

YAVIS K2000+180KG kit

YAVIS Full Set RFID Access Control System Kit K2000+180KG

Instruction Manual

1. INTRODUCTION AND SYSTEM OVERVIEW

This manual provides detailed instructions for the installation, operation, and maintenance of the YAVIS Full Set RFID Access Control System Kit (Model K2000+180KG). This system is designed for single-door access control, offering secure entry via RFID cards, passwords, or a combination of both. Please read this manual thoroughly before installation and operation to ensure proper functionality and safety.

The complete kit includes the following main components:

- K2000 Access Control Keypad
- K80 Power Supply
- 180kg Electric Magnetic Lock
- Door Exit Button
- 10 RFID Keyfobs

2. PRODUCT COMPONENTS AND FEATURES

2.1 K2000 Access Control Keypad

The K2000 is a standalone access controller that supports up to 500 users. It allows access through RFID cards, passwords, or a combination of both. Programming is performed directly from the keypad, eliminating the need for a computer connection.

- **Voltage:** 12V DC
- **Current:** 120 mA
- **User Capacity:** 500 users
- **Proximity Reader Frequency:** 125 kHz
- **Compatible Cards:** EM or EM compatible cards
- **Open Modes:** Card, Password, Card + Password

- **Dimensions:** 118 x 118 x 22 mm
- **Material:** Plastic

**Support 500 user capacity
unlock with RFID card, password, or RFID card+password**



Figure 2.1: K2000 Access Control Keypad. This image shows the K2000 keypad with a hand holding an RFID card near the reader and another hand pressing a number on the keypad. The display indicates 'POWER' and 'OK' status lights.

2.2 K80 Power Supply

The K80 power supply converts AC input to stable DC 12V output for the access control system. It features automatic protection against short circuits.

- **AC Input:** 100V-240V (50-60Hz, 36W)
- **DC Output:** 12V/3A
- **Outputs:** NC / NO for various electric locks
- **Protection:** Automatic short-circuit protection
- **Dimensions:** 140 x 67 x 33 mm (approximate, based on image)

Access Control Power Supply

1. AC input: standard AC100V-240V 50-60Hz 36W.
2. DC Output: Stabilizer DC12V/3A
3. A timing control circuit can be set, and the release time can be in 0-15 seconds (it is arbitrarily adjustable).
4. Small and exquisite, easy installation. Outer iron shell dimensions: 120 mm x 95 mm x 38 mm.
5. Set NC/NO/COM outputs, can control different types of electric locks.

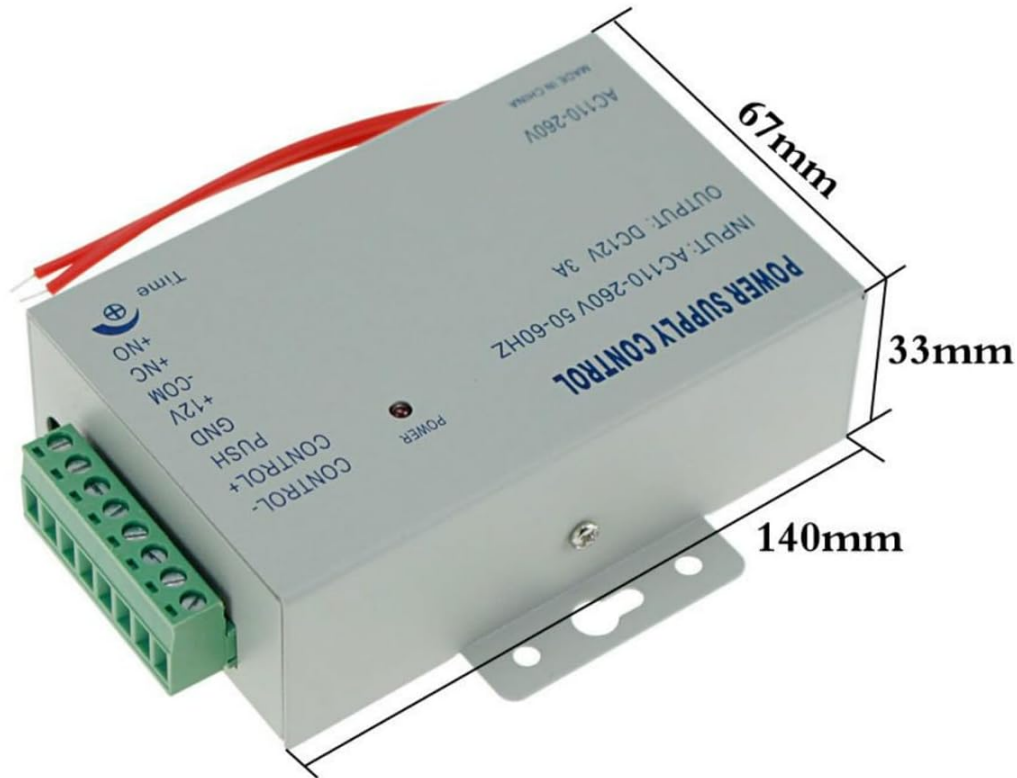


Figure 2.2: K80 Power Supply. This image displays the K80 power supply unit with its input/output terminals and approximate dimensions labeled.

2.3 180kg Electric Magnetic Lock

This magnetic lock provides a strong holding force of 180kg. It operates in NC (Normally Closed) mode, meaning it is locked when powered on and unlocks automatically when power is removed (fail-safe). It is waterproof and includes an integrated voltage suppressor.

- **Operating Voltage:** DC 12V
- **Operating Current:** 380-500 mA
- **Holding Force:** 180 kg
- **Mode:** NC (Fail-safe: unlocked when power off, locked when power on)
- **Features:** Integrated voltage suppressor, waterproof, no LED indicator
- **Dimensions:** 170 x 23 x 39 mm (main body) / 130 x 33 x 9.3 mm (armature plate)

Product Features:

Model name: Electromagnetic Locks 180kg/350lbs.

The surface of the magnetic lock adopts a wire drawing process

Waterproof: Waterproof, suitable for indoor and outdoor use.

Dimensions: 172 x 21 x 40 mm / 130 x 32 x 11 mm.

Working Voltage: DC 12V

Working current: 380-500mA

Operating temperature: -20 to 55 °C.

Humidity: 0~90% Release Time: ≤1s

Operating mode: NC (locked when powered), fail-safe mode waterproof, without LED working indicator light.

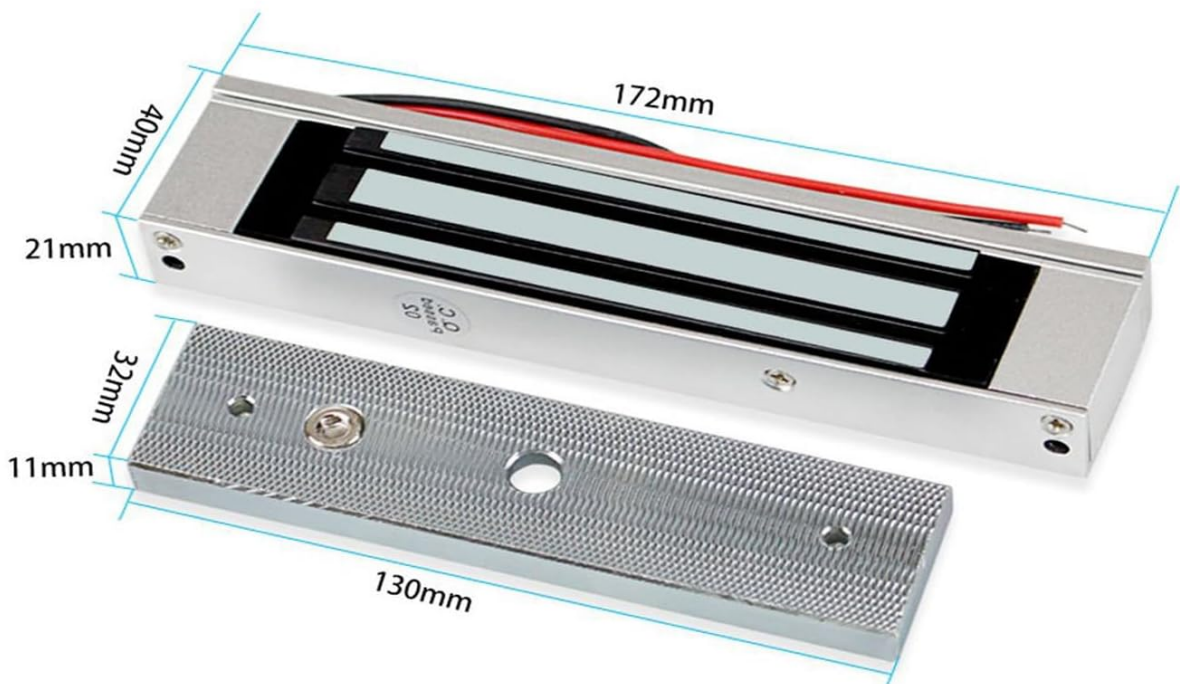


Figure 2.3: 180kg Electric Magnetic Lock. This image shows the magnetic lock components, including the main lock body and the armature plate, with their respective dimensions.

2.4 Door Exit Button

A simple push-button for exiting the controlled area. Made from flame-retardant ABS plastic.

- **Material:** ABS flame-retardant plastic
- **Output Contact:** NO / COM

2.5 RFID Keyfobs

The kit includes 10 blue RFID keyfobs for convenient access. These are read-only and operate at 125 KHz.

- **Frequency:** 125 KHz
- **Chip Type:** TK4100
- **Color:** Blue
- **Function:** Read-only
- **Quantity:** 10 pieces

RFID Keyfobs

Waterproof 125KHz radio frequency ID-2#

Reading Distance : 3-10cm

Read & Write : read only

Quantity : 10 blue



Figure 2.4: RFID Keyfobs. This image shows a set of blue RFID keyfobs, which are used for access control.

3. SETUP AND INSTALLATION

Proper installation is crucial for the reliable operation of your access control system. It is recommended that installation be performed by a qualified technician. Refer to the wiring diagram below for connection details.

3.1 Component Placement

Strategically place each component for optimal functionality and security:

- **Access Controller (K2000):** Mount on the wall near the door, on the secure side, at a convenient height for users.
- **Magnetic Lock:** Install on the door frame and door leaf according to the lock's specific instructions. Ensure proper alignment for maximum holding force.
- **Power Supply:** Mount in a secure, dry location, preferably near the access controller or a power outlet.
- **Exit Button:** Install on the secure side of the door, allowing easy exit.



Figure 3.1: System Component Placement. This image illustrates the typical installation of the access controller, magnetic lock, power supply, and exit button on and around a door.

3.2 Wiring Diagram

Follow the wiring diagram carefully to connect all components. Incorrect wiring can damage the system or prevent it from functioning.

Wiring Diagram

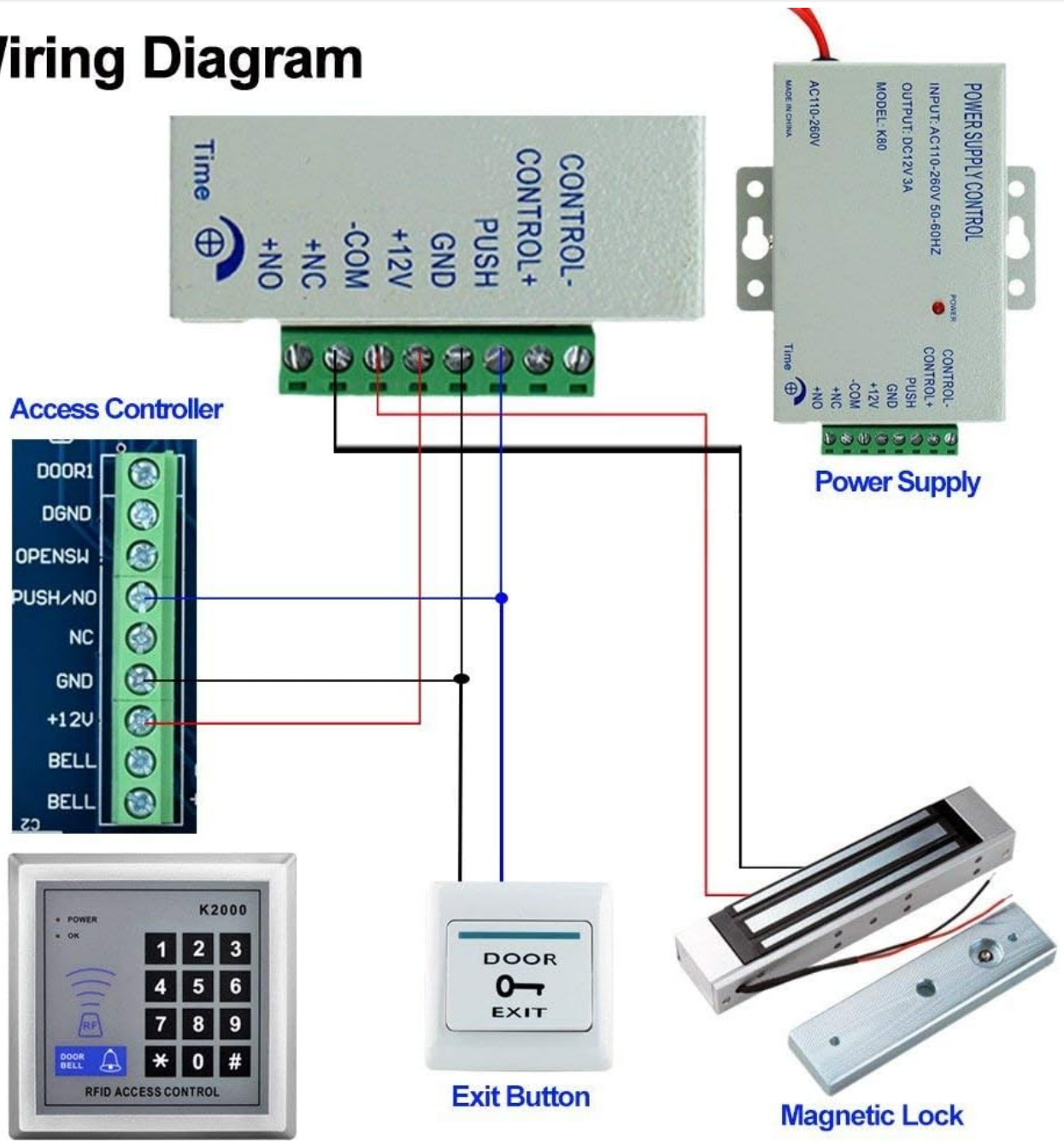


Figure 3.2: Wiring Diagram. This diagram shows the electrical connections between the K2000 access controller, K80 power supply, magnetic lock, and exit button.

Key Wiring Points:

- Connect the K80 Power Supply AC input to a standard 100-240V AC source.
- Connect the DC 12V output from the K80 Power Supply to the K2000 Access Controller and the Magnetic Lock.
- Ensure the Magnetic Lock is connected to the appropriate NC/NO terminals on the power supply or controller based on its operating mode (NC for fail-safe).
- Connect the Exit Button to the PUSH/NO and COM terminals on the K2000 Access Controller.
- Verify all connections are secure and insulated.

4. OPERATING INSTRUCTIONS

4.1 K2000 Keypad Operation

The K2000 keypad allows for direct programming and user management. Refer to the specific programming guide included

with the K2000 for detailed steps on:

- Changing the master password.
- Adding new user RFID cards.
- Adding new user passwords.
- Adding users with card + password access.
- Deleting existing users.
- Adjusting door release time (0-15 seconds).

To gain access, present an enrolled RFID card to the reader, enter a valid password, or use the card + password combination as programmed.

4.2 Exit Button Usage

To exit the controlled area, simply press the Door Exit Button. This will momentarily release the magnetic lock, allowing the door to open.

5. MAINTENANCE

Regular maintenance ensures the longevity and reliable performance of your access control system:

- **Cleaning:** Regularly clean the surface of the K2000 keypad and the magnetic lock with a soft, dry cloth. Avoid abrasive cleaners or solvents.
- **Wiring Inspection:** Periodically check all wiring connections for tightness and signs of wear or damage. Ensure all connections are secure.
- **Magnetic Lock:** Ensure the magnetic lock and its armature plate are free from dirt, debris, or obstructions that could prevent proper locking.
- **Environmental Protection:** Avoid exposing components to extreme temperatures, direct sunlight, or excessive moisture beyond their specified operating conditions.
- **Functionality Test:** Periodically test the system's functionality, including card access, password access, and the exit button, to ensure all components are working correctly.

6. TROUBLESHOOTING

If you encounter issues with your YAVIS Access Control System, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
System not powering on	No power to the K80 Power Supply; faulty wiring.	Check AC input to the power supply. Verify all power connections are secure.
Door not locking/unlocking	Incorrect wiring to magnetic lock; power supply issue; magnetic lock malfunction.	Review wiring diagram (Figure 3.2). Ensure NC/NO settings are correct for the magnetic lock. Check power supply output.
RFID card not granting access	Card not enrolled; incorrect card type/frequency; card damaged.	Ensure the card is properly enrolled in the K2000 system. Verify card frequency (125 KHz) and type (EM compatible). Try a different enrolled card.
Keypad not responding	No power to K2000; physical damage; internal fault.	Check power connection to the K2000. Inspect for visible damage. If issues persist, contact support.

Problem	Possible Cause	Solution
Exit button not working	Incorrect wiring of the exit button; faulty button.	Verify the exit button is correctly wired to the PUSH/NO and COM terminals on the K2000. Test the button for continuity if possible.

If the problem persists after attempting these solutions, please contact YAVIS customer support for further assistance.

7. SPECIFICATIONS

Component	Specification
K2000 Access Controller	Voltage: 12V DC Current: 120 mA User Capacity: 500 users Proximity Reader Frequency: 125 kHz Compatible Cards: EM or EM compatible Open Modes: Card, Password, Card + Password Dimensions: 118 x 118 x 22 mm Material: Plastic
K80 Power Supply	AC Input: 100V-240V (50-60Hz, 36W) DC Output: 12V/3A Outputs: NC / NO for electric locks Protection: Automatic short-circuit protection
180kg Electric Magnetic Lock	Operating Voltage: DC 12V Operating Current: 380-500 mA Holding Force: 180 kg Mode: NC (Fail-safe: unlocked when power off, locked when power on) Features: Integrated voltage suppressor, waterproof Dimensions: 170 x 23 x 39 mm (main body) / 130 x 33 x 9.3 mm (armature plate)
RFID Keyfobs	Frequency: 125 KHz Chip Type: TK4100 Color: Blue Function: Read-only Quantity: 10 pieces
Overall Product Dimensions	2 x 2 x 2 cm; 1.7 kilograms (packaging dimensions)

8. WARRANTY AND SUPPORT

The YAVIS Full Set RFID Access Control System Kit comes with a **1-year warranty** and **lifetime support**.

For technical assistance, troubleshooting not covered in this manual, or warranty claims, please contact YAVIS customer service through your purchase platform or the official YAVIS website. Please have your product model number (K2000+180KG kit) and purchase details ready when contacting support.

