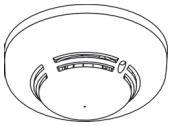
WIRELESS SOUNDER
«Trubach-RK»



Installation Guide

1 Product Overview

1.1 Wireless sounder «Trubach-RK» (hereinafter, the sounder) is intended for informing people about a fire or other emergencies by generating an audible alarm.

1.2 The sounder 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 The sounder is switched on and off by means of CP, and it's operation modes are assigned by commands from the CP.

1.4 The sounder monitors and transmits messages upon removal from it's base or upon discharge of both main and backup batteries.

1.5 The following rates of control radio exchange may be assigned: 10, 15, 30, 60 sec, 2, 5 or 10 min.

1.6 The sounder can operate in a continuous or pulsed audible-alarm modes.

1.7 Pulse-mode parameters can be set by the user in the process of the sounder adjustment.

1.8 The sounder operation mode is displayed by a two-color LED indicator.

1.9 Two frequencies in the 433.05 to 434.79 MHz frequency range are used for wireless signal exchange with the CP – the main frequency and the reserve one. The sounder swithes to the reserve operating frequency automatically in case of radio-frequency interference on the main one. Transmitter power does not exceed 10 mW.

1.10 The sounder is powered by two CR123A batteries, the main and the backup one.

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

1.12 The sounder is resistant to the impact of electromagnetic interference.

2 Principal Technical Characteristics

Table 1

Features	Value
Acoustic pressure level at 1 m distance from the sounder, not less than	85 dB
Generated alarm signals frequency	2000 to 4000 Hz
Operating temperature	from minus 20 to +55 °C
Permissible humidity (at temperature +40 °C):	93 %
IP rating	IP20
Dimensions, max	⌀ 121 x 54 mm
Weight (without power-supply batteries), max	0.2 kg
The duration of the detector operation at the established radio exchange period of 60 seconds or more, the absence of radio interference and normal climatic conditions before the formation of the notification: - «Discharge of the main battery» - «Discharge of the backup battery»	 up to 10 years at least 2 months
Battery life, not less than	10 years

Typical directional pattern of the sounder is shown in Figure 1.

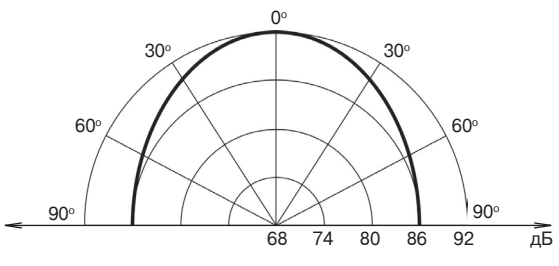


Figure 1 – Directional pattern

3 Scope of Delivery

Each sounder unit package contains the items listed in Table 2.

Table 2

Name	Qty
Wireless sounder «Trubach-RK»	1 pc.
Screw 3-3x30.016	2 pcs.
Wall plug NAT 5x25 SORMAT	2 pcs.
CR123A lithium power-supply battery	2 pcs.*
Wireless sounder «Trubach-RK». Installation Guide	1 copy
* Installed	

4 Informativity

The sounder generates and transmits the following messages to the CP via wireless communication:

- «Norm»;
- «Tampering»;
- «Main power-supply low-battery» – if power-supply voltage drops below (2.4 ± 0.2) V during a regular communication session;
- «Backup power-supply low-battery» – if power-supply voltage drops below (2.4 ± 0.2) V during a regular communication session;

The sounder displays one of it's operation modes as specified in Table 3 (LED indication).

5 Construction

The appearance of the sounder is shown in Figure 2.

The sounder consists of a socket (1) and a housing (3). Oval holes are provided for attaching the socket to the mounting surface (2). On the front side of the housing there is a two-color LED indicator (4) and four LEDs for additional light indication (5).

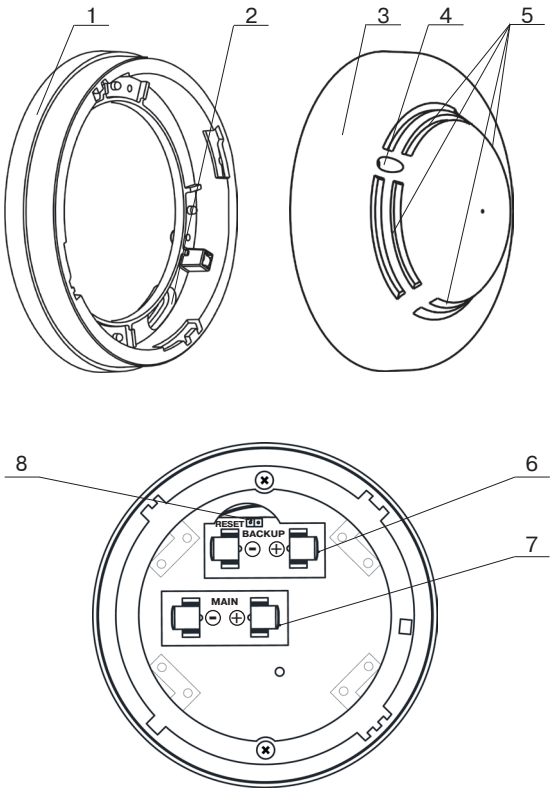


Figure 2

On the back side of the case there is a holder (6) of the backup battery, a holder (7) of the main battery and a metal contact for re-setting the sounder (8).

6 LED Indication

Table 3

Sounder Status	LED Indication
«Binding» mode	LED indicator blinking green
«Binding is completed»	Short-term (2 sec) LED indicator lighting red
«Identification» LED indication	Alternate LED indicator lighting green and red
«Communication Quality Appraisal»	See Table 4

7 Switching On and Setting Up

7.1 Remove the sounder from it's base.

7.2 First install the backup battery in the holder (6), and then install the main battery in the holder (7) or remove the insulating tabs.

7.3 Close the reset contacts on the base of the siren with a conductive object.

7.4 Make sure the LED indicator is blinking green (binding mode).

7.5 Perform the procedure of the sounder binding to the CP in accordance with the CP operation manual.

7.6 Make sure that the LED indicator blinked red once for a moment.

Note – The binding mode is active for 100 sec. Sect. 7.3 should be repeated in order to resume the binding procedure.

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

8 Installation Recommendations

8.1 Appraise communication quality at the place where you intend to install the sounder.

8.2 Install the sounder at a place where communication quality is appraised as «excellent» or «good» (see Sect. 9).

8.3 Install the base at the chosen location.

8.4 Insert the sounder into the base and lock it by turning clockwise to it's fully latched position.

9 Communication Quality Appraising

9.1 Insert the sounder into the base and lock it by turning clockwise to it's fully latched position. Wait for 3 sec.

9.2 Remove the sounder from the base and appraise communication quality by means of LED indication as shown in Table 4.

Note – The delay up to 4 sec between tampering and LED indication switching is possible.

Table 4

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

10 Features and Recommendations

10.1 The sounder is powered on and off by installation and removal of the main and the backup power-supply batteries.

10.2 In case of main power-supply low-battery, the sounder switches to the backup one. The sounder does not operate when the main power-supply battery is not installed.

10.3 Replace both batteries if any of them is discharged.

10.4 The installed power-supply batteries must be of the same type. The backup battery should be installed first.

In case the CP is disabled for a long time, it is recommended to power off the sounder.

11 Storage and Transportation

11.1 The sounders in their original packing may be shipped by any transport means in covered vehicles (in railway, cars, trucks, ship cargo holds, etc). The sounders is resistant to:

- transport jolting with the acceleration 30 m/sec^2 with impact frequency from 10 to 120 impacts/sec or 15000 impacts with the same acceleration;
- the ambient temperature minus 50 ... +50 °C;
- relative air humidity (95 ± 3) % at the ambient temperature +35 °C.

11.2 After transportation under the conditions different to exploitation conditions the sounder shall be ready to operate after a maximum of six hours.

11.3 The storage room shall be free from current-conducting dust, acid vapors, alkali and gases that cause corrosion and destroy insulation.

Attention! The sounder must be checked at least once a year to monitor its operability.

12 Disposal

12.1 The annunciator does not pose a danger to life, human health and the environment, after the end of its service life, its disposal is carried out without taking special environmental protection measures.

12.2 To dispose of batteries by handing over used batteries to a trading organization, a service center, an equipment manufacturer or an organization engaged in receiving used batteries and batteries.

13 Manufacturer's Guarantees

13.1 The manufacturer guarantees conformity of the sounder to it's Technical Specifications provided that the transportation, storage, installation and operation conditions are observed.

13.2 The guaranteed shelf life of the sounder is 42 months since the date of manufacture.

13.3 The guaranteed useful life is 36 months since the day of putting into operation within the guaranteed shelf life.

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

Note – Warranty obligations are not applied to the power-supply batteries.

14 Packing Date

Wireless sounder «Trubach-RK» has been manufactured in compliance with the active technical documentation and classified as fit for operation and packed by «Development and Production Enterprise RIELTA » LLC.

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month, year

Made in Russia

Rev.6 от 20.06.2023
V11

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