User Manual for Palm Vein
Smart Lock

CONTENTS

1. Parameter Description

Num	Parameter	Specification
1	Comparison Mode	1：N
2	Fingerprint Sensor Mode	Self-learning capacitive touch fingerprint sensor
3	Fingerprint Sensor Resolutions	508dpi
4	False Rejection Rate	＜0.1%
5	False recognition rate	＜0.001％
6	Fingerprint collection range	±180°
7	Card Type	M1(IC CARD)
8	User capacity	Total capacity 250 groups: up to 100 fingerprints, up to 100 passwords, up to 50 faces, and up to 100 cards. Administrator ID range 000-009, ordinary user ID range 010-249
9	Operation log	Scroll 600 items
10	Battery life	Door opening times ≥ 3000 times
11	Operating Voltage	7.0V~8.4V, low voltage alarm voltage 6.8±0.2V
12	Dynamic Power Consumption	≤1A (no motor operation, no playback sound)
13	Static power	≤200uA (average power consumption)
14	Verification time	≤3s, (including the entire process of fingerprint

		collection, comparison, and unlocking signal output)
15	Keyboard type	Touch Sensing
16	OLED display	0.96" OLED
17	External emergency power supply	5V 1A Micro USB
18	Antistatic ability	≥8KV (contact type) ≥15KV (non-contact type)
19	storage temperature	－ 25℃ ～ 80℃
20	Operating temperature	－ 25℃ ～ 70℃
21	environment humidity	15%RH～ 93%RH

2. Setting Description

1. Initialization

Press and hold the setting key for 5 seconds, and the voice broadcast will say: "Restore factory settings, press the # key to confirm, press the * key to cancel", press the # key to confirm, and the system will restart to the initial state.

In the initial state, any fingerprint, password, or card can unlock the door. Performing the factory setting operation cannot clear the set door opening direction and torque parameters.

2. Low battery reminder

When the system battery is less than 25%, the voice broadcast will say: "Low battery" when unlocking. The battery can still unlock the door about 50 times, but please charge it in time (or replace the battery).

3. External USB emergency power supply

Using USB emergency power supply, it takes about 30 seconds to unlock.

4. Illegal user alarm

If the unlocking fails for 3 to 5 consecutive times, the voice broadcast will say: "Illegal user, illegal intrusion, the owner has been notified". After the 5th broadcast, the system will be locked for 90 seconds, during which time it will not respond to any user operation. It will be unlocked after 90 seconds.

5. Virtual password

When using a password to unlock, you can add any number before and after the correct password to increase the security of the digital password. For example, if the password is "123456", you can enter "426123456745" to unlock.
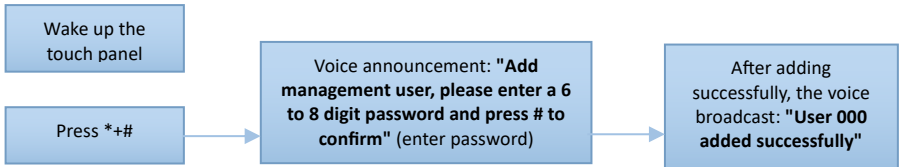
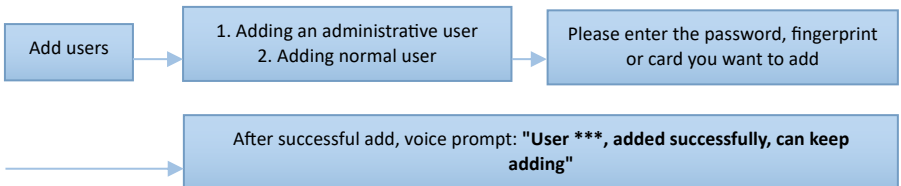Note: The system can only recognize the first 16 digits

6. Version number

Enter 999# to read the system version number.

3. Function and Operation

Adding an administrator password for the first time

Wake up the touch panel			
Press *+#	→	Voice announcement: **"Add management user, please enter a 6 to 8 digit password and press # to confirm"** (enter password)	→	After adding successfully, the voice broadcast: **"User 000 added successfully"**

3.1. Add Users

Add users	→	1. Adding an administrative user 2. Adding normal user	→	Please enter the password, fingerprint or card you want to add

→ After successful add, voice prompt: **"User ***, added successfully, can keep adding"**

Face: Voice broadcast "Please enter the front face", the face to be recorded is parallel to the camera at a distance of 30-80cm, and the recording is continuous according to the voice prompt.

Fingerprint: The user places a finger on the fingerprint sensor, and the voice prompt "Please put your finger again" is issued. The user places the same finger on the sensor and records continuously.

Password: The user enters a 6- to 8-digit password and presses the # key to confirm.
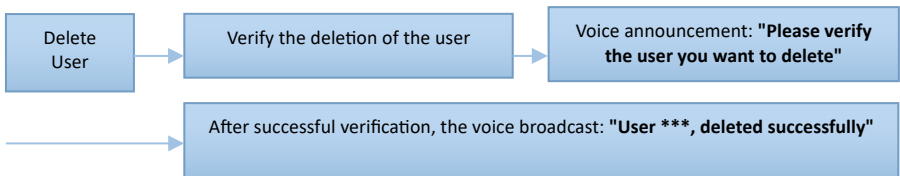
Card: The user places the card close to the IC card sensing area of the touch keyboard, and the system automatically reads and saves the card information.

4

Palm vein or Palm print: According to the voice prompt, the palm vein or palm print to be recorded is aligned with the camera at a distance of 10-15cm, and the recording is carried out according to the voice prompt;

Note: Number of management users: No. 000-009, a total of 10 digits; number of ordinary users: No. 010-249, a total of 240 digits.

3.2. Add Users

(1) Verify deleting user

Delete User	→	Verify the deletion of the user	→	Voice announcement: **"Please verify the user you want to delete"**

After successful verification, the voice broadcast: **"User ***, deleted successfully"**

Verification method:

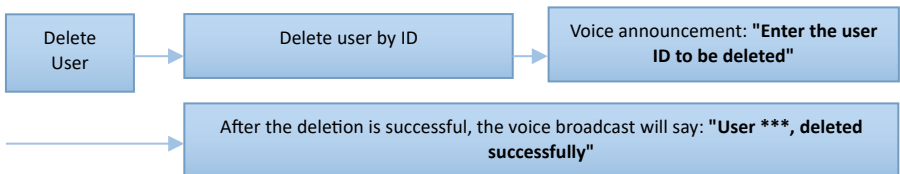**Face:** The front face of the user is parallel to the camera and is 30 to 80 cm away

Fingerprint: Place the finger whose fingerprint is to be deleted on the fingerprint sensor.

Password: Enter the password to be deleted.

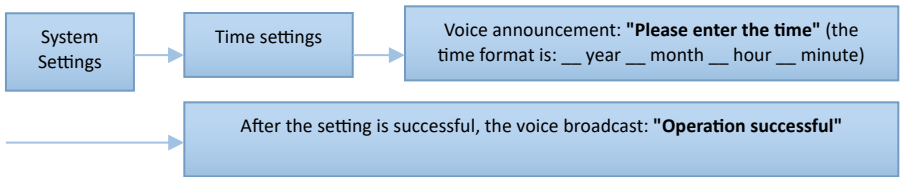**Card:** Place the IC card to be deleted close to the sensing area of the touch keyboard.

If the user exists in the system, the voice broadcast will say: "Deleted successfully"; if the user does not exist, the voice broadcast will say: "Operation failed".
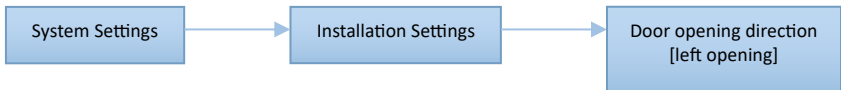
(2) Delete user by ID

Delete User	→	Delete user by ID	→	Voice announcement: **"Enter the user ID to be deleted"**

After the deletion is successful, the voice broadcast will say: **"User ***, deleted successfully"**

3.3. System Settings

(1) Time settings

| System Settings | → | Time settings | → | Voice announcement: **"Please enter the time"** (the time format is: __ year __ month __ hour __ minute) |

| → | After the setting is successful, the voice broadcast: **"Operation successful"** |

(2) Installation setting

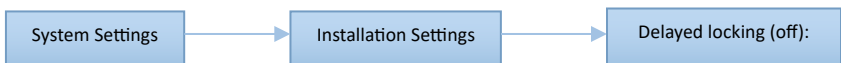① Door opening direction setting

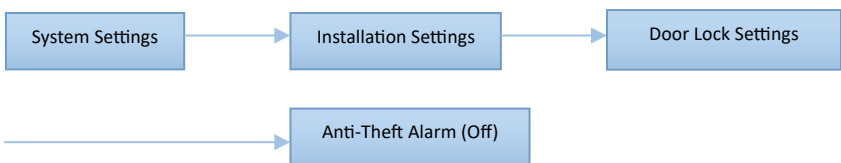| System Settings | → | Installation Settings | → | Door opening direction [left opening] |

Note: The door opening direction is based on the unlocking direction from outside the door.

② Automatic locking

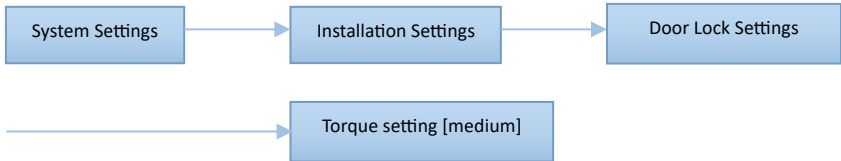| System Settings | → | Installation Settings | → | Delayed locking (off): |

Note: Delayed locking means setting a fixed anti-locking time. Users can choose the locking time: 10S, 15S, 20S, 30S, 60S, 120S.

③ Door lock settings-Anti-theft alarm

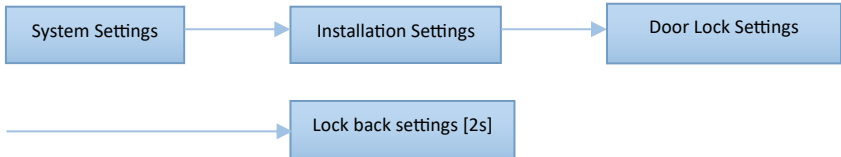| System Settings | → | Installation Settings | → | Door Lock Settings |

| → | Anti-Theft Alarm (Off) |

Note: After the anti-theft alarm is turned on, if the door lock is pried, the system will issue an alarm prompt: "Illegal user, illegal intrusion, the owner has been notified". If the device is connected to the Internet, the alarm information will be pushed to the mobile phone.
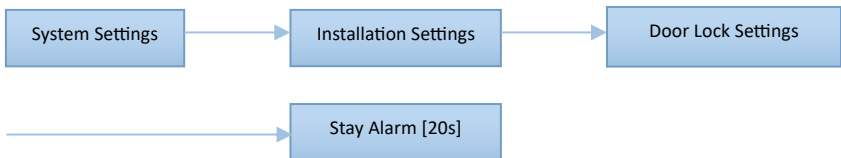
④ Torque setting

| System Settings | → | Installation Settings | → | Door Lock Settings |

| → | Torque setting [medium] |

Note: Torque setting is for the strength of motor torque.

⑤ Lock-back time

| System Settings | → | Installation Settings | → | Door Lock Settings |

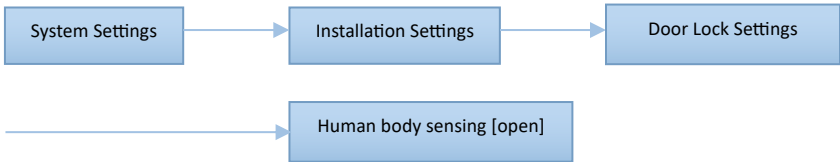| → | Lock back settings [2s] |

Note: The lock back time refers to the rebound time of the lock bolt, and the setting time range is between 2s and 9s.

⑥ Stay alarm

| System Settings | → | Installation Settings | → | Door Lock Settings |

| → | Stay Alarm [20s] |

Note: If a person is detected for 20 seconds cumulatively within 1 minute, a stay alarm will be triggered. For the configured devices pushed, the sound and light alarm will not be activated by default.
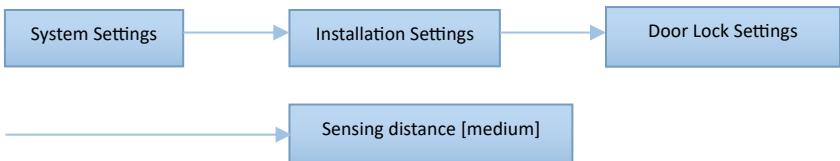
⑦ Human body sensing

System Settings	→	Installation Settings	→	Door Lock Settings

	→	Human body sensing [open]

Note: 1. Classification of human body sensing function:

· Human body sensing [off]: The smart door lock will not sense human body in standby mode.

· Human body sensing [smart]: The smart door lock will not sense human body when the door is open.

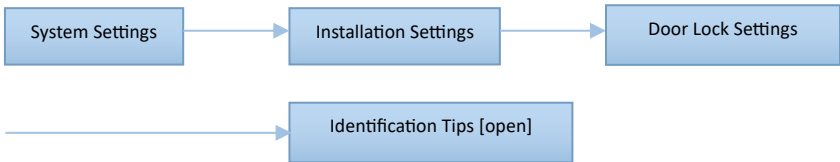· Human body sensing [on]: The smart door lock will sense human body in any state.

2. After 10 consecutive wake-ups and no face recognition, human body sensing is turned off for 5 minutes by default.

⑧ Sensing distance

System Settings	→	Installation Settings	→	Door Lock Settings

	→	Sensing distance [medium]

Note: Sensing distance [near]: about 30 to 50 cm; Sensing distance [medium]: 50 to 70 cm; Sensing distance [far]: 70 to 80 cm.

⑨ Identification Tips

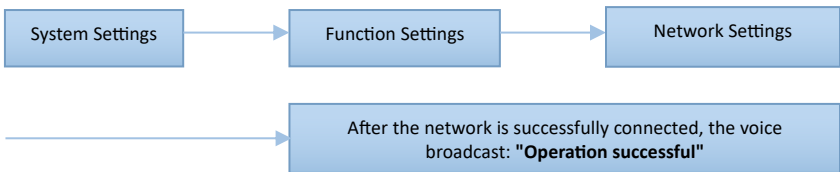| System Settings	→	Installation Settings	→	Door Lock Settings

→	Identification Tips [open]

Note: When the recognition prompt is turned on and the human body sensing wakes up, a voice prompt will be heard: "Please enter your front face."
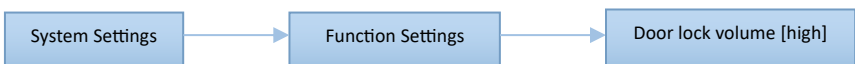
(3) Function settings

① Network settings

System Settings	→	Function Settings	→	Network Settings

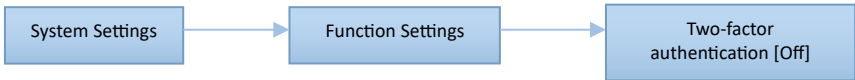| →	After the network is successfully connected, the voice broadcast: **"Operation successful"**

(For detailed operation of networked products, see the appendix of the manual).
Note: The network configuration function only supports one mobile phone for network configuration. If you enter the network configuration again, the last network configuration data will be automatically cleared. Users should operate with caution.
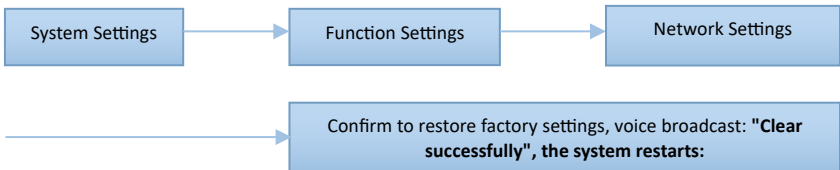
② Door lock volume

System Settings	→	Function Settings	→	Door lock volume [high]

③ Two-factor authentication

| System Settings | → | Function Settings | → | Two-factor authentication [Off] |

Note: Two-factor authentication is only for ordinary key unlocking. Two different ordinary user keys must be verified to successfully unlock the door. Administrator users can unlock the door directly.
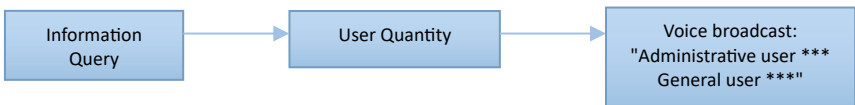
(4) Restore factory settings

| System Settings | → | Function Settings | → | Network Settings |

| | → | Confirm to restore factory settings, voice broadcast: **"Clear successfully", the system restarts:** |

Note: After restoring to factory settings, all user data will be cleared, so please operate with caution.
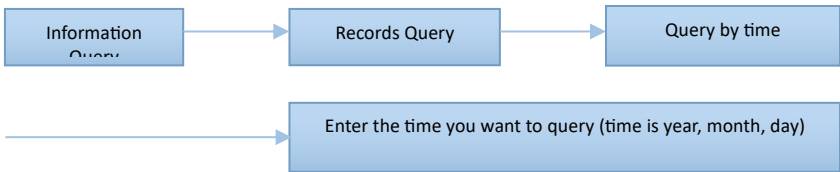
3.4. Information Query

(1) Number of users

| Information Query | → | User Quantity | → | Voice broadcast: "Administrative user *** General user ***" |

(2) Reading records

| Information Query | → | Records Query | → | Query in order |

Note: Sequential query starts from the latest information and goes down. Press key 8 to query the next one and key 2 to query the previous one.

(3) Query by time

| Information Query | → | Records Query | → | Query by time |

| | Enter the time you want to query (time is year, month, day) |

4. Network Settings and Connect Tuya Smart APP.

4.1. Download the Tuya Smart APP

Use your mobile phone to scan the following QR code to download the APP, or search and download the APP in the application market.

Tuya Smart APP

4.2. Registration and Login

1. Enter the [Tuya Smart] APP, click the login button, enter the account number and log in. If you don't have an account, you need to register an account first.

4.3. Add device

1. After entering the APP, click "+" in the upper right of the home page to add a device and enter the "Add Device" page;

2. Select [Security Sensing], click "Door Lock (Wi-Fi)" to proceed to the next page;

3. Select 2.4GHz Wi-Fi network. Select WIFI and enter the password, and click [Next].

4. On the door lock touch control panel, enter the administrator password press *#12345 (default administrator password) to enter the lock management menu, and press 3-3-1 to enter the network pairing mode.

5. On the APP, click "Confirm Keyboard Light Flashing Quickly" and click Next.

6. After entering the "Add Device" page, keep waiting until the network pairing complete.

7. If the network pairing fail, the user can select [Switch Network Distribution Mode] and select the hotspot mode for network pairing.

Connect to the Wi-Fi hotspot with prefix of 'SmartLife' and follow the mobile phone operation guidelines.

Note: Some device hotspot name may be customized.

4.4. Remote unlocking

1. When the doorbell rings, the user's mobile phone will receive the remote unlock message push.
2. Click to unlock remotely and click [OK].

4.5. Remote dynamic password

1. Slide the lock icon to the left on the smart door lock interface to enter the temporary password interface;
2. Click [Remote Dynamic Password] to obtain the generated dynamic password;
3. Enter the password on the door lock to unlock the lock.
Note: Make sure that the time of the lock is correct for the first use, and the effective time of each dynamic password is 5 minutes. There is no limit on the number of unlocks within the validity time period.
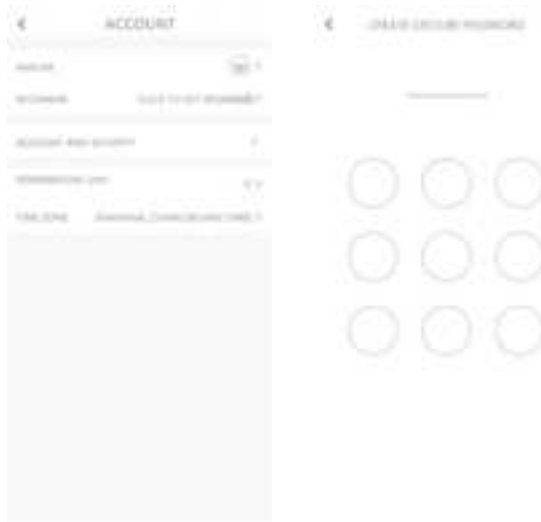
4.6. Personal Center

The personal information page is used to display personal account information. Users can set the avatar, modify the login password, bind the mobile phone number, set the gesture password, etc. here.

1. Click [Me] to enter the personal center page;
2. Click [Click here to set a nickname];

3. Click [Account and Security] to modify the login password or set gestures to unlock. After opening the gesture password, you need to enter the created gesture password to enter the APP.

4.7. Device alarm

1. After the Tuya APP receives alarm messages such as illegal users, hijacking, low power, doorbells, etc., the [alarm] icon under the smart door lock interface will turn on the yellow light to remind.

2. Users click the [Alarm] icon below the smart door lock interface to view the alarm information.

4.8. Device Sharing

1. Click [Member Management] to enter the [Select Member Type] interface;

2. Click [Add Now] and enter the name and account of the added member, then you can share the device under your account with the new member, and the other party can operate the device.

Appendix 1:

Factory menu

In the main interface, press 888# to enter the factory menu, and enter the function code in the factory menu

8001: Enter and exit test mode

8002: Enter and exit aging mode

8003: Network test

8004: Switch motor direction

8005: Self-rebound lock body switch

8006: Open card encryption

8007: Close card encryption

8008: Open and close square rod detection

8009: Open and close low battery reminder

8101: Network exit

7000 ~ 7009: Motor rotation time after locking (0ms~900ms)

7100 ~ 7109: Motor rotation time after unlocking (0ms~900ms)

7202 ~ 7209: Semi-automatic motor time can be set (200~700ms)

7300: Close welcome light

7301: Open welcome light

6003 ~ 6009: Set the number of illegal users (3 to 9 times)

5002 ~ 5004: Set the face security level

4000 ~ 4009: Set the pause time

1000: Force restore to factory settings

1001: Soft restart

1002: Hardware watchdog restart

2001: Key test

2003: Network module OTA

Multi-language switching:

Enter 888# to enter the factory menu and enter this command:

3000# Chinese

3001# English

3002# Traditional

3003# Russian

3004# Vietnamese

3005# Korean

3006# Arabic

3007# Portuguese

3008# French

3009# Spanish

3010# German

3011# Indonesian

3012# Thai

Voice prompt "Operation successful", navigation voice prompts are all in Chinese

Note: If the lock has been successfully registered, after entering the factory mode, you need to enter the management user password first, and then enter this command.