

MODEL	24101
Magnification, x	3
Objective lens, mm	50
Resolution, lines/mm:	
Field of view - center	40
Field of view - edge	32
Angular field of view	13°
Max. viewing range, m/yds*	250/273
Eyepiece adjustment, diopter	-3/+4
Operating voltage, V	3
IR illuminator range, m/yds	100/110
Tripod mount, inch	1/4
Min. operating time	
(w/out IR)	50
(with IR), hour	8
Operating temperature	-30eC...+40°C / -22eF...+104eF
Degree of water-resistance	IPX4
Tube type	Super (1+)
Dimensions, mm/inch:	
Length	198 / 7,8
Width	87 / 3,4
Height	60 / 2,4
Weight, kg/oz	0,56 / 19,7

\* Maximum distance at which the user can detect objects, and their details, being observed measuring 150mm or more under the natural light of a quarter moon (0.05 lux) with no clouds or fog (outstretched human arm, head, etc. can be seen). The viewing distance increases as the size of the objects under observation and/or light intensity becomes greater.



## PACKAGE CONTENTS

- Exelon 3x50 unit
- Carrying case
- User manual
- Cleaning cloth
- Warranty card

## OVERVIEW

The EXELON 3x50 night vision monocular with a super tube is a professional device with enhanced image quality throughout the whole field of view. A unique optical arrangement of the objective, coupled with a new, specially designed tube of a new type, has contributed to the high resolution and lack of distortion on the whole field of view. This unit operates both in the passive mode (without man-made sources of light) and in the active mode (with the IR illuminator on). The EXELON 3x50 is designed for outdoor observation, guarding and terrain orientation within a wide range of natural night light - from twilight to utter darkness.

The Exelon 3x50 has a built-in IR-illuminator intended for use in moonless cloudy conditions in total darkness. The unit is equipped with two 1/4 inch sockets which allow it to be fixed on the head mount and used as goggles. This device can also be attached on a mount with a laser pointer and used as a night vision sight. Its surface is rugged for extreme field conditions. However, damage may occur if the unit is dropped. The Exelon 3x50 unit is fully self-contained and can work up to 50 hours on one CR123A battery at temperatures from -30°C~+ 40°C.

Your Exelon 3x50 is ideal for professional and amateur use, including:

- Night observation in natural environment
- Search and rescue

- Boating
- Repair and maintenance of equipment



## PECULIARITIES OF USE

Your night vision device Exelon 3x50 is designed to provide many years of reliable service. To ensure high performance you should adhere to the following rules:

- Do not direct a unit in the “on” position at intense sources of light, such as car's headlights or burning fire. This may disable the unit for an unknown length of time or cause a dark spot in the center of the field of view. Do not turn the unit on in daylight without the protective cap firmly secured over the objective lens, as this may damage the unit.
  - Any such damage may void the warranty.
  - Never leave the unit in the “on” position over an extended length of time in an area with a light level exceeding 1-10 lux (twilight - 10lux, deep twilight - 1 lux). Please keep the protective cap on the objective under greater light level.
- Your Exelon 3x50 was designed to be self-contained. Do not open the body of the scope or otherwise attempt to service this device. If such need arises return the unit for replacement or repair.
- Protect the device from exposure to direct sunlight, extreme temperatures, and rain.
- Keep the unit in a dry, warm place, away from heating and air conditioning vents or other heating devices.
- Avoid dropping or otherwise shocking the unit. The device incorporates a sophisticated optical system which could be damaged in extreme cases of misuse.
- Clean optical parts (lenses) with professional lens cleaning supplies designed for use with multicoated optics.
- Clean the exterior of your Exelon 3x50 with petroleum jelly applied by a soft, clean cloth.

**Damage to this device from failure to observe these warnings may void the device's warranty!**

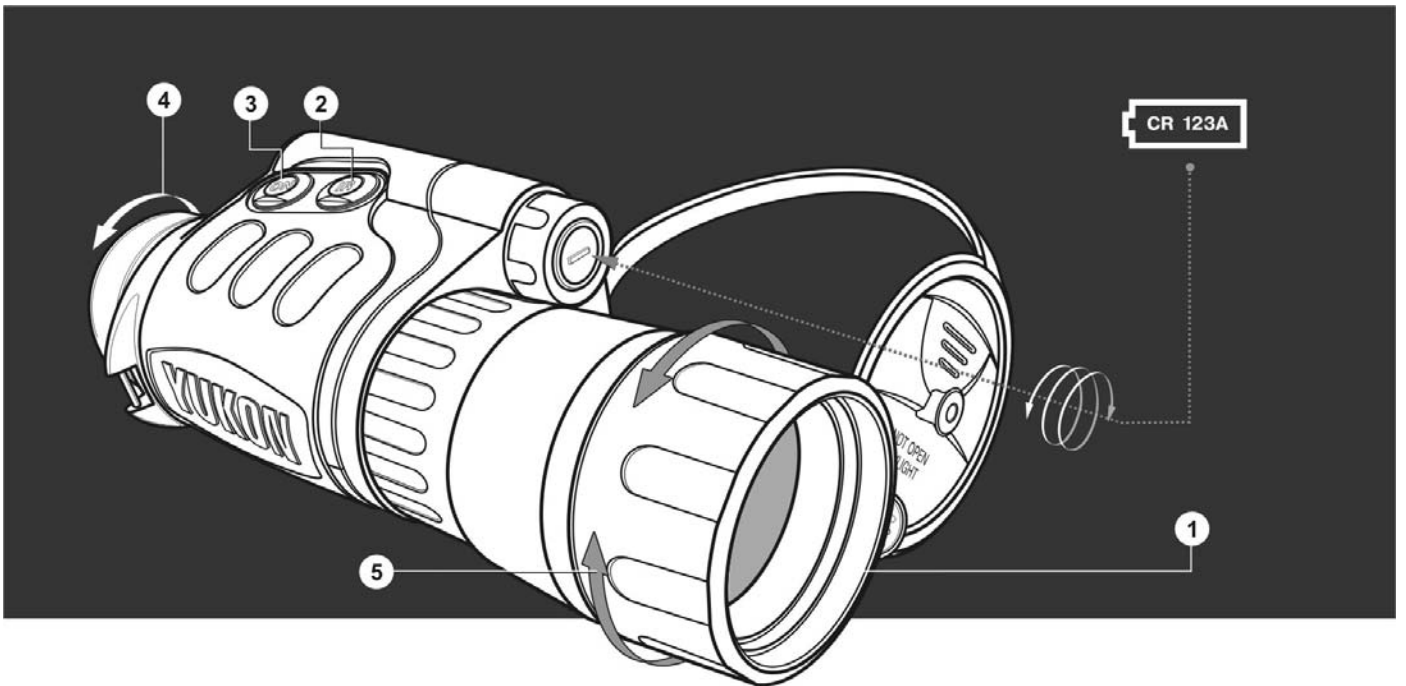
## BATTERY INSTALLATION

Your Exelon 3x50 runs on 1 CR123A. To install, unscrew the battery compartment cover, insert the batteries into the battery compartment so that the positive (+) and negative (-) terminals of the batteries match the markings inside the compartment, replace the battery cover carefully. Do not overtighten.

## USE AND TESTING

Your Exelon 3x50 operates on 1 CR123A battery. Make sure it has been installed according to instructions found in the battery installation section of this manual.

- Enter a dark area before turning on the device.
- Remove the objective cap (1).
- Activate the device by pushing the “ON” button (3).
- You can test your device in a light area without removing the protective cap. This will not damage your unit.



- If the subject to be viewed is in a completely dark area, including lowlight shadow areas; activate the infrared illuminator by pressing the “IR” button (2) located next to "ON" button.
- Direct your Exelon 3x50 at an object at a distance of approximately 100m. Adjust the eyepiece and objective lens diopter setting to focus the unit by rotating the eyepiece (4) and objective lens (5).
- After the adjustment, do not rotate the eyepiece irrespective of the distance and other conditions.
- Direct your Exelon 3x50 at the subject to be viewed and adjust the final focus by rotating the objective lens (5) focusing ring until the image quality is optimal.
- When you are finished using your Exelon 3x50 put the cap back on the objective and place the unit in the carrying case. If the green (operation status) and red indicators (IR) are lit, you need to push the respective buttons to turn them off.

### CAUTION!

Your Exelon 3x50 can be used in extreme cold. However, when the unit is brought back into a warm environment, you **MUST** wait approximately 5 hours before using the unit again. Failure to do so may result in damage as a result of condensation accumulating on the internal circuitry of the unit.

### MAINTENANCE

Maintaining the Exelon 3x50 is simple:

- Clean the lens with professional lens cleaning supplies intended for use with multicoated optics.
- Blow any dust or dirt off the lenses using dry, compressed air.
- Clean the Exelon 3x50 housing with a soft, clean cloth

### STORAGE

Always store the Exelon 3x50 (in its case) in a dry, well-ventilated area away from heating/air conditioning vents (or other heating devices). Temperature should be +10°C. Humidity should not exceed 70%. Remove the battery if the device is to be stored for longer than 2 months.

### TROUBLESHOOTING

- **The scope will not turn on.**

Check that the battery is installed properly. Install the battery according to the (+) and (-) polarity, ensuring that the markings on the battery and battery compartment correspond with one another. Check the battery contact to ensure it is clean and free of corrosion; if necessary, clean the contact. Make sure that the

external contact lug is not broken. If necessary, replace the battery as it may be depleted. Also, be sure that the power is in the “ON” position when trying to turn on the scope.

- **Distinct black dots appear on the screen.**

These dots are minor cosmetic blemishes resulting from tube production processes and do not interfere with the reliability or performance of the scope.

- **The scope flickers, flashes or “snows”.**

The scope may flicker or flash when used in a bright environment; to correct this, place the cap over the objective lens and enter a dark environment. The scope will restore itself to a natural functioning state in several minutes or hours, depending on how long the scope had been exposed to the light. The scope may flicker for the first several seconds of use, even when in a dark environment, before the scope corrects itself and functions properly. The scope may “snow” for several minutes after being exposed to a bright light source (daylight, a car's headlights, fire, etc.) even if being operated in complete darkness.

- **The image is not focused.**

Adjust the focus of the eyepiece and the objective (see “Use and Testing” section). Check that the lenses are not foggy or dusty; if they are, carefully clean the external surfaces of lenses with a soft cotton fabric. Replace the battery if the total battery charge is less than 2.2V. When the unit is brought into a warm environment from a cold one, condensation may appear on the internal lenses; you must wait two hours before using the unit.

- **Visibility decreases or disappears.**

Bright light sources, such as headlights, may cause visibility to decrease or disappear and the image to flicker. Turn the power off and turn the scope away from the light source; visibility will restore itself in several minutes.