# AURATON Auriga

User manual ver. 20211225
The document presents collected information on safety, assembly and use of AURATON Auriga.

## 24-Hour hard-wired temperature regulator

AURATON Auriga is a daily hard-wire temperature regulator designed to work with gas or electric heating device.

| ❄ | **"FrostGuard" function** to protect against freezing of the room. |
|---|---|
| ⌐⌚¬ | **Possibility of temporarily lowering the programmed temperature** For a period of 6 hours, every day, at the same time. |
| **LCD** | **Backlit LCD display** The backlit display makes it possible to monitor the device's operation even in poorly lit rooms. |

## Description of AURATON Auriga

**24-Hour hard-wired temperature regulator**

The front of the housing features a backlit LCD display and four function buttons.
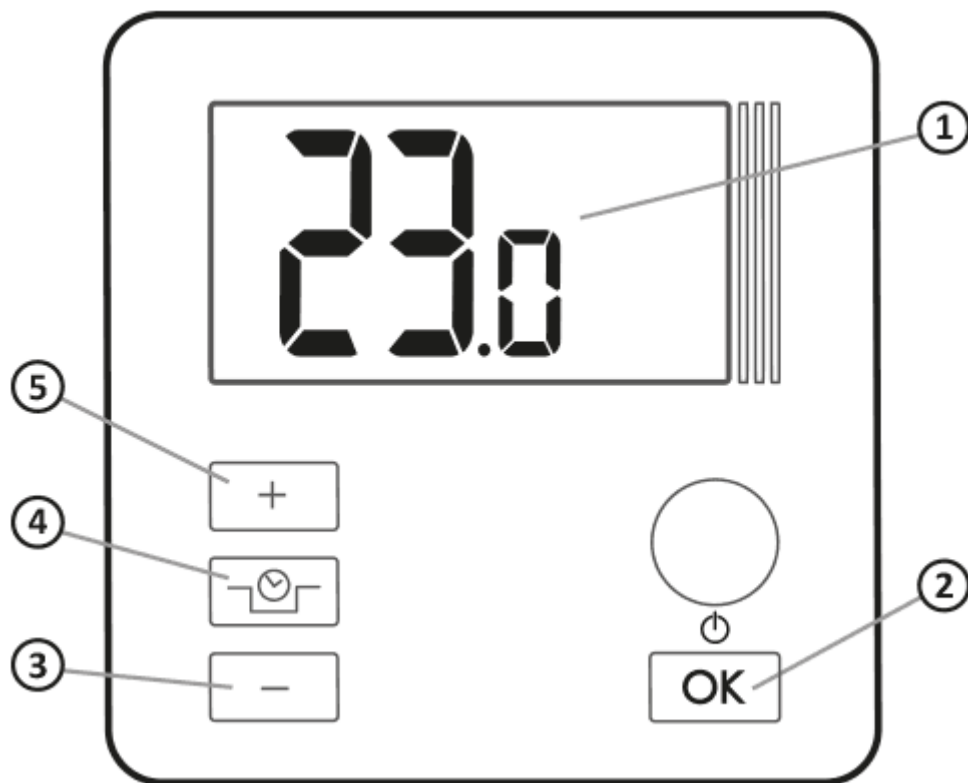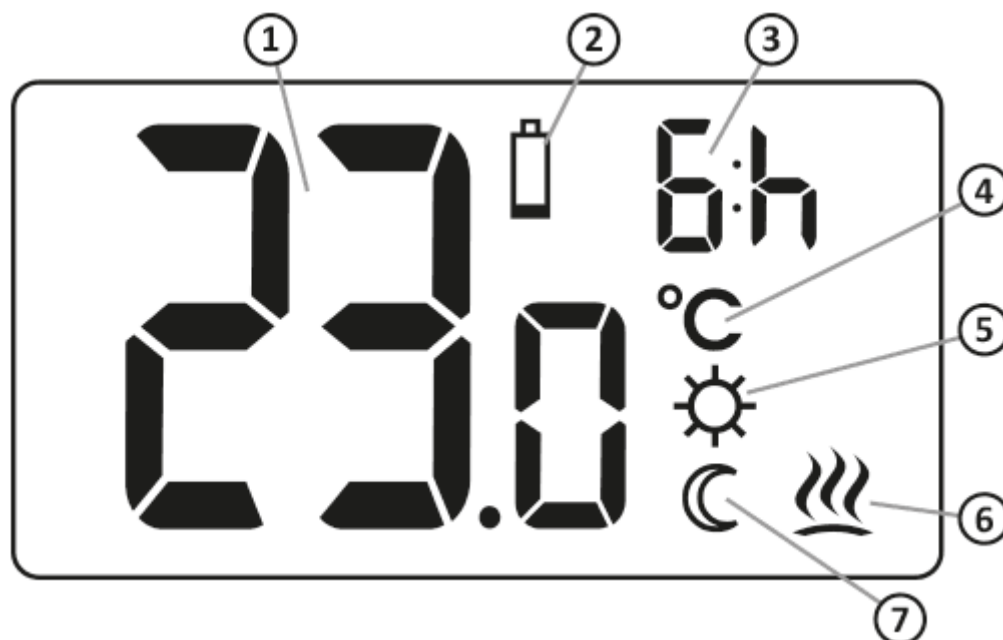
1. LCD display
2. Approval or on/off button AURATON Auriga
3. Temperature decrease button
4. Temporary temperature reduction mode buttons
5. Temperature increase button

- **hold** – on/off AURATON Auriga ((⏻))
- **short pressing** – confirms the temperature setting (OK)

# Display



1. **Temperature**
   In normal operation, AURATON Auriga displays the temperature of the room in which it is currently installed.

2. **Battery depletion (🔋)**
   An indicator visible when the minimum acceptable battery voltage is exceeded. Replace the batteries as soon as possible.
   **NOTE:** To save your AURATON Auriga settings, battery replacement should take less than 30 seconds.

3. **Indication of the duration of the "temporary temperature lowering"**
   It indicates how long the "Temporary temperature lowering" mode will remain active.

4. **Temperature unit (°C)**
   It indicates that the temperature is displayed in degrees Celsius

5. **"Temporary temperature Temperature unit" programming mode indicator (☼)**
   It indicates a user-scheduled "temporary temperature lowering" mode. Appears when the mode is not currently active, but the "temporary temperature lowering" function is active *(more information in the chapter "Setting the temporary temperature lowering mode")*
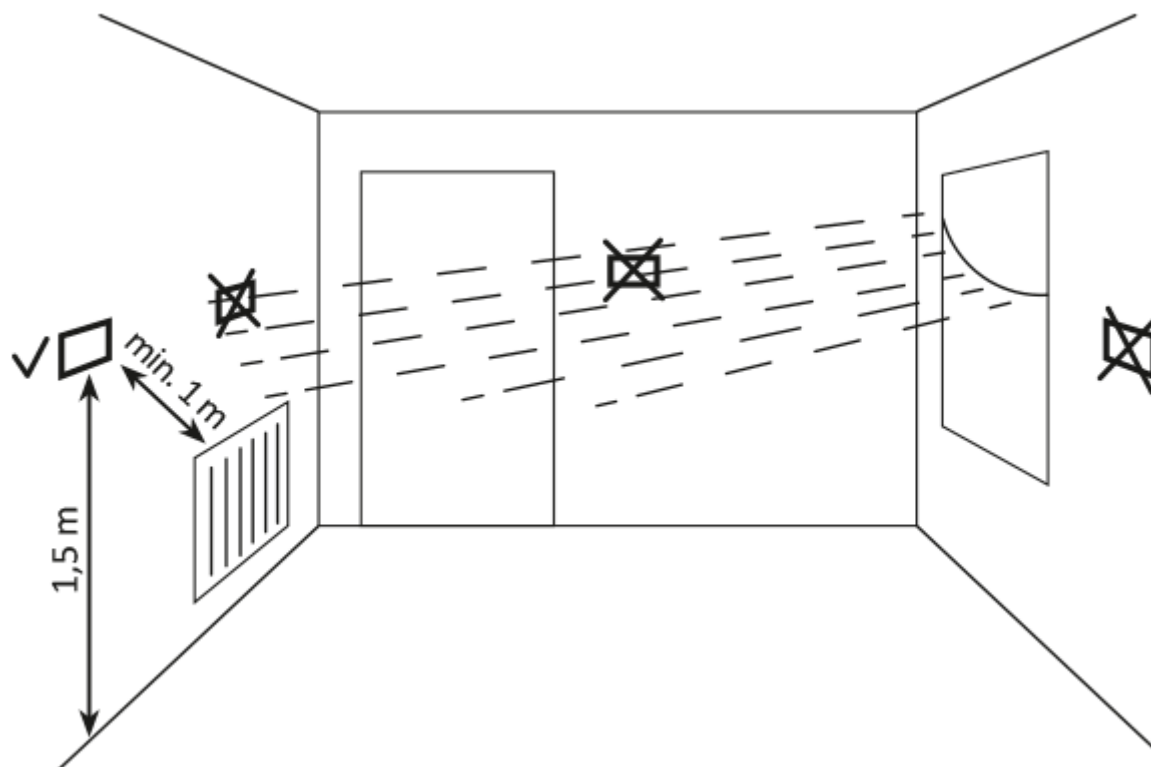
6. **Indicator of AURATON Auriga switch-on (♨)**
   Pictogram indicating the working status of the device. Visible when the controlled device is switched on.

7. **Temporary temperature lowering mode indicator (☾)**

It appears while the temporary temperature lowering program is running.

## Choosing the right location for AURATON Auriga



The correct operation of AURATON Auriga is largely influenced by its location. Using the device in a place with no air circulation or a place with direct sunlight may result in incorrect temperature control. AURATON Auriga should be installed on the internal wall of a building (a partition wall), in an environment with free air circulation. You should avoid proximity to heat-emitting devices (TV, heaters, refrigerators) or locations exposed to direct sunlight. The vicinity of doors and exposing AURATON Auriga to possible vibrations may also cause problems with proper operation of the device.
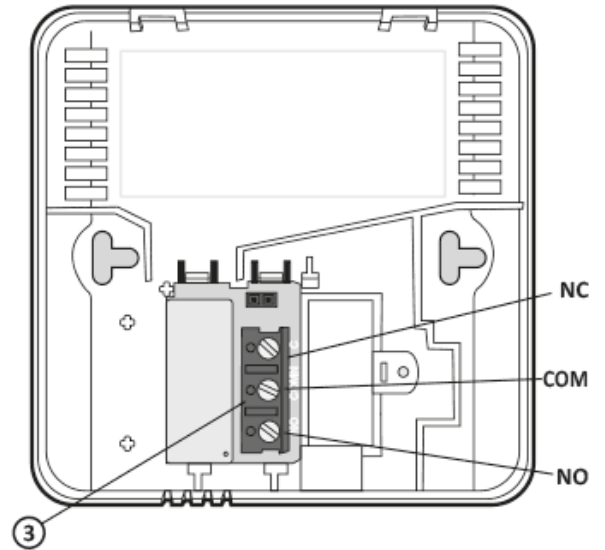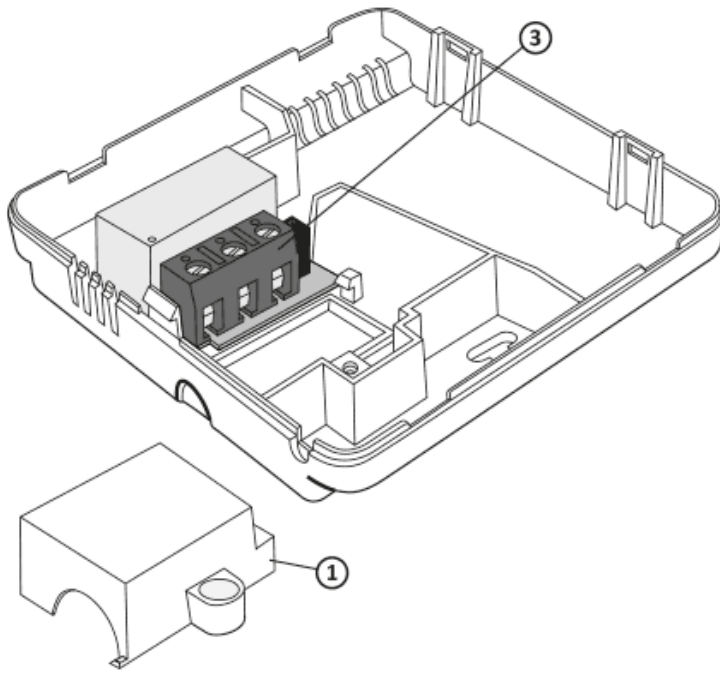
## Connection of wires to AURATON Auriga

To connect the wires, remove the housing as shown below:
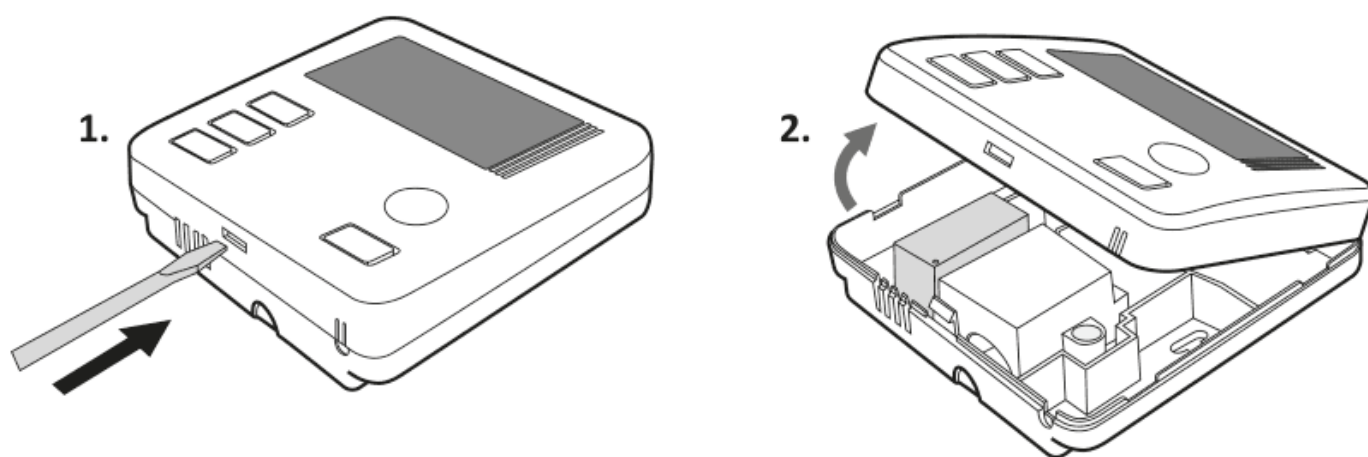


Wire terminals are located on the rear panel of AURATON Auriga, under the plastic cover.
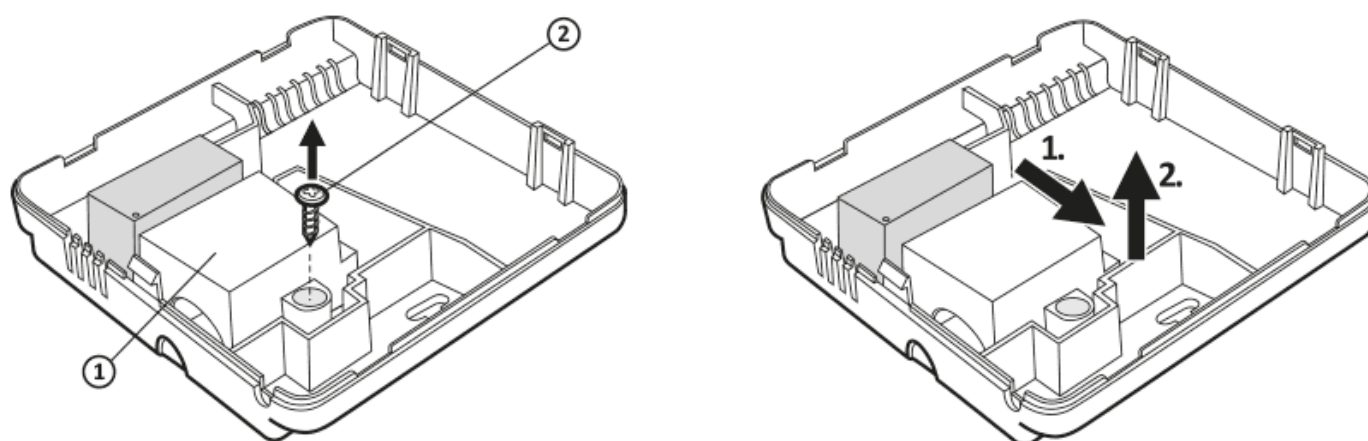
1. cover
2. screw
3. wire terminals

It is a typical single-pole double-throw relay. In most cases, the NC clip is not used.

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**NOTE:**

**After connecting the wires, reinstall the plastic cover.**

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## Battery installation/replacement

The battery socket is located inside the regulator on the front of the housing. To install the batteries, remove the regulator housing as shown in section "Connecting the cables to AURATON Auriga".

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**NOTE:**

**To power AURATON regulators, we recommend alkaline batteries. Do not use**

**"rechargeable batteries" because the voltage rating is too low.**
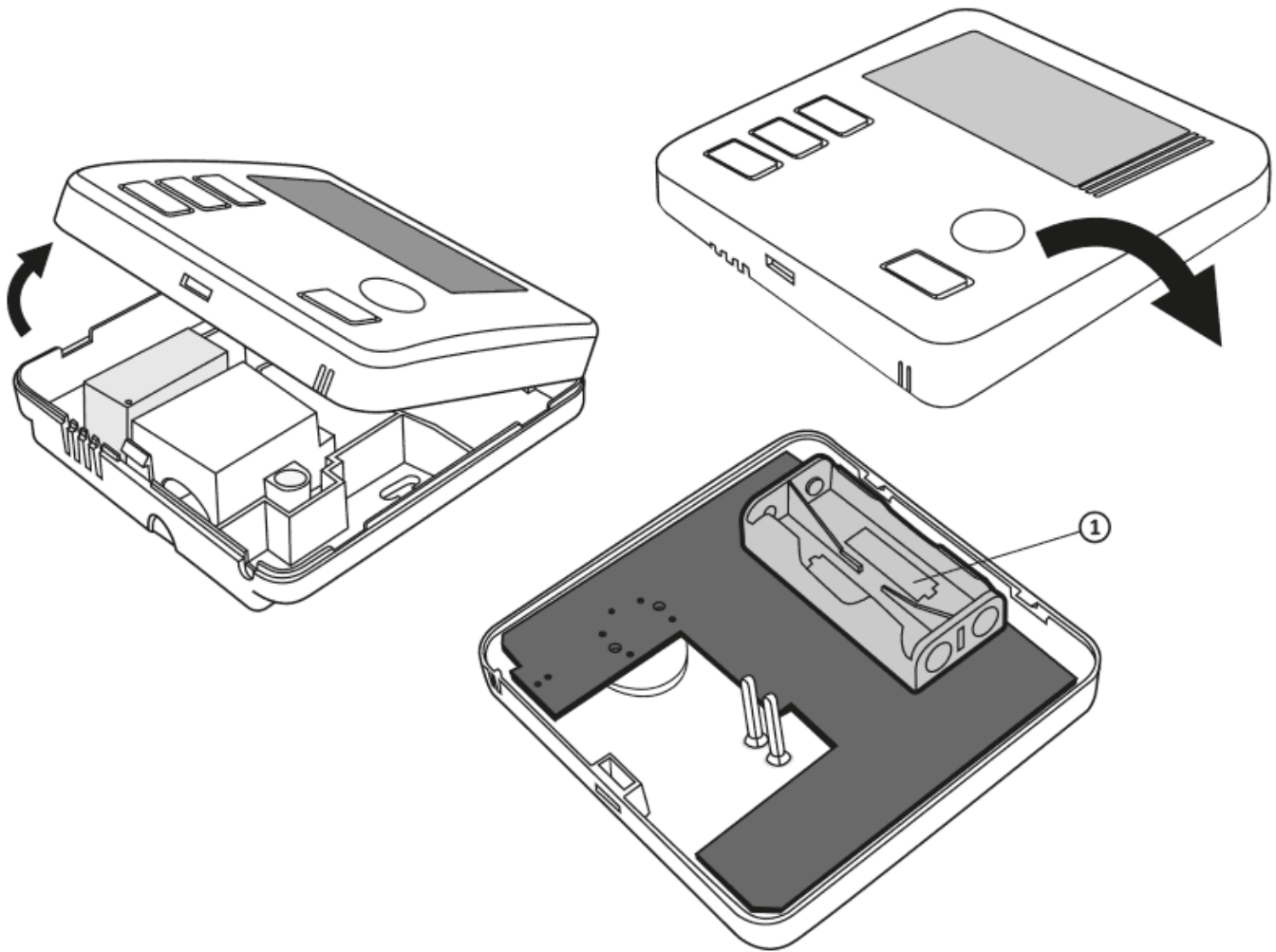
1 – battery socket 2 x AAA 1.5V

Insert two AAA 1.5V batteries into the battery socket, making sure the battery terminals are aligned correctly.

**NOTE:**

**After replacing the battery and assembling the cover, we recommend pressing the button twice ☐OK to stabilise the relay operation.**

# Mounting of AURATON Auriga – daily, hard-wired temperature regulator

In order to fix AURATON Auriga regulator to the wall, it is necessary yo:

1. Remove the housing *(in the way shown in chapter "Connecting the cables to AURATON Auriga").*
2. Drill two holes of 6 mm diameter in the wall *(the spacing of the holes should be determined by the rear part of the regulator housing).*
3. Insert the wall plugs into the drilled holes.
4. Screw the rear part of the regulator housing to the wall using the screws provided.
5. Put on the regulator housing.

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**NOTE:**

**In the case of a wooden wall, there is no need to use wall plugs. It is enough to drill holes with a diameter of 2.7 mm (instead of 6 mm) and screw the screws directly into the wood.**

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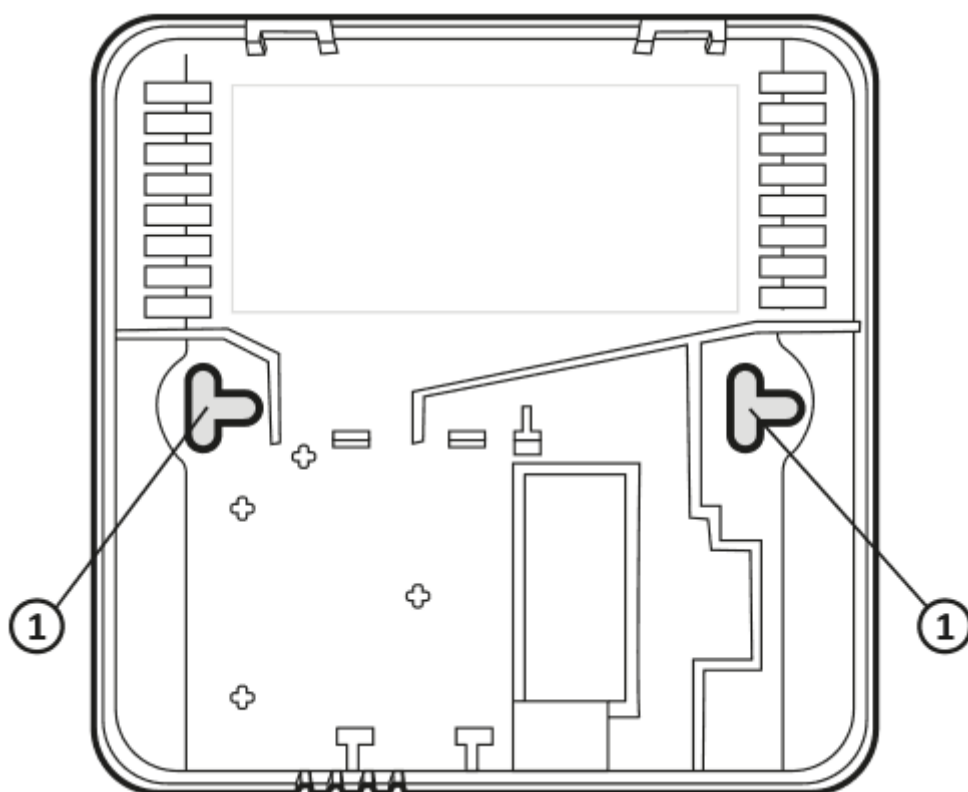


1 – Holes for fixing screws

## Installing the housing: NOTE

When reattaching the front housing to the rear housing, pay attention to the pins that transfer the relay control.
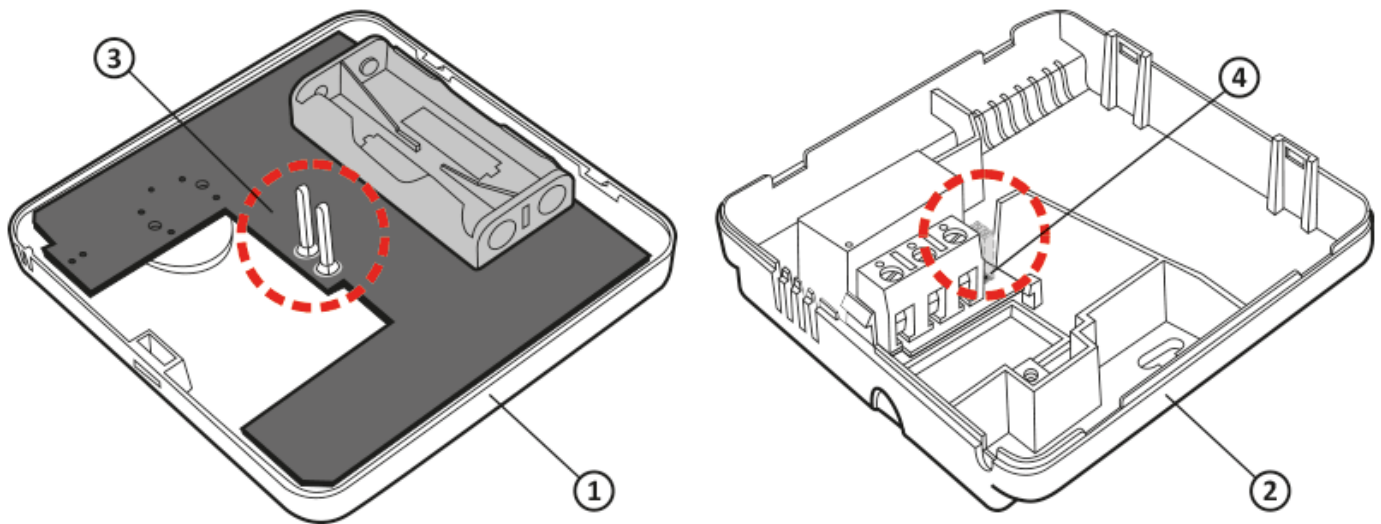


1. Front housing
2. Rear housing
3. Pins
4. Pin connector socket or the place where pins contact the board

**NOTE:**
When assembling the housing, make sure that the connection "pins" are not bent and are in place on the relay board. This is crucial for the proper operation of AURATON Auriga.

# First start-up of AURATON Auriga

When the batteries are properly inserted in the sockets, the LCD display will show all segments for a second (display test) followed by the software version number. After a moment, the current room temperature is automatically displayed. AURATON Auriga is ready to work.
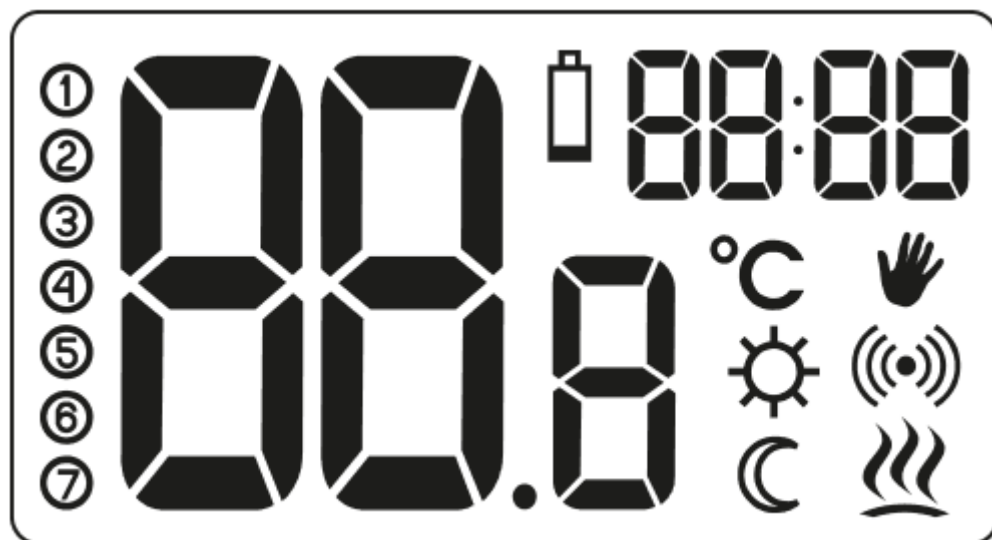
## Temperature setting

> **The first press of any function button always turns on the backlighting, and only the next press calls up the button function.**

In order to set the desired temperature in the normal operation mode, one should:

1. Press the ⊞ or ⊟ button. The segment responsible for the temperature display will go into edit mode, and start flashing.
2. Using ⊞ and ⊟ buttons, set the desired temperature with an accuracy of 0.2 °C
3. Confirm your choice by pressing ⏻OK briefly.



## Setting the "temporary temperature lowering" mode

⌐☉⌐ If you would like to lower the room temperature by 3 °C every day at the same time, there is a possibility of temporary temperature reduction for a period of 6 hours. In order to do this you need to:

1. Press and hold the ⌐☉⌐ button for 3 seconds. The moon symbol (☾) and the hour indicator (6:h) appear on the display.
2. AURATON Auriga enters the "temporary temperature lowering " mode, and every day **at the same time** it will reduce the temperature programmed in the normal mode by 3 °C for a period of 6 hours.

> **NOTE:**
> After 6 hours, AURATON Auriga returns to the basic temperature setting. Instead of the moon
> symbol (☾), the sun symbol (☼) will appear on the screen.

> **NOTE:**
> The "temporary temperature lowering " mode always starts when the function is activated. This
> means that any temporary temperature reduction should be programmed at the time you want it
> to occur.

## Deactivating the "temporary temperature lowering" mode

To deactivate the "temporary temperature lowering" mode, press and hold the ⌐☉⌐ button again for 3 seconds. The display will only show the room temperature, and AURATON Auriga will return to normal operation mode.

## FrostGuard function

AURATON Auriga is equipped with a special "FrostGuard" function protecting the room against possible freezing. This function is activated when **AURATON Auriga is switched off.**.
With AURATON Auriga switched off, when the temperature in the room drops to 2 °C, Fr (Fr) and ♨ symbols appear on the display, and the relay switches on. When the temperature rises to 2.2 °C, the display will turn off again, and the relay will disconnect the contacts.

# Hysteresis change

The hysteresis is intended to prevent the executive device from switching on too frequently due to minor temperature fluctuations.
*For example, for the HI 2 hysteresis, if the temperature is set to 20 °C, it will be switched on at 19.8 °C and switched off at 20.2 °C. For the HI 4 hysteresis, when the temperature is set to 20 °C, it will be switched on at 19.6 °C and off at 20.4 °C.*

To enter the hysteresis change mode, press ▼, ▲ and ⊙ buttons simultaneously for 3 seconds. The hysteresis change mode is signalled by flashing **HI**. Use the ▼, ▲ buttons to change the hysteresis setting.
**HI 2** – ±0,2 °C *(factory set)*
**HI 4** – ±0,4 °C
**HI P** – PWM mode of operation *(chapter "PWM mode of operation").*

Confirm the selection with the ⊙ button. AURATON Aquila R will return to normal operation.

# PWM working mode

(Pulse-Width Modulation)

By changing the hysteresis settings *(chapter "Configuration settings")* you can enable the PWM mode. In this mode, AURATON Auriga cyclically switches on the heating device in order to minimize temperature fluctuations. AURATON Auriga checks the times of temperature rise and times of temperature fall.
Knowing these values, the AURATON Auriga switches the heating device on and off in such cycles as to maintain the temperature as close to the setpoint value as possible.
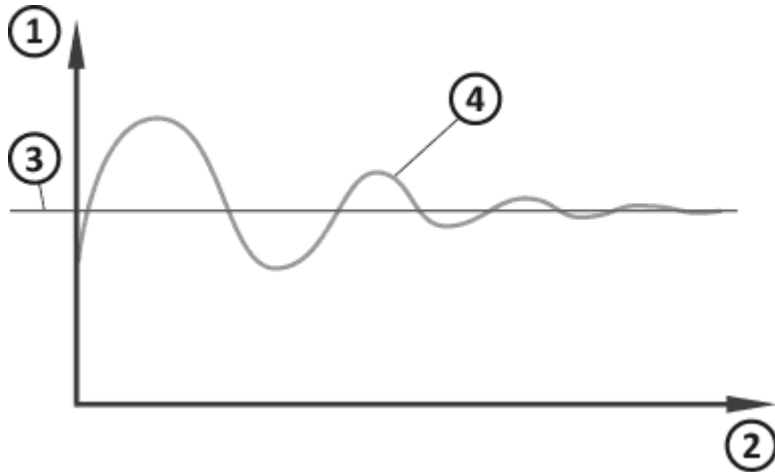


1. Temperature
2. Time
3. Set temperature
4. Room temperature

**NOTE:**
In the PWM mode, the AURATON Auriga can switch on the heating device despite the fact that the room temperature is higher than the setpoint temperature. This is due to the PWM algorithm seeking to maintain the setpoint temperature and anticipating the behaviour of the thermal system.

## Relay activation delay

After the heating device is switched off, the relay will be switched on again no sooner than **after 90 seconds.**.

# Notes

1. AURATON Auriga can be switched on or off at any time by momentarily holding down the ⏻ⓄⓀ button.
2. The first press of any function button always turns on the backlighting, and only the next press calls up the button function.
3. f no button is pressed for 10 seconds during the programming of a functions, it is equivalent to using the ⏻ⓄⓀ button.

# Connection diagram of AURATON Auriga

**NOTE:**
Auraton Auriga can work with gas or electric heating device
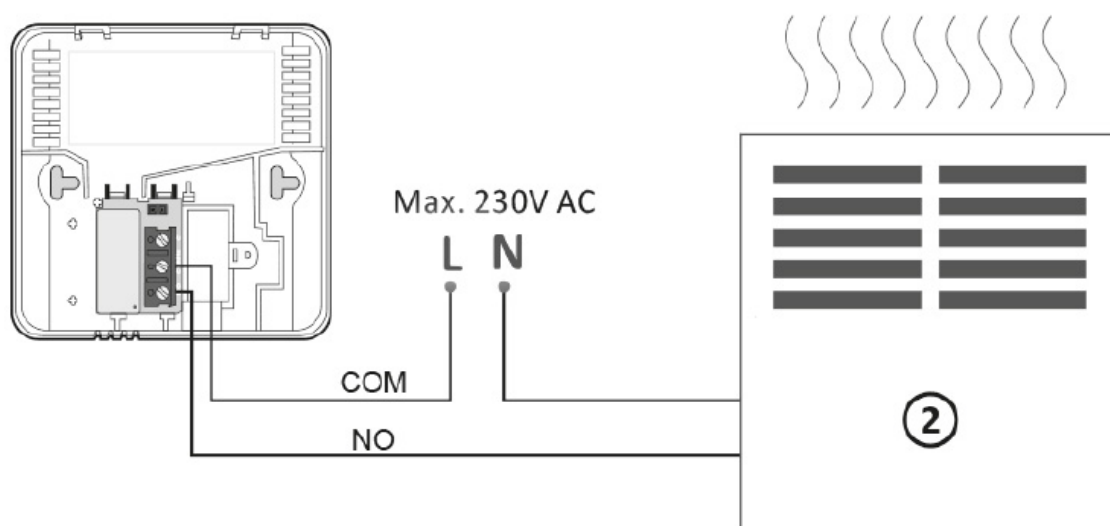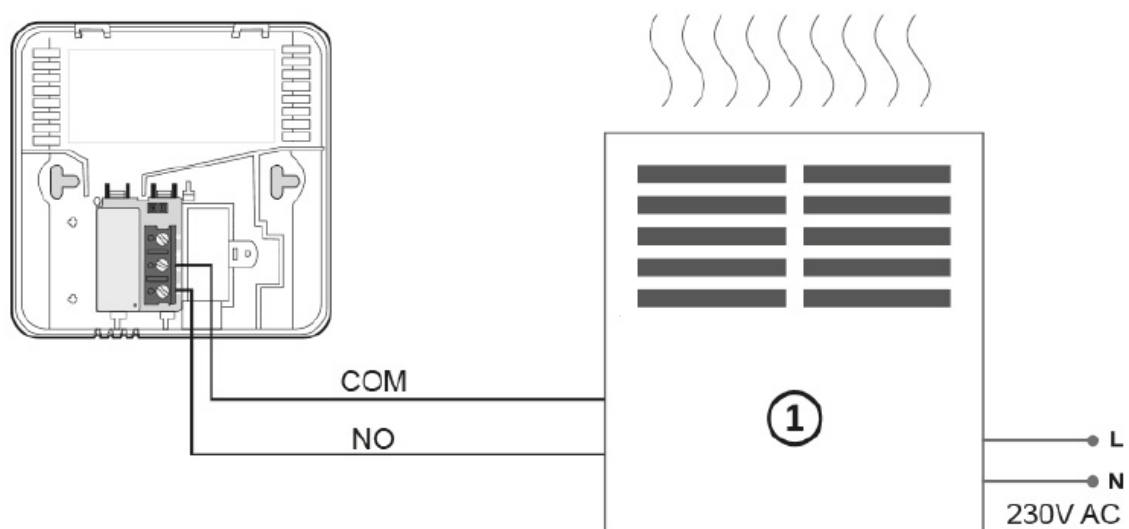
1. Heating device, *np. e.g. gas furnace*
2. Electric heating device (MAX 230 V AC, 16 A)

# Cleaning and maintenance

1. Clean the outside of the device with a dry cloth. Do not use solvents (such as benzene, thinner

or alcohol).
2. Do not touch the device with wet hands. It may result in an electric shock or serious damage to the device.
3. Do not expose the device to excessive smoke or dust.
4. Do not touch the screen with a sharp object.
5. Avoid contact of the device with liquids or moisture.

# Technical specifications

| | |
|---|---|
| Power supply: | 2 x AAA (2 x 1.5 V), alkaline |
| Working temperature range: | 0 – 45 °C |
| Working status signaling: | LCD display |
| Number of temperature levels: | 1 |
| Anti-freeze temperature: | 2 °C |
| Temperature measurement range: | 0 – 35 °C |
| Temperature control range: | 5 – 35 °C |
| Temperature setting accuracy: | 0.2 °C |
| Hysteresis: | ±0.2 °C/±0.4 °C/PWM |
| Relay load capacity: | Max. 250 V AC, max. 16 A |
| Working cycles: | Daily |
| Level of security: | IP20 |
| Dimensions [mm]: | 90 x 90 x 36 |

# Disposing of the devices

The devices are marked with the crossed-out wheeled bin. According to European Directive 2012/19/EU and the Waste Electrical and Electronic Equipment Act, this kind of marking indicates that the equipment, after its operational life must not be disposed of together with other waste from households.
**The user shall return it to a collection point for electrical and electronic**

**waste.**

**Contact and address of the manufacturer**
LARS, ul. Świerkowa 14
64-320 Niepruszewo
[www.auraton.pl](http://www.auraton.pl)

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