



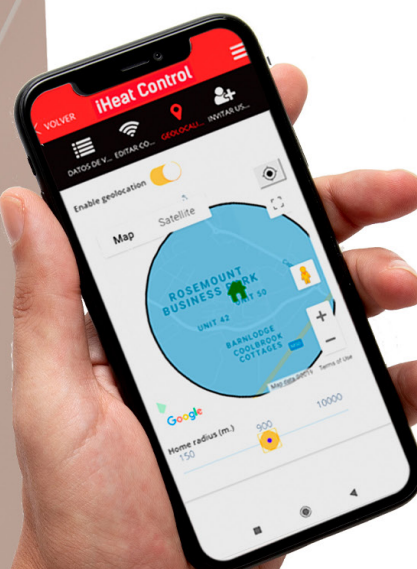
HIGH HEAT RETENTION STORAGE HEATER

INSTALLATION MANUAL AND INSTRUCTIONS FOR USE

Smart charging
WiFi control
TFT display



ThermaStore **HHR**
By **Electrorad**



ACU006113V01

A. PRESENTATION

First of all, thank you for purchasing our products. Before proceeding with its installation, please read all the instructions and recommendations detailed in this instruction manual, as the manufacturer will not be responsible for any breakdown or damage caused by non-compliance. Once the storage heater is installed, keep this manual in a safe place so that it can be consulted at any time.

B. RECYCLING

Warnings for the correct disposal of the product according to the European Directive 2012/19 / EU. At the end of its useful life, the product must not be disposed of together with municipal waste. It can be delivered to specific differentiated collection centers arranged by the municipal administrations or to distributors that provide this service. Disposing of an electrical appliance separately means avoiding possible negative consequences for the environment and health derived from improper disposal and allows recycling of the materials that compose it, thus obtaining significant savings in energy and resources. To underline the obligation to collaborate with a separate collection, the product is marked with a warning not to use traditional containers for disposal. For more information, contact your local authority or the store where you purchased it for disposal.



C. IMPORTANT SAFETY NOTES

The placement of the heating appliance must be chosen correctly and must be carried out according the rules.

The equipment must be kept away from all flammable objects .

Children must not be left near the heater without being supervised.

Children under 3 years of age should be kept out of the reach of the appliance unless they are continuously supervised.

Children from 3 years old and under 8 years old should only turn the appliance on / off provided that it has been placed and installed in its intended normal operating position and that they are supervised or have received instructions regarding the use of the appliance in a safe and secure manner.

Children from 3 years old and under 8 years old should not plug in, regulate and clean or carry out maintenance operations.

This appliance can be used by children 8 years of age and older and by persons with reduced physical, sensory or mental capabilities, if they have been given appropriate supervision or training regarding the safe use of the appliance and understand the dangers involved.

Children should be supervised to ensure that they do not play with the appliance.

Cleaning and maintenance to be carried out by the user should not be carried out by children without supervision.

Caution: some parts of this product can become very hot and cause burns. Particular attention should be paid when children and vulnerable people are present.

In no case should the equipment be covered by clothing, a container or any other object, nor should it be placed under a closet or any other obstacle that prevents the circulation of hot air.

WARNING:

To avoid overheating, DO NOT COVER the heater.



The heating appliance should not be placed immediately under a socket outlet.

Avoid using extension cords as these can cause overheating and cause a fire hazard. However, in the case of using an extension cord, the cable must have a section 1.5mm² / 16 AWG minimum size and that support a power not less than 2600w in the case of powers up to 2600w, and section 2.5mm² / 14 AWG of minimum size and that supports a minimum power of 3400w for powers from 2600w.

This appliance is intended to be permanently connected. The power supply circuit of the equipment must incorporate an omnipolar cut-off switch with a contact separation of at least 3 mm.

The connection cables of the heater itself must not come into contact with the surface of the appliance, and in the event that they can come into contact, they must be protected with an insulating cover that has an adequate temperature level.

The equipment must not be installed in places where there is a risk of splashing water, such as bathtubs, sinks, etc. The equipment must be installed in such a way that the switches, thermostat, power socket, cannot be directly or indirectly touched by a person in the bathtub or shower (adhere the prohibited distances according to REBT).

If the power cable is damaged, it can only be replaced by an authorised person, in order to avoid risks. If during the installation and assembly of the appliance, a part of the thermal insulation or resistance shows damage or deterioration that impairs the safety of the appliance, it must be replaced by an identical part.

Before carrying out any operation inside the appliance, do not forget to disconnect the power supply.

Contact with the core temperature probe can cause an electrical hazard. The probe cannot be manipulated, moved or touched.

Never open the appliance while it is charged.

The presence in the environment of tobacco smoke or suspended particles, atmospheric pollution, etc., could darken the wall surfaces near the storage heater

Always observe the safety measures when placing the heater on the wall.

The electrical installation must have a switch with fuses or magnetothermic protection. Likewise, a differential protection against ground faults is advisable. The voltage and frequency values of the power supply must be the same as those indicated on the nameplate.

It is possible that the radiator could create slight noises at the beginning of its operation, it is something normal due to expansions and contractions. As the days go by, this noise disappears.

After the appliance has been reinstalled in another location, it should be put into operation for the first charging period under the control of the installer.

Given the weight of the heater with the bricks, it must be taken into account that both the wall and the supporting floor have sufficient strength, in case of doubt consult your technician. To maintain stability, it is essential that the heater is located on a level surface and care must be taken to avoid uneven surfaces, such as those that can result from carpets or tiled surfaces that partially bulge under the heater.

D. INSTALLATION

BEFORE INSTALLATION

The installation and start-up of this appliance is very simple, however, you must read very carefully all the instructions and recommendations that are detailed in this instruction manual, since the manufacturer will not be responsible for damage caused by non-compliance.

Once the appliance has been unpacked, the packaging remains must be removed responsibly since all the elements have been designed for recycling. If, once unpacked, you detect apparent damage to the appliance, you should consult your supplier before proceeding with the installation and electrical connection within a period of less than 24 hours.

Assembly and installation must be carried out following the instructions detailed in this manual. The equipment does not need special maintenance. To clean, use a soft, dry cloth, only when the battery is disconnected and cold. Do not use solvents or abrasive products..

VERY IMPORTANT!

- Read the installation manual before mounting the equipment.
- Read the user manual to handle the equipment.
- Observe the warnings carefully.
- Install the equipment in a place where air can circulate.
- It is advisable that it be assembled by qualified personnel.



ELECTRIC CONNECTION

- In the electrical connection of the appliance, an isolation method must be incorporated into the fixed installation in accordance with the installation regulations in force in the country where it is to be installed.
- For safety before proceeding with the connection, verify that there is no voltage in the network.
- Before connecting the appliance to the electrical network, make sure that the supply voltage is that indicated on the 230V rating plate.
- The device must be connected to the protective conductor of the fixed installation.
- Any incident derived from non-compliance with these instructions will invalidate the guarantee.
- When connecting, the electrical diagram must be strictly respected, with special attention to the colors of the cables.

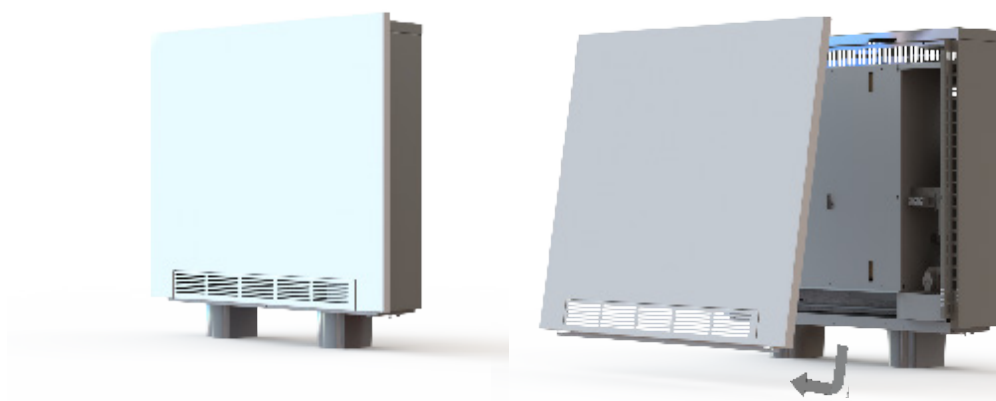
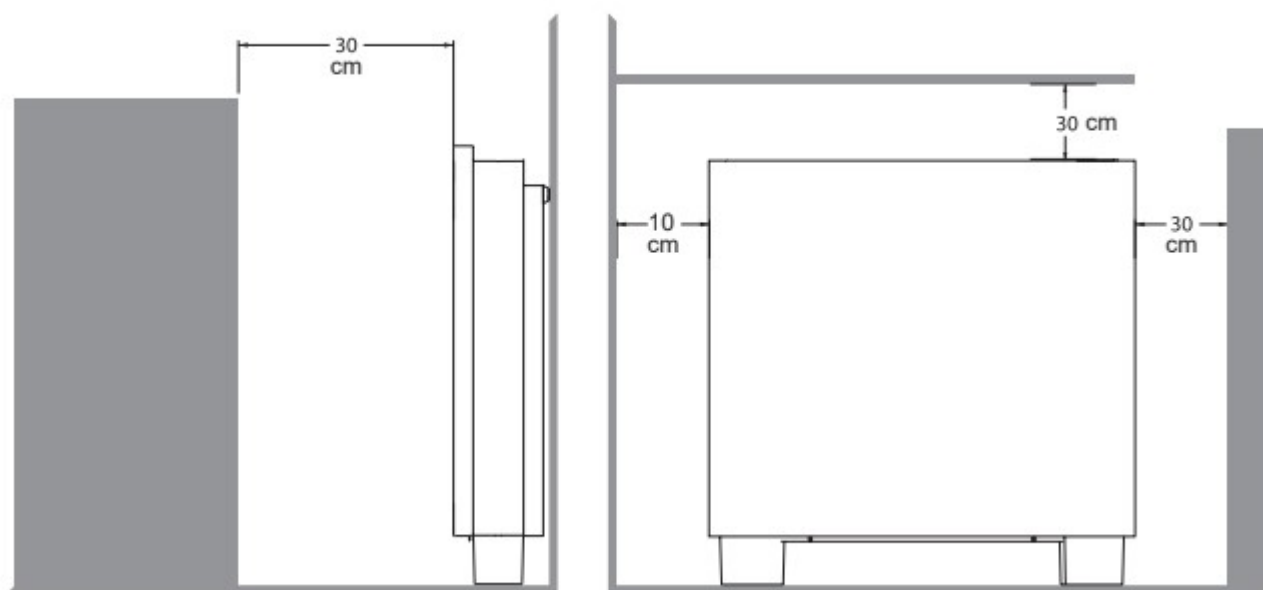
WARRANTY

The company offers a technical guarantee according to current legislation in each country. For this guarantee to be valid, you must present the original of the invoice, delivery note or purchase receipt.

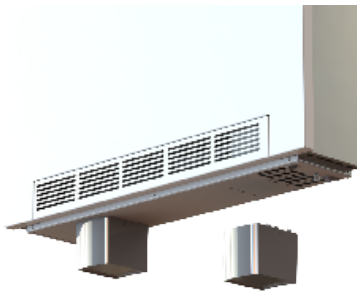
- The warranty only covers manufacturing defects or any problems caused by such defects.
- All problems arising from installation or insufficient power (insufficient power to heat the room, incorrect installation, etc.) are not covered by this warranty.
- This radiator is for home use, installation in any other environment is not guaranteed.
- The manufacturer reserves the right to decide whether to repair any defective part or replace all equipment.
- All costs resulting from damage caused by improper use, transportation, improper power supply, are not covered by this warranty.
- If the appliance is not installed or positioned as indicated in this manual, the responsible company will not be liable for possible damages caused by its misuse.
- Any tampering will invalidate the warranty.
- In the last case of resorting to the legislation, both parties will be under the jurisdiction of the courts of the province of the manufacturer.

ASSEMBLY INSTRUCTIONS

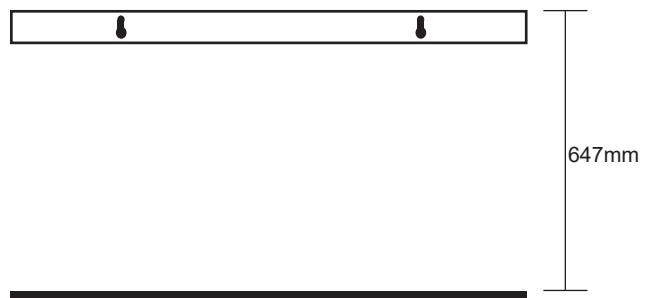
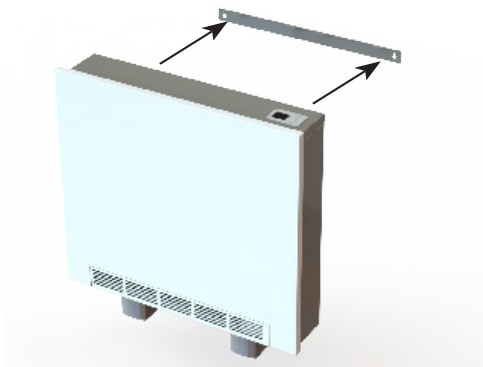
- For ease of handling, the DS brick and kit are supplied separately.
- The support bases are inside the core of the accumulator.
- The installation of this appliance must be carried out by an authorized installer in accordance with the official regulations in force in each country.
- It is forbidden to place the appliance in places where explosive gases are emitted or with the presence of flammable products.
- Keep a minimum distance from combustible materials, especially doors, furniture, curtains, clothing, etc. at least 30cm from the front and sides and at least 10cm from the wall (non-combustible).
- Remove the lower screws and remove the front panel by pushing it upwards carefully.



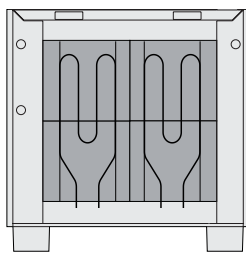
- Once the front panel is removed, the heater core will be visible. When you remove the core cover, you will find the support bases and the wall mounting kit.
- Begin by placing the support system. This is done without the need for screws, by inserting the tabs all the way into the corresponding slots ensuring that the fastening is well done.
- Remove the wall support piece from the equipment (it is pre-assembled with 2 screws at the back) and present it in its final location at the height defined in the graphic. With a pencil mark through the holes provided these points will help us to fix the device to the wall.



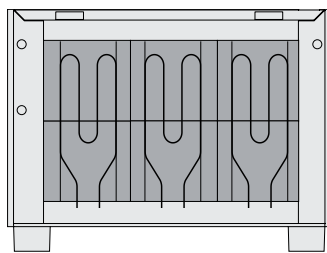
- Before fixing it to the wall, we must pass the hoses through the most suitable hole.
- Remove the anchor and proceed to make the holes to fix the heater to the wall. Once done, place the support on the wall.



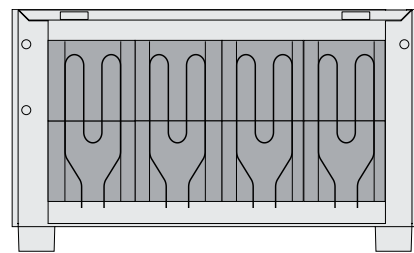
- Position the equipment and screw the wall support piece back to the equipment.



1650



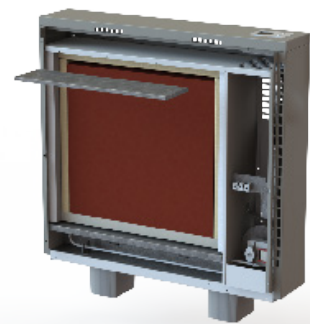
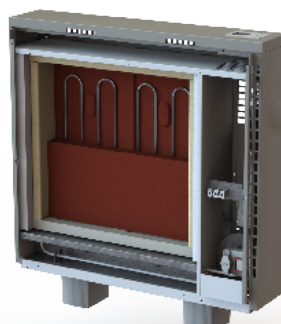
2550



3400

CHARGING THE STORAGE HEATER BLOCKS

- With the appliance already in place and attached to the wall, remove the core cover with extreme care so as not to damage the insulation or the heating elements.
- Place the blocks inside the core according to the following distribution:



- Tilt the resistors forward to facilitate the placement of the blocks with the smooth side on the back. Once the placement of the blocks is finished, return the heating elements to their vertical position.
- Then place the blocks in front, with the smooth side forward and the notched side toward the resistor, until the entire gap is completed and install the third row of blocks with the smooth side forward.
- Remove the protective plastics from the upper tray and place it on the bricks with the gap facing down without preventing air from flowing and reinstall the front panel of the core.

ELECTRIC CONNECTION

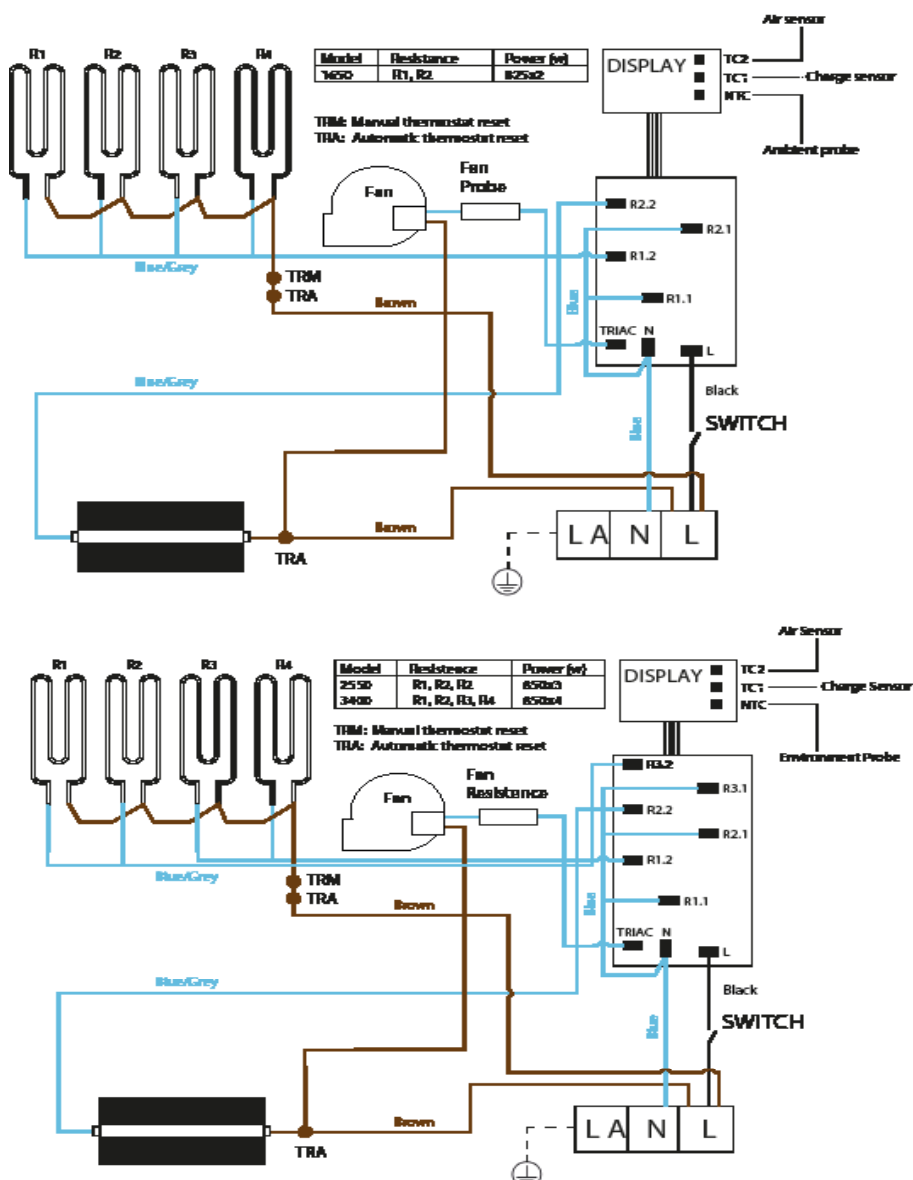
The electrical installation must always be carried out by an authorized installer according to the current regulations of the supplying Electric Company. To carry out any repair or revision of the appliance, disconnect it electrically from the mains before opening it.

For its connection, the device has a terminal strip in the lower right area.

Once the assembly is finished and before repositioning the extracted parts, we must carry out the following checks:

- Check the level of electrical insulation between power terminals and ground. The insulation resistance must be 0.2 MOhm, under a minimum voltage of 500 V.
- Measure the value of the resistances and the continuity of the circuits.
- With the device connected, measure the consumption, voltage and intensity according to the values indicated in the table of technical characteristics included in this manual.

ELECTRIC SCHEME

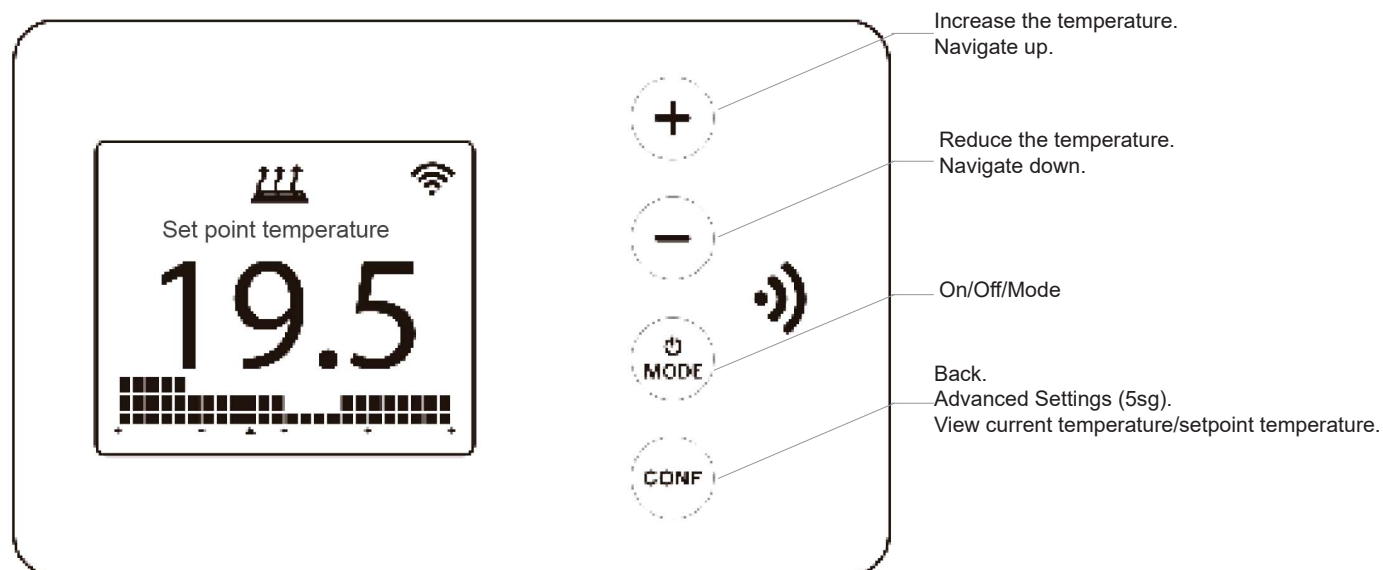






E. TECHNICAL CHARACTERISTICS

Accumulation power (W)	Nominal Charger 7h (kWh)	Emission power (W)	Bricks	Measures (mm)	Weight (Kg)
1650	11,55	625	12	715x743x180	93,5
2550	17,85	950	18	925x743x180	130,0
3400	23,80	1275	24	1035x743x180	170,0

Temperature accuracy	+/- 0,1°C
Temperature setting range - Comfort - Economic - timer - Anti ice	5 ° C to 30 ° C step every 0.5 ° C 5 ° C to 30 ° C step every 0.5 ° C 5 ° C to 30 ° C step every 0.5 ° C 5 ° C to 30 ° C step every 0.5 ° C
Supply voltage	230 Vac +/- 10% 50Hz

F. USE OF THE STORAGE HEATER



	Active fan
	Active support resistance
	Multilink linked equipment
	Active core resistance

Operating modes

The equipment is started / turned off pressing the ON/MODE button and has 3 modes of operation;

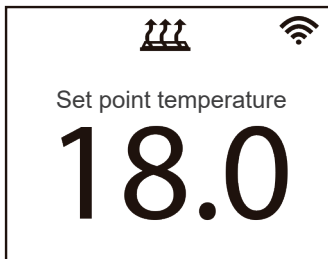
OFF mode

In OFF mode, the device is practically off, does not charge and does not heat up.



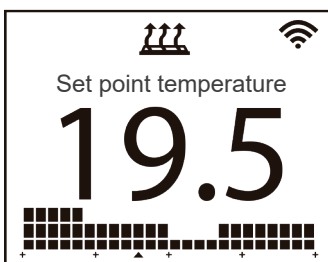
Easy Mode (Fixed Temperature)

In this mode, the device is set to a fixed temperature setting (18°C).



Weekly programming mode

In this mode, the device follows a temperature program. It consists of 3 temperature values (anti-frost, eco, comfort) that can be adjusted every hour or every half hour.



After starting the device, a start screen appears, which can be the Weekly Programming or the Easy Programming screen, **only one of the two modes can be active.**

You can choose which mode to use in the advanced settings, for this;

- Press the CONF button for approximately 5 seconds.
- With the +/- buttons scroll through the different options to "ADVANCED" and press ON / MODE.
- Then press ON / MODE again in "FUNC MODE", once inside you can select (again with the +/- buttons) between "FIXED TEMPERAT" (easy mode) or "WEEKLY PROGRAM". Press ON/MODE to confirm and press the CONF button to exit (press this button as many times as we want to go backwards).

- Then with the ON / MODE key, the user can switch between OFF and the selected mode.

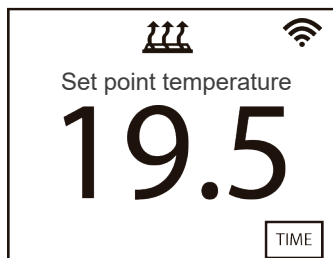
Boost function

This function is available, for temporary changes.

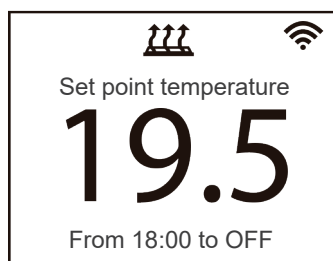
You can enter this option having configured any of the previous modes (easy mode or programming) by pressing the +/- button and selecting the temperature.

In this mode, the device will apply a temporary set temperature change for a specified time.

If the previous mode was Easy, the temporary setting can be; 0am to 5am, all day or forever.



If the previous mode was Schedule, by pressing the Config button, you can define the time for which the change is applied. **The temporary setting** is selected with the key +/- y **it can be: 0 am to 5 am or all day.** Accept with ON / MODE.



To return to the previous mode, press the ON/MODE button.

Keyboard lock

When this function is active, the keys do not work. To activate it, press the + and - buttons for 5s. Do the same to disable it.









Device configuration

To configure the device settings, press the CONF button for 5s. To navigate through the menu, press the +/- buttons. Select with the ON / Mode button, return with the CONF button.

Temperature setting

In this menu you can define the Comfort, Eco and Antifreeze temperatures. The default values are 21°C, 18°C and 5°C. Each temperature can be defined from 5°C to 30°C, taking into account that Comfort > Eco > Anti frost, that is, Eco can be set -0.5° than Comfort and Antifrost -0.5° than Eco.

This menu is only available if the weekly programming mode is active.

SETTINGS			
TEMPERATURES			
TIME AND DATE			
PROGRAM			
ADVANCED			
TEMPERATURE			
 CONFORT	 CONFORT	 ECO	 ANTI FROST
 ECO	21.0	18.0	5.0
 ANTI FROST			

Time and date settings (If the equipment is without electrical connection, it is saved for approximately two years)

In this menu you can define the time, date, time format (12h / 24h). For it;

- Enter the parameter that we want to define with the MODE key.
- Press the same key again until the selection flashes.
- Adjust with +/-.
- Confirm with MODE.

TIME AND DATE	TIME	DATE
TIME	22:55	dd.mm.aaaa
DATE		22:55.2019
FORMAT	TIME FORMAT	DATE FORMAT
TIME FORMAT	24 h ✓	dd.mm.aaaa ✓
DATE FORMAT	12 h (am/pm)	mm.dd.aaaa

Program (Programming in case of power outage, not lost)

In this menu you can define the program schedule;

- Select the day with +/- and confirm with ON / MODE.
- Choose between Edit or Copy (with the +/- buttons) and confirm with ON/MODE.
- If Edit is chosen, move through the hours with +/- and change the temperature with ON / MODE (press 3 times for Comfort mode, 3 bars, press 2 times for Eco mode, 2 bars, or press once for Antifrost mode, 1 bar). When the temperature is defined in one hour, advance with +/- until the

- Confirm the changes with the CONF button. (If we want to go to another day of the week, press CONF again and scroll with +/- through the days)
- If Copy is selected, navigate through the days to which you want to copy the current day with the +/- keys and select with ON / MODE. Confirm with the CONF button.

An incorrect setting of the time or a wrong programming can cause a high cost in the electricity bill.

- Device Type: Choose between fixed temperature (easy mode only) or weekly programming.
Default Weekly schedule.
- Frost protection; The frost protection activates the backup heater when the ambient temperature is below 3°C. If this parameter is active, it works even in OFF mode.
- Resolution Prog; In this parameter you can define whether the scheduling is done every hour or every half hour.
- Charge configuration:

- OFF: disabled (default).
- PEAK ONLY: available only in the accumulation discharge interval.

In this submenu you can define the charging intervals for the period and the days when charging is active. You can select up to two different periods with a 10 min resolution defined by the start and end time. For loading days, you can select your preferred days of the week (all by default). The charging periods do not change in the event of a time change.

* Example of charging period configuration in the 7h model.

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3. *Balancing (Disabled, single, load, doble load)*

4. *Smart charge*

Enabled (default) / Disabled.

5.. *Target charge*

It is only configured if the previous one is deactivated.

6. *Current charge*

Current charge level information.

- Units; You can choose between °C and °F. By default °C.
- Display; In this mode you can configure:
 - On time: how long the backlight is active after pressing a button. **10s by default**
 - Brightness On: Brightness level (25%, 50%, 75%, 100%) when the backlight is enabled.
Default 100%
 - Brightness off: brightness level (OFF, 3%, 10%, 20%) when the backlight is off.
Default OFF
 - Style: can be white background (default), black background, and color.

SCREEN	TIME ON	ACTIVE BRIGHTNESS	INACTIVE BRIGHTNESS	STYLE
TIME ON	10 s ✓	100% ✓	OFF ✓	LIGHT (B/W) ✓
BRIGHTNESS ON	20 s	75%	3%	DARK
BRIGHTNESS OFF	30 s	50%	10%	COLOR
STYLE	Always	25%	20%	

- Beep; Enable or disable the beep when pressing the buttons. **The default value is disabled.**
- Control type; Defines the control mode for the support resistance. The available values are:
 - PID 15 min (default)
 - PID 30 min
 - Hysteresis 0.25°C
 - Hysteresis 0.35°C
 - Hysteresis 0.5°C
 - Hysteresis 0.75°C
- Open window; Activate or deactivate the open windows function. If enabled, disconnects the load and the backup heater if the ambient temperature drops 1.2°C or more in 10 min. Reconnect the load and charge if after disconnection, the ambient temperature rises 0.3°C or more within 10 minutes or after the user presses any button. **The default is disabled.**
- Smart start; This function can activate the backup heater earlier than programmed to obtain the desired temperature at the programmed time. Calculate the slope of temperature rise and anticipate the start time. Maximum anticipation time 24h. **The default is disabled.**
- Offset; In this menu you can set a compensation temperature on the room temperature sensor. It can be positive or negative. In the edit screen you can see the compensation value and the corrected room temperature. **Default value: 0.0°C.**

OFFSET
OFFSET: +0.0 °C
TEMP: 22.5 °C

- Language: you can choose between English, German or Spanish.
- Parameters: caution. This section could modify the factory settings of the equipment.
- Set default: It is used to set the current configuration of the equipment (the last configuration) as default values when the equipment is reset.
- Reset: in this menu you can reset the device to configure factory parameters. **The link to the Smartbox and time/date are lost.**
- Version: You can see the info about the electronic and the device.
- Error log: you can see the history of errors that the equipment has had.

Device pairing

To pair the device with the Multilink, go to the "iheatcontrol" application and navigate to Add Device-> Storage Heater. On the device, press the ON / MODE button for 3 seconds. **You will see the**

Item	Unit
Calorific power	
Manual control of the heat load, with integrated thermostat.	yes
Manual control of heat load with response to indoor or outdoor temperature	yes
Electronic control of heat load with response to indoor or outdoor temperature	yes
Fan-assisted heating power	yes
Indoor temperature / heat output control type (select one)	
Single level heat output, no indoor temperature control no	no
Two or more manual levels, no indoor temperature control no	no
With internal temperature control by mechanical thermostat no	no
With electronic control of interior temperature no	no
Electronic indoor temperature control and daily timer no	no
Electronic interior temperature control and weekly timer yes	yes
Other control options (several can be selected)	
Indoor temperature control with presence detection	no
Interior temperature control with open window detection yes	yes
With remote control option yes	yes
With adaptive start control yes	yes
With operating time limitation yes	yes
With black lamp sensor no	no
Contact information: see back cover	

Data			Value		
Departure	Symbol	Unit	1650	2550	3400
Heating power					
Nominal heating power	P _{nom}	kW	1,650	2,550	3,400
Minimum heat output (indicative)	P _{min}	kW	N.A.	N.A.	N.A.
Maximum continuous heat output	P _{max,c}	kW	1,650	2,550	3,400
Auxiliary electricity consumption					
At nominal heat output	el _{max}	kW	1,650	2,550	3,400
At minimum heat output	el _{min}	kW	N.A.	N.A.	N.A.
In standby mode	el _{SB}	kW	0,0005	0,0005	0,0005

following screen. If the device is linked, the time is updated automatically.

TROUBLE	ACTION	SOLUTION
No load	Check that there has been a normal power supply during the night	
	Check that the electronics and switch are not in the off position.	Plug it in and regulate it according to your needs.
	Check that the circuit breakers on the power panel are connected.	Connect the corresponding switch.
	If you have a timer in the connection socket, check that it is properly programmed at night.	Schedule properly.
	You have discarded the previous points and the anomaly remains. The safety device may need to be reset.	Consult your installer or call our S.A.T.
Not hot enough	Check the temperature shown on the display is the desired one.	Increase the load to a higher position.
	Check that the windows in the room have not been left open for a long period of time.	Wait for a new charging cycle and check the behavior of the accumulator with the windows closed.
	You have discarded the previous points and the anomaly remains.	It is possible that the power of your equipment is not well dimensioned for the needs of the premises. Consult your installer or call our S.A.T.
Heat excess	Check the selected temperature.	Reduce the load to a lower level.
	You have discarded the previous points and the anomaly remains.	Consult your installer or call our S.A.T.
Stains appear on the wall *	There is construction residue, dust, etc ... in the vicinity of the accumulator.	I cleaned extensively around the equipment daily.
	You have pets	Keep them away from the environment of the appliance, especially during hair change times.
	You has wool rugs, carpets, etc. near the appliance.	Keep them as far away from the accumulator as possible.
	It may be that the paint in your home has a high epoxy content or that its composition contains pigments that degrade with heat.	This situation will be checked if by passing a damp cloth over the stain it does not disappear.
	You live on the lower floors of an urban building located in a busy area.	Try to keep windows closed as long as possible.
FREQUENT QUESTIONS		
Can it work only with a night rate plug?		It is designed to be powered with a single hose and a daytime plug (24 hours) to be able to calculate the necessary load in the core and its optimization in electricity consumption. Could it work on a night socket? The answer would be yes, but it would not be possible to optimize electricity consumption since it would charge continuously until it reached 100%.
What is the build-up resistor? and What is the emission resistance?		The accumulation resistance is that emitted by the core resistors and the emission resistance is that emitted by the auxiliary resistance.
Where is the switchboard connected?		It can be plugged into the router directly or into a plug (with usb adapter). The operation is as follows: the electronics are connected to the switchboard creating a network and then the electronics are connected to the Wi-Fi of the house. The usb will ask for the wifi key to access.
How do they affect and what are the temperatures in comfort, moon and antifreeze mode?		In charging mode, the comfort temperature is to stop charging once the set temperature is exceeded by two degrees and when the auxiliary heater is working, it stops when the set temperature is exceeded.
What is TRUE RADIANT for?		This is to anticipate the activation of the auxiliary resistance depending on the history of how long it takes to reach the set temperature.

* The accumulators do not have any combustible element, the appearance of stains on the wall is rare, and is always due to environmental factors, highlighting those outlined above. The combustion of these elements, dust, hair, etc. they generate the residue that is deposited on the wall..

Reminder:

To enjoy the functions of wireless wifi technology such as voice control, geo-location or real-time reading of the consumption of your equipment, you must purchase the USB multilink that is not included.

NOTES

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NOTES

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