

## HONGTONGAAD MPPT 80A/100A Solar Charge Controller

# HONGTONGAAD MPPT Solar Charge Controller User Manual

Models: MPPT 80A, MPPT 100A

## 1. INTRODUCTION

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This manual provides essential instructions for the safe and efficient operation of your HONGTONGAAD MPPT Solar Charge Controller. This device is designed to manage power flow from your solar panels to your battery bank, ensuring optimal charging and protecting your batteries from overcharge and deep discharge. Please read this manual thoroughly before installation and use.

## 2. SAFETY INFORMATION

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- Always connect the battery first, then the solar panel, and finally the load. Disconnect in the reverse order.
- Ensure all wiring is correctly polarized and securely connected to prevent damage to the controller or other components.
- Install the controller in a well-ventilated area, away from flammable materials and direct sunlight.
- Do not attempt to disassemble or repair the controller yourself. Contact qualified personnel for service.
- Use appropriate circuit breakers or fuses for all connections to protect against overcurrent.
- Wear protective eyewear and gloves when working with batteries.

## 3. PRODUCT OVERVIEW

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The HONGTONGAAD MPPT Solar Charge Controller is an advanced device designed for efficient solar power management. It features Maximum Power Point Tracking (MPPT) technology to maximize energy harvest from your solar panels.

### Key Features:

- **MPPT Technology:** Optimizes power extraction from solar panels.

- **Multi-Voltage Support:** Compatible with 12V, 24V, 36V, and 48V battery systems.
- **Real-time Data Display:** Shows daily power generation and current curves.
- **Multiple Protection Functions:** Includes overheating protection and battery undervoltage protection.
- **User-Friendly Interface:** Easy setup with a one-key factory reset option.

## Component Identification:

# POW-M80-PRO



**Figure 3.1:** Front view of the HONGTONGAAD MPPT Solar Charge Controller, showing the display screen, control buttons (PV/SET, BAT/A, BAT/V), and approximate dimensions (10.24in height, 7.09in width, 2.95in depth).



**Figure 3.2:** Top-down angled view of the HONGTONGAAD MPPT Solar Charge Controller, highlighting the cooling fins on the bottom and fan vents on the side, essential for heat dissipation.

## 4. SETUP AND INSTALLATION

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1. **Mounting:** Choose a suitable location for mounting the controller. It should be indoors, dry, well-ventilated, and protected from direct sunlight and moisture. Ensure adequate clearance around the controller for proper heat dissipation.
2. **Battery Connection:** Connect the battery cables to the controller's battery terminals. Ensure correct polarity (+ to + and - to -). It is crucial to connect the battery first to allow the controller to detect the system voltage.
3. **Solar Panel Connection:** Connect the solar panel cables to the controller's solar input terminals. Again, observe correct polarity.
4. **Load Connection (Optional):** If your model includes a load output, connect your DC load to the designated load terminals. Ensure the load current does not exceed the controller's rated load current.
5. **Verification:** After all connections are made, double-check all wiring for correct polarity and secure connections.

**Important:** Always connect the battery first and disconnect the battery last to prevent damage to the controller.

## 5. OPERATING INSTRUCTIONS

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## Display and Buttons:

The controller features an LCD display and three buttons for operation:

- **PV/SET Button:** Used to cycle through solar panel parameters and enter/exit settings menu.
- **BAT/A Button:** Used to cycle through battery parameters and adjust values upwards in settings.
- **BAT/V Button:** Used to cycle through load parameters and adjust values downwards in settings.

## Monitoring Data:

Press the PV/SET, BAT/A, or BAT/V buttons to view various system parameters on the LCD display, such as battery voltage, charging current, solar panel voltage, and daily power generation.

## System Settings:

To enter the settings menu, press and hold the PV/SET button for a few seconds. Use the BAT/A and BAT/V buttons to navigate through parameters and adjust values. Press PV/SET again to confirm changes and exit. Refer to the on-screen prompts for specific parameter adjustments.

**Factory Reset:** To restore factory settings, press and hold the PV/SET button for an extended period (e.g., 10 seconds) until the display indicates a reset.

## 6. MAINTENANCE

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- **Regular Inspection:** Periodically check all wiring connections for tightness and corrosion.
- **Cleaning:** Keep the controller clean and free from dust. Use a dry cloth to wipe the exterior. Do not use liquid cleaners.
- **Ventilation:** Ensure that the ventilation openings are not blocked to allow for proper heat dissipation.
- **Battery Health:** Monitor battery voltage and health regularly. Ensure batteries are properly maintained according to their manufacturer's guidelines.

## 7. TROUBLESHOOTING

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Problem	Possible Cause	Solution
Controller display is off.	No power from battery or solar panels; incorrect wiring.	Check battery connections and voltage. Ensure solar panels are connected and receiving sunlight. Verify all wiring polarity.
Battery not charging.	Solar panel not connected; insufficient sunlight; faulty solar panel; battery voltage too low.	Check solar panel connections. Ensure panels are in direct sunlight. Test solar panel output. Check battery voltage and condition.
Overheating warning.	Poor ventilation; excessive load or charging current.	Ensure controller is in a well-ventilated area. Reduce load or check for short circuits.
Load not working.	Load output disabled; battery undervoltage; overloaded load.	Check load settings. Charge battery. Reduce load or check for short circuits in the load.

## 8. SPECIFICATIONS

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Parameter	Value
Brand	HONGTONGAAD
Model	MPPT 80A / MPPT 100A
System Voltage	12V / 24V / 36V / 48V Auto
Maximum Current	80A / 100A (depending on model)
Item Weight	2000 Grams
ASIN	B0F9X2SC5C

## 9. WARRANTY AND SUPPORT

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For warranty information and technical support, please refer to the documentation provided with your purchase or contact HONGTONGAAD customer service. Keep your purchase receipt as proof of purchase.

**Return Policy:** This product typically comes with a 30-day return/replacement policy. Please check with your retailer for specific terms.

