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Vector Optics Minotaur 12-60x60 Gen II

Vector Optics Minotaur 12-60x60 Gen II Riflescope User Manual

Model: Minotaur 12-60x60 Gen II

Introduction

Thank you for choosing the Vector Optics Minotaur 12-60x60 Gen II Riflescope. This manual provides detailed instructions for the proper setup, operation, and maintenance of your new riflescope. Please read this manual thoroughly before use to ensure optimal performance and longevity of your device.
The Minotaur 12-60x60 Gen II is designed for precision shooting, featuring a wide magnification range, a 34mm main tube, and a red illuminated Second Focal Plane (SFP) reticle with 1/8 MOA adjustments. Its robust construction ensures reliability in various conditions.

Product Overview

Key Components

- **Objective Lens:** The front lens of the riflescope, responsible for gathering light.
- **Main Tube:** The central body of the riflescope, 34mm in diameter for this model.
- **Elevation Turret:** Adjusts the vertical point of impact.
- **Windage Turret:** Adjusts the horizontal point of impact.
- **Parallax Adjustment Knob:** Eliminates parallax error at various distances.
- **Magnification Ring:** Adjusts the magnification level from 12x to 60x.
- **Eyepiece:** The rear section of the riflescope where the user looks through.
- **Diopter Adjustment Ring:** Adjusts the focus of the reticle to the user's eye.
- **Illumination Control:** Adjusts the brightness of the illuminated reticle.

Features

- Magnification: 12-60x
- Objective Lens Diameter: 60mm
- Tube Diameter: 34mm Monotube

- Reticle: Second Focal Plane (SFP) with Red Illumination
- Click Value: 1/8 MOA
- Eye Relief: Approximately 3.7 inches (94mm)
- Mounting Type: Compatible with Picatinny Mounts

Figure 1: Front view of the Vector Optics Minotaur 12-60x60 Gen II Riflescope, showcasing the objective lens and main body.

Figure 2: Rear view of the riflescope, showing the eyepiece and magnification ring.

Figure 3: Side view of the riflescope, highlighting the elevation, windage, and parallax adjustment turrets.

Setup

1. Mounting the Riflescope

Proper mounting is crucial for accuracy and consistent performance. Use high-quality 34mm scope rings compatible with your rifle's Picatinny rail system.

1. Ensure your firearm is unloaded and pointed in a safe direction.
2. Attach the scope rings to your rifle's Picatinny rail, ensuring they are spaced appropriately for the riflescope's length and your preferred eye relief.
3. Place the riflescope into the lower halves of the rings.
4. Adjust the riflescope forward or backward until you achieve optimal eye relief (approximately 3.7 inches from the eyepiece to your eye when in a natural shooting position).
5. Rotate the riflescope until the vertical crosshair is perfectly plumb (vertical) with the rifle. A plumb bob or a scope leveling tool can assist with this.
6. Place the upper halves of the rings over the riflescope and tighten the ring screws evenly and gradually, following the torque specifications provided by your ring manufacturer. Do not overtighten.

Figure 4: Example of Picatinny scope mounting rings, essential for securing the riflescope to the firearm.

2. Diopter Adjustment

The diopter adjustment focuses the reticle to your individual eye, ensuring a crisp and clear reticle image.

1. Point the riflescope at a plain, bright background (e.g., a clear sky or a blank wall).
2. Look through the riflescope and quickly glance at the reticle.
3. Rotate the diopter adjustment ring (located at the rear of the eyepiece) until the reticle appears sharp and clear the instant you look at it. Avoid staring, as your eye may compensate for an out-of-focus reticle.

3. Zeroing the Riflescope

Zeroing aligns the point of impact with the point of aim at a specific distance.

1. Begin at a close range, such as 25 yards, to get on paper.
2. Fire a three-shot group.
3. Observe the point of impact relative to your aim point.
4. Adjust the elevation and windage turrets. Each click of the turret moves the point of impact by 1/8 MOA at 100 yards. At 25 yards, 1/8 MOA is 1/32 inch. Consult a ballistic calculator or a zeroing chart for precise adjustments.
5. Repeat firing and adjusting until your shots consistently hit the desired aim point.
6. Once zeroed at the close range, move to your desired zeroing distance (e.g., 100 yards) and repeat the process for fine-tuning.

Figure 5: Close-up view of the elevation and windage turrets, showing the 1/8 MOA click adjustments.

Operating the Riflescope

Magnification Adjustment

Rotate the magnification ring (located just forward of the eyepiece) to change the magnification from 12x to 60x. Since this is a Second Focal Plane (SFP) reticle, the reticle size remains constant regardless of the magnification setting. Ballistic holdovers and ranging features of the reticle are accurate at a specific magnification, typically the highest setting (60x) or as indicated by the manufacturer.

Parallax Adjustment

Parallax is the apparent movement of the reticle relative to the target when the shooter's eye moves. The parallax adjustment knob (typically on the left side of the main tube) allows you to eliminate this error.

1. Aim the riflescope at your target.
2. While looking through the scope, slowly rotate the parallax adjustment knob until the target and reticle appear

to be in the same focal plane and there is no apparent movement between them when you slightly move your head.

3. The numerical markings on the parallax knob are approximate; always fine-tune by observing the image.

Reticle Illumination

The Minotaur 12-60x60 Gen II features a red illuminated reticle for enhanced visibility in low-light conditions or against dark targets. The illumination control is integrated with the parallax knob.

- Rotate the outer ring of the parallax knob to turn the illumination on and adjust its brightness.
- Start with the lowest setting and increase brightness as needed. Excessive brightness can cause glare and reduce target visibility.
- Turn off the illumination when not in use to conserve battery life.

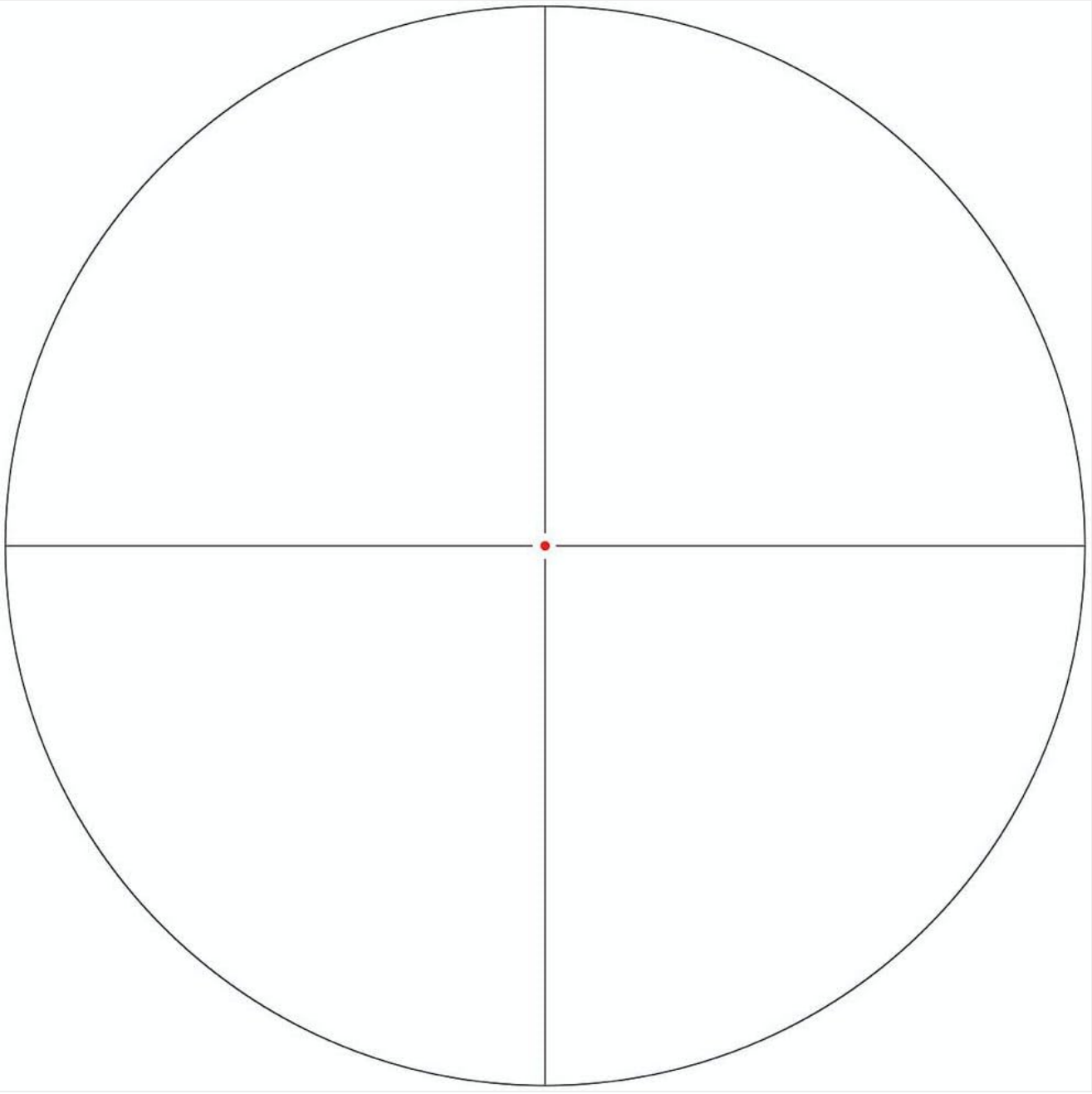


Figure 6: Representation of the illuminated reticle, showing the central red dot for improved visibility.

Maintenance

Cleaning the Lenses

Always use proper lens cleaning techniques to avoid scratching the optical coatings.

1. Brush off any loose dust or debris with a soft lens brush or blow it off with compressed air (specifically for optics).
2. Apply a small amount of lens cleaning solution to a clean microfiber lens cloth.
3. Gently wipe the lens surfaces in a circular motion, starting from the center and moving outwards.
4. Do not use harsh chemicals, paper towels, or clothing, as these can damage the lens coatings.

General Care and Storage

- Keep the lens caps on when the riflescope is not in use to protect the lenses.
- Store the riflescope in a cool, dry place, away from direct sunlight and extreme temperatures.
- Avoid dropping or subjecting the riflescope to severe impacts.
- Periodically check the mounting screws for tightness, especially after initial use and before each shooting session.

Troubleshooting

Problem	Possible Cause	Solution
Blurred image / Reticle out of focus	Improper diopter adjustment; Parallax error	Adjust diopter ring; Adjust parallax knob to match target distance.
Point of impact shifts / Inconsistent accuracy	Loose mounting rings; Improper zeroing; Damaged scope	Check and tighten mounting screws; Re-zero the riflescope; Contact Vector Optics support if damage is suspected.
Reticle illumination not working	Dead battery; Loose battery cap; Faulty illumination module	Replace battery (CR2032, typically); Ensure battery cap is tight; Contact Vector Optics support.
Difficulty adjusting turrets	Turret caps too tight (if applicable); Debris in mechanism	Ensure caps are removed or loosened if they are tactical/capped turrets; Gently clean around turrets; Do not force adjustments.

Specifications

Feature	Detail
Magnification	12-60x
Objective Lens Diameter	60mm
Tube Diameter	34mm
Reticle Type	Second Focal Plane (SFP)

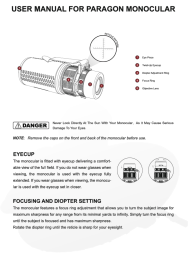
Feature	Detail
Reticle Illumination	Red
Click Value	1/8 MOA
Eye Relief	Approx. 3.7 inches (94mm)
Weight	Approx. 959g (33.9 Ounces)
Compatible Devices	Rifle
Mounting Type	Picatinny Mount (rings not included)
Night Vision Compatible	No

Warranty and Support

Vector Optics provides a limited lifetime warranty on their riflescopes, covering defects in materials and workmanship. For specific warranty terms, service, or technical support, please contact Vector Optics directly through their official website or authorized distributors. Keep your proof of purchase for warranty claims.
For further assistance, visit the official Vector Optics website:www.vectoroptics.com

Related Documents - Minotaur 12-60x60 Gen II

	Vector Optics German #4 SFP MOA Reticle User Manual A comprehensive user manual for the Vector Optics German #4 Second Focal Plane (SFP) MOA reticle, detailing its features, MOA measurements, and practical applications for range estimation and wind drift compensation in shooting.
	Vector Optics Minotaur Riflescope Instruction Manual Comprehensive instructions for the Vector Optics Minotaur Riflescope, covering setup, zeroing, adjustments, maintenance, and storage. Learn how to use your riflescope effectively and safely.
	Vector Optics Grizzly Riflescope User Manual User manual for the Vector Optics Grizzly Riflescope, detailing setup, operation, maintenance, and warranty information. Includes instructions on eyepiece focusing, mounting, zeroing, magnification adjustment, illumination, battery replacement, and care.

	[Vector Optics Veyron 3-12x44 Riflescope: Instructions and Maintenance] Comprehensive guide to the Vector Optics Veyron 3-12x44 riflescope, covering mounting, zeroing, magnification adjustments, maintenance, and storage. Features detailed instructions for optimal use.
	[Paragon Monocular User Manual - Vector Optics] User manual for the Vector Optics Paragon Monocular (8x42), detailing features, operation, maintenance, and reticle measurement.
	[Vector Optics Frenzy Red Dot Sight User Manual - SCRD-M68] Comprehensive user manual for the Vector Optics Frenzy Red Dot Sight (SCRD-M68). Learn about mounting, zeroing, battery replacement, maintenance, storage, reticle options, and the T-VIP Lifetime Warranty.