

# Operator's Manual

## **ELITE - NIGHT VISION MONOCULAR**

**Generation 3 - Extended performance**



**Assembled in Australia**

**Brite Star- tailored night vision solutions**

## **WARNINGS AND SAFEGUARDS:**

**To avoid mechanical or electrical damage carefully read & understand the following safety precautions.**

1. Do not use in daylight. Keep the objective lens cap fitted when the device is not in use.
2. Avoid directly viewing bright light sources, vehicle/ street lights. Exposure to bright lights will degrade performance & reduce service life.
3. Do not touch the objective lens or eyepiece, contaminants may damage or scratch lens coatings.
4. Coatings on the demist shield can be damaged if cleaned while wet. Clean only when dry & with dry lens paper.
5. Light from the IR illuminator is invisible to the human eye; however it can be detected by other night vision equipped observers.
6. Do not store the device in a sealed case if it is wet. Ensure the device is fully dry prior to storing in its carry bag or Pelican case.
7. Remove the battery during prolonged periods of storage.

## Specifications

<b>Elite - Tactical Night Vision Monocular</b>		
Parameter	Value	Unit
<b>Optical</b>		
Objective lens	100	Fl/mm
Objective focus range	3 to infinity	meters
Eyepiece adjustment	-6 to +4	diopter
Eye relief	2- to 50	mm
<b>Imaging</b>		
Intensifier	Gen 3 <sup>s</sup>	Mil spec
Resolution	64 to 72	lp/mm
Light gain	< 70,000	f1/fcd
Sensitivity	<2300	μA/lm
<b>Electrical</b>		
Battery	CR123A	3 volt Lithium
Run time	< 60	hours
IR illuminator	940	nm
<b>Physical</b>		
Size	220 x 60	LD mm
Weight	515	grams
Environmental	Water resistant	not submersible

## Installing the Battery

Power is provided by a single 3 volt lithium battery type CR123A which will provide >40 hours use. Lithium batteries are suitable for operation across a wide range of temperatures & have a 10 year shelf life.

Unscrew the battery cap, insert CR 123A Lithium battery with the negative terminal in & positive battery terminal facing the battery cap. Screw the battery cap on 6~7 full turns ensuring that the orange O- ring seal is covered.



When the battery becomes discharged, a “yellow” low battery indicator light will be visible in the eyepiece. Unit is still safe to use for several hours, however the battery should be replaced as soon as practical.

Prolonged use of the built in infra red illuminator reduces battery life.

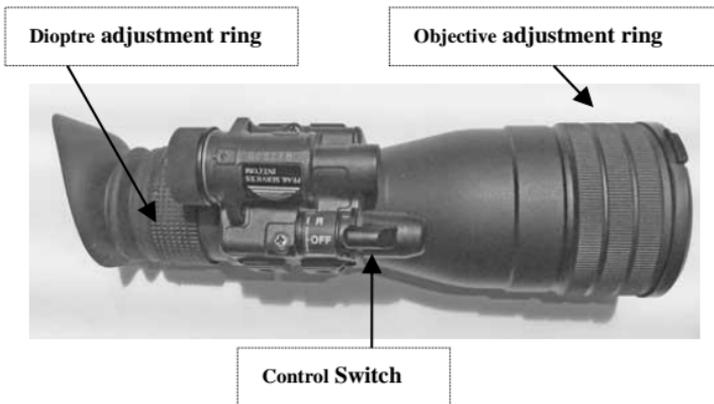
## User Controls

The control switch has three positions.

**IR** - up both night vision & IR illuminator are **ON**

**OFF** - centre position, Elite is **OFF**

**ON** - down position, only night vision is **ON**



Dioptre adjustment ring focuses the eyepiece.

Objective adjustment ring focuses the objective lens.

Control switch must be depressed slightly before it can be rotated from the OFF position.

## **Adjustments & Indicators**

### **Objective Lens Focus**

Rotate the objective lens focus ring to obtain clearest image; clockwise for close objects & counter clockwise for distant objects.

### **Eyepiece Adjustment**

Rotate the Dioptre adjustment ring on the eyepiece to obtain sharpest image. Re-adjust objective lens ring if required to sharpen the image.

### **Low Battery Indicator**

A yellow indicator light will appear in the eyepiece when the battery requires replacement.

### **Infra Red Illuminator**

Red indicator light appears in the eyepiece when the IR illuminator is ON. The illuminator provides covert illumination of targets in extremely dark environments, under dense foliage, inside buildings & underground.

### **Warning**

Light from the IR illuminator is visible to anyone who is night vision equipped.

## **EQUIPMENT LIMITATIONS**

- All night vision equipment requires some illumination to operate. Moonlight & starlight provide natural night sky illumination. In suburban areas additional illumination is provided by street, car lights and other artificial light sources. This light may illuminate the target directly or be reflected off cloud or the atmosphere. The performance of night vision equipment depends upon the level of natural illumination.
- Night light is reduced by passing cloud cover, while operating under trees, in building shadows, etc. performance will be reduced
- The equipment is less effective viewing into shadows and other darkened areas.
- The equipment is less effective through rain, fog, sleet, snow or smoke. The equipment will not “see” through dense smoke.
- Operating vehicles, aircraft or boats using night vision equipment should only be undertaken by suitably trained personnel.
- Long exposure to high levels of external light source for extended periods of time can significantly reduce the service life of the image intensifier tube and permanently degrade the equipment.

## **Image Intensifier Information**

Human vision is limited to a narrow band of light, the visible light spectrum. Visual acuity is seriously degraded at night by the lack of visible light. Natural night sky illumination peaks in the infra red spectrum which is invisible to the human eye. **Elite** provides night vision capability.

Elite incorporates a select grade image intensifier. These electronic devices are sensitive in the infra red light spectrum. They detect incoming photons and use the photo-electric effect to intensify (amplify) an objects brightness up to 70,000 times, making dull distant objects bright and normally invisible objects, visible to the human eye.

Image intensifiers are subject to rigorous testing to ensure they provide reliability & a proven level of performance.

Minor cosmetic blemishes are inherent during the manufacturing process. These “black spots” do not affect image intensifier reliability and are not normally a cause for rejection. Our select grade intensifiers are Black Spot free in the centre.

To maximise intensifier life avoid prolonged observation of bright light sources. **DON NOT USE IN DAYLIGHT.**

## Service History

