

Programmable, Wireless Thermostat



E7-TXW / E7-TXB



E7-RX

FULL MANUAL

Table of contents

1. Introduction	3
1.1 Product Compliance	3
1.2 Safety Informations	3
1.3 Symbols used	3
2. Product Overview	4
2.1 Package content	5
2.2 Proper thermostat location	5
2.3 Wall mounting of the thermostat, additional frame	6
2.4 Stand-alone thermostat	6
3. Receiver	7
3.1 Receiver's switches description	7
3.2 Receiver LED indicators	8
3.3 Connection description	9
4. First power on	10
4.1 Battery installation and replacement	10
4.2 LCD icon description	10
4.3 Buttons description	10
5. Setting the day of the week and time	11
6. Operation of the thermostat	12
6.1 Manual mode - temperature setting	12
6.2 Schedule	13
6.2.1 Daily schedule (identical for all days of the week)	13
6.2.2 Weekly schedule (individual for each day of the week)	14
6.3 Temporary override mode	15
6.4 System type selection (heating or cooling)	15
6.5 Key lock function	16
7. Pairing process with the receiver	17
7.1 Transmission test	18
8. Installer settings	19
9. Factory reset	20
10. Cleaning and Maintenance	20
11. Technical data	21
12. Warranty	22

1. Introduction

1.1 Product Compliance

The product complies with the following EU directives: UE: 2014/53/EU and 2011/65/EU.

1.2 Safety Informations

Please read this manual in its entirety before commencing installation and operation.

- The regulator must not be used improperly.
- The information contained in these instructions is essential for proper operation.
- In order to avoid accidents resulting in personal injury and material damage, all safety rules detailed in these instructions must be observed.
- The regulator must not be used with a damaged housing.
- Under no circumstances modifications be made to the design of the regulator is not allowed.
- It is forbidden to use a faulty device or one repaired by an unauthorised service.
- The device should not be used by persons with limited mental, sensory or intellectual capacity, without experience, with insufficient knowledge, as well as children.
- Keep the appliance away from children and ensure that they do not play with it. Children should not be left unattended.
- Do not leave the packaging, casing, or any loose parts of the appliance unattended, as they are a danger to children.

INSTALLATION:

- Installation must be carried out by a qualified person with the appropriate electrical license, in accordance with the standards and regulations in force in your country and in the EU.
- Never attempt to connect the appliance in any way other than that described in the instructions.
- The device must not be exposed to extreme temperatures, strong vibrations or subjected to mechanical impacts.
- The device should not be used in adverse environmental conditions.

NOTE:

- There may be additional protection requirements for the entire installation, which are the responsibility of the installer.

1.3 Symbols used



The symbol indicates the need to press a button on the thermostat or on the mobile app according to the instructions in the individual sections of this manual.



The symbol indicates important information on which damage to property, danger to human life and to pets may depend.



Concern for the environment is of paramount importance to us. Knowing that we manufacture electronic devices obliges us to dispose of used electronic components and equipment safely. For this reason, the company has received a registration number issued by the Chief Inspector of Environmental Protection. The symbol of the crossed-out rubbish bin on the product means that the product must not be disposed of in normal waste bins. Recycling helps to protect the environment. It is your responsibility to take your used equipment to a designated collection point for waste electrical and electronic equipment.

2. Product Overview

Engo E7 is a modern room thermostat that combines simplicity of operation with the functionality needed for everyday thermal comfort. With a large, easy-to-read display and simple 3-button control, operation is made as simple as possible. A default day/night schedule makes it easy to get the system up and running quickly without programming. A full weekly schedule option is also available for more demanding users. The E7 is available in two colors - white and black - to match modern interiors. Thanks to radio communication and factory pairing of the devices, installation is quick and hassle-free.

Product features:



Operating modes: day/night



Simple and intuitive device operation



Maximum/minimum temperature limitation



HEATING/COOLING function



Wireless communication in the 868MHz standard

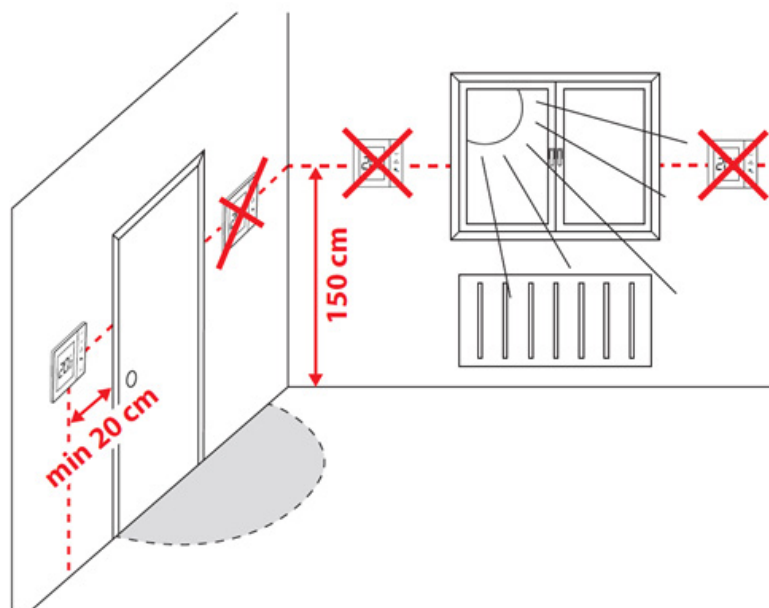


Devices are factory-paired with unique communication codes, which prevents mutual interference

2.1 Package content



2.2 Proper thermostat location

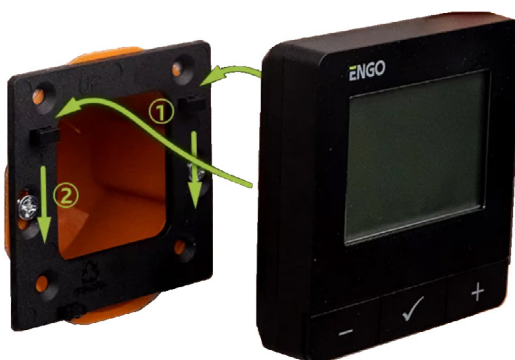


Attention:

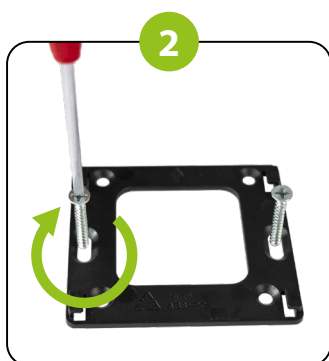
The recommended height for mounting the thermostat is approximately 1.5 m above ground level, away from any source of heat or cold. It is not recommended to mount the thermostat on an external wall, in a draught or where it will be exposed to direct sunlight.

2.3 Wall mounting of the thermostat, additional frame

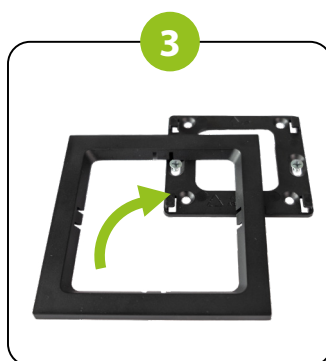
Use the accessories included in the kit (mounting screws) to mount the regulator correctly. Remove the back plate from the regulator in order to mount it on the wall. Then place the regulator on the plate using the movement as shown.



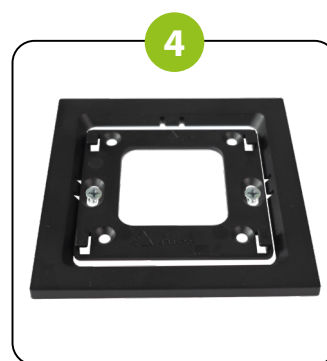
1 Prepare the frame and regulator



2 Screw the mounting plate to the box/wall



3 Attach the frame to the mounting plate



4 Make sure the frame hangs evenly



5 Insert batteries in the thermostat



6 Put the regulator on the frame



7 Attachment of regulator to mounting plate



8 The thermostat in the frame is ready for operation

2.4 Stand-alone thermostat

Using the included stand, place the thermostat in a convenient and accessible location away from sources of heat and cold.



3. Receiver

The thermostat communicates with the receiver wirelessly. The receiver must be powered with 230V AC, and its maximum load capacity is 16 A. The device must not be installed in locations exposed to water or condensation. The receiver can operate in two different modes – AUTO (automatic) and MANUAL. To select the desired mode, use the switches located on the front of the receiver.



3.1 Receiver's switches description



LEFT SWITCH	
1.	ON - receiver ON
2.	OFF - receiver OFF
RIGHT SWITCH	
3.	MANUAL - Receiver works in Manual mode (according to the left switch)
4.	AUTO - Receiver works in AUTO mode (according to the thermostat's command)



Attention:

Thermostat (transmitter) will communicate with receiver only when both are paired together and receiver's switches are set to ON and AUTO position.

3.2 Receiver LED indicators

The status of the receiver is indicated by two LEDs. These are LEDs with the following color:

- 1 - green (upper one),
- 2 - orange (lower one).

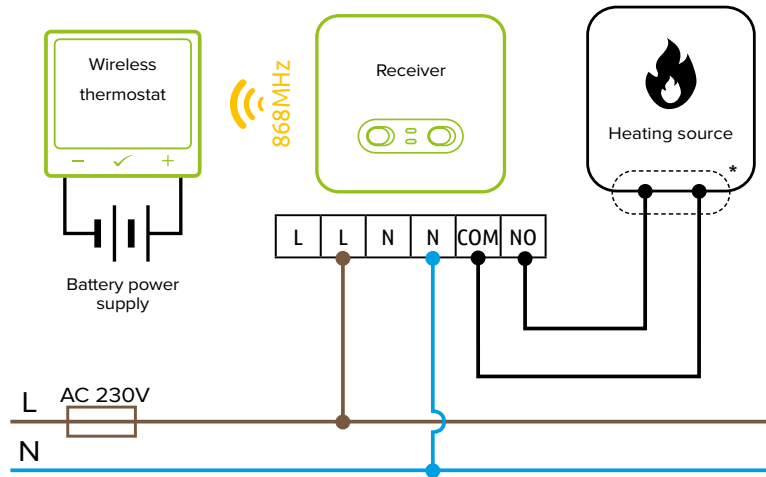


A detailed explanation of the meaning of the LEDs can be found in the table below:

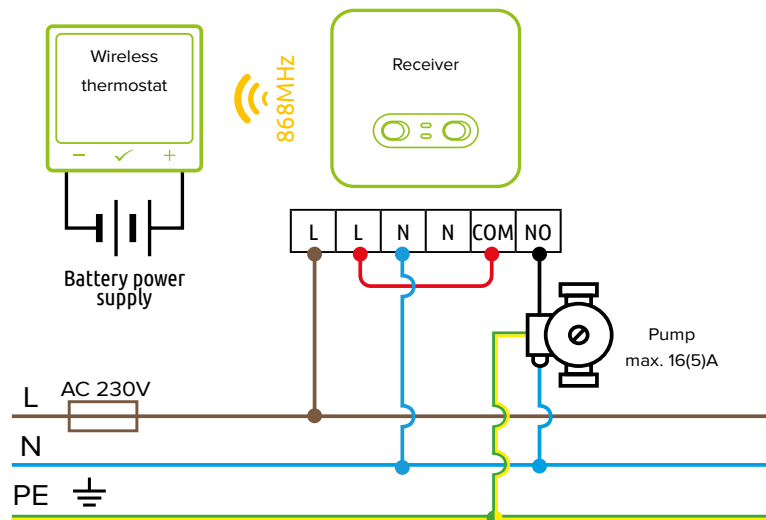
	DESCRIPTION
The green LED lights up	<p>The receiver is connected to the 230 V mains supply.</p> <p>The receiver can be activated by the controller when in automatic mode, with the right switch set to the AUTO position.</p> <p>The receiver can be activated manually when the right switch is set to the MANUAL position.</p>
The green flashes	<p>The receiver is in pairing mode (in this case, the SYNC parameter must be activated on the controller).</p>
The green is off	<p>The receiver is disconnected from the 230 V mains supply, or the left switch is set to the OFF position.</p>
The orange LED lights up	<p>The receiver in AUTO (automatic) mode received a heating / cooling signal from regulator or the receiver has been started.</p> <p>In manual mode (left switch ON, right switch MANUAL).</p>
The orange flashes	<p>The receiver was previously paired but has lost connection with the controller due to lack of signal range or depleted controller batteries.</p> <p>The receiver starts flashing after 40 minutes without receiving a signal from the controller.</p>
The orange is off	<p>The receiver didn't get a heating / cooling signal from the thermostat.</p>

3.3 Connection description

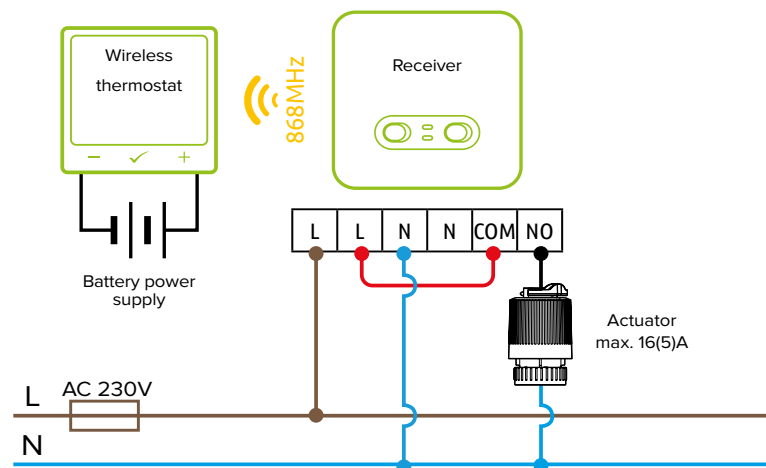
a) Connection diagram to the heating source



b) Connection diagram for the pump



c) Connection diagram for the actuator



LEGEND

- | | | |
|---------------------------|-----------------------------|--|
| Fuse | COM, NO Voltage-free output | Wireless communication |
| Battery power supply | Pump | Boiler - Boiler connection * - Boiler's contacts for ON/ OFF thermostat (according to the boiler's instructions) |
| L, N 230V AC power supply | Valve actuator | |
| PE Ground (electricity) | | |

4. First power on

4.1 Battery installation and replacement

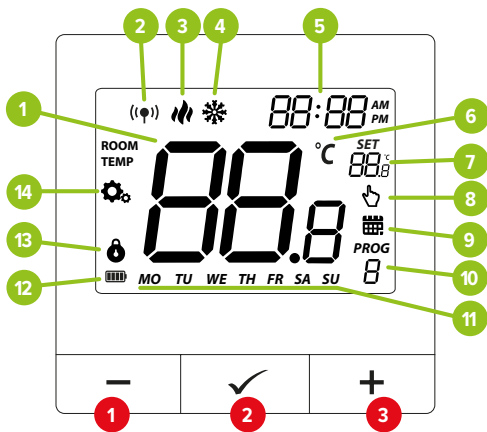
Insert the battery into the thermostat, paying attention to the polarity. It is recommended to use alkaline batteries.



Attention:

Using the included stand, place the thermostat in a convenient and accessible location away from sources of heat and cold.

4.2 LCD icon description



1. Current temperature
2. Status of the receiver connection
3. Heating indicator (icon is animating when there is heating demand)
4. Cooling indicator (icon is animating when there is cooling demand)
5. Clock
6. Temperature unit
7. Setpoint temperature
8. Temporary override mode
9. Schedule mode icon
10. Program number
11. Day of the week indicator
12. Battery indicator
13. Button lock
14. Settings icon

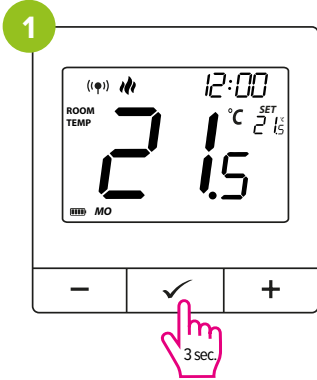
1. "Down" Button -
2. "OK" Button ✓
3. "Up" Button +


4.3 Buttons description

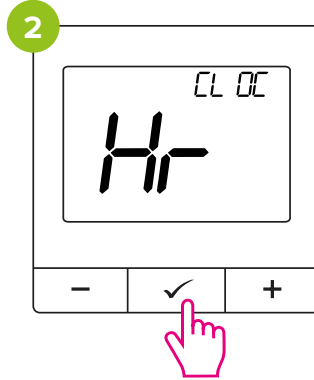
+	Change the parameter value up
-	Change the parameter value down
✓	Manual/Schedule mode - short button press
✓	Enter the installer parameters/schedule/time setting - hold 3 seconds
✓	Turn OFF/ON thermostat - hold 5 seconds
+ & -	Pairing the transmitter with the receiver - hold until the SY message, then release the keys
+ & -	Factory reset - hold until the FA message appears, then select YES and confirm
+ & ✓	Lock/Unlock thermostat keys - hold 3 seconds
- & ✓	Heating/Cooling mode change - hold 3 seconds


5. Setting the day of the week and time

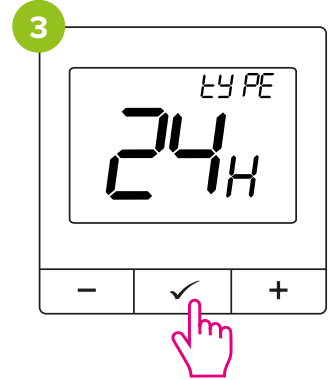
To set the clock format, current time, and day of the week, follow the steps below:




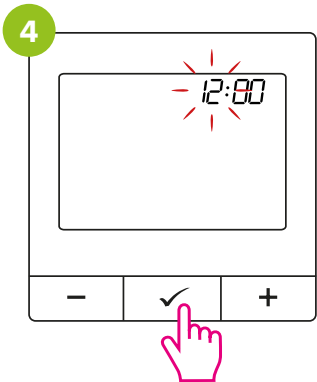
To enter clock settings press and hold  button for 3 seconds.




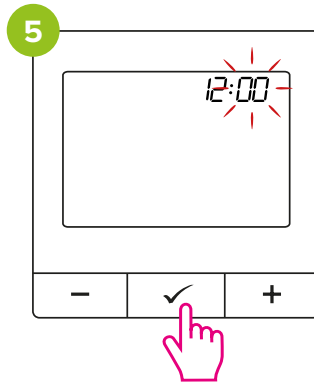
Select "Hr" with the - or + button and confirm with the  button.




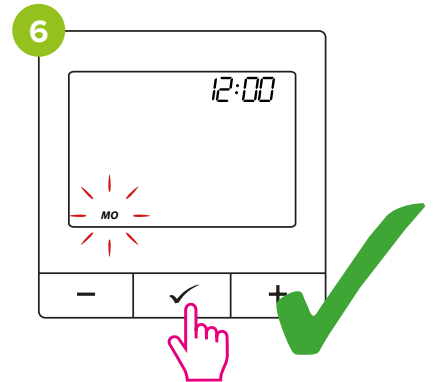
Using the - or + buttons, set the clock format, then confirm with  button.




Using the - or + buttons, set the hour, then confirm with  button.



Using the - or + buttons, set the minutes, then confirm with  button.



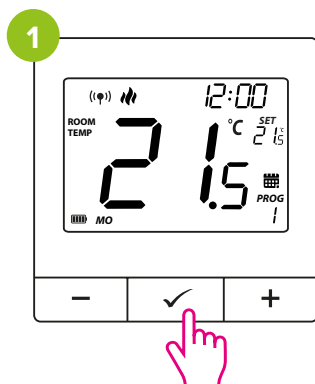
Using the - or + buttons, set the day of the week, then confirm with  button.

6. Operation of the thermostat

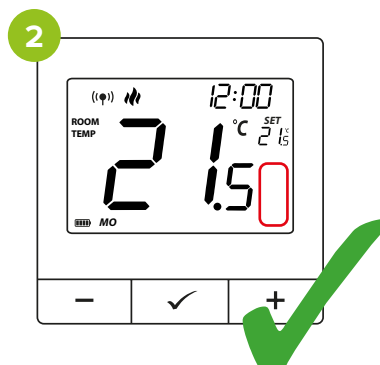
6.1 Manual mode - temperature setting

In manual mode, the controller maintains a constant setpoint temperature until the user changes its value or switches to Auto mode (schedule).

To set manual mode, follow the steps below:

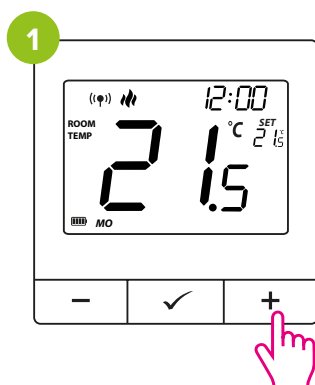


To switch the operating mode from schedule to manual mode, press the ✓ button.

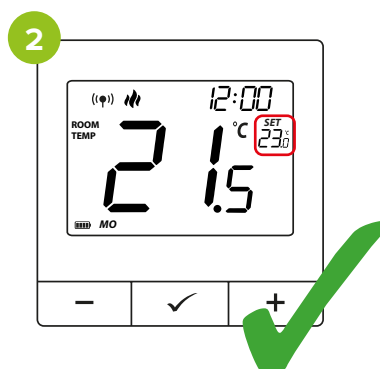


The schedule information has disappeared from the display.
The controller has switched to manual mode.

To change the setpoint temperature in manual mode, follow the steps below:



Using the - or + buttons, set the temperature, then confirm with ✓ button or wait 3 seconds.

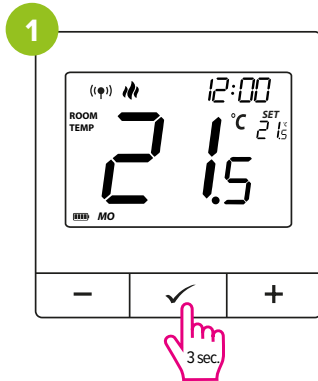


The setpoint temperature has been changed and is displayed on the right side of the screen as "SET".

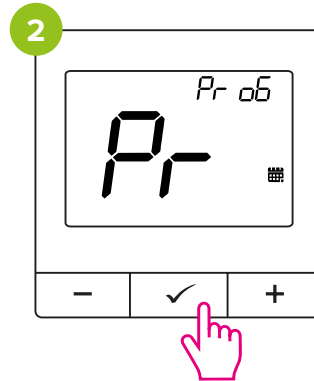
6.2 Schedule

6.2.1 Daily schedule (identical for all days of the week)

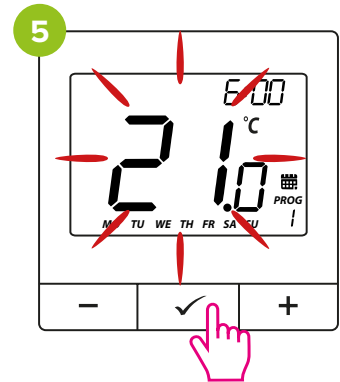
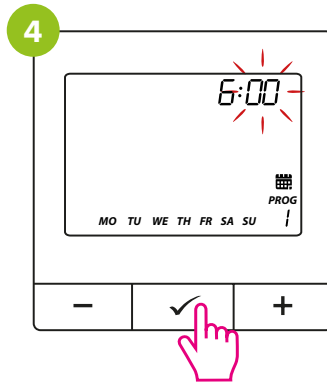
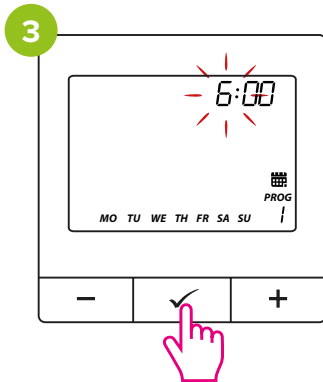
To set the schedule, follow the steps below:



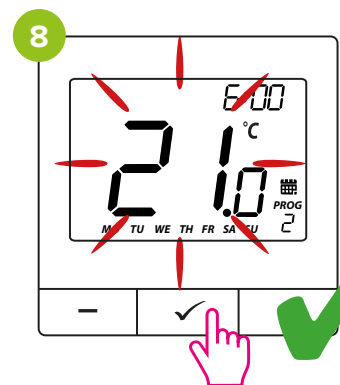
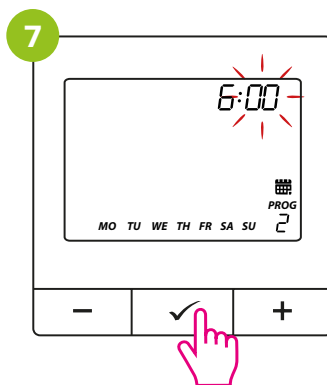
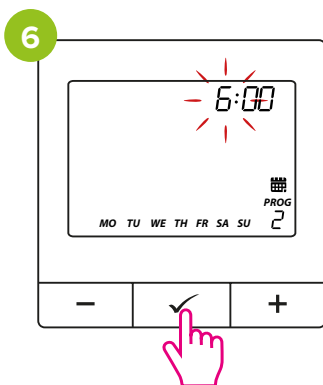
To enter schedule settings press and hold ✓ button for 3 seconds.



Select "Pr" with the - or + button and confirm with the ✓ button.



Using the - or + buttons, set the hour, minutes, and temperature for the first time slot, confirming each selection with the ✓ button.



Using the - or + buttons, set the hour, minutes, and temperature for the second time slot, confirming each selection with the ✓ button.

By default, the schedule will be the same for each day of the week.

Attention:

To exit to the main screen without saving changes, press and hold the ✓ button for 3 seconds.

Attention:

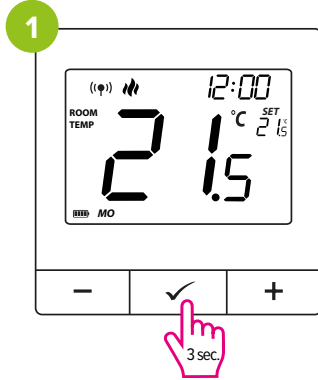
For the schedule to be identical for all days of the week, parameter **P12** should be set to **0** (see installer parameters).


6.2.2 Weekly schedule (individual for each day of the week)

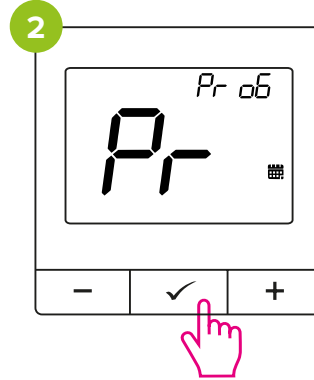
Attention:


If you want to set an individual schedule for selected days of the week, change parameter **P12** from 0 to **1** (see installer parameters).

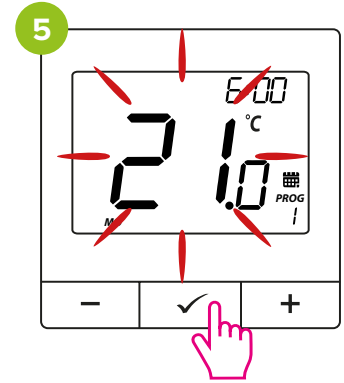
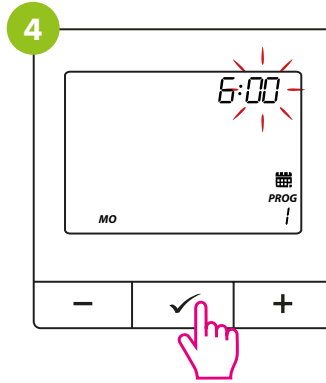
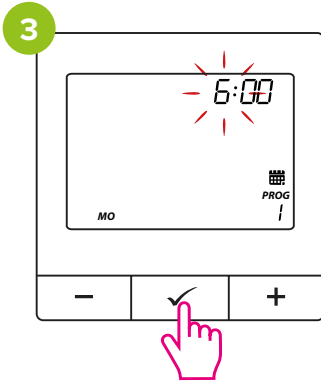
To set the schedule, follow the steps below:




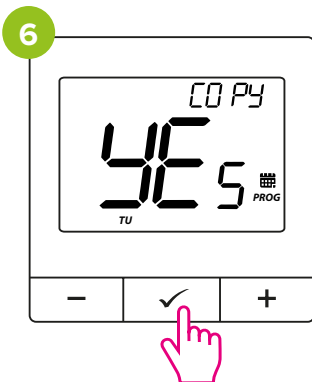
To enter schedule settings press and hold  button for 3 seconds.




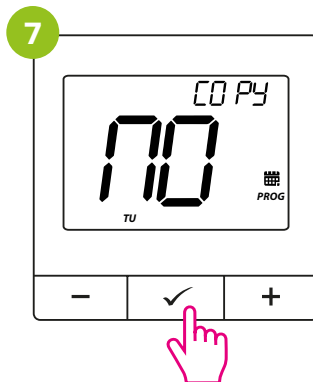
Select "Pr" with the - or + button and confirm with the  button.




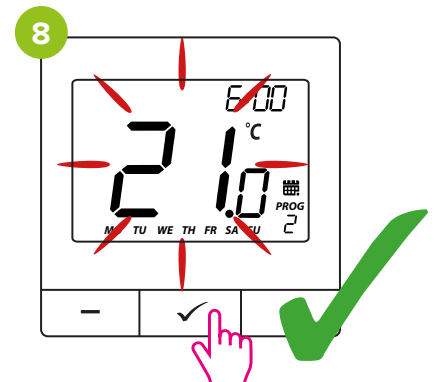
Using the - or + buttons, set the hour, minutes, and temperature for each of the two time slots, confirming each selection with the  button.



The set schedule can be copied to the next day by changing the Copy parameter to YES using the - or + buttons, and then confirming with the  button.



If you want to set an individual schedule for the next day of the week, set the Copy parameter to NO and confirm the selection with the  button.



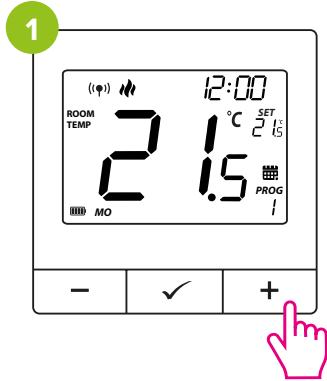
Create the schedule for the next day of the week (see steps 3–5).

Attention:

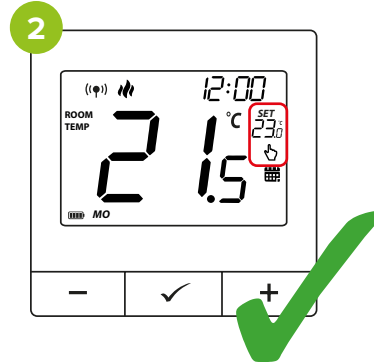
Programs must be set for all days of the week!


6.3 Temporary override mode

When thermostat is running schedule mode (AUTO) we can temporarily override it by setting new setpoint temperature:




Using the - or + buttons, set the temperature, then confirm with ✓ button or wait 3 seconds.



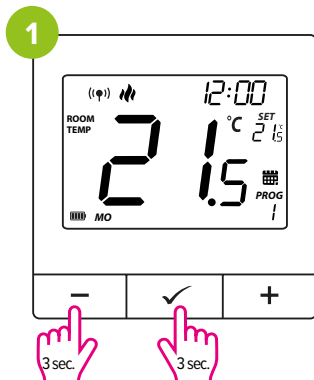
The setpoint temperature has been temporarily changed and is displayed on the right side of the screen ("SET"). An  icon has appeared on the screen.

Attention:

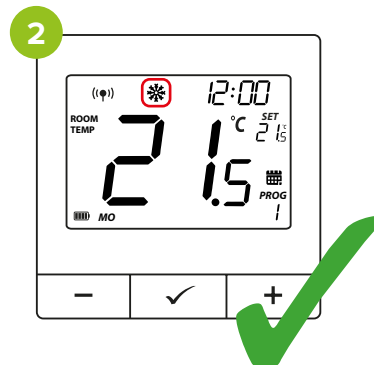
The overridden temperature will be maintained until the next schedule change occurs. At that point, the  icon will disappear from the display, and the controller will return to AUTO mode.



6.4 System type selection (heating or cooling)

To change the system type, follow the steps below:



Press and hold - and ✓ buttons again for 3 seconds.



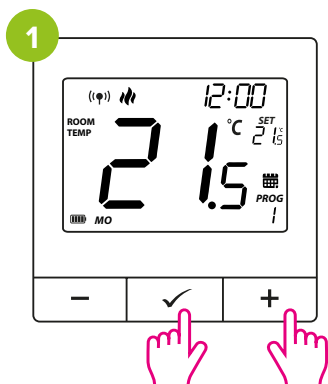
The  icon will disappear from the controller's display, and the  icon will appear. The system type has been changed from heating to cooling.

Attention:

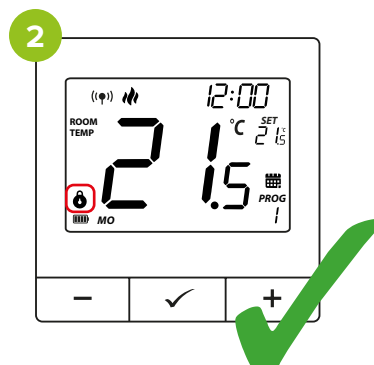
To switch back to the heating system type, press and hold the - and ✓ buttons simultaneously for 3 seconds.


6.5 Key lock function

To LOCK the thermostat keys, follow the steps below:

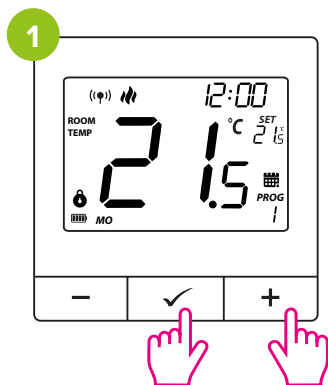


Press and hold ✓ and + buttons again for 3 seconds.

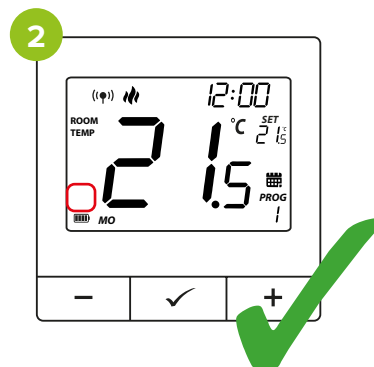



A  icon will appear on the screen. The buttons on the thermostat have been locked.

To UNLOCK the thermostat keys, follow these steps:



Press and hold ✓ and + buttons again for 3 seconds.



The  icon will disappear from the screen. The buttons on the thermostat have been unlocked.

Attention:

The user can protect the installer settings with a PIN code by activating parameter P09 (set to YES).

Next, in parameter P10, a new PIN code must be set.

To require the PIN code also when unlocking the controller's keys, parameter P11 must be activated (set to YES).

Attention:

Parameter P11 is functional only when P09 = YES.

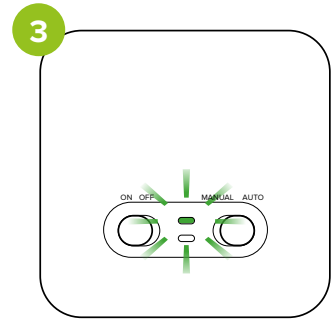
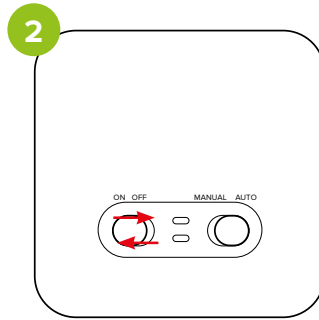
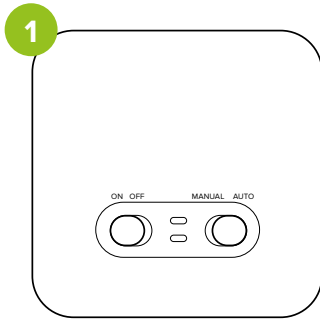
Once this feature is activated, the user will be required to enter the PIN code each time to unlock the controller's keypad.

7. Pairing process with the receiver

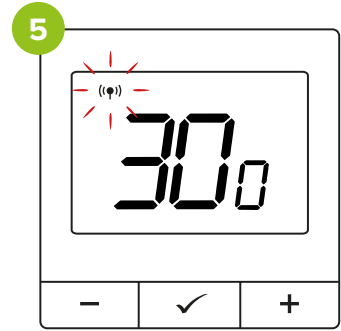
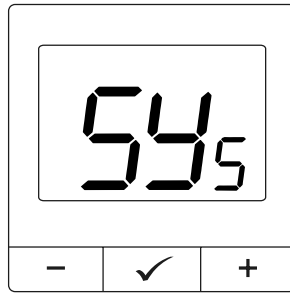
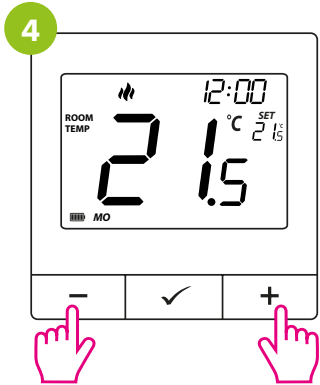


Attention:

THERMOSTAT IS ALREADY PAIRED WITH THE RECEIVER!

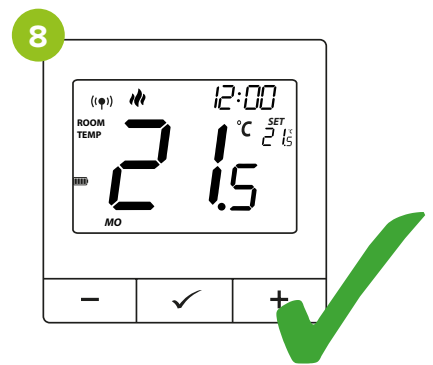
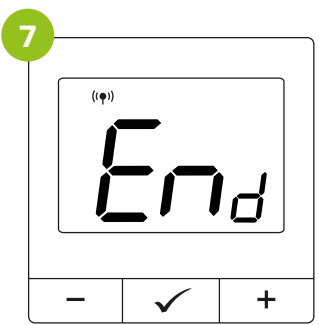
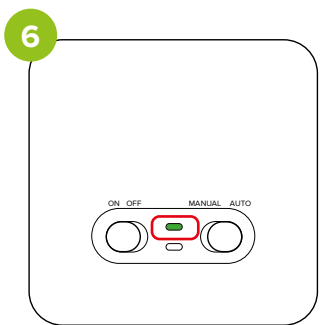


If you want to re-pair the devices with each other, make sure that the receiver is disconnected from the power supply, and the switches on it are in the ON and AUTO positions. Then connect the receiver to the power supply and wait for the green diode to glow continuously. Next, move the left switch to the OFF position and back to the ON position with a quick motion. After all, the green diode will start blinking, which will confirm that the receiver has entered the pairing mode.



Press and hold the – & + buttons for approx. 5 seconds until the display shows „SY”. Then release the keys.

The thermostat started to send a signal ((φ)) to find the receiver and started the countdown with the number 300 (sec). The pairing process may take up to 300 seconds.



When the green diode on the receiver lights up continuously, the devices have been paired on a new frequency.

After successful pairing operation "End" message will be displayed.

Thermostat displays the main screen, "((φ))" icon means receiver is paired with thermostat.

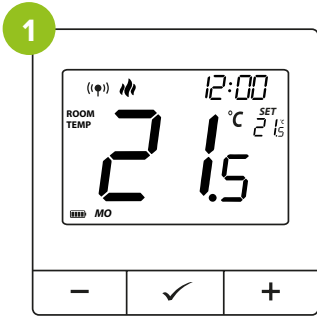


Attention:

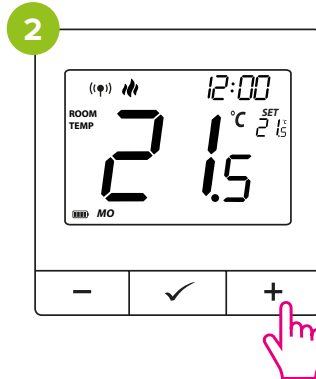
If the devices remain unpaired after 10 minutes (e.g. no antenna icon on the controller, the receiver does not respond to the heating signal from the controller), the pairing process must be repeated, taking into account the distances between the devices, obstacles and interference.

7.1 Transmission test

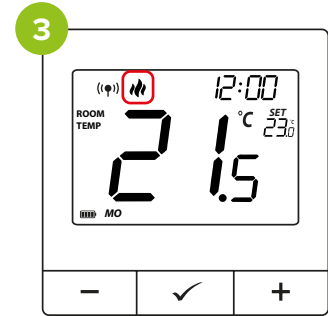
It is important to place the receiver and transmitter in locations where nothing interferes with the radio signal. The communication range between the transmitter and receiver is approximately 100 m in open space. Many factors can affect the radio transmission and reduce the operating distance, such as thick walls, plasterboard panels with aluminum foil backing, metal objects like cabinets, and general radio interference. Nevertheless, for most household applications, the range is sufficient. It is recommended to test the radio transmission between the devices before mounting the controller on the wall. The test can be performed by changing the setpoint temperature, i.e., turning the heating on or off.



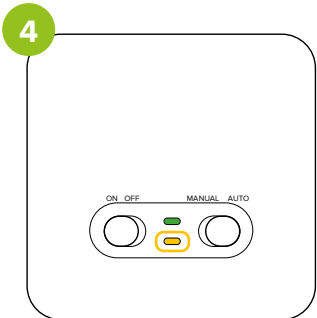
Check whether the controller is sending a heating signal (when the flame icon is animated, the controller is transmitting a heating signal to the receiver).



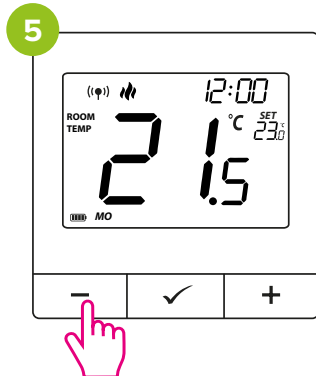
Using the + button, increase the setpoint temperature above the temperature measured by the controller (ROOM TEMP < SET). Then confirm with the ✓ button or wait 3 seconds.



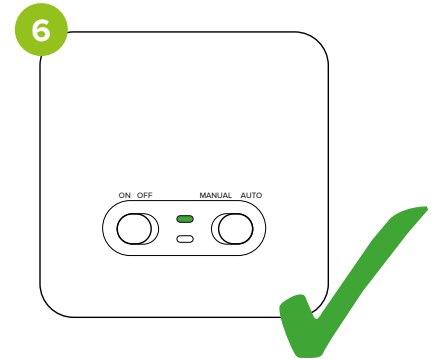
The flame icon will animate, indicating that the controller is transmitting a heating signal.



Check whether the orange LED on the receiver is illuminated. If it is, this indicates that the communication between the devices is functioning correctly.



Using the - button, decrease the setpoint temperature below the temperature measured by the controller (ROOM TEMP > SET). Then confirm with the ✓ button or wait 3 seconds.





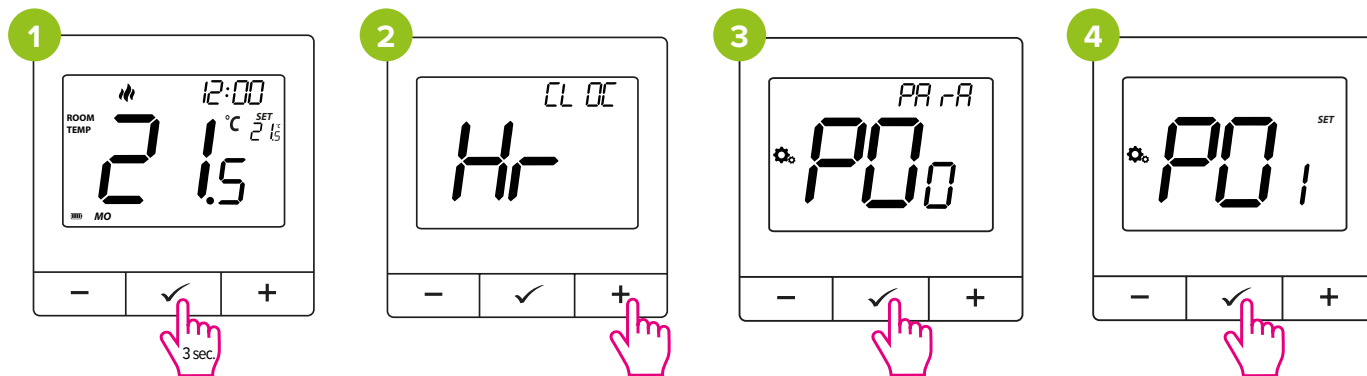
...and the orange LED on the receiver should turn off.



Attention:




If the orange LED does not turn on/off according to the controller's flame icon indication, try moving the controller closer to the receiver and repeat the above steps from the beginning. If it still does not work, try performing the pairing process again.

8. Installer settings

To enter installer parameters press and hold  button for 3 seconds, then Select "PARA" with the - or + button and confirm with the  button.

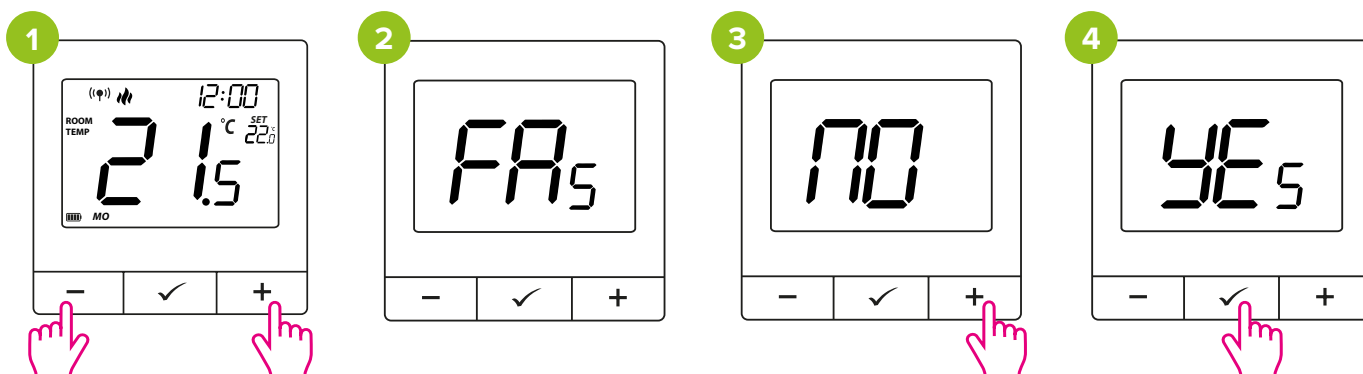


Use - or + button to move between parameters. Enter the parameter by . Edit the parameter using - or + Confirm the new parameter value with the  button.

Pxx	Function	Value	Description	Default value
P01	Heating/Cooling Selection		Heating	
			Cooling	
P02	Control algorithm	TPI UFH	TPI for Underfloor Heating	HIS 0.2
		TPI RAD	TPI for Radiators	
		TPI ELE	TPI for Electrical Heating	
		HIS 0.2	SPAN +/-0,1°C	
		HIS 0.4	SPAN +/-0,2°C	
		HIS 0.6	SPAN +/-0,3°C	
		HIS 0.8	SPAN +/-0,4°C	
		HIS 1.0	SPAN +/-0,5°C	
		HIS 2.0	SPAN +/-1,0°C	
		HIS 3.0	SPAN +/-1,5°C	
HIS 4.0	SPAN +/-2,0°C			
P03	Display temperature resolution	0.1°C	This parameter specifies the accuracy of the displayed (measured) temperature.	0.1°C
		0.5°C		
P04	Offset temperature	-3.5°C to +3.5°C	If the thermostat indicates wrong temperature, you can correct it by max ± 3.5°C"	0°C
P05	Relay type	NO	Normally Open type of relay	NO
		NC	Normally Closed type of relay	
P06	Clock format	12H	12-hours	24H
		24H	24-hours	
P07	Minimum setpoint	5°C - 45°C	Minimum heating / cooling temperature that can be set	5°C
P08	Maximum setpoint	5°C - 45°C	Maximum heating / cooling temperature that can be set	35°C
P09	PIN Code for settings access	NO	Function disabled	NO
		PIN	Function enabled	
P10	PIN code value	000-xxx	user PIN	000
P11	Require a PIN to unlock the keys every time (function active when P09=PIN)	NO	No	NO
		YES	Yes	
P12	Type of schedule	0	One schedule for the entire week	0
		1	Separate schedule for each day of the week	
CLR	Clear settings factory reset	NO	No action	NO
		YES	Factory Reset	

9. Factory reset

To RESET Thermostat to factory settings, hold down the – and + buttons until the „FA” message appears. Then release the keys. Then use the - or + button to change “NO” to „YES” and confirm with ✓ button. Thermostat will restart, will restore the default factory settings and display the main screen.

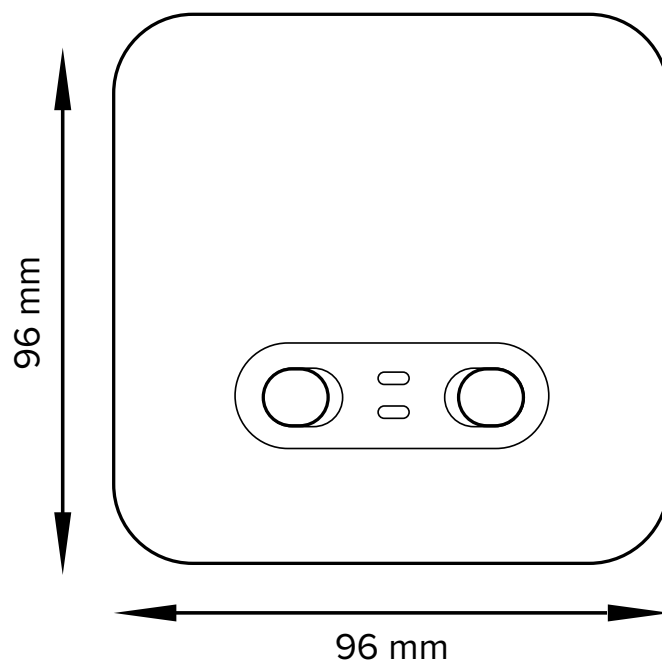
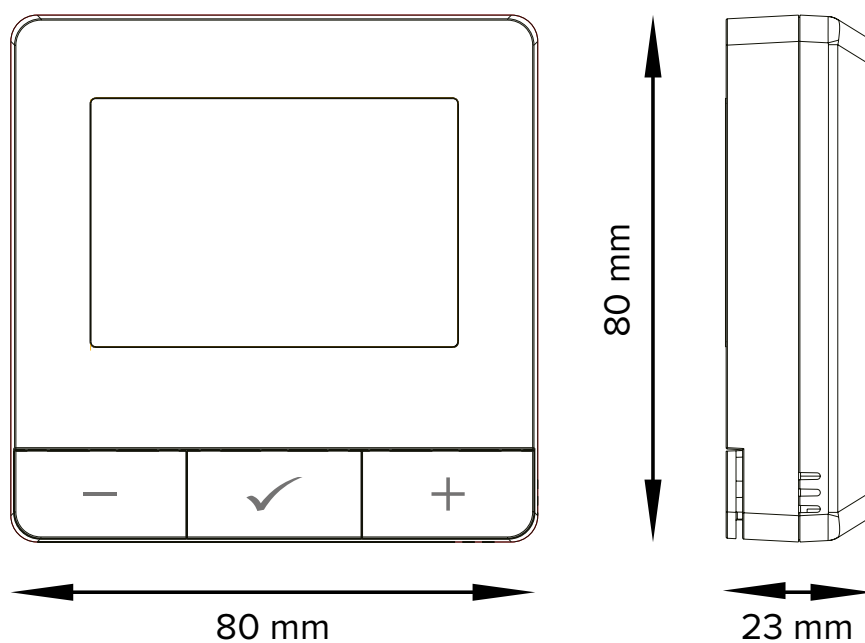


10. Cleaning and Maintenance

The E7 thermostat does not require any special maintenance. Do not use brushes, washers or other tools that may scratch the surface of the thermostat for cleaning and maintenance of the surface, and do not use abrasive or foaming agents, as well as aggressive substances containing acids, chlorine or its compounds, solvents or bleaching agents, as this may damage the thermostat. Always clean the display and buttons with a damp, soft cloth. Plastic surfaces can also be cleaned with colorless, mild cleaning agents. Do not spray cleaner directly onto the device. After washing the surface, you can gently polish it with a soft, dry cloth. There are no user serviceable / replaceable parts inside. Service or repair may be performed only by an authorized ENGO Controls service.

11. Technical data

Thermostat supply	2 x AA batteries
Receiver supply	230 V AC 50 Hz
Max load of the receiver	16 (5) A
Receiver outputs	Voltage-free NO/COM relay
Temperature range	5 - 35°C
Display temperature accuracy	0,1 or 0,5°C
Control algorithm	TPI or Histeresis ($\pm 0,2^{\circ}\text{C}$ do $\pm 2^{\circ}\text{C}$)
Communication	Wireless, 868 Mhz
Dimensions [mm]	thermostat: 80 x 80 x 22, receiver: 96 x 96 x 27



12. Warranty

ENGO CONTROLS warrants this product to be free from any defects in material or workmanship and to perform as specified for a period of five years from the date of installation. ENGO Controls reserves the sole responsibility for breach of this warranty by repairing or replacing the defective product. This product includes software that matches the distributor's identification at the time of sale. The manufacturer / distributor provides a guarantee covering all functions and specifics of the product in accordance with this marking. The distributor's warranty does not cover the correct operation of the functions and features available as a result of a product software update.



Customer name:

Customer address:

..... Postcode:

Tel No.: Email:



Company name:

Tel No.: Email:

Installation date:

Installer Name:

Installer's signature:

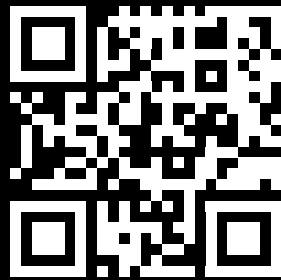




Ver. 1.0
Release date: VIII 2025
Soft:
E7-TX: v0.6
E7-RX: v1.0



Producer:
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