

# Instruction Manual RC4 Series CQXXXXXR/C

Congratulations on your new SecuriLed RC4 Torch!
The RC4 Professional High Power Output LED-torch has been designed and manufactured according to requested specifications from European Police Forces and Fire Brigades.

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

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**.

Each torch has a unique serial number engraved on the side. There you are also welcome to write your opinion about the Torch.

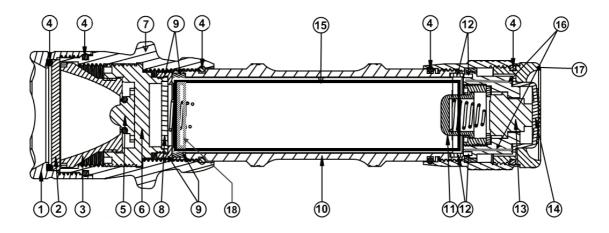
By registering your personal torch serial number at our website, you will get one year extended warranty\* and will also be able to order parts and other equipment with ease. If a torch would get lost and later found, it would be traceable back to the owner.

#### **FEATURES**

- CREE XR-E 3W Q5-bin Quality Diode (USA)
- Toughened Ultra Clear Glass lens (replaceable)
- Aerospace-grade Aluminum Roll-resisting body
- Hardest type III Military grade black anodizing
- Gas/Water-resisting O-ring sealed construction
- 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
- Optional Tail-cap Low-Lid included for protruding 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.
- Controlled 900/700mA Driver Circuit for constant light output with low battery warning.
   When battery level gets below warning value, the torch goes into warning mode
   (+5LM with negative flash each 5 second). This warning continues for 20-30 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 preset value to protect battery internal voltage
- Wrong polarity of inserted battery protection
- High Quality Aluminum reflector with optimized bi-polar beam (range +150m)
- Diode heat-sink module of shield-treated Brass for better heat dispersal
- Crenellated 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 2400-2600mAh Battery (only R-model)
- Removable CR123A battery sleeve for perfect fit (only C-model)

<sup>\*</sup>Check website for details

## **SKETCH MAP**



1. Crenellated Bezel. 2. Toughened Glass lens. 3. Bi-polar aluminum reflector for fixed Beam. 4. Silicone O-ring. 5. CREE Diode.6. Brass diode/circuit heat-sink module. 7. Roll-resist Nut. 8. Driver Board.9. Shield treated brass contact rings. 10. Battery tube. 11. Nickel plated (- pole) battery-cap. 12. Nickel plated safety contact rings. 13. Positive Micro-switch. 14. Immersed safety rubber cap. 15. CR123A battery fitting sleeve (C-models only).

16. Gas-release Groves. 17. High Tail-cap Lid (Low-Lid optional) 18. Compression Washer

#### **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.

RC4 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.

Due to the strong output of the diode, the torch will get warm but normally not hot when in constant use. \* Check Safety Chapter for details.

This is normal as heat must be dispersed from the diode to enhance operating life. Expected operating life of diode + 50 000 hours.

## **LIGHT OUTPUT:**

Manufacturers use different methods when stating light output.

Sometimes figures are estimated, calculated or measured during non-realistic conditions. To supply Customers with reliable information, we have decided to show 2 different values. The first value is Max Theoretical Output T/O\*, and the second and more important value is Demonstrated Output D/O\*.

D/O\* value is Verified by ISO 17025 accredited European Test Institutes and Autonomy Tests have been performed on complete and unmodified Torches using original/standard batteries in a Ulbricht Sphere.

Please be aware of different value methods when comparing Light Output. We recommend comparing True Demonstrated/Verified Light Output only.

#### **SAFETY INSTRUCTIONS:**

The RC4 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, discolored 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 RCR124A)
- If torch gets unusually hot when in use, turn off torch and check battery appearance. Note, when using CR123A with 900mA driver the torch gets quite hot if 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**

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

This can cause swelling of the cells with accompanied 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 RC4 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.

## **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.

Enjoy your Torch!

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