

## Maintenance of the PD-PRO-Q

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

### Inspect the Sacrificial Windows:

1. The sacrificial windows are also the antifog windows for your device.
2. Remove any dust and dirt using a cleaning brush or air pressure.
3. Remove the Sacrificial/Antifog windows from the device by turning them counterclockwise direction.
4. Wash lenses with clean, fresh water soaked into a soft cotton cloth.
5. Apply a light coat of anti-fog compound to the lenses and wipe off with a clean soft cotton cloth in a circular motion from the center of the lens moving outward.
6. Replace the Sacrificial/Anti-Fog windows onto NVG by turning them in a clockwise direction.



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

| Field of View Interpupillary Adjustments |   |
|--|---|
| Field of View                            | Remarks/ Corrective Action  |
|  | GPNVG positioned too low. Correct height adjustment.  |
|  | GPNVG positioned too high. Correct height adjustment.                                       |
|  | IPD too narrow. Correct IPD adjustment.   |
|  | IPD too wide. Correct IPD adjustment.   |
|  | IPD too narrow AND eye relief too long. Correct IPD adjustment and fore and aft adjustment. |
|  | Eye relief too long. Correct fore and aft adjustment.                                       |
|  | Eye relief too short. Correct fore and aft adjustment.                                      |

Night Vision

**PHOTONIS**  
DEFENSE

# PD-PRO-Q

Panoramic Night Vision Device

Quick Start Guide

**PHOTONIS**  
DEFENSE

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

## 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. Additional counterweights are supplied and can be fitted in case the external counterbalance battery pack itself is not sufficient.
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.

**Caution:** New devices and mounts will be tight. Do not force the dovetail into the mount – use gentle pressure to secure the NVG to the mount.

### External Battery Attachment:

1. The PD-PRO-Q can ONLY be operated in conjunction with the provided external battery pack.
2. Install batteries in the battery pack. The external battery back is designed as a counterbalance. Additional counterweights have been provided if needed.
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. The function switch has four (4) positions: (1) OFF; (2) ON; (3) IR; (4) IR Continuous.
2. 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).
3. Switch the function switch (#1) to the ON position 2; ensure the NVG is operating by looking through the diopters to see an image of the surrounding environment.
4. 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.
5. 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 panoramic goggle has two optical adjustments to refine the clarity of system's image.
2. The diopter (#3) is adjustable using Snap-on lenses to adjust for a user's individual eyesight requirements. Your system comes with individual Snap-on lenses from +2 to -6 range.
3. Once the diopters have been installed the Objective Lenses (#4) can be focused by twisting them clockwise and counterclockwise to fine tune the image.
4. Using the Interpupillary Distance adjusters (IPD) (#2), adjust the interpupillary interval to meet individual requirements (See the See the Field of View Interpupillary Adjustment chart in this guide to adjust the field of view for the individual user.

### Helmet/NVG Magnetic ON/OFF 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 2 with the daylight covers in place.
2. Rotate the swivel mechanism on the mount into the up position and ensure the NVG switches OFF by observing the NVG screen image has turned black. Move the mechanism into the down position to ensure the device turns ON and an image is visible in the view screen.

## 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 (#7) 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:** The PD-PRO-Q has parts made from magnesium and can be damaged by salt water. Clean thoroughly with fresh water after exposure to salt water.

1. PD-PRO-Q is water resistant to 10-meters (33-feet) but is not intended for use in diving operations.
2. Wet/Humid conditions can cause corrosion and deterioration of the NVG without precautions.
3. Ensure the sacrificial windows are in place.
4. Keep the carrying case closed.
5. 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.

