



RiDom

Control panel «Ri-HUB-1»

Installation guide

1 GENERAL INFORMATION

The control panel «Ri-HUB-1» (hereinafter referred to as the Hub) is the main component of the RiDom security system that combines and manages the operation of all connected RiDom radio devices, monitor their status and send messages to the information subsystem on the cloud server (hereinafter referred to as the server). The Hub controls the operation of the security system by communicating with the connected wireless devices using the «Ri-Contact-R» protocol.

Hub operation features:

- ▶ Broadcasting of events from the server using the SurGard protocol.
- ▶ Secure, two-way radio protocol.
- ▶ Obtaining information from detectors and smart devices installed at the facility.
- ▶ Transmission of commands given by the user remotely to devices of the security system.
- ▶ Sending messages to users according to the individual settings via SMS, voice call or push notification in the application.

The Hub must be connected to the Internet in order to be able to communicate with the server. The communication is realized either via Wi-Fi or via GSM.

You can manage the security system and quickly respond to alarms and notifications through the RiDom mobile application for iOS, Android.

All data is protected on the cloud server. Information which is exchanged with the hub via an encrypted channel.

2 SPECIFICATIONS

Table 1

Parameter	Value
Operating frequency range	868,7 – 869,2 MHz
Radiation power, no more	25 mW
Radio range	Up to 1500 m*
Connection channels	GSM/ GPRS (900/1800 MHz) Wi-Fi (2,4 GHz)
Number of connected devices	Up to 31
Number of users	Up to 20
Number of rooms	Up to 30
Power	110 – 240 V AC, 50/60 Hz
Backup battery**	Li-Ion 2200 mAh (up to 24 hours of uninterrupted operation***)
Maximum power consumption from the electrical network	10 VA
Tamper protection	Yes
Number of SIM cards	1
Protection class	IP20
Dimensions	170x120x45 mm
Weight	300 g
Average service life	8 years
Operational conditions	
Operating temperature range	-20... +55 °C
Permissible air humidity at a temperature of +25 °C, without moisture condensation	Up to 98 %
* The range of the radio signal can be reduced when exposed to external interference or structural features of the object even in the absence of barriers (for example, walls, doors, interfloor ceilings). In order to amplify the signal, use the repeater «Ri-R-1»	
** Replaceable	
*** At a temperature not lower than +20° and when connected via Wi-Fi	

3 SCOPE OF SUPPLY

Table 2

Name	Qty.
Control panel «Ri-HUB-1»	1 pc.
Accumulator LIR18650	1 pc.*
Power cable	1 pc.*
Mounting kit	1 pc.
Installation guide for the «Ri-HUB-1»	1 copy
* Included	

4 INDICATION

Depending on the state of the power supply, the functional LEDs on the board display the following:

- ▶ «**ERROR BATTERY**» turns red when the backup battery is installed incorrectly;
- ▶ «**CHARGE BATTERY**» turns green when the backup power is activated;
- ▶ «**AC**» turns green when external power is supplied.

Depending on the status of the power supply and internet connection, the lights on the Hub board may have the following indications.

Table 3

LED status	Event		
	POWER (yellow)	Wi-Fi (blue)	GSM (green)
OFF	No power	No connection to the server via Wi-Fi	No connection with the server via GSM channel
ON	Battery is charged, External power is supplied	Connected to the server via Wi-Fi	Connected to the server via GSM channel
Slow blinking	Battery disconnected	Obtained IP address from router	SIM card is ready
Fast blinking	No external power	Connected to a Wi-Fi network, but could not communicate with the server	Mobile internet connection

5 PLACE OF INSTALLATION

The Hub can be installed in heated apartments, city and country houses. The Hub must be placed in a safe place that is not obvious to an intruder.

When choosing the installation location, also take into account the signal reception level of the mobile operator whose SIM card will be used as a backup (or main) communication channel.

DO NOT place the HUB in the following locations:

- ▶ Outdoors (outdoors).
- ▶ Near metal objects and mirrors that cause radio signal fading or shielding.
- ▶ Places subject to high levels of radio interference.
- ▶ Near less than 1 meter from a router and power cables.
- ▶ In rooms with humidity and temperature that are out of range.

The recommended channel for connecting the Hub to the Internet is a wireless Wi-Fi connection. Make sure there is a 220V electrical outlet near the place of installation.

6 RiDom ACCOUNT

The security system is configured and controlled through the RiDom mobile application. Available on iOS and Android.

The users' settings and the parameters of connected devices of the RiDom security system are stored locally in the Hub. Changing of the Hub administrator does not reset the settings of devices connected to the Hub.

One phone number and email address can only be used to create one RiDom account. There is no need to create a new account for each Hub - one account can manage multiple Hubs.

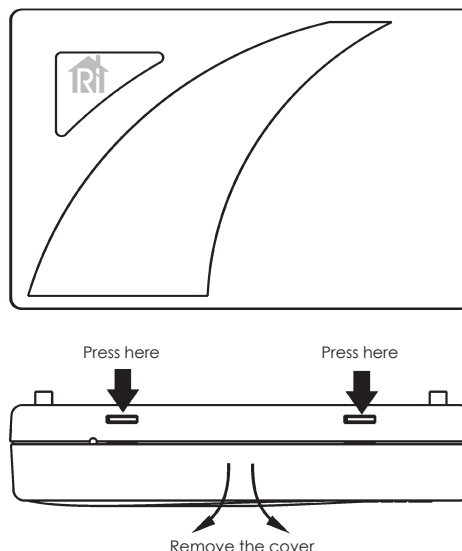
Download the Hub application by scanning the appropriate QR-code below.



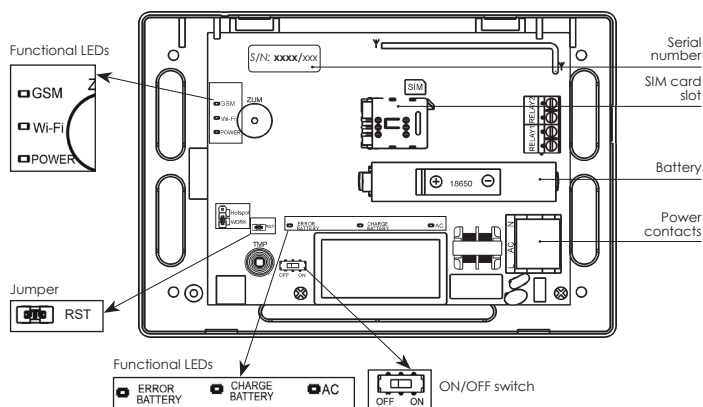
7 CONNECTION AND REGISTRATION

Attention! The connection of the Hub to the mains must be performed by a specialist with at least the 3rd electrical safety approval group (up to 1000 V).

Open the HUB case by depressing the cover latches.



Plug the power cord into an outlet.



ATTENTION! For initial registration of the HUB in the RiDom system, it is recommended to use a GSM channel.

7.1 CONNECTION AND REGISTRATION THROUGH THE GSM CHANNEL

Insert the SIM card into the SIM card slot. Set the power button to the **ON** position.

Wait for the download completion and connection to the GSM network (the green **GSM** LED will be on).

Launch the **RiDom** application.

Follow the instructions in the application to connect the HUB to the **RiDom** system in order to create an object. Fill in your location details (optional), enter the HUB serial number, come up with a name for your house, for example: «Country house».

After successful connection, the device will be displayed in the RiDom application on the main screen.

7.2 CONNECTION AND REGISTRATION THROUGH THE Wi-Fi CHANNEL

The Hub can be easily registered via the mobile hotspot of your smartphone.

For smartphones on the Android operating system:

Go to the settings of your smartphone, go to the tab «Wi-Fi access points» - «Access point settings».

Set the following options:

Network: **Hub_XXXX**,

Password: **Ridom_XXXX**,

where **XXXX** – first block of numbers of the serial number.

Return to the tab «Wi-Fi access points» and turn on the access point.

For smartphones on the iOS operating system:

Go to the settings of your smartphone, go to the tab «General» - «About this device» and set:

Device name: **Hub_XXXX**,

Return to the «Settings» tab, go to «Modem Mode» and change the password to: **Ridom_XXXX**

Allow access to others to connect the hub.

Turn on the control panel by setting the switch on the board to the **ON** position.

Check that the **Wi-Fi** indicator on the Hub board turns blue, that indicates that the hub has connected to your access point and connected to the server via the mobile Internet.

Launch the **RiDom** mobile application. Follow the instructions given in the application to register the connected Hub and create an object. Input the data about your location, the serial number of the device (it is located on the back side of the device), come up with a name for your house, for example: «Home».

After successfully connecting the Hub will be displayed in the RiDom application on the main screen.

Now you need to select an available 2.4 GHz Wi-Fi network, to which the control panel will be re-connected for permanent operation. To do this, go to the «**My devices**» - «**RI-HUB-1**» section, go to the settings «**Wireless (Wi-Fi)**» and select the desired network with the appropriate security password.

The new connection settings will be applied immediately without rebooting the device. Turn off mobile hotspot on your smartphone after that.

Pay attention to the Wi-Fi LED on the Hub board. It should turn on again, that indicates the proper operation of the control panel through the router.

ATTENTION! If you made a mistake in the password and the Hub does not connect to your router, then put a jumper on the RST contacts until the device is forced to reboot. The network connection settings will be reset to factory defaults. After that, you can start the mobile hotspot on your smartphone again and repeat the network setup.

After completing the configuration of connecting the Hub to your home network, close the Hub case.

8 INSTALLATION

Before mounting the Hub, make sure that you have chosen the optimal location and that it complies with the conditions referenced in this manual.

It is desirable that the Hub is placed in a secure and safe place.

Make sure that the Hub has a stable signal level with all connected devices. With a weak signal level, the reliable operation of the security system is not guaranteed.

Take possible measures to improve the signal quality. At a minimum, move the Hub. For example, a shift to even 20 centimeters can significantly improve reception quality.

1. Make a marking for fixing the hub. The base of the case can be used for marking.

2. Fix the base with screws.

3. Install the cover.

9 FIELD MOUNTING

Installation of the RiDom system should be carried out in accordance with the instructions from the mobile application for a specific device.

The mounting should be carried out in accordance with the instructions set out in the operating instructions for a specific device.

ATTENTION! Moving a wireless device by 10–15 cm from the selected location can either significantly improve or degrade the quality of the connection between a wireless device and the Hub. If, after moving, the devices still have a low or unstable signal level, use the «**Ri-R-1**» repeater.

10 FIRMWARE UPDATE

Firmware updates optimize the operation of the Hub by adding new features and improvements.

Checking for updates is performed automatically by the system, so you will be notified as soon as a new version of the software becomes available for installation.

You can update the Hub software in the RiDom mobile application on the Hub settings screen.

11 STORAGE AND TRANSPORTATION

11.1 The Hub in their original packaging are resistant to:

- transport jolting with the acceleration up to 30 m/sec² at impact frequency range from 10 to 120 per minute or 15 000 strikes;

- ambient temperature range minus 50 ... +55 °C;

- relative air humidity (95 ± 3) % at a temperature +35 °C.

11.2 The Hub in original package may be transported by any means of transportation in closed vehicles over any distances in compliance with the existing shipping rules concerning the respective means of transportation.

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

Note: The storage premises should not contain any current-conducting dust, acid and alkali fumes, or corrosive or destroying insulation gases.

12 MANUFACTURER WARRANTY

The warranty period of operation is 24 months from the date of commissioning.

Note – Warranty periods do not apply to backup batteries.

13 DATE OF MANUFACTURE

(month, year)

Made in Russia

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