

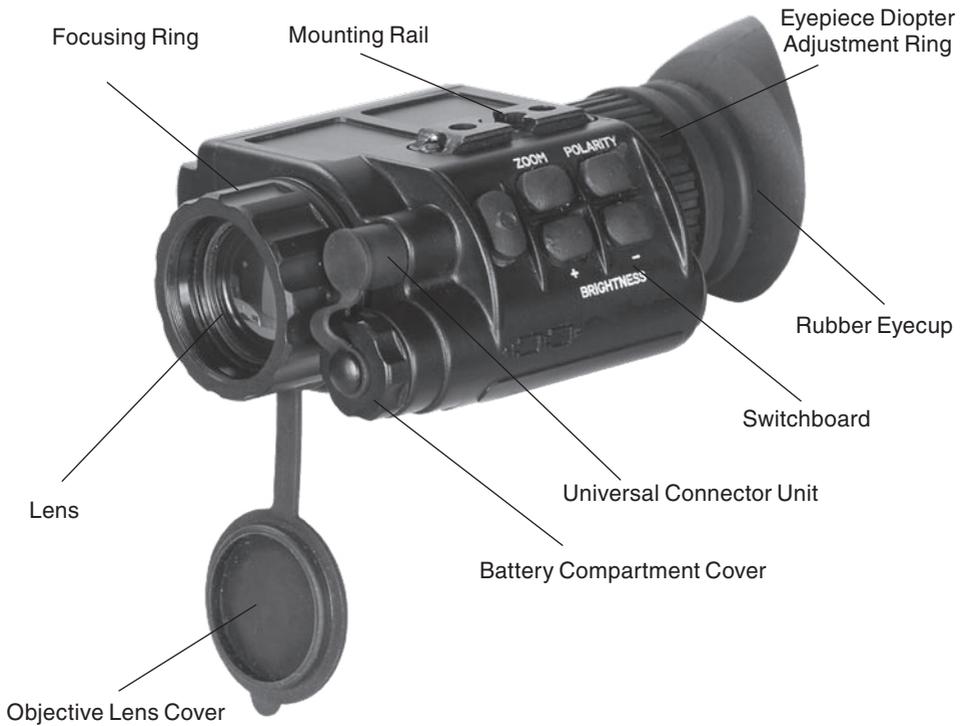
OTIS-14



u s e r ' s g u i d e

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Head Mount



Helmet Mount



Dual Bridge



Adapter



Video Cable



PC Cable

CAUTION:

THIS PRODUCT CONTAINS NATURAL RUBBER LATEX WHICH MAY CAUSE ALLERGIC REACTIONS

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FEATURES

- High resolution digital thermal imaging
- Compact, light weight and durable housing
- Head/helmet mountable for hands free usage
- High Quality optics
- Video and computer output
- Video/Image polarity selection
- Waterproof

SPECIFICATION

Magnification.....	1,8X
Objective Focal Length	25 mm
FOV	11° x 8°
Focus Range.....	from 1m to infinity
Focus Adjustment	Manual
Exit Pupil	14mm
Eye Relief.....	25mm
Detector Type.....	Uncooled Microbolometer
Spectral Response.....	7-14 μ m
Pixels.....	160 x 120
Pixel Size.....	30 x 30 μ m
Angular Resolution, mrad	1,2
Thermal Sensitivity	< 0,1°C
Range to Detect a Human	475 m
Output Format	Analog PAL / NTSC
Display	OLED matrix
Display Format.....	SVGA, 852 x 600 pxl
Color.....	Monochrome
Digital ZOOM	Fixed 2x (optional 5x)
Brightness Adjustment.....	Manual
Contrast Adjustment	Automatic
Available User Interfaces	From outside PC through USB interface
Power Supply	2 x 3V, 123Atype
Start-Up Time.....	< 3 sec
Operating Time w/one battery pack.....	4 hrs
External Power Supply.....	DC 6V, 500 mA
Operating Temperature Range	from -20°C to +50°C
Waterproof	Yes, up to 10m submersion
Dimensions	118 x 78 x 54 mm
Weight (w/batteries).....	0,34 kg

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

APPLICATION

The OTIS-14 is a thermal system intended for law enforcement, military and commercial uses. It is built around state of the art uncooled thermal imaging technology, highly integrated DSP-based electronics and a compact, light weight system.

The OTIS-14 thermal monocular provides the excellent image quality that is unaffected by lights or shadows that seriously hamper the image quality of image intensified night vision. Total darkness, camouflage or bright lights will not affect the sensitivity of these units.

The included and optional accessories provide for the versatility of the monocular. You can put it on a headset or on a helmet, connected to another monocular to build a binocular system etc.

The ATN OTIS-14's superior performance, compact size, comfort of wear and cost efficiency makes it the perfect thermal imaging device.

OPERATION

Insert the two Lithium batteries (123A type) into the unit according to the polarity indications on the battery compartment. Press the ON/OFF button to turn the monocular on. Remove the lens cap.

Adjust the proper eyepiece diopter and objective lens focusing.

The rotation of the Focusing Ring changes the position of the objective lens in respect of the receiver focal plane array. In this way the operator can adjust the unit in order to see the targets at various ranges with the same good contrast.

Cover protects the objective assembly from mechanical damage.

The operator can adjust the eyepiece diopter of the monocular for his/her own eyesight by rotating Eyepiece Diopter Adjustment Ring.

Eyecup provides for the comfortable eye position and for the prevention of flash reflections onto the operator's face which is critical in the field and tactical activities.

Select the desired operation mode by pressing the switchboard buttons.

With the «ZOOM» button you can activate a gradual adjustment of the digital zoom preset in the monocular adjustments.

The «POLARITY» button switches the direct display mode into the reverse one, i.e. from hot-white/cold-black into hot-black/cold-white mode.

Each short push of the buttons «BRIGHTNESS +» or «BRIGHTNESS -» raises or lowers the display brightness, correspondingly, in stepwise way.

To turn the monocular off press the ON/OFF button.



SETTING

The working settings of this thermal monocular may be customized by means of a PC.

Install the software into the PC from the CD/DVD supplied in the package of each OTIS-14 unit. Connect the monocular to the PC through the included USB cable. The USB Cable is an interface link between the thermal monocular and the external PC, and it accepts the external power supply at the same time.

IMPORTANT: When the unit is to be powered with external sources, first make sure the batteries have been taken out.

The thermal monocular OTIS-14 can be powered either from the included batteries or from any external source. Switch the monocular on, start the auxiliary software and introduce all the needed or desirable settings into it.



VIDEO OUTPUT

The monocular incorporates a sealed Connector used for video transmission and to connect external power sources. The package of the thermal monocular OTIS-14 includes external connection Video Cable. Video Cable attaches the monocular to the video facilities for video recording or video transmission to the external display, though at the same time it accepts the external power supply.

IMPORTANT: When the unit is to be powered with external sources, first make sure the batteries have been taken out.

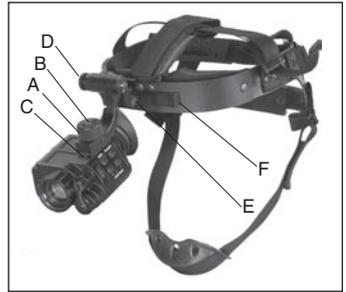


HEAD MOUNT (OPTIONAL)

The operator can mount the monocular onto the head bracket using any of two Mounting Rail located on the opposite sides of the body, to be able to see through the eyepiece with his/her right or left eye correspondingly.

To mount the OTIS-14 to a headmount, perform the following:

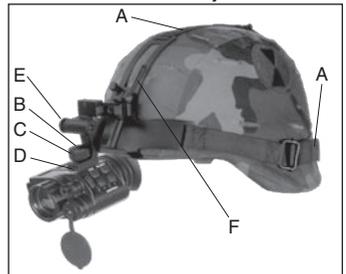
1. Loosen the screw (A). Push the button (B) and insert the rail of the OTIS-14 into the socket (C) of the headset.
2. Place the headmount with OTIS-14 onto a head.
3. Loosen the screw (A) and move the unit along the rail for eye relief adjustment.
4. The OTIS-14 headmount has a flip-up mechanism. Push the button (D) on the side of mount and lift the unit up until the unit fixates in the top position.
5. Push the same button (D) to lower OTIS-14 to the viewing position.
6. The OTIS-14 can be placed onto the right or left eye. In order to readjust the monocular for use with the other eye, take the unit off the adapter, turn the unit to other side (for 180°) and mount it on the headmount adapter through the rail on this side. Push the button (E) and move the device along the slide-rail (F) for comfortable position.



HELMET MOUNT (OPTIONAL)

Attachment of OTIS-14 to a standard PASGT helmet. The Helmet mount fits securely onto helmet via a rugged strapping device and grooved hooks. With helmet mount, the OTIS-14 can be positioned directly in front of user's eyes or flipped up out of viewing position.

1. Install the mount onto helmet as shown on the picture.
2. Tighten and fixate the straps (A)
3. Attach the monocular to the rail.
4. Loosen screw (C). Push button (B) and insert the bracket of the OTIS-14 into rail (D) of the helmet mount.
5. Place the helmet with OTIS-14 onto head.
6. Loosen the screw (C) and move the unit for proper eye relief adjustment.
7. The OTIS-14 helmet mount has a flip-up mechanism. Push the button (E) on the side of mount and lift the unit up until the unit fixates in the top position.
8. Push the same button (E) to lower OTIS-14 to viewing position.
9. The OTIS-14 can be placed onto the right or left eye. In order to readjust the monocular for use with the other eye, take the unit off the headmount adapter, turn the unit to other side (for 180°) and mount it on the adapter through the rail on this side. Push the button (E) and move the device along the slide-rail (F) for comfortable position.



EXTERNAL POWER SOURCE

IMPORTANT: When the unit is to be powered with external sources, first make sure the batteries have been taken out.

To connect an external power source you can use any of the cables of the monocular package. As an external power source, a standard network controller with outer voltage of 6V and current of over 0.5A can be applied.

Remove the protective cover off the connector input and attach the cable. To connect an external source, we recommend you to use a 6mm standard double-pole socket in the way the positive contact is the central contact.

WARNINGS AND CAUTIONS

IMPORTANT!

DO NOT DISASSEMBLE THE MONOCULAR.

KEEP YOUR OTIS-14 SAFE FROM OPERATIONAL AND TRANSPORTATION IMPACTS.

WAITING FOR ONE HOUR BEFORE YOU SWITCH THE MONOCULAR ON IS HIGHLY RECOMMENDABLE AFTER YOU BRING IT INTO THE WARM ROOM FROM THE COLDER OUTSIDE.

WHEN YOU DO NOT INTEND TO OPERATE YOUR MONOCULAR FOR 10 FOLLOWING DAYS WE ADVISE YOU TO TAKE THE BATTERY OUT OF THE BATTERY COMPARTMENT.

PROVIDE FOR TIMELY SERVICE MAINTENANCE OF THE UNIT.

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: The image is absent on the screen of goggles.

S: The batteries are discharged. Replace the batteries.

Q: The brightness of the image on the screen is low.

S: The batteries has a low voltage. Replace the batteries.

1 YEAR PRODUCT WARRANTY

This product is guaranteed to be free from manufacturing defects in material and workmanship under normal use for a period of 1 (one) 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. 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, please contact our Customer Service department and request an RMA number. Once you have received your RMA # please mark this # on the outside of the shipping box and 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. Packages that do not have an RMA # clearly marked on the outside of the package will be delayed in being processed.



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

North American Office

1341 San Mateo Avenue, South San Francisco, CA 94080

Toll Free Phone: 800-910-2862

Phone: 650-989-5100; fax: 650-875-0129

www.atncorp.com