



PRIME D 3X PRIME D 5X

Digital Night Vision Monoculars



USER'S MANUAL

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PARTS OF THE MONOCULAR



CAUTION:

This product contains natural rubber latex, which may cause allergic reactions! The FDA has noted an increase in the number of reported deaths that are associated with an apparent sensitivity to natural latex proteins. If you are allergic to latex, it is a good idea to learn which products contain it and strictly avoid exposure to those products.

The information provided in this manual is intended for familiarization with the product only; the contents may undergo further changes with no commitment by Armasight to notify customers of any updates.

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1. DESCRIPTION AND DATA

DESCRIPTION

Designed to offer the best possible performance at the lowest possible cost, the Armasight Prime D is an exceptional, digital night vision monocular. Whether you choose to use it for camping, hunting, boating or security, the Armasight Prime D will allow you to look out into the night and unveil the nocturnal world hiding in the darkness.

Available with either 3x or 5x magnifications, the Armasight Prime D is the absolute latest in the entry level Digital night vision based on the high sensitivity CCD array. Compact and lightweight, this exceptional digital night vision monocular outperforms most other devices in its class.

FEATURES

- 3x or 5x magnification
- High sensitivity CCD array
- Built-in infrared illuminator
- Compact and lightweight
- Video output for video recording/image capture
- Water and fog-resistant
- Limited Two-Year Warranty

SPECIFICATIONS

Item	Prime D 3X	Prime D 5X
Sensor Type	CCD	CCD
Magnification	3x	5x
Field of view (°)	20.8	20.8
Focus range (m)	1,0 to infinity	1,0 to infinity
Diopter adjustment (dpt)	+4 to -4	+4 to -4
Exit pupil diameter (mm)	8	8
Eye relief (mm)	20	20
Power Supply	2 x CR-123 Lithium 3V	2 x CR-123 Lithium 3V
Battery life	up to 4	up to 4
Tripod mount	Yes	Yes
Lens material	glass	glass
Operating temperature (°C)	-30 to +50	-30 to +50
Dimensions (mm/in)	205 x 73 x 60 / 8.1 x 2.9 x 2.3	210 x 76 x 60 / 8.3 x 3.0 x 2.3
Weight w/o batteries (g/lbs)	440 / 0.97	503 / 1.1

* Armasight reserves the right to modify these specifications at any time without notice

STANDARD COMPONENTS DESCRIPTION

1) Armasight Prime D Monocular

Digital night vision monocular with 3x or 5x magnification.

2) Objective Lens Cap

The objective lens cap is designed to protect the objective lens from physical damage.

3) Eye Cup

The rubber eye cup is designed to protect the eyepiece and to provide comfort of use for the user.

4) CR123A Lithium Battery

Two 3V CR123A lithium batteries are used to supply power to the unit.

5) User Manual

The user manual contains a full description of the device and accessories, information about controls, installation, maintenance and troubleshooting procedures.

6) Carrying Case

The carrying case is used to store and carry the Prime D monocular and accessories.

2. PREPARATIONS FOR OPERATION

WARNING:

The Prime D digital night vision monocular is designed for several years of reliable service. To ensure trouble-free performance, please observe the following instructions:

- Do not open the body of the device or otherwise disassemble it.
- Avoid dropping or otherwise impacting the device.
- Do not expose the device to moisture or extreme temperatures.
- Do not touch the lens. Clean optical parts with a clean, soft cloth, and only use professional lens cleaners designed for use with optics.
- Do not forget to remove the batteries from the battery compartment if the device is to be stored for **more than 3 days**.
- Do not forget to turn the device OFF during periods of non-operation.

WARNING:

Consider the following information and restrictions in order to avoid damaging the device and to ensure a long service life and failure-free operation:

- Performance of the device in nighttime conditions depends on the level of ambient light in the environment. Some light (moonlight, starlight, etc.) is required for the device to provide an image.
- The level of ambient light is reduced by the presence of clouds, shade, or objects that block natural light (buildings, trees, etc.).
- The device loses its effectiveness when operated in shadowed areas.
- The effectiveness of the device is adversely affected by weather conditions such as rain, snow, sleet, and fog, as well as environmental conditions such as smoke or dust.
- The device resolution level is reduced in environments with very low light sources. The visibility will degrade significantly under starlight conditions, particularly in low contrast environments such as deserts, large areas of uniform vegetation, etc.

BATTERIES INSTALLATION

- 1) Unscrew the battery compartment cap on the front side of the monocular's body.
- 2) Insert two CR123A batteries into the battery compartment in accordance with polarity markings.
- 3) Screw the cap into place.



TRIPOD INSTALLATION

The Prime D can be connected to a tripod. To mount the tripod with the Prime D device, screw the tripod into the 1/4" threaded socket located on the Prime's rail.

NOTE:

The unit may be badly damaged if the tripod collapses or falls over. Remove the unit from the tripod if it is not within your reach.

3. OPERATION INSTRUCTIONS

CONTROLS

The Prime D is designed to meet the needs and requirements of various users. Each user can individually set the unit to the most effective and desirable position with the help of the controls. The Prime D unit's controls and indicators are shown and detailed further, below:

Function Switch. This switch controls the power supply to the unit and built-in IR illuminator. Use this switch to turn the unit on and off and activation the IR illuminator.

Gain Control Knob. Adjusts the brightness of the image.

Lens Focus. This control focuses the objective lens. Adjust the lens for the clearest, sharpest image.

Diopter Adjustment. This control focuses the eyepiece. Use it to get the clearest image possible on the IIT screen.

Power Indicator. A green light will turn on when the unit is on and ready for operation.

IR Activity Indicator. A red IR light will turn on when the IR illuminator is turned on and ready.

FOCUSING

To focus your Prime D Monocular, perform the following steps:

- 1) Adjust the diopter. Turn the diopter adjustment ring clockwise until it stops. While looking through the eyepiece, observe the scene and slowly begin turning the diopter adjustment ring counterclockwise until the image becomes clear and sharp.
- 2) Adjust the lens' focus. To focus your monocular at different distances, rotate the objective lens focus ring.

OPERATION

- 1) Verify that the batteries are inserted into the battery compartment in accordance with the polarity markings on the monocular's body.
- 2) Remove the front lens cap.
- 3) Activate the unit by rotation the function switch from OFF to ON position. A green indicator light will appear when device is turned on.
- 4) Observe the scene and focus your Prime D.
- 5) Adjust the image contrast by rotating the gain control knob.
- 6) Turn the unit OFF when you are finished using it.
- 7) Secure the objective lens cap over the objective lens

IR ILLUMINATOR OPERATION

CAUTION:

Do not forget that light emitted from the IR illuminator light is invisible to the naked eye; however, it can be easily detected when using night vision devices.

Infrared illuminators are used in areas where the level of light is not sufficient for surveillance. An IR illuminator can provide an extra source of infrared light, which, although invisible to the naked eye, can greatly enhance the performance of night vision devices. Turn on the IR illuminator when working in total darkness. Please remember that the beam emitted by your IR illuminator will lose its brightness over distance.

You can activate the IR illuminator of your monocular by rotation the function switch to position marked IR. A red indicator light will appear when the IR illuminator is turned on.

VIDEO OUTPUT

Video output jack is designed to connect external recording devices or transmitting video signal to a monitor. Attach signal receiver to the Video output jack and turn on the monocular.

4. IR940 LONG RANGE IR ILLUMINATOR (OPTIONAL)

The IR940 is a removable infrared illuminator that can be installed on the rail of the night vision unit for the purpose of enhancing the unit's performance and long distance observation.

IR940 ILLUMINATOR INSTALLATION

To install the IR illuminator on your Prime D, perform the following:

- 1) Install the Dovetail to Weaver Transfer Piece on the rail of your monocular.
- 2) Loosen the screw on the IR940 mount.
- 3) Place the IR940 on the Weaver rail.
- 4) Tighten the screw.



IR ILLUMINATOR OPERATION

The Armasight IR940 runs on a single CR123A battery. To install the battery, unscrew the battery compartment cap and insert the battery in accordance with the unit's polarity markings. Screw the battery compartment cap back onto the device.

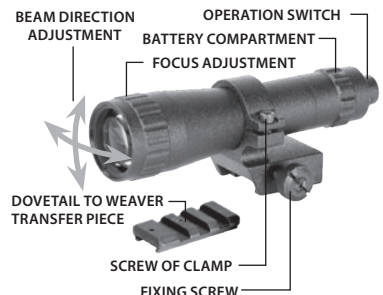
To turn the IR940 on, rotate its operation switch into the ON position.

Adjust the power of the beam emitted by the IR940. To change the brightness of the beam, rotate the illuminator operation switch.

Focus the IR beam to change the field of coverage. To focus the beam, slightly rotate the IR illuminator lens.

To adjust the IR spot position in the field of view, perform the following:

- 1) Loosen the screw on the clamp of the IR illuminator mount.
- 2) Turn on the sight and IR illuminator.
- 3) Carefully move the lens of IR940 up and down, as well as side to side, and observe the IR spot position through the eyepiece of the night vision weapon sight.
- 4) Tighten the screw of the clamp when the IR spot is focused in the center of the field of view.



5. MAINTENANCE PROCEDURES

The Prime D should always be stored in the supplied packaging, particularly in heated and ventilated rooms. To keep the device operational, please follow the instructions listed below regarding preparations for storage. The battery should be stored separately from the unit and be inserted into the battery compartment **only** when the device is being prepared for use. The presence of both acids and alkalis' near the monocular is not recommended.

When stored, your Prime D should be protected from exposure to direct sunlight or extreme temperatures.

MONOCULAR CLEANING PROCEDURES

- 1) Gently remove any dirt from the monocular's body using a clean, soft cloth.
- 2) Wipe external surfaces down (with the **exception** of optical surfaces) with a clean cloth moistened with pure water.
- 3) Dry all wet surfaces with a different clean, dry cloth.
- 4) Carefully remove any dirt from the optical surfaces using a lens brush.
- 5) To avoid scratches, optical surfaces must be cleaned using a clean cotton swab that has been slightly dampened with pure alcohol. The glass should be wiped in circular motions starting from the center and moving out towards the edge, without touching the barrel. Change the cotton swab as soon as it becomes dirty.

PREPARATION FOR STORAGE

When preparing your Prime D for storage, perform the following steps:

- 1) Verify that the monocular is operating in accordance with all previously specified procedures.
- 2) Remove the batteries from the battery compartment.
- 3) Clean the monocular and all accessories.
- 4) Place all components into the storage case.

CAUTION:

Each component of the unit should be thoroughly dried before placing them into the storage case.

6. TROUBLESHOOTING

Common problems that may occur with your monocular or the detection and viewing tests, as well as actions you can take to correct them, are listed in the Troubleshooting Table, below. **This table does not list all of the malfunctions that may occur with your device.** If you experience a malfunction of the device that is **not** listed in this table, please contact Armasight or your Prime D retailer.

NOTE:

Before you use this table, be sure you have performed all normal operational safety, care and handling checks and procedures. If you have a malfunction which is not listed in this table, notify the next higher level of maintenance.

TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	ACTION
The monocular does not turn on	Press the Power button.	Press the Power button repeatedly.
	Inspect for a missing, defective or improperly installed battery.	Replace the battery or install it properly.
<i>If these actions fail, turn in the device for unit level maintenance.</i>		
Poor image quality	Check if the eyepiece and lens are focused.	Focus the ocular and lens.
	Check if the lens is greasy, fogged or dirty.	Thoroughly clean the surface of the lens.
<i>If the problem persists, contact your service center.</i>		
Light is visible through the eyecup	Check the exit pupil distance value.	Press the eyecup to your face.
	Check the resilience of the eyepiece.	If the eyecup is defective, contact your service center.
Diopter adjustment cannot be performed	Check to see if the diopter adjustment ring is deformed or broken.	If the diopter adjustment ring is damaged, contact your service center.
IR illuminator does not turn on	Turn the IR illuminator on in a dark area with the monocular on. Visually estimate if the observed scene is lighted.	If the IR illuminator does not turn on, contact your service center.

7. WARRANTY INFORMATION

This product is guaranteed to be free from manufacturing defects in material and workmanship under normal use for a period of two (2) years from the date of purchase. In the event that a defect covered by the below warranty occurs during the applicable period stated above, Armasight, at its discretion, will either repair or replace the product; such action on the part of Armasight shall be the full extent of Armasight's liability, and the Customer's sole and exclusive reparation. This warranty does not cover a product if it has (a) been used in ways 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 Armasight without prior written consent of Armasight; (d) special order or "close-out" merchandise or merchandise sold "as-is" by either Armasight or the Armasight 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 Armasight. Armasight shall not be responsible for any defects or damage that in Armasight's view are a result from the mishandling, abuse, misuse, improper storage or improper operation of the device, including use in conjunction with equipment that 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 enforced unless the customer notifies Armasight 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

Armasight 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. Armasight'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 Armasight 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 Armasight and the Customer; Armasight's obligations under this Agreement extend solely to the Customer. Armasight's liability hereunder for damages, regardless of the form or action, shall not exceed the fees or other charges paid to Armasight by the customer or customer's dealer. Armasight 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, Armasight must receive a completed Product Warranty Registration Card for each unit, or the Customer can complete a warranty registration on our website, at www.armsight.com. Please complete the included form and immediately mail it to our Service Center:

Armasight Inc.
815 Dubuque Avenue
South San Francisco
CA 94080
United States of America.

OBTAINING WARRANTY SERVICE

To obtain warranty service on your unit, the End-user (Customer) must notify the Armasight service department via email. Send any requests to service@armsight.com to receive a Return Merchandise Authorization number (RMA). When returning any device, please take in the product to your retailer, or send the product, postage paid and with a copy of your sales receipt, to Armasight Corporation's service center at the address listed above. All merchandise must be fully insured with the correct postage; Armasight will not be responsible for improper postage or merchandise that becomes lost or damaged during shipment. When sending product back, please clearly write the RMA# on the outside of the shipping box. Please include a letter that indicates your RMA#, the Customer's Name, a Return Address, reason for the return, Contact information (valid telephone numbers and/or an e-mail address), and proof of purchase 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. The End-user/ Customer is responsible for postage to Armasight for warranty service. Armasight will cover return postage/ shipping after warranty repair to the End-user/ Customer only if the product is covered by the aforementioned warranty. Armasight will return the product after warranty service by domestic UPS Ground service and/ or domestic mail. Should any other requested, required or international shipping methods be necessary, the postage/ shipping fee will be the responsibility of the End-user/ Customer.

ARMASIGHT PRODUCT WARRANTY REGISTRATION CARD

PRODUCT INFORMATION

Product Name _____ Purchased From _____

Purchase Date _____ Product Serial # _____

CUSTOMER INFORMATION

Name _____

Address _____

City _____ Country _____ Zip _____

Day Phone # _____ Home Phone # _____

E-mail address _____

.....
Customer Signature Required



Armasight Inc.

815 Dubuque Avenue,
South San Francisco, CA 94080

Phone: (888)959-2259

Fax: (888)959-2260

Intl Phone/Fax: (650)492-7755

info@armasight.com

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