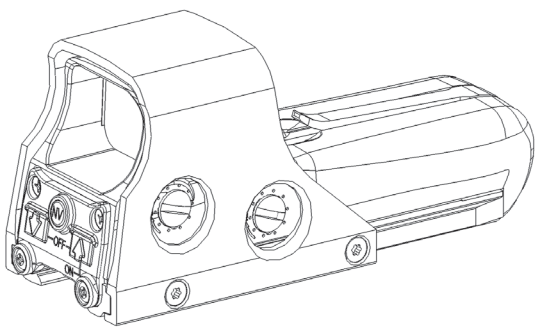
L3 communications

EOTech

HOLOgraphic Weapon Sights



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INTRODUCTION

Congratulations on your choice of an L-3 EOTech HOLOgraphic Weapon Sight (HWS), a revolutionary sighting system based on advanced holographic technology. The HWS enhances target acquisition, improves accuracy, and provides more control over your shooting environment.

The HWS fills the needs of all shooters from the novice to the most advanced professional. Our objective is to give each and every customer the quality, commitment, and service expected from the sighting industry leader. Whatever your shooting discipline, we wish you the best shooting, and again, we thank you for choosing the HWS.

This user manual describes the features of the HWS models 511, 512, 551 and 552. Please read the instructions carefully before mounting and using the sight and always practice proper firearm safety.

HWS will include:

- Sight assembly
- 2 x Type N or AA alkaline batteries
- 7/64" allen wrench
- Knurled Weaver® Bolt

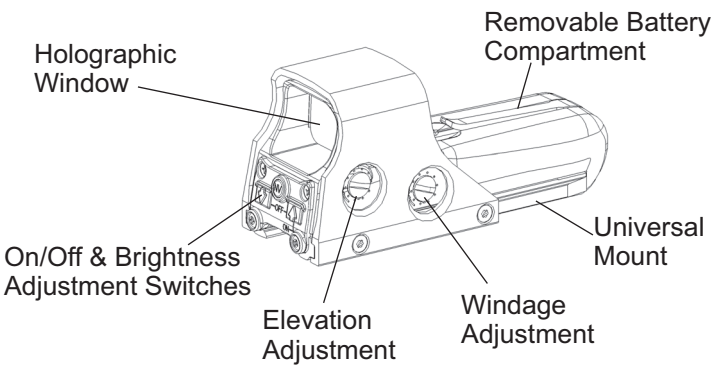

Figure 1

Basic Operation

The HWS uses laser light to illuminate a holographic reticle pattern embedded in the heads-up display window and forms a virtual image of a reticle pattern. The shooter looks through the heads-up display window and sees a bright red image of a reticle pattern projected onto the target plane. There is absolutely no light projected onto the target plane. The HWS has no magnification.

HOOD

Models 511, 512, 551, and 552 are equipped with a protective hood. This hood is pre-assembled at the factory and is non-removable. Should your hood require maintenance please contact our Customer Service Department at the number on page 6 of this manual. **CAUTION- Tampering of Hood lock screws will void warranty.**

BATTERIES

Two (2) commonly available Type N or AA alkaline 1.5 V batteries power your HWS depending on the model. An initial set of batteries comes with your sight. The HWS is designed to maintain constant brightness at a particular setting as the batteries drain down. The reticle brightness will not fade gradually as the batteries run down but rather shut down abruptly. The first indication of the batteries draining is the reticle blinking when the unit is turned on (see Electronic Features 1). Another indication of low batteries is the reticle pattern blinking off and on during recoil. With high recoil guns, this can occur before the battery check indicates low battery condition. If the reticle pattern blinks off and on during recoil or turns off suddenly, replace the batteries. Please read and follow the battery replacement and battery check procedures described in this Manual.

Alkaline batteries from different manufacturers are not all constructed the same way. Tests show some brands are more susceptible to degradation by the shock of recoil. We recommend the use of Eveready Energizer™ batteries with the HWS. It is always good practice to replace the batteries with a fresh set before a mission.

CAUTION-There is a 12 V battery that is approximately the same size as the Type N 1.5 V battery. DO NOT USE 12 V battery. They will severely damage the sight.

Two (2) common AA size batteries power your Model 552 or 512 HWS. An initial set of AA size alkaline batteries comes with your sight. EOTech recommends using Energizer Alkaline or Lithium AA batteries. Lithium AA batteries offer longer life, particularly at temperatures below freezing. For this reason Lithium AA batteries are recommended for cold weather operations. However, we should note that the battery checking function which is based on the characteristics of Alkaline batteries does not operate properly with Lithium batteries.

REPLACING BATTERIES

Remove the battery compartment by lifting up on the locking cam lever and carefully sliding the battery compartment away and up from the sight housing (Figure 2) . After the battery compartment is removed, slide the batteries out and replace them with a fresh set. The labels on the bottom of battery compartment show the correct battery orientation. Always make sure the gasket is free of dirt before the battery compartment is re-installed or the water proofing may be compromised. To re-install the battery compartment, point the sight towards the ground and slide battery compartmant onto base. Make sure there is enough clearance between the contact and the batteries to avoid bending the contacts. Hold the battery compartment down firmly against the base and close the locking cam. *Before you push down on cam lever, make sure the battery compartment sits all the way down and is parallel to the base*.

Verify correct battery installation immediately by turning on the sight and checking if the holographic reticle appears. If the batteries are left in the sight backwards, they will be drained of their power.

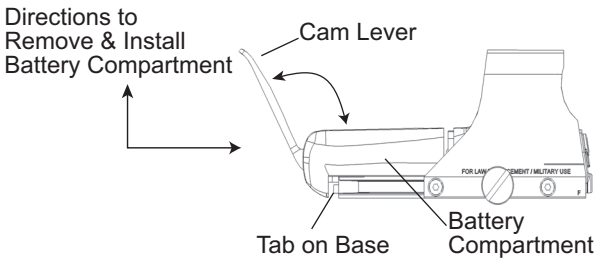

Figure 2

ELECTRONIC FEATURES

All electronic controls are via push-button switches located at the rear of the unit housing as shown in Figures 1. To ensure proper operation of the push button switches we recommend pressing firmly on the center of the switch.

1. ON/ AutoBattery Check

Depressing the Up or Down Arrow push-button switches will turn the sight ON at Level 12. See step 4 under this section for description of Auto shutdown.The sight will automatically perform a battery check everytime it is turned on. If the batteries have less than 20% of life left, the sight will turn on with the reticle image blinking on and off for 5 seconds. If the remaining battery life is more than 20%, the sight will turn on with a steady reticle pattern. The battery condition can be checked any time by turning the sight off and back on.

2. OFF

To turn the sight off depress both UP and DOWN arrows simultaneously. Verify by looking through heads-up display window.

3. Brightness Adjustment

Push-button switches vary the brightness intensity of the holographic reticle pattern. Depressing and releasing the push-button switches moves the brightness level UP or DOWN one (1) step from the previous setting. Depressing and holding the up arrow or down arrow switch will change brightness level up or down continuously in steps. There are twenty (20) brightness settings providing a dynamic range of 146,000:1 from the lowest setting to the highest setting.

4. Auto Shutdown

The HWS is equipped with auto shutdown capability. If the sight is turned on by depressing the UP button, it will automatically shut itself OFF 8 hours **after the last push-button control is used**. The sight will automatically shut OFF after 4 hours if it is turned on by depressing the DOWN button.

MOUNTING

The HWS is equipped with mounting hardware to attach to a standard 1" dovetail or Picatinny (MIL-STD-1913) style rail. To achieve the best results and accuracy, the HWS must be mounted properly. The rail needs to be as parallel as possible to the bore to permit the maximum elevation and windage adjustments. We strongly recommend you have the rail installed by a qualified gunsmith. To mount the sight, please follow these steps.

1. Locate the bolt and locking bar on the underside of the sight. Loosen the bolt and the locking bar with the allen wrench (7/64")
2. Place the bolt within a groove on the top of the rail. Individual preference and the specific firearm determine the optimal positioning to any specific groove on the rail.
3. Make sure the bolt is inserted fully into the mount's groove and push the sight as far forward as possible. Tighten bolt.

NOTE 1: Loosen bolt just enough to mount and dis-mount the sight. Do not back bolt out completely to avoid losing the mounting hardware.

NOTE 2: A Picatinny (MIL-STD-1913) rail cannot be installed directly on some weapons. EOTech sells mount adapters to provide a standard Picatinny rail for various weapons used in today's military and law enforcement applications. Contact a factory representative if you are unclear on the mounting adapter you should use on your weapon.

BORE SIGHTING AND ZEROING

Bore sighting is a good preliminary procedure in achieving proper alignment of your sight to the firearm.

If the rail is not mounted parallel to the barrel, major elevation adjustments may be accomplished by shimming the dovetail rail. It is important not to use the elevation adjustment of the sight for major adjustments. Your sight's internal elevation and windage adjustments should be reserved for fine-tuning to achieve zero at the called for distance. Final zeroing of your firearm and sight should be done with live ammunition and based on your expected shooting dis tance. If you anticipate most of your shooting at short range, zero in at 50 yards (45.7m). Groups of three to six shots will be useful for averaging the point of impact.

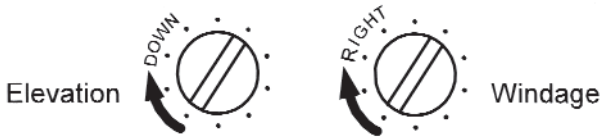

Figure 3

WINDAGE AND ELEVATION ADJUSTMENTS

Your HWS features click mechanisms for elevation and windage adjustments. The elevation and windage adjustment are located on the Right-hand side of the sight (Figure 1). The knob towards the front is your windage adjustment and the knob towards the rear is your elevation adjustment (Figure 1). Both of these adjustment mechanisms are grooved with a slotted screw head and require the use of a screwdriver, coin, or spent brass to turn.

The elevation and windage adjustments are shown in Figure 3. For both elevation and windage, each click will change the bullet's point of impact 1/2 Minute of Angle (MOA), which translates to 1/4 inch at 50 yards (0.64 cm at 45.7 m), 1/2 inch at 100 yards (1.3 cm at 91.5 m). Also, one full rotation of either knob will change your point of impact 10 MOA. This translates into 5 inches at 50 yards (12.7 cm at 45.7 m), 10 inches at 100 yards (25.4 cm at 91.5 m).

To move the point of impact UP, turn the elevation adjustment screw counterclockwise; to move the point of impact DOWN, turn the elevation adjustment screw clockwise.

To move the point of impact RIGHT, turn the windage adjustment screw clockwise; to move the point of impact LEFT, turn the windage adjustment screw counterclockwise .

The elevation and windage adjustments have been intially set at the factory such that the line of sight to the center of the reticle is parallel to the mounting rail on the weapon. The sight should be close to being at zero with a properly installed mounting rail. Please do not turn the adjustments before mounting the sight on the firearm. Be sure to check that the mount and the sight remain secured after the first shots are fired.

CAUTION-When encountering a sudden increase in resistance in these adjustments, the end of the adjustment range has been reached. DO NOT TRY to turn the adjustments any farther or serious damage may occur to the sight.

LASER SAFETY ISSUES

The HWS is a Class II laser product. The Class II level illuminating beam, however, is completely blocked by the housing. The only laser light accessible to the eye is the image beam and is at a power level within the limit of a Class IIa laser product. The illuminating beam can become accessible to the eye if the housing is broken. Turn the sight off immediately and return the broken unit to the factory for repair.

FCC COMPLIANCE

The HWS complies with Part 15 of the FCC Rules. Operation is subject to the following conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

MAINTENANCE AND CARE

Your HWS is a precision instrument that deserves reasonably cautious care. The following tips are provided to ensure long lasting use of the sight.

1. The optical system and the window are coated with anti-reflection material. When cleaning the glass surfaces, first blow away any dirt and dust. Fingerprints and lubricants can be wiped off with lens tissue or a soft cotton cloth, moistened with lenscleaning fluid or glass cleaner sold in any camera store.

   Never clean the glass surface with a dry cloth or paper towel; always dampen the glass surfaces prior to cleaning

2. All moving parts of the sight are permanently lubricated. Do not try to lubricate them.

3. No maintenance is needed on the sight's surface, except to occasionally wipe off with a soft cloth. Use only a water-based cleaner such as glass cleaner, ammonia, or soap and water. Never use any solvent-type cleaner such as alcohol or acetone.

4. Never disassemble the sight's optical assembly. The optical cavity is purged, nitrogen filled, and sealed to achieve fog proof performance. **Disassembly will void the warranty.**

REPAIR

If your HWS should need repair, please contact our Customer Service Department at the number below to receive a return authorization number for repair. Send the sight and return authorization number to the address below and include your name, address, and telephone number, as well as a written description of the problem you are encountering. Also, include your receipt at the time of purchase. Whenever possible, ship the sight in its original box.

Send to:
L-3 EOTech
ATTN: Service Department
1201 E. Ellsworth Road
Ann Arbor, MI 48108 USA

You can contact EOTech's Customer Service Department at 734-741-8868, and press Option 8, or visit our web page www.L-3com.com/eotech
Email: general @L-3com.com

NIGHT VISION

The Model 551 and 552 are compatible with Generation II, III, and III+ Night Vision Devices. At the night vision settings, the reticle brightness is low enough that when viewed with a night vision device, the reticle image does not bloom.

NIGHT VISION MODE ON/OFF AUTO SHUTDOWN

1. ON/ *Night Vision Mode and 8 Hour Auto ShutDown*

Depressing the NV Button (see Fig. 2) will turn the sight ON in Night Vision Mode. The sight will turn on at Level 4 and automatically shut off 8 hours after the last push-button control is used. There are 10 brightness settings in NIGHT VISION MODE with a dynamic range of 1280:1.

2. OFF/ *Turning Sight OFF*

To turn the sight off depress both the UP and DOWN arrows simultaneously. Verify by looking though the heads-up window with night vision device.

3. TOGGLE/ *Between Normal and Night Vision Modes*

To toggle between NORMAL and NIGHT VISION MODES depress the NV button. When switching between modes, the sight will remember the last brightness setting.

NOTE 3: When used with a Night Vision device, always check to make sure the sight is not turned on before pressing the NV button to turn on the sight in the Night Vision mode. Otherwise, it will toggle to the Normal mode and saturates the image intensifier.

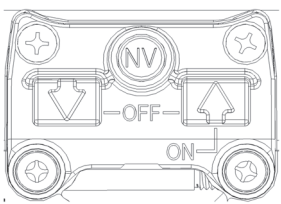

Figure 4

To Ensure proper operation of the push button switches we recommend pressing firmly on the center of the switch

WARRANTY STATEMENT

All HOLOgraphic Sights are crafted with pride in the U.S.A. More importantly, they are manufactured with our customer's satisfaction in mind. EOTech warrants every product to be free from defects in materials and workmanship for a period of two years from the original date of purchase.

EOTech will promptly repair or replace at its option any product that is defective in material or workmanship, without charge. All costs associated with the product shipment for product repair will be incurred by the owner. This warranty does not cover defects caused by improper handling, unauthorized disassembly, installation, or maintenance; abnormal use; or unapproved alterations. EOTech shall not, in any event, be liable for any damages, including any lost profits, lost savings, or other incidental or consequential damages arising out of the use or inability to use such products. This warranty gives the owner certain legal rights and possibly other rights that vary from state to state.