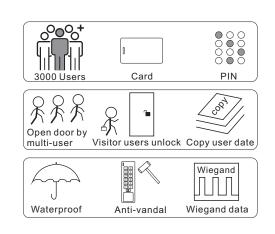
Access Control/ Reader



User Manual

INTRODUCTION -----

This device is standalone access control. It supports access by RFID card, pin, and multi users, also support visit users (temporary users). The user data can be transferred and copied into other devices. Other functions supported door contact, 2 devices can be interlock, anti-duress. It can be also set as Wiegand reader work with access controller.

Features and Benefits

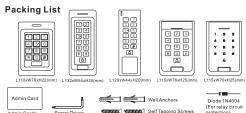
- > 5 Visitor Users
- > User data can be transferred

> Adding card automatically function: solve the problem of getting back the registered cards when add/replace a new device

- > Support bulk addition with cards numbered sequentially
- > Pulse Mode, Toggle Mode
- > Wiegand 26bit~44bit, 47bit,56bit, 58bit, 64bit, 66bit Output/ Input
- PIN: 4bit/8bit/Virtual card number (ASCII) output > Mifare card type: DESFire/ PLUS/ NFC/ UltraLight/ S50/ S70/ Class/ Pro...
- Specifications

opecifications	
Operating Voltage	10-24V DC
User Capacity	3000
Idle Current	≤40mA
Working Current	≤100mA
Read Range	≤10cm
Card type	EM/ Mifare/ EM+Mifare Card
Card Frequency	125KHz/ 13.56MHz
Lock Output Load	≤2A
Alarm Output Load	≤500mA
Operating Temperature	-40°C~+60°C,(-40°F~140°F)
Operating Humidity	10%~98%RH

01

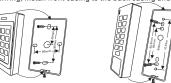


INSTALLATION

> Remove the back cover from the unit with screw. > Drill hole on the wall according to the back size of the machine

and fix the back cover to the wall > Thread the cable through cable hole, connect related cable

For the un-used cable please separate with insulating tape. > After wiring, install front casing to the back casing and fix well



Sound and Light Indication

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Operation Status	Light	Buzzer
Stand by	Red light bright	
Enter programming mode	Red light shines	
In the programming mode	Orange light bright	
Open lock	Green light bright	One beep
Operation failed		3 beeps

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Purple	COM	Relay COM
Blue	NO	Relay NO
Black	GND	Negative Pole
Red	DC+	10-24V DC Power Input
Yellow	OPEN	Request to Exit Button
Brown	D_IN	Door Contact
Grey	ALARM-	Alarm Negative
Green	D0	Wiegand output/input
White	D1	Wiegand output/input
Pink	BELL	External BELL
Pink	BELL	External BELL

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Factory Default settings and add admin cards

Wire Color Function Notes

NC

1. The first step, please connect one port of the exit button to the yellow cable of the device, another port connected to the negative pole of the power. Then follow the next operations.

2 Power off press and hold on the exit button power on release the push button after hearing two beeps. The LED light flash alternately red and green, swipe the card twice in a row, hearing a long beep, and then entering standby mode. Factory reset successfully for the device.

1) Reset to factory default will not delete the user data. 2) During the initialization, you may swipe one card, and the card will be Admin Card. If you do not want to add new Admin card, you should press and hold the exit button for 5 seconds and release it after earing a long beep.

3) One Admin Card in the factory packaging, which has added into the device. If you add one new card into it as Admin Card, the old one will be deleted automatically. One device can be only set one Admin Card.

4) Admin Card is only used for adding/deleting card users into the access control system. If you want to add/delete pin users, you should operate it with Admin Code.

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re by Kowpad (ID Number: 10,2000)

Add Pin users by Keypad (ID Number: 1~3000)		
Programming Step	Keystroke Combination	LED
Enter Program Mode	* (Admin Code) #	Red shines
Add PIN users	1# (Input ID Number) # (4~6 digits PIN) # (Repeat 4~6 digits PIN) #	Orange bright
Exit Program Mode	*	Red bright

Note: 1. The users cannot have the same access PIN code. 2. Please do remember the ID number of the PIN code when

add the new PIN code users so as to change or delete the code in the future.

Change PIN (ID Number: $1 \sim 3000$)

Programming Step	Keystroke Combination		
	* (ID number) # (old PIN) # (New PIN) # (Repeat New PIN) #		
Note: 1, The PIN can be changed to any one 4-6 digits.			

The access PIN code cannot be changed to the same with other users'

Admin Super Code

Programming Step	Keystroke Combination	LED
Enter Program Mode	* (Admin Code) #	Red shines
Add Admin Super Code	91# (Admin super code) # (Repeat Admin super code) #	Orange bright
Delete Admin Super Code	91# 0000#	Orange bright
Exit Program Mode	*	Red bright
Note: 1 The Admin Super Code should be 6 digits, and cannot be the		

in Super Code should be 6 digits, and cannot be the same as pin users.

2. Only 1 Admin Super Code can be set, if you add new one, the old ne will be deleted autor

3. Comparison for Admin Code and Admin Super Code. 1) the Admin Code cannot open the door, it is used for managing the access control system. 2) the Admin Super Code can open the door no matter what Access Mode you set.

Delete Users by Keypad (ID Number:1~3000)

Programming Step	Keystroke Combination	LED	
Enter Program Mode	* (Admin Code) #	Red shines	
Delete Card User-Com	ımon		
Delete Card: By Card	2# (Read Card) #		
Delete Card: By Card number	2# (Input 8/10 digits Card number) #	Orange	
Delete Card: By ID number	2# (Input the ID number corresponding to the user card) #	bright	
Delete PIN users by K	eypad		
Delete PIN: By ID number	2# (Input the ID number corresponding to the user PIN code) #	Orange bright	
Delete All User			
Delete All User	2# 0000 #	Orange bright	
Exit Program Mode	*	Red bright	

Pulse Mode and Toggle Mode Setting

Programming Step	Keystroke Combination	LED
Enter Program Mode	* (Admin Code) #	Red shines
Pulse Mode	3#(0~120)#	Orange
Toggle Mode	3# 9999 #	bright
Exit Program Mode	*	Red bright



Note: 1. Access time range: 1~120 seconds, factory default is Pulse Mode and the access time is 5 seconds. When set the access time to "9999", the device will be in Toggle Mode.

2. Pulse Mode: The door will be closed automatically after opening the door for a while.

3. Toggle Mode: Under this mode, after opening the door, the door won't be closed automatically until next valid user input. That is to say, whether open or close the door, you must swipe valid card or input valid PIN.

Access Mode Setting

Programming Step	Keystroke Combination	LED
Enter Program Mode	* (Admin Code) #	Red shines
Open door by card	4# 0#	
Open door by PIN	4# 1#	_
Open door by card + PIN	4# 2#	Orange bright
Open door by card or PIN	4#3#(Factory default)	
Open door by multi-user	4# 4# (2~5)#	
Exit Program Mode	*	Red bright
Note: The number of Multi-User access can be set to 2~5. If the user number is set to 5, it should input 5 different valid users continuously to access.		

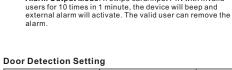
Alarm Output Time Setting

Programming Step Keystroke Combination LED Red shines Program Mode | * Set alarm time 5# (0 ~ 3) # Orange bright Red bright Exit Program Mode * Note: 1. Factory default is 1 minute, 0 minute: Turn off alarm

2. Alarm output time includes: the alarm time of anti-vandal, closing reminder.

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3. Swipe valid card can remove the alarm.



Programming StepKeystroke CombinationEnter Program Mode* (Admin Code) #

6# 1#

6#2#

6# 0# (Factory defa

Note: Lockout Mode: If swipe card/input PIN with invalid users for 10 times in 1 minute, the device will be lockout for 1 minutes. When the device repowered, the lockout will be canceled.

Alarm Output Mode: If swipe card/input PIN with invalid

LED

Red shines

Red bright

Set Safe Mode

rmal Mode

ckout Mode

larm output Mode

Exit Program Mode *

Programming Step	Keystroke Combination	LED
Enter Program Mode	* (Admin Code) #	Red shines
To disable door detection	9#0#(Factory Default)	Orange
To enable door detection	9# 1#	bright
Exit Program Mode	*	Red bright

Note: After enable the door detection function, you must connect the detection switch into the wiring. There will be two detection status

1. The door is opened by valid user, but not closed in 1 minute. the device will beep. How to stop the warnings: Close the door/valid user/ Automatically stop when the alarm time is up.

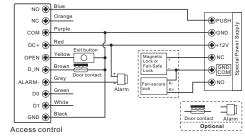
2. If the door opened by force, the device and external alarm will activate.

How to stop the alarm: Valid user/Automatically stop when the alarm time is up.

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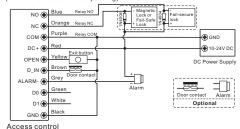
STANDALONE MODE **Connection Diagram**

Special Power Supply for access control system



Common power supply

Attention: Install a 1N4004 or equivalent diode is needed when use a common power supply, or the reader might be damaged (1N4004 is included in the packing).



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Using Admin Cards to add delete card users

Add card users by Admin Add Card	1. Device is in standby mode, swipe the Admin Card for one time, LED flash green
(Adding card automatically function)	2. Swipe the cards which you want to added into the access control system
,	3. Swipe the Admin Card for one time to finish adding, the device return to standby mode
Delete card users by Admin Card	1. Device is in standby mode, swipe the Admin Card for two times, LED flash orange
	2. Swipe the cards which you want to delete from the access control system
	3. Swipe the Admin Card for one time to finish deleting, the device return to standby mode
lote: 1. Admin Car	d can only add/delete card users quickly, canno

ers quickly, add/delete pin users.

Enter and Exit Program mode Keystroke Combination Programming Step

* (Admin Code) # Inter Program Mode (Factory default is 123456) Exit Program Mode * Note: Admin should enter Program Mode, then the settings can be set or reset. For security, you must change the Admin Code and then keep in mind.

Modify Admin Code

Programming Step	Keystroke Combination	LED
Enter Program Mode	* (Admin Code) #	Red shines
Update Admin Code	0# (New Admin Code) # (Repeat New Admin Code) #	Orange bright
Exit Program Mode	*	Red bright
The length of the admin code is 6 digits, the admin should keep it in mind.		

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Add Users by Keypad (ID Number:1~3000)

Programming Step	Keystroke Combination	LED
Enter Program Mode	* (Admin Code) #	Red shines
Add Users		
Add Card: By Card	1# (Read Card) …	
Add Card: By Card Number	1# (8/10 digits card number)	# Orange bright
Add Card: by ID number (ID number: 1 ~ 3000)	1# (Input ID number) # (Rea Card / input card number #) ·	
Add proximity cards numbered sequentially (ID number: 1~3000)	95# (Input the first ID numbe # (Input card number of the first card) # (Quantity) #	r) Orange bright
Add anti-duress users (ID number: 3001, 3002)	1# (Input ID number) # (Read Card or 4~6 digits PIN #)	l Orange bright
Add Visitor Users (ID number: 3005~3009)	96# (Input ID number) # (1~5 # (Read Card or 4~6 digits PIN #)	⁵⁾ Orange bright
Exit Program Mode	*	Red

 ${\rm Note:}$ 1. When swiping cards to add users, the user ID will be added in automatically, and ID number will be from small to big, ranged from 1~3000.

2. Before add the proximity cards numbered sequentially, the ID number should be sequential and empty.

- 3. How many times the temporary users can open the door? $1\!\sim\!5$ times. When it is used out, the temporary card/temporary pin will be deleted automatically.
- 4. If under threat, swiping the Anti-duress card or input Anti-duress PIN, the door will open, but the external alarm will activate to inform your friend to help you.

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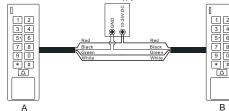
Quick Start and Operation Quick Settings		
Change the Admin Code	0# - New Code # - Repeat the New Code # (New Code: any 6 digits)	
Add Card User	1# - Read Card (Cards can be added in continuously)	
Add PIN User	1#- User ID # - PIN # - Repeat the PIN # (ID number:1-3000)	
Delete User	2# - Read Card (for Card User) 2# - User ID # (for PIN User)	
Exit from the Programming Mode	*	
How to release the door		
Open door by card	(Read Card)	
Open door by User PIN	(Users PIN)#	
Open door by user card + PIN	(Read Card) (Users PIN) #	

Sound and Light mode Setting

oound and Light mode betting		
Programming Step	Keystroke Combination	LED
Enter Program Mode	* (Admin Code) #	Red shines
Control Sounds: OFF ON	92# 0# 92# 1# (Factory Default)	
Control red LED: OFF ON	92# 2# 92# 3# (Factory Default)	Orange bright
Control Keypad Backlit: OFF ON	92# 4# 92# 5# (Factory Default)	
Anti-tamper Alarm: OFF ON	92# 6# (Factory Default) 92# 7#	
Exit Program Mode	*	Red bright

Copy User Data 🗕





1, Device A/ B The Admin Code of them should be the same. 2, Connecting the two devices with the wires for Wiegand Operating on the device A that stores user data

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Programming Step Keystroke Combination Enter Program Mode * (Admin Code) # nter the menus 6# 5# The LED light flash orange during the Copy the user data copying, and will back to standby mode when finished

INTERLOCK MODE -

Interlock for two doors, this function usually apply in the places with high safety. For example, there are two doors name A and B in the passage. You access door A with card, and then you cannot access door B with the card until door A closed. That is to say: both of the doors should be closed, then you can swipe your card on one of them.

Interlock Mode Setting		
Programming Step	Keystroke Combination	LED
Enter Program Mode	* Admin Code #	Red shines
Close Interlock Mode	92# 8# (Factory Default)	Orange
Enable Interlock Mode	92#9#	bright
Exit Program Mode	*	Red bright

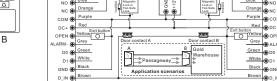
Note: The Door Contact must be installed, or this function cannot b

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Grey ALA

Black CNI

Wiring diagram of Interloc

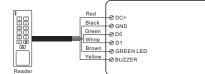


WIEGAND READER MODE

Programming Step	Keystroke Combination	LED
Enter Program Mode	* Admin Code #	Red shines
Access control Mode	6# 6# (Factory Default)	Orange
Wiegand reader Mode	6# 7#	bright
Exit Program Mode	*	Red bright

Yellow wire control the buzzer, only active with low voltage.

Connection Diagram



Set Wiegand Output Formats of Card

Programming Step	Keystroke Combination	LED
Enter Program Mode	* Admin Code #	Red shines
EM Wiegand Format	7# (26# ~ 44#)	Orange
	(Factory Default 34 bits)	bright
Mifare Wiegand Format	8#(26#~44#,47#,56#,	
	58#,64#,66#)	Orange bright
	(Factory Default 34 bits)	Drigin
Exit Program Mode	*	Red bright
Note: EM Wiegand Forma 26bit - 44bit, 47bit, 56bit,	at: 26bit - 44bit; Mifare Wiega 58bit 64bit 66bit	nd Format:

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Set Wiegand Output Formats of Password

Programming Step	Keystroke Combination	LED
Enter Program Mode	* Admin Code #	Red shines
4 bits	8#4#(Factory Default)	
8 bits (ASCII)	8#8#	Orange
10 Digits Virtual Card Number output	8# 10 #	bright
Exit Program Mode	*	Red bright
Note: (1) 10 Digits Virtual Card Number: Input 4-6 digits PIN,		

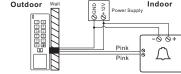
press "#", output a 10-bit decimal card number. For example, input password 999999, the output card number is 0000999999 (2) Each key press sends 4 bits data, the corresponding relationship is

1 (0001) 2 (0010) 3 (0011) 4 (0100) 5 (0101) 6 (0110) 7 (0111) 8 (1000) 9 (1001) * (1010) 0 (0000) # (1011)

(3) Each key press sends 8 bits data, the corresponding relationship is 1 (1110 0001) 2 (1101 0010) 3 (1100 0011) 4 (1011 0100) 5 (1010 0101) 6 (1001 0110) 7 (1000 0111) 8 (0111 1000)

9(0110 1001) *(0101 1010) 0(1111 0000) #(0100 1011)

Doorbell Wiring



Users Setting

How to release the door		
Open door by card	(Read Card)	
Open door by User PIN	(Users PIN) #	
Open door by user card + PIN	(Read Card) (Users PIN) #	

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