

Water-resistant Metal Access Control Unit



INSTRUCTION MANUAL

Please read the manual carefully and it tell you how to use Door Access Controller rightly.

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Introduction

Introduction

The stand-alone controller has been designed to be the most cost effective, anti-vandal, water-resistant, metal, backlight solution for outdoor or indoor residential, commercial, and industrial applications.

The unit accepts up to 500 users and provides entry via the use of proximity cards and/or PIN codes.

Equipment provided

- Access Control Unit
- Instruction Manual
- Installation sketch
- Installation Kit
- Product package box

Additional Equipment Required

- 1) Electric lock Strike Mechanism
Fail Safe (power to lock)
or Fail Secure (power to open)
- 2) Power Supply
12VDC (From a Regulated Power Supply)
- 3) Request to Exit REX Button
Normally Open Type Switch is closed when pressed

Technical Specification

- Operating Voltage :
12VDC From a Regulated Power Supply
- Input Current :
Standby Current: 100mA (Backlit & No Load)
Max Current: 200mA (Backlit & No Load)
- Output:
Lock Strike Relay: 2A
Lock Strike Control Output: Collector Open Output (25 mA)
Auxiliary Control Output: Collector Open Output (25 mA)
- Inputs :
REX: N O Dry Contact
Auxiliary Input: N O Dry Contact
- Built in Proximity reader:
Read Range: 65mm (ID) or 45mm (IC)
Work Frequency: 125KHz (ID) or 13.56Mhz (IC)
Compatible Cards: 26-Bit Em Cards (ID)
or Mifare Cards (IC)
- Environmental Characteristics:
Operating Temperature: -31°C to 63°C
Operating Humidity: 0 to 95% (Non-Condensing)
- Mechanical Characteristics:
Dimensions: 120L X 76W X 22H mm
Weight: 520g

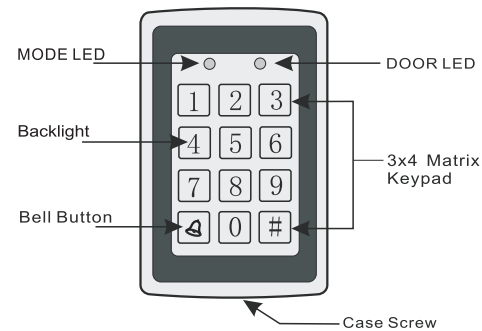
Read Card Range also depends on electrical environment and proximity to metal.

Introduction

► Key Features

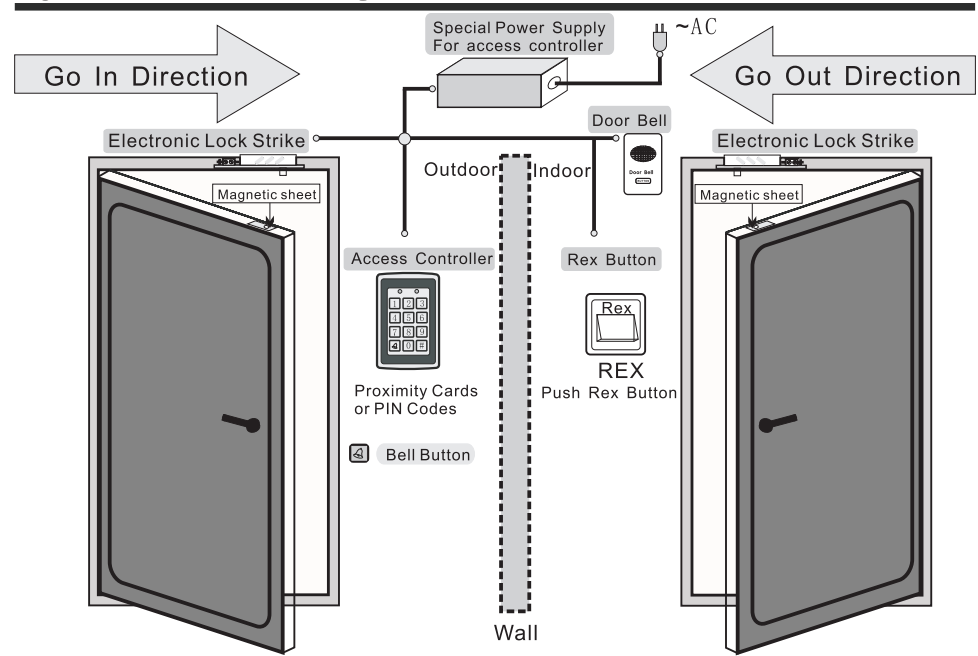
- Built in Proximity Card Reader
- Built in Keypad for PIN Code entry
- Auxiliary Input & Auxiliary Output
- Auxiliary Modes:
 - Inter Link/ Dual Door Control
 - Door Ajar/Forced Door
 - Tamper Alarm/Duress Alarm
 - Secure Mode Toggle
- Internal Buzzer
- Two Status/Programming Interface LED
- Two Modes of Operation:
 - Normal Mode
 - Secure Mode
- Three User Levers:
 - Normal User
 - Secure User
 - Master User
- Four Open door mode
 - 4 digit Pin Code(500 users)
 - 4 digit Pin Code & Proximity Card
 - 4 digit Pin Code & 4 digit Pin Code
 - Proximity Card & Proximity Card

► Schematic Diagram

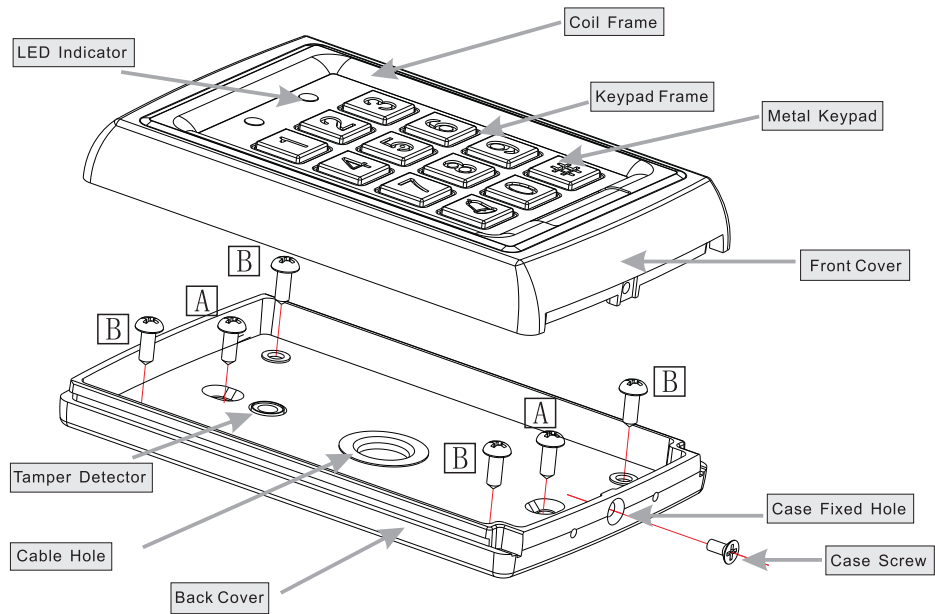


- "Code Search" feature that helps make maintaining user codes easier.
- Comes with mounting template for easier installation.
- Built in Case and Back Tamper
- Built in Backlight Circuit
- Programmable Auxiliary Triggler Time
- Programmable Lock Strike Release Time

System Block Diagram



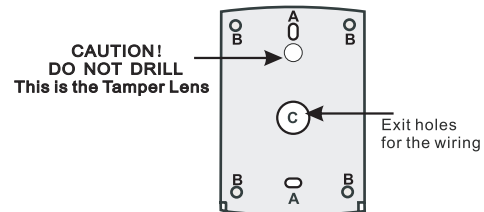
Product Structure Diagram



Installation

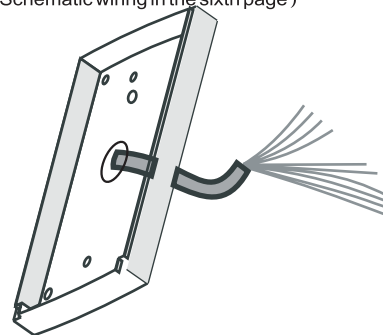
● Mounting the Access Controller

- 1) Before starting, select the location to mount the controller. This location should be at shoulder height and on the same side as the door handle.
- 2) Drill holes into the back of the metal according to how you want to mount the Controller. (See explanation and diagram below).
 - a. There are two hole indicators on the back of the metal cover (Shown marked as A)
 - b. There are four indicators on the back. (Shown marked as B)



- 3) The use of installation template are installed on the wall from Installation kit, Drill holes in the corresponding position

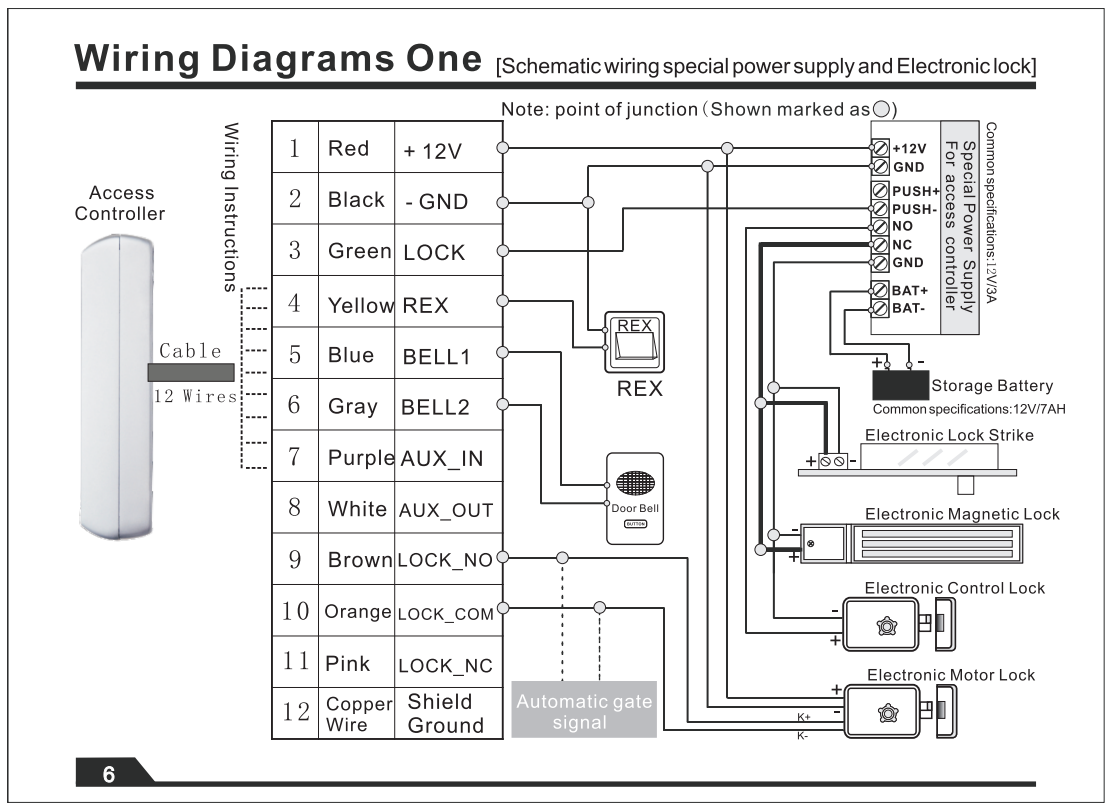
- 4) Connect the cable to the various components of access control system. (Schematic wiring in the sixth page)



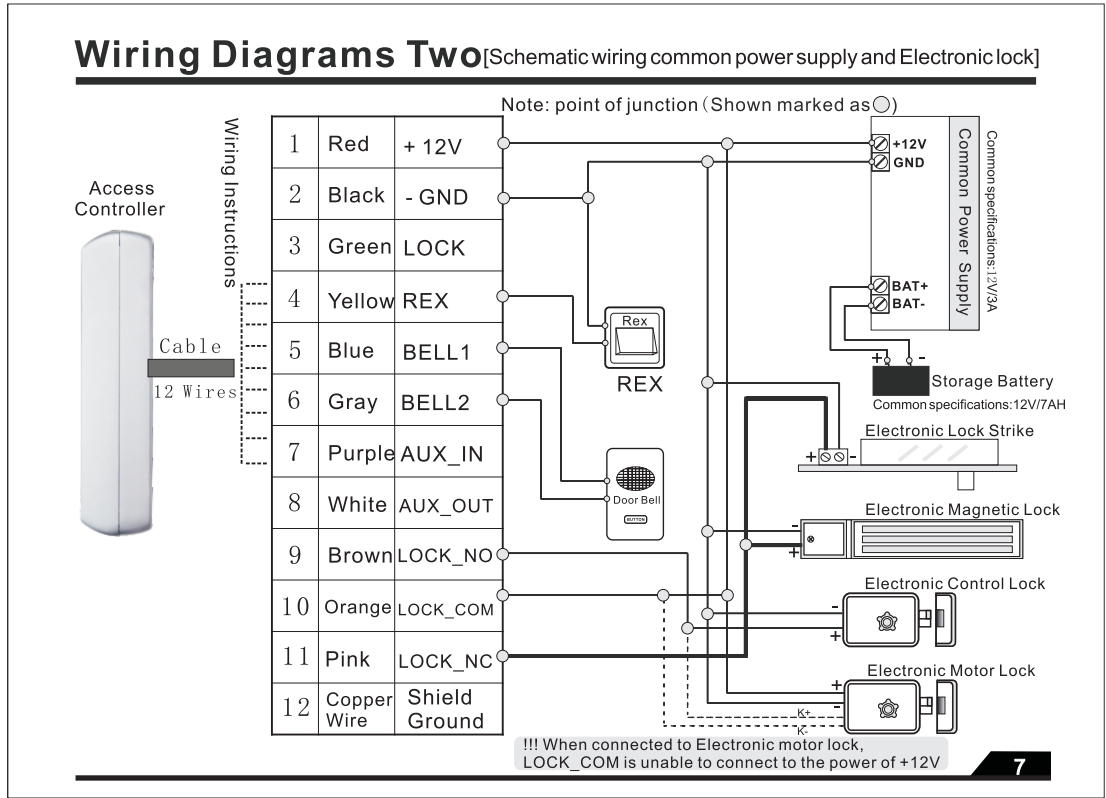
- 5) Screw the Controller back cover to its mounting location.
- 6) Return the front cover of the Controller to the mounted back plate.
- 7) Secure the front cover by using the supplied security screw in the controllers accessories kit.

Note:
The Access Control system operation is not in the condition of power

Wiring Diagrams One [Schematic wiring special power supply and Electronic lock]

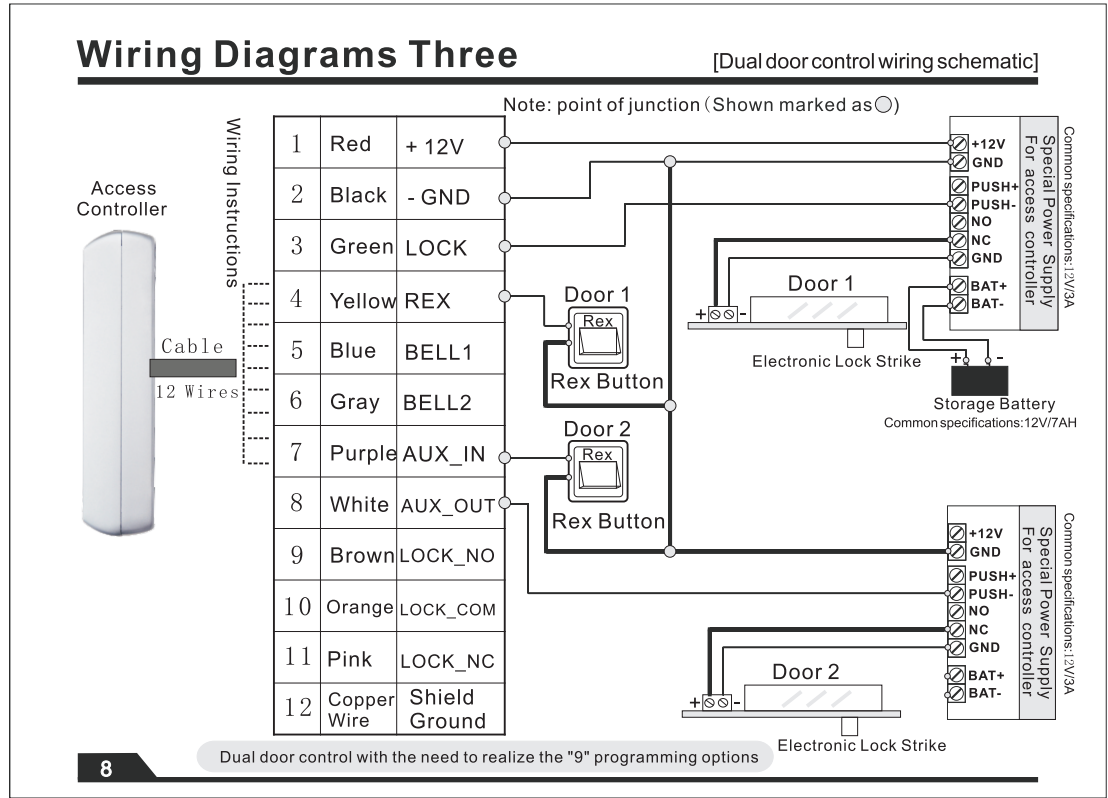


Wiring Diagrams Two [Schematic wiring common power supply and Electronic lock]



Wiring Diagrams Three

[Dual door control wiring schematic]



Operation Introduction

► Normal, Secure & Master Users

The Controller accepts up to 500 users and provides entry via the use of proximity cards and / or PIN codes. Each user is provided with two code memory slots, Memory Slot 1 (Primary Code) and Memory Slot 2 (Secondary Code). The two memory slots can be programmed as Proximity Cards, PIN codes, or a combination of both Proximity Cards and PIN codes.

► Three user levels:

1) Normal User

A Normal User only has a Primary Code and is only granted access when the Controller is in Normal Mode.

2) Secure User

A Secure User must have a Primary and Secondary Code programmed, the two codes must not be the same. The Secure User can gain access when the Controller is in any of its two Modes of Operation. In Normal Mode the Secure User must use their Primary Code to gain entry. In Secure Mode the Secure User must present both their Primary and Secondary Codes in order to gain entry.

3) Master User

A Master User must have both Primary and Secondary Codes programmed with the same Proximity Card or PIN code. The Master User can gain access during any Mode of Operation by presenting their Proximity Card or PIN code to the controller. (The Master User is convenient but is less secure than a Secure User).

► Primary code and Secondary code

• Primary code:

The unique code issued to enable access in Normal Mode. Users with only primary codes are Normal Users.

• Secondary code:

An additional code issued to enable access in Secured Mode. Users with nonidentical Primary and Secondary Codes are Secure Users. Users with identical Primary and Secondary Codes are Master Users.

► Normal Mode and Secure code

1) Normal Mode:

Normal Mode is the default mode. In Normal Mode the door is locked until a Primary Code is presented to the controller. Special codes such as "Open Code" and "Auxiliary Code" are active in Normal mode.

2) Secure Mode

Only Secure and Master Users can access the premises during the Secured Mode.

A Secure User must enter their Primary and Secondary Codes to gain entry. After entering their Primary Code the Door LED will flash green for 10 seconds, during which the Secondary Code must be entered.

A Master User only needs to present their Proximity Card or PIN code once to gain entry.

Operation Introduction

▶ Changing the Modes of Operation

The default factory setting for the Normal /Secure Code is 3838.

● Changing from Normal Mode to Secure Mode

Enter the Secure Code, Press the "#" key

● Changing from Secure Mode to Normal Mode

Enter the Secure Code ,Press the "#" key

▶ Programming Introduction

You can enter the Programmed mode only when you are under the Normal mode.

How to enter the Programmed mode

- 1) Press the "# " key for 2 seconds
- 2) Enter your 4-digit programming code

programming Menu

| Menu Number | Menu Description | Factory Settings |
|-------------|---------------------------------------|------------------|
| 1 | Chang OpenCode | 2580 |
| 2 | Chang Auxiliary Code | 0852 |
| 3 | Chang ProgramCode | 1234 |
| 4 | Chang Secure Code | 3838 |
| 6 | Chang Door Release Time | 0004 |
| 7 | Enrolling Proximity Cards or PIN Code | |
| 8 | Delete Proximity Cards Or PIN Code | |
| 9 | Code Assignment with Strike/Auxiliary | |
| 0 | Return to Default Factory Setting | |

▶ Entering Programming Mode

- 1) Press the "#" key for 2 seconds

- Mode LED will turn off
- Door LED will turn red

- 2) Enter Valid 4-digit Programming Code.

If the Programming Code is valid the door LED will turn green and the Controller will be in Programming Mode.

Note: - The Controller must be in Normal Mode to enter the Programming Mode.
- The factory default Programming Code is 1234
- If a Programming Code is not entered within 5 seconds,the Controller will return to Normal Mode.

▶ Exit Programming Mode

To exit the Programming Mode at any time:

- Press the "#" key for 2 seconds

- You will hear 3 beeps.
- The Door LED will be off.
- The Mode LED will turn green.

This indicates that the Controller has returned to Normal Mode.

▶ Change the Open code

The Default Factory Setting for the Open Code is 2580. When the first user is added to the controller,the default Open Code will automatically be deleted, ready for a new Open Code to be re-entered.

- 1) Enter Programming mode
- 2) Press 1 to enter Menu 1,the Mode LED will turn red
- 3) Enter the new 4-digit code as Open Code.
- 4) System returns to Normal Mode

Note: - Open Code does not function in Secure Mode.
- Code 0000 will erase and deactivate the Open Code

Operation Introduction

Change the Auxiliary code

The Default Factory Setting for the Open Code is 0852. When the first user is added to the controller, the default Auxiliary Code will automatically be deleted, ready for a new Auxiliary Code to be re-entered.

- 1) Enter Programming mode
- 2) Press 2 to enter Menu 2, Mode LED will turn orange.
- 3) Enter 4-digit New Code as Auxiliary Code
- 4) System returns to Normal Mode

Note: - Auxiliary Code does not function in Secure Mode.
- Code 0000 will erase and deactivate the Auxiliary Code.

Change the Programming code

The Default Factory Setting for the Programming Code is 1234.

- 1) Enter Programming mode
- 2) Press 3 to enter menu 3, Mode LED will turn green.
- 3) Enter 4-digit New Code as Programming Code.
- 4) System returns to Normal Mode

Note: Programming Code can not be erased, i.e. the code 0000 is not valid and will not erase the Programming Code.

Change the Secure code

The Default Factory Setting for the Secure Code is 3838.

- 1) Enter Programming mode
- 2) Press 4 to enter menu 4, Mode LED will flash red.
- 3) Enter 4-digit New Code as Secure Code
- 4) System returns to Normal Mode

Change the Lock Strike Release Time

- 1) Enter Programming mode
- 2) Press 6 to enter menu 6, Mode LED will flash green.
- 3) Construct the 4-digit code

using the instructions below:

First Digit

For Fail Secure Operation the first digit should be "0"

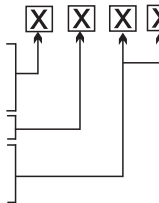
For Fail Safe Operation the first digit should be "1"

Second Digit

Default key Value: "1"

Third and Fourth Digit

Enter the number of seconds from (1 to 99 seconds) that you want the Lock Strike to be released.



- 4) System returns to Normal Mode

Defining Auxiliary Inputs/Outputs

- 1) Enter Programming mode
- 2) Press 6 to enter menu 6, Mode LED will flash green.
- 3) Construct the 4-digit code using the instructions



Auxiliary Mode

The Auxiliary Mode defines the function of the Auxiliary Input and Output.

Auxiliary Setting

Each of the Auxiliary Modes has a two digit setting that affects how the Auxiliary Mode functions.

- 4) System returns to Normal Mode

Operation Introduction

Auxiliary Mode Quick Reference Guide

| Auxiliary Mode | Auxiliary Input | Auxiliary Output Activated On | Aux. Output | Auxiliary Setting (seconds) (All times and delays are in Time) |
|----------------|-------------------------|-------------------------------|-------------|---|
| 0 | Aux_IN | Valid Code or aux_in | N.O. | 01 to 99 Aux. Relay Release Time |
| 1 | | Valid Code | N.O. | 00 Aux. Relay Toggles |
| 2 | | BellButton | N.O. | |
| 3 | Normal/Secure | Tamper E vent | N.C. | 01 to 99 Aux. Relay Release Time |
| 4 | | Direct Shunt | N.O. | 00 Aux. Relay activated by Tamper |
| 5 | Door Monitor | Shunt | N.C. | 00 to 99 Shunt Time |
| 6 | Door Monitor | Forced Door | N.C. | 00 to 99 Maximum Shunt Time |
| 7 | Door Monitor | Door Ajar | N.C. | 00 to 99 Forced Delay |
| 8 | Backlight ON/OFF | | N.C. | 00: OFF(Default) 01: ON 02: Delay Close |

Note: 1. Background LED Normal Closed : 62800. 2. Background LED Normal Opened: 62801
3. Background LED Delay Close: 62802.
(When the button is pressed, the backlight turns off after delay 10S)

▶ Enrolling Primary & Secondary Codes

Two methods(Standard Method & Code Search Method):

Standard Method:

● Enrolling Primary Codes

- 1) Enter Programming mode
- 2) Press 7 to enter Menu 7, Door LED will turn orange.
- 3) Enter 3-digit user Slot Number(001~500)
Mode LED turn flash green.
- 4) Enter 4-digit user Code or Present the Card

● Enrolling Secondary Codes (only when the user has his own Primary code)

- 1) Enter Programming mode
- 2) Press 7 to enter Menu 7, Door LED will turn orange.
- 3) Enter 3-digit user Slot Number(001~500)
Mode LED turn flash green.
- 4) Enter 4-digit user Code or Present the Card

Code Search Method:

The Code Search feature enables you to quickly enroll a Secondary Code to a user who already has a Primary Code.

- 1) Enter Programming mode
- 2) Press 7 to enter Menu 7, Door LED will turn orange.
- 3) Enter user Slot Number 000
Door LED turn flash orange.
- 4) Enter Primary code to Enrolling Secondary Code
- 5) Enter 4-digit user Code or Present the Card

Operation Introduction

▶ **Deleting Primary & Secondary Codes**

Two methods(Standard Method & Code Search method)

● **Standard Method:**

- 1) Enter Programming mode
- 2) Press 8 to enter Menu 8, Door LED will turn orange.
- 3) Enter 3-digit user Slot Number(001~500)
Mode LED turn flash red.
- 4) Enter programming code to confirm the deletion.

● **Code Search Method:**

- 1) Enter Programming mode
- 2) Press 8 to enter Menu 8, Door LED will turn orange.
- 3) Enter 3-digit user Slot Number 000
Door LED turn flash orange.
- 4) Enter Primary Code (You want to delete)
- 5) Enter programming code to confirm the deletion.

▶ **Lock Strike and Auxiliary Output Code Assignment Two methods**

● **Standard Method:**

- 1) Enter Programming mode
- 2) Press 9 to enter Menu 9, Mode LED will turn green.
- 3) Enter 3-digit user slot that you want to assign a code to, Door LED will flash green.
- 4) Enter the assignment digit for the current User Slot
"1" Assigns the Lock Strike Relay only
"2" Assigns the Auxiliary Strike Output only
"3" Assigns the Lock Strike and Auxiliary Output

● **Code Search Method:**

- 1) Enter Programming mode
- 2) Press 9 to enter Menu 9, Mode LED will turn green.
- 3) Enter 3-digit user Slot Number 000
- 4) Enter Primary Code (You want to assign a Code to)
Door LED turn flash orange.
- 5) Enter the assignment digit for the current User Slot
"1" Assigns the Lock Strike Relay only
"2" Assigns the Auxiliary Strike Output only
"3" Assigns the Lock Strike and Auxiliary Output

▶ **Return to Factory Default Settings warning:**

You must be very careful before using this command! Doing so will erase the entire memory which includes all User and Special Codes, and return all codes to their factory default settings.

- 1) Enter Programming Mode
- 2) Press 0 to enter Menu 0, LED will flash red.
- 3) Enter Programming Code to confirm.

▶ **Replacing a lost Program Code**

- 1) Remove power from the Controller
- 2) Press the REX button
- 3) Apply power to the unit with REX button pressed.
- 4) Release the REX button

Note: The Controller must be in Normal Mode otherwise this will not work. Make sure that the Mode LED is green before proceeding.

Replacing a lost Secure Code

5) You now have 15 seconds to program a new Programming Code into the unit using the initial default code 1234, before the controller reverts to the existing code.

Operations:

- 1) Press the "#" key for 2 seconds
- 2) Enter Default Programming Code 1-2-3-4
- 3) Press 3 to enter menu 3, Mode LED will turn green.
- 4) Enter 4-digit New Code as Programming Code.
- 5) System returns to Normal Mode

▶ Replacing a lost Secure Code

The Controller must be in Secure Mode otherwise this will not work. Make sure that the Mode LED is red before proceeding.

- 1) Remove power from the Controller
- 2) Press the REX Button
- 3) Apply power to the unit with REX button pressed
- 4) Release the REX Button
- 5) You now have 15 seconds to program a new Normal / Secure code into the unit using the initial default code 3838, before the controller reverts to the existing code.

Operations:

- 1) Enter Default Secure Code 3-8-3-8
- 2) Enter # to return to Normal Mode
- 3) Press the "#" key for 2 seconds

Appendix

- 4) Enter Default Programming Code 1-2-3-4
- 5) Press 4 to enter menu 4, Mode LED will flash red.
- 6) Enter your new Secure Code
- 7) System returns to Normal Mode

▶ Appendix

LED Display

| Description | Mode LED | | DOOR LED | |
|--------------------|----------|-------|----------|-------|
| | Green | Red | Green | Red |
| Normal Mode | Light | | | |
| Secure Mode | | Light | | |
| Enter program Mode | | | Light | |
| Release the Lock | | | Light | |
| Tamper/Auxiliary | | | | Light |

sound

| Description | Sound display | Sound Description |
|-----------------|-------------------|-------------------|
| Valid Press Key | One short beep | beep |
| Valid Code | Three short beeps | beep beep beep |
| Valid Read Card | One short beep | beep |
| Invalid Code | One long beep | beep |
| Invalid Program | One long beep | beep |

Appendix

Operation Glossary

| | | | | | | | |
|--|--|---|-------------------------------|------------------------------|------------------------------------|--|--|
| First | Press # for 2 seconds Mode LED will turn off and Door LED will turn red | | | | | | |
| Second | Enter programme code (default 1234 Mode LED turn off and Door LED will turn green) | | | | | | |
| Third | Open Code (default2580) | Aux Code (default0852) | Program Code (default1234) | Secure Code (default3838) | Open delay time (default 4secs) | Enroll a new employee | Delete a employee |
| Seven choices | Press 1 | Press 2 | Press 3 | Press 4 | Press 6 | Press 7 | Press 8 |
| | Enter your new 4-digit Code | | | | Enter your new 4-digit Code | 001-500 user NQ | Enter delete user NQ |
| | | | | | Two choices | | |
| | | | | | 1) 01xx 01=NO xx=01-99s* | Present Card or Enter 4-digits User Code | Enter program code to confirm ok |
| | 2) 11yy 11=NC yy=01-99s* | Same as above or finish by pressing # key | | | | | |
| Return to N-M after three beeps M-L turn red D-L turn down | | | | | | Return to N-M after a beep | Return to N-M M-L turn green M-D turn down |
| Result | Set a new Open Code | Set a new Aux Code | Set a new Program Code | Set a new Secure Code | Set Open delay time | Enroll a new employee | Delete a employee |

Note: M-L = Mode LED D-L= Door LED * s= Seconds N-M= Normal Mode

Ultrathin structure design

Backlit 3x4 metal keypad

Anti- Vandal all-metallic housing

Water-resistant with epoxy potting

Professional Manufacturer

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