



# **STRIKE EAGLE®**

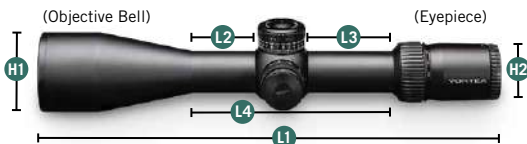
## **RIFLESCOPE**



**PRODUCT MANUAL**

SPECIFICATIONS	Configuration	5-25x56
	Waterproof	Yes
	Fogproof	Nitrogen gas purged
	Length	14.6" (370.8 mm)
	Mounting Length	4.6" (116.84mm)
	Weight	30.4 oz. (w/o battery)
	Eye Relief	3.66" (93 mm)
	Field of View	5x = 24' @ 100 yds (4.6°) 25x = 5.2' @ 100 yds (1.0°)
	Battery	CR2032

Strike Eagle®	MOA	MRAD
Adjustment Graduation	1/4 MOA	0.1 MRAD
Elevation Adjustment with Zero Stop	47 MOA	18 MRAD
without Zero Stop	110 MOA	31 MRAD
Windage Adjustment	78 MOA	23 MRAD
Travel Per Rotation	25 MOA	10 MRAD



Lengths	L1	L2	L3	L4
	14.6"	2.0"	2.6"	6.4"
Heights	H1	H2		
	2.52"	1.84"		

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

## THE STRIKE EAGLE® RIFLESCOPES

When you're ready to step up your long-distance game, the Strike Eagle® gives you more of the tools you need for less than you'd expect. Start with an XD™ Optical System for crystal clear, edge-to-edge sharpness, and add a First Focal Plane (FFP) illuminated reticle for fast reads at any magnification, and any lighting situation. Throw in a locking zero stop Elevation Turret and locking Windage Turret and you've got a long-distance impact machine that'll have you wondering how you ever shot without it.

### Understanding the Controls

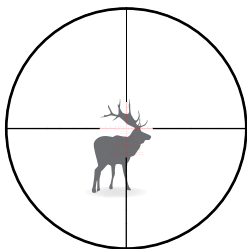


- 1 Eyepiece/Ocular Lens
- 2 Reticle Focus
- 3 Locking Elevation Turret
- 4 Parallax Adjustment Knob/ Side Focus Knob
- 5 Illumination Control Knob
- 6 Objective Lens
- 7 Windage Turret
- 8 Magnification Adjustment Ring
- 9 Throw Lever
- 10 Zero Stop Ring

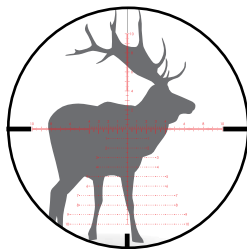
## Reticle Focal Plane

All riflescope reticles can be termed either First Focal Plane (FFP) or Second Focal Plane (SFP) according to the internal location of the reticle within the scope. This model features a First Focal Plane reticle design.

First Focal Plane (FFP) reticles are located within the riflescope near the windage and elevation turrets in front of the image-erecting and magnifying lenses. This style of reticle will visually grow and shrink as you change the magnification. The advantage of an FFP reticle is the reticle subtensions used for ranging, holdovers, and wind drift corrections are consistent at all magnifications. Usually, the reticle will appear heavier at higher magnifications and finer at lower magnifications.



Low Magnification



High Magnification

## Ocular Focus

The ocular focus is essentially a one-time adjustment used to focus the reticle for maximum sharpness. This adjustment is slightly different for every shooter. A clearly focused reticle is a critical component for accurate shooting. *(For instruction on adjusting the ocular focus, see Ocular Focus in the Riflescope Adjustments section on page 12.)*

**WARNING:** Looking directly at the sun through a riflescope, or any optical instrument, can cause severe and permanent damage to your eyesight.

## Magnification

The magnification adjustment ring is used to change the magnification level, or “power,” of the riflescope—adjusting from low to high magnification—depending on the shooter's preference.

## Arc Measurements

Riflescopes will use one of two arc measurements: Milliradians (MRADs) or Minute of Angle (MOA). The arc measurements apply to both the turret adjustments and the reticle subtensions (or hashmarks).

Milliradian (MRAD) arc measurements are based on the concept of the radian. When a section of the circumference of a circle is equal to its radius, the resulting angle is a radian. By dividing that angle into 1000 equal sections, the result is a milliradian. An MRAD is 1/1000th of any unit of measure.

Minute of Angle (MOA) arc measurements are based on the concept of a degree. Minute refers to 1/60th, and angle refers to 360° of a circle. So, a Minute of Angle is 1/60th of one degree. One MOA will always subtend 1.05" for each 100 yds. of distance, or about 3cm for each 100m of distance.

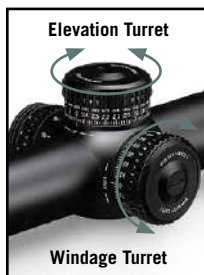
Most riflescopes using MOA turrets will adjust in 1/4-minute increments. Adjustments can be felt by mechanical “clicks,” which subtend .26" for each 100 yds. of distance.

**NOTE:** These measurements are often rounded down to 1 MOA equaling 1" at 100 yds., and each adjustment (each mechanical click) equaling 1/4" at 100 yds.

## Turrets

Turrets are used to adjust the bullet's point of impact and are marked in either Minute of Angle (MOA) or Milliradian (MRAD).

There are two turrets on your riflescope. The turret on the top of the riflescope is the Elevation Turret and is used to adjust the point of impact up and down. The Elevation and Windage Turret are a locking turrets, which prevents accidental adjustment. The turret on the right-hand side of the riflescope is the Windage Turret and is used to adjust the point of impact left and right. Vortex® riflescopes incorporate precision, finger adjustable elevation and windage turrets with audible and tactile clicks.



Depending on which version you have purchased, your riflescope will feature adjustments scaled in MOA or MRAD. If you're unsure of which scale is used, reference the top of the Elevation or Windage Turret.



**MOA Models**  
"1 Click =  
0.25 MOA"



**MRAD Models**  
"1 Click =  
0.10 MRAD"

Your riflescope Elevation Turret incorporates the optional zero stop feature. You may opt to use the zero stop, which will provide you with 47 MOA or 18 MRAD of elevation adjustment. Or, you may choose not to use the zero stop, which will provide you with 110 MOA, or 31 MRAD of elevation adjustment. After the rifle is sighted in, the

zero stop allows a shooter to quickly and easily return to an original zero when using the elevation turret to dial in temporary bullet-drop corrections.

The zero stop feature is particularly useful when dialing large, multi-revolution elevation corrections. Without this feature, the shooter must pay very careful attention when dialing these large corrections. If the shooter loses track of the number of revolutions, the original zero may become lost when returning the adjustment. The zero stop allows the elevation dial to be quickly spun back to original zero without having to carefully count revolutions or clicks.

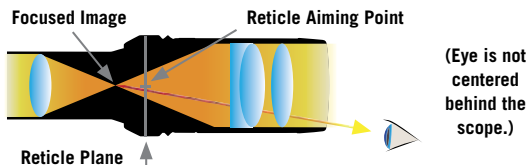
Once the zero stop ring is installed after sight-in, the elevation dial will allow the Elevation Turret to travel 1.25 MOA, or 0.5 MRAD past the original zero point when being returned (turning clockwise) from a temporary elevation adjustment. This allows the shooter to also dial down the Elevation Turret for closer range shots. The shooter can then turn the elevation knob a partial turn in a counter-clockwise direction until—the "0" aligns with the reference line on the scope body—achieving the original zero point.

## Image Sharpness—Parallax

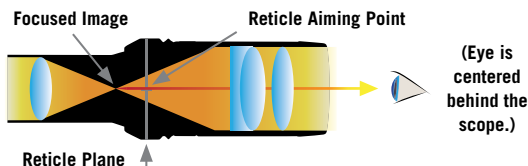
Parallax is a phenomenon that results when the target image does not fall on the same optical plane as the reticle within the scope. This can cause an apparent movement of the reticle in relation to the target if the shooter's eye is off-center.

- When the target image is not focused on the reticle plane and your eye is **off-center** behind the scope, parallax occurs. This is because the line of sight from the eye to the focused target image **does not coincide** with the reticle aiming point.

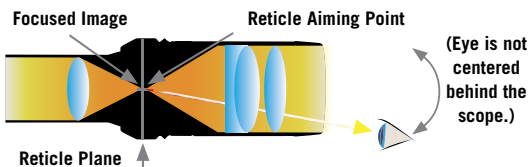
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- When the target image is **not focused** on the reticle plane and your eye is **centered directly** behind the scope, no parallax occurs. This is because the line of sight from the eye to the focused target image **coincides** with the reticle aiming point.



- When the target image **is focused** on the reticle plane, parallax cannot occur – even if your eye is **not centered** behind the scope. This is because the line of sight from the eye to the focused target image **always coincides** with the reticle aiming point no matter where the shooter's eye is positioned.



## Side Focus Adjustment / Parallax Adjustment

Your scope comes equipped with a Side Parallax Adjustment. This adjustment dial is marked with approximate yardages to aid in initial setting and should be matched to the target's distance. Final focus setting should be checked by moving your head back and forth slightly while looking through the scope and watching for any shift of the reticle on the target (parallax). If shift is observed, the dial should be adjusted slightly until shift is removed. Once this focus is correctly set for target distance, shooting errors due to parallax will be eliminated.



## RIFLESCOPE MOUNTING

To get the best performance from your Vortex® rifle scope, proper mounting is essential. Although not difficult, the correct steps must be followed. Please follow the instructions in the next pages for the proper scope mounting procedure, or go to [vortexoptics.com/vortex-nation-videos](http://vortexoptics.com/vortex-nation-videos) for a video tutorial.

If you are unsure of your abilities, it would be best to use the services of a qualified gunsmith.

## Rifle Scope Mounting Checklist

- ☒ Gun vise or a solid platform/rest for your rifle
- ☒ Scope rings/mount
- ☒ Torque wrench
- ☒ Reticle leveling tool, feeler gauges, or weight on a rope

## Rings and Bases

Your Vortex® riflescope features a 34mm main tube. Be sure to select a base and matching rings appropriate for your rifle and mount according to the manufacturer's instructions.



**NOTE:** Vortex Optics recommends not exceeding 18 in/lbs (inch/pounds) of torque on the ring screws.

**TIP:** Select the lowest ring height that will provide complete clearance between the riflescope and rifle in order to avoid contact with barrel, receiver, bolt handle, or any other part of the rifle. A low mounting height will help assure proper cheek weld, aid in establishing a solid shooting position, and promote fast target acquisition.

**RECOMMENDATION:** Vortex Optics highly recommends the Vortex® Precision Matched Rings to mount your riflescope. To check out the full line of Vortex® riflescope rings go to [vortexoptics.com](http://vortexoptics.com).

**RECOMMENDATION:** Pick up the Vortex® Torque Wrench Mounting Kit that comes with a complete set of bits needed to install Vortex® scopes and rings!



## Eye Relief and Reticle Alignment

After installing the bottom ring halves on the mounting base, place the riflescope on the bottom ring halves and loosely install the upper ring halves. Before tightening the scope ring screws, adjust for maximum eye relief to avoid injury from recoil:

1. Set the riflescope to the maximum magnification.
2. Slide the riflescope as far forward as possible in the rings.
3. While viewing through the riflescope in a normal shooting position, slowly slide the riflescope back towards your face. Pay attention to the field of view. Stop sliding the riflescope back as soon as you see the full field of view.
4. Without disturbing the front-back placement, rotate the riflescope until the vertical crosshair exactly matches the vertical axis of the rifle. Using a reticle leveling tool, a weight hung on a rope, flat feeler gauges, or a bubble level will help.

**NOTE:** After aligning the reticle, tighten and torque the ring screws down. Vortex Optics recommends a torque setting of 15-18 in/lbs on the ring screws. **DO NOT** use a thread locking compound on the threads. Thread locking agents lubricate the threads, which can increase the applied torque. If thread locker is used, do not exceed 11 in/lbs.

Using bubble levels to square the riflescope to the base.



## RIFLESCOPE ADJUSTMENTS

### Reticle Focus Adjustment

Your Strike Eagle® riflescope uses a Fast Focus eyepiece designed to quickly and easily adjust the focus on the riflescope's reticle.

#### To adjust the reticle focus:

1. Look through the riflescope at a blank white wall, or up at the sky.
2. Turn the eyepiece fully outward (counterclockwise).
3. Slowly turn the eyepiece focus knob inward until the reticle image is as crisp as possible.



Adjust the reticle focus

**TIP:** Make this adjustment quickly as your eye will try to compensate for an out-of-focus reticle.

Once this adjustment is complete, it will not be necessary to refocus every time you use the riflescope. However, because your eyesight may change over time, you should recheck this adjustment periodically.

### Magnification Adjustment

Rotate the magnification ring to the desired magnification.



Adjust the magnification

### Throw Lever Installation

1. Set the magnification ring to the middle of the magnification range.
2. Slide the throw lever over the eyepiece and magnification ring with the throw lever in the upright position.
3. Thread the screw into the throw lever and tighten until snug using the provided multi tool. Do not overtighten the screw as it may cause damage to the riflescope or to the throw lever.
4. Using the throw lever, rotate the magnification ring through its entire range of motion to verify the position of the throw lever.
5. If needed, loosen the screw and adjust the position of the throw lever to your desired position.



Middle magnification





## Turret Adjustments

Your Strike Eagle® riflescope features adjustable Elevation and Windage Turrets with audible clicks. Each click moves the bullet's point of impact 1/4 MOA or 0.1 MRAD depending on designation. 1/4 MOA closely corresponds to 1/4" at 100 yds. 0.1 MRAD is about .36" at 100 yds. or 1cm at 100m.

**EXAMPLE:** For a MOA scope, it will take about 4 clicks to move the bullet's point of impact one inch at 100 yds.

### To make turret adjustments:

1. Pull the Locking Turret dial up/out to disengage the lock.
2. Up/down for elevation adjustments; left/right for windage adjustments.
3. Push the Locking Turret dial down/in to return to the locked position.

After the shot, return dials to the zero position. The Locking Elevation Turret can simply be spun clockwise until reaching a hard stop against the zero stop. Then, turn the Locking Elevation Turret just slightly (0.5 MRAD or 1.25 MOA) in a counter-clockwise direction until the 0 mark on the turret lines up with the indicator mark on the scope housing.



## Indexing the Elevation Turret

After your riflescope is sighted in, the zero stop ring should be installed. Once in place, the zero stop ring will only allow the turret to dial down 0.5 MRAD or 1.25 MOA past the sight-in zero to accommodate shots that are closer than the sight-in zero.

1. Loosen and remove the Elevation Turret cap using the included turret tool. Gently pull the turret dial straight up and off the turret post, being careful not to rotate the post.
2. Place the zero stop ring over turret post.
3. Push the ring down until seated, then rotate the ring clockwise until it stops.
4. Reinstall the turret dial, lining up the "0" mark with indexing line on the scope body.
5. Replace and tighten the Elevation Turret cap.

**NOTE:** Although installing the zero stop ring is highly recommended, it is not required to operate the scope. The Elevation Turret can still be indexed to zero after sight-in even if the zero stop ring is not installed.





## Indexing The Windage Turret

Strike Eagle® riflescopes feature a Windage Turret that allows you to reindex the zero indicator after sight-in without disturbing your zero setting. Though not a required process, reindexing the Windage Turret allows you to quickly return to your original zero setting if temporary windage corrections are dialed in the field.

### To reset the Windage Turret:

1. After completing the final sight-in, remove the Windage Turret cap and pull the turret dial straight off the turret post.
2. Reposition the turret dial with the "0" mark on the cap aligned with the zero-reference line on the scope housing and push the dial straight down. Avoid rotating while pushing down.
3. Be sure the turret dial is fully seated and replace the Windage Turret cap.

## Parallax Adjustment – Image Sharpness

Your riflescope uses a side focus Parallax Adjustment knob which, when properly set, eliminates parallax errors. Properly setting a side focus parallax adjustment is a quick procedure. When properly set, the target image should be sharp and crisp.

### To set the parallax:

1. First, be sure the reticle is correctly focused (see *Reticle Focus Adjustment on page 12*).
2. Using the numbers on the parallax knob as a reference, adjust the parallax knob to your target's approximate distance. Adjust the parallax knob until your target is in focus.
3. Check the setting for accuracy by moving your head back and forth while looking through the scope. The setting is correct if there is no apparent shift between the reticle and target. If there is apparent shift, adjust the focus knob slightly until the shift is eliminated.

## Illumination Control

Your riflescope uses a variable intensity reticle illumination system to aid in low light conditions. To activate the illumination, rotate the control knob in a clockwise direction. The illumination control knob allows for 11 levels of brightness intensity. The top setting (11) is visible in the daytime, depending on the background color. Settings below 11 are for low-light use when the user's eyes have adjusted to lower light levels.



## Bore Sighting

Initial bore sighting of the riflescope will save time and money at the range. This can be done by using a mechanical or laser bore sight according to the manufacturer's instructions, or by removing the bolt and sighting through the barrel on some rifles.

### To visually bore sight a rifle:

1. Place the rifle solidly on a rest and remove the bolt.
2. Sight through the bore at a target approximately 100 yds. away.
3. Move the rifle and rest until the target is visually centered inside the barrel.
4. With the target centered in the bore, make windage and elevation adjustments until the reticle crosshair is also centered over the target.



## Final Range Sight-In

After the riflescope has been bore-sighted, final sight-in should be done at the range using the exact ammunition expected to be used while shooting. Sight-in and zero the riflescope at the preferred distance. 100 yards is the most common zero distance, although a 200 yard zero may be preferred for long range applications.

**WARNING:** The zero stop ring should be removed from the scope prior to sighting-in the scope.

Be sure the reticle is in focus (*see Reticle Focus Adjustment section on page 12*) and adjust the side focus knob if present until the target image is sharp and without parallax error (*see Using the Side Focus section on page 8-9*).

1. Following all safe shooting practices, fire a three-shot group as precisely as possible.
2. Next, adjust the reticle to match the approximate center of the shot group. Be sure to read pages 12–13 prior to making adjustments.

**NOTE:** If the rifle is very solidly mounted and cannot be moved, simply look through the scope and adjust the reticle until it is centered on the fired group.

3. Carefully fire another three-shot group and see if the bullet group is centered on the bullseye. This procedure can be repeated as many times as necessary to achieve a perfect zero.

## MAINTENANCE

### Cleaning

The Vortex® Strike Eagle® riflescope requires very little routine maintenance other than periodically cleaning the exterior lenses. The scope's exterior may be cleaned by wiping with a soft, dry 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 things like dried water spots.

### Lubrication

All components of the Vortex® Strike Eagle® are permanently lubricated, so no additional lubricant should be applied. If possible, avoid exposing your Vortex® riflescope to direct sunlight or any very hot location for long periods of time.

**NOTE:** Other than removing the turret caps, do not attempt to disassemble any components of the riflescope. Disassembling of riflescope may void warranty.

### Replacing the Battery:

1. Unscrew the outer cap cover.
2. Remove the battery.
3. Replace with new CR2032 battery, text on battery facing outwards.
4. Reinstall outer cap and tighten firmly.



## TROUBLESHOOTING

Please check the following items prior to returning a riflescope for service.

### Sight-in Problems

Many times, problems thought to originate with the scope are actually mounting problems. Be sure the mounts are properly torqued to the rifle and the scope is secured so it doesn't twist or move in the rings. An insufficient windage or elevation adjustment range may indicate problems with the base mount, base mount holes drilled in the rifle's receiver, or barrel/receiver alignment.

Check for Correct Base and Ring Alignment

1. Center the scope reticle.
2. Attach bore sight or remove bolt and visually bore sight rifle (*see steps in Bore Sighting section on page 17*).
3. Look through the scope. If the reticle appears significantly off center on the bore sight image, or when compared to the visually centered target when looking through rifle's bore, there may be a problem with the bases or rings. Confirm that correct base and rings are being used—and in the proper orientation.

### Grouping Problems

There are many issues that can cause poor bullet grouping.

- Be sure that rings are correctly torqued per the manufacturer's instructions.
- Be sure that all screws on rifle's action are properly tightened.
- Be sure rifle barrel and action are clean and free of excessive oil or copper fouling.
- Maintain a good shooting technique and use a solid rest.
- Some rifles and ammunition don't work well together—try different ammunition and see if accuracy improves.

## Common Problems

### Point of Impact Changes Drastically After Turret Adjustment

- Verify that the ring screws are not over torqued. Ring screws should only be torqued to 18 in/lbs, and no thread locking component applied. Over torquing the ring screws will cause excess pressure on the tube, which will cause problems when adjusting the reticle.

### Point of Impact is Inconsistent

- Ensure the cantilever mount/rings are mounted only to the receiver. The cantilever mount/rings need to be mounted to one, solid surface. Make sure the forward connection of the cantilever mount, or ring, is not mounted to the fore end of the rifle.
- Verify the ring screws are not over torqued. Ring screws should only be torqued to 18 in/lbs, and no thread locking component applied. Over torquing the ring screws will cause excess pressure on the tube, which will cause problems when adjusting the reticle.

### Insufficient Adjustment Ranges

- Check that you have the proper base and rings for your rifle and for your size. If you need assistance, contact a local gunsmith.
- Once you have verified you have the correct base and mounts, and you have been properly fitted to your gun, make sure the correct mounting procedure has been followed. (See *Riflescope Mounting section on pages 9-11 for this procedure.*)

### Reticle Appears to Come in and out of Focus

- Check and reset the ocular focus of the reticle for the shooter's eye. (See *Riflescope Adjustments section, Ocular Focus – Reticle Focus Adjustment on page 12.*)



## VIP WARRANTY

OUR UNCONDITIONAL PROMISE TO YOU.

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

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

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



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