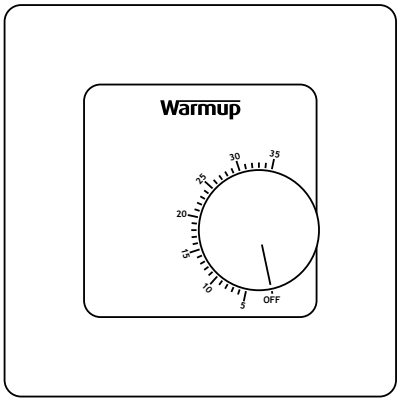
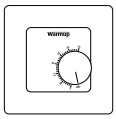
MSTAT
Installation instructions

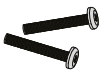


Simple and intuitive manual dial thermostat for underfloor and central heating systems.

Warmup

Pack Contents


MSTAT


Mounting Screws

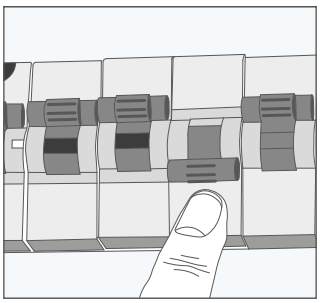

Floor Sensor

Safety Information

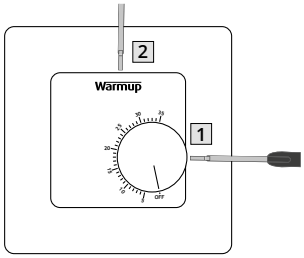
- The thermostat must be installed by a qualified electrician. It requires a permanent 230 V AC supply from a 30mA RCD or RCBO protected circuit in accordance with the current edition of the BS7671 Wiring Regulations.
- The supply to the thermostat must come from a ≤16A MCB, RCBO, or Fuse to protect it and the heater from overloading.
- Isolate the thermostat from the mains supply throughout the installation process. Ensure that wires are fully inserted into the terminals and secured, free strands should be trimmed, as they could cause a short-circuit.
- Install the thermostat in an area with good ventilation. It should not be beside a window/door, in direct sunlight or above another heat generating device (e.g. radiator or TV).
- For bathroom installations the thermostat MUST be mounted outside of Zones 0, 1 and 2. If this is not possible then must be installed in an adjacent room, controlling the rooms using the floor sensor.
- The thermostat and its packaging are not toys; do not allow children to play with them. Small components and packaging present a risk of choking or suffocation.
- The thermostat is suitable for indoor use only. It must not be exposed to moisture, vibrations, mechanical loads or temperatures outside of its rated values.
- For safety and licensing reasons (CE/UKCA), unauthorised change and/or modification of the thermostat is not permitted.
- **Always retain this manual for future use.** If you have any issues please contact our technical helpline.

Step 1 - Getting Started

1

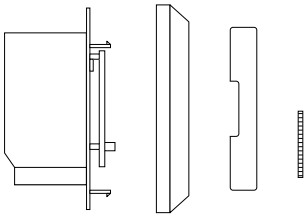

Isolate the thermostat from the mains supply.

2

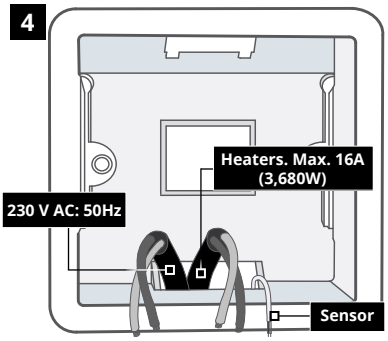


Remove the dial using a small screwdriver, followed by the cover inserting a small screwdriver into the release clip.

3


Remove the front housing and dial from the power base as shown.

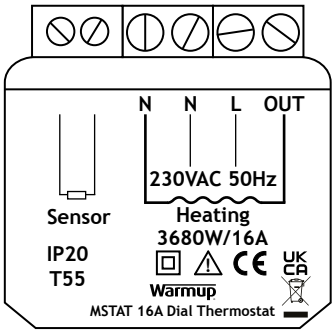
4



Install a minimum 35 mm deep electrical back box in your preferred thermostat location. Pull wires (heater, supply and floor sensor) through back box and complete terminal wiring.

Step 2 - Wiring Connections

WARNING!
The thermostat must be installed by a qualified electrician in accordance with the current edition of the BS7671 Wiring Regulations.



Electric Underfloor Heating	
230VAC; 50Hz	**N:** Supply Neutral **L:** Supply Live
~	**N:** Heater Neutral **OUT:** Heater Live Max. 16A (3680W)
Hydronic Underfloor Heating	
230VAC; 50Hz	**N:** Supply Neutral **L:** Supply Live
~	**N -** Not Used
	L - Switched Live to Wiring Centre
Central Heating	
230VAC; 50Hz	**N:** Supply Neutral **L:** Supply Live
~	**N -** Not Used
	L Switched Live to zone valve / boiler
For extra low voltage or volt-free systems a contactor must be used. Connecting the thermostat directly to extra low voltage or volt-free boilers may cause damage to the boiler circuit.	
Sensor Connection	
⊏⊐	Floor Sensor (No Polarity)

Step 3 - Configuration

The MSTAT can be configured to use either the built in air sensor, the 5K sensor probe or a combination of both. The thermostat also has the function to reduce the factory set maximum floor limit. All of these settings are altered by moving jumper connectors on the PCB, marked K1/K2/S3. See below for configurations;

Internal & sensor probe (Default)	
K1	▭● ●
K2	▭● ●
Uses the internal sensor as the temperature control sensor and the sensor probe as a floor limit sensor.	

Sensor probe only	
K1	▭● ●
K2	●●
Uses the sensor probe only	

Internal sensor only	
K1	●●
K2	●●
Uses the internal sensor only	

The thermostat can automatically detect if a sensor develops a fault. Should either sensor develop a fault, the thermostat will default to a safe mode, which cycles the heating on for 2 minutes and off for 2, reducing the power from maximum to 50%.

S3 closed	
S3	
This configuration will set the interface temperature limit to 35°C, with the floor surface temperatures as per the table opposite.	

S3 open	
S3	
This configuration will set the interface temperature limit to 27°C, with the floor surface temperatures as per the table opposite. This setting should be used for vinyl.	

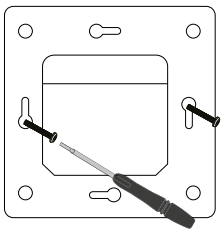
Floor Surface Temperatures*

Floor Finish	S3 Closed	S3 Open
10mm Tiles	34°C	26.5°C
4mm Vinyl	N/A	26°C
7mm Laminate	N/A	25°C
14mm Engineered	27.5°C	24°C
6mm Contract carpet	29°C	24.5°C
15mm Carpet & underlay	26°C	23.5°C

*This table is a guide. All figures shown in this table are based on a design room temperature of 21°C and estimated floor finish resistances.

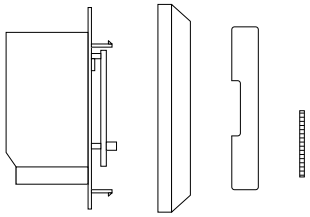
Step 4 - Mounting

1



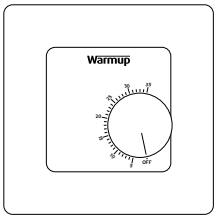
Insert fixing screws through mounting holes of the power base and tighten.

2



Re-attach the front housing and dial to the power base. You can now restore power to the circuit and power up the thermostat.

3



ON Rotate the dial clockwise to required temperature

When the heating is active, the heating indicator will be lit

OFF Rotate the dial anti-clockwise to the 'off' position

Warranty

Warmup plc warrants this product, to be free from defects in the workmanship or materials, under normal use and service, for a period of three (3) years from the date of purchase by the consumer when installed with a Warmup heater.

If at any time during the warranty period the product is determined to be defective, Warmup shall repair or replace it, at Warmup's option. If the product is defective, please either;

Return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it, or

Contact Warmup. Warmup will determine whether the product should be returned or replaced.

The three (3) year warranty only applies if the product is registered with Warmup within 30 days after purchase. Registration can be completed online at www.warmup.co.uk

This warranty does not cover removal or re-installation costs and shall not apply if it is shown by Warmup that the defect or malfunction was caused by failure to follow the instruction manuals, incorrect installation or damage which occurred while the product was in the possession of a consumer. Warmup's sole responsibility shall be to repair or replace the product within the terms stated above.

WARMUP SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESSED OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT. THIS WARRANTY IS THE ONLY EXPRESS WARRANTY WARMUP MAKES ON THIS PRODUCT. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IS HEREBY LIMITED TO THE THREE-YEAR DURATION OF THIS WARRANTY.

This warranty does not affect your statutory rights.

Instructions for Disposal
Do not dispose of the device with regular domestic waste! Electronic equipment must be disposed of at local collection points for waste electronic equipment in compliance with the Waste Electrical and Electronic Equipment Directive.

Technical Specifications

Model	MSTAT
Operating voltage	230V AC ±10% 50Hz
Protection class	Class II
Max. load	16 A (3680W)
Disconnection means	Micro-disconnection
Max. ambient temperature	0 - 55°C
Relative humidity	<85%
IP rating	IP40
Dimensions	86 x 86 x 50 mm
Sensors	Air & Floor
Sensor type	NTC5K 3m Long (Can Be Extended To 50 m)
Installation depth	50 mm Back Box (Min. 35 mm)
Compatibility	Electric, hydronic underfloor heating. Max. 16A (3680W) Central Heating Systems (Combi & system boilers with switch live, 230V AC input)
Er-P Class	I
Warranty	3 year

Contact

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London ■ NW10 7UW ■ UK
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EcoDesign (EU) 2024/1103

This control does not meet the EcoDesign requirements for electric underfloor heating (eUFH) or Towel Rails as outlined in Commission Regulation (EU) 2024/1103. Therefore, it can only be used in combination with another control that complies with these requirements. For example, for eUFH it may be used alongside a compliant controller, where the MSTAT is powered by the switched live output from the compliant controller, thereby adding floor temperature control functionality to the system.

The Warmup MSTAT includes these control function codes and power consumptions:

Thermostat model					
MSTAT					
Control function code					
TE (f8)					
Power consumption					
Off mode	**Standby mode**			**Idle mode**	
$P_o \leq 0.5W$	$P_{sm} \leq 0.5W$	$P_{dsm} \leq 1.0W$	$P_{nsm} \leq 2.0W$	$P_{idle} \leq 1.0W$	$P_{nidle} \leq 3.0W$
				☑	