



AURATON Fornax

User manual ver. 202000822

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

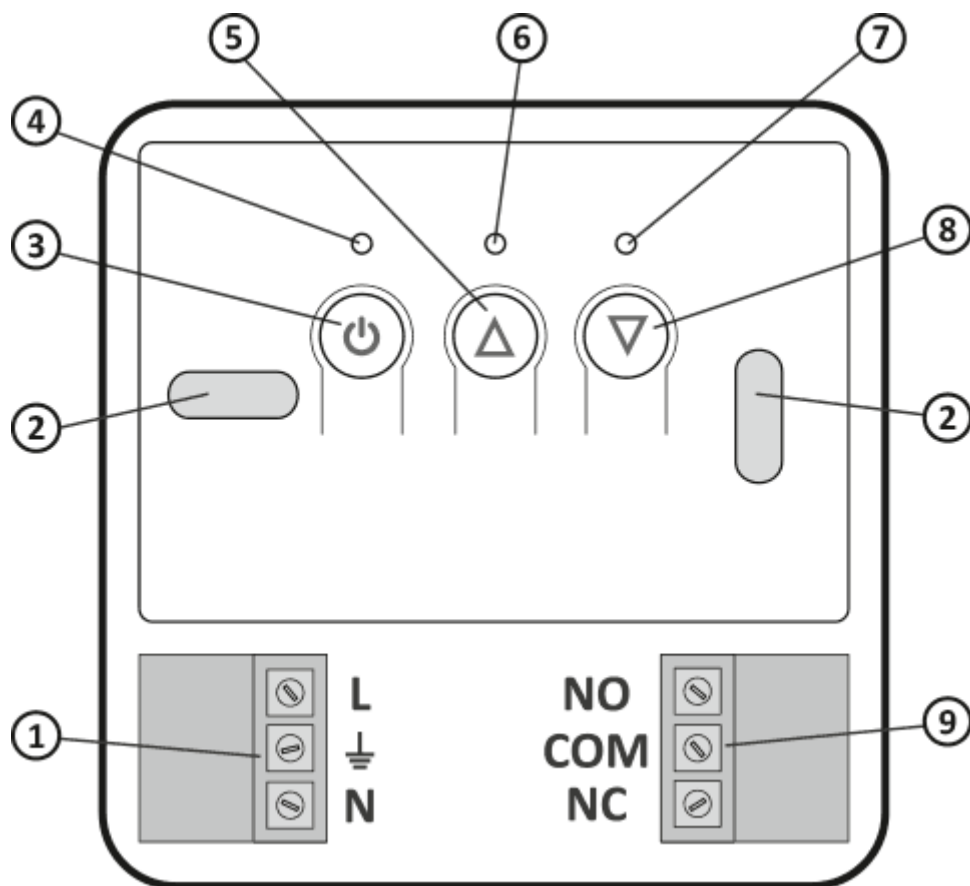
Heating or air-conditioning device controller (wireless receiver)

AURATON Fornax is a wireless controller of a heating or air-conditioning device, designed to work with a gas or electric heating device.

Description of AURATON Fornax

wireless controller of a heating or air-conditioning device

The AURATON Fornax (receiver) works with the wireless AURATON controllers. The receiver is installed near the heating or air conditioning device and may work with the load of **16 A/10 A**.



1. Detachable power connector terminals 230 V AC
2. Mounting hole
3. Power button
4. Power supply diode
5. Button to unpair devices
6. Diode indicating that the actuator device is switched on
7. Diode indicating that the actuator device has been switched off
8. Button to pair devices with the receiver
9. Control connectors

Legend - description of diode signalling



The diode is green - the actuator device is switched off (the COM and NC contacts are closed).



The diode is red – the actuator device is switched on (the COM and NO contacts are closed).



The diode is blinking green – the AURATON Fornax receiver is waiting for device pairing – *chapter: “Pairing the AURATON wireless thermostat (transmitter) with AURATON Fornax – heating or air-conditioning device controller (receiver)”*.



The diode is blinking red – the AURATON Fornax receiver is waiting for the previously paired device to be unpaired – *chapter: “Unpairing a thermostat paired with AURATON Fornax – heating or air-conditioning device controller (receiver)”*.



The LED alternates blinking red and green:

ALARM – the AURATON Fornax receiver has lost connection with the paired device – *chapter: “Special cases”*

RESET – the AURATON Fornax receiver.

Removal of all devices paired with the AURATON Fornax receiver – heating or air-conditioning device controller.



Green power diode – the AURATON Fornax receiver is on.

Mounting AURATON Fornax – heating or air-conditioning device controller (receiver)



WARNING!



The cables supplied with the thermostat are designed to transfer a load of max. value of 2.5 A.

In the case of connecting devices with higher power, they should be replaced with wires of appropriate cross-section.

NOTE:

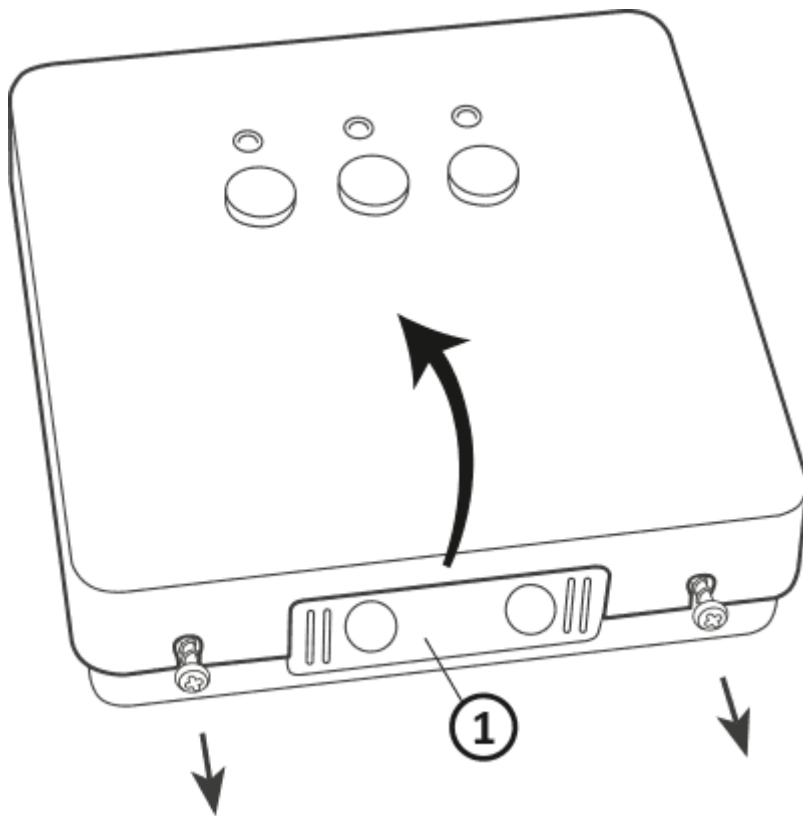
while installing the AURATON Fornax receiver, the power supply should be turned off. It is recommended to entrust the installation of the receiver to a specialist.

NOTE:

There must be a switch and overcurrent protection in the fixed building installation.

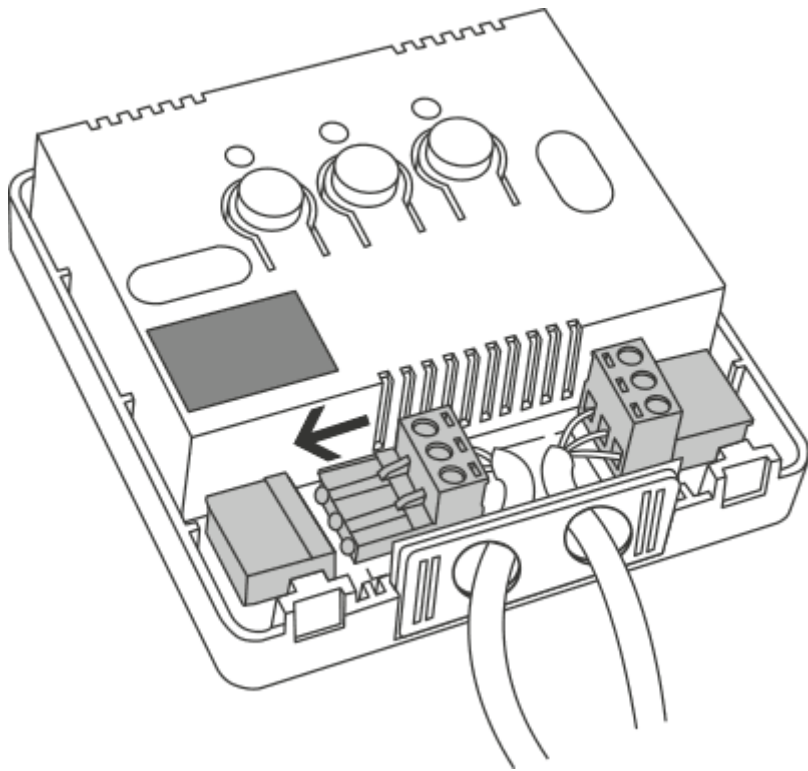
NOTE:

For easier installation, the connections are equipped with pull-out clips. Before connecting wires, you can disconnect them from AURATON Fornax. Wires can be routed from the bottom of AURATON Fornax after holes are punched in the mounting plug or from the back of AURATON Fornax if the wires are pulled out of the wall. To connect from the back, break the plug.

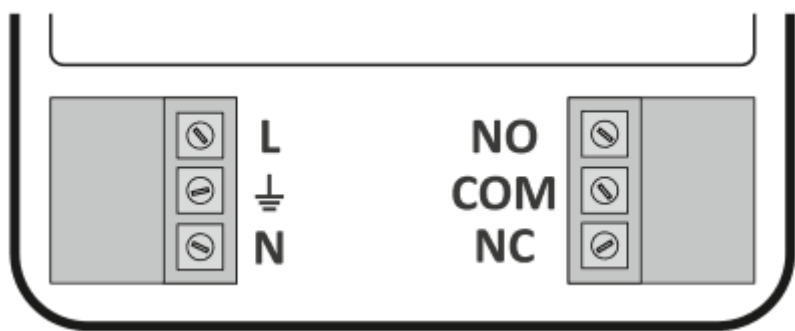


1. mounting plug

Remove the cover of the front part of Auraton Fornax by unscrewing the screws halfway.

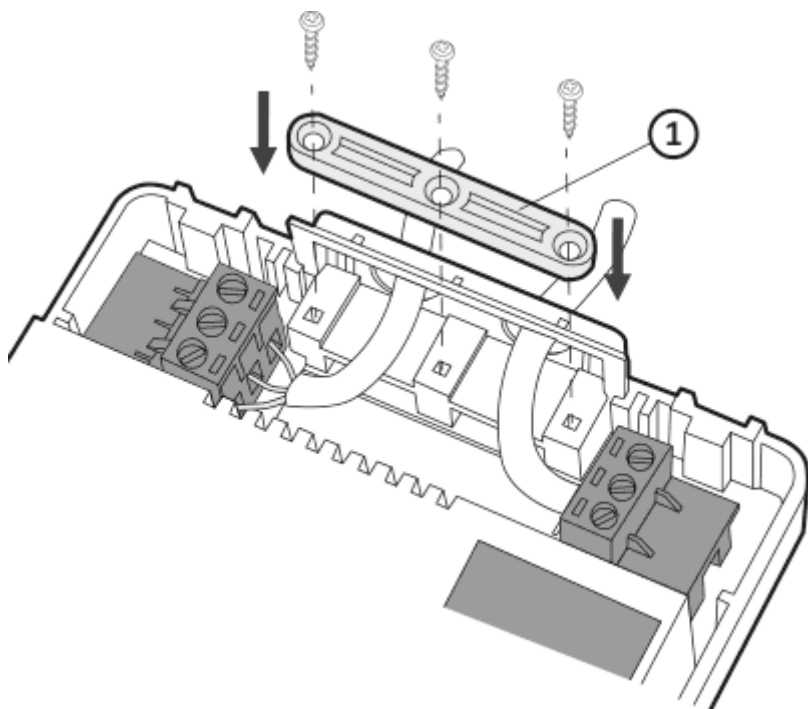


Connect the heating or air-conditioning device to the clips of the AURATON Fornax control connector. Follow the service manual of the heating or air-conditioning device. COM (common) and NO (normally open circuit) clips are most commonly used.



Connect the power supply wires to the clips of the power supply connector of the AURATON Fornax

receiver, observing safety rules.



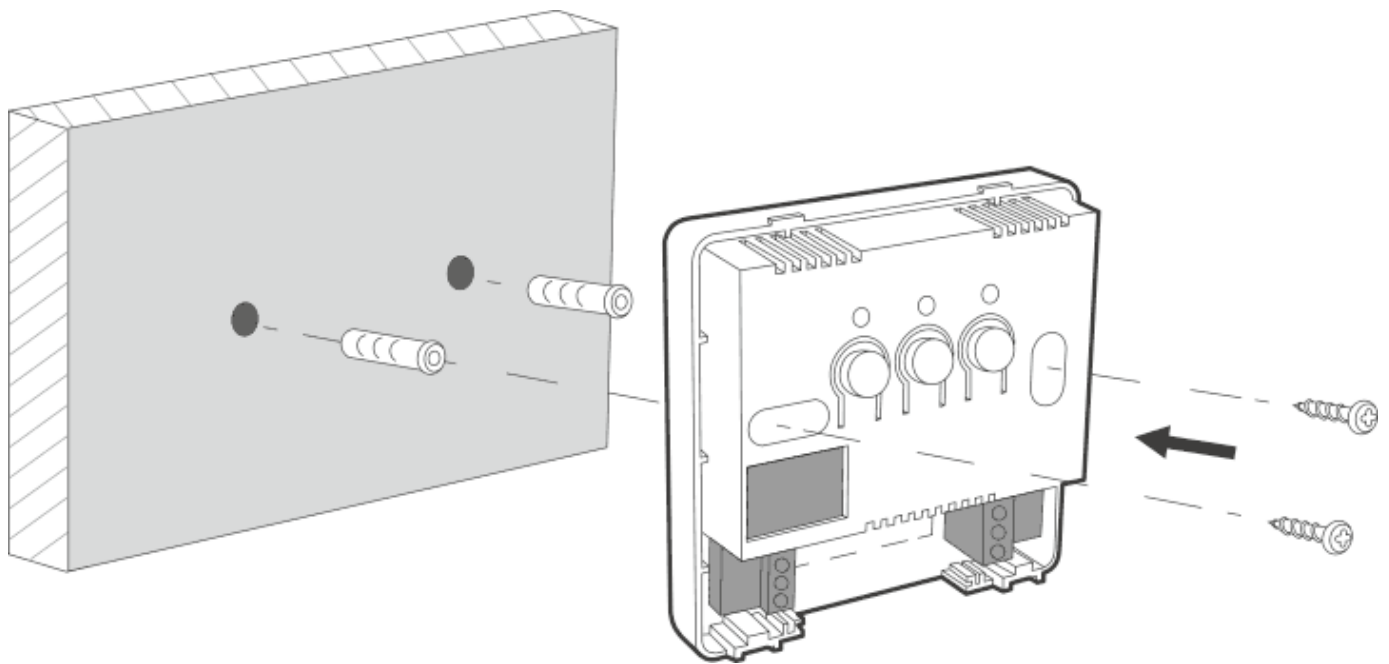
1. Wire mounting bracket.

Once the wires are connected, secure them with the “wire mounting bracket” and screw the cover back onto the AURATON Fornax receiver.

Mounting AURATON Fornax - heating or air-conditioning device controller (receiver) onto a wall

To fix AURATON Fornax to a wall:

1. Remove the cover from the front part of the receiver see *chapter "Mounting the AURATON Fornax receiver heating or air-conditioning device controller (receiver)"*.
2. Mark the location of the holes for the mounting screws on the wall.
3. Drill holes with diameters of the attached plugs (5 mm) where marked.
4. Insert wall plugs into the drilled holes.
5. Screw the AURATON Fornax receiver to the wall with the screws, so that the device is fixed securely.




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.

NOTE:

Do not place AURATON Fornax in metal housings (e.g. mounting box, metal housing of a furnace), so as not to interfere with the thermostat's operation.

Pairing the AURATON wireless thermostat (transmitter) with AURATON Fornax - heating or air-conditioning device controller (receiver)

After connecting to the mains, switch the receiver on by briefly pressing the power button (). When the device is switched on, the green power diode lights up and there is an audible single sound signal. To switch off the receiver e.g. outside the heating season, hold down the power button for 3 seconds until there is an audible double sound signal, and the green power diode switches off, which means that the heating device has also been switched off.

1. To initiate the pairing of the AURATON thermostat (transmitter) with AURATON Fornax, press the right pairing button () – a single sound signal on the AURATON Fornax receiver, and hold it for at least 3 seconds, until the LED diode starts blinking green (double sound signal), then release the button.
The AURATON Fornax receiver will wait 120 seconds for pairing. After this time elapses, it will automatically return to normal operation.
2. Press the pairing button on the AURATON thermostat (transmitter) (see the AURATON thermostat manual) until the broadcast symbol () lights up on the display. Release the button – the thermostat transmits the pairing signal for 5 seconds.
3. Successful completion of pairing is signalled when the green LED diode on the AURATON Fornax receiver is no longer blinking, a single sound signal is heard, and the receiver returns to normal operation.

If there is a pairing error, please repeat steps 1 and 2. In case of further errors, unpair the device by **RESETTING** the AURATON Fornax receiver see “*RESET – Unpairing a device paired with AURATON Fornax – heating or air-conditioning device controller (receiver)*” and trying to pair the devices again.

NOTE:

The AURATON Fornax receiver can only be paired with one thermostat.

Signalling the working status and data package reception



Each reception of radio transmission from a paired device is signalled by the AURATON Fornax

receiver by a temporary alternating colour change of the LED diodes. When the relay is turned on, the LED diode is red and when the relay is turned off, the LED diode is green.

NOTE:



Pressing a button is signalled by a short sound signal.

Unpairing an AURATON wireless thermostat paired with the AURATON Fornax receiver

1. To initiate the unpairing of the AURATON thermostat (transmitter) paired with the AURATON Fornax receiver, press the left unpairing button () on the receiver and hold it for at least 3 seconds, until the LED diode starts blinking red, then release the button. The sound signals work in the same way as in the case of pairing, i.e. pressing a button is signalled by a short sound signal and after 3 seconds a double short sound signal is heard.
The AURATON Fornax receiver will wait 120 seconds for pairing. After this time elapses, it will automatically return to normal operation.
2. Press the pairing button on the AURATON thermostat (transmitter) (see the AURATON thermostat manual) until the broadcast symbol () lights up on the display. Release the button
3. Successful completion of pairing is signalled when the green LED diode on the AURATON Fornax receiver is no longer blinking, a single sound signal is heard, and the receiver returns to normal operation.

If there is a pairing error, please repeat steps 1 and 2. In case of further errors, unpair the device by **RESETTING** the AURATON Fornax receiver, see „*RESET - Unpairing a device paired with AURATON Fornax - wireless heating or air-conditioning device controller (receiver)*”.

RESET - Unpairing a device paired with AURATON Fornax - heating or air-conditioning device controller (receiver)

In order to unpair a device (e.g. a thermostat) paired with AURATON Fornax, simultaneously press and hold both pairing and unpairing buttons ( i ) for at least 5 seconds, until the LED diode starts to

alternate blinking green – red. Then release both buttons. Sound signals: pressing the button, a short sound signal – after 5 seconds, a double short sound signal.

Successful completion of device unpairing is signalled after about 2 seconds, when the signalling changes to green, and then fades out for a short time.

NOTE:

If you disconnect the AURATON Fornax receiver from the power supply after the RESET and then reconnect the power supply, the receiver will automatically enter the “pairing” mode for 120 seconds. A newly-purchased AURATON Fornax receiver (not purchased together with the thermostat) without factory-paired devices will behave in the same way.

Special cases

- When 3 consecutive transmissions are lost (after 15 minutes), the AURATON thermostat (transmitter) will signal a failure on the AURATON Fornax receiver (the LED diode will alternate blinking red and green). Until the problem is resolved, the receiver will enter the stored on/off cycle from the last 24 hours.
- When the signal from the AURATON thermostat returns, the error is cleared and the AURATON Fornax receiver returns to normal operation.

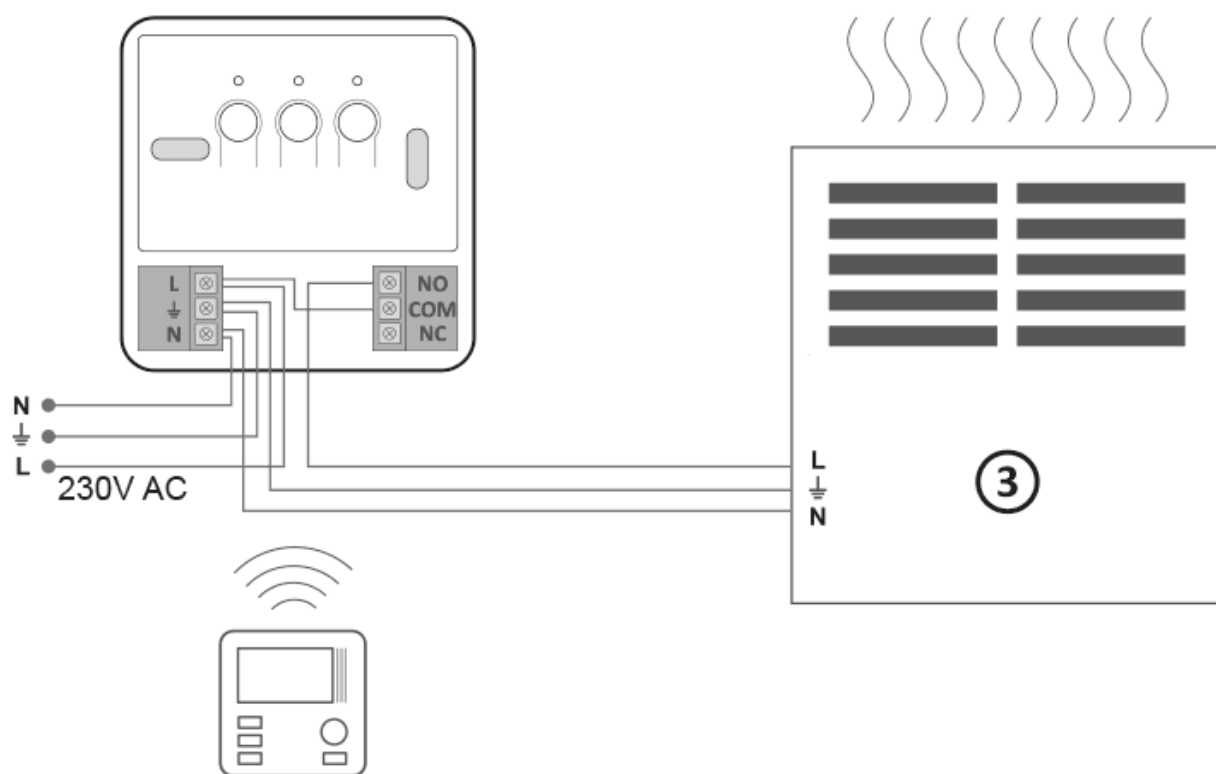
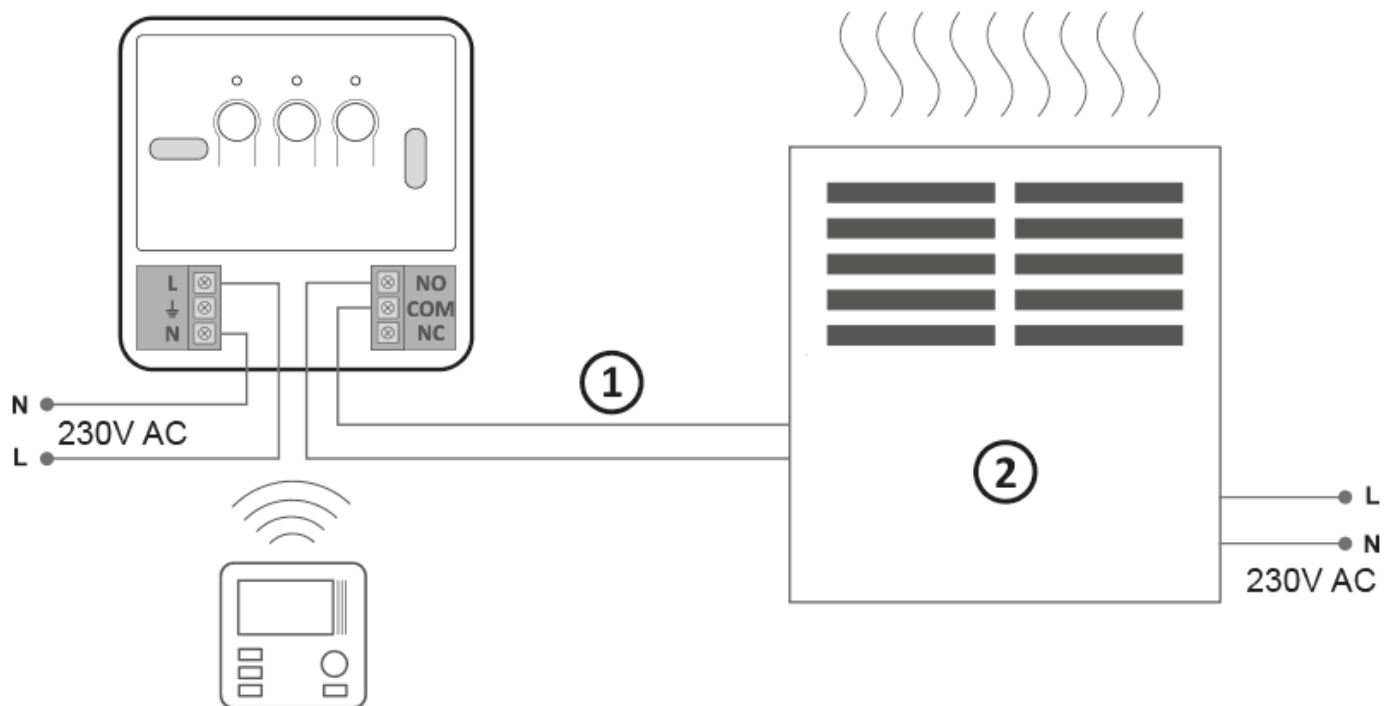
Unique features of AURATON Fornax

- Relay switching is synchronised with the 230 V AC power supply line so that the closing and opening of the relay armature contacts always occurs in the area of the voltage waveform reaching zero. This prevents the formation of an electric arc and significantly extends the life of the relay.
- The AURATON Fornax receiver is equipped with a unique algorithm for analysing the on/off cycles. The entire heating cycle from the last 24 hours is stored in AURATON Fornax memory. In the event of loss of communication with the AURATON wireless thermostat (transmitter), AURATON Fornax will automatically execute the stored on/off cycle from the last 24 hours. This gives you time to restore the transmission (solve issues with interference) or repair the thermostat without a significant deterioration of the thermal comfort in the controlled facility.

Additional information

- The AURATON thermostat (transmitter) must be installed at least 1 metre away from AURATON Fornax (too strong a signal from the transmitter may cause interference).
- At least 30 seconds must elapse between turning the relay off and on.
- TData from the AURATON thermostat (transmitter) is transmitted to the AURATON Fornax receiver every time the ambient temperature changes by 0.2°C. If the temperature does not change, the thermostat transmits control data every 5 minutes (this is signalled by a temporary alteration in the colour of the LED diodes).
- In the event of a power failure, AURATON Fornax will switch off. After power is restored, the heating device will automatically switch on, and AURATON Fornax will wait for a signal from the paired AURATON thermostat (transmitter) no longer than 5 minutes after power is restored. After receiving the signal, AURATON Fornax will return to normal operation.
- Placing AURATON Fornax in a metal housing (e.g. mounting box, metal housing of a furnace) will interfere with the operation of the thermostat.

Diagram of connection of AURATON Fornax



1. Control
2. Heating device e.g. a gas furnace
3. Electric heating device

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

Power supply:	230 V AC, 50 Hz, 1.5 W
Working temperature range:	0 – 45 °C
Working status signaling:	LED indicators, sound
Relay load capacity:	Max. 250 V AC, max. 16 A
Operation range:	in a typical house, with standard wall structures – up to 30 m outdoors – up to 300 m
Radio frequency:	868,850 MHz 869,000 MHz
Receiver Category:	2
Level of security:	IP20
Suggested installation location:	Near the heating or air conditioning device
Dimensions [mm]:	100 x 100 x 29

Disposing of the devices





The devices are marked with the crossed waste bin symbol. According to European Directive no. 2012/19/UE 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.

Hereby, LARS Andrzej Szymanski declares that the radio equipment type AURATON Fornax is in compliance with Directive 2014/53/EU and 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address: <https://manuals.auraton.pl>

Contact and address of the manufacturer:

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

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- [Declaration of conformity](#)