

PY 502

REMOTE
CONTROLLER
RADIO 8

Manual



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1. GENERAL DESCRIPTION

8-button remote control PUK 188 works with receiver type RSU-K04 from GORKE company. Systems built with this remote and the receiver can reach a range of up to 150 meters, during work in the open space (no obstacles between the remote and the receiver).

Receiver installation conditions.

It is recommended to mount the receiver as high as possible and away from any metal or electrical devices, because superreactive receiver is sensitive to any electromagnetic interference. In conditions of high electromagnetic interference we suggest using superheterodyne receivers such as IDO type. RSU-KO4 receiver should be installed in dry and closed places.

Transmission code.

Based on hopping code (KeeLoq ® Microchip Technology Inc. U.S.) ensures the high safety. Each transmission is different from the previous one. The main condition for proper work is writing of a remote control to receivers' memory.

The remote control can be programmed to an unlimited number of receivers. After "loosing" 15 consecutive transmissions (e.g. using the remote control out of range of the receiver) you need to send a signal twice (press 2x button of the remote control).

Frequency.

The device works on 433.92 MHz frequency. This band in most countries of EU (including Poland) does not require any special permits and licenses to operate.

2. DESCRIPTION OF CONNECTORS AND CONTROL ELEMENTS

APPLICATION OF ELEMENTS

- LEARN (NAUKA) button - used to run the programming procedures
- the operation LED - indicates the status of the on / off relay, and the frequency of its work program signals the programming
- jumper - to select the contacts moved to the terminal block

The receiver has a button that signals the opening of the housing which contacts are wired to the terminal block (SAB).

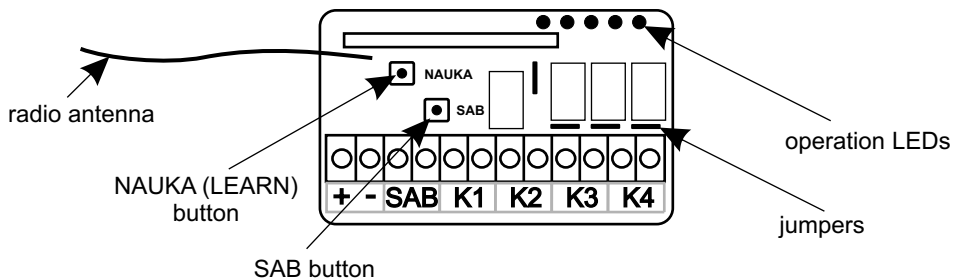
Relay outputs assigned to individual channels can be NO or NC output depending on the set jumpers for the selected channel. Default jumpers are set in the NC position.

In case of using this device with other PXM company products it should be set into NO mode.

Factory default operating mode:

- 1st channel - bistable
- 2nd channel - bistable
- 3rd channel - bistable
- 4th channel - temporary

Time for momentary mode is programmed at the factory to ~ 3s for each channel.



3. PROGRAMING OF THE RECEIVER

3.1. Registration the remote control in unit memory

- press the "LEARN (NAUKA)" button for at least 1 second but less than 3 seconds
- the receiver lights all LEDs - release the "LEARN (NAUKA)" button
- using button "LEARN (NAUKA)" select the channel you want to assign the remote control button
- press the remote control button, which is supposed to control the selected channel
- the LED of the selected channel flashes - release the remote control button
- then press the remote control button (the same as in point 4th)
- the receiver will blink with all the LEDs and then it turns them off signaling properly carried out and successful registration of the button
- check the operation of the remote control. If the receiver does not blink all the LEDs means that the button has not been entered into the memory of the receiver which may be because:
 - the button has already been entered in the receiver's memory
 - the time waiting for a signal from the receiver's remote control (approx. 8s) has passed

NOTE! The receiver can memorize upto 40 buttons. Entering the 41st button will erase the button programmed as the first, etc. If you lose the remote control you need to delete only the one of the channel in which he worked lost remote control. The data channels are erased all pilots, also currently used and must be re-registered in the memory. For systems with more users, we recommend using a 4-channel receiver type IDO 500 (memory capacity: 500 transmitters).

3.2. Erasing remote controls in the selected channel of receiver

Delete procedure erases all previously registered remotes, does not change the mode and time of each channel output signals of monostable mode.

Delete procedure undergoes as follows:

- press the "LEARN (NAUKA)" button for longer than 8 seconds
 - all the LEDs will start to blink, after a while they will blink more quickly, wait until they will light up permanently - release the "LEARN (NAUKA)" button
 - all the LEDs will go out - release the "LEARN (NAUKA)" button
 - validate the deletion process
1. Please note that the deletion applies to the entire contents of the memory. If you want to remove only one or a few remote controls, why must re-enter those which are to be preserved.
 2. If, with a large number of users, you want to avoid the cumbersome process of programming, you can use one of the identifying receivers (their parameters allow for deleting remote controls separately).
 3. Disconnection of the power supply does not cause loss of information about entered remote controls and operation of the receiver.

3.3. Changing the operating mode of relays

All channels of the receiver RSU-K04 MULTI can operate in any of four modes:

- bistable mode - each press of a button changes the state of the relay to the opposite
- monostable mode - pressing the button switches relay on for a preset time
- **temporary mode** - the relay remains switched on for all the time until it receives proper (undistorted) signal from the remote control, letting go of the button turns off the relay (e.g. signal interference pressing another remote also turns off the relay).

If you connect the receiver to PXM company product choose temporary mode for all channels.

- two-button mode - In this mode, the relay can be switched by pressing the odd code (1,3,5,7,9,11,13) is assigned to the channel, while the relay is switched off after receiving a signal from the key even numbered (2,4,6,8,10,12,14). To use this mode, enter the channel at least two buttons, one even-code, one of the odd.

NOTE: In the event that you enter only the button to an even number of the channel (receiver correctly signaled the end of study procedures) and will not response when you press the button, it may mean that the channel is set to the dual-button mode.

To change the operating mode of the channel is required pilot programmed the channel button.

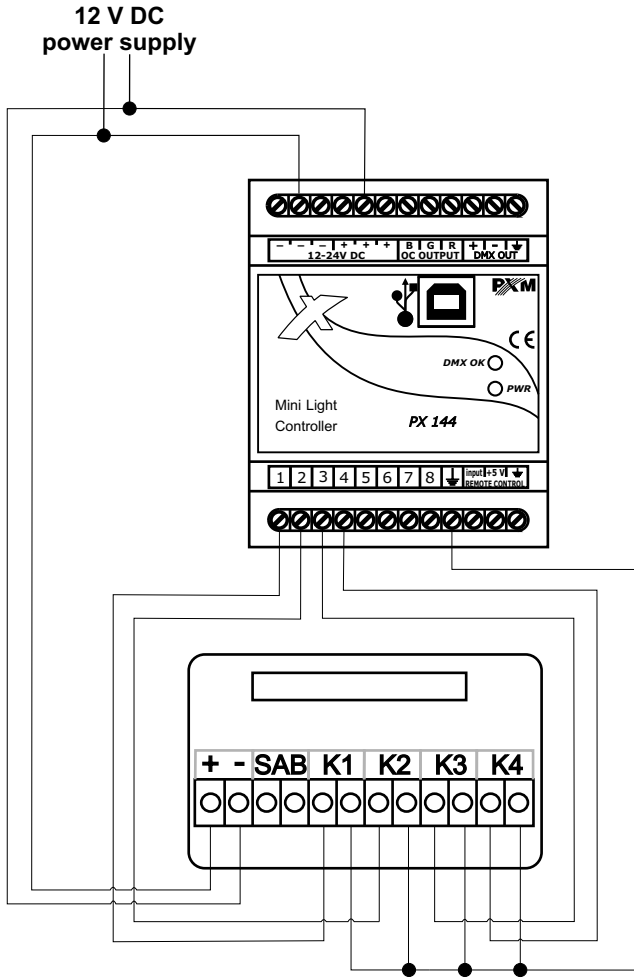
The procedure changes the mode undergoes as follows:

- press the "LEARN (NAUKA)" button for more than 3 seconds and less than 5 seconds;
- all LEDs will blink - release the "LEARN (NAUKA)" button;
- using "LEARN (NAUKA)" button select the desired mode:
 - the K4 and K1 LED is on - bistable mode;
 - the K4 and K2 LED is on - monostable mode;
 - the K4 and K3 LED is on - temporary mode;**
 - the K4 LED is on, others are off - dual-button mode;
- press the button is assigned to a channel which mode you want to set;
- the operation is confirmed by three-time switching on of all channels.

If you connect the receiver to PXM company product choose temporary mode for all channels.

4. CONNECTION SCHEME

an example radio receiver connection to the controller (e.g.PX144) available in the PXM company offer



5. TECHNICAL DATA

a) receiver specification

- Power supply	nominal	12 V DC
	max	10-15 V DC
- Current consumption	standstill	22 mA
	max	104 mA
- Relays load capacity		1A/ 30 V DC
- Relay output		4
- Relay work mode		monostable, bistable, temporary
- Time range of mono mode		~ 1 s - 4 min 15s
- Sensitivity		-100dBm
- Operating temperature range		from 0 to +40° C
- Dimensions		48x68x26 mm
- Working range		100 – 500 m.*



* range, depending on the type of transmitter

b) remote control (transmitter) specification

- frequency		433.92 MHz
- transmission		coded (hopping code KeeLoq ® Microchip Technology)
- number of buttons		8
- transmitting power		<5mW
- power supply		2xbattery 12V
- dimensions		158x38x17 mm
- casing color		gray
- cooperation		with any GE receiver
- range of work		with rec. RSU-K04 max. 150 m

* Operating range in open space (without obstacles between the transmitter and receiver)