RAZOR® HD 4000 GB

BALLISTIC LASER RANGEFINDER

ELEVATOR PITCH

One device. All the range and ballistic data you need to make the shot of a lifetime, every time. For precision shooters and long-range hunters, the fully loaded Razor® HD 4000 GB accelerates your speed to target, helping you range with first-shot confidence at pushbutton speed. Built rugged to meet the demands of competition and tough Western hunting, this all-in-one range and ballistic solver lets you choose from three, preloaded ballistic profiles or create custom ones of your own. Two wind modes. Two range and four target modes. Combined with built-in environmental sensors, advanced GeoBallistic® ballistic solver for in-display ballistic solutions, and the ability to pair with Kestrel® devices, the Razor® HD 4000 GB puts a new world of shot-calling precision in the palm of your hand.

WHY DID WE MAKE THIS BALLISTIC LASER RANGEFINDER?

To provide a high-performance, handheld ballistic laser rangefinder that provides in-display ballistic solutions for long-range western hunters and precision shooters who need quick and accurate information in the palm of their hands for the ultimate confidence in their shot.

WHAT IS NEW TO THE RAZOR® HD 4000 GB VS THE RAZOR® HD 4000?

- Integrated GeoBallistics® Solver
- Pairs with GeoBallistics® App to build custom rifle profiles and for access to a full bullet library
- On-board compass and humidity, barometric pressure, and temperature sensors
- Wind Bearing Capture Mode – Utilizes on-board compass to capture wind direction
- Ability to pair with popular Kestrel® devices via the GeoBallistics® App

WHAT IS GEOBALLISTICS®?

GeoBallistics® is an accurate ballistics solver that is backed by a full, up-to-date bullet database.

WHAT ARE THE TOP USES FOR THIS PRODUCT?

Western hunting and long-range shooting.

WHAT ARE THE DIFFERENCES BETWEEN THE RANGE MODES?

Horizontal Component Distance (HCD) – Displays the slope angle compensated for the target distance.

Ballistics (BAL) – Displays the actual line of sight range and wind/drop solution. The Razor® HD 4000 GB must be in this mode to pair with the GeoBallistics® App and third-party devices.

Scan Feature – Displays continuous distance readings while panning across a landscape. This feature is available with both HCD and BAL modes.

WHAT ARE THE DIFFERENCES BETWEEN THE TARGET MODES?

Normal Mode – Displays the strongest range result. This mode is intended to be the primary mode.

First Mode – Displays the closest distance when ranging. Ideal for ranging a smaller target in front of other larger, more reflective objects.

Last Mode – Displays the distance of the farthest target captured. This mode is recommended for obstructed targets.

ELR Mode – Ideal for ranging targets at extreme distances. A slightly longer response time allows for extended range distances. Best used on a tripod.

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WHAT ARE THE DIFFERENCES BETWEEN THE WIND MODES?

Full Crosswind Mode – Assumes any wind is coming perpendicular to the direction you are ranging. This mode is great for quick wind entry and simple shooting setups.

Wing Bearing Capture Mode – Utilizes the on-board compass to keep track of wind direction regardless of the direction the user is facing. This mode is ideal if wind is coming from an odd angle, varying greatly in direction and speed, or you are frequently changing position and direction.

WHEN DOES THE RAZOR® HD 4000 GB NEED TO BE CALIBRATED?

The Razor® HD 4000 GB needs to be calibrated during initial setup. You should recalibrate your Razor® HD 4000 GB every time you significantly change location, typically 30 miles or more. Calibrate your Razor® HD 4000 GB outside and away from large metal structures or objects. Calibration is important for the accuracy of the on-board compass and Wind Bearing Capture Mode.

WHAT ENVIRONMENTAL DATA CAN THE RAZOR® HD 4000 GB PROVIDE AND WHAT NEEDS TO BE ENTERED?

The Razor® HD 4000 GB has on-board sensors to measure temperature, pressure, and humidity. In situations where the environment has changed quickly — such as leaving a warm cabin into the winter cold — it is possible to manually enter these variables via the GeoBallistics® App on the Atmospherics page and sync them to your device, rather than waiting for the Razor® HD 4000 GB to become acclimated. You can also connect to a weather meter or pull weather information from a local weather station from the GeoBallistics® App's Atmospherics Page.

Wind speed and direction can either be entered using a Razor® HD 4000 GB, manually entered in the GeoBallistics® App, or imported from a Kestrel® device to complete a data set for the GeoBallistics® Solver.

WHAT ARE THE PRELOADED BALLISTICS PROFILES AVAILABLE WITH THE RAZOR® HD 4000 GB?

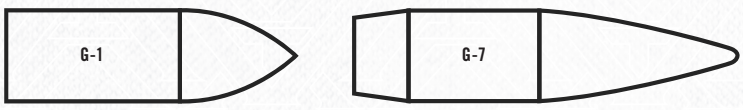
The Razor® HD 4000 GB comes preloaded with three common ballistics profiles. Profile A is a .308. Profile B is a 6.5 Creedmoor®. Profile C is a .223/5.56. These can be used as is or duplicated and modified to be used as a starting point for a customized profile.

WHY CREATE A CUSTOM RIFLE PROFILE?

Building a custom profile for your firearm allows you to harness the total power of the GeoBallistics® solver and fine tune your corrections for maximum effectiveness in the field.

WHAT IS THE DIFFERENCE BETWEEN A G1 AND G7 DRAG MODEL?

In general, G1 is better for flat-based bullets typically used with pistols and muzzleloaders. G7 is more common and better for longer, boat-tailed bullets which are common for center fire cartridges.



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WHAT DOES METRO REFER TO?
METEOROLOGICAL CONDITIONS (METRO) – ARMY VS. ICAO

This will be a standard set of atmospheric conditions used to calculate the Ballistic Coefficient (BC) of a projectile. This choice only applies to manual bullet entries. Using the bullet library will automatically populate Army or ICAO. For manual bullet entries, if you know the atmospheric standard that was used to calculate your bullet's BC, select it here. If you do not know which standard is used by a manufacturer, choosing a bullet from that manufacturer in the library will let you know which standard that manufacturer uses. The difference between the two atmospheric standards is very slight but using the correct standard for your bullet BC will yield slightly improved ballistic numbers at long ranges.

HOW DO I CALCULATE SIGHT HEIGHT?

Measure from the center of the rifle's bore to the center of your riflescope ring.

WHAT DOES ELEVATION OFFSET REFER TO?

Vertical offset from the point of aim at your zero distance. For example, you entered 100 yards for your Zero Range and at 100 yards your point of impact is 1 inch high, enter "1" here. The measurement units can be set to standard (inches) or metric (centimeters) in the Settings Menu.

WHAT DOES WINDAGE OFFSET REFER TO?

Horizontal offset from the point of aim at your zero distance. For example, you entered 100 yards for your Zero Range and at 100 yards your point of impact is 1 inch right, enter "1" here. The measurement units can be set to standard (inches) or metric (centimeters) in the Settings Menu.

WHAT IS MUZZLE VELOCITY AND HOW CAN I FIND IT FOR A FIREARM?

Muzzle velocity is the projectile's speed as it leaves the muzzle, measured in feet per second (FPS) or meters per second (MPS). This information may be printed on your ammunition's box or found on the manufacturer's website. The exact FPS/MPS for your firearm can also be measured with the use of a chronograph for the most accurate results.

WHAT IS SIGHT SCALE FACTOR AND HOW IS IT CALCULATED?
ELEVATION SSF (SIGHT SCALE FACTOR)

Elevation Sight Scale Factor is used to account for any inconsistencies in turret tracking, specifically the elevation turret. Default is set at "1.00," indicating there is no tracking inconsistency. SSF is calculated by taking the elevation dialed divided by the actual point of impact change. For example, if 20 MOA is dialed, but the point of impact changes by 19 MOA, the correction factor is 20/19 = 1.052.

WINDAGE SSF (SIGHT SCALE FACTOR)

Windage Sight Scale Factor is used to account for any inconsistencies in turret tracking, specifically the windage turret. Default is set at "1.00," indicating there is no tracking inconsistency. SSF is calculated by taking the windage dialed divided by the actual point of impact change. For example, if 20 MOA is dialed, but the point of impact changes by 19 MOA, the correction factor is 20/19 = 1.052.

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RAZOR® HD 4000 GB

BALLISTIC LASER RANGEFINDER

WHAT ARE THE DIFFERENT GEOBALLISTICS® OVERLAYS AND WHAT DO THEY MEAN?

Vital Size – For Vital Size, estimate the diameter of the vital area of your target and enter here. The ballistic solver will take this value into account when calculating and displaying your ballistic solution in the GeoBallistics® App. If the Point of Aim (POA) is in the middle of the vital area, the GeoBallistics® App will show the range at which your bullet drop will be outside of the vital area. This is denoted by a black overlay on the ballistics chart.

Energy Threshold – The Energy Threshold, the desired bullet energy at impact to perform an ethical shot, may be entered and then the ballistic solver will take this into account when calculating and displaying the solution on the GeoBallistics® App. This is denoted by a red overlay on the ballistics chart.

Velocity Threshold – The Velocity Threshold, the desired bullet velocity at impact to perform an ethical shot, may be entered and then the ballistic solver will take this into account when calculating and displaying the solution on the GeoBallistics® App. This is denoted by a yellow overlay on the ballistics chart.

WHAT IS THE MUZZLE VELOCITY CORRECTION?

The Muzzle Velocity Correction can be used to fine tune the ballistic solver by calculating a hypothetical muzzle velocity based on your rifle, riflescope, and ammunition. You can input a Truing Range and Elevation, which is the shot distance and elevation correction where the Point of Aim (POA) was observed to equal the Point of Impact (POI). By clicking "Apply", the calculated muzzle velocity will then replace the muzzle velocity in the rifle profile. This process is essentially replacing the predicted muzzle velocity with an observed muzzle velocity that was built from your personal equipment. Truing Range will vary depending on your situation; generally, the further the Truing Range the more accurate the results will be.

WHAT IS SPIN DRIFT?

Spin Drift is a bullet's drift left or right due to the spin imparted by the bullet length in conjunction with your rifle's barrel twist rate, and the interaction of gyroscopic and aerodynamic forces.

WHAT IS CORIOLIS EFFECT?

Coriolis Effect is the effect that Earth's rotation will have on long-range shot precision, moving the target slightly away from the bullet's intended point of impact during the time of flight.

WHAT IS CROSSWIND JUMP?

Crosswind Jump refers to the small but measurable +/- vertical influence on a bullet's flightpath by a crosswind. The higher the wind velocity, the greater the influence.

HOW DO I UPDATE THE FIREARMS PROFILES ON MY RAZOR® HD 4000 GB DEVICE?

After connecting the Razor® HD 4000 GB to your GeoBallistics® App, the profiles will automatically sync between the Razor® HD 4000 GB and your device. The app and the laser rangefinder will automatically be synced anytime changes are made to the ballistic profiles and are saved. To view the profiles currently synced between your device and the Razor® HD 4000 GB, navigate to the Rifles page by selecting the reticle icon on the lower left corner of the main screen. The currently synced profiles will be annotated with (A), (B), and (C) before their names. You can change the profiles on the Razor® HD 4000 GB via GeoBallistics® App. Click the ↑↓ Sort icon on the Rifles page and drag the profile to the desired location (A, B or C). Only three profiles can be saved on the Razor® HD 4000 GB at a time so you must drag the unwanted profile up into another folder. Click "Save."

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WHAT FIREARM SETUP CHANGES REQUIRE A NEW PROFILE?

Small adjustments to your firearm setup can create large effects on your solution's accuracy. We recommend creating new firearm profiles when you change bullet types, change optics, or add accessories such as suppressors for the most accurate solution.

DO I NEED A KESTREL® TO OPERATE MY RAZOR® HD 4000 GB?

No, however, a Kestrel® can enhance the functionality of your Razor® HD 4000 GB by obtaining more precise environmental data.

DO I NEED TO HAVE MY SMART PHONE WITH ME WHILE USING THE RAZOR® HD 4000 GB?

No. The Razor® HD 4000 GB can be setup and synced to the GeoBallistics® App ahead of time so that all settings and three firearm profiles are saved to the device itself. However, if changes are needed to settings or the firearm profiles, that can only be done through the app and will need to be paired and synced to update the device.

DO I NEED CELL PHONE RECEPTION TO BE ABLE TO UTILIZE THE GEOBALLISTICS® APP WITH MY RAZOR® HD 4000 GB?

No, the devices pair via Bluetooth®. It is important to note that Bluetooth® must be turned on for both the Razor® HD 4000 GB and the smart phone for the devices to pair.

WHERE IS THIS UNIT MADE?

Philippines.