# User Manual

## ML10-ID

Version: 1.0
Date: Oct., 2015

## Remarks

1. New lock is configured to grant any fingerprint or ID card access.

2. The lock is equipped with mechanical keys for manual unlocking. Remove mechanical keys from the package and keep them in a safe place.

3. To power up the lock, four alkaline AA batteries (not included) are required. Non-alkaline and rechargeable batteries are NOT recommended.

4. Press the fingerprint sensor or the sensor holder to power up the lock. To avoid unlocking the door when pressing the fingerprint sensor, pressing the sensor holder to power up the lock is recommended.

5. The operation of lock setting has a stand-by time limit of 10 seconds; if there is no any activity, the lock will shut off after 10 seconds.

6. Keep your fingers clean when using this lock.

7. To open door with ID card, you must press the sensor holder to power up the lock first.

8. Administrator and other users can choose either fingerprint or ID card for enrollment and verification.

9. Identity verification of administrator is required before enrolling other users. No matter which verification method administrator uses, other users can choose independently whether to enroll by fingerprint or ID card.

## Appearance
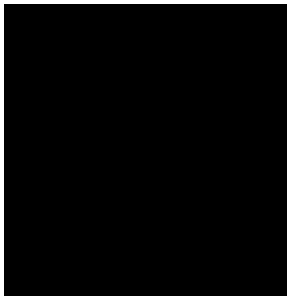
1  LED
2  Fingerprint Sensor
3  Sensor Holder
4  ID Card Swiping Area
5  Handle
6  Mechanical Key Hole
7  Battery Box Cover
8  Battery Area
9  Button ③ / Temporary User
10  Button ① / Admin user
11  Back LED
12  Button ⊖ / Delete user
13  Button ⊕ / Add user
14  Reset Button
15  Button ② / Normal User

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## Profile

User Introduction

| User Type | Capacity | Privilege |
|---|---|---|
| Administrator | 20 (Fingerprint:10, ID Card: 10) | Add/delete fingerprint or ID card; Enable Normally Open (NO) mode; Unlock the door |
| Normal User | 120 (Fingerprint: 60, ID Card: 60) | Unlock the door; Enable NO mode |
| Temporary User | 40 (Fingerprint: 20, ID Card: 20) | Unlock the door; Enable NO mode |

Button Definition

| Buttons | Function | Other functions |
|---------|----------|-----------------|
| $\oplus$ | Add Users | |
| $\ominus$ | Delete Users | |
| ① | Administrator User Group | Enable NO mode |
| ② | Normal User Group | Enable NO mode |
| ③ | Temporary User Group | Enable NO mode |

Lock Status Indication

| Lock Status | Indication |
|-------------|------------|
| Successful Operation | 1 beep and LED blinks in green |
| Failed Operation | 2 beeps and LED blinks in red |
| Low battery | 7 beeps and LED blinks in red for 7 times |
| Unlocking | 1 beep and electric engine makes a rolling sound for the first time, which indicates that the door is open. |
| Locking | Electric engine makes a rolling sound for the second time, |

| | which indicates that the door is closed. |
| --- | --- |

Lock Initialization

| Method 1 | | Method 2 |
| --- | --- | --- |
| Operating Steps | Indication | Operating Steps |

```
┌─────────────────────────┐                                    ┌──────────────────────┐        ┌─────────────────────┐
│ Press the "Reset" button │                                    │ Delete all temporary │───────▶│ Please see "Deleting │
│ with a pin               │                                    │ users                │        │ Temporary  User      │
└─────────────────────────┘                                    └──────────────────────┘        │ Group"               │
            │                                                              │                     └─────────────────────┘
            ▼                        ┌─────────────────────┐               ▼                     ┌─────────────────────┐
┌─────────────────────────┐         │ Fingerprint sensor  │    ┌──────────────────────┐        │ Please see "Deleting │
│ Press the sensor holder  │────────│ is powered up, LED  │    │ Delete all normal    │───────▶│ Normal User Group"   │
│ to power up the lock     │         │ blinks in green     │    │ users                │        └─────────────────────┘
└─────────────────────────┘         └─────────────────────┘    └──────────────────────┘
            │                                                              │                     ┌─────────────────────┐
            ▼                                                              ▼                     │ Please see "Deleting │
┌─────────────────────────┐                                    ┌──────────────────────┐        │ Admin Group"         │
│ Loosen the pin           │                                    │ Delete all           │───────▶└─────────────────────┘
└─────────────────────────┘                                    │ administrators       │
            │                                                    └──────────────────────┘
            ▼                        ┌─────────────────────┐               │
┌─────────────────────────┐         │ One beep for each   │               ▼
│ Press the button of "+", │────────│ press, the back LED │    ┌──────────────────────┐
│ "1", "2", "3" , "-" in   │         │ blinks in green     │    │ Reset successfully   │
│ order                    │         └─────────────────────┘    └──────────────────────┘
└─────────────────────────┘
            │
            ▼                        ┌─────────────────────┐
┌─────────────────────────┐         │ A long beep, LED    │
│ Initialization succeeds  │────────│ blinks in green for │
└─────────────────────────┘         │ 1 second            │
                                     └─────────────────────┘
```

**Note**: The lock will be restored to factory defaults after initialization, and the door can be opened with any fingerprint or ID card.

How to use mechanical key?

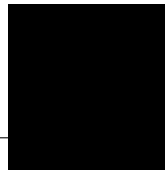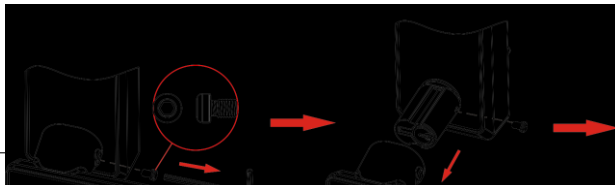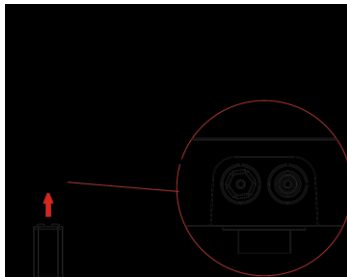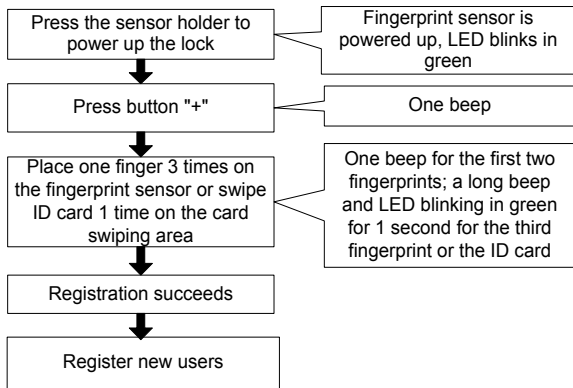How to use 9V emergency battery?



# Registering First Administrator

| Operating Steps | Indication |
| --- | --- |

```
┌─────────────────────────────┐        ┌─────────────────────────────┐
│ Press the sensor holder to  │────────│ Fingerprint sensor is       │
│ power up the lock           │        │ powered up, LED blinks in   │
│                             │        │ green                       │
└─────────────────────────────┘        └─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐        ┌─────────────────────────────┐
│ Press button "+"            │────────│ One beep                    │
└─────────────────────────────┘        └─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐        ┌─────────────────────────────┐
│ Place one finger 3 times on │        │ One beep for the first two  │
│ the fingerprint sensor or   │        │ fingerprints; a long beep   │
│ swipe ID card 1 time on the │        │ and LED blinking in green   │
│ card swiping area           │        │ for 1 second for the third  │
│                             │        │ fingerprint or the ID card  │
└─────────────────────────────┘        └─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│ Registration succeeds       │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│ Register new users          │
└─────────────────────────────┘
```

**Note**: 1. The first user (fingerprint or ID card) will be the first administrator automatically in default setting.

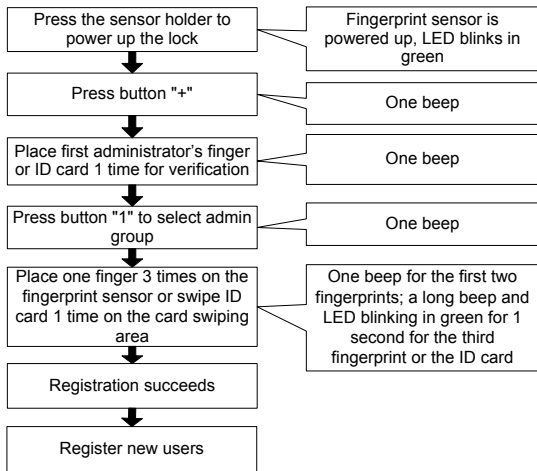2. Admin group supports 20 users (10 for fingerprints and 10 for ID cards); you can still register 19 new administrators in the next step.

3. The operating steps of registering new users: press button 1/2/3 to select user group, and then place one new finger 3 times on the fingerprint sensor or swipe a new ID card 1 time
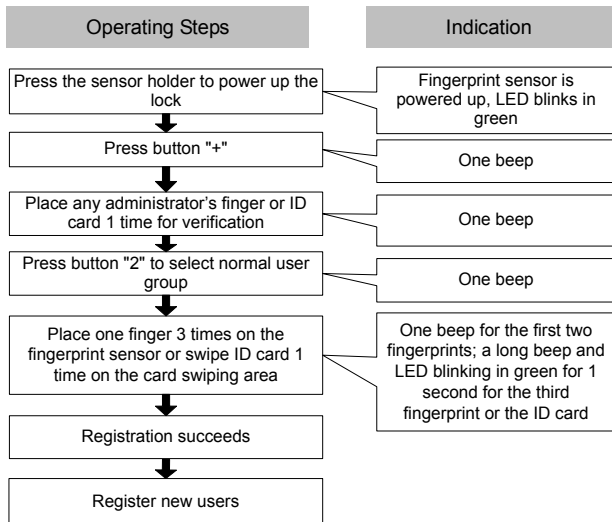
# Registering Other Administrators

| Operating Steps | Indication |
| --- | --- |

```
┌─────────────────────────────┐        ┌─────────────────────────────┐
│ Press the sensor holder to  │───────│ Fingerprint sensor is       │
│ power up the lock           │        │ powered up, LED blinks in   │
└─────────────────────────────┘        │ green                       │
              ↓                         └─────────────────────────────┘
┌─────────────────────────────┐        ┌─────────────────────────────┐
│ Press button "+"            │───────│ One beep                    │
└─────────────────────────────┘        └─────────────────────────────┘
              ↓
┌─────────────────────────────┐        ┌─────────────────────────────┐
│ Place first administrator's │───────│ One beep                    │
│ finger or ID card 1 time    │        └─────────────────────────────┘
│ for verification            │
└─────────────────────────────┘
              ↓
┌─────────────────────────────┐        ┌─────────────────────────────┐
│ Press button "1" to select  │───────│ One beep                    │
│ admin group                 │        └─────────────────────────────┘
└─────────────────────────────┘
              ↓
┌─────────────────────────────┐        ┌─────────────────────────────┐
│ Place one finger 3 times on │        │ One beep for the first two  │
│ the fingerprint sensor or   │───────│ fingerprints; a long beep   │
│ swipe ID card 1 time on the │        │ and LED blinking in green   │
│ card swiping area           │        │ for 1 second for the third  │
└─────────────────────────────┘        │ fingerprint or the ID card  │
              ↓                         └─────────────────────────────┘
┌─────────────────────────────┐
│ Registration succeeds       │
└─────────────────────────────┘
              ↓
┌─────────────────────────────┐
│ Register new users          │
└─────────────────────────────┘
```
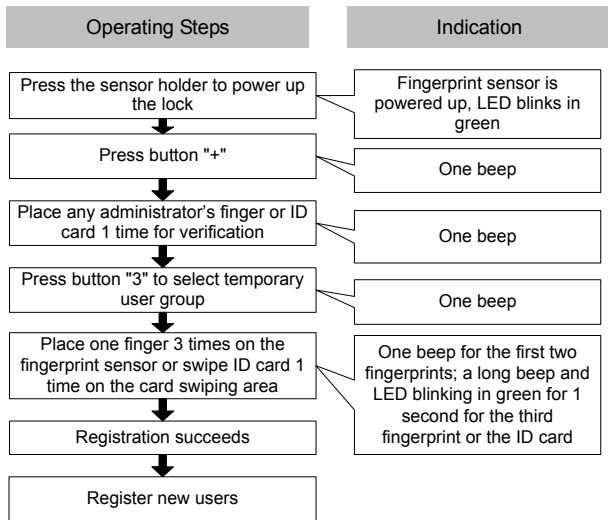
**Note**: Admin group supports 20 users; you can still register 19 new administrators in this step.

## Registering Normal User

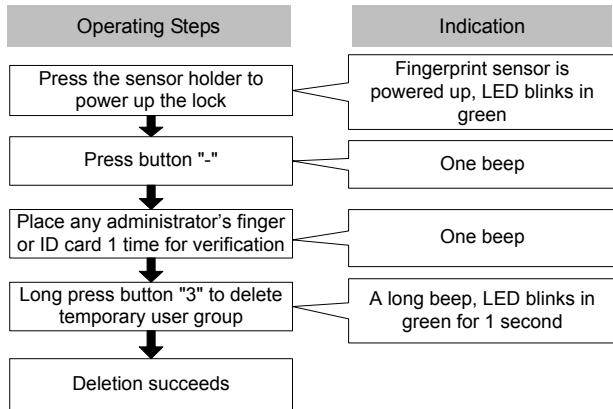| Operating Steps | Indication |
|---|---|
| Press the sensor holder to power up the lock | Fingerprint sensor is powered up, LED blinks in green |
| ↓ | |
| Press button "+" | One beep |
| ↓ | |
| Place any administrator's finger or ID card 1 time for verification | One beep |
| ↓ | |
| Press button "2" to select normal user group | One beep |
| ↓ | |
| Place one finger 3 times on the fingerprint sensor or swipe ID card 1 time on the card swiping area | One beep for the first two fingerprints; a long beep and LED blinking in green for 1 second for the third fingerprint or the ID card |
| ↓ | |
| Registration succeeds | |
| ↓ | |
| Register new users | |

**Note**: Normal user group supports 120 users (60 for fingerprints and 60 for ID cards).

## Registering Temporary User

| Operating Steps | Indication |
|---|---|
| Press the sensor holder to power up the lock | Fingerprint sensor is powered up, LED blinks in green |
| Press button "+" | One beep |
| Place any administrator's finger or ID card 1 time for verification | One beep |
| Press button "3" to select temporary user group | One beep |
| Place one finger 3 times on the fingerprint sensor or swipe ID card 1 time on the card swiping area | One beep for the first two fingerprints; a long beep and LED blinking in green for 1 second for the third fingerprint or the ID card |
| Registration succeeds | |
| Register new users | |

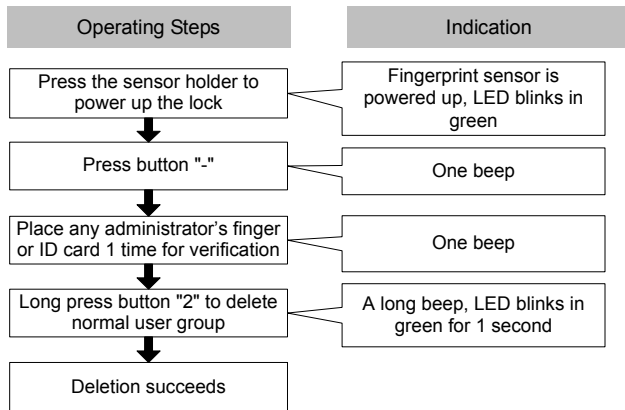**Note:** Temporary user group supports 40 users (20 for fingerprints and 20 for ID cards).
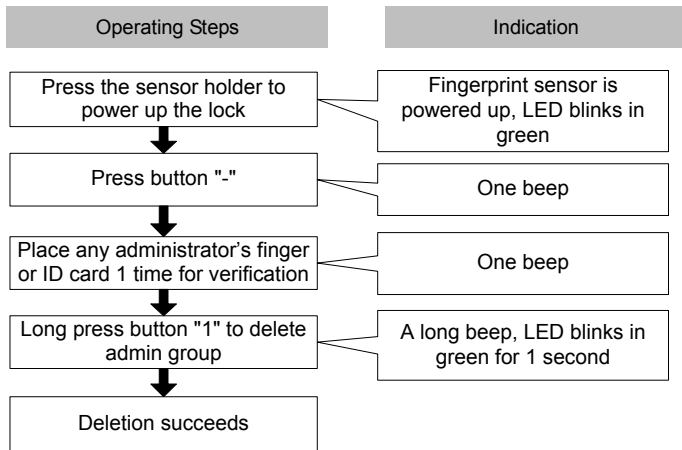
# Deleting Temporary User Group

| Operating Steps | Indication |
|---|---|
| Press the sensor holder to power up the lock | Fingerprint sensor is powered up, LED blinks in green |
| Press button "-" | One beep |
| Place any administrator's finger or ID card 1 time for verification | One beep |
| Long press button "3" to delete temporary user group | A long beep, LED blinks in green for 1 second |
| Deletion succeeds | |

**Note**: Deleting operation is only valid for groups.

# Deleting Normal User Group

| Operating Steps | Indication |
|---|---|
| Press the sensor holder to power up the lock | Fingerprint sensor is powered up, LED blinks in green |
| ↓ | |
| Press button "-" | One beep |
| ↓ | |
| Place any administrator's finger or ID card 1 time for verification | One beep |
| ↓ | |
| Long press button "2" to delete normal user group | A long beep, LED blinks in green for 1 second |
| ↓ | |
| Deletion succeeds | |

**Note**: Deleting operation is only valid for groups.

# Deleting Admin Group

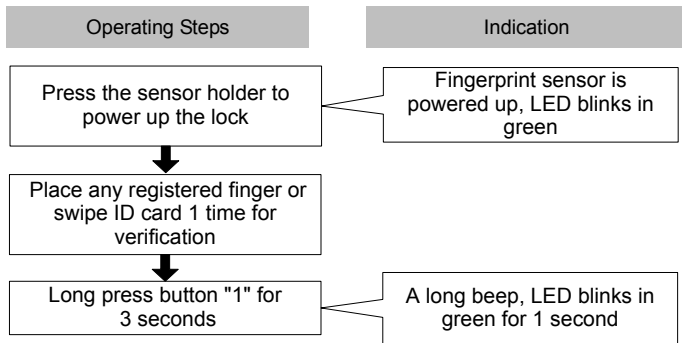| Operating Steps | Indication |
|---|---|
| Press the sensor holder to power up the lock | Fingerprint sensor is powered up, LED blinks in green |
| ↓ | |
| Press button "-" | One beep |
| ↓ | |
| Place any administrator's finger or ID card 1 time for verification | One beep |
| ↓ | |
| Long press button "1" to delete admin group | A long beep, LED blinks in green for 1 second |
| ↓ | |
| Deletion succeeds | |

**Note**: Deleting operation is only valid for groups.

# Enabling/Disabling Normally Open Mode

**Enabling Normally Open Mode:**

| Operating Steps | | Indication |
|---|---|---|
| Press the sensor holder to power up the lock | — | Fingerprint sensor is powered up, LED blinks in green |
| ↓ | | |
| Place any registered finger or swipe ID card 1 time for verification | | |
| ↓ | | |
| Long press button "1" for 3 seconds | — | A long beep, LED blinks in green for 1 second |

**Disabling Normally Open Mode:**

Press the sensor holder to power up the lock, and then place any registered finger or ID card 1 time to disable it.