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> MENGQI-CONTROL Biometric Fingerprint Access Control System with 600LBS Magnetic Lock (Model: small fingerprint-MagLock-motion1) User Manual

## MENGQI-CONTROL small fingerprint-MagLock-motion1

# MENGQI-CONTROL Biometric Fingerprint Access Control System with 600LBS Magnetic Lock (Model: small fingerprint-MagLock-motion1) User Manual

Comprehensive instructions for installation, operation, and maintenance.

## INTRODUCTION

This manual provides detailed instructions for the installation, configuration, and operation of your MENGQI-CONTROL Biometric Fingerprint Access Control System. This system is designed to provide secure access control using fingerprint recognition, RFID cards, and key fobs, integrated with a 600lbs magnetic lock, exit motion sensor, metal exit button, power supply unit, and wired doorbell. Please read this manual thoroughly before installation and use to ensure proper functionality and safety.

## SAFETY INFORMATION

- Ensure all power is disconnected before performing any wiring or installation procedures.
- Installation should be performed by qualified personnel to prevent electrical shock or damage to the system.
- Use only the specified power supply unit (110V-240V input, 3A output) to power the system.
- Do not expose the components to water or excessive humidity.
- Keep the fingerprint sensor clean and free from debris for optimal performance.
- Verify all connections are secure before applying power.

## PACKAGE CONTENTS

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The following items are included in your MENGQI-CONTROL Biometric Fingerprint Access Control System package:

- 1 x Power Supply Unit (110-240V input, 3A output)
- 1 x Fingerprint Access Control Device (Black color)
- 1 x Electric Magnetic Lock (600lbs/280kg holding force)
- 1 x Exit Motion Sensor
- 1 x Metal Push to Exit Button (Surface mount with install base)
- 1 x Wired Doorbell
- 5 x RFID Key Fobs
- 5 x RFID Cards
- 1 x English User Manual + Software + Video + Wire Diagram CD Disk (Note: This HTML document serves as the user manual.)

## SETUP AND INSTALLATION

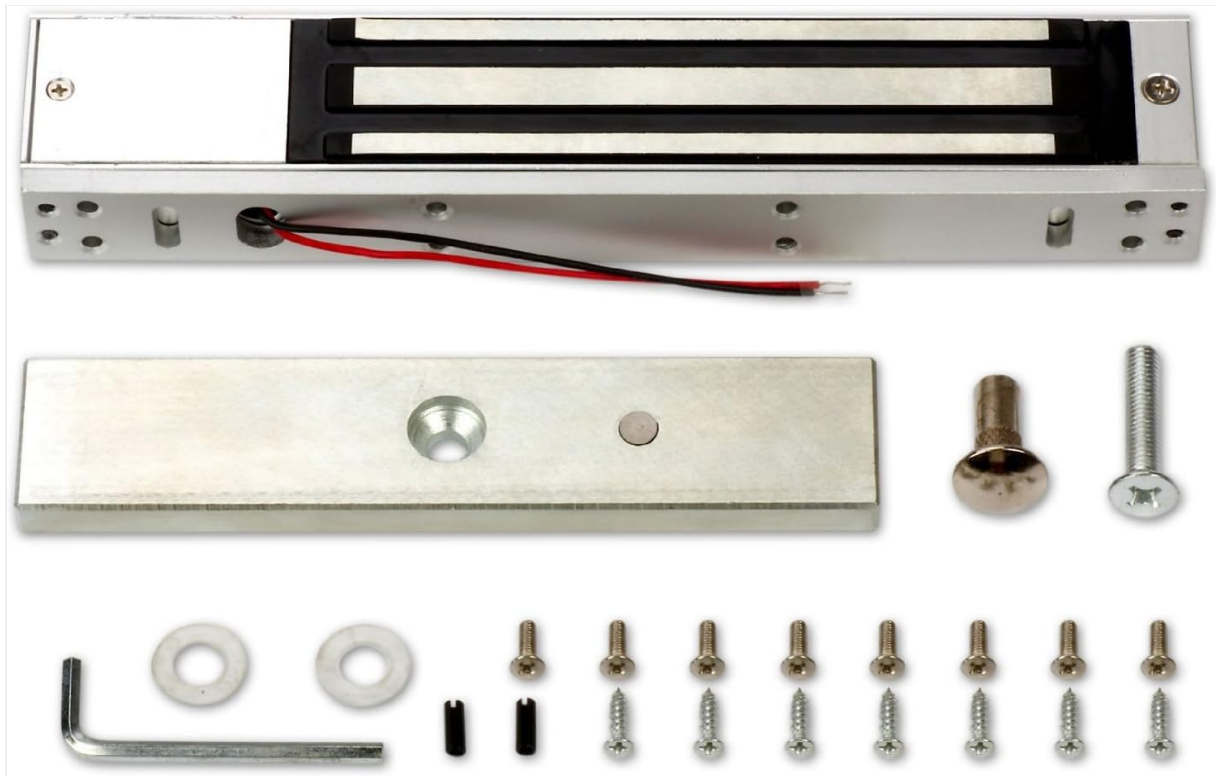
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### 1. Component Identification

Familiarize yourself with the system components before beginning installation.



**Figure 1:** Biometric Fingerprint Access Control Device. This unit features a color screen display, fingerprint scanner, and card reader for secure entry.



**Figure 2:** 600lbs Magnetic Lock and Mounting Hardware. The magnetic lock provides strong security for your door.



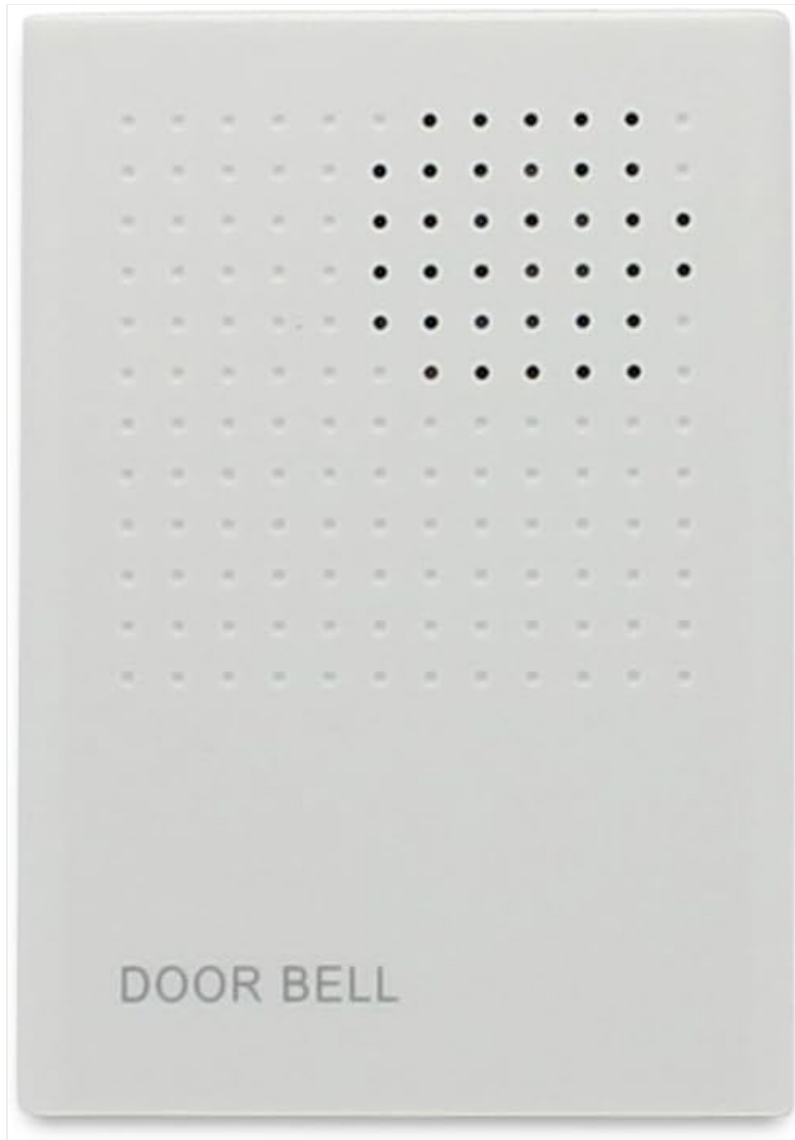
**Figure 3:** Power Supply Unit (Model K80). This unit converts AC power to DC 12V for the system components.



Figure 4: Exit Motion Sensor. Detects movement to allow hands-free exit.



**Figure 5:** Metal Push to Exit Button. Provides an alternative method for exiting the secured area.



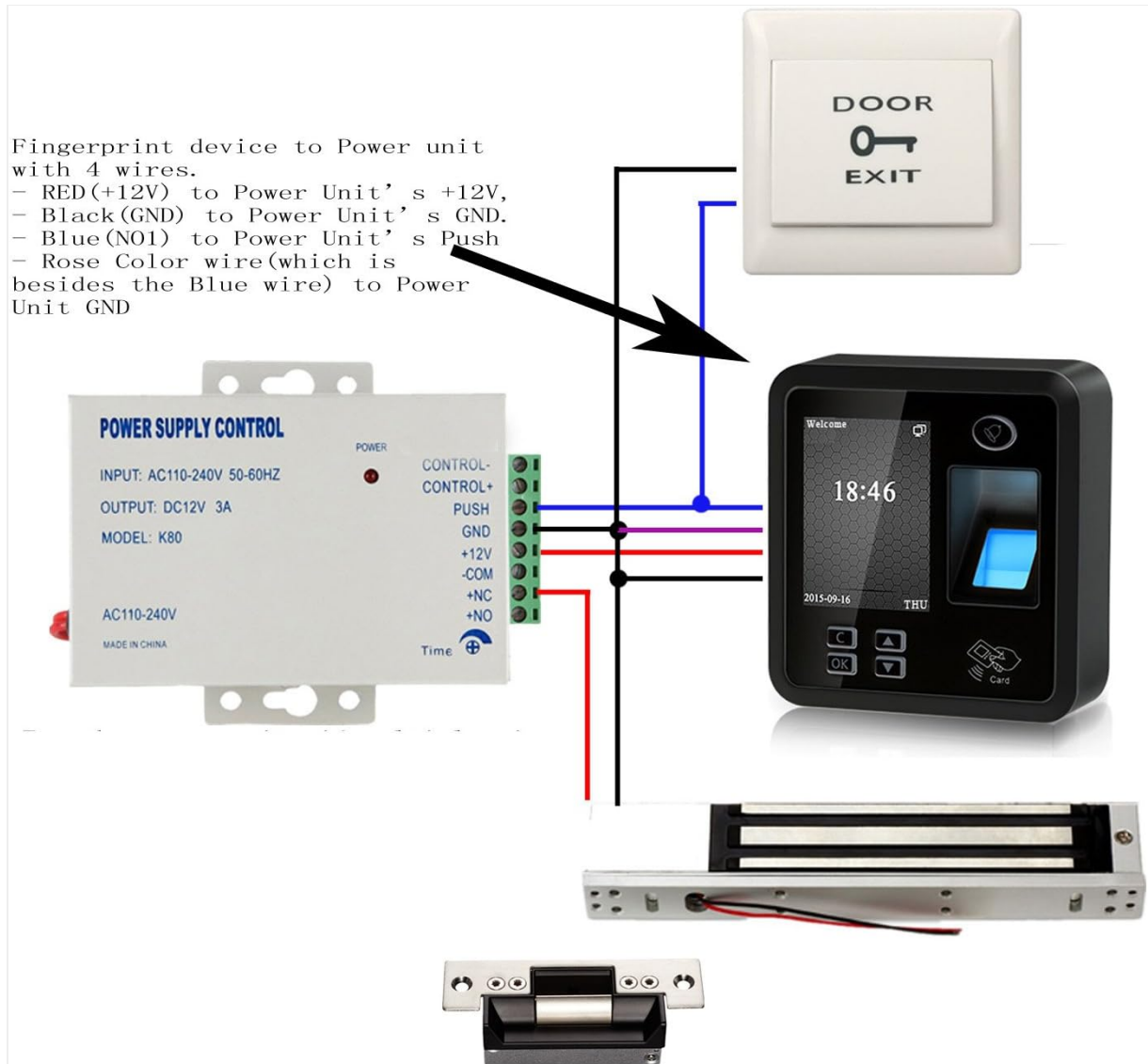
**Figure 6:** Wired Doorbell. Connects to the access control system for visitor notification.

## 2. Wiring Diagram

Refer to the following diagram for connecting the system components. Ensure all connections are secure and correctly matched.

Fingerprint device to Power unit with 4 wires.

- RED(+12V) to Power Unit's +12V,
- Black(GND) to Power Unit's GND.
- Blue(NO1) to Power Unit's Push
- Rose Color wire(which is besides the Blue wire) to Power Unit GND



**Figure 7:** Detailed Wiring Diagram. This diagram illustrates the connections between the fingerprint device, power supply, magnetic lock, and exit button.

### Wiring Instructions:

#### • Fingerprint Device to Power Unit:

- Red wire (+12V) from fingerprint device to Power Unit's +12V.
- Black wire (GND) from fingerprint device to Power Unit's GND.
- Blue wire (NO1) from fingerprint device to Power Unit's PUSH.
- Rose Color wire (beside Blue wire) from fingerprint device to Power Unit GND.

#### • Magnetic Lock Wiring:

- Connect the magnetic lock's wires to the Power Supply Unit. Typically, Lock\_NO to Push, Lock\_COM and GND together to GND, and 12V to 12V.

#### • Exit Button Wiring:

- Connect one wire from the Exit Button to PUSH on the Power Supply Unit.
- Connect the other wire from the Exit Button to GND on the Power Supply Unit.

#### • Motion Sensor Wiring:

- Orange wire of sensor to 12V of fingerprint device.

- Yellow wire of sensor to GND of fingerprint device.
- Green wire of sensor to Lock\_COM.
- White wire of sensor to Lock\_NO.
- **Doorbell Wiring:**
  - Green and Yellow wires of the doorbell to BELL- and BELL+ of the fingerprint device, respectively.
- **Power Supply Unit Connection:**
  - Connect the two red wires from the Power Supply Unit to a 110-240V AC outlet using a power cord cable.

## OPERATING INSTRUCTIONS

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### 1. Adding Fingerprints

Follow these steps to register a new fingerprint for access:

1. Press the **OK** button to enter the menu.
2. Navigate to **Register** and press **OK**.
3. Select **User** and press **OK**.
4. Choose **New Reg** and press **OK**.
5. Select **Finger** and press **OK**.
6. Press **OK** directly to confirm.
7. Place the same finger on the fingerprint scanner three times, lifting it slightly between each scan.
8. Press the **C** key continuously to exit the menu.

Once registered, you can use your fingerprint to open the lock.

**Your browser does not support the video tag.**

**Video 1:** Demonstrates the process of enrolling a fingerprint for the magnetic lock system. This video guides you through the menu navigation and scanning procedure.

### 2. Adding RFID Cards/Key Fobs

To register an RFID card or key fob for access:

1. Press the **OK** button to enter the menu.
2. Navigate to **Register** and press **OK**.
3. Select **User** and press **OK**.
4. Choose **New Reg** and press **OK**.
5. Use the arrow keys to select **Card** and press **OK**.
6. Press **OK** directly to confirm.
7. Place the RFID card or key fob on the keypad area.
8. Press **OK** to save the card/fob. *Important: Do not forget to press OK to save.*
9. Press the **C** key continuously to exit the menu.

Once registered, swipe the card or key fob on the keypad area to open the lock.

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**Video 2:** Illustrates how to enroll RFID cards and key fobs into the access control system. This video covers the menu navigation and the card/fob registration process.

### 3. Accessing the Secured Area

- **Using Fingerprint:** Place your registered finger on the fingerprint scanner. The lock will disengage upon successful verification.
- **Using RFID Card/Key Fob:** Swipe your registered RFID card or key fob over the keypad area. The lock will disengage upon successful verification.

### 4. Exiting the Secured Area

- **Using Exit Button:** Press the metal push-to-exit button. The lock will temporarily disengage, allowing you to open the door.
- **Using Motion Sensor:** Approach the door, and the motion sensor will detect your presence, automatically disengaging the lock for exit.

## MAINTENANCE

- **Cleaning:** Regularly clean the fingerprint sensor and keypad with a soft, dry cloth. Avoid abrasive cleaners or solvents.
- **Cable Inspection:** Periodically check all wiring connections for any signs of wear, damage, or loose connections.
- **Magnetic Lock Check:** Ensure the magnetic lock and armature plate are free from debris and properly aligned for maximum holding force.
- **Software Updates:** Check the manufacturer's website for any available software or firmware updates for the access control device.

## TROUBLESHOOTING

Problem	Possible Cause	Solution
Lock force is weak.	Armature plate installed too tightly or misaligned.	Loosen the armature plate screws slightly to allow for proper alignment and full contact with the electromagnet. Ensure the plate is clean.
Fingerprint not recognized.	Finger not properly placed, sensor is dirty, or fingerprint not registered correctly.	Ensure your finger covers the entire sensor. Clean the sensor. Re-register the fingerprint, ensuring three clear scans.

Problem	Possible Cause	Solution
RFID card/fob not working.	Card/fob not registered, or not swiped correctly.	Verify the card/fob is registered in the system. Swipe the card/fob firmly and completely over the keypad area.
System has no power.	Power supply unit is unplugged, faulty, or circuit breaker tripped.	Check power connections to the outlet and the power supply unit. Ensure the power supply unit's indicator light is on. Check circuit breaker.
Doorbell not ringing.	Incorrect wiring or faulty doorbell unit.	Verify doorbell wiring according to the diagram. Test the doorbell unit separately if possible.

## SPECIFICATIONS

Feature	Detail
Brand	MENGQI-CONTROL
Model Number	small fingerprint-MagLock-motion1
Color	Black
Power Source	Corded Electric, DC
Voltage	110 Volts, 220 Volts (Power Supply Unit)
Connectivity Technology	Wired (RS485, TCP/IP, USB download)
Compatible Devices	Devices with Serial or Ethernet connection, RFID Cards, RFID Key Fobs, Wired Doorbell
Installation Type	Screw-In
Alert Type	Motion
Item Weight	3.42 Kilograms (7.52 pounds)
Control Method	Touch
Maximum Range (Motion Sensor)	4 Meters
Sensor Technology	Optical Sensor
User Capacity	500 users
Record Capacity	100,000 records

Feature	Detail
Magnetic Lock Holding Force	600lbs / 280kg

## WARRANTY AND SUPPORT

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MENGQI-CONTROL is committed to providing quality products and support. We offer technical support to assist with any questions or issues you may encounter during installation or operation. Please refer to the contact information provided with your purchase for direct support.

For any questions, please contact our technical support team directly. Avoid returning the product without prior consultation, as our support team can often resolve issues efficiently and provide valuable assistance.