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# Instruction Manual RC6 RII/RIV (also valid for single RC6 Head )

Congratulations on your new SecuriLed RC6 Torch!

# IMPORTANT! PLEASE READ THE SAFETY INSTRUCTIONS AT THE END OF THIS DOCUMENT!

The SecuriLed RC-Family of Professional High Power Output LED-torches have been designed and manufactured according to requested specifications from European Police Forces and Fire Brigades.

Even the smallest detail has been thoroughly analysed for best performance and durability, from the choice of Diode to colour of O-rings, shape of the Roll-resist nut to the plating of Safety contact rings.

This RC6 System Torch complies fully to RC-Family standards and is fully compatible with earlier and future RC-models, meaning repair, exchange or upgrade of parts is easily made by the user without special tools.

This torch will serve you well for many years to come, but first we recommend you to do one important thing; please register your unique sample at **www.securiled.com**.

By registering your torch unique serial number at our website, you will get one year extended warranty\* and will also be able to order parts and other equipment with ease.

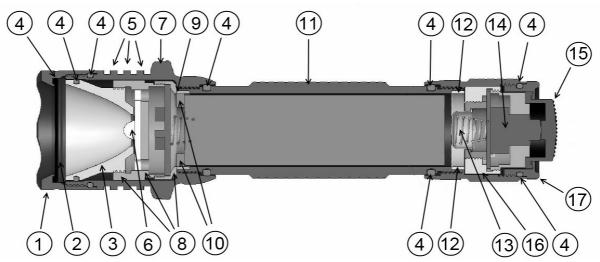
If a torch would get lost and later found, it would be traceable back to the owner.

<sup>\*</sup> Registering + submitted product review entitles to 1 year prolonged warranty.

#### **FEATURES**

- CREE XM-L T6-bin Quality Diode (USA)
- Toughened Ultra Clear Glass lens (replaceable)
- Aerospace-grade Aluminium Roll-resisting body
- Hardest type III Military grade black anodizing
- **IP68** tested Gas/Water-resisting O-ring sealed construction
- CE & EMC certified electronics
- Built in protection for internal Overpressure (Tail-cap gas grooves)
- Positive signal Switch for On-Off or Momentary action
- Flat tail-cap with immersed safety rubber cap for secure standing
- Extra Flat Tail-cap Lid included for protruding Rubber Button (Gun-Grip)
- Circuit Safety Rings for safe transport and storing. Tail-cap need to be fully twisted before use. For storage, turn tail-cap anti-clockwise until red O-ring is visible to physically separate safety contact rings.
- Temperature regulated safety Driver Circuit for constant light output with low battery warning. When battery level gets below warning value, the torch goes into low battery warning mode, LB-mode,(+5LM with negative flash each 5 second). This warning continues for 20-25 minutes until torch shuts completely off. This to give the user some time to change battery.
- Over Discharge Protection. Torch will not accept voltage below a pre-set value to protect battery internal voltage
- Wrong polarity of inserted battery protection
- High Quality Aluminium reflector with optimized bi-polar beam (range +300m)
- Diode heat-sink module of shield-treated Brass and CPU-paste for better heat dispersal
- Crenelated and replaceable Bezel
- High visibility Silicone O-rings for secure sealing
- Each torch has a unique serial number to facilitate tracking
- Strong textile Velcro-holster with 7cm belt-loop
- Protected Li-Ion 18650 3,7V 2600mAh Battery

### **SKETCH MAP SecuriLed RC6**



Crenelated Bezel. 2. Toughened Glass lens. 3. Bi-polar aluminium reflector for fixed Beam. 4. Silicone O-rings. 5. Heat-sink rings. 6. CREE XM-L T6 Diode. 7. Anti-Roll Nut.
 Brass diode/circuit heat-sink Driver module with cooling paste. 9. Shield treated brass contact rings. 10. Battery impact protection washer. 11. Battery tube. 12. Nickel plated safety contact ring. 13. Nickel plated (- pole) battery cathode Cap. 14. Tactical Positive Micro-switch. 15. Safety rubber cap. 16. Overpressure release Groves. 17. Low Tail-cap Lid (High Tail-cap lid included as standard. User can change for either standing capability or to have protruding rubber button)

#### **USAGE:**

This torch runs on 1pc 3,7V rechargeable 18650 Li-lon battery or 2pcs 3V CR123A Lithium batteries (6V).

Only use Protected Rechargeable batteries approved by SecuriLed.

Insert batteries with +pole first.

Twist tail-cap fully until safety contact rings meet.

Use tail-cap switch for constant on or momentary on.

To change between different light strength-modes, simply press button half way, release and press again with 1 second intervals. Like this you can step trough the different light modes. Note! The Driver memorizes last used mode. This means you can "pre-set" wanted light mode for next time use as it will always start in the same mode it had when shutting the light off. That means you can decide whether the torch shall start in strong, medium or weak light mode.

The RC6 has a **very** strong light beam. It can harm eye sight if aimed at eye. **This is NOT a toy!** 

Light beam is Bi-Polar to light up a dark room and still have a centre beam for details and long range use.

#### **TEMPERATURE:**

Due to the strong light output of the diode, the torch will get hot when used in MAX-mode for longer time. (Max-mode should normally only be used momentarily or when needed) That means surface temperature will reach about +60°C in low heat-dispersal conditions. To protect internal electronics as well as the user and environment from overheat, the temperature regulated driver will automatically shut off the torch if getting too hot. If this happens, please choose a lower power light mode.

When used in mid-power mode the torch can get warm but normally not hot. Check Safety Chapter for details.

Expected operating life of diode + 50 000 hours.

#### LIGHT OUTPUT:

Manufacturers use different methods when stating light output. SecuriLed stated rating show demonstrated output in Lumen /LM)

#### **SAFETY INSTRUCTIONS:**

The SecuriLed RC6 uses a 10W CREE XM-L Diode that produces a extreme light beam of 560LM @ 2800mA driver current.

This extreme light output is generating very high internal temperature and therefore caution is needed when operating the flash-light.

1) Use high-power mode only when needed and never directly into the eye as the light will be blinding.

2)
Always keep the Torch in "Secured Mode" when in transport or storage.
(Turn tail-cap anti-clockwise until red O-ring is visible)

This will safeguard the Torch from accidental power on (risk of fire) and also make sure the batteries will stay in good shape as there is no risk for low-current depleting.

## **Physical Circuit Protection**

The RC4 are using Circuit Safety Contact Rings which mean that the Tail-cap contact ring and battery tube contact ring must connect physically before any electrical circuit is enabled. By turning the Tail-cap anti-clockwise until the red O-ring is visible, the safety contact rings will separate and electrical circuit is physically prevented.

We strongly advice to always disconnect contact rings when torch is stored or transported.

The RC6 is a High performance Torch that requires High performance batteries. Li-lon 18650 and Lithium CR123A are both very capable battery models, but they can become unstable and dangerous if wrongly used.

These batteries are fully packed with energy and correct treatment is necessary.

We want to remind you of some important safety rules to avoid potential accident:

- Never use damaged, discoloured or leaking batteries
- Never use battery with damaged sleeve or foil
- Only use 3,7V protected Li-lon 18650 rechargeable Cells approved by SecuriLed or standard Lithium CR123A (Never use 3,7V RCR123A)
- If torch gets unusually hot when in use, turn off torch and check battery appearance. Note, the torch gets quite hot when used in High Power Mode and no heat transfer takes place. I.e. hanging on lanyard only
- Do not store battery in charger
- Charger cycle is finished when diode turns green
- Battery should remain cold when charging. If battery gets hot, stop charging and dispose the battery.
- If battery seems dead and does not respond to charging, probable PCB protection activated. Dispose battery. Do NOT try to reset PCB.

#### 18650 PCB Protection

Rechargeable 18650 cells provided by SecuriLed meets highest safety demand and have high quality protection circuit boards (PCB) mounted.

Battery performance is monitored by the PCB and include protection from Over-charge, Over-discharge, Short-Circuit and Over-Current.

SecuriLed batteries have also been Quality tested for high/low temperature, humidity, vibration, impact and have passed testing criteria according to both CE and UL standard.

#### **Electronic Driver Protection**

Unwanted battery condition might occur when battery internal voltage gets too low. (Over-discharge)

This can cause swelling of the cells accompanied by gas building up.

To prevent this, the RC4 has a low voltage cut-off setting where the circuit shuts off to prevent over-discharge off battery.

However, if gas for some other reason would build up, the RC6 has an over pressure safety function that transfer gas pressure via Tail-cap gas grooves to the Tail-cap rubber button. When internal pressure gets too high, the rubber button will expand and finally detach.

The RC6 is a high performance light tool that can endure conditions and treatments in which most flash-lights would break. It's unique system-logic makes it easy to repair, remodel and upgrade to future models.

This torch was built to meet the highest requirements and our goal is to produce and develop the best tactical torch possible.

Please always respect the safety instruction, fellow humans and common practice. Keep away from children, this is NOT a Toy!

Enjoy your Torch!

Hans Wiren

Designer and Producer of this fine Torch

SecuriLed by WIR-TEC s.a.r.l. Luxembourg