SWFA SS

USER'S MANUAL

SWFA SS 2.5-10x32 ULTRALIGHT

SS215051

MSR 556 BDC, .25 MOA, 1" Tube

WWW.SWFA.COM

SWFA SS

PERFORMANCE IN EVERY OUNCE

SWFA SS Ultralight, the world's lightest 2.5-10x variable optic, setting new standards in lightweight scopes. At just 9.5 ounces, with a streamlined 1" main tube and 32mm objective lens, it delivers the same renowned durability and reliability that the SS line is known for. Redefining 'less is more,' the SWFA SS 2.5-10x32 Ultralight Riflescope is the ultimate choice when every ounce counts.

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SPEC SHEET INFO

SWFA SS 2.5-10x32 UltraLight, MSR 556 BDC

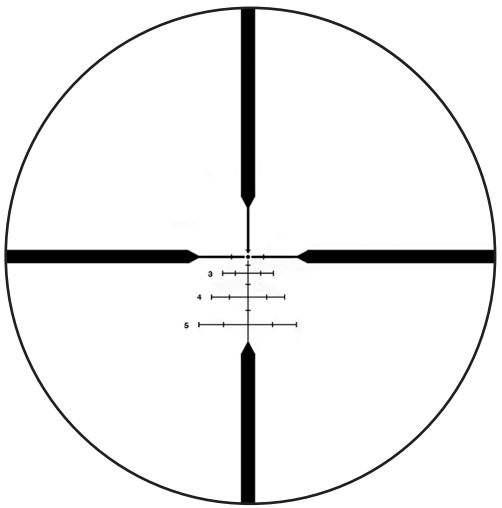
MAGNIFICATION:	2.5-10X	**TOTAL ADJUSTMENT RANGE (ELEVATION):**	70 MOA
OBJECTIVE LENS DIAMETER:	32 MM	**TOTAL ADJUSTMENT RANGE (WINDAGE):**	70 MOA
MAIN BODY DIAMETER:	1 IN	**ZERO STOP SYSTEM:**	NO
FIELD OF VIEW:	47.2 - 10.5 FT/100 YDS	**PARALLAX SETTING:**	150 YDS
EYE RELIEF:	3.35 - 2.56 INCHES	**FINISH:**	MATTE BLACK
LENGTH:	10.9 INCHES	**FOCAL PLANE:**	2ND FOCAL PLANE
WEIGHT:	9.5 OZ	**RETICLE:**	MSR 556 BDC
ELEVATION TURRET STYLE:	CAPPED	**WATERPROOF :**	YES
WINDAGE TURRET STYLE:	CAPPED	**FOGPROOF:**	YES
ADJUSTMENT CLICK VALUE:	0.25 MOA	**SHOCKPROOF:**	YES
TRAVEL PER ROTATION:	15 MOA		

GETTING TO KNOW YOUR SCOPE

All reticles found in riflescopes can be classified as either first focal plane (FFP) or second focal plane (SFP), depending on the internal positioning of the reticle within the riflescope. **This specific model is equipped with a second focal plane design.**

SECOND FOCAL PLANE RETICLES

Second focal plane (SFP) reticles are positioned near the scope's eyepiece behind the image erecting and magnifying lenses. This style of reticle does not visually change in size when you change the magnification. The advantage of an SFP reticle is that it maintains the same appearance on all magnifications.



WINDAGE AND ELEVATION ADJUSTMENTS

Depending on the specific model you purchased, your SWFA Ultralight Riflescope will incorporate adjustments and reticles calibrated in either MOAs or MRADs. Minute-of-angle (MOA) and milliradian (MRAD) arc scales are equally proficient for tasks such as ranging or making adjustments to the riflescope to account for bullet trajectory. **This specific model is equipped with MOA adjustments.**

MOA ADJUSTMENTS

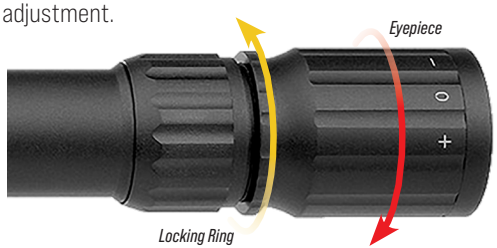
MOA unit of arc measurements are based on degrees and minutes. There are 360 degrees in a circle and 60 minutes in a degree for a total of 21,600 minutes (MOA) in a circle. A minute of angle will subtend 1.05 inches at a distance of 100 yards (29.1 mm at 100 meters). SWFA riflescopes with MOA adjustments use .25 minute clicks which subtend .26 inches at 100 yards (7.3 mm at a 100 meters), .52 inches at 200 yards (14.6 mm at 200 meters), .78 inches at 300 yards (21.9 at 300 meters), etc.

FOCUSING YOUR SCOPE

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

TO ADJUST THE RETICLE FOCUS:

1. Rotate the eyepiece counterclockwise until the knurled locking ring moves freely. Then rotate the knurled locking ring clockwise to provide range for the eyepiece to move during adjustment.
2. Set the magnification power ring to 3x.
3. Look through the riflescope at a blank white wall or up at the sky, away from the sun.



4. Rotate the eyepiece clockwise or counterclockwise until the reticle image is as crisp as possible.

NOTE *Try to make this adjustment quickly, as the eye will try to compensate for an out-of-focus reticle.*

5. When the reticle is focused for your vision, rotate the knurled locking ring counter-clockwise until it meets up with the eyepiece body to lock the setting in place. It should be firm but make sure to not over tighten.

Once this adjustment is complete, it will not be necessary to re-focus every time you use the riflescope. However, because your eyesight may change over time, you should re-check this adjustment periodically.

NOTE *If you normally wear corrective lenses, wear them when using your scope.*

PARALLAX CORRECTION

The SWFA SS 2.5-10x32 BDC does not have an external parallax adjustment. It has fixed factory parallax which is set at 150 yards.

MOUNTING YOUR SCOPE & ADJUSTING THE TURRETS FOR BORE AND RANGE SIGHTING

RINGS AND BASES

Be sure to select a base and rings appropriate for your rifle and mount according to the manufacturer's instructions.

NOTE *We recommend not exceeding 20 in/lbs (inch/pounds) of torque on the ring screws.*

TIP Select the lowest ring height that will provide complete clearance between the riflescope and rifle in order to avoid contact with barrel, receiver, bolt handle or any other part of the rifle (except on flattop style rifles such as the AR platform as they require a 1.45-1.55" mount height for proper alignment). A low mounting height will help assure proper cheek weld, aiding in establishing a solid shooting position, and promote fast target acquisition.

WARNING! *Never assume a firearm is unloaded, always double check yourself and be sure to keep the muzzle pointed in a safe direction at all times.*

RIFLESCOPE MOUNTING

To get the best performance from your riflescope, proper mounting is essential. Although not difficult, the correct steps must be followed. If you are unsure of your abilities, it would be best to use the services of a qualified gunsmith.

MOUNTING YOUR SCOPE & ADJUSTING THE TURRETS FOR BORE AND RANGE SIGHTING

CONT.

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 the maximum magnification.
2. Slide the riflescope as far forward as possible in the rings.
3. While viewing through the riflescope in a normal shooting position, slowly slide the riflescope back towards your face. Pay attention to the field of view. Stop sliding the riflescope back as soon as you see the full field of view.
4. Without disturbing the front-back placement, rotate the riflescope until the vertical crosshair exactly matches the vertical axis of the rifle. Use of a reticle leveling tool, a weight hung on a rope, flat feeler gauges, or a bubble level will help with this procedure.

MOA ADJUSTMENTS

Each click of the turret will move the point-of-impact .25 MOA. *(Refer to MOA Adjustments on page 5 for more details).*

BORE SIGHTING

Initial bore sighting of the rifle and scope will save you money and time at the range. This initial sighting can be done in a number of ways. You may want to use a mechanical or laser bore sighter according to the manufacturer's instructions. On some rifles, bore sighting can be done visually by removing the bolt and sighting through the barrel.

TO VISUALLY BORE SIGHT A RIFLE

1. Place the rifle solidly on a rest and remove the bolt.
2. Align the sight through the bore over a target approximately 100 yards away.
3. Move the rifle and rest until the target is visually centered inside the barrel.
4. With the target centered in the bore, make windage and elevation adjustments until the reticle crosshair is also centered over the target.
5. If using a mechanical or laser boresighter, set up according to manufacturer instructions.

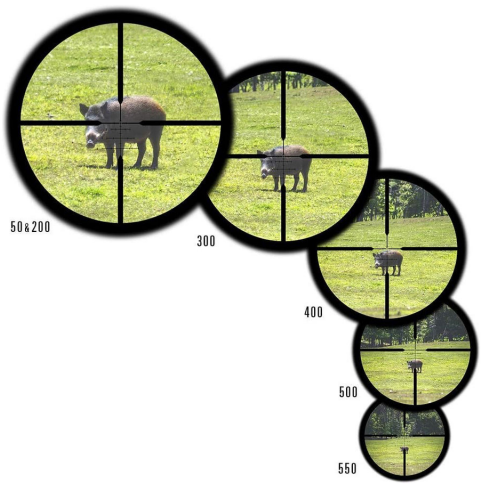
FINAL RANGE SIGHT-IN

Once the riflescope has been boresighted, final sight-in should be done at the range shooting the same ammunition expected to be used in the field. You will need to zero your scope at either 50 or 200 yards to properly calibrate the MSR-556 BDC reticle.

MOUNTING YOUR SCOPE & ADJUSTING THE TURRETS FOR BORE AND RANGE SIGHTING

CONT.

- Be sure to follow all safe shooting practices.
- Before shooting, be sure the reticle focus is properly set *(see Reticle Focus on page 6)*.
- At your preferred zero distance, fire a three-shot group as precisely as possible. Next, adjust the reticle to match the approximate center of the shot group *(see section on Windage and Elevation Adjustments on page 5)*. If the rifle is very solidly mounted and has not shifted you can simply look through the scope and adjust the reticle until it is centered on the fired group.
- Carefully fire another three-shot group and see if the bullet group is centered on the bullseye. Repeat process until group is centered in desired spot.



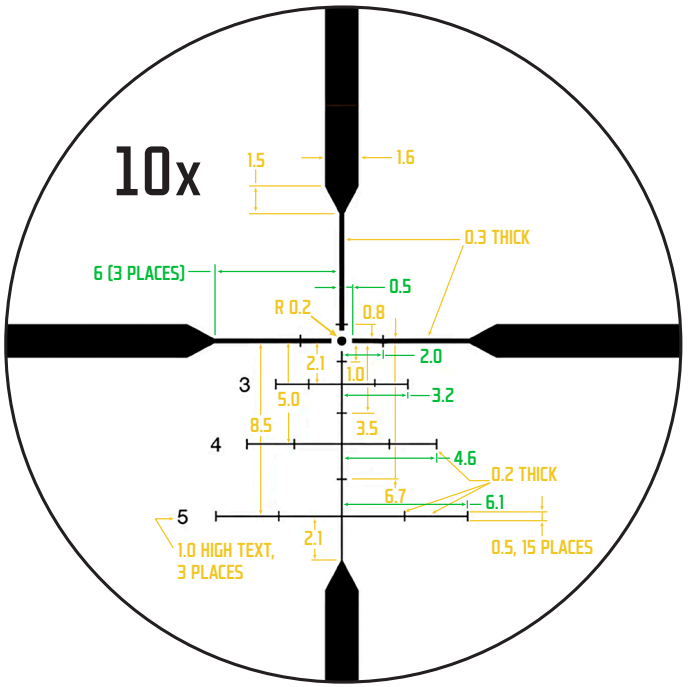
Four main BDC Hold Points: 50 & 200, 300, 400 & 500, plus an additional **550** hold using the bottom thick post

Quick aiming points for 5 and 10 mph winds out to 500 yards.

NOTE *Reticle is calibrated for a 5.56 55gr @ 3250 FPS with wind holds at each distance for 5 and 10 mph wind holds.*

RETICLE IMAGE WITH SUBTENSIONS

SWFA SS 2.5-10x32 ULTRALIGHT MSR 556 BDC



MAINTENANCE

CLEAN

Your fully waterproof and fogproof SWFA riflescope requires 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, such as Fog Free cleaning products or Lens Pen, that are specifically designed for use on coated optical lenses.

- **Be sure to blow away any dust or grit on the lenses prior to wiping the surfaces.**
- **Using your breath, or a very small amount of water or pure alcohol, can help remove stubborn things like dried water spots.**

LUBRICATION

All components of the SWFA riflescopes are permanently lubricated, no additional lubricant should be applied.

NOTE *Other than to remove the turret caps, do not attempt to disassemble any components of the riflescope. Disassembling of riflescope may void warranty.*

STORAGE

If possible, avoid exposing your SWFA riflescope to direct sunlight or any very hot location for long periods of time.

SWFA SS 4-LIFE WARRANTY

THE NAME SAYS IT ALL AND WE STAND BEHIND IT

Never Expires.

Transferable, No Receipt Required.

If We Cannot Repair It, We Will Replace It.

LEARN MORE AT **WWW.SWFA.COM**

NOTES

DEPENDABILITY YOU RELY ON, PRECISION YOU TRUST

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