

WIRELESS ZONE EXTENSION REPEATER

«CN-Repeater»

Installation Guide

1 General Information

Wireless zone extension repeater «CN-Repeater» (hereinafter, the CN-Repeater) is intended for operation as a part of multicomponent fire control panels (FCP) and/or security control panels (SCP), providing two-way address exchange of encoded identified signals (messages) with wireless security and fire detectors and other terminal devices (hereinafter, the «TD»), and retransmission of the received information via the radio channel in the frequency range from 433.05 to 434.79 MHz by the protocol «CN-Contact-R».

CN-Repeater retransmits received information by the «CN-Contact-R» protocol ver. 6 and higher.

Total number of TD connected to CN-Repeater is not more than 31.

CN-Repeater is powered by an external stabilized DC power supply with nominal voltage 10...15 V.

CN-Repeater provides the possibility of hooking up to external device (hereinafter, ED): personal computer (hereinafter, «PC») or any other device supporting CDC-ACM interface of the virtual communication port via USB and is intended for internal software update.

2 Specifications

Table 1

Parameter	Value
Power supply, V DC	10 ... 15
Maximum consumed current, mA	50
Operating temperature, °C	from minus 30 to +50
Dimensions, mm, maximum	82 x 57 x 32
Weight, kg, maximum	0.06
IP rating	IP20
Operating frequency range, MHz	433.05 – 434.79
Maximum output power, mW	10

CN-Repeater is designed for continuous operation around the clock.

3 Scope of Delivery

Each BRSS-RK-RTR unit package contains items listed in Table 2.

Table 2

Name	QNT
Wireless zone extension repeater «CN-Repeater»	1 pc.
Antenna	1 pc
Screw 3-3x30.016	2 pcs.
Wall plug NAT 5x25 SORMAT	2 pcs.
Wireless zone extension repeater «CN-Repeater». Installation Guide	1 copy

4 Design

CN-Repeater design and markup scheme are shown in Figure 1.

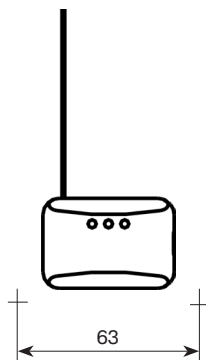


Figure 1

On the front panel yellow, red and green LED indicators are located. The LEDs display the CN-Repeater status (see Table 3). The following elements are arranged under the CN-Repeater cover: terminals for external power supply connection, antenna and microswitch for tamper protection.

5 CN-Repeater connection

CN-Repeater connection is fulfilled in accordance with connection pattern 3.

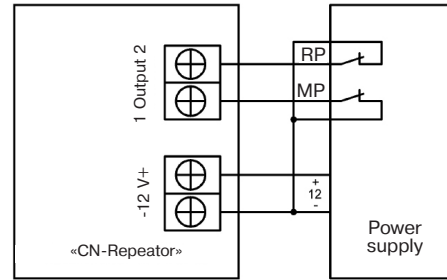


Figure 3

6 LED Indication

LED indication modes are listed in Table 3.

Table 3

Operation mode	LED Indication
Binding	LED indicator intermittent lighting green
Binding is finished	LED indicator short-term (2 sec) lighting red
Identification	Alternate green and red indicators blinking
Communication quality appraising	See Table 4
Bootloader mode	Red LED indicator steadily blinking

7 Switching ON and Setting up

7.1 Open cover and install antenna into terminal block.

7.2 Prepare control panel (CP) to logging the new device («Binding» procedure) in accordance with the CP manual.

During binding procedure only one CP, which is prepared for the procedure, should be located in the CN-Repeater radio coverage zone. Supply 12 V on terminals «-12 V+».

7.4 Close «RESET» pin contacts located on the CN-Repeater PCB.

7.5 Assure yourself of periodical green LED blinking («Binding» mode). Open pin contacts.

7.6 Fulfill binding procedure in accordance with the CP manual.

7.7 Wait until red LED indicator short-term blink.

Note – Binding mode is active during 100 sec since the CN-Repeater energizing. To restart binding it is necessary to repeat Cls. 7.5 – 7.8.

8 Communication Quality Appraising

8.1 Bring the CN-Repeater prepared for operation to the assumed place of installation and locate it in such a position, that antenna has vertical orientation.

8.2 Press tamper contact and hold it during 3 s or more.

8.3 Release tamper contact.

8.4 Appraise CN-Repeater communication quality with the CP by LED indication modes (see Table 4).

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

Table 4 – LED Indication during communication quality appraising

LED Indication		Communication Quality Appraisal	Recommendations
Color	Mode		
Green	Three blinks	Excellent	Install the CN-Repeater at this place
Green	Two blinks	Good	
Green	One blink	Communication established	Choose another place of installation
Red	A series of blinks	No communication	

9 Recommendations on Installation

9.1 Appraise communication quality at the assumed place of CN-Repeater installation.

9.2 Install CN-Repeater at the place where communication quality is appraised as «excellent» or «good» (see Cl. 8)

9.3 It is not recommended to install CN-Repeater at the following places:

- on massive metal constructions and closer than 1 m to them;
- closer than 1 m to lines of force as well as water or gas pipes;
- near sources of interference;
- inside metal constructions.

9.4 Power supply wires should be located far enough from the power cables. Install CN-Repeater in such a position, that antenna has vertical orientation.

10 Transferring Control over Detectors to CN-Repeater

Transferring control over detectors to CN-Repeater is fulfilled in accordance with a «CN-Contact-R» protocol ver. 6 and higher.

11 Firmware Update

Update of an internal software is carried out by means of PC with «Ladoga-RK» Configurator installed. Before connecting to the PC via USB interface unit, disconnect CN-Repeater external and reserve power supply and then install jumper on «Reset» contacts.

12 Storage and Transportation

12.1 The CN-Repeater in original package may be transported by any transport facility in closed vehicles over any distances in compliance with the existing shipping rules concerning the respective means of transport.

12.2 The storage room shall be heated and ventilated, as well as free from current-conducting dust, acid vapors, alkali and gases that cause corrosion and destroy insulation.

13 Manufacturer's Guarantees

13.1 «RIELTA» JSC guarantees conformity of the Detector to its Technical Specifications if conditions of transportation, storage, assembling and operation are observed. The guaranteed storage period is 63 months since the date of manufacturing the Detector.

13.2 The guaranteed period of operation is 60 months since the date of commissioning within the storage period guaranteed.

13.3 For guaranteed maintenance, please contact:

«C.Nord» STCF

Russia, 190020, St. Petersburg,

Obvodny Channel emb., 199-201, build.13, BC «Obvodny Dvor»

Phone: (812) 327-16-36

E-mail: cnord@cnord.ru, support@cnord.ru, www.cnord.ru

14 Packing Certificate

Wireless zone extension repeater «CN-Repeater» has been manufactured in compliance with the active technical documentation and classified as fit for operation and packed by «RIELTA» JSC.

Packing date _____
month, year