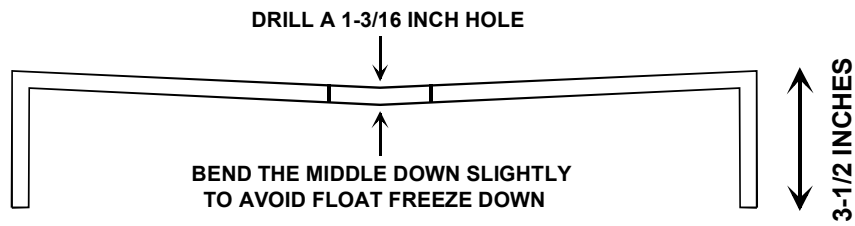
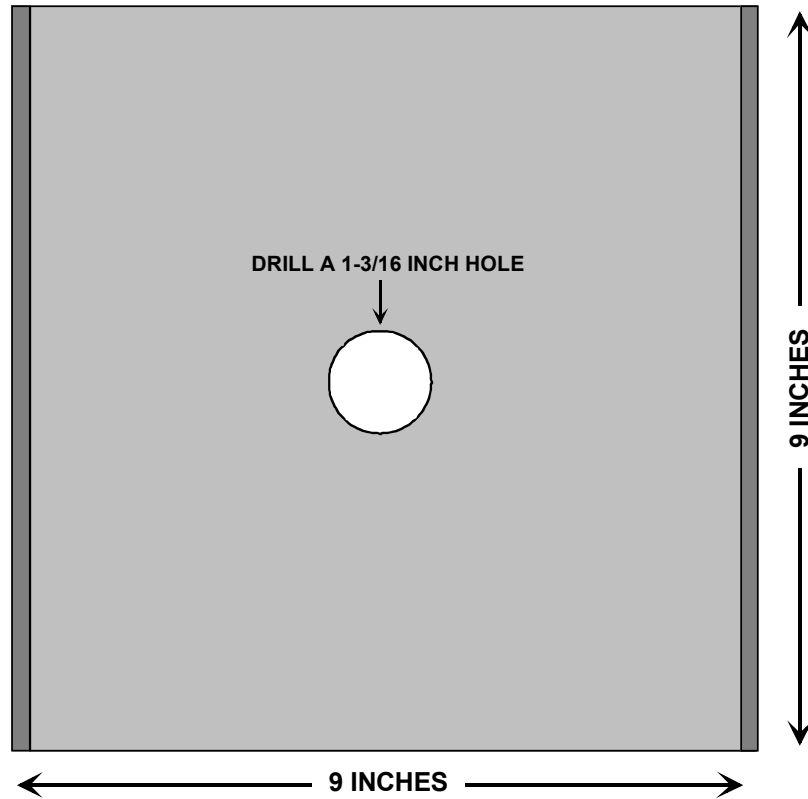


808P2 INSTALLATION GUIDE

1. Pick a spot in the tank for the sender bar to be mounted. It should be as close to the middle of the tank as possible. Allow room for the head at the top of the sender bar. Make sure that the float will not contact any baffles or other obstructions in the tank. It is preferable if the float can be accessed from the hatch, to make any future service work easier. For this reason **do not** mount the float behind a baffle where it can't be reached from the hatch.
2. Drill or cut a hole in the top of the tank to mount a 1 inch NPT coupler (not provided). Weld the top coupler in place.
3. Slide the compression fitting over the sender bar, threads facing down, and insert the bar through the coupler and align it vertically in the tank. Determine how much length needs to be cut off the bottom of the bar. At a minimum the bar should be mounted 1 inch off the bottom of the tank to allow for tank expansion and contraction. For tanks greater than 75 inches in height, increase the gap to 1 ¼ inches. Cut the bar with a hack saw. **Do not use a disk type cutoff saw since the heat generated will short circuit the internal circuit board.**
4. **Ensure that the compression fitting is on the bar** and clean the end of the bar and the inside of the end cap with Loctite 7070 Cleaner. Spray Loctite T7471 Primer onto both the end of the bar and the inside of the end cap. Allow the primer to dry for a few minutes. Apply a bead of Loctite 680 Retaining Compound around the bottom of the tube and around the top of the end cap. Place the cap onto the end of the tube with a twisting motion so that the retaining compound is smeared completely on the portion of the bar where the end cap is. To remove entrapped air, place the end on the floor and rock the bar until excess air has escaped. Keep the end cap in position by gently clamping the bar in a vise with the end against a solid object. Avoid setting the end cap against a cold floor, as this will slow the curing process. The curing time should be about an hour at room temperature. **The Loctite must be set before the tank is put into service. Bar failure due to a leaking end cap is NOT covered by warranty.** Note that a kit with all the required Loctite products is available from Garnet. For further details on the Loctite products see Technical Service Bulletin #17 on our web site, www.garnetinstruments.com.
5. Make up an anchor by cutting a 9 X 13 inch piece of 3/16 inches (or more) thick material. Bend each end down at 90 degrees (see the diagram below), so the resulting flat piece is about 9 X 9 inches with 3 inch sides. Drill a hole 1-3/16 inches in diameter in the center of the plate. Insert the bar into the tank and slide the anchor assembly over the sensor bar with the "U" facing down. Align the sensor bar vertically and weld the anchor in place to the bottom of the tank. Pull the sensor bar up a bit and slide the float (cone side up) over the bar. Lower the bar back into the anchor.



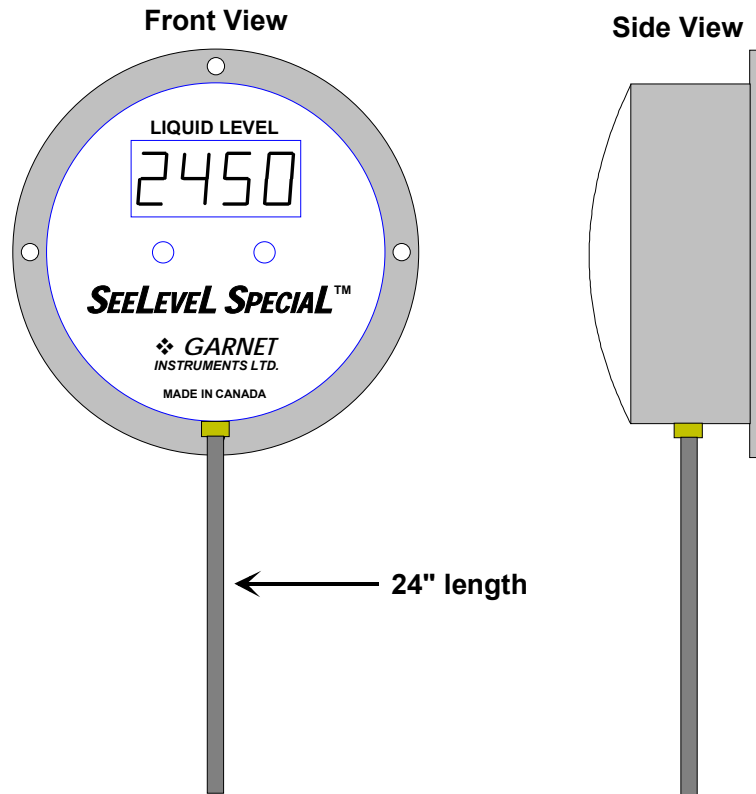
EDGE VIEW



TOP VIEW

6. Tighten the base of the compression fitting into the coupler. Lift the bar 1 inch (1 ¼ inches for tanks greater than 75 inches in height) off the bottom of the tank, and tighten down the compression fitting nut. Raise and lower the float a few inches to set the bottom reading.
7. Pick a spot for the display. It should be easy to see and out of direct road spray and protected from driving rain. Mount the display enclosure using the mounting flange holes, being certain to shim the enclosure away from the mounting surface with the spacers provided to allow water drainage. **Broken display enclosures caused by water freezing behind the enclosure are NOT covered by warranty.**
8. Route 1/4" Nylon air brake hose from the sender head to the display and fasten with **brass inserts** and **compression fittings** at each end (the brass inserts may be part of the fitting). If the holes are not pre-drilled in the display enclosure, drill holes into the Valox box close enough to the base of the box to avoid contacting the lid flange. Never drill holes into the top of the box since water will leak in. Make sure that the lid is not on the box when drilling

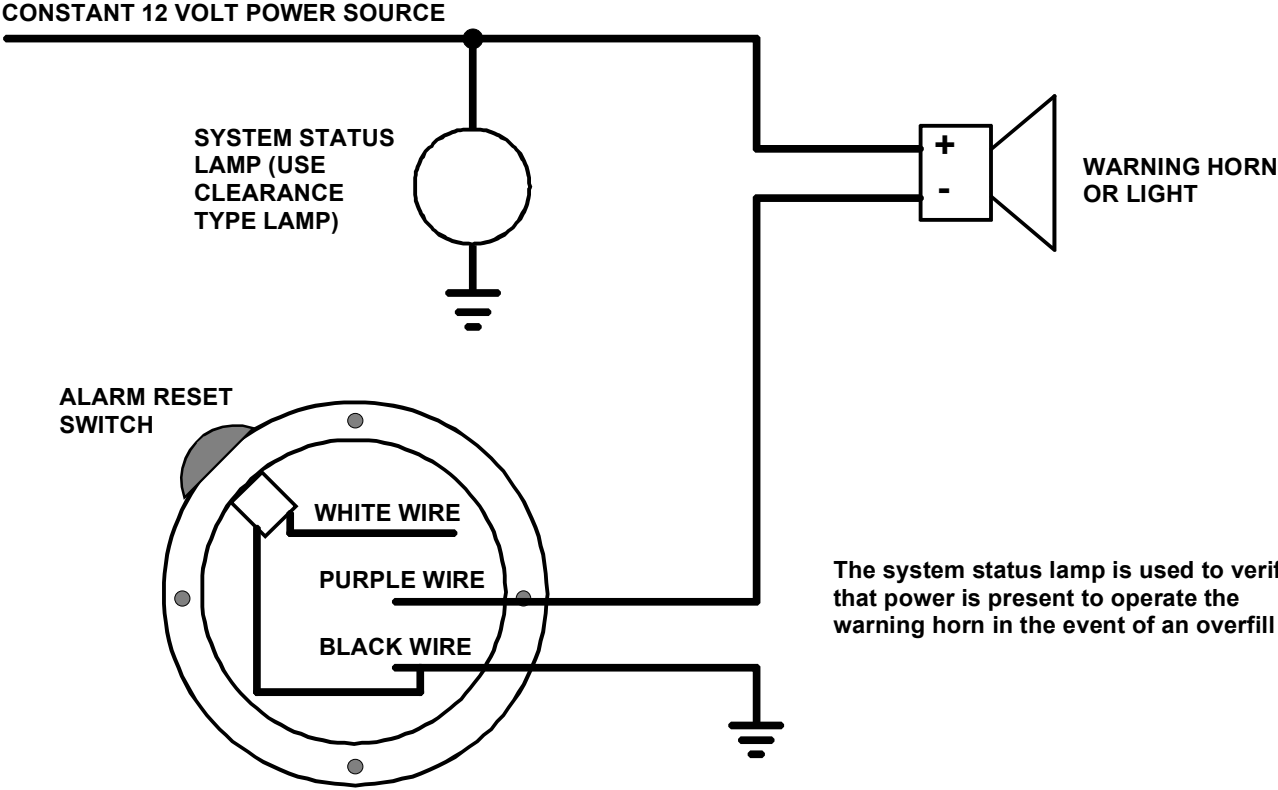
to avoid damaging the display electronics. **At the lowest point in the air line insert a T fitting with approximately two feet of Synflex hanging down to provide a drain for any water than may get into the system. If a T fitting is not feasible, put a fitting into the bottom of the display enclosure and route the 2 feet of Synflex from there (see diagram below).** If wiring is to be connected, drill and tap extra holes as needed into the enclosure. Feed the fibre optic cable through the hose, leaving about 12 inches extra at each end.



9. Cut the fibre ends square with a sharp knife and insert the fibre into the connectors at each end and tighten the connector lock nuts. Make sure that the fibre is loosely coiled inside the enclosure and is not pulled tight or bent sharp. The display should change from reading "no L" to some inch value as soon as the fibre is connected. If not, check that the fibre ends are clean and cut square, and that the fibre is fully inserted into the connectors at each end. If the display shows "bL: 8" or "bL:11" reprogram the sender bar or display for the correct mode (1/3 or 1/6 inch).
10. Inspect the head cap for casting flash, lightly sand or scrape off any casting protrusions. Make sure that there is grease on the rubber O-ring and snap on the head cap.
11. Program the gauge as directed in the programming section. To determine the bottom reading of the gauge, measure from the bottom of the tank to the middle of the straight vertical part of the float when the float is resting on the anchor. Do **NOT** set the gauge to read "0" at the bottom since this will not result in a correct reading when the float is actually floating on the product. In addition, if the gauge ever goes below "0" due to tank expansion, it will read some nonsensical value since this region has not been programmed.

12. If wiring is used, route the wires into the display box using Synflex, compression fittings, and inserts like was used with the fibre cable. Connect the **BLACK** wire to ground, the **RED** wire to a 12 volt clearance light circuit (this operates the LCD back light), and the **YELLOW** alarm wire to the alarm circuit (if used). The alarm wire completes a circuit to ground when active, so the other end of the circuit needs provide power. The **PURPLE** automatic alarm wire is connected to the negative side of a relay coil, with the positive side connecting to +12 volts. The relay contacts control power to the warning horn or light, this should be "PTO sensed" power. This means that the power is only supplied to the warning device when the PTO is engaged. The **GREEN** SpillStop wire goes to the compartment terminal on the 815, or to the Yellow wire of the 815U. The **WHITE** switch wire goes to the white wire on the automatic alarm reset switch, with the black switch wire going to ground. From the inside, seal the wire entry into the SeeLevel enclosure with RTV silicon rubber. Make sure that the RTV fully surrounds the wire where it goes though the fitting. To program the alarms and the SpillStop see the alarm programming section. Contact Garnet for information concerning the connection of the **GREY** remote wire. Note that the **GREY** wire may not be installed on all displays.
13. Inspect the display cap for casting flash, lightly sand or scrape off any casting protrusions. Make sure that there is grease on the rubber O-ring and snap on the display cap.
14. Verify gauge operation by lifting the float. Record the unit number, calibration units, minimum and maximum readout values, and any alarm points programmed in the IMPORTANT OPERATOR INFORMATION area on the front page of the owners manual. **The truck operator must be given the owners manual upon delivery with all front page data filled in.**

AUTOMATIC ALARM WIRING DIAGRAM



The system status lamp is used to verify that power is present to operate the warning horn in the event of an overflow

808P2 SeeLevel GAUGE

THE RELAY IS NEEDED IF THE HORN OR LIGHT DRAWS MORE THAN 1 AMP