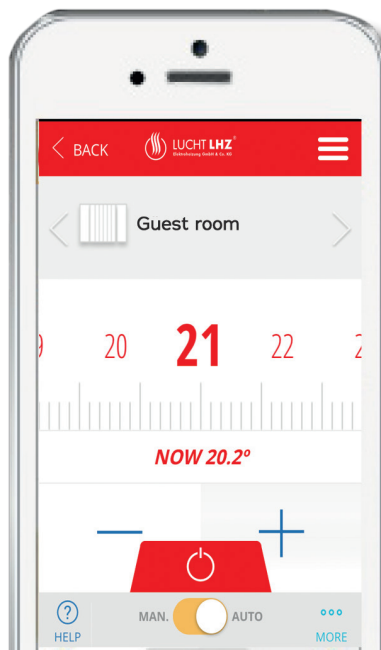


# Instruction Manual - LHZ SmartControl Interface



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



[www.ttiapp.technotherm.com](http://www.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.

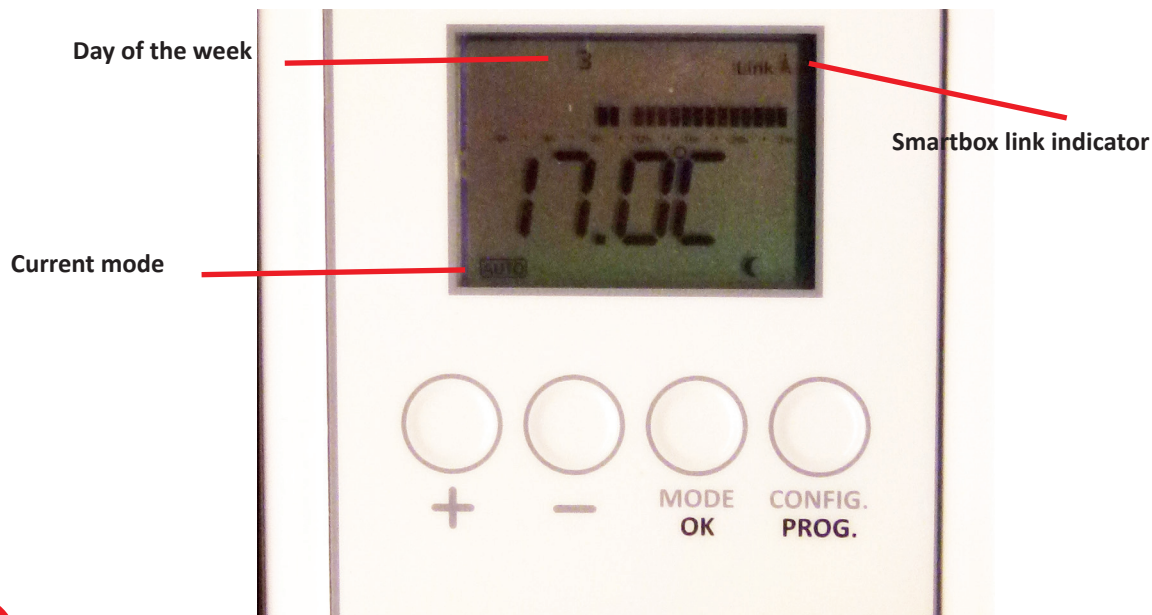
Edition:01/19  
Id\_Nr. 911 360 503

Subject to errors and technical amendments. Dimensions without guarantee!

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2	Installation
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11	Advanced settings
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14	Reset
15	Alexa
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## 1 Interface on the heater

**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 Lucht LHZ Smartcontrol online  
<https://ttiapp.technotherm.com>

or

b) register with your LHZ APP

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

**2.2****Smartbox Installation****GB**

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 LHZ 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 LHZ 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

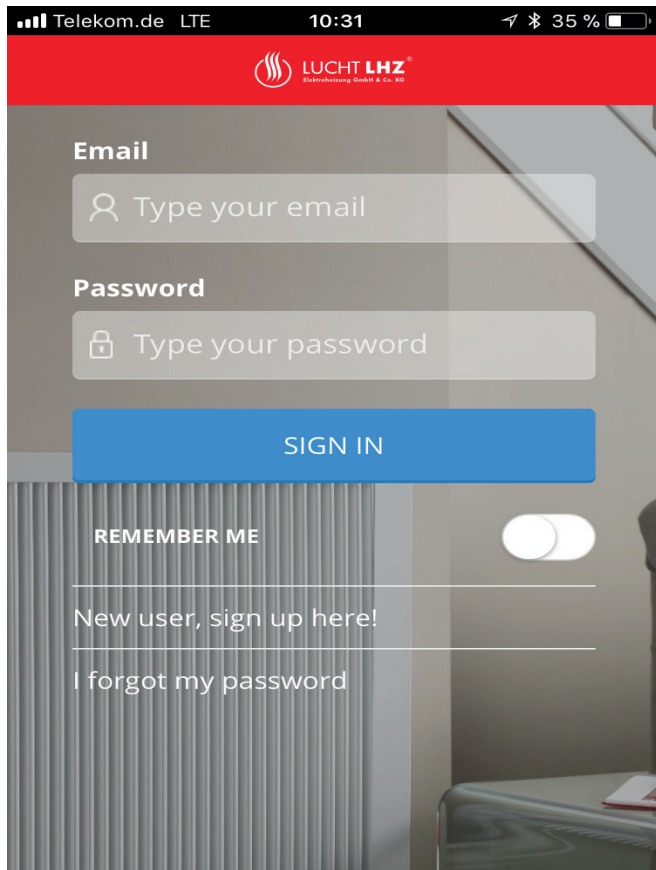
Enter a valid email address

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.



Telekom.de LTE 10:31 35 %

**LUCHT LHZ<sup>®</sup>**  
 Elektroheizung GmbH & Co. KG

**Email**

Type your email

**Password**

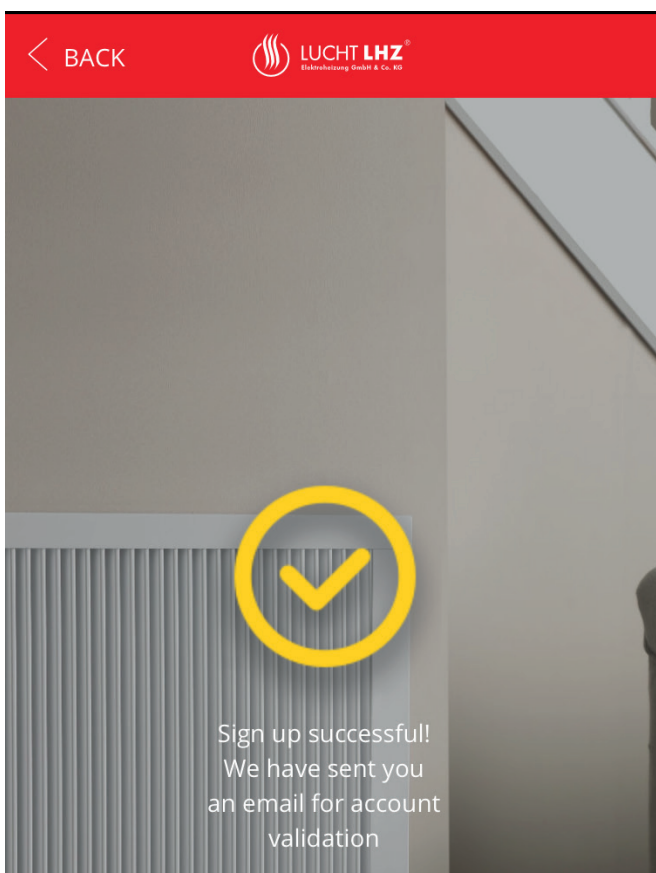
Type your password

**SIGN IN**

**REMEMBER ME**

New user, sign up here!

I forgot my password



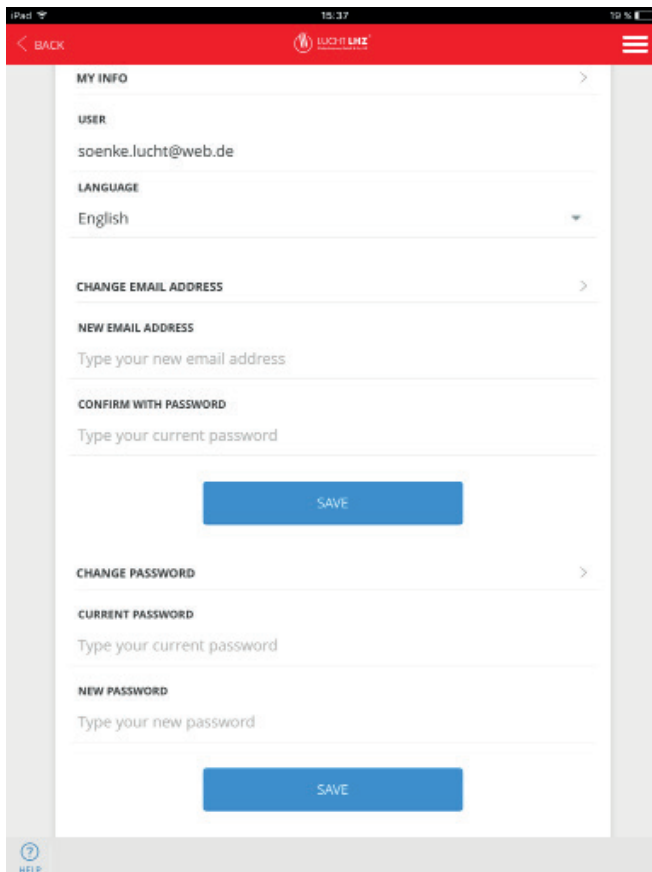
### Registration complete

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

[smartcontrol@lucht-lhz.de](mailto:smartcontrol@lucht-lhz.de)

GB

GB



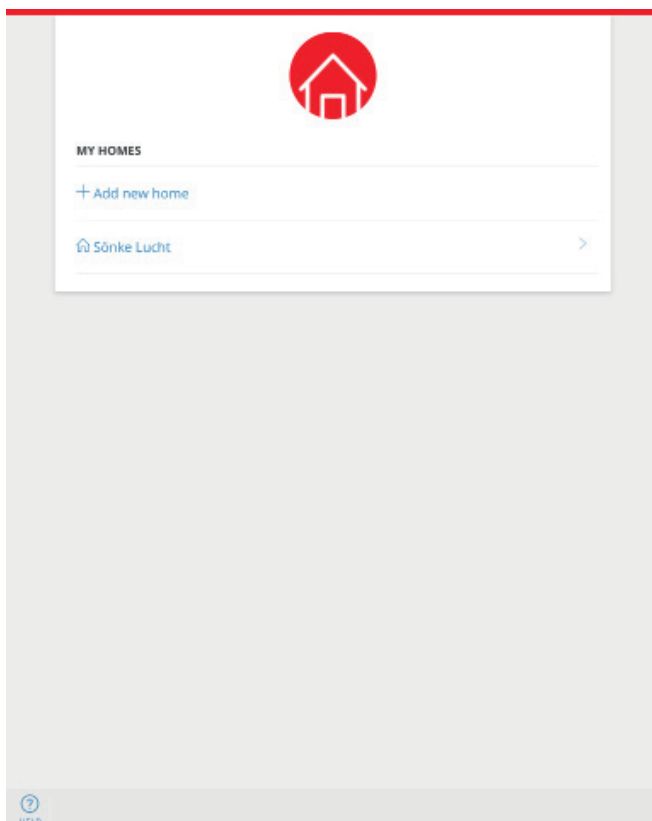
2.4

**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.

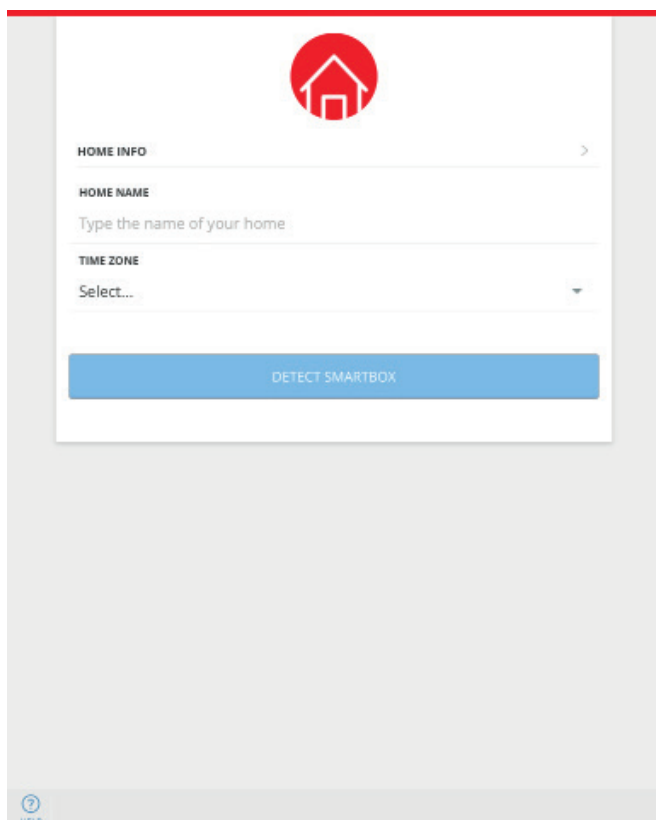


3

**Register the Smartbox and add new rooms**

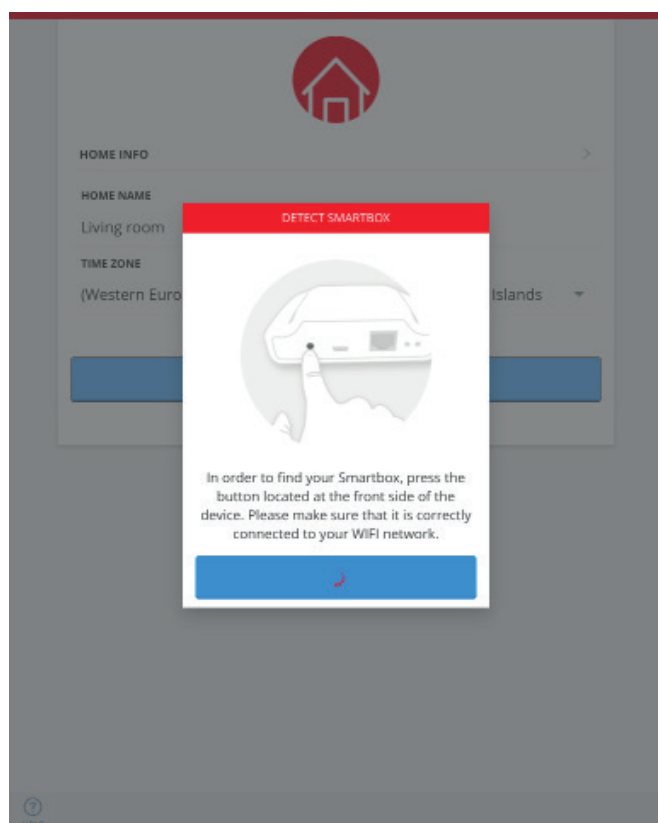
**Menu / HOMES**

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.



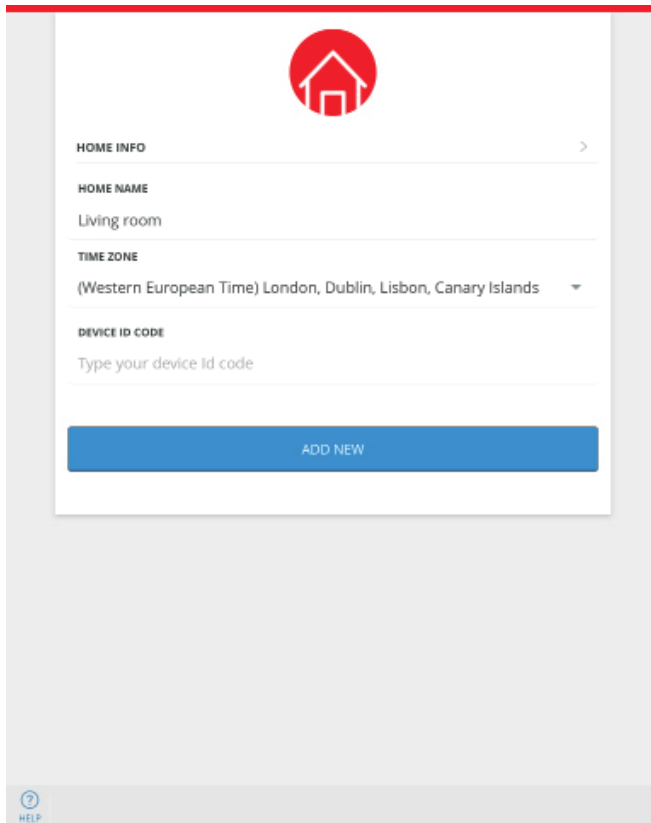
## Menu / HOMES / + add new homes

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

**GB**

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

GB



The screenshot shows the 'HOME INFO' screen of the Technotherm App. At the top is a red house icon. Below it, the 'HOME INFO' section includes a right arrow. The 'HOME NAME' field contains 'Living room'. The 'TIME ZONE' field shows '(Western European Time) London, Dublin, Lisbon, Canary Islands' with a dropdown arrow. The 'DEVICE ID CODE' field has the placeholder text 'Type your device Id code'. A blue 'ADD NEW' button is at the bottom. A 'HELP' icon is in the bottom left corner.

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

**Device No.:**

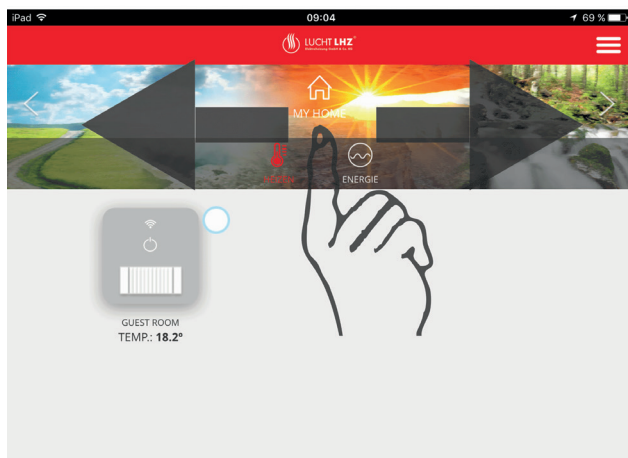
This also appears on the packaging and at the bottom of the gateway and contains 18 alphanumeric characters.



**Device No: 18 digits**



4

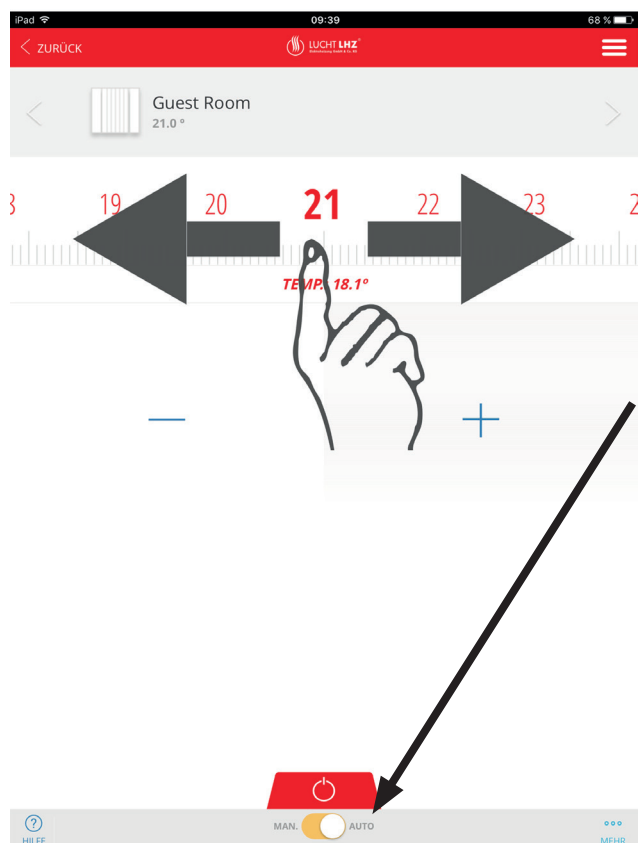


## Navigating between homes

Navigating

GB

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.

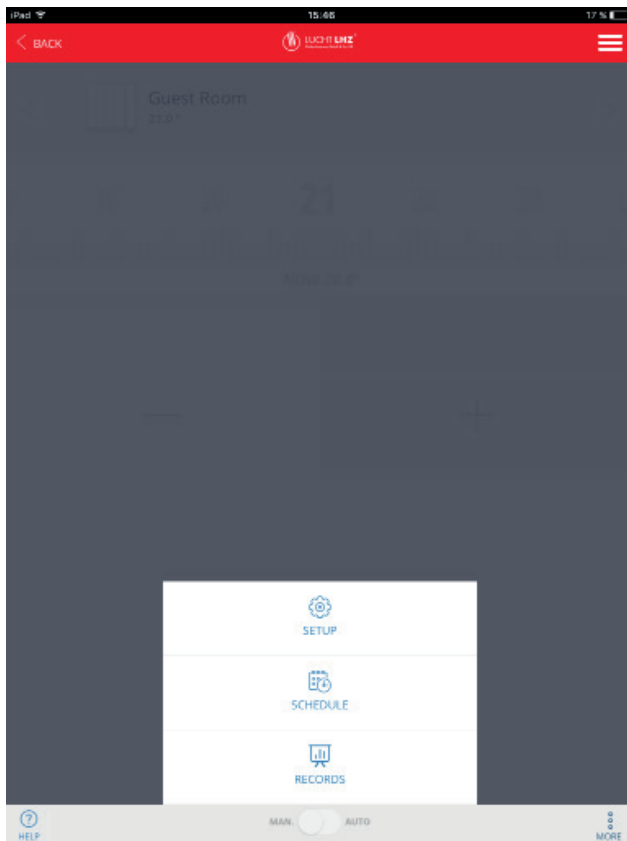
Comfort temperature: the temperature considered comfortable when at home. Normal recommendation between 21 and 23°C.

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



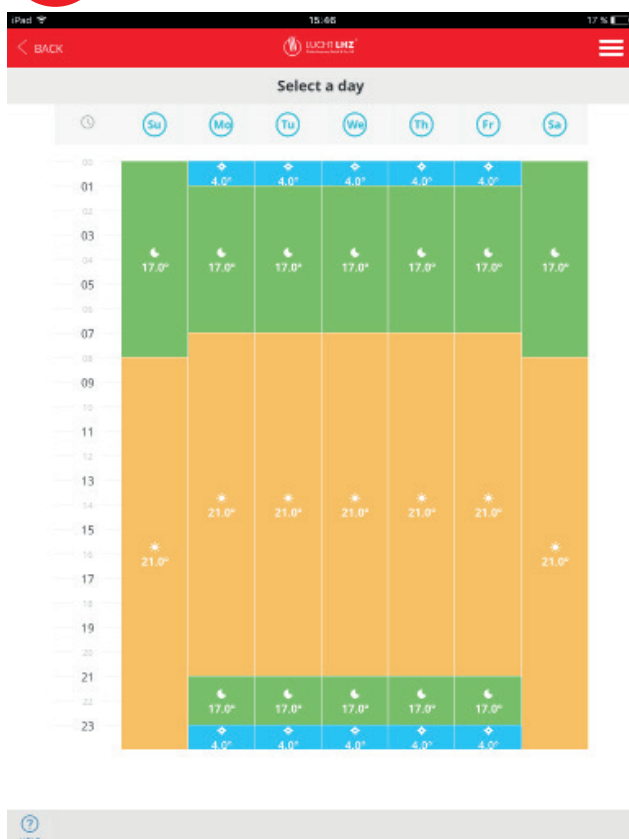
### Programming (AUTO mode, setpoint temperature change, copy days of the week)

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

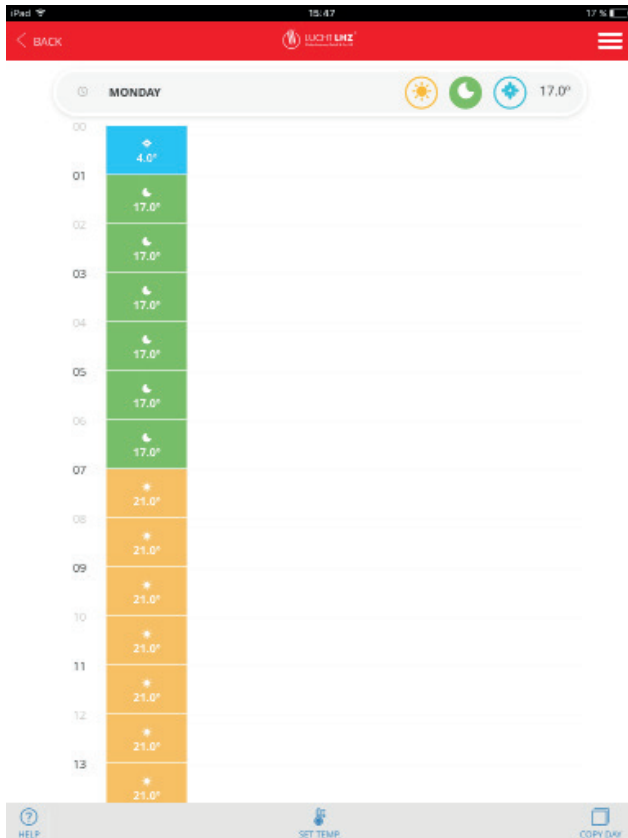


### Programming

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

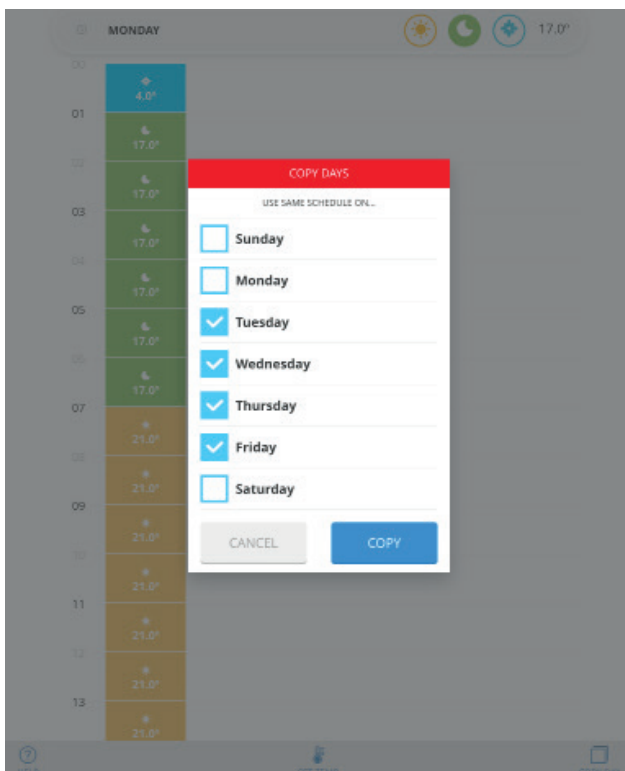
Time program for the day:

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



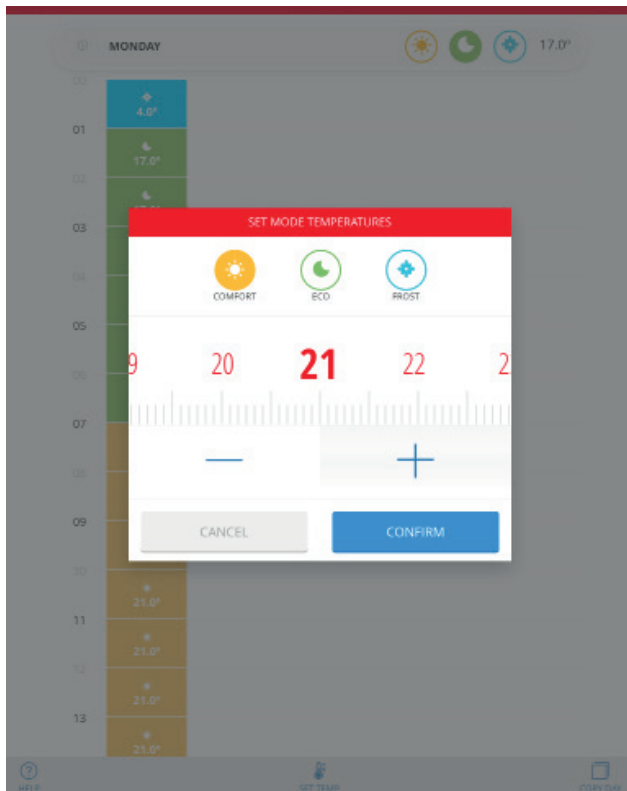
## Programming

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



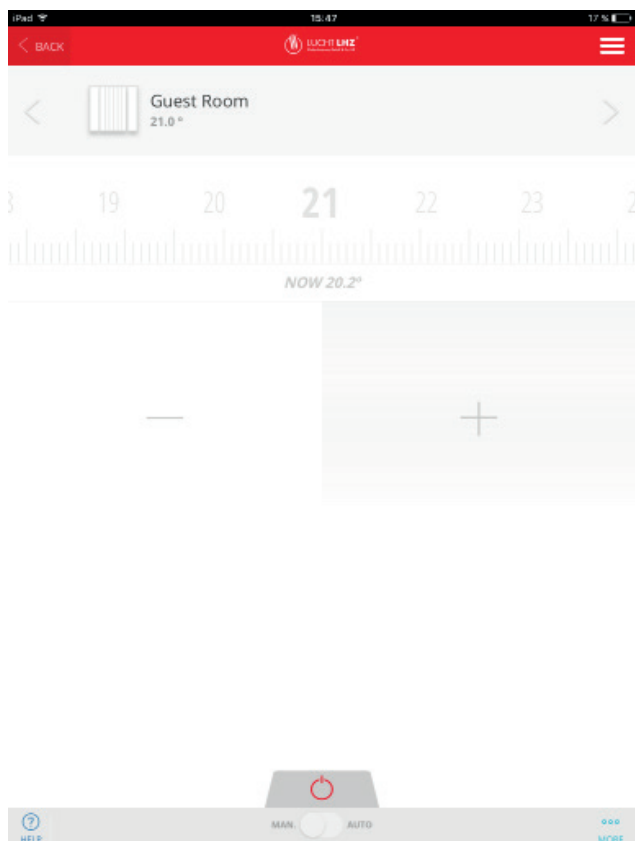
## Programming

## 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.

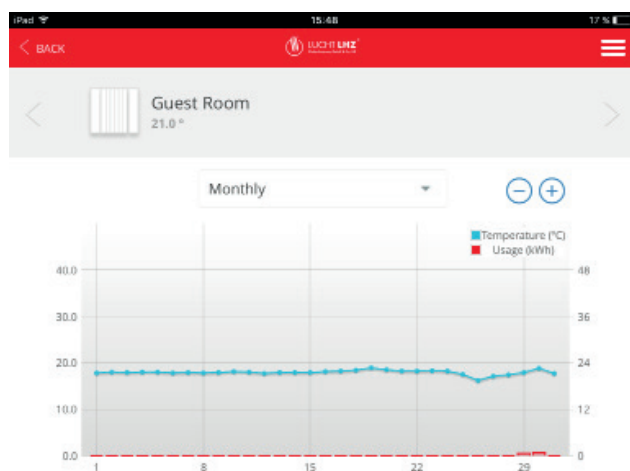
## 5.5



## 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

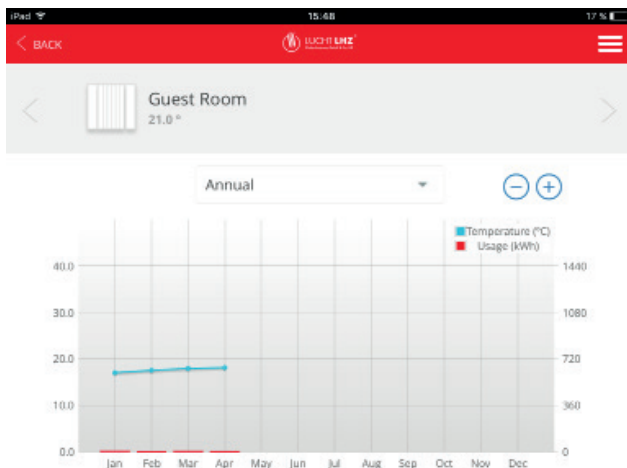
The average temperature of each hour of the day is displayed in the form of a line. The cumulative operating time (minutes) of the thermostat each hour is displayed. Cumulative data for said period is displayed on the monthly and annual screens. You can navigate between different periods using the <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

GB

## 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



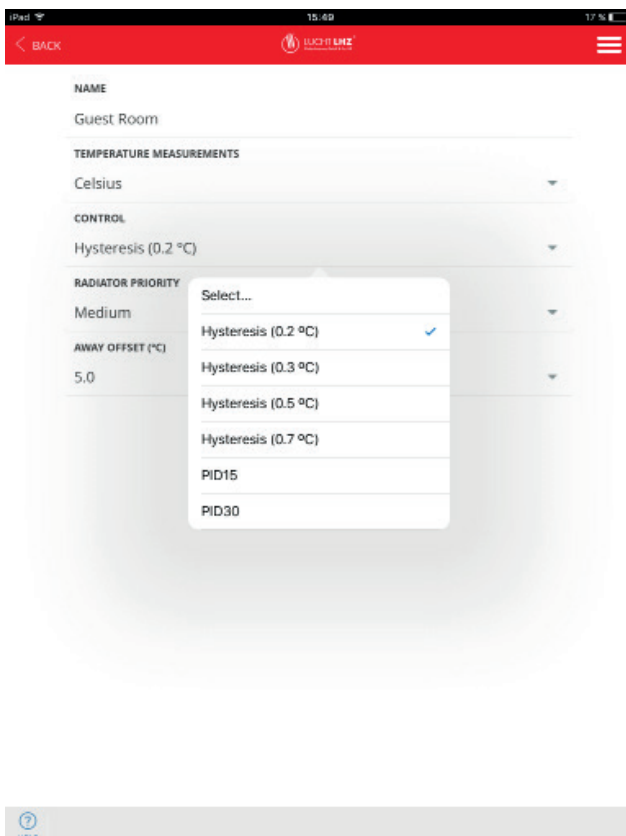
## Statistics

### 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



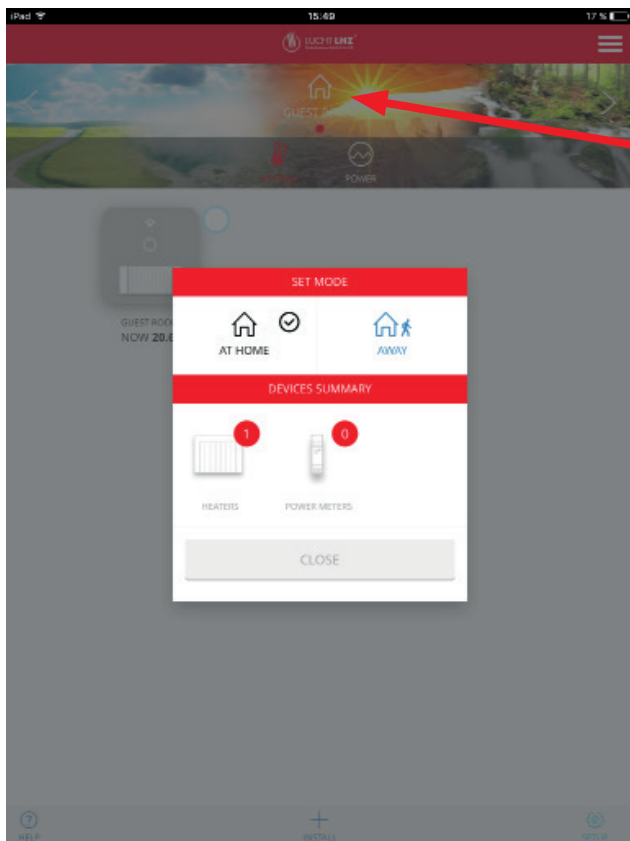
7



### 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

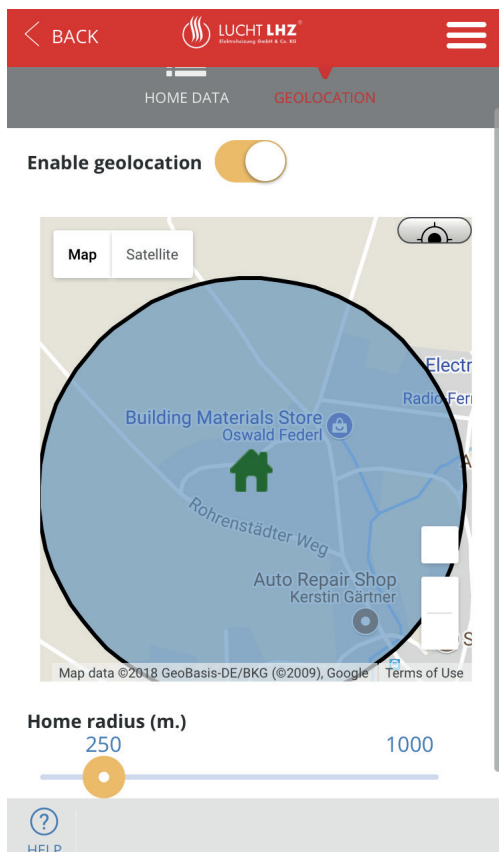
The „AWAY“ function

- 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).

GB

8



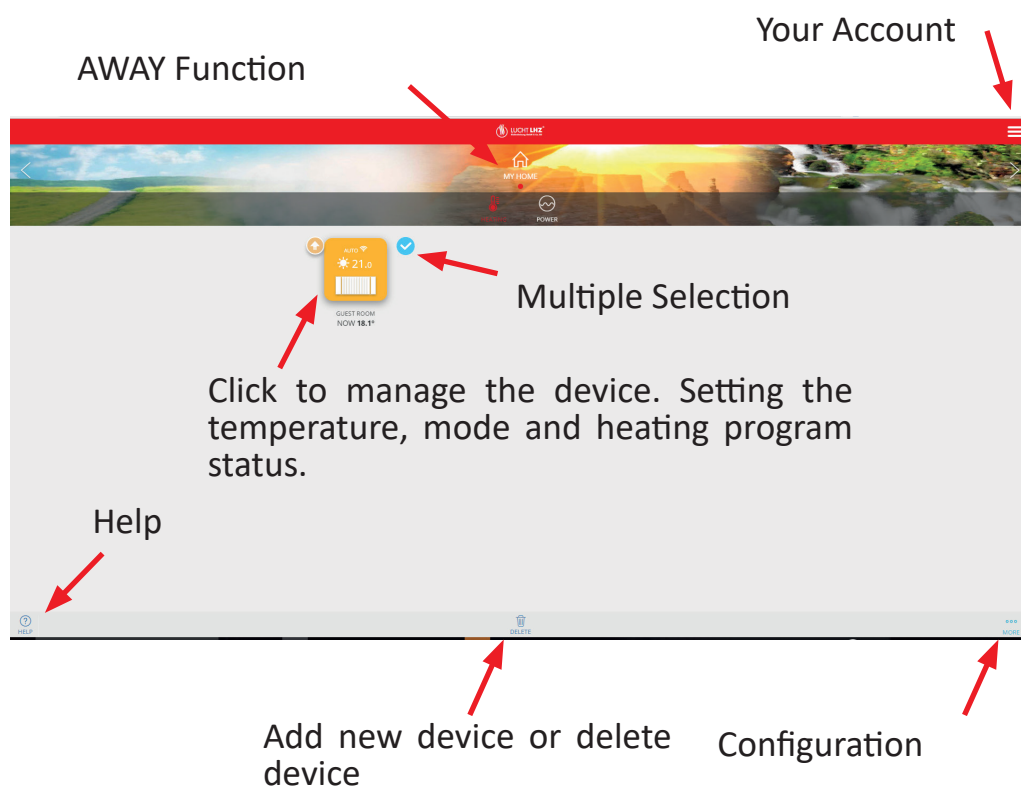
## Geolocation

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



## 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

**GB**

## Mode



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

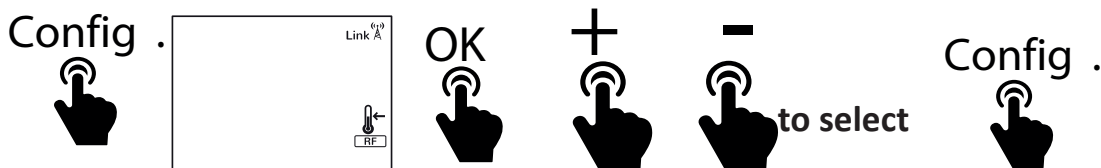
In "Manual" mode the temperature will be fixed.

### 10.2 Adjust programmed temperatures

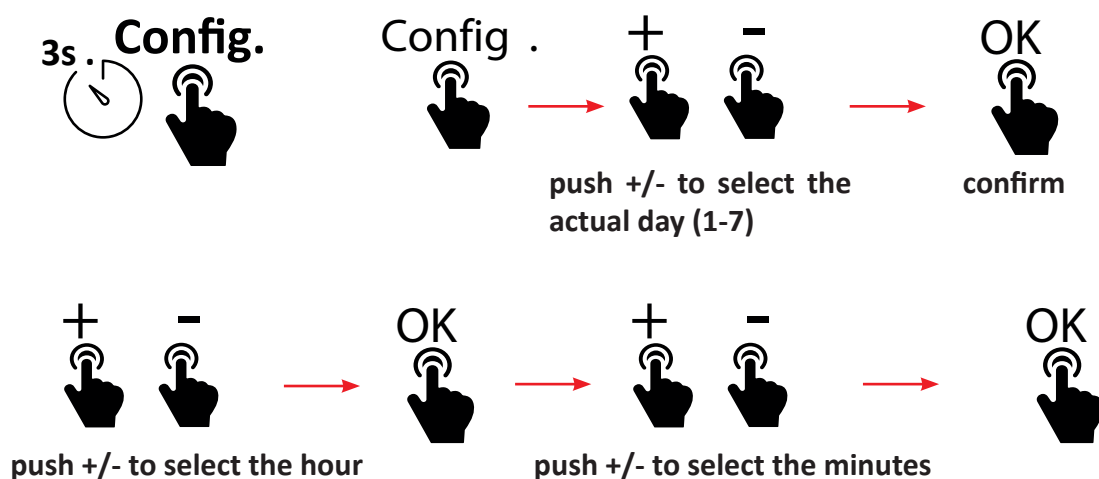
In "Auto" mode the temperature of each hour will change automatically following the programmed Schedule. The user must assign one of the temperatures to each hour:

- 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



### 10.3 Setting program and time/day

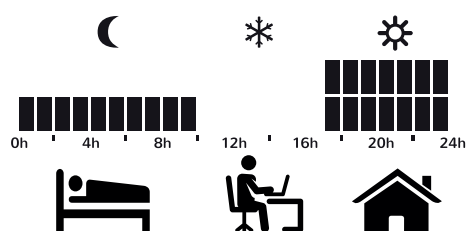
The radiator allows for the creation of a weekly programmed schedule which assigns one of the 3 available temperatures to each hour. The program for each day can be different.

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

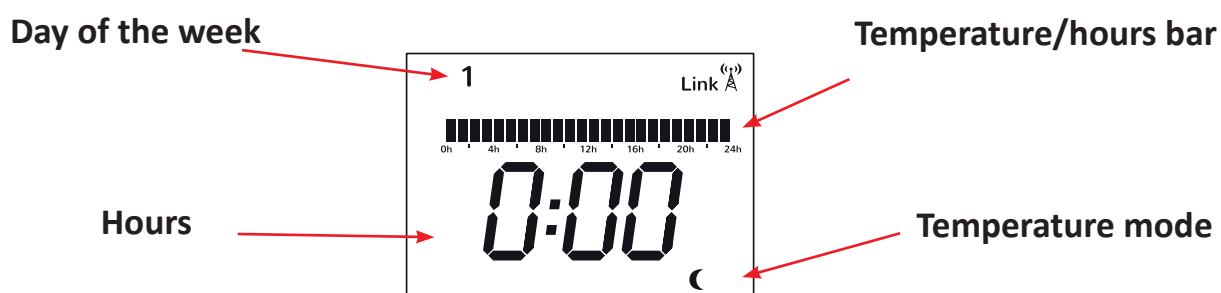
Use Eco-saving temperature for the night hours or short absence periods (Represented by 1 bar on the LCD)

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

Example:

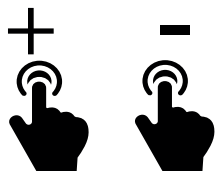


To start the programming:





Start of programming



By pressing +/- you will go through the selected modes with all the days, 24 hours a day.  
After 24 h automatically comes the day 2 and so on.

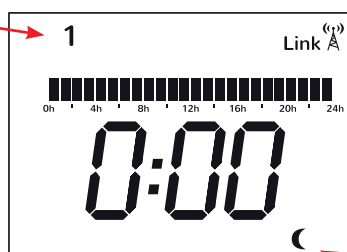


with OK you switch between the various pre-programmed modes (comfort, frost protection & night)



Leaving the programming

Day of the week

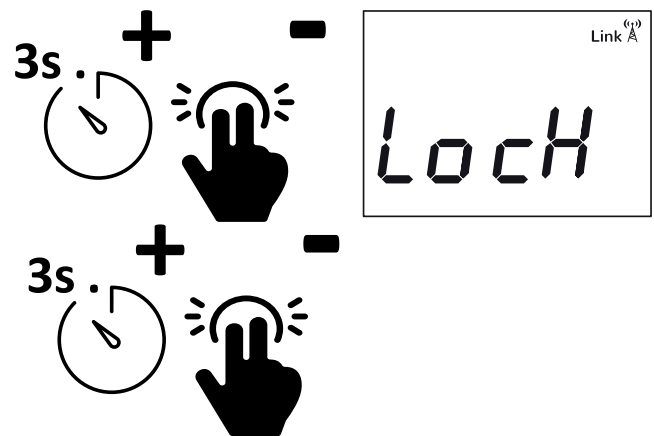


e.g. Night mode (1 bar at the display!)

GB

## 10.4 Keypad locking

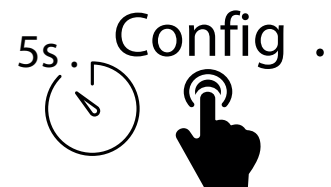
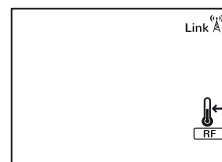
When locked, the LCD message will appear



To unlock...


## 11 Advanced engineer settings

Config .

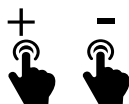


### The next configuration options will appear:

If the radiator is on simple function +-, just press config for 3 sec to enter configuration options. Then the following 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)

Select with



Confirm



# 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.

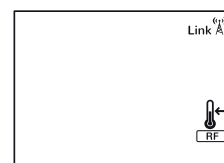
The Smartbox LEDs indicates:

- 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

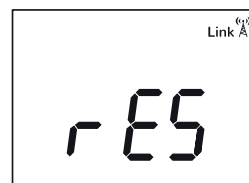
## 14

## Reset

At the heater:

Config . OK

10s.



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

**GB****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



## 16

## 16 Invite Users

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.

GB



Support

+49 (0) 3724 668 69 0

Errors and technical changes reserved. Dimensions without warranty! Edition 01/19

Lucht LHZ GmbH & Co. KG  
Reinhard-Schmidt-Str. 1 | 09217 Burgstädt  
Telefon: +49 (0) 3724 66869 0  
Telefax: +49 (0) 3724 66869 20  
info@lucht-lhz.de | www.lucht-lhz.de

GB



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