Kaleinavi 03

Kaleinavi 2 Channels Multi-Function Wide Voltage Remote Control Switch User Manual

Model: 03

1. PRODUCT OVERVIEW

The Kaleinavi 2 Channels Multi-Function Wide Voltage Remote Control Switch is a versatile wireless control system designed for various applications. It operates on a wide voltage range of DC 12V-50V, making it suitable for controlling devices such as pumps, motors, lighting fixtures, fans, and more. The system includes a receiver and an industrial waterproof remote controller, offering stable signal transmission up to 300 meters in open areas.

This remote control switch features three working modes: Toggle, Momentary, and Latched, which can be easily switched without complex procedures. The receiver provides a relay output with NO, NC, and COM terminals for flexible wiring. The remote controller is designed for durability with an ABS plastic back shell, sealing ring for dust and water resistance, and a timeout protection function to conserve battery life.
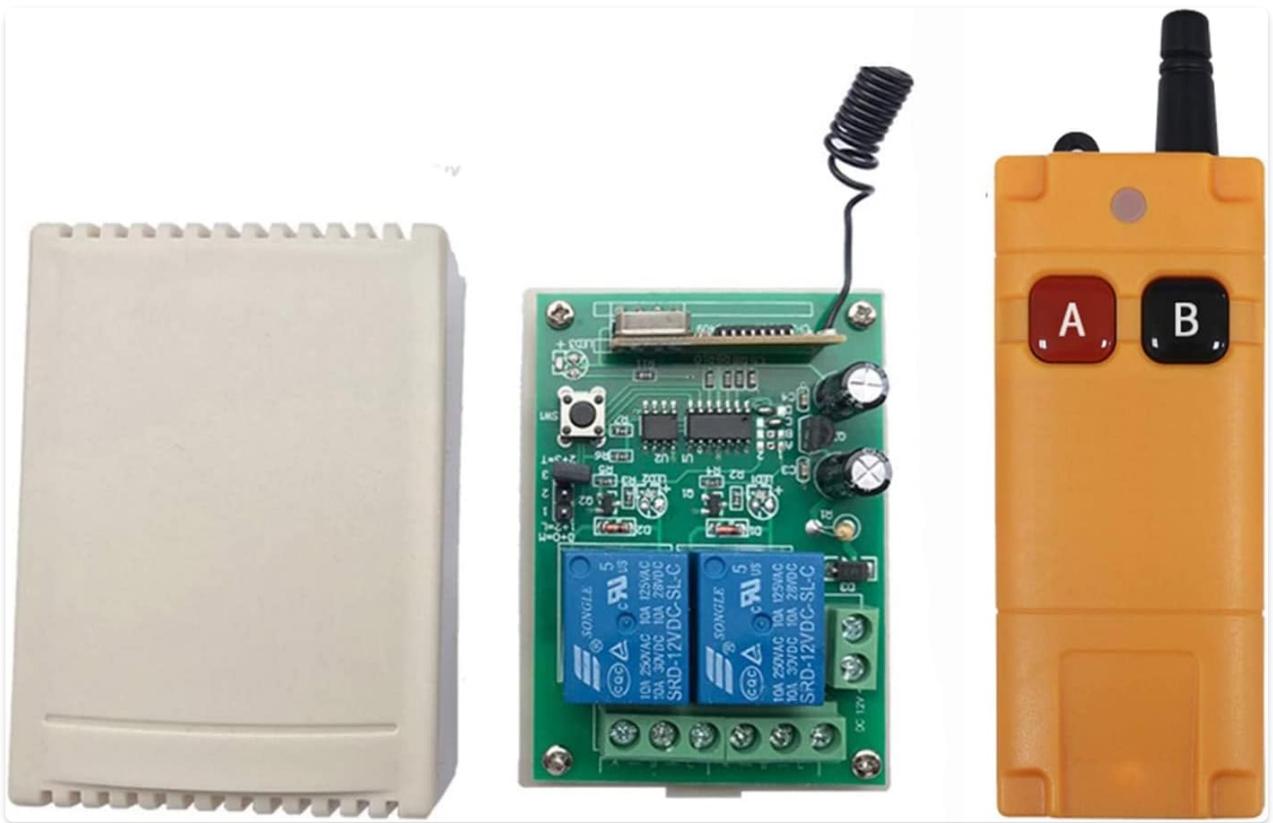
Figure 1.1: The Kaleinavi 2 Channels Multi-Function Wide Voltage Remote Control Switch system, showing the receiver module and the industrial waterproof remote controller.

The remote control has added timeout protection function

When you receive the remote control, it defaults to the off state, press and hold the AB keys for 0.5 seconds to turn on the power.

If there is no operation for 10 minutes, The remote will automatically turn off the power, which can extend the battery life.

Figure 1.2: Detailed view of the industrial waterproof remote control, highlighting its antenna for extended range, LED indicator for status, durable buttons with internal printing, and a robust nylon fiber body panel.

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Video 1.1: A demonstration of the 2 Channels Wide Voltage Remote Control Switch in operation, showing how the remote controls a connected light source.

2. Specifications

Detailed technical specifications for the receiver and remote control unit.

Feature	Specification
Working Voltage (Receiver)	DC 12V-50V
Quiescent Condition (Receiver)	Less than 6mA

Feature	Specification
Working Temperature	-40°C to +80°C
Receiver Sensitivity	More than -105dBm
Working Frequency	433MHz
Output Voltage	DC and Switch Signal (optional)
Max Load Current	Less than 10A
Receiver Size	8.5 x 5.7 x 2.6 cm
Channels	2 Channels
Coding Method	Learning Code
Remote Distance	300m (in free field)
Remote Control Battery	1 x 9V battery (included)
Remote Control Material	ABS plastic back shell, Nylon fiber body panel
Special Features	Universal, Industrial, Waterproof, Timeout Protection
Compatible Devices	Lighting Fixtures, Fan, DC Motors, Pumps, Car Washing Machines, Dust Collectors

3. SETUP AND INSTALLATION

The Kaleinavi remote control switch system is pre-paired and tested by technicians before delivery. Upon receiving the product, no additional pairing operations are required. Simply install the system according to the wiring diagrams provided below.
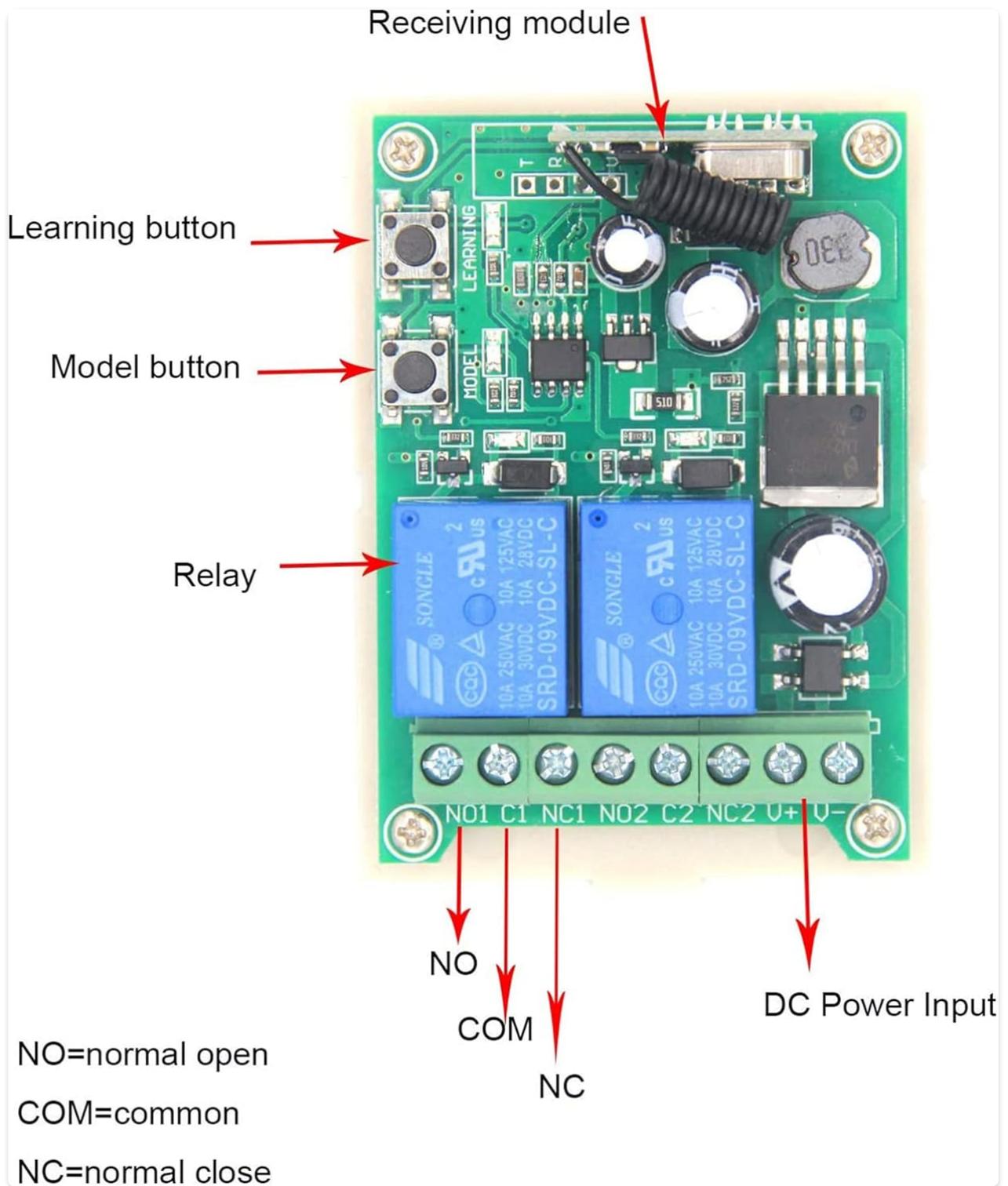
3.1 Component Identification

Figure 3.1: The receiver board with key components labeled, including the Receiving module, Learning button, Model button, Relays, and DC Power Input terminals. Also shown are the Normally Open (NO), Common (COM), and Normally Closed (NC) relay terminals.

3.2 Wiring Diagrams

The radio receiver features a relay output (potential-free) with NO (Normally Open), NC (Normally Closed), and COM (Common) terminals. This allows control of devices with different voltages. Ensure all connections are secure and correct before applying power.
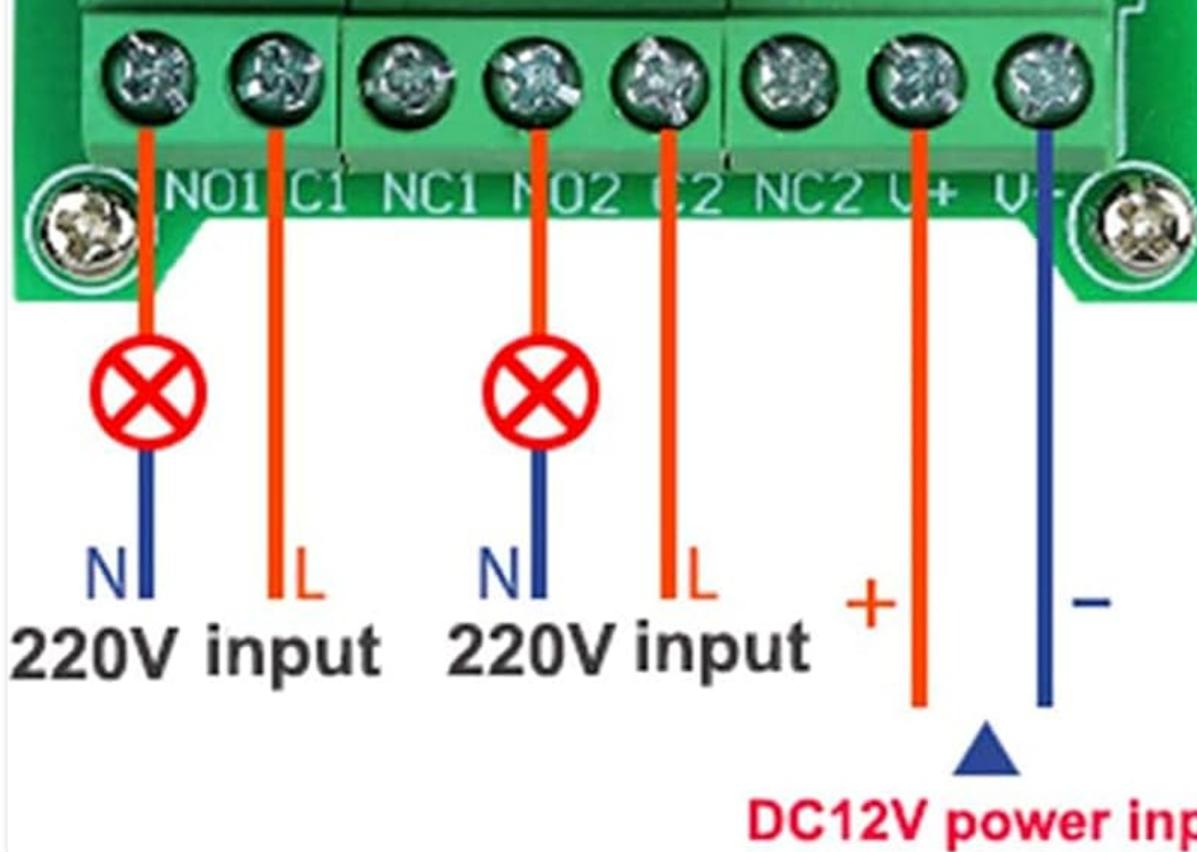
NO1 C1 NC1 NO2 C2 NC2 V+ V−

⊗ ⊗

N L N L + −

220V input **220V input**

▲

DC12V power input

Figure 3.2: Wiring diagram illustrating connections for 220V input. Note the 'N' and 'L' terminals for input and the DC12V power input.

Antenna: The remote control distance can reach more than 500 meters in an unobstructed open environment.

Indicator light: LED indicator, working status is clear at a glance

Button: The font adopts internal printing technology, which will not fade for a long time.

Body panel: nylon fiber material, compressive and anti-drop.

Figure 3.3: Wiring diagram showing connections for DC12-48V power input and two separate loads (Load 1 and Load 2) connected to the relay outputs.
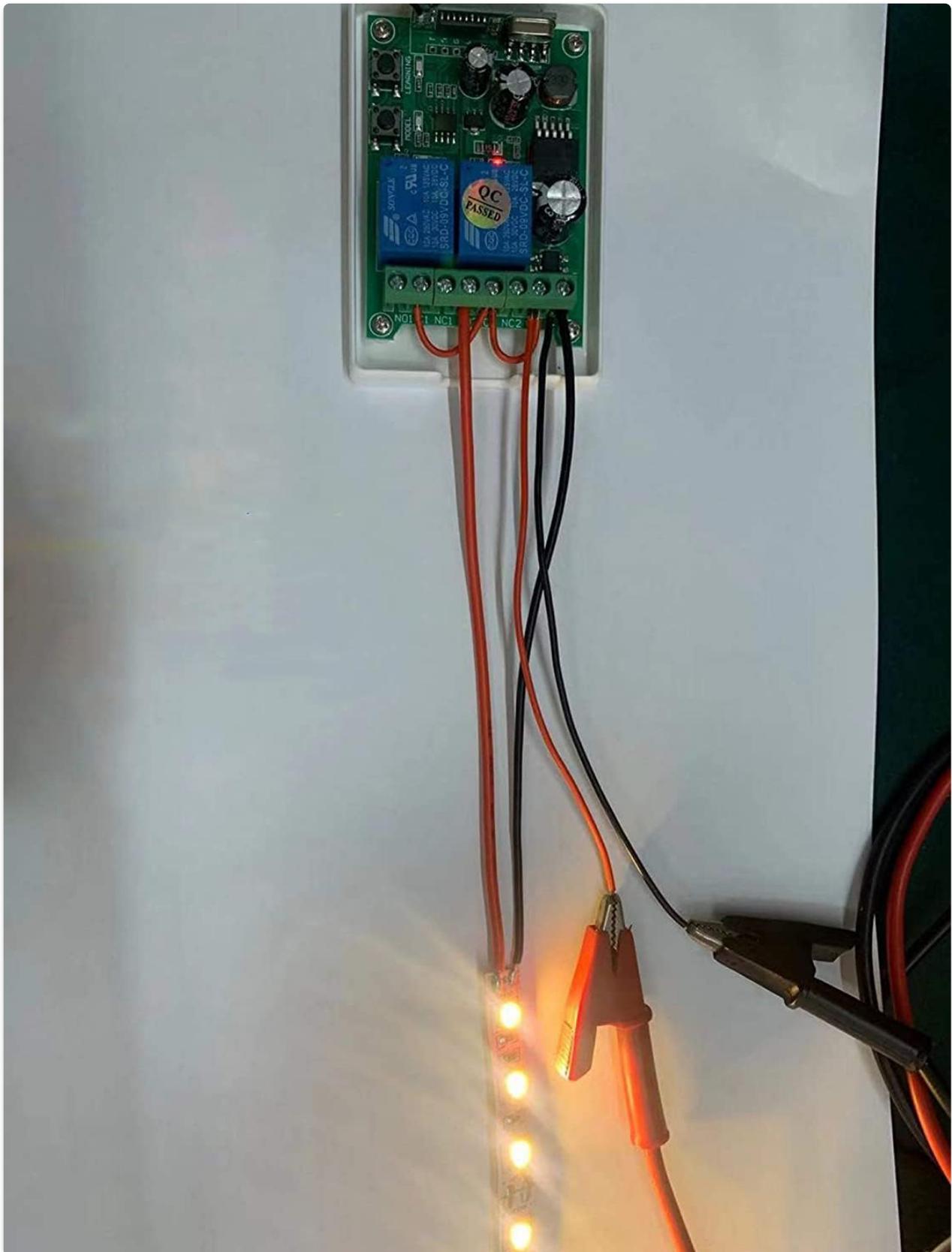
Figure 3.4: A practical example of the receiver wired to control a light strip, demonstrating a typical application setup.

4. OPERATING MODES

The controller supports three distinct working modes, which can be adjusted using the mode switching button on the receiver board.

4.1 Mode Descriptions

- **Toggle:** Press the button once to turn the device ON. Press the same button again to turn the device OFF.

- **Momentary:** Press and hold the button to turn the device ON. Release the button to turn the device OFF.

- **Latched:** Press one button to turn the device ON. Press another button (e.g., a different channel button) to turn the device OFF.

4.2 Adjusting Working Modes

Use the 'MODEL' button on the receiver board to cycle through the working modes:

- **Momentary:** Press the 'MODEL' button 1 time.
- **Latched:** Press the 'MODEL' button 2 times.
- **Toggle:** Press the 'MODEL' button 3 times.
- **Delay 5 seconds:** Press the 'MODEL' button 4 times. The indicator will flash four times and then turn off, indicating successful delay setting.
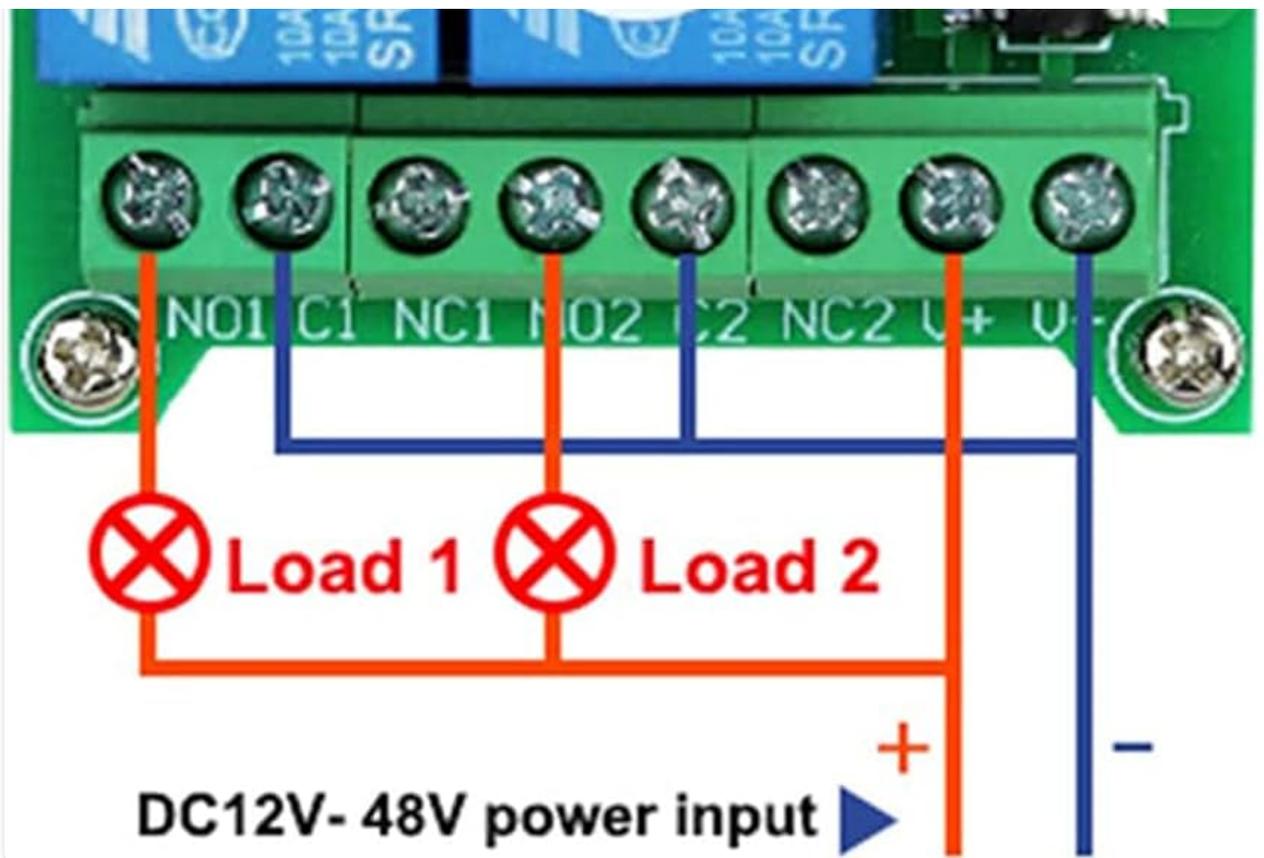
Figure 4.1: The remote control features a timeout protection function. It defaults to the off state. Press and hold the A and B keys for 0.5 seconds to power on. If there is no operation for 10 minutes, the remote will automatically turn off to extend battery life.

5. Learning and Cleaning Methods

The receiver has two main buttons for configuration: the Learning button ('LEARNING') and the Mode Switching button ('MODEL').

5.1 Learning Method

To pair a remote control with the receiver:

1. Press the 'LEARNING' button once. The indicator light on the receiver will flash, indicating it has entered learning status.
2. While the indicator light is flashing, press any button on the remote control you wish to pair. The indicator light will stop flashing and turn off, confirming successful pairing.

5.2 Cleaning (Clearing Paired Remotes)

To clear all paired remote controls from the receiver's memory:

1. Press and hold the 'LEARNING' button for approximately 8 seconds.
2. The indicator light will flash rapidly and then turn off, indicating that all stored remote control codes have been cleared.

6. Maintenance

To ensure the longevity and optimal performance of your Kaleinavi remote control switch, follow these maintenance guidelines:

- **Cleaning:** Keep the receiver and remote control clean and free from dust and debris. Use a soft, dry cloth for cleaning. Avoid using harsh chemicals or abrasive cleaners.
- **Battery Replacement:** The remote control uses a 9V battery. Replace the battery when the remote's indicator light becomes dim or unresponsive. Ensure correct polarity when inserting the new battery.
- **Environmental Protection:** Although the remote control is industrial waterproof, avoid prolonged exposure to extreme temperatures, direct sunlight, or excessive moisture to prevent damage.
- **Connection Checks:** Periodically inspect all wired connections to the receiver to ensure they are secure and free from corrosion.

ABS plastic back shell
Features:
wear-resistant and pressure-resistant

Sealing ring
Dustproof and waterproof to ensure the normal operation of the machine

Battery compartment cover
Double screw reinforcement

9V battery
Factory configured,
no need to purchase separately

Figure 6.1: View of the remote control's battery compartment, showing the 9V battery, sealing ring for dust and water resistance, and double screw reinforcement for the cover.

7. TROUBLESHOOTING

If you encounter issues with your remote control switch, refer to the following common problems and solutions:

- **Device not responding to remote:**
  - Check if the remote control's battery is dead. Replace the 9V battery if necessary.

- Ensure the remote control is powered on (press and hold A+B for 0.5 seconds).
- Verify that the receiver is powered correctly (DC 12V-50V).
- Re-pair the remote control with the receiver using the learning method described in Section 5.1.
- Check for strong interference sources nearby (e.g., other RF devices).

- **Reduced remote control range:**

  - Ensure there are no significant obstacles (thick walls, metal structures) between the remote and the receiver.
  - Check the remote control's battery level.
  - Ensure the receiver's antenna is not obstructed or damaged.

- **Device stays ON/OFF or behaves unexpectedly:**

  - Verify the working mode setting (Toggle, Momentary, Latched) is correct for your application (refer to Section 4.2).
  - Check the wiring connections to the receiver's NO, NC, and COM terminals for correctness (refer to Section 3.2).
  - Clear all paired remotes (Section 5.2) and re-pair only the desired remote.

- **Receiver indicator light not working:**

  - Check the power supply to the receiver.
  - If the receiver is powered but the light is off, it might be in a normal operating state where the light is only active during learning or mode changes.

If you are unable to resolve the issue, please contact customer support for assistance.

8. WARRANTY AND SUPPORT

This product comes with a one-year warranty. If you encounter any product quality issues within one year of purchase, please contact our customer service team for support.

Our engineers are available to assist you with any wiring questions or technical difficulties you may experience.

For support, please refer to the contact information provided with your purchase or visit the Kaleinavi store on Amazon.