



## PRODUCT MANUAL

**VIPER<sup>®</sup>**

SHOTGUN ENCLOSED MICRO RED DOT

## SPECIFICATIONS

RETICLE STYLE	Single Dot	Multi- Reticle
DOT SIZE	3 MOA	3 MOA Dot / 32 MOA Circle / 65 MOA Circle
DOT COLOR	Bright Red	Bright Red
BATTERY TYPE	CR2032	CR2032
BATTERY RUN TIME (@ SETTING 6)	50,000 hrs.	50,000 hrs.
ILLUMINATION SETTINGS	12 Settings (10 Daylight, 2 NV)	12 Settings (10 Daylight, 2 NV)
EYE RELIEF	Unlimited	Unlimited
MAGNIFICATION	1x	1x
ADJUSTMENT GRADUATION	1 MOA	1 MOA
TRAVEL PER ROTATION	30 MOA	30 MOA
MAX ELEVATION ADJUSTMENT	100 MOA	100 MOA
MAX WINDAGE ADJUSTMENT	100 MOA	100 MOA
PARALLAX SETTING	Parallax Free	Parallax Free



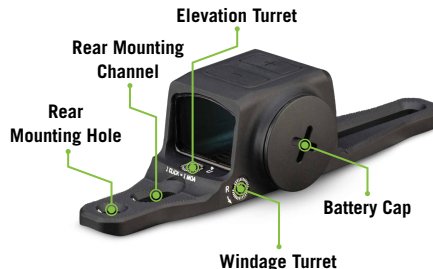
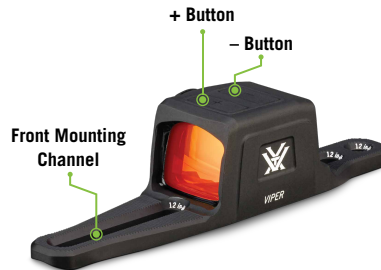
WIDTH	1.32"
HEIGHT	1.15"
LENGTH	4.86"
WEIGHT (W/ BATTERY)	2.14 oz.
MOUNTING FOOTPRINT	Integrated. For Drilled and Tapped Shotguns

## VIPER® SHOTGUN ENCLOSED MICRO RED DOTS

Purpose-built for the fast pace of turkey hunting and wingshooting, the Viper® Shotgun Enclosed Micro Red Dot delivers an ultra-low-profile design and wide field of view for intuitive shooting and superior recoil control. Its enclosed design and integrated universal mount ensures seamless operation and maximum protection against the elements.



Images are for representation only. Product may vary slightly from what is shown.



## BASIC OPERATION

### Battery Installation

Remove the Battery Cap using the side of the included Custom Tool. Install one CR2032 battery so the “+” lettering faces out and replace the cover. When replacing the Battery Cap, be sure it is fully tightened utilizing the side of the included Custom Tool.

**Note:** Upon first use, remove the battery isolator from under the battery.

### Power Up

To turn the Viper® on, press either the “+” or “-” button. To turn off the Viper® manually, press and hold the “-” button for approximately five seconds.

### Auto-Shutoff

The Viper® will automatically shut off after 10 minutes. To turn on the Auto-Shutoff feature, press and hold both the “+” and “-” buttons for three seconds. During these three seconds, the dot will turn on at the lowest brightness setting and gradually increase to the brightest setting. Once the dot has reached the brightest setting, the Auto-Shutoff feature is now on. To disengage Auto-Shutoff, hold “+” and “-” for three seconds. The dot will start at the highest setting and step down to the lowest brightness setting over three seconds.

### Motion Activation

The Viper® is equipped with motion activation. This feature is only available when the Auto-Shutoff feature is turned on. By allowing the unit to shut off automatically after 10 minutes, the dot will turn on automatically the next time you pick up your gun. Powering down the red dot manually will disable the motion activation.

### Brightness Selection

The Viper® offers 12 brightness settings. 10 daylight settings and two night-vision settings. Adjust the dot brightness by pressing the appropriate “+” or “-” button.

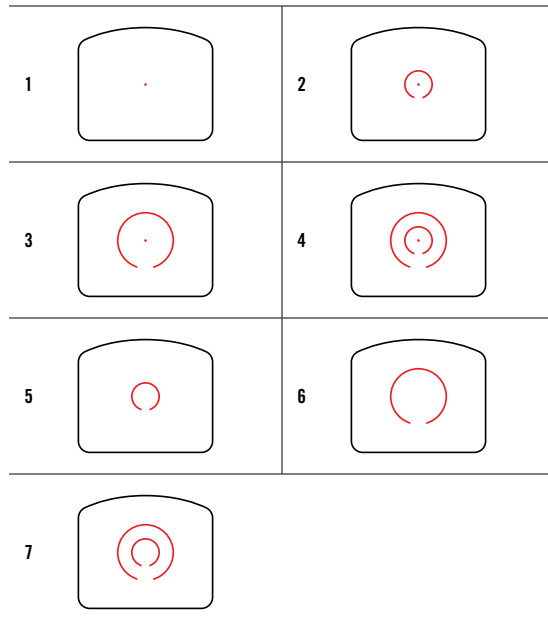
## Reticle Selection (Multi-Reticle Only)

The Viper® Shotgun Enclosed Micro Red Dot with multi-reticle offers seven reticle options. The red dot will come preset to the single 3 MOA dot. To cycle through your reticle options, press both the “+” and “-” buttons simultaneously. Each press will cycle through remaining reticle configurations. When the last option is reached, the list will repeat.

1. Default – Single 3 MOA dot
2. Single 3 MOA dot with 32 MOA circle
3. Single 3 MOA dot with 65 MOA circle
4. Single 3 MOA dot with 32 MOA and 65 MOA circles
5. 32 MOA circle
6. 65 MOA circle
7. 32 MOA and 65 MOA circles

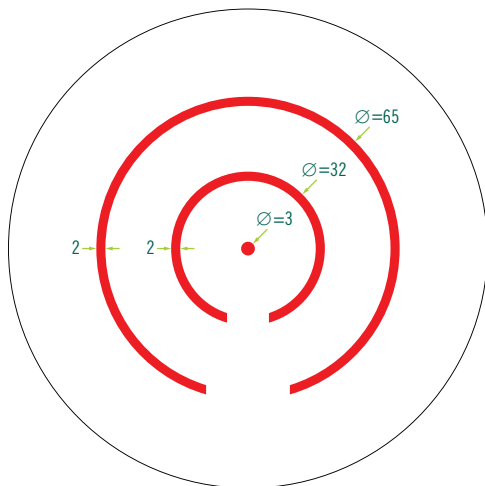
**Note:** The Viper® will remember your reticle selection and brightness settings after the unit shuts off and is turned back on again.

### RETICLES



### MOA Reticle Subtensions

The multi-reticle featured in the Viper® Shotgun Enclosed Micro Red Dot is based on Minute of Angle (MOA) subtensions. The multi-reticle subtensions include a 3 MOA center dot, a 32 MOA circle, and a 65 MOA circle.



### Battery Run Time and Battery Life:

The Viper® uses a CR2032 battery. The battery run time is the actual power draw of the unit compared to the capacity of the battery. Not all batteries have the same output. On average, with the Viper® in constant on mode with the Auto-Shutoff disabled the battery run time at setting six is up to 50,000 hours.

Battery life is the time measured in-between putting a battery into the unit and having to replace it. This number is a variable based on many different factors including, time used, brightness setting changes, reticle selection, Auto-Shutoff mode engaged etc. While this number is dependent on the user here are some scenarios:

	Battery Life	
VIPER® ON SETTING 6 FOR 24 HOURS A DAY	50,000 Hours	2,083 Days
VIPER® ON SETTING 6 FOR 12 HOURS A DAY	100,000 Hours	4,167 Days
VIPER® ON SETTING 6 FOR 8 HOURS A DAY	150,000 Hours	6,250 Days
VIPER® ON SETTING 6 FOR 6 HOURS A DAY	200,000 Hours	8,333 Days

## Turret Adjustments

Turrets are used to adjust the bullet's point of impact and are marked in Minute of Angle (MOA). There are two turrets on your red dot. The turret on the top of the red dot is the Elevation Turret and is used to adjust the point of impact up and down. The turret on the right-hand side is the Windage Turret and is used to adjust the point of impact left and right.

Your Viper® features adjustable Elevation and Windage Turrets with audible and tactile clicks. Each click moves the bullet's point of impact 1 Minute of Angle (MOA). The chart below indicates how many inches your bullet's point of impact will move per 1 MOA click at different distances from your target.

DISTANCE IN YARDS	MOVEMENT PER CLICK (INCHES)
10 YDS.	~ 0.10"
20 YDS.	~ 0.20"
25 YDS.	~ 0.25"
30 YDS.	~ 0.30"
40 YDS.	~ 0.40"
50 YDS.	~ 0.50"
75 YDS.	~ 0.75"
100 YDS.	~ 1.00"
200 YDS.	~ 2.00"

**Note:** If not shooting at one of the example distances, use this formula:

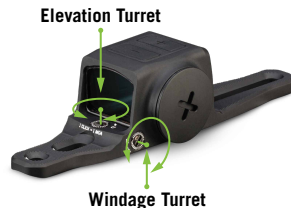
$$(\text{Yardage} \times 0.01) \times 1.047 = \text{Movement Per Click in Inches}$$

**EXAMPLE:** At a 25-yard sight-in distance, it will take 12 clicks of the turret to move the bullet's point-of-impact three inches.

**To make turret adjustments:**

1. Use the included Custom Tool.
2. Turn the turret in the appropriate direction: up/down or left/right as indicated by the arrows.

**Note:** The red dot will move in the opposite direction of the turrets when dialed.



## Mounting the Viper® Shotgun Enclosed Micro Red Dot

To get the best results from your Viper® Shotgun Enclosed Micro Red Dot, proper mounting is essential. Although not difficult, the correct steps must be followed.

The Viper® utilizes an integrated universal mounting footprint that will work on most shotguns that have a drilled and tapped receiver. All needed mounting screws are included, and no additional mounting plates are required.



SCAN FOR A LIST OF  
COMPATIBLE SHOTGUNS

The Viper® has three mounting locations. The Rear Mounting Hole, the Rear Mounting Channel, and the Front Mounting Channel. For proper installation you will need at least two mounting screws, one in the Rear Mounting Hole and one placed within the Front Mounting Channel. A third and fourth mounting screw can be used as your setup allows with a second screw within the Front Mounting Channel and/or one in the Rear Mounting Channel.



1. To install the Viper®, position the red dot so that the Rear Mounting Hole on the red dot lines up with the furthest back mounting hole on your shotgun's receiver.
2. Select the appropriate screw size from the screws included in the box with the Viper®.
3. Loosely screw in the Rear Mounting Hole screw. Do not fully tighten.



4. Then loosely set your second mounting screw within the Front Mounting Channel.
5. If your set up allows, place a third and fourth mounting screw within the Front Mounting Channel and/or within the Rear Mounting Channel.
6. Once all screws are loosely set in place, tighten down the Rear Mounting Hole screw first to 12 in-lbs.
7. Proceed to the furthest forward screw on the Front Mounting Channel and tighten to 12 in-lbs.
8. Tighten the remaining screws to 12 in-lbs.
9. It is good practice to go back and torque all screws to 12 in-lbs. again to ensure they are all secured and tightened properly.

**Note:** With certain shotguns you may not use the furthest back mounting hole on the shotgun receiver. You may be required to move the unit forward a single hole to be able to achieve a mounting screw in the Rear Mounting Hole and Front Mounting Channel.

**Note:** If the screw needed is not included, please contact our Technical Dept at **1-800-4VORTEX**.

**Note:** Included screws come with pre-installed thread locking compound. It is recommended that a thread locking compound be re-applied if the red dot has been re-mounted more than two times. Thread locking compound is recommended to ensure the screws do not back out under recoil.

## SIGHTING IN

After the red dot has been mounted, an initial sight-in at 25 yards is recommended. This should allow for the unit to have enough travel to overcome most alignment issues. Final sight in distance is use case dependent but will likely be between 25-50 yards for most shotguns.

1. Follow all safe shooting practices. If using slugs, fire a three-shot group as precisely as possible. If using shot, fire a single round and find the center of the pattern.
2. Next, adjust the illuminated dot to match the approximate center of the shot group or pattern. Be sure to read page 12 prior to making adjustments.
3. If using slugs, fire another three shot group to see if the group is centered on the bullseye. If using shot, fire a single round and check to see if the pattern is centered on the bullseye. This procedure can be repeated as many times as necessary to achieve a perfect zero.

**Note:** When you dial the turrets up, the dot will move down, if you dial down, the dot will move up, if you dial left, the dot will move right, if you dial right, the dot will move left.

## MAINTENANCE AND STORAGE

### Cleaning

Your Viper® Shotgun Enclosed Micro Red Dot requires very little routine maintenance other than periodically cleaning the exterior lenses. The optic's exterior may be cleaned by wiping with a soft cloth. When cleaning the lenses, be sure to use products that are specifically designed for use on coated optical lenses.

- Be sure to blow away any dust or grit on the lenses prior to wiping the surfaces.
- Using your breath, or a very small amount of water or pure alcohol, can help remove stubborn dried water spots.

### Lubrication

All components of the Viper® Shotgun Enclosed Micro Red Dot are permanently lubricated, so no additional lubricant should be applied.

**Note:** Other than removing the Battery Cap and Rubber Cover, do not attempt to disassemble any components of the Viper® Shotgun Enclosed Micro Red Dot. Disassembly may void warranty.

### Storage

If possible, avoid storing your red dot in direct sunlight or any very hot location for long periods of time.

## TROUBLESHOOTING

### Common Issues

#### Red Dot Does Not Illuminate

If the red dot does not illuminate, please check the following before returning the red dot for service:

- Is the battery dead? Replace the battery.
- Is the battery installed correctly? Be sure the battery is oriented with the “+” facing away from the unit.
- Is the battery cap loose? Be sure cover is snug and contact points are clean.

#### Dot Moves Within the Window

- This is a normal function of any red dot that is parallax free. The placement of the dot within the window does not affect your point of impact. As long as the dot is on the target and zeroed, you will hit your target.

#### Dot is Blooming

- An astigmatism may cause the dot to look clustered, linear, or starburst. Lowering the red dot intensity to an appropriate brightness setting, focusing on the target and not the dot, and keeping both eyes open helps reduce blooming.

#### Dot is Stuck in Bottom of Window or Dot Will Not Move

- If the dot is stuck in the bottom of the window, the dot could be mounted backwards. The battery should be located on the right-hand side of the unit when mounted.

#### Mounting Screws Coming Loose

- Check to make sure that the mounting screws were torqued to proper specifications. Torque to 12 in-lbs. with thread locking compound. Included screws come with pre-installed thread locking compound. It is recommended that a thread locking compound be re-applied if the red dot has been re-mounted more than two times. Thread locking compound is recommended to ensure the screws do not back out under recoil. Ensure the correct screws are being used.

#### Issues with Zeroing

- Be sure all mount screws are tight. You should not be able to twist or move the red dot in any direction. Many times, problems thought to be with the red dot are actually mount problems.

## SAFETY AND PRECAUTIONS

The Viper® Shotgun Enclosed Micro Red Dot contains a 3V CR2032 battery.

### ⚠️ WARNING

- **INGESTION HAZARD:** this product contains a CR2032, 3V button cell or coin battery.
- **DEATH** or serious injury can occur if ingested.
- A swallowed button cell or coin battery can cause **INTERNAL CHEMICAL BURNS** in as little as **2 HOURS**.
- **KEEP** new and used batteries **OUT OF REACH OF CHILDREN**.
- **SEEK IMMEDIATE MEDICAL ATTENTION** if a battery is suspected to be swallowed or inserted inside any part of the body.



- Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.
- Even used batteries may cause severe injury or death.
- If ingested, call a local poison control center for treatment information.
- Non-rechargeable batteries are not to be recharged.
- Do not force discharge, recharge, disassemble, heat above (manufacturer's specified temperature rating) or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.
- Ensure the batteries are installed correctly according to polarity (+ and -).

- Do not mix old and new batteries, different brands or types of batteries, such as alkaline, carbon-zinc, or rechargeable batteries.
- Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep them away from children.

## NOTICE

### Virtual Patent Marking Notice By Vortex Optics

This product may be protected by patents in the U.S. and elsewhere for Vortex Optics. <http://vtx.legal> website is provided to satisfy the virtual patent marking provisions of various jurisdictions including the virtual patent marking provisions of the America Invents Act and provide notice under 35 U.S.C. §287(a). Please visit <http://vtx.legal> to view list of products that may be covered by one or more U.S./Foreign patents or published patent applications.



## VIP® WARRANTY

OUR UNCONDITIONAL PROMISE TO YOU.

We promise to repair or replace the product. Absolutely free.

- ▶ **Unlimited.**
- ▶ **Unconditional.**
- ▶ **Lifetime Warranty.**

You do not have to register, save the box, or a receipt for the Warranty to be honored.

Learn more at [VortexOptics.com](http://VortexOptics.com)

[service@VortexOptics.com](mailto:service@VortexOptics.com) • 1-800-4VORTEX

**Note:** The VIP® Warranty does not cover loss, theft, deliberate damage, or cosmetic damage not affecting product performance.

For the most up to date manual visit [VortexOptics.com](http://VortexOptics.com)





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