

Installation Manual



Technical Helpline
0345 345 2288

IMPORTANT!

Please read this manual before attempting to install your Warmup product. Complete and submit your warranty form **online at** www.warmup.co.uk



Hydronic
Heating System

www.warmup.co.uk

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for more information

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WARNING

This product uses mains voltage electricity and work should only be carried out by a qualified electrician. You should always isolate the power supply before attempting to install or repair the Master Wiring Centre or connected devices. The wiring centre should not be put into operation unless you are certain that the entire heating installation has been completed in accordance with latest IEE Wiring Regulations and appropriate Statutory Regulations.

It is important that before, during and after installation that all requirements are met and understood. If the instructions are followed, you should have no problems. If you require help at any stage, please contact our helpline.

You may also find a copy of this manual, wiring instructions and other helpful information on our website:

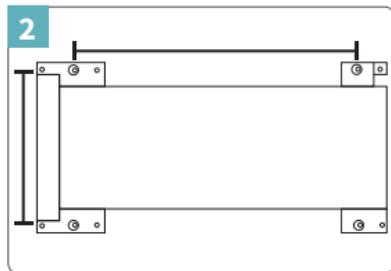
www.warmup.co.uk



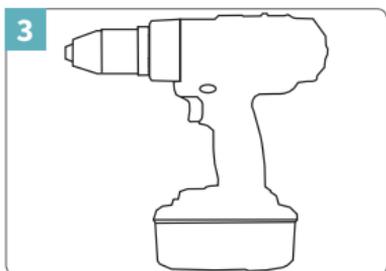
Quick Install Guide - Please also read the full instructions that follow this page.



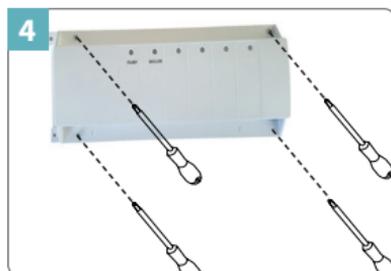
- Identify a suitable mounting location. Normally above the manifold.



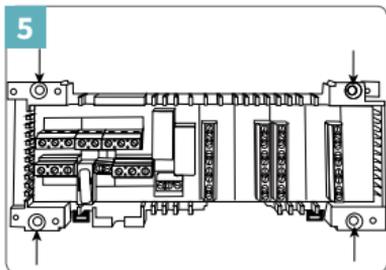
- Mark the mounting surface using the measurements on 'Page 11' as a guide



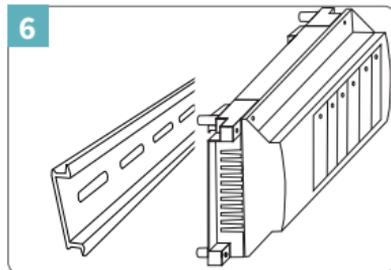
- Drill the pre marked holes and use a suitable wall plug



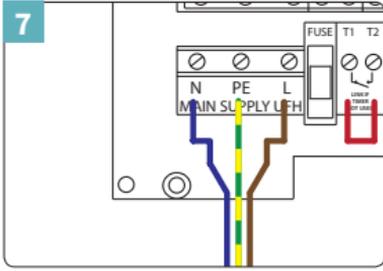
- Remove the cover from the wiring centre



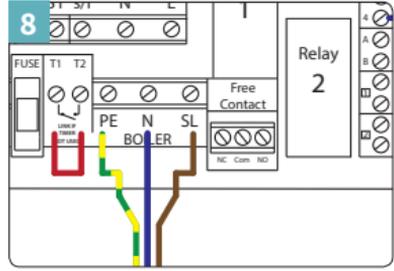
- Screw the wiring centre to the wall using 3x40mm screws (not supplied)



- If wiring centre is being DIN rail mounted, hook onto the rail and click in place

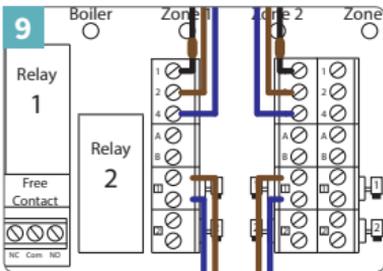


- Connect power supply wiring;
N = Neutral
PE = Earth
L = Live

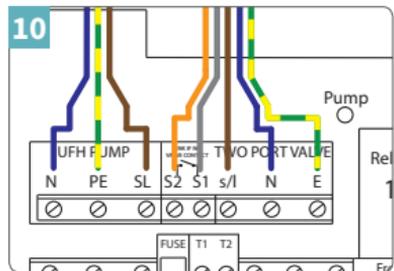


- Connect heat source wiring;
PE = Earth
N = Neutral
SL = Switch Live

Note: Do not switch on until all wiring connections have been terminated



- Connect thermostat and actuator wiring;
1 = Switch live
2 = Live
4 = Neutral
A = Time Channel
B = Time Channel



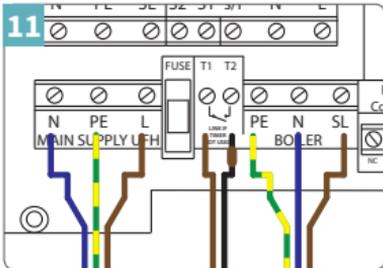
- If connecting zone valve, remove link wire. Connect circulator wiring.

Circulator

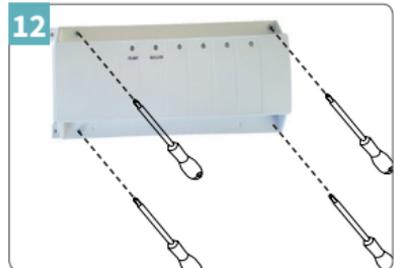
- N = Neutral
- PE = Earth
- SL = Switch Live

Zone Valve

- Or = Normally Open
- Gr = Com
- SL = Switched Live
- N = Neutral
- PE = Earth



- If connecting time switch, remove link wire;
T1 = Time switch
T2 = Time switch



- Replace wiring centre cover



Components available from Warmup



WHS-S-SLV4Z



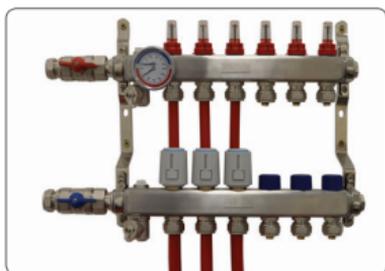
WHS-S-SLV6Z



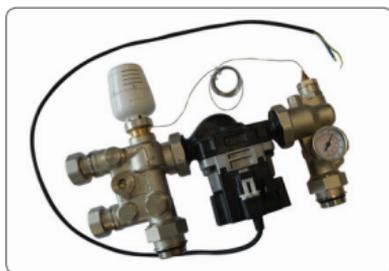
WHS-S-TIMER230



WHS-M-C-ACT230



WHS-M-C-XX Manifold



WHS-M-C-MIX



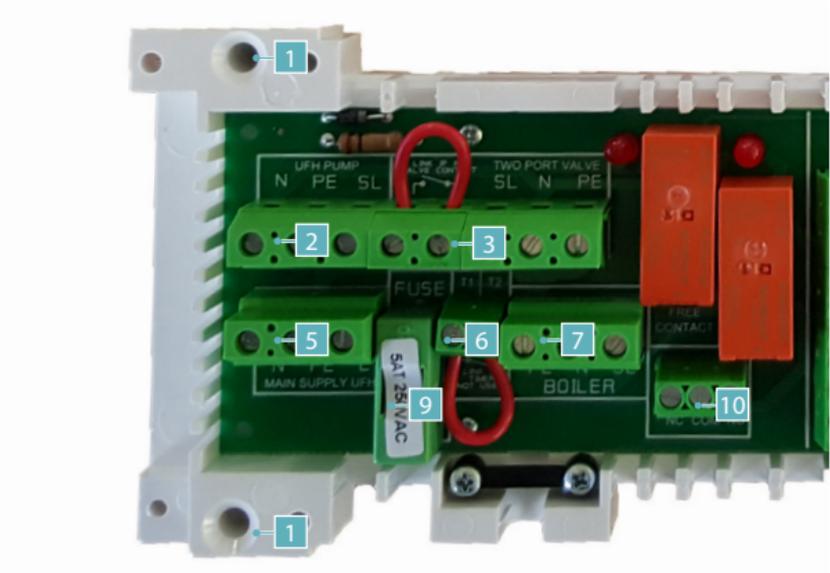
4iE Smart Thermostat

 **DO**

- Ensure the WHS-C-B-MASTER01 wiring centre is mounted to a structurally sound wall.
- Precautions should be taken to reduce the risk of damaging any services within the walls when drilling.
- Ensure no loose strands wire are left outside of the terminal blocks during wiring.
- Ensure the wires are fully inserted into the terminals before tightening.
- Ensure all data is fully recorded on the commissioning log.
- Ensure the WHS-C-B-MASTER01 wiring centre is connected to the same 3A supply circuit as the rest of the heating system, so as to keep everything to a single point of isolation

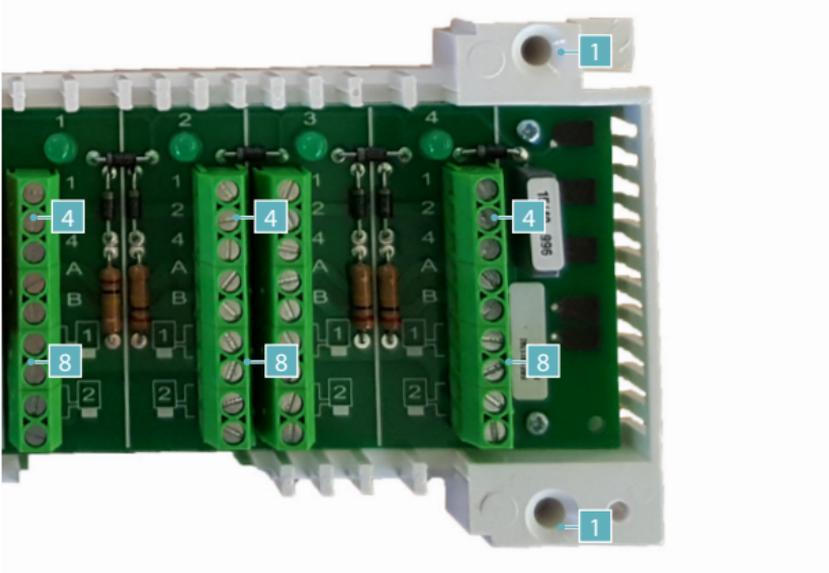
 **DON'T**

- Do not exceed specification - failure to do so will void the warranty.
- Do not use excessive force when tightening screw terminals.



WHS-C-B-MASTER01

- 1 Wall mounting screw holes
- 2 Connections for circulator
- 3 2 Port motorised zone valve terminals (removed link if used)
- 4 Thermostat terminals
- 5 Power supply terminals
- 6 External time clock terminals (remove link if used)
- 7 Heat source switch (230V)
- 8 Actuator terminals

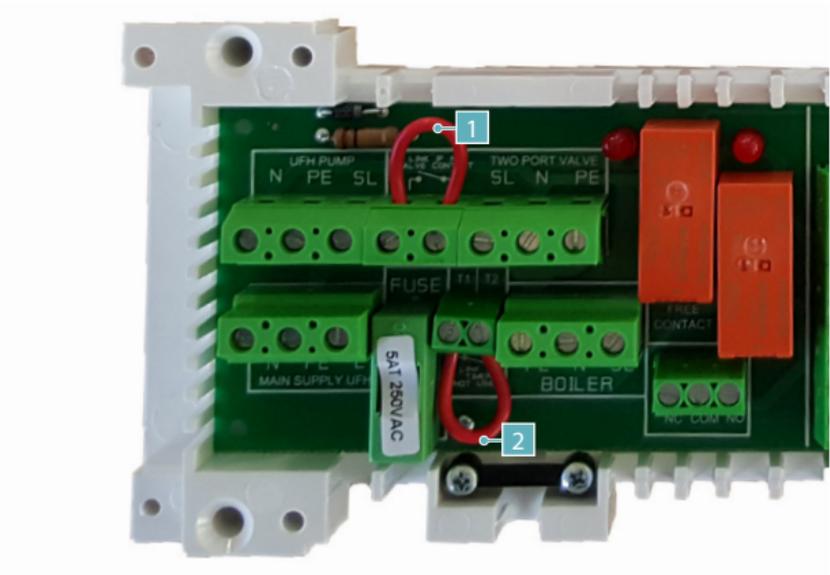


WHS-C-B-MASTER01

- 9 Fuse T5AL 250V
- 10 Heat source switch (Volt-free)
- 11 Cover screws
- 12 Red LED indicators for heat source and circulator
- 13 Green LED indicators for zone actuator state
- 14 DIN rail mounting bracket
- 15 DIN rail release clips

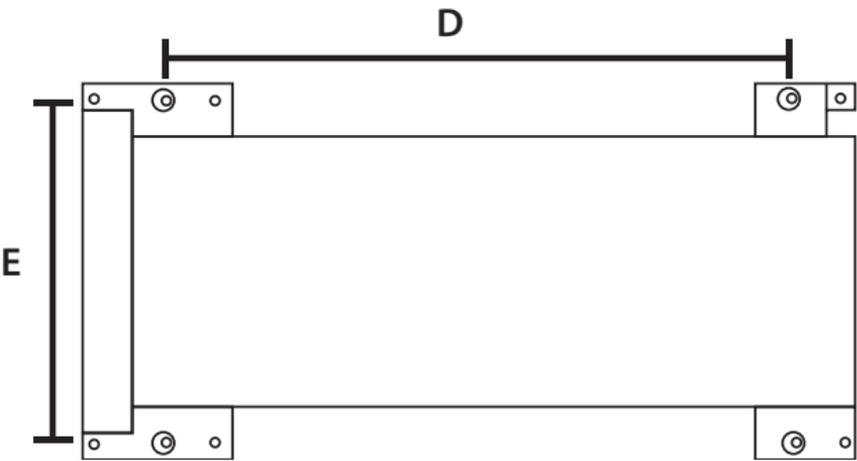
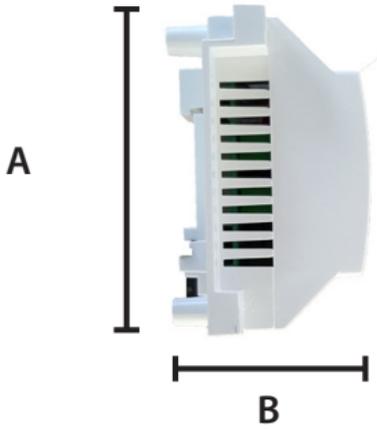


- If the Warmup 4-Zone Master Wiring Centre is to be used with a 2-port zone valve, ensure the link wire is removed from terminals (no.1). If no zone valve is to be connected (and link wire connected) all devices (Circulator, Valve and Heat source) will work simultaneously.
- If the Warmup 4-Zone Master Wiring Centre is to be used with an external time switch, ensure the link wire is removed from terminals T1 and T2 (no.2).



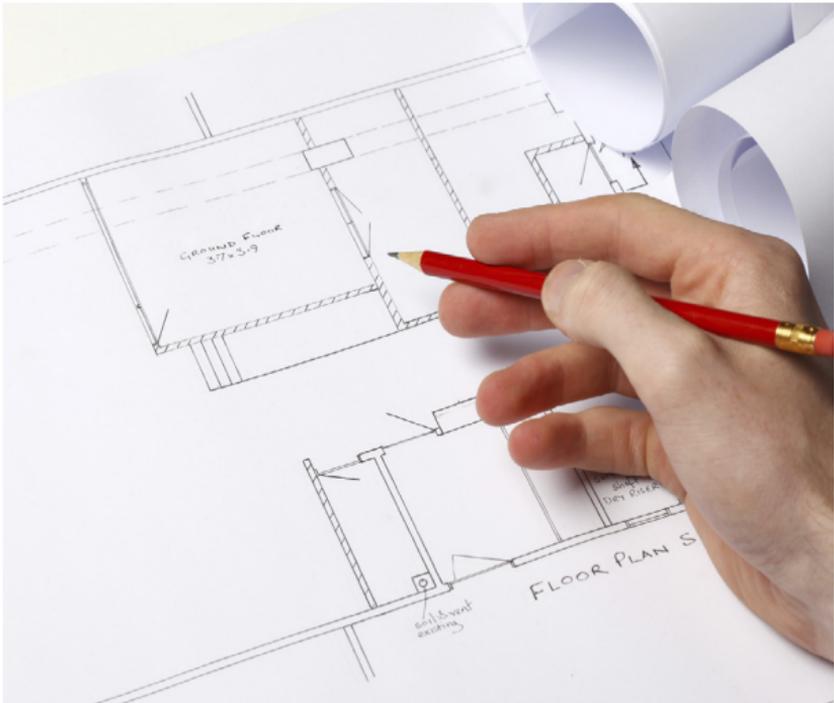
WHS-C-B-MASTER01

- 1 2-port motorised zone valve link wire
- 2 External time switch link wire



Product	Height (A)	Depth (B)	Width (C)	Mounting (D)	Mounting (E)
Master	90	55	225	187	77
4 Zone Slave	90	55	160	123	77
6 Zone Slave	90	55	225	187	77

NOTE: All measurements are in millimetres (mm) unless otherwise stated.



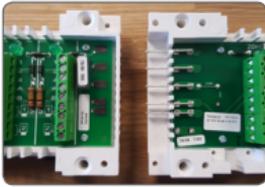
Identify a suitable mounting location for Warmup 4-Zone Master Wiring Centre. The location should meet the following requirements;

- Mounted where it will not be exposed to temperatures less than 0 °c or greater than 50 °c.
- In a dry, indoor environment with a relative humidity of no more than 70%
- Close to the manifold, within cable reach of valve actuators and circulator on the manifold/mixing unit

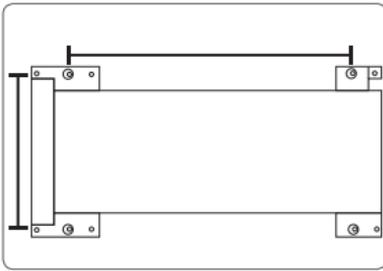
The Warmup 4-Zone Master Wiring Centre can be either mounted directly on to a wall or mounted on a DIN rail. It is recommended that walls are assessed prior to drilling, to reduce the risk of damaging existing services in the wall. If slave units are to be used, these should be connected prior mounting.

Slave Unit Assembly

Slave units are connected to the Master by aligning the two units and sliding together.



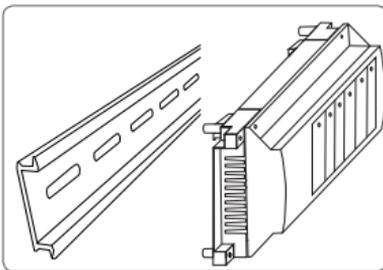
Wall Mounting



Installation

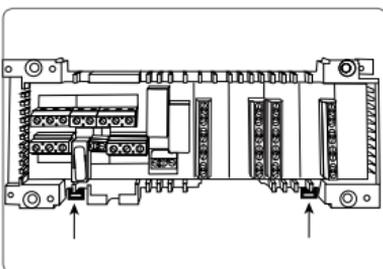
- 1 Measure and mark a suitable location (using the table on page 11)
- 2 Drill the relevant holes
- 3 Insert a wall plug
- 4 Screw unit to wall using 3x40mm screws

DIN Rail Mounting



Installation

- 1 Hook the bracket on the top of the DIN rail
- 2 Press the arrows marked on the front cover and wait for the “click”



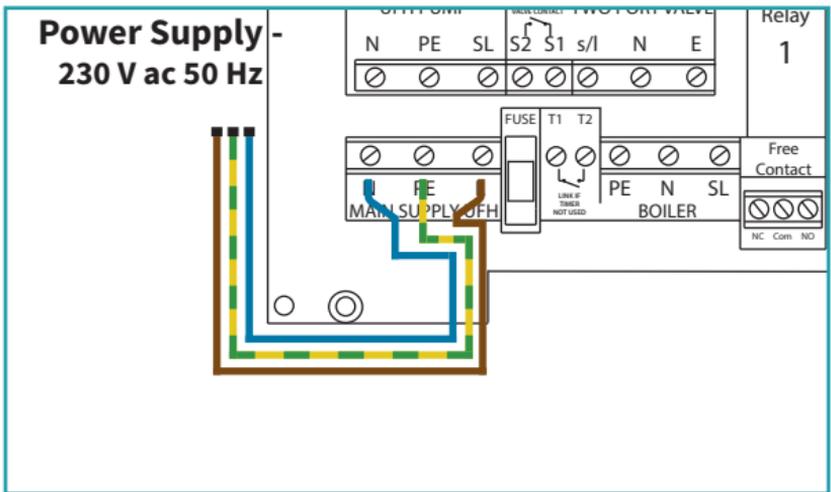
Removal

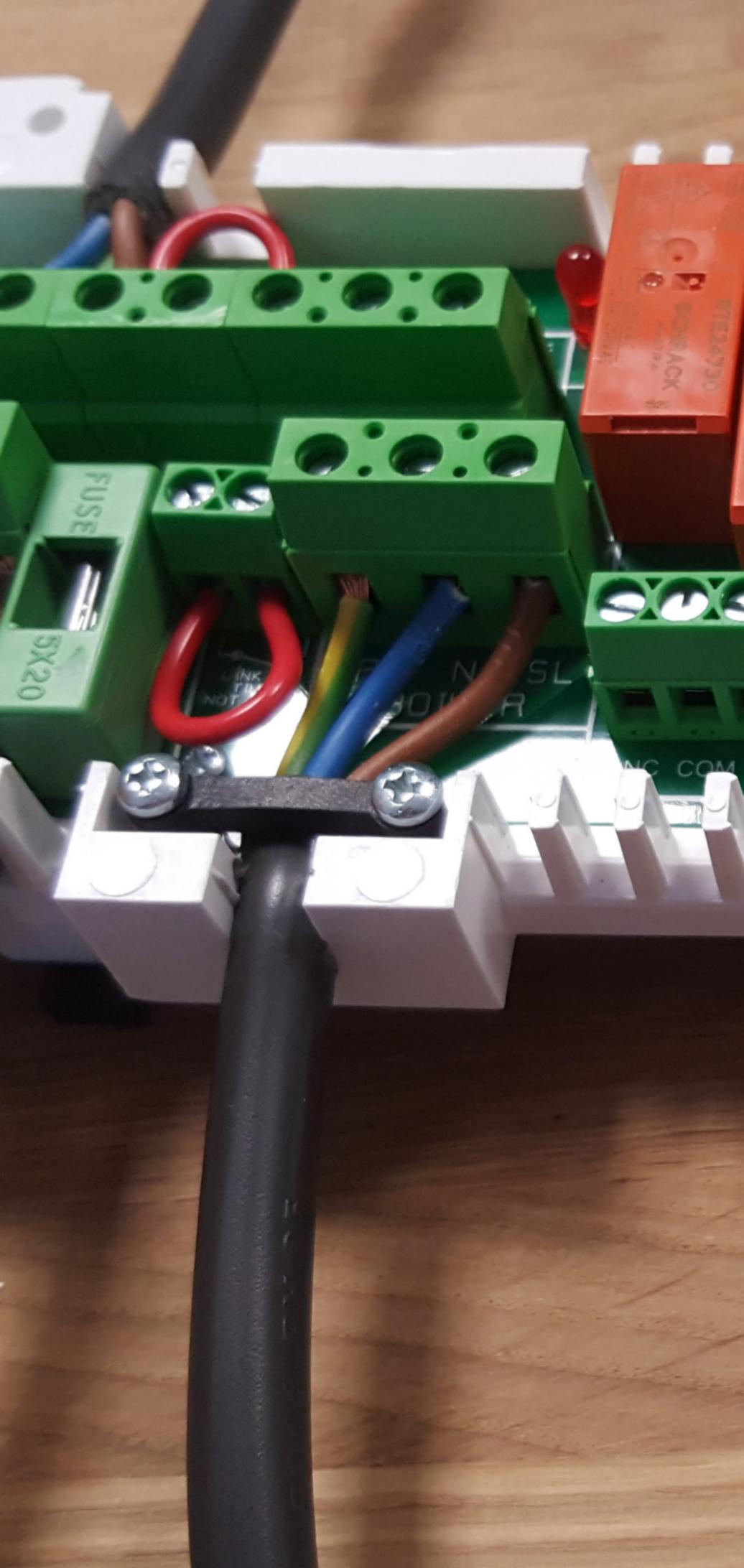
- 1 Insert a No.2 Slotted screwdriver into the black release tab
- 2 Gently lever the tabs slightly to release the unit from the DIN rail

Step 3 - WIRING - POWER SUPPLY



- The Warmup 4-Zone Master Wiring Centre requires a 230 V ac 50Hz power supply
- The power supply should not be livened until all wiring within the Master Wiring Centre and any interconnected devices has been completed
- The power supply for all interconnected devices, including the heat source and any 3rd party controls, should only be able to be isolated from a single point to ensure the system is only connected to a single phase and to prevent the risk of electric shock
- The Master Wiring Centre has a replaceable fuse located adjacent to the Power Supply Terminals (T5AL 250V)





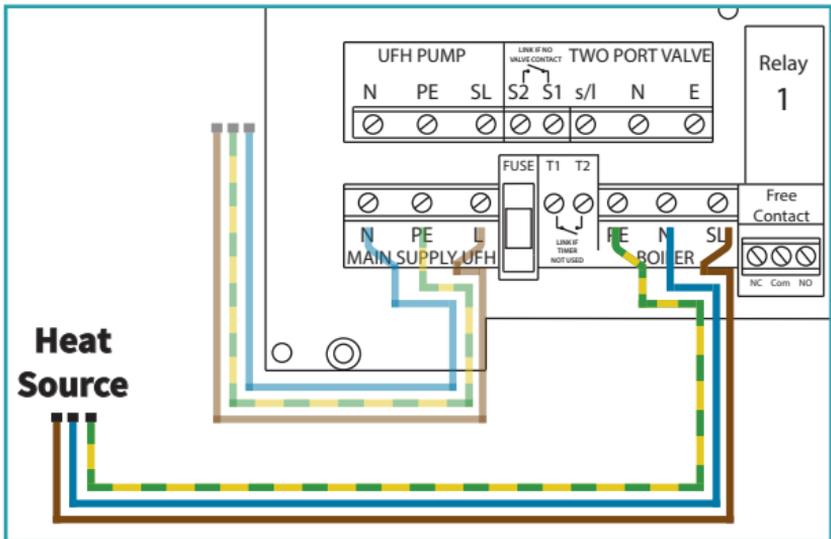


The boiler terminals provide a switched power supply. The heating interlock is enabled whenever a demand signal is received. For systems which require a delayed start, a third party time delay relay should be fitted as required.

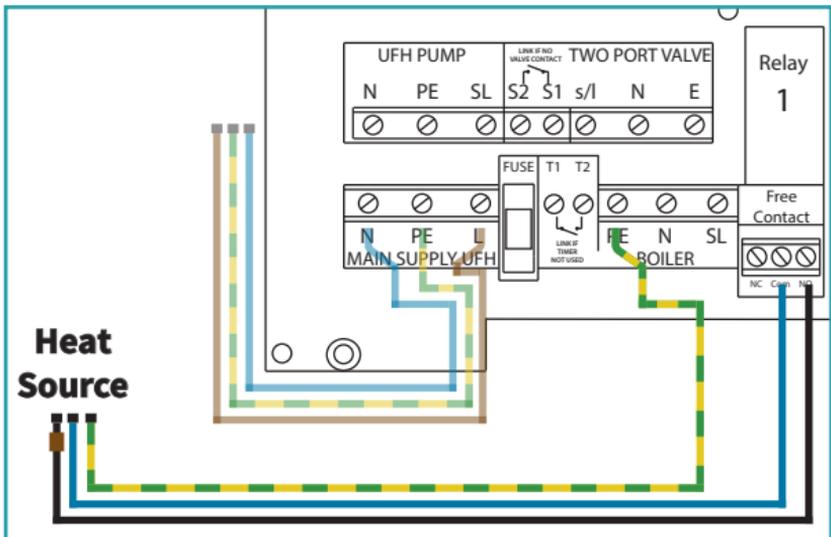
When volt-free switching is required for the heat source 'Free Contact' terminals should be used.

- The maximum operating current when connecting a heat source using the volt-free contacts is 3 amps

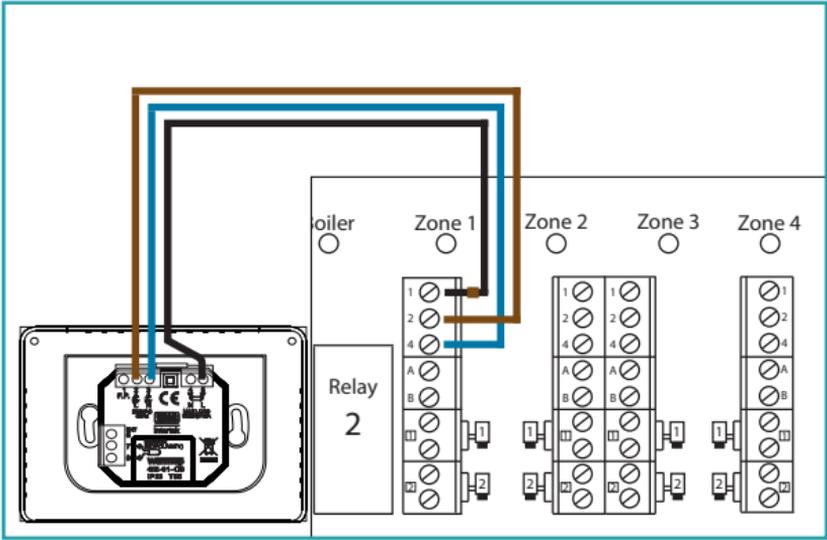
Connecting a heat source using 230V, 3A switched live e.g. System Boiler



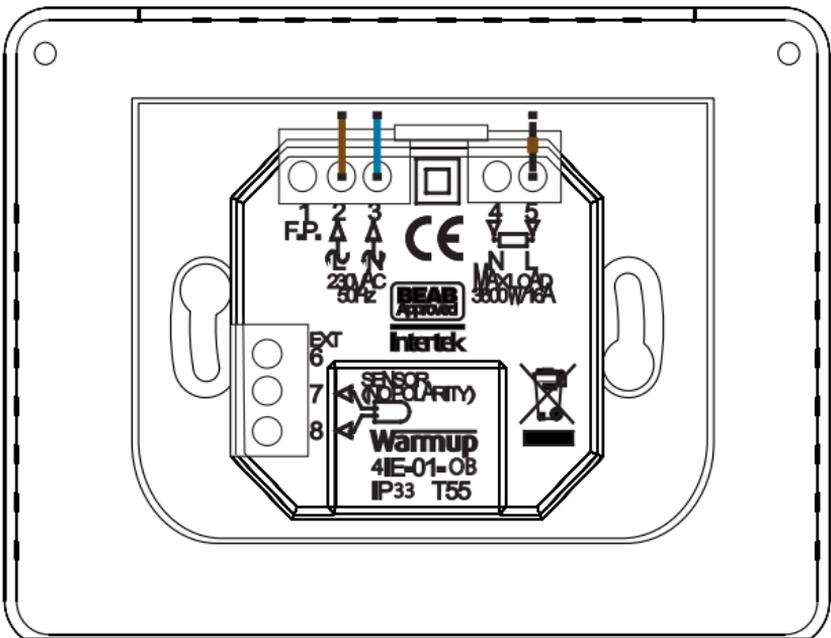
Connecting a heat source using a volt-free, 3A switch e.g. Combi Boiler



- The Warmup 4-Zone Master Wiring Centre is compatible with various thermostats, such as 4iE™/ 3iE™ and TEMPO

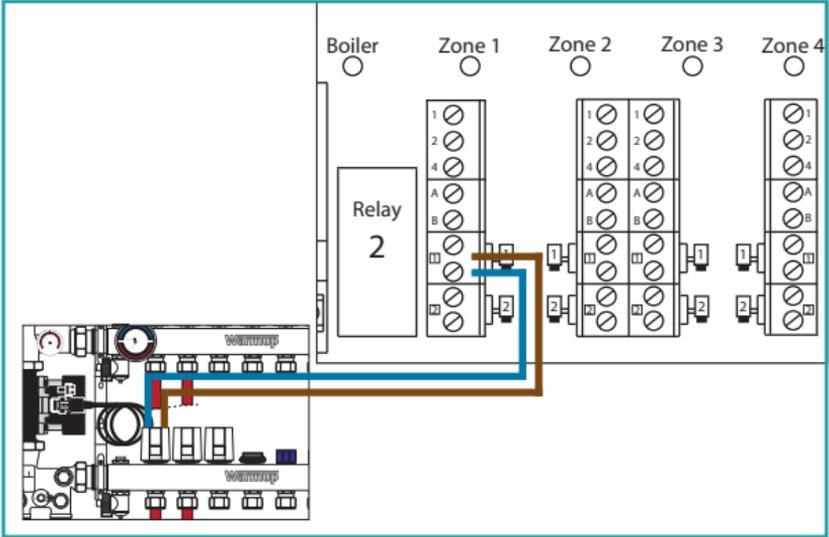


4iE / 3iE/ Tempo Wiring Configuration



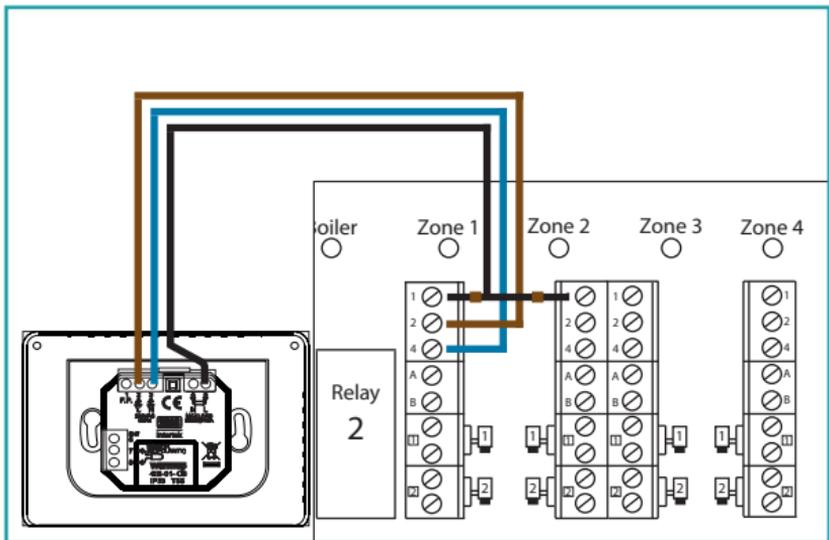


All actuators to be controlled by a single thermostat should be connected to the actuator terminals for the same zone number as the thermostat



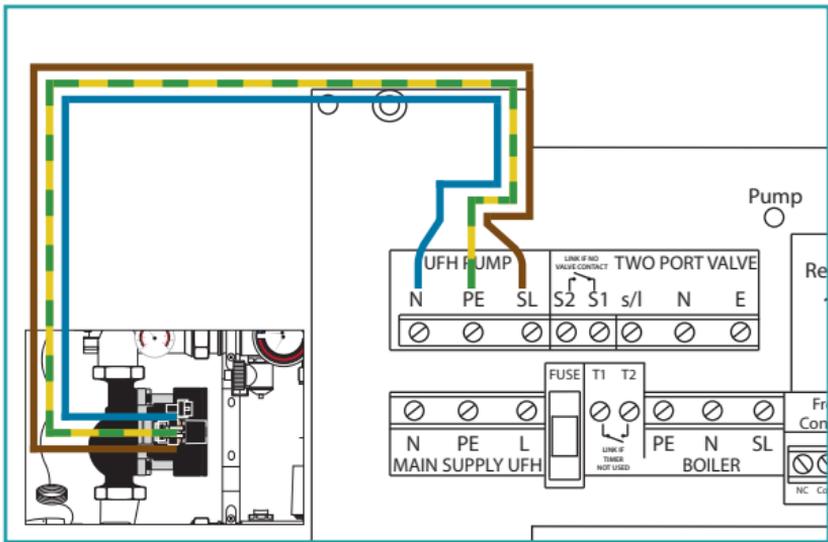
Up to 4 actuators can be connected to a single zone by connecting two into each pair of terminals.

If a zone requires more than 4 actuators, two or more zones can be bridged together.



The Warmup 4-Zone Master Wiring Centre provides a switched power supply out to a circulator that activates when any underfloor heating channel has demand.

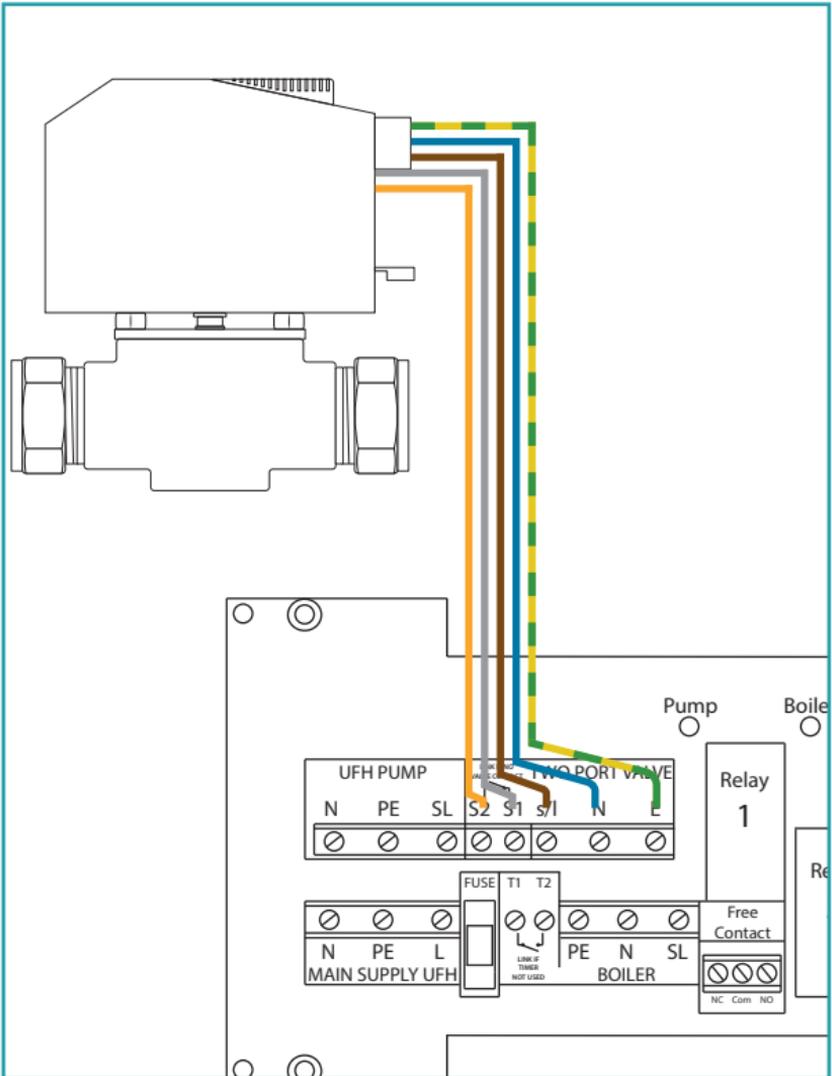
- If a mixing unit is fitted to the controlled manifold, it should be this secondary circulator that is connected
- If there is a dedicated primary circulator to this manifold or if the connected manifold is the only emitter on the heat source, then these terminals can provide power to that primary circulator



Step 3 - WIRING - ZONE VALVE

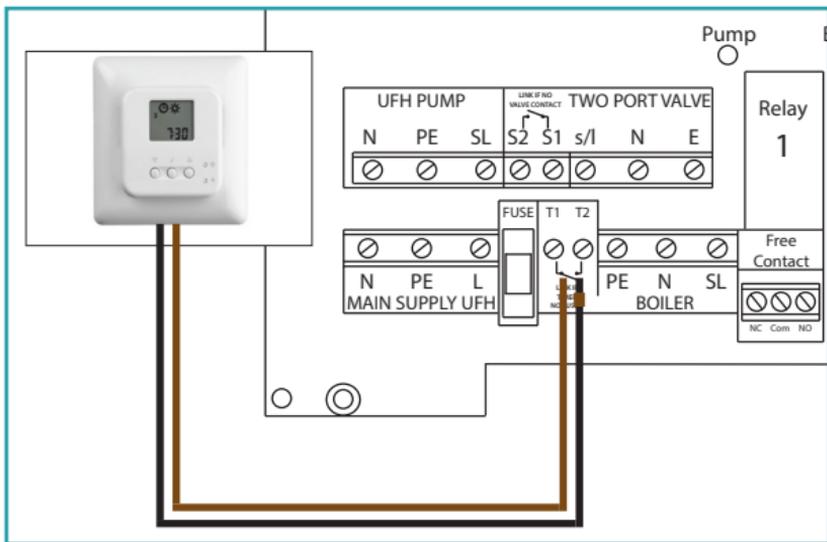


- Where installed on the manifold supply, remove the link wire between S1 and S2
- A 2-Port Motorised Zone Valve with end switch should be connected as below
- The UFH circulator and heat source will be energised through the end switch, so in the event of the valves failure, the heat source will not be activated by the control centre.
- 2-Port Motorised Zone Valves without an end switch should not be used



- When using an external time switch with the Warmup 4-Zone Master Wiring Centre, the link wire in terminals T1 and T2 must be removed and replaced with the time switch wiring.

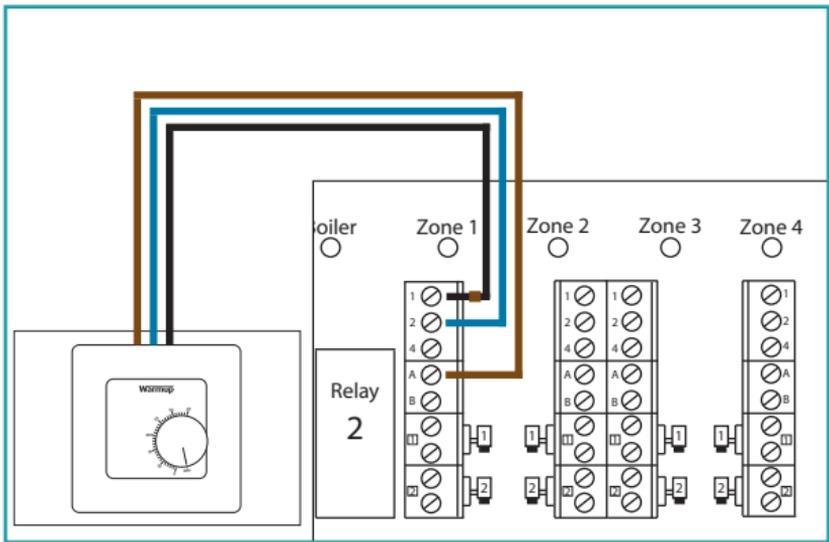
Note: When the external time switch is programmed for an 'off' period, all devices connected to the wiring centre will stop receiving voltage. For example; thermostats, circulator, zone valve, heat source, actuators. Therefore, this configuration is only recommended for use in conjunction with non programmable thermostats.



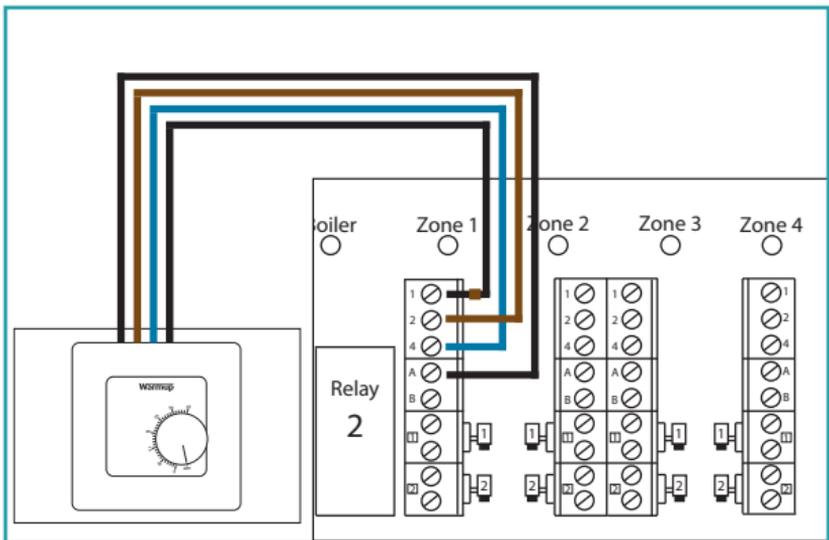


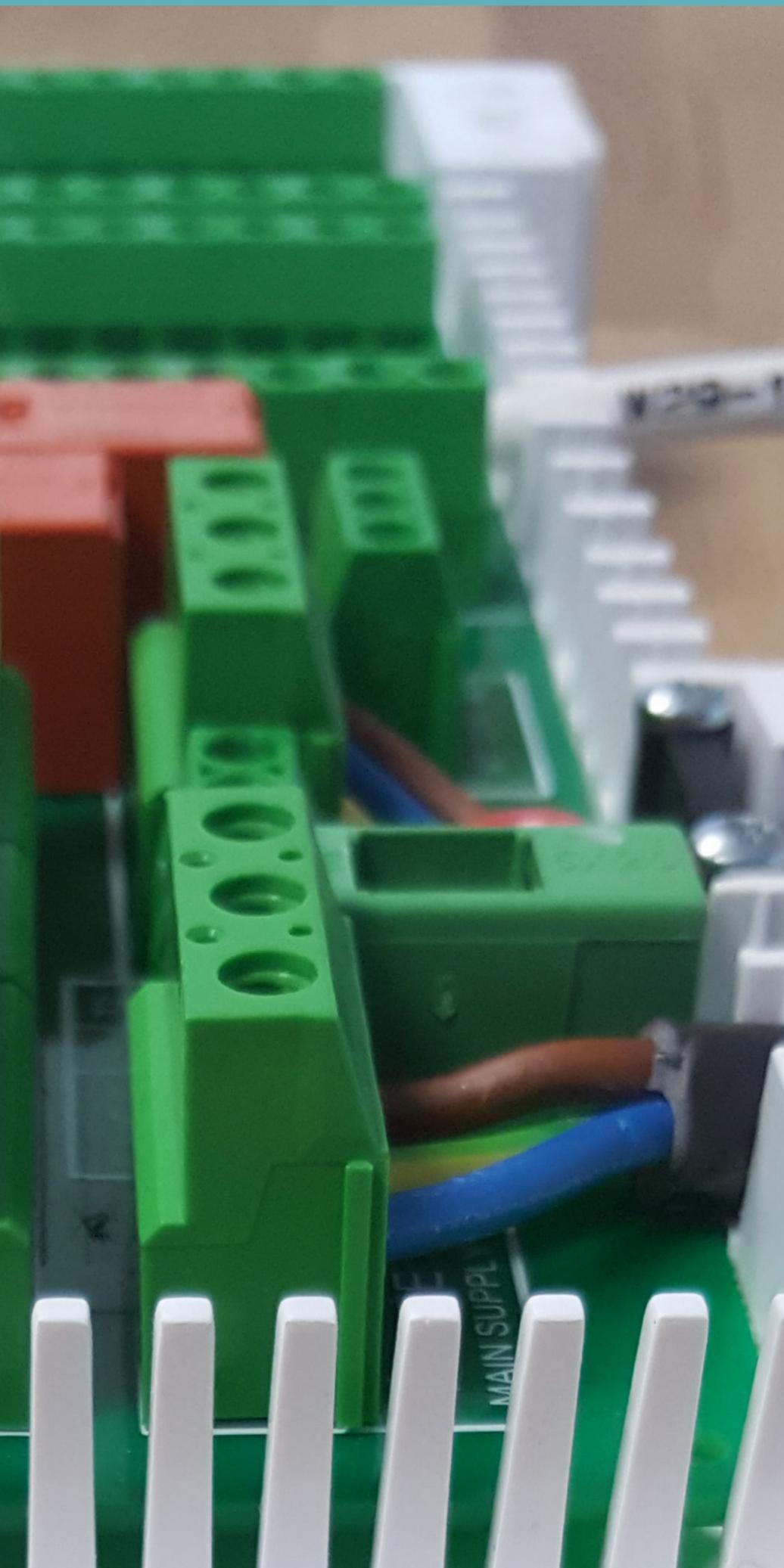
- The Warmup WHS-S-Timer230 provides two timed channels within the control centres that can be used to operate dial thermostats.
- When using a WHS-S-TIMER230 time switch with the Warmup 4-Zone Master Wiring Centre, the link wire in terminals T1 and T2 must NOT be removed.

Connecting a dial thermostat to the timed channels

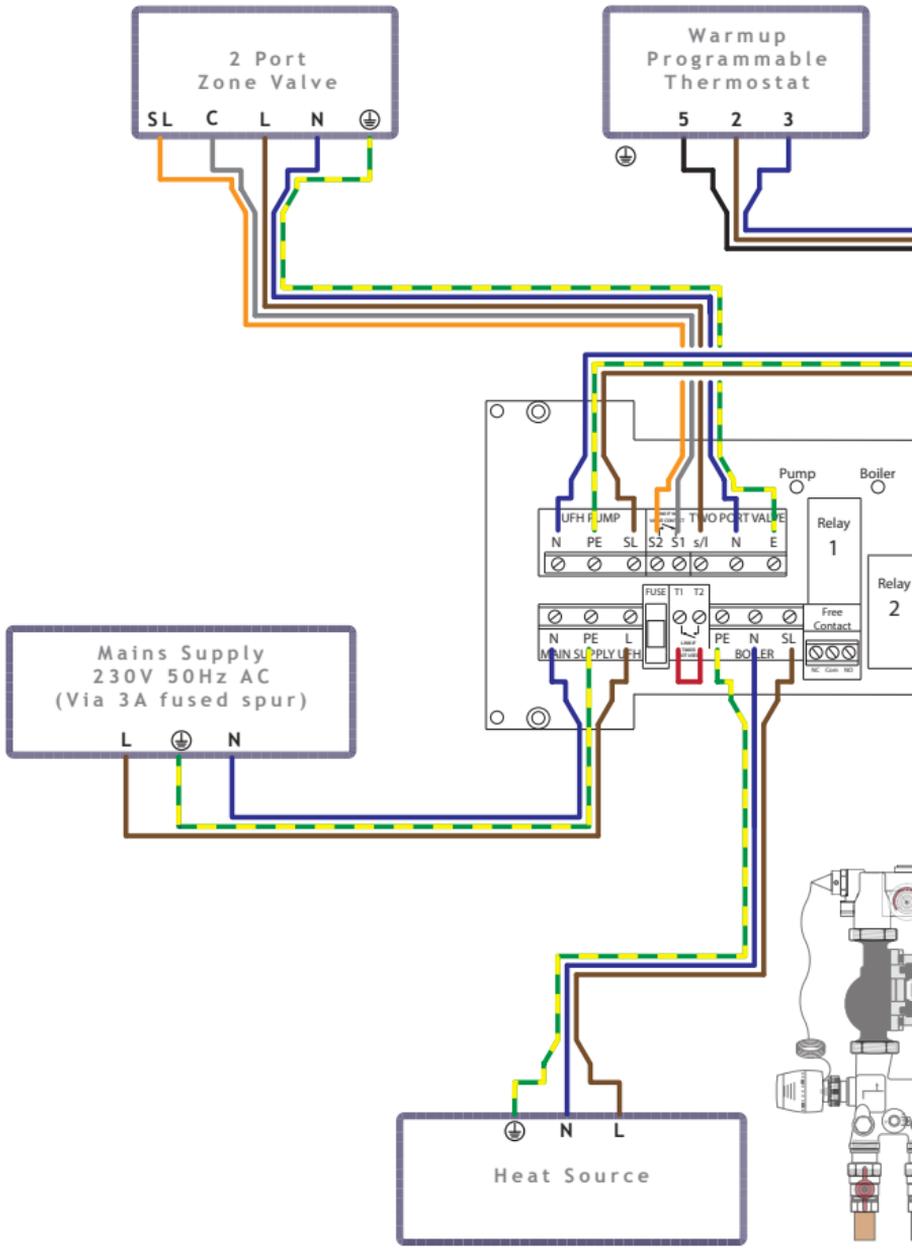


Connecting a dial thermostat with a setback feature to the timed channels (shown connected to time channel A)



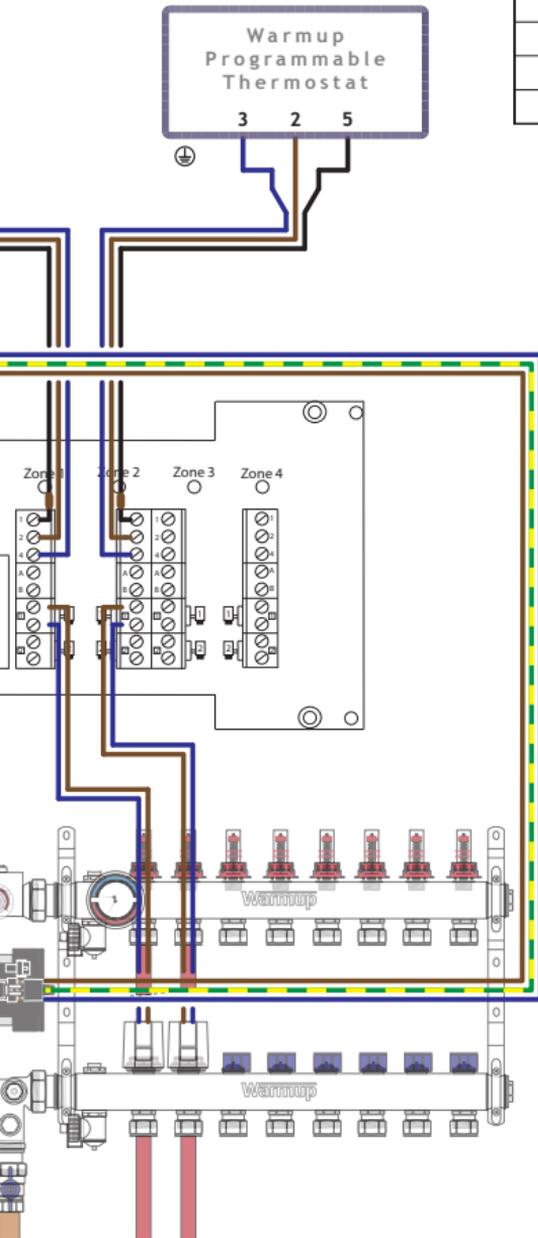


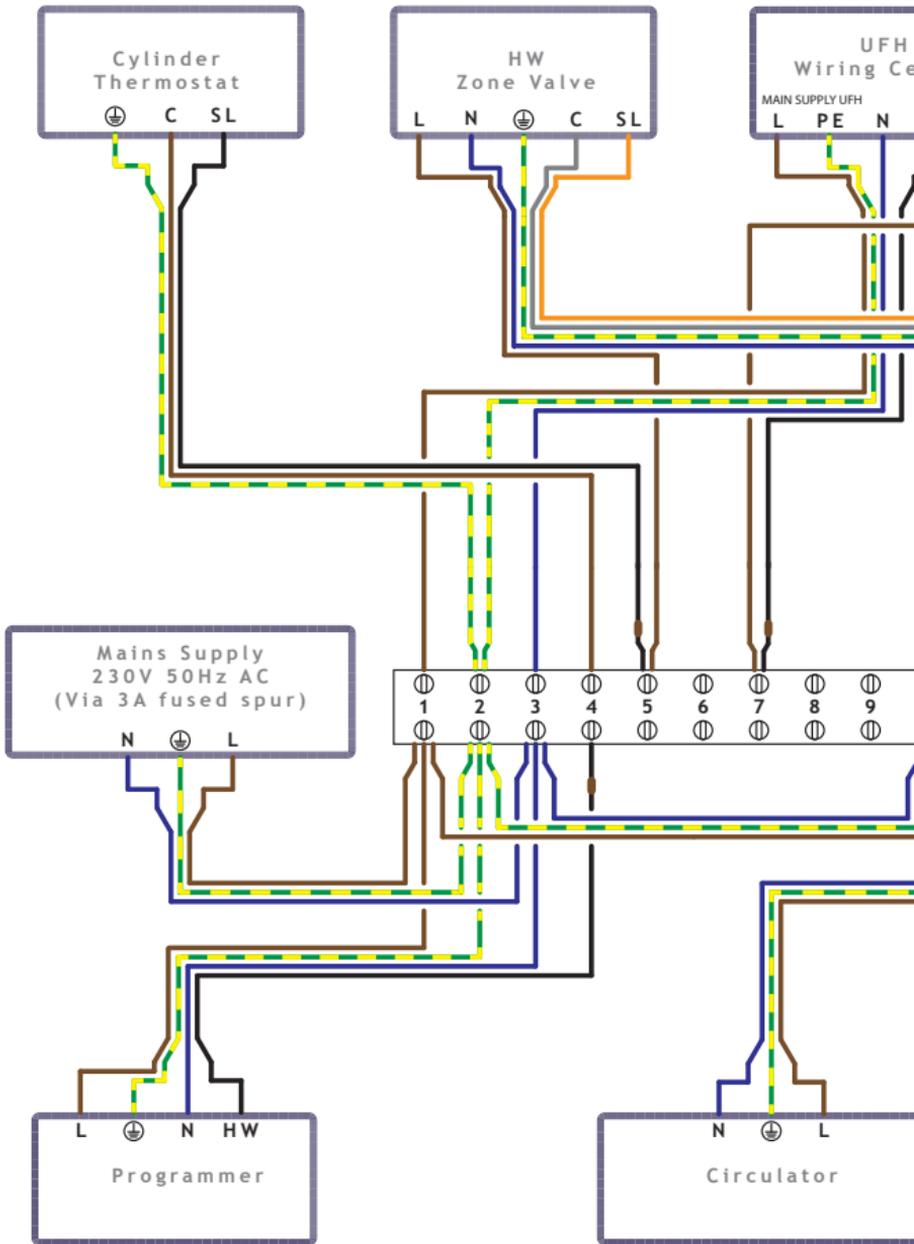
Step 4 - SCHEMATIC - TYPICAL INSTALLATION



WIRING DIAGRAM LEGEND		
	Live	L
	Earth	E 
	Neutral	N
	Switched Live	SL
	Switched Live	SL
	Common	C
	Link Wire	

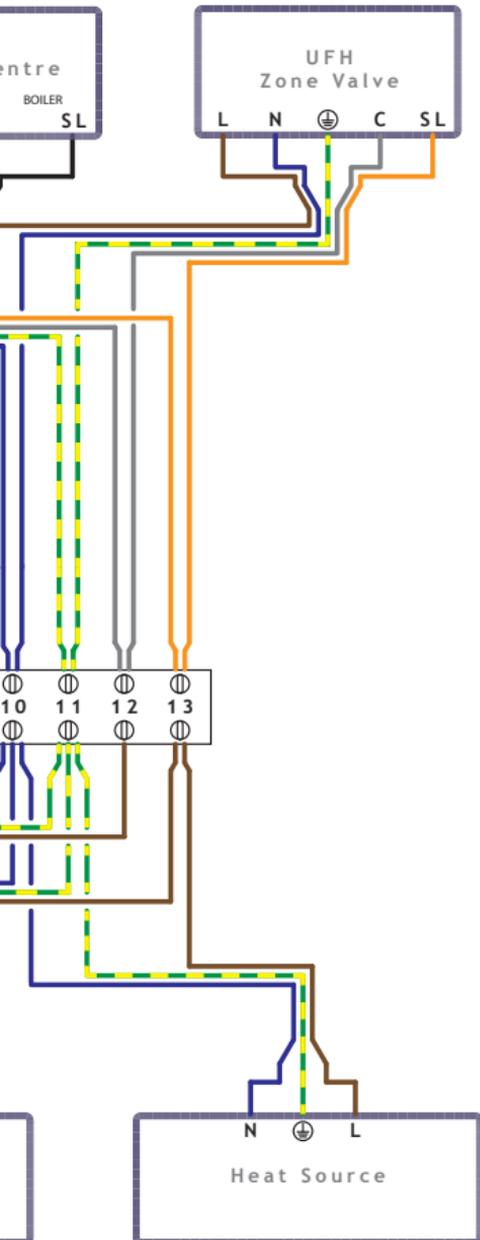
WARMUP PROGRAMMABLE THERMOSTAT TERMINAL LEGEND		
1	Fill Pilot (France)	F.P.
2	Supply - Live	L
3	Supply - Neutral	N
4	Load - Neutral	N
5	Load - Live	L
6	External Sensor	EXT
7	Floor Sensor	SEN
8	Floor Sensor	SEN

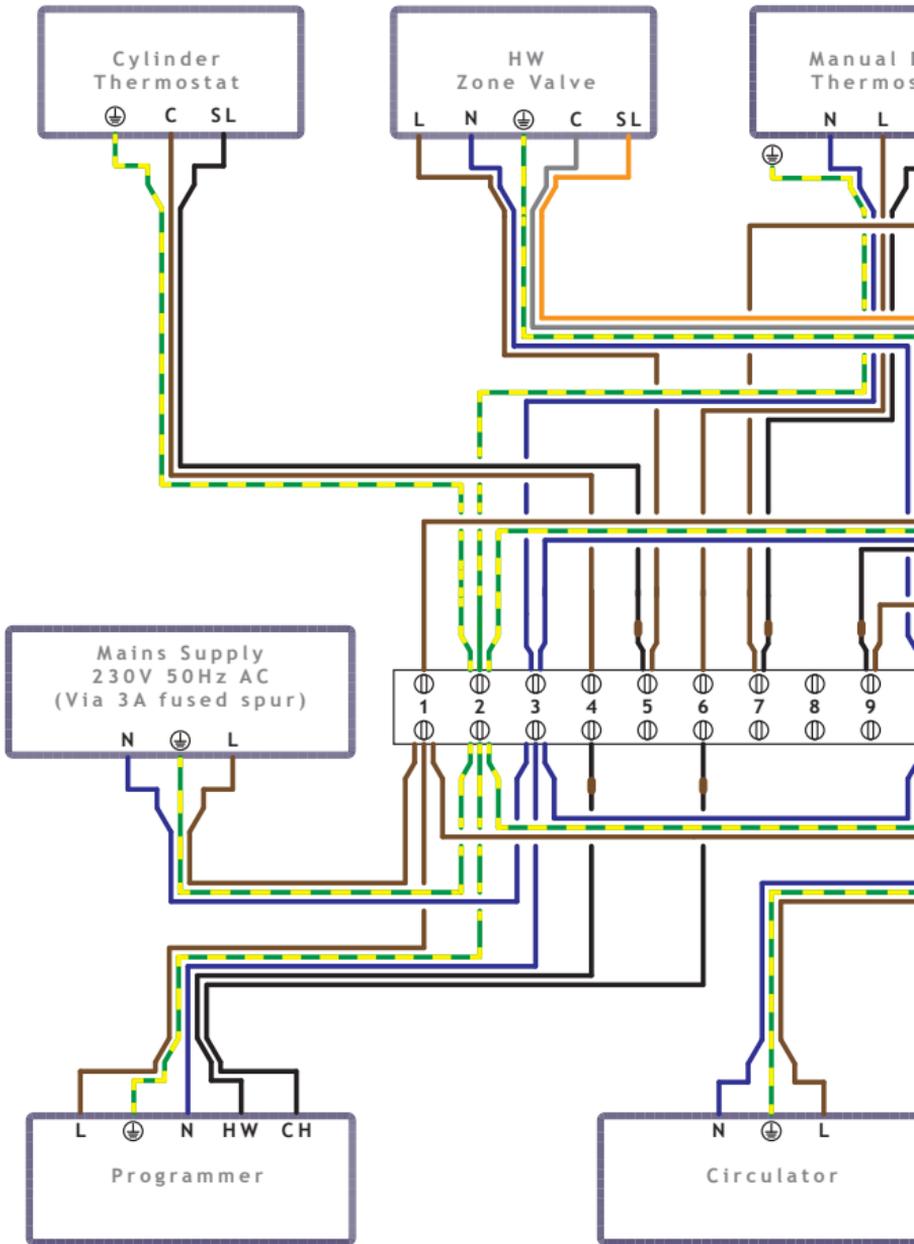




WIRING DIAGRAM LEGEND		
	Live	L
	Earth	E 
	Neutral	N
	Switched Live	SL
	Switched Live	SL
	Common	C
	Hot Water	HW
	Central Heating	CH

Note: If a UFH zone valve is not required or if it is connected directly to the UFH wiring centre, then the wiring connection from boiler SL on the wiring centre would go into terminal 13, instead of terminal 7.

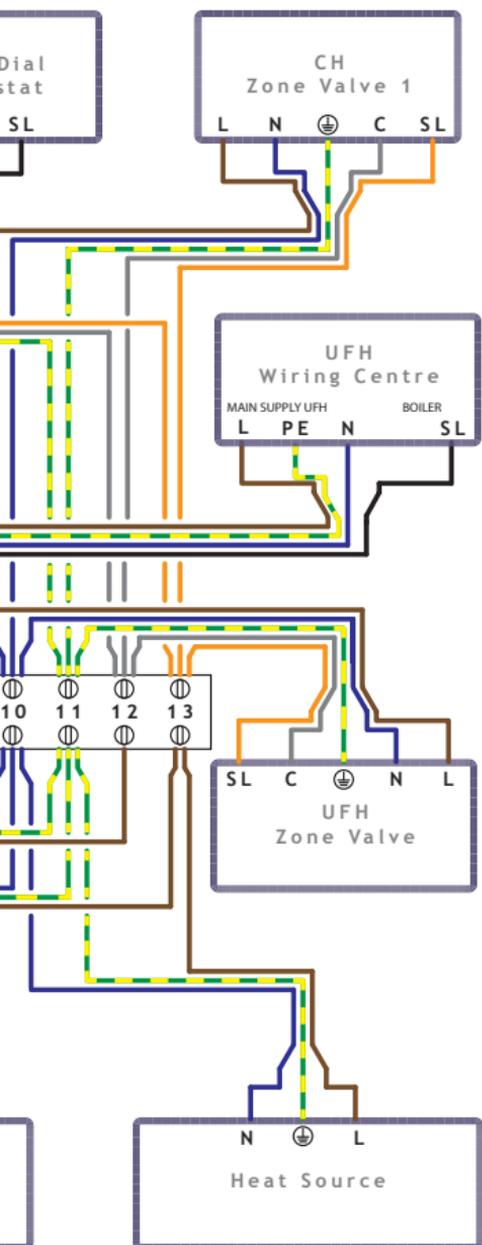


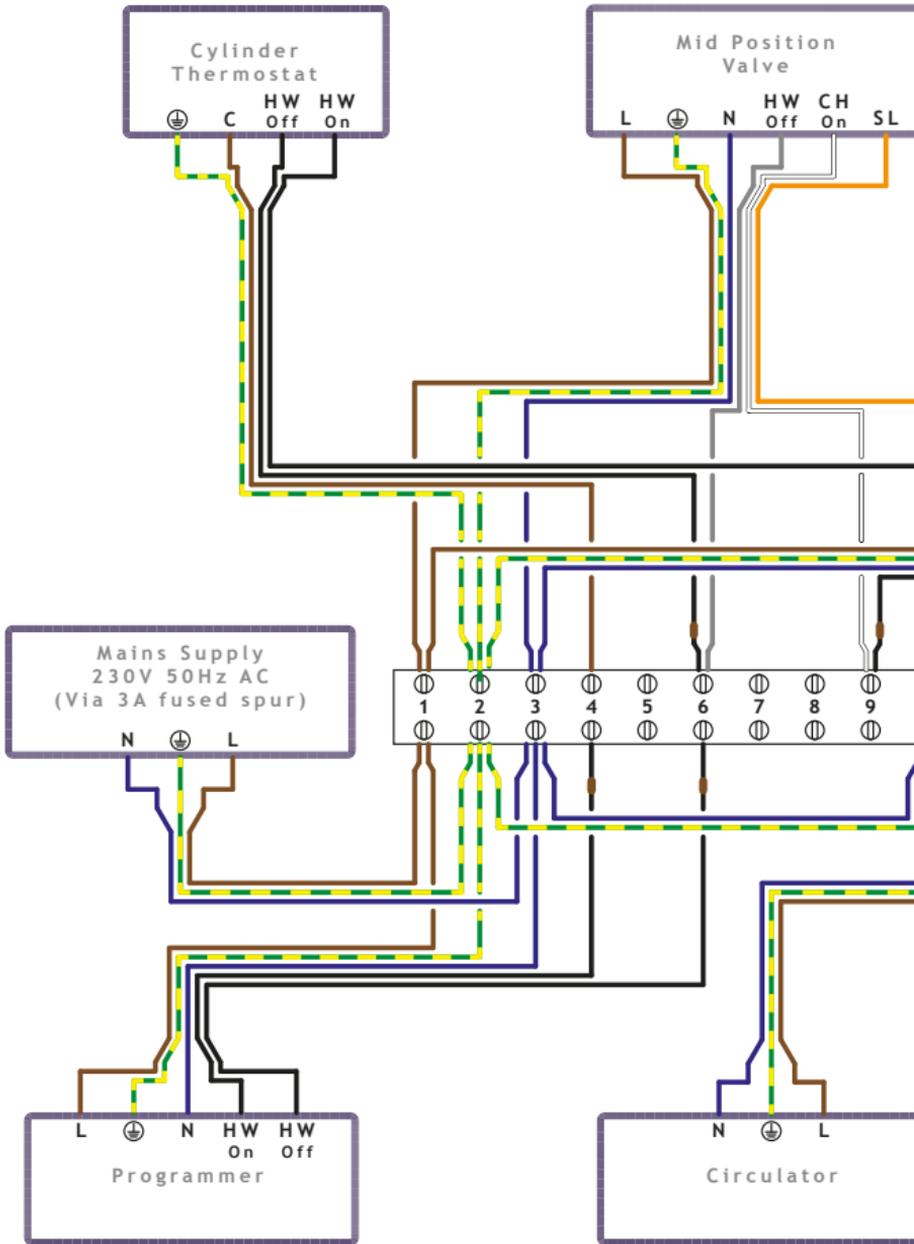


WIRING DIAGRAM LEGEND

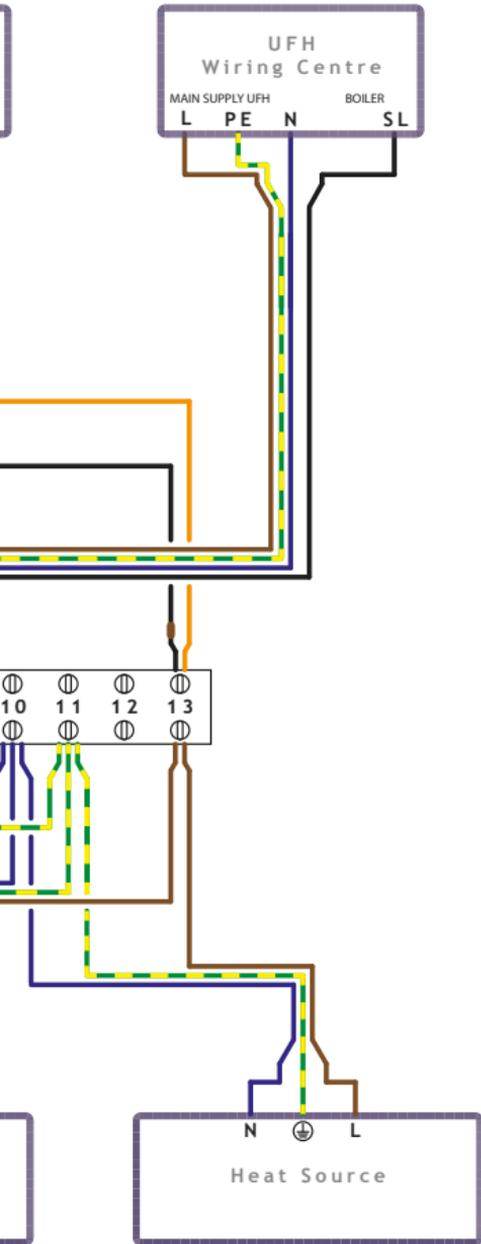
	Live	L
	Earth	E 
	Neutral	N
	Switched Live	SL
	Switched Live	SL
	Common	C
	Hot Water	HW
	Central Heating	CH

Note: If a UFH zone valve is not required or if it is connected directly to the UFH wiring centre, then the wiring connection from boiler SL on the wiring centre would go into terminal 13, instead of terminal 9.





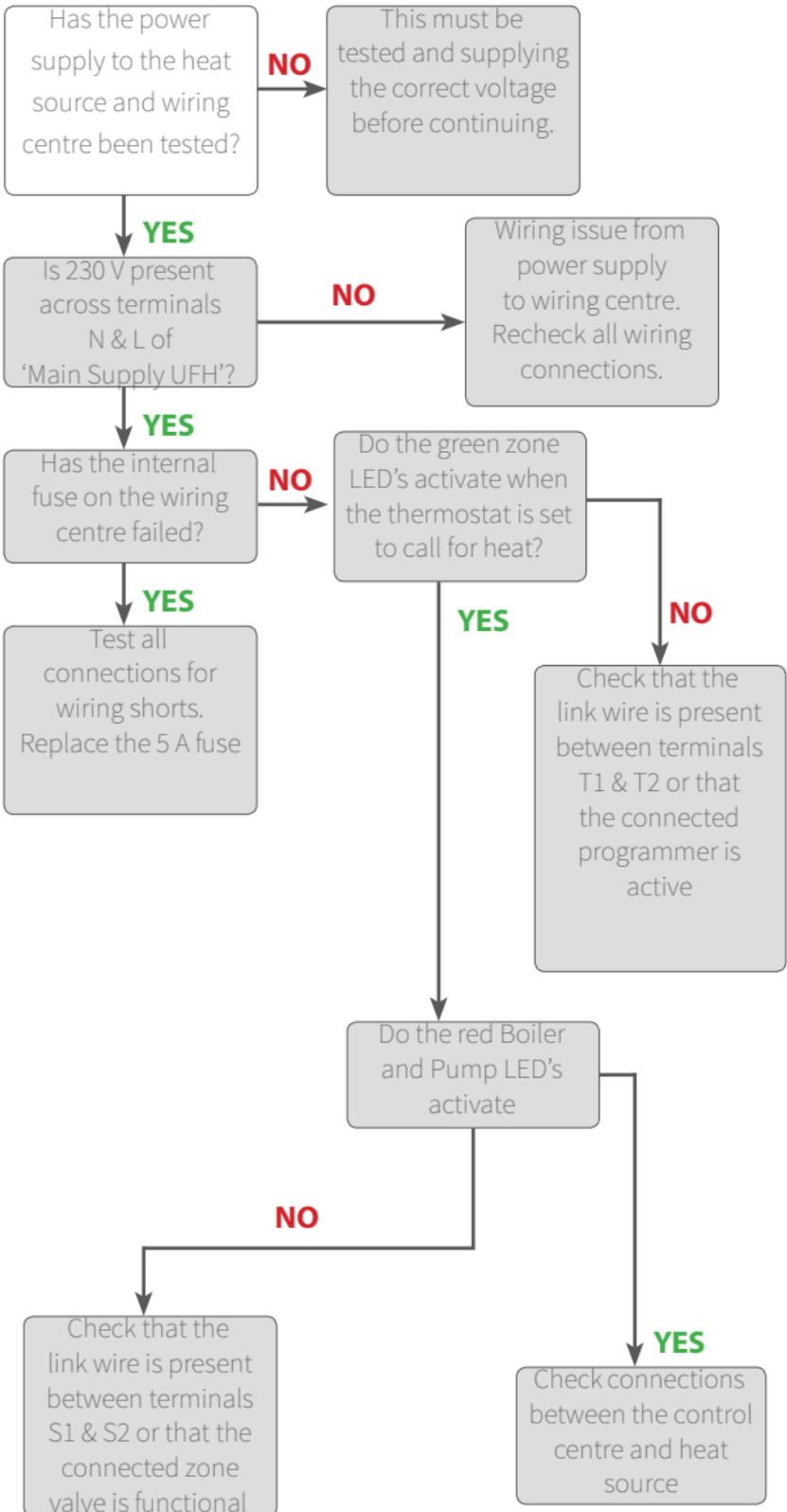
WIRING DIAGRAM LEGEND		
	Live	L
	Earth	E 
	Neutral	N
	Switched Live	SL
	Switched Live	SL
	HW Off	C
	CH On	C
	Hot Water	HW
	Central Heating	CH





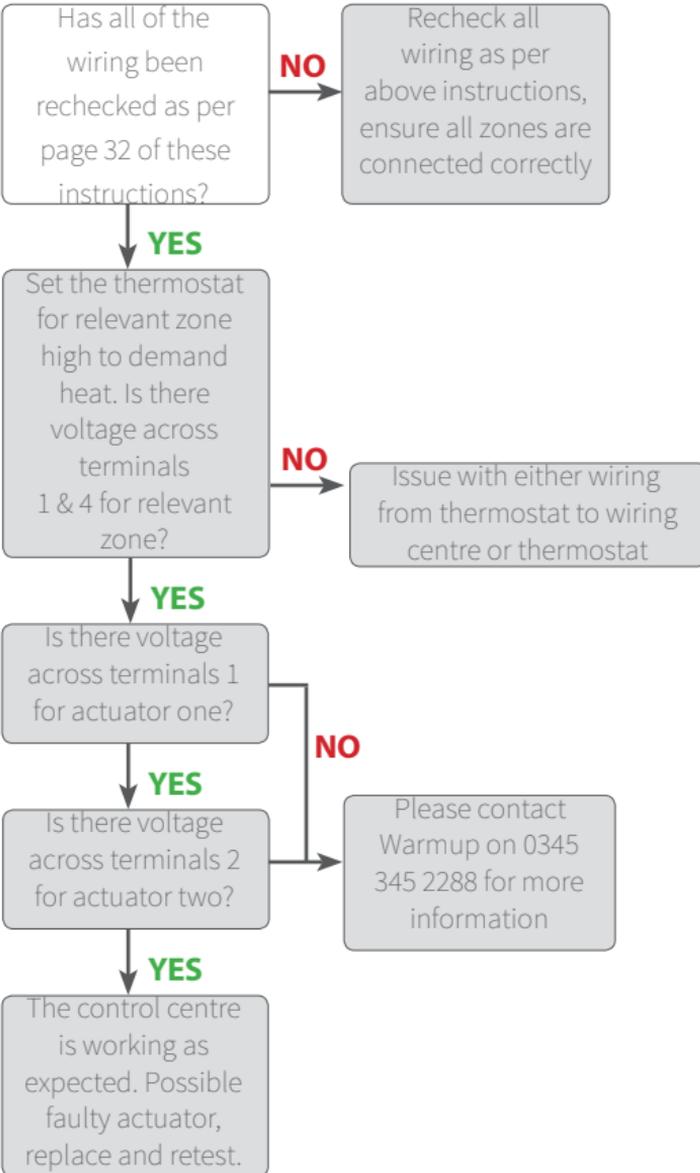
ISSUE 1 - No operation of heat source

Instructions which are shaded grey must be completed by a qualified electrician



ISSUE 2 - No operation of zone actuator

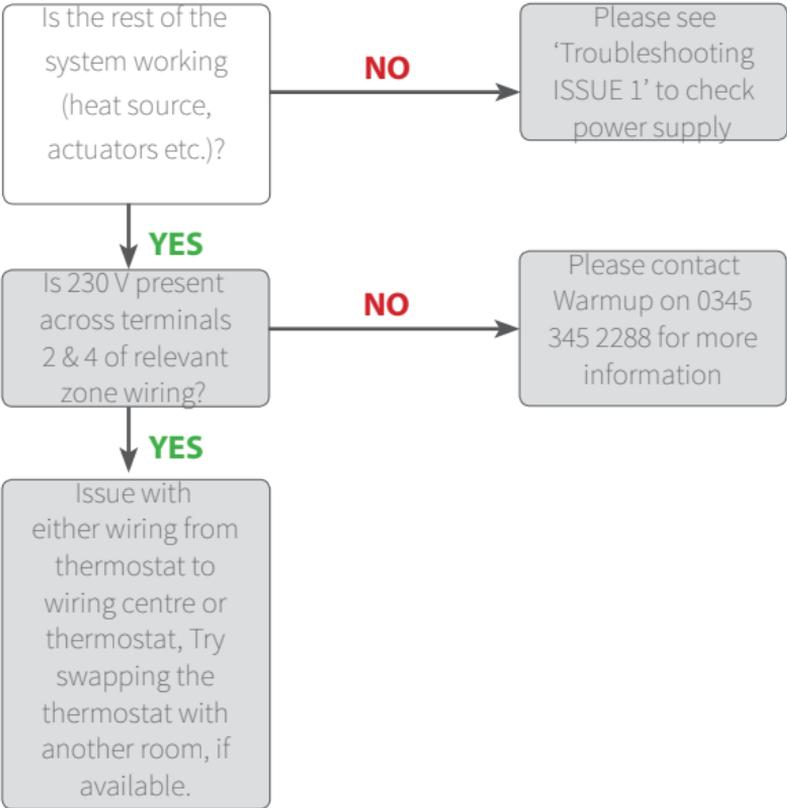
Instructions which are shaded grey must be completed by a qualified electrician





ISSUE 3 - No operation of thermostat

Instructions which are shaded grey must be completed by a qualified electrician



The wiring centre fuse blows as soon as power is supplied

1. Check all wiring is connected correctly
2. Check the 'Mains Supply UFH' , to ensure there are no short circuits across any of the terminals
3. Ensure a T5AL fuse is fitted
4. Check all thermostat connection terminals for short circuits

The wiring centre fuse blows as soon as any zone activates

1. Check the wiring for the circulator is connected correctly
2. Check the wiring for the heat source is connected correctly
3. Check the wiring for the zone valve (if fitted) is connected correctly
4. Check the wiring for the time switch (if fitted) is connected correctly
5. Check all wiring for any short circuits

The wiring centre fuse blows only when one zone activates

1. Check the wiring to the thermostat for a short circuit, use 'Troubleshooting ISSUE 3' to assist
2. Check the wiring to the zone actuators for a short circuit, use 'Troubleshooting ISSUE 2' to assist



A specific zone seems to have patchy heat across the floor

- 1.** The subfloor must be the same throughout the installation. A difference in subfloor make up will result in a variation of temperatures due to the heat up times
- 2.** The floor covering must be the same throughout the installation. A difference in the floor covering will result in a variation of temperatures due to the heat up times
- 3.** Ensure all zone actuators are connected to the correct zones, as per 'Wiring Connections 5'
- 4.** Follow 'Troubleshooting ISSUE 2' to check all zone actuators are operating correctly



Warmup plc Limited Warranty – S Series Controls

PLEASE REGISTER YOUR UNDERFLOOR HEATING SYSTEM
ONLINE AT: www.warmup.co.uk



Registration can be completed online at www.warmup.co.uk.
In the event of a claim, proof of purchase is required, so keep your invoice and receipt.

THIS WARRANTY DOES NOT EXTEND TO THIRD PARTY COMPONENTS OR TO COMPONENTS WHICH ARE COVERED BY SEPARATE WARRANTIES.
THIS WARRANTY DOES NOT AFFECT YOUR STATUTORY RIGHTS.

Limited Warranty:

Warmup® S Series Controls warranted by WARMUP PLC ("Warmup") to be free from defects in manufacturing under normal use and maintenance, and is warranted to remain so subject to the limitations and conditions described below.

This warranty period begins on the date of purchase. Registration is confirmed only when confirmation of receipt is forwarded by Warmup PLC.

Warranty Duration:

The Warmup S Series controls are warranted for a period of 2 years from date of purchase, except as provided below; your attention is drawn to the exclusions listed at the end of this warranty.

Notification of a suspected failure must be received in writing by Warmup within thirty (30) days of the suspected breach. Products believed to be defective must be made available to Warmup for testing and determination of cause. Upon acceptance of any warranty claim, Warmup shall have ninety (90) business days in which to investigate and determine whether it recognises responsibility for any believed defects in material or workmanship and determines the appropriate course of action to be taken.

It is expressly agreed that the sole remedies under this limited warranty shall be at the discretion of Warmup, plc. to either: issue a refund, repair or replace any article which is proven to be defective. Any and all allowances made to customers for transportation, labour, repairs or all other work, are at the exclusive discretion of Warmup and shall be authorised in writing, in advance, by Warmup. Such cost does not extend to any cost other than direct costs of repair or replacement by Warmup and does not extend to costs of relaying or repairing any floor covering or floor.

The warranty applies to the products identified above only if they:

1. are registered with Warmup within 30 days after purchase;
2. are selected, designed and installed by a qualified contractor according to installation instructions provided by Warmup which are current as of the applicable Installation Date;
3. are connected to appropriate power and water supplies;
4. are installed according to all applicable building code requirements;
5. are not exposed to pressures and/or temperatures that exceed any limitations printed on the warranted product or in the applicable Warmup product installation manual;
6. remain in their original installed location
7. do not show evidence of accidental damage, misuse, lack of care, tampering, or repair or modification without the prior written approval of Warmup plc.

TECHNICAL SPECIFICATIONS - WHS-C-B-MASTER01	
OPERATING VOLTAGE	220-240 V ac 50Hz
OPERATING TEMPERATURE	0 to 50 °C
MAX ACTUATORS	24 (Master 4 Zone + 2x Slave 4 Zone)
MAX ACTUATORS PER ZONE	4
ACTUATOR CONTACT	Triac
MAX TOTAL LOAD	5A
DIMENSIONS	224 x 88 x 58 mm

Warmup plc

United Kingdom
702 & 704 Tudor Estate
Abbey Road, London
NW10 7UW

Web: www.warmup.co.uk

Email: uk@warmup.com

Tel: 0345 345 2288

Fax: 0345 345 2299

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Hydronic
Heating System

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