



## Installation and operating instruction

°CALEON



**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 °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 Room Controllers. Install the unit only in dry areas and under the ambient conditions described in "Specifications".

This document contains information specific to the ZWave Plus technology implemented at °CALEON in order to ensure correct interoperability between third-party devices.

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

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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

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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.



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.

## DESCRIPTION °CALEON

### 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

Deutsch      Italiano  
English      Français  
Español      Português

#### Electrical specifications:

Power Supply	24 VDC +/- 10%
power consumption	max. 2,5 W
Protection Class	IP20
Protection class / overvoltage category	0/III

#### Max. Cable Length

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



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

#### Other Specifications

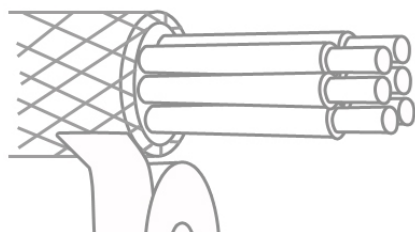
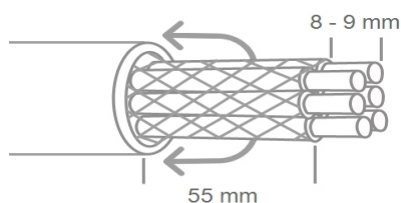
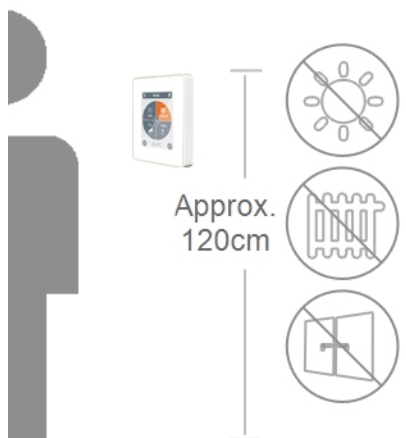
Installation Methods	Wall installation, with/without wall socket
Real Time Clock	RTC with 24 hour power reserve

### Scope of Supply

- °CALEON Room Controllers
- 2 screws 3,5 x 35 mm and 2 plugs 6 mm for wall installation.
- °CALEON installation guide

# INSTALLATION

## °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.

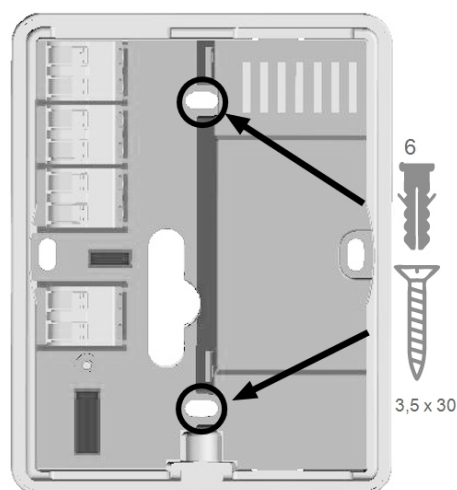
When mounting °CALEON's base to the wall the connecting cables must be kept as short as possible. For direct wall mounting a maximum length of 40 mm is recommended. Long wire loops inside the °CALEON's housing may cause problems.

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.

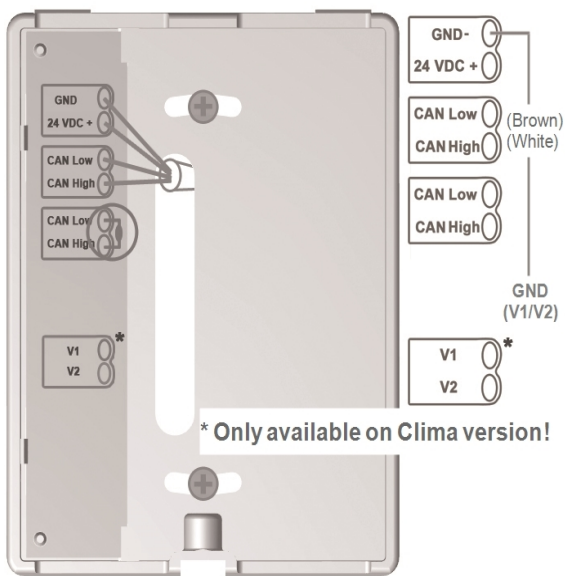
### Direct wall mounting

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.

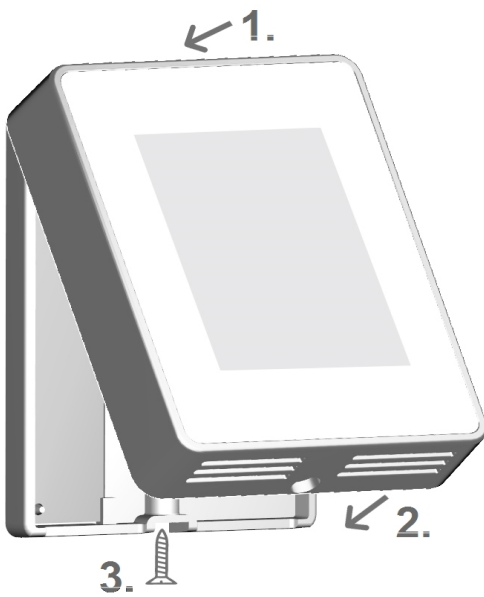


The connection of the opposite side (controller) can be found in the corresponding terminal diagram in the controller manual.

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



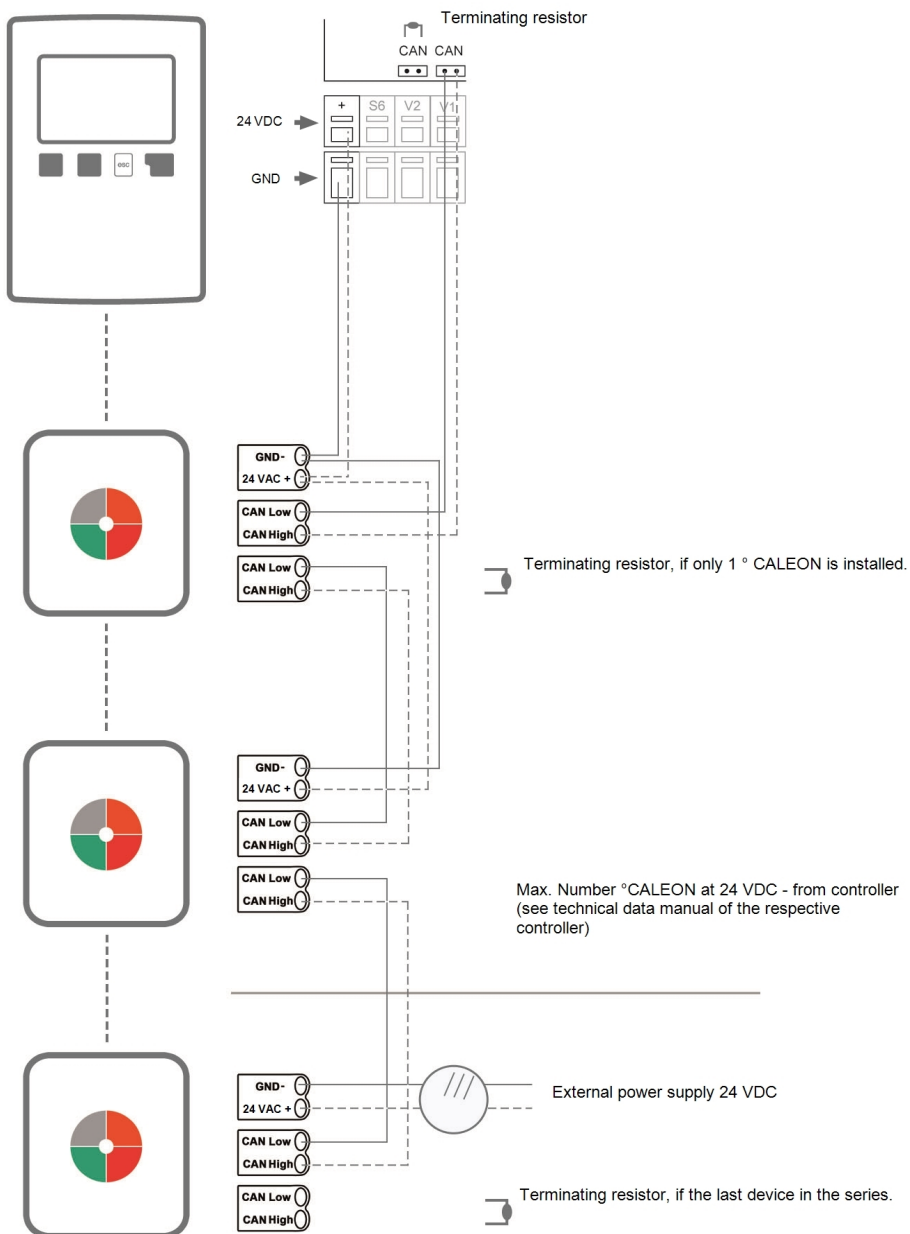
The commissioning can be accessed in the °CALEON menu under Expert at any time.



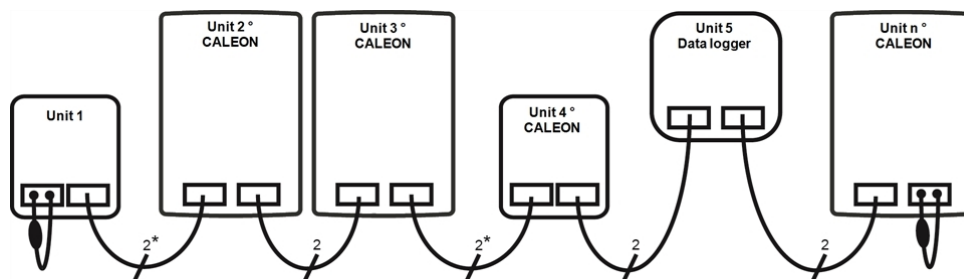
## Example Controller-Connection



Do not combine devices for heating only (°CALEON/ °CALEONbox) with devices for heating and cooling (°CALEON Clima/°CALEONbox Clima).



## Example CAN-Connection



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

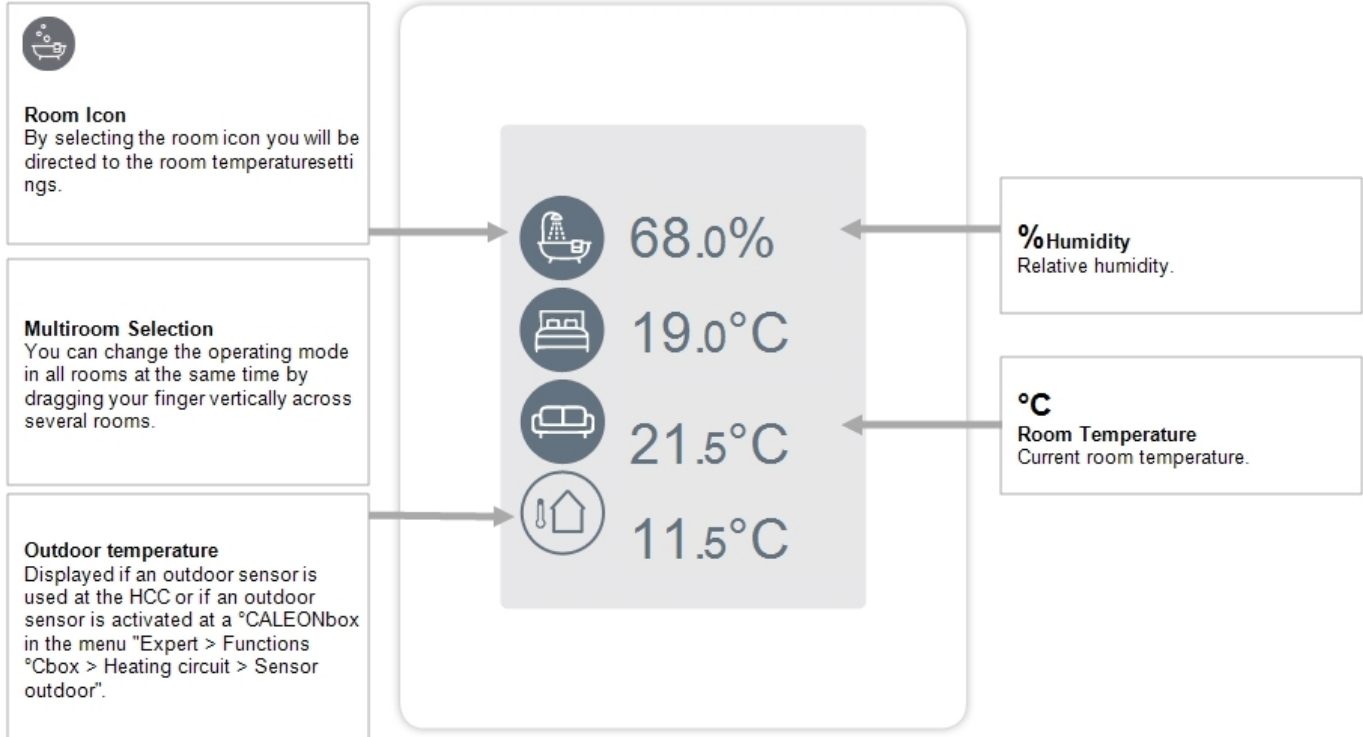
The order and the number of devices (max. 50) is arbitrary.



## OPERATION

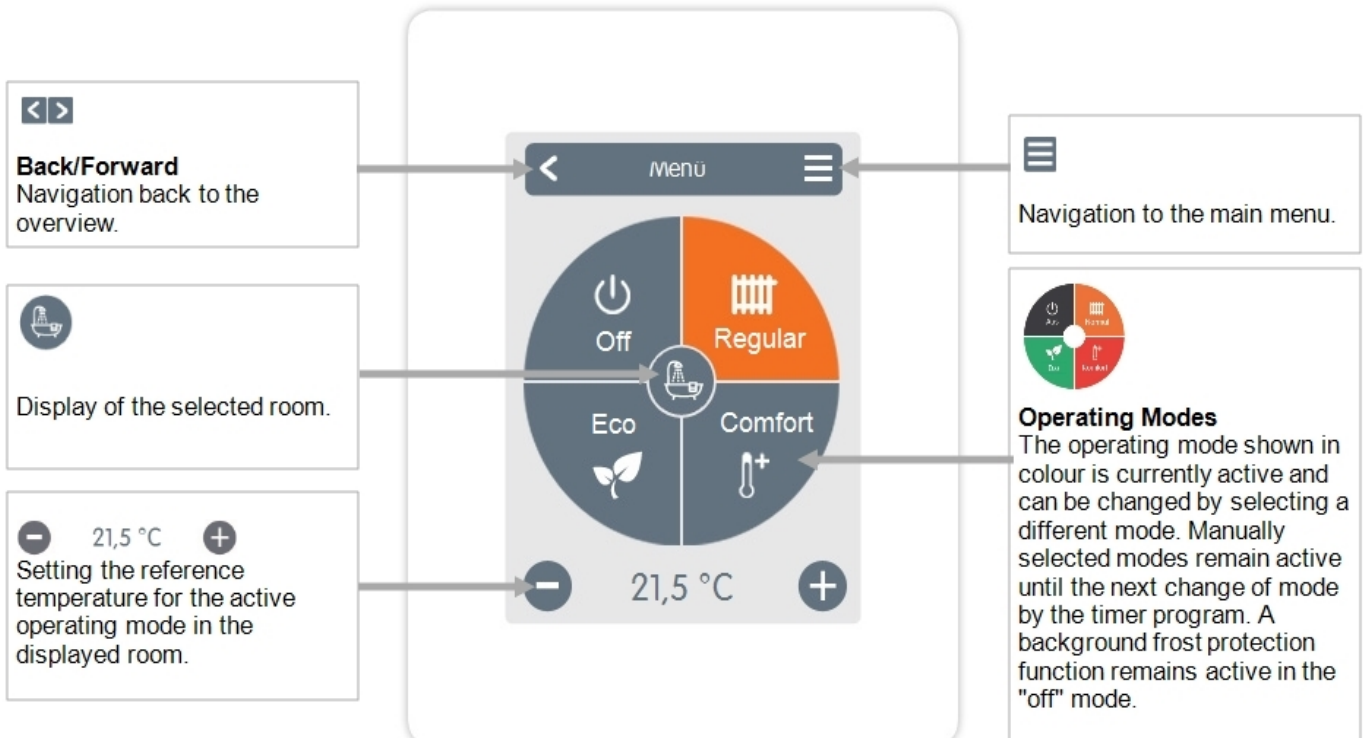
### Room Overview

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



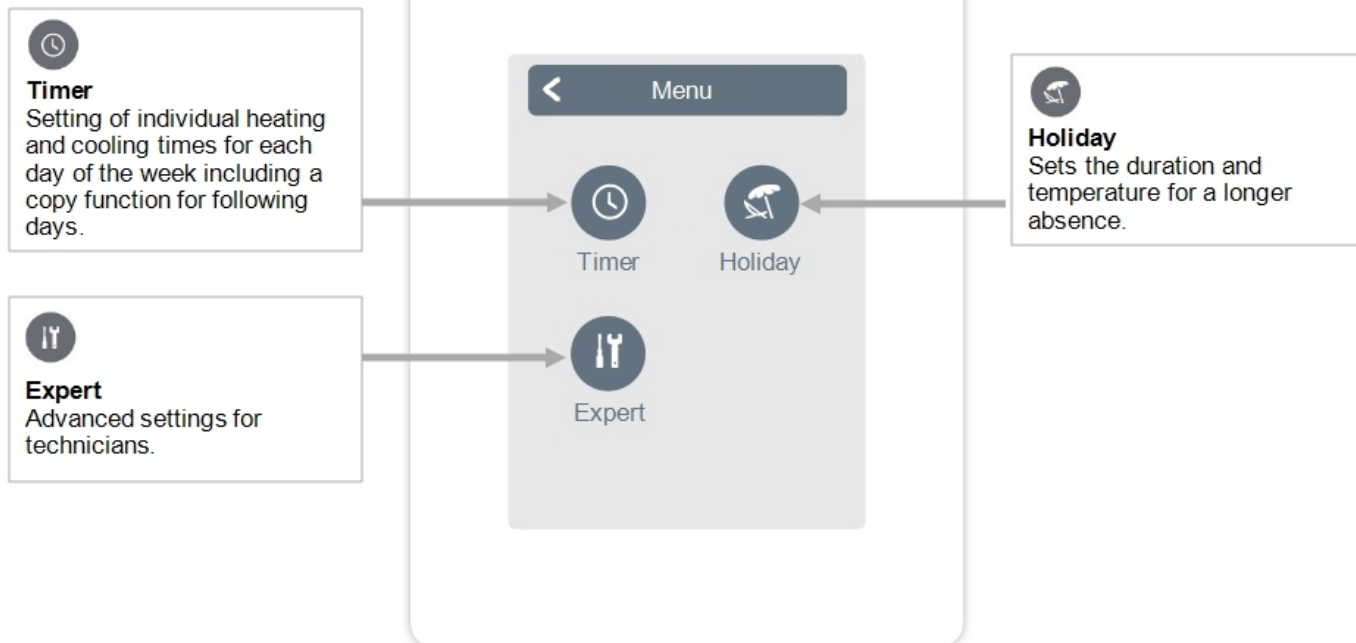
### Operating Mode

Overview > Operating Mode



## Menu

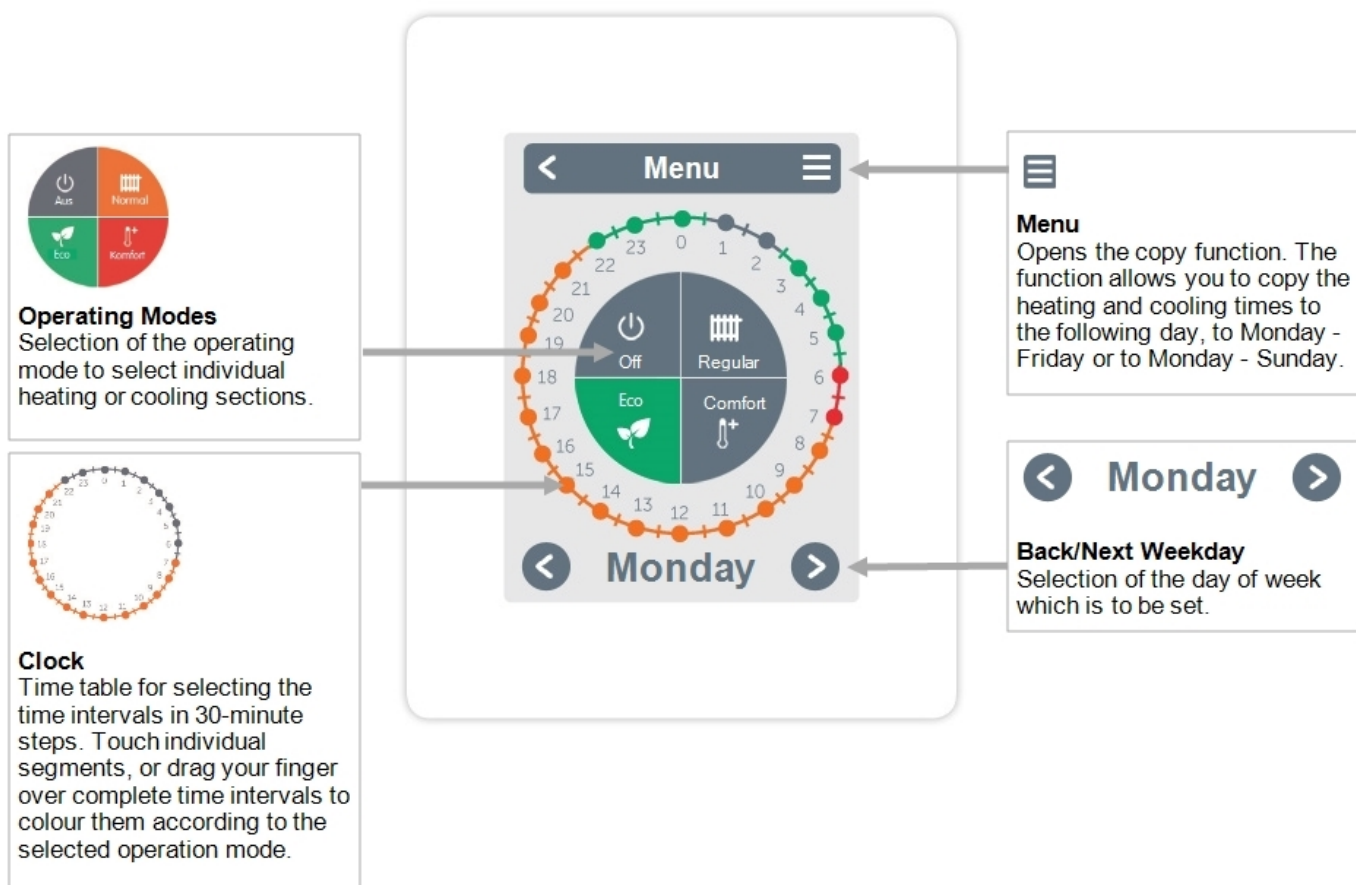
Overview > Operating Mode > Menu



## Set Operation Hours

Overview > Operating Mode > Menu > Timer

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



# Set Operation Hours

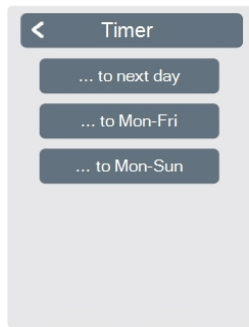
**Step 1**  
Use the arrow keys to select the desired day.



**Step 2**  
Select the first heating mode (Normal) - with the index finger select 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.

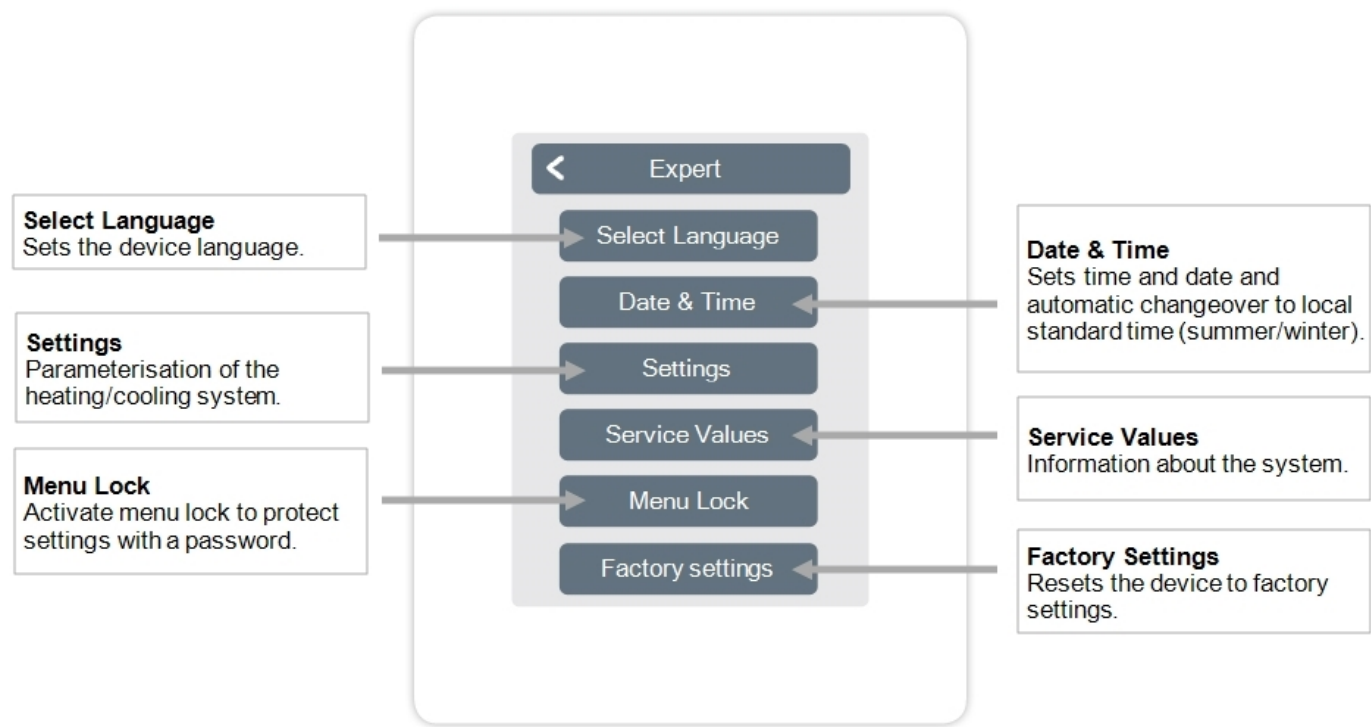



**Step 3**  
After completing the setting of the individual heating and cooling times, you have the option of copying the times via the main menu to the following day, to Monday - Friday or to Monday - Sunday or individually for each weekday.



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

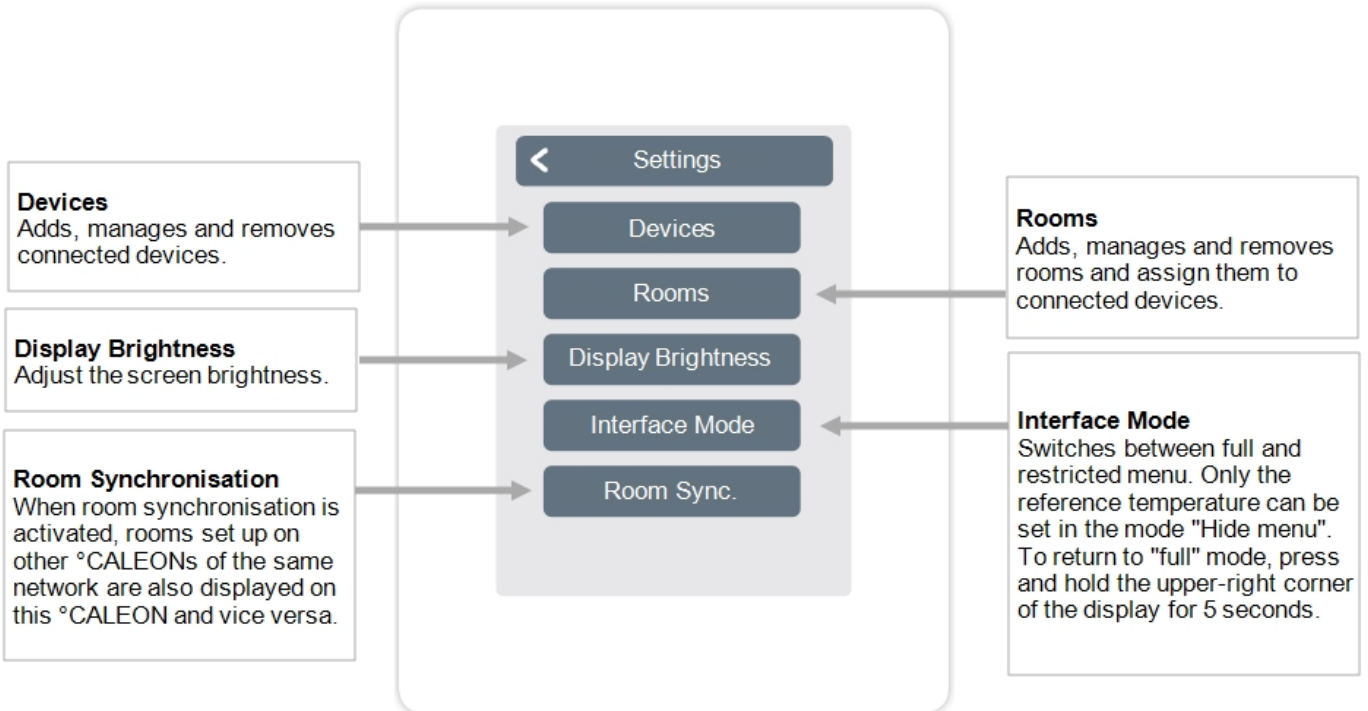
# Expert Menu



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

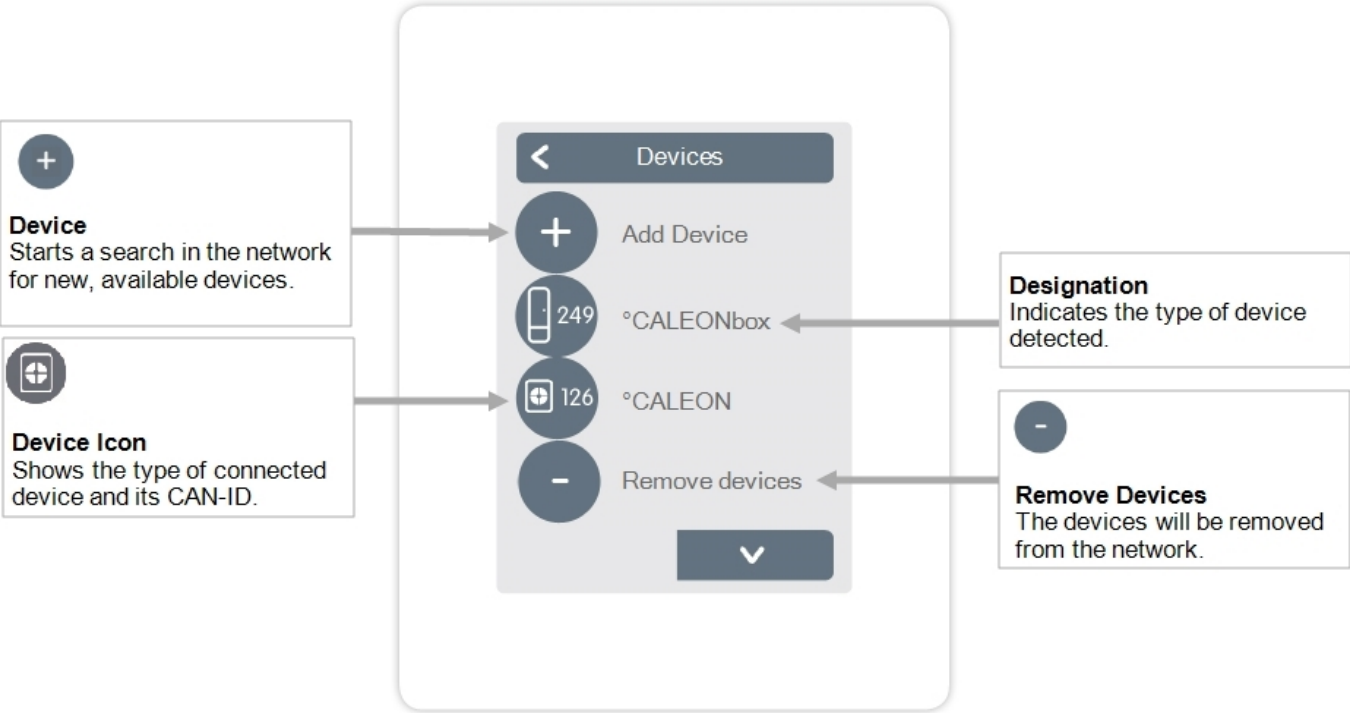
## Settings

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





Do not combine devices for heating only (°CALEON/ °CALEONbox) with devices for heating and cooling (°CALEON Clima/°CALEONbox Clima).

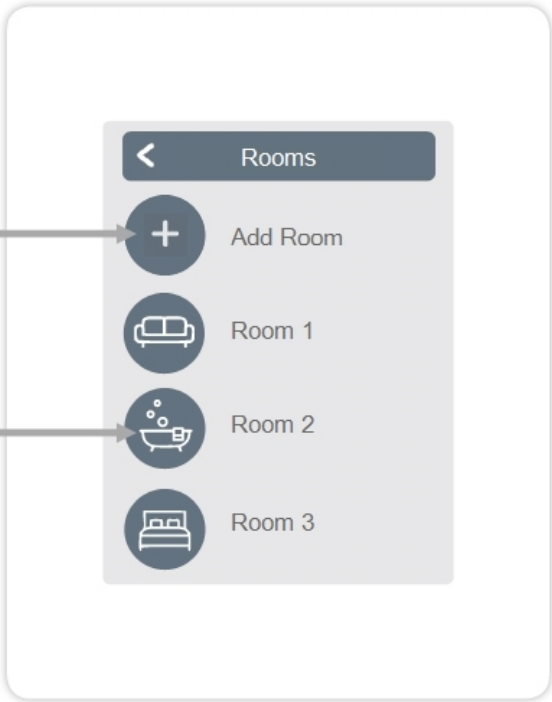


Rooms

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

**Add Room**  
Add rooms.

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

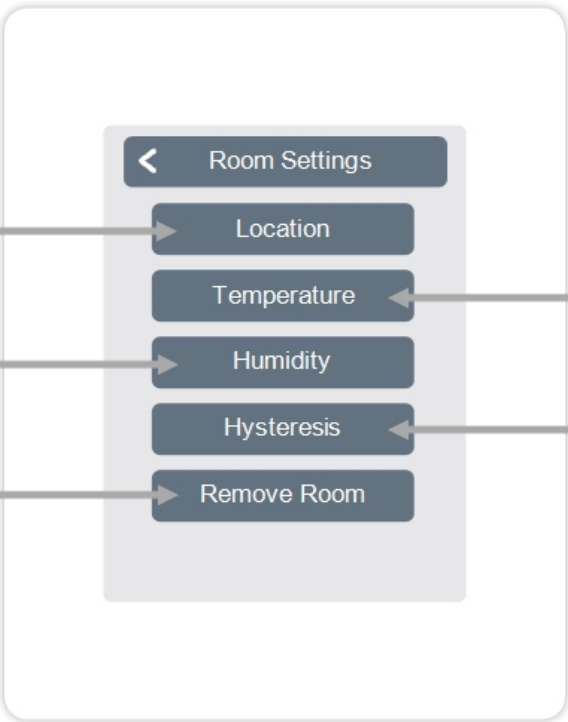


Overview > Operating mode > Menu > Expert > Settings > Room 2

**Location**  
Selection of the room icon.

**Humidity**  
Sensors in the selected room.

**Remove Room**  
Removes the selected room.

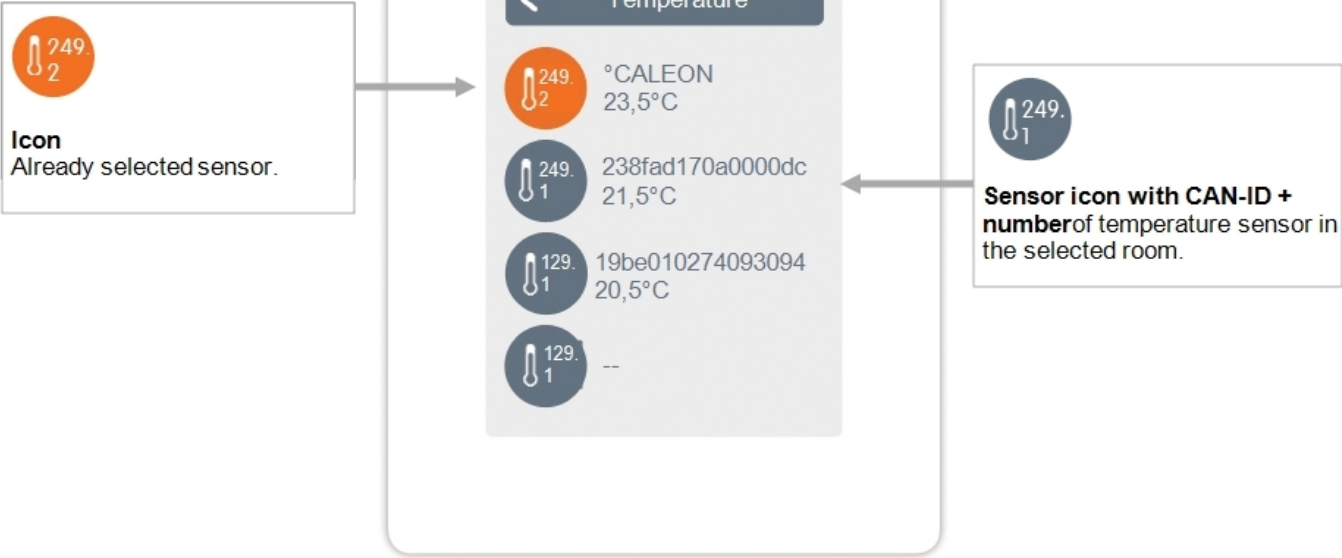


**Temperature**  
Sensors in the selected room.

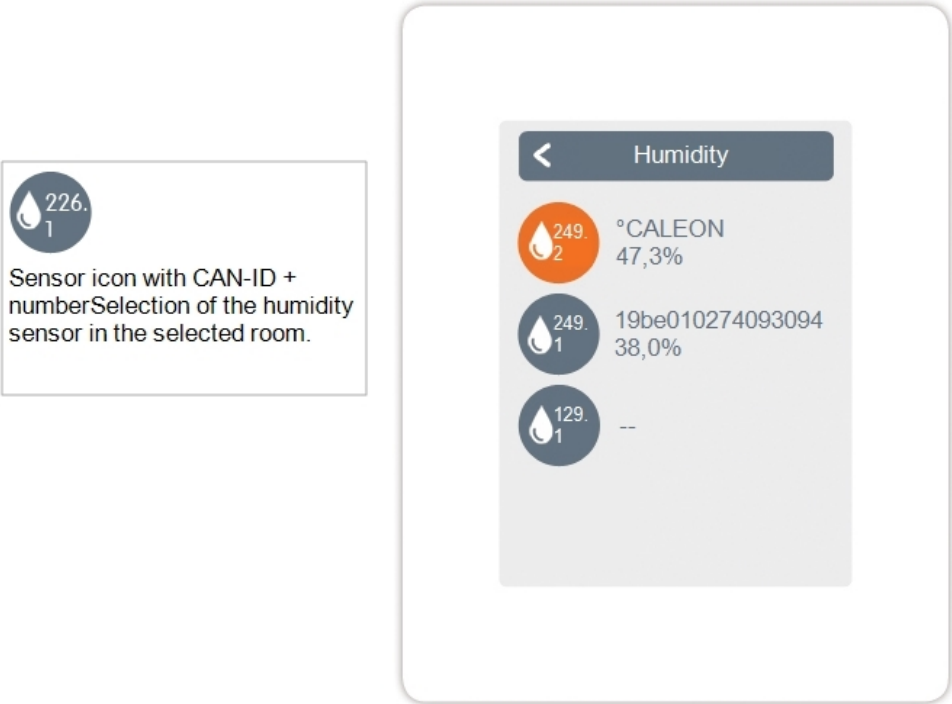
**Hysteresis**  
Switch-off hysteresis for the reference room temperature.

Sensors

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



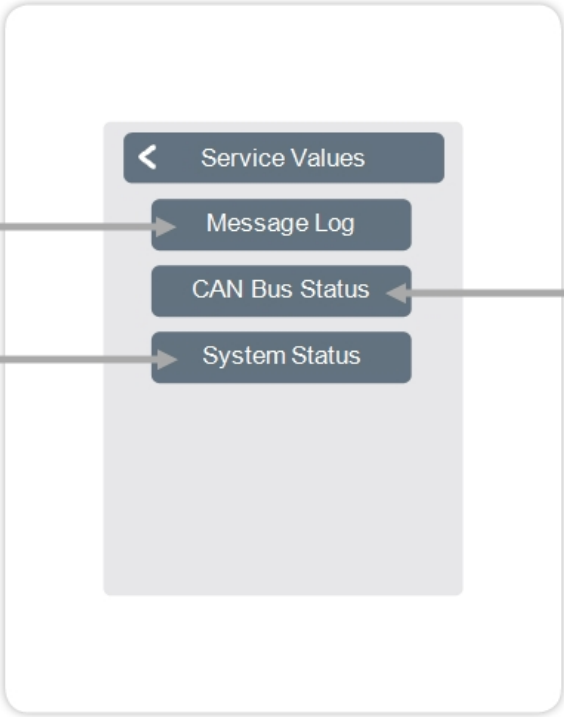
Overview > Operating mode > Menu > Expert > Settings > Rooms > Room 1 > Sensors > Humidity





**Message Log**  
Display of the fault log.

**System Status**  
Display of the system status.



**CAN Bus Status**  
Display of the CAN bus status.

## Support

Event	Support
The display does not show anything.	Is the device connected to the power supply? Is the mains connection voltaged? Has the electrical connection been made as described in the user manual?
The heating/cooling circuit does not respond to my °CALEON .	Is °CALEON assigned to the heating circuit in the controller menu? Is the CAN bus wiring between controller and °CALEON correct?
The CAN bus connection is incorrect.	Is the CAN bus connection properly installed and have all devices been wired <u>in line</u> (no star!)? Are end resistors set on the first and last device for termination of the bus?
No additional function can be assigned to a relay/V output under "Functions".	Is the selected function already assigned to another output? Is the output already assigned to another function?

Your problem still exists? Please contact: [support@sorel.de](mailto:support@sorel.de).

## 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:**

Your specialist dealer:

Manufacturer:

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

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