

EASUN ICHARGER 2430

EASUN MPPT ICHARGER 2430 Solar Charge Controller User Manual

Model: ICHARGER 2430 | Brand: EASUN

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your EASUN MPPT ICHARGER 2430 Solar Charge Controller. This 30A MPPT controller is designed for solar power generation systems, suitable for both 12V and 24V battery configurations. It is ideal for various applications including residential, rural properties, and commercial setups. The controller is compatible with a range of battery types, including lead-acid (open, sealed, colloidal) and lithium (LiFePO4) batteries. Please note that this product is **not water-resistant**; avoid exposure to moisture. For maintenance, clean the exterior weekly or as needed with a clean, soft, dry cloth.

2. PRODUCT OVERVIEW AND FEATURES



Figure 2.1: Front view of the EASUN MPPT ICHARGER 2430 Solar Charge Controller, showing the display and control buttons.



Figure 2.2: Key features and applications of the MPPT controller, highlighting its 20-40A range and automatic voltage detection.

- **MPPT Technology:** Utilizes Maximum Power Point Tracking technology for efficient solar energy harvesting.
- **Automatic Voltage Detection:** Automatically detects and charges 12V or 24V battery systems.
- **High Power Support:** Supports solar panel generation up to 390W (nominal) for 12V systems and up to 780W (nominal) for 24V systems.
- **Comprehensive Protection:** Includes overcharge protection and over-temperature protection to ensure system safety and longevity.
- **Battery Compatibility:** Suitable for various battery types, including sealed lead-acid, vented gel, and lithium (LiFePO4) batteries.
- **User Interface:** Features an LCD display for easy monitoring and control. Optional remote instrument support is available.
- **Easy Installation:** Designed for straightforward mounting.

3. SPECIFICATIONS



Figure 3.1: Product size diagram, showing length, width, and height, along with a table of dimensions for different iCharger models.



Figure 3.2: Various display angles of the EASUN MPPT Solar Charge Controller, showcasing its design.

Attribute	Value
Brand	EASUN (Generic)
Model Reference	2430
ASIN	B0DFV4L1JL
Color	Blue
Product Weight	1500 Grams (1.5 kg)
Voltage	12V, 24V (Auto-detection)
Rated Current	30A
Included Components	1 x 30A Charge Controller
Certification	Not applicable (as per manufacturer)
Manufacturer	EASUN China

4. SETUP AND INSTALLATION

Before installation, ensure all components are present and undamaged. A quick installation and calibration guide in Portuguese is provided by the seller (T&T ELECTROTECH) with supplementary information. The manufacturer's manual is available in English.

4.1. Mounting Location

Choose a dry, well-ventilated location away from direct sunlight, high temperatures, and moisture. Ensure sufficient space around the controller for proper heat dissipation. The controller is designed for easy mounting.

4.2. Wiring Sequence

Follow the correct wiring sequence to prevent damage to the controller or system components. Always connect in the following order:

- 1. Connect the Battery:** Connect the battery to the charge controller's battery terminals. Ensure correct polarity (+ to + and - to -). The controller will automatically detect the battery voltage (12V or 24V).
- 2. Connect the Solar Panels:** Connect the solar panels to the charge controller's PV terminals. Ensure correct polarity.
- 3. Connect the DC Load (Optional):** If using a DC load directly from the controller, connect it to the load terminals.

Important: Disconnect in the reverse order when removing components (Load first, then Solar Panels, then Battery).

5. OPERATING INSTRUCTIONS



Figure 5.1: Detailed view of the controller's display and button functions, including various icons and their meanings.

5.1. Display and Buttons

The controller features an LCD display that provides real-time system information. The two buttons below the display are used for

navigation and setting parameters.

- ▲ : Used to scroll through display screens or increase values during settings.
- ▼ : Used to scroll through display screens or decrease values during settings.

5.2. Display Information

The LCD display shows various parameters and statuses. Refer to the table below for icon meanings:

Item	Icon	Status/Meaning
PV Array	☀ /	Day / Night
Charging Status	☀ → MPPT →	Charging (Solar to Battery)
Battery Status		Uncharged / Battery Capacity
Battery Type	LiPo / LiFe	Lithium Polymer / Lithium Iron Phosphate
Load Status	/ (crossed out)	Load On / Load Off
Voltage	V	Current Voltage Reading
Current	A	Current Amperage Reading
Power	W	Current Power Reading
Temperature	°C	Internal Temperature

6. MAINTENANCE

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

- **Cleaning:** Clean the exterior of the controller weekly or as needed using a clean, soft, and dry cloth. Do not use wet cloths or abrasive cleaners.
- **Connection Check:** Periodically inspect all wiring connections to ensure they are tight and free from corrosion. Loose connections can lead to power loss or overheating.
- **Ventilation:** Ensure that the ventilation openings on the controller are not blocked to allow for proper heat dissipation.
- **Environmental Check:** Verify that the installation environment remains dry and within the recommended temperature range.

7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your solar charge controller. If the problem persists, contact customer support.

Problem	Possible Cause	Solution
No display/No power	Battery not connected or low voltage; reversed polarity; loose connection.	Check battery connections and voltage. Ensure correct polarity. Tighten all connections.
Battery not charging	Solar panels not connected; insufficient sunlight; panel polarity reversed; faulty panel.	Verify solar panel connections and polarity. Ensure panels are in direct sunlight. Test panel output.

Problem	Possible Cause	Solution
Load not working	Load connection issue; battery voltage too low; overload protection activated.	Check load connections. Ensure battery voltage is above the low voltage disconnect setting. Reduce load if overloaded.
Over-temperature warning	Poor ventilation; high ambient temperature; excessive load.	Ensure adequate airflow around the controller. Relocate to a cooler area if possible. Reduce load.

8. WARRANTY AND SUPPORT

Your EASUN MPPT ICHARGER 2430 Solar Charge Controller comes with a manufacturer's warranty.

- **Warranty Period:** Up to 90 days from the date of delivery.
- **Coverage:** The warranty covers manufacturing defects. It does**not** cover damage resulting from misuse or improper installation by the buyer.
- **Quality Assurance:** The product is verified and tested before shipment to ensure quality and functionality.

For any support inquiries, technical assistance, or warranty claims, please contact the seller, **T&T ELECTROTECH**, through your purchase platform.

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

