

# PWB10

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PWB10 is an 10 Zone wiring centre for use with 230v thermostats, can be used to control any actuator or valve which requires a 230v AC signal to open.

At the same time the PWB10 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.



## Description

The WB10 is an 10 Zone wiring centre for use with 230v thermostats the outline dimension is 32cm x 14cm x 5.5cm .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 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.

WB10 has a feature of pump delay , user could set it 3mins or 1min by adjusting the switch on the pcb , the pump output delay time is 3 minutes if switch is set to “1” ; the pump output delay time is 3 minutes if switch is set to “ON” ; the pump delay switch is close to the fuse on the pcb board.

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 zone10 calls for heat this will provide an output to a radiator zone valve and the boiler, but WILL NOT enable the under-floor 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.

### Power Supply

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

L = Live or phase 230v AC 50/60Hz 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.

## Zones 1-10 Inputs

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

L = Live supply to thermostat.

E = Earth

N = Neutral supply to thermostat.

S/L = 230v switch live from 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 pump and boiler delay time is 3 minutes if switch in 1 ; The pump and boiler delay time is 1 minute if switch in ON ;

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

## UFH Valve

Used for an underfloor heating manifold valve.

Connections are clearly marked;

Or = Orange

Gr = Grey

L = Live

E = Earth

N = Neutral

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## To enable Pump delay Or and Gr must be shorted

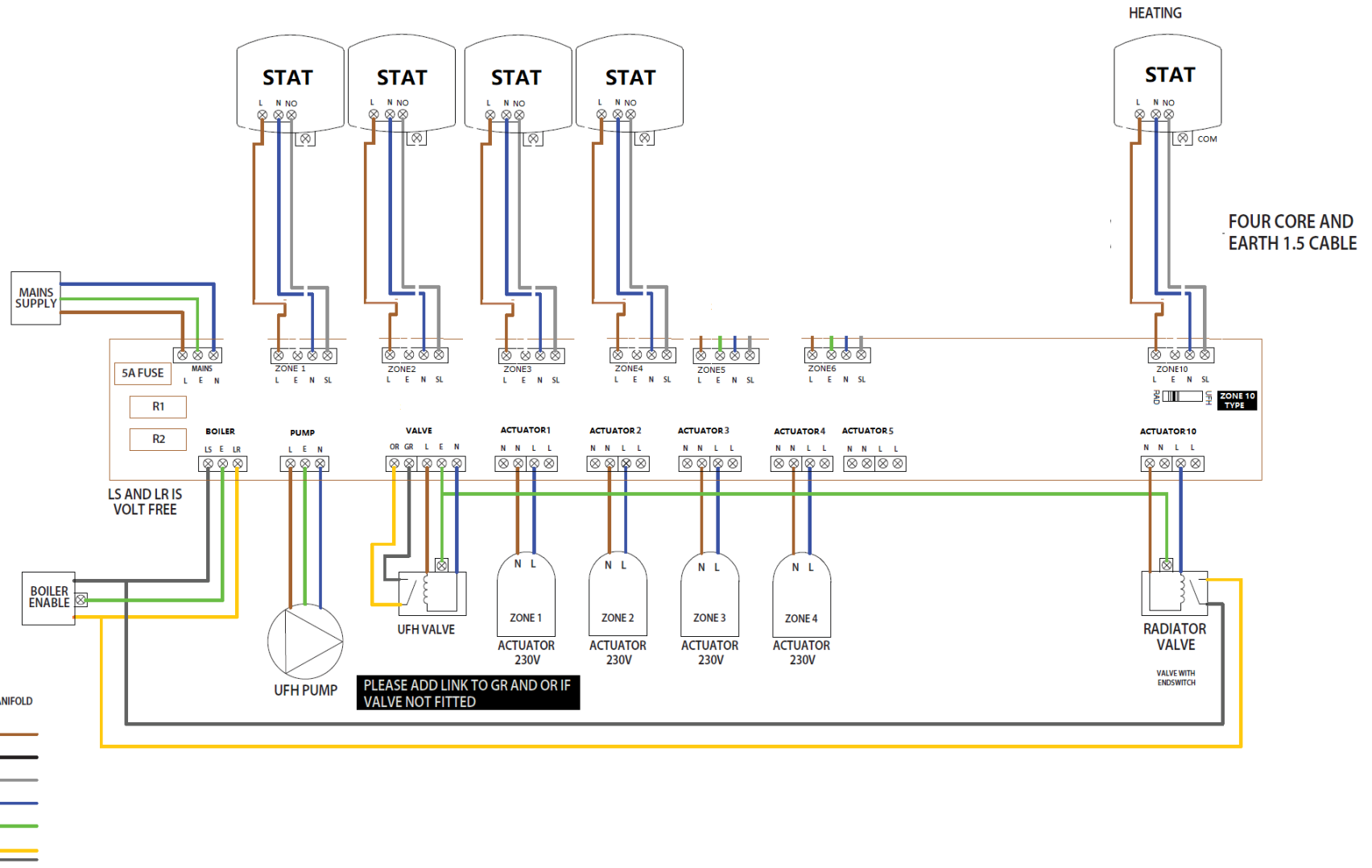
When an under-floor heating zone sends a call for heat to the WB10, the live & neutral output will supply 230v to the manifold valve.

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

## Fuses

Fuse 5amp, 30mm anti-surge fuse, this fuse supplies power to all 230v outputs from the board it protects the zone, pump/valve outputs.

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## WANT MORE INFORMATION?

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Contact our in house technical support team:

Email

[sales@polytherm.ie](mailto:sales@polytherm.ie)

Phone

01-419 1990

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## CONTACT

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Polytherm Heating Systems Ltd.

Muirfield Drive,

Naas Road,

Dublin 12

D12 X0A3

01-419 1990

[sales@polytherm.ie](mailto:sales@polytherm.ie)

[www.polytherm.ie](http://www.polytherm.ie)

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