

# 6 iE WiFi Thermostat

The smartest, most efficient way to control the world's best selling floor heating





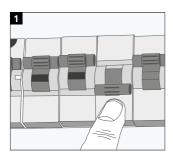
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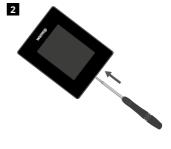
#### **Safety Information**

- ☐ The 6iE must be installed by a qualified electrician. It requires a permanent 230 V AC supply from a 30mA RCD or RCBO protected circuit in accordance with the current edition of the BS7671 Wiring Regulations.
- ☐ Isolate the 6iE from the mains supply throughout the installation process. Ensure that wires are fully inserted into the terminals and secured, free strands should be trimmed, as they could cause a short-circuit.
- ☐ Install the 6iE in an area with good ventilation. It should not be beside a window/door, in direct sunlight or above another heat generating device (e.g. radiator or TV).
- □ Ensure the distance from your router to the 6iE is not excessive. This will ensure the wireless connection is not subject to range issues once installed.
- For bathroom installations the 6iE MUST be mounted outside of Zones 0, 1 and 2. If this is not possible then must be installed in an adjacent room, controlling the rooms using remote sensor(s).
- ☐ The 6iE and its packaging are not toys; do not allow children to play with them. Small components and packaging present a risk of choking or suffocation.
- ☐ The 6iE is suitable for indoor use only. It must not be exposed to moisture, vibrations, mechanical loads or temperatures outside of its rated values.
- ☐ For safety and licensing reasons (CE/UKCA), unauthorised change and/or modification of the 6iE is not permitted.

# Step 1 - Installation



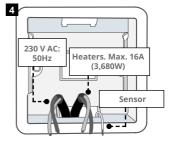
Isolate the 6iE supply from the mains supply.



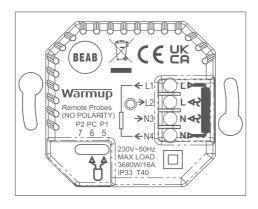
Unclip the display from the power base.



Release the display as shown.



Install a 50 mm deep electrical back box in your preferred thermostat location. Pull wires (heater, supply and sensor(s) through back box and complete terminal wiring.



#### WARNING!

The 6iE must be installed by a qualified electrician in accordance with the current edition of the BS7671 Wiring Regulations. Wire the 6iE using the diagram above and heater type wiring information below.

**NOTE:** For loads above 10 A, the conductor wire gage should be at least 2.5mm<sup>2</sup>

#### **ELECTRIC UNDERFLOOR HEATING**

L1 & N4 Heater Live and Neutral Max. 16A (3680W)

**L2 & N3** Supply Live and Neutral **5 & 6\*** Floor Sensor (No Polarity)

#### HYDRONIC UNDERFLOOR HEATING

**L1** Switched Live to Wiring Centre

**L2 & N3** Supply Live and Neutral

N4 Not Used

**5 & 6\*** Floor Sensor (No Polarity)

· Floor sensor connection;

5 & 66 & 7Scheduled floor temperature with air limitScheduled air temperature with floor limit

Refer to Appendix 1.0 for alternative thermostat use cases

**NOTE:** The function of Probe 1, Probe 2 from Control/Limit Sensor can be swapped in Advanced Settings; Sensors & Application.

#### **CENTRAL HEATING**

L1 Switched Live to Zone Valve/Boiler

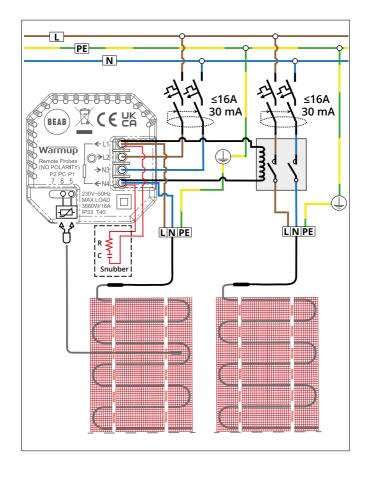
L2 & N3 Supply Live and Neutral

N4 Not Used 5 & 6 Not Used

For extra low voltage or volt-free systems a contactor must be used. Connecting the 6iE directly to extra low voltage or volt-free boilers may cause damage to the boiler circuit.

# Step 2 - Wiring Connections - Loads over 16 amps

Warmup thermostats are rated for a maximum of 16 amps (3680 W). A contactor must be used to switch loads exceeding 16 amps. Please see wiring diagram below.



#### Step 3 - Thermostat Mounting

1



Insert fixing screws through mounting holes of the power base and tighten.

2



Re-attach the display until a "click" is heard. You can now restore power to the circuit and power up the thermostat. Follow the on screen instructions to set up your system. Once set up a QR Code will appear.

#### Step 4 - Initial Setup





Download the MyHeating App.



Open the My Heating App and scan the QR Code on the 6iE screen. Follow the instructions in the App to complete setup.

# Step 5 - Add Location and Room

The MyHeating App will guide you through the setup of your 6iE. You will have to set up your house location and then the room within which your new 6iE is located.



#### Location

A location needs to be setup before a room can be configured and the 6iE device registered. Creating a location is user friendly and easy to follow, it is advised to have details of your current energy tariff and pricing to hand, as these will be required if you wish to use the energy monitoring features.



#### **Room Setup**

With a location now setup, the next step is to register a room in which your 6iE is located. This is the heating zone your thermostat will control. Ensure you set the correct System Type and Wattage of heaters connected.

 $\mbox{\bf NOTE:}$  If an external relay or contactor relay has been installed please set System Type as Electric + Relay.

#### Welcome to the 6iE



#### **Getting Started**



#### How to quickly change the temperature

Use the slider or press the +/- icons to change your target temperature.

If in "Program" mode this will set a temporary override until your next heating period.

If in "Manual" mode this will set a fixed target temperature.

Once the target temperature is set above current floor/air temperature the heating indicator will appear.

#### How to quickly change mode

Mode select allows you to quickly change from program, manual or holiday modes. You can also switch "Frost Protection" on or simply switch the "Heating Off" from here. Frost protection will ensure that the floor/air temperature does not drop below 7.0°.







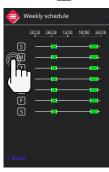
#### How to set a program

Setting a "Program" allows you to set comfort temperatures at set times throughout the day. Days can programmed individually, all days the same or weekdays as a block and weekends as a block, the choice is yours.













To "Select additional days" press the days of the week and the squares will be highlighted in white as shown and will follow the programmed heating schedule.

Once you are happy press "Accept" to save the heating schedule.

**NOTE:** For tailor-made preset heating schedules for different room types press the three dots "••• " on the weekly schedule page.

#### Setback Temperature

The "Setback" temperature is a lower energy efficient temperature when outside of a heating period.





# Heating

#### How to set into Manual Mode

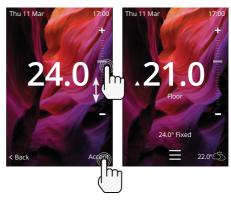
Setting into "Manual" mode allows you to set a fixed target temperature for the thermostat to achieve. The thermostat will continue to maintain this temperature until another operating mode or temperature is selected.











#### Heating

#### How to set into Holiday Mode

"Holiday Mode" allows you to override your schedule with a lower fixed temperature over a set time to save energy.













#### How to switch "Heating Off"

This will switch the heating off until you cancel it by pressing "Heating Off" on the homescreen or going into mode select and pressing the "Heating Off" slider.







#### **Energy Monitor**





#### **How Energy Monitor works**

The 6iE learns how you use your system and how your house reacts to heating and weather. Energy monitoring will show the amount of energy consumed over a certain system power multiplied by efficiency and run time.

You will need to enter the power of your system, and in some cases, the efficiency.

If you do not know these, speak to your installer or system manufacturer.

#### **Changing the Power Settings**

If you have entered the wrong system power during setup it can be changed in Energy Monitor; Power Settings.

#### SmartGeo



#### **How SmartGeo works**

SmartGeo is a unique technology developed by Warmup and built into the MyHeating App that uses an advanced algorithm to understand the most efficient heat settings for your home.

Working automatically; it learns your routines and location through background communication with your smartphone and lowers temperatures when you are away, only rising them up to your ideal comfort temperature in time for your arrival home.

Smartgeo will operate when the thermostat is in the program or manual run modes. It is turned off by default. Use the MyHeating App to switch SmartGeo on.



| Language Settings  | Change the 6iE language  |                                   |  |
|--------------------|--|-----------------------------------|--|
| Time & Date        | Change the Time and Date   |                                   |  |
|                    | Daylight savings   | On/Off                            |  |
|                    | 24-hour time   | On/Off                            |  |
| Heating Preference | Temperature unit   | °C/°F                             |  |
|                    | Open window detection  | On/Off                            |  |
|                    | The windows open detection feature is designed to switc<br>off heating to save energy when the thermostat detects a<br>window or door has been opened and, the outside air<br>temperature is significantly below the indoor temperatu  |                                   |  |
|                    | Adaptive Learning  | On/Off                            |  |
|                    | Adaptive learning will use the historic heating/cooling rates for the time of day, historic external temperatures and the forecast external temperatures, to work out the heating start time in order to reach the comfort time at the start of the comfort period. It will only work in Program Mode. |                                   |  |
| Network            | WiFi Connection  | On/Off                            |  |
|                    | It is possible to set a new WiFi connection from here. The current network connection can also be viewed from this menu, including the signal strength.  |                                   |  |
| Display            | Background   | Light                             |  |
|                    |  | Dark                              |  |
|                    |  | Random                            |  |
|                    | Choose the background image of the 6iE. selected from Warmup's collection.   | Random is an image                |  |
|                    | Standby style  | Temperature<br>Time<br>Minimalist |  |
|                    | Choose what will be displayed when the 6iE goes into standby.<br>Temperature will display current temperature;<br>Time will display the current time;<br>Minimalist will show neither.   |                                   |  |
|                    | Brightness   | Active<br>Standby<br>Night        |  |
|                    | Adjust the brightness of the 6iE screen when in Active, Standby or Night Mode.   |                                   |  |

# Settings

| Display, cont'd | Night period  | Set the <b>Start</b> and <b>End</b> period |  |
|-----------------|---|--|--|
|                 | This is the time when you usually go to bed at night and wake up in the morning. The brightness of "Night" mode will begin and end using this time. |  |  |
|                 | Screen lock   | On/Off                                     |  |
|                 | Locks the 6iE screen to prevent any unauthorised changes to<br>the 6iE. Requires a 4 digit code to access the menu or make<br>changes.              |  |  |

# **Advanced Settings**

| Advanced settings | Sensors &<br>Application | Internal Air Sensor  | Offset<br>+/- 10°  |  |  |
|-------------------|--------------------------|--|--|--|--|
|                   |                          | Probe 1 Connected  | On/Off   |  |  |
|                   |                          |  | Type<br>5, 10, 12, 15, 100K<br>Offset<br>+/- 10°   |  |  |
|                   |                          | a 6iE to replace an exis   | The 6iE uses a 10K sensor. However, if using a 6iE to replace an existing thermostat you must change to the correct sensor type. |  |  |
|                   |                          | Probe 2 Connected  | On/Off   |  |  |
|                   |                          |  | Type<br>5, 10, 12, 15, 100K<br>Offset<br>+/- 10°   |  |  |
|                   |                          | If a 2nd sensor is wired into terminals 6 & 7 it must be switched on here to act as a limit sensor.  |  |  |  |
|                   |                          | Floor<br>thermostat<br>(Probe 1 On, Probe<br>2 Off. See Appendix<br>1.0 for alternative<br>thermostat use<br>cases)                                      | Control Floor Remote Air Regulator Limit None/Air  |  |  |
|                   |                          | Choose to switch the method of control for<br>the sensor; floor sensor, remote air sensor<br>if not installed underneath the floor or<br>regulator mode. |  |  |  |
|                   |                          | Regulator Mode; Heating is on for X% out of control cycle (default 10mins). Heating is off for remaining time.   |  |  |  |
|                   |                          | Swap Probe Usage   | On/Off   |  |  |
|                   |                          | Floor type*  | Tile/Stone<br>Laminate<br>Carpet<br>Wood<br>Vinyl<br>Other   |  |  |
|                   |                          | Choose the floor type of your installation.<br>This will apply different temperature and<br>overheat limits to the 6iE.                                  |  |  |  |
|                   |                          | * Not applicable if conventional heating system was selected.  |  |  |  |

# **Advanced Settings**

| Advanced settings | Temperature<br>limits   | Set Min./Max. settable temperature limits  |  |
|-------------------|---|--|--|
|                   | Overheat limit  | Set <b>Overheat air</b> limit if floor sensor has been installed                             |  |
|                   | Control Period  | Set between 10 - 60 mins.  |  |
|                   | Control period checks the difference in the current measured temperature and the set temperature in a proportional integral algorithm to maintain a steady temperature. |  |  |
|                   | About   | Details about the 6iE's current firmware,<br>MAC address and WiFi connection<br>information. |  |

# Troubleshooting

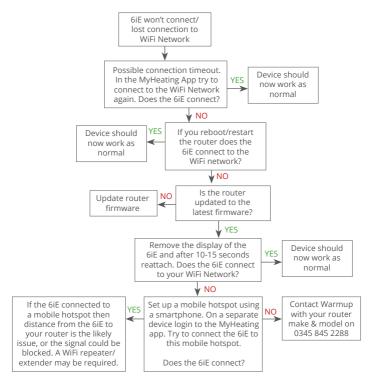
| Display is blank   | Brightness                          | 1. Check that the standby brightness is not set to Off.  |
|--|-------------------------------------|--|
|  | Power                               | (Electrician Required) Electrician required to verify power is going to the 6iE and that it is correctly wired.  |
| ER1  | Sensor Error                        | (Electrician Required) Electrician required to verify that the floor sensor has been wired correctly. If it is correctly wired the electrician will need to check the resistance of the floor sensor using a multi meter. For temperatures between 20°C - 30°C the resistance of the floor sensor should measure between 8K ohms and 12K ohms. |
|  |                                     | If the electrician finds a fault, and the 6iE is in the room to be heated then it can be set into "Air Mode".  |
|  |                                     | To set into "Air Mode", go to Sensors & Application in Advanced Settings and switch the probe off.   |
| Heating is coming<br>on earlier than<br>programmed times | Adaptive<br>learning On             | Adaptive learning will use the historic heating/cooling rates for the time of day, historic external temperatures and the forecast external temperatures, to work out the heating start time in order to reach the comfort time at the start of the comfort period. It will only work in Program Mode.   |
| Cannot to set above a certain temperature                | Floor Type<br>Temperature<br>Limits | Delicate floor coverings need to have their temperatures limited. If the finished floor is set for wood, laminate, vinyl etc. you are unable to set the temperature above 27°C.  |
| WiFi Error Symbol  | WiFi not setup                      | If you have not done so, download the MyHeating App, go to Settings and Network setup and follow the on screen instructions to connect to a WiFi Network.  |
|  | WiFi<br>disconnected                | Follow the step above to try and to re-connect to the WiFi Network.  If the 6iE still fails to connect, see WiFi Troubleshooting.  |
| Clock Sync Icon  | Time and Date<br>not set            | Connect the 6iE to a WiFi network or alternatively set the time and date from the settings menu.   |

#### WiFi Troubleshooting

Before following the troubleshooting guide below please check the following:

- 1. The password is WPA2 protected.
- 2. The router is set to a 2.4 GHz band. (802.11 b, g, n, b/g mixed, b/g/n mixed)

**NOTE:** If you need to change any of the items listed above, please refer to your router manual.



# **Technical Specifications**

| Model                                     | 6iE-01-XX-YY   |
|---|--|
| Operating Voltage                         | 230 V AC : 50 Hz   |
| Protection Class                          | Class II   |
| Max. Load                                 | 16A (3680W)  |
| Rated impulse voltage                     | 4000V  |
| Automatic action                          | 100,000 cycles   |
| Disconnection means                       | Type 1B  |
| Pollution degree                          | 2  |
| Max. Ambient Temperature                  | 0 - 40°C   |
| Relative Humidity                         | 80%  |
| IP Rating                                 | IP33   |
| Dimensions (Assembled 6iE)                | 90 x 115 x 39 mm   |
| Screen size                               | 3.5in  |
| Sensors                                   | Air & Floor (Ambient)  |
| Sensor Type                               | NTC10k 3m Long (Can Be Extended To 50m)  |
| Operating Frequency                       | 2401 - 2484MHz   |
| Max. Radio-Frequency Power<br>Transmitted | 20dBm  |
| Installation Depth                        | Recommended: 50 mm Back Box  |
| installation Depth                        | Minimum: 35mm Back Box   |
| Compatibility                             | Electric, Hydronic Underfloor Heating, Max.<br>16A (3680W)<br>Central Heating Systems<br>(Combi & system boilers with switch live,<br>230V AC input) |
| Er-P Class                                | IV   |
| Warranty                                  | 12 Years   |
| Approvals                                 | BEAB   |



**NOTE:** Hereby, Warmup plc, declares that the radio equipment type 6iE-01-XX-YI is in compliance with the RED Directive 2014/53/EU and Radio Equipment Regulations 2017. The declarations of conformity may be consulted by scanning the QR Code or visiting www.literature.warmup.co.uk/d-o-c/6iE.







#### Instructions for Disposal

Do not dispose of the device with regular domestic waste! Electronic equipment must be disposed of at local collection points for waste electronic equipment in compliance with the Waste Electrical and Electronic Equipment Directive.

#### Warranty

Warmup plc warrants this product, to be free from defects in the workmanship or materials, under normal use and service, for a period of twelve (12) years from the date of purchase by the consumer when installed with a Warmup heater.



If at any time during the warranty period the product is determined to be defective, Warmup shall repair or replace it, at Warmup's option. If the product is defective, please either;

Return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it, or

Contact Warmup. Warmup will determine whether the product should be returned or replaced.

The twelve (12) year warranty only applies if the product is registered with Warmup within 30 days after purchase. Registration can be completed online at www.warmup.co.uk

This warranty does not cover removal or re-installation costs and shall not apply if it is shown by Warmup that the defect or malfunction was caused by failure to follow the instruction manuals, incorrect installation or damage which occurred while the product was in the possession of a consumer. Warmup's sole responsibility shall be to repair or replace the product within the terms stated above. If the 6iE is installed with a non-Warmup heater a three (3) year warranty will apply. This warranty does not extend to any associated software such as apps or portals.

WARMUP SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY INCLOBALL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, ROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT. THIS WARRANTY IS THE ONLY EXPRESS WARRANTY WARMUP MAKES ON THIS PRODUCT. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IS HEREBY LIMITED TO THE TWELVE-YEAR DURATION OF THIS WARRANTY.

This Warranty does not affect your statutory rights.

# Appendix 1.0 - Thermostat use cases

| No. | Reg.<br>Mode | Probe<br>P1<br>( <b>5 &amp; 6</b> ) | Probe<br>P2<br>(6 & 7)    | Control                       | Limit<br>Sensor  | Use Case   |
|-----|--------------|-------------------------------------|---------------------------|-------------------------------|--|--|
| 1   |              | OFF                                 | OFF                       | <b>Internal</b><br>Air Sensor | None   | Thermostat in room air temperature schedule no floor limit       |
| 2   |              |                                     |                           | P1                            | None   | Thermostat in/out of room floor temperature schedule floor limit |
| 3   |              | ON O                                | OFF                       | Floor Sensor                  | <b>Internal</b><br>Air Sensor                                    | Thermostat in room floor temperature schedule air limit          |
| 4   | OFF          |                                     |                           | <b>P1</b><br>Air Sensor       | None   | Thermostat out of room air temperature schedule no floor limit   |
| 5   |              | OFF                                 | ON                        | <b>Internal</b><br>Air Sensor | <b>P2</b><br>Floor Limit   | Thermostat in room air temperature schedule floor limit          |
| 6   |              | ON ON                               | <b>P1</b><br>Floor Sensor | <b>P2</b><br>Floor Limit      | Thermostat in/out of room floor temperature schedule floor limit |  |
| 7   |              | Ole                                 | ON ON                     | <b>P1</b><br>Air Sensor       | <b>P2</b><br>Floor Limit   | Thermostat out of room air temperature schedule floor limit      |
| 8   |              | OFF                                 | OFF                       | Reg.                          | None   | Thermostat in/out of room regulator schedule no limit            |
| 9   | ON           | OFF                                 | neg.                      | <b>Internal</b><br>Air Sensor | Thermostat in room regulator schedule air limit                  |  |
| 10  |              | OFF                                 | ON                        | Reg.                          | <b>P2</b><br>Floor Limit   | Thermostat in/out of room regulator schedule floor limit         |

Conventional Selectric underfloor heating Hydronic underfloor heating

# **Warmup**



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