heatmiser









Table of Contents

Product Image	1	Holiday	23
Table of Contents	2	Optional Settings Explained	24-25
What is a Programmable Room Thermostat?	3-4	Optional Settings - Feature Table	26
Installation Procedure	5-6	Adjusting the Optional Settings	27
Mode Select	7	Recalibrating the Thermostat	28
Mode 1 - Thermostat	8	Error Codes	28
LCD Display	9-10	Remote Probe Connections	29
Set Up & Pairing	11-12	Wiring Diagram	30
Power On/Off	13		
1 011 011 011			
Setting the Time and Date	14	Mode 2 - Time Clock	
		Mode 2 - Time Clock LCD Display	31-32
Setting the Time and Date	14		31-32 33
Setting the Time and Date Temperature Display	14 15	LCD Display	
Setting the Time and Date Temperature Display Temperature Control	14 15 16	LCD Display Setting the Switching Times	33
Setting the Time and Date Temperature Display Temperature Control Edit Comfort Levels	14 15 16 17-18	LCD Display Setting the Switching Times Timer Advance	33 34
Setting the Time and Date Temperature Display Temperature Control Edit Comfort Levels Temperature Hold	14 15 16 17-18	LCD Display Setting the Switching Times Timer Advance Timer Override	33 34 35
Setting the Time and Date Temperature Display Temperature Control Edit Comfort Levels Temperature Hold Thermostat Advance	14 15 16 17-18 19 20	Setting the Switching Times Timer Advance Timer Override Optional Settings Explained	33 34 35 36



What is a Programmable Room Thermostat?

A programmable room thermostat is both a programmer and a room thermostat.

A programmer allows you to set "On" and "Off" periods to suit your own lifestyle.

A room thermostat works by sensing the air temperature, switching on the heating when the air temperature falls below the thermostat setting, and switching it off once this set temperature has been reached.

So a programmable room thermostat lets you choose what times you want the heating to be on, and what temperature it should reach while it is on. It will allow you to select different temperatures in your home at different times of the day (and days of the week) to meet your particular needs and preferences.

Setting a programmable room thermostat to a higher temperature will not make the room heat up any faster. How quickly the room heats up depends on the design and size of the heating system.

Similarly reducing the temperature setting does not affect how quickly the room cools down. Setting a programmable room thermostat to a lower temperature will result in the room being controlled at a lower temperature, and saves energy.

The way to set and use your programmable room thermostat is to find the lowest temperature settings that you are comfortable with at the different times you have chosen, and then leave it alone to do its job.

The best way to do this is to set the room thermostat to a low temperature – say 18° C, and then turn it up by 1° C each day until you are comfortable with the temperature. You won't have to adjust the thermostat further. Any adjustment above this setting will waste energy and cost you more money.

You are able to temporarily adjust the heating program by overriding or using the temperature hold feature. These features are explained further on pages 16 and 19 of this manual.

Programmable room thermostats need a free flow of air to sense the temperature, so they must not be covered by curtains or blocked by furniture. Nearby electric fires, televisions, wall or table lamps may also prevent the thermostat from working properly.



Installation Procedure



Dο

Mount the thermostat at eye level.

Read the instructions fully so you get the best from our product.



Don't

Do not install near to a direct heat source as this will affect functionality. Do not push hard on the LCD screen as this may cause irreparable damage.

This thermostat is designed to be flush mounted and requires a back box of 35mm (minimum depth) to be sunk into the wall prior to installation.

Step 1

Using a small screwdriver, slightly loosen the screw from the bottom face of the thermostat. You can then carefully separate the front half from the back plate.

Step 2

Place the LCD display front plate somewhere safe.

Terminate the backplate as shown in the diagram on page 38 of this booklet.

Step 3

Screw the back plate securely into the back box.

Step 4

Replace the front of the thermostat onto the back plate, by locating the pins in the socket then insert the top edge first. Now push in the bottom edge, securing it in place with the retaining screw.









Mode Select

The neoStat Touch-e can either be used as a thermostat, or time clock. Thermostat is the default setting. **Do not use mode 2 for electric underfloor heating!**

To change between thermostat & time clock modes, follow these steps.

- Press and **hold** the ♥ key for 3 seconds

 At this point the screen will go blank showing only ♥, 'CLOCK' and 'SETUP'.

 Press and **hold** 'SETUP' for 10 seconds

 The neoStat Touch will factory reset then provide 2 selectable mode options.
 - Use the Left / Right keys to scroll between modes

 Mode 1 = Thermostat

 We also to see the Left / Right keys to scroll between modes.

 We also to see the Left / Right keys to scroll between modes.
 - Mode 2 = Time Clock

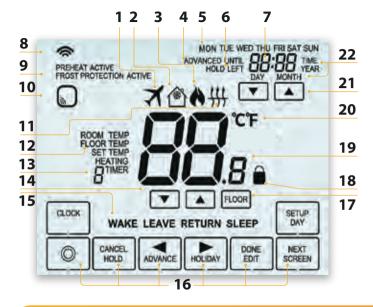
 Note: the selected option will flash.
 - Mode 3 = **Not Used** for neoStat Touch-e

 ${\it The neoStat Touch-e\,will\, reset\, all\, parameters\, and\, restart\, in\, the\, selected\, mode.}$

Note: The Mode Select function will factory reset all parameters.

Mode 1 Thermostat





LCD Display

- 1. Holiday Displayed when the thermostat is in holiday mode.
- 2. Frost Protection Displayed when frost protection is enabled or activated by a Window/Door Switch.
- Flame Symbol Displayed when the thermostat is calling for heat and flashes when optimum start is active.
- 4. Advanced Until Displayed when the neoStat Touch-e is advanced to the next programmed comfort level.
- 5. Day Indicator Displays the day of the week.
- 6. Hold Left Displayed when a temperature hold is active, the remaining time will be shown.
- 7. Clock Time displayed in 24 hour format.
- 8. Mesh Symbol Displayed when connected to the neoHub.
- 9. Active Status Indication for 'Preheat' and 'Frost Protection' modes.
- Sensor Warning Shows on screen when the thermostat has failed to receive a signal from a Wireless Sensor or Window/Door Switch.
- Floor Limit Symbol Displayed when the floor probe has reached the floor temperature limit configured in the setup menu.
- 12. Room Temp/Floor Temp/Set/Set Temp/Heating/Timer Indicates displayed sensor mode and when changes are being made to the current set point and switching periods.
- 13. Program Indicator Displayed during programming (6 level mode) to show which level is being altered.
- 14. Up/down keys Increase/decrease of lower digit group.
- 15. Program Indicator Displayed during programming (4 level mode) to show which level is being altered.
- 16. Navigation/Programming keys Used to configure the neoStat Touch-e.
- 17. View Floor Temperature Key Used to change display to show floor temperature.
- 18. Keypad Lock Indicator Displayed when the keypad is locked.
- 19. Temperature Displays the current sensor temperature.
- 20. Temperature Format Degrees Celsius or Fahrenheit.
- 21. Up/down keys Increase/decrease of higher digit group.
- 22. Time/Day/Month/Year Displays when setting the Clock/Calendar or a Holiday Period.







Pairing the neoHub

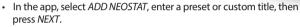
To pair the neoHub with the neoApp, follow these steps.

- Connect the neoHub to your router with the Ethernet cable provided.
- · Connect the power supply to the neoHub.
- The router will automatically assign an IP address to the neoHub, the Link LED will light up RED once the neoHub has connected to your network.
- Once connected to the Heatmiser cloud server, the Link LED will turn GREEN.
- Connect your smartphone or tablet device to the same WiFi network as your router.
- Download the FREE Heatmiser neoApp from the Apple App Store or Google Play Store and register an account.
- Once you have registered your account, press Sign In, then press Add Location.
- Press the connect button on the neoHub to add the location to your account.
- When successfully connected, enter a title for the location (e.g. Home).

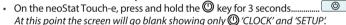
Please note, you only have to pair the hub to your account once. To pair any additional neoStats, select 'ZONES', edit, then 'ADD ZONE'.



The next step is to join the neoStat Touch-e to the neoHub. To add a neoStat Touch-e, follow these steps;



You now have two minutes to join the neoStat Touch-e to the neoHub.



- Press the 'SETUP' key once, then press 'NEXT'.....
- SETUP NEXT The MESH symbol will flash on the display.....
- When the neoStat Touch-e successfully connects to the neoHub the MESH symbol will be permanently displayed and a confirmation will show on the app. In the app, press ADD ANOTHER for additional zones or press FINISH to complete setup.



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 thermostat remains active.

To turn the thermostat off completely, press and **hold** the **②** key for approximately 3 seconds until the display shows 'SETUP' & 'CLOCK'.....

.____

After 10 seconds 'SETUP' & 'CLOCK' will clear, with only the power icon remaining. The display and heating output will be turned OFF.

To turn the thermostat back **ON**, press the **O** key......

.... 🔘

Thermostat completely OFF



Thermostat powered ON





Setting the Time and Date

To set the clock, follow these steps.

- (0) • Press and **hold** the **(1)** key for 3 seconds At this point the screen will go blank showing only 0, 'CLOCK' and 'SETUP'. CLOCK Tap the 'CLOCK' key The 'Year' diaits will now flash. • Use the 'Up/Down' arrow keys followed by 'NEXT' to set the 'Year'..... NEXT • Use the 'Up/Down' arrow keys followed by 'NEXT' to set the 'Month'..... NEXT
- Press the 'DONE' key followed by to store and return to the main display.....

Repeat the previous two steps to set the date ('Dav. Hours & Minutes').



Temperature Display

This thermostat can be configured for different sensor options such as built in sensor, floor sensor or both. The display will clearly indicate which sensor is being used by showing either 'ROOM TEMP' or 'FLOOR TEMP' to the left the actual value.





Floor Temperature

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

To view the current floor temperature, press the FLOOR key. the floor temperature will be displayed for 10 seconds

FLOOR



Temperature Control

When you press either key, you will see the words 'SETTEMP' and the desired temperature value.

Press 'DONE' to confirm temperature setting and return to the main display...

The 'Up/Down' kevs allow you to adjust the set temperature





Until next programmed 'Comfort Level' time.

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





This thermostat offers three program mode options; Weekday/Weekend, 7 Day and 24 Hour programming. There is also the option to use the neoStat Touch-e as a manual thermostat.

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

07:00 - 21°C (Wake) 09:00 - 16°C (Leave) 16:00 - 21°C (Return) 22:00 - 16°C (Sleep)

Unused levels must be set to --:-- so that the thermostat will skip these and continue on to the next programmed time.

For Weekday/Weekend programming, the four comfort levels are the same for Mon-Fri, but can be different for Sat-Sun. For 7 Day programming each day of the week can have four different comfort levels. In 24 Hour mode all days are programmed with the same comfort levels.

- To program the 'Comfort Levels', press the 'EDIT' key

 EDIT
- Use the 'DAY' key to select day/period of week......

 DAY

'WAKE', plus the current time and temperature setting will be shown.

Use the 'Up/Down' key at the top to set the 'Hours' & 'Minutes'
Use the 'Up/Down' keys in the center to set the temperature
Press the 'Right' arrow key
'LEAVE' will now show with the current settings displayed.
Repeat these steps above to set all comfort levels.
For any unused periods set time to --:-Press 'DONE' to confirm and save the settings



Temperature Hold

The temperature hold function allows you to manually override the current operating

Press the 'Hold' key once	HOLD
Use the 'Up/Down' keys to set the desired 'Hold' temperature	
Press 'DONE' to confirm selection	DONE

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.

Cancel/Edit Temperature Hold

- To edit 'Hold' settings follow the same procedure as indicated in the steps at the top of this page.

Thermostat Advance

This feature allows the next 'Comfort Level' setting to be brought forward and become active before its pre-programmed time.

Note: Multiple advances aren't allowed.

To enable 'Advance'

Press the 'ADVANCE' key once ADVANC 'ADVANCED UNTIL' time and the 'SET' temperature will now be displayed.

Press 'DONE' to confirm selection DONE

To view the 'SET' temperature during 'Advance' tap either the 'Up' or 'Down' key once.... DONE Press 'DONE' to exit

To change the 'SET' temperature during 'Advance', use the 'Up/Down' keys followed by 'DONF' to confirm DONE



Until'time

Level Advanced Until

To cancel 'Advance'

Press the 'Advance' key once.....

Press'CANCEL' to cancel the Advance and return to normal operation......



Frost Protection Standby

To cancel the frost protect mode, press the 🔘 key again



To cancel frost protect or standby modes, repeat steps above.



Locking the Touch Display

The neoStat Touch-e has a keypad lock facility. To activate the lock follow these steps.

Press and hold the 'HOLD' key for 10 seconds HOLD' hey for

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 Touch Display

The display will unlock and return to the main screen.





In time clock mode: the schedule will be turned off during the holiday period. then return to the programmed settings once the holiday period finishes.

In thermostat mode: the holiday function reduces the set temperature in your home to the frost mode temperature setting that is configured in the setup menu.

The thermostat will maintain this temperature for the duration of the holiday and will then automatically return to the program mode on your return.

To set a 'Holiday'

HOLIDAY Press the 'HOLIDAY' key once Enter the 'Year' by using the 'Up/Down' keys then press 'NEXT' to confirm... NEXT Enter the 'Month' by using the 'Up/Down' keys then press 'NEXT' to confirm NEXT Repeat these steps to set 'Day', 'Hours' & 'Minutes' DONE Press 'DONE' to confirm

The display will now show \overrightarrow{A} and indicate 'Frost Protection Active'

To view or change the 'Set' frost temperature while in 'Holiday' mode. press the 'Up/Down' keys followed by 'DONE' to confirm





THE FOLLOWING SETTINGS ARE OPTIONAL AND IN MOST CASES NEED NOT BE ADJUSTED.

Switching Differential: This function allows you to increase the switching differential of the thermostat. The default is 1°C which means that with a set temperature of 20°C, the thermostat will switch the heating on at 19°C and off at 20°C. With a 2°C differential, the heating will switch on at 18°C and off at 20°C.

Frost Protect Temperature: This is the temperature maintained when the thermostat is in Frost Mode. The range is $05 - 17^{\circ}$ C. The default is 12° C and is suitable for most applications.

Output Delay: To prevent rapid switching, an output delay can be entered. This can be set from 00 - 15 minutes. The default is 00 which means there is no delay.

Temperature Up/Down Limit: This function allows you to limit the use of the up and down temperature arrow keys. This limit is applicable when the thermostat is locked and so allows you to give others limited control over the heating system.

Sensor Selection: On this thermostat, you can select which sensor should be used. You can select between air temperature only, floor temperature, or both. When you enable both sensors, the floor sensor is used as a floor limiting sensor and is designed to prevent the floor from overheating.

Floor Temp Limit: When the Floor Sensor has been enabled in feature 05, you can set a floor limiting temperature from 20-45°C, this protects the floor from overheating. (28°C is the default)

Optimum Start: Optimum start will delay the start up of the heating system to the last possible moment to avoid unnecessary heating and ensure the building is warm at the programmed time. The thermostat uses the rate of change information to calculate how long the heating needs to raise the building temperature 1°C (with a rate of change of 20, the thermostat has calculated the heating needs 20 minutes to raise the building temperature 1°C) and starts the heating accordingly

Rate of Change: Number of minutes for 1°C temperature rise. The default setting is 20 minutes and can change on a daily basis. This setting cannot be changed and is for information only.

Program Mode: Non-Programmable, Weekday/Weekend (5/2),7 Day Programming or 24 Hour. The thermostat offers three programming modes and the option of configuring it to work as a non-programmable thermostat.

Weekday/ Weekend - allows you to program 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.

Temperature Format: This function allows you to select between °C and °F.

Back-light Dimming (Carbon Models Only): When there's no interaction present, the LCD brightness will lower. Dimming level can be changed between 'Medium' or 'Low' to suit the environment. Use the lower level for bedrooms



Optional Settings - Feature Table

FEATURE	DESCRIPTION	SETTING
01	Pairing	Used to add zone to the neoHub
02	Switching Differential	00.5 = 0.5°C (Default) 01 = 1.0°C 02 = 2.0°C 03 = 3.0°C
03	Frost Protection Temperature	05° - 17°C (12°C = Default)
04	Output Delay	00 - 15 Minutes (00 = Default)
05	Up/Down Temperature Limit	00° - 10°C (00 = Default)
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
07	Floor Temperature Limit	20°C - 45°C (28°C = Default)
08	Optimum Start	00 - 05 Hours (00 = Default)
09	Rate of Change	Minutes to raise by 1°C
10	Not used on this model	
11	Not used on this model	
12	Program Mode	00 = Non - Programmable 01 = Weekday/Weekend (Default) 02 = 7 Day Programming 03 = 24 Hour Mode
13	Temperature Format	$00 = ^{\circ}C$, $01 = ^{\circ}F$ ($00 = Default$)
14	Backlight dimming (Carbon Models Only).	00 = Medium 01 = Low

To access this menu see the following page!



Adjusting the Optional Settings

• Press and **hold** the **©** key for 3 seconds The display will go blank showing only \mathbb{O} 'Setup' and 'Clock' Press the 'SETUP' key once......

SETUP



Feature Setting

- Use the 'Up/Down' keys at the top to scroll through features......
- Use the 'Up/Down' kevs in the centre to change feature setting......
- When all required changes have been made press 'DONE' to confirm and return to the blank display



DONE





Recalibrating the Thermostat

This thermostat is factory set and doesn't need re-calibrating under normal operation!

To calibrate, follow the step below.

• Press and **hold** the **©** key for 3 seconds

... 🕒

The display will go blank showing only 'Setup' and 'Clock'.

• Press and **hold** the © key for 10 seconds



DONE

(0)

The current temperature will appear on the display.

- Press the 'DONE' key to confirm the change and the display will go blank



Error Codes

The thermostat will display an error code if there is a fault with the temperature sensor, these error codes are explained below. $\frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \left(\frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \left(\frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \left(\frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty}$

- E0 = The internal sensor has developed a fault.
- E1 = The remote FLOOR probe has not been connected.

The remote FLOOR probe has not been wired correctly.

The remote FLOOR probe is faulty.

E2 = The remote AIR SENSOR probe has not been connected.

The remote AIR SENSOR probe has not been wired correctly. The remote AIR SENSOR is faulty.



The neoStat Touch-e allows for up to two probe connections, remote floor and remote air. To enable remote probe connections, refer to the feature table on page 30.

Probe Types



Remote Floor Sensor NTC Thermistor 10K3A1



Remote Air Thimble Sensor NTC Thermistor 10K3A1

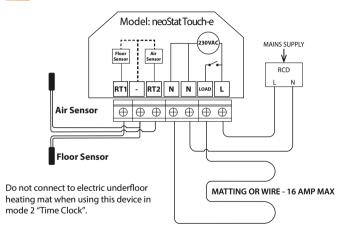
Input Connections

- Floor Sensor, use RT1 and Negative terminals......

Also refer to the diagram on page 38.



Wiring Diagram - neoStat Touch-e



This product must only be installed by a qualified electrician and comply with local installation regulations.

Mode 2 - Time Clock



LCD LCD Display

- 1. Holiday Displayed when the time clock is in holiday mode.
- Advanced Until Displayed when the time clock is advanced to the next programmed comfort level.
- 3. Day Indicator Displays the day of the week.
- 4. Hold Left Displayed when a timer hold is active, the remaining time will be shown.
- 5. Clock Time displayed in 24 hour format.
- 6. Mesh Symbol Displayed when connected to the neoHub.
- Set Indicated when changes are being made to the current set point.
- Program Indicator Displayed during programming, to show which level is being altered.
- 9. Navigation/Programming keys Used to configure the neoStat Touch-e.
- 10. Keypad Lock Indicator Displayed when the keypad is locked.
- 11. Timer On/Off Indicates state of time clock output.
- 12. Up/down keys Increase/decrease of higher digit group.
- Time/Day/Month/Year Displays when setting the Clock/Calendar or a Holiday Period



Setting the Switching Times

To program the 'Switching times', press the 'EDIT' key
Use the 'DAY' key to select day/period of week (the selection will flash) DAY DAY
Press 'NEXT' to confirm selection
'WAKE' will now flash and the ON time will be displayed.
• Use the 'Up/Down' key at the top to set the 'Hours' & 'Minutes'
Press Next
The OFF time will now be displayed.
Use the 'Up/Down' key at the top to set the 'Hours' & 'Minutes'
Press the right arrow key
'Leave' will now flash and the ON time will be displayed.
Repeat the steps above to set all switching time levels.
For any unused periods set time to:
Press 'DONE' to confirm and save the settings DONE

Timer Advance

This feature allows the next 'Switching time level' setting to be brought forward and become active before its pre-programmed time. Note: Multiple advances aren't allowed.

To enable 'Advance'

- Press 'DONE' to confirm

 DONE

To cancel 'Advance'



Timer Override

To override the timed output 'ON/OFF', follow these steps.

Press the 'Hold' key once
 Use the 'Up/Down' keys to set the desired 'Hold' time.

DONE

CANC

Select: Timer On Timer Off

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.

Press 'HOLD' then press 'CANCEL'

To cancel Timer Override

Optional Settings Explained

Program Mode: The time clock offers three programming modes.

Weekday/ Weekend - 4 Switching times for Monday - Friday. 4 different switching times for Saturday - Sunday.

7 Day Program Mode - Each day of the week has 4 switching times that can be programmed independently.

24 Hour Mode - All days of the week are programmed with the switching times.

Back-light Dimming (Carbon Models Only): When there's no interaction present, the LCD brightness will lower. Dimming level can be changed between 'Medium' or 'Low' to suit the environment. Use the lower level for bedrooms.



Optional Settings - Feature Table

FEATURE	DESCRIPTION	SETTING
01	Pairing	Used to add zone to the neoHub
02	Program Mode	00 = Non - Programmable 01 = Weekday/Weekend (Default) 02 = 7 Day Programming 03 = 24 Hour Mode
03	Backlight dimming (Carbon Models Only).	00 = Medium 01 = Low



Feature Setting

Adjusting the Optional Settings



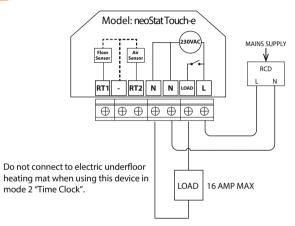
- Use the 'Up/Down' keys at the top to scroll through features
 Use the 'Up/Down' keys in the centre to change feature setting
- Press the ® key once

DONE

(



Wiring Diagram - Time Clock Mode



This product must only be installed by a qualified electrician and comply with local installation regulations.



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Want More Information?

Call our support team on: +44 (0)1254 669090

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