Installation and operating instruction

HERZ clever&smart Room Controller WiFi

3 F810 23

Read carefully before installation, commissioning and operation

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Safety Instructions

EG-Conformity

By affixing the CE mark to the unit the manufacturer declares that the HERZ clever&smart Room Controller WiFi conforms to the following relevant safety regulations:

- EU low voltage directive 2014/35/EU
- EU electromagnetic compatibility directive 2014/30/EU
- EU RoHS Directive 2011/65/EU
- EU WEEE Directive 2012/19/EU (Reg.nr. DE 23479719)

Conformity has been verified and the corresponding documentation and the EU declaration of conformity are kept on file by the manufacturer.

General Instructions

Please read carefully!
These installation and operating instructions contain basic instructions and important information regarding safety, installation, commissioning, maintenance and the optimal use of the unit. Therefore these instructions must be read and understood completely by the installation technician/specialist and by the system user before installation, commissioning and operation of the unit.

This unit is an automatic, electrical Room Controller. Install the unit only in dry areas and under the ambient conditions described in “Specifications”.

In addition, observe the applicable accident prevention regulations, the regulations of the Association of Electrical Engineering, the local power supply utility, the applicable DIN-EN standards and the installation and operating instructions for the additional system components. Installation, electrical connection, commissioning and maintenance of the device may only be carried out by an appropriately trained specialist.
Users: Make sure that the specialist gives you detailed information on the function and operation of the unit. Always keep these instructions in the vicinity of the unit.

The manufacturer does not take over any liability for damage caused through improper usage or non-compliance of this manual!

Before working on the unit, switch off the power supply and secure it against being switched on again! Check that there is no power flowing! Electrical connections may only be made by a specialist and in compliance with the applicable regulations. The unit may not be put into operation if there is visible damage to the housing, e.g. cracks.

Changes to the Unit

- Changes, additions to or conversion of the unit are not permitted without written permission from the manufacturer.
- It is likewise forbidden to install additional components that have not been tested together with the unit.
- If it becomes clear that safe operation of the unit is no longer possible, for example because of damage to the housing, turn the unit off immediately.
- Any parts of the unit or accessories that are not in perfect condition must be exchanged immediately.
- Use only original spare parts and accessories from the manufacturer.
- Markings made on the unit at the factory must not be altered, removed or made illegible.
- Only the settings described in these instructions may be set using the unit.

Changes to the unit can compromise the safety and function of the unit or the entire system.

Warranty and Liability

The Unit has been manufactured and tested with regard to high quality and safety requirements. The warranty and liability shall not include, however, any injury to persons or material damage that is attributable to one or more of the following causes:

- Failure to observe these installation and operating instructions
- Improper installation, commissioning, maintenance and operation
- Improperly executed repairs
- Unauthorised structural changes to the unit
- Use of the device for other than its intended purpose
- Operation above or below the limit values listed in the ‚Specifications' section
- Force majeure

Disposal and Pollutants

The unit conforms to the European RoHS 2011/65/EU for the restriction of the use of certain hazardous substances in electrical and electronic equipment.

For disposal, according to the WEEE Directive 2012/19/EU, the device does not belong in household waste under any circumstances. Dispose of the unit only at appropriate collection points or ship it back to the seller or manufacturer.

Description HERZ clever&smart Room Controller WiFi

Technical Data

Housing	2-part, ABS plastic 75 mm x 95 mm x 19 mm Glass front
Display	Capacitive touch panel Color display with 240x320 dots 2.8 inches (7 cm) diagonal
Operation	Intuitive user guidance
Language	20 menu languages selectable

Electrical specifications:		
Power Supply	24 VDC +/- 10 %	
Power consumption	max. 2,5 W	
Protection Class	IP 20	
Protection class / overvoltage category	III / I	
Permissible Ambient Conditions		
during operation	0 °C - 50 °C, no moisture condensation permitted	
for transport/storage	0 °C - 60 °C, no moisture condensation permitted	
Measurement Range	Outside the measuring ranges there are larger deviations	
Internal temperature sensor	0 °C - 60 °C	Accuracy +/- 1 °C Resolution 0,1 °C

⚠ After switching on or disconnecting from the mains, it takes up to 60 minutes until the temperature is displayed precisely.

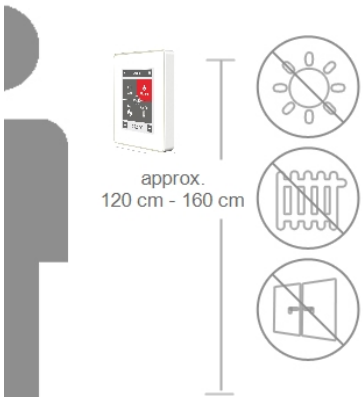
Other Specifications	
Installation Methods	Wall installation, with/without wall socket
Real Time Clock	RTC with 24 hour power reserve

Scope of Supply

- HERZ clever&smart Room Controller WiFi
- 2 screws 3,5 x 35 mm and 2 plugs 6 mm for wall installation.
- Terminating resistor (120 Ohm) pre-installed on one of the two CAN High/CAN Low connections, operating tool, switch box
- HERZ clever&smart Room Controller WiFi installation guide

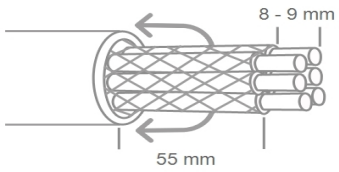
Installation

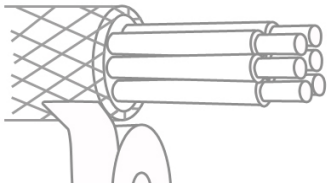
HERZ clever&smart Room Controller WiFi installation



Mount the unit at a suitable location.

> ⚠ Pay attention to suitable environmental conditions. Direct sunlight, sources of heat and cold, e.g. radiators and windows must be avoided.





Recommended connection cable: twisted pair cable with shield, e.g. bus cable 3 × 2 × 0,22 mm². Strip cables, slip protective conductor over, and remove fill material as needed.

When wall mounting, make sure that the cables are kept as short as possible (max. 40 mm for direct wall mounting), as unnecessary vein loops in the HERZ clever&smart Room Controller WiFi housing can lead to problems.

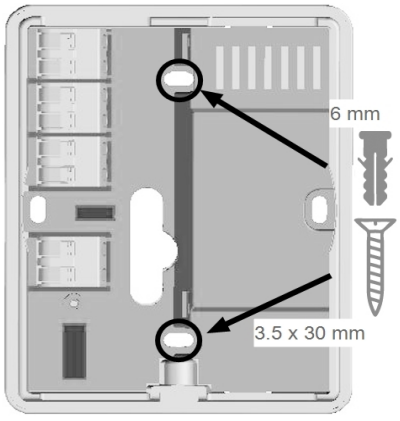
When mounting on a switch box, make sure that the cables are kept as short as possible (strip cables max. 55 mm) and that any vein loops are fed back into the switch box, as unnecessary vein loops in the HERZ clever&smart Room Controller WiFi housing can lead to problems.

Strip the last 8 - 9 mm of the wires. Isolate shielding and connect it at a suitable location (controller or CAN-box) to the protective conductor.

> ⚠ Any contact between protective conductor and circuit board can cause serious damage.

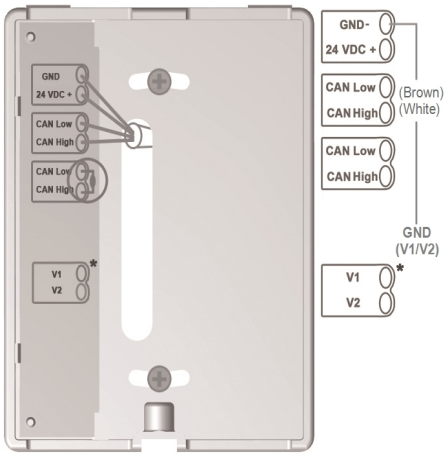
Mounting on plastic wall socket

Fasten the base to the switch box with the enclosed screws (3.0 x 16 mm).



Direct wall mounting

Hold the lower part of the housing up to the selected position and mark the three mounting holes. Make sure that the wall surface is as even as possible so that the housing does not become distorted when it is screwed on. Using a drill and drill holes at the points marked on the wall and push in the plugs. Insert screws and screw it in slightly. Align the base and tighten the screws.



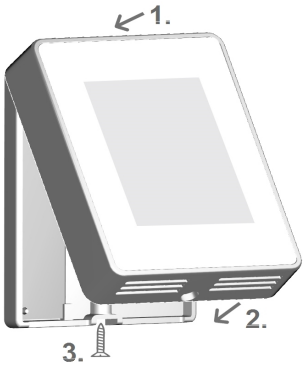
* Only available on Clima version!

Open the connection terminals with the accompanying operating tool and make the electrical connection (24 VDC, GND, CAN-High and CAN-Low) as described in the operating manual of the Control Box.

> ⚠ Power supply 24 VDC, ensure correct polarity or it may cause damage to the unit!

Operating tool

For the pin assignment of the CAN bus line on the HERZ clever&smart Control Box, please refer to the corresponding instructions for use or operating manual.



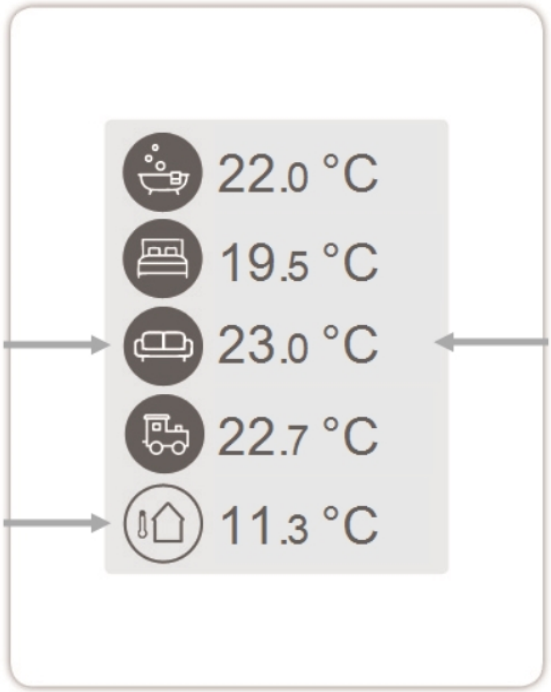
Place the control panel on the lower part of the housing as illustrated in the picture and fix it in place with the screw supplied.
Switch on the mains voltage of the Control Box and put the HERZ clever&smart Room Controller WiFi into operation.

> ⚠ The setup wizard can be accessed at any time in HERZ clever&smart Room Controller WiFi under the menu item 'Expert'.

Operation

Room Overview

Displays the room temperature and outdoor temperature after activating the start screen.



Room icon

Selecting a room icon takes you to the room temperature settings.

Outdoor temperature

Displayed as soon as an outdoor sensor is used or an outdoor sensor is activated on a HERZ clever&smart Control Box menu "Expert > Control Box > Heating circuit > Sensor outdoor".

Multiroom selection

By dragging your finger vertically across several rooms, you can change the operating mode in all rooms at the same time.

°C

Room temperature

Current room temperature.

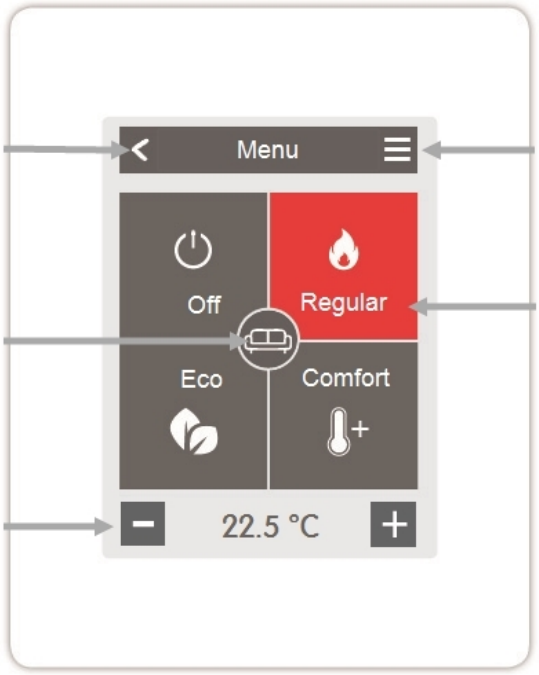
Operating Mode

Overview > **Operating Mode**

Back/ Forward
Navigate back to the overview.

Room
Displays the selected space.

Reference temperature
Setting the reference temperature for the active operating mode in the displayed room.



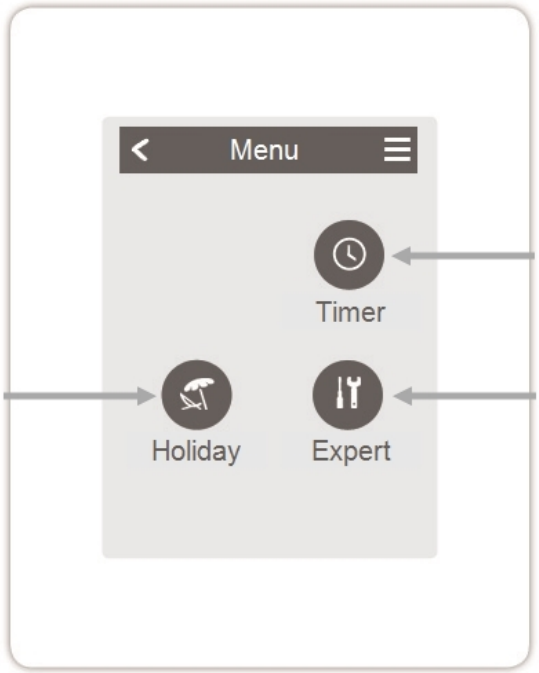
Menu
Navigate to the main menu

Operating Modes
The operating mode shown in colour is currently active and can be changed by selecting another mode. Manually selected modes remain active until the next change of mode by the timer program. A background frost protection function remains active in the "off" mode.

Menu

Overview > Operating Mode > **Menu**

Holiday
Set the period and temperature for a longer absence.



Timer
Setting of individual heating or cooling times for each day of the week with copy function for subsequent days.

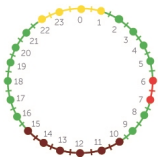
Expert
Advanced settings for the technician.

Set Operation Hours

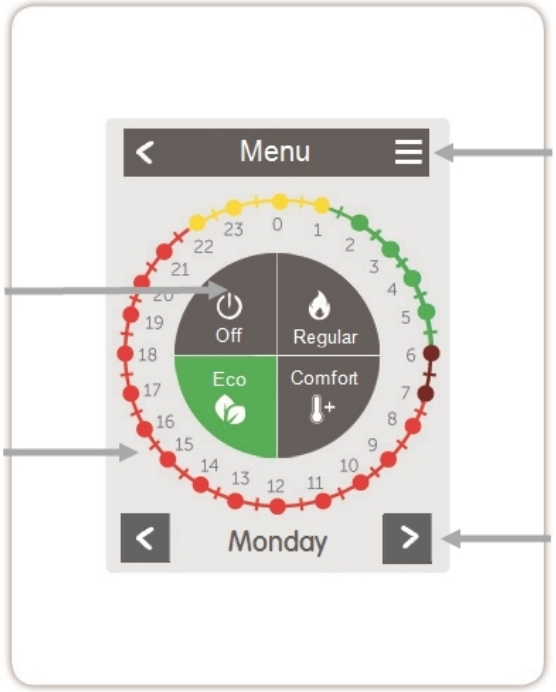
Overview > Operating Mode > Menu > **Timer**

Setting of individual heating and cooling times for the selected room.

Operating Modes
Selection of the operating mode to select individual heating or cooling sections.



Clock
Time table of the selection in periods of 30 minutes increments.
Touch individual segments, or drag your finger over complete time intervals to colour them according to the selected operation mode.

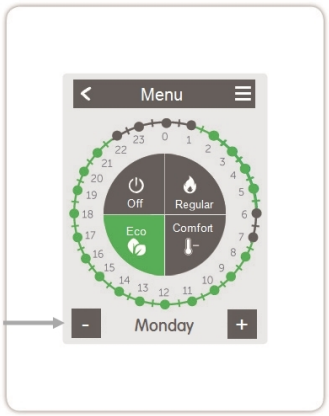


Menu
Opens the copy function. The function allows you to copy the heating and cooling times to the following day, to Monday - Friday or to Monday - Sunday.

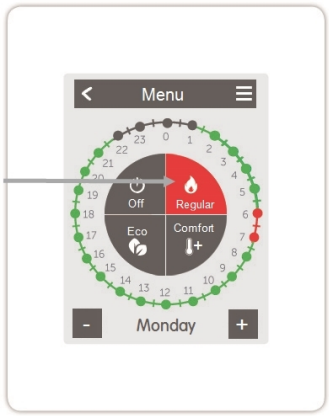
Back / Next Weekday
Selects the set day.

Set Operation Hours Example

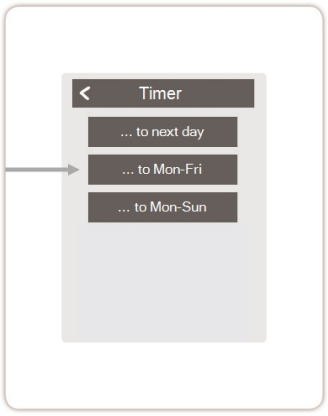
Step 1
Use the arrow keys to select the desired day.



Step 2
Select the desired mode (Normal, Comfort, Eco or Off) and then move your index finger over the desired time period. The selected period changes colour to the colour of the selected operating mode after selection. Set the times of the other operating modes in the same way.



Step 3
After completing the setting of the individual heating times, you have the option of copying the times via the main menu to the following day, to Monday - Friday or to Monday - Sunday or to set them individually for each day of the week.



In the interests of efficient and energy-saving single room control, the operating times should be set specifically for each room.

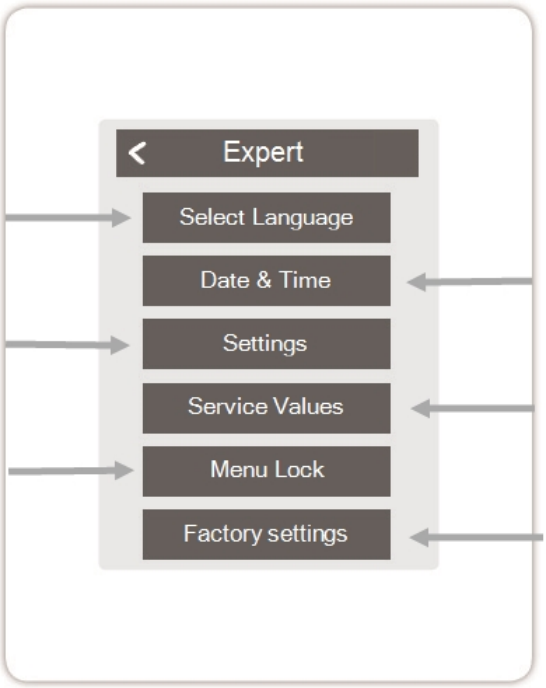
Expert Menu

Overview > Operating Mode > Menu > **Expert**

Select Language
Set the device language

Settings
Parameterisation of the heating system

Menu Lock
Activate menu lock to protect settings with a password.



Date & Time
Setting the time and date and automatic summertime/wintertime changeover

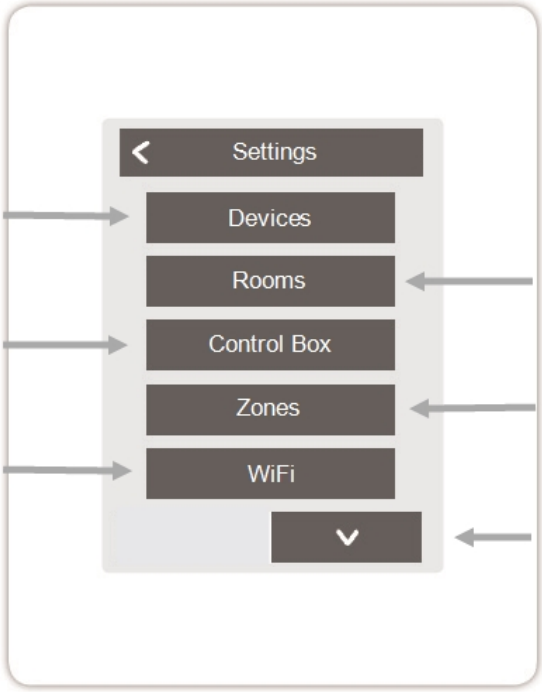
Service Values
Information about the system

Factory settings
The factory settings are restored in the device

The menu structure described here is based on the status at the time of production and may vary due to subsequent software changes.

Settings

Overview > Operating Mode > Menu > Expert > **Settings**



Devices
Add, manage and remove connected devices

Control Box
Assignment and configuration of additional functions of the free switching outputs on the HERZ clever&smart Control Box. This menu is only visible if this HERZ clever&smart Room Controller was set as the "Configurator" ("Expert > Settings > Devices > Control Box > Configurator") of the HERZ clever&smart Control Box during commissioning.

WiFi
Set and manage WiFi functions

Rooms
Add, manage and remove rooms and assign them to connected devices

Zones
Assigning rooms to heating zones

Display Brightness
Adjust the display brightness

Interface Mode
Switch between full and restricted menu. Only the reference temperature can be set in the mode "Hide menu". To return to "full" mode, press and hold the upper-right corner of the display for 5 seconds.

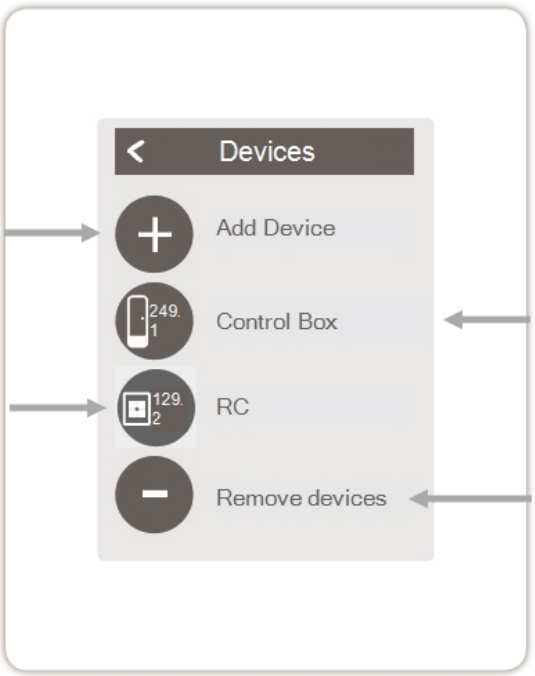
Room Sync.
If room synchronisation is activated, rooms set up on other HERZ clever&smart Room Controllers of the same network are also displayed on this HERZ clever&smart Room Controller and vice versa.

Devices

Overview > Operating mode > Menu > Expert > Settings > **Devices**

Add Device
Starts the search for new available devices in the network

Device icon
Shows the type of connected device and its CAN ID



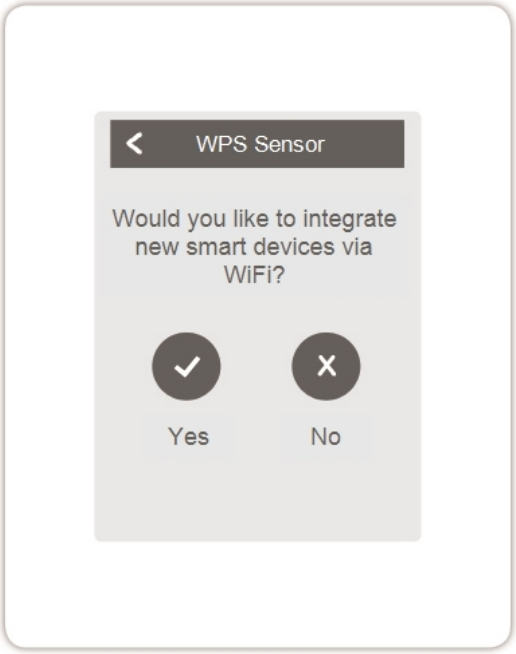
Description
Shows the detected type of the unit

Remove devices
Devices are removed from the network

If no WLAN is available, devices can be added to the network via the menu 'Expert -> Settings -> Devices - > Add device'.

Add a HERZ clever&smart Room Sensor WiFi or a HERZ clever&smart LEDcontroller WiFi to your network.

For the commissioning of the WiFi sensors, please refer to the respective operating manuals.



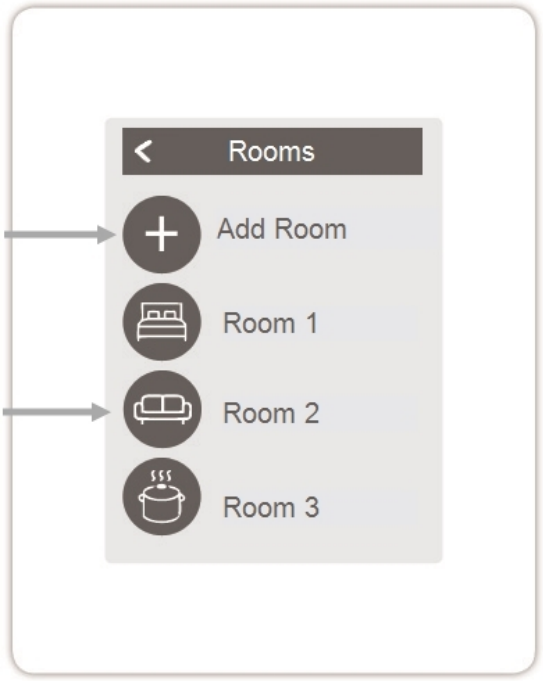
WPS
Please touch the smart device to be connected for 5 sec. until its LED lights up blue.
Waiting for connection...
120s

Rooms

Overview > Operating mode > Menu > Expert > Settings > **Rooms**

Add Room
Adding rooms

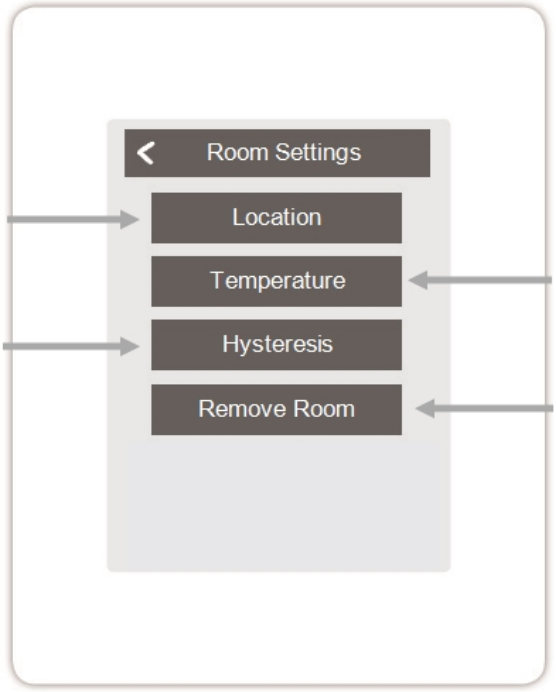
Room 2
Setting the location, sensors and actuators of the respective room



Overview > Operating mode > Menu > Expert > Settings > **Room 2**

Location
Selection of the space icon

Hysteresis
Switch-off hysteresis for the room setpoint temperature

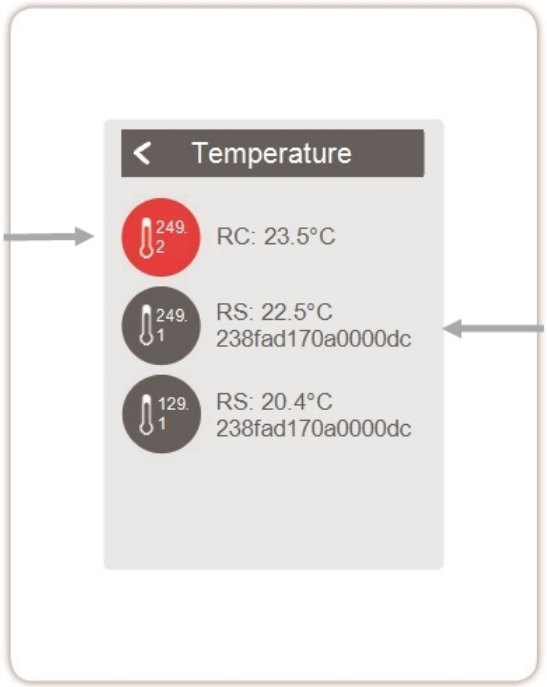


Temperature
Sensors in the selected room

Remove Room
Removing the selected room

Sensors

Overview > Operating mode > Menu > Expert > Settings > Rooms > Room 1 > Sensors > **Temperature**

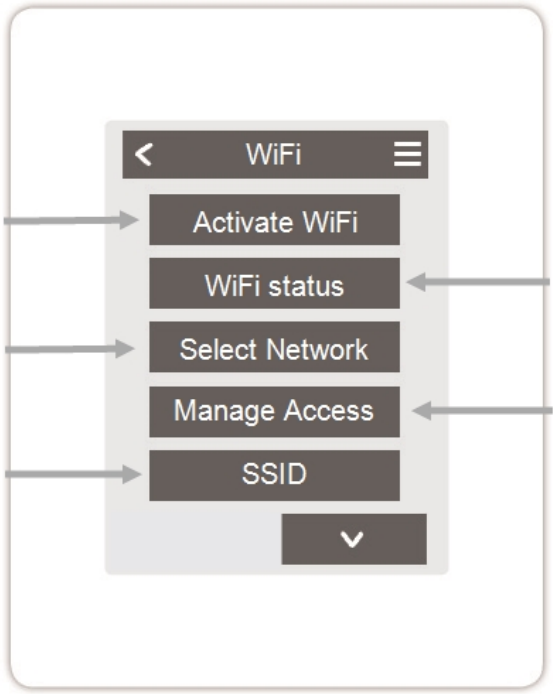


Icon
Already selected sensor

CAN ID of the Control Box + serial number
Temperature sensor selection in the selected room

WiFi

Overview > Operating mode > Menu > Expert > Settings > **WiFI**



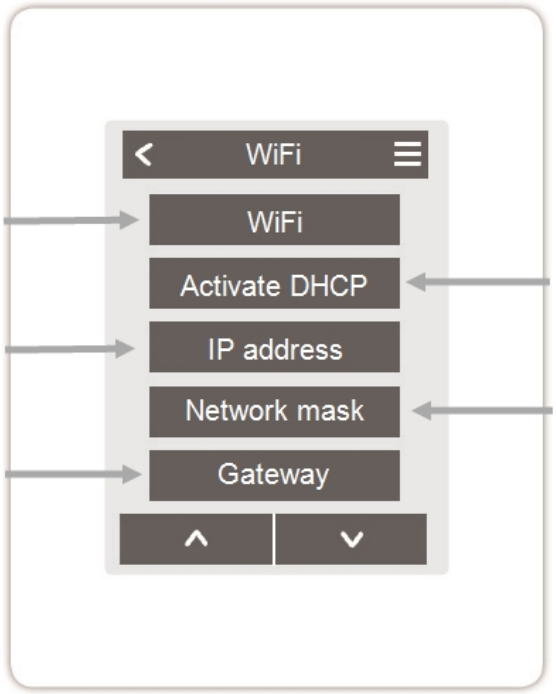
Activate WiFi
Activate WiFi function

Select Network
Scan for available networks and select the network

SSID
Manually entering the WLAN name

WiFi status
Information about the WiFi status and the device address (which is needed to connect to the HERZ clever&smart App).

Manage Access
Allow up to 5 users to access the unit via HERZ clever&smart App by entering their e-mail addresses.



WiFi
Entering the WiFi password

IP address
Entering the HERZ clever&smart Room Controller IP address

Gateway
Enter the gateway address

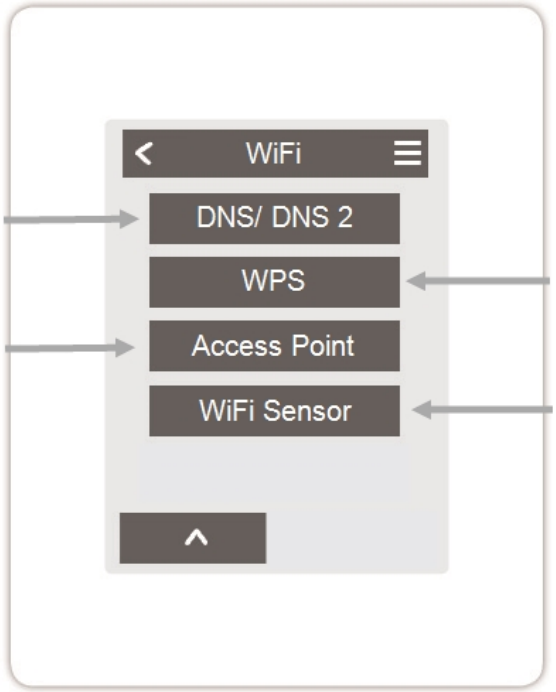
Activate DHCP
If auto-configuration is enabled, the device searches the network for a DHCP server that assigns it an IP address, subnet mask, gateway IP and DNS server IP. If you deactivate the auto configuration (DHCP), you will have to make the required network settings manually!

See the following points:

Network mask
Entering the network mask

DNS/ DNS 2
Entering the DNS address

Access Point
Settings for routing and the WPS Repeater



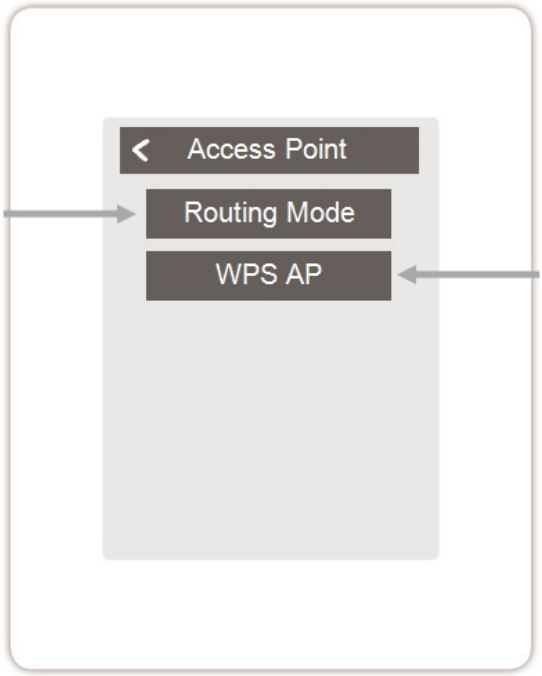
WPS
Connecting the HERZ clever&smart Room Controller WiFi to a WPS-enabled router

WiFi Sensor
Settings for the LED display and the transmission interval

Access Point

Overview > Operating Mode > Menu > Expert > Settings > WiFi > **Access Point**

Routing Mode
The automatic routing independently selects between a direct connection of WiFi devices with the access point of the HERZ clever&smart Room Controller and indirect connection via the WLAN router. As not all routers support this function, the setting "No" is recommended in case of problems in WiFi communication. In this case, all communication takes place via the WLAN router. If there is no router, the communication takes place via the access point of the HERZ clever&smart Room Controller.



WPS AP
Add a WPS-enabled repeater to increase the range.

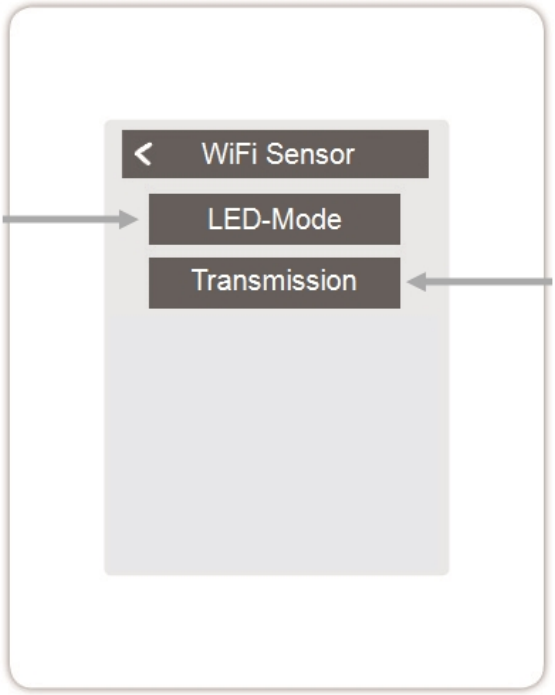
WiFi Sensor

Overview > Operating Mode > Menu > Expert > Settings > WiFi > **WiFi Sensor**

LED-Mode
LED behaviour settings:

regular:
Sending of sensor values successful
=> LED lights up green
Sending the sensor value failed
=> LED flashes red

still:
In the "silent" mode, the LED only flashes red if the transmission of the sensor values has failed three times in succession.



Transmission interval
Setting of the time between two transmissions in minutes

⚠

A transmission interval that is set too short can lead to problems with the WLAN connection with some routers.

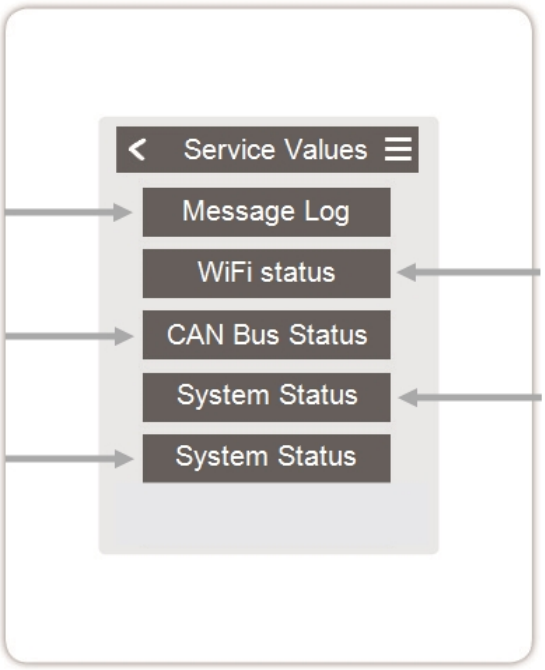
Service Values

Overview > Operating mode > Menu > Expert > **Service values**

Message Log
Display of the error memory

CAN Bus Status
CAN bus status display

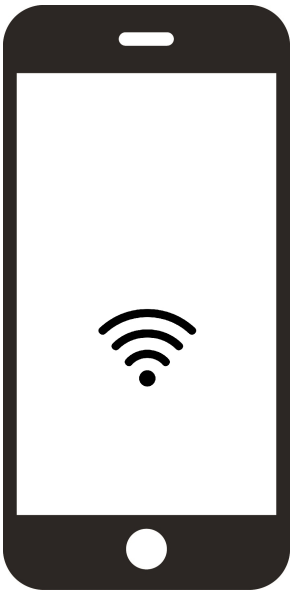
System Update
Enables an update of all Room Controller and Control Boxs networked in the private CAN network.



WiFi status
Display of the WiFi status

System Status
Display of the system status

Connecting HERZ clever&smart App to the HERZ clever&smart Room Controller WiFi



1. Download HERZ clever&smart App app to your mobile device. Currently available on Google Play (Android) and Apple App Store (iOS).
2. Start app and create account.
3. Click activation link in your e-mail inbox.
4. Connect HERZ clever&smart Room Controller WiFi with the WLAN network:
   Expert → Settings → WiFi → Choose Network
5. Enter the selected e-mail address in the access list in HERZ clever&smart Room Controller WiFi when logging in to the account: Expert → Settings → WiFi → "Manage access".
6. Log in to app with e-mail and password
7. Enter the device address in the HERZ clever&smart App. The device address can be found in the device:
   Expert → Settings → WiFi → WiFi Status

Support

Event	Support
The display does not show anything.	Is the device connected to the 24 VDC power supply of the Control Box (terminal L)? Has the electrical connection been implemented as described in the operating manual?
No Control Box appears in the unit menu or CAN bus participants are missing.	Is the CAN bus connection properly installed and have all CAN bus devices been wired in a line structure (no star or tree)? Are terminating resistors (120 Ohm) installed on the first and last CAN bus nodes of the line between the CAN high and CAN low connections for terminating the CAN bus?
No additional function can be assigned to the analogue outputs V1/V2 of the HERZ Room Controller Clima WiFi.	Is the selected function already assigned to another output? Is the output already assigned to another function?

Notes

Final Declaration
Although these instructions have been created with the greatest possible care, the possibility of incorrect or incomplete information cannot be excluded. Subject as a basic principle to errors and technical changes.

Date and time of installation:

Name of installation company:

Space for notes:

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