

W4 Multi-function Access Control

User Manual

1. Packing List

Name	Quantity	Remarks
Digital keypad W4	1	
User manual	1	
Screw driver	1	
Rubber bungs	4	6*27mm, used for fixing
Self tapping screws	4	4*28mm, used for fixing
Diode	1	1N4004
Manager cards	2	Manager add card & Manager delete card

Please ensure that all the above contents are correct. If anything is missing, please report the discrepancy to your supplier.

2. Description

The W4 is a dual-relay access control with EM & HID 125 KHz card reader. It is suitable for mounting either indoor or outdoor in harsh environments. It is housed in a strong, sturdy and vandal proof zinc alloy electroplated case. The electronics are fully potted so the W4 is waterproof and conforms to IP68.

The W4 supports up to 2,100 users in a card, 4-8 digits PIN, card + PIN option and additional 10 groups Dures PIN/card. The built-in card reader supports both EM & HID 125 KHz frequency cardtags. The W4 has many extra features including Dures PIN/card, block enrollment, Wiegand 26-37 bits interface, and backlight keypad...etc.

These features make W4 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.

3. Features

- > Waterproof, conforms to IP68
- > Strong zinc alloy electroplated anti-vandal case
- > Dual-relay operation
- > 2,100 users & 10 groups dures PIN/card
- > Zone 1: up to 2,000 PIN & card holders
- > Zone 2: up to 100 PIN & card holders
- > Relay of both zones can be programmed for 3 modes: card, PIN, card + PIN
- > Read both 125KHz EM & HID card
- > PIN length: 4-8 digits
- > Pulse mode, Toggle mode
- > Thread 26-37 input & output
- > Can be worked as reader or controller
- > Dual-relay output for door opening, door status detecting, open door by button
- > Card block enrollment

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- > With manager cards for adding or deleting card user easily
- > Very low power consumption (25mA)
- > Backlight keypad
- > Light and sound of keypad can be set
- > Support door bell connection (Zone 2)
- > Built in light dependent resistor (LDR) for anti tamper
- > Built in buzzer
- > Red, yellow, green and blue LED display the working status
- > 12-24V DC /12-18V AC
- > Two-year warranty

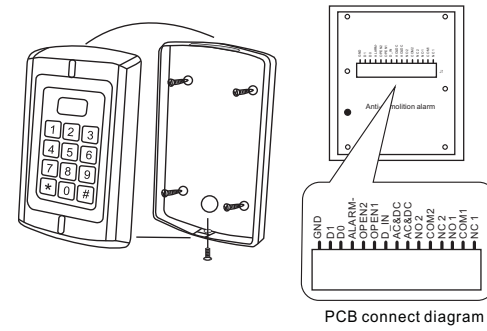
4. Specifications

Operating Voltage	12-24V DC / 12-18V AC
User Capacity	2,100/Additional 10 groups Dures PIN/card
Keypad	12 keys, 3 x 4 digits
Card Type	EM & HID 125 KHz card
Card Reading Distance	3-6 cm
Active Current	≥60mA
Idle Current	≥25mA
Lock Output Load	Max 2A
Alarm Output Load	Max 20A
Operating Temperature	-20~60℃
Operating Humidity	10%~90% RH
Environment	Conforms to IP68
Adjustable Door Relay time	1-99 seconds
Adjustable Alarm Time	0-3 minutes
Wiegand Interface	Wiegand 26-37 input & output
Wiring Connections	Electric Lock, Exit Button, DOTL, External Alarm
Dimensions	1128 x 82 x H28 mm
Net Weight	600 g
Gross Weight	700 g

5. Installation

- > Remove the back cover from the keypad using the supplied security screwdriver
- > Drill 4 holes on the wall for the screws and 1 hole for the cable
- > Fix the back cover firmly on the wall with 4 flat head screws
- > Thread the cable through the cable hole
- > Attach the keypad to the back cover

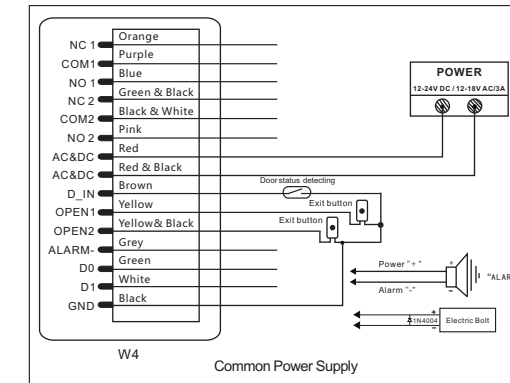
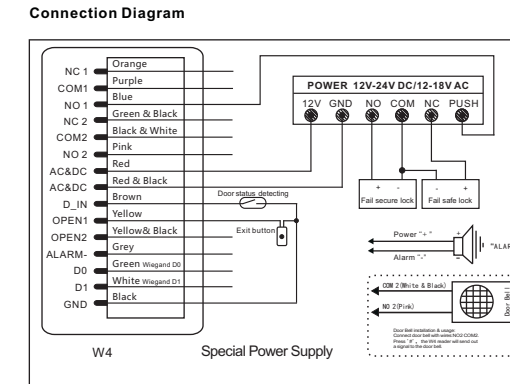
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6. Wiring

Color	Function	Description
Orange	NC 1	Relay1 NC
Purple	COM1	Relay1 COM
Blue	NO 1	Relay1 NO
Green & Black	NC 2	Relay2 NC
White & Black	COM2	Relay2 COM
Pink	NO 2	Relay2 NO
Red	AC&DC	12-24V DC / 12-18V AC Regulated Power Input
Red & Black	AC&DC	12-24V DC / 12-18V AC Regulated Power Input
Brown	D_IN	Door Status Detecting
Yellow	OPEN1	Request to Exit Button of Zone 1
Yellow & Black	OPEN2	Request to Exit Button of Zone 2
Grey	ALARM -	Alarm Negative
White	D1	Wiegand Input/Output D1
Green	D0	Wiegand Input/Output D0
Black	GND	Negative Pole

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Remarks:
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 reader will send out a switching signal to the door bell, as long as you press the "#", the door bell will continuously operate, it will stop until you release the "#".

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.

7. Relay Operation (Pulse Mode and Toggle Mode)

Both of the two relays on board 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.

8. To Reset to Factory Default

To reset to factory default, power off, press [3], hold it and power on, release it until hear two beeps and the LED shines in orange, then read any two EM or HID cards, the LED will turn in red, means reset to factory default settings successfully. Of the two cards read, the first one is Manager Add Card, the second one is Manager Delete Card.

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

9. Anti Tamper Alarm

The W4 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.

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10. Sound and Light Indication

Operation status	Red Light	Green Light	Blue Light	Buzzer
Zone 1, unlock	—	Bright	—	Short Ring
Zone 2, unlock	—	—	Bright	Short Ring
Power on	Bright	—	—	Long Ring
Stand by	Shines Slowly	OFF	—	—
Press keypad	—	—	—	Short Ring
Operation successful	—	Bright	—	Long Ring
Operation failed	—	—	—	3 Short Rings
Enter into programming mode	Bright	OFF	—	Long Ring
In the programming mode	Bright	Bright	—	—
Exit from the programming mode	Shines Slowly	—	—	Long Ring
Alarm	Shines Quickly	—	—	Alarm

11. Detailed Programming Guide

11.1 User Settings

To enter the programming mode: [Master code] [#] 888888 is the factory default master code

To exit from the programming mode: [#]

Note that to undertake the following programming the master user must be logged in

To change the master code: [0] [New code] [#] [New code] [#] The master code is any 6 digits

Setting the working mode:

Set valid card or PIN users: [3] [1] [2] [#], Zone 1; [3] [2] [2] [#], Zone 2

Set valid card and PIN users: [3] [1] [1] [#], Zone 1; [3] [2] [1] [#], Zone 2

Set valid card users ONLY: [3] [1] [0] [#], Zone 1; [3] [2] [0] [#], Zone 2

Note: When adding users, if the Card or PIN user has been enrolled already, you can not add it again to the same zone, or the device will give a beep as error. But it is ok to enroll the same card or PIN for the zone 1 and zone 2

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Card or PIN Mode - Factory default setting [3] [1] [2] [#] for Zone 1 or [3] [2] [2] [#] for Zone 2

To add a PIN user: [1] [1] [User ID number] [#] [PIN] [#] Zone 1 (User ID: 1-2000); [1] [2] [User ID number] [#] [PIN] [#] Zone 2 (User ID: 2001-2100). Users can be added continuously without exiting programming mode as follows: [1] [1] [User ID number] [#] [PIN] [#]; [1] [2] [User ID number] [#] [PIN] [#] Zone 1; [1] [2] [User ID number] [#] [PIN] [#] Zone 2

To delete a PIN user: [2] [0] [User ID number] [#]

To change the PIN of a PIN user (This step must be done out of programming mode): [1] [User ID number] [#] [Old PIN] [#] [New PIN] [#] [New PIN] [#]

To add a card user (Method 1): [1] [1] [Read card] [#] Zone 1; [1] [2] [Read card] [#] Zone 2

To add a card user (Method 2): [1] [1] [User ID number] [#] [Read Card] [#] Zone 1 (User ID: 1-2000); [1] [2] [User ID number] [#] [Read Card] [#] Zone 2 (User ID: 2001-2100)

To add a card user (Method 3) - Block Enrollment: [1] [0] [User ID number] [#] [Card number] [#] [Card quantity] [#]

To delete a card user by card: [2] [0] [Read Card] [#]

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To delete a card user by user ID: [2] [0] [User ID number] [#]

To delete a card user by Card number: [2] [0] [Card number] [#]

Card and PIN mode [3] [1] [1] [#] for Zone 1 or [3] [2] [1] [#] for Zone 2

To Add a card and PIN user: [1] [Read card] [Old PIN] [#] [New PIN] [#]

To change a PIN in card and PIN mode (Method 1): [1] [User ID number] [#] [Old PIN] [#] [New PIN] [#]

To change a PIN in card and PIN mode (Method 2): [1] [User ID number] [#] [Old PIN] [#] [New PIN] [#]

To delete a Card and PIN user: [2] [0] [Read Card] [#] or [2] [0] [User ID number] [#]

Card ONLY mode [3] [1] [0] [#] for Zone 1 or [3] [2] [0] [#] for Zone 2

To add and delete a card user: Same as the method Card or PIN mode

To delete All users: [2] [0] [0000] [#] Delete ALL users; [2] [1] [0000] [#] Delete ALL users of Zone 1; [2] [2] [0000] [#] Delete ALL users of Zone 2

To set card users by Manager Card (This operation is only for Zone 1): [Manager add card] [Read user card]

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To delete Card User by Manager Delete Card: [Manager delete card] [Read user card] [Manager delete card]

11.2 Relay Setting (Pulse Mode, Toggle Mode)

Pulse mode (Factory default): [4] [1] [1-99] [#] Zone 1; [4] [2] [1-99] [#] Zone 2

Toggle mode: [4] [1] [0] [#] Zone 1; [4] [2] [0] [#] Zone 2

12. Door Detecting, Alarm, Sound and Light 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 within 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 opened by force, or if the door is opened after 120 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.

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Door open detection setting: [6] [0] [#]

Keypad Lockout & Alarm Output Options: [7] [1] [#]

Light and sound setting: [8] [1] [0] [#] Disable keypad backlight; [8] [1] [1] [#] Enable keypad backlight; [8] [2] [0] [#] Disable the RED LED; [8] [2] [1] [#] Enable the RED LED

Keypad Tone: [8] [3] [0] [#] Disable the keypad tone; [8] [3] [1] [#] Enable the keypad tone

Change Zone 2 to Door Bell: [8] [4] [0] [#] (Factory default)

Alarm output time: [8] [4] [1] [#]

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To set the alarm output time: [5] [0-3] [#] (Factory default: 1 minute)

Remove the alarm: [Read valid card] or [Master Code] [#]

13. Dures User Settings

To set Dures PIN User: [1] [3] [user ID number] [#] [PIN] [#]

To delete a PIN user: [1] [3] [user ID number] [#] [Card] [#]

To delete a card user: [1] [3] [user ID number] [#] [Card] [#]

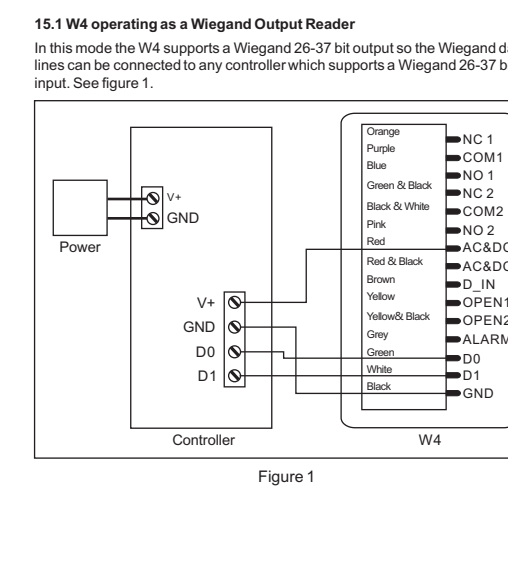
To delete All Dures users: [2] [3] [0000] [#]

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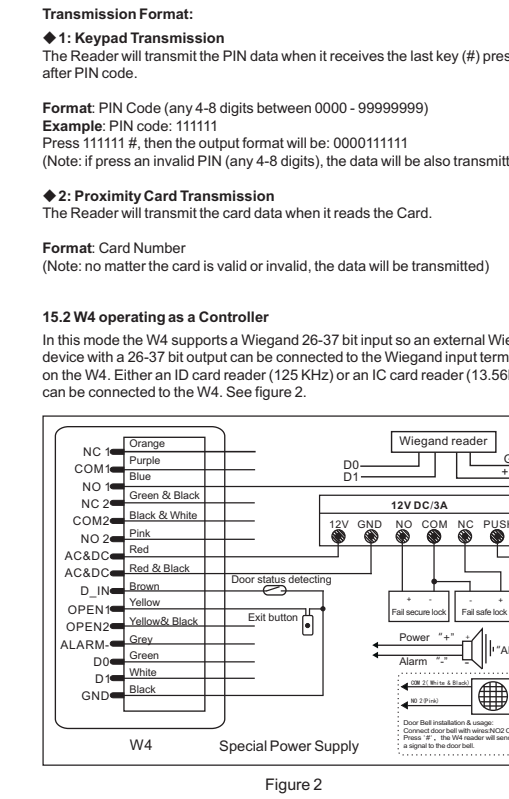
14. Wiegand Mode Setting

To Set Wiegand format: [9] [26-37] [#]

15. Interconnecting Two Devices



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W4 Quick Reference Programming Guide

To enter the programming mode: [Master code] [#] 888888 is the default factory master code

To exit from the programming mode: [#]

To change the master code: [0] [New code] [#] [New code] [#]

To add a PIN user: [1] [1] [User ID number] [#] [PIN] [#] Zone 1 (User ID: 1-2000); [1] [2] [User ID number] [#] [PIN] [#] Zone 2 (User ID: 2001-2100)

To add a Card user: [1] [1] [Read card] [#] Zone 1; [1] [2] [Read card] [#] Zone 2

To delete a PIN or a Card user: [2] [0] [User ID number] [#] for a PIN user; [2] [0] [Read Card] [#] for a card user

To unlock the door: [2] [0] [0000] [#]

To unlock the door for a PIN user: Enter the [PIN] then press [#]

To unlock the door for a card user: Present the card

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