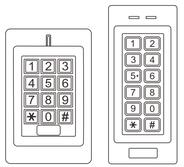
Access Control



Wide Slim

User Manual

INTRODUCTION

The keypad is a dual-entry multi-function access control with integrated keypad and card reader. It is designed and manufactured to perform in a wide range of indoor, outdoor and harsh environments.

The keypad supports up to 1100 users in multiple access configurations (Card,PIN or Card + PIN). Its built-in card reader supports 125KHz EM/ 13.56MHz Mifare frequency cards.

Both of the two relays on board can operate in Pulse Mode (suitable for access control) or Toggle Mode (suitable for arming/disarming alarms, switching lights, machines…etc),

The keypad offers advanced programming features like: advanced relay programming and door bell. These features make it 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

> Waterproof (IP66)
> Vandal resistant enclosure
> Backlit keypad
> Multi-color LED status display
> Two programmable relay output
> 1100 users (1096 Common users + 4 Panic users)
> Card type: 125KHz EM card/ 13.56MHz Mifare card
> Integrated alarm&buzzer output
> Low power consumption (55mA)
> Anti-tamper alarm
> Toggle mode to hold door or gate open
> Relay 2 supports external door bell
> 12~28V AC/DC power input

Specifications

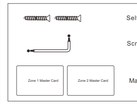
User Capacity	**1100 Cards/PINS**
Zone 1	1000 (998 common users + 2 panic users)
Zone 2	100 (98 common users + 2 panic users)
Operating Voltage	12~28V AC/DC
Idle Current	55mA
Active Current	80mA
Proximity Card Reader	**EM/Mifare** (Optional)
Radio Technology	125KHz EM/13.56MHz Mifare Card
Read Range	3-6cm
Wiring Connections	Electric Lock, Exit Button, DOTL, External Alarm, Door Bell
Relay	**Two (NO, NC, COM)**
Adjustable Relay Output Time	0-99 Seconds (5 seconds default)
Adjustable Alarm Output Time	0-3 minutes (1 minute default)
Lock Output Load	3 Amp Maximum
Alarm Output Load	3 Amp Maximum
Environment	**Meets IP66**
Operating Temperature	-40℃~60℃, or -40℉~140℉
Operating Humidity	10%~ 90% Non-Condensing
Physical	**Zinc-Alloy Enclosure**
Surface Finish	Powder Coat
Dimensions	L117 x W76 x H25mm (Wide) L130 x W56 x H23mm (Slim)
Unit Weight	600g (Wide) / 500g (Slim)
Shipping Weight	700g (Wide) / 650g (Slim)

Carton Inventory

Access Control

Diode IN4004 (For relay circuit protection)

Wall Anchors



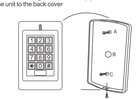
Self Tapping Screws

Screw Driver

Master Cards

INSTALLATION

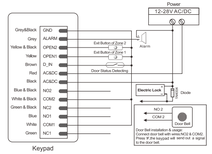
> Remove the back cover from the unit
> Drill 2 holes(A,C)on the wall for the screws and one hole for the cable
> Knock the supplied rubber bungs to the screw holes(A,C)
> Fix the back cover firmly on the wall with 4 flat head screws
> Thread the cable through the cable hole(B)
> Attach the unit to the back cover



Wiring

Wire Color	Function	Notes
Basic Standalone Wiring		
Red	AC&DC	12~28V AC/DC Regulated Power Input
Black	AC&DC	12~28V AC/DC Regulated Power Input
Grey&Black	GND	Negative Pole
Blue	NO 1	Normally Open Relay 1 Output
White	COM1	Common Connection for Relay 1 Output
Green	NC 1	Normally Closed Relay 1 Output
Yellow	OPEN1	Request to Exit Input 1(REX)
Advanced Input and Output Features		
Blue&Black	NO 2	Normally Open Relay 2 Output
White&Black	COM2	Common Connection for Relay 2 Output
Green&Black	NC 2	Normally Closed Relay 2 Output
Yellow&Black	OPEN2	Request to Exit Input 2(REX)
Grey	Alarm	Alarm Negative
Brown	D_IN	Door Status Detecting

Connection Diagram



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

Door Bell Connect: the Zone 2, it can be used to operate the door bell when no need to operate a second door. The wiring is connecting the door bell to NO2 and COM2. Press #, the keypad will send out a switching signal to the door bell, as long as you press the"#", the door bell will continuous operate, it will stop until you release the " #"

FUNCTION DESCRIPTION

Relay operation (Pulse mode and Toggle mode)

Both of the two relays on board can operate in Pulse Mode (suitable for access control) or Toggle Mode (suitable for arming/disarming alarms, switching lights, machines….etc)

Every time a valid tag/card read or PIN input in Pulse Mode, the relay will operate, for the pre-set relay pulse time.

Every time a valid tag/card read or PIN input in Toggle Mode, the relay changes state, which will not turn back until read card or input PIN again.

Master Card

There are two pre-programmed Master Cards, Zone1 Master Card is for faster adding/deleting user cards for zone 1. Zone 2 Master Card is for faster adding/deleting user cards for zone 2.

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.

PROGRAMMING

Configure the Keypad

Change the configure settings according to your application (optional). Multiple configuration settings can be changed at one time: enter program mode, change desired settings, then exit program mode.

Set Master Code

The 6 digits Master Code is used to prevent unauthorized access to the system. To interface with the Keypad, the manager will need a Master Code (factory default: 123456). We highly recommend immediate update and recording of your Master Code.

Programming Step	Keystroke Combination
1. Enter Program Mode	*** (Master Code) #**
2. Update Master Code	**0 (New Master Code) #** **(Repeat New Master Code) #**
3. Exit Program Mode	*

SET ACCESS CONFIGURATION

> **Card or PIN (Default):** The User must present a valid Card to the keypad or enter their PIN code followed by the # key, in order to be granted access.
> **Card + PIN:** The User must first present a valid Card to the keypad and then enter their PIN code followed by the # key, in order to be granted access.

Programming Step	Keystroke Combination
1. Enter Program Mode	*** (Master Code) #**
2.Card or PIN Zone 1 Zone 2 OR 2.Card + PIN Zone 1 Zone 2	 **4 0 #** **4 2 0 #** **4 1 1 #** **4 2 1 #**
3. Exit Program Mode	*

User Settings

To enter the programming mode	* Master code# #
To exit from the programming mode	*
Note that to undertake the following programming, the master user must be logged in	

Note:
When adding users, if the Card or PIN user has been enrolled already, you can not add it again on the same zone, or the device will give bleeps as error. But it is ok to enroll the same card or PIN for the both zones.

Simplified Instruction	
Function Description	**Operation**
Enter the Programming Mode	*** (Master Code) #** (123456 is the factory default master code)
Change the Master Code	**0 (New Master Code) # (Repeat New Master Code) #** (code: 6 digits)
Add Card User	**1 (Read Card) #** (for Zone 1) **2 (Read Card) #** (for Zone 2)
Add PIN User	**1 (User ID 1~1000) # (PIN)#** (for Zone 1) **2 (User ID 1001 ~1100) # (PIN) #** (for Zone 2) The PIN is any 4-6 digits between 0000 ~ 999999
Delete User	**3 (Read Card) #** **3 (User ID) #**
Exit from the Programming Mode	*
How to be granted access	
Card User	**Read Card**
PIN User	**Enter (PIN) #**

Factory default setting: Card or PIN mode	
To set users for Zone 1 (4 1 0 #)	
To add **Common PIN** users	1 User ID number # PIN # The ID number is any number from 1~998 The PIN is any 4-6 digits between 0000~999999 with the exception of 1234 which is reserved. Users can be added continuously without exiting programming mode as follows: 1 User ID no 1 # PIN # User ID no 2 # PIN #
To add **Panic PIN** Users	1 User ID number # PIN # The ID number is from 999~1000 The PIN is any 4~6 digits between 000~999999 except 1234.
To delete **PIN** users	3 User ID number # Users can be deleted continuously without exiting programming mode.
To change the **PIN** of a PIN user (Note: This step must be done out of programming mode)	* ID number # Old PIN # New PIN # Repeat new PIN #
To add **Card** Users. (Method 1) This is an easy way to enter cards with auto-generated ID numbers. The ID number will start from 1 if no user has been programmed	1 Read card/ Input 8/10/17 digits card number# # Card can be added continuously without exiting programming mode.
To add **Card** Users. (Method 2). This is the alternative 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.	**Common Card User** 1 ID number # Read card/ Input 8/10/17 digits card number # The ID number can be any number among 1~998 **Panic Card User** 1 ID number # Read card/ Input 8/10/17 digits card number # The ID number is from 999~1000
To **delete Card** users by cards. Note: Users can be deleted continuously without exiting programming mode.	3 Read card # The device can automatically identify the card of Zone 1 or Zone 2.
To **delete Card** users by user ID. This option can be used when a user has lost their card.	3 User ID #
To **delete card** users by card number	3 Input 8/10/17 digits Card number # Cards can be deleted continuously without exiting from programming mode.
To set users for Zone 2 (4 2 0 #)	
To set Users for Zone 2 is the same as Zone 1. But for Zone 2 the ID number for Common User is 1001~1098, for Panic User is 1099~1100. The menu to set Users for Zone 2 is heading with '2', for example:	
To add Card Users. Auto-generated ID numbers.	2 Read card/ Input 8/10/17 digits card number# # Card can be added continuously without exiting programming mode.
Card and PIN Mode	
To set users for Zone 1 (4 1 1 #)	
To Add a **card** and **PIN** user (The PIN is any 4~6 digits between 0000 & 999999 with the exception of 1234 which is reserved.)	Add the card as for a card user Press * to exit from the programming mode Then allocate the card a PIN as follows: * Read card /1234 # PIN # PIN #
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 # 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 # New PIN #
To delete a **Card and PIN** user just delete the card	3 Read Card # or 3 User ID #
To set users for Zone 2 (4 2 1 #) **The operation is the same as Zone 1.**	
Card **ONLY** mode (In this mode, users can only be valid by card)	
To set Card ONLY mode	4 1 2 # , Zone 1 4 2 2 # , Zone 2 Entry is by **Card only**

Relay Setting (Pulse mode, Toggle mode)

Pulse mode (Factory default)	For Zone 1: 5 1 1~99 # For Zone 2: 5 2 1~99 # The door relay time is between 1~99 seconds, the factory default setting is 5 seconds. 1 means Zone 1, 2 means Zone 2.
Toggle mode	For Zone 1: 5 1 5 0 # For Zone 2: 5 2 5 0 #

Door Alarm, Audible and Visual Response, Door Bell Settings

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, the inside buzzer and alarm output will both operate.

To disable door open detection (Factory default)	6 0 #
To enable door open detection	6 1 # It is optional to connect the D_IN line to LOCK1 or LOCK 2
Keypad Lockout & Alarm Output options. If there are 10 invalid cards or 10 incorrect PIN numbers in a 10 minute period either the keypad will lockout for 10 minutes or the alarm will operate, depending on the option selected below.	
To disable keypad lockout or alarm	7 0 # (Factory default)
To enable keypad lockout	7 1 #
To enable alarm output	7 2 #
Alarm output time	
To set the alarm output time (0-3 minutes) Factory default is 1 minute	8 0~3 #
Set Audible and Visual Response	
LED always OFF LED always ON	8 (4 0) # 8 (4 1) # (Factory default)
Keypad Backlit always OFF Keypad Backlit always ON Keypad Backlit Automatic OFF	8 (5 0) # 8 (5 1) # 8 (5 2) # (Factory default) Automatic OFF after 20 seconds, it will go ON by pressing any key (this key isn't taken in to consideration)
Enable Sound Disable Sound	8 6 # (Factory default) 8 7 #
Change Zone 2 to Door Bell (When no need to operate a second door, Zone 2 can be set to operate the Door Bell. The wiring is connecting the door bell to COM2 and NO2. Press #, the keypad will send the signal to the door bell.	
Zone 2	8 8 # (Factory default)
Door bell	8 9 #

To remove the alarm	
To remove the Door Forced Open warning	Read valid card/PIN: or Master Code #
To remove the Door Open Too Long warning	Close the door or Read valid card /PIN: or Master Code #

OTHERS

Using Master Cards

Zone 1 Master Card (For faster adding/deleting card users for Zone 1)	
Add a User Card	**1. (Read Zone 1 Master Card)** **2. (Read User Card)** Repeat step 2 for additional user cards **3. (Read Zone 1 Master Card)**
Delete a User Card	**1. (Read Zone 1 Master Card TWICE)** **2. (Read User Card)** Repeat step 2 for additional user cards **3. (Read Zone 1 Master Card)**
Zone 2 Master Card is for faster adding/deleting card users for Zone 2. Same operation as Zone 1 Master Card.	

Reset to Factory Default:
This will reset the keypad to the factory default but all card/PIN information will still be retained. This will also require reprogramming of the Master Cards.

NOTE: This is useful if the original Master Cards have been lost.

1. Power off the keypad
2. Press * and hold the button while power is restored to the keypad.
3. Release the button and wait until the amber LED shines.
4. Present any 125KHz EM / 13.56MHz Mifare card or Master Card (provided) to the keypad, this card is now the **Zone 1 Master Card.**
5. Present any 125KHz EM / 13.56MHz Mifare card or Master Card (provided) to the keypad, this card is now the **Zone 2 Master Card**.

When the red LED begins to blink, the keypad has been successfully reset.

Erase all Users
This will delete ALL User data of Zone1 or Zone 2 or Both.
1. Enter Program Mode by press. *(Master Code) #.
2. Press 30000 # (for Zone 1)
Or
2. Press 90000 # (for Zone 2)
3. Exit. *
All configuration data is retained.

Sound and Light Indication

Operation Status	Red LED	Green LED	Bule LED	Sounds
Power on	Bright	--	--	Short Single Beep
Stand by	Bright	--	--	
Press Keypad	Flashing	--	--	Short Single Beep
Enter Master Code Entry Mode	Flashing	--	--	Short Single Beep
In program mode	Flashing	Single Flash	--	Short Single Beep
Entered Program Step Successfully	Flashing	Single Flash	--	Short Single Beep
Entered Program Step Incorrectly	--	--	--	3 Short Beeps
Exit from the programming mode	Bright	--	--	Short Single Beep
Entry Granted for Zone 1	--	ON	--	Short Single Beep
Entry Granted for Zone 2	--	--	ON	--
Alarm Mode Engaged	Flashing	--	--	Alarm

FCC STATEMENT :

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.
Warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.