

Bushnell® BANNER®

*inc. model #s 613946B and 614164B
with illuminated CF500 reticle*



Riflescope Instruction Manual

BASIC OPERATION

Supplement for Models with Illuminated CF500 Reticle

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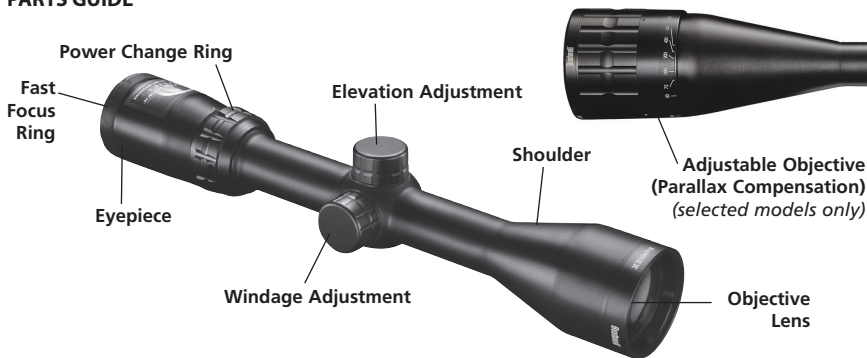
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Congratulations on your choice of a Bushnell® Banner® riflescope. It is a precision instrument constructed of the finest materials and assembled by highly skilled craftsmen for a lifetime of trouble-free use under the most demanding conditions.

This booklet will help you achieve optimum performance by explaining how to use its various features and how to care for it. Read the instructions carefully before mounting and using your scope.

The following photographs are guides to the nomenclature and location of the riflescope parts mentioned throughout this text.

PARTS GUIDE



EYEPiece FOCUSING

The eyepiece is designed to provide a precise fast focus. The eyepiece will focus faster than your eye can compensate for any inaccuracy in your adjustment.

Look at a distant object for several seconds without using your scope. Then, shift your vision quickly, looking through the scope at a plain background. Turn the fast-focus eyepiece clockwise or counter clockwise to adjust to your eyes. The reticle pattern should be sharp and clear before your eye can refocus. After you have made your adjustment, with a quick glance re-check the image.

WARNING: NEVER LOOK AT THE SUN THROUGH THE RIFLESCOPE (OR ANY OTHER OPTICAL INSTRUMENT). IT MAY PERMANENTLY DAMAGE YOUR EYES.

CENTERING THE RETICLE

The reticle was carefully set at the optical center of your riflescope at our factory. This setting provides you with the ideal adjustment range from the center position. The riflescope's adjustments are used to zero-in the riflescope.

It is wise to check the center of the optical axis before mounting. Do this by placing the scope in a solid V-block (cardboard box with two slots). While looking through the scope in a normal viewing position, carefully rotate the scope. If the target moves in a circle larger than 1" from center (at 25 yards) in relation to intersection of crosshairs, reset windage and elevation adjustments. Remove adjustment caps. Set each adjustment to midpoint and recheck for centering. If target still rotates, use adjustments to correct.

MOUNTING

To achieve the best accuracy from your rifle, your Bushnell scope must be mounted properly.

(We strongly recommend that those unfamiliar with proper procedures have the scope mounted by a qualified gunsmith). Should you decide to mount it yourself:

1. Use a high-quality mount with bases designed to fit your particular rifle. The scope should be mounted as low as possible without touching either the barrel or the receiver.
2. Carefully follow the instructions packed with the scope mounts you have selected.
3. Before tightening the mount rings, look through the scope in your normal shooting position. Adjust the scope (either forward or backward) until you find the furthest point forward (to ensure maximum eye relief) that allows you to see a full field of view.
4. Rotate the scope in the rings until the reticle pattern is perpendicular to the bore and the elevation adjustment is on top.
5. Tighten the mounting screws.

WARNING: IF THE SCOPE IS NOT MOUNTED FAR ENOUGH FORWARD, ITS REARWARD MOTION MAY INJURE THE SHOOTER WHEN THE RIFLE RECOILS.

BORE SIGHTING

Bore sighting is a preliminary procedure to achieve proper alignment of the scope with the rifle's bore. It is best done using a Bushnell® Bore Sighter. If a bore sighter is not available, it can be done as follows: Remove the bolt and sight through the gun barrel at a 100 yard target. Then sight through the scope and bring the cross hairs to the same point on the target. Certain mounts have integral windage adjustments and, when bore sighting, these should be used instead of the scope's internal adjustments. If major elevation adjustments are needed, they should be accomplished by shimmed the mount base.

ZEROING

Final sighting-in of your rifle should be done with live ammunition, based on your expected shooting distance. If most of your shots will be at short range, zero-in at 100 yards. But, for long-range shooting at big game, most experienced shooters zero-in about three inches high at 100 yards. Three-shot groups are useful for averaging the point of impact.

ELEVATION AND WINDAGE ADJUSTMENT

Bushnell Banner scopes feature finger-adjustable audible-click elevation and windage adjustments.

1. Remove the covers from the Elevation and Windage Adjustments.
2. Grasp the Adjustment Bar and turn it in the appropriate "UP" (and/or "R") direction indicated by the arrows. Each "click" or increment on the Adjustment Scale Ring will change bullet impact by 1/4" Minute of Angle. 1/4" MOA corresponds to 1/4 inch at 100 yards, 1/2 inch at 200 yards, 3/4 inch at 300 yards and so on (1/12" at 50 feet for air rifles).



**ELEVATION
ADJUSTMENT DIAL**



**WINDAGE
ADJUSTMENT DIAL**

RESETTING THE ADJUSTMENT SCALE RING *(this feature is not available on all models)*

This step is not necessary, but, for future reference, you may want to realign the zero marks on the Adjustment Scale Rings with the index dots.

1. Using a jeweler's screwdriver, loosen the Phillips screw on the Adjustment Scale about 1/2 turn. Take care not to disturb your zero by "losing" a click or two when loosening the screws.
2. Rotate the Adjustment Scale Ring (which should now turn freely) to align the "O" with the Index Dot.
3. Retighten the screw in the Adjustment Scale and reinstall the Elevation and Windage Adjustment Knobs.

VARIABLE POWER ADJUSTMENTS

To change magnification, simply rotate the Power Change Ring to align the desired number on the power scale with index dot.

When still-hunting or stalking game, a variable scope should be set to the lowest power. You then have the widest field of view for quick shots at close range. Higher powers should be reserved for precise long-range shots.

WARNING: A SCOPE SHOULD NEVER BE USED AS A SUBSTITUTE FOR EITHER A BINOCULAR OR SPOTTING SCOPE. IT MAY RESULT IN YOU INADVERTENTLY POINTING THE GUN AT ANOTHER PERSON.

ADJUSTABLE OBJECTIVE LENS

This feature (if present on your scope) permits precise focusing, while simultaneously readjusting the parallax-free distance, for any range from 10 yards to infinity. To change range focus, turn

the Objective Adjustment Ring and align the number with the distance index dot. An alternative method is to look through the scope and turn the Objective Adjustment Ring until the target, at whatever range, is sharply focused.

MAINTENANCE

Your Bushnell riflescope, though amazingly tough, is a precision instrument that deserves reasonable cautious care.

1. When cleaning the lenses, first blow away any dirt and dust, or use a soft lens brush. Fingerprints and lubricants can be wiped off with lens tissue, or a soft clean cotton cloth, moistened with lens cleaning fluid.

WARNING: UNNECESSARY RUBBING OR USE OF A COARSE CLOTH MAY CAUSE PERMANENT DAMAGE TO LENS COATINGS.

2. All moving parts of the scope are permanently lubricated. Do not try to lubricate them.
3. No maintenance is needed on the scope's outer surface, except to occasionally wipe off dirt or fingerprints with a soft cloth.
4. Use lens covers whenever convenient.

STORAGE

Avoid storing the scope in hot places, such as the passenger compartments of vehicles on hot days. The high temperatures could adversely affect the lubricants and sealants. A vehicle's trunk, a gun cabinet or a closet is preferable. Never leave the scope where direct sunlight can enter either the objective or the eyepiece lens. Damage may result from the concentration (burning glass effect) of the sun's rays.

SUPPLEMENT FOR MODELS WITH ILLUMINATED CF500 RETICLE

The CF500 reticle gives hunters a series of aiming points that correspond to the ballistic trajectory of various centerfire rifle ammunition loads. These aiming (or holdover) points allow hunters to expand their effective range. **Bushnell would like to stress that these tools are only as good as the time spent practicing with them.** Nothing can replace range time and becoming comfortable shooting at each of the prescribed yardages, while noting bullet placement with your specific combination of firearm and ammunition. Ballistic performance can vary depending upon a number of factors, including barrel length, powder type, bullet type, and numerous weather/atmosphere related variables.

THE CF500 RETICLE – For Centerfire Rifles

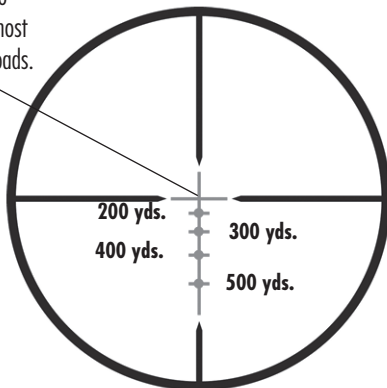
Designed to be used with today's most popular centerfire rifle cartridges, the CF500 reticle is intended to be sighted in at 100 yards, and provides aiming points at every 100 yd increment, out to 500 yds. The user can sight-in at 100 yds on any magnification setting, but for the ballistic reticle feature to function properly, the scope's magnification must be set to the correct power, which is **9x** for both the 3-9x40 and 4-16x40 Banner scopes.

HOW TO USE THE RETICLE:

1. Sight in at 100 yds on any magnification setting
2. Determine distance to target. For the best accuracy in determining distance, utilize a Bushnell Laser Rangefinder.
3. Set the magnification to the **9x** setting.
4. Place appropriate aiming point on your target. If the target is determined to be at 350 yds, hold directly between the 300 yd aiming point and the 400 yd aiming point.

CF500 Centerfire Rifles

Based on a 100-yard zero
and the ballistics of the most
common centerfire rifle loads.



The CF500 reticle is calibrated for the following ammunition loads:

- | | |
|-----------------------|------------------------------|
| .223 Win, 55 gr. | .7mm WSM, 150 gr. |
| .243 Win, 95 gr. | .30-06 Sprg, 150 gr. |
| .25-06 Rem, 115 gr. | .300 Winchester Mag, 180 gr. |
| .270 Win, 130 gr. | .300 WSM, 180 gr. |
| .270 WSM, 150 gr. | .338 Win, 200 gr. |
| .7mm Rem Mag, 150 gr. | |

It is always recommended to test your preferred ammo at all ranges to verify its performance.

ILLUMINATED RETICLE

The CF500 reticle in these Banner models is illuminated. The dial on top of the eyepiece is a reticle brightness adjustment control, numbered in both red and green from 0 to 5 (*Fig. 1*). To increase the brightness, set the control to a higher number (opposite the white index dot). Use the scale with red numbers for red illumination, green numbers for green illumination. To turn off the illumination and when storing the scope, set the dial to “**R**” (when using the red scale) or “**G**” (for the green scale). To replace the battery, remove the cap on top of the brightness adjustment dial (*Fig. 2*) using a coin, and insert a CR2032 battery with the “+” mark facing up.



LIFETIME LIMITED WARRANTY

We are so proud of our Bushnell® Banner® Riflescopes that their materials and workmanship are warranted to be free of defects for the life of the binocular*. The warranty is available to any owner of the Banner Rifle scope. This warranty does not cover damages caused by misuse or improper handling, installation or maintenance of the binoculars. At our option, we will repair or replace any defective Banner Rifle scope, which shall be your sole remedy under this warranty. In no event shall we be liable for transportation costs to us, costs of removal or reinstallation of the rifle scope, or incidental or consequential damages. Some states do not allow the exclusion of limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

** electronic components are warranted for one year*

Any return made under this warranty must be accompanied by the items listed below:

1. Name and address for product return
2. An explanation of the defect
3. You are responsible for transport of the defective product, but we will pay for shipping the repaired or replacement product back to you anywhere in the continental United States.
4. Product should be well packed in a sturdy outside shipping carton, to prevent damage in transit, to the address listed below:

IN U.S.A. Send To:

Bushnell Outdoor Products
Attn.: Repairs
9200 Cody
Overland Park, Kansas 66214

IN CANADA Send To:

Bushnell Outdoor Products
Attn.: Repairs
140 Great Gulf Drive, Unit # B
Vaughan, Ontario L4K 5W1

For products purchased outside the United States or Canada please contact your local dealer for applicable warranty information. In Europe you may also contact Bushnell at:

Bushnell Germany GmbH
European Service Centre
Mathias-Brüggen-Str. 80
D-50827 Köln
GERMANY
Tél: +49 221 995568-0
Fax: +49 221 995568-20

This warranty gives you specific legal rights.
You may have other rights which vary from country to country.



For further questions or additional information please contact:

Bushnell Outdoor Products
9200 Cody, Overland Park, Kansas 66214
(800) 423-3537 • www.bushnell.com

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