

Congratulations on your purchase of the Elite Tactical<sup>™</sup> DMR3 Riflescope. Please read this owner's manual thoroughly to get the best use out of your riflescope.



# WARNING: NEVER LOOK AT THE SUN THROUGH THE RIFLESCOPE, OR ANY OTHER OPTICAL INSTRUMENT, THIS MAY CAUSE PERMANENT EYE DAMAGE.

## Elite Tactical DMR3 RIFLESCOPE FEATURES

Elite Tactical<sup>™</sup> is constantly at the forefront of quality and innovation. The Elite Tactical DMR3 riflescopes are no exception. Fully-Multi Coated Optics, ED Prime glass, argon purging, and waterproof construction offer crisp, bright images in every environment.

All exterior lens surfaces have our EXO Barrier<sup>™</sup> coating (in addition to full multi-coatings). EXO Barrier, quite simply, is the best protective lens coating technology Bushnell has ever developed. Added at the end of the coating process, EXO Barrier molecularly bonds to the lens and fills the microscopic pores in the glass. The result is an ultra-slick coating that repels water, oil, fog, dust, and debris; rain, snow, fingerprints, and dirt will not stick. EXO Barrier is built to last: the bonded coating will not fade with the passage of time or normal wear and tear.

## All Elite Tactical DMR3 riflescope models feature:

- CLARITY The best resolution and contrast in all lighting conditions. •
- FIRST FOCAL PLANE Maintains reticle scale at any magnification. •
- HIGH LIGHT TRANSMISSION Light transmission is increased 2% over DMR II Pro by enhancing the • Ultra Wide Band Coating system to enable optimum brightness and true color in every lighting condition. Reticle elements are etched glass due to the complex pattern and recoil resistance requirements.
- DURABILITY Machined from billet aluminum, the primary structural components are rock-solid. •
- REPEATABILITY Click Value and Tracking are very precise, consistent, and reliable. •

The Elite Tactical DMR3 scope covered in this manual include a 34mm tube, G4P reticle, side focus parallax adjustment, and adjustable or removable PCR ThrowHammer knob, locking windage turret, and non-locking elevation turret with RevLimiter zero-stop.

## **KEY ELEMENTS OF A SCOPE**

- Objective Lens: This lens has three functions. First, it permits light to pass into the scope. Second, it determines resolution. Generally, larger lens allow more light to enter the scope and resolve details better than smaller ones. Finally, it forms an image for the other lenses to magnify to a usable size. The image formed by this lens is upside down.
- Erector System: The erector system serves three functions. Its primary function is to erect the image • (that is, flips the image right-side-up) and align it to the reticle. During this process, primary magnification of the image takes place. The third function is a mechanical one. The erector lenses are housed in a tube constrained by a spherical joint at one end, while the other end of the tube is allowed to respond to windage or elevation turret adjustments.
- Reticle: In simple terms, the aiming device around which the scope is built. This element replaces the • iron sight system of non-scoped rifles.
- Ocular or Eye Lens: This element provides the secondary and final magnification of the image, and • allows for reticle focusing independent of the target image focus.

# **PARTS GUIDE**



#### MOUNTING YOUR SCOPE

Even with its technologically advanced design and features, your new scope will not perform at its best if not properly mounted. One of the most important contributing factors to the combined accuracy of your scope and rifle is mount selection and the care with which mounting is done. Dependable mounts that secure your scope to the rifle will reward you with dependability and consistent accuracy.

Remember, not all scopes are compatible with all mounts on all rifles. If there is any doubt in your mind, you should seek the advice of your local retailer or gunsmith.



#### WARNING: A RIFLESCOPE SHOULD NEVER BE USED AS A SUBSTITUTE FOR EITHER A BINOCULAR OR SPOTTING SCOPE. IT MAY RESULT IN YOU INADVERTENTLY POINTING THE FIREARM AT SOMETHING YOU DO NOT WISH TO DESTROY.

#### PRELIMINARY SCOPE ADJUSTMENTS

Before installing the scope, we recommend you calibrate the eyepiece's focus to your aiming eye's vision. Refocusing the ocular distance will sharpen the reticle focus and improve overall optical quality. It will also mitigate eye fatigue/strain when using the scope over prolonged periods. To refocus, hold the scope about 3 to 4 inches from your eye and point at the open sky or another flatly lit area such as a monotone painted wall.

Quickly glance into the scope. If the reticle appears blurred at first glance, the diopter requires adjustment. To make the first-pass, coarse adjustment, again look into the scope, and quickly turn the diopter until the reticle image appears in focus (ignore the background image). For the final-pass, fine adjustment, remember to take relatively quick glances, as your vision will naturally compensate for minor out-of-focus conditions with prolonged looks. Quickly glance into the scope and observe the reticle. If the reticle image is sharp, then you may have gotten lucky, but typically follow-up, fine adjustments are needed. If so, turn the diopter in a chosen direction by a small amount, then recheck the reticle focus again. If better, continue trials in even smaller amounts to either side of the new diopter position. If worse, try the other direction. Repeat until the reticle is instantly in focus during a quick glance.

The diopter is now setup for your vision! Typically, only minor adjustments are required over the years. While the collar's internal friction should hold it in place with general handling, a semi-permanent witness mark (e.g. silver marker) may be added OR an electrical tape wrap may be used for additional assurance against unwanted rotation.



#### WARNING: BEFORE BEGINNING THE MOUNTING PROCEDURE, BE SURE THE ACTION IS OPEN, THE CLIP OR MAGAZINE IS REMOVED, AND THE CHAMBER IS CLEAR. DO NOT ATTEMPT ANY WORK UNTIL YOUR FIREARM HAS BEEN CLEARED AND DETERMINED TO BE SAFE.



# WARNING: IF THE SCOPE IS NOT MOUNTED FAR ENOUGH FORWARD, ITS REARWARD MOTION MAY INJURE THE SHOOTER WHEN THE RIFLE RECOILS.

While mounting your scope, we recommend that you DO NOT take shortcuts as it may damage either the mounting system or the scope. Each mounting system will have its own instructions to follow, and it is best to read these first to be ensure you understand them and have the necessary tools on hand.

We further recommend that you plan to go through the mounting procedure twice. The first time, to be sure everything fits together and functions properly. On the first run-through, please keep the following in mind:

- If applicable, before attaching base/accessory rail, clean the mounting holes in the receiver and the threads of the attaching screws with high-concentration IPA (isopropyl alcohol) to free them of oil or grease.
- If the mount manufacturer has recommended using a thread adhesive, do not use it on the first mounting trial. Once adhesive has been set, it is difficult to demount if anything needs correction and residue will be present that should be removed before restarting.
- Be sure the mounting screws do not protrude into the receiver.
- When using twist-lock style rings, do not use the scope as a lever when installing. The initial resistance to turning may cause damage to the scope and is not covered by the warranty. We recommend using a wooden dowel or matching diameter metal cylinder to seat the rings.
- Be sure the position of the scope does not interfere with the operation of the action.
- Be sure there is at least 3mm of clearance between the edges of the rings and any protruding surfaces such as the turret housing (saddle), power change ring, and the flare of the objective bell. Note the beginning of fillet transitions for the previously mentioned features. Also, be sure there is at least 3mm of clearance between the objective bell and the barrel.
- You should test the position the scope for the proper eye relief. The scope rings should be left loose enough so that the scope will slide easily. Variable power scopes should be set at the highest magnification when performing this procedure. Mount the rifle and look through the scope in your normal shooting position. Unless only going to be used in a bench-rest (seated) or prone position (lying down), the modified-prone (leaning over a rest surface while standing or kneeling) position is recommended for more versatility.
- Test position the rifle for the proper cheek weld several times to ensure that your scope is positioned properly. If the scope is too high or low, consider altering the cheek weld riser position, if it is adjustable. Alternatively, different height rings may be needed. Be sure adequate clearance is still maintained between the scope and rifle.
- When you are satisfied that everything is okay, then add temporary reference markings (masking tape works well for this) demount and start again. This time, add scope leveling (anti-cant) considerations while positioning the riflescope, and securely fasten all hardware per manufacturer's instructions. securely fasten all hardware per manufacturer's instructions. Typically, 15 lbf\*in is the maximum fastener torque recommended for joints around the scope tube.

## PARALLAX

You may have noticed that placing your eye at different positions (i.e. side-to-side OR up-and-down) behind the scope's eyepiece causes the reticle to appear to move around to different points on your target. This is called "parallax error" (target and reticle are not in the same focal plane), and it becomes more noticeable (and more of a problem) the greater the difference between target distance and side-focus setting. In some cases, parallax will not affect bullet point of impact enough to be of significant concern. If you need to shoot at a target distance inside of 25yd, lower magnification settings will be more effective at improving image quality.

#### USING THE SIDE FOCUS

The ET DMR3 model covered in this manual provide an adjustment for parallax compensation (side focus knob), which works by moving an optical element until the target (based on its distance) appears in the same plane of focus as the reticle. Your ET DMR3 scope can be focused as close as 25 yards. Just line up the estimated distance to your target with the index value or approximate the distance if between indices, and you will eliminate most of the aiming errors caused by parallax. After setting the side focus, you can double-check by moving your head around from side to side behind the eyepiece; the point of aim should not shift if the side focus is correctly set. An alternative method is to look through the scope and turn the side focus knob until the target image, at whatever range, is sharply focused. Please note the distance markings on the dial are intended as reference points. Exact side focus adjustments may be needed to achieve a high resolution, parallax-free image. Also note that the rifle and scope must be stationary when performing parallax error inspections. Any amount of induced movement will directly affect the point-of-aim and provide false feedback.

## USING THE LOCKING WINDAGE TURRET

Your Elite Tactical Riflescope features a T-Lok™ (locking) windage turret, which provides audible and visual adjustment references. When the turret is pulled into the outward position, rotate in the right or left directions to make appropriate adjustments. Each increment of the turret provides an audible and tactile "click" that coincides with a visible reference point movement on the turret knob. Each "click" represents 1/10 MIL. After adjustments, the turret can be pushed back in to prevent movement or left extended and ready for further adjustments, if preferred.

After adjustments, you can reset the turret to zero by following the steps below:

Note: When resetting the windage turret, ensure the windage turret is in the locked (inboard) position.

Use the included Bushnell multi-tool or a coin to remove the turret cap-screw found on top of the turret knob, do not displace the o-ring found under the turret cap-screw. Take care not to dislodge the O-Ring on the inner turret body. Also avoid introducing any contaminants or debris into the exposed turret components.

Remove the turret knob and return it to the inner turret, with the "zero" mark on the knob lining up with the horizontal index line

on the inner turret body.

Return the turret screw to the top of the knob and tighten it down, making sure the turret knob is in the locked position, so the turret knob does not turn while tightening the screw.

## FOR WINDAGE TURRET, BE SURE IT IS PULLED OUT TO UNLOCK — BEFORE ADJUSTING.



## RESETTING THE ELEVATION TURRET

Rotate the elevation turret knob counterclockwise to move the point-of-aim up or clockwise to move it down. One full revolution of the elevation dial will move the point of impact 10 MILS at any distance. After zeroing your rifle, you can reset the elevation turret to zero by following these steps:

- While holding the elevation turret steady with your free hand, use the included Bushnell multi-tool or a coin to remove the turret cap-screw found on top of the turret knob, being careful not to displace the o-ring found under the turret cap-screw.
- Remove the turret knob and return it to the inner turret with the "zero" mark on the knob lining up with the vertical index line on the inner turret body.
- Return the turret screw to the top of the knob and tighten it down, making sure to steady the turret knob with your free hand, so the turret knob does not turn while tightening the screw.







## REVLIMITER™ (Zero Stop) INSTRUCTIONS

- Step 1: Obtain a good zero on your rifle. Remove the turret knob cap-screw using the included Bushnell Multi-tool or a coin. (FIG. 1)
- Step 2: Remove the turret knob and set it aside (FIG. 2A). Loosen the three set-screws found on the perimeter of the black inner locking ring 1½ turns (using 1.5mm hex wrench-provided) (FIG. 2B). These screws are "captured" in the RevLimiter ring so that they cannot be completely removed and dropped or lost. Once these set-screws are loosened, the ring should fall down the turret shaft.
- Step 3: Turn the RevLimiter disk clockwise until it contacts the fixed pin in the bottom of the turret (FIG. 3A). While holding the disk with gentle downward and clockwise pressure, gently tighten the three set screws in the RevLimiter disk to 2 lbf\*in (FIG. 3B). (Do not overtighten screws. We recommended gripping the short leg of the L-key to reduce leverage). Your zero stop is set.
- Step 4: Re-index the turret knob to zero and return the turret cap-screw to the top of the turret knob and tighten (FIG. 4).



FIG. 1



FIG. 2A



FIG. 2B



FIG. 3A



FIG. 3B



FIG. 4

If you wish to disengage the RevLimiter or you need to change the setting, the sequence is basically the reverse of the above. Secure the disk in the upward position along the turret shaft to allow the turret to turn freely in the downward direction.

You may also choose to set the RevLimiter to a position that allows you to have POA travel below your absolute zero. A suggestion is to set it 0.2 to 0.5 MILS below absolute zero so that the turret may be "slipped" quickly and easily to account for ammunition selection or large atmospheric differences like when traveling to a location with significant elevation change. Just be mindful of turret knob position before removing and return to the same position. To simplify things, it's not recommended to turn the inner turret body without the turret knob installed and secured.

## VARIABLE POWER ADJUSTMENTS

Changing the magnification of the ET DMR3 is easily accomplished by grasping the new Throwhammer<sup>™</sup> knob, which is fastened to the power change ring. The throw lever is factory installed , but may be removed with the provided Bushnell Multi-tool. Use the lever to rotate the power change ring clockwise for higher magnification or counterclockwise for lower magnification. The magnification setting is identified by noting the number behind the stationary dot on the scope tube.

## POWER CHANGE RING (PCR) Throwhammer™ ADJUSTMENT

- The Throwhammer<sup>™</sup> knob Is factory installed in the neutral sweep (9 o'clock to 3 o'clock) position.
- The hardware hex sockets are 7/64 inch. Use the hex driver on the included Bushnell multitool to remove and/or reposition the related PCR parts.
- If the knob is undesired, remove and use the supplied, spare screw to fill in the open tapped hole.
- A small amount of low-strength, removable thread-locker (e.g. Loctite® 242) may be used.
- The screws may be torqued to 8-10 lbf\* in and the knob to 12-14 lbf\* in. CAUTION: Do Not Overtighten



## FIRST FOCAL PLANE RETICLE

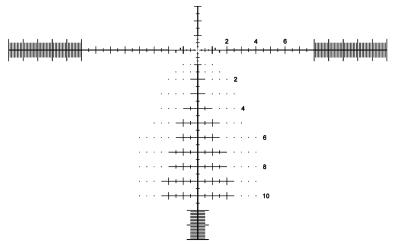
The ET DMR3 covered by this manual has a reticle located in the first focal plane. Therefore, the reticle will increase in size when the magnification is increased or vice versa. This feature allows the continued use of the MIL measurement system in the reticle, regardless of the power setting.

## ELITE TACTICAL G4P PRECISION RETICLE

The G4P reticle, developed in conjunction with G.A. Precision, provides a clean reticle space for fast target acquisition while the hybrid hash-dot tree provides for intuitive and efficient holds without using the turrets. The reticle is shown to the right, but the following pages will provide a more in-depth look.

#### THE HORIZONTAL CROSSHAIR

The numerically designated MIL markings extend from the center of the crosshairs outward to the right in 2 MIL increments on the horizontal crosshair. The numbers were removed on the left side of the reticle to keep the reticle plane clean, but the reference points coincide with the markings from the right side of the crosshair. Measurements from the center point to the right are as follows: 0.25 MIL, 0.5, 0.75, 1.0, 1.2, 1.5, 2.0, etc.



A carryover feature of the G4P reticle is bold hash marks on the horizontal stadia that provide hold-off marks for shooting at moving targets. These "mover marks" are located at 1, 1.2, and 1.5 MILS to the left and right of the center of the crosshairs. These are for typical target speeds at given distances. Use a ballistic solver tool to determine the correct mover hold for your firearm and ammo combination.

1/2 MIL and 1 MIL markings stop extending at the 8 MIL position. Within the milling bar sections of the reticle, 1 MIL increments are designated by the longer hash marks, which measure 1.5 MIL in height from top to bottom. Intermediate 0.1 MIL markings are visible between each 1 MIL marking, are 1 MIL height and extend all the way through the FOV. The 0.1 MIL markings provide you with a very precise horizontal measurement of your target. At 30 MILS from center, there is a quick-acquisition solid bar that is 0.25 MIL tall. This is only visible at low magnification settings.

## THE VERTICAL CROSSHAIR

Like the horizontal crosshair, the vertical crosshair places the numerically designated MIL markings on only the right side. Once again, the numerically designated markings are in 2 MIL increments with 0.25 MIL interval hash marks inside of 1 MIL and every 0.5 MIL interval outside of 1 MIL. The 11th MIL measurement down the reticle converts to 0.1 milling bars and the solid 0.25 MIL wide quick-acquisition bar starts at 30 MILS from the main horizontal stadia. The horizontal hashes begin to elongate for windfall references and floating dots are applied for additional holds without crowding the reticle space to maintain the relatively clear appearance of the G-series design that familiar users are accustomed to.

## PRELIMINARY SIGHTING-IN

You can save a significant amount of expense and frustration by pre-sighting the scope to the rifle before live-firing. This is also critical if your berm is small.

Two basic methods can be used for pre-sighting your scope. Method one is to use a Bushnell® Bore Sighter (laser, magnetic or standard). The use of a Bore Sighter saves time and ammunition and is the system most often used by gunsmiths.

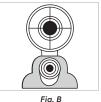
The second method is traditional bore sighting. Rifles are typically sighted-in (aka zeroed) at 100yds, but this is the user's preference. The reticle is located in the first focal plane, so the reticle graduations may be used for reference at any magnification setting.

## BORE SIGHTING METHOD

- Place a target at 100 yards.
- Remove the bolt from the rifle.
- Place the rifle on sandbags or shooting rest.
- Set the scope to approximately 1/3 of the magnification range.
- Peer through the bore from the receiver end and adjust the rifle's position to center the target in the bore (Fig. A).
- Without moving the rifle, look into the scope and note the position of the reticle on the target. Grasp the turret and turn it in the appropriate directions indicated by the arrows to center the reticle on the bull's eye (Fig. B). Each "click" or increment on the Adjustment Scale Ring will change the bullet impact by the laser engraved value on the top of your scope model's turret. For reference, 0.1 MIL is 1cm @ 100m OR 0.36in @ 100yd.



Fig. A Reticle not in alignment



Reticle in alignment

## FINAL SIGHTING-IN

WARNING: SINCE THIS PROCEDURE INVOLVES LIVE FIRE, YOU SHOULD DO THIS AT AN APPROVED RANGE OR OTHER SAFE AREA. CHECK BORE FOR OBSTRUCTIONS. AN OBSTRUCTED BORE MAY CAUSE INJURY TO YOU AND OTHERS NEARBY. EYE AND EAR PROTECTION IS RECOMMENDED.

From a steady rest position, fire two or three rounds at a 100-yard target. Note the impact of the bullet on the target and adjust the windage and elevation dials as needed. A shorter distance may be chosen if target size or ammunition is limited. Use this as a coarse adjustment, then final zeroing distance as the fine adjustment target distance.

To move the point-of-impact, adjust the dial direction to match the desired change. The adjustments on your riflescope model are marked in MILS (milliradians), and the point of impact at any distance will change by .1 MIL for each click of the windage or elevation adjustment. One full revolution of turret adjustment=10 MILS.

## CARING FOR YOUR RIFLESCOPE

Your scope needs very little maintenance. Exterior metal surfaces should be kept clean. A light dusting with a slightly dampened soft cloth is enough in most cases.

Your new scope features windage and elevation turrets that are sealed against water and dust ingress, but care must be taken to avoid introducing contaminants or debris into the turret components while the turret knobs are removed.

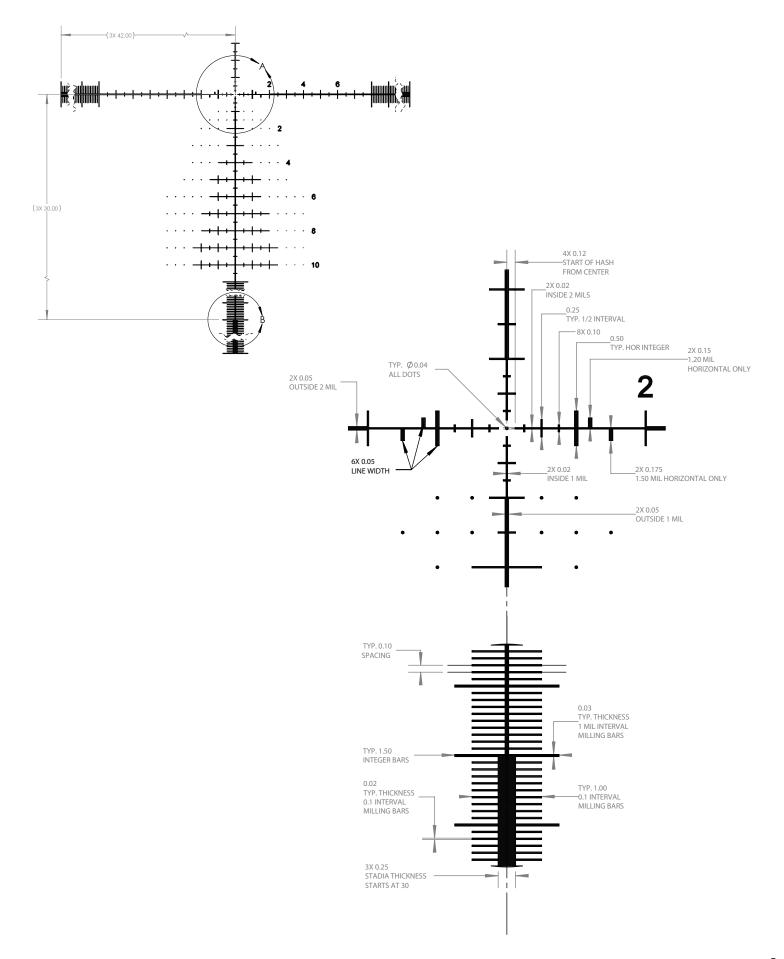
We also recommend that lens covers are utilized when the scope is not being used. Lenses should be inspected regularly and occasionally cleaned depending on contaminant type and amount. Dust, dirt, and fingerprints that collect on the lens surfaces can degrade image quality. Although lens cleaning is not difficult, it does require care and some patience. *Note that it is not necessary to keep the lens perfectly clean at all times.* 

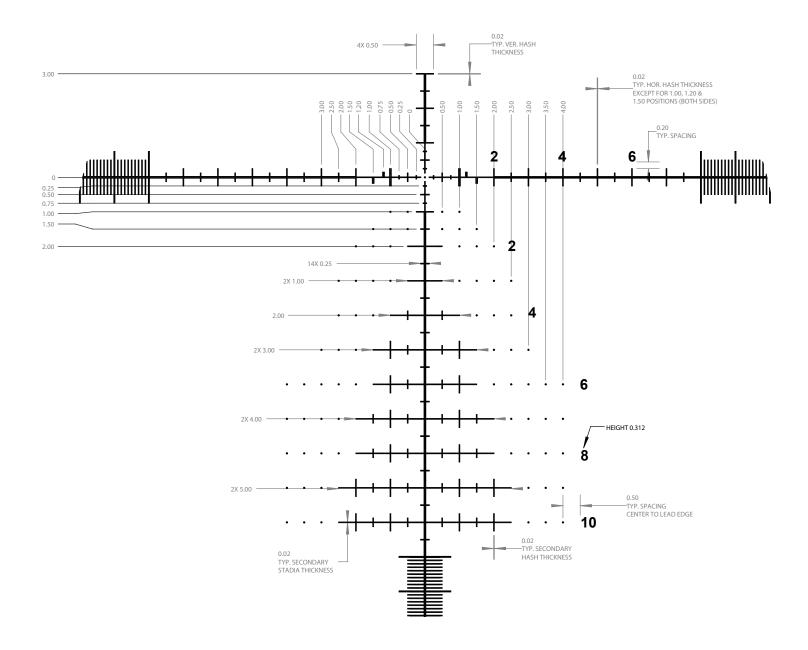
For typical dust accumulation, start by using a blow out bulb (using your mouth isn't ideal due to the moisture that will cause some particulates to adhere more readily) to dislodge loose debris. A lens brush may also be used. Then use your breath to moisten the surface and very gently wipe out from center in a spiraling motion.

If the scope has been used outside during a rainstorm and/or has heavy spotting from mud or otherwise, it is recommenced to introduce a low-pressure water source like from a faucet or bottle of water. If using a garden hose, remove nozzle and reduce flow-rate.

NOTE: Any cloth must be clean and should be microfiber like the included SPUDS® OR it may be a high quality automotive paint finish cloth (e.g. \$10 per "rag"). Single use lens tissue is also acceptable, but facial tissue is not. Do not use solvents (this includes lens wipes with IPA). Do not use paper towels or cotton cloths.

## **G4P Reticle Detail**





SKU	Mag x Obj. Diam.	Reticle	Elevation Turrets	Windage Turret	Elev. Travel (MIL)	Windage Travel (MIL)	Travel per Revolution (MIL)	Tube Diameter (mm)	Minimum Parallax (Yards)	Eye Relief, Max Mag.	Field of View @ 100 Yds (Ft)	Length (in)	Weight (oz )
ETDMR3G4	3.5-21x50	G4P FFP	Exposed, Non-Locking w/ RevLimiter™ Zero-Stop	Exposed, Locking	32	20	10	34	25	98mm	25.3 - 5.1	13.2	35.5

## DO YOU NEED TO SEND YOUR SCOPE TO US?

Before returning your scope for service, you should check the following points to make sure the problem is with the scope: • Check the mounting system and rings for looseness or misalignment.

- Check to be sure the barrel and action are properly bedded and all receiver screws are tight.
- Check to be sure the mounting system allows sufficient clearance between the objective bell and the barrel.
- Check to be sure you are using the same type and weight ammunition that you used for sighting-in.
- Consider moving riflescope over to a different rifle of known function and/or placing an alternative riflescope onto the
  primary rifle that is assumed to be non-suspect. The goal is to see if the concern follows the riflescope or remains with
  the rifle.



#### **COVERAGE YOU CAN COUNT ON**

All Bushnell products are engineered to deliver to your expectation and manufactured to withstand the rigors of the outdoors for the lifetime of the product. In the event that our product fails you, we will stand behind it and repair it at no cost to you. If we can't repair it then we will replace it with a product of equal or better value. No receipt required and fully transferable.

All Bushnell<sup>®</sup> products carry a product lifetime warranty against defects in workmanship or materials. Product lifetime is defined as 30 years for riflescopes, 20 years for binoculars and spotting scopes, 5 years for electro-optics (laser rangefinders, red dot sights, reflex sights, speed gun radars, night vision, GPS) and electronic components (illuminated reticles) and 2 years for trail cams. Coverage period start date is determined by proof of purchase or manufacturing date of the product. This warranty does not cover cosmetic damage; damage caused by failing to properly maintain the product; loss; theft; damage as a result of unauthorized repair, modification, or disassembly; intentional damage, misuses, or abuse. This Warranty will be void if the date stamp or other serialization codes have been removed from the Product. We may replace your product with a product of equal or better physical condition.

To view the full warranty and download the details of the warranty, click this link: <a href="https://www.bushnell.com/bu-warranty.html">https://www.bushnell.com/bu-warranty.html</a> To submit a repair request or check the status of a repair ticket: <a href="https://service.bushnell.com/s/">https://service.bushnell.com/bu-warranty.html</a>

Alternatively, you can request a copy of the warranty by calling us at 1-800-423-3537 or writing to us at one of the following addresses:

IN U.S.A. Send To: Bushnell Holdings, Inc. Attn.: Repairs 9200 Cody Overland Park, Kansas 66214 IN CANADA Send To: Bushnell Holdings, Inc. Attn.: Repairs 140 Great Gulf Drive, Unit B Vaughan, Ontario L4K 5W1 Canada

For products purchased outside the United States or Canada, please contact your local dealer for applicable warranty information.

This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

We warrant that during the warranty period, with proper use and care, the product will be free from defects in materials and workmanship and will meet represented performance standards as defined by the warrantor in its sole discretion.

The remedies described herein are your sole and exclusive remedies and our entire liability for any breach of this warranty. Our liability shall under no circumstances exceed the actual amount paid by you for the defective product, nor shall we under any circumstances be liable for any consequential, incidental, special or punitive damages or losses, whether direct or indirect.

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.

Our responsibility for defective goods is limited to repair or replacement as described in this warranty statement.

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