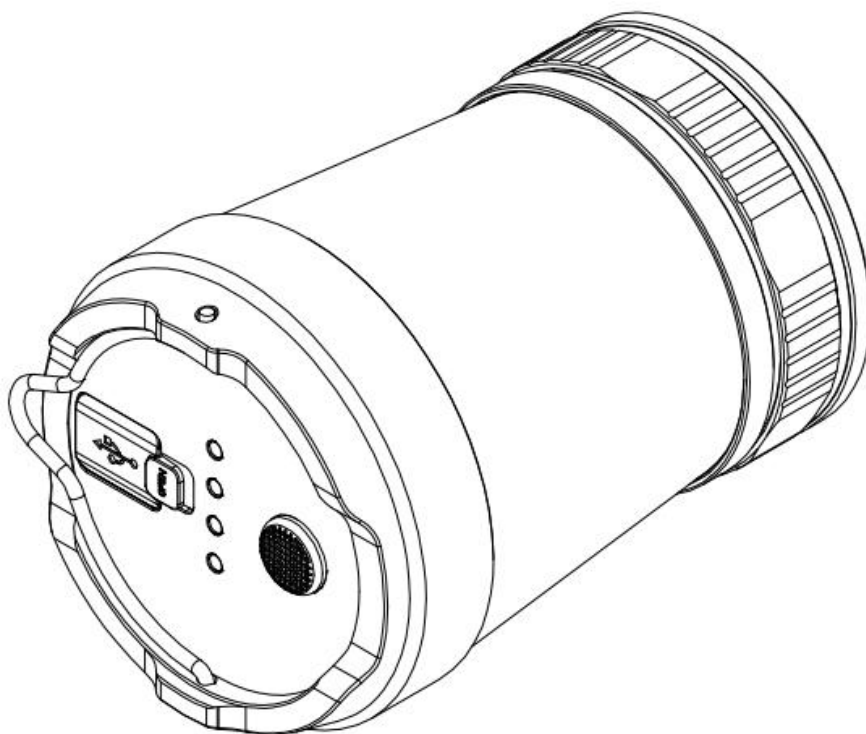# Sofirn LT1S Manual

Thank you for purchasing Sofirn products.

if you need assistance.
Send email to us@sofirnlight.com (amz us order)
eu@sofirnlight.com (amz eu order)
sofirnlight@gmail.com (website order)

Sofirn LT1S is a powerful, versatile Lantern for indoor use and various outdoor activities like camping, hiking, fishing. It uses one 21700 battery and features a USB-C port for convenient charging, 2700K LED*18, 6500K LED *18 and Red LED*4 with up to 500 lumen. It was born from LT1, they share the same diffuser but LT1S has buck driver, smaller size, furthermore, LT1S enables RED led mode.

ANSI/NEMA FL1 Chart

Mode	Turbo	High	Medium	Low	Moon	1hz Strobe	SOS
Luminous Flux [lm] (6000K-2700K)	500 lm	150 lm	50 lm	10 lm	1 lm		
Runtime (6000K-2700K)	2h 20min	6h	18h	90h 3min	555h		
Runtime (Red Light)		2h 30min	10h	64h		20h	30h
Beam Distance [m] (6000K-2700K)	18 m	11 m	8 m	4 m			
Peak Intensity [cd] (6000K-2700K)	82.5 cd	28.8 cd	14.58cd	5 cd			
Impact Resistance	1m / 3.28 ft.						
Water Resistance	IPX-8 (up to 2 meter under water, not for diving)						
Charging Specification	USB-C port, input DC 5V 2-3A						
Notes	The above mentioned parameters are based on tests according to international flashlight testing standards (ANSI/NEMA FL1) using one 5000mAh 21700 Li-ion battery in our laboratory. Results may vary with different battery or under different environmental conditions. Operation temperature is 0°C - 40°C.						

Specifications

❖ Emitter: 2700K warm white led*18, 6500K cool white led*18, Red LED*4
❖ Operating voltage: 2.8V – 4.2V
❖ Battery options: 1*21700 (make sure you buy the set with battery)
❖ Dimension: 97mm (length) × 68mm (head diameter)
❖ Weight: 257 grams(without battery)
❖ Flashlight 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.
❖ Mode Memory: memorizes the last brightness level used in the general modes (Moon/Low/Med/High/Turbo)
❖ Reverse polarity protection from improper battery installation
❖ Low voltage warning: When the battery voltage is too low, the LED indicator in the side switch will start to flash rapidly. Please recharge the battery.

❖ Low voltage protection: The flashlight steps down automatically when the voltage is lower than 2.7V. It also turns off automatically if the voltage gets too low. Please recharge the battery.

❖ Advanced Temperature Regulation (ATR) technology: As the temperature rises, LT1S is programmed to automatically step down and step up the brightness. These thresholds are set at 45°C, 55°C and 65°C. The higher the temperature gets, the more the brightness will drop. Once temperature decreases, brightness will be increased again according to your selected mode.
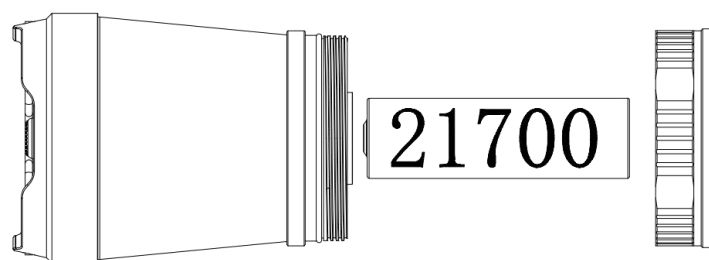
Battery Specifications

Battery Type	Dimension & Quantity	Nominal Voltage	Compatibility
Rechargeable li-ion battery	21700 x 1	3.6V	Yes

Battery Installation

Unscrew the tailcap to insert one 21700 battery with the anode side (+) towards the head, then screw the tailcap back on.

Important advice: If you purchased LT1S with a battery included, please make sure to remove the insulating paper on the negative battery pole and charge the battery before first use.

Power Indicator

The 4 led indicators show the status of battery power. They work the same as your power bank.

Discharge (it charges your phone if you have C-C cable or C-lightning cable. Neither included)

A, 4 LED indicators always on: power ≥75%

B, 3 LED indicators always on: 50% ≤ power <75%

C, 2 LED indicators always on: 25% ≤ power <50%

D, 1 LED indicator always on: 3% ≤ power <25%

E, 1 LED indicator flashing (1HZ): 0% <power <3%

Charging (LTS accepts 5V and 3A max charging current, use your phone charger and the coming USBA to USBC cable)

A, 4 LED indicators always on: power = 100% (full charged)

B, 3 LED indicators always on, 1 light flashing: 75% ≤ power

C, 2 LED indicators always on, 1 light flashing: 50% ≤ power <75%

D, 1 LED indicator is always on, 1 light flashing: 25% ≤ power <50%

E, 1 LED indicator flashing (0.5HZ): power <25%

Operation Instructions

Group 1: Stepped modes

From OFF

Single click to turn ON using the previously used light output level

Press and hold to turn on Moon, single click to turn OFF

Double click to activate Turbo, single click to turn OFF

Triple click to activate Red Light Mode, single click to turn OFF

Four fast clicks to activate lockout. Another 4 fast clicks to deactivate lockout and return to the previous mode setting. When the light is locked, the main LED blinks two times to show the status of being locked. While in lockout, press and hold the side switch to activate Moon.

From ON

Press and hold to cycle through mode (Low-Medium-High-Turbo). Release the button stopping at current light mode.

The LT1S can also operate as a directional light (one side emitters light up, the other side don't); double click to activate, additional double clicks cycle through: one side on - the other side on - both on.

Triple click to activate Red Light Mode, then press and hold to change brightness: Low-Med-High.

Click+hold (you can regard as double click but hold the second click) to change color temperature from 700K to 6000K. The direction of the increases/decreases may be changed by repeating the aforementioned process within 1.5 second. Wait longer than 1.5 seconds (on the second press) to continue on the direction of change (rather than reverse it). The light flashes once when it reaches the lower or upper end of the tint

Single click to turn OFF

Toggle between Stepped Mode and Ramping Mode

From on, 4 fast clicks to change, it blinks to indicate success.

Group 2: Ramping

From OFF

Single click to turn ON using the previously used light output level

Press and hold to turn on Moon, single click to turn OFF

Double click to activate Turbo, single click to turn OFF

Triple click to activate Red Light Mode, single click to turn OFF

Four fast clicks to activate lockout. Another 4 fast clicks to deactivate lockout and return to the previous mode setting. When the light is locked, the main LED blinks two times to show the status of being locked. While in lockout, press and hold the side switch to activate Moon.

From ON

Press and hold to cycle through mode (Low-Medium-High-Turbo). Release the button stopping at current light mode.

The LT1S can also operate as a directional light (one side emitters light up, the other side don't); double click to activate, additional double clicks cycle through: one side on - the other side on - both on.

Triple click to activate Red Light Mode, then press and hold to change brightness: Low-Med-High.

Click+hold (you can regard as double click but hold the second click) to change color temperature from 700K to 6000K. The direction of the increases/decreases may be changed by repeating the aforementioned process within 1.5 second. Wait longer than 1.5 seconds (on the second press) to continue on the direction of change (rather than reverse it). The light flashes once when it reaches the lower or upper end of the tint

Press and hold the power button to change brightness (1-500lm). Release the button, then press and hold within 1.5 seconds to change the direction of the brightness adjustment, or wait longer than 1.5 seconds (on the second press) to continue on the direction of change (rather than reverse it). The light flashes once when it reaches the lower or upper end of the ramp.

Red Light

Press and hold to cycle through brightness (Low- Medium -High), release the button stopping at current light mode.

Single click return to previous used mode

Double click to activate Strobe, then double click again to cycle through 1hz Strobe- SOS

Triple click return to previous light mode

Safety Instructions

❖ LT1S is a powerful lantern. Never point it directly at a person, animal or moving vehicles. Doing so could cause retinal damage. Please do not allow children to play with it. Strobe mode may cause seizure in persons with photosensitive epilepsy.
❖ Operating LT1S for a long time in high powered modes will quickly heat up the flashlight. This is normal.
❖ Pay close attention to the proper installation of the battery. Always check that the negative end of the battery is visible at the tube's end before screwing the tailcap back on.
❖ Please unscrew the tailcap half a turn to avoid unwanted activation during transport. It also prevents the battery from draining while the flashlight is in standby.
❖ Avoid hitting or dropping the flashlight.

Troubleshooting and Maintenance

❖ Disassembling the sealed head can damage the flashlight and voids the warranty.
❖ Sofirn, Ltd. recommends using high-quality brand batteries. Damage by battery leakage voids the warranty.
❖ Remove the battery if the flashlight 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 waterproofness, replace worn-out o-rings with an approved spare.
❖ Troubleshooting: Clean battery contacts regularly as dirty contacts may impair the performance of the flashlight. 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 (battery voltage is below 2.8V).
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 flashlight 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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