



# Sensor Assembly Installation

*Updated 2022*

## ITEMS NEEDED FOR INSTALLATION:

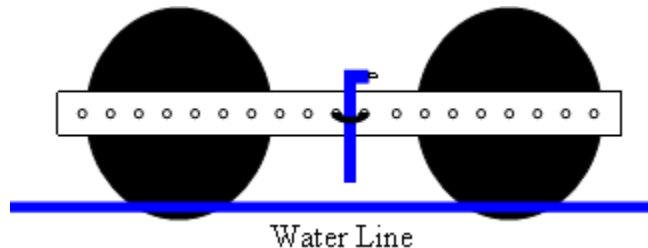
- 3/8" wrench
- 20-30 12-14" cable ties (wire ties)



Figure 1

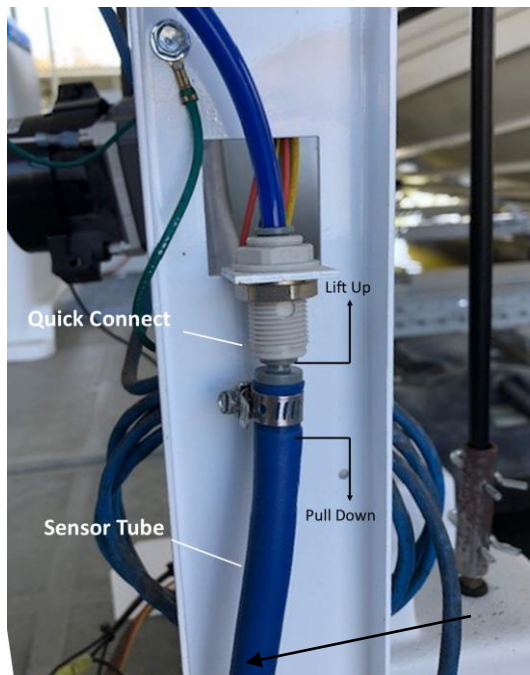
NOTE: Prior to installing sensor tube & hose, DO NOT let water get inside sensor HOSE! Must be **air only**. If hose is dropped in water during installation, you must blow through one end for the water to escape **completely** through the sensor tube (expels water through sensor tube)

1. Remove Firstmate Enclosure:
  - a. Will need 3/8" wrench to remove (4) case screws / washers. Take enclosure off frame.
2. Install the Sensor Tube:
  - a. Raise the boat and lift to the desired UP position.
    - i. **Note:** The boat must be on the lift to assure correct sensor positioning
  - b. Locate a suitable mounting position on the lift cross member nearest the blower box.
    - i. **Note:** if you have a drive on style lift the sensor tube should be mounted at the rear of the lift) Consideration should be given to minimizing the potential for interference of the pickup hose with the lift. A good rule of thumb is to run the pickup hose along the air tank hoses.
  - c. Attach the pickup tube to the cross member with the bottom of the tube approximately **3" above the waterline**.
    - i. **Note:** It may be necessary to cut the bottom section of the PVC pickup tube to allow for clearance between the top of the pickup tube and the hull of the boat. Do not cut more than 3-4" from the 17" PVC pickup tube.
  - d. Install the 2" hose clamps around the small diameter of the pickup tube just below the large diameter of the tube. Install the large 5" hose clamp around (or through) the cross member and through the small 2" hose clamps. Tighten the small hose clamps then tighten the large hose clamp.



- i. **Note:** The pickup tube should be mounted vertically and perpendicular to the surface of the water) Attach one end of the sensor hose to the sensor assembly (Attached to the blower frame) and then the other end to the pickup tube. The hose must be pushed onto the fittings until it touches the yellow spacer on the brass fitting. Failure to do this will result in leaks and erratic sensor operation.
- ii. **Note:** Putting a little liquid soap on the fitting eases the assembly process.

3. Route the sensor hose from the sensor tube along the lift and up one of the lift arms (be sure to allow UP/DOWN lift travel) keeping the hose out of the water (eliminates animals chewing) secure with cable ties.
4. Finish routing the sensor tube into the Firstmate and secure to frame using cable ties.
5. Cut off excess hose and install barbed end of quick connect fitting into sensor hose. Secure the quick connect fitting w/ clamp.
6. Push the other end of the quick connect fitting into the frame mounted female connector.



**Figure 3**

Consult User Guide for programming or visit our web site: [www.firstmatecontrols.com](http://www.firstmatecontrols.com)