

TANGO

TANGO-DMR RIFLESCOPE

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 DEATH OR SERIOUS INJURY TO YOURSELF OR A BYSTANDER.

- · 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.

A 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.



A WARNING

- Immediately dispose of used batteries and keep away from children. Do NOT dispose
 of batteries in household trash.
- · 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 discard batteries from equipment not used for an extended period of time.
- Non-rechargeable batteries are not to be recharged.
- Do not force discharge, recharge, disassemble, heat above (manufacturer's specified temperature rating) or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.

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 military, law enforcement, long range hunters, and competitive shooters for one reason: When you take your shot, it will count.

TANGO-DMR riflescopes are designed for the most demanding shooters. These variable power 6:1 HDX optics offer a clear image over the entire range of magnification. They also feature our HellFire illuminated reticle system, an advanced electronic motion sensing illumination system and pop-up lockable turrets with zero stop adjustments for an easy return to zero.

CONTENTS:

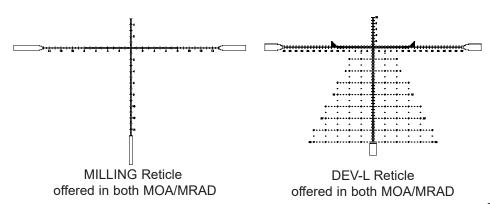
- TANGO-DMR Riflescope
- CR2032 Battery (select models)
- Tools

- Sunshade (Select models)
- Throw Lever (Select models)
- · Operator's Manual



2.0 FEATURES

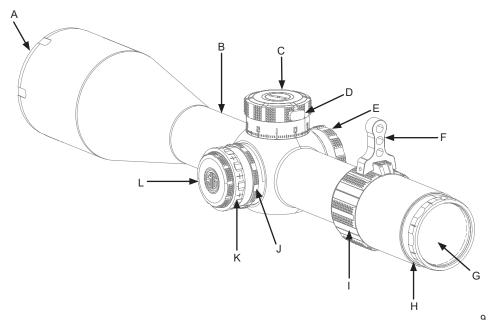
- Offered in First Focal Plane with four illuminated reticle options (see below)
- HDX[™] optics-extra low dispersion glass (HD) combined with high transmittance glass (HT) provide industry leading light transmission and optical clarity for any situation.
- Dependable waterproof (IPX-7 rated for complete immersion up to 1 meter) and fog proof performance.



3.0 PRODUCT IDENTIFICATION

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

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WARNING UNLOAD/CLEAR



ALWAYS UNLOAD AND CLEAR THE FIREARM AND ENSURE THE SAFETY IS ON BEFORE WORKING ON YOUR TANGO DMR RIFLESCOPE. FAILURE TO COMPLY CAN RESULT IN SERIOUS INJURY OR DEATH TO YOU OR A BYSTANDER.

4.0 MOUNTING THE RIFLESCOPE

Proper installation of your TANGO-DMR 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 DMR riflescope.

4.1 RING SIZE AND HEIGHT

Choose your ring diameter by the size of the scope 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

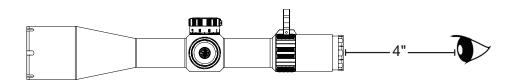
Attach the rings or base to the rifle receiver. If installing the rings or base to a MIL-STD 1913 mount, make sure you push the rings or base forward before tightening the lock nuts. Failure to do this step could allow the scope to move under recoil and actually loosen. It is a good idea to orient the locking nuts to the opposite side of the ejection port so there is no chance of them interfering with ejection. Tighten the lock nuts to the manufacturer's recommended torque.

Set the scope into the lower half of the rings. Attach the top ring caps then loosely tighten the screws allowing the scope to be moved forward or rearward in the rings to set proper eye relief. Once you have set your eye relief (See section 4.3) 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.

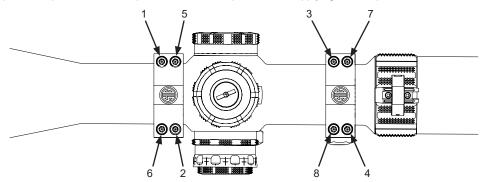
Move the scope in the rings until you have a full field of view with no shadow around the sight picture.



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, 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 a cross pattern using the reference numbers shown below and tighten the cap screws hand tight. Tighten to the manufacturer's recommended torque setting using an inch pound torque wrench and repeat the criss-cross pattern while applying final torque.



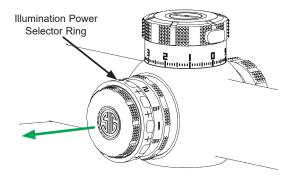
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5.0 OPERATION

5.1 INSTALLING THE BATTERY

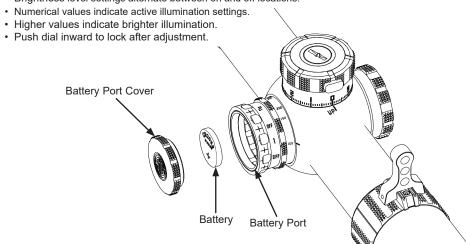
Most TANGO-DMR riflescopes are equipped with illuminated reticles and require a CR2032 battery. To install the battery:

- Remove the battery port cover on the left side of the riflescope turret by turning it counterclockwise.
- 2. Place the CR2032 battery into the battery port with the plus side (+) facing outward
- 3. Screw the battery port cover clockwise back onto the left side of the turret.



5.2 ILLUMINATION BRIGHTNESS LEVEL

- Pull dial outward to unlock, then rotate dial to select the illumination brightness level that best suits your conditions
- Brightness level settings alternate between on and off locations.

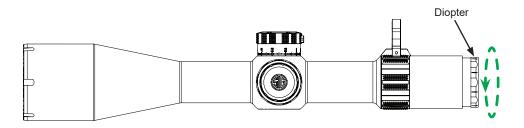


6.0 ADJUSTING THE SCOPE PRIOR TO ZEROING

The TANGO-DMR 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

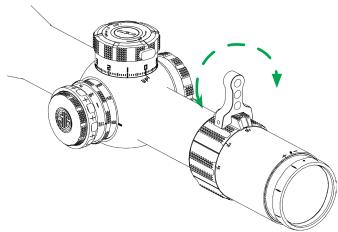
- 1. While maintaining proper eye relief, aim the scope at a large light colored background.
- 2. Focus on the reticle (not the target or background) for several seconds, then look away.
- 3. Look through the scope again, focus on the reticle and adjust the diopter approximately one half turn. If the 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 POWER

TANGO-DMR riflescopes are variable power. In order to increase the power setting:

- 1. Rotating the power selector ring clockwise will increase the magnification.
- 2. Rotate the power selector ring until the desired magnification is reached.



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:

- 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).
- 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.
- 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.
- 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.
- If there is movement in the reticle, make small adjustments to the parallax adjustment knob until the movement is eliminated.

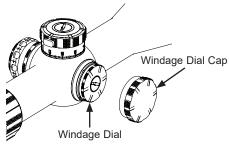
^{*}Certain models offer adjustment on the left side of the turret.

6.5 POINT OF IMPACT (POI) ADJUSTMENT

POI corrections should be done using the center of a three or five shot group. If you are not able to get a consistent shot group then you will need to further troubleshoot your firearm or ammunition.

6.5.1 ADJUSTING WINDAGE

If your POI is located to the left of your point of aim (POA), you will need to adjust the windage to the right. To adjust the windage to the right you must remove the windage dial cap. Once the dial cap is removed you are able to make POI adjustments. The value of each click is marked on the dial. To move the POI to the right, turn the windage adjustment dial counterclockwise. To move the POI to the left, turn the windage adjustment dial clockwise. Once you are satisfied with your POI correction, you can reset the dial to zero as described in Section 6.5.2.



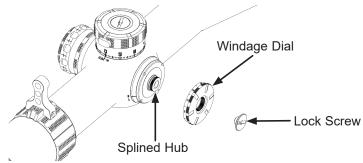
6.5.2 RESETTING THE ZERO OF YOUR WINDAGE ADJUSTMENT DIAL

NOTE

Once you have your windage corrected you can reset your windage dial to zero.

To do this:

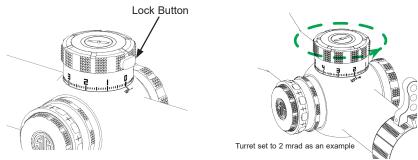
- 1. Remove the lock screw using a coin or a 2.5mm hex.
- 2. Carefully pull the windage dial from the turret.
- 3. Align the (0) on the dial with the indicator line on the turret.
- 4. Re-attach the dial to the splined hub of the turret and install the lock screw.



6.5.3 ADJUSTING ELEVATION

Automatic locking function occurs at the zero position, 10 clicks below and 250 clicks above zero.

If your POI is located below your POA you will need to adjust the elevation adjustment dial. To adjust the elevation up, push in the lock button then turn the elevation adjustment dial counterclockwise. To move the POI down you will need to turn the elevation adjustment dial clockwise.



Once your elevation POI is located where you want it in relation to your POA, you can reset your turret to zero as described in section 6.5.4.

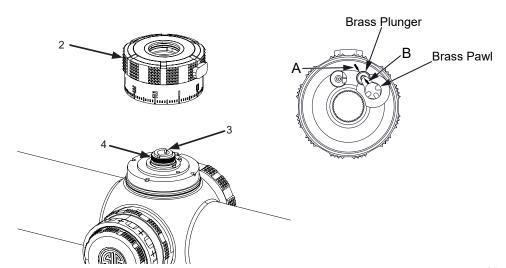
6.5.4 RESETTING THE ZERO OF YOUR ELEVATION ADJUSTMENT DIAL

The elevation adjustment dial of TANGO-DMR riflescopes are able to be zeroed.

- 1. Remove screw (1) from top of elevation dial (2) using a 2.5mm hex wrench or a coin
- 2. Lift elevation dial (2) off splined hub (3).
- 3. Turn dial (2) upsidedown and locate brass pawl.
- 4. Rotate brass pawl until it stops on top of brass plunger. Pawl should lock in place as shown and indication arrows (A) and (B) should be pointing toward each other.
- 5. Turn brass screw (3) to adjust your reticle position until it matches your point of impact.
- 6. Reinstall elevation dial (2) by aligning zero mark of dial with zero mark on scope tube.
- 7. Gently press dial onto splines (4) ensuring dial is fully seated onto splines.
- 8. Reinstall screw (1) and finger tighten. Turret will not turn until screw (1) has been installed.
- 9. Confirm zero and verify turret function.

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7.0 MAINTENANCE

SIG SAUER TANGO-DMR Riflescopes require very low 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 came 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 with 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

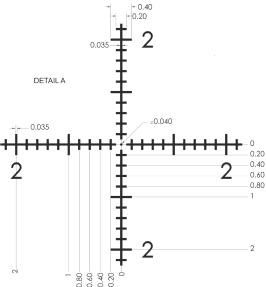
- Check that all of your mounts are tightened to the correct torque specification
- · Check/Clean your rifle
- · Check for variations in ammunition

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
- · Replace dead battery
- Ensure that the illumination power selector ring is in an ON position

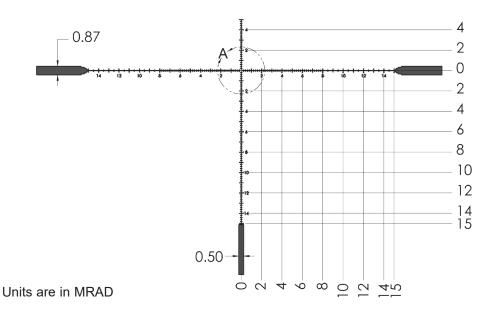
9.0 TANGO-DMR RETICLES

9.1 MRAD MILLING RETICLE

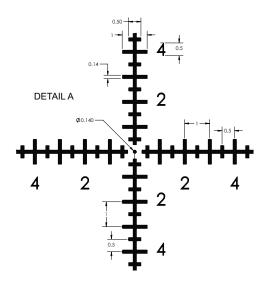


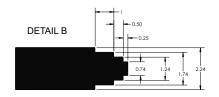
Units are in MRAD

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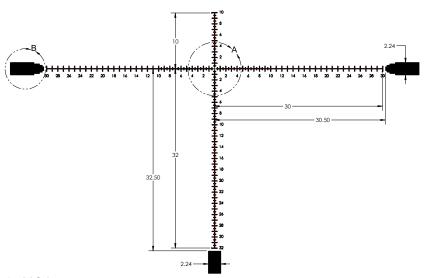
9.2 MOA MILLING RETICLE





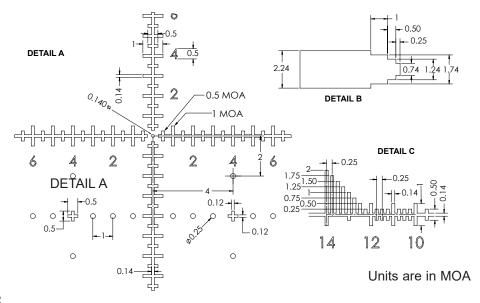
Units are in MOA

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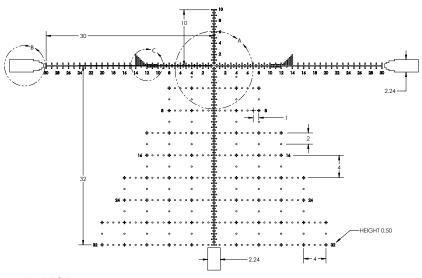


Units are in MOA

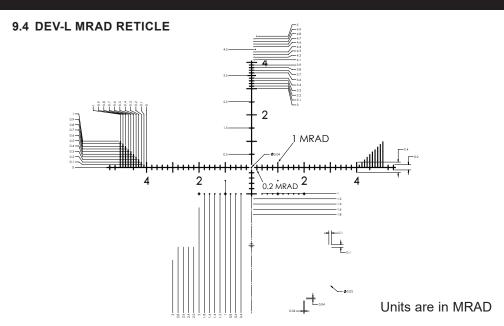
9.3 DEV-L MOA RETICLE



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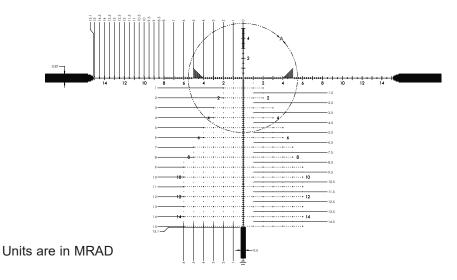


Units are in MOA



NOTES:

- RETICLE, MRAD, FFP, MRAD DEV-L 2.0.
- 2. 1MM IS EQUAL TO 1MRAD.
- RETICLE AND NUMBERS ARE ILLUMINATED RED.
- LARGE END FEATURES ARE NOT ILLUMINATED.



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		

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		



SIG SAUER ELECTRO-OPTICS INFINITE GUARANTEE®/LIMITED LIFETIME WARRANTY

SIG SAUER® has manufactured the most rugged, dependable, high-performance firearms for more than two centuries. Our heritage of design, engineering, and precision-manufactured quality predates the existence of any other optics company worldwide. We understand the importance of quality in the line of fire, at the shooting range or on your next hunt. SIG SAUER Electro-Optics had to earn the right to wear that badge and the Infinite Guarantee has your back, forever. Period.

We will repair or replace your SIG SAUER product in the event it becomes damaged or defective, at no charge to you. If we cannot repair your product, we will replace it with a product in perfect working order of equal or better physical condition.

SIG SAUER® Infinite Guarantee®

- · Unlimited Lifetime 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 electronic and Tritium components.

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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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SIG SAUER® ELECTRONIC COMPONENT LIMITED 5-YEAR WARRANTY



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WARNING: CANCER AND REPRODUCTIVE HARM—www.P65warnings.ca.gov



NOTES:



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