

# dynamite<sup>®</sup>

## Li-Po Charger



Thank you for purchasing the Dynamite<sup>®</sup> Li-Po Charger. It's a DC-powered charger meant only for 2–4 cell lithium-polymer (Li-Po) battery packs and features a microchip CPU controller with a large LED to display the charge status. It also precisely follows standard Li-Po charger algorithms. This programmed set of charging rules tells the charger to increase the voltage of the Li-Po cell to 4.2V (per cell). While the voltage is rising, the current is precisely kept at one of the preset rates (either 500mA, 1A or 2A). Once the maximum cell voltage is reached (at which point the battery is 80–90% charged), the charger steadily maintains a constant voltage, while the current decreases until terminating the charge.

### Features

- Microprocessor controlled technology provides efficient and precise charging
- Uses a voltage booster to allow charging up to 4-cell (14.8V) Li-Po batteries
- Selectable charge rate of 500mA, 1000mA and 2000mA
- Automatically detects cell count and indicates error
- LED and audible beeper indicates charging status
- Short circuit protection for both input and output

### Specifications

- 12V DC-powered
- Charges 2–4 cell Li-Po packs
- Reverse polarity protection circuit

## Safety Precautions

Lithium Polymer batteries are volatile. Failure to read and follow these instructions and safety precautions may result in fire, personal injury and damage to property if batteries are charged or used improperly. Horizon Hobby, Inc. and its retailers assume no liability for failures to comply with these instructions and precautions.

- Do not leave the battery and charger unattended while in use. **Improper charging of Li-Po batteries could result in fire.**
- When charging, constantly monitor the temperature of the battery pack. If the battery becomes hot to the touch, discontinue the charging operation immediately by disconnecting the battery pack.
- Never charge around or in the area of any flammable or combustible materials. The safest place to charge is on a concrete surface.
- Do not allow children to charge battery packs unless supervised by a responsible adult.
- The charger can become hot during charging. Use care when selecting where you will charge the battery packs.
- This charger is DC only. Please note (+) (-) cannot be connected inversely.
- The charger will not operate if the supply voltage is below 10V.
- This charger is designed for lithium-polymer batteries only. It MUST NOT be used to charge Ni-Cd and Ni-MH battery packs.
- Maximum charging rate of the Li-Po battery should not be set to over 1x capacity. Ideal charge rate is approximately .7x the capacity of the pack.
- Please check power source or output to make sure they are connected properly. The charger will not operate if either is connected incorrectly.
- If at any time you see a battery starting to balloon or swell up, discontinue charging process immediately. Batteries in this condition may leak, and the reaction with air may cause the chemicals to ignite, resulting in fire. Disconnect the battery from the charger and observe it in a safe place for approximately 15 minutes.
- Let the battery cool down to ambient temperature before charging.
- Do not charge battery packs in series. Charge each battery pack individually. Failure to do so may result in incorrect battery recognition and charging functions. Overcharging may occur and fire may be the result.

## Supplying DC Power to the Charger

The charger is powered by connecting it to a 12V power source, such as a 12V sealed battery (HAN102), a 12V automobile battery (car must be not be running), a field box power panel or appropriate power supply. The battery capacity must be over 5Ah.

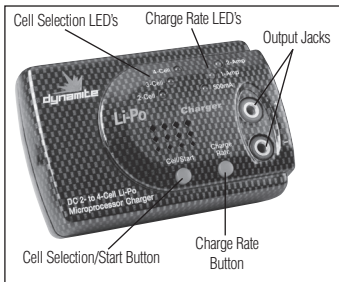
The charger includes two different methods of connecting the charger to your power supply. Use the option best suited for your application.

- Banana connectors for use with most power supplies
- Alligator sleeves for use with 12V sealed batteries, automobile batteries

Step 1: Attach the red (positive) banana plug to the red (positive) terminal on your 12V battery or power panel. Attach the black (negative) banana plug to the black (negative) terminal on your 12V battery or power panel.

Step 2: Slide the alligator sleeves onto the banana connectors. Attach the black (negative) banana plug to the black (negative) alligator clip, and red (positive) banana plug to the black (negative) alligator clip. Attach the red (positive) alligator clip to the red (positive) terminal on your 12V battery or power panel, and the black (negative) clip to the black (negative) terminal.

Once your charger is given power, the 6 control LED's will light in order from 2000mA to 2-cell. After a signal tone, the 2-cell and 500mA LED's will light solid.



## Charging Process

Step 1: Connect the battery to the charger. The charger will signal the connection of the battery by producing one long beep. The LED will also flash indicating the connection of the battery.

Step 2: Press the Cell Selection/Start Button to choose the proper cell count to match your battery pack.

Step 3: Refer to the chart below for recommended charge rates. Select the appropriate charge rate for your particular battery by actuating the Charge Rate button.

Battery Capacity	Charge Rate
500mA–1000mA	500mA
1000mA–2000mA	1000mA
2000mA and above	2000mA

**Warning:** Selecting a charge rate higher than 1x battery capacity may result in fire.

Step 4: Push and hold the Start button for two seconds. You will hear a short beep, and the LED will remain on continuously to indicate the battery is charging.

**Note:** Do not adjust the charge rate switch in this state.

**Note:** The charge cycle can be canceled by pressing the Start button again. The charger will produce a short beep to indicate the end of the charge cycle, and the LED will again flash.

- The charger will detect the cell count to make sure the correct cell count has been selected. If not, the charger will emit an error tone and all the charge LED's will flash.

- If the battery voltage is too low, the charger will also emit the error tone even though the right number of cells has been selected. Hold the CHARGE button for 2 seconds to enter the charger into the low voltage charge mode. After 30 seconds the charger will return to the correct charge mode.

Step 5: When charging is complete, the charger will emit one long beep, ten double-beeps and then the LED will flash.

The beeper will sound every 45 seconds until the battery is disconnected. Do not leave the battery connected to the charger when charging is complete. Failure to comply may result in fire.

## Warranty

### Limited Warranty Period

Horizon Hobby, Inc. guarantees this product to be free from defects in both material and workmanship for a period of 5 years from the date of purchase.

### Limited Warranty & Limits of Liability

Pursuant to this Limited Warranty, Horizon Hobby, Inc. will, at its option, (i) repair or (ii) replace, any product determined by Horizon Hobby, Inc. to be defective.

**In the event of a defect, these are your exclusive remedies.**

This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of or to any part of the product. This warranty does not cover damage due to improper installation, operation, maintenance, or attempted repair by anyone other than an authorized Horizon Hobby, Inc. service center. This warranty is limited to the original purchaser and is not transferable. In no case shall Horizon Hobby's liability exceed the original cost of the purchased product and will not cover consequential, incidental or collateral damage. Horizon Hobby, Inc. reserves the right to inspect any and all equipment involved in a warranty claim. Repair or replacement decisions are at the sole discretion of Horizon Hobby, Inc. Further, Horizon Hobby reserves the right to change or modify this warranty without notice.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. HORIZON HOBBY, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

**As Horizon Hobby, Inc. has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability.**

If you as the purchaser or user are not prepared to accept the liability associated with the use of this product, you are advised to return this product immediately in new and unused condition to the place of purchase.

## Safety Precautions

This is a sophisticated hobby product and not a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this product in a safe and responsible manner could result in injury or damage to the product or other property. **This product is not intended for use by children without direct adult supervision.**

**The product manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or injury.**

## Questions, Assistance, and Repairs

Your local hobby store and/or place of purchase cannot provide warranty support or repair. Once assembly, setup or use of the product has been started, you must contact Horizon Hobby, Inc. directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance.

### Questions or Assistance

For questions or assistance, please direct your email to [productsupport@horizonhobby.com](mailto:productsupport@horizonhobby.com), or call 877.504.0233 toll free to speak to a service technician.

### Inspection or Repairs

If your product needs to be inspected or repaired, please call for a Return Merchandise Authorization (RMA). Pack the product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as Horizon Hobby, Inc. is not responsible for merchandise until it arrives and is accepted at our facility. Include your complete name, address, phone number where you can be reached during business days, RMA number, and a brief summary of the problem. Be sure your name, address, and RMA number are clearly written on the shipping carton.

### Warranty Inspection and Repairs

To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Providing warranty conditions have been met, your product will be repaired or replaced free of charge. Repair or replacement decisions are at the sole discretion of Horizon Hobby.

## Non-Warranty Repairs

Should your repair not be covered by warranty and the expense exceeds 50% of the retail purchase cost, you will be provided with an estimate advising you of your options. You will be billed for any return freight for non-warranty repairs. Please advise us of your preferred method of payment. Horizon Hobby accepts money orders and cashiers checks, as well as Visa, MasterCard, American Express, and Discover cards. If you choose to pay by credit card, please include your credit card number and expiration date. Any repair left unpaid or unclaimed after 90 days will be considered abandoned and will be disposed of accordingly.

**Electronics and engines requiring inspection or repair should be shipped to the following address (freight prepaid):**

Horizon Service Center  
4105 Fieldstone Road  
Champaign, Illinois 61822

**All other products requiring inspection or repair should be shipped to the following address (freight prepaid):**

Horizon Product Support  
4105 Fieldstone Road  
Champaign, Illinois 61822