



Radio key fob

RBR1

Data sheet

Device identification number

1. General Information

The RBR1 radio key fob (hereinafter referred to as the key fob) is designed to be used as part of a radio system together with radio channel control panels (hereinafter referred to as panels) and the RDK1 radio channel receiver. Signals from the radio key fob are transmitted in the 433 MHz frequency band.

The key fob generates security arm/disarm commands and the emergency alarm signal (panic button) for panels. If used together with the RDK1 radio channel receiver, when a button is pressed, the state of one of the “dry contact” outputs located on the RDK1 radio channel receiver’s board is changed.

2. Manufacturer

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www.ritm.ru/en world@ritm.ru

3. Package Contents

RBR1 radio key fob	1 pc
Enclosure	1 pc
Battery ¹	1 kit
Data sheet	1 pc
Packaging	1 pc

¹ The battery is not installed in the key fob.

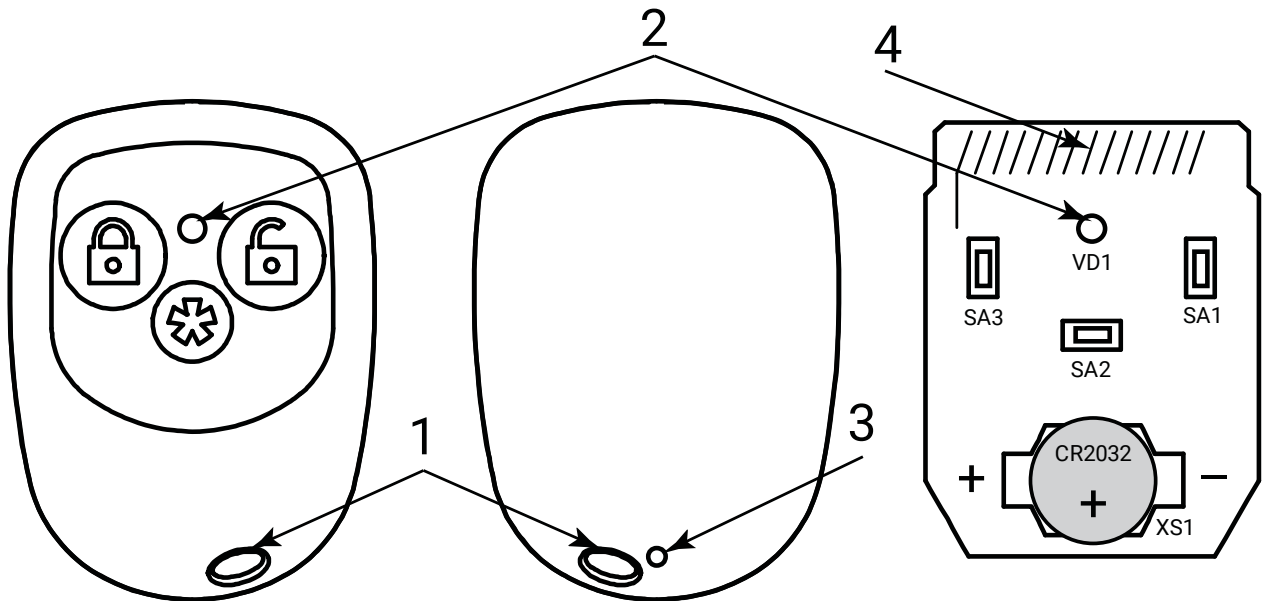
4. Technical Specifications




Parameter	Value
Communication channels band, MHz	433.075–434.775
No. of communication channels	7
Radio system configuration w/o PC	+
Maximum distance for strong signal, m	up to 300
Transmitter radiated power, mW	not exceeding 10
Battery	CR2032
Stand alone operation time ²	up to 1 year
Dimensions, mm	60×41×14
Weight, g	18
Operating temperature range ³ , °C	-30...+35

² The stand alone operation time is directly related to the button usage intensity and the operating conditions.

³ Without regard to battery characteristics.

5. Designation of Elements






Element	Designation
1	Opening for cord fastening.
2	Indicator VD1.
3	Enclosure fastening screw.
4	Radio channel antenna.
	SA1 button. Disarming.
	SA2 button. Alarm.
	SA3 button. Arming.
XS1	Terminal for battery CR2032.

Buttons SA1– SA3 are designed for generating signals and changing the operating modes of a key fob. When operating with buttons, a 1 second long pause is recommended between two presses, while the antenna should be directed towards the signal receiver and be located at least 1 m from it.

The LED is used for displaying operating modes. The operating modes of this LED are described in Paragraphs 6–8 of this Data sheet.

6. Visual Indication

Color	Mode	Note
Mode of addition to radio system⁴		
Red	Blinks for 5 s	Radio system search is active
Red	Prolonged blinking 2 times	Key fob switched to mode of addition to radio system.
Red	On for 3 seconds, then indication goes off	Radio system cannot be found
Standby mode		
Green	Blinks once	Any button is pressed. Response to transmitted signal received from panel.
Red	Continuously on	Any button is pressed and hold for more than 5 seconds. Radio system cannot be found within operation range, and key fob switched to mode of addition to radio system.
Standby mode when used together with Contact GSM-2 panel		
Dull yellow + green	On for 5 seconds + 0.5 seconds	Button  is pressed. Response to transmitted signal received from panel
Dull yellow + red	On for 5 seconds + 0.5 seconds	Button  is pressed. Response to transmitted signal received from panel
Dull yellow + orange	On for 5 seconds + 0.5 seconds	Button  is pressed. Response to transmitted signal received from panel
Hardware reset mode to factory settings		
Red	Blinks 5 times	Getting ready for configuration reset
Red	On	Configuration reset to factory settings
Faulty key fob		
Red	Blinks in series of 5 times with 0.5 seconds interval and 3 seconds pause between series	Any button is pressed
Key fob battery is depleted		
Yellow	Blinks 5 times with 0.5 seconds interval	Battery discharge

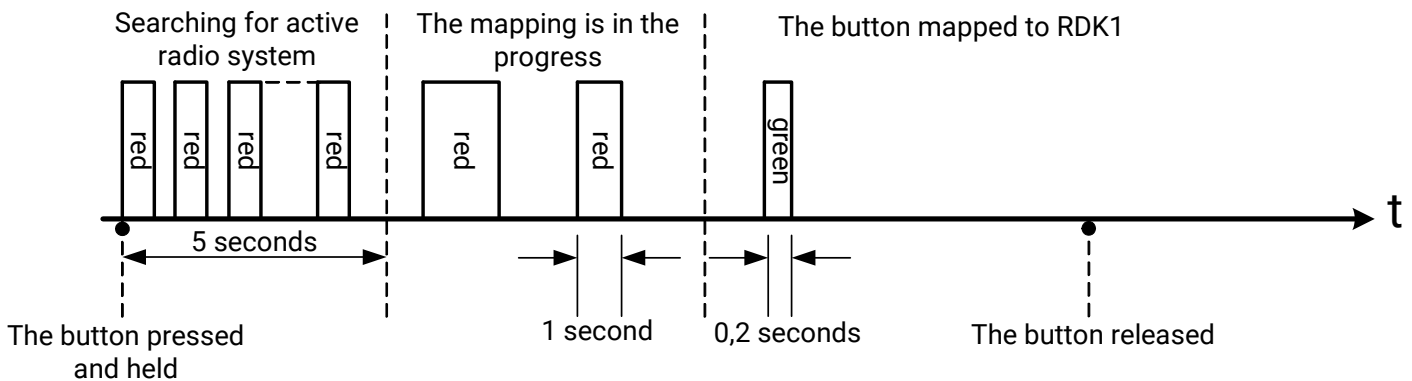


If the indicator blinks 1 time per second when you try to reset the settings, the settings have already been reset before.

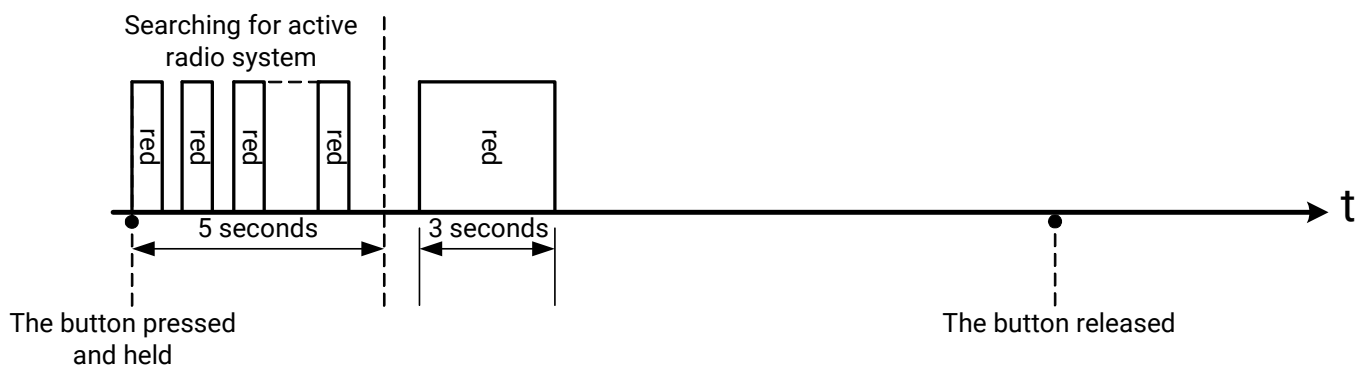
⁴ To enter the **addition to radio system mode**, press and hold any button for more than 5 seconds.

7. Adding Key Fob to RDK1 Receiver Radio System

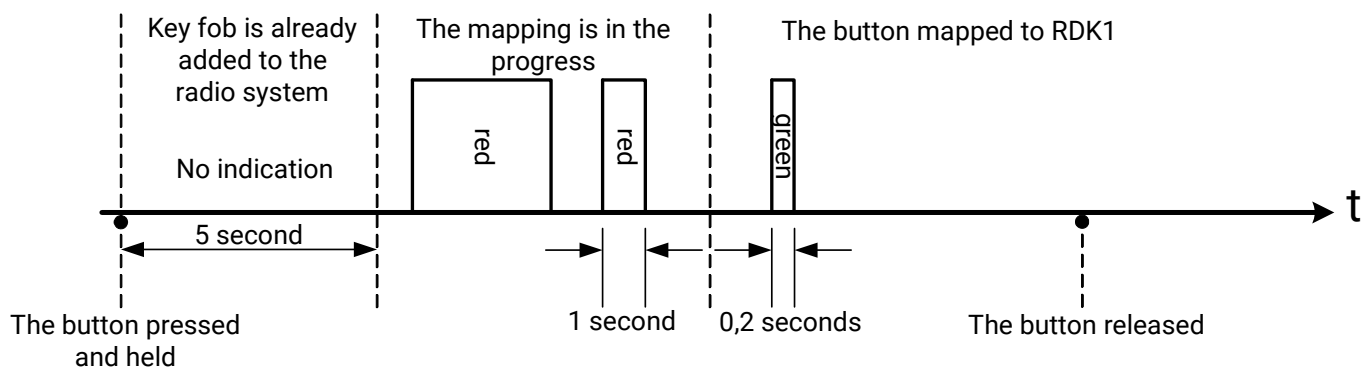
1. Install a battery from the package into the key fob.
2. Switch the RDK1 receiver to manual device addition to radio system mode. Press and hold the button you want to map to an RDK1 output. The number of the output is set by the arrangement of jumpers on the RDK1 board. Wait for a short green signal of the key fob LED and release the button. The addition process is illustrated in the diagram:



3. If for some reason the key fob cannot be added to the system, the indicator will give a corresponding warning with a 3 second continuous red signal and go off.



4. If other key fob buttons should be mapped to the same RDK1 output, press and hold the required button until the key fob LED emits a short green signal, then release it. If buttons should be mapped to another output, again switch the RDK1 receiver to the manual device addition to radio system mode with another jumper arrangement in place:





8. Adding Key Fob to Control Panel Radio System

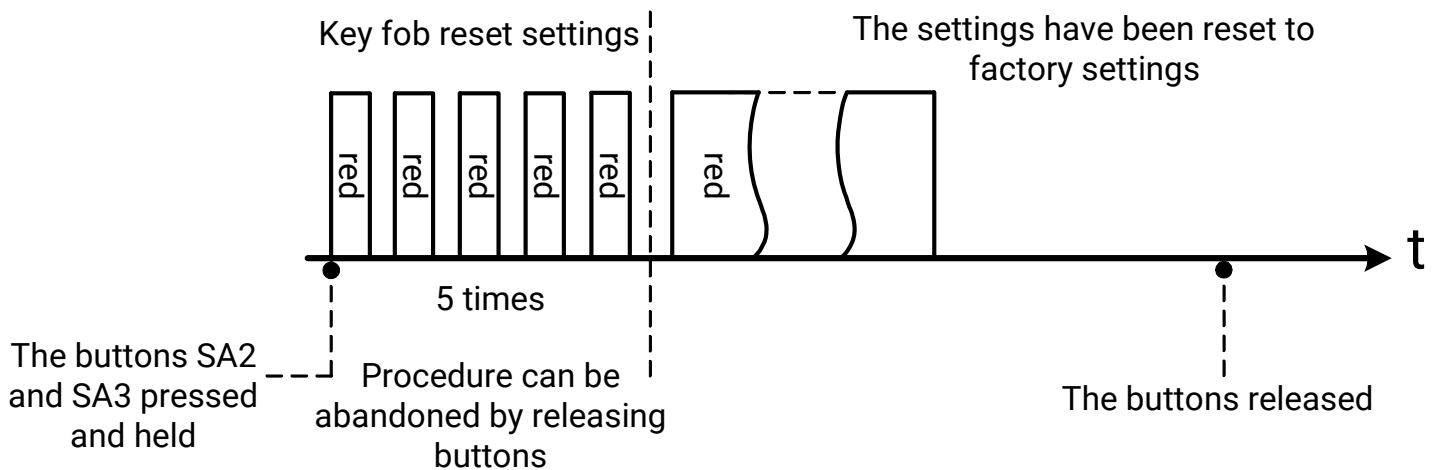
The procedure of adding a key fob to a panel radio system is similar to adding an RDK1 receiver to a radio system.

In order to add a key fob to a panel radio system, switch a panel to the radio device addition mode (either via the configuration software, or the JMP1 jumper), and then press and hold any button on the key fob. When a key fob is added, the indication is similar to adding an RDK1 receiver to a radio system.

After the procedure is finished, verify that LED indicators and output state change signals work properly.

9. Hardware Reset to Factory Settings

The hardware reset of settings to factory ones is only possible after registering a key fob in a radio system of any panel or RDK1 receiver. To reset the key fob settings, simultaneously press and hold the buttons  and . Wait until the LED emits a steady red signal and release the buttons:



10. Maintenance and Safety Measures

Regularly check the voltage at battery terminals. If necessary, replace the battery.

All setup and maintenance activities applied to the key fob should be performed by duly qualified personnel.

When using a key fob, avoid strong mechanical impacts, shock, deformation, ingress of moisture, dirt, and dust. Make sure a key fob may not get used by small children and third strangers.

If a key fob (especially the one used for arming/disarming the security mode for the system) has been lost, remove it from the radio system with the panel configuration software it had been used for.

11. Transportation and Storage

The key fob should be transported in packaging in closed vehicles. Storage premises should be free of current-conducting dust, acid and alkaline fumes, corrosive gases and gases harmful to insulation.

12. Manufacturer's Warranties

The manufacturer guarantees that the key fob complies to requirements of the technical specifications, provided the client ensures compliances to conditions of transportation, storage, and operation.

Although **the warranty period** is 12 months from the commissioning date, it may not exceed 18 months from the production date.

The warranty storage period is 6 months from the production date.

The warranty does not cover the battery.

The manufacturer reserves the right for modification of the key fob in any way that does not degrade its functional characteristics without prior notice.

13. Information on Claims

In case of a key fob failure or defect during the warranty period, please fill in a malfunction report specifying the dates of issue and commissioning of the device and nature of the defect and submit it to the manufacturer.