

# Solar & Crank LED Flashlight

SB-6019/Waterproof under 5 meters water

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## Working Principle:

This product adopts the principle of cranking for power by three phase alternator and solar - energy for power generation. The power stored is used to charge the built-in 80 mAh/3.6V Ni-MH chargeable battery after commutating and filtering as the power source of the LED light.

## Functions:

1. Cranking for power generation.
2. Charged in direct sunlight.
3. 1 LED lighting/ 3 LEDs lighting /3LEDs flashing for a circle.
4. Waterproof under 5 meters water.

## Features:

1. Low noise and high efficiency.
2. Charged by direct sunlight.
3. Convenient to use, no external batteries.
4. Controlled by electric switch, long life-span.
5. Unique design, novel and fashionable.
6. It can work normally under 5 meters water.

## Main Technical Parameters

Max. Luminous flux of 3 LEDs	8Lm
Max. Luminous flux of 1 LED	3Lm
Lighting time of 3 LEDs after being charged fully	4 hours
Lighting time of 3 LEDs after 1 minute cranking	60 minutes
Lighting time of 1 LED after 1 minute cranking	80 minutes
Flashing time after 1 minute cranking	110 minutes
Lighting time of 3 LEDs after being charged by direct sunlight for 1 hour	90 minutes
Lighting time of 1 LED after being charged by direct sunlight for 1 hour	120 minutes
Flashing time after being charged by direct sunlight for 1 hour	140 minutes
Fully charged time by sunlight	8 hours
Flash frequency	About 2 Hz

## Main parts life-span:

LED light	50000 hours
Switch lifetime	100 000 times
The whole unit lifetime	5 years
Plastic part lifetime	5 years

## Others:

The built-in battery specification	80 mAh, 3.6V, NI-MH battery
Solar panel	5.5V, 20mA

## Size and Weight:

Size of this unit	About 147.5*61.5*45mm
Weight of this unit	About 176g

## Operation Method:

1. Unlock the handle and crank it at the speed of 3 circles per second for 1 minute, press the switch, the light will be on.
2. Place the flashlight in the direct sunlight to charge it.
3. Lighting modes: press the switch once, one LED in middle lights up; press again, three LEDs on, press for the third time, 3 LEDs Flashing, press once more, the flashlight is off.

## Cautions:

1. Do not aim at anyone's eyes in case of hurting the eyes.
2. Crank it as even as possible (keep rotating steadily). Too slowly cranking would make the current weak and prolong the charging time, and too violent cranking will possibly damage the power transferring system.
3. Pay attention to the holding gesture when cranking, so as not to hurt your fingers and fingernails.
4. To ensure the using life of the inside battery, cranking no more than 3 minutes continuously when the flashlight can light normally and less than 10 minutes when it can't light.
5. Cranking the handle at least 1 minute once a month to prolong the life of product.



MADE IN CHINA