



RITON

**PRIMAL
SERIES**



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THANK YOU FOR CHOOSING RITON OPTICS.

We know that you have many options and we are thankful for selecting Riton as your optics provider.

We have an unwavering passion for offering high quality optics at the industry's most competitive prices and matched by incredible service. You will see the difference in everything we do because we are different, and we developed this company to be exactly that so that you, the consumer, get everything you deserve. If you are ever in need of additional information or assistance, please contact us. We are here to continually serve you as a valued partner

RITON WAS BUILT OUT OF THE BELIEF THAT A PERSON'S HARD-EARNED DOLLAR SHOULD BUY QUALITY OPTICS AND THE BEST SERVICE AT EVERY PRICE POINT.

PRIMAL SERIES

ABOUT THE LINE:

Our Primal Series of hunting optics is comprised of a diverse range of durable products built to withstand even the harshest conditions. From capped and zero resettable turrets on our lightweight riflescopes to magnesium alloy binoculars, we offer a comprehensive line of hunting optics. This line includes:

- / [1 Primal 3-9x40 MOA](#)
- / [1 Primal 4-16x44 MOA](#)
- / [1 Primal 4-12x50 MOA](#)
- / 3 Primal 3-9x40 MOA
- / [3 Primal 3-12x56 MOA](#)
- / [3 Primal 3-18x50 MRAD](#)
- / [3 Primal 4-16x44 MOA Duplex](#)
- / [3 Primal 4-16x44 MOA](#)



MOA VS. MRAD



MILLIRADIANS (MRAD)

MRAD unit of arc measurements are base on the radian. A radian is the angle subtended at the center of a circle by an arc that is equal in length to the radius of the circle. There are 6.283 radians in all circles and 1000 milliradian in a radian for a total of 6283 milliradians (MRAD's) in a circle. An MRAD will subtend 3.6 inches at a distance of 100 yards.

MINUTE OF ANGLE (MOA)

MOA unit of arc measurements are based on degrees and minutes. There are 360 degrees in a circle and 60 minutes in a degree for a total of 21,600 minutes (MOA) in a circle. A minute of angle will subtend 1.05 inches at a distance of 100 yards.

ADJUSTING YOUR SCOPE

Use the chart's below to determine the clicks needed to adjust your point of impact.

BASED ON 1/4 MOA ADJUSTMENTS

100 YARDS	200 YARDS	300 YARDS	400 YARDS	500 YARDS
0.25 IN	0.50 IN	0.75 IN	1.00 IN	1.25 IN

*Graduations can be calculated at additional distances beyond 500 yds.

BASED ON 1/2 MOA ADJUSTMENTS

100 YARDS	200 YARDS	300 YARDS	400 YARDS	500 YARDS
0.50 IN	1.00 IN	1.50 IN	2.00 IN	2.50 IN

*Graduations can be calculated at additional distances beyond 500 yds.

BASED ON 1/10 MRAD ADJUSTMENTS

100 YARDS	200 YARDS	300 YARDS	400 YARDS	500 YARDS
0.36 IN	0.72 IN	1.08 IN	1.44 IN	1.80 IN

*Graduations can be calculated at additional distances beyond 500 yds.



For more information on [MOA and MRAD](#), scan the QR code above for an in depth video from Riton University

FIRST VS. SECOND FOCAL PLANE

The reticle in your Riton riflescope is either a Second Focal Plane (SFP) or First Focal Plane (FFP) depending on the one you chose. SFP reticles are located in the rear of the image erecting and magnifying lenses. The advantage of an SFP reticle is that it always maintains the same appearance. Shooters using the reticle hash marks should be aware that the listed subtentions that are used for estimating range, holdover and windage correction are at the maximum magnification.

TO CHANGE MAGNIFICATION:

Simply turn the magnification ring to the desired magnification level. Lower power's offer a wider field of view while higher power's offer a zoomed in focused view.



For more information on [First Focal Plane](#) and [Second Focal Plane](#), scan the QR code above for an in depth video from Riton University

ILLUMINATION SYSTEM

The variable intensity reticle illumination system aids in low light situations.

TO ACTIVATE THE ILLUMINATION:

Rotate the adjustment knob in either direction. There are six levels of brightness with off positons between each brightness setting.

TO CHANGE THE BATTERY:

Unscrew the outer cap located on the illumination/parallax knob, then replace with a new CR2032 Battery.



FAST FOCUS EYEPIECE

FAST FOCUS EYEPIECE:

The Riton fast focus eyepiece is designed to quickly and easily adjust the focus on the rifle-scope's reticle.



TO ADJUST THE RETICLE FOCUS:

1. Look through the scope on max magnification at a blank white wall or white paper
2. Turn the eyepiece in or out until the reticle image is as crisp as possible.

PARALLAX

Parallax describes a situation where the focal plane of the object in the scope is offset from the reticle. If you have parallax, you have an optical illusion that must be corrected. Parallax should not be confused with focus. Parallax compensation changes neither the focus of the reticle nor the focus of the image; it simply moves the planes at which these two objects are in focus so that they share the same plane.

TO ADJUST THE PARALLAX:

1. Set your fast focus eye piece for your eye. Look at a blank backdrop and turn your eye piece in and out until you have a crisp and sharp reticle.
2. Look through the scope and place the reticle cross-hair on target. Move your head around without leaving your exit pupil. Does the cross hair move or become out of focus?
3. If the reticle cross-hair moves or is out of focus, adjust the side parallax until your sight picture is crystal clear.



NOTE: The illumination knob allows for 6 levels of brightness with off points between each setting.

EYE RELIEF & RETICLE ALIGNMENT

TO SET A PROPER EYE RELIEF AND RETICLE ALIGNMENT:

1. Set the riflescope magnification to the lowest setting.
2. Slide the riflescope as far forward as possible in the rings.
3. While looking through the riflescope in a normal shooting position, slide the riflescope back towards your face, paying attention to the field of view. Just as the full field of view is visible, stop the movement of the riflescope.
4. Without disturbing the front-back placement, rotate the riflescope until the vertical cross-hair exactly matches the vertical axis of the rifle. Use of a reticle leveling tool, a weight hung on a rope, or bubble levels will all help with this procedure.
5. After aligning the reticle, tighten and torque the ring screws down between 15-18in/lb.

Note - DO NOT EXCEED 18IN/LB



BORE SIGHTING

Bore sighting is a preliminary procedure to achieve proper alignment of the scope with the rifle's bore. Initial bore sighting of the riflescope will decrease the amount of time and ammunition you need to use at the range.

This can be done by using a mechanical or laser bore sighter according to the manufacturer's instructions or by removing the bolt and sighting through the barrel on some rifles.

TO BORE SIGHT YOUR RIFLESCOPE:

1. Place the rifle solidly on a rest and remove the bolt.
2. Sight through the bore at a target approximately 25 yards away.
3. Move the rifle and the rest until the target is visually centered inside the barrel.
4. With the target centered in the bore, make windage and elevation adjustments until the reticle cross-hair is also centered over the target.

Note - If a laser bore sighting or any other similar device inside the bore was used, it must be removed before firing. An obstructed bore can cause serious damage to the gun and possible injury to the shooter.

MOUNTING YOUR RITON RIFLESCOPE

Always use high quality rings or a mount that match your optic's main tube diameter. Quality rings or mounts can be found at RitonOptics.com.

TO MOUNT YOUR RITON RIFLESCOPE:

1. Mount the bottom half of the rings or mount on the mounting base of your rifle.
2. Place the riflescope on the bottom ring halves and loosely install the upper ring halves so that your riflescope is able to move between rings.
3. Before tightening the ring screws, adjust for maximum eye relief to avoid injury from recoil.
4. Tighten the scope rings per the torque specs of the rings or mount. Torque specs for Riton Optics' scopes are 15-18in/lbs for rings/mounts.



For more information on [Mounting](#), scan the QR code above for an in depth video from Riton University

ZEROING THE SCOPE

IMPORTANT SAFETY CHECKS/TIPS:

- Always check your weapon and surroundings for safety.
- Follow all weapon manufacturer safety guidelines.
- Always shoot from a solid rest using consistent and proper form.
- Be sure that your target is level to aid in accurate sight-in process.

TO ZERO THE SCOPE:

1. Start the sight-in process from 25 yards. From a solid rest fire one 3-shot group, ensuring that you fire at same spot each time. Use the grid lines on your target to center and level your cross-hairs.
2. After the first 3-shot group, make adjustments to bring bullet impact to the center of target you're shooting at. Repeat this process at 100 yards and you will have an accurate 100 yard zero.



For more information on [Bore Sighting and Zeroing](#) your scope, scan the QR code above for an in depth video from Riton University

MECHANICAL ZERO

Your Riton riflescope is pre-set from the factory with the reticle in the center of the adjustment ranges.

TO FIND FACTORY ZERO: NOTE THAT 7 LINE OPTICS HAVE 2 TURN INDICATORS ON ELEVATION TURRETS.

1. Remove the the turret, Dial the turret one direction until it will no longer rotate.
NOTE - Do not force the turret past it's stopping point.
2. Dial the turret opposite direction counting how many clicks it turns
3. Divide that total number of clicks in half and dial to that number for your factory zero. Re-install turret.
4. Complete this procedure for both windage and elevation dials to approximately center the reticle.

ZERO RESET TURRETS

Riton Optics 1 and 3 Series scopes feature zero reset turrets.

By zeroing the rifle at 100 yards, the shooter can calculate how many clicks of adjustment are needed for different distances or wind conditions.

TO SET ZERO RESET TURRETS AFTER YOUR RIFLE IS SIGHTED IN:

1. Loosen the screw from top of the turret and take off the elevation knob.
2. Put the elevation knob back on with the zero line aligned with the indicator mark and tighten down the top screw.



For more information on [Zero Reset and Zero Stop Turrets](#), scan the QR code above for an in depth video from Riton University

ZERO STOP TURRETS

3 Primal 3-18x50 is the only 3 series in Riton Optics line with Zero Stop Turrets.

By zeroing the rifle at 100 yards, the shooter can calculate how many clicks of adjustment are needed for different distances or wind conditions.

TO SET ZERO STOP TURRETS AFTER YOUR RIFLE IS SIGHTED IN:

1. Remove the three screws located around the circumference of the elevation turret.
2. Remove the elevation knob by pulling straight up, this should come right off if the retaining screws have been loosened enough.
3. Underneath the elevation knob you'll notice the zero stop, it's shaped like a horse shoe. Rotate the zero stop counter-clockwise,, making sure that the horse shoe is pointing towards the left side of the turret.
4. Place the elevation turret back on with the zero line aligned with the indicator mark and tighten down the retaining screws.



For more information on [Zero Reset and Zero Stop Turrets](#), scan the QR code above for an in depth video from Riton University

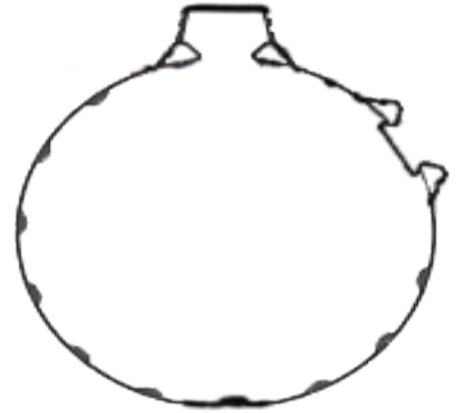
DUAL THROW LEVER SYSTEM



14MM



11MM



8MM

Your Riton optics is equipped with a dual throw lever system. (Patent Pending)

There are two locations for the throw lever system. Allowing shooters to make any height combination they find to be the most beneficial to them. Each of the two locations has the option of:

1. A flush mount or no throw lever
2. A 14mm Tall throw lever
3. A 11mmMed throw lever
4. A 8mm Low throw lever

TO SET AND/OR CHANGE YOUR THROW LEVER:

1. Loosen the two screws located in the middle of the throw lever or blank .
2. Slide the blank or throw lever in or out of the reverse dove tail slot.
3. Tighten the two screws to no more than 3in/lbs. They only need to be snug to stay in. Do not over tighten.

TROUBLESHOOTING

Problems thought to be associated with your riflescope are often actually mount problems. Take the time to ensure the mounts are tight to the rifle and that scope is secured and does not twist or move in the rings. Confirm that the correct base and rings are being used and that they are in the proper orientation. Be sure to torque your rings per Riton Optics' torque suggestions: 15-18in/lb.

Keep in mind there are many issues that can cause poor bullet grouping. Always utilize a solid rest and maintain good shooting technique. Have a qualified gunsmith look over your rifle to be sure all things are in working order. See that the action and barrel are properly cleaned. Some rifles and ammunition don't work well together, try different ammunition and see if accuracy improves.

RITON LIMITED LIFETIME WARRANTY

As a part of the Riton Promise we believe in providing you with the best possible service, including the industry's best warranty. The quality of our products makes this the best warranty you'll likely never have to use; however, as hunters and shooters, we know that bad things sometimes happen even to the best equipment.

THE RITON WAY:

1. Lifetime Limited Warranty for Traditional Variable Optics. Two-year Limited Warranty on Electronic, Non-variable Power Optics
2. Contact Riton Optics to receive a Return Merchandise Authorization (RMA) number.
3. Mail your optic in with a RMA number and where you purchased the optic.
4. Upon receiving the optic, Riton will assess the returned optic and be in contact within 48 hours to explain the next steps.

RITON LIMITED LIFETIME WARRANTY

OUR WARRANTY IS SIMPLE:

- Riton USA, LLC (dba Riton Optics) warrants that its traditional variable rifle scopes (non-electronic) and accessories will be free of manufacturer defects for the lifetime of the original product owner from the date of purchase. Riton optics further warrants that its electronic, non-variable power optics products will be free of manufacturer defects for two (2) years from the date of purchase by the original product owner.
- Contact Riton Optics to initiate a warranty claim and obtain a Return Merchandise Authorization (RMA) number. Please email us at info@ritonoptics.com or call us 855-397-4866 and have information about (i) the claimed defect and (ii) where and when you purchased your product. You will be required to mail to riton optics your product with the RMA number and proof of purchase at your cost. Products returned without a riton optics RMA number will not be processed.
- For a defective product covered by the warranty, Riton Optics will, at our discretion, repair the product or replace with a brand-new product off the shelf. If repair or replacement of the defective product cannot be made, we will offer a product of equal or lesser value as a replacement. We will not replace the product with a previously- repaired or refurbished product.
- Communication regarding product repairability or replacement will generally be communicated within two business days of receiving an approved return.
- The Riton Optics warranties will cover all owners, regardless of original purchaser. Subsequent owners are encouraged to obtain proof of purchase from the original product owner.

This warranty does not apply to product loss, product theft, normal wear and tear, deliberately damaged products, negligence, and damage resulting from repairs made without Riton Optics' authorization.

- There are no warranties which extend beyond those stated herein. Any implied warranties that may be applicable to products, including implied warranties of merchantability or fitness for a particular purpose, are limited in duration to the duration of this warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above
- Limitation may not apply to you. Under no circumstances shall Riton Optics be liable for any special, incidental, or consequential damages based upon breach of this limited warranty, breach of contract or strict liability. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

RITON LIMITED LIFETIME WARRANTY

WARRANTIES IN CANADA PLEASE FOLLOW BELOW:

- Canadian Customers are to contact Riton support direct. Please call 1-855-39-RITON
- Should your product prove to be faulty in any way Riton will contact our Canadian distributor and initiate the RMA process.
- Our Canadian distributor will provide your Canadian dealer with a replacement optic.
- Dealers will contact the customer to make a pickup arrangement of their new optic.



RITON

SEE THE DIFFERENCE

1-855-39-RITON

INFO@RITONOPTICS.COM

RITONOPTICS.COM