

# Controller Troubleshooting

## No Power To The Display

FAULT	REASONS/SOLUTIONS
NO POWER TO THE DISPLAY	Power point is faulty; test power point with known working appliance. If the power point is operational, check the controller with another power point and if there is still no display, then send the controller for repair.

## Pipe/Roof Sensor Faults

The following are error messages caused by pool or roof sensor faults;

FAULT	REASONS/SOLUTIONS
SENSOR DISCONNECTED	Sensor cable unplugged from controller, cable damaged, bad cable join.
SENSOR SHORT CIRCUIT	Sensor cable damaged, bad cable join.
ISOLATING SENSOR FAULTS	<p>Swap the sensor locations; simply put the pipe sensor in the roof socket and the roof sensor in the pipe socket.</p> <p>If the fault moves from pipe to roof or vice versa, then you can be certain that there is a sensor fault. If the fault remains the same then the controller will need repair.</p> <p>For sensor disconnected or short circuit faults, check for damage to the cable and repair if required. If no damage can be found, replace the sensor. If the cable runs underground or inspection is not possible, then cut the sensor from near the end of the cable and strip back the wires and join them. If the controller reports a short circuit, then the cable is fine and you may replace the sensor end if re-routing a new cable is not possible.</p> <p>If the controller reports a short circuit while the cable is unplugged, then the controller requires repair.</p>

## Pump Faults

Ensure the controller has working sensors; otherwise the pump will not operate.

FAULT	REASONS/SOLUTIONS
PUMP WILL NOT START	The pump will only ever run for the purpose of automatic heating if the pool is below the temperature limit and solar conditions can provide heating. The pump may also run for a flush in standby mode or for manual mode operation. If the controller reports that the pump is off, then press select to enable manual mode. The relay inside should click and the pump should operate. If the pump does not operate, then plug the pump into a power point and test operation. If the pump is okay, then the controller requires repair.
PUMP WILL NOT STOP	Turn off power to the controller and ensure the pump stops. If the pump continues to operate, then unplug it from the power point and connect it to the 240V socket marked PUMP at the bottom of the controller.  Apply power to the controller and if the pump starts instantaneously before temperatures are displayed, then there may be a fault with the controller. Since the controller shouldn't run when there is a sensor fault, disconnect the roof sensor and wait for approximately 30 seconds. If the pump continues to run, then the controller requires repair.
POOL NOT HEATING	If the controller has stopped pumping and is displaying a higher temperature than expected, it may be caused by a pump which is failing to prime. Check the pump and if necessary prime the pump as per the pump manufacturers' instructions then reset the controller by turning it off/on.
RTC-FAIL	This can occur if the unit has been turned off for a prolonged period of time. Leave the unit on for 30 seconds and this will allow charging of the supercapacitor. Next, turn it off for 30 seconds before turning it back on.

## Solar Pump Troubleshooting

FAULT	REASONS/SOLUTIONS
PUMP WILL NOT START	<ul style="list-style-type: none"> <li>• Solar controller is not triggering pump to turn on. Refer to controller instruction manual.</li> <li>• Pump is not plugged into power.</li> <li>• Blockage is preventing rotation.</li> <li>• Electrical failure.</li> <li>• Automatic overload is tripped. The pump has an in built thermal overload which will reset automatically after the motor has cooled following an overheating period. Determine the cause of overload.</li> </ul>
NO WATER FLOW	<ul style="list-style-type: none"> <li>• Pump is failing to self-prime. Check all water seals, add water to lint pot and manually re-start until pump primes. <b>Caution: Running pump dry will result in damage and void warranty.</b></li> <li>• Valve closed – check valves on suction and discharge side of pump to ensure full water flow.</li> <li>• Blockage is preventing rotation.</li> </ul>
PUMP MAKING LOUD NOISE	<ul style="list-style-type: none"> <li>• Physical debris caught in impeller. Clear from pump body and restart, ensuring pump re-primed.</li> <li>• Overheating has caused motor damage, and/or water ingress. Contact manufacturer for repair options.</li> </ul>
PUMP LEAKING	<ul style="list-style-type: none"> <li>• Water leaking from seals – Check that O-rings on both union connections and pump lid are greased and are not pinched or damaged.</li> <li>• Water leaking from pump body – Contact manufacturer for repair options.</li> </ul>