# H7 & V7 TROUBLESHOOTING



# 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;

### Sensor disconnected or open circuit

Sensor cable unplugged from controller, cable damaged, bad cable join.

#### Sensor short circuit or reversed

Sensor cable or cable join polarity is incorrect, the figure 8 wire has a white stripe to indicate the mpositive side; the positive side of the wire should be wired to the right hand side when viewing the screws with the figure 8 cable entry at the bottom of the plug. If the cable has been joined ensure no polarity reversal occurs.

# **ISOLATING SENSOR FAULTS**

Swap the sensor locations; simply put the pipe sensor in the roof socket and the roof sensor in the pipe socket. 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 repairs. For sensor open circuit or write error 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.

For sensor short circuits, if the controller reports an open circuit when the cable is unplugged then attempt reversing the cable polarity, replace the sensor if reversal is unsuccessful then the controller requires repair, if the controller reports a short circuit while the cable is unplugged then the controller requires repair.

# **PUMP FAULTS**

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

## 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 winter-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 OK then the controller requires repair.

#### Pump will not stop

Turn off power to the controller, ensure the pump stops, if the pump continues to operate then unplug it from the power point and connect it to the 240Vac 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 the 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.

AUX HEATER NOT OPERATING (SV MODELS ONLY): Ensure heat demand is set to on and that you are within the heating period (ensure the time-clock is correct). Ensure that the pool temperature is below the aux limit. Ensure the roof is cold or unplug the roof sensor to avoid high solar gain locking out the heat pump.

Check the heater and ensure it has power and no faults are displayed, also ensure the heater temperature limit is set 3-4 degrees higher than the solar controller. Check the pump and ensure it is priming (see above).

Some heaters have a delay before start, check and wait for this delay if necessary.

\*If the heater is still not operating and the relay1 cable used is low-voltage (an electrician is required if it's using a 240Vac flow/pressure switch circuit) disconnect the N/O wire and connect it to C with the other wire (short circuit the two) and if the heater starts then the controller will need repair, if the heater does not start then there is an issue with either the cable to the heater or the heater itself.