

Maintenance of the PD-PRO-16B

Cleaning Instructions:

1. Remove any dust and dirt using a cleaning brush or air pressure.
2. If available, apply a light coat of demist compound to the lenses and wipe off with a clean flannel cloth.

NVG Inspection:

1. Inspect NVG lenses for cracks, scratches or chips.
2. Check that the range focus ring rotates freely in both directions.
3. Check that the threads (for sacrificial window) on the objective and eyepiece housing are not damaged.
4. Inspect NVG exterior surfaces for damage and loose parts or screws.
5. Check that the daylight covers are properly seated and secure.
6. Inspect function switch for completeness and security (ensure in the OFF position).
7. Check that the function switch can be moved to all four positions. Must pull the switch out before setting to ON-V or IR.
8. Check the battery cap and compartment are complete and free of corrosion.
9. Inspect NVG mounting recess for damage.
10. Check the diopter focus ring to ensure it rotates freely in both directions.
11. Inspect eyecup for damage and perforations and ensure it rotates freely.

Inspect the Sacrificial Windows:

1. Inspect lenses for cracks, scratches or chips.
2. Inspect the sacrificial window's threads for damage.
3. Check that the sacrificial window's seal is in place; properly lubricate with DC-4 grease.



Download the full maintenance manual using the QR Code provided above.

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PD-PRO-B-QSG Rev: 48/20

Night Vision

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PD-PRO-16B

Binocular Night Vision Device

Quick Start Guide

Operating Instructions

WARNING:

Your NVGs are a precision electro-optical instrument; handle them with care.

Do not remove the daylight covers from the objective lenses at any time until you are ready to use them in a dark and/or nighttime environment and especially do not remove in bright sunlight. Damage to the image intensifier tube may result from exposure to sunlight and will invalidate your warranty. The Bright Spot Protection capability built into your PD-PRO is designed for bright lights at night such as headlights or streetlights and will not sufficiently protect the system from the intense rays of the sun. Do not touch or scratch the external lens surfaces. Clean NVGs and dry thoroughly and clean lenses with lens paper prior to storage. **For detailed instructions see the User's Manual by using the QR code provided on the back page of this guide.**

Warning:

1. Internal components within the image intensifier tube contain toxic materials.
2. If the image intensifier tube is damaged or broken, avoid inhalation or ingestion of the phosphor screen material, and avoid contact with open wounds.
3. If the toxic material comes in contact with your skin, wash the affected area with soap and water immediately.
4. If any material is swallowed, drink large quantities of water, induce vomiting and seek medical assistance as soon as possible.

Fit to Helmet/Harness Mount:

1. Slide the NVG mount onto the helmet/harness attachment until it firmly seats.
2. Fit counterbalance weights if required.
3. Attach the NVG dovetail adapter (#5) to the swivel mechanism mate (audible "click" will sound).
4. Move NVG until eyecup touches the face in front of the eye and adjust the mount for eye separation distance.
5. See the User's Manual for details about the NVG mount and its component parts.

External Battery Attachment (Optional):

1. The PD-PRO-16B can be operated in conjunction with the optional external power pack.
2. Install batteries in the battery pack.
3. With the NVG in the OFF position attach the external battery pack to either a helmet or harness and ensure it is secure. Attach the battery cable to the battery pack and then connect the cable to the NVG at the power receptacle port located near the dovetail mounting attachment (#6).
4. The external battery pack has two (2) position switches, left and right, to activate the battery cell on each side of the battery pack. Switch one of the cells to the ON position. The other cell should be activated by turning it to the ON position after the depletion of the first cell.

Operation Check:

1. If not using the external battery pack install a single battery in the battery compartment (#1).
2. The function switch has four (4) positions: (1) OFF; (2) ON; (3) IR; (4) IR Continuous.
3. Check the function switch to ensure it is in the OFF position (1) and the daylight covers are in place (Never remove the daylight covers except for low-light level use).
4. Switch the function switch (#2) to the ON position 2; ensure the NVG is operating by looking through the diopters to see an image of the surrounding environment.
5. Switch the function switch to IR position 4 (you must pull the switch out before setting) and check that the red LED is visible on the NVG screen.
6. Return the function switch to the OFF position. The system is now operational and is ready to be adjusted for visual acuity to suit the individual user – see optical adjustments below.

Optical Adjustments:

1. Your PD-PRO-16B binocular has two optical adjustments to refine the clarity of system's image. The diopter (#3) is adjustable from -2 to +6 and can be set for a user's individual eyesight requirements. Set both channels to "0" and adjust toward the plus sign "+" to increase the strength or toward the minus sign "-" to decrease the strength.
2. Once the diopter has been adjusted the Objective Lenses/Range adjustment (#4) can be focused by twisting them clockwise and counterclockwise to fine tune the image.

Helmet/NVG Function Check:

1. With the NVG attached to the mount and in the operational position in front of the eyes turn the Function Switch to the ON position with the daylight covers in place.
2. Rotate the swivel mechanism into the up position and ensure the NVG switches OFF and then to the down position to ensure it turns ON.

Operating in Adverse Conditions

Operating in Dusty/Sandy Environment:

1. Sand and dust can pit/scratch the optical elements and damage the mechanical components if precautions are not taken.
2. Ensure the sacrificial windows (#4) protecting the objectives are in place.
3. Avoid pointing the device into the wind unless necessary.
4. Keep the carrying case closed.
5. Ensure the NVG and case are cleaned after use.

Operating in Wet/Humid Environment:

Warning: Magnesium version can be damaged by salt water. Clean you google thoroughly after exposure to salt water.

1. PD-PRO-16B standard variant is water resistant to 10-meters (33-feet) but is not intended for use in diving operations. Wet/Humid conditions can cause corrosion and deterioration of the NVG without precautions.
2. Ensure the sacrificial windows are in place.
3. Keep the carrying case closed.
4. Dry the NVG, mount, and accessories after exposure prior to storage.

Warning: Do not store NVG in a wet carrying case or storage case as severe damage may result.

