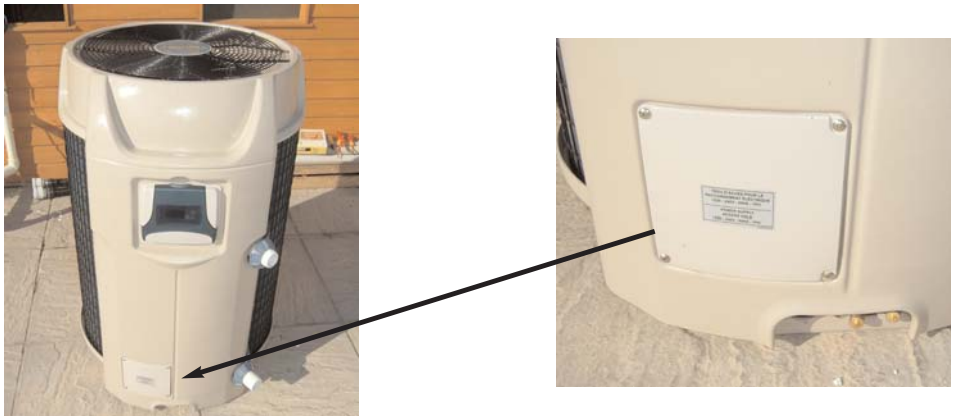
# TROUBLE SHOOTING

**Q**. **I have an electrical supply to the heat pump but the digital display thermostat will not light up.** Answer:- You need to check the following components:- Water Pressure Switch, High & Low pressure switches. Carry out the following procedure.

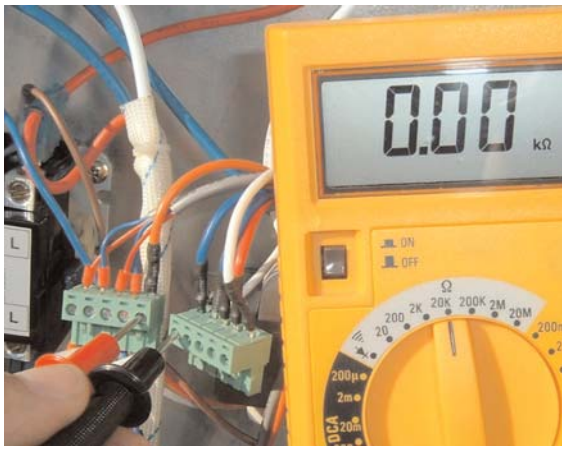


**Step 1.** Check that you have a 240 volt electrical supply to the heater. A correct amperage circuit breaker (type 'C' for motors) has been installed and is on. **Backwash filter** to make sure that you have normal operating pressure.

**Step 2. Turn off Electrical supply.** Remove two fixing screws located on the underside of the digital display casing. Lift up and pull the display casing towards you (drop down to unhook from the top). The digital thermostat and casing should come away from heat pump exposing two sets of wire connections/terminals.

**Step 3.** Gently remove the two blocks of wire terminals. Make sure that you remember what side they are extracted from. **DO NOT TRY TO TEST WHILE STILL CONNECTED TO THE DISPLAY UNIT.**

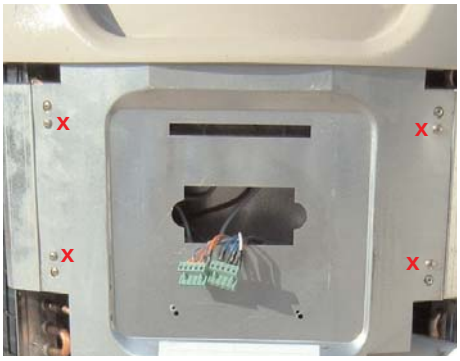

**Open Circuit**



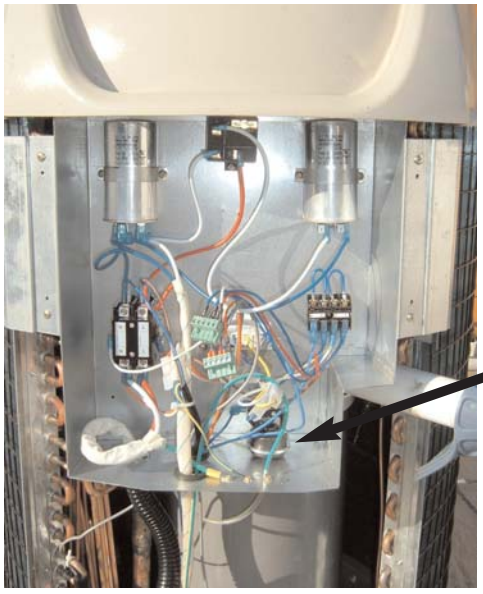

**Closed Circuit**

**Step 4 (testing pressure switch).** The pressure switch is activated by water/air pressure. Make sure filtration pump is running. Using an OHMS meter check terminal numbers 6 & 7 (orange and blue wires). If you have a **closed circuit i.e.** the pressure switch has been activated go to step 7. If you have an **open circuit** you may have to adjust the flow switch or replace it if faulty. Proceed to step 5.

Remove ABS housing screws

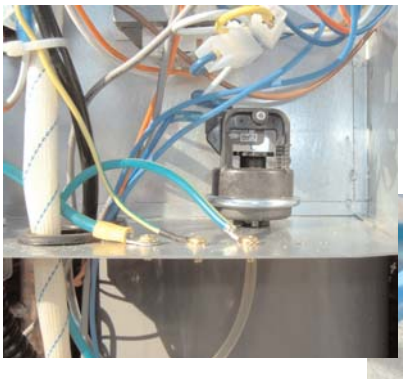



Remove 4 x **inner-plate** screws to remove outer casing only! Only remove the screws marked ‘x’.



Water pressure switch located here.

**Step 5.** Remove outer ABS & metal casing (see pictures above) to access and expose capacitor(s) and water pressure switch etc. Proceed to step 6.




**Step 6.** The factory setting for the flow switch should be approximately 3mm. If the pressure switch is not activating, adjustment may be necessary.

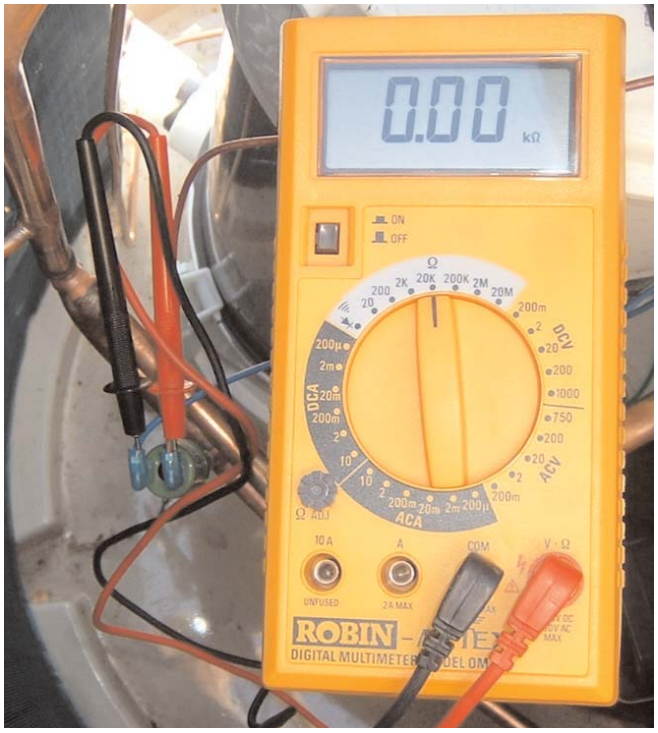
1. To decrease gap width turn ‘adjustment dial’ anti-clockwise (unscrewing upwards). This enables more water flow to activate switch.

TIP - check supply pipe to heat exchanger is not damaged/leaking.

**WARNING - ALL TESTING/FAULT FINDING SHOULD BE CARRIED OUT BY A QUALIFIED ELECTRICAL ENGINEER OR REFRIGERATION EXPERT.**

High Pressure Switch (green)
open 250 PSi
closed 450 PSi

Low Pressure Switch (green)
open 25 PSi
closed 50 PSi




**Step 7.** To test high and low pressure switches carry out the following:-

Use a OHMS meter to test that you have a closed circuit on both pressure switches.

High Limit - if open circuit,  replace faulty switch.

Low Limit - if open circuit fault could either be a faulty switch or possible low gas i.e. refrigerant leak.

**Remove top fan housing to gain access to high/low limit switches**