

# Night Scout

NIGHT VISION BINOCULAR



NIGHT SCOUT USER'S GUIDE (REV. 3, SEPTEMBER 2010)

## *u s e r ' s   g u i d e*

**Important Export Restrictions!** Commodities, products, technologies and services contained in this manual are subject to one or more of the export control laws and regulations of the U.S. Government and they fall under the control jurisdiction of either the US Department of State or the US BIS-Department of Commerce. It is unlawful and strictly prohibited to export, or attempt to export or otherwise transfer or sell any hardware or technical data or furnish any service to any foreign person, whether abroad or in the United States, for which a license or written approval of the U.S. Government is required, without first obtaining the required license or written approval from the Department of the U.S. Government having jurisdiction. Diversion contrary to U.S. law is prohibited.



**AMERICAN  
TECHNOLOGIES  
NETWORK  
CORP.**

Register your product warranty online at [www.atncorp.com/warranty](http://www.atncorp.com/warranty)



## SPECIFICATIONS

Magnification .....	5x
Intensifier Tube .....	1st Gen.+; high res.
Lens System .....	6 (9) elements; F1. 2, 90 mm
Field of View .....	20°
Resolution.....	40 lp/mm
Range of Focus.....	20 m to ∞
Power Supply.....	2x 3V CR123 A
Battery Life .....	10-20 hours
Operating Temperature .....	-40°C to +50°C
Storage Temperature .....	-50°C to +70°C
Dimensions.....	225 mm x 150 mm x 60 mm
Weight.....	1.5 kg.

\* ATN reserves the right to change the above specifications at any time without notice

## CAUTION:

**THIS PRODUCT CONTAINS NATURAL RUBBER LATEX WHICH MAY CAUSE ALLERGIC REACTIONS.**

The information in this manual furnished for information use only, is subject to change without notice, is not to be construed as a commitment by ATN Corp.

ATN Corp. assumes no responsibility or liability for any errors or inaccuracies that may appear in this book.

©2010 ATN Corp. All right reserved.

# FEATURES

---

- Great for hunting, camping, boating or surveillance
- Total darkness technology
- Automatic brightness control
- Built-in IR illuminator
- Manual focus
- Adjustable eyepiece
- High res. 1st Gen.+ intensifier tube
- Rugged and versatile design
- Light weight and comfortable
- Water and dust resistant
- Smart Technology - see description
- Superb 5x lens system
- Soft case
- Camera adaptability
- Two year warranty

# APPLICATION

---

The Night Vision binocular is a complex optoelectronic system for individual use. The device consists of the objective lenses, eyepieces and the body. The body contains two 1st Gen.+ image intensifier tubes assembled with an integrated high voltage power source and two three-volt battery housing. When installing the batteries one should keep in mind that the polarity of the batteries should coincide with the diagram on the body next to the battery housing cap.

Objective lens protective covers are intended to protect the objective lens from dust and scratches. They will also act as daylight filter allowing you to test the binocular in daylight or other bright light situations. The pin-holes in the center of the protective covers allow the user to check the operational capability of the device in daylight conditions.

The scope is equipped with the Automatic Shut-off System. This system tracks when the scope is not used (the controls are not touched for 60 minutes continuous) and shuts the unit off automatically.

**NOTE: Do not test the scope in daylight conditions even with the daylight filter/lens caps on for more than ten (10) minutes.**

# SMART DIGITAL TECHNOLOGY

---

Smart Total Darkness Technology finally provides the user total control in the hi-tech industry of night vision. The Smart Series Night Vision binocular have been designed according to the latest computer technology. On board computer systems identify the users intention of looking through the binocular. When the binoculars are brought to the user's eyes, the binoculars will automatically turn on. When removed from the eyes the binoculars will turn off (you must engage the proximity sensor for this feature to work). The user will never have to worry about turning his or her binoculars on or off. Smart series binocular automatically sense when they are no longer used and shut off and enter their sleep mode. Both the controls and buttons are digital. Even if your batteries are low don't worry the smart series will let you know.

Our Night Scout binocular have a 3 button digital control panel that allows the user to easily engage the main power, Infra-red illuminator and the proximity sensor. Color coded LEDs let you know the mode of operation you are using.

1. ON/OFF indicator light - when power is ON, the LED is be green.
2. When the proximity sensor is activated the LED will change to red.
3. When IR is ON the LED is orange.

**NOTE: You may notice a persistent green glow for up to five (5) minutes after you have turned the unit off. This is normal for the 1st Gen. light intensifier tube.**

# FOCUSING

---

To focus the Night Scout first you will need to adjust the diopters. Simply turn the diopters clockwise until they stop. Then, while looking through the diopters at an object, slowly turn the diopters back counter clockwise until the grain in the image is sharp.

**NOTE:** We suggest that you focus the diopters during, daylight with the daylight filters on.

## **INFRA-RED ILLUMINATION**

---

Infra-red illuminators, or IR illuminators, are common in night vision. The IR light greatly enhances the performance of the Night Scout while remaining almost totally invisible to the naked eye. The IR illuminator on the Night Scout is located on the side of the unit. To turn the IR on, push the IR button and you will see an orange indicator light come on. It is important to remember that the IR illuminator is simply an infra red light source, and like any light source it may lose its efficiency over a great distance.

**NOTE:** The IR will automatically turn off when the unit's main power is turned OFF.

## **IR LOW BATTERY INDICATOR**

---

The low battery indicator is another feature that is programmed into your "Smart" binoculars. If the batteries start losing voltage, LED "B" will start to pulse, it is time to change your batteries.

## **USING THE CAMERA ADAPTER (OPTIONAL)**

---

To use your Night Scout with a 35mm camera or camcorder you will need the following:

- 1) If you plan to use a camcorder then your camcorder must have a MACRO feature. Most modern camcorders today have a MACRO feature built in.
- 2) If you plan to use a 35mm camera you will need a MACRO lens. If you don't have one we advise that you contact your local camera store.
- 3) You may or may not need a STEP-UP or STEP-DOWN ring in order to adapt the camera adapter to your lens.

**NOTE:** The camera adapter comes with 37-mm and 52-mm threads. If you need other sizes your local camera store should be able to help.

- Screw the camera adapter onto the front of the lens on your Video camera's lens or your 35-mm camera's lens.
- Loosen the three set screws on the camera adapter.
- Place the camera adapter over the Night Scout's eyepiece.
- Tighten the three set screws to fit snugly to the Night Scout's eyepiece
- You may need to focus the 35mm camera or video camera in combination with the Night Scout in order to get the sharpest possible image.
- We suggest that you find an open space to work in. Focus the Night Scout so that the scene is at its sharpest. For the best results you should disable the auto focus (if any) on either the 35-mm camera or the video camera and manually focus the 35-mm camera or the video camera. Once the image is in sharp, then simply adjust the Night Scout's front lens to change the focus.
- An important part to remember is that you are not taking a picture of an object that is far away from you, but you are actually taking a picture of a phosphorous screen of the Night Scout that is only 2-3 inches away.

## **450 MW INFRA-RED ILLUMINATOR (OPTIONAL)**

---

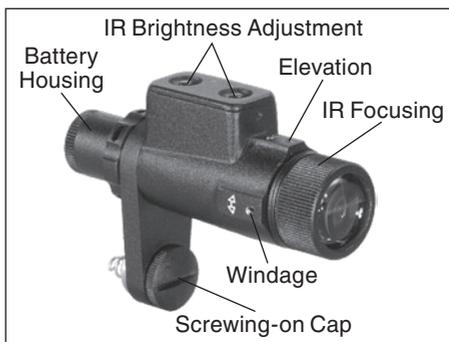
The IR450 long range infra-red illuminator can be attached the battery housing of binocular. IR450 kit contains an IR450 illuminator with eye-bracket and a screwing-on cap. First, screw the cap into the eye of the bracket of the IR450. Then, take off the standard battery housing cap from your NVD. Attach the IR450 to the thread of the battery housing and tighten the screwing-on cap.

The ATN IR450 is powered with one CR123A lithium battery. To install the battery unscrew the cap of the battery housing and insert the battery following the polarity arrows marked on the housing. Put the cap in place.

The IR-450 illuminator has a control panel with two buttons. To switch the IR illuminator on/off press “+” and “-” buttons simultaneously. When the IR illuminator is switched on you can see the green LED lit on the back side of IR450. By pushing the buttons “+” and “-” you may adjust the IR brightness.

The IR beam is focusable to change the field of coverage. To change the beam width slightly turn the IR lens. You may need adjust the focusing of the IR beam to change the field of coverage. Do it by slightly rotating the IR lens. The windage and elevation screws help adjust the direction of the IR beam from the IR450 in order to focus on the scene observed in the viewfinder of your NVD. Use the included Allen wrench to rotate the adjusting screws until the IR beam is centered. Please remember the adjustments should be performed under night light conditions only.

You can change the position of the IR control panel to meet your needs. The wrench that is included in the set, is used to loosen the nut located on the body of the IR. Rotate the IR to the desired position. Tighten the nut with the wrench to secure the new position.



## OPERATION

---

- Take the binoculars out of the case.
- Install the batteries into the housing with the polarity order as shown on the binoculars. Battery Type: 3 Volt Lithium, #CR123A
- Press the button marked -/O to turn unit on with the protective lens covers still attached to the lenses. **Do not turn unit on in the daytime without the protective lens caps on.** You should see a green glow in the eyepieces.
- Observe the scene, and adjust the diopters for the optimal image clarity.
- You may now enter a dark environment or simply shut the lights off in order to darken the room.
- Next, remove the lens caps/daylight filters and observe the scene. You should readjust the diopters for maximum clarity. Remember the focus range of the binocular is 20' to infinity.
- The unit will turn on and off automatically when you bring it to or take away from your eyes. This is done by activating the proximity sensor. To activate the proximity sensor push the digital control marked “A”. You will notice the green LED change to red when the sensor is on.
- In order to assure the proper functioning of the proximity sensor, make sure that the protective glass surface of the sensor is always clean. Adjust the digital features as needed.
- To increase battery life the LED diodes will go off after 10 seconds.
- Take your time learning about your “smart” binoculars. It will take practice to properly use the device. As you use these binoculars you will be able to improve your speed of focusing, as well as sharpness of image.
- Have fun and enjoy.

## CLEANING THE EYEPIECE

---

You may need to clean the eyepiece of the Night Scout from time to time in order to guarantee top performance. When you receive your Night Scout you should check for dust on the eyepiece of the unit. First you will need to remove the eyepiece. To remove the eyepiece you will need to initially loosen 2 set screws that can be found on the base. Then unscrew the eyepiece counter-clockwise to remove it.

**NOTE:** You do not have to remove the set screws completely, they are very small and easy to misplace.

**CAUTION:** Use only Photographic lens cleaning tissue on these surfaces. Be careful not to scratch or smudge any of these surfaces. When using compressed air to blow dust away, make sure to avoid inverting the can while spraying. This may cause frozen propellant to exit the can, which can result in serious problems of the glass and phosphor screen.

## WARNINGS AND CAUTIONS

---

- Always remember to turn off the Night Scout when it is not in use. If you do not plan on using your device for a period of more than 10 days, you should remove the batteries.
- **Keep lens cap/daylight filter on when not in use.**
- Avoid contact with dust, steam, and gas.
- The Night Scout is not harmful to the user or the environment.
- Do not disassemble except to clean the front lens and the eyepiece: **it will void your warranty.**
- Evaluate the scopes function by looking through it in a lit environment with the daylight filter lens cap on. Never use in daylight without the daylight filter lens cap on. Do not surpass ten minutes of testing.
- **Never point the Night Scout at a bright light source.** If the scope shuts off automatically after directing it at a bright light source, turn the unit off and wait 1 - 2 minutes before turning the unit back on.
- Adverse atmospheric conditions such as fog, smog, or haze and a lack of ambient light (moon or starlight) may diminish the effective viewing distance. All technical data for this unit was compiled in a controlled environment.
- If you use the rubber eyecaps for a long period of time, you may suffer skin inflammation. If you develop any symptoms, consult a doctor immediately.

## TROUBLESHOOTING

---

**Q:** Flashes, flickers, or clicking occur while operating

**S:** If it occurs within the first five minutes of inserting new batteries it is normal and the device will resume normal operation soon thereafter. If it occurs for more than 10 minutes contact your dealer or other authorized service representative for service instructions.

**Q:** Dark spots on screen.

**S:** These are either cosmetic blemishes in the intensifier tube or dust particles. Dust particles can be cleaned following instructions in "Cleaning Eyepiece" section.

**Q:** Screen becomes darker than in previous use.

**S:** Replace batteries. If the problem persists contact your dealer or other authorized service representative for service instructions.

**Q:** Image not clear.

**S:** Adjust objective lens and/or the eyepiece. Turn on IR.

# 2 YEAR PRODUCT WARRANTY

This product is guaranteed to be free from manufacturing defects in material and workmanship under normal use for a period of 2 (two) years from the date of purchase. In the event a defect that is covered by the foregoing warranty occurs during the applicable period stated above, ATN, at its option, will either repair or replace the product, and such action on the part of ATN shall be the full extent of ATN's liability, and the Customer's sole and exclusive remedy. This warranty does not cover a product (a) used in other than its normal and customary manner; (b) subjected to misuse; (c) subjected to alterations, modifications or repairs by the Customer or by any party other than ATN without prior written consent of ATN; (d) special order or "close-out" merchandise or merchandise sold "as-is" by either ATN or the ATN dealer; or (e) merchandise that has been discontinued by the manufacturer and either parts or replacement units are not available due to reasons beyond the control of ATN. ATN shall not be responsible for any defects or damage that in ATN's opinion is a result from the mishandling, abuse, misuse, improper storage or improper operation, including use in conjunction with equipment which is electrically or mechanically incompatible with or of inferior quality to the product, as well as failure to maintain the environmental conditions specified by the manufacturer. **CUSTOMER IS HEREBY NOTIFIED THAT OPERATION OF THE EQUIPMENT DURING DAYLIGHT HOURS OR UNDER ANY EXCESSIVE LIGHT CONDITIONS MAY PERMANENTLY DAMAGE THE INTERNAL COMPONENTS OF THE UNIT AND SAID DAMAGE WILL NOT BE COVERED UNDER THIS WARRANTY.** This warranty is extended only to the original purchaser. Any breach of this warranty shall be waived unless the customer notifies ATN at the address noted below within the applicable warranty period.

The customer understands and agrees that except for the foregoing warranty, no other warranties written or oral, statutory, expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose, shall apply to the product. All such implied warranties are hereby and expressly disclaimed.

## LIMITATION OF LIABILITY

ATN will not be liable for any claims, actions, suits, proceedings, costs, expenses, damages or liabilities arising out of the use of this product. Operation and use of the product are the sole responsibility of the Customer. ATN's sole undertaking is limited to providing the products and services outlined herein in accordance with the terms and conditions of this Agreement. The provision of products sold and services performed by ATN to the Customer shall not be interpreted, construed, or regarded, either expressly or implied, as being for the benefit of or creating any obligation toward any third party of legal entity outside ATN and the Customer; ATN's obligations under this Agreement extend solely to the Customer. **ATN's liability hereunder for damages, regardless of the form or action, shall not exceed the fees or other charges paid to ATN by the customer or customer's dealer. ATN shall not, in any event, be liable for special, indirect, incidental, or consequential damages, including, but not limited to, lost income, lost revenue, or lost profit, whether such damages were foreseeable or not at the time of purchase, and whether or not such damages arise out of a breach of warranty, a breach of agreement, negligence, strict liability or any other theory of liability.**

## PRODUCT WARRANTY REGISTRATION

In order to validate the warranty on your product, ATN must receive a completed Product Warranty Registration Card for each unit or complete warranty registration on our website at [www.atncorp.com](http://www.atncorp.com). Please complete the included form and immediately mail it to our Service Center: ATN Corporation, 1341 San Mateo Avenue, South San Francisco, CA 94080.

## OBTAINING WARRANTY SERVICE

To obtain warranty service on your unit, End-user must notify ATN service department by calling **800-910-2862** or **650-989-5100** or via e-mail [service@atncorp.com](mailto:service@atncorp.com) to receive a Return Merchandise Authorization number (RMA). When returning please take or send the product, postage paid, with a copy of your sales receipt to our service center, ATN Corporation at the address noted above. All merchandise must be fully insured with the correct postage; ATN will not be responsible for improper postage or, missing or damaged merchandise during shipment. When sending product back, please clearly mark the RMA# on the outside of the shipping box. Please include a letter that indicates your RMA#, Name, Return Address, reason for service return, Contact information such as valid telephone numbers and/or e-mail address and proof of purchases that will help us to establish the valid start date of the warranty. **Product merchandise returns that do not have an RMA listed may be refused or a significant delay in processing may occur.** Estimated Warranty service time is 10-20 business days. End-user/customer is responsible for postage to ATN for warranty service. ATN will cover return postage/shipping after warranty repair to end-user/customer only if product is covered by aforementioned warranty. ATN will return product after warranty service by domestic UPS ground and/or domestic mail. Any other requested, required or international shipping method the postage/shipping fee will be the responsibility of the end-user/customer.



For customer service and technical support, please contact  
American Technologies Network Corp.

**North American Office**

1341 San Mateo Avenue, South San Francisco, CA 94080  
phone: 800-910-2862, 650-989-5100; fax: 650-875-0129

**European Office**

The following countries can use our toll free number:

**00 800 9102-8620**

Austria, France, Germany, Holland, Italy, Spain, Sweden, Switzerland

For other countries, please use

**38 048-7770214 or 38 048-7770345**

**[www.atncorp.com](http://www.atncorp.com)**