

Ra Twisty™ Flashlight User's Guide
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May 14, 2008

Introduction

Congratulations on your purchase of the **Ra Twisty Flashlight**. We believe you will find your new Ra Twisty Flashlight to be one of the most versatile flashlights you will ever own. Your flashlight is built to provide you with years of reliable service when used every day.

Basic Operation

Rotate the battery compartment clockwise to increase the brightness level. Your flashlight will sequence from Off to Low to Medium to High.

Caution: do not continue tightening the battery compartment after the High setting turns on as this may damage the switch mechanism.

Rotate the battery compartment counter clockwise to decrease the brightness level. Your flashlight will sequence from High to Medium to Low to Off.

Note: clockwise and counter clockwise rotation are relative to the head when the flashlight is pointed away from you.

Low Battery Indication

When the battery in your flashlight is unable to supply enough power to run the selected brightness, your light will momentarily turn off and then back on to half of the previous brightness. This process is repeated when needed as the battery is used up. After this process starts, your flashlight will double-blink once a minute to remind you that the battery needs to be changed. Using a lower brightness level will extend a dying battery.

When the battery is no longer capable of powering any of the regular brightness levels, it will start blinking about once a second.

Warning: do not continue using a rechargeable battery once the flashlight has started blinking once a second. Continued use of a rechargeable battery past this point will result in sudden darkness when the light is eventually forced off to protect the battery.

Installing the Battery

Unscrew the battery compartment from the head and remove the old battery from the battery compartment. Insert the new battery into the battery compartment with the positive terminal out. Align the head and battery compartment, press them together to overcome the spring pressure and screw the battery compartment and head back together.

Note: the light comes on dimly for two seconds following a battery change to indicate it is functioning correctly. If you do not see this indication when changing batteries, remove the battery for 60 seconds and try again.

Caution: Only install fully charged rechargeable batteries. Using partially charged batteries may result in the batteries not being properly recognized as rechargeable. This can lead to the rechargeable battery being over-discharged and damaged.

Cleaning and Maintenance

Periodically clean the flat end of the battery compartment, the threads and O-ring with a clean lint-free cloth lightly moistened with isopropyl alcohol. Apply a coat of non-conductive silicon or petroleum grease to these surfaces.

Replace the O-ring if it becomes worn or damaged. The battery compartment O-ring is: 1.5mm x 20.5mm, 70 durometer Nitrile (Buna-N).

The recessed electrical contacts and interior threads can be cleaned using a lint-free swab lightly moistened with isopropyl alcohol. Recessed contacts and threads should be cleaned in a counter-clockwise direction to prevent snagging the swab. Be sure to remove any particles or fibers that may be left behind. Apply a coat of non-conductive silicon or petroleum grease to the interior threads.

The exterior can be cleaned with a mild soap and water. Rinse well and dry with a lint-free cotton cloth.

Additional Warnings

Warning: LEDs on the higher brightness levels are very bright. Looking directly into the LEDs must be avoided. Your light can be intense enough to injure your eyes.

Warning: whereas a sudden total failure is unlikely, it is still possible. We recommend you always carry a second light during critical situations (e.g., caving). We also recommend you carry enough spare batteries to cover your lighting requirements plus a reasonable safety margin. It is not necessary to start each trip with new batteries in your light as long as you have spare batteries along.

Warning: although your flashlight protects rechargeable batteries from over-discharge under most conditions, we recommend you use batteries with over-discharge protection built into the battery for an added level of safety.

Warning: do not recharge a rechargeable battery if you think it has been over-discharged or otherwise damaged. Dispose of damaged batteries immediately. An over-discharged or otherwise damaged battery can vent or explode when the battery is recharged or when the battery is subsequently used.

Warning: water – especially salt water – in the battery compartment will cause electrolysis giving off hydrogen and oxygen – an explosive gas mixture. Electrolysis will also cause corrosion. If water gets inside of the battery compartment, immediately open the battery compartment, rinse the battery compartment and battery with fresh water and dry.

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Warranty

Your Ra Twisty flashlight (Product) is warranted to be free from defects in materials and workmanship for the life of Product to the original owner. This warranty does not include cosmetic blemishes, damage, modifications and normal wear. We will repair Product, replace Product with an equivalent Product or refund the original purchase price for the defective Product - at our discretion. You are solely responsible for determining the Product's suitability for your application and you take sole responsibility for Product's use. In no case shall we be liable for more than the original purchase price of Product.

Specifications

Input voltage: 1.8V to 4.5V

Light Source: high efficiency white LED

Maximum light Output: 85, 100 or 120 lumens

Runtimes: 1 hour on High setting, 8 hours on Medium setting

Regulation: constant power regulation

Battery: 1 – IEC-CR17345, Li-MnO₂ 3.2V non-rechargeable,
Li-CoO₂ Li-ion 4.2V (3.7V nominal) rechargeable

Housing: aerospace aluminum, military type III hard anodize

Lens: ultra-clear glass with anti-reflective coatings

Dimensions: 25.5mm (1 inch) diameter by 89mm (3.5 inches) long

Weight: 88g (3.1 ounces) including batteries

Waterproof: 20 meters (66 feet) – static

Specifications are subject to change without notice.