



NcSTAR

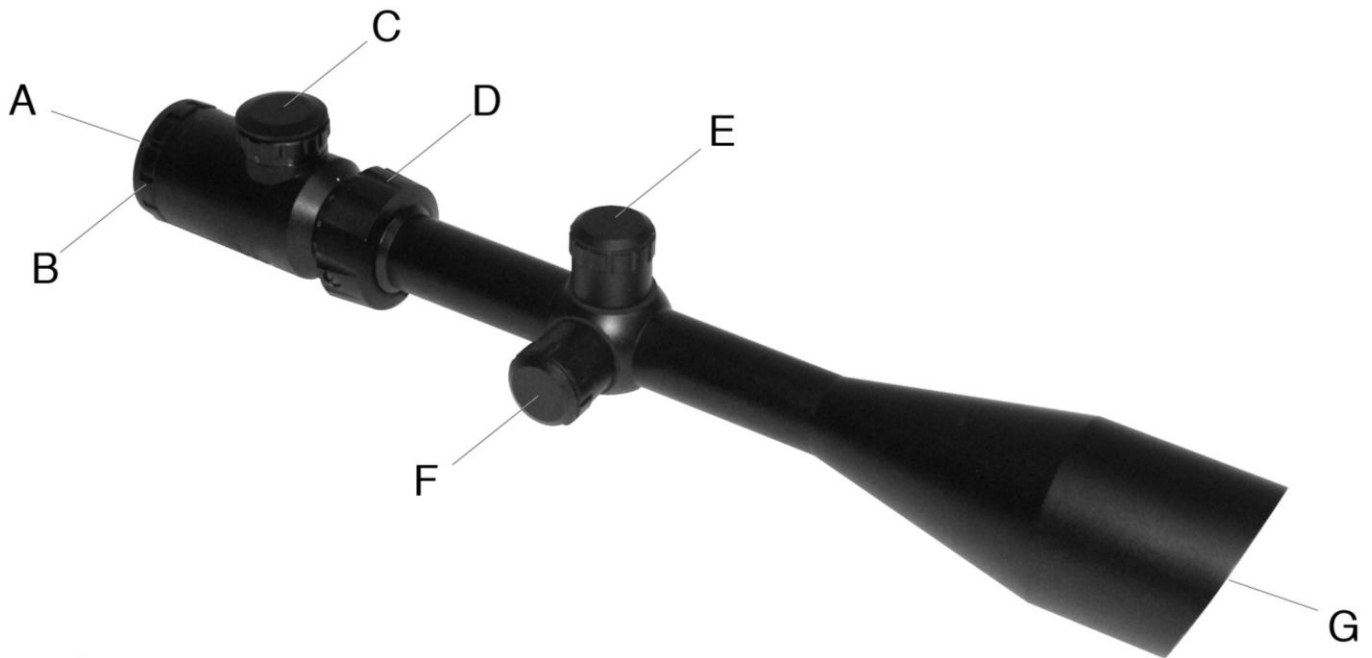
FREEDOM SERIES SCOPE

INSTRUCTIONS

NCSTAR FREEDOM SERIES SCOPE

Congratulations on the purchase of your New NCSTAR Freedom Series Scope! The Freedom Series of Scopes give 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.

Freedom Series Features



- A. Ocular Lens
- B. Quick Focus Ring
- C. Rheostat Knob (Illuminated Reticle Models Only)
- D. Magnification Ring (Variable Magnification Models Only)
- E. Elevation Adjustment Dial
- F. Windage Adjustment Dial
- G. Objective Lens

Mounting Your Scope

- ❖ **CAUTION: BE SURE THAT YOUR FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION. PRATICE 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.**

Choosing a proper ring type and height is essential to successfully mounting this scope to your firearm. Be sure to follow the Manufacturers Installation Instructions of the scope rings and base that you choose.

Mounting your scope as low as possible on the firearm will help to achieve optimum cheek weld and a comfortable, consistent shooting position. Use the lowest rings possible while ensuring that no part of the scope is in contact with any part of the firearm. Also, be sure that you can operate all features of the scope, and that all parts of the firearm function normally without interference from the scope.

Once you have the scope mounted in the rings (before final tightening) it is necessary to adjust the position 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 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 setting 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 scopes setting 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 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. The reticle is now centered.

Focusing Your Scope

❖ **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.

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 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 as doing so will cause damage to the eyepiece.



Magnification Adjustment (Variable models only)

NCSTAR Scopes with Variable Power Magnification have a power selector 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

Your NCSTAR scope is equipped with Elevation and Windage Adjustment Dials which change your scopes point of aim relative to your rifles point of impact. The Elevation Adjustment Dial is located on top of the Turret Body, and is responsible for the up and down movement of the reticle. The Windage Adjustment Dial is located on the right side of the Turret Body, and is responsible for the left and right movement of the of the reticle. To access the Adjustment Dials simply twist the protective caps off counter-clockwise.



On the top of each Dial you will notice that there are arrows indicating direction of movement. Turning the Elevation Adjustment Dial 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 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. Each Click moves the reticle point of aim 1/4 MOA* at 100 Yards. The chart below represents the amount of movement of each click at various distances.

Elevation/Windage movement per click				
100 yards	200 yards	300 yards	400 yards	500 yards
1/4 MOA	1/2 MOA	3/4 MOA	1 MOA	1 1/4 MOA

*1 MOA = 1.047 Inches at 100 Yards

Zeroing your Scope

After you have completed 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 you 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.

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 Illuminated Model Freedom 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 the 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

Your Illuminated Model Freedom Series Scope is equipped with a Reticle that can be illuminated in 2 different colors (red and green) for use when exterior lighting conditions are less than optimal. Control of the illumination is achieved by simply rotating the Rheostat Knob in one direction or the other.



If you look closely at the side of the knob 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 or green (depending upon the direction that it is turned). Each illumination color can be set to 5 levels of intensity, "1" being the dimmest and "5" 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. 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 Freedom Series Scope is shock proof and waterproof. However, you should never try to take it 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 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 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.

NCSTAR Freedom Series Scope Specifications **Fixed Magnification Scopes**

ITEM #	RETICLE	COLOR	MAGNIFICATION	TUBE DIA.	OBJECTIVE DIA. (mm)	FOV (FEET @ 100 YARDS)	EYE RELIEF (in)	EXIT PUPIL (mm)	NET WEIGHT (oz.)	LENGTH (in)	CLICK VALUE
SFREBP1042G	P4 SNIPER	BLACK	10X	1 INCH	42 mm	9.94 ft	3.00"	4.2 mm	17.5 oz.	15.6"	¼ MOA
SFREBR1042G	RANGEFINDER										
SFREBM1042G	MIL-DOT										

NCSTAR Freedom Series Scope Specifications **Variable Magnification Scopes**

ITEM #	RETICLE	COLOR	MAGNIFICATION	TUBE DIA.	OBJECTIVE DIA. (mm)	FOV (FEET @ 100 YARDS)	EYE RELIEF (in)	EXIT PUPIL (mm)	NET WEIGHT (oz.)	LENGTH (in)	CLICK VALUE
SFREBP3940G	P4 SNIPER	BLACK	3-9X	1 INCH	40 mm	36.66-11.50 ft	3.85-3.18"	13.3-4.4 mm	14.8 oz.	13.4"	¼ MOA
SFREBR3940G	RANGEFINDER										
SFREBM3940G	MIL-DOT										
SFRESP3940G	P4 SNIPER	SILVER	3-9X	1 INCH	40 mm	36.66-11.50 ft	3.85-3.18"	13.3-4.4 mm	14.8 oz.	13.4"	¼ MOA
SFRESR3940G	RANGEFINDER										
SFRESM3940G	MIL-DOT										
SFREDP3940G	P4 SNIPER	DARK EARTH	3-9X	1 INCH	40 mm	36.66-11.50 ft	3.85-3.18"	13.3-4.4 mm	14.8 oz.	13.4"	¼ MOA
SFREDR3940G	RANGEFINDER										
SFREDM3940G	MIL-DOT										
SFREBP3950G	P4 SNIPER	BLACK	3-9X	1 INCH	50 mm	36.66-11.50 ft	3.85-3.18"	16.7-5.6 mm	14.8 oz.	13.4"	¼ MOA
SFREBR3950G	RANGEFINDER										
SFREBM3950G	MIL-DOT										
SFREBP41650G	P4 SNIPER	BLACK	4-16X	1 INCH	50 mm	21.46-6.28 ft	2.72-2.99"	12.5-3.1 mm	18.2 oz.	15.3"	¼ MOA
SFREBR41650G	RANGEFINDER										
SFREBM41650G	MIL-DOT										
SFREBP31256G	P4 SNIPER	BLACK	3-12X	1 INCH	56 mm	36.66-10.46 ft	3.90-3.18"	18.7-4.7 mm	20.8 oz.	13.8"	¼ MOA
SFREBR31256G	RANGEFINDER										
SFREBM31256G	MIL-DOT										

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FOR TECHNICAL ASSISTANCE CALL:
1-866-NcSTAR-8
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