



## Multilink and App user manual



## INTRODUCTION

To control the radiators through the Webapp or Smartphone apps, a USB Multilink is required to connect the radiators to the Internet, using the home router.

## FEATURES OF THE MULTILINK USB

- Allows you to connect up to 31 devices.
- Range of 200m exterior / 30m interior-3 walls.
- Radiators form a ring subnet in which each radiator acts as a signal repeater.
- A signal can be retransmitted up to 4 times, therefore, we obtain greater distances.
- LED status indicator.
- RF868Mhz.
- Dimensions: 70x25x10mm.
- Weight: 0.10 kg

## DOWNLOAD APP AND REGISTRATION



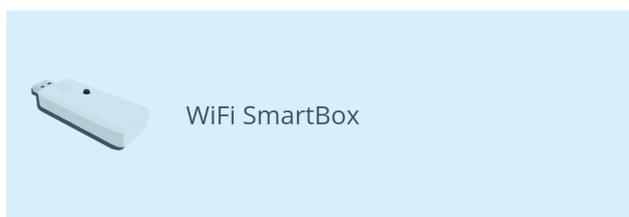
To obtain the application, enter “Play Store” (Android) or App Store (iOS) and download “iHeatControl”.

To access the application it is necessary to create an account by clicking on “new user” and covering the fields, (you may receive a confirmation email).

## ASSOCIATE RADIATORS TO THE CONTROL UNIT

The radiators must be associated with the USB equipment to be able to control them through the APP.

- To do this, in the drop-down menu, click on “Homes” and then on “+ Add a home” (the first time you don’t need to go to add a home, the APP already asks you directly to create a home).
- You will be asked for a name for the home and a time use.
- Once the data is covered and click on “Next”.
- At this time, two possible types of connection will appear on the screen, we have to select the type of switchboard we have. Click on “WiFi Smartbox” and “next”.
- The smartphone must have WiFi activated.



- Once “next” has been pressed, the wizard will ask us to connect the USB WiFi control unit. If we already had it connected, it is necessary to disconnect it and reconnect it.

It is recommended to deactivate the “WiFi assistance” option in the configuration on the phone, since it could prevent the connection to the central unit by not allowing the connection to a WiFi network without Internet access.



- Then you will have to leave the application (leaving it in the background), go to the WiFi options of your phone, select the “Smartbox\_xxx” network (network without connection) and return to the APP again.
- The application will ask you to select the network to which the PBX will connect and then enter the password for that network.
- If everything went correctly, a confirmation message will appear and the application can be used in the normal way.



Controller connected with id:

Now you can associate the desired radiator with the APP by pressing “+ Install”.

**It is important to press “Start search” before pressing the “MODE” / “OK” key for 3 seconds.**



## Install heater

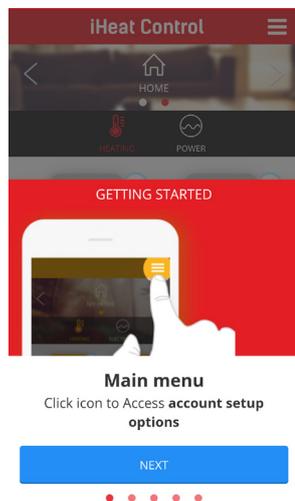
In order to link the electric heater, press the **MODE** button for **3 seconds** until the network icon shows up on the top-right corner of the screen.



## APP FUNCTIONS

The App will allow you to configure, program and access the consumption statistics of the devices through an intuitive interface and with a simple handling.

Please refer to the APP help to see how to access the main functions:



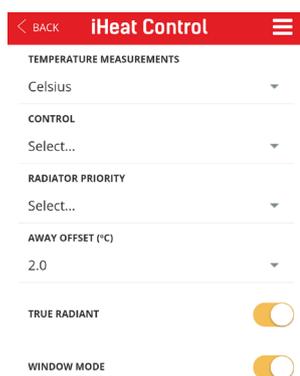
Also in certain functions of the application, such as temperature changes or programming, the help icon will show the specific parts for that particular option.

### Power rationalizer

You can set a limitation for the power consumed by the installation of the radiators (maximum power reserved for all installed radiators). To do this click on configure, uncheck the box “no power limit” and set the value to “power for all the radiators (w)” (the minimum value is 1000w). The switchboard will coordinate them to avoid exceeding the wattage limit.

If you want to establish a priority for the emitters, it can be configured within the options of each radiator (click on the radiator, then “more” and “configure”), among other options (how to change the name of the equipment, temperature unit, control, open windows ...) you can set a low, medium or high priority for the equipment.

The control unit will first turn off the lower priority radiators, unless the difference in the set temperature and the measurement temperature is considerable, in order to guarantee an adequate temperature in all areas of the home.



### Invite user



With the “Invite User” function, the heating control can be temporarily shared through the application.

To do this, access “Homes” and then select the home we want to share.

Select the option “invite user” in the top bar and then “+ Invite user”.

Enter the email of the user we want to invite. This, you will receive an email with a link that will give you access to control the heating. The guest can be removed at any time.

### Geolocation



The electric radiators will automatically start operating, adapting the room temperature according to the radius defined in the APP, adapting to the user’s daily routine.

This function detects whether you are approaching or moving away from your home, managing the room temperature accordingly and optimizing the use of energy.

#### 1. General Information

The geolocation function automatically reduces the set temperature when the user is not at home. The system does not need user intervention because it uses the GPS position of the smartphone (it must be activated for correct operation).

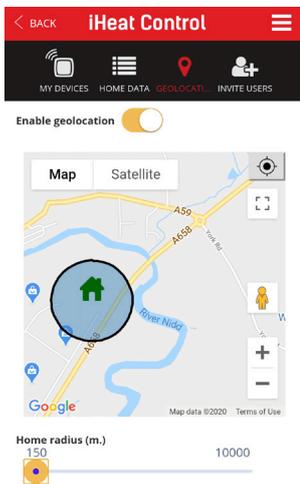
For it to work well, if there are several users in the same house, they must all have the geolocation function enabled. The range must also be the same, if someone changes it, the settings will be modified for everyone. The radius and position of the house is common.

The user can define the setting temperature reduction, as well as enable / disable it, or manually override it.

#### 2. Setting

- Go to: General settings -> Homes and select a home. Then click Geolocation.
- Enable geolocation and select the location of the house on the map and save the position.
- Select the desired radius (from 150m to 10km) in which the system will consider that it is outside the home.

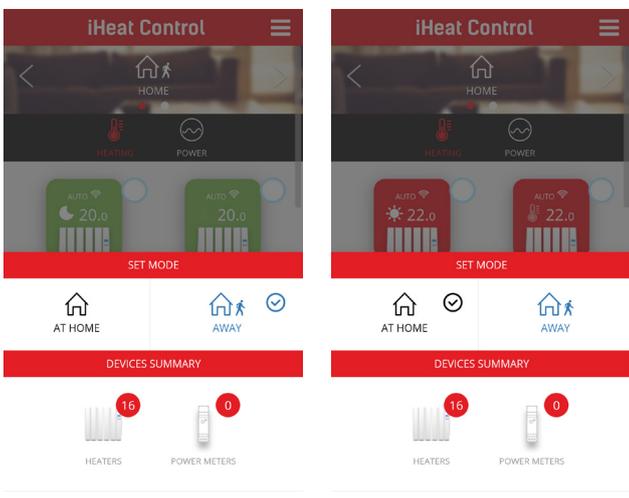
**You can modify the drop in temperature in the absence (°C).**



- To do this, enter the configuration of each emitter and select a value between 0.0 and 5.0 (2°C by default).
- The set temperature will reduce the selected temperature value if the user is not at home.

The application will show the status “At home” or “Absent” on the main screen. When the status is “absent” the “Away” mode is activated, it will display “OUT” on the device screen.

If geolocation is activated and the defined range is exceeded, the radiator will show “out” and the icon “away” will appear in the application at the top.



### 3 Manual override

There are 2 ways to manually override the system:

- Press any button on the radiator. The system understands that someone is at home and will cancel the function and revert to “At home” for 2 hours.
- Use the application by clicking on the image that shows “At home” or “Absent”.

If any button is pressed on the radiator, it will deactivate for 2 hours.

If you switch to “at home” mode in the app, the same

thing happens, it is also disabled for 2 hours. If you have performed any of the actions override options mentioned above then you will need to wait a minimum of 2 hours in order for the Geolocation feature to be available.

If you do not have geolocation activated, you can also activate the “away” mode in the APP manually (the radiator will also show “out” and will be active until you change it in the APP) by lowering the room temperature by the amount programmed in the “away offset” (the same as geolocation does). In this case, the change is permanent until it is set again “at home” in the app.

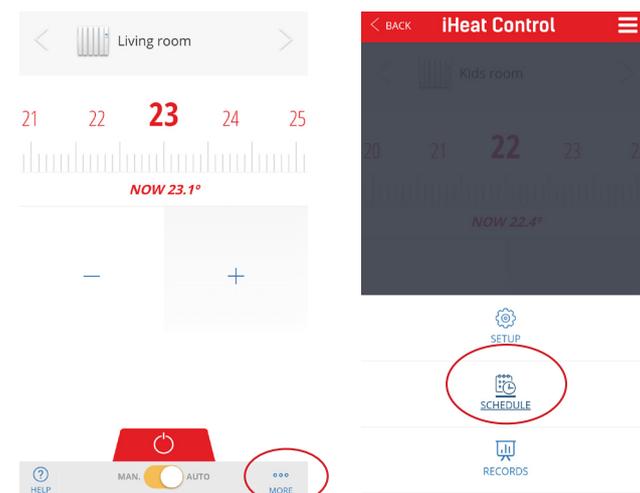
### Notes:

- Geolocation works the same in both modes (manual and automatic).
- A change in a device such as turning on / off or lowering / raising the temperature with the app will not change the “home / away” status.
- All users of the home who have the APP must have the function activated for it to work properly.
- This function is not synchronized like the others, that is, it is independent on each smartphone, if a user deactivates it, it is not deactivated in the APP, if not in their APP.

### Programming

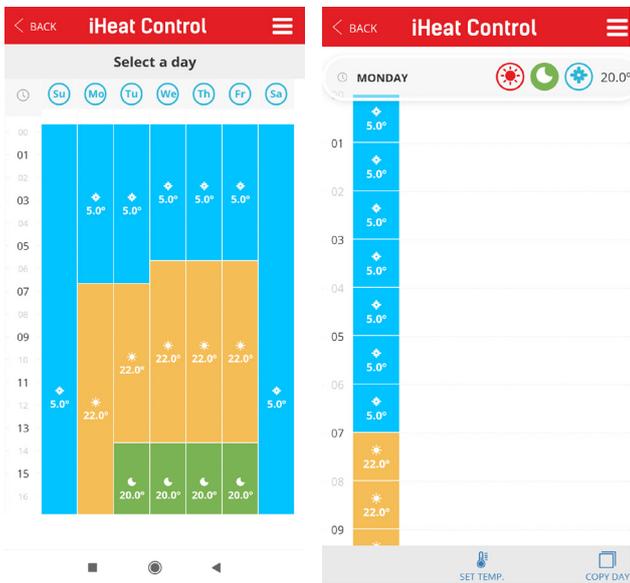
You can program the desired temperature for days and hours:

- Click on the radiator icon that you want to program.
- A new screen will appear with the temperature and click on “MORE”.
- Then you select “schedule”.



A screen will appear in which you can program by day and by hours with the different modes (Comfort, Eco or Anti-ice).

- Click on one of the days of the week.
- Select the desired mode (by pressing the corresponding icon, Comfort, Eco or Anti-ice).
- Press the hours when you want to use this mode.



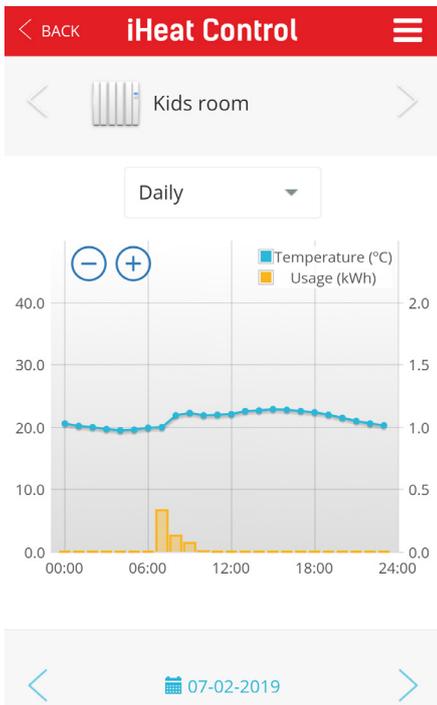
All modes can be modified to suit your needs. To change the temperature in one way:

- Click on “DEF.TEMP.”
- Select the mode to which you want to adjust the temperature (by pressing the corresponding icon, Comfort, Eco or Anti-ice)
- Adjust the temperature with “+” or “-” and click on confirm.

If the same configuration is desired on different days, it is not necessary to program one by one, the application has the function of copying the properties on the desired days of the week, using “COPY DAY”.

**Measurement of consumption**

You can control the consumption of the radiators, for this, press the radiator icon, then “MORE” and “CONSUMPTION”. You can see a graph of the consumption of each equipment by days, months or years.



**True radiant**

If this feature is active and in Auto mode, the radiator will deliver heat shortly before a period is programmed to start so that when it reaches the beginning of that period it has reached the set temperature that has been programmed.

For it to work properly, it is important to carry out programming intervals of less than 18h.

To access this function, click on the desired radiator, then “more” and “configure”.

- The radiator calculates the heating times averaged according to the latest operations, so that it adapts to the home and its conditions.
- Anticipate the operation of the radiator so that the desired temperature of the next change is reached at the start of the next heating programme.
- The maximum anticipation time is 24h, the minimum 5 minutes, ever if there is a change of day in between.
- Not available in manual mode

**Window mode**

With this open window detection function, the emitter disconnects the electric supply if the temperature drops 2.4°C in 4 minutes, for 30 minutes or until there is a rise of 0.6°C.

To access this function, click on the radiator you want, then “more” and “configure”.

**RESET THE MULTILINK USB**

Pressing the button for 15 seconds on the USB device deletes the configured Wi-Fi network. Pressing 30 seconds will reset all the settings.



## F.A.Q

### Multilink does not connect

The LEDs on the USB indicate the following:

- **Flashing amber / green:** The wifi is configured and connected to the server.
- **Blinking amber / red:** There is a Wi-Fi connection but not with the server.
- **Blinking red:** You don't have Wi-Fi configured.

### The equipment does not communicate with the USB

- Make sure that the radiator is previously associated with your router. The Link icon appears solid on the LCD of the radiator.
- If the indoor distance is greater than 30m and 2-3 walls, proceed to associate closer radiators first since each radiator can act as a repeater and the more radiators are present the greater the range of the network.
- If the Link icon flashes, it is because it is associated with the router, but cannot communicate with it, check that the router is correctly connected or if any equipment that was acting as a repeater has been removed. Try to move the devices closer together.

### If the problems persist, try resetting the equipment and trying again.

#### Edit settings

You can change the WiFi network, without having to delete the configuration of the electric radiators.

- Access "Homes" and then select the home that you want to modify
- Select the multilink and "CONFIGURE WIFI", then follow the steps.

You can also change the devices from one home to another home (this step cannot be undone).

- Access "Homes" and then select the home that you want to change.
- Select the multilink and "MOVE TO ANOTHER HOUSE" and choose the house to which you want to transfer the USB device (with all associated radiators).

### What type of connection does the USB device allow to Wi-Fi (WEP, WPA, ...)?

Regarding the WiFi connection, it can be WEP, WPA and WPA2.

It only supports 2.4GHz band. Normally routers, even if they have the 5GHz band, always have another network with the 2.4GHz band.

### Is it possible to put a fixed IP?

No, it is not possible to set a fixed IP.

### Is there a way to alter the frequency to avoid interference between other devices operating on the same frequency?

No.

### Data missing in consumption

It is possible that the control unit has been disconnected during this time.

### When we unplug a computer from the power, is it possible to disconnect from the app?

Computers are not disconnected because they are unplugged.

### Power rationalization does not work properly.

It is not recommended to use it if we only have one radiator connected, since if the power of the radiator is higher than the limit set, it will not turn on (if it is lower, yes). The radiators have a fixed power, but the power measurement may not be constant, because it varies due to the network voltage and the measurement's own tolerance and resistance. So if you have one radiator only, it has no use.

This function is designed to manage a complete installation and to be able to contract a shorter fixed term.

### Why is geolocation not activated?

- If the geolocation is not activated in the values defined in the range, then it may depend on the speed at which you move through the distances. The APP periodically sends data (every 5-10 min) on whether or not we are at home. Therefore, if we go out for example, by car, we may be out of range, but it has not yet been synchronized.
- There are mobiles that restrict the applications in the background more than others, and make the time of change increase. When an APP is not in the first zone, the mobile device inactivates it to save battery power. You can enter the APP permissions and tell him that when he is in the second zone, do not deactivate geolocation.
- We can check the power consumption to know if the geolocation is working correctly.

### The Cloud service provider may invoice maintenance costs.

## Help Google Assistant

### Introduction

Google Assistant® is a Google voice assistant that allows access to different services and features using voice commands. It can be used from different types of devices, including mobile phones, smart watches, televisions, and Google Home.

### Installation

To work with Google Assistant for the management of heating devices, it is necessary to use the Google Home application.

### Linked heating device with Google

*Note: These instructions work with the Google application over which we have no control and which can change. Google provides information on how to perform the linking steps with the user account (account linking) as well as the management of the equipment with the SmartHome profile, which is the one we use. Take these instructions as indicative.*



- Install the app and open it. If it is the first time it is necessary to create a new house. Once created, it will ask to configure a new device, select Works with Google. If there was already a House created, before Configuring go to Add -> Configure device.



- At this point a list appears with the different devices (actions) that can be added. Search and select "Heating Control". At this moment we get a window for the user to enter the password that is used in the "iheatcontrol" application. Then select the name of the house that you want to link to the Google account. Once selected, give "Link Device".

- Once linked, it is possible to manage it from Google, both by voice commands and through controls that appear in the same Home app.
- The application asks where the device is to assign it to a room. Multiple devices can be added to the same room, and the names of the rooms and devices can be the same or different.

### Control through Google

Control through Google has a number of limitations compared to what can be done using the native application. They would be these:

- Equipment and / or users cannot be registered. Nor erase.
- Cannot edit team or home names.
- You cannot program or configure advanced equipment settings.
- Geolocation does not work.
- Users cannot be invited to the account.
- Unable to consult histories.
- For any of these functions use the native application.
- These are the control functions that can be done through Google:
- Turn off a computer, or all computers in the house.
- Turn on a computer or all computers in the house. Light up in Auto mode.
- Set temperature on radiator or throughout the house. If it was off, it turns on in Auto mode with the selected temperature. In another mode, change the temperature while maintaining the mode.
- Set eco mode on a radiator. Puts it in manual mode at Eco temperature.
- Set heat mode on a radiator. Puts it in manual mode at Comfort temperature.
- Set Auto mode on a radiator.
- Ask the temperature of a device.

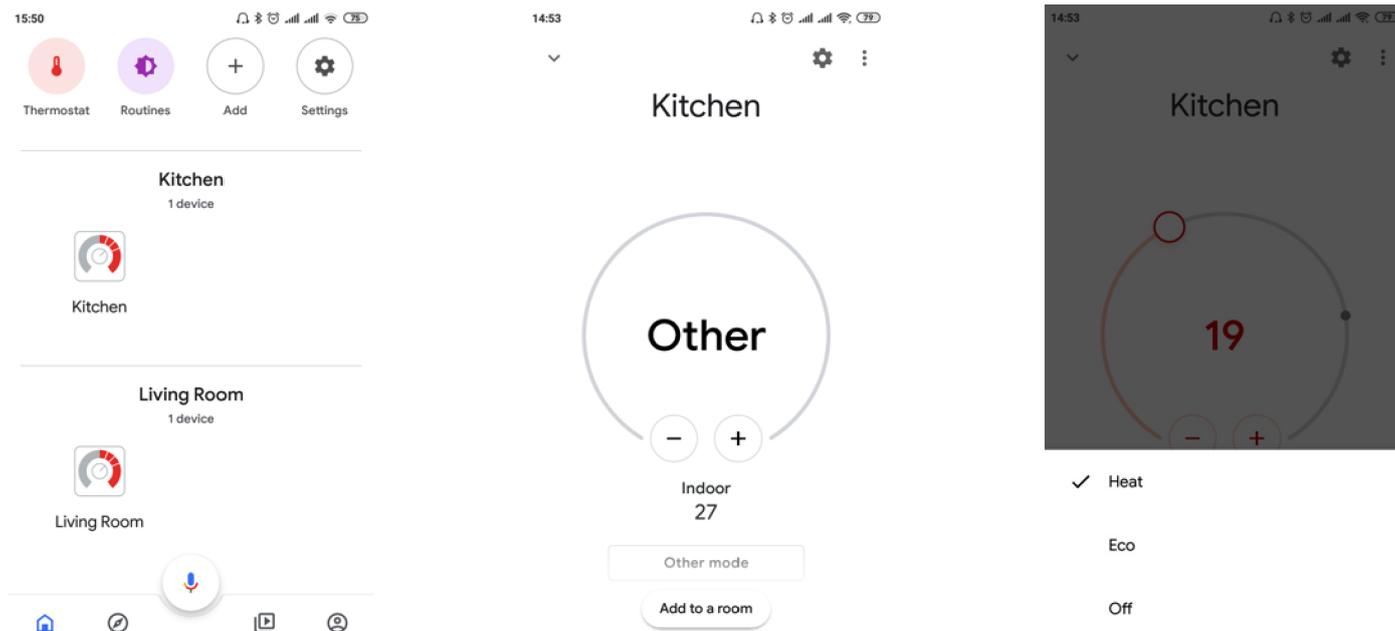
### Use voice assistant

With the Google voice assistant you can set the previously mentioned modes. The way to say voice commands is not unique or predefined, Google's voice assistant interprets the commands naturally. Here are some orders, fitting the possibility of saying it in different ways:

- Turn off the house (turn off all devices).
- Turn on the house (turn on all devices).
- Set 25 degrees at home (puts all the devices at 25°C, if they were off, turn them on in Auto, if not in the mode they were in).
- Set 25 degrees in the classroom (there must be a classroom device).
- Set Heat mode in the living room (sets manual mode to Comfort temperature).
- Set Eco mode in the living room (set manual mode to Eco temperature).
- Turn off the radiator in the living room.
- Put Auto mode on the living room radiator.

## Use the Home app

The Home app allows limited control of devices installed in the home. After having done the account linking, the equipment installed in the linked home appears in the Home app.



To access a team click on the icon with its name.

At the moment of making this manual, if the equipment is in auto mode, it appears as Other, the temperature cannot be changed from the Home app in this mode. This could change in the future, it is something that depends on Google. Heat modes can be selected, which is equivalent to manual. A Comfort temperature is set, which can be changed.

You can also set the eco mode, thereby setting the manual mode to the Eco temperature, but you cannot change the temperature.

To turn off set Off.

## Help Amazon Alexa

### Introduction

Amazon Echo is the voice-controlled smart speaker used by the Alexa Voice Service. It has an integrated Zigbee Digital Home Controller that allows you to configure and control your compatible Digital Home devices without complications. With Amazon Alexa, you can voice control our radiators. No modifications to radiators, multilink or applications are required.

The user should only search for and install the “Amazon Alexa” application and then download the “Heating Control” Skill.

The Alexa skill allows control of heating equipment through the Amazon Echo. The skill is available on the Amazon market, under the name Heating Control.

### Summoning Word

The invocation word is “heating control”. All orders made to the skill should start with “Alexa, ask for heating control ...” It is also possible to say “Alexa, open heating control” and then the command.

### Commands

These are the orders that can be executed:

- **Shutdown Node:** [shutdown / shutdown / shutdown / shutdown] [the] [radiator / thermostat] cooker. Turn on Node: [turn on / turn on / turn on / turn on] [the] [radiator / thermostat] cooker
- **Set Auto mode:** [set / set / set] the auto mode in [the] [radiator / thermostat] kitchen. [set / set / set] auto mode on [radiator / thermostat] kitchen
- **Set Manual Mode:** [set / set / set] manual mode in [the] [radiator / thermostat] kitchen. [set / set / set] manual mode on [radiator / thermostat] kitchen
- **Set node temperature:** [set / set / set] 24 degrees in [the] [radiator / thermostat] stove. [set / set / set] 24 degrees in [radiator / thermostat] kitchen
- **Read node temperature:** the temperature of [the] [radiator / thermostat] cooker. what is the temperature of [the] [radiator / thermostat] cooker
- **Read house temperature:** the temperature [of / in] [house / system / house / system]. what is the temperature [of / in] [home / system / home / system]
- **Set House Temperature:** [set / set / set] 24 degrees in [home / system / home / system]. [fix / fix / fix] 24 degree in [home / system / home / system]
- **Turn off the house:** [turn off / turn off / turn off / turn off] [house / system / house / system]. Turn on the house: [turn on / turn on / turn on / turn on] [house / system / house / system]

### Node names

The nodes or teams must have any of the names in the following list so Alexa can understand orders to it: Living room, room, hallway, large room, small room, medium room, main room, kitchen, dining room, toilet, living room, bed , entrance, free room, dressing room, stairs, study, radiator, children’s room, den, greenhouse, lobby, landing, corridor, garage, extension, nursery, call center, reception, living room, living room, gym, bar, attic , cellar, porch, basement, closet, laundry, pantry, patio, playroom, living room, game room, guest room, staircase, solarium, music room, workshop, office, exhibition, meeting room, room rest, bathroom.

It is not case sensitive. It is also possible to put a number in numerical format to any of the previous names, for example: “room 1” and “room 2”.



1. DeDownload and install the Amazon Alexa application from the smartphone market.
2. Once installed, click on the 3 horizontal bars that appear in the upper left corner and choose “Add device”.
3. We choose our device.
4. We proceed to the configuration of the device.
5. Then, as indicated in the image, we must keep the button with a point pressed for + or - 5 seconds (until Alexa emits an orange light) and give it to continue.
6. We have to exit the application, to access the WiFi settings of our Smartphone and connect to the WiFi that Alexa has generated.
7. We return to the application and in a few moments it will appear indicated on the screen that we are connected to our team. We press continue.
8. We will have to choose the WiFi network that we want to link with Alexa.
9. It will send us to put the password of the WiFi network (we can select the box to keep it, so in the future, if we want to connect to that WiFi again, it will already be marked and we will not have to re-enter the network password ).
10. It will automatically jump to a screen where we will have to wait until we get our digital assistant connected to the WiFi network.
11. Once Alexa is connected, we click again on the 3 horizontal stripes in the upper left corner, and this time we click on “Skills”.



12. To control our WiFi radiator with our digital assistant, we need to download the “heating control” skill.
13. Once selected, click on “Allow its use”.
14. It will redirect us to the browser, where we must enter our username and password (if we do not have it, we must create it in the iHeat Control APP) and we will have to enter the code of our multilink (already linked to the iHeat Control APP).
15. We would already have Alexa ready to receive orders. (In case of error we disable the skill and re-enable it by repeating the previous process).
16. We must remember that Alexa works with a command structure and that for proper operation, we must name our emitters in the APP “iHeat Control” with any of the names in the node list.



- Light blue: When we turn the volume up or down.
- Dark blue (combined with light blue): Alexa is listening to you.
- Red: When you are offline or when you disable the microphone.
- Orange (moving): When configuring it to connect the emitters WiFi.s network with any of the names in the node list.





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