

HMT5

HEATMAT
UNDERFLOOR HEATING



USER GUIDE

**QR inside for App download*

EN

Links to Tuya Smart App



Android



iOS

INTRODUCTION

The HMT5 is a premium controller incorporating a bright responsive touch screen and user friendly operation.

The controller is programmable, has adaptive heating and includes an open window function.

Four different modes of operation can be chosen to suit any possible demand.

A floor temperature limiting function is included, to ensure floors such as laminate and engineered board do not over-heat.

The controller can operate using its room temperature or floor temperature sensor individually or in combination.

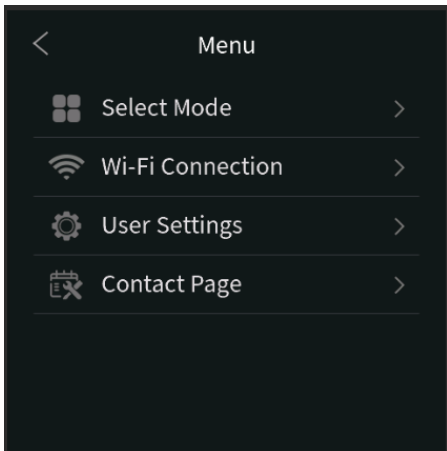
When connected to its App, settings and the heating schedule can easily be changed and power usage statistics can be viewed.

MAIN SCREEN



	DESCRIPTION
1	Turns off the controller
2	Displays room/floor/setpoint temperature
3	Change the setpoint temperature
4	Enter the menu
5	Information and status of the controller
6	The current mode of the controller
7	Connected to App
8	Date and time

MENU



MENU - *SELECT MODE*

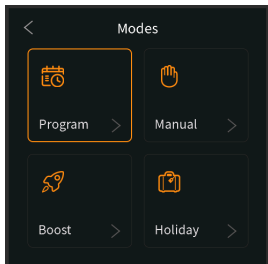
This menu allows you to change which mode the controller is operating in. The active mode is highlighted, and you switch to an alternative mode by selecting it on the screen.

Program - Controls the heating over 6 events

Manual - Turns the controller into a simple manual up/down thermostat

Boost - Maximum heating for a short time

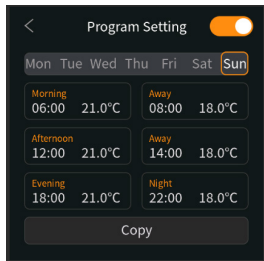
Holiday - Lowers the temperature while you are away



MENU - *SELECT MODE - PROGRAM*

The program setting menu allows you to choose your heating schedule and your desired temperatures.

You can activate the program settings in the top right of the screen.

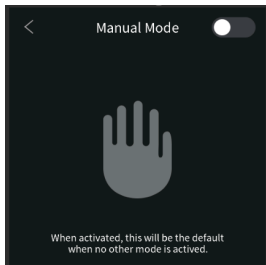


1. Select day to view or edit settings
2. Each event can be edited when opened
3. When an event is edited, this can easily be copied onto other days of the week.
 - Select the day to copy
 - Open “Copy” in the bottom
 - Select the day(s) to copy onto

MENU - *SELECT MODE* - *MANUAL*

This mode turns the controller into a simple manual thermostat with no heating schedule.

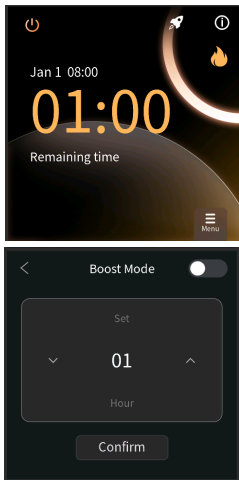
Your desired temperature can be chosen on the main screen, and you activate manual mode by selecting it in the top right hand corner.



MENU - *SELECT MODE - BOOST*

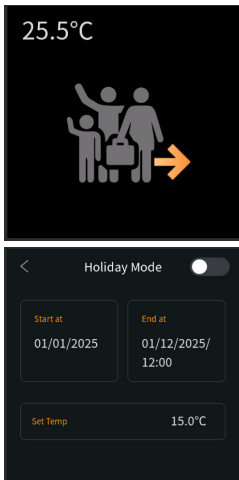
Boost mode turns the heating system up to full power for a chosen number of hours.

You can select how many hours you would like to boost your system for in the menu, and then activate boost mode using the button in the top right hand corner of the screen.



MENU - *SELECT MODE - HOLIDAY*

Holiday mode turns down your heating system while you are away from your house, switching it back on again in time for your return. Set the start and end time of your holiday and the desired room temperature (for instance 5°C for frost protection) and then activate the mode in the top right hand corner of the screen.



MENU - *WIFI CONNECTION*

If the controller has not been connected to WiFi before it will automatically appear in the App when searching for new connections.

If the controller is connected to the App, the WiFi icon will appear on the main screen.

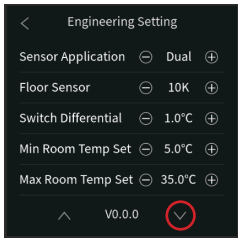


If needed, connection to the App can be reset by using the Reset connection button.

The controller can now be connected by searching in the App for new connections.

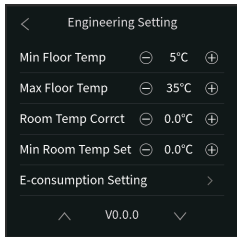
USER SETTINGS - *ENGINEERING 1/2*

- **Sensor application** - Choose Floor if the controller is not in the room it is heating, and Dual if the controller is in the room to be heated, as this will also provide floor temperature limitation. Room is only used in special circumstances - please speak to Heat Mat's Technical Support Team for more information.
- **Floor sensor** - The controller is supplied with a 10K sensor but can adapt to use existing 12K/15K/100K sensors if needed.
- **Switch differential** - This defines how far below the target temperature the room or floor is allowed to fall before the heating system turns back on. We recommend this is at least 1°C, to support energy efficiency.
- **Min & Max Room temp set** - Sets the upper and lower limits of the room temperatures that the user can choose.



USER SETTINGS - *ENGINEERING 2/2*

- **Min & Max Floor Temp** - When the floor sensor is being used, these settings protect the floor by preventing the controller from allowing the floor temperature to go above or below the preset limits.
- **Room & Floor Temp Correct** - This setting is used to recalibrate the sensor readings if they are showing an incorrect temperature. If the controller is showing a temperature 2°C higher than a reliable thermometer, set the correction to - 2°C.
- **E-consumption Setting** - Used for statistics on power usage. Set the supply voltage and the total wattage connected to the controller to obtain accurate information.



MAIN - INFORMATION WINDOW

The information window is accessed via the icon in the top right hand corner of the screen and provides details of the controller usage and settings. This information can be useful for troubleshooting any issues with the heating system or controller.

1. The total power usage consumed by the heating system connected to the controller.
2. Information on the sensor application and the temperature readings of both room and floor sensor.
3. This shows if the Open Window and Adaptive Heat functions are switched on.
4. Output Activation records how many times the controller has switched the heating on and off over its total lifetime.
5. Errors and messages will be displayed in the bottom of this window.

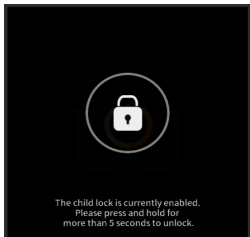


CHILD LOCK

If child lock is enabled in user settings, the screen will be locked to prevent tampering with the controller settings.

The child lock will automatically activate when the backlighting of the controller is dimmed.

To unlock the controller, tap the screen and a prompt will ask the user to press and hold on the centre of the screen for 5 seconds.



ERRORS & MESSAGES

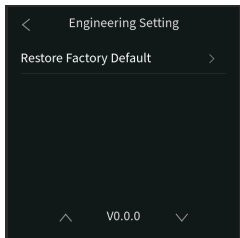
1. Built-in temperature sensor error
 - A malfunction in the integrated room sensor
 - Replace the product
2. External floor sensor error
 - Bad connection in terminals or broken sensor
 - Check the connections and measure if the sensor has the correct resistance
3. Floor temp. max - Cooling
 - The floor temp has reached the “Max Floor temp” setting
 - Message will reset once floor cools down.

- Built-in temperature sensor error
- External Floor sensor error
- Floor temp.max - Cooling

RESTORE FACTORY DEFAULT

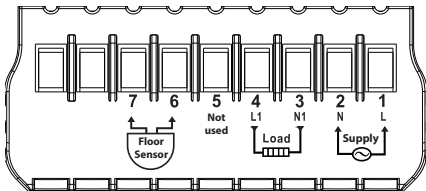
Available from last page of the Engineering setting.

This will reset all your settings in the controller to factory default settings.



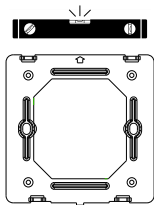
CONNECTIONS

TERMINAL NO.	DESCRIPTION
1	Power supply [L]
2	Power supply [N]
3	Load [N1]
4	Load [L1]
5	Not used
6	Floor sensor kΩ [10 • 12 • 15 • 100]
7	



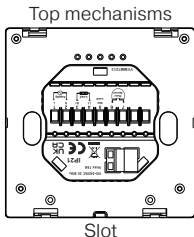
INSTALLATION

Install the metal frame on the wall or electrical back box, make sure the arrow on the frame is up and when level - tighten the 2 screws.



To separate the front panel from the metal frame, insert a flathead screwdriver (approx. 3.5mm) into the small slot in the bottom. Insert screwdriver approx. 10mm deep and pry it outwards.

To mount the front panel, insert the front slightly tilted and mate the top mechanisms first - next gently push on the lower part of the bezel until the front clicks in place.



PRECAUTIONS

- Do not install controller in direct sunlight as this will lead to incorrect ambient air temperature readings
- Do not install on severely cold outer walls as this will lead to incorrect ambient air temperature readings
- If the controller is not in the same room as the heating, the floor sensor only setting must be used
- Install floor sensor min 0.5m from the wall (cable can be extended with up to 7m, using min. 2x0.5mm² cable)
- Do not cover the controller or place the controller in a cupboard as, this will cause overheating
- All connections to the controller must comply with national regulations and be made by an authorised electrician
- Power supply to the controller must be supplied through a 30mA RCD and overload protected through max. 16A fuses

SPECIFICATIONS

Supply voltage	100-240 V / 50-60 Hz
Max. load	3600 W (16A @230V)
IP class	IP21
Temperature range	+5° C ... +40° C
Sensor settings	Floor / Room / Room with floor sensor as temperature limiter
Display type	4.0" TFT w. capacitive touch
Floor sensor type	10 K Ω @25°C, length 3m
Colour	White / black, RAL 9003 / 9005
Dimensions	86 x 86 x 43 mm
Regulations	LVD 2014/35/EU • EMC 2014/30 EU • RED 2014/53 EU • RoHS (EU)2015/1188 ECO Design • REACH regulation (EC) No. 1907/2006

PASSWORD - *ENGINEERING SETTING*

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