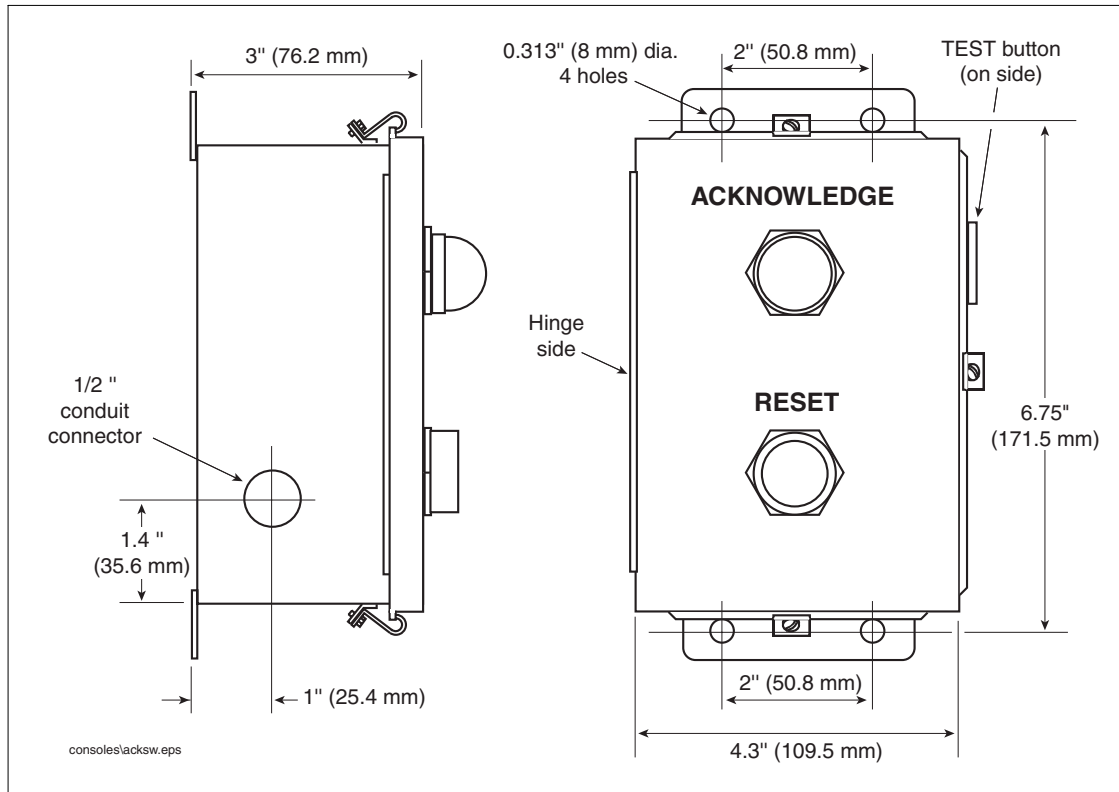


Figure 2. Acknowledgement Switch mounting dimensions

Mounting Instructions

OVERFILL ALARM

1. Select a mounting location where the Overfill Alarm can be seen and heard clearly from the area where the fuel tanks are filled. In addition, consider the ease of routing interconnection conduit.
2. Locate and mark mounting holes using the hole pattern in Figure 1.
3. Mount the Overfill Alarm using the four mounting tabs on the housing.

ACKNOWLEDGEMENT SWITCH

1. Select a mounting location where the Acknowledgement Switch can be easily activated by the tank truck driver. In addition, consider the ease of routing interconnection conduit.
2. Locate and mark mounting holes using the hole pattern in Figure 2.
3. Mount the Acknowledgement Switch using the four mounting tabs on the housing.
4. Install conduit between the Acknowledgement Switch, Overfill Alarm, and TLS Console.

Wiring Instructions

IMPORTANT! Wire used for this installation must have a temperature rating of at least 90°C, be either 14 or 16 AWG, and be color coded. Splicing alarm power with TLS Console power will cause improper operation of the monitor.

Wiring Overfill Alarm with Acknowledgement Switch

1. Pull two wires from the switch to the Overfill Alarm.
2. Pull two wires for line and neutral from the switch to the power panel.
3. Pull one wire from the switch to the TLS Console for connection to the alarm relay.
4. Pull one wire for line from the alarm relay in the TLS Console to the power panel.
5. Turn power Off and connect wiring according to the wiring diagram in Figure 3 and Table 1.

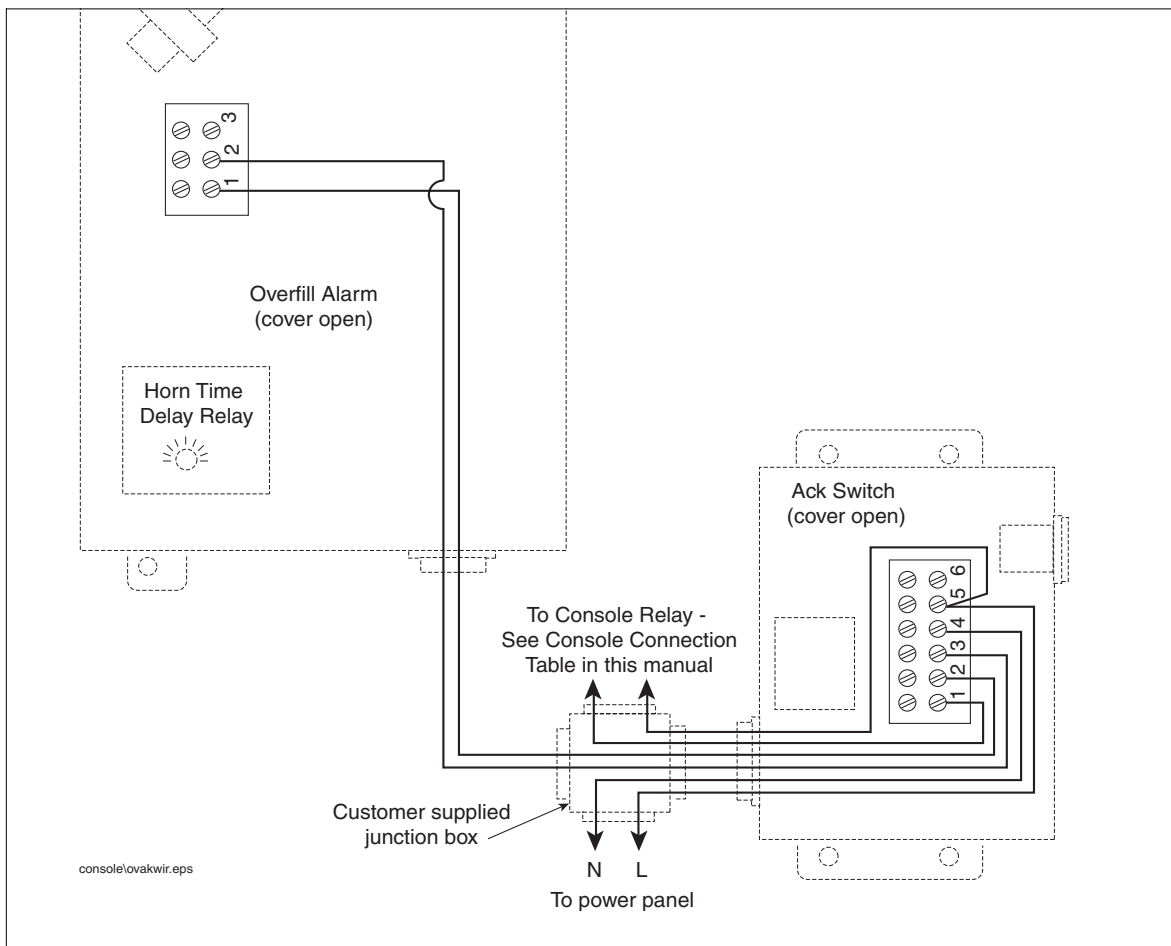


Figure 3. Overfill Alarm/Acknowledgement Switch wiring connections

Wiring Overfill Alarm without Acknowledgement Switch

1. Pull one wire for neutral from the Overfill Alarm to the power panel.
2. Pull one wire from the Overfill Alarm to the console for connection to the alarm relay.
3. Pull one wire for line from the alarm relay in the console to the power panel.
4. Turn power Off and connect wiring according to the wiring diagram in Figure 4 and Table 1.

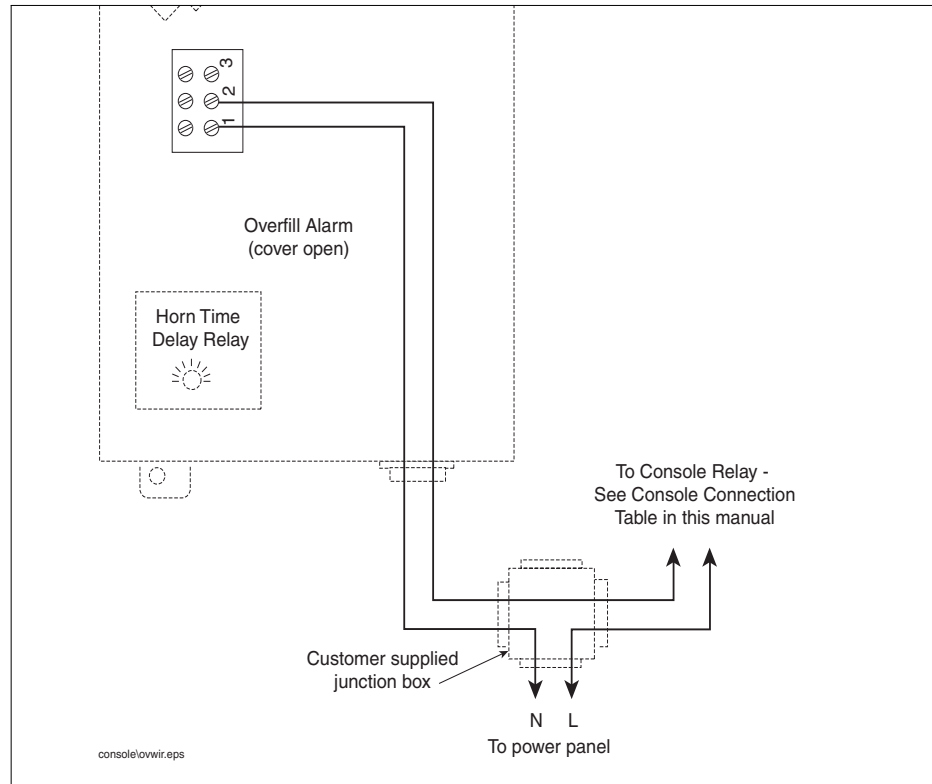


Figure 4. Overfill Alarm only wiring connections

Table 1.- Console Connections

Input	TLS2 or TLS-IB Connection	TLS-50 or TLS-HLD Connection	TLS-300 Output Relay Connection	TLS-350 I/O Combo Relay Connection	TLS-350 4 Relay Output Module Connection	TLS-4XX Overfill Alarm Relay Connector
Overfill Alarm without Acknowledge Switch (see Figure 4)						
Overfill Alarm terminal 2	J6, 1	J5, 1	NO	NO	NO	NO
Line (from power panel)	J6, 2	J5, 2	C	C	C	C
Overfill Alarm with Acknowledge Switch (see Figure 3)						
Ack Switch terminal 1	J6, 1	J5, 1	NO	NO	NO	NO
Ack Switch terminal 5 (line)	J6, 2	J5, 2	C	C	C	C

Setup and Test

Setting Overfill Alarm Horn Delay Time

1. Loosen the four screws that secure the Overfill Alarm cover clamps to the case. Slide the clamps away from the retaining lip on the door. Open the door.
2. Locate the Horn Time Delay Relay (see Figure 3).
3. Adjust the time the horn remains On from 0 to 60 seconds by turning the knob on the relay to the desired setting.
4. Close the door and tighten the four cover screws.

Testing the Overfill Alarm with the Acknowledgement Switch

Turn On power to the Overfill Alarm and Acknowledgement Switch. Depress and hold in the TEST Button on the right side of the switch. The Overfill Alarm horn will sound immediately, and the Overfill Alarm's red light will start flashing. The horn will turn Off at the preset delay time you set above (0 -60 seconds). The red light will continue to flash until the TEST button is released.

Setting the Overfill Alarm Horn's Volume Level

1. Locate the adjustment set screw (1/16" Hex wrench) on the exterior of the Overfill Alarm's horn cover (see Figure 1 on page 3).
2. Turn the adjustment screw counterclockwise to increase the dB level of the horn or clockwise to decrease its dB level.

Testing the Overfill Alarm with the Console

1. With the Overfill Alarm and Acknowledgement Switch (if installed) connected to the console, consult the setup instructions for your console and perform the Output Relay setup procedure to recognize the Overfill Alarm.
2. Turn power Off to the console and the Overfill Alarm. Put a jumper between the two Overfill Alarm relay connections in the console.



OVERFILL ALARM W/O ACKNOWLEDGEMENT SWITCH

1. Reapply power. If the Overfill Alarm is wired properly, the alarm horn should sound immediately followed by the red alarm light flashing.



2. Turn Off power to the console and to the Overfill Alarm. Remove the jumper between the Output Relay connections.



OVERFILL ALARM WITH ACKNOWLEDGEMENT SWITCH

1. Stand by the Acknowledgement Switch and have someone reapply power to the console and Overfill Alarm. If the Overfill Alarm is wired properly, the alarm horn should sound immediately followed by the red alarm light flashing.

2. Press the RESET button on the front of the switch. The alarm horn and red flashing light should shut off. The ACKNOWLEDGED light on the front of the switch should be On. (Pressing the RESET button shuts Off the alarms but does not clear the alarm. The cause of the alarm must be removed before the ACKNOWLEDGED light will turn Off.)



3. Turn Off power to the console and to the Overfill Alarm. Remove the jumper between the console's Output Relay connections.



4. Reapply power to the console and to the Overfill Alarm. The ACKNOWLEDGED light should now be Off because the cause of the alarm (in this case, the shorting jumper) has been removed.

