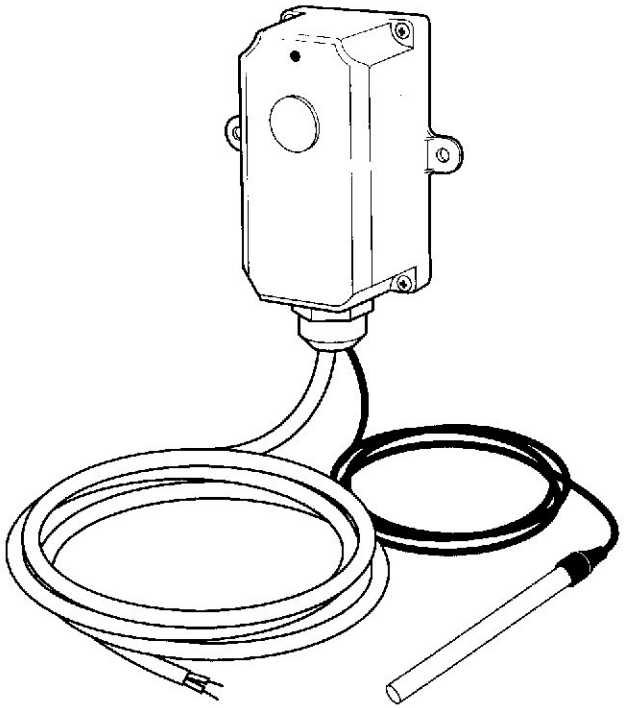
RELIANCE
WATER CONTROLS

Installation and Maintenance Instructions

Underfloor Heating Overheat Thermostat



Section 1 - General Information

The Reliance overheat thermostat is designed to be used in conjunction with a Reliance Thermomix Pack to provide a last line of defence against high temperature hot water entering the flow manifold and eventually the underfloor heating system itself.

The system uses a temperature probe, connected to a control thermostat, which is mounted in the outlet elbow of the Thermomix pack, directly into the flow of water, this is key to avoid false readings that can be caused by the sometimes elevated surface temperatures of pipes and manifolds in close proximity to primary water supplies. If the primary control system, in this case the mixing valve, ceases to function because of debris, internal damage or malfunction then it is possible for elevated temperatures to reach the flow manifold. The probe will sense this temperature and if it is higher than the temperature at which it has been set, it will cut the power to the pump, zone valve or other device to stop the circulation of water in the system. An important feature of the system is that it is designed so that it will only shut the power supply off if the elevated temperature is detected for more than 5 minutes to avoid nuisance shut downs caused by short term temperature spikes. A red LED light is also provided as a visual indicator to homeowners and installers that the Overheat Thermostat system has been activated.

In the case of an over-temperature situation the thermostat will turn off the power to the switched live cable and illuminate the red LED to indicate that a high temperature has been reached. Once the system has cooled and the probe is sensing that the system temperature has dropped at least 5°C below its set point it will switch the power back on to the switched live cable and the system will resume its normal operation.

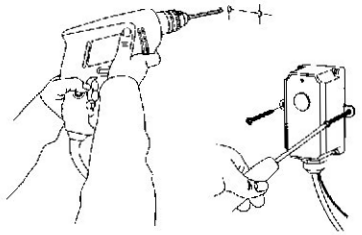
The overheat thermostat is adjustable between 50°C and 65°C so it should be suitable for the protection of all different types of floor construction, please consult the system designer for the exact specification of the suggested maximum flow water temperature allowable.

The system comes complete with the thermostat housing, a fixing kit, pre-wired probe power supply cables, and the nickel plated brass fittings necessary for connecting to the Thermomix pack elbow.

Section 2 - Installation

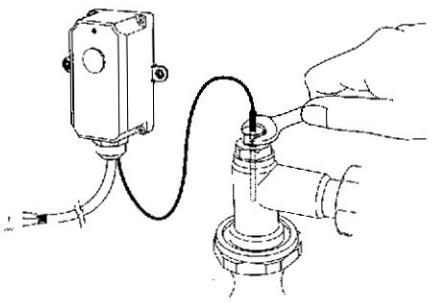
This product should only be installed by a qualified electrician and should be in accordance with the current edition of the IEEE wiring regulations and any relevant standard or building regulation.

If the wall construction is suitable then first drill and plug the wall as illustrated, and then fix the overheat thermostat to the wall by means of the 2 screws provided. Note; it is the responsibility of the installer to determine if the wall construction is suitable to use the fixings provided.



Please ensure that the overheat stat is mounted no more than 650mm from its power supply and no more than 550mm from the Thermomix outlet elbow to ensure that the pre-wired cables will reach to their respective terminal points.

Once the thermostat is mounted on the wall connect the probe to the outlet elbow of the Thermomix valve by first removing



the elbow plug and screwing the bush and 4mm compression adapter. Some sort of sealant or PTFE tape will need to used to seal the threads. Once the probe is installed the connection wires can be fitted to a fused spur, wiring centre, zone valve or other device to stop the flow of water circulating in the system.

An example of how the Overheat Thermostat could be fitted in conjunction with an RWC UFH Wiring Centre is illustrated opposite.

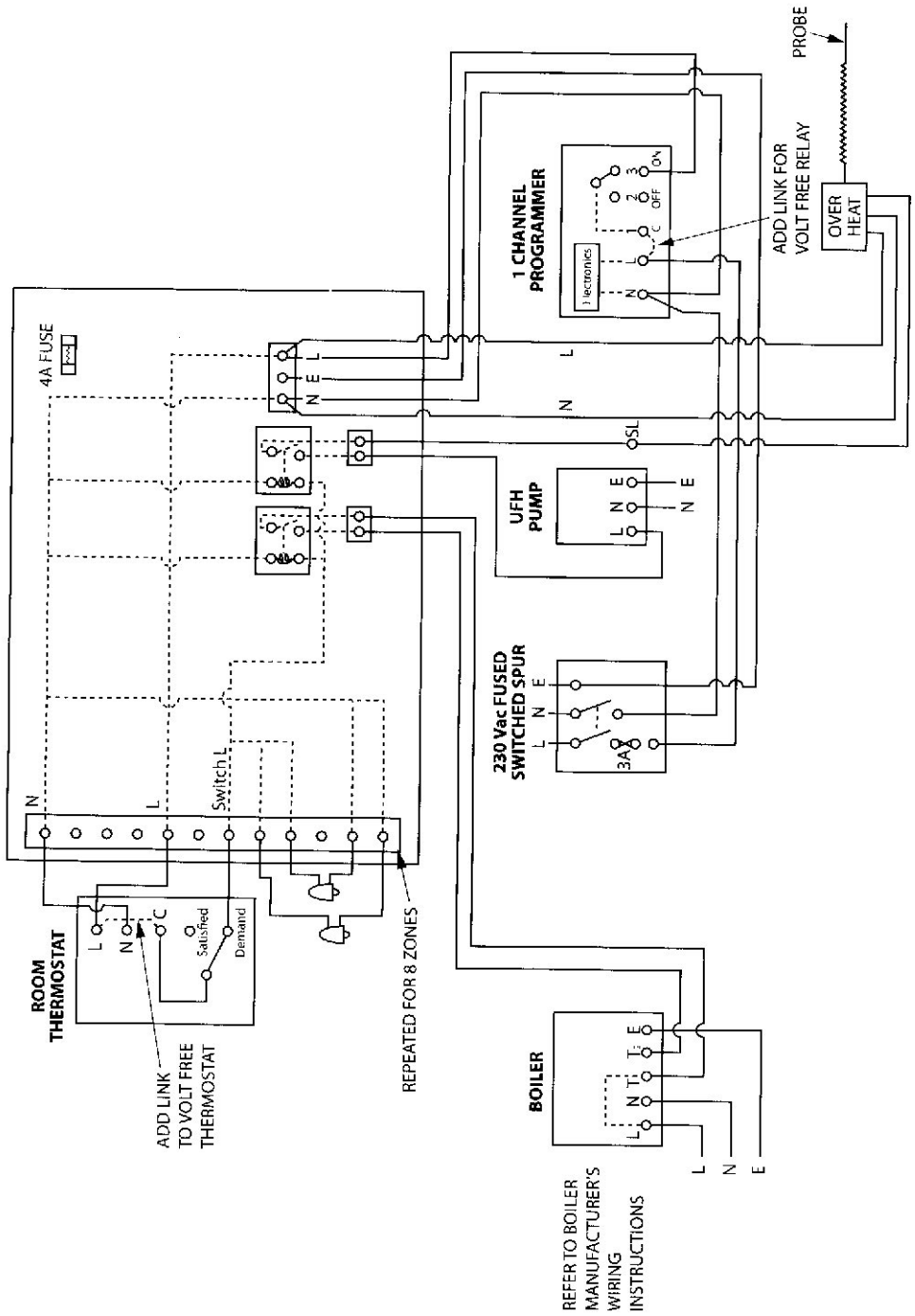
Section 3 - Wiring into a Wiring Centre

If the Overheat stat is being used in conjunction with the RWC wiring centre (WIRE300001) then it can be connected as shown in the diagram opposite.

The blue wire (neutral) and live wire (brown) are connected to the main power block on the wiring centre, or alternatively to a separate fused spur. The switched live connection is then connected to the pump terminal.

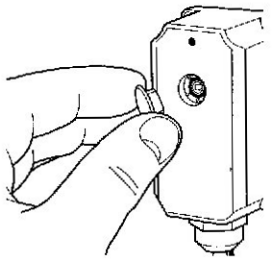
It is also possible to connect the system with a simple junction box in the event that a wiring centre is not being used.

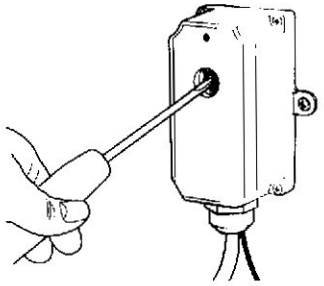
Connection wires can then be fitted to a fused spur, wiring centre, zone valve or other device to stop the flow of water circulating in the system.

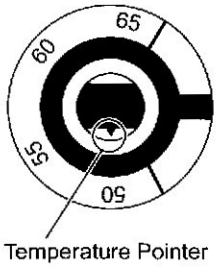


Section 4 - Setting the Temperature

Once the unit is installed and all the connections are made the desired cut off temperature can be selected by first removing the adjustment dial cover plate, this is a push fit cover and can usually be removed off by hand or with the aid of a small screwdriver.





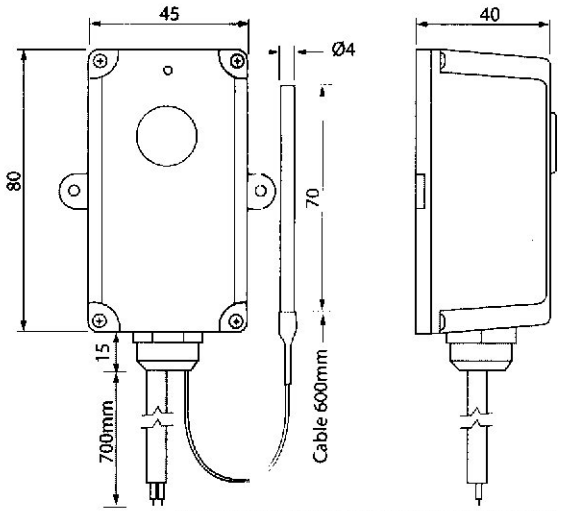


Once the cover is removed a small screwdriver can be inserted and the indicator arrow turned to align with the desired maximum allowable temperature. Once complete replace the cover plate and the system is ready to use.

Section 5 - Specifications

Power supply	230VAC 50-60Hz
Adjustable temperature range	50°C – 65°C
Current	2 amps
Switching differential	5°C
Accuracy	+/- 1°C
Mains cable length	700 mm
Probe cable length	600 mm
IP rating	64
Bushing	½" x ¼" MBSP x FBSP nickel plated
Adapter	¼" MBSP x 4mm compression nickel plated
Cable colour code	Blue - neutral, Brown – live, Black – switched live
Insulation Class	2

Section 6 - Dimensions



All dimensions in mm unless otherwise stated

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