

# PG - 4 Guard

PG-4G is a 12-channel transceiver of panic signals transmitted from or to other PG-4G units. The panic transmission can be triggered by the remote controls (RC-11, RC-22, RC-28).

If the unit is triggered by the remote control it will send the signal to other units that have been enrolled to the one, which is transmitting the panic signal. The received signal is indicated by the corresponding LED diode placed on the front panel of the unit. By the position of the active LED diode is to be found from which unit (place) the signal was sent. Activation can be also indicated by the built-in buzzer (depending on a jumper BUZZER) or by an external siren, flashing light, telephone dialer etc.

It also cooperates with a pocket receiver PG-4R. Every panic signal is sent to all enrolled PG-4G units as well as to the receivers PG-4R.

## Specification

Power supply:	12 V DC
Stand-by consumption:	55-100mA
Maximal supply current:	0,5 A
Max output load:	12 V, max. 250mA
Output OUT for TD-101connection	12 V, max. 5mA
Dimensions:	188 x 135 x 40 mm (without antenna)
Working environment:	indoor use (class II)
Working temperature:	-10 to +40°C

### Built-in receiver of the remote controls

Compatible remote controls:	RC-11, RC-22, RC-28
Number of controllers:	up to 30
Coding:	digital, each remote control has a unique floating code
Working distance:	depending on the remote control - Max 100m open area
Operating frequency:	433.9 MHz, ISM EN 300220

### Built-in receiver/transmitter for communication with other units PG-4G

Number of cooperating units:	up to 13
Coding:	digital
Working distance:	up to 2 km (open area)
Operating frequency:	448.17 MHz
Transmitting time	3 sec.
Radiated power	0.5 W
External antenna (optional)	Yes, type AN-01A, AN-02, AN-03

### Wireless local indication of the activation (optional)

Compatible receivers:	PG-4R, PG-4M
Number of receivers:	unlimited
Working distance:	up to 2 km (open area)
In Norway and Belgium can be operated according to ERC REC 70-03 as e SRD.	



Hereby, Jablotron Ltd. declares that this PG-4G is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Original of the conformity assessment can be found at the web page [www.jablotron.cz](http://www.jablotron.cz), section Technical support.

**Note:** Although this product does not contain any harmful materials we suggest you to return the product to the dealer or directly to the producer after usage.

## Installation

The metal case should be installed on a wall with its antenna in a vertical position. The unit should not be installed close to any metal structures or other objects obstructing radio signal transmission. Route the wires through the hole in the rear part of the housing. Attach the case to the desired place using the provided screws.

### Terminal description:

<b>+12V, GND</b>	DC power input 12 V DC
<b>OUT</b>	Output for a telephone dialer (TD-101) activation, connected to ground in case of the alarm, max. load 5mA)
<b>SIR</b>	output for external indication 12V / 250mA max, timeout 60 minutes
<b>+U, GND</b>	DC power output 12 V DC 100mA max

## Indicators and controllers for installation/service

The indicators 1-12 on the cover indicate the status of the unit during the learning mode. Buttons ▲ and ▼ (up or down) are used to control the learning mode (see figure 1).

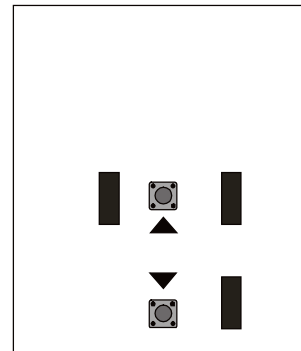


figure 1

Other controlling buttons/jumpers are placed on the main board (see figure 2):

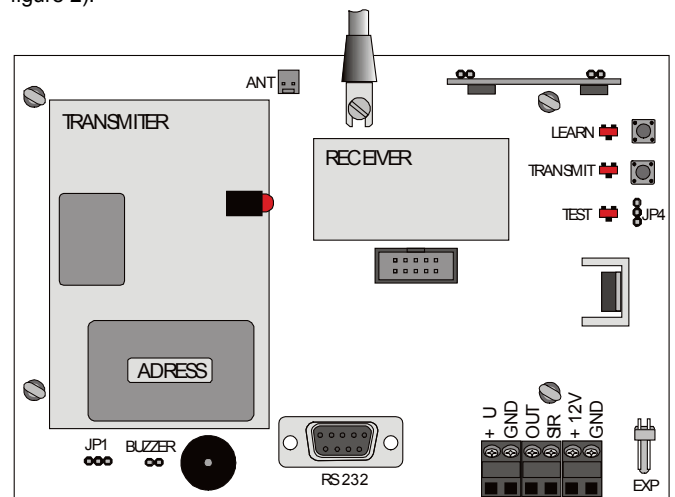


figure 2

Button <b>LEARN</b>	to enroll the remote controls
LED <b>LEARN</b>	indicates opening of the enrollment mode
LED <b>TEST</b>	indicates activation of enrolled remote control in the test mode (JP1)
Button <b>TRANSMIT</b>	to transmit the enrolling signal to other PG-4G units
LED <b>TRANSMIT</b>	indicates the transmission of PG-4G
Jumper <b>JP1</b>	right position – if the unit is triggered by the panic button it will start transmitting to other PG-4G units as well as to the local receivers PG-4R if there are any left position – if the unit is triggered by the panic button it will start transmitting only to other PG-4G receivers
Jumper <b>JP4</b>	Close upper and middle pins to test the remote controls Open – normal function
Jumper <b>BUZZER</b>	Close – to switch ON the built-in buzzer Open – to switch OFF the built-in buzzer
<b>RS-232</b>	connector for PC connection (RS-232)
<b>ANT</b>	AN-01A external antenna connector (when AN-01A is used, the rod antenna must be disconnected)
<b>EXP</b>	connector for external communication

## Recommended procedure of setting

1. First of all enroll the remote controls to each unit.
2. If any receivers PG-4R (M) are used enroll them after that.
3. Enroll other PG-4G units.

When any other remote control or receiver PG-4R is being enrolled the panic signal will be transmitted to all cooperating units. Please do not forget to announce it to all cooperating units prior to any action.

## 1. Enrolment of the remote controls

By pressing the LEARN button open the learning mode. Flashing LED diode LEARN indicates the learning mode. Press the button on the remote control. Correct enrollment is indicated by a long shining of the LED diode LEARN. The learning mode is closed automatically. If it is needed to enroll another remote control the learning mode must be open by the LEARN button again.

### Notes:

- A newly enrolled RC button is added to previously enrolled ones
- When 30 remote controls are enrolled no other remote can be added
- Double flashing of the LED indicates a full memory
- A learning mode will be closed when an RC button is enrolled, or automatically after 10 seconds.
- When the power is disconnect the codes of the remote controls will remain in the memory

### Test of the remote controls:

By closing the jumper TEST (upper and middle PIN) the unit will be switched to the special testing mode. In this mode the reaction to the signal from the remote controls will be audible (built-in buzzer) but it will not transmit any signal to other units.

**Note:** during normal operation period the jumper TEST must remain open otherwise no panic signal will be sent.

### Erasing of the remote controls:

Press the button LEARN to open the learning mode. Press and hold the LEARN button for 5s to erase all the remote controls – confirmed by 4 quick flashes of LED diode LEARN.

## 2. Enrolment of the pocket receiver PG-4R

For local indication of the panic signal the pocket receiver PG-4R or PG-4M can also be used. The receiver is activated by transmission from any units PG-4G (depending on position of jumper JP1 also from the local unit).

Press and hold the button on the receiver when installing the battery. After about 5 seconds you will hear an acoustic signal and the indicator will start flashing (learning mode). Press the TRANSMIT button inside of the PG-4G unit to transmit the learning signal.

Number of attached receivers PG-4R/M is unlimited.

## 3. Enrolment of other PG-4G units

LED diodes 1 to 12 are used for better orientation in the learning mode (see tab. 1).

LED 1 - 12	Description
Off	Channel is not used (no transmitter is enrolled)
Flashing Red	Learning mode to enroll a unit
Steady Green	Channel has a unit enrolled (no activation)
Flashing Green / Red	Selected channel is already occupied
Light Red For 1s	Channel has been activated by cooperating unit

tab. 1

### Enrollment of other PG-4G units

Using button ▲ or ▼ (up or down) open the learning mode and select desired position (current channel will be indicated by its LED diode flashing). By pressing the TRANSMIT button or previously enrolled remote control activate the PG-4G unit, which you want to enroll. Enrollment will be confirmed by a shining LED diode for 1s following by automatic closing of the learning mode.

### Erasing of enrolled units

- Using button ▲ or ▼ (up or down) open the learning mode and select the desired position (LED diode is flashing-Red/Green).
- Press RESET on the front panel.

### Notes:

- Only one unit can be enrolled to each channel
- If it is needed to change the position of any unit it must be erased from its original position first.
- Timeout of learning mode is 5 minutes
- When the power is disconnect the codes of other units will remain in the memory

## Operation

The green LED AC indicates presence of the power supply.

LED diodes 1 to 12 indicate the status of other enrolled units (see tab. 2):

LED 1 - 12	Description
Off	Channel is not used (no transmitter is enrolled)
Steady Green	Channel has a transmitter enrolled (no activation)
Steady Red	Channel has been activated

tab. 2

When the panic signal is received it will be indicated by:

- A red light of corresponding LED diode
- An audible signal from built-in buzzer (if the jumper BUZZER is closed)
- An external device connected to the contact SIR (12V/250mA) – this output will be deactivated in 60 minutes or when the button RESET is pressed
- An external device connected to the contact OUT (12V/5mA max) – this output will be deactivated in 1 minute
- Local receiver PG-4R (if there is any and depending on setting of jumper JP4)

The reset button placed on the cover is used for confirmation of received signals.

When the unit is triggered by the remote control the panic signal will be sent immediately to all cooperating units as well as to the local receiver PG-4R (if there is any and depending on setting of jumper JP4) but it will not cause any obvious reaction directly on the unit, which has been triggered.

For more reliable transmissions between the cooperating units there is a delay of each transmission based on enrolled position of the units. This delay assures that the units will not start transmitting at the same time. Also the reaction of the pocket receivers PG-4R will slightly vary (approximately 30seconds depending on number of PG-4G units in the set). For that reason it is recommended to enroll every unit according to table 3 (each unit must be enrolled at different position).

If the enclosed setting software is used it will be done automatically.

Position	1	2	3	4	5	6	7	8	9	10	11	12
PG-4G n.1	13	12	11	10	9	8	7	6	5	4	3	2
PG-4G n.2	1	13	12	11	10	9	8	7	6	5	4	3
PG-4G n.3	2	1	13	12	11	10	9	8	7	6	5	4
PG-4G n.4	3	2	1	13	12	11	10	9	8	7	6	5
PG-4G n.5	4	3	2	1	13	12	11	10	9	8	7	6
PG-4G n.6	5	4	3	2	1	13	12	11	10	9	8	7
PG-4G n.7	6	5	4	3	2	1	13	12	11	10	9	8
PG-4G n.8	7	6	5	4	3	2	1	13	12	11	10	9
PG-4G n.9	8	7	6	5	4	3	2	1	13	12	11	10
PG-4G n.10	9	8	7	6	5	4	3	2	1	13	12	11
PG-4G n.11	10	9	8	7	6	5	4	3	2	1	13	12
PG-4G n.12	11	10	9	8	7	6	5	4	3	2	1	13
PG-4G n.13	12	11	10	9	8	7	6	5	4	3	2	1

tab. 3 table of the enrolled position of the PG-4G units

## Description of the setting software PG-4G

The screenshot shows the PG-4G v.1.1. software window. Callout 1 points to the 'File' menu. Callout 2 points to the 'ADDRESS' column in the table. Callout 3 points to the 'LEGEND' column in the table. Callout 4 points to the 'Save' icon. Callout 5 points to the 'Port' dropdown menu. Callout 6 points to the 'Address' field. Callout 7 points to the 'Learn' button. Other callouts describe the enrollment table, the status of communication, and the status of cooperating PG-4G units.

**1.** To set a new project

**2.** To set address of PG-4G units

**3.** Name / description of PG-4G units

**4.** To save the project

**5.** To set the COM port

**6.** Address of the connected PG-4G unit

**7.** Status of the communication

Status of the cooperating PG-4G units

Addresses of the cooperating PG-4G units

Button for configuration of the connected PG-4G units

### Adjusting of the PG-4G set using the software

1. Run PG-4G software and set a new project.
2. Insert the addresses of all cooperating units PG-4G, which can be found on the paper label stuck onto the transmitter.
3. Insert name / description where the units will be placed.
4. Save the project.
5. Set the correct COM port. Connect PG-4G unit to the power supply and to the computer. If the connection is successful the word "Ready..." will appear in the field Status.
6. When the unit, which address has been already filled in is connected the button "LEARN" will be enabled.
7. By pressing button LEARN all the addresses according to table 4 will be enrolled to the connected unit.

Points 5, 6 and 7 repeat for each unit.

POSITION:	1	2	3	4	5	6	7	8	9	10	11	12
Device n.1:	13	12	11	10	9	8	7	6	5	4	3	2
Device n.2:	1	13	12	11	10	9	8	7	6	5	4	3
Device n.3:	2	1	13	12	11	10	9	8	7	6	5	4
Device n.4:	3	2	1	13	12	11	10	9	8	7	6	5
Device n.5:	4	3	2	1	13	12	11	10	9	8	7	6
Device n.6:	5	4	3	2	1	13	12	11	10	9	8	7
Device n.7:	6	5	4	3	2	1	13	12	11	10	9	8
Device n.8:	7	6	5	4	3	2	1	13	12	11	10	9
Device n.9:	8	7	6	5	4	3	2	1	13	12	11	10
Device n.10:	9	8	7	6	5	4	3	2	1	13	12	11
Device n.11:	10	9	8	7	6	5	4	3	2	1	13	12
Device n.12:	11	10	9	8	7	6	5	4	3	2	1	13
Device n.13:	12	11	10	9	8	7	6	5	4	3	2	1

tab. 4 table of the enrolled position of the PG-4G units.