
BLUEMAXX™ Rechargeable Forensic LED Light BM500LED



Background and Purpose

The BLUEMAXX™ BM500LED is a rechargeable LED-based illuminator which emits high intensity blue light at 455nm (nanometers). This wavelength can produce fluorescence in physiological fluids and other materials treated with certain powders and dyes; in general, materials having optical excitation bands between 390 and 520nm.

The system has a transparent acrylic orange viewing plate that effectively filters the blue light, permitting visual observation and photography of the fluorescence effect. The light is an essential tool for area searches and photography of evidence at a crime scene, and provides best results when used under subdued ambient lighting conditions.

Unpacking / Set-up

First, fit the orange viewing filter into the groove of the retainer on the head of the flashlight (shown installed, above).

Next unthread (rotate counter-clockwise) the tail cap from the body tube and install the battery pack with the Positive (+) terminal of the pack (the raised “bump”) facing toward the head-end of the light. Then fasten the tail cap by threading it (rotate clockwise) into the body tube (shown below).

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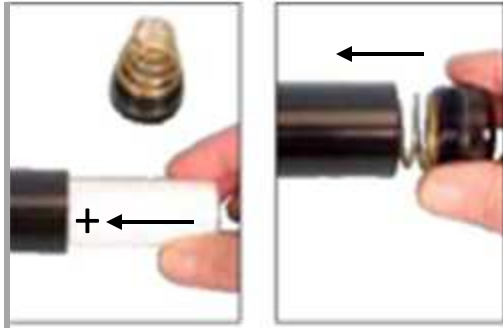


FIG 1: Battery Installation

Safety Precautions

CAUTION: Due to the intensity of the light, do not look directly into the beam. Reversing the battery may permanently damage the flashlight and the battery pack.

Electrical Info

Battery: 6volt, 3.5 amp-Hr nickel metal hydride (Ni-Mh) battery pack

Switch: Recessed, push-on – push-off soft touch button

Illuminator: High output LED

Charger: Input :Universal voltage 100-240VAC, 50/60Hz, Output: 12VDC

Charge Rate: 220 – 400 mA (typical)

Charge Time: Completely discharged battery : 12-16 hrs

Light Operation

The ON-OFF button is located at the base of the head cap. Press for ON. Press again for OFF.

Beam Adjustment

The head of the flashlight can be rotated slightly left or right in order to achieve the best beam pattern for your use.

Charger Operation

The Charger Cradle may be used free-standing or permanently mounted to a surface, such as a desk, wall or in a vehicle. Recessed mounting holes inside the cradle accept up to #8 mounting screws, which should be a minimum of 1 inch (25mm) long.

Insert the Charger Plug head into its port at the front of the Cradle. Align the rim of the light with the back side of the Flange and snap the BLUEMAXX into the Charging Cradle. The Retainer Tabs will hold the light securely. The Contact Rings on the flashlight body will now be touching the metallic Charging Contacts in the bottom of the Cradle, allowing the battery to charge. To remove the light from the Charging Cradle, lift it straight up and out.

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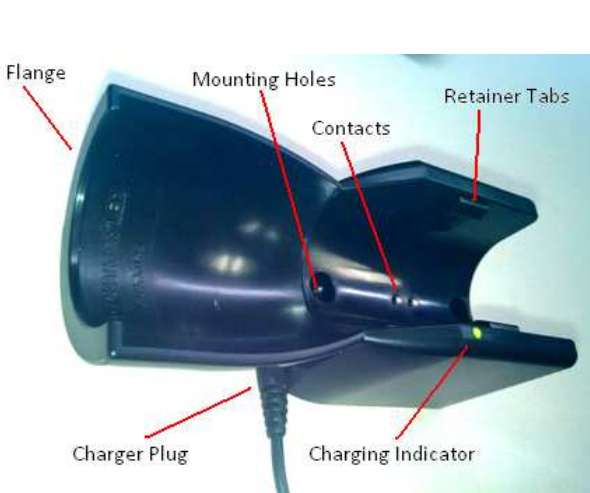


FIG 2: Charging Cradle Features



FIG 3: Light Installed in Charging Cradle

Plug the universal power supply into a wall socket: domestic: 100-125VAC or international: 208-240VAC (using the supplied adapter on the power supply AC contact blades).



FIG 4: Power Supply - Domestic



FIG 5: With International adapter blade

While charging, the Charging Indicator (on the top edge of the Charge Cradle) will be red/orange. When the charge is complete, the Charging Indicator will be green.

CAUTION: While charging, do not let any conductive objects touch the Contact Rings on the body of the flashlight.

Cleaning and Maintenance

The orange barrier filter is a transparent acrylic material selected for its spectral characteristics and durability. But like all plastics, the surfaces of this filter are subject to scratching. Minor scratches are generally not a problem unless high resolution photography through the filter is attempted. Polishing can reduce the effects of minor scratches and abrasions. Use a clean, soft cotton buffing wheel at low speeds. Fine alumina

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buffing compounds may be needed, followed by tallow and a final buffing from a compound-free cotton flannel wheel. Replacement filters are available.

If the flashlight front cover filter becomes foggy or dirty, clean with a lens cloth only. Do not use cleaners or water, as they will damage the filter coating. If the filter is damaged or broken, please contact Sirchie Customer Service to order a replacement

Technical Specifications

- Illuminator: High output white LED with blue narrow-band 455nm filter cover glass
- Reflector: Parabolic, calibrated for 8"-10" (20.3cm - 25.4cm) spot at 10' (3m)
- Beam Pattern: Adjustable with 1/8 turn of head
- Construction: Rugged machined aluminum w/knurled grip, anodized inside and out (corrosion, water, and shock resistant)
- ON-OFF Switch: Recessed, push-button (push ON, push OFF)
- Battery: Rechargeable 6 volt at 3.5 amp-Hr, nickel metal hydride (Ni-Mh) battery pack.
- Flashlight Length: 12.6" (32cm); Weight w/Battery pack: 32 oz. (907.2g)
- Barrier Filter: Acrylic, selected for its spectral characteristics/durability:
Dimensions: 4.75" x 7.5" (12.1cm x 19cm)
- Charger Cradle: Black ABS plastic "cradle/clamp" type
- Charger Power Supply: Universal voltage input 100 – 240VAC (with adapter blade for International operation), 50/60Hz; Output 12VDC @450mA
- Charging Contact: 360-degree positive contact around flashlight body
- Charging Indicator: Bi-color LED: red = charging, green = charge complete
- Charging Rate: 220 – 400 mA (typical); Charging Time: 12-16 hrs (typical)

Trouble Shooting Guidelines

Symptom(s)	Possible Cause(s)	Remedy Action(s)
No illumination	Battery missing	Install battery
	Battery installed backward	Remove & re-install observing correct polarity
	Battery discharged	Charge battery
	Battery defective	Contact Sirchie Customer Service
	Switch defective	
	LED defective/burned out	
	Front cover filter opaque or damaged	
	Flashlight damaged internally	