AURATON Aquarius PIR

Instruction manual version 20201021
The document contains information on the safety, installation, and use of the AURATON Aquarius PIR.

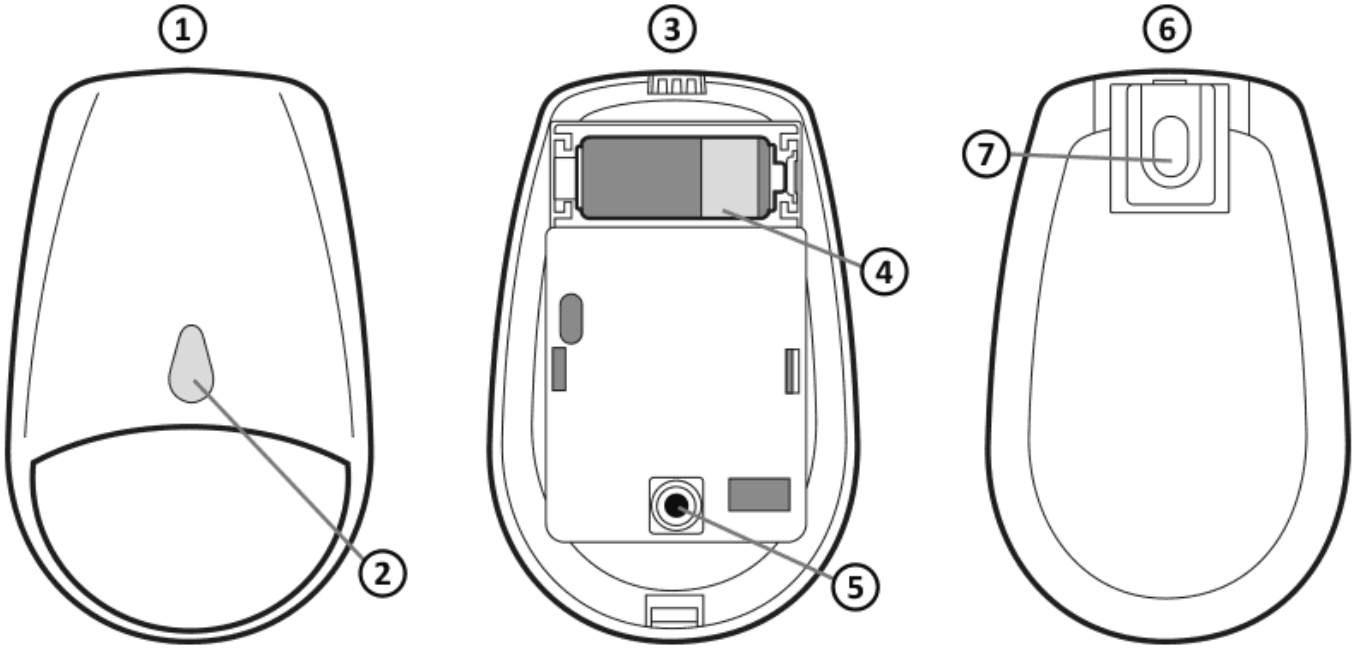
AURATON Aquarius PIR wireless motion sensor

The AURATON Aquarius PIR wireless motion sensor is designed to operate the smart domestic hot water circulation system. The circulation pump connected to the AURATON Aquarius CR output is activated only when the AURATON Aquarius PIR motion sensor detects the activity of the domestic hot water users in the room (e.g. in the bathroom). Additionally, AURATON Aquarius CR activates the circulating pump only for a pre-set time (factory set to 2 minutes).

	The **lithium battery** (CR 123A 3V) used allows for many years of uninterrupted operation of the motion sensor.
	Interference-free communication between devices. The AURATON Aquarius PIR and AURATON Aquarius CR communicate at 868 MHz. Very short, encrypted data transmission packets (approx. 0.004 sec.) ensure efficient and interference-free operation of the device.

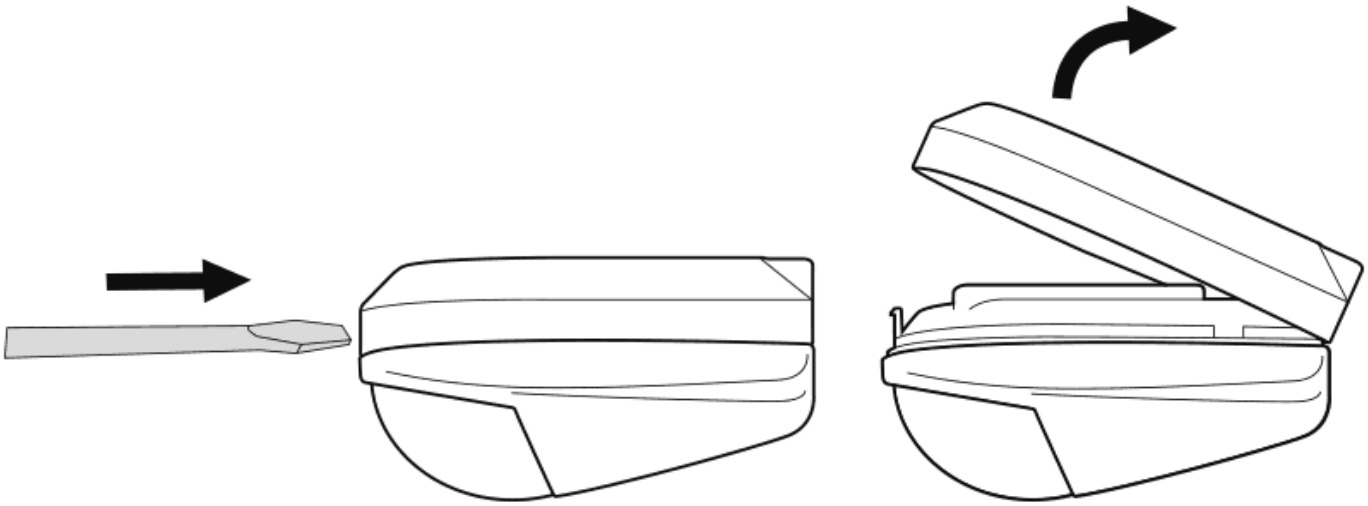
Description of the wireless motion sensor that controls the circulation pump in the domestic hot water system Aquarius PIR

(transmitter)



1. Front of the sensor
2. LED
3. Rear of the sensor
4. CR123A 3V battery
5. Pairing button
6. Rear cover
7. Bracket mounting

Removing the sensor’s rear cover



NOTE:

The AURATON Aquarius PIR motion sensor and the AURATON Aquarius CR pump controller purchased as a set are factory-paired with each other and do not require the pairing procedure.

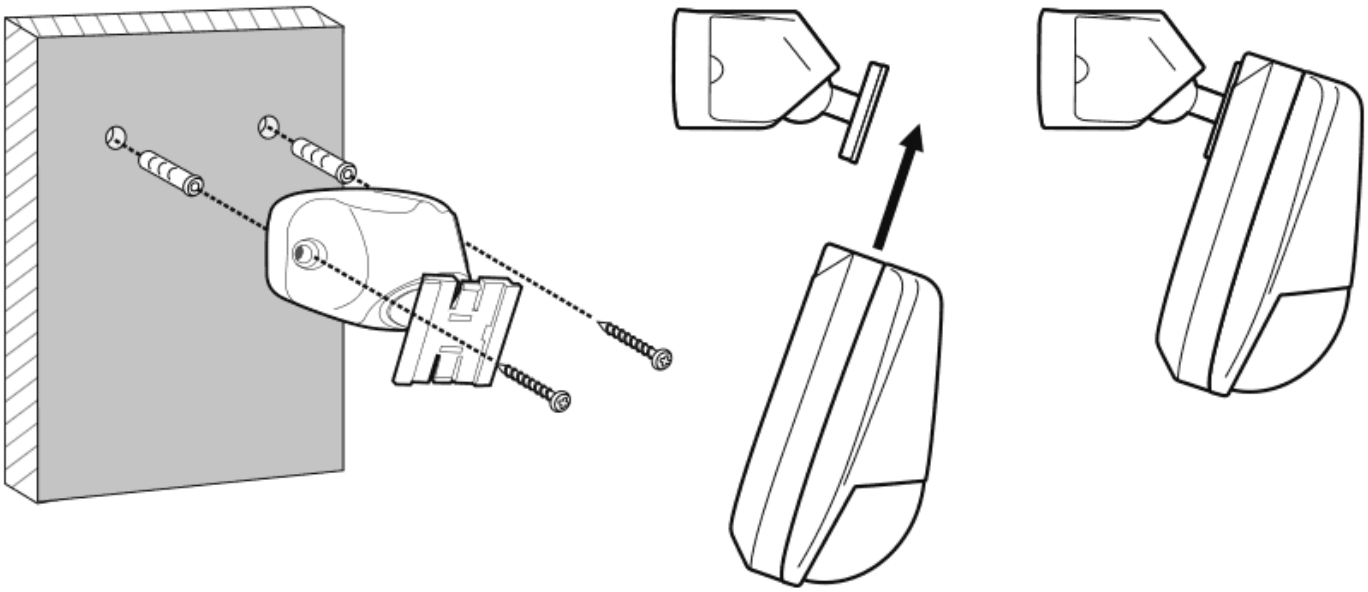
Mounting the AUARTON Aquarius PIR to a wall

NOTE:

Before attaching the motion sensor to a wall, it must first be paired with a previously connected Aquarius CR pump controller. For a Aquarius PIR sensor and Aquarius CR pump controller purchased together as a set, no pairing procedure is necessary as the devices have been paired at the factory.

To attach the motion sensor to a wall:

1. Drill two holes with a diameter of 5 mm into the wall *(measure the spacing between the holes using the mounting bracket – included in the set with the Aquarius PIR).*
2. Insert the wall plugs (supplied) into the drilled holes.
3. Screw the mounting bracket to the wall.
4. Slide the motion sensor onto the mounting bracket until it clicks into place.

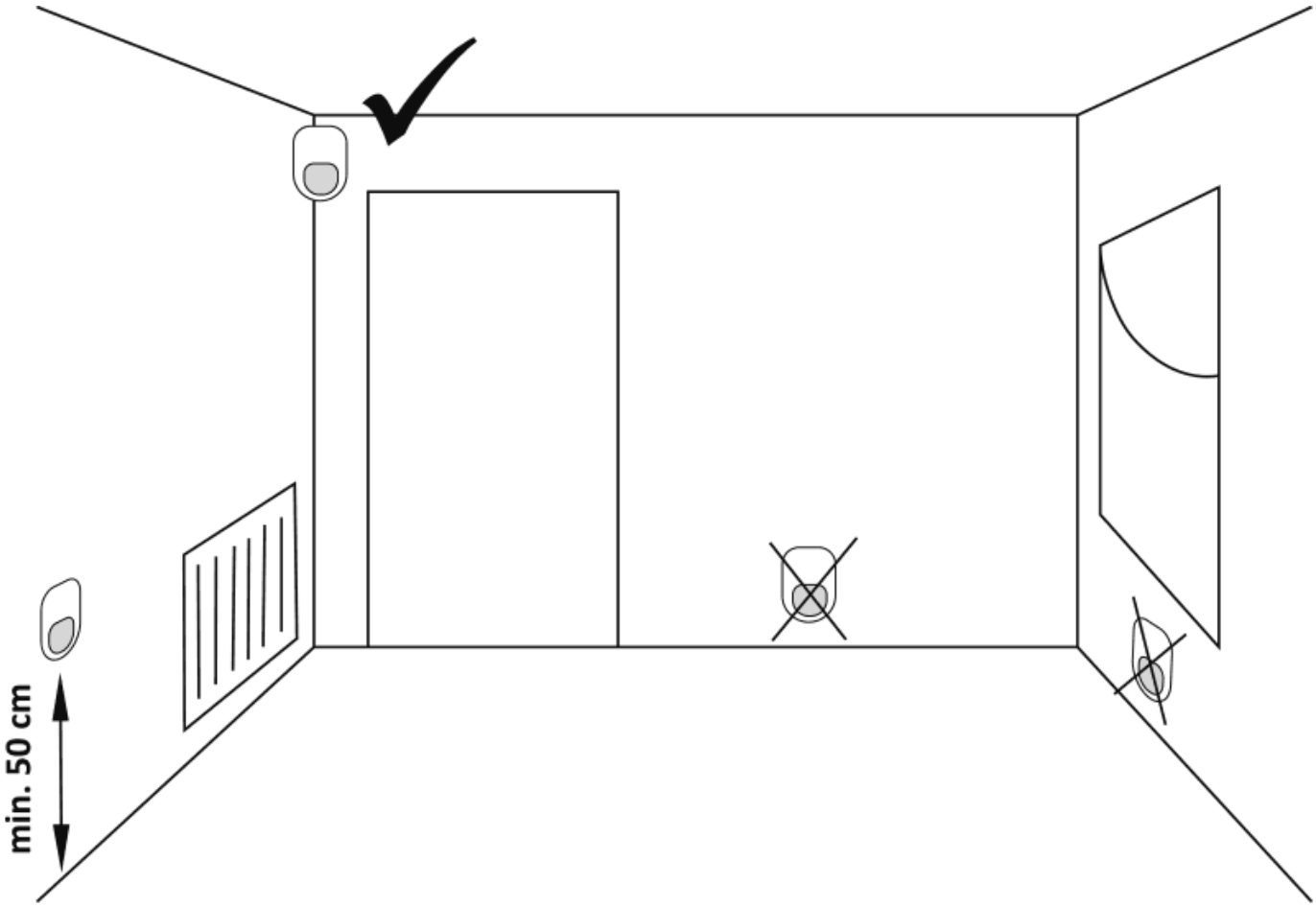


NOTE:

If the wall is wooden, there is no need to use wall plugs. Drill holes with a diameter of 2.7 mm instead of 5 mm and put the screws directly into the wood.

Choosing the right location for the wireless motion sensor controlling the circulation pump in the domestic hot water system AURATON Aquarius PIR

The motion sensor should be installed in such a place that it can easily detect the user’s movement. It should not be installed behind obstacles or ensclosed. Avoid installing at too low a height (minimum 0.5 m above the ground). These types of sensors are usually ceiling-mounted at a height of about 2.5 m.



Pairing the AURATON Aquarius PIR with the AURATON Aquarius CR

NOTE:

The AURATON Aquarius PIR sold together with the AURATON Aquarius CR is already paired. Devices purchased separately require “pairing”.

1. Pairing the Aquarius PIR with the Aquarius CR is initiated by pressing the pairing button – single beep (▽) on the Aquarius CR pump controller and holding for at least 3s, until the LED flashes green (double beep), then releasing the button.
   The AURATON Aquarius CR waits 120 seconds for pairing. After this time elapses, it will automatically return to normal operation.

2. On the Aquarius PIR press the pairing button (⊙) located on the back of the housing and hold for at least 2 seconds until the LED on the front of the motion sensor lights up red. Release the button.
3. Successful completion of pairing is signalled by the LED on the Aquarius CR no longer flashing green. The green LED will go out for 1 second and then signal the currently set pump operating time (factory set 2 minutes – 2x green LED flash every 0.5 seconds), and then the Aquarius CR will return to normal operation.

If there is a pairing error, please repeat steps 1 and 2. In the event of further errors, unpair all devices via a **RESET** of the Aquarius CR *(see "RESET – return to factory settings")* and try pairing the devices again.

NOTE:

Once paired, the device cannot be paired again with the AURATON Aquarius CR as it is already stored in memory.

NOTE:

The AURATON Aquarius CR allows pairing of up to 20 AURATON Aquarius PIR motion sensors.

Unpairing the AURATON Aquarius PIR from the AURATON Aquarius CR

1. Unpairing the AURATON Aquarius PIR from the AURATON Aquarius CR is initiated by pressing the unpairing button (△) on the pump controller and holding it for at least 2 seconds, until the LED starts flashing red, then releasing the button.
   The AURATON Aquarius CR waits 120 seconds for unpairing. After this time elapses, it will automatically return to normal operation.
2. On the Aquarius PIR press the pairing button (⊙) located on the back of the housing and hold for at least 2 seconds until the LED on the front of the motion sensor lights up red. Release the button.
3. Successful completion of unpairing is signalled when the red LED on the AURATON Aquarius CR pump controller receiver is no longer blinking and it returns to normal operation.

If there is a pairing error, please repeat steps 1 and 2. In the event of further errors, unpair all devices via a **RESET** of the AURATON Aquarius CR *(see "RESET – return to factory settings")* and try pairing the devices again.

RESET – return to factory settings

In order to unpair all the paired devices in the AURATON Aquarius CR, press and hold both the unpairing and pairing buttons (▽ and △) simultaneously for at least 5 s until the LED signalling changes to alternately blinking green and red. Then release both buttons.

Successful completion of unpairing is signalled after about 2 seconds with the signalling changing to green and then shortly fading out.

NOTE:

If you disconnect the AURATON Aquarius CR from the power supply after the RESET and then reconnect the power supply, the AURATON Aquarius CR will automatically enter the "pairing" mode.

Signalling the working status and data package reception

Each reception of a radio transmission by the AURATON Aquarius CR from a paired AURATON Aquarius PIR is signalled by a temporary alternating colour change of the LEDs.
When the relay is turned on, the LED is red and when the relay is turned off, the LED is green.

Change of operating time/interval and operating algorithm

Changing the domestic hot water pump operating time:
Briefly pressing the unpairing button (△) sets the pump operating time for as many minutes as pressed. From 1 to 5 minutes. Pressing a sixth time goes back to 1 minute again.

Changing the interval of the domestic hot water pump:
riefly pressing the pairing button (▽) sets the pump interval time in a sequence of 1, 5, 10, 15 minutes, depending on how many times the button is pressed (from 1 to 4 and then looping around).

At the end the AURATON Aquarius CR will show the domestic hot water pump operating time with the appropriate number of green flashes and the interval time of the domestic hot water pump with the appropriate number of red flashes.

NOTE:

Resetting the Aquarius CR to factory settings restores the circulation pump operating time to 2 minutes.

NOTE:

A single press of each button sets the time in the initial position.

After switching the circulation pump off (after the set time) the AURATON Aquarius CR will not switch the pump on for 15 minutes despite receiving signals from the AURATON Aquarius PIR concerning detecting movement. This is to prevent the domestic hot water pump from switching on too frequently. It will only be switched on again after receiving another movement signal from the AURATON Aquarius PIR.

Unique features of the AURATON Aquarius PIR

- The lithium battery (CR 123A 3V) used allows for many years of uninterrupted operation.
- Activation of the pump after detection of movement brings considerable savings in energy consumption by the domestic hot water pump and in the cooling down of the domestic hot water in comparison to other systems.

Additional information and comments

- The AURATON Aquarius PIR must be installed at least 1 metre from the AURATON Aquarius CR *(too strong a signal from the transmitters may cause interference).*
- Between successive activations of the relay as many minutes must pass as a result from the operating time and interval of the domestic hot water pump.
- Data transmission from the AURATON Aquarius PIR to the AURATON Aquarius CR takes place each time motion is detected in the room. If no motion is detected, the Aquarius PIR transmits data every 5 minutes *(this is indicated by blinking LEDs on the Aquarius CR pump controller).*
- In the event of power failure the AURATON Aquarius CR will switch off. When power returns, the controlled device will be automatically switched on and the AURATON Aquarius CR will wait for the closest signal from the paired AURATON Aquarius PIR *(this signal should arrive no later than within 5 minutes after power is restored).* After receiving the signal, the AURATON Aquarius CR will proceed with normal operation.
- Do not place the AURATON Aquarius CR in metal enclosures *(e.g. installation box, metal furnace housing)* in order not to interfere with the pump controller.

Cleaning and maintenance

- The outside part the device should be cleaned with a dry cloth. Do not use solvents (such as benzene, thinner or alcohol).
- Do not touch the device when your hands are wet. It may cause electric shock or serious damage to the device.
- Do not expose the device to excessive smoke or dust.
- Do not touch the screen with a sharp object.
- Keep the device away from liquids or moisture.

Technical specifications

Working temperature range:	0 – 40 °C
Working cycles:	Daily
Working mode control:	LED
Power supply:	lithium battery CR123A 3V (included) exchangeable battery
Level of security:	IP20
Humidity:	≤85% non-condensing
Radio frequency:	868.850 MHz 869.000 MHz
Operation range:	in a typical building with standard wall construction – approx. 30 m; in open space – up to 300 m
Radio signal strength:	Up to 11 dBm
Dimensions [mm]:	60.89 x 94.84 x 50.72

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 Aquarius PIR 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
Polska
www.auraton.pl

Download

- User manual
- Declaration of conformity