

Operating Guide:

for the Warmup 3iE Programmable Thermostat

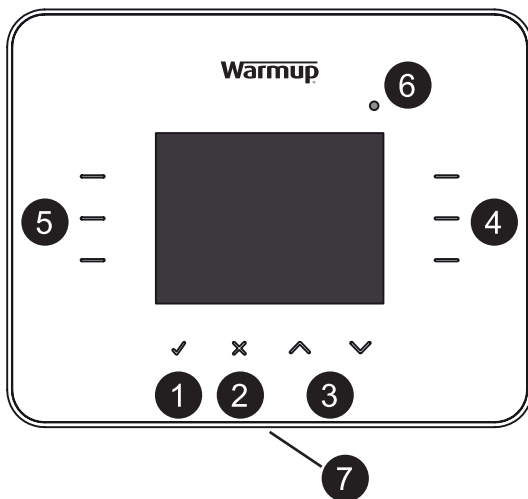
Warmup[®]

The best underfloor heating - **guaranteed**[™]

INTRODUCTION

Your thermostat's default screen is the Home Screen. This screen displays important information such as the time, current floor and air temperature as well as the target set temperature. From this page you can either access the "MENU" page (press "menu") or override the current programmed temperature (press "▲" or "▼").

When using the 3iE thermostat there are some general rules to keep in mind:



- (1) Pressing "✓" allows you to confirm your selection
- (2) Pressing "✗" takes you back to a previous page in the menu sequence
- (3) Pressing the "▲" and "▼" buttons allow you to change the setting which is highlighted
- (4) Pressing an illuminated button in this group will allow you to highlight another setting to edit
- (5) Pressing an illuminated button in this group will allow you to select another option in the menu
- (6) When this light is illuminated it indicates that power is being directed to the heaters

Hint: You will often find a "help" button on pages with several options. Press the help button for more information on the options available.

If you do not press any button on the thermostat for 1 minute, then it will go to standby mode. In standby mode the screen will be dimmed but the thermostat will continue to function as normal. To exit standby mode press "wake" (✓).

The button on bottom of the 3iE (button 7) is the power button. You can turn off your thermostat and Warmup underfloor heating system by holding down this button for 3 seconds. You can turn it on again by holding it down for another 3 seconds.

This button can also be used if you get lost in the menus, press the power button on the bottom once to return to the home screen.

GETTING STARTED

On initial power up the thermostat will guide you through set up procedure for the following:

- Language
- Time preference and Settings
- Date preference and settings
- Daylight savings
- Temperature Preference
- Theme
- Brightness
- Standby Brightness
- Heating LED
- Audio Feedback
- Floor type
- Set heating target
- Program schedule
- Set energy monitor (You may skip this section and complete at a later date)

By accessing the main menu you can program your thermostat or make any changes to the settings. To access the menu press "menu" on the main screen. If the thermostat is in sleep mode, press "wake".

SETTING YOUR HEATING PROGRAM

Press "menu", then Press "set program"

Press the programming option that suits your needs.

- **"set each day separately"**: sets each day of the week with a different program
- **"set weekday and weekend"**: sets a program for Monday – Friday and a different program for Saturday and Sunday
- **"set all days the same"**: one program is set for all the days of the week
- **"set fixed temperature"**: set a single temperature to be held constantly
- **"select a pre-set"** see explanation in pre-set programs table

Press "up" or "down" to set the start time for the first of the day.

Note: if you hold a button for several seconds it will scroll continuously until you release your finger.

To change the target floor temperature, press "floor temp", you can now press "up" and "down" to change the target floor temperature.

Note: If you would rather use your thermostat to target an air temperature, please read the "SETTINGS" section of this document.

If you want the target temperature to change later on in the day then press "add another period". You can add up to 10 periods in each day.

Note: It is recommended that you finish your daily program on a low target temperature so that you save energy overnight.

Note: If you do not need the heating to protect against frost, then you can scroll down to the bottom of the temperature range to set the target temperature to "OFF". With this setting, the heating will not come on regardless of the temperature.

Once you have set all the desired periods in the day press "done" to go to the summary page.

This summary page allows you to see the program you have set for this day. If you need to change something press "edit". This will take you back to the first period of the day. Remember that you will need to add all the periods again.

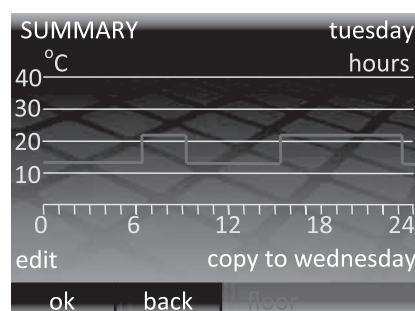
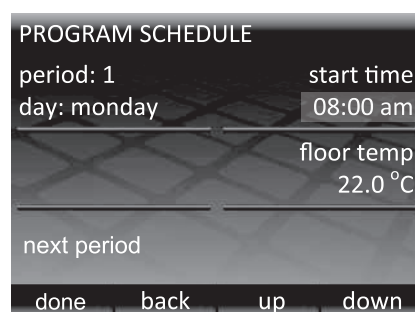
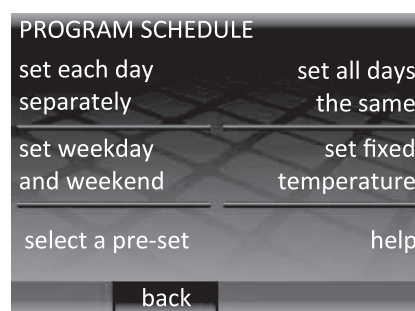
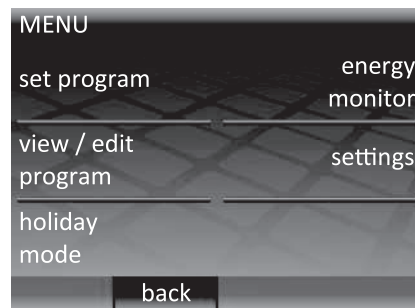
If you are happy with the program and would like to set the same program for the following day press "copy to day"

If you are happy with the program but would like to set a different program for the following day press "OK"

If you would like to return to the preceding day press "back".

When you have set a program for all the days including Sunday (or Weekend in the case of Weekday/ Weekend) then pressing "OK" will enter the schedule and return you to the home screen.

Note: The set temperature for the time before the first period of the day comes from the night before.



PRE-SET PROGRAMS

If you are using your 3iE thermostat to control heating in the bathroom, bedroom, kitchen or living room then the pre-set schedules might help you set a program appropriate for you. Just select the desired pre-set room and everything is done automatically.

Hint: If you have used a pre-set schedule but want to make some changes, use the edit schedule function explained in the "Viewing and Editing a Schedule" section.



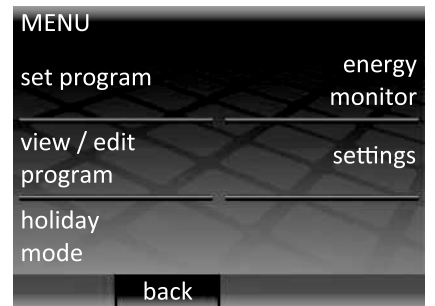
PRE-SET PROGRAMS TABLE:

	Bathroom °C		Kitchen °C		Bedroom °C		Living Room °C	
	Time	Floor Temp	Time	Floor Temp	Time	Floor Temp	Time	Floor Temp
Mon-Fri	06:00	25	06:00	23	06:00	25		
	08:00	10	08:00	10	08:00	10		
	19:00	20	18:00	23	20:00	20	18:00	23
	23:00	15	22:00	10	23:00	10	21:30	10
Sat-Sun	07:00	25	07:00	23	06:00	25		
	11:00	18	11:00	18	08:00	10	08:00	23
	18:00	20	18:00	23	20:00	20	18:00	20
	23:00	15	22:00	10	23:00	10	20:00	10

VIEWING AND EDITING A SCHEDULE

If you would like to view or edit the time and temperature settings of each day then press "view / edit program"

Hint: If you want to change the settings of multiple days it might be easier to set a new program using the "set program" option



Press "up" and "down" until the day that you would like to view is highlighted, then press "OK" to view that day.

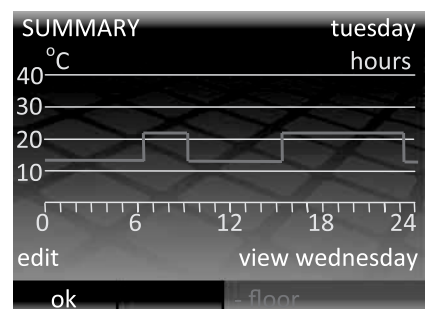
To exit the "VIEW / EDIT PROGRAM" menu page press "back". Note that if you have edited any days these changes will be saved.



Here you can view the heating schedule for the selected day. If you would like to change any of the heating periods press "edit". Remember that you will have to set all the heating periods.

You can view the schedule for the following day by pressing "view day"

To return to the day selection page press "OK"



HOLIDAY MODE

HOLIDAY MODE allows you to over-ride your schedule with a fixed temperature for a prolonged period of time. This can help save energy if you know that you will be out of the house and require minimal heating.

Press the highlighted button next to "holiday mode" to access the menu.

Press "up" or "down" to set the first day you would like HOLIDAY MODE to start.

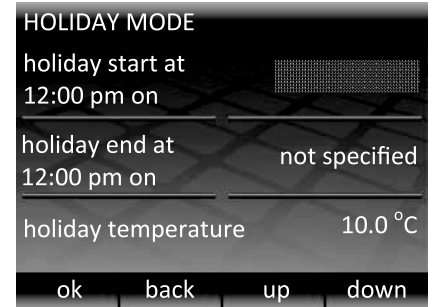
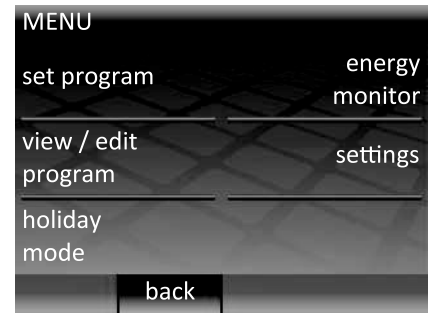
Press "holiday end at" and then press "up" or "down" to set the day when you would like holiday mode to stop. At the end of the HOLIDAY MODE your program will return to the current settings. If you would like HOLIDAY MODE to continue indefinitely, leave the end date as "not specified".

Press "holiday temperature" to set the fixed temperature that will be held for the entire HOLIDAY MODE period.

Pressing "OK" will confirm the selection and HOLIDAY MODE will start at 12:00 pm on the specified date.

During the HOLIDAY MODE you will have a modified home screen. To cancel the HOLIDAY MODE at any time just press "cancel".

If you want to return to HOLIDAY MODE you will need to set it again.



ENERGY MONITOR

Your thermostat monitors the amount of energy your underfloor heating system is using, you can use these pages to view the amount of energy used and set parameters to determine the cost of that energy.

To access this menu press "energy monitor"

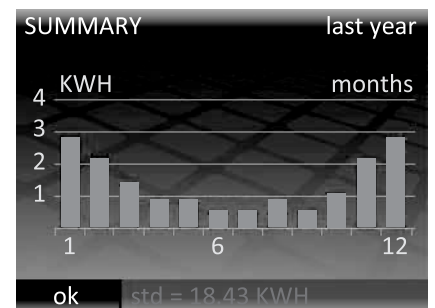
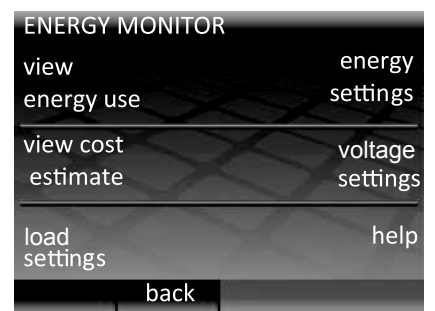
To view your energy usage, you will need to enter the total power in watts of the underfloor heating system connected to the thermostat. The energy usage will only be accurate AFTER you set the load settings.

If you are unclear about the power of your underfloor heating then contact your installer.

To see how much energy you have used, select "view energy use" and then select the time period you would like to review.

On the graph each red bar indicates a time period (in this case it is months). The height of the bar indicates that amount of energy in KWH used by the underfloor heating system during that period. The bar in the far right is the most recent time period and the bar on the far left is the oldest. The total amount of energy used in the entire time span is displayed in the bottom bar.

Press "OK" to return to the ENERGY MONITOR page.

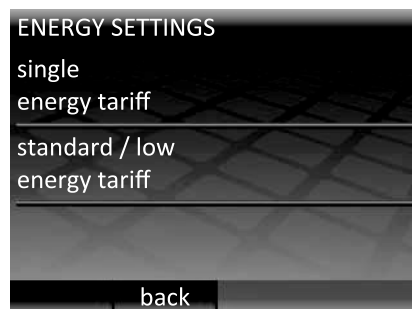


Hint: if you are interested in seeing how much energy you can save by adjusting the settings of your thermostat, simply alter your heating program and wait a few days before comparing the daily energy used before and after you changed your program.

To view the estimated cost of your energy usage, you will need to set the cost parameters in "energy settings". The cost estimate will only be accurate for the time period AFTER you set the heating costs.

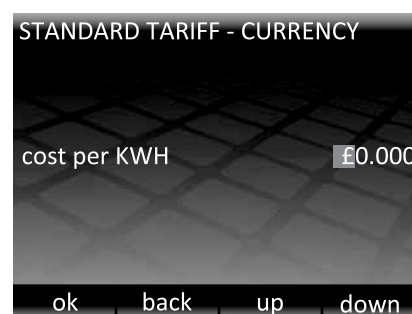
- "single energy tariff" means that you have a single cost of electricity all day long
- "standard / low energy tariff" means that you have a discounted cost of electricity during part of the day.

Select the appropriate structure that applies to your electricity tariff plan



For both the standard and low energy tariff you will need to set a cost per Kilowatt hour (KWH). First set the relevant currency by pressing "up" and "down" (you can select £, \$, € and ¥). Press "ok" to proceed to the first digit of the energy tariff, press "up" and "down" to select the correct amount and then press "ok" to proceed to the second digit. Continue pressing "ok" until you have set all the digits and returned to the ENERGY MONITOR main page.

Hint: If your energy cost is 11.6 pence per KWH then you will need to set your cost per KWH to £0.116



If you are setting a "standard/ low energy tariff" you will also need to set the time of day at which the low energy tariff starts and stops and the cost per KWH during the low tariff period.

After all these parameters are set you can view the cost of the energy used by your underfloor heating system in "view cost estimate". If you are using "standard / low energy tariff" then the amount/ cost of energy used in the standard period will be displayed in red and the amount/ cost used in the low period will be displayed in white.

SETTINGS

Your 3iE is a very flexible device and be configured in many different ways to meet your requirements.

Functions that can be accessed in the "settings" menu include:

"time"

- Set time and date
- Set time format preference (12Hr clock or 24Hr clock) and date format preference (MM/DD/YYYY or DD/MM/YYYY)
- Turn on automatic day-light savings for your region

"language"

- Select the language of operations

"temperature preferences"

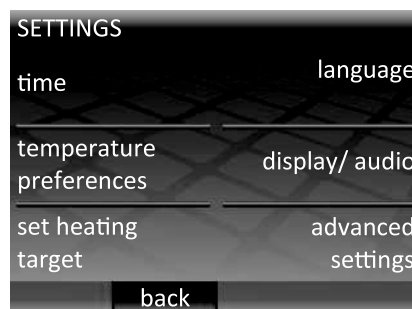
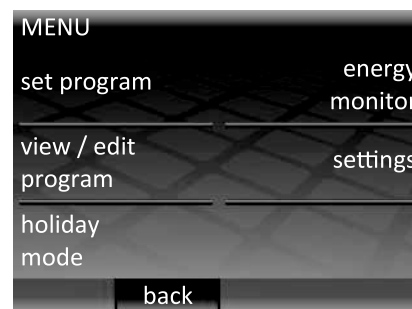
- Select temperature unit preference (°C or °F)

"display / audio"

- Choose home screen theme and set screen brightness
- Turn on/ off heating LED and audio feedback
- Turn on/ off child lock (details below)

"set heating target"

- Select if your thermostat uses floor temperature sensor or air temperature sensor for thermal regulation (details below)



“Advanced settings”

- **WARNING!!** The options in this section can affect the performance of your thermostat and should only be modified by an experienced underfloor heating installer or under the instruction of Warmup technical support.

DISPLAY / AUDIO

“theme”

- Change the content and style of home screen and standby screen

“standby brightness”

- Set the brightness of the LCD screen in standby mode between 0 (dimkest) and 5 (brightest)

Note: when set to 0 the LCD screen will turn OFF and the “wake” LED will not be illuminated. You will need to remember that you turn the screen on by pressing “✓”

“display brightness”

- Set the brightness of the LCD screen in normal operation between 1 (dimkest) and 6 (brightest)

“heating indication”

- This feature allows you to turn off the heating indication LED (top right of the LCD screen). The thermostat will continue to operate as normal but the LED will not turn on to indicate when heating has started and stopped.

“audio feedback”

- This feature allows you to turn off the beep sound made when a button is pressed

“child lock”

- Child lock creates a delay between pressing “wake” and exiting the standby mode. When child lock is on you will need to hold “wake” continuously for 10 seconds in order to exit standby mode.



SET HEATING TARGET

Your thermostat is capable of using a floor temperature sensor, air temperature sensor or both for thermal regulation. If you are using your underfloor heating as secondary heating source (such as in the bathroom) then you might prefer to use the floor temperature. However if the underfloor heating is the primary heating source in your home you might prefer to use the air temperature.

“set floor temperature”

- Thermostat will use the temperature reading from the floor sensor to decide whether heating is required to achieve the target set temperature

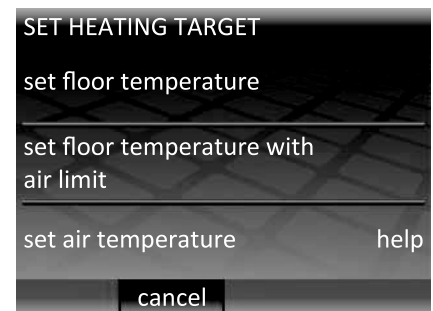
“set floor temperature with air limit”

- Thermostat will use the temperature reading from the floor sensor to decide whether heating is required to achieve the target set temperature, however if the air temperature goes above the set limit then heating will be suspended until air temperature falls below limit

“set air temperature”

- Thermostat will use the temperature reading from the air sensor (inside thermostat housing) to decide whether heating is required to achieve the target set temperature

Hint: if you change the heating target settings then it is advisable to re-program your thermostat to ensure that the program still meets your needs.



WARNING!!

The options in this section can affect the performance of your thermostat and should only be modified by an experienced underfloor heating installer or under the instruction of Warmup technical support.

	Programmable Limit °C				Overheat Limit °C
	Air		Floor		
	Min. Temp	Max. Temp	Min. Temp	Max. Temp	
Tiles	5	30	5	40	40
Stone	3	30	5	40	40
Laminate	2	27	5	27	30
Wood	2	27	5	27	30
Carpet	2	27	5	27	30
Vinyl	5	27	2	27	30
Regulator	5	30	n/a	n/a	n/a
User defined	User defined		User defined		User defined

HEATER SETTINGS:

- **Floor type:** this setting will affect the upper and lower limits of programmable set temperatures as well as the overheat limit. If you set a user defined limit then you are advised to check the safe temperature limits with the flooring manufacturer
- **Regulator:** This setting will change the thermostat to a regulator mode. In this mode all temperature inputs are replaced by a setting between 1 and 10. Where the number represents the number of minutes in a 10 minute cycle that the heating will be on (ie. If set to 7 then the thermostat will be on for 7 minutes and then off for 3 minutes before turning on again). You must reprogram the thermostat schedule after you have turned on regulator mode.
Note: do not try to change the target heater settings if you have selected regulator.
- **Fil pilote:** This feature is specific to the French market and is not necessary in most other locations. Here you can turn on the fil pilote mode and set the comfort, economy and frost protect temperatures. You must also connect the system pilot wire into terminal 1.
- **Master/ relay:** 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. In order to set-up this feature use the following steps:
 1. Choose which thermostat will be the "master" and which will be the "relay"
 2. Use low voltage electric cable to connect terminal 6 on the "master" to terminal 6 on the "relay"
 3. Use low voltage electric cable to connect terminal 7 on the "master" to terminal 7 on the "relay"
Hint: 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
 4. In advanced settings of each thermostat switch the "relay" thermostat to relay mode and the "master" thermostat to master mode
 5. Program desired schedule into the "master" thermostat
 The "relay" thermostat will no longer use its sensors for thermal regulation. It will now turn on/ off in tandem with the "master" thermostat.

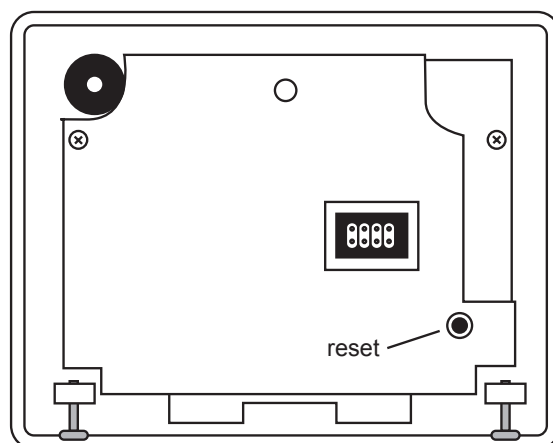
Note: The "relay" thermostat must be set to relay mode first before setting the master thermostat.

PROBES:

- **External sensor:** 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:
 1. External sensor: This is to be used when you can locate the external sensor outside of the heated environment. When this setting is selected it will display the external temperature on the home screen and 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.
 2. 2nd floor sensor: 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.
- **Probe specification:** If you have already installed a sensor which was not supplied by Warmup then you can use this setting to allow your thermostat to function. The possible options are NTC10K (standard probe supplied by Warmup with the 3iE), NTC12K (probe supplied by Warmup with previous models of thermostat) and NTC15K. Note that all thermostats are different and Warmup can only validate the thermostat's performance when used with a Warmup probe supplied for use with the 3iE.

- **Offset:** in order to improve temperature reading accuracy this feature allows you to bias each sensor's temperature reading up or down by 5°C.

- **Reset:** reset will restore all software settings to the factory specified defaults
Hint: if you are experiencing problems with your thermostat then you can perform a system reset by holding down the button on the rear of the front module for 10 seconds.



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 three (3) years from the date of purchase by the consumer. 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,

- (i) return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it, or
- (ii) contact Warmup. Warmup will determine whether the product should be returned, or replaced.

This warranty does not cover removal or reinstallation 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.

WARMUP SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM 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 THREE-YEAR DURATION OF THIS WARRANTY.

This Warranty does not affect your statutory rights.

PLEASE REGISTER YOUR WARMUP PRODUCT AT: www.warmup.co.uk

EXTENDED LIFETIME WARRANTY

Extended lifetime warranties are available for the Warmup 3iE Energy Monitoring thermostat. For further information, enquire at your local 3iE retailer, check online at www.3iE-warranty.co.uk or contact Warmup directly on 0845-345-2288

