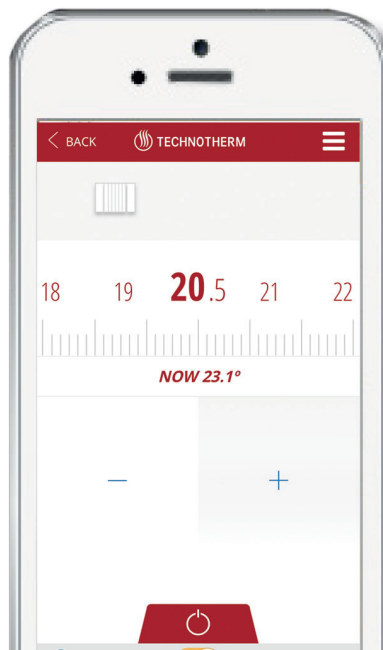
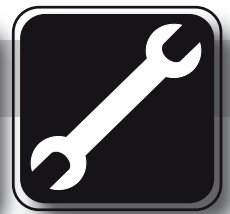


# Instruction Manual - TECHNOTHERM SmartControl Interface

**Smart heating -**  
**- Save energy!**



<https://ttiapp.technotherm.com>



THESE INSTRUCTIONS SHOULD BE READ CAREFULLY AND  
RETAINED FOR FUTURE REFERENCE.  
BE SURE TO OBSERVE ALL LABELS AND WARNINGS ON  
THE APPLIANCE.

Edition:11/19  
Id\_Nr. 911 360 503

Subject to errors and technical amendments. Dimensions without guarantee!

**GB**

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## 1 Interface on the heater

Day of the week

Current mode



Smartbox link indicator

GB

## 2 Installation

NOTE! It is preferable to register the Smart control box before installing it! If it is registered after installation it may take a few minutes to become accessible via the web. If you do not want to wait, disconnect and reconnect the power supply to the Smart control box.

### 2.1 2 Ways to register the Smart Control

a) Register at **TECHNOTHERM Smartcontrol online**  
<https://ttiapp.technotherm.com>

or

b) register with your **TECHNOTHERM APP**

- 1) Click on the "New user - sign here" Icon and follow the instructions

## 2.2

### Smartbox Installation

The Smartbox is needed to control the radiators using web or Smartphone apps. The Smartbox communicates with the radiators through internet using the home router.

The Smartbox communicates by radiofrequency with the radiators and it is connected to the home router using an Ethernet cable (supplied).

- 1) Connect the TECHNOTHERM Smart control box to your broadband router with the supplied Ethernet cable
- 2) Connect the Micro USB cable to the Smart control box and to the supplied power adapter
- 3) Power the Smart control box



When the TECHNOTHERM Smart Control App is first connected, the device will try to communicate and link with the server, you will see a sequence of LED's blinking on the box.

The Smartbox LEDs indicates:

- Green OFF, Orange blinking every second: Smartbox on discovery mode, able to link to new devices.
- Orange ON, Green blinking fast: IP not assigned to the Smartbox.
- Orange ON, Green blinking every 5 seconds: Smartbox has IP but is not communicating with the server.

#### Correct connection:

- *Orange ON, alternates with the Green every 5s: Smartbox has IP and has correctly connected with the server.*

## 2.3

### LOGIN and REGISTRATION

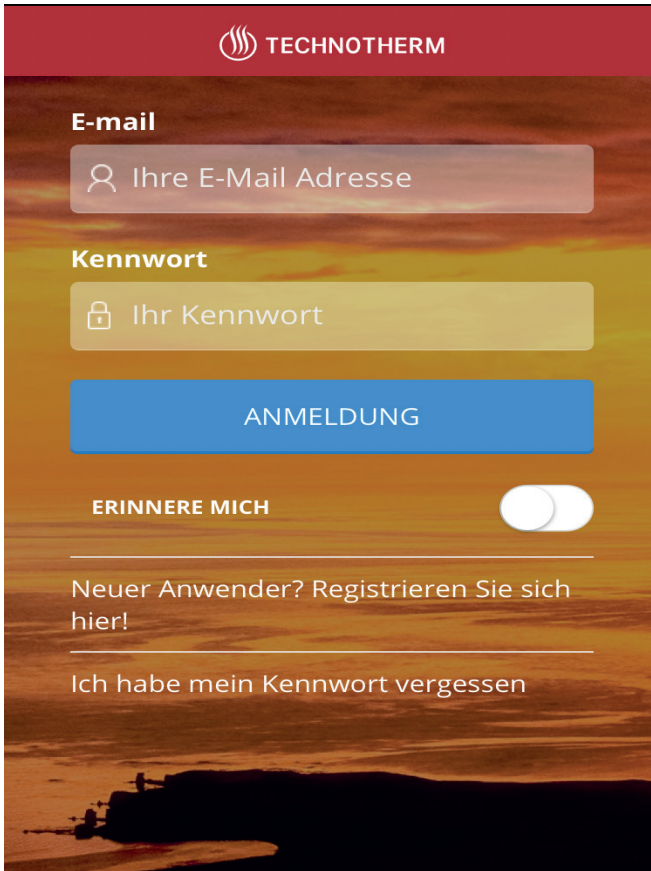
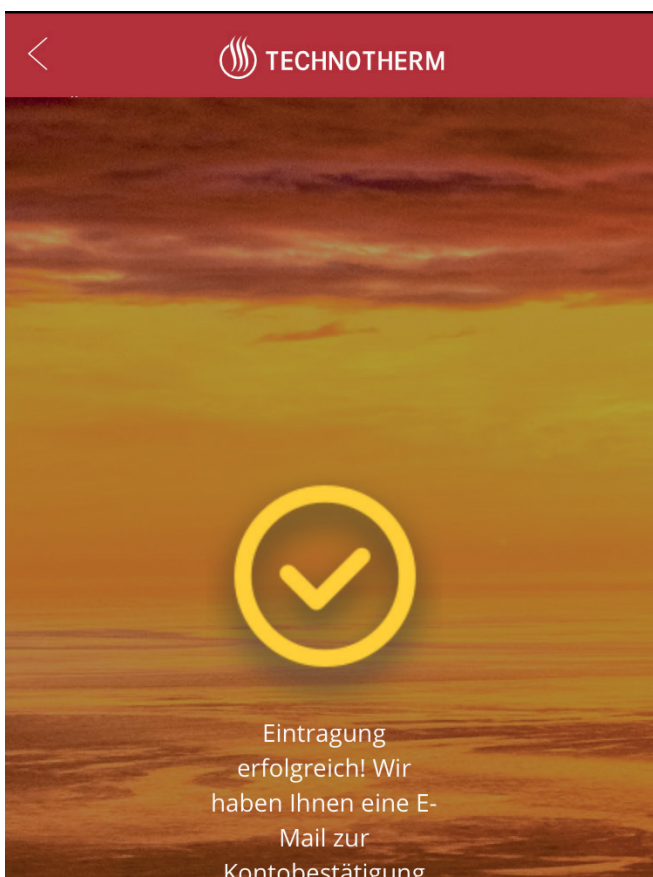
Enter a valid email address

Assign a password

Accepting the privacy conditions

Once the data registration is complete, press SEND REGISTRATION. In a few minutes you will receive an e-mail with a link to confirm the account.

If this does not occur, check your SPAM folder and confirm the link supplied.

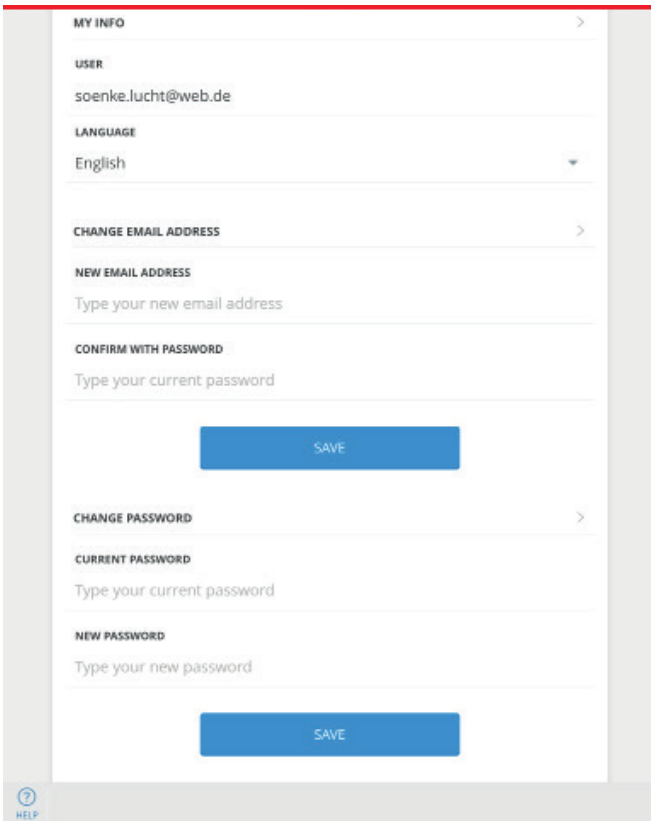
### Registration complete

You also can contact our service to finish your registration at:

[info@technotherm.de](mailto:info@technotherm.de)

GB

GB



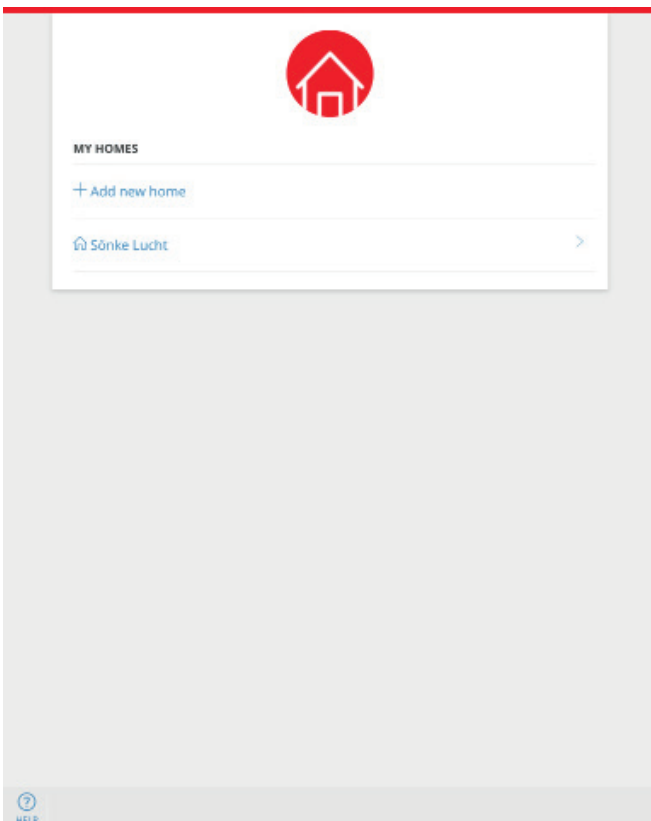
**2.4**

**Change access data to:**

**Menu / My Account**

Insert the new user mail and current password. In a few minutes you will receive an e-mail with a link to confirm the account. If this does not occur, check your SPAM folder and confirm the link supplied.

Insert the current password and then the new password; confirm the new password. In a few minutes you will receive an e-mail with a link to confirm the account. If this does not occur, check your SPAM folder.

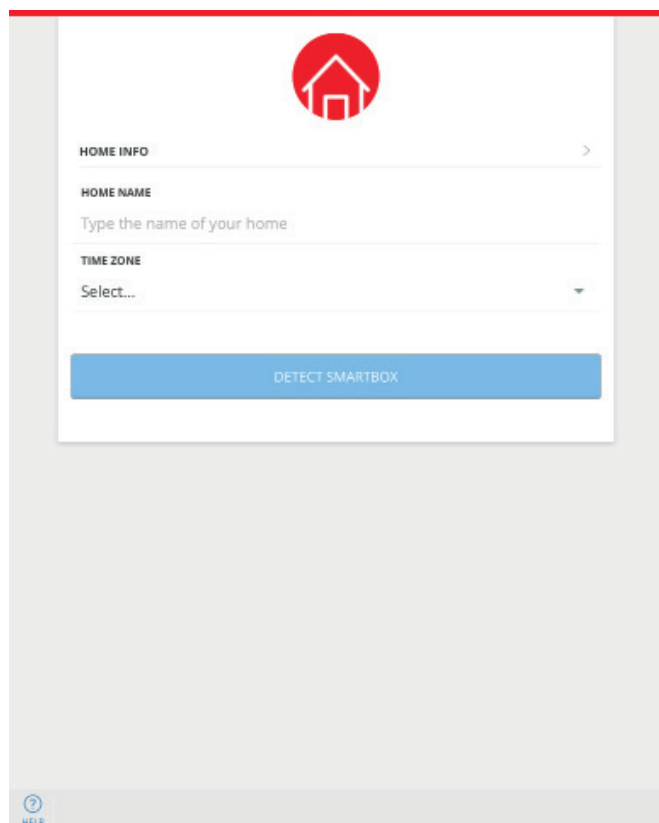


**3**

**Register the Smartbox and add new rooms**

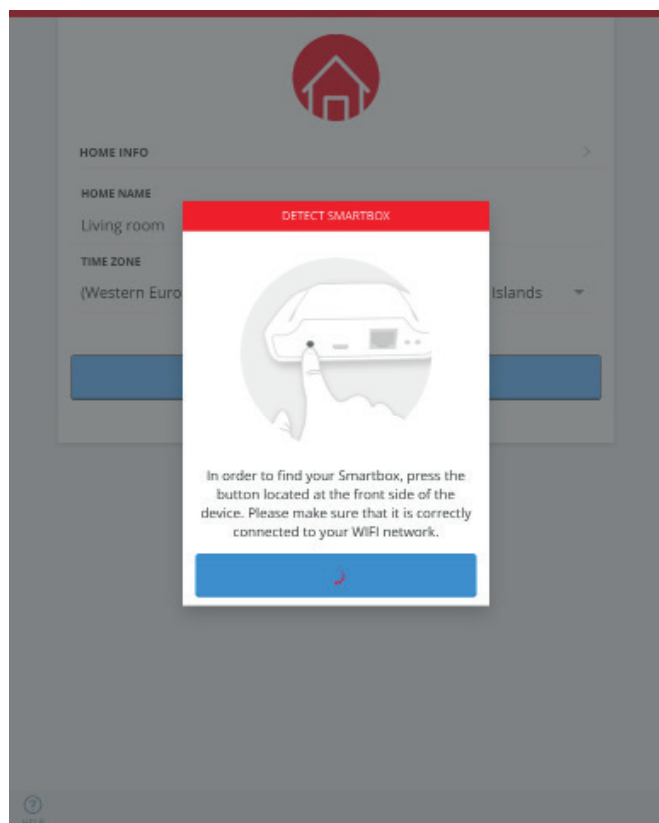
**Menu / HOMES**

Upon first logging in to the application, the first thing you must first add your devices. For this, use the + button. Note: if they have not already been added.



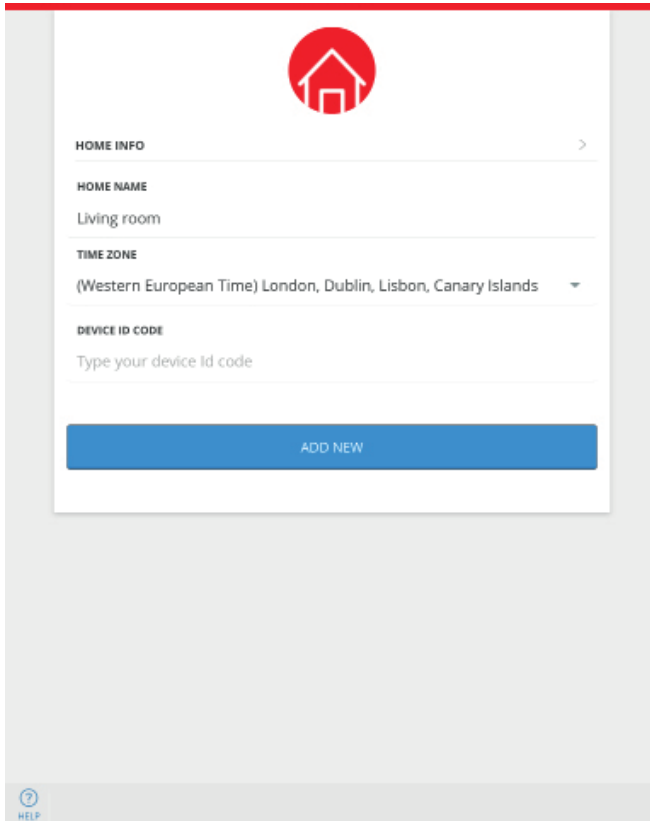
### Menu / HOMES / + add new homes

Enter the desired data, then press “Detect Smartbox”.



Follow the instruction by pressing the button on the backside of the Smartbox

GB



If automatic recognition does not work, the following prompt appears.

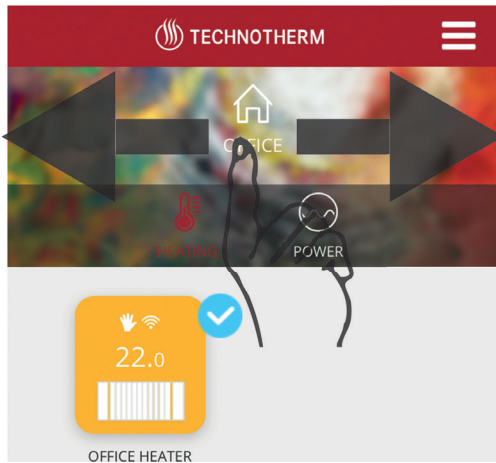
**Device No.:**  
This also appears on the packaging and at the bottom of the gateway and contains 18 alphanumeric characters.



**Device No: 18 digits**



4

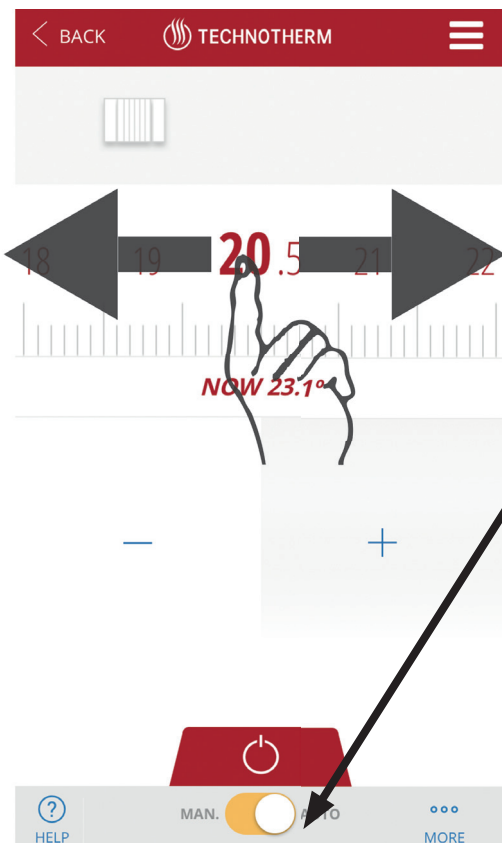


### Navigating between homes

GB

Navigating

5



### Mode change

#### Manual:

The thermostat follows the setpoint temperature that was set from the main screen, like a simple digital thermostat. If you select this mode, you can raise and lower the setpoint temperature using the + / - keys

#### Auto:

The thermostat follows the temperature set in programming.

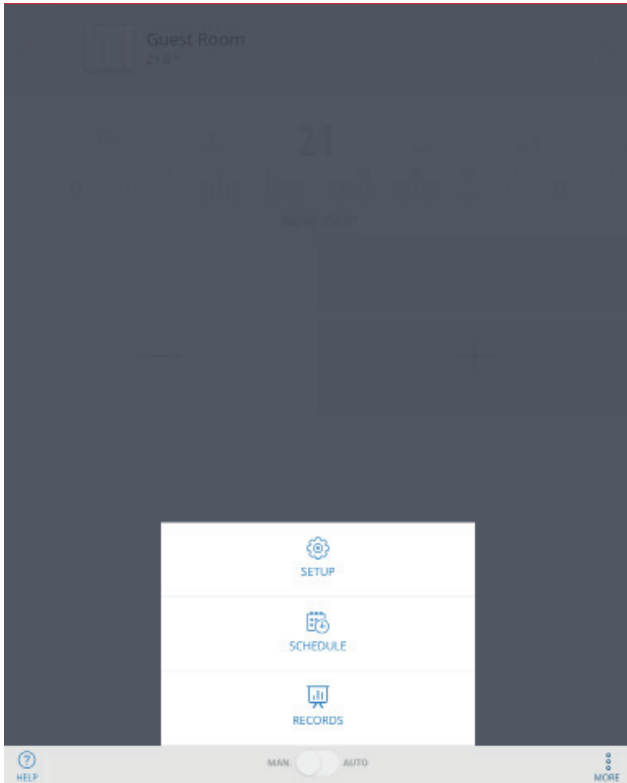
Comfort temperature: the temperature considered comfortable when at home. Normal recommendation between 21 and 23°C.

Energy-saving (or ECO): the temperature to be maintained when sleeping or outside the home. Normal recommendation around 16°C.

Anti-freeze temperature: the temperature that prevents ice appearing inside the home or the pipes. Usually 5°C.

5.1

GB

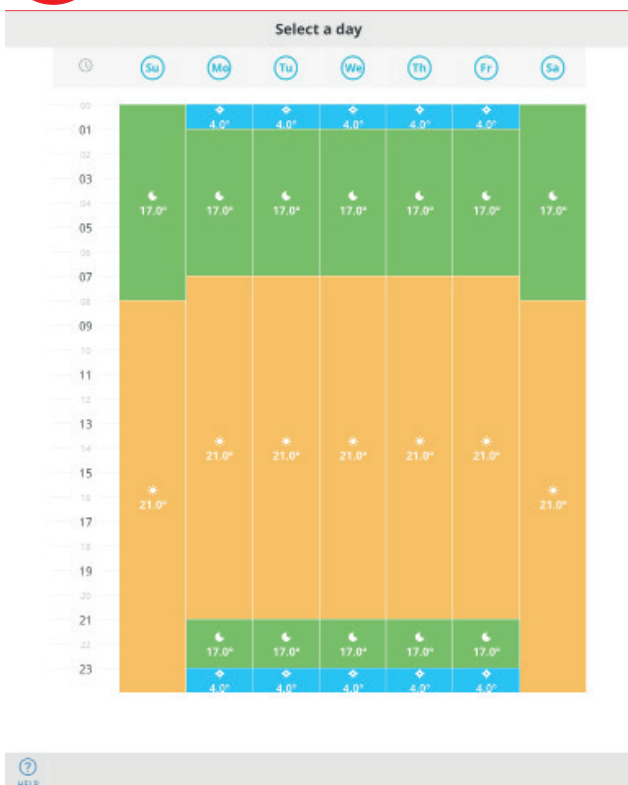


**Programming (AUTO mode, setpoint temperature change, copy days of the week)**

Set time programs:

- 1) Select a radiator
  - 2) Click on "MORE" and then on "SCHEDULE"
- You can decide for each day and hour whether COMFORT, ECO or FROST protection is desired.

5.2

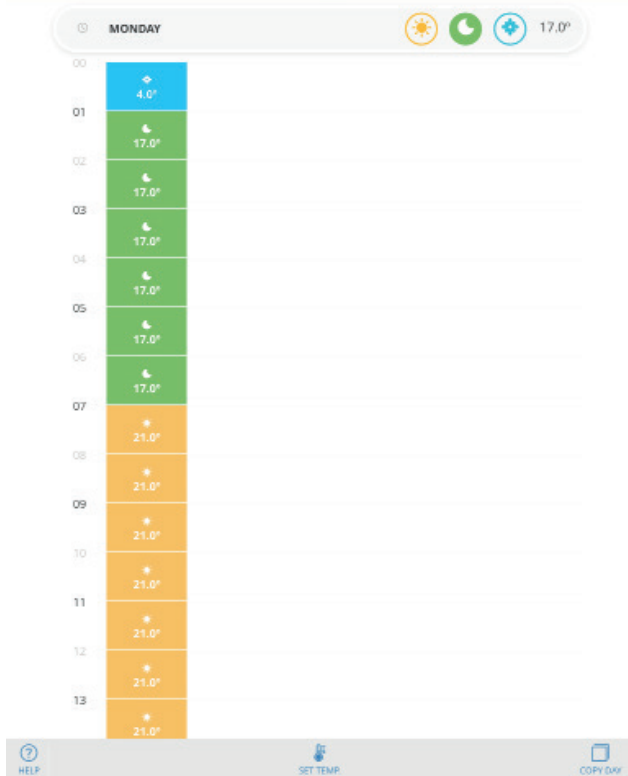


**Programming**

Set the time programs for each days:

Here you can decide for each day and hour whether comfort, eco or frost protection is desired.

Click on a day of your choice to set the time program for this day. Electric radiators can only be set in 60 min blocks.



## Programming

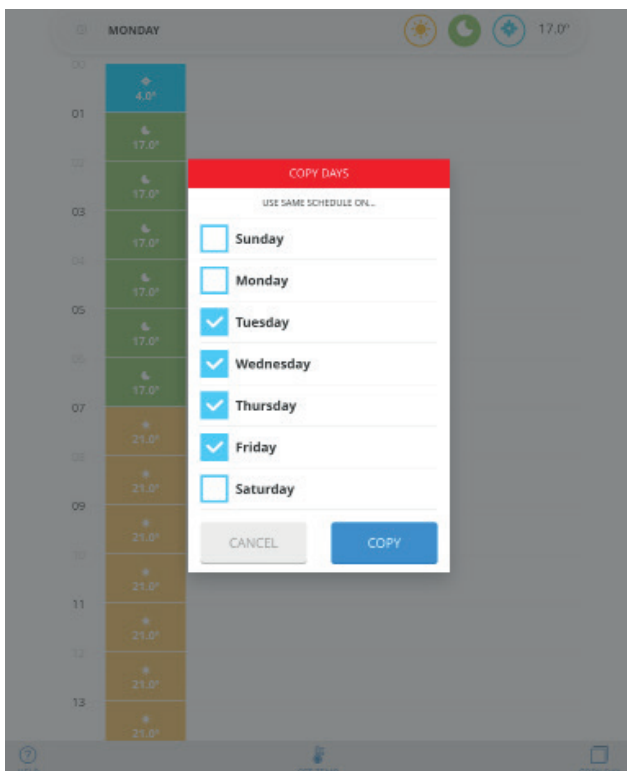
Time program for the day:

Select the required temperature program for each time block and then save the changes.

**GB**

The respective temperatures for COMFORT, ECO or FROST protection can be set by clicking „SET TEMP“ at the bottom of the screen (see „Setting the temperature of the 3 automatic programs“).

### 5.3



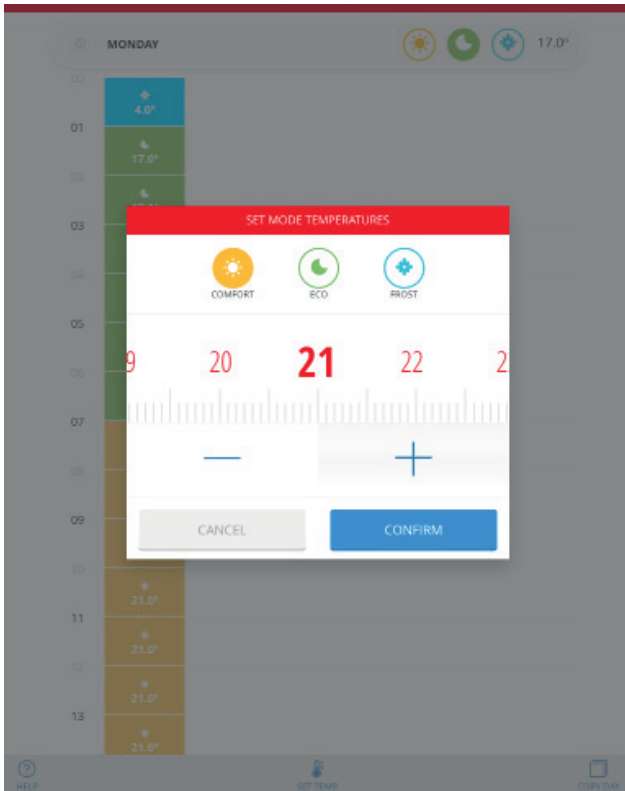
## Programming

Copy time programs

If you want to copy the programming of a specific day, press (COPY DAY) and copy it to the desired days.

**5.4**

**GB**



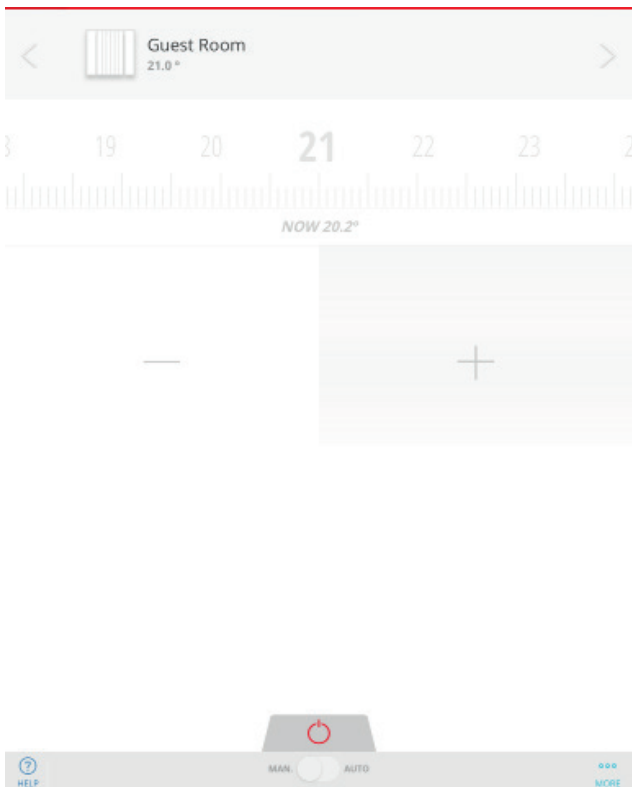
**Programming**

**Setting the temperature of the 3 automatic programs**

By clicking on the respective symbol of one of the 3 programs, you can set the temperature according to your wishes.

The temperature set here is reached during “automatic mode” for the respective hours it has been selected to run.

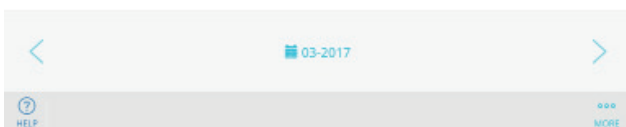
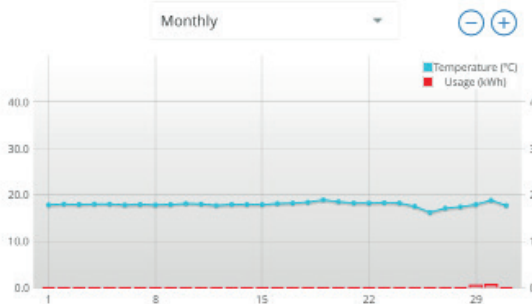
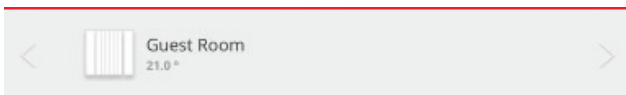
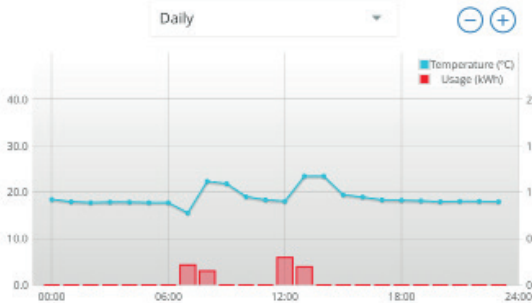
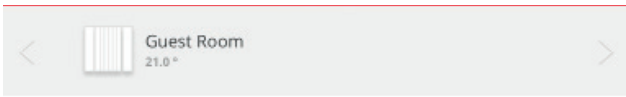
**5.5**



**OFF**

The thermostat remains switched off and does not indicate any setpoint temperature. The current room temperature is displayed and the ambient temperature continues to be sent to the temperature controller.

6



**Statistics**

Daily statistics

The average temperature of each hour of the day is displayed in the form of a line. The cumulative operating time (minutes) of the thermostat each hour is displayed. Cumulative data for said period is displayed on the monthly and annual screens. You can navigate between different periods using the < / > keys



**Statistics**

Monthly statistics

The average temperature of each hour of the day is displayed in the form of a line. The hourly cumulative data for the energy consumed by each radiator is displayed. Cumulative data for said period is displayed on the monthly and annual screens. A statistic is displayed on the radiator screen which adds up the consumption of all the radiators and compares this value with the electric meter consumption data (for the entire home), if there is one. You can navigate between different periods using the < / > keys

GB



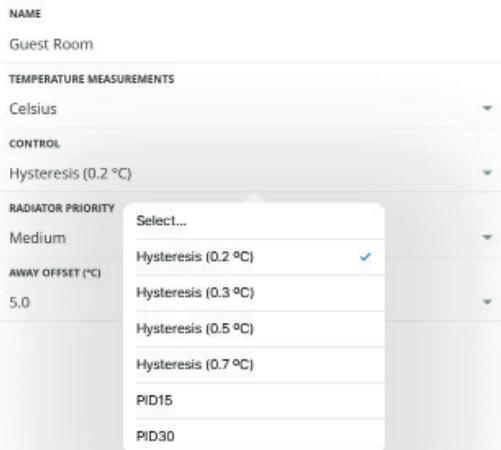
## Statistics

### Annual statistics

The instantaneous power consumed every 15 minutes is displayed. Cumulative data for said period is displayed on the monthly and annual screens. You can navigate between different periods using the < / > keys



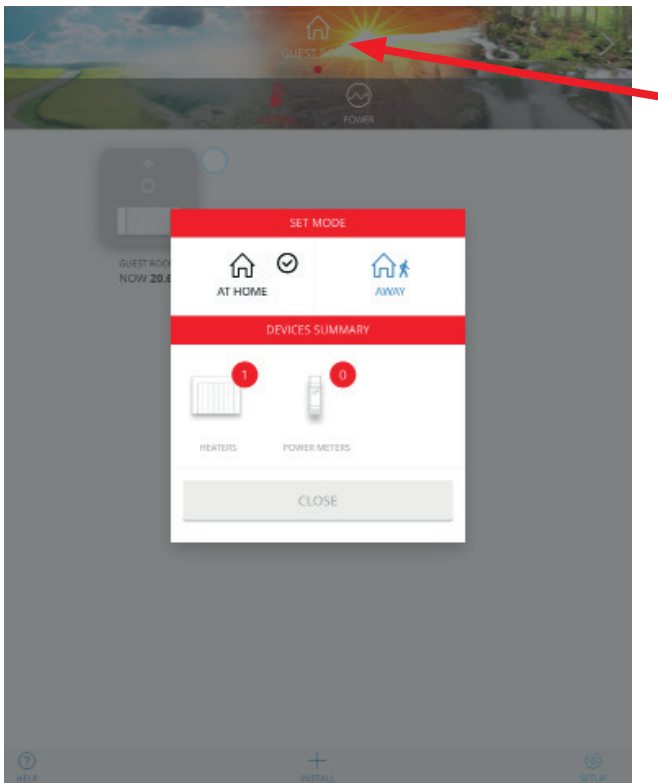
7



### Advanced settings

The „AWAY“ function is a very important setting.

The value of 5 ° C set here has the effect that this heating drops by 5 ° C down from the current temperature when you activate the „AWAY“ function.



### Advanced settings

The „AWAY“ function

- 1) Click on the name of your room
- 2) Select the function „AWAY“

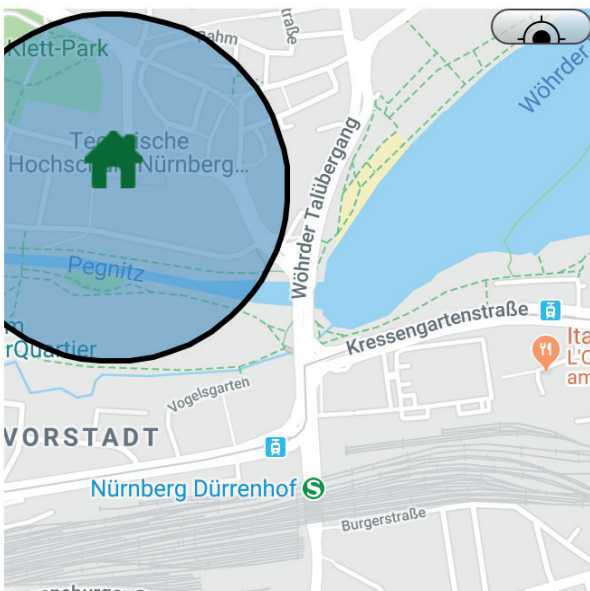
All devices connected to this room now reduce the temperature by the set „AWAY“ temperature (5 ° C in this example).



### Geolocation

Enable geolocation

1. Click on „Your Account“
2. Click on „HOMES“
3. Click on „Room/home“
4. Click on „Geolocation“

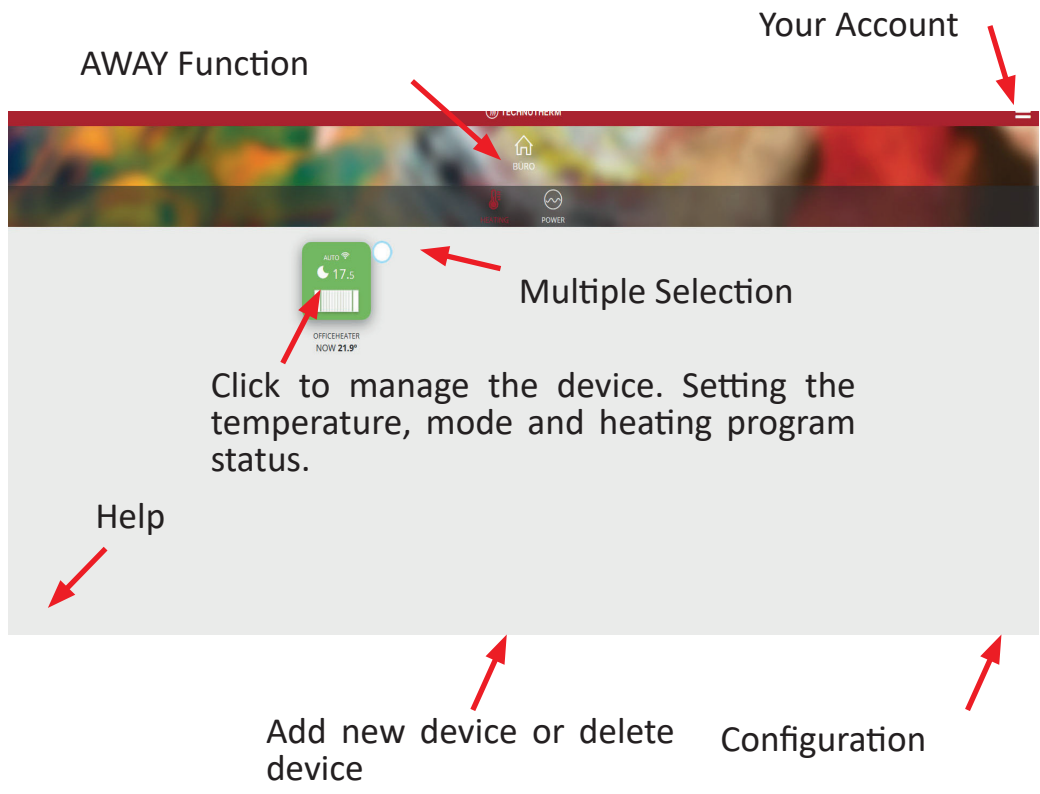


If you leave the radius all heaters will be changed to the „AWAY“ function.

**9**

**Menu overview**

**GB**



**Preferences**

- Mode: OFF
- T<sup>a</sup> Comfort: 19°C
- T<sup>a</sup> Eco: 17°C
- T<sup>a</sup> Frost: 5°C
- T<sup>a</sup> Manual mode: 19°C
- Temperature compensation Offset: 0°C
- No RF link - no link to the Smartbox
- Temperature °C
- „Open Window-Feature: OFF
- Control mode: PID -TRIAC-, PID15 -Relay-
- Program: Eco



**10** Operating instructions

**10.1 Modes**

The radiator can work at 3 different modes:

- Auto. The setting temperature varies automatically following the programmed Schedule, based on the 3 custom temperatures. The bars in the LCD display inform about which of the 3 temperatures is assigned to each hour. This mode can be disabled in advanced settings so the radiator can work only in 2 modes (Manual and Off)
- Manual. Fixed temperature. The set temperature only changes if the user modifies it.
- Off. The radiator does not heat, but can receive remote orders



**Mode**



In "Auto" mode when the temperature is modified temporarily, 1h30min.

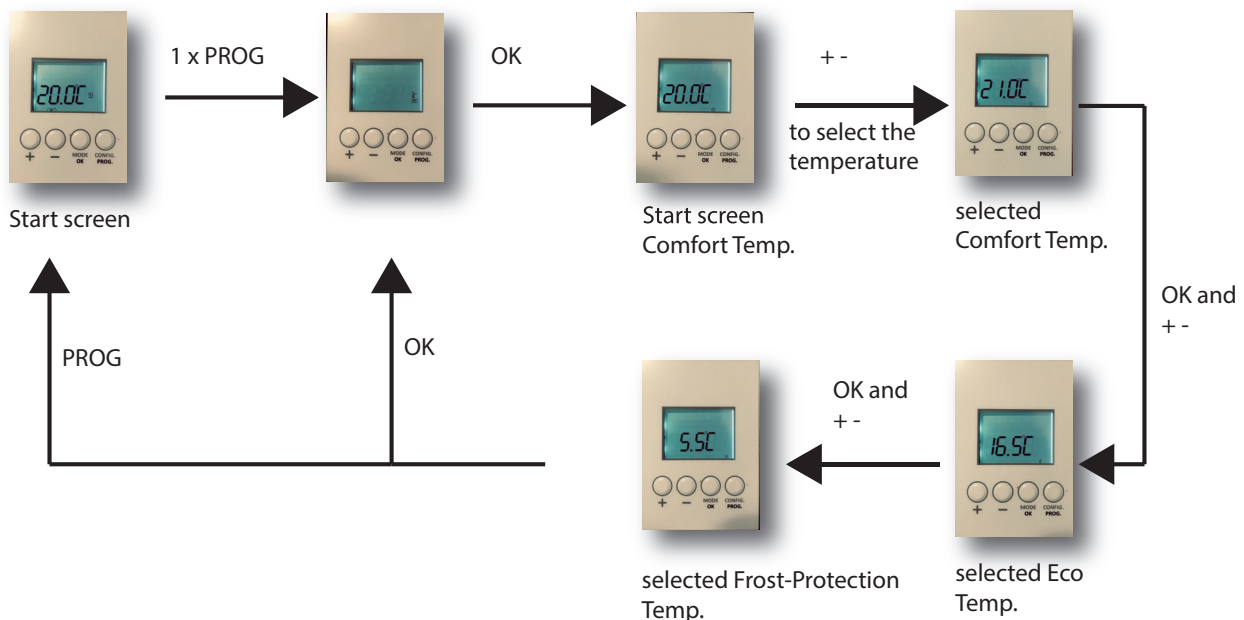
In "Manual" mode the temperature will be fixed.

**10.2 Adjust programmed temperatures**

In "Auto" mode the temperature of each hour will change automatically following the programmed Schedule. The user must assign one of the temperatures to each hour:

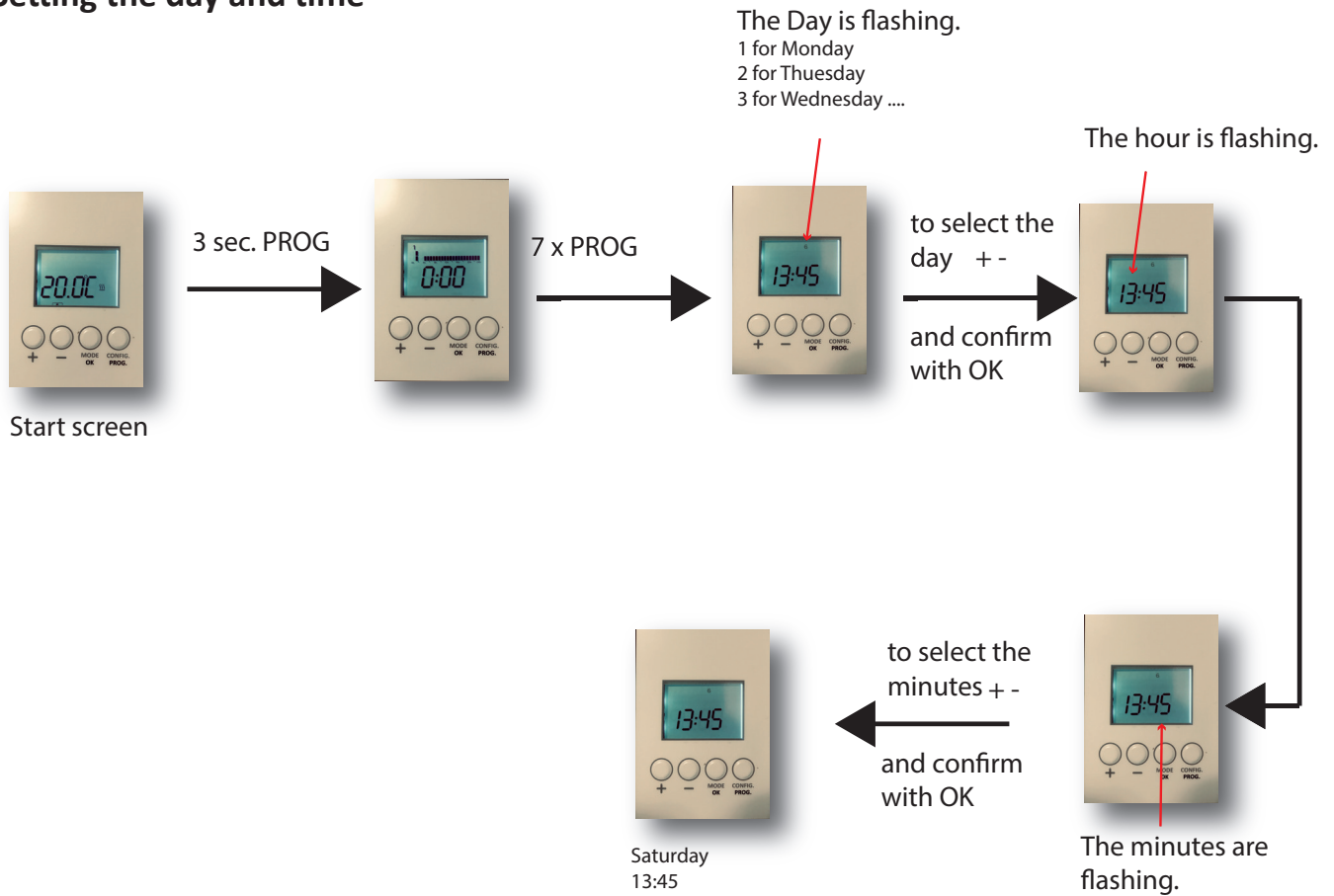
- Comfort (☀), used normally when the user is at home.
- Eco or saving (☾), used when the user is at bed or for brief absence periods.
- Freeze or minimum temperature (❄) used for periods of absence.

To define these temperatures:



GB

### Setting the day and time



### 10.3 Setting weekly program

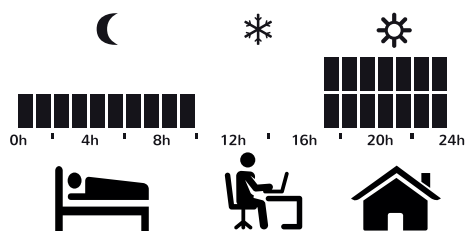
The radiator allows for the creation of a weekly programmed schedule which assigns one of the 3 available temperatures to each hour. The program for each day can be different.

Use Comfort temperature for the hours that you are at home. (Represented **by 2 bars** on the LCD)

Use Eco-saving temperature for the night hours or short absence periods (Represented **by 1 bar** on the LCD)

Use Freeze-minimum temperature for long absence periods. (Represented **by no bar** on the LCD)

Example:





**Weekday programming.**

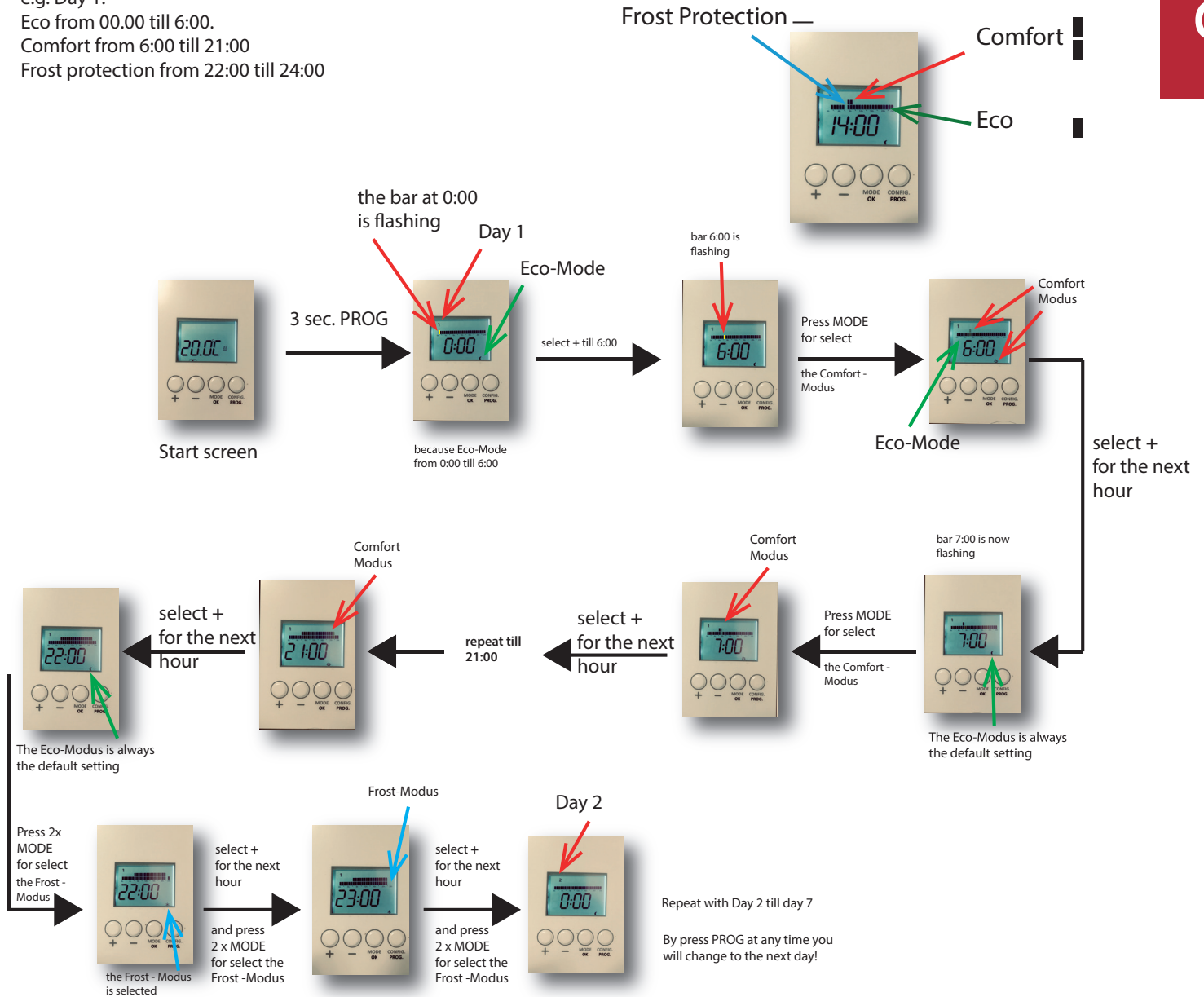
The comfort, eco and frost protection temperatures must first be programmed for this.

e.g. Day 1:

Eco from 00.00 till 6:00.

Comfort from 6:00 till 21:00

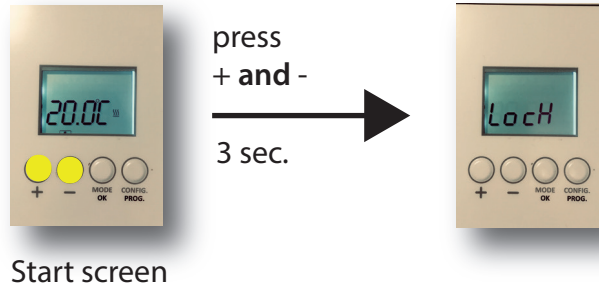
Frost protection from 22:00 till 24:00



### 10.4 Keypad locking

lock / unlock the LCD screen

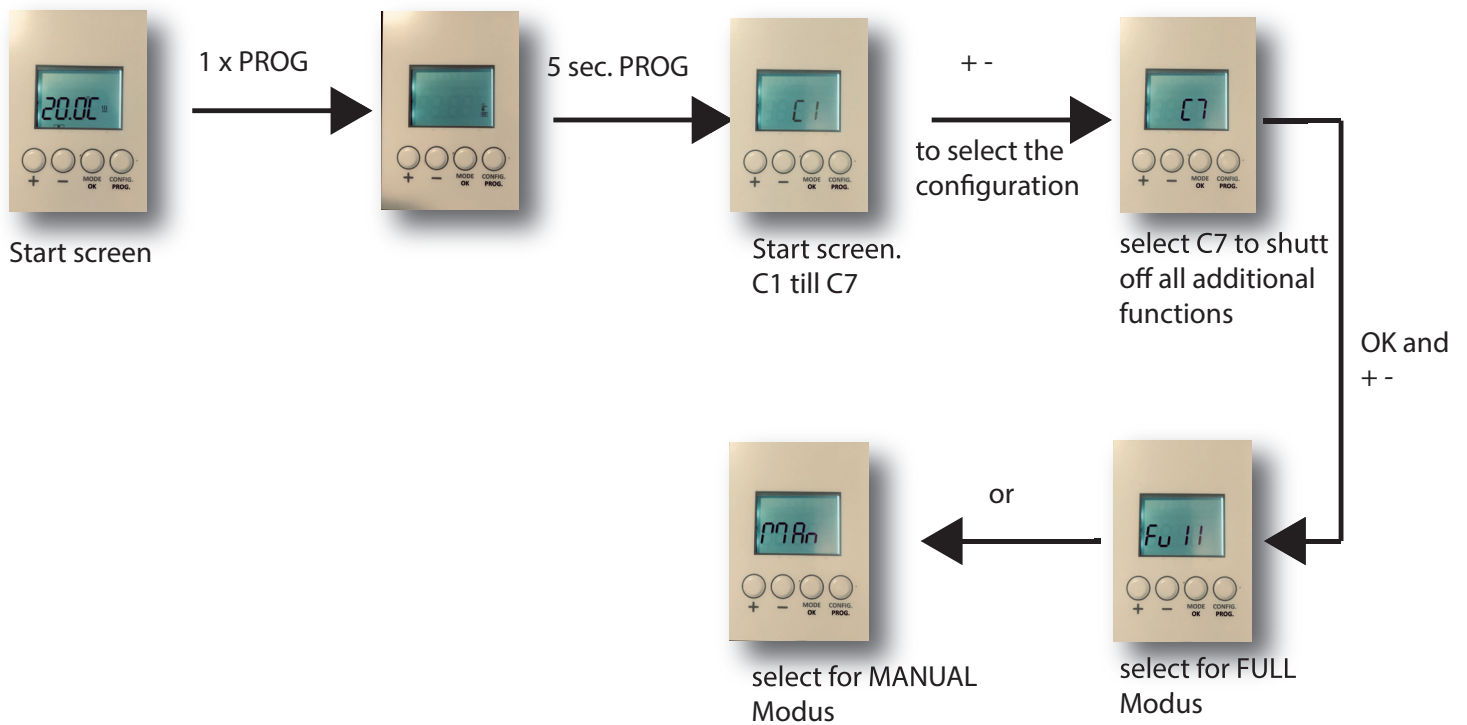
GB



## 11


### Advanced engineer settings

Programming the advanced mode:  
e.g. shutt off all additional functions except changing the temperature



## Overview

### The next configuration options will appear:

- C1: Temperature unit adjustment °F/ °C
- C2: Heating control type adjustment (PID –TRIAC radiators-, PID15min or PID30min- Relay radiators-, hysteresis 0.25°C, 0.35°C, 0.5°C or 0.75°C
- C3: Temperature measurement compensation
- C4: Firmware version
- C5: Open window detection activation (the heating stops for 30 min if there is a fall of 2,4°C or higher within 4 min), indicated with the symbol 
- C6: Adaptable heat anticipation. The radiator predicts the right moment to start heating in order to reach the desired temperature according to the programmed schedule , so the user does not need to take into account the time needed to heat the room. Maximum anticipation time: 24h.
- C7: Select “Full” for Full modes (Auto/Man/OFF) or “Man” for Simple modes (Man/OFF)

**GB**

# 12

## FAQ

### 1)

The Smartbox does not connect. Check that it is powered on and correctly connected by Ethernet cable to the user router through a connection without proxy and with the next output ports open 123 UDP, 5000 TCP and 5001 TCP. The DHCP protocol has to be activated in the router. Make sure you are connected to the same network.

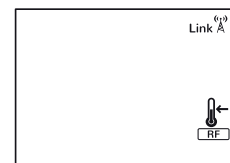
The Smartbox LEDs indicates:

- Green OFF, Orange blinking every second: Smartbox on discovery mode, to link new devices.
- Orange ON, Green blinking fast. IP not assigned to the Smartbox.
- Orange ON, Green blinking every 5s. Smartbox has IP but is not communicating with the server.
- Orange ON, alternates with the Green every 5s: Smartbox has IP and correctly connected to the server.

### 2)

The radiators do not connect to the Smartbox:

Be sure that the devices are linked to the Smartbox, check that the Link symbol is on the radiator LCD:



If not, proceed with the Link process first as indicated previously at 2.2.

If the distance indoor is greater than 30m and 2-3 walls, start with installing the radiators closer to the Smartbox, as they can retransmit the RF signal to other radiators located outside the RF range of the Smartbox.

If the Link icon on the LCD blinks, the device is linked, but cannot connect to the Smartbox. Check that the Smartbox is correctly powered and that no obstacles are limiting the RF signal. Perhaps a radiator that was retransmitting the signal was removed. Try to move the devices closer.

If the problem remains, try to reset the devices and start again.

Radiator error messages (for the manufacturer when assembling the radiators, shown in the LCD):

- OC: no connection with temperature probe
- SC: Short-circuit at temperature probe
- Err1: Relay or Triac in short-circuit
- Err2: Overload (power limit exceeded)
- Err3: No load (or very low load, below 100W, check the connection to the resistors)
- Err4: Temperature limit exceeded (>90°C in the electronics)

**13**

**Specifications**

**13.1 Heater**

- LCD display with backlight
- 4 buttons
- RF 868Mhz
- 1 PCB for control
- 3 Temperature zones
- Comfort
- Economic
- Frost protection
- Temperature measurement resolution: 0.1°C
- Set temperature in steps of: 0.5°C
- Measurable temperature range: 0-45°C
- Temperature setting : 5-35°C
- Time programs in steps of: 1h
- PCB work temperature: <80°C
- External temperature sensor
- Electrical self-consumption measurement: <3%
- Transformerless power stage
- Max . power: 3500W (16A) for relay

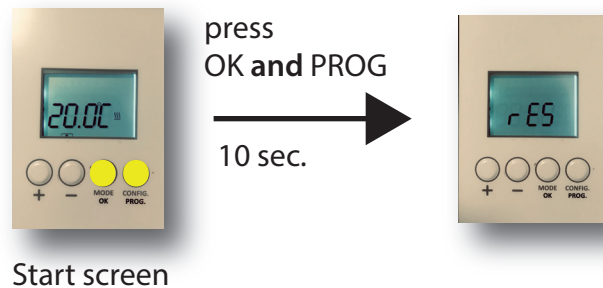
**13.2 Smart Box**

- Volt. External supply : 5V 500mA
- Consumption: 300mA
- Connector RJ45 for ethernet connection
- LED status indicators
- 868Mhz RF, integral PCB antenna
- Micro USB Adaptor included
- Ethernet 0,5m cable included

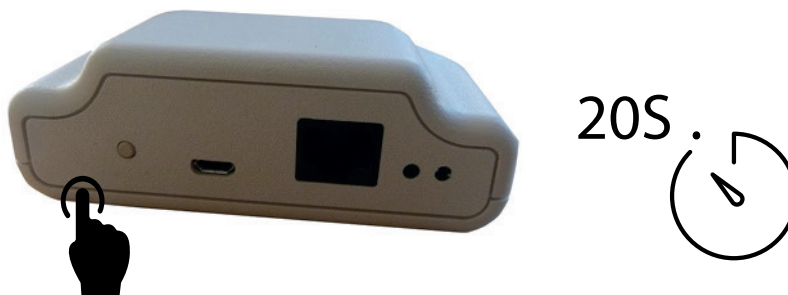
**14**

**Reset**

**At the heater:**



**At the smartbox:**



## 15 Alexa instructions

### 15.1 How to set up

- No modifications at the radiators, smartbox or apps are required
- The user needs to search and install the skill “Heating Control” on the Alexa app.
- The skill will redirect the user to a login screen where they can register with **his smart radiator user account and password**
- Select “UK language” at the echo to properly receive the commands

### 15.2 Specs

#### Voice control, allowing:

- Switch On a heater
- Switch Off a heater
- Switch On all heaters
- Switch Off all heaters
- Set a mode (Auto/Manual) of a heater
- Set temperature of a heater
- Set temperature of all heaters
- Get measured temperature of a heater
- Get measured temperature of all heaters (median)

- **For second skill publication will be added:**

- Set a mode (Auto/Manual) of all heaters
- Get the setting temperature of a heater

- Alexa will confirm the command and reply with the actual state of the heater
- The different devices are recognized by their assigned name (E.g. ironing room), set at the Heater app or by numbers (E.g. 2), or by both (E.g. Kitchen 2).

### 15.3 Example commands

- “Alexa, ask Heating control to set the house to 22 degrees.”
- “Alexa, ask Heating control to switch off the living room heater”
- “Alexa, what is the temperature at Home”
- There is a possibility to use short commands: first say “Alexa, open Heating control”, then your request.
- On the skill help page, all commands will be explained.



## 15.4 Command structure

Start + command + device/s  
 “Alexa ask heating control to switch on kitchen heater”

The commands always start with:

“Alexa ask heating control ...”

Or “Alexa, open heating control” and then the command

- Then say the command itself
- **Finally there are some options to define the device/s to be controlled:**
  - Saying the name specified on the app to the radiator (it is mandatory to define previously the name of the radiator)
  - A number can be added if 2 radiators are at the same room (e.g.Kitchen 2)
  - Say “Home” or “the house” to apply the command to all heaters
  - The user can finalize commands using the device type “heater”

## 15.5 Complete command list

To turn off the (device)

To turn on the (device)

To set auto mode at (device)

To set manual mode at (device)

To set (temperature number)degrees at (device)

To set (temperature number)degrees in (device)

To get (device) temperature

What’s the temperature in (device)

What’s the house temperature

What’s the temperature in the house

To set {NodeTemp} in the house

To set {NodeTemp} at home

To switch on the house

To switch off the house

To switch off the (device)

To switch on the (device)

To set auto mode in (device)

To set auto mode in (device) T

To Set (temperature) at (device)

To Set (temperature) in (device)

What’s the temperature of (device)

To get the house temperature

What’s the temperature at home

What’s house temperature

To set {NodeTemp} degrees in the house

To set {NodeTemp} degrees at home

To switch on home

To switch off home

## 1 Introduction

Google Assistant<sup>®</sup> is a Google voice assistant that allows access to different services and functionalities through voice commands. It can be used from different types of devices, including mobile phones, smart watches, televisions and Google Home (home device)

## 2 Installation

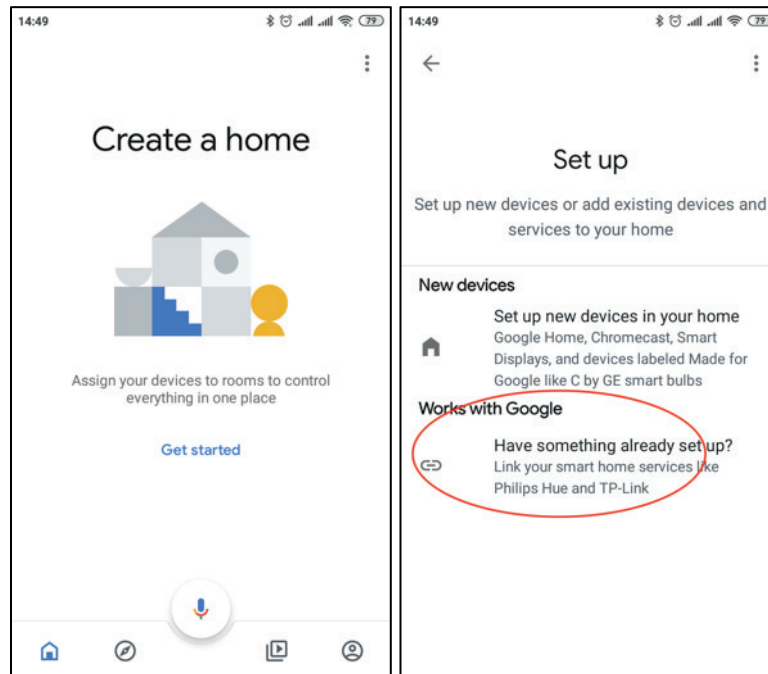
To work with Google Assistant for the management of heating devices it is necessary to use the Google Home application:

<https://play.google.com/store/apps/details?id=com.google.android.apps.chromecast.app&hl=en>

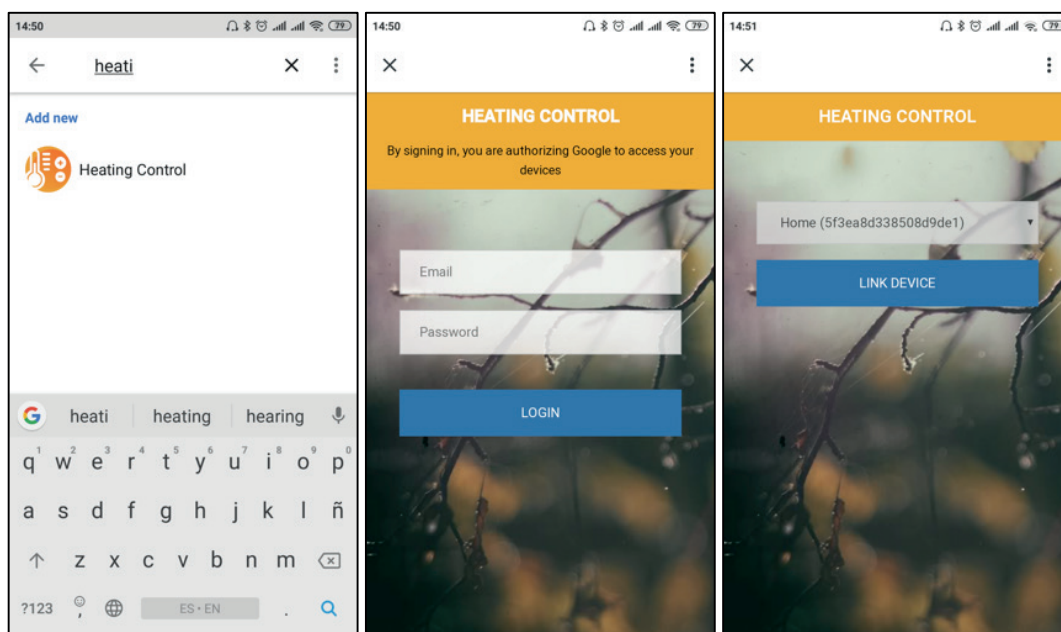
### 2.1 Linking the heating device with Google

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 handling of the equipment with the SmartHome profile, which is what we use. Take these instructions as indicative

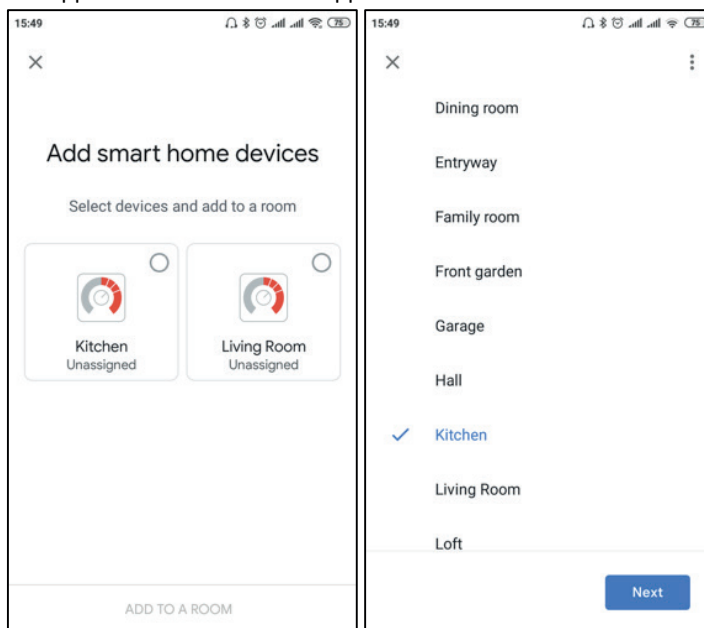
- Install the Home application, and open the. If it is the first time it is necessary to create a new house. Once created, you will be asked to configure a new device, select Works with Google. If there was already a House created, before configuring go to Add -> Configure device.



- At this point there is a list of the different devices (actions) that can be added. Search and select Heating Control. At this time pops up a new window to enter user and password, use your heating control app credentials. Then select the name of the home you want to link to the Google account. Once selected click on 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 then asks to add the devices in your account to rooms. You may add one or more devices to the rooms. The name of the room and the devices can be the same or different.

## 2.2 Control through Google

The control through Google presents a series of limitations on comparison with what can be done using the native application. They would be these:

- You cannot sign up new users. Neither delete
- You cannot edit the names of devices or house

- You cannot program or configure advanced device settings
- Geolocation does not work.
- You cannot invite users to your account
- Historic data is not available

For any of these functions use the native application.

These are the control functions that can be done through Google:

- Turn off a device, or all equipment in the house
- Turn on a device, or all the equipment in the house. They turn on in Auto mode
- Set temperature in radiator or throughout the house. If it was in Off mode, it turns on in Auto mode with the selected temperature. If it was in manual mode the temperature changes, maintaining the mode
- Set Eco mode on a radiator. The device changes to manual mode at the Eco temperature
- Set Heat mode on a radiator. The device changes to manual mode at the Comfort temperature
- Set Auto mode on a radiator.

### 2.2.1 Use the voice Assistant

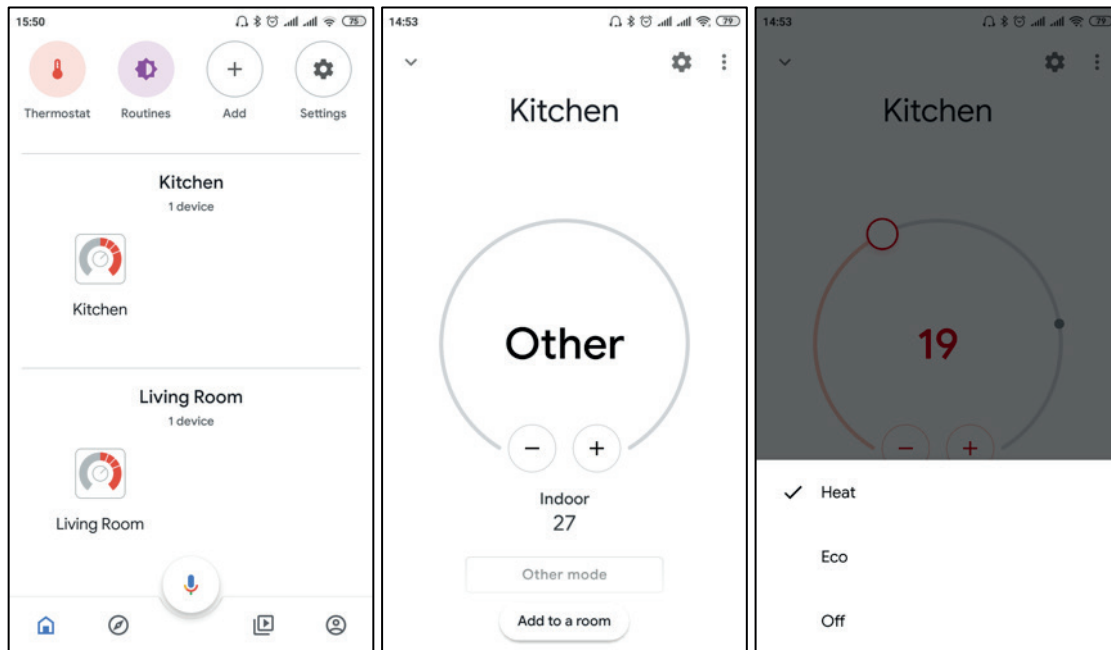
With the Google voice assistant you can set the modes mentioned above. The way to say the voice orders is not unique or predefined, the Google voice assistant interprets the orders naturally. Some orders are placed below, with the possibility of saying it in different ways:

- Turn off the house (turn off all devices)
- Turn on the house (turn on all devices)
- Set 25 degrees at home (put all 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 kitchen (there must be a kitchen device)
- Set the kitchen in Heat mode (set the manual mode to Comfort temperature)
- Set the kitchen in Eco mode (set the manual mode to Eco temperature)
- Set the kitchen in Auto mode
- Turn off the kitchen

### 2.2.2 Using the Home App

The Home application allows to control the devices installed in the home. The operation is limited to the functions previously commented.

After having done the account linking, you can see in the Home app the devices installed in your linked account.



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To access a device click on the icon with your name

At the time of making this manual if a device is in auto mode it appears as Other, and you cannot change the temperature from the Home app. This could change in the future; it is something that depends on Google.

You can select the Heat mode, which is equivalent to manual. The Comfort temperature is set, which can be modified.

You can also set the Eco mode, setting the manual mode to Eco temperature, but you cannot modify it.

To turn off set Off mode.

**17****Invite Users****GB**

Ideal for:

- Student residences
  - Rent houses
  - Airbnb/Wimdu..
  - Rural houses
  - Vacation apartments
- 
- The owner can invite guests (e-mail account)
  - The new user will receive a confirmation e-mail
  - The new user has full access to the home but can not invite other users.

The owner can remove the new users at any time.

Go to “My Homes” and then select the “Home” to which you want to invite a new user; then follow the instructions by pressing the “invite users” button.

The new user needs to download the app and can login with their mail address and the password generated with the link sent by the owner.



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Support

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