



# Installation Manual

**INTEGRATED ACCESS CONTROLLER**

**KDH-KZ3000FP-IP-U**

**KDH-KZ3000FP-IP-M**

 **KaDe**

VERSION 3.0 28-08-2020



AAT SYSTEMY BEZPIECZEŃSTWA Sp. z o.o.

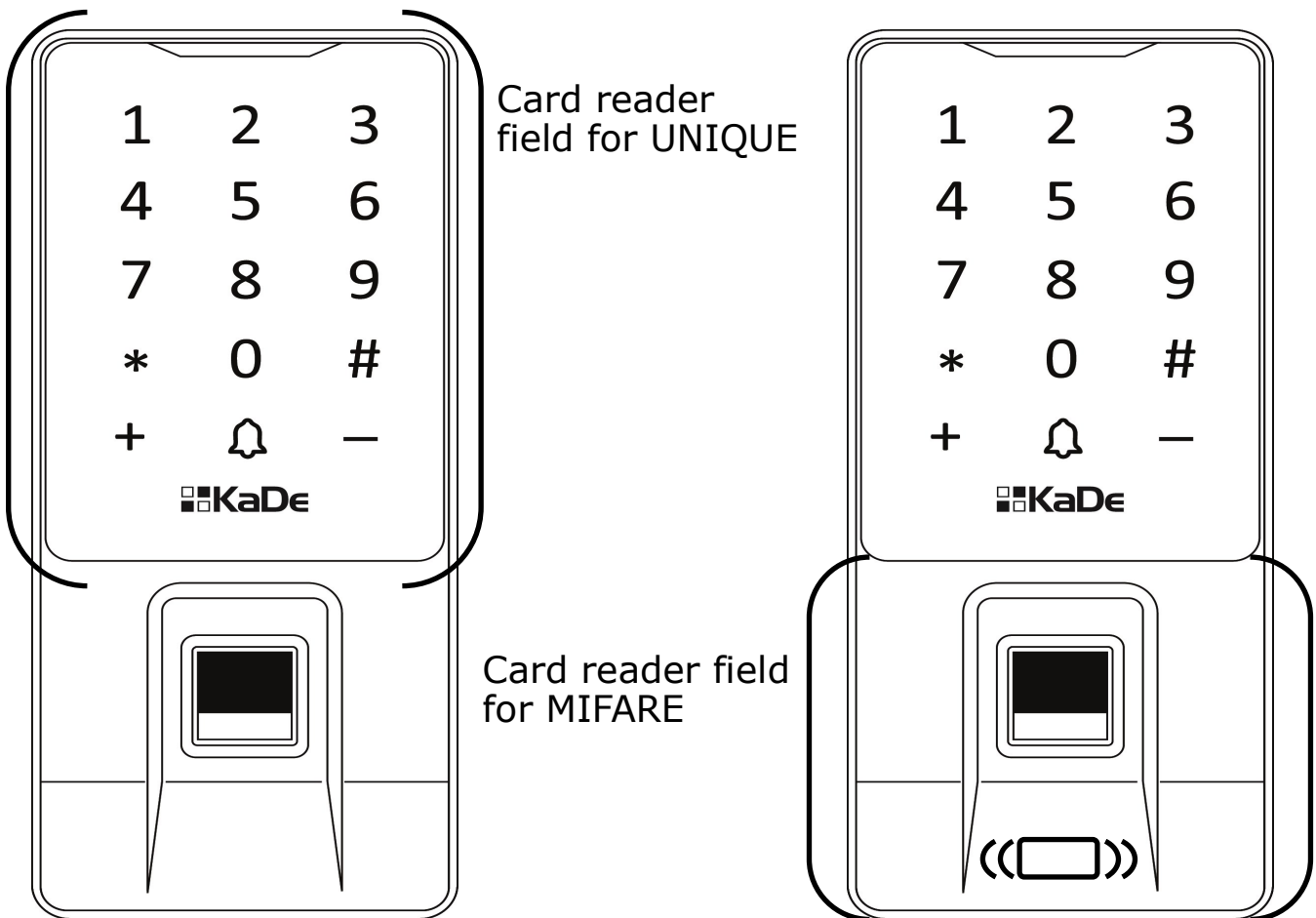
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## 1. Introduction



**Controller KDH-KZ3000FP-IP-U**

**Controller KDH-KZ3000FP-IP-M**

Integrated controller KDH-KZ3000FP-IP-U\_M has been designed for access control system and to be mounted on a wall without any additional enclosure. 32 bit processor ensures fast and reliable data processing. This is one door controller. With additional reader (also with keypad) it can use for two way control. Recommended supply power type AWZ-200 plus 7Ah battery. If we connect the electric lock to the same power supply, we should install diode 1N4004 on lock terminals in the reverse direction.

It's possibility to set one from eleven identification mode: card only, PIN only, card or PIN, card+ PIN, fingerprint only, fingerprint or card, fingerprint+ card, fingerprint+ card+ PIN, fingerprint or PIN, fingerprint+ PIN, fingerprint or card or PIN.

It can work on-line or off-line with supervisor software NMS AC on PC. KDH-KZ3000FP-IP-U\_M include following components in one cabinet:

- controller module for 1 door
- card reader - 125 kHz ISO UNIQUE - model KDH-KZ3000FP-IP-U
- card reader - 13,56 MHz MIFARE – model KDH-KZ3000FP-IP-M
- keypad for PIN with bell button
- LED and Buzzer
- anti-disassemble sensor

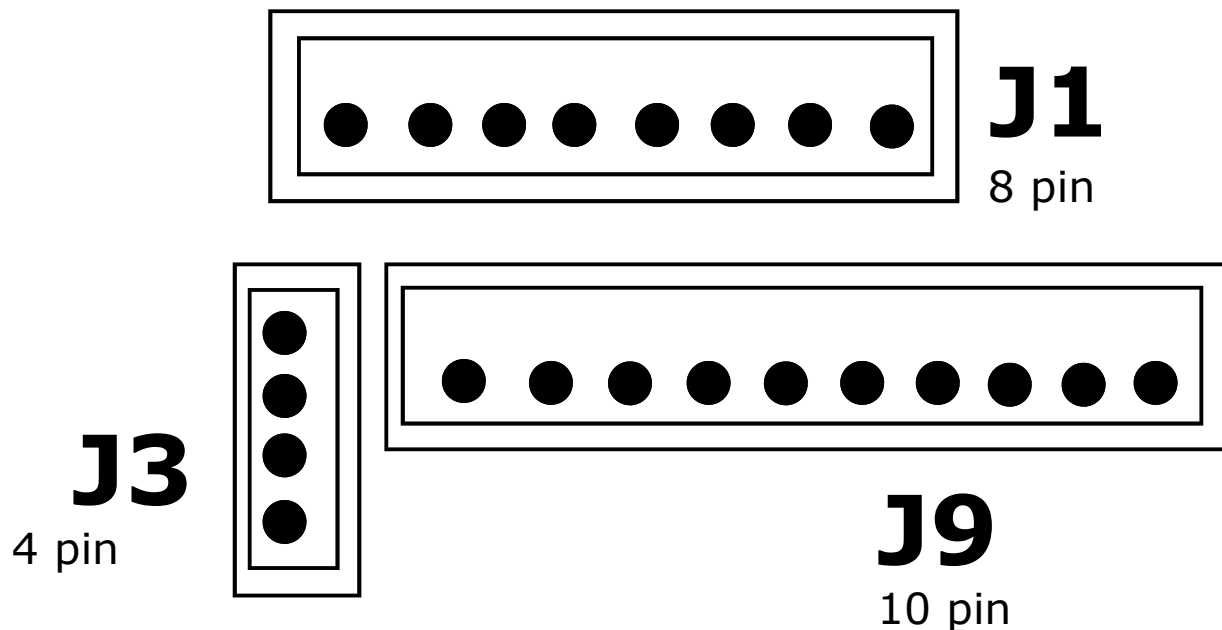
## 2. KDH-KZ3000FP-IP-U\_M controller technical data

Parameter or function name	Parameter value or function description
<b>Buffer capacity</b>	
- Card buffer	20 000
- Fingerprint capacity	3000
- Event buffer	50 000
- Alarm buffer	20 000
<b>Electrical parameter</b>	
- Supply power	12 VDC
- Current load	< 1 A
- anti-static capability:	YES
<b>Environment parameter</b>	
- Environment	For indoor installation only
- Working Temperature	From +2°C to 55°C
- Relative Humidity	0% - 95%
- Size (L x W X H)	179 x 76 x 36 mm
<b>Communication ports</b>	
For connection with NMS AC	- TCP
For additional module connection	- RS485 (for future used)
<b>Readers and Cards</b>	
- Integrated reader	For UNIQUE card, read range 5 - 10 cm (U) For MIFARE card, read range 2- 5 cm (M)
- External (for two way control)	26 (U)/34(M) bit Wiegand output format
- Card format	ISO UNIQUE (125 kHz) MIFARE (14443A) (13,56 MHz)
- External reader keypad PIN format	4-bits, without buffering
<b>Inputs</b>	
- Door contact input	NO / NC (NO - default)
- Exit button input	NO / NC (NO - default)
- PIR input	NO / NC (NO - default)
<b>Relay output</b>	
- Strike (lock) control	Relay DC 12V 1A (NO / C / NC)
- Alarm control	Relay DC 12V 1A (NO / C / NC)
- Bell control	NO/NC
<b>Access level parameter</b>	
- Access level	200
- Schedule	184
- Holiday	64
<b>Identification mode</b>	card only, PIN only, card or PIN, card+ PIN, fingerprint only, fingerprint or card, fingerprint+ card, fingerprint+ card+ PIN, fingerprint or PIN, fingerprint+ PIN, fingerprint or card or PIN.
<b>Alarm relive</b>	Automatic, manually by operator or by card

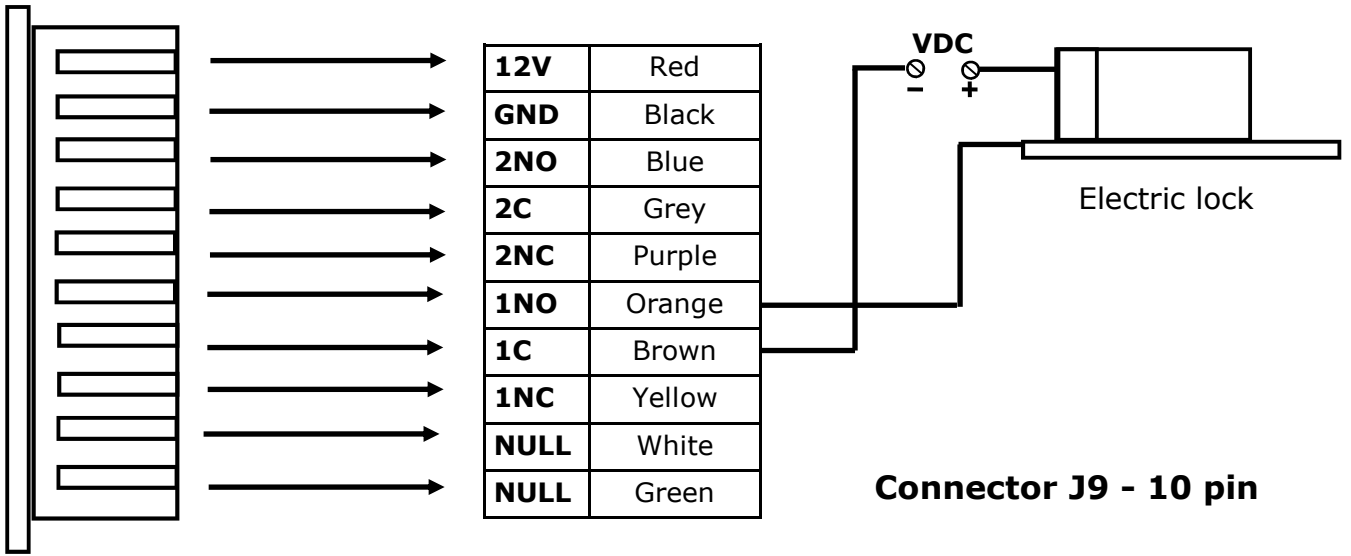
Controller module include:

- Communication port TCP for direct connection with NMS AC
- Second reader port for two way control (Wiegand output format)
- Door status sensor input
- Exit button input
- Movement detector input
- Communication port RS485 for connection with additional modules (for future used)
- Supply Power connectors (+12V, 1A)
- Lock control relay output
- Alarm relay output
- Bell control output from keypad key

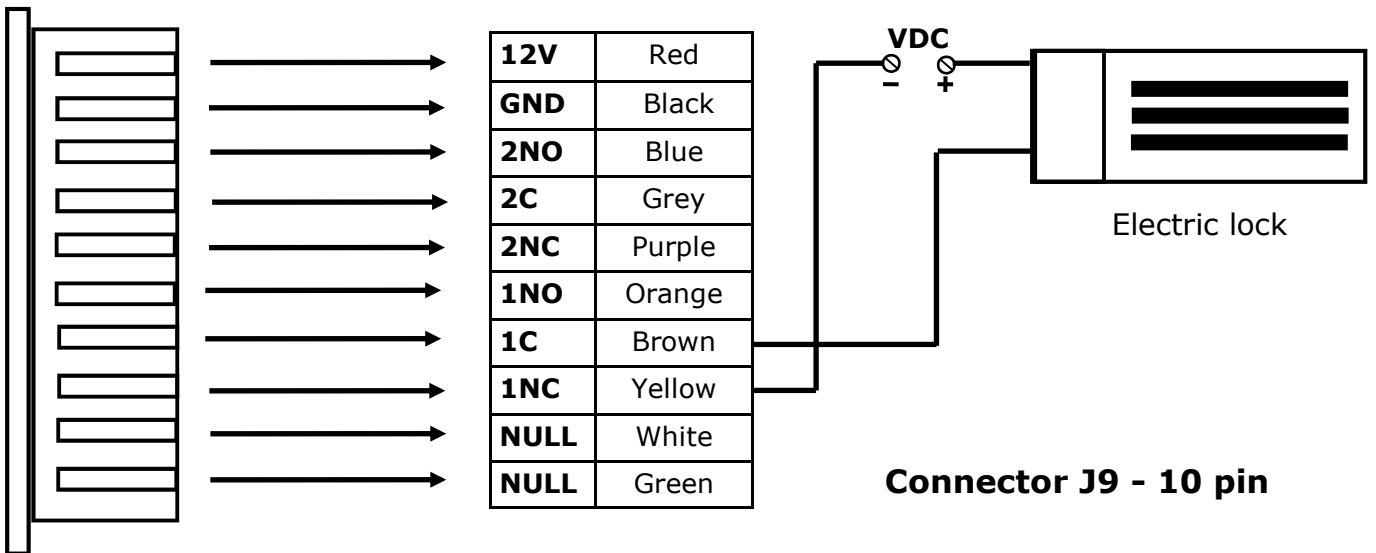
All components are mounted in esthetics case. KDH-KZ3000FP-IP-U\_M controller is designed for indoor use only. When entry from outdoor is needed, additional out door reader should be connected.



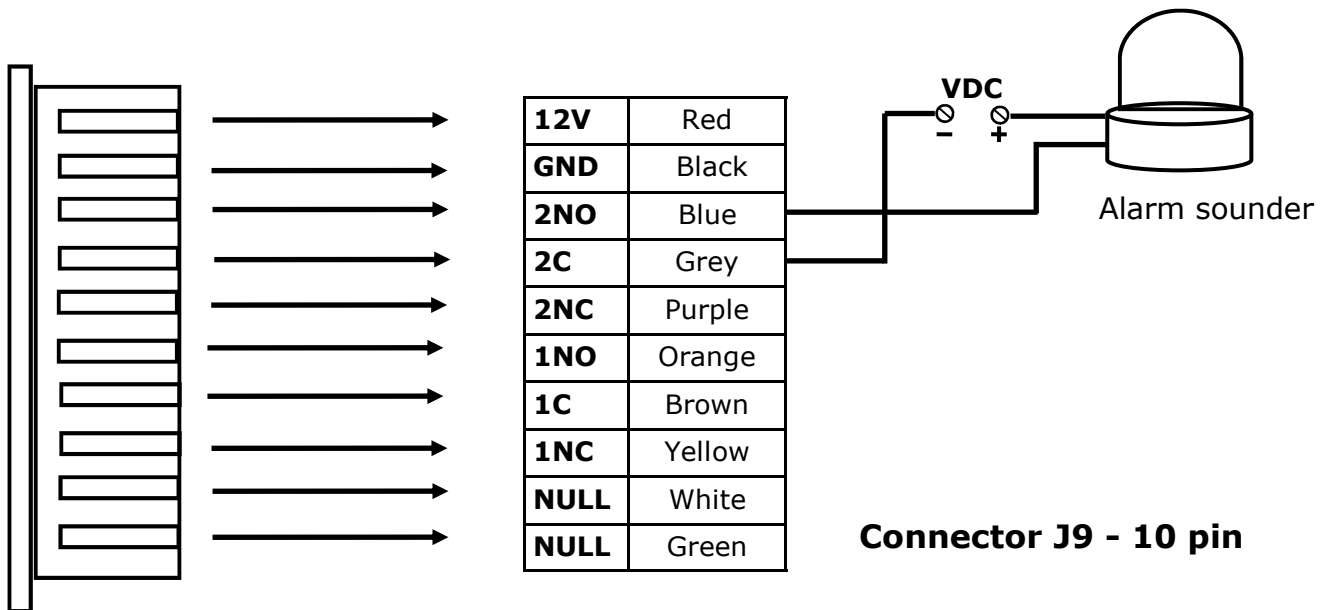
**Controller back side - connectors view**  
(pin connectors description on the next page)



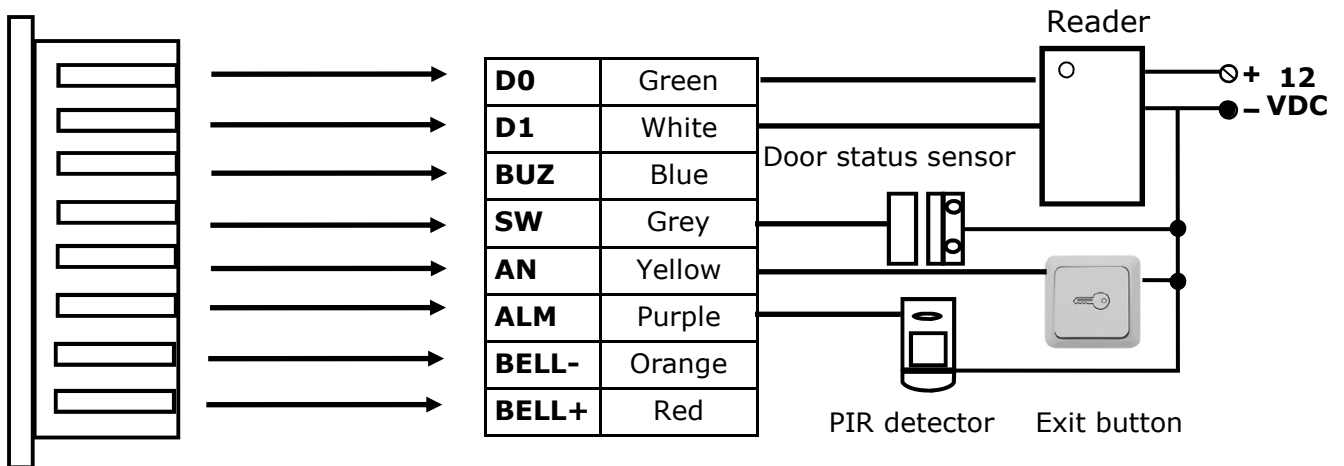
Electric lock connection—NC type



Electric lock connection– NO type



Alarm sounder connection



### Connector J1 - 8 pin

Reader, door status sensor, exit button and PIR motion detector connection.

## 3. Indicator light and Sound Indication

Red light indicates that the device is working properly. Red blinking indicates in registration status, waiting for the fingerprint to be registered.

The green light indicates that can access and fingerprint registered successfully.

Blue light indicates device is programming status. Continuous blinking indicates entering the programming status. Blue light blinking

Fingerprint registration process:

1. Start to register fingerprint by software NMS AC ( Configuration > Users > Cards > Add fingerprint > *Now we can choose mode and controller trough which we will add fingerprint.*
  - red indicator light blinking means waiting for registration
2. The first time to press fingerprint
  - green indicator light blinking. It indicates that the first registration is successful
3. The second time to press fingerprint
  - the green indicator blinking indicates that the second registration is successful

4. The third time to press fingerprint

- blue light blinking indicates that registration is done  
- start registering next fingerprint

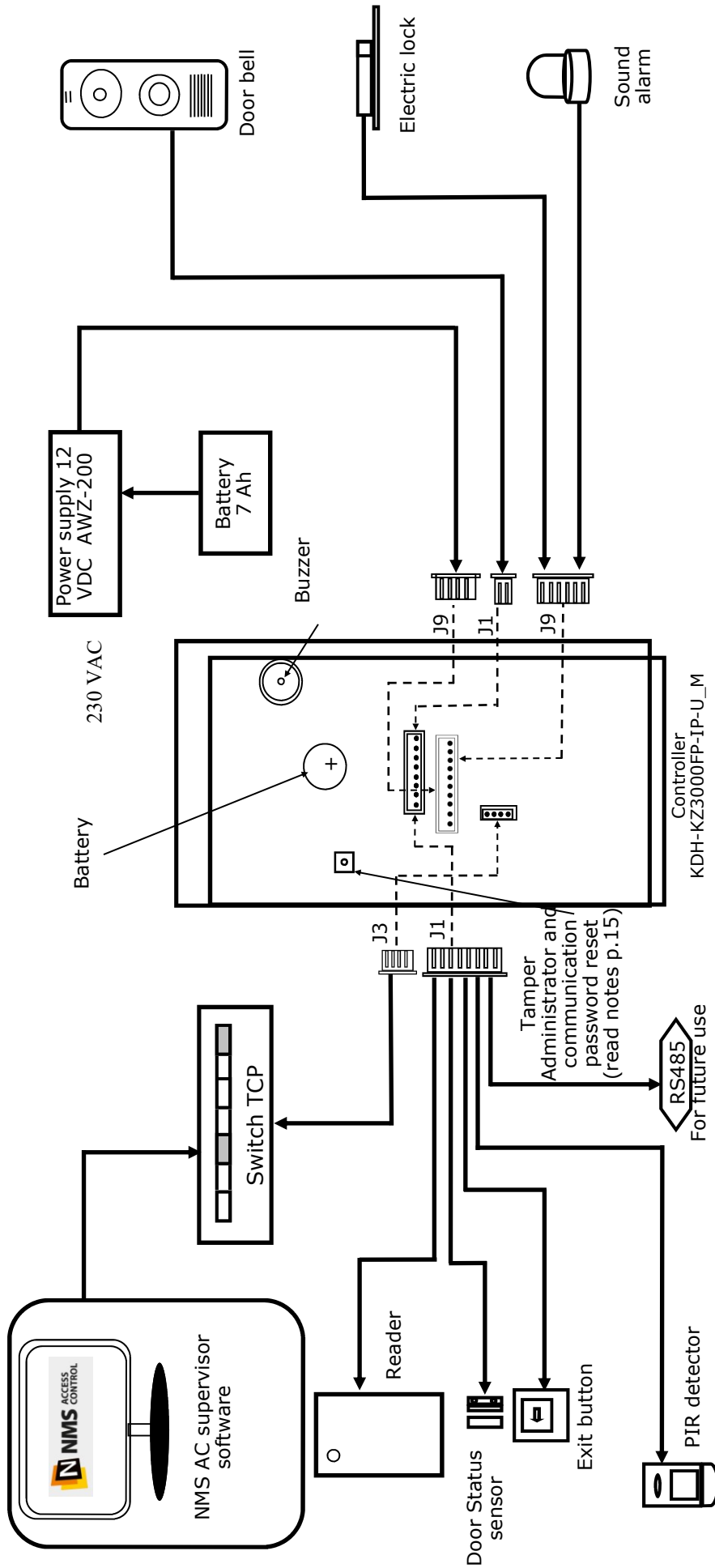
or

- the red indicator light blinking and the buzzer sounded three times, registration is error  
- re-register

Description of the sound signals:

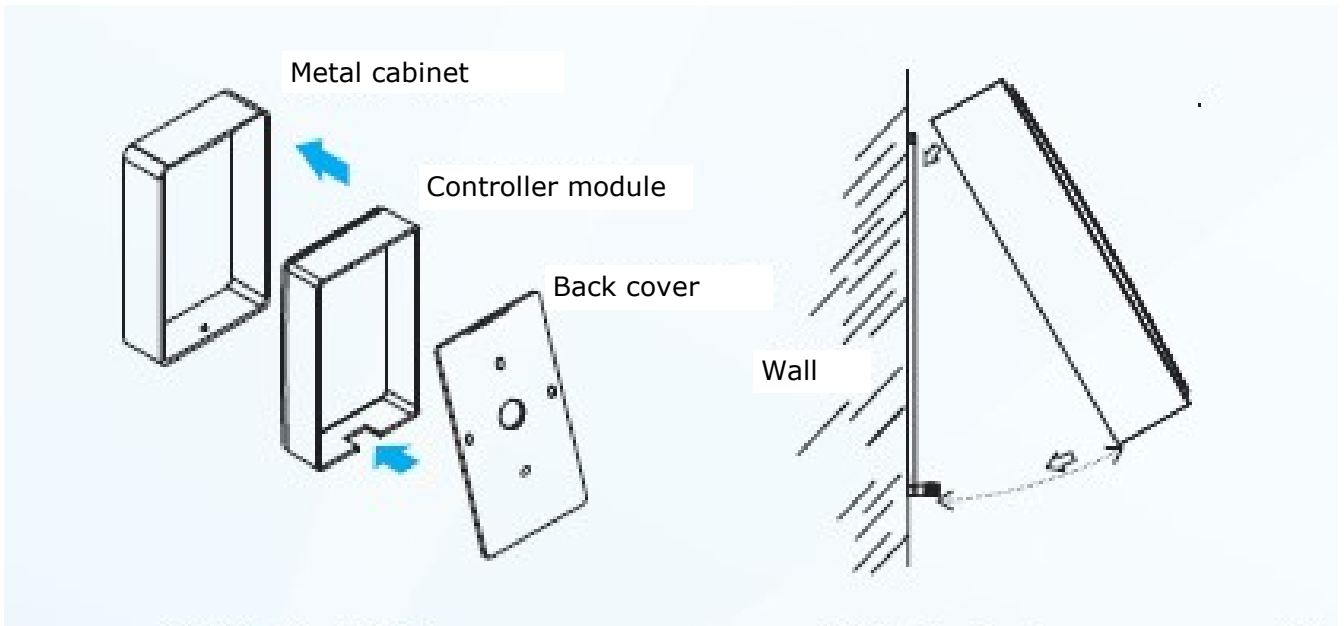
- one sound means that can access
- three sounds indicate that no access
- the continuous long beep indicates that the device has been removed





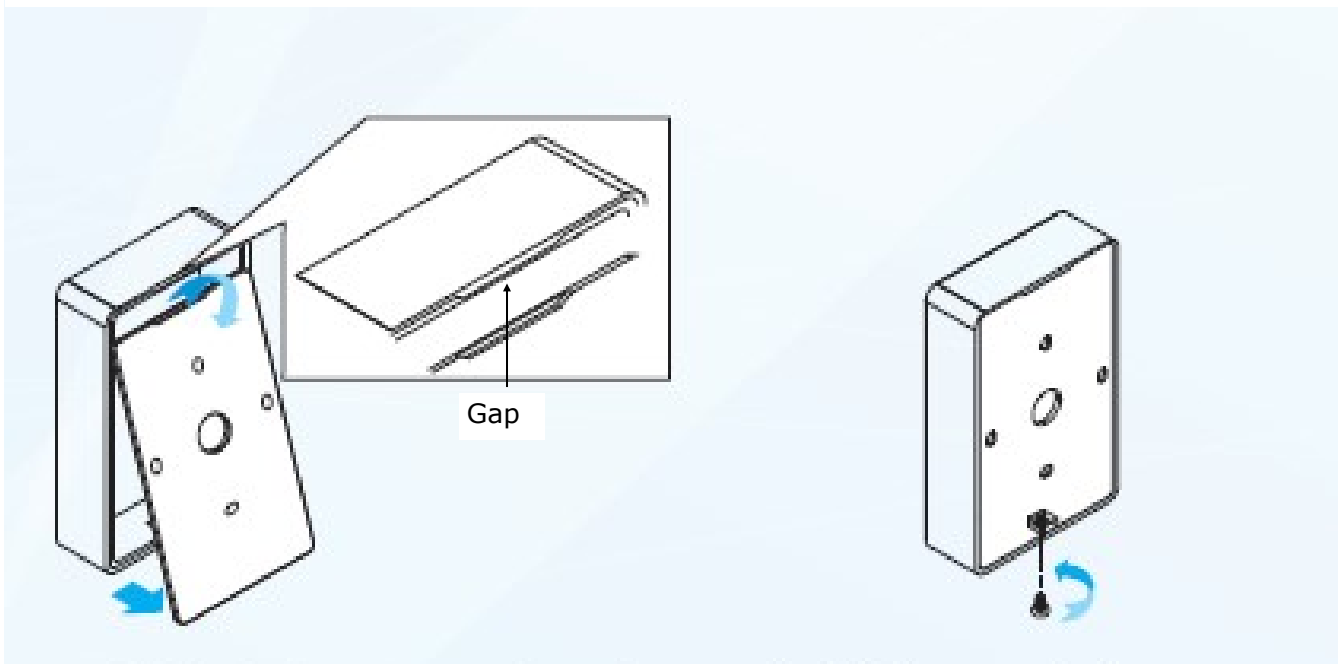
**Block diagram of KDH-KZ3000FP-IP-U\_M controller accessories connection**  
 (details description on the previous page)

## Installation instruction



1. Unscrew the bottom screw and separate the rear panel of the controller. Use it as a template for the mounting holes. Drill 4 holes for the mounting screws and one in the middle for the cables.

2. Attach the back cover of the controller to the wall. Place the plugs from the wires in the appropriate sockets and drag them to the other side of the wall.



3. Mount the controller module on the back cover. Pay attention to the slot on the top edge of the controller case and use it as a catch.

4. Push the controller module with the housing to the back cover and secure it with a screw from the bottom.

## Programming the controller in network mode

Controller KDH-KZ3000FP-IP-U\_M can operate in network mode under the supervisory software installed on computer.

It is also possible operation of the controller in the "off-line" after programming with the supervisory software when the controller is connected through an IP port.

### General guidelines for the installation of the controller

- Before installing the controller should be familiar with this manual.
- Installation of the controller can be performed only by qualified personnel with the appropriate certified to install and service this type of equipment.
- The controller must be installed within a protected space at a temperature of above + 2 ° C and normal humidity.
- Controllers in the system should be located so that the minimum distance from cables and high-voltage devices and other devices that generate electrical noise was 2 m. The minimum distance from telephone lines should be 1 m, and from 8 m transmitting devices.
- As the housing of the controller is equipped with a tamper sensor so care must be taken to the surface for mounting the controller housing it was hard and smooth.
- The controller should be powered from a linear power supply with backup battery with parameters. 12 VDC, 1A. This takes into account the possible supply of an electric lock with the same power supply. In this case the at the lock terminals should be installed diode 1N4004 in the reverse direction.
- Wiring and performing any work on the internal components of the controller while power is categorically prohibited. This can lead to damage.
- Before connecting the controller to the power supply must perform all the necessary connections in accordance with the instructions.
- The connection to the computer is to be implemented using the IP port.
- Each controller must be set to a different IP address.

**NOTES:** *Tamper and communication password  
(for location look at diagram on page 8):*

*Keeping pressing the button (with small spring), device will under tamper status.*

*To clear communication password by press the button for three times.*

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