Blindsmart ZM16EL-03/33

Blindsmart Zigbee Rechargeable Roller Shade Motor (ZM16EL-03/33) User Manual

For 17mm, 25mm, and 28mm Tubes

Introduction Package Contents Installation Operation Charging Compatibility Specifications Troubleshooting Warranty & Support

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your Blindsmart Zigbee Rechargeable Roller Shade Motor. This motor is designed to automate roller shades, offering convenient control via remote, smartphone app, and voice commands when integrated with a compatible Zigbee hub. Please read this manual thoroughly before installation and use to ensure proper function and safety.

2. Package Contents

Verify that all components are present in your package:

- 1 x Zigbee Rechargeable Roller Shade Motor (ZM16EL-03/33)
- 1 x 1-Channel RF Remote Control
- 1 x Solar Panel (for charging)
- 1 x USB Charging Cable
- Tube Install Brackets (for 17mm, 25mm, and 28mm tubes)

3. Installation Guide

3.1. Zigbee Hub Requirement

A Tuya Zigbee 3.0 Hub Gateway is required for smart control features, including app and voice control. Ensure you have a compatible hub set up before proceeding with motor installation and pairing.

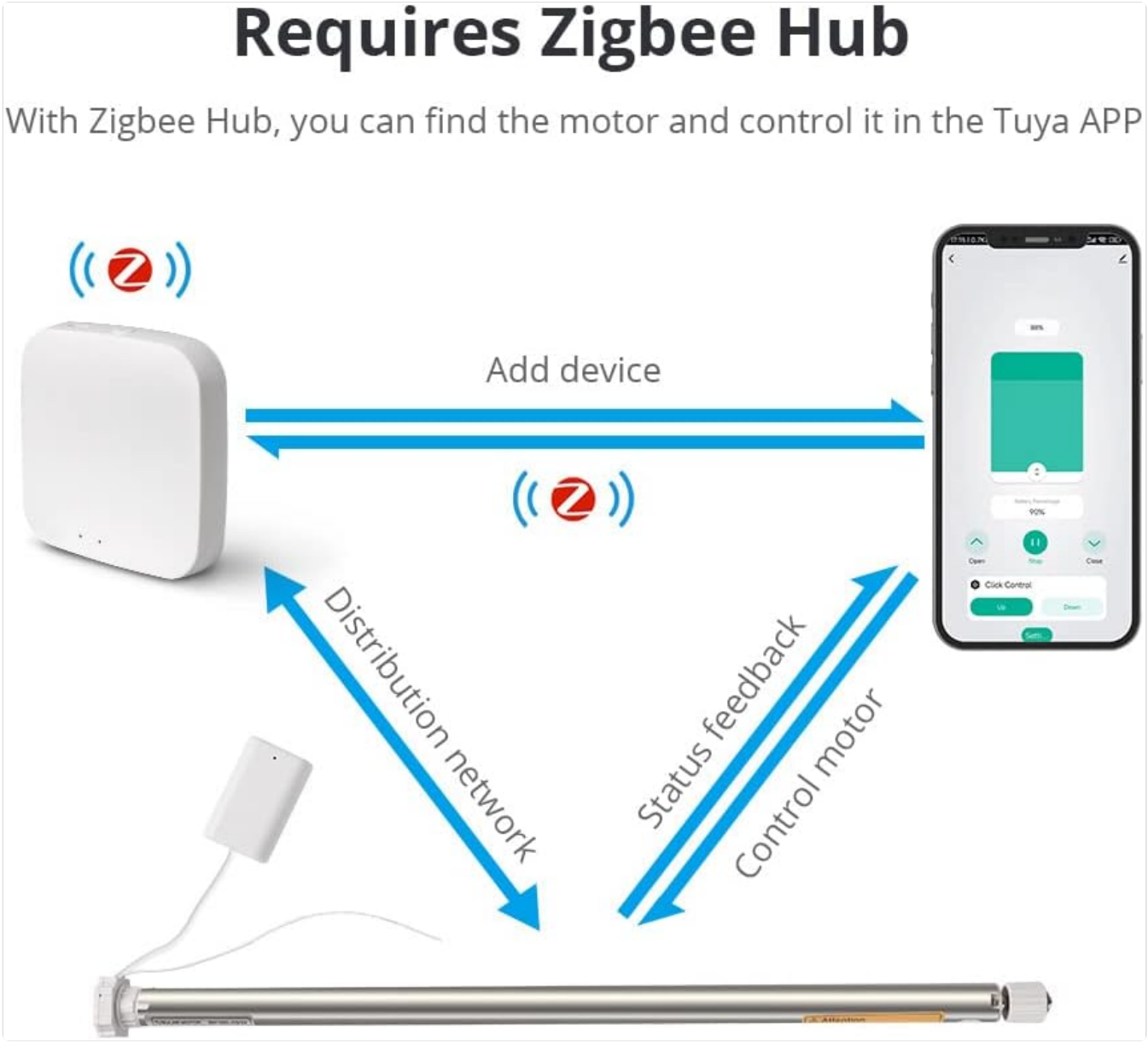


Figure 1: Zigbee Hub Connection Diagram. This diagram illustrates the connection flow: the Zigbee Hub adds the device, controls the motor, and receives status feedback. The Tuya App on your smartphone interacts with the Zigbee Hub to manage the motor.

3.2. Motor Installation into Shade Tube

The motor is designed for installation within 17mm, 25mm, or 28mm roller shade tubes. Use the appropriate tube install brackets provided to secure the motor within your existing roller shade. Ensure the motor is firmly seated and aligned to prevent operational issues.

1. Select the correct tube adapter for your roller shade's inner diameter (17mm, 25mm, or 28mm).
2. Insert the motor into the roller shade tube, ensuring a snug fit.
3. Attach the tube install brackets to the motor and secure them to your window frame or wall, following your roller shade's specific mounting instructions.
4. Connect the solar panel cable to the motor if using solar charging. Position the solar panel in a location that receives adequate sunlight.

4. Operating Instructions

4.1. Remote Control

The included 1-channel RF remote control allows direct operation of the motor. Ensure the remote has a battery installed (battery not included).

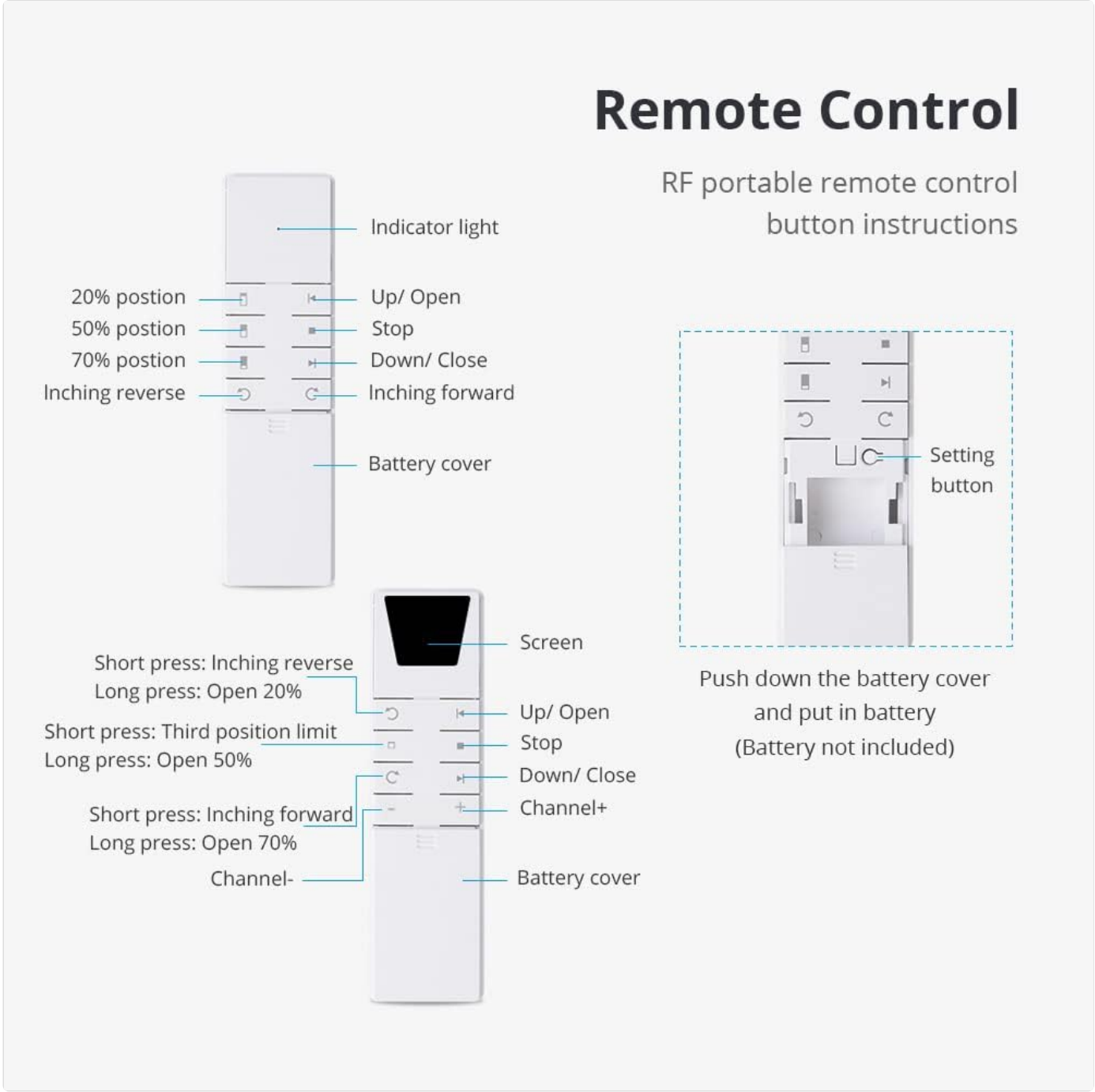


Figure 2: Remote Control Button Instructions. This image details the functions of the remote control buttons, including Up/Open, Stop, Down/Close, Inching forward/reverse, and setting button. It also shows how to access the battery compartment.

- **Up/Open:** Press to raise the shade.
- **Down/Close:** Press to lower the shade.
- **Stop:** Press to halt the shade at its current position.
- **Setting Button:** Located under the battery cover, used for pairing and setting limits.
- **Inching Forward/Reverse:** For fine adjustments.
- **Percentage Positions (if applicable):** Some remotes allow setting specific open percentages (e.g., 20%, 50%, 70%).

Setting Upper and Lower Limits:

Refer to the motor's specific programming instructions for setting the upper and lower travel limits using the remote control. This typically involves entering a programming mode, moving the shade to the desired limit, and confirming the setting.

4.2. App Control (Tuya App)

Once paired with a Tuya Zigbee hub, you can control the motor using the Tuya Smart Life app on your mobile phone.

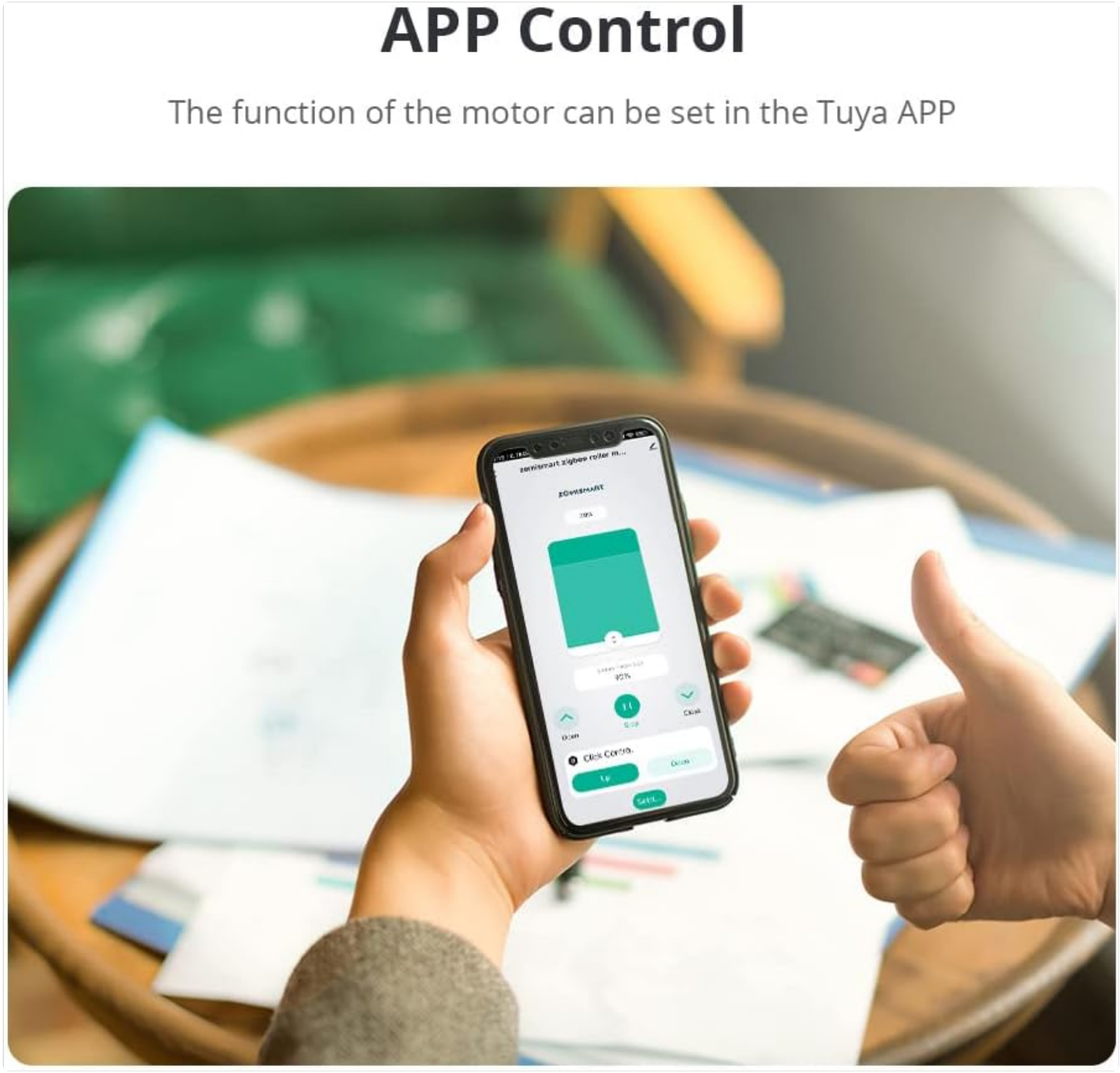


Figure 3: Tuya App Control Interface. The image shows a smartphone screen with the Tuya app open, displaying controls for a smart roller shade, including open/close buttons and a slider for percentage adjustment.

1. Download the Tuya Smart Life app from your device's app store.
2. Register or log in to your Tuya account.
3. Add your Zigbee hub to the app if you haven't already.
4. Follow the app's instructions to add the roller shade motor as a new device under your Zigbee hub.
5. Once added, you can control the shade's movement (up, down, stop) and set specific opening percentages directly from the app.

4.3. Voice Control

Integrate your Tuya account with voice assistants like Amazon Alexa, Google Home, or Yandex for convenient voice control of your roller shades.



Figure 4: Voice Control Integration. This image depicts popular voice assistant devices (Amazon Echo and Google Home) on a desk, demonstrating how voice commands like "Alexa, open the curtains" can control the smart roller shade.

1. Ensure your Tuya account is linked to your chosen voice assistant app (e.g., Alexa app, Google Home app).
2. Discover new devices within the voice assistant app. Your roller shade motor should appear.
3. Assign a recognizable name to your shade (e.g., "Living Room Shade").
4. Use voice commands such as:
    - "Alexa, open [Shade Name]."
    - "Hey Google, close [Shade Name]."
    - "Yandex, set [Shade Name] to 50%."

5. Charging and Battery

The motor features a built-in 800mAh lithium battery, designed for long-lasting operation. It can be recharged via the included USB charging cable or continuously charged by the solar panel.



Figure 5: Built-in Battery and USB Charging. This image highlights the motor's internal rechargeable lithium battery and its USB charging interface, showing the motor connected to a USB cable and power adapter.

- **USB Charging:** Connect the USB charging cable to the motor's USB port and a standard USB power adapter (DC5V/2A recommended) or power bank.
- **Solar Panel Charging:** The included solar panel can provide continuous charging, extending battery life and reducing the need for manual recharging. Ensure the solar panel is positioned to receive direct sunlight.
- **Battery Life:** A full charge can last approximately 3 months, depending on usage frequency.

6. Compatibility

This motor is suitable for various types of window coverings, enhancing their functionality with smart automation.



Figure 6: Applicable Blind Types. This image illustrates the compatibility of the motor with Roller blinds, Zebra blinds, and Shangri-La blinds, showing how it can be integrated into various window treatment styles.

- **Roller Blinds:** Ideal for standard roller shades.
- **Zebra Blinds:** Compatible with dual-layer zebra blinds.
- **Shangri-La Blinds:** Suitable for Shangri-La style window coverings.

7. Product Specifications

Detailed technical specifications for the Blindsmart Zigbee Rechargeable Roller Shade Motor (ZM16EL-03/33).



Figure 7: Product Parameters. This image provides a visual overview of the motor's dimensions and a table listing key specifications such as model number, input voltage, power, battery capacity, torque, RPM, noise level, and maximum load capacity.

Feature	Specification
Product Model	ZM16EL-03/33
Input	DC5V/2A
Rated Power	5W
Battery Capacity	7.4V/800mAh
Torque	0.3N.m
Rated RPM	33RPM
Running Noise	35-40dB
Max Load (with 17mm tube)	2KG

Feature	Specification
Tube Compatibility	17mm, 25mm, 28mm
Special Feature	Rechargeable, Automatic Operation
Included Components	Brackets, Motor, Remote, Solar Panel, USB Charging Cable

8. Troubleshooting

If you encounter issues with your Blindsmart roller shade motor, refer to the following common problems and solutions:

- **Motor not responding to remote/app:**
  - Check if the motor's battery is charged. Recharge if necessary.
  - Ensure the remote control has a working battery and is within range.
  - Verify that the motor is properly paired with the remote and the Zigbee hub. Re-pair if needed.
  - Confirm the Zigbee hub is online and connected to your network.
- **Shade stops unexpectedly or does not reach limits:**
  - The battery might be low. Charge the motor fully.
  - The upper/lower limits may need to be reset or reprogrammed. Refer to the programming instructions.
  - Check for any physical obstructions preventing the shade from moving freely.
- **Motor makes clicking noise or struggles to move:**
  - This could indicate an issue with the motor's internal gears or friction within the shade tube. Ensure the motor is correctly installed and not binding.
  - If the issue persists, contact customer support.
- **Poor battery life:**
  - Ensure the solar panel is clean and positioned to receive maximum direct sunlight.
  - Frequent operation will consume battery faster. Consider charging via USB more regularly if solar charging is insufficient.
- **Motor light flashes but no action:**
  - This indicates the motor is receiving commands but cannot execute them. Try a factory reset (typically by pressing a button near the USB-C port multiple times until a tone is heard) and then re-pair.
  - If the problem continues, there may be an internal mechanical failure.

9. Warranty and Support

Blindsmart products are designed for reliability and performance. For specific warranty details, please refer to the warranty card included with your product or contact Blindsmart customer support directly.
If you require technical assistance, troubleshooting beyond this manual, or have questions regarding your product, please contact Blindsmart customer service through the retailer where you purchased the product or visit the official Blindsmart website for support contact information.
Please have your product model number (ZM16EL-03/33) and purchase date available when contacting support.

© 2024 Blindsmart. All rights reserved.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question