

NITECORE®

The New Benchmark in Intelligent Chargers

Digicharger D4(D4EU) User Manual

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(English) IMPORTANT NOTICE CONCERNING WARRANTY SERVICE

Thank you for purchasing! Before using this charger, please find your verification code on the package box, and go to <http://charger.nitecore.com/validation> (or scan the QR code beside the verification code to visit on your mobile phone). Type in your verification code and personal information as required, and submit the page. After verification, Nitecore will send you a warranty service email. This email and your registration email address are essential to your possible warranty application. Before you complete the warranty service registration, you cannot enjoy our warranty service for your purchase.

(English) Digicharger D4(D4EU) User Manual

The Nitecore D4(D4EU) is a universal smart charger compatible with almost all cylindrical rechargeable batteries, thus eliminating the need to use several chargers. The D4(D4EU) 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 D4(D4EU)'s four 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 D4(D4EU): The world's most advanced fully-automatic digital charger. It's as simple as insert, detect and charge.

Features

- Capable of charging 4 batteries simultaneously
- Each of the four battery slots monitors and charges independently
- Compatible with and identifies Li-Ion (2650, 23650, 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 0.35A(MAX), DC 12V 1A

Output voltage: 4.2V $\pm 1\%$ / 3.7V $\pm 1\%$ / 1.48V $\pm 1\%$

Output current: 375mA $\times 4$ / 750mA $\times 2$

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: 5.63" \times 3.90" \times 1.42" (143mm \times 99mm \times 36mm)

Weight: 8.43oz (239g) (without batteries and power cord)

Operating instructions

1. Plug one end of the power cord or car charging adapter into the D4(D4EU) 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 D4(D4EU) features four 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, 2, 3 or all 4 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 D4(D4EU) 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 D4(D4EU) 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 D4(D4EU) 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. The "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 the D4(D4EU) is charging three or four batteries, charging current will be set to 375mA. Alternatively, when charging either one or two batteries, charging current will be set to 750mA.

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 D4(D4EU)'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 D4(D4EU) is capable of activating depleted Li-Ion batteries with protective circuit. After battery installation, D4(D4EU) will test and activate the battery before charging. When a battery is detected as damaged, the LCD displays Err, and D4(D4EU) terminates its charging. Such damaged battery cannot be activated by D4(D4EU). **NOTE:** Nitecore does not recommend charging 0V (depleted) unprotected Li-Ion batteries with D4(D4EU) and doing so can result in battery fire or explosion.

Overtime Prevention

The D4(D4EU) is equipped with an advanced 'overtime' safety function. The D4(D4EU) will individually monitor the elapsed charging time for each battery slot and if a particular slot exceeds 20 hours, the D4(D4EU) 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 charger is restricted to charging Li-Ion, IMR, LiFePO4, Ni-MH/Ni-Cd rechargeable batteries only. Never use the charger with other types of batteries as this could result in battery explosion, cracking or leaking, causing property damage and/or personal injury.
2. The safe operation temperature for the charger is between -10-40°C, and the safe storage temperature is -20-60°C.
3. Please charge batteries in accordance with the specifications on the back. Do not charge a battery pack with the charger.
4. Observe polarity diagrams located on the charger. Always place the battery cells with positive tip facing the top.
5. Never leave the charger unattended when it is connected to power. If any malfunction is found, terminate the process at once and refer to the operation manual.
6. The charger is designed for adults. Use of the charger by kids under age may be under supervision. Operation, using or cleaning of the charger may NOT be done by kids aged 8 years or younger.
7. Please make sure the correct program and settings are chosen and set. Incorrect program or setting may damage the charger or cause fire or explosion.
8. Never attempt to charge primary cells such as Alkaline, Zinc-Carbon, Lithium, CR123A, CR2, or any other unsupported chemistry due to risk of explosion and fire.
9. Do not charge a damaged IMR battery as doing so may lead to charger short-circuit or even explosion.
10. Never charge or discharge any battery having evidence of leakage, expansion/swelling, damaged outer wrapper or case, color-change or distortion.
11. Use the original adapter and cord for power supply. To reduce the risk of damage to the power cord, always pull by connector rather than the cord. Do not operate the charger if it appears damaged in any way.
12. Do not expose the device to direct sunlight, heating devices, open flames; avoid extreme high or extreme low ambient temperatures and sudden temperature changes.
13. Please operate the charger in a well-ventilated area. Do not operate or store it in damp area. Keep all the inflammable volatile substances away from operating area.
14. Avoid mechanical vibration or shock as these may cause damage to the device.
15. Do not short-circuit slots or other parts of the device. Do not allow metal wires or other conductive material into the charger.
16. Do not touch hot surfaces. The rechargeable batteries or the device may become hot at full load or high power charging/discharging.
17. Do not overcharge or over discharge batteries. Recharge drained batteries as soon as possible.
18. Remove all batteries and unplug the charging unit from the power source when not in use.
19. Opening, disassembling, modifying, tampering with the unit may invalidate its guarantee, check warranty terms.
20. Do not misuse in any way! Use for intended purpose and function only.

Disclaimer

This product is globally insured by Ping An Insurance (Group) Company of China, Ltd. Nitecore shall not be held responsible or liable for any loss, damage or claim of any kind incurred as a result of the failure to obey the instructions provided in this user manual.