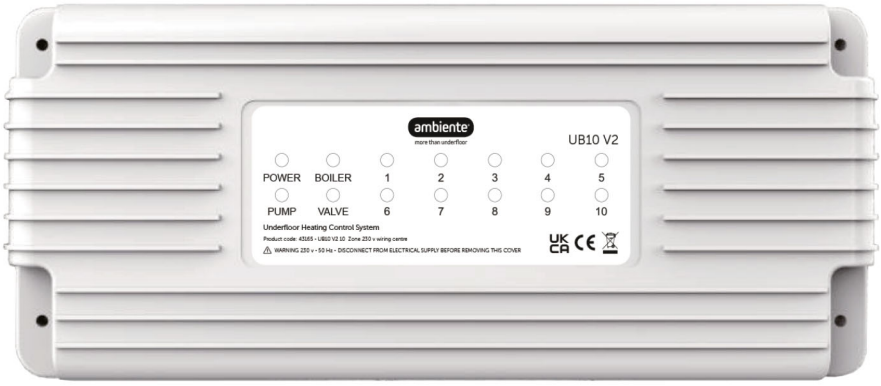
The UB10 is an 10 Zone wiring centre for use with 230v thermostats, the outline dimension is 320mm length x 140mm height x 55mm depth .the UB10 can be used to control any actuator or valve which requires a 230v AC signal to open. At the same time the UB10 offers the ability to operate a boiler or other heat source through a volt free output. Additional outputs designed for use with Ambiente underfloor 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.



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AMBIENTE UB10 INSTALLATION GUIDE

PUMP AND BOILER DELAY

The UB10 has a pump and boiler delay feature which can be set to 1 or 3 minutes via the delay switch on the PCB. This delays the boiler and pump signal for the selected period of time whilst the valve actuators open. This prevents the pump working against closed valves and the boiler firing with no circulation.

ZONE 10

Zone 10 can be used as an isolated radiator zone, by using the UFH/RAD switch. If the switch is set to RAD; When a call for heat is made to Zone 10, 230v will be supplied to Actuator 10 output. However no voltage is supplied to the Pump and Valve outputs and the boiler volt free switch will not close for as long as only Zone 10 is calling for heat. If the switch is set to UFH when a call for heat is made to Zone 10, 230v will be supplied to Actuator 10 and Valve outputs. The pump output and boiler volt free switch will activate in accordance with the delay switch (See Pump and Boiler Delay). This is the same operation for zones 1-9 regardless of the position of the Zone 10 switch.

CONNECTIONS

Mains Supply

Power supply to the UB10 should be a 230v AC 50Hz rated at 5 amps.
Connections are: L = Live voltage; N = Neutral; E = Earth/Ground

Boiler

This is the main demand to the heat source (e.g. Boiler, Heat Pump). This is a Volt Free double throw switch, meaning terminals NC, COM and NO are not connected to any other terminals on the PCB. A voltage supply is required at COM which is connected to NC when there is no demand for heat. When there is a demand for heat COM is connected to NO. COM=Common, NO=Normally Open, NC=Normally Closed.

Stat Zone 1-10 (Inputs)

Thermostat zone inputs are marked at the top of the PCB.
L = 230v Live power supply to thermostat. N = Neutral supply to thermostat.
S/L = 230v switched live from thermostat, which is the demand for heat for corresponding zone.

Actuator 1-10 (Outputs)

Actuator zone outputs are marked at the bottom of the PCB.
L = 230v Live power out to actuator or valve. N = Neutral to actuator or valve. Each zone includes 2x L and 2x N terminals each to enable the connection of up to four actuators to each zone. Both L terminals and N terminals are the same on each zone.

Valve

For an underfloor heating manifold valve, connections are;
L = 230v live supply to valve; N = Neutral supply to valve;
Gr = Grey to valve; Or = Orange to valve
When a call for heat is received by way of 230v input to the S/L terminal of any zone the UB10 supplies 230v output to the Valve L terminal and the Valve Gr terminal. The auxiliary switch wires of the valve (typically Grey and Orange) should be connected to Gr and Or. Once the valve is open and the auxiliary switch is connected this will typically supply 230v to the Or terminal. If a valve is not wired to the UB10 wiring centre then a link must be placed between Gr and Or for the manifold pump and boiler switch to work.

Pump

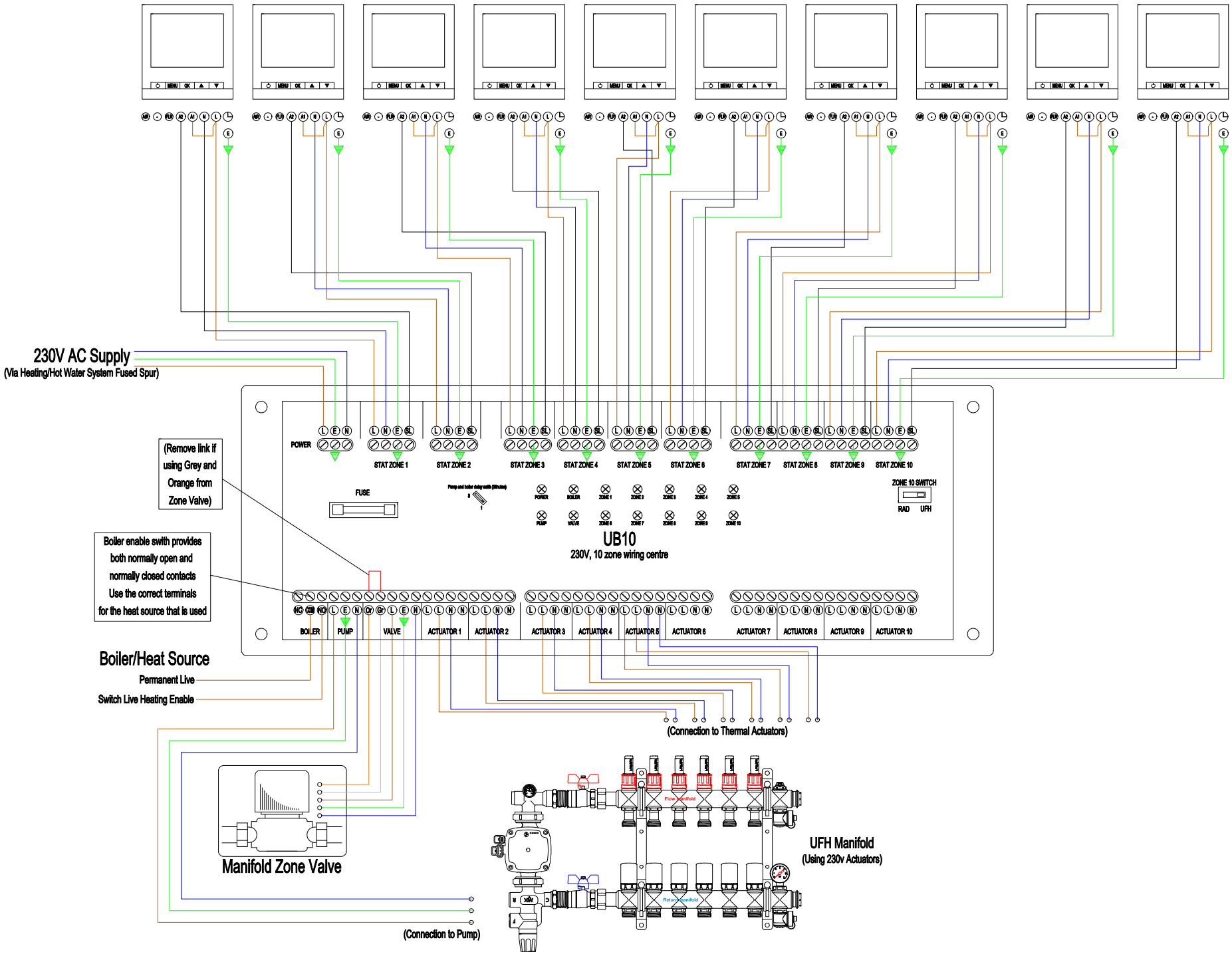
For an underfloor heating manifold pump, connections are: L = Live; N = Neutral.
When 230v is receive by the wiring centre on terminal 'Or' as a result of the Valve opening fully (or link between 'Gr' and 'Or' where a valve is not installed) the UB10 supplies 230v output to the pump L terminal in accordance with the delay switch (See Pump and Boiler Delay).

Fuses

The UB10 wiring centre comes pre installed with a 250v 15 amp 30mm anti-surge fuse. This supplies power to all 230v outputs from the PCB and protects all valves, thermostats and pumps connected. This does not protect or supply any voltage to the boiler terminals.

Ambiente Heritage House, 1 Woodside Lane, Bell Bar, Hertfordshire AL9 6DE
t 01707 649 118 e info@ambienteufh.co.uk ambienteufh.co.uk

Ambiente Luna Stat (Thermostat 1)
Ambiente Luna Stat (Thermostat 2)
Ambiente Luna Stat (Thermostat 3)
Ambiente Luna Stat (Thermostat 4)
Ambiente Luna Stat (Thermostat 5)
Ambiente Luna Stat (Thermostat 6)
Ambiente Luna Stat (Thermostat 7)
Ambiente Luna Stat (Thermostat 8)
Ambiente Luna Stat (Thermostat 9)
Ambiente Luna Stat (Thermostat 10)



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AMBIENTE SYSTEMS UK
HERITAGE HOUSE, 1 WOODSIDE LANE
BELL BAR, HERTS, AL9 6DE
TELEPHONE 08450 70 38 95 FAX 08450 70 38 96
EMAIL info@ambienteufh.co.uk WEBSITE www.ambienteufh.co.uk

Project
UB10+LUNA

TITLE
Wiring diagram incorporating UB10 wiring centre with LunaStat thermostats with optional sensors.

SCALE	DATE	DRAWN	CHECKED
N/A	August 2021	RH	RSC