



**TD-3 Open Reflex**

**Red Dot Sight**

**INSTRUCTIONAL MANUAL**

# Instructional Manual



The TD-3 open reflex red dot is one of the toughest electronic sights built today. The TD-3 red dot is designed to be used with both eyes open, providing the operator with greater situational awareness.

The TD-3 can be mounted on an optics-ready pistol slide using the RMR mounting footprint. It can be quickly mounted to any Weaver one-piece base or MIL-STD 1913 Picatinny rail using the provided Picatinny mount.

## TD-3 Open Reflex Red Dot Sight

Machined from strong 7075-T6 Aluminum alloy, the lightweight yet durable TD-3 red dot will make any weapon system more accurate. Precise adjustments move the point of aim 1 MOA per click for windage and elevation adjustments.

With a 50,000 hour battery life at medium brightness (single dot), the TD-3 should last several years on a single charge. The lowest 2 brightness settings are Night Vision Compatible.

The TD-3 is shockproof, fogproof, and has a IPX7 waterproof rating.

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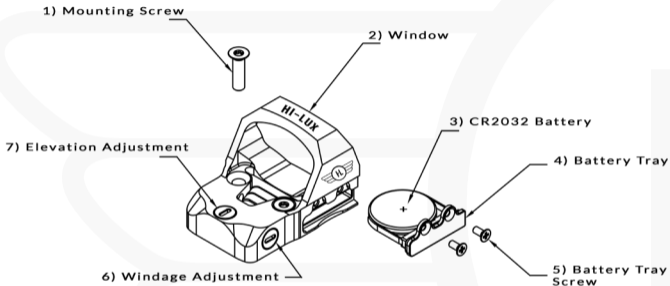
## SECTION 1 - SPECIFICATIONS

Model	Power	Window Size	Eye Relief	Length	Width	Height	Weight	Adjustment Travel Range	Adjustment Value
TD-3	1X	28 x 19 mm	Unlimited	1.78"	1.31"	1.10"	2 oz	90 MOA	1 MOA

Each click of adjustment is 1 MOA. Both Elevation and Windage adjustment turrets have 40 clicks (20 MOA) per revolution. The total adjustment range for both Elevation and Windage is 90 MOA.

The red dot brightness can be controlled by pressing the "+" or "-" button. There are 11 brightness settings, which are numbered sequentially from 1 to 11, 1 being the lowest and 11 being the brightest. Settings 1 and 2 are Night Vision Compatible.

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## BASIC DEFINITIONS:

- 1) **Mounting Screw:** The TD-3 uses (2) 6-32 screws.
- 2) **Window:** The Viewing Window Size is 28mm x 19mm

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- 3) **Battery:** The TD-3 uses a CR2032 battery. The correct orientation of the battery is + side up.
- 4) **Battery Tray:** The TD-3 Battery Tray is loaded into the right side of the TD-3 reflex sight.
- 5) **Battery Tray Screws:** The Battery Tray is held in place by 2 screws.
- 6) **Windage Adjustment:** Windage Adjustment is located on the right side of the TD-3 Sight. Adjustments are 1 MOA per click.
- 7) **Elevation Adjustment:** Elevation Adjustment is located atop the TD-3 Sight. Adjustments are 1 MOA per click.

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## INCLUDED ACCESSORIES:



The TD-3 Open Reflex Red Dot Sight comes with a low mount for picatinny rails.

The mounting footprint of the TD-3 sight is the same as the RMR.



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## SECTION 2: INSTALLING THE BATTERY

When your TD-3 red dot sight becomes dim or does not light up at all, you need to replace the battery. The TD-3 red dot sight is powered by a 3V CR2032 lithium battery.

Unscrew the two Phillip's screws on the side of the battery tray. Insert the battery positive (+) side up within the tray and tighten the battery compartment cover screws. Once you have installed the new battery, the TD-3 will turn on automatically.

The TD-3 sight can also be shut off manually by long pressing (press and hold for 3 seconds) the "+" OR "-" key.

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## SECTION 3: MOUNTING YOUR SIGHT

### MOUNTING ON PISTOLS

The TD-3 red dot sight is compatible with optics-ready pistols. The TD-3 uses the same mounting footprint as the RMR.

The TD-3 sight's top countersunk holes are designed for a #6-32 screw.

### MOUNTING ON A PICATINNY RAIL

As there is no set eye relief for the TD-3 Open Reflex Red Dot, you can install the sight at any position on the gun you feel comfortable. You will need to use the provided picatinny low mount.

To install the low mount on the TD-3, align the two pins at the front of the

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mount with the two slots underneath the window of the TD-3. Then, drop the #6-32 screws through the holes atop of the TD-3 sight and tighten them down to 12 in-lbs of torque.

Set the low mount onto the picatinny rail. Align and seat the cross-bolts of the mount into the slots on the picatinny rail. Tighten the hardened T-10 torx screw. You can apply a maximum of 20 inch-pounds of torque on the screw. The TD-3 is compatible with most commercially available RMR red dot mounts.

**WARNING: PRIOR TO MOUNTING YOUR TD-3, PLEASE CHECK THAT ALL FOUR TORX SCREWS (2 CROSS-BOLTS, 2 MOUNTING SCREWS) ARE SECURELY TIGHTENED. WE RECOMMEND THAT YOU APPLY BLUE LOCTITE TO PREVENT THE MOUNT FROM LOOSENING DUE TO RECOIL.**

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## SECTION 4: DIGITAL SWITCH INSTRUCTIONS



The TD-3 Red Dot Sight utilizes a digital switch to change the brightness setting. Upon powering on the sight, the TD-3 will revert to the previously used brightness setting. The digital switch is located on the left side of the optic.

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## Normal Key Operations:

Touch either the "+" OR "-" key to turn on the TD-3. There are 11 total brightness settings. Pressing the "+" key will brighten the red dot. Pressing the "-" key will dim the red dot. You can adjust the brightness to an appropriate setting based on your current lighting conditions.

Once the LED reaches the highest or lowest brightness of the 11 settings, the LED brightness will not change any more even if you continue pressing the respective key.

## Powering Off the Sight

Long pressing (press and hold for 3 seconds) either the "+" OR "-" key will power off the TD-3 red dot. The sight will also automatically go to sleep after 3 minutes of inactivity. After 4 hours of inactivity the sight will power down completely.

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When the sight powers on, the TD-3 will return to the previously used reticle pattern and brightness setting.

## SECTION 5: MOTION ACTIVATION AND SLEEP MODE

The TD-3 sight will enter sleep mode after 3 minutes of inactivity.

The TD-3 sight will go to sleep after 3 minutes of inactivity or no motion. Once the TD-3 sight detects motion in sleep mode, it will reactivate the red dot and return to the original brightness setting.

After 4 hours of inactivity in sleep mode, the TD-3 sight will power down completely.

To turn the TD-3 sight on after it has powered down completely, you will need to press the + OR - key.

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## SECTION 6: ZEROING THE TD-3 SIGHT



The Elevation and Windage turrets allow for 40 MOA per revolution. Each adjustment click moves the reticle 1 MOA.

The total adjustment for both Elevation and Windage is at least 90 MOA.

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If you are mounting the TD-3 sight on your rifle, we recommend getting your optic boresighted first to get on paper. Simply remove the bolt and look down the barrel from the breech end. If you are shooting an AR style rifle, detach the upper receiver and look through the barrel from the breech end. Adjust the windage and elevation until the barrel and the center red dot of the TD-3 are roughly aligned with your target.

After boresighting, you should fire a test group to determine the point of impact of your gun. If you did not hit the center of the target, then you can make the adjustments to either elevation or windage in the direction you want to move the point of impact.

Adjust the Elevation turret counterclockwise to move the point of impact UP. Adjust the Windage turret counterclockwise to move the point of impact to the RIGHT. Turning either turret clockwise moves the point of impact in the opposite direction.



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## Elevation and Windage Adjustment Chart

<b>RANGE</b>	<b>1 Hash Mark on Elevation</b>	<b>1 Hash Mark on Windage</b>
25 Yards	0.25 Inch	0.25 Inch
50 Yards	0.50 Inch	0.50 Inch
100 Yards	1 Inch	1 Inch

The elevation and windage adjustment chart will help you understand how to calculate the correct amount of adjustments. Each MOA adjustment will have a different size value at different ranges.

One minute of angle is equal to 1.047 inch at 100 yards. For simpler math, we can approximate 1 MOA to be around 1 " at 100 yards. At 50 yards one

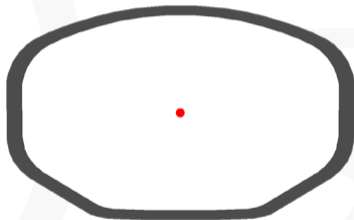
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MOA is approximately half an inch. At 25 yards, one MOA is approximately a quarter inch.

**WARNING: ALL SHOOTING SHOULD BE DONE AT AN APPROVED RANGE, OR SAFE AREA. EYE AND EAR PROTECTION IS RECOMMENDED.**

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## SECTION 7: RETICLE INFO



The red dot in TD3 Open Reflex Sight subtends 3 MOA.

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## SECTION 8: MAINTAINING YOUR SIGHT

This sight, though amazingly tough, is a precision instrument that deserves reasonable and cautious care. For normal maintenance:

- A. Do not attempt to disassemble or clean the sight internally.
- B. The external optical lenses should occasionally be wiped with the microfiber lens cloth provided or optical quality lens paper.
- C. Remove any external dirt or sand with a soft brush so as to avoid scratching the finish.
- D. Wipe the sight with a damp cloth, followed by a dry cloth.
- E. Then go over the metal portions of the sight with a silicon treated

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cloth in order to protect the sight against corrosion.

F. Store the sight in a moisture-free environment.

G. Avoid storing the sight in a hot place, such as the passenger compartments of a vehicle on hot days. The high temperatures could adversely affect the lubricants and sealants.

H. Never leave the sight where direct sunlight can enter either the objective or the eyepiece lens. Damage may result from the concentration of the sun's rays (burning glass effect).

**WARNING: UNNECESSARY RUBBING OR USE OF A COARSE CLOTH MAY CAUSE PERMANENT DAMAGE TO LENS COATINGS.**

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## SECTION 9: DIAMONDTUFF GUARANTEE

Hi-Lux, Inc. warrants its products against defects arising from faulty workmanship, or materials, for the lifetime of the product. **Normal wear and tear is not covered under this warranty policy.** Any attempt to alter, dismantle or change the standard specifications of the products, will make this warranty null and void.

This warranty is made to the original purchaser of the goods including all international sales, and applies only to the products purchased through our authorized distributors or dealers. The international warranty is subject to approval from our authorized distributor or us directly. The warranty is transferable.

Warranty obligation is limited to the repair or replacement of any product returned to Hi-Lux, Inc. that is determined by the manufacturer to have defects arising from faulty workmanship or materials that adversely affect the satisfactory

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operation of the product. It should be noted that on items containing an etched glass reticle, that the occasional appearance of some small particles is common and not a warrantable repair. **Hi-Lux, Inc. offers a two-year warranty for the electronic components that are contained on the products.**

Hi-Lux, Inc. reserves the right to request proof of purchase and purchase date. To guarantee warranty service, the enclosed warranty form must be completed and returned within ninety (90) days of purchase to establish all warranty rights between you, the original purchaser, and Hi-Lux, Inc.

We assume no liability for any incidental or consequential damages, or incidental expenses. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusion may not apply to you.

No warranties are made, or are authorized to be made, other than those expressly contained herein.

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To file a claim under this warranty, please contact the Customer Service Department of Hi-Lux, Inc. at (310) 257-8142 to obtain a Return Authorization number (RA number). After receiving your RA number, please mark the number on the outside of the package; enclose the defective item with a brief explanation of the problem. Please be sure to include your name, address and phone number.

Failure to obtain a RA number may result in either refusal upon delivery, or lengthy delays for warranty repairs and service required for the item returned to us.

All scopes are to be shipped prepaid direct to Hi-Lux, Inc. and must include a check or money order in the amount of \$21 to cover return postage and handling, regardless of purchase date.



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Attention: Warranty & Service Department

## **Hi-Lux, Inc.**

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[www.hi-luxoptics.com](http://www.hi-luxoptics.com)

In the event of a non-warranty repair, you will receive an estimate prior to any work being done. This warranty gives you specific legal rights and you may have other rights, which vary from state to state. As defined by federal law, this is a limited warranty.

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