

1. Legs will not stay in the retracted position and want to fall down from under the boat.

- Probable Cause: Pressure Leak

Pressure can be lost due to a fluid leak, an internal cylinder seal leak, or an internal holding valve leak. To determine where the leak is, look for external leaks and fluid dripping or spraying. If you don't see any fluid leaking, use a set of shut off valves\* connected inline between the pump ports and cylinders to help determine if the leak is within the cylinders or the pump.

2. Legs will not hold the boat up in extended position and the boat keeps falling down.

- Probable Cause: Pressure Leak

Pressure can be lost due to a fluid leak, an internal cylinder seal leak, or an internal holding valve leak. To determine where the leak is, look for external leaks and fluid dripping or spraying. If you don't see any fluid leaking, use a set of shut off valves\* connected inline between the pump ports and cylinders to help determine if the leak is within the cylinders or the pump.

3. Legs will not move when using any of the electronic controls.

- Probable Cause: Insufficient Battery Power

Double check that your battery has proper voltage with a multimeter or battery voltage tester. Ultra Legs may provide a battery voltage tester if you do not have one available. In addition to voltage, double check that the battery cables are connected properly and secured well. Battery voltage should read at minimum 12.3 volts to ensure proper functionality. If the battery power is sufficient, the problem could be in the receiver, or the wireless remote, or the pump harness. Ensure the fuse in the pump harness is not blown. If it is, check for any shorts or improper connections. If the fuse is not blown, further investigation will need to take place.

4. Legs will not work correctly and the legs do not do what the buttons are telling them to do.

- Probable Cause: Hose Routing

Check the hose routing to ensure that every hose is going from the correct cylinder port to the correct pump port. If any hoses are backwards or hooked up incorrectly, the legs will not function and damage could occur. If all hoses are hooked up correctly and the issue still exists, the problem could be a bad pump wiring harness, bad wireless receiver, or bad remote.

5. Legs will not lift the boat.

- Probable Cause: Water Depth

On an extended set of Twin-Tubes, the rear will have a hard time lifting from a shallow position. Make sure the rear set of legs is in deep enough water for proper leverage to begin lifting the boat. If having similar trouble with a Tri-Toon or Twin-Tube, again, make sure you are not starting too shallow. Also, on standard Tri-Toons and Twin-Tubes, if the legs are extending but not lifting the boat there may be a leak somewhere externally or internally, or there could be insufficient battery power.

6. Legs will only retract regardless of what button or toggle you activate:

- Probable Cause: Insufficient Battery Power or Valve Coil

This sometimes happens when a Tri-Toon pump does not have enough supplied battery power. The directional valve in the pump is always in a default "Retract" position. When energized, the valve will go into the secondary "Extend" position. If the valve does not receive enough voltage it will not be able to go into "Extend" position. If sufficient voltage is reaching the valve coil when energized (which can be tested with a multimeter) and the coil is operating correctly by magnetizing to the valve, but the valve is not working properly, it can be assumed the valve is bad.

\*Using Valves to help determine a pump or cylinder failure.

Sometimes when the legs are not holding pressure in the extended or retracted position, it is best to narrow down the problem to either the cylinders or the pump. To easily do this we use shut off valves that are installed after the pump on each port for each hose. After the valves are all installed the system can be pressurized in either the extended or retracted position, and by shutting off the valves while it is pressurized we can watch what happens and get a clue to what is leaking. When the valves are shut completely they are separating the pump from each cylinder; if there is pressure loss while the valves are closed, the pressure loss is happening in the cylinders or hoses. If the valves are shut and you see no pressure loss, but lose pressure when the valves are open, this would indicate a pressure loss in the pump.