KEYPAD FINGERPRINT LOCK
MODEL : LIS2010-MT-1020/5

LEVEL®

USER GUIDE

KEYPAD FINGERPRINT LOCK
MODEL : LIS2010-MT-1020/5

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GUANGDONG LEVEL INTELLIGENT LOCK INDUSTRIAL CO. , LTD

CONTENTS

1.1 Lock Model and Shape

Back body

Front body

Mortise

Product Model	Finishing	Net Weight
LIS2010-MT-1020/5	CCR,PVD	3.65kgs

1.2 Basic Functions

1 Perfect combination of Mechanical and Biometric technology.
2 3 unlocking methods：fingerprint, code and mechanical key.
3 Mechanical key for emergency.
4 Emergency code can be access at any time.
5 Members of any groups will unlock.
6 International standard mortise, flexible using and good expansiveness.
7 Storage: 100pcs fingerprints.
8 4pcs alkaline batteries for power supply, power saving PCB, 20000 times unlocking.
9 Lower battery alarm: Alarming for lower voltage, to remind users to change battery, in this case still will be opened 100 times.
10 Humanity design, perfect combination of sound, light and electrics for correct operation guide.
11 Normal- open mode will be set up for special using.
12 Alarming function of latch: when the door is not closed correctly (latches not stretched perfectly), lock will alarm in 3 seconds.
13 Anti-attrition design, to protect lock from malicious unlocking.

1.3 Lock Components and Their Functions

Name		Function
Front and back handles		Unlocking
Fingerprint windows		Capture fingerprint image
Face Plate		Protect latches
Deadbolt		Lock with deadbolt(double lock)
Keypad		Operation and code inputting

Battery package

No.5 handle

Mortise

Deadbolt knob

Back lock panel

BACK ELEVATION

Latches

Anti-attrition latch

Deadbolt

Face plate

SIDE ELEVATION

Indicator screen

Fingerprint window

Keypad

No.5 handle

Front penal

Cylinder cover

FRONT ELEVATION
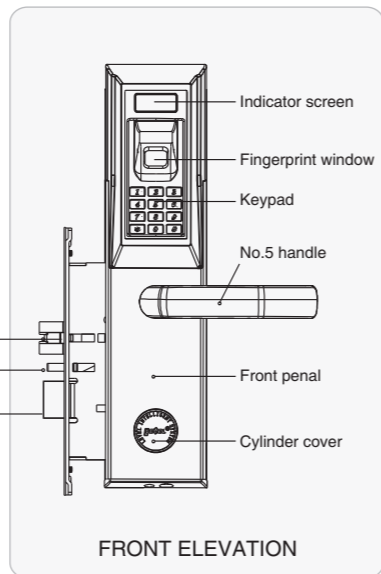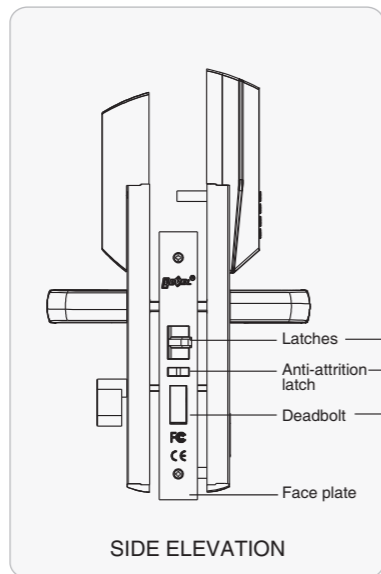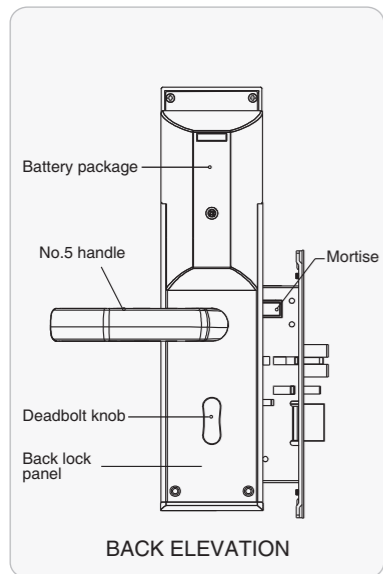
1.4 Mortise Dimensions

Unit:mm

23.0

3.8

108

70

29.0

153.0

98.5

62.5

205

Chapter 1 Product Introduction
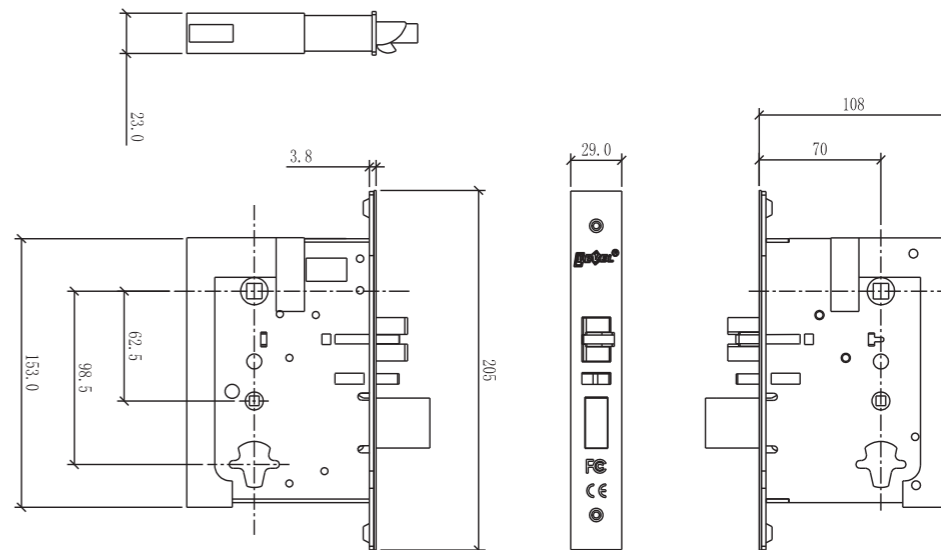
1.5 Size of Lock Panels

Unit:mm

BACK ELEVATION

FRONT ELEVATION

Chapter 2 Installation of lock
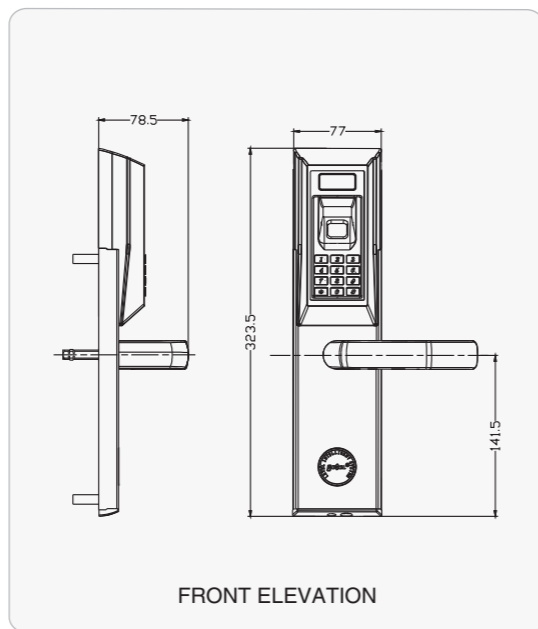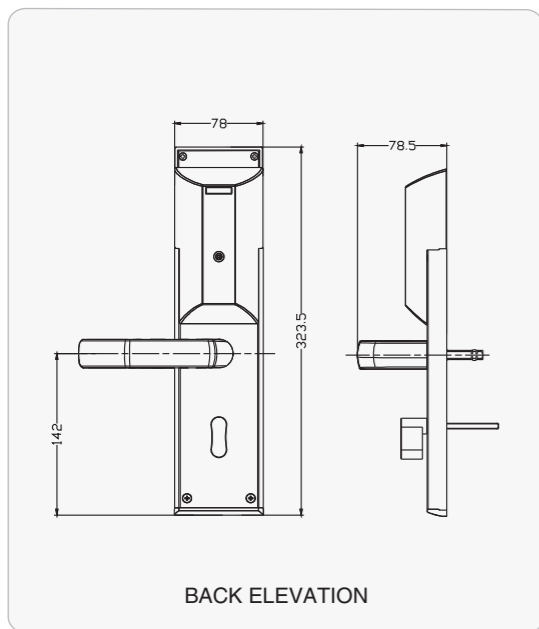
2.1 Installation guide

The locks should be installed by experienced specialists.

2.2 Installation requirements

A. Door : should be wooden door, or steel burglar door (in this case,the hole should be cut by door provider).

B. Door thickness: 40-70mm.

C. If the door is decorated, the width between the door edge and decoration should be 120mm.
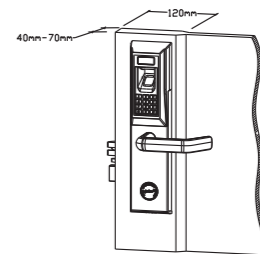
2.3 How to judge lock direction

Left hand   Right hand

Inside open

Left hand   Right hand
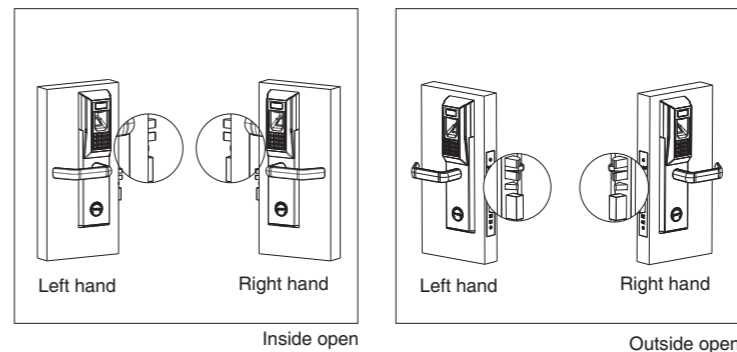
Outside open

2.3.1. Left hand: stand outside the door, and face towards door, hinge is in left hand.

2.3.2. Right hand: stand outside the door, and face towards door, hinge is in right hand.

2.3.3. Inside open: Push in to open the door.

2.3.4. Outside open: Pull out to open the door.

2.4 Installation steps

A Drilling and cutting — Drill and cut holes according to the installation drawings or hole-making templates to locate the mortise and lock body.The handle center line should be 100cm from the ground. (figure 2.4a)

Hole-making drawings

Hole-making drawings

Central line of handle

30.00
26.00
3.00 28.00
53.00
96.00
106.00
141.00

30.0
25.0
40.0
47.1
57.5

259.0
238.3
216.0

2-ø3.00

70.0
68.0
56.0
2-R6.00
18.0
37.5
R15.0
25.0
ø25.0
ø40.0
56.0
5.5
120.0
2-ø12.00
90.3
62.5
21.0
98.5
211.5

Hole-making drawings of door frame   Unit:mm   Hole-making drawings of door   Unit:mm

Hole-making templates

Template of mortise
door frame
Door
template of strike plate
Datum line
template of panels
1000mm

Distance between the central circle of handle and ground shall be 1000mm.

three central lines should be in one
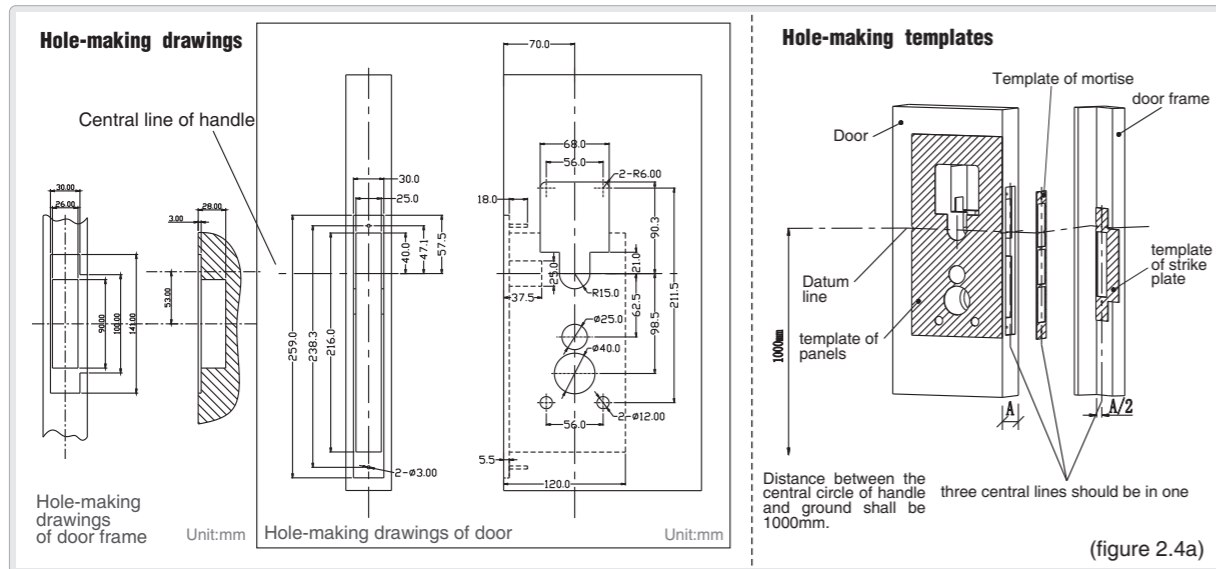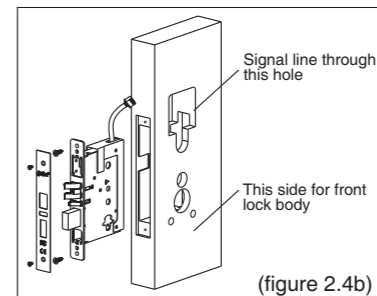
A / A/2

(figure 2.4a)

B Install the mortise

(1) Install mortise on mortise chamber which has been drilled and cut on door, note: the signal line should be lead outside of door.

(2) Fix the mortise on door with 2 screws ST4.8*19. (figure 2.4b)

Signal line through this hole
This side for front lock body

(figure 2.4b)

This side for front lock body
Cylinder
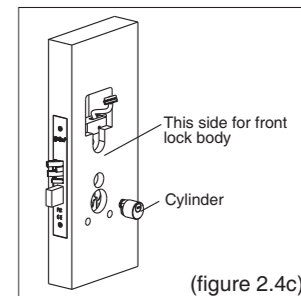
(figure 2.4c)

C Install the Cylinder — Locate the cylinder on mortise through the hole cut on outside door ,then fix the cylinder with screw from other side of the door,and cover the side plate. (figure 2.4c)
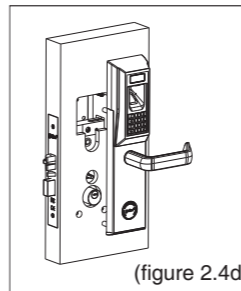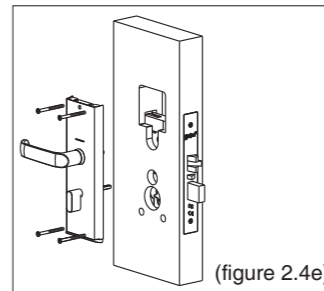
(figure 2.4d)   (figure 2.4e)

D Install the front lock body

(1) Connect the signal line on front lock body with signal line on mortise,please make sure they are connected firmly.

(2) Insert the big square shaft on front lock body into the relevant hole on mortise, and make the hole on front lock body match the cylinder,then make the lock body touch the door surface tightly. (Figure 2.4d)

E Install the back lock body — Insert the big square shaft and small square shaft on back lock body into the relevant hole on mortise, then connect back lock body and front lock body with 4 screws M5 size, to make the lock bodies fixed on door tightly. (Figure 2.4e).

F   Install battery and cylinder cover

(1) Put batteries into battery box, put battery box into battery package and screw it (Figure 2.4f).

(2) Put the cylinder cover into cylinder hole from 45° anticlockwise,use cylinder cover opening T shape tool to rotate the cylinder cover 45 clockwise.Press the cylinder cover on the cylinder(Figure 2.4g)

Battery package screw

(figure 2.4f)

(figure 2.4g)
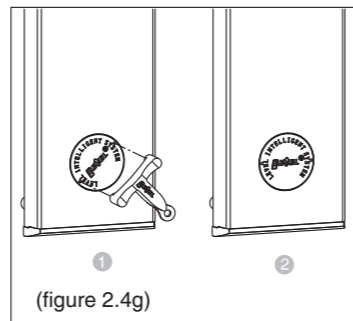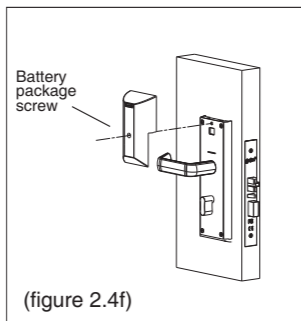
G   Install strike plate and strike box   Put strike plate and strike box into door frame,fix them with 2 screws ST4.8*19

(figure 2.4h)
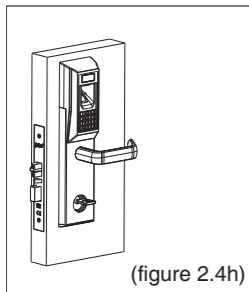
H   Testing the lock

(1) Turn handles, to test the flexibility.

(2) Turn handles to open door, and turn the deadbolt, to test if the latches and deadbolt go in and out flexible.

(3) Open door with mechanical key, turn the key to test if the latches and deadbolt go in and out flexible.

(4) Test the anti-attrition latch. (Figure 2.4h)

2.5 Exploded diagram

Battery box

Door

No.5 handle

Back lock panel

Face plate

Cylinder
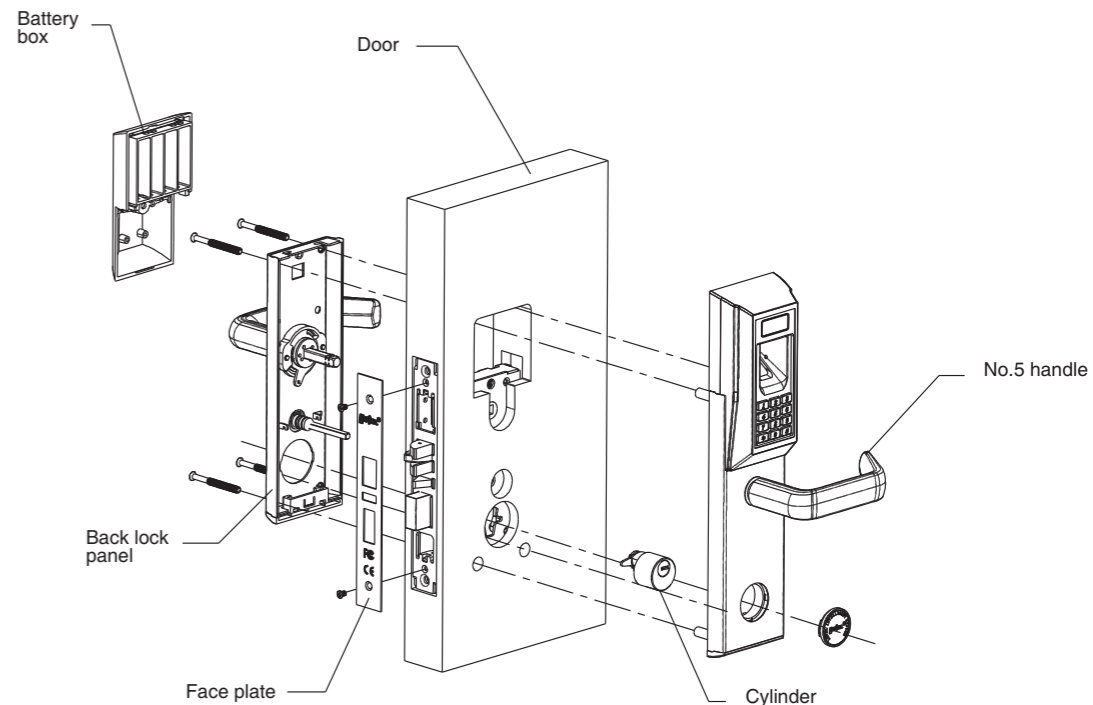
3.1 Finger placement
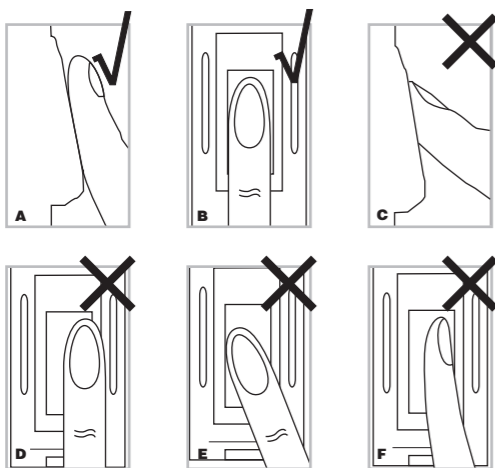
To capture a clear fingerprint image, place the finger flat and tight on the sensor surface and give a proper pressure (User should not press the sensor hard. The notification will not repeat again hereinafter).

Note: it is correct to place finger as Picture A (side) and Picture B (face), while none of Picture C, D, E, F is correct.

3.2 Sound and Light Prompt

3.2.1 Instruction Sound prompt: the sound given out by the buzzer in the lock.
Light prompt: the light seen on the front panel of fingerprint lock.

3.2.2. Light and Sound Prompt Illustration

| Operation	Sound Prompt	Prompt Light	Prompt Digital	Remark
Fingerprint enrollment	"Di-Di—" one short and one long sounds	Blue light on	000-009	000-099 indicates the fingerprint position
Code setting	"Di—" one long sound	Blue light on	n0	n0-n2 indicates that the code belongs to group 0-2
Unlock with fingerprint	"Di-"short sound	Blue light on	000-009	000-009 indicates the fingerprint position
Unlock with code	"Di-"short sound	Blue light on	n0	n0 indicates that the code belongs to group 0
Invalid fingerprint	"Di-Di-Di-" three short sounds	Red light on	--	When use invalid fingerprint to open
Invalid code	"Di-Di-" two short sounds	Red light on	--	When use invalid code to open
Passage mode	"Di—" long sound	Blue light on	--	Blue light flashes every 3 seconds
Low power state	"Do-Re-Mi" three music sounds	Red light on	--	When use fingerprint or code to open
Self-locked state	"Wu, Wu, Wu" three sounds alarm	Red light on	--	The state will be cancelled automatically after 5 minutes
Double-locked state	"Di—" long sound	Red light on	bL	only master fingerprint could open
Fingerprint memory is full	"Di.Di.Di.Di." four short sounds	Red light on	FU	Fingerprint memory is full
Fingerprint sensor is damaged	"Di" short sound	Red light flashes 3 times	--	------
Fingerprint not find	"Di-Di-" two short sounds	Red light on	--	------

3.3 Fingerprint Enrollment

Use specialized tools to remove the cylinder cover, insert mechanical key and turn the key clockwise(right handle lock) or anti-clockwise (left handle lock), red and blue light flashes alternately, at hearing a long "Di—", continually press "#" twice, red light on, digital display shows "003-099" , and fingerprint window lights up, indicating the lock is under fingerprint enrollment state.

Note: "003" shown on the digital display is the smallest unregistered fingerprint position.

A. Put the finger onto the fingerprint window. When a short "Di-" is sounded, the first fingerprint identification succeeds. Do not remove finger until a long "Di—" is sounded, blue light flashes once, and digital display shows "003 ", which indicates the success of the enrollment operation.

B. Following instruction A, but the red light flashes, digital display shows "000" first and then "---", together with two short "Di-Di-". It means the operation fails.

C. If the same fingerprint is enrolled for the second time, its previously registered position number will be shown on digital display, blue light flashes one time and a long "Di—" sounded, and then exit fingerprint enrollment state.

3.4 Master Fingerprint

The three fingerprints of "000-002" are read as master fingerprints
Functions of master fingerprint:
1. Unlock the door
2. Set code/fingerprint
3. Delete code/fingerprint

3.4.1 Operation of setting master fingerprint

Use specialized tools remove the cylinder cover, insert mechanical key, turn the key clockwise(right handle lock) or anti-clockwise(left handle lock), a long "Di…" sounded, red and blue light flashes alternately, press "#" once, enter position number of master fingerprint"000-002" ,then press "#" again to confirm, and fingerprint window lights up, indicating the lock is under the state of master fingerprint setting.

A. Put the finger onto the fingerprint window. When a short "Di-" is sounded, the first fingerprint identification succeeds. Do not remove finger until a long "Di-"is sounded, blue light flashes once, and digital display firstly shows"000"and then black out, which indicates the success of the enrollment operation, and the position of this master fingerprint is "000".

B. Following instruction A, but the red light flashes, together with two short "Di-Di-".It means the operation fails.

3.4.2 Operation of setting other fingerprints with master fingerprint

Press "#" continuously for 3 seconds, a long "Di…" sounded, red light and fingerprint window lights up. Put the master finger onto the fingerprint window, after a long "Di…"is sounded, red and blue light flashes alternately, continually press "#" twice, red light on, digital display shows any number from"003-099"(stands for the smallest position number of a new fingerprint. If you want to enroll the fingerprint in a specific position, please press "#" first and input the specific position number), fingerprint window lights up, indicating the lock is under fingerprint enrollment state.

A. Put the finger onto the fingerprint window. When a short "Di-" is sounded, the first fingerprint identification succeeds. Do not remove finger until a long "Di-"is sounded, blue light flashes once, and digital display firstly shows "003"and then black out, which indicates the success of the enrollment operation, and the fingerprint has been registered in the position of "003".

B. Following instruction A, but the red light flashes, digital display "000",together with two short "Di-Di-".It means the operation fails.

3.4.3 Operation of setting code with master fingerprint

Press "#" continuously for 3 seconds, a long "Di…" sounded, red light and fingerprint window lights up. Put the master finger onto the fingerprint window, after a long "Di-"is sounded, red and blue light flashes alternately, then press "#" once, red light on, digital display shows "---"

A. Input an eight-digit code started with 01 or 02, press "#" to confirm, digital display shows correspondingly "n1"or"n2", accompanied with a short "Di-"from buzzer. Re-input the code again and confirm it by pressing"#", a long "Di–" sounded, blue light flashes once ,and "n1"or "n2" is shown again. It means the success of the setting operation (Note: "n1"or "n2" is the corresponding code position)

B. Input an eight-digit code started NOT with 01 or 02, press "#"to confirm, digital display shows"n0", accompanied with a short "Di-" from buzzer. Re-input the code again and confirm it by pressing "#", a long "Di---"sounded, blue light flashes once, and "n0" is shown again. It means the success of the setting operation.

C. Following the above instructions, but the red light flashes together with two short "Di-Di-".It means the setting operation fails.

D. If two groups of codes should be set, start with 01or 02, that is 01******and 02******, if one group of code should be set, DO NOT start with 01or 02.

3.4.4 Operation of deleting fingerprint with master fingerprint

Press "#" continuously for 3 seconds, a long "Di…" sounded, red light and fingerprint window lights up. Put the master finger onto the fingerprint window, after a long "Di-"is sounded, red and blue light flashes alternately, then press "*"once, red light on, digital display shows"---" indicating under fingerprint deletion state. Then input the fingerprint position number you want to delete, for example: "008", digital display shows "008', press "#" to confirm. If the buzzer gives out a long "Di-",and blue light flashes once, it means deletion operation succeeds.

3.4.5 Operation of deleting code with master fingerprint

Press "#" continuously for 3 seconds, a long "Di…" sounded, red light and fingerprint window lights up. Put the master finger onto the fingerprint window, after a long "Di-"is sounded, red and blue light flashes alternately, then press "*"once, red light on, digital display shows"---" , indicating under fingerprint deletion state.

A. Input the code to be deleted, for example "01*******" (* stands for any number, which means code could be deleted even it is forgotten), and press "#" to confirm. If the buzzer gives out a long "Di—", and digital display flickers "n1", it means the deletion operation succeeds.

B. If not sure the code input, or any other accidental circumstance, press "*" to return and stop the operation, buzzer gives out two short "Di.Di." by the mean time. If no further operation is made in 10 seconds, the system will get out of the deletion state automatically, accompanied with two short "Di—" from the buzzer.

C. If the buzzer gives out two short "Di-", and red light flashes once, it means the deletion operation fails.

3.5 Code Setting

Use specialized tools to remove the cylinder cover, insert mechanical key and turn the key clockwise(right handle lock) or anti-clockwise (left handle lock), red and blue light flashes alternately, at hearing a long "Di—", press "#" once, red light on , and digital display shows "---", indicating the lock is under code setting state.

A. Input an eight-digit code started with 01 or 02, press "#" to confirm, digital display shows correspondingly "n1" or "n2", accompanied with a short "Di-" from buzzer. Re-input the code again and confirm it by pressing "#", a long "DI——"sounded, blue light flashes once , and "n1" or "n2" is shown again. It means the success of the setting operation.(Note: "n1" or "n2" is the corresponding code position)

B. Input an eight-digit code started NOT with 01 or 02, press "#" to confirm, digital display shows "n0", accompanied with a short "Di-" from buzzer. Re-input the code again and confirm it by pressing "#", a long "DI"sounded, blue light flashes once, and "n0" is shown again. It means the success of the setting operation.

C. Following the above instructions, but the red light flashes, digital display shows "---", together with two short "Di- Di-". It means the setting operation fails.

D. If two groups of codes should be set, start with 01 or 02, that is 01****** and 02******; if one group of code should be set, DO NOT start with 01 or 02.

Note: Every time the mechanical key is turned, only one fingerprint or one code can be enrolled or set. Mechanical key should be turned back every time after enrolling.

3.6 Code Resetting

A. Following the above steps, and input a new code started with "01" or "02", then the new 01****** code will cover the old 01 code ; similarly, 02****** will cover the old 02 code.

B. If the "01" or "02" code has been set or existed, but another code started NOT with "01" and "02" is needed, in this case, user has to initialize the system to empty the existing codes.

C. If code started NOT with "01" or "02" has been set or exited, but "01" and "02" codes are needed, user has to initialize the system to empty the existing code.

3.7 Unlock with Fingerprint

3.7.1. When the lock is still under initialization state (no code or fingerprint inside)

A. Put any one finger onto the fingerprint window, fingerprint window lights up, buzzer gives out a short "Di-" and blue light flickers once, and display shows "n n n". At this moment, handle can be turned to open the door.

B. Press "#", buzzer gives out a short "Di-" and the fingerprint window lights up, and display "n n n", put any one finger onto the fingerprint window, when hearing a short "Di-" and blue light flickers once. At this moment, handle can be turned to open the door.

> Note: If the fingerprint is not read properly, the buzzer gives out two short "Di-", red light flickers, handle can not be turned to open the door.

3.7.2. When the lock is registered with fingerprints

A. Put the valid fingerprint onto the fingerprint window, when hearing a short "Di-", blue light flickers, and display shows this fingerprint position number, for example, "009". At this moment, handle can be turned to open the door.

B. Press "#", buzzer gives one short "Di-" sound, fingerprint window lights up, put the valid finger onto the fingerprint window, when hearing a short "Di-" and display shows this fingerprint position number, for example, "009". At this moment, handle can be turned to open the door.

> Note: If fingerprint is not valid, or if the valid fingerprint is not read properly, buzzer gives out two short "Di-" and red right flickers. Handle can not be turned to open the door.

3.8 Unlock with Code

A. Input one valid 8-digit code (at most 30 numbers can be input for hiding the real code, but the valid 8-digit code must be input continuously), when hearing a short "Di-" and seeing blue light flickers, digital displays shows the code number, "n1" for example, then turn the handle to open the door.

B. If input an invalid code, the buzzer gives out two short "Di-", red light flickers, and turn the handle, the door is not opened.

C. No initialized code is set after produced from the factory.

3.9 Deletion of One code

A. Remove the cylinder cover, insert mechanical key and turn the key clockwise(right handle lock) or anti-clockwise (left handle lock), a long "Di——" sounded, red and blue light flashes alternately, press "*", red light on, and the digital display shows "---" and flickers, which indicates the lock is under deletion state.

B. Input the code to be deleted, for example "01******", and press "#" to confirm. If the buzzer gives out a long "Di—", and digital display flickers "n1" and then get static, it means the deletion operation succeeds.

C. If the buzzer gives out two short "Di-", and red light flashes once, it means the deletion operation fails.

> Note: If not sure the code input is correct or not, press "*" to return and stop the operation, buzzer gives out two short "Di-" by the mean time. If no further operation is made in 10 seconds, the system will get out of the deletion state automatically, accompanied with two short "Di-" from the buzzer.

3.10 Deletion of One Fingerprint

A. Remove the cylinder cover, insert mechanical key and turn the key clockwise(right handle lock) or anti-clockwise (left handle lock), a long "Di——" sounded, red and blue light flashes alternately, press "#", red light on, and the digital display shows "---" and flickers, which indicates the lock is under deletion state.

B. Input the position number of fingerprint to be deleted, for example, input "008", and the digital display show from "---" to "008", press "#" to confirm, if the buzzer gives out a long "Di-", blue light flashes once, it means the deletion operation succeeds.

C. If the buzzer gives out two short "Di-", and red light flashes once, it means the deletion operation fails.

> Note: It is applicable for all fingerprints' deletion, including master fingerprints.

3.11 Passage Mode

Passage Mode: door can be opened from outside by simply turning the handle. Under passage mode, blue light flickers every 3 seconds.

3.11.1. How to Set Passage Mode

A. Unlock the door with code, and press "*" before the motor turns back to the original place, buzzer gives a long "Di—", blue light flickers every 3 seconds, the lock is under passage mode.

B. Unlock the door with fingerprint, and press "*" before the motor turns back to the original place, buzzer gives a long "Di", blue light flickers every 3 seconds, the lock is under passage mode.

3.11.2. How to Cancel Passage Mode

A. Unlock the door with either fingerprint or code, the passage mode is cancelled.

B. Press "*" continually for 1 second, buzzer gives two short "Di-", red light flickers, the passage mode is cancelled.

3.12 System Self-locked Function

A. When enter wrong codes continuously for 10 times, buzzer gives three "Wu-Wu-Wu-" alarm, red light flickers, the keypad will be locked for 5 minutes. At this time, keypad can be released by unlocking the door with valid fingerprint.

B. When input invalid fingerprint continuously for 10 times, buzzer gives three "Wu-Wu-Wu" alarm, red light flickers, fingerprint reader will be locked for 5 minutes. At this time, fingerprint reader can be released by unlocking the door with code.

C. If code and fingerprint are both invalid caused by wrong operation, system will be locked for 5 minutes. After that, the system works again.

3.13 Reminding alarm

When the door is not locked firmly (the latches are not fully stretch out), the lock will give out a reminding alarm "wu-wu-wu".

3.14 Low battery alarm and external power supply

When the sound "do-re-mi-" is heard during opening the lock, it indicates the lock in low battery state. The lock can still be opened about 100 times by fingerprint or code in this state. If the power run out (neither fingerprint nor code can open), external power supply or mechanical key can open the lock. It is strongly recommended to replace battery when it is low.

3.15 System Initialization

Through initialization operation, all information in the system is deleted. In this case, any fingerprint can open the lock.

A. Remove the battery cover, take off one of the four batteries, and press any key to run out the left power.

B. Remove the cylinder cover, insert the mechanical key, turn the key and keep holding, connect the power(put the battery back) at this time, wait for 5 seconds, one long "Di—" sounded and red light turns on which stands for all codes are cleared.

C. Follow B, wait for another 5 seconds, red light turns off, fingerprint window lights up and one long "Di—" sounded, turn back the key, wait for about 1 second, digital display shows "n n n", which means all fingerprints are cleared.

4.1 Battery Replacement

A. Use a magnet to take off the stainless steel piece, unscrew the screws which fixed the battery package.

B. Change old batteries with new batteries.

C. Srew on the screws which fixed the battery package, cover the stainless steel piece.

Battery box

Battery package

stainless steel piece
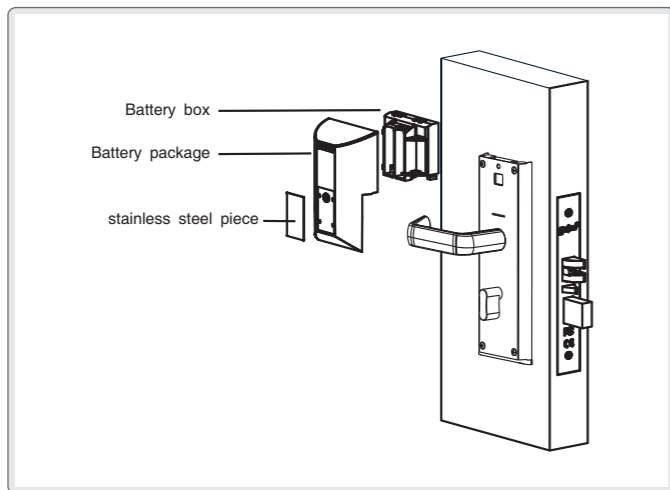
4.2. Daily Maintenance

4.2.1. Keep the lock from corrosive material, to protect the lock finishing and keep the lock surface glossy.

4.2.2. Do not hang things on handles, so as to keep good flexibility of handle.

4.2.3. If the door is distorted and latches are difficult to go into the strike place, please adjust the position of the strike place.

4.2.4. After long-term using, the fingerprint window will be cumulated dirt, please clean the fingerprint window with soft cloth.

4.2.5. Please immediately change the batteries when the low-power alarming is given out.

4.2.6. When changing the batteries, please make sure the correction of batteries' positive and negative terminal.

4.2.7. It is recommended to enroll 2 fingerprints for each user for standby, in case one of the fingerprints got injured.

4.2.8. It is recommended to put the mechanical keys and other accessories together for safekeeping.

4.3. Trouble Shooting

Phenomenon	Reason	Solution
Fail to unlock the door with fingerprint, red light flickers and buzzer gives out two short "Di-"	1.Invalid fingerprint 2.The fingerprint has been deleted.	Unlock with valid fingerprint.
Unlock the door with valid fingerprint, but fail, together with flickers of red right, and two short "Di-" from buzzer	1.The deviation of the valid fingerprint is too big. 2.The fingerprint is worn out or injured.	1.Adjust the position of the fingerprint as accurately as possible. 2.Unlock with other valid fingerprint .

GUARANTEE CARD
(For Users' Reference)

Product Model

Serial number

Purchased date

Installation date (DD/MM/YYYY) ☐☐ / ☐☐ / ☐☐☐☐

Seller (company name)

User's name

User's address

User's contact telephone number and email box

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