

SIGSAUER



TANGO[®]

TANGO-MSR HIGH MAGNIFICATION TACTICAL RIFLESCOPES

OPERATOR'S MANUAL

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1.0 GENERAL SAFETY INFORMATION

**WARNING****UNLOAD/CLEAR**

SAFETY IS THE NUMBER ONE CONCERN WHEN WORKING WITH FIREARMS. FAILURE TO COMPLY WITH THE WARNINGS IN THIS MANUAL CAN RESULT IN SERIOUS INJURY OR DEATH.

- Keep the muzzle pointed in a safe direction at all times.
- Never allow live ammunition to be brought into the maintenance/cleaning area.
- Verify that the firearm is unloaded and clear prior to installing or adjusting this optic.
- Always wear safety glasses with side shields when performing maintenance.

SETTING UP A SAFE WORK PLACE

Having a proper work area to install this optic will help ensure success and reduce the chance of damaging the optic or firearm. A solid workbench with a bench mat, and a properly mounted vise with a means to secure the firearm will help free up your hands for installation.

INTRODUCTION

No one understands the need for unquestioning accuracy better than SIG SAUER®. Our tactical riflescopes have been developed for long range hunters, and competitive shooters for one reason: When you take your shot, it will count.

Welcome to the TANGO-MSR riflescopes operator's manual - the ultimate guide to unlocking the full potential of your scope! With variable power 6:1 optics, locking zero stop elevation turrets, and a crystal-clear images across the entire range of magnification, you already know that you're holding a high-performance tool designed for the most demanding shooters.

CONTENTS:

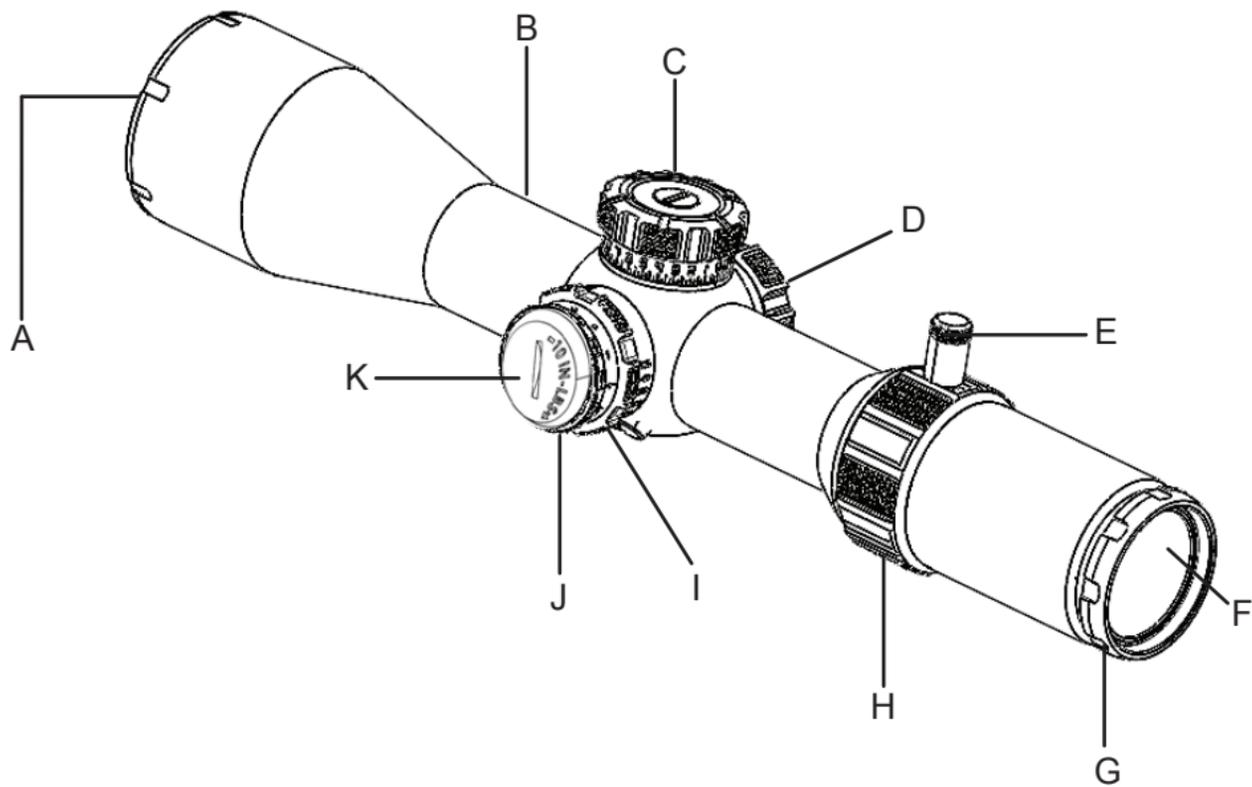
- TANGO-MSR Riflescope
- Lay-Flat Flip Backs (X2)
- CR2032 Battery
- 2.5 mm Hex Wrench (select models)
- 0.05 in. Hex Wrench (select models)
- T15 Wrench (select models)
- Removable Throw Lever
- Operator's Manual

Scan the QR code to visit sigsauer.com where you will find additional information about SIG SAUER products, SIG SAUER Academy and the SIG Experience Center, Special Programs, and additional support.



2.0 PRODUCT IDENTIFICATION

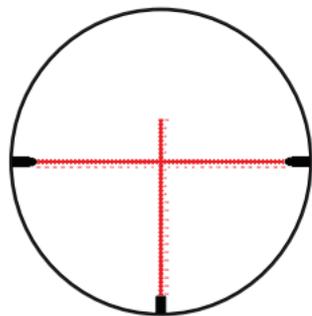
- A. Objective Lens
- B. 34 mm Main Tube
- C. Locking Elevation Dial
- D. Windage Dial Cap
- E. Magnification Lever (removable)
- F. Ocular Lens
- G. Diopter Adjustment Ring
- H. Magnification Selector Ring
- I. Parallax Adjustment
- J. Illumination Power Selector Ring
- K. Battery Compartment Cap



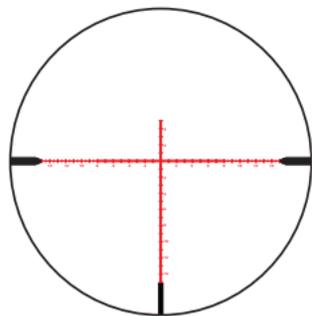
3.0 FEATURES

- Offered in First Focal Plane (FFP).
- Four available illuminated reticles.

3-18X AND 5-30X MODELS ONLY

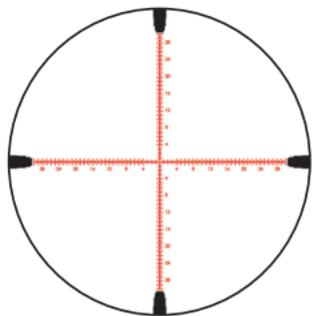


MOA MILLING
2.0 FFP RETICLE

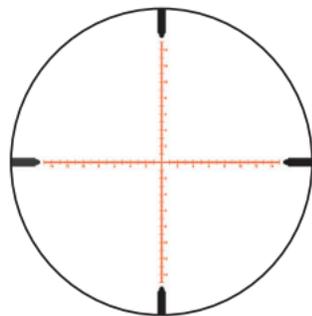


MRAD MILLING
2.0 FFP RETICLE

2-12X MODELS ONLY



MOA MILLING
2.0 FFP RETICLE



MRAD MILLING
2.0 FFP RETICLE

**WARNING****UNLOAD/CLEAR**

BEFORE WORKING ON YOUR TANGO-MSR RIFLESCOPE, ALWAYS ENSURE THAT THE FIREARM IS UNLOADED AND CLEARED WITH THE SAFETY ON AND POINTED IN A SAFE DIRECTION. FAILURE TO COMPLY COULD RESULT IN INJURY OR DEATH.

4.0 MOUNTING THE RIFLESCOPE

Proper installation of your TANGO-MSR riflescope will ensure you get the best performance from your rifle and scope package. SIG SAUER offers a complete selection of precision machined Alpha Series Tactical and Hunting rings and mounts. It is highly recommended to secure the rifle on a bench in a rest to free your hands up and help you level the rifle and the scope. As each mounting situation is dictated by your rifle and mounts, the following are some basic steps that will help you properly mount your TANGO-MSR riflescope.

4.1 RING SIZE AND HEIGHT

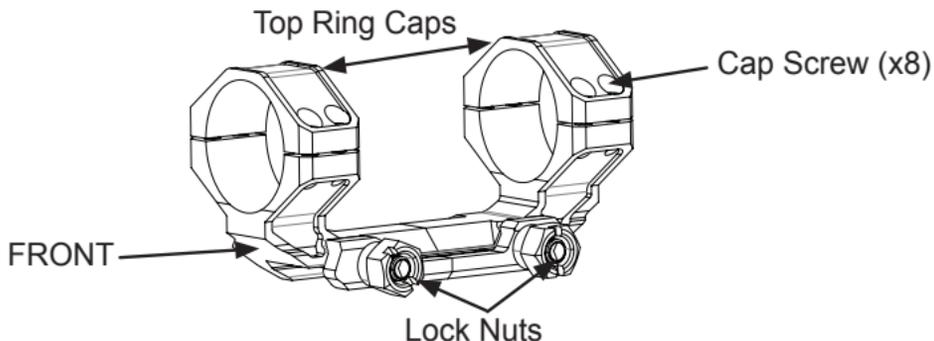
Choose your ring diameter by the size of the scopes main tube. When choosing ring height, you want to mount the scope as low as you can while maintaining a comfortable cheek weld on the stock.

4.2 ATTACHING RINGS OR BASE TO THE RIFLE

Attach the rings or base to the rifle receiver. If installing the rings or base to a MIL-STD 1913 mount, make sure you push the rings or base forward before tightening the lock nuts. Failure to complete this step could allow the scope to loosen and move under recoil. It is a good idea to orient the lock nuts to the opposite side of the ejection port so there is no chance of them interfering with ejection and that the base of the rings is attach and proper eye relief, see section 4.3 can be achieved.

Tighten the lock nuts to the manufacturer's recommended torque.

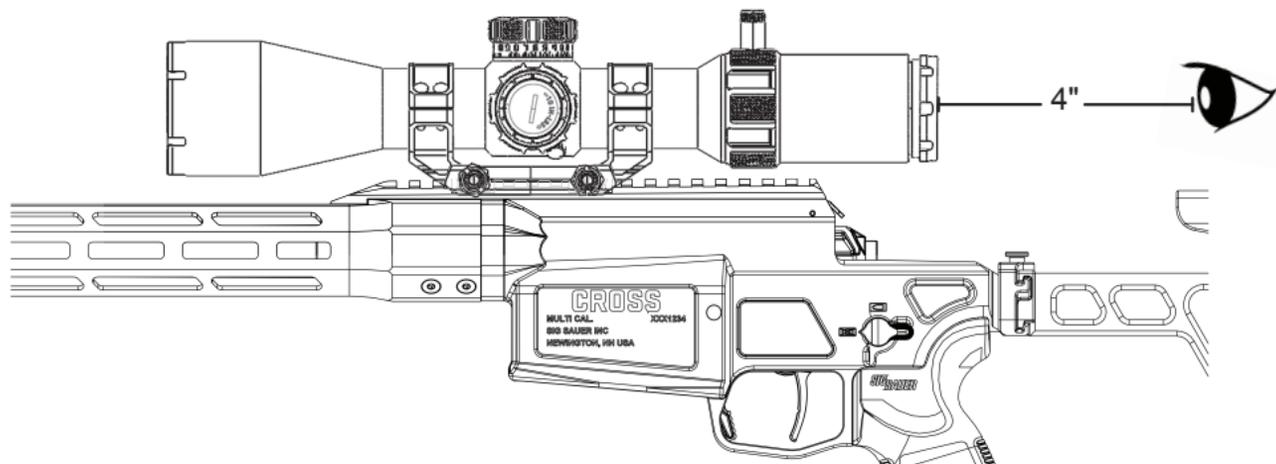
Set the scope into the lower half of the rings and attach the top ring caps by loosely tighten the cap screws into the base. Leave the screws loose enough so scope can be moved forward or rearward in the rings, set your eye relief, level the scope see section, 4.4, and then tighten the ring cap screws using a criss-cross pattern to the manufacturer's recommended torque.



4.3 SETTING PROPER EYE RELIEF

You should set the eye relief while in the position you are most likely to shoot from. The position of your head on the stock will change from a prone, standing or bench rest position and will change the distance of your eye to the scope lens. A good rule of thumb is to have about 4 inches of distance from your eye to the ocular lens.

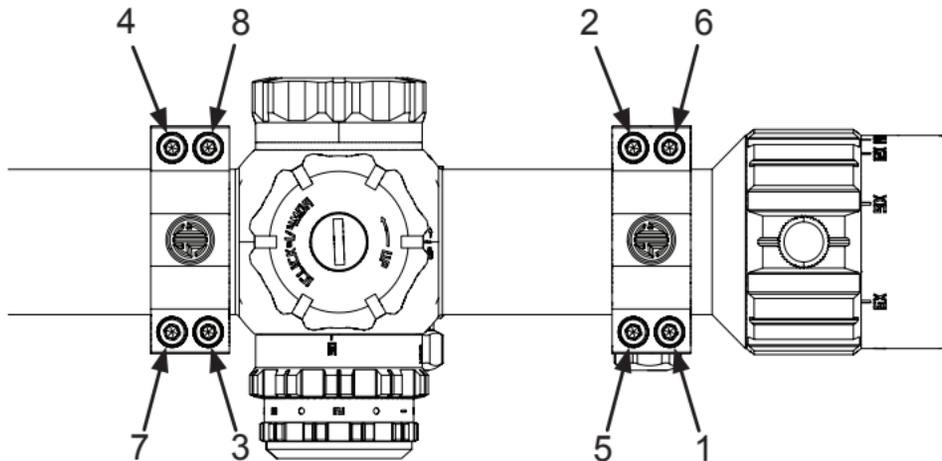
Move the scope in the rings until you have a full field of view with no shadow around the sight picture.



4.4 LEVELING THE SCOPE

With the correct eye relief set you can now level the scope. It is best to level the rifle first. There are several aftermarket scope leveling kits available that make this task easier. With the rifle level and the ring cap screws loosened rotate the scope in the rings until it is level.

Once the scope is level, tighten the cap screws. Maintain the same gap between the base and the ring cap on each side. Use the reference numbers shown below and tighten the cap screws hand tight. Use an inch pound torque wrench and repeat the criss-cross pattern to tighten to the manufacturer's recommended torque setting.



**WARNING UNLOAD/CLEAR**

BEFORE WORKING ON YOUR TANGO-MSR RIFLESCOPE, ALWAYS ENSURE THAT THE FIREARM IS UNLOADED AND CLEARED WITH THE SAFETY ON AND POINTED IN A SAFE DIRECTION. FAILURE TO COMPLY COULD RESULT IN INJURY OR DEATH.

! WARNING

- **INGESTION HAZARD:** This product contains a button cell or coin battery.
- **DEATH** or serious injury can occur if ingested.
- A swallowed button cell or coin battery can cause **Internal Chemical Burns** in as little as **2 hours**.
- **KEEP** new and used batteries **OUT OF REACH of CHILDREN**.
- **Seek immediate medical attention** if a battery is suspected to be swallowed or inserted inside any part of the body.



- Keep in original package until ready to use.
- Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.
- For treatment information call, The National Battery Ingestion Hotline (NBIH) 1–(800) 498–8666.

WARNING

- Even used batteries may cause severe injury or death.
- Call a local poison control center for treatment information.
- Compatible battery: CR2032 Nominal voltage: 3V
- Do not mix old and new batteries, different brands or types of batteries, such as alkaline, carbon-zinc, or rechargeable batteries.
- Ensure the batteries are installed correctly according to polarity (+ and -).
- Remove and immediately recycle or dispose of batteries from equipment not used for an extended period of time according to local regulations.
- Non-rechargeable batteries are not to be recharged.
- Do not force discharge, recharge, disassemble, heat above 212°F (100°C) or incinerate. Doing so may result in injury due to venting, leakage or explosion, resulting in chemical burns.
- Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep them away from children.

 **WARNING:** CANCER AND REPRODUCTIVE HARM – www.P65Warnings.ca.gov

NOTICE: Export restrictions may apply – this product may be controlled either by the ITAR or EAR.

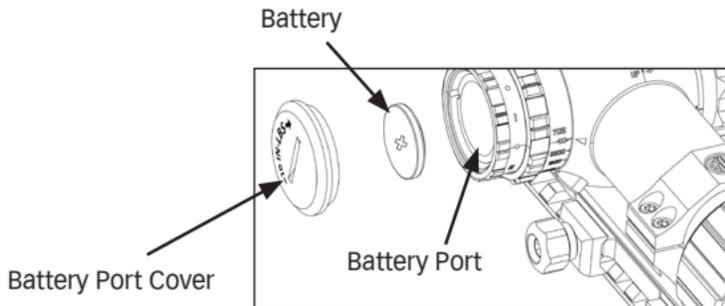


5.0 OPERATION

5.1 INSTALLING THE BATTERY

Some TANGO-MSR riflescopes are equipped with illuminated reticles and require a CR2032 battery. To install the battery:

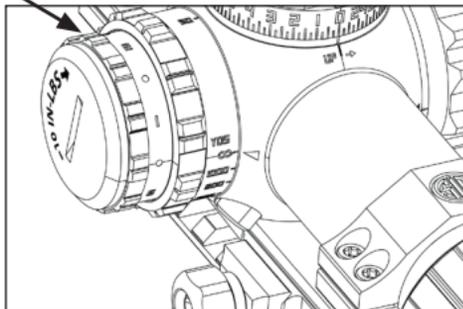
1. Turn the battery port cover counterclockwise and remove it from battery port.
2. Place the CR2032 battery into the battery port with the plus side (+) facing outward.
3. Reinstall the battery port cover by rotating the cap in the clockwise (CW) direction to 10 in-lbs.
Note – Failure to properly torque the battery cap clockwise (CW) direction to 10 in-lbs could lead to ingestion hazard of coin battery, intermittent LED illumination or allow moisture into the battery compartment



5.2 ILLUMINATION BRIGHTNESS LEVEL

- Rotate illumination power selector ring to select the illumination brightness level that best suits your conditions.
- Brightness level settings alternate between on and off locations.
- Numerical values indicate active illumination settings.
- Higher values indicate brighter illumination.

Illumination Power Selector Ring

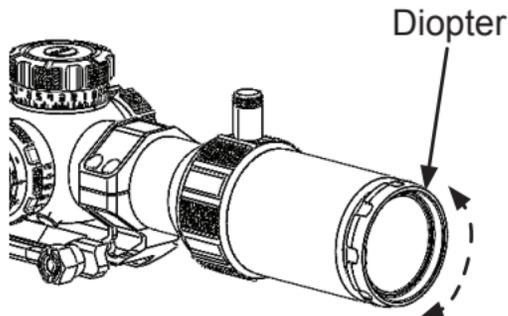


6.0 ADJUSTING THE SCOPE PRIOR TO ZEROING

The TANGO-MSR ships from the factory with the reticle mechanically centered. This should get you close to a zero out of the box.

6.1 FOCUSING THE RETICLE

1. While maintaining proper eye relief, aim the scope at a large light colored background.
2. Focus on the reticle (not the target or background) for several seconds, then look away.
3. Look through the scope again, focus on the reticle and adjust the diopter approximately one half turn. If the reticle appears more out of focus, turn the diopter in the opposite direction.
4. Repeat steps 2 and 3 until the reticle is sharp and clear.



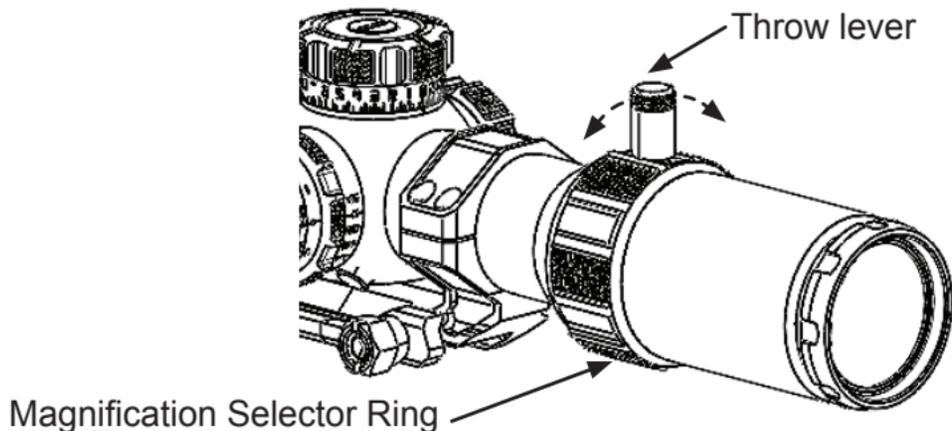
6.2 ADJUSTING THE MAGNIFICATION

TANGO-MSR riflescopes are equipped with variable magnification, the magnification value is marked on the scope tube.

NOTE

Note: the throw lever can be removed by turning it counterclockwise from the selector ring.

1. To increase magnification, rotate the magnification selector ring clockwise.
2. To decrease magnification, rotate the magnification selector ring counterclockwise.



6.3 BORE SIGHTING

If you are installing the riflescope from other than its factory settings, it is best to bore sight your riflescope. This will give you a coarse zero and will require minimal additional adjustments. There are several quality bore sighting devices available on the market. Utilizing a bore sighting device will save you time and ammunition. If you do not have access to a bore sighting device you can follow the below listed steps.

With the rifle secured in a firm rest:

1. Remove the bolt from your rifles action (with AR style rifles remove the rifles upper receiver from its lower receiver, then remove the bolt carrier).
2. Look through the rifles barrel from the rear of the rifle and aim it so that your target is centered in the bore.
3. Without moving the position of the barrel, lift your head and look through the scope.
4. Using the elevation and windage adjustments of your riflescope, adjust the reticle so that it is also in the center of the target.

This will get you close on paper and should only require minimal adjustments.

6.4 PARALLAX ADJUSTMENT

Parallax is the movement of the reticle in relation to the target as the shooter moves their eyes across the exit pupil of the scope. This is caused by the reticle and the target being on different focal planes.

When using your riflescope for longer range targets, parallax can become more noticeable. This can be noticed when it appears that your reticle is moving separate from the target when you move your head/eye from side to side.

To adjust parallax:

1. Hang a target with a small bright aiming point.
2. While maintaining proper eye relief, look through the scope and use the side focus knob to get the target clear and sharp.
3. Without disturbing the rifle, lift your head slightly, and while looking through the scope move your head up and down then side to side while observing the reticle for any movement.
4. If there is movement in the reticle, make small adjustments to the diopter until the movement is eliminated.

NOTE

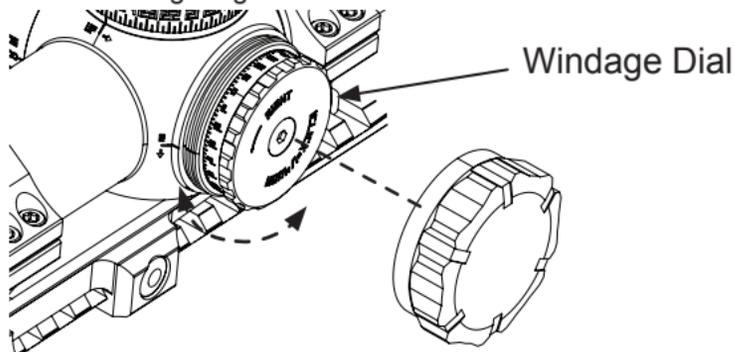
Note: parallax should be adjusted every time the distance to target changes.

6.5 ADJUSTING POINT OF IMPACT (POI) TO MATCH POINT OF AIM (POA)

6.5.1 ADJUSTING WINDAGE

Use the windage dial to move the POI left or right. The value of each click is marked on the dial.

1. Unscrew windage dial cap counterclockwise and remove it from turret.
2. To move the POI,
 - a. Left, turn the windage dial clockwise.
 - b. Right, turn the windage dial counterclockwise.
3. If you want to reset the zero of your windage dial proceed to section, 6.5.3.
4. Once the POI windage is located where you want it in relation to your POA, turn windage dial cap clockwise onto turret until finger tight.



Windage adjustment dial set to 4 MOA left as an example

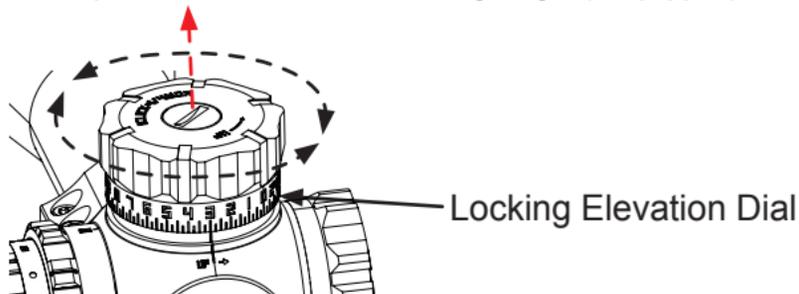
6.5.2 ADJUSTING ELEVATION

Use the elevation dial to move the POI up or down. The value of each click is marked on the dial.

If locking elevation dial, pull dial upward to unlock.

If non locking elevation dial, unscrew dial cap counterclockwise and remove it.

1. To move the POI,
 - a. Up, turn the elevation dial counterclockwise.
 - b. Down, turn the elevation dial clockwise.
2. If you want to reset the zero of a locking elevation dial proceed to section, 6.5.3. To reset the zero a non locking elevation dial see section, 6.5.3
3. Once the POI elevation is located where you want it in relation to your POA push elevation dial down to lock or turn dial cap clockwise onto turret until finger tight (if equipped).



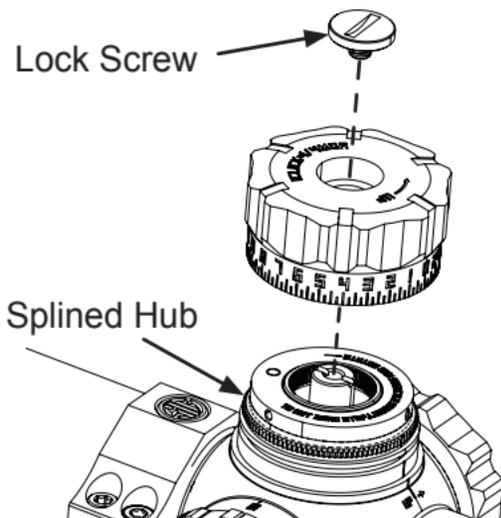
Elevation adjustment dial set to 3 MOA as an example

6.5.3 RESETTING THE ZERO OF A LOCKING ELEVATION DIAL

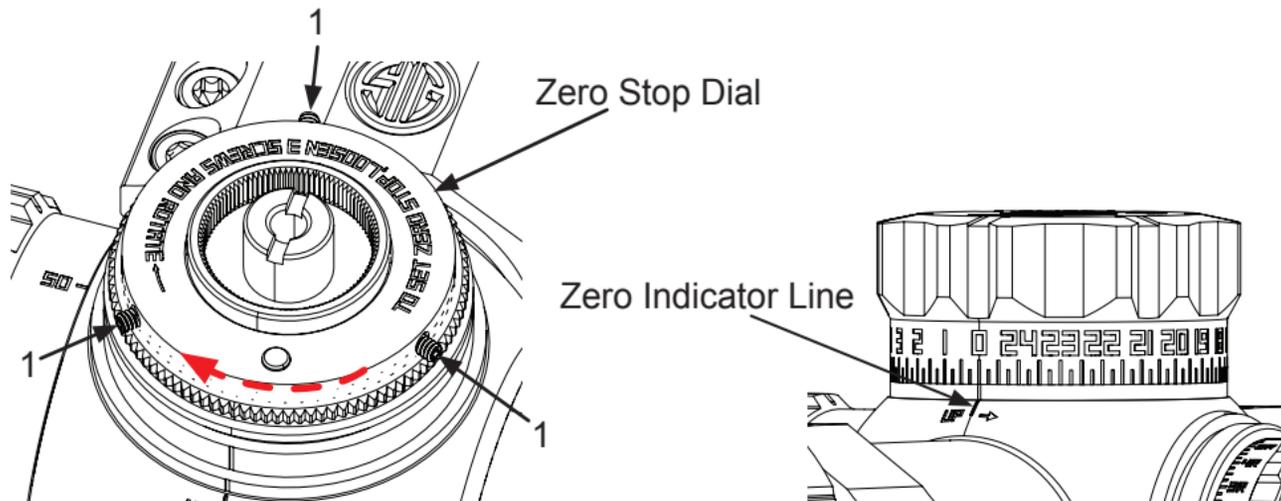
Before resetting the zero of a locking elevation dial see section, 6.5.2 and adjust the POI elevation so that it is located where you want it in relation to your POA.

To reset the zero of a locking elevation dial:

1. Use a cartridge case or a coin to unscrew elevation dial screw counterclockwise and remove it.
2. Lift elevation dial off splined hub.



3. Use 0.05 in. hex wrench to turn three zero stop dial set screws (1) counterclockwise until loose.
4. Turn zero stop dial clockwise until it stops.
5. Use 0.05 in. hex wrench to turn three zero stop dial set screws clockwise until finger tight.
6. Align the **0** on elevation dial with zero indicator line on the elevation turret.
7. Use a cartridge case or a coin to turn elevation dial screw clockwise into turret to finger tight.
8. Once your POI elevation is located where you want it in relation to your POA push elevation dial down to lock.



7.0 MAINTENANCE

SIG SAUER TANGO-MSR Riflescopes require minimal maintenance.

CAUTION

Always blow dust or debris from scope lenses prior to using any cloth or lens pen. Failure to do this may result in scratching of the scopes lenses.

- If your riflescope is equipped with an illuminated reticle make sure that you turn the illumination control to one of the off positions when it is not in use.
- If the battery for your illuminated reticle is dead, replace it with a new CR2032 battery and positive side facing out.
- Keep your lenses clear by using a soft cloth or lens pen. The best way to maintain image quality is by keeping your lenses clear of dirt and dust that cause scratches.

8.0 TROUBLESHOOTING

POI CHANGES BETWEEN GROUPS

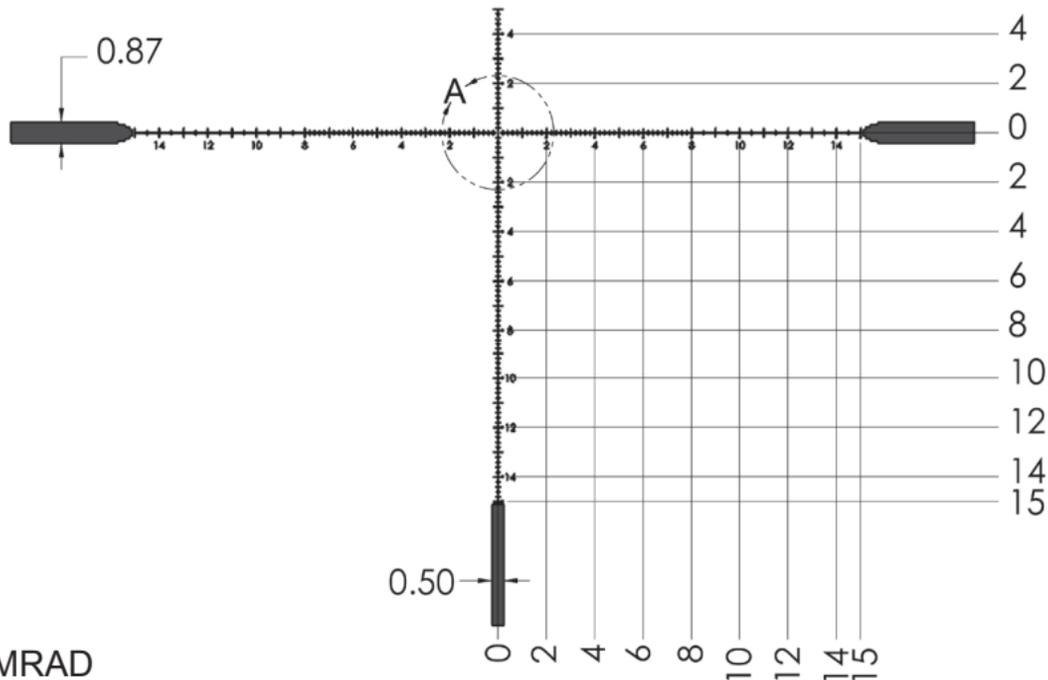
- Check that all of your mounts are tightened to the correct torque specification.
- Check/Clean your rifle.
- Check for variations in ammunition.

RETICLE FAILS TO ILLUMINATE

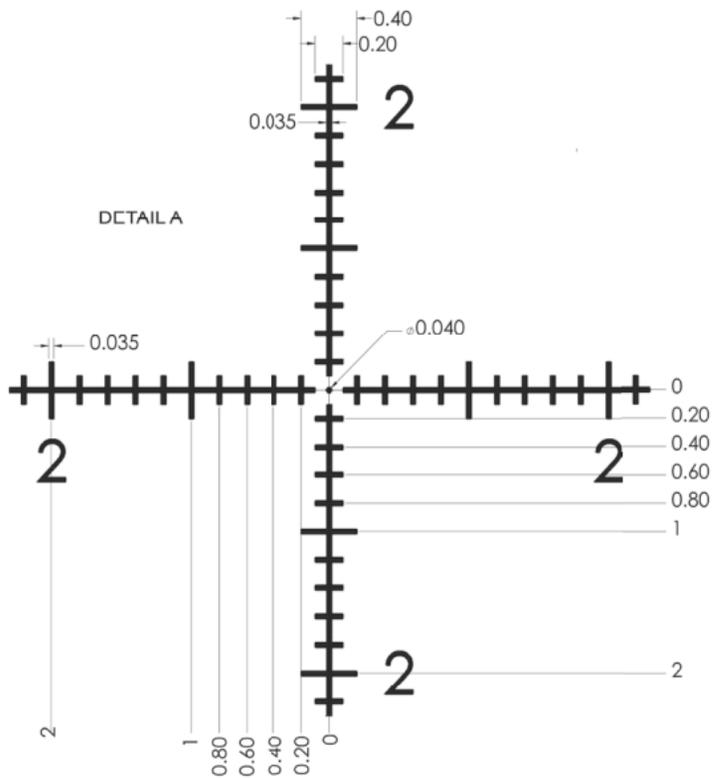
- Check that the battery is the proper battery (CR2032). There are other coin type batteries that are similar in appearance and size.
- Ensure that the battery is installed correctly with positive side (+) facing outward. Reinstall the battery port cover by rotating the cap in the clockwise (CW) direction to 10 in-lbs.
- Replace dead battery.
- Ensure that the illumination power selector ring is in an ON position.

9.0 TANGO-MSR RETICLES

9.1 FFP ILLUMINATED MRAD MILLING 2.0 RETICLE - 3-18X AND 5-30X MODELS:

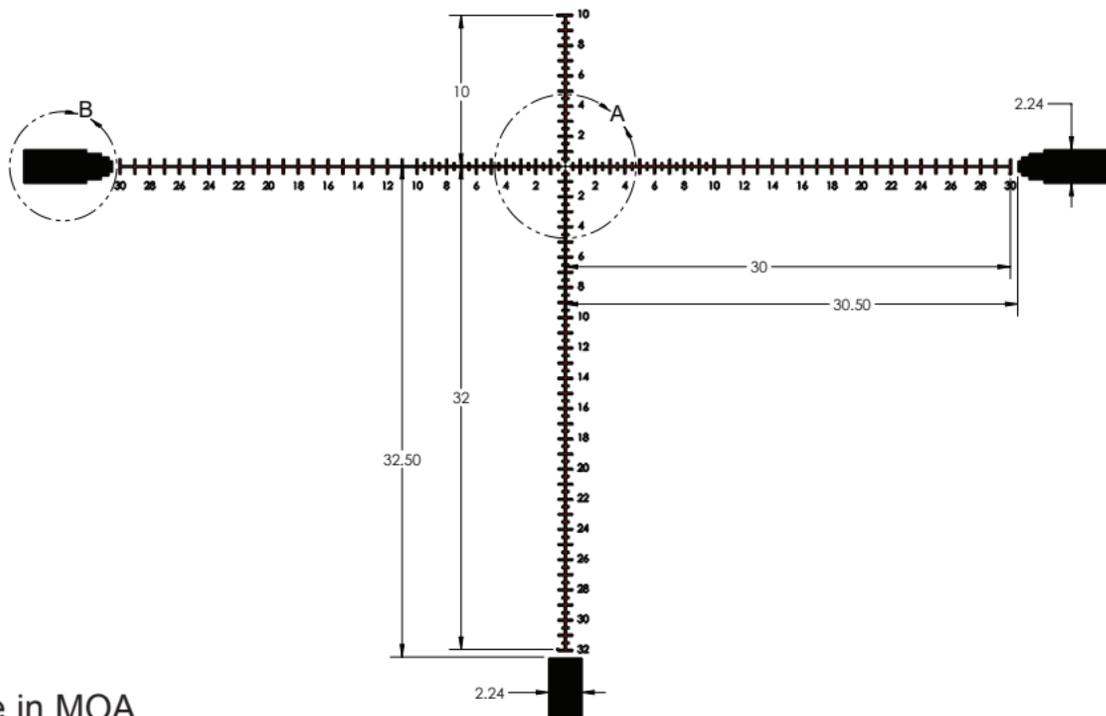


Units are in MRAD

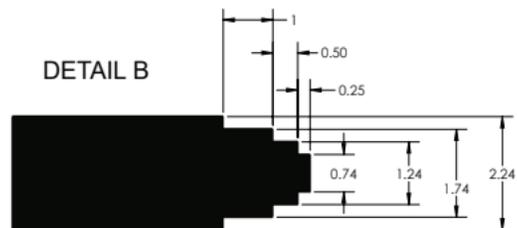
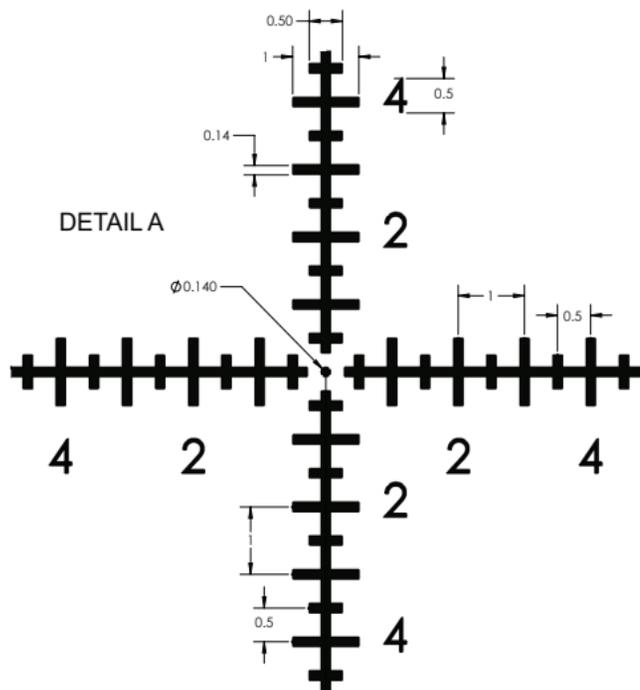


Units are in MRAD

9.2 FFP ILLUMINATED MOA MILLING 2.0 RETICLE - 3-18X AND 5-30X MODELS:

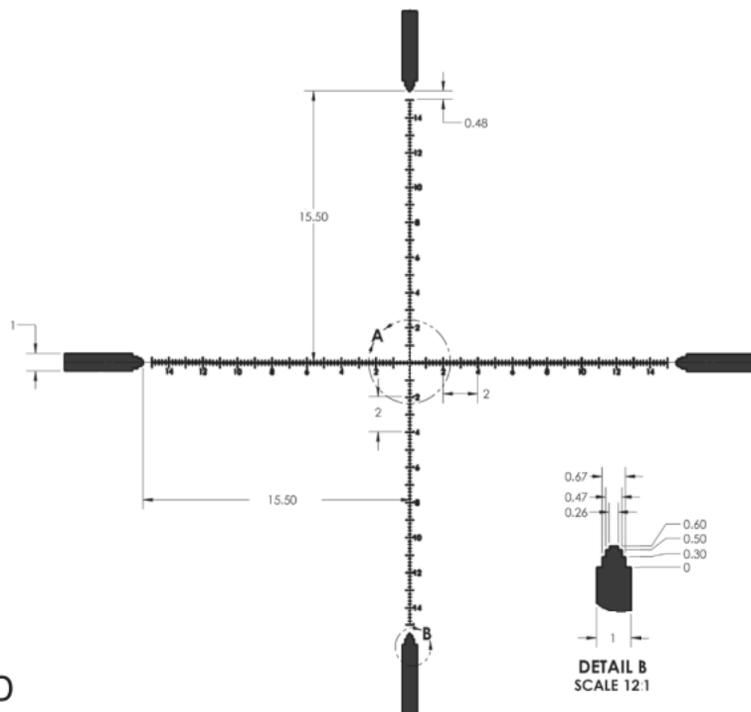


Units are in MOA



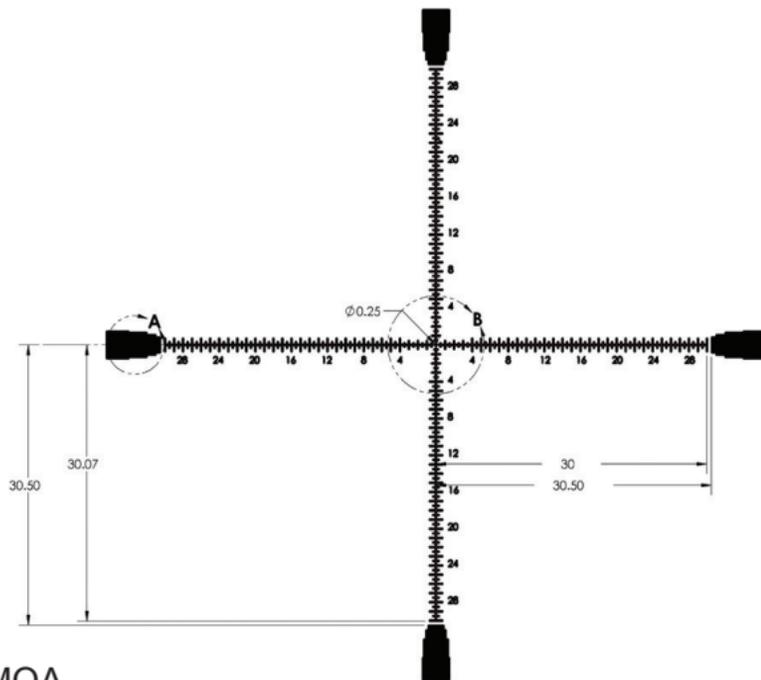
Units are in MOA

9.3 2-12X FFP ILLUMINATED MRAD MILLING 2.0 RETICLE

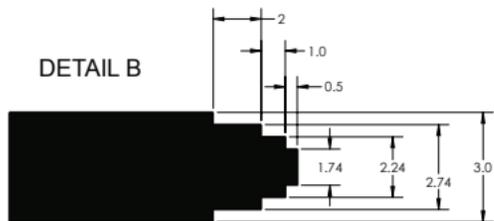
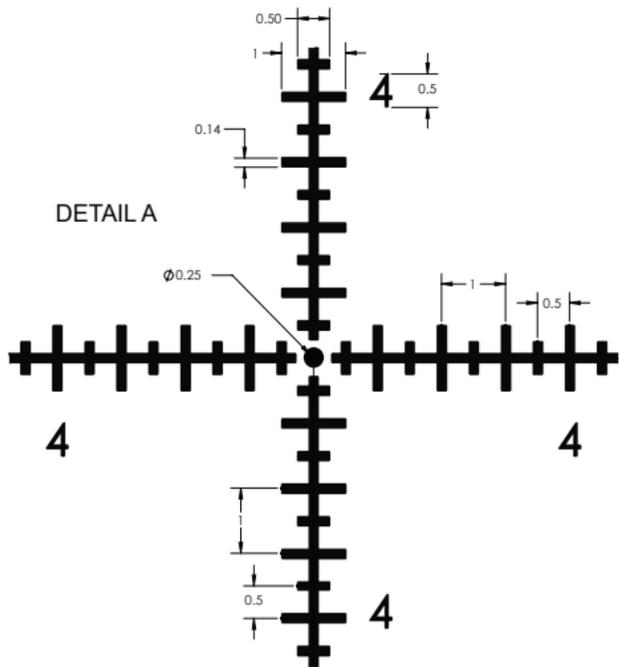


Units are in MRAD

9.4 2-12X FFP ILLUMINATED MOA MILLING 2.0 RETICLE



Units are in MOA



Units are in MOA

REPRODUCIBLE RANGE CARDS

RANGE	ELEVATION [MOA] [MIL]	WINDAGE MOA] [MIL]
100		
200		
300		
400		
500		
600		
700		
800		
900		
1000		

RANGE	ELEVATION [MOA] [MIL]	WINDAGE MOA] [MIL]
100		
200		
300		
400		
500		
600		
700		
800		
900		
1000		

NOTES:



SIG SAUER® Infinite Guarantee™

SIG SAUER® has a history of quality and reliability that dates back more than 250 years. We understand the importance of true dependability whether it be in the line of duty, at the shooting range or on your next hunt and we continually strive to deliver products that meet and exceed the expectations of even the most demanding customers. That's why SIG SAUER is proud to offer our INFINITE GUARANTEE* on all our firearms, optics, and suppressors.

Our promise: We warrant that your new SIG SAUER firearm, optic, or suppressor was originally manufactured free of defects in material, workmanship, electrical, optical, and mechanical function. We will repair your SIG SAUER product in the event it becomes damaged or is defective in any way, at no charge to you. If we cannot repair your product, we will replace it or, if we cannot replace it, we will provide you with a replacement of equal value. All with no questions asked, forever.

SIG SAUER® INFINITE GUARANTEE

- Fully Transferable
- No Warranty Card Required
- No Receipt Required
- No Time Limit Applies
- No Charge

Please note that our Infinite Guarantee excludes coverage for intentional damage, misuse, cosmetic damage that does not affect the performance of the optic, loss, theft, or unauthorized repair or modification. Excludes Tritium components.

Customers seeking warranty coverage must first obtain a Return Merchandise Authorization (RMA) by contacting SIG SAUER Customer Service and return the product unloaded and freight prepaid.

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