Nu-Heat
UNDERFLOOR & RENEWABLES

OneZone®

electrical installation manual & setup guide for neoAir V2 control

UNDERFLOOR HEATING
HEAT PUMPS
SOLAR THERMAL

working with you

before, during & after

your project

Nu-Heat Know-How

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Electrical installation manual – Nu-Heat OneZone® warm water underfloor heating with neoAir control

Please read this manual fully before fitting your Nu-Heat OneZone® floor heating system. It assumes a basic knowledge of electrical wiring, and of common terms used.

Attention to the advice given in this manual will help to ensure a trouble-free and effective installation. The requirements of the relevant British Standards and other Regulations should always be met.

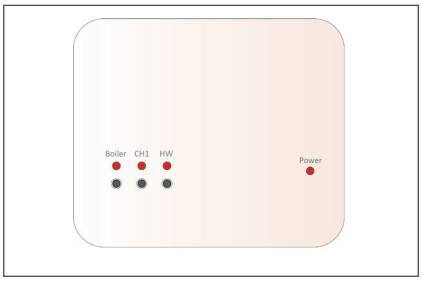
In line with the company policy of product development, Nu-Heat reserves the right to supply different components to those shown.

Please ensure that this manual remains with the homeowner when installation is complete. It is a companion manual to the *OneZone® Installation Manual*, which shows details of the plumbing components and floor construction.

Electrical components

neoAir wireless thermostat
NeoAir is a wireless, battery powered programmable thermostat that is capable of upgrade to smart control (see neoHub below). The room/zone is individually programmed for temperature and times of use. This can be independent control or in conjunction with an existing radiator system. For screed and floating floor systems, allowance should be made for the longer warm-up time of underfloor heating. With LoPro®Max systems response time is similar to that of a traditional radiator system.

In order to comply with wiring regulations bathroom zones must have the thermostat fitted outside the room, i.e. next to the door at light-switch height.



RF Switch
This is the wireless base receiver, to be fitted near to the OneZone® wiring centre.

OneZone® wiring centre
The wiring centre can either be fitted beside or remotely from the heating components. It can be wired to suit individual system requirements.

OPTIONAL COMPONENTS

neoHub
The neoHub connects to a home broadband router and wirelessly to the neoAirs in a home. Simply plug into a router, connect to your Nu-Heat neoApp on an Android or iOS device and take control of the underfloor heating from anywhere.

neoPlug
neoPlug is a simple smart plug that (with neoHub) enables on/off control of a household appliance. It also acts as a signal booster between the neoAir and the RF Switch.

Planning the installation

1. Read this *Installation Manual* carefully.
2. Decide which control method is to be used for the OneZone® underfloor heating system (see opposite).
3. Agree the position for the wiring centre and thermostat with the homeowner.
4. 1st fix all electrical equipment as per the chosen method of control.
5. After the underfloor heating pipework is installed, 2nd fix the electrical components.
6. Commission the underfloor heating and test its operation.
7. Explain the operation of the OneZone® underfloor heating system to the homeowner and **hand over this *User Guide* for reference.**

System control options

There are two ways to connect the system:

A – Connection is to the radiator circuit

Pipework is connected directly to the radiator circuit meaning that time settings will correspond to the radiator circuit and set-back operation is not possible. With screed and floating floor constructions, heating operation times for the whole system may have to be altered to allow for the longer warm-up time of underfloor heating compared to radiators. With LoPro®Max systems response time is similar to that of a traditional radiator system.

Refer to pages 9 for wiring details.

OR

B – Connection is at the boiler

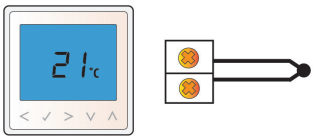
This arrangement gives optimum performance. It allows time and temperature settings for the OneZone® underfloor heating system to be independent of other areas of the home. It also enables use of a set-back temperature facility to reduce warm-up times. Pipework is connected back to the boiler side of any control valves.

What type of heating system do you have?

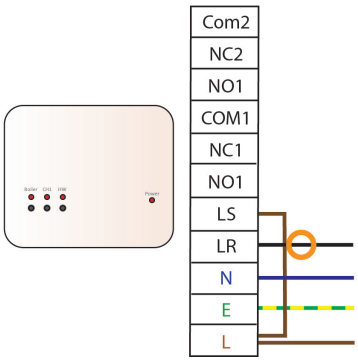
- Combination boiler → Refer to page 10 for wiring details.
- Boiler & cylinder → What type of system control do you have?
  - S Plan: The system has two 2-port zone valves, one controlling the radiator circuit and the other controlling the cylinder. Refer to page 11 for wiring details.
  - W or Y Plan: The system has a 3-port zone valve controlling both the cylinder and radiator circuits. This system type requires an additional 2-port zone valve to be fitted. Refer to pages 12–13 for wiring details.
  - Don't know → Please consult your heating engineer or electrician.
- Don't know → Please consult your heating engineer or electrician.

neoAir & RF Switch connections

NEOAIR TERMINAL CONNECTIONS



RF SWITCH TERMINAL CONNECTIONS



REMOTE TEMPERATURE SENSORS

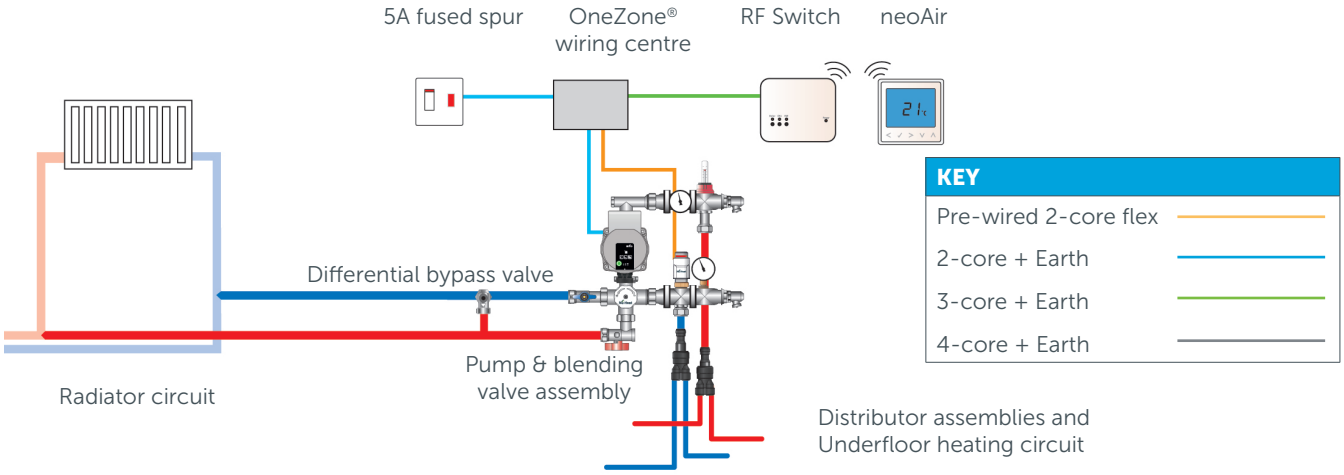
All OneZone® systems are supplied with a remote floor temperature sensor for use with sensitive floor coverings such as engineered hardwood, vinyls (including Amtico) and linoleums.

Note applying to all wiring diagrams:

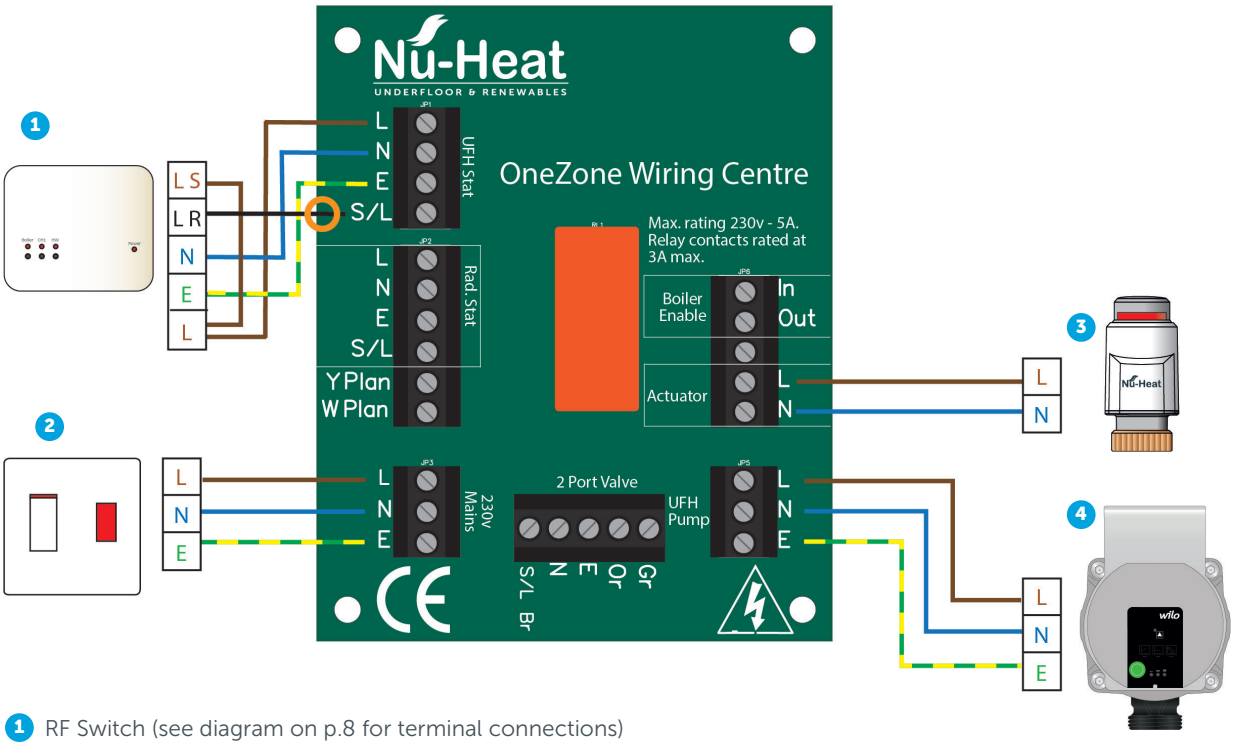
All new electrical works must comply with IEE Regulations and health and safety requirements, and be tested by a competent person before connection to mains voltage.

Systems without direct control of the boiler

SCHEMATIC



WIRING DIAGRAM



1. RF Switch (see diagram on p.8 for terminal connections)
2. 5A switched fused spur
3. Zone actuator
4. Underfloor heating pump

KEY

SL Switched Live
L Live
N Neutral
E Earth
LS Live (source)
LR Live (return)
Live voltage marker sleeve

Notes: Colour of wires may vary from those shown.
Earth where required.

Notes:

a The Nu-Heat underfloor heating programmable thermostat must be set so that heating periods coincide with the availability of hot water in the radiator circuit.

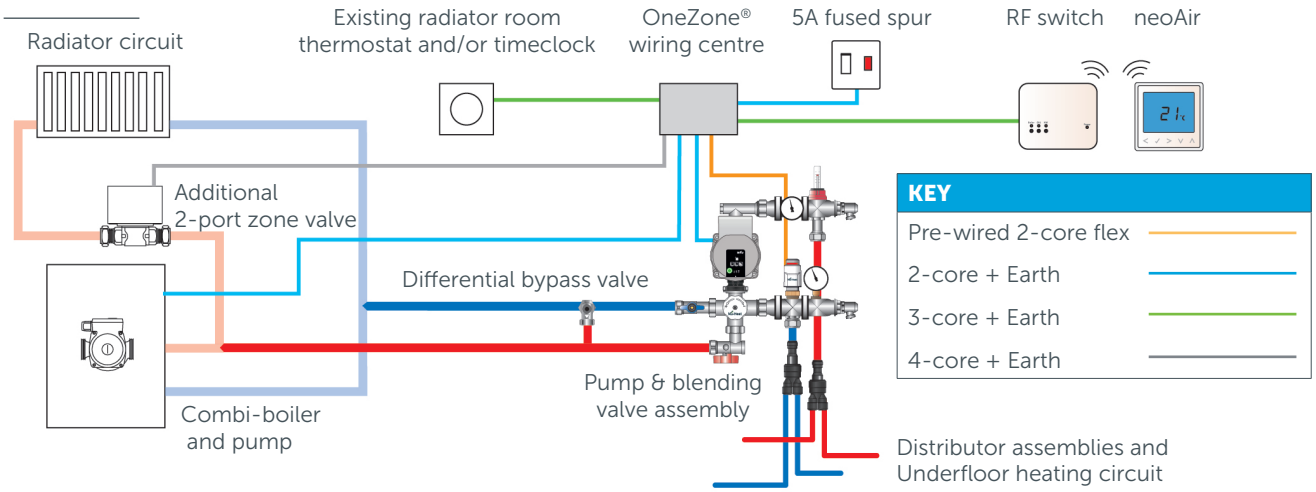
b Components shown in outline are not supplied.

c A 2-port zone valve is not needed on the UFH circuit.

Systems with direct control of the boiler

COMBINATION BOILERS WITH MAINS OR LOW-VOLTAGE SWITCHING

SCHEMATIC



WIRING DIAGRAM

Notes:

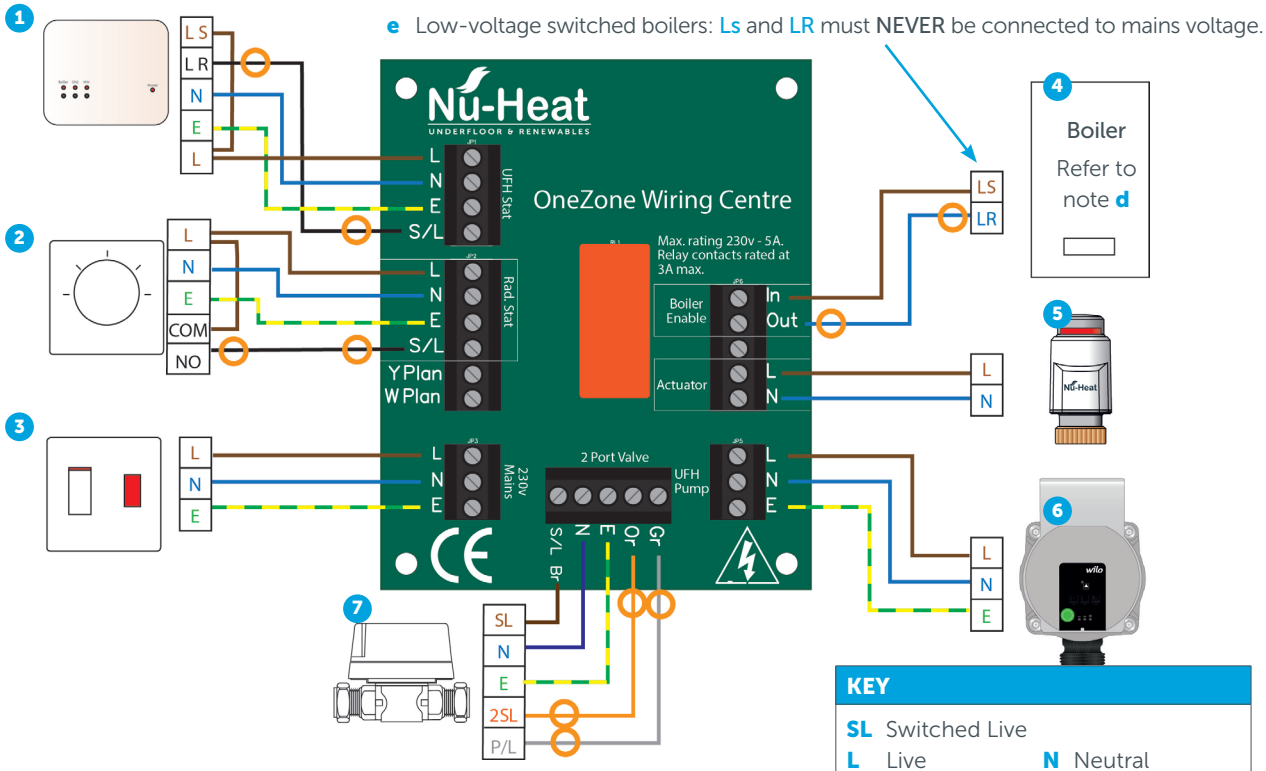
a Refer to boiler manufacturer's instructions for connection details and system recommendations.

b Ensure radiator room thermostat (if used) is suitable for 230v AC switching.

c Components shown in outline are not supplied.

d A 2-port zone valve is not needed on the UFH circuit.

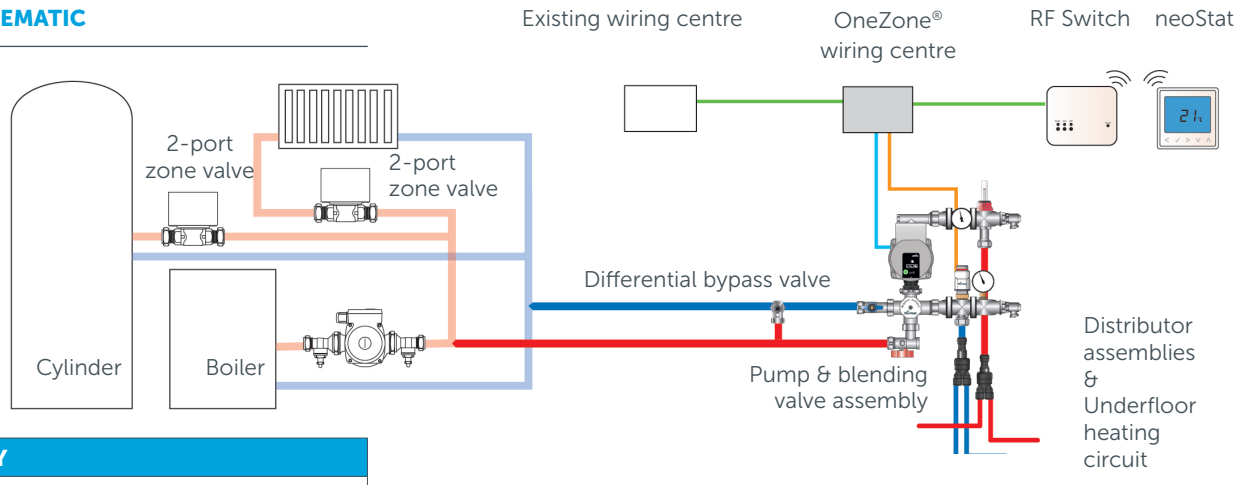
e Low-voltage switched boilers: Ls and LR must NEVER be connected to mains voltage.



1. RF Switch (see diagram on p.8 for terminal connections)
2. Radiator room thermostat and/or timeclock – note: number of cable cores depends on the thermostat used – see manufacturer's instructions.
3. 5A switched fused spur
4. Boiler and boiler pump
5. Zone actuator
6. Underfloor heating pump
7. Additional 2-port zone valve

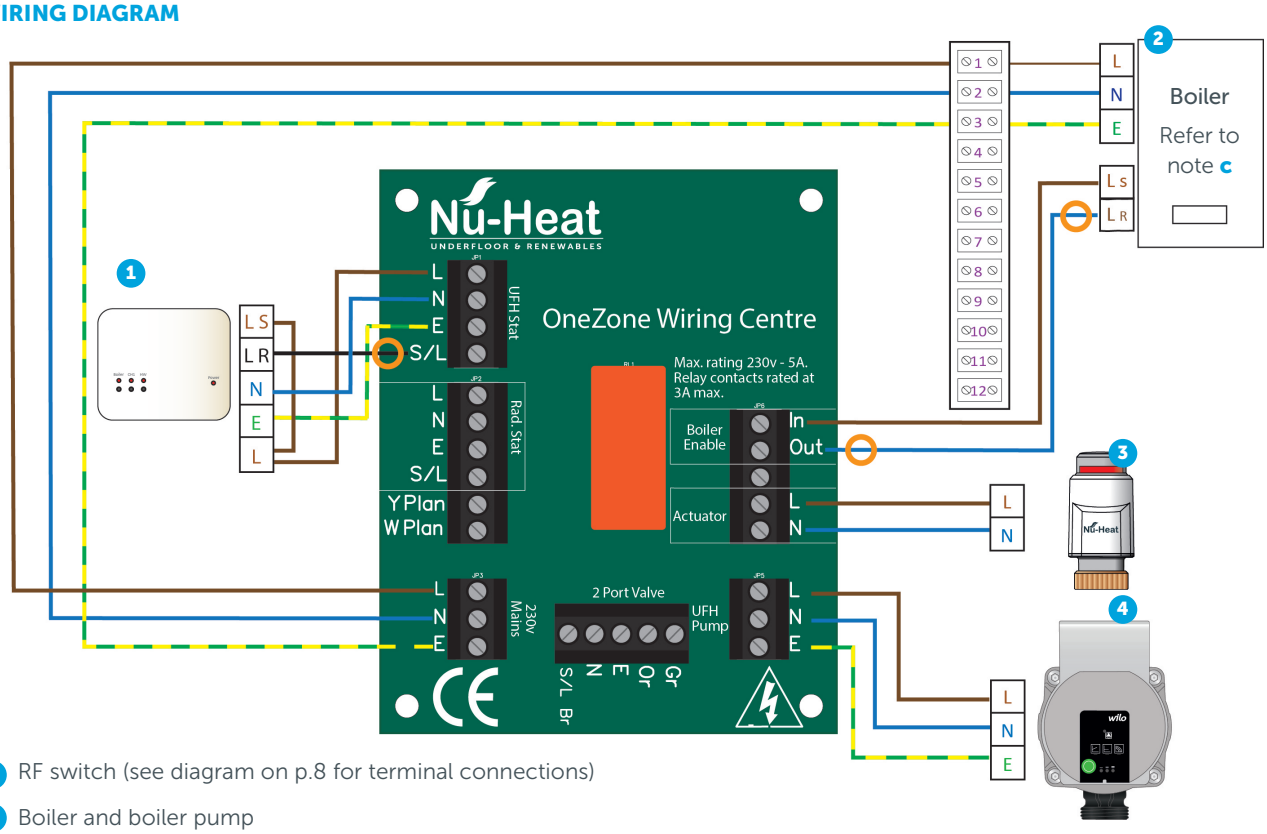
S-PLAN (2 X 2-PORT CONTROL VALVES)

SCHEMATIC



KEY	
Pre-wired 2-core flex	
2-core + Earth	
3-core + Earth	
4-core + Earth	

WIRING DIAGRAM



1. RF switch (see diagram on p.8 for terminal connections)
2. Boiler and boiler pump
3. Zone actuator
4. Underfloor heating pump

Notes:

- **a** The existing connection strip shown should be wired according to Honeywell or Danfoss standard wiring schematics for S-plan (two-port valve), with the addition of the connections detailed here.
- **b** Components shown in outline are not supplied.
- **c** For low-voltage switched boilers: Ls and LR must NEVER be connected to mains voltage.
- **d** A 2-port zone valve is not needed on the UFH circuit.

KEY	
SL Switched Live	
L Live	**N** Neutral
E Earth	
LS Live (source)	**LR** Live (return)
Live voltage marker sleeve	

Notes: Colour of wires may vary from those shown.
Earth where required.

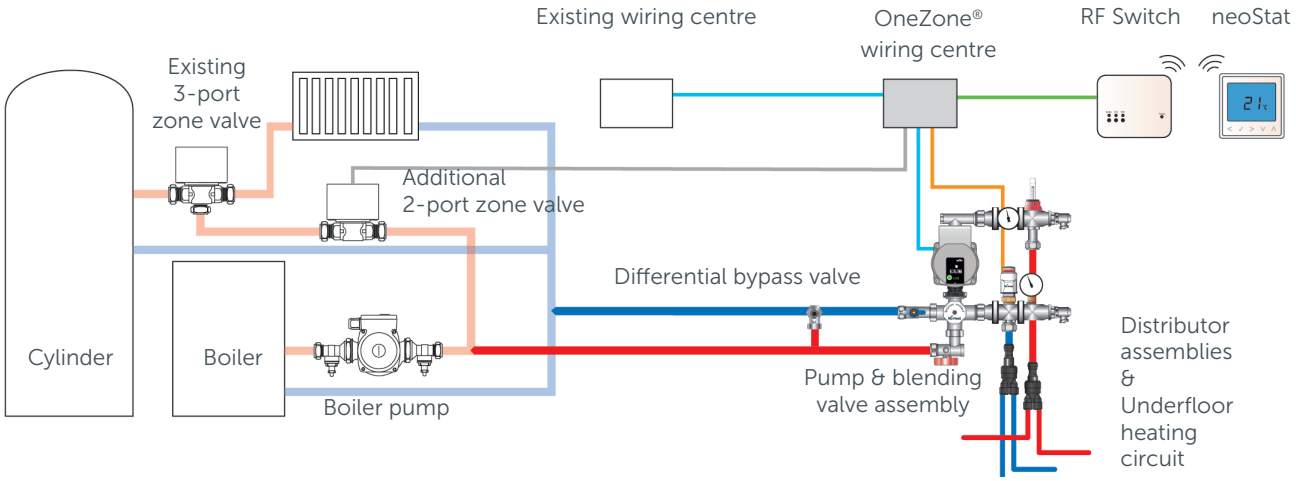
W-PLAN (3-PORT CONTROL VALVES) 230V AC SWITCHING

SCHEMATIC

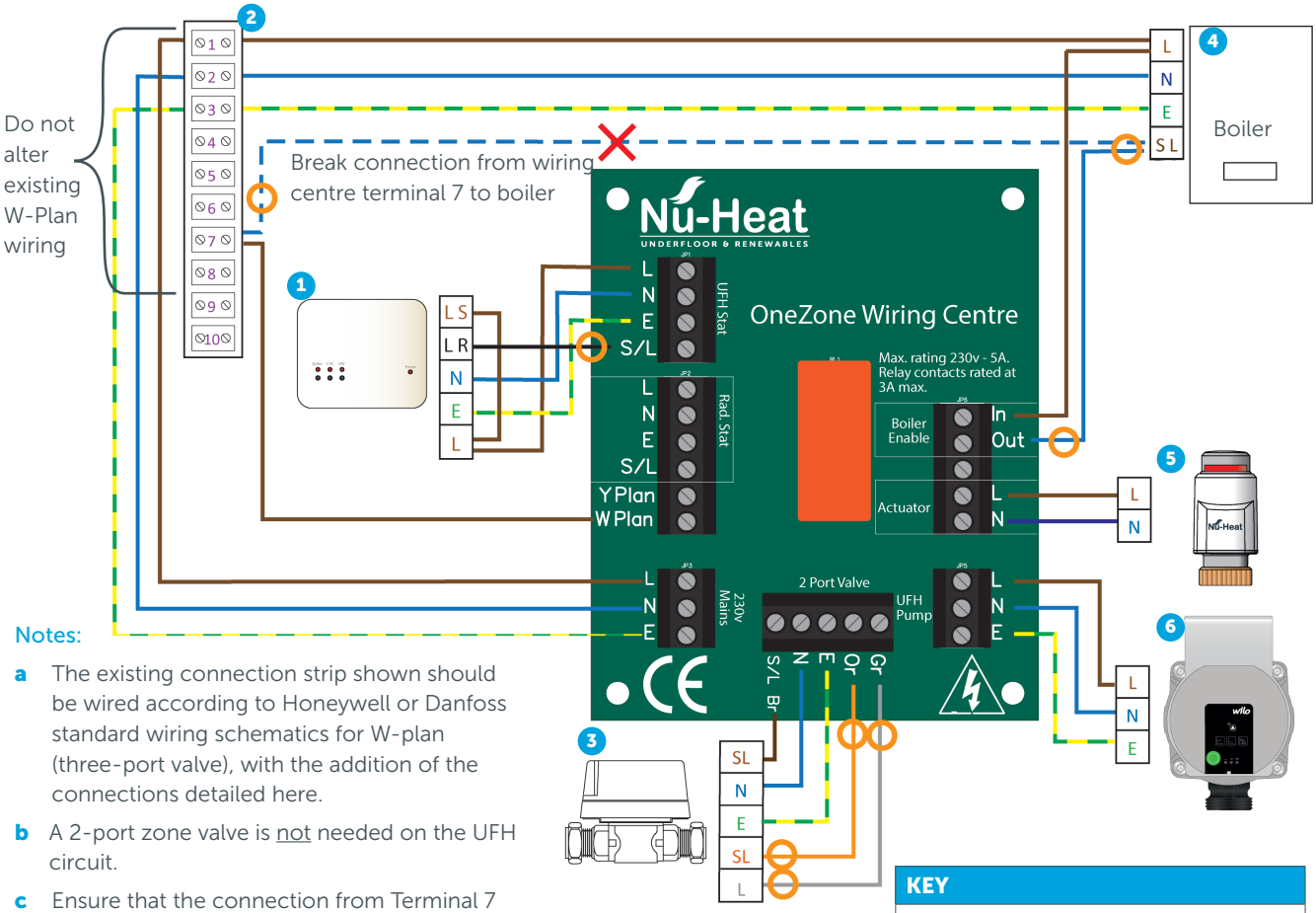
Note: To ensure there is no flow through the 3-port valve when both the radiator and cylinder system are off but the underfloor heating is on, an additional 2-port control valve must be fitted as shown.

KEY

- Pre-wired 2-core flex
- 2-core + Earth
- 3-core + Earth
- 4-core + Earth



WIRING DIAGRAM



Notes:

a The existing connection strip shown should be wired according to Honeywell or Danfoss standard wiring schematics for W-plan (three-port valve), with the addition of the connections detailed here.

b A 2-port zone valve is not needed on the UFH circuit.

c Ensure that the connection from Terminal 7 to the boiler is broken.

d Components shown in outline are not supplied.

1. RF switch (see diagram on p.8 for terminal specifics)..
2. W-Plan wiring centre
3. Additional 2-port zone valve
4. Boiler and boiler pump
5. Zone actuator
6. Underfloor heating pump

KEY

SL Switched Live
L Live
N Neutral
E Earth
LS Live (source)
LR Live (return)
Live voltage marker sleeve

Notes: Colour of wires may vary from those shown.
Earth where required.

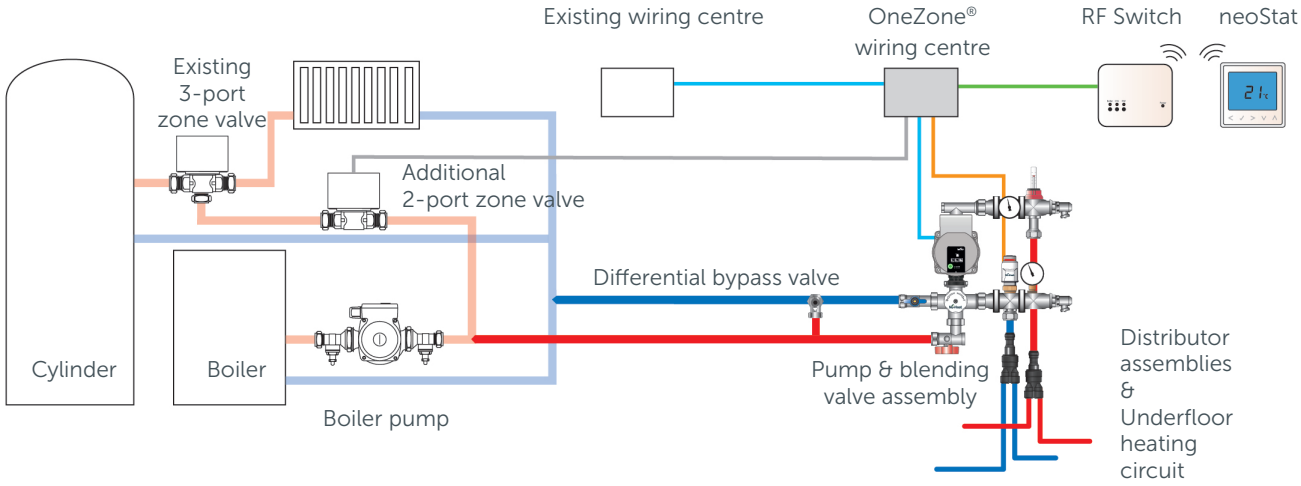
Y-PLAN (3-PORT CONTROL VALVES) 230V AC SWITCHING

SCHEMATIC

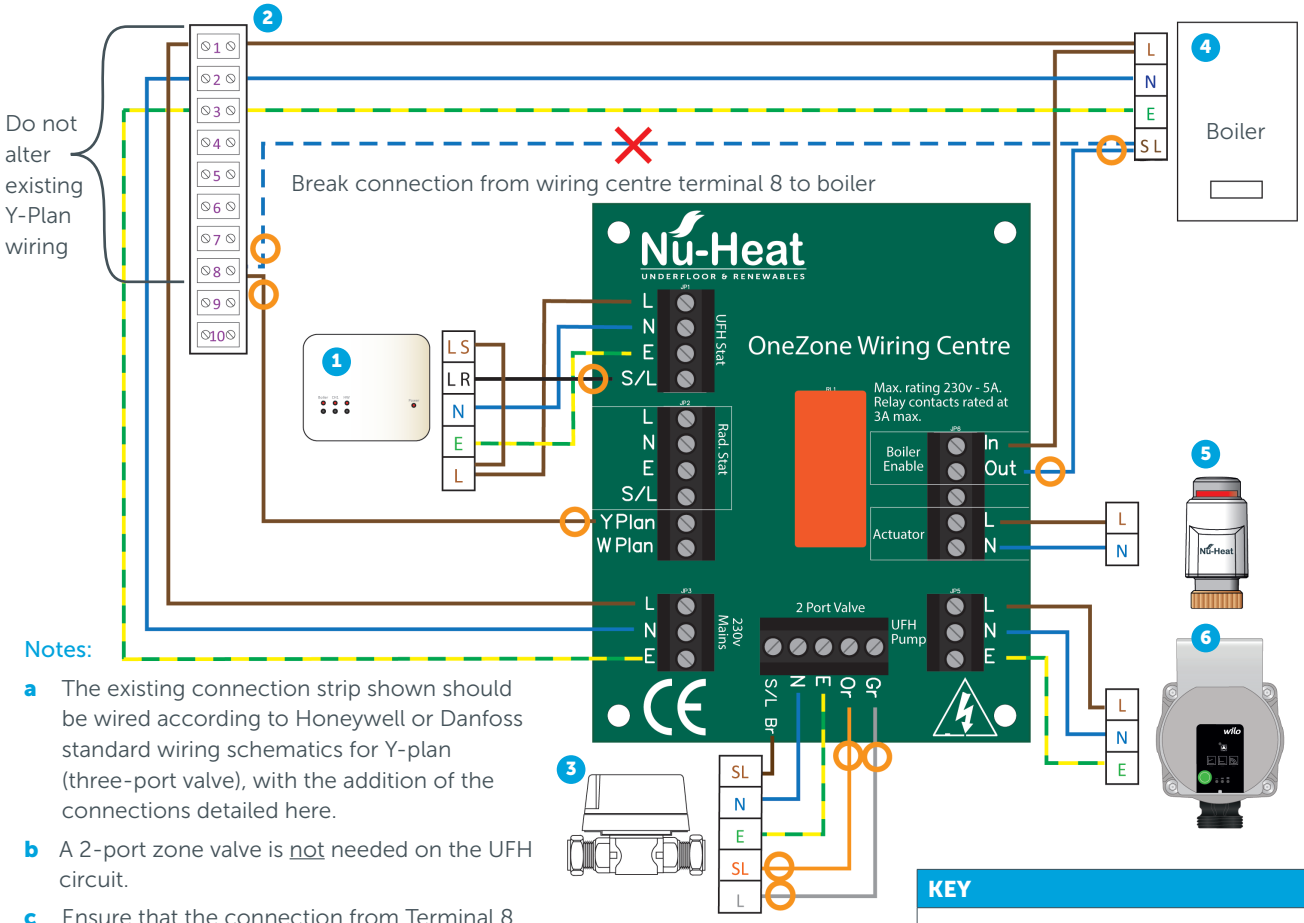
Note: To ensure there is no flow through the 3-port valve when both the radiator and cylinder system are off but the underfloor heating is on, an additional 2-port control valve must be fitted as shown.

KEY

- Pre-wired 2-core flex
- 2-core + Earth
- 3-core + Earth
- 4-core + Earth



WIRING DIAGRAM



Notes:

a The existing connection strip shown should be wired according to Honeywell or Danfoss standard wiring schematics for Y-plan (three-port valve), with the addition of the connections detailed here.

b A 2-port zone valve is not needed on the UFH circuit.

c Ensure that the connection from Terminal 8 to the boiler is broken.

d Components shown in outline are not supplied.

1. RF switch (see diagram on p.8 for terminal connections)
2. Y-Plan wiring centre
3. Additional 2-port zone valve
4. Boiler and boiler pump
5. Zone actuator
6. Underfloor heating pump

KEY

SL Switched Live
L Live
N Neutral
E Earth
LS Live (source)
LR Live (return)
Live voltage marker sleeve

Notes: Colour of wires may vary from those shown.
Earth where required.

Operation

neoAir combines the functions of a room thermostat and programmer.

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.

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 18–19 of this manual.

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, OneZone® pump and manifold assembly, thermostat and OneZone® 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 an additional switch located at the OneZone® wiring box which also needs to be on.

Settings for underfloor heating

UNDERFLOOR HEATING

Consideration should be given to the floor construction and floor finish used in the room with OneZone, as these factors will affect the time the system will take to achieve comfort conditions.

Note that systems without direct boiler control cannot operate at times when the radiator circuit is off.

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 with LoPro®Max 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.
- 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.

Installing neoAir

INSTALLATION PROCEDURE

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.

Do

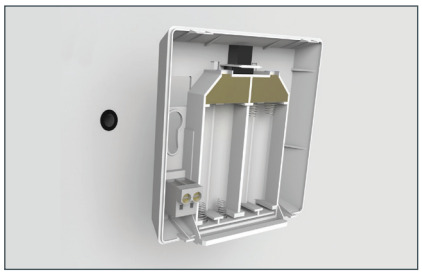
- Mount the neoAir at eye level.
- Read the instructions fully so you get the best from the product.

Don't

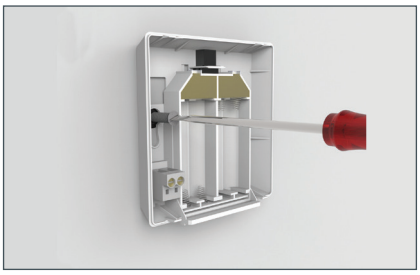
- Do not install near to a direct heat source as this will affect functionality.
- Do not push hard on the LCD screen as this may cause irreparable damage.

This wireless thermostat is designed to be surface mounted.

1 Carefully separate the front half of the thermostat from the back plate by placing a small flat head terminal driver into the slots on the bottom face of the thermostat.

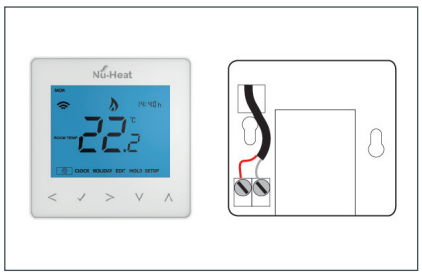


2 Mark 2 hole positions on the wall using the back plate as a positioning template.
Drill at the marked positions and insert a wall plug into each hole.



3 Screw the thermostat back plate securely on the wall.

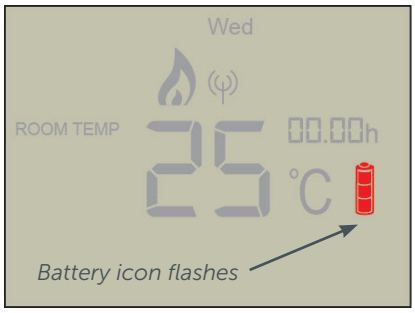
4 Clip the front of the thermostat back onto the thermostat back plate.



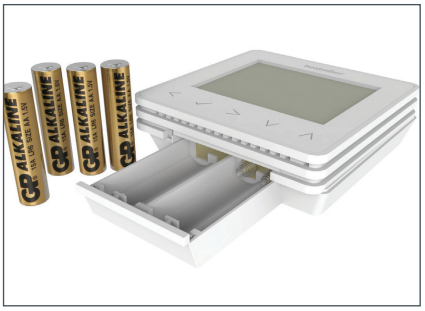
5 Optional remote sensor connection.

FITTING AND REPLACING THE BATTERIES

Batteries will need to be replaced occasionally to ensure the thermostat operates correctly.



The thermostat will inform you when the batteries need to be replaced by displaying the battery icon on screen.



To access the battery holder, push and release the compartment door located on the bottom face of the thermostat.

4 x AAA batteries have been supplied with this thermostat.

Do not use rechargeable batteries with this product!

Insert the batteries in the empty battery holder, ensuring that each battery is orientated for the correct polarity + / -.

Push the battery holder back inside the thermostat until it is secured in its closed position.

PAIRING WITH THE RF SWITCH

At the thermostat:

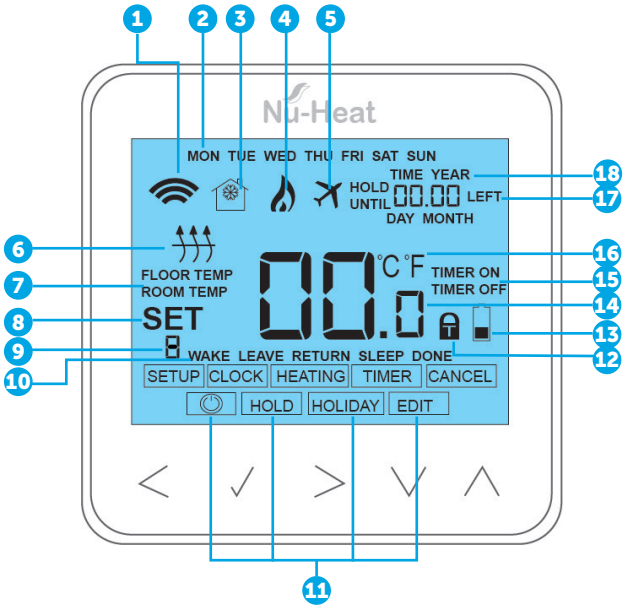
1. Use the < / > keys to scroll to ⏻. Press and hold ✓ for 3 seconds. SETUP will be highlighted, now press ✓
2. The display will now show 01 in the top right hand corner.
3. Press the ▼ once. The display will now show P1.
4. Press ✓ once to start 99 second countdown.
5. During the countdown press and hold the BOILER pairing button on the RF Switch for 5 seconds.

The Boiler LED on the RF-Switch will flash to indicate it's in pairing mode. Once paired the LED will stop flashing.

Wireless communications coverage

Where building size or construction results in inadequate wireless coverage, this can be extended by use of a neoPlug. (Available from Nu-Heat)

Thermostat operation



1. Comms symbol
2. Day
3. Frost protection
4. Flame symbol
5. Holiday
6. Floor limit
7. Floor/room temp
8. Set*
9. Programme indicator (6 level mode)
10. Programme indicator (4 level mode)
11. Main menu
12. Key lock indicator
13. Battery indicator
14. Temperature (current)
15. Timer status
16. Temperature format
17. Hold left
18. Time/Day/Month/Year

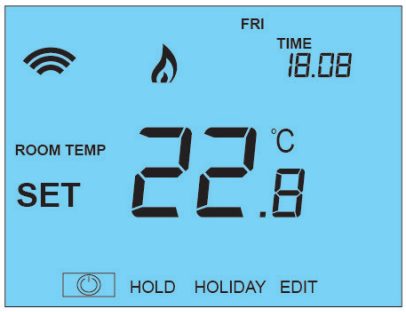
*SET = Displayed when changes are being made to the program schedule or current set point.

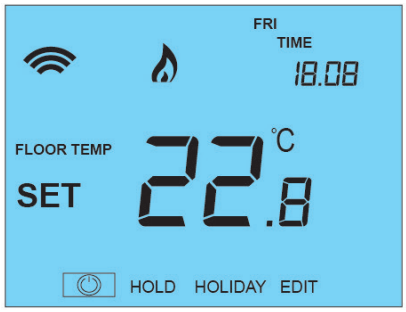
ERROR CODES

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.

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

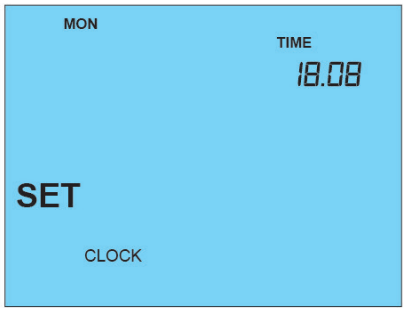




TEMPERATURE DISPLAY

The neoAir can be configured for different sensor options such as remote air sensor or floor sensor, see pages 21-22. The display will clearly indicate which sensor is
being used by showing either ROOM TEMP or FLOOR TEMP before the actual temperature value.

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 ⏻. Press and hold ✓ for 3 seconds
2. Use the < / > keys to scroll to CLOCK. Press ✓ to confirm selection
3. Use the ▼ / ▲ keys to set the year
4. Press ✓ to confirm selection
5. Repeat steps to set month, date and time
6. Press ✓ to confirm selection
7. Use ▼ key to select ⏻
8. Press ✓ to confirm selection and return to the main display

SETTING THE HEATING PERIODS AND TEMPERATURES

The neoAir 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.

To change program mode, see Optional Features on pages 21-22.

When neoHub is used the program mode for the system is configured by using the neoApp.

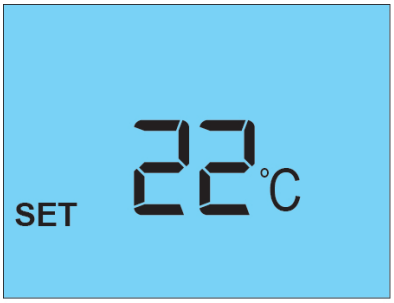
The thermostat is supplied with comfort levels already programmed, but these can be changed easily. The default times and temperature settings are;

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

16:00 / 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 ✓

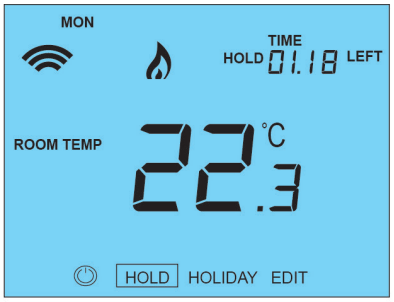


TEMPERATURE CONTROL

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, select HOLD on the main menu, press ✓ key, then press ✓ again while CANCEL is highlighted.

LOCKING THE NEOAIR

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

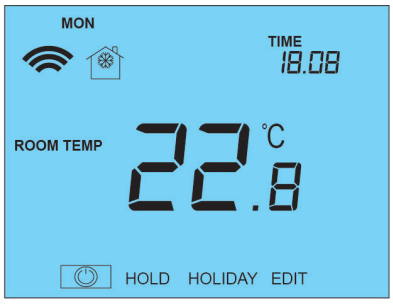
Note: The keypad lock indicator is only displayed when the lock is active.

UNLOCKING THE NEOAIR

To unlock the neoAir 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.



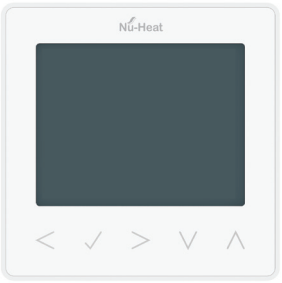
FROST MODE

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

In this mode, the neoAir will display the frost icon and will only turn the heating ON should the room temperature drop below the set frost temperature (see pages 21–22).

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 neoAir remains active.

1 To turn the neoAir off completely, scroll to the ⏻ icon and hold the ✓ key for 3 seconds until the SETUP/CLOCK menu is displayed.

Wait for the display to go blank; the ⏻ icon is still visible.

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 page 19).

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.

To set date and time for a holiday period to end, use the steps below:

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

2 Using the ▼ / ▲ keys to set the year and press ✓

3 Use the ▼ / ▲ keys to set the month and press ✓

4 Repeat the steps for date and time

5 Press ✓ to confirm selection

Note: The holiday period will start immediately and will return to the normal program at the time and date set.

To cancel, Use the < / > keys to select HOLIDAY, press ✓ , CANCEL will be highlighted, press ✓ to cancel.

OPTIONAL FEATURES EXPLAINED

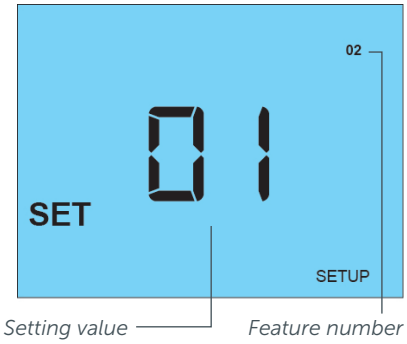
The following settings are optional and in most cases need not be adjusted.

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 (not recommended) 03 = Built in & Floor Sensor	Selects the active sensors. 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 02 or 03. Set to the required floor temperature limit (see page 18).
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	* Not used on this model
11	Cool set temp	Not enabled	* Not used on this model
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.

Feature P1 - Pairing: to the RF-Switch.

Feature P2 - Setting the UH8-RF address: This is the number to set on the rotary dials inside the UH8-RF unit.

Feature P3 - Failsafe: If the RF-Switch of UH8-RF fails to receive a signal from the thermostat within a 40 minute period, it will activate to output for 12 minutes every hour. The RF-Switch/UH8-RF will continue to do this until it receives a new signal from the thermostat.



ADJUSTING THE OPTIONAL SETTINGS

To adjust the settings, follow these steps:

1. Use the < / > keys to select ⏻, press and hold ✓ for 3 seconds.
2. SETUP will be highlighted, 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 on 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 ✓ until SETUP/CLOCK is shown. Wait for display to turn off
3. Press and hold the ✓ and ▼ keys together for 10 seconds
4. The current temperature will appear on the display
5. Use the ▼ / ▲ keys to configure the new temperature value
6. Press the ✓ key to confirm change and the display will go blank
7. Press the ▼ key to highlight ⏻
8. 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 ⏻. Press and hold the ✓ key for 3 seconds.
2. SETUP will be highlighted, press and hold the ✓ key for 10 seconds. All of the icons on the display will appear for 2 seconds, then the display will shows options 1, 2 or 3.
3. Use the < / > keys to scroll between modes (selection will flash)
   - Mode 1 = Thermostat (recommended)
   - Mode 2 = Time Clock
   - Mode 3 = Thermostat with additional 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.

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. Connect your smartphone or tablet device to the same WIFI network as your router.
4. Download the FREE Nu-Heat neoApp from the Apple App Store, Google Play Store or Amazon App Store and register an account.
5. Once you have registered your account, press the SIGN IN button then press the ADD LOCATION option.
6. Press the CONNECT button on the neoHub to add the location to your account.
7. When successfully connected, enter a title for the new location (e.g. Home) and configure the time zone for the system.

PAIRING THE NEOAIR THERMOSTAT

The next step is to pair the neoAir to the neoHub::

1. From the neoApp, select +, then ADD THERMOSTAT, enter a zone title, then press NEXT.
2. You now have two minutes to pair the neoAir to the neoHub.
3. On the neoAir, use the < / > keys to select ⏻ and press ✓ and hold
4. SETUP will be highlighted, press ✓ once. Feature 01 is displayed
5. Press the ✓ key to pair the neoAir to the neoHub
6. The COMMS symbol appears flashing on the display. Once successfully paired, COMMS symbol is displayed permanently.

Wireless communications coverage

Where building size or construction results in inadequate wireless coverage, this can be extended by use of a neoPlug (available from Nu-Heat).

PAIRING THE NEOPLUG

neoPlug can reinforce wireless signals even if neoHub is not installed.
If neoHub is installed, then each neoPlug must be paired with it in order to perform all its functions.

1. Plug in the neoPlug.
2. Pair to neoApp using ADD ACCESSORY option.
3. When prompted, press and hold PAIRING button for 5 seconds. The green LED will start to flash, when paired it will stay lit for 2 seconds, then go off. If pairing is not successful, the green LED will flash continuously.
4. Access can now be controlled from anywhere. To reset the neoPlug, press and hold the button for 10 seconds until the red LED starts to flash.

Energy efficiency (ErP)

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

Nu-Heat
UNDERFLOOR & RENEWABLES

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Telephone
01404 549770

Nu-Heat UK Ltd | Heathpark House | Devonshire Road | Heathpark Industrial Estate | Honiton | Devon EX14 1SD