



# Cabela's<sup>®</sup>

## VLR II<sup>®</sup> by Bushnell<sup>®</sup>



Literature #: 98-1258/07-08





Your CABELA'S VLR II by BUSHNELL® is a precision instrument designed to provide many years of enjoyment. This booklet will help you achieve optimum performance by explaining its adjustments and features as well as how to care for this precise laser rangefinding instrument. To ensure optimal performance and longevity, please read these instructions before using your Cabela's VLR II.

The Cabela's VLR II by Bushnell features ARC (Angle Range Compensation) which compensates for extreme up and down angle, providing bow-hunters true distance range from 5-99 yards. The vertical unit is small enough to fit in your hand and in a shirt pocket and delivers instantaneous distance readings from 5 yard minimum all the way to 999 yards on reflective objects (300 yards on deer sized animals and 600 yards to trees) with extreme +/- One yard accuracy.





## ***HOW IT WORKS***

The Cabela's VLR II by Bushnell emits invisible, eye safe, infrared energy pulses. The Advanced Digital microprocessor and ASIC chip (Application-Specific Integrated Circuit) results in instantaneous and accurate readings every time. Sophisticated digital technology instantaneously calculates distances by measuring the time it takes for each pulse to travel from the rangefinder, to the target, and back.

## ***RANGING ACCURACY***

The ranging accuracy of the VLR II is plus or minus one yard / meter under most circumstances. The maximum range of the instrument depends on the reflectivity of the target. The maximum distance for most objects is 600 yards / 549 meters while for highly reflective objects the maximum is 999 yards / 914 meters. Note: You will get both longer and shorter maximum distances depending on the reflective





properties of the particular target and the environmental conditions at the time the distance of an object is being measured.

The color, surface finish, size and shape of the target all affect reflectivity and range. The brighter the color, the longer the range. White is highly reflective, for example, and allows longer ranges than the color black, which is the least reflective color. A shiny finish provides more range than a dull one. A small target is more difficult to range than a larger target. The angle to the target also has an effect. Shooting to a target at a 90 degree angle (where the target surface is perpendicular to the flight path of the emitted energy pulses) provides good range while a steep angle on the other hand, provides limited ranging. In addition, lighting conditions (e.g. the amount of sunlight) will affect the ranging capabilities of the unit. The less light (e.g. overcast skies) the farther the unit's maximum range will be. Conversely, very sunny days will decrease the unit's maximum range.





## ***GETTING STARTED***

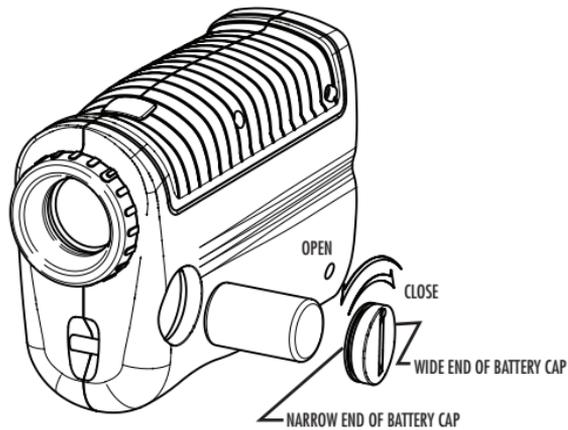
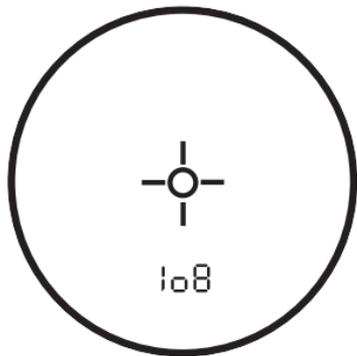
### ***INSERTING THE BATTERY***

Remove the battery cap with a coin by rotating the cap counter clockwise and insert a 3-volt lithium battery into the compartment positive end first, then replace the battery cap.

**NOTE:** It is recommended that the battery be replaced at least once every 12 months.

Low Battery Indicator: If the "⌋⏻" is displayed within the in-view readout, this means "low battery" or battery charge is getting low and the 3-volt lithium battery should be replaced.







## ***ADJUSTING THE EYEPIECE***

Your VLR II is constructed with an adjustable eyepiece (+/- 2 Diopter Adjustment) that allows one to focus the LCD display relative to the image. For users without eyeglasses, simply rotate the eyepiece until the reticle and object distanced to are in focus to your eye. If you wear glasses, place the eyepiece up to your glasses and rotate the eyepiece until the reticle and object distanced to are in focus to your eye.

## ***OPERATIONAL SUMMARY***

While looking through the 5x eyepiece, depress the power button once to activate the in-view Liquid Crystal Display (LCD). Place the aiming circle (located in the center of the field of view) upon a target at least 5 yards away, depress and hold the power button down until the range reading is displayed near the bottom of the in-view display. Crosshairs surrounding the aiming circle indicate that the laser is being transmitted. Once a range has been acquired, you can release the power button. The crosshairs





surrounding the aiming circle will disappear once the power button has been released (i.e. the laser is no longer being transmitted). Note: Once activated, the LCD will remain active and display the last distance measurement for 30 seconds. You can depress the power button again at any time to distance to a new target. As with any laser device, it is not recommended to directly view the emissions for long periods of time with magnified lenses. The maximum time the laser is transmitted (fired) is 10 seconds. To re-fire, press the button down again.

## ***OPTICAL DESIGN***

### ***Magnification and Coatings***

The VLR II features 5x magnification and fully coated optics. A liquid crystal display (LCD) is mounted within the optical system and when activated, displays a reticle for targeting and a yards indicator. Inherent in the manufacturing process are small black spots that appear in the optical system. These are





a natural characteristic of the LCD and cannot be fully eliminated in the manufacturing process. They do not affect the distancing performance of the unit.

## ***LIQUID CRYSTAL DISPLAY (LCD) INDICATORS***

Your VLR II LCD incorporates illuminated indicators that advise the user unit of measure, when the laser is actively firing, when a target has been acquired, BullsEye™ targeting mode, and Bow mode.

A summary of these features is presented below:

## ***UNIT OF MEASURE OPTIONS***

The VLR II provides distance in yards (indicated within the LCD to right of the main distance readout as Y).



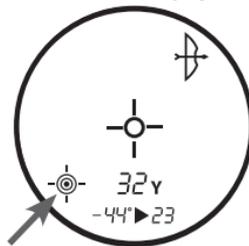


## ACTIVE LASER

Crosshairs surrounding the aiming circle indicate that the laser is being transmitted. Once a range has been acquired, you can release the power button. The crosshairs surrounding the circle will disappear once the power button has been released (i.e. the laser is no longer being transmitted).

## BullsEye™ (LCD Indicator - ◎ )

The VLR II was especially designed with hunters in mind and will always function with BullsEye mode on. This advanced mode allows easy acquisition of small targets and game without inadvertently getting distances to background targets that have stronger signal strength. When more than one object has been acquired, distance of the closer object will be displayed and a crosshair will surround the BullsEye™ indicator informing the user that distance to the closer object is being displayed in the LCD.





Press the POWER button to turn the unit on. Next, align the aiming circle onto the object (i.e. deer) that you want distance to. Next, press and hold the POWER button and move the laser slowly over the deer until crosshairs surround the BullsEye indicator. If the laser beam recognized more than one object (i.e. deer and background trees), distance of the closer object (i.e. deer) will be displayed and crosshairs will surround the BullsEye indicator informing the user that distance to the closer object is being displayed in the LCD (Figure 1). There may be times when only the laser beam only sees one object in its path. In this case, the distance will be displayed, but because more than one object was not acquired, crosshairs will not surround the BullsEye indicator.



**Figure 1**





**TIP:** While pressing the POWER button, you can move (SCAN) the device slowly from object to object and intentionally force the laser to hit multiple objects to ensure that you are only displaying the closest of the objects recognized by the laser.

**ARC Angle Range Compensation):** In addition to all of the features described above, the VLR II is an advanced premium laser rangefinder featuring a built-in accelerometer-based inclinometer that digitally displays the exact angle from -60 to +60 degrees of elevation and is +/- 1.0 degree accurate.

The Cabela's VLR II by Bushnell® solves a problem bow-hunters have been faced with for years. The problem: Bow-hunters have struggled with extreme uphill and downhill angles because of how these angles alter true horizontal distance to your target. The Solution: VLR II's integrated inclinometer provides elevation angle to allow for distance compensation when targeting objects that are either uphill or

12 downhill.





**Bow Mode (  ):** Displays line of sight distance, degree of elevation, and true distance range from 5-99 yards / meters and a maximum inclination of +/- 60°.

Once the range is displayed, continue to hold the POWER button down for approximately 2 seconds while holding the aiming circle on the object and keeping the unit as steady as possible so as to allow the inclinometer enough time to measure angle. Then release the POWER button. Once you have released the power button, a degree of angle and compensated range will be displayed beneath the line of sight distance as seen in the images below.

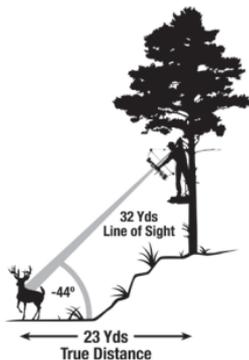
## ***BOW MODE EXAMPLE***

Line of sight is 32 yards, angle is -44 degrees, and the Angle Range Compensated distance is 23 yards.





The "▶" means "play" or "shoot as," so instead of shooting as 32 yards, shoot as 23 yards. If you were to shoot as if 32 yards, you would shoot over the top of the deer because of the severe angle.



The line of sight distance will display in the primary numeric display and the inclination and horizontal distance will display in the secondary numeric displays. Bushnell determined through extensive testing and





interviews with high-profile bow hunting experts that multiple bow ballistic groups were not necessary. Bow-hunters want to know true horizontal distance because that is how they practice shooting, and once they confidently know that, they can make any necessary adjustments. Giving the bow-hunter anything else other than horizontal distance creates additional confusion and uncertainty.

Many people mistakenly believe that uphill shots perform differently from downhill shots because of gravity. However, it is not due to gravity, but more of an aberration of the sighting system used on bows. The sighting pin on a bow resides several inches above the mechanical axis of the arrow. For example, when one is aiming 23 degrees up an incline, the arrow is at a different angle.

**NOTE:** We simply took the most commonly used features and included them all in a simple to use, one button operation device. This laser rangefinder always functions in yards unit of measure, BullsEye™ Targeting Mode, and Bow mode.





## ***SPECIFICATIONS***

Dimensions: Pocket Size Vertical Design, measuring 2.8 x 4.2 x 1.5 inches

Weight: 6.6 oz.

Accuracy: +/- 1 yard

Magnification: 5x

Built-In Inclinometer

VLR II Technology provides bow-hunters ANGLE RANGE COMPENSATION from 5-99 yards

Power Source: 3- volt lithium battery included

FOV: 320 ft. @ 1000 yards

Total Eye Relief: 21 mm

Exit Pupil: 4 mm

Water resistant

BullsEye Mode

5-yard minimum, 999 yards to a reflective target, 300 yards to a deer, 600 yards to a tree





## **CLEANING**

Gently blow away any dust or debris on the lenses (or use a soft lens brush). To remove dirt or fingerprints, clean with a soft cotton cloth, rubbing in a circular motion. Use of a coarse cloth or unnecessary rubbing may scratch the lens surface and eventually cause permanent damage. For a more thorough cleaning, photographic lens tissue and photographic-type lens cleaning fluid or isopropyl alcohol may be used. Always apply the fluid to the cleaning cloth - never directly on the lens.

## **TROUBLE SHOOTING TABLE**

### ***If unit does not turn on - LCD does not illuminate:***

- Depress POWER button.
- Check and if necessary, replace battery.

### ***If unit powers down (display goes blank when attempting to power the laser):***

- The battery is either weak or low quality. Replace the battery with a good quality 3 -volt lithium battery.





### ***If target range cannot be obtained:***

- Make sure LCD is illuminated.
- Make sure that the power button is being depressed.
- Make sure that nothing, such as your hand or finger, is blocking the objective lenses (lenses closest to the target) that emit and receive the laser pulses.
- Make sure unit is held steady while depressing power button.

**NOTE:** The last range reading does not need to be cleared before ranging another target. Simply aim at the new target using the LCD's reticle, depress the power button and hold until new range reading is displayed.

Specifications, instructions, and the operation of these products are subject to change without notice.





## **FCC NOTE**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Shielded interface cable must be used with the equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.





*Cabela's*<sup>®</sup>

WORLD'S FOREMOST OUTFITTER<sup>®</sup>

Sidney, NE 69160  
1-800-237-4444  
[www.cabelas.com](http://www.cabelas.com)

