

dynamite®

VISION ULTRA AC/DC 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>

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 little or no 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 probability of property damage, collateral damage, and serious injury OR create a 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 correctly can cause damage to the charger, battery, personal property or cause serious injury.

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. Do not attempt disassemble, use with incompatible components or augment product in any way without the approval of Horizon Hobby, Inc. 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 serious injury.

Introduction

Thank you for purchasing the Dynamite® Vision Ultra™ AC/DC Peak Detection Charger. The Vision line of chargers are high-performance battery chargers that can maintain the reliability and life of most battery packs.

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.

Product Support

For technical assistance with this product, please contact the appropriate Horizon Product Support office. See page 10.

Specifications

Input: AC 110 to 240V DC 11.5 to 15V

Battery Type: Ni-Cd/Ni-MH/Li-Po/Li-Fe/Li-Ion/Pb

Battery Cell: Ni-Cd/Ni-MH; 1 to 8-Cell
(1.2 to 9.6V)
Li-Po; 1S to 3S (3.7–11.1V)
Li-Fe; 1S to 3S (3.2–9.6V)
Li-Ion; 1S to 3S (3.6–10.8V)
Pb; 12V

Charge Rate: 0.1A–7.0A (0.1A Per gradation)

Charging Capacity: 200 to 10500mAh

Trickle Charge Rate: 1/16 Fast Charge Rate

Output Wattage AC 50W; DC 70W



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

Setup mode and write memory.

DC input reversed polarity protection.

Battery Pack reversed polarity protection.

Internal Safe-Time: 900 minutes, suitable for small charge rate.

LED Functions

Stand-By: No LEDs.

Error: Red LED/Green LED flash alternately.

Charge: Red LED Solid ON.

Charge Complete: Green LED Solid ON.

Buzzer Functions

Power on reset: 3 times (short)

Switches operation: 1 time (short)

Switches operation error: 2 times (short)

Error (battery short, reversed polarity, charger error, wrong battery type): 10 times (short)

Peak full or current drop full: 3 times (long)

Safe-Time full: 4 times (long)

Ni-MH & Ni-Cd Maximum Voltage full: 5 times (long)

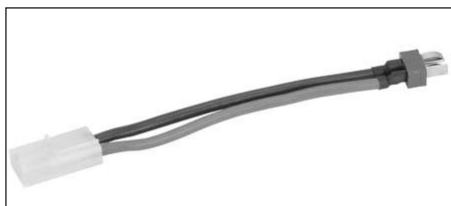
Wrong battery type: Prevents users from selecting Lithium-type to charge Ni-MH or Ni-Cd, charger possibly finds voltage drop before CV charging process (not fitting all Lithium-battery voltage) and shows Error. This function could possibly impact users using external Lithium-Balancers. Users can eliminate this function anytime by pushing the "SET" button for 2 seconds. LCD will show "nop" on Setup page line 1.

Available Charge Cords and Adapters

The Vision Ultra includes the Tamiya style charge cord (DYN5005). 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

Setup Mode

The Setup Mode allows the programming of the battery chemistry and the charge rate. You will need to set up a charge memory for your particular battery before it can be charged.



DYN5008

Charge Adapter Banana: EC5 Female



DYN5010

12V DC Power Adapter with Cig Plug



1. Connect the charger to 110AC wall outlet or a 11.5-15V DC power supply or battery. Be sure to connect the red alligator clip to the (+) positive terminal and the black clip to the (-) negative terminal.

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



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.

NOTE: If using an automotive battery as a power source, do not run the engine.

It takes approximately 3 seconds for the charger to power up when power is applied.



- Choose the appropriate connector to fit your battery plug. Connect the red banana plug to the red (+) positive terminal on the front of the charger and the black banana plug to the black (-) negative terminal.



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



The use of a Li-Po bag (DYN1400 small-DYN1405 large) is recommended for charging Li-Po batteries to help prevent fire in the event of a battery failure.

- Press the “arrow” buttons to choose a memory function to modify.



- Press the “Mode” button to enter the adjustment screen within 2 seconds or the screen will automatically move back to the charge screen. A cursor will illuminate under the memory digit acknowledging you have entered the adjustment mode.



- Press the “up” or “down” button to adjust the charge current.



CAUTION: See the charge rate charge for recommended charge currents. Do not charge cells smaller than sub-C cells over 2 amps or damage to the charger or battery may occur. Li-Po batteries should be charged no more than a 1C rate e.g., a battery with a capacity of 5200mAh should not be charged at a charge rate higher than 5.2 amps.

Battery Capacity	Charge Rate	Charge Time
600mAh	0.6A	60–80 Min.
1300mAh	1A	78–94 Min.
1800mAh	2A	54–65 Min.
3300mAh	5A	40–48 Min.

- Press the “Set” button to scroll through the chemistry selections.



CAUTION: Charging Li-Po batteries under any other mode will damage the battery, charger and may cause fire. Always confirm the battery chemistry setting prior to entering the charge mode.

7. Press the “Mode” button to return to the charging screen.



8. Press the “Start” button to begin charging.
The Start button can be pressed at any time to stop or resume charging.

To Set Another Charge Memory

Press the arrow keys and scroll to another memory selection (0–9) and see instructions above to set the charger parameters.

NOTICE: Also consider the battery pack’s series cell count (e.g., 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 charger (1–5A for 2S pack; 1–4A for 3–4S 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.

Special Notes for Li-Po/Li-Fe/Li-Ion packs:

A completely discharged Li-Po/Li-Fe/Li-Ion battery pack can be fully recharged in approximately 2–3 hours with charge rate at 1C. Do not set the charge rate higher than the capacity of the battery when charging a Li-Po/Li-Fe/Li-Ion.

Special Notes for Pb batteries:

Suggested charge rate for Pb charging is 0.3C (e.g., .3 x 5Ah=1.5A).



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 serious injury.

Safety Precautions

1. Never leave the charger unattended during charging.
2. Do not allow children to charge battery packs unless supervised by a responsible adult.
3. Use only rechargeable batteries. This charger cannot charge batteries such as “heavy duty”, “Alkaline battery”, or “Mercury battery.”
4. During use, please keep in a well ventilated area and never put beside inflammables.
5. This charger will be damaged if immersed in water or subjected to high level moisture. Do not use this charger in the rain or when your hand is wet to avoid electric shock or accident.
6. There is a fan inside this charger. To avoid accidents do not allow any foreign body to enter the fan.
7. The positive red lead (+) and negative black lead (-) terminals of the battery should be connected to the charger terminals correctly. Do not reverse the positive and negative terminals. Wrong connection will damage the battery and may cause damage to the charger.
8. Before you start to charge, please ensure you select correct charger settings. Double check if the battery count and type match your charger settings. Never set Li-Po and Pb batteries at another mode, otherwise will cause the batteries to catch fire!

Warranty and Repair Policy

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.

(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).

Warranty Services

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.



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