

WIRELESS SENSOR OF ROOM TEMPERATURE CTP-02R







Index

1 General information	4
1.1 Introduction	4
1.2 Elements of the set	4
1.3 Precautions	5
1.4 Procedure with the used equipment	6
2 Connecting to the system	6
2.1 Electrical wiring	6
2.2 Location	6
2.3 Connection to the controller	7
2.3.1 IGNEO Wall (Platinum Bio)	8
2.3.1 IGNEO Wall (Platinum Bio)	8
2.3.2 IGNEO Slim	9
2.3.2 IGNEO Slim	9
2.3.3 IGNEO Compact	10
2.3.3 IGNEO Compact	10
2.3.4 Settings in the controller of boiler	11
2.3.4 Settings in the controller of boiler	11
3 Utilization	11
3.1 Signal LEDs	11
3.2 Adjustment of temperature	11
4 Non-standard configuration	12
4.1 Switches	12
4.1.1 Addressing	12
4.1.1 Addressing	12
4.1.2 Change of transmission mode	13
4.1.2 Change of transmission mode	13
4.1.3 Selection of controller	14
4.1.3 Selection of controller	14
4.2 Calibration	14
5 Specification	15

1 General information

1 General information

Thank you for choosing our product. We congratulate you on making a good decision. We welcome any remarks on the operation of device.

> *Team ESTYMA electronics*

1.1 Introduction

First of all, the objective of device is to measure the room temperature. The controller is also used for a smooth change of temperature in the room. You can increase or lower the temperature by $3,5^{\circ}$ C specified in the settings of controller. You can adjust the temperature in the room in a fast and convenient way. The set consists of transmitter and receiver, which provide wireless communication. Due to addressing application, a parallel operation of up to 8 transmitter-receiver sets in the same residential building is possible. The transmitter is powered by 2 AAA batteries. The device operates correctly in the range from 0 C to 50 °C.

The controller operates only with the most modern controllers of Estyma company, starting from, Platinum Bio series. It is operated not only by the main controller, but also by CAN I/O expansion units. Due to this fact, it is possible to adjust the temperature in each of the rooms freely depending on the system configuration.

The controller is not fit for the operation with the controllers of earlier generation and devices made by other manufacturers.

1.2 Elements of the set

- 1. Wireless controller (transmitter) of room temperature
- 2. Wireless receiver of room temperature
- 3. Set of screws and installation pins



1.3 Precautions

- Before you start to operate the device, read the whole attached user's guide carefully.
- Keep the user's guide and refer to it in case you operate the device in future.
- Observe all the rules and warnings included in the user's guide.
- Make sure the device is not damaged in any way. In case of doubt, do not operate the device and contact the supplier.
- In case of doubt concerning a safe operation of device, contact the supplier.
- Special attention should be paid to warning signs, housing or packaging of device.
- Operate the device according to its intended use.
- The device is not a toy, children should be prohibited from playing with it.
- On no account can children play with any part of the packaging of this device.
- Children should be prevented from accessing small parts, for example, clamping screws, pins. These elements can be found on the equipment of device supplied and in case of swallowing they can lead to the choking of child.
- No mechanical or electrical moddifications can be made in the device. Such modifications can cause the wrong operation of device, incompatible with standards or they can influence the operation of device in a negative way.
- No objects should be put into the device through gaps (for example ventilation gaps). This can cause short circuit, electrical shock, fire or damage to the device.
- Make sure that no water, moisture, dust and dirt gets into the device. This can cause short circuit, electrical shock, fire or damage the device.
- Make sure the device is ventilated properly, do not cover ventilation holes and provide a free flow of air around it.
- The device should be installed inside the rooms.
- Make sure that the device is not exposed to impacts and vibrations.
- Connecting the device, make sure that electric parameters of power supply network are within the operation range of device.
- Any connections must be compatible with the installation electrical wiring diagram and with national, or local regulations relating to electrical connections.
- There is no part in this device that can be replaced by the user himself. All service operations except cleaning and setting up the function, should be carried out by the authorized service staff.
- Before starting any maintenance operations, you must absolutely disconnect the device from power supply.
- No benzine, solvents or other chemical agents, which can damage the housing of device, can be used for cleaning the device. A soft cloth is recommended for this purpose.

1 General information

1.4 Procedure with the used equipment

The electronic device was made from materials, which are good for recycling only in part. That is why, the device must be returned to the recovery and recycling place of electrical and electronic equipment or handed over to the manufacturer. The device must not be disposed of with other household rubbish.



2 Connecting to the system

2.1 Electrical wiring

Before you start to operate the device, read the whole attached user's guide carefully.

The person who carries out the installation must have technical experience. Connections made with the copper cable should be adapted to the operation at a temperature of up to +75°C.

All the connections must be compatible with the installation electrical wiring diagram and national or local regulations about electrical connections.

2.2 Location

The device is intended for the installation only in enclosed spaces. After choosing the place of installation, make sure it meets the following conditions:

- 1. The installation place must be free of excessive moisture and flammable vapuors or vapours causing corrosion.
- In the place of installation the temperature of ambient cannot exceed 60°C and it should not be lower than 0°C. Moisture should range from 5% to 95% without condensation.



- 3. The controller should be installed on the wall in the room, which is representative for a particular heat circuit. In the installation place there should be a free circulation of air and the place should be away from heat sources, for example, electronic equipment, fireplace, heater or direct insolation. It is recommended that the controller be mounted at a height not less than 1,5 m over the floor.
- 4. The receiver should be mounted near the controller.

2.3 Connection to the controller

In the figure below you will find a general operation diagram of CTP-02R set with controllers of IGNEO line.





2.3.1 IGNEO Wall (Platinum Bio)

- 1. Disconnect the controller from the power and remove batteries from the transmitter.
- 2. Connect the receiver to the controller according to the diagram above.
- 3. Activate the controller and replace batteries in the transmitter.
- 4. In the controller, enter the heating function and indicate "CTP2" as a sensor of room temperature (step-by-step instruction is presented in point 2.3.4 on page 11)
- 5. End of installation. You can operate the controller.

SIGNAL LEDs: When installed correctly the red LED of transmitter should flash briefly every 1,5 minute (sends information). The green LED of receiver should light up after it has received the information from the transmitter. If the set does not operate correctly in spite of correct signalling, you should remove and replace the batteries in the transmitter.

Content



- 1. Disconnect the controler from the power and remove batteries from the transmitter.
- 2. Open the housing of receiver and set the switch number 4 to the OFF position.
- 3. Close the housing of receiver and connect the receiver to the controller according to the diagram above.
- 4. Activate the controller and replace batteries in the transmitter.
- 5. In the controller, enter the heating function and indicate "CTP2" as a sensor of room temperature (step-by-step instruction is presented in point 2.3.4 on page 11)
- 6. End of installation. You can operate the controller now.

SIGNAL LEDs: When installed correctly, the red LED of transmitter should flash briefly every 1,5 minute (sends information). The green LED of receiver should light up after it has received the information from the transmitter. If the set does not operate correctly in spite of correct signalling, you should remove and replace the batteries in the transmitter.

2.3.3 IGNEO Compact





- 1. Disconnect the controller from the power and remove the batteries from the transmitter
- 2. Connect the set to the controller according to the diagram above.
- 3. Activate the controller and replace batteries in the trnasmitter.
- 4. In the controller, enter the heating and indicate "CTP2" as a sensor of room temperature. (step-by-step instruction is presented in point 2.3.4 on page 11)
- 5. End of installation. You can operate the controller now.

SIGNAL LEDs:: When installed correctly, the red LED of transmitter should flash briefly every 1,5 minute (sends information). The green LED of receiver should light up after it has received the information from the transmitter. If the set does not operate correctly in spite of correct signalling, you should remove and replace the batteries in the transmitter.



2.3.4 Settings in the controller of boiler

After the receiver has been connected correctly, you should select" CTP2 " in the controller of central heating boiler as a sensor of temperature. From the main display enter the functions one by one : Heating->Circuit n (number)->Service->Enter password > Room sensor>Select CTP2.

3 Utilization

3.1 Signal LEDs

TRANSMITTER

- LED flashes sending data, takes every 1,5 minute in the normal mode, in continuous transmission mode– every second.
- LED flashes all the time presumably the transmitter has been suspended, so the battery should be removed and replaced.

RECEIVER

- LED flashes for 20 seconds every 1,5 minute the receiver gets the adjusted temperature from the transmitter in the normal mode every 1,5 minute.
- LED flashes every second the receiver gets data all the time, presumably the transmitter is in continuous transmission mode.
- LED flashes twice (for a short and long time) every 5 seconds the receiver has not received any data for 30 minutes.

3.2 Adjustment of temperature

You can adjust the temperature using the knob. Neutral setting is a default location, which does not have any impact on the temperature set up. The temperature is sent to the receiver every 1,5 minute.





Turning the knob to the right will increase the temperature in the room by 3,5 °C in the highest point. Turning the knob to the left will lower the temperature, maximum by 3,5 °C. If the knob is not in neutral position, then the values of temperature measured – shown on the controller, will be different than the real ones. This is the correct operation of controller.

4 Non-standard configuration

4.1 Switches

The transmitter and receiver are pre-configured in the factory to the operation with controllers IGNEO Wall (Platinum bio) and IGNEO Compact. Four switches placed inside the transmitter and receiver, which are designated with number from 1 to 4, change standard settings – for example, to increase the number of CTP-02R sets, or to change transmission or indications of controller.

4.1.1 Addressing

Addresses are determiend by the combination of the settings of three first switches in the transmitter and receiver. Addressing makes a parallel operation possible of up to 8 sets of transmitter-receiver in the same residential building. The same address in the transmitter and receiver should be set up to have the correct communication. Below you will find the xample of addressing and the table with all addresses:





TABLE OF ADDRESSES

Address	Switch 1	Switch 2	Switch 3
0	OFF	OFF	OFF
1	ON	OFF	OFF
2	OFF	ON	OFF
3	ON	ON	OFF
4	OFF	OFF	ON
5	ON	OFF	ON
6	OFF	ON	ON
7	ON	ON	ON

4.1.2 Change of transmission mode

Switch number 4 is used to change the transmission mode. Cyclic transmission every 1,5 minute is set for the switch in the (ON) mode . Continuous transmission is set for the switch in the (OFF) mode.



NOTE! The mode of continuous transmission absorbs the current from battery more quickly, that is why it is recommended to set the transmitter in cyclic transmission mode.

4.1.3 Selection of controller

In order to indicate what controller the set is to operate with, it is necessary to set the switch number 4 in the receiver in the right way.

- As regards the switch in (ON) mode, the set operates with IGNEO Wall (Platinum Bio) and IGNEO Compact.
- As regards the switch in (OFF) mode, this is the IGNEO Slim, expansion unit I/O and I/O Board Pro.

4.2 Calibration

Calibration involves the setting of the receiver's potentiometer in such a way that the controller shows the right temperature. Calibration can be made using two methods.

• The first method

invloves the calibration of receiver so that it shows the temperature sent by the transmitter. In this case, the switch in the transmitter number 4 should be in the (OFF) mode, and then you should remove and replace the battery. At that moment the transmitter will send the temperature of 23 °C in the continuous transmission mode and the receiver is calibrated up to this temperature.

• The second method:

calibration is made in relation to reference temperature, the source of which is the external source of information about temperature. Switch number 4 should be set in the (OFF) mode and the transmitter need not be reset. However, it is necessary to set the room controller in neutral position. At that moment it is necessary to turn the calibration using the screwdriver so that the temperature corresponds to the reference temperature.



5 Specification

Transmitter			
Ambient temperature allowed	0-60°C		
Scope of temperature adjustment	+/- 3,5°C		
Dimensions (length x height x width)	71mm x 25mm x 71mm		
Spacing of mounting holes	60mm		
Weight of controller	52g		

Receiver			
Ambient temperature allowed	0-60°C		
Dimensions (length x height x width)	40mm x 30,3mm x 64mm		
Spacing of mounting holes	50,8 mm x 26,8 mm		
Weight of controller	38g		

CE

Manufacturer:

Estyma electronics al. Lipowa 4 11-500 Giżycko POLAND tel. +48 87 429 86 75 fax +48 87 429 86 75 biuro@estyma.pl



www.estyma.pl

