

MUZZLE-LOADERS**LOADERS**.com

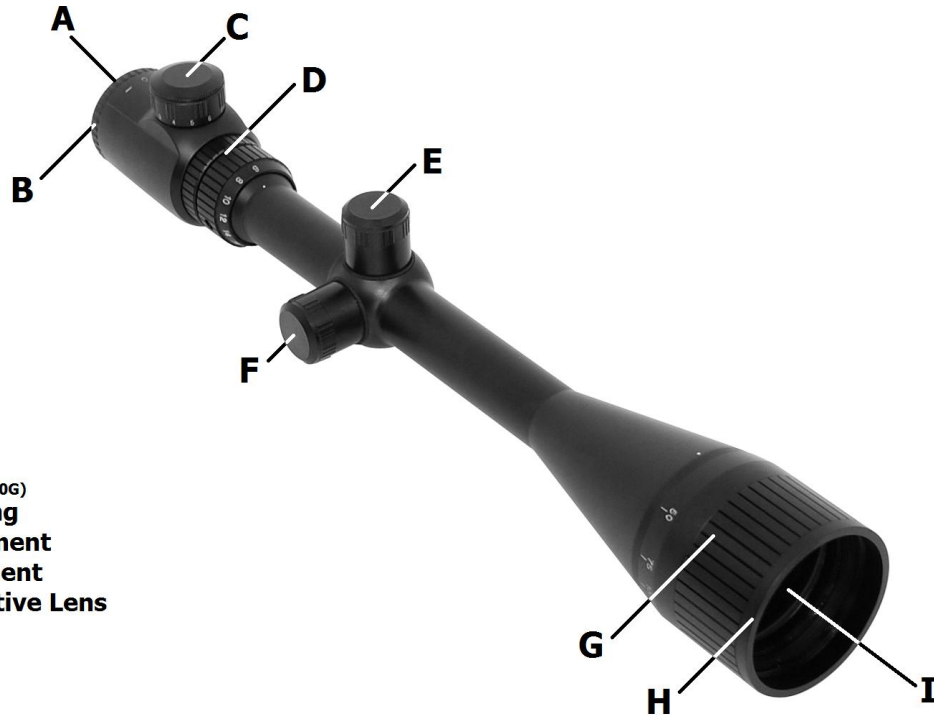
SHOOTER II SERIES SCOPE

INSTRUCTIONS

NcSTAR SHOOTER II SERIES SCOPE

Congratulations on the purchase of your New NcSTAR Shooter II Series Scope! The Shooter II Series of scopes gives you many great options, so you can choose the scope that best fits your needs. Backed by a Lifetime Limited Warranty, your NcSTAR Scope will provide you with years of reliable service. This Owner's Manual will help you understand all of the features of your new scope. Follow all instructions carefully before initial use, to experience the best performance.

Shooter II Series Features



- A) Ocular Lens
- B) Quick Focus Ring
- C) Rheostat Knob
(Not available on #SFA062450G)
- D) Magnification Ring
- E) Elevation Adjustment
- F) Windage Adjustment
- G) Adjustable Objective Lens
- H) Finished End Cap
(For Optional 3" Sun Shade)
- I) Objective Lens

Mounting Your Scope

- ❖ **CAUTION: BE SURE THAT YOUR FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION. PRACTICE SAFE FIREARMS HANDLING PROCEDURES AT ALL TIMES.**
- ❖ **NOTE: If you are unfamiliar with the process of scope mounting it may be necessary to employ the service of a Qualified Gunsmith.**

Once you have the scope mounted in the rings (before final tightening), it is necessary to adjust the scope's position in the rings to allow for Maximum Eye Relief and reticle leveling. Slide the scope as far forward as possible in the rings. While viewing through the scope in a normal shooting position (properly shouldered firearm and a proper cheek weld on the stock) move the scope back towards your eye until a Full Field of View is achieved while ensuring that the scope will be a safe distance from your eye when the firearm recoils. Without disturbing the Eye Relief settings, aim the reticle at a plumb line. Align the vertical cross hair of the reticle with the plumb line by rotating the scope within the rings. Once you are satisfied with your scope settings and placement, tighten the rings evenly and securely according to the Manufactures Specifications. Be sure not to over tighten the rings as doing so can cause permanent damage to the scope.

Your NCSTAR Scope is factory set with a Centered Reticle necessary for efficient sighting-in. If you have made any prior adjustments to the Elevation and Windage settings it will be necessary to re-center the reticle. Turn the Elevation Adjustment Dial [E] in either direction until it comes to a complete stop. Next, turn the dial in the opposite direction, counting the number of clicks, until you have reached the limits of the adjustment range. Divide the number of clicks in half, and turn the dial that exact number of clicks back towards the center of the adjustment range. Repeat this procedure for the Windage Adjustment Dial [F]. The reticle is now centered.

Focusing Your Scope Reticle

❖ **CAUTION: VIEWING THE SUN WITH THIS SCOPE OR ANY OTHER OPTICAL DEVICE CAN CAUSE PERMANENT INJURY TO THE EYE, INCLUDING BLINDNESS**

Holding the scope at the proper distance from your eye, in order to achieve a Full Field of View, the reticle should appear sharp and clear. If not, it will be necessary to adjust the focus by turning the Quick Focus Ring [B].



1. Make quick glances through the eyepiece at a featureless bright surface such as a white wall, or the open sky.
2. Turning the Quick Focus Ring [B] counter-clockwise will extend the Ocular Lens outward, generally suitable for those who are far sighted. Turning the Quick Focus Ring clockwise will draw the Ocular Lens inward, generally suitable for those who are near sighted.
3. Fine tune your adjustments until the reticle appears sharp and clear. Once the Ocular Lens reaches its outer limits of adjustment, be sure not to force it. Doing so will cause damage to the eyepiece.

Magnification Adjustment

All Shooter II scopes have a Variable Power Magnification Ring [D], with the Magnification Ring located directly in front of the eyepiece. By turning this ring you can quickly and easily choose the desired magnification level. Lower levels of magnification provide you with a wider Field of View, while higher levels of magnification provide you with a closer view of your target.

❖ **CAUTION: DO NOT ATTEMPT TO LOOSEN OR REMOVE THE SLOTTED SCREW ON THE MAGNIFICATION RING. DOING SO CAN RELEASE THE INTERNAL NITROGEN GAS CAUSING DAMAGE TO THE SCOPE.**

Windage and Elevation Adjustment Dials

The Shooter II scopes are equipped with Turret Caps installed over the Elevation and Windage Dials. Remove the Turret Caps by turning them in a counter-clockwise direction until they come off. The Elevation and Windage Dials which change your scope's point of aim relative to your rifle's point of impact are located under each of the Turret Caps. The Elevation Adjustment Dial [E] is located on top of the Turret Body, and is responsible for the up and down movement of the reticle. The Windage Adjustment Dial [F] is located on the right side of the Turret Body, and is responsible for the left and right movement of the of the reticle.



On the top of each Turret Dials you will notice that there are arrows indicating direction of movement.

Turning the Elevation Adjustment Dial [E] counter-clockwise will shift the bullet point of impact up, and turning it clockwise will shift the bullet point of impact down. Turning the Windage Adjustment Dial [F] counter-clockwise will shift the bullet point of impact right, and turning it clockwise will shift the bullet point of impact left.

The Elevation and Windage Adjustment Dials also feature Audible and Tactile Clicks. Which not only can you see and hear the adjustments, but you can feel them as well.

Adjustable Objective

All Shooter II scope models have an Adjustable Objective [G]. The Adjustable Objective will fine tune the parallax alignment of the scope, so that you can properly adjust the parallax of your reticle to the target image in the scope.

If you do not have the parallax adjust properly, the reticle will seem to move in relations to the target image, if you were to move your head around the ocular lens.

Have the scope on a stable setup/platform, while viewing your target through the scope. Adjust the Adjustable Objective in either direction until the reticle stays perfectly still on your target, if you were to move your head around the ocular lens while viewing through the scope. With the reticle properly adjusted, the reticle should remain still on your target (as if the reticle was painted onto the target). Adjusting the parallax so that the reticle is stationary against the target image will help the shooter make a more precise shot at longer distances and help with shooting a more consistent and tighter groupings.



Zeroing your Scope

After you have completed the installation of your scope it will be necessary to adjust the scopes point of aim to match the rifles point of impact. This can be accomplished using several methods, but we recommend the use of a Bore Sighting Device to save time and ammunition. Using a Bore Sighting Device will ensure that your shots land "on paper". Follow the Manufacturer's Instructions for the Bore Sighting Device that you choose in order to achieve the best results. You are now ready to finalize your Zero.

- ❖ **CAUTION: ALWAYS BE SURE TO REMOVE THE BORE SIGHTING DEVICE BEFORE SHOOTING LIVE AMMUNITION. FAILURE TO DO SO CAN CAUSE DAMAGE TO YOUR FIREARM OR INJURY TO YOURSELF AND THOSE AROUND YOU.**
- ❖ **CAUTION: WHEN OPERATING ANY TYPE OF FIREARM ALWAYS USE PROPER EYE AND EAR PROTECTION. BE SURE TO USE YOUR FIREARM IN AN AREA THAT IS PERMISSIBLE UNDER LOCAL, STATE, AND FEDERAL LAW.**

Bore Sighting alone is not sufficient enough to ensure and accurate Zero. You must shoot your firearm at the range in order to confirm a 100% accurate Zero. Follow these steps to fine tune your scope adjustments:

1. Secure your firearm using a steady platform, such as a bench rest
2. Fire 3-5 shots at a target that is set to your desired Zeroing distance (100 yards is recommended).
3. Observe where the bullets have struck the target and make adjustments to the Elevation and Windage settings as necessary until your point of aim matches your point of impact.
4. Continue with this process until you have achieved your desired level of accuracy.
5. Your scope is now Zeroed to your firearm at the distance that you have chosen.
6. Don't forget to reinstall the Turret Caps over the Turret Dials after your done zeroing. You do not want to lose/leave behind the Turret Caps at the shooting range.

It is important to remember that many factors can affect the accuracy of your scopes zero including temperature, humidity, elevation, distance, angle, and other conditions. Changing ammunition brands can affect accuracy as well.

Battery Installation

Your Shooter II Series Scope comes with a battery pre-installed from the factory. To replace the battery follow these simple steps:

1. The Battery Compartment is located within the Rheostat Knob on top of the Ocular Lens Housing.
2. On top of the Rheostat Knob you will notice a thin cap. To remove this cap grasp it firmly with one hand, and twist it counter-clockwise while holding the Rheostat Knob firmly in place with your other hand.
3. Remove the old battery, and dispose of it properly. Replace it with a new 3 volt Lithium Battery Type CR2032 only. Twist the battery cap back on the Rheostat Knob and hand tighten. Avoid using tools (such as pliers) to perform this procedure as this may cause damage to the Illumination System.



Illuminated Reticle

Shooter II Series Scopes equipped with an Illuminated Reticle, can be illuminated in red for use when exterior lighting conditions are less than optimal. Control of the illumination is achieved by simply rotating the Rheostat Knob [C] in one direction or the other.



If you look closely at the side of the Rheostat Knob [C] you will notice a series of numbers. "0" represents the Off position. If you turn the knob in either direction the reticle will illuminate red. The illumination reticle can be set to 11 levels of intensity, "1" being the dimmest and "11" being the brightest. Adjust the brightness level as needed in accordance with the surrounding conditions. The illumination will increase reticle visibility, especially during dawn and dusk. This illuminated scope is not intended for use in total darkness. When the illumination is turned off the reticle will appear as normal, with Black reticle lines. Be sure that the Rheostat Knob is set to the "0" position when not in use to preserve battery life.

Care and Maintenance

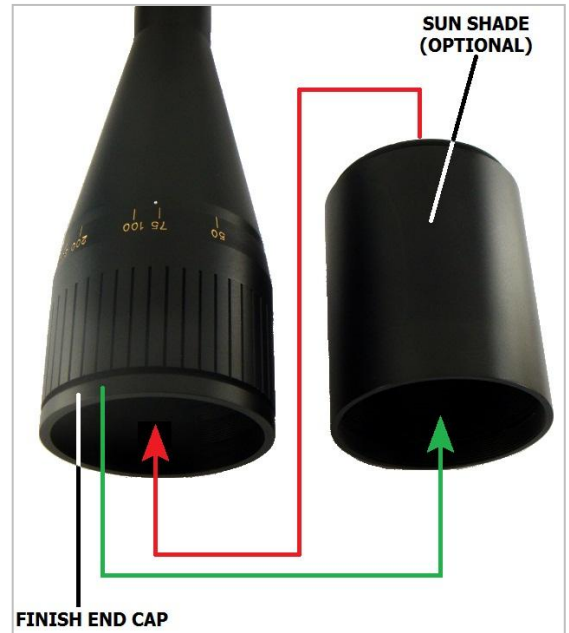
Your NCSTAR Shooter II Series Scope is shock proof, fog proof, and water proof. However, you should never try to take the scope apart or clean it internally. The exposed optical lens surfaces will perform their best if they are routinely cleaned with a lens brush or a lens cloth. For a deep cleaning, you can also use high grade camera lens paper and camera lens cleaning solutions. Never use any other type of materials or solvents other than those designed specifically for optical lenses to avoid damaging your scope. Clean the outer portion of the lens cavity first with cotton swabs, clearing as much debris and dust as possible. Then, gently clean the lenses using a circular motion starting in the center and ending at the edges. Do not rub the lenses continually; simply wipe in short circular patterns. Maintain the exterior surfaces of the scope by removing dirt or sand by using a soft brush or a soft dry cloth. You can also use a silicone treated cloth to restore luster and protect the exterior of the scope against corrosion. Be careful not to touch any of the lenses with the silicone cloth. It is not necessary to lubricate any part of the scope as all of the moving parts, such as the turrets and the fast focus eyepiece, are permanently lubricated. When not in use, always store your scope in a cool dry place with the lens caps on to prevent scratches to the lenses.

❖ If you are unfamiliar with any of the procedures in this manual, always seek the help of a qualified professional to avoid damage to your scope and your firearm.

Sun Shade Installation

NcSTAR has an Optional 3" Sun Shade (black & silver) for the Shooter II Series Scopes. For the #SEFM83250G and #SEFR104050G Shooter II Scopes, the Sun Shade is standard equipment from the factory.

To install the Sun Shade, you first need to remove the Finish Cap that is on the end of the Adjustable Objective Lens housing. The last 3/16ths of the Adjustable Objective housing is a Finish Cap that can be unscrewed counter-clockwise and removed from the scope. With the Finish Cap removed, the 3" sunshade will screw into the end of the Adjustable Objective Lens housing. The last step is to take the Finish Cap and screw it clockwise onto the end of the Sun Shade to finish the edge of the Sun Shade.



NcSTAR Shooter II Series Scope Specifications Scope model with: Non-illuminated Reticle

ITEM #	RETICLE	SCOPE BODY COLOR	MAGNIFICATION	TUBE DIAMETER	OBJECTIVE DIAMETER (mm)	FOV (FEET @ 100 YARDS)	EYE RELIEF (in)	EXIT PUPIL (mm)	NET WEIGHT (oz.)	LENGTH (in)	CLICK VALUE
SFAO62450G	PLEX	BLACK	6X - 24X	1"	50 mm	19.1 - 4.2	3.3" - 3.5"	8.3 - 2.1 mm	23.2	15.7"	1/8 MOA

NcSTAR Shooter II Series Scope Specifications Scope models with: Illuminated Reticle

ITEM #	RETICLE	SCOPE BODY COLOR	MAGNIFICATION	TUBE DIAMETER	OBJECTIVE DIAMETER (MM)	FOV (FEET @ 100 YARDS)	EYE RELIEF (in)	EXIT PUPIL (mm)	NET WEIGHT (oz.)	LENGTH (in)	CLICK VALUE
SEFR62450G	RANGEFINDER	BLACK	6X - 24X	1"	50 mm	19.1 - 4.2	3.3" - 3.5"	8.3 - 2.1 mm	24.2	15.7"	1/8 MOA
SEFM62450G	MIL-DOT										
SEFD62450G	RED DOT *										
SEFRS62450G	RANGEFINDER	SILVER	6X - 24X	1"	50 mm	19.1 - 4.2	3.3" - 3.5"	8.3 - 2.1 mm	24.2	15.7"	1/8 MOA
SEFMS62450G	MIL-DOT										
SEFM83250G **	MIL-DOT	BLACK	8X - 32X	1"	50 mm	11.5 - 3.7	3.3" - 3.5"	6.3 - 1.6 mm	27.2	19.9"	1/8 MOA
SEFR104050G **	RANGEFINDER	BLACK	10X - 40X	1"	50 mm	9.4 - 2.6	3.3" - 3.5"	4.4 - 1.1 mm	27.2	19.9"	1/8 MOA

*= Glass Etched reticle (RED DOT) **= Includes Flip-Up Lens Caps & 3" Sun Shade