Hilitand Hilitandx8dh76ro1i-12

Hilitand Universal Electronic Control Board for Sliding Gate Openers (110V)

Model: Hilitandx8dh76ro1i-12

1. Introduction and Safety Information

This manual provides essential instructions for the safe installation, operation, and maintenance of your Hilitand Universal Electronic Control Board for sliding gate openers. Please read this manual thoroughly before installation and use to ensure proper function and safety.

Important Safety Guidelines:

- **Professional Installation:** Installation and wiring should be performed by a qualified electrician in accordance with local electrical codes and safety standards.
- **Cable Specifications:** Use RVV1 to 2.5mm two-core cable for connecting the controller's output terminal to the door opener's input terminal. The cable length should not exceed 25 meters.
- **Correct Wiring:** Ensure all wiring connections are correct and follow the specified direction to prevent incorrect door operation or damage to the control box.
- **Power Supply:** The working voltage for the door motor is DC 24V. **Do not connect AC power voltage to test the machine.**
- **Auxiliary Equipment:** Inductive or capacitive auxiliary equipment, such as electric locks, must not use the DC 12V power supply from the control box. This prevents voltage and current impact on the main board's electronic components, which could cause damage.
- **Environmental Conditions:** Avoid using the control board in environments with high temperature, high humidity, excessive dust, or corrosive gases to prevent performance degradation.
- **Storage and Use:** Store and operate the device only under the rated voltage and specified temperature and humidity conditions.

2. Product Overview

The Hilitand Universal Electronic Control Board is designed to manage the operation of sliding gate motors, offering features such as adjustable closing speed, motor protection, and automatic door closing delays. It provides sensitive and reliable control for your gate system.

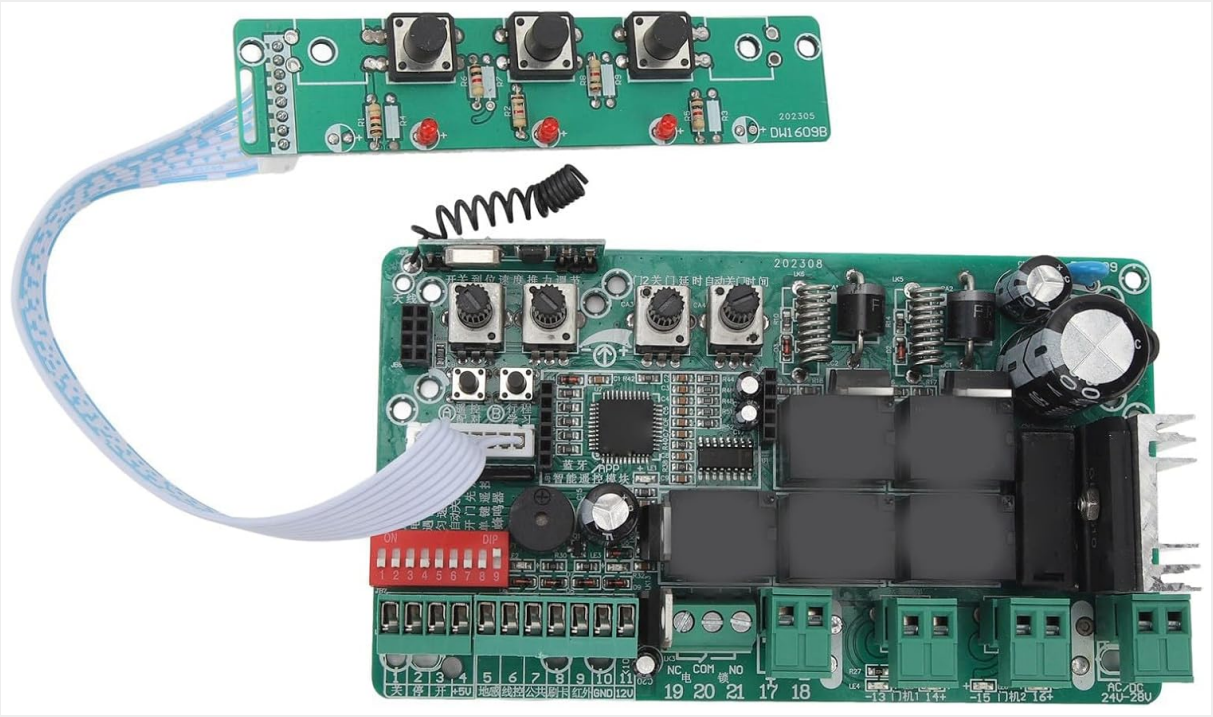

Figure 2.1: Overview of the Hilitand Universal Electronic Control Board and its connected button interface.

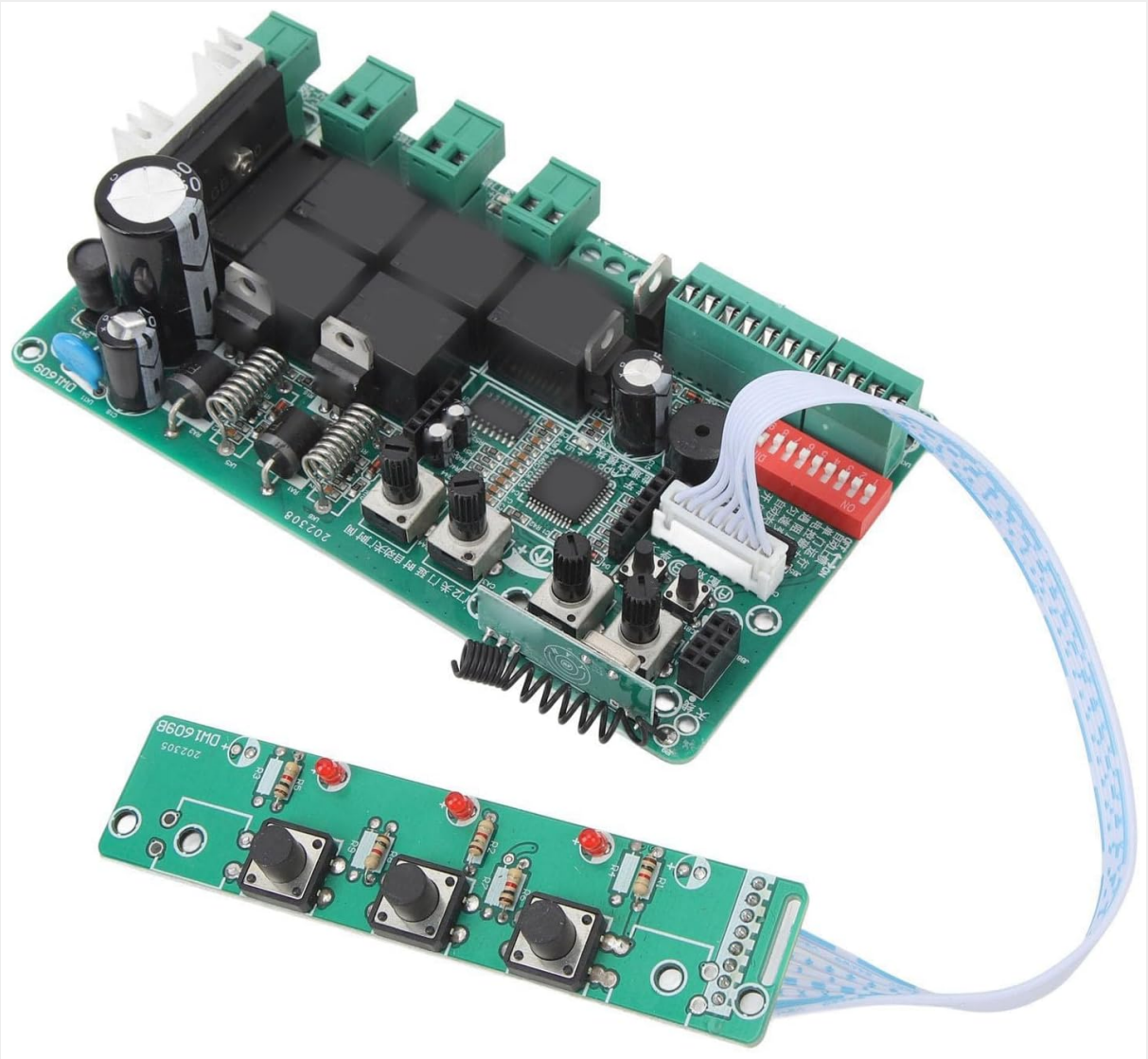

Figure 2.2: Angled view highlighting the main components and connection terminals on the control board.

3. Setup and Installation

Careful installation is crucial for the safe and efficient operation of your gate opener system. Ensure all power is disconnected before beginning installation.

1. **Mounting:** Securely mount the control board in a protected enclosure, away from direct weather exposure, high temperatures, humidity, and dust.
2. **Wiring Connections:** Connect the output terminals of the control board to the input terminals of your DC 24V sliding gate motor. Refer to the wiring diagram (if provided separately) for specific terminal assignments. Ensure the cable length does not exceed 25 meters.
3. **Auxiliary Connections:** If connecting auxiliary equipment, ensure they are powered independently and do not draw power from the control board's DC 12V supply.
4. **Power Supply Connection:** Connect the appropriate 110V AC power supply to the control board's input terminals. Double-check all connections before applying power.
5. **Initial Setup:** After all hardware installation is complete, apply power and perform an initial trip learning procedure for the gate. This ensures the gate operates smoothly through its full range of motion.
6. **Function Knob and Switch Settings:** Adjust the function knobs and switches on the board to configure the desired operating mode, such as delay times and speed settings.

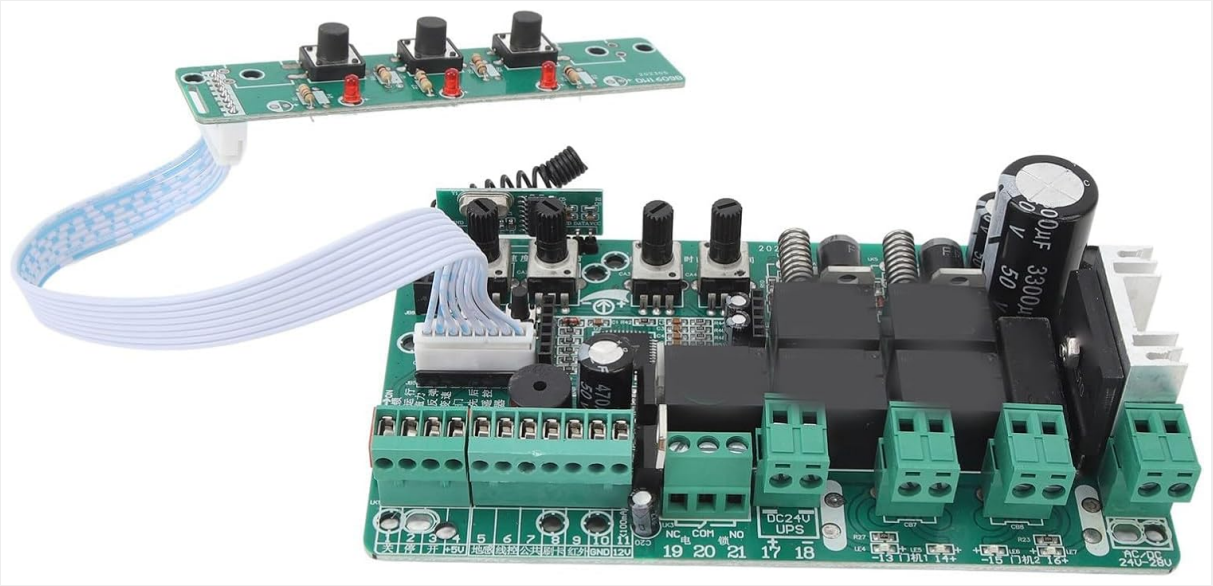

Figure 3.1: Detailed view of the control board's terminal blocks for wiring and adjustment knobs for settings.

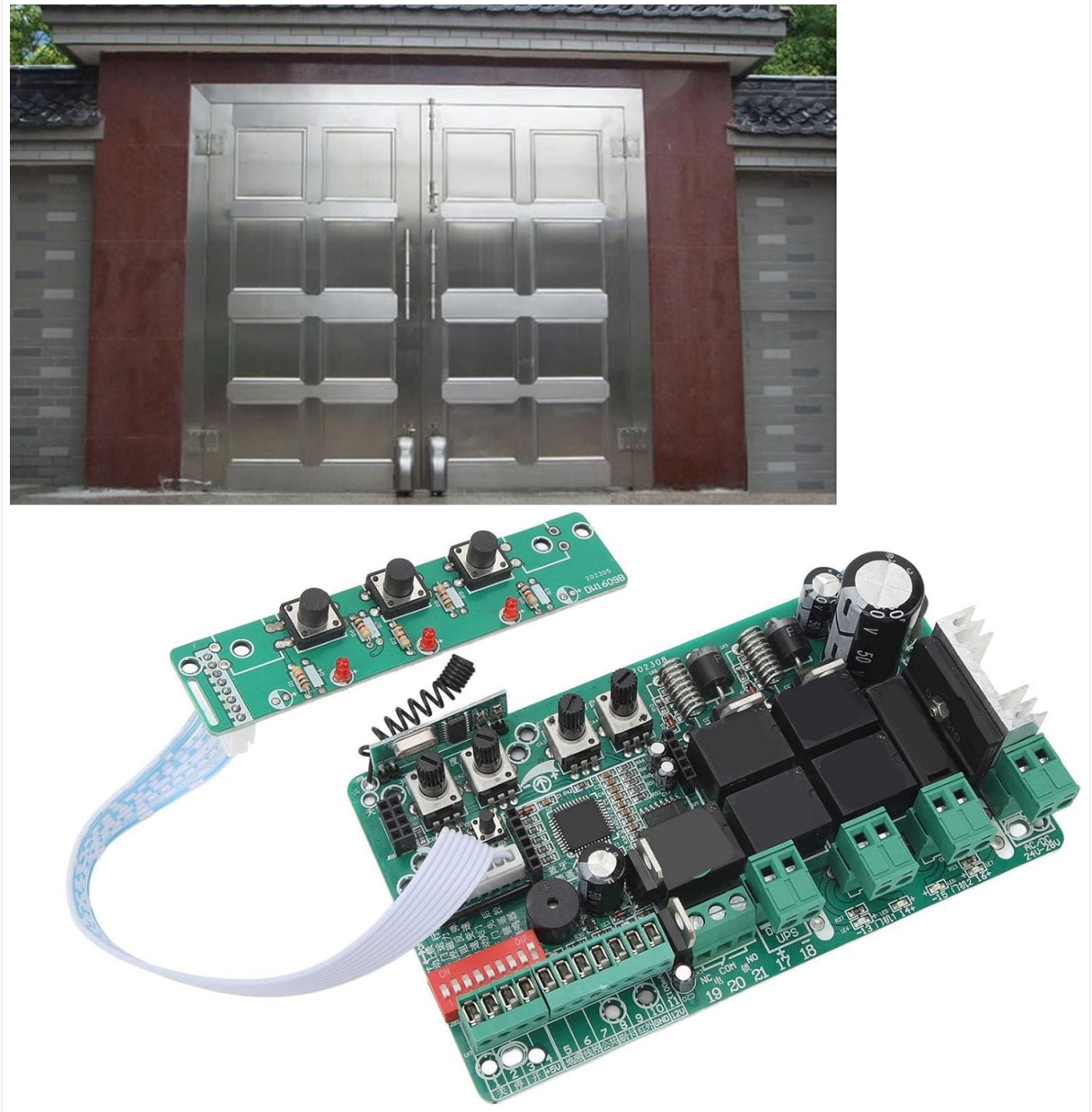

Figure 3.2: Example of a sliding gate system where the control board would be integrated.

4. Operating Instructions and Features

The control board offers several adjustable features to customize your gate's operation:

- **Adjustable Closing Speed:** Use the dedicated speed adjustment knob to set a deceleration speed for the gate as it approaches its limit. This allows for a smoother and safer closing motion.
- **Motor Adjustment (Obstacle Detection):** The motor adjustment knob allows you to customize the automatic shutdown function. This feature stops the motor if it encounters high resistance, such as an obstacle, enhancing safety.
- **Automatic Door Closing Delay:** Set a delay time for the gate to automatically close after it has been fully opened. This delay can be adjusted from 0 to 60 seconds, providing flexibility for user passage.
- **Delayed Closing for Door 2 (Dual Gate Systems):** For dual gate installations, the control board allows you to adjust the delay time for the second gate motor to begin closing after the primary gate has started its closing sequence.
- **Enhanced Sensitivity:** The circuit control board is designed with strong interference resistance and sensitive control, ensuring reliable operation.

5. Maintenance

To ensure the longevity and optimal performance of your Hilitand Electronic Control Board, consider the following maintenance guidelines:

- **Environmental Protection:** Regularly inspect the installation environment to ensure it remains free from excessive heat, humidity, dust, and corrosive substances. Relocate or provide additional protection if conditions change.
- **Connection Integrity:** Periodically check all wiring connections for tightness and signs of wear or corrosion. Loose connections can lead to intermittent operation or damage.
- **Cleanliness:** Keep the control board clean and free from dust buildup. Use a soft, dry brush or compressed air for cleaning. Do not use liquids or solvents.
- **Voltage Monitoring:** Ensure the power supply voltage remains within the rated specifications (110V AC input, DC 24V motor output).

6. Troubleshooting

If you encounter issues with your control board, review the following common troubleshooting steps:

- **No Power:** Check the main power supply to the control board. Ensure all power connections are secure and the circuit breaker has not tripped.
- **Gate Not Moving:** Verify that the motor is receiving power and that all motor connections are correct. Check for any physical obstructions preventing gate movement. Ensure the obstacle detection sensitivity is not set too high, causing false stops.
- **Incorrect Gate Direction:** If the gate opens when it should close, or vice-versa, check the motor wiring connections. Incorrect polarity can cause reversed operation.
- **Gate Stops Mid-Cycle:** This could indicate an issue with the limit switches, obstacle detection, or motor overload. Check for obstructions and ensure the motor adjustment knob is set appropriately.
- **Automatic Closing Not Working:** Verify the automatic door closing delay setting. Ensure it is not set to 0 seconds if a delay is desired.

If problems persist after attempting these steps, please contact Hilitand customer support or a qualified technician.

7. Specifications

Item Type	Gate Opener Circuit Board
Material	Electronic Component
Product Size	Approx. 142 x 82 mm (5.6 x 3.2 inches)
Item Weight	Approx. 234g (8.3 oz)
Scope of Application	Motor Controller for Sliding Gates
Motor Voltage	DC 24V
Input Voltage	110V AC
Model Number	Hilitandx8dh76ro1i-12
Batteries Required	No
Included Components	1 x Gate Opener Circuit Control Board

8. Warranty and Support

For warranty information, technical support, or service inquiries, please contact Hilitand customer service through the retailer where the product was purchased or visit the official Hilitand website. Please have your model number (Hilitandx8dh76ro1i-12) and purchase details available when contacting support.

You can find more information about Hilitand products and support at theHilitand Store on Amazon.