

**AUSTRALIAN INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS (IOM Manual)** Uncontrolled Document Number: HB 1901 Rev 3 8.06.2021  
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# HEATBOSS SMART HEATER I.O.M.

## Installation, Operation and Maintenance Manual



### Introduction

This manual is designed for use by licensed electrical technicians to ensure the safe and compliant installation of Heatpac heaters in Australia and New Zealand.

There are regulations in effect for all room heating systems in every state of Australia and in New Zealand. We have included relevant references in this document wherever possible for each state and territory, however we recommend that installers check with power authorities and local regulators for any variations that may exist before installation.

Please read carefully and follow the instructions before unpacking and installing any Heatpac products.

If any instructions are not clear or if you have questions, please contact our service support team;

**Business hours** (+61) 02 9668 8291

**After Hours** - M 0477 211811

**Internet Online** - More technical information will be available online at [www.heatpac.com.au](http://www.heatpac.com.au)

### Applications for Heatboss Smart Heaters

There's a pattern to how consumers use energy. High energy use times are typically weekday mornings, afternoons and evenings and that is when the heating usually needs to be available in colder months.

Reducing energy use at peak times on the grid is called load shifting and load shifting for a household means restricting the use of higher energy appliances during those times of the day when power is more expensive. Heatboss provides a way to collect energy when it is cheaper and then have it available for use during those times in the day when power is more expensive to buy from the grid.

RHCS Unit 2, 18-28 Sir Joseph Banks Drive Kurnell NSW 2231 Phone +61 2 9668 8291 Email: [sales@rhcs.net.au](mailto:sales@rhcs.net.au)

HEATBOSS is a more affordable way to store energy for heating purposes than solar battery systems. Much like storing electricity in a battery, HEATPAC stores heat energy in a bank of high density ceramic energy cells. This energy is then available on demand, for those times when it needs to be delivered into the home for room heating.

The Heatboss system works with all Australian and NZ off peak supplies - ie **Controlled Load 1 & 2** as well as **ToU** (Smart meters).

#### *Programming for Off peak (INPUT programming)*

Once the unit is installed it will need to be manually programmed by the installer to match the off peak periods available on site. There is a digital control panel on the top of the unit to allow for this.

#### *Programming for Heating (OUTPUT programming)*

Once the programming is completed for the input of off peak power, the installer will then use the same digital control panel to program a weekly heating output schedule that suits the occupant's lifestyle and temperature preferences.

*More information about Input and Output programming is provided later in this document.*

## Operating features of Heatboss Smart Heaters

The key distinguishing feature of the HEATBOSS smart heater is the ability of its intelligent control system to learn the operating parameters of both the energy supply and the heating system at each location where it is installed. It uses a powerful built in "learning" digital controller to achieve this.

It then monitors the heating requirement and available energy supply in real time and makes continuous automatic adjustments to improve efficiency and therefore saves energy and costs for the owner.

- Works with all off peak supplies ie Controlled Load 1 & 2 as well as ToU (Smart meters)
- Smart learning control system assesses energy consumption and heat loss in the room every day in order to establish the heat needs precisely and effectively adjusting the energy required, whatever the weather conditions.
- Quiet, natural convection mixes warm air with cooler air for efficient heat distribution.
- Several charging periods can be programmed during a single 24-hour interval.
- Each unit has its own digital timer to set the available Time Of Use (TOU) or off-peak tariff periods.
- Smart indoor controller manages precise control over the released heat with a balancing heater element used only for supplementary heat (Programmable on demand).

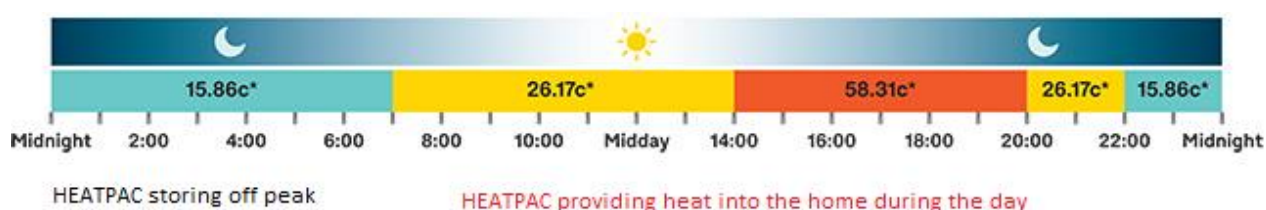
## Energy Saving & Operating Cost Reduction

The HEATPAC system is an affordable and efficient way to use and store energy particularly whenever space heating is required.

HEATPAC's load shifting functionality makes a substantial difference to the annual cost of energy bills.

This is because the energy powering these heating systems is essentially lower cost energy supplied from the grid at off peak price levels.

*The table below shows some typical Weekday time-of-use electricity costs. In this example the HEATPAC system is charged during the night at 15.86 cents per KW hour and provides heating during the day when it would otherwise cost from 26.17 up to 58.31 cents per hour.*



## Product Range & Selection



Heatpac storage heaters are manufactured for Australian conditions by Elnur Gabarron, a leading European manufacturer to ISO 14001 and ISO 9001 Quality and Environmental Control standards.






The equipment model numbers are as follows

<b>Heatboss 1.5</b>	*European Model - Elnur Gabarron ECOSSH158	Convection output = 1.5kW, Storage-7.4 kWh,
<b>Heatboss 2</b>	European Model - Elnur Gabarron ECOSSH208	Convection output = 2kW, Storage - 9.9 kWh,
<b>Heatboss 4</b>	European Model - Elnur Gabarron ECOSSH408	Convection output = 4kW, Storage - 19.8 kWh,
<b>Heatboss WiFi Hub</b>	European Model - Elnur Gabarron G Control Hub	Heatboss WiFi Hub allows connection of up to 31 heaters to occupant's router for control via devices
<b>Heatboss WiFi Power Manager</b>	European Model - Elnur Gabarron GControl PM	Power manager accessory Din mounted. Manages the total power output and logs energy data of individual Heatboss Heaters via WiFi

*\*(Please note the European equipment has been modified and tested to comply with Australian and NZ Standards and Heatboss installations and equipment must not be substituted with imported units)*

All Heatboss equipment is 230~240V 1P 50Hz

## Heatboss Product Range & Specifications

<b>Heatboss 1.5</b>		<p><b>Heatboss 1.5</b> Smart Off Peak Heating System Works with all types of Off Peak power and Smart Meters. Convection Type= <b>Output</b> 1.5kW <b>Stored thermal energy</b>- 7.4 kWh, 240V 4.5A <b>Zone sizes</b> 15m2 (@100Wm2) to 30m2 (@50Wm2) <b>Dimensions</b> cm-L 55 x H73 x W18 Weight - 59kgs</p>
<b>Heatboss 2</b>		<p><b>Heatboss 2</b> Smart Off Peak Heating System Works with all types of Off Peak power and Smart Meters. Convection Type= <b>Output</b> 2kW <b>Stored thermal energy</b> -9.9 kWh, 240V 5.9A <b>Zone sizes</b> 20m2 (@100Wm2) to 40m2 (@50Wm2) <b>Dimensions</b> cm-L 66 x H73 x W18 Weight - 77kgs</p>
<b>Heatboss 4</b>		<p><b>Heatboss 4</b> Smart Off Peak Heating System Works with all types of Off Peak power and Smart Meters. Convection Type= <b>Output</b> 4kW <b>Stored thermal energy</b> 19.8 kWh, 240V 11.8A <b>Zone sizes</b> 40m2 (@100Wm2) to 80m2 (@50Wm2) <b>Dimensions</b> cm-L 111 x H73 x W18 Weight - 147kgs</p>
<b>Heatboss WiFi Hub &amp; App</b>		<p><b>Heatboss WiFi Hub</b> - WiFi control via Network and App . Apple- Android - PC Connects via WiFi to Heatboss Heaters via a local network and allows control by handheld devices from anywhere in the world. Set energy charging times, indoor heating times, measure power usage and daily temperatures. Control up to 31 Heatboss units from one hub making it ideal for multiple unit installations such as large homes, motels, guest houses, aged care etc. Comes with 240V power adapter, hub, ethernet cable for connection to a router or PC. Download the free app online.</p>
<b>Heatboss PM WiFi Power Manager</b>		<p><b>PM Power Manager</b> - Recommended for all Heatboss installations with multiple units. The PM Power Manager is an accessory that is DIN rail mounted in the switchboard and must be WiFi network connected. Via the associated app it allows the user to set a maximum limit of total power output and to set a priority to each heating unit in the building. If several units have the same priority, it will first disconnect the one that is closest to set point. Also logs real time power data usage and stores historical usage data via the WiFi app.</p>



## Installation only by qualified & licensed trades.

Any private or commercial building in a region with some cool seasonal variations in Australia and NZ is a potential customer for a Heatboss system.

However traditional retail sales or even direct sales to consumers is not appropriate for these products as our first priority is safe installation and operation.

Therefore we only supply to customers through a network of licensed electrical technicians (electricians) who are local to the customers' area and can provide personal representation, on site assembly and installation in a safe manner.

This will ensure connection to the building electrical system will be done professionally and efficiently and within all appropriate Australian standards eg AS/NZS 3000:2018 Electrical installations (known as the Australian/New Zealand Wiring Rules) and safety guidelines.

We recommend local electrical tradespeople who are qualified, licensed and trained to install the systems including;

- a) Moving and installing heavy materials safely. Each HEATBOSS room heater is quite heavy once installed and needs to be delivered, assembled in-situ and fixed in place securely. It is delivered as a kit with the external heater casing and internal high density energy cells in separate parcels.
- b) Electrical installation within residential properties. These systems are "hard wired" and can not be simply plugged into existing power outlets in the home. Each state has varying regulations and licensing arrangements and so the use of local electricians is our method to meet the legal requirements of electrical equipment installation in all areas of Australia and NZ.
- c) Connecting to new and existing electrical systems and to controlled load and time of use electrical services in the property.
- d) Installing and programming the Heatboss controllers and training customers on their correct use to manage the system confidently.

## Electrical Connection

The electrical connection must be carried out by a licensed electrician who must ensure that all electrical work is carried out in accordance with applicable regulations and standards.

We direct attention to AS/NZS 3000:2018 Electrical Installations (known as the Australian/New Zealand Wiring Rules)

In particular;

### AS/NZS 3000:2018 2.6.3 Additional protection by residual current devices

#### 2.6.3.2.2 Installation requirements - Australia only

RCDs shall be installed at the switchboard at which the final subcircuit originates.

#### 2.6.3.2.2 Domestic & Residential installations - Australia only

30mA RCDs shall be provided for all final subcircuits.

The AS/NZ AS/NZS 3000:2018 wiring rules require ALL final sub-circuits to be 30mA RCD protected.

This includes fixed electrical equipment like cooktops, hot water systems, air conditioning units and will therefore apply to all current Heatpac heating systems.

- The requirements for a maximum of 3 circuits per RCCB, a minimum of 2 RCCBs and sharing of lighting circuits remain.
- It is recommended that each final sub-circuit is protected by a separate RCBO to avoid loss of supply to multiple circuits. For example-



### AS/NZS 3000:2018 4.9 ROOM HEATERS

#### 4.9 ROOM HEATERS

##### 4.9.1 General

Where a permanently connected room heater, or a number of permanently connected room heaters, are installed in one room, an individual isolating switch and an individual functional switch shall be provided for each room heater or for each group of room heaters.

Where a number of permanently connected room heaters are installed in one room and are supplied by the one final subcircuit, a single isolating switch may be used for the room heaters in that room.

#### 4.9.2 Isolating switches

In accordance with Clause 2.3.2.2, isolating switches shall be—

- (a) installed immediately adjacent to an entrance to, or within, the room where the room heater is located; or
- (b) installed on the switchboard at which the room heater final subcircuit originates.

Isolating switches may be incorporated in temperature-control devices, provided that they have a definite 'OFF' position.

#### 4.9.3 Functional switches

In accordance with Clause 2.3.7, functional switches shall be installed in a readily accessible position in the same room, or immediately adjacent to an entrance to the room, in which the room heater or room heaters are located.

A functional switch may be—

- (a) an appliance switch or switches with an 'OFF' position incorporated within the room heater; or
- (b) an isolating switch provided in accordance with Clause 4.9.2(a).

*Isolating switches* – The use of a correctly selected RCBO on the heater circuit as indicated above would meet the requirement in the new standard for an individual isolating switch on permanently connected heater circuits.

*Functional switches* – Every Heatboss heater is supplied with an appliance switch on the right hand side (rear) of the unit. This would meet the requirement in the new standard for a functional switch incorporated within the room heater.

## Power requirements

The model number, required voltage, rated load and fusing rating can be found on the data plate on the outside lower right hand side of each unit.

Connection to a supply voltage other than the one quoted on the data plate can lead to functional faults and damage to the unit, thus voiding any warranties.

Before connecting the heater to the electricity supply, please ensure that the mains supply voltage complies with the values given on the data plate.

*Note* - For the installation of a single or several Heatboss units the collective peak power requirements may be high, so it is the responsibility of the installer to ensure that power cable and breaker sizing is correct and there is sufficient power available to the system/s once in use.

## Using a single supply circuit for Heatboss units (ToU tariff -Smart Meter) (eg Used for Time of Use ToU “Smart Meter” systems).

**1. For ToU and smart meter installation** - There may be a single meter installed and the householder may be on an “unrestricted” tariff variant from their energy provider, which allows the whole house supply to operate 24/7 and charge the off peak tariff price for all consumption during the off-peak period(s) and the higher tariff price during all other hours.

**Note: The current energy supplier should be consulted to confirm if the meter is the correct type and if the tariff type as detailed above is in current operation or is available from them in their area.**

2. With the correct meter installed and tariff in use, wiring changes can be done at the heating consumer unit or split load consumer unit where the storage heaters are connected. The supply to the storage heaters side of the consumer unit can now be changed to the same household supply. No timers or contactors are needed when supplying the heaters as all timings will be controlled at the storage heaters.

**Note: It is important that the timing of the off peak period matches the timing set on the heaters otherwise running costs will be higher.**

3. On the heaters:- The storage heater supply can be connected to the restricted terminals in the storage heater and the unrestricted terminals can then be linked to the restricted terminals. Spade connectors on the terminal block allows for easy link connection although wiring can also be made via the terminal block itself.

*Figure A - Standard terminal block for Heatboss showing Restricted Supply (Controlled load) and Unrestricted supply (Uncontrolled load) connection layout. For a single supply circuit, the restricted supply and unrestricted supply can be bridged as described above, however the unit controller must then be programmed to match the off peak ToU time periods from the utility provider.*



Figure A

*Note: A new, Australian/NZ approved cable and isolator switch rated for the heater's power should be used if required to connect the appliance in a single circuit application.*

**Note – In all cases when using a single supply connection for Heatboss, the new single supply circuit must come directly from the Distribution Board, solely serve the new storage heater/s, and have RCBO protection as previously outlined in “Electrical Connection”.**

**As per AS/NZ 3000 All new Electrical installations must be undertaken by a competent person, meet the current regulations and be tested/certified.**



## Electrical Safety Compliance Certificates

### *Issuing certificates of compliance*

It is the installer's responsibility to check and issue a Certificate of Compliance for Electrical Work or equivalent if required in their local state or territory.

Most states and territories require Electrical contractors, and workers completing work on behalf of an electrical contractor, to provide their customers with either a:

'certificate of testing and safety' for work on electrical equipment  
'certificate of testing and compliance' for electrical installation work.

**For example** in NSW it's the installer and tester's responsibility to make sure the following parties receive a copy of the NSW CCEW (Certificate of Compliance for Electrical Work) :

1. For any electrical work - to the person (customer) for whom the work is carried out.
2. For new electrical installations – customer, distributor and Fair Trading
3. Any alterations or additions to an existing electrical installation that will require additional work to be done in relation to the network connection for the installation - customer, distributor and Fair Trading,
4. Work on a switchboard or associated equipment - customer, distributor and Fair Trading
5. Electrical installation work for an installation using a stand-alone power system – customer and Fair Trading
6. Installation, alteration or replacement of an electricity meter – customer and Fair Trading

Electrical contractors usually must keep a copy of these certificates for the nominated period of time.

### *Records and copies of certificates*

Installers should give a certificate to the customer as soon as possible after completing the work.

Most certificates must state the following:

- the name and address of the person for whom the work was performed
- the details of the electrical equipment or electrical installation tested
- the day the electrical equipment or electrical installation was tested
- the electrical contractor licence number under which the electrical equipment or electrical installation was tested.

In addition to the above, a certificate must contain a suitable certification statement. For example:

- electrical equipment – a statement that certifies the electrical equipment (to the extent it is affected by the electrical work) has been tested to ensure it is electrically safe
- electrical installations – a statement that certifies the electrical installation (to the extent it is affected by the electrical work) has been tested to ensure it is electrically safe and is in

accordance with the requirements of the wiring rules and any other standard applying under the Electrical Safety Regulation to the electrical installation.

A sample certificate (Worksafe Qld) is shown below as an example of what may be required;

**CERTIFICATE OF:**  
(Please mark relevant check-box)

**TESTING AND COMPLIANCE** ( **Electrical installations** )  
Issued in accordance with s227 of the Electrical Safety Regulation 2013

**TESTING AND SAFETY** ( **Electrical equipment** )  
Issued in accordance with s26 of the Electrical Safety Regulation 2013

\* Work performed for:

\* Name \_\_\_\_\_  
Title      Given name/s      Surname

\* Address \_\_\_\_\_  
Street

\_\_\_\_\_ Suburb/town \_\_\_\_\_ Postcode

\* Electrical Installation / equipment tested (please include site address for electrical installation work if different from above)

\* Date of test \_\_\_\_ / \_\_\_\_ / \_\_\_\_      \* Electrical contractor licence number \_\_\_\_\_

Name on contractor licence \_\_\_\_\_

Electrical contractor phone number \_\_\_\_\_

For electrical installations, this certifies that the electrical installation, to the extent it is affected by the electrical work, has been tested to ensure that it is electrically safe and is in accordance with the requirements of the wiring rules and any other standard applying under the Electrical Safety Regulation 2013 to the electrical installation.

For electrical equipment, this certifies that the electrical equipment, to the extent it is affected by the electrical work, is electrically safe.

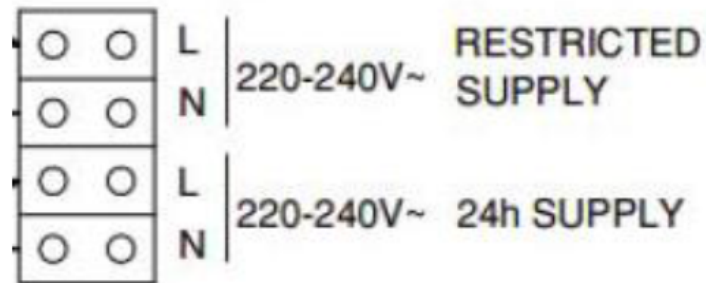
Name \_\_\_\_\_  
Person who performed, or person who is responsible for, the electrical work

Signature \_\_\_\_\_ Date \_\_\_\_ / \_\_\_\_ / \_\_\_\_

We recommend all installers check with their local state or territory to make sure they have tested all new installations and issued a completed compliance certificate as required by law and keep a copy for their records.

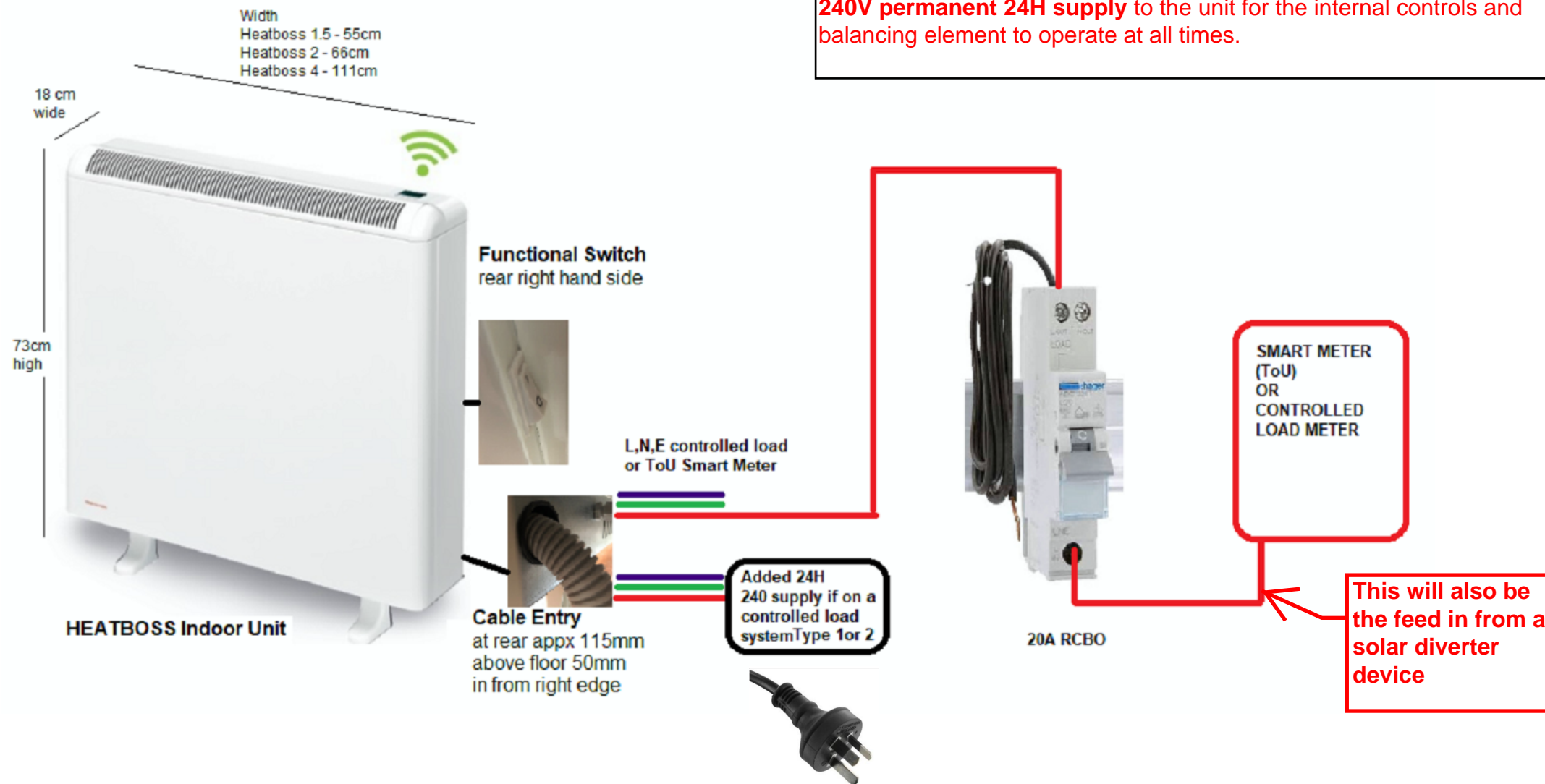


GROUND



HEATBOSS UNITS MAY BE USED ON BOTH CONTROLLED LOAD, SMART METER (TIME OF USE) and SOLAR DIVERTER SYSTEMS.

- A) **SMART METER** systems will provide permanent supply to the controls system in the heater and therefore only one supply is required. Breakers and cables must be sized for the full working load of the heater. **The power supply terminal strips in the unit must be bridged for ToU systems.**
- B) **CONTROLLED LOAD** eg Type 1 & 2 will feed off peak power to the "restricted supply" terminals. It will require an **additional low power 240V permanent 24H supply** to the unit for the controls to operate during off peak periods.
- C) **SOLAR DIVERTER** .The diverter will feed solar or off peak power to the "restricted supply" terminals. It will also require an **additional low power 240V permanent 24H supply** to the unit for the internal controls and balancing element to operate at all times.



Note Cable sizing and installation must be to AS/NZ 3000

2	05/09/17	PRELIMINARY ISSUE		
1	15/10/18	PRELIMINARY ISSUE		
revision	date	details	initials	checked

"HEATBOSS

COMPONENT SCHEMATIC

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Drawing: Heatboss Components

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 approved -- drawn nbm 018001 SK06 1

COMPONENT DESIGN

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UNCONTROLLED DOCUMENT - CHANGES WILL BE MADE WITHOUT NOTICE

## Safe handling for delivery & installation

All Heatpac heating units are heavy and safe handling should be considered both when taking delivery of the units and also when delivering and installing them on site.

The heaters are delivered in kit form for final assembly by the installer on site within the zone to be heated.

Once assembled, the units can not be lifted or moved, so choose a final location carefully and check with the client to have their agreement before work begins. The largest component being the casing for the unit, supplied in a cardboard carton should be unpacked as per the following instructions first and placed in the final location before bringing the energy cells to the unit and fitting them.

We recommend the use of a suitable rated hand trolley to move the Heater casing and the heavy ceramic energy cells.

*We **strongly recommend** the wearing of **steel capped safety footwear and gloves** as the ceramic energy cells are heavy and have sharp edges, dropping them on feet or fingers and hands could result in serious injury.*



Make sure the floor structure is sound and suitable for the weight of the units.

Carpet and other soft floor coverings may require to be cut around the feet of the heater to allow it to sit firmly without settling and movement.

Unit weight installed-

Model	Weight Kgs
Heatboss 1.5	59
Heatboss 2	77
Heatboss 4	147

*Note – these images and notes are to be used as references only to assist installation.  
The manufacturer's Installation manual supplied with the unit is the first point of reference.*

1. Turn box upside down before opening



2. Locate feet and fix to heater before unpacking



3. Feet fitted to base before inverting carefully and lifting packaging off unit



4. Locate instruction book, use it for further instructions and remember to leave with client when completed.



5. Place unit in **final location** and remove external casing as per instructions



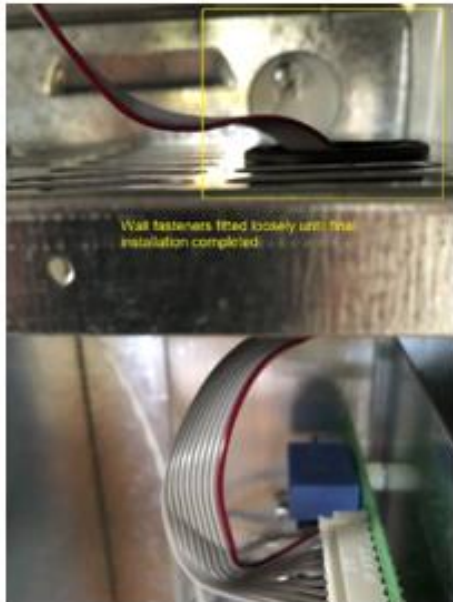
6. Remove any foreign internal materials such as cardboard packaging



Note - Select suitable wall fixings to match wall construction, ie masonry or hollow wall anchors.

*Note – these images and notes are to be used as references only to assist installation.  
The manufacturer's Installation manual supplied with the unit is the first point of reference.*

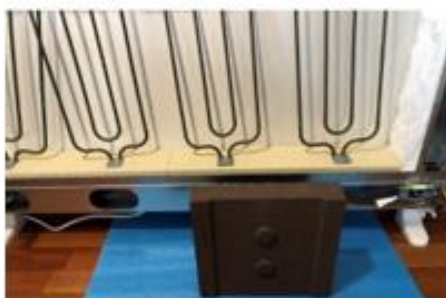
7. Fit wall fasteners loosely as per instructions until ceramic energy cells installed



8. Bring ceramic energy cells to premises using hand trolley and PPE eg wearing gloves and safety shoes.



9. Unwrap energy cells and place on protective materials to prevent floor damage when installing



10. Begin with the ceramic blocks placed at the sides and work in from there to minimize damage to the fragile insulation.



11. Continue placing the cells carefully to the back of the unit



12. Complete the placement ensuring the elements are not damaged as per the manual instructions



*Note – these images and notes are to be used as references only to assist installation.  
The manufacturer’s Installation manual supplied with the unit is the first point of reference.*

13. Ensure all ceramic blocks and elements are fitted correctly and there are no loose wires.

NOTE - Complete fastening securely to the wall once all energy cells fitted and before carefully replacing the internal cover panel.

Once installation is complete, commence wiring connection as per enclosed instructions.



14. Unit in place, secured to wall and external cover replaced after wiring connections and electrical safety testing completed



15. Location of functional switch-





# ELNUR GABARRON<sup>®</sup>

INSTALLATION INSTRUCTIONS

## DIGITAL SMART STORAGE HEATERS ECOMBI SSH

MARKETED AS HEATBOSS IN AUSTRALIA



MODELOS / MODELS  
ECOSSH158  
ECOSSH208  
ECOSSH308  
ECOSSH408



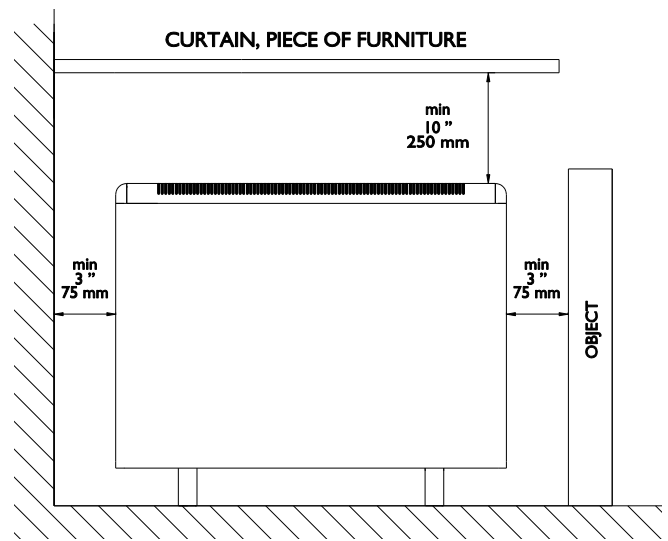
*Please read these instructions before installing or using this appliance for the first time. These instructions must be followed for the safe installation of the unit. Any problem, fault or damage caused by the non-observance of these instructions will not be covered under the manufacturer's warranty. This manual should be retained with the appliance by the user for future reference.*



## I. -IMPORTANT INFORMATION

When using electrical appliances, basic precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

- Keep combustible materials, such as furniture, pillows, bedding, papers, clothes, etc. and curtains at least a foot (30cm) from the front, sides and rear of the heater. It is essential that the indicated minimum clearances are maintained.
- **CAUTION** — Some parts of this product can become very hot and cause burns. Particular attention must be given where children and vulnerable people are present.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning the use of the appliance in a safe way and understand the hazards involved. Children must not play with the appliance. Cleaning and user maintenance must not be made by children without supervision.
- Children aged from 3 years and less than 8 years shall only switch on/off the appliance provided that it has been placed or installed in its intended normal operating position and they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children aged from 3 years and less than 8 years shall not plug in, regulate and clean the appliance or perform user maintenance.
- Children of less than 3 years should be kept away unless continuously supervised.
- Do not operate any heater after it malfunctions. Disconnect power at service panel and have heater inspected by a reputable electrician before reusing. To disconnect heater, turn controls to off, and turn off power to heater circuit at main disconnect panel.
- Do not insert or allow foreign objects to enter any ventilation or exhaust opening as this may cause an electric shock or fire or damage the heater.
- Do not use this heater to dry clothes. To prevent a possible fire, do not block air intakes or exhaust in any manner. Air inlets and outlets provide proper operation of the appliance and prevent its overheating. **DO NOT** cover air inlet and outlet grills.
- A heater has hot and arcing or sparking parts inside. Do not use in areas where gasoline, paint, or flammable vapors or liquids are used or stored. The use of these heaters is forbidden in any area where there is a presence of gases, explosives or inflammable objects. Never open a charged heater.
- **SAVE THESE INSTRUCTIONS.** This guide must be kept and given to any new user. Use this heater only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to persons. The warranty of the heater will not cover any damage caused by non observance of any of these instructions.
- Do not use this heater outdoors.



**WARNING:** In order to avoid overheating do not cover the heater.

## 2. - INSTALLATION INSTRUCTIONS

The symbols used in the text are explained below:



WARNING

This indication shows the possibility of causing death from electric shock.



WARNING

This indication shows the possibility of causing death or serious injury.



CAUTION

This indication shows the possibility of causing injury or damage to properties only.



Symbol for useful information.

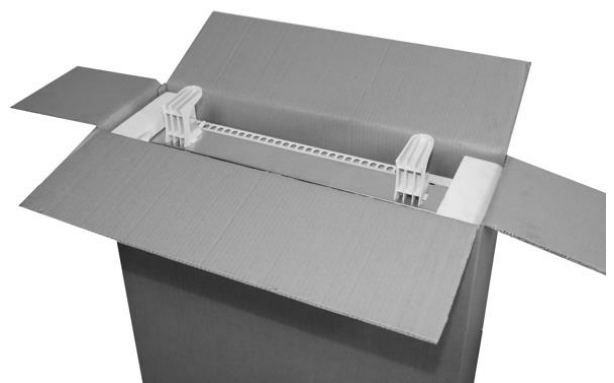
**IMPORTANT:** Wiring procedures and connections shall be in accordance with the national and local codes having jurisdiction.

- The installation must be carried out in accordance with the current local electrical regulations. Any installation or reinstallation has to be carried out by an experienced technician.
- Neither the connecting cable nor any other object must come into contact with the hot unit.
- Please check that the voltage in the rating label fits the power supply. The nominal charging period of this heater is indicated in the rating label. This appliance must be grounded.
- The appliance should not be installed just below an electrical socket.
- The appliance must be installed in such a way that it is impossible for anyone using a bath or shower, to touch the controls.
- If during any installation the thermal insulation shows any sign of damage, it must be replaced.
- This heater should be switched off at the circuit breaker before any repair work is carried out. This should also be done during times of the year when heat is not required.
- This appliance is only for permanent connection to a fix installation. The supply circuit to the heater must incorporate a double pole isolating switch having a contact separation of at least 3 mm.
- After installation a survey of the first charging cycle should be carried out to ensure that the main input thermostat switches off. Ventilate the room during this first cycle.
- To maintain stability, it is essential that the heater is placed on a level surface and care should be taken to avoid irregular surfaces, such as may result from carpets or tiled surrounds partially protruding under the heater.
- The presence of air particles of smoke, dust and other pollutants could, in time, discolor the walls and surfaces around the heater.
- Incorrect time settings, erroneous programming of the reduced rate time and too high temperature settings may result in a high cost of your electricity bill.

In order to achieve a correct installation of this device, follow these steps:

1. - Choose the right location to install ECOMBI SSH. The minimum clearances must be respected from the appliance to any combustible material such as furniture or curtains. **To reduce the risk of fire, do not store or use gasoline or other flammable vapors and liquids in the vicinity of the heater.**

2. - Open the carton at the indicated side and install the supporting feet without removing the heater.



Turn the carton upside down to allow the heater to stand on its feet and remove the carton. Check that it is the correct model and that it is in good conditions.



Check that all parts have been delivered and are intact.

- 1 Ecombi SSH heater casing.
- 1 bag containing 2 screws and 2 rawl plugs.
- 2 supporting feet.
- This guide.
- 1 superior fixing fitting.
- 2 lateral fixing fitting.



*The casing and storage bricks are supplied separately. Check the supplied bricks packages correspond to the ones indicated on the heater carton.*



*The heater operation is not affected if bricks with minor damage are used.*

3. - Take off the front panel by removing the two screws located at the bottom. Fix the lateral fittings to the metal structure by using the appropriate screws.



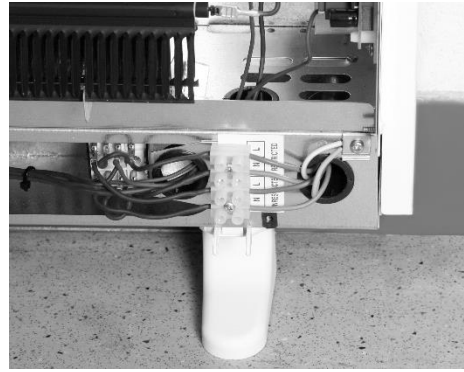
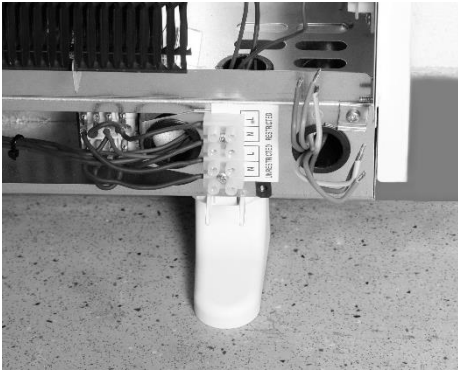
4. - Place ECOMBI SSH in your selected installation area. Use the heater fixing holes as a template and mark the wall through the fixing holes with a pencil. Drill the required holes into the wall. Place the rawl plugs and screws into the holes before the appliance installation but do not fasten them tightly.

5. Attach ECOMBI SSH to the rawl plugs with the crews. **IT MUST NOT BE HUNG ON THE SCREWS;** these are used only to prevent the device from overturning and not to support it. If there is any doubt concerning the wall strength, consult the corresponding construction specialist. The appliances are heavy; it is the installer responsibility the correct installation and wall support of these devices to prevent them from overturning.

6. - Connect the heater using the wiring diagram included at the end of this manual. Tighten properly the connection block screws. Do not leave any remaining wire inside the heater.



**WARNING** *Touching live connections can cause serious personal injury.*



7. - Disconnect the aluminum heating element by removing the FAST-ON terminal on each end of the element.



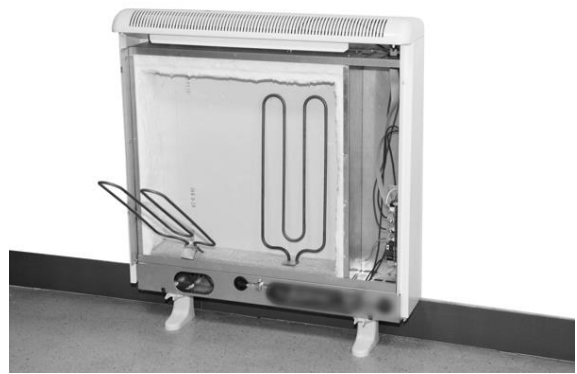
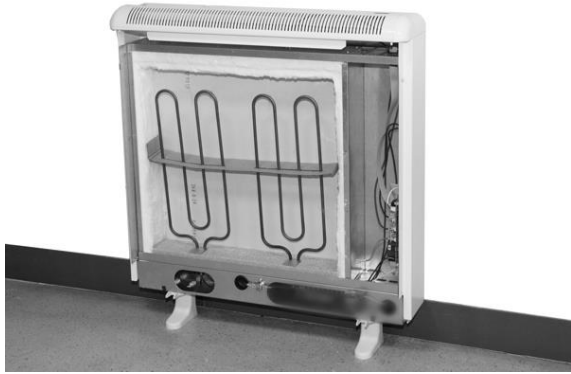
**WARNING** *Steel edges can cut.*

Next unscrew the inner panel and remove it.

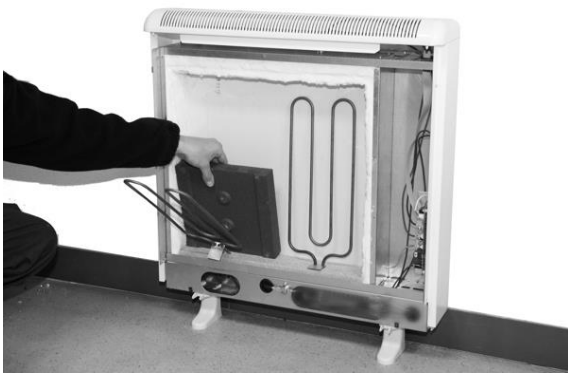


**CAUTION** *In the interior part of this inner panel there is a very delicate thermal insulation MICROTHERM panel. It has to be handled with extreme care. AVOID TOUCHING IT.*

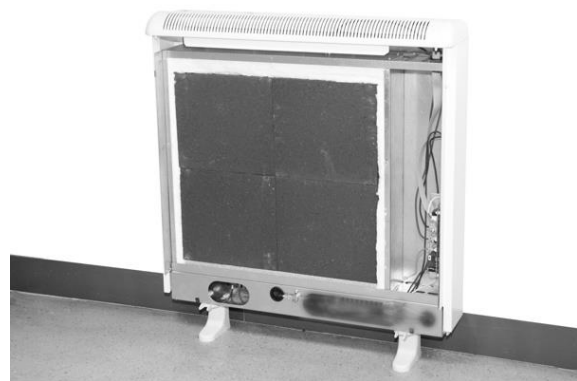
8. Do not disconnect the electrical heating elements. Remove the packing cardboard. Lift and tilt the elements outwards being careful not to damage the insulation on the bottom of the heater.



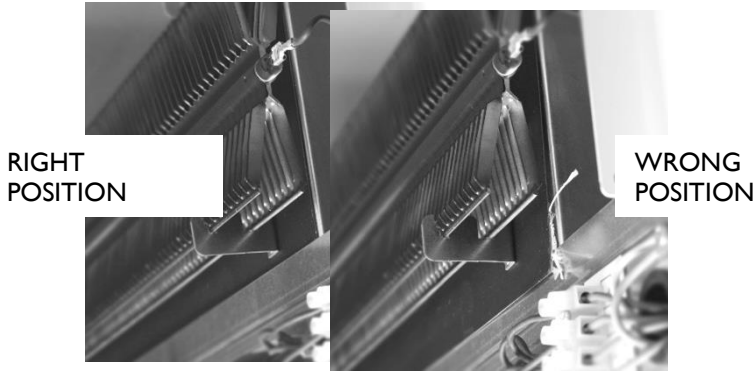
9. - Place the storage bricks carefully, with the flat side facing the back of the heater. Arrange two row levels of bricks.



10. Place the heating elements back into their original position. Place the other two rows of storage bricks with the flat side facing out and always on the heating elements supporting tabs.



11. Replace the inner front panel. If the bricks have been fitted correctly you will have no difficulty in replacing the panel. Make sure the bottom edge of the inner panel is inside the front lip of the heater. Please see below:



12. - Reconnect the two FAST-ON terminals to the aluminum heating element attached to the inner panel at both ends.

13. – When replacing the exterior front panel, align the 2 plastic upper pegs on the heater with the holes in the exterior panel. Push the top up into place and push the bottom in until it rests on the plastic feet.

14. - Replace the front panel with screws.

## RELOCATION



**WARNING:** *Relocation to another location must be carried out by an experienced technician.*

If during reinstallation the thermal insulation shows any sign of damage, it must be removed and replaced by an identical part.

## MANUALLY RESET TEMPERATURE LIMITER

This heater employs a manually reset temperature limiter (see LR in the connection diagram).

This safety device operates when high temperatures are reached at the top of the heater. It requires re-setting manually: Let the heater cool. The cause of overheating should be investigated.



**WARNING:** *Re-setting manually must be carried out only by an experienced technician.*

Turn off the heater at the circuit breaker.

Take off the front panel by removing the two screws located at the bottom. Find the limiter LR in the connection diagram and push the small pin until a click is heard.

# User Guide

ECOMBI SSH  
Digital Smart Storage Heaters

MARKETED AS HEATBOSS IN AUSTRALIA



Please read these instructions carefully before installing or using this appliance for the first time.

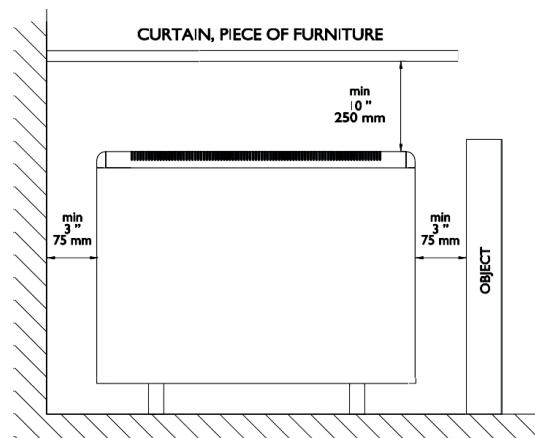
**ELNUR** powered by  
**Gabarrón**

## IMPORTANT INFORMATION

When using electrical appliances, basic precautions should always be followed to reduce the risk of fire, electric shock, and injury, including the following:

**WARNING: Please read all instructions before installing or using this heater for the first time.**

- This heater is hot when in use. To avoid burns, do not let bare skin touch hot surfaces.
- Keep combustible materials, such as furniture, pillows, bedding, papers, clothes, and curtains etc at least 10 Inches (25cm) from the front, sides and rear of the heater.
- It is essential that the indicated minimum clearances are maintained.
- **CAUTION** – Some parts of this product can become very hot and cause burns. Particular attention must be given where children and vulnerable people are present.
- Children should be supervised to ensure they do not play with the heater.
- Extreme caution is necessary when any heater is used by or near children or invalids and whenever the heater is left operating unattended.
- This appliance can be used by children aged 8 years and above, persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, if they have been given supervision or instruction concerning the use of the appliance in a safe way and understand the hazards involved. Children must not play with the appliance. Cleaning and user maintenance must not be made by children without supervision.
- Children aged from 3 years and less than 8 years shall only switch on/off the appliance provided that it has been placed or installed in its intended normal operating position and they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children aged from 3 years and less than 8 years shall not plug in, regulate and clean the appliance or perform user maintenance.
- Children of less than 3 years should be kept away unless continuously supervised.
- Do not operate any heater after it malfunctions. Disconnect the power at the service panel and have the heater inspected by a reputable electrician before reusing.
- Do not use the heater outdoors.
- To disconnect the heater, turn controls to off, and turn off power to heater circuit at main disconnect panel.
- Do not insert or allow foreign objects to enter any ventilation or exhaust opening as this may cause an electric shock, fire or damage to the heater.
- Do not use this heater to dry clothes. To prevent a possible fire, do not block air intakes or exhaust in any way.



- Air inlets and outlets provide proper operation of the appliance and prevent it overheating. DO NOT cover air inlet and outlet grills.
- A heater has hot and arcing or sparking parts inside. Do not use in areas where gasoline, paint, flammable vapours or liquids are used or stored. The use of these heaters is forbidden in any area where there is a presence of gases, explosives or inflammable objects.
- Use this heater only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to persons.
- The warranty of the heater will not cover any damage caused by non observance of any of these instructions.
- Neither the connecting cable nor any other object must come into contact with the hot unit.
- This heater should be switched off at the circuit breaker before any repair work is carried out. This should also be done during times of the year when heat is not required.
- The nominal charging period of this heater is indicated in the rating label.
- Never open a charged heater.
- To maintain stability, it is essential that the heater is placed on a level surface and care should be taken to avoid irregular surfaces, such as may result from carpets or tiled surrounds partially protruding under the heater.
- The presence of air particles of smoke, dust and other pollutants could, in time, discolour the walls and surfaces around the heater.
- Incorrect time settings, erroneous programming of the reduced rate time and too high temperature settings may result in a high cost of your electricity bill.
- **SAVE THESE INSTRUCTIONS.** This guide must be kept and given to any new user.



**WARNING: In order to avoid overheating do not cover the heater.**



# IMPORTANT INFORMATION

## General information



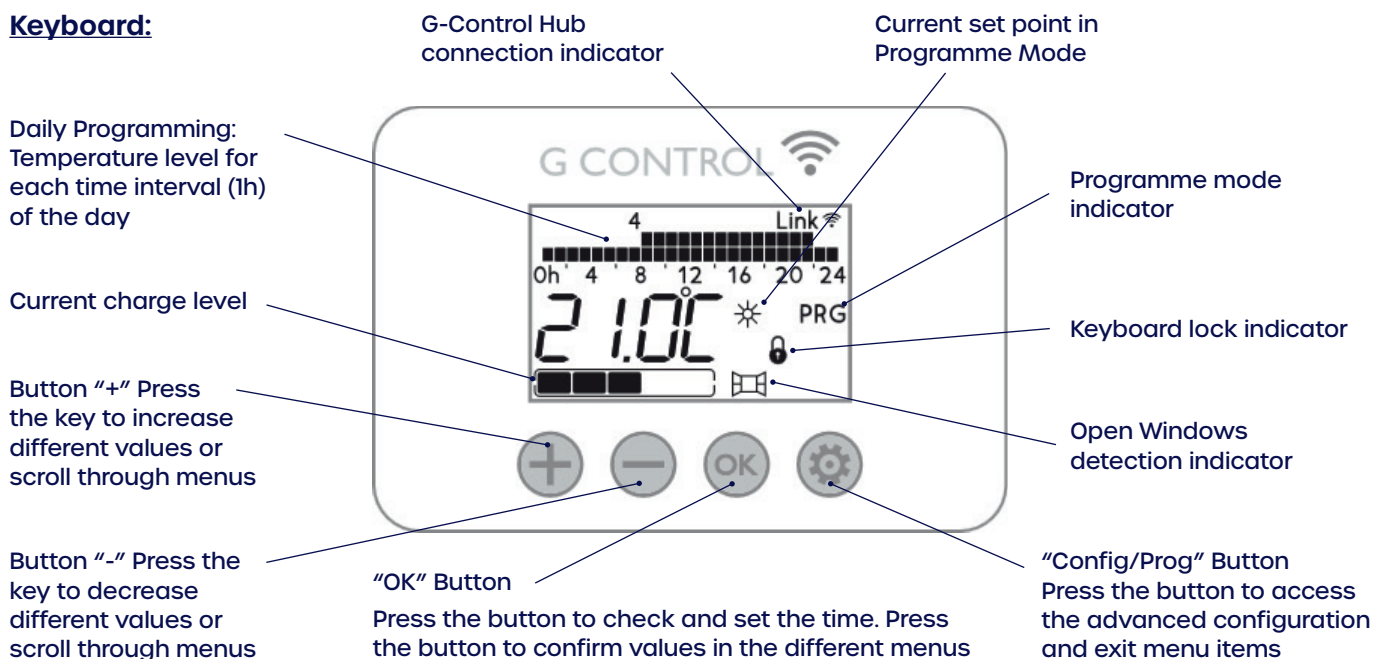
**CAUTION: DO NOT USE THIS HEATER TO DRY CLOTHES.**  
Do not cover this heater at any time.



## Connection/Disconnection

Power switch. All models are equipped with a switch on the back side panel. It is used to Turn On and Turn Off the ECOMBI SSH.

## Keyboard:



## On/Off

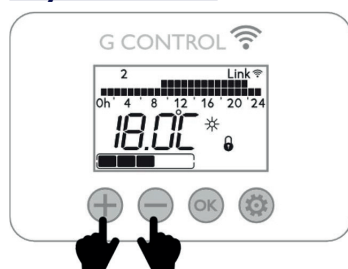
Once the heater is connected to a mains supply you can turn the heater ON by switching the main ON/OFF switch positioned on the rear of the right hand side of the heater as shown above.

## Backlight

Press any button and the display will illuminate with a soft white colour. The display back light will turn off after time if no buttons are pressed.

Programming Buttons will only respond when the back light is on.

## Keyboard Lock



During any operation mode, it is possible to lock the keyboard. You can do this by holding both the **+** and **-** buttons simultaneously until the padlock indicator  is displayed on the screen.

To unlock the keyboard, press the **+** and **-** simultaneously until the padlock indicator  disappears from the screen.

## DEFAULT SETTINGS FOR YOUR ECOSSH

When you first switch your ECOSSH smart storage heater on or do a manual reset, it will have the following settings.

The default temperature set points are:

- Comfort Temperature or " ☼ " is set at 21°C
- Economy Temperature or " ☾ " is set at 18°C
- Frost Protection Temperature or " ❄ " is set at 3°C
  
- To amend the default temperature set points view page 6

The defaults off peak charge times are between UP02 00:00, UP03 07:00, UP04 00:00 & UP05 00:00

- If you have different times or have an additional charging period view page 8.

Default programming is:

**Comfort:** from 07:00 until 22:00 with a default temperature of 21°C.


**Economy:** from 00:00 until 07:00 & 22:00 to 00:00 with a default temperature of 18°C.

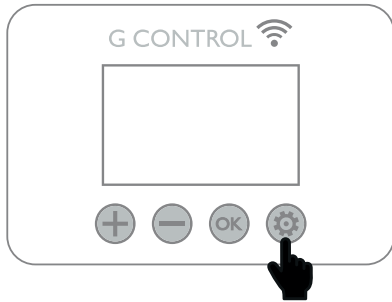
To change the programming please see page 7

**\*We only recommend using the frost protection in programming for days that you require not stored heat as the heater does not take charge during frost protection.**

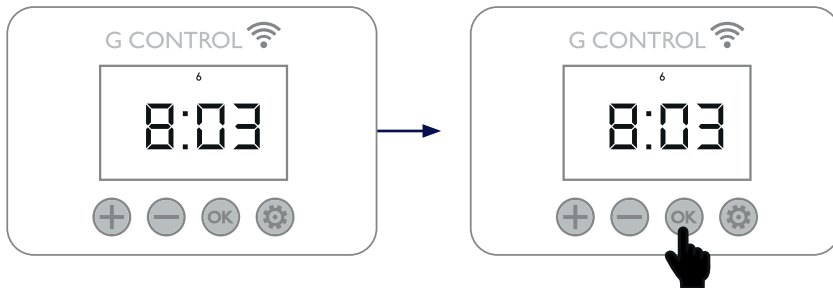
For more advanced programming defaults please see page 11.




# QUICK USER GUIDE - SETTING OR CHANGING THE TIME

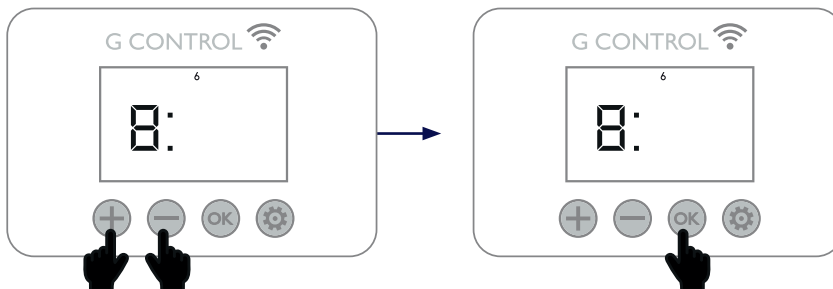
1. Press any button to get the backlight on.
2. Hold the  button until "Func" is displayed Blinking






3. Using  or  buttons scroll until the time is displayed and press  button

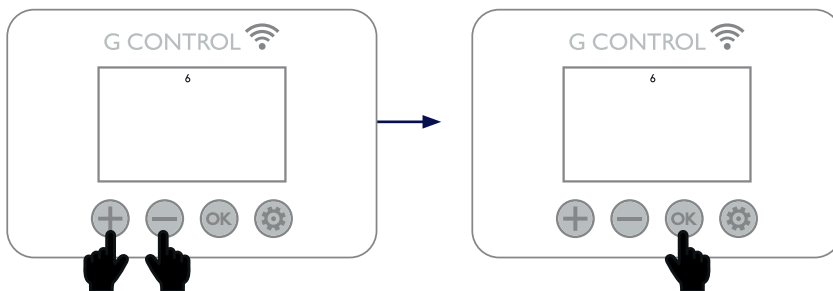


4. Again using the  and  buttons you can modify the hour and press  button to confirm and move to minutes.





5. Repeat step 4 but for the minutes and again press the  button confirm and move to setting the day.

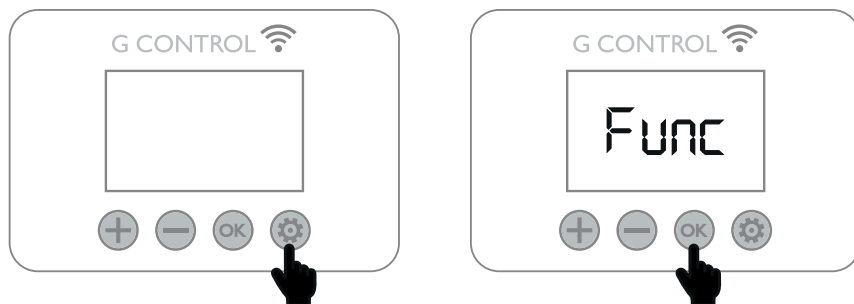
6. Using the  and  buttons modify the days. Monday = Day 1 & Sunday = Day 7.  
Once on the correct day press the  button to confirm.



The Heater will exit automatically and return to the home screen.

# QUICK USER GUIDE - SETTING OPERATION MODE

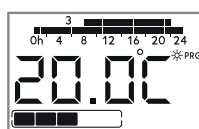
1. Press any button to get the backlight on.
2. Hold the  button until "Func" is displayed Blinking then press 



3. Using  or  buttons you can select one of the 3 Modes.

Frost Protection


Manual Control

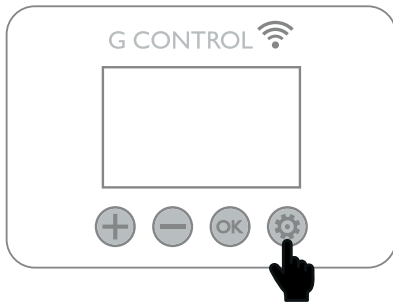


4. Once your desired mode is selected press the  button to confirm

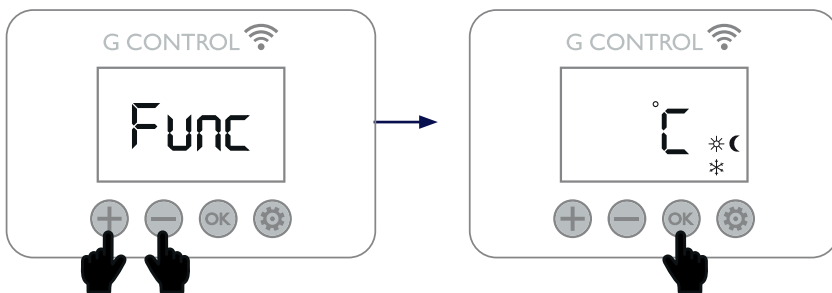


# QUICK USER GUIDE - SETTING THE SET POINT TEMPERATURES

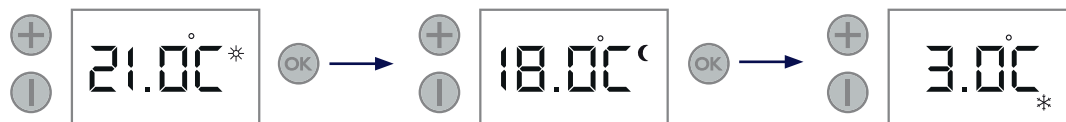
1. Press any button to get the backlight on.
2. Hold the  button until "Func" is displayed Blinking.



3. Using  or  buttons scroll through the menu until you see all three temp icons then press .




4. Again using  or  buttons set your desired temperatures and press the  button to confirm to go to the next temperature setting and repeat the process.

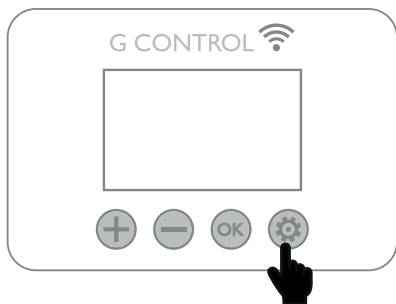





5. Once you have set all 3 temperatures press the  to exit.

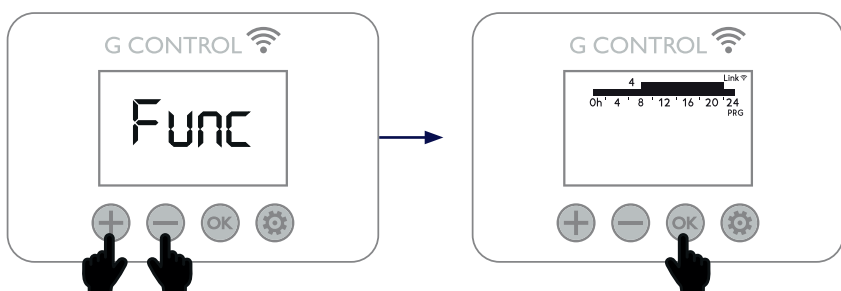




# QUICK USER GUIDE - PROGRAMMING YOUR SSH

1. Press any button to get the backlight on.
2. Hold the  button until "Func" is displayed Blinking.



3. Using  or  buttons scroll through the menu until you see the bar diagrams at the top of the display, icons then press 



4. The bar diagram at the top of the display represents every hour of the day you will be programming. The first segment will begin to flash. To change the temperature mode setting, press the  button and once on the desired setting. Press the  button to go to the next hour interval.



2 bars represent the hour is programmed to your Comfort (  ) temperature

1 bar represents the hour is programmed to your Economy (  ) temperature

No bar represents the hour is programmed to your Frost protection (  ) temperature


**Please note the heater will not charge during frost protection time intervals.**


5. Once you have programmed all the time intervals for the first day, it will automatically go to the next day. Repeat the process until you have programmed all 7 days.

If you do not wish to edit the current day, press the  button to skip to the next day.


## Copy Function

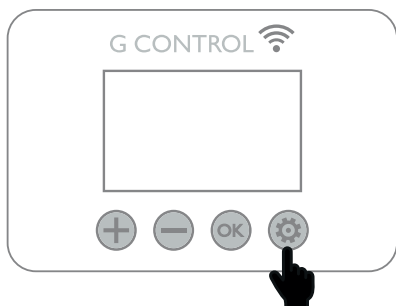
You can copy the programming of a current day to the next day or to all the days.

**To copy the current day to the next day** - Whilst on the day you want to copy, hold  until "CP12" is displayed, this will then copy the current day to the next day. To copy day 2-3 it will show CP23 and so on.

**To copy the current day to all the days** - Whilst on the day you want to copy, hold  until "CPALL" is displayed, this will then copy the current day to all the other days.

# QUICK USER GUIDE – SETTING THE CHARGE PERIOD TIMES

1. Press any button to get the backlight on.
2. Hold the  button until "Func" is displayed Blinking.



3. Using  or  buttons scroll through the menu until "PARA" is displayed on the screen and press 



4. Press the  button until "UP02" is displayed then press the  button.



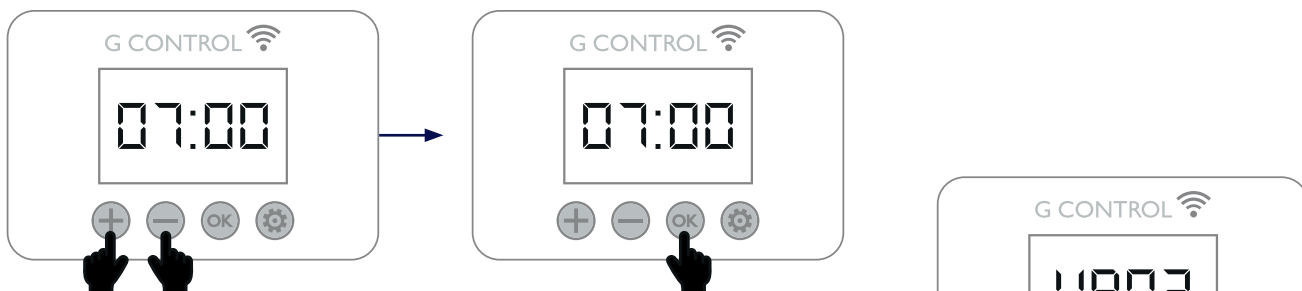
5. Using the " " and " " buttons set the end time of your Off Peak charging period then press the  button



6. Press the  button until "UP03" is displayed then press the  button.



7. Using the " " and " " buttons set the end time of your off Peak charging period then press the  button



8. Repeat the above steps for "UP04" and "UP05" if you have two off peak charge periods.

9. Once all charge times have been set press  button to exit.



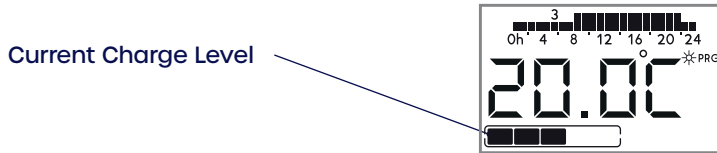
# SMART STORAGE HEATER:

Ecombi SSH optimises the energy consumption and ensures the heat demand requested by the user is met. It does this using a smart energy management system which meets the desired comfort levels whilst using the least energy.

## Smart charging control

Ecombi SSH optimizes the energy management and consumption using the current % of the storage heater charge. It uses this information to charge only the heat required to meet the daily heat demand and avoid unnecessary energy consumption.

The charge level is monitored by the electronic control and represented in the display by the dots at the bottom of the display. 5 dots represents a full storage heater charge level. (If not fully charged after a charging period, please note this is the optimisation working.)



**⚠ While Ecombi SSH is charging, the last dot is flashing at the top right part of the display.**

## Protection to Avoid excess temperature in a room

In order to achieve maximum savings and avoid unnecessary energy consumption during the charging period, the Ecombi SSH monitors the temperature in the room. If it exceeds the temperature set up in the heater, then the charging will be interrupted until the temperature in the room decreases.

## Charge correction

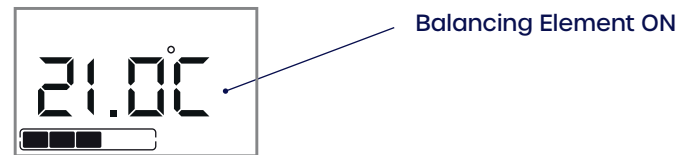
The % of the storage heater charge is corrected automatically by Ecombi SSH software. If the working hours of the balancing element is higher than a certain value, the storage heater charge will be increased by a relevant %. On the other hand, if the balancing element working hours does not exceed this value, the storage heater charge level is reduced in the same way.

This behaviour adapts the consumption to the real thermal needs, allowing the maximum level of energy savings at the required comfort. The set-up temperature is independent of the Storage Heater level of charge. Initial setting for charge is 100%. This value can be

modified by entering the "General Settings" menu to modify the initial % of storage charge according to the UPO1 setting.

## Balancing Heating Element

If the energy discharged with natural convection is not enough to meet the heat demand of the room, the Ecombi SSH will use its balancing heating element incorporated to provide additional heat. The maximum working period of the balancing heating element during on-peak electric periods can be adjusted by modifying UPO8 parameter. **By adjusting the balancing element you are at risk of the heater not being able to perform as efficiently as possible.**



**⚠ Storage Heater and Balancing Heating Element will never work at the same time.**

## Open Window Detection

With open window detection activated, the balancing element operation will be disconnected automatically when a sharp decrease in temperature in the room is detected avoiding energy wastage.

**⚠ When Open Windows Detection function is working, the icon  is displayed.**

## Adaptive Start Control

With adaptive start control activated, Ecombi SSH electronic control analyses the heating requirements of the room where it is installed using this information to turn on the balancing heating element in advance in order to reach the set point temperature at the desired time.

**⚠ When Adaptive Start Control function is working, the icon **ASC** is displayed.**



# GENERAL OPERATION MENU

## Accessing the general operation menu



It is possible to modify the general operation parameters, such as charging configuration, temperature units and more.

During any operation mode from the main screen, you can access the settings.

Hold the button until "Func" is displayed press the button until

"PARA." is displayed. Press to access the general parameters menu. UP01 will be displayed.



## Access to the parameter value



Use and to move on through the different parameters.

Use to access the parameter you want to modify. Change the value using the navigation keys and . Confirm the new value with .

It is possible to save the changes and exit at any moment by pressing . Ecombi SSH general parameters that can be modified by the user are.

- **UP01:** Initial % of storage charge.
- **UP02:** Starting time of reduced (off-peak) rate electric period.
- **UP03:** Ending time of reduced rate electric period.
- **UP04:** Starting time of the second reduced rate electric period. (if not available set up 00:00).
- **UP05:** Ending time of the second reduced rate electric period. (if not available set up 00:00).
- **UP06:** Charging days during the week.
- **UP07:** Temperature ambient sensor correction (values from -5°C to 5°C).
- **UP08:** Maximum working period of the balancing heating element in on peak electric period.
- **UP09:** Excess of temperature protection during the charge, Degrees higher than the comfort set point temperature (Auto Mode) or the manual set point temperature (Manual Mode) when the charge is interrupted. (Values 1,2,3,4 & 5).
- **UP10:** Degrees Celsius or Fahrenheit. (Values: °C - F).
- **UP11:** Open Window Detection Activation. (On/Off).
- **UP12:** Adaptive Start Control Activation (On/Off)
- **UP13:** Kind of temperature control. Recommended & default PID.

## Change value: Decrease



## Confirm value



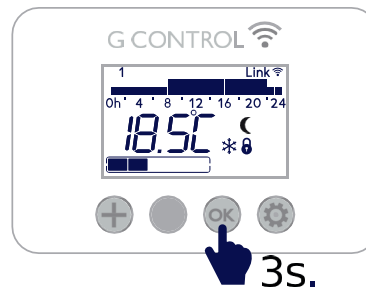
ECOMBI SSH does not change automatically from summer time to winter time or vice versa when not connected to the internet. Depending on the tariff it may be necessary to change the clock settings to fit these two timings.

## REMOTE OPERATION USING THE WIFI G-CONTROL HUB

It is possible to control the full operation of the Ecombi SSH remotely with the Elnur-Gabarron app or web-app. The unit must be connected to a G-Control Hub connected to the Internet to use this feature. (Wifi is needed for this feature)

To associate the unit to the G-Control Hub, the discovery mode must be activated. Press the associate button at the back of the hub for 3 seconds. An orange flashing light every second indicates association mode.

With the hub in association mode, press  on the storage heater for 3 seconds until Link  is shown.



You can control and adjust the programming and temperatures on the Ecombi SSH via the Gabarron-Elnur app.

### Download the Elnur app or go online

Scan the QR Code or visit the App store from your Android or Apple device.

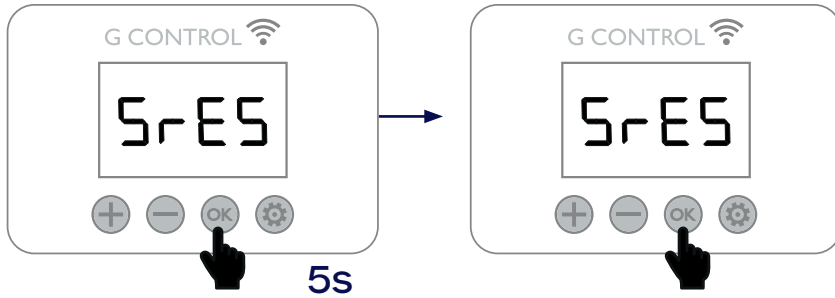
If you don't have one of these devices simply log on to:

<https://remotecontrol.elnur.es/#/signin>



## DEFAULT SETTINGS & RESET

To reset the unit to factory default settings, hold  and  simultaneously until the message "SrES" is displayed. Confirm the reset with .



### Default Values

<b>Sun:</b> Comfort temperature	☀	21°C
<b>Moon:</b> Economic temperature	☾	18°C
<b>Frost:</b> protection temperature	❄	3°C
<b>UP01:</b> Initial % of storage charge		100%
<b>UP02:</b> Starting time off peak period 1		00:00
<b>UP03:</b> Ending time off peak period 1		07:00
<b>UP04:</b> Starting time off peak period 2		00:00
<b>UP05:</b> Ending time off peak period 2		00:00
<b>UP06:</b> Charging days of the week		Default -> Charging 7 days of the week.
<b>UP07:</b> Ambient sensor Offset		0°C
<b>UP08:</b> Max. Balancing element - working period		16 hours
<b>UP09:</b> Overtemperature protection		2°C
<b>UP10:</b> Temperature Unit		°C
<b>UP11:</b> Open Window Detection Function		Off
<b>UP12:</b> Adaptive Start Control		Off
<b>UP13:</b> Kind of temperature control		PID
<b>Default Programming</b>		Comfort: 07:00 to 22:00. Eco: 00:00 to 07:00 & 22:00 to 00:00.

## CLEANING MAINTENANCE INSTRUCTIONS

Before cleaning, make sure the power has been turned off at the circuit breaker panel and that the heating element of the heater is cool.

Occasionally, clean dust with a dry, soft cloth. Do not use any solvent or abrasive product for cleaning.

When the Heating season is finished, please disconnect the device by turning off the power switch located at the right side on the back of the unit or at the circuit breaker.

Any other servicing should be performed by an authorised technician.



ECOMBI SSH has been manufactured under a fully assured quality system and using environmentally friendly processes. Once its useful life is finished please take the device to a recycling depot so that its components can be recycled in an appropriate way.

## MAIN COMPONENTS LIST

Storage Heating Element (All except ECOSSH158)	Ref. 15190091
Storage Heating Element (ECOSSH158)	Ref. 15190875
450W Balancing Heating Element (ECOSSH158)	Ref. 15190105
600W Balancing Heating Element (ECOSSH208)	Ref. 15190110
900W Balancing Heating Element (ECOSSH308)	Ref. 15190120
1200W Balancing Heating Element (ECOSSH408)	Ref. 15190130
Switch	Ref. 46100530
Power PCB & Fixing Bracket	Ref. 15191890
Keyboard PCB ECO SSH	Ref. 15191873
Core Sensor	Ref. 15192140
Room Sensor	Ref. 46102195
110°C Balancing Element Limiter	Ref. 15190725
135°C Cut Out Manually Limiter	Ref. 10190460

## TECHNICAL FEATURES

Model	ECOSSH158	ECOSSH208	ECOSSH308	ECOSSH408
Connection	220 - 240V -	220 - 240V -	220 - 240V -	220 - 240V -
Balancing Element Output	450/490W	600/653W	900/980W	1200/1307W
Storage Heater Output	975/1062W	1300/1415W	1950/2123W	2600/2831W
Charge Period	7.6 - 7h	7.6 - 7h	7.6 - 7h	7.6 - 7h
Charging	7.4 kWh	9.9 kWh	14.9 kWh	19.8 kWh
Insulation	Class I	Class I	Class I	Class I
Length	55cm	66cm	89cm	111cm
Height	73cm	73cm	73cm	73cm
Depth	18cm	18cm	18cm	18cm
Weight	59kg	77kg	112kg	147kg
Num. Of Bricks 7,5kg	-	8	12	16
Num. Of Bricks 11,5kg	4	-	-	-
Brick Type	11072	11016	11016	11016



Storage heater elements and balancing heating element will never operate at the same time.

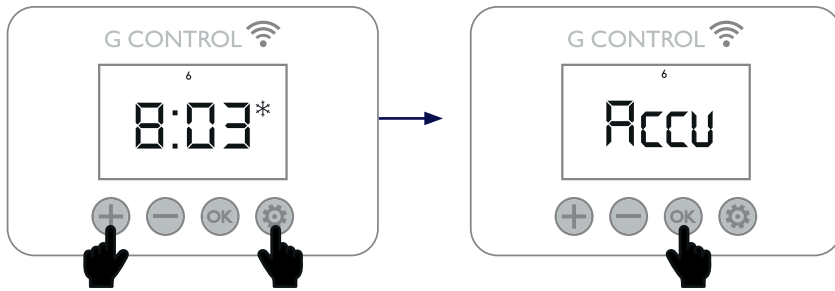
## ECOSSH TROUBLESHOOTING, ERROR CODES AND WHAT TO DO:

Error	Error Reason	Resolution
ECOSSH Does not heat		<ol style="list-style-type: none"> <li>1. Check everything is connected and the switch is on at the back right hand side.</li> <li>2. Make sure heater is not in frost mode</li> <li>3. Ensure nothing is covering the inlets or outlets.</li> <li>4. If all above checked call Technical line</li> </ol>
ECOSSH does not reach set up temperature		<ol style="list-style-type: none"> <li>1. Make sure that the adequate temperature is set up.</li> <li>2. Check that the balancing element is not turned off in UPO8</li> </ol>
Keyboard does not respond		If the lock symbol is displayed, the keyboard is locked. Hold "+" and "-" buttons simultaneously for 3 seconds to unlock the keyboard. (See Keyboard Lock Section).
ECOMBI SSH does not communicate with the G Control Hub		<p>Check the unit is associated. The "Link" symbol must be shown on the display LCD. For distances greater than 30 metres and 2-3 walls, associate first the closest unit. Each unit can work as signal extender.</p> <p>If the "Link" symbol is flashing check G-control connection to the network.</p>
Err1	90°C Registered at the main PCB	Call fitter and get him to check that the microtherm panel is fitted correctly. If still not fixed please get fitter to call us.
Err2	180°C Registered in the Core	Call fitter and get him to check that the microtherm panel is fitted correctly. If still not fixed check then possible safety cut out has been triggered. If still not working then please get fitter to call us.
SC - OC	Core Sensor Error	Please call our technical line
SA - OA	Room Sensor Error	Please call our technical line

## CHECKING THE VERSION OF YOUR SSH

Press any button to get the back light on.

Press and hold the " + " and the " ⚙️ " button until "Accu" is displayed on the screen



Press the " OK " button twice and the version of your ECOSSH will be shown on the display.

- F1.2
- F1.4
- F2.0

To exit Press the " OK " button until you return to the main menu.

Having the version of SSH before calling us can help us speed up the processing of your request. By performing this simple check we can ensure we give you all the right information for your heater.

## 6.- CLEANING MAINTENANCE INSTRUCTIONS

Before cleaning, make sure the power has been turned off at the circuit breaker panel and that the heating element of the heater is cool.

Occasionally, clean dust with a dry, soft cloth. Do not use any solvent or abrasive product for cleaning.

When the Heating season is finished, please disconnect the device by turning off the power switch located at the right back of the unit or at the circuit breaker.

Any other servicing should be performed by an authorized technician.



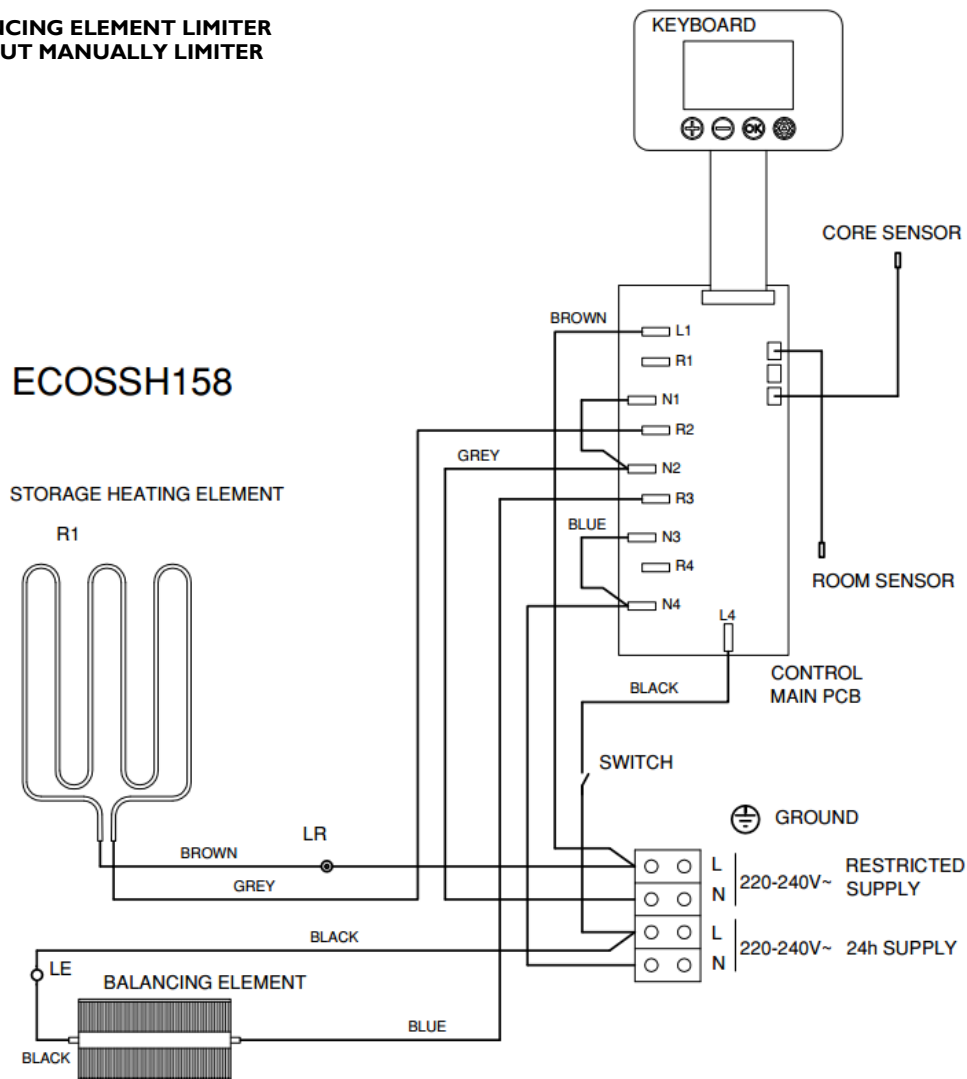
*ECOMBI SSH has been manufactured under a fully assured quality system and using environmentally friendly processes. Once its useful life is finished please take the device to a recycling depot so that its components can be recycled in an appropriate way.*

## 7.- MAIN COMPONENTS LIST

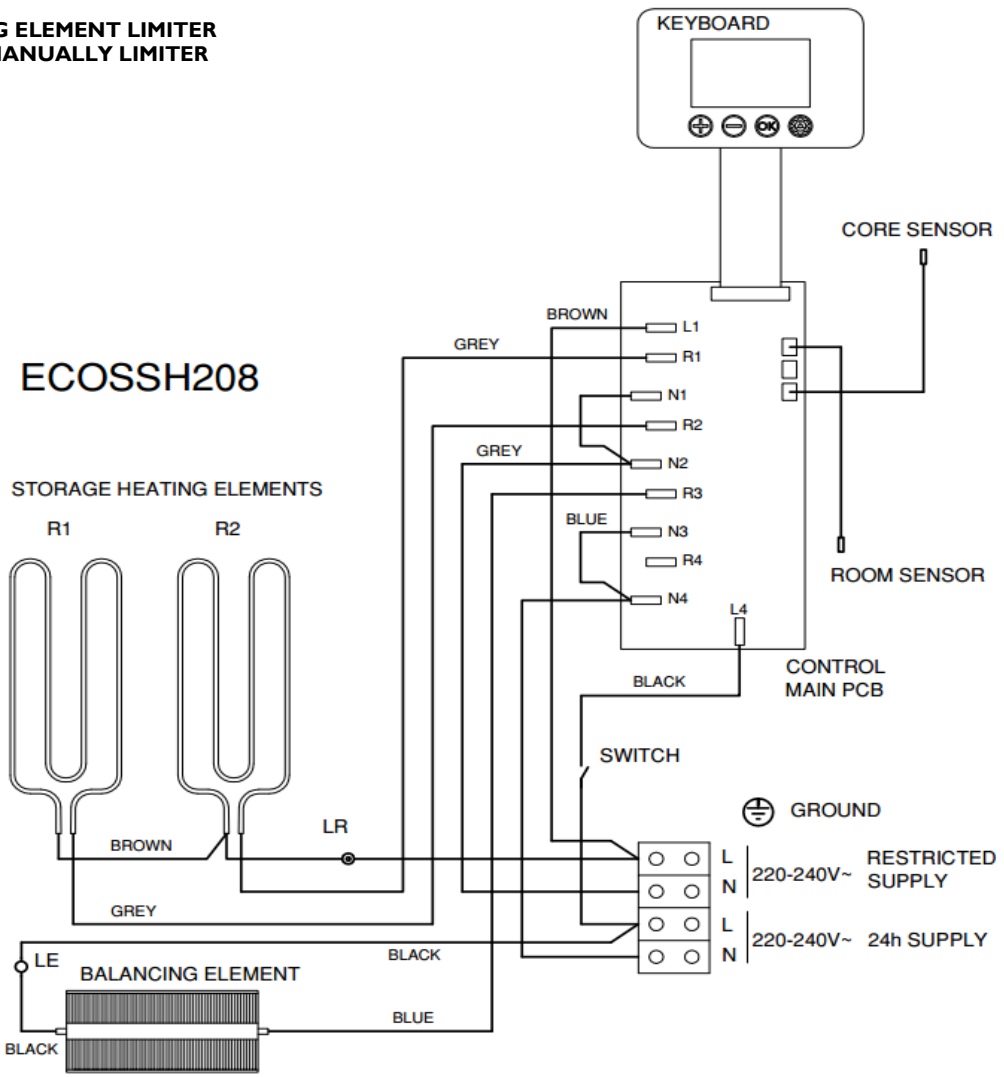
Storage Heating Element (All except ECOSSH158)	Ref. 15190091	Power PCB & Fixing Bracket	Ref. 15191890
Storage Heating Element (ECOSSH158)	Ref. 15190875	Keyboard PCB ECO SSH	Ref. 15191873
450W Balancing Heating Element (ECOSSH158)	Ref. 15190105	Core Sensor	Ref. 15192140
600W Balancing Heating Element (ECOSSH208)	Ref. 15190110	Room Sensor	Ref. 46102195
900W Balancing Heating Element (ECOSSH308)	Ref. 15190120	110°C Balancing Element Limiter	Ref. 15190725
1200W Balancing Heating Element (ECOSSH408)	Ref. 15190130	135°C Cut Out Manually Limiter	Ref. 10190460
Switch	Ref. 46100530		

## 8.- CONNECTION DIAGRAMS

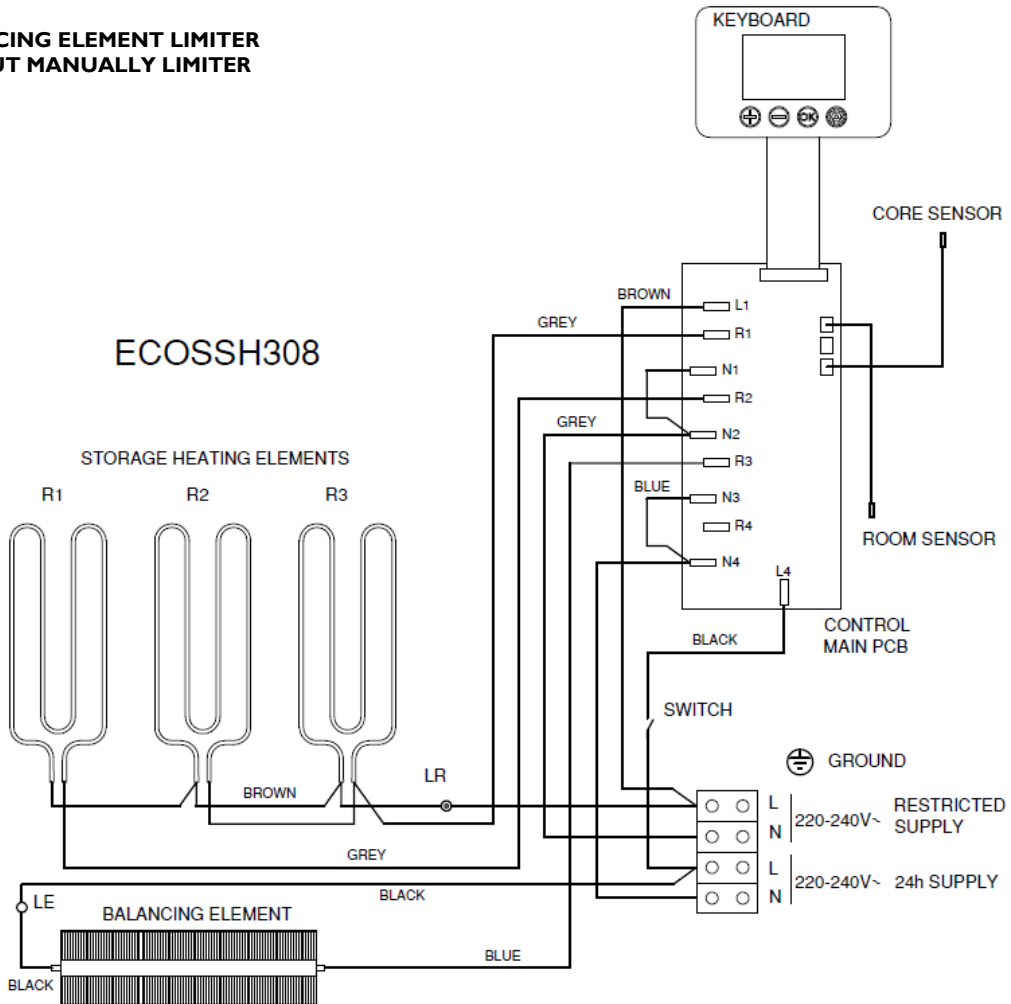
LE BALANCING ELEMENT LIMITER  
LR CUT OUT MANUALLY LIMITER



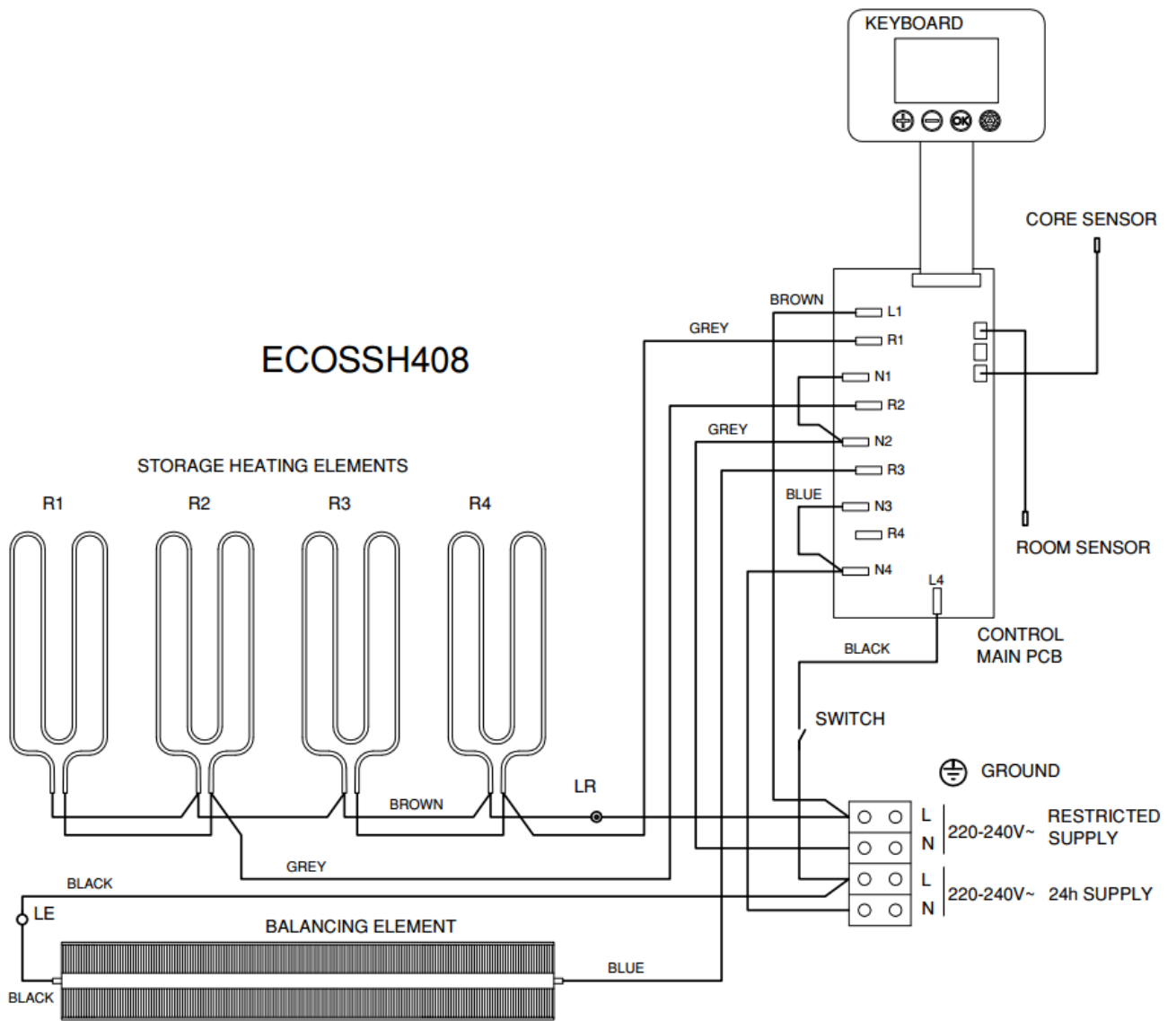
LE BALANCING ELEMENT LIMITER  
 LR CUT OUT MANUALLY LIMITER



LE BALANCING ELEMENT LIMITER  
 LR CUT OUT MANUALLY LIMITER







## 9.- THECNICAL FEATURES

Modelo	ECOSSH158	ECOSSH208	ECOSSH308	ECOSSH408
<b>CONNECTION</b>	230 - 240V ~	230 - 240V ~	230 - 240V ~	230 - 240V ~
<b>BALANCING ELEMENT OUTPUT</b>	450/490W	600/653W	900/980W	1200/1307W
<b>STORAGE HEATER OUTPUT</b>	975/1062W	1300/1415W	1950/2123W	2600/2831W
<b>CHARGE PERIOD</b>	7.6 – 7h	7.6 – 7h	7.6 – 7h	7.6 – 7h
<b>CHARGING</b>	7.4 kWh	9.9 kWh	14.9 kWh	19.8 kWh
<b>INSULATION</b>	Class I	Class I	Class I	Class I
<b>LENGTH</b>	55cm	66cm	89cm	111cm
<b>HEIGHT</b>	73cm	73cm	73cm	73cm
<b>DEPTH</b>	18cm	18cm	18cm	18cm
<b>WEIGHT</b>	59kg	77kg	112kg	147kg
<b>NUM. OF BRICKS 7,5kg</b>	-	8	12	16
<b>NUM. OF BRICKS 11,5kg</b>	4	-	-	-
<b>BRICK PACKAGE</b>	<b>11072</b>	<b>11016</b>	<b>11016</b>	<b>11016</b>



Storage heater elements and balancing heating element will never operate at the same time.



# ELNUR GABARRON®

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GA-2002/0284



# INSTALLATION INSTRUCTIONS AND USER GUIDE



## G CONTROL HUB

WIRELESS RADIATOR CONTROL SYSTEM

# I. CONTENTS



G Control Hub



Power Adapter



Ethernet Cable

# 2. INSTALLATION

## 2.1. G Control Hub Installation

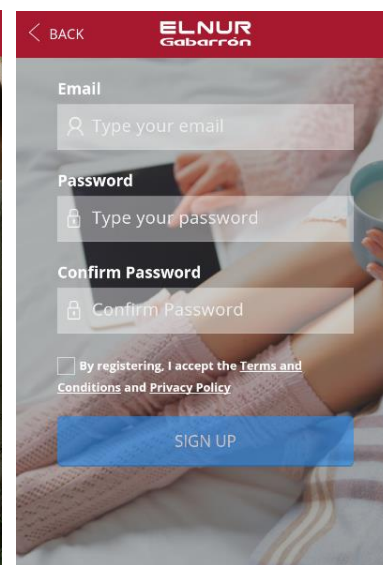
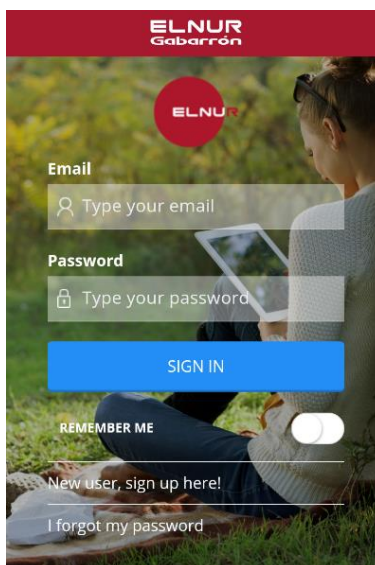
1. Connect the G Control Hub to internet using the supplied ethernet cable.
2. Connect G Control Hub to the electricity supply using the supplied power adapter.
3. Wait and check the status of LED lights to confirm the correct connexion between the G Control Hub and the router.

LEDS Status	Description
Green off, orange blinking every second.	G Control Hub in discovery mode for devices being associated.
Orange on, green blinking very fast	The router does not assign a valid IP to the G Control Hub.
Orange on, green blinking every 5 seconds	A valid IP is assigned to G Control Hub, but there is no communication with the server.
Orange on, green alternating every 5 seconds	A valid IP is assigned to G Control Hub and it communicates successfully with the server.

## 2.2. Register in app-web

Registering and creating a user account is required for remote control of your installation via internet. If you do not have a user account in Elnur Wifi Control, the first step is to register in the portal using the website <https://remotecontrol.elnur.es> or using the app Elnur Wifi Control available in App Store for IOS and Play Store for Android.

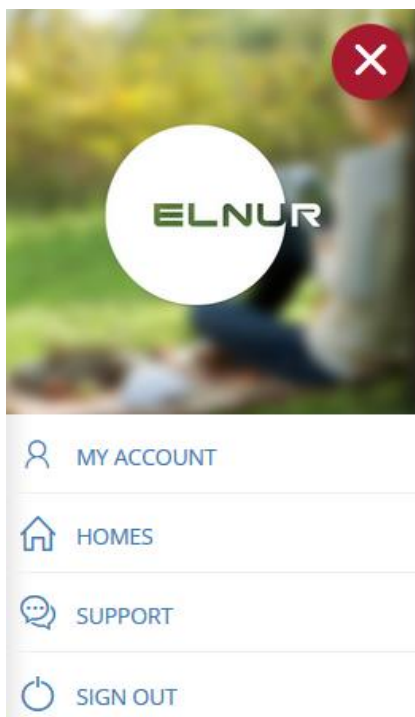
Enter a valid mail address that must be verified and a password. An email will be automatically sent to your inbox to verify the registered e-mail.



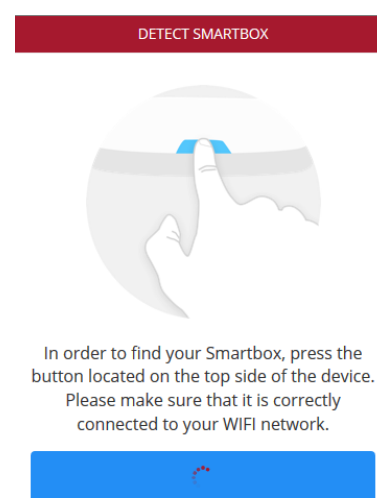
### 2.3. Linking with G Control Hub.

To control remotely your installation, you must link your G Control Hub with your registered user account. Several G Control Hub can be associated to a registered user account in order to control different installations if necessary.

To associate G Control Hub with your user account, you must enter on the “Homes” menu available on the right pop up menu of the website or the mobile app and follow the instructions of the installation wizard.



Enter the name and the time zone of your new home. If you are connected to internet using the same wireless network that G Control Hub is using, clicking the button “Detect Smartbox” on the app and following the detailed instructions (press the button located on the back side of the device), the user account will be associated with the G Control Hub device automatically.

A screenshot of a mobile application form titled "ELNUR Gabarrón". At the top center is a red circular icon containing a white house silhouette. Below this icon are three input fields: "HOME INFO" with a right-pointing chevron, "HOME NAME" with the placeholder text "Type the name of your home", and "TIME ZONE" with the placeholder text "Select..." and a downward-pointing chevron. At the bottom of the form is a wide blue button with the text "DETECT SMARTBOX".

Automatic detection will be aborted after several seconds if you are not connected to the same network that the G Control Hub device or if the connection has failed. A new menu will appear where the user can introduce the Device ID Code, 18 position alphanumeric code, located on the label on the bottom of the device to link manually the register account with the G Control Hub.

The screenshot shows the Elnur Gabarrón web interface. At the top is a red header with the logo. Below it is a red circular icon of a house. The main content area contains several sections: 'HOME INFO' with a right arrow, 'HOME NAME' with the value 'ELNUR', 'TIME ZONE' with a dropdown menu showing '(Western European Time) London, Dublin, Lisbon, Canary Islands', and 'DEVICE ID CODE' with the value 'ci89mc87dsanix9ax8'. At the bottom is a blue button labeled 'ADD NEW'.

Once the link between your user account and the G Control Hub is established, the different devices associated with the G Control Hub can be controlled remotely using Elnur Wifi Control app or the website <https://remotecontrol.elnur.es>.

2.4. Devices association

It is required to link by radiofrequency the different devices with the G Control Hub to control them remotely through the website and mobile app.

**Warning** G Control Hub is only compatible with devices equipped with G Control system.

**Discovery mode.**

The first step to associate the different devices with the G Control Hub is to activate the discovery mode of the hub. The discovery mode can be activated in two ways:

- Locally in the hub.  
To activate the discovery mode locally in the hub, press the button located on the back side of the device for 3 seconds, LED lights indicating discovery mode, orange light blinking every second, should be activated.
- Using app o app-web.

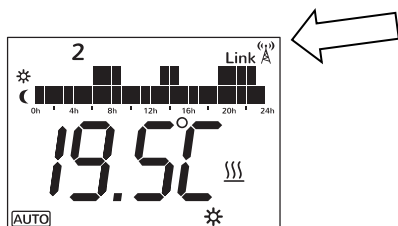
Having the user account linked to the hub, from the main menu in the app, press “Install” button and follow the instructions of the installation wizard, G Control Hub will activate the discovery mode.

Once activated discovery mode, you have 1 minute to add a new device, the account time is reset with each added device.

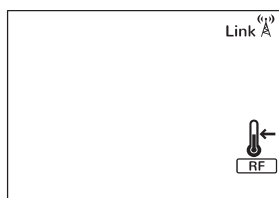
### Radiator association

With the hub in discovery mode, press Ok/Mode key of the unit for 3 seconds.

On top right on the screen, the symbol Link will appear confirming the correct connexion between the radiator and the G-Control Hub.



Another way to associate the unit and the G-Control Hub is press Config/Prog key and use the +/- keys to select **RF**, when the icon is blinking, press OK/Mode key. The unit will associate with the G-Control Hub, the symbol Link will be displayed.



### G Control PM association (Power meter)

The installation can be completed with a power meter installed in the electrical distribution box of your home, which will be used both to know the current energy power and historical energy consumption and to limit the consumed power coordinating the consumption of the different thermal radiators connected not to exceed the maximum power established by the user. (Energy manager).

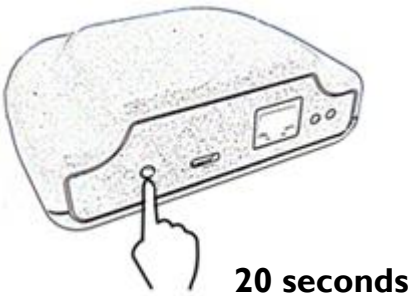
To link the G Control PM with the G Control Hub, once the discovery mode in the hub is activated, press with the help of a paperclip or a sharp object the interior button of the device. The LED light placed on the power meter indicates the status of the linking.

LED Status	Description
LED off	Not associated
LED blinking every 2 seconds	Correctly associated
LED blinking every half a second	Associated with the hub, bur currently lost the connection.

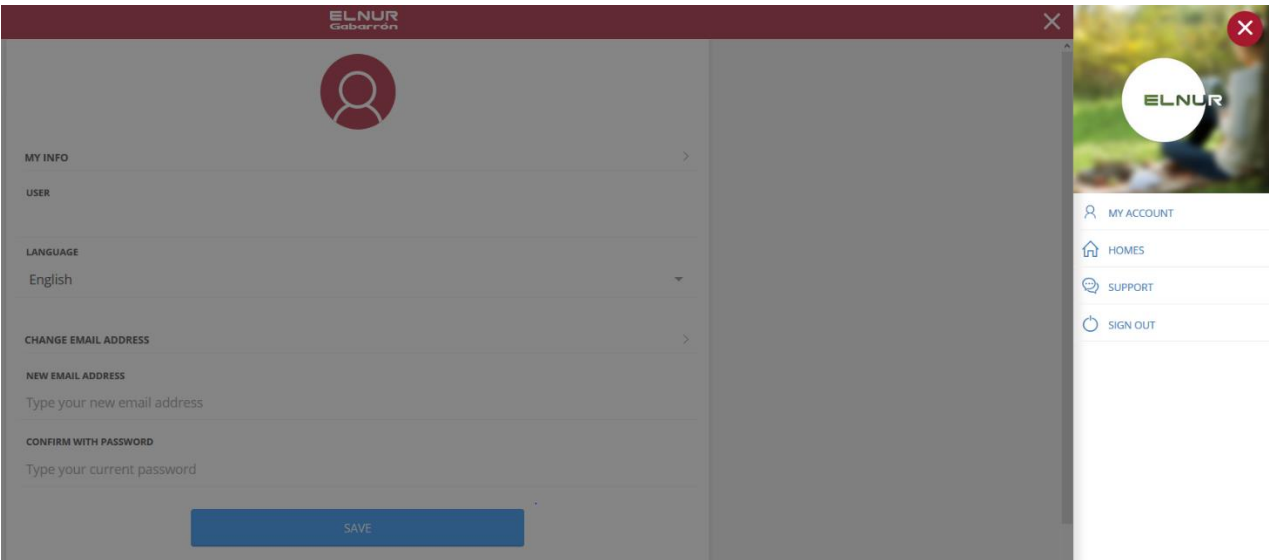
A maximum limit of total power installation can be set by the user using the web-app. The system disconnects the thermal radiators following the priority order previously set when the energy power is going to exceed the maximum power established by the user. If several thermal radiators have the same priority, the system will first disconnect the one that is closer to its set point temperature.

### 3. G CONTROL HUB RESET

The G Control hub reset will remove the existing RF network, removing the link with the different devices associated with the hub and the previous historical data of the hub. To reset the hub, press for 20 seconds the button located on the back side of the device.



**Warning** The G Control Hub reset does not remove the link between the device and the registered user account. To change the user account of the device, you must enter in the web-app and change the user account through the “My account” menu available on the right side pop up menu of the web-app.





## 4. TROUBLESHOOTING

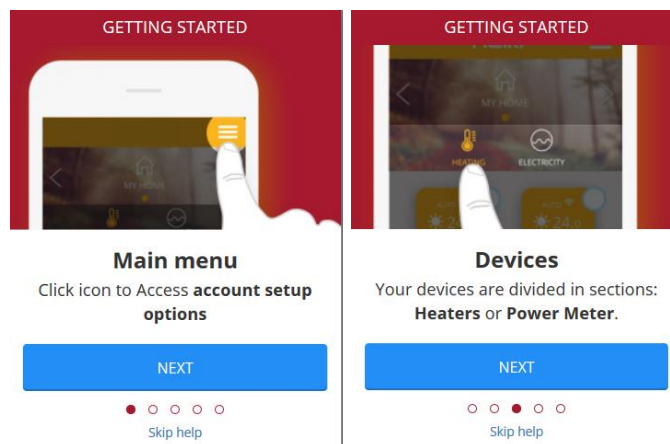
<p><b>G Control hub does not connect</b></p>	<p>Check the LEDS light of the hub that indicates the connection status.</p> <p>Check the power supply and the internet connection. An internet connection without a proxy and the ports 123UDP, 5000TCP and 5001 TCP opened are required. Router must have DHCP option activated.</p>
<p><b>Associated devices do not communicate with G Control Hub</b></p>	<p>Check the devices are correctly linked to the G Control Hub. Link icon must be displayed.</p> <p>If the distance is greater than 30 meters and 2-3 walls, link first the closest devices that will act as a signal relay increasing the radiofrequency signal.</p> <p>If link icon is blinking, your device is correctly associated with your hub, but it cannot communicate with the hub. Check the connection status of the hub or if any intermediate device that could be acting as a signal relay has been removed.</p>

## 5. MOBILES APP – WEB APP

Download free the app Elnur Wifi Control for IOS and Android available on Google play and App Store, or use the website <https://remotecontrol.elnur.es> from any device connected to internet, to control your G Control Hub and the devices associated.



Help is available at the bottom left of the web-app, which will guide you in handling the app and will help you to control your heating G Control system in an easy and intuitive way.



## 1. INTRODUCTION

The installation can be completed with a power electricity meter installed in the consumer unit of your home, which will be used both to know the current energy power and historical energy consumption and to limit the consumed power managing the consumption of the different thermal radiators connected not to exceed the maximum power established by the user. (Energy manager).

## 2. CONTENTS



G Control PM



Clamp Energy Meter

## 3. INSTALLATION

### 3.1. Device Installation



**Disconnect the main switch of the consumer unit prior the device installation.**

**Warning:** The G Control PM is valid only for single-phase installations.

The G Control PM device is prepared to be installed in the consumer unit of your home.

- Install the device on the DIN rail in the consumer unit of your home.
- Connect the device using the appropriate wiring to a 230 V power supply.
- Connect the clamp energy meter to the G Control PM device and embrace the main cable at the output of the main switch to record the total energy consumption.

CONSUMER  
UNIT

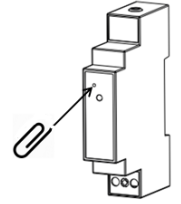


RF SIGNAL

### 3.2. G Control Hub association

**Warning:** The association of G Control PM with a G Control Hub connected to internet is required for the normal use of the device.

To link the G Control PM with the G Control Hub, once the discovery mode in the hub is activated, press with the help of a paperclip or a sharp object the interior button of the device. The LED light placed on the power meter indicates the status of the linking.

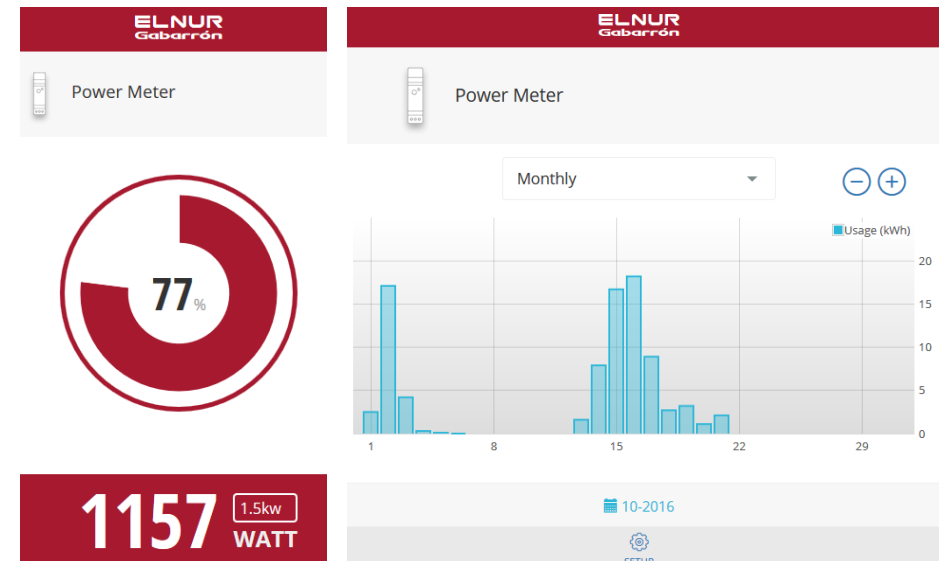


LED Status	Description
LED off	Not associated
LED blinking every 2 seconds	Correctly associated
LED blinking every half a second	Associated with the hub, but currently lost the connection.

## 4. ELNUR G CONTROL – ENERGY MANAGER

A maximum limit of total power installation can be set by the user using the web-app. The system disconnects the thermal radiators following the priority order previously set when the energy power is going to exceed the maximum power established by the user. If several thermal radiators have the same priority, the system will first disconnect the one that is closer to its set point temperature.

In addition, using the apps, real-time electricity consumption and historical consumption (daily, monthly, annually) can be seen.



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