

AURATON Aries

User manual ver. 20200817

The document presents collected information on safety, assembly and use of AURATON Aries.

Wireless Underfloor Heating Control Strip

AURATON Aries is an 8-zone wireless control strip for floor heating, designed to work with AURATON Vela actuators, a central heating pump and a heating device. Individual heating zones are controlled with AURATON wireless temperature regulators.

NOTE:

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All connections must be made with the power supply disconnected.

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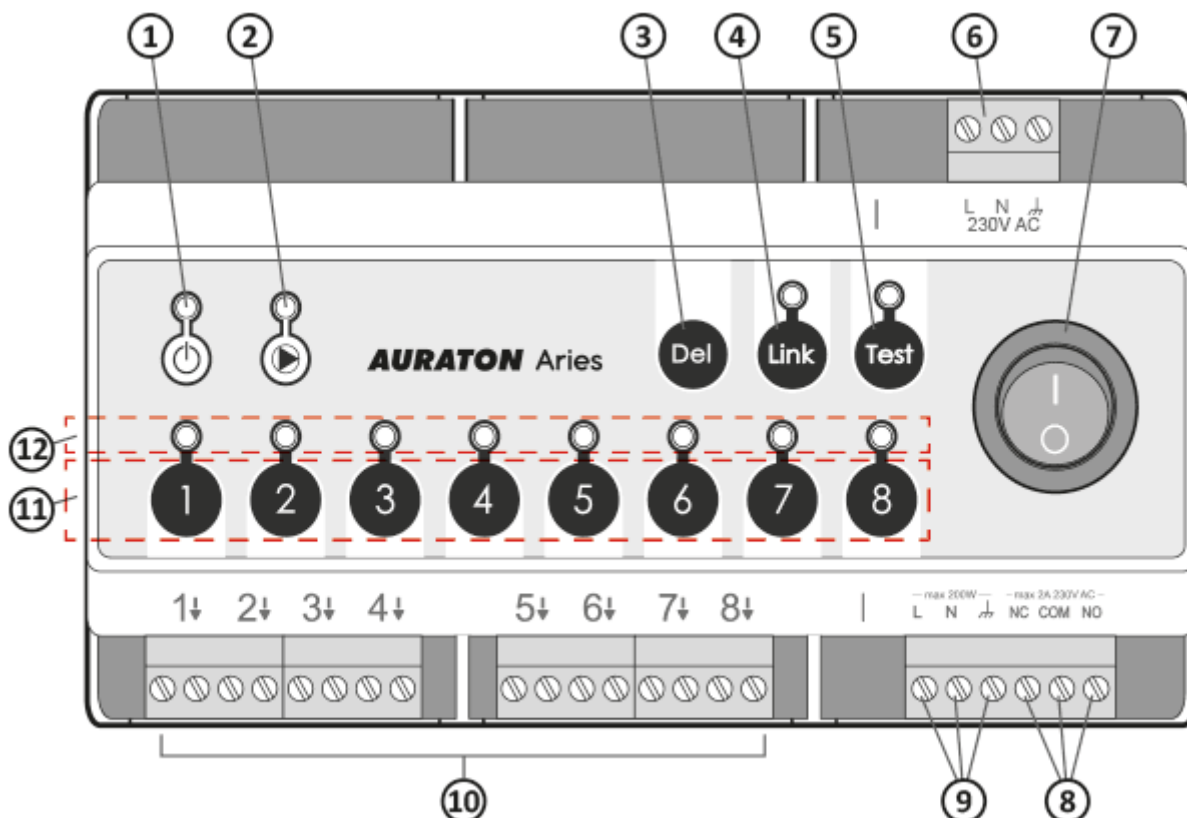
AURATON Aries is designed for mounting on a DIN rail in installation cabinets. Metal cabinets should not be used due to impaired radio communication.

Operation

AURATON Aries supports 8 separate heating zones, and can additionally perform the following functions:

- controlling the central heating circulation pump,
- controlling the central heating furnace through a relay with potential-free contacts,
- connecting with other AURATON Aries (up to 10 units in the system) in order to synchronize the control of central heating pump and furnace, to test the strength of radio signal from AURATON wireless regulators.

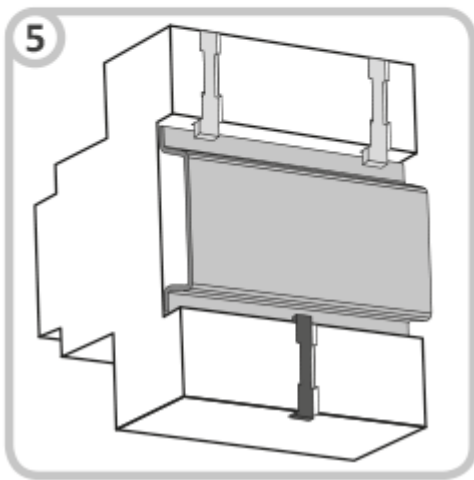
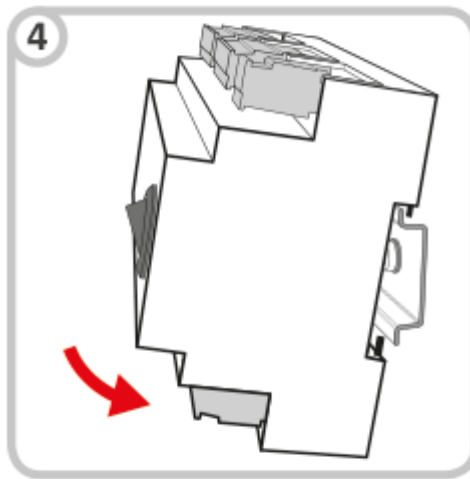
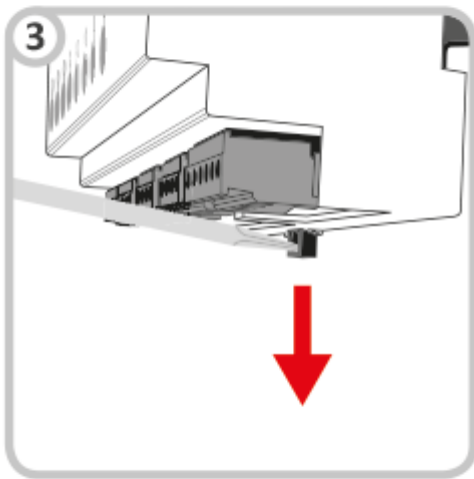
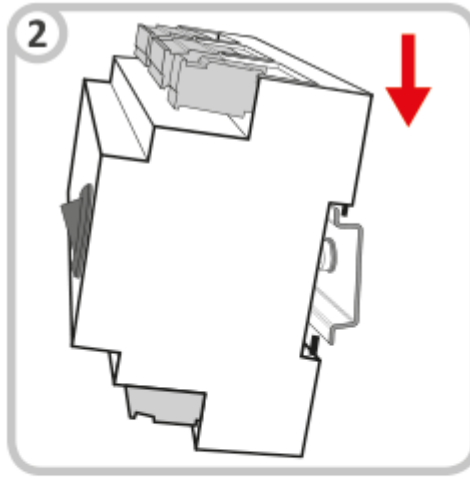
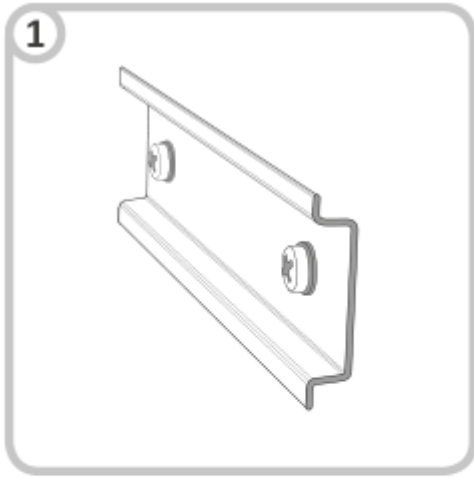
Description of the device, buttons and indicator lights



1. Power status indicator light.
2. Central heating pump operation status indicator light
3. **(Del)** button for removing the regulators or returning to factory settings.
4. **(Link)** button to synchronize Aries devices with each other
5. **(Test)** button with tester function mode indicator light.
6. L, N, \$ - power connection 230 V AC
7. Mains switch
8. NC, COM, NO - potential-free relay contacts
9. Central heating pump control (L, N, \$)
10. Heating zone connections 1-8 (actuators)
11. Heating zone buttons 1-8
12. Zones 1-8 operation status indicator lights

Mounting on a DIN rail

1. DIN rail.
2. Hook AURATON Aries on the DIN rail with the upper hooks.
3. Pull the lower hook down with a "flat-head" screwdriver.
4. Place AURATON Aries in the correct position.
5. Release the lower hook.



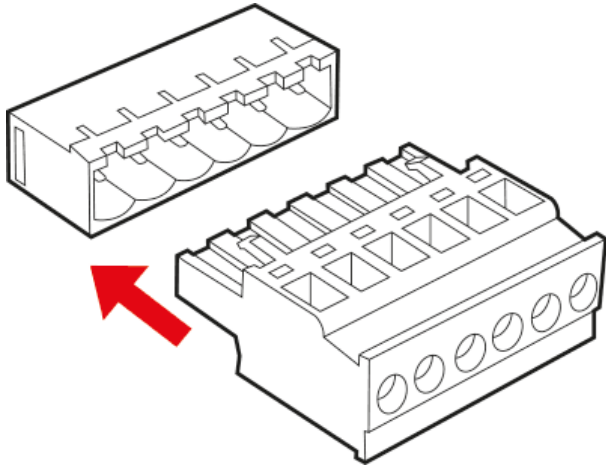
NOTE:

For easier installation, the connections are equipped with pull-out clips. Before connecting wires, you can disconnect them from AURATON Aries.

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NOTE:

Q All connections must be made with the power supply disconnected.



AURATON Aries operation signalling

AURATON Aries signals the operating statuses with the use of LED diodes.

- **Power status indicator light (red):**

Power indicator light off | AURATON Aries off

Power indicator light on | AURATON Aries operates in normal mode

- **Central heating pump operation status indicator light (green):**

Indicator light off | No control of central heating pump.

Indicator light flashing | Waiting for pump to start (delay 3 minutes)

| | |
|--------------------|----------------------------------|
| Indicator light on | Central heating pump switched on |
|--------------------|----------------------------------|

- **Heating zone operation Indicator lights:**

| | |
|--|--------------------------|
| Indicator light off | Heating off |
| Indicator light on | Heating on |
| Indicator light flashing slowly (every 0.5s) | Zone in pairing mode |
| Indicator light flashing quickly | Zone in evaporation mode |

- **LINK indicator light:**

| | |
|-----------------------------------|--|
| Indicator light off | No pairing with another AURATON Aries |
| The indicator light is on at 10% | Auraton Aries paired with another AURATON Aries (AURATON Aries in LOCAL mode) |
| The indicator light is on at 100% | Auraton Aries paired with another AURATON Aries (AURATON Aries in GLOBAL mode) |

Controlling the central heating pump and the relay

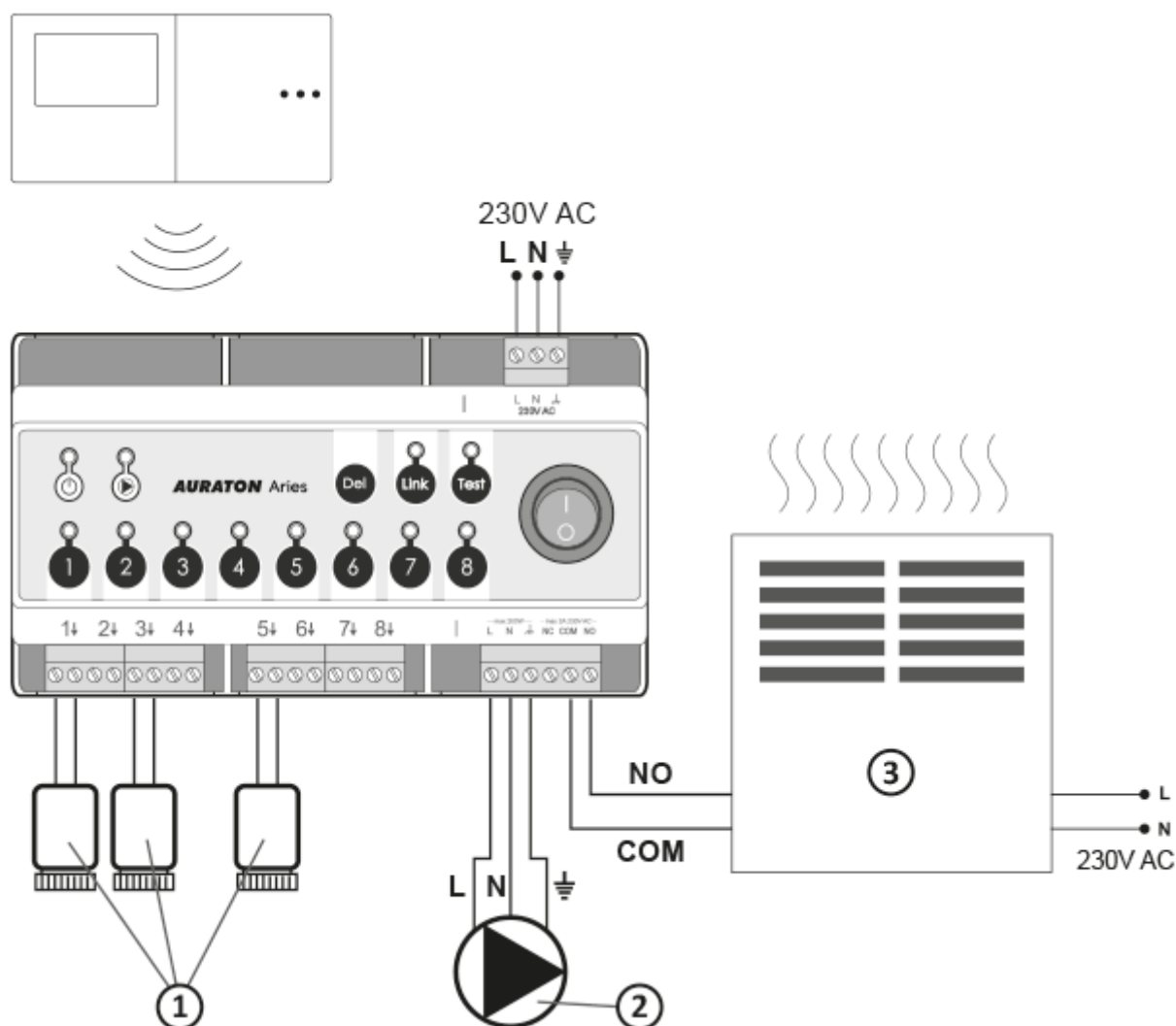
(single AURATON Aries)

The central heating pump or the furnace is switched on, if the heating is turned on in any of the heating zones, the indicator light will come on, signalling the operation of the central heating pump. The central heating pump or the relay is switched off when no heating zone is active – the central heating pump indicator light will be off.

In order to improve the operation of the heating system, AURATON Aries has been equipped with a central heating pump activation temporary delay system.

When the heating is switched on, the actuators are switched on first and then, after 3 minutes, the central heating pump and the relay are switched on. The waiting time for switching on the pump and the relay is signalled by the flashing of the pump's indicator light. After this time, the pump and relay are switched on and the indicator light remains on permanently.

Such operation of AURATON Aries is intended to manage heating rationally, and prevent excessive load on the central heating pump, which could lead to its premature wear.



1. Actuators
2. Central heating pump
3. Heating device, e.g. gas furnace

Information and comments

- Only one regulator can be paired to each zone. The regulator, through an independent channel, transmits two parameters to AURATON Aries:
 - current temperature,
 - desired temperature.

- If AURATON Aries loses contact with the regulator of a given zone, it goes to automatic AUTO24 operation in that zone. AURATON Aries will execute the memorized heating cycles from the last 24 hours.

NOTE:

The manufacturer suggests pairing at least 1 AURATON weekly regulator, so that the AUTO24 function works more precisely.

- AURATON Aries is switched on and off using the mains switch.

Pairing wireless regulators to a zone

1. Press the zone button for 3s, wait for a single beep, then release the button. The zone entering the pairing mode is indicated by the flashing of the respective zone indicator (0.5s/0.5s).
2. Once one zone has been entered into pairing mode, other zones can also be entered into pairing mode by briefly pressing the button of another zone. This gives you the ability to simultaneously pair the same regulator and/or thermometer to more than one zone. Briefly pressing the button for a zone that is already in pairing mode will turn off the pairing mode for that zone. *Disabling the pairing mode in all zones causes AURATON Aries to switch to the normal operating mode).*

NOTE:

The pairing mode is automatically turned off 60 seconds after the last zone has been entered into the pairing mode, or after the regulator is successfully paired or after the **DEL** button has been pressed briefly.

In order to pair AURATON wireless regulators to the zone, one should:

3. In order to pair the wireless regulator to a zone (or a few zones), activate the pairing mode in the desired zones, and then activate pairing in the regulator by pressing the pairing button for longer than 5 seconds (*more detailed description of pairing of AURATON wireless regulator can be found in the regulator manual*).
4. Successful pairing of the regulator is confirmed by a single 1-second beep. After the wireless

device is paired, AURATON Aries goes to normal operation mode.

Perform the pairing steps for all desired zones, respectively.

NOTE:

Note that when a new regulator is paired to a zone, the previous regulator of that zone will be removed.

Removing wireless regulators from a zone

Removing a wireless regulator from a single channel

1. If you know the zone to which the device was paired, press the button for that zone for more than 5s. After 3 seconds, you will hear a single pairing beep – do not release the button. After another 2s a double beep will sound and the zone will automatically enter removing mode (indicator light blinks faster).
2. Press the pairing button on the wireless regulator you want to remove from the zone (see the regulator's manual). After 3 short acoustic signals, the regulator, is removed and AURATON Aries goes to normal operation.

Removing the wireless regulator from all channels

1. Press the **DEL** button for more than 5 seconds. After the double beep, all zones to which any wireless regulators were paired enter the delete mode. The lights of all zones to which the wireless regulators are paired flash.
2. Press the pairing button on the regulator (*see the regulator's manual*) that you want to remove from the zone (or zones). AURATON Aries itself will find in which zone or zones the regulator was paired, and will remove it from all those zones that are in the removing mode. If in a given zone, the LED stops blinking quickly, it means that the regulator has

- been correctly removed from that zone.
3. If, after removing, the lights of any zone continue to flash rapidly, it means that AURATON Aries is waiting for the removal of more regulators.

NOTE:

The removing mode in a given zone is automatically turned off after 60 seconds from bringing the last zone into the removing mode, or after removing the regulator to a given zone, or after briefly pressing the **DEL** button.

4. If all lights stop flashing rapidly, Auraton Aries goes to normal mode.

Removing the regulator without using it

1. To do this, select the zone you want to remove from, and hold down the zone key for 5 seconds. After a double beep, release the button (LED blinks quickly) and, if necessary, press the button briefly to select another zone.
2. Then, hold down the **DEL** button for 5 seconds to remove the regulator from the given zone, which will be confirmed by a beep.

Deleting all regulators (factory RESET)

After switching off **AURATON Aries** with the mains switch, press and hold the **DEL** button, and switch the device on again. The factory RESET will be confirmed by a long beep.

Combining AURATON Aries into one system controlling both the central heating pump and the relay

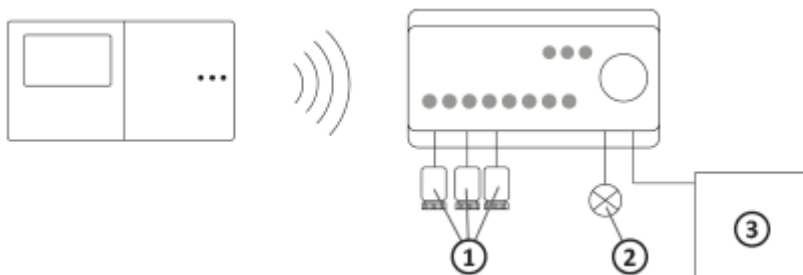
AURATON Aries can operate in three modes:

- LOCAL mode of controlling the central heating pump and the furnace relay,
- GLOBAL 1 mode controlling the central heating pump and the furnace relay,
- GLOBAL 2 mode controlling the furnace relay.

LOCAL mode

AURATON Aries controls the central heating pump and the furnace relay depending on the status of its heating zones.

In this case, the LINK function is not used.

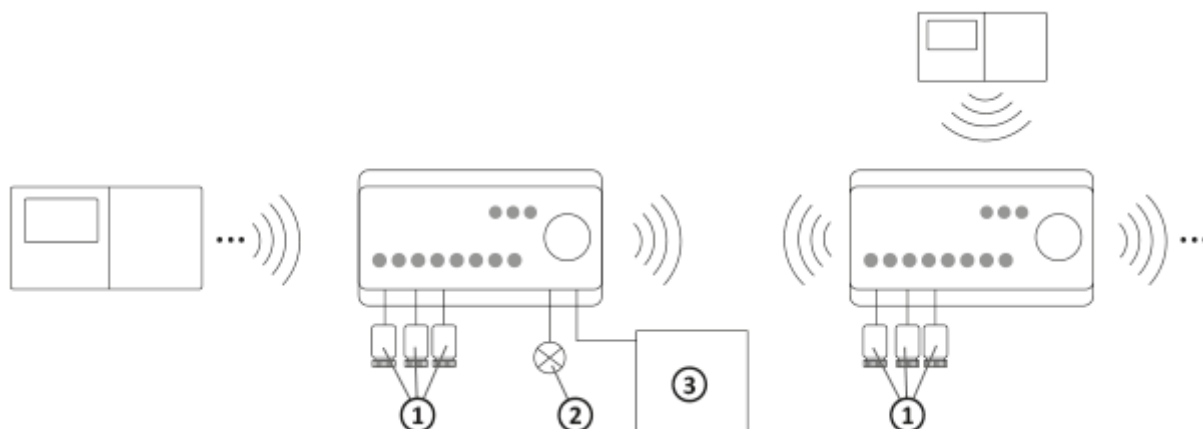


1. Actuators
2. Central heating pump
3. Central heating furnace

GLOBAL 1 mode

A system with the use of multiple AURATON Aries strips and one central heating pump.

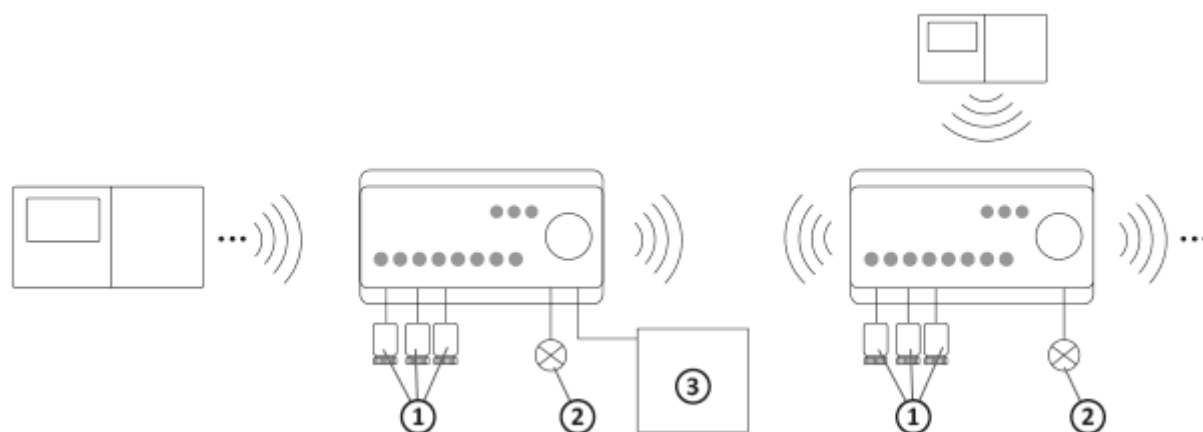
AURATON Aries controls the central heating pump and the furnace relay depending on the status of its heating zones **and the status of the heating zones of the regulator(s) paired with it.**



1. Actuators
2. Central heating pump
3. Central heating furnace

GLOBAL 2 mode

A system using multiple AURATON Aries strips and several pumps for each zone. AURATON Aries controls the central heating pump depending on the status of its heating zones, **and the furnace relay depending on the status of its heating zones**



1. Actuators
2. Central heating pump
3. Central heating furnace

GLOBAL 1 or 2 mode should be set in AURATON Aries, which will control the central heating furnace through the potential-free relay. If the main central heating pump is located next to the furnace, AURATON Aries should operate in the GLOBAL 1 mode.

With the AURATON Aries switched on in normal operation, press the **LINK** button for 3 s. You will hear a single acoustic signal, and the **LINK** light will start blinking (0.5/0.5 sec.). Then, within 60 sec., perform the same operation on the second AURATON Aries device. Correct pairing is indicated by an audible signal and the LINK light illuminating at 10% on both or more devices. In order for the devices to communicate with each other, one of them must be put into GLOBAL mode (see section "Switching the operating mode").

NOTE:

If the AURATON Aries devices are to work independently, there is no need to pair them.

If it is necessary to use more than two pieces of AURATON Aries, then each additional piece should be paired to AURATON Aries by setting it as GLOBAL.

Up to 10 AURATON Aries units can be paired.

Switching the operating mode

Switching **between** GLOBAL 1, GLOBAL 2 and LOCAL **modes** is done by pressing the **LINK** button 5 times.

- Activation of GLOBAL 1 mode is signalled by a single beep and flashing of the LINK diode.
- Activation of GLOBAL 2 mode is signalled by a double beep and a double flash of the LINK diode.

- Activation of the LOCAL mode is signalled by a triple beep and a triple flash of the LINK diode.

NOTE:

In a given set, only one AURATON Aries can operate in GLOBAL mode. Switching on the GLOBAL mode in one AURATON Aries and attempting to switch on this mode in the next AURATON Aries will automatically switch to the next AURATON Aries.

If it is necessary to remove a given AURATON Aries from the set, press the **LINK** button for at least 5 seconds, and after hearing a double beep (quick diode flashing) release the button, and then press and hold the **DEL** button for 5 seconds. Successful deletion is signalled by a 3 times beep.

NOTE:

AURATON Aries which is set as GLOBAL should be connected to the furnace to control it. It then receives signals from the other AURATON Aries that are operating in LOCAL mode, and report heat demand.

Radio signal test

AURATON Aries is equipped with a function of radio signal tester. How to enable this feature:

1. Hold down the **TEST** button for 5 seconds. Activation of the function is signalled by blinking of the **TEST** light and alternate lighting of the heating zones light.
2. Then, to check the signal level from a particular regulator, hold down the pairing button on that regulator (see the regulator's manual) for 5 seconds to force the pairing signal to be sent.
3. When the signal is correctly received by AURATON Aries from the regulator (confirmed by a long beep), the signal level is presented by the heating zone lights. Light 1 indicates insufficient signal level, while all lights up to 8 indicate an excellent signal. During the test, each signal received from the regulator is confirmed by a short beep.
4. To deactivate the tester function, hold down the **TEST** button again for 5 seconds.

NOTE:

If the tester function is not turned off by the user, AURATON Aries will do it automatically 10 seconds after the last press of any button.

The activated test mode has no influence on the course of the heating control.

Additional notes

- The greater the distance of the tested regulator, the fewer indicator lights will be illuminated accordingly.
- It should be assumed that if only 2 diodes are lit, it is recommended to use the **AURATON Lepus** repeater (amplifier) of radio signal.
- If only one diode is lit, it should be assumed that the **AURATON Lepus** repeater is necessary for stable system operation.
- There may be locations of wireless regulators with very difficult radio signal propagation. In this case, application of the AURATON Lepus repeater (amplifier) of a radio signal between the regulators and AURATON Aries will guarantee correct system operation.
- In extreme cases (long distances, metal obstacles, more floors, etc.) it may be necessary to use more than one AURATON Lepus repeater for proper signal transmission.
- More information about the possibilities of AURATON Lepus repeaters can be found on the manufacturer's website at www.auraton.pl
- AURATON Aries is equipped with the function of testing the actuators during their operation. When connecting the actuators and starting the device, AURATON Aries checks whether the actuators have been connected, and stores this fact in the memory. If during operation of the regulator a damage to one of the actuators occurs, a double audible alarm will be heard with simultaneous flashing of the zone light. **The actuators are checked every 30 minutes by disconnecting them for 3 seconds and then switching them on again.**

Up to 3 AURATON actuators can be connected to each zone.

NOTE:

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All connections must be made with the power supply disconnected. It is recommended to entrust the installation of Auraton Aries to professionals.

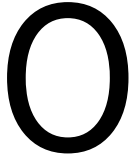
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For reasons of proper operation and radio signal shielding, it is essential to mount the regulator in PLASTIC electrical cabinets on a DIN rail.

Technical specifications

| | |
|---|--|
| Power supply: | 230 V AC, 50Hz, 1.5 W |
| Working temperature range: | 0 – 45 °C |
| Working status signaling: | LED indicators, sound |
| Number of independently controlled heating zones: | 8 |
| Relay load capacity: | Max. 250 V AC, max. 2 A (potential-free contacts COM, NO, NC) |
| Head control output capacity 230 V: | Max. 30 W, up to 3 AURATON Vela, actuators per zone |
| Central heating pump output capacity 230 V: | Max. 200 W |
| Relay and pump start delay: | Approx. 3 minutes |
| Operation range: | in a typical building with standard wall construction – approx. 30 m; in open space – up to 300 m |
| Radio signal strength: | 868.850 MHz 869.000 MHz |
| Receiver Category: | 2 |
| Radio signal strength: | Up to 11 dBm |
| Suggested mounting place: | Manifold box DIN rail |
| Dimensions [mm]: | 158.90 x 90.00 x 58.50 |

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.

Hereby, LARS Andrzej Szymanski declares that the radio equipment type AURATON Apus is in compliance with Directive 2014/53/EU and 2011/65/EU. The full text of the EU declaration of conformity is available in the download section below.

Contact and address of the manufacturer

LARS, ul. Świerkowa 14
64-320 Niepruszewo
www.auraton.pl

Download

- [User manual](#)
- [Declaration of conformity](#)