

This Automatic Change over switch works only with the twin-cylinder thermostat shown in 'Diagram 1' as it makes use of the auxiliary contact on the control thermostat. The use of any other type of cylinder thermostat, or modification to any cylinder thermostat will invalidate all warranties and may result in a potentially dangerous installation.

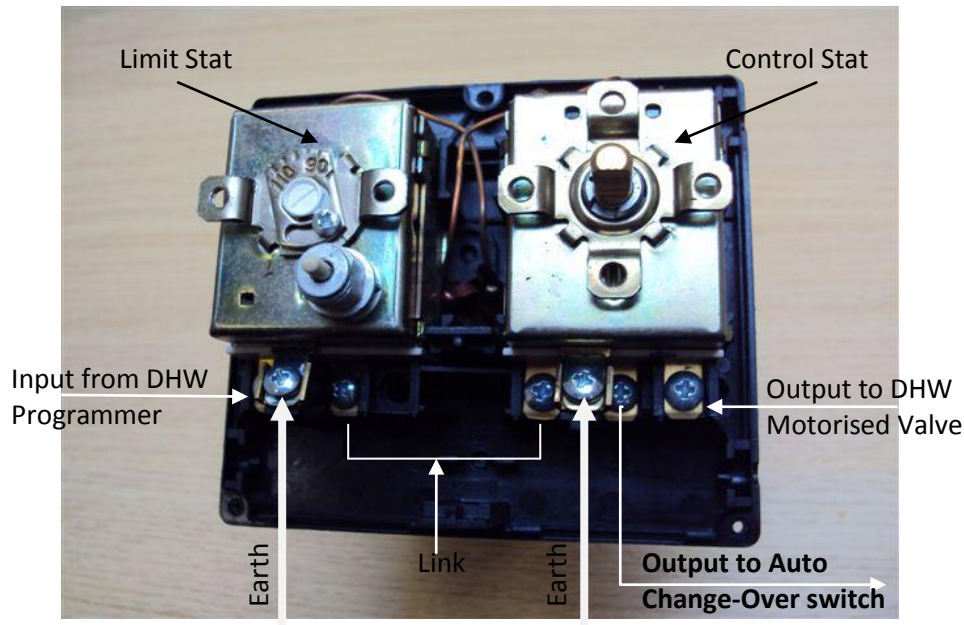


Diagram 1

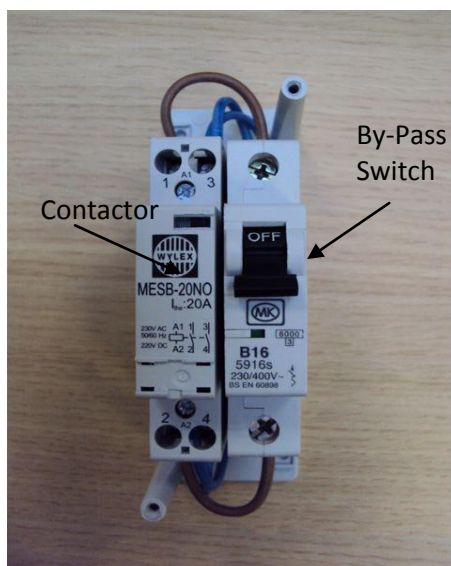


Diagram 2

The output from terminal 2 on the control thermostat will only be live when the thermostat is 'satisfied', closing the DHW motorised valve **and** the DHW programmer is still 'calling' for heat. This voltage is then used to energise the contactor (relay) on the change over switch (shown in diagram 2).

The change-over switch comes prewired, but the final connections from the Immersion fused switch and the immersion element have to be made on site.

If required, the customer can by-pass this arrangement and, by operating the 'by-pass' switch, bring on the immersion heater, irrespective of heat pump or programmer activity.

Because the heat pump works more efficiently heating water to lower temperatures, we recommend adjusting the DHW cylinder thermostat to between 45°C and 50°C for optimum operation. When the cylinder has reached this desired temperature, the DHW control thermostat switches from C – 1 to C – 2, energising the contactor (*only if the programmer is still 'calling' for DHW*). As the water in the cylinder is used, the DHW thermostat detects the incoming cold water and creates a cooler demand by switching back from C-2 to C-1, energising the motorised valve and switching off the immersion element simultaneously).

#### CAUTION:

The use of this device will result in 2 mains voltages being present within the change over switch. One supply from the fused immersion switch and one supply from the heating circuit. A warning label has been fixed to the box advising the users of this danger. Isolate both supplies before commencing work on this device.

***On no account must this label be removed.***

**Where a 3-phase supply is present, the fused immersion switch and the heating system MUST be taken from the same phase. Consult a qualified electrician for further advice.**

**The TOTAL load must not exceed 13A. This device must not be used to control any other device other than a 3kW Immersion element that is protected by an integral High Limit and Thermostatic control device. All installations must comply with the current Electrical regulations in force.**

The diagram illustrates the transition from 'Old Wiring' to 'New Wiring' for a cylinder thermostat system. Both diagrams show a 'Cylinder Thermostat' on the left with terminals N, E, L, and two unlabeled terminals. A 'From Cylinder Thermostat Term 2' line connects to the 'New Wiring' diagram.

**Old Wiring:** Shows a single 'Existing Immersion Switch' with a 'fuse' and a switch. The switch is connected to the L terminal of the thermostat. The E terminal is connected to the switch's common terminal. The N terminal is connected to the switch's normally open terminal. The unlabeled terminal is connected to the switch's normally closed terminal.

**New Wiring:** Shows a more complex setup with two 'Existing Immersion Switch' units. The first switch is connected to the L terminal of the thermostat. The second switch is connected to the E terminal of the thermostat. The N terminal is connected to the first switch's common terminal. The unlabeled terminal is connected to the first switch's normally open terminal. The second switch's common terminal is connected to the first switch's normally open terminal. The second switch's normally open terminal is connected to the first switch's common terminal. The second switch's normally closed terminal is connected to the first switch's normally open terminal.

