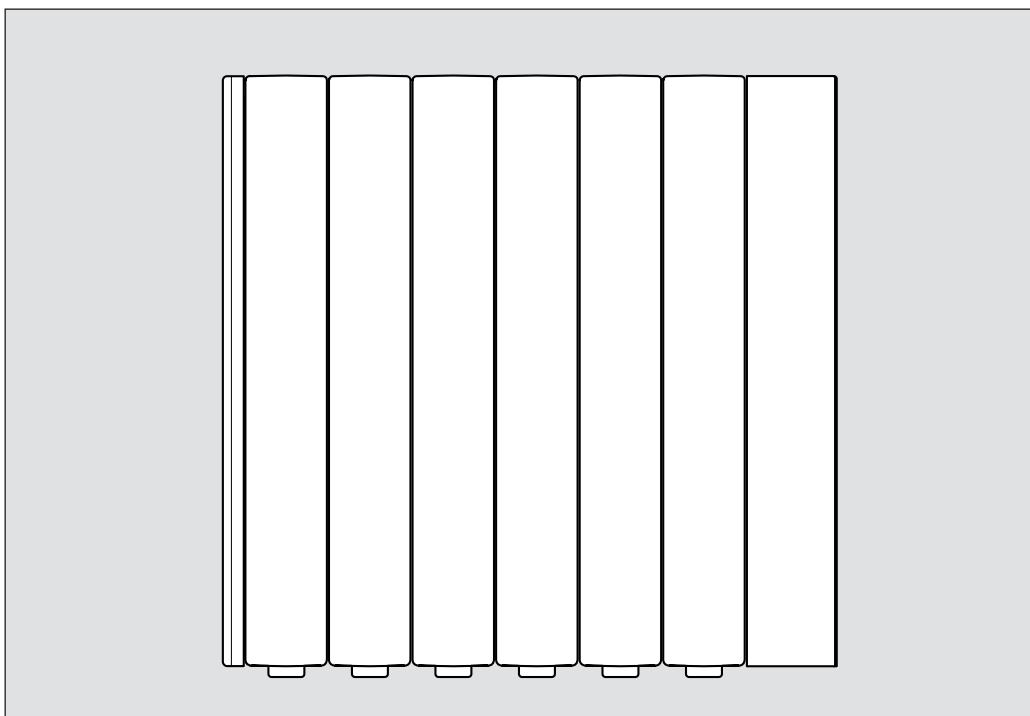




eco SAVE[®] Electric Radiator

Operating and Installation Instructions



Models:

eco SAVE: 750 - 1000 - 1250 - 1500

NOTE:

A qualified electrician must carry out the electrical installation of this radiator. The Electrical installation must comply with the current UK regulations to BS.7671. Any claim on the warranty could be invalid if these requirements have not been met.

GENERAL INFORMATION

The EHC eco SAVE heater has a special aluminium cast body designed to maximize the rate of convected and radiated heat through the circulation channels providing an efficient comfortable heating experience. The heaters are filled with a high performance heating oil in a unique way that provides a bubble free process to ensure that the heaters entire surface area is covered.

Designed and fabricated in accordance with EN 60335-1, EN 60335-2 and EN 55014 (regulations for domestic appliances).

Standard colour White (RAL 9016).

Class I.

Wall mounted (by quick fixing system).

Capillary over temperature safety limiter.

Overheat protection.

On-off main switch.

Key-pad locking (anti-tamper).

NTC electronic sensor.

Fitted with mains power cable 1300mm long.

Important Information - Safety notes regarding the appliance.

Due to the surface of the heater becoming hot, it must not be positioned directly against or below flammable surfaces.

Do not dry clothes or towels on the heater nor leave fabrics, magazines, spray cans, volatile substances or similar objects within 250mm of the heater.

In case of breakdown or damage turn off the appliance at the main On / Off switch and notify the supplier.

If the electricity cable gets damaged it must only be replaced by a technician appointed by the supplier. This will avoid possible risks and ensure that special tools are available if needed.

This appliance is not intended to be used by persons (incl. children) with limited physical, sensory or mental capabilities, or who lack experience, except for those under supervision or have received instruction in the use of the appliance from a person responsible for their security.

Children must be supervised in order to ensure that they do not play with the appliance.

WARNING: In order to prevent overheating, do not cover this appliance. There has to be free movement of air around all surfaces of the appliance.

Main components

Heating Elements. A high quality mono-tube heating element is used with all eco SAVE Heaters. It is connected to the radiators electronic control system that allows the heater to either be set manually or remotely via the Internet when using the eco SAVE Smart Home system.

The radiator also has an ON - OFF power switch on the side of the heater for easy isolation.



This symbol “DO NOT COVER”, is placed on the heater as a reminder to the user.

Location

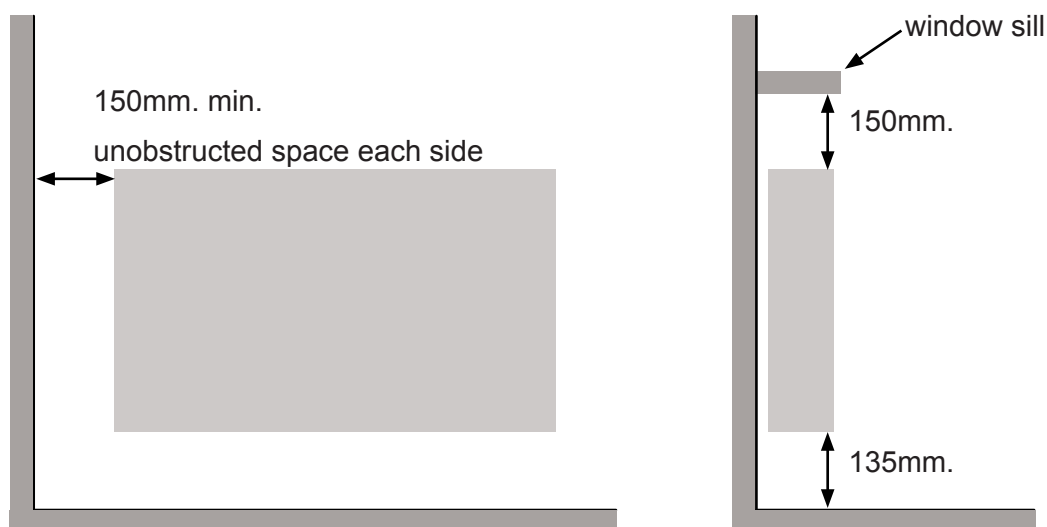
An ideal location of where to site a radiator would be as close as possible to the coolest wall within a room. It is not recommended to mount the radiator on an un-insulated exterior wall. If this is the only wall available, we would recommend insulating behind the radiator in this instance.

When installing a radiator in bathrooms the heater must be sited inside the protected zone. The radiators must be installed within zone 2 making sure that the control unit & ON/OFF switch on the heater are not reachable directly or indirectly by a person in a bath / shower or using the wash basin. (Refer to the zone table Fig.B)

Under no circumstances should the radiator be installed below an electric power point.

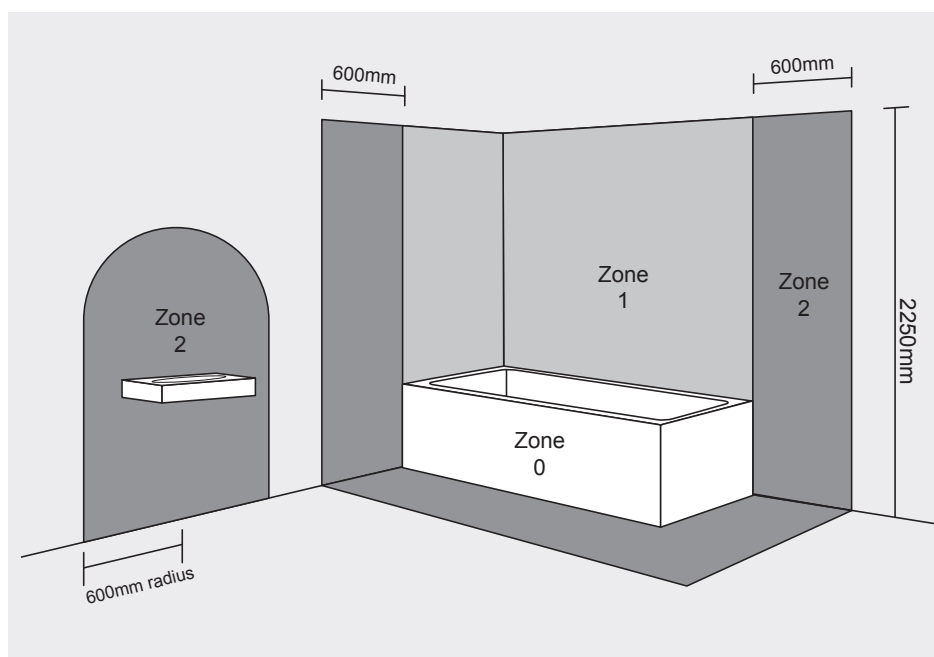
Choose the location of the radiator in respect of the minimum distances that are indicated in Figure A.

Fig. A



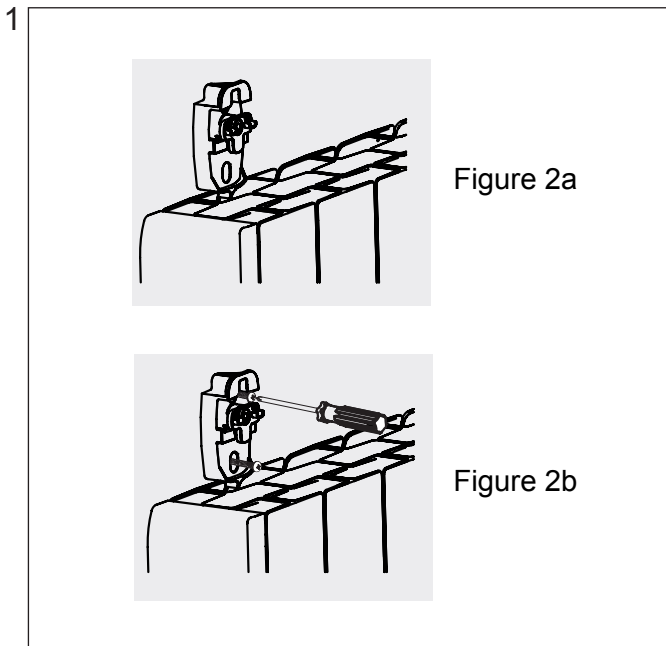
Note: If the window sill protrudes less than 20mm the gap above the heater can be disregarded.

Fig. B

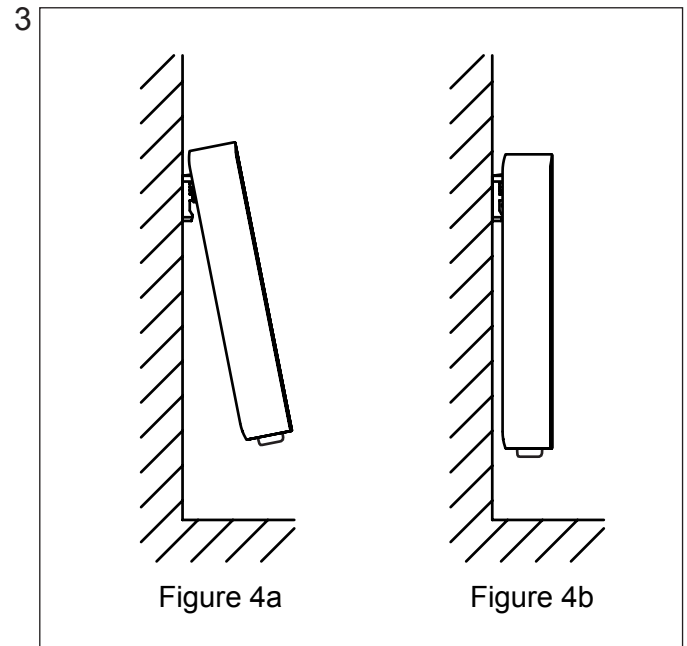


Mounting The Radiator

Sit the radiator on the floor and place the supports between the fins as shown in Figure 2a, Mark the points on the wall through the fixing holes as shown in Figure 2b.

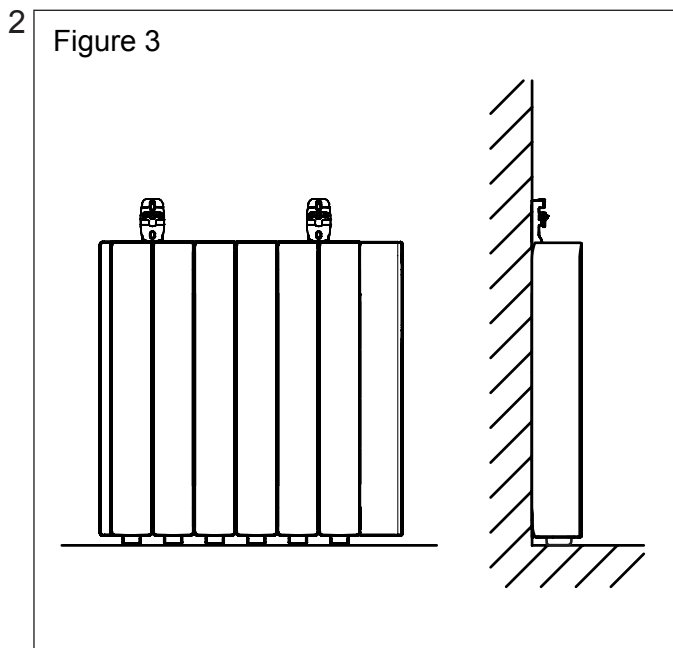


Lift the radiator and hang it on the supports, as shown in Figure 4a and 4b.



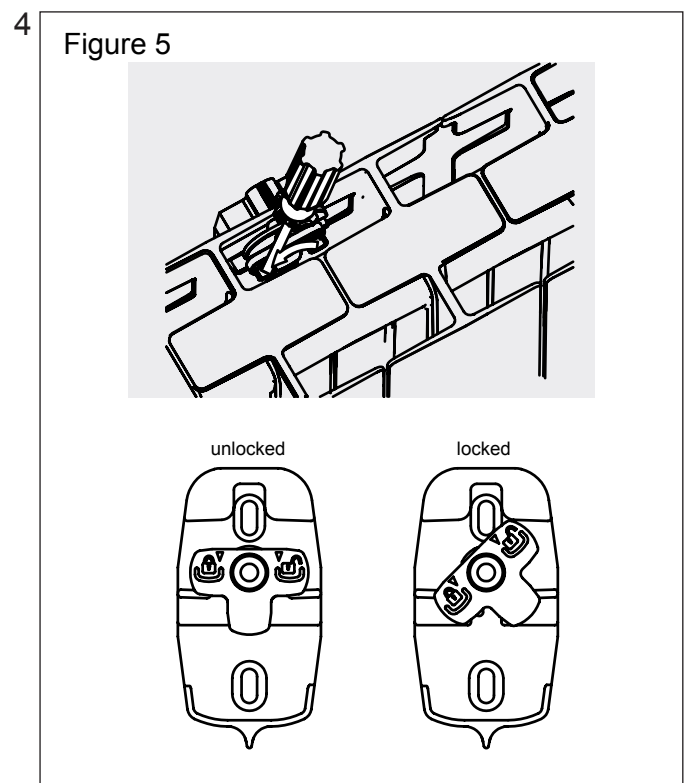
Fix the supports to the wall using the screws and plugs provided.

Be sure that the supports are level and mounted in the correct positions as shown in Figure 3.



For radiators with 12 fins (1.5Kw) the supports should be mounted between Fins 2&3, For all other radiators the supports should be mounted between fins 1&2.

As soon as the radiator is mounted on the supports, press on the locking plate until a click is heard. as shown in Figure 5.



WARNING – THIS APPLIANCE MUST BE EARTHED

The installation of this appliance should be carried out by a competent electrician in accordance with I.E.E.Regulations BS 7671.

The radiators are supplied with a standard UK 3 pin plug that can be directly connected to a electrical outlet socket. Care must be taken when multiple radiators are connected in this way to avoid overloading the ring main circuit of the property. If you are unsure contact a qualified electrician before connecting multiple radiators.

Alternatively the heaters main power cable can be cut to length and connected to a suitable 20 amp double-pole fused switched spur. The spur must be supplied using a cable with a minimum size of 2.5mm Sq. Cable sizing must be carried out by a qualified electrician.

Note: Ensure that the heaters are protected using the correct fuse size as listed in the table below.

Connecting wires:

Brown: Live

Blue: Neutral

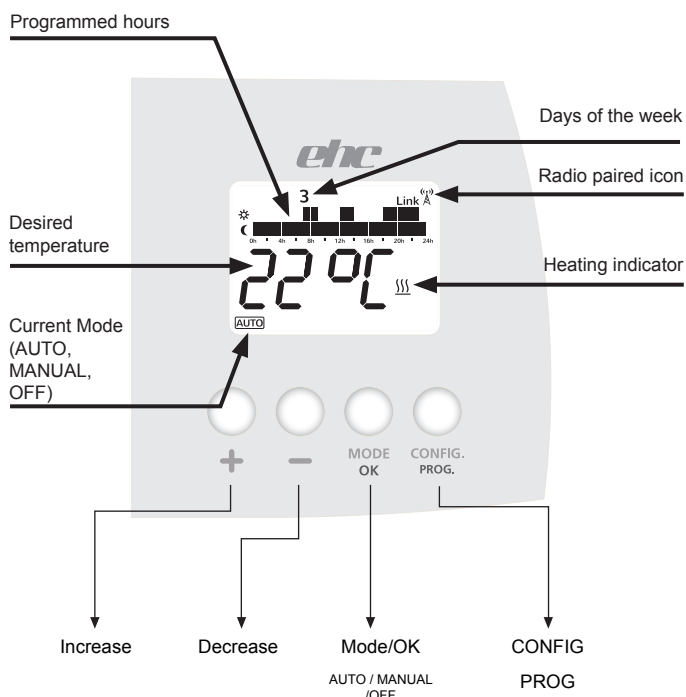
Yellow-green: Earth

Technical Data

MODEL	Number Of Fins	Power Rating (W)	Size (mm)	Net Weight (Kg.)	Fuse Rating
ehc eco SAVE 750 - RA1S1531S2	6	750	580 x 580 x 100	12	5 Amp.
ehc eco SAVE 1000 - RA1S1131S2	8	1000	740 x 580 x 100	16	10 Amp.
ehc eco SAVE 1250 - RA1S1631S2	10	1250	900 x 580 x 100	20	10 Amp.
ehc eco SAVE 1500 - RA1S1331S2	12	1500	1060 x 580 x 100	24	10 Amp.

OPERATING INSTRUCTIONS

The control is based on four buttons and an LCD display.



Switching ON (Master):

Once the radiator has been mounted on the wall and correctly connected to the mains power supply, press the main On-Off switch on the right hand side of the radiator.

After approx 3 seconds the screen will illuminate and the radiator is ready to operate.

Switching OFF (Master):

To switch the radiator Off press the main On-Off switch on the right hand side of the radiator. The LCD screen will go blank. If the radiator is connected to an EHC eco Save Smart Gateway, the radiator will now lose connection with the gateway.

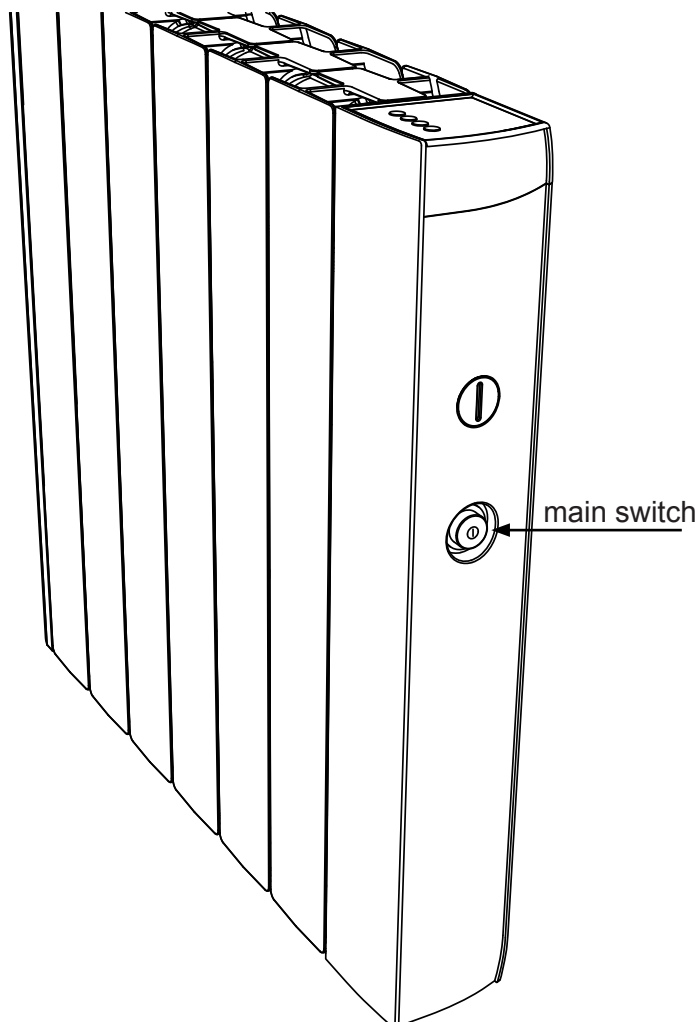
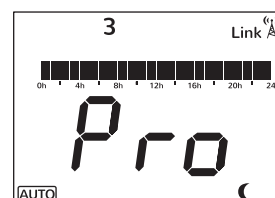
Stand-by function "OFF":

Press the Mode/OK button until the **OFF** symbol is present as shown in the following screen.



When the radiator is in Stand-by Mode it will retain its program settings. If the radiator is connected to an eco SAVE Smart Gateway it will continue to communicate with the gateway.

To switch the radiator ON again, press the MODE button to choose program mode **AUTO** or manual mode you will see the following screens:



Manual Programming

To assist with programming the LCD screen has a backlit display and will stay illuminated for approximately 10 seconds after the last button is pressed.

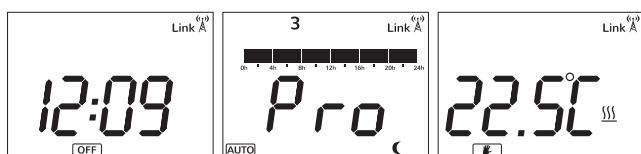
When the radiator is working in the manual mode and the ambient temperature is below the set temperature, the heater will be operating. The heating symbol on the right side of the screen will be shown .

When the ambient temperature has reached the set point the heating symbol will disappear.

The screens below show:

OFF, **AUTO** and **MANUAL** modes.

To chose different modes press **MODE/OK** button.



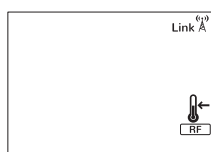
AUTO Mode:

When the radiator is in the AUTO mode the temperature can be adjusted by pressing the +/- buttons. This change will remain active until the next program change or until midnight when the temperature will revert to the preset value.

Adjust Programmed Temperatures

You can adjust your Comfort, Economy & Frost temperatures in the following way;

Press the **CONFIG** button and the following screen will appear :



When the temperature setup icon  starts flashing, press OK to scroll through each temperature mode.

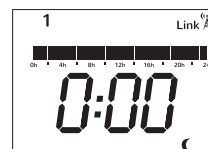
 **COMFORT**  **ECONOMY**  **FROST**



Press the +/- button to select the temperature of your chosen mode, press CONFIRM to exit the temperature setting screen.

Setting Programs and Real time Clock

To start programming press and hold **CONFIG/PROG** button for 3 seconds and the following screen will appear:



The programming starts on (1) Monday at 00:00, Choose your temperature mode.

 **COMFORT**  **ECONOMY** or  **FROST** by pressing the **OK** button, then press +/- buttons to select your programme times.

(Press the OK button to choose between Comfort, Economy or Frost Protection modes)

Program hours will show; **Two** blocks for Comfort, **One** block for Economy and **No** blocks for frost protection.

When a full day has been programmed, the screen moves onto the following day (2). When you reach the 7th day the display will automatically move to real time clock settings. To select your day of the week press +/- buttons and confirm with the **OK** button.

Next, the hour of the day will be displayed. Select your hour by pressing the +/- buttons. Confirm with OK.

Next, the minutes will be displayed. Select your minutes by pressing the +/- buttons. Confirm with OK.

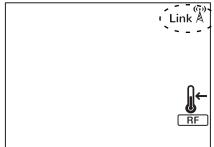
Your heater is now fully programmed and clock set.

Note: If your radiators are used in conjunction with an eco SAVE Smart System, the real time will automatically be set from the internet, and you will be able to program your heaters directly from your computer, tablet or smart phone.

Programming with EHC Smart kit

To program your eco SAVE heater with the eco SAVE Smart Kit, you must pair the radiator to the gateway. First you must activate the pairing-discovery mode of the eco SAVE Smart gateway. Details of this can be found in the Smart gateway instruction manual.

Once this is done press the CONFIG button on the radiator and use the + or - key until the RF icon flashes. Press OK and 'Link' together. An antenna icon will appear in the top right of the screen when connected.



Another way to pair the radiator is to press the **OK** button for 3 seconds while the radiator is in one of the main modes (OFF, AUTO, MANUAL). Your Eco SAVE heater is now ready to accept program instructions from the eco SAVE Smart Gateway.

If the radiator has been linked to the gateway and for some reason communication is lost, the Link icon disappears and the antenna icon starts flashing.

Keypad Locking (Anti-Tamper)

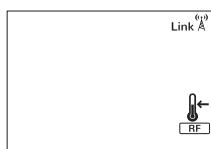
The keypad can be locked to prevent any unauthorised person (children, people in public places, nurseries, offices, hotels etc.) altering the settings of the radiator. To lock the keypad depress and hold the + and - buttons at the same time for 3 seconds until "bloc" appears on the screen. Any button presses will be ignored and "bloc" will be display on the screen.

To unlock keyboard, once again press and hold + and - for 3 seconds until the word 'bloc' disappears.

When the keypad is locked the radiator will still receive communications from the eco SAVE Smart Gateway.

Advanced Engineer Settings

To enter the advanced settings mode, press **CONFIG** while the radiator is in one of the main modes (OFF, AUTO, MANUAL). The following window will appear:



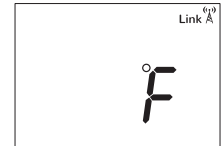
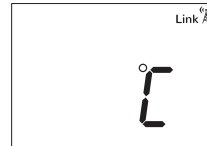
Now press the **CONFIG** button for 5 seconds and C1 appears on the screen.

To select one of the three advanced settings (C1 to C3) use the +/- keys and choose the required mode by pressing OK. The advanced settings are:

1. C1-> Choose °F or °C
2. C2-> Choose type of control
3. C3-> Temperature Compensation

Degrees Fahrenheit or Celsius (C1)

Select °C or °F with the +/- keys and confirm with OK button.

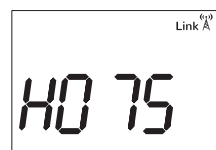
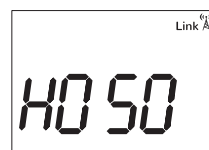
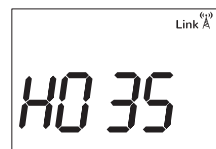
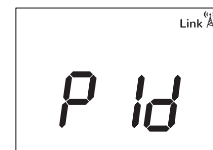


Type of Control (C2)

You access the setting mode control, showing the type of control currently used. There are 4 types of control PID, hysteresis of 0.25°C, hysteresis of 0.35°C, hysteresis of 0.50°C and hysteresis of 0.75°C.

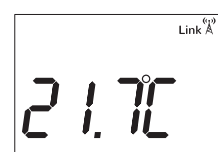
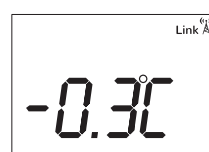
To change type of control press +/- . Confirm with **OK**.

The screens shown are:



Temperature Compensation (C3)

When in this mode the display will show offset adjustments. The measured temperature is displayed once taken into account the offset. With the +/- keys offset can be changed and confirmed with OK. Temperature compensation can be adjusted up to +/- 3°C.



Radiator Factory Reset

The device RESET returns all settings to their default values. It will also delete its RF network (delete pairing) if paired with an eco SAVE Smart Home gateway.

To activate the RESET feature press the **OK** button and the **CONFIG** button together for 10 seconds.

The following screen will appear:



To confirm the reset, press **OK** again, to cancel the **RESET** press any other key.

OPERATING INSTRUCTIONS (Analog)

This simple to use controller is equipped with a capillary thermostat.

To operate, turn ON the Mains Power to the heater by pressing the Power button located on the right hand side of the radiator.

The heater will be activated if ambient temperature is lower than selected temperature.

Temperature Adjustment.

Press the thermostat button down to release the button and rotate the knob to your desired temperature setting, (1 to 6).

To increase the temperature rotate to the right, to decrease rotate to the left.

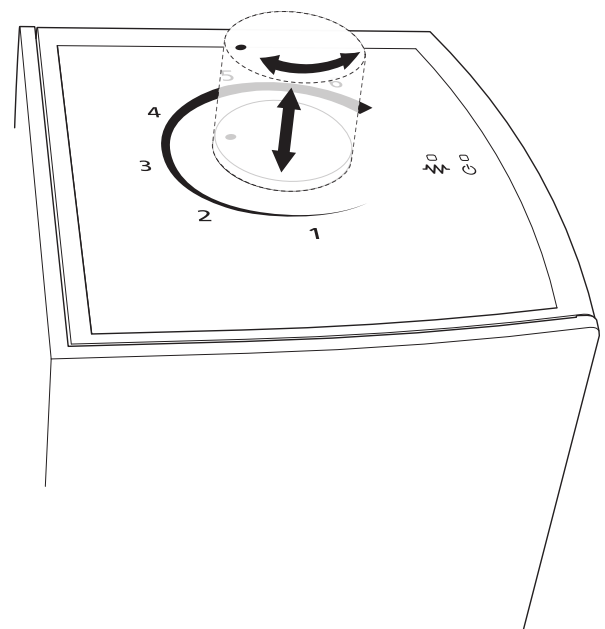
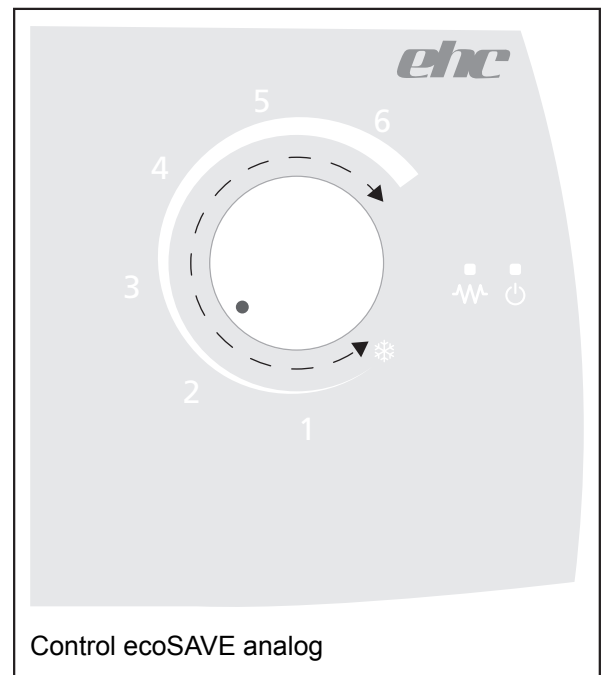
When the desired temperature setting has been achieved the thermostat will switch the heater off. (A small "click" will be heard at this stage)

LED indicators.

The Green LED indicates that the heater is energised waiting on a call for heat from the internal thermostat. When the Red LED is illuminated  red, the heater is ON.

Default Values

- Working mode: OFF
- Comfort Temp : 19°C
- Economy Temp : 17°C
- Frost Protection Temp : 5°C
- Manual mode Temp: 19°C
- Temperature Compensation: 0°C
- No RF paired network
- Temperature units °C
- Control type: PID
- Default Programme: All Economy



MAINTENANCE AND CARE

The eco SAVE heaters are filled with a precise amount of high performance heating fluid that requires no further maintenance. In the event of a warranty repair being carried out during the heaters warranty period,

EHC should be notified of the fault. The heater should be returned to EHC for the repair to be carried out or if agreed, an accredited engineer will visit site to repair the heater. If it is found that the heater has failed due to incorrect installation or misuse then the engineers call-out will be chargeable including any parts used.

Regulations regarding the disposal of heating fluids should be adhered to protect the environment.

The surfaces of the radiator must not be cleaned with an abrasive product or those containing granular substances. We recommend regular cleaning with PH neutral products when cleaning the radiator, It is recommended that the electric power is switched off.

USEFUL TIPS; Sometimes stains can be seen above radiators, on the wall or ceiling. This is caused by dust particles in the air and it is not attributable to the heater. Frequent cleaning of the heater and surrounding areas will help prevent this from happening.

[illegible]

(Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed of with other household wastes at the end of its working life.

To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal. ns of the purchase contract. This product should not be mixed with other commercial wastes for disposal.



Guarantee

Your appliance body is guaranteed for 10 years and 2 years on electric and electronic components from the date of purchase – during this period we will repair or exchange, at our discretion, any faulty or defective parts providing the appliance has been used in accordance with the operating & installation instructions and has not been misused or mistreated in any way.

Any unauthorised repair or attempted repair will invalidate the guarantee. You may be asked to return the product to EHC for inspection to establish whether the fault is covered under the guarantee.

The guarantee is valid in the UK only.

This guarantee is additional to your statutory rights.

In the unlikely event of a problem with your appliance please contact your supplier.

ehec

the electric heating company

Block 5, Unit 40, Third Road
Blantyre Industrial Estate
Blantyre · G72 0UP · United Kingdom

TEL. 01698 820533

info@electric-heatingcompany.co.uk

www.electric-heatingcompany.co.uk

Installed by: