OOYCYOO 80A MPPT Charge Controller

OOYCYOO 80 Amp MPPT Solar Charge Controller User Manual

Model: 80A MPPT Charge Controller | Brand: OOYCYOO

1. Introduction

This manual provides essential information for the safe and efficient operation of your OOYCYOO 80 Amp MPPT Solar Charge Controller. Please read this manual thoroughly before installation and use to ensure optimal performance and longevity of your solar power system. This controller is designed to maximize power harvest from your solar panels and efficiently charge various battery types in 12V, 24V, 36V, and 48V systems.

2. Safety Information

Always observe the following safety precautions during installation and operation:

- Ensure all connections are secure and correct polarity is maintained to prevent damage to the controller, batteries, or solar panels.
- Install appropriate circuit breakers for each line (solar array, battery, load) to protect against overcurrent.
- Avoid short-circuiting terminals.
- Do not attempt to disassemble or repair the controller yourself. Refer to qualified personnel.
- Install the controller in a well-ventilated area, away from flammable materials and direct sunlight.
- Wear appropriate personal protective equipment (PPE) during installation.

3. Product Features

- **Efficient 80A MPPT Technology:** Compatible with 12V/24V/36V/48V system voltages, featuring Maximum Power Point Tracking (MPPT) technology with tracking efficiencies up to 99% and peak conversion efficiencies up to 98%.
- **Wide Battery Compatibility:** Supports various 12/24/36/48V battery types, including Lead-acid (Sealed, Gel, AGM, Flooded) and Lithium batteries.
- **Comprehensive Protection:** Built-in PV array short-circuit protection, PV input over-current protection, load short-circuit protection, PV polarity reversal protection, battery polarity reversal protection, over-temperature protection, Lithium battery low temperature protection, night reverse charging, battery over voltage, and load overload.
- **High Voltage/Power Support:** Accepts solar voltage up to 150V. Max input power: 1000W (12V system), 2000W (24V system), 3000W (36V system), 4000W (48V system).
- **Dual Cooling System:** Constructed with die-cast aluminum for excellent heat dissipation and reduced power consumption. Features an upgraded turbofan fan for efficient cooling (activates at >45°C, turns off <40°C).
- **LCD Display:** Provides real-time energy statistics and operating data for easy monitoring.

4. Package Contents

The package typically includes:

- OOYCYOO 80 Amp MPPT Solar Charge Controller
- Mounting hardware (screws, wall anchors)
- Temperature sensor cable
- User Manual

Image: OOYCYOO 80 Amp MPPT Solar Charge Controller with included mounting hardware, temperature sensor, and manual.

5. Setup and Installation

Follow these steps for proper installation:

1. **Mounting the Controller:**
   Mount the controller vertically on a wall or sturdy surface in a well-ventilated area, ensuring ample space for heat dissipation. Use the provided screws and wall anchors. Ensure controllers are at the same horizontal level with ample space for heat dissipation between devices if installing multiple units.

   Video: Demonstrates mounting the controller on a wall using screws.

2. **Wiring Sequence:**
   Always connect in the following order: **Battery > Solar Array > Load**. Disconnect in the reverse order.

   - **Connect the Battery:** Connect the battery positive and negative terminals to the controller's battery terminals. Ensure correct polarity.
   - **Connect the Solar Array:** Connect the solar panel positive and negative terminals to the controller's solar array terminals. Ensure correct polarity.

- **Connect the Load:** Connect your DC load to the controller's load terminals.

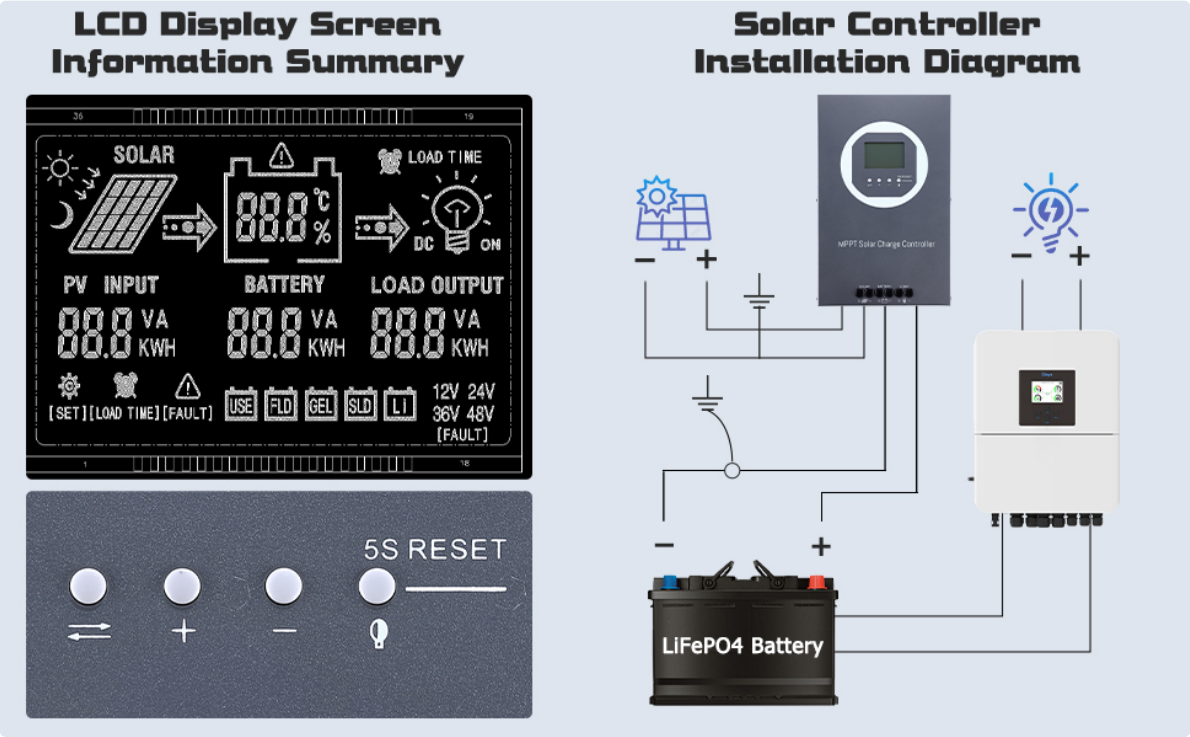

Image: A diagram illustrating the correct wiring sequence for the solar charge controller, connecting solar panels, battery, and load.

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Video: Demonstrates the wiring process for the MPPT solar charge controller, connecting to a battery and a load.

3. **Connect Temperature Sensor:** Plug the temperature sensor cable into the designated port on the controller. This ensures accurate temperature compensation for battery charging.
4. **Grounding:** Properly ground the controller to prevent electrical hazards.
5. **Parallel Installation (Optional):** If installing multiple controllers in parallel, connect them using the parallel communication cable.

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   Video: Guide on assembling and connecting the parallel communication cable for multiple MPPT controllers.

6. Operating Instructions

6.1. LCD Display Overview

The LCD display provides real-time information about your solar system. Use the buttons below the screen to navigate through different parameters.

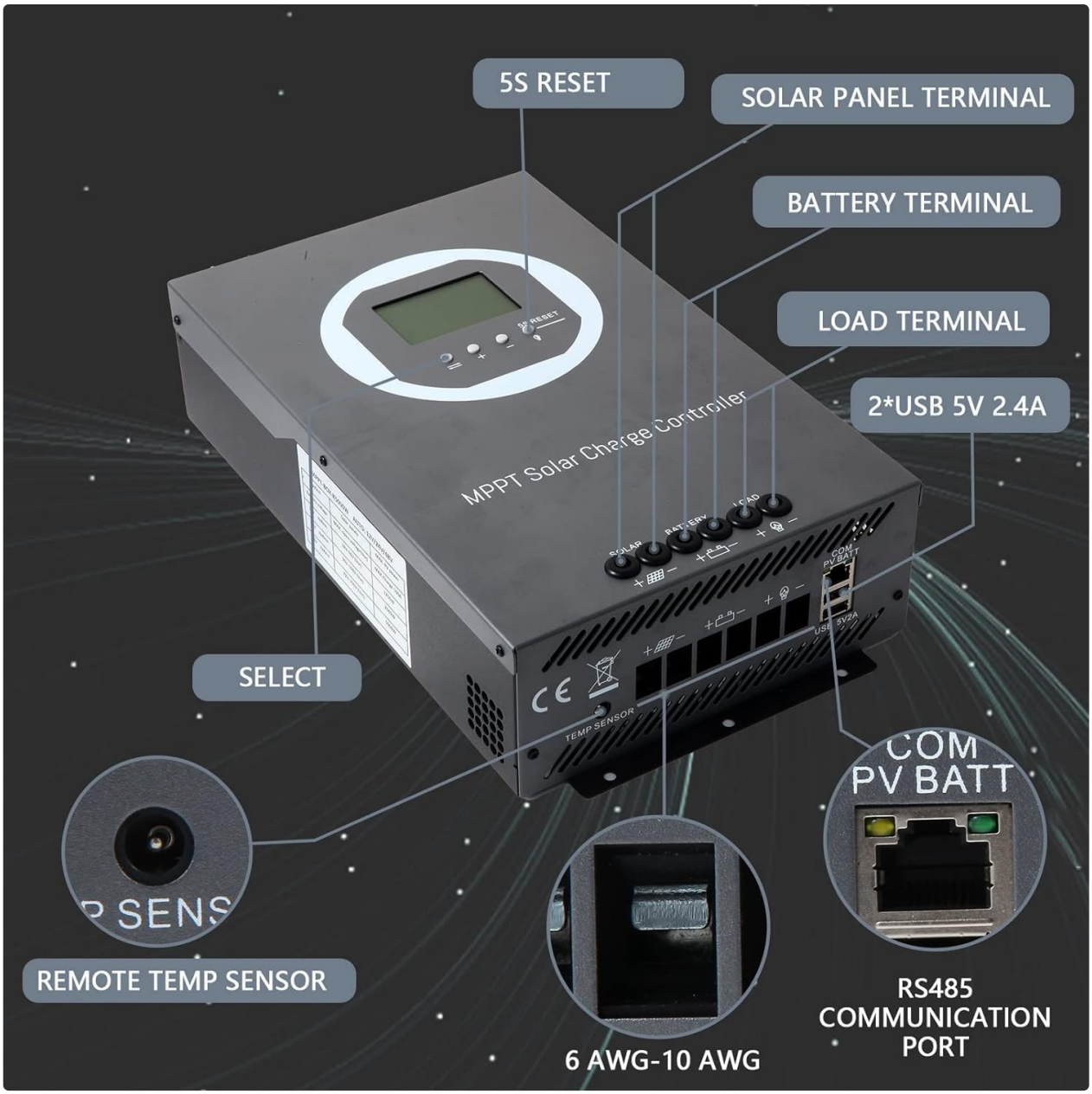

Image: Detailed view of the MPPT Solar Charge Controller's LCD display and various connection ports, including Solar Panel, Battery, Load, USB, Remote Temp Sensor, and RS485 Communication Port.

6.2. Battery Type Selection

The controller supports automatic recognition of system voltage (12V/24V/36V/48V). You can manually select the battery type (Lead-acid, Gel, AGM, Flooded, Lithium) through the LCD interface to optimize charging parameters.

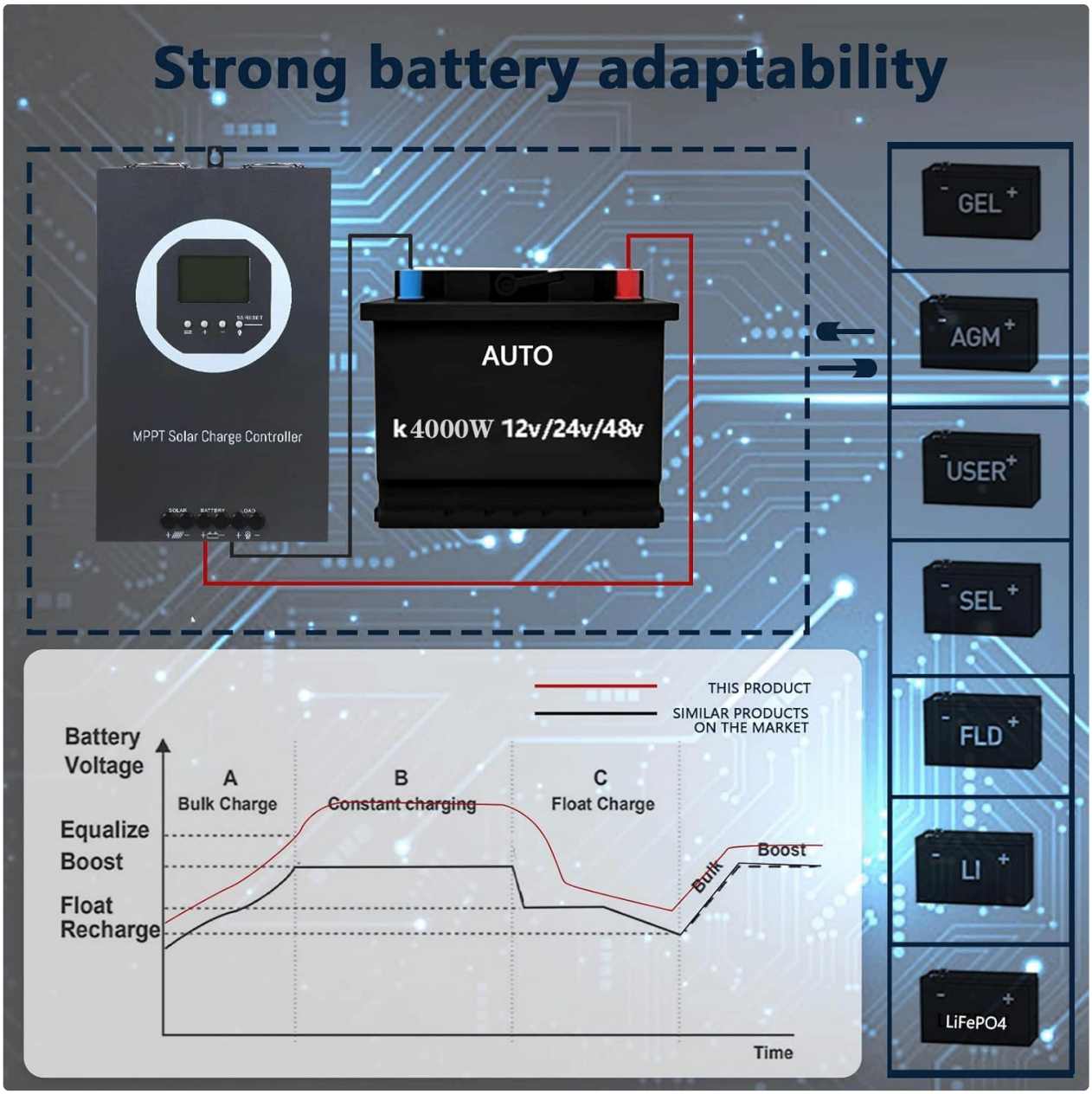

Image: Illustrates the controller's compatibility with various battery types (GEL, AGM, USER, SEL, FLD, LI, LiFePO4) and a typical three-stage charging curve (Bulk Charge, Constant Charging, Float Charge).

6.3. Parallel Operation

When operating multiple controllers in parallel, ensure the main controller is configured first. Slave controllers will automatically synchronize their configurations with the main controller.

7. Maintenance

- Regularly inspect all wiring connections for tightness and corrosion.
- Keep the controller's cooling fins and fan vents clear of dust and debris to ensure efficient heat dissipation.
- Check the LCD display periodically for any error codes or unusual readings.
- Ensure the battery terminals are clean and free of oxidation.

8. Troubleshooting

8.1. Common Issues and Solutions

- **No Display/No Power:** Check battery connections and ensure the battery circuit breaker is closed. Verify battery voltage is within the operating range.
- **Battery Not Charging:** Check solar panel connections and ensure they are receiving sufficient sunlight. Verify solar panel voltage is within the controller's input range. Confirm correct battery type selection.
- **High Voltage Warning:** This may occur if the solar array's open circuit voltage (Voc) exceeds the controller's maximum input voltage (150V). Reconfigure your solar array to stay within limits.
- **Battery Management System (BMS) Shutdown:** If your lithium battery's BMS has shut down due to low voltage, it may need activation.

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Video: Provides methods to reactivate a 12V or 24V lithium battery if its Battery Management System (BMS) has shut down.

9. Specifications

Feature	Specification
Brand	OOYCYOO
Model	80A MPPT Charge Controller
System Voltage	12V/24V/36V/48V Auto
Max PV Input Voltage	150V
Max Input Power (12V System)	1000W
Max Input Power (24V System)	2000W
Max Input Power (36V System)	3000W
Max Input Power (48V System)	4000W
Compatible Battery Types	Lead-acid (Sealed, Gel, AGM, Flooded), Lithium
Item Weight	8.58 pounds
Package Dimensions	12.2 x 8.27 x 4.72 inches
Included Components	Controller, Temperature Sensor
UPC	750864834463

10. Warranty and Support

For warranty information, technical support, or service inquiries, please contact OOYCYOO customer service directly. Refer to the product packaging or the official OOYCYOO website for contact details.

Related Documents - 80A MPPT Charge Controller

OOYCYOO™ MPPT Solar power generation system controller	OOYCYOO MPPT Solar Power Generation System Controller User Manual This document provides comprehensive instructions and technical specifications for the OOYCYOO MPPT Solar Power Generation System Controller. Learn about installation, parameter settings, protection features, and system wiring for optimal solar energy utilization.
	Ooycyoo MPPT 'P' Series 40A/60A Solar Charge Controller User Manual Explore the Ooycyoo MPPT 'P' Series 40A/60A Solar Charge Controller. This user manual details advanced MPPT technology, features like real-time display, USB charging, and multi-stage battery charging, along with essential safety and installation guidance for solar energy systems.
ECO-WORTHY  12V/24V/36V/48V MPPT Installation And Operation Manual Solar Charge Controller	ECO-WORTHY 60A MPPT Solar Charge Controller Installation and Operation Manual This manual provides comprehensive instructions for the installation, operation, and maintenance of the ECO-WORTHY 60A MPPT Solar Charge Controller. It covers safety precautions, product features, installation steps, working principles, troubleshooting, and specifications for 12V, 24V, 36V, and 48V systems.
BSC Controller Installation Manual (PDF)	BSC Controller Installation Manual This manual provides instructions for the installation of the BSC Controller, a solar charge controller designed for various battery types.

[ECO-WORTHY Solar Charge Boost Controller User Manual]

User manual for the ECO-WORTHY Solar Charge Boost Controller, detailing features, technical specifications, settings, installation, and troubleshooting for 24V/36V/48V/60V/72V battery systems, suitable for golf carts and off-grid power.