Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

DEWIN IXBRCDDIQ-GS109607-02

DEWIN PWM Solar Charge Controller

User Manual

1. Introduction

Thank you for choosing the DEWIN PWM Solar Charge Controller. This device is designed to manage the power flow from your solar panels to your battery bank, ensuring efficient charging and protecting your batteries from overcharge and over-discharge. It automatically identifies 12V, 24V, 36V, and 48V battery systems and is compatible with various battery types including Li-Ion, Lithium Iron Phosphate, Gel, Sealed, and Open batteries.
This manual provides detailed instructions for installation, operation, and maintenance to help you get the most out of your solar charge controller.



Figure 1: DEWIN PWM Solar Charge Controller

2. Key Features

- **Premium Material:** Constructed with a high-quality aluminum alloy radiator for efficient heat dissipation and a durable, flame-retardant PC environmental protection shell.
- **Automatic Battery Identification:** Automatically detects 12V, 24V, 36V, and 48V battery systems.
- **Wide Battery Compatibility:** Suitable for ternary Li-ion batteries, lithium iron phosphate batteries, gel batteries, sealed batteries, and open batteries.
- **Informative LED Display:** Shows charging/discharging current, accumulated power generation, discharge power demand, and more.
- **User-Friendly Interface:** Simple button operation for adjustable charge and discharge parameters.
- **USB Charging Ports:** Four 5V/2A USB outputs for charging mobile phones, tablets, and PCs.
- **3-Level Intelligent Charging:** Features boost charge, float charge, and strong charge modes for optimized battery health.
- **Multiple Protection Functions:** Includes under-voltage, over-temperature, over-voltage, over-current, reverse polarity, and short-circuit protection.
- **Broad Application:** Ideal for solar power generation systems, solar street lights, solar chargers, solar light boxes, RVs, and more.



Figure 2: Automatic Battery System Identification

Machine interface introduction

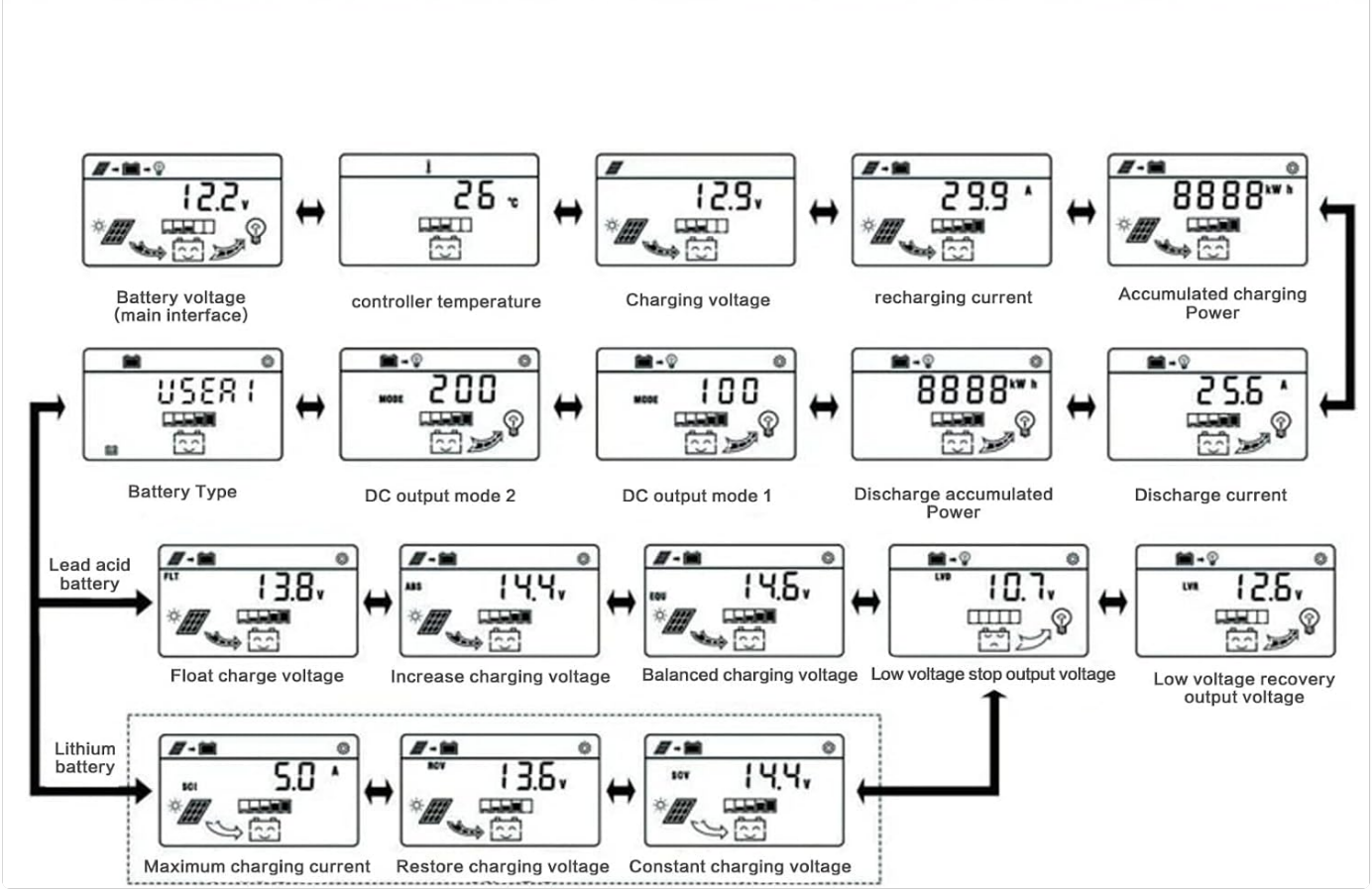


Figure 3: Supported Battery Types



Figure 4: LCD Screen, Durable Shell, and Dual USB Ports

3. Setup and Installation

3.1 Safety Precautions

- Ensure all connections are secure and correct before powering on.
- Install the controller in a well-ventilated area, away from direct sunlight and moisture.
- Do not disassemble the controller; refer to qualified personnel for repairs.
- Always connect the battery first, then the solar panel, and finally the load. Disconnect in reverse order.

3.2 Wiring Diagram

Follow the wiring diagram carefully to ensure proper and safe installation. Incorrect wiring can damage the controller or other components.

1. Connect the battery to the controller's battery terminals (+ and -).
2. Connect the solar panel to the controller's solar panel terminals (+ and -).
3. Connect the DC load to the controller's load terminals (+ and -).



Figure 5: Wiring Diagram for DEWIN PWM Solar Charge Controller

4. Operating Instructions

The controller features an intuitive LED display and two buttons for operation. Upon initial connection, the display will show the battery voltage. You can cycle through various parameters and adjust settings using the buttons.

4.1 Display Navigation

Press the 'Menu' button (usually the left button) to cycle through different display screens, showing parameters such as:

- Battery Voltage (Main Interface)
- Controller Temperature
- Charging Voltage
- Recharging Current
- Accumulated Charging Power
- Battery Type
- DC Output Mode
- Discharge Accumulated Power
- Discharge Current

4.2 Parameter Adjustment

To adjust a parameter, navigate to the desired setting screen and then use the '+' and '-' buttons (usually the right buttons) to change the value. Refer to the detailed interface introduction for specific parameter meanings and adjustment ranges.



Figure 6: Machine Interface and Display Parameters

4.3 USB Charging

The four 5V/2A USB ports can be used to charge compatible electronic devices. Ensure your device's charging requirements match the controller's USB output specifications.

5. Maintenance

Regular maintenance ensures the longevity and optimal performance of your DEWIN PWM Solar Charge Controller.

- **Cleaning:** Periodically clean the controller's exterior with a dry cloth to remove dust and debris. Ensure ventilation openings are clear.
- **Connection Check:** Annually inspect all wiring connections to ensure they are tight and free from corrosion. Loose

connections can lead to power loss or overheating.

- **Environmental Check:** Ensure the installation environment remains within the specified operating temperature and humidity ranges.
- **Battery Inspection:** Regularly check the battery terminals for corrosion and ensure the battery itself is in good condition.

6. Troubleshooting

The DEWIN PWM Solar Charge Controller is equipped with multiple protection features to prevent common issues. If you encounter a problem, refer to the following general guidance:

- **No Display/No Power:** Check battery connections and ensure the battery has sufficient charge. Verify solar panel connections.
- **Battery Not Charging:** Check solar panel connections, ensure panels are receiving adequate sunlight, and verify the solar panel voltage is within the controller's input range.
- **Load Not Working:** Check load connections, ensure the load is not exceeding the controller's rated current, and verify the battery has sufficient charge.
- **Error Codes:** If the display shows an error code, consult the 'Machine interface introduction' image (Figure 6) or contact customer support for specific meanings.
- **Protection Activated:** The controller will automatically protect against:
  - Battery Over-current
  - Battery Reverse-polarity
  - Solar Panel Reverse-polarity
  - Over-heating Protection
  - Load Over-load
  - Load Short-circuit

  If a protection is triggered, the controller may temporarily stop charging or discharging. Identify and resolve the underlying issue.



Figure 7: Built-in Protection Features

7. Specifications

Product information



Product name:	PWM solar controller	**Maximum input power:**	260W/520W/780W/1040W
Material:	PC environmentally Friendly material	**Self-loss:**	⩽30mA
Charging control mode:	PWM	**USB output:**	5V/2A*4
Maximum open circuit Voltage of components:	100V	**Working environment Temperature:**	−20～+55℃
Rated charging current:	40A	**Protection level:**	IP32
Battery voltage:	12V/24V/36V/48V automatic identification	**Humidity:**	95% no condensation

Figure 8: Product Information and Specifications

Feature	Specification
Material	PC (Polycarbonate)
Charging Control Mode	PWM
Max Open Circuit Voltage of Components	100 V
Rated Charging Current	40 A
Battery Voltage	12V/24V/36V/48V (Automatic Identification)
Max PV Input Power	520W (12V) / 1040W (24V) / 1560W (36V) / 2080W (48V)
Self-loss	≤ 30 mA

Feature	Specification
USB Output	5V/2A x 4
Operating Temperature	-20 to +55 °C
Protection Level	IP32
Humidity	95% (Non-condensing)
Dimensions (L x W x H)	20 x 10.6 x 5 cm (approx. 22 x 12 x 5 cm as per product spec)
Weight	420 g (approx. 500 g as per product spec)
Model Number	IXBRCDDIQ-GS109607-02

8. Warranty and Support

For warranty information and technical support, please refer to the documentation provided with your purchase or contact DEWIN customer service. Keep your purchase receipt as proof of purchase.
For further assistance, you may also visit the official DEWIN website or contact your retailer.

© 2023 DEWIN. 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

Open the live page

https://manuals.plus/asin/B0CNLLY59D

More documents and user manuals: **https://manuals.plus/**