NITECORE®
The All-Round Flashlight Expert

EC21 User Manual

Features
· Utilizes CREE XP-G2 (R5) LED
· Maximum output of 460 lumens
· Integrated “Precision Digital Optics Technology” provides extreme reflector performance
· Boasts a peak beam intensity of 9400 cd and a throw distance of up to 194 meters
· Dual-switch design ensures unprecedented ease of use
· Secondary red LED provides constant / flashing illumination
· Indicates battery voltage with a red flashing LED (accurate to 0.1V)
· High efficiency constant current circuit enables maximum runtime of up to 430 hours
· Direct access to ultra-low and turbo output
· Reverse polarity protection prevents damage from incorrectly inserted batteries
· Detachable two-way anti-rolling clip
· Toughened ultra-clear mineral glass with anti-scratch coating
· Constructed from aero grade aluminum alloy
· HAIII military grade hard-anodized
· Waterproof in accordance with IPX-8 (2 meters submersible)
· Impact resistant to 1.5 meters
· Tail stand capability

Dimensions
Length: 4.25” (108mm)
Head diameter: 1” (25.4mm)
Tail diameter: 1” (25.4mm)
Weight: 2.10oz (59.5 gram) (without battery)

Accessories
Quality holster, Clip, lanyard, spare O–ring

Battery Options

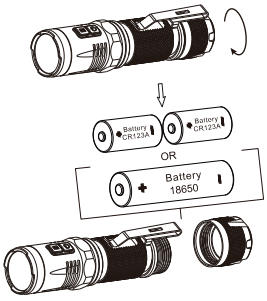
	SIZE	Nominal voltage	Compatible
Primary Lithium battery	CR123	3V	Y (Recommended)
18650 Rechargeable Li-ion battery	18650	3.7V	Y (Recommended)
Rechargeable Li-ion battery	RCR123	3.7V	Y

Output & Runtime

FL1 STANDARD	TURBO	HIGH	MID	LOW	LOWER
	460 LUMENS	210 LUMENS	100 LUMENS	20 LUMENS	1 LUMENS
18650	1h45min	4h45min	12h	50h	430h
2×CR123	1h15min	4h15min	10h	48h	280h
	194m (Beam Distance)				
	9400cd (Peak Beam Intensity)				
	1.5m (Impact Resistant)				
	IPX-8, 2m (Waterproof AND Submersible)				

NOTICE:
The stated data has been measured in accordance with the international flashlight testing standards ANSI/NEMA FL1, using 1 x Nitecore 18650 battery (3.7V 2600mAh) or 2 x Nitecore CR123 batteries (3V 1700mAh) under laboratory conditions. The data may vary during real–world use due to different battery usage or environmental conditions
NITECORE (SYSMAX) is a member of PLATO, participating in and helping to develop the ANSI FL1 standard of measurement. Product testing data is in accordance with these internationally recognized scientific standards.

Operating Instructions
Battery installation
Insert two CR123 batteries or one 18650 battery as illustrated
NOTE: After loading the batteries, the secondary red LED will flash to indicate battery voltage. Please refer to the “Power Tips” section of this manual for details.
WARNING:
Ensure batteries are inserted with the positive (+) end pointing towards the head. The EC21 will not be operational with incorrectly inserted batteries.



On / Off Operation
To switch ON: Press the ON/OFF button once.
To switch OFF: Press the ON/OFF button once again to switch the light off and enter standby mode

Standby Mode
With the light switched on, press and hold the ON/OFF button for more than one second to switch the light off and activate the secondary red LED to flash once every three seconds to indicate the location of the EC21. With the red LED on, the EC21 will operate for up to 108 consecutive days. With the red LED off, the EC21 can remain on standby for more than 12 months.

Brightness Levels
With the EC21 switched on, press the MODE button repeatedly to cycle through the following brightness levels: ultra-low, low, medium, high and turbo. Once a mode is selected it will be saved and resume when the EC21 is reactivated.

Instant Ultra-low Output
With the light switched off, press and hold the ON/OFF button for more than one second to access ultra-low mode (1 lumen).

Instant Turbo Output
With the light switched off, press and hold the MODE button for more than one second to access turbo mode (460 lumens).
NOTE: When in turbo mode, the EC21 will adjust output luminance automatically within 20 minutes of use to prevent overheating and extend battery longevity.

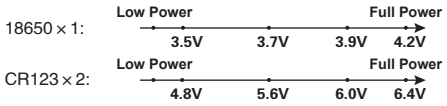
Red Light / Signal Light Mode
With the light switched off, press the MODE button to enter red light mode. In this mode, the secondary red LED will illuminate steadily.
When in red light mode, press and hold the MODE button for more than one second to enter signal light mode. In this mode, the secondary red LED will flash to serve as a signal light.
Simply press any button to exit the red light /signal light mode.

Special modes (Strobe/Location/SOS)
With the light switched on, press and hold the MODE button for more than one second to enter Strobe mode. When in strobe mode, press and hold the MODE button for more than one second again to cycle through Location Beacon, SOS and Strobe modes. To exit, simple press the MODE button to return to the brightness level last used, or press the ON/OFF button to switch the light off.

Strobe Ready
With the light switched off, press the MODE button twice in quick succession to enter Strobe mode. To exit, simply press any button.

Lockout / Unlock
With the light switched on, press and hold the ON/OFF button and the MODE button simultaneously for over one second to switch the light off and enter lockout mode. In lockout mode, the EC21 conserves battery power for over 12 months; the two buttons on EC21 will not work, thus preventing accidental activation of the light. To exit lockout mode, simply press and hold the ON/OFF button and the MODE button simultaneously for over one second again.
NOTE:
1. When entering lockout mode, the secondary red LED will continuously flash to indicate battery voltage. Please refer to the “Power Tips” section for more details.
2. When the EC21 is kept in a backpack or left unused for extended periods, Nitecore recommends the tailcap is loosened or batteries are removed to cut off the power entirely, thus preventing accidental activation of the flashlight or battery leakage.

Power Tips
After battery installation or lockout mode activation, the secondary red LED will flash to indicate battery voltage (accurate to 0.1V). For example, when battery voltage is at 4.2V, the red LED will flash 4 times, followed by a one second pause and another 2 flashes. Different voltages represent the corresponding remaining battery power levels:



Changing / Charging Batteries
Batteries should be replaced or recharged when output appears to be dim or the flashlight becomes unresponsive.

Maintenance
Every 6 months, threads should be wiped with a clean cloth followed by a thin coating of silicon-based lubricant.

Warranty Service
All NITECORE® products are warranted for quality. Any DOA/defective product can be exchanged for a replacement through a local distributor/dealer within 15 days of purchase. After 15 days, all defective/malfunctioning NITECORE® products will be repaired free of charge for a period of 60 months (5 years) from the date of purchase. Beyond 60 months (5 years), a limited warranty applies, covering the cost of labor and maintenance, but not the cost of accessories or replacement parts.
The warranty is nullified in all of the following situations:
1. The product(s) is/are broken down, reconstructed and/or modified by unauthorized parties.
2. The product(s) is/are damaged through improper use.
3. The product(s) is/are damaged by leakage of batteries.
For the latest information on NITECORE® products and services, please contact your national NITECORE® distributor or send an email to service@nitecore.com
The Nitecore official website shall prevail in case of any product data changes.

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