TROUBLE SHOOTING

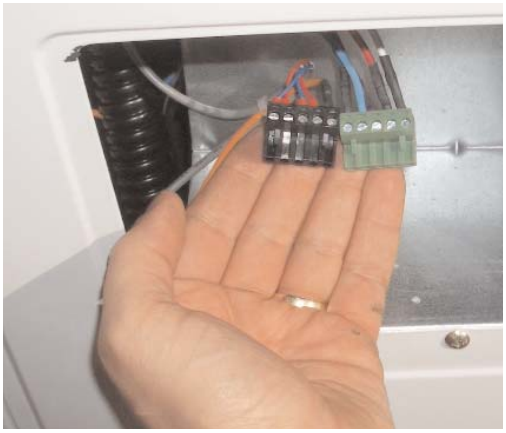
Q. **I have an electrical supply to the heat pump but the digital display thermostat will not light up.**
Answer:- You need to check the following components:- Electrical connection, Water Pressure Switch, High & Low pressure switches. Carry out the following procedure.

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.

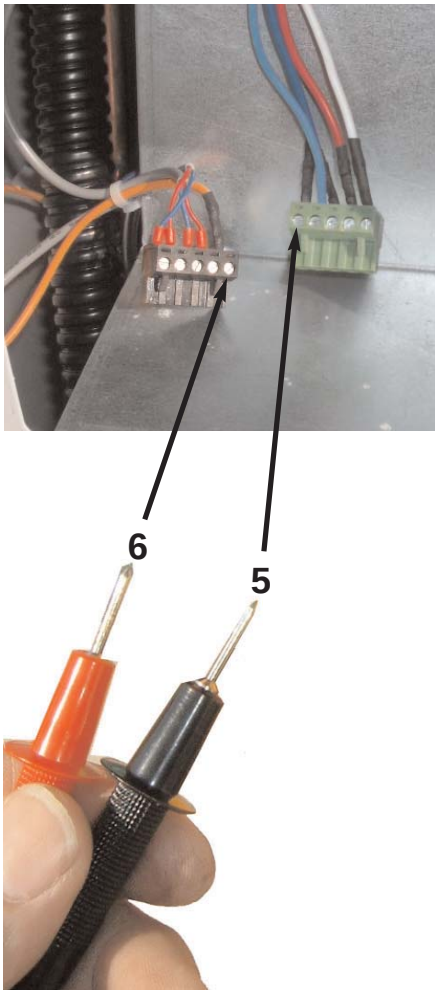
IMPORTANT
Make sure that terminal blocks have been pushed in firmly.

Using an electrical screwdriver check each individual wire (No.1-10) to make they have been secured correctly.

Step 2. Turn off electrical supply & check controller connections. 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 controller and casing should come away from heat pump exposing two sets of wire connections/terminals: 1 x Black 1 x Green. **Make sure the terminal connections have been pushed in and secured correctly, they may have come loose in transit. Check all wire connections numbers 1-10. Turn electrical supply back on and test.** If there is still no LED display proceed to step 3.

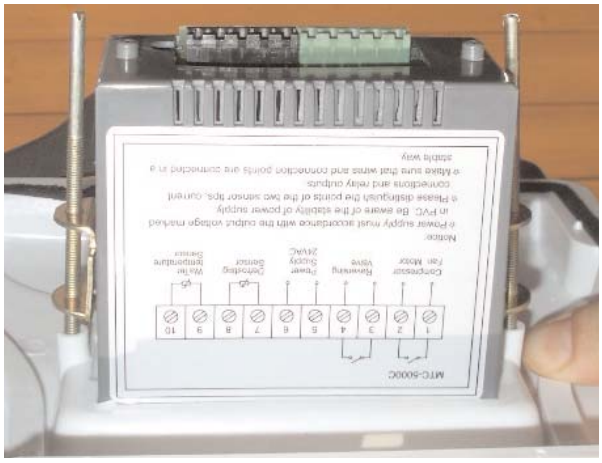


Step 3. Turn off electrical supply. Gently remove the two terminal blocks. **DO NOT TRY TO TEST WHILE STILL CONNECTED TO THE DISPLAY UNIT.** The terminal blocks are colour coded, make sure that the blocks are reconnected to the same colour after testing!

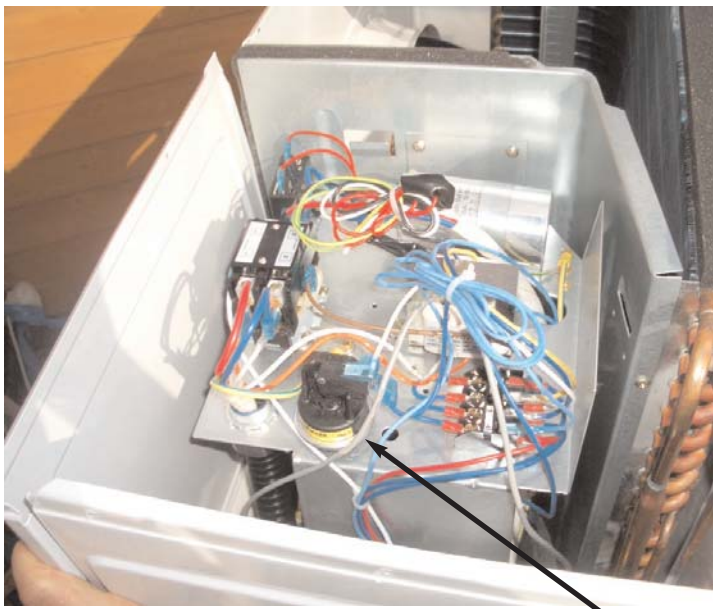


Open Circuit

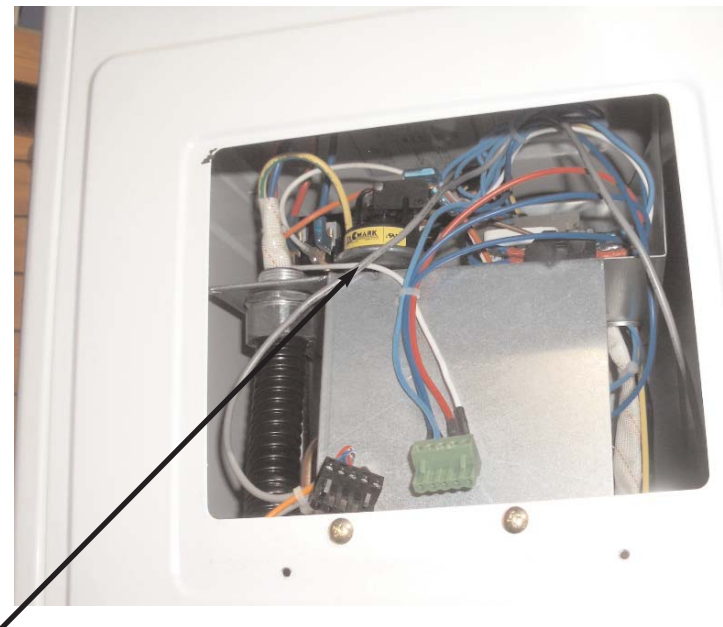
Closed Circuit



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 5 & 6 (orange and blue wires). If you have a **closed circuit i.e.** the pressure switch has been activated go to step 6. If you have an **open circuit** you may have to adjust the flow switch or replace it if faulty. Proceed to step 5.



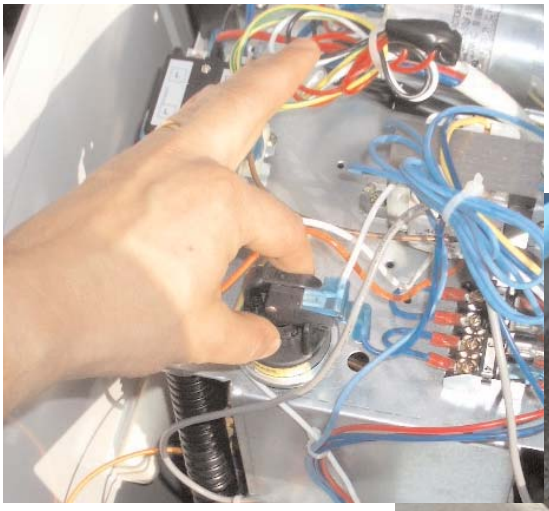
Top View (remove top cover)



Front

Water pressure switch located here.

Step 5. Remove top metal casing lid to access and expose water pressure switch etc. Alternatively, access may be gained by going through the side panel. Proceed to step 6.



3mm
recommended gap.

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

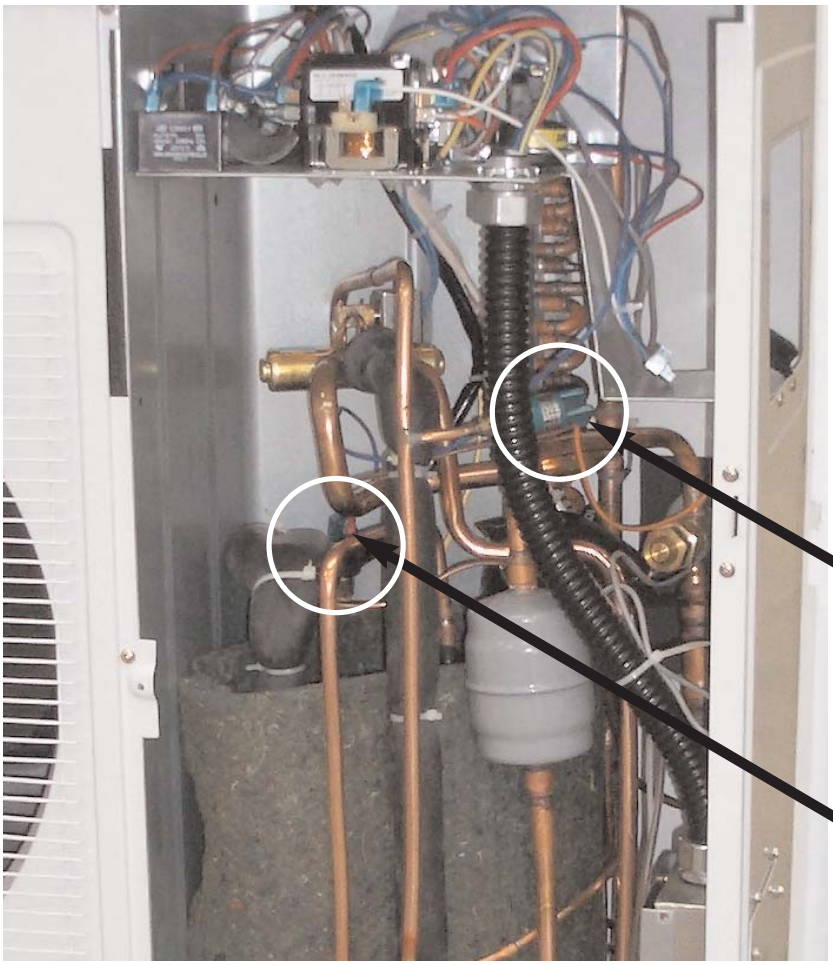
1. To decrease gap width turn ‘adjustment dial’ anti-clockwise (unscrewing upwards). This enables more water flow to activate switch. Also, check that pressure switch air/water supply pipe is attached to the pressure switch and the heat exchanger- see below.

Remove bottom casing

Check that the water/air tube is connected to the heat exchanger and the pressure switch!

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

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



Open Circuit

Closed Circuit

Step 6. To test high and low pressure switches carry out the following:-

1. Remove side panel.
2. 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 contact your dealer.

Note:- If you are unable to trace a fault with the meter the controller may need replacing.

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