



UNIVAL SYSTEM (twin spring return), FAULT FINDING

Please note, all maintenance and fault finding should be carried out by a fully qualified person.

Always ensure that the system is dead when connecting or disconnecting wires.

Check that the wiring is correct and there are no loose connections.

Programmer: Ensure that power is present at the programmer and the display is on.

With the programmer indicating that *Central heating* is on demand, check that there is power out from the Central heating 'ON' terminal. If no power, then programmer is faulty.

With the programmer indicating *Hot water* is on demand, check that there is power out from the Hot water 'ON' terminal. If no power, then the programmer is faulty.

Room thermostat: With Central heating on demand on the programmer, check that there is power to the 'Common' terminal of the room thermostat. If no power to 'Common' terminal, then suspect programmer. If power is present at 'Common' terminal, disconnect wire from

'Demand' terminal and operate thermostat to 'call' for heat. If no power on 'Demand' terminal, then suspect thermostat. Disconnecting wire from demand terminal prevents false reading by eliminating backfeed.

Radiators heat up when no demand from programmer:

With central heating NOT on demand, check that there is no power to the 'Common' terminal. If power is present, suspect the Programmer. Disconnect the wire from the 'Demand' terminal and check again for power on the 'Common' terminal. If power is still present on the 'Common' terminal, the programmer is faulty.

Cylinder thermostat: With Hot water on demand on the programmer, check that there is power to the 'Common' terminal of the cylinder thermostat. If no power to 'Common' terminal, then suspect programmer. If power is present at 'Common' terminal, disconnect wire from 'Demand' terminal and operate thermostat to 'call' for heat. If no power on 'Demand' terminal, then suspect thermostat. Disconnecting wire from demand and satisfied terminals prevents false reading by eliminating backfeed.

2 Port Spring Return Actuator:

If power is present on the Brown wire and the actuator still doesn't work as expected, remove it from the valve and check to see if it operates correctly off the valve. If it doesn't, then the actuator needs replaced. If it does, then check that the valve spindle can be rotated using fingers only. If pliers or grips are required, then the actuator will be unable to turn the spindle. If the valve is stiff, loosen it off, or replace the valve.

If the actuator motors the valve to the open position and there is no output from the Orange wire, check that there is power to the Grey wire. If being used on a low voltage application, check the low voltage is present on the Grey wire.

If voltages present on the Grey wire but no output on the Orange, then the microswitch is broken.

If no power is present on the BROWN wire of the actuator, then the brass valve is 'letting; water past into the circuit.