

FTVOGUE FTVOGUE5g2gqpb1wr-13

FTVOGUE MPPT Solar Charge Controller 30A User Manual

Model: FTVOGUE5g2gqpb1wr-13

1. INTRODUCTION

This manual provides essential instructions for the safe and efficient operation of your FTVOGUE MPPT Solar Charge Controller 30A. This device is designed to manage power flow from your solar panels to your battery bank, ensuring optimal charging and protecting your system from overcharge, over-discharge, and other electrical faults. It is suitable for various off-grid applications, including home and camping solar panel systems.

2. SAFETY INFORMATION

- Ensure all wiring is correctly connected before powering on the controller. Incorrect wiring can cause damage to the controller or other components.
- Always connect the battery first, then the solar panel, and finally the load. Disconnect in the reverse order.
- Do not attempt to disassemble or repair the controller yourself. Refer to qualified personnel for service.
- Install the controller in a well-ventilated area, away from flammable materials and direct sunlight.
- Ensure proper grounding for safety.
- Wear appropriate personal protective equipment (PPE) when working with electrical systems.

3. PRODUCT OVERVIEW

The FTVOGUE MPPT Solar Charge Controller features an LCD display for clear status and data monitoring, 5V 3A USB outputs for charging devices, and an industrial-grade master control chip for reliable performance. It supports 12V/24V adaptive voltage systems and offers comprehensive circuit protection.



Figure 3.1: Front view of the FTVOGUE MPPT Solar Charge Controller, showing the LCD display, buttons, and USB ports.

ADVANCED PV CHARGE CONTROLLER SYSTEM



Figure 3.2: Key features of the controller, including 12V/24V auto adaptation, circuit protection, 5V 3A USB output, and industrial-grade chip.

RELIABLE SOLAR POWER MANAGEMENT



Figure 3.3: Overview highlighting LCD display data, 5V 3A USB output, complete circuit protection, and 12V/24V self-adaptive voltage.



Figure 3.4: Close-up view of the dual 5V 3A USB output ports.



Figure 3.5: Close-up of the battery type indicators for Lithium, Lead Acid, and Lithium Iron Phosphate batteries.

4. SETUP AND INSTALLATION

Follow these steps for proper installation of your solar charge controller:

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 space around the controller for air circulation.
2. **Wiring Sequence:** It is critical to connect components in the correct order to prevent damage.
 - **Step 1: Connect the Battery.** Connect the battery to the charge controller's battery terminals. Ensure correct polarity (+ to + and - to -). The controller will power on and display battery voltage.

- **Step 2: Connect the Solar Panel.** Connect the solar panel to the charge controller's solar panel terminals. Ensure correct polarity. The controller will begin charging if sunlight is available.
 - **Step 3: Connect the Load.** Connect your DC load to the charge controller's load terminals. Ensure correct polarity.
3. **Terminal Connections:** Ensure all wire connections are tight and secure to prevent loose connections and overheating.



Figure 4.1: Close-up view of the wiring terminals for battery, solar panel, and load connections.



Figure 4.2: Example of the solar charge controller connected and in operation, charging a mobile device.



Figure 4.3: Example of the solar charge controller installed in an outdoor setting, managing power for a small system.

5. OPERATING INSTRUCTIONS

The controller's LCD display provides real-time information about your solar system. Use the buttons below the display to navigate menus and adjust settings.

- **LCD Display:** The display shows battery voltage, charging current, discharge current, battery state of charge, and other system parameters.
- **Button Functions:** Use the buttons to cycle through display screens, enter settings menus, and adjust parameters such as battery type, load control mode, and charge/discharge thresholds. Refer to the on-screen prompts for specific adjustments.
- **Battery Type Selection:** The controller supports various battery types (Lithium, Lead Acid, Lithium Iron Phosphate). Ensure the correct battery type is selected in the settings to optimize charging and prevent damage.
- **USB Output:** The 5V 3A USB ports can be used to charge small electronic devices directly from the controller.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your solar charge controller.

- **Periodic Inspection:** Regularly check all wiring connections for tightness and signs of corrosion.
- **Cleaning:** Keep the controller clean and free from dust and debris. Use a dry cloth to wipe the surface. Do not use liquid cleaners.
- **Ventilation:** Ensure the installation area remains well-ventilated to prevent overheating.
- **Environmental Conditions:** Protect the controller from extreme temperatures, direct water exposure, and high humidity.

7. TROUBLESHOOTING

If you encounter issues with your solar charge controller, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Controller not powering on	Battery not connected or incorrect polarity; battery voltage too low.	Check battery connections and polarity. Ensure battery voltage is above the minimum operating threshold.
No charging from solar panel	Solar panel not connected or incorrect polarity; insufficient sunlight; damaged solar panel.	Check solar panel connections and polarity. Ensure adequate sunlight. Test solar panel output.
Load not working	Load not connected or incorrect polarity; battery voltage too low (under-voltage protection); overload protection activated.	Check load connections and polarity. Charge battery. Reduce load or check for short circuits.
LCD display error	Internal fault or sensor issue.	Restart the controller by disconnecting and reconnecting the battery. If the issue persists, contact support.

The controller includes built-in circuit protection against short circuits, open circuits, reverse polarity, and overload conditions. If a protection mechanism is triggered, the controller may temporarily cease operation or display an error code. Address the underlying cause before resuming operation.

8. SPECIFICATIONS

Feature	Specification
Brand	FTVOGUE
Model	FTVOGUE5g2gqpb1wr-13
Material	Acrylonitrile Butadiene Styrene (ABS)
System Voltage	12V / 24V Auto Adaptive
Max Charge Current	30A

Feature	Specification
USB Output	5V 3A (Dual USB)
Display	LCD
Protection Features	Short Circuit Protection, Open Circuit Protection, Reverse Protection, Overload Protection
Dimensions (Approx.)	133mm (5.2in) x 70mm (2.8in)



Figure 8.1: Approximate dimensions of the solar charge controller.

9. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the retailer or manufacturer's official website. Keep your purchase receipt as proof of purchase for any warranty claims.

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

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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