

°caleon

Installation and operating instruction



Read carefully before installation, commissioning and operation

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EG-Conformity

By affixing the CE mark to the unit the manufacturer declares that °CALEON conforms to the following relevant safety regulations:

- EU low voltage directive 2014/35/EU
- EU electromagnetic compatibility directive 2014/30/EU

conforms. 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 °CALEON Roomthermostat. Install the device only in dry rooms and under environmental conditions as described under "Technical Data".

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 unit may only be carried out by specialists who possess the appropriate training.

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!

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 2011/65/EU the restriction of the use of certain hazardous substances in electrical and electronic equipment.



Under no circumstances may the device be disposed of with the normal household waste. Dispose of the unit only at appropriate collection points or ship it back to the seller or manufacturer.

Specifications



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

Deutsch
English
Español
Italiano
Français
Português

Electrical specifications:

Power supply	12 - 24 VDC +/- 10%
power consumption	Max. 2,5 W
Protection Class	IP20
Protection class / overvoltage category	III / II

Max. cable length

CAN	<3m, if the cable length is >=3m it is necessary to use a shielded twisted pair bus cable and connect the shield on one side to the protective conductor.
1-Wire Bus	Optional, without function

Permissible Ambient Conditions

during operation	0 °C - 50 °C, no moisture condensation permitted
for transport/storage	0 °C - 60 °C, no moisture condensation permitted

Measuring range

Internal temperature sensor	0 °C - 60 °C	Accuracy +/- 1 °C Resolution 0,1 °C
Internal sensor for rel. humidity	0 % - 100 %	Accuracy +/- 6 °C Resolution 0,1 %
1-Wire temperature sensors	Optional, without function	

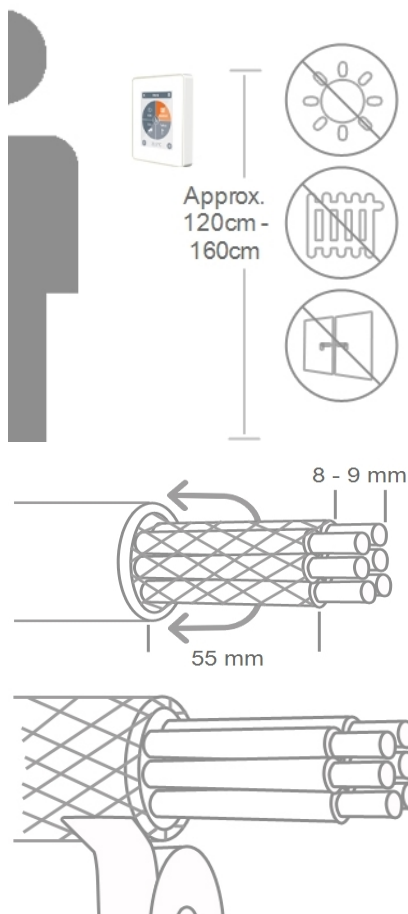
Other Specifications

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

Scope of supply

- °CALEON Roomthermostat
- 2 screws 3,5 x 35 mm and 2 plugs 6 mm for wall installation.
- 2 single conductor connectors, CAN connector with connecting cables, terminating resistor CAN connector, terminating resistor °CALEON, operating tool
- °CALEON installation guide

°CALEON 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.

Strip cables, slip protective conductor over, and remove fill material as needed.

When mounting °CALEON's base to the wall the connecting cables must be kept as short as possible. For direct wall mounting a maximum length of 40 mm is recommended. Long wire loops inside the °CALEON's housing may cause problems.

When mounting °CALEON's base to a plastic wall socket the connecting cables must be kept as short as possible (strip cables not more than 55 mm). Also make sure that wire loops are led back to the plastic wall socket, since long wire loops inside the °CALEON's housing may cause 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.



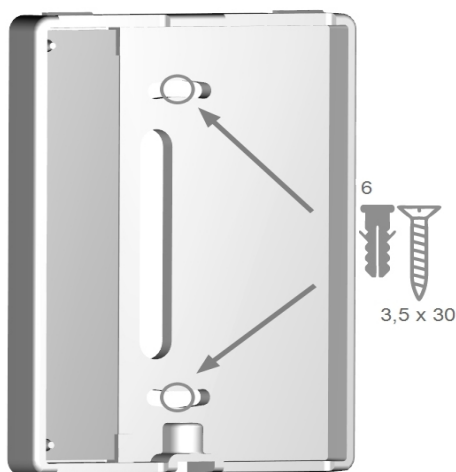
Any contact between protective conductor and circuit board can cause serious damage.

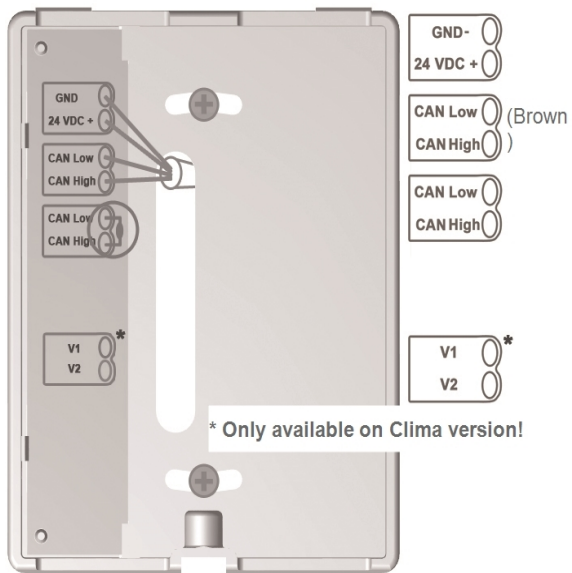
Mounting on plastic wall socket

Fix the base with the screws (3.0 x 16) to the mounting box.

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 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.





Open the terminals with the accompanying operating tool and make the electrical connection as described.



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



The first and last unit in the CAN-network in series must be fitted with terminating resistance.



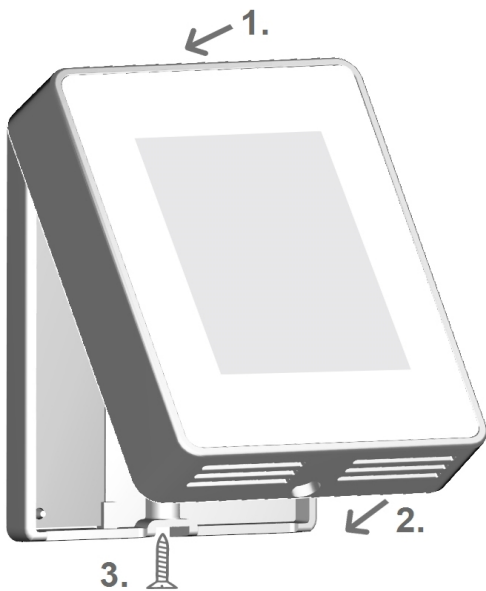
Operating tool

The connection of the opposite side (controller) can be found in the corresponding terminal diagram in the controller manual.

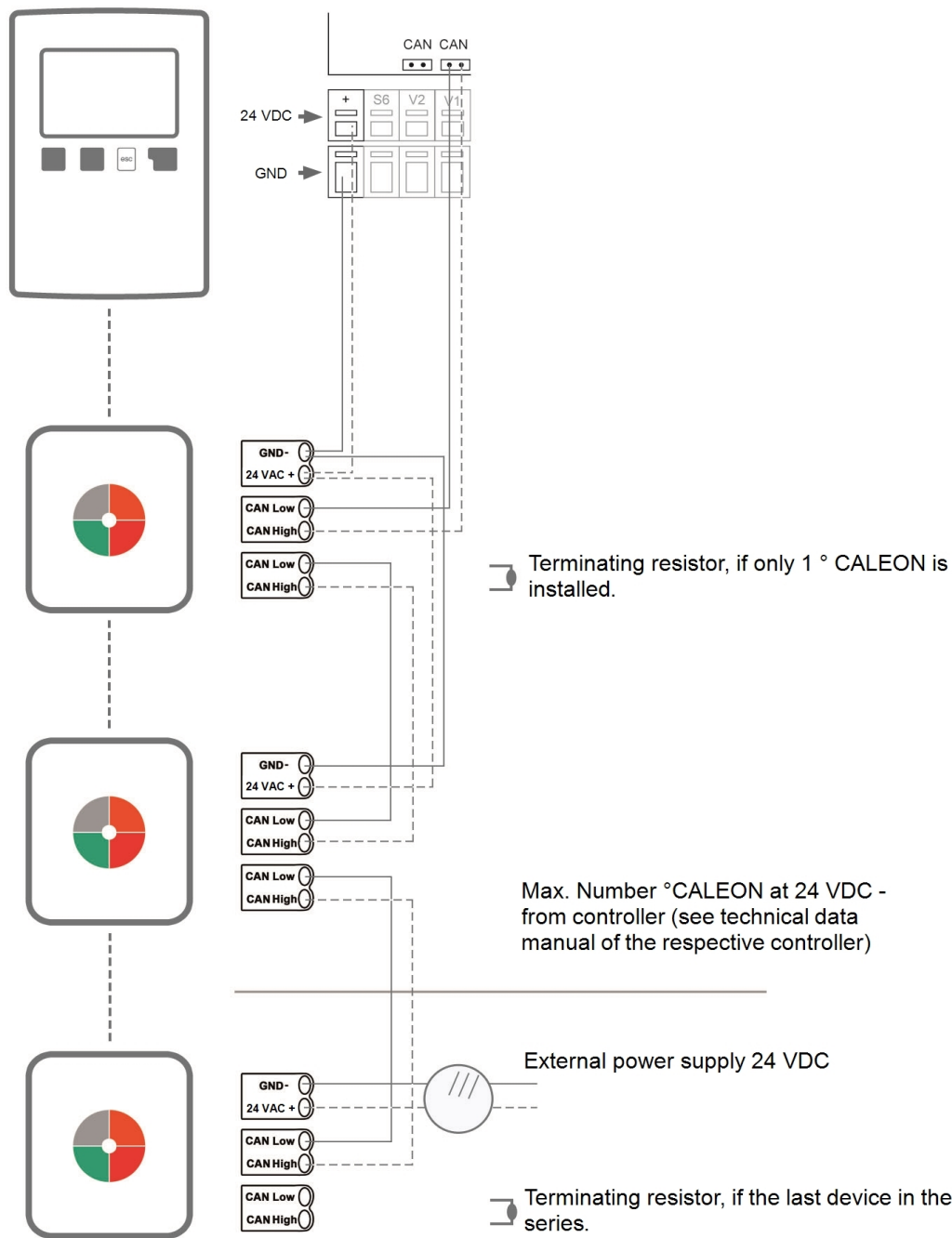
Refit the base and fasten with screw. Switch on mains voltage and place °CALEON in operation.



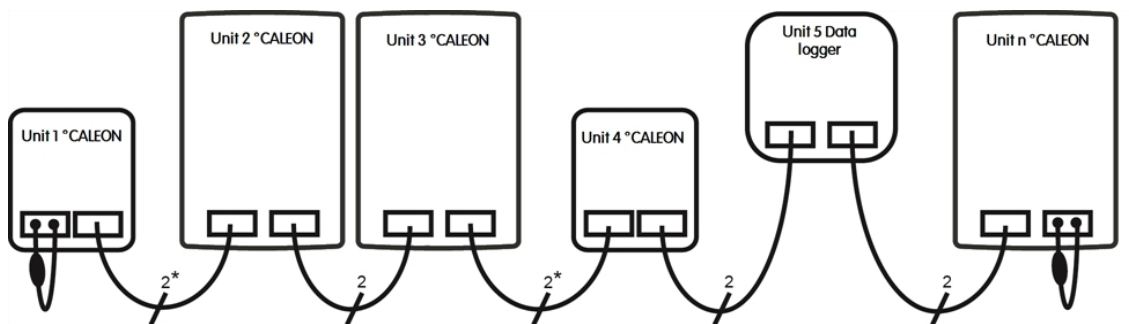
The commissioning can be accessed in the °CALEON menu under Expert at any time.



Example Controller-Connection



Example CAN-Connection



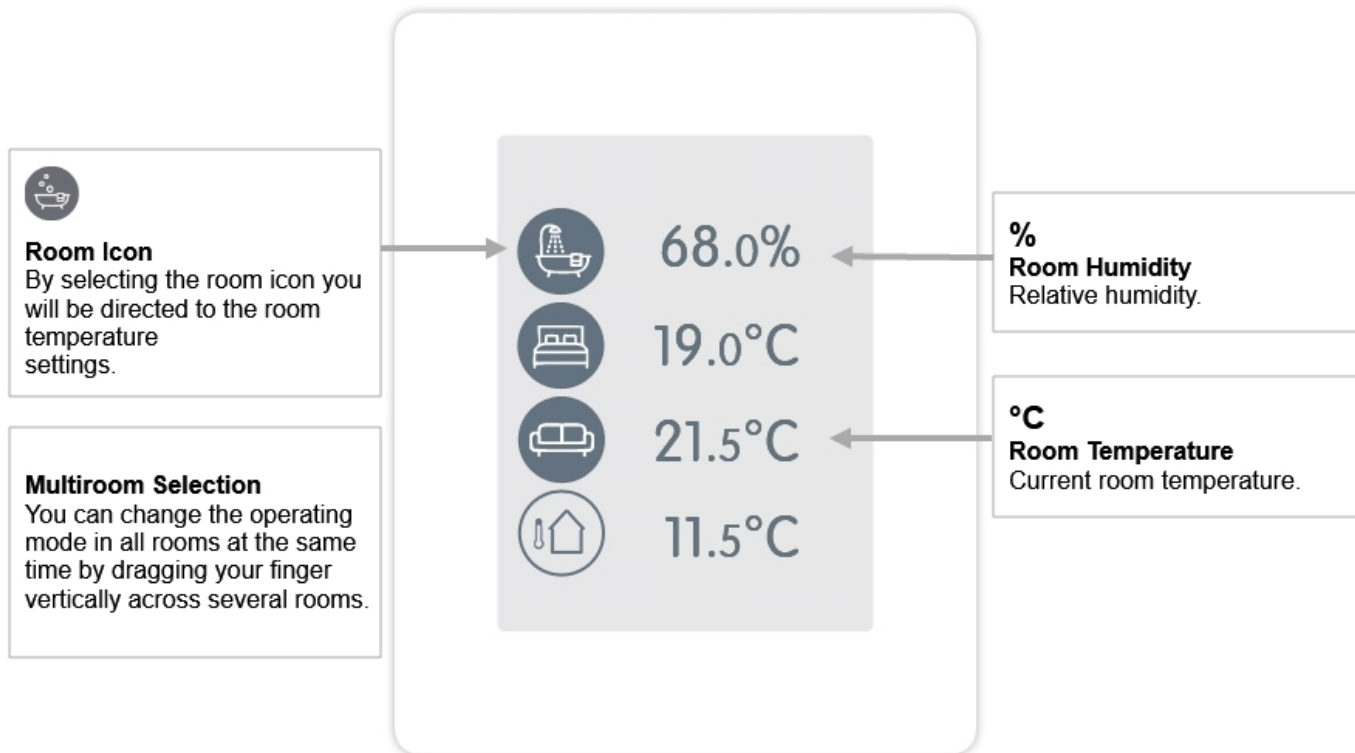
*Only CAN in power supply from 4 cores of the regulator.

The order and the number of devices (max. 50) is arbitrary.

OPERATION

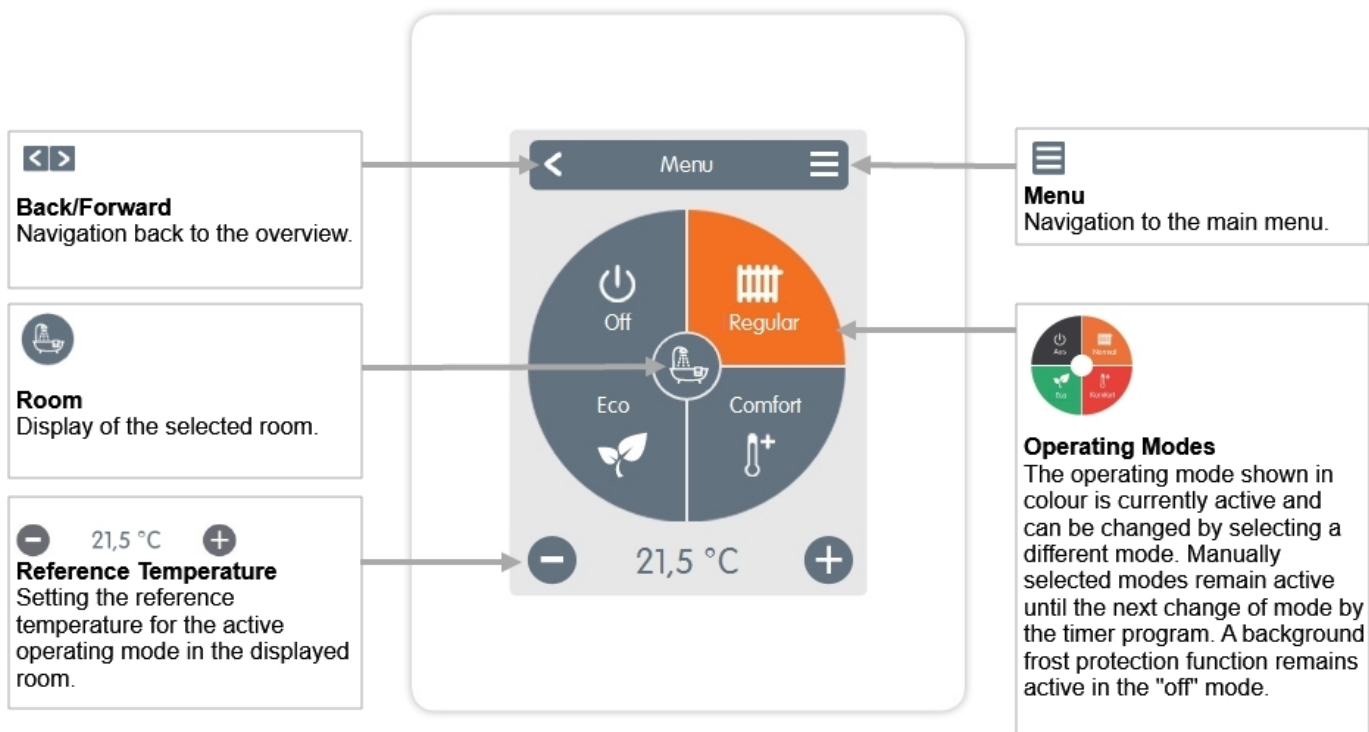
Room overview

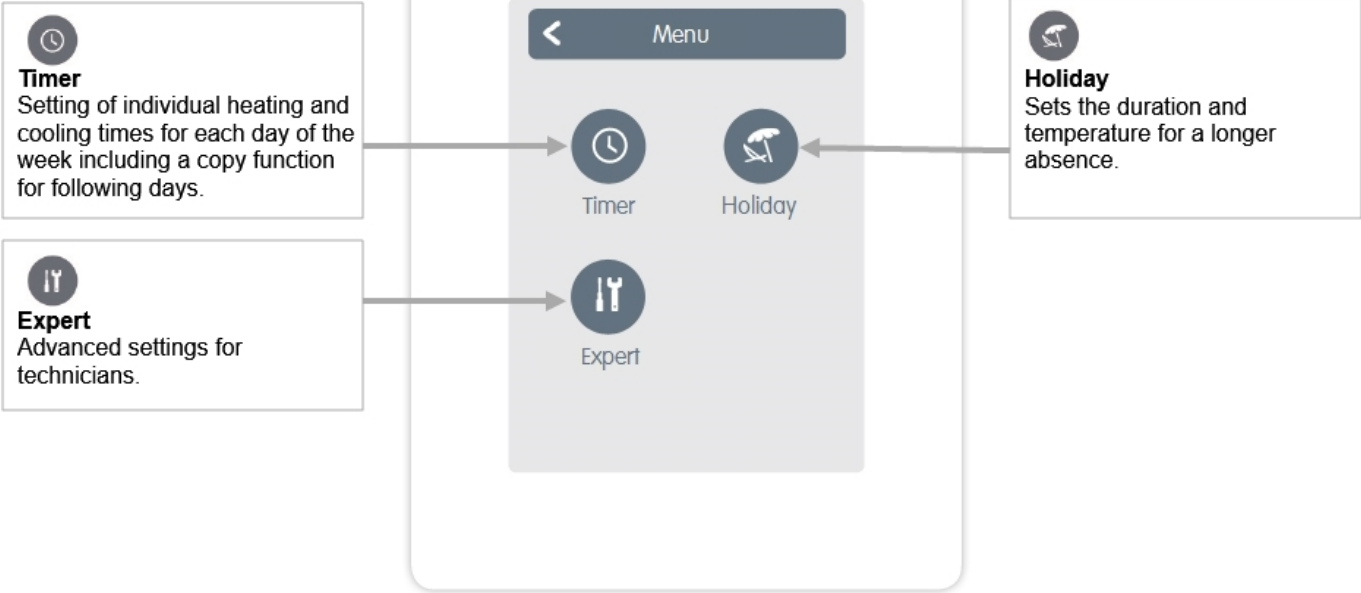
Displays the room temperature, humidity and external temperature once the start screen was activated.



Operating Mode

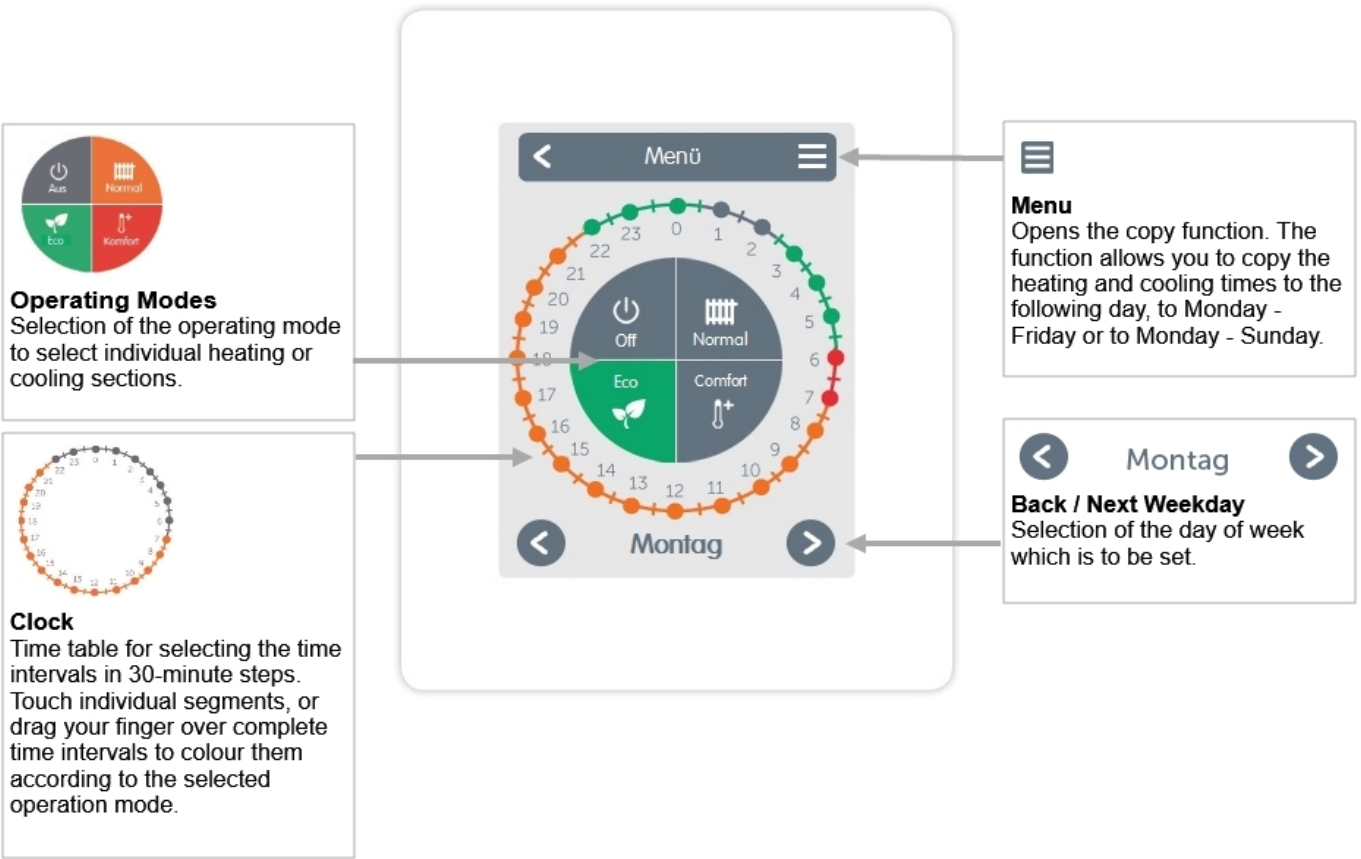
Overview > Operating Mode



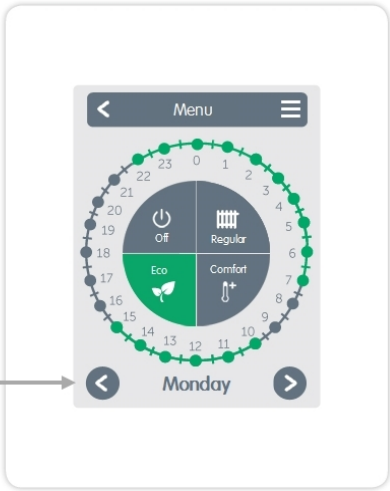


Set operation hours

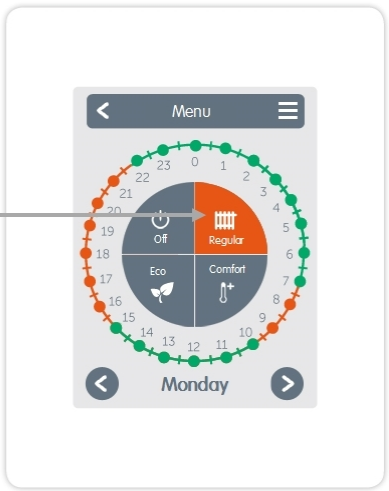
Setting of individual heating and cooling times for the selected room.



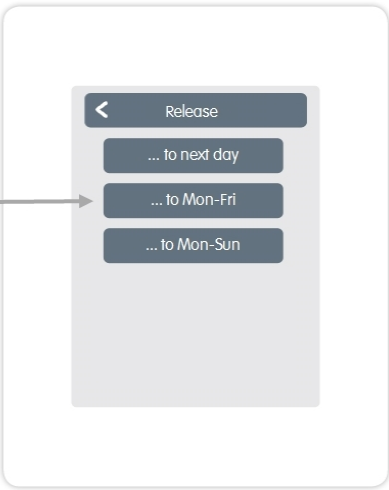
Step1
Use the arrow keys to select the desired day.



Step 2
Select the first heating mode (normal) - move the index finger over the desired length of time. The selected period will be coloured after selecting the colour of the operating mode (normal = orange). Set the times of the other operating modes in the same way.



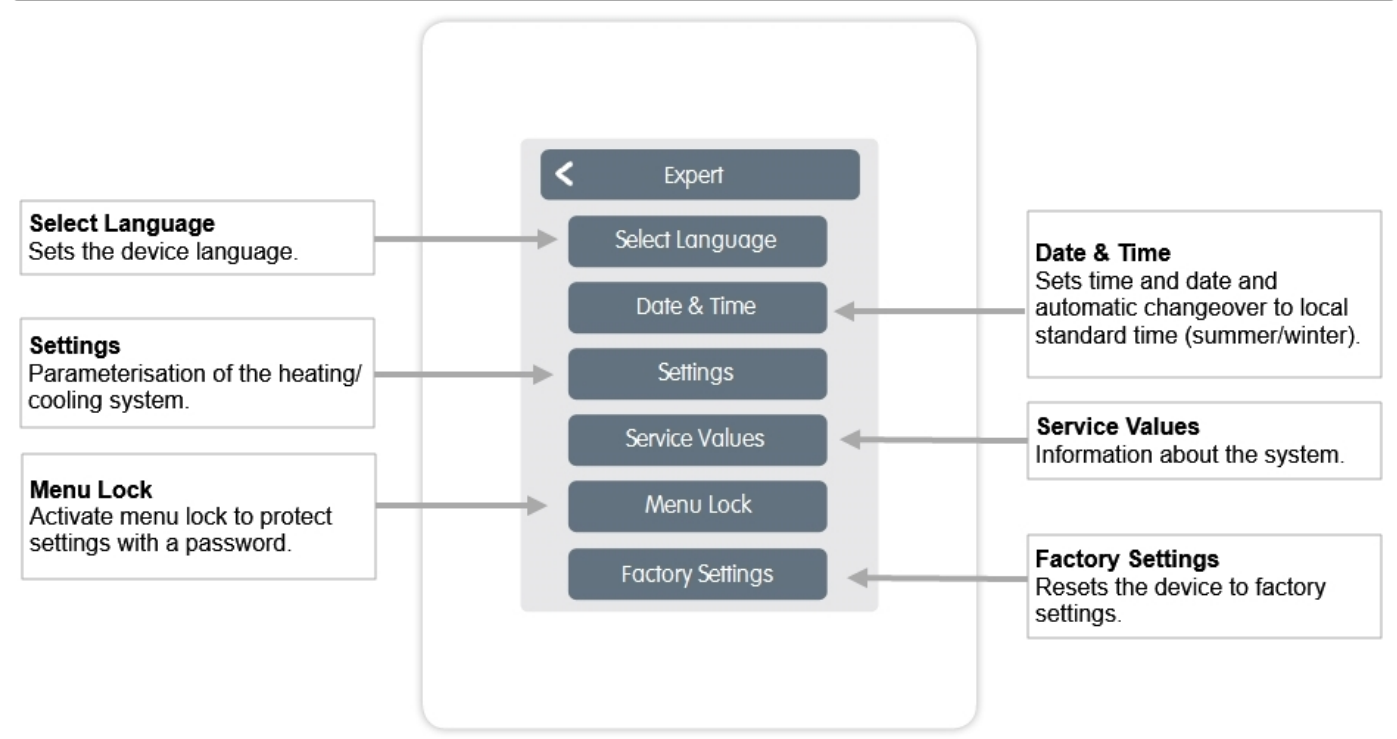
Step 3
After completing the setting of the individual heating and cooling times, you have the option of copying the times via the main menu to the following day, to Monday - Friday or to Monday - Sunday or individually for each weekday.




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

Expert Menu

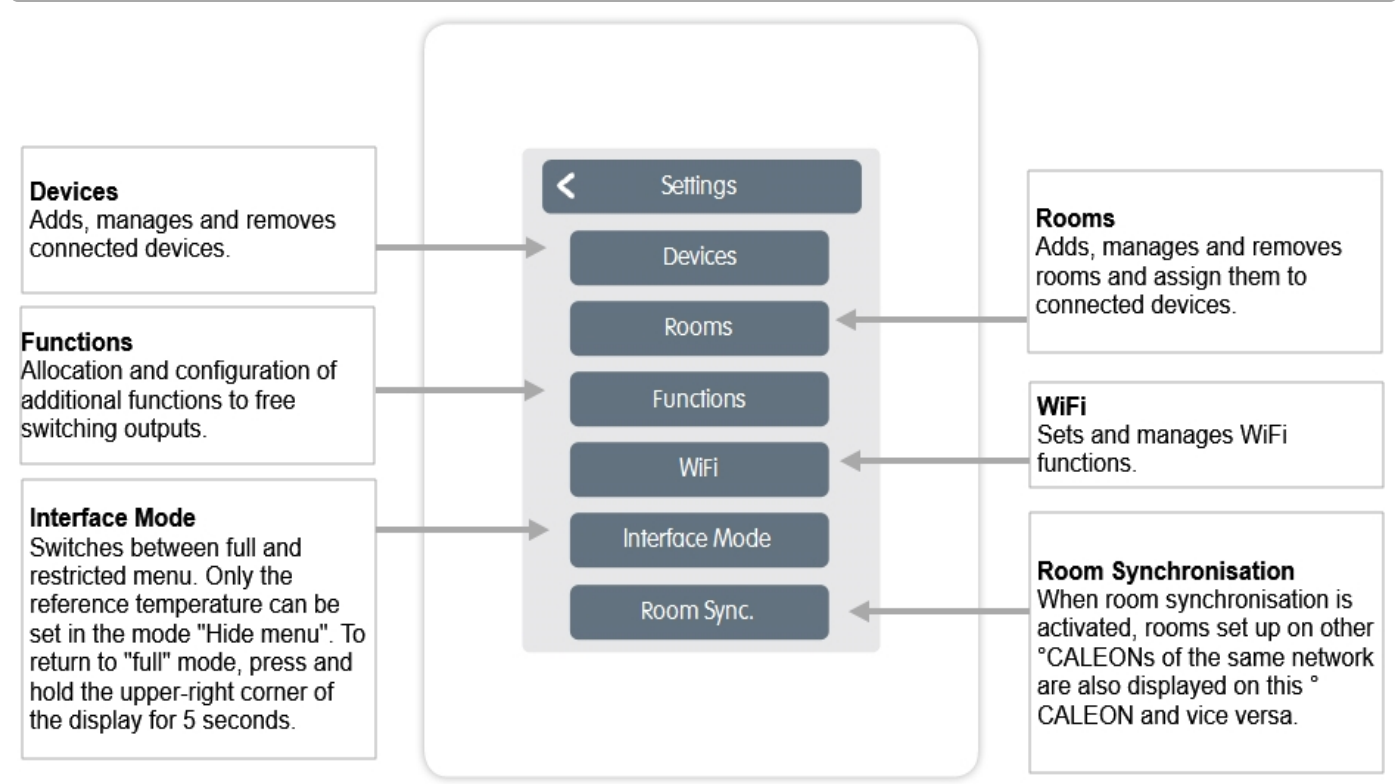
Overview > Operating Mode > Menu > Expert

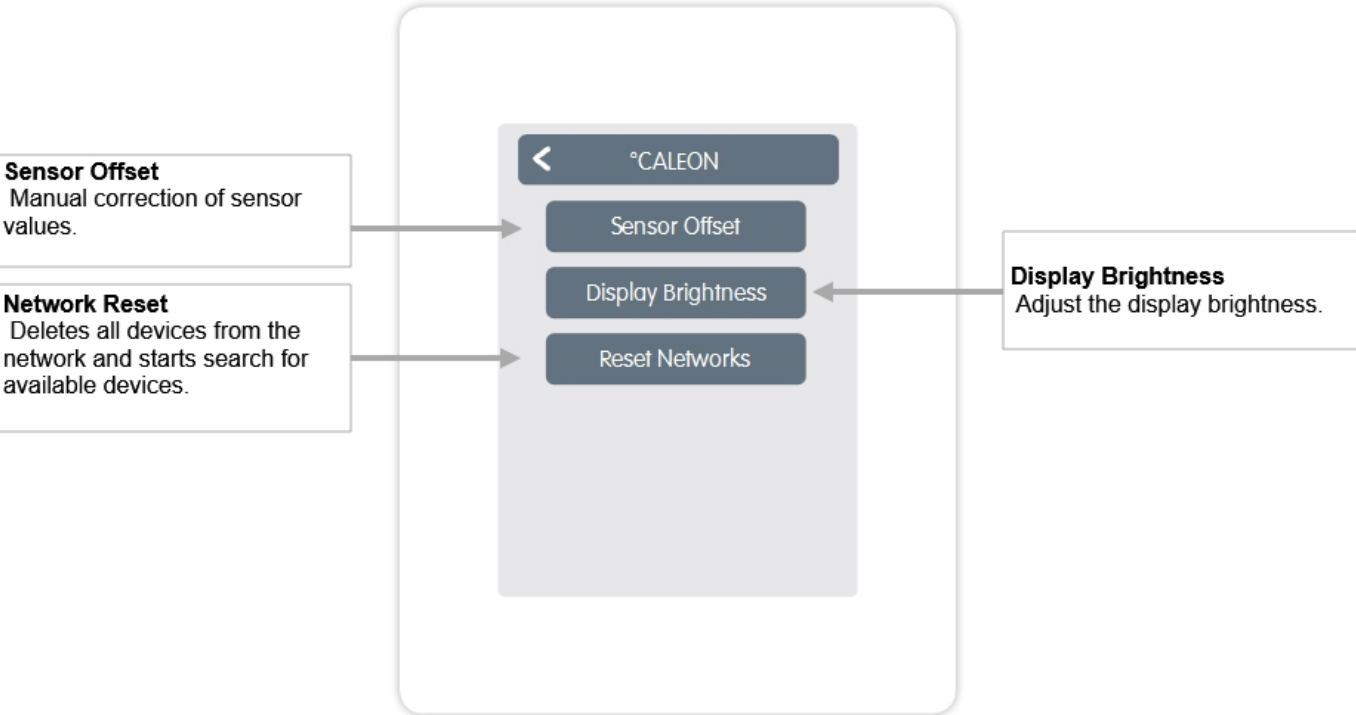
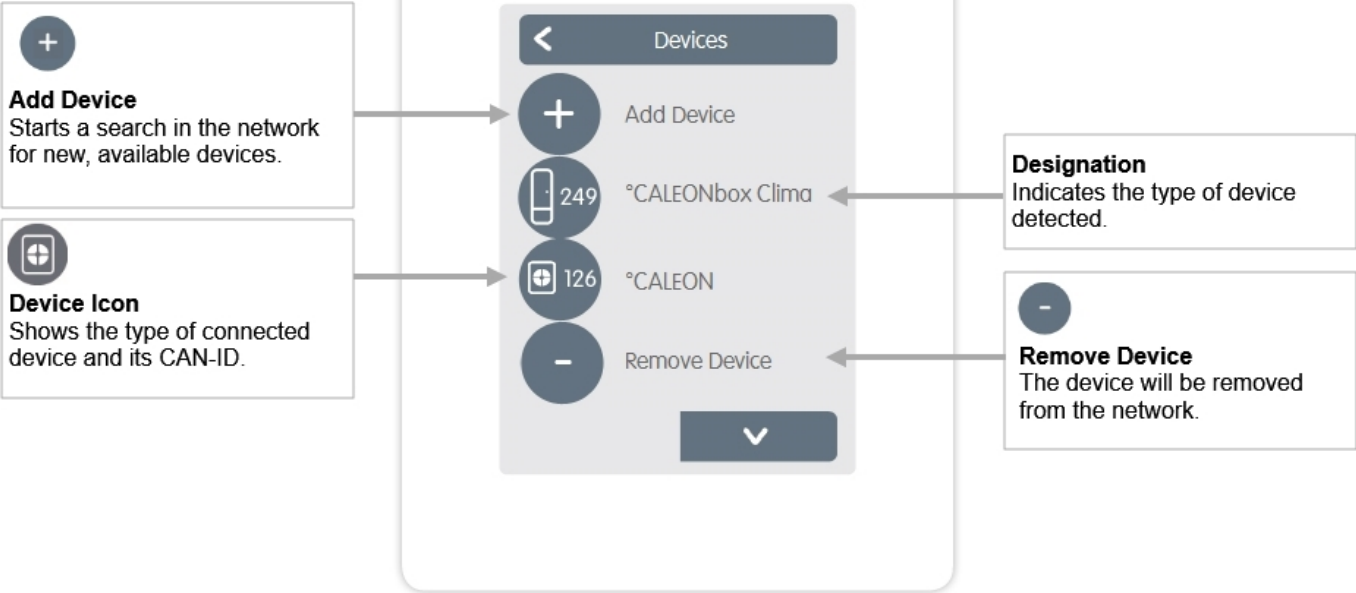


 The menu structure described here is based on the status at the time of production and may vary due to subsequent software changes.

Settings


Overview > Operating Mode > Menu > Expert > Settings






Rooms

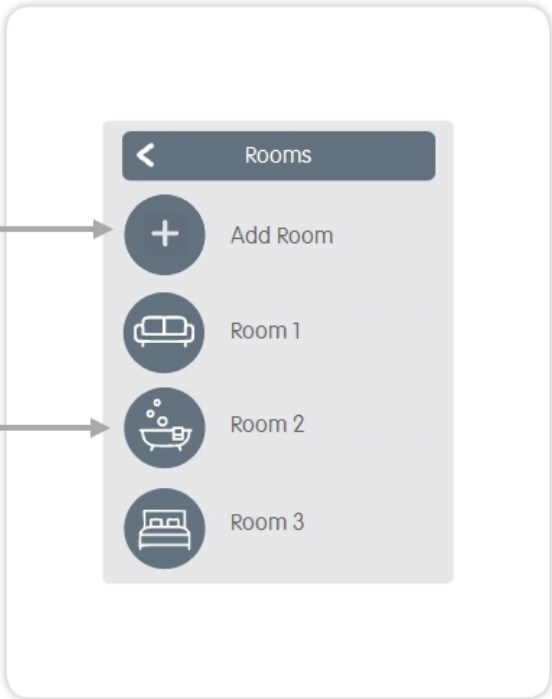
Overview > Operating mode > Menu > Expert > Settings > Rooms



Add Room
Adds rooms.



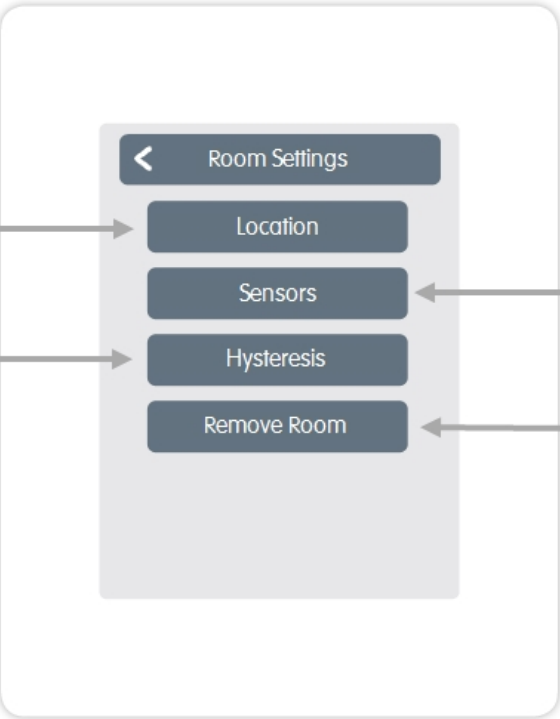
Room 2
Setting the location, sensors and thermostatic radiator valve of the respective room.



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

Location
Selection of the room icon.

Hysteresis
Switch-off hysteresis for the reference room temperature.

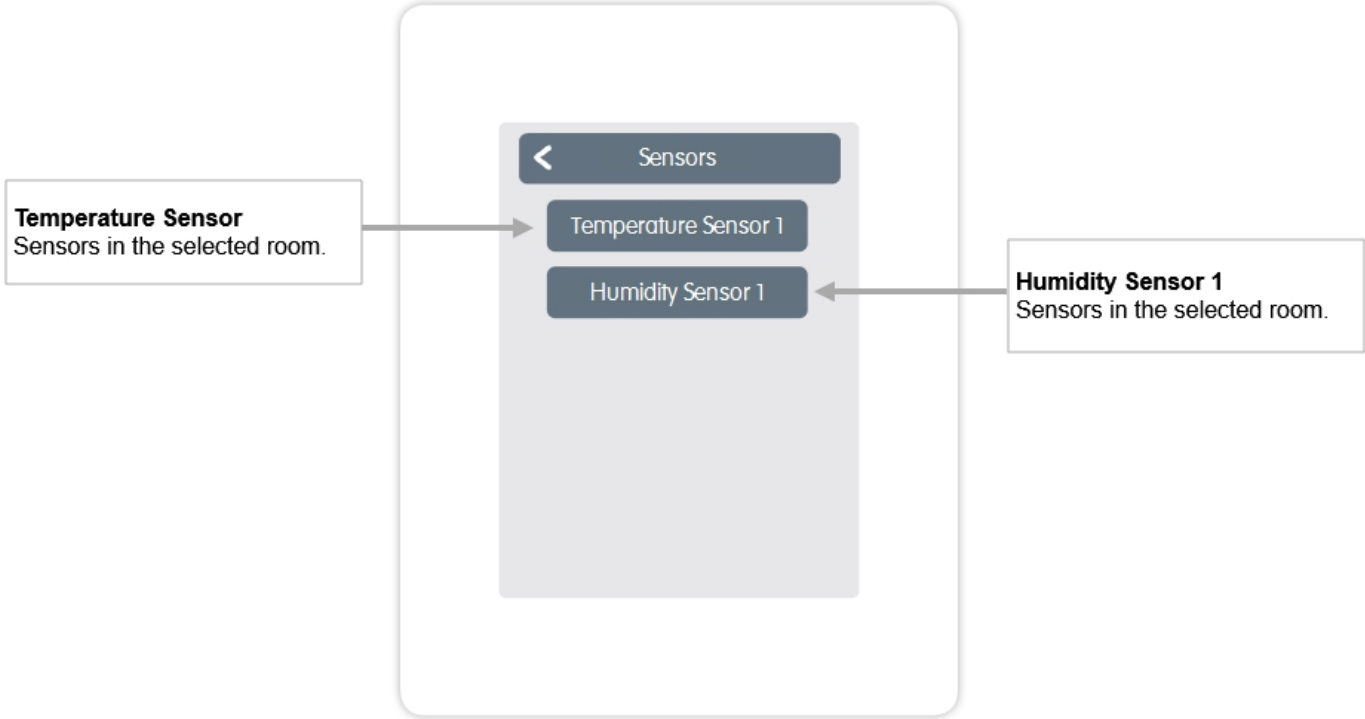


Sensors
Selection of the sensors in the selected room.

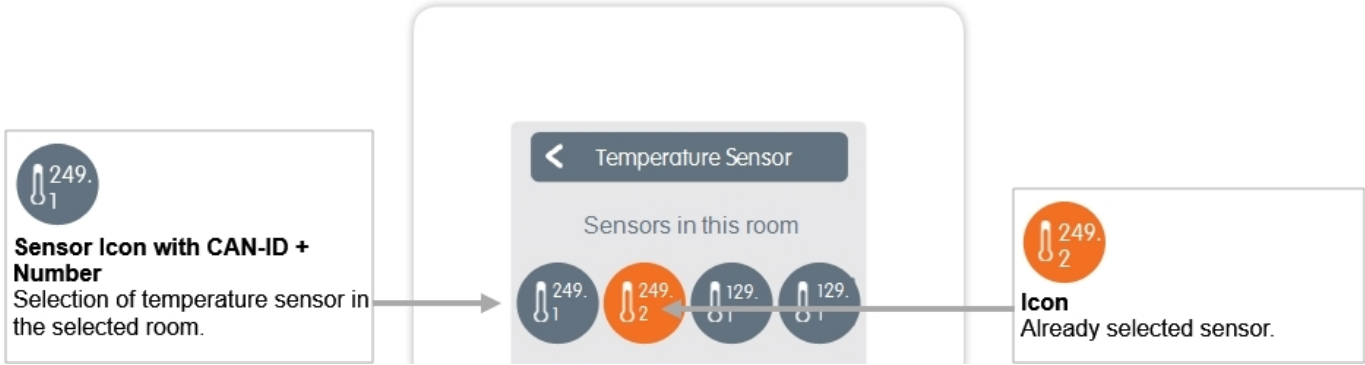
Remove Room
Removes the selected room.

Sensors

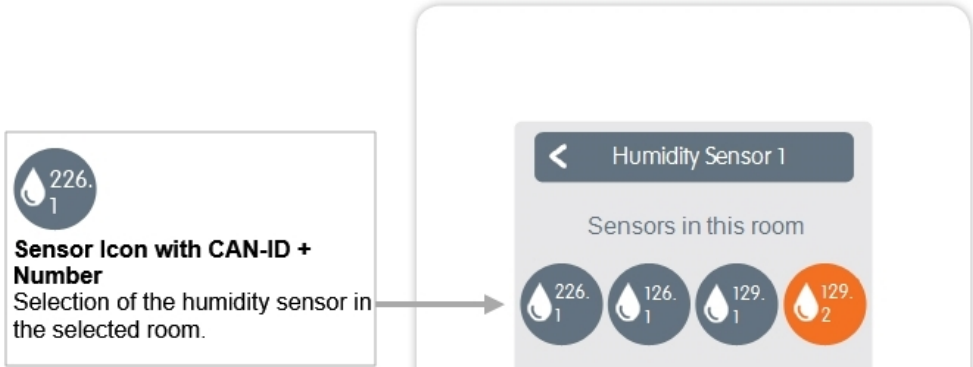
Overview > Operating mode > Menu > Expert > Settings > Rooms > Room 1 > **Sensors**



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



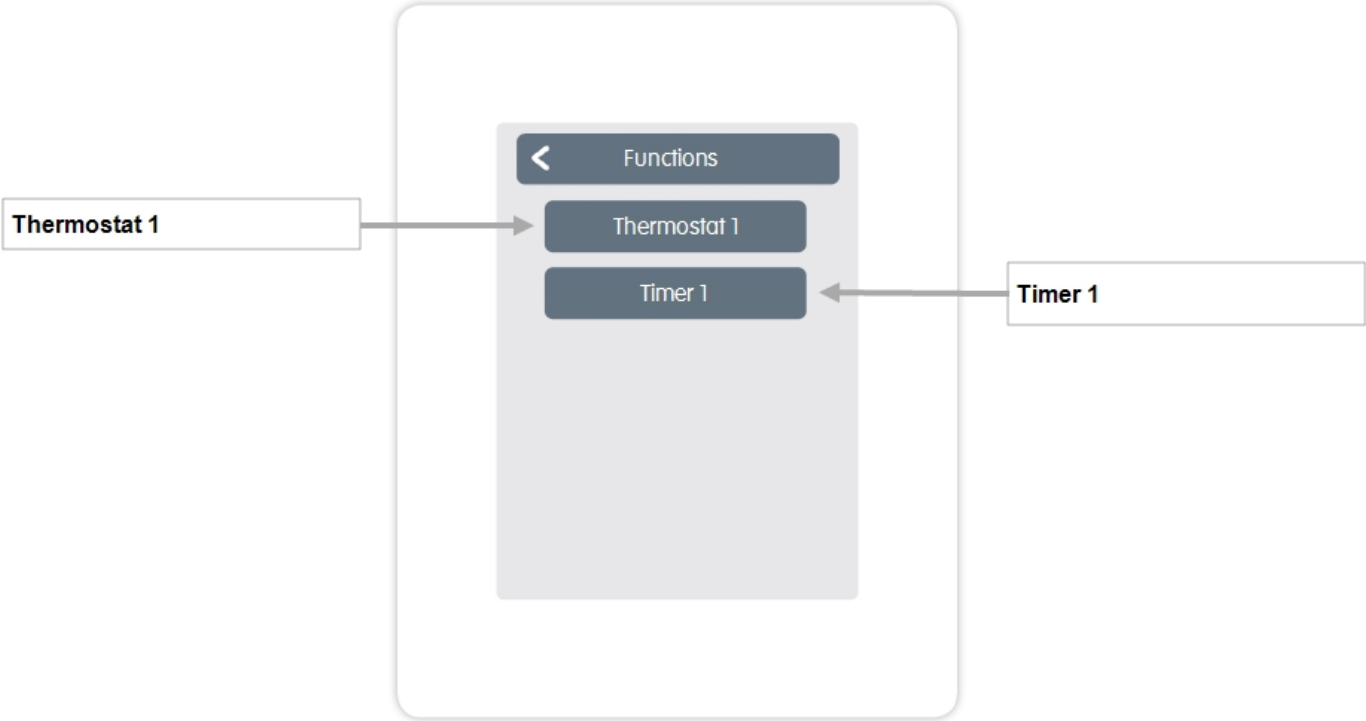
Overview > Operating mode > Menu > Expert > Settings > Rooms > Room 1 > Sensors > **Humidity Sensor 1**



Functions

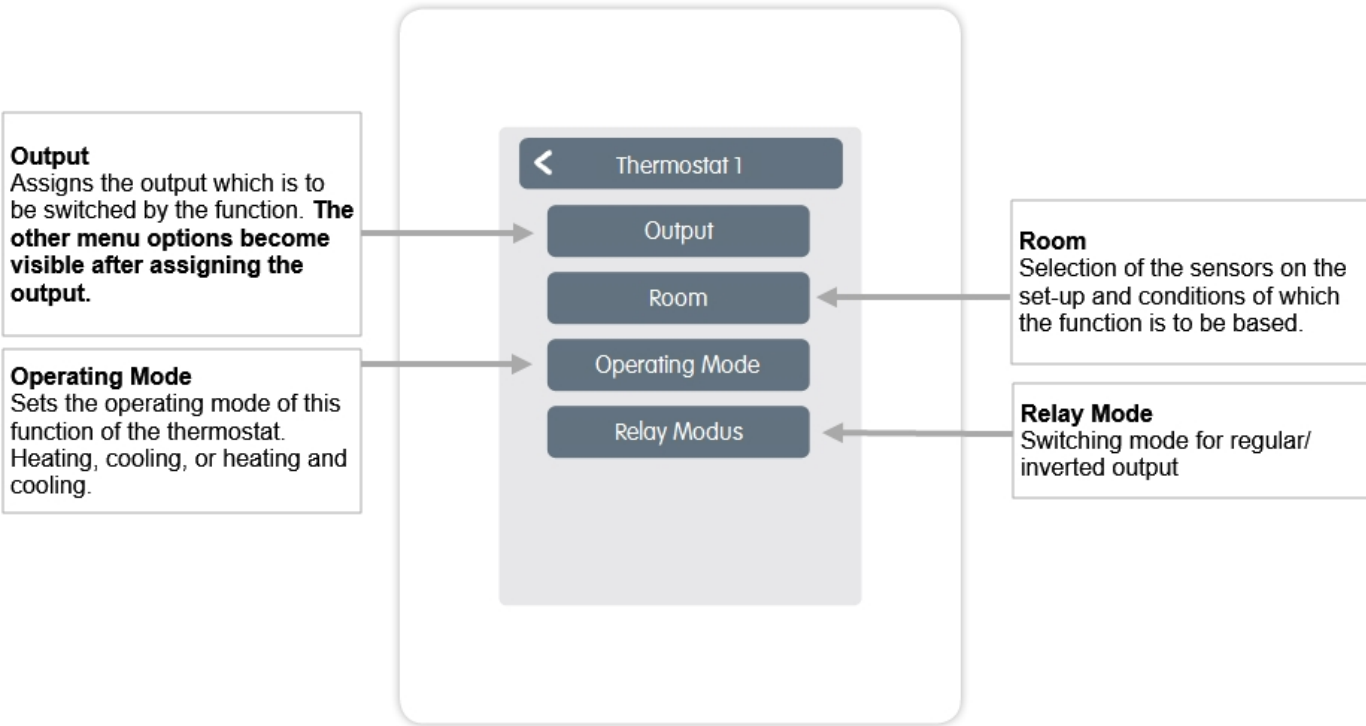
Overview > Operating mode > Menu > Expert > Settings > **Functions**

Activate and set additional functions.



Overview > Operating mode > Menu > Expert > Settings > Functions > **Thermostat 1**

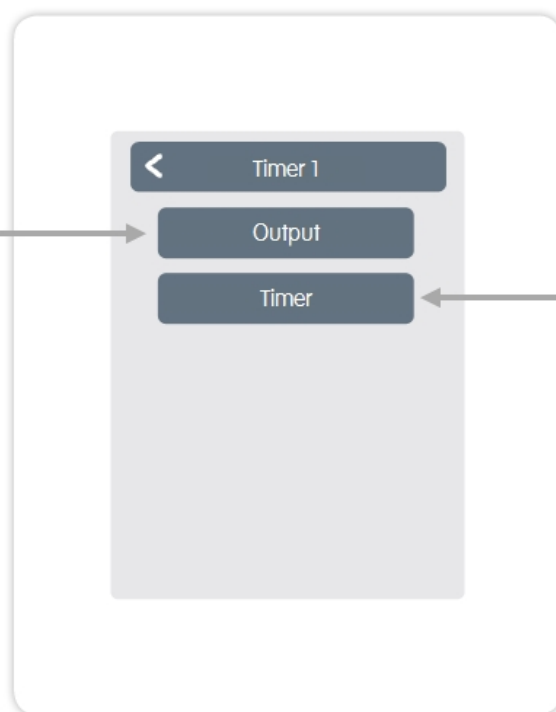
Switches the defined output to the set room / rooms depending on time and temperature.



The function Timer 1 switches the defined output depending on the set times.

Output

Assigns the output which is to be switched by the function. **The other menu items are visible after assignment of the outputs as soon as at least one room has heat demand.**



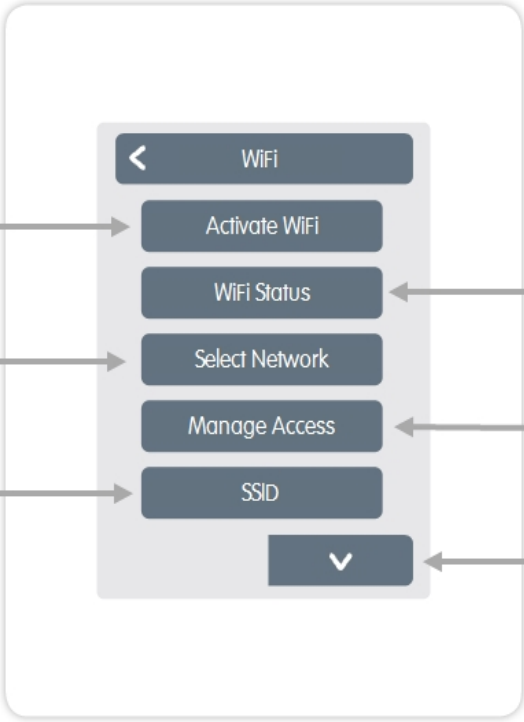
Timer

Sets the times at which the outputs are to be switched.

Activate WiFi
Activate WiFi functions.

Select Network
Scans for available networks and allows selection of the network.

SSID
Manual entry of the WiFi name.



WiFi Status
Information about the WiFi status and about the device address (which is required for the connection with the °CALEON App).

Manage Access
Allows device access via the °CALEON App to up to 5 users by entering their e-mail addresses.

WiFi Password
Entry of the WiFi password

Activate DHCP
If auto-configuration is enabled, the device searches the network for a DHCP server that assigns IP, subnet mask, gateway IP, and DNS server IP. If you disable the auto configuration (DCHP), you must enter the necessary network settings manually!

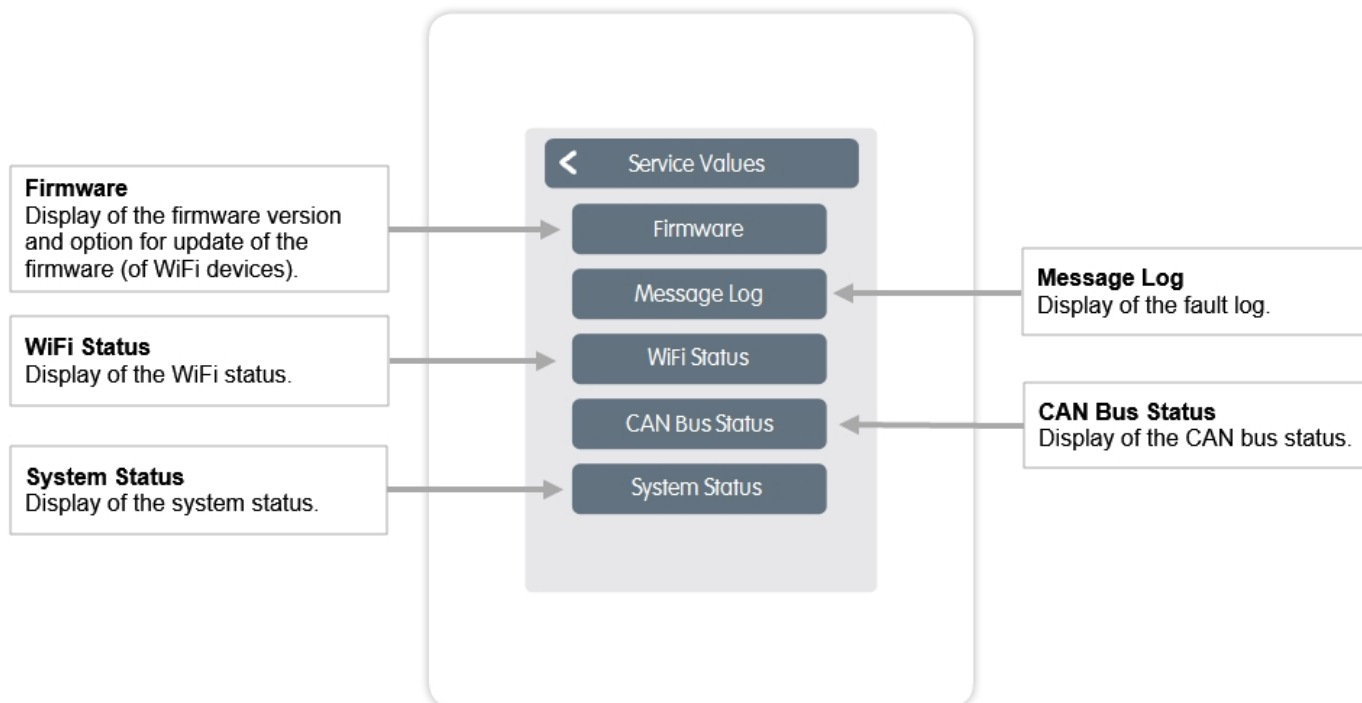
Refer to the following sections:

IP Address
Entry of the °CALEON IP address.

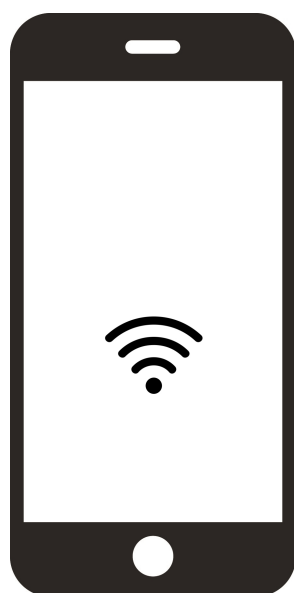
Network Mask
Entry of the network mask.








Gateway
Entry of the gateway address.

DNS/ DNS 2
Entry of the DNS address.



°CALEON WiFi and App Configuration



1.  Download °CALEON 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 °CALEON with the WLAN network:
Expert → Settings → WiFi → Choose network
5.  Add selected e-mail address to access list: Expert → Settings → WiFi → Access control
6.  Log in to °CALEON app with e-mail and password
7.  Enter device address in °CALEON app. The device address can be found in the device:
Expert → Settings → WiFi → WiFi >atus

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:

Your specialist dealer:

Manufacturer:

SOREL GmbH Mikroelektronik
Reme-Str. 12
D - 58300 Wetter (Ruhr)

+49 (0)2335 682 77 0
+49 (0)2335 682 77 10

info@sorel.de
www.sorel.de

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