



Therm

WB10 – INSTALLATION GUIDE

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WB10 - 10 ZONE WIRING CENTRE

The WB10 is a 10 Zone wiring centre for use with 230V thermostats, the outline dimension is 32 cm * 11 cm * 6.5 cm.

The WB10 can be used to control any actuator or valve which requires a 230V AC signal to open. For mid-position valves and those requiring a closing signal, a changeover relay is required. At the same time, the WB10 offers the ability to operate a boiler or other heat source through a volt free output.

Additional outputs designed for use with under-floor heating systems are also included as standard. These are the pump and valve outputs which would normally operate a manifold pump or a manifold valve.

The pump delay time is 3 mins.

Zone 10 can be used as an isolated radiator zone, by using the UFH/RAD switch.

If the switch is set to RAD; When zone 10 calls for heat this will provide an output to a radiator zone valve and the boiler but WILL NOT enable the underfloor heating pump/valve output.

If the switch is set to UFH; When Zone 10 calls for heat, this will act as an under-floor heating zone, by enabling the actuator, boiler and pump/valve outputs. Any output which is not needed can be ignored.

CONNECTIONS

Mains Supply

Power supply into the WB10, which should be fused at 5 amps, these connections are;

- L = Live or phase 230V AC 50/60 Hz
- E = Earth
- N = Neutral

Heat Enable

This is the main call for heat for the system, there are 3 connections;

- LS = Live Supply
- E = Earth
- LR = Live Return

Electrically this is a volt free switch, whatever supply is placed on the LS connection, is fed to the LR connection when there is a call for heat.

Time Clock

- L = Live supply
- E = Earth
- N = Neutral supply

1 = Switch live input from the time clock, this triggers the time clock 1 terminal on the thermostat connections.

2 = Switch live input from the time clock, this triggers the time clock 2 terminal on the thermostat connections.

Zones 1...10 (Inputs)

Zone inputs are clearly marked at the top of the circuit board;

- L = Live supply to the thermostat
- E = Earth
- N = Neutral supply to the thermostat

S/L = 230 v switch live from the thermostat, this activates the corresponding zone output.

Zones 1...10 (Outputs)

Zones outputs are clearly marked

- L = live out to actuator or valve
- N = neutral to actuator or valve

There are two connections live (L) and neutral (N), both terminals marked L are the same and both terminals marked N are the same.

Each zone output corresponds to the thermostat wired in at the top of the PCB.

UFH Pump

Used for an underfloor heating manifold pump, connections are;

- L = Live
- E = Earth
- N = Neutral

When an under-floor heating zone sends a call for heat to the WB10, the live & neutral output will supply 230V to the manifold pump.

The delay time is 3 minutes.

It is recommended that this is fed through a high limit switch placed on the heating manifold, to protect against mechanical failure of the manifold temperature control.

UFH Valve

Used for an underfloor heating manifold valve.

Connections are clearly marked;

To enable Pump delay Or and Gr must be shorted.

- Or = Orange
- Gr = Grey
- L = Live
- E = Earth
- N = Neutral

When an under-floor heating zone sends a call for heat to the WB10, the live & neutral output will supply 230V to the manifold valve.

The auxiliary wires of the valve, usually grey & orange, are wired to the Gr & Or terminals.

Fuses

Fuse 1. 5 amp, 20 mm anti-surge fuse, this fuse supplies power to all 230V outputs from the board it protects the zone, pump/valve outputs.

