

USER OPERATING INSTRUCTIONS

SS

HEATB

Marketed as Heatboss in Australia

DIGITAL SMART STORAGE HEATERS ECOMBI SSH



MODELOS / MODELS ECOSSH158 ECOSSH208 ECOSSH308 ECOSSH408

ECOMBI SSH = HEATBOSS RANGE AUSTRALIA

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.
- Neither the connecting cable nor any other object must come into contact with the hot unit.
- 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.
- 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.



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

2. - OPERATING INSTRUCTIONS

2.1. General information

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

CONNECTION / DISCONNECTION



ON/OFF

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

BACKLIGHT

Pressing any button, the display will illuminate with a soft white colour. After certain time if no buttons are pressed the display backlight will turn off.

Buttons only will respond when the backlight is on.

KEYBOARD LOCK



During any operation mode, it is possible to lock the keyboard by holding and simultaneously for 3 seconds. When the keyboard is locked, the indicator will be displayed.

To unlock the keyboard, press \bigoplus and \bigoplus simultaneously for 3 seconds.

2.2. Quick Start

Ecombi SSH quick start only requires 2 easy settings:

TIME AND CHARGE SETTING

<u>Charging Hours</u>: By default, Ecombi SSH off-peak period is set from 00:00 to 07:00. In case off-peak period of your electricity tariff does not match with this setting, you can easily modify it:

- With backlight on, keep pressed white button for 5 seconds until the message **"Func."** is displayed blinking to access the general configuration menu.
- Press 🖶 button until the text "PArA" is displayed blinking.
- Press now ^{OS} button to access general parameteres menu (**PArA**).
- Parameter UP01 is displayed. Charging period used by Ecombi SSH goes from UP02 parameter (Charging period start. By default 00:00) to UP03 parameter (Charging period end. By default 07:00).
- Use 🖶 and 💭 buttons to move forward and backward until the parameter to be modified is displayed. Press 🔍 button to access the parameter value.
- Use 🖶 and 💭 buttons to modify the time of the start / end of the charging period. Use 🔍 button to confirm the desired value.
- Press ⁽¹⁾ to exit main menu.

<u>Time setting</u>: Ecombi SSH time setting is set on factory by default. Check the time setting in your device. In case time setting is wrong, you can easily modify it following next steps.



OPERATION MODE SETTING & TEMPERATURE SET POINT

I. With backlight on, keep pressed we button for 5 seconds until the message **"Func."** is displayed blinking to access the general configuration menu.

2. Press ^{OS} button when the message "Func." is displayed to access operation mode menu.

3. Press 🐨 or 😇 buttons to select manual (24hours Set-point Temperature) operation mode. Press ^(IIII) button to confirm. Current charge level and set-point temperature are displayed in this mode.

4. Once selected, adjust the desired set-point temperature using and . Automatically, Ecombi SSH will manage and adjust daily its charging level to provide the selected temperature with minimal cost.



2.3. Advanced Configuration

General configuration menu allows the user to make all modifications and settings required to improve the operation of the device.

To enter the general configuration menu, keep pressed we button for 5 seconds in any operation mode with the backlight on. Next information is displayed:



Use and buttons to navigate for the different available menus and press button to enter the configuration menu you want to modify.



From general configuration menu, you can enter 5 different menus that allow to set any configuration of your device:

- Working operation mode. Modify the working operation mode.
- **Time setting menu.** Set the time and day of the week in your device.
- **Temperatures. Programme mode**. Modify the temperature value for the temperature levels used in programme mode. (Sun, Moon and Frost protection temperatures)
- Weekly temperature programming. Programme mode. Modify the weekly temperature programming of the programme mode.
- General parameters. Modify the general working parameters of the device (Temperature units, charging period...).

The heater has three different operation modes: **Programme**, **Manual override (Temperature 24 hours)** and **Frost Protection**.

- Manual Override Mode (Temperature 24 hours): the storage heater will maintain the temperature set point 7 days a week, 24 hours a day and will ignore the pre-set programme. In this mode, the device adjusts automatically its daily

charging level to maintain the selected temperature set-point. To modify the set-point temperature, just press () or buttons when the device is working in this mode until the desired temperature is shown. Set-point temperature and charging level are displayed in this operation mode.



Programme Mode: The setpoint temperature varies according to the weekly schedule setup in the unit. 3 different temperature levels (Comfort, Moon and Frost Protection) can be selected for each time interval (1 hour) to adjust the temperature in the room to the habits and needs of the different users. Set temperature levels can be modified (See 2.3.3 Temperature levels. Programme mode) In addition, weekly temperatures programme can be modified (See 2.3.4. Weekly programming. Programme mode). PRG icon, horizontal temperatures diagram at the top of the display, current temperature level and charging level and displayed in this mode.



Frost Protection: the storage heater doesn't maintain any set temperature or run any programs, keeping the time settings configured previously. Balancing heating element will be turned on in case the ambient temperatures drops below the Frost Protection temperature level. Current time and frost protection symbol (*) are displayed in this mode.



During any operation mode, access the general configuration menu as stated in the **general configuration section (Section 2.3)** and press button when the text **"Func."** is displayed to access the working operation mode menu. Use \bigcirc or \bigcirc to select the desired working operation mode. Confirm with \bigcirc .



2.3.2. Time setting

To check the time setting, press with the backlight on in any operation mode. The time and day of the week are displayed.

If time setting is wrong, keep pressed 🞯 button for 5 seconds when the time and day of the week is displayed to modify it.

- Hours start blinking first. Use \oplus and \bigcirc buttons to set the hour. Press $\overset{\odot}{\overset{\odot}}$ to confirm.
- Minutes start blinking. Use 🕀 and 🔵 button to set the minutes and confirm with 🔍
- Lastly, day of the week start blinking at the top of the display in numeric format (I=Monday, 2=Tuesday, etc). Use and buttons to set the day of the week and confirm with .

🥮 button can be pressed at any time to exit the setting time menu.



It is possible to access the time setting menu from the general settings menu (Section 2.3).

U If the device is associated with a G-Control Hub, the adjustment of time is removed and the time in the G-Control Hub is configured in the heater automatically

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LCOMBI 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.

2.3.3. Temperatures. Programme Mode

Temperature level set-point used in programme mode (Comfort, Economic and Frost Protection) can be modified at any time.

During any operation mode, access the general configuration menu as stated in the **general configuration section (Section 2.3)** and press button when the 3 temperatures icons (sun, moon and frost protection) and the symbol °C are displayed to access the temperatures level menu.

Now press 🔍 to select the temperature you want to change, COMFORT, ECONOMIC or FROST PROTECTION. Use 🕂 and

It to exit the setting time to exit the setting time menu.



COMFORT TEMPERATURE

You can temporary change the set temperature for the current time period too in programme mode. To do this, increase or decrease the current temperature simply by pressing \bigoplus and \bigoplus . Once the time period finishes, the temperature will revert back to the programmed set temperature

WEEKLY PROGRAMMING

Default weekly temperature programme can be modified, setting for each hour of the week the desired temperature level (Comfort, Economic or Frost Protection).

During any operation mode, access the general configuration menu as stated in the **general configuration section (Section 2.3)** and press button when the symbol PRG and the horizontal temperatures diagram is displayed.





The first segment of the first day of the week (Day I- Monday; Time 00:00) will start to flash. The bar diagram at the top of the display represents the programme for every hour of the day you are programming.

- 2 bars represent this hour is programmed with comfort temperature level. (lpha)
- I bar represents this hour is programmed with economic temperature level. (\mathbf{C})
- No bar represents this hour is programmed with frost protection temperature level. (**)

By pressing $\overset{()}{\otimes}$, you can select whether you want a Frost Protection setting $\overset{()}{*}$ (3°C), Moon setting $\overset{()}{*}$ (18°C) or Comfort setting $\overset{()}{*}$ (21°C) for this hour.

Now press 🐨 to move to the next I hour time interval. The select temperature level is set in the new I-hour time interval.

Once you've gone through all the time intervals for day 1, you will automatically start on day 2 by pressing (). Repeat the above steps until you go through all 7 days.

PROGRAMMING COPY, MOVE FORWARD TO THE NEXT DAY WITHOUT PROGRAMMING

- If you do not desire to modify the programming of a day within the week, press 💿 to go through the next day.
- You can copy the programming of the current day from current day to rest of days in the week.
 - Keep pressed ^(C) button to <u>copy the programming of the current day in the next one in the week.</u> Message CPXY will be displayed confirming the copy where X: Current day; Y:Next day in the week.
 - Keep pressed button to copy the programming of the current day in the rest of days in the week. Message
 CPAII will be displayed confirming the programming of the current day has been satisfactory copied in the rest of the days in the week.

L Ecombi SSH will not charge in Frost Protection time intervals 🛠. It is recommended to use this temperature level only for complete days where no heat is required.

2.3.5. General parameters



2.3.5.1. Charging configuration. Weekly charge period setting

Weekly charging days (UP06 parameter) Charging/Not Charging day I





Access to the general parameters menu to modify the charging period of your Ecombi SSH storage heater. (See **"2.3.5. General Parameters"**). By default, 00:00 to 07:00 charge period is set and every day of the week is set as a charging day.

Charge period

Two charging periods can be selected in the electronic control of your Ecombi SSH.

- 1° Charging period: UP02 to UP03. (00:00 to 07:00 by default).
- 2° Charging period: UP04 to UP05. (Disabled by default, 00:00 to 00:00).

Weekly charging days

It is possible to select which days Ecombi SSH will charge and which days it will not. Access to the UP06 parameter to modify the days you want your Ecombi SSH takes a charge. (By default, 7 days of the week).

Access to UP06 parameter by pressing ^{OV}. The first day indicator in the top of the display and the charge condition (On/Off) is displayed.

Press and to change the charge condition for this day. Press to go on through the days.

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Ecombi SSH will not charge in Frost Protection time intervals. When setting a day as "No charging day", Ecombi SSH will automatically set Frost Protection Temperature in all time intervals of this day in the defined Programme Mode. In addition, Frost Protection Temperature will be set for this day in Manual Mode, setting the previous set temperature for Manual Mode when the "no charging day" ends.

SMART STORAGE HEATER:

Ecombi SSH optimizes the energy management and consumption and provides the heat demand requested by the user in each period of time reaching the desired comfort.

Smart charging control

Ecombi SSH allows optimizing the energy management and consumption using a linear regression model based on the temperature registered in the core of Ecombi SSH to determine the current % of the storage heater charge and use this information to charge only the heat necessary to supply the daily heat demand and avoid unnecessary energy consumption.

The charge level is monitored every time by the electronic control and represented in the display by the dots at the bottom of the display. 5 dots represent a fully storage heater charge.



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

Protection for excess of temperature in the room

In order to achieve maximum savings and avoid unnecessary energy consumption, if, during the charging period, the temperature in the room exceeds the temperature set up in Ecombi SSH for that room, 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 working hours of balancing element is higher than a certain value, storage heater charge will be increased by a certain %. On the other hand, if balancing element working hours does not exceed this value, storage heater charge level is reduced by the same %.

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 "General Settings" part and modify the initial % of storage charge according to UP01 setting.

Balancing Heating Element

If the energy discharged with natural convection is not enough to satisfy the heat demand of the room where Ecombi SSH is installed, a balancing heating element incorporated in the Ecombi SSH body will be connected providing additional heating to the room if necessary, to supply the heat demand of the room. The maximum working period of the balancing heating element during on-peak electric periods can be adjusted and cancelled by modifying UP08 parameter. (please go to "2.3.5. General Parameters").





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.

DEFAULT SETTINGS & RESET

To reset the unit to factory default settings, press and simultaneously for 5 seconds until the message SrES is displayed.



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 I	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.

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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.

EMITTER MODE

This operation mode is used when it is necessary to heat the room temporarily and there is no need for storage heating.

To set this mode, turn off the unit by pressing the main switch on the back-side panel and keep pressed ^(W) for 10 seconds at the same time you turn on the unit by pressing the main switch until the message 19.0E is displayed on the display.

- Emitter mode is a temporary operation mode. You cannot access from this mode to general setting menu, operation mode menu or any other settings.
- Use 🖶 and 💭 to modify the set-point temperature for this operation mode. The unit will turn on the balancing heating element if required in order to provide instantaneus heat to the room.
- The unit will not charge within this mode.

To exit emitter mode and go back to the commom operation mode, just turn off and turn on the unit again by pressing the main switch on the back-side panel.

3.- REMOTE OPERATION USING THE WIFI G-CONTROL HUB

It is possible to control the full operation of the unit remotely with the Elnur Wifi Control app or the app-web (https://remotecontrol.elnur.es). The unit must be connected to a Wifi G-Control Hub connected to the internet to use this feature.

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



3.2 With the hub in association mode, press on the storage heater for 3 seconds until the Link symbol Link $\widehat{\gamma}$ is shown.



You can control and adjust the programming and temperatures on the Ecombi SSH via the Elnur Wifi Control app.

<u>3.3</u> To disassociate the unit, a reset of the unit must be realized. See "**Default settings and unit reset**". When the storage heater is reset, it will remove the programming and revert back to the default settings and also disassociate from the RF network and G-Control Hub.

4.- TROUBLESHOOTING

ECOMBI SSH does not heat.	Please check it is connected and switched on. Make sure the device is not covered or the lower air inlets are not obstructed. The LR safety limit may be activated; in this case it is necessary to reset it manually. Please contact technician.
ECOMBI SSH does not reach set up temperature	Make sure that adequate temperature is selected. Make sure the storage heater is sized correctly for heat loss.
"Err" Message in display	Please contact technician.
Keyboard does not respond	If the symbol $\hat{0}$ 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 symbol Link $\widehat{\sim}$ must be shown on the display LCD. For distances greater than 30 metros and 2-3 walls, associate first the closest units. Each unit can work as signal extender. If Link $\widehat{\sim}$ symbol is flashing, check the G Control Hub connexion to the network, and if any other device in the RF Net that could be working as signal extender has been removed.

5.- 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.



The 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.

Ref. 15190091

Ref. 15190875

Ref. 15190105

Ref. 15190110

Ref. 15190120

Ref. 15190130

Ref. 46100530

6.- MAIN COMPONENTS LIST

Storage Heating Element (All except ECOSSH158) Storage Heating Element (ECOSSH158) 450W Balancing Heating Element (ECOSSH158) 600W Balancing Heating Element (ECOSSH208) 900W Balancing Heating Element (ECOSSH308) 1200W Balancing Heating Element (ECOSSH408) Switch Power PCB & Fixing BracketRef. 15191890Keyboard PCB ECO SSHRef. 15191873Core SensorRef. 15192140Room SensorRef. 46102195110°C Balancing Element LimiterRef. 15190725135°C Cut Out Manually LimiterRef. 10190460

7.- THECNICHAL FEATURES

Modelo	ECOSSH158	ECOSSH208	ECOSSH308	ECOSSH408
CONNECTION	220 - 240V ~	220 - 240V ~	220 - 240V ~	220 - 240V ~
BALANCING ELEMENT OUTPUT	450/490₩	600/653W	900/980₩	1200/1307W
STORAGE HEATER OUTPUT	975/1062W	I300/I4I5₩	I950/2I23₩	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	89 cm	lllcm
HEIGHT	73cm	73cm	73 cm	73cm
DEPTH	18cm	18cm	18cm	18cm
WEIGHT	59kg	77kg	112kg	l 47kg
NUM. OF BRICKS 7,5kg	-	8	12	16
NUM. OF BRICKS 11,5kg	4	-	-	-
BRICK PACKAGE	11072	11016	11016	11016

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

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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 city office, your household waste disposal service or the shop where you purchased the product. These instructions are only valid in the EU member states.



RHCS Pty Ltd. Unit 2, 18-28 Sir Joseph Banks Drive , Kurnell NSW 2284

Telephone: 02 96688291

www.heatpac.com.au



As a part of the policy of continuous product improvement Elnur UK Ltd. reserves the right to alter specifications without notice.