

BULLETIN # B012E

TESTING & REPLACING WATER BATH FLOAT SWITCHES IN THE ATL-2000

You will need:

- Standard blade screwdriver
- Phillips® #1 head screwdriver
- Needle nose pliers
- Volt-Ohm (resistance) Meter or Continuity Meter
- 3mm hex ball head driver or 3mm Allen key supplied with your processor (*JOBO Part #16227*)
- Pure petroleum jelly
- 6mm hex nut driver

JOBO spare parts you will need for this procedure are:

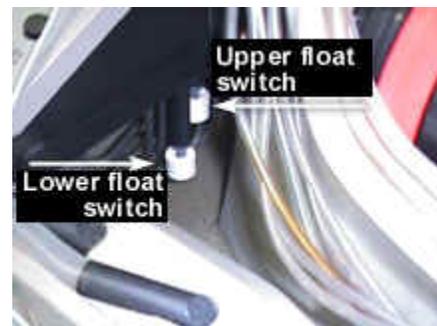
- Upper Float Switch (*JOBO Part #95287*)
- Lower Float Switch (*JOBO Part #95341*)
- O-Ring for Float Switch for each Switch (*JOBO Part #34020*)

Procedure:

1. Drain the water bath.

2. **WARNING! Disconnect the main power cord from the electrical outlet!**

3. Located under the lower motor unit (or lower head), please observe the two floating switches. These switches will rise and fall depending upon the level of the water in the trough. The shorter of the two is called the **upper float switch**. The longer of the two is called the **lower float switch**.



4. Remove the front bottle cover by first removing the 4mm cap head screw located at the right side hinge point.

5. Slide the front bottle cover toward the right so you disengage the cover from the hinge pin (a holding-pin is protruding directly out of the right hand side of the front electronics head cover).

6. Remove the 3mm cap head screw and washer located near the left cover hinge.

7. Remove the four (4) Phillips® screws located on the front of the electronics head.

Please note the two upper screws are longer than the two lower screws.

8. Remove the gray colored sealing tape (*JOBO Part #70238*).

WARNING! It is critical this tape is replaced before using your processor. If liquids are spilled on the top of the electronics head and the seal tape is not present, then severe damage to the electronic circuit boards will occur!

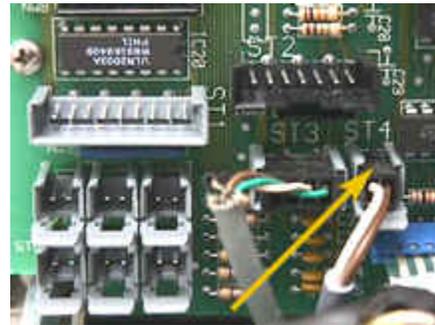


9. Remove the front cover of the electronics head.

10. **IMPORTANT!** Label the location of all the wires plugged directly into the electronics head.

11. Locating the Upper Float Switch:

Locate the connector labeled "ST4" near the lower left-hand corner of the circuit board behind the front panel that covers the front electronics. The ST4 connector is the **upper float switch** connector.

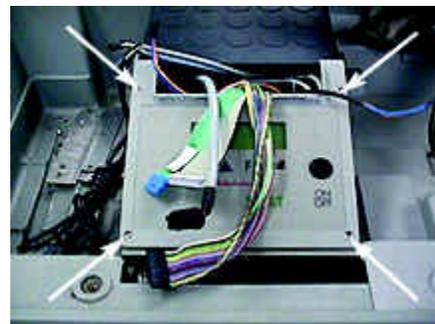


NOTE: If you do not need to locate the **lower float switch**, then please skip to Step 13.0.

12.0. Locating the Lower Float Switch:

12.1. Locate and remove the two (2) 6mm hex screw stands from the lower left-hand and lower right-hand corners of the electronics. The screws removed in Step 7 were removed from the screw stands.

12.2. Locate and remove the four (4) Phillips® screws on the lower motor unit's top panel. The display, key pad, and power switch are located on this panel.



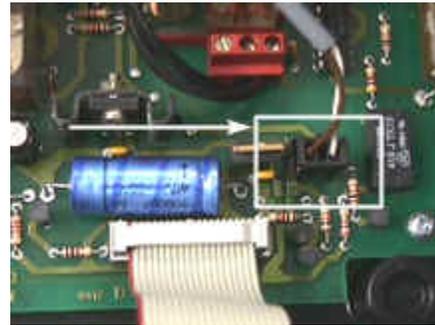
12.3. Remove the panel by carefully lifting it off and inverting it to the right.

12.4. Mounted on an angle, please observe a black plastic shield. Please remove it by unscrewing two (2) Phillips screws. One screw is located to the right of the shield. The other screw is located on the left.

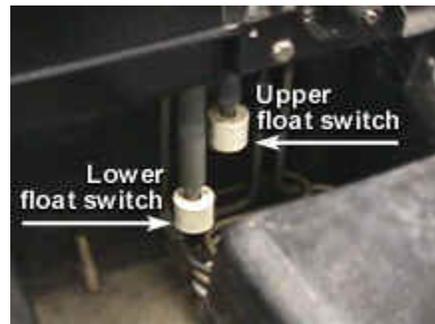


12.5. Beneath the motor unit's top panel, please observe the lower circuit board is called the **Transformer Circuit Board**.

12.6. Locate and remove the three (3) pin connector (ST1) at the front right side of the bottom circuit board called the transformer circuit board. The ST1 three (3) pin connector is the **lower float switch**.



12.7. Located under the lower motor unit (or lower head), please observe the two floating switches. These switches will rise and fall depending upon the level of the water in the trough. The shorter of the two is called the **upper float switch**. The longer of the two is called the **lower float switch**.



13.0. Testing a float switch:

13.1. Each float switch uses two (2) wires.

The float switch is a "floating switch."

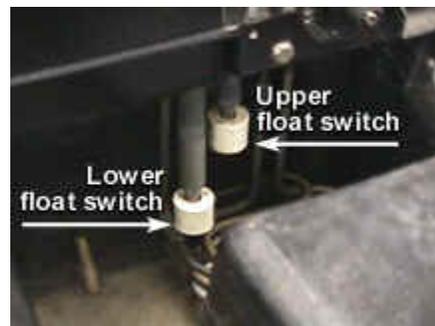
If the float is in its lower position, the switch is "open."

If the float is in its upper position, the switch is "closed." Therefore you can check a floating switch for continuity.

If the float is in its upper position, then the switch should have continuity through it (0 ohms resistance).

If the float is in its lower position, then the switch should not have continuity through it (infinite ohms resistance).

You may check a float switch using a Volt-Ohm (resistance) Meter or Continuity Meter by connecting both leads of your meter to both of the wires in the float



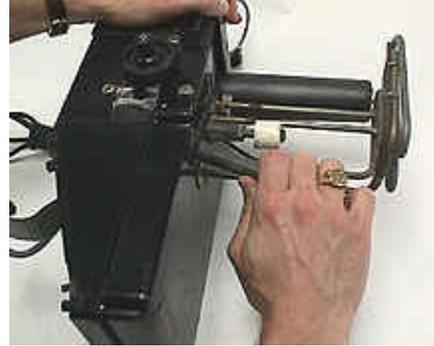
switch connector.

13.2. If the float switch responds as described in Step 13.1, then the float switch is OK.

14.0. Replacing a defective float switch:

14.1. To replace a defective float switch, you must remove the black plastic shield as described in Step 12.

14.2. With the float switch unplugged from the circuit board, pull the defective float switch out from the bottom of the motor unit (lower head) using a downward "and to the side" movement.



14.3. Once the defective float switch is removed, locate and remove the O-ring (JOBO Part #34020) located approximately ½ inch or 1 cm below the top of the switches shaft.

14.4. Install this O-ring by inserting it into the groove on the new float switch.

14.5. Route the float switch up through the bottom of the motor unit while holding the switch in position. Then push the float switch back into position. It might be necessary to lubricate the top of the float switch with some lubricant.

14.6. The O-ring should be barely visible from the bottom of the motor unit. The O-ring prevents the switch from rising up into the motor unit.



14.7. Assemble the remaining parts of the processor.