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# Chapter 1 L100 fingerprint lock introduction

# 1.1 Product introduction

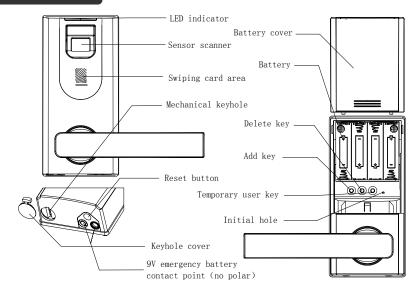
## 1.1.1 Product features

- Professional and elegant design by famous designer. Exquisite, compact and stylish.
- 4 colors to meet customers' different requirements.
- USA Ti chip of low consumption. 4 AA batteries for 5000 times.
- Strong zinc alloy front panel. PCB board adopts waterproof layer, stable and reliable.
- Standard bolt with easy installation. User can change the handle direction (right/left).
- Particular independent clutch motor design.
- Vogue blue/red LED indicator and inbuilt music buzzer.
- Identification method: FP/Card (optional). Safe and reliable.
- Elaborate RF key caring for special persons, convenient for tacking.
- Extendable Mifare card or HID card.
- Special free entry design for meeting.
- Temporary user setting supporting one key deletion.
- Low voltage alarm. 500 door open still available. Extendable 9V emergency battery for use.

## 1.1.2 Technical parameters

Item	Description
Front panel	70(W)×150(H)×80(D)
Back panel	70(W)×150(H)×80(D)
Material	Strong zinc ally +Reinforced plastic
Battery	DC6V(1.5V*4)
Color	Matt silver, golden, bronze
Battery life	1 year (5000 times)
Door thickness	40—50mm
Fingerprint sensor	Anviz optical CMOS sensor
Optional card reader	RFID, Mifare, HID
User capacity	100FP, 100 card
Register method	Admin FP authorize enroll ( twice )
FRR	0.001%
FAR	0.00001%
Identification speed	<1 sec
Identification method	FP, Card
Working temperature	-20℃ ~60℃

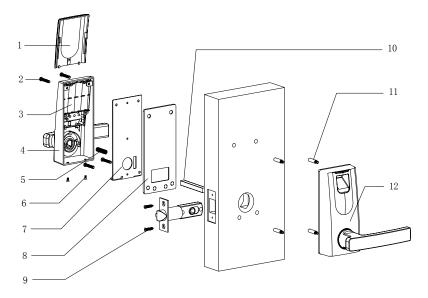
# 1.2 Panel introduction



Outdoor part

Indoor part

1.3 Structure



Installation sketch map

①Batteries box cover	2)M4 screw
3Batteries area	④Indoor part
⑤ Spring	⑥M2 screw
⑦Fixed board	8 Rubber mat
9M4 tapping screw	(I)Bolt
(1)Extended screw column	(12)Outdoor part

1.4 Subassembly

Indoor part	Outdoor part	Lock body	
	Fixed plate		
Lock catch plate	Fixed plate	Doorframe lock catch board	
4 M4 self tapping screws	4 M4 screws	2 M2 screws	
1 spring	4 extended screw column	3 keys	
Ô			
RF card ( optional )	1 bolt	2 rubber mat	
4 AA batteries	Slotted screwdriver	er Cross point screwdriver	
Drilling poster	Manual	ual Warranty card	

# Chapter 2 L100 fingerprint lock operation guide

Fingerprint lock mainly use FP to control lock, such as register/delete user/temporary FP, initial operation is to resume lock to factory status.

#### 2.1 Register fingerprint

Before using FP to open lock, it need register user FP on lock. One finger need register twice and max FP capacity is 100. Detailed steps are as following,

1, Firstly remove the back battery cover, press 【ADD】 button, lock will make three short beeps while sensor will be lighted and indictor LED will be flashing with red and blue light, indicating lock is in registration status.



2, Register FP in initial state: please press finger on sensor directly. When hearing one short beep, take off your finger, then press it once more. Then take it off again after the same beep. If success, lock will make two short beeps. The first two FP will be auto-set as administrator's FP and the others will be set as common users'.

Register FP in not initial state: if lock contains admin FP, it need admin FP to identify firstly, then identify common users' FP. Press admin finger on sensor scanner ,then you will hear a short beep. If identification passes, there will be two beeps and blue LED blinking. Then common users can start registering FP.



Blue LED flashes

3, Exit registration state: press 【ADD】 button or wait for 5s to exit.

# 2 Open lock 1, Activate lock

2.2

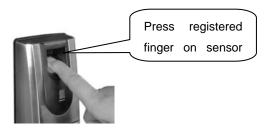
To extend battery lifetime, lock will be auto come into dormancy state under no operation for 5s. We can simply press finger on sensor scanner and lock will be auto-activated



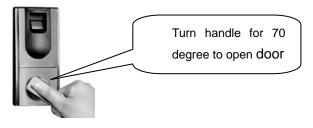
#### Prompt: if lock is in initial state or only contains admin FP, lock will make 3 beeps when activating,

2, Please press registered finger on sensor scanner. If identification passes, lock will open. The steps is as following,

User presses finger on sensor scanner, then lock will make two short beeps and lock motor will make a short beep when turning which indicates the lock opens. If lock makes a short beep and red LED flashes, it indicates the FP has not pass identification. Please press finger once more.



3, Turn handle for 70 degree to open door. About 3s later lock will be closed after open.



## 2.3 Register card

It need register card on lock before in usage. One card need swipe twice in registration and card capacity is 100. The detailed steps are:

1, Firstly remove the back battery cover , press 【ADD】 button , lock will make three short beeps while sensor will be lighted and indictor LED will be flashing with red and blue light, indicating lock is in registration status.



2, Identify admin FP. Press admin finger on sensor then you will hear a short beep. If identification passes, there will be two beeps and blue LED blinking and indictor LED will flash.



3, Register card: put card in lock's area with swiping card sign, you will hear a short beep sound, remove card, indicator LED will flash with blue light. Then repeat this step. You will hear two beeps sound indicating card registration is successful. Indicator LED will flash continuously then you can go on registering other cards or FP.



## 2.4 Delete FP

Due to department transferring or other reasons, it demands to limit some users' authority to open lock, thus it needs delete FPs in lock. You can delete single or all FP. The steps is as following,

1, Remove the back battery cover, press [DEL] button, lock will make a short beep and sensor will be lighted; red indicator LED will flash indicating the lock is in deleting FP state.



2, Delete single FP: press the FP which needs be deleted on sensor scanner. After a short beep sound, take your finger off, then press it again. If deleting successfully, the lock will make 6 short beeps. Then the lock will come into dormancy state.



#### Prompt: Admin FP can't be deleted.

3, Delete all FP: press 【DEL】 button for twice and LED will flash with red and blue light. Press admin FP on sensor scanner. The first identification passing will delete all common users' FPs, the second time will delete all admin FPs. If success, the lock will make 6 short beeps. Then it will come into dormancy.

Prompt: due to security considering, it needs identify admin FP twice even there is no common user FP.

#### 2.5 Delete card

The method of deleting card is as following,

1, firstly remove back battery cover, press [DEL] button, lock will make a short beep, and sensor will be lighted with red indicator LED flashing, indicating the lock in deletion state.



2, Put the card preparing to be deleted near the swiping card area, then remove it after lock makes a short beep. Repeat this step again until the lock makes 6 short beeps, indicating the card deletion successfully. Later lock will come into dormancy state.



#### 2.6 Register temporary user

Temporary user setting is to settle entry problem of short term guests or officers. Support deletion function by one key.

1, firstly remove back battery cover, press 【TEMP】 button, lock will make 6 short beeps indicating registered temporary users have been deleted. After short beeps finish, indicator LED will flash with blue and red light and sensor will be lighted.



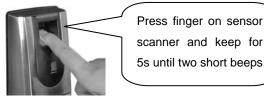
2, You can start registering temporary user. The step is the same as common user FP registration.

### 2.7 Free entry status

Free entry status enable open door without FP identification, which is fit for meeting room and some offices.

#### 2.7.1 Free entry status setup

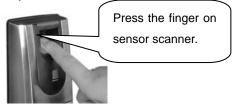
1, Press registered finger on sensor scanner and keep for 5s until the lock makes two short beeps indicating free entry status is start up successfully. In this condition, the sensor will not be lighted.



#### Prompt: when you press finger on sensor scanner, sensor and indicator LED will not be lighted.

#### 2.7.2 Cancel free entry status

Press the finger used to startup free entry status on sensor scanner. When hearing lock motor make sound and turning, indicating succeed canceling free entry status.



#### 2.8 Initialization

Initialization is to clear all the data stored in lock and resume to leave factory state. After initialization, any finger can open lock. Please register admin and users fingers in time. The operations are as following,

Firstly remove the back battery cover, use a thin stick to insert into 【CLEAR】 hole and keep it until the lock make 6 short beeps indicating initialization succeeds. After initialization, the lock will come into dormancy state.



#### 2.9 Reset

Lock reset means to restart lock. The steps are as following,

1, Press the reset button at the bottom of lock. If success, the motor will turn and lock will makes 3 short beeps sound, and blue indicator LED will flash.



# 2.10 Mechanical key

There are three mechanical keys for backup usage. When lock occurs open problems, you can use the keys to open lock.

# 2.10.1 Mechanical key open lock

1, Open the plastic cover of bottom keyhole.

2, Plug key into keyhole, turn for 90 degree (right turning is anticlockwise, left is clockwise). Then the lock will be in open state.



3, Turn handle for 70 degree to open lock



Prompt: key can't be plug out in lock open state.

## 2.10.2 Mechanical key close door

Turn the key to previous plug state, then you can plug out key. At this time the lock is closed.



#### 2.11 Card open lock

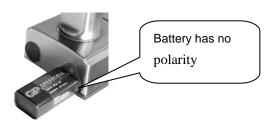
RF card key is fit for special persons due to its convenient taking.

Put the card key near the area with swiping card sign. If success, the lock will make tow short beeps and indicator LED will flash with blue light, meaning the door is open.



# 2.12 9V emergency power

When the battery runs out and no other new battery for replacement, you can use 9V backup emergency batter







Correct pressing finger method:



Wrong pressing finger method:



1, Each user would better register two fingers to backup.

2, Finger should press flatly and at the center of sensor scanner to retrieve more minutia.

3, Keep the direction and angle the same each time.

4, If finger sweats or with water, please wipe it and then start registering or identifying

5, If finger is dry, please breath out air to it or touch your head for a little oil, and press finger harder (dry finger will lead to break and dim scanning image )

6, Please don't use the fingers that are fading skin, wound...

7, To enhance the FP recognition precise, please use thumb or index/middle finger if possible.

## 2.13.2 Change battery

1, When pressing finger to activate sensor, if the lock make 6 short beeps and red indicator LED flashes, it indicates the lock needs replace battery. L100 uses 4 AA alkalescence batteries.

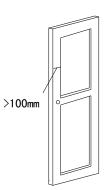
2, Please correspond the positive and negative poles when replacing batteries.

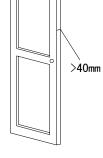
# Chapter 3 Installation Illustration

# 3.1 Confirm before installation

- $1\,{\scriptstyle \ensuremath{\scriptstyle \ensurema$
- 2、door open method: left-hand and right-hand. Please confirm it before installation。

# 3.2 Door open direction

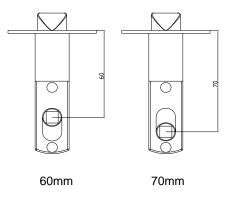




left-hand

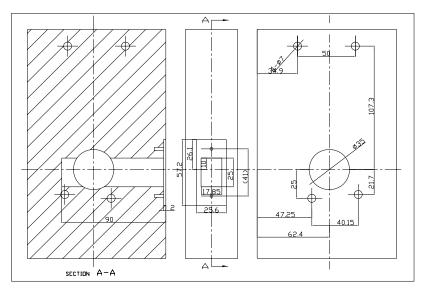
right-hand

3.3 Size

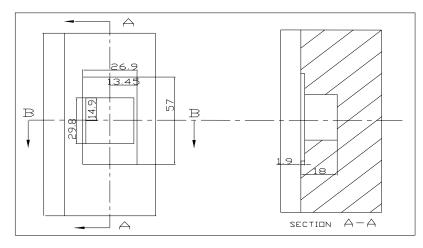


# 3.4 Drilling poster

L100 fingerprint lock drilling poster(Door):

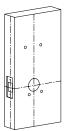


#### L100 Fingerprint lock drilling poster (Doorframe)



#### 3.5 Process

1. Check the door-open direction(left-hand or right-hand) firstly. And then mark the area for drilling the hole following the drilling poster.



2、 Drill a hole on the marked area. You'd better drill the hole from the both sides of the door. Drill the hole for lock body. Please pay attention to the depth of the hole. The depth of the hole is marked on the drilling poster. Adjust the Batten slot by the chisel.

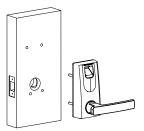


Notice: Side batten's foul line must be straight.

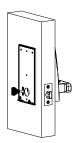
3. Put the lock body into the hole for the lock body. And please fix it with 2 M4 tapping screw. Please make sure that the lock body is installed properly.



4. Install the outdoor part. The outdoor part has 4 oriented columns which can help you to install the outdoor properly. Please also put the lock body connection cable through the hole.



5. Install the fixed plate and the rubber mat by 2 M4 screws.



6. Plug the bolt to the front lock core. And then plug the spring into the back lock core.



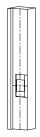
 $7_{\scriptscriptstyle \rm N}$  Install the indoor part by 2 M2 screws.



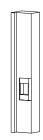
8、Put in the 4 batteries.



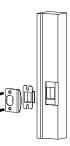
9. Mark the center line of the doorframe lock catch board on the doorframe according to the height of the lock body.



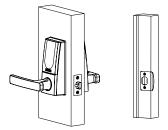
10、 Drill the hole for the doorframe catch board according to the drilling poster.



 $11_{\scriptscriptstyle \rm N}$  Install the doorframe catch board and the lock catch plate with the screws.



12、End



# 3.6 Re-Check

- 1. Compare the Lock with the doorframe and check if it is vertical.
- 2. Check if the handles are agile. And the indoor part handle must be able to open the door directly.

3. Install the 4 AA batteries. You will hear a motor driving sound and you will see that the optical fingerprint sensor powers on and the prompt LED is blinking. It mean that the system starts normally.

- $4_{\scriptscriptstyle \rm N}$  Check if you can close the door easily.
- 5. Please check if two 9V emergency battery points can work normally.

# **Chapter 4 Lock maintenance**

# 4.1 Daily maintenance

1, Please don't hang any heavy things;

2, Please take care of mechanical keys.

3, Please don't use sharp tools such as knife, pen to stick on sensor glass interface.

4, In long term usage, some reasons like door distortion will lead to lock touch part useless and lock tone will be unable to shut. Thus please take care of door maintenance.

5, Please don't clean lock with lotion during daily maintenance to prevent eroding lock and circuit board inside which will lead to lock unable usage.

6, Please don't use paper or even alcohol/gas to wipe sensor glass due to dust on interface.

Suggested clean methods: use adhesive tape to paste on sensor glass, then remove it. If necessary, please use silk touching a little glass cleanser with amido to wipe glass mildly. Don't spill glass cleanser directly on sensor scanner or any liquid to immerse glass.

7, Please replace battery in time if there is low battery alarm.

8, Please don't damage lock deliberately.

### 4.2 FAQ

Phenomena	Reasons	Solution	
Press finger on sensor	1, This finger is invalid;	1, Use valid finger;	
scanner, lock makes a	2, This finger has been	2, Register finger	
shout beep but does not	deleted.	again and identify to	
open.		open lock.	
Press registered finger.	1, Incorrect pressing	Press finger on sensor	
The lock makes a short	finger pose;	scanner again at the	
beep but does not open.	eep but does not open. 2, Finger damages		
		angle as in registration	

# Chapter 5 After sale service

In order to get satisfactory service, please read the following items in detail.

#### 5.1 Objects in warranty

#### One year warranty:

1, Main parts: including main boards, power boards, FP sensors, data cables are in warranty for one year for free excepting deliberate damage. If the part is not produced any more, it has to be updated for higher version. Please pay for the extra money or other parts if updating needs to change other related parts.

2, Easy damaged parts: including power adaptor, battery, not in warranty. We will charge all cost for repairing or replacement.

# 5.2 Refund or replace

1, For faulty products at the first usage, you can choose to refund or replace new products.

2, For faulty products in one year, we will repair for free. Else beyond warranty, we will charge for repairing and accessory cost.

#### 5.3 Repairing/replacing time

3-5 days.

# Appendix

### Parts list

Number	Name	Quantity	Note
1	$Outdoor\ machine\ (\ with\ rubber\ mat)$	1	
2	Indoor machine (with rubber mat)	1	
3	Lock body (60mm or70mm)	1	
4	Mechanical key	3	
5	Fixed board	1	
6	Doorframe lock catch board、lock catch plate	1 each	
7	M2 screw	2	
8	M4 screw、M4 self tapping screws	4 each	
9	Spring	1	
10	extended screw column	4	
11	Bolt	1	
12	Battery	4	
13	RF card key	1	Optional
14	Drilling poster	1	
15	CD (user manual)	1	
16	Certificate	1	