User Guide

ECOMBI SSH
Digital Smart Storage Heaters

ECOSSH158 | ECOSSH208 | ECOSSH308 | ECOSSH408

ErP ready

**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.

CURTAIN, PIECE OF FURNITURE

min 10 " 250 mm

min 3 " 75 mm

min 3 " 75 mm

OBJECT
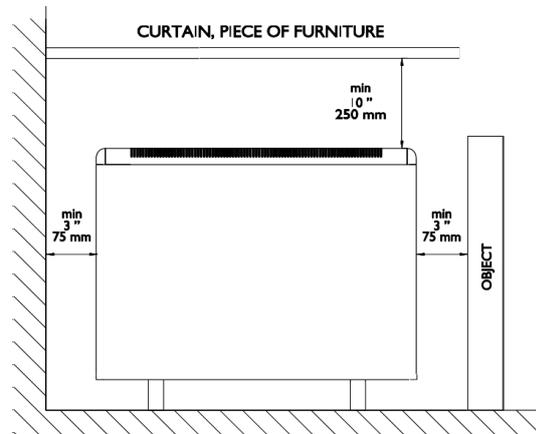
- Air inlets and outlets provide proper operation of the appliance and prevent it overheating. DO NOT cover air inlet and outlet grills.

- 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.

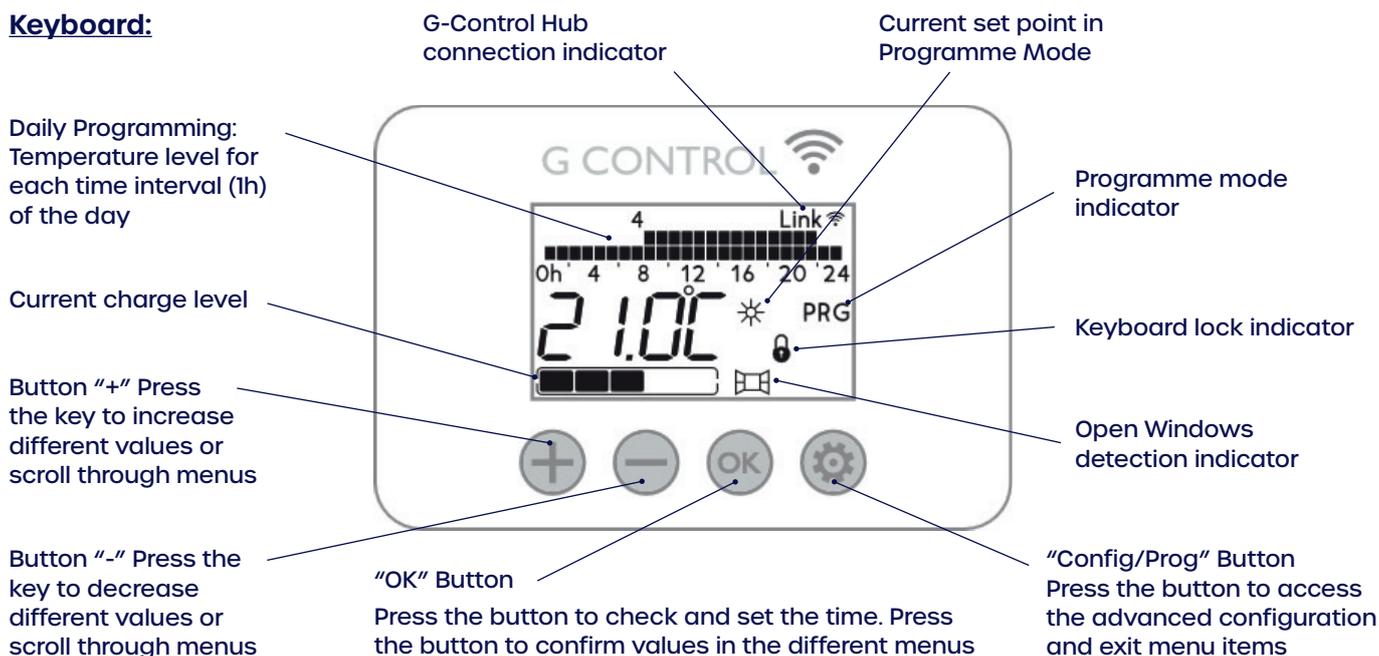# IMPORTANT INFORMATION

General information

<div>

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

</div>

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:

Daily Programming: Temperature level for each time interval (1h) of the day

G-Control Hub connection indicator

Current set point in Programme Mode

Programme mode indicator

Current charge level

Keyboard lock indicator

Button "+" Press the key to increase different values or scroll through menus

Open Windows detection indicator

Button "-" Press the key to decrease different values or scroll through menus

"OK" Button
Press the button to check and set the time. Press the button to confirm values in the different menus

"Config/Prog" Button
Press the button to access the advanced configuration and exit menu items

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
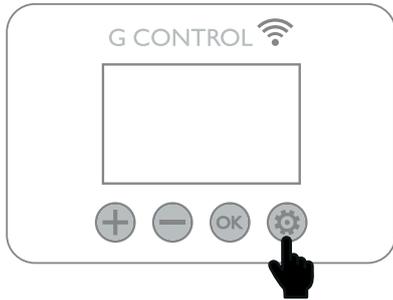
3. Using ⊕ or ⊖ buttons scroll until the time is displayed and press OK button
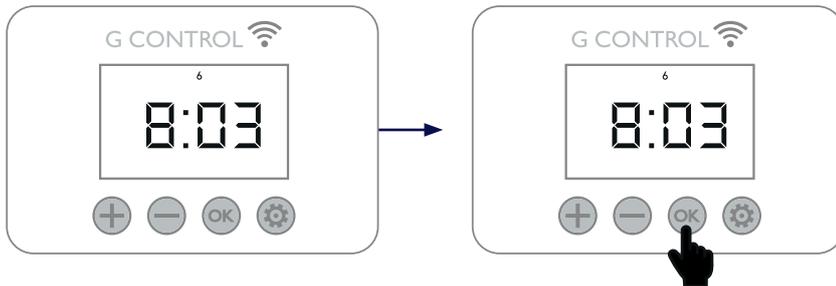
4. Again using the ⊕ and ⊖ buttons you can modify the hour and press OK button to confirm and move to minutes.
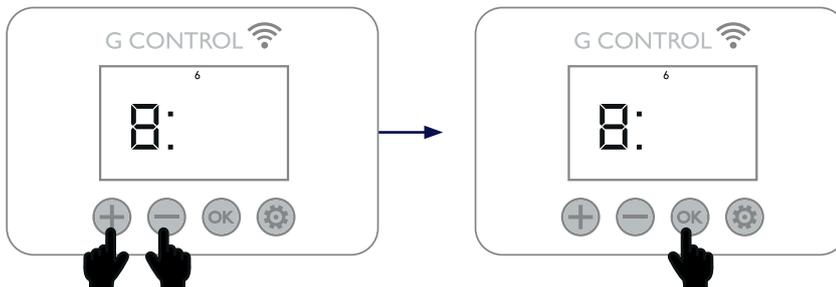
5. Repeat step 4 but for the minutes and again press the OK button confirm and move to setting the day.

6. Using the ⊕ and ⊖ buttons modify the days. Monday = Day 1 & Sunday = Day 7.

   Once on the correct day press the OK button to confirm.
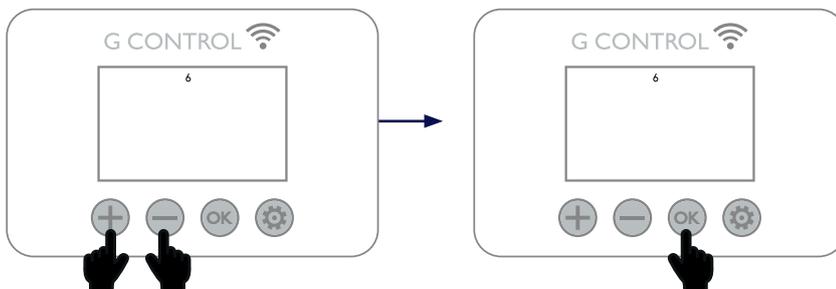
The Heater will exit automatically and return to the home screen.

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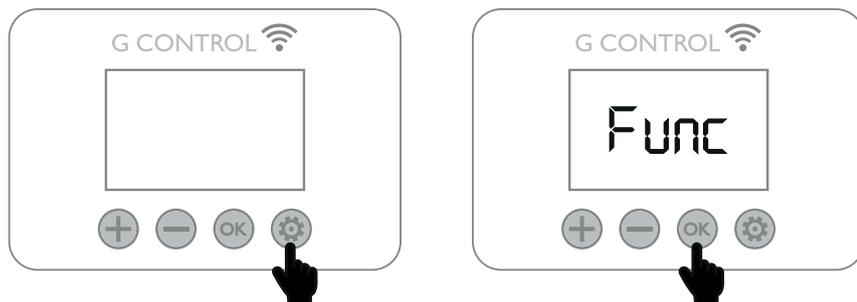
3. Using ⊕ or ⊖ buttons you can select one of the 3 Modes.

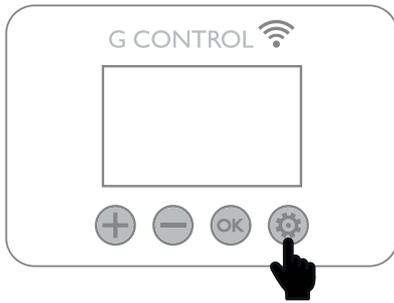Frost Protection   Manual Control
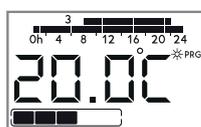
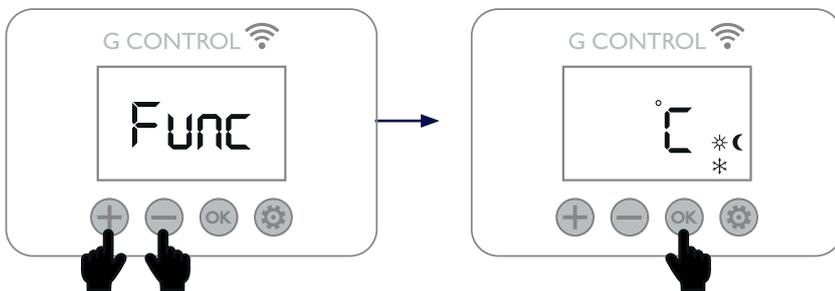4. Once your desired mode is selected press the OK button to confirm

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 OK

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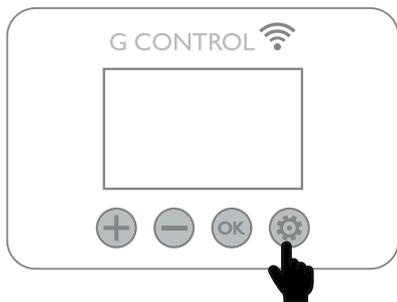

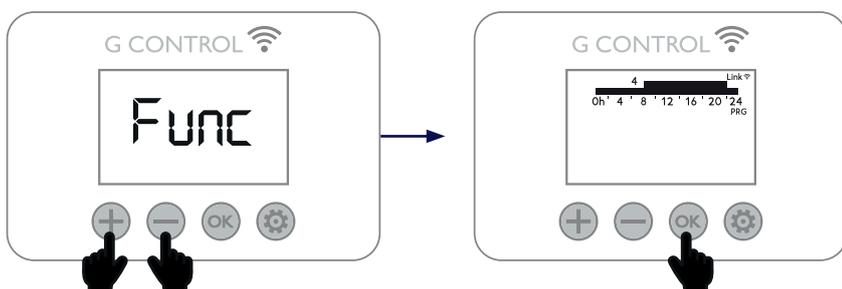5. Once you have set all 3 temperatures press the ⚙ to exit.

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 (OK)

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 (OK) 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 (OK) 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.

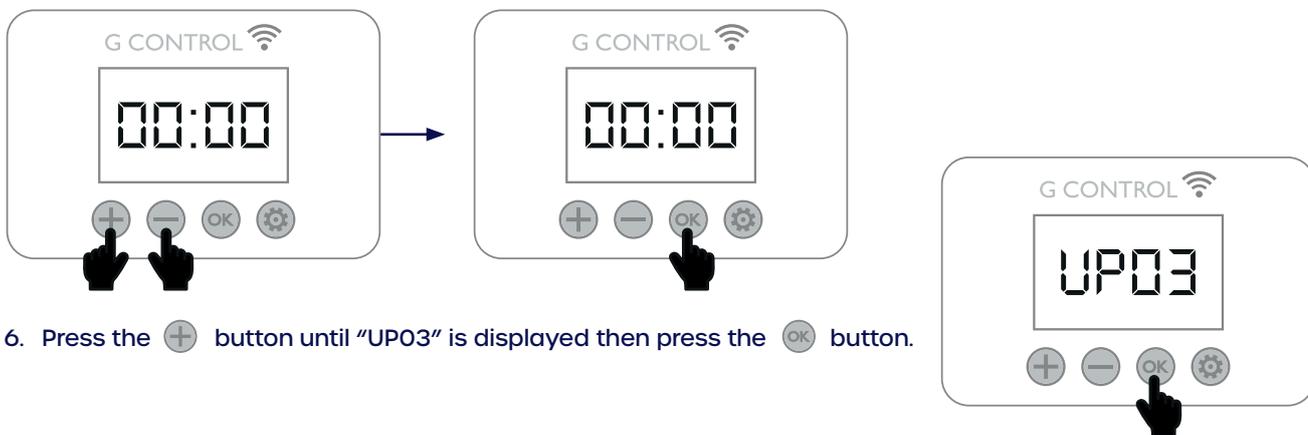2. Hold the ⚙ button until "Func" is displayed Blinking.
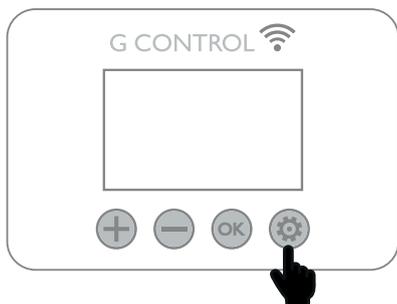
3. Using ⊕ or ⊖ buttons scroll through the menu until "PArA" is displayed on the screen and press OK
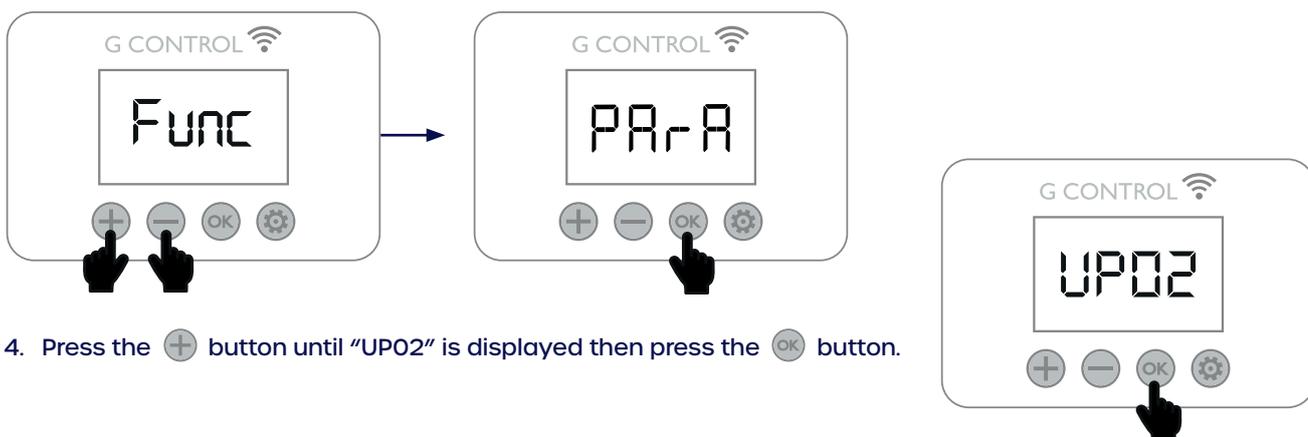
4. Press the ⊕ button until "UP02" is displayed then press the OK button.

5. Using the " ⊕ " and " ⊖ " buttons set the start time of your Off Peak charging period then press the OK button

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

7. Using the " ⊕ " and " ⊖ " buttons set the end time of your off Peak charging period then press the OK button
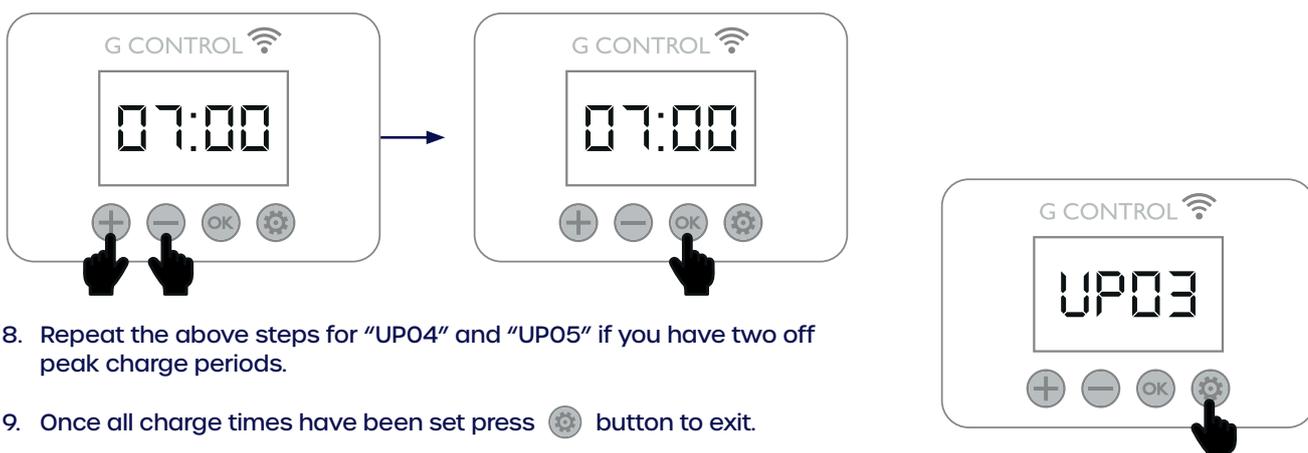
8. Repeat the above steps for "UP04" and "UP05" if you have two off peak charge periods.

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.)

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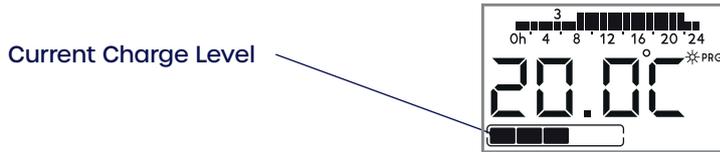
> ⚠️ **While Ecombi SSH is charging, the last dot is flashing at the top right part of the display.**

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 UP01 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 it's 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 UP08 parameter. **By adjusting the balancing element you are at risk of the heater not being able to perform as efficiently as possible.**

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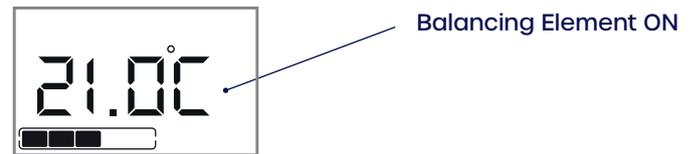
> ⚠️ **Storage Heater and Balancing Heating Element will never work at the same time.**

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

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 -5ºC to5ºC).
- **UP08:** Maximum working period of the balancing heating element in on peak electric period.

Change value: Decrease

- **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: ºC – F).
- **UP11:** Open Window Detection Activation. (On/Off).
- **UP12:** Adaptive Start Control Activation (On/Off)
- **UP13:** Kind of temperature control. Recommended & default PID.

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 (OK) 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

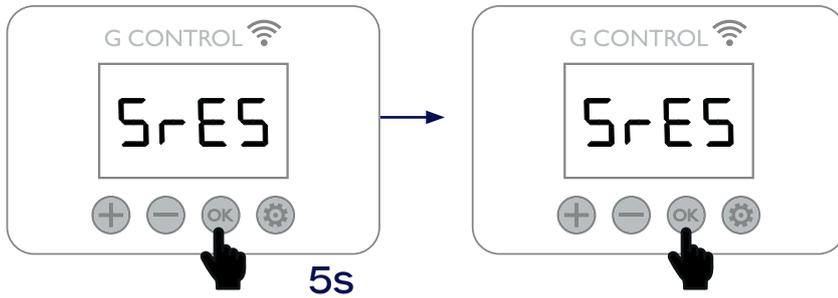Scan the QR Code or visit the App store from your Android or Apple device.

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 (OK) and (⚙) simultaneously until the message "SrES" is displayed. Confirm the reset with (OK)

Default Values

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

> ℹ️ 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

Component	Reference
Storage Heating Element (All except ECOSSH158)	Ref. 15190091
Storage Heating Element (ECOSSH158)	Ref. 15190875
450W Balancing Heating Element (ECOSSHI58)	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		1. Check everything is connected and the switch is on at the back right hand side. 2. Make sure heater is not in frost mode 3. Ensure nothing is covering the inlets or outlets. 4. If all above checked call Technical line
ECOSSH does not reach set up temperature		1. Make sure that the adequate temperature is set up. 2. Check that the balancing element is not turned off in UP08
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		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. If the "Link" symbol is flashing check G-control connection to the network.
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
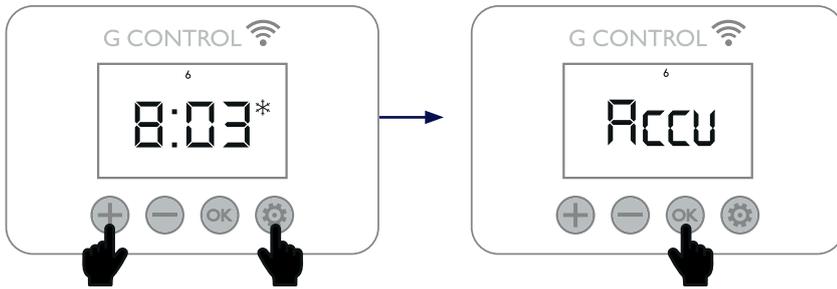
Press the " OK " button twice and the version of your ECOSSH will be shown on the display.

- 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.

ELNUR

The symbol on the product or in its packaging indicates that this product may not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. For more detailed information about recycling of this product, please contact your local council office, your household waste disposal service or the shop where you purchased the product. These instructions are only valid in the EU member states.

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CERTIFIED
IQNet
MANAGEMENT SYSTEM