



SMART LOCK

MODEL: MSL-02/03/04

OPERATION MANUAL

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Reminder

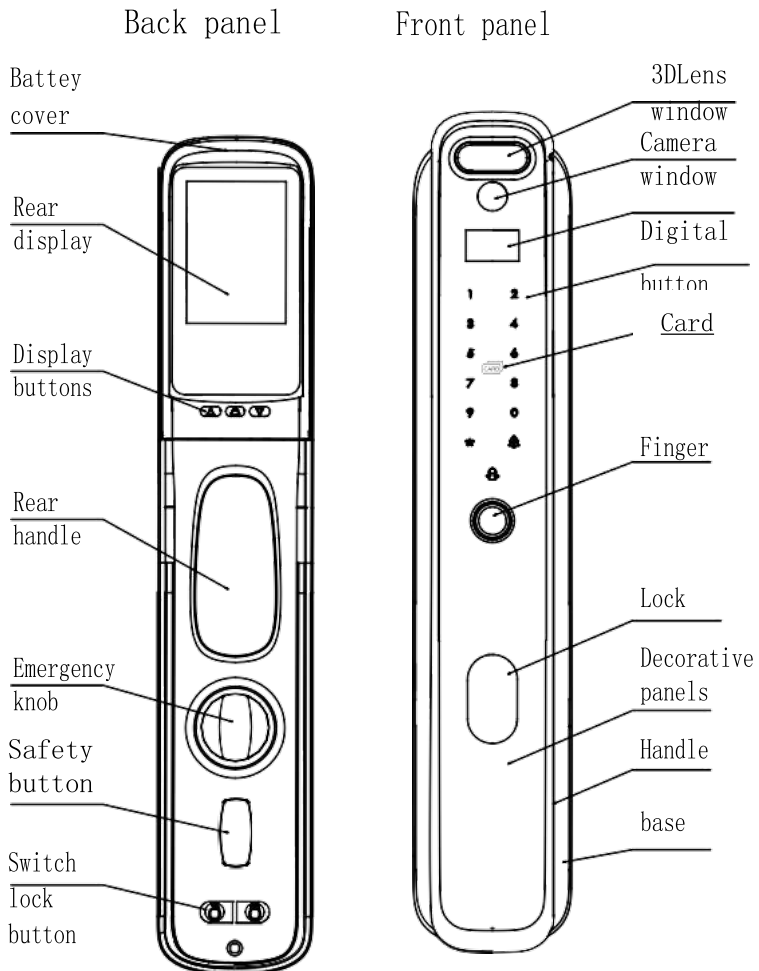
1, after the installation, the spare key must be placed outdoors, do not leave all at home (can be placed in the private car, parents or children's home, office can be), this is very important, in case the smart lock has a problem with the key to open the door into the home, otherwise it can only damage the smart lock to open the door, so Manufacturers and sellers of accessories that cause replacement are not free of charge (except for the hand-switch function), please keep in mind!

2. The fingerprint head and touch screen should be wiped clean with a dry cloth regularly, and the surface of the fingerprint collection screen should not be scratched with hard and sharp objects.

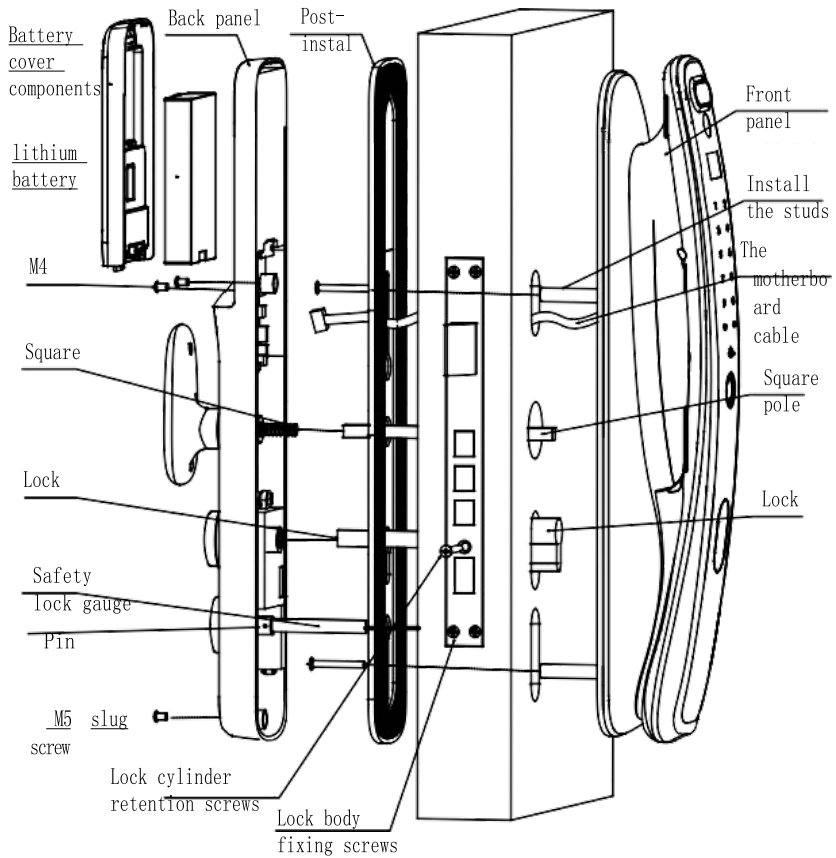
3, please close the door to enter fingerprints, so that the entered fingerprint is exactly the best position to verify the fingerprint,

the system is faster than the fingerprint, the same finger can be entered several times, the recognition rate will be better and faster. When opening the door, the finger is gently placed in the fingerprint position, no need to use force to press the fingerprint recognition, if the recognition effect is poor, the finger should not be withdrawn too quickly fingerprint head.

I .The product structure



Install products



Installation steps:

1. Lock body direction: according to the actual opening direction to determine the direction of the lock body, if the direction does not match, you need to adjust the direction of the oblique tongue;
2. After the direction of the lock body is determined, the lock body is placed in the door where the lock body hole and the installation hole are opened according to the above figure, and the lock body is fixed to the door with screws;
3. Insert the lock cylinder into the lock cylinder hole on the lock body in the direction shown in the direction shown, use the lock cylinder to fix the screw into the lock body, hit the screw hole of the lock cylinder, and tighten the screw;
4. Installing the Front Panel Components:
 - (1) Put the two mounting studs into the mounting plate chute of the front assembly, and twist the stud when the slider is moved in the right position so that it can no longer slide;
 - (2) Pass the motherboard cable and camera cable through the threading hole on the door and penetrate it from inside the door;
 - (3) Align the lock and the lock core hole on the front panel assembly, and attach the front motherboard component to the outer door;
 - (4) The motherboard connection cable and the camera connection line through the threading hole on the rear mounting board, use 2 M5 fixing screws through the rear mounting plate and twist into the stud on the front assembly, and the square rod hole and the lock core hole of the rear installation board align the rod hole and the lock core hole above the lock body, and then twist the screw after alignment. Secure

the front assembly to the door.

5. Installing the Back Panel Components:

(1) Put the insurance button into the insurance button slot and use the pin to penetrate and get stuck; Remove the battery cover and insert the motherboard cable and the camera cable into the socket on the rear motherboard, respectively;

(2) Put the square rod spring into the square rod hole on the rear handle, insert the square rod from the door to the outside into

the square rod hole on the lock body, insert the safety button ruler on the back plate assembly into the key ruler hole on the lock body, and load the rear plate assembly into the rear mounting plate 3 M4 screws twisted and fixed well; At this time, if the rotation handle is not smooth, it is necessary to check whether the rear mounting plate is installed in a biased position

(3) Put in the battery, plug in the battery cover assembly, and the door lock installation is completed.

Note: Before installing the door lock, according to the door thickness budget squar

bar, lock core transmission rod, safety button ruler, M5 bamboo screw length, if the length is too long, you need to cut short to the appropriate length before assembling!

II. The product layout


Admin user: Up to 5 administrative users can be set, and the administrator privilege also has the highest level of management rights such as adding, deleting and setting in addition to opening the door.

1.1 Normal users: Normal users and limited-time users only have permission to open doors.

1.2 Time-limited user: The time-limited user password can be generated on the mobile app through the administrator password,

and the lock is valid within the specified time.

1.3 External USB emergency power supply: When the battery is out of power or the power is too low, you can connect the data cable to the mobile battery and insert it into the USB port on the front lock body to power the lock, as an emergency power supply, and then verify the opening of the door in any way

1.4 Doorbell function: The  user touches the key with his finger, and the smart lock rings the doorbell. Products with networking standard features simultaneously transmit capture pictures to the administrator's mobile phone.

1.5 Hand-switch to open the door: Light up the touch screen, press "*" and then press the "#" key, enter the administrator information to verify, enter the main menu, select the hand-switch select the fully automatic function or select the manual unlock function (Hand-in-one models are only supported).

1.6 Product Features Door opening method: fingerprint, IC card, password, mechanical key, combination verification and other ways to open the door. Hand-integrated switch unlock, remote door opening APP remote video intercom door opening specific configuration subject to each model)

1.7 Networking settings: Please download the application application in the application QR code printed on the smart lock battery cover, enter the account number and log in, no account needs to register the account first, add the device, please follow the STEPS introduced by the APP.

III. The basic parameters (the specific configuration is subject to each model).

NO.	Project	Description
1	Operating voltage	7.0V — 8.4V
2	Alarm voltage	7.2V
3	Sleep quiescent current	< 80uA (lock plate only, module not included).

4	The motor can be stalled Select the current range	2.5A-4.5A (battery current should support 5A).
5	Emergency interface	USB port (requires battery to charge).
6	Manage the number of users	5 (fingerprint/card/password).
7	Number of regular users	295 (fingerprint/card/password/face).
8	Motor orientation	Switch support
9	Motor rotation angle (time).	Modification is supported
10	Unlock retention time	Modification is supported
11	Card type	Mifare-1 is compatible with ISO/IEC 14443-A
12	doorbell	backing
13	One-click lock (front panel).	backing
14	One-click lock (rear panel).	backing
15	One-touch unlock (rear panel).	backing

IV, the system settings

(1) Factory reset (initialize the system)

1. Force the initialization operation when the system cannot enter normally

1. Remove all the batteries of the smart lock, and disconnect the power supply during the test.
2. Click the back panel switch lock key several times to make the system completely discharge.
3. Do not release the back panel off lock key after pressing, and put in the smart lock battery.
4. Wait for the system to prompt the key tone 5 times (release the finger within 5 times to cancel the initialization operation).
- 5, 5 times after the key tone prompt "initialization, please wait" when you can release your finger, the system into the initialization mode.
6. When the system prompts "initialization successful", the system initialization is completed, all user keys are emptied, and the demo mode is entered.

Note: After initialization, the system administrator password is restored to "123456", and any fingerprint or card can be unlocked for customers to experience the lock function after initialization; The initialization operation does not affect the motor direction, force and rotation time settings, and the previous setting parameters are preserved.

2. General initialization operation

1. The system starts on power-up, waiting for the playback to start to complete the effect sound, indicating that the power-on is complete.
2. At the same time (within the time interval of 0.3S), press and hold the switch lock button of the back panel without releasing.
3. Wait for the system to prompt the key tone 5 times (release your

finger within 5 times to cancel the initialization operation).

4. After counting 5 times, the system pops up the "Confirm Initialization Menu", at this time click the # key to confirm initialization.

5. The system will restart after confirmation, and the prompts and results behind will be the same as the first initialization above.

Note: Because the switch lock key of the back panel is used, this operation is easy to be accidentally touched by the child at home or the door lock is squeezed by a heavy object, resulting in two keys being pressed at the same time, which may have certain safety hazards.

3. Initialization operation in the menu

1. Wake up the system after the system starts, press the "*#" key to enter the system menu, you need to verify the administrator user.

2. Press the corresponding buttons in turn to select "System Settings" → "Factory Reset" menu.

3. The system pops up the "Confirm Initialization Menu", at this time click the # key to confirm the initialization.

4. The system will restart after confirmation, and the prompts and results behind will be the same as the first initialization above.

Note: This operation needs to have entered the administrator user, which is originally factory state and cannot be operated, and there is no menu option in the system menu.

(2) Enter the system menu

1. Touch the keyboard to wake up the system, the system displays the welcome interface, enter "*#" to enter the system dish.

2. After entering the system menu, the menu entry will be displayed, and the keyboard light will indicate the key function at this time, and the operation options will be announced by voice.

Tips:

- 1, all the menus need to enter the value of the place will display the current default value, need to modify when press the "2" key to increase, "8" key to decrease, "*" key to cancel, "#" key to confirm, the value can only be selected, can not Random input to prevent users from knowing the value range and repeatedly entering the same value and other wrong operations.
- 2, many items in the menu bar are not available when they do not meet the conditions of use, so they are hidden, and they will

only be displayed when the conditions are reached, so do not use the menu in factory mode as the basis for judging system functions.

(3) Exit the system menu

1. When the administrator verification interface needs to be exited, you need to press "*" to backspace all the entered passwords, and then press "*" to exit the verification administrator menu and enter the low-power mode.
2. Inside the system menu, you need to first press "*" to exit to the top menu, and then press "*" to exit the system menu and enter the low-power mode.

Tips: When using, you only need to remember the "*" key to cancel or backspace, and press the "*" key until the system hibernates when you need to exit.

(4) User management

1. Input management/ordinary users

1. Enter the system menu.
2. Press the corresponding button to select "User Management".
3. Press the corresponding button to select "Manage User Settings" or "Ordinary User Settings".
4. Press the corresponding button to select "Add Administrative User" or "Add Normal User".
5. Select the user number, press the "#" key to confirm, manage users 1-5, ordinary users 6-300.
6. Select the type of key entered, the administrator supports fingerprints, cards, and passwords, and ordinary users support fingerprints, cards, and passwords.
7. Complete the input of information according to the screen and voice prompts, fingerprints need to be entered 5 times in a row, and passwords need to be entered twice, the card can be entered once, and the fingerprint cannot be entered repeatedly. (Password can be set 4-10 bits, virtual.Passwords can be up to 20 digits.)

2. Query management/ordinary users

1. Enter the system menu.
2. Press the corresponding button to select "User Management".

3. Press the corresponding button to select "System User Inquiry".
4. Press "2" or "8" to switch up and down to query the user information that has been entered by the system.

3. Delete administrative/ordinary users by number

1. Enter the system menu.
2. Press the corresponding button to select "User Management".
3. Press the corresponding button to select "Manage User Settings" or "Ordinary User Settings".
4. Press the corresponding button to select "Delete Administrative User" or "Delete Normal User".
5. The "Delete Ordinary User" page also needs to continue to select "Number Deletion".
6. Select the user number to be deleted, the system will list all the user numbers that have been entered, except for the current management users, you can use the number to delete.
7. Due to the high risk level of deletion information, in order to prevent misoperation, the menu is set to confirm again, and the confirmation menu will display the deleted key number and type, which must be confirmed by the user, and press the "#" key to confirm at this time.
8. There will be a prompt for successful deletion, the fingerprint deletion speed is slightly slower, please be patient.

4. Delete ordinary users by type

1. Enter the system menu.
2. Press the corresponding button to select "User Management".
3. Press the corresponding button to select "Ordinary User Settings".
4. Press the corresponding button to select "Delete Normal User".
5. Press the corresponding button to select "Classification Delete".
6. Press the corresponding button to select the type of ordinary user that needs to be deleted.
7. Due to the high level of danger of deleting information, in order to prevent misoperation, a reconfirmation menu is set, and the confirmation menu displays the type of key deleted, which must be confirmed by the user, at this time press the "#" key to confirm.
8. Classification deletion Due to the large number of deletions, the speed is

slow, please wait patiently until the prompt operation is successful.
Tips: Category deletion cannot delete administrative user information, and administrative users can only be deleted by number.

5. Unlock mode setting

1. Enter the system menu.
2. Press the corresponding button to select "User Management".
3. Press the corresponding button to select "Ordinary User Settings".
4. Press the corresponding button to select "Unlock Mode Setting";
The unlock mode setting must be entered with two or more general users to enter the setting.
5. Press the corresponding button to select "single unlock" or "combined unlock"; Combined unlocking requires verification of two ordinary users to unlock each time, and the administrator is not restricted by combined unlocking, and only needs to be verified once; Combined unlocking is closed after the system is initialized.

(5) General settings of the system

1. Time setting

1. Enter the system menu.
2. Press the corresponding button to select "System Settings".
3. Press the corresponding button to select "General Settings".
4. Press the corresponding button to select "Time Setting".
- 5, enter the time that needs to be set, at this time the screen prompts

for input time, the cursor will point to the current input location, please enter a legal time, press the "#" key to confirm until the prompt operation is successful.

Tips:

1. The time must be legal, otherwise the system will automatically truncate to the legal time.
2. Please set the time carefully, all time-related operations will be abnormal after the setting error, please set and confirm according to the network time when setting.

2. Language settings

1. Enter the system menu.
2. Press the corresponding button to select "System Settings".
3. Press the corresponding button to select "General Settings".
4. Press the corresponding button to select "Language Settings".
5. Press the corresponding button to select "Chinese Simplified", "Chinese Traditional" or "English".
6. After the setting is completed, the language after the setting will prompt and display "Operation Successful".

Note: There are only two kinds of voices, Chinese and English, traditional and Chinese Simplified unified broadcast Chinese voice.

3. Volume settings

1. Enter the system menu.
2. Press the corresponding button to select "System Settings".
3. Press the corresponding button to select "General Settings".
4. Press the corresponding button to select "Volume Setting".
- 5, select the volume value, the volume value range is 1-10, 1 indicates the lowest volume, 10 indicates the highest volume, the user can choose the corresponding volume according to the requirements.

Tips: The volume setting only sets the prompt and navigation volume during operation, and the volume during the alarm will default to the maximum volume, such as anti-pry alarm and freeze alarm.

(6) System function settings

1. Anti-pry switch setting

1. Enter the system menu.
2. Press the corresponding button to select "System Settings".
3. Press the corresponding button to select "Function Settings".
4. Press the corresponding button to select "anti-pry switch".
5. Press the corresponding button to select "Open Anti-Pry" or "Close Anti-Pry".

2. Human body detection switch setting

1. Enter the system menu.
2. Press the corresponding button to select "System Settings".
3. Press the corresponding button to select "Function Settings".
4. Press the corresponding button to select "Human Body Detection Switch".
5. Press the corresponding button to select the human detection sensing distance (off, near, medium, far) and the induction voice switch (Off, On)

3. Delay locking time setting

1. Enter the system menu.
2. Press the corresponding button to select "System Settings".
3. Press the corresponding button to select "Function Settings".
4. Press the corresponding button to select "Delay lock time".
5. Select the delay lock time, the range is 5-60 seconds, set to 0 to turn off the delay lock function, press the "#" key to confirm.

4. The stay retention time is set after the oblique tongue is unlocked

1. Enter the system menu.
2. Press the corresponding button to select "System Settings".
3. Press the corresponding button to select "Function Settings".
4. Press the corresponding button to select "oblique tongue residence time".
- 5, choose the oblique tongue stay time, the range of 2-10 seconds, the response is relatively fast people can set a relatively low value to

increase the speed of the lock, slow response to people to set a higher to prevent secondary locking.

(7) Lock body parameter settings

1. Enter the system menu.
2. Press the corresponding button to select "Lock Body Settings".

- 3, prompt to enter the confirmation code, here is to prevent customers do not know the importance of these parameters and misoperation, made a second confirmation, enter "888 #" can enter the setting menu.

1. Switch the direction of the motor

1. Enter the lock body setting page.
2. Press the corresponding button to select "Direction Switching".
3. At this time, the screen prompts "whether to confirm the reverse unlocking direction", if you need to switch, press "#".

2. Motor force setting

1. Enter the lock body setting page.
2. Press the corresponding button to select "Force Setting".
3. Select the force level as "low force", "medium force" or "high force", corresponding to the motor current limit value of 2.5A 、 3.5A, 4.5A, the user can set the corresponding strength according to the lock body and door installation. (The motor with Hall step counting will return to the state before learning at this time, the next unlock will be re-learned, after the setting is best to restart the system to load the parameter learning again, to prevent the step counting learning failure, the setting here can not be modified arbitrarily).

3. Oblique tongue rotation time setting

1. Enter the lock body setting page.
2. Press the corresponding button to select "Oblique Tongue Rotation Time Setting".
3. Select the rotation time value, the rotation time value range is 100ms-500ms, and the user can set the corresponding rotation time according to the rotation time of different lock bodies. (The setting here cannot be modified arbitrarily).

(8) Record inquiry

1. Enter the system menu.
2. Press the corresponding button to select "System Settings".
3. Press the corresponding button to select "Record Query".
4. Press "2" or "8" to switch up and down to query the corresponding record.

5. The display format of the record content is as follows:

Record number (the smaller the number, the closer it is)	The record type
numbering	type
numbering	type
The time recorded (format: Y M D H M)	

The middle two columns are record content columns, different record content is different, all the displays are very detailed, not detailed here, belongs to the WYSIWYG interface.

(9) WiFi Internet of Things module operation

1. WiFi network configuration

1. Enter the system menu.
2. Press the corresponding button to select "User Settings".
3. Press the corresponding button to select "Network User Settings".
4. Press the corresponding button to select "Configure Network".
5. The system enters the network distribution mode, the page shows a 120-second countdown, and you need to terminate the network and press * to exit.

Note: Once you enter the Configure Network page, the original network settings of the system will be deleted, and the WiFi function of the system will be disabled if you exit halfway through.

2. WiFi network deletion

1. Enter the system menu.
2. Press the corresponding button to select "User Settings".
3. Press the corresponding button to select "Network User Settings".
4. Press the corresponding button to select "Delete Network".
5. The system enters the deletion network mode, the page shows a 30-second countdown, and you need to terminate the deletion by pressing * to exit.

Note: Once you enter the Delete Network page, the original network settings of the system will be deleted, and the WiFi function of the system will be disabled if you exit halfway through.

(10) System shortcut key operation

1. Doorbell

System low-power state or enter the welcome page, press the # key to start the doorbell, at this time the back panel will start the doorbell voice, the cat's eye without the network will start the local visual function, the cat's eye with the network will enter the page of applying for remote unlocking, and the mobile phone will prompt to unlock and come with a photo.

2. Query the system version

1. Enter "000#" on the system welcome page to enter the quick operation menu.
2. Press the corresponding button to select "System Version".
3. The page will display the current "Software Version", "Hardware Version" and "Secondary Board Version"

3. The secondary board is restarted

1. Enter "000#" on the system welcome page to enter the quick operation menu.
2. Press the corresponding button to select "Restart Secondary Board".
3. The system enters the 10-second countdown and cannot exit until 10 seconds are completed, at which point the rear plate is restarted; This operation is mainly to activate the back panel when the back panel cannot be unlocked properly to solve the problem of non-unlocking caused by system bugs.

(11) WeChat password (weChat Mini Program temporary password).

Please refer to our temporary password manual

(12) Power alarm

1. Power-on self-test, if the battery voltage is lower than the alarm voltage (default 7.2V), it will prompt "battery low".
2. After the switch is locked, if the battery voltage is lower than the alarm voltage (default 7.2V), it will prompt "battery low".

Tips: At this time, you need to replace the battery or charge the battery, so as not to exhaust the battery and affect the switch lock.

(13) Battery charging and system emergency

1. If the battery has been completely drained and shut down, it is necessary to use external USB power supply to charge the battery at this time, and enter the information to verify unlocking when the voltage rises to the point where the lock can be unlocked.
2. After the battery reports low power, the battery needs to be charged, and the lithium battery can be removed and charged by using external USB charging.

Tips: When re-discharging the battery, you must not press the off lock key, otherwise it will enter initialization, resulting in the system information being empty.

(14) Anti-pry alarm

When the lock body is pried, it will trigger the internal alarm module to alarm, the duration is 30S, the alarm volume is the maximum volume, and the system and other interfaces cannot be entered when the alarm is not entered.

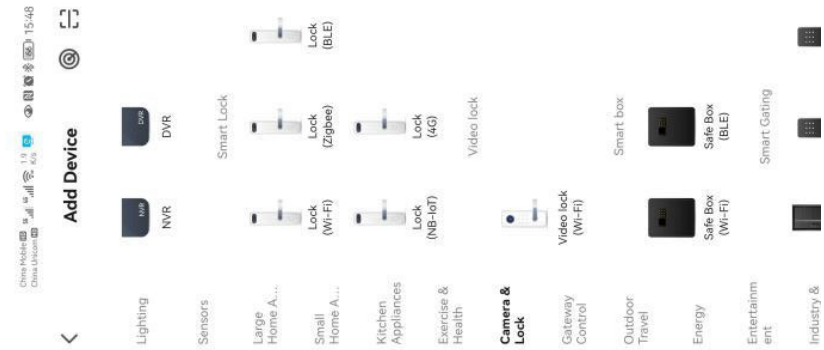
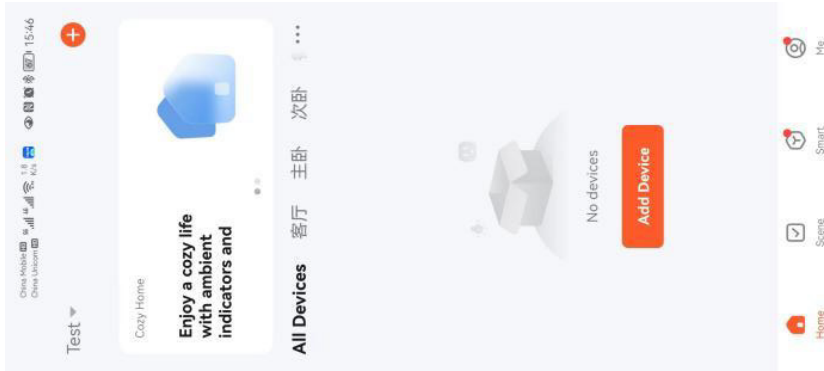
(15) Continuous verification error freezing

When the lock body has more than 5 consecutive verification errors within 5 minutes, it will enter the lock mode, at which point all operations will be frozen and go to sleep for 180 seconds.

(16) . Networking Instructions

- 6.1. Download the APP: Tuya Intelligence, open Tuya Intelligence, click Add Device or "+" in the upper right corner
- 6.2. On the Add Device page, in the security monitoring menu, click "Door Lock (Wi-Fi)"
- 6.3. make sure the phone is connected to wifi, and the wifi is 2.4Ghz, click Next.
- 6.4. Then click the door lock to enter the distribution network state, click confirm on the Tuya smart APP, next step.
- 6.5. Wait for the success of the distribution network.

Scan the code to
download and
install app



China Mobile 15:50
China Unicom 15:50



Connecting Device

Power on the device.



01:59



China Mobile 15:50
China Unicom 15:50



Reset the device



Power on the device and confirm that the smart door lock works normally.

Confirm the indicator is blinking rapidly.

Reset Device Step by Step

China Mobile 15:48
China Unicom 15:48



Select 2.4 GHz Wi-Fi Network and enter password.

If your Wi-Fi is 5GHz, please set it to be 2.4GHz. Common router setting method



UPGRADE-AP



Password

Next

V. Fault analysis and elimination

Phenomenon	cause	Workaround
Lithium batteries are always red when charged	The battery is damaged	Replace the battery with a new one
Unable to receive alarm messages	Replace your router with a new one	Re-network to add
	The router changed the password	
	The door lock resumes initialization	
There is no image on the inner screen	Black screen	Whether the screen cover is dialed out to try to plug in multiple times is resolved
	Blue screen	The front lock camera is damaged, or the front and rear lock joints are in poor contact
The horn automatically activates the alarm from time to time	The anti-pry switch does not compress the door or the door quality is not tight, the anti-pry switch is not tight, resulting in false alarms	Check whether the door lock mounting screw is locked tightly and check whether the door panel is deformed
		Turn off the tamper switch in the system

Poor fingerprint recognition	Born with shallow fingerprint lines	You can choose to enter the same finger twice, and don't pull the finger too fast when verifying it
	Severe wear due to the type of work	
	Fingers peeled in winter	
Prompt please open the door, but the door does not open, hear the motor sound in motion	Lock body quality problem or installation problem: The lock core drive lever is not inserted into the motor hole	Key to open the door
		Hand-to-hand function, switch to hand movement to open the door