

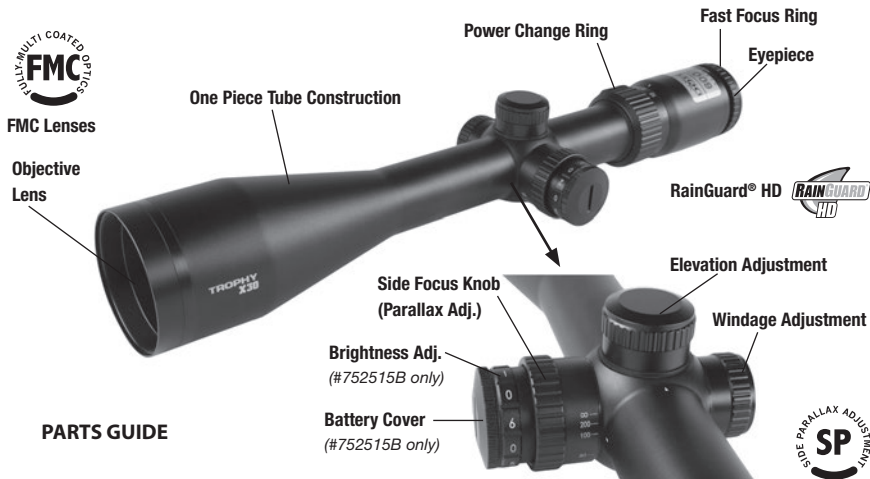
Bushnell® **TROPHY**®

X T R E M E



*Riflescope
Instruction
Manual*

Congratulations on your choice of a Bushnell® Trophy® Xtreme rifle scope. 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 accompanying photographs are guides to the nomenclature and location of the rifle scope parts mentioned throughout this text.



PARTS GUIDE

RAINGUARD® HD LENS COATING

This technology gives you a significant improvement in brightness and light transmission and provides unequaled clarity in the worst conditions. RainGuard® HD is the first external lens coating to protect your riflescope against external fogging. Has your scope ever fogged on a cold day because you accidentally breathed on your eyepiece? Have you ever hunted on a cold, wet day and found it almost impossible to keep the outside of your scope from fogging? RainGuard® HD will help prevent these problems.

HOW IT WORKS

RainGuard® HD is a special water repellent lens coating on which condensation forms in much smaller droplets than on standard coatings. These droplets form when the scope is exposed to rain, fog or snow. These smaller droplets scatter much less light than the larger droplets on other coatings. This results in a much clearer and more useable sight picture. Additionally, water sheets off RainGuard® HD much more readily than a standard coating. For the first time, the hunter will not miss the shot of a lifetime because moisture was on the lens.

CARE OF RAINGUARD® HD

RainGuard® HD is an extremely durable, scratch-resistant, permanent coating that will give you years of service. To get the best performance, just keep the lenses clean. To clean, 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.

EYEPIECE FOCUSING

This adjusts the focus so that the reticle (cross hairs) appears sharp to your eyes. All Bushnell riflescopes are focused at the factory for 20/20 or corrected vision. If the reticle appears sharp, no adjustment is needed. If the reticle appears unsharp, adjust as follows.

FAST FOCUS EYEPIECE DESIGN

The eyepiece is designed to provide a precise fast focus. Simply 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 until the reticle pattern is sharp and clear.



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

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 insure maximum eye relief) that allows you to see a full field of view.



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

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 as tight as possible.

BORE SIGHTING

Bore sighting is a preliminary procedure to achieve proper alignment of the scope with the rifle 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 crosshairs 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 shimming 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

Your Bushnell® Trophy® Xtreme scope features finger-adjustable, audible-click elevation and windage adjustments.

1. Remove the covers from the Elevation and Windage Adjustments.
2. Grasp the Adjustment Dial 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 the bullet impact by $\frac{1}{4}$ ” Minute of Angle. See scope adjustment dial for the click adjustment value on your scope. $\frac{1}{4}$ MOA corresponds to $\frac{1}{4}$ inch at 100 yards, $\frac{1}{2}$ inch at 200 yards, $\frac{3}{4}$ inch at 300 yards and so on.

RESETTING THE ADJUSTMENT SCALE RING

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 two Phillips screws on the Adjustment Bar 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 “0” with the Index Dot.
3. Retighten the screws in the Adjustment Bar and reinstall the Elevation and Windage Adjustment Knobs.

VARIABLE POWER ADJUSTMENTS

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

USING THE SIDE PARALLAX FOCUS CONTROL

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. Your riflescope may provide an adjustment for parallax compensation, which works by moving an optical element until the target (based on its distance) appears in the same plane of focus as the reticle. Instead of the typical parallax compensation design which adjusts the objective lens at the front of the scope (“adjustable objective” or “AO”), your scope uses an movable lens back near the reticle, so the adjustment can be more easily made with a “side focus” knob placed next to the windage and elevation adjustments. Just line up the estimated distance to your target with the index line on the body of the scope, and you will eliminate the aiming errors caused by parallax. After setting the side focus, you can double check by moving your head around from side to side behind the eyepiece—the point of aim should not shift if the side focus is correctly set. An alternative method is to look through the scope and turn the Side focus knob until the target, at whatever range, is sharply focused.

MAINTENANCE

Your Bushnell® Trophy® Xtreme riflescope, though amazingly tough, is a precision instrument that deserves reasonably cautious care.

1. When cleaning the lenses, first blow away any dry dirt and dust, or use a soft lens brush. Fingerprints and lubricants can be wiped off with lens tissue, or a soft clean 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 it is convenient.

STORAGE

Avoid storing the scope in hot places, such as the passenger compartment of a vehicle on a hot day. The high temperature 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.

ILLUMINATION ADJUSTMENT *(Model 752515B only)*

The DOA LR600i reticle in model# 752515B is illuminated. A brightness adjustment control is provided at the end of the side focus knob, numbered from 1 to 6 with a "0" between each number. **(Fig. 1)** To increase the brightness, set the control to a higher number (opposite the white side focus index dot). To turn off the illumination, and when storing the scope, set the dial at any "0" position.



Fig. 1



Fig. 2

To replace the battery, remove the cap on the brightness adjustment control knob using a coin (**Fig. 2**), and insert a CR2032 battery with the “+” mark facing up.

THE DOA LR600, LR600-i and LR800 RETICLES

The new DOA LR reticle series gives hunters and shooters a series of aiming points at multiple yardages that compensate for bullet drop and correspond to the ballistics of popular centerfire rifle calibers and loads. These aiming points allow users of DOA LR reticles to increase the probability of first round hits at extended ranges and expand their effective range. Along with their holdover points, DOA LR reticles now include windage markings that help long range shooters compensate for the effects of wind at ranges from 200 to 800 yards. The illuminated DOA LR600-i reticle provides the ultimate in low light performance for hunters seeking an edge when available shooting light is at a minimum.

SIGHTING IN / AIMING POINTS

DOA LR600/LR600-i & DOA LR800 reticles are intended to be sighted in at 100 yards, and provide aiming points out to 600 yds (LR600 and LR600-i) or 800 yds (LR800). The reticles have numeric markings indicating holdover points at 100 hundred yard increments. The user can sight-in at 100 yds on any magnification setting, but for the ballistic reticle feature (range and windage marks) to function properly, the scope's magnification must be set to the highest power. The correct settings for the scopes that include the DOA reticle are shown in the chart on the right:

Model	Set to:
2.5-10x 44mm	10x
4-16x 44mm	16x
2.5-15x 50mm	15x
6-24x 50mm	24x

COMPENSATING FOR THE EFFECTS OF WIND / AIMING POINTS

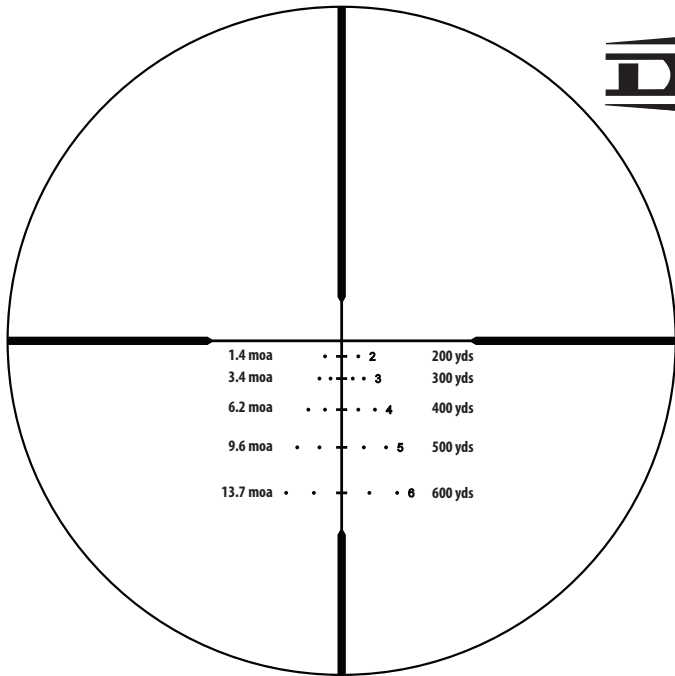
DOA LR series reticles also incorporate windage hold points to the right and left of the vertical stadia in the reticle to aid in compensation for the wind's effect on bullet trajectory. Windage hold marks are available for both 5 and 10 mph wind conditions. To use the windage hold marks, first determine a range to the target using a Bushnell laser rangefinder. Once the range to target is available, an estimate of wind velocity must be made. The reticle can then be elevated to the correct yardage mark and then moved horizontally into the wind direction to use either the 5 mph or 10 mph dot in order to compensate for bullet drop and wind drift. Illustrations of the reticle markings are shown on the next three pages.

Ballistic performance can vary depending upon a number of factors, including barrel length, powder type, bullet type, and numerous weather/atmosphere related variables. Bushnell would like to stress that ballistic reticles are only as good as the time spent practicing with them.

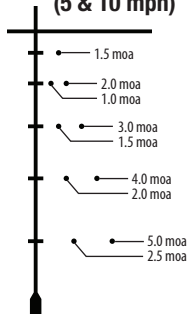
The DOA LR reticles are optimized to work with any of the following ammunition loads:

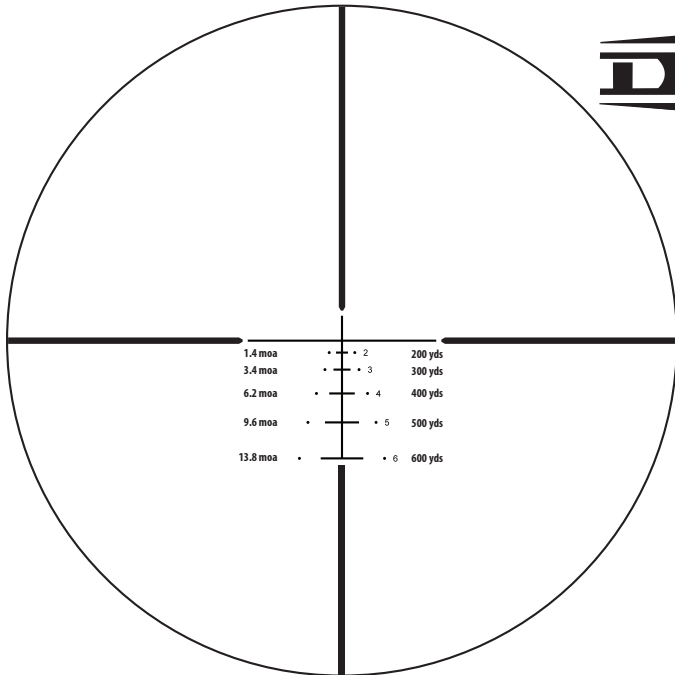
.223 Win 55 gr	.7mm WSM, 150 gr.
.243 Win, 95 gr.	.30-06 Sprg, 150 gr.
.25-06 Rem 115 gr	.300 Winchester Mag, 180 gr.
.270 Win, 130 gr.	.300 WSM, 180 gr.
.270 WSM, 150 gr.	.338 Win, 200 gr.
.7mm Rem Mag, 150 gr.	

If your gun/ammunition is not shown in the DOA LR listing, the reticles can still be effectively used. It will be necessary to use one of the many excellent ballistic software applications available to match your gun/ammo combination with the reticle. Bushnell has provided diagrams that illustrate what the reticle holdover and windage points are in both yards and in MOA (minutes of angle). Use your ballistic program to create a table to help match your rifle's ballistics to the DOA LR reticle's hold points.



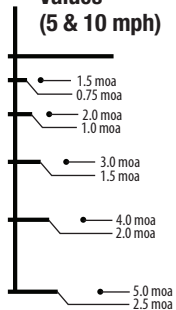
Windage Hold Values (5 & 10 mph)

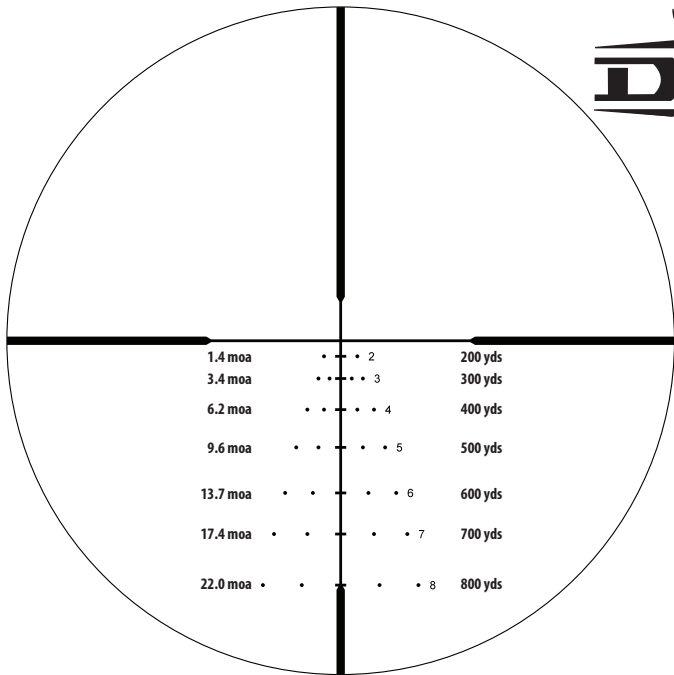




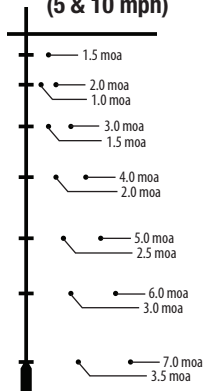
1.4 moa	•	•	•	•	•	2	200 yds
3.4 moa	•	•	•	•	•	3	300 yds
6.2 moa	•	•	•	•	•	4	400 yds
9.6 moa	•	•	•	•	•	5	500 yds
13.8 moa	•	•	•	•	•	6	600 yds

Windage Hold Values (5 & 10 mph)





Windage Hold Values (5 & 10 mph)



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