

**WIRELESS ALARM
COMBINED ALERTER**
«Trubach-K-RK»

Installation Guide

1 General Information

1.1 Wireless alarm combined alerter «Trubach-K-RK» (hereinafter, the Alerter) is designed for informing people about events and emergencies by generating light and sound signals.

1.2 The Alerter is intended for operation as a component of a system that is operated by a control panel (hereinafter, CP), supporting «Rielta-Contact-R» wireless two-way data exchange protocol.

1.3 Wireless signal exchange with the CP is executed via of two-way addressable radio communication within the 433.05 to 434.79 frequency range. Two frequencies in are used for the radio exchange: the main frequency and the reserve one. Turn-over to the reserve operating frequency is fulfilled automatically in case of radio-frequency interference on the main one.

1.4 Transmitter power does not exceed 10 mW.

1.5 The Alerter is powered by one lithium battery CR123A type with 3V nominal voltage.

1.6 The Alerter generates and transmits via radio communication the following messages:

- «Norm»;
- «Tamper» – after button TEST pushing;
- «Main power supply failure» – if power-supply voltage drops below (2.5 ± 0.2) V ;
- «Backup power-supply low-battery» - if power-supply voltage drops below (2.4 ± 0.2) V;
- «Identification» – together with switching identification;
- «Alerting ON» – if alert is switched ON.

1.7 The following rates of control radio exchange may be assigned by the command from CP: 10 s, 15 s, 30 s, 60 s, 2 min, 5 min. Alarm messages are transmitted immediately.

1.8 Alerter switching ON / OFF is executed by commands from the CP.

1.9 Alerter provides continuous and strobe light alert modes.

1.10 The Alerter provides light signal contrast at illumination level up to 500 lk.

1.11 Strobe mode parameters can be set by user during the Alerter adjustment.

1.12 Operation modes of the Alerter are displayed by two LED indicators (see Table 3).

1.13 The Alerter ensures safe operation in standby mode being powered from the built-in power supply battery up to 10 years* or 6 hours of uninterrupted conjoined sound and light alerting.

1.14 The Alerter is designed to operate continuously around the clock in closed premises of residential and industrial buildings and structures.

1.15 The Alerter is resistant to the impact of electromagnetic interference.

2 Principal Technical Characteristics

Table 1

| Parameter | Value |
|-------------------------------------------------------------------------|---------------------|
| Acoustic pressure level at 1 m distance from the sounder, not less than | 85 dBA |
| Generated sound alarm signals frequency | 2 ... 5 kHz |
| Average consumption current in a standby mode* , not more than | 15 mkA |
| Average consumption current in a sound alert mode, not more than | 90 mA |
| Average consumption current in a light alert mode, not more than | 90 mA |
| Operating temperature | minus 20 ... +55 °C |
| Permissible humidity at a temperature +40 °C | 93 % |
| IP rating | IP40 |
| Dimensions, not more than | 125x75x45 mm |
| Weight, not more than | 0.25 kg |
| Average service life | 8 years |

* With a signal-monitoring interval of at least 60 s, radio interference absence and normal operational conditions

Standard direction pattern of the Alerter is shown in Figure 1.

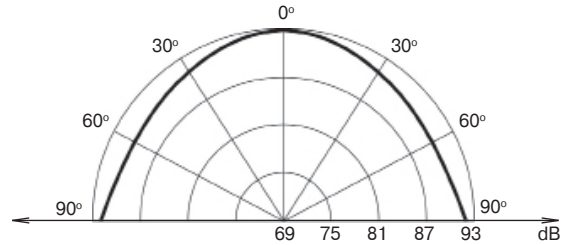


Figure 1 – Direction Pattern

3 Scope of Delivery

Table 2

| Name | QNT. |
|-------------------------------------------------|--------|
| Wireless alarm combined alerter «Trubach-K-RK» | 1 pc. |
| Screw 3-3x40.016 | 2 pcs. |
| Wall plug «SORMAT» NAT 5x25 | 2 pcs. |
| Lithium power supply battery CR123A | 1 pc.* |
| Wireless alarm combined alerter «Trubach-K-RK». | 1 copy |
| Installation Guide | |
| * Installed | |

4 Protective Measures

Dangerous voltages for human health are absent in the Alerter.

5 Design

The annunciator is shown in Picture 2. The annunciator consists of the following parts:

- red diffuser (1);
- battery compartment cover (2);
- base (4) with an installed printed circuit board;
- two guides for the battery compartment cover (8);
- red and green LED indicators (9) under the diffuser;
- two holes for the wall mounting (3);

The printed circuit board contains:

- a hole with metallic RESET contacts (5);
- a holder with a lithium battery (6).
- a radio communication quality testing button TEST (7).

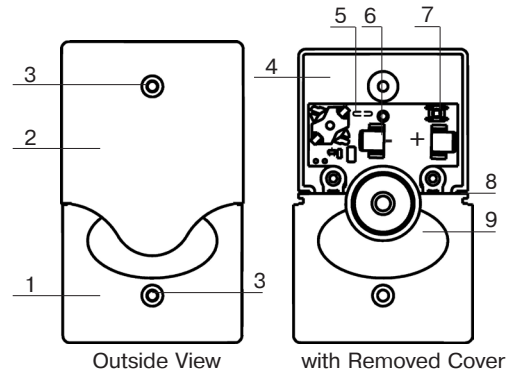


Figure 2 – Case of the Alerter

6 LED Indication

The Alerter displays its state by the LED indication as it shown in Table 3.

Table 3

| Operation Mode | LED Indication |
|-----------------------|---------------------------------------------|
| Binding | Green LED intermittent blinking |
| Binding is finished | Short-run (2 s) red LED lighting |
| Identification | Alternate green and red indicators blinking |
| Communication Quality | See Table 4 |

7 Switching On and Pre-starting Procedures

In general the operating procedure comprises the following steps:

- binding with the CP (logging in the CP);
- choosing place of installation and communication quality apprising;
- installation.

Attention! Board version 11 and higher does not support MRF mode.

8 Binding with the CP

8.1 Prepare the CP for new equipment binding (Binding mode) in accordance with the CP Manual. During binding procedure in radio coverage zone there must be only one CP which is ready for binding with the new device.

8.2 Remove cover of the Alerter battery compartment holding on the diffusing filter (1) and at the same time pulling cover (2) upwards (See Figure 3)

8.3 Remove isolating film between «+» contact and lithium battery holder.

8.4 Close RESET contacts (5) on the printed circuit board (PCB) by current-conducting item until indication «Binding» is switched on.

8.5 Execute binding procedure. Successful binding is displayed by short-run red LED indicator blinking.

Note: The binding mode is active for 100 seconds. In order to resume the binding procedure Cls. 8.4, 8.5 should be repeated.

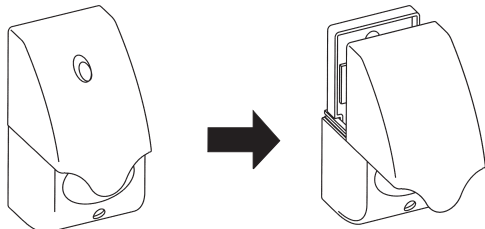


Figure 3

9 Choosing place of installation

9.1 It is not recommended to install the detector in the following places:

- on massive metal constructions and closer than 1 m to them
- closer than 1m to power cables and metal water and gas pipes;
- near radio interference sources;
- inside metal constructions.

9.2 Install the alerter at a place where communication quality is appraised as «excellent» or «good». (see Cl. 10).

10 Communication Quality Appraising

10.1 Bring binded alerter to the chosen place of installation.

10.2 Press the TEST button for 1 s.

10.3 Apprise communication quality with the CP by LED indication modes in accordance with Table 4.

Table 4 – LED indication of communication quality control results

| LED Indication | | Communication Quality Appraisal | Recommendations |
|----------------|--------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Color | Mode | | |
| Green | Three blinks | Excellent | Install the Alerter at this place |
| Green | Two blinks | Good | |
| Green | One blink | Communication established | Choose another place for installation or use a repeater of «Ladoga-RK» product line |
| Red | A series of blinks | No communication | |

11 Installation

11.1 Choose a place for installation, mark places for the Alerter fixation. Use the Alerter case as a template for marking (see Figure 2).

11.2 Install battery compartment cover, for this purpose hold diffusing filter, insert cover into runner slides (8) and push until tight (see Figure 3).

11.3 Fasten the Alerter in the chosen place by means of tap screws using fixation holes (3).

12 Storage and Transportation

12.1 The Alerter in its original packing may be shipped by any transport means in closed vehicles that assume transportation over any distances in compliance with the existing shipping rules concerning the respective means of transportation.

12.2 During storage and transportation periods lithium battery must be removed from the holder or an isolator should be inserted between «+» battery contact and a holder.

13 Reclaiming

13.1 The Alerter reclaiming is fulfilled taking into account the absence of toxic components in it.

13.2 Reclaiming of batteries is performed according to the rules of disposal of batteries.

14 Manufacturer's Guarantees

14.1 The manufacturer guarantees conformity of the Alerter to its Technical Specifications during 42 months since the date of manufacture provided that the transportation, storage, installation and operation conditions are observed.

14.2 The guaranteed shelf life of the Alerter is 36 months since the date of manufacture within the limits of guaranteed shelf life.

14.3 The Alerter that is found non-conforming to the Technical Specifications shall be repaired by the manufacturer, provided the installation and operation rules have been complied with.

14.4 Warranty obligations are not applied to the power supply batteries.

15 Packing Certificate

Wireless alarm combined alerter «Trubach-K-RK» manufactured in accordance with current technical documentation is classified as fit for operation and is packed by «Development and Production Enterprise RIELTA» LLC.

Packing date _____
month, year