

The most technically advanced flashlights in the world.

USER MANUAL

Born to exceed.

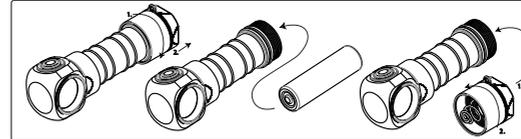
Thank you for choosing the products of Armytek Optoelectronics Inc., Canada.
Please read this manual carefully before using the flashlight.

Specifications

Initial Service

Armytek Optoelectronics Inc. is a Canadian manufacturer that produces powerful and reliable flashlights designed especially for your needs applying in them components made in USA and Japan. 10 years no-hassle warranty.

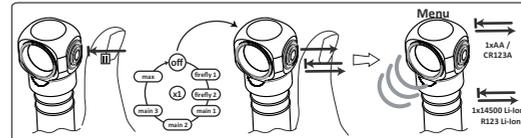
- Incredible brightness 950 lumens for the flashlights of such size on one AA/CR123A battery
- TIR-optics with light angle 70°:120° for wide beam and no effect of "tunnel vision"
- Durable and reliable headband with one strap for comfortable application
- Small weight and compact size for absolute comfort during long-term carrying
- Constant light brightness in all modes during the whole operation time
- Side switch guarantees comfortable one-hand operation and prevents the shifting of the headlamp sideways on the head
- Additional tailcap with magnet and removable clip for better functionality



To set/replace batteries:

1. Unscrew the tailcap.
2. Place the batteries with the positive contact (+) facing the head of the flashlight.
3. Adjust the tailcap and tighten it as far as it can go.

After placing the battery it is recommended to carry out the procedure of choosing the battery type through the built-up headlamp menu. This will provide correct battery voltage indication. To access the Menu press and hold the switch button (when the headlamp is switched off). The headlamp will switch on, go through the all available modes and then switch off again. After switching off, release the button quickly and click it rapidly again. The headlamp will enter the Menu and the LED will flash about 3 times a second.



Now you can specify the battery type:

- 1 click for AA (Tiara A1 Pro) or CR123A (Tiara C1 Pro).
- 2 clicks for 14500 Li-Ion (Tiara A1 Pro) or RCR123 Li-Ion (Tiara C1 Pro).

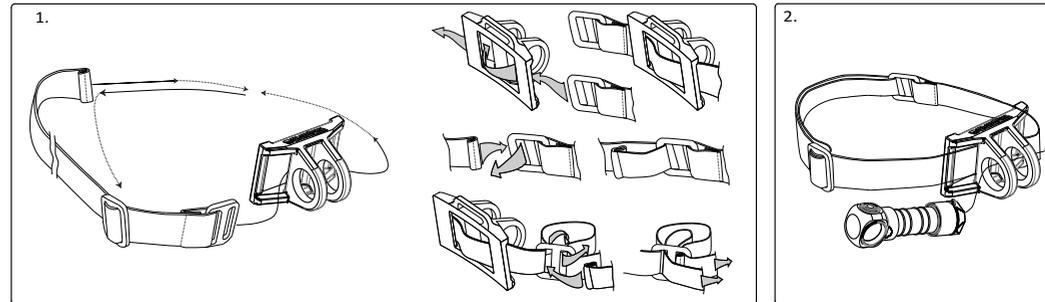
After the choice is made the light will flash 1 or 2 times to show the battery type chosen.



We recommend NOT to leave power sources inside the flashlight for a long storage period, as batteries (especially, non-rechargeable) can leak for various reasons and damage the inner parts of the flashlight. If you want to keep your flashlight in a stand-by state with batteries in, use new and quality batteries, store the flashlight in acceptable for batteries operational temperature and revise the batteries' state at least once a month. If you have noticed any signs of batteries' defects, withdraw them from the flashlight and take out of operation. It is also recommended to replace discharged batteries with new ones before the storage as the chance of leakage is higher with discharged batteries.

To use the light with the headlamp:

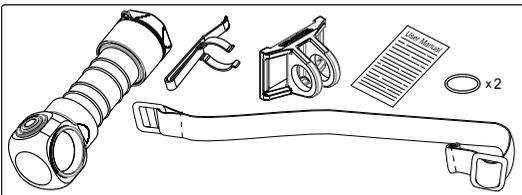
1. Pass the ends of the strap through the slots in the silicone holder, conjoin them in a ring (fig. 1).
2. Fix the headlamp in the headband (fig. 2) and adjust the elastic band to the size of your head.



Model	Tiara A1 Pro	Tiara A1 Pro (Warm)	Tiara C1 Pro	Tiara C1 Pro (Warm)
LED	Cree XM-L2	Cree XM-L2 (Warm)	Cree XM-L2	Cree XM-L2 (Warm)
Optics	TIR		TIR	
Brightness stabilization type	FULL stabilization (constant brightness)			
Light output, LED lumen	550 / 950	520 / 890	720 / 950	670 / 890
Hotspot/spill	70° / 120°		70° / 120°	
Beam distance	44 yards / 40 meters		44 yards / 40 meters	
Hotspot diameter at 16feet / 5meters	7.6 yards / 7meters		7.6 yards / 7meters	
Modes and runtimes (measured for Sanyo Eneloop AA 2000 mAh / Armytek CR123A 1500 mAh to the decrease to 10 % of initial brightness)	Firefly1: 0.1lm/90d Firefly2: 2 lm/200h Main1: 12 lm/25h Main2: 85 lm/3h Main3: 250 lm/1h 10min Max: 550 lm / 30min Strobe1: 0.6Hz Strobe2: 10Hz	Firefly1: 0.1lm/90d Firefly2: 2 lm/200h Main1: 11 lm/25h Main2: 80 lm/3h Main3: 230 lm/1h 10min Max: 520 lm / 30min Strobe1: 0.6Hz Strobe2: 10Hz	Firefly1: 0.1lm/130d Firefly2: 2 lm/300h Main1: 12 lm/40h Main2: 85 lm/5h Main3: 250 lm/2h 10min Max: 720 lm / 35min Strobe1: 0.6Hz Strobe2: 10Hz	Firefly1: 0.1lm/130d Firefly2: 2 lm/300h Main1: 11 lm/40h Main2: 80 lm/5h Main3: 230 lm/2h 10min Max: 670 lm / 35min Strobe1: 0.6Hz Strobe2: 10Hz
Recommended power source	1xAA / 1x14500 Li-Ion		1xCR123A / 1xR123 Li-Ion	
Size	Length 3.43"/ 87mm, body diameter 0.9"/ 23mm		Length 2.88"/ 73mm, body diameter 0.9"/ 23mm	
Weight (w/o batteries and headband)	2.15oz / 61g		1.98oz / 56g	

We recommend to use Sanyo Eneloop AA rechargeable batteries instead of ordinary AA batteries to obtain higher brightness and longer runtimes.

Set description



Items included in the package:

- Headlamp
- Headband
- Silicone holder
- 2 spare O-rings
- Clip
- User manual



1. Depending on the model, your headlamp can be considerably differ from the pictures in the manual.
2. The producer reserves the right to change the package at his own discretion without modifying this manual

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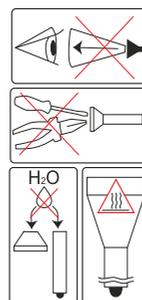
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Warnings

Tiara Pro has an additional detachable magnet in the tailcap. With its help you can easily attach the headlamp to an electric service panel, a bike handlebar or above a car wheel.

The magnet can be taken out the tailcap. To do this unscrew the small cover at the end of the tailcap and put the magnet out

With ambient temperature is +25..+30°C the headlamp delivers light in Maximal mode for about 5–7 minutes and then the brightness steps down to the Main3 mode. 10–60 seconds afterwards the brightness increases to the Maximal level again. This stepping goes cyclically to maintain the user's safety and the headlamp's functionality. In the conditions of good air-cooling the headlamp produces constant light even in Maximal mode.



1. Always follow the instructions from this manual and recommendations on battery usage.
2. Apply only the recommended power sources.
3. Do not reverse battery polarity.
4. Do not use different power sources together, i.e. old ones with new ones, charged with discharged. Do not use different types of batteries combined as the element with less capacity can be damaged.
5. Do not modify or recast the flashlight and its components as it will deprive you of the warranty.
6. Do not allow water or any other liquid to leak into the flashlight.
7. Do not aim a turned-on flashlight at people's or animals' eyes — it can cause temporary blindness.
8. Do not allow children to use the flashlight without your assistance.

! Armytek Optoelectronics Inc. shall not be liable for any harm done to the user if it was caused by improper use of the product.

Care and Storage

It is recommended to clean the threads and O-ring off dirt and old grease. Remember that secure protection from water and dust cannot be provided by worn out sealing. And fouling as well as lack of lubricant cause fast wear-out of threads and sealing rings.

To clean the threads do the following:

1. Unscrew the tailcap and remove the sealing ring carefully with a toothpick (do not use sharp metal things as they can damage the ring).
2. Wipe the sealing ring thoroughly with a soft cloth (or tissue). Do not use solvents. If the sealing ring is worn out or damaged replace it by a new one.
3. Clean the metal threads with a brush using ethanol. Be careful not to allow applied liquid to get inside the flashlight or tailcap as it can cause fails in functionality of the flashlight.

After cleaning lubricate the thread and the sealing ring with polyalphaolefin-based silica grease, e.g. Nyogel 760G. The application of automotive and other improper grease can cause swelling and damage of the sealing rings.

In case of active operation and exploitation in dusty environments, it is recommended to perform cleaning and lubricating of the parts as often as required, even if it is more than twice a year.

Service and Warranty

Armytek provides free warranty repair for 10 years from the purchase.

Warranty doesn't cover damage caused by:

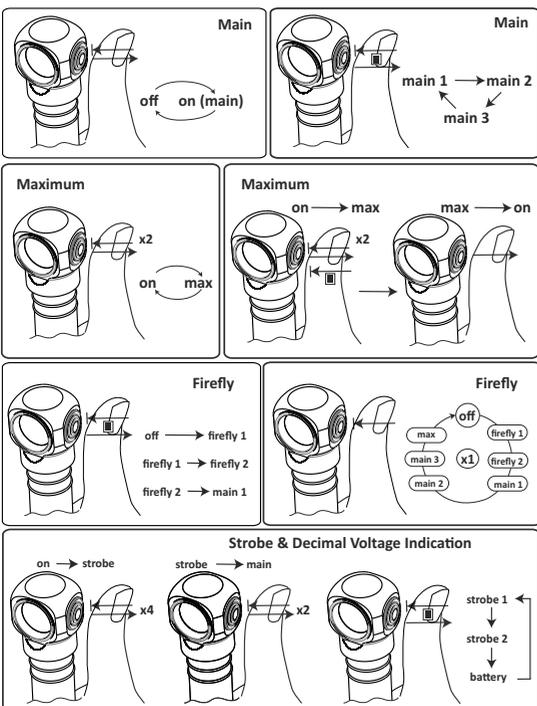
1. Improper usage.
2. Attempts to modify or repair the flashlight by nonqualified specialists.
3. Longtime application in chlorinated or polluted water, or other liquids (other than water).
4. High temperatures and chemicals' exposure (including the exposure of liquid from defected batteries).
5. Usage of low-quality batteries.

Armytek Optoelectronics Inc.
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Operation



For comfortable operation you have a convenient **momentary access to all the following Modes:**
Main. Click the button in OFF-state. Press and hold — to switch main modes in a cycle, and release — to select one.

Maximum. Double click in Main mode for persistent activation (returns with another double click). Click (shortly) and hold the button in Main mode for temporary activation (returns to the last mode when button is released).

Firefly. Press and hold in OFF-state to activate. Release — for selection. Double click — returns to the Main1 mode. If press and hold after Firefly activation, the headlamp will switch between 2 Firefly types, then 3 main modes, then Maximum and turn off (as the protection from accidental switching in a bag or pocket will work out).

Strobe. 4 clicks shortly in ON-state to activate. Double click — returns to the last Main mode. Press and hold after activation to switch between 2 Strobe types and Decimal Voltage Indication. It is memorized after switching off so next time you can access it shortly (also Decimal Voltage Indication).

Automemorizing. After switching off the last used Mode (except for Strobe) is memorized for quick 1-click access at next switching on.

Decimal Voltage Indication — the headlamp is switched on for 3 seconds for the battery loading in the last mode and then blinks: 3.7 Volts = 3 blinks - pause - 7 blinks. (Zero = 0.8 seconds of light.)

Warning Indication. In ON-state shows the battery voltage and the temperature inside the headlamp.
The voltage. When it drops the main LED flashes 3 times. At critical level light output decreases by 25%.
The temperature. When it increases to +70°C the main LED flashes 5 times. After +75°C the light output decreases to Main3 mode. At critical level >+80°C light output decreases to Firefly2 mode.
Lock-out function. Unscrew the tailcap to 1/4 for the protection from accidental switching on.