

BUSHNELL
SPORTS OPTICS WORLDWIDE

YARDAGE PRO 500

LASER RANGING SYSTEM

INSTRUCTIONS
MODE D'EMPLOI
GEBRAUCHSANWEISUNG
INSTRUCCIONES

YARDAGE PRO™ Your YARDAGE PRO® 500 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 fine instrument. To ensure optimal performance and longevity, please read these instructions before using your YARDAGE PRO® 500.

INTRODUCTION The YARDAGE PRO® 500 emits invisible, eyesafe, infrared energy pulses. Sophisticated circuitry and a high speed clock are used to instantaneously calculate distances, by measuring the time it takes for each pulse to travel from the rangefinder, to the target, and back.

The ranging accuracy of the YARDAGE PRO® 500 is plus or minus one yard / meter under most circumstances (see description of "Precision" indicator below). The maximum range of the instrument depends on the reflectivity of the target. The maximum distance for most objects is 500 yards / meters while for highly reflective objects the maximum is 999 yards / 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 object is being distanced to.

The color, surface finish, size and shape of the target all affect reflectivity and range. The brighter the color, the longer the range. Red 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.

OPERATIONAL SUMMARY While looking through the monocular, depress the fire button (see Figure 1) (top right hand side of unit) once to activate the inview display system (LCD). Aim the YARDAGE PRO® 500 at a target at least 20 yards away, **depress and hold the fire button down until range reading is displayed.** Release the fire button. Note: Once activated the YARDAGE PRO® 500's LCD will remain active and display the last distance measurement for 30 seconds. You can depress the fire 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.

FEATURES The YARDAGE PRO's sophisticated circuitry allows you to select between various units of measure and targeting modes. In addition, your YARDAGE PRO's LCD incorporates illuminated indicators that advise you when the laser is active, what the quality level (a measure of reflectivity) of the target is, what the precision tolerances of a specific measurement are and when the battery charge is low (see Figure 2). A summary of these features is presented below:

Unit of Measure Options The YARDAGE PRO® 500 can be used to measure distances in yards or meters. The unit of measure indicators are located in the lower right portion of the LCD. To select between yards and meters look through the monocular, depress the "mode" button (see Figure 3) (lower right side of the unit) and hold it down for approximately 5 seconds. If you are changing from yards to meters, a change in unit of measure will be indicated by the illumination of the METER indicator while the YARD indicator is turned off. If you are changing from meters to yards, the opposite will occur. Note: The YARDAGE PRO® 500 will return to the last setting used each time the unit is turned-on.

Targeting Modes The YARDAGE PRO® 500 incorporates exclusive targeting modes that allow you to adjust the performance parameters of the unit to suit your specific situation and environment. The different targeting modes available are listed below:

STANDARD (LCD Indicator - none) - This setting allows most targets to be distanced up to 500 yards. Used for moderately reflective targets that are typical of most distancing situations. Note: If the user encounters difficulty ranging to targets in the standard mode, the other modes listed below can be used. The minimum distance in the standard mode is 20 yards.

SCAN (LCD Indicator - "SCAN") - This mode allows the range to be continuously updated for 10 seconds when the fire button remains depressed. It can be used to scan an area containing several objects or a single object that is moving. Note: Objects further away require a slower scanning pace than objects at a closer distance. The minimum distance in this mode is the same as in the standard mode.

REFLECTIVE (LCD Indicator - "REFL") - Used when targeting highly reflective targets (e.g. reflectors, stop signs, etc.). Increases effective distance of the device on reflective targets up to 999 yards or meters. Note: In this mode, the unit's sensitivity to non-cooperative targets is decreased. Be sure to use the unit on a reflective target for best results. Do not use the unit on a non-reflective target.

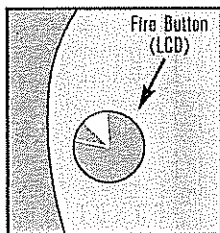


Figure 1



Figure 2

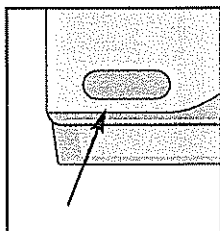
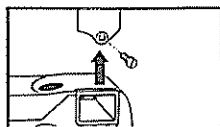


Figure 3



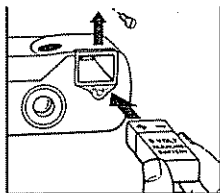


Figure 4

REFLECTIVE (LCD Indicator - "REFL") - Used when targeting highly reflective targets (e.g. reflectors, stop signs, etc.) Increases effective distance of the device on reflective targets up to 999 yards or meters. Note: In this mode, the unit's sensitivity to non-cooperative targets is decreased thereby reducing the maximum ranging distance for these type of objects. Do not use this mode for normal range.

RAIN (LCD Indicator - "RAIN") - Precipitation such as rain drops or snow flakes can reflect energy pulses emitted by the YARDAGE PRO® 500 thereby contaminating the primary target's distance measurement. By selecting the rain mode, feedback from energy pulses reflecting off precipitation will be ignored and an uncontaminated measurement obtained. Note: In this mode, the system will not measure to targets less than 65 - 95 yards / meters.

ZIP THRU (LCD Indicator - "ZIP") - This mode can be used to ignore energy pulses reflecting off objects less than 115 - 165 yards / meters away. It would typically be used when distancing through brush to an object further than 115 - 165 yards / meters away. Note: In this mode, the system will not measure to targets less than 115 - 165 yards / meters. This mode will also help with distance to target at the outer range.

To select between these modes, while looking through the monocular, depress and release the mode button (top left hand side of the unit). Each successive depression of the mode button will activate a different mode designation in the following order: 1) standard (no indicator), 2) Scan ("SCAN"), 3) reflective ("REFL"), 4) rain ("RAIN"), 5) ZIP THRU ("ZIP") and then back to standard (no indicator). Note: The YARDAGE PRO® 500 will return to the last setting used, each time the unit is turned-on.

Illuminating Indicators

ACTIVE LASER (LCD Indicator - "LASER") - Located in the upper left portion of LCD. When illuminated, indicates that energy pulses are being emitted from unit.

TARGET QUALITY GAUGE (LCD Indicator - "TARGET QUALITY") - Located in the upper middle portion of LCD. Gauge indicating amount of energy pulses being received back from the target. Gauge is calibrated to fill squares from left to right. The higher the number of returning energy pulses, the greater the number of squares that will fill with illumination. This gauge can be used to scan across a target that is difficult to acquire to find the most reflective point for ranging (see Trouble Shooting Table).

PRECISION PARAMETER INDICATOR (LCD Indicator - "PRECISION") - When illuminated, indicates the distance measurement is within plus or minus 1 yard or meter. If it is not illuminated after obtaining a measurement, the distance measurement is within plus or minus 3 yards or meters.

LOW BATTERY CHARGE (LCD Indicator - "BATT") - When illuminated, indicates the battery charge is low and battery should be replaced.

Roll Down Eyecup The YARDAGE PRO's monocular is equipped with a rubber eyecup designed for your comfort and to exclude extraneous external light. If you wear sun / eyeglasses, roll down the eyecup. This will bring your eye closer to the ocular lens, thus providing improved field of view.

Tripod Mount Molded into the bottom of your Yardage Pro is a threaded tripod mount that will allow you to attach a tripod for a more stable operation.

SPECIFICATIONS:

Optical Design The YARDAGE PRO® 500 features a Perma Focus® monocular optical system for viewing your target. A liquid crystal display (LCD) is mounted within the optical system and when activated, displays a reticle for targeting, yard / meter and mode designations, a target quality gauge, as well as precision and low battery indicators. Inherent in the manufacturing process are small black spots that appear in the optical system. These are a natural characteristic of the LCD, cannot be fully eliminated in the manufacturing process and do not affect the distancing performance of the unit.

Magnification	6 x	Field of View	5.6 Degrees	Eye Relief	19 mm	Exit Pupil	3.3 mm
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Power Source The YARDAGE PRO® 500 is powered by one 9-volt alkaline battery. (Use only high quality alkaline batteries. Do not use heavy duty or lithium batteries.)

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.

REPAIR If the YARDAGE PRO® 500 should require repair, send it to:

USA Bushnell Sports Optics Worldwide 9200 Cody Overland Park, Kansas 66214-3259	CANADA Bushnell Canada 25A Pearce Street Richmond Hill, Ontario L4B 2M9
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Include a letter describing the problem experienced. If outside of the USA or CANADA, please contact your local dealer as to where to send your YARDAGE PRO® 500 for repair. Before returning for repair, consult the Trouble Shooting Table below.

TRUBLE SHOOTING TABLE

Unit does not turn on - LCD does not illuminate:

- Depress fire button (top right hand side of unit)
- Check and if necessary, replace battery

There is no reset button to clear last range reading before ranging another target:

- 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 fire button and hold until new range reading is displayed.

There are black spots in the optical system:

- These are a natural characteristic of the LCD and can not be fully eliminated in the manufacturing process.

For further assistance, please contact a customer service representative at 800-423-3537.

Target range cannot be obtained:

- Make sure LCD is illuminated
- Make sure that the fire button is being depressed (as opposed to mode button)
- 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 fire button
- A less reflective target will require you to scan its surface to find the most reflective point in order to obtain a distance. To do this, hold the fire button and scan LCD reticle across the target's surface to try and register a "hit" on the target quality meter. When the target quality gauge registers a hit (indicated when the first square illuminates), stabilize the unit in place and hold the fire button until a range reading is displayed.
- Make sure that the targeting mode selected is the appropriate mode for that specific situation / environment. Each targeting mode (SCAN, REFL, RAIN and ZIP) has a different minimum distance and sensitivity to a specific target's reflectivity levels.