LEUPOLD®

BX-4 RANGE HD® GEN 2

TRUE BALLISTIC RANGE/WIND RANGEFINDING BINOCULAR

Complete Operating Instructions

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INTRODUCTION

Congratulations on your purchase of the BX-4 Range HD TBR/W Gen 2! This enhanced optic simplifies the pre-shot process for both solo and partner hunting. By combining a rangefinder and a binocular into one device, it eliminates the hassle of managing multiple observation tools before taking aim.

For optimal performance throughout the life of your product, we've included detailed instructions on its proper use and application. Please read these instructions carefully before operating the device.

Scan the QR Code for Additional Leupold Binocular Support

- Binocular overview
- Installing interchangeable Form-Fit eyecups
- Setting up your binocular harness
- Binocular maintenance and troubleshooting

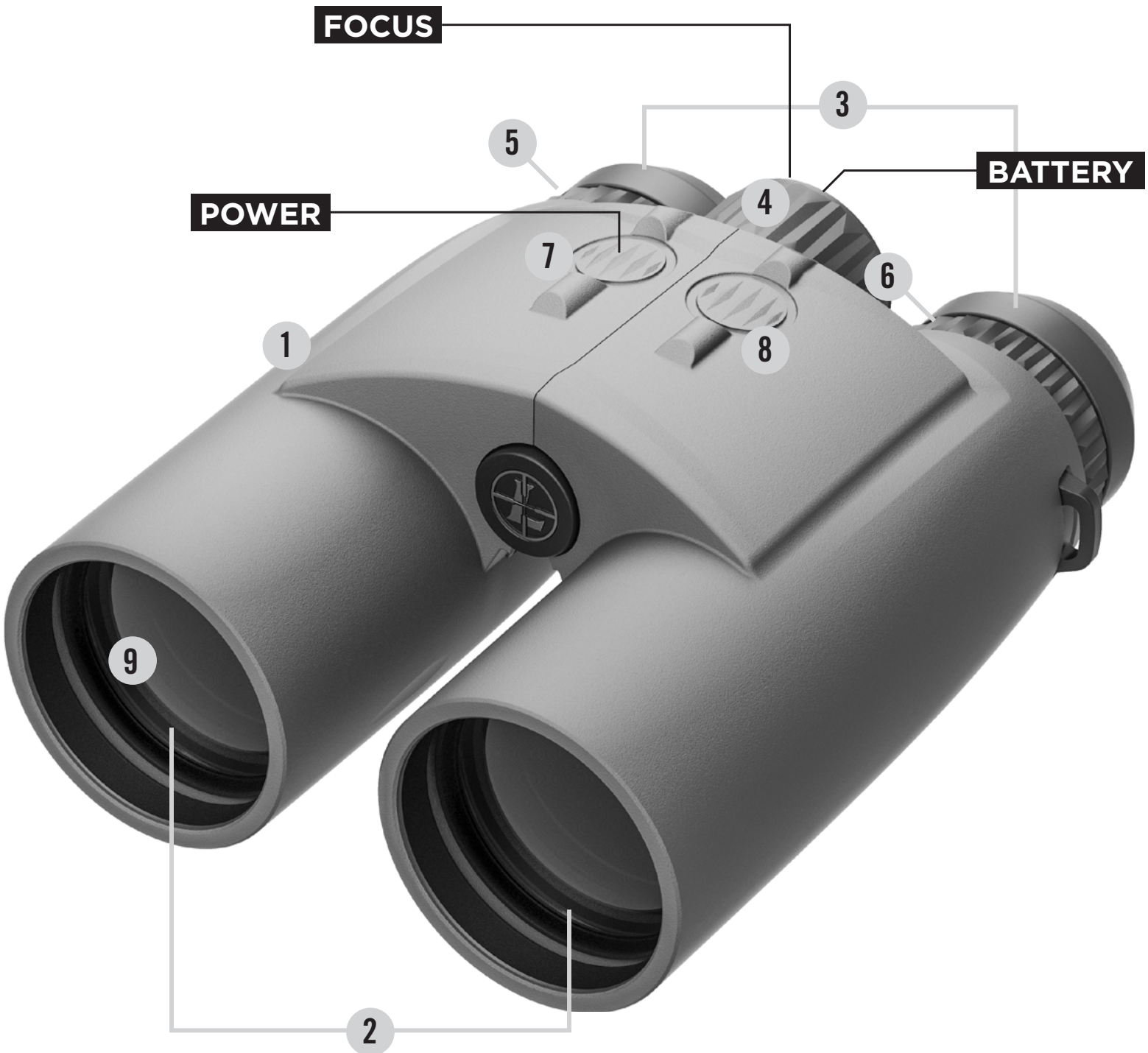
SPECIFICATIONS

BX-4 Range HD TBR/W Gen 2	
Magnification	10x / 12x
True Ballistic Range/Wind (TBR/W)	Yes
Inclinometer	Yes
Scan Mode	Yes
Compass	No
Line of Sight Distance (LOS)	Yes
Yards/Meters Mode	Yes
Bright Red OLED Display	Yes
Last Target	Yes
Battery Status Indicator	Yes
Battery Life	>4,000 Actuations
Weight (with battery installed)	39 oz
Dimensions 10x42 (in)	5.9 x 2.5 x 5.1 (LxHxW)
Dimensions 12x50 (in)	6.3 x 2.7 x 5.3 (LxHxW)
Warranty	5 Years
Waterproof	Yes

Typical Maximum Ranges		
	Yards - 10x/12x	Meters - 10x/12x
Reflective Targets	4,000 / 4,000	3,657 / 3,657
Trees	2,000 / 2,200	1,829 / 2,012
Deer	1,300 / 1,400	1,189 / 1,280

BX-4 RANGE HD TBR/W

1. Rubber-armored magnesium alloy body
2. Objective lenses with extra-low dispersion glass
3. Twist-up eyecups
4. Center focus dial and CR2 battery compartment
5. Right barrel diopter (focuses the display)
6. Left barrel diopter
7. Right button—Power/ranging/toggle settings (reversible for left-handed users)
8. Left button—Mode/menu/navigation/selection
9. Laser transmitter (right objective)


FOCUS
3
5
BATTERY
POWER
4
7
6
1
8
9
2

SETUP

Battery Installation

Twist the battery cap counterclockwise to remove it. Once the cap is off, install a new CR2 battery, positive terminal (+) first. Replace the battery cap and ensure it is tightly fastened.

Battery Status Indicator

Once the battery is depleted to 25%, the battery icon will appear on the display, indicating that a replacement will soon be necessary.

Low—The battery is nearing the end of its life and should be replaced.

Interpupillary Distance Adjustment

The interpupillary distance is the distance between the centers of your eyes. To ensure a clear, single image, the binocular must be set so that the center of each eyepiece lens is the same distance apart as your pupils. To set the interpupillary distance:

1. Hold the binocular up to your eyes in the normal manner.
2. Look through the binocular with both eyes open.
3. Move the two barrels (halves) up or down until you see a single, circular image.

Note: Misalignment of the interpupillary distance may result in incomplete display visibility.

Eyecup Adjustment

Leupold binoculars are equipped with adjustable eyecups that can be twisted or pushed up and down to accommodate the eye relief needed when wearing eyeglasses. Both models of the BX-4 Range HD TBR/W feature interchangeable Form-Fit eyecups for an enhanced viewing experience.

Diopter Adjustments

Adjusting the diopters allows you to compensate for differences in vision between your eyes, preventing eye strain and ensuring a crisp, sharp image. To set the diopter adjustment:

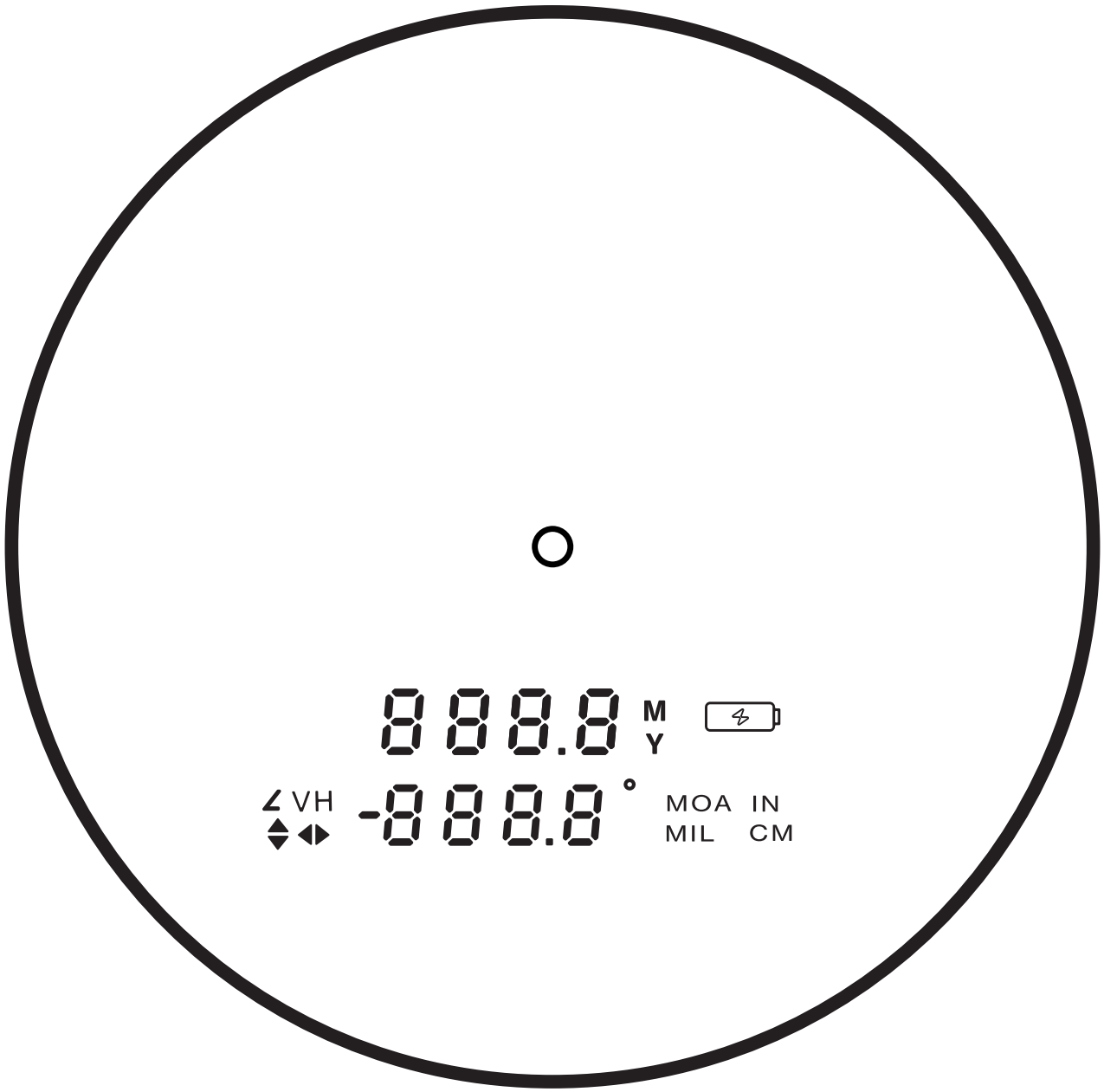
1. View an object approximately 100 yards away.
2. Cover the left objective lens with your hand or a lens cover.
3. Press the right button to turn on the display. Adjust the right diopter until the OLED display is in focus.
4. With the left objective lens still covered, adjust the center focus dial until the right image is in focus.
5. Uncover the left objective lens and cover the right objective lens.
6. Adjust the left diopter until the image is in focus.

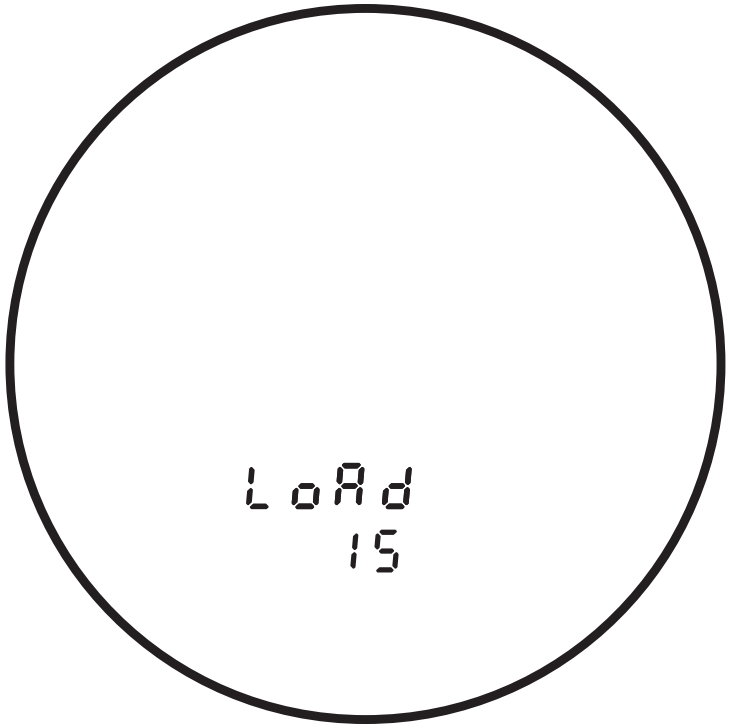
Your range-finding binocular is now focused for your eyesight. To make any adjustments in the field, simply turn the center focus dial while viewing through both barrels.

Note: With the addition of a display in the BX-4 Range HD TBR/W, there are diopter adjustments on each barrel along with the center focus dial. The battery must be installed to focus the OLED display and set the diopters.

BASIC OPERATION

Display Overview





Default Settings

The BX-4 Range HD TBR/W Gen 2 comes preset to TBR Mode in subfunction CDS with load group 15 selected. The display brightness comes preset to medium, and the unit of output defaults to yards. All other modes and features can be activated through the onboard menu.

To return your BX-4 Range HD TBR/W Gen 2 to factory settings, press the power button to activate the rangefinder. Then press and hold both buttons. While continuing to hold both buttons, wait 5 seconds. The display will show the current firmware version (FW). Once FW is displayed, release both buttons. Then press the mode button to advance to the reset menu setting. When “rSet” is displayed, press and release the power button to change the reset menu to Yes. Finally, press the mode button to initiate the reset and return to factory default/ power on menu.

*NOTE: Pressing the menu button with reset "*No*", will exit firmware mode with no changes.*

Menu navigation

Begin by pressing the right button to activate the unit, then press and hold the left button for two seconds to enter the menu. To control a function, press and release the right button until the desired function is flashing, then use the left button to change its setting. If you’re finished making changes, simply allow the

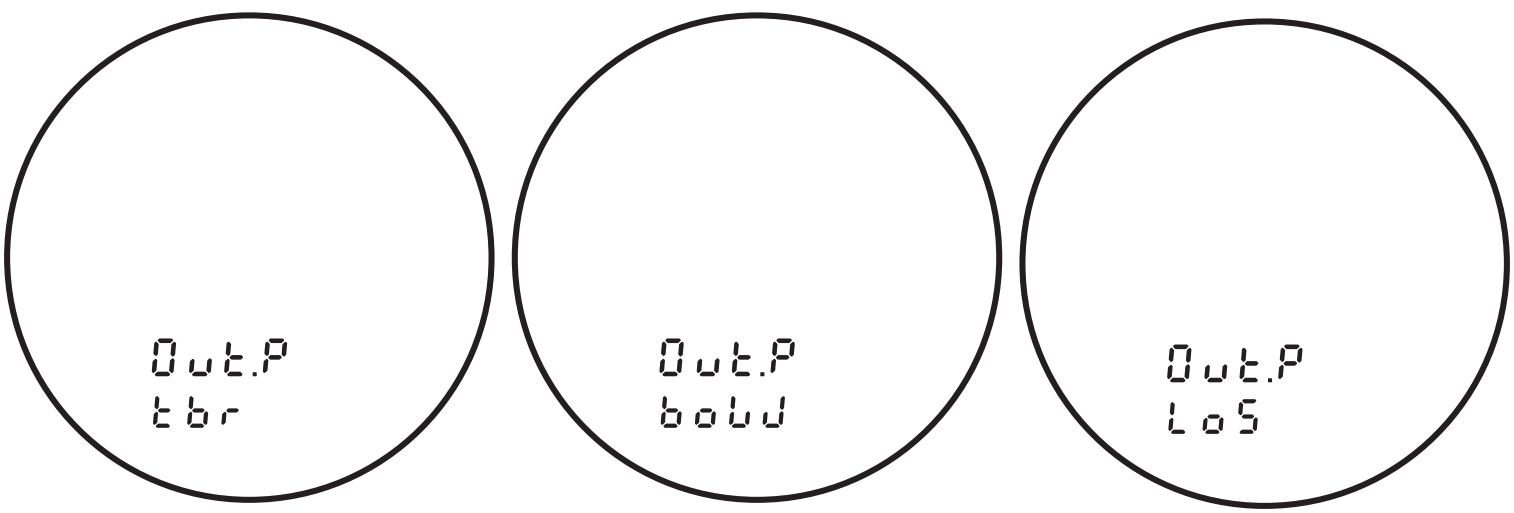
rangefinder to remain idle for 30 seconds, which will cause the unit to power off, saving all selections. If you'd like to make additional changes, press the left button to continue through the menu.

Pressing and holding the left button for one second at any time will save all changes and exit the menu, making the binocular ready for use.

Note: Activating certain modes will automatically disable other modes.

PRIMARY MODES

The BX-4 Range HD TBR/W Gen 2 provides three primary ranging modes: True Ballistic Range (TBR) Mode, Bow (BOW) Mode, and Line of Sight (LOS) Mode. After accessing the menu, in output menu setting, press the right button to toggle between TBR, BOW, and LOS. Press the left button to save your selection.

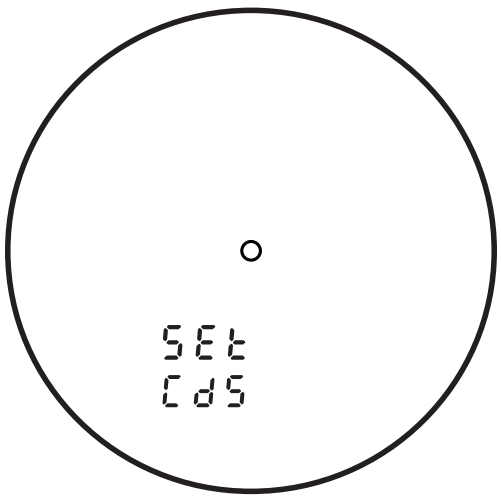


TBR Display BOW Display LOS Display

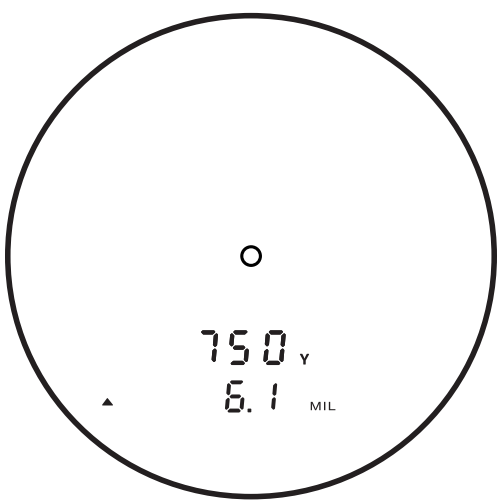
True Ballistic Range (TBR) Mode

TBR mode is an extremely fast and accurate solution for rifle shooters who want ballistic-compensated ranges. It encompasses five settings:

CDS, MIL, HOLD, MOA, and TRIG, accommodating a variety of shooting preferences and techniques. It also has 25 selectable load groups, which account for most manufactured and hand-loaded rifle cartridges. Just select the group that matches your bullet weight and muzzle velocity, and the BX-4 Range HD TBR/W Gen 2 will display dead-on shoot-to distances that are accurate out to 800 yards.

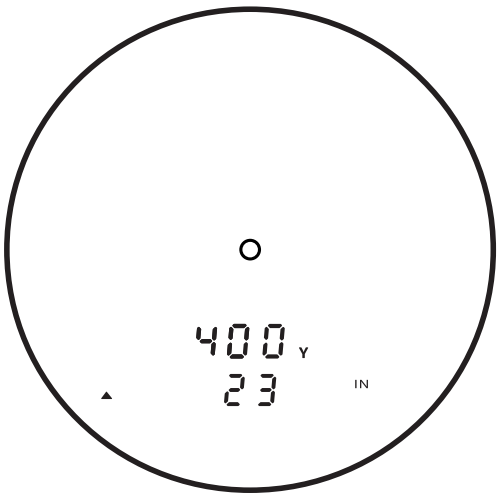


CDS displays the equivalent horizontal range, which is calculated using the distance ranged, the angle of your shot, and your selected ballistics group. This is the setting you will want to use when shooting, rather than the line-of-sight distance, which may contain gross errors depending upon the shot angle. If the target is farther than 800 yards (731 meters), LOS will flash in the bottom row of characters and rotate between the angle measurement. The resulting distance will be the line-of-sight distance only.

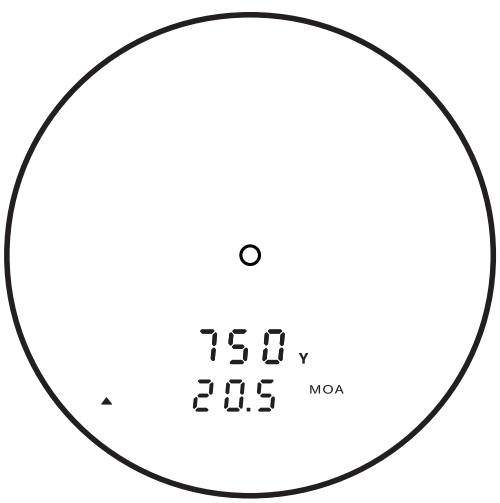


MIL displays the appropriate amount of holdover in milliradians to use, which is calculated using the distance ranged, the angle of your shot, and your selected ballistics group. The upper characters show the line-of-sight distance to the target. The lower characters show the appropriate number of MILs to hold over or under. In the example, the line-of-sight distance is 750 yards, and the lower characters indicate that you should hold 6.1 MILs above your intended point of impact. Holdover values will be

displayed in MILs for both yards and meters modes. If the target is farther than 800 yards (731 meters), LOS will flash in the bottom row of characters and rotate between the angle measurement. The resulting distance will be the line-of-sight distance only.

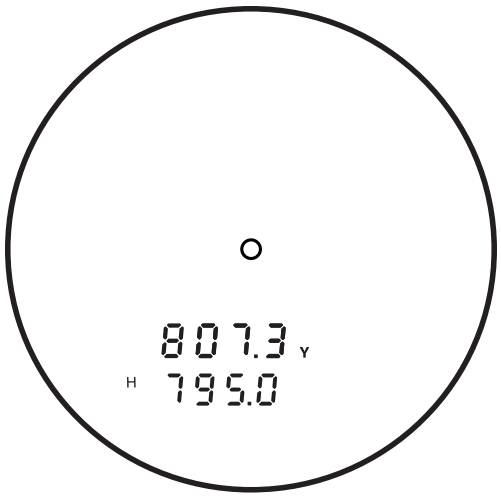


HOLD indicates the appropriate number of inches/centimeters to hold over, which is calculated using the distance ranged, the angle of your shot, and your selected ballistics group. The upper characters show the line-of-sight distance to the target. In the example, the line-of-sight distance is 400 yards, and the lower characters suggest that you should hold 23 inches above your intended point of impact. If the binocular is set to range in meters, the appropriate holdover would be shown in centimeters. If the target is farther than 800 yards (731 meters), LOS will flash in the bottom row of characters and rotate between the angle measurement. The resulting distance will be the line-of-sight distance only.



MOA shows the minute-of-angle adjustment for your target, which is calculated using the distance ranged, the angle of your shot, and your selected ballistics group. The upper characters show the line-of-sight distance to the target. The lower characters show the appropriate number of MOA to adjust over or under your target. In the example, the line-of-sight distance is 750 yards, and the lower characters indicate that you should dial the scope up 20.5 MOA to account for bullet drop. Scope corrections

will be displayed in MOA regardless of whether you measure in yards or meters. If the target is farther than 800 yards (731 meters), LOS will flash in the bottom row of characters and rotate between the angle measurement. The resulting distance will be the line-of-sight distance only.



TRIG, a function that is included to support tradesmen and sportsmen, displays the true horizontal range and true vertical range, which is based upon trigonometry using angle and line-of-sight distance. Line-of-sight distance (LOS) readings will be displayed in the upper row of the display. The lower row will briefly show the true horizontal distance (cosine) then the absolute value of the true vertical distance (sine). Have you ever wondered if that leaning tree would hit your camp if it fell? Measure the height by obtaining the true vertical distance and then measure the distance from your camp to the tree.

True Ballistic Range Load Groups

TBR includes 25 selectable load groups specifically formulated for CDS, MIL, HOLD, and MOA. Choose one of the 25 groups based on your ballistics information. The following table shows a common assortment of factory loads organized by caliber.

NOTE: You can quickly match your ammo and rifle to the correct ballistics group by downloading the **Leupold Control App**. Or go to the BX-4 Range HD TBR/W Gen 2 product page at leupold.com and select "Product Downloads" for a list of common load groups.

Load Name (Muzzle Velocity-fps)		Load Name (Muzzle Velocity-fps)	
200 Yard Zero	Group	200 Yard Zero	Group
223 Rem. 62 gr. FMJBT American Eagle (3020)	11	7mm Rem. Mag. 150 gr. Nosler Ballistic Tip (3025)	6
223 Rem. 69 gr. Sierra HPBT Match (2950)	13	7mm Rem. Mag. 150 gr. SP American Eagle (3110)	7
223 Rem. 77 gr. Sierra HPBT Match (2750)	15	7mm Rem. Mag. 175 gr. SP Interlock (2800)	10
22-250 Rem. 50 gr. Ballistic Silvertip (3810)	5	7 PRC 175 gr. ELD-X (3000)	2
22-250 Rem. 55 gr. Nolser Ballistic Tip (3680)	3	28 Nosler 175 gr. AccuBond (3125)	2
22-250 Rem. 55 gr. Power-Lokt HP (3680)	7	308 Win. 150 gr. Nosler Ballistic Tip (2820)	10
22-250 Rem. 55 gr. SP American Eagle (3680)	7	308 Win. 150 gr. Power Point (2820)	16
243 Win. 100 gr. Core-Lokt PSP (2960)	11	308 Win. 165 gr. Barnes Triple Shock (2650)	16
243 Win. 100 gr. Core-Lokt Ultrabond (2960)	9	308 Win. 165 gr. Nosler AccuBond (2730)	12
6 Creedmoor 105 gr. Hornady BTHP	6	308 Win. 165 gr. Nosler Ballistic Tip (2650)	12
6mm Rem. 100 gr. Core-Lokt PSP (3100)	9	308 Win. 165 gr. Sierra SBT GameKing (2700)	15
6mm Rem. 100 gr. SP American Eagle (3100)	9	308 Win. 168 gr. Hornady Match HP (2650)	15
6mm Rem. 80 gr. SP American Eagle (3470)	2	308 Win. 180 gr. Core-Lokt Ultra Bonded (2620)	16
25-06 Rem. 100 gr. Core-Lokt PSP (3230)	9	308 Win. 180 gr. Nosler AccuBond (2750)	10
25-06 Rem. 120 gr. Federal Fusion (2980)	9	308 Win. 180 gr. Nolser Partition (2620)	14
25-06 Rem. 85 gr. Ballistic Silvertip (3470)	3	308 Win. 180 gr. Silvertip (2620)	16
6.5 Creedmoor 129 gr. SST (2950)	6	30-06 150 gr. Ballistic Silvertip (2900)	8
6.5 Creedmoor 140 gr. A-Max (2710)	10	30-06 150 gr. Core-Lokt PSP (2910)	13
6.5 Creedmoor 140 gr. Custom Competition (2550)	14	30-06 150 gr. Federal Fusion (2900)	9
6.5-284 130 gr. Accubond (2900)	8	30-06 150 gr. Power Point (2920)	15
6.5-284 140 gr. AccuBond (2800)	8	30-06 150 gr. Silvertip (2910)	13
6.5 PRC 143 gr. ELD-X (2960)	4	30-06 165 gr. Core-Lokt PSP (2800)	15
26 Nolser 142 gr. AccuBond (3300)	1	30-06 165 gr. Federal Fusion (2790)	10
270 Win. 130 gr. Core-Lokt SP (3060)	9	30-06 165 gr. Nosler Ballistic Tip (2950)	6
270 Win. 130 gr. Nosler Ballistic Tip (3060)	6	30-06 165 gr. Pointed Soft Point (2800)	15
270 Win. 130 gr. SP American Eagle (3060)	9	30-06 165 gr. Sierra SBT GameKing (2800)	13
270 Win. 140 gr. Core-Lokt Ultra Bonded (2925)	11	30-06 168 gr. Ballistic Silvertip (2790)	10
270 Win. 150 gr. Federal Fusion (2850)	8	30-06 180 gr. Ballistic Silvertip (2750)	10
270 Win. 150 gr. Power Point (2850)	13	30-06 180 gr. Core-Lokt PSP (2700)	15
270 WSM 130 gr. Core-Lokt (3285)	5	30-06 180 gr. Federal Fusion (2700)	10
7-08 Rem. 140 gr. Nosler AccuBond (2800)	10	30-06 180 gr. Nosler Partition (2700)	12
7-08 Rem. 140 gr. Nosler Partition (2800)	10	30-06 180 gr. Silvertip (2700)	15
7mm-08 140 gr. Power Point (2800)	13	30-06 180 gr. SP American Eagle (2700)	15
7mm-08 139 gr. SP Interlock (2840)	13	30-06 180 gr. Trophy Bonded Bear Claw (2650)	16
7mm-08 139 gr. SST Interlock (2800)	10	30-06 180 gr. Core-Lokt Ultra Bond (2700)	15
7mm WSM 160 gr. Nosler Partition (3160)	4	300 Wby. Mag. 180 gr. Nosler Partition (3240)	2
7mm WSM 150 gr. SP American Eagle (3100)	7	300 Wby. Mag. 180 gr. Barnes Triple Shock (3110)	4
7mm Rem. Mag. 140 gr. Nosler AccuBond (3110)	4	300 RUM 150 gr. Swift Scirocco Bonded (3450)	1
7mm Rem. Mag. 150 gr. Core-Lokt PSP (3110)	9	300 RUM 180 gr. Core-Lokt Ultra Bonded (3250)	4
7mm Rem. Mag. 150 gr. Federal Fusion (3100)	4	300 WSM 180 gr. SP American Eagle (2970)	9

Load Name (Muzzle Velocity-fps)		Load Name (Muzzle Velocity-fps)	
200 Yard Zero	Group	200 Yard Zero	Group
300 WSM 180 gr. Ballistic Silvertip (3010)	6	300 Win. Mag. 180 gr. Nosler AccuBond (2960)	6
300 WSM 180 gr. SP American Eagle (2970)	9	300 Win. Mag. 180 gr. Nosler Partition (2960)	11
300 Win. Mag. 150 gr. Core-Lokt (3290)	7	300 Win. Mag. 180 gr. Power Point (2960)	8
300 Win. Mag. 165 gr. Federal Fusion (3200)	4	300 Win. Mag. 190 gr. Nosler ABLR (2870)	6
300 Win. Mag. 180 gr. Core-Lokt Ultra Bonded (2960)	9	300 PRC 212 gr. ELD-X (2860)	4
300 Win. Mag. 180 gr. Federal Fusion (2960)	6	338 Lapua 250 gr. Sierra HPBT Match (2950)	6

Load Name (Muzzle Velocity-fps)		Load Name (Muzzle Velocity-fps)	
300 Yard Zero	Group	300 Yard Zero	Group
25-06 Rem. 110 gr. Nosler Accubond (3100)	20	300 WSM 165 gr. Nosler Partition (3130)	20
25-06 Rem. 117 gr. Sierra SBT Gameking (2990)	23	300 Win. Mag. 150 gr. Power Point (3290)	21
257 Wby. Mag. 100 gr. Barnes TSX (3570)	17	300 Win. Mag. 165 gr. Federal Fusion (3200)	19
257 Wby. Mag. 110 gr. Nosler Accubond (3460)	18	300 Win. Mag. 165 gr. Nosler Partition (3050)	20
6.5 Creedmoor 129 gr. SST (2950)	20	300 Win. Mag. 178 gr. Hornady A-Max (3000)	20
6.5 Creedmoor 140 gr. A-Max (2710)	22	300 Win. 180 gr. Accubond CT (2950)	20
6.5-284 130 gr. Accubond (2900)	20	300 Win. Mag. 180 gr. Core-Lokt Ultra Bonded (2960)	23
6.5-284 140 gr. Accubond (2800)	22	300 Win. 180 gr. Federal Fusion (2960)	20
260 Rem. 120 gr. Nosler Ballistic Tip (2950)	22	300 Win. Mag. 180 gr. Nosler Accubond (2960)	20
264 Win. Mag. 120 gr. Core-Lokt PSP (3210)	21	300 Win. Mag. 180 gr. Nosler Partition (2960)	23
26 Nosler 142 gr. Accubond (3300)	17	300 Win. Mag. 150 gr. Core-Lokt PSP (3290)	21
270 Win. 130 gr. Core-Lokt SP (3060)	23	300 Win. Mag. 150 gr. Core-Lokt Ultra Bonded (3290)	21
270 Wby. Mag. 150 gr. Nosler Partition (3245)	19	300 Win. Mag. 150 gr. Federal Fusion (3200)	19
7mm-08 140 gr. Ballistic Silvertip (2770)	24	300 PRC 212 gr. ELD-X (2860)	19
7mm-08 140 gr. Nosler Partition (2800)	24	300 Wby. Mag. 180 gr. Nosler Partition (3190)	19
280 Rem. 150 gr. Nosler Partition (2890)	22	300 Wby. Mag. 180 gr. Trophy Bonded Bear Claw (3040)	23
280 Rem. 160 gr. Nosler Accubond (2800)	22	300 Wby. Mag. 150 gr. Nosler Partition (3540)	18
7mm WSM 150 gr. Power Point (3200)	21	300 Wby. Mag. 165 gr. Nosler Ballistic Tip (3350)	18
7mm Rem. Mag. 140 gr. Accubond (3000)	20	300 RUM 180 gr. Core-Lokt Ultra Bonded (3250)	19
7mm Rem. Mag. 140 gr. Accubond (3180)	19	30-378 Wby. Mag. 165 gr. Nosler Ballistic Tip (3500)	17
7mm Rem. Mag. 150 gr. Power Point (3090)	21	30-378 Wby. Mag. 180 gr. Nosler Accubond (3400)	18
7mm Rem. Mag. 175 gr. Federal Fusion (2760)	22	338 Win. Mag. 180 gr. Nosler Accubond (3120)	21
7mm Rem. Mag. 175 gr. SP American Eagle (2860)	22	338 Win. Mag. 200 gr. Power Point (2960)	25
7 PRC 175 gr. ELD-X (3000)	18	338 Win. Mag. 210 gr. Nosler Partition (2830)	25
308 Win. 150 gr. Federal Fusion (2820)	25	338 Win. Mag. 225 gr. Core-Lokt Ultra Bonded (2780)	22
300 Rem. SAUM 165 gr. Core-Lokt PSP (3075)	23	338 Win. Mag. 225 gr. Nosler Accubond (2800)	22
30-06 150 gr. Core-Lokt Ultra Bond (2910)	25	Lapua Mag. 300 gr. Trophy Gold OTM (2762)	20
30-06 165 gr. Nosler Partition (2830)	23	50 BMG 750 gr. Borerider (2700)	20
30-06 180 gr. Nosler Accubond (2700)	24	50 BMG 800 gr. Borerider (2650)	20
300 WSM 150 gr. Power Point (3270)	21	50 BMG 750 gr. A-Max (2650)	20

For handloads or any other unique loads not shown in the previous list, the table below provides a guideline for selecting the appropriate TBR load group. You can check the ballistic performance of your bullet by consulting your reloading manual, ballistics software, or the literature provided by your cartridge manufacturer. You may also visit leupold.com for more assistance in selecting your group.

Load Group	Bullet Path Height @ 600 Yds.	10 MPH Crosswind Deflection @ 600 Yds	Sight-in Range
1	-42 to -48 inches*	10 to 28 inches	200 Yards
2	-48 to -54 inches	10 to 28 inches	200 Yards
3	-48 to -54 inches	28 to 46 inches	200 Yards
4	-54 to -60 inches	10 to 28 inches	200 Yards
5	-54 to -60 inches	28 to 46 inches	200 Yards
6	-60 to -66 inches	10 to 28 inches	200 Yards
7	-60 to -66 inches	28 to 46 inches	200 Yards
8	-66 to -72 inches	10 to 28 inches	200 Yards
9	-66 to -72 inches	28 to 46 inches	200 Yards
10	-72 to -78 inches	10 to 28 inches	200 Yards
11	-72 to -78 inches	28 to 46 inches	200 Yards
12	-78 to -84 inches	10 to 28 inches	200 Yards
13	-78 to -84 inches	28 to 46 inches	200 Yards
14	-84 to -90 inches	10 to 28 inches	200 Yards
15	-84 to -90 inches	28 to 46 inches	200 Yards
16	-90 to -96 inches**	28 to 46 inches	200 Yards
17	-30 to -36 inches**	10 to 28 inches	300 Yards
18	-36 to -42 inches	10 to 28 inches	300 Yards
19	-42 to -48 inches	10 to 28 inches	300 Yards
20	-48 to -54 inches	10 to 28 inches	300 Yards
21	-48 to -54 inches	28 to 46 inches	300 Yards
22	-54 to -60 inches	10 to 28 inches	300 Yards
23	-54 to -60 inches	28 to 46 inches	300 Yards
24	-60 to -66 inches**	10 to 28 inches	300 Yards
25	-60 to -66 inches**	28 to 46 inches	300 Yards

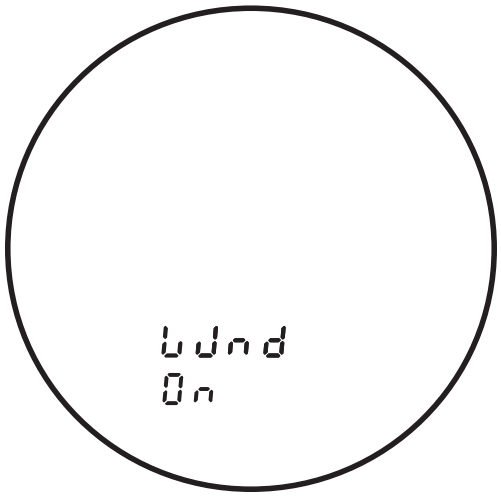
* If your bullet drop is less than -42 inches at 600 yards with a 200 yard sight-in, consider sighting-in at 300 yards and selecting load group 17 or 18. Alternately, you can use group 1 with a 200 yard sight-in, but the results will be less accurate.

** If your drop at 600 yards is greater than -96 inches with a 200-yard sight-in or less than -30 or greater than -66 inches with a 300-yard sight-in, the results will be less accurate.

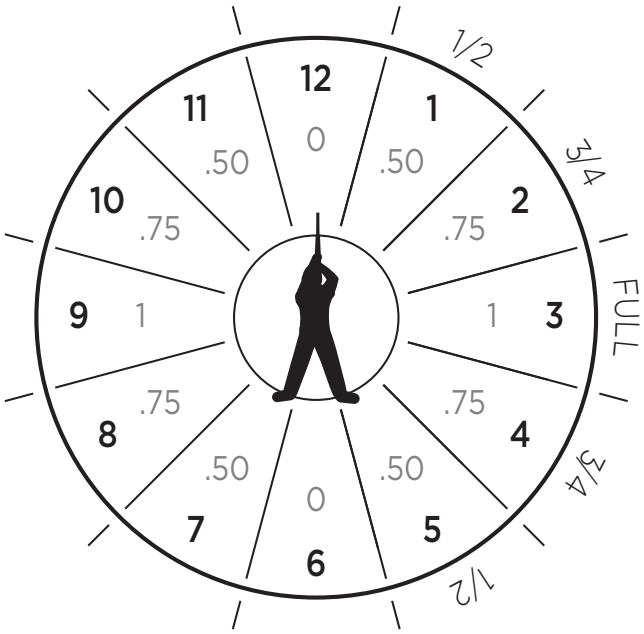
To select a load group, navigate through the menu until ‘Load’ appears in the upper portion of the display, with the current load group shown beneath it. Press and release the right button repeatedly to scroll through the 25 groups. Pressing the left button after selecting a load group will take you to the Wind feature.

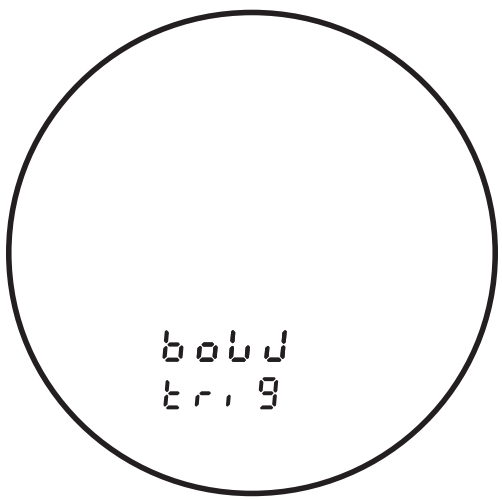
Wind Feature

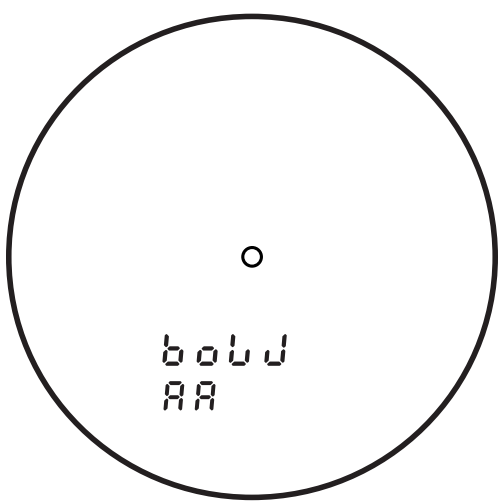
When active, the Wind feature provides an accurate 10-mph wind-hold value, assuming the wind blows at a 90-degree angle to your rifle's muzzle. We chose 10 mph as the default to make it easier to calculate corrections. If the wind is blowing at 5 mph from the 3 o'clock or 9 o'clock position, halve the displayed hold value. If the wind speed is 20 mph, double the wind-hold value. If the wind is not blowing at a 90-degree angle to the muzzle, adjust the hold value based on the provided diagram. For example, if the wind is at a 45-degree angle to the muzzle, adjust the wind-hold value by half. All wind-hold values will be displayed in the same format as elevation, either in MOA or MILs.



SELECTED OUTPUT	OUTPUT VALUE
CDS	MOA
MIL	MIL
MOA	MOA







After taking a range, the elevation (E) hold is displayed first, followed by the wind-hold value. In CDS mode, where no elevation hold is generated, the wind-hold value is immediately displayed.

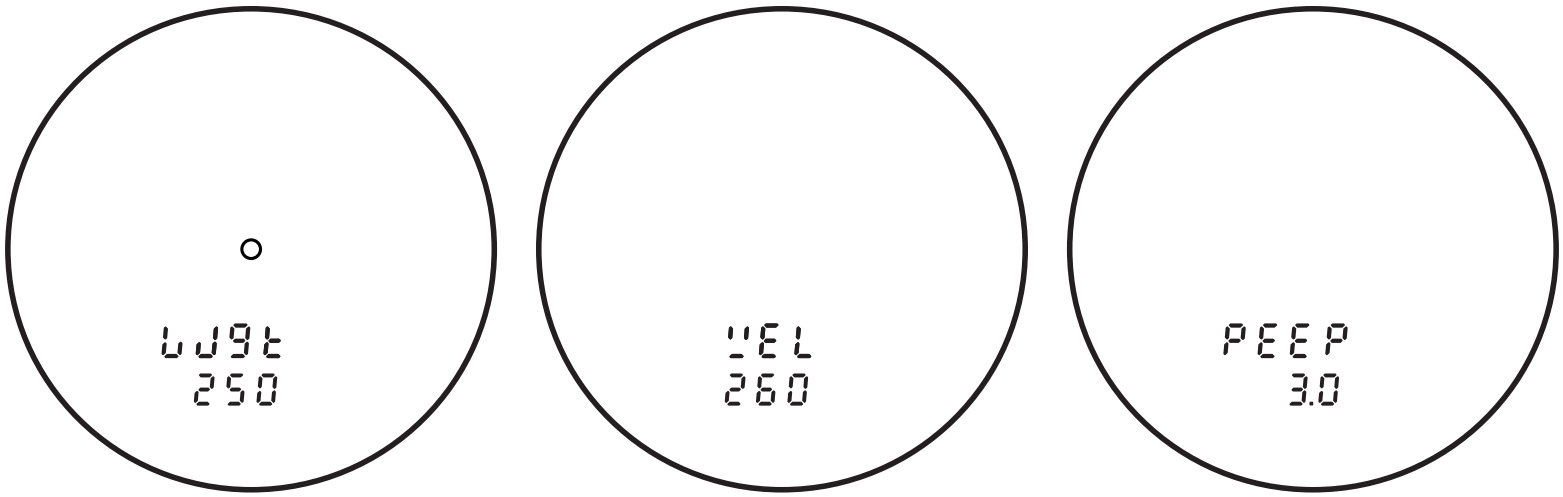
The Wind feature provides 1.5-MOA accuracy on wind holds at 600 yards for cartridges expected to reach that distance. And like TBR, the Wind feature's maximum range is 800 yards.

Bow (BOW) Mode

Bow Mode includes two settings: Trig and Archer's Advantage. Trig is the default setting, using cosine (trigonometric) calculations to provide angle-compensated distances. This function works well for most bowhunters but may not be accurate enough for long-range, moderate-angle shots over 70 yards, where a ballistic solution would be more reliable.

Archer's Advantage uses advanced ballistics software to calculate more precise ranges based on factors such as arrow weight, velocity, and peep

height. This function is ideal for high-angle or long-range shots, providing accurate solutions up to 175 yards and ±89° in elevation. It's especially useful for 3D tournament shooters and anyone hunting in varied terrain.



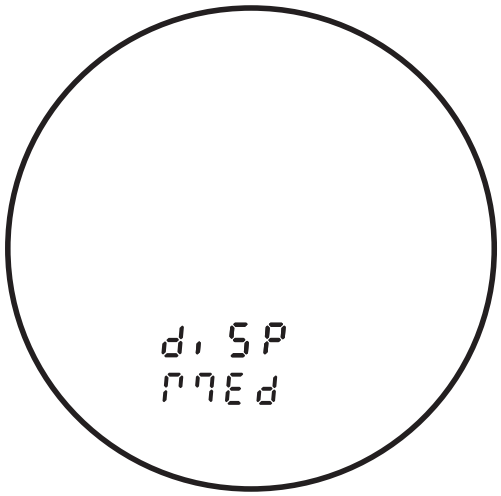
To use Archer's Advantage, you'll need to enter your arrow weight, arrow velocity (measured at 36 inches), and peep height (measured from the center of the arrow shaft to the center of the peep at full draw) into the menu. Once this information is entered, the BX-4 Range HD TBR/W Gen 2 will provide a ballistic solution for shots up to 175 yards and ±89° in elevation. The following limitations apply: velocity of 170-550 fps, arrow weight of 200-900 grains, and peep height of 1-6 inches.

To switch between the two settings, simply press and release the right button to toggle, then press the left button to select.

Line of Sight (LOS) Mode

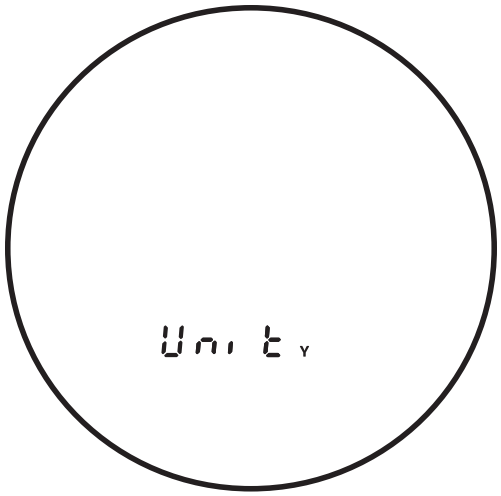
This mode provides the straight-line distance to your target without accounting for shot angle or ballistics. The upper row will show the LOS distance, while the lower row shows the angle to the target.

DISPLAY BRIGHTNESS



The BX-4 Range HD TBR/W Gen 2 has three brightness settings, allowing you to adjust the display's intensity to suit most lighting conditions. Navigate through the menu by pressing and releasing the left button until "diSp" appears in the upper row of the display. Press and release the right button to toggle between medium, high, and low. Press the left button to save your selection.

To adjust the display's brightness without navigating through the menu, press and release the right button to activate the rangefinder, then press and hold it. While holding it, repeatedly press the left button to cycle through the brightness options.

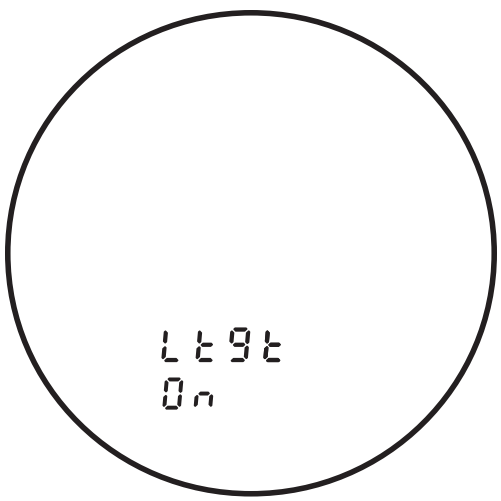


UNIT OUTPUT

Range readings in the BX-4 Range HD TBR/W Gen 2 can be displayed in either yards or meters. Repeatedly press the left button to cycle through the menu. When the word “Unit” is displayed, press the right button to switch between yards and meters. Press the left button to save your changes.

SECONDARY MODES AND FEATURES

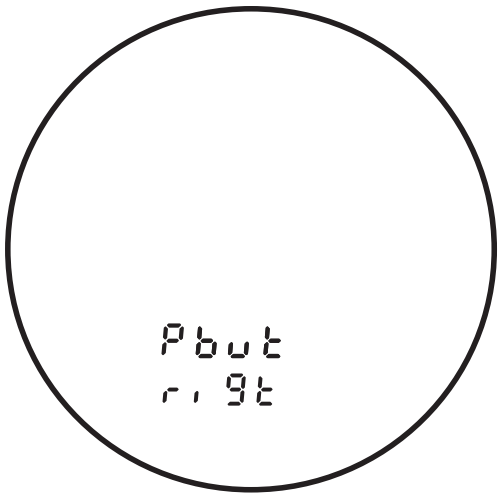
In addition to its three primary modes, the BX-4 Range HD TBR/W Gen 2 features a reversible power button for added flexibility. To access this setting, first select a primary mode, adjust the display brightness, and lock in your preferred unit of measurement.



Last Target

This function enables the user to get a range in adverse conditions such as snow, rain or fog, where it is common to get “false” ranges much shorter than actual distances. To activate Last Target, navigate through the menu by pressing and releasing the mode button (left default) until “Ltgt” is displayed. Press and release the power button to toggle “Ltgt” on and off. Press and hold the mode button to save your selection or press and release to advance to the end of the menu where settings are saved. Be mindful of the distance when using Last Target, as the laser might extend beyond your desired target and provide a range

that is further than your desired target. Using the product in scan mode (continuously hold the power button down) is recommended with Last Target and aiming on target and then above the target will help you gain confidence in getting the correct distance. Please note Last Target should only be used in adverse conditions with precipitation.



Reversible Power Button

The reversible power button is simple and intuitive, allowing you to control the device as you prefer. The function of the power button is always opposite to the mode button. When "rigt" appears on the display, the power button is controlled by the right button. When "LEFt" is displayed, the power button is controlled by the left button.

To change the factory configuration, press and release the left button until "Pbut" appears on the upper row of the display. Then, press and release the right button to toggle between right and left control. Press the left button again to confirm.

RANGING

Measuring distance with the BX-4 Range HD TBR/W Gen 2 is a simple process. Place the reticle on a target you wish to range, then press and release the right button. A distance measurement will appear in the display. If the laser is unable to range the target, reposition the device and try again. There’s no need to clear the last reading before taking another measurement.

Scanning

For continuous measurement of a moving target, hold down the right button and track the target's movement. The distance will update automatically. This method can also be used to obtain the range of multiple targets by moving the reticle from one target to another while holding down the right button.

Accuracy

The BX-4 Range HD TBR/W Gen 2 delivers ±0.5-yards/meters accuracy at distances under 125 yards/meters and ±2-yards/meters accuracy at longer distances. However, its maximum range and accuracy is influenced by the reflectivity of the target being ranged and atmospheric conditions.

The reflectivity of a target is determined by its texture, color, size, and shape. As a rule of thumb, brightly colored targets tend to be more reflective compared to darker targets. This means that a tan game coat, for instance, would provide a more reliable reading than a black bear due to its higher reflectivity. In the same way, shiny surfaces exhibit greater reflectivity than dull surfaces.

Ranging performance is also affected by haze, fog, rain, and other atmospheric conditions that degrade air clarity. Even the sun's infrared energy can be a challenge to ranging performance, especially on bright days.

TROUBLESHOOTING

The optic is not displaying a range.

- Ensure that you are pressing the right button as opposed to the left button.
- Ensure the power button isn't reversed in setup mode.
- Check that there is no obstruction, such as your hand or finger, blocking the lenses, as this could interfere with the laser pulses.
- Hold the unit steady.
- Confirm that the target is at least seven yards away.

The TBR readout is not accurate.

- Be certain that if you're shooting a bow that "BOW" is turned on.
- Be certain that if you're shooting a rifle that "TBR" is turned on.
- Be certain you have selected the correct ballistics group. It is imperative that your rifle be sighted in at the recommended distance. The ballistics performance of firearms and ammunition may vary from the manufacturers' published information.

MAINTENANCE

Leupold optics require minimal maintenance. To keep yours in working order, occasionally blow on the exterior lenses or use a soft lens brush, such as the one found on the Leupold LensPen, to remove any dust or debris. To remove fingerprints or water spots from the lenses, use a microfiber cloth or the cleaning end of the Leupold LensPen. A lens tissue with cleaning fluid may be used on stubborn dirt, but always apply the fluid directly to the cloth, never to the lenses.

SAFETY PRECAUTIONS

The BX-4 Range HD TBR/W Gen 2 employs an eye-safe IEC Class 1M laser. Even so, it's essential to take the following safety precautions:

- Do not press the power button while aiming at a human eye.
- Do not look at the sun through the binocular. Eye damage may occur.
- Do not leave the BX-4 Range HD TBR/W Gen 2 within the reach of small children.
- Do not take this product apart. The electronics inside may cause an electric shock.
- Do not attempt to use any power source other than a CR2 battery—the BX-4 Range HD TBR/W Gen 2 is designed to prohibit accessing any other external power supply.

CLASS 1M LASER PRODUCT INVISIBLE LASER RADIATION AVOID DIRECT EYE EXPOSURE
This product complies with IEC 60825-1:2014-05 Ed.3 and complies with FDA performance standards for laser products except for deviations pursuant to Laser Notice No.56, dated May 8, 2019. Po < 1 mW, λ=905nm, t=20ns

LEUPOLD & STEVENS, Inc, 14400 NW Greenbrier Parkway, Beaverton, OR 97006

WARRANTY

The Leupold Electronics Warranty covers defects in materials and workmanship in the electronic components of RX rangefinders and BX rangefinding binoculars. This warranty lasts for five years from the date of purchase. For complete warranty details visit leupold.com/warranty.

In the event of a need for service or repair, please contact Leupold Product Service at leupold.com.

For product questions, consult the Leupold website at leupold.com or call (800) LEUPOLD (538-7653).

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Leupold Product Service

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For patent information, visit leupold.com/legal.

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