

March[®] Rifle Scope

First Focal Plane Reticle Scope

GENESIS

EXTREME LONG RANGE

Owner's Manual
(English Language Edition)



Thank you for purchasing your March Rifle Scope. Please read this owner's manual thoroughly before using your scope.

WARNING:

Never use a telescope to look at the sun.

Using a rifle scope to look at the sun will cause permanent and irreversible eye damage.

Make sure that you set enough eye relief position of your scope to prevent facial impact during recoil. Setting your new scope with incorrect eye relief and improper mounting can cause injury to the shooter.

Cold Conditions and Nonuse Performance Recovery

To ensure an airtight seal, GENESIS uses packing for the rotating sliding portion of the scope. Under cold conditions, or when not in use for prolonged periods, the packing may stick and elevation movement may become unstable. Should this occur, press the eyepiece downward two to three times to stabilize.



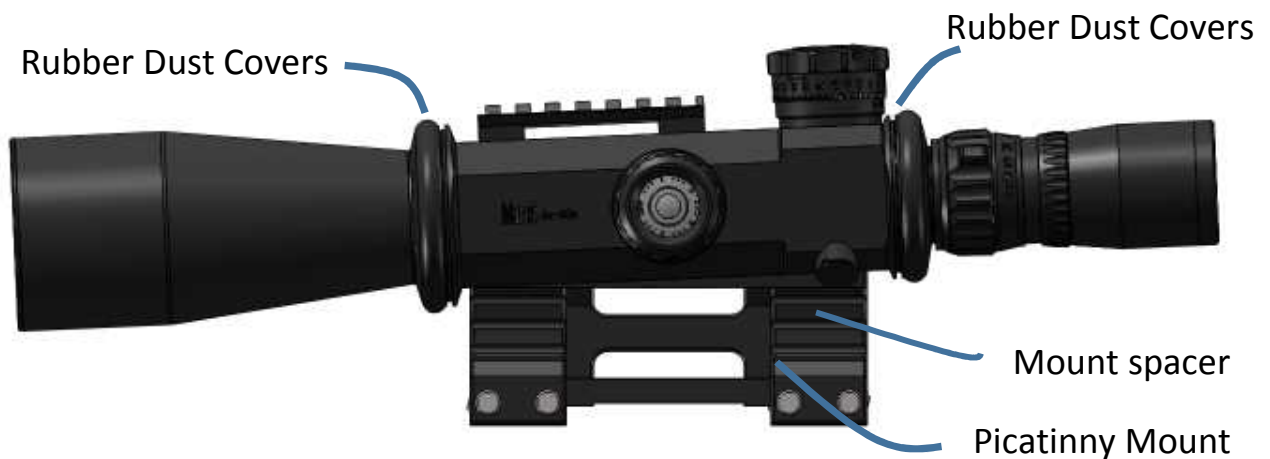
Before you mount your new March GENESIS Scope

Your new March GENESIS scope has come out of the factory pre-set at -0.5 diopter setting. Before you begin using your GENESIS scope, you will need to take a moment to focus the reticle for your eyes and bore sight your rifle.

The best way to focus your GENESIS scope's reticle is covered on Page 6. This can either be done before or after the scope is mounted on your rifle.

Bore sighting your GENESIS scope is covered in more detail on Page 7.

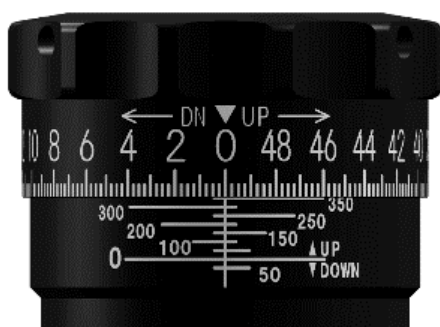
We hope the following advice is helpful to you in setting up your new GENESIS scope.



The March GENESIS scope is no ordinary rifle scope. Traditional rifle scopes are designed and constructed with an internal assembly which moves the image of the reticle and field of view as the turrets are adjusted. For long range shooting, the FOV is shifted far enough off the centerline of the lenses that optical resolution is reduced. Unfortunately, it is at long ranges where the shooter needs the best clarity. Long range shooters often use MOA inclined rail below their scopes, not just to provide more elevation adjustment but to keep the reticle closer to the optical centerline of the lenses when sighted in at long range. In the GENESIS scope, the reticle remains fixed, so it is always optically centered within the internal lens assembly of the scope, thus maximizing optical clarity in all conditions.



Imagine the GENESIS scope as a non-adjustable scope within a complex mounting system capable of adjusting the elevation of the scope 400MOA. The GENESIS turrets are external to the inner scope tube which pivots both horizontally and vertically on a complex gimbed system, and a pair of return springs insure that the “inner scope” is always held firmly against the turrets ensure.



Elevation Adjustment for MOA

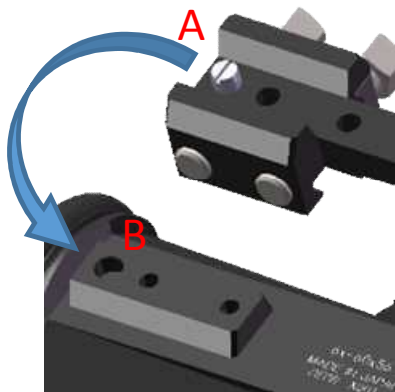


Elevation Adjustment for MIL

To enhance the 400MOA range of the elevation turret, a 150MOA base is integrated into the GENESIS Picatinny mount, so instead of having 200MOA up and 200MOA down, the range shifts to 350MOA up and 50MOA down. This is designed to allow targeting out to three miles subject to rifle system, ammunition, and environmental conditions.

Mounting your new GENESIS Scope

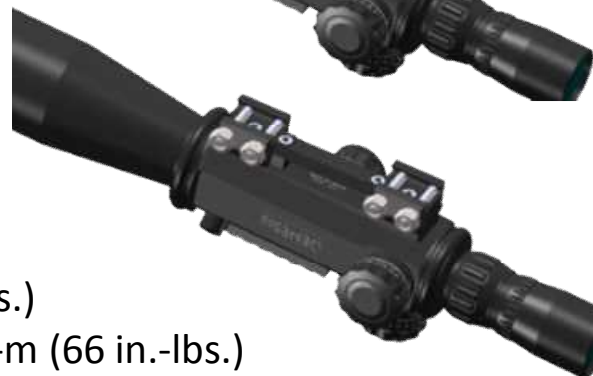
Attach the GENESIS base mount to the GENESIS scope body. GENESIS base stud (A) inserts into the hole (B) on GENESIS base mount installation site. Secure with the attached four short screws (5 x 15). The use of a medium strength Loctite or similar threadlock is recommended.



GENESIS Base Mount



GENESIS Base Mount Installation Site

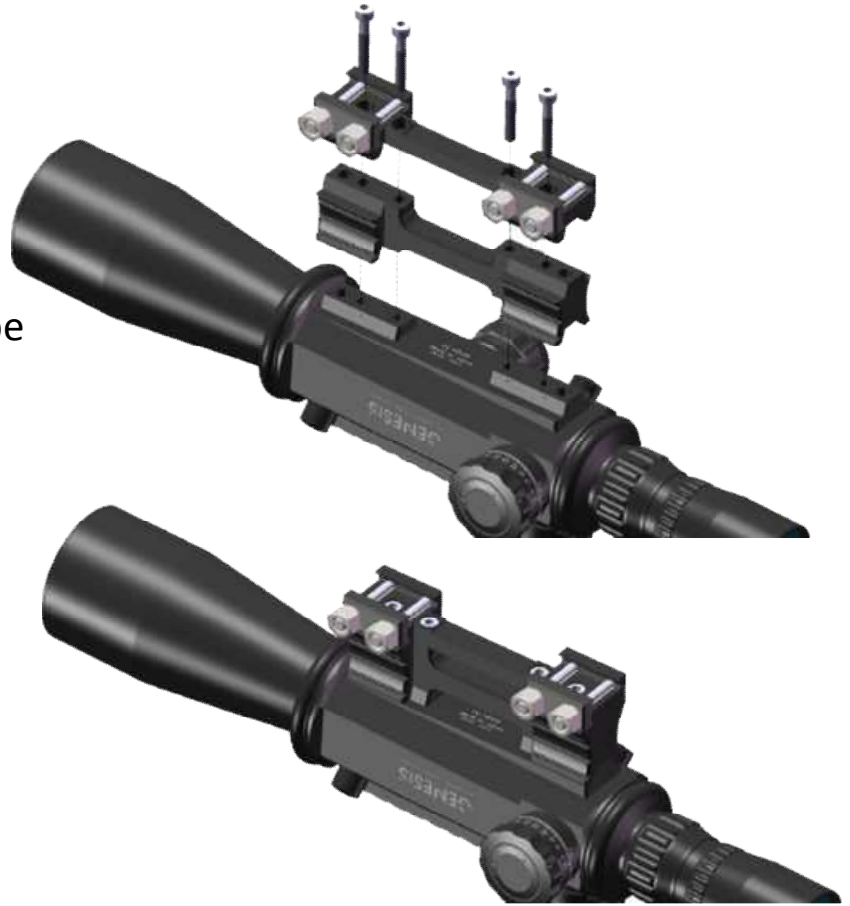


The torque specification mounting screws: 5 n-m (45 in.-lbs.)
Picatinny clamp cross-bolts: 7.5 n-m (66 in.-lbs.)

Mount Spacer



Add the mount spacer between the GENESIS scope body and GENESIS base mount, which enables full range of scope adjustment of rifles with full length picatinny rails. Use of the mount spacer requires the attached four long screws (5x35) for full stop and space required. The use of a medium strength Loctite or similar threadlock is recommended.



Setting the Eye Relief

With the bolt removed from the unloaded rifle, aim the rifle in your usual shooting position. Very slowly move your GENESIS scope until you can see the full field of view. No dark circles at the edges should be present at this stage, and there will be a comfortable eye relief.

Make sure that you set enough eye relief position of your scope to prevent facial impact during recoil. Setting your new scope with incorrect eye relief and improper mounting can cause injury to the shooter.

Focus the Reticle

With your GENESIS scope securely installed on your rifle, it is now time to focus the reticle to your eyes. With your scope at its lowest power setting, rotate the eyepiece counter-clockwise (when viewed from a normal shooting position) until the eyepiece moves freely. Looking through scope, aim at a plain background such as the blue sky or a sheet of white paper.



DO NOT ATTEMPT TO LOOK AT THE SUN, AS PERMANENT EYE DAMAGE WILL RESULT.

When you turn the eyepiece, the reticle's clarity will change as the focal length changes. When the reticle is focused for your eyes, turn the locking ring counter-clockwise until it is firm against the eyepiece.

Do not attempt to over tighten but it must be firm.

Eyepiece Adjustment Line

The factory setting of the eyepiece is at -0.5 diopter. It is indicated with white line.

The adjustment to suit normal eyesight should not be too far from this position.

Once the eyepiece is set at the best position for your eyes, it is not necessary to alter the setting often unless changing of visual acuity or user.

The factory setting of the eyepiece is indicated with white line.



Rotate eyepiece lock ring and align it on the white line to set back to factory setting of the eyepiece.

Sighting in your GENESIS Rifle Scope

The easiest way to sight in your GENESIS scope is to bore sight your rifle against a target located between for example 25 and 50 meters away.

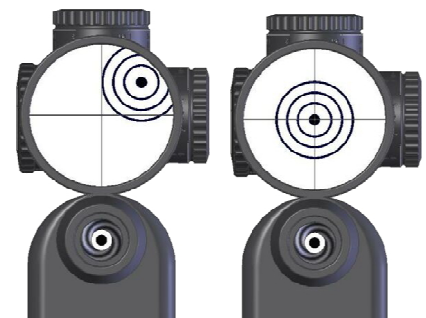
Bore sighting is easy. With your rifle securely rested and the bolt removed, look through the bore and move the rifle until you can see the target centered in the bore.

Without moving the rifle, look through the scope and adjust the windage and elevation setting to adjust the scope's reticle to the center of the target.

Fire a shot at the target and adjust the windage and elevation settings to move the reticle to the bullet's point of impact.

Turning the elevation dial towards "UP" moves the Point of Aim (POA) higher, while turning the dial towards "DN" moves the POA lower. Turning the windage dial towards "R" moves the POA to the right, while turning it to "L" moves the POA to the left.

After you have adjusted your scope to the point of impact, move the reticle back to the center of the target and fire another shot. Repeat the adjustments to the windage and elevation dials until the point of aim meets the point of impact.



Focus/Parallax adjustment

Your GENESIS Rifle Scope has a side focus dial that can be used to focus the scope on targets from approximately 20 yards to infinity.

It is critical, particularly for target shooting, that the setting be absolutely parallax free.

This means there should be no movement of the reticle relative to the target. To check this, move your head very slightly upwards and down or left to right and see that the reticle position does not move on the target. Be careful not to accidentally move your rifle when checking this.

The reticle should remain in the exact position aimed on the target as you slightly move your head position for parallax free operation.

Adjust the focus dial until parallax free. If parallax movement is not completely removed you will have larger than usual grouping dispersion of your shots.



Side Focus dial



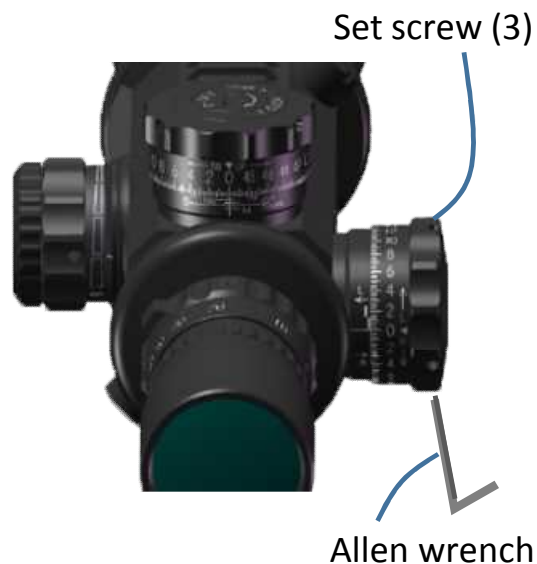
Side Focus Dial
Illumination Model

If the focus dial or zoom ring is stiff.

The side focus dial and zoom ring may be stiff to rotate due to lack of use or during cold weather. This is due to a settling of the lubricant on the airtight seals over time, or an increased viscosity in the lubricant at lower temperatures. Gently turning the dial back and forth will restore normal function.

Setting Elevation and Windage Zero

Customising the windage and elevation zero on your new GENESIS scope is easy. Loosen the three set screws using the provided Allen wrench (see picture). Once loose, the dial should turn easily and you can set the dial to any position required. Retighten the set screws being careful not to over tighten them as damage may result.



Zero Set Function

GENESIS model have a Zero Set capability. After setting the elevation dial to the desired position,

hold the dial with your fingers and turn the "0-SET" Dial clockwise using a coin or correctly sized screw driver until the bottom stop is reached.

At this point the elevation cannot be lowered and so you never lose your starting point.

If you do not need to use the Zero Set function, turn the "0-SET" dial counter-clockwise until it reaches the top of its travel.



Illuminating the Reticle

The Illumination Model (where fitted) on GENESIS scopes produces four levels of light intensity on the reticle for precision shooting in low light or night conditions. Pushing the rubber switch on the focusing dial activates the Illumination mode.

The Illumination Model cycles through OFF-1-2-3-4-OFF each time the switch is pressed.

The 4th setting is the brightest. The Illumination Model will automatically switch off after one hour to conserve battery life.



Rubber Illumination Switch

Changing the battery in the Illumination Model

Turn the switch counter-clockwise to expose the battery compartment. Replace the battery with a lithium CR2032 battery. Pay special attention to the battery polarity: the positive (+) side of the battery must face the scope body.



Using the Zoom to change magnification

Turn the zoom ring clock wise to increase your scope's magnification and counter-clockwise to decrease magnification. Use the index point to select the most appropriate setting.

Please take special note:

On the GENESIS FFP lens system, the erector lenses must be moved considerably to achieve 10x magnification ratio. A slight lag occurs between movement of the zoom cam and movement of the erector lenses. This will cause diopter shift between 18x and 23x. At this time if you move zoom ring back and forth slightly it fixes the lag and you can adjust the focus of reticle. Diopter shift by zooming is adjusted within 0.5 diopter.

Modifier Disk

Modifier Disk for objective lens

The Modifier Disk does not use any lenses. It is a lightweight aluminum disk with a smaller diameter hole in it to reduce the amount of light entering the scope.

The Modifier Disk screws onto the scope via the threads in front of the objective lens.

Using Modifier Disk with your March scope will:

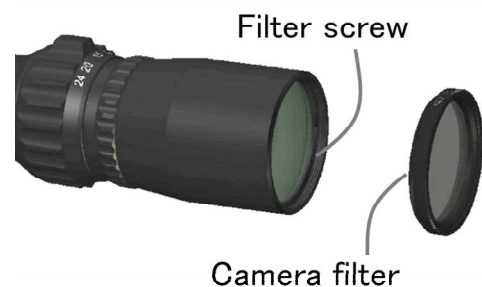
- a; reduce the amount of light entering the scope by as much as 40%(depending on the brightness of the conditions)
- b; increase the depth of focus by up 40%.

If unnecessary brightness is reduced and the focus depth increased, a user's ability in reading mirage is enhanced as the sight picture is more defined in difficult conditions.



For light reduction purposes, it is possible to use a camera filter on the eyepiece ($\varnothing = 37\text{mm}$, P= 0.75).

March recommends against using a filter on the objective lens because this affects target resolution.



March™ Flip Cap



- a) Slide the correctly sized flip cap onto the eyepiece or objective end of the scope until it meets the inner edge of the cap. If the flip cap is difficult to install due to stiffness, warm it up first (only warm it slightly, do not apply direct heat).
- b) After flipping the cap open, push the cap down until it locks into the open position. Make sure to lock the cap open during scope use.
- c) While flip caps protect against rain and dust, they are not waterproof. All March scopes are waterproof.

Making a March

Lens Design

HighMaster Lenses

Incredible Super ED* lens formula which is closer to fluorite than traditional ED lenses for superior correction of chromatic aberration. The resulting sight picture provides unsurpassed edge to edge definition and renders colour in true-to-life hues across the entire field of view.

*ED (Extra-low Dispersion) lens:

Reduces the colour separation effect of the prism.

Temperature Anti-Drift Lens System

In the latest optical systems for automotive cameras, a new lens material has been developed to accommodate changes in environmental temperature by altering the refractive index of the lenses. This new lens material has been adopted for the new HighMaster optics to create a more stable lens system that naturally adapts to changes in temperature to maintain focus and clarity over a wide range of conditions.

Internal Construction

March Rifle Scopes are made from specially heat-treated, high-grade aluminum, special alloy steel and brass. The scope body is filled with argon gas to create a stable environment. To ensure that March Scopes remain airtight, each scope is fitted with high performance, industrial grade rubber O-rings. Importantly, March Rifle Scopes contain no plastic internal parts.

First Focal Plane (FFP) design;

A reticle placed in the first focal plane will keep the same value regardless of the magnification setting selected. This helps to simplify ranging targets and aiming off in difficult conditions. The reticle and the target will increase in size as the magnification is increased but any hash marks or divisions in the reticle pattern will retain a constant value. For example, one Mil-Radian is a consistent measurement across the whole power range.

To determine what measurements are covered by your March's reticle, please refer to the reticle information contained at the end of this manual.



Low Magnification

High Magnification

March
GENESIS
 EXTREME LONG RANGE

6x-60x56mm



Windage and elevation markings:

Elevation dial

Windage dial

MOA model dial



1 Click: 1/4MOA
 1 Turn: 50MOA
 Total adj. range: 400MOA

1 Click: 1/4MOA
 1 Turn: 50MOA
 Total adj. range: 150MOA

MIL model dial



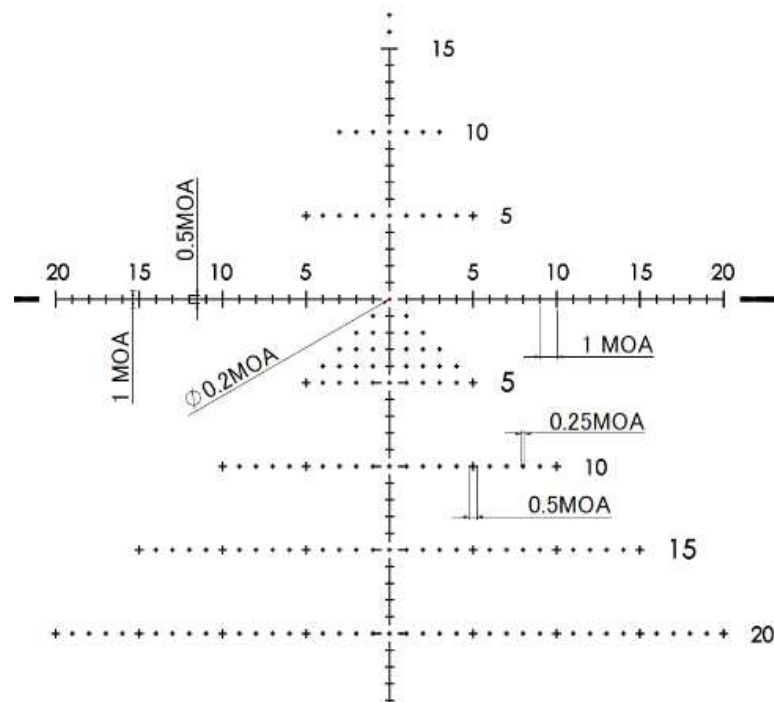
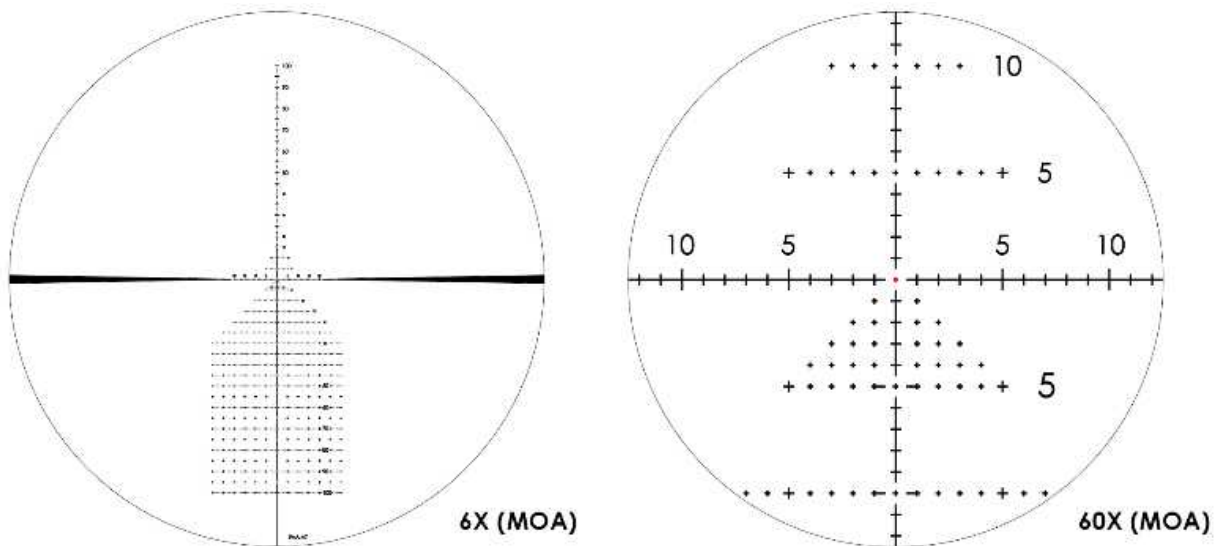
1 Click: 0.05Mil
 1 Turn: 10Mil
 Total adj. range: 114Mil

1 Click: 0.05Mil
 1 Turn: 10Mil
 Total adj. range: 40Mil

Reticle:

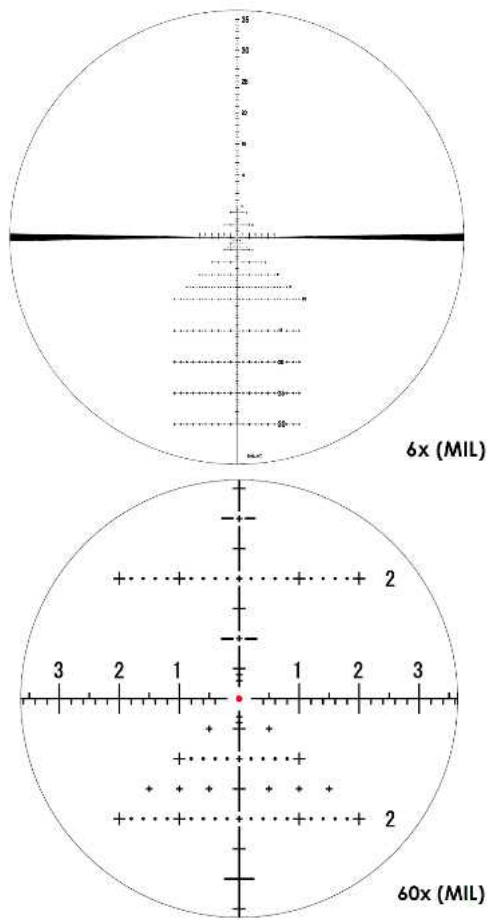
MOA model [D60V56GFMA, D60V56GFIMA]

FMA-MT Reticle

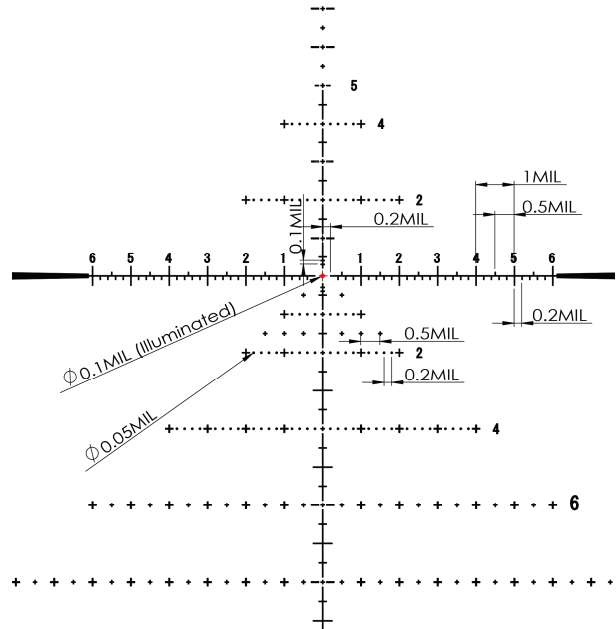


MIL Illuminated model [D60V56GFIML]

FML-MT Reticle

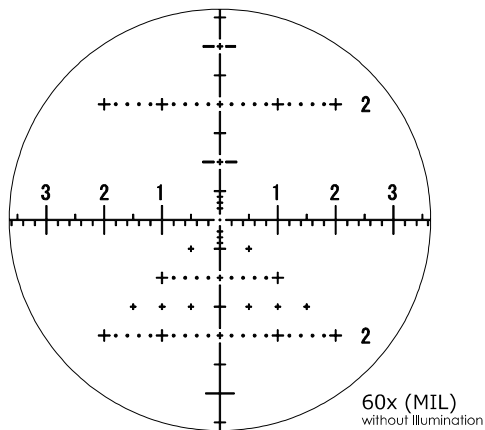


Illumi Model Reticle size

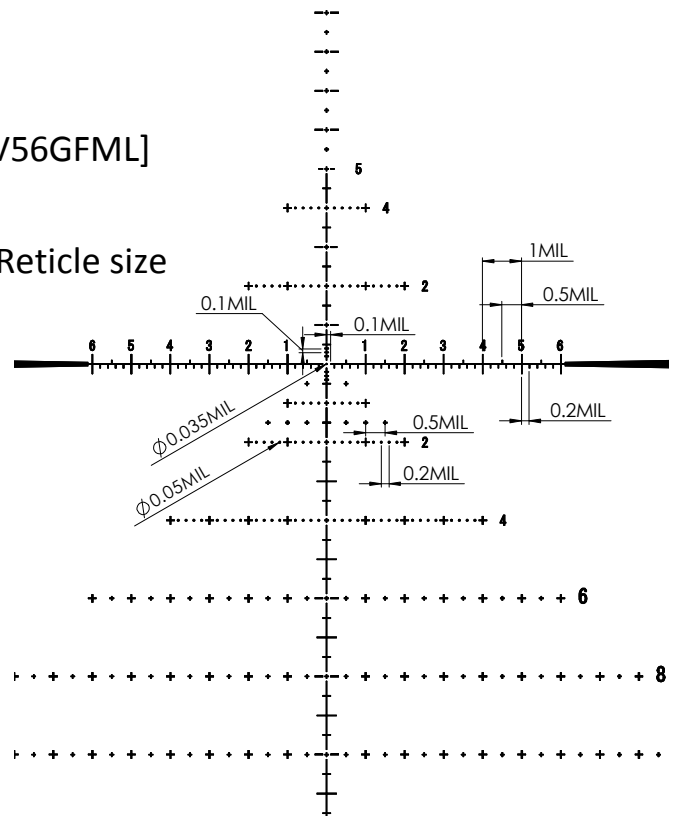


MIL model (non-Illuminated) [D60V56GFML]

FML-MT Reticle



Reticle size

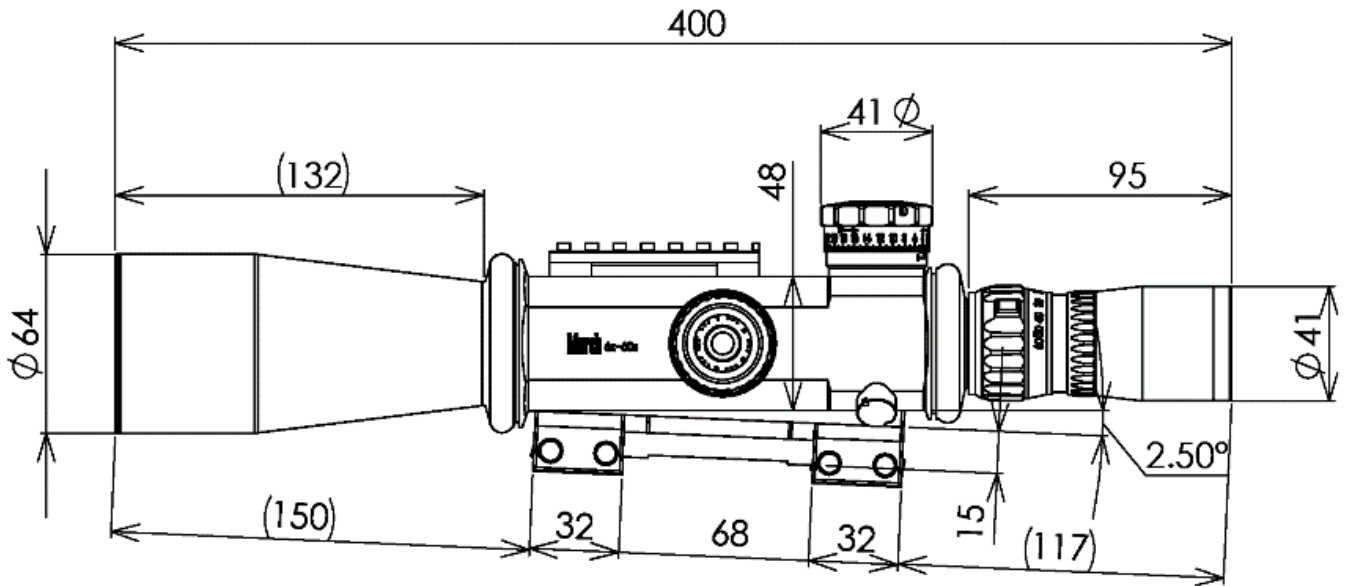




March GENESIS 6x-60x56 Scope SPECIFICATIONS					
		MIL model		MOA model	
Model No.		D60V56GFML	D60V56GFIML	D60V56GFMA	D60V56GFIMA
Magnification	Low	6x			
	High	60x			
Effective Lens Diameter		56mm			
Exit Pupil	Low	3.3mm			
	High	0.93mm			
Field of View real	Degree	Low	4.16°		
		High	0.416°		
	ft/Yd	Low	21.8ft/100Yd (7.26m/100m)		
		High	2.18ft/100Yd (0.726m/100m)		
Eye Relief	Low	67-82mm			
	High	63-82.5mm			
1 Click Value		0.05 Mil		1/4 MOA	
1 Turn travel		10 Mil		50 MOA	
Elevation Travel	UP	100 Mil		350 MOA	
	Down	14 MIL		50 MOA	
Windage Travel	Right	20 Mil		75 MOA	
	Left	20 Mil		75 MOA	
Focus		Side Focus/Parallax			
Distance		20m-Infinity			
Finish		Matte Black			
Illumination		-	Illumination	-	Illumination
Reticle		FML-MT		FMA-MT	
Weight		1,450g	1,480g	1,450g	1,480g

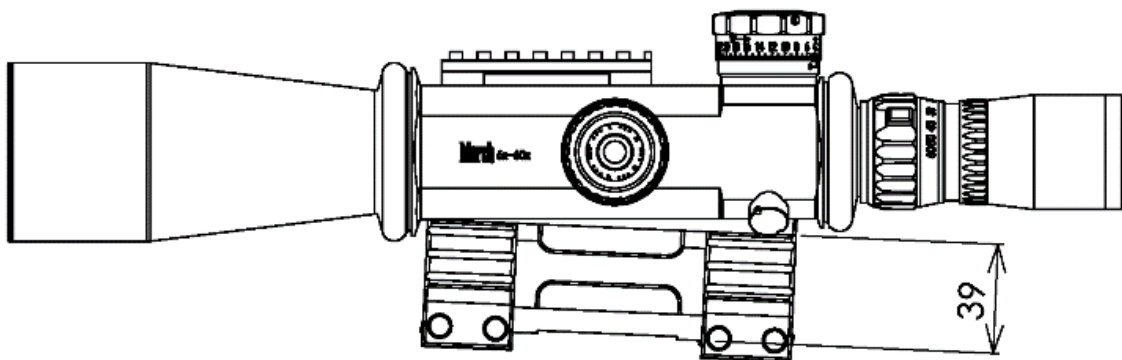
External dimensions

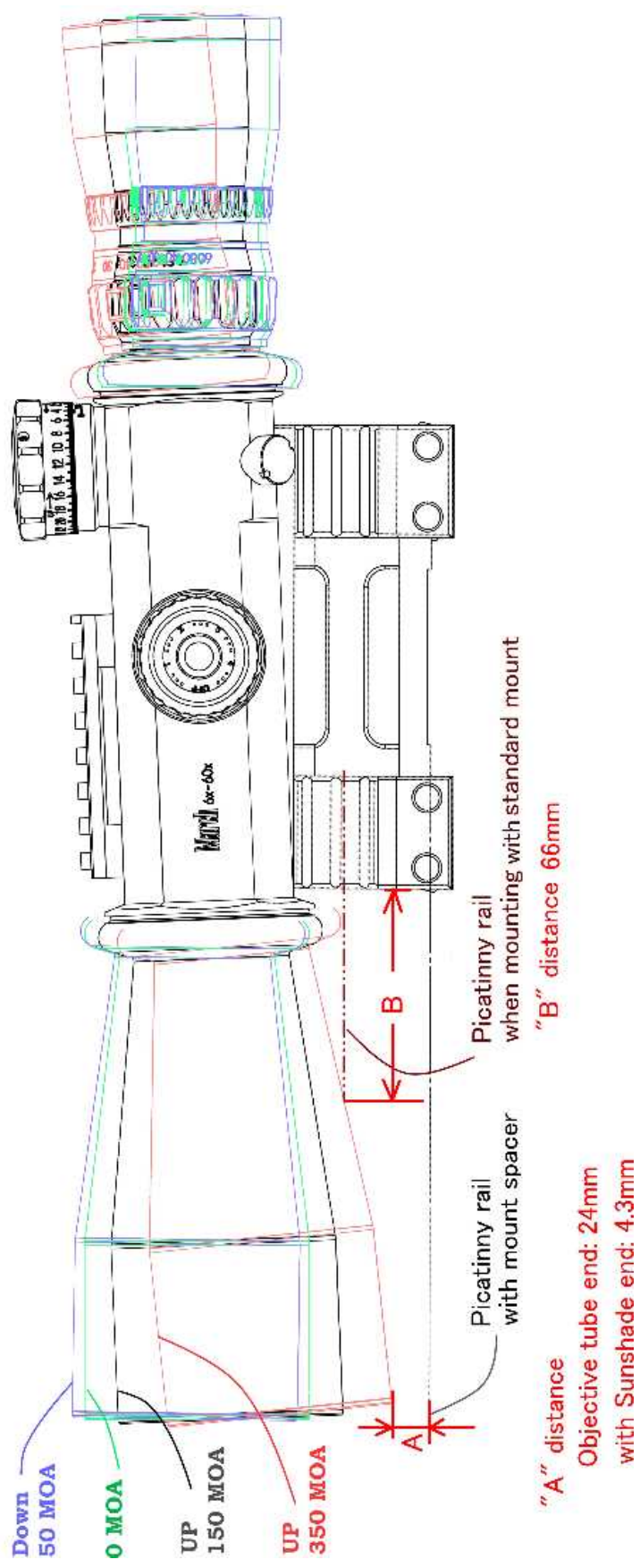
When mounting with standard mount (mm)



External dimensions

When mounting with mount spacer (mm)





Caring for your GENESIS Rifle Scope

GENESIS Rifle Scopes are sealed units however condensation may form on the outside of the lens under extreme conditions. Should this occur, dry with a soft lens cloth immediately and allow the lens to dry completely. Doing this will prevent water spots developing on the lens surface.

March recommends that only quality lens cleaning material are used on the objective and eyepiece lenses to avoid scratching the glass.

Repair Services

Please retain and follow the Warranty paperwork in case your GENESIS Rifle Scope requires repair with the Warranty period. Please inquire of the dealer purchased from, and follow their repair request instruction. When returning your GENESIS Rifle Scope for repair, please enclose and provide a full description of the issue you are having on the form provided with your Warranty.

Should repairs be required outside Warranty period, please contact the dealer purchased from or Deon Optical Design Corporation before sending.

Accessories included



Warranty



Owner's manual



Lens cloth



Allen wrench
(1.5mm & 4mm)



MD disk



Fast lever



Screw set
(5x15mm x4pcs. &
5x35mm x4pcs.)

Illuminated model only



6 Level illumi
switch



Spare
battery



Flip cap for
Objective



Flip cap for
Eyepiece



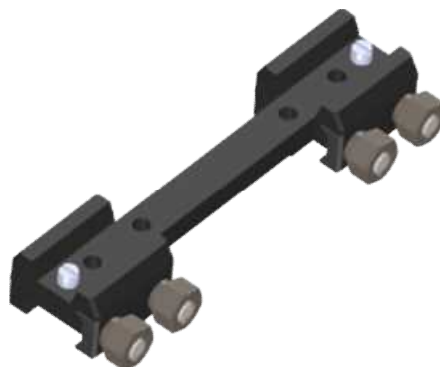
Sunshade



Eyepiece rubber



Mount spacer



Mount

March[®]

Manufacturer

DEON

Deon Optical Design Corporation

4802-2 Miyagawa, Chino-shi,

Nagano-ken, 391-0013 Japan

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URL: <http://www.marchscopes-deon.com>

<http://www.deon.co.jp>

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