

# AC-KBD-288 Waterproof Access Controller Keypad/Reader/Controller

## Description

The keypad is a single door multifunction standalone access controller or a Wiegand output keypad or card reader. It is suitable for mounting either indoor or outdoor in harsh environments.

The keypad has non-waterproof and waterproof two versions. The electronics are fully potted, so the waterproof keypad conforms to IP68. The keypad supports up to 2000 users. The inbuilt card reader supports EM or Mifare1 13.56 MHz frequency cards. It supports three kinds of opening mode: Card, PIN, or Card + PIN.

The keypad is an ideal choice for door access not only for small shops and domestic households but also for commercial and industrial applications such as factories, warehouses, laboratories, banks and prisons.

## Features

1. Waterproof version: conforms to IP68
2. Full programming from the keypad
3. 2000 uses, supports Card, PIN, Card + PIN
4. Can be used as a standalone keypad, Pin length 4 digits
5. Backlight keypad
6. Wiegand 26/34 input & output, WG4/8 for pin.
7. One programmable Relay output, NO, NC, COM
8. Adjustable Door Output time, Alarm time, Door Open time
9. Block enrollment, can enroll maximum 2000 consecutive card within 2 minutes.
10. Very low power consumption (<60Ma)
11. Easy to install and program
12. Built in light dependent resistor (LDR) for anti tamper
13. Built in buzzer
14. Red, Green LEDS display the working status
15. 12~24VDC

## Remark

1. Before you power on the keypad, please check whether your power is 12VDC-24VDC, and don't connect reversely.
2. When you test the keypad, please cover sensitive tamper button back of the keypad, otherwise will alarm.

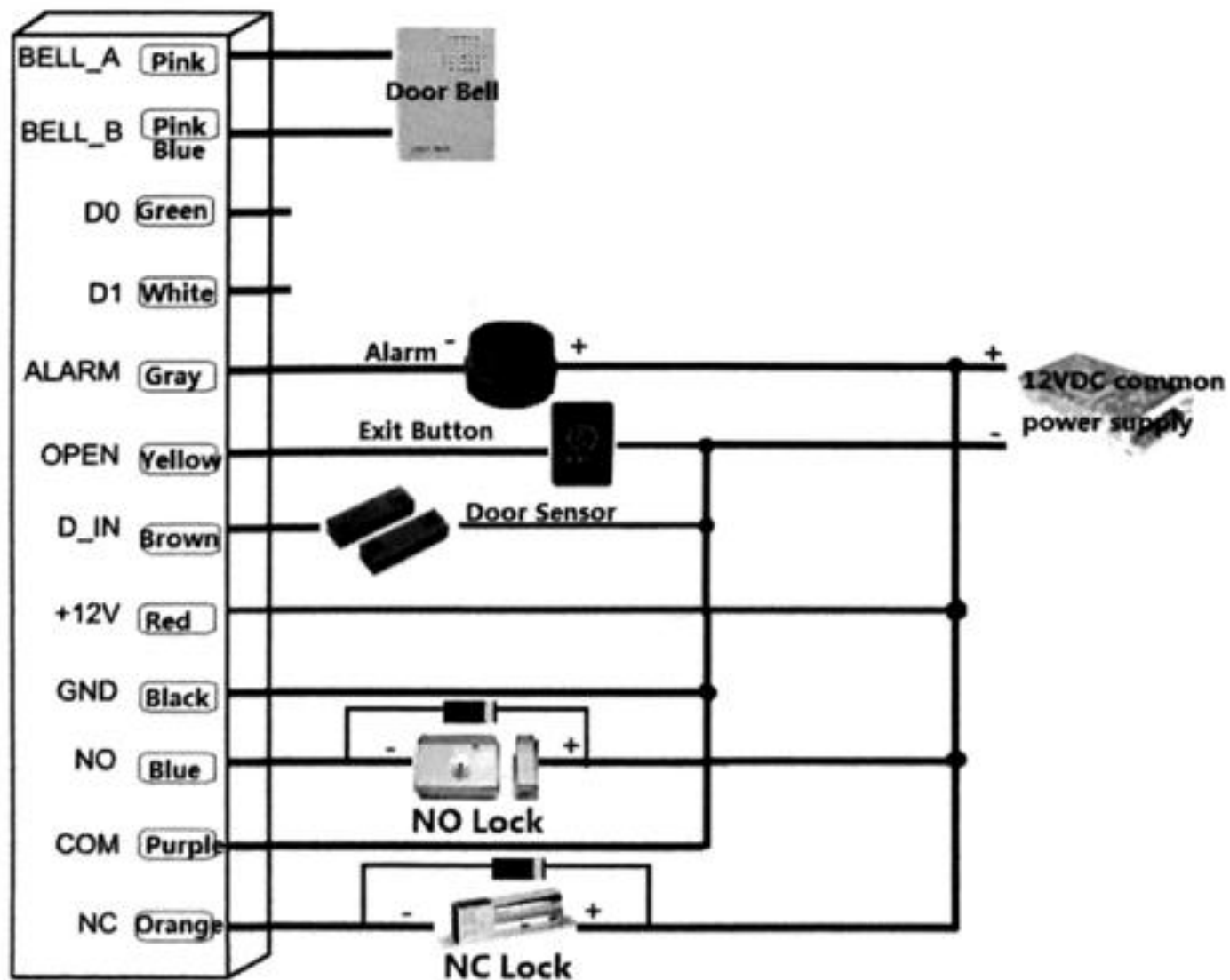
3. The keypad should away from strong signal, strong power.
4. If the pin user function is not useful, please check whether you set the card only opening mode.

## Wiring

No	Color	Function	Description
1	Pink	BELL_A	Doorbell button one end
2	Pink Blue	BELL_B	Doorbell button the other end
3	Green	D0	Wiegand Output/Input D0
4	White	D1	Wiegand Output/Input D1
5	Gray	ALARM	Alarm negative(alarm positive connected 12 V+)
6	Yellow	OPEN	Exit button one end(the other end connected GND)
7	Brown	D_IN	Door sensor one end(the other end connected GND)
8	Red	12V+	DC12V-DC24V
9	Black	GND	GND
10	Blue	NO	Relay NO
11	Purple	COM	Relay COM
12	Orange	NC	Relay NC

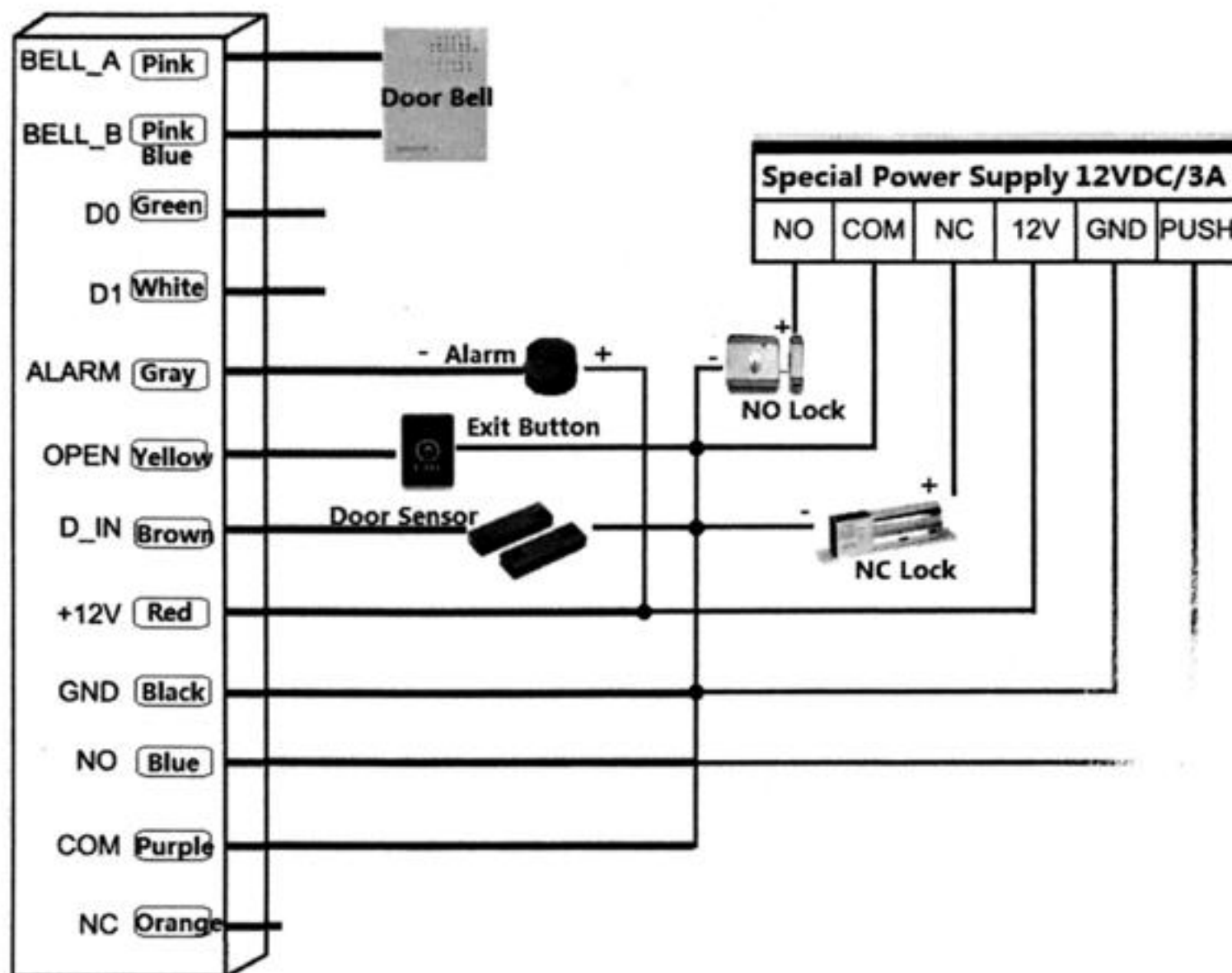
## Connection Diagram

### 1.Common Power Supply Diagram





## 2. Special Power Supply Diagram.



### Notes:

1. Connect the negative pole of the lock to NC is for Fail safe lock.
2. Connect the negative pole of the lock to NO is for Fail-secure lock.

### To Reset to Factory Default

To reset to factory default, power off, press **#**, hold it and power on, release your hand after you heard three beeps, that means reset to factory default setting successfully.

**Remarks:** Reset to factory default, the user's information is still retained.

### Anti Tamper Alarm

The KEYPAD uses a LDR (light dependent resistor) as an anti tamper alarm. If the keypad is removed from the cover then the tamper alarm will operate.

## Sound and Light indication

Operation Status	Red Light	Green Light	Buzzer	Sound
Stand by	Shines slowly	-	-	
Press keypad	-	-	Di	Short ring
Operation successful	-	Bright	Di-	Long ring
Operation failed	-	-	DiDiDi	3 short ring
Enter into programming mode	Bright	-	Di-	Long ring
In the programming mode	-	Bright	-	
Exit from the programming mode	Shines slowly	-	Di-	Long ring
Open the door	-	Bright	D-	Long ring
Alarm	Shines quickly	-	Alarm	Alarm

# KEYPAD Detailed Programming Guide

## 1. User Settings

To enter the programming mode	* Master code # 666666 is the default factory master code
To exit from the programming mode	*
<b>Note that to undertake the following programming the master user must be logged in</b>	
To change the master code	1 New code # Repeat New code # The master code is any 6 digits
<b>To Add Users</b>	
To add a <b>card</b> user (Method 1) This is the fast way to enter cards using ID number auto generation.	2 Read card # Cards can be added continuously without exiting programming mode 2 Read card 1 , Read card 2 ..... #
To add a <b>card</b> user (Method 2) This is the second way to enter cards using User ID Allocation. In this method a User ID is allocated to a card. Only one user ID can be allocated to a single card.	2 ID number # Read Card #
To add <b>card</b> user (Method 3) Add a <b>series cards</b> users – <b>Block Enrollment</b>	2 ID number # 8 digits Card number # The ID number is any number between 1~2000. The 8 digits card number is the last 8 digits on the card. Maximum 2000 cards can be enrolled at a stretch within 2 minutes.
To add card user(Method4)	2 8 digits Card number # ..... 8 digits Card number # The 8 digits card number is the last 8 digits on the card.
To add a <b>Pin</b> users	2 User ID number # PIN # The ID number is any number between 1~2000. The PIN is any 4 digits between 0000~9999 with the exception of 1234 which is reserved. Users can be added continuously without exiting programming mode as follows: 2 User ID no 1 # PIN # ..... User ID no n # PIN #
To Add a <b>card</b> and <b>Pin</b> user (The PIN is any 4digits between 0000~ 9999 with the exception of 1234 which is reserved.)	Add the card as for a card user Press * to <b>exit from the programming mode</b> Then allocate the card a PIN as follows: * Read card 1234 # PIN # Repeat PIN #



<b>To Delete Users</b>	
To delete a PIN user	3 [User ID number] [#] Users can be deleted continuously without exiting programming mode
To change the PIN of a PIN user (This step must be done out of programming mode)	* [ID number #] [Old PIN #] [New PIN #] Repeat New PIN #
To delete a card user by card number. Note users can be deleted continuously without exiting programming mode	3 [Read Card] [#]
To delete a card user by user ID. This option can be used when a user has lost their card	3 [User ID] [#]
To delete a card user by card number	3 [8 digits Card number] [#]
To delete ALL users. Note that this is a dangerous option so use with care	3 0000 [#]
<b>Setting the opening mode</b>	
Set valid card only users	4 [0] [#] Entry is by card only
Set valid card and PIN users	4 [1] [#] Entry is by card and PIN together
Set valid card or PIN users	4 [2] [#] Entry is by either card or PIN (default)
<b>To change a PIN in card and PIN mode</b>	
To change a PIN in card and PIN mode (Method 1) Note that this is done outside programming mode so the user can undertake this themselves	* [Read Card] [Old PIN #] [New PIN #] Repeat New PIN #
To change a PIN in card and PIN mode (Method 2) Note that this is done outside programming mode so the user can undertake this themselves	* [ID number #] [Old PIN #] [New PIN #] Repeat New PIN #
<b>To unlock the door</b>	
For a PIN user	Enter the [PIN] then press [#]
For a card User	[Read card]
For a card and PIN user	[Read card] then enter [PIN #]

## **2. Door Relay, Door Detecting, Alarm Settings**

<b>Door Relay Time Setting</b>	
To set door relay strike time	5 [0~99] [#] The door relay time is between 0~99 seconds, the factory default setting is 5 seconds.

## Door Open Detection

*Door Open Too Long (DOTL) warning.* When used with an optional magnetic contact or built-in magnetic contact of the lock, if the door is opened normally, but not closed after 1 minute, the inside buzzer will beep automatically to remind people to close the door and continue for 1 minute before switching off automatically.

*Door Forced Open warning.* When used with an optional magnetic contact or built-in magnetic contact of the lock, if the door is forced open, or if the door is opened after 20 seconds of the electro-mechanical lock not closed properly, the inside buzzer and alarm output will both operate. The Alarm Output time is adjustable between 0-3 minutes with the default being 1 minute.

To disable door open detection.  
(Factory default)

7 0 #

To enable door open detection

7 1 #

## Alarm output time

To set the alarm output time (0-3 minutes) Factory default is 1 minute

6 0~3 #

**Keypad Lockout & Alarm Output options.** If there are 5 invalid cards or 5 incorrect PIN numbers in a 5 minute period either the keypad will lockout for 5 minutes or the alarm will operate for 5 minutes, depending on the option selected below.

Normal status: No keypad lockout or alarm (factory default)

8 0 # (Factory default setting)

Keypad Lockout

8 1 #

Alarm Output

8 2 #

## To remove the alarm

To reset the Door Forced Open warning

Read valid card or Master Code #

To reset the Door Open Too Long warning

Close the door or Read valid card or Master Code #

## RED LED setting

Red led not light in standby

9 0 #

Red led light in standby(factory default)

9 1 #



# Interconnecting Two Devices

## KEYPAD operating as a Controller

In this mode the KEYPAD can connect another wiegand output keypad as a slave keypad/reader. If you want to connect two keypads together, one for entry, another for exit, you need to add user in main keypad first, then connect slave keypads; If you connect 2 keypads first, it will be unable add users. See below picture.

