QUICKSTART GUIDE

CR-02BD READER WITH CONTROLLER



Full User Manual

External contactless card and key fob reader with built-in controller and UKEY technology support: Mifare® Plus and Mifare® Classic, Bluetooth, NFC card, key fob, and mobile ID reader.

Using an external network proximity card reader BAS-IP CR-02BD, you can read contactless cards, key fobs, as well as mobile identifiers from mobile devices and open the connected lock.





wiki.bas-ip.com



To configure the reader remotely via the WEB interface, you need to connect to it with an Internet browser on your PC. The panel must be connected in the same network segment as the PC from which it is planned to perform the configuration.

To find the device in the LAN, it is required to use the **Remote search** and upgrade tool.

In the Internet browser, in the address entry box, you must enter the IP address of the reader, after which the user name and password entry window will appear.

Sign In	
A Paceword	
Remember me SKN N	

• Username to enter the settings: **admin**.

• The password required for entry corresponds to the password for access to the settings of the reader and is the installer password.

By default, user password is 123456.



After successful authorization, the following interface will be displayed:

Device info		
Framework 1.5.4	Launcher 2.1.0	Serial number f163cbc9-3fd2-4021-99db-ed55fbf94681
Device name CR-02BD		
Network info		
DHCP Disabled	IP address 192.168.1.43	Subnet mask 255.255.255.0
Gateway 192.168.1.1	DNS server 192.168.1.1	MAC address 70:69:79:E0:3B:36

DEVICE INFO

- Framework: a version of the framework.
- Launcher: a version of the launcher.

• **Serial number:** serial number of the device which will be used for the communication with Link software.

NETWORK INFO

- DHCP: current DHCP status.
- IP address: current IP address of the device.
- Subnet mask: used subnet mask.
- Gateway: gateway address.
- DNS server: DNS server address.
- MAC address: physical address of the device.

NETWORK

💿 bas	sIP <	=		⊕ IN ⊖
Dashbo Dashbo Network Network	narð Ik	BAS-IP device Network Settings		SURMIT
 Access Security System 	s menegement 7	DHCP 19 192.168.1.91 Mask 255.255.255.0	базенау 192.168.1.1 раб 8.8.6.8	
		Current device date/time: 1970-01-01:04:24:51 UFL pool.Ontpl.org Timesonic UTC+03:00		SURMIT

NETWORK SETTINGS

- DHCP: enable / disable the automatic retrieval of network settings.
- IP: reader IP address.

By default, the reader can have a static IP address 192.168.1.90 or 192.168.1.91

- Mask: subnet mask.
- Gateway: the main gateway.
- DNS: DNS server address.

CUSTOM NTP

- Current device date / time: shows the current device's date and time.
- URL: field to enter custom NTP server address.
- Timezone: choose used timezone.

MANAGEMENT SYSTEM

- Use the BAS-IP Link server: enable / disable the usage of the BAS-IP Link server.
- URL: management server address.
- Password: access password.
- Send realtime logs to the server: enable / disable panel logging to server.
- Heartbeat to server: enable / disable sending current panel status to the server.

DEVICE

	bas IP <	=	⊕ IN ⊖
	Dashboard Netsrojk Panal Adoess malisgement Sourtry System	BAS-IP device Apartment Settings Mode Personal Raterio 1 Use 1 Coor 11 Apartment 1 Povice runture 1 Personal	SUBMIT
A	System	1 1 Uss 1 Noo 1 Apartment 1 Apartment 1 percentimber 1	

APARTMENT SETTINGS

• **Mode:** device operation mode (an individual mode must be set for the reader). When working with the elevator module, it is necessary to set a unit mode.

- Building: building number.
- Unit: unit number.
- Flor: floor number.
- Apartment: apartment number.
- Device number: device enumeration number.

Numeration of the readers If you have several readers that have one logical address, then in the «No.» field specify the value 2, 3, 4, 5, etc., up to 9.

DEVICE SETTINGS

RELAY SETTINGS

• **Volume level:** adjust the volume level of the reader's speaker.

• **Relay position:** Selection of the initial state of the panel relay when the device is turned on. Selection of the initial state of the panel relay when the device is turned on.

Switch when the device is turned on - when the device is turned on, the relay will switch the position to the opposite; when the device is turned off, the relay will return to its original position.

Do not switch when the device is turned on the relay will not switch the position when the device is turned on and off.

APARTMENTS

Here you can add, edit or look at a list of flats and get detailed information about each apartment. An apartment is a logical entity to bind identifiers, access codes, redirection rules, and other information about residents.

HOW TO ADD A NEW APARTMENT TO THE DEVICE MEMORY?

New apartment	
Building	Unit
1	1
Floor	Apartment
1	1
Apartment name	Residents
Smiths	2
	CANCEL CONFIRM

4 Enter an **Apartment name** (without special characters). For example, Smiths.

- **5** Indicate the number of **residents** for this flat.
- Log in to the device web interface. By default, the username is admin and the password is 123456
 Open the Apartment tab.
 Click New Apartment and fill in the required information:

 building No. (from 1 to 999)
 - **unit** No. (from 00 to 99)
 - floor No. (from 00 to 98)
 - apartment No. (from 01 to 99)
- 6 Confirm information to save it.

After saving the information, the apartment is added to the general table, which contains:

- apartment address
- apartment Name
- conditional number of inhabitants in an apartment
- amount of identifiers that are issued to a particular apartment. Identifiers can be created in the Identifiers section of the Access management tab
- amount of created forward queues for the apartment. Forwardings are configured in the corresponding tab
- ability to edit information or delete one or several selected apartments.

ACCESS MANAGEMENT

ACCESS MANAGEMENT

At this part, you can change information about:

Master card

This card is used to add other cards to panel memory. Here you can specify the card number.

To add a master card if its number is unknown:

- Open Access management tab of panel wen interface.
- Enter **O** in the **Master card** field and submit changes.
- Bring the card to a panel reader and wait for the BEEP signal, which means that

the master card has been successfully registered.

To add a user card using the master card:

- Bring the card to a panel reader to switch to the adding user cards mode.
- Bring the user card to the reader. After reading the card, you will hear the BEEP signal, which means the successful registration of the card.
- Open the Identifiers tab in the web interface, where the added card will be displayed.

NEW IDE	NEW IDENTIFIER								
	Apartment	Owner name	Owner type	Identifier type	Identifier number	Period restriction	Passes restriction	Lock #	
			Owner	card	1111111	Infinitely	Infinitely	First	
						Rows per page 20 👻	1-1of1 <	>	

• Add missing information about the card and save changes.

The time between adding cards must not exceed 10 seconds.

This method is convenient for mass and quick identifiers adding. But identifiers are not connected to the necessary apartment, so we recommend adding identifiers through the web interface.

• Wiegand type for a card reader. Wiegand-26, Wiegand-34, and Wiegand-58 types are available for work.

Identifier representation systems

All identifiers can be displayed in Decimal and HEX numeral systems.

Access management	SUBMIT	
12345678		
Megani liye:	Statility representation	
malaut.to	 Vecimies	

Support and update of new Wiegand modes require updating the firmware of the Wiegand controller in the service center.

LOCKS MANAGEMENT

At this part, you can configure the functioning of 1 or 2 (when using SH-42) locks. The following parameters can be configured:

• Lock open time is a period (1-300 sec) during which relay contacts will be closed or open (depending on the lock type), and a lock will stay open.

• Lock open delay is a period (1-300 sec) after which relay contacts will close or open after sending a signal to open a lock.

• Impulse opening mode: one or multiple pulses. It is available to set **pulse duration** and **time between pulses** for multiple pulses mode.

If an electromechanical lock is used, it is recommended to select one impulse. If an electromagnetic lock is installed, we recommend setting multiple pulses. These settings will help the locks work correctly and for a long time, especially mechanical as it might break if the voltage is applied to it for too long.

• Keep the lock open or not if SIP registration is lost.

It is necessary to set no SIP registration time for this parameter.

Locks management		SUBMIT
Lock #1		
Ladcopen time (sec.) 1	Lock open delny (sec.) O	
Impulse opening Multiple pulses	•	
Pulse duration (sec.) 23	Time between pulses (sec.) 1	
Lock #2		
Lock open time (sec.) 1	Lock open delay (seo.). O	
Impulse opening One impulse	<u>*</u>	
Keep the lock open if there is no SIP registration	No SIP regulation time. 30	

OPEN LOCK

In this section, you can remotely open lock #1 or lock #2 (when using SH-42) by clicking the corresponding button.

Open lock		
Lock #1		
OPEN LOCK		
Lock #2		
OPEN LOCK		

ADDITIONAL SETTINGS

Here you can:

• Set the **Floor number** for further features that work only with the elevator control module EVRC-IP.

• Enable / disable features of **sending the elevator to the indicated floor** number **when** the lock is open **using an identifier** or **from the monitor**.

• Enable / disable **monitor secure mode** is a feature of alarm deactivation on an indoor monitor when bringing an identifier (that is linked with the monitor) to the panel reader.



SERVER MANAGE ACCESS

In this section, you can enable and configure working mode when all identifiers are not stored in a panel memory but on a server. When the identifier is brought to the reader, the panel will send a request to the server and wait for a response - to give access or not.

The timeout for receiving a response from the server is up to 15 seconds. After this time, the panel automatically goes to its database and gives access or not.

To configure this feature you must:

• Log in to the entrance panel web interface.

By default, the username is **admin**, and the password is **123456**

- Open the Access management tab and find the Server manage access section.
- Enable the feature.
- Click Use custom server and enter it. You can use the Link server.
- Submit settings.

Server manage access		SUBMIT
Z Enabled		
Use custom server	Custom server 192.168.1.11	

DOOR SENSOR INPUT

It is possible to connect a door sensor or additional button to the door sensor input. In this section, you can enable/disable and configure their work.

After device installation and electric connection, you must do the following steps for correct work:

• Log in to the entrance panel web interface.

By default, the username is **admin**, and the password is **123456**

- Open the Access management tab and find the Door sensor input section.
- Enable sensor or button functioning by ticking the corresponding box.
- Choose the appropriate input mode:
 - **Door sensor** mode is used to monitor the door state. If the door is not closed, after the expiration of the response time in Logs/Link logs will be shown that the door is open.
 - **Door entry button** mode is recommended when the connected button is used as an additional, remote from the panel, entry button.
- If you use **Door sensor mode**, set the **Response time** after which the mode will be activated.

• For the Door sensor, you can enable the option to **resend a trigger message** to Link logs and set the delay time before resending.

• Submit settings.

Also, you can check and update the current door sensor input **status** (open / closed).

Door sensor input		SUBMIT
Enabled		
Mode		
Door sensor	*	
Response time		
120		
	Delay before resenting a trigger message	
Resend a trigger message	60	
Statue C		
unania C		
Closed.		

IDENTIFIERS

Here you can add or view a table with previously added identifiers. This table contains information about the identifier owner, its type, number, validity period, amount of available passes, and the number of the lock that identifiers are allowed to open.

				COMMON SETTINGS	IDENTIFIER	S ACCESS	RESTRICTIONS		
	NEW IDENT	IFIER							
		Apartment	Owner name	Owner type	Identifier type	Identifier number	Period restriction	Passes restriction	Lock #
			test	Owner	card	1111111	Infinitely	Infinitely	First
4							Rows per page 20 👻	1-1of1 <	>

HOW TO ADD A NEW IDENTIFIER TO A PANEL MEMORY

• Log in to the entrance panel web interface.

By default, the username is **admin**, and the password is **123456**

- Go to Access management --> Identifiers.
- Click New Identifier.
- Enter all required information in the opened window:
 - choose an Apartment number from the previously created list in the corresponding tab
 - owner name
 - owner type: Guest or Owner
 - identifier type and number

- Enter all required information in the opened window:
 - choose an Apartment number from the previously created list in the corresponding tab
 - owner name
 - owner type: Guest or Owner
 - identifier type and number

3 identifiers types are available:

• **Card**: EM-Marin or Mifare card. In the Identifier number field, you must enter a card number in decimal format, without comas. Usually, the number is printed on the card in decimal or hexadecimal format. You can use this link to convert a value from one to another system. Also, you can bring the card to a panel reader, and the number will be displayed in this tab or Logs, from where it can be copied.

• **UKEY** allows using smartphones as identifiers (BAS-IP UKEY app is required). You must enter the identifier number in the Identifier number field. To find out the number, bring the phone to a reader and the number will be displayed in the Logs, from where it can be copied into this field. Also, the UKEY number is printed under the QR codes in the order.

• **QR code**: The automatically generated QR must be downloaded from the web interface and uploaded to a mobile device for further use.

Apartment number			~	
I-I-I-I(221 Baker Střeet)			X	•
Owner name		Owner type		
Sherlock Holmes		Owner		Ŧ
Identifier type		QR-code		
QR-code	•	c3b5dc38-7d12-4baf-afcc-2a9a5ecb0696		С
Access restrictions	-	Download OR-code		

 choose Access restrictions (when access is allowed for the identifier) from the previously created list in the corresponding tab (optional)

- set Period restrictions for identifier validity (optional)
- set Passes restrictions (optional);
- set Lock # that is allowed to open for the identifier (#1, #2 (if SH-42 is used) or both).
- Confirm the information.

If necessary, you can edit / delete added identifiers.

ACCESS RESTRICTIONS

In this menu, you can set the access restrictions according to which the access peculiarities of various users and their identifiers are determined. For example, you can create a restriction that will provide access at a chosen time or day and apply it to necessary identifiers.

			COMMON SETTINGS IDENTIFIERS	CCESS RESTRICTIONS	
NEW RESTRICTION					
		14414	vaid hom	valid to	
	3	Service	2023-0412 11:00	2022-04-12 13:00	21
	4	Weekend	2021-12-17	2021-12-18	× 1
	<u>52</u>	Work week	2021-12-13 09:00	2021-12-17-17.00	× #
				Spectration 22	• 14d1 ()

HOW TO ADD A NEW IDENTIFIER TO A PANEL MEMORY

• Log in to the entrance panel web interface.

By default, the username is **admin**, and the password is **123456**

- Go to Access management --> Access Restrictions.
- Click Restriction and enter all required information:
 - restriction Name
 - date of restriction start and end

There are two options for a period indicating:

- All day: you are required to specify only the date (day / month / year) of the beginning and end of this rule

• If the **all day** option is disabled, you must specify the date (day / month / year) and set this restriction start and end time.

Nome Weekend			Nerre Service		
 ✓ All day Start at 2021-12-18 	× ≣ 2021-12-19	×	All day Statist 2022-04-12 11:00	inisi X 🛅 2022-04-12 10:00	×

frequency of repetitions

Available options are:

• Never: the restriction will work once

• **Daily:** the restriction will be active every day for a specified time period. For example, the identifier will work every day from 9:00-18:00

• Weekly: the restriction will work on the specified days and hours, e.g., every Tuesday or every Monday and Friday (depending on settings)

• **Every 2 weeks:** the restriction will repeat every two weeks on the specified days. For example, if you create a restriction that works from Monday to Wednesday, then the identifier will be active from Monday to Wednesday with 2 weeks intervals

• Monthly: the restriction will be active every month, e.g., every 15th day of the month

• Yearly: the restriction will repeat every year, e.g., every 15th of December

Custom: you can set the necessary dates, days, and months for restriction repetition:
daily: the restriction will be active every day for a specified time period.
In Every column, you can indicate after how many days the restriction will be activated again, e.g., every 5th day.

• **weekly:** you can configure restriction repetition on specific days of the week. In **Every** column, you can indicate after how many weeks the restriction will be activated again. According to the screen, the identifiers linked with the restriction will work from 9:00-19:00 on Mondays, Wednesdays, and Fridays every 5 weeks.

• **monthly:** you can configure restriction repetition on specific dates each month. According to the screen, the identifiers linked with the restriction will work from 9:00-19:00 every 1st, 7th, 14th, and 21st day of the month. In **Every** column, you can indicate after how many months the restriction will be activated again, e.g., every 7th month.

Also, it is available to configure restriction repetition every month on the first / second / third / fourth / fifth / last specific day of the week, e.g., on the first Tuesday of every month. According to the following image, the identifiers linked with the restriction will work from 9:00-19:00 every last working day of the month.

frequency of repetitions

Two parameters are available:

- Infinitely: a restriction will always work;
- Until: a restriction will be active until the indicated date.
- Confirm settings.

LOGS

This tab contains a log that displays all the events that happened with the panel: login to the web interface, an unknown identifier used, etc. When the number of events exceeds 10,000, the oldest entries are deleted.

Log				
✓ FILTERS				
Date/time	Category	Priority	Event	Info
1970-01-02 07:22:29	System	Medium	Login to the web interface	Successful (admin) login to the web interface
1970-01-02 07:05:36	System	Medium	Login to the web interface	Successful (admin) login to the web interface
1970-01-02 03:58:21	Access	Medium	Lock opened by response device	Lock 2 opened while talking to sip:1010113@192.168.0.51
1970-01-02 03:57:38	Info	Medium	Outgoing call	Outgoing call to number sip:1010113@192.168.0.51, call was accepted
1970-01-02 03:56:59	Info	Medium	Outgoing call	Outgoing call to number sip:1010113@192.168.0.51, call was accepted
1970-01-02 03:56:15	Info	Medium	Incoming call	The incoming call from the number 1010113@192.168.0.51 is completed, the call was accepted
1970-01-02 03:50:50	System	Medium	Login to the web interface	Successful (admin) login to the web interface
1970-01-02 03:45:17	Access	Medium	General access code entered	
1970-01-02 03:45:09	Access	High	Wrong input code	Invalid access code 0000 entered
1970-01-02 03:14:11	System	Medium	Login to the web	Successful (admin) login to the web interface

LIST OF ALL EVENTS DISPLAYED IN THE LOG

PRIORITY	CATEGORY	EVENT
Low	System System Info Info	Login to the web interface Failed login attempt to the web interface Incoming call Outgoing call
Medium	Access Access Access Access Access Access Access Access	Access granted by the web interface Access granted by remote server Lock opened by response device Lock opened by identifier Lock opened by exit button General access code entered Door was closed Door was opened

LIST OF ALL EVENTS DISPLAYED IN THE LOG

PRIORITY	CATEGORY	EVENT
High	Access Access Access Access Access Access Access Emergency	Lock opened too long Not valid identifier Wrong input code Access denied by remote server Access denied by the web interface Unknown identifier Unknown QR code Tamper triggered
Critical	Emergency Emergency Emergency Emergency	Emergency event cancel Emergency event start Light indication Call to the rescue service

You can sort events by date from most recent to oldest and vice versa. To do this, click the **Date / Time** column.

✓ FILTERS				
Date/hme 个	Category	Priority	Event	otni
1970-01-01 00:00:29	Access	Medium	Lock opened by exit button	
1970-01-01 00:00:31	Access	High	Unknown identifier	Unknown identifier 16188935 used
1970-01-01 00:00:34	Access	High	Unknown identifier	Unknown identifier 2966118 used

Also, there is a filter with the help of which you can configure a flexible data display and quick search. To do this, you need to click the **Filters** button, set the necessary parameters, and click Apply:

- In the Field name line, select the search parameter:
 - category: the display of events with the selected category (access, system)
 - event: the display of events from previous tables by their names
 - priority: the display of events with selected low/medium/high priority
 - date / time: the display of events for the exact date and time
- Choose search condition:

• **equal:** the display of events by a selected parameter. So, if you choose events equal to low priority, you will see all Login to the web interface and Failed login attempt to the web interface events, etc.

• **not equal:** the display of events that do not correspond to the selected parameter. So, if you select events not equal to low priority, you will see all events except those with low priority

• Choose Field Value depending on the selected column.

SECURITY

	basIP <		⊕ IN ⊖
י אי ≣	Dashboard Network Panel	BAS-IP device Passwords management	stubistite"
0 0	Access management Security	Laename Admin •	
¥	System	Old Can not be empty Can not be empty Can not be empty	

PASSWORDS MANAGEMENT

• Old password: Current password input field.

```
Default values
The default admin password is 123456
```

- New password: New password input field.
- Confirm: Confirm the password input field.

SYSTEM

In this tab, you can back up or restore module settings, export / import data, update software, change the language, reboot the device, etc.

SETTINGS

ettings	
Restore settings	
) Choose file	RESTORE
DESET TO DEFAULT SETTINGS	
Acaer to permut aerowda	
save settings	
BACKUP WHOLE SETTINGS	

In this section, you can save all web interface settings (except network settings) by clicking the **Backup whole settings** button.

If necessary, you can **choose** the downloaded file and restore saved settings.

You can also **reset** the device **to the default settings** by clicking the corresponding button.

EXPORT / IMPORT DATA



Warning!

Import of incorrect format data will cause the panel malfunctioning.

If necessary, you can export or import data from the **Apartments**, **Forward**, **Identifiers**, and **Access Restrictions** tabs. To export, you must click **Download** and a ZIP archive with tables will be saved on your computer.

Data import is used to copy the exported information to other individual panels. To do this, **choose ZIP archive** and click **Confirm**.

When importing data into the panel, all current data in the **Apartments**, **Forward**, **Identifiers**, and **Access Restrictions** tabs will be deleted and replaced with new (importing) information without the possibility of restoring.

CLEAR DATA



In this section, you can delete data about one or more categories: **Apartments**, **Logs**, **Forward**, **Identifiers**, and **Access restrictions**.

To clear data, select category / ies and click **Delete**. As a result, the data will be irrevocably deleted.

DEVICE LANGUAGE

4 device languages are available for setting:

- Russian
 Ukrainian
- English Spanish

Device language		SUBMIT
Language English	•	

FIRMWARE UPGRADE

By default, the BAS-IP server is used for updates.

You have several ways to update panel firmware:

• Automatically: check for software updates and if it is released, click Update Firmware. The update process will take some time and in the end, the panel will reboot.

If there are no updates, information about the current firmware version will be provided

B Crocce file		
Delitin	anosta	SPIRIT PROBABILITY
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Where the 2012 result of the set of the set of the 2012 result of the	In wedder, wed	n Gold (Shingel (In 1956 Annua) na an a Shingel ta declar a ta (anni

Warning!

Before each software update, make a panel settings backup copy, so that in case of an update error, you can always restore the previous settings. • **Manually:** download the necessary firmware from the webpage, click **Choose file** and upload the downloaded file. Click **Update Firmware** and wait for the process to complete (in the end the panel will reboot)

Firmware upgrade		
Use custom server		
Custom server		SUDUIT
Choose file av-01bd-3.3.1-2022-06-10.img	UPDATE FIRMWARE	
CHECK FOR UPDATES		UPDATE FIRMWARE

You also can use a custom server (is used in closed intercom networks) for firmware updates.

The custom server must meet certain conditions for its correct work: the server must have the version.json file and the file with the necessary firmware.

The **version.json** file must contain information and structure as in the example:

- Device name
- Model (doubles the name)
- Device type: panel is a standard value

for all panels

- Firmware version
- Firmware name (doubles the firmware version)
- Firmware build date
- Commit hash value
- Description of changes
- Link to the firmware file

HOW TO CONFIGURE CUSTOM SERVER USE FOR FIRMWARE UPDATES

• Log in to the device web interface.

By default, the username is **admin**, and the password is **123456**

- Go to **System** tab --> **Firmware** upgrade section.
- Enable use of a custom server.
- Enter the link to the server (with version.json and firmware files) in the **Custom server** field.
- Submit settings.

To update firmware from a custom server, you also must **check for updates** and click **Update Software**.

REBOOT

The section contains a button for panel soft reset.

Reboot	
REBOOT DEVICE	