

UFSTAT10 Digital Floor Heating Thermostat

The Heat Mat UFSTAT10 Digital Thermostat is designed for floor heating systems produced in accordance with EN60730-1, EN60730-2-9 and EN50082-1. The thermostat is equipped with a matrix dot display making it very easy to understand and operate.

Technical data:

Supply voltage	100~240VAC 50/60Hz
Maximum load	16A
Operating temperature	0~50°C
Storage temperature	-10~60°C
Temperature range, room sensor	5~35°C
Temperature range, floor sensor	5~40°C
Control modes	Floor sensor, room sensor or room sensor with floor sensor as a limiter
IP class	IP21
Terminals	Max. 2.5 mm ²
Floor sensor with 3.5m cable	NTC, 100K / 25°C
Dimensions	82 mm x 82 mm x 56mm
Colour	Polar white (RAL 9010)

First time settings:

The first time you switch on the thermostat, the screen shows the product version number.

This thermostat offers two modes of operation; a manual mode where the thermostat functions as a simple manual temperature on/off controller, and a fully programmable automatic mode with a number of events throughout the day that can have different target temperatures.

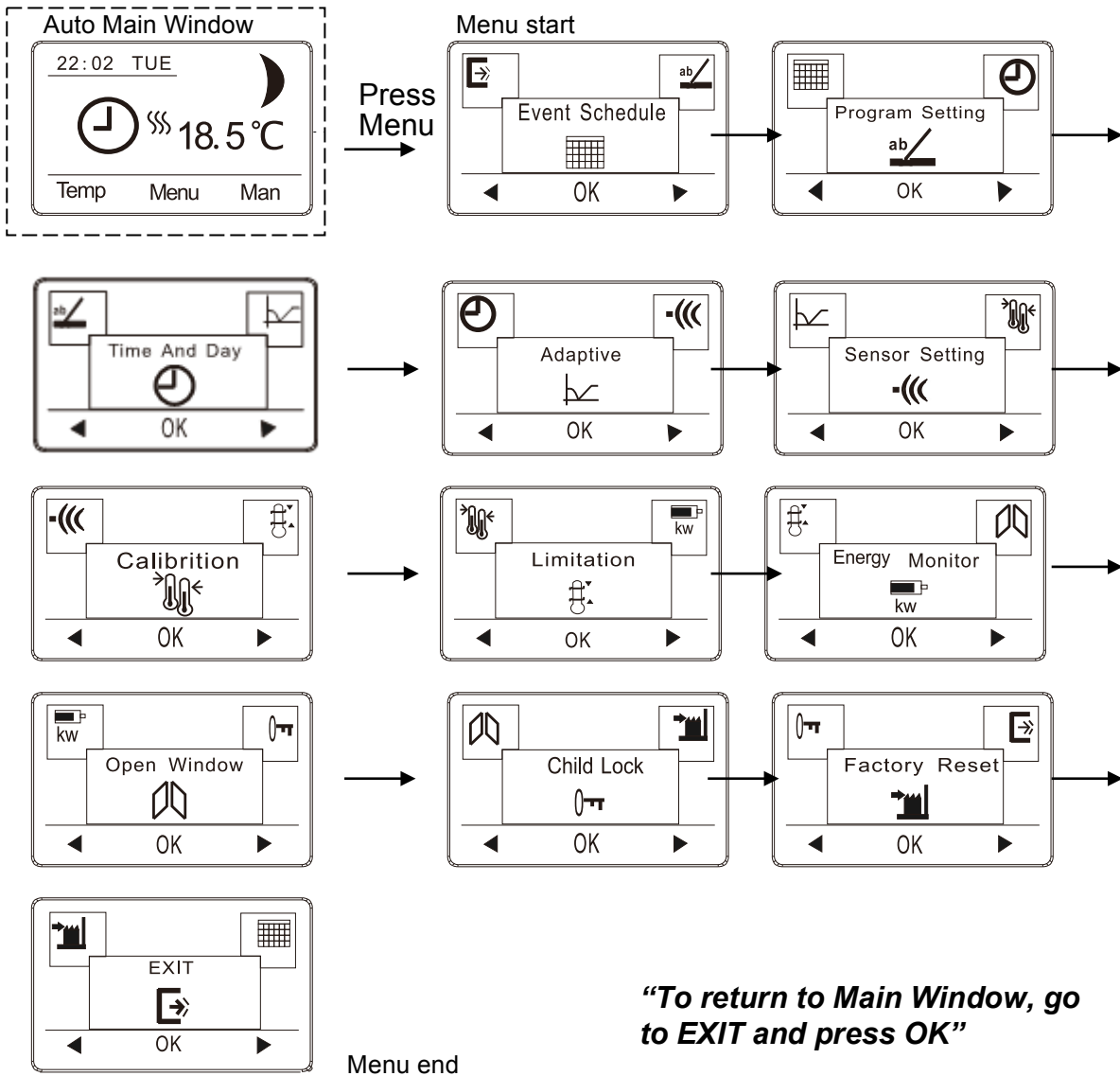
When the thermostat is first turned on or after a factory reset the thermostat will default to manual mode, and the up and down arrows can be used to set the target floor temperature.

If you wish to program the thermostat to operate in auto mode press the menu button and then select Auto. By following the menu prompts you can set the time, day of the week and control mode.

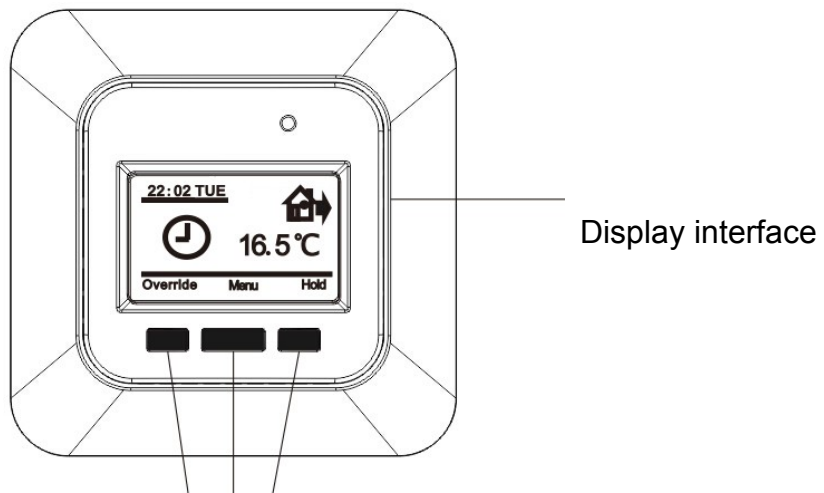
- Select the time using the up and down buttons and confirm by selecting OK.
- Set the hour and press the OK button. Then set the minute and press OK.
- Set the day of the week and confirm the settings with the OK button.
- Select the total power of your heating system to the nearest 0.1kW. If you do not know the total power of your heating system this value can be left as the default, the only aspect it affects is the energy monitor readout.
- After setting the time and date you will need to select which sensors the thermostat is using. To do this press the menu button and then scroll through until you find the *Sensor Setting* menu option and press OK. Select the control method you desire. If the thermostat is in the room being heated select *Room and Floor*. If the thermostat is outside of the room being heated select *Only Floor*. Use *Only Room* if the thermostat is controlling some other form of heating system.

The thermostat is now ready to use and your underfloor heating will operate in accordance with the pre-programmed Event schedule.

Operating table:



Appearance reference:



Navigation buttons

General operation:

When the thermostat is powered up, the version number will be displayed. If you hold the menu button for 3 seconds, the thermostat will turn off, all the settings, including time and date will be saved. To turn the thermostat back on press the menu button again.

Operation mode:

Auto mode



Select **Auto** if you want the temperature to be controlled automatically via the 4-Event schedule.

Hold/Manual mode:



Select **Hold/Manual** to cancel the programmed Event schedule (e.g. during holidays) and to set the required temperature manually. For example, you may want to adjust the temperature to 5°C for frost protection while you are away. To exit out of the manual mode and return to the program mode select Menu, then the Auto option and confirm the requested information to return to the program mode.

Temp menu on the main screen:

By pressing the Temp button you are able to alter the target temperature of all 'Wake' and 'Return' events in the program settings or alternatively all 'Leave' and 'Sleep' events. This streamlines updating the programmed schedules if you want to make changes across the board.

To make changes press the Temp button and then select if you want to change all 'Wake' and 'Return' events or all 'Leave' and 'Sleep' events. Press OK and the thermostat will show the current target temperature of those events. Raise or lower this temperature to your desired level and then press OK to update the heating schedule with this new temperature.

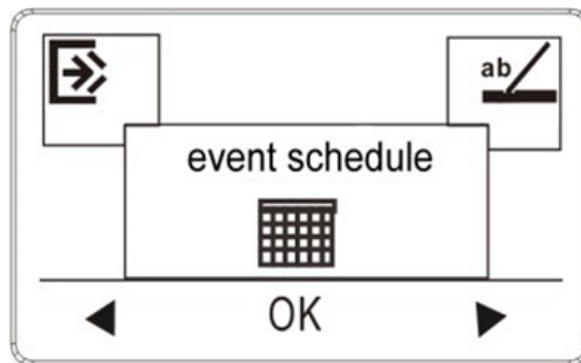
To access the *Settings* menu press the Menu button and then use the right and left arrows to select the menu you wish to access.

Event schedule - pre-programmed heating events:

You can set the thermostat up with different pre-programmed events to match your requirements.

Select menu, use the right-hand arrow to scroll to *event schedule*, confirm with ok. Scroll up or down depending on how many events you wish to program.

There are three options to choose from (1, 2 or 7 events).



1 : All days of the week with the same two event settings.

2 events - wake, sleep (for all days)

2 : Monday to Friday with the same events setting, Saturday and Sunday with the same setting:

Typically used if you work from Monday to Friday

4 events - *wake, leave, return* and *sleep* for Monday to Friday

2 events - *wake, sleep* for Saturday and Sunday

7 : allows you to choose individual programs for each day of the week. There are 4 events - *wake, leave, return* and *sleep* for each day.

Program setting:

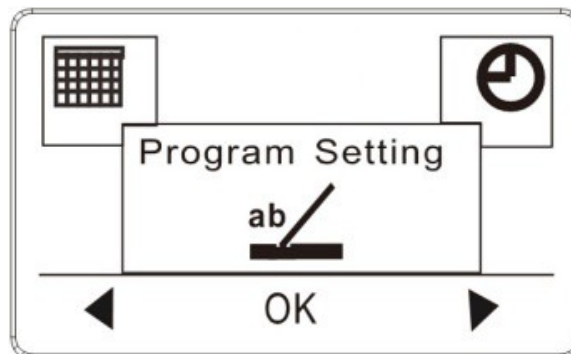
Press the OK button to activate the *Program* setting.
Choose the days you wish to set using the up or down button.

Now select the time and temperature for each daily event in the program.
Press OK and set the start time for the event concerned. Confirm with OK.
Set the temperature for this event and confirm with OK.

If you are controlling the heating on floor temperature a normal target temperature for a warm floor is between 27°C and 32°C – please be aware that some floor coverings have a maximum limit that the underfloor heating should be allowed to heat them to.

Please be aware that you may need to alter the standard factory settings on the thermostat, as they may not meet your requirements.





After setting the required events, select *Exit* in the menu to return to the initial display.









These are the icons for events programming:



 Wake,
  Leave,
  Return,
  Sleep)

Factory settings / Pre-set schedule

7 days	 Wake		 Leave		 Return		 Sleep	
	Time	Temp.	Time	Temp.	Time	Temp.	Time	Temp.
4 events	6:30	22°C	7:30	19°C	17:00	22°C	23:00	18°C

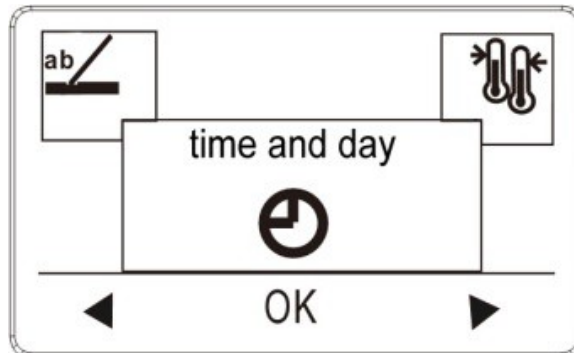
Monday to Friday	 Wake		 Leave		 Return		 Sleep	
	Time	Temp.	Time	Temp.	Time	Temp.	Time	Temp.
4 events	6:30	22°C	7:30	19°C	17:00	22°C	23:00	18°C

Saturday & Sunday	 Wake		 Sleep	
	Time	Temp.	Time	Temp.
2 events	6:30	22°C	23:00	18°C

7 days	 Wake		 Sleep	
	Time	Temp.	Time	Temp.
2 events	6:30	22°C	23:00	18°C

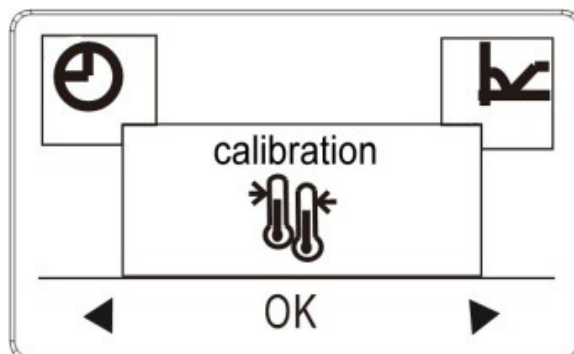
Time and day:

Press OK and set the time in hours and minutes. The day will then be displayed. Set the day and confirm with OK.



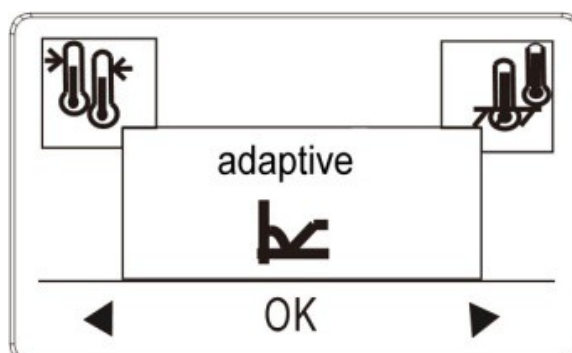
Calibration:

If the actual temperature measured by the thermostat does not correspond to the true temperature you can adjust the thermostat by offsetting the temperature. Press OK and enter the value of the true temperature. Confirm with OK. Range -4°C~4°C, Default 0°C.



Adaptive function:

This function allows the room to be brought up to a desired temperature for when you wake up in the morning or come home from work – with this function enabled if you set a target temperature of 22°C for 7am the room will already be heated to 22°C by that time. The thermostat will adapt according to your lifestyle and heating habits and outside temperatures. After just a few days the adaptive function will automatically know when the heating needs be turned on. To enable Adaptive function Press OK and set the function to on. Confirm with OK.



Sensor Setting:

Set the method you want to use to control your heating system.
There are 3 options:

Only floor:

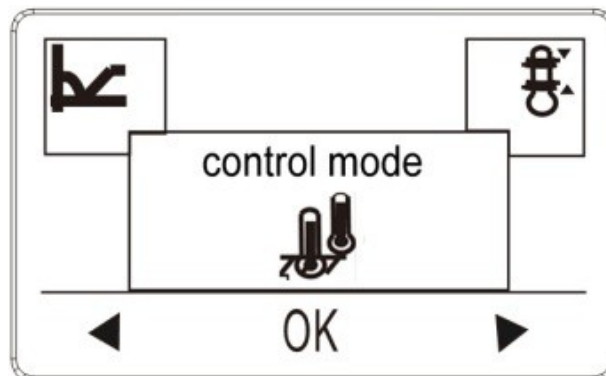
The thermostat only regulates floor temperature. A floor sensor must be connected.

Only room:

The thermostat only regulates room temperature – this method should not be used with underfloor heating unless there is an alternative way to limit the floor temperature.

Room and floor:

The thermostat regulates room temperature with min. and max. floor temperature limits. A floor sensor must be connected.
Press OK and select the required heating system.



Limitation:

This allows you to specify a temperature range within which the thermostat can be set. It is then only possible to set a temperature in this range when the thermostat is operating in auto, comfort and manual mode. This avoids anyone overriding the system and maintains energy efficiency.

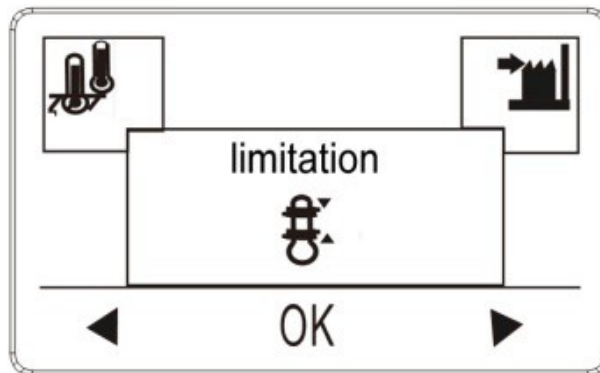
Press OK to highlight Max temperature. Use the up or down buttons to select the desired maximum temperature. Press OK and select the minimum desired temperature. Confirm the settings with OK.

The ranges are as follows:

Temperature Max: 20~40°C, Default 35°C, Min 5~20°C, Default 5°C

Floor protection Max: 15~27°C, Default 27°C, Floor protection Min 5~10°C, Default 5°C

Floor protection Max/Min: only works at Room/limit mode

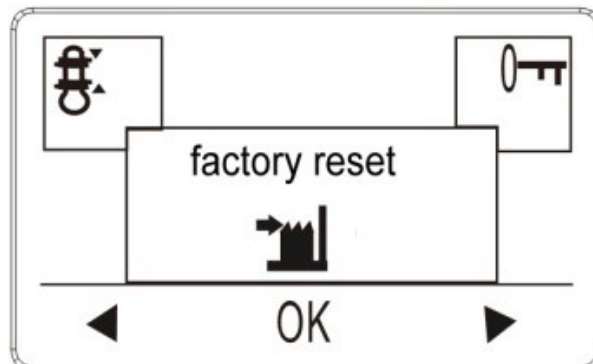


Factory reset:

This function allows all the thermostat settings to be reset and revert back to the original manufacturer's programming. Your personal settings will be erased.

Press YES and choose Reset in the menu.

Press NO and cancel the factory reset.

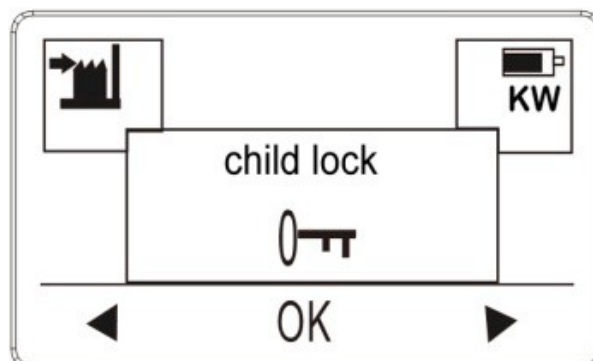


Child lock:

This function allows you to lock the thermostat settings if you do not want them to be altered or erased by anyone else.

Press OK and select YES or NO to set up the child lock. Confirm with OK.

The child lock can be unlocked by pressing the two side buttons simultaneously for 3 seconds.



Energy monitor:

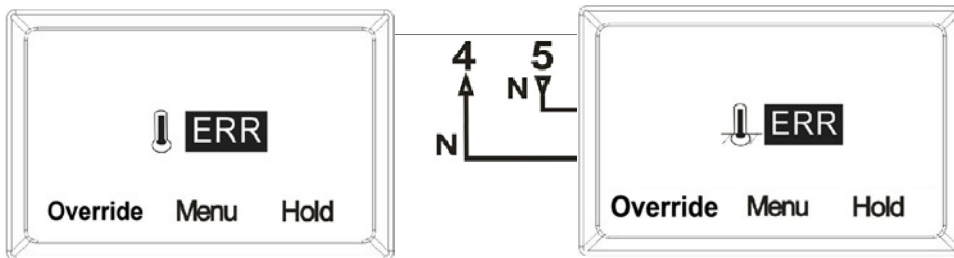
If the load is correctly set the energy monitor can be used to confirm how much energy the underfloor heating system has used on each day of the week or for the last full week. You can also input the load of the system in this menu.

Open window:

When the Open Window function is activated, a rapid temperature drop in the room (as you would expect if a door or window was left open in cold conditions) will shut off the heating for 30 minutes.

Error alert:

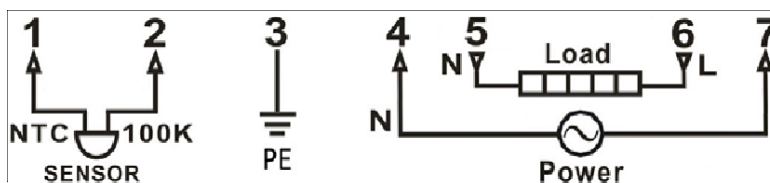
If a fault or an error occurs, the thermostat will display an error code as follows:



E1:
Internal sensor – defective
or short-circuited

E2:
Internal sensor – defective
or short-circuited

Wiring diagram:





Heat Mat Underfloor Heating

For more information visit: www.heatmat.co.uk
Or call us on 01444 247020