



QUALITY SPACE HEATERS



Installation & Control Guide for Low Surface Temperature Panel Heaters with Electronic Controls and WIFI connection

Models

PLSTI050EWIFI

PLSTI075EWIFI

PLSTI100EWIFI

PLSTI150EWIFI

All electrical appliances produced by the Company are guaranteed for one year against faulty materials or workmanship. This applies only if the appliance has been used for purposes in accordance with the instructions provided and has not been connected to an unsuitable electricity supply, or subject to misuse, neglect, damage or modified or repaired by any person not authorized by us. This guarantee is offered to you as an extra benefit and does not affect your legal rights.

The correct electricity supply voltage is shown on the rating label attached to the appliance.

Reasonable care has been taken to ensure that this guide is accurate at the time of printing. In the interest of progress the Company reserve the right to vary specifications from time to time without notice.

General Safety

Our Low Surface Temperature heaters have been designed and built to the NHS requirement for safe surface temperatures which is that no surface which can be touched by the user will be more than 43 °C (at a room temperature of 21 °C). This means that our Low Surface Temperature heaters out-perform the European Standard by a significant margin.

The appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

Warning

- Do NOT site the appliance in a corner.
- Do NOT handle the appliance with wet hands.
- Do NOT use the appliance in workshops or rooms where excessive dust is generated or present.
- Ensure that nothing is pushed into any aperture of this appliance.
- Do NOT touch outlet grille when the appliance is in use.
- Do NOT cover or restrict any aperture of the appliance when in use.
- Do NOT use the appliance if damaged.
- Do NOT leave the appliance unattended where young children are present.
- If used in a bathroom, the heater is to be installed so that the switches and other controls cannot be touched by a person in the bath or shower.
- Operating temperature range -10 to +40 °C
- The heater **MUST** be fully secured in the vertical position before being switched on.

Connection to the WIFI

The heaters only work with a 2.4GHz WIFI network.

Currently all routers support the 2.4GHz band, as it is an older standard and has maximum device compatibility. Routers can also support 5GHz WIFI and are often set up to hide which frequency band is being used, combine both bands into a single network name, and assign the band automatically. A mobile phone could be automatically connected to the 5GHz network, and this will cause pairing issues. Routers usually have a setting that gives each band to have a different network name, which is configurable through the router's web interface. This allows the phone to unambiguously select the 2.4GHz network. For full pairing instructions, see section 9.



Thermally Operated Cut-Out

The appliance is fitted with a thermally operated cut-out (TOC). This is a safety device, which switches the heater off if, for any reason, the appliance overheats. The TOC can only be re-set after the appliance has cooled down. In order to re-set the TOC, proceed as follows:

- Switch off appliance and leave for approximately 10 minutes.
- Switch appliance back on and TOC will re-set.
- Ensure that the appliance is functioning correctly. If the TOC control operates again, the appliance should be checked by a competent electrician.

The heater carries a 'Do Not Cover' label to warn the user that if the appliance is covered, there is a risk of overheating.

Cleaning

Always disconnect the heater from the mains before cleaning. The heater should not require any maintenance, but it is strongly advised that it is kept clean. An occasional wipe over with a soft cloth is all that should be necessary.

- Do NOT use metal or furniture polish on any part of the heater.
- Do NOT touch the heater with wet hands or in any way bring water into contact with it.

If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.

If Your Heater Does Not Work

- Check that power is available to the heater.
- Check that the thermal cut-out has not operated. Follow the reset instructions given under the section headed 'Thermally Operated Cut-out'.
- Check that the fuse in the spur unit has not blown. This can be done by replacing the fuse with another suitable fuse.

Should none of the above remedies work, then telephone the helpline number shown in these instructions (UK ONLY). Do not attempt to repair the heater.

Connection to the Main Supply

Electrical installation should be carried out by a competent installer, preferably registered with NICEIC (National Inspection Council for Electrical Installation Contracting) in accordance with the 17 edition of the IEE Wiring Regulations, (BS.7671), and any relevant Local Authority Bye-Laws. This heater is fitted with a 3-core mains supply cable and must be permanently connected to the electricity supply via a double pole switch having 3mm gap on each pole. **There are no exceptions.** A switched Fused Connection unit to BS.1363, Part 4 is a recommended mains supply connection accessory to ensure compliance with safety requirements applicable to fixed-wiring installation.

Note: When switched on for the first time the appliance may emit a slight smell. This is purely the evaporation of a fluid used in the manufacturing process.

WARNING: This appliance must be earthed.

Intelligent fan control

Depending on which heat mode is activated, the fan will calculate the best possible airflow temperature and will adjust the fan speed accordingly to provide maximum comfort and efficiency with minimum noise.

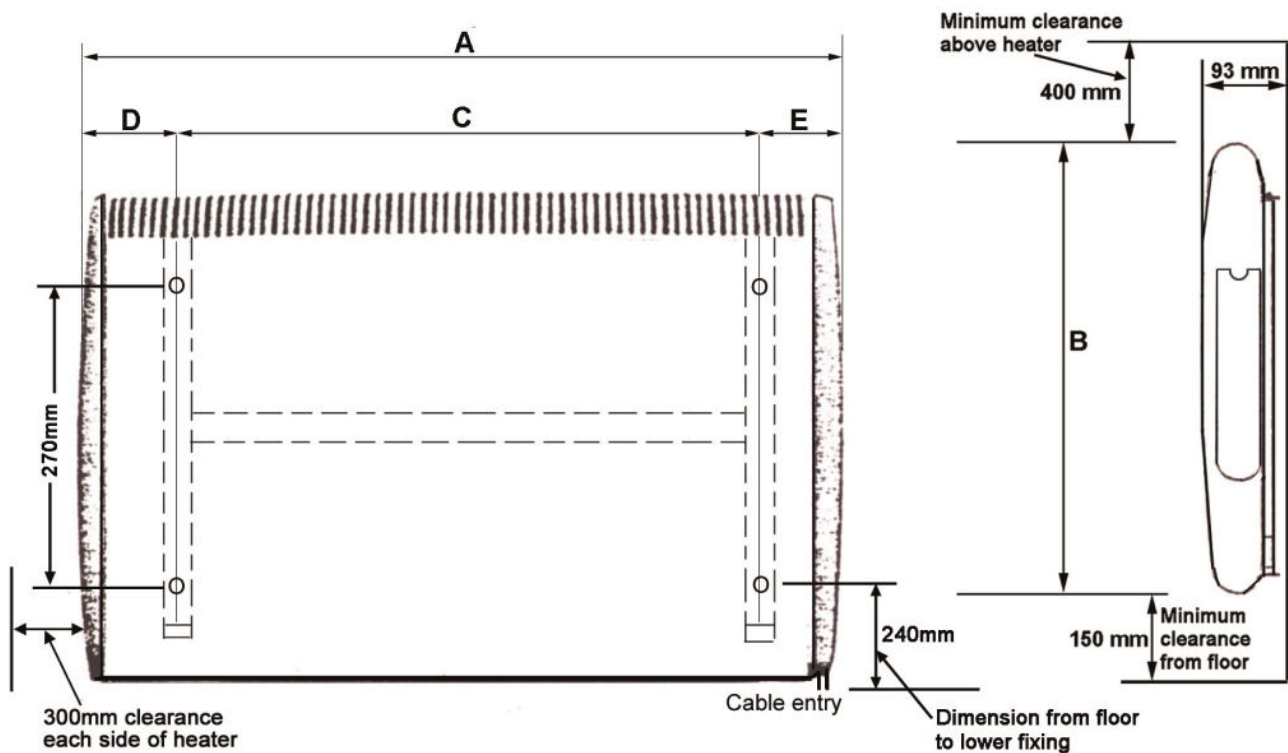
Safety Monitor

As part of the intelligent control, the heater has built-in safety monitoring. In the unlikely event of a fault, the safety monitoring will help prevent high surface temperatures. The safety monitor will identify overheating, fan failure and certain electronic faults. When the safety monitor identifies a fault, the heater runs in restricted mode. However, in the event of a serious fault the heater stops running. The heater indicates a fault by beeping twice. It will not beep again until the unit is switched off and then back on, but the LED will flash red continuously.

Installation

Mounting bracket

This unit must be installed using the mounting bracket and chains provided. The chains are used to prevent the unit from being dropped when the securing screws are loosened. This means the securing screws can simply be loosened to view behind the heater. This allows the rating label to be viewed easily and also makes it easier to clean the unit. Full installation instructions can be found on page 7, section 20.



	MILLIMETRES				
	WATTS	A	B	C	D/E
PLSTi050E WIFI	500/750	506	430	210	148
PLSTi100E WIFI	1000	640	430	364	138
PLSTi150E WIFI	1500	892	430	616	138

See diagram below for Mounting

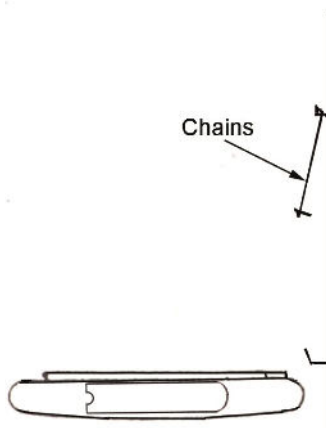


Fig 1

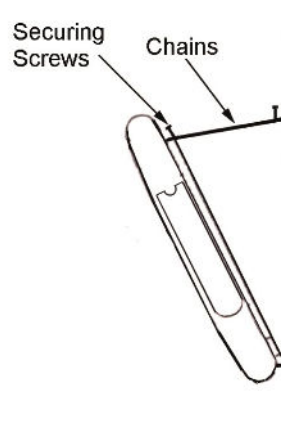


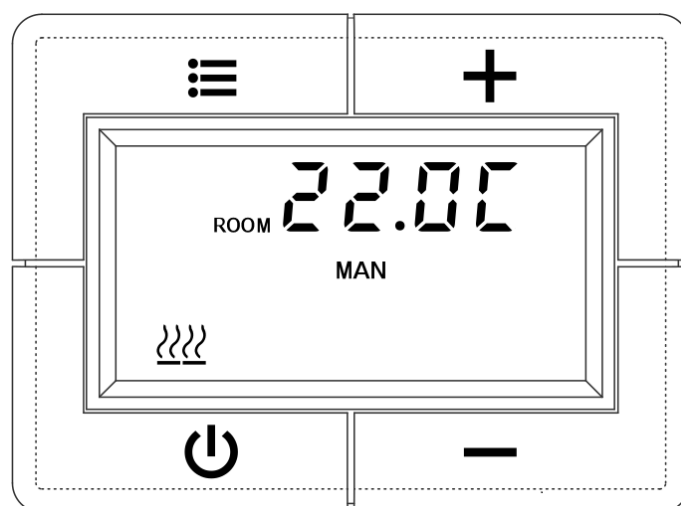
Fig 2



Fig 3

Note: The heater must be secured using the securing screws as per Fig 3 before being switched on.

MODE/MENU



INCREASE VALUE

STANDBY

DECREASE VALUE

1. Basic Operation

Before you can use the heater, it has to be activated by pressing any control button. The LCD backlight will turn on. To operate any control button, press within 2 seconds of activation.

2. Time and day setting

When time has not already been set:

-Press and hold the MENU button for 5 seconds.

Minutes are flashing - use + and - buttons to set minutes.

-Press MENU button

Hours are flashing - use + and - buttons to set hours.

-Press MENU button

Day is flashing - use + and - buttons to set Day.

Once you are happy with the settings, press 'MENU' to return to main screen.

When connected to the app, time will be taken automatically from the internet.

3. Selecting operating mode

Heater has 4 operating modes:

BOOST, MANUAL, SETB, PROGRAM.

BOOST, MANUAL and PROGRAM can be selected by pressing the MENU button to cycle through the options. The cycle sequence will always start with BOOST mode followed by MANUAL, SETBACK and PROGRAM.

4. BOOST - 15 minutes

The boost feature increases the room temperature for 15 minutes.

1. Use + and - to set the temperature.

To amend the set temperature when in Boost mode, simply activate the display by pressing any button. Then use + and - to change the temperature. Once the temperature is set, you can leave the display to return to the main screen and the settings will be saved. After 15 minutes, the heater will return to the previous operating mode.

5. MAN - Manual Mode

In manual mode, the heater maintains a set temperature between 4°C and 35°C.

1. Use + and - to set the temperature.

To amend the set temperature when in Manual mode, simply activate the display by pressing any button. Then use + and - to change the temperature. Once the temperature is set, leave the display to return to the main screen and the settings will be saved.

6. SETB - Setback Mode

Setback mode can be used for frost protection or situations where a minimum room temperature must be maintained. It maintains a temperature between 4°C and 15°C.

To amend the set temperature when in Setback mode, simply activate the display by pressing any button. Then use + and - to change the temperature. Once the temperature is set, leave the display to return to the main screen and the settings will be saved. When the room temperature drops below the set temperature the heating will be active.

6. PROG - Automatic mode

In this mode, the heater will follow the week's time / temperature program.

See section 8 for information.

7. Standby mode

The heater has a standby mode. To enter/ exit this mode, press the STANDBY button. The heating will not be activated when in standby mode.

8. Set 7-day program

Each day has 24 time periods, one period for each hour of the day. To set up your program, you must select the required temperature for each time period. Once the day has been selected, the screen will show 2 numbers. The first number represents the hour of the day (10 would represent the 10am-11am heating period) and the second number represents the temperature. For example, should the display read 10:22, the heater would maintain a temperature of 22°C between 10am and 11am. Once the time has passed 11am, it will move to program 11. this can easily be set up through the app (see section 23)

Setup instructions

1. Press and hold MENU for 5 seconds to enter the program setup menu.
2. The day will be flashing, this is the select day menu. Navigate between the days using the + and - buttons.
3. Once the required day is flashing press MENU to select it, this brings you to the setup menu for the selected day.
4. The display will start with program 0 (midnight-1am). Use the + and - buttons to increase/decrease the temperature.
5. Once you have set the temperature, use the MENU or STANDBY button to change to the next time period.
6. When you advance/return beyond the program range (Prog 0-23) the timer will return to the select day menu.

Use these steps to set the temperature for every hour of every day. It is important to set every hour to avoid the heater operating during unwanted hours.

Copy day function

Should your automatic timer requirements be the same on multiple days, you can use the copy day function to save time during setup.

To do this, when in the select day section of the program setup menu press and hold the STANDBY button. This will bring you to the copy day mode. To select which day you wish to copy press the + button and this will cycle through numbers 1-7 on the screen, this relates to which day you would like to copy. 1=MON, 2=TUE, 3=WED etc. To select which day you would like to copy the programmes to, use the + & - to navigate to the day. Once both are selected, press the MENU button to copy the day.

To exit copy day mode, press and hold the MENU button. This will return the timer to the main menu.

9. Connection to the Consort Connect app

Before pairing, the App must be installed on your smart phone. The app is compatible with IOS and Android Smartphones. Go to the App Store or Play Store and search :



When the app asks for the WIFI make sure that the WIFI network and password are entered correctly – the app usually selects the right network, but you need to enter the password. Until you successfully pair a device to a network it does not remember the password, and if the password is entered incorrectly it doesn't specifically tell you that this is the problem.

Pairing the heater to the Consort Connect app.

1. Ensure the smartphone or tablet is connected to 2.4GHz WIFI network and the Bluetooth is enabled.
2. Press and hold the + and MENU buttons for 5 seconds. The timer display will read "Pair"
3. Select the + symbol in the top right corner of the Consort Connect app.
4. Select "Heater (BLE)"
5. The app will ask you to confirm the heater indicator is blinking rapidly.
6. If the indicator is blinking rapidly, tick the box and click Next.
7. The app should show that one device has been found. Select the + symbol next to this heater.
8. Enter the correct WIFI name and password on the App.
9. The heater will begin to pair to the app. This can take up to 60 seconds.
10. Once pairing is successful, the + symbol will be replaced with a tick.
11. Select Next and the app should display 'Added successfully'. The heater is now paired and ready to be used with the app.
12. A solid RF symbol on the timer means the heater is connected to the internet. The time is automatically set from the internet.



If the pairing is unsuccessful, check the points below and retry.



1. Ensure you are using a 2.4Ghz WIFI network.
2. Ensure you have a solid internet connection.
3. Ensure you have entered the network name and password correctly.
4. Check if the heater has appeared on the home page in the app.
5. Ensure Bluetooth is enabled.

10. Open Window Detection

Ensuring you don't waste energy on heating the outside world, the heater is equipped with optional open / closed window detection. The heater recognises sudden drops in temperature when a window or a door is opened and turns the heating off to save energy. When the window is closed, the heater will automatically detect a temperature rise, and switch itself back on. Once enabled in the setup menu, the open window detection is fully automatic and does not require any human intervention to be activated.

Setting-up Open Window Detection

The system has been factory set to default time and temperature values. If necessary, all values can be adjusted. When the heating is on, open window detection sensor will automatically switch the heater off when it detects a fall in temperature of 2°C in less than 10 minutes (this temperature can be changed in set-up menu 7 and time in set-up menu 6). If a temperature rise of 2°C in less than 30 seconds is detected, the heater will switch itself back on (this temperature can be changed in set-up menu 9 and time in set-up menu 8). These changes can also be made in the app. When viewing the heater settings, select the 'open window detection' menu.

11. Optional PLK1 Locking Device

The heater locking device can be used to mechanically lock the controls to prevent tampering with settings. As it is not supplied with the heater, kindly contact our Sales team if required.



- Locking tab



- Locking screw



Locking tab

Locking screw

12. Keys locking

Press and hold + and - together for 5 seconds. The display will show symbol. Repeat the step to unlock.

13. Heat symbol on the display

Every time there is a demand for heat, the display will show the heat icon.

- Full heat output

- Reduced heat output when the room temperature is close to the set temperature - allows for almost silent operation.

14. Status light on the heater

Light colour	Heater status
	STAND-BY No heat output
	Reduced heat output
	Full power heat output

15. Setup menu

1. Press and hold MENU and - together for 5 seconds.
2. The display will enter the setup menu.
3. Use + and - to change a value.
4. Use MENU to scroll between the settings.

01 - Temperature Calibration

The temperature reading has been factory calibrated but if for any reason it needs adjusting (better accuracy required, to suit different position in the room etc.), the reading can be recalibrated in 0.5 degrees steps.

02 - Change between degrees Celsius or Fahrenheit.

03 - Set minimum temperature.
(4°C = frost protection)

When this is set, the heater will operate in any mode should the room temperature fall below the set temperature.

04 - Set maximum temperature.

When this is set, the maximum temperature in any mode cannot exceed the limit.

05 - open window detection 0 = off, 1 = on.

06 - 600 - open window detection time 600 seconds.

07 - 2 - temperature drop of 2°C in the detection time.

08 - 30 - closed window detection time of 30 seconds.

09 - 2 - temperature rise of 2°C in the detection time.

Please note: Settings a to e are only applicable to MWIFI models.

- a - Enable occupancy sensor.
- b - Occupancy sensor time out.
- c - Self learning enable.
- d - Occupied Temperature.
- e - Unoccupied temperature.

16. Control using the Consort Connect app

Basic control of an individual heater

When you open the Consort Connect app, select the heater you would like to control. This will bring you to the main page for controlling the heater. In this page, you can change the operating mode and comfort temperature on this screen. The dial in the middle of the screen is used to adjust the temperature. The icons on the top of the screen are used to change the operating mode.

17. Basic settings menu

In the settings menu, select the title 'basic' to access the basic menu. In this menu, you can view the wattage of the heater, adjust the temperature correction and toggle open window detection.

18. Pin number locking

The lock feature allows you to lock 2 different aspects of the system using a Pin number. You can either lock the heater completely so that it cannot be tampered with, or only lock the WIFI pairing. Locking the WIFI pairing prevents people from pairing the heater to their smartphones unless they have the Pin.

These settings can be implemented under the title 'Lock' in the settings menu. You cannot view the lock settings until the WIFI pairing lock is enabled.

To disable the pairing lock via the timer, hold down the MENU and + buttons. To disable the heater lock via timer, hold down the + and - buttons.

This will prompt you to enter a 4-digit Pin. Enter the 4-digit Pin using the + and - buttons to select a value, the MENU button to advance to the next digit, and the STANDBY button to confirm.

Once the Pin has been entered, the lock is disabled and the Pin does not need to be re-entered.

NOTE: Once this Pin has been confirmed, the lock cannot be removed without knowing the correct Pin number.



The Pin is NOT recoverable.



19. NOTE

When turning the heater on, there is a 30 seconds delay until the fan starts running to allow the heater to warm up. After the heater is switched OFF the fan will continue running for a short period of time.

20. Mounting

This unit is for wall mounting only. It is designed to be very quiet in operation if mounted correctly. It must be fitted using the wall bracket supplied and screws for a 5mm hole. The wall bracket provided has been specially designed to minimise noise levels. **Care must be taken when handling the bracket not to bend or distort it.**

When fitting more than one heater in a room we would recommend that they are sited on the same wall to optimise airflow and ensure quiet operation.

To wall mount, the wall bracket supplied must be used. Remove the wall bracket from the heater. Fix the wall bracket to the wall using 4 screws. Present the heater to the bracket. Locate the heater onto the bottom lugs via the 2 slots in rear panel. Hinge the heater upwards and attach the chain assembly, then move the heater to the upright position. The link plates should slide under the slotted bracket lip.

MOUNTING ON A PLASTERBOARD WALL

- Ensure at least one of the wall brackets is secured to the timber frame of the stud wall by using standard wood screws.
- Where the bracket is fitted onto plasterboard only, ensure plasterboard fixings are used. Standard wall plugs will not be suitable.
- Where possible mount the heater(s) on an outside wall to inhibit transfer of sound within the building.

NB: Failure to follow the instructions and recommendations provided could result in increased noise levels.

The heater must not be located immediately below a fixed socket outlet.

Refer to page 3 for more information.

21. Energy consumption

Selecting the  icon will load the Energy consumption menu. This menu shows how much power the individual heater has used in the last day, week, month and year.

The energy usage values are approximate. They are based on recording time the heaters are producing heat. The mains voltage and actual heater wattage aren't taking into account when calculating values.

22. Naming the product in the Consort Connect App

Once the heater is linked with the app, it is given a generic name and icon. These can both be changed.

To do this, when the controller menu is open (this is the menu you can control the product with) select the  icon in the top right corner of the screen. Next, select the  icon again. From this page, you can change the name of the controller and import an image to represent your product.

23. Setting the automatic program using the app

The 7-day program can be set using the app instead of the electronic timer. To access the program page, select the  icon. This 7-day program is the same as the one described in section 8. Modifying the program on the app will modify the program on the timer automatically.

Tapping an hour slot will turn it grey and bring up 2 options. These are 'Delete' and 'Settings'. Tapping delete will default the temperature for that slot to 4°C. Tapping settings will allow a temperature between 4°C and 40°C to be selected.

Multiple hour slots can be selected at once provided they are on the same day and in a row. For example, if the program needed to be 22°C from 9am-5pm on Monday you would need to follow the steps below.

1. Select the box after 09:00 Monday (the box will turn grey)
2. Scroll down and select the box before 17:00 on Monday. All boxes from 09:00 up to 17:00 will turn grey.
3. Select the option 'settings' which appears next to the grey boxes.
4. Select a temperature of 22°C.
5. Tap 'Done'
6. All boxes between 09:00 and 17:00 will be set to 22°C and the heater will maintain this temperature during these times.

Repeat these steps for all time periods so that the heater runs as required.

24. Smart Automation

The automatic program which is explained previously is only capable of switching the heating on/off in one hour increments, i.e. the heating could not be switched on at 10:30am, it would need to be either 10am or 11am.

The Smart automation feature which is only available via the app can offer a solution to this. It allows an unlimited number of programs to be set on every day of the week.

To use it, follow the steps listed below.

1. Open the Consort Connect app and select the 'Smart' option on the bottom of the screen.
2. Select the '+' symbol located in the top right of the screen.
3. Select the option 'Schedule'
4. Select 'Repeat' and choose the days which the program is required to run on.
5. Select an execution time. This is the time the program will be triggered.
6. Select 'Next'.
7. Select 'Run the device' and choose the device the program will control.
8. Select 'Mode' and then choose the operating mode the heater will switch to.
9. Select 'Name' to name the operation (optional).
10. Select 'Save'.

Repeat these steps for all automations required. A single time period would require two automations, one to switch the heater on, and one to switch the heater off.

You can activate/deactivate each individual automation without deleting it. To do this, from the main app screen select the 'Smart' option and use the toggle icon.

25. Group control

The app can be set for group control where it is possible to control multiple heaters at once.

To set it up, open the app, select a heater you want in the group and press the edit icon in the top right hand corner. Select create group and follow the instructions on the screen.

CUSTOMER HELPLINE

Should you need any advice on the use of your new Consort product please contact our Helpline:

Consort Equipment Products Limited

Thornton Industrial Estate, Milford Haven, Pembrokeshire, SA73 2RT

Tel: 01646 692172

Email: technical@consortepl.com

Web: www.consortepl.com

Operation hours: Mon to Thu 8.30am to 4.30pm | Fri 8.30am to 3.30pm

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