AURATON Apus

User manual ver. 20201007
The document presents collected information on safety, assembly and use of AURATON Apus.

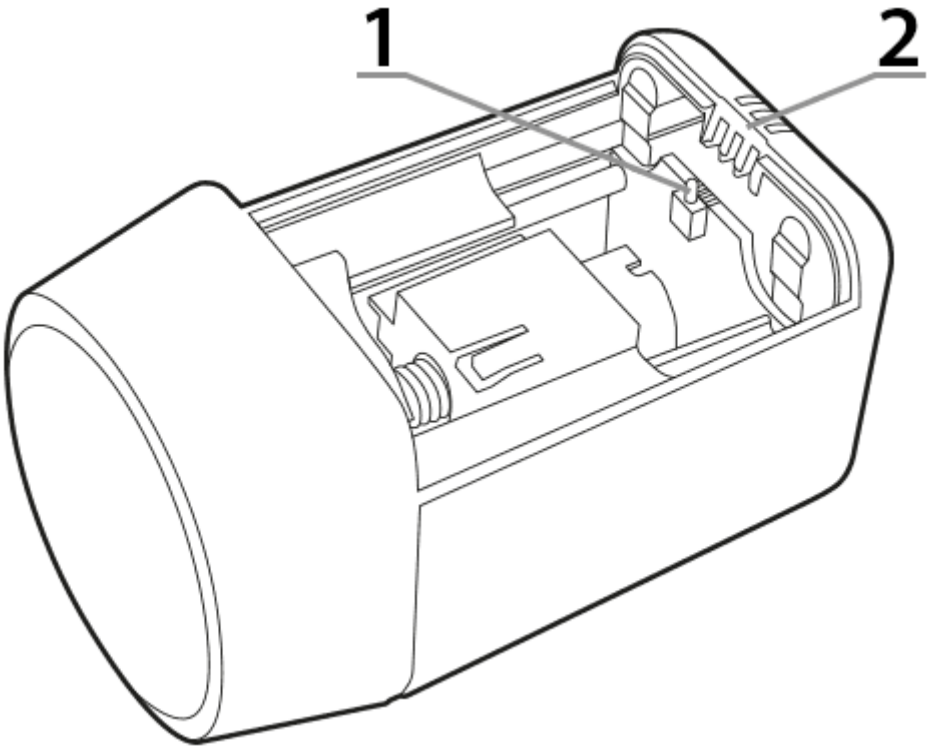
Electronic radiator head

AURATON Apus is an electronic radiator head designed to be mounted on M30x1.5 radiator inserts and, with the use of a special adapter, on Danfoss RA-N valves (adapter included) or on underfloor heating manifolds with 30×1.5 mm thread. AURATON Apus communicates wirelessly with AURATON Apus R collecting information about the current room temperature and the setpoint temperature. In one room, there can be any number of radiators with AURATON Apus heads, or on the underfloor heating manifold there can be any number of circuits to a given room, but they should all be paired with the same AURATON Apus R.

Description of AURATON Apus

The AURATON Apus head works with the wireless AURATON Apus R regulator. The head is mounted directly on a radiator or the underfloor heating manifold.

1. – Battery cover closure, pairing and reset button.
2. – Indicator LED

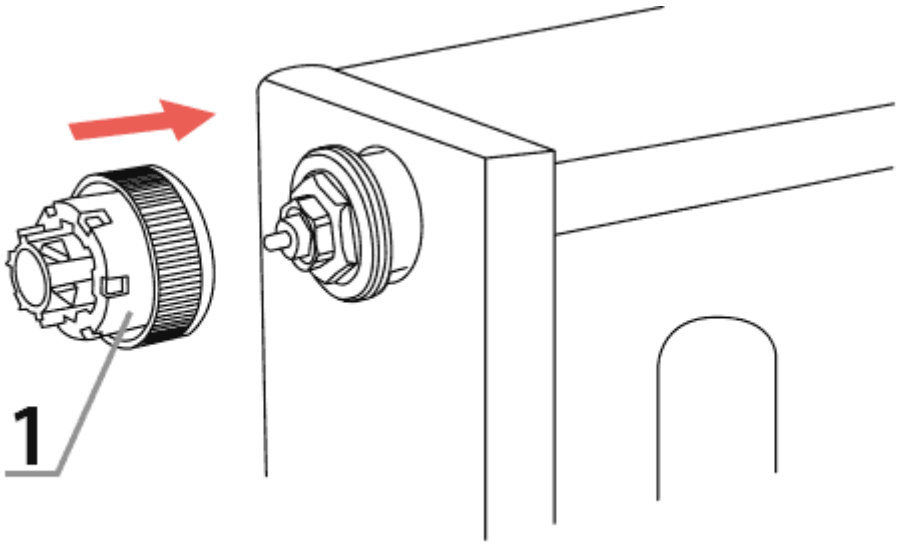


AURATON Apus assembly

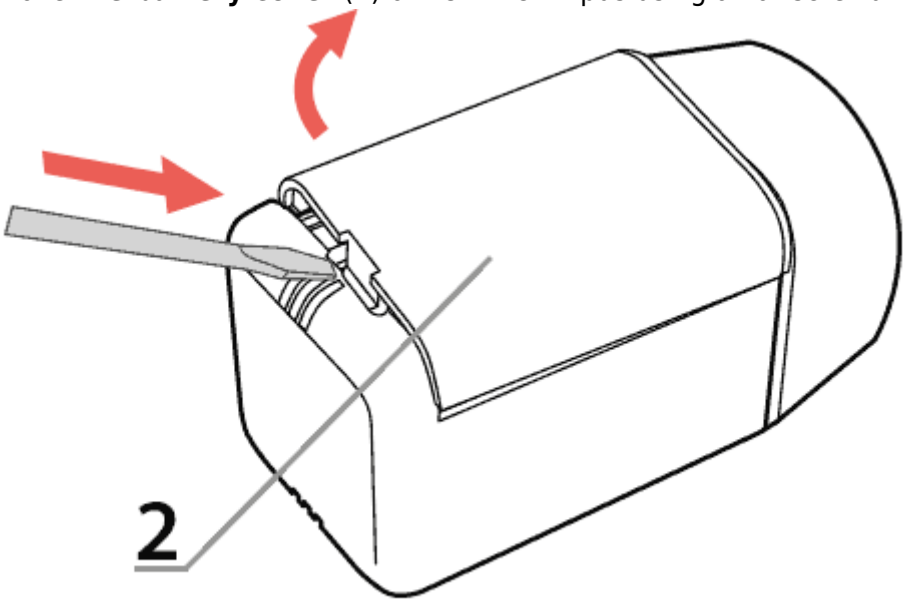
Radiator with M30x1.5 insert
or underfloor heating manifold

In order to mount AURATON Apus on the radiator or underfloor heating manifold with the M30x1.5 insert, the following steps should be carried out:

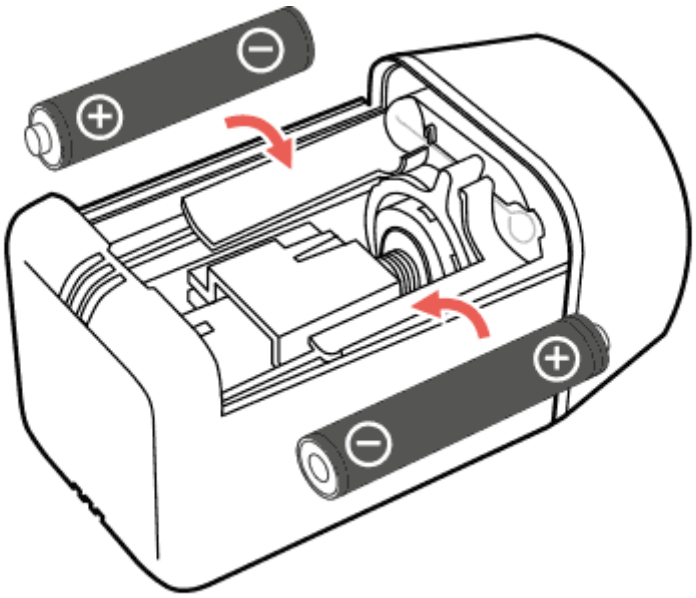
1. Screw face **bushing A** (1) on the insert; the face bushing is included in the AURATON Apus set (to the stop).



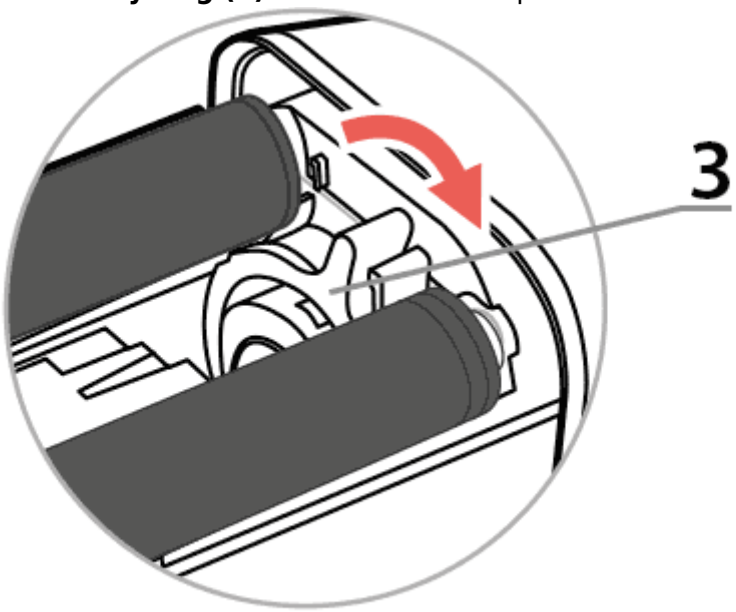
2. Remove **the battery cover** (2) of AURATON Apus using a flat screwdriver.



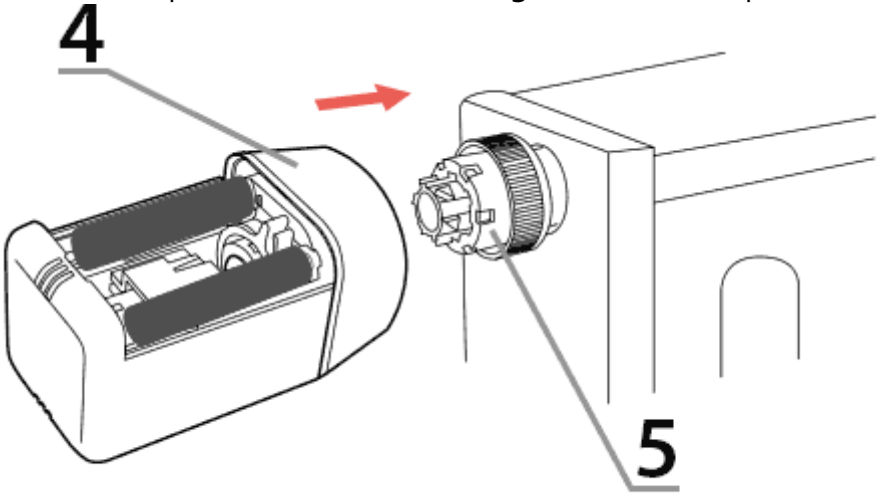
3. Install two AAA batteries in AURATON Apus paying attention to polarity. The head pin will move to the extreme open position, making it easy to mount the AURATON Apus on the face bushing.



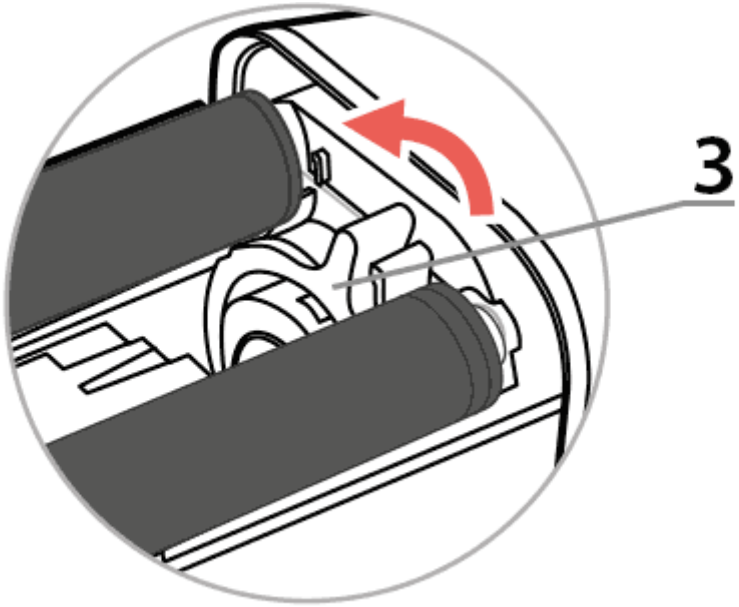
4. Move **the safety ring (3)** to the “unlocked” position.



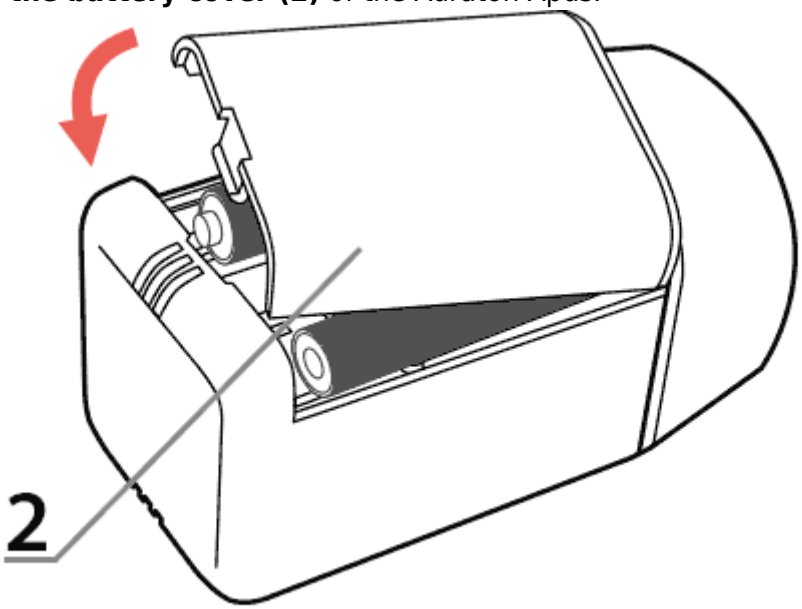
5. Slide AURATON Apus (4) onto **face bushing A (5)** to the stop.



6. Turn **the safety ring (3)** to the “locked” position.



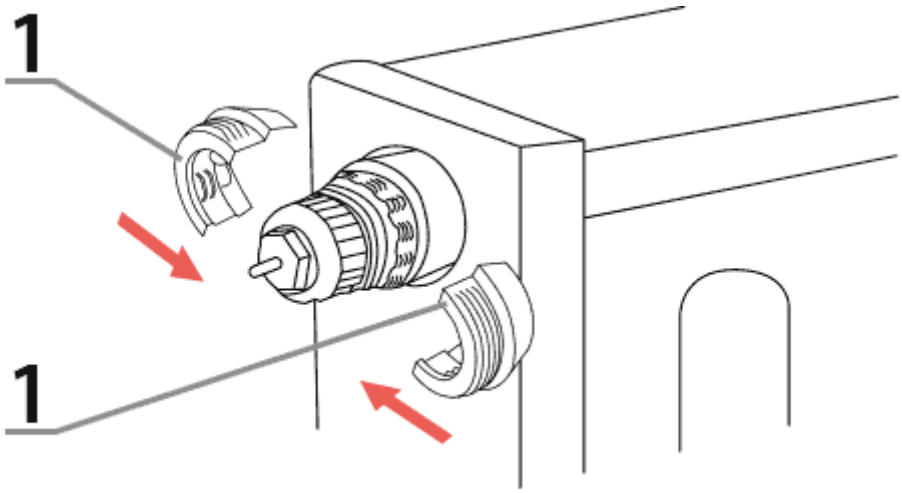
7. Perform the pairing procedure with AURATON Apus R, if such a procedure has not been performed before.
8. Close **the battery cover (2)** of the Auraton Apus.



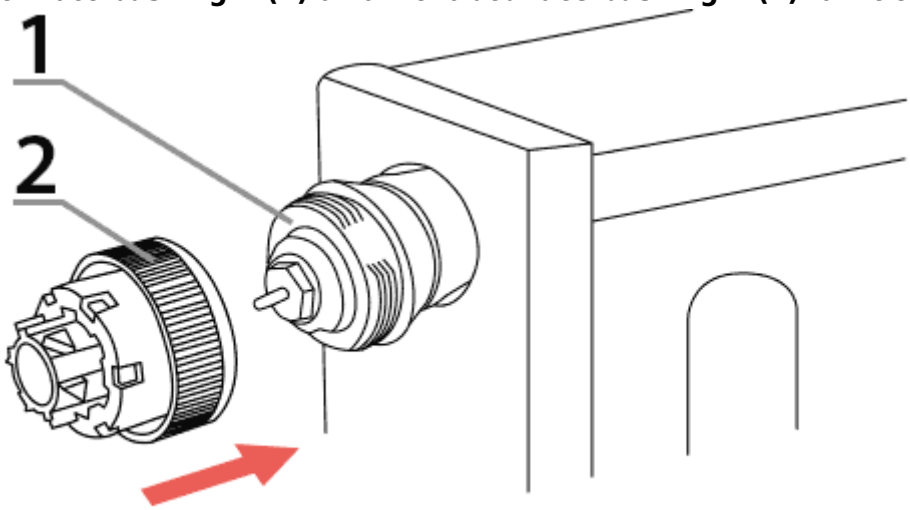
Radiator with the Danfoss RA-N insert

In order to mount AURATON Apus on a radiator with the Danfoss RA-N insert, it is necessary to:

1. Place 2 halves of **face bushing B (1)** on the Danfoss RA-N insert



2. Screw face **bushing B (2)** onto the folded **face bushing B (1)** to the stop



3. Carry out steps 2 to 8 in the section Radiator with M30x1.5″ insert

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Pairing devices

For proper operation of the AURATON Apus head, it is required to pair it with the AURATON Apus R regulator. The pairing process is as follows:

1. Restore AURATON Apus to factory settings *(see section "Restoring the head to factory settings")*
2. In **AURATON Apus R** press ▼ OK or ▲ OK simultaneously for more than 3 seconds.
3. After the countdown of 3 seconds, AURATON Apus R will send its identifier to AURATON Apus, which will be signalled by the head with a triple beep.
4. After successful pairing of AURATON Apus R with AURATON Apus, close the battery cover (if it was already mounted on the radiator).

If the first pairing fails, *restore the factory settings*, move closer to AURATON Apus, and perform the

pairing again.

NOTE:

The wireless AURATON Apus R regulator sold together with the AURATON Apus head is already paired. Devices purchased separately require pairing.

Communication of AURAON Apus R with AURATON Apus and error signalling

In order to save the battery, AURATON Apus R communicates with AURATON Apus periodically every 2 minutes. Immediately after pairing AURATON Apus R with AURATON Apus, the synchronization process takes about one minute. It is not signalled, but is necessary for the proper operation of the set.

If radio communication is disturbed, e.g. due to depletion of the battery in AURATON Apus R or during its replacement, AURATON Apus will signal a lack of communication after 6 minutes by lighting the LED every 8[s]. After max. 4 hours, the head should automatically re-synchronise with AURATON Apus R. This time can be shortened to 2 minutes if, after losing synchronisation, the flap is removed from AURATON Apus and fitted again.

Even after communication between AURATON Apus R and AURATON Apus is disrupted, the user should not experience any deterioration of comfort. AURATON Apus will automatically stabilize the room temperature at the level it memorized before the loss of communication with AURATON Apus R.

Signalling after starting-up AURATON Apus

After inserting the battery, AURATON Apus signals readiness for operation with a sound signal and LED diode. Two scenarios are possible:

1. a single beep – means that AURATON Apus is already paired with AURATON Apus R. It is then sufficient to mount AURATON Apus on the radiator insert or the underfloor heating manifold, and close the battery cover. After approx. 30 [s], AURATON Apus starts adjusting the temperature.
2. triple beep – AURATON Apus is not paired with AURATON Apus R. After closing the battery cover, AURATON Apus **WILL NOT** execute the temperature regulation algorithm. You will need to perform the pairing process described in the Pairing Devices section.

NOTE:

If the AURATON Apus pressure pin was not in the extremely open position, the engine will also be started, and the actuator will be moved to the rear position, which facilitates the assembly of AURATON Apus.

Calibration error indication

After mounting the underfloor heating manifold on the radiator and closing the battery cover, AURATON Apus performs calibration of the mechanical system. If an error occurs during calibration, it is indicated audibly by activating the speaker for 1[s] every 1[s]. If a calibration error occurs, check:

1. Whether face bushing A is screwed properly to the radiator insert or the underfloor heating manifold.
2. Whether face bushing B (for Danfoss inserts) is correctly fastened on the insert, and whether face bushing A is correctly screwed into face bushing B
3. Whether the safety ring is correctly set in the “locked” position.
4. Whether the installed batteries are not discharged *(see section: “Radiator with M30x1.5 insert or underfloor heating manifold” point 2. i 3.*
5. If the above-mentioned actions do not result in correct calibration, it may mean incorrect operation of the radiator valve or underfloor heating manifold itself, or incompatibility of AURATON Apus with the valve.

Installation instructions

AURATON Apus R should be placed in the room where AURATON Apus with a radiator is located or the room to which appropriate underfloor heating circuits are connected. It should not be placed near a radiator, by a door or in a sunny location.

Battery life

Declared operating time on one set of AAA alkaline batteries is one year. Discharging the battery has

no effect on the temperature control. AURATON Apus signals low battery level by lighting the LED twice every 8[s]. In addition, when the battery becomes even more discharged, the head starts generating a double beep every 8 minutes. In order to switch off the sound signalling for 24 h, press any key on the AURATON Apus R paired with this AURATON Apus, or lift the AURATON Apus flap for 2[s], and reinstall it.
After 24 hours, the signal will turn on again to remind you to change the battery. Then, we can again turn off the signalling for another 24 hours, but this process will repeat until the batteries are replaced.

Unique features of AURATON Apus SET

- In the first phase of use, Auraton Apus R and Auraton Apus “learn” the room in order to control the heating as precisely as possible.
- Initially, temperature fluctuations may be greater, but they will decrease over time.

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.

RESET – restoring the factory settings of AURATON Apus

1. Remove the battery cover of AURATON Apus.
2. Remove the battery (one is enough).
3. Press the battery cover closure button (located on the electronics board between the batteries)
4. While holding down the button, install the batteries, and wait for about 4 seconds.
5. Release the button when it beeps three times.

Technical specifications

Power supply:	2 x AAA (2 x 1.5 V), alkaline
Working temperature range:	0 – 45 °C
Temperature measurement range:	0 – 35 °C
Working status signaling:	LED indicators, sound
Operation range:	in a typical building with standard wall construction – approx. 30 m; in open space – up to 300 m
Radio frequency:	869.000 MHz
Radio signal strength:	Up to 11 dBm
Level of security:	IP20
Suggested mounting place:	radiator, underfloor heating manifold
Dimensions [mm]:	75 x 40 x 40

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:

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ul. Świerkowa 14
64-320 Niepruszewo
Polska
www.auraton.pl

Download

- User manual
- Declaration of conformity