

W1/W3-B Quick Reference Programming Guide

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| To enter the programming mode | [*] [Master code] [#] 888888 is the default factory 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 |
| To add a PIN user | [1] [User ID number] [#] [PIN] [#] The ID number is any number between 1 ~ 2500. The PIN is any four digits between 0000 ~ 9999 with the exception of 1234 which is reserved. Users can be added continuously without exiting programming mode |
| To add a card user | [1] [Read Card] [#] Cards can be added continuously without exiting from programming mode |
| To delete a PIN or a card user | [2] [User ID number] [#] for a PIN user or [2] [Read Card] [#] for a card user Users can be deleted continuously without exiting from programming mode |
| To Unlock the door | |
| 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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| To add and delete users in card and PIN mode ([3] [7] [#]) | |
| To Add a card and Pin user (The PIN is any four digits between 0000 ~ 9999 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 | [2] [User ID] [#] |
| To add a card user in card only mode ([3] [0] [#]) | |
| To Add and Delete a card user | The operating is the same as adding and deleting a card user in [3] [2] [#] |
| To delete All users | |
| To delete ALL users. Note that this is a dangerous option so use with care | [2] [0000] [#] |

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| To add and delete card users by Manager cards | |
| To add card user by Manager Add Card | [Manager add card] [Read card] [Manager add card] Cards can be added continuously. |
| To delete card User by Manager Delete Card | [Manager delete card] [Read Card] [Manager delete card] Cards can be deleted continuously. |

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| To unlock the door | |
| 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] [#] |

10.2 Door Relay, Door Open Detection, Alarm, Facility code Settings

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| Door relay time setting | |
| Door relay time setting | [4] [0~99] [#] The door relay time is between 0~99 seconds, the factory default setting is 5 seconds. |

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| Door Open Detection | |
| <i>Door Open Too Long (DOTL) warning.</i> 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. | |
| <i>Door Forced Open warning.</i> 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. | |

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| To disable door open detection. (Factory default setting) | [6] [0] [#] |
| To enable door open detection | [6] [2] [#] |

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| Alarm output time | |
| To set the alarm output time (0~3 minutes) Factory default is 1 minute | [9] [0~3] [#] |

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 for 10 minutes, depending on the option selected below.

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| Normal status: No keypad lockout or alarm | [7] [0] [#] (Factory default setting) |
|---|---------------------------------------|

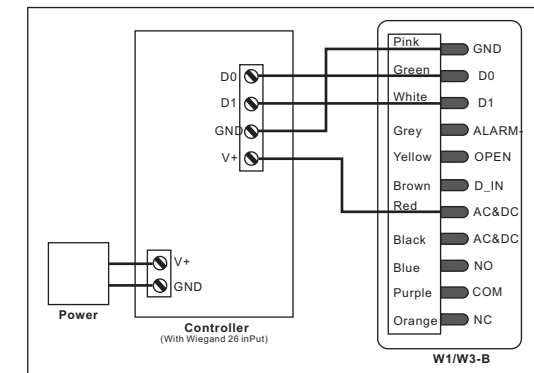
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|---|--|
| Keypad Lockout | [7] [1] [#] |
| Alarm Output | [7] [2] [#] |
| To remove the alarm | |
| To reset the Door Forced Open warning | [Read valid card] or [Master Code] [#] |
| To reset the Door Open Too Long warning | Close the door or [Read valid card] or [Master Code] [#] |
| To set the facility code | |
| To set the facility code of W1/W3-B (This operation might be required when W1/W3-B is acting as wiegand reader and connecting to | [8] [Facility code] [#] [Repeat Facility code] [#] Facility Code can be any number between 1~255 (Default: 0) |

11 Interconnecting Two Devices

11.1 W1/W3-B operating as a Wiegand Output Reader

In this mode the W1/W3-B supports a Wiegand 26 bit output so the Wiegand data lines can be connected to any controller which supports a Wiegand 26 bit input. See figure 1.

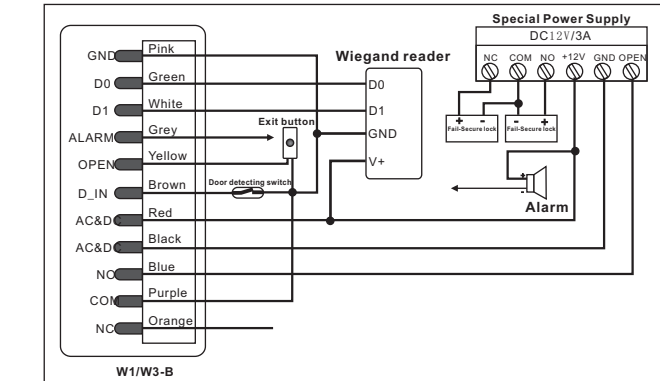


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| Transmission Format: | |
| ◆ 1: Keypad Transmission The Reader will transmit the PIN data when it receives the last key (#) press after PIN code. | |
| Format: Facility Code + PIN Code (Facility code is any digits between 0~255, factory default is 0; Pin code is any 1~4 digits between 0~9999) | |
| Example: Facility code: 1 PIN code: 5678 Press 5678 #, then the output format will be: 00105678 | |
| ◆ 2: Proximity Card Transmission The Reader will transmit the card data when it reads the Card. | |
| Format: Card Number (the last 8 digits of Card Number) | |
| Remarks: No matter the card or pin is valid or invalid, the data will be transmitted | |

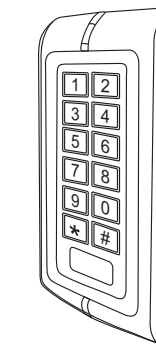
11.2 W1/W3-B operating as a Controller

In this mode the W1/W3-B supports a Wiegand 26 bit input so an external Wiegand device with a 26 bit output can be connected to the Wiegand input terminals on the W1/W3-B. Either an ID card reader (125KHZ) or an IC card reader (13.56MHZ) can be connected to the W1/W3-B. Cards are required to be added at the external reader, except where an external EM reader is used, in this case cards can be added at either reader or controller. See figure 2.

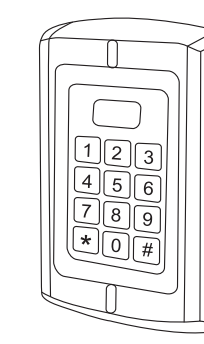


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Waterproof Keypad/Reader/Controller



W1-B



W3-B

User manual

1. Packing list

| Name | Quantity | Remark |
|------------------------|----------|--|
| Digital Keypad W1/W3-B | 1 | |
| User Manual | 1 | |
| Screw driver | 1 | |
| Rubber bungs | 4 | 6*27mm, used for fixing |
| Self Tapping Screws | 4 | 3.5*27mm, used for fixing |
| Manager Card | 2 | Manager Add Card & Manager Delete Card |

Please ensure that all the above contents are correct. If any are missing please notify the supplier of the W1/W3-B.

2. Description

(W1-B&W3-B are in the same function, only different in shape.)

W1/W3-B is single door multifunction access controller or a Wiegand output keypad or 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 W1/W3-B is waterproof and conforms to IP68. The W1/W3-B supports up to 2500 users in either a Card, 4 digit PIN, or a Card + PIN option. The inbuilt card reader supports EM, 125KHZ frequency card/Tag. The W1/W3-B has many extra features including block enrollment, wiegand 26 bits interface, and backlit keypad...etc.

These features make the W1/W3-B 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
- Full programming from the keypad
- 2500 users, supports Card, PIN, Card + PIN
- Can be used as a stand alone keypad
- Programmable one relay output
- Backlight keypad
- Wiegand 26 input & output
- Adjustable Door Output time, Alarm time, Door Open time
- Block enrollment, can enroll maximum 2500 consecutive card within 3 minutes
- Very low power consumption (60Ma)
- Fast operating speed, <20ms with 2500 users
- Easy to install and program
- Built in light dependent resistor (LDR) for anti tamper

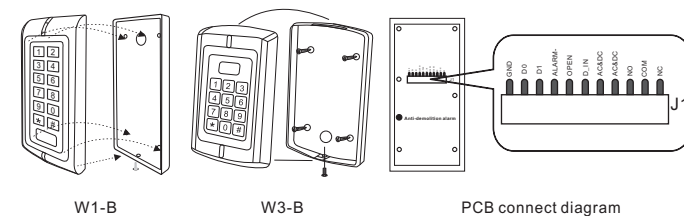
- Built in buzzer
- Red, Yellow and Green LEDs display the working status
- 12~24V AC/DC
- Two- year warranty

4. Specifications

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|-----------------------|--|----------------------------|--|
| Operating Voltage | 12~24V AC/DC | Operating Humidity | 5%~ 95% RH |
| User Capacity | 2500 | Environment | Conforms to IP68 |
| Keypad | 12 keys, 2 x 6 digits(W1-B) 12 keys, 3 x 4 digits(W3-B) | Adjustable Door Relay time | 0~99 seconds |
| Card Type | EM 125 KHZ card/Tag | Adjustable Alarm Time | 0~3 minutes |
| Card Reading Distance | 3~6 cm | Wiegand Interface | Wiegand 26 input & output |
| Active Current | <80mA | Wiring Connections | Electric Lock, Exit Button, DOTL, External Alarm |
| Idle Current | ≤40mA | Dimensions | L135xW58xH26mm(W1-B) L128xW82xH28mm(W3-B) |
| Lock Output Load | Max 2A | Net Weight | 550 g |
| Alarm Output Load | Max 20A | Gross Weight | 700 g |
| Operating Temperature | -25~60℃ | | |

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.



W1-B

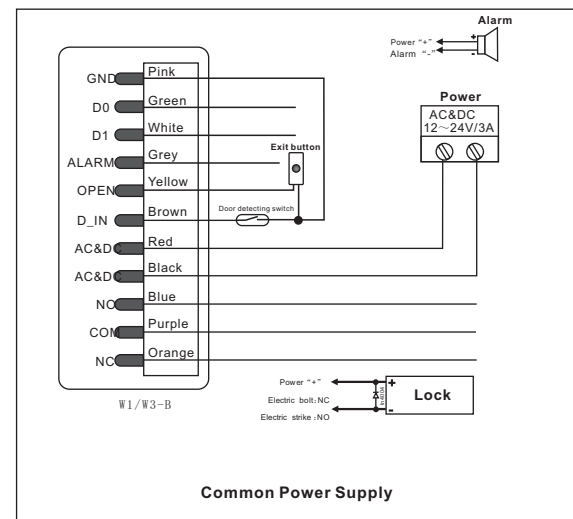
W3-B

PCB connect diagram

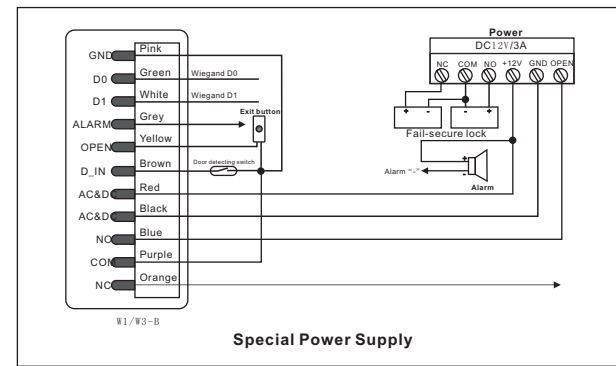
6. Wiring

| Colour | Function | Description |
|--------|--------------|--------------------------|
| Green | D0 | Wiegand Output D0 |
| White | D1 | Wiegand Output D1 |
| Grey | Alarm - | Alarm Negative |
| Yellow | OPEN | Request to Exit Button |
| Brown | D-IN | Door Contact |
| Red | 12~24V AC&DC | 12~24V AC&DC Power Input |
| Black | 12~24V AC&DC | 12~24V AC&DC Power Input |
| Blue | NO | Relay NO |
| Purple | COM | Relay COM |
| Orange | NC | Relay NC |
| Pink | GND | W1/W3-B Negative |

Connection Diagram



Common Power Supply



Special Power Supply

Notes:

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. To Reset to Factory Default

To reset to factory default, power off, press **[*]**, hold it and power on, release it until hear two beeps and the LED shines in orange, then read any two EM cards, the LED will turn in red, means reset to factory default setting successfully. Of the two EM 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.

8. Anti Tamper Alarm

The W1/W3-B 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.

9. Sound and Light indication

| Operation Status | Red Light | Green Light | Blue Light | Buzzer |
|--------------------------------|-----------|-------------|------------|--------------|
| Power on | Bright | - | - | Short Ring |
| Stand by | Bright | - | - | - |
| Press keypad | - | - | - | Short Ring |
| Operation successful | - | Bright | - | Short Ring |
| Operation failed | - | - | - | 3 Short Ring |
| Enter into programming mode | Bright | - | - | Short Ring |
| In the programming mode | - | - | Bright | - |
| Exit from the programming mode | Bright | - | - | Short Ring |
| Open the door | - | Bright | - | Short Ring |
| Alarm | Bright | - | - | Alarm |

10. W1/W3-B Detailed Programming Guide

10.1 User Settings

| | |
|--|--|
| To enter the programming mode | [*] [Master code] [#] 888888 is the default factory 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 only users | [3] [0] [#] Entry is by Card only |
| Set valid card and PIN users | [3] [1] [#] Entry is by Card and PIN together |
| Set valid card or PIN users | [3] [2] [#] Entry is by either Card or PIN (default) |
| To add and delete users in either card or PIN mode [3] [2] [#] (Default setting) | |

| | |
|--|---|
| To add a PIN users | [1] [User ID number] [#] [PIN] [#] The ID number is any number between 1 ~ 2500. The PIN is any four digits between 0000 ~ 9999 with the exception of 1234 which is reserved. Users can be added continuously without exiting from programming mode as follows: [1] [User ID No.1] [#] [PIN] [#] [User ID No.2] [#] [PIN] [#] |
| To Delete a PIN user | [2] [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] [#] [New PIN] [#] |
| To add a card user (Method 1) This is a fast way to enter cards using ID number auto generation. | [1] [Read Card] [#] Cards can be added continuously without exiting programming mode |
| To add a card 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. | [1] [ID number] [#] [Card] [#] |
| To add card user (Method 3) Add a series cards users Block Enrollment | [5] [ID number] [#] [8 digits Card number] [#] [Card quantity] [#] Card quantity is between 1~2500. The 8 digits card number is the last 8 digits on the card. Maximum 2500 cards can be enrolled at a stretch within 3 minutes. |
| To delete card user by card number. Note Users can be deleted continuously without exiting from programming mode. | [2] [Read Card] [#] |
| To delete a card user by user ID. This option can be used when a user has lost their card | [2] [User ID] [#] |