

PASSPORT AC/DC LI-PO 6S CHARGER

OPERATION MANUAL



NOTICE:

All instructions, warranties, and other collateral documents are subject to change at the sole discretion of Horizon Hobby, Inc. For up-to-date product literature, visit <http://www.horizonhobby.com/Products/Default.aspx?ProdID=DYN4065>

Meaning of Special Language:

The following terms are used throughout the product literature to indicate various levels of potential harm when operating this charger:

NOTICE: Procedures, which if not properly followed, create a possibility of physical property damage AND a small or null possibility of injury.

CAUTION: Procedures, which if not properly followed, create the probability of physical property damage AND a possibility of serious injury.

WARNING: Procedures, which if not properly followed, create the likely probability of physical property damage AND may lead to a dangerous condition or cause death or serious injury to the user; OR procedures, which if not followed, create the high probability of superficial injury.

WARNING

Read the **ENTIRE** instruction manual to become familiar with the features of the charger before operating. **Never leave the charger unattended during use. Failure to operate the charger can cause damage to the charger, battery, personal property or cause serious injury.**

Introduction

Thank you for purchasing the Dynamite® Passport™ AC/DC Li-Po 6S Charger. The Passport line of chargers are high-performance battery management chargers that can improve the reliability and life of most battery packs.

The Passport AC/DC Li-Po 6S Charger has built-in balance ports to monitor and balance 2S to 6S Li-Po battery packs during the charge process.

The balancing feature charges each series of cells individually to deliver the safest, most complete charge possible. The balancing process also increases the life of the battery.

Be sure to read the entire manual to become familiar with the features of the charger. Failure to understand the features of the charger can cause serious damage to the charger, battery or cause serious injury and damage to personal property.

Never leave the charger unattended during use.

Specifications

AC Input: 110 to 120V (220 to 240V for international version)

DC Input: 11 to 14V

Battery Type: Li-Po or Li-Fe

Battery Cell: Li-Po; 2S to 6S (7.4~22.2V)
Li-Fe; 2S to 6S (6.4~19.2V)

Charge Rate: 1, 2, 3, 4 and 5 amp

Charging Mode: Constant Current/Constant Voltage (CC/CV)

⚠ CAUTION: Attempting to charge batteries different than those specified in this manual can result in excessive heat and other related product malfunctions, which can lead to user injury or property damage. Please contact Horizon Hobby or an authorized retailer with compatibility questions.

Features

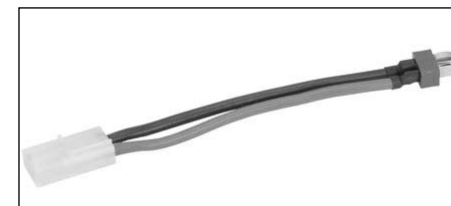
- AC/DC power for convenient charging anywhere
- Banana plug output for more connector flexibility
- 1, 2, 3, 4 and 5-amp selectable charge rates
- Charges 2–6S Li-Po batteries
- Balance sockets molded into the side of the charger for convenient balance charging
- 12-bit CPU controller provides precise charging
- Memorize the last setting of balance charge automatically
- LED and beeper charge status indicators
- Reverse and short circuit protection
- Durable, compact and portable design with an aluminum casing and plastic end caps
- Built-in cooling fan

Available Charge Cords and Adapters

The Passport AC/DC Li-Po 6S Charger includes the Deans Ultra style charge cord (DYN5006). Dynamite offers charge cords and adapters for all your battery charging requirements. See the list below to order additional connectors.



DYN4003
Receiver Pack Charger Adapter



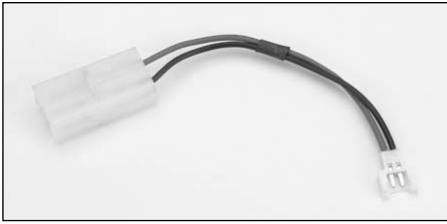
DYN5000
Charge Adapter Tamiya Female: Deans Male



DYN5001
Charge Adapter Tamiya Female: EC3 Female



DYN5002
Charge Adapter Tamiya Female: EC5 Female



DYN5003
Charge Adapter Tamiya Female: Losi Micro



DYN5004
Charge Adapter Tamiya Female to Losi Mini



DYN5005
Charge Adapter Banana to Tamiya Male



DYN5006
Charge Adapter Banana: Deans Ultra Male



DYN5007
Charge Adapter Banana: EC3 Female



DYN5008
Charge Adapter Banana: EC5 Female



DYN5010
12V DC Power Adapter with Cig Plug

Available Balance Adapters

You may also purchase adapters to adapt Thunder Power and Losi balance plugs to fit the Dynamite balance charge sockets.

DYN5012
Adapter Cables-THP BAT-DYN
Balancer, 2-6S

DYN5011
Adapter Cables-LOS BAT-DYN
Balancer, 2-6S

Input Power Connection

NOTE: Do not connect both AC and DC input power types to the charger simultaneously or damage to the charger may occur.

AC Voltage

Connect the AC input power cord to the appropriate power receptacle.

NOTICE: Always consult 12V battery collateral materials or Horizon Hobby before using with sources other than standard AC wall outlet.

DC Voltage

Connect the red alligator clip to the positive (+) terminal of an 11-14-volt DC power supply or battery. Connect the black alligator clip to the negative (-) terminal.

NOTE: When the input power is connected, the last battery chemistry and current setting LEDs will illuminate.

When the charger has been connected to the power source properly, the LED will blink in order from IA to the Status LED (from right to left) and then stop at the last charge rate setting. The Battery Type LED will also illuminate.

The built-in cooling fan will automatically engage during input power connection.

CAUTION: Never connect the AC and DC input cords to an active power source at the same time. This will void the warranty, cause product damage and possibly injure the user.

WARNING: Always make sure that you follow proper polarities at all times or electrical shock will occur.

To Change Battery Type (Chemistry)

Press and hold the Start/Select button for 2 seconds to change battery type from Li-Po to Li-Fe while the output battery pack is not connected.

NOTE: The Battery type LED will light red for Li-Po battery and green for Li-Fe battery.

Charge Output Battery Connection

Choose the appropriate charge cord to match your battery pack and connect the positive (red) lead to the positive (+) output terminal. Connect the negative (black) lead to the negative (-) output terminal.

Balance Plug Connection

Connect the balance plug to the appropriate balance socket on the front side of the charger. Use a balance adapter if necessary.

NOTE: The charger will not charge the battery unless the balance lead is connected.

The beeper will sound and the Status LED will flash red if you start charging without connecting the balance-charge lead.

Press and hold the Start/Select button for 2 seconds to reset.

Charge Mode

1. Set the current rate before charging. Adjustable charge rates from 1-5A.
2. See the table below to select the charge rate. Li-Po/Li-Fe batteries should be charged at a 1C rate which is 1 times the capacity.

Example: battery capacity (1000mAh) x 1 = 1000mA or 1 amp)

Battery Capacity	Charge Rate	Charge Time
1300mAh	1A	78-94 Min.
2200mAh	2A	54-65 Min.
3300mAh	3A	40-48 Min.

NOTICE: You must also consider the battery pack's series cell count (i.e. 2S, 3S, 4S, etc...) as the voltage of the pack being charged will affect the available charge current in order to not exceed the 50 Watt maximum output limit of the charger.(1-5A for 2S pack; 1-4A for 3-4S pack; 1-2A for 5-6S pack). Using a charge rate that is not compatible with the above mentioned battery capacities may result in damage or malfunction of the charger or batteries.



3. Press and hold the Start/Select button for 2 seconds to enter the charge mode. The beeper will sound and the Charge rate LED will begin to blink to indicate that the charge process has begun.

NOTE: The Charge rate LED will return to the maximum charge rate available for its series cell count when the selected charge rate is over the allowable charge rate range.

4. You may change the charge rate by pressing the button again during charging.
5. The corresponding green LED of unbalanced battery (C1..C6) will blink during charging. The charger is discharging the batteries to balance the voltage.
6. The charge period can be canceled by pressing the Start/Select button for 2 seconds or removing the battery pack.
7. The charge rate LED will turn from blinking to solid on and the charger will beep when charging is complete.
8. The beeper will sound every 60 seconds until the battery is disconnected. Disconnect the battery and remove input power from the charger when charge is complete.

⚠ WARNING: If at any time during the charge process the battery pack(s) become hot or begin to puff unplug the battery immediately and discontinue the charge process as batteries can cause fire, collateral damage and injuries.

Safe Voltage

When input voltage is less than 10.5V, the red Status LED flashes fast and the beeper will sound.

⚠ WARNING: Lithium batteries are volatile, selecting a charge rate higher than 1x battery capacity may result in fire.

Battery Capacity Charge Rate

This charger is designed to charge Li-Po and Li-Fe battery packs only. You should not charge Ni-Cd or Ni-MH battery packs with this charger.

Other Warnings and Precautions

Failure to exercise caution while using this product and comply with the following warnings could result in product malfunction, electrical issues, excessive heat, FIRE, and ultimately injury and property damage.

- Read all safety precautions and literature prior to use of this product.
- Never leave the battery and charger unattended during use.
- Never attempt to dismantle the charger.
- Never attach your charger to both an AC and DC power source at the same time.
- Never connect the charger to an automobile 12V battery while the vehicle is running.
- Never reverse the positive and negative terminals. Wrong connection will damage the battery and may cause damage to the charger.
- Never allow minors to charge battery packs without adult supervision.
- Never drop charger or batteries.
- Never attempt to charge dead or damaged batteries
- Never attempt to charge a battery pack containing different types of batteries.
- Never charge a battery if the cable has been pinched or shorted.
- Never allow batteries or battery packs to come into contact with moisture at any time.
- Never charge batteries in extremely hot or cold places (recommended between 50-80 degrees F) or place in direct sunlight.
- Never connect the input jack (DC input) to AC power
- Always use only rechargeable batteries. This charger cannot charge batteries such as "heavy duty," "Alkaline battery," "Nickel", or "Mercury battery."
- Always connect the positive red lead (+) and negative black lead (-) terminals of the battery to the charger terminals correctly.
- Always disconnect the battery after charging, and let the charger cool between charges.

- Always inspect the battery before charging.
- Always terminate all processes and contact Horizon Hobby if the product malfunctions.
- Always keep batteries and charger away from any material that could be affected by heat (such as ceramic and tile), as they can get hot.
- Always monitor the area, use a fire alarm and have a fire extinguisher available at all times.
- Always ensure program settings are correct to prevent battery damage or fire.
- Always make sure you know the specifications of the battery to be charged or discharged to ensure it meets the requirements of this charger. If the program is set up incorrectly, the battery and charger may be damaged. Improper settings can cause the battery to become overcharged potentially leading to fire or explosion.
- Always connect the charge cable to the charger first, then connect the battery to avoid short circuit between the charge leads. Reverse the sequence when disconnecting.
- Never connect more than one battery pack to this charger at a time.
- Always ensure DC input is 11-14V.
- Always constantly monitor the temperature of the battery pack while charging.
- Always end the charging process if the charger or battery becomes hot to the touch or starts to change form (swell) during the charge process.

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. This 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

Warranty Period

Exclusive Warranty- Horizon Hobby, Inc., (Horizon) warranties that the Products purchased (the "Product") will be free from defects in materials and workmanship for a period of 5 years from the date of purchase by the Purchaser.

5-Year Limited Warranty

Horizon reserves the right to change or modify this warranty without notice and disclaims all other warranties, express or implied.

(a) This warranty is limited to the original Purchaser ("Purchaser") and is not transferable. REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. This warranty covers only those Products purchased from an authorized Horizon dealer. Third party transactions are not covered by this warranty. Proof of purchase is required for warranty claims. Further, Horizon reserves the right to change or modify this warranty without notice and disclaims all other warranties, express or implied.

(b) Limitations- HORIZON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCT. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

(c) Purchaser Remedy- Horizon's sole obligation hereunder shall be that Horizon will, at its option, (i) repair or (ii) replace, any Product determined by Horizon to be defective. In the event of a defect, these are the Purchaser's exclusive remedies. Horizon 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. 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 Horizon. Return of any goods by Purchaser must be approved in writing by Horizon before shipment.

Damage Limits

HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCT, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT LIABILITY.

Further, in no event shall the liability of Horizon exceed the individual price of the Product on which liability is asserted. As Horizon 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.

Law: These Terms are governed by Illinois law (without regard to conflict of law principals).

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 directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please direct your email to productsupport@horizonhobby.com, or call 877.504.0233 toll free to speak to a service technician.

Inspection or Repairs

If this 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 is not responsible for merchandise until it arrives and is accepted at our facility. A Service Repair Request is available at www.horizonhobby.com on the "Support" tab. If you do not have internet access, please include a letter with your complete name, street address, email address and phone number where you can be reached during business days, your RMA number, a list of the included items, method of payment for any non-warranty expenses and a brief summary of the problem. Your original sales receipt must also be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

Warranty Inspection and Repairs

To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Provided 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 the repair will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost. By submitting the item for repair you are agreeing to payment of the repair without notification. Repair estimates are available upon request. You must include this request with your repair. Non-warranty repair estimates will be billed a minimum of 1/2 hour of labor. In addition you will be billed for return freight. Please advise us of your preferred method of payment. Horizon 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. Please note: non-warranty repair is only available on electronics and model engines.

United States:

Electronics and engines requiring inspection or repair should be shipped to the following address:

Horizon Service Center
4105 Fieldstone Road
Champaign, Illinois 61822
USA

All other Products requiring warranty inspection or repair should be shipped to the following address:

Horizon Product Support
4105 Fieldstone Road
Champaign, Illinois 61822
USA

Please call 877-504-0233 or e-mail us at productsupport@horizonhobby.com with any questions or concerns regarding this product or warranty.

United Kingdom:

Electronics and engines requiring inspection or repair should be shipped to the following address:

Horizon Hobby UK
Units 1-4 Ployters Rd
Staple Tye
Harlow, Essex
CM18 7NS
United Kingdom

Please call +44 (0) 1279 641 097 or e-mail us at sales@horizonhobby.co.uk with any questions or concerns regarding this product or warranty.

Germany:

Electronics and engines requiring inspection or repair should be shipped to the following address:

Horizon Technischer Service
Hamburger Strasse 10
25335 Elmshorn
Germany

Please call +49 4121 46199 66 or e-mail us at service@horizonhobby.de with any questions or concerns regarding this product or warranty.

For products with part numbers DYN4066EU and DYN4066UK.

Compliance Information for the European Union

Instructions for Disposal of WEEE by Users in the European Union

This product must not be disposed of with other waste. Instead, it is the user's responsibility to dispose of their waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or where you purchased the product.



Declaration of Conformity

(in accordance with ISO/IEC 17050-1)

No. HH2009052102

Product(s): DYN Passport AC/DC LiPo 6S

Item Number(s): DYN4066EU, DYN4066UK

The object of declaration described above is in conformity with the requirements of the specifications listed below, following the provisions of the European EMC Directive 2004/108/EC:

EN55022	Radio disturbance characteristics
EN 61000-3-2	Limits for harmonic current emissions
EN 61000-3-3	Conducted Emissions, Voltage Flicker
EN55024	Immunity characteristics
EN 60950	Safety

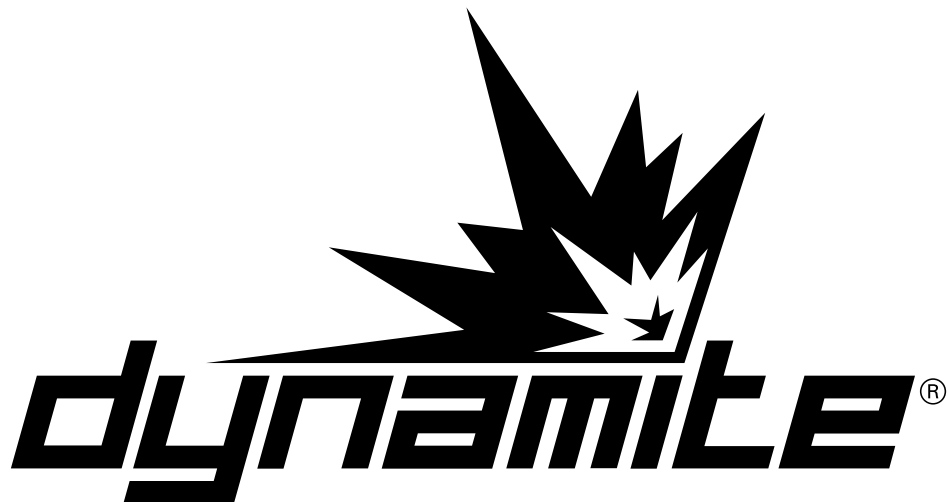
Signed for and on behalf of:

Horizon Hobby, Inc.
Champaign, IL USA
May 21, 2009

Steven A. Hall

A handwritten signature in black ink that reads "Steven A. Hall".

Vice President
International Operations and Risk Management
Horizon Hobby, Inc.



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