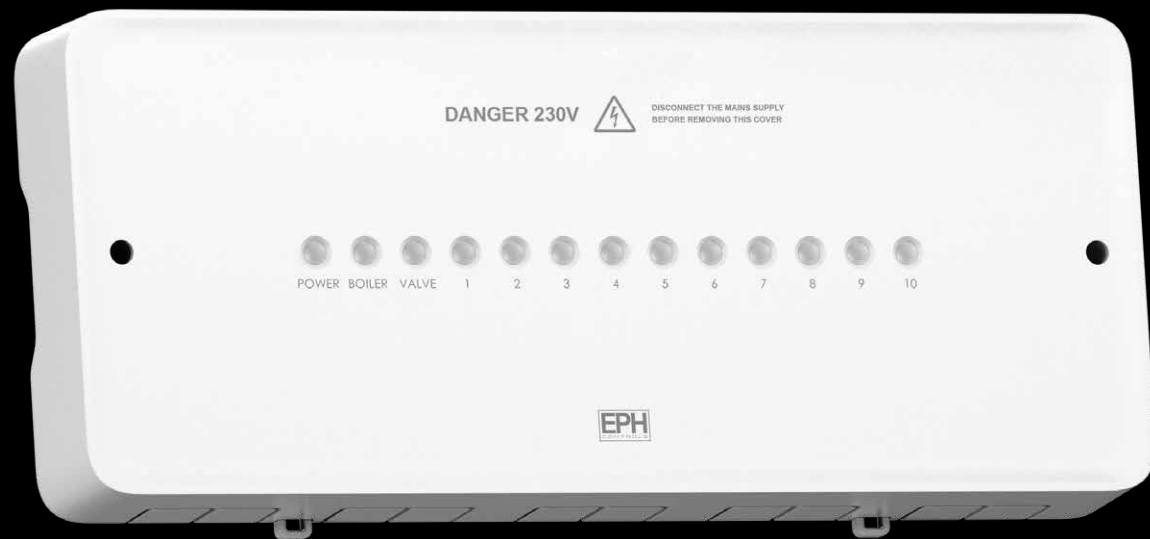


UFH10

Wiring Centre



Installation and Operation Guide



Table of contents

Factory Default Settings	1
Specifications	1
Mounting and Installation	1
Wiring Centre Terminals	2
Power Supply	2
Programmer	2
Thermostats (Zone 1 to Zone 8)	2
Thermostats (Zone 9 and Zone 10)	2
Heat Enable (Boiler / Heat Pump On)	2
UFH Pump (Underfloor Heating Pump)	2
UFH Valve (Underfloor Heating Valve)	2
Actuators (Zone 1 to Zone 8)	2
Actuators (Zone 9 and Zone 10)	2
Operation of Zone 9 & 10 UFH – RAD / HW switches	2
Wiring UFH10 - 10 x Underfloor Heating Zones	3
With Mains Operated Programmable Thermostats - CDT2, CP4M & RDTP	3
With Mains Operated Non - Programmable Thermostats - CDT2, HDT & RDT	4
With Mains Operated Non - Programmable Thermostats c/w Setback & 4 Zone Programmer - HDT & RDT	5
Wiring UFH10 - 8 x Underfloor Heating Zones, 1 Radiator Zone and 1 Hot Water Zone	6
With Mains Operated Non - Programmable Thermostats, Electronic Cylinder Thermostat & 4 Zone Programmer - CDT2, HDT, RDT & EDBS	6

Factory Default Settings

Zone 9 Switch: UFH

Zone 10 Switch: UFH

Grey and Orange terminals of the UFH valve are electrically linked. If UFH valve is fitted, remove this link.

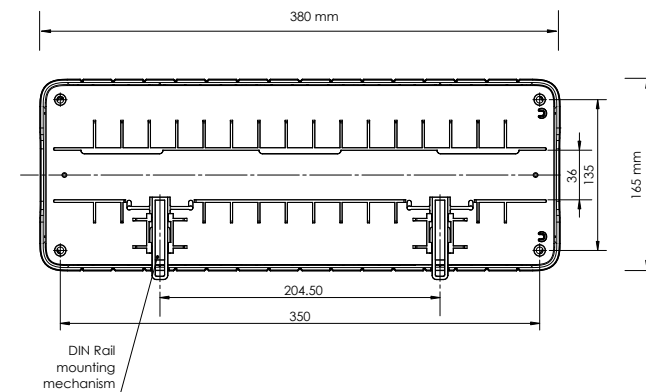
Specifications

Power supply:	230Vac 50-60Hz
Number of Zones:	10
Power Supply Indication:	Yes
Heat Enable Indication:	Yes
UFH Valve Indication:	Yes
Zone 1 to Zone 10 Indication:	Yes
Ambient temperature:	0...45°C

Admissible ambient humidity:	5-95%RH
Dimensions:	380 x 165 x 50 mm
Heat Enable contact rating:	3(1)A
UFH Pump contact rating:	3(1)A
IP rating:	IP20
Max. No. of actuators per zone	4
Max. Permissible Load	5A Resistive

Mounting and Installation

1. Remove the UFH10 from its packaging.
2. The UFH10 can be directly mounted on a wall using the fixing holes on the base of the unit or it can be directly mounted on DIN rail.



Wiring Centre Terminals

Power Supply

- L** 230Vac Live
- ⊕ Earth
- N** Neutral

Programmer

- L** 230Vac to the programmer.
- ⊕ Earth to the programmer.
- N** Neutral to the programmer.
- 1** Zone 1 output from programmer to the wiring centre.
- 2** Zone 2 output from programmer to the wiring centre.
- 3** Zone 3 output from programmer to the wiring centre.
- 4** Zone 4 output from programmer to the wiring centre.

Thermostats (Zone 1 to Zone 8)

- L** Live supply to the thermostat.
- 1** Timed switch live to room stat from programmer zone 1.
- 2** Timed switch live to room stat from programmer zone 2.
- ⊕ Earth.
- N** Neutral supply to the thermostat.
- S/L** Switch live from the thermostat to the wiring centre.

Note: With thermostats 1 to 8, you have an option of; one of two time inputs.

Thermostats (Zone 9 and Zone 10)

- L** Live supply to the thermostat.
- 1** Timed switch live to room stat from programmer zone 1
- 2** Timed switch live to room stat from programmer zone 2
- 3** Timed switch live to room stat from programmer zone 3
- 4** Timed switch live to room stat from programmer zone 4
- ⊕ Earth.
- N** Neutral supply to the thermostat.
- S/L** Switch live from the thermostat to the wiring centre.

Note: With thermostats 9 & 10, you have an option of; one of four time inputs.

Heat Enable (Boiler / Heat Pump On)

- LS** Live supply
- ⊕ Earth
- LR** Live return

This is a volt free relay which is switched on when there is a call for heat.

If 230V is applied to terminal LS and there is a call for heat, 230V will come back on terminal LR.

UFH Pump (Underfloor Heating Pump)

- L** 230Vac Live
- ⊕ Earth
- N** Neutral

When an underfloor heating zone calls for heat, 230V is sent to the underfloor heating manifold pump.

Best practice is to wire the underfloor heating manifold pump through a high limit thermostat which is mounted on the manifold.

UFH Valve (Underfloor Heating Valve)

- GR** Grey Switch Live
- OR** Orange Permanent Live
- L** Live
- ⊕ Earth
- N** Neutral

When an underfloor heating zone calls for heat, 230V is sent to the Underfloor heating valve.

The valves auxiliary contacts are wired to the GR and OR terminals.

Note: Please refer to factory default settings on page 1.

Actuators (Zone 1 to Zone 8)

- L** 230V Live supply to the actuator.
- N** Neutral supply to the actuator.

There are two terminals marked L & N for each zone.

Actuators (Zone 9 and Zone 10)

- L** Live supply to the actuator.
- N** Neutral supply to the actuator.

There are two terminals marked L and two terminals marked N for each zone.

Both zones 9 and 10 have a switch associated with each zone.

This allows the installer to use these zones as underfloor heating zones or radiator / hot water zones.

Operation of Zone 9 & 10 UFH – RAD / HW switches

If set to UFH – When the thermostat calls for heat, the actuator, boiler and pump / valve outputs are enabled.

If set to RAD / HW – When the thermostat calls for heat, the actuator is enabled.

To enable the boiler output, the actuator auxiliary contacts (Grey and Orange wires) must be connected to the LS & LR terminals of the Heat Enable.

SWITCH SELECTED	HEAT ENABLE	UFH PUMP	UFH VALVE	ZONE VALVE ACTUATOR
UFH	On	On	On	On
RAD	Off	Off	Off	On

UFH10 - 10 x Underfloor Heating Zones

c/w Mains Operated Programmable Thermostats.

Options:



CDTP2



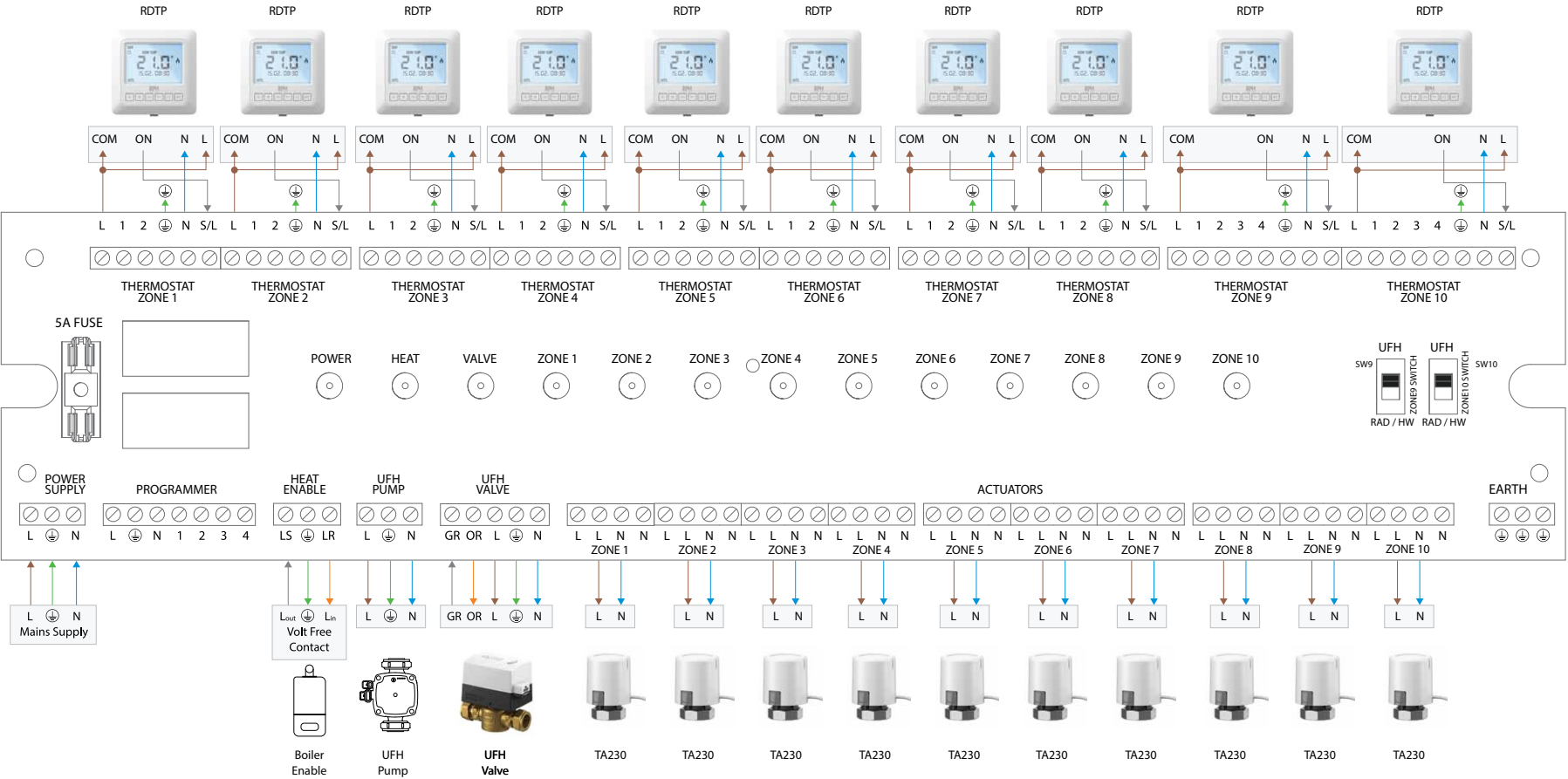
CP4M



RDTP

Note: Please refer to individual thermostat wiring diagrams.

CONTROLS	INSTALLED
UFH Pump	Yes
UFH Valve	Yes
UFH Actuators	Yes
Programmer	-
RAD Valve	-
HW Valve	-



230V on OR & L when a UFH zone calls for heat.
If no valve is fitted, GR & OR must be linked out.

UFH10 - 10 x Underfloor Heating Zones

c/w Mains Operated Non- Programmable Thermostats.

Options:



CDT2



HDT



RDT

Note: Please refer to individual thermostat wiring diagrams.

CONTROLS	INSTALLED
UFH Pump	Yes
UFH Valve	Yes
UFH Actuators	Yes
Programmer	R47
RAD Valve	-
HW Valve	-

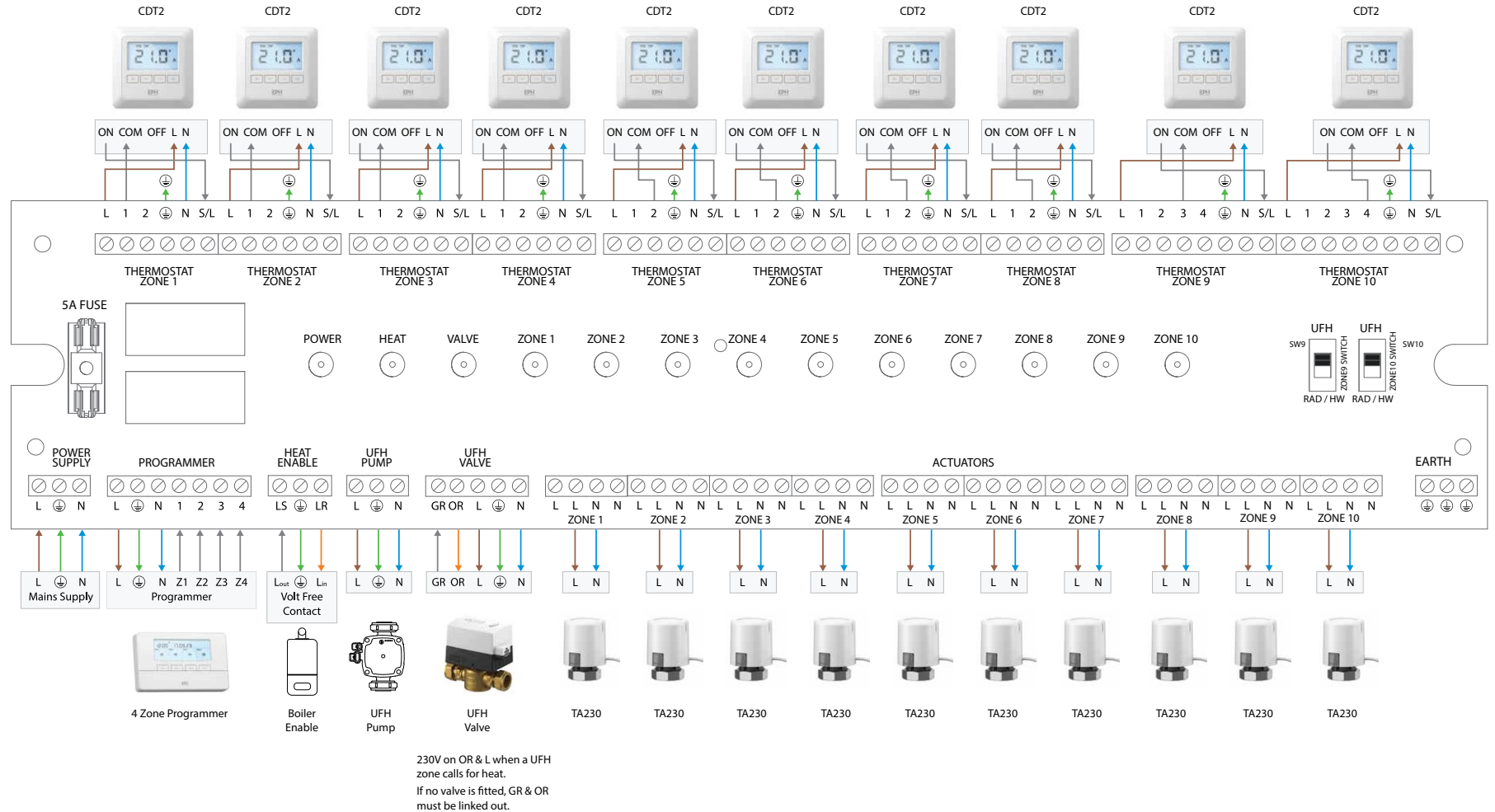
In this example:

Zone 1 on the programmer is controlling thermostats 1, 2, 3 & 4

Zone 2 on the programmer is controlling thermostats 5, 6, 7 & 8

Zone 3 on the programmer is controlling thermostat 9

Zone 4 on the programmer is controlling thermostat 10



UFH10 - 10 x Underfloor Heating Zones

c/w Mains Operated Non- Programmable Setback Thermostats.

Options:



HDT



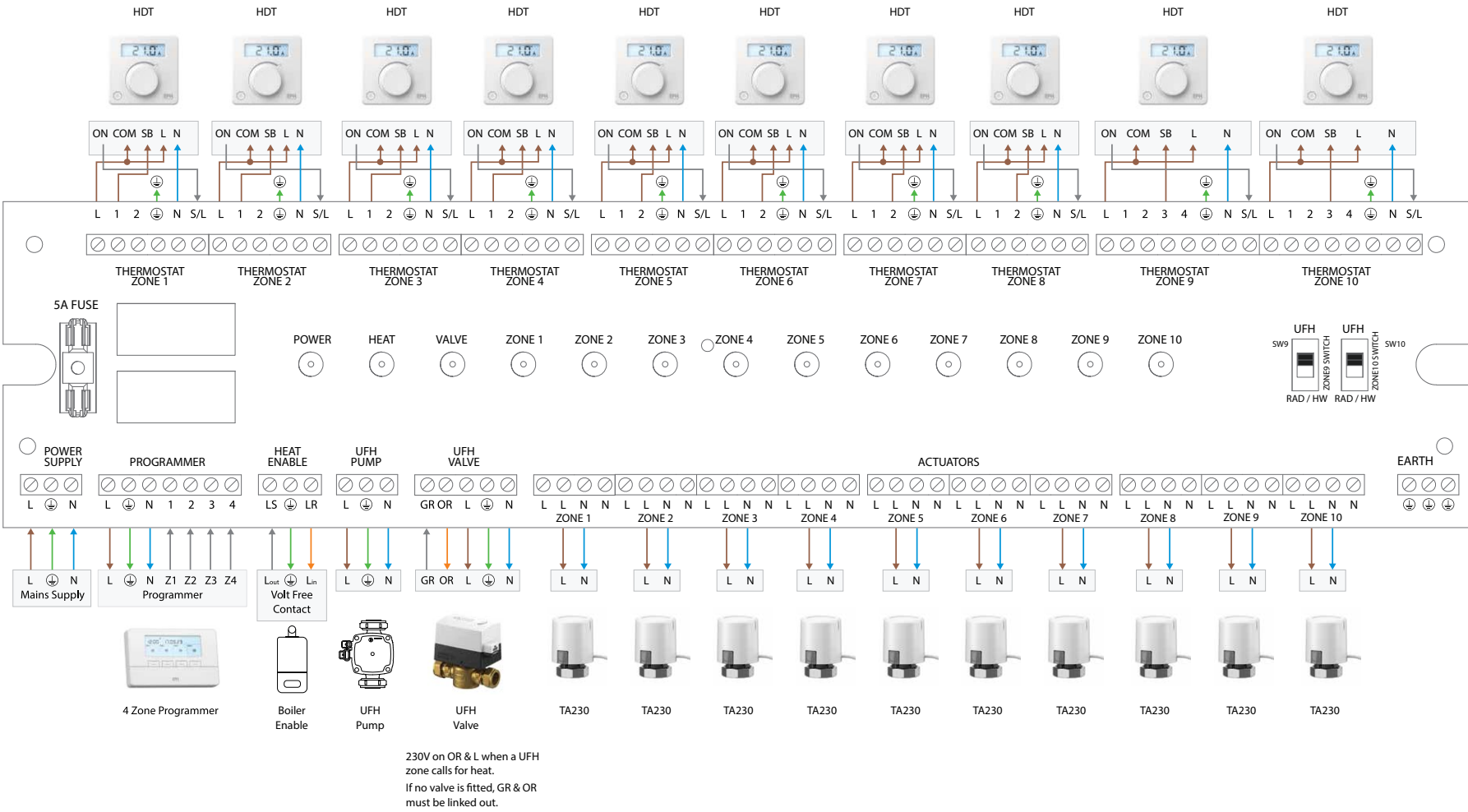
RDT

Note: Please refer to individual thermostat wiring diagrams.

CONTROLS	INSTALLED
UFH Pump	Yes
UFH Valve	Yes
UFH Actuators	Yes
Programmer	R47
RAD Valve	-
HW Valve	-

In this example:

- Zone 1 on the programmer is controlling thermostats 1, 2, 3 & 4
- Zone 2 on the programmer is controlling thermostats 5, 6, 7 & 8
- Zone 3 on the programmer is controlling thermostat 9
- Zone 4 on the programmer is controlling thermostat 10



UFH10 - 8 x Underfloor Heating Zones **- 1 x Radiator Zone** **- 1 x Hot Water Zone**

c/w Mains Operated Non- Programmable Thermostats. Options:

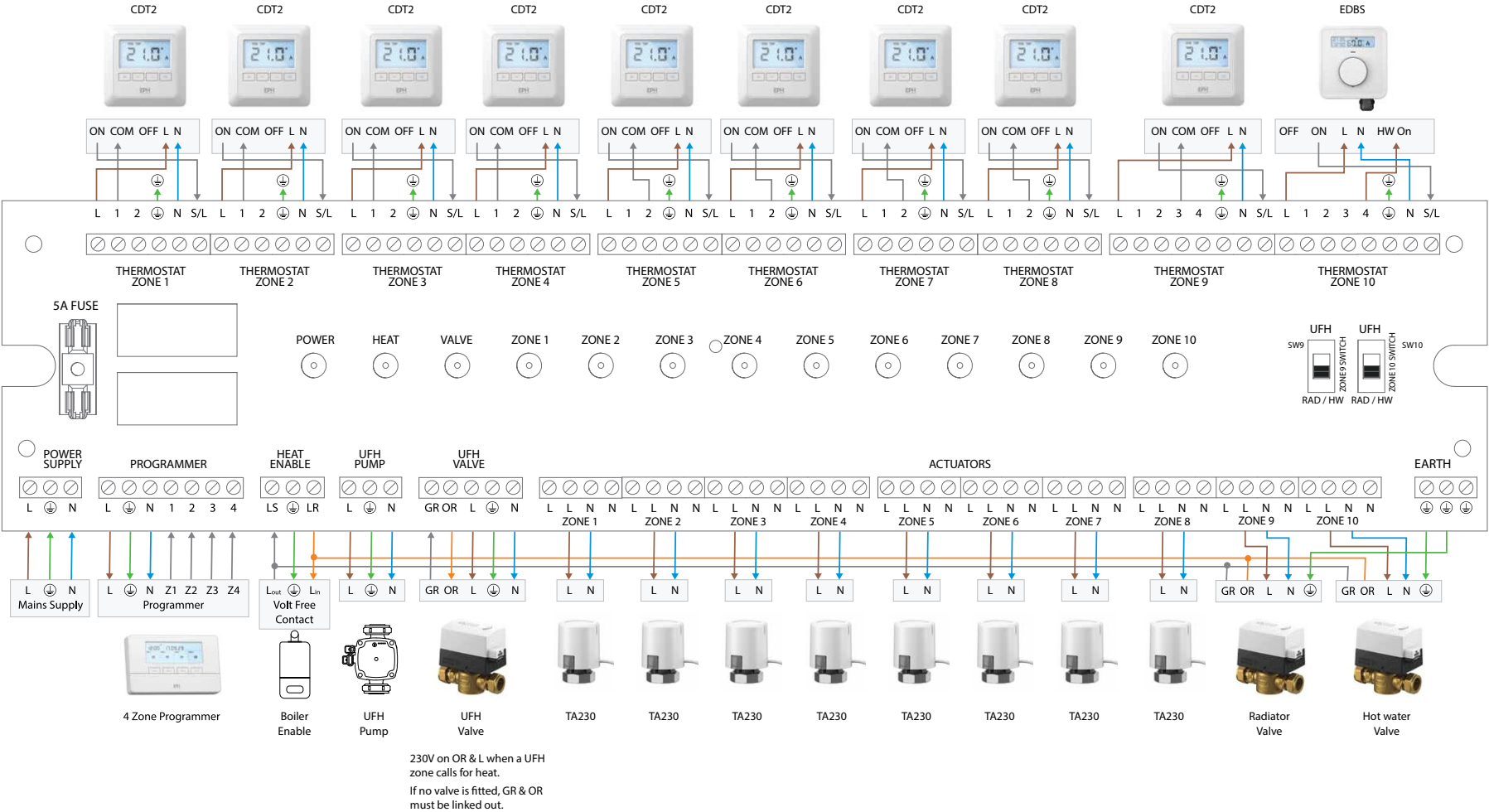


Note: Please refer to individual thermostat wiring diagrams.

CONTROLS	INSTALLED
UFH Pump	Yes
UFH Valve	Yes
UFH Actuators	Yes
Programmer	R47
RAD Valve	V22_P
HW Valve	V22_P

In this example:

- Zone 1 on the programmer is controlling thermostats 1, 2, 3 & 4
- Zone 2 on the programmer is controlling thermostats 5, 6, 7 & 8
- Zone 3 on the programmer is controlling thermostat 9
- Zone 4 on the programmer is controlling thermostat 10



UFH10 is compatible with the following EPH thermostats

Electro - Mechanical Thermostats



CM2



CM3



CMT



CM2S



CM3S

Programmable Thermostats



CDTP2



CRTP2



RDTP



CP4B



CP4M

Non Programmable Thermostats



CDT2



CRT2



RDT



HDT



HRT

Cylinder Thermostats



EDBS



WRP



WRP-TP



WRP-IM



WRP-IM-TP



CDC2



EPH Controls IE

technical@ephcontrols.com
www.ephcontrols.com/contact-us
+353 21 471 8440
Cork, T12 W665



EPH Controls UK

technical@ephcontrols.co.uk
www.ephcontrols.co.uk/contact-us
+44 1933 322 072
Harrow, HA1 1BD

