

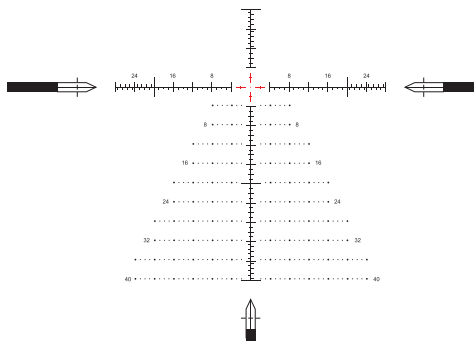
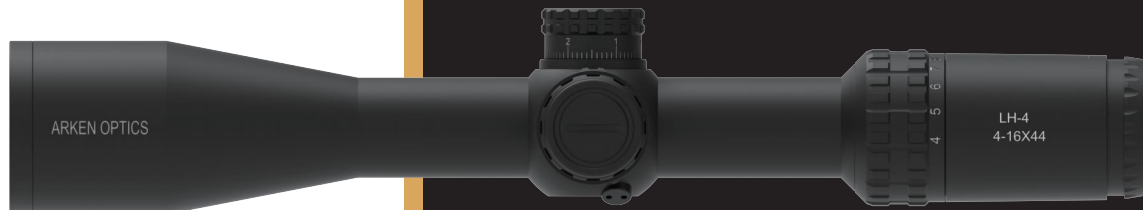
LH-4

4-16X44 6-24X50 FFP

Product Manual



ARKEN OPTICS



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Ensure your firearm is unloaded before proceeding. If you pause use and then resume later, reconfirm that the chamber is still empty.

Welcome

LH-4 4-16X44 6-24X50 FFP

Introducing the LH-4 4-16x44 6-24x50, designed for hunters who are seeking reliability and precision. This scope, balancing lightweight design with robust construction, is a staple for any serious hunter.

Lightweight Durability for the Avid Hunter

Crafted with aircraft-grade aluminum and nitrogen gas purging, the LH-4 ensures consistent performance in diverse environmental conditions. Its design focuses on durability without adding unnecessary weight, making it a preferred choice for extended hunts.

Precision and adaptability in the field

Featuring a first focal plane reticle with red illumination, the LH-4 offers superior clarity and versatility. Its user-friendly, tool-less turret adjustments allow for precise shooting, adapting seamlessly to varying hunting scenarios.

ARKEN OPTICS is excited for you to experience the difference with the LH-4 – where craftsmanship meets the rigorous demands of hunting.

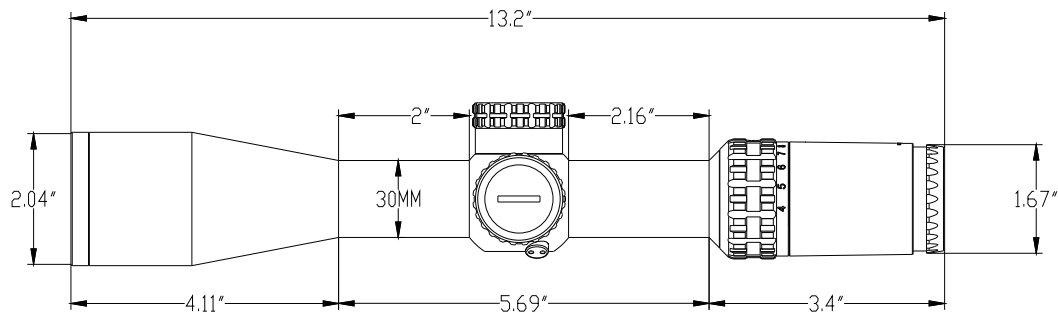


Specifications



4-16X44

Magnification:	4-16x	Max Elevation Adjustment:	17 MRAD / 58 MOA
Objective FOV Diameter:	44mm	Max Windage Adjustment:	14 MRAD / 50 MOA
Eye Relief:	3.6 inches	Elevation Adjustment Per 1x revolution:	6 MRAD / 15MOA
Field of View (FOV):	30-7.5 ft@100Yards	Windage Adjustment Per 1x Revolution:	6 MRAD / 15MOA
Tube Size:	30mm	Parallax:	10 Yard-Infinity
Turret Adjustment:	0.1 MRAD/0.25 MOA	Illuminated Reticle:	Red
Reticle Position:	First Focal Plane (FFP)	Length:	13.2 inches
Reticles:	VHR MIL/VHR MOA/VPR MIL/VPR MOA	Weight:	24.45 oz
		Battery Model:	CR2032

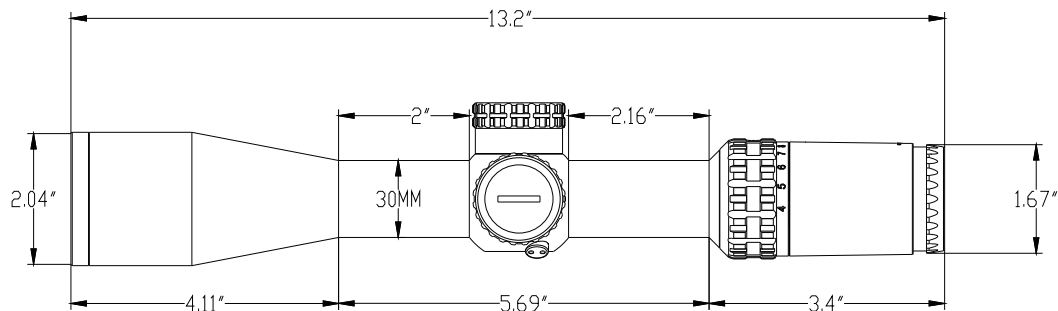


Specifications

6-24X50

Magnification:	6-24x
Objective FOV Diameter:	50mm
Eye Relief:	3.5 inches
Field of View (FOV):	18.55-4.65 ft@100Yards
Tube Size:	30mm
Turret Adjustment:	0.1 MRAD / 0.25 MOA
Reticle Position:	First Focal Plane
Reticles:	VHR MIL/VHR MOA/VPR MIL/VPR MOA

Max Elevation Adjustment:	18 MRAD / 60 MOA
Max Windage Adjustment:	14 MRAD / 50 MOA
Elevation Adjustment Per 1x revolution:	6 MRAD / 15MOA
Windage Adjustment Per 1x Revolution:	6 MRAD / 15MOA
Parallax:	10 Yard-Infinity
Illuminated Reticle:	Red
Length:	13.8 inches
Weight:	25.58 oz
Battery Model:	CR2032



Identification / Characteristics



Mounting Tips and Tricks



When it comes to securing your LH-4 to your firearm, getting it right the first time is crucial for accurate shooting. Here are some tips and tricks to ensure your scope is mounted correctly on your rifle.

- 🔺 **We recommend using ARKEN OPTICS Mounts or Rings:** Select mounts designed to complement ARKEN scopes, ensuring a seamless and stable connection between your scope and rifle.
- 🔺 **Clean and Degrease:** Before mounting, clean the mounting surfaces on both the rifle and the scope. Remove any old oil or residue to ensure a solid connection.
- 🔺 **Torque Wrench is Your Friend:** Use a torque wrench to tighten screws to the recommended specifications. This ensures consistent pressure and prevents over-tightening.
- 🔺 **Properly Level the Scope:** A leveling tool helps ensure the scope is perfectly aligned with the rifle. This step is often overlooked but is crucial for accuracy.
- 🔺 **Eye Relief:** Position the scope to achieve the proper eye relief for your shooting style. This is the distance between your eye and the scope.
- 🔺 **Bore Sighting:** Before finalizing the mounting, perform a bore sight. This gets your scope on paper before you head to the range for fine-tuning.
- 🔺 **Recheck and Test:** After mounting, recheck all screws for tightness. Take your rifle to the range and test for accuracy.
- 🔺 **Consider Recoil:** If you're mounting on a high-recoil rifle, ensure there's enough eye relief to prevent scope bite.
- 🔺 **Apply Thread Locker Sparingly:** Use a small amount of thread locker on screws and bolts to prevent them from loosening due to recoil vibrations. Gently apply Thread locker. We recommend blue locktite.
- 🔺 **Consult a Professional:** If you're unsure, seek advice from a professional gun smith. They can ensure your scope is mounted perfectly.

A well-mounted scope can make a world of difference in your shooting experience. Following these tips will help you achieve the best results with your scope.

Focusing the LH-4 / Setting the Diopter



- 1. Select an Unobstructed Background:** Begin by looking at a clear, unobstructed background. Using the sky as a backdrop is recommended.
- 2. Rotate the Diopter Ring:** While focusing on your chosen background, gently rotate the diopter ring on your scope.
- 3. Perform Adjustments in Short Intervals:** Your eye naturally tries to refocus on the reticle, so it's important to adjust the diopter in short bursts.
- 4. Look Away Between Adjustments:** After each adjustment, briefly look away from the scope to let your eye reset its focus on the sky.
- 5. Quickly Refocus on the Reticle:** Quickly shift your gaze back to the reticle. This helps you assess if further diopter adjustments are needed.
- 6. Ensure Clarity and Stability:** The reticle should appear sharp and stable. It should not move when you move your head. If this occurs, consider adjusting your parallax as needed.
- 7. Finalize the Setting:** Once the reticle appears sharp and your eye doesn't strain to focus, the diopter is correctly set. Your eye should not have to work to keep the reticle in focus during normal use.



Variable Power Adjustment

- 1. Begin with the magnification ring set at 4X.**
- 2. Rotate the magnification ring until the indicator aligns with the desired power level marked on the ocular housing.**
- 3. Gradually increase the magnification for a closer view of your target.**

Illuminated Reticle Adjustment

Your LH-4 scope features a daylight-visible, externally adjustable illumination for enhanced visibility.

1. Locating the Illumination Turret:

The illumination turret is conveniently positioned opposite the windage turret.

2. Battery Cap Placement:

It's important to note that the battery cap for the illumination turret is situated on top. However, rotating the battery cap will not affect the illumination settings.

3. Activating the Illuminated Reticle:

To activate the illuminated reticle, simply rotate the external dial:

** 1 through 6 ** adjusts the intensity of the illumination.

Settings in between the numbers represents the "off" setting. Please set in this setting when scope is not in use to prevent unnecessary drainage of the CR2032 battery.

Note:

Keep in mind that lighting conditions and the environment can impact the optimal setting. In low light, excessive illumination may lead to unintended effects.



Sunshade Included

Each LH-4 scope includes a sunshade designed to minimize reflections and glare on the objective lens, while also offering additional protection against impacts and scratches by extending the housing beyond the objective lens.

Parallax

- 1. Locate the Parallax Dial:** Find the parallax dial, located on the side of the main tube opposite of the windage turret.
- 2. Set Up a Clear Target:** Position a clear target that stands out from the background. Ensure your rifle is in a secure rest position.
- 3. Adjust Magnification:** Set magnification level to your preference.
- 4. Observe and Shift Viewing Angle:** Look through the scope and gently shift your head back and forth, changing your viewing angle.
- 5. Identify Parallax Issue:** If the reticle appears to move or shift with your head movement, there is a parallax issue that needs correcting.
- 6. Use Yardage Indicators for Guidance:** The yardage indicators on the parallax dial can be used as a starting point for corrections. PLEASE NOTE: The indicators are not meant to be absolutes.
- 7. Verify Clarity:** Ensure you can view both the reticle and the target without needing to shift focus. If there's still movement, make further fine corrections.



Remember, the goal is to adjust the image of the target to match the focal plane of the reticle, ensuring both the reticle and target are in sharp focus without any shift when you change your viewing angle.

Windage and Elevation Adjustments



Making precise adjustments to the elevation (vertical) and windage (horizontal) turrets during the sight-in process is critical to success.

1. Locate the Turrets:

Identify the windage and elevation turrets on the scope body. Looking directly at the eyepiece, the windage turret is located on the right side, and the elevation turret is on top. The windage and elevation turrets are the only turrets that have caps on them that cover them completely.

2. Understand the Directional Movements:

Windage: Turning the windage turret clockwise moves the point of impact to the left and counter clockwise moves it to the right.

Elevation: Rotating the elevation turret clockwise lowers the point of impact and counter clockwise raises it.

3. Making Adjustments:

Windage: Use the windage turret to move the point of impact horizontally, aligning it with your point of aim.

Elevation: Utilize the elevation turret to adjust the point of impact vertically, aligning it with your point of aim.

4. Recording Changes:

Keep track of the adjustments made. Scopes use Minute of Angle (MOA) or Milliradian (MRAD) measurements for precision.

5. Fine-Tuning:

Fire additional shots, making minor adjustments as needed to achieve the desired point of impact.

Remember, each click of the turret represents a specific angular measurement. It's recommended to get familiar with the scope specifications and ballistic calculations for more accurate adjustment.

Zero your LH-4



1. Bore-Sighting Preparation:

Begin by bore-sighting your rifle. This ensures that the initial shots are close to the point of aim.

2. Firing Initial Rounds:

Fire a series of three to five rounds at the target.

3. Measure POA vs. POI:

Determine the difference between the point of aim (POA) and the point of impact (POI). Use the reticle or a measuring device on the target.

4. Adjust Elevation and Windage:

Using the adjustment turrets, make necessary changes to align the POA with the POI.

5. Confirmation Rounds:

Fire an additional three to five rounds to verify the zero. Continue adjustments until the POA and POI coincide.

Please note: Each click of the turret represents a specific angular measurement. Familiarize yourself with your scope's specifications for accurate adjustments.



Zero-Reset

Once your scope is zeroed, start by loosening the **Tool-Less** thumb cap which is located directly in the center of the elevation or windage turret (please be sure to hold turret itself while unscrewing the cap counterclockwise). After you have loosened the cap fully, lift it off. The turret can now be lifted up. Realign the '0' of the turret with the scale line on the scope of the body. After alignment, securely tighten the thumb cap back in place (by screwing it clockwise) to complete the Zero-Reset process

The Subtension Scale: MIL or MOA



MRAD(Milliradian): 1/1000th of 1 radian of arc

1MIL= 3.438 MOA

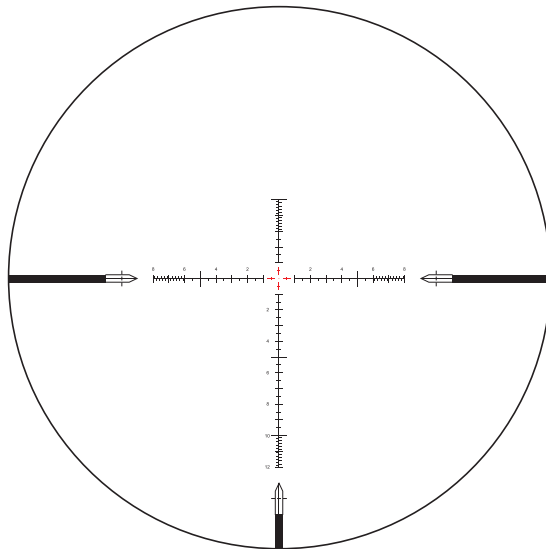
1MIL= 3.599 inches @ 100 yards

1/10 MIL = 0.359 inches @ 100 yards

MOA							
100 yds	200 yds	300 yds	400 yds	500 yds	600 yds	700 yds	800 yds
1"	2"	3"	4"	5"	6"	7"	8"

MRAD							
100 yds	200 yds	300 yds	400 yds	500 yds	600 yds	700 yds	800 yds
3.6"	7.2"	10.8"	14.4"	18"	21.6"	25.2"	28.8"

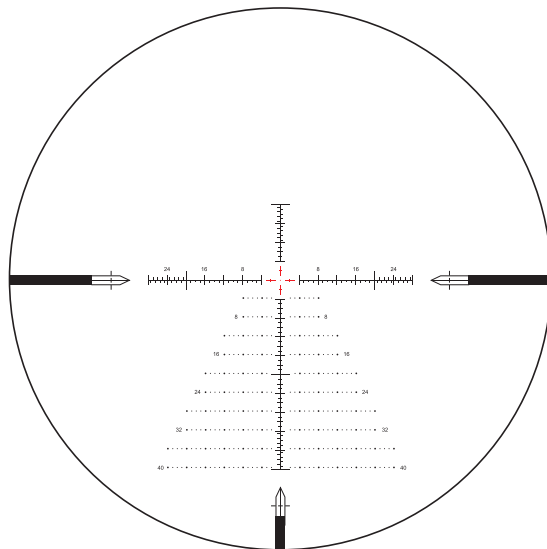
For shooters who prioritize a clear view of their target, the VHR reticle's open design is a significant advantage. It ensures that the point of impact (POI) and the target are always visible and unobstructed. This aspect of the VHR makes it particularly well-suited for hunting environments, where a quick, unimpeded sight picture is crucial. The VHR's intuitive layout facilitates quick target acquisition, making it a practical choice for anyone seeking both simplicity and effectiveness in their optics.



VPR Reticle

The VPR reticle design was crafted by ARKEN OPTICS to elevate long-range shooting accuracy. Featuring a grid of small points along both vertical and horizontal axes, it provides a comprehensive hold-over system. This proves particularly advantageous for shooters involved in rapid firing or requiring swift windage adjustments in multi-target scenarios.

At the center of the reticle is a finely detailed 0.04 MIL (or 0.14 MOA) dot, ensuring unparalleled precision for long-distance shots or when targeting smaller objects. Furthermore, the center dot and the immediate 1 MIL (or 4 MOA) area surrounding it can be illuminated in red, enhancing visibility and focus.





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