# WP Controls Boat Lift Controller

## Installation Instructions

**Tools and parts needed:**

- **(1 per lower fill nipple) #20 Stainless Steel hose clamps**
- **(1 per upper vent nipple) #20 Stainless Steel hose clamps**
- **(Optional) (1 per upper vent nipple) 1 1/4”x 12” rubber hose**
- **Drill with appropriate concrete bit for concrete screws (for concrete docks)**
- **(4 per controller box) galvanized, zinc or stainless #10x 1 1/4” pan head wood screws or 3/16”x 1 1/4” pan head concrete screws depending if dock has concrete or wood decking**
- **Screwdriver for clamps and appropriate drill driver bit for deck screws**
- **Side cutters**
- **Zip ties for sensor wire routing and sensor mounting**
- **(Optional) Double sided tape for easy initial sensor positioning**

**Step 1.**

**Position the controller so that it is next to a 20 amp receptacle and within 14 feet of the boat lift frame arm as shown in Fig 1. If you have a 3 or 4 blower unit then you will need (2) 20 amp receptacles on separate circuits. The back side of the controller with the opening on the bottom should be facing the well and be next to the edge of the dock decking. If you have a 3 or 4 blower system then you can position the secondary controller box next to the primary controller box within 5” of each other. The back side of the secondary controller should be positioned with the opening on the bottom facing the well and be next to the edge of the dock decking.**

**Fig 1.**

**Step 2.**

**Install metal controller base plate to dock decking using 4 screws.**

a. **For concrete decking use concrete screws and predrill holes in concrete decking to the recommended size. (screws and bit not included)**
b. **For wood decking use wood screws. (screws not included)**

**The dock mounting holes are exposed so the enclosure will not have to be removed. Tighten screws until they touch the metal controller base plate. As shown in Fig 2, 3 & 4 below.**

**Fig 2.**

**Dual Blower**

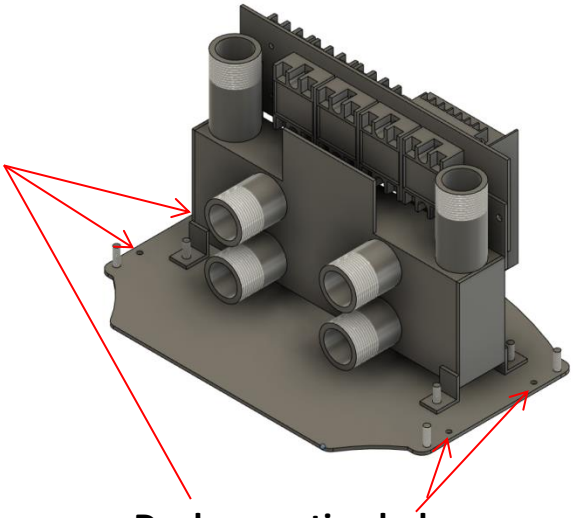



**Fig 3.**

**Single Blower**

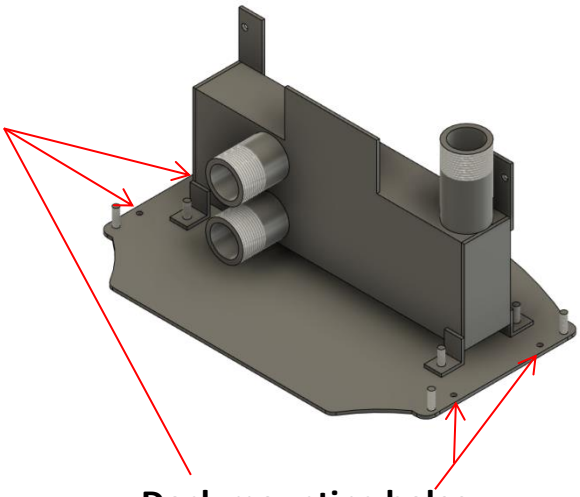



**Fig 4.**

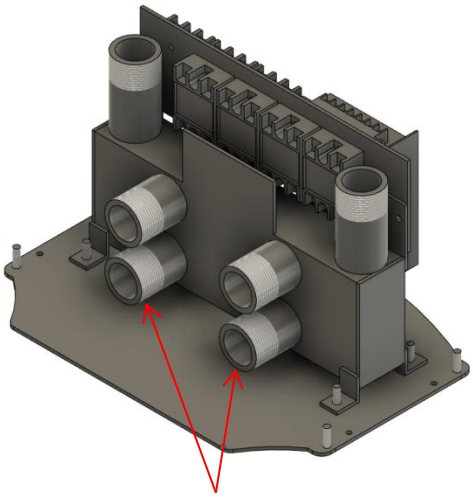
**Step 3.**

**Install boat lift tank hoses to the boat lift controller(s) based on your boat lift manufacturer's recommendations. It is important that you follow the tank hose to controller configuration that your boat lift manufacturer recommends to prevent personal injury or property damage to your boat or lift.**

**The hose nipples are exposed so the enclosure will not have to be removed.**

**With the boat lift in the down position, install the existing boat lift tank hoses to the lower (fill) nipples on the lower back side of the controller as shown in Fig 5, 6 & 7 below. The number of hoses to the tanks correlates to the number of blowers your system requires. There can be 1 to 4 hoses coming from your existing boat lift. Fasten hoses with stainless steel hose clamps on each hose and tighten. (hose clamps not included).**

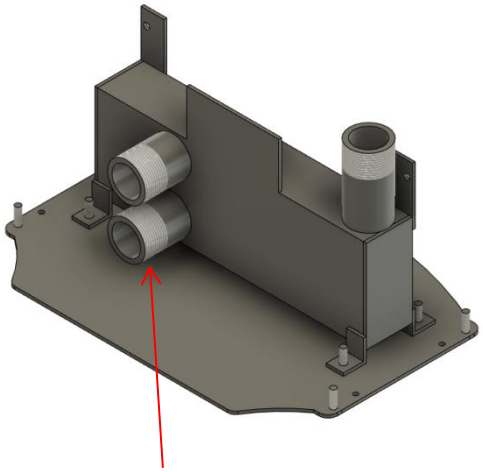
**Dual Blower**



**Lower Fill nipples (to tank hoses)**

**Fig 5.**

**Single Blower**



**Lower Fill nipple (to tank hose)**

**Fig 6.**

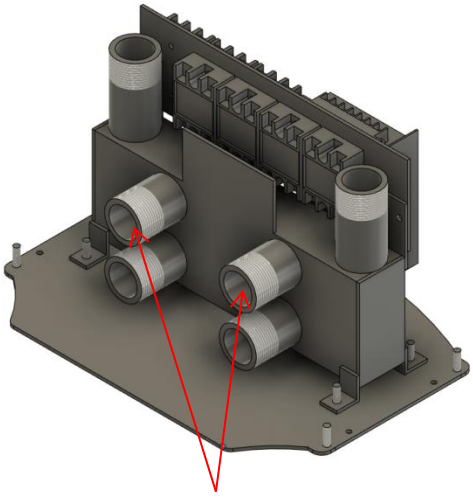
**Fig 7.**

**Step 4.**

**(Optional) Install a short 1 1/4”x 12 hose to each of the upper (vent) nipples on the back side of the controller as shown in Fig 8, 9 & 10 below. Depending on the system you have there could be 1 or 2 upper (vent) nipples per controller box. Fasten hoses with stainless steel hose clamps on each hose and tighten. (hoses and hose clamps not included)**

**The hose nipples are exposed so the <u>enclosure will not have to be removed</u>.**

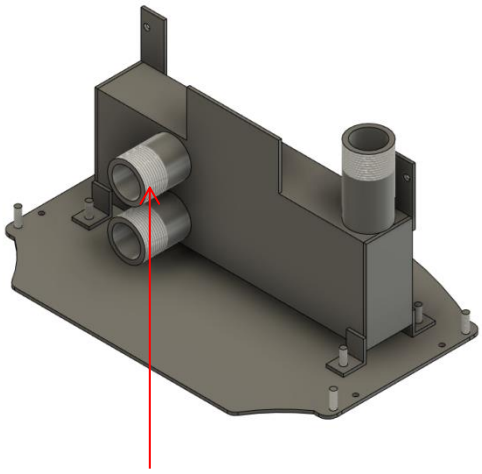
**Dual Blower**



**Upper Vent nipples (to short 12” hoses)**

**Fig 8.**

**Single Blower**



**Upper Vent nipple (to short 12” hose)**

**Fig 9.**

**Fig 10.**

**Step 5.**

**Install the height sensor to the closest moving boat lift frame arm as shown in Fig 11. The height sensor is already connected and the cord is stored in the hose cavity in the back for shipping purposes.**

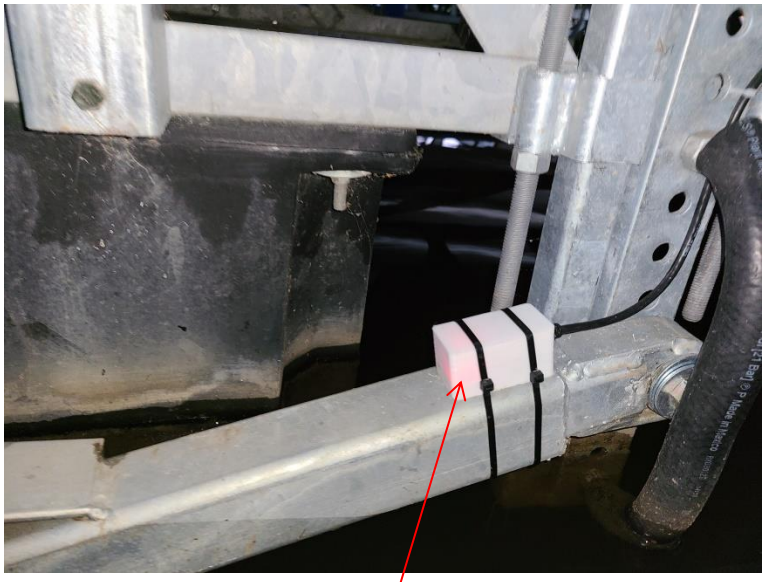
**(Optional) If you need to replace the standard 20' height sensor with a custom length one then you will need to plug the new sensor into the red board under the removable screen housing as shown in Fig 12.**

**Route the height sensor wire under the dock frame above the floats from the primary controller box to the closest boat lift arm using zip ties if needed. Be careful to ensure the wire will not be pinched or rubbed by any dock or boat lift parts in its final installed position.**

**For ease of installation, attach double sided tape to the bottom of the height sensor. Stick the sensor to the top side of the moveable boat lift arm approximately 4" down from the pivot point. The height sensor wire should be facing the pivot point of the boat lift arm. Leave enough slack in the wire so that it does not get tight when lift moves up and down. Make sure the position selected allows for the sensor wire to not be pinched or rub on any part when in motion.**

**Zip tie the height sensor to the boat lift arm using 2 zip ties. Each zip tie needs to be positioned in the notches that are built in to the top of the sensor box. Trim the zip ties to length as needed.**

**The height sensor is water proof, but it is a better installation if it is positioned where it does not remain submerged in water. The height sensor can be installed in alternative ways if your boat lift frame does not lend itself to the described install procedure. The height sensor detects a radial/tilting motion so the alternative install will have to accommodate that requirement.**



**Height Sensor**

**Fig 11.**

**Fig 12.**

**Step 6.**

**If you have a 3 or 4 blower system with a primary and secondary control box then you will need to install the interconnect cable between the primary and secondary controller boxes.**

**Step 7.**

**Connect power to the boat lift control box. Plug in the GFCI cord to the 20 amp receptacle. If you have a 3 or 4 blower system then you will need to plug each controller box into a separate 20 amp circuit since the initial current draw of the extra motors will exceed a single 20 amp circuit.**

**Verify the GFCI works on the controller(s) by pressing the test button on the cord then press the reset button.**

**Observe that once the power is applied that the touch screen will display a boot up sequence.**

**Step 8.**

**Follow the install wizard on the screen to complete the install and lift calibration as shown in Fig 13 below.**

**If the install wizard does not show then you can access it by selecting the 3 dots in the upper left of the main control screen then select the gear icon in upper right. Then finally select Setup Wizard on the lower left of the menu.**

**While on the lift calibration setup screen be sure that the lift goes up when manually commanded up and down when manually commanded down. On 3 or 4 blower systems verify both lift controller boxes are operating as they should while under manual control.**

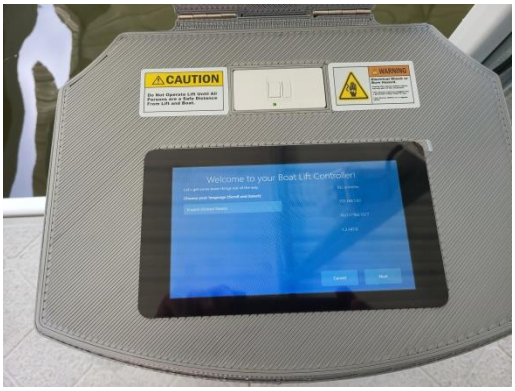



**Fig 13.**