NITECORE High Performance 21700 Intelligence Technical Flashlight P20i User Manual

NITECORE®

KEEP INNOVATING
P20i
High Performance
21700 Intelligent Tactical Flashlight

- STROBE READYTM Technology
- Randomly Changing STROBE Mode
- USB-C Rechargeable

Contents

Features

- Utilizes a Luminus SST-40-W LED with a max output of 1,800 lumens
- An optical system combined with crystal coating and "Precision Digital Optics Technology" (PDOT

- Max peak beam intensity of 29,500cd and max throw of 343 meters · Highly efficient constant current circuit provides a stable output for up to 50 hours
- Dual tail switches enable intuitive operations for tactical applications
- 3 brightness levels and 1 special mode are available.
- STROBE READYTM Technology to enable quick access to STROBE Mode (Patent No.: ZL201320545349.4)
- STROBE Mode uses randomly changing frequencies for stronger dizzying effects
- Intelligent Li-ion battery charging circuit with a USB-C port
- NITECORE 21700 Li-ion battery included (NL2140i 4,000mAh)
- A power indicator beside the charging port indicates the remaining battery power (Patent No.: ZL201220057767.4)
- The power indicator can display the battery voltage (±0.1V)
- Strike bezel uses high strength silicon nitride ceramics to enable excellent glass braking performance
- Incorporated Advanced Temperature Regulation (ATR) module (Patent No.: ZL201510534543.6)
- Optical lenses with double-sided scratch-resistant coating
- Constructed from aero grade aluminum alloy
- HA III military grade hard-anodized finish
- Waterproof and dustproof rating in accordance with IP68 (2 meters submersible)
- Impact resistant to 2 meters

Specifications

Length:142.6mm (5.61″)
Head Diameter: 31.8mm (1.25″)
Tube Diameter: 25.4mm (1″)
Tail Diameter: 28.5mm (1.12″)
Weight: 113.5g (4oz)

Accessories

NITECORE 21700 Rechargeable Li-ion Battery (NL2140i 4,000mAh), Tactical Holster NTH20, Clip, Lanyard, Spare O-ring, CR123 Battery Magazine, USB-C Charging Cable

Battery Options

The P20i is only compatible with NITECORE 21700 I Series batteries with an output over 8A and CR123/RCR123 batteries.
Note: 1. DO NOT attempt to use the P20i to charge CR123/RCR123 batteries. 2. The P20i is NOT compatible with conventional 21700/18650 batteries.

Technical Data

Using a 4,000mAh 21700 Li-ion Battery:

FL1 STANDARD	HIGH	MID	LOW	STROBE
☀	1,800 Lumens	280 Lumens	35 Lumens	1,800 Lumens
🕐	1h 30min	7h 15min	38h	—
📏	343m	118m	47m	—
◎	29,500cd	3,500cd	550cd	—
✓	2m (Impact Resistance)			
🌊	IP68, 2m (Waterproof and Submersible)			

Note: The stated data is measured in accordance with the international flashlight testing standard ANSI/PLATO FL 1-2019, using a 1 x 21700 Li-ion battery (4,000mAh) under laboratory conditions. The data may vary in real-world use due to different battery usage or environmental conditions.

Using a 5,000mAh 21700 Li-ion Battery:

FL1 STANDARD	HIGH	MID	LOW	STROBE
☀	1,800 Lumens	280 Lumens	35 Lumens	1,800 Lumens
🕐	2h 30min	11h	50h	—
📏	343m	118m	47m	—
◎	29,500cd	3,500cd	550cd	—
✓	2m (Impact Resistance)			
🌊	IP68, 2m (Waterproof and Submersible)			

Note: The stated data is measured in accordance with the international flashlight testing standard ANSI/PLATO FL 1-2019, using a 1 x 21700 Li-ion battery (5,000mAh) under laboratory conditions. The data may vary in real-world use due to different battery usage or environmental conditions.

Using 2 x CR123 Batteries:

FL1 STANDARD	HIGH	MID	LOW	STROBE
☀	1,100 Lumens	280 Lumens	35 Lumens	1,100 Lumens
🕐	lh 15min	4h	20h	—
◿	270m	118m	47m	—
◎	18,200cd	3,500cd	550cd	–
✓	2m (Impact Resistance)			
⌄	IP68, 2m (Waterproof and Submersible)			

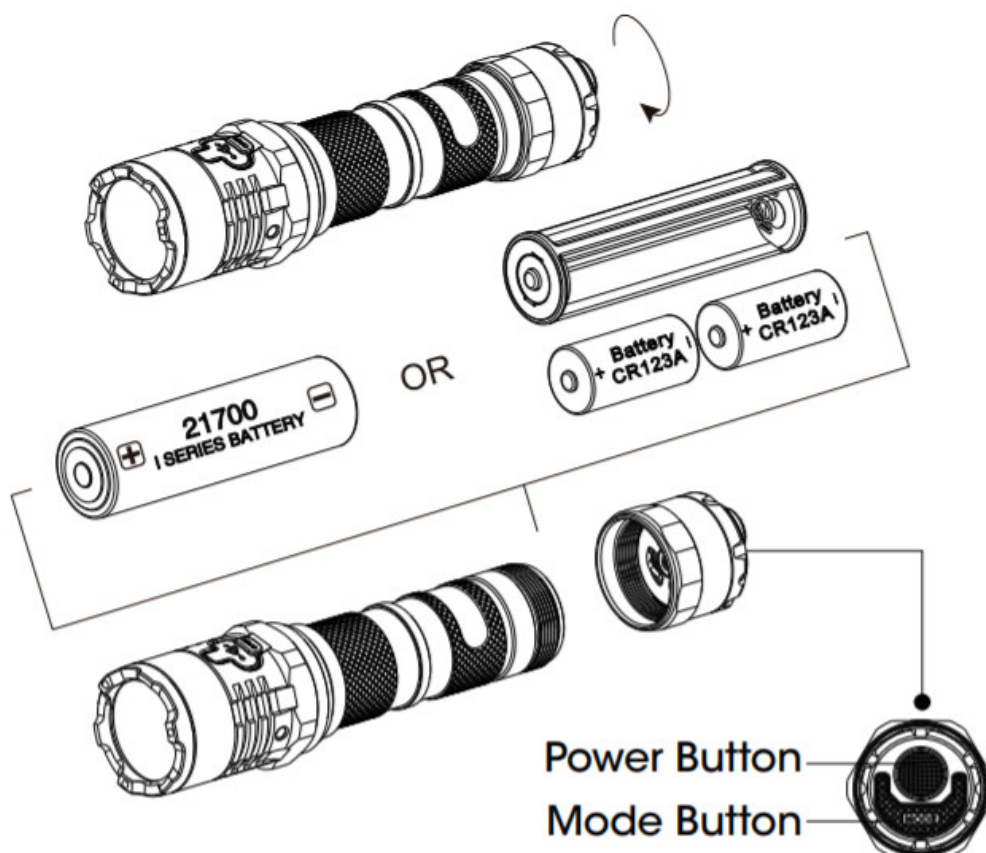**Note:** The stated data is measured in accordance with the international flashlight testing standard ANSI/PLATO FL 1-2019, using 2 x CR123 lithium batteries (1,700mAh) under laboratory conditions. The data may vary in real-world use due to different battery usage or environmental conditions.
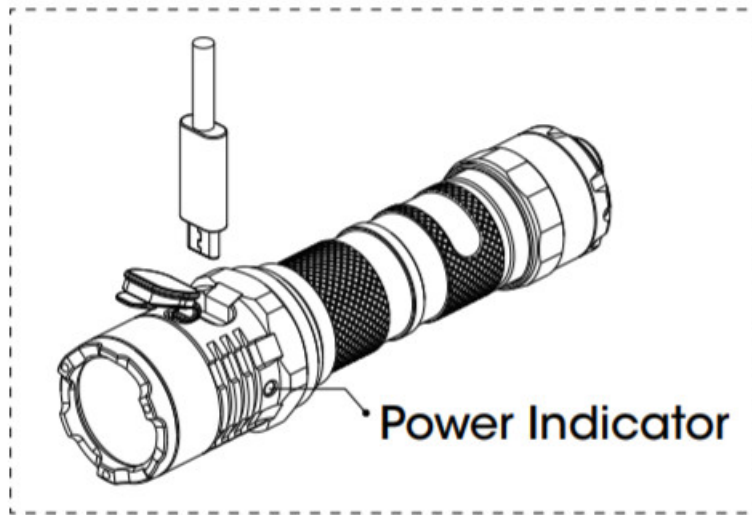
Battery Installation

OR

21700 I SERIES BATTERY

Battery CR123A

Power Button
Mode Button

Charging Function

Power Indicator

Operating Instructions

Battery Installation Insert the battery(s) as illustrated and screw to tighten the tail cap.

Note: After the battery insertion, the power indicator will flash to indicate the battery voltage. Please refer to the "Power Indication" section of this manual for more details.

Warnings:

1. Ensure the battery(s) is/are inserted with the positive end towards the head. The product will not work if the battery(s) is/are incorrectly inserted.
2. CAUTION! Possible dangerous radiation! Don't look into the light! May be dangerous for your eyes.
3. When the power level is low, please stop using the product and replace or recharge the battery to prevent damage to the battery.
4. When the product is kept in a backpack or left unused for a prolonged time, please remove all batteries to prevent accidental activation or battery leakage.
5. DO NOT submerge the light into any liquid when it is hot. Doing so may cause irreparable damage to the light due to the difference in air pressure inside and outside of the tube.

Charging Function

The P20i is equipped with an intelligent charging system. As illustrated, after inserting the battery and tightening the tail cap, use the USB cable to connect an external power supply (e.g. a USB adapter or other USB charging devices) to the charging port to begin the charging process.

- During the charging process, the power indicator will flash slowly to inform the user.
- When the battery is fully charged, the P20i will cease the charging process and the power indicator will become steadily turned on to inform the user.
- The charging time for a 21700 Li-ion battery (4,000mAh) is approx. 3 hours 30 minutes. (Charged via the 5V/2A adapter)

Tactical Momentary Illumination

Half-press and hold the Power Button to turn on the light momentarily. Release to turn it off.

On / Off

On: When the light is off, press the Power Button until a click sound is heard to turn it on and access the HIGH Level. Off: When the light is on, press the Power Button until a click sound is heard to turn it off.
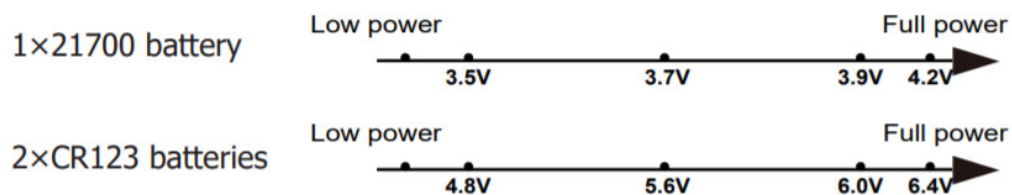
Brightness Levels

When the light is on, short press the Mode Button (STROBE READYTM) to cycle through the following brightness levels: HIGH MID LOW.

STROBE READY™

- When the light is off, press and hold the Mode Button (STROBE READYTM) to access the STROBE Mode. Release to return it off.
- When the light is on, long-press the Mode Button (STROBE READYTM) to access the STROBE Mode. Short press the Mode Button (STROBE READY™) to return to the previous status or click the Power Button to turn off the light.

Power Indication

- When the battery is inserted, or the flashlight is disconnected from the power source during the charging process, the power indicator will flash to show the battery voltage (±0.1V). For example, when the battery voltage is at 4.2V, the power indicator will flash 4 times followed by a 1.5-second pause and 2 more flashes. Different voltages represent the corresponding remaining battery power levels:

- When the light is on, the power indicator will indicate the remaining battery power.
  1. Being steadily turned on indicates that the power is above 50%.
  2. Flashing slowly indicates that the power is below 50%.
  3. Flashing quickly indicates that the power is below 10%.

Note:

1. When using two CR123/RCR123 in series, the indicator will show the average voltage between the two batteries.
2. The batteries should be replaced or recharged when the output appears to be dim or the flashlight becomes unresponsive due to low power.

ATR (Advanced Temperature Regulation)
The integrated ATR technology regulates the output of the P20i according to the working condition and ambient environment to maintain optimal performance.
Maintenance
Every 6 months, threads should be wiped with a clean cloth followed by a thin coating of silicone-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 that, all defective/malfunctioning NITECORE® products can be repaired free of charge within 60 months from the date of purchase. Beyond 60 months, a limited warranty applies, covering the cost of labor and maintenance, but not the cost of accessories or replacement parts. The warranty will be nullified if

1. The product(s) is/are broken down, reconstructed, and/or modified by unauthorized parties.
2. The product(s) is/are damaged due to improper use. (e.g. reversed polarity installation)

3. The product(s) is/are damaged due to battery leakage. For the latest information on NITECORE® products and services, please contact a local NITECORE® distributor or send an email to **service@nitecore.com**

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Documents / Resources

	NITECORE High Performance 21700 Intelligence Technical Flashlight P20i [pdf] User Manual NITECORE, High, Performance, 21700, Intelligence, Technical, Flashlight, P20i

References

- **N** **NITECORE**
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