

BINOCULAR
PHOTON
MACHINE

NIGHT VISION ASTRONOMY™

The BIPH User Manual

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WARNING

READ THIS BEFORE OPERATION

Do Not Power Up The System in Daylight;
this will VOID your warranty.

Do Not Use Re-Chargeable Batteries;
they can damage the night vision tube.

**Do Not Loosen the Ring
Securing the Night
Vision Tube in the
Nosepiece;**
this will VOID Your
Warranty.



**NEVER Use The BIPH to view the Moon or
Planets.**

**IF YOU SELL YOUR SYSTEM, YOU MUST
NOTIFY US WITH THE NAME AND ADDRESS
OF THE BUYER.**

United States International Trade and Arms
Regulations REQUIRES US TO MAINTAIN A
NIGHT VISION TUBE DATABASE.

**YOU ARE PROHIBITED FROM SELLING THIS
SYSTEM TO A NON-US Citizen and Export is
Strictly Prohibited.**

VERY IMPORTANT - Please read this quick start guide

Summary of Use & Maintenance

The system requires folks who wear prescription glasses to wear their glasses when viewing.

The Power Switch has a simple on and off design. Slide the switch away from you to power on the system.

The battery and power switch cover is secured with a Velcro strap, which is easily removed to gain access to the battery compartment. Please read the instructions regarding the removal and re-attachment of the switch cover.

2 AA Batteries should provide approximately 40 hours of use

The system should never be powered on unless you are in the dark.

If you are using the system in a light polluted environment, you will want to use a narrowband filter such as the H-alpha filter which will selectively remove light pollution and other wavelengths which will intensify the emission lines of nebula for viewing in greater detail.

*Note - These filters must be removed for viewing globular star clusters, galaxies, meteors, and other targets. Unfiltered views will intensify any light pollution present.

Transparency has an effect on the system performance. High altitude clouds, fog and infrared reflections present in the atmosphere may have an intensified effect depending on the conditions at the viewing location. This intensified effect may result in a higher level of green and may look un-pleasantly creamy. These are not optimal conditions for the BIPH. An Infrared blocking filter may improve the image when used under these conditions.

If you are shipping your system to a different location, for a vacation or star party, it is recommended that you remove the batteries to avoid accidental activation by any individual lacking proper knowledge regarding the operation of the system.

There is no tracking required; the system provides real time views. You may see faint satellites move through the eyepiece, don't be surprised!

You may see what looks like “fireflies” or “flickers” which is known as **scintillation**. This effect is exaggerated while using narrowband filters such as an H-alpha filter. This is normal for all night vision tubes.

Warranty & Disclaimer

The image intensifier must be used in dark conditions. **Do NOT operate the product in daylight.** Avoid operation with high output point sources of illumination in the viewing field such as streetlights, auto headlamps etc. Do not use the system to view the moon at any phase. Avoid viewing bright planets. A bright, high contrast object, viewed in a stationary position for extended periods may cause a permanent blemish on the tube voiding the warranty. The BIPH is designed for low brightness astronomical objects such as globular clusters, star fields, galaxies and nebulae. The new image intensifier tube's 2 year warranty is subject to evaluation by ITT Night Vision. The 100% clean used tube's 1 year warranty is subject to evaluation by Night Vision Astronomy's night vision tube supplier. Tubes that have been damaged by misuse as described herein will void the warranty. Avoiding bright light sources prolongs the tube life. The tube will not be damaged by brief exposure to bright sources such as an aircraft with landing lights illuminated flying across the field of view. Prices and specifications subject to change without notice.

Restrictions

*: EXPORT OF THE COMMODITIES DESCRIBED HEREIN IS STRICTLY PROHIBITED WITHOUT A VALID EXPORT LICENSE ISSUED BY THE U.S. DEPT. OF STATE, OFFICE OF MUNITIONS CONTROL PRESCRIBED IN THE INTERNATIONAL TRAFFIC IN ARMS REGULATIONS (ITAR) TITLE 22, CODE OF FEDERAL REGS PARTS 121-128.

Generation 3 image intensifiers may only be purchased by US citizens by US State Department regulations.

Limited Warranty

Night Vision Astronomy, Inc., 7 Old Snake Hill Road, Pound Ridge, NY 10576, warrants this product to the original purchaser/owner to be free of defects of materials or workmanship for one (1) year from the date of purchase. The new image intensifier tube is warranted for 2 years from date of shipment. The 100% clean used tubes are warranted for 1 year from date of shipment.

In the event of any malfunction or defect, Night Vision Astronomy will repair or replace this product at its option, free of charge, within the warranty period. This shall be the exclusive remedy for the purchaser under this warranty. Notice of the defect shall be given to Night Vision Astronomy within 10 days of discovery. Original invoice is required to validate warranty.

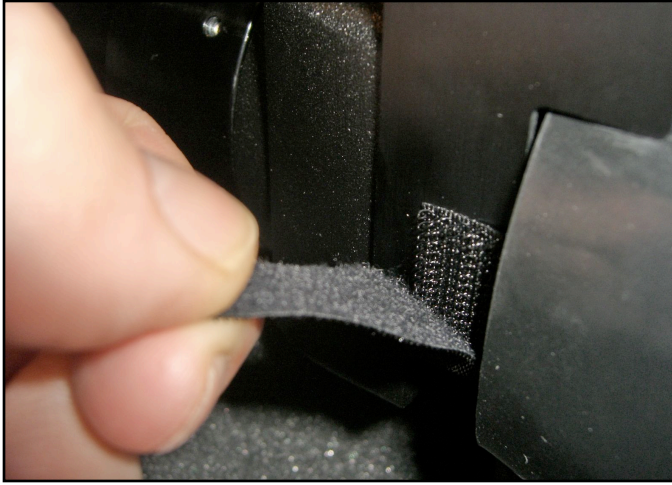
This warranty does not cover any product which has been subject to misuse, neglect, accident, or improper use in violation of the warnings and restrictions contained in the owner's manual or operating instructions furnished by Night Vision Astronomy. Night Vision Astronomy shall not be liable for any indirect, special, incidental, or consequential damages related to the sale or use of the product. Night Vision Astronomy's liability shall be limited to the obligation to repair or replace defective products set forth above.

This warranty does not cover any product which has been altered or repaired by anyone other than the repair personnel at Night Vision Astronomy, or any product whose serial number, model number, or identification has been removed, defected, or altered.

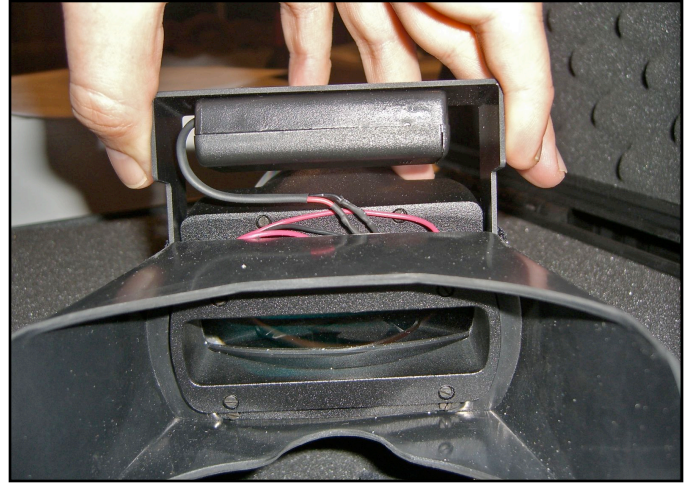
This warranty does not cover any product that has been exported outside the boundaries of the United States without proper Government license.

Battery Replacement

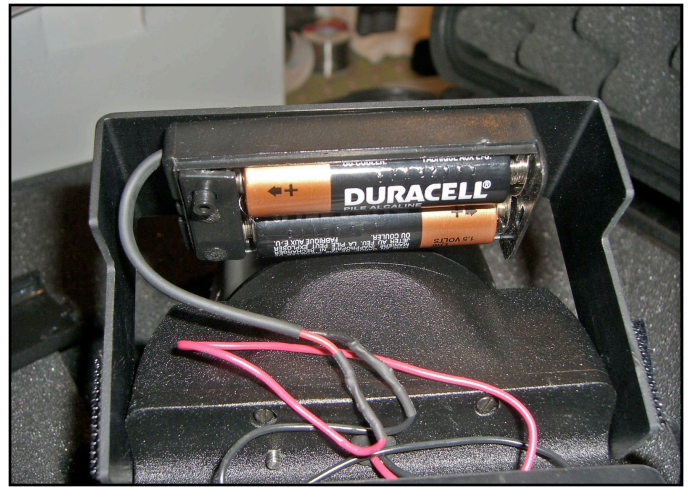
Use the Velcro Tab to Release the Switch Cover



Lift the Cover Upwards to Expose the Battery Harness



VERY IMPORTANT – To Open & To Close – Apply Pressure to the End of the Battery Cover to Release the Catch and Slide The Cover



When securing the switch cover, pull on the Velcro tab with resistance and attach the Velcro under pressure so the cover will be securely attached. If you do not secure the Velcro under pressure, the cover may wobble.



Using BIPH in Light Polluted Environments

If you are using the system in a light polluted environment, you will want to use narrowband filters such as the H-alpha filter which will selectively remove light pollution and intensify the emission lines of nebula for viewing in greater detail.

*Note - These filters must be removed for viewing globular star clusters, galaxies, meteors, and other targets. Unfiltered views will intensify any light pollution present.

An Infrared blocking filter may improve galaxies and star clusters views.

Filters

Transparency has an effect on the system performance. High altitude clouds, fog and infrared reflections present in the atmosphere may have an intensified effect depending on the conditions at the viewing location.

This intensified effect may result in a higher level of green and may look un-pleasantly creamy under these conditions.

These are not optimal conditions for the BIPH.



Variable Length Adapter

Allows you to extend the nosepiece to custom lengths and when paired with a barlow or focal reducer, you can adjust the field of view, magnification and f ratio of your scope.



Focal Reducers

Focal Reducers may be used to increase the F ratio of your scope. SCT telescopes are typically slow scopes with F ratio's above F 7 and will require focal reduction to improve images.



Focal Reducers may be used on any telescope to increase the field of view, and increase the light gathering ability.

Challenging targets like the Horse Head Nebula may require a focal reducer depending on your scope's F ratio.

Barlows

Barlows will increase the magnification, reduce the field of view, and slow down (lower) the F ratio of a telescope.

SLR

Canon and Nikon SLR adapters will be available as accessories.

Custom SLR Adapters may be fabricated for various lenses

If you are interested in an SLR Camera Lens to attach to the BIPH for wide field views which will enable BIPH to operate without a scope, as a hand held image intensified bino system, you can order the SLR lens adapter.