



**MAVEN<sup>®</sup>**

**MAVEN RS SERIES**

Thank you for purchasing a Maven™. Included here are instructions for getting your rifle scope ready for your next adventure. Rig it up, get out there, then let us know all about your journey. We love hearing your stories as much as we love making great products. Keep us in the loop at [stories@mavenbuilt.com](mailto:stories@mavenbuilt.com).

## PARTS OF THE RIFLESCOPE:

- A. Diopter (focus) adjustment
- B. Magnification (zoom) adjustment ring
- C. Elevation adjustment turret
- D. Windage adjustment turret

- E. Parallax adjustment (RS.1,3,4 and 5)
- F. Zero-stop (RS.3)
- G. Objective end
- H. Ocular end



## GETTING STARTED:

### FOCUSING THE RETICLE:

Turn the diopter adjustment ring clockwise until it stops. While looking through the scope at a solid, light background (white wall, blue sky, etc.), slowly twist the diopter adjustment counter-clockwise until the reticle is clear and focused.

### CHANGING THE MAGNIFICATION:

Your scope has a variable power, allowing you to see a large field of view (FOV) at lower magnifications or more detail at higher magnifications. To decrease the magnification, turn the magnification adjustment ring toward the lowest setting. To increase magnification, slowly rotate the zoom ring away from the lowest setting until the desired power is reached.



Diopter/focus adjustment



Magnification adjustment

## **PARALLAX ADJUSTMENT (RS.1, RS.3, RS.4 AND RS.5 MODELS)**

Adjusting the side parallax enables you to move the reticle into the same focal plane as the target object, reducing the optical illusion of reticle movement. This is especially useful for longer shots or when shooting positions vary based on terrain and conditions.

### **RAPID PARALLAX ADJUSTMENT:**

The approximate parallax-free distances are printed on the parallax adjustment turret. Turn the parallax adjustment until the index point equals the estimated or ranged distance to the target.

### **PRECISE PARALLAX ADJUSTMENT:**

Set the magnification to the maximum setting. Turn the parallax adjustment until the target image appears at its sharpest. Move your head slightly side to side. If the reticle appears to move relative to the target, adjust the parallax until the reticle and the target image remain steady.



## ILLUMINATION ADJUSTMENT (RS.4 & RS.5 MODELS)

### BATTERY REPLACEMENT:

Both models come with multi-brightness illumination. The illumination battery is located on the Parallax adjustment dial and requires a CR2032 coin battery (included).

To install the battery:

1. Remove the illumination dial cover by turning the outer-most portion of the dial counter-clockwise.
2. Place a new CR2032 battery, making sure to place the "+" side out.
3. Replace the illumination dial cover by turning cover clockwise, taking care not to overtighten.

### ACTIVATING ILLUMINATION:

1. Starting at the "0" position, rotate the illumination knob clockwise for Green or counter-clockwise for Red (RS.4), and continue to rotate until desired illumination is achieved.
2. Each brightness level is separated from the next by an "." (OFF) position, eliminating the need to go all the way back to "0" to turn off.



*Note: Turn off when not in use to conserve battery.*

## **INSTALLING THE SCOPE**

To ensure alignment, safe eye-relief, and the best performance of the scope, have a competent gunsmith mount the scope on your preferred firearm. If you choose to mount the scope yourself, use high quality rings designed specifically for your firearm and follow all torque settings recommended by the ring manufacturer or a competent gunsmith.

Note: Over-torquing the ring screws is a known cause of erratic shot placement and may damage the scope.

## **CENTERING (OR RE-CENTERING) THE RETICLE:**

The reticle is shipped in the mechanical center of the travel range. You can verify or re-align the reticle by turning the desired turret (elevation or windage) counter-clockwise until it stops. Slowly twist the turret clockwise while counting the total number of clicks. Once you have reached the mechanical stop on the far end, turn back counter-clockwise half the number of the total clicks counted. This will place the reticle in the mechanical center for that direction of travel. Repeat for the second turret if desired.

## **INITIAL ALIGNMENT OF THE SCOPE TO THE RIFLE:**

Bore sighting your rifle before going to the range can save time and money. Use a quality bore sight laser or other tool specifically designed for use with your make and caliber of firearm. Follow the manufacturer's instructions.

## ADJUSTING THE RETICLE (ZEROING)

Whether bore sighting or sighting in with live shots at the range, you will need to adjust the reticle to be “zeroed in” with your firearm.

### VERTICAL ADJUSTMENT (ELEVATION):

For a shot that is too low, turn the knurled knob of the elevation turret (on top of the scope) in the direction of UP (counter-clockwise). Each click will move the relative position of the reticle as indicated on your scope turret. MOA: 1 click = 1/4 MOA or MIL: 1 click = 0.1 MRAD

For a shot that is too high, make the same adjustments, but turn the turret clockwise.

### HORIZONTAL ADJUSTMENT (WINDAGE):

For a shot that is too far to the left, turn the knurled knob of the windage turret (on the right of the scope) in the direction of R (counter-clockwise). Each click will move the relative position of the reticle as indicated on your scope turret. MOA: 1 click = 1/4 MOA or MIL: 1 click = 0.1 MRAD

For a shot that is too far to the right, make the same adjustments, but turn the turret clockwise.



## RESETTING THE TURRET TO ZERO

Once your scope is adjusted to your satisfaction, you can reset the center point of the turret to ZERO if you desire.

**RS.1:** Using a large flathead screwdriver or coin, turn the large screw on top of the turret counter-clockwise until the turret can lift and spin without engaging the adjustment clicks (note: moving the turret while it is still engaged with the inner mechanism will change the zero of your scope). Once the turret spins freely, turn it either direction until the 0-mark lines up with the Zero Indicator facing on the ocular side of the turret base. Press down to reengage the turret mechanism, then retighten the turret by turning the large screw clockwise. Do not overtighten the screw.

**RS.2:** The RS.2 uses tool-less zero-reset turrets. To reset the zero mark, lift the turret until you feel a slight click – the turret should now free-spin without engaging the adjustment clicks. Once the turret spins freely, turn it either direction until the 0-mark lines up with the Zero Indicator facing on the ocular side of the turret base. Press down to reengage the turret mechanism.





## RESETTING THE TURRET TO ZERO

### continued

**RS.3, RS.4 & RS.5:** Remove the top knurled portion of the turret by turning counter-clockwise. Once removed, the turret can lift and spin without engaging the adjustment clicks (note: moving the turret while it is still engaged with the inner mechanism will change the zero of your scope). Once the turret spins freely, turn it either direction until the 0-mark lines up with the Zero Indicator facing on the ocular side of the turret base. Press down to reengage the turret mechanism, then re-tighten the turret by placing the top knurled portion back onto the turret, turning clockwise. Do not over-tighten. Repeat the process for resetting windage.



## ADJUSTING ZERO-STOP

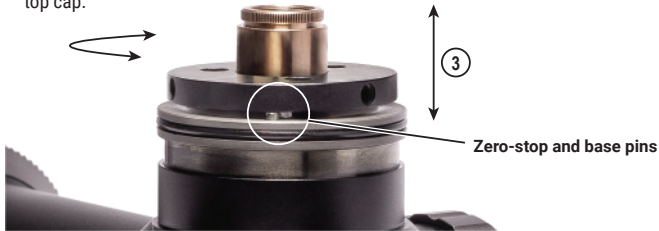
### RS.3:

1. Once zeroed, loosen the zero-stop ring screw with a small flathead screwdriver.
2. Turn the zero-stop ring until the ring sits firmly against the bottom of the zeroed turret.
3. Use a small flathead screwdriver to lock the zero-stop into place.



## ADJUSTING ZERO-STOP continued RS.4 & RS.5:

1. Once zeroed, remove the top cap and slide the elevation turret off the scope
2. Using the included hex wrench loosen the three screws on the side of the zero-stop.
3. Slide the zero-stop down the elevation mechanism until it rests against the bottom of the turret base, rotate clockwise until the zero-stop pin touches the base pin.
4. Retighten all screws.
5. Replace the turret with the 0-mark aligned with the position indicator and replace the top cap.

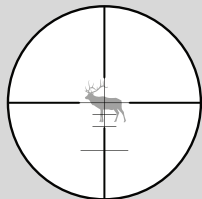


## FOCAL PLANES:

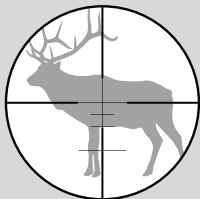
Our riflescopes come in two varieties of focal planes: second focal plane (SFP) and first focal plane (FFP). This describes where the reticle sits in relation to the magnification mechanism and describes how the reticle reacts (or doesn't) to a change in magnification.

### SECOND FOCAL PLANE:

The SFP reticle style is what most people are familiar with. When adjusting the magnification, the reticle stays the same size throughout the entire magnification range. Because the holdover subtensions are only correct at one magnification level (typically max power), holdover increments will need to be recalculated at lower magnifications. The example below illustrates how the reticle doesn't change at different magnifications.



FOV @2x



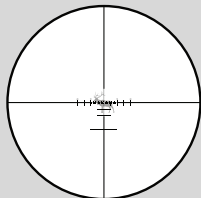
FOV @10x

## FIRST FOCAL PLANE:

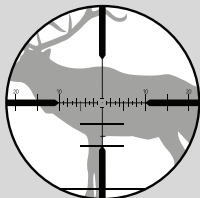
The FFP is the newest style of modern hunting reticles and is the preferred focal plane for long-distance shooting. This reticle usually displays an array of subtensions in MOA or MIL, depending on preference. When adjusting the magnification, the reticle zooms with the magnification level and increases/decreases in size throughout the magnification range. Because the reticle changes at the same proportion, all subtensions units are displayed correctly regardless of the magnification setting. The example below illustrates how the reticle changes at different magnifications.

## HOW SFP SUBTENSIONS ARE CALCULATED:

See [mavenbuilt.com](http://mavenbuilt.com) FAQ for more information on how to calculate subtensions for SFP reticles.



FOV @5x



FOV @30x

## ADDITIONAL INFO AND CARE:

**RINGS & BASES:** Use high quality rings and bases designed specifically for your firearm.

**TORQUE:** Always follow the ring manufacturers recommendations on torque when mounting the scope. Exceeding 18in/lbs of torque when tightening the rings may crack or damage the tube of the scope.

**STORAGE:** Prior to storage, ensure your scope is clean and dry. Place in a dark well-ventilated area for best result. If storing in a gun safe, ensure there is desiccant or a dryer in place to control humidity.

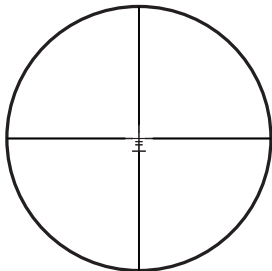
**CLEANING:** Keep the entire optic as free of dust and debris as possible. Clean the outer (non-glass) surfaces by wiping gently with a soft damp cloth to remove any dirt. A soft bristle toothbrush can be used to clean out textured areas and gaps. For lenses, use a brush or air to remove larger particulates, then use a microfiber lens cloth for final cleaning. Optical grade cleaning solution may be used to aid in this process. \*Do not use household glass cleaners as these may remove coatings.

### CAUTION

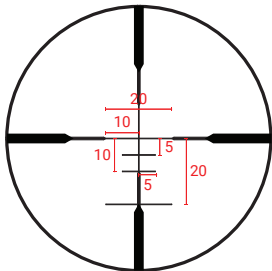
-Rifle scopes should not be used to look at the sun or any other bright light - this can permanently damage your eyes.

-Always maintain proper eye-relief (the distance from the scope to your eye) when mounting the scope. Failure to provide adequate eye-relief may result in injury caused by the scope striking the user's head/eye during rifle recoil.

## RS.1 SHR RETICLE



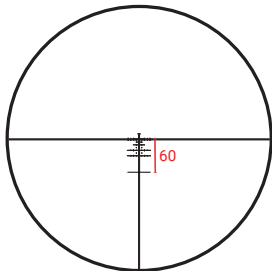
@ 2.5x



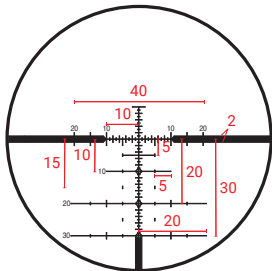
@ 15x

Subtension Dimensions (MOA)

## RS.1 MOA-1 RETICLE



@ 2.5x

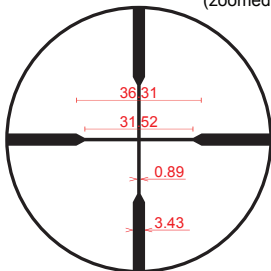


@ 15x

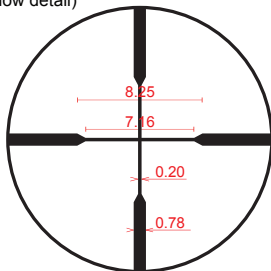
Subtension Dimensions (MOA)

## RS.2 DUPLEX RETICLE

(zoomed to show detail)



@ 2x

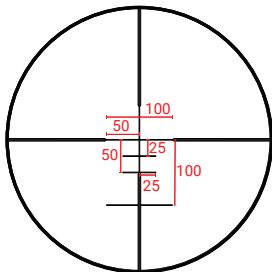


@ 10x

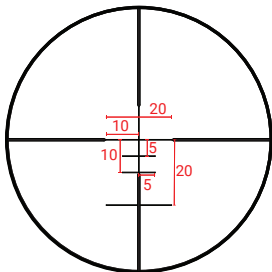
Subtension Dimensions (MOA)



## RS.2 SHR RETICLE



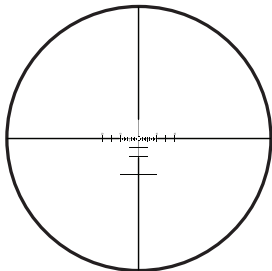
@ 2x



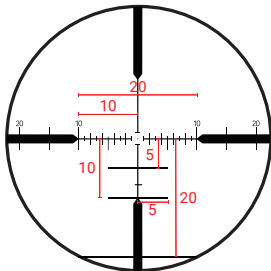
@ 10x

Subtension Dimensions (MOA)

## RS.3 & RS.4 SHR-W RETICLE



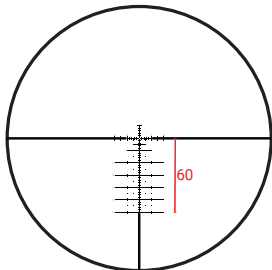
@ 5x



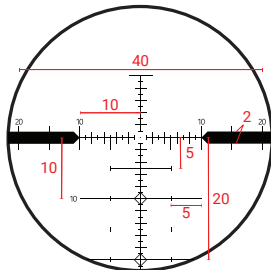
@ 30x

Subtension Dimensions (MOA)

## RS.3 & RS.4 MOA-2 RETICLE



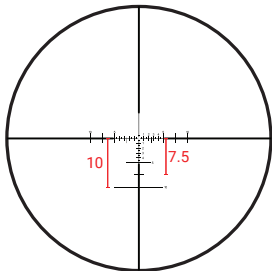
@ 5x



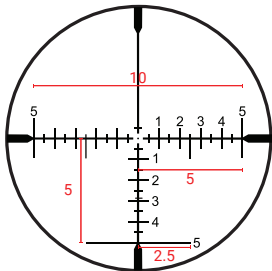
@ 30x

Subtension Dimensions (MOA)

## RS.3 SHR-MIL RETICLE



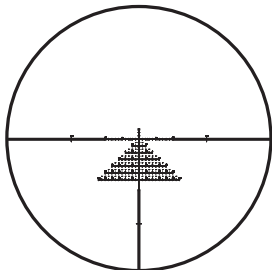
@ 5x



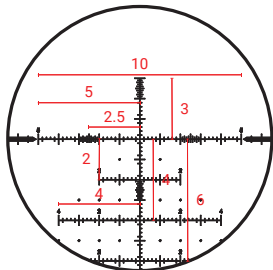
@ 30x

Subtension Dimensions (MIL)

## RS.4 CFR-MIL RETICLE



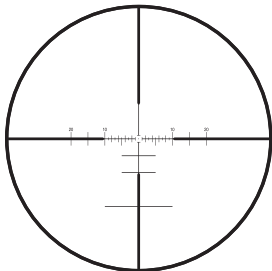
@ 5x



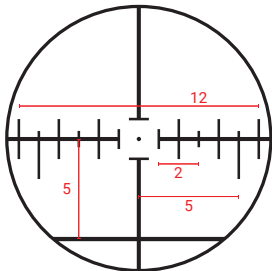
@ 30x

Subtension Dimensions (MIL)

## RS.4 SHR-W RETICLE



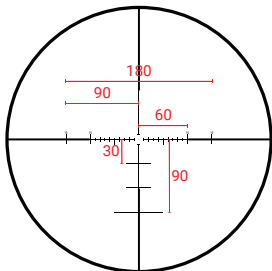
@ 5x



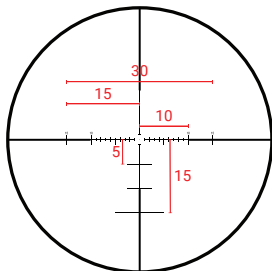
@ 30x

Subtension Dimensions (MIL)

## RS.5 SHR-W RETICLE



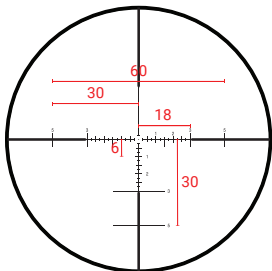
@ 4x



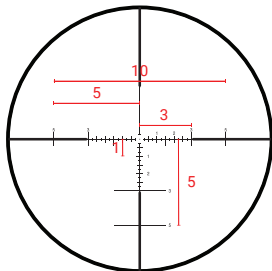
@ 24x

Subtension Dimensions (MOA)

## RS.5 SHR-MIL RETICLE



@ 4x



@ 24x

Subretension Dimensions (MIL)



## UNCONDITIONAL LIFETIME WARRANTY:

Maven optics are made with a commitment to you, our customer. All Maven optics come with an unconditional lifetime warranty\*. If your optic becomes damaged or is at all defective contact us immediately for repair or replacement. We don't care where or when you bought it or if it was your fault or not – if it says Maven, we will take care of it.

\*Warranty does not cover loss, deliberate damage, or cosmetic damage that does not hinder product performance.

Call us at 800-307-1109 or email us at: [customerservice@mavenbuilt.com](mailto:customerservice@mavenbuilt.com) with any questions.

For warranty/service repairs please visit: [mavenbuilt.com/warrantyreturns](http://mavenbuilt.com/warrantyreturns).

To ensure the fastest and easiest processing of any warranty return, please register your Maven optic. Jump on [mavenbuilt.com/warranty-registration](http://mavenbuilt.com/warranty-registration) to get registered quickly and easily.









**MAVEN<sup>®</sup>**

M A V E N B U I L T . C O M

800-307-1109 / 160 South 4th St. Lander, WY 82520

V.5