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AURATON 3003

Owner's Manual

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AURATON 3003

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⏻
OK
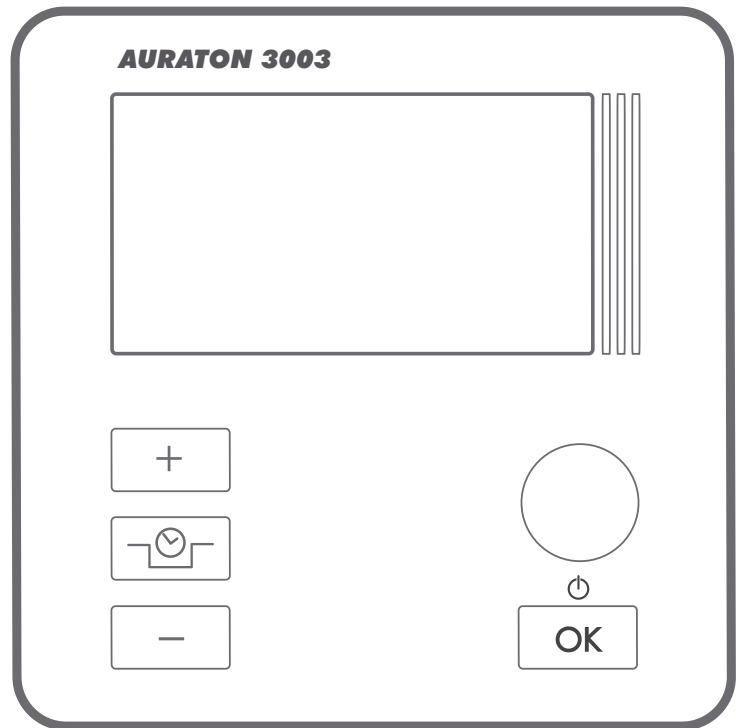
Congratulations on purchasing a wired temperature controller based on cutting-edge technological solutions.

AURATON 3003

FrostGuard function
protects the room against freezing

Option to temporarily reduce the programmed temperature
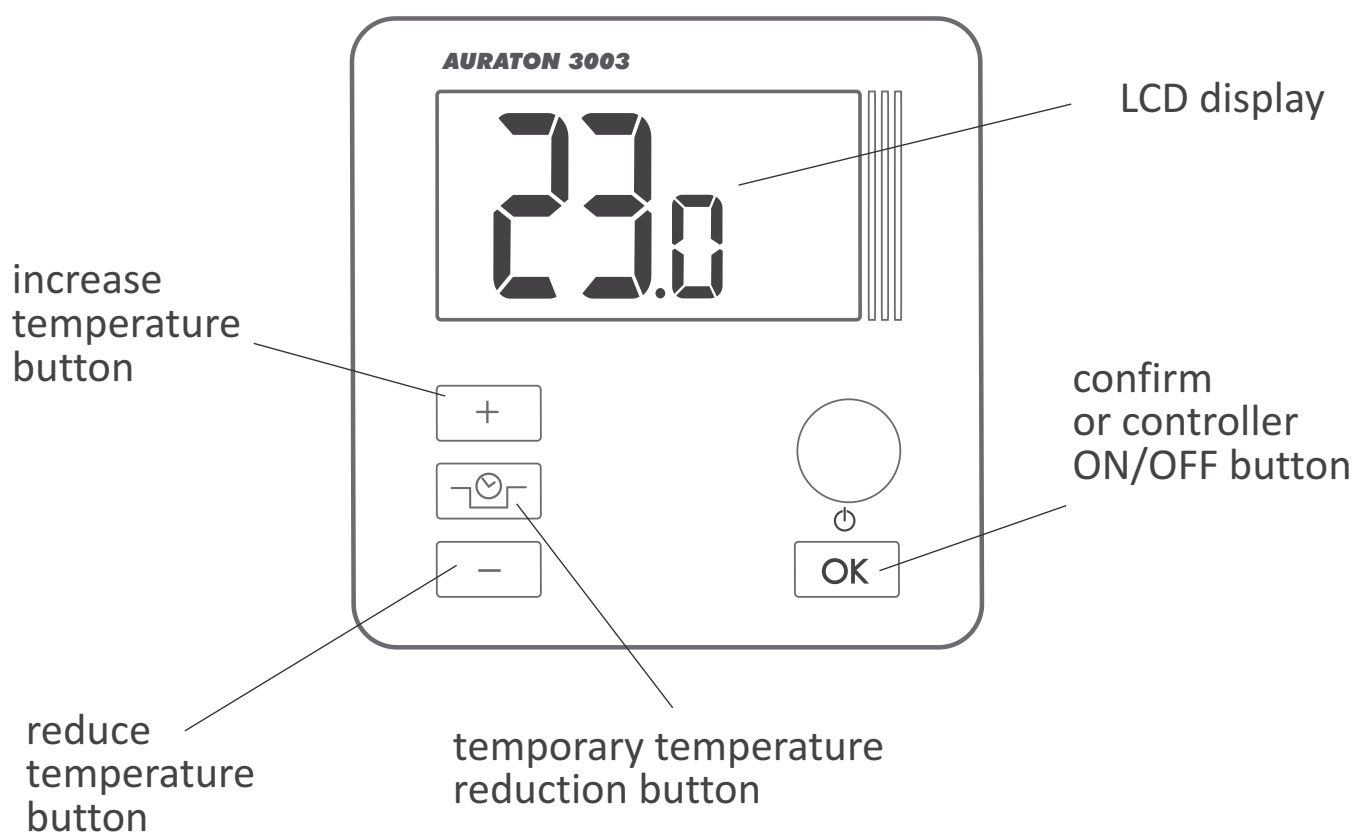For 6 hours, every day at the same time.

LCD **Backlit LCD display**
Backlit display makes it possible to supervise the device operation even in poorly lit rooms.

Description of AURATON 3003 temperature controller

The front panel of the enclosure includes a backlit LCD display and four function buttons.

increase temperature button

reduce temperature button

temporary temperature reduction button

LCD display

confirm or controller ON/OFF button

- **press briefly** – confirm the temperature setting OK
- **press and hold** – controller ON/OFF

Display

1 2 3 4 5 6 7
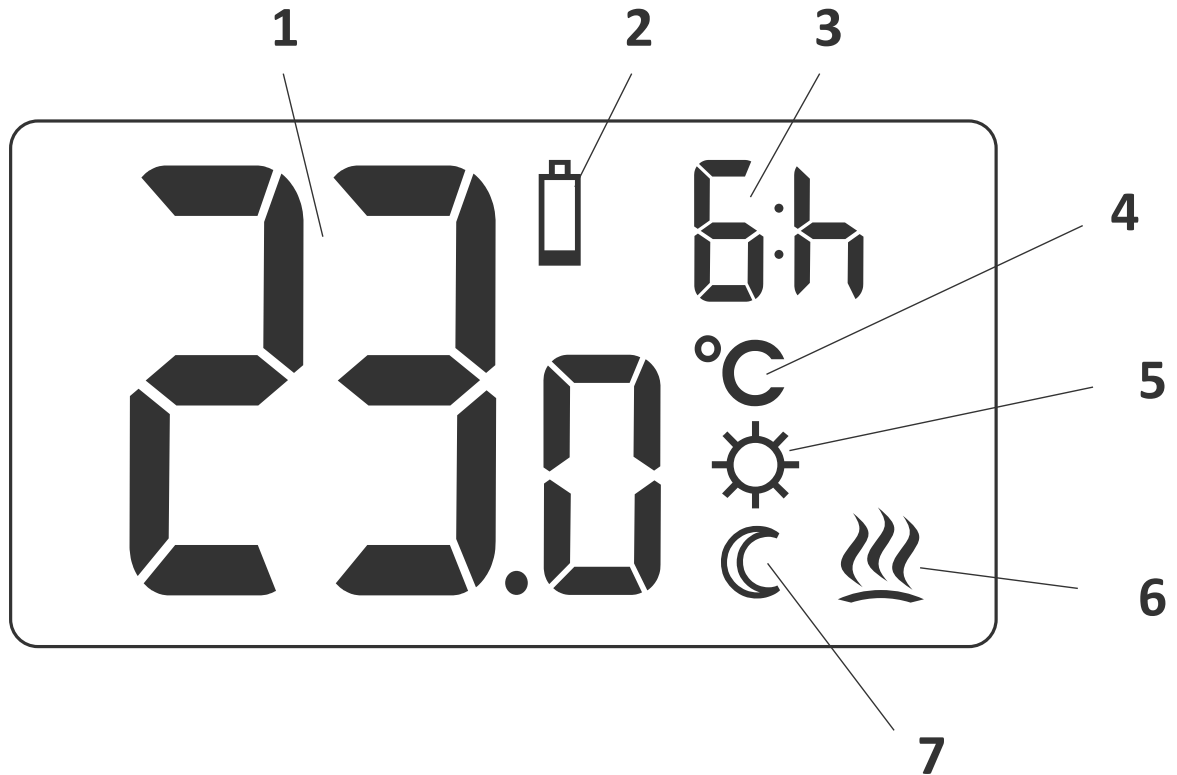
1. **Temperature**

   In normal mode, the controller displays the temperature in the room in which it is installed.

2. **Battery low (🔋)**

   This symbol appears when the battery voltage has dropped below the acceptable level. Replace the battery ASAP.

   NOTE: to maintain the settings the battery replacement should last less than 30 seconds.

3. **Temporary temperature reduction time**
   This symbols shows how long the temporary temperature reduction mode will be on.

4. **Temperature unit (℃)**
   Shows that the temperature is displayed in degrees Celsius.

5. **Indicator that the temporary temperature reduction is programmed (☼)**
   Indicates that the user has programmed the temporary temperature reduction mode. It appears when the mode is not currently on, but the function of temporary temperature reduction is active (more information in the *"Setting the temporary temperature reduction mode"* section).

6. **Controller on indicator (♨)**
   Indicates the device status. It appears when the controlled equipment is turned on.

7. **Indicator of temporary temperature reduction mode (☾)**
   Appears when the temporary temperature reduction program is running.

Selecting a correct location
for the AURATON 3003 temperature controller

Location can significantly affect the controller operation. Controller located in a place with no air circulation or exposed to direct sunlight may not work correctly. Install the controller on the internal wall of the building (partition wall), in a place with air circulation. Avoid installing it in the vicinity of heat generating devices (TV set, heater, fridge) or in places exposed to direct sunlight. Installing the controller near a door may also cause problems as the controller will be exposed to vibrations.
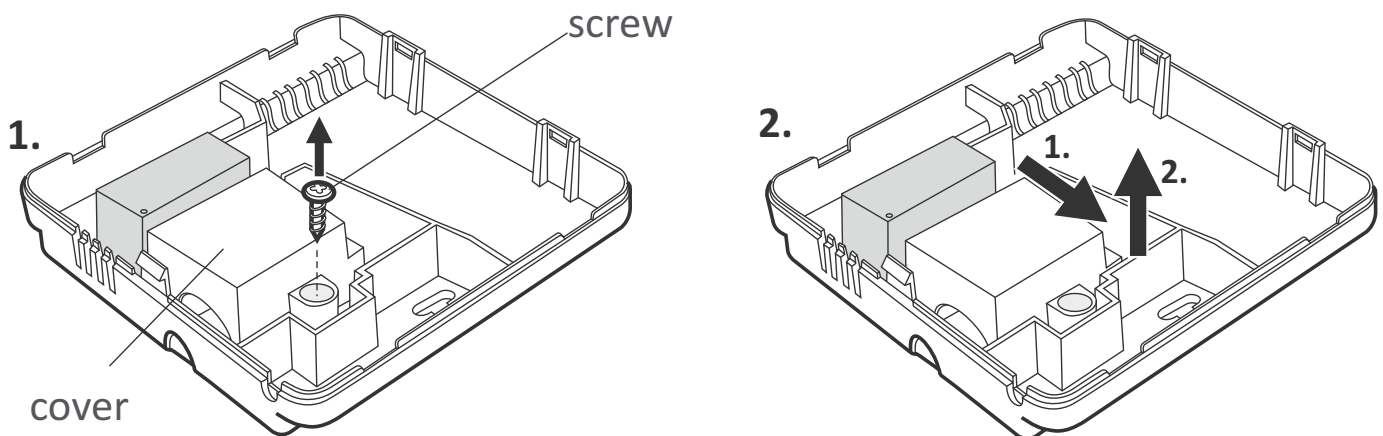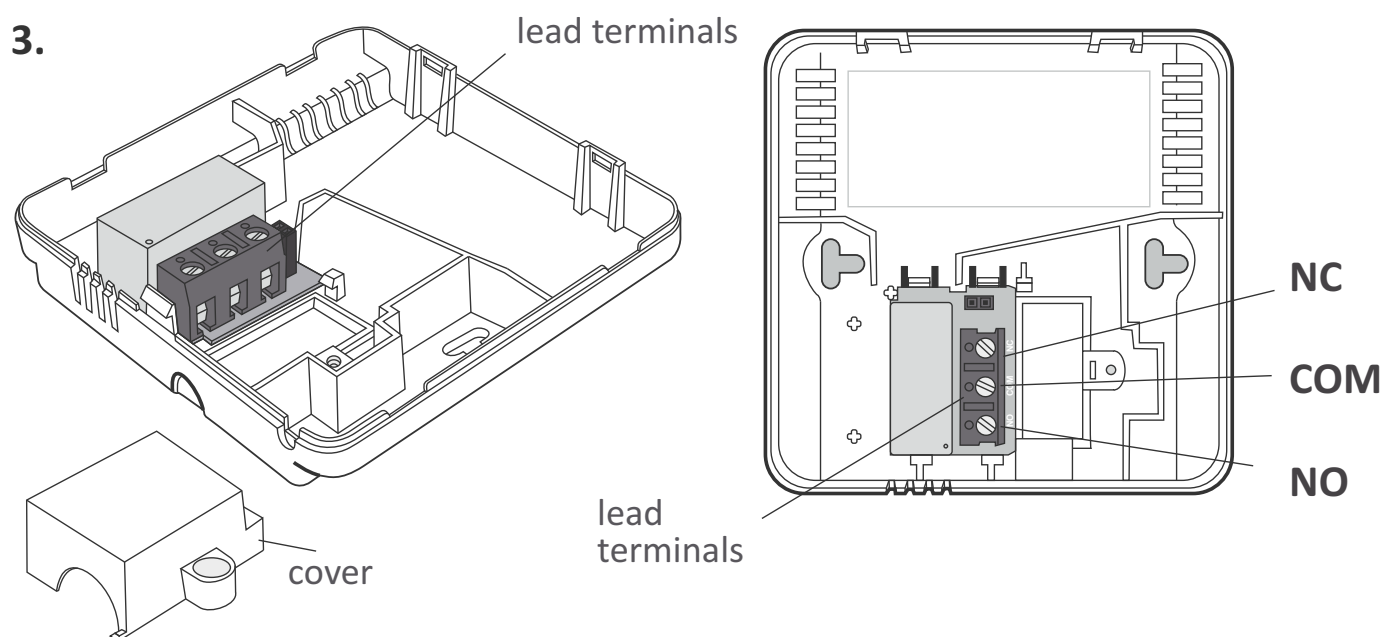

150cm
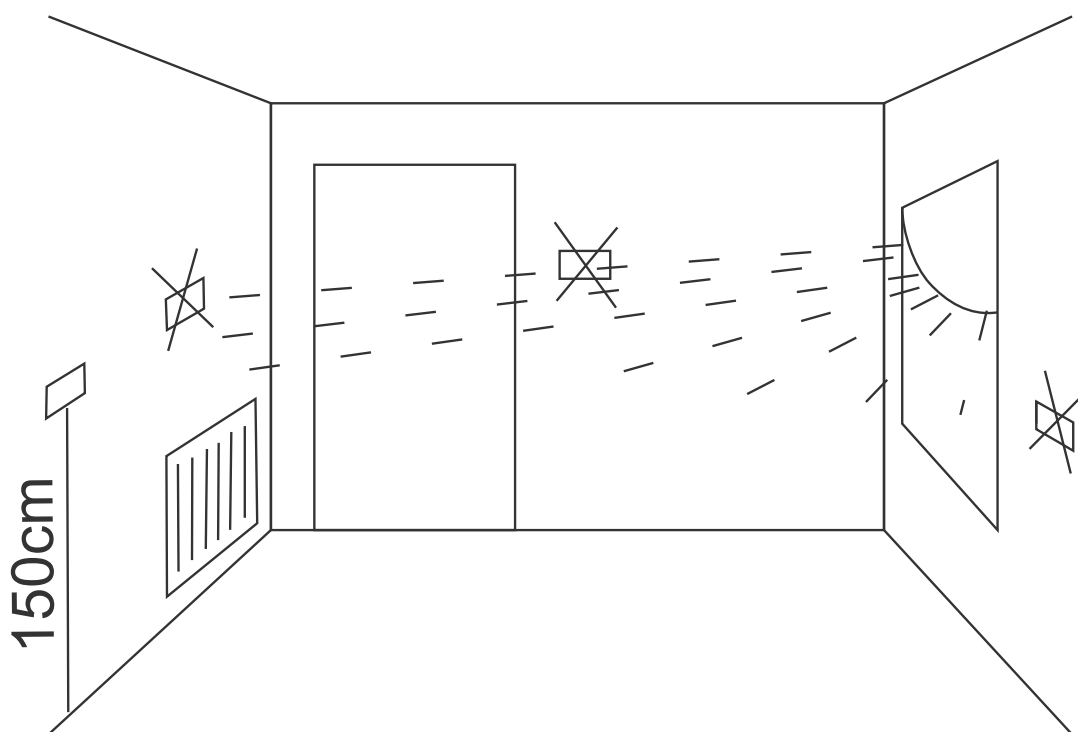
Connecting the leads to AURATON 3003

To connect the leads remove the front panel as shown below:

1.

2.
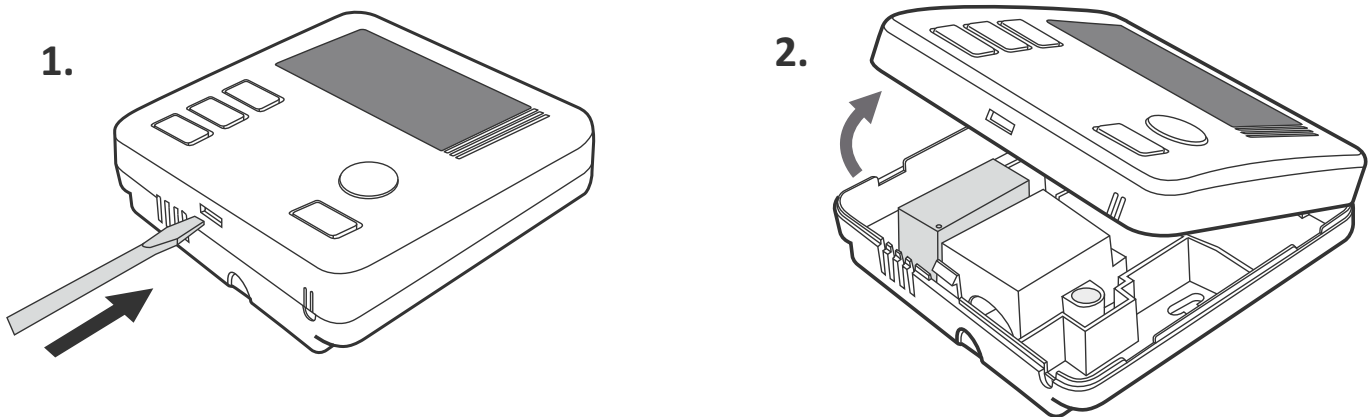
The lead terminals are on the controller's back wall, under the **plastic cover**.

screw

1.

2.

1.

2.

cover

3.

lead terminals

cover

lead
terminals

NC

COM

NO

It is a typical single-pole two-state relay. In most cases, the NC terminal is not used.

NOTE: After connecting the leads replace the plastic cover.

Installing/replacing batteries

The battery compartment is located inside the controller, in the front part of the enclosure. To place the batteries remove the front panel as shown in the section *"Connecting the leads to AURATON 3003"*.

battery compartment 2x AAA 1.5 V
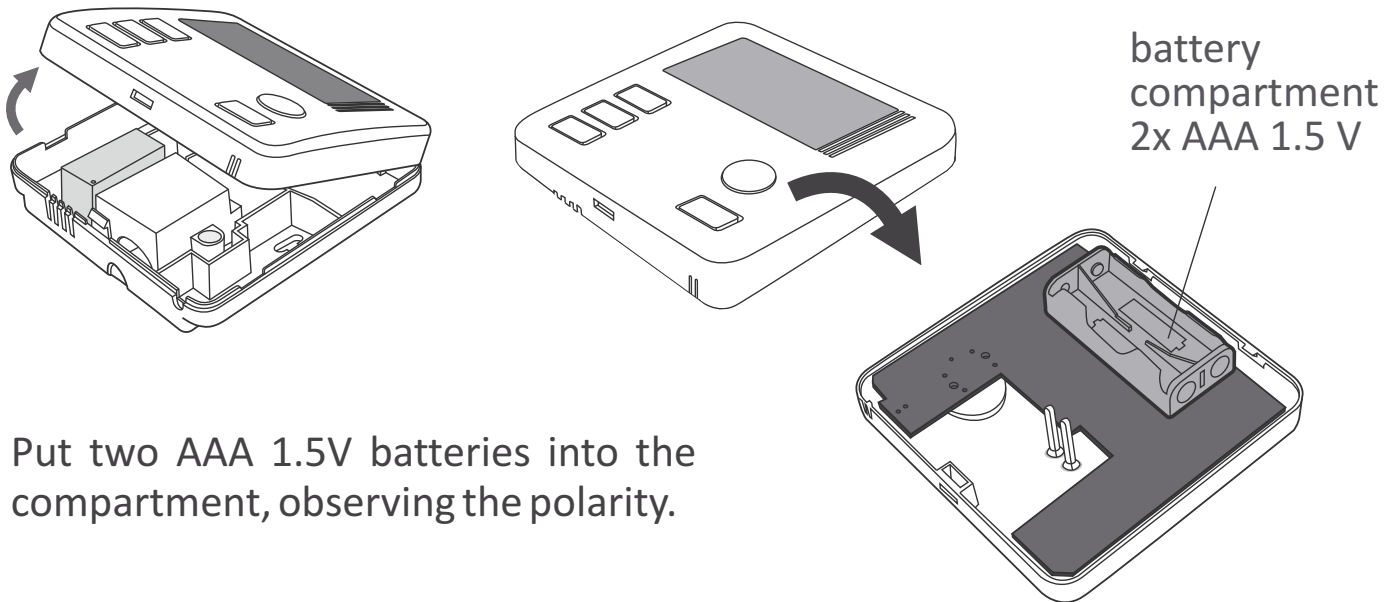
Put two AAA 1.5V batteries into the compartment, observing the polarity.

Fastening the controller on the wall

To fasten the AURATON 3003 controller to the wall::

1. Remove the controller front panel *(as shown in the section "Connecting the leads to AURATON 3003")*.

**2.** Drill two 6mm dia holes in the wall *(set the holes spacing using the controller rear panel)*.

opening for the screw
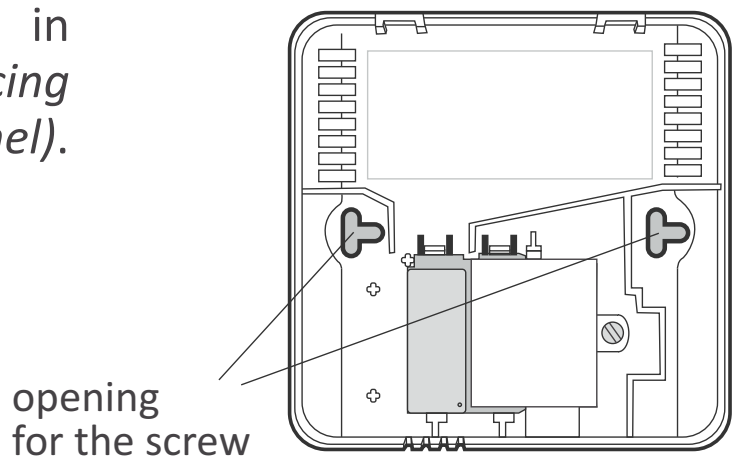
3. Place the expansion plugs into the drilled holes *(plugs are included in the kit)*.

4. Fasten the rear panel to the wall using the screws included in the kit.

5. Replace the front panel.

NOTE: In case of wooden wall you don't have to use expansion plugs. Just drill the 2.7 mm dia holes (instead of 6 mm) in screw the bolts directly into the wood.

Placing the front panel: NOTE

When replacing the front panel onto the rear panel pay attention to the pin connection which transmits the control signals.


Pins

FRONT PANEL

Pin socket

REAR PANEL
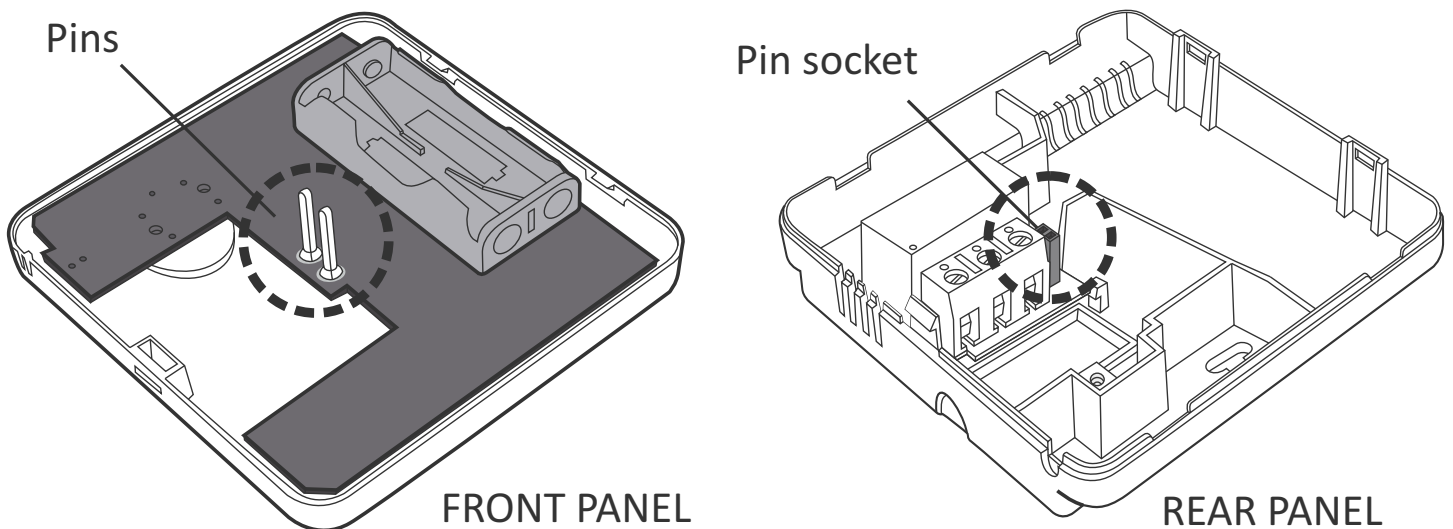
When replacing the front cover make sure that the pins are inserted into the pin socket.

First start of the controller

After a correct placement of batteries in the compartment all segments will appear on the display for a second (display test), followed by the software version number.

The current temperature in the room will be displayed after a moment. The controller is ready for operation.
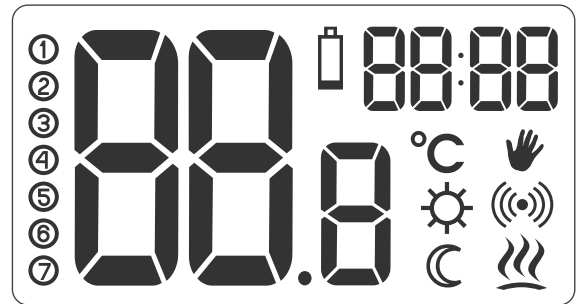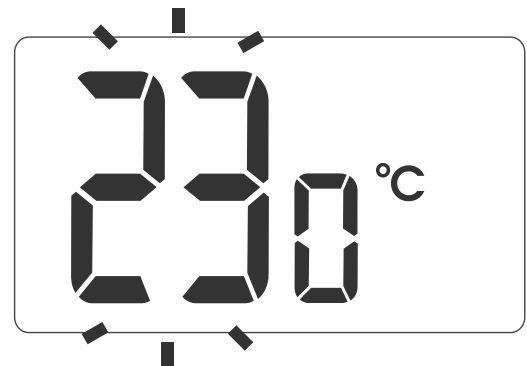
Setting the temperature

NOTE: The first pressing of any function button always turns the display backlight on, only the second pressing activates a given function.

To set the required temperature in the normal operation mode:

1. Press the ⊞ or ⊟ button. The temperature display segment will go into the edit mode and will start flashing.

2. Using the ⎡ + ⎤ and ⎡ — ⎤ buttons set the desired temperature in the room with the 0.2°C accuracy.

3. Confirm your settings by briefly pressing the ⎡ ⏻ OK ⎤ button.

Setting the temporary temperature reduction mode

If for any reason you want to have the temperature in the room reduced by 3°C every day at the same time, then you can do it for 6 hours. To reduce the temperature:

1. Press the button ⎡ ⌐⊙⌐ ⎤ and hold it for 3 seconds.
The display will show the symbol of moon (☾) and the hour counter (6:h).

2. The controller goes to the temporary temperature reduction mode and every day at the same time it will reduce the temperature by 3°C for 6 hours.

NOTE: After 6 hours the controller will revert to the basic temperature setting. On the display the moon symbol (☾) will be replaced by the sun symbol (☼).

NOTE: The temporary temperature reduction mode always starts when the function is activated. This means that the possible temporary temperature reduction should be programmed at the time when you want the temperature change to happen.

Switching off the temporary temperature reduction mode

To switch off the temporary temperature reduction mode, press and hold this button ⌗ for 3 seconds.
The display will show the current temperature in the room and the controller will revert to the normal mode of operation.

FrostGuard function

The AURATON 3003 controller features a special FrostGuard function which prevents freeze damage to your room. The function is activated when the controller is off.

When the controller is off and the temperature in the room drops to

2°C, the display will show the symbols Fr (⊢ᵣ) and ♨ , and the relay will activate. When the temperature rises to 2.2°C the display will turn off again and the relay will disconnect the contacts.

Changing hysteresis

Hysteresis prevents the device from switching on too often due to insignificant temperature fluctuation.

E.g. with HI2 hysteresis and temperature setting of 20°C, the boiler switches on at 19.8°C and switches off at 20.2°C. With HI4 hysteresis and temperature setting of 20°C, the boiler switches on at 19,6°C and switches off at 20.4°C.

To change hysteresis, press $\boxed{+}$, $\boxed{-}$ and $\boxed{\text{-©-}}$ simultaneously and hold for 3 seconds. When hysteresis change mode is active, message **HI** is displayed.

$$HI^2$$
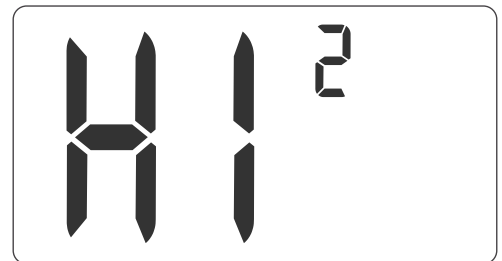
Use $\boxed{+}$ and $\boxed{-}$ to change hysteresis settings.

HI 2 – ±0,2°C *(factory setting)*
HI 4 – ±0,4°C
HI P – PWM mode *(see chapter "PWM mode")*

Press $\boxed{\overset{\circlearrowleft}{OK}}$ to confirm your selection.
The controller resumes normal operation.

Pulse-Width Modulation mode (PWM)

When changing hysteresis settings, you can enable **PWM** mode. In PWM mode, the controller switches on the heating device in cycles to minimize temperature fluctuations. The controller monitors the temperature rise and drop time.

Temperature

Room
temperature

Preset
temperature

Time
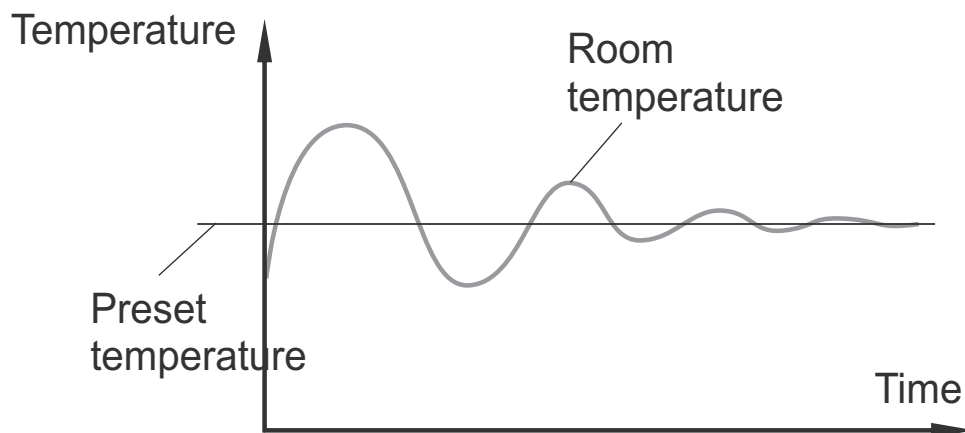
With these values determined, the controller switches the heating device on and off in cycles that enable maintaining temperature as close to the setpoint as possible.

CAUTION: In PWM mode, the controller can switch on the heating device even though the temperature in the room is higher than preset temperature. This is because the PWM algorithm tries to maintain the preset temperature and stays ahead of the heating system behaviour.

Notes

- You can switch on and off the controller any time by briefly pressing the [⏻ OK] button.

- The first pressing of any function button always turns the display backlight on, only the second pressing activates a given function.

- During programming, failure to press any button for 10 seconds is the same as pressing the button [⏻ OK].

Technical specification

Operating temperature:	0 − 45°C
Temperature measurement range:	0 − 35°C
Temperature control range:	5 − 35°C
Hysteresis:	±0,2°C / ±0,4°C / PWM
Default temperature setting:	20°C
Additional function:	FrostGuard
Operation cycle:	daily
Operation status indication:	LCD
Maximum load current on relay contacts:	~ 16A 250VAC
Power supply:	2x AAA 1.5V alkaline batteries

Disposal

The controller bears the WEEE crossed waste bin mark. According to the Directive 2002/96/CE and the Waste Electrical and Electronic Equipment Act, this marking means that after its life such equipment may not be disposed of together with the household waste.

The user should deliver it to a collection centre of waste electrical and electronic equipment.

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