

User Manual Wireless System Transmitter WR-2-TX

Installation, maintenance, operation, safety

Particular attention in the design process was devoted to the quality standards of the device, where the most important factor is the safety of use.

The device should be installed by a qualified installer.

Do not open the device. There are no user-serviceable parts inside. Service work may only be performed by qualified service!

Before connecting the device to the power supply, check that the supplied voltage complies with the rated voltage specified in the manual.

If this product is defective it should not be used until it is repaired.

Ensure free air flow through the ventilation slots.

Do not allow foreign objects to enter the device through the ventilation slots. It may cause fire, electric shock, or product failure.

Protect the device from moisture, and do not expose the product to direct sunlight or other heat sources.

Handle the product with care. Vibration, impact or a fall from a short height can damage the device.

Unauthorized persons (including children) must not be allowed to the device.

Avoid using this device during a thunderstorm.

Warning! We recommend using protections in order to additionally protect the device against possible effects of overvoltages in the installations. Overvoltage protections are effective protection against accidental applying of voltages higher than the rated voltage to the device. Damage caused by applying voltages higher than those specified in the manual are not subject to warranty repair.

The manufacturer reserves the right to introduce design and technological changes which do not lower the quality of the product.

Correct disposal of the product:

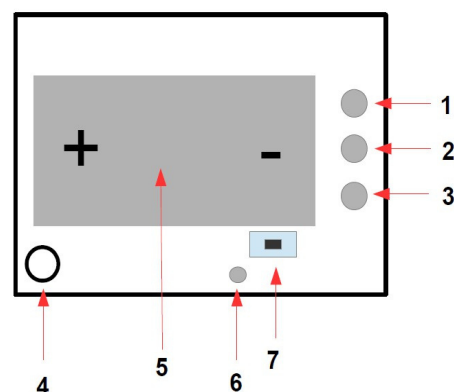
The marking with the crossed out bin indicates that this product cannot be disposed of with other household waste throughout the EU. To avoid possible risks to the environment or health from uncontrolled waste disposal, it should be sent for recycling, thus promoting the sustainable use of natural resources. To return a used product, use the collection and storage system for this type of equipment or contact the seller from which it was purchased. It will then be recycled in an environmentally friendly manner.



The WR-2-TX system, consisting of a transmitter and a receiver, enables wireless control of devices using the ISM 433 MHz band. The device is powered by one 1/2 AA (14250) 3.6 V battery. It works with WR-2-RX receiver. The transmitter has two independent channels.

1. Device description

1. Input No. 1
2. Input No. 2
3. Device ground
4. Bi-color LED
5. Place for battery type 1/2 AA 3.6 V
6. Antenna
7. Programming button



Technical specification:

Number of inputs (channels)	2
Working frequency	433.05 – 434.79 MHz
Power supply	Battery type 1/2 AA (14250) 3.6 V
Operating range	300 m (in open area)
Working temperature range	-20 °C ... 60 °C
Dimensions	38 x 30 x 20 mm

2. Operating modes

The device can work in one of three operating modes: monostable, bistable and time-based. To check the current mode, briefly press the programming button.

Monostable mode – shorting to the ground of the transmitter input causes switching on the relay in the receiver. Disconnecting the ground from the transmitter input switching the relay off.

Bistable mode – single short-circuit of the input to the ground causes the change of the relay operation state.

Time-based mode – shorting the input to ground causes switching on the relay output in the receiver for a predefined time. The time is counted from the moment the input is shorted to the ground.

3. Configuration mode

To switch the device into the configuration mode, press the programming button and hold it for 3 seconds until the LED changes its color from green to red.

The LED turns off when you enter the programming mode.

Switching between operating modes is done with the programming button. A short press changes the operating mode of the transmitter. Each time the mode is changed, the device signals the current operating mode.

Number of diode flashes	Operating mode
1	bistable
2	monostable
3	time-based

To exit the configuration mode, press the programming button and hold it for 3 seconds until the red LED turns off.

3.1 Enabling/disabling confirmation mode

The system can use two-way communication with acknowledgment of receipt of commands. By default, the confirmation system is disabled.

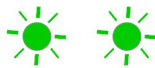



To enable/disable the confirmation mode:

1. Start the configuration mode (press and hold the programming button on the remote control for 3 seconds until the LED changes its color from green to red).
2. The confirmation system is activated globally for all operating modes simultaneously, and the enabling/disabling is available for two modes: monostable and bistable.
3. Being already in monostable or bistable mode, select the operating mode using the inputs in the transmitter:
 - shorting to the ground of input no. 2 enables confirmation,
 - shorting to the ground of input no. 1 disables confirmation.

A description of how confirmations work:

While the system is in operation, if the transmitter does not receive a confirmation from the receiver, the transmitter makes two more attempts to send the command.

Signaling description is performed by flash codes. The signaling method is presented in the table:

	LED signaling	Description
		
		Transmission confirmed successfully
		Transmission confirmed successfully after one unsuccessful transmission
		There is no confirmation of receiving transmission from the receiver

3.2 Settings in time-based mode

In the time-based mode, you can change the activation time of each of the two relays in the range from 1 to 255 seconds. Settings of this time are made in the time-based mode, by means of inputs in the transmitter.

To set the time of switching on the relay:

1. Start the configuration mode (press and hold the programming button on the transmitter for 3 seconds until the LED changes its color from green to red).
2. Select the time-based mode with the button (the time-based mode is indicated by the green LED flashing three times).
3. Being in the time-based mode, set the times for each input (one LED's blinking means increasing the time by 1 second):
 - shorting the input no. 1 to the ground increases the ON time of the relay no. 1 by 1 second,
 - shorting the input no. 2 to the ground increases the ON time of the relay no. 2 by 1 second.A longer short-circuit of the input allows the time to be increased four times faster. Shorting the input for 1 second increases the time by 4 seconds (e.g. to set the time to 60 seconds, you must shorting the input for 15 seconds).