

Fingerprint Door Lock OPERATOR'S MANUAL



Notes: Please read this manual carefully before operation.

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Chapter 1: Introduction

1.1 Features

- › User Management and audit trail built into unit
- › Easy to read LCD display on back lock body
- › Ability to enter persons name directly in the lock
- › Add / delete individual users directly on the lock
- › Standalone and TCP/IP network. Battery operated
- › 300 fingerprint user capacity (3 grade registered at will)
- › Fingerprint, Pin, Pin + Fingerprint, or Key Access methods
- › All weather fingerprint lock -Operating Temp: -25 ° to 75°C
- › Bump resistant laser cut, dimple keys (2 included)
- › Easy setup and enrollment process
- › 4 AA battery with approximately 3,500 uses
- › Low battery warning alert
- › Sliding weather cover triggers sensor to power on automatically
- › Fingerprints will not be lost if batteries fail
- › High grade durable sensor with 500 dpi optical sensor
- › Deadbolt automatically engages when door closes
- › Up to 3 templates can be enrolled per user
- › Add user by name or by number directly on the lock
- › Auto expire user at a set date and time

1.2 Technical Specification

Item	Description
Sensor	Optical
Resolution	500DPI
Scanning time	<1s
FRR(False Rejection Rate)	0.01%
FAR(False Acceptance Rate)	0.0001%
Fingerprint capacity	3 user levels: 300 users capacity
Battery	4 AA Alkaline battery
Working current	100-200mA
Standby current	12uA
Display	Blue LCD
Language	English
Identification mode	Fingerprint, Pin, Wake-up code + FP
Working temperature	-25 °C to 75 ° C
Working humidity	20%-80%

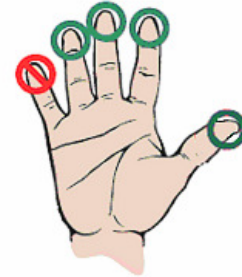
1.3 Fingerprint recognition notes



Proper fingerprint placement is important when using any biometric device. Please be sure to use the tips below when using your fingerprint to authenticate

Tip 1: Choosing The “Best” Finger

Use either your Thumb, Index, Middle or Ring finger, when enrolling and verifying your fingerprint. Avoid using the Pinky finger, as it is typically difficult to align them properly and consistently.



Tip 2: Locating The Fingerprint “Core”

The “core” of a fingerprint is defined as the point located within the inner most recurving ridge. It is extremely important that this area is identified, and placed on the fingerprint scanner during the enrollment and verification of your fingerprint.



Fingerprint Core

Tip 3: Prepare The Finger For Enrollment

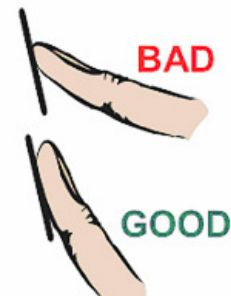
When enrolling and verifying with your fingerprint it is important that your finger be clean. It is also recommended that the finger be relatively undamaged and without scars.



Hint: Washing your hands with moisturizing soap and using hand lotion will also improve accuracy!

Tip 4: Finger Placement

When placing your finger on the scanner, make sure that the location of the “core”, located in Tip 2, is making direct contact with the scanner. Apply medium pressure, or just enough to flatten the skin on your finger.



1.4 Parts list

 <p>Strike Plate</p>	 <p>Strike Plate Hole Covers</p>
 <p>Mounting Hardware</p>	 <p>Mounting Screws</p>
 <p>Keyhole Removal Tool and Keys</p>	 <p>Backup Power Pack</p>
	 <p>Installation Templates</p>

Chapter 2: Operation

1. Preparations before operation

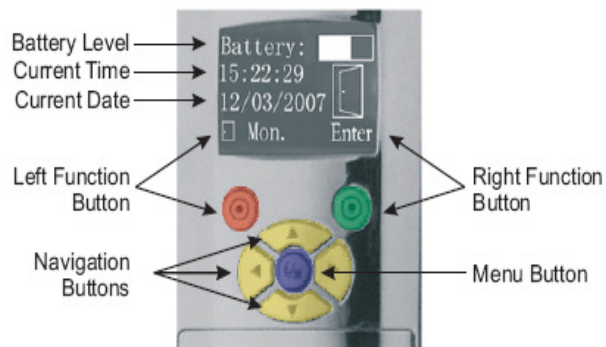
Please install batteries into the compartment to power the system.



2. Keypad description



Front operating keypad



Back operating keypad

Notes: Close the sliding cover before you operate on the back panel.

2.1 Front panel The front panel includes 12 keys

0 to 9 digit keys and "#", "*" keys. They are used to input number, set password, time and so on. When unlock by password, the standard operating mode is: password+#.

When unlock by Pass word+ fingerprint, the standard operating mode is: Input "Password +*" to wake up the sensor, and then place your finger

2.2 Back panel The back panel is for the system operation.

This lock has an easy to use, menu based design. All management tasks are performed on the lock using the buttons and LCD display on the back of the lock.

Battery Level -The battery level indicator represents the approximate percentage of battery use left in the current set up batteries.

Current Time -The current time programmed into this lock.

Current Date -The current date programmed into this lock.

Left Function Button -The Left Function Button is used as a variable button depending on the current menu screen. This button will confirm the operation that is presented in the lower left portion of the screen. In the image above, pressing the Left Function Button would toggle the "Passage Mode" (see section -Passage Mode). Note: the screen may show text instead of a pictogram.

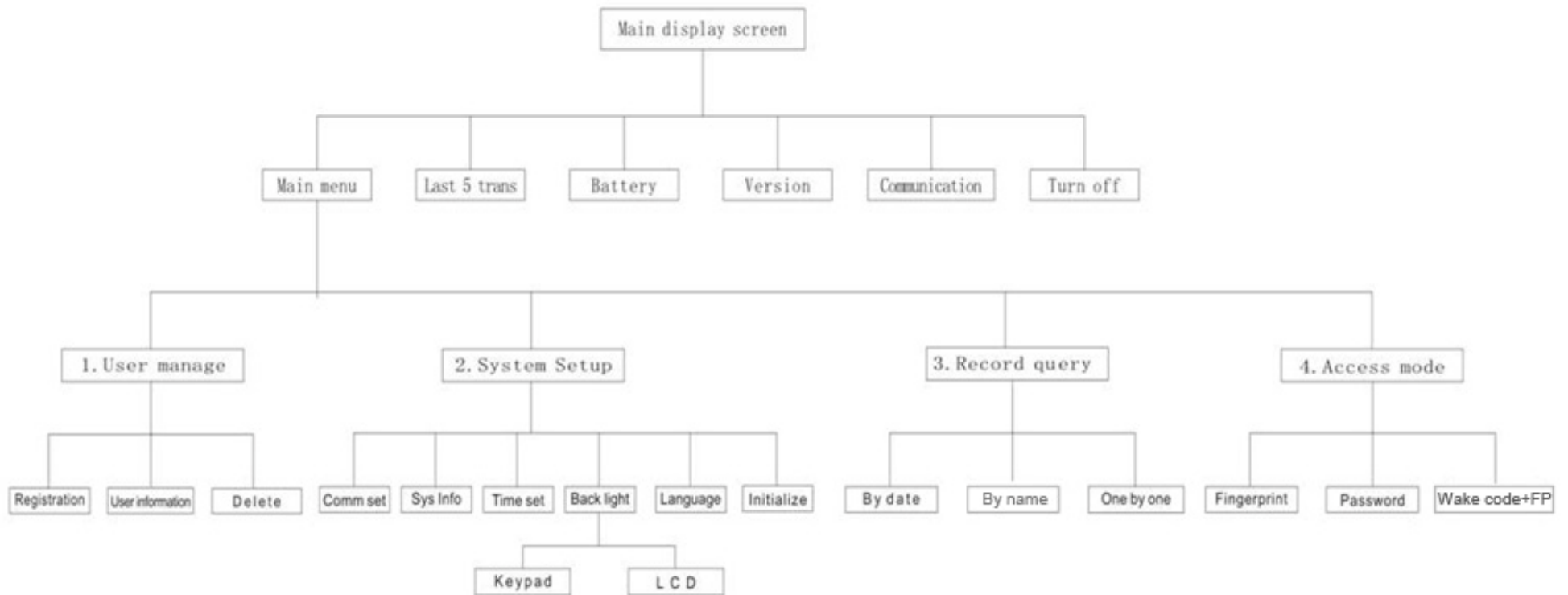
Right Function Button -Like the Left Function Button, the Right Function Button is used as a variable button depending on the current menu screen. This button will confirm the operation that is presented in the lower right portion of the screen. In the image above, pressing the Right Function Button would display the Main System Menu.

Navigation Buttons -the Navigation Buttons are used to navigate the various menus and character lists. For menus, the buttons can be used to highlight the desired menu option for execution. For character lists, the buttons can be used to select the desired number of letter.

Menus Button -The Menu Button displays the Main Menu.

Note: The fingerprint scanner cover must be closed to access the Main Menu.

3. Menus introduction



Menus Diagram

3.1 Main menu

There are 6 subs - menus under the main menu.

3.1.1 User management

User Management Overview

The lock has three types of users -Master, User (normal user) and Guest. The following is a breakdown of each type:

Master (M) – A “Master” user has the ability to fully manage all users, system settings and modes

User (U) – A “User” is a normal user that has the ability to unlock the door and toggle the Passage Mode. Optionally, this type of user may be assigned permission to create new Guest users.

Guest (G) – A “Guest” are given a period of time in which their accounts are valid. After the allotted time, the account may be automatically removed. A guest user only has the ability to unlock the door. None of the administrative functions, including Passage Mode (see section III Passage Mode) may be accessed by a Guest.

Users and corresponding privilege

Privilege User sort	Enroll			Delete			Query			System setting	Access Mode	N.O. setting	Password setting
	M.	U.	G.	M.	U.	G.	M.	U.	G.				
M	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
U	×	×	✓	×	×	✓	✓	✓	✓	×	×	✓	×
G	×	×	×	×	×	×	×	×	×	×	×	×	×

M=Master, U=Common user, G = Guest



A. Adding a new user

a. Adding Master or User.



Figure 1

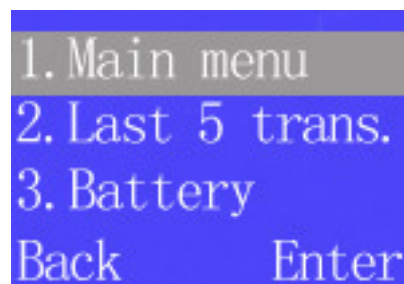


Figure 2

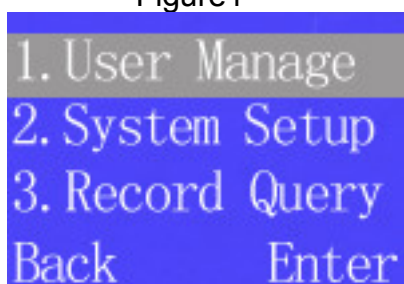


Figure 3

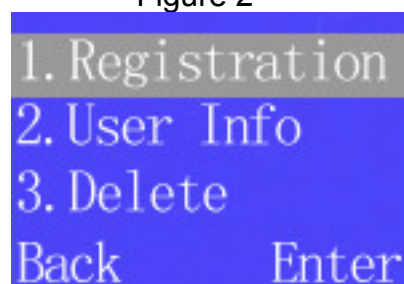


Figure 4

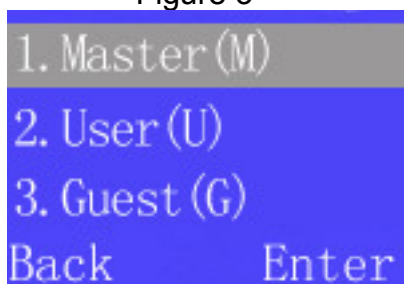


Figure 5

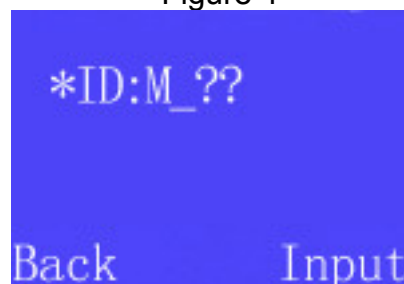


Figure 6

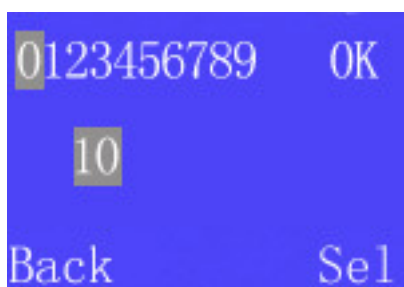


Figure 7

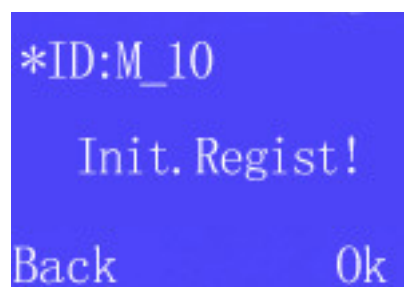


Figure 8

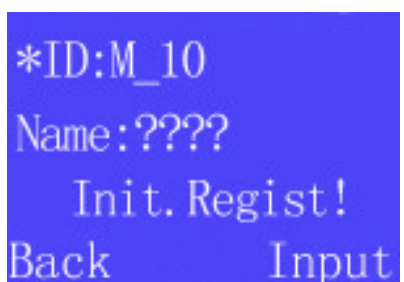


Figure 9



Figure 10



*ID:M_10
Name:TONY
Init.Regist!
Back Ok

Figure 11

1st finger ☐
2nd finger ☐
3rd finger ☐
Back Ok

Figure 12

Pls press your
finger first!
Back

Figure 13

Pls press your
finger second!
Back

Figure 14

Success!
Ok

Figure 15

1st finger ☒
2nd finger ☒
3rd finger ☒
Back Ok

Figure 16

b. Set a time frame when adding a Guest

Start:
10:10:10
10-05-2006
Back Input Ok

Figure 17

end:
12:00:00
20-05-2006
Back Input Ok

Figure 18

Overtime delete
Guest
☐
Next Ok

Figure 19

Overtime delete
Guest
☒
Next Ok

Figure 20



c. Adding a password

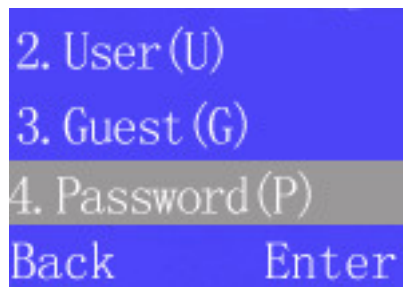


Figure 21

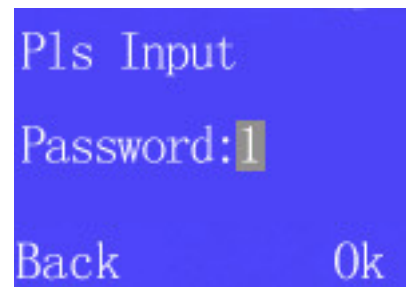


Figure 22



Figure 23



Figure 24

Note: Password is made up of 3-8 digits!

Note:

- If there have already been some users in lock, the system will remind the operator to verify his finger for access privilege.
- Four grade users are master、users 、 guest and password.
- User's ID number has two digits. User's name has 1-4 capital letters. You can use abbreviation for long names.
- During registration, the system will remind you to scan each finger twice. Every user could have 3 fingerprints registered.

B. View user information

You can view the user information,

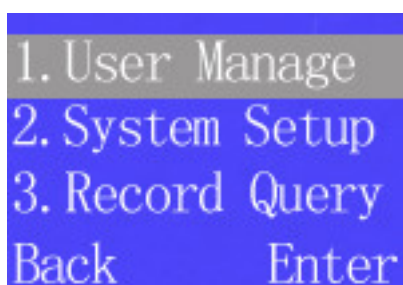


Figure 25

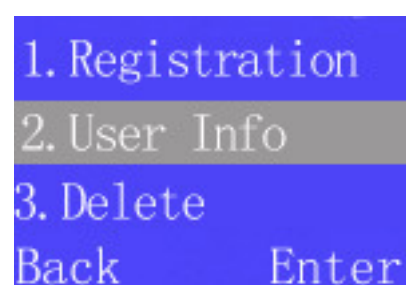


Figure 26



1. Master <10>
2. User <03>
3. Guest <00>
Back Enter

Figure 27

M_01: TONY
M_05: JIM
Back Next

Figure 28

Password enquiry

2. User (02)
3. Guest (01)
4. Password (01)
Back Enter

Figure 29

Secu. 1:123
Secu. 2:Not Set!
Secu. 3:Not Set!
Back Exit

Figure 30

C. Deleting a user

a. Deleting Master Common User and Guest

1. Registration
2. User Info
3. Delete
Back Enter

Figure 31

1. Master
2. User
3. Guest
Back Enter

Figure 32

*ID:M_??
Back Input

Figure 33

0123456789 Ok
10
Back Sel

Figure 34

*ID:U_10
Name:TONY
Back Del

Figure 35

U_10
Deleted !
Exit

Figure 36

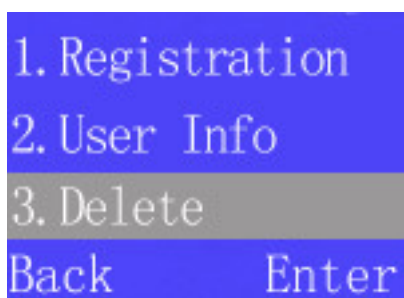
**b. Deleting password**

Figure 37

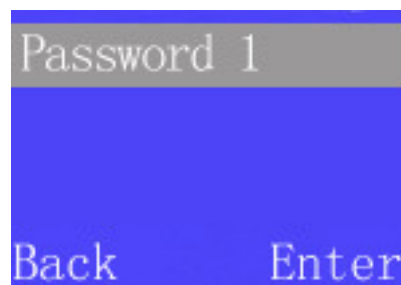


Figure 38

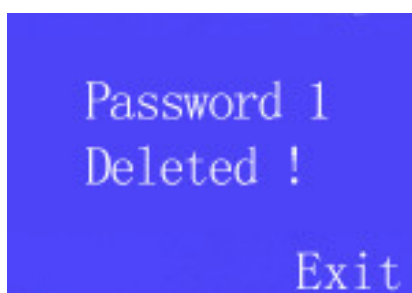


Figure 39

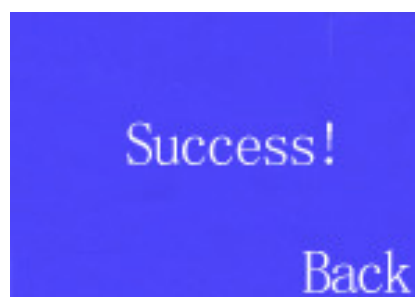


Figure 40

3.1.2 System Set up**System Setup Overview**

Many of this lock's features require an initial configuration. Other options are not required but may be modified to improve battery life and/or the user's experience. Below is a summary of these settings:

Communications Setup -This setting only applies to this lock. This option allows for the configuration of the TCP/IP network module.

System Information -While not an actual setting, this option displays information about this lock.

Date / Time Setup -This option allows the user to change the Date and Time on this lock.

Backlight Settings -This option can be used to change the brightness of the LCD and Pin Pad backlight. Obviously, reducing the backlight intensity will increase the useful battery life.

Language Settings -At this time this lock only supports the English language. Other language could be made to order to adapt your local market.

Initialize Lock -This option is used to remove all users from the lock.



A. Communication Set

You could set communication method through “Comm. Set” Menu.

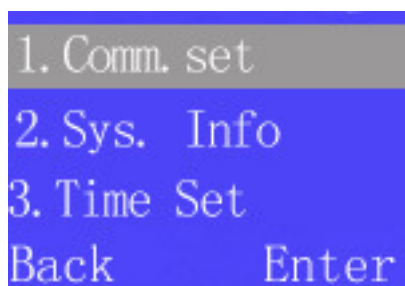


Figure 41

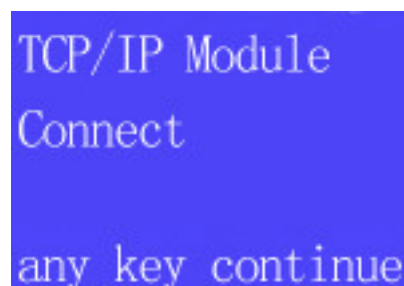


Figure 42

B. System information

The “System Info” menu shows the device information.

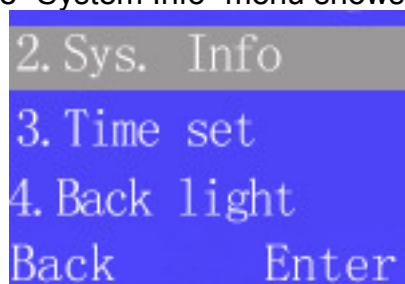


Figure 43

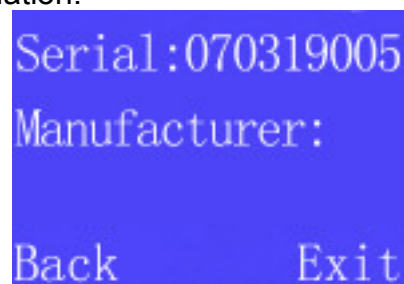


Figure 44

C. Data & Time setting

You can adjust the time and date to your local zone.

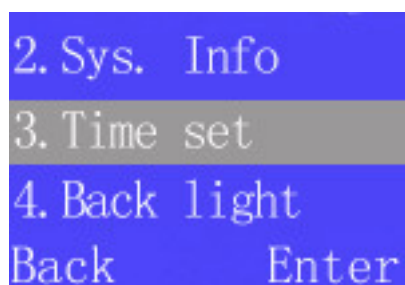


Figure 45



Figure 46

D. Back light adjustment

Adjust the LCD and keypad brightness.

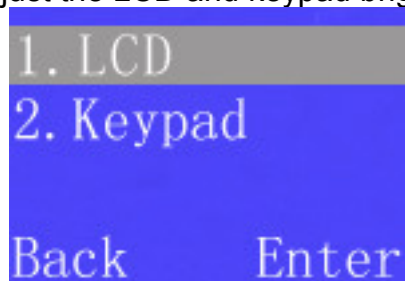


Figure 47

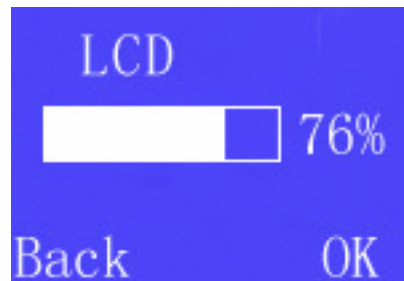


Figure 48

**E. Language set**

You could choose English and other language.

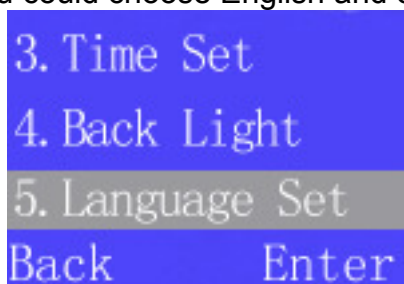


Figure 49

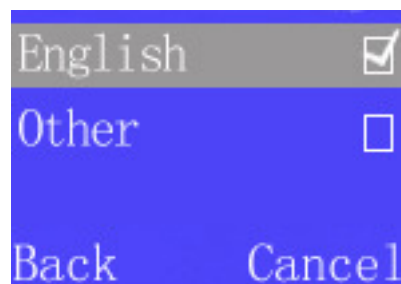


Figure 50

F. Initialization

The master can initialize the system. However, the “Black box” will save all the records which cannot be deleted.

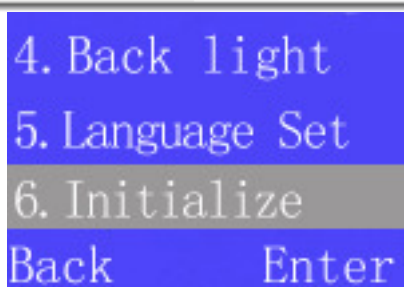
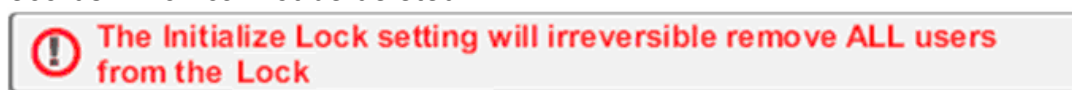


Figure 51

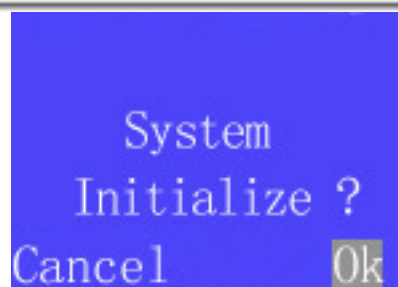


Figure 52

3.1.3 Audit log/ event log query

The lock creates a log record each time a user authenticates with the lock. These events can be viewed directly on the lock.

A. Last 5 logs / events query

You could enquiry the last 5 transaction through “Last 5 trans” menu.

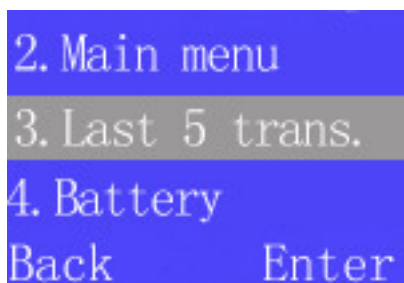


Figure 53

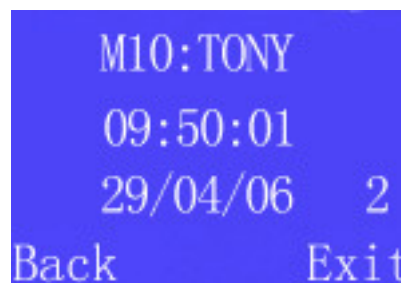


Figure 54



B. Query Events by Date

1. By Date
2. By User
3. One by one
Back Enter

Figure 55

Query date:
07Y/05M/06D
Cancel Inp. OK

Figure 56

Rcords:77
Cancel Query

Figure 57

Mo1:TONY
08:22:23.
06:04:07 1
Back Exit

Figure 58

C. Query Events by Name

1. By Date
2. By User
3. One by one
Back Exit

Figure 59

Query name: ????
Cancel Input

Figure 60

ABCDEFGHIJKLMNO
PQRSTUVWXYZ
TONY
Back Sel

Figure 61

Query name:TONY
Pls waiting....

Figure 62

Rcords:77
Cancel Query

Figure 63

Mo1:TONY
08:22:23.
06:04:07 1
Back Exit

Figure 64

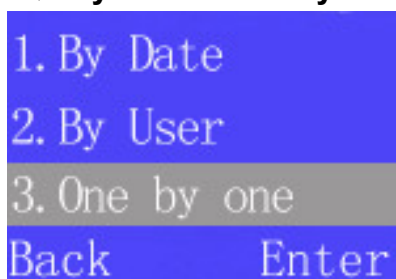
**D. Query Events one by one:**

Figure 65

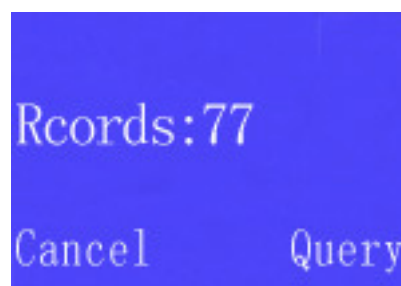


Figure 66

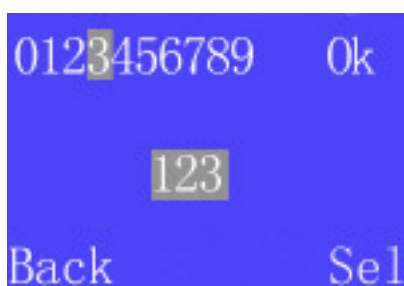


Figure 67

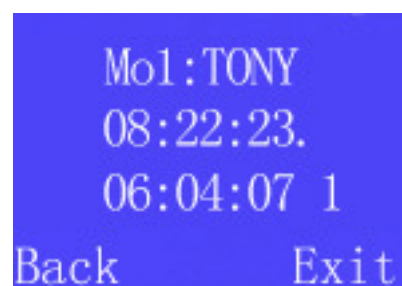


Figure 68

3.1.4 Access mode**Access Modes Overview**

This lock can be configured for multiple forms of authentication. The following is a summary of each type:

Fingerprint – The user is required to place their finger on the scanner for authentication.

Password – A user can use one of three possible passwords to authenticate with the lock Wakeup Code + Fingerprint -First, the user must enter a Wakeup Code. If the Wakeup Code is valid, the user will need to place their finger on the scanner to authenticate.

Fingerprint or Password –This mode is the most secure as it has two forms of authentication options. Password is for user with unclear fingerprint.

Wake-up code + fingerprint – A user can use the wake-up code + fingerprint mode to up grade the security level of access and prevent the continuous disoperation. The fingerprint reader will not work if not correct wake-up code inputting

Mechanical Key –This lock comes with 2 “dimple” keys. These keys can be used to open the door when it is not possible to use any of the other methods.

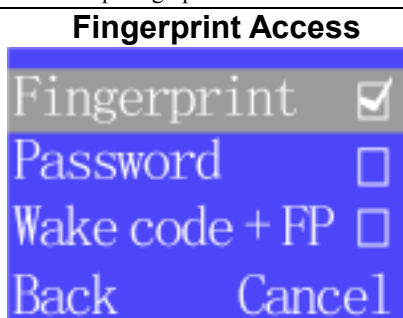


Figure 69

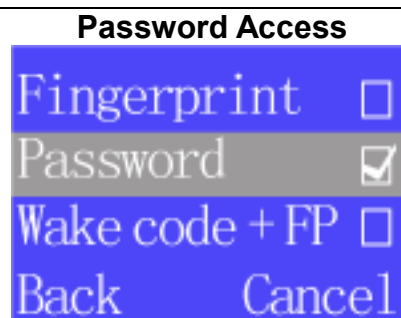


Figure 70

Fingerprint or Password

Password & Wake-up code

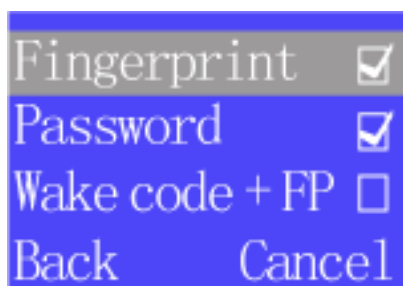


Figure 71

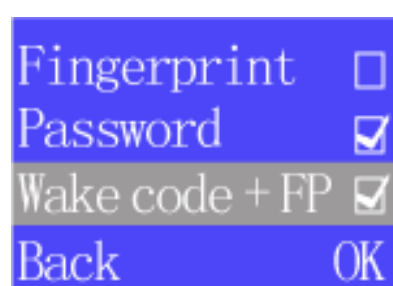


Figure 72

Figure 71: The access method is Fingerprint or Password. NOT BOTH

Figure 70& Figure 72: The access mode is password

Note: If you select wake-up code+ fingerprint access mode, system will remind you to set wake-up code.

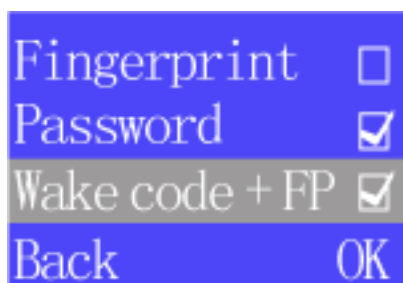


Figure 73

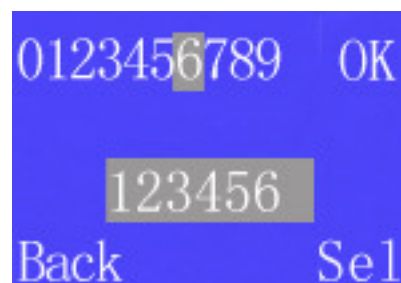


Figure 74



Figure 75

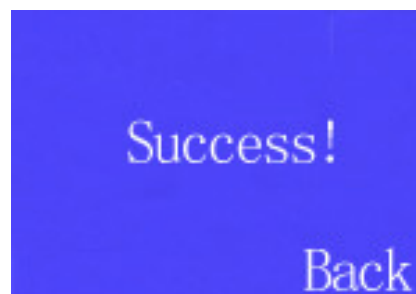


Figure 76

Note: Wake-up number is made up of 3-8 digits.



3.2. Unlock operating.

A. Unlock by Fingerprint

- Lift the scanner cover of this lock.
- Place your fingerprint on the blue scanner.
- This lock will make several attempts to match your fingerprint. You should hear a single beep each time a match is attempted. If this lock finds a match, you will hear a short melody indicating a successful authentication and this lock will be unlocked!
- If, after several attempts, this lock is not able to authenticate the fingerprint, the scanner will shut off. If the process of authenticating fails 5 times in a row, the lock will automatically shut down for 2 minutes.

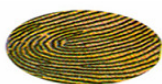


B. Unlock by Password

- Lift the scanner cover of this lock.
- Enter the registered password on the pin pad.
- Press the “#” to confirm.
- If this lock finds a match, you will hear a short melody indicating a successful authentication and this lock will be unlocked!



C. Unlock by Fingerprint or Password. (Do as above)



D. Unlock by Wake-up Code + Fingerprint

- Lift the scanner cover of this lock.
- Enter the wake-up code then press the “*” button.
- The fingerprint scanner will activate. Place your registered fingerprint on the blue scanner.
- This lock will make several attempts to match your fingerprint. You should hear a single beep each time a match is attempted. If this lock finds a match, you will hear a short melody indicating a successful authentication and this lock will be unlocked!
- If, after several attempts, this lock is not able to authenticate the fingerprint, the scanner will shut off. If the process of authenticating fails 5 times in a row, the lock will automatically shut down for 2 minutes.



E. Unlock by Override Mechanical Key

- Insert the Key Cover Extraction Tool into the hole in the Key Cover.
-
- Twist 90 degrees and pull the cover off of the key hole.
-
- Insert the key into the keyway and turn fully clockwise approximately 135 degrees.
- While the key is fully turned, push on the door handle to open the door.





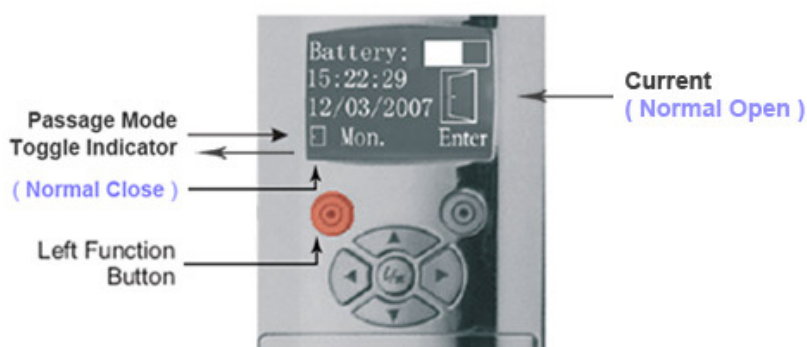
F. Passage Mode Setting



Master users and Normal users are capable of toggling the Passage Modes. However, Guest users cannot toggle the Passage Modes!

This lock has a “Passage Mode” which allows you to keep the lock unlocked when necessary. The Passage Mode toggles between a locked and unlocked state.

Toggling Passage Mode



Press the Menu Button to activate the menu screen. Press the Left Function Button to toggle the Passage Mode.

If you are enabling the unlocked Passage Mode, a Master or Normal user will be required to authenticate with the fingerprint scanner before enabling the mode. However, no authentication is required to toggle to the locked Passage Mode.

3.3 Battery

There is battery power bar displayed on home window. You can also check the voltage through “Battery” menu.

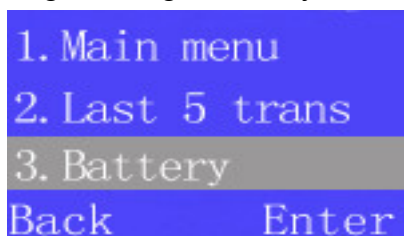


Figure 77



Figure 78

Note: The system will alarm with “beep” when low battery power. The lock can work at least 10 to 30 days since the first alert. Change the battery timely when there is low voltage alert



3.4 Version

You could check the version of hardware and software.

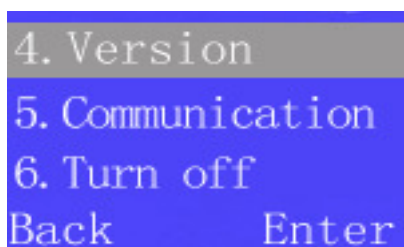


Figure 79

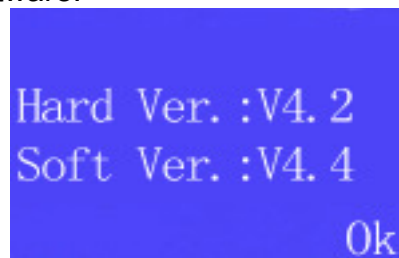


Figure 80

3.5 Communication

You can check the communication status. Please refer to the TCP/IP software user manual for details.

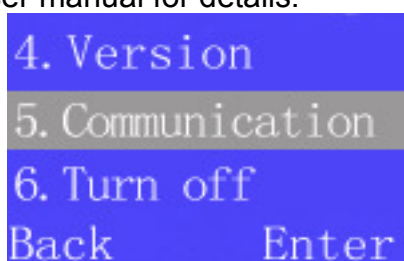


Figure 81



Figure 82

3.6 Turn off

The user can exit the menu through "Turn off" menu.

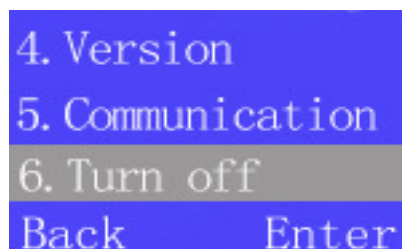
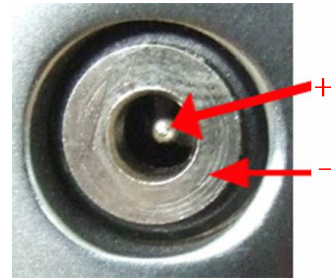
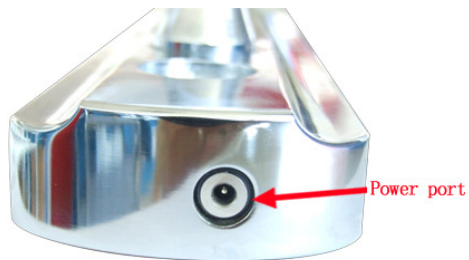


Figure 83



3.7 External power& Communication port

Note: when the battery is powered out in emergency situation, you can also unlock it by powering with the emergent back up battery box.



Emergency Battery Box (6V DC)



Chapter 3: Maintenance

Daily Maintenance

1. Change the battery timely when low power alert sounds.
2. Keep away from corrosive material or liquid,
3. Do not hang anything on the handle.
4. Close the sliding cover after opening the door.
5. Carefully keep the emergency key for urgency.
6. Keep the surface of the sensor clean and dry.



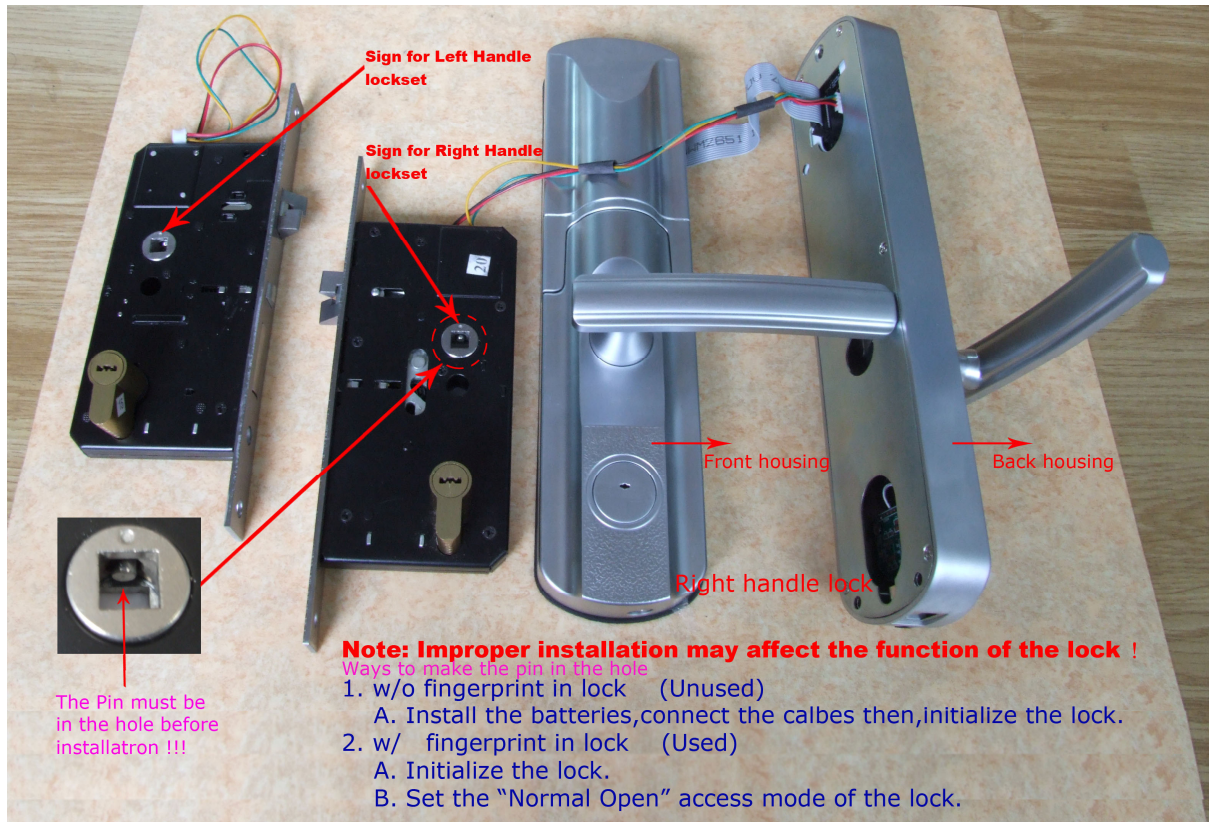
Chapter 4 Installation

Install the lock in 5 steps





- 1. Installation of the lockset**
- 2. Installation of the fixing board**
- 3. Installation of the lock body**
- 4. Installation of the cylinder**
- 5. Installation of the liner & strike plate**

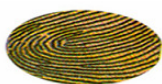


Notes for installation



Tools required

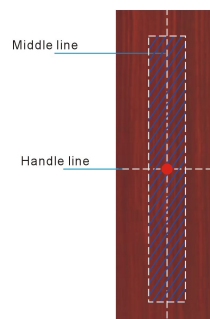
 Electric drill	 Hammer	 Auger bit
 Screwdriver	 Cut-off knife	 Tape measure
 Pencil	 Chisel	



Step 1: Installation of the lockset



● Handle position



● Area to be excavated



● Drill holes with depth 82-88mm



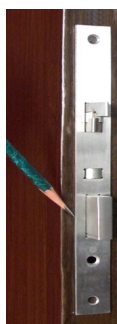
● Make the surface flat with chisel



● Try lockset



Step 2: Installation of the fixing board



● Position for fixing board



● Cut with 3mm depth for fixing board

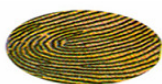


● Cutting with chisel



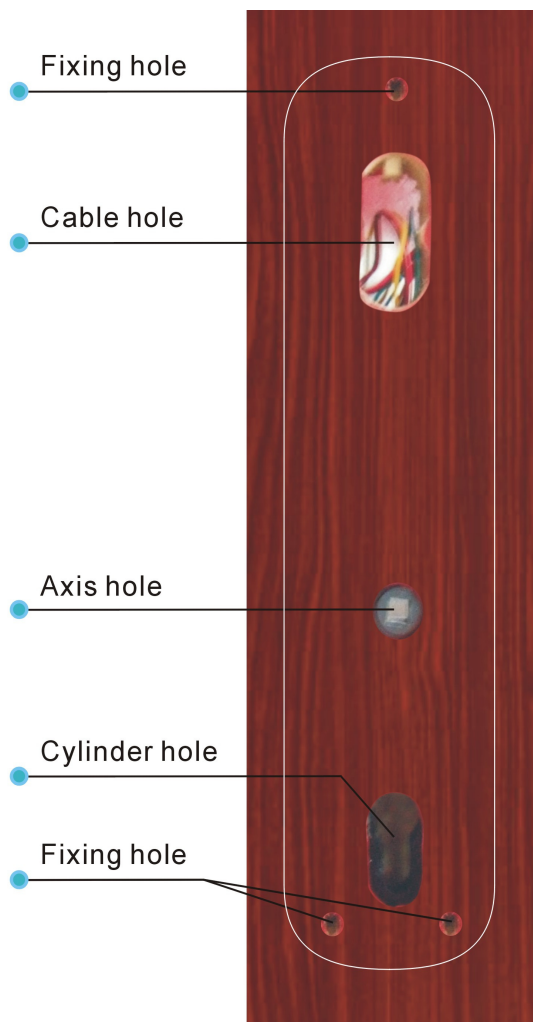
● Finished

Step 1 & 2 are finished!

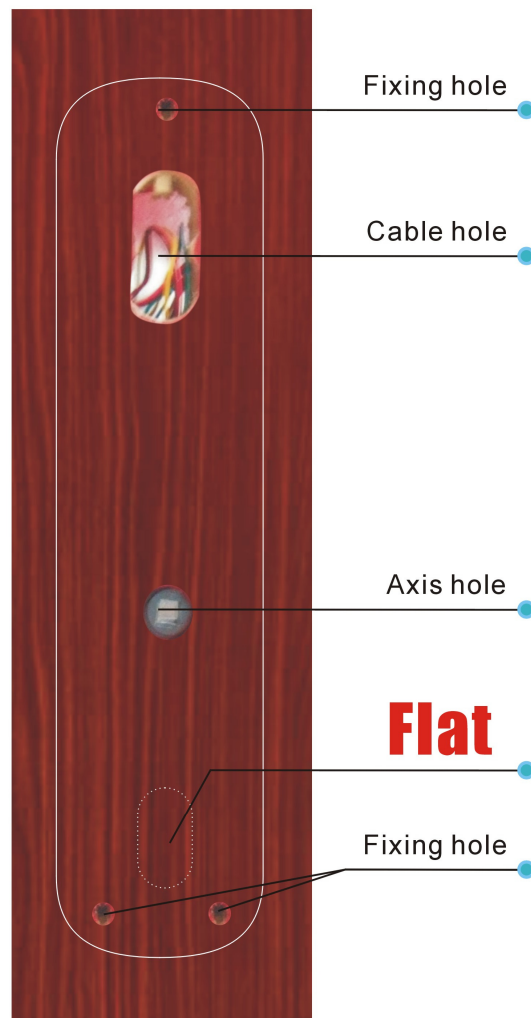


Steps 3: Installation of lock body

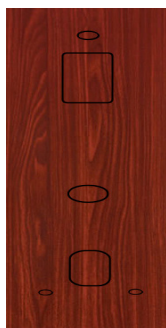
Attention: Please drill from outside to inside!



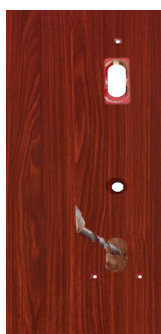
Holes in front of the door



Holes in the back of door



● Draw hole position



● Drilling



● Cable drill through



Steps 4: Installation of cylinder



Install & fix the cylinder

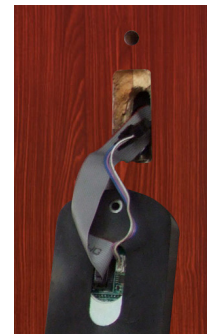
Step 4 is finished! Back to step 3!



● Spring & Axis fixing



● Rubber gasket fixing



● 2 Cables connection



● Fix the screws



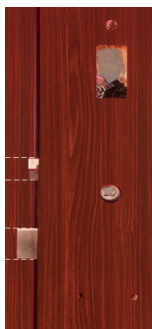
● Test the handle

Note: You could open the door from inside anytime.

Step 3 & step 4 is finished!



Step 5: Installation of the strike plate



● Draw the latch position



● Position of the strike



● Holes for liner



● Liner fixing



● Strike position



● Holes for strike



● Fix with screw

Step 5 is finished!



Successfully Install !



Lock body



Strike plate

Thank you!