

# U.S. OPTICS

## FOUNDATION SERIES™ MANUAL



[www.usoptics.com](http://www.usoptics.com)

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# Scope Overview



Illumination & Parallax Control Knob

# Battery



The illuminated reticle system (IRS) is powered by one CR2032 lithium coin battery.

To replace the battery:

1. While holding the parallax dial in place, turn the Rheostat Cover counter clockwise to remove the Rheostat Cover, Rheostat Module, and battery.
2. Separate the Rheostat module from the Rheostat cover to access the CR2032 battery.
3. Remove the depleted battery and insert a new CR2032 battery leaving the positive surface visible and exposed.
4. To reassemble, align the Rheostat Module pins with the Pin Detents inside the parallax body. While holding it firmly in place, slip the Rheostat cover over the module and tighten the Rheostat Cover (clockwise) until you feel it stop.
5. Test your illumination to confirm proper assembly and alignment.

## Setting Reticle Focus



The Diopter ring is used to focus the reticle. Focus prescription ranges from +2 to -3. Do not use the Diopter to adjust the sight picture or to adjust for parallax.

1. Set the scope magnification to the lowest power.
2. Slowly increase the magnification until the reticle details become visible and clear.
3. Rotate the Diopter counter clockwise until it stops. Do not over rotate past resistance.
4. With both eyes open, point the scope toward a white wall or a clear blue sky. Be sure that there are no objects in the sight picture.
5. Rotate the Diopter clockwise until the reticle image is sharp and in focus.
6. When the reticle is in focus, close your eyes for 3 seconds, then reopen them. The reticle should still be clear and sharp. If not, then repeat step 1 through 5 until desired image clarity is achieved.
7. Set the magnification to the lowest power to confirm that the desired image clarity of the reticle is achieved.



## Knob Overview



### ER3K

The ER3K Elevation Knob incorporates an ergonomic design, 11 MILS of travel per revolution, a hard zero stop, and an engraved revolution counter. This knob is available in 1/10 MIL and 1/4 IPHY. Zeroing requires a 5/64" and 1/8" allen keys.



### US #1

The ergonomic US #1 Windage Knob is a capped knob available in 1/10 MIL and 1/4 IPHY. Zeroing the US#1 requires a single 5/64" allen key.



### Illumination & Parallax Control Knob

The single push button illumination system will turn on at a nightvision compatible level with a single click. To increase brightness, press the button to cycle through all 12 levels of intensity. Cycling does not shut it off. To turn off, simply hold down the button for 4 seconds. Auto shut off system will take effect after 4 hours. The side parallax adjustment is used to quickly and accurately adjust your target resolution.

## Initial Setup / Zero

1. The first step is to physically mount the scope to your rifle. For this, we suggest following the manufactures published directions that came with the mount or standard rings that you're choosing to run.
2. Next, boresight your new optic to your rifle by using a laser boresighter or a magnetic boresighter. This step will make it easier to zero your rifle once you get to the range.
3. Once your new Foundation Series optic is boresighted, get out to the range and zero your new optic to your rifle. For most calibers and shooting styles, we suggest a 100 yard zero. You will need to adjust both your elevation and windage knobs, either up or down and left or right, until your optic's point of aim matches your rifle's point of impact.

Follow the instructions on the next page to zero your optic.

# Zeroing Your Optic - Elevation

The next steps will walk you through the knob adjustment process. Both the Elevation and Windage Knobs must be set back to read "0", once your rifle has been zeroed.

Note: FDN 10X, FDN FX10 and FDN 17X scopes are factory set to 20 MOA down. FDN 25X scopes are factory set to 20 MOA down

## Zeroing (at the Range)

Once you have boresighted your optic to your rifle, head out to the range to refine your zero. We recommend zeroing your optic at 100 yds. The following steps will demonstrate how to properly zero your elevation and windage knobs using the supplied tools.

1. From a steady position, shoot a couple of rounds to locate your POI (Point of Impact)
2. Determine the amount of elevation and windage adjustments that need to be made to align your POA (Point of Aim) to your POI (Point of Impact).
3. To adjust your elevation reticle position, use the supplied 5/64" allen key to remove the silver screw. This will expose the zeroing center screw.





## Zeroing Your Optic - Elevation

4. Locate the reference dot located on the ER3K Elevation Knob. Insert the supplied 1/8" allen key into the zeroing center screw so that the allen key handle aligns with the reference dot. This dot will reference your rotation's starting point.



6. While watching your reticle, rotate the allen key to make your coarse reticle adjustments. Do so until your reticle is as close as possible to your desired position.

Note: Rotating the allen key clockwise will move your reticle UP/point of impact DOWN. Rotating the knob counter-clockwise will move your reticle DOWN/point of impact UP.



FDN 25X - One Full Rotation = 5 MILS

FDN 17X - One Full Rotation = 7 MILS

FDN 10X & FX10 - One Full Rotation = 10 MILS

## Zeroing Your Optic - Elevation

7. After you have made course adjustments to position the reticle as close as possible to your zero, use the ER3K Elevation Knob to make fine adjustments.

Note: Rotating the knob clockwise will move your reticle UP/point of impact DOWN. Rotating the knob counter-clockwise will move your reticle DOWN/point of impact UP.



8. Once you have reached your desired elevation position, locate the silver screw and reinstall it using the supplied 5/64" allen key. Do not torque more than 5 in/lbs. Ensure the o-ring is set in place.



Now that your ER3K Elevation Knob is zeroed to your rifle, it is now time to float your knob to read "0" and set your Zero Stop.

## Floating Your Elevation Knob to Zero

The following instructions will walk you through the process of floating your ER3K Elevation Knob to read "0". At this time, you can also set the Zero Stop to your desired position.

1. Unscrew and remove the two black top cap screws using the supplied 5/64" allen key.



2. Remove the top cap from the ER3K Elevation Knob and set it aside. Ensure that the two o-rings are safely set aside.



(Continue on to the next page)



## Floating Your Elevation Knob to Zero

3. Remove the ER3K Elevation Knob and Zero Stop Ring.



Note: Zero Stop Ring may stick to ER3K Elevation Knob when removed. If this is the case, simply remove the Zero Stop Ring using your fingers.



4. Place the Zero Stop Ring on the ER3K spool and ensure the ring is set against the Zero Stop. (see image in step 5)



## Floating Your Elevation Knob to Zero

5. Ensure that the Zero Stop Ring (shown in blue) is properly placed against the Zero Stop (shown in red).



**INCORRECT**



**CORRECT**

This next step is an **OPTIONAL** step. Although the Zero Stop Ring will function as it should without this step, you may choose to perform this step for added security.

6. **OPTIONAL** - Tighten down the three set screws located on the Zero Stop Ring with the supplied .035" allen key. Tighten down in alternating increments to ensure even spacing.



(Continue on to the next page)



## Floating Your Elevation Knob to Zero

7. Reinstall the ER3K Elevation Knob and rotate it clockwise until the "0" mark (or your desired stop location) aligns with the engraved position indicator.

Note: DO NOT turn the knob counter-clockwise, as this may move the position of the Zero Stop Ring.



8. Reinstall the Top Cap onto the ER3K Elevation Knob. Ensure that the Top Cap screw holes line up with the threaded screw holes.



## Floating Your Elevation Knob to Zero

9. Screw the two black screws in using the supplied 5/64" allen key. Do not torque more than 5 in/lbs.



Your ER3K Elevation Knob is now set. Follow the steps on the next page to zero and float your US #1 Windage Knob.

## Zeroing Your Optic - Windage

1. To adjust your windage reticle position, simply rotate the US #1 Windage Knob left or right to make your adjustments.

Note: Rotating the knob clockwise will move your reticle LEFT. Rotating the knob counter-clockwise will move your reticle RIGHT.



Now that you have zeroed your windage, it is time to float your US#1 Windage Knob to read "0".

## Floating Your Windage Knob to Zero

The following instructions will walk you through the process of floating your US#1 windage knob to read "0".

1. Using the supplied 5/64" allen key, remove the US#1 Windage Knob screw and Top Cap.



2. Remove the US #1 Windage Knob and rotate it until the "0" aligns with the engraved position indicator.



(Continue on to the next page)

## Floating Your Windage Knob to Zero

3. While holding the US #1 Windage Knob in place, use the supplied 5/64" allen key to reinstall the Windage Screw and Top Cap. Do not torque more than 5 in/lbs.



Your US # 1 Windage Knob is now set to "0".

After floating your US #1 to "0", cap your knob using the threaded knob cover to eliminate the risk of unwanted movement.



## Maintenance/Warranty

In order to keep your optic clean after use, we recommend using a microfiber suede cloth and/or a Lens Pen to clean off any debris from your lenses.

1. Using canned air or your breath, blow off any dust or debris that may be on your lenses.
2. Gently wipe the lens with the corner of a microfiber cloth and/or a Lens Pen.

If necessary, use a small amount of water to remove any excess grime.

Every USO product is engineered to standards we developed over our 29-year history, then hand assembled by our technicians before undergoing rigorous testing of features by multiple technicians during our quality assurance process. If any USO product proves to be deficient in function, quality, workmanship or material, U.S. Optics will repair or replace the product, regardless of transfer of ownership, for life.

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