NITECORE TM28 6000 Lumens Output User Manual

Contents

NITECORE®

NITECORE TM28 6000 Lumens Output

Product Information

- Product Name: TM28 Flashlight
- Output: 6000 lumens
- Display: OLED
- Power Source: Rechargeable
- Battery Options: 18650 Li-ion or 18650 IMR batteries
- Dimensions: Length – 5.59 inches, Head diameter – 2.68 inches, Head side length – 2.24 inches, Tail diameter – 1.97 inches
- Weight: 14.6oz (battery excluded)
- Materials: Aerospace-grade aluminum alloy construction with HAIII hard anodizing

Product Usage Instructions

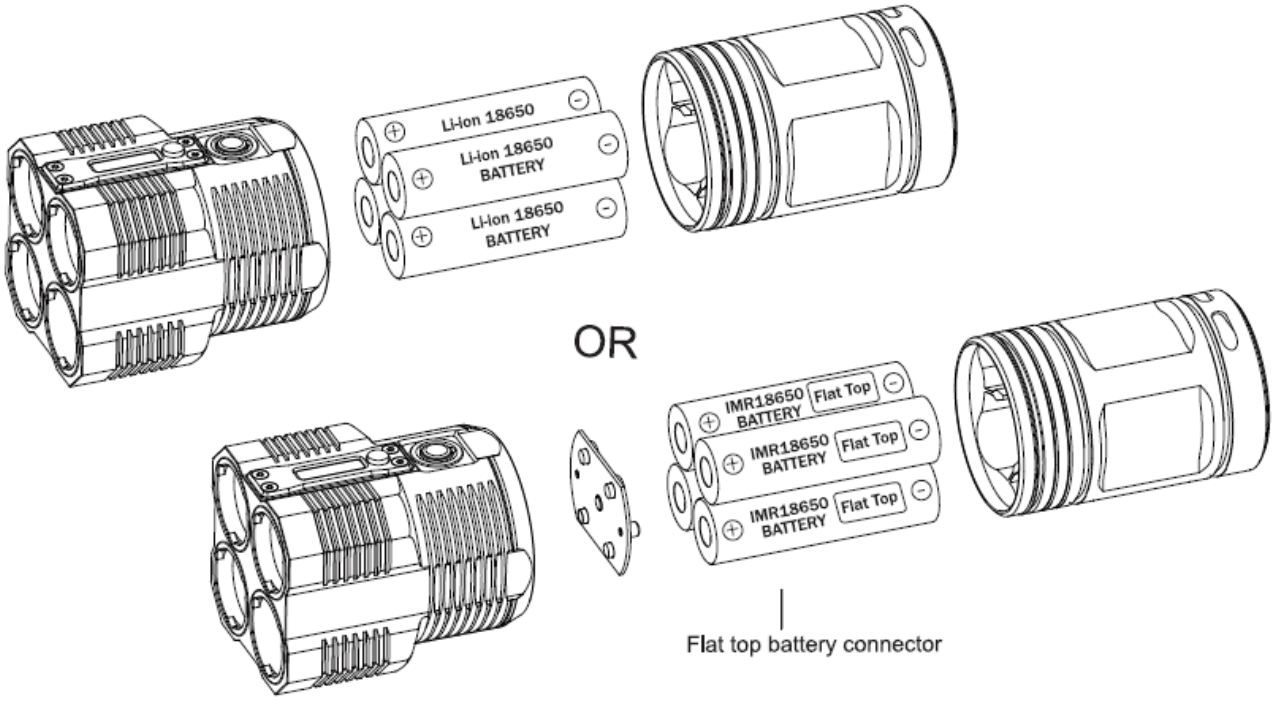
1. Ensure correct battery installation:
    - Insert four 18650 Li-ion or four 18650 IMR batteries with the positive terminal pointing toward the correct direction.
    - When using flat top 18650 batteries, ensure the flat top battery connector is placed on the positive terminal of the batteries.
    - Do not mix batteries of different brands/types and different capacities.
2. Operating Modes and Runtimes:

Mode	Lumens	Runtimes	Beam Distance
TURBO	6000	*45min	655m
HIGH	2300	*2h	420m
MID	1000	4h 30min	270m
LOW	320	11h 15min	153m
Ultralow	2	1000h	12m

1. Additional Modes:
    - Strobe: 6000 lumens, 1m (Impact Resistant)
    - SOS: 6000 lumens
    - Beacon: 6000 lumens
2. Product Safety:
    - Ensure IMR batteries are installed correctly as labeled to avoid short-circuiting, combustion, or explosion.
    - Insert batteries with polarity pointing towards the right direction as labeled on the inside of the battery compartment.
    - Do not use the product with less than 4 x 18650 batteries to avoid improper functioning and shortened battery life span.
3. Note:
    - The stated data has been measured in accordance with the international flashlight testing standards ANSI/NEMA FL1, using specific batteries under laboratory conditions. Actual performance may vary based on battery use and environmental conditions.
    - For Turbo mode, ensure all 18650 batteries are capable of a discharge current of at least 8A each or use the product with the NITECORE NBP68HD battery pack.
    - It is recommended to use the product with NITECORE-protected IMR 18650 3100mAh batteries (For TM28).

WARNING
It is of crucial importance to ensure IMR batteries are installed correctly as labeled. Installing these batteries backward poses a significant risk of short-circuiting, which in turn leads to combustion or explosion

Battery installation



Insert four 18650 Li-ion or four 18650 IMR batteries with the positive terminal pointing toward the correct direction, as illustrated in the diagram below. When using flat top 18650 batteries,ensure the flat top battery connector is placed on the positive terminal of the batteries.

WARNING

1. Insert batteries with polarity pointing towards the right direction as labeled on the inside of the battery compartment, incorrectly inserted batteries will render the product inoperative and poses risk of short-circuiting.
2. When using flat-top IMR batteries, ensure the flat-top battery connector is placed on top of the positive terminal.
3. It is not recommended to use the product with less than 4 x 18650 batteries, this may cause the product to function improperly and shorten battery life span.
4. Do not mix batteries of different brands/types and different capacity

FL1 STANDARD	TURBO	HIGH	MID	LOW	Ultralow	Strobe	SOS	Beacon
	6000 LUMENS	2300 LUMENS	1000 LUMENS	320 LUMENS	2 LUMENS	6000 LUMENS	6000 LUMENS	6000 LUMENS
	*45min	*2h	4h 30min	11h 15min	1000h	——	——	——
	655m	420m	270m	153m	12m	——	——	——
	107200cd	44100cd	18400cd	5900cd	36cd	——	——	——
	1m (Impact Resistant)							
	IPX8, 2m (Waterproof AND Submersible)							

NOTE: The stated data has been measured in accordance with the international flashlight testing standards

ANSI/NEMA FL1, using 4 x IMR18650 batteries (3.7V, 3100mAh) under laboratory conditions. The data may vary in real-world use due to different battery use or environmental conditions.
The runtime for Turbo and High mode are the testing result before starting temperature regulation

FL 1 STANDARD	TURBO	HIGH	MID	LOW	Ultralow	Strobe	SOS	Beacon
	4500 LUMENS	2300 LUMENS	1000 LUMENS	320 LUMENS	2 LUMENS	4500 LUMENS	4500 LUMENS	4500 LUMENS
	*1h	*2h 15min	5h	14h 30min	1000h	——	——	——
	600m	420m	270m	153m	12m	——	——	——
	90000cd	44100cd	18400cd	5900cd	36cd	——	——	——
	1m (Impact Resistant)							
	IPX8, 2m (Waterproof AND Submersible)							

NOTE: The stated data has been measured in accordance with the international flashlight testing standards ANSI/NEMA FL1, using 4 x Li-ion 18650 batteries (3.7V, 3400mAh) under laboratory conditions. The data may vary in real-world use due to different battery use or environmental conditions.
The runtime for Turbo and High mode are the testing result before starting temperature regulation.

The use of the 6000 lumens Turbo: All 18650 batteries must be capable for a discharge current of at least 8A each, or use the product with the NITECORE NBP68HD battery pack. It is recommended to use the product with NITECORE protected IMR 18650 3100mAh (For TM28).

Features

- Rechargeable searchlight, 5 brightness levels and 3 special functions
- Max output up to 6000 lumens and runtime up to 1000 hours
- Multi-functional OLED display provides real-time operating data
- Incorporated PDOT provides extreme reflector performance
- Intelligent charging circuit, advanced temperature regulation to prevent overheating
- The dual-stage single switch provides access to all functions
- Built-in power indicator reports remaining battery power
- Onboard tripod receptacle
- Mineral optic lens with anti-reflective coating
- Retaining rings protect core components from damages
- Tail stand

Specifications

LEDs	4×Cree XHP35 HI
Battery options	li-ion/IMR/NBP68HD battery pack
Dimensions	Length: 5.59” Head diameter: 2.68” Head side-length: 2.24” Tail diameter: 1.97”
Weight	14.6oz (battery excluded)
Materials	Aerospace grade aluminium alloy construction, HAIII hard anodising
Accessories	Holster, adaptor, lanyard, O-ring, charging port cover, flat top battery connector

Bettery options

Type	**Dimensions**	**Nominal v oltage**	**Compatibility**	**Rechargea ble**	
NITECORE 18650 3100 mAh (For TM28)	18650	3.7V	Recommended	Yes	**WARNING**
Li-ion	18650	3.7V	Recommended	Yes	
IMR	18650	3.6V/3.7V	Yes	Yes	Must not be used with CR123 or RCR123 ba tteries.
NBP68HD battery pack	Batt Pack	3.7V	Recommended	Yes	

Operating instructions

Note: This product uses a two-stage power switch, access to its various functions depends on the extent the switch is pressed

Battery selection

Upon each battery installation, a battery selection prompt comes up on the OLED display, select the correct battery type by pressing the display switch and press the power switch to confirm:

1. Li-ion. Regular rechargeable li-ion batteries allow for max output of 4500 lumens.
2. IMR. High discharge li-ion batteries allow for max output of 6000 lumens.
3. Batt Pack. NBP68HD, optional battery pack allowing for max output of 6000 lumens. If no action is taken for 10 seconds after battery installation, the OLED display will enter standby mode

Caution: Correct battery type must be selected upon battery installation, setting battery type to IMR while using regular 18650 li-ion batteries may render the product inoperative when switching to turbo (when OLED shows 6000 lumens).
Solution: Reinstall batteries and select the correct battery type when prompted. To guarantee the best user experience, it is recommended to use NITECORE IMR18650 batteries

ON/OFF

With the light turned off, pressing the power switch partway or all the way down will turn the light on, press the switch all the way down again to turn the light off.

Modes
The TM28 comes with 2 modes:

- Daily mode: This mode has 4 brightness levels, press the switch partway down to turn the light on in daily mode, and pressing the switch partway down repeatedly cycles the brightness through Ultralow-Low-Mid-High, this mode has a memory feature.
  Search mode: This mode has 2 brightness levels, press the power switch all the way down to turn the light on in search mode, and pressing the switch partway down cycles brightness through High-Turbo. Alternatively, hold the switch all the way down to turn the light on at “Turbo”, releasing the switch turns the light off.

Special functions

With the light turned on, press the switch twice in quick succession to enter strobe, press the switch partway down repeatedly to cycle through Strobe-SOS-Beacon, and press the switch all the way down to turn the light off.

OLED display

This product has an onboard OLED display that provides real-time operating data:

1. When the light is turned on at level 1-5, a series of data sets will be shown in the order of brightness level-battery voltage-battery level-remaining runtime-operating temperature-standby, with a 1.8-second delay before the next data set comes up on display.
2. When using any of the special functions, the name of the function will be displayed.

Demonstration Mode

When entering standby mode simultaneously press and hold the display switch and the on/off switch to enter into Demonstration mode. In Demonstration mode, the OLED screen will cycle through the TM28’s various messages. Simply press any button to exit Demonstration mode.

Lockout

With the light turned on, hold down the switch for 1 second to enter lockout mode, this is designed to prevent accidental activation. To unlock, hold down the switch for 1 second again. Batteries are expected to last for 12 months in lockout mode.
Note: When the product is expected to be left unattended for an extensive period, it is advised to loosen the tail cap.

Power tips
When the product is turned on, the built-in power indicator under the switch will blink to indicate the remaining battery:

1. When the batteries are full, the indicator will stay lit.
2. When batteries reach 50%, the indicator will blink once every 2 seconds.
3. When batteries reach 10%, the indicator will blink rapidly.

Note:

1. When the product is turned off, press the display switch and battery voltage information will be shown for 10 seconds.
2. This product incorporates voltage sensitive protection feature, when voltage drops below a certain threshold, the output will gradually decrease to the lowest level; When voltage drops below 3V, the product will shut down to protect batteries

Recharge

To initiate the charging process, connect the charging port to a power outlet with the adaptor provided:

1. Charging in progress: “Charging…” will come up on the OLED display, and the power indicator will blink once every half a second.
2. Charging anomaly (damaged batteries/no batteries presented): “Error” will come up on the OLED display, the power indicator will blink rapidly. This usually indicates no battery, incompatible or damaged batteries, or flat-top batteries are installed without the battery connector.
3. Charging complete: “Chg. Finished” will come up on the OLED display, the power indicator will stay lit.
4. Charging duration: Fully charging four 18650 batteries takes approximately 7 hours.

Temperature regulation

Heat generated by the LEDs can be substantial, and prolonged operation at the “Turbo” level will significantly increase the operating temperature. Therefore, it is not recommended to use “Turbo” for long period of time. The TM28 has temperature regulation, when operating temperature reaches 60° Celsius (max bearable temperature by human skin), the TM28 automatically lowers its output to prevent the temperature from increasing.
Note: Do not submerge the product in water or any liquid when it has generated sufficient heat, doing so will cause pressure inequalities and significantly increase risk of water damage.

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Documents / Resources

	NITECORE TM28 6000 Lumens Output [pdf] User Manual TM28, 6000 lumens output

References

- NITECORE