

For Patent Information go to <https://goo.gl/2z62aS>

# **GLX<sup>TM</sup> FIRST FOCAL PLANE SCOPE MANUAL**

TACTICAL TURRETS



Thank you for choosing this Primary Arms optic.

If you have any questions about your new optic or any of our other products, visit us at [www.primaryarmsoptics.com](http://www.primaryarmsoptics.com), email us at [info@primaryarmsoptics.com](mailto:info@primaryarmsoptics.com), or give us a call at 713-344-9600. The customer service team at our headquarters in Houston, Texas will respond promptly.

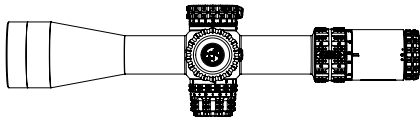
If you have any problems with a Primary Arms product, we urge you to contact us immediately and let our customer service professionals handle the situation for you. There is no need to return your scope to the retailer.

## TABLE OF CONTENTS

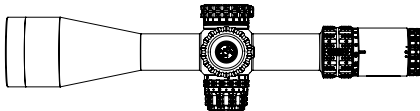
|            |   |
|------------|---|
| Page 3     | Introducing: Primary Arms GLx Scopes              |
| Page 4     | Achieving a Clear Reticle Picture READ THIS FIRST |
| Page 6     | Reticle Illumination                              |
| Page 6     | Establishing Zero                                 |
| Page 7     | Return to Zero and Auto Lock Turret Controls      |
| Page 21    | Features  |
| Page 22-23 | Specifications                                    |

\*View back cover for lifetime warranty information.

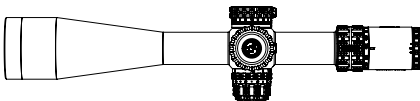
## 2.5-10X44 SCOPE BODY



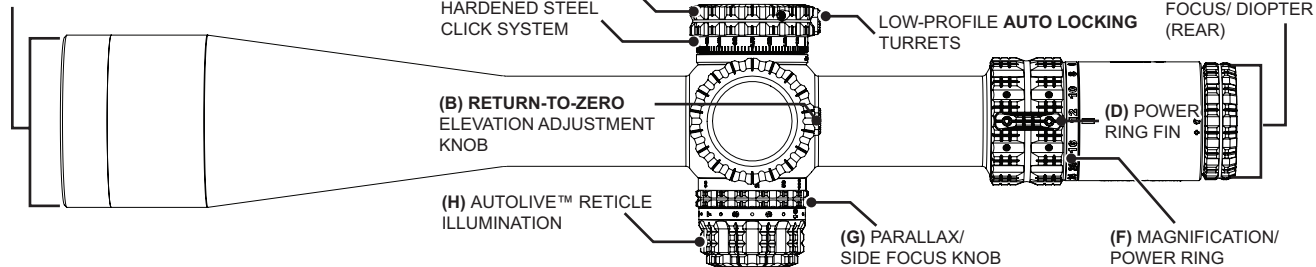
## 4-16X50 SCOPE BODY



## 6-24X50 SCOPE BODY



(A) OBJECTIVE  
LENS (FRONT)



(C) WINDAGE  
ADJUSTMENT KNOB

HARDENED STEEL  
CLICK SYSTEM

LOW-PROFILE **AUTO LOCKING**  
TURRETS

(E) RETICLE  
FOCUS/ DIOPTR  
(REAR)

(B) RETURN-TO-ZERO  
ELEVATION ADJUSTMENT  
KNOB

(D) POWER  
RING FIN

(H) AUTOLIVE™ RETICLE  
ILLUMINATION

(G) PARALLAX/  
SIDE FOCUS KNOB

(F) MAGNIFICATION/  
POWER RING

## INTRODUCING: PRIMARY ARMS GLx Series Scopes

Our team of engineers here in Houston, Texas, designed the Primary Arms GLx Series of scopes to give shooters the most performance at the greatest value. The GLx Line features multiple scope bodies to choose from, a variety of popular reticles, exclusive turret technology, first focal plane construction, incredibly clear glass, a lifetime warranty, and much more. We set out to overcome the challenges and frustrations that shooters encounter with other mid-level priced scopes and the result is a technologically superior line of optics that punch way above their class, standing toe-to-toe with other brand's most popular offerings at an unbeatable price point. That power is now in your hands. Here's some of the features we've packed into your new GLx scope.

- Superior quality glass to eliminate edge distortion and chromatic aberration.
- A large and forgiving eye box, even at high magnification settings.
- A nearly edge-to-edge sight picture and large field of view made possible by mechanical construction and cutting-edge optical design working together to virtually eliminate your perception of the ocular ring when looking through the scope.
- AutoLive reticle illumination technology, an ultra-sensitive motion sensor that turns on your illumination when using your scope, then off again after three minutes of stillness.
- Adjustment turrets that will never wear out, made with hardened steel click rings instead of the traditional brass construction, so your clicks will always be crisp, tactile, and audible for a lifetime – literally.
- All-new, patent-pending Auto Locking system and the easy-to-set Return-to-Zero elevation turret.
- Low profile turrets with an intuitive push button interface, 100 audible and tactile clicks per revolution, and rotation indicators on the turret body.
- A Lifetime Warranty.

The GLx scopes come in three different bodies that all feature first focal plane construction. Each scope body comes with their own advantages and reticle options that are tailored to real-world shooting applications. From tactical shooting, to hunting, to precision and competition shooting and anything in between. The GLx 2.5-10x44FFP is a low-power variable optic that gets on targets up close with speed and extends your effective range at 10x magnification. The GLx 4-16x50FFP is built for the best all-around performance in precision and long-range hunting. Our GLx 6-24x50 FFP Rifle Scope enhances long-distance marksmanship, even out to 1000 yards and beyond. We can confidently say that whichever GLx Series scope you chose, you're putting more bang-for-your-buck power and performance on your rifle than ever before.

## HOW TO ACHIEVE A CLEAR RETICLE PICTURE

Your GLx scope comes with an adjustable Diopter Ring (E) that must be set to match your eye to guarantee a crisp and in-focus view of the reticle every time. Located at the rear of the eyepiece, it is marked simply **[+ 0 -]**. The diopter ring changes the focus of the reticle as you see it inside the scope. It does not change the focus of objects that you look at through the scope. Setting the diopter is a critical first step to successful precision shooting. You can set the diopter before you even mount the scope in its rings.

1. Turn the Magnification / Power Ring (F) to a high magnification setting and point the scope at a bright, featureless background such as blue sky or a blank white wall.
2. Turn the Parallax / Side Focus Knob (G) to infinity [ $\infty$ ].
3. Look through the scope. If you look through prescription glasses when shooting, wear them now too. After 5 or 6 seconds, close your eyes for a few moments.
4. Open your eye, glance through the scope and immediately see if the reticle is sharp or blurry. If you notice that the reticle seems blurry at first and then suddenly sharpens, your eyes have focused on the reticle itself instead of looking through the scope. You must adjust the diopter ring (E) and try again.
5. Turn the diopter ring and repeat the process. If the reticle is still blurry, turn it some more and repeat the process again. The process will take multiple adjustments. Each time you repeat the process, ask yourself if the reticle was sharper or blurrier than before. The final adjustments may be very fine. If your eyes get watery or tired, walk away for a bit and come back to this later.
6. Once the reticle appears sharp as soon as you open your eyes and look through the scope, the diopter is set for your eyes. Everyone's eyes are slightly different, so the ideal adjustment changes from person to person.
7. Many shooters will mark their correct diopter position with a little dab of paint or fingernail polish next to the zero **(+0-)** mark, in case the ring gets turned accidentally later on. Others will apply electrical tape around the diameter of the ring to hold it in place. This is a one-time adjustment. Reticle details may appear small when not looking at medium or long-range targets, especially at low magnification. Shooting at those ranges is best done from a well-supported position using a bipod or sandbags.

## HOW TO ADJUST PARALLAX

The Parallax/Side Focus Knob (G) is located on the left side of the scope, marked with ranges from 25 yards to infinity. Although it is often referred to as a “side focus” knob, parallax and focus are not the same thing. Parallax error occurs when the target’s image and the reticle are not aligned on the same focal plane inside the scope. To visualize this, pick a picture on the wall of a room as your “target”, and stick your thumb up in front of it like you are a hitch-hiker. Your thumb represents the reticle of the scope. Closing one eye and using your thumb to “aim” at the picture on the wall, you will notice that moving your head around changes where your thumb appears to be aimed. This is because your thumb is not located in the same focal plane as the picture on the wall. Any slight change in your head position will change your point of aim, and your point of impact. Adjusting the Parallax/Side Focus Knob (G) eliminates parallax error at different ranges by bringing the reticle into the same focal plane as the target, like having a friend place their thumb directly against the picture on the wall. Parallax error is most noticeable at high magnifications and is much easier to adjust with your rifle secured by sandbags or a bipod.

1. Turn the Parallax/Side Focus Knob (G) until the target appears to be in focus. This will get you close to the correct adjustment.
2. Looking through the scope at the target, move your head just slightly from side to side. If you lose the sight picture you are moving too much. Go slowly and see if the reticle appears to move relative to your target. A target that appears to be floating around the reticle as you move your head indicates parallax error.
3. Turn the Parallax/Side Focus Knob (G) counterclockwise if the target appears to move in the opposite direction of your head. Turn the Parallax/Side Focus Knob (G) clockwise if the target appears to move in the same direction as your head. These adjustments are very small. Move the Parallax/Side Focus Knob (G) just a little bit at a time and re-check.
4. Once the reticle and target hold their positions as you move your head from side to side, parallax error is eliminated for targets at this range. Normally this adjustment will also keep the target nicely in focus. However, to gain the most consistent hits on target, it is more important to eliminate parallax error than to have the target perfectly in focus.

## HOW TO SET RETICLE ILLUMINATION

The Reticle Illumination Knob (H) on the left side of the scope is marked with numbers of increasing brightness from 1 to 10. Between each number is an “OFF” setting. The cap unscrews counter-clockwise, holding a CR2032 battery with the positive (+) side facing towards the cap. Inside the cap, there’s a small compartment to store another spare CR2032 battery. Reticle illumination is most useful in low light situations like sunrise and sunset, or indoors. The lowest two settings are compatible with night vision devices and will not be bright enough to see with the naked eye. Reticle “bleed out”, abnormalities and small imperfections may be visible when viewed indoors or in low light conditions at the brightest settings. This is a normal result of the reticle etching process. Abnormalities at these settings will not be visible when viewed in daylight conditions. Using the brightest settings in low light situations will overpower your eye’s ability to see the target and make the reticle appear distorted. The right amount of illumination creates a clear contrast between the reticle and your intended target, without straining the eye.

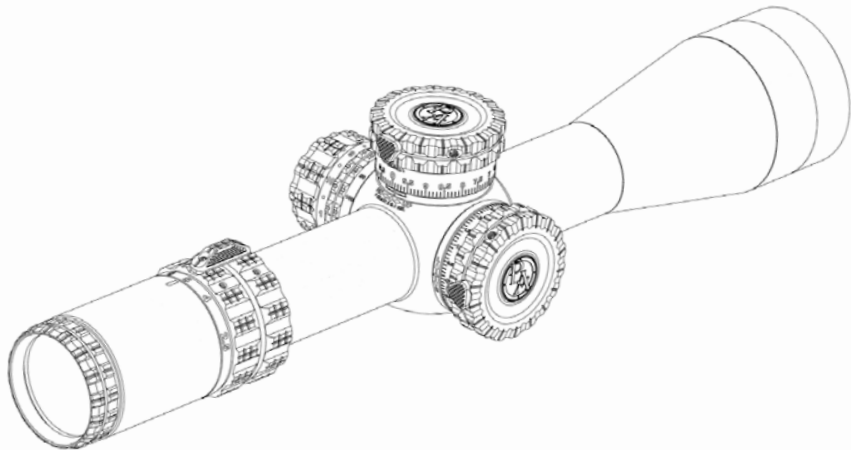
## HOW TO ESTABLISH A ZERO

Using a bipod or sandbags, preferably on a bench or in the prone position, turn the Power Ring (F) to a high magnification to see your target as easily as possible. Dial in the point of impact to coincide with the tip of the chevron.

1. Unlock the turrets for adjustments by pressing the silver textured buttons. Press and begin turning. It’s not necessary to hold down the silver button while you adjust, simply press to unlock and make your initial turn.
2. Rotate back to zero and the turrets will stop and lock automatically.
3. Turn the Elevation Knob (B) counterclockwise to bring the point of impact up if your shots are hitting low.
4. Turn the Windage Knob (C) counterclockwise to bring the point of impact right if your shots are hitting to the left.

Once you are finished sighting in, both windage and elevation knobs are resettable back to zero, so any future adjustments will be easy to manage.





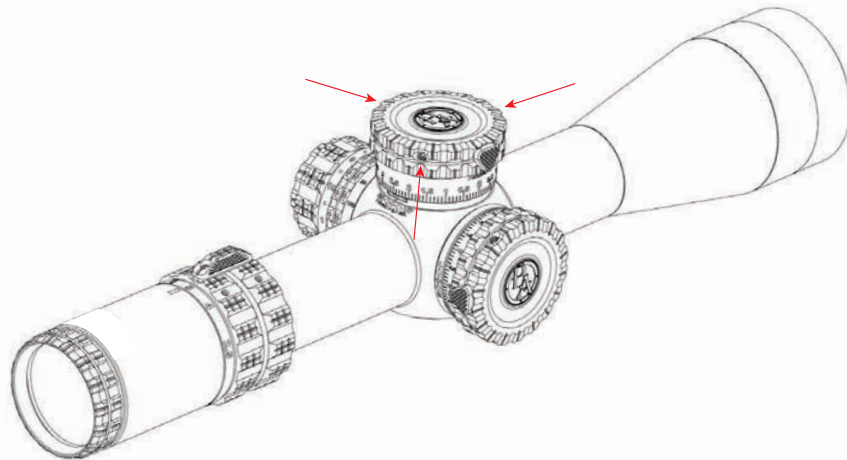
*Figure 1: Shows GLx as it is shipped to the customer.*

## RETURN-TO-ZERO AND AUTO LOCKING TURRET CONTROLS

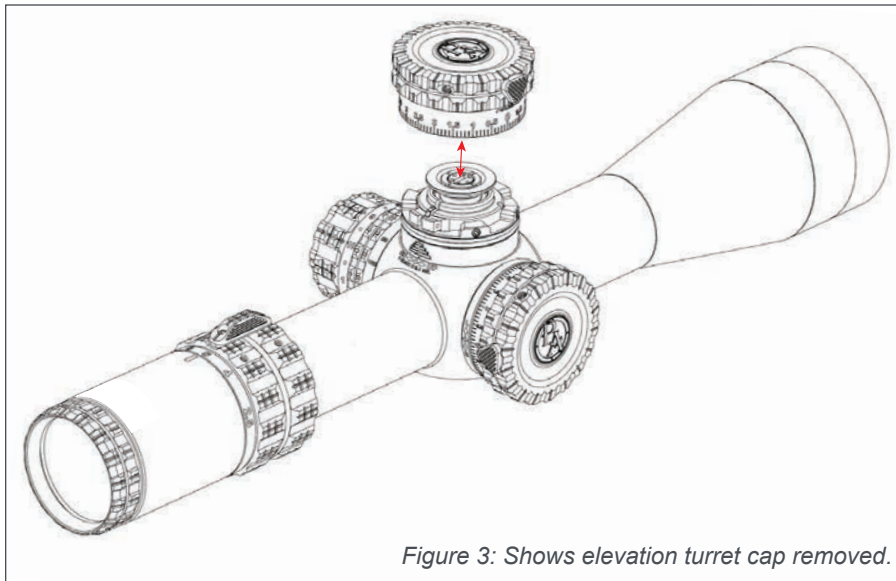
The innovative and patent-pending turret design of the GLx scopes feature Auto Locking and Return to Zero technology. Each turret automatically locks in the zero position and unlock again easily with the push of a button. The windage turret will lock at zero at every complete rotation. The elevation turret, once unlocked from zero, will spin freely up to four rotations. Rotation indicators help you keep track of where you're at. Spin the turret down and it will stop and lock back at the zero you set, making it easy to return to your designated zero after adjusting for a firing solution. At zero, depress the button and you'll have 4 to 5 clicks of adjustment below your zero. All the turret's internal components are mechanically fit together – no adhesives or epoxy. The click rings are made with a hardened steel-on-steel construction, so the clicks will be crisp, audible, and tactile for the life of your scope and tracking is incredibly precise.

Your Primary Arms GLx Rifle Scope is shipped to you with its reticle centered within the scope tube. This is called “optical zero”. This factory-set position does not represent the mechanical center of your turret's available travel. See your scopes specifications for total turret travel in Minute of Angle measurements. **Also, this does not mean you can expect it to be zeroed properly as soon as it's mounted to your rifle.** When you first mount your GLx scope, the elevation turret's ability to travel below the reticle's factory-set position will be blocked by the Return to Zero system. If you are using a canted mount or your shooting application requires a zero that is below the factory-set position of the reticle within rifle scope, the internal Return to Zero system will need to be adjusted downward to allow for proper zeroing. To adjust your elevation Return to Zero and Auto Locking downward, or to the lowest limit of travel, please follow the steps outlined in step 3 below.

1. To adjust windage or elevation point of aim from the factory-set reticle position, press the locking button on the turret and turn. This button only needs to be pressed to adjust the turret out of the Auto Locked position, not for every adjustment. This button will only lock at the zero position and will lock automatically.
2. Setting your Elevation Auto Locking/Return-to-Zero (Upwards from Factory-set position)
  - a. After zeroing your rifle at desired yardage, use the 1.5mm Allen Key provided to loosen (counterclockwise) the three elevation turret cap set screws, about 4 to 5 turns, as shown in Figure 2: **You do NOT need to completely remove these screws!**



*Figure 2: Shows the elevation turret at an arbitrary theoretical zero and 3 turret cap set screws.*



b. Remove the turret cap assembly by pulling straight up on the turret cap as shown in Figure 3.

c. Loosen the three Auto Lock sleeve set screws using the 1.3mm Allen key provided as shown in Figure 4 . **You do NOT need to completely remove these screws!**

**WARNING:** Do not loosen or remove the slotted set screw shown in figure 4.

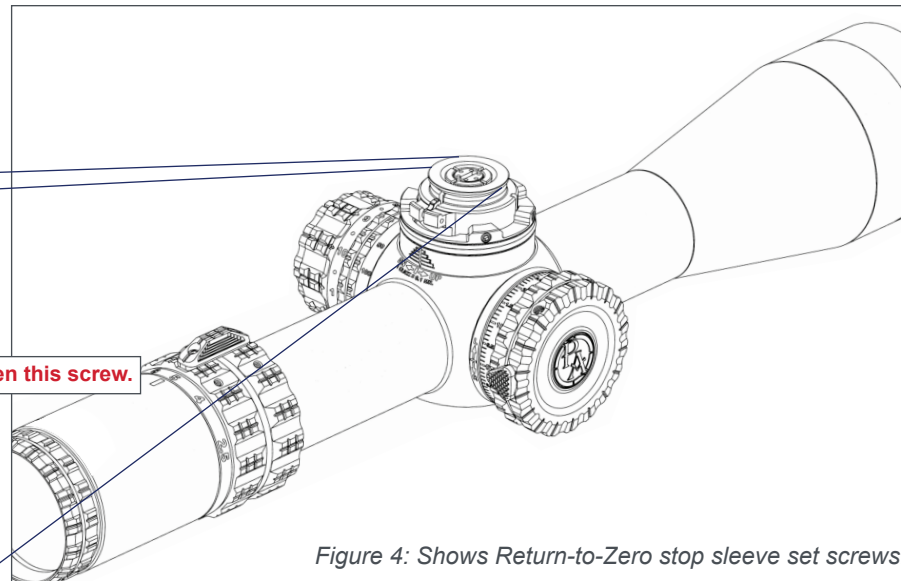
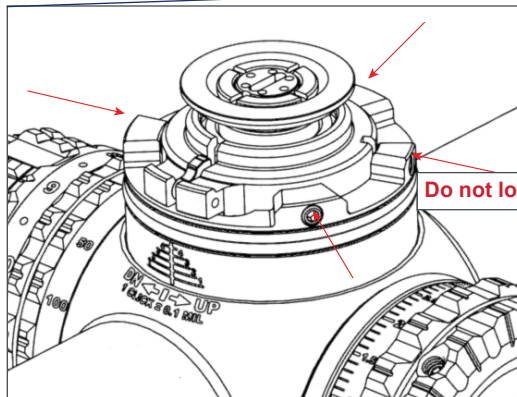
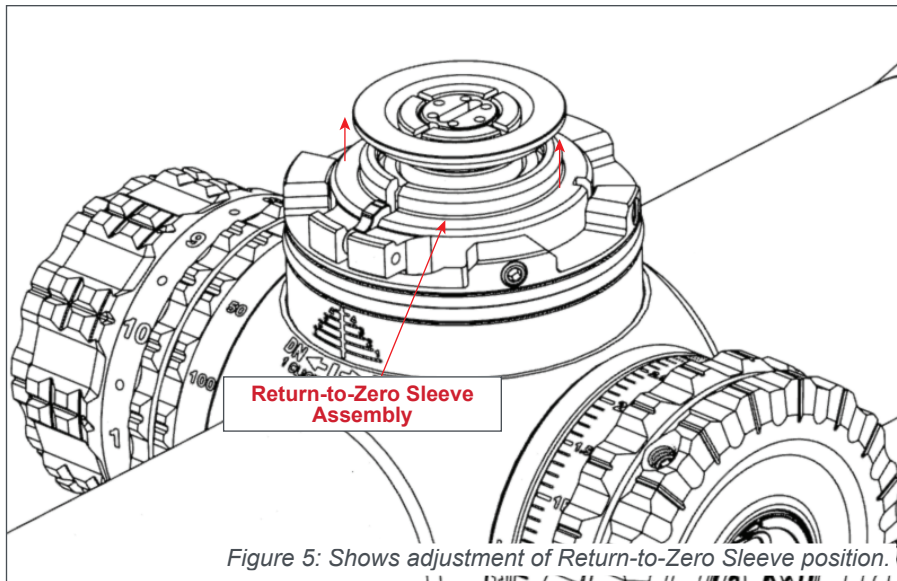
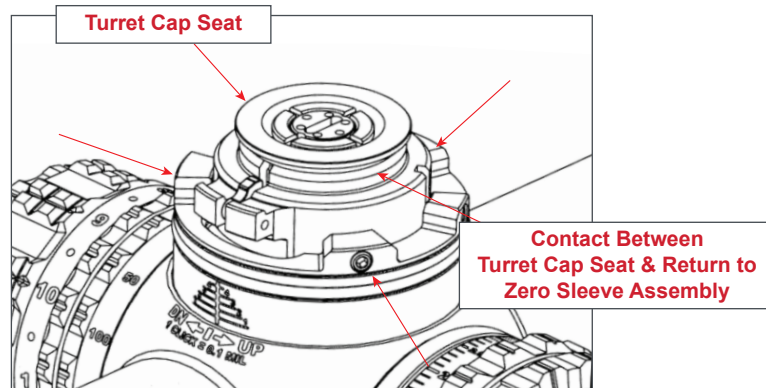


Figure 4: Shows Return-to-Zero stop sleeve set screws.



d. Slide the red Return-to-Zero sleeve assembly upwards until it stops against the turret cap seat. Tighten the three Auto Lock sleeve sets screws using the 1.3mm Allen key as shown in Figure 5. Recommended tightening torque is 4 in-lb. Do not over tighten.  
**NOTE:** The distance shown between the Return-to-Zero sleeve and turret seat is for illustration purposes, your distance may vary and could be very small depending on zeroing position and GLx model.



- e. Re-install the turret cap at the zero position with the zero (-0-) indicator aligned with the indicator line on the rotation indication tree on the scope body, shown in figure 6. The cap should be locked in place on the Auto Lock system. Re-tighten the turret cap set screws using the 1.5mm Allen key provided. Recommended tightening torque is 8 in-lbs. **Do not over-tighten.**

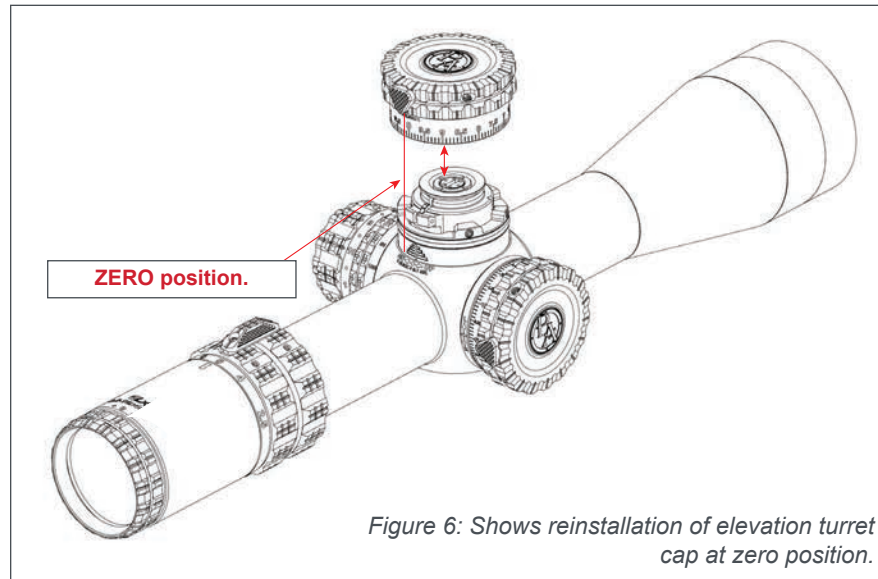
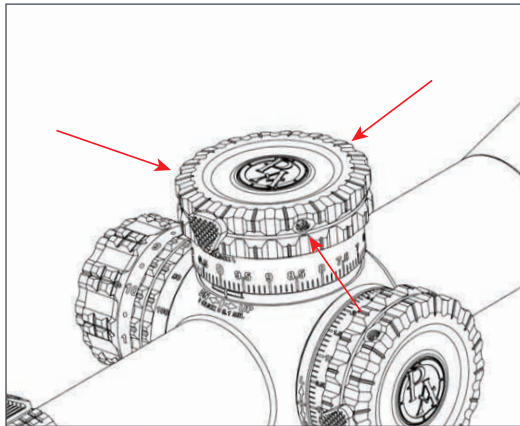
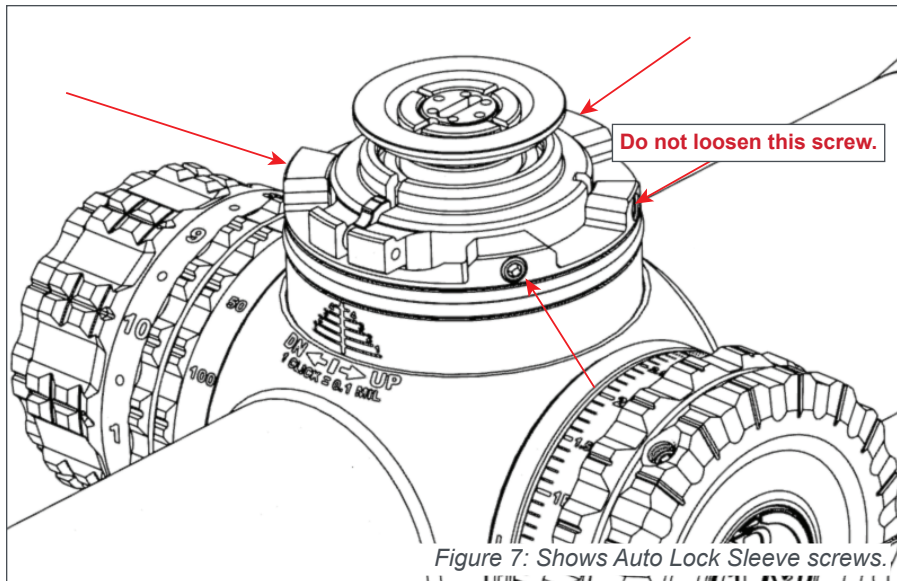


Figure 6: Shows reinstallation of elevation turret cap at zero position.



f. That's it! Please be aware that if you depress the Auto Lock button on the cap and turn the cap clockwise (elevation down) you will have 4 clicks of adjustment below zero. This is on purpose.

**WARNING:** Never reinstall the elevation turret cap not in the zero position and/or without the turret cap seat and Return to Zero sleeve touching. This will cause a misalignment and mispositioning between the turret cap lock feature and the Auto Lock or Return to Zero sleeve.

### 3. Setting your elevation Auto Lock and Return-to-Zero (Downward, below the factory-set position)

- Use the 1.5mm Allen Key provided to loosen the three turret cap set screws, counterclockwise about 4 to 5 turns, as shown in Figure 2. **You do NOT need to completely remove these screws!**
- Remove the turret cap assembly by pulling straight up on the turret cap as shown in Figure 3.
- Loosen the three Auto Lock sleeve set screws using the 1.3mm Allen Key provided as shown in Figure 7. **You do NOT need to completely remove these screws!**

**WARNING:** Do not loosen or remove the slotted set screw shown in Figure 7.

d. Slide the red Return to Zero sleeve assembly down until it stops against the Return-to-Zero sleeve seat as shown in Figure 8.

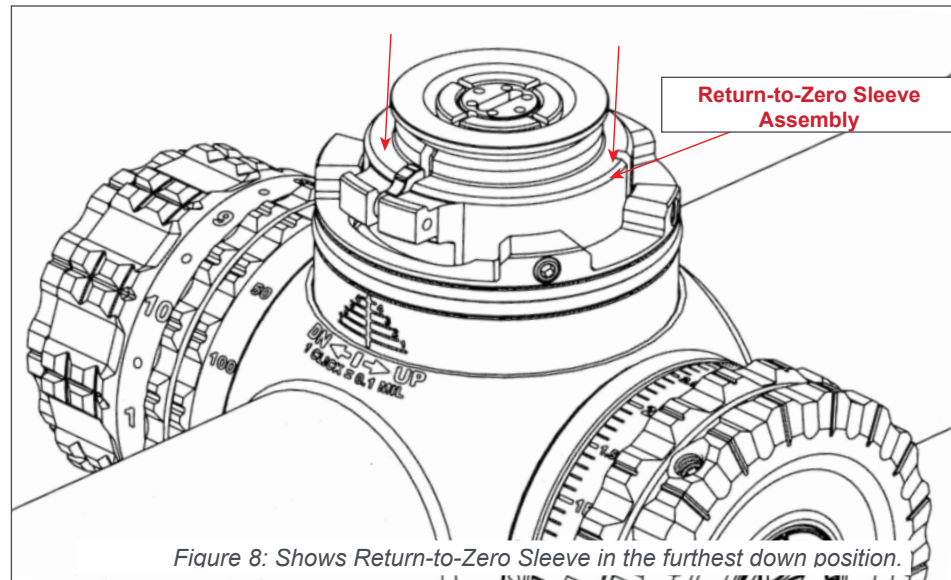
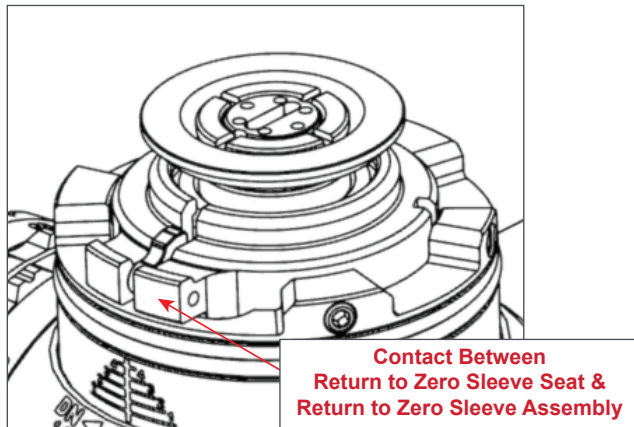
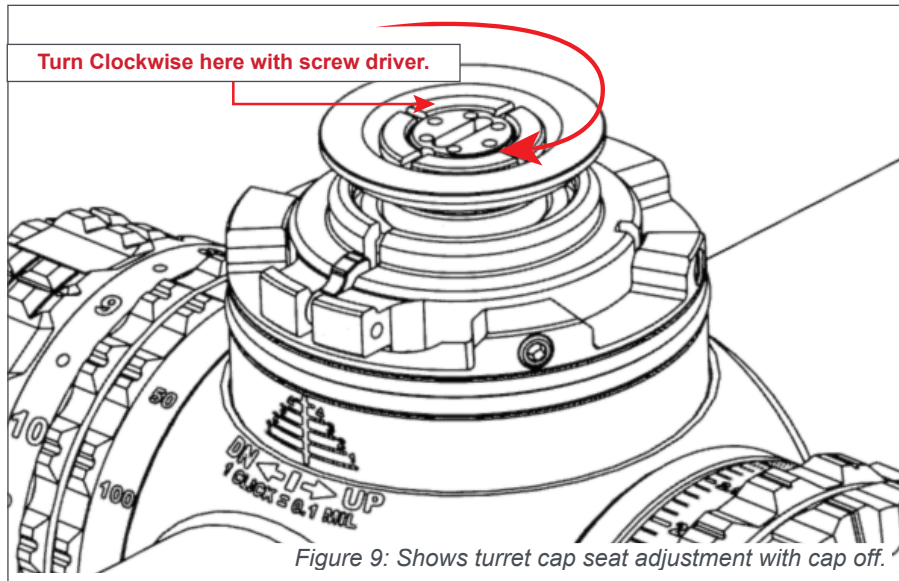


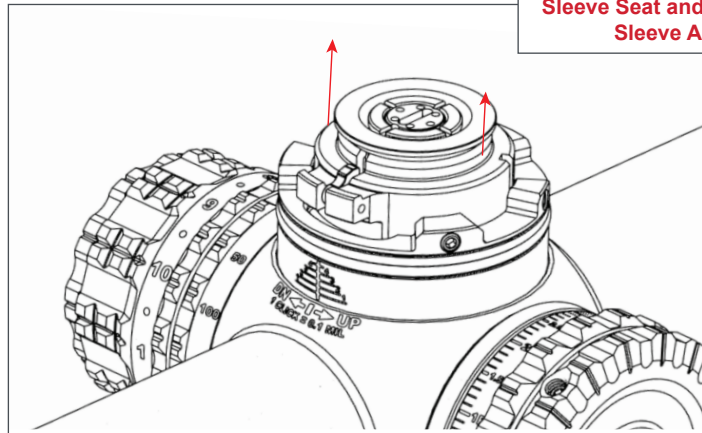
Figure 8: Shows Return-to-Zero Sleeve in the furthest down position.





- e. Using a flat-head screwdriver, adjust the turret cap seat counterclockwise to the desired zero or to the bottom of travel as shown in Figure 9.

f. Slide the red Return-to-Zero sleeve assembly up until it stops against the turret cap seat and tighten the three Return to Zero sleeve sets screws using the 1.3mm Allen Key as shown in Figure 10. Recommended tightening torque is 4 in-lb. **Do not over-tighten.**



**Contact between Return-to-Zero Sleeve Seat and Return-to-Zero Sleeve Assembly**

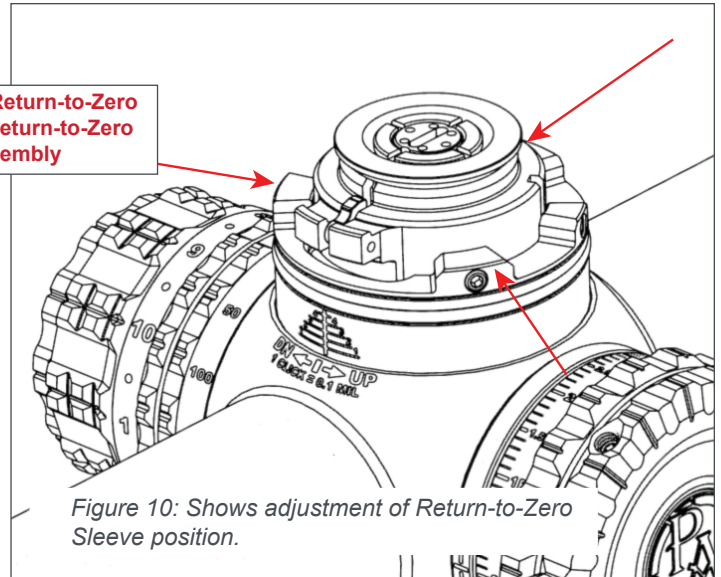
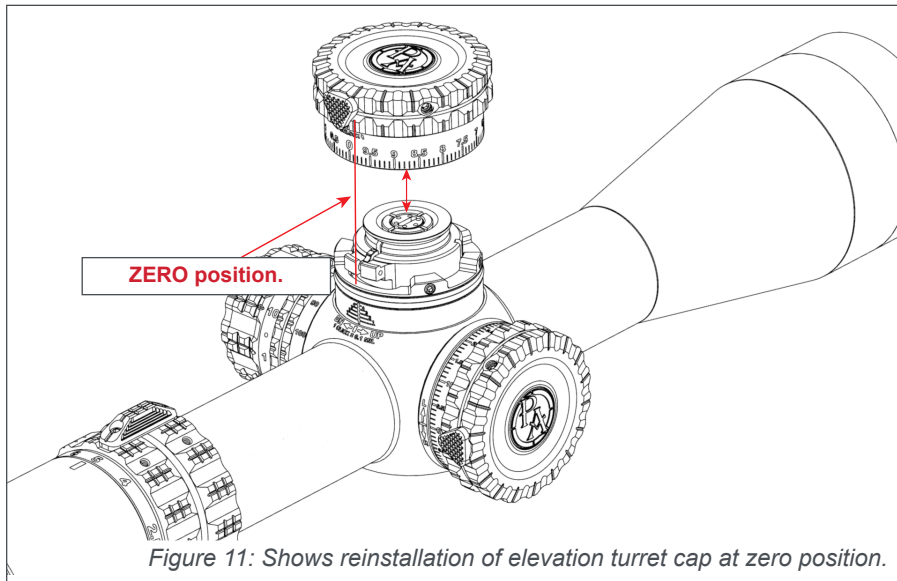
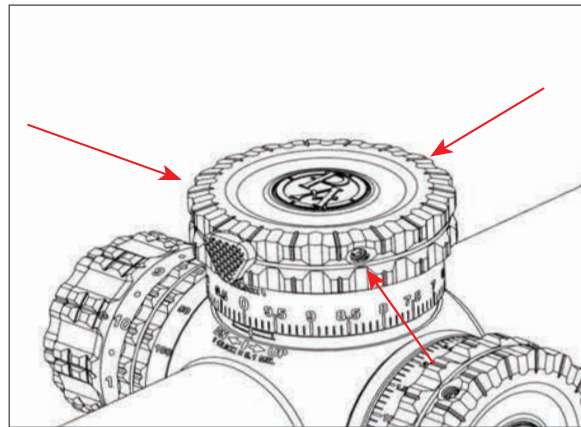


Figure 10: Shows adjustment of Return-to-Zero Sleeve position.



- g. Re-install the cap at the zero position with the zero indicator (-0-) aligned with the indicator line on the rotation indication tree on the scope body as shown in Figure 6. The cap should be locked in place on the Auto Lock system. Re-tighten the turret cap set screws using the 1.5mm Allen Key provided. Recommended tightening torque is 8 in-lbs. **Do not over-tighten.**

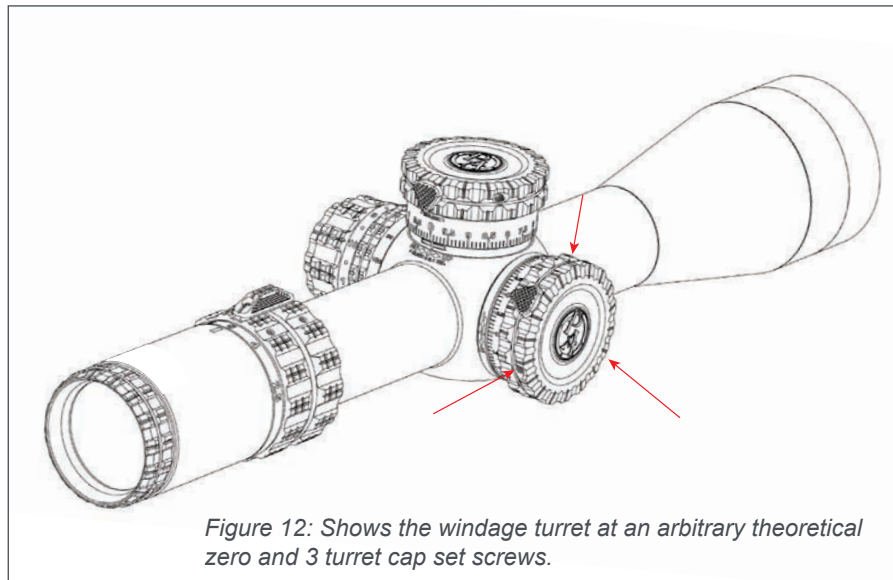


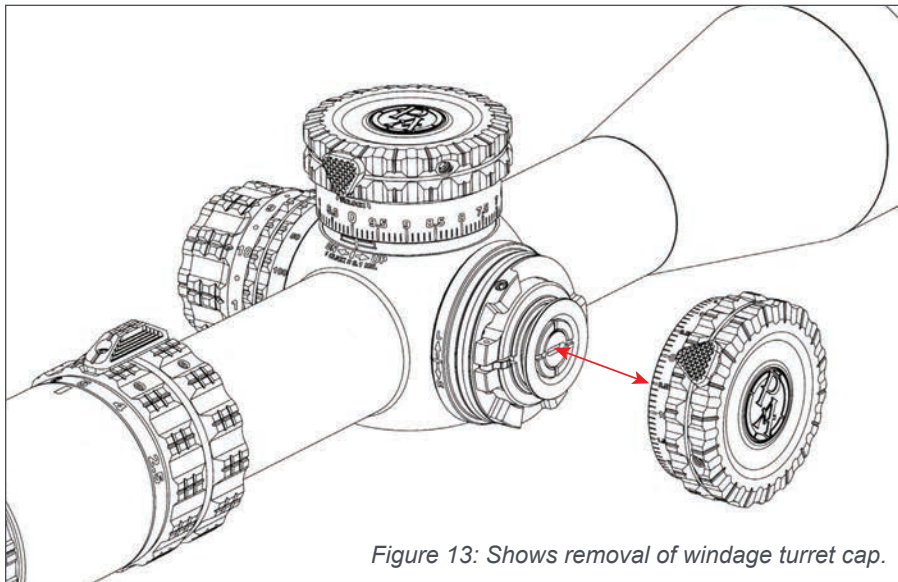
- h. That's it! Your Return-to-Zero has now been adjusted to a position lower than the factory-shipped optical zero. Please be aware that if you depress the Auto Lock button on the cap and turn the cap clockwise (elevation down) you will have 4 clicks of adjustment below zero. This is on purpose to allow for a minor adjustment of zero in the downward position if necessary.

**WARNING:** NEVER re-install the elevation turret cap in a position that IS NOT the zero position and/or without the turret cap seat and Return-to-Zero sleeve touching. This will cause a misalignment or mispositioning between the turret cap lock feature and the Auto Lock or Return-to-Zero sleeve.

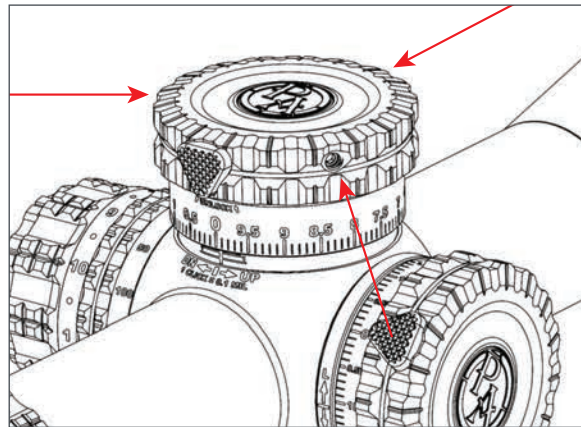
4. Setting windage zero

- a. After zeroing your rifle at desired yardage, use the 1.5mm Allen Key provided to loosen the three windage turret cap set screws by rotating them counterclockwise about 4 to 5 turns, as shown in Figure 1. **You do NOT need to completely remove these screws!**

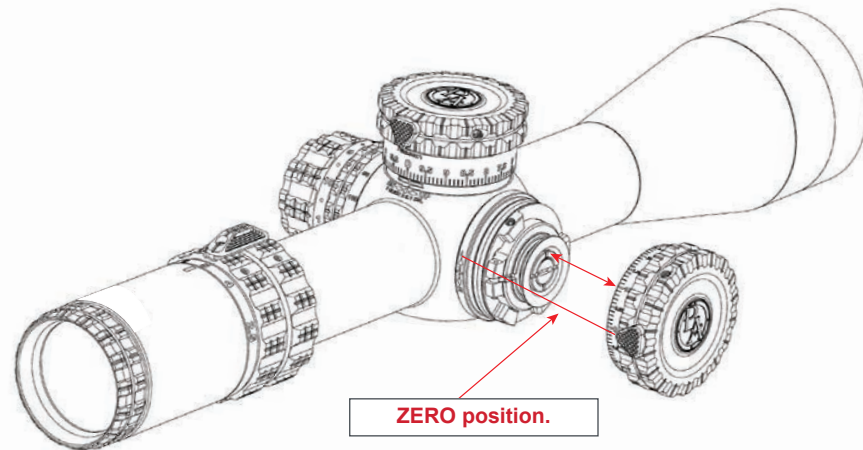




b. Remove the windage turret cap assembly by pulling straight out on the turret cap.



- c. Re-install the cap at zero position with the zero indicator **(-0-)** aligned with the zero indicator line on the rotation indicator on the scope body as shown in figure 14. The cap should be locked in place on the Auto Lock system. Re-tighten the turret cap set screws using the 1.5mm Allen Key provided. Recommended tightening torque is 8 in-lbs.
- d. That's it! Your windage Auto Lock is ready to go! **Please note, no adjustment or loosening is required on any internal components of the windage turret assembly.**



*Figure 14: Shows reinstallation of elevation turret cap at zero position.*

## GLx FEATURES

- First focal plane illuminated etched glass reticle that keeps your reticle true at any magnification.
- Fully Multi Coated low dispersion glass that offers superior light transmission, clarity, contrast and color from edge to edge.
- Designed for comfortable and fast shooting with generous eye relief, a large eye box, and a huge field of view.
- AutoLive™ reticle illumination technology turns your illumination off after three minutes of stillness to save your battery life -- then automatically back on again at the slightest motion.
- 10 brightness settings, including night vision compatibility, with “OFF” settings between each.
- An optimized mechanical and optical design virtually eliminates your eye’s perception of the scope tube and extends the field of view nearly edge-to-edge.
- Patent-pending tactical turrets. Featuring 100 clicks per revolution, a hardened steel click system, so your clicks will always – **always** -- be crisp, accurate, audible, and tactile.
- Turrets feature both a push-button Auto Lock system and an intuitive easy-to-set Return-to-Zero, so you can return to zero with ease.
- 6061-T6 main body and components with hard coat anodize.
- Fully argon purged, and IP67 waterproof and dust proof.
- Designed and manufactured to handle extreme recoil.
- Backed by our lifetime warranty.

### GLx 2.5-10x44FFP SPECIFICATIONS

|  |  |   |
|--|--|---|
| Focal Plane: First Focal Plane         | FOV @ 2.5x / 100yds : 35.8 ft              | Adjustment Click Value: 0.1 MRAD / 0.25 MOA                           |
| Magnification: 2.5x (low) - 10x (high) | FOV @ 10x / 100yds : 10.0 ft               | Illumination Settings: 10 Settings with an “OFF” setting between each |
| Eye Relief: 2.7 - 2.8 inches           | Total Elevation Adjustment: $\geq$ 125 MOA | Weight (with battery, without lens covers): 22.2 oz                   |
| Objective Lens Diameter: 44mm          | Total Windage Adjustment: $\geq$ 80 MOA    | Warranty: Lifetime Warranty   |

*Specifications may vary and are subject to change without notice.*

### GLx 4-16x50FFP SPECIFICATIONS

|                                      |   |   |
|--------------------------------------|---|---|
| Focal Plane: First Focal Plane       | FOV @ 4x / 100yds: 23.7 ft                | Adjustment Click Value: 0.1 MRAD / 0.25 MOA                           |
| Magnification: 4x (low) - 16x (high) | FOV @ 16x / 100 yds: 6.3 ft               | Illumination Settings: 10 Settings with an “OFF” setting between each |
| Eye Relief: 3.5 – 3.6 inches         | Total Elevation Adjustment: $\geq$ 85 MOA | Weight (with battery, without lens covers): 23.5 oz                   |
| Objective Lens Diameter: 50mm        | Total Windage Adjustment: $\geq$ 55 MOA   | Warranty: Lifetime Warranty   |

*Specifications may vary and are subject to change without notice.*




## GLx 6-24x50FFP SPECIFICATIONS


|                                      |   |   |
|--------------------------------------|---|---|
| Focal Plane: First Focal Plane       | FOV @ 6x / 100yds: 15.2 ft                | Adjustment Click Value: 0.1 MRAD / 0.25 MOA                           |
| Magnification: 6x (low) – 24x (high) | FOV @ 24x / 100yds: 4.2 ft                | Illumination Settings: 10 Settings with an “OFF” setting between each |
| Eye Relief: 3.5 – 3.6 inches         | Total Elevation Adjustment: $\geq$ 60 MOA | Weight (with battery, without lens covers): 24.5 oz                   |
| Objective Lens Diameter: 50mm        | Total Windage Adjustment: $\geq$ 40 MOA   | Warranty: Lifetime Warranty   |

*Specifications may vary and are subject to change without notice.*

## LENS CARE

Please do not use any organic solvent such as alcohol or acetone on your scope. First, blow dust or any foreign objects off of the lens. Then, use a soft cotton or microfiber lens cloth to clean any fingerprints or smears off the lens. Alternatively, you may use a piece of professional lens paper for further cleaning, if necessary.

 **WARNINGS:** Always ensure your firearm is unloaded (chamber empty and magazine removed) before installing optics or accessories.

 **WARNINGS:** Improper installation of firearm parts or accessories may result in death or serious personal injury. If you are not properly trained in the installation of these parts, have them installed by a gunsmith or armorer.

## REMEMBER: THE FOUR RULES OF FIREARMS SAFETY

1. Treat every firearm as if it were loaded
2. Never let your muzzle cover anything you are not willing to destroy
3. Keep your finger off the trigger until your sights are on target
4. Be sure of your target and what is behind it

NOTES:

[illegible]



For more information on these body scopes go to  
<http://primaryarmsoptics.com/product-category/rifle-scopes/glx/>

## LIFETIME WARRANTY

Your Primary Arms GLx scope is covered by the Primary Arms Lifetime Warranty. If a defect due to materials or workmanship, or even normal wear and tear has caused your product to malfunction, Primary Arms will either repair or replace your product. You can find more details about our lifetime warranty at [www.primaryarmsoptics.com](http://www.primaryarmsoptics.com).

Email: [info@primaryarmsoptics.com](mailto:info@primaryarmsoptics.com)  
713-344-9600  
[www.primaryarmsoptics.com](http://www.primaryarmsoptics.com)