

SLX[®] *PROVEN RELIABILITY AND VALUE*

SLX[®] **FIRST FOCAL PLANE RETICLE MANUAL**

ACSS[®] R-GRID 2B

For Patent Information go to <https://goo.gl/2z62aS>

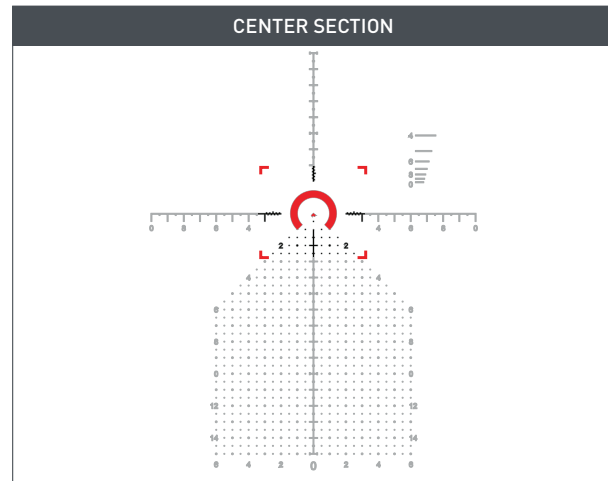
PA PRIMARY ARMS[®]

ACSS R-GRID 2B RETICLE

ACSS R-Grid 2B's center section uses a bold chevron and horseshoe for fast target acquisition at closer ranges and lower magnifications. Overall, the reticle extends 10 MIL up, left, and right of the center chevron aiming point, and 15 MIL down. Large hash marks are found in 1.0 MIL increments, with smaller marks between them at 0.5 MIL increments.

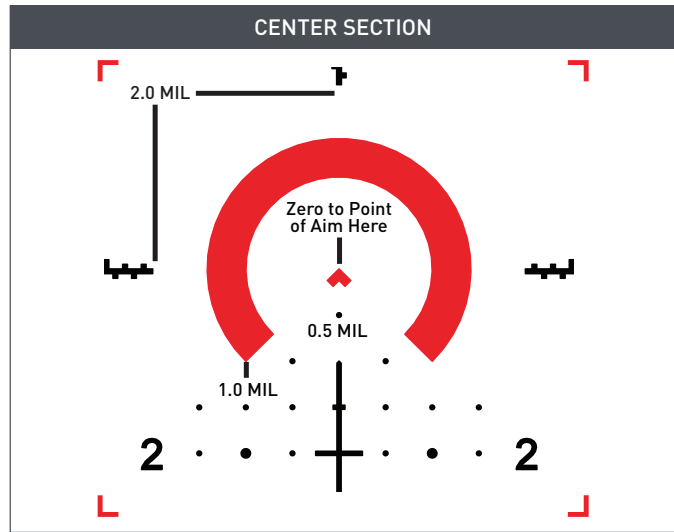
THE HORSESHOE

Due to the first focal plane construction of this scope, the horseshoe will appear to “shrink” and “grow” as magnification changes. At low magnification, the horseshoe becomes a small ring that grabs the eye instantaneously for an extremely fast sight picture. When the target is relatively close and reflexive shooting is needed, simply hold the target inside the horseshoe or roughly center the horseshoe over the part of the target you want to hit, and you are ready to fire immediately. The inner edges of the horseshoe are located 1.0 MIL away from center, with the lower tips of the horseshoe located 1.0 MIL down from the horizontal crosshairs and 1.0 MIL away from the vertical crosshairs.



THE CHEVRON TIP

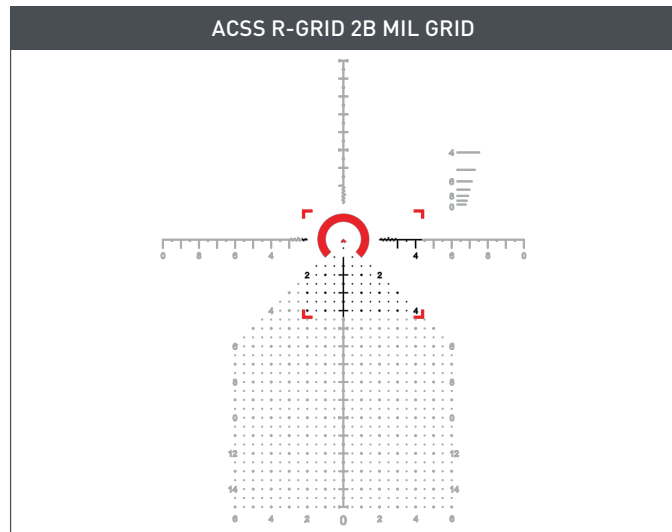
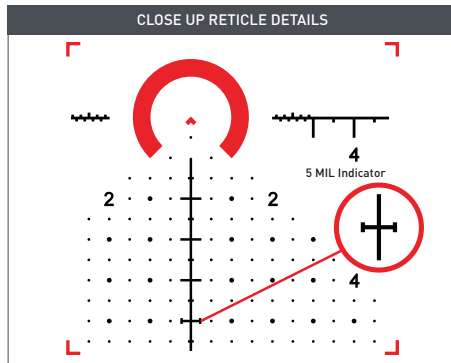
The ACSS R-Grid 2B uses a chevron as the center aiming point of the reticle. When zeroing your rifle, adjust your Windage and Elevation knob positions so that the point of impact coincides with the tip of the chevron. Using the chevron tip allows for an infinitely small point of aim that never covers up the part of the target you want to hit, giving the chevron tip a precision advantage over traditional crosshairs or a center aiming dot. A single dot is placed 0.5 MIL down from the chevron tip. More dots are placed at 0.5 MIL intervals moving down and left/right of center.



THE MIL GRID

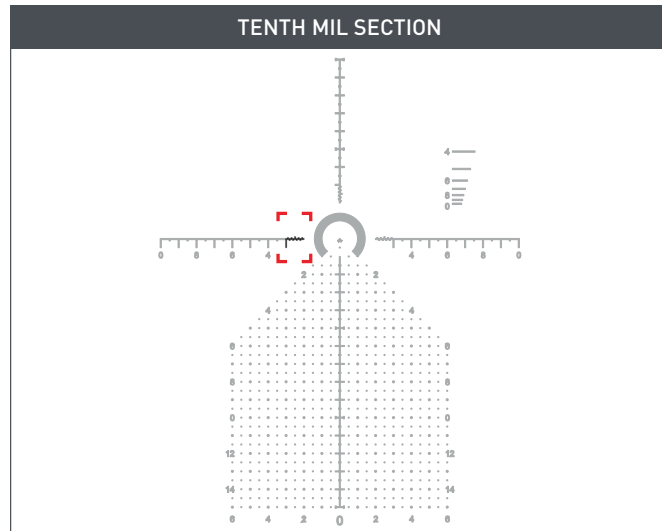
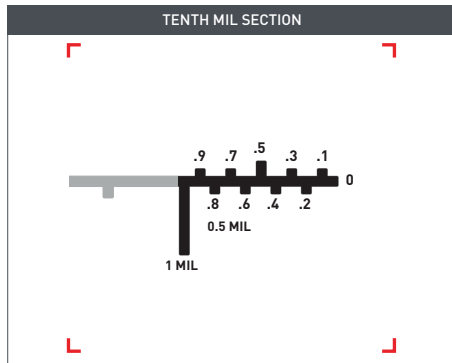
The MIL grid consists of small 0.05 MIL thick dots located at intervals of 0.5 MIL below center and 0.5 MIL left/right of center. The grid continues downwards adding a dot or number every 0.5 MIL. The full grid reaches 15 MIL down and 6 MIL left and right of center. To help with navigation, at 1.0 MIL intervals the dot size grows to 0.1 MIL thickness. Numbers 2, 4, and 6 located on the outer edges of the grid represent total MIL both down from center and left or right from center. Numbers 8 through 14 represent total MIL down from center, but the grid stops expanding to the left and right at 6 MIL.

Beginning 1.0 MIL below center, the centerline “backbone” crosshair features small hash marks that extend just 0.1 MIL left and right from center, alternating with large hash marks measuring 0.5 MIL left and right of center. To help with navigation, every 5.0 MIL the large hash marks are embellished with indicator bars on the ends, giving them a distinctive barbell shape.



THE ACSS R-GRID 2B OUTER SECTION

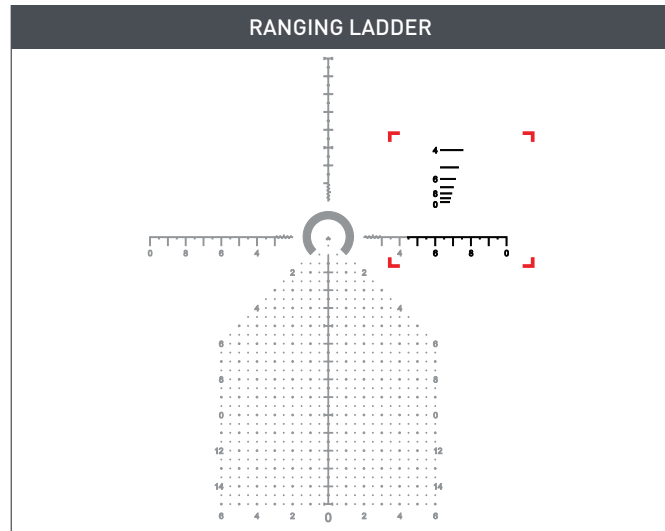
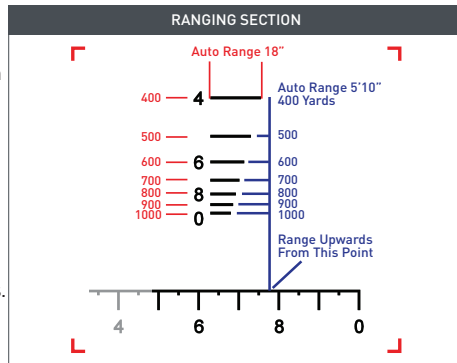
At 2 MIL distance left/right from center, the solid crosshair line begins, using alternating upper and lower marks forming a MIL ranging section. These can be used to range targets using extremely fine 0.1 MIL increments. At 3.0 MIL from center, the 0.5 MIL hash marks begin.



THE RANGING LADDER

Located high and right of center is the ranging ladder. Vertical ranging is calibrated for a 5'10" tall target. Looking through the scope at the target, line up the bottom of the target with the horizontal crosshair. The line that coincides with the top of the target indicates the distance to the target. For example, if the top of the target touches the line with a "4" next to it, the target is 400 yards distant. The ranging lines may be used as reference points to make more precise, yet quick ranging determinations. You can also use the ranging lines to estimate distances within the hundred-yard increments. If a 5'10" target measures halfway between the "4" and "5" lines, the target's approximate distance is 450 yards.

Horizontal ranging is calibrated for an 18" wide target. Simply line up the target's width with the appropriate line to determine range to target. For instance, an 18" wide target matches the "6" horizontal ranging line at 600 yards. This method is useful when the target's height is partially obscured, as with a target in tall grass.

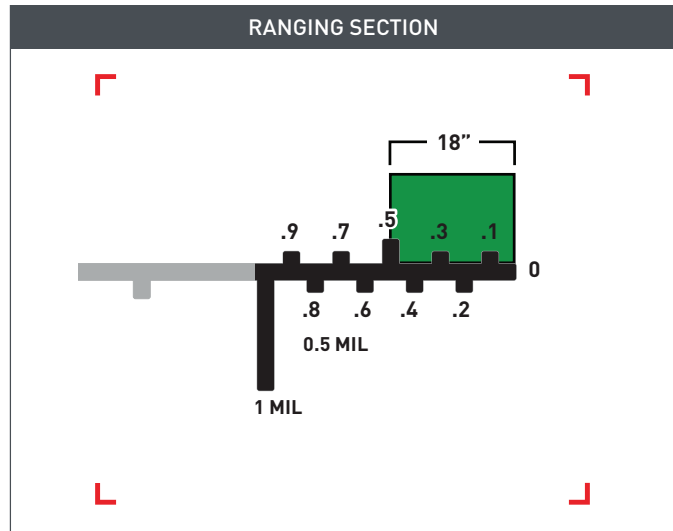


HOW TO RANGE ESTIMATE USING THE 0.1 MIL RANGING SECTION

There are two common systems of measurement in the optics world: MOA and MIL. MOA reticles using Minute of Angle subtensions, which equal 1.047" at 100 yards and usually adjust in .25 MOA increments. MIL reticles use Milliradian subtensions, which equal 3.6" at 100 yards and usually adjust in .1 MIL increments. The ACSS Griffin MIL reticle utilizes MILs with a first focal plane design, so your scope's MILs are accurate subtensions at any magnification power.

A Milliradian, by definition, is an angular measurement equaling 1/1,000th the distance between the observer and the target. Simply put, 1 MIL represents 1 yard at 1,000-yard distance. This ratio is true across all units, so 1 MIL equals 1 foot at 1,000-foot distance, and 1 MIL equals 1 meter at 1,000-meter distance. Because MILs are an angular measurement, MIL sizes scale with distance. When observing a target 500 yards away, 1 MIL is equal to 0.5 yard. When observing a target 200 yards away, 1 MIL is equal to 0.2 yard. This is the basis of MIL-based ranging.

MIL ranging combines size estimation and simple math to deliver incredibly accurate range estimation. Many estimates can be done completely within one's head without the need for a calculator. Once you memorize the steps, you can quickly measure targets at any range with precision.



Here's an example of a ranging process:

You see a window at a distance, and you know that window is 18" tall (or 0.5 yard). This is your starting point.

Once you have an estimated size of target, find the size of the target in MILs by using your MIL grid for comparison. Because you're using a first focal plane scope, you can perform this estimate at any magnification, as your MIL subtensions are always accurate.

Once you have both the actual target size estimate and the MIL size estimate, the math is easy:

Target Distance in Yards = Target Size in Yards * 1,000 / Target MIL Measurement

For the window, this math equals: $0.5 \text{ yard} * 1,000 / 1 = 500 \text{ yard}$. The window is 500 yards away.

The same formula can be used for meters. Simply use the target size in meters to receive a meters-based distance.

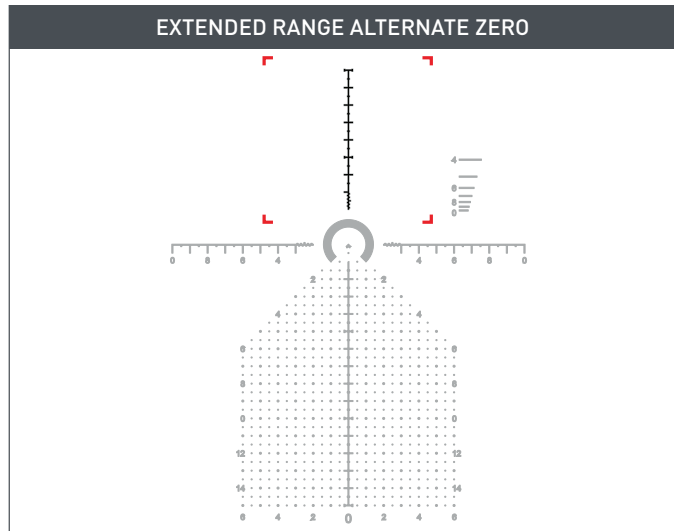
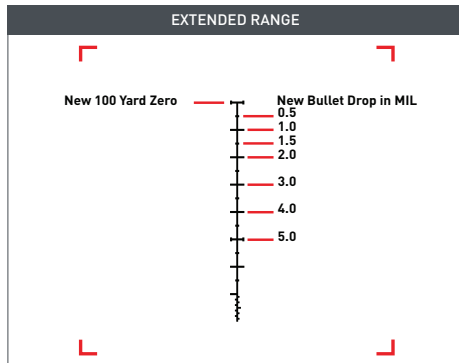
If you want to use target size in inches but still want range in yards, the math is harder, as you will have to convert between units. The easiest method is dividing 1,000 by 36 (in/yd) for your new constant. The resulting number is 27.8, which replaces 1,000 in the in-to-yd MIL formula.

Target Distance in Yards = Target Size in Inches * 27.8 / Target MIL Measurement

While this math is harder, it returns the same answer. For the window, this math equals: $18" * 27.8 / 1 = 500 \text{ yard}$. The window is still 500 yards away. Inches are best used when estimating the size for irregular shapes that cannot be easily expressed in yards or meters.

EXTREME LONG DISTANCE SHOOTING USING ACSS R-GRID 2B

To engage targets beyond 15 MIL of bullet drop using the ACSS R-Grid 2B, employ a ballistic calculator program and use the vertical MIL crosshair hashmarks to your advantage. Abandon using the 100 yard zero at the chevron, and instead dial in a higher zero using one of the 0.5 MIL hash marks on the vertical crosshair. For example, dialing in your rifle using the “barbell” hash mark located at 10 MIL above center as your point of aim creates a total 25 MIL of drop available in the reticle. The horizontal crosshairs or MIL grid can still be utilized for wind call holdovers.



Why ACSS®?

The Advanced Combined Sighting System (ACSS) is a ballistic drop compensating reticle system that eliminates the inefficiencies and dangers present in traditional optic reticles.

In a conventional MIL or MOA dot scope, the user operates through a complex process of target estimation, subtension alignment, and mathematics before determining trajectory. By integrating common holds, ranging tools, and wind corrections right into the reticle, ACSS provides a 'heads-up' approach to ranging and engagement.

ACSS reticles distill complex math into an intuitive reticle that matches your rifle's ballistic profile.

Primary Arms Optics are available with a wide variety of ACSS reticles to pair with different calibers and use cases. For a full list of reticle and optic options, please visit www.primaryarmsoptics.com.

Elements of an ACSS Reticle



1. Infinitely Precise Center Chevron

ACSS reticles take a different approach to the typical crosshair. In traditional reticles, crosshair linewidths can obscure the target. ACSS's center chevron provides an infinitely small point of aim while also leading the eye to the target.



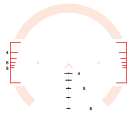
2. Calibrated Bullet Drop Compensation

Whether hunting, shooting targets, or competing, speed matters. Calculating point of impact manually takes time, and errors have drastic effects. ACSS reticles do the math for you. They are calibrated to popular loadings so that you know where your shot will go every time.



3. Wind Holds

Wind is always changing, and the ability to adjust to it fluidly spells the difference between a shot on target and a lost opportunity. ACSS reticles incorporate wind holds that are calibrated for popular loadings so that your shots go where they're supposed to.



4. Ranging Ladders

Knowing the distance of targets is integral to knowing where to hold, and estimating distances with traditional reticles requires quick math that can result in errors. ACSS reticles simplify ranging with a wide array of features that allow you to determine distances immediately.



5. Moving Target Leads

In practical applications, most targets will be on the move. When this is the case, eyeballing holds can hinder shot placement. ACSS's moving target leads show exactly where to hold to compensate.



LIFETIME WARRANTY

Your Primary Arms SLx 4-16x44 Rifle Scope is covered by the Primary Arms Lifetime Warranty. If a defect due to materials or workmanship, or even normal wear and tear has caused your product to malfunction, Primary Arms will either repair or replace your product. You can find more details about our lifetime warranty at www.primaryarmsoptics.com.

Email: info@primaryarmsoptics.com

Toll-free at 855-774-2767

www.primaryarmsoptics.com

For more information on these optics, go to:

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