

Bushnell®



RIMFIRE

RIFLESCOPE OWNER'S GUIDE

Congratulations on your purchase of a Bushnell® Rimfire rifle scope! You are now the owner of one of the most well known, most reliable riflescopes in the industry. Bushnell maintains absolute product integrity and quality control throughout the entire design, production, and delivery cycle of these riflescopes.



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

RIMFIRE RIFLESCOPE FEATURES

Bushnell® is constantly at the forefront of quality and value, and Rimfire riflescopes are the next step in the revolution. Rimfire riflescopes are built with premium technology. Multi Coated Optics and waterproof construction offer crisp, bright images in every environment.

The Rimfire rifle scope models covered in this manual feature:

- CLARITY - Excellent resolution and contrast in all lighting conditions
- SECOND FOCAL PLANE - Ensures accuracy at highest magnification
- HIGH LIGHT TRANSMISSION - Multi-coated optics provide a brighter image in every lighting condition.
- VALUE - Industry-best technology at an affordable price.

KEY ELEMENTS OF A SCOPE

There are four major elements of a scope:

- 1. Objective Lens:** This lens has three functions. First, it permits light to pass into the scope. Second, it determines resolution. Generally, larger lenses allow more light to enter the scope and resolve details better than smaller ones. Finally, it forms an image for the other lenses to magnify to a usable size. The image formed by this lens is upside down.
- 2. Erector System:** The erector system serves three functions. Its primary function is to erect the image (that is, flips the image right-side up) and align it to the reticle. During this process, primary magnification of the image takes place. These two functions are the result of lens action.

The third function is a mechanical one. The erector lenses are housed in a tube that is fixed at one end, while the other end of the tube is free to move and respond to dial adjustments. By moving the erector system, the point-of-aim of the scope is adjusted to match the point-of-impact of the bullet.
- 3. Reticle:** In simple terms, the aiming device around which the scope is built. This element replaces the iron sight system of non-scoped rifles.
- 4. Ocular or Eye Lens:** This element provides the secondary and final magnification of the image.

PARTS GUIDE



MOUNTING YOUR SCOPE

Your new scope, even with its technologically advanced design and features, will not perform at its best if not properly mounted. One of the most important contributing factors to the accuracy of your scope and rifle is the selection of the mount and the care with which mounting is done. Dependable mounts are included that attach your scope solidly to the rifle to provide dependability and consistent accuracy. The supplied mounts are compatible with all Weaver and most Picatinny style rails.

Remember, not all scopes are compatible with all mounts on all rifles. If there is any doubt in your mind, you should seek the advice of your local retailer or gunsmith.



WARNING: A RIFLESCOPE 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.

PRELIMINARY SCOPE ADJUSTMENTS

Before installing the scope, we recommend you set the focus of the eyepiece to fit your individual visual requirement. Refocusing the ocular distance will result in a sharper reticle focus, an improved optical image, and will help to avoid eye fatigue when using the scope over prolonged periods of time. To refocus, hold the scope about 3 to 4 inches from your eye and point at the open sky or other flatly lit area such as a monotone painted wall.

Quickly glance into the scope. If the reticle appears blurred at first glance, it is out of focus. Turn the eyepiece clockwise or counter clockwise several turns. Glance into the scope again to check the sharpness of the reticle. Remember to take quick glances, as the eye will compensate for slightly out of focus conditions with prolonged looks. If the reticle still appears blurred, turn the eyepiece another two or three turns. Repeat this procedure until the reticle is sharp and clearly defined.

Unless your eyes undergo a significant change over the years, you will not have to make this adjustment again.

ATTACHING A MOUNT, RINGS AND SCOPE TO YOUR RIFLE



WARNING: BEFORE BEGINNING THE MOUNTING PROCEDURE, BE SURE THE ACTION IS OPEN, THE CLIP OR MAGAZINE IS REMOVED AND THE CHAMBER IS CLEAR. DO NOT ATTEMPT ANY WORK UNTIL YOUR FIREARM HAS BEEN CLEARED AND DETERMINED TO BE SAFE.



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

In mounting your scope, we recommend that you DO NOT take short cuts as it may lead to damage to either the mounting system or to the scope. Each mounting system will have its own instructions to follow, and it is best to read the instructions first to be sure you understand them and have the necessary tools on hand.

We further recommend that you plan to go through the mounting procedure twice. The first time, to be sure everything fits together and functions properly. On the first run through, please keep the following in mind:

- Before attaching the base, clean the mounting holes in the receiver and the threads of the attaching screws with acetone or any good solvent to free them of oil or grease.
- If the mount manufacturer has recommended the use of a thread adhesive, do not use it on the first mounting trial. Once adhesive has set, it is difficult to demount if anything needs correction.
- Be sure the mounting screws do not protrude into the receiver or the barrel.
- When using dovetail mounts, do not use the scope as a lever when installing the scope. The initial resistance to turning may cause damage to the scope, and is not covered by the warranty. We recommend using a 1" wooden dowel or metal cylinder to seat the rings.
- Be sure the position of the scope does not interfere with the operation of the action.
- Be sure there is at least 1/8" of clearance between the edges of the rings and any protruding surfaces such as the turret housing (saddle), power selecting ring, and the flare of the objective bell. Also be sure there is at least 1/8" of clearance between the objective bell and the barrel.
- You should test position the scope for the proper eye relief. The scope rings should be left loose enough so that the scope will slide easily. Variable power scopes should be set at the highest magnification when performing this procedure. Mount the rifle and look through the scope in your normal shooting position.
- Test position the rifle for the proper cheek weld a number of times to ensure that your scope is positioned properly.
- When you are satisfied that everything is okay, demount and start again. This time, seat all screws firmly. **CAUTION: Do not overtighten.** Recommended torque settings for the included mounting rings are 30-35 lbf*in (*pound-force inch*) for the cross-bolts/lugs and 13-15 lbf*in for the ring cap screws.

PARALLAX

You may have noticed that placing your eye at different positions behind the scope's eyepiece causes the reticle crosshairs to appear to move around to different points on your target. This is called "parallax error" (target and reticle are not in the same focal plane), and it becomes more noticeable (and more of a problem) at shorter distances and/or when the scope is set to higher powers. In most cases, parallax will not affect bullet point of impact enough to be of significant concern in large game hunting situations. Both Rimfire 3-9x scope models are set at the factory to be parallax-free at 50 yards.

PRELIMINARY SIGHTING-IN

You can save a significant amount of expense and frustration by pre-sighting the scope to the rifle before you take it to the range for zeroing.

There are two basic methods that can be used for pre-sighting your scope. Method one is to use a Bushnell® Bore Sighter (laser, magnetic or standard). The use of a Bore Sighter saves time and ammunition and is the system most often used by gunsmiths. The second method is traditional bore sighting:

BORE SIGHTING METHOD

1. Place a target at 25 to 50 yards.
2. Remove the bolt from the rifle.
3. Place the rifle on sandbags or a shooting rest.
4. Set the scope to its lowest magnification.
5. Peer through the bore from the receiver and adjust the position of the rifle to center the target bull's eye in the bore (*Fig. A*).
6. Without moving the rifle, look into the scope and note the position of the reticle on the target. Remove the caps from the windage and elevation adjustments. Adjust the windage and elevation adjustments to center the reticle on the bull's eye (*Fig. B*).

FINAL SIGHTING-IN



WARNING: SINCE THIS PROCEDURE INVOLVES LIVE FIRE, IT SHOULD BE DONE AT AN APPROVED RANGE OR OTHER SAFE AREA. CHECK BORE FOR OBSTRUCTIONS. AN OBSTRUCTED BORE MAY CAUSE INJURY TO YOU AND OTHERS NEARBY. EYE AND EAR PROTECTION IS RECOMMENDED.

1. From a steady rest position, fire two or three rounds at a 50-yard target. Note the impact of the bullet on the target and adjust the windage and elevation dials as needed.
2. To move the bullet impact, turn the windage and/or elevation adjustments in the direction on the dials that corresponds to where the impact point falls on the target (for example, if test shots are hitting low, adjust elevation "down"). The adjustments on your riflescope model are marked in MOA (minutes of arc), and the point of impact at 100 yards will change by 1/4 MOA for each click of the windage or elevation adjustment. One full revolution of the adjustment=15 MOA.
3. When the impact on the 50-yard target is satisfactory, switch to a target set at the desired distance for final zeroing. Set the magnification to the desired power on variable power models.

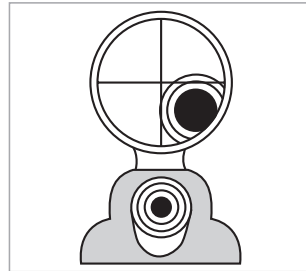


Fig. A
Reticle not in alignment

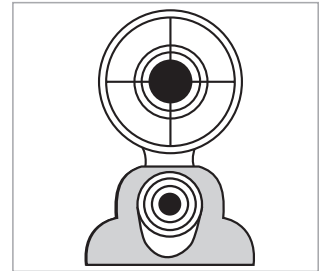


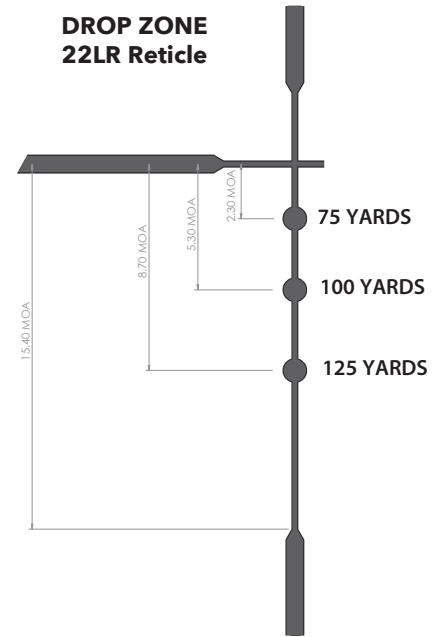
Fig. B
Reticle in alignment

THE DZ 22LR RETICLE

The DROP ZONE-22LR Reticle is designed to be sighted-in at 50 yds, with aiming points every 25 yds, out to 125 yds. This reticle is calibrated for use with .22 Long Rifle high velocity ammunition. The scope must also be set to the highest magnification (9x) for the reticle's ballistic feature to function properly. .

How To Use the DZ 22LR Reticle:

1. Sight in at 50 yds on any magnification setting.
2. Determine distance to target. For the best accuracy in determining distance, utilize a Bushnell Laser Rangefinder (Prime™, Nitro™ or Legend™).
3. Set the scope's magnification to 10x (10 power).
4. Place the appropriate aiming point on the desired target. If the target was determined to be at 115 yds, hold directly between the 100 yd aiming point and the 125 yd aiming point.



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 Bushnell Ballistics Application (powered by Applied Ballistics®) is available for your smartphone or tablet as a free download (via the App Store for iOS devices or Google Play for Android). It is a full-featured ballistics solver to use with your Bushnell rangefinders and riflescopes to calculate firing solutions. It allows you to use current atmospheric conditions to calculate the holds and display the ranges at each subtension on your reticle.

ILLUMINATED RETICLE OPERATION/BATTERY REPLACEMENT (Model RR3940BS13 only)

The DZ 22LR reticle in this model is illuminated. The illumination adjustment dial is located opposite from the windage adjustment. To increase the brightness, set the control to a higher number (opposite the white index dot). To turn off the illumination and when storing the scope, set the dial to any of the "Off" positions (dots) between each numbered illumination setting.

To replace the battery, remove the cap on the brightness adjustment control knob using a coin (see photo, right), and insert a CR2032 battery with the "+" mark facing up.



ALTITUDE AND TEMPERATURE

Ballistic charts published by ammunition manufacturers are based upon standard sea level conditions. When sighting in, it is well to keep in mind that altitude and temperature affect trajectory. It is best to sight-in under the same conditions in which you will be hunting.

CARING FOR YOUR RIFLESCOPE

Your scope needs very little maintenance. Exterior metal surfaces should be kept clean. A light dusting with a slightly dampened soft cloth is enough in most cases.

Your new scope features windage and elevation turrets that are completely sealed against water intrusion. However, we recommend that you keep the windage and elevation caps on the turrets, except when making adjustments, to prevent dust and dirt from collecting in the turret area.

We also recommend that lens covers be kept in place when the scope is not being used. Lenses should be inspected regularly and kept clean at all times. Dust, dirt, and fingerprints that collect on the lens surfaces will severely degrade image quality, and if left unclean for long periods, the anti-reflection coating could be damaged. Although lens cleaning is not difficult, it does require care and some patience.

- Start with a lens brush or a small, soft bristle paintbrush. Gently whisk away loose dirt particles.
- Next, use an ear syringe or bulb aspirator (available in most drug stores) to blow remaining dirt or dust from lens surfaces.

- If further cleaning is needed, use a dry, soft lint-free cloth. Very gently wipe the lens, starting at the center using a circular motion, then working outward to the edge.
- If this has not corrected the problem repeat the process using condensation from your breath.

DO YOU NEED TO SEND YOUR SCOPE TO US?

Before returning your scope for service, you should check the following points to make sure the problem is with the scope:

- Check the mounting system and rings for looseness or misalignment.
- Check to be sure the barrel and action are properly bedded and all receiver screws are tight.
- Check to be sure the mounting system allows sufficient clearance between the objective bell and the barrel.
- Check to be sure you are using the same type and weight ammunition that you used for sighting-in.

Technical Specifications

SKU	Mag x Obj. Diam.	Reticle	Turrets	Total Elev. Adj. Range (MOA)	Travel per Revolution	Parallax Adjustment	Min. Parallax (Yards)	Eye Relief, Max Mag.	Field of View @ 100 Yds (Feet)	Length (inches)	Weight (oz)
RR3940BS4	3-9x40	DZ-22LR	Capped	60	15	Fixed	50	3.6"	39-13	12.2	14.5
RR3940BS13	3-9x40	Illuminated DZ-22LR	Capped	60	15	Fixed	50	3.6"	39-13	12.2	15.4



BUSHNELL IRONCLAD WARRANTY

Products manufactured on or after April 2017 are covered by the Bushnell Ironclad Warranty. The Ironclad Warranty is a full lifetime warranty that covers the lifetime of this Product. Each Product has a defined lifetime; lifetimes can range from 1 to 30 years. This Product's lifetime can be found at the website listed below and/or on the Bushnell webpage specific to this Product.

We warrant that this Product is free from defects in materials and workmanship and will meet all represented performance standards for the lifetime of this Product. If this Product isn't working properly due to a covered defect, we will, at our option, either repair or replace it and ship it back to you at no charge. This warranty is fully transferable and does not require a receipt, warranty card, or product registration. This warranty does not cover the following: electronic components; batteries; cosmetic damage; damage caused by failing to properly maintain the product; loss; theft; damage as a result of unauthorized repair, modification, or disassembly; intentional damage, misuse, or abuse; and ordinary wear and tear. This Warranty will be void if the date stamp or other serialization codes have been removed from the Product.

To view the full warranty and find details on how to request service under the warranty, go to our website at www.bushnell.com/warranty. Alternatively, you can request a copy of the warranty by calling us at 1-800-423-3537 or writing to us at one of the following addresses:

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.

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

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