Installation Manual

INTEGRATED ACCESS CONTROLLER

KZ-1000

KaDe

VERSION 1.0

AAT Holding sp. z o.o.
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CONTENTS

1. Introduction

KZ-1000 Integrated access controller

The KZ-1000 controller has been designed for access control system and to be mounted on a wall without any additional enclosure. This is one door controller. With additional reader it can use for two way control.

KZ-1000 can work in standalone or in network mode. In network mode it can work on-line or off-line with supervisor KaDe Lite software on PC.

KZ-1000 include following components in one plastic cabinet:

- controller module
- card reader - 125 kHz ISO UNIQUE
- keypad for PIN with bell button
- LED and Buzzer
- anti-disassemble sensor

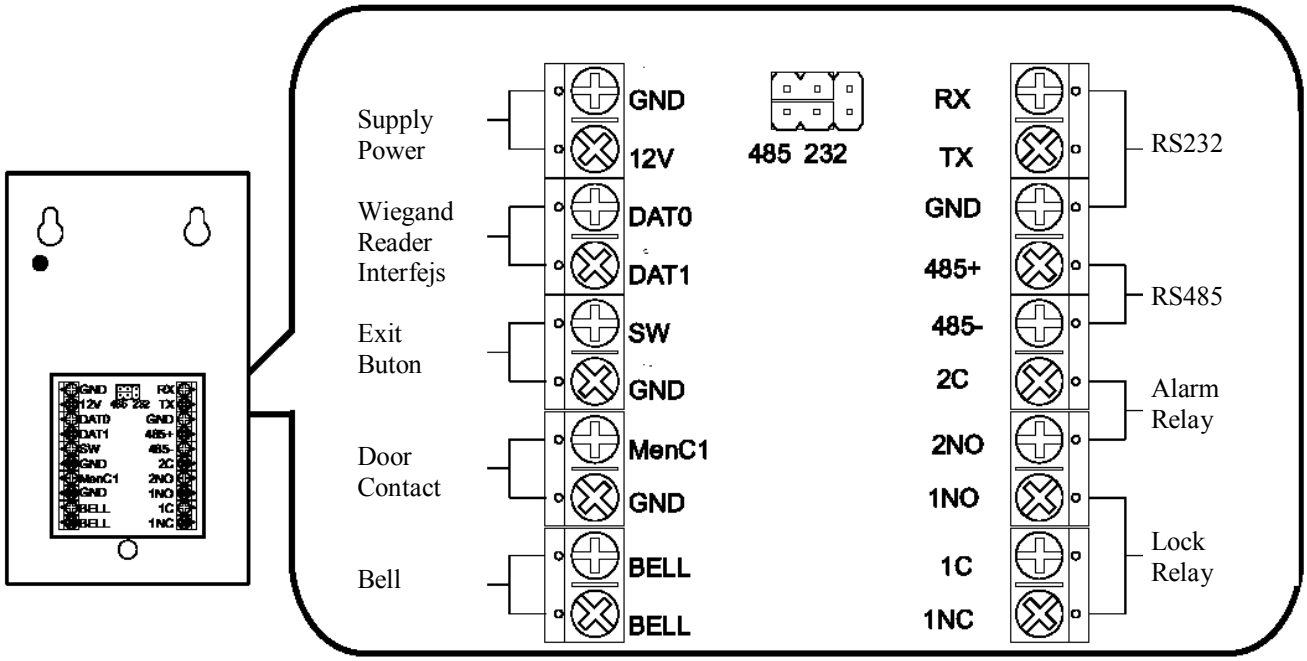
Controller module include:

- Supply Power connectors (+12V, 110 mA)
- Communication port RS232 for direct connection with PC and KaDe Lite
- Communication port RS485 for connection with network
- Second reader port for two way control (Wiegand output format)
- Door status sensor input
- Exit button input
- Lock control relay output
- Alarm relay output
- Jumper sets for communication mode set

LED located on front panel - upper left
Blue LED - supply power indicator
Green LED - access granted (light when door unlocked)
Orange LED - programming mode

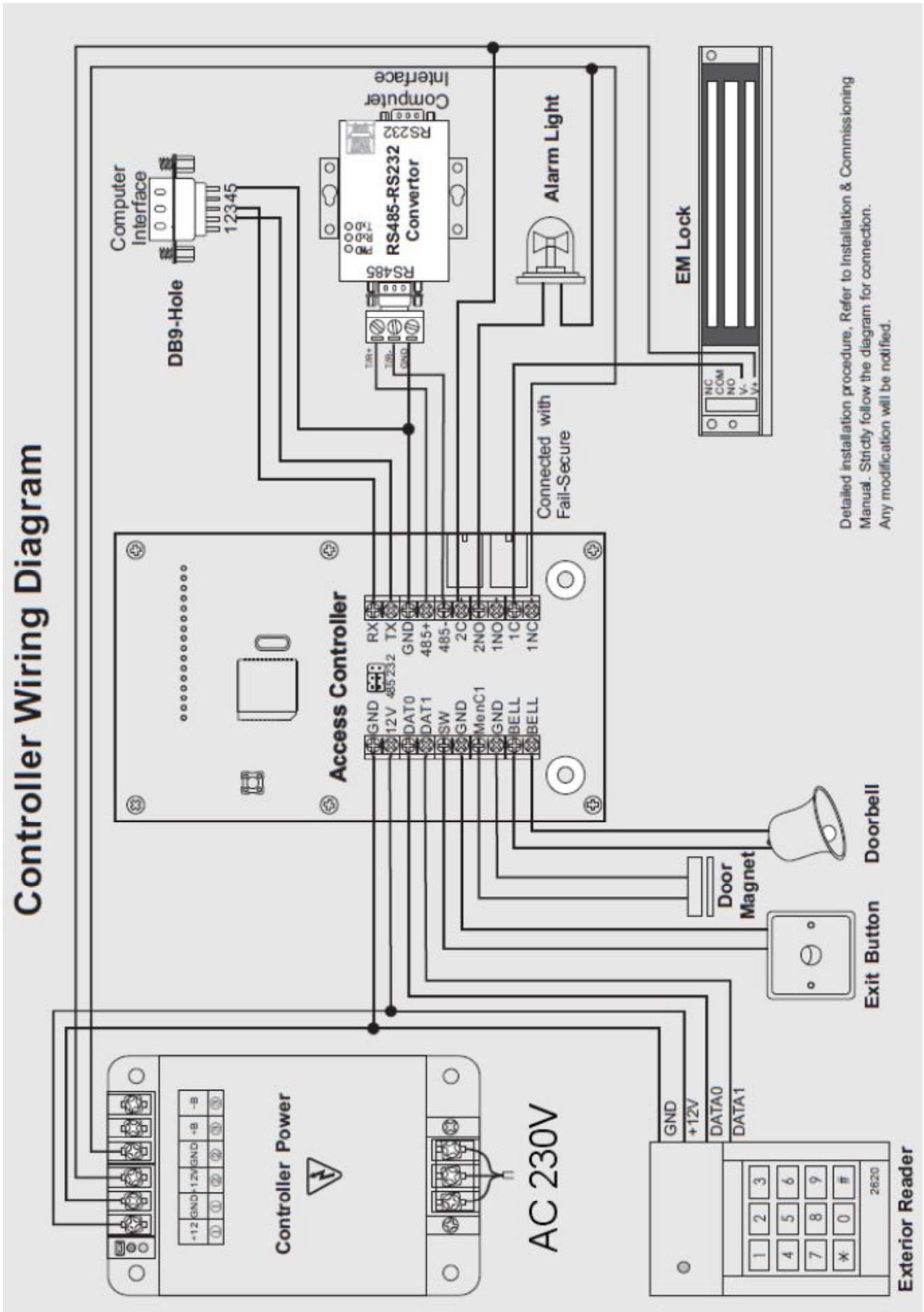
All components are mounted in esthetics case. KZ-1000 controller is designed for indoor use only. When entry from outdoor is needed, additional out door reader should be connected (e.g. C-10)

Controller back side - connectors view

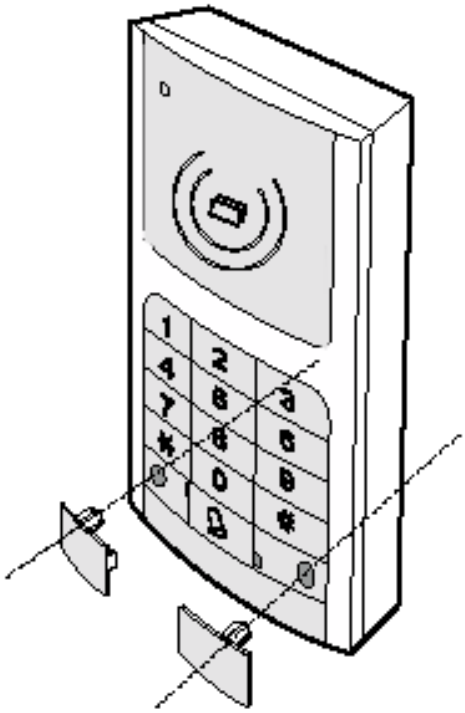


KZ-1000 Controller Technical Data

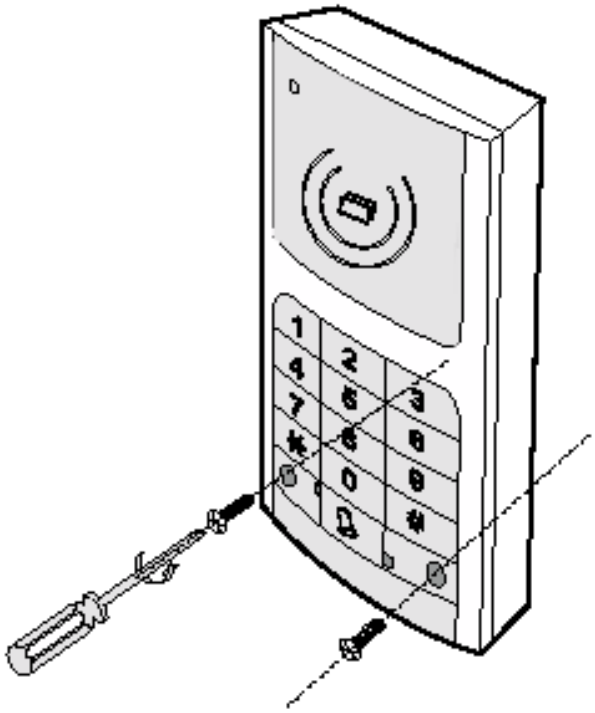
Parameter or function name	Parameter value or function description
Buffer capacity	
- Card buffer	3000 (1500 in standalone mode)
- Event buffer	8200
Electrical parameter	
- Supply power	9 - 15 VDC
- Current load	< 110 mA
- anti-static capability:	< 15kV
- Data preserved when power off	Up 10 years
Environment parameter	
- Environment	For indoor installation only
- Working Temperature	From+2°C to 55°C
- Relative Humidity	0% - 95%
- Size (L x W X H)	150 x 88 x 25 mm
Communication ports	
For direct connection with PC	- RS232
For network connection	- RS485
Readers and Cards	
- Integrated reader	For UNIQUE card, read range 5 - 15 cm
- External (for two way control)	26 bit Wiegand output format
- Card format	ISO UNIQUE (125 kHz)
- External reader keypad PIN format	4-bits, without buffering
Inputs	
- Door contact input	NO / NC (NO - default)
- Exit button input	NO / NC (NO - default)
Relay output	
- Strike (lock) control	Relay DC 12V 3A (NO / C / NC)
- Alarm bell control	Relay DC 12V 3A (NO / C)
Access level parameter	
- Access level	42
- Schedule	20
- Holiday	32
Identification mode	Card, Card + PIN, PIN only (standalone)
Alarm relive	Automatic or manually by operator



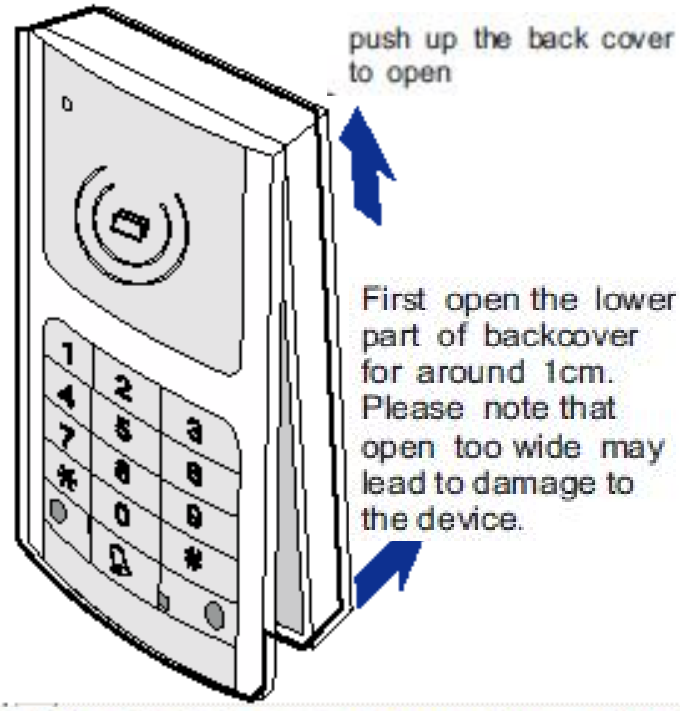
Installation instruction



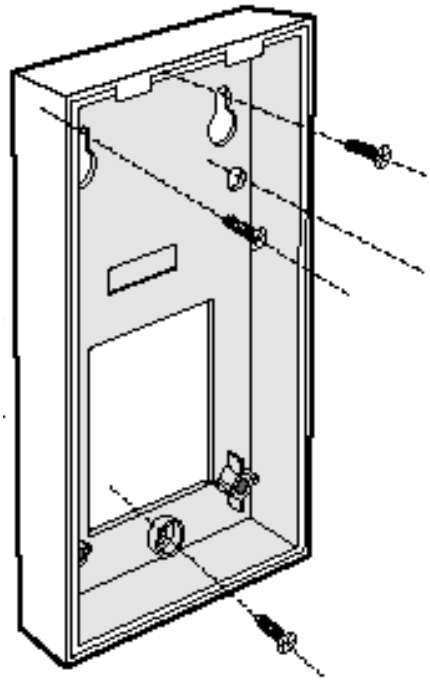
4.1 Remove the two keys first.



4.2 Unfasten the two screws.



4.3 Open the back cover and connect the device according to the wiring diagram.



4.4 Fix the backcover on the wall and reassemble the device. (according to 4.1, 4.2 and 4.3 in reversed order)

Off-line management - standalone mode

This function enables the admin user to manage card-holders by the integrated access controller without connecting to computer.

Max. 1500 cards/ card- holders can be managed in off-line manager mode. There is no conflict between off-line cards and cards read by computer.

The off-line card possesses top authority and is not affected by such functions as multiple card, initial card, remote control, anti-passback and access level. Standalone mode is recommended only for small system (a few doors).

Instruction for Keypad Function

Sound Indication:

One sound means correct input, continuously sound twice means error or exit.

Light LED Indication:

Blue light is for power, green for valid, yellow for Edit mode, yellow flash for "Waiting to input password", and yellow light on for "Edit mode status entered"

Keypad Edit mode:

Wait for 6 seconds after inputting password/card+password

1 Enter Edit mode

Push "*", yellow light flashes=>input administrator password, yellow light on,
I
Edit mode status entered.

Default administrator password is "000000".
If password is not inputted or wrongly inputted within 20s, sound twice and exit Edit mode status (orange light off and blue light on).
Only one operation can be perform in one step. For next operation administrator must enter Edit mode again.

2 Exit Edit mode

Push "#" to exit Edit mode status.

Warning: Default administrator password (000000) must be obligatory change after first enter in Edit mode (code 42). Leave default password make possible to enter in Edit mode non-privilege user. When you forget your own password to reset the controller can be done from within Kade - context menu: Controller / Restore Defaults. Password can also be sent from Kade Lite (Setup controller) simultaneously to all controllers. Feature available from version V19.

3. Basic setup

Basic setup includes:

- system initiation
- address setup
- anti-disassemble alarm setup
- door- open setup.

3.1 System Initiation

System initiation will clear all original setup of the controller (including pass mode setup, basic setup, all keypad- added card, password etc. however, administrator setup will not be changed).

Edit mode -> **input 11** -> wait for 3 second, blue light on
I
exit Edit mode status

3.2 Setup address

Address is applied to differentiate the controller from any other devices on the network. An address within a single 485 network should be unique.

Edit mode -> **input 12** -> input address e.g. 29 (range 00-31)
I
exit Edit mode, address is set as 29 (default 00)

3.3 Anti-disassemble alarm setup

Anti-disassemble alarm is applied to protect controller from being disassembled or damaged.

Edit mode -> **input 14** -> input Edit mode code:
00 - cancel alarm, 01 - activate alarm
I
exit Edit mode status

3.4 Door-open Setup

After use valid (legal) card door strike will be unlocked for time duration set below.

Edit mode -> **input 21** -> input door-open duration (range 00-99 second)
I (default 3 sec.)
exit Edit mode status

3.5 Door contact input type

Depend of door magnet type set correct input type. (firmware V.01)

Edit mode -> **input 26** -> input two digits code: 10 - NO type, 00 - NC type
I (default - NO)
exit Edit mode status

3.6 Exit button input type

Depend of exit button type set correct input type. (firmware V.01)

Edit mode -> **input 27** -> input two digits code: 10 - NO type, 00 - NC type
I (default - NO)
exit Edit mode status

4. Pass Mode Setup

This function is used to define the mode of pass, including three modes:

- Card
- Card plus Password
- Password

For Card+Password and Password mode, the Door-open password and Card-holder password are the same for all users.

4.1 Open with card only

Edit mode -> **input 223** -> door will be opened once the card is valid

4.2 Open with card plus password

Edit mode -> **input 234** -> door will be opened once the card is valid and card-holder password is correctly inputted

4.3 Door open password - disable

Edit mode -> **input 243** -> input door-open password, can not open the door

4.4 Door open password - enable

Edit mode -> **input 254** -> input door-open password, can open the door

5. Off-line user management

This function enables the user to manage card-holders by the integrated access controller without connecting to computer.

Max. 1500 cards/ card- holders can be managed in Off-line manage mode. There is no conflict between off-line cards and cards read by computer. The off-line card possesses top authority and is not affected by such functions as multiple card, initial card, remote control, anti-passback and access level. It means that those cards are valid all time.

Each card have unique ID from range 0000-1499 in controller memory. Due to administrator can delete any card using only ID. It’s recommended to prepare list with name and ID before add card.

It’s possible do add group of card number in one operation. Cards are ready to use immediately after add.

5.1 Add multiple cards

A number of cards can be registered in the device, with a designated first number. The second card will be assigned with a number next to the number designated to the first card. This continues until user exits the function automatically or manually.

Edit mode -> **input 31** -> input 4-digit initial number (range from 0000-1499) -> read the card and device sounds once, then read the second card -> -> complete input and push # to exit

5.2 Add single cards

User can designate a certain number to a card. Only one card can be designated in one time. If the number has been designated to other card before, the newly designated card will overwrite the original card (the one with this number before).

Edit mode -> **input 32** -> input 4-digit initial number (range from 0000-1499) -> read the card and device sounds once, exit automatically

5.3 Delete one card

User can invalidate a card by delete the card number registered in the controller. Only one card can be deleted in one time.

Edit mode -> **input 33** -> input 4-digit initial number (range from 0000-1499) -> exit automatically, the card deleted is invalidated

5.4 Delete All Cards

This function will invalidate all the keypad-registered cards; similarly, initiation will also clear all cards. Please be warned for applying this function.

Edit mode -> **input 34** -> Automatic exit, all off-line subscribers will be cleared.

6. Password management

Password management refers to the management of administrator password and card- holder password. Administrator password is used to enter Edit mode status. Card-holder password is used to open the door in the password or card+password door-open mode.

6.1 Set card-holder password

Card-holder password can be applied in both the password and the card+ password door- open mode. In the " Screen Door-open Password" mode, password only is ineffective for opening door.

Edit mode -> **input 41** -> input 6-digit password, yellow light flashes -> input 6-digit password again, exit automatically.

6.2 Set administrator password

Default administrator password is: 000000

Edit mode -> **input 42** -> input 6-digit password, yellow light flashes -> input 6-digit password again, exit automatically.

If sounds twice, error occurs and password setting is ineffective.

Warning: Default administrator password (000000) must be obligatory change after first enter in Edit mode (code 42). Leave default password make possible to enter in Edit mode non-privilege user. When you forget your own password to reset the controller can be done from within Kade - context menu: Controller / Restore Defaults. Password can also be sent from Kade Lite (Setup controller) simultaneously to all controllers. Feature available from version V19.

Codes table - standalone mode

Parameter or function name	Code value (after enter in Edit mode mode)
Edit mode	
Enter Edit mode	* plus administrator password (default: *000000)
Exit Edit mode	**#**
Basic parameters	
Controller initiation	**11**
Controller address	**12** (00 - 31)
Anti-disassemble alarm	**14** (00-disable, 01-enable)
Door unlock time	**21** (00 - 99 sec.)
Door contact input type	**26** (10 - NO, 00 - NC)
Exit button input type	**27** (10 - NO, 00 - NC)
Pass mode	
Card only	**223**
Card + Password	**234**
Password only - mode disable	**243**
Password only - mode enable	**254**
User management	
Add multiple cards	**31**
Add single card	**32**
Delete one card	**33**
Delete all cards	**34**
Card-holder password	**41**
Administrator password	**42**

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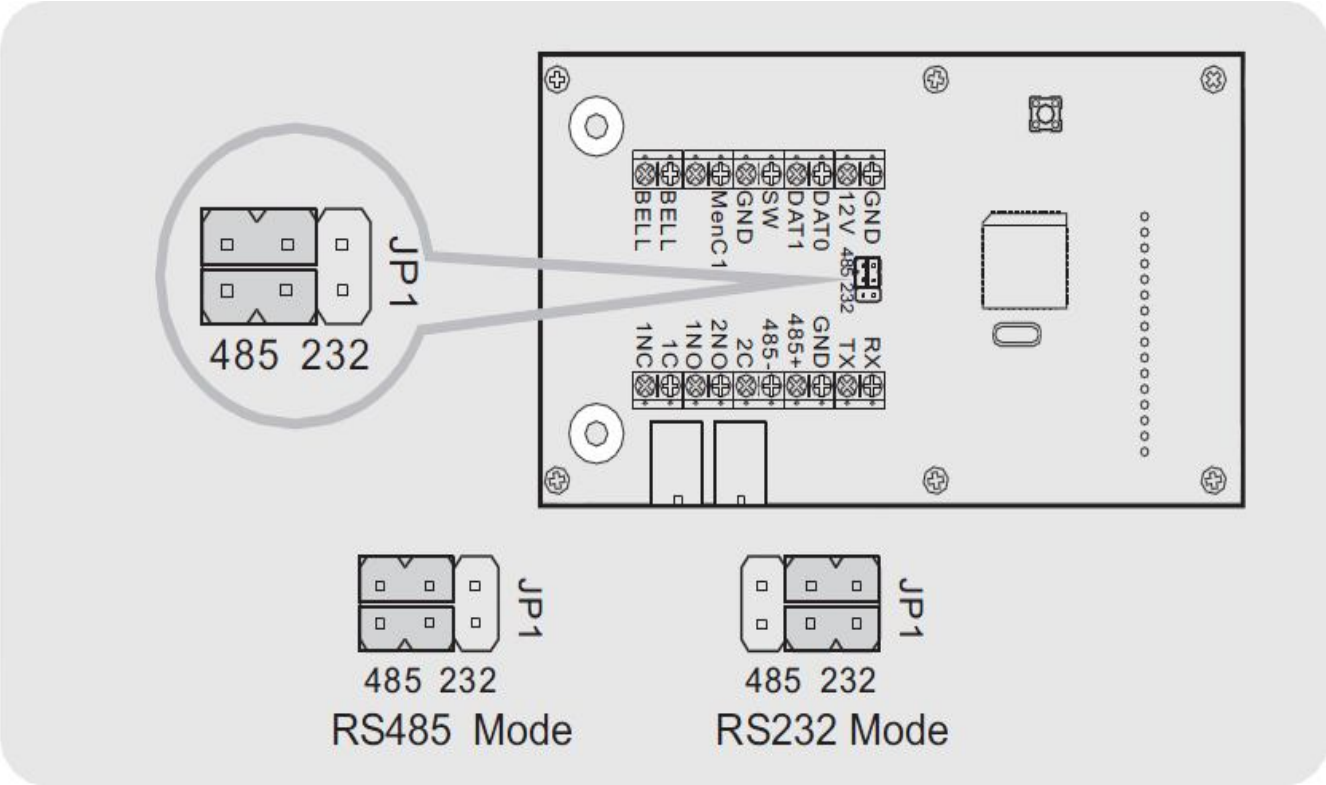
Communication mode setup

KZ-1000 controller can operate in standalone mode or in network mode. In network mode it communicate with KaDe software installed on PC.

There are three way for controller communication with PC:

- direct connection using RS232 (for one controller only)
- network connection using RS485 port and transmission converter
- Ethernet (LAN) connection using TCP/RS232/485 transmission converter

Programming controller from KaDe software enable setup more features and on-line monitoring. After download database from PC, controller can operate successfully in off-line mode.



Jumpers JP1 setup on the back side of controller
for correct communication mode

Read User Manual for KaDe software for detail information's about system programming or use Dynamic Help files display on the screen.

Rules for Installation

- Selection of exterior components may be based on installation environment. However, the selection should be in accordance to existing National and International Standards as well as matched with the controller. A careful study on the instructions on exterior components selection is strongly advised.

- Installation of the control unit (including microprocessor) should not be inside the high-voltage box or near any large converter or high voltage/ current devices. The components should be installed in places easy for uninstallation in order for convenient maintenance.

- The controller board should be connected to earth independently. Please ensure that grounding has been provided in the installation site. When installing the box with microprocessors inside, please ensure that the screw and lock has been fastened.

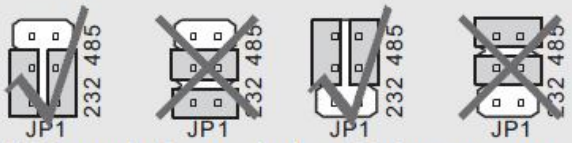
- The 230V terminal power cable should be plugged in separate power supply socket (the power cable should not share the socket with other devices) with grounding ensured. Supply power unit with backup battery is recommended - 12 VDC, 1A (also for electric lock).

- Do not crossover the system cables through other devices.

All components should not be installed in places with excess high/low temperature (above +2°C) or relative humidity: 0%-95%.

Failure to follow the instructions below may lead to the malfunction of the system, property damage and even physical injury.

2.1 Connection and operation on any components or the controller with power on is strictly prohibited.
2.2 Connect the system according to the instructions described in this manual.
2.3 The RS232 cable connected to the computer should be no more than 15 meters.
2.4 The RS485 cable connected to the computer should be no more than 1200m.
2.5 Please use the specified power supply.
2.6 The communication mode between the controller and computer should be either RS232 or RS485.



2.7 When RS485 mode is applied, a highway can connect maximally 32 controllers with identification address differs from each other.

NOTES

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