



Product description

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.

Pump and boiler delay

The UB10 has a pump and boiler delay feature which can be set to 1 = 3 min delay or ON = no delay via the delay switch on the PCB. This delays the boiler and pump signal whilst the valve actuators open. By default ON will be selected.

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.

Benefits

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 room 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 terminals 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 the 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.

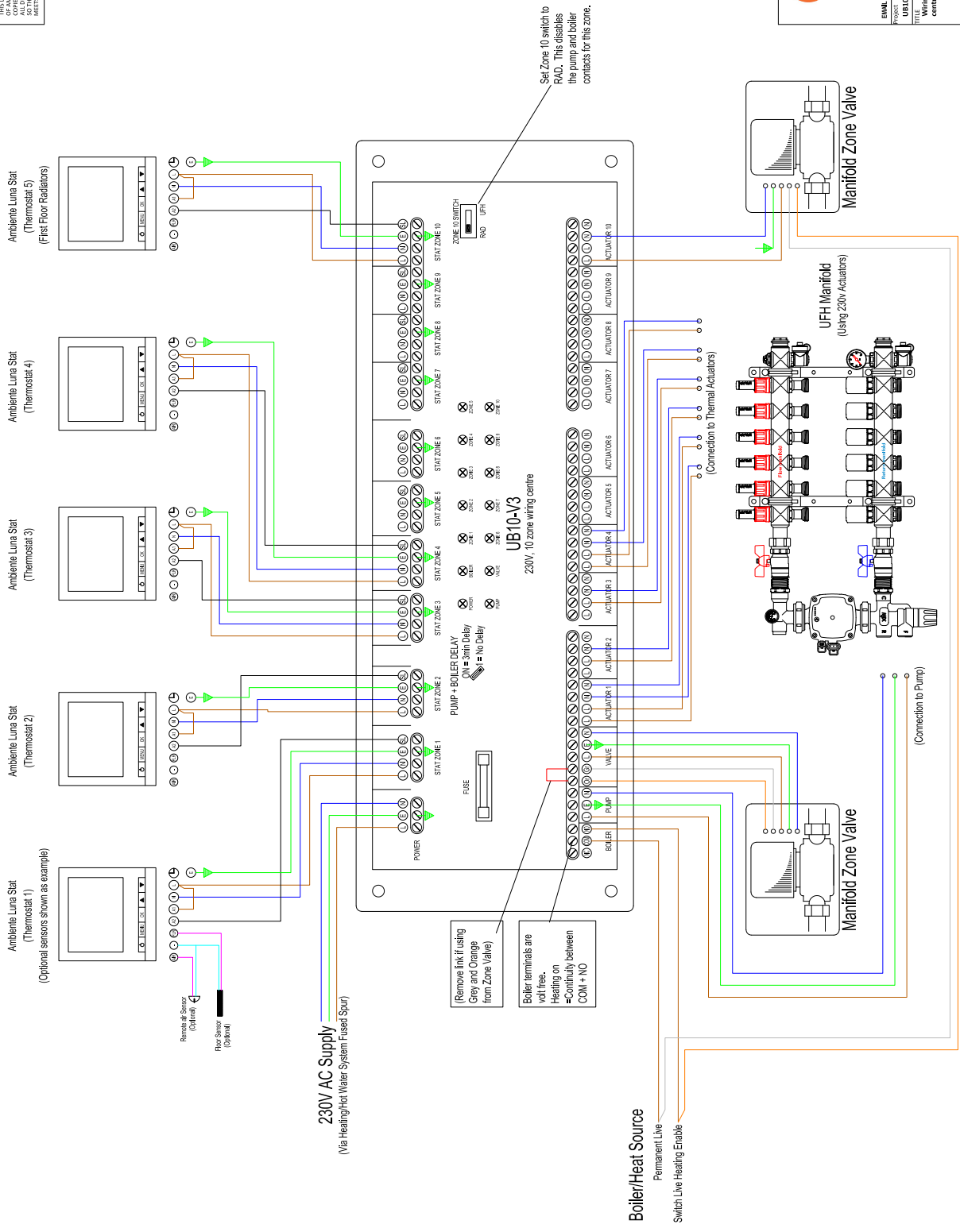
Pump

For the underfloor heating manifold pump, connections are: L = Live; N = Neutral. When 230v is received 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

Pre-installed F5AL250V anti-surge-rated 5amp fuse for protection of the UB10 V3 and connected components (excluding boiler terminals).

NOTE
THIS DRAWING IS CONFIDENTIAL AND THE COPYRIGHT PROPERTY OF AMBIENTE. IT IS NOT TO BE REPRODUCED, COPIED OR COPIED WITHOUT WRITTEN PERMISSION. ANY UNAUTHORIZED REPRODUCTION OR USE OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF AMBIENTE SHALL BE AT THE USER'S SOLE RISK AND LIABILITY. THE USER AGREES TO HOLD AMBIENTE HARMLESS FROM ALL CLAIMS AND DAMAGES, INCLUDING REASONABLE ATTORNEY'S FEES, THAT MAY BE ASSERTED AGAINST AMBIENTE BY ANY THIRD PARTY AS A RESULT OF THE USER'S FAILURE TO MEET ALL THE REQUIREMENTS.



ambiente
more than underfloor
HERTFORDSHIRE
HERTFORDSHIRE, WOODSIDE LANE
WELL BAY, WELLS, BA3 4AA
TELEPHONE: 01286 444444
EMAIL: info@ambiente.co.uk WEBSITE: www.ambiente.co.uk

PROJECT: UB10-V3+LUNA
Wiring diagram incorporating UB10-V3 wiring centre with LunaStat thermostats.

SCALE	DATE	DRAWN	CHECKED
N/A	January 2025	RH	RJC