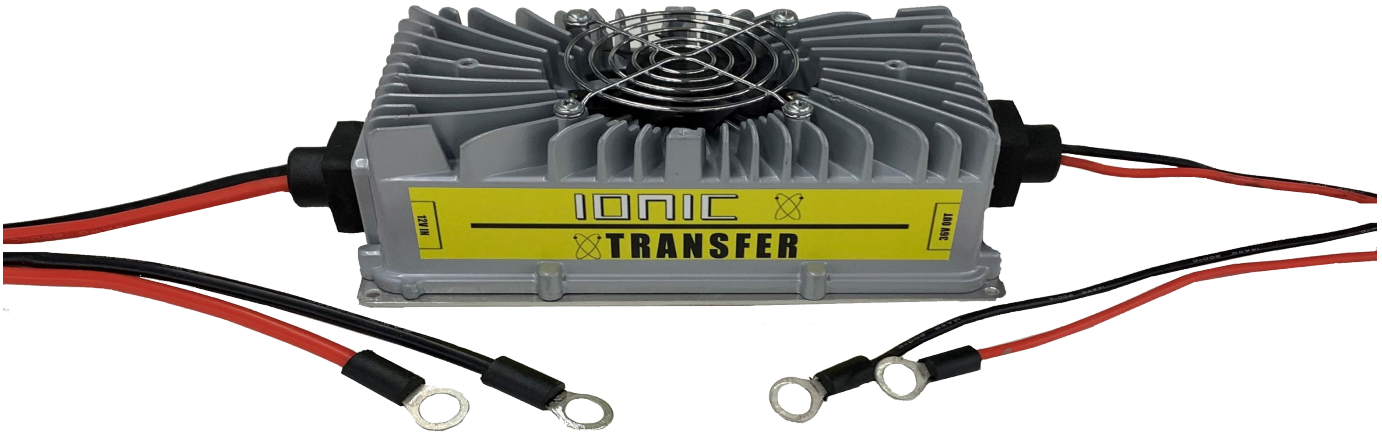
IONIC TRANSFER

USER MANUAL

12V -> 24V 16A
12V -> 36V 10A

DC-to-DC BATTERY CHARGER



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INTRODUCTION

Do you want to spend more time on the water or add extra trolling time to your trip? Do you wish you could stay locked on to that sweet spot a little longer? Now you can with another IONIC game changer. Meet the new DC/DC on board transfer charger from your 12V starter battery to your 24V or 36V trolling batteries.

What is the DC to DC Ionic Transfer? Simply put, the input connects to the 12V starter (cranking) battery and the output to the 24V or 36V trolling batteries. While the engine is running, power is transferred and charge is added to the trolling batteries providing additional charge to your trolling system.

With a few simple installation steps you can now:

- Add extra charge to your 24V or 36V trolling system
- Add extra trolling time
- Get that extra boost to help stay locked on in those windy or high current days.
- Add more running time to those long center console trips without having to add the weight of bigger batteries

IONIC Transfer takes your 12V starter battery and produces 24V or 36V for your trolling batteries. It is compact and lightweight, easy to install and is backed by IONIC's 1 year warranty.

IMPORTANT SAFETY INSTRUCTIONS

Read these instructions before you use this DC-DC battery charger. This manual contains important safety, installation, and operation instructions for the charger.

The manufacturer accepts no liability for damage by:

- Faulty assembly or connection;
- Damage resulting from mechanical influences or excess voltage;
- Modification or tampering with the unit without expressed permission from the manufacturer;
- Usage for purposes other than described in this manual.

General Safety:

- Risk of electric shock, fire hazard, or injury.
  - To minimize risk:
    - Ensure the positive and negative terminals for the charger do not come into contact;
    - Firmly secure cables and connections;
    - Disconnect the product from the battery each time before cleaning or making changes to the circuit;
    - Do not use the product if physically damaged or with visibly cracked cables. Contact the manufacturer or customer service to prevent safety hazards;

- DO NOT attempt to repair the charger. Inadequate repairs may cause serious injury;
- KEEP AWAY FROM CHILDREN.

Installation Safety:

- Install and store the product in a dry and cool place. Keep away from liquids. DO NOT expose the product to heat sources such as sunlight or other heating element;
- NEVER mount in areas with increased levels of dust or gas-explosion risk;
- For installation on boats: if the electrical devices are incorrectly connected, this can lead to corrosion damage on the boat. Verify installation with a qualified electrician or installer;
- Lay cables so they cannot be damaged by doors or be a tripping hazard. Damaged cables can lead to serious injury.

Operation Safety:

- WARNING-Explosion Risk. Batteries can give off explosive hydrogen gas that can be ignited by sparks or electrical connections. Make sure the area is well-ventilated;
- Please be aware that parts of this product may still produce voltage even after disconnected or activation of fuse;
- DO NOT disconnect cables while the product is operating.

Battery Safety:

- WARNING-Explosive Risk. Batteries may contain corrosive acids or fumes. Avoid contact with battery acid. If your skin comes into contact, wash immediately with soap and water. If acid enters the eye, immediately flood the eye with running cold water for at least 1 minute and get medical attention immediately.
- NEVER smoke or allow a spark of flame in the vicinity of the battery or engine.
- Be extra cautious to reduce the risk of dropping a metal tool onto a battery. It might spark or short-circuit a battery or other electrical parts that may cause an explosion.
- Remove personal metal items such as rings, bracelets, necklaces, and watches when working with a lead-acid battery. A lead-acid battery can produce a short-circuit current high enough to weld a ring or the like to metal, causing a severe burn.
- Wear complete eye protection and clothing protection. Avoid touching eyes while working near the battery.
- Use the charger for charging batteries ONLY. NEVER attempt to charge a frozen or defective battery.
- When removing a battery, power off all loads first, then disconnect it from the circuit before moving.

INSTALLATION

This section will help you to safely install your battery charger. Be sure to read and follow all information contained in this section. For questions, please contact our Customer Service Team at info@lithiumhub.com .

CHOOSE A MOUNTING LOCATION FOR THE CHARGER

- The charger measures 185x105x64 mm. We recommend you leave plenty of room for the cables existing at the bottom of the unit.
- Locate an area in a boat with adequate support to hold the charger.
- Always mount the charger in a dry location.
- If using lead-acid batteries, DO NOT mount directly above the batteries. Lead-acid batteries emit corrosive gasses that can damage the charger unit over time.
- DO not mount the charger adjacent to the fuel tank.
- Check area behind where the charger will be mounted to ensure that mounting screws will not penetrate any hoses, lines, wiring, tanks or other sensitive components.
- Ensure cable leads are long enough to reach batteries from chosen mounting locations.
- Mount charger with at least **2 inches** of space around the top and bottom of the unit for proper ventilation and cooling. While the charger has safeguards to protect batteries and circuitry, proper ventilation will allow for optimum performance.
- Charger can be mounted in any orientation.

CONNECT CABLES

- Always connect cables to the 12V engine battery FIRST!
- Always remove trolling cables FIRST!
- If you have a battery selector switch wired to your trolling motor battery bank, it must be removed or disconnected before wiring the charger.
- For optimal performance, we recommend the use of an IONIC RED battery as your Engine Battery when using the charger.
- All trolling motor batteries must be the same age, chemistry and voltage.
- Make sure all battery terminals are clean before installing.
- Turn off your boat’s main power switch before reconfiguring.
- Lithium batteries in reverse polarity may cause irreversible damage to the DC-DC.

QUICK START INSTRUCTIONS

We recommend the charger be mounted to one of these different types of battery configurations. Find your exact battery configuration and wire accordingly. Follow these quick start instructions for proper charging of your batteries.

IMPORTANT! Always install the heavy 8-gauge **RED** and **BLACK** cables to the positive (POS, P, +) AND NEGATIVE (NEG, N, -) terminals of the Engine battery FIRST.

Before installing, be sure to check all cables for cuts or damage. Ensure all connections are securely fastened.

Single 24V Trolling Motor Battery Setup
Connect the RED cable to the positive (POS,P,+) post and the Black cable to the ground (NEG,N,-) post of the 24V trolling motor battery.

Singe 36V Trolling Motor Battery Setup
Connect the RED cable to the positive (POS,P,+) post and the Black cable to the ground (NEG,N,-) post of the 36V trolling motor battery.

When connected successfully, the CHARGE STATUS light will illuminate based on the battery charge status. (Note: When connected, the light may turn solid red for up to 30 seconds while diagnosing the battery state. If the LEDs do not change when the battery is fully charged, the charger is not sensing enough voltage or has a bad connection.)

Color	Description	Battery Level
Red	Blinking	Faulty/Error
Red	Solid Red	Charging
Green	Solid Green	Full Charged

TROUBLESHOOTING INSTRUCTIONS

If NO charging is occurring on your 24V or 36V trolling batteries:

- Ensure the input is connected to the 12V battery and the output is connected to the 24v or 36v trolling batteries. Different models exist of either 24V or 36V and are not interchangeable.
- Ensure the ON/OFF switch is in the ON position. Switch power LED will light up.
- Ensure that the input voltage is between 10-18V.
- Ensure that the input 12V battery is charging over 30 amps from the alternator with the gas engine running.

TECHNICAL SPECIFICATIONS

Model：IC-12V36V-IT
Transformation: 12V->36V
Input Voltage: 10~18V
Operating Voltage: 13.2V~16.5V
Max. Output Voltage: 43.8Vdc
Output Charge Current: 10A
Max. Output Power: 480W
Sleep Current: <1mA
Operating Temperature: <80℃
Efficiency: ≥95%
Dimension：185x105x64 mm

Model： IC-12V24V-IT
Transformation: 12V->24V
Input Voltage: 10~18V
Operating Voltage: 13.2V~16.5V
Max. Output Voltage: 29.2Vdc
Output Charge Current: 16A Max. Output Power: 480W
Sleep Current: <1mA
Operating Temperature: <80℃
Efficiency: ≥95%
Dimension：185x105x64 mm

MAINTENANCE

For best DC-DC performance, periodically check the unit and related wiring monthly as well as the installation location.

1. Follow manufacturer's battery maintenance instructions.
2. Inspect all battery connections. If loose, tighten connections.
3. Inspect all batteries for any visible damage. This can include punctures, swelling, or warping of the batteries.
4. Check terminals for dirt, oil and battery corrosion. If dirty, clean the terminal using a water and baking soda solution. Dry with a clean cloth. Be sure to follow directions specific to your battery manufacturer when cleaning.
5. Check wires to see if any cuts or abrasions exist. Damaged cords can cause electric shock or electrocution.
6. Always store the charger in a clean, dry, well-ventilated area.