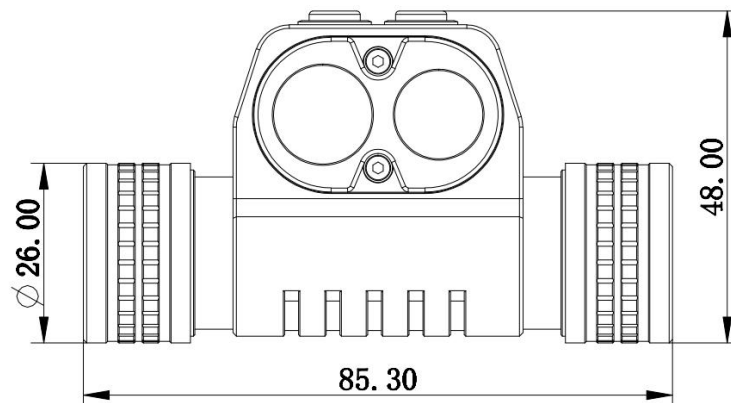


Sofirn HS20 Manual



Thank you for purchasing Sofirn products.

Contact us@sofirnlight.com or eu@sofirnlight.com if you need assistance.

The **HS20** is a powerful headlamp with dual led for two beam patterns. It is good for working, running, hiking and more. Powered by one 18650 battery and featuring a simple but elaborated user interface, HS20 is your reliable partner for every day use.

ANSI/NEMA FL1 Chart

Technical Parameters							
Mode		Eco	Low	Medium	High	Turbo	Note
Luminous Flux (lm)	Throw	10	60	300	900	2300	
	Flood	5	40	150	400	1000	
	Throw-Flood	12	100	350	1000	2700	
Running Time (hrs)	Throw	312	38.3	10	3.5	2.9	
	Flood	312	45.3	14	4	2.9	
	Throw-Flood	150	26.3	8	2	1.6	
Distance (m)	Throw	9	24	47	87	136	
	Flood	5.5	15	29	47	75	
Intensity (cd)	Throw	21	148	565	1903	4647	
	Flood	7.5	57	207	553	1418	
Impact Resistant		1 meter / 3.28 feet					
Water Resistant		IPX-68, underwater (2 meter / 6.56 ft depth)					
Note		The above mentioned parameters are based on tests according to international flashlight testing standards (ANSI/NEMA FL1) in our laboratory. Results may vary with different battery or under different environmental conditions. "Turbo" mode automatically throttles down to "High" mode to prevent overheating. To activate "Turbo" mode again, double click the switch . And the running-time of Turbo is accumulated time.					

Safety Instructions

- ❖ HS20 is a powerful headlamp. Never point the beam directly at a person, animal or moving vehicles. Doing so could cause retinal damage. Please do not allow children to play with it.
- ❖ Operating the headlamp for a long time in Turbo or High mode will warm it up. This is normal.
- ❖ HS20 is intended to be used with an 18650 rechargeable battery.
- ❖ When installing the battery, make sure install correctly.
- ❖ Avoid hitting or dropping the headlamp.

Specifications

- ❖ Emitter: XHP50.2 LED & LH351D LED with a lifespan of up to 50,000 hours
- ❖ Battery options: 1x 18650 Li-Ion battery
- ❖ Operating voltage: 2.8V—4.5V (18650 battery)
- ❖ Dimension: 83.5 mm (length)× 48mm (height) x 26mm (tube diameter)
- ❖ Weight: 79 gram (without batteries)
- ❖ Headlamp body: Aerospace grade aluminum alloy, CNC manufactured to hard-anodized to military grade specification type III, anti-abrasive finish to get solid built body, anti-crash geometry and better heat exchange.
- ❖ Toughened mineral glass lens - scratch and wear resistant
- ❖ Automatic Step-down: Turbo mode steps down to High mode automatically to prevent overheating.

Circuit Protection

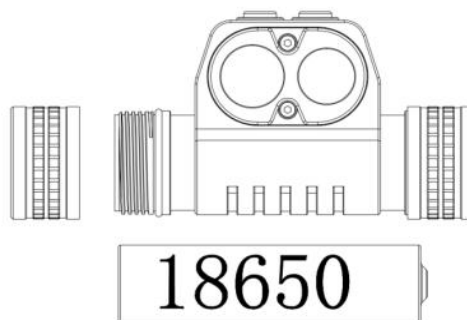
- Double-click to activate Turbo, it automatically steps down to High mode to prevent overheating.
- It automatically steps down to lower modes when the 18650 battery does not have enough power.
- Low power indicator: if the battery is running out of power when it turns on, the lamp blink once a minute to remind.
- Improper battery installation protection: if you install the battery incorrectly, it won't turn on. But no damage happens.

Battery Specifications

Battery Type	Dimension & Quantity	Nominal Voltage	Compatibility
Rechargeable lithium-ion battery	18650 x 1	3.7 V	Yes

Battery Installation:

Unscrew the cap to insert one 18650 battery as the picture shows, then screw the cap back on.



Operation Instructions

The throw or flood can be operated independently, the operation is the same. The switch controls all headlamp functions as follows:

From OFF

- ❖ Click Throw button to turn on Throw mode. Press and hold to select modes: Low/Med/High. One click to turn off.
- ❖ Double click Throw button to turn on Turbo, click to turn off
- ❖ Triple fast clicks to activate lockout, another triple-click to cancel lock-out.
- ❖ Press and hold Throw button to turn on Eco, keep holding for more than 1 second, it goes to standard mode: Low-Med-High, or click to turn off.

From ON

- ❖ click the Throw button to turn off.
- ❖ Double clicks to Turbo, another click returns to the previously mode.
- ❖ Triple clicks to cycle through Throw - Flood - Throw+Flood
- ❖ Long press the Throw button, you can cycle through Low - Medium - High

Troubleshooting and Maintenance

- ❖ Disassembling the sealed head can damage the headlamp and voids the warranty.
- ❖ Sofirn Ltd. recommends using high-quality brand batteries. Damage by battery leakage voids the warranty.
- ❖ Remove the battery if the headlamp will not be used for an extended period of time.
- ❖ To prevent self-discharge or accidental activation during storage or transportation, unscrew the tailcap by half a turn or remove the battery.
- ❖ Every 6 months threads should be wiped with a clean cloth followed by a thin layer of silicone grease.
- ❖ To maintain a proper level of waterproof, replace worn-out o-rings with an approved spare.
- ❖ Troubleshooting: Clean battery contacts regularly as dirty contacts may impair the performance of the headlamp. If you experience problems (flicker, shine intermittently or failure turn on) the following root causes and solutions should be tried:

Reason A: The battery needs a replacement.

Solution: Replace the battery with an approved type of a fully charged battery.

Reason B: Threads, PCB board contact or other contacts are dirty.

Solutions: Please clean the contact points with a cotton swab soaked in rubbing alcohol.

Reason C: The headlamp will not turn on upon first use.

Solution: Please do not forget to remove the insulation sticker from the battery on first use.

If the above methods do not work please refer to the warranty policy before contacting your authorized distributor.

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Please contact us if you have any questions.

If your product is defective please contact us for replacement within warranty period.

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