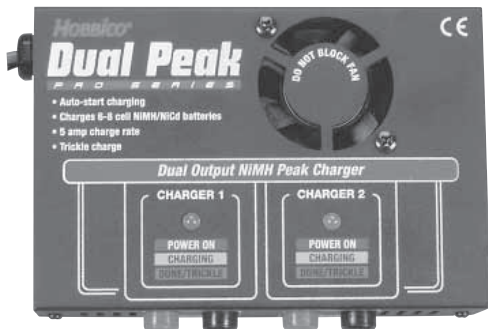


HOBBICO®

Dual Peak
DC Peak Charger
PRO SERIES



FEATURES

- Charges two 6- to 8-cell NiCd/NiMH battery packs simultaneously
- Fully automatic operation
- Multi-color LEDs indicate state of charge at a glance
- 8-bit MHz CPU intelligence control
- Advanced Pulse Charge Current
- Reverse polarity, thermal, and overload protection
- Vented metal case with fan helps keep charger cool
- Includes Charge Leads – featuring Deans® Ultra™ and gold-plated banana plugs
- 2-year Warranty

SPECIFICATIONS

| | |
|--------------------------------------|--|
| Input Voltage: | 11 to 14V DC |
| Battery Types (each port): | Nickel-Cadmium (NiCd), Nickel-Metal Hydride (NiMH) |
| Number Cells (each port): | 6- to 8-cells |
| Maximum Capacity: | 6300mAh |
| Preparatory Charge (each port): | 1.8A |
| Fast Charge Current (each port): | 5 Amp |
| Fast Charge Termination (each port): | Peak Detection |
| Trickle Charge Current (each port): | 350mA |
| Output Connectors: | Deans Ultra Plugs and gold-plated banana plugs |
| Fuse: | None [The charger uses relays for reverse-polarity input protection] |
| Case Size: | 4.85 x 3.3 x 1.25 in. [125 x 84 x 32mm] |
| Weight: | 10.5 ounces [300g] |

SPECIAL FEATURES

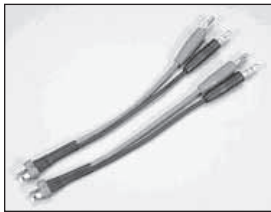
- **Advanced peak detector** – Fully charges the batteries but won't overcharge and damage them.
- **Built-in cooling fan** – Automatically comes on when needed.
- **Advanced pulse current charges more efficiently with less heating** – Provides a full charge without damaging the batteries. Lengthens the life of the batteries.
- **Twin 5A Chargers for 6- to 8-cell NiCd/NiMH (7.2 to 9.6V)** – Charges two batteries at 5 Amps at the same time on completely independent circuits.
- **8-bit 8MHz CPU intelligence control** – Advanced electronics provide a fast, safe, fully automatic charge to each of the batteries.
- **Reverse polarity protection on the input side (uses a relay, not fuse)** – Circuit is protected internally so if the user connects the

input battery backwards the circuit will disconnect itself and reset. There are no fuses to replace.

- **Wide Input voltage (11 to 14V)** – Can be charged from a 12 volt battery, in your car or with a 12 volt power supply.
- **Over-time protection (54 min.)** – Protects the batteries from over-heating by automatically stopping the charge if a peak is not reached within 54 min.
- **Automatic 350mA trickle charge** – Continues to keep the batteries safely “topping” off even after the peak is reached.



The Dual Peak features two fully automatic, independent circuits allowing for 2 batteries to be charged simultaneously.



Dual charge leads are included – featuring genuine Deans Ultra Plugs and efficient gold-plated banana plugs.

IMPORTANT PRECAUTIONS

- Do not attempt to charge incompatible types of rechargeable batteries as permanent damage to the battery and charger could result. Use **ONLY** with Sub-C rechargeable battery cells.
- Do not use automotive-type battery chargers to power the charger.

- Do not allow water, moisture or foreign objects into the charger.
- Do not block the air intake holes, which could cause the charger to overheat.
- Do not attempt to use batteries with more than 8 cells, or less than 6.
- Do not leave the charger unattended while in use.
- **Disconnect the battery and remove input power from charger immediately if the charger or battery becomes hot!** Allow the charger or battery to cool down before reconnecting.
- Do not place the charger or any battery on a flammable surface or near a combustible material while in use. Do not charge or discharge on a carpet, cluttered workbench, paper, plastic, vinyl, leather, wood, inside an R/C model or full-sized automobile!
- Always disconnect from power source when not in use.
- Keep out of reach of children.

CHARGER CONTROLS & CONNECTIONS

Due to the advanced nature of the charger, there are no controls to set on the Dual Peak Charger. However, it is important to connect the charger to a clean, well-regulated power supply capable of providing 12A within a range of 11 to 14V. A 12V automobile or marine battery is also acceptable, as well as electronic power supplies.

WARNING! Never accidentally short together the positive (+) and negative (-) input connections when connected to 12V DC power. Shorting the input could result in permanent damage to the power source and the charger. It's recommended to disconnect the charger from input power when not in use.

There are two output ports for charging two separate battery packs; Output 1 or Output 2. Each output includes its own independent LED which continually displays the charge status. The outputs are clearly

labeled on the front of the charger, and shown in the photo on the previous page. Please take care to observe the proper polarity when connecting batteries; the red banana jack is Positive (+), and the black banana jack is Negative (-). Plug the battery to be charged into only one port, either Output 1 or Output 2. When charging is complete, please ensure that the charger is disconnected from the power source.

LED INDICATORS

The LED states are as follows:

| | |
|------------------------|---|
| LED is red | There is no battery connected to the output. |
| LED is solid orange | The battery is undergoing a lower current “prep charge” before fast charging. |
| LED is flashing orange | The battery is being fast charged. |
| LED is green | Fast charge is complete, and the battery may be removed at this point. |
| LED is flashing green | The battery is being trickle-charged [may be removed at any time]. |

PEAK DETECTION METHOD

The “negative deltaV” peak detection method is used to charge NiCd and NiMH batteries using linear current. This can result in a battery safely receiving 95 to 98% full charge, which is followed by a gentle trickle charge current to help the battery safely reach its 100% charge capacity. Trickle charge will remain on until it is disconnected from the charger.

PEAK CHARGE SAFETY TIMER

An internal safety timer is designed to stop the charge process if peak charge is not detected (which can happen with batteries that are old or have reached the end of their cycle life). The safety time is fixed by the charger at 54 minutes.

BOOST CIRCUITRY

This feature is automatically activated when the input voltage to the charger is below the charge voltage to the battery. This would occur, for example, when charging an 8-cell battery pack with an input voltage to the charger of 11V. Even if the packs were fully discharged before use, at some point during charging the voltage will rise above the input voltage of 11V. At this point the boost circuit takes over and allows the charger to continue to charge the battery. The penalty for this is that the charger will now require additional current from the input source. Although the fast charge current is only 5A, when the boost is active you may experience a current draw from the power supply of 6A [for each output]. Remember as well, that charging *two 8-cell packs* at 11V input will double this so that you will be drawing a total of 12 to 13A from the input. Again, we stress the importance of using a power supply such as the HCAP0250, which can supply 150W [13.8V @ 11A].

Charging Batteries:

1. Plug 1 or both charge leads into the banana jacks on the charger, observing proper polarity. Plug the batteries to be charged into the charge leads.
2. The Dual Peak Charger will perform a pre charge to check the battery condition and begin fast charge automatically.
3. The LEDs will display the status of the charge condition.
4. Remove the batteries when charge is complete (LED is green or flashing green).

Please Note: The cooling fan is designed only to operate when necessary. It may switch ON and OFF intermittently throughout the charging process. The charge circuits are completely independent of one another and will fully peak each battery according to its charge state. Two batteries connected at the same time will not necessarily finish charging at the same time.

NiMH CARE & HANDLING

- NiMH cells have a self-discharge rate of approximately 20 to 25% (compared to 15% for NiCd batteries). It is important to recharge NiMH batteries immediately prior to use.
- Do not allow NiMH batteries to overheat! If overheated, disconnect the battery from the charger immediately and allow to cool.
- Do not deep cycle NiMH batteries as permanent damage could result.
- Do not attempt to use the charger with LiPo batteries.
- NiMH cells do not exhibit the “memory effect” like NiCd cells, so traditional cycling is not necessary.
- Store NiMH packs with some voltage remaining on the cells. Never store NiMH packs in a discharged condition.

**2-YEAR LIMITED WARRANTY
(U.S.A. & CANADA ONLY*)**

Hobbico® warrants this product to be free from defects in materials and workmanship for a period of two (2) years from the date of purchase. During that period, Hobbico will, at its option, repair or replace without service charge any product deemed defective due to those causes. You will be required to provide proof of purchase (invoice or receipt). This warranty does not cover damage caused by abuse, misuse, alteration or accident. If there is damage stemming from these causes within the stated warranty period, Hobbico will, at its option, repair or replace it for a service charge not greater than 50% of its then current retail list price. Be sure to include your daytime telephone number in case we need to contact you about your repair. This warranty gives you specific rights. You may also have other rights, which vary from state to state.

For service on your Hobbico product, warranty or non-warranty, send it post-paid and insured to:

Hobby Services
3002 N. Apollo Dr., Suite #1
Champaign, IL 61822
(217) 398-0007

*For warranty and service information if purchased outside the USA or Canada, see the additional warranty information insert (if applicable) or ask your retailer for more information.



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