Nu-Heat
UNDERFLOOR & RENEWABLES

Underfloor heating
user guide

neoStat

UNDERFLOOR HEATING

HEAT PUMPS

SOLAR THERMAL

working with you

before, during & after

your project

Nu-Heat Know-How

Contents

System Ref: _____

Every Nu-Heat system is a custom design. Please record your unique system reference number above for future reference.

Welcome

Congratulations, you are the owner of a Nu-Heat warm water underfloor heating system, designed and supplied by Nu-Heat UK Ltd., the largest supplier of domestic underfloor systems in the UK.

This manual is provided to help you understand how the system operates and the correct settings required to get the most from your heating.

Nu-Heat did not install your system, therefore any installation matters should be referred to the contractor concerned. Please record the installer's details below.

For more information on the operation of your system and also troubleshooting help, please visit the Nu-Heat website at nu-heat.co.uk.

Installer details

Company: _____

Contact name: _____

Contact telephone no.: _____

Address: _____

_____

_____

About the Nu-Heat System

Description

Underfloor heating works by pumping warm water through special plastic tubing embedded in the floor. This warms the floor and maintains the room at a comfortable temperature.

Benefits

In particular, underfloor heating systems:
• Provide a more comfortable heated environment,
• Permit unlimited interior design options,
• Increase the useable space within a property.

Moreover, all these benefits are available from a system which can be significantly less expensive to run than a conventional, radiator-based system.

System startup

Once your system has been commissioned it should be fully operational. To initially check that your system is turned on and working please follow these simple steps:

Underfloor heating

Locate the main components of your installation: the boiler, hot water cylinder, underfloor heating pump/Optiflo manifold assembly(s), thermostats, timeclocks, underfloor heating wiring box.

Electricity supply

Ensure that the electrical installation is complete and that the heating system is turned on. The location of the main supply on/off switch may vary but is often positioned next to the boiler. There may be additional switches located at each underfloor heating wiring box which also need to be on.

Water supply

Ensure that the water is turned on ready for domestic hot water operation, check that a high flow of water is available from the cold taps. If there is poor flow or none at all, check that the stop-cock for the property is fully open.

Operation

Your underfloor system is designed for performance and economy. Each heating zone is controlled by its own wall-mounted thermostat. If a room has no thermostat it will be connected to, and controlled by, an adjacent zone.

UNDERFLOOR HEATING

Unlike traditional dial thermostats controlled by a timeclock, programmable thermostats do not work on the basis of ON and OFF times. Instead different temperatures are set at different times throughout the day. If the property is to be unoccupied during the day, for example, then the temperature can be set low (setback temperature), whereas during the morning and evening it can be set at the desired comfort temperature.

The best way to find the optimum temperature setting is to set a low comfort temperature (e.g.18°C) and then turn it up by 1°C each day until the temperature is right.

Consideration should be given to the different floor constructions and finishes used in your property, as these factors will affect the time the system will take to achieve comfort conditions. However, the neoStat incorporates Optimum Start, a self-learning feature that enables it to manage when the heating should be switched on, in order to hit the target temperature that has been programmed. This means that the thermostats can be set to the comfort temperature at the times that heating is required. It will then automatically manage the varying floor response times, and bring the heating on in time.

The Optimum Start feature will need to be set up in the thermostat – for details see page 13.

The temperature chosen as the setback temperature will depend upon the situation:

- For new build properties this will generally be 4-6°C lower than the comfort setting, although again, this can be experimented with.

- Renovated properties may work best with a lower setback temperature, in order that the heating remains off outside of the times at which the comfort temperature is selected. The fast response time of LoProMax™ makes this method particularly suitable.

- Less thermally responsive floors, in particular screed floors greater than 65mm thick, will achieve comfort temperatures more quickly when the setback temperature is closer to the comfort temperature.

Systems with programmable thermostats

Programmable room thermostats offer the ideal solution to maintaining different background temperatures at different times. They can easily be set to achieve the desired temperature at all times of day and night.

THE EFFECT OF SETBACK (for illustration only)
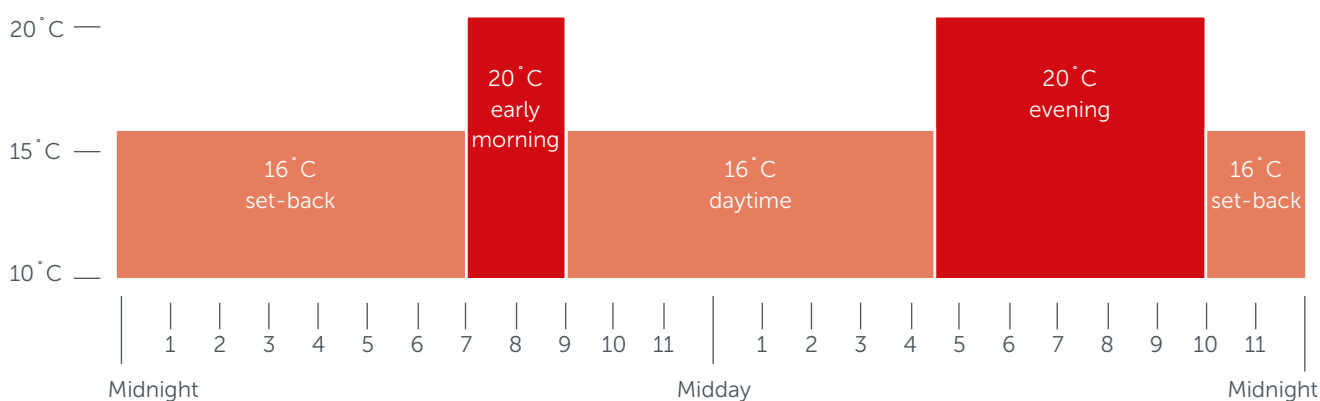
Systems with neoStat

Each room thermostat combines the functions of a room thermostat, timeclock and set-back thermostat.

For enhanced heating performance and efficiency the unit also provides self-learning *Optimum Start* in the morning.

Four adjustable time/temperature zones are available for the days of the week, and a further four during the weekend as standard, giving enhanced heating control. A 7-day mode is also available.

HOT WATER CONTROL OPTION

A supplementary neoStat can be configured as a timer to control your hot water. See page 16 for details of how to set this up.

Optional control from a SmartPhone (systems with neoHub+)

PAIRING THE NEOHUB+

To pair the neoHub+ with the neoApp, follow these steps:

1   Connect the power supply to the neoHub+.

2   Connect the neoHub+ to your router with the Ethernet cable provided. The router will automatically assign an IP address to the neoHub+, the 'Link' LED will light up once the neoHub+ has connected to your network.

3   Download the FREE Nu-Heat neoApp from the Apple App Store, Google Play Store or Amazon App Store and register an account.

4   Once you have registered your account, press the LOGIN button then press the ADD LOCATION option.

5   Press the CONNECT button on the neoHub+to add the location to your account.

6   When successfully connected, enter a title for the new location (e.g. Home) and configure the time zone for the system.

PAIRING THE NEOSTATS

The next step is to pair each neoStat to the neoHub+, starting with the neoStat located nearest to the neoHub+.
To add a neoStat, follow these steps:

1   From the neoApp, select ADD ZONE, enter a zone title and press ADD ZONE again.

2   You now have two minutes to pair the neoStat to the neoHub+.

3   On the neoStat, use the < / > keys to select setup and press ✓. Feature 01 is displayed on screen.

4   Press the ✓ key to pair the neoStat to the neoHub+

5   The MESH symbol appears flashing on the display (see p.9).

WHAT IS A MESH NETWORK?

NeoStats work using a mesh network, meaning neoStats have the ability to send and receive signals via other thermostats on the network. This signal is relayed from one thermostat to another until it reaches its destination. This communication method extends the communication range whilst offering increased network stability when compared with standard RF thermostats.

The MESH symbol is shown when the device is communicating with the neoHub, if the mesh symbol disappears this indicates connection to the neoHub+ has been lost.

APPLE HOMEKIT – INITIAL SETUP

1   Setup your thermostats via the Nu-Heat neoApp with the names and details required.

2   Using the pre-installed HOME application on Apple products, link the NeoHub+ to the HOME App. This will import all the thermostats' setup on the neoHub into HOME.

3   Arrange the thermostats to the rooms as set in the HOME App.

The thermostats can now interact with other HomeKit enabled products to allow for smart home integration.

SHARING ACCESS TO THE NEO SYSTEM

At this stage access to other users may be granted, on a full or restricted basis.

Ideal uses for the Share Feature.

•   Where there is more than one household member.

•   To give restricted access to tenants in a rented property.

•   To give temporary control to a heating engineer or service partner.

To setup a Share Access, follow these steps:

1   Select Share Access

2   Press + to add a user

3   Enter the User Details and press User Mode

4   Select Admin or Guest

Admin or Guest?

Admin users have complete control. They can add and remove zones, adjust heating times and temperatures and can setup Geo Location.

Guest users have temporary control – so they can adjust the temperature using the scroll wheel but they cant reprogram the heating times and temperatures or add and remove zones. They also don't have access to the Geo Location feature.

Note: To use Geo Location – each user in the home must have their own Share Account.

You can remove a user at any time by going in the Share Access menu and selecting the Delete User option.

Mode 1 – thermostat operation

1. Day
2. Mesh symbol
3. Floor limit symbol
4. Frost symbol
5. Flame symbol
6. Heat/Cool (cool not active)
7. Floor temp/Room temp
8. Set*
9. Key lock indicator
10. Programme indicator
11. Main menu navigation
12. Temperature format
13. Temperature (current)
14. Cool on (not used)
15. Clock
16. Holiday left
17. Hold left
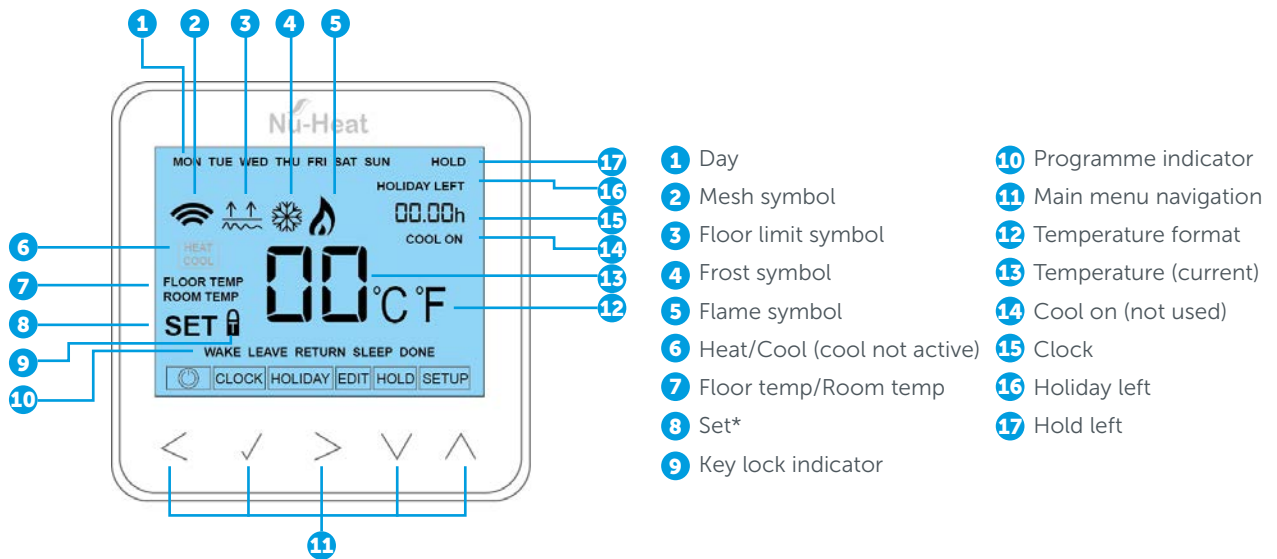
*SET = Displayed when changes are being made to the program schedule or current set point.

ERROR CODES

When used as a thermostat the screen will display an error code if a fault is detected.
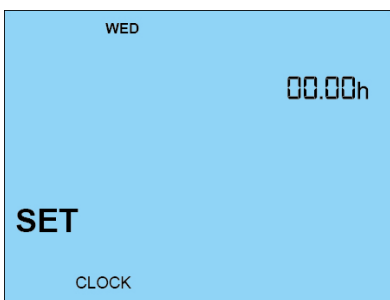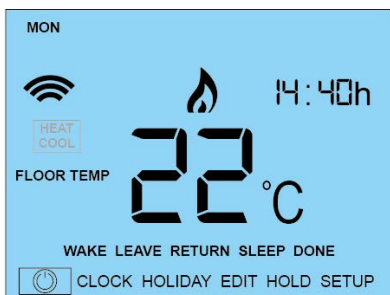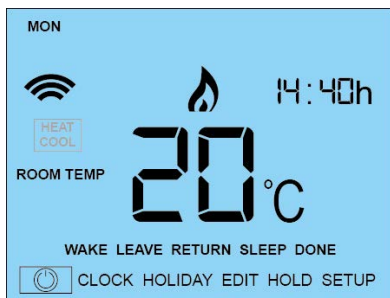
E0 = The internal sensor has developed a fault.

E1 = The remote FLOOR probe has not been connected / is faulty.

E2 = The remote AIR probe has not been connected / has not been wired correctly / is faulty.

COOLING

The neoStat cooling control feature is not used.

Temperature display

The neoStat can be configured for different sensor options such as remote air sensor, floor sensor or both. The display will clearly indicate which sensor is being used by showing either ROOM TEMP or FLOOR TEMP before the actual temperature value.

When the neoStat is set to use both the air & the floor sensor, the room temperature will be displayed by default.

1 To view the current floor temperature, press and hold the < and > arrow keys for 5 seconds, the floor temperature will then be displayed.

Setting the clock

To set the clock, follow these steps.

1 Use the < / > keys to scroll to 'CLOCK'

2 Press ✓ to confirm selection

3 Use the ▼/▲ keys to set the hours (24 hour format)

4 Press ✓ to confirm selection

5 Use ▼/▲ keys to set the minutes

6 Press ✓ to confirm selection

7 Use < / > keys to set the the day

8 Press ✓ to confirm selection and return to the main display

Setting the heating periods and temperatures

The neoStat offers three program mode options: Weekday/Weekend programming, 7 Day programming and 24 Hour programming. There is also the option to use the thermostat as a Non-Programmable thermostat.

When thermostats are connected to the mesh network, the program mode for the system is configured by using the neoApp.

The thermostat is supplied with comfort levels already programmed, but these can be changed easily. The default times and temperature settings are;

07:00 / 21°C (wake)
09:00 / 16°C (leave the house)

16:30 / 21°C (return home)
22:00 / 16°C (sleep)

To program the comfort levels, use the < / > keys to scroll to EDIT

1 Press ✓ to confirm selection

2 Use the < / > keys to select day / period of week (the selection will flash).

3 Press ✓ to confirm selection

4 WAKE will flash and current time and temperature setting will be shown.

5 Press ✓ to alter wake settings

6 Use the ▼/▲ keys to set the hours

7 Press ✓ to confirm

8 Use the ▼/▲ keys to set the minutes

9 Press ✓ to confirm

10 Use the ▼/▲ keys to set the temperature

11 Press ✓ to confirm the settings

12 Press the > arrow key

13 LEAVE will flash and current settings will be displayed.

14 Press ✓ to alter leave settings

15 Repeat these steps to set all comfort levels.

16 For any unused periods set time to --:--

17 Use the < / > keys to scroll to done and press ✓
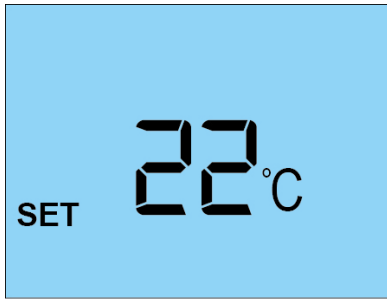
Temperature control

1 The ▼/▲ allow you to adjust the set temperature. When you press either key, you will see the word SET and the desired temperature value. Use the ▼/▲ keys to adjust the set value.

2 Press ✓ to confirm settings and return to the main display.

Note: This new temperature is maintained only until the next programmed comfort level. At this time, the thermostat will revert back to the programmed levels.
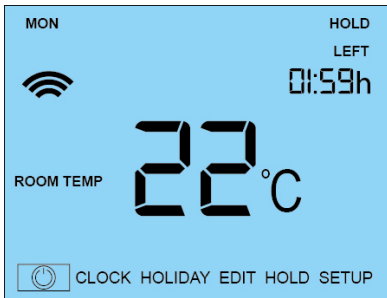
Temperature hold

The temperature hold function allows you to manually override the current operating program and set a different temperature for a desired period.

1 Use the < / > keys to scroll to HOLD

2 Press ✓ to confirm selection

3 Use the ▼/▲ keys to set the desired Hold period

4 Press ✓ to confirm selection

5 Use the ▼/▲ keys to set the desired Hold temperature

6 Press ✓ to confirm selection

You will see the HOLD LEFT indication is displayed on screen. The time will countdown the set duration and then revert to the normal program.

To cancel a temperature hold, repeat these steps but reduce the HOLD time to 00:00 hrs.

Locking the neoStat

The thermostat has a keypad lock facility. To activate the lock follow these steps:

1 Use the < / > keys to scroll to HOLD & press ✓ for 10 seconds.

2 The display will show 00:00 and you will need to set a four digit pin number.

3 Use the ▼/▲ keys to enter the first two digits

4 Press ✓ to confirm

5 Use the ▼/▲ keys to enter the second two digits

6 Press ✓ to confirm

The display will return to the main screen and display the keypad lock indicator 🔒

Note: The keypad lock indicator is only displayed when the lock is active.

Unlocking the neoStat

To unlock the neoStat press ✓ once. The display will show 00:00 and you will need to enter the four digit pin number you set previously.

1 Use the ▼/▲ and ✓ keys to enter the first two digits

2 Use the ▼/▲ and ✓ keys to enter the second two digits

The display will unlock and return to the main screen.
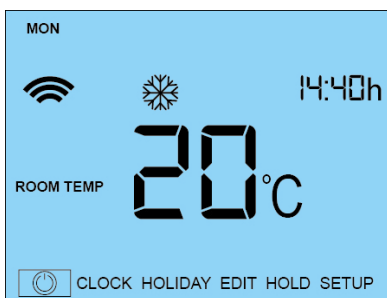
Frost mode

1 Use the < / > keys to scroll to the POWER icon. The FROST icon will toggle ON/OFF each time ✓ is pressed.

In this mode, the neoStat will display the frost icon and will only turn the heating ON should the room temperature drop below the set frost temperature (see pages 13–14).

If the heating is turned ON whilst in frost mode, the flame symbol will be displayed.

To cancel the frost protect mode, navigate to the POWER button again and press ✓.

Power ON/OFF

The heating is indicated ON when the flame icon is displayed. When the flame icon is absent, there is no requirement for heating to achieve the set temperature but the neoStat remains active.

1 To turn the neoStat off completely, scroll to the POWER icon and hold the ✓ key for approximately 4 seconds until the display goes blank.

The display and heating output will be turned OFF. To turn the thermostat back ON, press the ✓ key once.

Holiday

In thermostat mode, the HOLIDAY function reduces the set temperature in your home to the frost protection temperature setting (see pages 13–14).

In time clock mode, the holiday function maintains the timed output as OFF. The thermostat will maintain this setting for the duration of the holiday and will then automatically return to the program mode on your return.

1 Use the < / > keys to scroll to holiday and press ✓

2 Using the ▼ / ▲ keys enter number of days holiday
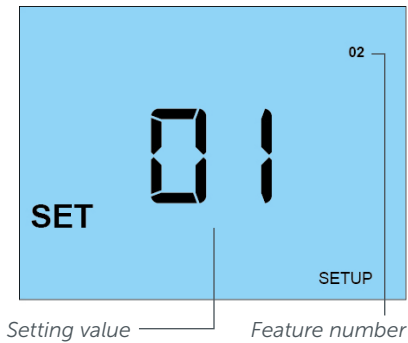
3 Press ✓ to confirm settings

Note: A holiday period does not start until 00:00 the next day. For example, if you set a holiday period on Friday for 2 days, Saturday will be counted as the first day and the thermostat will revert back to the programmed schedule at 00:00 on Monday.

To cancel, repeat these steps but reduce the Holiday duration to 00 days.

OPTIONAL FEATURES EXPLAINED

The following settings are optional and in most cases need not be adjusted.

FEATURE	DESCRIPTION	SETTING	EXPLANATION
01	Pairing	Used to add zone to neoHub	Used to connect the thermostat to the neoHub
02	Switching differential	00 = 0.5˚C 01=01˚C (default) 02=2˚C 03=3˚C	Allows you to increase the switching differential of the thermostat.
03	Frost protection temp.	07˚–17˚C (12˚C = default)	The temperature maintained when the thermostat is in Frost Mode.
04	Output delay	00 – 15 Minutes; (00 = Default)	To prevent rapid switching, an output delay can be entered. This can be set from 00–15 minutes.
05	Up/Down Temp limit	00˚ – 10˚C; (00 = Default)	Limit the use of the up and down temperature arrow keys. This limit is also applicable when the thermostat is locked and so allows you to give others limited control over the heating system.
06	Sensor selection	00 = Built in Sensor (Default) 01 = Remote Air Sensor 02 = Floor Sensor Only 03 = Built in & Floor Sensor 04 = Remote Air & Floor Sensor	Selects the active sensors. Select between air temperature, floor temperature, or both. When both sensors are enabled, the floor sensor is used as a floor limiting sensor to prevent the floor from overheating.
07	Floor temp limit	20–45˚C (28˚C default)	Available when feature 06 is set to 03 or 04. Set to the required floor temperature limit (see instructions on page 11)
08	Optimum Start	00 – 05 Hours; (00 = Default)	Adjusts the start time within the preheat range to allow for current conditions. Heating is brought on before the start time, but at the latest possible moment to avoid unnecessary heating whilst ensuring that the building is warm at the programmed time.
09	Rate of change	Minutes to raise by 1˚C	This setting is calculated by the thermostat. Number of minutes for 1˚C temperature rise.
10	Cool enable	00 = Disabled	
11	Cool set temp	Not enabled	
12	Program mode	00 = Non – Programmable 01 = Weekday/Weekend (Default) 02 = 7 Day Programming 03 = 24 Hour Mode	Weekday/ Weekend – 4 comfort levels for the weekday and 4 different comfort levels for the weekend. 7 Day Program Mode – Each day has 4 comfort levels that can be programmed independently. 24 Hour Mode – All days are programmed the same and repeat continuously.
13	Temperature format	00 = ˚C, 01 = ˚F; (00 = Default)	Select between ˚C and ˚F.

Setting value ——— *Feature number*

Adjusting the Optional Settings

To adjust the settings, follow these steps:

1. Use the < / > keys to select SETUP
2. Press ✓ to confirm selection
3. Use the ▼ / ▲ keys to scroll through features
4. Use the < / > keys to adjust the setting within each feature
5. Press ✓ to confirm settings

Re-calibrating the thermostat

Warning: The thermostat must be fixed in a wall. When re-calibrating the thermostat avoid warming it with your hands or breath, as this will cause an inaccurate setting.

To re-calibrate the thermostat, follow these steps:

1. Use the < / > keys to scroll to the POWER icon
2. Press and hold ✓ to turn the display OFF
3. Press and hold the ✓ and ▼ keys together for 10 secs
4. The current temperature will appear on the display.
5. Use the ▼ / ▲ keys to configure the new temp value
6. Press the ✓ key to confirm change and the display will go blank
7. Press the ✓ key once to turn the thermostat ON

Factory reset

To return all settings to their factory default:

1. Use the < / > keys to scroll to SETUP
2. Press and hold the ✓ key for 10 seconds. All of the icons on the display will appear for 2 seconds, then the display will show option 1 or 2.
3. Use the < / > keys to scroll between modes (selection will flash)

    Mode 1 = Thermostat

    Mode 2 = Time Clock

4. Press the ✓ key to confirm selection

The thermostat will revert to the main display screen for the selected mode.

Note: Factory reset will cancel all parameters that were entered during the set-up and pairing operations. These processes must be repeated after factory reset is completed.

Mode Select

The neoStat can either be used as a thermostat or a time clock. Thermostat mode is the default setting.

To change between THERMOSTAT or TIME CLOCK modes, follow these steps:

1   Use the **< / >** keys to scroll to **SETUP**

2   Press and hold the ✓ button for 10 seconds

3   Use the **< / >** keys to scroll between modes

   mode 1 = Thermostat
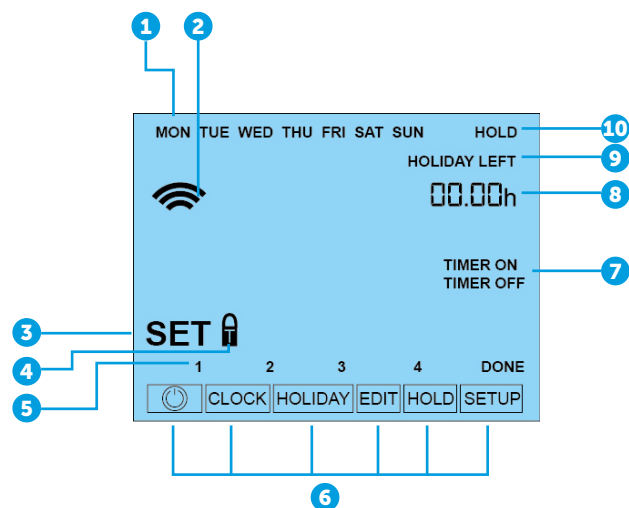
   mode 2 = Time Clock

   Note: the selected option will flash.

4   Press the ✓ key to confirm selection

The neoStat will revert to the main display screen for the selected mode.

Mode 2
Time clock operation

DISPLAY SYMBOLS AND FUNCTIONS

1	Day
2	Mesh symbol
3	Set
4	Key lock symbol
5	Programme indicator
6	Main menu
7	Timer status
8	Clock
9	Holiday left
10	Hold left

OPTIONAL FEATURES EXPLAINED

Feature 01 – Pairing To neoHub: This function is used to connect the time clock to neoHub.

Feature 02 – Weekday/Weekend (5/2), 7 Day Programming or 24 Hour Mode:

The time clock offers three programming methods;

Weekday/ Weekend (5/2) – Allows you to program

4 on/off switching times for weekdays and 4 on/off switching times for the weekend.

7 Day Program Mode – Each day has 4 on/off switching times that can be programmed independently.

24 Hour Mode – All days are programmed with the same on/off switching times.

OPTIONAL SETTINGS – FEATURE TABLE

Feature	Description	Setting
01	Pairing	Used to pair to the neoHub
02	Program mode	01 = Weekday/Weekend Programming (Default)
		02 = 7 Day Programming
		03 = 24 Hour Mode

Setting the switching times

To program the switching times, follow these steps:

1 Use the < / > keys to scroll to EDIT and press ✓

2 Use the < / > keys to select day/period of the week

3 Press ✓ to confirm selection

4 1 will now flash and the current ON time will be displayed. The OFF time can be viewed by pressing the ▾ key.

5 Select a switching time and press the ✓ key

6 Use the ▾/▴ keys to select ON time HOURS and press ✓

7 Use the ▾/▴ keys to select the ON time MINUTES

8 Press ✓ to confirm selection

9 Use the ▾/▴ keys to select OFF time HOURS and press ✓

10 Use the ▾/▴ keys to select the OFF time MINUTES

11 Press ✓ to confirm selection

12 Press the > arrow key

13 2 will flash and current ON time will be displayed.

14 Repeat the steps above to set all periods. For any unused periods enter -- : --

15 When complete, use < / > keys to scroll to DONE

16 Press ✓ to confirm all changes

HOLD LEFT indicator

MON   HOLD
           LEFT
🛜   01:59h

           TIMER ON

⏻ CLOCK HOLIDAY EDIT HOLD SETUP

HOLD TIME remaining
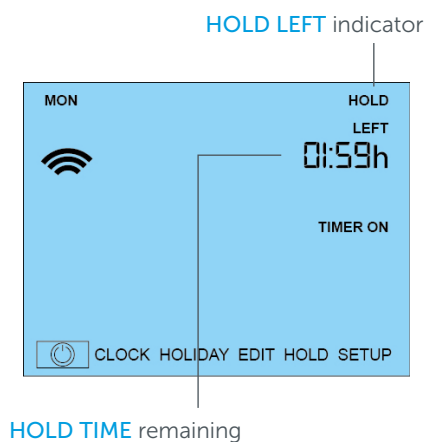
Timer override

To override the TIMED OUTPUT ON, follow these steps:

1 Use the ▾/▴ keys to set the override duration, e.g. 02:00 hours

2 Press ✓ to confirm settings and return to main display

HOLD LEFT and the remaining time will now be displayed.

General system checks

The expansion vessel and filling loop is usually positioned near the boiler.

Adjust the temperature of the boiler water by turning the boiler control thermostat.

Never set the boiler water temperature lower than the cylinder thermostat.

System pressure

The majority of heating systems are sealed and include an expansion vessel which maintains the system pressure. This red vessel would normally be found positioned near to the boiler.

If you have a combination boiler or system boiler the main pump and expansion vessel will be inside the boiler. The best way to identify this is that the boiler will have a pressure gauge on its panel.

You will need to check the system pressure regularly as it is normal for a system to lose a small amount of pressure. The gauge should read approximately between 1 and 2 bar depending on whether the system is cold or hot.

If the pressure is below 1 bar, top the pressure up to 1 bar by opening the valve on the filling loop connected to the red vessel (or boiler if no red vessel is fitted). Only top up when the system is cold. If your system rapidly looses pressure you need to consult a heating engineer.

If there is no red expansion vessel or gauge on the boiler then your system is not sealed but open vented and will be topped up automatically by a feed tank and ballcock in the loft.

Boiler thermostat

The temperature of water generated by your boiler is altered by adjusting the boiler control thermostat dial.

If you have a hot water cylinder it is important that the boiler water temperature is always at least 5°C above the temperature of your cylinder thermostat.

General sequence of operation

Every time heat is required in a room the following sequence is initiated:

If the heating is in an on period and the room requires heating, the room thermostat will call for heat :–

1 A flame symbol will appear on the display.

The floor pump, either on the Optiflo manifold serving that zone, or on the remote-mounted pump module will be switched on.

The actuator on the Optiflo manifold circuit connected to the zone will open, indicated by the button on top of the actuator head rising.

The flow gauge on this circuit will indicate flow and the flow pipe will get warm.

Over a period of time as the room comes up to temperature, the return pipe will warm up as well.

For standard systems with conventional boilers/cylinders or combination boilers the boiler and boiler pump are turned on to supply and circulate heat.

MANIFOLD COMPONENTS

1 Flow gauges
2 Flow temperature gauge
3 Flow adjustment
4 Pressure gauge
5 Filling/drain off valve
6 Actuators
7 Manual air vent
8 Return temperature guage
9 Floor heating pump *(direct mounted)*
10 Main isolating valve *(return)*
11 Main isolating valve *(flow)*
12 Temperature blending valve

Note: Pump may be mounted directly or installed remotely.
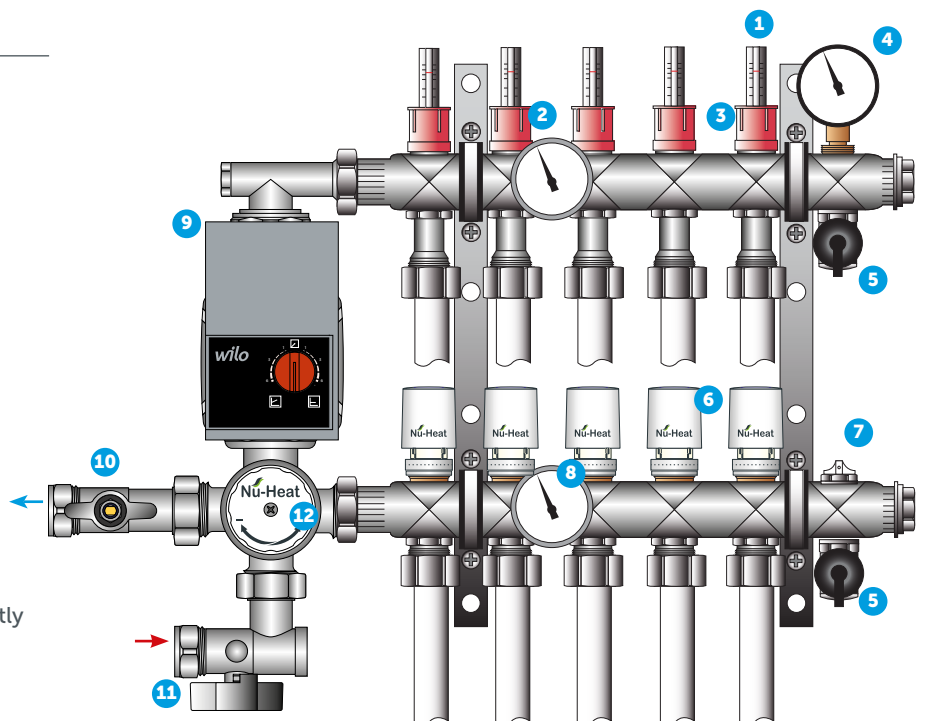
Seasonal adjustments

Underfloor heating can be left active all year round as it is thermostatically controlled by the room temperature. In warm weather it will simply not come on.

If you require to turn the heating off (for example when servicing) always use the main heating isolation switch.

Leaving the property unoccupied in winter

Rather than turning the heating system off, it is possible to leave background heating on as frost protection.

Each room/zone can be set to frost protection individually. Please refer to the instructions (Frost Protection on page 11), which detail how the thermostat can be put into a hold mode and the required frost protection temperature adjusted.

Instant hot water and heated towel rail

Hot water and heated towel rails will be available all year round regardless of your requirement for underfloor heating.

Geo-Location

UNDERSTANDING & SETTING UP GEO-LOCATION

Geo Location is a feature that makes use of a smart phone's location services to turn the heating off when the homeowner is out and back on for their return.

It works by the setting of a Leave and Return Trigger distance along with a required temperature. When the triggers are activated, Neo will automatically adjust the temperature in the home. It also works with multi users, so will only adjust the heating when the last person leaves and the first person arrives home.

Ideal uses for the Geo Location

- Automatically turn the heating off when you're out, perfect for weekends when you may have your heating programmed to be on all day.

- Always return to a warm home. For those occasions when you return home outside a programmed heating period, Geo Location will automatically turn the heating on and then turn it off when you leave.

Note: Geo-Location works well for radiators and for LoPro™Max, which respond quickly. However, for other UFH floor constructions, with longer response times, Geo-Location will not necessarily give the desired performance and comfort.

1 Select Geo Location

2 Turn on Geo Location

3 Work through the settings to Configure

4 Press Home Location to locate your home.

5 Press Selected Rooms, ✓ the applicable rooms

6 Enter the Leaving Trigger Distance

7 Enter the Return Trigger Distance

**8** Enter the Leave & Return Temperatures

Things to remember

1 **Account per User** – To use Geo Location – each user in the home must have their own Share Account.

2 **Enable Location Services** – Geo Location uses your phones location services, so you must have this enabled for the Geo Location feature to work.

3 **Enable WiFi** – Geo Location uses WiFi to get a more accurate lock on your position. Your phone doesn't need to be connected to a WiFi network for this to work, your phone will constantly scan available networks and use this data to more accurately determine your location.

4 **Last Out – First Home** – Remember that Geo Location will only turn the heating off when the last person has left and back on when the first person arrives home. You will receive a notification on your phone if the temperature in your home has been adjusted because of your location.

5 **Location Services** – If you setup a 1 mile leave trigger, your phone will send a signal to your neoHub+to reduce the temperature in your home once your phone's location services indicates to the neoApp that you have passed this point. Your phone will determine how often to update your location – it does this to reduce the impact on battery performance. Therefore, you should expect a slight delay after passing the trigger point before Neo adjusts the temperature in your home.

Privacy

- Neither Nu-Heat nor Heatmiser ever knows or stores your home location or your current position.

- Only your mobile phone knows your home location and your current position. Using this data it calculates when you have passed the configured trigger points.

- The state (Home/Away) is stored on the neo Server per user, and this is used to calculate when everyone has left home therefore allowing neo to reduce the temperature or to calculate when the first person is arriving home.

System adjustments

If additional heat is required in a selected room or rooms the water flow rate(s) serving these areas can be increased.
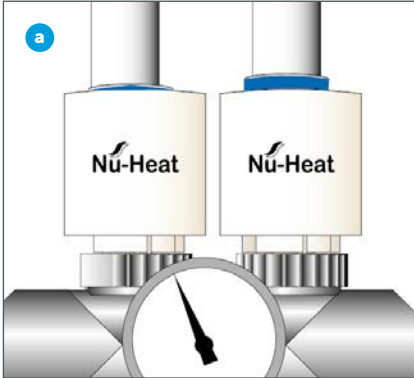
To do this:

When the system is operating, turn the thermostat up in that room.

Identify from the pipe markings at the manifold which actuator head serves the zone you want to change.

Note: If the zones are not clearly marked turn off all the other room stats. The zone that is operating will be shown by a raised button on the top of the actuator (a) and the flow gauge will indicate a flow reading (b).

Please note that the button can take up to 3 minutes to respond.
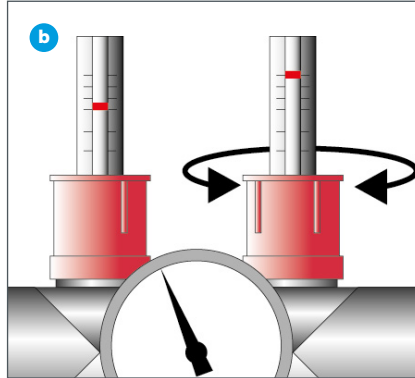
Turn the flow gauge – anti-clockwise for more flow, clockwise for less.

The red flow indicator will drop further the greater the flow rate.

Note: Adjust a little at a time to suit your requirements. Increasing the flow to one zone may decrease the flow to others. There is a limit to how much extra flow can be achieved and if, after adjusting one or several zones, further action is required the flow temperature can be increased.

To do this:-

With the system running note the water flow temperature on the gauge (c) on the top rail of the manifold. This temperature can be increased (see d1 and d2 below).
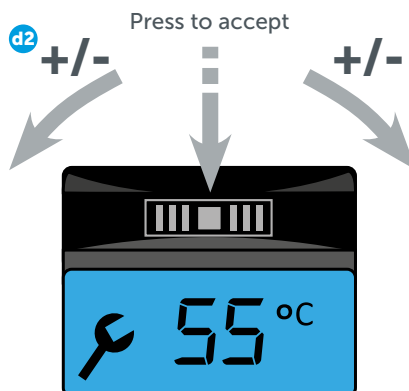
Note: Adjust a little at a time to suit your requirements.

Direct-mounted pump module (d1)

To increase the temperature:

1 Turn the control head anticlockwise

Press to accept

+/-   +/-

Remote pump module (d2)

To increase the temperature:

1 Push the button above the illuminated display in and across to the right to scroll to the temperature menu.

2 Adjust the temperature by pushing the button to the left or right.

3 Press the button again to confirm the change.

Servicing requirements

MONTHLY

Check the expansion vessel water pressure as displayed on the gauge, the pressure should normally be between 1 bar and 2 bar depending on whether the system is cold or hot.

Please refer to the System Checks section (page 18) for further-information.

ANNUALLY

Underfloor heating
Whilst there is no requirement for annual servicing it is important that the level of central heating inhibitor is sufficient to protect the system.

Energy efficiency (ErP)

The neoStat is rated as Class I under Section 5.2.1.2 Temperature control, of EU Commission Delegated Regulation No. 811/2013.

ENERGY EFFICIENCY RATING
CLASS
I
ERP

Product support

For further information on the operation of your underfloor heating system and also troubleshooting help, please visit the Nu-Heat website at nu-heat.co.uk.

Nu-Heat
UNDERFLOOR & RENEWABLES

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