

# NITECORE®

The All-Round Flashlight Expert

# EC20 User Manual

## Features

- Utilizes a CREE XM-L2 U2 LED
- Maximum output of up to 960 lumens
- Integrated "Precision Digital Optics Technology" provides extreme reflector performance
- Boasts a peak beam intensity of 12,450 cd and a throw distance of up to 222 meters
- Innovative single button offers access to seven brightness levels and modes.
- High efficiency constant current circuit board provides max runtime of 520 hours.
- Integrated power indicator light displays remaining battery power (Patent NO. ZL201220057767.4)
- Power indicator's secondary function displays battery voltage (accurate to 0.1V)
- Instant access to ultra-low output
- Reverse polarity protection prevents damage from incorrectly inserted batteries
- Constructed from aero grade aluminum alloy with HAIII military grade hard-anodized finish
- Waterproof in accordance to IPX-8 (two meters submersible)
- Impact resistant to 1 meter
- Tail stand capability

## Dimensions

Length: 128mm (5")  
 Head diameter: 25.4mm (1")  
 Tube diameter: 25.4mm (1")  
 Weight: 76g (2.68oz)(without battery)

## Accessories

Quality lanyard, spare O-ring

## Battery Options

	TYPE	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	HIGH	MID	LOW	LOWER	STROBE	SOS	BEACON
	960 LUMENS	210 LUMENS	50 LUMENS	1 LUMEN	960 LUMENS	960 LUMENS	960 LUMENS
	1h 15min	6h	28h	520h	—	—	—
	222m	87m	33m	6m	—	—	—
	12450cd	1900cd	280cd	10cd	—	—	—
	1m (Impact Resistant)						
	IPX8, 2m (Waterproof AND Submersible)						

## NOTICE

Stated data has been measured according to the international flashlight testing standards ANSI/NEMA FL1 using a quality 18650 (3.7V 2600mAh) battery under laboratory conditions. The data may vary due to individual usage habits and environmental conditions.

## Operating Instructions

### Battery Installation

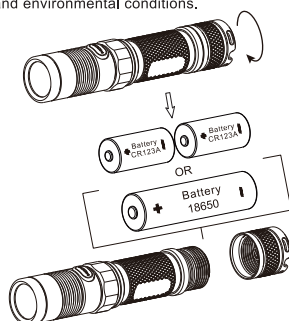
Insert one 18650 battery or two CR123 batteries with the positive poles pointing forward (toward the head).

**Note:** After loading the batteries, the power indicator light will blink 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 to the head. The EC20 will not operate with incorrectly inserted batteries.
- When the EC20 is kept in a backpack or left unused for extended periods of time, Nitecore recommends all batteries are removed to prevent accidental activation of the flashlight or battery leakage.



## ON/OFF

Press the button until a click is heard to switch the light on.  
 Press the button once again until a click is heard to switch the light off.

## Brightness Levels

With the EC20 switched on, press and hold the button for more than 0.5 second to cycle through brightness levels of ultra-low, low, medium and turbo. To select a desired brightness level, simply release the button when that level is being displayed. This mode provides an intelligent memory function to ensure direct access to the previously used brightness level when the EC20 is reactivated.

**Note:** when in turbo mode, the EC20 will reduce output luminance automatically after 5 minutes of use to prevent overheating and extend battery longevity

## Instant Ultra Low

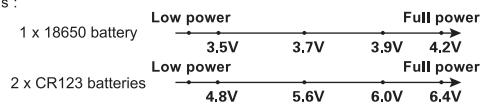
With the EC20 switched off, press and hold the button for more than one second to access an ultra-low output mode of 1 lumen.

## Special Strobe / SOS mode and Location Beacon

Press the button twice in quick succession in any state to enter Strobe mode. When in strobe mode, press the switch all the way down and hold for more than one second to cycle through Strobe, SOS and Location Beacon modes. To exit any of these special modes, simply press the button again. The EC20 does not have a memory function for special modes.

## Power Tips

- When the light is on, the power indicator will blink once every two seconds when power levels reach 50%.
- When the light is on, the power indicator will blink quickly when power levels are low.
- Each time batteries are inserted, the power indicator light will blink in varying patterns to indicate battery voltage (accurate to ±0.1V). For example, when battery voltage is at a maximum charge of 4.2V, the power indicator will blink 4 times in quick succession, followed by a one second pause, and then two more blinks, thus indicating the battery voltage detected is 4.2V. Different voltages represent the corresponding remaining battery power levels:



## Replacing Batteries

Batteries should be replaced when any of the followings occurs: The power indicators blinks rapidly, 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 Details

Our authorized dealers and distributors are responsible for warranty service. Should any problem covered under warranty occurs, customers can contact their dealers or distributors in regards to their warranty claims, as long as the product was purchased from an authorized dealer or distributor. NITECORE's Warranty is provided only for products purchased from an authorized source. This applies to all NITECORE products.

Any DOA / defective product can be exchanged for a replacement through a local distributor/dealer within the 15 days of purchase. After 15 days, all defective / malfunctioning NITECORE® products can 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 if the product(s) is/are broken down, reconstructed and/or modified by unauthorized parties, or damaged by batteries leakage.

For the latest information on NITECORE® products and services, please contact a local NITECORE® distributor or send an email to [service@nitecore.com](mailto:service@nitecore.com).

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