



ELNUR GABARRON[®]

INSTALLATION INSTRUCTIONS

SMART STORAGE HEATER ECOMBI HHR



MODELS

ECOHHR10

ECOHHR20

ECOHHR30

ECOHHR40



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.

IMPORTANT INFORMATION

- Please read all the instructions carefully before installing or using the heater for the first time and retain for future use.
- **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 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. Cleaning and user maintenance must not be done or carried out by children without supervision.
- Children ages from 3 years and less than 8 years must only switch the appliance on/off provided that it has been 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. They also must 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 and Isolate from the electrical supply and have the heater inspected by a competent electrician or approved service agent before reusing.
- Do not use the heater outdoors.
- To disconnect the heater, turn off the isolator switches and at the consumer unit.
- Do not insert or allow foreign objects to enter any ventilation or exhaust openings as this may cause electric shock, fire or damage to the heater.
- Air inlets and outlets provide proper operation of the appliance and prevent its overheating. **DO NOT** cover or block the air intake and outlet grills.
- Use this heater only as described in this manual. Any other use is not recommended by the manufacturer and may cause fire, electric shock or injury to persons.
- This guide must be kept and given to any new user.

SAVE THESE INSTRUCTIONS

		ECOHR10	ECOHR20	ECOHR30	ECOHR40
Balancing element output	W	270	550	820	1100
Storage heater element rating	W	871	1742	2613	3484
Charge period		7h	7h	7h	7h
Charging (7h)	kWh	6.1	12.2	18.3	24.4
Connection		240V~	240V~	240V~	240V~
Frequency	Hz	50-60	50-60	50-60	50-60
Width	cm	49	72	95	117
Height	cm	76	76	76	76
Depth	cm	19.5	19.5	19.5	19.5
Weight (including blocks)	Kg	54	97	140	183
Number of blocks (6kg)		6	12	18	24



Content for Installation Instruction

1. ECOHR Important Information and Content Information.
2. Warning Messages & Unpacking.
3. Removing Front Panel & Wiring.
4. Removing Microtherm & Installing Bricks.
5. Refitting Microtherm & Front Panel.
6. Relocation, Resetting Safety cut-out and Main components list.
7. Connection and Disconnection, Control panel layout
8. General Settings - Initial Off-Peak Setup
9. Resetting to Factory defaults and Trouble shooting
10. Connection Diagram HHR10
11. Connection Diagram HHR20
12. Connection Diagram HHR30
13. Connection Diagram HHR40
14. Single Power Supply Connection
15. Supplier and Contact Details

Elnur UK Ltd, Unit 1 Brown Street North, Leigh, WN7 1BU
 Customer Help Line
01942 670119
 Technical Support
01942 670119 (Opt 2)

Information symbols used within this manual are as follows:

**WARNING**

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

**WARNING**

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

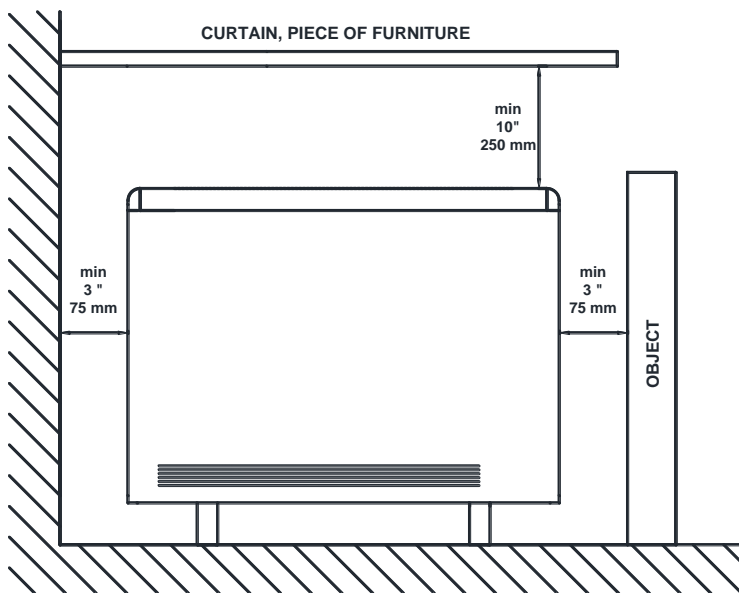
**CAUTION**

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



This symbol is for useful information.

IMPORTANT: Wiring procedures and connections should be in accordance to current IEE regulations.



Keep combustible materials, such as furniture, pillows, bedding, papers, clothes and curtains at least a foot (300mm) from the front, sides and rear of the heater.

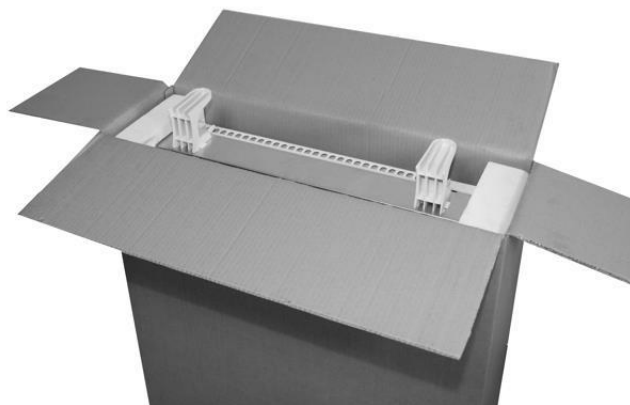
It is essential that the indicated minimum clearances are maintained.

Note: Items such as shelves that are mounted above the heater below the minimum 250mm clearance will affect the performance of the heater.

- The warranty of the heater will not cover any damage caused by non-observance of any of these instructions.
- The installation must be carried out in accordance with the current IEE regulations. Any installation or reinstallation has to be carried out by a skilled or instructed person.
- Please check that cable, isolation switch gear and power supply is sufficient for the voltage and watts shown on the rating label.
- This appliance must be Earthed.
- This appliance should not be installed just below an electrical socket.
- This appliance must be installed outside of zone 2, the controls should not be accessible by anyone using a bath or shower.
- If during any installation the thermal insulation shows any sign of damage, it must be replaced.
- This heater should be switched off at the isolation switch and/or circuit breaker before any repair work is carried out on the heater.
- This appliance is only intended for a fixed installation with a permanent connection and is not for portable use. After the installation a survey of the first charge cycle should be carried out to ensure that the main input thermostat switches off. Ventilate the room during this first cycle.
- Never open a charged heater; temperatures can rise above 600°C.
- 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, scented candles and other pollutants, could in time, discolour the walls and surfaces around the heater.

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

1. Choose the right location to install the Ecombi HHR. 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 petrols or other flammable liquids and vapours in the vicinity of the heater.
2. Open the heater box at the indicated side and install the supporting feet without removing the heater.



3. Flip the box upside down to allow the heater to stand on its feet and remove the carton. Please check that it is the correct model and is in good conditions.

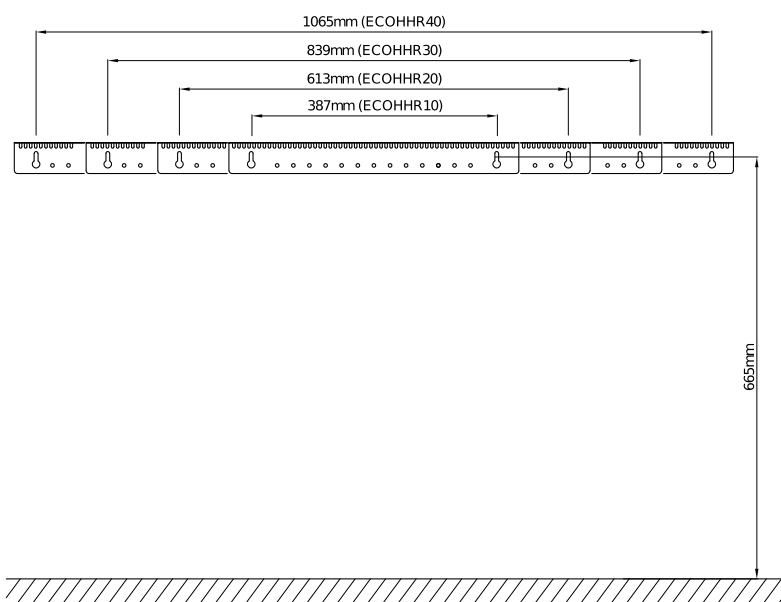
Check that all parts have been delivered and are intact:

- 1 ECOMBIHHR heater casing.
- 1 Bag containing 2 screws, 2 rawl plugs, 4 white screws and 2 black female spade connector wires.
- 2 supporting feet.
- 1 top fixing plate.
- 2 side fixing plates.
- This Guide

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

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

4. Screw on the wall the top fixing plate, making the two required drills at the recommended distance depending on the model. Use the rawl plugs and screws contained in the plastic bag to fix the fitting to the wall.



5. Fix the side fixing plates to the metal casing by using the appropriate screws. The supply cables must be fitted but not wired to the storage heater before placing the heater to the wall. Remove the white screws located in the top of ECOHHR, and place the ECOHHR in the selected installation area. Use the removed screws to attach ECOHHR to the top fixing plate installed in the wall.



ECOHHR 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.

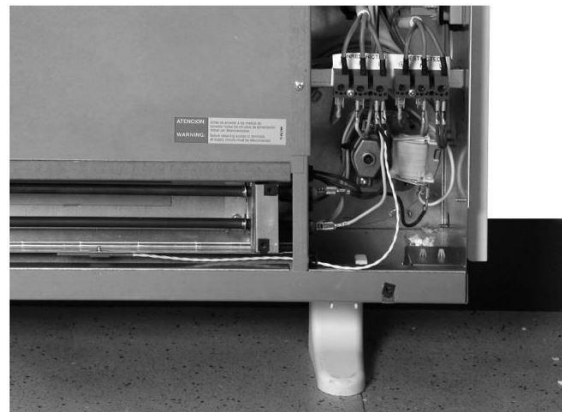
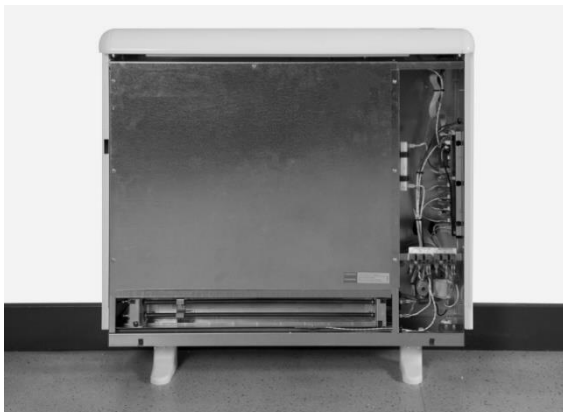
6. Take off the front outlet grill by removing the four screws. Take off the front panel by removing the two screws located at the bottom.



7. Connect the heater using the wiring diagram included at the end of the installation instructions. Tighten the connection block screws securely. Do not leave any remaining wire inside the heater.

The heater is ready to be wired to a double power supply (Economy and 24hr supply). If the heater is to be wired to a single economy/24 hours power supply:

- Use the 2 black wires provided in the plastic bag to jumper the Lines and Neutrals of the Restricted and Unrestricted side.
- Connect the supply to the restricted or unrestricted side.



WARNING Touching live connections can cause death from electric shock.

8. Unscrew the inner panel and remove it.



WARNING

Steel edges can cut.



CAUTION

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

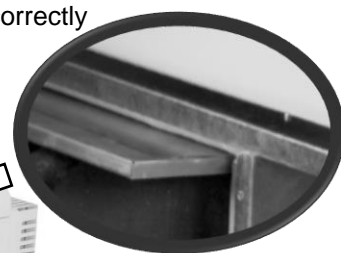


9. Do not disconnect the electrical heating elements. Remove the packing cardboard and the metallic plate. Lift and tilt the elements outwards being careful not to damage the insulation on the bottom of the heater and carefully place the storage bricks. Arrange two levels of bricks with the flat side facing to the back of the heater.

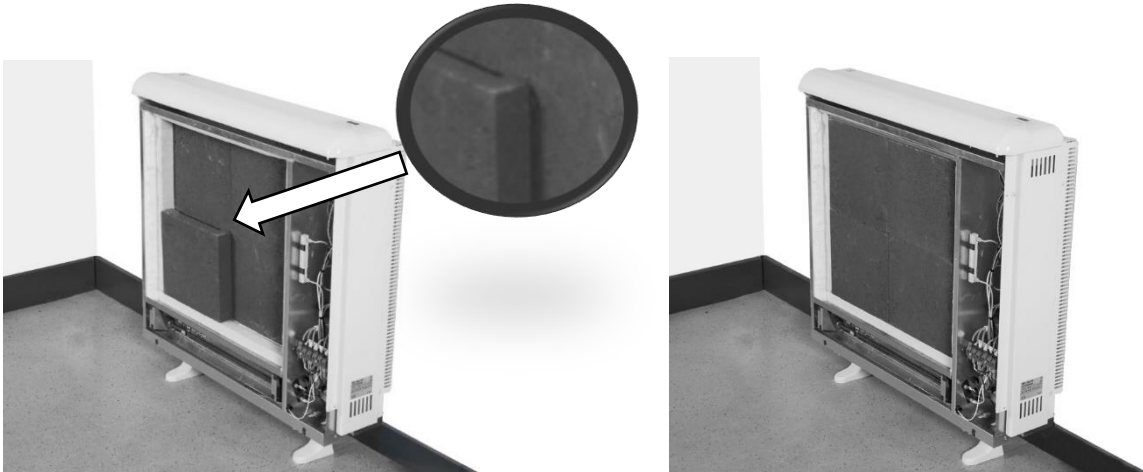


10. Place the heating elements back into their original position. Place the second row of storage bricks with the flat side facing out and always on the heating elements supporting tabs.

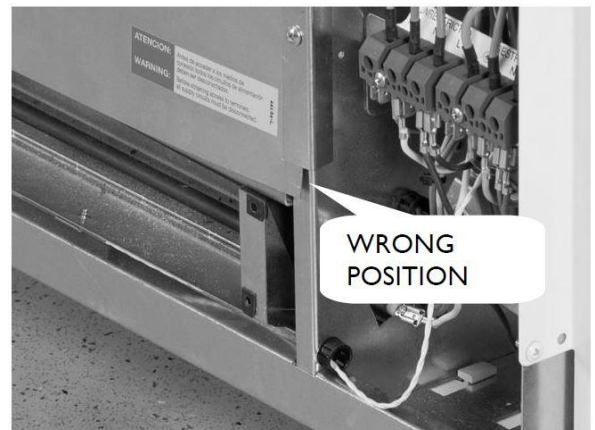
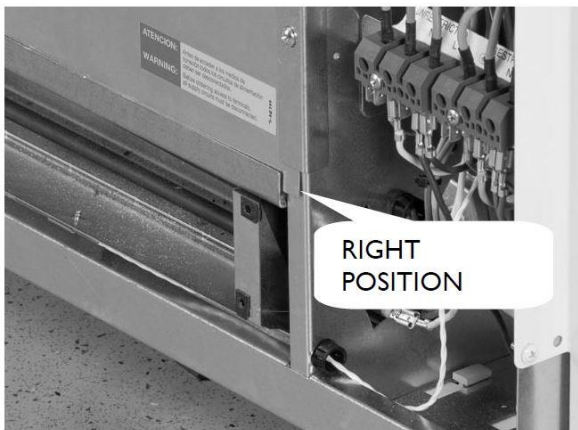
11. Next replace the metallic plate in the top of the storage core, between the bricks and the Microtherm insulation panel with the flat side facing up. It must be placed in the right position for the fan to work correctly



12. Place the third row of storage bricks with the flat side facing out.



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



14. Replace the front panel. When refitting the exterior front panel, align the 2 metal upper pegs on the heater with holes in the exterior panel. Push the top up into place and push the bottom in, then refit the screws.



15. Refit the front outlet grill along with the 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 Safety Cut-out 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 by an experienced technician only.

Turn off the heater at the circuit breaker.

Take off the front panel. Find the limiter CUT OUT in the connection diagram. This is located just above the Microtherm insulation panel, just off to the right of centre. **Push down** the small **red** pin until a click is heard.

Main Components List

Storage Heating Element	Ref. 10190410	Main PCB	Ref. 15192125
270W Balancing Element (ECOHHR10)	Ref. 15192006	Keyboard PCB	Ref. 15190060
275W Balancing Element (ECOHHR20)	Ref. 15192000	Core Sensor	Ref. 15192140
410W Balancing Element (ECOHHR30)	Ref. 15192002	Air Sensor	Ref. 15192145
550W Balancing Element (ECOHHR40)	Ref. 15192004	Room Sensor	Ref. 60100580
110°C Left Limiter	Ref. 15190725	Fan (ECOHHR10 & 20)	Ref. 15192636
140°C Right Limiter	Ref. 15190720	Fan (ECOHHR30 & 40)	Ref. 15192638
140°C Fan Top Limiter	Ref. 15190720	Fan Resistor	Ref. 15192160
160°C Cut Out Manual Limiter	Ref. 15190730	Switch	Ref. 46100530

Technical Features

Model	ECOHHR10	ECOHHR20	ECOHHR30	ECOHHR40
CONNECTION	240V ~	240V ~	240V ~	240V ~
STORAGE OUTPUT	871W	1742W	2613W	3484W
BALANCING ELEMENT OUTPUT	270W	550W	820W	1100W
CHARGE PERIOD	7h	7h	7h	7h
CHARGING	6.1 kWh	12.2 kWh	18.3 kWh	24.4 kWh
INSULATION	Class I	Class I	Class I	Class I
WIDTH	49cm	72cm	95cm	117cm
HEIGHT	76cm	76cm	76cm	76cm
DEPTH	19.5cm	19.5cm	19.5cm	19.5cm
WEIGHT	54kg	97kg	140kg	183kg
NUM. OF BRICKS 6kg	6	12	18	24



Note: This heater can be connected to the standard two electrical supplies Economy and 24hr supply or one single Economy/24hr supply.



Connection and Disconnection

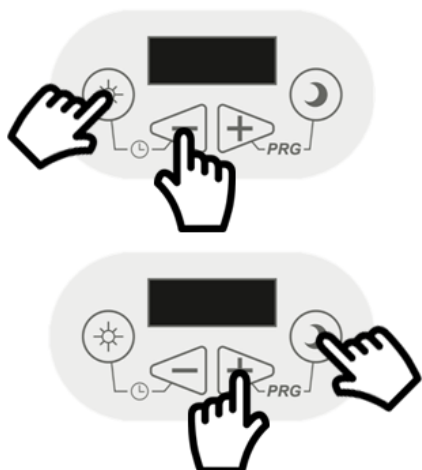
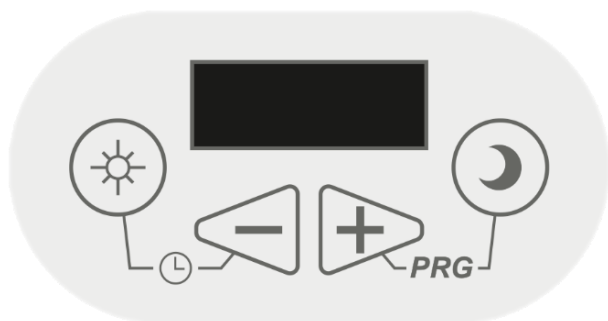
Each ECOHHR storage heater has its own power switch and is located on the right side panel. The power switch is used to turn the heater ON and OFF.

If this switch is turned OFF then the storage heater will not take a charge when the off-peak supply is on and will not give out any heat. Therefore, it is important to make sure this is turned ON at all times.

Each ECOHHR storage heater requires two electrical supplies. One is an economy tariff supply (off peak or restricted supply) and the other is a 24hr supply (on peak or unrestricted supply). However, the Elnur ECOHHR is capable of utilising a single economy/24hr supply by using the supplied link cables. Modification to the distribution board may be required if supplied via radial circuits.

Connection from the economy supply or economy/24hr supply to the heater should be via a 20Amp double pole isolator switch. (Radial circuits)





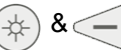



Connection from the 24hr supply (on peak or unrestricted supply) to the heater should be via a fused double pole isolator switch or a fused RCD isolator switch, depending on the installation.

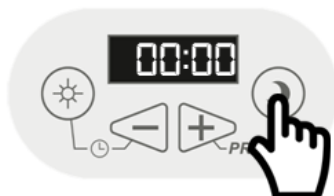


User Control Panel

You will find the keypad on the top right side on the heater. This easy to use keypad only has four buttons, however these four buttons can be use in different ways to give you many functions and will be explained in more detail in later sections.

Basic Key functions:

-  This button is used to set the **'Comfort'** temperature. Default is 21°C.
-  This button is used to set the **'Economy'** temperature. Default is 18°C.
-  This button is used to decrease values.
-  This button is used to increase values.
-  &  Pressing these buttons together will allow you to set the Date and Time.
-  &  Pressing these buttons together will allow you to set the weekly program.



General Settings

The General settings **MUST** be configured after installation by the installer to ensure correct operation.

It is important to configure the off peak times correctly. The HHR allows you to configure two separate off peak charge periods; Period 1 via P01 & P02 and Period 2 via P03 & P04. If you only have one charge period then set P03 and P04 to 00:00.

To enter the general settings menu, turn **ON** the heater via the switch at the right side of the heater while holding down the moon button at the same time. ST will be displayed, at this point you can release the moon button.

Use the and buttons to move down and up the menu options.

To look or change each setting, press and release the

moon button and then use the and buttons to adjust. Press the moon button to set.

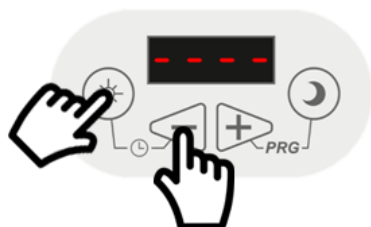
The default settings are as follows:

ST	: Initial % of storage charge	: 80
P01	: Start time of off peak period 1	: 00:00
P02	: End time of off peak period 1	: 07:00
P03	: Start time of off peak period 2	: 00:00
P04	: End time of off peak period 2	: 00:00
P05	: Ambient sensor offset $\pm 5^{\circ}\text{C}$: 0.0
P06	: Max. working hours of balancing element	: 5
P07	: Over temperature protection $^{\circ}\text{C}$: 2
P08	: Display temp. Centigrade or Fahrenheit	: $^{\circ}\text{C}$
Open	: Open window detection option	: Off
AuHr	: Automatic winter / summer time	: On
Prog	: Weekly temperatures programme	: Pr01

To skip through P05, P06, P07, P08, Open, AuHr and Prog options simply press and release the plus button until you exit back to displaying the temperature.

2 different programs can be set easily using Prog parameter:

- **Pr01. All day at home program.**
 - o From Monday to Sunday
 - 00:00 - 07:00 at 18°C
 - 07:00 - 22:30 at 21°C
 - 22:00 - 24:00 at 18°C
- **Pr02. Working hours program.**
 - o From Monday to Friday
 - 00:00 - 07:00 at 18°C
 - 07:00 - 08:30 at 21°C
 - 08:30 - 17:00 at 18°C
 - 17:00 - 22:00 at 21°C
 - 22:00 - 24:00 at 18°C
 - o Saturday and Sunday
 - 00:00 - 07:00 at 18°C
 - 07:00 - 22:30 at 21°C
 - 22:00 - 24:00 at 18°C



Factory Reset

Factory reset allows you to reset the heater back to its factory default settings.

To Reset, turn ON the heater via the switch at the right side of the heater while holding down the clock buttons at the same time. Four horizontal blinking segments will appear in the display to confirm reset complete, at this point you can release the clock buttons.

Factory defaults:

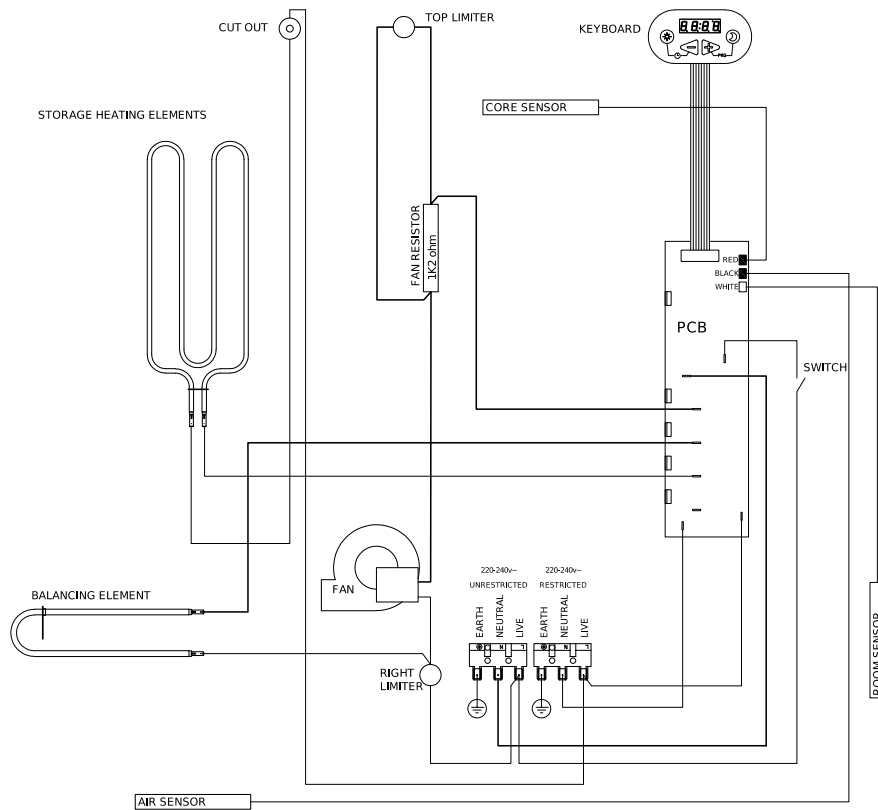
Sun	: Comfort Temperature	: 21°C
Moon	: Economic Temperature	: 18°C
ST	: Initial % of storage charge	: 80
P01	: Start time of off peak period 1	: 00:00
P02	: End time of off peak period 1	: 07:00
P03	: Start time of off peak period 2	: 00:00
P04	: End time of off peak period 2	: 00:00
P05	: Ambient sensor offset $\pm 5^{\circ}\text{C}$: 0.0
P06	: Max. working hours of balancing element	: 5
P07	: Over temperature protection $^{\circ}\text{C}$: 2
P08	: Display temp. Centigrade or Fahrenheit	: $^{\circ}\text{C}$
Open	: Open window detection option	: Off
AuHr	: Automatic winter / summer time	: On
Prog	: Weekly temperatures program	: Pr01

Weekly programs (Pr01 and Pr02) resets to their default programming stated in **General Setting** section.

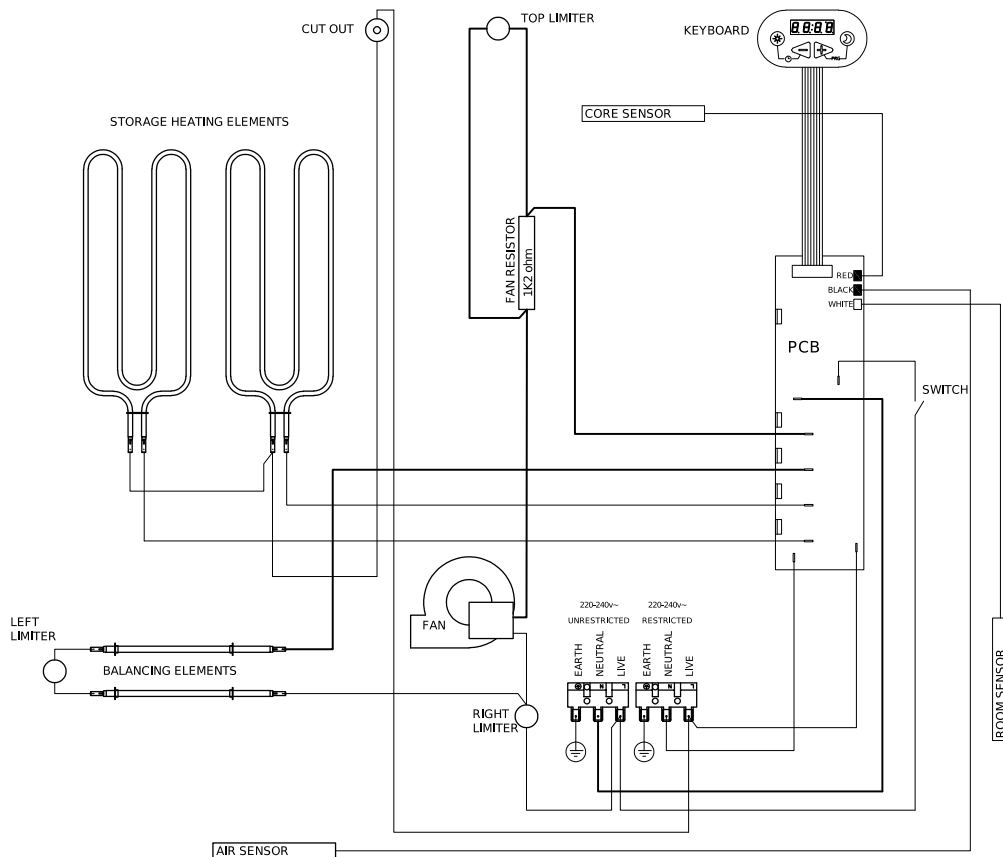
Trouble shooting

HHR does not heat	Please check it is connected and switched on. Make sure the heater has not been covered or the air vent at the bottom of the heater has not been obstructed. In these cases the safety cut-out may of tripped and may need resetting. Please contact technical support.
HHR does not reach set up temperature	Make sure that adequate temperature is selected. Shelves above the heater and obstacles in front of the heater can affect the output. Make sure the heater is sized correctly for the room.
ERR1 is displayed	Ambient temperature sensor is picking up an error. Please contact technical support.
ERR2 is displayed	Air outlet(grille) temperature sensor is picking up an error. Please contact technical support.
ERR3 is displayed	Core temperature sensor is picking up an error. Please contact technical support.
Keyboard does not respond	If display shows [- -] when pressing a key then the child lock is activated. To unlock Press the + and - buttons (normally for about three seconds) or until [- -] disappears.

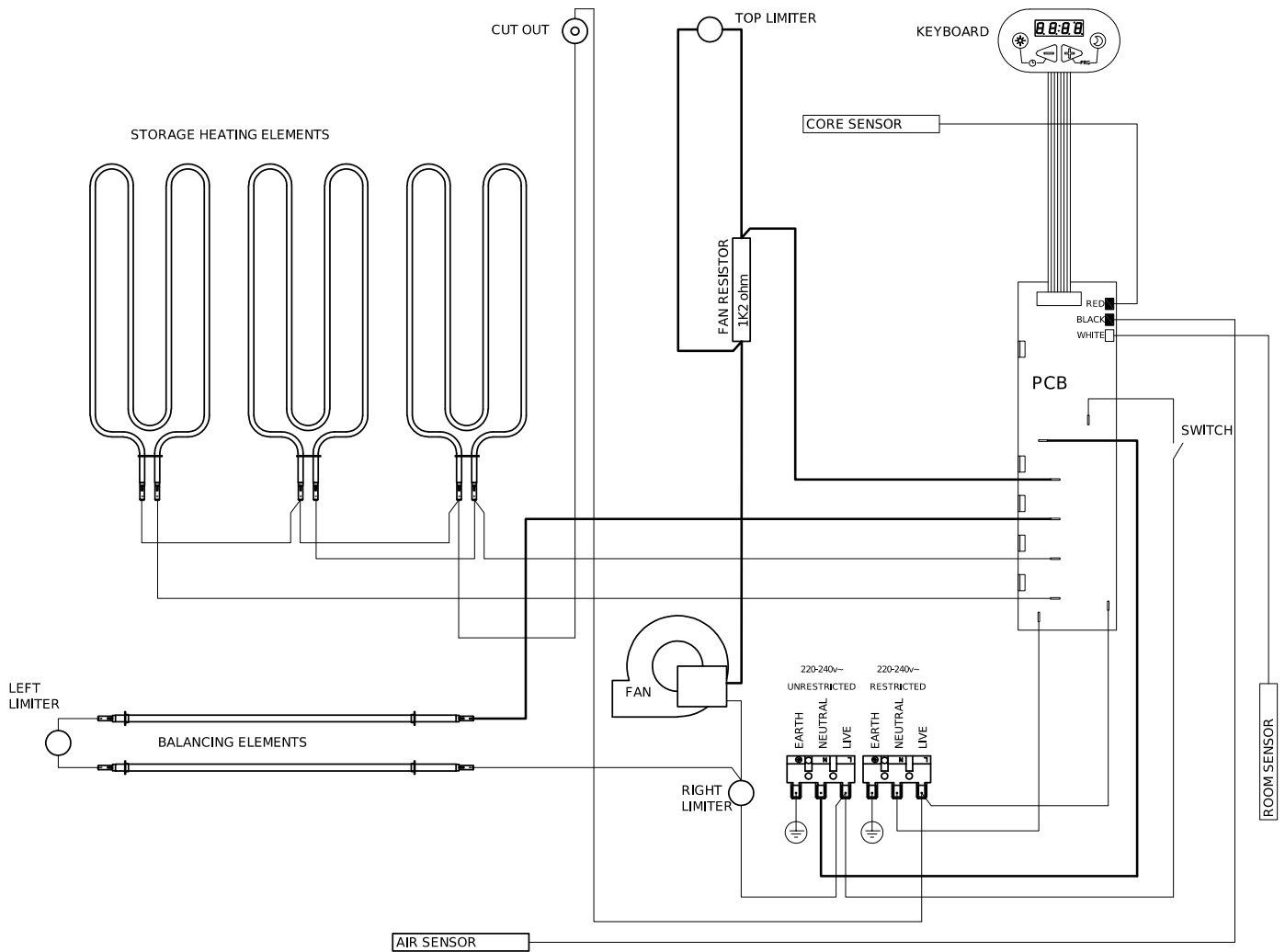
Connection Diagram – ECOHHR10



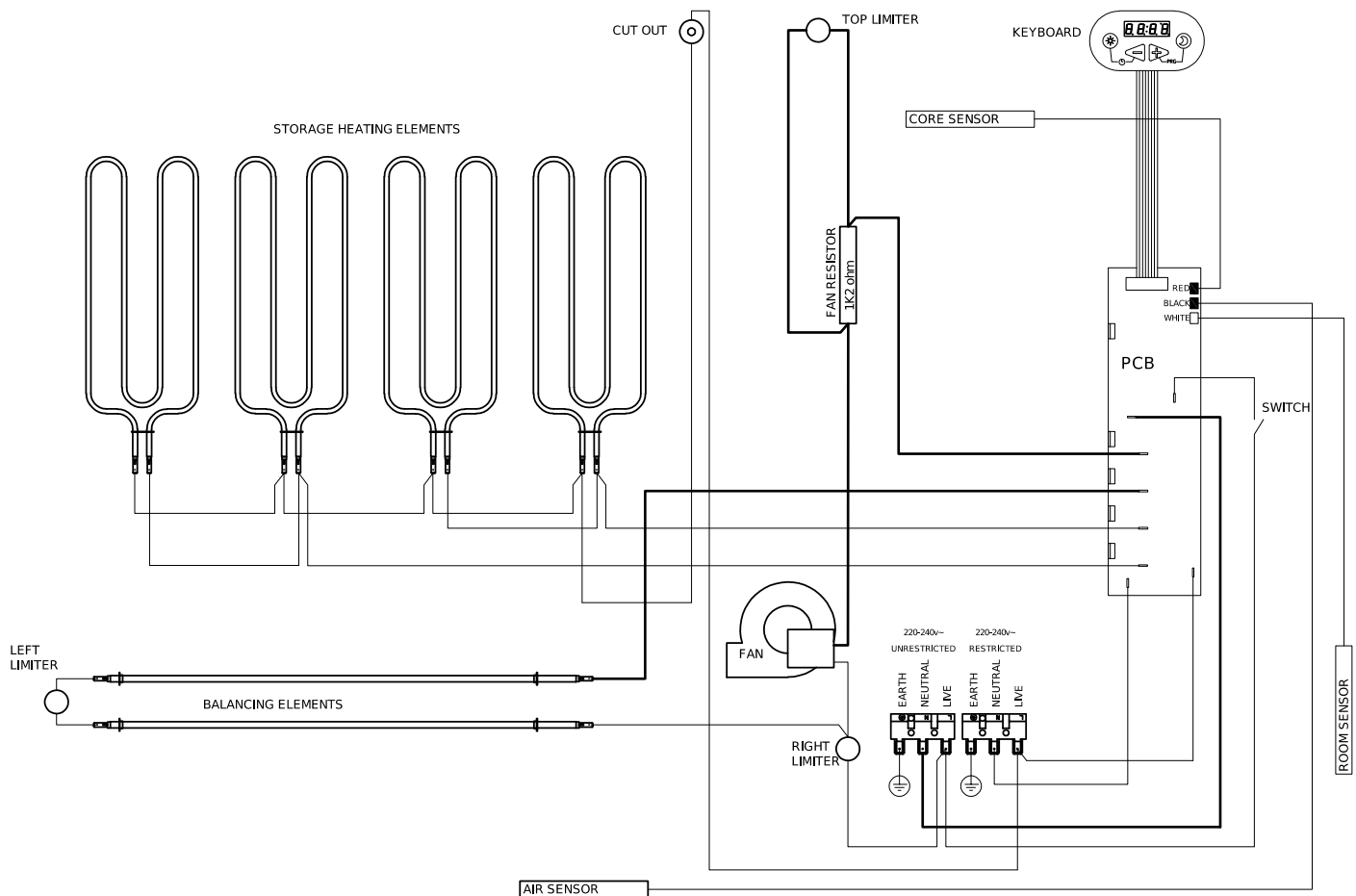
Connection Diagram – ECOHHR20



Connection Diagram – ECOHHR30



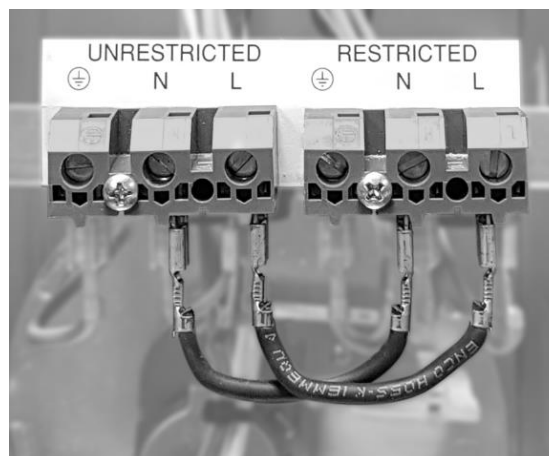
Connection Diagram – ECOHHR40



Single Power Supply Connection

The Elnur ECOHHR is capable of utilising a single economy/24hr supply by using the supplied link cables:

1. Use the 2 black link cables provided in the plastic bag to jumper the Lines and Neutrals of the Restricted and Unrestricted side of the connection block in the storage heater.



2. Connect the 24 hours/economy supply feed to the restricted or unrestricted side in the connection block of the heater.

Note: Modification to the distribution board may be required if supplied via radial circuits. Connection from the economy/24hr supply to the heater should be via a 20Amp double pole isolator switch. (Radial circuits).

Product Fiche

ErP

MODEL(S): GABARRON ECOHHR10, ECOHHR20, ECOHHR30, ECOHHR40

Item	Symbol	Value				Unit
		ECOHHR10	ECOHHR20	ECOHHR30	ECOHHR40	
Heat Output						
Nominal heat output	P _{nom}	0.4	0.8	1.2	1.6	kW
Minimum heat output	P _{min}	N.A.	N.A.	N.A.	N.A.	kW
Maximum continuous heat output	P _{max,c}	0.4	0.8	1.2	1.6	kW
Auxiliary electricity consumption						
At nominal heat output	e _{lmax}	0.000	0.000	0.000	0.000	kW
At minimum heat output	e _{lmin}	0.000	0.000	0.000	0.000	kW
In standby mode	e _{lsb}	<0.0005	<0.0005	<0.0005	<0.0005	kW

Item	Value. All models
Type of heat input	
Electronic heat charge control with room and/or outdoor temperature feedback	Yes
Type of heat output / room temperature control	
Electronic room temperature control plus week timer	Yes
Other control options	
Room temperature control, with open window detection	Yes
With distance control option	No
With adaptive start control	No

Contact details	ELNUR, S.A. Travesía de Villa Esther, 11 28110 – Algete (Madrid), Spain
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Commission Regulation (UE) 2015/1188 of 28 April 2015. Ecodesign requirements for electric storage local space heaters.



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



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.



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