VORTEX®

CROSSFIRE® II

CROSSBOW SCOPE

PRODUCT MANUAL

CONFIGURATION	2-7x32
WATERPROOF	IPX7
FOGPROOF	Nitrogen Gas Purged
LENGTH	9.5" (242mm)
MOUNTING LENGTH	3.1" (79mm)
TUBE DIAMETER	30mm
WEIGHT	14 oz. (396.9 g)
EYE RELIEF	2.7" (68mm)
FIELD OF VIEW	2x mag: 57.5 ft. @ 100 yds. (10.9°)
	7x mag: 16.4 ft. @ 100 yds. (3.1°)
BATTERY TYPE	CR2032

CROSSFIRE® II CROSSBOW SCOPE	MOA
ADJUSTMENT GRADUATION	½ MOA
TOTAL ELEVATION TRAVEL	160 MOA
TOTAL WINDAGE TRAVEL	160 MOA
ELEVATION TRAVEL PER ROTATION	30 MOA
WINDAGE TRAVEL PER ROTATION	30 MOA

	L1	L2	L3	L4
LENGTH	1.4" (36mm)	1.7" (43mm)	4.4" (112mm)	9.5" (242mm)

	H1	H2
HEIGHT	39.4mm	39.5mm

THE CROSSFIRE® II CROSSBOW SCOPE

First light, last light, and all day long, this crossbow topper will have you stacking bolts and filling tags in no time. Designed to be zeroed at 40 yards, our purpose-built reticle not only gives you holdover points out to 100 yards, it features red and green illumination for low-light shooting. We also included the magnification and Feet per Second (FPS) on the magnification ring to keep the scope compatible with a variety of bows and setups, and a wide field of view makes it perfect for a variety of shooting situations. Plus, we're including rings with the scope, so it's ready to mount right out of the box. And the best part? It's a Crossfire®, so you know it's built for the field.

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

CROSSBOW SCOPE ADJUSTMENTS

Reticle Focal Plane

All scope 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 SFP reticle design.

SFP reticles are located near the eyepiece, behind the image erecting and magnifying lenses. This style of reticle does not visually change in size when you change the magnification. The advantage of an SFP reticle is that it always maintains the same ideal visual appearance.

Note: The Crossfire® II 2-7x32 crossbow scope reticle subtensions used for arrow drop and wind drift compensation are correct at a magnification of 4x.

Ocular Focus

The ocular focus is 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.

Ocular Focus—Reticle Focus Adjustment

The Crossfire® II crossbow scope features a fast focus eyepiece designed to quickly and easily adjust the reticle focus. To adjust the reticle focus:

1. Set the magnification to the highest setting.
2. Point the scope at a blank white wall or up at the sky.

3. Glance through the scope. If the reticle is not in focus, look away and make an adjustment to the eyepiece.
4. Repeat this process until the reticle is in sharp focus.

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

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 is used to change the crossbow scope's magnification level, or "power," adjusting from low to high magnification depending on the shooter's preference.

The magnification ring indicates both the power of magnification and the FPS for the crossbow. The reticle subtensions will be accurate at 4x magnification; ranges will be accurate when setting the FPS on the magnification ring to your crossbow's FPS setting.

Magnification Adjustment

Rotate the magnification ring to the desired magnification or FPS.

TURRETS

The Crossfire® II crossbow scope features precision, finger-adjustable elevation and windage turrets with tactile clicks.

To make adjustments:

1. Remove the elevation and/or windage turret cap(s).
2. Turn the turret in the direction you wish the arrow's point of impact to go: up or down, left or right.
3. Replace the turret cap(s) when done.

TIP: After sight-in, you can realign the zero marks on the elevation and windage turrets with the reference dots if you wish. See "Indexing the Turrets" section for instructions.

The capped-style elevation and windage turrets provide a high travel range. Each click of the turret will provide 1/2 MOA of reticle movement.

Indexing the Turrets

The Crossfire® II crossbow scope features an elevation and windage turret that will allow you to reindex the zero indicator after sight-in without disturbing your settings. This allows you to quickly return to your original zero if temporary corrections are used in the field.

Index the turret as follows:

1. Remove the elevation/windage cap.
2. Using a coin or a screwdriver, hold the turret firmly so it does not move and remove the screw retaining the turret dial.
3. Lift the turret dial straight up and realign the dial with the zero-mark aligned with the reference line on the scope housing.
4. Push the turret dial straight down. While holding the turret so it does not move, reinstall the turret dial screw.
5. Replace the elevation/windage turret cap.

Illumination Adjustments

The Crossfire® II crossbow scope features a reticle illumination system with both red and green illumination options, and variable levels of intensity to aid in low-light performance.

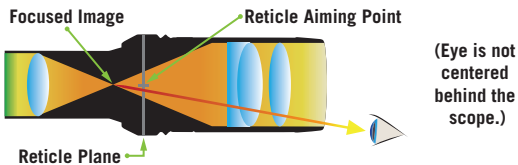
To activate the illumination, rotate the adjustment dial in either direction. This illumination dial allows for continuous adjustment between levels of brightness intensity. An off click between each color allows you to turn the illumination off and return to either color quickly.

Installing and Replacing the Battery

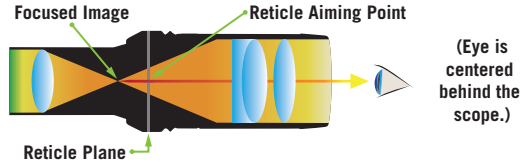
1. Unscrew the battery cap with a coin.
2. Remove the battery.
3. Replace with a new CR2032 battery.
4. Reinstall the battery cap and be sure to fully tighten it.

Parallax Setting

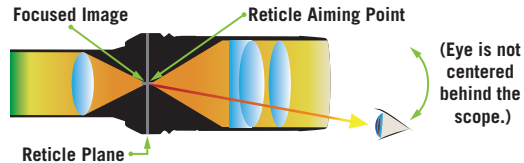
Parallax is a phenomenon that results when the target image does not fall on the same optical plane as the reticle within the scope. This can cause an apparent movement of the reticle in relation to the target if the shooter's eye is off-center.



- 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.



- 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.

The Crossfire® II crossbow scope's parallax setting is set at 75 yards and will have minimal parallax at distances from 35 to 125 yards. At distances closer than 30 yards, there may be a very slight shift of the reticle on the target (parallax) if your eye is not centered directly behind the scope's eyepiece. This shift can be eliminated by keeping your eye centered behind the scope when shooting.

CROSSBOW SCOPE MOUNTING

The Crossfire® II crossbow scope comes with 30mm mounting rings.

Eye Relief And Reticle Alignment

Install the bottom ring halves on the mounting base. Place the scope on the bottom ring halves and loosely install the upper ring halves. Before tightening the scope ring screws, adjust for comfortable eye relief:

1. Set the scope to maximum magnification.
2. Slide the scope as far forward in the rings as possible.
3. Look through the scope while in your normal shooting position and slowly slide the scope towards your eye. Stop sliding the scope when you see the full field of view.
4. Without disturbing the front-back placement, rotate the scope until there is an exact match between the vertical crosshair of the reticle and the vertical axis of the crossbow. Use a reticle leveling tool, a weight hung on a rope, flat feeler gauges, or a bubble level to help with this procedure.

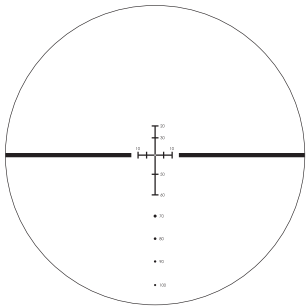
Note: After aligning the reticle, tighten and torque the ring screws. Vortex Optics recommends a torque setting of 15-18 in/lbs on the ring screws. DO NOT use a thread locking compound on the threads. Thread locking agents lubricate the threads, which can increase the applied torque.

Note: Use a bubble level to square the crossbow scope to the base.

XBR-2 RETICLE

The XBR-2 reticle can be used for targets ranging from 20-100 yards and is designed for a 40-yard zero on the center crosshair. The reticle subtensions will be accurate at 4x magnification for a 380 FPS crossbow. For the crossbow's reticle subtensions to be accurate with other speed settings, match the FPS on the magnification ring to your crossbow's FPS setting.

YARDS	MOA DROP
20	+17.2
30	+10.2
40	0
50	-11.3
60	-23.4
70	-35.9
80	-49.2
90	-62.6
100	-76.5



SIGHTING IN THE SCOPE

Begin the initial sight-in at 6 yards. Due to arrow trajectory, this will also closely equal the desired 40-yard zero.

Note: If zeroing your crossbow at 40 yards, use any magnification setting (40 yards is the center of the reticle). If zeroing at any other range, set the magnification ring to match your crossbow's speed setting.

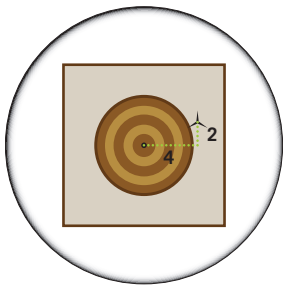
Step 1

1. Set the magnification ring to 4x, then aim and shoot from 6 yards. Try to keep your eye centered behind the eyepiece in order to reduce the effects of parallax at this very close range.
2. Measure the distance by which your arrow missed the bullseye in inches. Divide your measurement by .06 to convert to MOA. At 6 yards, one MOA equals .06 inches and each turret click adjusts the point of impact .04 inches.
3. Using the point of impact as a reference, make any necessary adjustments for windage and elevation correction. Using the arrows for reference, adjust turrets in the direction you wish the point of impact to move.

Example

The arrow strike is 2 inches high and 4 inches to the right of center.

1. Calculate amount of adjustment needed:
   Elevation: 2" ÷ .04 = 50 MOA
   Windage: 4" ÷ .04 = 100 MOA
2. Adjust the turrets (each click equals 1/2 MOA):
   Elevation: Rotate the turret down 50 MOA (100 clicks).
   Windage: Rotate the turret left 100 MOA (200 clicks).
3. Shoot another arrow to verify adjustment and repeat as necessary.



Step 2

Move the target back to 40 yards. Due to trajectory arc, the initial 6-yard zero will closely correspond to the desired final 40-yard zero. Be sure to keep your eye centered behind the eyepiece. Repeat the process from step one to verify your zero at 40 yards.

MAINTENANCE

Cleaning

The Vortex® Crossfire® II crossbow scope requires very little routine maintenance other than periodically cleaning the exterior lenses. Clean the scope's exterior 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® Crossfire® II are permanently lubricated, so no additional lubricant should be applied. If possible, avoid exposing your Vortex® crossbow scope to direct sunlight or any very hot location for long periods of time.

Note: Other than removing the turret caps and turret, do not attempt to disassemble any scope components. Disassembling the scope may void the warranty.

VIP WARRANTY™

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.