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› Freedompro Smart MINI Wi-Fi Shutter Module WC0601-E User Manual

Freedompro WC0601-E

Freedompro Smart MINI Wi-Fi Shutter Module WC0601-E User Manual

Model: WC0601-E | Brand: Freedompro

1. INTRODUCTION

Thank you for choosing the Freedompro Smart MINI Wi-Fi Shutter Module WC0601-E. This device allows you to intelligently control one roller shutter or blind with a 110-240V motor, offering precise opening position adjustment through auto-calibration. Designed for durability and seamless integration, this module enhances your smart home experience with broad compatibility and advanced features.

2. SAFETY INFORMATION

Please read this section carefully before installation and use to ensure safe operation and prevent damage to the device or personal injury.

- **Electrical Installation:** Installation should only be performed by a qualified electrician in accordance with local electrical codes and regulations.
- **Power Disconnection:** Always disconnect power at the main circuit breaker before performing any installation, maintenance, or wiring.
- **Voltage Compatibility:** Ensure the module's operating voltage (110-240V AC) matches your electrical system.
- **Load Capacity:** Do not exceed the maximum current rating of 14A per channel.
- **Indoor Use Only:** This device is designed for indoor use in dry environments. Avoid exposure to moisture, extreme temperatures, or corrosive substances.
- **Children and Pets:** Keep the device and its components out of reach of children and pets.

3. PRODUCT OVERVIEW

The Freedompro Smart MINI Wi-Fi Shutter Module WC0601-E is a compact relay module designed to integrate your motorized shutters or blinds into your smart home ecosystem. It offers robust construction and wide compatibility.

Key Features:

- Controls 1 shutter or blind with a 110-240V motor.
- Precise opening position adjustment with auto-calibration.
- Durable PC and ABS plastics, silver alloy relays, and stable capacitors for extended lifespan (5+ years).
- Compatible with Matter, Apple HomeKit, Alexa, Google Home, Samsung SmartThings, and Home Assistant.
- Freedompro Home app for scenario creation and energy consumption monitoring.
- Easy installation in embedded boxes.

Package Contents:

- Freedompro Smart MINI Wi-Fi Shutter Module WC0601-E
- QR Code for app pairing
- Instruction booklet (this document)

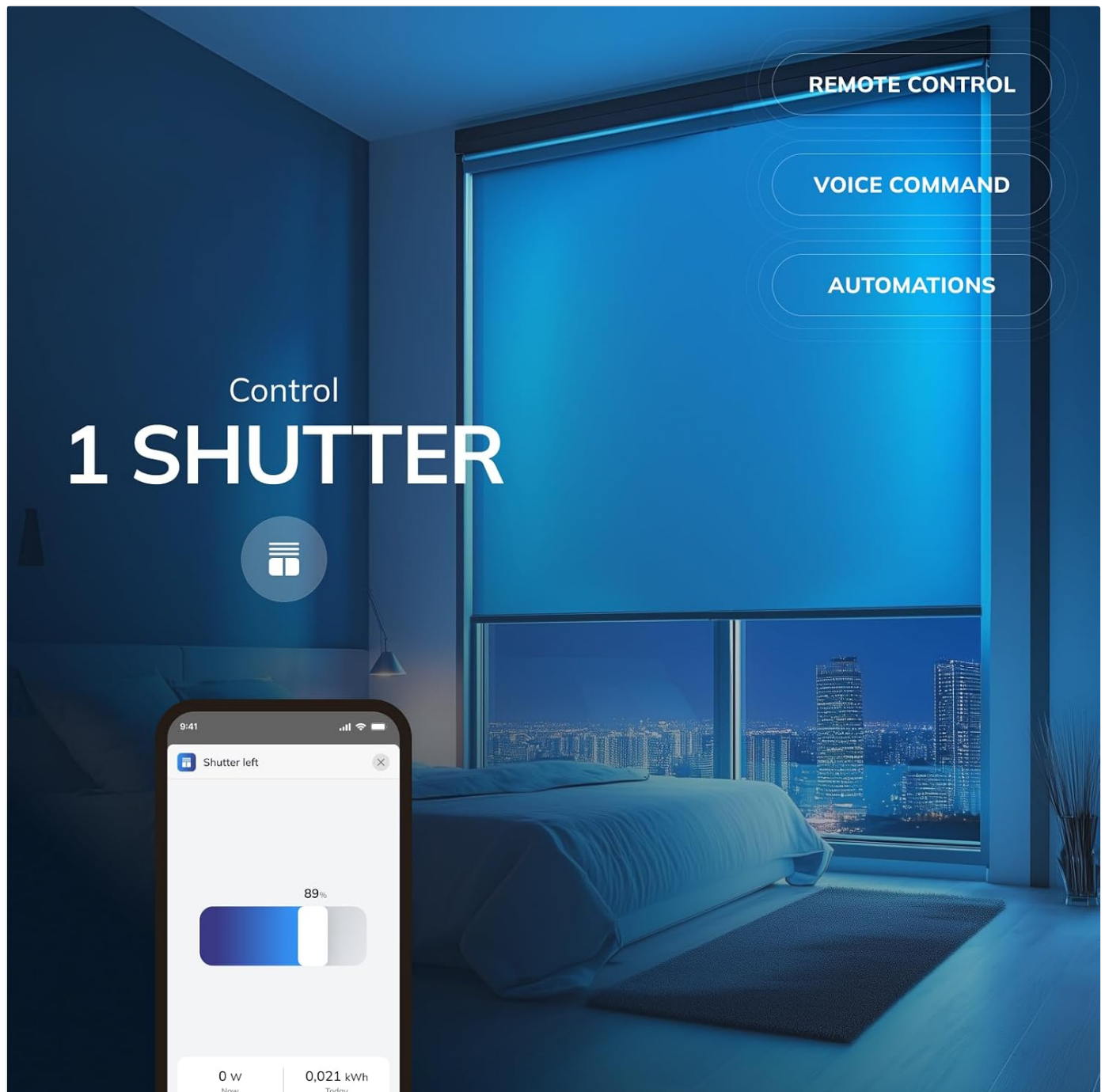


Figure 3.1: The Freedompro Smart MINI Wi-Fi Shutter Module enables control of a single shutter through remote control, voice commands, or automated routines. The image shows a bedroom with a window shutter, and a smartphone displaying the Freedompro app interface for

shutter control and energy monitoring.

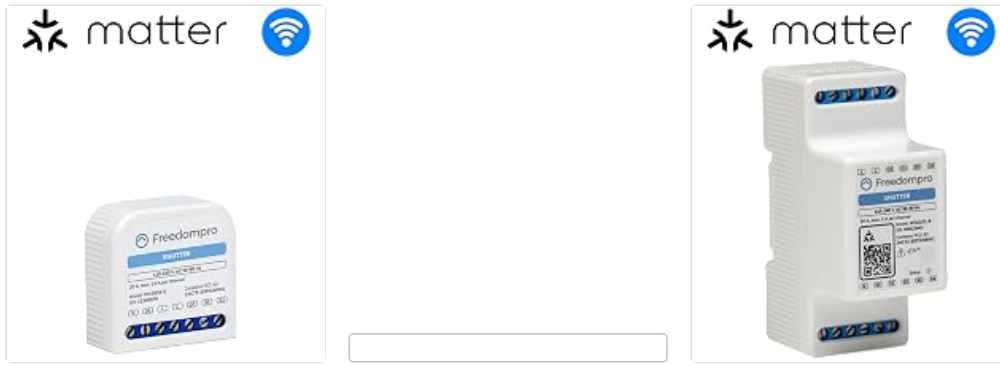


Figure 3.2: Various views of the Freedompro Smart MINI Wi-Fi Shutter Module, highlighting its compact design.

4. SPECIFICATIONS

Feature	Specification
Model Number	WC0601-E
Dimensions (L x W x H)	18 x 42 x 41 mm (0.7 x 1.65 x 1.61 inches)
Weight	40 grams
Operating Voltage	110-240 V AC
Current Rating	14 A (max per channel)
Power	24 Watts
Connectivity Protocol	Wi-Fi (2.4 GHz)
Smart Home Compatibility	Matter, Apple HomeKit, Amazon Alexa, Google Assistant, Samsung SmartThings, IFTTT, Home Assistant
Control Method	Application, Voice Control, Remote Control
Material	Acrylonitrile Butadiene Styrene (ABS)
Contact Material	Silver Alloy
IP Rating	IP40
Operating Temperature	Up to 45°C
Country of Origin	Italy



Figure 4.1: Detailed dimensions of the module, indicating its compact size for easy installation.

5. SETUP

5.1 Electrical Installation

The module is designed for installation within a standard electrical embedded box, typically behind a physical shutter switch. Ensure power is disconnected before proceeding.

1. **Disconnect Power:** Turn off the main power supply to the circuit at your electrical panel. Verify power is off using a voltage tester.
2. **Access Wiring:** Remove the existing shutter switch from its embedded box to access the wiring.
3. **Wire Connections:** Connect the module according to the wiring diagram provided. Ensure all connections are secure. The module supports wire sizes up to 2.5 mm².
4. **Mount Module:** Carefully place the Smart MINI module into the embedded box. It is designed to fit behind existing buttons and switches.
5. **Restore Power:** Once all connections are secure and the module is safely housed, restore power at the main circuit breaker.



110-240 V AC

20 A, max 14 A per channel

**Wall mounting behind
buttons and switches**

Figure 5.1: The module is designed for wall mounting behind existing buttons and switches, fitting neatly into an embedded box. It operates on 110-240V AC with a maximum of 14A per channel.

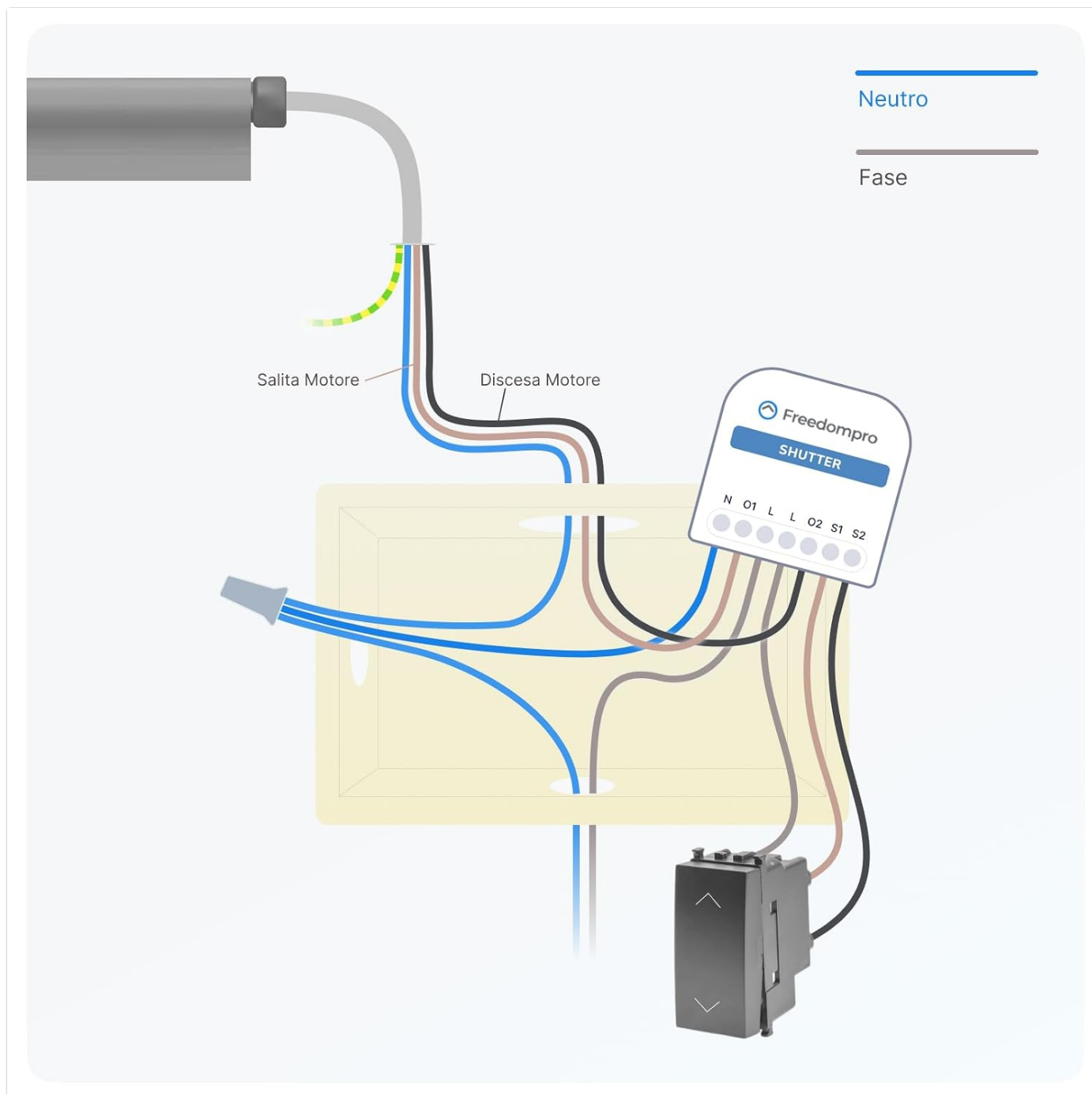


Figure 5.2: Wiring diagram illustrating connections for Neutral (Neutro), Live (Fase), Motor Up (Salita Motore), Motor Down (Discesa Motore), and physical switch inputs (S1, S2) to the Freedompro module.

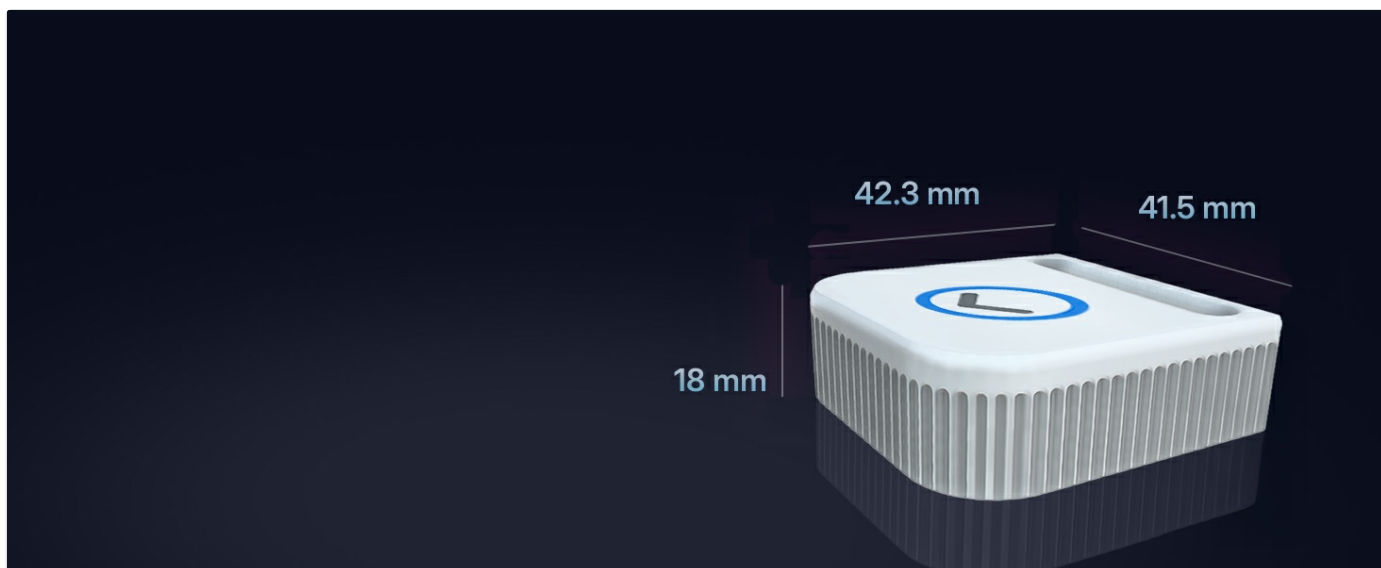


Figure 5.3: This image provides a detailed view of the wiring terminals on the Freedompro module, indicating compatibility with wire sizes from 0.5 mm² to 2.5 mm².

5.2 App Installation and Pairing

To control your module and access smart features, download the Freedompro Home app and pair your device.

1. **Download App:** Search for "Freedompro Home" in the Apple App Store (iOS) or Google Play Store (Android) and install the application.
2. **Create Account:** Open the app and follow the on-screen instructions to create a new account or log in.
3. **Add Device:** In the Freedompro Home app, select the option to add a new device.
4. **Scan QR Code:** Use the app to scan the QR code located on the module or in the included instruction booklet.
5. **Follow Prompts:** The app will guide you through the remaining steps to connect the module to your Wi-Fi network and integrate it with your preferred smart home platform (e.g., Apple HomeKit, Alexa, Google Home).

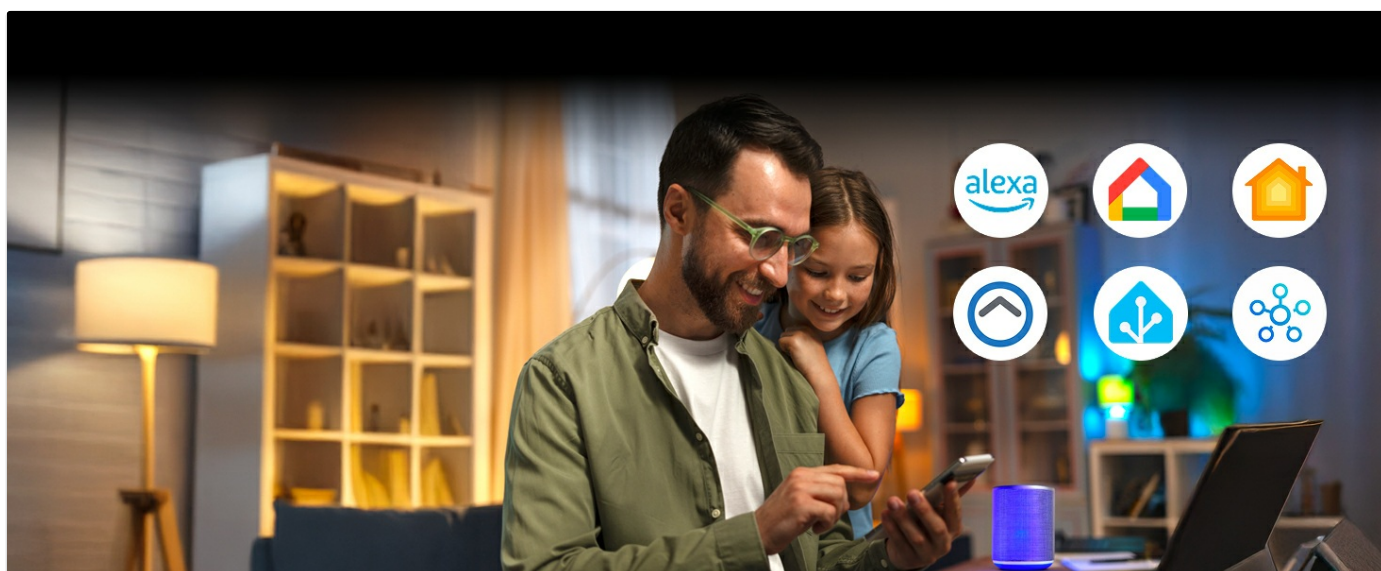


Figure 5.4: The Freedompro Home app interface, showing options for managing smart home devices and settings.

6. OPERATING INSTRUCTIONS

6.1 Shutter Control

- **Via Freedompro Home App:** Open the app, select your shutter module, and use the on-screen controls to open,

close, or set the shutter to a specific percentage.

- **Via Voice Assistants:** Once integrated with Apple HomeKit, Alexa, or Google Home, use voice commands such as "Hey Siri, open the living room blinds to 50%" or "Alexa, close the kitchen shutter."
- **Via Physical Switch:** The connected physical switch will continue to operate the shutter (up/down).

6.2 Calibration

For precise control of shutter position, auto-calibration is recommended after installation or if shutter movement is inaccurate.

1. Open the Freedompro Home app.
2. Select your shutter module.
3. Navigate to the device settings or calibration section.
4. Initiate "Automatic Calibration" and follow the on-screen instructions. The module will learn the full travel range of your shutter.



Figure 6.1: The Freedompro Home app interface guiding the user through the automatic calibration process for the shutter module.

6.3 Energy Monitoring

The Freedompro Home app allows you to monitor the energy consumption of your connected shutter motor.

- In the app, select your shutter module.
- Look for the "Energy Consumption" or similar section to view real-time and historical power usage data.



Figure 6.2: The Freedompro Home app displaying a graph of energy consumption for a connected shutter over time, with current usage shown.

6.4 Automation and Scenarios

Create custom automations and scenarios using the Freedompro Home app or your preferred smart home platform.

- **Scheduling:** Set specific times for your shutters to open or close automatically.
- **Sunrise/Sunset:** Configure shutters to adjust based on local sunrise and sunset times.
- **Scene Integration:** Include shutter actions in broader smart home scenes (e.g., "Good Morning" scene opens shutters, turns on lights).

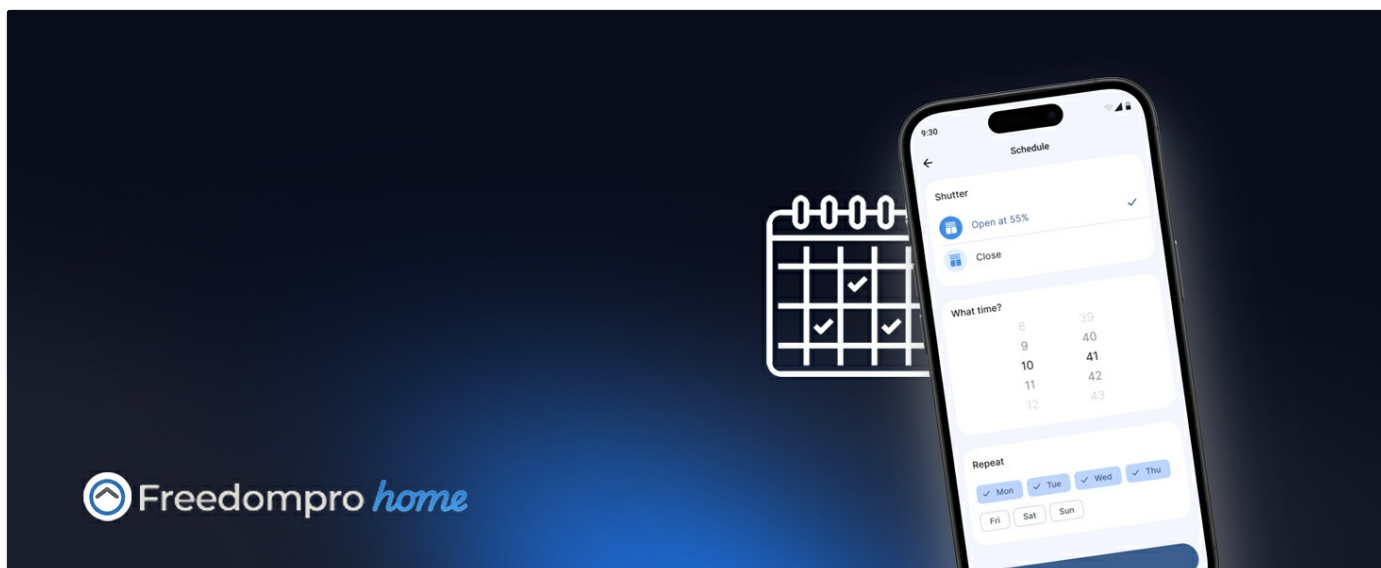


Figure 6.3: The Freedompro Home app's scheduling interface, allowing users to set specific times and days for shutter operations.

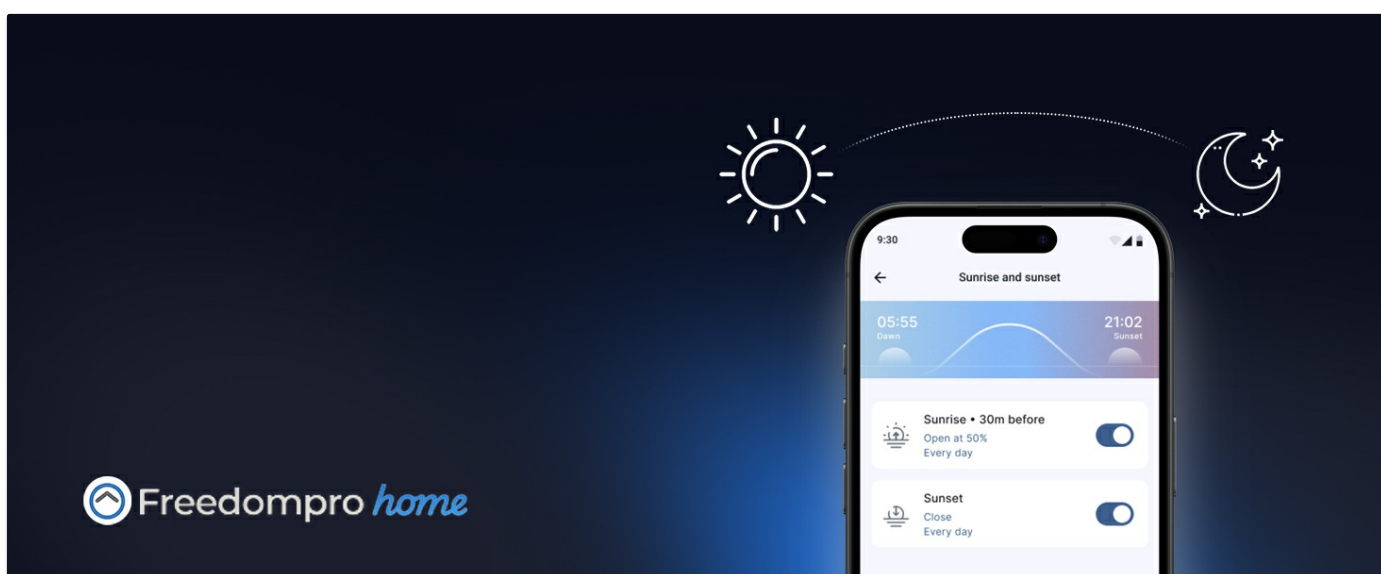


Figure 6.4: The Freedompro Home app's interface for configuring shutter automation based on sunrise and sunset times.

7. MAINTENANCE

The Freedompro Smart MINI Wi-Fi Shutter Module is designed for minimal maintenance. Follow these guidelines to ensure optimal performance and longevity:

- **Cleaning:** Ensure the module is kept free from dust and debris. If cleaning is necessary, disconnect power and use a dry, soft cloth. Do not use liquid cleaners.
- **Firmware Updates:** Regularly check the Freedompro Home app for available firmware updates. Updates can improve performance, add new features, and enhance security.
- **Environmental Conditions:** Ensure the module operates within its specified temperature range (up to 45°C) and avoid humid environments.
- **Wiring Integrity:** Periodically (e.g., during other electrical work) inspect wiring connections to ensure they remain secure. Always disconnect power before inspection.

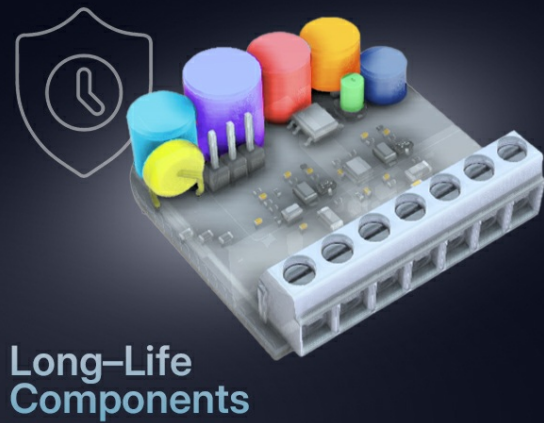


Figure 7.1: The module is built with long-life components, including durable plastics, silver alloy relays, and stable capacitors, ensuring reliability and extended operational life.

8. TROUBLESHOOTING

If you encounter issues with your Freedompro Smart MINI Wi-Fi Shutter Module, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Module not responding / No power	No power supply; Loose wiring; Circuit breaker tripped.	Check the main circuit breaker. Ensure all wiring connections are secure (disconnect power first). Consult an electrician if unsure.
Cannot connect to Wi-Fi / App pairing fails	Incorrect Wi-Fi password; Module too far from router; 5GHz Wi-Fi network (module supports 2.4GHz only); Network congestion.	Verify Wi-Fi password. Move module closer to router. Ensure your router is broadcasting a 2.4GHz network. Try restarting your router.
Shutter not moving correctly / Inaccurate positioning	Calibration issue; Motor obstruction; Wiring error.	Perform auto-calibration via the Freedompro Home app (Section 6.2). Check for any physical obstructions to the shutter. Verify motor wiring.
Voice control not working	Incorrect integration with voice assistant; Voice assistant device offline; Incorrect commands.	Ensure the module is correctly linked to Apple HomeKit, Alexa, or Google Home. Check if your voice assistant device is online. Use precise commands as specified by the voice assistant.
Physical switch not working	Switch wiring issue; Faulty switch.	Disconnect power and check the wiring connections to the physical switch (S1, S2 terminals). Test the physical switch independently if possible.

9. WARRANTY AND SUPPORT

Freedompro products are designed for reliability and durability. This product comes with a manufacturer's warranty.

- **Warranty Period:** Spare parts availability is stated as 5 years. Please refer to your purchase documentation or the official Freedompro website for specific warranty terms and conditions in your region.
- **Technical Support:** For technical assistance, troubleshooting beyond this manual, or warranty claims, please contact Freedompro customer support.
- **Online Resources:** Visit the official Freedompro website for FAQs, updated manuals, and additional support resources.
- **Contact Information:** Refer to the Freedompro website or your product packaging for the most current contact details.

Note: Unauthorized disassembly or modification of the device will void the warranty.

