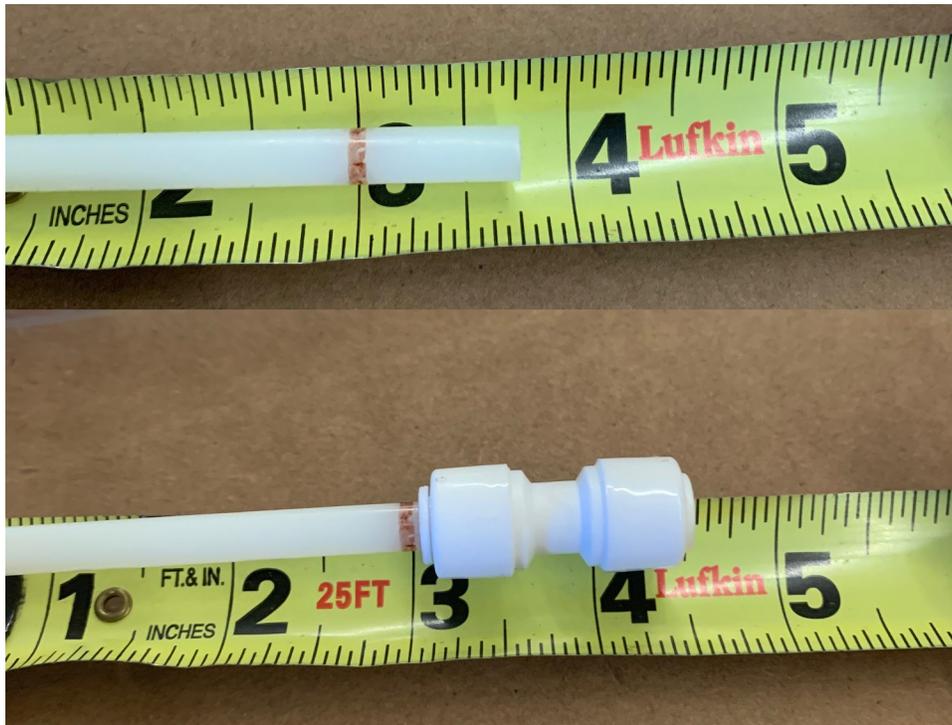


Pressure Switch Installation and Troubleshooting

The pressure sensors in our ATO, Skimmate Lockers, and Barrel Tender operate on the principle of air pressure change as the water level rises or falls. The black polyethylene tubing and clear acrylic sensor contains a bubble of air when the sensor tube is submerged in water. It is critical that this tube be connected securely via the white push-connect fitting to the stem on the pressure switch box. When installing any component of the pressure sensor, whether tubing into a push-connect coupling, or the coupling onto the switch stem, be sure to insert the tubing or stem about 3/4" (19mm) into the push-connect coupling, as seen here:



Once connected, it is important to not allow water to get up inside the black tubing. This will cause the sensor to lose sensitivity. When the water level fluctuates more than +/- 1/2" (13mm), this is typically the problem.

To test the pressure switch, place the acrylic sensor tube in a glass of water. You should see the air bubble trapped near the tip of the sensor tube. This bubble should not move up the tube at all when left for several hours or overnight. If it does slowly creep up the tube, or if the switch doesn't shut off until the tube is dipped very far into the water, then you probably have a leaky connection at the pushlock fitting on the switchbox and/or water in the sensor tubing. Pull out the black tubing, blow any water out, and, if the tubing looks rough at the end, cut about a half inch off with a sharp razor blade. Reinstall the tubing as described above. It should not pull out if you tug on it. Repeat the glass of water test to make sure the sensor tube is holding air. The switch should now turn on and off as the tube is lifted and lowered into the water about an inch.

Similarly, if the Barrel Tender activates too soon (i.e., the water level in the reservoir isn't low enough) then the low level sensor tube either is leaking air or has water in the line. The solution for this is the same- check the pushlock fittings for full insertion. The rigid nylon tubing can be rather difficult to insert the full 3/4" depth- push on it hard if necessary. Be sure to completely reconnect all of the tubing and fittings BEFORE submerging the sensors in the water- otherwise, the water will travel up into the tubing.