

### Cooperation of receiver with AURATON T-1 controller and/or AURATON T-2 thermometer

Controlling the temperature in the receiver is based on the algorithm of a two-state signal (ON/OFF) which uses one or two sensor elements:

The **T-1 controller** enables setting temperature and/or its controlling.

The **T-2 thermometer** gives information only about the current temperature without the possibility to change it manually.

**A) Manual setting** - by associating the **T-1** controller with the **RTH** receiver we have the possibility to manually set the temperature and control it at the place of the fastening of the **T-1** controller.

**B) Remote setting** - if to the same **RTH** receiver we additionally associate the **T-2** thermometer, the **T-1** controller will retain the ability to set the temperature. However, controlling it will be implemented only through an associated **T-2** thermometer. This enables controlling the temperature in a room other than the one in which the **T-1** controller is placed. *Example: We want the "baby room" to always have the temperature of 22°C, while we do not want the children to have a possibility to change the temperature, we install the T-2 thermometer in the "baby room" and the T-1 controller for instance in the kitchen. Thanks to such solution the "baby room" will always have the temperature of 22°C regardless of the temperature fluctuations that occur in the kitchen.*

**C) Factory setting (20°C)** - if we associate only a T-2 thermometer with the RTH receiver it is not possible to manually set the temperature and the RTH receiver will maintain factory setting of the temperature at 20°C.

### Cooperation with AURATON T-1 controller and/or T-2 thermometer and AURATON H-1 handles or window position sensors

When the **RTH** receiver has no associated **H-1** handle or window position sensor, the transmitter is by default controlled by the associated **T-1** controller and/or **T-2** thermometer. When the **RTH** receiver has associated at least one **H-1** handle or window position sensor, controlling the transmitter will proceed as follows:

#### A) Window closed or unsealed (micro ventilation).

When we associate **H-1** handles or window position sensors with the receiver and all windows are closed or unsealed, the transmitter still performs the setting from the associated **T-1** controller and/or **T-2** thermometer.

**B) Window ajar.** When we slightly open at least one window, in the **AURATON RTH** receiver the set temperature of the **T-1** controller will be reduced by about 3°C. This state will last until the time of closing or unsealing all windows assigned to the **RTH** receiver.

*Example: On the T-1 controller we have set the temperature of 21°C. Then we slightly open a window with associated H-1 controller handle or window position sensor. The RTH receiver will be maintain the temperature of 18°C in the room.*

**C) Window open.** When we open a window with associated **H-1** handle or window position sensor for longer than 30 sec, the transmitter in the **AURATON RTH** receiver will be turned off and the heating device also will turn off. If all assigned windows are in the position other than open again, the **RTH** receiver will return to normal cooperation with the **T-1** controller and/or the **T-2**, thermometer after time not shorter than 90 seconds from deactivating the transmitter. This is an intentional delay so as to prevent too rapid changes of heating devices between ON-OFF positions. However, if the temperature in the room falls below 7°C, regardless of the location of windows, the transmitter in the receiver will be activated switching on the heating device to prevent the room from freezing.

**D) Loss of signal.** When the **RTH** receiver loses signal from an associated **H-1** handle or a window position sensor (3 subsequent lost transmissions), it changes this window's status to closed. After restoring the transmission the **H-1**, handle or window position sensor is again correctly read by the **RTH** receiver.

*Note: One AURATON RTH receiver can operate max. 25 handles.*



### Cooperation with fire protection system



**AURATON T-1** controller and/or **AURATON T-2** thermometer associated with **AURATON RTH** receiver connected to fire protection system.

- **Temperature sensor** – in **AURATON T-1** and **T-2** a temperature sensor has been installed, whose task is to monitor environment temperature. If the sensor detects that the environment temperature exceeds 57°C or grows faster than 1°C per 10 seconds (above 30°C), it will activate the fire protection system.

### Anti-freezing temperature -

The **T-1** controller is equipped with the " " setting . This setting results in maintenance of anti-freezing temperature of 7°C.

Settings of the anti-freezing temperature may be used during a longer absence in the facility and it is intended to prevent freezing of water in the heating system.

### Additional information and comments

- Wireless devices associated with the **RTH** receiver should be installed minimum 1 meter away from the **RTH** receiver (signal that is too strong from transmitters may cause interruptions).
- Transmission of data from the **T-1** controller and **T-2** thermometer to the RTH receiver takes place at each change of environment temperature by 0.2°C. When the temperature does not change, the devices send data every 5 minutes (it is reflected by LED diode flashing on **T-1** and **T-2** and LED diode flashing on the **RTH** receiver - with an orange light).

### Technical data

|   |  |
|---|--|
| Working temperature range:                        | 0 – 45°C   |
| Temperature measurement range (only <b>T-1</b> ): | 7°C; 15 – 35°C   |
| Span:   | ±0,2°C   |
| Temperature levels:                               | 1  |
| Antifreeze temperature:                           | 7°C  |
| Working cycles:                                   | 24 hours   |
| Working mode control:                             | LED  |
| Power supply <b>T-1</b> and <b>T-2</b> :          | pre-installed lithium battery  |
| Radio frequency:                                  | 868 MHz  |
| Operation range:                                  | in a typical building, with standard construction of walls - approx. 30 m<br>an open space - up to 300 m |

### Disposing of device



The devices are marked with the crossed waste bin symbol. According to European Directive no. 2002/96/EU and the Act concerning used up electric and electronic equipment, such a marking indicates that this equipment may not be placed with other household generated waste.

**The user is responsible for delivering the devices to a reception point for used-up electric and electronic equipment.**



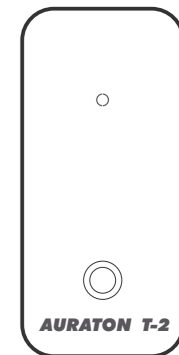
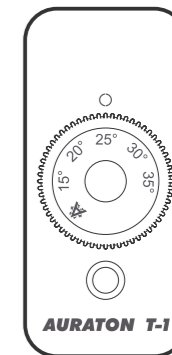
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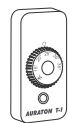
# AURATON

# T-1 T-2

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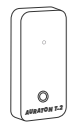
Operation Manual





## AURATON T-1 Wireless temperature controller

Wireless temperature controller for any heating devices at home. Additionally, owing to the built-in temperature sensor it can support the fire protection system by detecting rapid growth of temperature in the room.

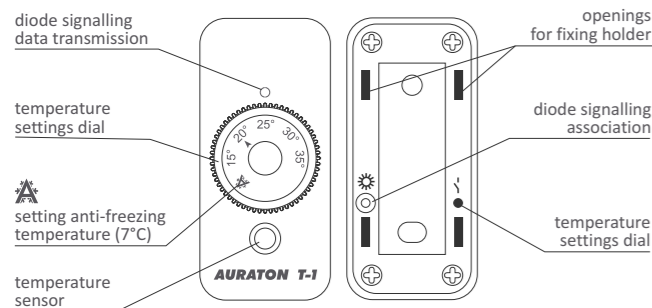


## AURATON T-2 Wireless thermometer

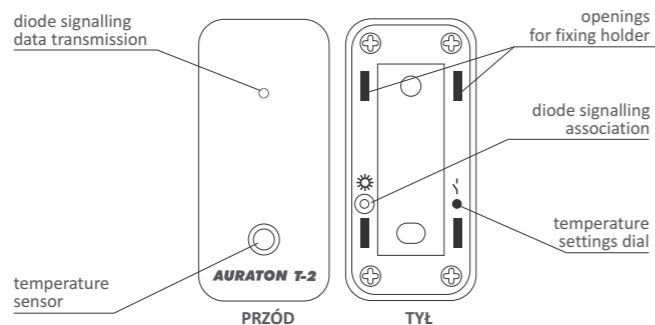
It controls the temperature in room other than the one in which AURATON T-1 wireless temperature controller is located. Additionally, owing to the built-in temperature sensor it can support the fire protection system by detecting rapid growth of temperature in the room.

**AURATON T-1** and **AURATON T-2** are equipped with factory mounted lithium battery from a Swiss company from the SWATCH group. Expected battery life is up to 20 years.  
**NOTE: Non-removable battery.**

## Description of AURATON T-1 wireless temperature controller

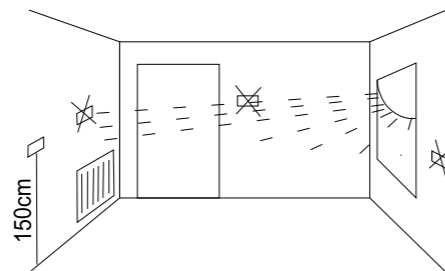


## Description of AURATON T-2 wireless thermometer



## Selection of proper location for AURATON T-1 controller or AURATON T-2 thermometer

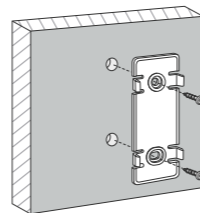
Correct operation of the **AURATON T-1** controller or the **AURATON T-2** thermometer is largely influenced by location. Location in the place without air circulation or directly insulated will result in incorrect temperature control. To ensure correct operation of devices install them on the internal wall of the building (partition wall). Choose a place which is most commonly used, with free air circulation. Avoid proximity of devices emitting heat (TV, heater, fridge) or places directly insulated. Do not put devices directly near doors so as not to cause damage due to vibrations.



## Fixing devices to walls

**NOTE:** Before fitting devices to walls, they should be first associated with the previously connected RTH or RTA receiver.  
(See chapter: "Associating AURATON T-1 and AURATON T-2 with RTH or RTA receiver").

1. On the wall, drill two holes with the diameter of 5 mm (the span of holes should be measured using the fixing holder - attached in the set together with the device).

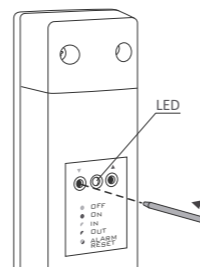


2. Insert the wall anchors to the holes (attached to a set).
3. Fix the mounting plate to the wall.
4. Press to join the regulator tightly against the mounting holder (the holes on a back part of the unit should be suitable for snap-on of the holder).

**Note:** If the wall is wooden, there is no need to use expansion bolts. Drill holes with the diameter of 2.7 mm instead of 5 mm and screw the screws directly into the wood.

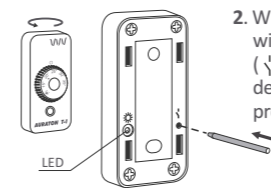
## Associating AURATON T-1 and AURATON T-2 with RTH or RTA receiver

For the **T-1** controller or **T-2** thermometer to operate correctly it must be first "associated" with a receiver (**RTH** - for the heating system, **RTA** - for the fire protection system).



1. Associating a new device with the receiver is initiated by pressing the left association button ▼ (green triangle) on the receiver and pressing it for at least 2 seconds, until the moment when the LED diode will start flashing with a green light, then we release the button.

**Note:** The receiver waits for the association for 120 seconds. After this time it will automatically return to normal operation.



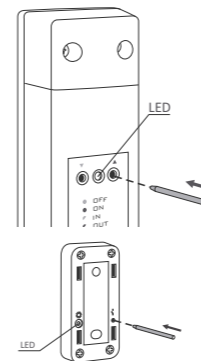
2. When the LED diode on the receiver flashes with a green light, press the "association button" (▼) located on the back side of the casing of devices that we want to associate and hold it pressed for at least 2 seconds.

3. Correct completion of association is signaled by the stop of LED diode flashing with a green light on the receiver and the receiver going into normal operation.

In the case of an error during association, steps 1 and 2 should be repeated. At subsequent errors, sign out all devices by **RESETTING** the receiver (See chapter "RESETTING-Signing out of all devices assigned to receiver") and try to associate the devices again.

**NOTE:** Once the device is added it cannot be again associated with the same receiver, since it is already saved in the memory of the receiver.

## Signing out AURATON T-1 and AURATON T-2 with RTH or RTA receiver



1. Signing out the device from the receiver is initiated by pressing the right signing out button (red triangle - ▲) on the receiver and pressing it for at least 2 seconds., until the moment when the LED diode starts flashing in red, then we release the button.

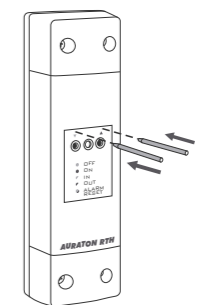
**Note:** The receiver waits for signing out the device for 120 seconds. After this time it will automatically return to normal operation.

2. When the LED diode on the receiver flashes with a green light, press the "association button" on the device that we want to sign out and hold it pressed for at least 2 seconds.

3. The correct completion of signing out is signaled by the stop of flashing with a red light of the LED diode on the receiver and the receiver going into normal operation.

In the case of an error, steps 1 and 2 should be repeated.

## RESETTING - Signing out all devices assigned to receiver



In order to sign out all associated devices from the receiver, press and hold both association and sign out (▼ and ▲) buttons at the same time for at least 5 seconds until signalling of the LED diode changes to alternate flashing in green and red. Then release both buttons.

The correct completion of signing out of all devices is signaled after about 2 sec by a change in signalling to green and then its fading.

**Note:** If after **RESETTING** we disconnect the receiver from the power supply and then again we connect the power supply, the receiver will automatically go into "association" mode, just as at the first start-up.



## Operation with heating device

| Basic configuration of devices                                 |   | Additional system devices                                    |   |
|--|---|--|---|
|  |   |  |   |
| <b>AURATON RTH</b><br>Receiver connected to the heating device | <b>AURATON T-1</b><br>Wireless temperature controller | <b>AURATON T-2</b><br>Wireless thermometer (sold separately) | <b>AURATON H-1</b><br>Window handle (sold separately) |