heatmiser®

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POWER BOILER 1 2 3 4 HW

UH4

CE Manufactured in UK by: Heatmiser UK Ltd
www.heatmiser.com

WARNING - 230v - 50Hz
DISCONNECT FROM ELECTRICAL SUPPLY
BEFORE REMOVING THIS COVER

Model: **UH4**

🔧 UH4 – Installation Manual

Description

The UH4 is an 4 Zone & Hot water wiring centre for use with Heatmiser 230v thermostats.

The UH4 can be used to control any actuator or valve which requires a 230v AC signal. At the same time the UH4 offers the ability to operate a boiler or other heat source through a volt free output.

An additional output designed for use with underfloor heating systems, is also included as standard. This is the pump/valve Output, which would normally operate a manifold pump or a manifold valve.

The H/W output provides a 230v hot water enable signal to the valve, the auxiliary wires of the valve are wired to the Gr & Or terminals.

Zone 4 can be used as an isolated radiator zone by using the Yes/No switch.

If the switch is set to **NO**;

When zone 4 calls for heat this will provide an output to a radiator zone valve and the boiler but **WILL NOT** enable the underfloor heating pump/valve output.

If the switch is set to **YES**;

When Zone 4 calls for heat, this will act as an underfloor heating zone, by enabling the actuator, boiler and pump/valve outputs.

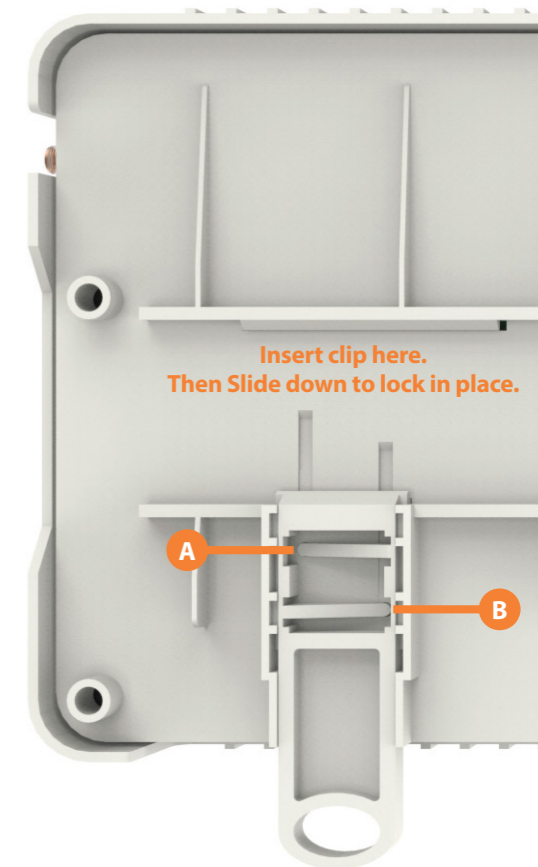Any output which is not needed can be ignored.

🔧 Installation

The UH4 can be mounted directly to a wall using four screws or alternatively, the unit can be DIN rail mounted.

When DIN Rail mounting, you first need to insert the two clips provided on the back of the UH4, as shown in the image;

- On the back of the UH4, position the clip in the middle and slide down.
- Points A and B locate in the corresponding holes and lock into place.
- Locate the UH4 onto the DIN rail from the top.
- Pull the clip down and push the bottom of the UH4 onto the DIN rail.
- Releasing the clip will lock the UH4 in place on the DIN rail.

To remove the UH4, pull both clips down and remove from the DIN rail.

**Insert clip here.
Then Slide down to lock in place.**

A

B

UH4 Wiring

Connections

Mains Supply

Power supply into the UH4 which should be fused at 5 amps these connections are marked

L = live or phase 230v AC 50/60Hz
N = Neutral
E = Earth

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.

H/W

This output is used to control a hot water valve via a cylinder thermostat

L = Live
E = Earth
N = Neutral
Gr = Grey
Or = Orange

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

Zones 1…4

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.

Manifold Pump/Valve

Used for an underfloor heating manifold pump and or valve.

Connections are clearly marked

L = Live
E = Earth
N = Neutral

When an under-floor heating zone sends a call for heat to the UH4, the live & neutral output will supply 230v to the manifold pump/valve.

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.

Fuses

Fuse 1. 5amp, 20mm anti-surge fuse, this fuse supplies power to all 230v outputs from the board it protects the zone, pump/valve outputs.

Wiring UH4 – UH4 to neoStat – 3 x Underfloor Heating, 1 x Radiator zone & Hot Water.

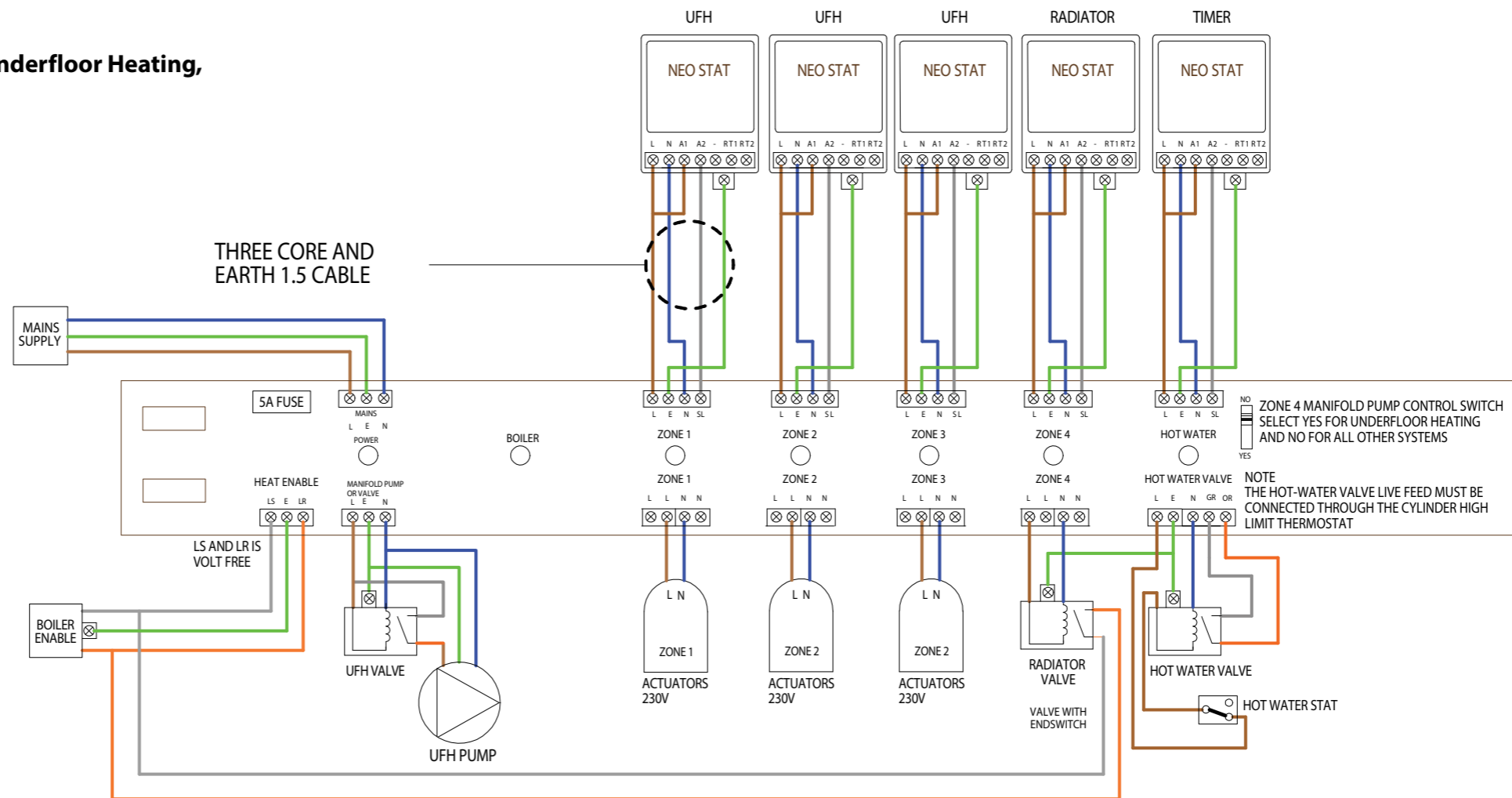NEO STAT   NEO STAT   NEO STAT   NEO STAT   NEO STAT

L N A1 A2 - RT1 RT2   (×5)

THREE CORE AND
EARTH 1.5 CABLE

UFM   UNDER FLOOR MANIFOLD

LIVE

SWITCH LIVE

NEUTRAL

EARTH

END SWITCH AND
BOILER ENABLE

MAINS
SUPPLY

5A FUSE

MAINS
L   E   N
POWER

BOILER

ZONE 1
L E N SL
ZONE 1

ZONE 2
L E N SL
ZONE 2

ZONE 3
L E N SL
ZONE 3

ZONE 4
L E N SL
ZONE 4

HOT WATER
L E N SL
HOT WATER VALVE

NO
ZONE 4 MANIFOLD PUMP CONTROL SWITCH
SELECT YES FOR UNDERFLOOR HEATING
AND NO FOR ALL OTHER SYSTEMS
YES

HEAT ENABLE
LS E LR

MANIFOLD PUMP
OR VALVE
L   E   N

L E N GR OR

NOTE
THE HOT-WATER VALVE LIVE FEED MUST BE
CONNECTED THROUGH THE CYLINDER HIGH
LIMIT THERMOSTAT

LS AND LR IS
VOLT FREE

BOILER
ENABLE

UFH VALVE

UFH PUMP

L L N N
ZONE 1

L L N N
ZONE 2

L L N N
ZONE 2

L L N N
ZONE 4

L N
ZONE 1
ACTUATORS
230V

L N
ZONE 2
ACTUATORS
230V

L N
ZONE 2
ACTUATORS
230V

RADIATOR
VALVE

VALVE WITH
ENDSWITCH

HOT WATER VALVE

HOT WATER STAT

This equipment should be installed by an appropriately
qualified/registered electrician.
Fully read the instructions for proper wiring before applying power.
The warranty does not cover damage from improper wiring
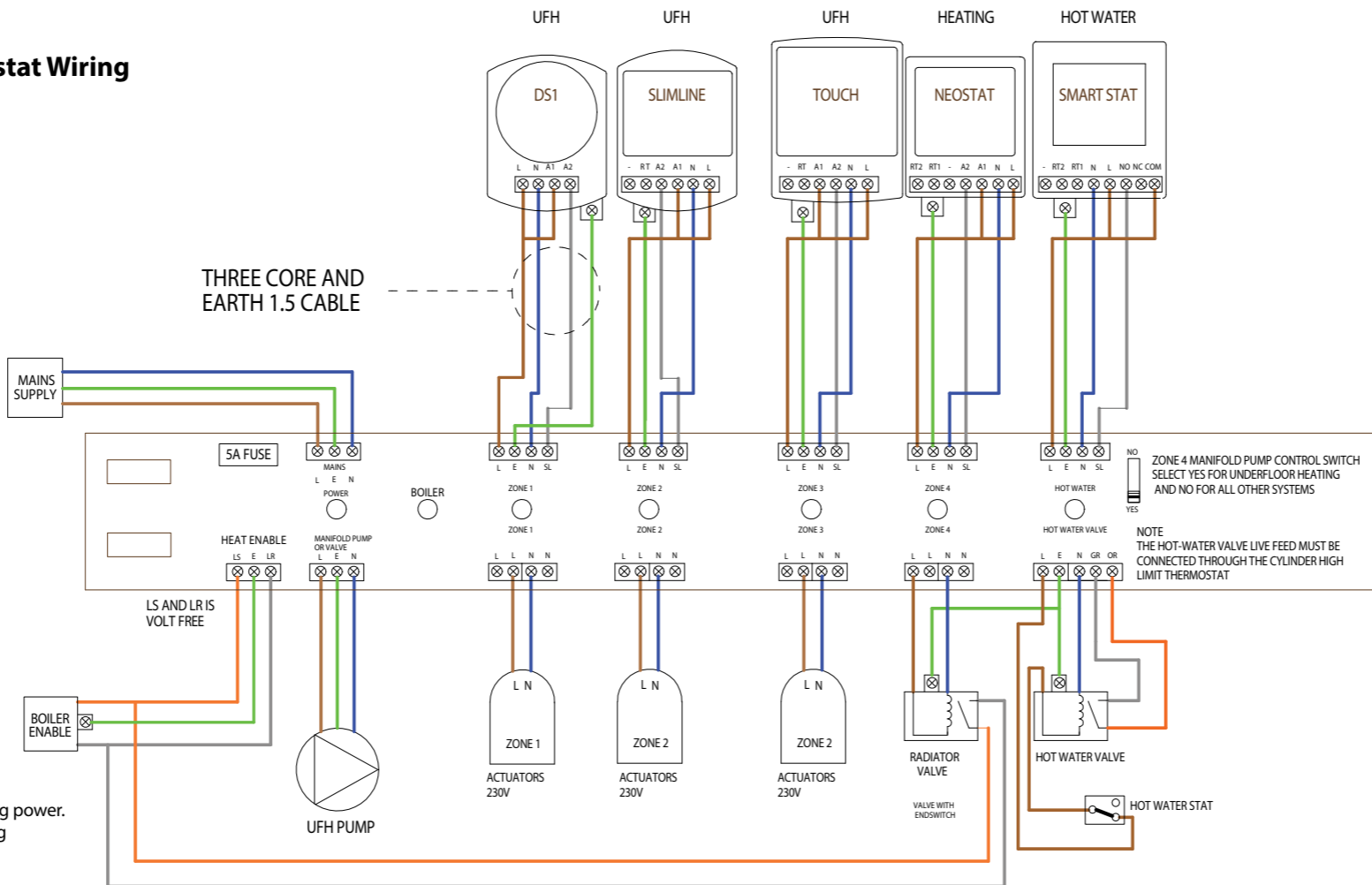or installation.

UH4 – Heatmiser 230v Thermostat Wiring

UFH — DS1

UFH — SLIMLINE

UFH — TOUCH

HEATING — NEOSTAT

HOT WATER — SMART STAT

DS1: L N A1 A2

SLIMLINE: - RT A2 A1 N L

TOUCH: - RT A1 A2 N L

NEOSTAT: RT2 RT1 - A2 A1 N L

SMART STAT: - RT2 RT1 N L NO NC COM

THREE CORE AND EARTH 1.5 CABLE

UFM UNDER FLOOR MANIFOLD

LIVE

SWITCH LIVE

NEUTRAL

EARTH

END SWITCH AND BOILER ENABLE

MAINS SUPPLY

5A FUSE

MAINS
L E N
POWER

BOILER

ZONE 1 — L E N SL — ZONE 1

ZONE 2 — L E N SL — ZONE 2

ZONE 3 — L E N SL — ZONE 3

ZONE 4 — L E N SL — ZONE 4

HOT WATER — L E N SL — HOT WATER VALVE

NO / YES

ZONE 4 MANIFOLD PUMP CONTROL SWITCH
SELECT YES FOR UNDERFLOOR HEATING
AND NO FOR ALL OTHER SYSTEMS

NOTE
THE HOT-WATER VALVE LIVE FEED MUST BE
CONNECTED THROUGH THE CYLINDER HIGH
LIMIT THERMOSTAT

HEAT ENABLE
LS E LR

MANIFOLD PUMP OR VALVE
L E N

LS AND LR IS VOLT FREE

BOILER ENABLE

L L N N — ZONE 1
L N
ZONE 1
ACTUATORS 230V

L L N N — ZONE 2
L N
ZONE 2
ACTUATORS 230V

L L N N — ZONE 2
L N
ZONE 2
ACTUATORS 230V

L L N N
RADIATOR VALVE
VALVE WITH ENDSWITCH

L E N GR OR
HOT WATER VALVE

HOT WATER STAT

UFH PUMP

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Ratings

Number of Heating Zones	4
Number of Hot Water Zones	1
Neon Indication	Y
DIN Rail Mounting	Y
Supply	230v AC 50Hz 1 Phase
Relay Load Max	3 Amp Resistive
Total Load Max	5 Amp Resistive
IP Protection	IP20
Installed Dimensions (L,H,D)	384 x 148 x 60mm
Weight	800g

✎ System Configuration

✎ Notes

UH4 Title: ....

	In Use	Zone Type		Zone Title
		Under-Floor	Radiator	
Zone 1	☐	☐	☐	
Zone 2	☐	☐	☐	
Zone 3	☐	☐	☐	
Zone 4	☐	☐	☐	
Hot Water	☐			

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Want More Information?

Call our support team on: +44 (0)1254 669090

Or view technical specifications directly on our website:

www.heatmiser.com

PDF   **FAQ**   **VIDEO**

Follow us on: **twitter**

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Twitter: @heatmiseruk   **Facebook:** facebook.com/thermostats

Products Commonly used with the UH4 wiring centre.

Slimline   **NeoStat**   **Touch**   **SmartStat**   **DS-1**