

TORERO HD FFP RIFLESCOPE

Understanding the controls



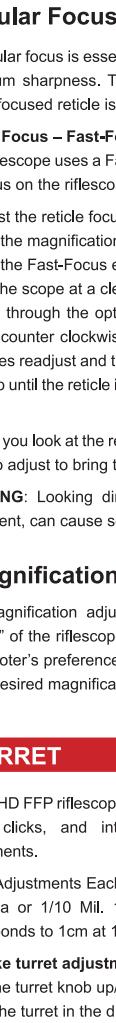
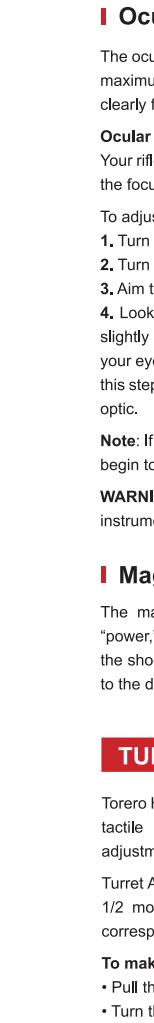
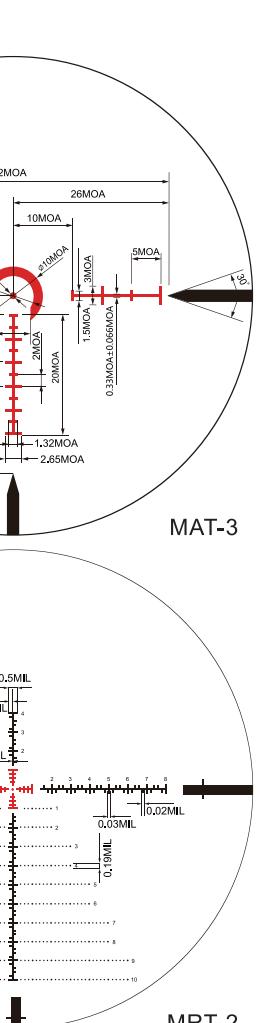
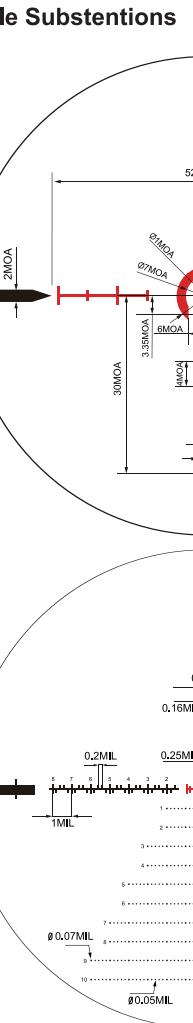
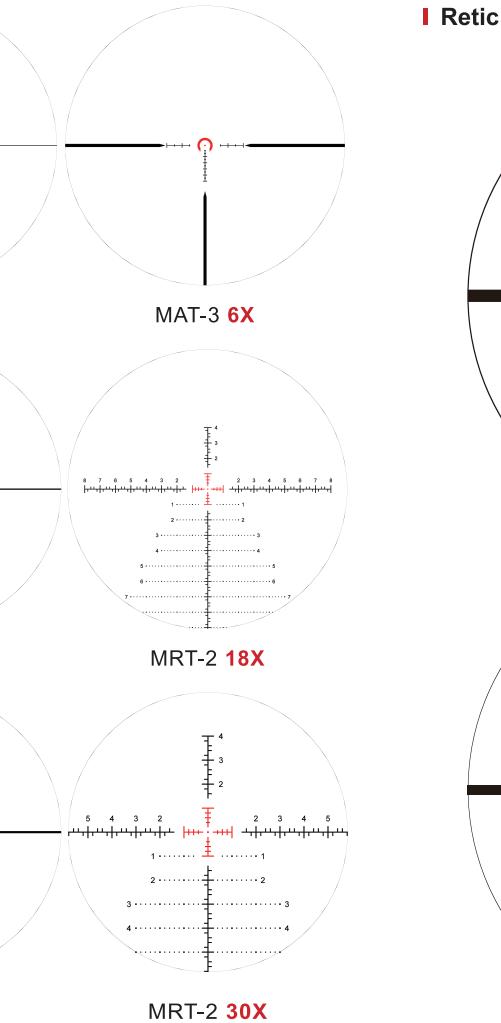
Specification

	Torero 1-6x24 FFP	Torero 3-18x50 FFP	Torero 5-30x56 FFP
Model No	RW18	RW19	RW20
Magnification	1x-6x	3x-18x	5x-30x
Objective Lens Diameter	24mm	50mm	56mm
Ocular Lens Diameter	36mm	36mm	36mm
Monotube Diameter	30mm	30mm	30mm

Diopter Compensation	-2 to +2	-2 to +2.5	-2 to +2.5
Exit Pupil	3mm ~ 9mm	10.5mm~ 3mm	6.7mm~ 1.65mm
Coating	Fully Multi Coated	Fully Multi Coated	Fully Multi Coated
Standard Click Value	1/2 MOA	1/10 Mil	1/10 Mil
Total Travel Elevation	≥ 120 MOA (35 Mil)	≥ 60MOA(17.4MIL)	≥ 50MOA(14.5MIL)
Total Travel Windage	≥ 120 MOA (35 Mil)	≥ 60MOA(17.4MIL)	≥ 50MOA(14.5MIL)
Reticle	MAT-3	MRT-2	MRT-2
Illumination	6 Red Illumination	6 Red Illumination	6 Red Illumination
Waterproof	IPX67	IPX7	IPX7
Fogproof	Yes	Yes	Yes
Parallax set	100 yds	100 yds	100 yds
Parallax compensation	1	15 yds ~ ∞	20 yds ~ ∞
Field of view @100 Yards	109.2ft ~18.2ft	33ft ~ 5.5ft	20.3ft ~ 3.5ft
Field of view @100 Meters	33.3m ~5.5m	10m ~1.7m	6.2m ~1.1m
Eye Relief	100mm	95mm-100mm	95mm-100mm
Length	270mm	345mm	410mm
Net Weight	530g / pc	760g / pc	802g / pc

Reticle Focal Plane

All riflescope reticles can be termed either first focal plane (FFP) or second focal plane (SFP), depending upon the reticle's internal location within the riflescope. This riflescope features a FFP reticle. First focal plane (FFP) reticles are located within the riflescope near the windage and elevation turrets in front of the image-erecting and magnifying lenses. This style of reticle will visually grow and shrink as you change the magnification. The advantage of an FFP reticle is that the reticle substensions used for ranging, holdovers, and wind drift corrections are consistent at all magnifications. Usually, the reticle will appear heavier at higher magnifications and finer at lower magnifications.



Reticle Substensions

Ocular Focus

The ocular focus is essentially a one-time adjustment used to focus the reticle for maximum sharpness. This adjustment is slightly different for every shooter. A clearly focused reticle is a critical component for accurate shooting.

Ocular Focus – Fast-Focus Eyepiece Adjustment

Your riflescope uses a Fast-Focus eyepiece designed to quickly and easily adjust the focus on the riflescope's reticle.

To adjust the reticle focus:

1. Turn the magnification to the highest power, and your parallax knob to infinity.
2. Turn the Fast-Focus eyepiece all the way in.
3. Once desired zero has been achieved, push the turret knob down/in to return to the locked position.
4. Look through the optic at the reticle. If the reticle is blurry turn the eyepiece slightly counter clockwise. Look away from the optic at something nearby to let your eyes readjust and then back through the optic to check reticle clarity. Repeat this step until the reticle is perfectly in focus immediately when looking through the optic.

Note:

If you look at the reticle for more than a second or two your eye will naturally begin to adjust to bring the reticle into focus - you do not want this to happen.

WARNING:

Looking directly at the sun through a riflescope, or any optical instrument, can cause severe and permanent damage to your eyesight.

for elevation adjustments; left/right for windaged adjustments.
• Push the turret knob down/in to return to the locked position.

Adjusting the Turrets for Bore and Range Sighting

Prior to making any zero adjustments, be sure the turret caps are correctly positioned with the "0" mark on the turret cap indexed to the indicator line on the turret body.

1. Pull the turret knob up/out to disengage the lock.

Up/down for elevation adjustments; left/right for windage adjustments.

3. Once desired zero has been achieved, push the turret knob down/in to return to the locked position.

4. Using the plastic wrench to remove the top screw of the turret cap.

5. Pull the turret cap up/out.

6. Align the "0" on turret cap with indicator line on turret body.

Parallax Adjustment – Image Sharpness

Your scope comes equipped with a side focus parallax adjustment dial. This adjustment dial is marked with approximate yardages to aid in initial setting and should be matched to the target's distance. With the gun on a steady rest, check the final parallax setting by moving your head slightly up, down, left and right while looking through the scope. Watch for any shift of the reticle in relationship to the target (parallax). If you observe shift, the dial should be adjusted slightly until shift is removed. Once this focus is correctly set for your target's distance, shooting errors due to parallax will be eliminated.

Replacing The Battery

1. Unscrew the outer cap.
2. Remove the battery.
3. Replace with a new CR2032 battery with the positive side out.
4. Reinstall the outer battery cap and be sure to fully tighten it down.

RIFLESCOPE MOUNTING

To get the best performance from your Red Dot riflescope, proper mounting is essential. Although not difficult, the correct steps must be followed. Please take note of the instructions on the following pages for the proper scope mounting procedure. If you are unsure of your abilities, use the services of a qualified gunsmith.

I Riflescope Mounting Checklist

- Gun vise or a solid platform/rest for your rifle
- Scope rings
- Torque wrench
- Reticle leveling tool, feeler gauges, weight on a rope or a plumb bob

I Rings And Bases

Your Torero HD FFP riflescope features a 30mm main tube. Be sure to select a base, and matching rings appropriate for your rifle and mount according to the manufacturer's instructions.

Tip: Selecting the proper ring height to provide complete clearance between the riflescope and any part of the rifle is paramount. The proper height will also allow for a comfortable cheek weld, and aid in establishing a solid and consistent shooting position. The height of a ring will not have an adverse effect on accuracy and overall range.

I Eye Relief And Reticle Alignment

After installing the bottom ring halves on the mounting base, place the riflescope on the bottom ring halves and loosely install the upper ring halves. Before tightening the scope ring screws, adjust for maximum eye relief to avoid injury from recoil:

1. Set the riflescope to its highest magnification.

2. Move the riflescope fore and aft in the rings until you have a full sight picture.

Note: You want to have the scope rings centered on the scope tube as best as possible. You may have to adjust the placement of the rings on the rail to achieve this.

3. Without disturbing the front-back placement, rotate the riflescope until the reticle is level. Using a reticle leveling tool, a plumb bob, flat feeler gauges, or a bubble level will help this procedure.

4. After leveling the reticle, tighten and torque the ring screws down per manufacturers instructions. Use caution and do not over tighten ring screws.

Note: Recommends not exceeding 18 in/lbs with no thread locking compound on the ring screws for all of our optics, with few exceptions depending on the ring style. For the base clamp screws on the rings, reference the ring manufacturers specification. If you have questions about specific setups please email us at info@redwinoptics.com.

SIGHTING IN YOUR RIFLE SCOPE

Bore Sighting Initial bore sighting of the riflescope will save time and money at the range. This can be done by using a mechanical or laser bore sight according to the manufacturer's instructions or by removing the bolt and sighting through the barrel on some rifles. Be sure to prepare the turrets before beginning any sight-in procedure.

I Final Range Sight-In

After the riflescope has been bore-sighted, final sight-in should be done at the range using the exact ammunition expected to be used while hunting or competitive shooting. Sight-in and zero the riflescope at the preferred distance. 100 and 200 yards are the most common zero distances.

Be sure the reticle is in focus (see Reticle Focus Adjustment section on page 6) and adjust the side focus knob if present until the target image is sharp and without parallax error (see Using the Side Focus section on page 7).

1. Following all safe shooting practices, fire a three-shot group as precisely as possible.
2. Next, adjust the reticle to match the approximate center of the shot group.
3. Carefully fire another three-shot group and see if the bullet group is centered on the bullseye. This procedure can be repeated as many times as necessary to achieve a perfect zero.
4. Once desired zero has been achieved, push the turret knob down/in to return to the locked position.

MAINTENANCE

Cleaning

The Torero HD riflescope require very little routine maintenance other than periodically cleaning the exterior lenses. The exterior of the scope may be cleaned by wiping with a soft, dry cloth. When cleaning the lenses, be sure to use products that are specifically designed for use on coated optical lenses.

- Remove any dust or grit from the lens before wiping. Use a can of pressurized air, soft camel hair brush, or an acrylic optical brush.
- Clear lenses of smudges and fingerprints. Fog the lens with your breath, then use a non-abrasive lens cloth* to clean the lens.

Note: *Never use facial tissue, heavy cotton, or flannel fabric—these materials can scratch the surface of a lens. Use lens cleaning fluid and an optical tissue or cloth to clean lenses.

Lubrication

All components of the Torero HD riflescope are permanently lubricated, so no additional lubricant should be applied. If possible, avoid exposing your Torero HD riflescope to direct sunlight or any very hot location for long periods of time.

Note: Other than to remove the battery cap, do not attempt to disassemble any components of the riflescope. Disassembling of riflescope may void warranty."

TROUBLESHOOTING

Please consult the following list prior to returning a riflescope for service. Many times, a problem thought to be with the scope is actually a mount problem. Be sure the correct rings and bases are being used, and that they are properly torqued to the rifle. Be sure that there is no free play in the scope, base, and rings.

I Common Issues

Point of Impact is Inconsistent or Changes Drastically After Turret Adjustment

- Verify that the ring screws are not over torqued. Over torquing the ring screws will cause excess pressure on the tube, which will cause problems when adjusting the reticle. Recommend not over 18 in/lbs.
- Remove the scope from the rings and visually check the scope tube for slide marks and/or indentations from under/over torqued or out of spec rings.
- Be sure that the action screws on the rifle are tightened to the rifle manufacturers specification.
- Be sure that the base is tightened using Loctite to the top of the receiver of the rifle to manufacturer specs.
- If using scope on an AR style rifle, ensure the cantilever mount/rings are mounted only to the receiver. The cantilever mount/rings need to be mounted to one, solid surface. Make sure that the forward connection of the cantilever mount, or ring, is not mounted to the fore end of the rifle.
- Be sure rifle barrel and action are clean and free of excessive oil or copper and powder fouling.
- Some rifles and particular ammunition don't work well together—try different ammunition and see if accuracy improves.
- Insufficient Windage & Elevation Adjustment Ranges
- Be sure you have the proper base and rings for your particular rifle. If you need assistance, contact a local gunsmith or Red Win Customer Service.
- Once you have verified you have the correct base and mounts, and that you have been properly fitted to your gun, make sure you've followed the correct mounting procedure.

• Insufficient windage or elevation adjustment range usually indicates problems with the mounting, base mount holes drilled in the rifle's receiver, or barrel/receiver alignment.

Reticle is Blurry/Cannot Focus on Reticle and Target Simultaneously

• Check and reset the ocular focus of the reticle for the shooter's eye. See Riflescope Adjustments section, Ocular Focus – Fast-Focus Eyepiece Adjustment.

I Support

Thank you for purchasing Red Win products. Should you have any queries please feel free to contact us at info@redwinoptics.com or visit www.redwinoptics.com to get more support.

RED WIN SHIELD



For 100% Quality Insurance



5 years Red Win VIP warranty. We promise to repair or replace the product. Absolutely free.



One time FREE Accidental Damage repair service, includes accidental Water Damage and Drop Damage.



Free Two-Way Shipping. No additional cost on you for no reason return within 1 month after receiving the item.

Note: The Red Win Shield does not cover loss, theft, deliberate damage, or cosmetic damage not affecting product performance.

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