

Installation Guide:

for the Warmup 3iE Programmable Thermostat

Warmup[®]

The world's **best-selling** floor heating brand™

Introduction:

The 3iE thermostat is designed to aid in the comfort of your home by providing timed regulation of your Warmup underfloor heating system. The thermostat is designed to receive temperature input signals from the following sensors:

1. Air sensor located inside thermostat
2. Floor sensor installed in floor to be heated (see Warmup heater instructions for details)
3. Optional 2nd sensor (either installed in floor or outside house)
 - Installed in floor: This is to be used if the floor surface area is very large and delicate to overheating. The reading from this secondary floor sensor will be used to monitor the overheat limit.
 - Installed outside house: The 2nd floor sensor will engage weather compensation. Weather compensation saves energy by delaying the start of heating period by 10 minutes if the difference between internal and external temperature is less than 5°C.

The thermostat is not a safety device and should only be used with Warmup heating products. In order to avoid damaging your flooring the correct floor type should be selected during the thermostat programming process.

Electrical Specification:

- Supply voltage: 230V +/-15% at 50Hz
- Thermostat is not designed for use with intermittent power supply.
- Maximum Switch Load: 16A resistive
- Insulation Class : II
- Housing : IP20 (IP32 when used with gasket- see fitting instructions)
- Standards: EN60730-1 & EN60730-2-9 standards

WARNING – Important safety note

This product uses mains voltage electricity and work should only be carried out by a qualified electrician. You should always isolate the power supply before attempting to install or repair the 3iE thermostat. The thermostat should not be put into operation unless you are certain that the entire heating installation complies with current general safety requirements for electrical installations. Electrical installation to be in accordance with latest IEE Wiring Regulations and appropriate Statutory Regulations.

Location of Thermostat:

The thermostat should be installed inside a single gang electrical wall box that is at least 35mm deep. For optimal performance the thermostat should be located in an area with good ventilation. It should not be beside a drafty window/door, in direct sunlight or above another heat generating device (e.g. radiator or TV).

In most bathroom installations the thermostat cannot be located within the bathroom itself as the thermostat is IP20 rated and must be located outside of Zone 2. In such cases the thermostat must be fitted to the outside of an internal wall of the bathroom using the floor sensor to regulate the temperature.

The thermostat is designed for operation between 0°C and 55°C with relative humidity less than 80%.

Location and installation of floor sensor:

The optimum location of the floor sensor is described in each Warmup heater installation manual. Refer to that manual when selecting floor sensor location.

The floor sensor provided with the 3iE thermostat enables accurate temperature control of the floor heating system. Floor sensors are required to regulate electric underfloor heating systems. It is recommended that floor sensors are also fitted with hydronic underfloor heating systems, providing improved floor temperature control.

The floor sensor must be at least 300mm from the wall and should be placed centre of two heating element runs. When positioning the floor sensor avoid placing the sensor in areas where it may be exposed to sunlight or draughts. Avoid areas where there are hot water pipes that may affect the temperature reading.

As the warranty does not cover the floor, it is recommended that the floor sensor is installed into a non-conductive conduit. This will allow for easy replacement of sensor after the flooring has been laid.

Make sure the conduit has a gradual bend when it enters floor, this will ensure the sensor cable can be easily inserted or withdrawn. Seal the end with tape to prevent adhesive/screed from entering the conduit.

Route the conduit to the connection box. The end of the conduit should be easily accessible after the flooring has been fixed.

Warning: Do not attempt to cut conduit with sensor installed. This could lead to irreparable damage to your sensor.

Installation:

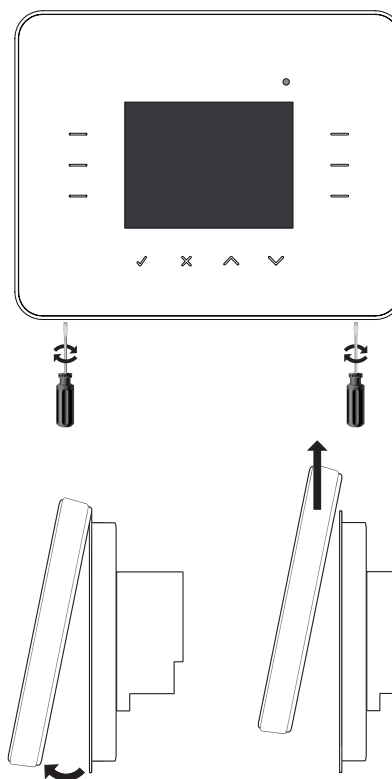
Separate the front housing of thermostat from wall module:

1. Unscrew both closing screws (bottom of stat) until they will not turn any further.
2. Release front housing by gripping lower half of outer frame and pulling outwards then upwards
3. Place front housing somewhere safe
4. Run all wires to the wall box. Check to ensure that you have included the following:
 - Power (Live and Neutral)
 - Heater (Live and Neutral)
 - Floor sensor
 - Fil pilote (if necessary)
 - External/ 2nd floor Sensor (if necessary)
5. Pull wires through wall box and complete terminal wiring.

IMPORTANT: Ensure that multi stranded wires are fully inserted into the terminals and secured tightly. Any loose strands should be trimmed as they could cause a short-circuit.

If connecting more than two heaters, an electrical junction box will be required.

NOTE: Always ensure that the sensor cable is installed in a separate conduit to the power cables supplying the thermostat and heating system.



Normal electrical installation (see numbering on diagram to right)

2. Connect to Power Supply (Live – 230V AC)
3. Connect to Power Supply (Neutral – 230V AC)
4. Connect to Warmup heater(s) (Neutral – MAX 3600W/ 16 Amps)
5. Connect to Warmup heater(s) (Live – MAX 3600W/ 16 Amps)
7. Connect to 1st wire of floor sensor (colour not important)
8. Connect to 2nd wire of floor sensor (colour not important)

Special installations:

(should only be performed under the supervision of Warmup)

Fil Pilote installation: (only for use in France)

Connect fil pilote (F.P.) to terminal 1

Second sensor installation: (2nd floor probe or exterior probe)

You are able to attach a second sensor to terminals 6 and 7. You can then use external sensor function to define the use of that sensor:

- Installed in floor: This is to be used if the floor surface area is very large and delicate to overheating. The reading from this secondary floor sensor will be used to monitor the overheat limit.
- Installed outside house: 2nd floor sensor will engage weather compensation. Weather compensation saves energy by delaying the start of heating period by 10 minutes if the difference between internal and external temperature is less than 5°C.

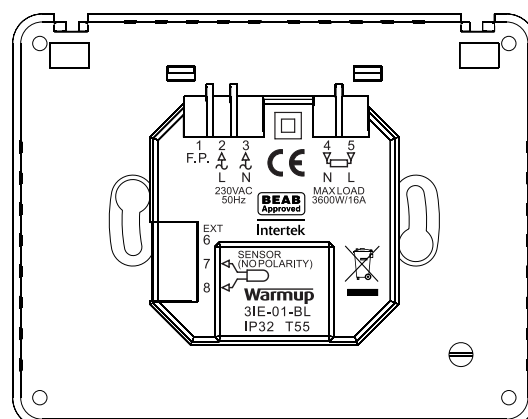
Master/Relay installation: (connecting 2 stats together)

This feature allows you to use one thermostat to control another. This is useful if you need to control multiple underfloor heating elements with one program.

Use low voltage electric cable to connect terminal 6 on the “master” to terminal 6 on the “relay”

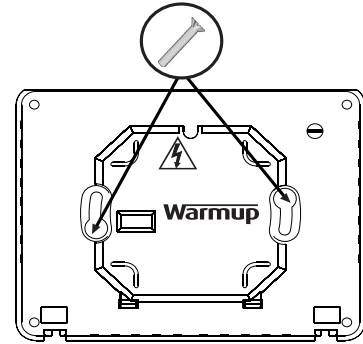
Use low voltage electric cable to connect terminal 7 on the “master” to terminal 7 on the “relay”

On the “master” thermostat these connector cables are in addition to the floor sensor but on the “relay” thermostat the floor sensor is not necessary. The “relay” thermostat will no longer use its sensors for thermal regulation. It will now turn on/off in tandem with the “master” thermostat.



Mounting thermostat into the wall box:

1. Push excess wire back through the wall box and insert thermostat back module into wall box.
2. Put fixing screws through mounting holes and tighten.
3. Ensure that thermostat is straight before tightening completely.
4. Replace thermostat front housing;
 - i) align and sit front housing on to hinges,
 - ii) push lower half of front housing until a 'click' is heard.
5. Ensure front housing is securely fixed.
6. **IMPORTANT:** Tighten both retaining screws



Powering-up:

You can now power up the thermostat and begin the programming process. An easy to follow menu will guide you through the rest. If you want to turn on / off the thermostat and heating system then hold down the recessed button on the bottom of the stat for 3 seconds

When you have ensured that both the floor sensor and heating elements are working correctly you can complete the installation of floor covering and remove the protective cover on the front of the thermostat.

Error Messages:

Your thermostat can give you two error indications:

1. "er1": This will occur if no floor sensor is detected
2. "er2": This will occur if the floor sensor has a short circuit

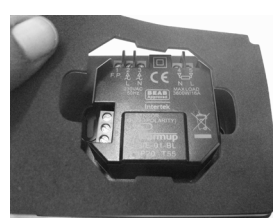
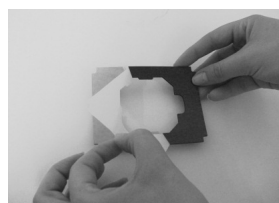
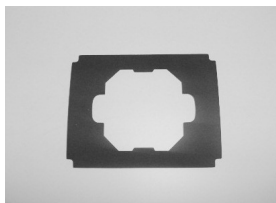
Using the Gasket with the 3iE

The 3iE has a Ingress Protection rating of IP20 but this rating can be increased when used in conjunction with the Gasket (supplied separately), in which case it is ingress Protection rated to IP32 but only when used in accordance with these instructions.

Fitting the Gasket

Remove backing from seal and attach to the back of the thermostat ensuring that there is a tight bond between the seal and the back of the thermostat.

Once fitted do not remove or attempt to refit the seal as this may affect the protection against ingress of water if not fixed correctly.



Dimensions :

