VORTEX®

RAZOR® HD 4000

LASER RANGEFINDER

RAZOR® HD 4000 SPECIFICATIONS

	DEER RANGE	TREE RANGE	MAX REFLECTIVE RANGE
NORMAL MODE	Up to 1600 yds. (1463m)	Up to 1800 yds. (1646m)	Up to 2400 yds. (2195m)
NORMAL MODE (SCAN)	Up to 2000 yds. (1829m)	Up to 2200 yds. (2012m)	Up to 2400 yds. (2195m)
ELR MODE	Up to 2200 yds. (2012m)	Up to 2500 yds. (2286m)	Up to 4000 yds. (3658m)

**Expected ranges given favorable environmental conditions*

Minimum Range: 5 yd. (4 m)
Accuracy: ± 0.5 yards at 5-199.9 yards
± 1 yards at 200-1,000 yards
± 2 yards at over 1,000 yards
Maximum Angle Reading: ± 70 degrees
Measuring Time: < .25 seconds (Normal Mode)
Battery Life: > 4,000 range cycles **Cold weather may reduce battery performance*
Operating Temperature: -4° to 140° F (-20° to 60° C)
Storage Temperature: -13° to 140° F (-25° to 60° C)
Magnification: 7x
Objective Lens: 25 mm
Eye Relief: 16-19 mm
Diopter: ± 2
Brightness Settings: 5
Battery: CR2
Weight: 9.9 oz.
Length: 114mm
Width: 34mm

RAZOR® HD 4000 LASER RANGEFINDER

The Razor® HD 4000 is the essential companion for the extreme hunter, archer and shooter. The extremely effective angle compensated laser rangefinder features four targeting modes (Normal Mode, First Mode, Last Mode and Extended Laser Range Mode) for any ranging environment. The primary HCD (Horizontal Component Distance) range mode provides key angle compensated range information required by the vast majority of shooters in a simple, quick to read display. The Razor® HD 4000 also has a LOS (Line of Sight) range mode and scan feature.

Images are for representation only. Product may vary slightly from what is shown.

BASIC OPERATION

Battery Replacement

To insert a new battery, open the battery compartment and remove the used battery. Insert new CR2 battery with positive side facing outwards. Once installed, reinstall battery compartment cover and ensure it is tightly closed.

Remove battery compartment cover.

Power Up

Once the battery is installed, the Razor® HD 4000 is in ready condition – the normal power-off condition when not ranging. To power up the Razor® HD 4000 from ready condition and prepare for ranging, press and release the Measure button. The HCD or LOS ranging screen will display. The Razor® HD 4000 will power down automatically after 20 seconds of non-use.

Install battery with positive side facing outwards.

Adjust the Eyecup

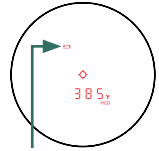
The eyecup on the Razor® HD 4000 twists up and down so any viewer can see the full field and enjoy comfortable viewing and ranging – with or without eyeglasses. When not using eyeglasses or sunglasses, it is recommended to keep the eyecup fully extended. For best viewing when wearing eyeglasses, twist eyecups down.

Focus

Adjust the diopter until the image is sharp. Make note of this diopter setting in case you need to set it again.

Low Battery Icon

The low battery icon displays once the battery reaches 25% life and stays on until there is no power.



MODE SELECTION

The Razor® HD 4000 is factory set to the angle compensating HCD range mode, normal target mode, brightness level 4 and displayed in yards.

To change modes:

After the Razor® HD 4000 is powered up, activate the Mode/ Display Selection by pressing and holding the Menu button for at least four seconds.

Use the Menu button to activate the Mode/Display Selection displays.

Use the Measure button to toggle through each Mode Selection option.

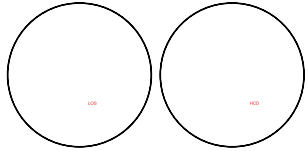
Use the Menu button to activate the Mode Selection displays. Use the Measure button to toggle through each Mode Selection option. You may exit Mode Selection at any time and save your settings by pressing and holding the Menu button for at least four seconds.

SET AND SAVE MODE SELECTIONS

Ranging Mode Selection

Choose between the HCD and LOS Modes

After activating the Mode/Display Selection, press the Measure button to toggle between the HCD and LOS displays. Press the Menu button to save your desired choice and move to the Yards/Meters selection screen.

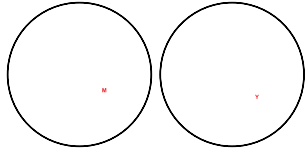


Choose Between HCD and LOS

Display Selection

Choose between Yards and Meters Display

After activating the Mode Selection, press the Measure button to toggle between the Yards and Meters display. Press the Menu button to save your desired choice and move to the Brightness selection screen.

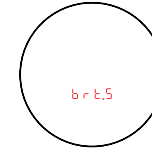


Choose Between Yards and Meters

Brightness Selection

Choose between Five Brightness Settings

The Razor® HD 4000 provides five illumination settings. Press the Measure button to toggle through the five Brightness settings. Press the Menu button to save your desired setting and move back to the HCD/LOS selection screen.



To exit Mode/Display Selection and save settings, press and hold the Menu button for four seconds. Settings will also save when the Razor® HD 4000 powers down automatically.

TARGETING MODE EXPLANATIONS

The Razor® HD 4000 provides four target modes: Normal Mode, First Mode, Last Mode and Extended Laser Range Mode.

Normal Mode

Your Razor® HD 4000 comes preset to normal target mode. This is the standard mode providing the range of the target with the strongest range result. Normal Mode is the recommended target mode for most situations.

First Mode

Locks in and displays the closest distance when panning and scanning. This mode is ideal for ranging a smaller target in front of other larger or more reflective objects.

Note: If unsure about the range, simply release the measure button and range again.

Scanning and Panning from Left to Right

Initial range captured on trees | Range captured on closer elk | Scanned to further trees. Range remains locked on closer elk

Last Mode

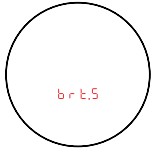
Locks in and displays the farthest distance when panning and scanning. This mode is ideal for ranging a specific target behind a group of objects like brush, trees, rocks, etc.

Note: If unsure about the range, simply release the measure button and range again.

Scanning and Panning from Left to Right

Initial range captured on trees | Range captured on farther elk | Scanned to closer trees. Range remains locked on farther elk

Extended Laser Range (ELR) Mode



The ELR target mode allows for ranging smaller, less reflective targets at extended distances. It is ideal for ranging when Normal Mode is unable to obtain a desired range. A longer response time may be required to build the desired range. For best results, it is recommended to be used on a tripod.

For additional information on Targeting Modes, please visit www.vortexoptics.com

SETTING AND USING TARGET MODES

While in ready condition, cycle between target modes by pressing and releasing the Menu button. Once a target mode is selected, press the Measure button to activate the target mode. Continue to hold the Measure button while ranging in First, Last or ELR target mode.

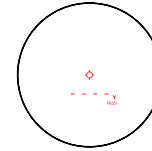
For First and Last Mode, “First” and “Last” will flash while the Measure button is being held signaling that you are in the respective target mode. The range measurement will display as the Measure button is held. After 10 seconds of holding the Measure button, you will need to release and re-press and hold the Measure button to reactivate the target mode.

For the Extended Laser Range Mode (ELR), “ELR” will flash while the Measure button is being held signaling that the rangefinder is acquiring the range of the target. The flashing will stop once the range is acquired and remain displayed for ~20 seconds after the Measure button is released.

Note: While using ELR mode, it may take up to 20 seconds to acquire a target depending on the size of the target, distance to the target, reflectivity of the target and the environmental conditions.

RANGING IN NORMAL MODE

With the Razor® HD 4000 powered up, position the reticle on the target object and press and release the Measure button to get the distance measurement. If the laser is not able to range due to the reflectivity of the target, you will see a display similar to that shown here. To range a new target, simply re-aim and press the Measure button again.

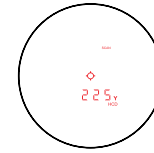


No Range Returned

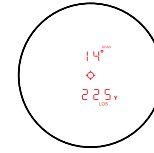
SCAN RANGING

Activate Scan Ranging by pressing and holding the Measure button down. Keeping the button depressed will continuously measure distance as you pan back and forth across target objects. Scan will blink as you pan. Releasing the Measure button will return laser to the Power Up condition.

Note: For best results, it is recommended to use a tripod while attempting to range targets past 1,000 yards.



HCD Scan



LOS Scan

RANGING MODE EXPLANATIONS

The Razor® HD 4000 provides two range modes: HCD (Horizontal Component Distance) and LOS (Line of Sight). Both modes offer a Scan feature.

HCD Mode

The HCD range display is intended to be the primary mode—used for most rifle and archery shooting applications. The yardage number displayed is the critical horizontal component distance.

Using the HCD Mode

- Use the HCD range mode in the following situations:
- Rifle shooting on level ground at any range.
- Rifle shooting out to ranges of 800 yards with mild slopes (less than 15 degrees).
- Rifle shooting out to ranges of 400 yards with moderate slopes (15 to 30 degrees).
- For all archery shooting.

The displayed HCD yardage number is corrected for shot angle and needs no extra user input; shooters simply use the appropriate level ground bullet drop and wind adjustment for the range displayed and shoot. Archers use the appropriate level ground sight pin for the range displayed and shoot.

LOS Mode

The LOS (Line of Sight) mode is intended for rifle shooters who are using slope correcting ballistic drop data cards, ballistic cell phone applications, or other devices with ballistic programs and who are shooting at distances beyond 500 yards and with slopes greater than 15 degrees.

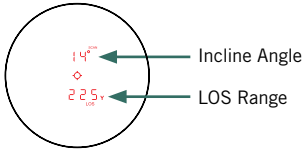
The range number displayed in LOS mode is the actual line of sight range with no ballistic correction for slope. Most of the commonly used ballistic devices can provide independent slope correction for bullet drop data and require actual line of sight range input. Using the LOS range when calculating bullet wind drifts under these steep slope/long range conditions will provide a higher degree of accuracy than using the HCD range.

To use, simply input the LOS range number into the electronic device or use the LOS range when referencing ballistic drop cards with slope correction.

LOS Mode - Incline

When in LOS mode, an additional number is displayed above the yardage number. This number is slope incline shown in degrees.

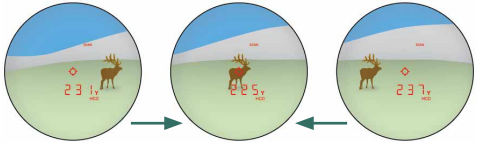
The slope incline number can be entered into ballistic programs or field cards to help calculate precise bullet drops in mountainous terrain.



SCAN RANGING

The Scan feature can be used to range moving targets or help range smaller targets on uniform backgrounds, and works in both ranging and target modes. Once powered up, press and hold the Measure button and scan back and forth, watching for changes in the yardage number as the aiming circle moves across target objects. The illuminated "Scan" icon will blink, indicating Scan Ranging is activated.

Scanning to get range:



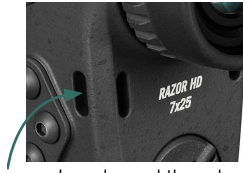
Scan back and forth, watching for yardage number to display or change.

TRIPOD USE FOR RANGING

Using a tripod to steady the rangefinder will increase your ability to range small targets at longer distances. If the Razor® HD 4000 is used on a tripod, the reticle may appear tilted depending on tripod level.

LANYARD

The lanyard provides a secure way to carry your rangefinder.



Loop lanyard through attachment sockets.

MAINTENANCE

- Use a lens brush to remove dust or grit from lenses.
- Use a clean lens cloth or tissue to remove smudges or smears from lenses.
- Store rangefinder in a dry location away from direct sunlight.

RANGEFINDING TIPS

Laser rangefinders work by emitting a brief pulse of light aimed at a target object. Distance is determined by the amount of time taken for the light to emit and return to the laser's internal receiver. A laser's ability to read range can be affected by many things—mostly relating to the target objects. Under ideal conditions, the Razor® HD 4000 can be expected to range a large reflective object out to 4000 yards and deer-sized game out to 2000 yards.

RANGEFINDING TIPS

- Light colors will usually reflect better than dark ones.
- Be aware that snow, rain, and fog will have adverse effects on ranging ability.
- Shiny, reflective surfaces will usually reflect better than dull, textured surfaces. Animal hair will not reflect as well as a hard surface.
- Ranging under cloud cover can improve laser performance compared to bright sunny conditions.
- The position of the sun compared to the rangefinder and/or range target will greatly affect performance.
- Solid objects, such as a rock, will reflect better than bushes.
- Flat surfaces perpendicular to the laser pulse will reflect better than curved surfaces or surfaces angled in relation to laser pulse.
- Ranging over water can sometimes cause false reflections and readings.
- At longer distances, large objects will be easier to range than small objects.
- If you are having difficulty ranging an animal or object, try ranging a different nearby object, use the Scan feature to pan back and forth while watching for changes in range number, or switch to ELR mode.

FCC REQUIREMENTS

The user's manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

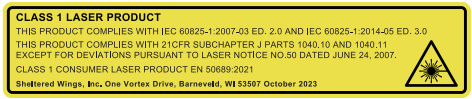
Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate 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.

SAFETY AND PRECAUTIONS

Do not stare into beam or view directly without laser eye protection. Staring continuously into beam for prolonged periods of time could cause harm to your eyes. If used properly, this device is safe for your eyes and laser eye protection is not needed.

- Use the correct battery (CR2) and proper battery orientation.
- Do not look at sun.
- Do not activate Menu or Measure buttons while aiming at eye or looking into objective lens.
- Do not disassemble.
- Do not allow children to play with unit.
- Consumer laser product EN 50689:2021



CAUTION: Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous laser radiation exposure.

VIP WARRANTY

VIP® WARRANTY

OUR UNCONDITIONAL PROMISE TO YOU.

We promise to repair or replace the product. Absolutely free.

- **Unlimited.**
- **Unconditional.**
- **Lifetime Warranty.**

You do not have to register, save the box, or a receipt for the Warranty to be honored.

Learn more at VortexOptics.com

service@VortexOptics.com • 1-800-4VORTEX

Note: *The VIP® Warranty does not cover loss, theft, deliberate damage, or cosmetic damage not affecting product performance.*

For the most up to date manual visit **VortexOptics.com**

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