


USER'S GUIDE

CLIMASTAR
silicium technology



SILICIUM HYBRID ECO

INDEX

| | |
|---|-----------|
| 1.-INTRODUCTION..... | 4 |
| 2.-GENERAL INFORMATION | 4 |
| 2.1.- GENERAL WARNINGS..... | 4 |
| 2.2.- SECURITY WARNINGS..... | 4 |
| 2.3.- MANUFACTURER’S WARNINGS | 5 |
| 3.-BEFORE CONNECTING THE DEVICE | 5 |
| 4.-WALL SUPPORT | 6 |
| 5.-HYDRAULIC CONNECTION | 8 |
| 5.1.- PIPE CONNECTION | 8 |
| 5.2.- FITTINGS..... | 9 |
| 5.3.- CONNECTING THE HEATING ELEMENT | 10 |
| 5.4.- AIR VENTING | 10 |
| 6.-SETTING UP..... | 11 |
| 6.1 STARTING THE DEVICE..... | 11 |
| 6.2 WARM MODE  | 12 |
| 6.4 FREE COOLING MODE..... | 14 |
| 6.5 BLOCK THE DEVICE | 15 |
| 6.6 SWITCH OFF THE LIGHTS..... | 15 |
| 7.-USING RECOMMENDATIONS..... | 15 |
| 8.-MAINTANENCE | 15 |
| 9.-TECHNICAL DETAILS | 16 |
| 10.-FAQs | 17 |
| 11.-GUARANTEE | 18 |

1.-INTRODUCTION

Congratulations on your purchase of your SILICIUM HYBRID ECO device!!

The product you have just purchased has undergone numerous tests and inspections to guarantee the highest quality.

We hope it will give you entire satisfaction.

Our heating system does pleasantly and rapidly regulate the temperature of the air of the room, using natural convection, boosted convection and radiation to get the highest comfort as fast as possible.

Also due to the fact that CLIMASTAR units use Dual Kherr® as an accumulator and also as a radiating element, you will obtain the perfect balance between thermal inertia and temperature management, avoiding sudden temperature changes typical of other units when disconnected.

Our units have been designed and manufactured according to the following standards: EN60335-1, EN60335-2-40, UNE-EN 442, UNE-EN 1397 and UNE-EN ISO 3741:1999(*)1/LE990

This unit combines all the features shown in this user guide.

We feel really pleased by all the confidence shown by you, and expect it satisfies all your needs.

2.-GENERAL INFORMATION

2.1.- GENERAL WARNINGS

- This unit must only be used for heating purposes.
- Correct sizing and insulation of the room guarantees that the device correctly regulates the temperature inside it for your full satisfaction.
- The manufacturer is on its right to modify the product and its corresponding technical information with no obligation to any third party.
- The manufacturer will not be responsible for any damage derived from incorrect installation or manipulation caused by the non-observation of this user guide.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they are given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- The installation on the final customer's household must agree the Electro Technical Low Voltage Regulation.

2.2.- SECURITY WARNINGS

- Do not cover the device with any cloth, curtains, furniture or other combustible material. Note: The device shows a warning sticker indicating that it must not be covered. This sticker can be removed whenever the final user decides to.
- Do not dry clothes with the device.
- Please do not cover the grids on the upper part of the unit to ensure a correct functioning.

- The device should be kept in an environment clean of dust or any kind of dirt. This will avoid spots or stains from appearing on the walls behind the unit. Our units do not have any combustible element inside and the appearance of spots is consequence of environmental reasons.
- Might there be any failure or damage on the connection wire, a qualified electrician, the technical service or the manufacturer should be the ones to replace it (3x1,5 mm²).
- The plug should only be connected in the proper same technical conditions socket.

2.3.- MANUFACTURER'S WARNINGS

Any manipulation on the device for reparation or maintenance must be done by the corresponding Technical Assistance Service or by a qualified electrician always keeping the device properly unplugged and using original spare parts (the manufacturer will not be responsible for the deterioration of the radiator when the damage is produced by the use of non- original spare parts).

The following data must be supplied to refer any communication related to the acquired heating device:

- Invoice number
- Dealer
- Serial Number (the heating system's characteristics plate is located on the side of the device. The plate holds the serial number and the technical characteristics of the system).
- Purchasing date.
- Detailed information of the malfunctioning.

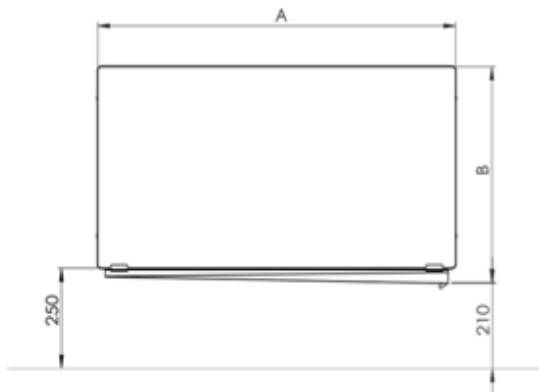
Before contacting the technical service or your distributor, please take a look at section "10-FAQs".

3.-BEFORE CONNECTING THE DEVICE

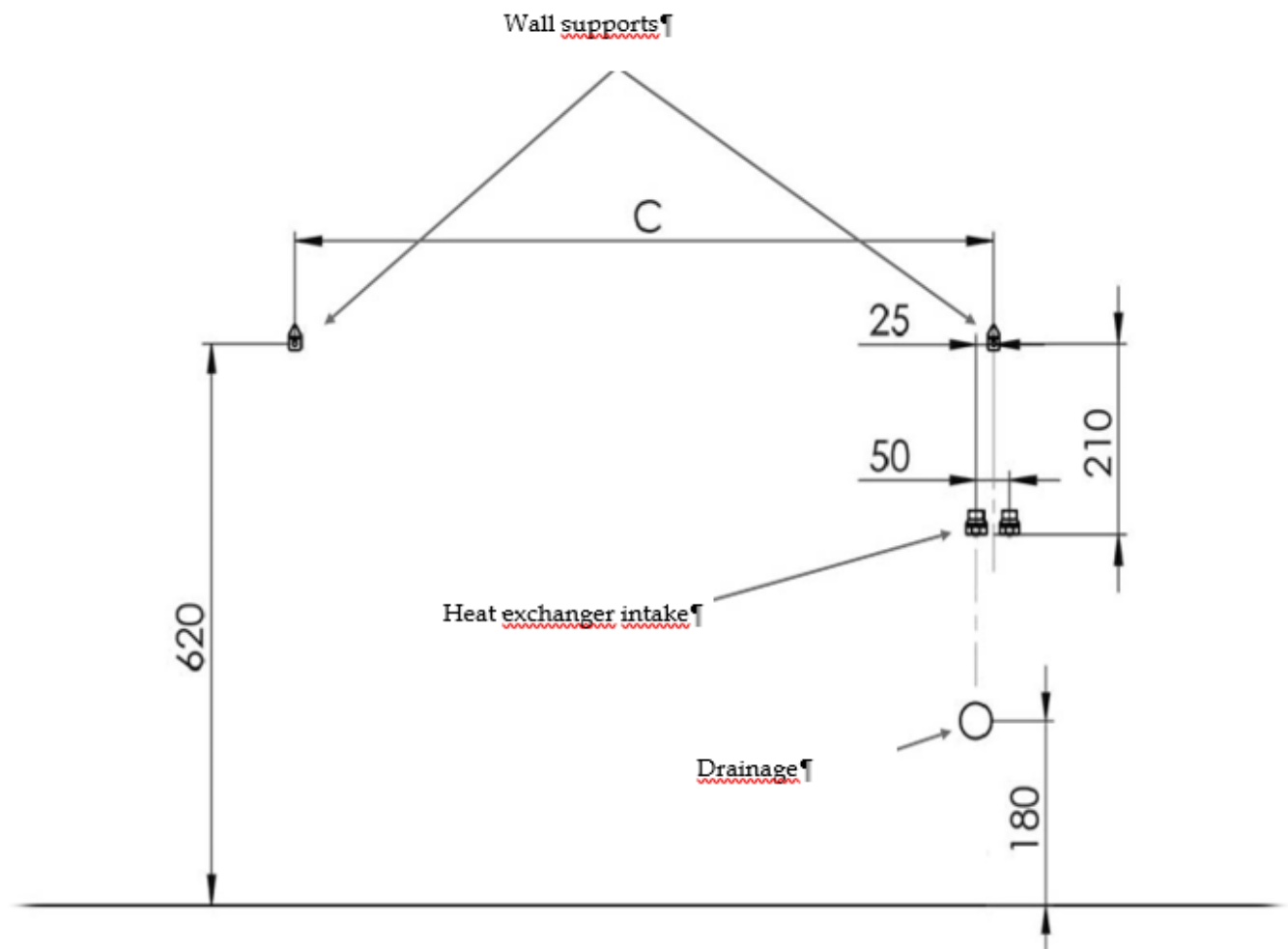
- Make sure the supply voltage corresponds to the one indicated on the rating plate (located on the left side of the device). The electrical power is supplied through the plug with the power cord.
- Check that the device's or other connection wires are not in contact with the device's surface.
- The devices in all their configurations are fitted with a expelling valve installed on the heat exchanger
- Once the device is installed the circuit should be purged using the mentioned valve.
- Treat the water in order to maintain a PH between 5 and 8.
- All the devices have been tested for leaks with a pressure of 20 bar. The maximum working pressure should not exceed 10bar.
- The device features female ½" fittings.

4.-WALL SUPPORT

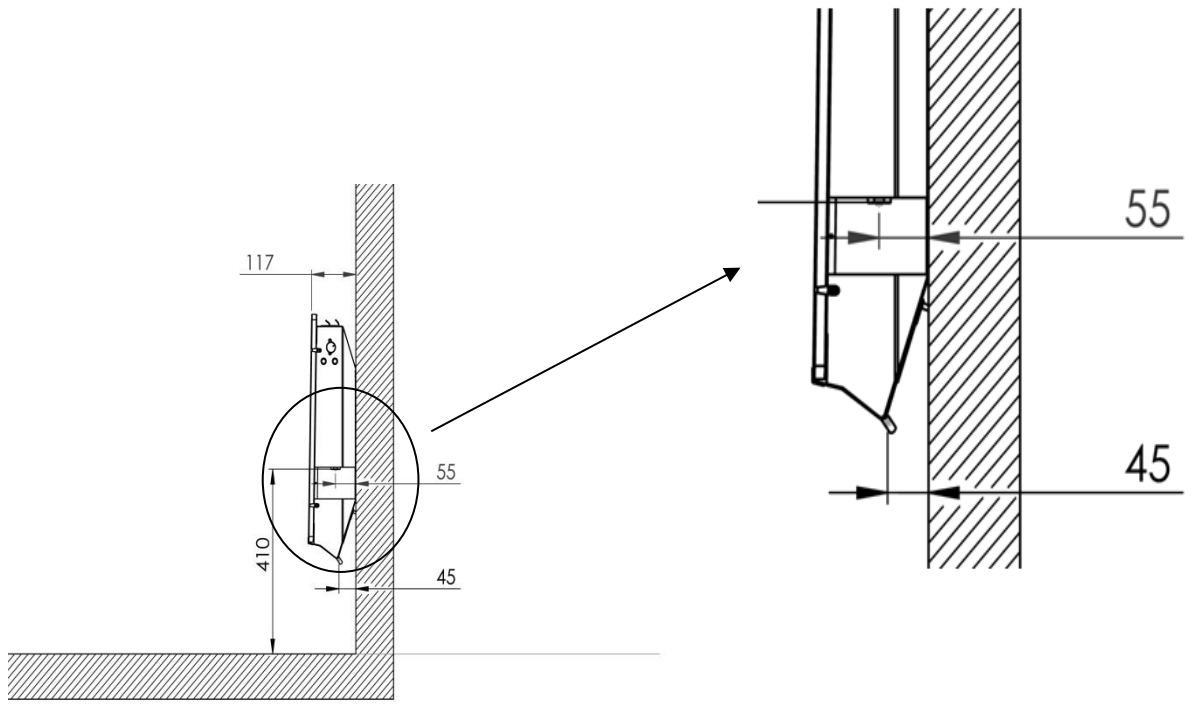
- The device is supplied with an assembly kit that includes: 2 rawlplugs, 2 screws, 2 wall anchors and 2 insulating profiles.
- Wall anchors supplied in the assembly kit are not valid for plasterboard walls. These types of walls require specific rawlplugs.



| | Hybrid 500 x 500 | Hybrid 1000 x 500 |
|---|------------------|-------------------|
| A | 500 | 1000 |
| B | 540 | 540 |
| C | 440 | 870 |



- When placing the device on the wall, check the following pictures (dimensions expressed in mm)



Before hanging the device, in order to avoid vibrations, locate the insulating tape in the back of the device as shown below:



5.-HYDRAULIC CONNECTION

To connect the unit to the mains, first remove the front of the unit. Use a screwdriver to loosen the 2 support screws and withdraw the Dual Kherr.

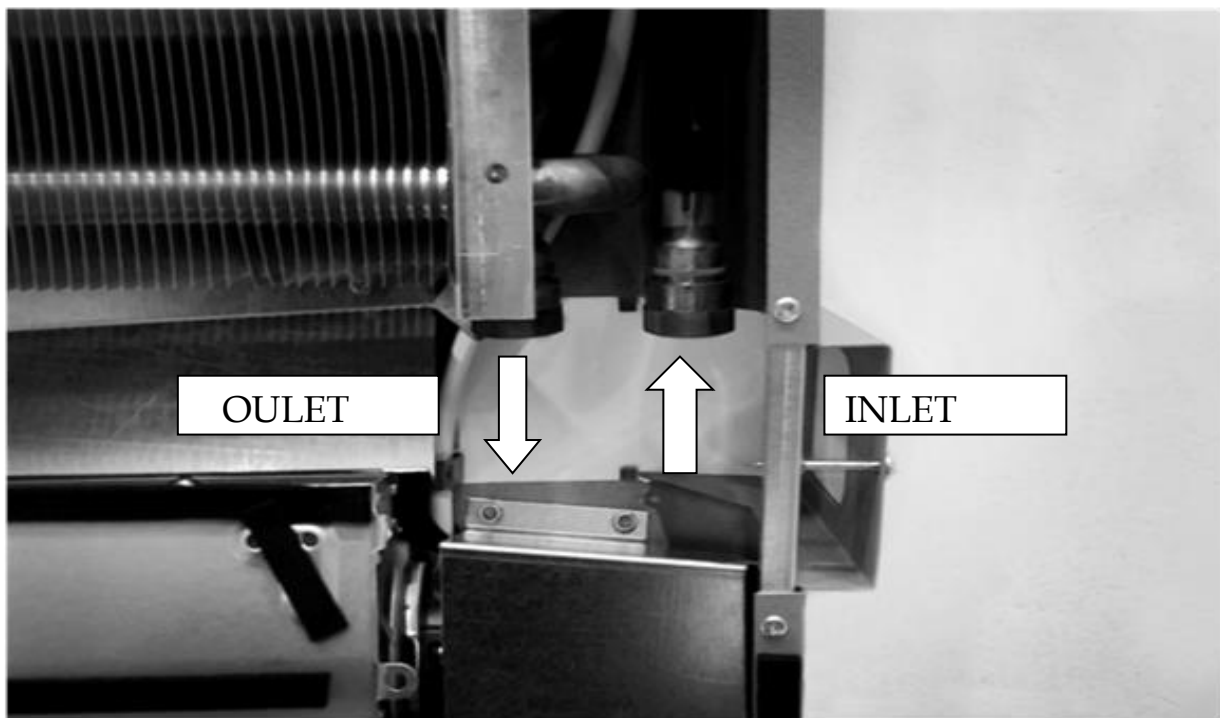


CONNECTION



5.1.-
PIPE

The following picture shows the inlet and return of the water.



Inlet intake is closer to the side of the device, being identified by a red cable tie; outlet intake is the inner intake identified by a blue cable tie

5.2.- FITTINGS

Find below fittings to perform the installation:

Option A

Triaxial valve, lockshield and the corresponding union pieces.



If you use this option, cut the sticker on the right side of the device to facilitate the valve extraction.

Option B

Triaxial valve, lockshield, corresponding union pieces and thermostatic valve.



If you use this option, cut the sticker on the right side of the device to facilitate the extraction of the thermostatic valve.

Option C

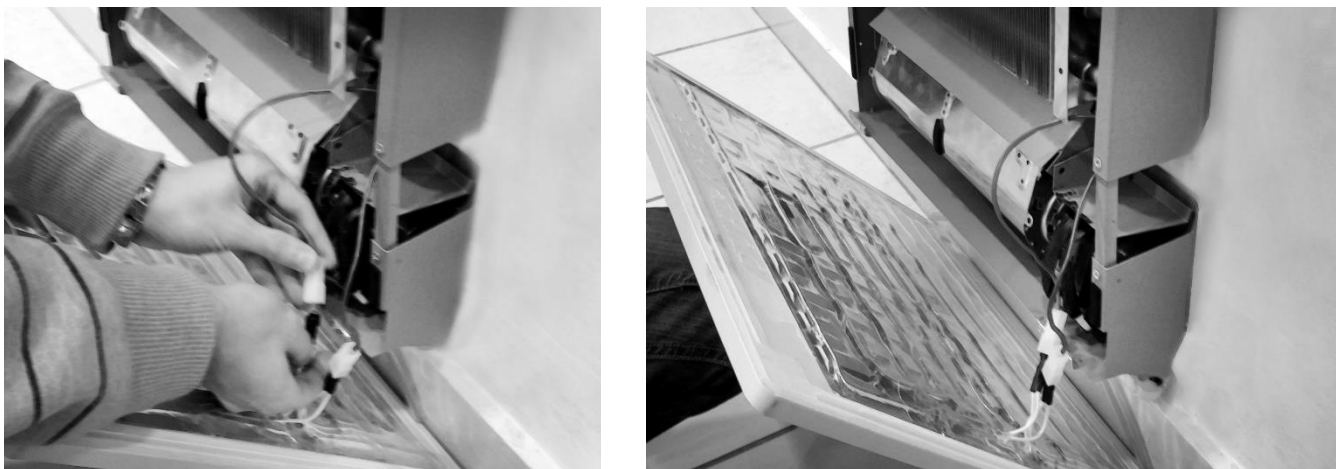
H valve and the corresponding union pieces.



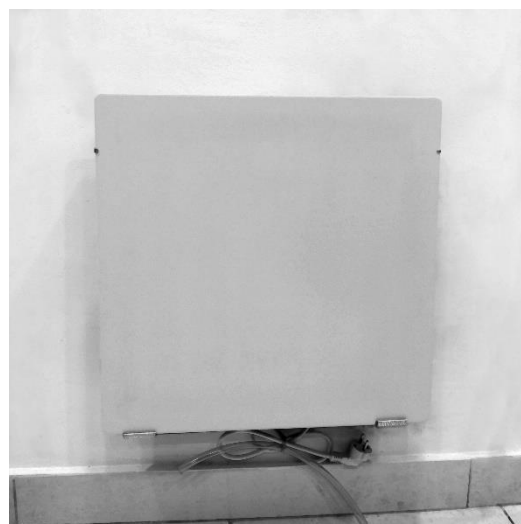
Once the hydraulic installation is performed, place the Dual Kherr of the unit again.

5.3 CONNECTING THE HEATING ELEMENT

Once the hydraulic connections have been performed, connect the heating element as shown below:



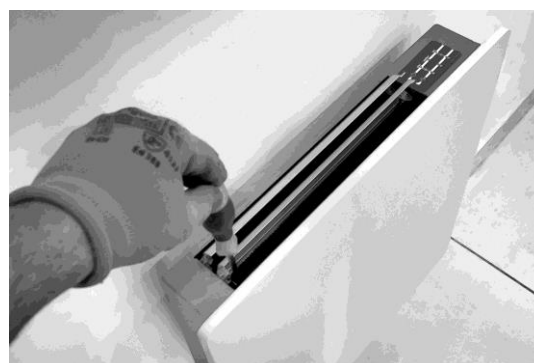
Replace the Dual Kherr and place the wall anchors.



5.4.- AIR VENTING

Once the unit is installed, we should air vent the internal air the unit may have. To do so, insert a flat screwdriver into the slats until you find the air vent valve of the heat exchanger; loosen the valve slightly to let out air. Once water starts to pour down the drain, tighten again the screw of the heat exchange.

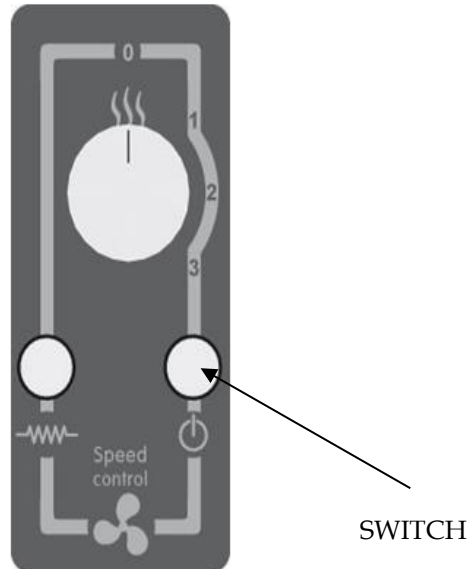
It is recommended to bleed the device at the beginning of each heating season; and on draining or filling the heating circuit.




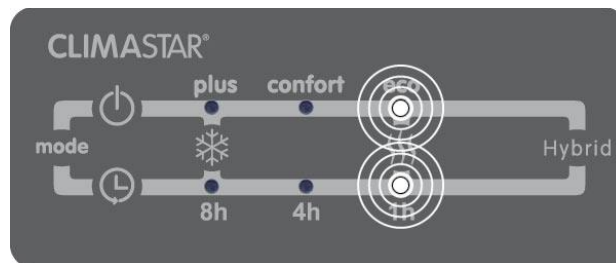
6.-SETTING UP

6.1 STARTING THE DEVICE

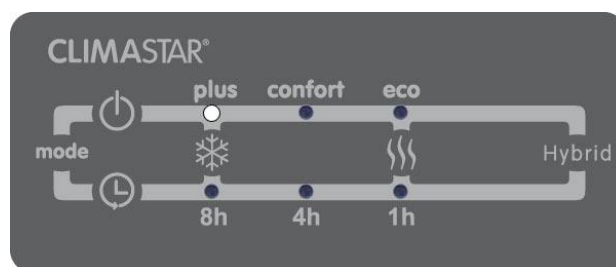
First, plug in the power cord to a mains power outlet, and click the switch on the right.



Press  to turn on the device. First time we start the device, test mode starts -light PLUS and 8 h. flash 3 times simultaneously-.







Afterwards, display PLUS remains lit and the fan starts to work if speed 1, 2 or 3 is set.

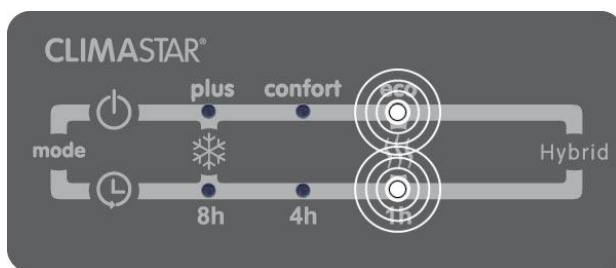


6.2 WARM MODE ❄️

The user selects this mode in winter. This mode enables or disables the fan, only when the boiler is working. To do so, the unit is provided with a probe that measures the temperature of the heating circuit and stops the fan when water is below 32°C.

How can we know if the winter mode is set?

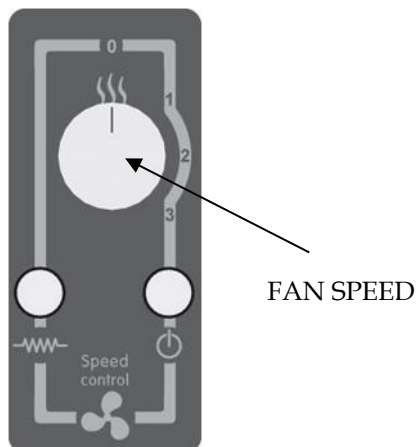
Press  and  simultaneously during 2 seconds; display ECO ❄️ and 1h will lit; if not, press  and  during 2 seconds. If displays “plus❄️ 8h” are lit, the unit is in test mode.



Once warm mode is verified and set, adjustment must be made. To adjust, do as follows:

1- Select the fan speed:


- 0 ❄️- the unit will work by natural convection.
- 1.- air speed coming out at 3km/h. Ultra silent
- 2.- air speed coming out at 5km/h. Silent
- 3.- air speed coming out at 8km/h. Booster mode.

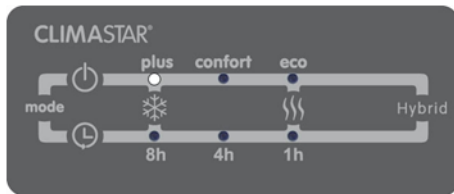


2.- Select one of the following options:

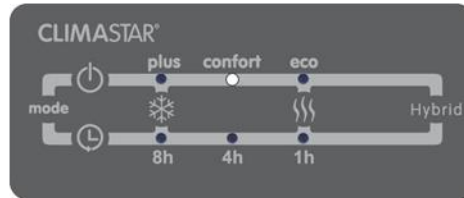
- PLUS. The fan works continuously (whenever the boiler is working)
- COMFORT. The fan works until room temperature is above 22°C; it will start again once temperature decreases one degree. The unit will work by natural convection whenever the boiler is working.

- ECO. The fan works until room temperature is above 20°C; it will start again once temperature decreases one degree. The unit will work by natural convection whenever the boiler is working.

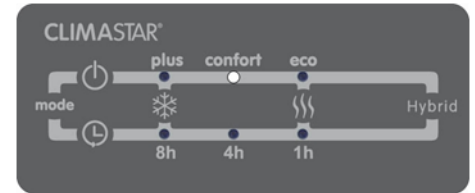
Press  to select any option below, corresponding light will activate.



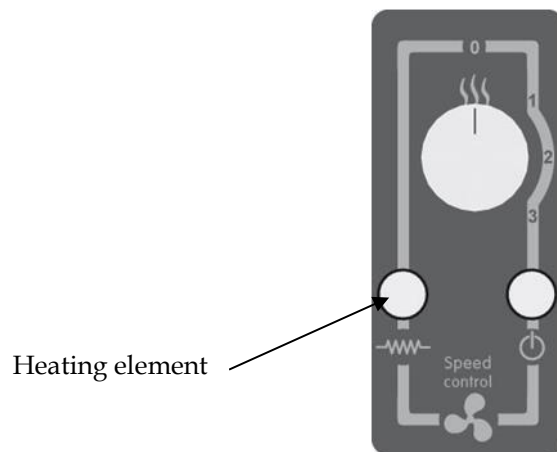
PLUS



CONFORT





3- Should you need extra heat, press the switch corresponding to the heating element:



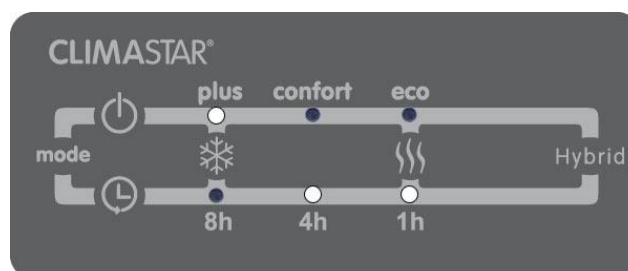
6.3 TIMER MODE

Timer ON → OFF The fan works as per the function selected (plus, confort or eco) during the time the user sets.

Being the device on, press  to select the function desired.

Press  to select the operating time. By pressing  repeatedly, operating hours or a combination of operating hours will be selected.


E.g. the user is at home for 5 hours; he wants the unit disconnects in 5 hours.






The device is set PLUS during 5 hours.

Press  repeatedly to deactivate the timer mode; the lights of the hours will turn off.

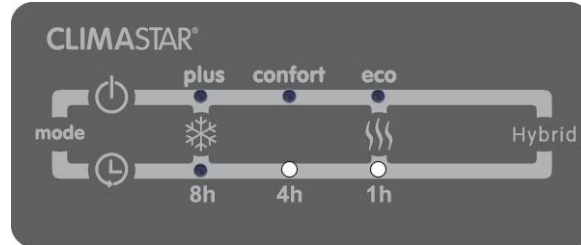
Timer OFF → ON. The fan stops working during the time the user selects.

Press  to select the mode -plus, eco or confort- we want to set when the device starts again.



Press  during 2 seconds to set OFF mode.

Press  to select the time we want the device to be disconnected. Press  repeatedly to select the hours or combination of hours the device will be disconnected.

E.g. the user returns in 5 hours; he wants the unit starts in 5 hours.




The device will be disconnected during 5 hours


Press  repeatedly to deactivate the timer mode; the lights of the hours will turn off. Press  to start the device.

6.4 FREE COOLING MODE

This mode will activate only the fan in different speeds to be used in summer as ventilation unit.

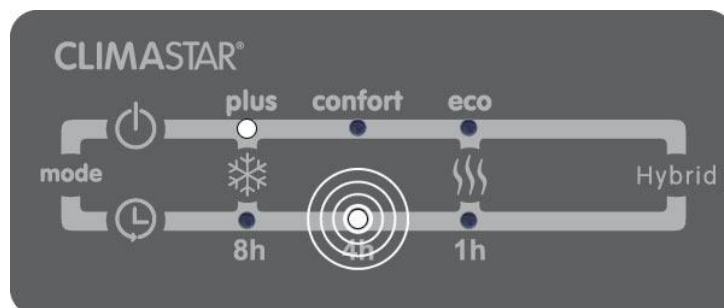
PRESS  to select the fan settings.

Press  to select the operating cycle. By pressing it repeatedly, programmed hours or a combination of programmed hours will be selected.

To select the replay mode, press  for a few seconds, time lights start to flash, replay mode is activated.



Programming time starts as soon as it is set.

E.g



Press  once to deactivate the replay mode.

6.5 BLOCK THE DEVICE

This function enables to block the controls. To set this function, press  and  simultaneously during 5 seconds. Lights will be off in 10 minutes- To unblock, do the same.

6.6 SWITCH OFF THE LED'S.

If you do not want the LED's keep on, use the block option above.

7.-RECOMMENDATIONS OF USE

- Do not cover the air exits. Avoid covering the grids.
- Keep the floor clean to avoid stains on the wall.
- At the beginning of the year's heating season, the inner parts of the radiator should be vacuumed because dust can be accumulated
- Do not set the radiator below any ventilation grid or close to a source that can generate air currents.
- Install the radiator so that nothing can oppose the generated air circulation (furniture, curtains...) to avoid a loss in the temperature control and in the system's performance.
- Do not install the system in wall hollows to avoid, as indicated in the previous section, a loss of temperature control and performance.
- Improve, if possible, your household's window isolation to avoid energetic wastes and losses which result in unneeded energetic consumes (draught excluders, air outlets, double isolation glass...)
- The DUAL KHERR can be cleaned either with a moistened cloth, with alcohol, or with any domestic washing product. Thanks to its hardness it does not deteriorate (EN 99 and EN 202 regulations). Sunshine does not deteriorate the system. (EN 51094 regulation).
- The back cover can be washed with a moistened cloth.

8.-MAINTENANCE

Heat Exchanger

Keep clean the passage between the fins to avoid dust accumulation. Should there be dust, blow or vacuum to keep it clean.

On starting the unit, check there is no air in the heat exchanger.

Insert the flat screwdriver into the slats until you find the bleed valve of the heat exchanger; loosen the bleed valve slightly to let out air. Once water starts to pour down the drain, screw on again the screw of the heat exchange.

9.-TECHNICAL DETAILS

| | | |
|---------------------------------|--|---------------------|
| Description: | HYBRID 500 x 500 | |
| Measures: | 500 x 500 x 118(mm) | |
| Dry weight: | 20 Kg | |
| Volume of water: | 0,8L | |
| Description | HYBRID 1000 x 500 | |
| Measures: | 1000 x 500 x 118(mm) | |
| Dry weight: | 30 Kg | |
| Volume of water: | 1,6L | |
| Voltage: | 230 V | |
| Frequency: | 50 Hz | |
| Ceramic element: | DUAL KHERR | |
| Convection box: | Rear box in Carbon Steel painted 1mm thick | |
| Plug: | Bipolar plug 10-16 ^a /250VAC | |
| SH fan: | Single Impeller 40W | |
| LR Fun: | Double Impeller 40W | |
| Support Resistance 500 X 500 | 200 W | |
| Support Resistance 500 X 1000 | 400 W | |
| Heat Exchanger connections: | ½" | |
| Diameter pipe heat exchanger: | 5/8" | |
| Maximum service pressure: | 10bar | |
| Maximum test pressure: | 22bar | |
| Maximum water flow rate: | 306 m ³ /h | |
| Max. allowed inlet temperature: | 90°C | |
| Total Exchange area: | 500 x 500 | 1,78 m ² |
| | 1000 x 500 | 3,56 m ² |
| ENVIRONMENT THERMOSTAT | | |
| Characteristics: | Works between 18° and 26°C | |
| TYPE OF PROTECTION | | |
| Class: | I | |
| IP: | 20 | |

| | | NATURAL | | Booster | |
|---------------------|------|-----------|------------|-----------|------------|
| Warming | | 500 x 500 | 1000 x 500 | 500 x 500 | 1000 x 500 |
| Potencia ΔT=50° | W | 588 | 1018 | 1603 | 3190 |
| | Kcal | 507 | 878 | 1382 | 2750 |
| Cooling | | 500 x 500 | 1000 x 500 | 500 x 500 | 1000 x 500 |
| Power (Tin7/Tout12) | | 174 | 396 | 116 | 1566 |

Heat output: Thermal Gap, environment temperature 20°C

Cooling power: air inlet 7°, outlet temperature 12°, environment temperature 27 °C

10.-FAQs

| PROBLEM | PROBABLE CAUSE | SOLUTION |
|------------------------------|---|---|
| The device does not heat up | Incorrect setting of the set temperature | Check the set temperature on the display to verify it is the desired temperature. |
| | Improper sizing | The power is not the adequate for the place where it has been installed |
| | Equipment placement is not correct | Avoid placing the device near areas of movement of air (windows, doors,...) and/or places that make difficult heat transfer. An immediate solution is to increase the set temperature to correct the error in temperature setting and reading |
| | Air trapped in the heat exchanger | Bleed the heat exchanger |
| | No water flow | Check the boiler or the heat pump. |
| | Bad sizing of the boiler or the heat pump | Check the boiler or the heat pump. |
| | Input and output grids are obstructed | Do not place anything on top of the radiator and do not install it inside a hole made in the septum |
| The device does not work | Control panel switch and protection down | Check that the automatic control is down. If it is down put it up. |
| | | Make sure the installation is correct and that there are independent lines for the heating systems with a 2,5mm ² cable gauge and a maximum power of 3500w |
| | Switch is off | Press the switch. |
| | A different programme is loaded. | Check or load again the programme you desire. |
| The radiator stains the wall | Device located at a very low height | Minimum height from the floor to the device's lower part must be at least 25cm. |
| | Dust accumulation in the lower grid | Vacuum it. The vacuuming should be done at the beginning of each heating season. |
| | Type of painting on the wall | Paints with a high content in rutile are likely to darken |
| The fan does not work | Fan speed is zero | Select other fan speed |
| | Winter mode, the boiler is not working | Start the boiler |

11.-GUARANTEE

CLIMASTAR guarantees that in the moment of its purchase the product is free of any defect in the materials and in the work force (limited guarantee). CLIMASTAR offers a commercial and voluntary guarantee; conditions included are similar to those of the legal guarantee, being CLIMASTAR responsible for the non-conformities arisen in the terms and conditions mentioned below. Moreover, CLIMASTAR offers a total warranty of 2 years in the spare parts.

- CLIMASTAR is responsible for the non-conformities arisen within the 6 months following the date of sale. If the non-conformity arises after those 6 months, the user shall prove that the non-conformity already existed when delivered. The user must inform CLIMASTAR of said non-conformity in a period inferior to two months.
- To obtain the service under the terms of this warranty it is important to detail the device's purchasing date because the warranty period starts with the purchase invoice of the system customer. However, in no case this warranty will be liable for defects that may arise after thirty-six months from the manufacture date.
- This warranty is strictly limited to the repairing in the factory of the manufacturing defect part or parts of the device, or to the complete replacement of the system when, in the opinion of the manufacturer, it is not possible or is uneconomical. This does not include any other type of expenditure as an installation, assembly, disassembly or transport.
- This warranty does not cover defects and / or malfunction caused by accidents, misuse, negligence, wears, breakage, an incorrect installation and poor electricity supply to the system. This warranty is also excluded if it is used with another purpose other than heating, for an alteration, modification, tampering or unauthorized repairing of the product, and by other different causes beyond the manufacturer's reach after the delivery of the product.
- The warranty does not cover the costs and expenses incurred to access the device or installation, such as in hidden locations, heights, non-practicable ceilings.. Neither does it include the costs derived from removing or replacing any structural element to access the device or the installation.
- No heating system will be returned to CLIMASTAR without a previous codified and official MERCHANDISE RETURN AUTHORIZATION. CLIMASTAR assumes no liability for any device that is returned without the previously mentioned MERCHANDISE RETURN AUTHORIZATION.
- CLIMASTAR and/or its agents have the right to decide whether to replace the system or to repair the damaged components. None of these options will extend the original warranty period.
- Any reparation must be done by the Technical Service and authorized by the manufacturer and/or any of its agents; any manipulation done by unauthorized personal will void this warranty. In case of substitution of the device the buyer must go to the selling centre which will be in charge of receiving the system.
- RESPONSIBILITY LIMITATION: CLIMASTAR as a manufacturer is not responsible for any personal or material damage that directly or indirectly might result of a non proper installation, from an improper handling or neither for the lack of technical qualified staff, nor for the installation costs which are expressly excluded from this warranty.
- None of the present conditions may be extended or modified without the express consent of CLIMASTAR.

CLIMASTAR

silicium technology

CLIMASTAR GLOBAL COMPANY S.L.

Carretera AS-266 OVIEDO-PORCEYO/ Km.7 Pruvia

33192 - Llanera (Asturias)- SPAIN

Telf: 985 66 80 80 / Fax: 985 264 751

www.climastar.es



CARDBOARD PACKAGING CAN BE RECYCLED



DO NOT PLACE THE ELECTRICAL ITEM IN
THE GENERAL WASTE (IT SHOULD BE TAKEN
TO A LOCAL RECYCLING CENTRE).