

thermo  
Sphere

**CONTROL** | TOUCH  
SMARTHOME



Excellence in heating **solutions.**

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# Compatibility

This thermostat is compatible with ThermoSphere NTC 10K floor sensor probes.

NTC 10k $\Omega$  @ 25°C

If you have an existing floor probe from another thermostat that is not compatible, set your thermostat to ambient temperature sensing mode.

(Not advisable for timber or other temperature sensitive floors).

Replacing an existing thermostat?

Contact the manufacturer's technical department and ask for the rating of the floor sensor at 25°C.

# What's in the box?

Check you've got everything:

- SmartHome Control
- Floor sensor probe (3m)
- Floor sensor conduit (2m)
- Fixing screws
- Installation guide and warranty information

You will also need:

- Electrical screwdriver
- Electrical back box
- Electrical test meter

# Before you start

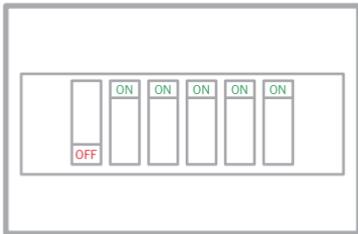
Your thermostat should be:

- Installed 1.2 - 1.5m from the floor
- On an internal wall
- Outside any wet zones (IP21)
- Installed on an RCD protected circuit
- Away from drafts or heat influences
- Installed so that the floor sensor probe can be laid in a heated area of the floor
- Installed by a professional, in line with current electrical regulations and relevant local standards

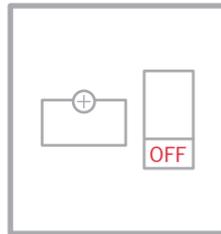
# Installing your thermostat

## Switch off mains power

You will be installing your thermostat as part of a high voltage mains electrical circuit. To ensure your safety and to protect the thermostat, switch off the mains power and remove fuse from the spur before you start the installation.



Fuse Box



Fused Switch

# Installing your thermostat

## Maximum distances

Your thermostat can be installed up to 50m away from the underfloor heating system it is controlling, provided that the floor sensor is used to control the temperature.

Underfloor heating cold tails and floor sensor probes can be extended up to 50m.

Connect multiple heaters in parallel.



# Installing your thermostat

## Release fascia plate

Use a small screwdriver to undo the captive screw on the underside of the fascia casing.

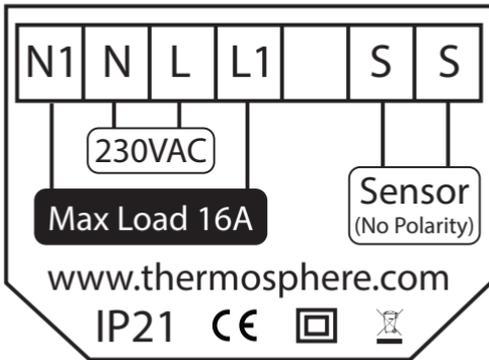


# Installing your thermostat

## Wiring diagram

Connect the Thermostat to the underfloor heating (UFH) cold tail, power supply and floor temperature sensor.

The floor temperature sensor is not polarity sensitive.



# Installing your thermostat

## Fix mounting plate in position

Push the power block into the back box and use a screwdriver to securely fix the mounting plate in position.



# Installing your thermostat

## Fix thermostat fascia in place

Locate the thermostat onto the mounting plate and push down. Tighten the screw to secure in place.



# Installing your thermostat

## Switching on your system

It is important that all adhesives and grouting is dry and fully cured before you switch on your underfloor heating.

Most adhesives take between 7 to 10 days to cure. Follow manufacturer guidelines.

The temperature of your underfloor heating should be increased gradually to avoid thermal shock in the floor. Start at 15°C and work up to your desired temperature 2-3°C per day.

Observe any maximum temperature guidelines from your floor manufacturer.

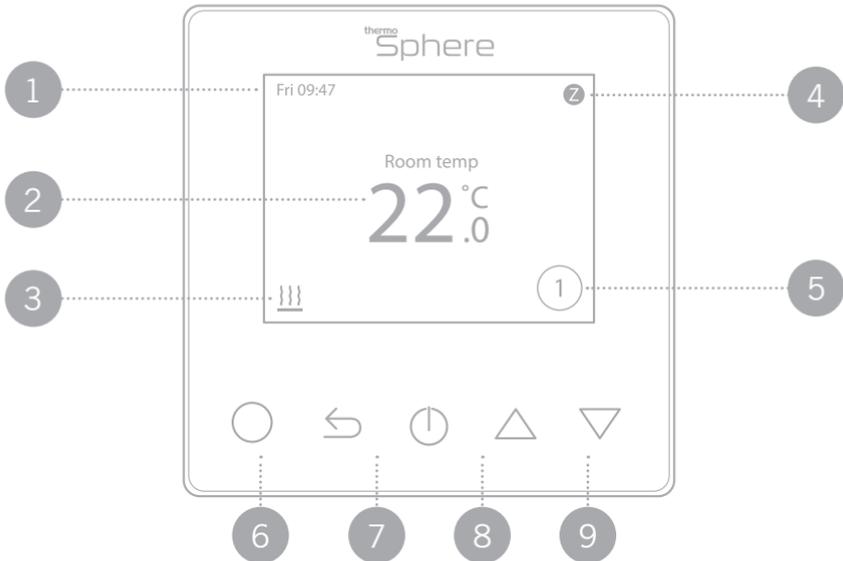


Wait for  
7 - 10 Days  
before you  
switch on

# Advanced settings

MENU	DESCRIPTION	RANGE	DEFAULT
01	Heating events	2, 4 or 6 per day	4
02	Sensor mode	Room, Floor, Room & floor limit	Floor
03	Temperature calibration	Floor -5 to 5°C, Room -5 to 5°C	0°C
04	Open window	On / Off	Off
	Sensing time	1 - 30 minutes	1 minute
	Temp drop limit	2 - 4°C	3°C
	Off time	10 - 60 minutes	15 minutes
05	Adaptive start	On / Off	Off
06	Floor temperature limit	20 - 45°C	35°C
07	Frost protection	On / Off	Off
	Frost protection temperature	5 - 15°C	5°C
08	Brightness	1 - 99%	80%
10	Temperature tolerance	0.5, 1, 2 or 3°C	1°C
11	Energy use	Power rating 0 - 4500W	0W
		Power consumption	-
12	Factory reset	-	-

# User interface



- |                         |                     |                     |
|-------------------------|---------------------|---------------------|
| 1. Day and time         | 4. Zigbee indicator | 7. Back button      |
| 2. Measured temperature | 5. Heating event    | 8. Power button     |
| 3. Heating indicator    | 6. Menu button      | 9. Up & down arrows |

# Setup

## Setting the day and time

Ensure the SmartHome Control is on.

Press  to enter the menu and press  again to set the time.

Press   to set the correct day.

Press  to edit hours and use   to set the correct hour.

Press  to enter minute setting and press   to set the correct minute.

Press  to confirm and go back to the setting menu.

If you connect your SmartHome Control to the internet the time will update automatically.

# Boost mode

In Boost mode, thermostat will work maintain the boost temperature until the next heating event change.

Press  to enter the menu and use   to select boost.

Press  to enter Boost mode and press   to turn on.

Press  to confirm and set temperature.

Press   to select boost temperature and press  to confirm and go back to the main screen.

To cancel boost mode, press power to turn the control of and on again.

# Temperature override

When the heating schedule is running you can manually override the temperature without adjusting the schedule.

Adjust the temperature with the  $\Delta$  and  $\nabla$  arrows.

The override temperature will be maintained until the next scheduled temperature change.

The thermostat will then revert back to the heating schedule automatically.

# Set up your heating schedule

Set up a timed heating schedule to automatically manage your heating around your lifestyle pattern.

Press  to enter the menu and use   to select Schedule.

Press  to enter Schedule settings.

Press   to select day (you can also select 'All' days)

Press  to enter event selection.

Press   to select a heating event to edit.

Press  to enter time (hours) setting.

Press   to select the correct hour.

Press  to enter minutes setting.

Press   to select the correct minute.

# Set up your heating schedule

Press  to enter temperature setting

Press   to select the temperature you would like at this time. For a comfortable warm temperature we recommend 20-27°C\*. (Always check the recommended maximum floor temperature with your floor finish manufacturer).

Press  to confirm and back to event setting. Repeat this process for every event that you wish to use.

## Pre programmed heating schedules

	2 per day	4 per day	6 per day
Event 1	06:00 25°C	06:00 25°C	06:00 25°C
Event 2	18:00 16°C	08:00 16°C	08:00 16°C
Event 3		16:00 25°C	11:30 25°C
Event 4		22:00 16°C	12:30 16°C
Event 5			16:00 25°C
Event 6			22:00 16°C

The SmartHome Control comes with 3 pre programmed heating schedules with 2, 4 or 6 heating events per day.

You can select this in the advanced settings. Default program is 4 events per day.

# Holiday mode

Press  to enter settings menu.

Press   to select Holiday mode and press  to confirm.

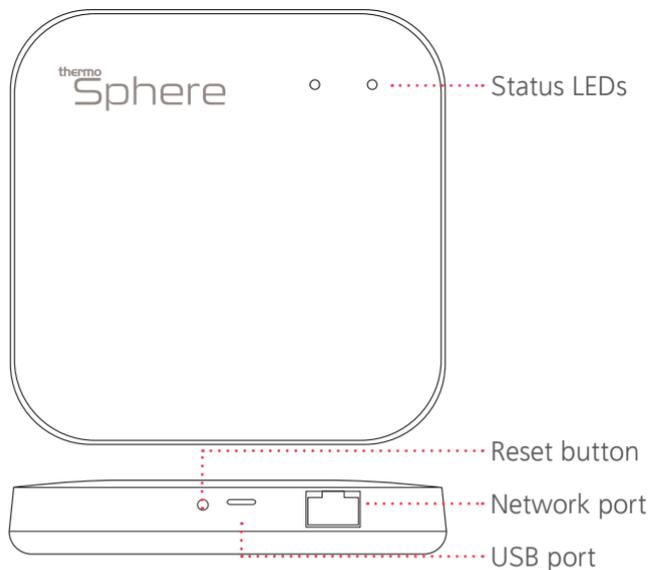
Press   to set the amount of days you are away for and press  to confirm.

Press   to set the temperature you would like to maintain while you are away for and press  to confirm and return to the main screen.

To end Holiday mode early simply turn the thermostat off and on again using the power button.

# SmartHome Hub connection

You will need a ThermoSphere SmartHome Hub to set up and control your thermostat(s) via your wireless network.

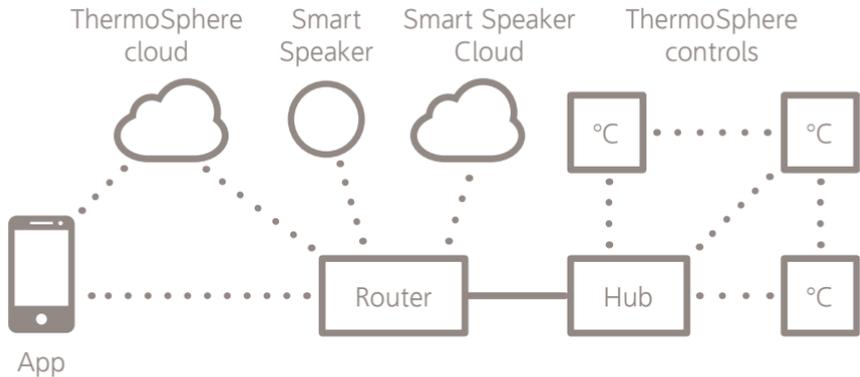


# Network diagram

Wireless connection requires a Thermosphere Smarthome Hub, compatible Thermosphere Smarthome control, broadband internet and an available network port on your router.

Approximate range limit 20m open field.

Download the Thermosphere app on a compatible iOS or Android device.



# SmartHome Hub connection

## Reset button

Hold for 5 seconds, until the green light stays on, to connect the Hub with your router.

## Hub installation

1. Plug the network cable into an open port on your router.
2. Plug the other end of the network cable into the network port on the hub.
3. Plug the USB cable into the USB port on the hub.
4. Plug the other end of the USB into the power adaptor and into a 230V mains socket.
5. Press and hold the reset button for 5 seconds.
6. The red LED on the hub will flash and both LEDs will stay on after a few seconds to indicate a successful connection between the hub, your router and the ThermoSphere server.

If the connection fails, unplug the hub and start again. You can also reset the hub by holding the reset button for 5 seconds.

# SmartHome Hub connection

## Pairing the SmartHome Hub with your app

1. Download and install the ThermoSphere app on your mobile device.
2. Connect your mobile device to the same wireless network that your hub is plugged into.
3. Register an account with your email or mobile phone number.
4. Click 'Add Home' and select any rooms that you wish to add.
5. Click '+' in the top right corner and select 'Zigbee Gateway'.
6. Make sure the Hub LEDs are on and click 'Confirm...' button.
7. When the app shows 'Smart Gateway' click 'CONNECT'.
8. Rename the Hub if you wish to and click 'Done'.
9. Click 'Add new child device' to add a SmartHome Control.
10. With the SmartHome Control is on, press and hold the 'Up' and 'Down' arrows until the red Zigbee symbol flashes.
11. After a successful connection you can rename your SmartHome Control and add it to a room. Click 'Done'.
12. Repeat steps 9 to 11 for additional SmartHome Controls.

# Amazon Alexa



## Pairing your SmartHome controls with Amazon Alexa

Voice control with Alexa requires a compatible Amazon Echo device, an Amazon Alexa account and a ThermoSphere account.

If you do not have an Alexa account, visit [www.alex.amazon.com](http://www.alex.amazon.com) to create one before you start.

1. We recommend using the [alex.amazon.com](http://alex.amazon.com) website to set up and link your ThermoSphere Controls with Alexa.
2. Log in to [alex.amazon.com](http://alex.amazon.com).
3. Click on 'Skills' and search for 'Smart Life'.
4. Click 'Enable' and enter your ThermoSphere account details to link your ThermoSphere and Alexa accounts.
5. After the accounts are linked successfully, click 'Discover Devices'
6. Alexa will discover any ThermoSphere SmartHome Controls that you have set up and connected your Hub.
7. You can now control your electric underfloor heating with your voice!

If you rename your controls at any point within the ThermoSphere app you will have to discover devices again in your Alexa account.

After initial setup you can simply ask Alexa to 'Discover devices' for you. You can also control your thermostats from the Alexa app.

# Amazon Alexa



## Things to try with Amazon Alexa

Alexa uses the names that you give your devices in the ThermoSphere app to identify and control the right device. Make sure you call them something you can remember and say easily, like 'Bathroom heating' or 'Kitchen heating'

Once you're set up try asking Alexa to:

- "Alexa, set the <control name> to 27 degrees".
- "Alexa, turn off <control name>".
- "Alexa, turn on <control name>".
- "Alexa, what is the temperature in <control name>?".
- "Alexa, what is the <control name> temperature?".

# Google Assistant



## Pairing your SmartHome controls with Google Assistant

Voice control with Google Assistant requires a compatible Google Home device, a Google account and a ThermoSphere account.

If you do not have a Google account, visit [www.google.com](http://www.google.com) to create one before you start. Follow the Google instructions to set up your Google Home device.

1. Download the Google Home app from your app store and login with your Google account
2. Open the Google Home app and open Home Control in the side menu.
3. Press the + button.
4. Search for Smart Life and tap it.
5. Link your accounts by entering your ThermoSphere account details.
6. Google Home will discover any ThermoSphere SmartHome Controls that you have connected your SmartHome Hub.
7. You can now control your electric underfloor heating with your voice!

If you rename your controls within the ThermoSphere app at any point, you will have to discover devices again in your Google Home app.

# Google Assistant



## Things to try with the Google Assistant

The Google Assistant uses the names that you give your devices in the ThermoSphere app to identify and control the right device.

Make sure you call them something you can remember and say easily, like 'Bathroom heating' or 'Kitchen heating'

Once you're set up try asking Google to:

- "Ok Google set the <control name> to 27 degrees"
- "Ok Google turn off <control name>"
- "Ok Google turn on <control name>"
- "Ok Google what is the temperature in <control name>?"
- "Ok Google what is the <control name> temperature?"

# Technical data

Supply voltage	85 - 265V 50/60Hz
Maximum load	16A
Accuracy	±0.5°C
Sensor rating	NTC 10kΩ @ 25°C
Standby consumption	<2W
Warranty	3 years
IP rating	IP21
Width	87mm
Height	87mm
Depth	14mm (23mm in wall)

## Error codes

Room sensor error: Internal ambient sensor damaged/disconnected

Floor sensor error: External floor sensor damaged/disconnected

# Key lock

To lock the keys press and hold  for 3 seconds.

The  icon will appear when the keys are locked and the keys will not function.

To unlock the keys press and hold  for 3 seconds.

# Factory reset

Press  to enter the menu and press   to select 'Advanced'.

Press  and then press   to select page 2 and continue to 'Factory reset'.

Press  to confirm and reset.

# thermo Sphere

SHC-IG-02

ThermoSphere is a trading name  
of Thermogroup Ltd.

'Google Assistant' is a trademark  
of Google Inc.

'Amazon Alexa' is a trademark  
of Amazon.com, Inc.

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