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WVCLTVJA XMYC-1

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Model: XMYC-1 | Brand: WVCLTVJA

1. INTRODUCTION AND OVERVIEW

The WVCLTVJA XMYC-1 Single Axis Solar Tracker Controller is designed to automatically adjust the position of a solar panel to maximize its exposure to sunlight throughout the day. This controller operates within a 12-24V DC input range and supports a maximum current of 15A. It features a light control system for precise sun tracking and includes an option for a wind speed sensor for enhanced safety and performance. The system is ideal for optimizing solar energy collection in various applications.

This manual provides detailed instructions for the installation, operation, and maintenance of your XMYC-1 solar tracker controller, ensuring optimal performance and longevity.

2. SAFETY INFORMATION

- Always disconnect power before performing any installation, wiring, or maintenance procedures.
- Ensure that the input voltage (12-24V DC) and current (max 15A) are within the specified limits to prevent damage to the controller or connected equipment.
- All wiring should be performed by a qualified professional in accordance with local electrical codes.
- Protect the controller and sensors from extreme weather conditions, direct water exposure, and physical impact.
- Do not attempt to open or repair the controller unit. Refer all servicing to authorized personnel.

3. PACKAGE CONTENTS

Please verify that all components are present and undamaged upon opening the package:

- 1 x XMYC-1 Single Axis Solar Tracker Controller Unit
- 1 x Light Sensor with Cable
- 1 x Wind Speed Sensor (Optional, included with 'Option 3' model)

- Necessary Connection Cables (pre-attached or included)



This image displays the complete XMYC-1 Single Axis Solar Tracker Controller system. It includes the main control box with a green display panel and control buttons, a light sensor with a long cable, and a wind speed sensor with three black cups.

4. SPECIFICATIONS

Feature	Specification
Model Number	XMYC-1
Input Voltage	DC 10-28V
Maximum Current	<15A
Tracking Axis	Single Axis
Control Method	Light Control
Optional Sensor	Wind Speed Sensor
Controller Dimensions	Approx. 1.18 x 0.79 x 0.39 inches (Package Dimensions)
Item Weight	1.76 ounces
Manufacturer	WVCLTVJA

5. SETUP AND INSTALLATION

Careful installation is crucial for the proper functioning of the solar tracker. Follow these steps:

- Mounting the Controller:** Securely mount the XMYC-1 controller unit in a dry, protected location, preferably near the solar panel's actuator/motor. Ensure it is easily accessible for wiring and adjustments.
- Connecting the Light Sensor:** Connect the light sensor cable to the designated port on the controller. Mount the light sensor in a position where it has an unobstructed view of the sky and can accurately detect the sun's position. Ensure it is firmly fixed and oriented correctly.
- Connecting the Wind Speed Sensor (if applicable):** If your model includes a wind speed sensor, connect its cable to the corresponding port on the controller. Mount the wind speed sensor in an elevated location, free from obstructions, to accurately measure wind speed. This sensor helps protect the solar panel by moving it to a safe position during high winds.
- Connecting the Actuator/Motor:** Connect the solar panel's single-axis actuator or motor to the output terminals of the controller. Pay close attention to the polarity and ensure correct wiring for movement in both directions (e.g., East/West or North/South). Refer to your actuator's manual for specific wiring diagrams.
- Power Connection:** Connect the DC power supply (12-24V) to the controller's power input terminals. Double-check all connections for correct polarity and secure fastening before applying power.
- Initial Test:** Once all connections are made, apply power. The controller should power on, and the display (if present) should illuminate. Observe the initial movement of the solar panel to ensure it responds correctly to light changes or manual commands.

6. OPERATING INSTRUCTIONS

The XMYC-1 controller is designed for largely automatic operation, but it also offers manual control and configuration options.

Automatic Tracking

Once powered on and correctly installed, the controller will automatically begin tracking the sun based on the light sensor's input. It will adjust the solar panel's position throughout the day to maintain optimal alignment with the sun.

Manual Control Buttons

The controller features several buttons for manual adjustments and settings:

- **SET:** Used to enter or confirm settings.
- **W+ (West/Up):** Manually moves the panel towards the West or in the 'up' direction.
- **W (West):** Likely a manual movement button for West.
- **E (East):** Likely a manual movement button for East.
- **E+ (East/Down):** Manually moves the panel towards the East or in the 'down' direction.
- **QUIT:** Used to exit settings or stop manual movement.

Note: Specific button functions may vary slightly. Refer to the on-screen display or detailed product documentation for precise button operations.

Wind Speed Protection (if applicable)

If a wind speed sensor is connected, the controller will monitor wind conditions. Upon detecting wind speeds exceeding a pre-set threshold, the controller will automatically move the solar panel to a safe, horizontal, or stowed position to prevent damage. Once wind speeds subside, the controller will resume normal tracking.

7. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your solar tracker system:

- **Clean Sensors:** Periodically clean the light sensor and wind speed sensor (if applicable) to remove dust, dirt, and debris that could impair their accuracy. Use a soft, damp cloth.
- **Check Connections:** Annually inspect all electrical connections for corrosion, looseness, or damage. Tighten any loose connections and replace damaged wiring.
- **Inspect Actuator/Motor:** Check the solar panel's actuator or motor for smooth operation, signs of wear, or obstructions. Lubricate moving parts as recommended by the actuator manufacturer.
- **Environmental Protection:** Ensure the controller unit remains protected from direct exposure to rain, snow, and extreme temperatures.

8. TROUBLESHOOTING

If you encounter issues with your XMYC-1 solar tracker controller, refer to the following common problems and solutions:

- **Panel Not Moving:**
 - Check power supply to the controller.
 - Verify all wiring connections, especially to the actuator/motor.
 - Ensure the light sensor is clean and correctly positioned.
 - Check if the system is in manual mode or if wind protection is active.
- **Incorrect Tracking:**
 - Clean the light sensor.
 - Verify the light sensor's orientation and ensure it's not obstructed.
 - Check for any physical obstructions preventing the panel's full range of motion.
- **Wind Sensor Issues (if applicable):**
 - Ensure the wind speed sensor is clean and spinning freely.
 - Check the sensor's cable connection to the controller.

- Verify the mounting location is free from turbulence or obstructions.
- **Controller Display Not Working:**
 - Check the power supply.
 - Ensure the controller is not exposed to extreme temperatures.

If problems persist after attempting these solutions, please contact customer support.

9. WARRANTY AND SUPPORT

For warranty information and technical support regarding your WVCLTVJA XMYC-1 Single Axis Solar Tracker Controller, please refer to the purchase documentation or contact the seller/manufacturer directly. Keep your proof of purchase for warranty claims.

Manufacturer: WVCLTVJA

For further assistance, visit the product page on Amazon or contact WVCLTVJA customer service.