NITECORE®
奈 特 科 尔

产品特性

- 远达 1400 米射程的可充电搜索灯
- 采用 CREE XHP35 HI D4 LED
- 内建多功能 OLED 显示屏
- 内置温度控制功能，可防止电筒过热
- 自带安全检测功能的智能充电电路，充电便捷、安全
- 5 种亮度和 3 种特殊功能可选
- 2 段式开关设计，一键控制多种功能（专利号：ZL201120062948.1）
- 开关按钮内藏电量指示灯，可以提示电池剩余电量（专利号：ZL201220057767.4）
- 加强型散热设计，提升手电筒散热能力
- 双面镀膜防刮光学镜片
- PDOT 数字精确优化技术制造的金属反光杯系统
- 航太级铝合金制造
- 军规三级硬化表面处理
- 符合 IPX8 防水标准（水下 2 米）

体积

TM38：
长度：278mm
头部直径：90mm
尾部直径：50mm
重量：1260.3g（含电池组）

TM38 Lite：
长度：195mm
头部直径：90mm
尾部直径：50mm
重量：780g（不含电池）

配件

电源适配器、肩带、手绳、备用防水 O 圈、备用充电口胶塞

使用电池

TM38：NBP68 HD 高性能锂离子充电电池组：

参数	数值
容量	98Wh（3400mAh×8）
电压	3.7V
充电电流	2A（慢充）/ 4A（快充）
充电接口	3.5mm 12V DC 插头 / 4.0mm 12V DC 插头

TM38 Lite：

	尺寸规格	标称电压	是否可用
18650 锂电池	18650	3.7V	是（推荐使用并可进行充电）
IMR18650 电池（凸头电池）	IMR18650	3.6V	是（推荐使用并可进行充电）
一次性锂金属电池	CR123	3V	不推荐使用（不能进行充电）
可充电锂离子电池	RCR123	3.7V	否（不能使用且不能进行充电）

* 建议选购 NITECORE 18650 电池配套使用。

亮度 & 时间

TM38：

FL1 STANDARD	极亮档	高亮档	中亮档	低亮档	节能档
☀	1800 流明	800 流明	400 流明	200 流明	50 流明
⏱	*4 小时	11 小时	22 小时	40 小时	120 小时
⟶	1400 米（极亮档射程）				
✳	490000cd（极亮档光强）				
✓	1 米（防跌落高度）				
	IPX8，水下 2 米（防水等级）				

注：以上数据按照国际手电筒测量标准 ANSI/NEMA FL1 所述之测量方法，所使用电池为 NBP68 HD 高性能锂离子充电电池组测量，不同电池或使用环境可能会对以上数据产生影响。
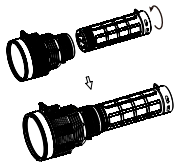* 极亮档位续航时间为亮度不调整情况下的理论估算值。

TM38 Lite：

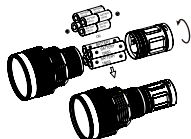| FL1 STANDARD	极亮档	高亮档	中亮档	低亮档	节能档
☀	1800 流明	800 流明	400 流明	200 流明	50 流明
⏱	*2 小时	5 小时 30 分钟	11 小时	20 小时	60 小时
⟶	1400 米（极亮档射程）				
✳	490000cd（极亮档光强）				
✓	1 米（防跌落高度）				
	IPX8，水下 2 米（防水等级）				

注：以上数据按照国际手电筒测量标准 ANSI/NEMA FL1 所述之测量方法，所使用电池为：4 节 Nitecore 18650 锂电池（3.7V 3400mAh）测量，不同电池或使用环境可能会对以上数据产生影响。
* 极亮档位续航时间为亮度不调整情况下的理论估算值。

使用电筒

装入电池
TM38：请按示意图装上 NBP68 HD 高性能锂离子充电电池组：（如图）

TM38 Lite：请按下图所示，电池正极朝灯头方向装入电池，装入 4 节 18650 锂电池或 8 节 CR123 电池并拧紧筒身。在紧急情况下，本产品使用 1-3 节 18650 锂电池或 2-6 节 CR123 电池也可进行工作，详见警告 1。

警告
1. 由于减少使用电池数量会引起每个电池输出电流增大，从而引发潜在危险（如电池爆炸，锂电池过载保护等），或导致本产品不能输出最高亮度，因此请用户在使用本产品时，尽量避免减小电池数量。
2. 请将电池按照正极朝灯头方向放入，否则将可能损坏电筒。
3. 请勿混合使用充电电池和一次性电池。
4. 请勿混合使用不同型号或品牌的电池。
5. 请勿混合使用不同电量程度的锂电池。
6. 本产品只支持凸头的 18650 锂电池。

多功能 OLED 显示屏

- 在每次装上电池组或电池后，位于灯头侧面的 OLED 显示屏将显示 "NITECORE" 2.5 秒，然后显示电池电压 4 秒（精确到 0.01V），随即进入待机模式。
- 当 TM38/TM38 Lite 每次开启时，显示屏会自动激活，并在显示完一次当前手电筒信息（流明值和档位级别 - 电池电压 - 电池状态 - 剩余续航时间 - 手电筒内部温度）后自动关闭。如果需要再次了解手电筒信息，可通过按显示屏控制按钮激活显示屏，每按一次按钮，显示屏将切换不同信息的显示。

可选模式

提示：本产品采用两段式电子开关（类似相机快门按钮），可根据用户按压开关的深浅程度进行不同的功能控制。
TM38/TM38 Lite 具有日用模式和搜索模式两个使用模式，在电筒关闭状态下，轻按开关可以进入日用模式；重按开关可以进入搜索模式。
在电筒关闭的状态下：
轻按开关并在一秒内放手，电筒进入日用模式并持续照明
轻按开关超过一秒，电筒进入日用模式，放手后电筒自动关闭（点亮照明）
重按开关并在一秒内放手，电筒进入搜索模式并持续照明
重按开关超过一秒，电筒进入搜索模式，放手后电筒自动关闭（点亮照明）

亮度调节

- 在日用模式下，每轻按一次开关，手电筒将按"节能档 - 低亮档 - 中亮档 - 高亮档"顺序循环切换并记忆亮度；当轻按开关超过一秒，电筒将进入极亮档，再轻按开关即返回之前的亮度。
- 在搜索模式下，每轻按一次开关，电筒亮度将在"高亮档 - 极亮档"间互相切换，此模式下于手电不设有记忆功能。
注：TM38/TM38 Lite 在极亮档输出状态时，内置温度控制功能，详情请参考"热量控制"一章。

特殊档位（暴闪/SOS 功能/信标）

在 TM38/TM38 Lite 开启的状态下，快速连按两次开关，电筒将开启暴闪，如果需要选择更多的特殊档位，只需要轻按开关按钮，即可在"SOS 功能/信标/暴闪"顺序中切换。如果需要退出特殊档位，只需重按开关按钮，电筒将退出特殊档位。
注：在特殊档位下，显示屏将长亮显示当前特殊档位，如"STROBE(暴闪)、SOS（求救信号）、BEACON（信标）"。

锁定及解锁

在 TM38/TM38 Lite 开启的状态下，重按开关并保持超过一秒，电筒会关闭照明并进入锁定状态。在锁定状态下，电筒几乎不会消耗电池电量，且可处于锁定状态以防止电筒意外开启。再次长按开关并保持超过一秒即可解除锁定状态。
注：
1. 在锁定状态下，每按一下开关或显示屏控制按钮，显示屏以"LOCK OUT"（锁定）提示用户手电筒被锁定。
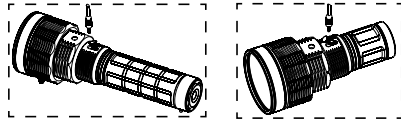2. 若电筒放置在背包内运输或者长时间储存，请把 TM38/TM38 Lite 筒身扭松以彻底切断电源，防止错误开启。

关闭/待机

在 TM38/TM38 Lite 开启的状态下，重按开关并在一秒内放手，将关闭照明并进入待机状态。在待机状态下，电筒会消耗极少量电量以维持电筒的微电脑工作。同时，位于开关按钮的电量提示灯会每两秒闪烁一次来提示用户手电的位置。
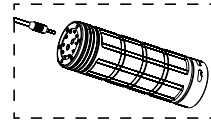注：当手电筒处于待机状态时，按下显示屏控制按钮，显示屏将显示电池电压信息 10 秒。

充电

TM38/TM38 Lite 自带智能充电功能。如图所示，将充电适配器一端连接筒身充电插孔，另一端接入室内电插座即可以进行充电。

- 当 TM38/TM38 Lite 处于正常充电状态时，位于开关按钮的蓝色电量提示灯将每 0.5 秒闪烁 1 次提示用户，此时显示屏将显示"Charging..."（正在充电）和电池当前电压；
- 当检测到电池不正常（如电池损坏、反装电池）时，TM38/TM38 Lite 将自动停止充电，显示屏会显示"ERROR"（错误），且蓝色电量提示灯会快速闪烁提示用户；
- 充电完成时，TM38/TM38 Lite 将自动停止充电，并长亮蓝色电量提示灯提示用户，此时显示屏将显示"Chg.Finished"（完成充电）和电池电压。
- 当 TM38 Lite 对四节 18650 锂电池（3.7V 3400mAh）进行充电时，充电时间大约 7 小时。

此外，TM38 的标配充电适配器也可单独对 NBP68 HD 电池组进行充电。如图所示，将充电适配器一端连接至电池组标准充电接口（2A，3.5mm），另一端接入室内取电插座即可进行充电。当 NBP68 HD 电池组处于充电状态时，电池组内置蓝色指示灯将快速闪烁提示用户；当 NBP68 HD 电池组充电接近饱和状态时（98%），指示灯将慢闪提示用户；当充满电时，蓝色电量提示灯将长亮提示用户。

- 当对 TM38 充电或对 NBP68 HD 高性能锂离子电池组进行充电时，充电时间约为 15 小时；
- 对 NBP68 HD 电池组进行充电时，也可选用快速充电适配器（可选配件）连接至电池组快速充电接口（4A，4.0mm）进行充电，其所需的充电时间将缩短一半，约为 8 小时。

电量提示

- 当手电筒开启，并且电池电量剩余将近一半时，位于开关按钮的蓝色电量提示灯将每两秒闪烁一次提示用户；
- 当手电筒开启，并且电池电量将近耗尽时，位于开关按钮的蓝色电量提示灯将连续快速闪烁，电筒甚至会出现亮度变暗或者无法调光的情况。此时，应对电筒进行充电或更换电池。
注：电筒在节能状态下，位于开关按钮的蓝色电量提示灯将不点亮以尽量节省电能，维持在紧急状态下的长时间续航。

热量控制

如长时间开启极亮时，TM38/TM38 Lite 的筒身温度会升高，可能会导致用户不适，所以我们不推荐用户长时间使用极亮档位。TM38/TM38 Lite 拥有温度控制功能，在手电筒温度达到 60 摄氏度时（人体最高承受温度），TM38/TM38 Lite 将自动降低输出功率以防止温度继续升高。
注意：在手电筒处于高温状态下时，请勿将手电筒置入冷水（或任何液体）中降温。由于内外气压的差异，会产生约等于 10 米水深的水压，将可能导致手电筒进水而损坏。

保养电筒

请每半年使用软布清洁电筒的螺牙，并使用硅润滑油润滑螺牙。

保固

NITECORE® 产品拥有售后保固服务。在购买本产品的 15 天内，如果有任何质量问题均可向经销商要求免费更换。在购买本产品的 5 年内享受免费保固服务。在超过 5 年免费保固期后，本产品享有终身有限度保固服务，如需要更换重要部件则需收取成本费用。

本保固规则不适用于以下情况：
1. 人为破坏，拆解，改装本产品。
2. 错误操作导致产品损坏（如反装电池等）。
3. 电池漏液导致产品损坏。

如对奈特科尔产品有任何疑问，欢迎联系当地的代理商或发邮件到 4008869828@nitecore.cn

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NITECORE®
KEEP INNOVATING

TM38/TM38 Lite
User Manual

Features

• The world's smallest LED rechargeable searchlight with a maximum throw of 1400 meters
• Utilizes a CREE XHP35 HI D4 LED
• Integrated multi-function OLED display
• Thermal protection circuit prevents overheating
• Intelligent charging circuit with security detection charges safely and rapidly
• 5 brightness levels and 3 special modes selectable
• Innovative single button two-stage switch provides a user-friendly interface (Patented:ZL201120062948.1)
• Integrated power indicator in the switch displays remaining battery power (Patented: L201220057767.4)
• Optimal heat dissipation to improve overall performance
• Toughened ultra-clear mineral glass with anti-reflective coating
• Integrated "Precision Digital Optics Technology" provides extreme reflector performance
• Constructed from aerospace-grade aluminum alloy
• HAIII military grade hard-anodized
• Waterproof in accordance with IPX8 (submersible to two meters)

Dimensions

TM38:
Length:278mm (10.94 ")
Head diameter: 90mm (3.54 ")
Tube diameter: 50mm (1.97 ")
Weight: 1260.3g (44.46oz) (with battery pack)

TM38 Lite:
Length: 195mm (7.68 ")
Head diameter: 90mm (3.54 ")
Tube diameter: 50mm (1.97 ")
Weight: 780g (27.51oz) (without batteries)

Accessories

Standard charger adapter, quality sling, spare O-ring, spare rubber cover of charging port

Battery Options

TM38: NBP68 HD ultra-high performance Li-ion rechargeable battery pack

Specifications	Parameters
Capacity	98Wh (3400mAh×8)
Voltage	3.7V
Charging Current	2A (Trickle charge) / 4A (Rapid charge)
Charging Port	3.5mm 12V DC Adapter / 4.0mm 12V DC Adapter

TM38 Lite:

	TYPE	Nominal voltage	Compatibility
18650 Rechargeable Li-ion battery	18650	3.7V	Yes (Recommended and can be recharged)
IMR18650 battery (button top battery)	IMR18650	3.6V	Yes (Recommended and can be recharged)
Primary Lithium battery	CR123	3V	Yes (Not recommended and CANNOT be recharged)
Rechargeable Li-ion battery	RCR123	3.7V	NO

*Nitecore 18650 are recommended to ensure complete compatibility.

Brightness & Runtime

TM38:

FL1 STANDARD	TURBO	HIGH	MID	LOW	LOWER
☀	1800 LUMENS	800 LUMENS	400 LUMENS	200 LUMENS	50 LUMENS
⏱	*4h	11h	22h	40h	120h
▭	1400m (Beam Distance)				
☀	490000cd (Peak Beam intensity)				
✓	1m (Impact Resistant)				
☂	IPX8, 2m (Waterproof AND Submersible)				

NOTE: The above data has been measured in accordance with the international flashlight testing standards ANSI/NEMA FL1 using the Nitecore NBP68 HD battery pack under laboratory conditions. The data may vary during real-world use due to battery type, individual usage habits and environmental factors.
*Runtime for Turbo is calculated based on theoretical arithmetic.

TM38 Lite:

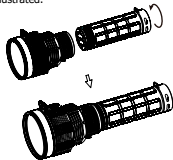| FL1 STANDARD	TURBO	HIGH	MID	LOW	LOWER
☀	1800 LUMENS	800 LUMENS	400 LUMENS	200 LUMENS	50 LUMENS
⏱	*2h	5h30min	11h	20h	60h
▭	1400m (Beam Distance)				
☀	490000cd (Peak Beam intensity)				
✓	1m (Impact Resistant)				
☂	IPX8, 2m (Waterproof AND Submersible)				

NOTE: The above data has been measured in accordance with the international flashlight testing standards ANSI/NEMA FL1 using 4 Nitecore 18650 Li-ion batteries (3.7V 3400mAh) under laboratory conditions. The data may vary during real-world use due to battery type, individual usage habits and environmental factors.
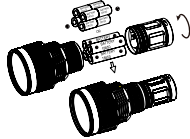*Runtime for Turbo is calculated based on theoretical arithmetic.

Operating Instructions

Battery installation
TM38: Screw on the NBP68 HD battery pack as illustrated.

TM38 Lite: Install 4 x 18650 Li-ion or 8 x CR123 batteries with the positive ends (+) pointing toward the light head and tighten the tube. In emergency situations, one to three 18650 Li-ion batteries or two to six CR123 batteries may be used. Please see note 1 in the WARNING section below.

WARNING
1. Using less than 4 x 18650 or 8 x CR123 batteries might trigger the overload protection circuit in Li-ion batteries, which may lead to explosion or turbo mode malfunctioning. Nitecore recommends this feature is used with caution and only when necessary.
2. Insert batteries with the positive (+) ends pointing toward the light head.
3. Do not mix rechargeable and non-rechargeable batteries.
4. Do not mix batteries of different types/brands.
5. Do not mix batteries of different charge levels.
6. Please ensure that all 18650 batteries used in the TM38 Lite have a button top configuration.

OLED Display

After tightening the battery pack or loading batteries, "NITECORE" will be displayed on the OLED screen for 2.5 seconds followed by a 4-second display of battery voltage (to nearest 0.01V) after which the TM38/TM38 Lite will enter standby mode.
When the TM38/TM38 Lite is turned on, the OLED display will activate automatically and show output lumen, brightness level, battery voltage, battery status, remaining runtime and temperature. After displaying these readings, the OLED display will be off automatically. To reactivate the OLED, simply press the display switch. To cycle through the information, press the display button repeatedly.

Mode Selection

NOTE: The TM38/TM38 Lite has two modes: Daily Mode and Search Mode. These modes can be selected by the 2-stage switch according to how hard the switch is pressed. A halfway press will activate daily mode, and a full press will activate Search Mode. Please refer to instructions below.
Daily Mode: With the light turned off, press the switch halfway and release within one second to enter this mode with constant-on illumination. Alternatively, press and hold the switch halfway for more than one second to activate momentary illumination with the previously used daily mode brightness.
Search Mode: With the light turned off, press the switch all the way down and release within one second to enter this mode with constant-on illumination. Alternatively, press and hold the switch all the way down for more than one second to activate momentary illumination with max brightness.

Brightness Selection

• In daily mode, press the switch halfway repeatedly to cycle through brightness levels of lower, low, medium or high. Alternatively, press and hold the switch halfway for more than one second to enter turbo mode directly. A second halfway press will resume the brightness level last used. The selected brightness level will be memorized when the light is turned off.
• In search mode, press the switch halfway to switch between high and turbo mode. This mode does not have memory effect.
NOTE: In turbo mode, the thermal protection will activate. Please refer to the "Thermal Protection" section for details.

Special Modes (Strobe / SOS / Location Beacon)

When the flashlight is on, press the switch all the way down twice in quick succession to access strobe mode. When in strobe mode, press the switch halfway repeatedly to cycle through SOS, location beacon and strobe modes. To exit special modes (and enter standby mode), simply press the switch all the way down and hold.
NOTE: When in any of the special modes, the OLED display will remain on displaying the specific mode being used.

Lockout/Unlock

When the flashlight is on, press and hold the switch all the way down for more than one second until the flashlight is switched off and enters lockout mode.
Lockout mode consumes almost no battery power and prevents accidental activation of the flashlight. To exit lockout mode, simply press and hold the switch all the way down for more than one second again.
NOTE:
1. In lockout mode, the OLED display will show "LOCK OUT" as a reminder when the switch or the display button is pressed.
2. When the TM38/TM38 Lite is kept in a backpack or left unused for extended periods, Nitecore recommends users loosen the head to cut off power, thus saving battery power and preventing accidental actuation of the flashlight.
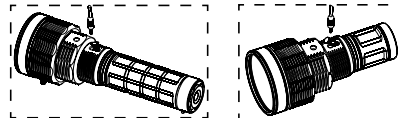
Switch off/Standby mode

When the flashlight is on, press the switch all the way down and release within one second to enter standby mode. In this mode, the light will consume small amounts of power to maintain the settings in the MCU (micro control unit) while appears to be turned off. When in standby mode the power indicator light will blink once every two seconds to indicate the location of the light.
NOTE: When in standby mode, a single press of the OLED display button will activate the OLED and display battery voltage for 10 seconds.
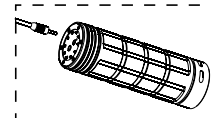
Charging TM38/TM38 Lite

Connect the charging cable of the TM38/TM38 Lite to the flashlight and the A/C power adapter to the wall outlet as shown in the adjacent images.

• Under normal charging conditions, the on/off switch's blue indicator light will blink twice every second with the OLED screen displaying "Charging..." and battery voltage.
• If a problem is detected during charging (e.g. faulty or incorrectly inserted batteries), the flashlight will stop charging automatically. The blue indicator will blink rapidly and the OLED display will show the word "ERROR" to notify users.
• When charging is completed, the flashlight will stop charging automatically with the blue indicator remaining on and "Chg. Finished" along with battery voltage being displayed on the OLED screen.
NOTE: It takes TM38 Lite about 7 hours to fully charge four 18650 Li-ion batteries (3.7V 3400mAh).

The TM38's NBP68 HD battery pack can also be recharged independently with a Nitecore Adapter. As shown, plug one end of the adapter to the battery pack charging port (2A, 3.5mm), and plug the other end to an outlet. The integrated blue charging indicator of the NBP68 HD battery pack will blink rapidly when the battery pack is being recharged, or blink slowly when battery power reaches 98%, or illuminate steadily when the battery pack is fully charged.

NOTE:
1. Charging the TM38 or the NBP68 HD battery pack directly will require charging time of approximately 15 hours.
2. Charging time can be reduced to 8 hours if the NBP68 HD battery pack is recharged via the rapid charging port (4A, 4.0mm) using an optional 2A adapter.

Power Tips

1. With the light switched on, the power indicator will blink once every two seconds when power level drops to 50%.
2. With the light switched on, the power indicator will blink rapidly when power level is low. Batteries/battery pack should be replaced or recharged when any of the following occurs: The power indicator blinks rapidly, output appears to be dim or the flashlight becomes unresponsive.
NOTE: When the light is being used in lower mode, the blue power indicator will be off to conserve power.

Thermal Protection

Extended operation in turbo mode will cause the temperature of TM38/TM38 Lite to continually rise, making it too scalding to hold. Thus, Nitecore does not recommend using the TM38/TM38 Lite in turbo mode for extended periods. Equipped with an integrated thermal protection circuit, the TM38/TM38 Lite will automatically reduce its output to prevent overheating once temperature has reached 60 degree Celsius.
Precaution: Do not attempt to cool a heated TM38/TM38 Lite by submerging it in liquid. This may cause irreparable damage to the TM38/TM38 Lite due to air pressure difference inside and outside of the tube.

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. DOA/defective products can be exchanged for replacement through a local distributor/dealer within the 15 days of purchase.
After 15 days, all defective / malfunctioning NITECORE® products will be repaired free of charge for a period of 60 months from the date of purchase. After 60 months, 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 (i.e. reverse polarity installation).
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

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