

HYDTGZ 12V 50A

HYDTGZ Multi-Voltage High Power Lead Acid Battery Charger User Manual

Model: 12V 50A (and other variants)

[Features](#) [Setup](#) [Operation](#) [Introduction](#) [Safety Information](#) [Product](#)
[Maintenance](#) [Troubleshooting](#) [Specifications](#) [Warranty & Support](#)

1. INTRODUCTION

Thank you for choosing the HYDTGZ Multi-Voltage High Power Lead Acid Battery Charger. This manual provides essential information for the safe and efficient operation, setup, and maintenance of your charger. Please read this manual thoroughly before using the product and retain it for future reference.

This charger is designed for charging lead-acid batteries across various voltage configurations, including 12V, 24V, 36V, 48V, 60V, and 72V systems, making it suitable for a wide range of applications such as electric forklifts, golf carts, and other electric vehicles.

2. IMPORTANT SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the charger or battery:

- **Read all instructions:** Before using the charger, read all instructions and cautionary markings on the charger, the battery, and the product using the battery.
- **Ventilation:** Ensure adequate ventilation during charging. Batteries can produce explosive gases.
- **Eye and Skin Protection:** Wear appropriate eye protection and clothing when working near batteries.
- **Avoid Sparks and Flames:** Do not smoke or allow sparks or flames in the vicinity of the battery or charger.
- **Proper Connection:** Connect and disconnect DC output connectors only after setting the AC cord to OFF or unplugging it from the electrical outlet.
- **Indoor Use:** This charger is designed for indoor use. Do not expose it to rain or excessive moisture.
- **Children:** Keep out of reach of children.
- **Compatibility:** Use this charger only for charging lead-acid batteries. Do not use it for charging dry-cell batteries that may burst and cause injury to persons and damage to property.

- **Damaged Charger:** Do not operate the charger with a damaged cord or plug. If the charger has received a sharp blow, been dropped, or otherwise damaged, take it to a qualified service person.

3. PRODUCT FEATURES

The HYDTGZ battery charger incorporates advanced technology for efficient and safe battery charging:

- **Three-Stage Charging Mode:** Utilizes constant current, constant voltage, and trickle (float charge) stages to ensure optimal and complete battery charging.
- **Multiple Protections:** Equipped with safeguards against overcurrent, overvoltage, overtemperature, short circuit, and reverse polarity. It also features automatic shutdown or trickle charge and anti-reverse charge capabilities.
- **Durable Aluminum Alloy Shell:** The robust aluminum casing provides durability, fire resistance, and safety.
- **Efficient Cooling System:** Features a powerful cooling fan with porous air inlets for excellent heat dissipation, ensuring constant temperature charging without overheating.
- **LED Display:** A high-definition display shows the charging status, voltage, and current, providing clear visibility of the charging process.
- **Charging Indicator Light:** A single LED indicator shows green for standby/full charge and red for active charging.
- **Wide Application:** Suitable for various electric vehicles and equipment, including electric boats, patrol cars, golf carts, RVs, sightseeing cars, cleaning equipment, forklifts, stackers, and sweepers.



Image 1: Front view of the HYDTGZ battery charger highlighting key features like fast charging, automatic stop, smart display, and CV-CC output.



Image 2: Close-up of the charger's side, illustrating the cooling fan and the concept of constant temperature charging.

4. SETUP INSTRUCTIONS

1. **Unpacking:** Carefully remove the charger and all accessories from the packaging. Inspect for any signs of damage.
2. **Placement:** Place the charger on a stable, flat surface in a well-ventilated area, away from direct sunlight, heat sources, and moisture.
3. **Input Plug Selection:** The charger supports AC input voltage of 110-240V, 50/60Hz. Ensure the correct AC power cord for your region is used and securely connected to the charger and a suitable wall outlet.
4. **Output Connector:** The charger comes with bare wire output connectors. You may need to weld or attach the appropriate output plug (e.g., Anderson connector, ring terminals, alligator clips) according to your battery's requirements. Ensure proper polarity (+ to + and - to -) when connecting. If you require a specific output plug, refer to product images or contact customer support for guidance.

Input plug selection



Image 3: Illustration of different input plug types and bare wire output options (A1-A5) for customization.

5. OPERATING INSTRUCTIONS

1. **Connect to Battery:** Ensure the charger's AC power cord is unplugged from the wall outlet. Connect the charger's output terminals to the battery terminals, observing correct polarity (red to positive (+), black to negative (-)).
2. **Connect to Power:** Plug the charger's AC power cord into a suitable electrical outlet (AC110-240V, 50/60Hz).
3. **Monitor Charging:** The LED display will show the charging status, voltage, and current. The charging indicator light will turn red, indicating active charging.
4. **Charging Stages:** The charger will automatically proceed through its three-stage charging process:
 - **Constant Current (CC):** Charges the battery at a constant, high current until the voltage reaches a set level.
 - **Constant Voltage (CV):** Charges the battery at a constant voltage, with the current gradually decreasing.
 - **Trickle/Float Charge:** Once the battery is fully charged, the charger switches to a low-current float charge to maintain the battery's full capacity without overcharging. The indicator light will turn green.

5. **Disconnecting:** Once the battery is fully charged (green indicator light), first unplug the AC power cord from the wall outlet. Then, disconnect the charger's output terminals from the battery.

6. MAINTENANCE

- **Cleaning:** Keep the charger clean and dry. Wipe the exterior with a soft, damp cloth. Do not use solvents or abrasive cleaners.
- **Ventilation:** Ensure the cooling fan and air inlets are free from dust and obstructions to maintain proper heat dissipation.
- **Storage:** When not in use, store the charger in a cool, dry place.
- **Cable Inspection:** Regularly inspect the AC power cord and output cables for any damage, fraying, or loose connections. Replace if necessary.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Charger not turning on / No display	No AC power; Faulty power cord; Internal fault.	Check AC power connection and outlet. Inspect power cord for damage. If problem persists, contact support.
Charging indicator remains green (not charging)	Battery already full; Incorrect battery connection; Battery fault.	Verify battery charge level. Check output cable connections for correct polarity. Test battery condition.
Charging indicator flashes or shows error	Overvoltage/Overcurrent; Overtemperature; Short circuit; Reverse polarity.	Disconnect charger, check battery connections and charger ventilation. Allow to cool if hot. Reconnect carefully. If error persists, contact support.
Slow charging	Battery deeply discharged; High internal resistance; Charger operating in trickle mode.	Allow more time for charging. Ensure battery is healthy. Charger may be in the final stage of charging.

8. PRODUCT SPECIFICATIONS

Parameter	Value
Product Name	Battery Charger
Applicable Battery Type	Lead-Acid Battery
AC Input Voltage	AC110-240V, 50/60Hz
DC Output Voltage (Model Dependent)	12V/24V, 36V/48V, 60V, 72V
DC Output Current (Model Dependent)	50A (12V/24V), 40A (36V), 30A (48V), 25A (60V), 23A (72V)
Shell Material	All Aluminum Shell
Color	Blue
Dimensions	303 x 154 x 92 mm (11.93 x 6.06 x 3.62 inches)
Charger Weight	3.5 KG (7.7 pounds)

360° All-round Detail Display



Image 4: A 360-degree view showcasing the detailed design and various sides of the HYDTGZ battery charger.

Wide range of uses



Image 5: Examples of wide applications for the charger, including electric forklifts, golf carts, and other electric vehicles.

9. WARRANTY AND SUPPORT

Our chargers undergo strict technical testing before leaving the factory to ensure the best possible experience. If you have any questions or require assistance, please do not hesitate to contact our customer support. We are committed to helping you resolve any issues.

For support, please refer to the contact information provided with your purchase or on the official HYDTGZ website.

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