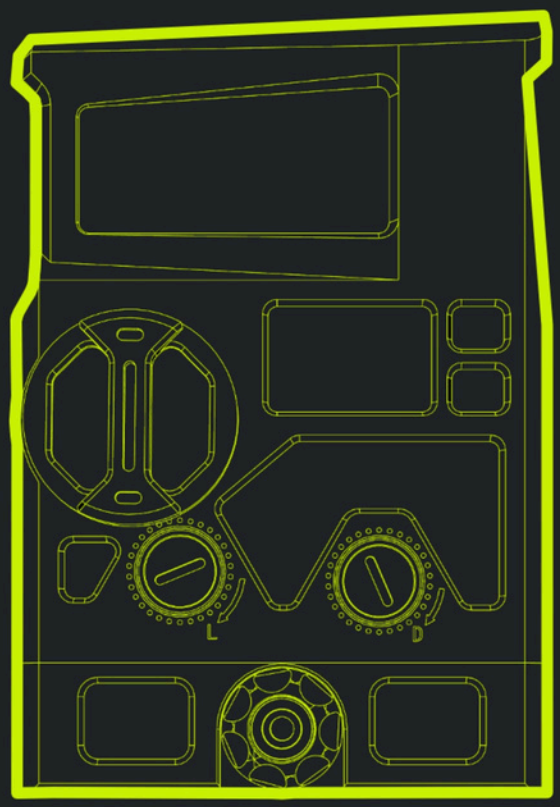
DOT

Dynamic
Optronic
Technologies



EHS-1

ENHANCED HOLOGRAPHIC SIGHT

User Manual

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1: INTRODUCTION

Export Compliance

Authorized for public release; no distribution restrictions apply. This product is subject to the Export Administration Regulations (EAR), classified under ECCN 0A504.b, and requires a license or exception from the U.S. Department of Commerce for export to any Foreign Person, whether within the United States or internationally.

Safety Information

Weapon & Laser Safety:
This product is classified as a Class 1 Laser Product.

This product complies with 21 CFR 1040.10 and 1040.11, except for deviations pursuant to Laser Notice No. 56.

This product complies with IEC 60825-1:2014.

The laser radiation is internally contained and is not accessible during normal operation.

No user maintenance or service is required for the laser system. Do not attempt to disassemble the device.

Before installing the EHS-1 on your firearm, ensure the weapon is unloaded and safe. If you are uncertain about how to clear your weapon, consult the operator's manual that came with your firearm platform.

Avoid intentional direct eye exposure to the internal laser source.

The device window does not provide UV protection, and it is not recommended to look directly at the sun with the device.

This device is not recommended to be used by children.

1: INTRODUCTION

Caution

⚠ **Do not attempt to disassemble the sight's optical assembly**. The optical chamber is nitrogen-filled, purged, and sealed to maintain fog resistance. Disassembling it will void the warranty and make the sight unusable.

⚠ If you feel increased resistance while adjusting the elevation or windage controls, it indicates you have reached the end of the adjustment range. **DO NOT CONTINUE TURNING, as this may cause severe damage to the sight.**

⚠ Always **moisten the glass** surfaces before cleaning. Never use a dry cloth or paper towel to clean the glass.

⚠ All moving components of the sight are permanently lubricated, except for the quick-detach lever. If the lever makes noise when opening or closing, apply a small amount of lubricant to the lever assembly. **Avoid lubricating any other moving parts**.

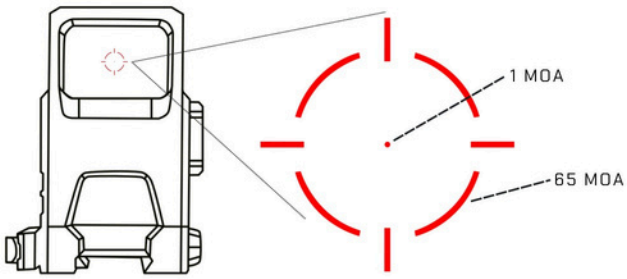
⚠ **Do not use batteries that are damaged or corroded**. Check for any signs of rips, tears, dents, or cuts in the battery casing. Any exposed internal content of the battery could impair the sight's functionality.

⚠ The DOT EHS-1 units are designed to mount directly onto 1" (25.4mm) Weaver or MIL-STD-1913 rail systems.

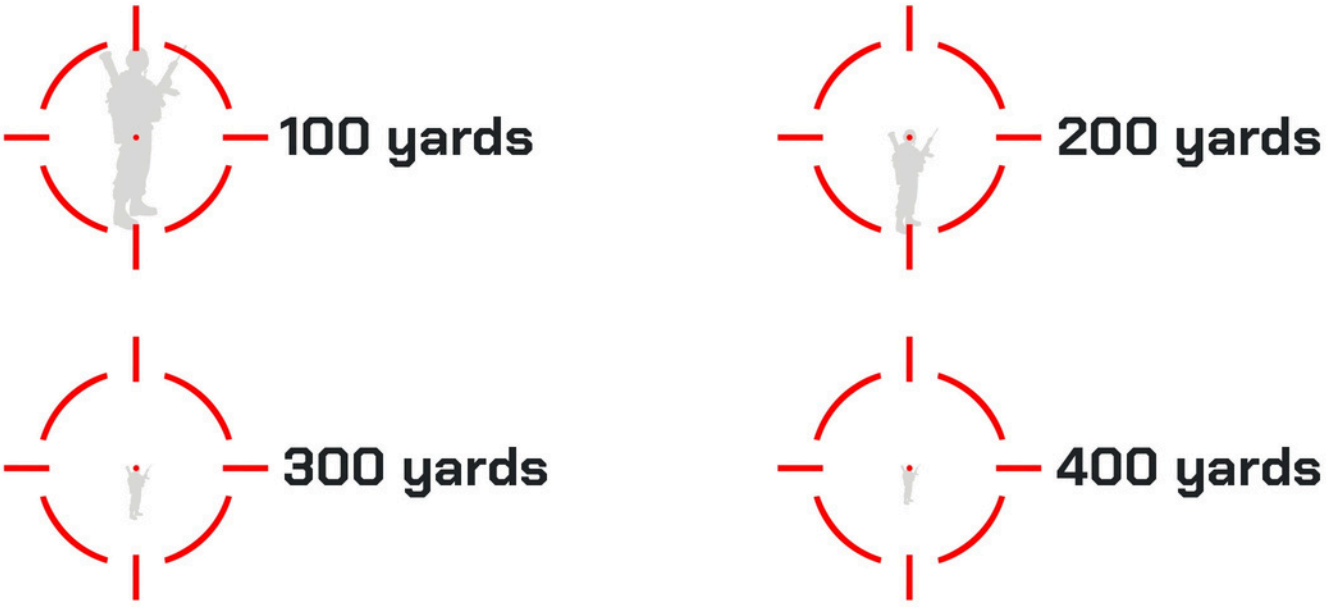
Reticles

Holographic Sight Advantages:
Holographic sights provide faster target acquisition and greater accuracy by projecting a laser-driven reticle that remains clear at varying distances and angles. Unlike red dot sights, they offer a sharper field of view, are more effective in low-light conditions, and reduce parallax errors, making them ideal for tactical and competitive shooting.

Reticle Pattern:
DOT's reticle pattern was designed to improve accuracy and assist in rapid target acquisition. Our reticle features a 1 MOA center dot, surrounded by a 65 MOA ring. This combination allows for quick targeting and precision.



Reticle Anatomy:
Our 1 MOA center dot with the 65 MOA ring allows for quick target acquisition and precision. Established ranges for aiming points will vary depending on the caliber of the round and the type of firearms used. Ranging for the sight reticle is loosely represented by the graphics below...



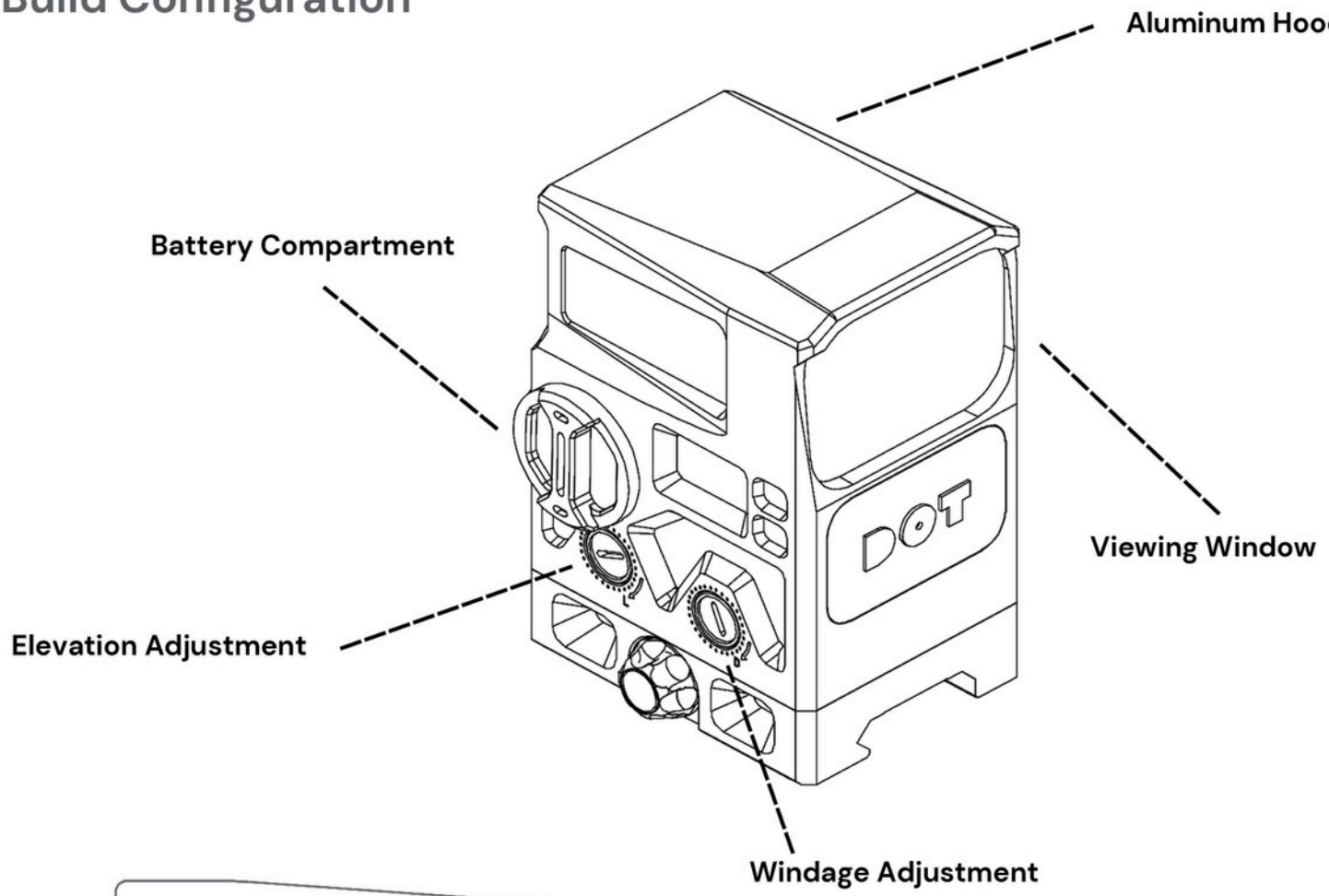
2: GENERAL INFORMATION

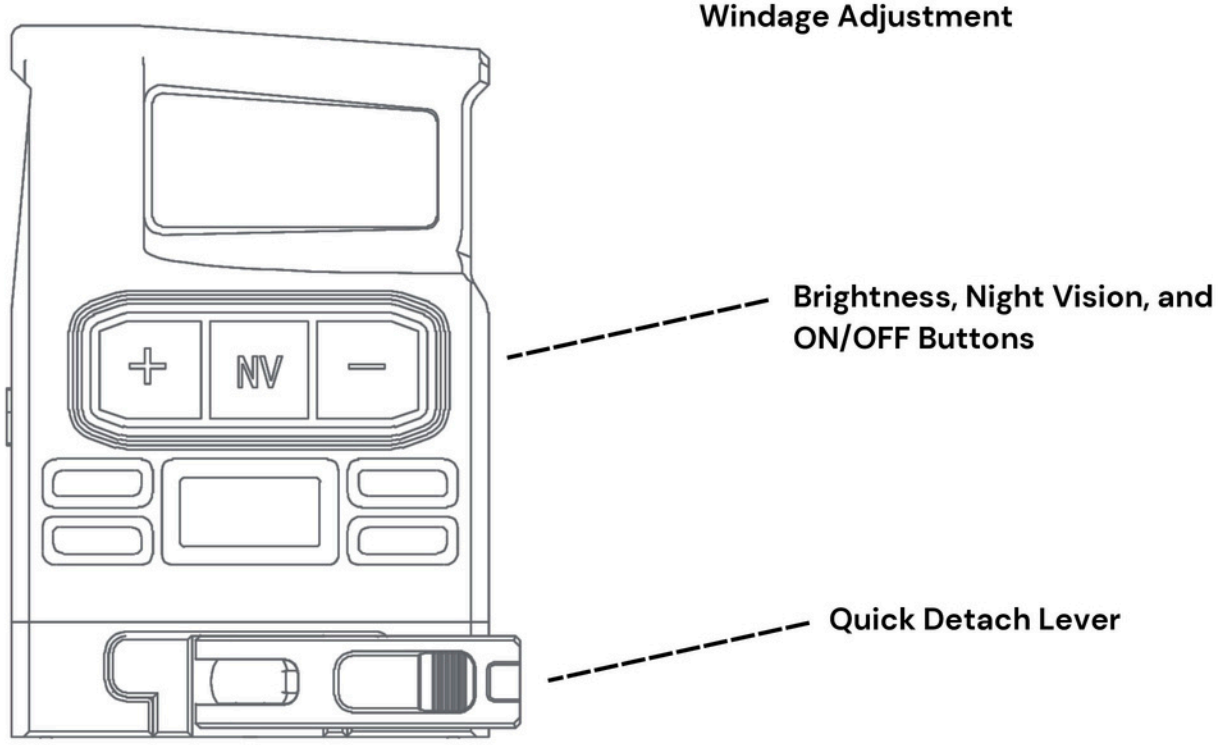
Specifications

Optical	
Magnification	1X
Eye Relief	Unlimited
Window Size	1.2in. x 0.8 in. (30.5mm x 20.5mm)
Reticle	1 MOA Center Dot, 65 MOA Circle
Wavelength	650nm
Lens Coating	Anti-reflection coating, all surfaces
Electrical	
Battery	CR123A
Continuous Working Hour	≥ 1000 hours (medium brightness)
Low Battery Warning	Reticle begins flashing in-window
Mechanical	
Material	7075 Aluminum
Surface Finish	Anodize
Adjustment Range	± 40 MOA windage/elevation
Adjustment Increment	0.5 MOA
Size	2.13in x 2.09in x 3.03in (54mm x 53mm x 77mm)
Centerline	2.26 in (57mm)
Weight	260g (without battery)
Mount	MIL-STD 1913 rail / Picatinny rail
Environmental	
Working Temperature	-40°F to 131°F (-40°C to 55°C)
Storage Temperature	-40°F to 131°F (-40°C to 55°C)
Waterproofing	IP68

2: GENERAL INFORMATION

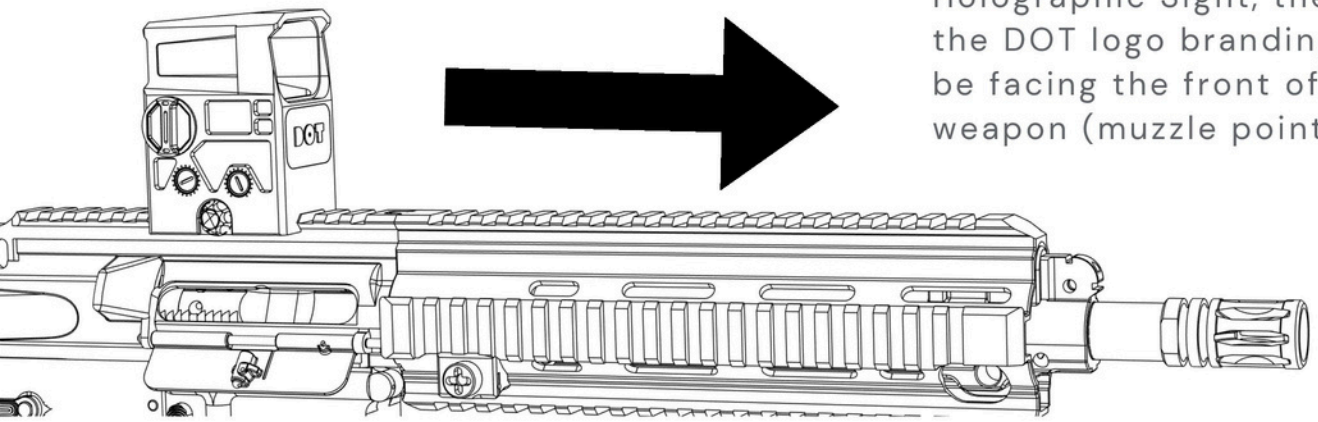
Build Configuration





3: OPERATIONS

Mounting Your Device

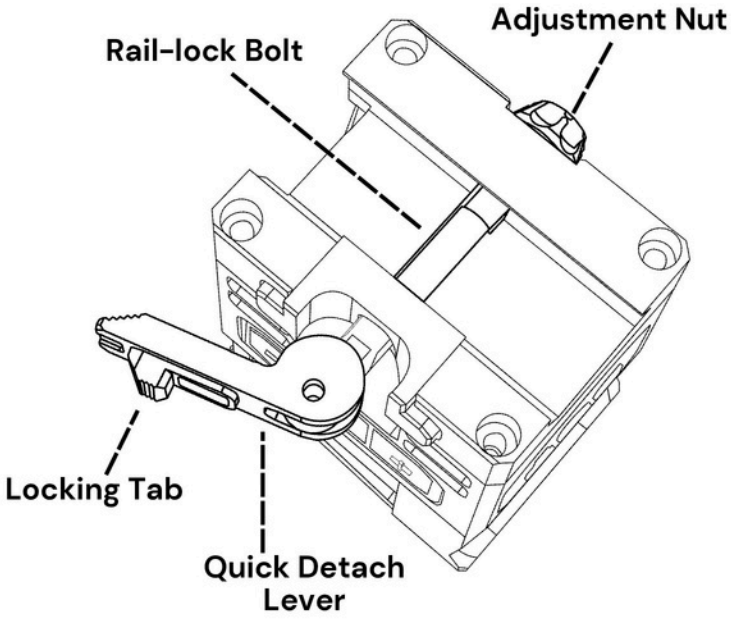


When mounting the EHS-1 Holographic Sight, the side with the DOT logo branding should be facing the front of the weapon (muzzle point).

How to mount your sight:

1. Push the locking tab outward, then pull the quick detach lever so it is away from the closed position in the base of the sight.
2. Place the sight in the desired position and ensure the 'rail-lock bolt' is set in a groove of the rail.
3. With the Quick Detach Lever still open, turn the Adjustment Nut on the opposite side (clockwise for tighter fit, counterclockwise for looser fit) until you can close the Quick Detach Level with a comfortable snug fit to the rail.

⚠ **DO NOT** tighten or loosen the adjustment nut while the quick detach level is in the closed position.



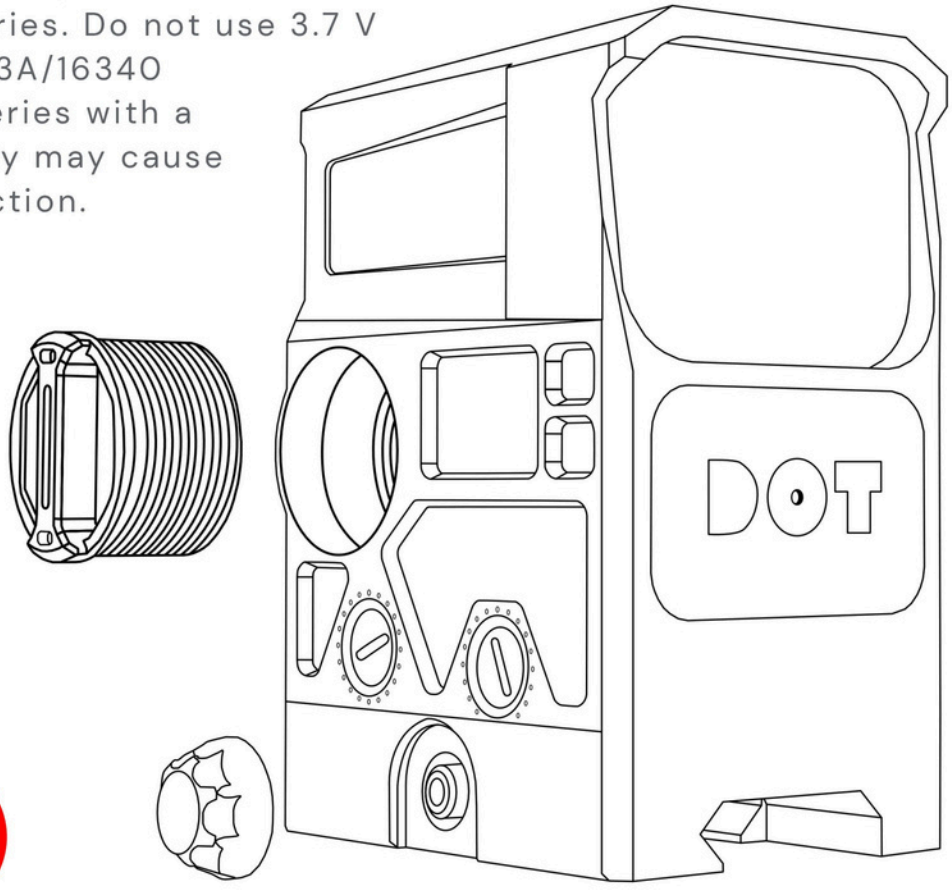
3: OPERATIONS

Battery Information

How to replace the battery:

1. Remove the battery cap by turning it counterclockwise until it comes off from the battery compartment
2. Once the cap is removed, take out the old battery and replace it with a new one. Make sure the "+" side of the battery is inserted into the device first
3. To reattach the battery cap, align it with the battery compartment and gently start threading it by turning clockwise. Ensure the threads are properly aligned to prevent cross-threading.
4. After installation, turn on the sight to confirm the battery is installed correctly and check for the appearance of the holographic reticle in the viewing window.

EHS-1 uses CR123A style batteries
*Only use 3V batteries. Do not use 3.7 V batteries or RCR123A/16340 rechargeable batteries with a 3.7 V rating, as they may cause the unit to malfunction.



3: OPERATIONS

Electronic Features

ON / Battery Life Check:

- Press any button to turn device on.

OFF:

- To turn off, press and hold "+" and "-" button simultaneously for 0.5 seconds.

Brightness Adjustments:

- To change the brightness level of the reticle, push either the "+" button (brighter) or "-" button (dimmer) repeatedly until desired visibility level has been reached.

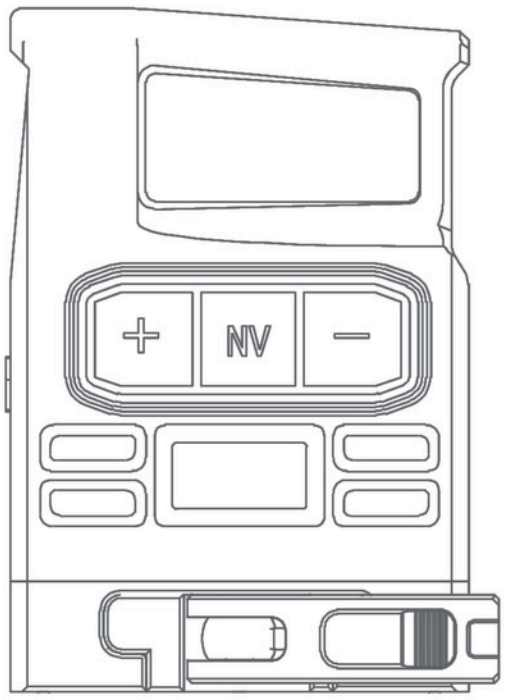
Auto Shut Off:

- When the "-" button is used to turn the device on, 4-hour auto shut-off is activated.
- When the "+" or "NV" button is used to turn the device on, 8-hour auto shut-off is activated.

Dynamic Wake Function:

- When activated, Dynamic Wake keeps your device in a lower power state, and will re-activate upon moving the device.
- To activate Dynamic Wake, hold both + and NV for 8s until the reticle blinks 5 times. To deactivate the feature, hold + and NV again until the reticle blinks 3 times.

Electronic functions are all controlled via push buttons located on the left side of the device (pictured to the right).



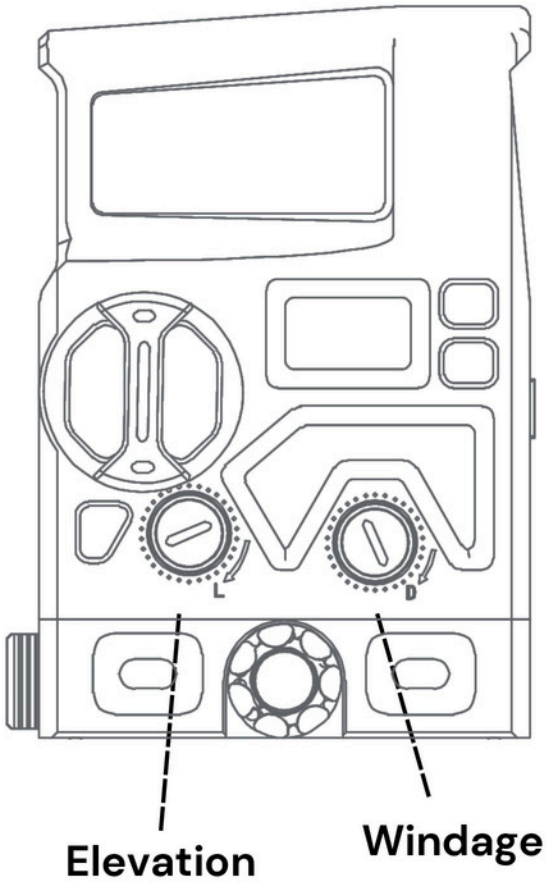
Windage/Elevation

Adjustment Dials:

- The adjustment mechanisms feature a slotted screw head with grooves, requiring a screwdriver, coin, or spent brass casing to turn them.

Adjustment Details:

- For both elevation and windage adjustments, each click shifts the aiming point by about 1/2 Minute of Angle (MOA), which equates to 1/4 inch (6.35mm) at 50 yards (45.7m) or 1/2 inch (12.7mm) at 100 yards (91m) during zeroing.
- A full rotation of either adjustment knob will shift the aiming point by roughly 10 MOA, corresponding to 5 inches (127mm) at 50 yards (45.7m) or 10 inches (254mm) at 100 yards (91m) when zeroing.
- To raise the point of impact, turn the elevation knob counterclockwise.
- To move the point of impact to the right, turn the windage knob clockwise.



⚠ If you experience increased resistance while making adjustments, it indicates that the adjustment limit has been reached. **DO NOT** force the adjustments further, as this could cause significant damage to the sight.

4: MAINTENANCE

⚠ When preparing to clean your device, DO NOT DISASSEMBLE the optic in any way.

Cleaning Guidance

Lens:

- The optical system and window are treated with an anti-reflective coating. When cleaning the glass surfaces, start by blowing away any dust or dirt. Fingerprints and grease can be removed using lens tissue or a soft cotton cloth moistened with lens cleaning solution or glass cleaner, typically found in camera stores. Always moisten the glass before cleaning to avoid damage. Never use a dry cloth on the glass; ensure it's dampened with cleaning fluid or glass cleaner.

Housing:

- The sight's exterior requires no regular maintenance, aside from occasionally wiping it down with a damp, soft cloth. Use only water-based cleaners such as glass cleaner, ammonia, or soap and water. Avoid using solvent-based cleaners like alcohol or acetone, and do not clean or lubricate the sight with gun cleaner.

Mechanical:

- All moving parts, except for the quick-detach lever, are permanently lubricated. If the lever produces sound when opened or closed, apply a drop of lubricant to the lever assembly. Do not attempt to lubricate any other moving parts.

4: MAINTENANCE

Troubleshooting

The sight will not turn on:

- To ensure the sight is off (and not set to a very low brightness), press both the UP and DOWN buttons at the same time.
- Confirm that the battery is properly installed, with the positive (+) end facing the battery cap side.
- Replace the battery with a new one that is fully charged.
- Examine the battery contact points in both the battery cap and the sight to make sure they are clean and free from debris or corrosion.
- Check for any corrosion or wear on the battery contacts and clean them if necessary.
- Reset the electronics by removing the power source for about two minutes, allowing the capacitor in the electronics housing to fully discharge. Afterward, reinstall the battery and use the sight as usual.

Reticle issues:

- If the reticle is dim, fading, or streaking appears, please attempt the following to remedy:
  - Take out the old battery and replace it with a new one.
  - Visit our website to view images of a fully operational reticle in-window.
- If the reticle is fuzzy or 'haloing':
  - Lower the reticle brightness, as this issue is typically caused by the reticle being too bright. The reticle is not intended to be bright enough to obscure the target.
  - If you wear corrective lenses for nearsightedness, you'll need them to see the reticle clearly, as it is projected onto the target plane. If you wear bifocals or have astigmatism, you may notice some distortion in the reticle.
  - The reticle is projected onto the same plane as your target, so focus on it as you would with any object at that distance. Avoid focusing on the sight housing; instead, focus on your target.
- If the reticle is flashing:
  - This is the low battery indicator. Replace the battery.

4: CUSTOMER SERVICE

Service & Repair

Warranty claims:

- Every DOT EHS-1 Holographic Sight includes a 10-year limited warranty (10 years for structural components, 5 years for electronics, and 3 years for the holographic optical element) from the date of purchase. This warranty applies to the original purchaser only. It covers defects in materials and workmanship under normal use. DOT may, at its sole discretion, repair or replace any product found to be defective. This warranty does not cover misuse, abuse, unauthorized modifications, improper installation or maintenance, neglect, disassembly or repair before return, cosmetic damage not affecting function, or normal wear and tear, including lens scratches from improper cleaning. DOT is not liable for incidental, consequential, or special damages arising from the use or performance of this product. For full warranty terms or to submit a claim, visit www.dotusa.com/warranty or contact customer service. If the device is within the 12-month warranty period from the initial date of purchase, you may reach out to our Customer Service Department by filling out a replacement request at dotusa.com/contact-us

Non-warranty claims:

- If your device is outside of the designated warranty period, DOT may still offer services for repair for a fee. Proof of initial purchase date may be required upon claim submission. Please visit us at dotusa.com/contact-us to submit your claim.

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