

USO

TS-20X



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Scope Overview



Battery



To remove/replace the battery, turn the illumination control knob cap counter clockwise until battery is exposed. Remove the old battery. Insert a CR2032 battery with the positive side (+) facing outward. To secure the battery in place, attach the illumination control knob cap by turning it clockwise.

The TS-20X DOES NOT have auto-shut off. To reduce battery drainage, turn off the illumination after use by rotating the illumination control knob to read "0".

Illumination Control:

Use the turn dial Illumination Control Knob to adjust your reticle's illumination. Illumination brightness ranges from "0" (off) to "11".

Setting Reticle Focus



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

1. Set the scope magnification to the highest power.
2. Rotate the focus ring counter clockwise until it stops. Do not over rotate past resistance.
3. 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.
4. Rotate the eyepiece clockwise until the reticle image is sharp and in focus
5. 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 4 until desired image clarity is achieved.
6. Set the magnification to the lowest power to confirm that the desired image clarity of the reticle is achieved.

Elevation and Windage Adjustments



The TS-20X features 1/4 MOA or 1/10 MIL clicks on both the elevation and windage knobs. The click value specific to your optic is engraved on the knob. The elevation and windage knobs feature a directional arrow which indicates the direction your impact is moving when the knob is adjusted.

Elevation:

To adjust your point of impact UP, turn the elevation knob counterclockwise. To adjust your point of impact DOWN, turn the elevation knob clockwise.

Windage:

To adjust your point of impact RIGHT, turn the windage knob counterclockwise. To adjust your point of impact LEFT, turn the windage knob clockwise.

Initial Setup / Zero

1. The first step is to physically mount the scope to your rifle. For this, we suggest following the manufacturer's published directions that came with the mount or standard rings that you're choosing to use. The ring size should be 34mm.
2. Next, boresight the 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 optic is boresighted, get out to the range and zero your new optic to your rifle.
4. 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. Each click on both the elevation and windage zeroing knobs are in either 1/10 MIL or 1/4 MOA (dependent on your reticle choice).
5. Once you've successfully zeroed your optic to your rifle, follow the steps on the next page to zero your knobs

Zeroing

1. Once your rifle and optic are zeroed, take a flat head screw driver and loosen the elevation knob center screw one full counter-clockwise rotation. The knob will now free spin and rotating it will not affect your zero.



2. Float your elevation knob to read zero. Ensure that the knob is in fact free floating, by listening for audible clicks. You should NOT hear audible clicks while floating your knob.



3. While holding your knob in place, retighten your center screw by turning it clockwise until you feel resistance. Do not over tighten.



4. Once you've successfully zeroed your elevation knob, continue to next page to zero your windage knob.

Zeroing

6. Take a flat head screw driver and loosen the windage knob center screw, one full counter-clockwise rotation. The knob will now free spin and rotating it will not affect your zero.



5. Float your windage knob to read zero. Ensure that the knob is in fact free floating, by listening for audible clicks. You should NOT hear audible clicks while floating your knob.



6. While holding your knob in place, retighten your center screw by turning it clockwise until you feel resistance. Do not over tighten.



5. You've successfully zeroed your elevation and windage knobs.

One Revolution Zero Stop

The TS-20X offers a One Revolution Zero Stop as an optional feature. Setting the Zero Stop will provide a hard stop at zero to ensure that you return to zero rapidly. NOTE: Setting the zero stop will limit your elevation knob's ability to travel past one revolution. To set your stop, please follow the instructions below:

1. Place your elevation knob at your "0"
2. Using a flat head screwdriver, unscrew the elevation screw counter-clockwise to remove the screw and gasket completely.



3. Remove the elevation knob and set it aside.



4. Locate the provided allen key and set screw. Place a dot of blue loctite on the set screw threads.

One Revolution Zero Stop

5. Insert the set screw into the threaded hole as shown below.



6. Screw the set screw clockwise until it sits flush with the elevation knob base.



7. Locate the elevation knob and place it back on the knob base while aligning "0" to the indicator line.



One Revolution Zero Stop

5. Re-insert the elevation screw and gasket as shown below.



6. While holding the elevation knob in place, use a flathead screw driver to tighten the screw back on. Rotate clockwise until you feel resistance. Do not over tighten.



7. You have successfully set your One Revolution Zero Stop.

NOTE: This feature may be removed and added at your convenience.

Parallax Adjustment

The TS-20X parallax knob is located on the left side of your optic (as shown below). This dial is used to properly adjust image focus (after your focus ring has been set). Properly adjusting this knob will ensure that your image is in focus and free of parallax effect.



Using the Parallax Knob

1. Ensure that you have properly set your focus ring to your eye prescription by following the steps on page 3.
2. While on target, turn the parallax dial until the image is as sharp as possible. NOTE: Use the yardage numbers on the dial as a reference.
3. To ensure that you have properly adjusted your parallax knob, move your head from side to side while looking through your optic. If the target and reticle stay in place, then you have properly set your knob.
4. If you see a shift in reticle positioning, readjust your knob in small increments.

Maintenance

In order to keep your TS-20X clean after use, we recommend using a microfiber suede cloth and/or a Lens Pen to clean off any debris from your lenses.

1. Use canned air or your breath to 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.

Warranty

Every USO product is engineered to standards we developed over our 28-year history, then hand assembled by our technicians before undergoing rigorous testing of features 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.

Please reach out to us to acquire a Return Authorization Number (RMA).

Return Address:

U.S. Optics
100 Beiersdorf Drive,
Connelly Springs, NC 28612

info@usoptics.com

***NOTE: DO NOT SEND IN YOU OPTIC FOR REPAIR
WITHOUT A RETURN AUTHORIZATION NUMBER.**



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