



**ABYSS
BATTERY**

POWER YOUR PURSUIT.

12V TO 43.8V
10A DC-DC

CHARGER



USER MANUAL

WWW.ABYSSBATTERY.COM



DESCRIPTION:

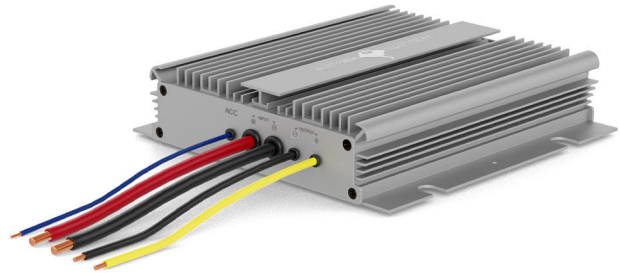
This is a fully automatic DC-DC charger that charges both your starting battery and **36V Trolling Motor Battery** from your outboard engines alternator, a power supply system designed for RVs, campers, and Boats, etc.

DC-DC charging: refers to charging your Axillary battery through an alternator / generator and starting battery.

1. While underway, the alternator from your outboard can quickly charge the 36-Volt trolling motor battery through the full power of our DC-DC charger.
2. This charger will charge **from the** main starting battery according to the specified voltage and current by boosting or reducing the voltage to ensure that the main battery is in accordance with the standard operating requirements.

FEATURES:

1. **Fully automatic charging:** In order to continuously charge the battery, the controller can always be connected to the starting battery, When you stop or are stationary on your boat, the **starting battery will not discharge in reverse.**
2. **Stable output voltage is 43.8V**
3. **ACC control port can turn off the output voltage**
4. **Intelligent chip with voltage wake-up function**
5. **100% full rated power**
6. **100% full stable output Current**
7. **100% burn-in-test**
8. **Cooling by free air convection**
9. **IP67 waterproof Epoxy potting, Anti-vibration, Dust proof**
10. **Under voltage protection: Identify the starting voltage of the battery and wake up the**
11. **Overshoot protection if needed. (Emergency start function)**
12. **Over temperature protection: the operating temperature range of the shell is-40-85℃**



INSTALLATION STEPS:

1. Turn off all power and load device switches.
2. Connect the OUTPUT "+" to the positive pole of the load device or auxiliary 36V battery. Connect the OUTPUT "-" to the negative pole of the load device or auxiliary 36V battery.
3. Connect the INPUT "+" to the main battery or generator positive pole and the INPUT "-" to the main battery or generator negative pole. (12V starting battery)
4. Turn on the power and load switch, and the converter works normally.
5. The Blue wire MUST be connected to the "+" Terminal of the starting battery with the red wire.

KEY BENEFITS:

Power up on the go with the ABYSS® 36-Volt On-Board Alternator charger, seamlessly energizing your trolling motor battery with your engine's excess juice. Even while cruising, our onboard battery chargers for boats keep your adventures going, ensuring you never miss a beat.

- Charges 36V trolling motor batteries:
- Utilizes engine's alternator power
- Smart on-demand charging technology
- Protects cranking battery, minimum 13.3V
- Ideal onboard boat battery charger system



MARKET APPLICATIONS:



RV



MARINE



GOLF CART



CLEANING



LIGHT EV



ENERGY STORAGE



ROBOTICS



LIGHTING

WARRANTY:

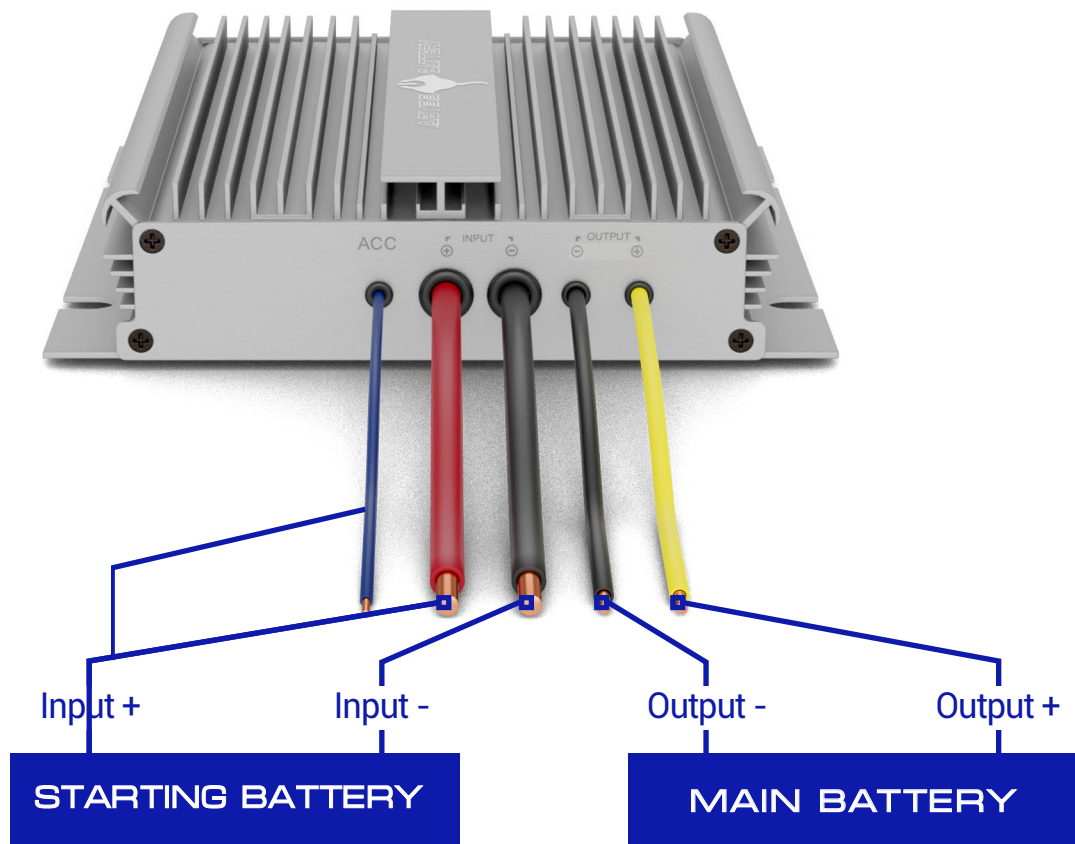
Thank you for taking interest in the products we offer at Abyss Battery. This Limited Warranty applies to physical goods, and only physical goods purchased from Abyss Battery.

MANUFACTURER'S LIMITED WARRANTY

WARRANTY COVERAGE	2-YEAR FREE REPLACEMENT	AFTER 2 YEARS, 35% OFF A NEW REPLACEMENT UP TO 10-YEARS
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Note: Please see Product Manual for proper installation to ensure that your experience with our product is both efficient and secure. Safety and proper functioning of our products is our utmost priority, which is why we strongly recommend installation from one of our authorized dealers or acquaint yourself thoroughly with our detailed product manual before proceeding with the installation process. Adherence to these guidelines is paramount

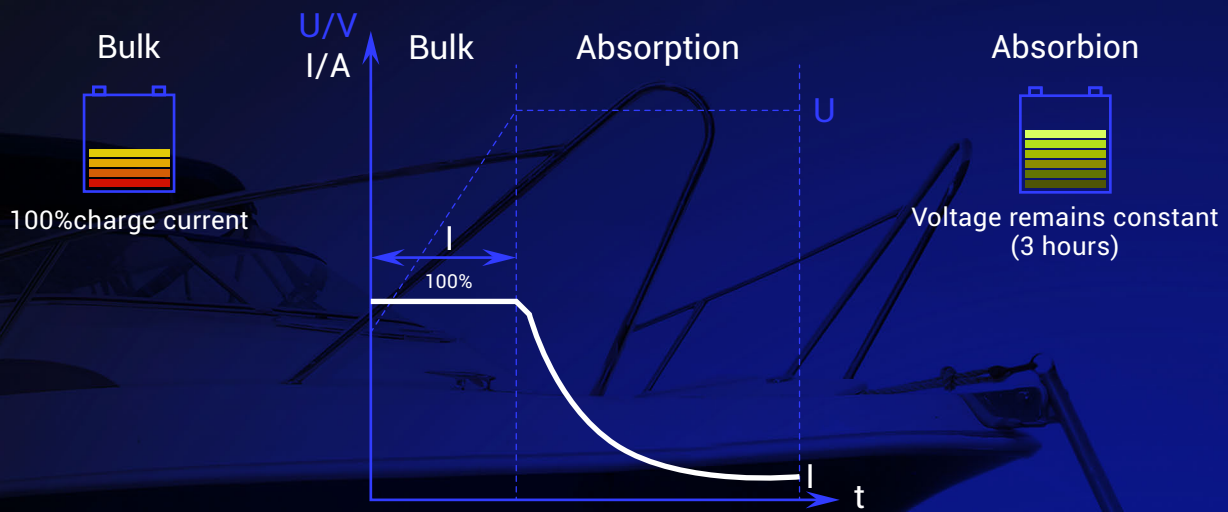
CONNECTION:



NOTE:

1. Wires: **8 gauge wire** is used to connect the input, and **14 gauge wire** is at the output end. If your wiring connection is more than 6.5 feet, a thicker gauge wire is recommended.
2. The Input Voltage should equal more than 40A.
3. ACC : The DC charger starts to work only after the starting battery voltage reaches 13.3V at control terminal, and the voltage range can be 3V~36V (You can directly connect the ACC wire to the 12V input terminal if No additional control is necessary.)
4. **DO NOT** connect input and output in reverse.
5. Make sure all polarities are correct before wiring, reverse connection will burn out the converter.
6. Make sure the battery capacity is large enough to provide enough power. If the input energy is insufficient, the voltage will automatically decrease.
7. Ensure that the installation environment is well ventilated to avoid over temperature protection and limit current output.
8. Cables need to be fitted with large current lugs and securely attached.
9. Please install the charger as close to the main battery as possible, and keep the surroundings clean, tidy and ventilated.

OUTPUT CURRENT CURVE:



PARAMETER SPECIFICATIONS:

Model	12V-43.8V 10A DC-DC Charger
Input Voltage	12VDC
Output Voltage	43.8VDC
Output Current	10A
Output Power Max(W)	438W
Efficiency	90%
Enclosures	IP67
Dimension	5.9 x 5.1 x 1.9 (150*130*50MM)
Net Weight	4.4 lbs (2kg)
Case Operating Temperature	-40~85°C
MTBF	100,000 hours
Characteristic 1	100% full rated power and stable output voltage 100% burn-in test and 4 times quality inspection



Abyss Battery®

Tel: 1+(855)-719-1727

E-mail: Info@abyssbattery.com

Address: 1920 W Bay Dr, Largo, FL 33770



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