# ELEMENT



# 4-25×50 FFP

# **OWNER'S MANUAL** & RETICLE INFORMATION

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## MEET THE NEXUS GEN II.

The word "NEXUS" means "focal point", and that is what this model is to the ELEMENT OPTICS range. The GEN II takes the DNA of the first generation NEXUS and pushes it to another level with a 4-25x Magnification, a new Turret System and Digital Illumination – the ultimate 30mm riflescope. A variety of different reticle designs in both MOA and MRAD cater to all shooters: Simplified options are easy on the eye, while more complex designs allow experienced shooters to hold off with precision. Our design team of global competition winners & hunters understand optics, and have introduced strict quality control measures to ensure perfect operation under testing conditions. And if something goes wrong? Our Platinum Lifetime Warranty has you covered – No paperwork or registration required.



# MOUNTING YOUR RIFLESCOPE

Your rifle system is only as good as its weakest point, and so mounting of a riflescope is a very critical process that requires time and precision. If you feel uncomfortable doing this yourself we suggest visiting a gunsmith, as incorrect mounting can cause many issues down the line.

#### **Choosing Rings**

The NEXUS requires 30mm rings. When purchasing rings for this riflescope, choose a quality product – Inferior rings may not align correctly and can damage your scope.

Ensure that your rings are the correct height above the barrel & action for safe clearance and a comfortable cheek weld.

We recommend using a 20 MOA base or adjustable rings if shooting at extended ranges. NEVER USE SCOPE SHIMS, as these can cause damage to your body tube and void your warranty.



Tip: We recommend Element Accu-Lite Mounts for a reliable, robust and secure mounting solution.

#### Alignment & Eye Relief

1) When fitting the riflescope to your rifle, ensure that the rings are firmly attached to the rifle BEFORE you tighten the top screws down.

2) With the riflescope in place, torque the ring screws down until you begin to feel some resistance, but make sure you are still able to move the riflescope back and forth.

3) Get behind the rifle in a shooting position and move the riflescope forward or backward until the eye relief is best suited to your position.

4) With the eye relief set, use a set of bubble levels or a plumbline to ensure that the riflescope is level. A canted reticle will cause point of impact drift to the left or right, and affect accuracy.



5) Once you are happy with the position of your riflescope, begin to torque down your rings in a criss-cross pattern, moving between screws and turning small amounts at a time. This will ensure that the riflescope does not shift position while tightening.

Use a torque spec of 15-18 in-lbs (1.7-2.0 nm) to avoid damage to the body tube!

# **RIFLESCOPE ADJUSTMENTS**

#### Diopter - Focusing the Reticle

Everybody's eye is different, and the ocular lens will need to be adjusted for your eye in order for the reticle to appear in focus.

To do this, point the riflescope towards a blank or featureless background (i.e. a white wall or blue sky) and turn the ocular adjustment ring clockwise and counterclockwise until the reticle appears in optimum focus.



Adjust Reticle Focus by turning Diopter

Tip: Your eye will try to compensate for an out-of-focus reticle, so it may help to turn your parallax to minimum and look towards a far-off background. This will blur the background and allow your eye to focus on the reticle itself.

#### Illuminated Reticle

The NEXUS GEN II features a digital illumination control. The logo plate on the parallax knob (see image on page 5) is the button used to control these settings.

- -To switch on/off: Press and hold for a full second, and then release.
- -To change brightness: Press button to move between the 10 brightness settings.
- -The reticle with flash momentarily when it reaches the highest brightness setting (10)

The illumination system uses a CR2032 battery, which can be found at most hardware stores. Access battery by holding parallax knob firmly and unscrewing knurled outer cap.

#### Parallax Knob - Focusing the Target

A well-adjusted parallax is crucial for optimum precision, as it places the reticle in the exact same focal plane as the target and "fixes it in place", eliminating the possibility of parallax error. And, of course, it allows you to see your target clearly.

To adjust parallax, rotate the parallax knob until your target is in focus. The parallax wheel is marked for different distances between 10yds/m to infinity. These markings provide an indication of where your optimum parallax setting might be for a given distance, but will not always be 100% accurate as your ocular lens adjustment will affect the location of the focal plane. It is better to use your eye for such adjustments.



Tip: Place your riflescope in a fixed position and change the position of your eye (up/down, left/right) while adjusting parallax. If parallax is not set correctly, there will be apparent movement of the reticle in relation to the target. Adjust the parallax until this movement is eliminated.

#### Adjusting Magnification

The NEXUS GEN II features a magnification of 4–25x, and can be adjusted using the magnification ring near the rear of the riflescope.

The ring is marked with magnification powers from 4x up to 25x, and will line up precisely with the arrow on the ocular tube to indicate magnification. The NEXUS GEN II is a First Focal Plane riflescope, which means that the subtensions of the reticle will remain the same regardless of the magnification. In other words, the magnification setting is not crucial for precision when using the reticle.



#### Fitting/Removing the Throw Lever

Each NEXUS riflescope comes standard with a throw lever that enables fast adjustment of the magnification ring. This can be removed simply by unscrewing and replacing with the included hex screw.



Tip: Check your bolt throw to ensure that the throw lever is not obstructing its movement. Low mounts can place the throw lever in the path of the bolt and cause damage to the throw lever.

# ZEROING YOUR RIFLESCOPE

Your NEXUS will need to be zeroed after it has been fitted to your rifle. This requires dialling of your turrets and slipping the scales back to the "O" position.

#### Adjusting the Turrets

Your NEXUS will use the MRAD or MOA system. For in-depth information on these units, see the guide on page 12. Your turrets should read "1 Click = 1/10 MRAD" or "1 Click = 1/4 MOA". In simple terms, 1 click on an MRAD turret will move the reticle 1 cm at 100 Meters, and 1 click on an MOA turret will move the reticle 1/4" at 100yds. Unlike our other models, the NEXUS does not require the zero-stop mechanism to be removed before zeroing – However, you will need to remove the windage cap to access the windage turret beneath. Turn anticlockwise to remove.



-To move your Point of Impact UP, turn ANTI-CLOCKWISE on your ELEVATION TURRET.

- -To move your Point of Impact DOWN, turn CLOCKWISE on your ELEVATION TURRET.
- -To move your Point of Impact RIGHT, turn ANTI-CLOCKWISE on your WINDAGE TURRET.
- -To move your Point of Impact LEFT, turn CLOCKWISE on your WINDAGE TURRET.

#### **Boresighting**

The NEXUS is optically zeroed at the factory, so it should be close to center when fitted. Even so, it is important to check that you are "on paper" to avoid frustration. Bore-sight your rifle to ensure that your reticle is roughly aligned before fine-tuning. If using an airgun, shoot a large target at a close distance to check basic alignment.

#### Fine-Tuning your Zero

We've designed the Nexus with reticle and turret units matching each other, which will make fine-tuning your zero an easy process. You can use your reticle to measure your Point of Impact offset from your target, and adjust accordingly. Once your point of impact matches your point of aim, your turrets are zeroed and you will want to slip the outer turret housings back to the "O" mark.

#### **Resetting the Turret Housing**

The NEXUS is fitted with tool-free turret housings that can be removed by hand. With one hand holding the turret firmly in place, turn the knurled portion of the locking cap anticlockwise with your other hand until it lifts out. With this piece removed, you can lift off the turret housing and return it to the zero position.





# **TURRET FEATURES & MECHANISMS**

#### <u>Zero-Stop</u>

The NEXUS GEN II is fitted with a newly designed Zero-Stop Mechanism. A zero-stop prevents you from overshooting your zero mark when dialling back down after a long-range shot. This zero-stop system is automatically set to 5 clicks below zero when you reset the turret housing. This requires NO TOOLS and can be done in the field.

NOTE: If you need to adjust your POI downward while zeroing and are prevented from doing so by the zero-stop mechanism:

- 1) Lift and shift the outer turret cap to a position clockwise of the current position (i.e. 2 MRAD up)
- Press down to engage the inner turret, and make downward adjustment as intended.



#### **Revolution Indicator**

The turret mechanism on the NEXUS GEN II features a two-turn system with a revolution indicator which is designed to switch from "1" to "2" when the turret reaches its second revolution.

The below diagram illustrates how the indicator flag changes position between 9 and 12 MRAD (23 & 25 MOA). The engraved 'steps' climbing to the upper row of numbers also illustrates this transition.



### ACCESSORIES

#### Thread Protector Ring

The Windage Turret has been designed to be used as a capped or exposed mechanism. The

cap protects the windage from being bumped or damaged, and is desirable for those who prefer to hold off for wind instead of dial. However some shooters may prefer to keep the windage exposed, and this presents a problem with the fine threads being vulnerable to damage. We've included a ring which can be fitted over the threads to protect and cover them.

#### Aperture Ring

The aperture ring performs one task: To reduce the objective diameter and prevent light passing through the outer edges of the objective lens. But

why would we want to do this? Surely a larger objective lens is better?

The answer is that the full 50mm objective IS better for many applications, as it allows more light into the scope and provides a brighter image. However in some cases, it can be worth



sacrificing a little bit of brightness to improve the image in other areas. By preventing light entering the outer edges of the lens, we increase the apparent depth of field (how much of the image is in focus) and reduce chromatic aberration and other effects by only allowing light through the centre of the lens where light is bent less. This may help you see slightly more detail on a highcontrast target like a white gong, can help in mirage, and will improve image quality on bright days when recording footage through a scope camera.

This ring is threaded on both ends, and can be fitted behind OR in front of the sunshade.

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# **UNDERSTANDING UNITS: MRAD & MOA**

While it is possible to use your riflescope without understanding how these systems work, it is best to know the basic concepts, as they are an integral part of "Shooting Education", and will help you get the best out of your riflescope.

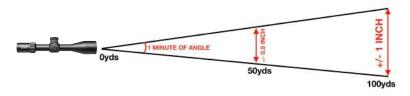
The two units we use in the shooting world are <u>Milliradians</u> (MRAD or MIL for short) and <u>Minutes of Angle</u> (MOA for short). The concept behind these two is very similar: They are angular units of measurement, meaning they can be used at any distance to quantify the distance between turret clicks and reticle markings.

<u>Technically speaking, one MRAD = 1/1000 of a Radian, and one MOA = 1/60 of a Degree.</u> But that doesn't help us.

Let's look at these units in terms of how they correspond to reticle divisions at different distances. In simple terms, <u>ONE MRAD = 10cm at 100m, and ONE MOA = 1.047" at 100yds</u>. This makes these two units very useful, because we can relate them to units of measurement we use every day.



A shooter practicing at a 100m range can easily measure his group size in cm through the scope using his MRAD reticle, and a shooter at a 100yd range can estimate his group size in Inches using an MOA reticle.

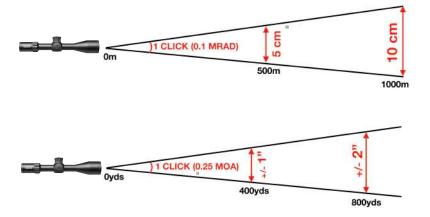


This is also incredibly useful for measuring your POI offset when zeroing your scope, or even measuring the size of an animal when hunting. But there is some mental maths involved. Because these are <u>angular</u> units of measurement, the corresponding length units will change depending on your distance from the target. For example, at <u>1000 Meters, one MRAD will now span 100cm (1m) instead of 10cm, and at 1000 Yards, 1 MOA will span 10.47" instead of 1.047".</u> And the same applies the other way round: <u>at 50m, one MRAD will span 5cm and 1</u> MOA will span approximately half an inch.

Most riflescope turrets are divided up into smaller units for more precise adjustments.

The NEXUS features 1/10 MRAD or 1/4 MOA click adjustments. Again, let's break that down:

<u>MRAD MODELS: 1 Click at 100m = 1cm</u> <u>MOA MODELS: 1 Click at 100yds = Approx. 1/4"</u>



## RETICLES

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The NEXUS GEN II is available with 4 different reticle options.

MOA: APR-1C and APR-2D MRAD: APR-1C and APR-2D

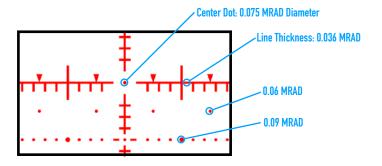
These can be easily categorised into two categories: Simple and Complex. The "simple" reticles (APR-1C) are better suited to shooters that prefer dialling their turrets and don't plan to hold over much. The "complex' reticles, (APR-2D) are better suited to shooters who prefer to use the reticle for hold-off shooting and need more aim points.

#### APR RETICLE OVERVIEW

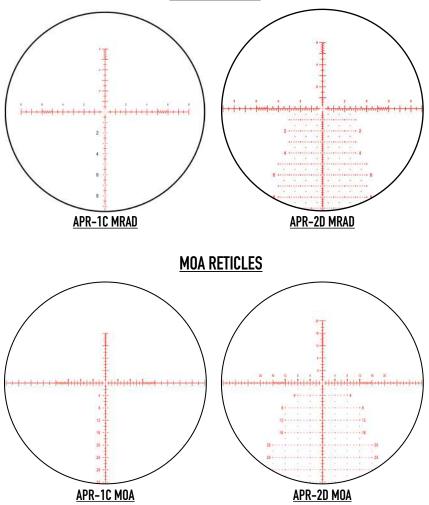
Element's reticles have been designed by hunters, competition shooters and plinkers – We do it all, and we've done our best to design all-purpose reticles that are useful without being too "cluttered". APR stands for "All-Purpose Reticle", and has been designed with some intuitive features:

- -1/10 MRAD or 1/4 MOA scale on the vertical & horizontal axis for measuring group size
- -Center dot for clarity when engaging small targets
- -Numbered markings for fast holds in stressful situations
- -Windage dots below the crosshair for more precise wind holds
- -Tapered bars to draw your eye to the centre of the reticle at all magnifications

The line thickness and dot diameters have been finely adjusted in order to remain useful throughout the 4-25 zoom range:



MRAD RETICLES



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### RESOURCES

A picture says a thousand words, and a video says a million.

Scan the QR codes below with your mobile device for access to tutorials, instructions and other informative content.

#### MOUNTING INSTRUCTIONS

How To Correctly Mount Your Riflescope, including positioning, levelling, setting eye relief and torquing ring screws.

#### ZERDING YOUR RIFLE

How to use Element's intuitive Reticles & Turrets to quickly and precisely zero your rifle & scope.

#### NEXUS GEN II PAGE

Read More about this product, and access related content like blogs, new videos, product overviews, merchandise, etc.





## WARRANTY & SPEC SHEET

As shooters, we know that there is nothing worse than being let down by your equipment. We have made every effort to build a rugged, reliable product that will not break under any normal circumstances, and have implemented some of the strictest quality control measures in the industry. However, we know that things can go wrong, and therefore ALL ELEMENT Riflescopes are covered by our PLATINUM LIFETIME WARRANTY. This includes lifetime cover for any riflescopes damaged through normal use, and requires no registration, proof of purchase or transfer. If you have a problem, we will fix it – It's that easy!

For any warranty claims, please contact <u>support@element-optics.com</u> or complete a claim form on our website.



The Element Optics PLATINUM LIFETIME WARRANTY applies to riflescopes only, and does not cover accessories. Theft, loss, deliberate damage and cosmetic damage that does not hinder the operation of the riflescope is not covered. If your product can not be repaired and a replacement model is no longer in production, a model of equal value will be substituted. For more details, visit www.element-optics.com/warranty

# **SPEC SHEET**

MAGNIFICATION RANGE	4-25x				
TUBE DIAMETER	30mm				
OBJECTIVE LENS DIAMETER	50mm				
EXIT PUPIL	7.1-2.0mm				
EYE RELIEF	77-92mm				
FIELD OF VIEW	@100yds: 29.2-4.7 ft	@100m: 9.7-1.6m			
CLICK VALUE	1/4 MOA (25 MOA / REV)	1/10 MRAD (10 MRAD / REV)			
ELEVATION ADJUSTMENT RANGE	100 MOA	29 MRAD			
WINDAGE ADJUSTMENT RANGE	40 MOA	11.6 MRAD			
MINIMUM PARALLAX	10 YDS	10 METERS			
LENGTH	13.8"	350mm			
WEIGHT	30.7oz	870g			

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