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Digicharger D2 User Manual

The Nitecore D2 is a universal smart charger compatible with almost all cylindrical rechargeable batteries, thus eliminating the need to own several chargers. The D2 automatically detects Li-ion, Ni-MH and Ni-Cd batteries, and through manual selection is also capable of charging LiFePO4 batteries. Intelligent charging circuitry selects the optimal charging mode (CC, CV and dV/dt) for a given battery and each of the D2's two microcomputer-controlled charging slots then monitors and charges the battery independently. Furthermore, an integrated digital LCD screen clearly displays charging progress, voltage, current and time while an intelligent automatic power-off function terminates current when charging is complete.

The Nitecore D2: The world's most advanced fully-automatic digital charger. It's as simple as insert, detect and charge.

Features

- Capable of charging 2 batteries simultaneously
- Each of the two battery slots monitors and charges independently
- Compatible with and identifies Li-ion (26650, 22650, 18650, 17670, 18490, 17500, 18350, 16340(RCR123), 14500, 10440), Ni-MH and Ni-Cd (AA, AAA, AAAA, C) rechargeable batteries
- Optimized charging design for IMR batteries
- Integrated LCD panel clearly displays charging parameters and progress
- Two conveniently located side buttons allow easy selection of specific battery types and charging parameters
- Intelligent circuitry detects the battery type and status before entering automatic charge mode (CC, CV, dV/dt)
- Automatically detects battery power status and selects the appropriate voltage and charge mode (with the exception of LiFePO4 batteries which require manual selection)
- Compatible with LiFePO4 batteries
- Compatible with small capacity batteries
- Automatically stops charging when complete
- Features over-charge prevention to protect batteries
- Features temperature monitoring to prevent overheating
- Made from durable ABS (fire retardant / flame resistant)
- Features reverse polarity protection
- Designed for optimal heat dissipation
- Certified by RoHS, CE, FCC and CEC
- Insured worldwide by Ping An Insurance (Group) Company of China, Ltd.

Specifications

Input:	AC 100-240V 50/60Hz 0.25A(MAX), DC 12V 1A
Output voltage:	4.2V ±1% / 3.7V ±1% / 1.48V ±1%
Output current:	500mA x 2
Compatible with:	
Li-ion / IMR / LiFePO4:	26650, 22650, 18650, 17670, 18490, 17500, 18350, 16340 (RCR123), 14500, 10440
Ni-MH / Ni-Cd:	AA, AAA, AAAA, C
Dimensions:	143mm× 74mm×36mm
Weight:	168g (without batteries and power cord)

Operating instructions

1. Plug one end of the power cord or car charging adapter into the D2 charger. Plug the other end of the cord into an applicable outlet. The LCD display and all battery indicator bars will illuminate as the charger runs a quick self-test. When testing is complete, the name of the product will appear on the screen, the bars will dim and the charger will enter into stand-by mode. If no batteries are detected within 1 minute, the charger will automatically enter Eco Mode (the LCD backlight will turn off). When a battery is installed while in Eco Mode, simply press any button to activate the LCD display.
2. The D2 features two charging slots, each of which charges and monitors a battery independently. Rechargeable batteries of differing chemistries and voltages may be charged simultaneously using either 1 or 2 of the charging slots. When inserting a battery, ensure the positive and negative ends correspond with the positive (+) and negative (-) symbols on the charger. Incorrect installation will result in failure to initiate the charging process.
Note: The D2 is capable of charging 3.7v Li-ion rechargeable cells, 1.2v, Ni-MH/Ni-Cd rechargeable batteries and 3.2v LiFePO4 batteries. See above for description of battery sizes.
3. When a battery is first inserted the D2 will run a short test causing the battery indicators bars to illuminate in sequence from the bottom to the top. When the test is complete, the D2 will enter into charging mode. If any unusual circumstances have been detected, e.g. a backward battery installation, the battery indicator bars will blink rapidly and "Err" will be presented on the screen to urge an immediate removal of the battery.
4. While in charging mode, the battery indicator bars will blink rhythmically to indicate the on-going charging process. The battery's power status and charging progress is indicated by the number of bars that illuminate steadily. The LCD display will also display battery voltage, followed by charging current and elapsed charging time in sequence. Pressing the side "MODE" button will cycle through these charging parameters. To view the charging progress of a different charging slot press the side "SLOT" button to select a desired slot. When charging is complete, all five battery indicator bars will illuminate steadily and "Chg.Finish" will appear on the LCD display.
Note: When one or two batteries are charged in D2, each charging slot will receive a maximum output current of 0.5A.

Charging LiFePO4 batteries

To charge LiFePO4 batteries, simply press and hold the side "MODE" button for more than 2 seconds right after the battery test completes and "LiFePO4" will appear on the LCD display to indicate the activation of LiFePO4 charging mode. To exit LiFePO4 charging mode, simply press and hold the side "MODE" for more than 2 seconds once again, or remove and reinstall the battery.

Charging Small Capacity Batteries

When charging batteries with a capacity lower than 750mAH (e.g. AAA, 10440 and 16340 batteries), a low charging current is recommended to help extend battery life.
To select a low charging current, while in regular charging mode, simply press the side "SLOT" button to select a desired battery slot and then press and hold the side "MODE" button for more than 1 second until "LOW" is displayed on the LCD display indicating activation of low current charging mode. To exit, simply press and hold the side "MODE" button for more than 1 second once again or remove and reinstall the battery.

Nocturnal Charging Mode

When charging a battery overnight, nocturnal charging mode is recommended. Simply press and hold the side "SLOT" button for more than 1 second in any state until the LCD backlight turns off thus activating nocturnal charging mode. This feature ensures a peaceful night's sleep without being disturbed by the D2's LCD backlight and
blinking LEDs. To exit nocturnal mode and turn the backlight on again, press and hold the side "SLOT" button for more than 1 second again.

Battery Activation

The D2 is capable of activating depleted Li-ion batteries with protective circuit. After battery installation, D2 will test and activate the battery before charging. When a battery is detected as damaged, the LCD displays Err, and D2 terminates its charging. Such damaged battery cannot be activated by D2.
NOTE: Nitecore does not recommend charging 0V (depleted) unprotected Li-ion batteries with D2 and doing so can result in battery fire or explosion.

Overtime Prevention

The D2 is equipped with an advanced 'overtime' safety function. The D2 will individually monitor the elapsed charging time for each battery slot and if a particular slot exceeds 20 hours, the D2 will automatically power off the slot and display full charging bars to indicate completion of the charging process. This feature reduces the risk caused by batteries of lesser quality.

Precautions

1. The D2 is compatible with batteries of varying sizes, therefore when charging certain batteries (such as 26650 and AAA), manual adjustment of the battery's position within the slot is recommended, as to ensure solid contact is made between both sides of the battery and the charging slot's metal contact points.
2. The D2 is restricted to charging Li-ion, IMR, LiFePO4, Ni-MH/Ni-Cd rechargeable batteries only. Never use the D2 with other types of batteries as this could result in battery explosion, cracking or leaking, causing property damage and/or personal injury.
3. The D2 should only be used indoors or inside a motor vehicle and under no circumstances should it be exposed to water, high humidity and low or high ambient temperatures.
4. Do not disassemble or modify the charger.
5. Children under the age of 18 should be supervised by an adult when using the D2.
6. The D2's safe operating temperature is between 0-40ºC。
7. Do not use or store the charger near open flames, direct sunlight, heating devices or other high-temperature environments.

Warranty Service

All NITECORE® products enjoy a comprehensive after sale warranty service. A malfunctioning NITECORE® D2 charger may be exchanged for a replacement by a local authorized distributor/dealer within the first 15 days of receipt by the end user. After 15 days and up to 12 months, the D2 may be sent to an authorized distributor/dealer for repair. Beyond 12 months, the warranty covers labor costs and maintenance with the exclusion of accessories or replacement parts.
The warranty is nullified in any of the following situations:
1. The product(s) is/are broken down, reconstructed and/or modified under unauthorized conditions.
2. The product(s) is/are damaged through improper use.
3. The product(s) is/are damaged by leakage of batteries.
For further details of Nitecore's warranty service, please contact a regional distributor/dealer or send an email to service@nitecore.com
※All images, text and statements specified herein this user manual are for reference purpose only. Should any discrepancy occurs between this manual and information specified on www.nitecore.com, information on our official website shall prevail. Sysmax Industry Co., Ltd. reserves the rights to interpret and amend the content of this document at any time without prior notice.

Validation code and QR code on package can be verified on Nitecore website.

WARNING: THE D2 IS RESTRICTED TO CHARGING Li-ion, IMR, 3.7V LiFePO4, Ni-MH and Ni-Cd RECHARGABLE BATTERIES ONLY. NEVER USE THE D2 FOR OTHER TYPES OF BATTERIES AS THIS COULD RESULT IN BATTERY EXPLOSION, CRACKING OR LEAKAGE,CAUSING PROPERTY DAMAGE AND/OR PERSONAL INJURY.

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